



August 27, 2020

**Vista Work Order No. 2001131**

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 May 22, 2020 under your Project Name 'Gasco PDI'.

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

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

Sincerely,

Martha Maier  
Laboratory Director



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

Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 [www.vista-analytical.com](http://www.vista-analytical.com)

## **Vista Work Order No. 2001131**

### **Case Narrative**

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

Twenty 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. The EPA Method 1668 analysis of samples "PDI-166SC-A-00-01-200520", "PDI-168SC-A-00-01-200520" and "PDI-172SC-A-00-01-200520" were assigned to Vista Work Order No. 2001133.

#### **Analytical Notes:**

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

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

##### Holding Times

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

##### Quality Control

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

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

A laboratory duplicate was performed on sample "PDI-166SC-A-00-01-200520". The RPDs were within acceptance criteria.

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.....	30
Certifications.....	31
Sample Receipt.....	34
Extraction Information.....	40
Sample Data - EPA Method 1613.....	48
Continuing Calibration.....	602
Initial Calibration.....	655

# Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2001131-01	PDI-1166SC-A-01-02-200520	20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL
2001131-02	PDI-166SC-A-00-01-200520	DUP20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL Amber Glass, 120 mL
2001131-03	PDI-166SC-A-01-02-200520	20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL
2001131-04	PDI-166SC-A-02-03-200520	20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL
2001131-05	PDI-166SC-A-03-04-200520	20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL
2001131-06	PDI-166SC-A-04-05-200520	20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL
2001131-07	PDI-166SC-A-05-06-200520	20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL
2001131-08	PDI-166SC-A-06-07-200520	20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL
2001131-09	PDI-166SC-A-07-08-200520	20-May-20 08:55	22-May-20 10:00	Amber Glass, 120 mL
2001131-10	PDI-168SC-A-00-01-200520	20-May-20 12:53	22-May-20 10:00	Amber Glass, 120 mL
2001131-11	PDI-168SC-A-01-02-200520	20-May-20 12:53	22-May-20 10:00	Amber Glass, 120 mL
2001131-12	PDI-168SC-A-02-03-200520	20-May-20 12:53	22-May-20 10:00	Amber Glass, 120 mL
2001131-13	PDI-168SC-A-03-04-200520	20-May-20 12:53	22-May-20 10:00	Amber Glass, 120 mL
2001131-14	PDI-168SC-A-04-05-200520	20-May-20 12:53	22-May-20 10:00	Amber Glass, 120 mL
2001131-15	PDI-168SC-A-05-06-200520	20-May-20 12:53	22-May-20 10:00	Amber Glass, 120 mL
2001131-16	PDI-168SC-A-06-07-200520	20-May-20 12:53	22-May-20 10:00	Amber Glass, 120 mL
2001131-17	PDI-168SC-A-07-08-200520	20-May-20 12:53	22-May-20 10:00	Amber Glass, 120 mL
2001131-18	PDI-172SC-A-00-01-200520	20-May-20 10:51	22-May-20 10:00	Amber Glass, 120 mL
2001131-19	PDI-172SC-A-01-02-200520	20-May-20 10:51	22-May-20 10:00	Amber Glass, 120 mL
2001131-20	PDI-172SC-A-02-03-200520	20-May-20 10:51	22-May-20 10:00	Amber Glass, 120 mL

## **ANALYTICAL RESULTS**

Sample ID: Method Blank					EPA Method 1613B				
Matrix: Solid Sample Size: 10.0 g		QC Batch: B0F0201 Date Extracted: 21-Jun-2020 6:12		Lab Sample: B0F0201-BLK1 Date Analyzed: 20-Aug-20 20:27 Column: ZB-DIOXIN					
Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	
2,3,7,8-TCDD	ND	0.168			IS 13C-2,3,7,8-TCDD	101	25 - 164		
1,2,3,7,8-PeCDD	ND	0.120			13C-1,2,3,7,8-PeCDD	107	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.202			13C-1,2,3,4,7,8-HxCDD	93.8	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.214			13C-1,2,3,6,7,8-HxCDD	99.1	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.225			13C-1,2,3,7,8,9-HxCDD	98.0	32 - 141		
1,2,3,4,6,7,8-HpCDD	ND	0.193			13C-1,2,3,4,6,7,8-HpCDD	95.7	23 - 140		
OCDD	ND	0.304			13C-OCDD	91.3	17 - 157		
2,3,7,8-TCDF	ND	0.130			13C-2,3,7,8-TCDF	94.8	24 - 169		
1,2,3,7,8-PeCDF	ND	0.107			13C-1,2,3,7,8-PeCDF	109	24 - 185		
2,3,4,7,8-PeCDF	ND	0.0904			13C-2,3,4,7,8-PeCDF	114	21 - 178		
1,2,3,4,7,8-HxCDF	ND	0.106			13C-1,2,3,4,7,8-HxCDF	102	26 - 152		
1,2,3,6,7,8-HxCDF	ND	0.0993			13C-1,2,3,6,7,8-HxCDF	106	26 - 123		
2,3,4,6,7,8-HxCDF	ND	0.105			13C-2,3,4,6,7,8-HxCDF	106	28 - 136		
1,2,3,7,8,9-HxCDF	ND	0.139			13C-1,2,3,7,8,9-HxCDF	105	29 - 147		
1,2,3,4,6,7,8-HpCDF	ND	0.103			13C-1,2,3,4,6,7,8-HpCDF	107	28 - 143		
1,2,3,4,7,8,9-HpCDF	ND	0.132			13C-1,2,3,4,7,8,9-HpCDF	95.4	26 - 138		
OCDF	ND	0.193			13C-OCDF	99.4	17 - 157		
					CRS 37Cl-2,3,7,8-TCDD	93.5	35 - 197		
					<b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b>				
					TEQMinWHO2005Dioxin		0.00		
<b>TOTALS</b>									
Total TCDD	ND	0.168							
Total PeCDD	ND	0.120							
Total HxCDD	ND	0.225							
Total HpCDD	ND	0.193							
Total TCDF	ND	0.130							
Total PeCDF	ND	0.107							
Total HxCDF	ND	0.139							
Total HpCDF	ND	0.132							

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

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

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

Sample ID: OPR					EPA Method 1613B		
Matrix: Solid	QC Batch: B0F0201	Lab Sample: B0F0201-BS1					
Sample Size: 10.0 g	Date Extracted: 21-Jun-2020 6:12	Date Analyzed: 20-Aug-20 18:56	Column: ZB-DIOXIN				
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	16.1	20.0	80.5	67 - 158	IS 13C-2,3,7,8-TCDD	104	20 - 175
1,2,3,7,8-PeCDD	93.3	100	93.3	70 - 142	13C-1,2,3,7,8-PeCDD	108	21 - 227
1,2,3,4,7,8-HxCDD	108	100	108	70 - 164	13C-1,2,3,4,7,8-HxCDD	94.5	21 - 193
1,2,3,6,7,8-HxCDD	107	100	107	76 - 134	13C-1,2,3,6,7,8-HxCDD	98.5	25 - 163
1,2,3,7,8,9-HxCDD	107	100	107	64 - 162	13C-1,2,3,7,8,9-HxCDD	97.6	21 - 193
1,2,3,4,6,7,8-HpCDD	103	100	103	70 - 140	13C-1,2,3,4,6,7,8-HpCDD	96.4	26 - 166
OCDD	237	200	119	78 - 144	13C-OCDD	83.7	13 - 199
2,3,7,8-TCDF	17.8	20.0	89.0	75 - 158	13C-2,3,7,8-TCDF	91.9	22 - 152
1,2,3,7,8-PeCDF	103	100	103	80 - 134	13C-1,2,3,7,8-PeCDF	110	21 - 192
2,3,4,7,8-PeCDF	100	100	100	68 - 160	13C-2,3,4,7,8-PeCDF	115	13 - 328
1,2,3,4,7,8-HxCDF	92.5	100	92.5	72 - 134	13C-1,2,3,4,7,8-HxCDF	105	19 - 202
1,2,3,6,7,8-HxCDF	88.6	100	88.6	84 - 130	13C-1,2,3,6,7,8-HxCDF	114	21 - 159
2,3,4,6,7,8-HxCDF	93.5	100	93.5	70 - 156	13C-2,3,4,6,7,8-HxCDF	109	22 - 176
1,2,3,7,8,9-HxCDF	88.9	100	88.9	78 - 130	13C-1,2,3,7,8,9-HxCDF	103	17 - 205
1,2,3,4,6,7,8-HpCDF	94.3	100	94.3	82 - 122	13C-1,2,3,4,6,7,8-HpCDF	101	21 - 158
1,2,3,4,7,8,9-HpCDF	102	100	102	78 - 138	13C-1,2,3,4,7,8,9-HpCDF	96.1	20 - 186
OCDF	183	200	91.6	63 - 170	13C-OCDF	101	13 - 199
					CRS 37Cl-2,3,7,8-TCDD	90.7	31 - 191

LCL-UCL - Lower control limit - upper control limit

**Sample ID: PDI-1166SC-A-01-02-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-01      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.2 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 82.0	Date Analyzed: 20-Aug-20 21:13      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.148			IS 13C-2,3,7,8-TCDD	98.1	25 - 164	
1,2,3,7,8-PeCDD	ND	0.131			13C-1,2,3,7,8-PeCDD	104	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.415			13C-1,2,3,4,7,8-HxCDD	94.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND		0.320		13C-1,2,3,6,7,8-HxCDD	97.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.442			13C-1,2,3,7,8,9-HxCDD	98.4	32 - 141	
1,2,3,4,6,7,8-HpCDD	7.43				13C-1,2,3,4,6,7,8-HpCDD	97.9	23 - 140	
OCDD	62.4				13C-OCDD	88.0	17 - 157	
2,3,7,8-TCDF	ND		0.215		13C-2,3,7,8-TCDF	83.4	24 - 169	
1,2,3,7,8-PeCDF	0.152			J	13C-1,2,3,7,8-PeCDF	100	24 - 185	
2,3,4,7,8-PeCDF	ND		0.120		13C-2,3,4,7,8-PeCDF	101	21 - 178	
1,2,3,4,7,8-HxCDF	0.261			J	13C-1,2,3,4,7,8-HxCDF	103	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.180			13C-1,2,3,6,7,8-HxCDF	109	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.205			13C-2,3,4,6,7,8-HxCDF	107	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.255			13C-1,2,3,7,8,9-HxCDF	106	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.753			J	13C-1,2,3,4,6,7,8-HpCDF	105	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.152			13C-1,2,3,4,7,8,9-HpCDF	98.3	26 - 138	
OCDF	1.88			J	13C-OCDF	105	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	85.9	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.132

<b>TOTALS</b>								
Total TCDD	ND	0.148						
Total PeCDD	ND	0.131						
Total HxCDD	1.21		2.30					
Total HpCDD	15.3							
Total TCDF	0.161		0.376					
Total PeCDF	0.914		1.03					
Total HxCDF	0.785		1.20					
Total HpCDF	2.27							

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-166SC-A-00-01-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-02      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.4 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 87.9	Date Analyzed: 20-Aug-20 22:44      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.147			IS 13C-2,3,7,8-TCDD	92.5	25 - 164	
1,2,3,7,8-PeCDD	ND	0.163			13C-1,2,3,7,8-PeCDD	108	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.229			13C-1,2,3,4,7,8-HxCDD	103	32 - 141	
1,2,3,6,7,8-HxCDD	0.526			J	13C-1,2,3,6,7,8-HxCDD	104	28 - 130	
1,2,3,7,8,9-HxCDD	0.325			J	13C-1,2,3,7,8,9-HxCDD	107	32 - 141	
1,2,3,4,6,7,8-HpCDD	10.4				13C-1,2,3,4,6,7,8-HpCDD	106	23 - 140	
OCDD	98.1				13C-OCDD	94.5	17 - 157	
2,3,7,8-TCDF	ND		0.245		13C-2,3,7,8-TCDF	84.1	24 - 169	
1,2,3,7,8-PeCDF	0.221			J	13C-1,2,3,7,8-PeCDF	112	24 - 185	
2,3,4,7,8-PeCDF	0.166			J	13C-2,3,4,7,8-PeCDF	119	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.357		13C-1,2,3,4,7,8-HxCDF	108	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.141			13C-1,2,3,6,7,8-HxCDF	115	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.172			13C-2,3,4,6,7,8-HxCDF	113	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.200			13C-1,2,3,7,8,9-HxCDF	109	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.983			J	13C-1,2,3,4,6,7,8-HpCDF	112	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.163			13C-1,2,3,4,7,8,9-HpCDF	103	26 - 138	
OCDF	2.82			J	13C-OCDF	102	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	84.1	35 - 197	

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

TEQMinWHO2005Dioxin      0.286

<b>TOTALS</b>								
Total TCDD	ND	0.147						
Total PeCDD	ND	0.163						
Total HxCDD	2.12		3.58					
Total HpCDD	31.1							
Total TCDF	0.156		0.557					
Total PeCDF	1.14							
Total HxCDF	1.30		1.82					
Total HpCDF	3.08							

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-166SC-A-00-01-200520		QC Batch: B0F0201		Lab Sample: B0F0201-DUP1					
Source LabNumber: 2001131-02		Date Extracted: 21-Jun-2020 6:12		Date Analyzed: 20-Aug-20 21:58 Column: ZB-DIOXIN					
Matrix: Solid									
Sample Size: 11.4 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	100	25 - 164		
1,2,3,7,8-PeCDD	ND	0.215			13C-1,2,3,7,8-PeCDD	108	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.330			13C-1,2,3,4,7,8-HxCDD	91.5	32 - 141		
1,2,3,6,7,8-HxCDD	ND		0.448		13C-1,2,3,6,7,8-HxCDD	93.9	28 - 130		
1,2,3,7,8,9-HxCDD	0.334			J	13C-1,2,3,7,8,9-HxCDD	94.0	32 - 141		
1,2,3,4,6,7,8-HpCDD	11.7				13C-1,2,3,4,6,7,8-HpCDD	90.6	23 - 140		
OCDD	109				13C-OCDD	76.9	17 - 157		
2,3,7,8-TCDF	ND		0.347		13C-2,3,7,8-TCDF	83.1	24 - 169		
1,2,3,7,8-PeCDF	ND		0.248		13C-1,2,3,7,8-PeCDF	105	24 - 185		
2,3,4,7,8-PeCDF	ND		0.136		13C-2,3,4,7,8-PeCDF	109	21 - 178		
1,2,3,4,7,8-HxCDF	ND		0.361		13C-1,2,3,4,7,8-HxCDF	101	26 - 152		
1,2,3,6,7,8-HxCDF	ND	0.193			13C-1,2,3,6,7,8-HxCDF	108	26 - 123		
2,3,4,6,7,8-HxCDF	ND	0.223			13C-2,3,4,6,7,8-HxCDF	103	28 - 136		
1,2,3,7,8,9-HxCDF	ND	0.276			13C-1,2,3,7,8,9-HxCDF	99.9	29 - 147		
1,2,3,4,6,7,8-HpCDF	1.23			J	13C-1,2,3,4,6,7,8-HpCDF	92.1	28 - 143		
1,2,3,4,7,8,9-HpCDF	ND	0.213			13C-1,2,3,4,7,8,9-HpCDF	91.2	26 - 138		
OCDF	3.09			J	13C-OCDF	89.8	17 - 157		
					CRS 37Cl-2,3,7,8-TCDD	84.5	35 - 197		
					<b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b>				
					TEQMinWHO2005Dioxin		0.196		
<b>TOTALS</b>									
Total TCDD	ND	0.126							
Total PeCDD	ND	0.215							
Total HxCDD	2.21		3.95						
Total HpCDD	27.8								
Total TCDF	0.178		0.740						
Total PeCDF	ND		0.894						
Total HxCDF	1.36		1.90						
Total HpCDF	3.60								

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.  
weight.

The sample size is reported in wet weight.

Sample ID: Duplicate					EPA Method 1613B				
Source Client ID: PDI-166SC-A-00-01-200520					Duplicate Lab Sample: B0F0201-DUP1				
Source LabNumber: 2001131-02									
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	100	92.5	25 - 164	
1,2,3,7,8-PeCDD	ND	ND	NA	25	13C-1,2,3,7,8-PeCDD	108	108	25 - 181	
1,2,3,4,7,8-HxCDD	ND	ND	NA	25	13C-1,2,3,4,7,8-HxCDD	91.5	103	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.526	#	25	13C-1,2,3,6,7,8-HxCDD	93.9	104	28 - 130	
1,2,3,7,8,9-HxCDD	0.334	0.325	2.87	25	13C-1,2,3,7,8,9-HxCDD	94.0	107	32 - 141	
1,2,3,4,6,7,8-HpCDD	11.7	10.4	11.8	25	13C-1,2,3,4,6,7,8-HpCDD	90.6	106	23 - 140	
OCDD	109	98.1	10.7	25	13C-OCDD	76.9	94.5	17 - 157	
2,3,7,8-TCDF	ND	ND	NA	25	13C-2,3,7,8-TCDF	83.1	84.1	24 - 169	
1,2,3,7,8-PeCDF	ND	0.221	#	25	13C-1,2,3,7,8-PeCDF	105	112	24 - 185	
2,3,4,7,8-PeCDF	ND	0.166	#	25	13C-2,3,4,7,8-PeCDF	109	119	21 - 178	
1,2,3,4,7,8-HxCDF	ND	ND	NA	25	13C-1,2,3,4,7,8-HxCDF	101	108	26 - 152	
1,2,3,6,7,8-HxCDF	ND	ND	NA	25	13C-1,2,3,6,7,8-HxCDF	108	115	26 - 123	
2,3,4,6,7,8-HxCDF	ND	ND	NA	25	13C-2,3,4,6,7,8-HxCDF	103	113	28 - 136	
1,2,3,7,8,9-HxCDF	ND	ND	NA	25	13C-1,2,3,7,8,9-HxCDF	99.9	109	29 - 147	
1,2,3,4,6,7,8-HpCDF	1.23	0.983	22.1	25	13C-1,2,3,4,6,7,8-HpCDF	92.1	112	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	ND	NA	25	13C-1,2,3,4,7,8,9-HpCDF	91.2	103	26 - 138	
OCDF	3.09	2.82	9.06	25	13C-OCDF	89.8	102	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	84.5	84.1	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-166SC-A-01-02-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-03      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.1 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 82.7	Date Analyzed: 20-Aug-20 23:29      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.132			IS 13C-2,3,7,8-TCDD	95.7	25 - 164	
1,2,3,7,8-PeCDD	ND	0.141			13C-1,2,3,7,8-PeCDD	101	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.220			13C-1,2,3,4,7,8-HxCDD	88.9	32 - 141	
1,2,3,6,7,8-HxCDD	0.451			J	13C-1,2,3,6,7,8-HxCDD	92.3	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.212			13C-1,2,3,7,8,9-HxCDD	94.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	9.20				13C-1,2,3,4,6,7,8-HpCDD	95.0	23 - 140	
OCDD	91.8				13C-OCDD	84.1	17 - 157	
2,3,7,8-TCDF	ND		0.293		13C-2,3,7,8-TCDF	82.1	24 - 169	
1,2,3,7,8-PeCDF	0.304			J	13C-1,2,3,7,8-PeCDF	99.2	24 - 185	
2,3,4,7,8-PeCDF	ND		0.198		13C-2,3,4,7,8-PeCDF	101	21 - 178	
1,2,3,4,7,8-HxCDF	1.57			J	13C-1,2,3,4,7,8-HxCDF	96.5	26 - 152	
1,2,3,6,7,8-HxCDF	0.882			J	13C-1,2,3,6,7,8-HxCDF	103	26 - 123	
2,3,4,6,7,8-HxCDF	ND		0.136		13C-2,3,4,6,7,8-HxCDF	103	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.294			13C-1,2,3,7,8,9-HxCDF	97.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	2.79				13C-1,2,3,4,6,7,8-HpCDF	92.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.644			J	13C-1,2,3,4,7,8,9-HpCDF	92.6	26 - 138	
OCDF	3.66			J	13C-OCDF	96.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	83.4	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.454

<b>TOTALS</b>								
Total TCDD	ND	0.132						
Total PeCDD	ND	0.141						
Total HxCDD	0.451		2.28					
Total HpCDD	19.8							
Total TCDF	ND		0.483					
Total PeCDF	0.741		1.22					
Total HxCDF	3.29		4.08					
Total HpCDF	5.59							

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-166SC-A-02-03-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-04      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.5 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 80.3	Date Analyzed: 21-Aug-20 00:15      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.133			IS 13C-2,3,7,8-TCDD	94.6	25 - 164	
1,2,3,7,8-PeCDD	ND	0.146			13C-1,2,3,7,8-PeCDD	107	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.285			13C-1,2,3,4,7,8-HxCDD	92.0	32 - 141	
1,2,3,6,7,8-HxCDD	0.877			J	13C-1,2,3,6,7,8-HxCDD	98.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.402		13C-1,2,3,7,8,9-HxCDD	96.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	12.1				13C-1,2,3,4,6,7,8-HpCDD	93.3	23 - 140	
OCDD	114				13C-OCDD	82.6	17 - 157	
2,3,7,8-TCDF	0.492			J	13C-2,3,7,8-TCDF	82.9	24 - 169	
1,2,3,7,8-PeCDF	ND		0.303		13C-1,2,3,7,8-PeCDF	107	24 - 185	
2,3,4,7,8-PeCDF	0.212			J	13C-2,3,4,7,8-PeCDF	110	21 - 178	
1,2,3,4,7,8-HxCDF	0.927			J	13C-1,2,3,4,7,8-HxCDF	97.1	26 - 152	
1,2,3,6,7,8-HxCDF	0.366			J	13C-1,2,3,6,7,8-HxCDF	105	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.188			13C-2,3,4,6,7,8-HxCDF	101	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.237			13C-1,2,3,7,8,9-HxCDF	97.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	1.77			J	13C-1,2,3,4,6,7,8-HpCDF	93.9	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND		0.241		13C-1,2,3,4,7,8,9-HpCDF	90.8	26 - 138	
OCDF	4.03			J	13C-OCDF	90.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	84.7	35 - 197	

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

TEQMinWHO2005Dioxin      0.504

<b>TOTALS</b>								
Total TCDD	ND	0.133						
Total PeCDD	0.279							
Total HxCDD	2.27		4.49					
Total HpCDD	29.4							
Total TCDF	0.983							
Total PeCDF	0.879		1.59					
Total HxCDF	2.15		3.44					
Total HpCDF	4.59		4.83					

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-166SC-A-03-04-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-05      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.2 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 82.4	Date Analyzed: 21-Aug-20 01:01      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.138			IS 13C-2,3,7,8-TCDD	96.8	25 - 164	
1,2,3,7,8-PeCDD	ND	0.140			13C-1,2,3,7,8-PeCDD	102	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.300			13C-1,2,3,4,7,8-HxCDD	96.2	32 - 141	
1,2,3,6,7,8-HxCDD	0.845			J	13C-1,2,3,6,7,8-HxCDD	99.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.291		13C-1,2,3,7,8,9-HxCDD	99.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.528			13C-1,2,3,4,6,7,8-HpCDD	97.4	23 - 140	
OCDD	112				13C-OCDD	88.7	17 - 157	
2,3,7,8-TCDF	0.896				13C-2,3,7,8-TCDF	79.1	24 - 169	
1,2,3,7,8-PeCDF	0.498			J	13C-1,2,3,7,8-PeCDF	96.4	24 - 185	
2,3,4,7,8-PeCDF	0.431			J	13C-2,3,4,7,8-PeCDF	101	21 - 178	
1,2,3,4,7,8-HxCDF	0.682			J	13C-1,2,3,4,7,8-HxCDF	99.4	26 - 152	
1,2,3,6,7,8-HxCDF	0.242			J	13C-1,2,3,6,7,8-HxCDF	107	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.186			13C-2,3,4,6,7,8-HxCDF	103	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.208			13C-1,2,3,7,8,9-HxCDF	103	29 - 147	
1,2,3,4,6,7,8-HpCDF	1.51			J	13C-1,2,3,4,6,7,8-HpCDF	106	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.207			13C-1,2,3,4,7,8,9-HpCDF	96.0	26 - 138	
OCDF	3.05			J	13C-OCDF	98.5	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	82.9	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.460

<b>TOTALS</b>								
Total TCDD	ND	0.138						
Total PeCDD	ND		0.209					
Total HxCDD	5.22		5.68					
Total HpCDD	16.0							
Total TCDF	2.16		2.33					
Total PeCDF	2.17		2.53					
Total HxCDF	3.36							
Total HpCDF	3.94							

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-166SC-A-04-05-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-06      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.3 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 81.5	Date Analyzed: 21-Aug-20 04:11      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.153			IS 13C-2,3,7,8-TCDD	93.6	25 - 164	
1,2,3,7,8-PeCDD	0.287			J	13C-1,2,3,7,8-PeCDD	103	25 - 181	
1,2,3,4,7,8-HxCDD	ND		0.425		13C-1,2,3,4,7,8-HxCDD	90.3	32 - 141	
1,2,3,6,7,8-HxCDD	2.30			J	13C-1,2,3,6,7,8-HxCDD	96.0	28 - 130	
1,2,3,7,8,9-HxCDD	1.01			J	13C-1,2,3,7,8,9-HxCDD	93.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	34.4				13C-1,2,3,4,6,7,8-HpCDD	89.4	23 - 140	
OCDD	334				13C-OCDD	78.6	17 - 157	
2,3,7,8-TCDF	1.10				13C-2,3,7,8-TCDF	83.9	24 - 169	
1,2,3,7,8-PeCDF	1.45			J	13C-1,2,3,7,8-PeCDF	98.8	24 - 185	
2,3,4,7,8-PeCDF	0.993			J	13C-2,3,4,7,8-PeCDF	102	21 - 178	
1,2,3,4,7,8-HxCDF	2.94				13C-1,2,3,4,7,8-HxCDF	96.9	26 - 152	
1,2,3,6,7,8-HxCDF	0.846			J	13C-1,2,3,6,7,8-HxCDF	103	26 - 123	
2,3,4,6,7,8-HxCDF	0.510			J	13C-2,3,4,6,7,8-HxCDF	99.9	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.250			13C-1,2,3,7,8,9-HxCDF	95.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	5.30				13C-1,2,3,4,6,7,8-HpCDF	93.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	1.11			J	13C-1,2,3,4,7,8,9-HpCDF	87.2	26 - 138	
OCDF	19.0				13C-OCDF	86.2	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	81.0	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      2.01

<b>TOTALS</b>								
Total TCDD	ND	0.153						
Total PeCDD	1.16		1.86					
Total HxCDD	14.1		14.5					
Total HpCDD	73.9							
Total TCDF	3.30		4.73					
Total PeCDF	6.95		7.82					
Total HxCDF	12.4							
Total HpCDF	15.5							

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-166SC-A-05-06-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-07      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.6 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 79.9	Date Analyzed: 21-Aug-20 04:57      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.121			IS 13C-2,3,7,8-TCDD	84.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.111			13C-1,2,3,7,8-PeCDD	99.4	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.269			13C-1,2,3,4,7,8-HxCDD	92.6	32 - 141	
1,2,3,6,7,8-HxCDD	ND		0.206		13C-1,2,3,6,7,8-HxCDD	94.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.199		13C-1,2,3,7,8,9-HxCDD	95.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	3.57				13C-1,2,3,4,6,7,8-HpCDD	94.9	23 - 140	
OCDD	34.0				13C-OCDD	89.6	17 - 157	
2,3,7,8-TCDF	ND		0.219		13C-2,3,7,8-TCDF	73.0	24 - 169	
1,2,3,7,8-PeCDF	ND		0.115		13C-1,2,3,7,8-PeCDF	94.8	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0931			13C-2,3,4,7,8-PeCDF	99.6	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.103			13C-1,2,3,4,7,8-HxCDF	95.4	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0879			13C-1,2,3,6,7,8-HxCDF	103	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.105			13C-2,3,4,6,7,8-HxCDF	100	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.133			13C-1,2,3,7,8,9-HxCDF	96.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.508			J	13C-1,2,3,4,6,7,8-HpCDF	101	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0842			13C-1,2,3,4,7,8,9-HpCDF	95.8	26 - 138	
OCDF	1.15			J	13C-OCDF	95.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	83.1	35 - 197	

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

TEQMinWHO2005Dioxin      0.0513

<b>TOTALS</b>								
Total TCDD	ND	0.121						
Total PeCDD	ND	0.111						
Total HxCDD	0.897		2.06					
Total HpCDD	8.17							
Total TCDF	ND		0.219					
Total PeCDF	ND		0.283					
Total HxCDF	0.343		0.518					
Total HpCDF	1.47							

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-166SC-A-06-07-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-08      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 15.1 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 66.4	Date Analyzed: 21-Aug-20 05:42      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	0.294			J	IS 13C-2,3,7,8-TCDD	95.5	25 - 164	
1,2,3,7,8-PeCDD	ND		0.330		13C-1,2,3,7,8-PeCDD	102	25 - 181	
1,2,3,4,7,8-HxCDD	0.532			J	13C-1,2,3,4,7,8-HxCDD	91.8	32 - 141	
1,2,3,6,7,8-HxCDD	5.18				13C-1,2,3,6,7,8-HxCDD	96.0	28 - 130	
1,2,3,7,8,9-HxCDD	1.29			J	13C-1,2,3,7,8,9-HxCDD	94.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	201				13C-1,2,3,4,6,7,8-HpCDD	89.8	23 - 140	
OCDD	2110				13C-OCDD	75.6	17 - 157	
2,3,7,8-TCDF	2.92				13C-2,3,7,8-TCDF	82.8	24 - 169	
1,2,3,7,8-PeCDF	1.86			J	13C-1,2,3,7,8-PeCDF	105	24 - 185	
2,3,4,7,8-PeCDF	1.67			J	13C-2,3,4,7,8-PeCDF	108	21 - 178	
1,2,3,4,7,8-HxCDF	3.25				13C-1,2,3,4,7,8-HxCDF	93.8	26 - 152	
1,2,3,6,7,8-HxCDF	1.23			J	13C-1,2,3,6,7,8-HxCDF	101	26 - 123	
2,3,4,6,7,8-HxCDF	ND		0.676		13C-2,3,4,6,7,8-HxCDF	96.6	28 - 136	
1,2,3,7,8,9-HxCDF	0.214			J	13C-1,2,3,7,8,9-HxCDF	93.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	21.7				13C-1,2,3,4,6,7,8-HpCDF	89.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	2.39			J	13C-1,2,3,4,7,8,9-HpCDF	85.2	26 - 138	
OCDF	143				13C-OCDF	80.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	84.5	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      5.24

<b>TOTALS</b>								
Total TCDD	1.82		2.17					
Total PeCDD	2.08		3.17					
Total HxCDD	31.9							
Total HpCDD	359							
Total TCDF	12.8		14.0					
Total PeCDF	12.0		12.3					
Total HxCDF	27.4		28.1					
Total HpCDF	113							

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-166SC-A-07-08-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-09      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 25.5 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 8:55	% Solids: 39.4	Date Analyzed: 21-Aug-20 06:28      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.470		IS 13C-2,3,7,8-TCDD	88.8	25 - 164	
1,2,3,7,8-PeCDD	0.863			J	13C-1,2,3,7,8-PeCDD	82.0	25 - 181	
1,2,3,4,7,8-HxCDD	ND		0.793		13C-1,2,3,4,7,8-HxCDD	75.0	32 - 141	
1,2,3,6,7,8-HxCDD	5.86				13C-1,2,3,6,7,8-HxCDD	75.0	28 - 130	
1,2,3,7,8,9-HxCDD	2.51				13C-1,2,3,7,8,9-HxCDD	70.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	195				13C-1,2,3,4,6,7,8-HpCDD	66.0	23 - 140	
OCDD	1810				13C-OCDD	49.1	17 - 157	
2,3,7,8-TCDF	3.20				13C-2,3,7,8-TCDF	86.6	24 - 169	
1,2,3,7,8-PeCDF	2.53				13C-1,2,3,7,8-PeCDF	86.6	24 - 185	
2,3,4,7,8-PeCDF	2.68				13C-2,3,4,7,8-PeCDF	84.4	21 - 178	
1,2,3,4,7,8-HxCDF	4.61				13C-1,2,3,4,7,8-HxCDF	76.4	26 - 152	
1,2,3,6,7,8-HxCDF	2.08			J	13C-1,2,3,6,7,8-HxCDF	81.3	26 - 123	
2,3,4,6,7,8-HxCDF	1.43			J	13C-2,3,4,6,7,8-HxCDF	72.8	28 - 136	
1,2,3,7,8,9-HxCDF	0.364			J	13C-1,2,3,7,8,9-HxCDF	74.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	16.8				13C-1,2,3,4,6,7,8-HpCDF	73.9	28 - 143	
1,2,3,4,7,8,9-HpCDF	1.86			J	13C-1,2,3,4,7,8,9-HpCDF	63.0	26 - 138	
OCDF	47.5				13C-OCDF	55.3	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	80.2	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      6.44

<b>TOTALS</b>			
Total TCDD	4.24		6.40
Total PeCDD	7.13		8.52
Total HxCDD	57.7		60.0
Total HpCDD	448		
Total TCDF	27.8		29.8
Total PeCDF	17.3		23.7
Total HxCDF	34.6		35.0
Total HpCDF	56.4		

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-168SC-A-00-01-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-10      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.7 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 12:53	% Solids: 85.8	Date Analyzed: 21-Aug-20 12:56      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.125			IS 13C-2,3,7,8-TCDD	107	25 - 164	
1,2,3,7,8-PeCDD	ND	0.136			13C-1,2,3,7,8-PeCDD	109	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.266			13C-1,2,3,4,7,8-HxCDD	100	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.284			13C-1,2,3,6,7,8-HxCDD	102	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.262			13C-1,2,3,7,8,9-HxCDD	102	32 - 141	
1,2,3,4,6,7,8-HpCDD	3.31				13C-1,2,3,4,6,7,8-HpCDD	93.1	23 - 140	
OCDD	27.8				13C-OCDD	89.6	17 - 157	
2,3,7,8-TCDF	ND		0.143		13C-2,3,7,8-TCDF	101	24 - 169	
1,2,3,7,8-PeCDF	ND	0.110			13C-1,2,3,7,8-PeCDF	126	24 - 185	
2,3,4,7,8-PeCDF	0.240			J	13C-2,3,4,7,8-PeCDF	131	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.204			13C-1,2,3,4,7,8-HxCDF	105	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.206			13C-1,2,3,6,7,8-HxCDF	112	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.234			13C-2,3,4,6,7,8-HxCDF	108	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.287			13C-1,2,3,7,8,9-HxCDF	105	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.387			J	13C-1,2,3,4,6,7,8-HpCDF	104	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.116			13C-1,2,3,4,7,8,9-HpCDF	102	26 - 138	
OCDF	0.782			J	13C-OCDF	94.6	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	91.5	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.118

<b>TOTALS</b>								
Total TCDD	ND	0.125						
Total PeCDD	ND	0.136						
Total HxCDD	1.13		1.53					
Total HpCDD	8.02							
Total TCDF	0.994		1.14					
Total PeCDF	1.41		1.93					
Total HxCDF	0.549		1.23					
Total HpCDF	0.387		0.911					

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-168SC-A-01-02-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-11      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.0 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 12:53	% Solids: 91.1	Date Analyzed: 21-Aug-20 13:42      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.225			IS 13C-2,3,7,8-TCDD	105	25 - 164	
1,2,3,7,8-PeCDD	ND	0.178			13C-1,2,3,7,8-PeCDD	106	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.216			13C-1,2,3,4,7,8-HxCDD	99.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.236			13C-1,2,3,6,7,8-HxCDD	102	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.223			13C-1,2,3,7,8,9-HxCDD	102	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND		0.303		13C-1,2,3,4,6,7,8-HpCDD	97.0	23 - 140	
OCDD	4.32			J	13C-OCDD	87.7	17 - 157	
2,3,7,8-TCDF	ND	0.192			13C-2,3,7,8-TCDF	90.8	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0970			13C-1,2,3,7,8-PeCDF	105	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0907			13C-2,3,4,7,8-PeCDF	109	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.108			13C-1,2,3,4,7,8-HxCDF	98.8	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.105			13C-1,2,3,6,7,8-HxCDF	105	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.114			13C-2,3,4,6,7,8-HxCDF	107	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.137			13C-1,2,3,7,8,9-HxCDF	103	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.121			13C-1,2,3,4,6,7,8-HpCDF	96.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.141			13C-1,2,3,4,7,8,9-HpCDF	98.9	26 - 138	
OCDF	ND	0.318			13C-OCDF	97.9	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	91.4	35 - 197	

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

TEQMinWHO2005Dioxin      0.00130

<b>TOTALS</b>								
Total TCDD	ND	0.225						
Total PeCDD	ND	0.178						
Total HxCDD	0.215							
Total HpCDD	ND		0.929					
Total TCDF	ND	0.192						
Total PeCDF	ND	0.0970						
Total HxCDF	ND	0.137						
Total HpCDF	0.147							

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-168SC-A-02-03-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-12      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.5 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 12:53	% Solids: 88.1	Date Analyzed: 21-Aug-20 14:28      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.162			IS 13C-2,3,7,8-TCDD	103	25 - 164	
1,2,3,7,8-PeCDD	ND	0.110			13C-1,2,3,7,8-PeCDD	113	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.198			13C-1,2,3,4,7,8-HxCDD	105	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.190			13C-1,2,3,6,7,8-HxCDD	109	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.189			13C-1,2,3,7,8,9-HxCDD	106	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.294			13C-1,2,3,4,6,7,8-HpCDD	103	23 - 140	
OCDD	ND		1.58		13C-OCDD	98.6	17 - 157	
2,3,7,8-TCDF	ND	0.135			13C-2,3,7,8-TCDF	88.6	24 - 169	
1,2,3,7,8-PeCDF	ND	0.104			13C-1,2,3,7,8-PeCDF	111	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0873			13C-2,3,4,7,8-PeCDF	117	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0757			13C-1,2,3,4,7,8-HxCDF	106	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0731			13C-1,2,3,6,7,8-HxCDF	113	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0803			13C-2,3,4,6,7,8-HxCDF	112	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0999			13C-1,2,3,7,8,9-HxCDF	108	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0914			13C-1,2,3,4,6,7,8-HpCDF	109	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.107			13C-1,2,3,4,7,8,9-HpCDF	104	26 - 138	
OCDF	ND	0.201			13C-OCDF	105	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	90.8	35 - 197	

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

TEQMinWHO2005Dioxin      0.00

<b>TOTALS</b>		
Total TCDD	ND	0.162
Total PeCDD	ND	0.110
Total HxCDD	ND	0.198
Total HpCDD	ND	0.294
Total TCDF	ND	0.135
Total PeCDF	ND	0.104
Total HxCDF	ND	0.0999
Total HpCDF	ND	0.107

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-168SC-A-03-04-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-13      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.2 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 12:53	% Solids: 82.4	Date Analyzed: 21-Aug-20 15:44      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.156			IS 13C-2,3,7,8-TCDD	96.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.150			13C-1,2,3,7,8-PeCDD	103	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.194			13C-1,2,3,4,7,8-HxCDD	95.9	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.196			13C-1,2,3,6,7,8-HxCDD	98.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.202			13C-1,2,3,7,8,9-HxCDD	98.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.235			J	13C-1,2,3,4,6,7,8-HpCDD	93.8	23 - 140	
OCDD	2.06			J	13C-OCDD	86.8	17 - 157	
2,3,7,8-TCDF	ND	0.127			13C-2,3,7,8-TCDF	85.7	24 - 169	
1,2,3,7,8-PeCDF	ND	0.103			13C-1,2,3,7,8-PeCDF	102	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0839			13C-2,3,4,7,8-PeCDF	109	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0844			13C-1,2,3,4,7,8-HxCDF	97.7	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0809			13C-1,2,3,6,7,8-HxCDF	105	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0952			13C-2,3,4,6,7,8-HxCDF	102	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.107			13C-1,2,3,7,8,9-HxCDF	98.3	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0636			13C-1,2,3,4,6,7,8-HpCDF	98.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0717			13C-1,2,3,4,7,8,9-HpCDF	94.1	26 - 138	
OCDF	ND	0.228			13C-OCDF	89.9	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	92.2	35 - 197	

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

TEQMinWHO2005Dioxin      0.00297

<b>TOTALS</b>								
Total TCDD	ND	0.156						
Total PeCDD	ND	0.150						
Total HxCDD	0.264							
Total HpCDD	0.235		0.640					
Total TCDF	ND	0.127						
Total PeCDF	ND	0.103						
Total HxCDF	ND	0.107						
Total HpCDF	ND	0.0717						

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-168SC-A-04-05-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-14      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.4 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 12:53	% Solids: 88.3	Date Analyzed: 21-Aug-20 16:31      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.152			IS 13C-2,3,7,8-TCDD	97.5	25 - 164	
1,2,3,7,8-PeCDD	ND	0.153			13C-1,2,3,7,8-PeCDD	110	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.186			13C-1,2,3,4,7,8-HxCDD	103	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.193			13C-1,2,3,6,7,8-HxCDD	106	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.203			13C-1,2,3,7,8,9-HxCDD	108	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND		0.450		13C-1,2,3,4,6,7,8-HpCDD	99.5	23 - 140	
OCDD	6.18				13C-OCDD	96.9	17 - 157	
2,3,7,8-TCDF	ND	0.108			13C-2,3,7,8-TCDF	83.3	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0801			13C-1,2,3,7,8-PeCDF	109	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0754			13C-2,3,4,7,8-PeCDF	108	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0675			13C-1,2,3,4,7,8-HxCDF	105	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0658			13C-1,2,3,6,7,8-HxCDF	111	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0728			13C-2,3,4,6,7,8-HxCDF	111	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0949			13C-1,2,3,7,8,9-HxCDF	107	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0503			13C-1,2,3,4,6,7,8-HpCDF	112	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0647			13C-1,2,3,4,7,8,9-HpCDF	104	26 - 138	
OCDF	ND	0.177			13C-OCDF	104	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	85.1	35 - 197	

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

TEQMinWHO2005Dioxin      0.00185

<b>TOTALS</b>								
Total TCDD	ND	0.152						
Total PeCDD	ND	0.153						
Total HxCDD	ND		0.532					
Total HpCDD	1.20		1.65					
Total TCDF	ND	0.108						
Total PeCDF	ND	0.0801						
Total HxCDF	ND	0.0949						
Total HpCDF	ND	0.0647						

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-168SC-A-05-06-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-15      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.4 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 12:53	% Solids: 88.3	Date Analyzed: 21-Aug-20 17:17      Column: ZB-DIOXIN

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	105	25 - 164	
1,2,3,7,8-PeCDD	ND	0.124			13C-1,2,3,7,8-PeCDD	110	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.134			13C-1,2,3,4,7,8-HxCDD	102	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.136			13C-1,2,3,6,7,8-HxCDD	104	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.132			13C-1,2,3,7,8,9-HxCDD	106	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND		0.145		13C-1,2,3,4,6,7,8-HpCDD	102	23 - 140	
OCDD	2.17			J	13C-OCDD	97.2	17 - 157	
2,3,7,8-TCDF	ND	0.105			13C-2,3,7,8-TCDF	94.2	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0837			13C-1,2,3,7,8-PeCDF	104	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0710			13C-2,3,4,7,8-PeCDF	110	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0689			13C-1,2,3,4,7,8-HxCDF	104	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0691			13C-1,2,3,6,7,8-HxCDF	111	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0740			13C-2,3,4,6,7,8-HxCDF	110	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0865			13C-1,2,3,7,8,9-HxCDF	106	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0881			13C-1,2,3,4,6,7,8-HpCDF	104	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0980			13C-1,2,3,4,7,8,9-HpCDF	101	26 - 138	
OCDF	ND	0.172			13C-OCDF	105	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	90.7	35 - 197	

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

TEQMinWHO2005Dioxin      0.000651

<b>TOTALS</b>								
Total TCDD	ND	0.128						
Total PeCDD	ND	0.124						
Total HxCDD	ND	0.136						
Total HpCDD	ND		0.342					
Total TCDF	ND	0.105						
Total PeCDF	ND	0.0837						
Total HxCDF	ND	0.0865						
Total HpCDF	ND	0.0980						

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-168SC-A-06-07-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-16      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.5 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 12:53	% Solids: 80.5	Date Analyzed: 21-Aug-20 18:03      Column: ZB-DIOXIN

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	107	25 - 164	
1,2,3,7,8-PeCDD	ND	0.177			13C-1,2,3,7,8-PeCDD	110	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.188			13C-1,2,3,4,7,8-HxCDD	97.3	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.200			13C-1,2,3,6,7,8-HxCDD	102	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.214			13C-1,2,3,7,8,9-HxCDD	100	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND		0.677		13C-1,2,3,4,6,7,8-HpCDD	99.8	23 - 140	
OCDD	3.99			J	13C-OCDD	91.9	17 - 157	
2,3,7,8-TCDF	ND	0.0997			13C-2,3,7,8-TCDF	88.4	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0752			13C-1,2,3,7,8-PeCDF	101	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0657			13C-2,3,4,7,8-PeCDF	107	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0614			13C-1,2,3,4,7,8-HxCDF	105	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0558			13C-1,2,3,6,7,8-HxCDF	113	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0679			13C-2,3,4,6,7,8-HxCDF	111	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0773			13C-1,2,3,7,8,9-HxCDF	107	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0502			13C-1,2,3,4,6,7,8-HpCDF	100	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0628			13C-1,2,3,4,7,8,9-HpCDF	99.5	26 - 138	
OCDF	ND	0.185			13C-OCDF	102	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	93.5	35 - 197	

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

TEQMinWHO2005Dioxin      0.00120

<b>TOTALS</b>								
Total TCDD	ND	0.126						
Total PeCDD	ND	0.177						
Total HxCDD	ND		0.483					
Total HpCDD	1.18		1.86					
Total TCDF	ND	0.0997						
Total PeCDF	ND	0.0752						
Total HxCDF	ND	0.0773						
Total HpCDF	ND	0.0628						

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-168SC-A-07-08-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-17      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 12.5 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 12:53	% Solids: 79.8	Date Analyzed: 21-Aug-20 18:48      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.112			IS 13C-2,3,7,8-TCDD	107	25 - 164	
1,2,3,7,8-PeCDD	ND	0.112			13C-1,2,3,7,8-PeCDD	115	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.139			13C-1,2,3,4,7,8-HxCDD	100	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.142			13C-1,2,3,6,7,8-HxCDD	104	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.149			13C-1,2,3,7,8,9-HxCDD	103	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.181			13C-1,2,3,4,6,7,8-HpCDD	103	23 - 140	
OCDD	ND	0.243			13C-OCDD	93.1	17 - 157	
2,3,7,8-TCDF	ND	0.0872			13C-2,3,7,8-TCDF	95.7	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0951			13C-1,2,3,7,8-PeCDF	106	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0758			13C-2,3,4,7,8-PeCDF	115	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0732			13C-1,2,3,4,7,8-HxCDF	108	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0763			13C-1,2,3,6,7,8-HxCDF	116	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0840			13C-2,3,4,6,7,8-HxCDF	115	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0997			13C-1,2,3,7,8,9-HxCDF	108	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0478			13C-1,2,3,4,6,7,8-HpCDF	105	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0595			13C-1,2,3,4,7,8,9-HpCDF	102	26 - 138	
OCDF	ND		0.300		13C-OCDF	104	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	94.1	35 - 197	

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

TEQMinWHO2005Dioxin      0.00

<b>TOTALS</b>			
Total TCDD	ND	0.112	
Total PeCDD	ND	0.112	
Total HxCDD	ND	0.149	
Total HpCDD	ND	0.181	
Total TCDF	ND	0.0872	
Total PeCDF	ND	0.0951	
Total HxCDF	ND	0.0997	
Total HpCDF	ND	0.0595	

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-172SC-A-00-01-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-18      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.0 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 10:51	% Solids: 91.8	Date Analyzed: 21-Aug-20 19:34      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.132			IS 13C-2,3,7,8-TCDD	107	25 - 164	
1,2,3,7,8-PeCDD	ND	0.117			13C-1,2,3,7,8-PeCDD	113	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.179			13C-1,2,3,4,7,8-HxCDD	96.2	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.189			13C-1,2,3,6,7,8-HxCDD	99.1	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.191			13C-1,2,3,7,8,9-HxCDD	101	32 - 141	
1,2,3,4,6,7,8-HpCDD	3.92				13C-1,2,3,4,6,7,8-HpCDD	96.5	23 - 140	
OCDD	36.6				13C-OCDD	90.9	17 - 157	
2,3,7,8-TCDF	ND	0.0969			13C-2,3,7,8-TCDF	96.2	24 - 169	
1,2,3,7,8-PeCDF	ND	0.102			13C-1,2,3,7,8-PeCDF	104	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0857			13C-2,3,4,7,8-PeCDF	110	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.132			13C-1,2,3,4,7,8-HxCDF	102	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.116			13C-1,2,3,6,7,8-HxCDF	110	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.148			13C-2,3,4,6,7,8-HxCDF	105	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.168			13C-1,2,3,7,8,9-HxCDF	103	29 - 147	
1,2,3,4,6,7,8-HpCDF	1.15			J	13C-1,2,3,4,6,7,8-HpCDF	103	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.110			13C-1,2,3,4,7,8,9-HpCDF	98.3	26 - 138	
OCDF	3.13			J	13C-OCDF	97.4	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	100	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0626

<b>TOTALS</b>								
Total TCDD	ND	0.132						
Total PeCDD	ND	0.117						
Total HxCDD	ND		0.445					
Total HpCDD	7.47							
Total TCDF	ND	0.0969						
Total PeCDF	ND		0.322					
Total HxCDF	0.927		1.27					
Total HpCDF	3.94							

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-172SC-A-01-02-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-19      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.1 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 10:51	% Solids: 92.0	Date Analyzed: 21-Aug-20 20:20      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.121			IS 13C-2,3,7,8-TCDD	107	25 - 164	
1,2,3,7,8-PeCDD	ND	0.134			13C-1,2,3,7,8-PeCDD	114	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.159			13C-1,2,3,4,7,8-HxCDD	103	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.161			13C-1,2,3,6,7,8-HxCDD	108	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.158			13C-1,2,3,7,8,9-HxCDD	108	32 - 141	
1,2,3,4,6,7,8-HpCDD	2.39			J	13C-1,2,3,4,6,7,8-HpCDD	103	23 - 140	
OCDD	22.5				13C-OCDD	95.4	17 - 157	
2,3,7,8-TCDF	ND	0.0999			13C-2,3,7,8-TCDF	87.8	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0818			13C-1,2,3,7,8-PeCDF	105	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0738			13C-2,3,4,7,8-PeCDF	109	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0728			13C-1,2,3,4,7,8-HxCDF	107	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0660			13C-1,2,3,6,7,8-HxCDF	114	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0736			13C-2,3,4,6,7,8-HxCDF	110	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0936			13C-1,2,3,7,8,9-HxCDF	107	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.490			J	13C-1,2,3,4,6,7,8-HpCDF	104	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.178			13C-1,2,3,4,7,8,9-HpCDF	99.7	26 - 138	
OCDF	0.535			J	13C-OCDF	107	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	92.5	35 - 197	

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

TEQMinWHO2005Dioxin      0.0357

<b>TOTALS</b>								
Total TCDD	ND	0.121						
Total PeCDD	ND	0.134						
Total HxCDD	0.451							
Total HpCDD	5.48							
Total TCDF	ND	0.0999						
Total PeCDF	0.269							
Total HxCDF	0.146		0.417					
Total HpCDF	1.06							

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-172SC-A-02-03-200520** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2001131-20      Date Received: 22-May-2020 10:00
Project: Gasco PDI	Sample Size: 11.4 g	QC Batch: B0F0201      Date Extracted: 21-Jun-2020 6:12
Date Collected: 20-May-2020 10:51	% Solids: 87.8	Date Analyzed: 21-Aug-20 21:05      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.111			IS 13C-2,3,7,8-TCDD	104	25 - 164	
1,2,3,7,8-PeCDD	ND	0.121			13C-1,2,3,7,8-PeCDD	114	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.281			13C-1,2,3,4,7,8-HxCDD	95.0	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.297			13C-1,2,3,6,7,8-HxCDD	99.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.314			13C-1,2,3,7,8,9-HxCDD	100	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.748			J	13C-1,2,3,4,6,7,8-HpCDD	94.8	23 - 140	
OCDD	8.08				13C-OCDD	86.9	17 - 157	
2,3,7,8-TCDF	ND		0.0710		13C-2,3,7,8-TCDF	94.0	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0979			13C-1,2,3,7,8-PeCDF	97.8	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0781			13C-2,3,4,7,8-PeCDF	108	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0809			13C-1,2,3,4,7,8-HxCDF	105	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0736			13C-1,2,3,6,7,8-HxCDF	112	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0877			13C-2,3,4,6,7,8-HxCDF	112	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.102			13C-1,2,3,7,8,9-HxCDF	105	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.309			J	13C-1,2,3,4,6,7,8-HpCDF	101	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0837			13C-1,2,3,4,7,8,9-HpCDF	94.9	26 - 138	
OCDF	0.300			J	13C-OCDF	93.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	93.7	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0131

<b>TOTALS</b>								
Total TCDD	ND	0.111						
Total PeCDD	ND	0.121						
Total HxCDD	ND		0.256					
Total HpCDD	1.95							
Total TCDF	ND		0.0710					
Total PeCDF	0.170							
Total HxCDF	0.184							
Total HpCDF	0.309		0.668					

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)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

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

### Vista Analytical Laboratory Certifications

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

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

## NELAP Accredited Test Methods

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

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

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



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

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

**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

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

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

2001131  
2.0°C

**COC ID:** VISTA-20200520-140911  
**Sample Custodian:** SN  
**Lab:** VISTA

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-1166SC-A-01-02-200520	FD	SE	05/20/2020		1	<input type="checkbox"/>	Dioxin/Furans Total solids (VISTA)	E1613B SM2540G	30 30	4°C 4°C
002	PDI-166SC-A-00-01-200520	N	SE	05/20/2020	8:55	2	<input checked="" type="checkbox"/>	Dioxin/Furans PCB Congeners Total solids (VISTA)	E1613B E1668A SM2540G	30 30 30	4°C 4°C 4°C
003	PDI-166SC-A-01-02-200520	N	SE	05/20/2020	8:55	1	<input type="checkbox"/>	Dioxin/Furans Total solids (VISTA)	E1613B SM2540G	30 30	4°C 4°C
004	PDI-166SC-A-02-03-200520	N	SE	05/20/2020	8:55	1	<input type="checkbox"/>	Dioxin/Furans Total solids (VISTA)	E1613B SM2540G	30 30	4°C 4°C
005	PDI-166SC-A-03-04-200520	N	SE	05/20/2020	8:55	1	<input type="checkbox"/>	Dioxin/Furans Total solids (VISTA)	E1613B SM2540G	30 30	4°C 4°C
006	PDI-166SC-A-04-05-200520	N	SE	05/20/2020	8:55	1	<input type="checkbox"/>	Dioxin/Furans Total solids (VISTA)	E1613B SM2540G	30 30	4°C 4°C
007	PDI-166SC-A-05-06-200520	N	SE	05/20/2020	8:55	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C

**Comment:** \* WO # 2001133

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Print Name: Sashia Norwood	Print Name: William R. Wright	Print Name:	Print Name:	Print Name:	Print Name:
Company: Anchor QEA	Company: JAL	Company:	Company:	Company:	Company:
Date/Time: 5/21/20 08:30	Date/Time: 5-22-20 10:00	Date/Time:	Date/Time:	Date/Time:	Date/Time:

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

**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

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

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

2001131  
2.0°C

**COC ID:** VISTA-20200520-140911  
**Sample Custodian:** SN  
**Lab:** VISTA

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative	
007	PDI-166SC-A-05-06-200520	N	SE	05/20/2020	8:55	1	<input type="checkbox"/>					
									Total solids (VISTA)	SM2540G	30	4°C
008	PDI-166SC-A-06-07-200520	N	SE	05/20/2020	8:55	1	<input type="checkbox"/>					
									Dioxin/Furans	E1613B	30	4°C
									Total solids (VISTA)	SM2540G	30	4°C
009	PDI-166SC-A-07-08-200520	N	SE	05/20/2020	8:55	1	<input type="checkbox"/>					
									Dioxin/Furans	E1613B	30	4°C
									Total solids (VISTA)	SM2540G	30	4°C
* 010	PDI-168SC-A-00-01-200520	N	SE	05/20/2020	12:53	1	<input type="checkbox"/>					
									Dioxin/Furans	E1613B	30	4°C
									* PCB Congeners	E1668A	30	4°C
									Total solids (VISTA)	SM2540G	30	4°C
011	PDI-168SC-A-01-02-200520	N	SE	05/20/2020	12:53	1	<input type="checkbox"/>					
									Dioxin/Furans	E1613B	30	4°C
									Total solids (VISTA)	SM2540G	30	4°C
012	PDI-168SC-A-02-03-200520	N	SE	05/20/2020	12:53	1	<input type="checkbox"/>					
									Dioxin/Furans	E1613B	30	4°C
									Total solids (VISTA)	SM2540G	30	4°C
013	PDI-168SC-A-03-04-200520	N	SE	05/20/2020	12:53	1	<input type="checkbox"/>					
									Dioxin/Furans	E1613B	30	4°C
									Total solids (VISTA)	SM2540G	30	4°C

Comment:  
\* WO # 2001133

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: Sasha Norwood	Print Name: William R. Wright	Print Name:	Print Name:	Print Name:	Print Name:
Company: Anchor QEA	Company: VAC	Company:	Company:	Company:	Company:
Date/Time: 5/21/20 0830	Date/Time: 5-22-20 10:00	Date/Time:	Date/Time:	Date/Time:	Date/Time:

**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

2001131  
 2.0°C

**COC ID:** VISTA-20200520-140911  
**Sample Custodian:** SN  
**Lab:** VISTA

**POC:** \* Delaney Peterson (360-715-2707)  
 1605 Cornwall Avenue, Bellingham, WA 98225  
**Project:** Gasco PDI  
**Client:** NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
014	PDI-168SC-A-04-05-200520	N	SE	05/20/2020	12:53	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
015	PDI-168SC-A-05-06-200520	N	SE	05/20/2020	12:53	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
016	PDI-168SC-A-06-07-200520	N	SE	05/20/2020	12:53	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
017	PDI-168SC-A-07-08-200520	N	SE	05/20/2020	12:53	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
018	PDI-172SC-A-00-01-200520	N	SE	05/20/2020	10:51	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								PCB Congeners	E1668A	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
019	PDI-172SC-A-01-02-200520	N	SE	05/20/2020	10:51	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
020	PDI-172SC-A-02-03-200520	N	SE	05/20/2020	10:51	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C

Comment: \* WO # 2001133

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: <i>Sasha Narwood</i>	Print Name: <i>William R. Wright</i>	Print Name:	Print Name:	Print Name:	Print Name:
Company: <i>Anchor OEA</i>	Company: <i>VAL</i>	Company:	Company:	Company:	Company:
Date/Time: <i>5/21/20 08:30</i>	Date/Time: <i>5-22-20 10:00</i>	Date/Time:	Date/Time:	Date/Time:	Date/Time:

# Sample Log-In Checklist

 Page # 1 of 1

 Vista Work Order #: 2001131

 TAT Std

Samples Arrival:	Date/Time <u>5-22-20 10:00</u>		Initials: <u>WRW</u>		Location: <u>WR-2</u>	
					Shelf/Rack: <u>NA</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
Other						
Preservation:	<input checked="" type="checkbox"/> Ice		<input type="checkbox"/> Blue Ice		<input type="checkbox"/> Dry Ice	
None						
Temp °C: <u>2.0</u>	(uncorrected)		Probe used: <u>Y / N</u>		Thermometer ID: <u>IL3</u>	
Temp °C: <u>2.0</u>	(corrected)					

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airbill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trk # <u>7705 2425 3348</u>			
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container	<input type="checkbox"/> Vista	<input checked="" type="checkbox"/> Client	<input type="checkbox"/> Retain
	<input type="checkbox"/> Return	<input type="checkbox"/> 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"/>
Logged In:	Date/Time <u>05/26/20 0744</u>		Initials: <u>KS</u>
	Location: <u>WR-2</u>		Shelf/Rack: <u>G-5</u>
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

# CoC/Label Reconciliation Report WO# 2001131

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2001131-01	A PDI-1166SC-A-01-02-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-02	A PDI-166SC-A-00-01-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	DUP
2001131-02	B PDI-166SC-A-00-01-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	DUP
2001131-03	A PDI-166SC-A-01-02-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-04	A PDI-166SC-A-02-03-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-05	A PDI-166SC-A-03-04-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-06	A PDI-166SC-A-04-05-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-07	A PDI-166SC-A-05-06-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-08	A PDI-166SC-A-06-07-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-09	A PDI-166SC-A-07-08-200520	<input checked="" type="checkbox"/>	20-May-20 08:55 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-10	A PDI-168SC-A-00-01-200520	<input checked="" type="checkbox"/>	20-May-20 12:53 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-11	A PDI-168SC-A-01-02-200520	<input checked="" type="checkbox"/>	20-May-20 12:53 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-12	A PDI-168SC-A-02-03-200520	<input checked="" type="checkbox"/>	20-May-20 12:53 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-13	A PDI-168SC-A-03-04-200520	<input checked="" type="checkbox"/>	20-May-20 12:53 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-14	A PDI-168SC-A-04-05-200520	<input checked="" type="checkbox"/>	20-May-20 12:53 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-15	A PDI-168SC-A-05-06-200520	<input checked="" type="checkbox"/>	20-May-20 12:53 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-16	A PDI-168SC-A-06-07-200520	<input checked="" type="checkbox"/>	20-May-20 12:53 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-17	A PDI-168SC-A-07-08-200520	<input checked="" type="checkbox"/>	20-May-20 12:53 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-18	A PDI-172SC-A-00-01-200520	<input checked="" type="checkbox"/>	20-May-20 10:51 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-19	A PDI-172SC-A-01-02-200520	<input checked="" type="checkbox"/>	20-May-20 10:51 <input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid	
2001131-20	A PDI-172SC-A-02-03-200520	<input checked="" type="checkbox"/>	20-May-20 10:51 <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 <del>None</del> Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:

Verified by/Date: KS 05/26/20

## **EXTRACTION INFORMATION**



Process Sheet  
**Workorder: 2001131**

Prep Expiration: 2021-05-20  
 Client: Anchor QEA, LLC

**Workorder Due: 22-Jun-20 00:00**

TAT: 31

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

Prep Batch: **BOF0201**

Prep Data Entered: **06/25/20 RR**  
Date and Initials

Initial Sequence: **SOH0043**

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
2001131-01	<input checked="" type="checkbox"/>	PDI-1166SC-A-01-02-200520	22-May-20 10:00	WR-2 G-5	
2001131-02	<input checked="" type="checkbox"/>	PDI-166SC-A-00-01-200520	22-May-20 10:00	WR-2 G-5	<b>DUP</b>
2001131-03	<input checked="" type="checkbox"/>	PDI-166SC-A-01-02-200520	22-May-20 10:00	WR-2 G-5	
2001131-04	<input checked="" type="checkbox"/>	PDI-166SC-A-02-03-200520	22-May-20 10:00	WR-2 G-5	
2001131-05	<input checked="" type="checkbox"/>	PDI-166SC-A-03-04-200520	22-May-20 10:00	WR-2 G-5	
2001131-06	<input checked="" type="checkbox"/>	PDI-166SC-A-04-05-200520	22-May-20 10:00	WR-2 G-5	
2001131-07	<input checked="" type="checkbox"/>	PDI-166SC-A-05-06-200520	22-May-20 10:00	WR-2 G-5	
2001131-08	<input checked="" type="checkbox"/>	PDI-166SC-A-06-07-200520	22-May-20 10:00	WR-2 G-5	
2001131-09	<input checked="" type="checkbox"/>	PDI-166SC-A-07-08-200520	22-May-20 10:00	WR-2 G-5	
2001131-10	<input checked="" type="checkbox"/>	PDI-168SC-A-00-01-200520	22-May-20 10:00	WR-2 G-5	
2001131-11	<input checked="" type="checkbox"/>	PDI-168SC-A-01-02-200520	22-May-20 10:00	WR-2 G-5	
2001131-12	<input checked="" type="checkbox"/>	PDI-168SC-A-02-03-200520	22-May-20 10:00	WR-2 G-5	
2001131-13	<input checked="" type="checkbox"/>	PDI-168SC-A-03-04-200520	22-May-20 10:00	WR-2 G-5	
2001131-14	<input checked="" type="checkbox"/>	PDI-168SC-A-04-05-200520	22-May-20 10:00	WR-2 G-5	
2001131-15	<input checked="" type="checkbox"/>	PDI-168SC-A-05-06-200520	22-May-20 10:00	WR-2 G-5	
2001131-16	<input checked="" type="checkbox"/>	PDI-168SC-A-06-07-200520	22-May-20 10:00	WR-2 G-5	
2001131-17	<input checked="" type="checkbox"/>	PDI-168SC-A-07-08-200520	22-May-20 10:00	WR-2 G-5	
2001131-18	<input checked="" type="checkbox"/>	PDI-172SC-A-00-01-200520	22-May-20 10:00	WR-2 G-5	
2001131-19	<input checked="" type="checkbox"/>	PDI-172SC-A-01-02-200520	22-May-20 10:00	WR-2 G-5	
2001131-20	<input checked="" type="checkbox"/>	PDI-172SC-A-02-03-200520	22-May-20 10:00	WR-2 G-5	

**WO Comments: Dioxin - 10g (dry weight)**  
**One dup required per batch of 20 samples**

Pre-Prep Check Out: CHT 05/29/20  
Pre-Prep Check In: CHT 05/29/20

Prep Check Out: AZ 06/21/20  
Prep Check In: AZ 06/21/20

Prep Reconciled Initials/Date: CHT 05/29/20  
Spike Reconciled Initials/Date: AZ 06/24/20  
VialBoxID: ACZ

PREPARATION BENCH SHEET

Matrix: Solid

B0F0201

Chemist: AZ

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 21-Jun-20 06:12

Sox	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	Column Packer:	AP CHEM/ DATE	AZ 06/23/20	AZ 06/23/20	RR 06/24/20	RS CHEM/WIT DATE
					CRS/PS CHEM/WIT DATE		ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	
A1	B0F0201-BLK1	NA	(10.00)	00 AZ 06/24/20	00 06/23/20	NA	AB 06/23/20	AZ 06/23/20	RR 06/24/20	RR 06/25/20
2	B0F0201-BS1	J	(10.00)							
3	B0F0201-DUP 2001131-02 (B)C	11.37	11.39							
4	2001131-01	12.20	12.22							
5	2001131-02	11.37	11.42							
6	2001131-03	12.09	12.09							
7	2001131-04	12.46	12.48							
8	2001131-05	12.13	12.20							
9	2001131-06 (A)	12.27	12.34							
10	2001131-07 (B)	12.52	12.59							
11	2001131-08 (A)D	15.06	15.11							
12	2001131-09	25.38	25.47							
B1	2001131-10	11.65	11.65							
J2	2001131-11	10.98	11.04							
J3	2001131-12	11.36	11.54							

IS: <u>19L2301, 10ML</u> (V1)	Cycle Time	APP: SEFUN SOX (SDS)	Check Out: Chemist/Date: <u>AZ 06/21/20</u>	Soxhlet Siphoned Chemist/Date: <u>AZ 06/21/20</u>	Notes: (A) Black 44% AZ 06/23/20 (B) Yellow 44% AZ 06/23/20 (C) Yellow silica gel AZ 06/23/20 (D) Orange silica gel AZ 06/23/20
NS: <u>18F1913, 10ML</u> (V2)	Start Date/Time	SOLV: <u>Tol</u>	Check In: Chemist/Date: <u>AZ 06/21/20</u>	Vial Transfer Chemist/Date: <u>RR 06/25/20</u>	
PS/CRS: <u>20E0701, 10ML</u> (V5)	1522 06/21/20	Other: <u>NA</u>	Balance ID: <u>Hans-8</u>		
RS: <u>20E0702, 10ML</u> (V5)	Stop Date/Time	Final Volume(s) <u>20ML</u>			
Diox/F PCB PAH PEST PBDE HCB <u>0900 06/22/20</u> <u>CM</u>					

Comments:

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

PREPARATION BENCH SHEET

Matrix: Solid

B0F0201

Chemist: AZ

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 21-Jun-20 06:12

Sox	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	Column Packer:		AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisol CHEM/ DATE	RS CHEM/WIT DATE
					CRS/PS CHEM/WIT DATE	AP CHEM/ DATE					
4	2001131-13	12.14	12.15	AD <u>AZ 06/24/20</u>	AD <u>06/23/20</u>	MA	AZ <u>06/23/20</u>	AZ <u>06/23/20</u>	RR <u>06/24/20</u>		RR <u>06/25/20</u>
5	2001131-14	11.32	11.35	↓	↓	↓	↓	↓	↓	↓	↓
6	2001131-15	11.32	11.41								
7	2001131-16	12.42	12.52								
8	2001131-17	12.52	12.52								
9	2001131-18 (C)	10.89	10.97								
10	2001131-19	10.87	11.05								
11	2001131-20	11.38	11.43								

IS: <u>19L2301, 10mL (V)</u>	Cycle Time	APP: SEFUN <u>SOX</u> <u>SBS</u>	Check Out: <u>AZ 06/21/20</u>	Soxhlet Siphoned Chemist/Date: <u>AZ 06/21/20</u>	Notes:
NS: <u>18F1913, 10mL (V)</u>	Start Date/Time	SOLV: <u>Tol</u>	Check In: <u>AZ 06/24/20</u>	Vial Transfer Chemist/Date: <u>RR 06/25/20</u>	
PS/CRS: <u>20E0701, 10mL (V)</u>	1522 <u>06/21/20</u>	Other: <u>NA</u>	Balance ID: <u>HRMS-8</u>		
RS: <u>20E0702, 10mL (V)</u>	Stop Date/Time	Final Volume(s) <u>20mL</u>			
<u>Dioxin</u> PCB PAH PEST PBDE HCB	<u>0910 06/24/20</u>	<u>C14</u>			

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

Percent Moisture/ Percent Solids

D2216-90

BATCH ID BOE0236

Analyst: CHT ✓	Test Code: %Moist/%Solids	Data Entry Verified by: (Initial and Date) CHT 06/02/20
Analyte: Dried at 110°C+/-5°C	Units: %	
Oven ID: 01 ✓ 02		

Inst HRMS-9 ✓

Date/Time IN: 5/29/20 14:22 ✓  
Date/Time OUT: 6/1/20 9:35 ✓

Particle Size	SampID	SampType	E		G		H	I	K				P	
			Intial and Date:	CHT 05/29/20 ✓	CHT 06/01/20 ✓	Dry Sample Weight (g)			%Solids RawVal	Visual Inspection	CI-	pH Before		pH After
	2001131-01	A ✓	Sample	1.3100 ✓	5.4100 ✓	4.6700 ✓	3.3600	81.95	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-02	A ✓	Sample	1.2900 ✓	5.5200 ✓	5.0100 ✓	3.7200	87.94	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-03	A ✓	Sample	1.2900 ✓	5.1100 ✓	4.4500 ✓	3.1600	82.72	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-04	A ✓	Sample	1.2900 ✓	7.0700 ✓	5.9300 ✓	4.6400	80.28	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-05	A ✓	Sample	1.2800 ✓	7.0800 ✓	6.0600 ✓	4.7800	82.41	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-06	A ✓	Sample	1.3000 ✓	6.5500 ✓	5.5800 ✓	4.2800	81.52	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-07	A ✓	Sample	1.3000 ✓	5.4300 ✓	4.6000 ✓	3.3000	79.90	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-08	A ✓	Sample	1.2900 ✓	4.8900 ✓	3.6800 ✓	2.3900	66.39	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-09	A ✓	Sample	1.2900 ✓	5.3000 ✓	2.8700 ✓	1.5800	39.40	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-10	A ✓	Sample	1.2900 ✓	6.0900 ✓	5.4100 ✓	4.1200	85.83	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-11	A ✓	Sample	1.3100 ✓	6.0100 ✓	5.5900 ✓	4.2800	91.06	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-12	A ✓	Sample	1.2900 ✓	5.8100 ✓	5.2700 ✓	3.9800	88.05	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-13	A ✓	Sample	1.2900 ✓	6.2200 ✓	5.3500 ✓	4.0600	82.35	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-14	A ✓	Sample	1.3000 ✓	5.8400 ✓	5.3100 ✓	4.0100	88.33	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-15	A ✓	Sample	1.3000 ✓	6.5200 ✓	5.9100 ✓	4.6100	88.31	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-16	A ✓	Sample	1.3000 ✓	5.6600 ✓	4.8100 ✓	3.5100	80.50	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-17	A ✓	Sample	1.3000 ✓	6.5600 ✓	5.5000 ✓	4.2000	79.85	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-18	A ✓	Sample	1.2900 ✓	5.4300 ✓	5.0900 ✓	3.8000	91.79	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-19	A ✓	Sample	1.2900 ✓	6.1700 ✓	5.7800 ✓	4.4900	92.01	Soil ✓	N/A	N/A	N/A	N/A	x ✓
	2001131-20	A ✓	Sample	1.2900 ✓	7.5400 ✓	6.7800 ✓	5.4900	87.84	Soil ✓	N/A	N/A	N/A	N/A	x ✓

\*Sample homogenized in sample container unless otherwise noted.

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B0E0236

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

Inst **HEMS-5**

Date/Time IN: 05/29/20 1422  
Date/Time OUT: 06/01/20 0935

Particle Size	SampleID	SampType	Initial and Date:		Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	CMT 05/25/20				Sample Homogenized*
			Pan Tare Wt. (gms)						Visual Inspection	Cl-	pH Before	pH After	
		Sample	1.31		5.41	4.67		Soil					✓
		Sample	1.29		5.52	5.01							✓
		Sample	1.29		5.11	4.45							✓
		Sample	1.29		7.07	5.93							✓
		Sample	1.28		7.08	6.06							✓
		Sample	1.30		6.55	5.58							✓
		Sample	1.30		5.43	4.60							✓
		Sample	1.29		4.89	3.68							✓
		Sample	1.29		5.30	2.87							✓
		Sample	1.29		6.09	6.41							✓
		Sample	1.31		6.01	5.59							✓
		Sample	1.29		5.81	5.27							✓
		Sample	1.29		6.22	6.35							✓
		Sample	1.30		5.84	5.31							✓
		Sample	1.30		6.52	5.91							✓
		Sample	1.30		5.66	4.81							✓
		Sample	1.30		6.56	6.50							✓
		Sample	1.29		5.43	5.09							✓
		Sample	1.29		6.17	5.78							✓
		Sample	1.29		7.54	6.78							✓

\*Sample homogenized in sample container unless otherwise noted.

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2001131-01	12.22 ✓	81.95123	10.0144	20 ✓	21-Jun-20 06:12 ✓	AZK ✓			Sediment	1613 Full List
2001131-02	11.42 ✓	87.94327	10.0431	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-03	12.09 ✓	82.7225	10.0012	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-04	12.48 ✓	80.27681	10.0185	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-05	12.2 ✓	82.4138	10.0545	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-06	12.34 ✓	81.5238	10.0600	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-07	12.59 ✓	79.90315	10.0598	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-08	15.11 ✓	66.38889	10.0314	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-09	25.47 ✓	39.40149	10.0356	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-10	11.65 ✓	85.83333	9.9996	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-11	11.04 ✓	91.06383	10.0534	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-12	11.54 ✓	88.0531	10.1613	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-13	12.15 ✓	82.35294	10.0059	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-14	11.35 ✓	88.32599	10.0250	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-15	11.41 ✓	88.31417	10.0766	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-16	12.52 ✓	80.50459	10.0792	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-17	12.52 ✓	79.84791	9.9970	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-18	10.97 ✓	91.78745	10.0691	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-19	11.05 ✓	92.0082	10.1669	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
2001131-20	11.43 ✓	87.84	10.0401	20	21-Jun-20 06:12	AZK			Sediment	1613 Full List
<b>B0F0201-BLK1</b>	10 ✓			20	21-Jun-20 06:12	AZK				QC
<b>B0F0201-BS1</b>	10 ✓			20	21-Jun-20 06:12	AZK	18F1913 ✓	10 ✓		QC
<b>B0F0201-DUP1</b>	11.39 ✓			20 ✓	21-Jun-20 06:12 ✓	AZK ✓				QC

All bolded data on report verified against written benchsheet by (initial/date) RP /06/25/20

SAMPLE DATA – EPA METHOD 1613



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 11:37:03 Pacific Daylight Time  
Printed: Friday, August 21, 2020 11:37:21 Pacific Daylight Time

*JB 8/21/20 CT 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-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	1.08	10.000 ✓	26.265		1.001				0.168	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.000	30.529		1.001				0.120	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.000	33.815		1.000				0.202	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.000	33.926		1.000				0.214	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.000	34.256		1.001				0.225	
6	6 1,2,3,4,6,7,8-HpCDD			NO	0.926	10.000	37.580		1.000				0.193	
7	7 OCDD			NO	0.834	10.000	40.850		1.000				0.304	
8	8 2,3,7,8-TCDF			NO	0.882	10.000	25.633		1.001				0.130	
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.000	29.382		1.001				0.107	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.000	30.336		1.001				0.0904	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.000	32.883		1.000				0.106	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.000	33.036		1.000				0.0993	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.000	33.719		1.001				0.105	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.000	34.727		1.000				0.139	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.15	10.000	36.420		1.001				0.103	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.000	38.227		1.000				0.132	
17	17 OCDF			NO	0.961	10.000	41.179		1.000				0.193	
18	18 13C-2,3,7,8-TCDD	1.11e5	0.78	NO	1.20	10.000	26.257	26.23	1.026	1.025	202.61	101	0.945	
19	19 13C-1,2,3,7,8-PeCDD	8.85e4	0.63	NO	0.910	10.000	30.521	30.51	1.193	1.192	213.59	107	0.381	
20	20 13C-1,2,3,4,7,8-HxCDD	6.25e4	1.30	NO	0.789	10.000	33.811	33.81	1.014	1.014	187.65	93.8	1.03	
21	21 13C-1,2,3,6,7,8-HxCDD	7.41e4	1.29	NO	0.885	10.000	33.921	33.93	1.017	1.017	198.13	99.1	0.914	
22	22 13C-1,2,3,7,8,9-HxCDD	7.35e4	1.27	NO	0.888	10.000	34.191	34.22	1.025	1.026	195.97	98.0	0.910	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.98e4	1.02	NO	0.740	10.000	37.645	37.57	1.129	1.127	191.46	95.7	1.51	
24	24 13C-OCDD	1.02e5	0.94	NO	0.660	10.000	40.660	40.85	1.219	1.225	365.03	91.3	0.885	
25	25 13C-2,3,7,8-TCDF	1.51e5	0.79	NO	1.09	10.000	25.336	25.61	0.990	1.001	189.55	94.8	0.837	
26	26 13C-1,2,3,7,8-PeCDF	1.38e5	1.67	NO	0.857	10.000	29.577	29.36	1.156	1.147	218.97	109	0.719	
27	27 13C-2,3,4,7,8-PeCDF	1.33e5	1.61	NO	0.796	10.000	30.480	30.31	1.191	1.184	227.45	114	0.773	
28	28 13C-1,2,3,4,7,8-HxCDF	8.75e4	0.48	NO	1.02	10.000	32.944	32.88	0.988	0.986	203.01	102	1.16	
29	29 13C-1,2,3,6,7,8-HxCDF	8.96e4	0.50	NO	1.00	10.000	33.077	33.03	0.992	0.990	211.50	106	1.17	
30	30 13C-2,3,4,6,7,8-HxCDF	8.41e4	0.51	NO	0.936	10.000	33.647	33.69	1.009	1.010	212.87	106	1.26	
31	31 13C-1,2,3,7,8,9-HxCDF	7.86e4	0.48	NO	0.889	10.000	34.724	34.73	1.041	1.041	209.36	105	1.32	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 11:37:03 Pacific Daylight Time

Printed: Friday, August 21, 2020 11:37:21 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-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	7.70e4	0.42	NO	0.849	10.000	36.245	36.38	1.087	1.091	214.49	107	1.33	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.03e4	0.42	NO	0.624	10.000	38.246	38.23	1.147	1.146	190.85	95.4	1.81	
34	34 13C-OCDF	1.16e5	0.84	NO	0.693	10.000	40.813	41.18	1.224	1.235	397.60	99.4	1.04	
35	35 37Cl-2,3,7,8-TCDD	4.34e4			1.28	10.000	26.255	26.25	1.026	1.026	74.774	93.5	0.142	
36	36 13C-1,2,3,4-TCDD	9.11e4	0.78	NO	1.00	10.000	25.550	25.59	1.000	1.000	200.00	100	1.14	
37	37 13C-1,2,3,4-TCDF	1.47e5	0.78	NO	1.00	10.000	24.250	24.29	1.000	1.000	200.00	100	0.911	
38	38 13C-1,2,3,4,6,9-HxCDF	8.45e4	0.50	NO	1.00	10.000	33.300	33.34	1.000	1.000	200.00	100	1.18	
39	39 Total Tetra-Dioxins				1.08	10.000	24.620		0.000				0.111	
40	40 Total Penta-Dioxins				0.991	10.000	29.960		0.000				0.0440	
41	41 Total Hexa-Dioxins				0.908	10.000	33.635		0.000				0.0858	
42	42 Total Hepta-Dioxins				0.926	10.000	37.640		0.000				0.109	
43	43 Total Tetra-Furans				0.882	10.000	23.610		0.000				0.0611	
44	44 1st Func. Penta-Furans				0.937	10.000	26.750		0.000				0.0313	
45	45 Total Penta-Furans				0.937	10.000	29.275		0.000				0.0466	
46	46 Total Hexa-Furans				1.11	10.000	33.555		0.000				0.0625	
47	47 Total Hepta-Furans				1.15	10.000	37.835		0.000				0.0698	

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 11:37:03 Pacific Daylight Time

Printed: Friday, August 21, 2020 11:37:21 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

Tetra-Dioxins

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

Penta-Dioxins

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

Hexa-Dioxins

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

Hepta-Dioxins

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

Tetra-Furans

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

Penta-Furans function 1

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

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 11:37:03 Pacific Daylight Time

Printed: Friday, August 21, 2020 11:37:21 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-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												

**Hepta-Furans**

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

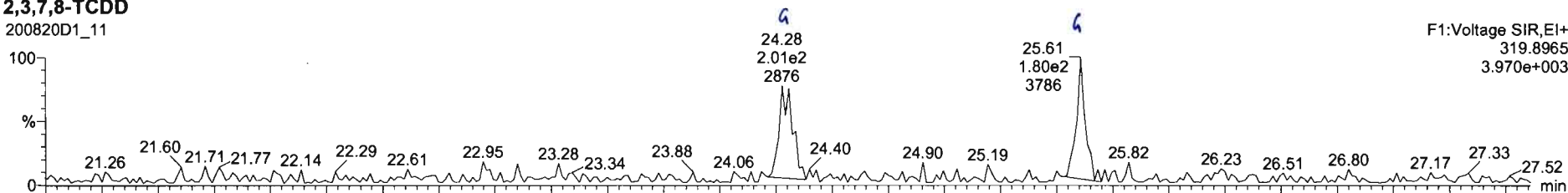
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

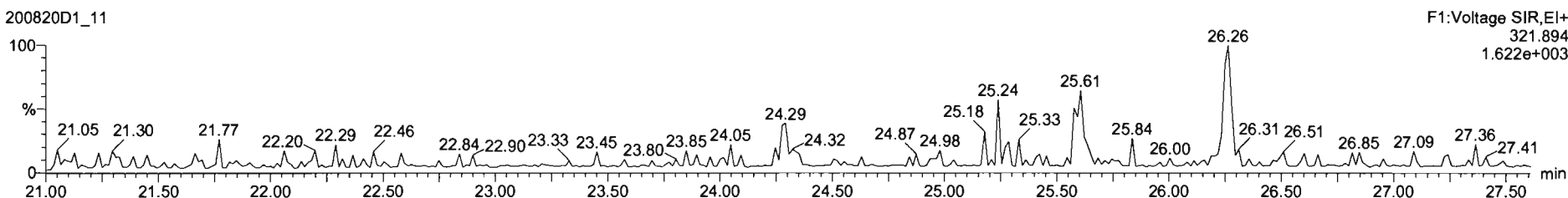
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

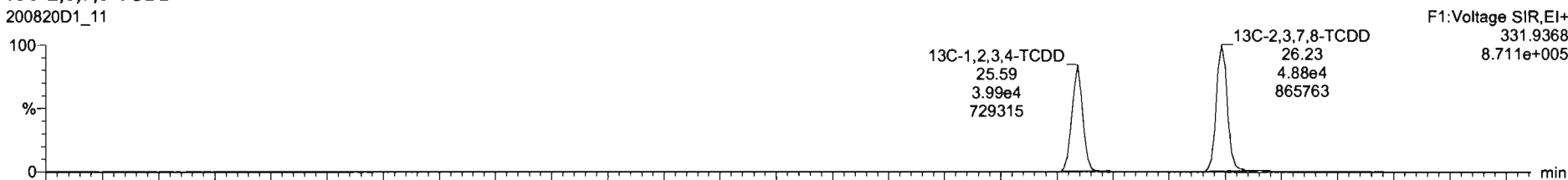
**2,3,7,8-TCDD**  
200820D1\_11



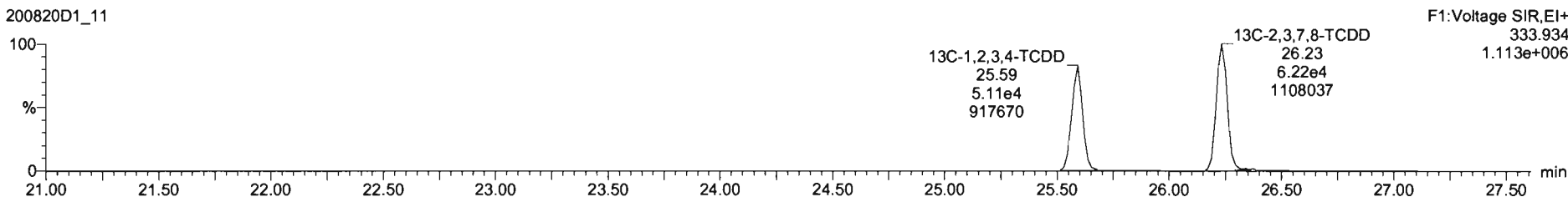
200820D1\_11



**13C-2,3,7,8-TCDD**  
200820D1\_11



200820D1\_11



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

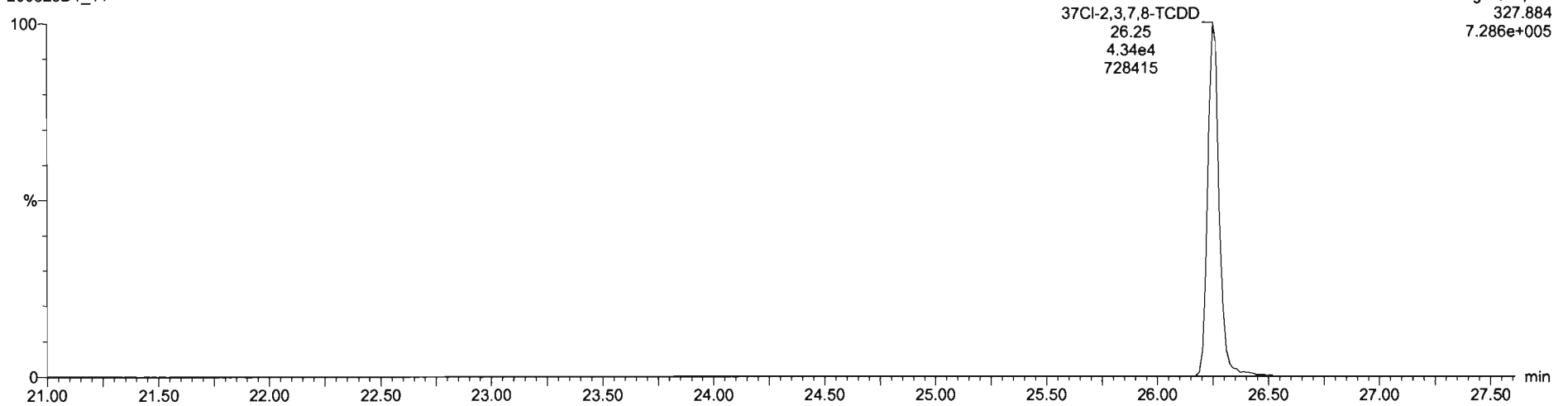
Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

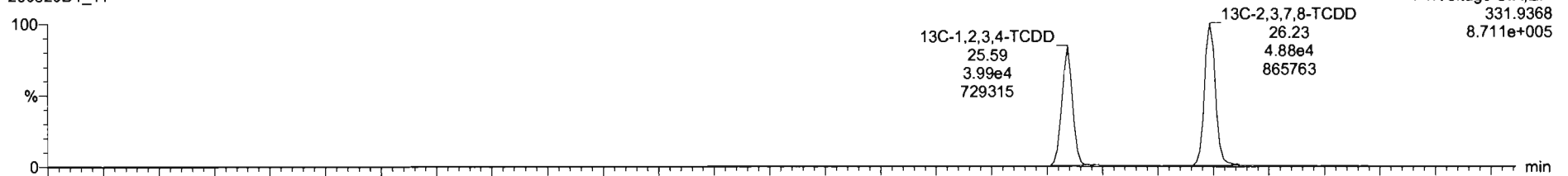
**37Cl-2,3,7,8-TCDD**

200820D1\_11

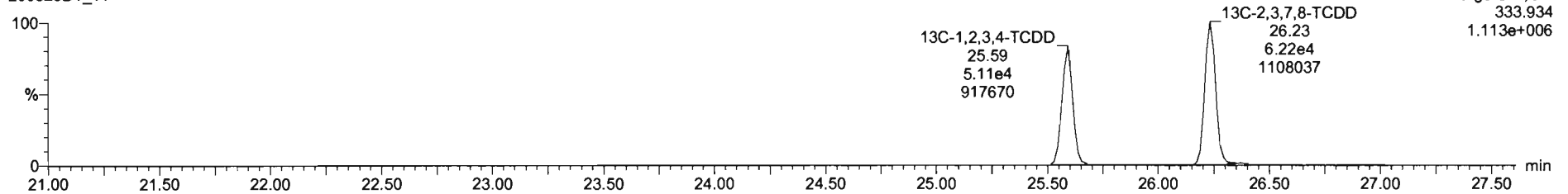


**13C-1,2,3,4-TCDD**

200820D1\_11



200820D1\_11



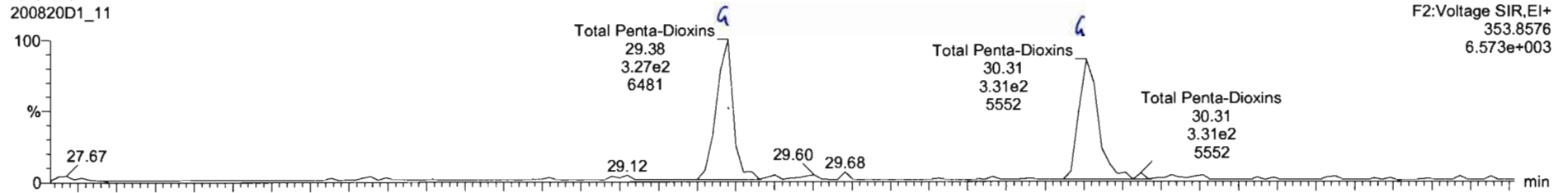
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

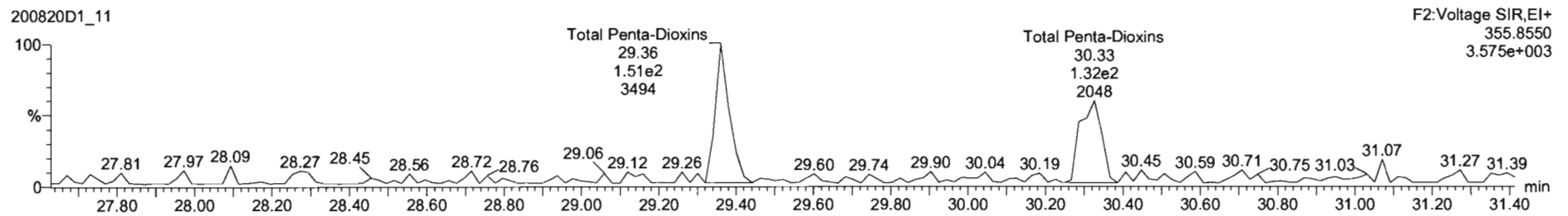
Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

1,2,3,7,8-PeCDD

200820D1\_11

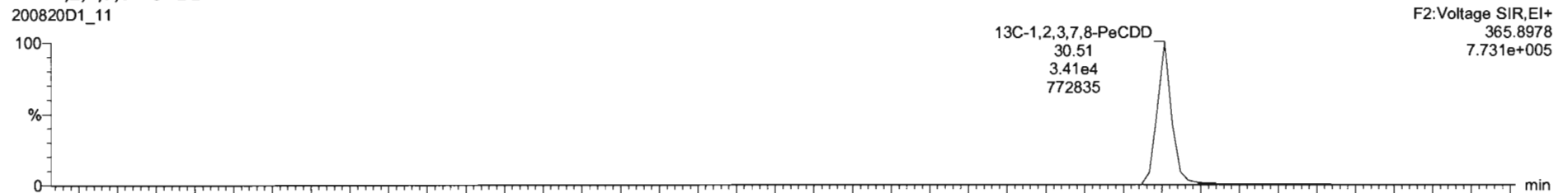


200820D1\_11

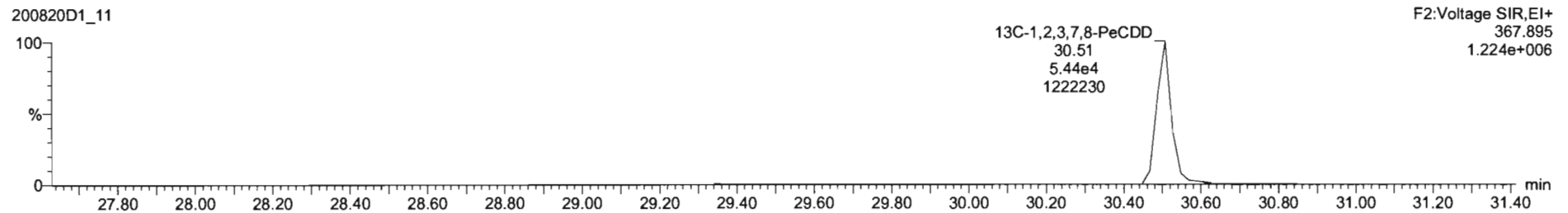


13C-1,2,3,7,8-PeCDD

200820D1\_11



200820D1\_11



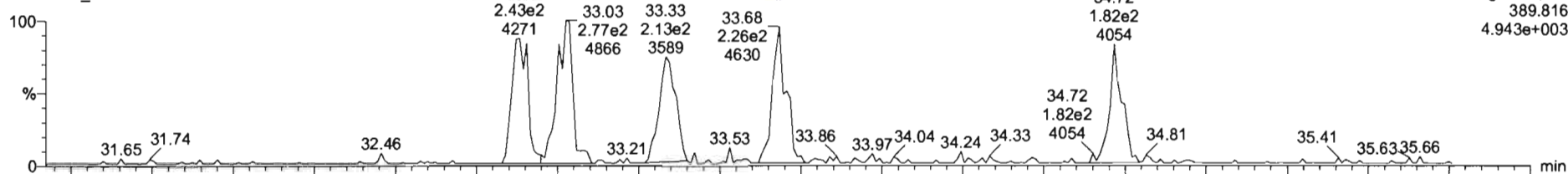
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

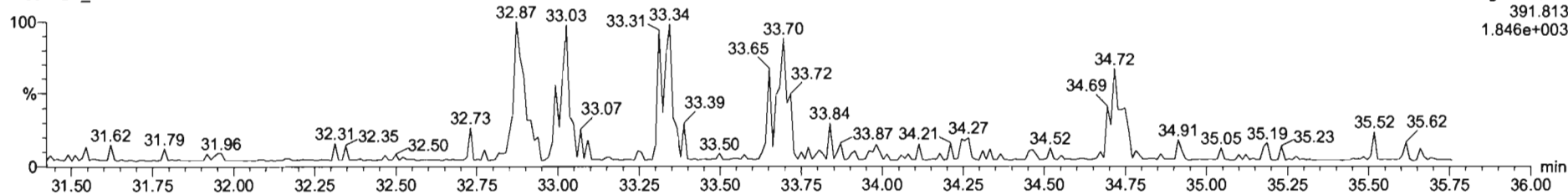
1,2,3,4,7,8-HxCDD

200820D1\_11



F3: Voltage SIR, EI+  
389.816  
4.943e+003

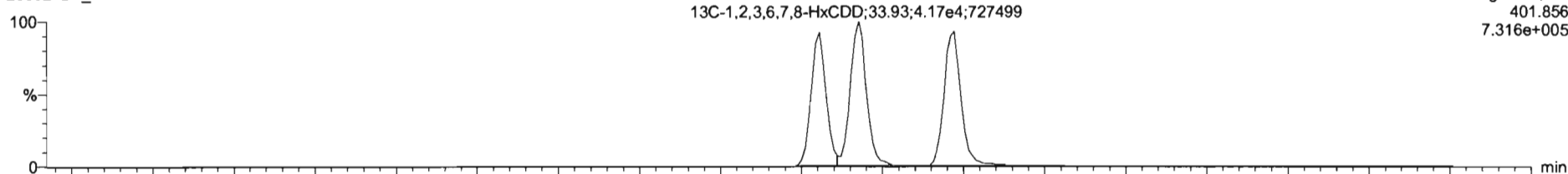
200820D1\_11



F3: Voltage SIR, EI+  
391.813  
1.846e+003

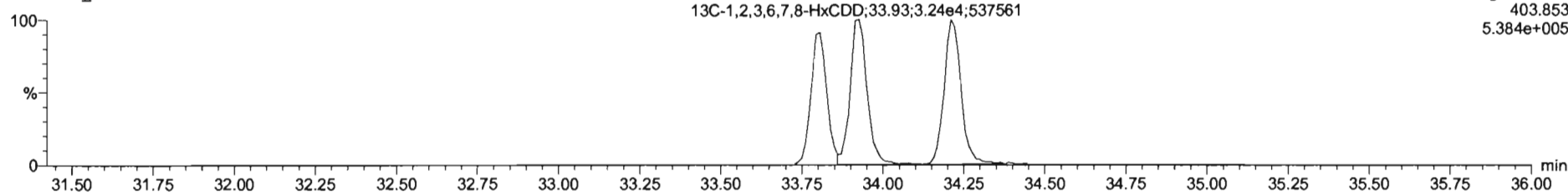
13C-1,2,3,4,7,8-HxCDD

200820D1\_11



F3: Voltage SIR, EI+  
401.856  
7.316e+005

200820D1\_11



F3: Voltage SIR, EI+  
403.853  
5.384e+005

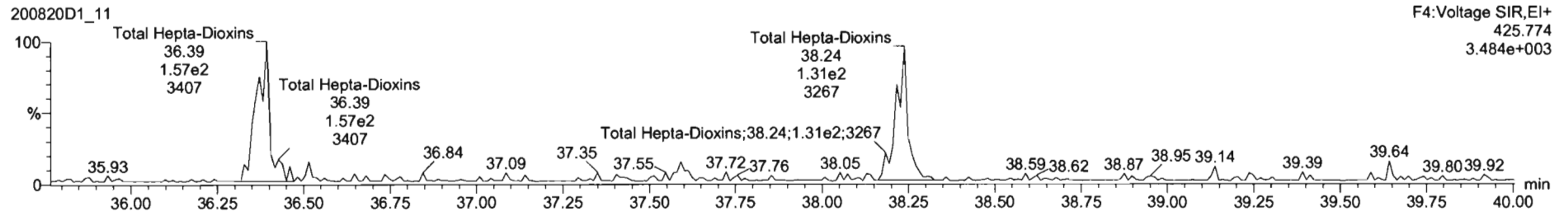
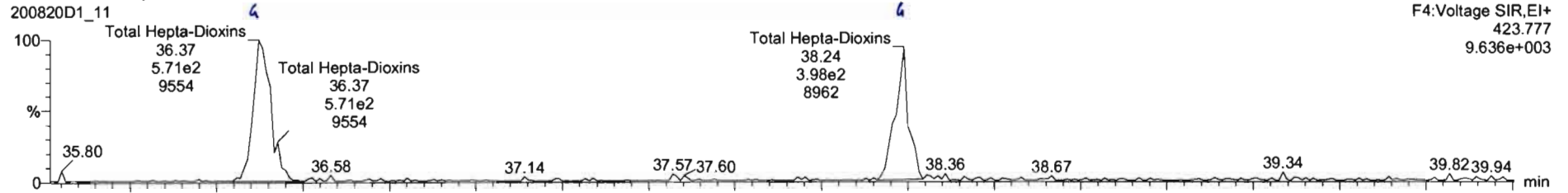


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

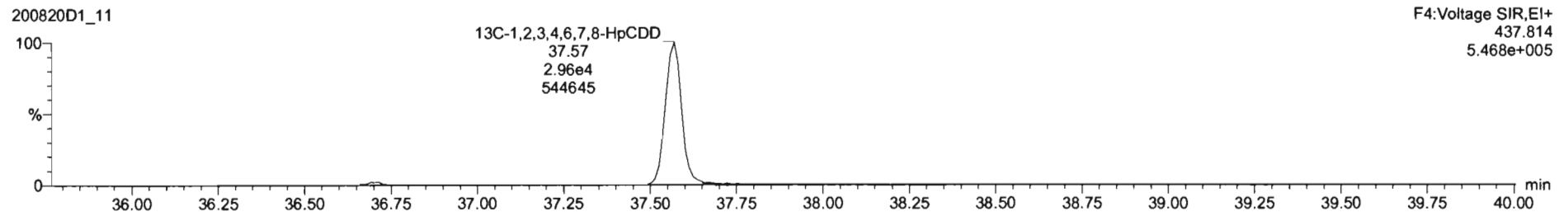
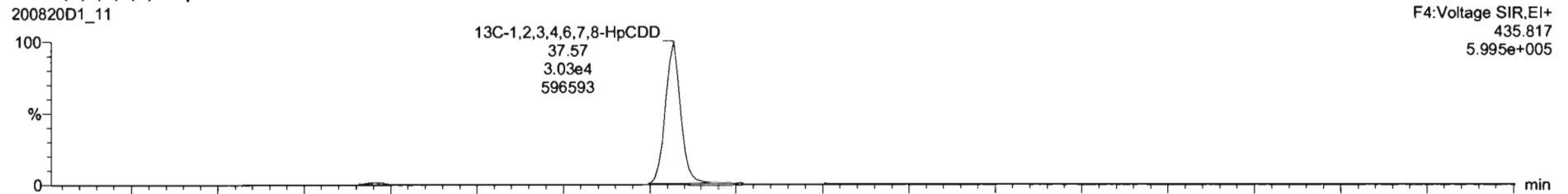
Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

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



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



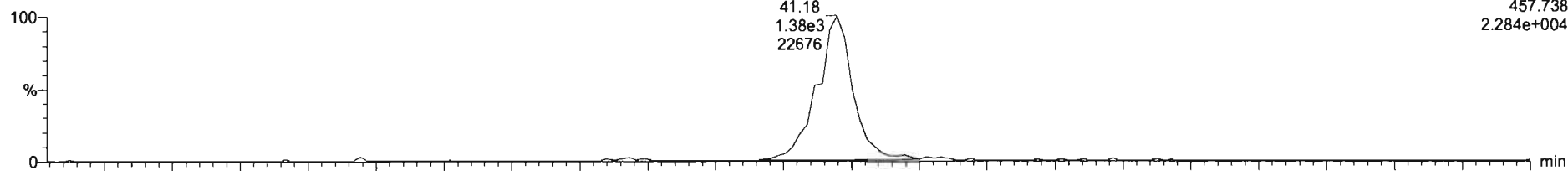
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

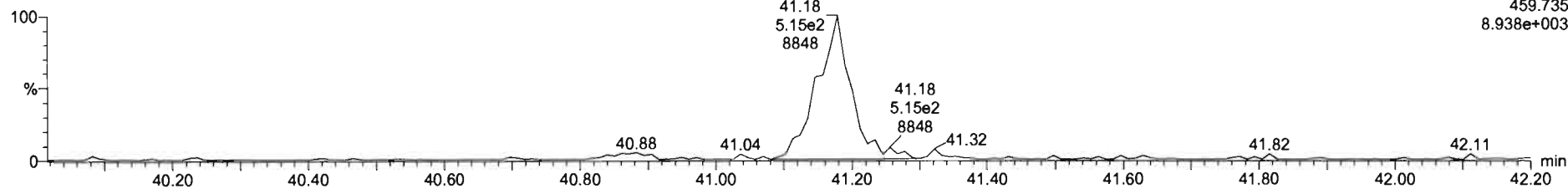
Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

OCDD

200820D1\_11

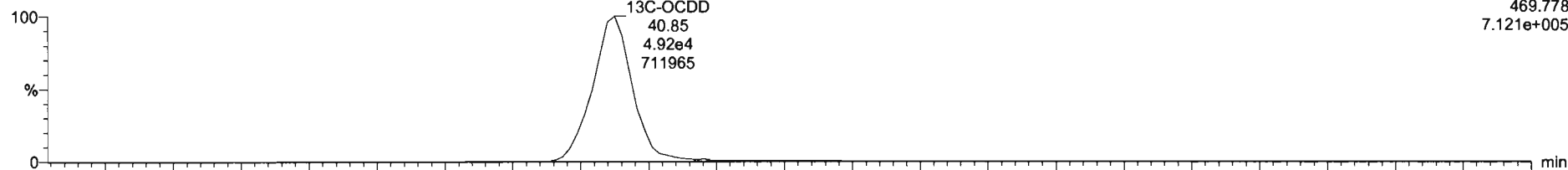


200820D1\_11

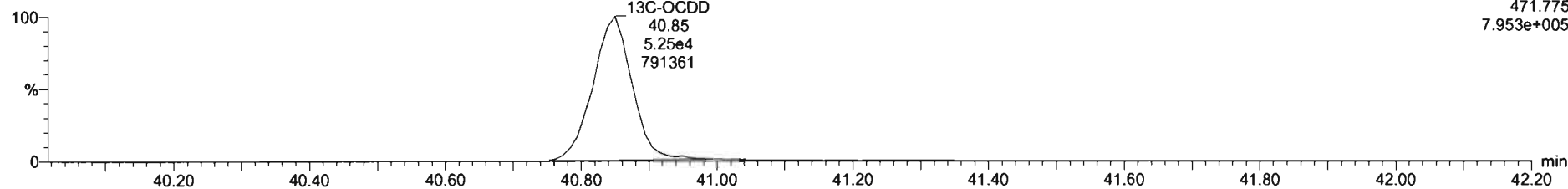


13C-OCDD

200820D1\_11



200820D1\_11

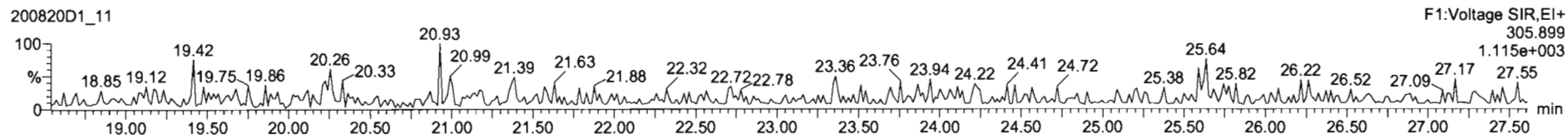
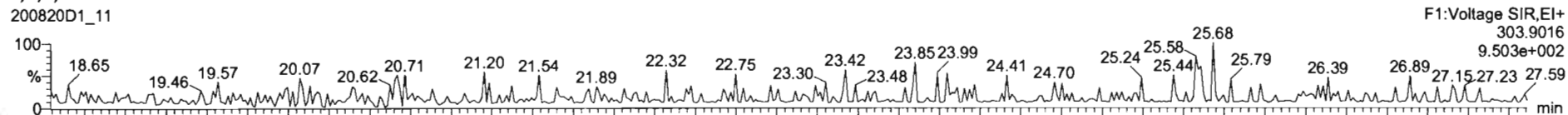


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

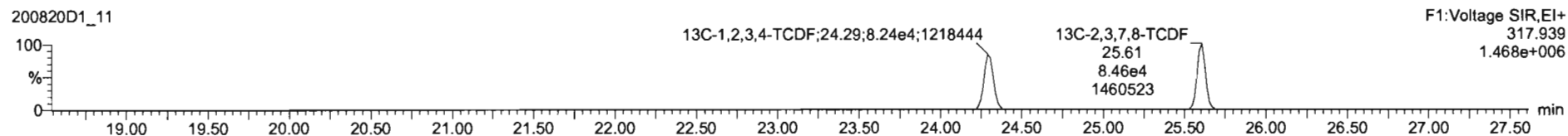
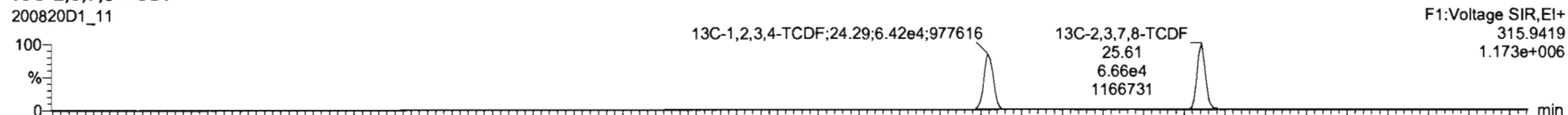
Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

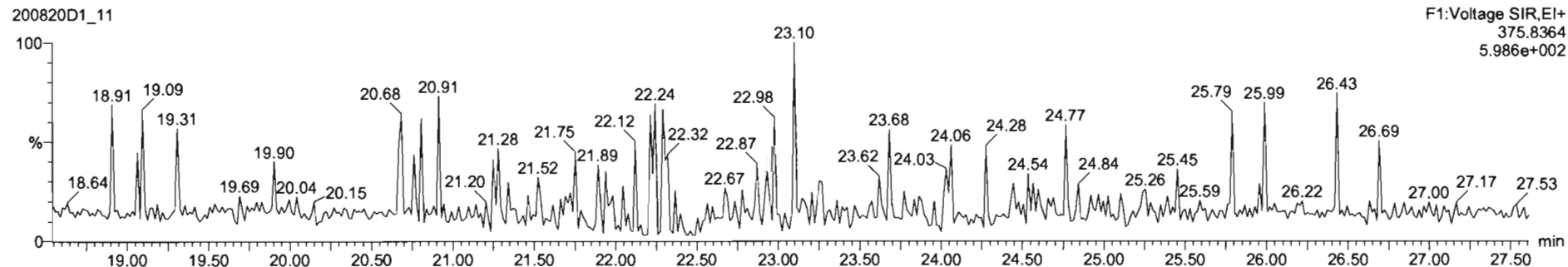
**2,3,7,8-TCDF**



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



**DPE1**



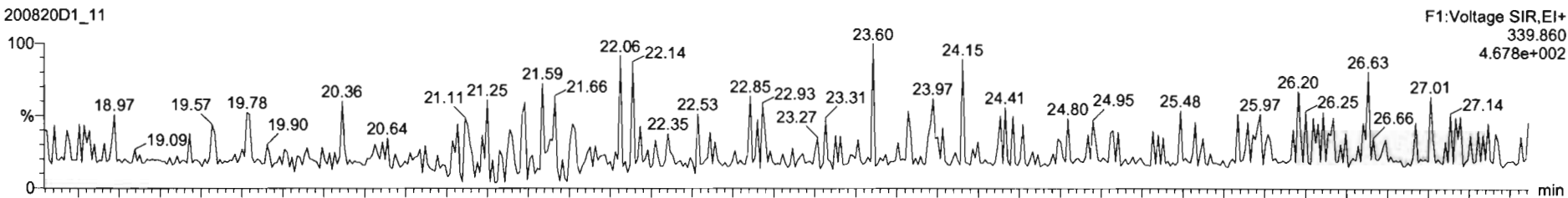
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

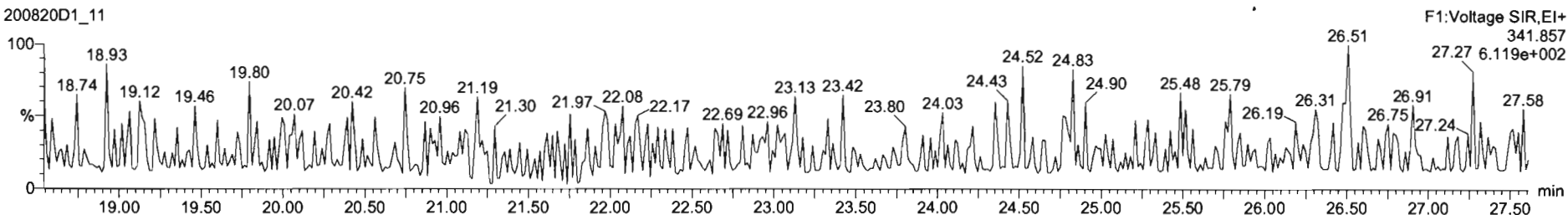
Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

1st Func. Penta-Furans

200820D1\_11

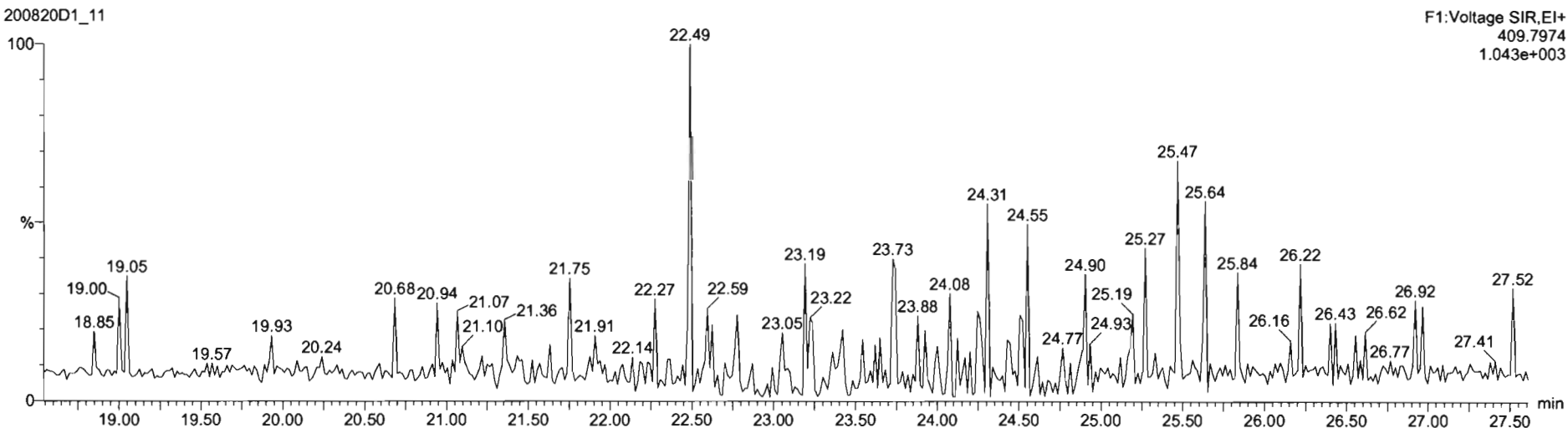


200820D1\_11



DPE6

200820D1\_11

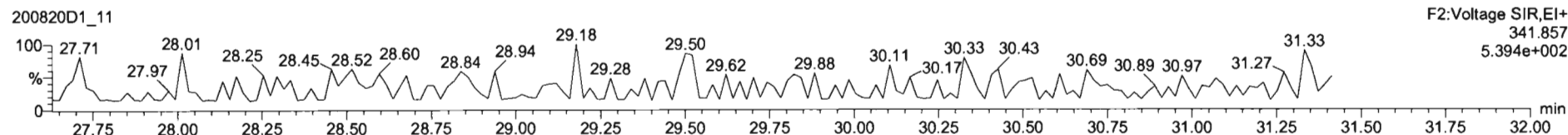
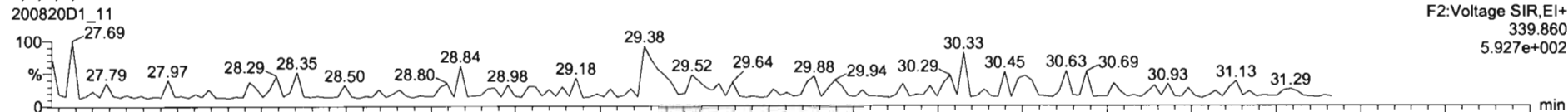


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

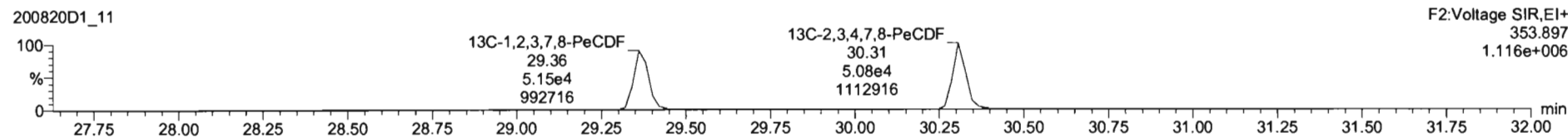
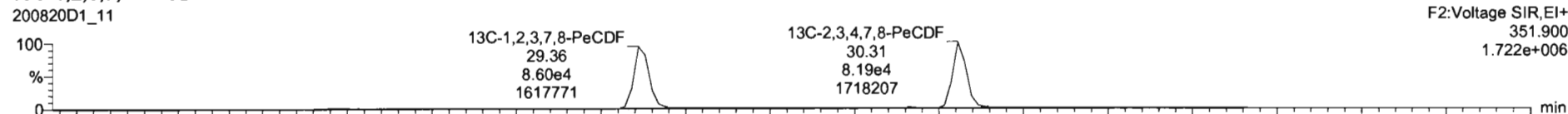
Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

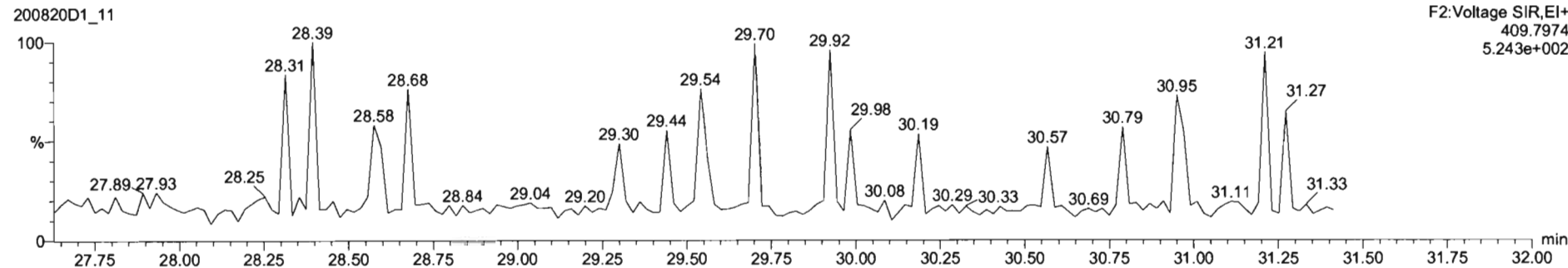
**1,2,3,7,8-PeCDF**



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



**DPE2**

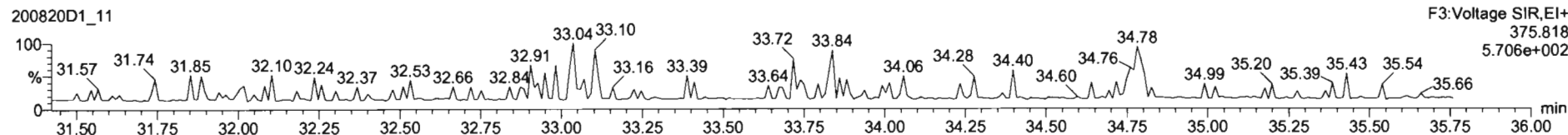
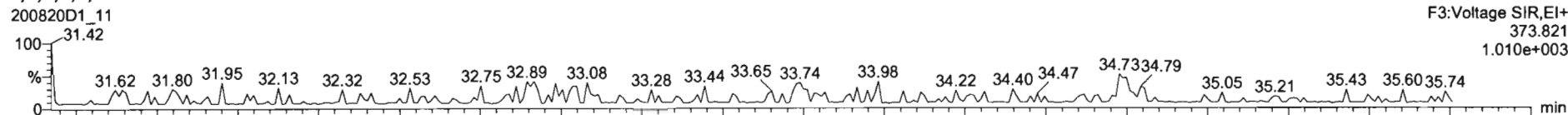


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

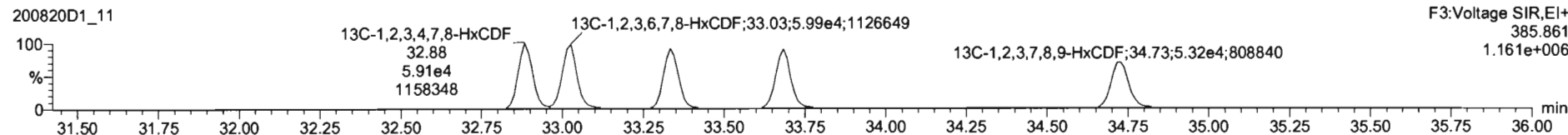
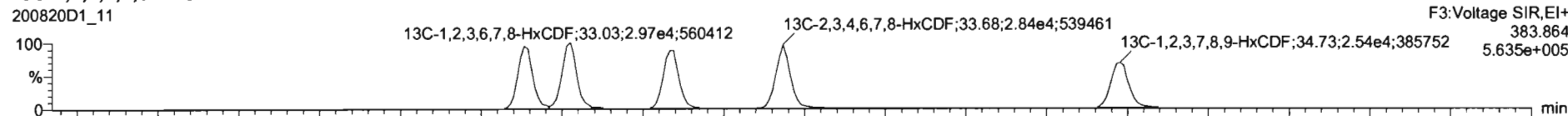
Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

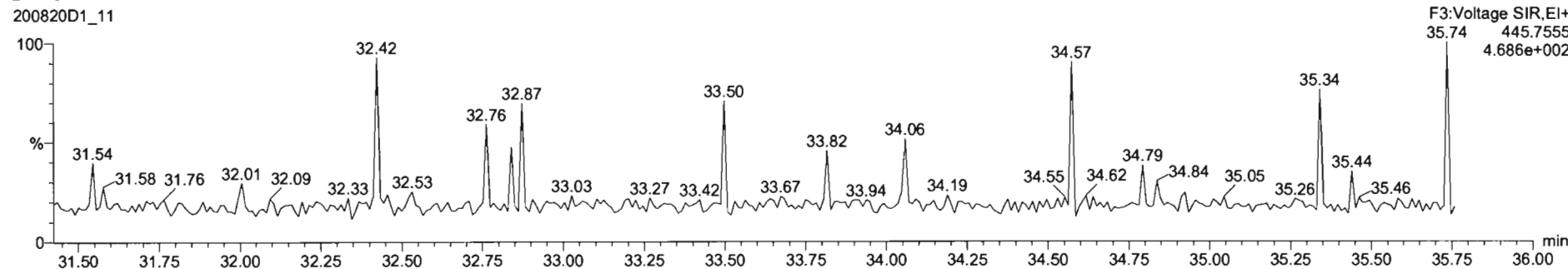
1,2,3,4,7,8-HxCDF



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



DPE3



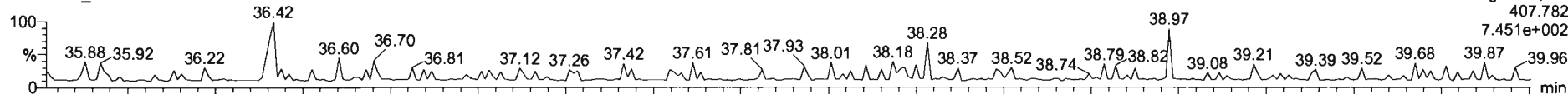
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

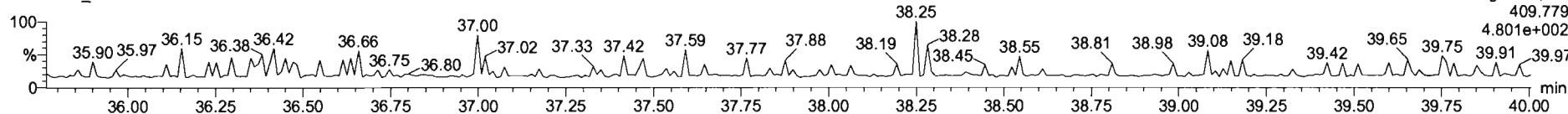
Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

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

200820D1\_11

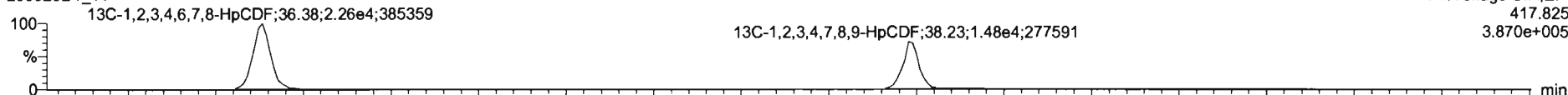


200820D1\_11

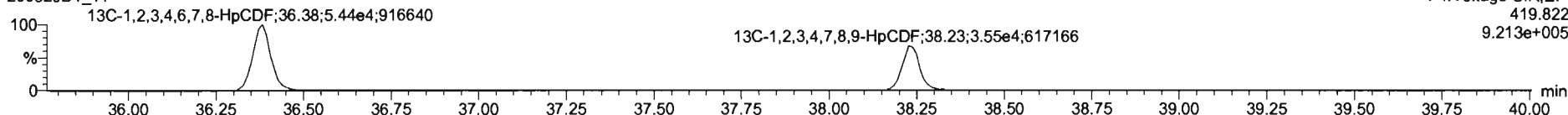


13C-1,2,3,4,6,7,8-HpCDF

200820D1\_11

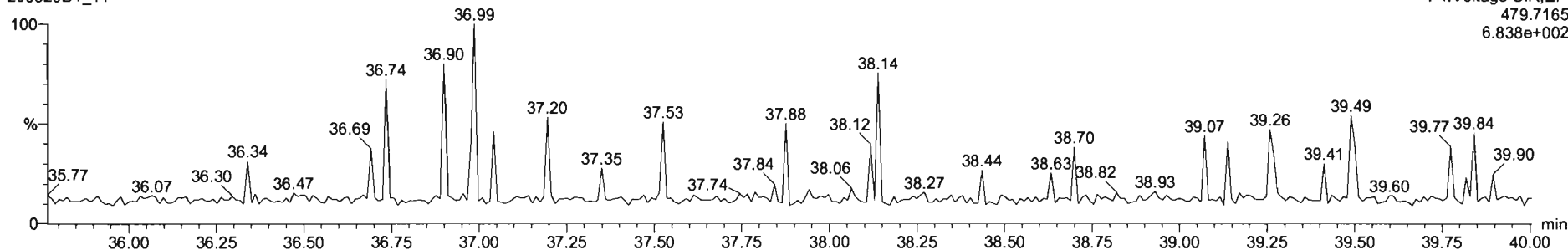


200820D1\_11



DPE4

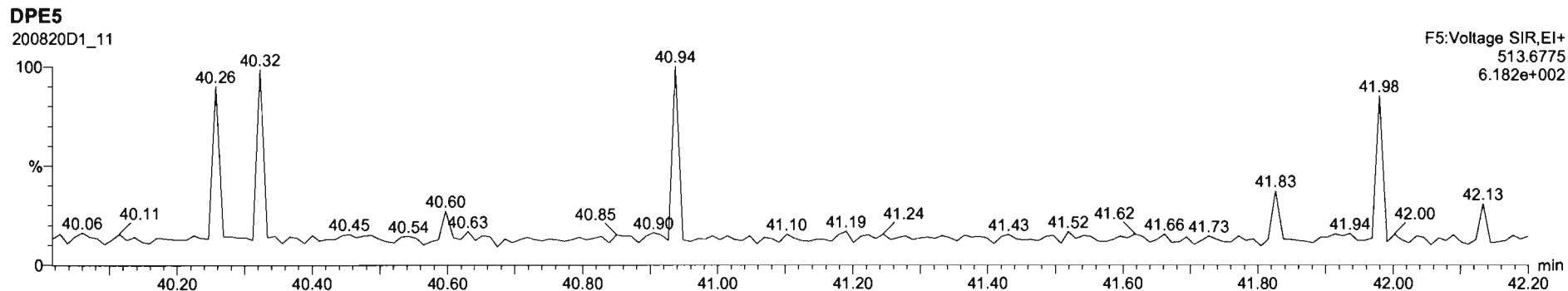
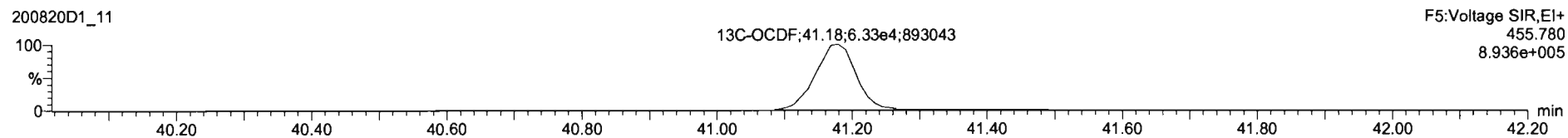
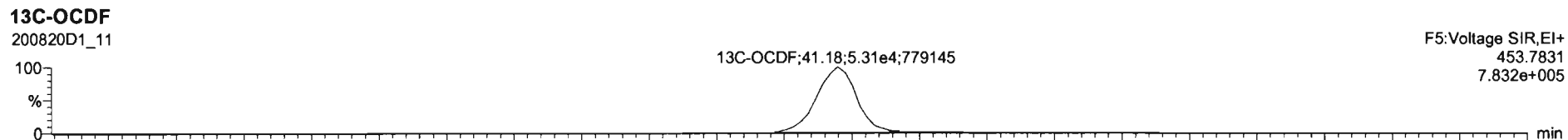
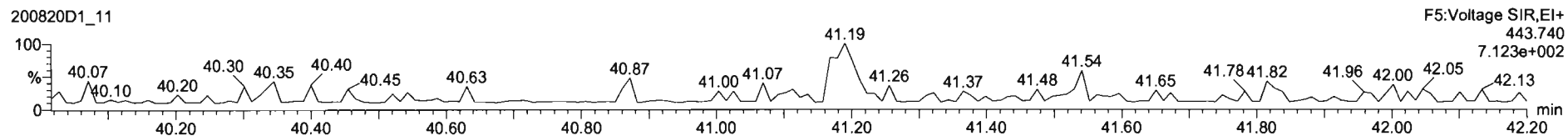
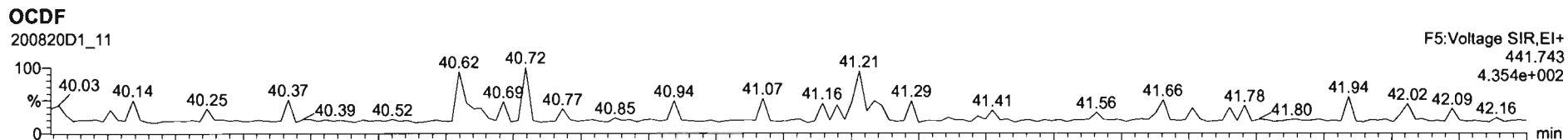
200820D1\_11



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank

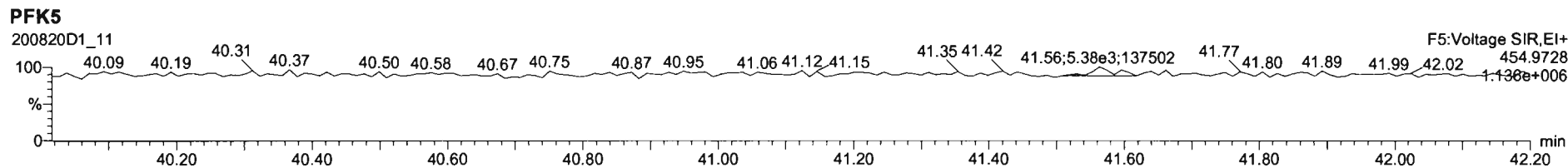
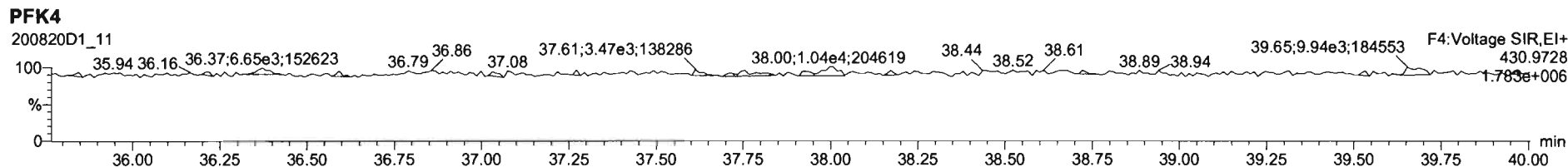
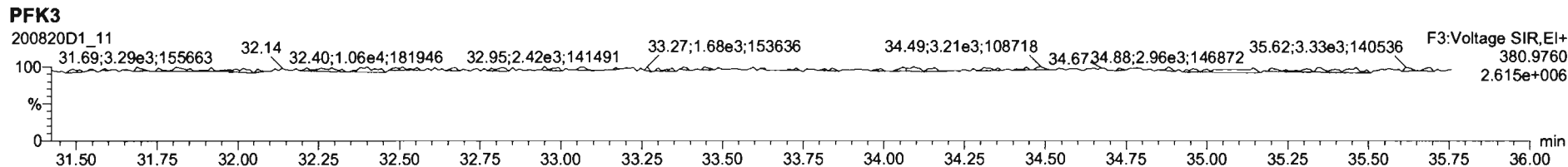
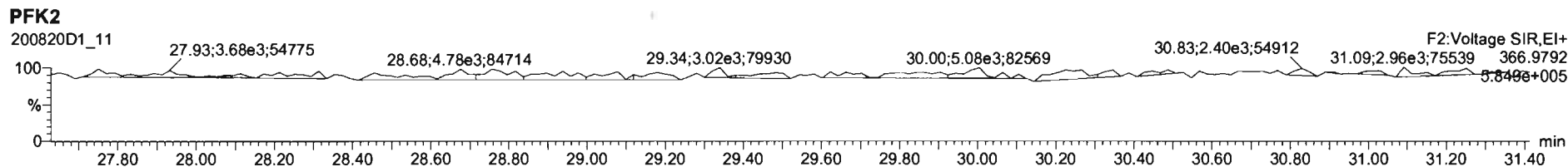
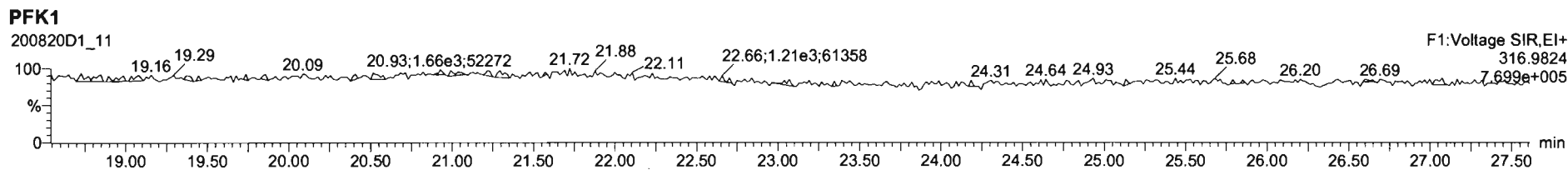




Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_11.qld

Last Altered: Friday, August 21, 2020 10:31:14 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:32:11 Pacific Daylight Time

Name: 200820D1\_11, Date: 20-Aug-2020, Time: 20:27:18, ID: B0F0201-BLK1 Method Blank 10, Description: Method Blank



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 11:29:42 Pacific Daylight Time

*DB 8/21/20 CT 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-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	9.42e3	0.81	NO	1.08	10.000 ✓	26.250	26.25	1.001	1.001	16.103	80.567-158	0.178	16.1
2	2 1,2,3,7,8-PeCDD	3.92e4	0.61	NO	0.991	10.000	30.509	30.51	1.001	1.001	93.308	93.3 70-142	0.243	93.3
3	3 1,2,3,4,7,8-HxCDD	3.37e4	1.24	NO	1.04	10.000	33.804	33.81	1.000	1.000	107.77	108 70-164	0.624	108
4	4 1,2,3,6,7,8-HxCDD	3.42e4	1.27	NO	0.908	10.000	33.915	33.93	1.000	1.000	107.11	107 76-134	0.596	107
5	5 1,2,3,7,8,9-HxCDD	3.45e4	1.23	NO	0.923	10.000	34.234	34.21	1.001	1.000	106.88	107 64-162	0.611	107
6	6 1,2,3,4,6,7,8-HpCDD	2.74e4	0.98	NO	0.926	10.000	37.558	37.57	1.000	1.001	102.72	103 70-140	0.867	103
7	7 OCDD	4.42e4	0.87	NO	0.834	10.000	40.828	40.84	1.000	1.000	237.47	119 78-144	0.803	237
8	8 2,3,7,8-TCDF	1.12e4	0.71	NO	0.882	10.000	25.617	25.61	1.001	1.001	17.802	89.0 75-158	0.144	17.8
9	9 1,2,3,7,8-PeCDF	6.53e4	1.50	NO	0.937	10.000	29.381	29.36	1.001	1.000	103.27	103 80-134	0.257	103
10	10 2,3,4,7,8-PeCDF	6.77e4	1.56	NO	1.03	10.000	30.337	30.31	1.001	1.000	100.49	100 68-160	0.244	100
11	11 1,2,3,4,7,8-HxCDF	4.30e4	1.26	NO	1.07	10.000	32.873	32.88	1.000	1.000	92.459	92.5 72-134	0.489	92.5
12	12 1,2,3,6,7,8-HxCDF	4.55e4	1.22	NO	1.11	10.000	33.014	33.03	1.000	1.001	88.644	88.6 84-130	0.456	88.6
13	13 2,3,4,6,7,8-HxCDF	4.29e4	1.25	NO	1.11	10.000	33.707	33.69	1.001	1.000	93.514	93.5 70-156	0.529	93.5
14	14 1,2,3,7,8,9-HxCDF	3.67e4	1.27	NO	1.12	10.000	34.705	34.73	1.000	1.001	88.870	88.9 78-130	0.671	88.9
15	15 1,2,3,4,6,7,8-HpCDF	3.76e4	1.04	NO	1.15	10.000	36.398	36.38	1.001	1.001	94.270	94.3 82-122	0.799	94.3
16	16 1,2,3,4,7,8,9-HpCDF	3.11e4	1.03	NO	1.25	10.000	38.216	38.23	1.000	1.000	102.43	102 78-138	1.09	102
17	17 OCDF	4.97e4	0.89	NO	0.961	10.000	41.157	41.17	1.000	1.000	183.11	91.6 63-170	0.501	183
18	18 13C-2,3,7,8-TCDD	1.09e5	0.77	NO	1.20	10.000	26.241	26.22	1.026	1.025	208.68	104 20-175	0.981	
19	19 13C-1,2,3,7,8-PeCDD	8.47e4	0.62	NO	0.910	10.000	30.502	30.49	1.193	1.192	215.45	108 21-227	0.520	
20	20 13C-1,2,3,4,7,8-HxCDD	6.02e4	1.30	NO	0.789	10.000	33.789	33.79	1.014	1.014	189.07	94.5 21-193	0.832	
21	21 13C-1,2,3,6,7,8-HxCDD	7.04e4	1.30	NO	0.885	10.000	33.899	33.92	1.017	1.018	196.95	98.5 25-163	0.741	
22	22 13C-1,2,3,7,8,9-HxCDD	7.00e4	1.30	NO	0.888	10.000	34.169	34.20	1.025	1.026	195.18	97.6 21-193	0.738	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.76e4	1.07	NO	0.740	10.000	37.621	37.55	1.129	1.127	192.83	96.4 26-166	1.44	
24	24 13C-OCDD	8.92e4	0.88	NO	0.660	10.000	40.633	40.83	1.219	1.225	334.81	83.7 13-198	0.726	
25	25 13C-2,3,7,8-TCDF	1.43e5	0.78	NO	1.09	10.000	25.321	25.59	0.990	1.001	183.80	91.9 22-152	0.937	
26	26 13C-1,2,3,7,8-PeCDF	1.35e5	1.61	NO	0.857	10.000	29.559	29.36	1.156	1.148	220.70	110 21-192	1.44	
27	27 13C-2,3,4,7,8-PeCDF	1.31e5	1.71	NO	0.796	10.000	30.461	30.31	1.191	1.185	230.99	115 13-328	1.55	
28	28 13C-1,2,3,4,7,8-HxCDF	8.66e4	0.49	NO	1.02	10.000	32.923	32.87	0.988	0.987	210.40	105 19-202	1.05	
29	29 13C-1,2,3,6,7,8-HxCDF	9.22e4	0.49	NO	1.00	10.000	33.056	33.00	0.992	0.990	227.65	114 21-159	1.07	
30	30 13C-2,3,4,6,7,8-HxCDF	8.24e4	0.49	NO	0.936	10.000	33.626	33.67	1.009	1.010	218.23	109 22-176	1.14	
31	31 13C-1,2,3,7,8,9-HxCDF	7.37e4	0.51	NO	0.889	10.000	34.702	34.71	1.041	1.041	205.09	103 17-205	1.20	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time

Printed: Friday, August 21, 2020 11:29:42 Pacific Daylight Time

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-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	6.92e4	0.43	NO	0.849	10.000	36.222	36.36	1.087	1.091	201.76	101 <i>21-158</i>	1.20	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.84e4	0.41	NO	0.624	10.000	38.221	38.22	1.147	1.147	192.23	96.1 <i>20-186</i>	1.64	
34	34 13C-OCDF	1.13e5	0.85	NO	0.693	10.000	40.787	41.16	1.224	1.235	403.44	101 <i>13-198</i>	0.783	
35	35 37Cl-2,3,7,8-TCDD	4.00e4			1.28	10.000	26.239	26.23	1.026	1.026	72.526	90.7 <i>31-191</i>	0.165	
36	36 13C-1,2,3,4-TCDD	8.64e4	0.76	NO	1.00	10.000	25.550	25.58	1.000	1.000	200.00	100	1.18	
37	37 13C-1,2,3,4-TCDF	1.43e5	0.82	NO	1.00	10.000	24.250	24.29	1.000	1.000	200.00	100	1.02	
38	38 13C-1,2,3,4,6,9-HxCDF	8.08e4	0.49	NO	1.00	10.000	33.300	33.32	1.000	1.000	200.00	100	1.07	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

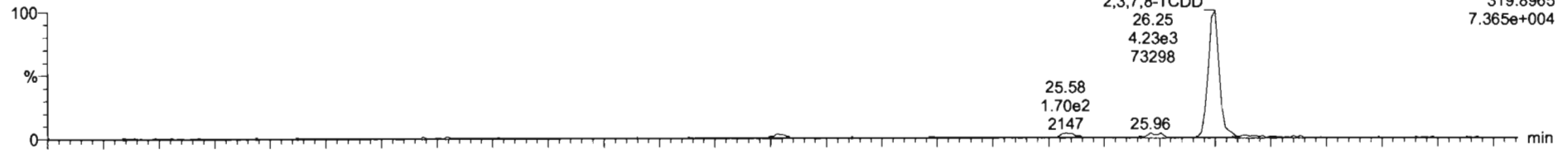
Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

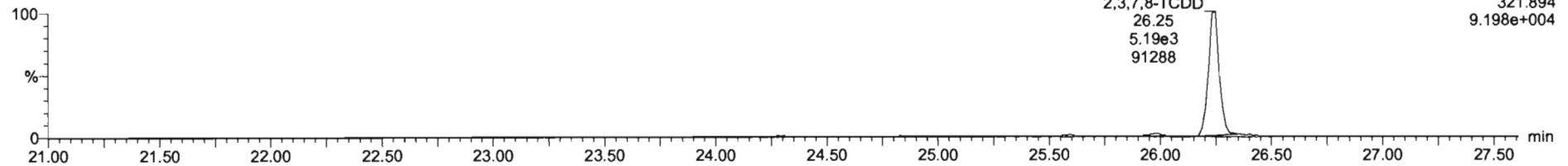
Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

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

200820D1\_9

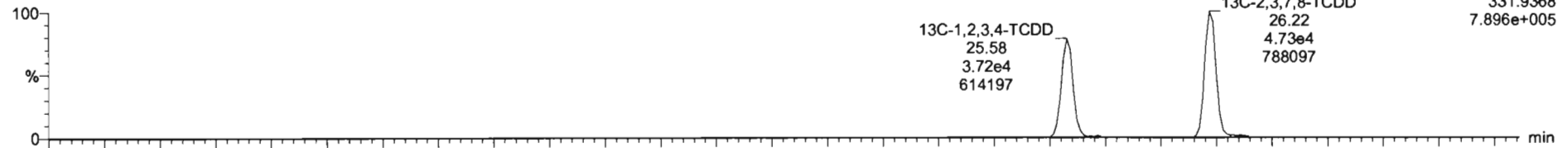


200820D1\_9

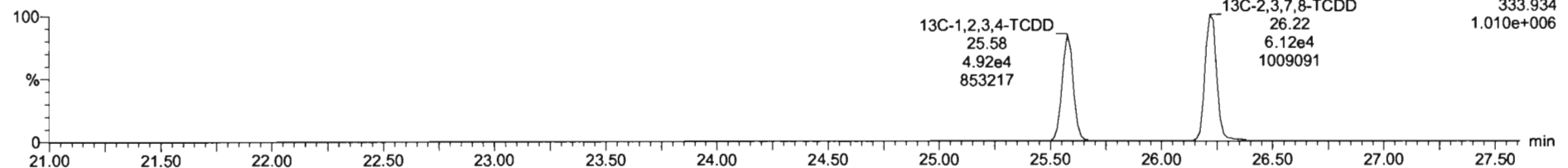


**13C-2,3,7,8-TCDD**

200820D1\_9



200820D1\_9



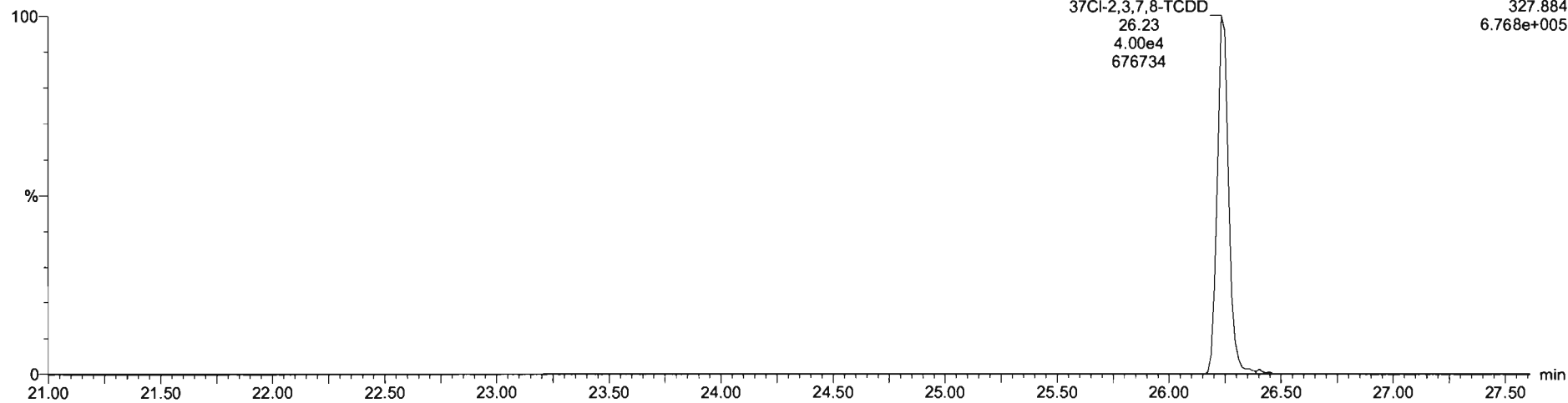
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

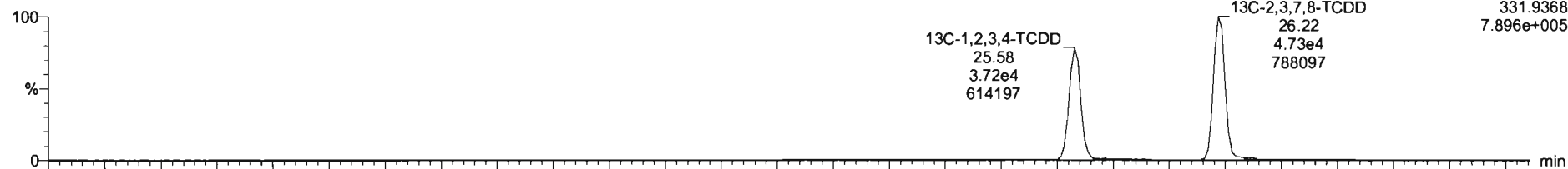
**37Cl-2,3,7,8-TCDD**

200820D1\_9

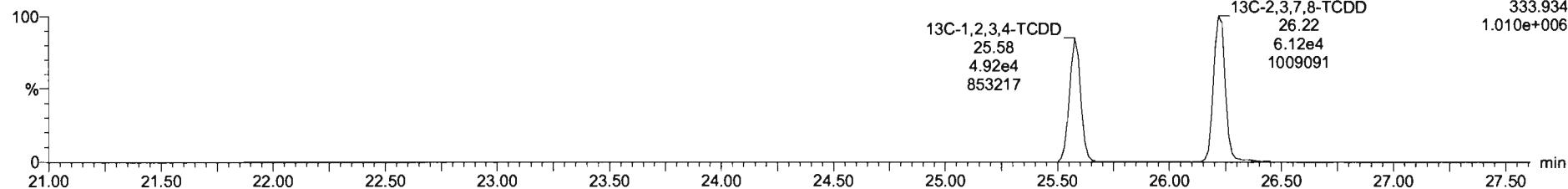


**13C-1,2,3,4-TCDD**

200820D1\_9



200820D1\_9



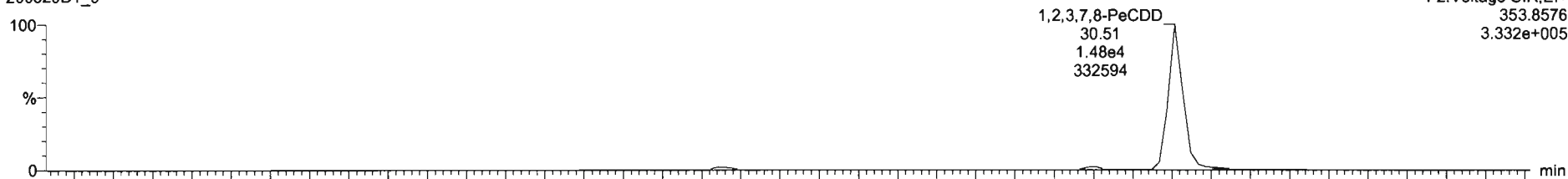
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

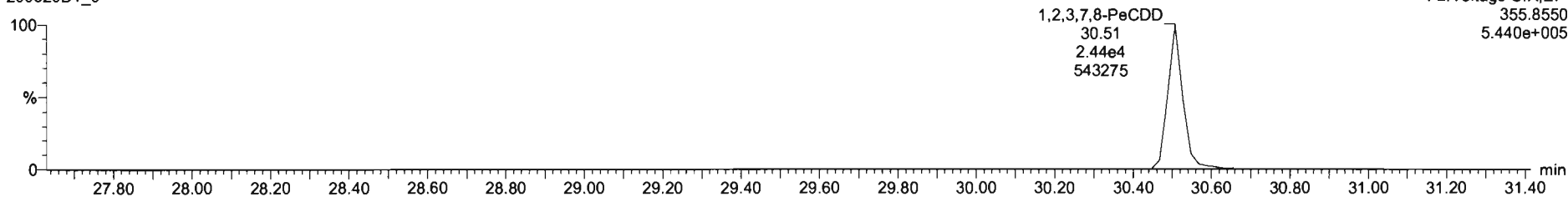
Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

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

200820D1\_9

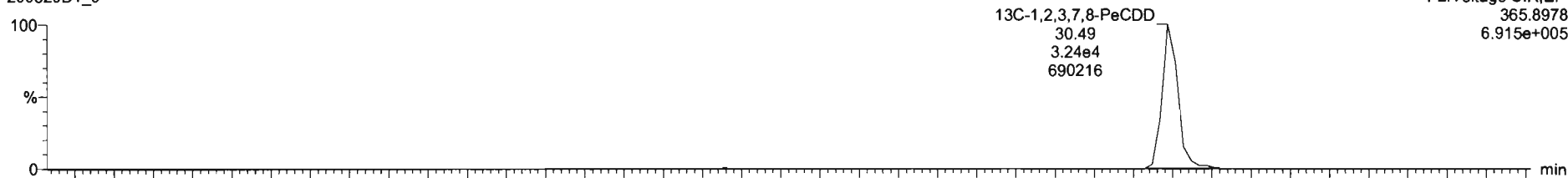


200820D1\_9

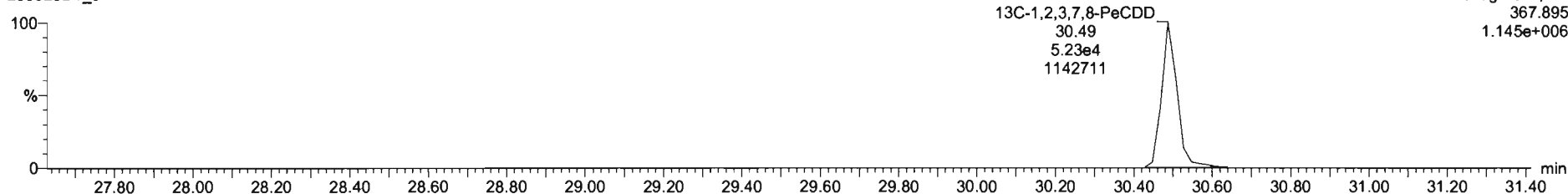


**13C-1,2,3,7,8-PeCDD**

200820D1\_9



200820D1\_9



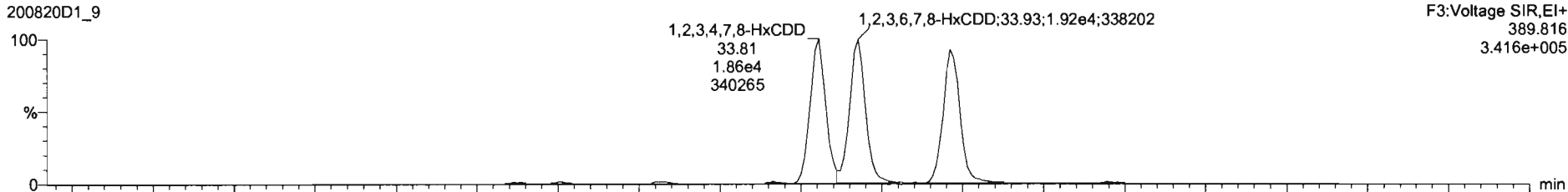
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

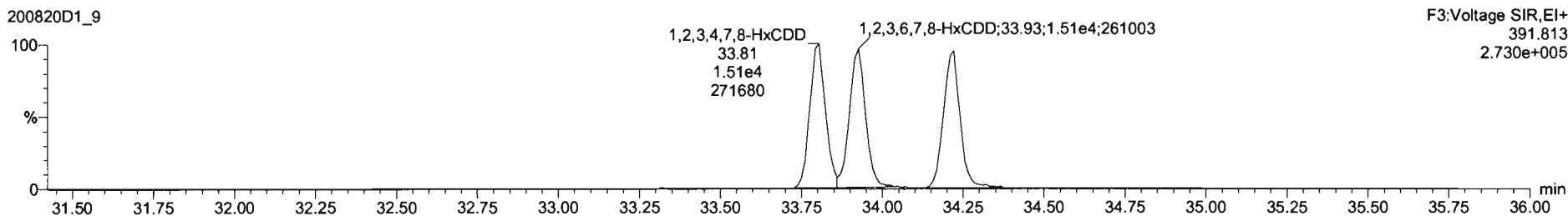
Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

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

200820D1\_9

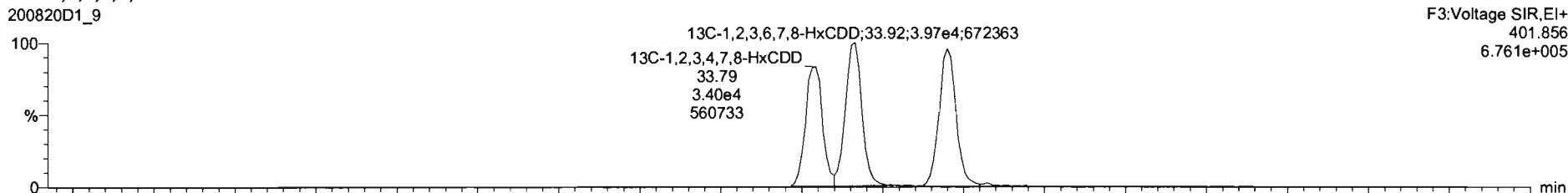


200820D1\_9

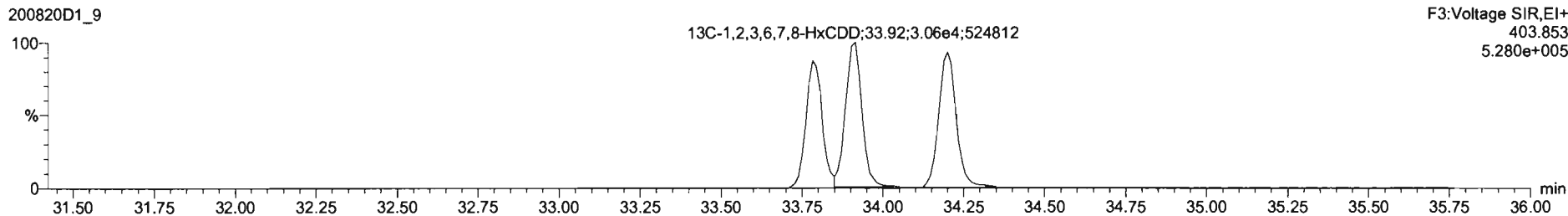


**13C-1,2,3,4,7,8-HxCDD**

200820D1\_9



200820D1\_9



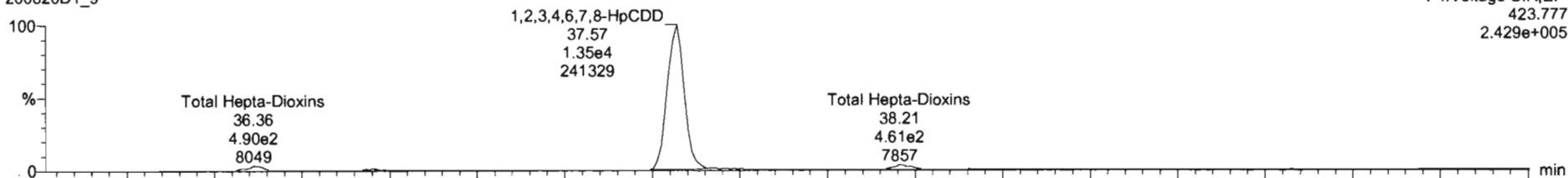
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

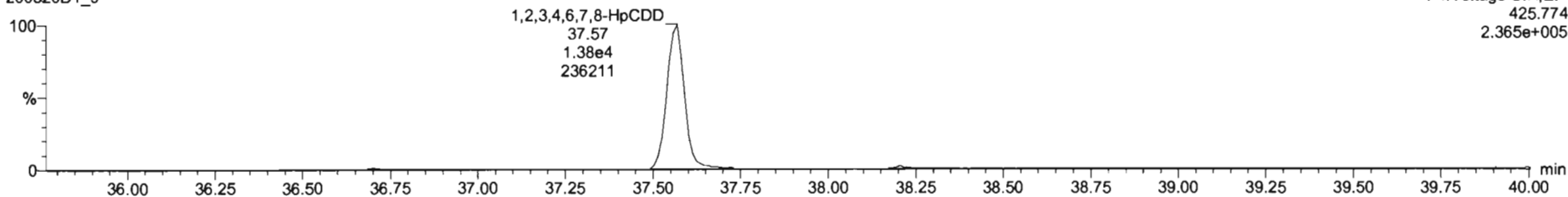
Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

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

200820D1\_9

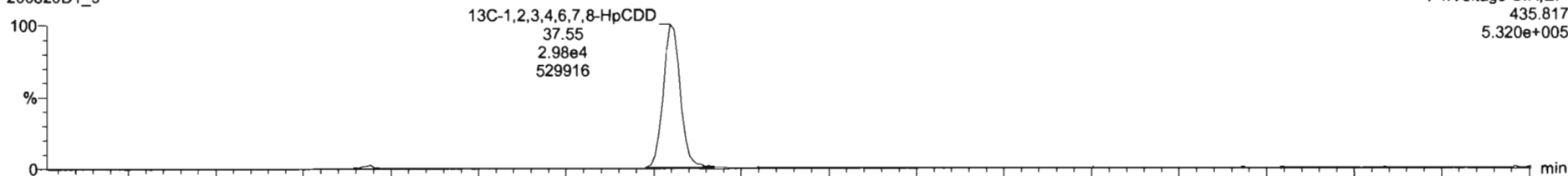


200820D1\_9

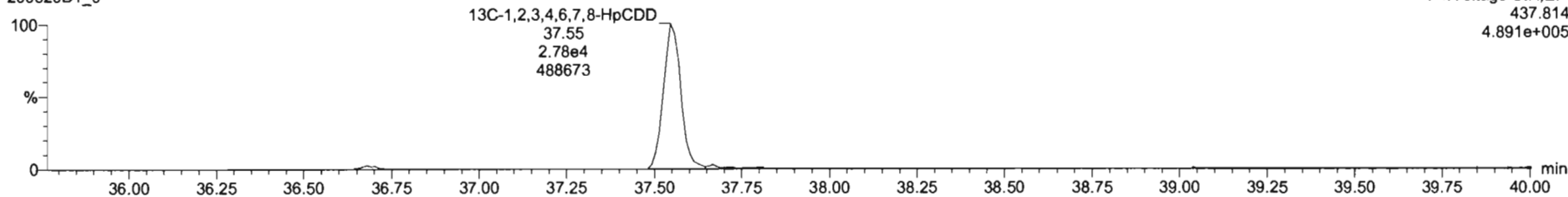


13C-1,2,3,4,6,7,8-HpCDD

200820D1\_9



200820D1\_9

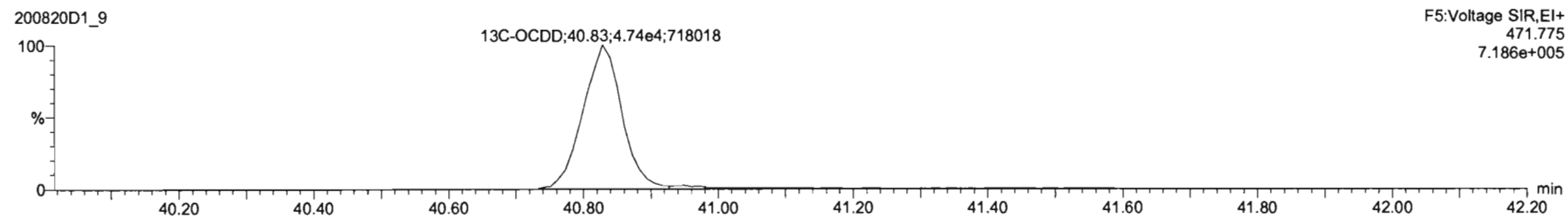
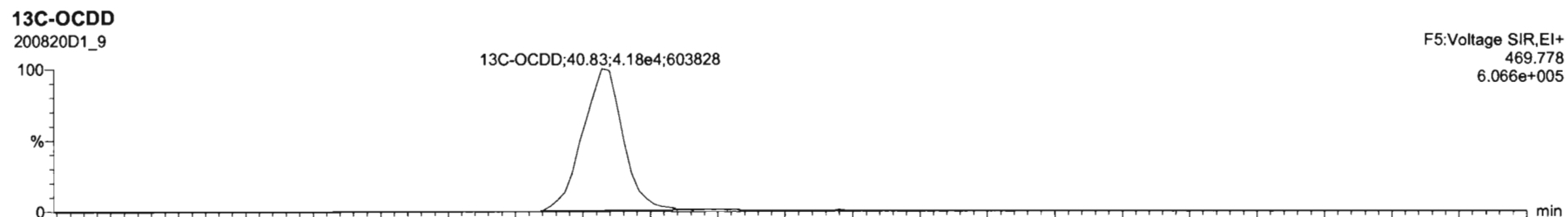
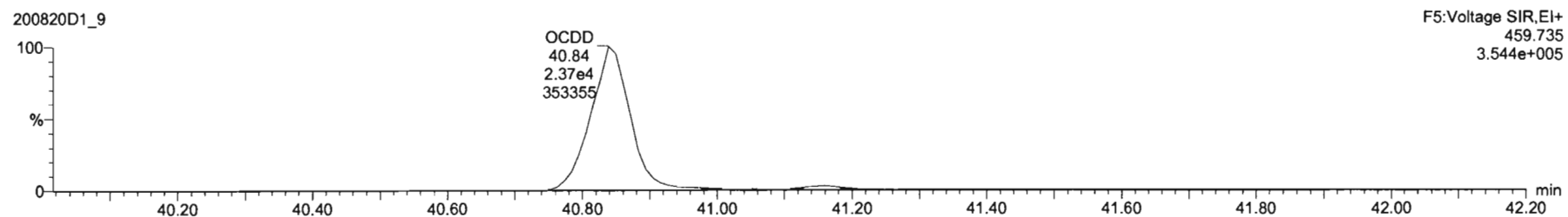
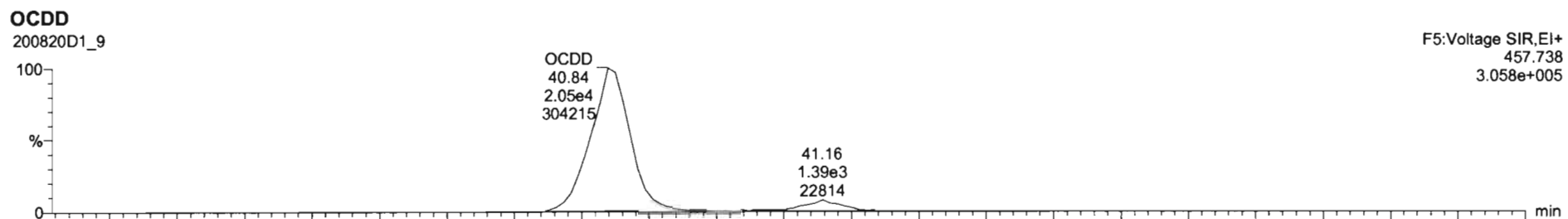




Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR



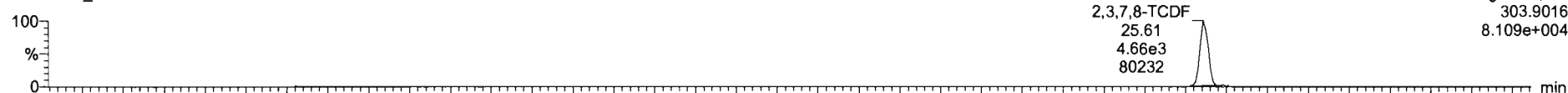
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

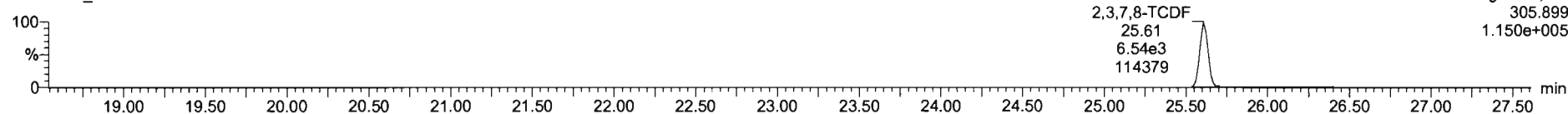
Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

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

200820D1\_9

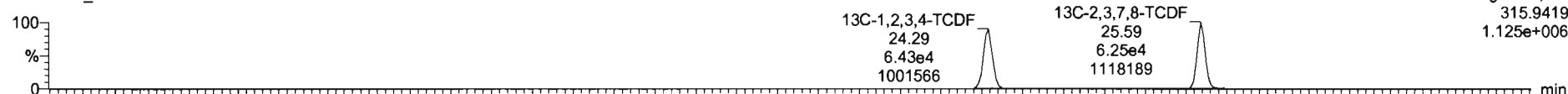


200820D1\_9

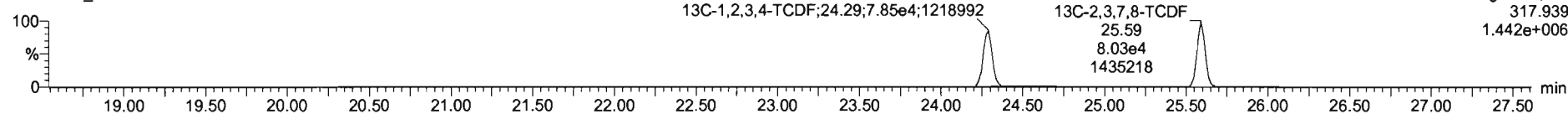


**13C-2,3,7,8-TCDF**

200820D1\_9

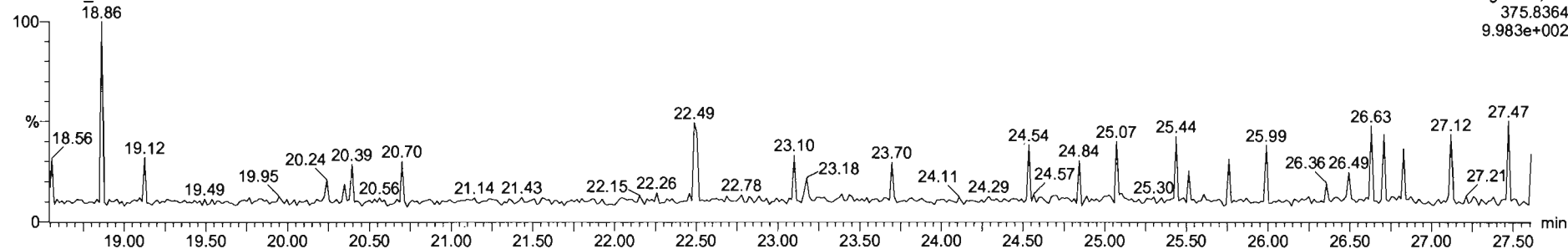


200820D1\_9



**DPE1**

200820D1\_9

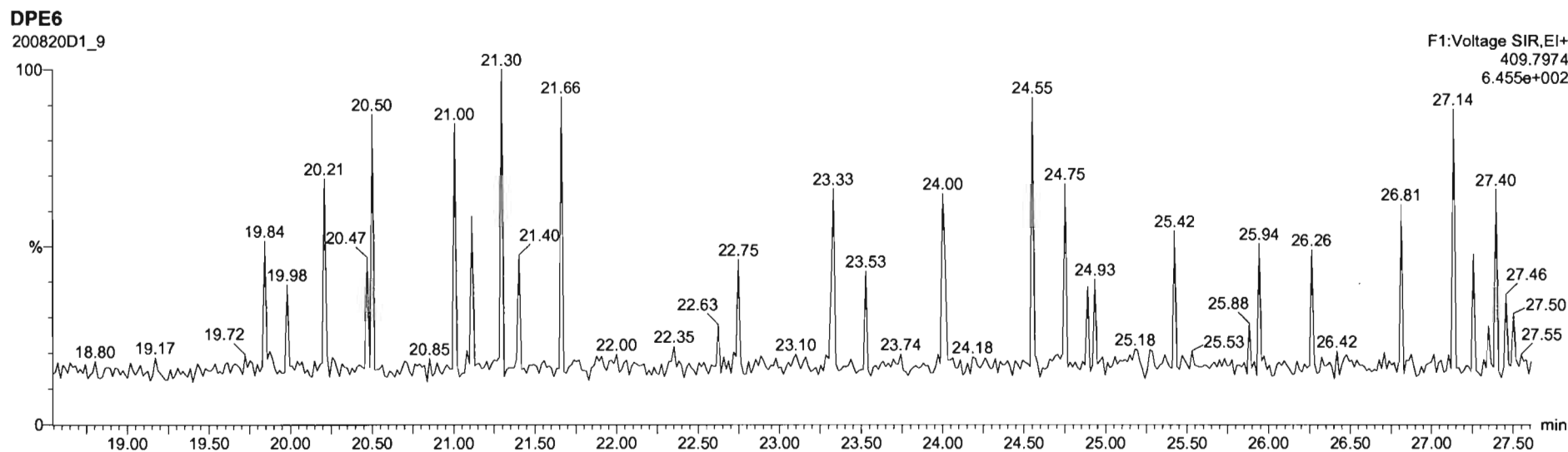
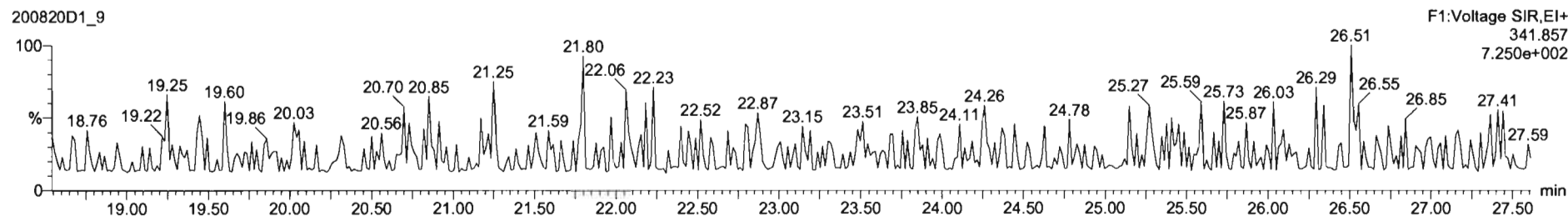
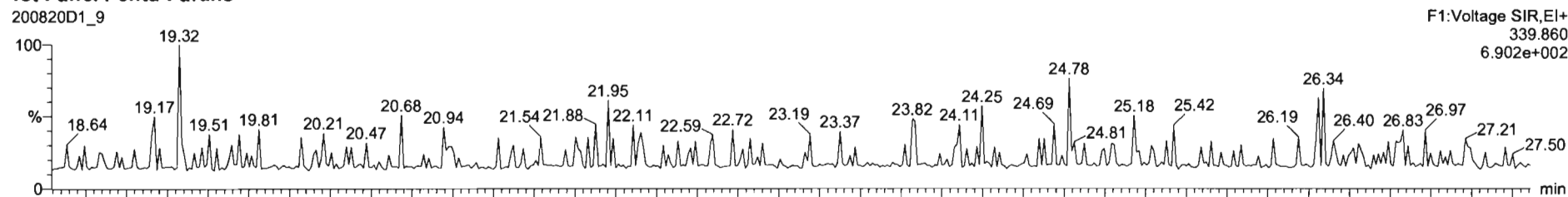


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

1st Func. Penta-Furans

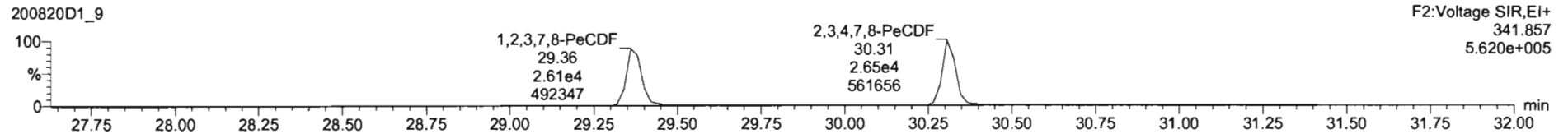
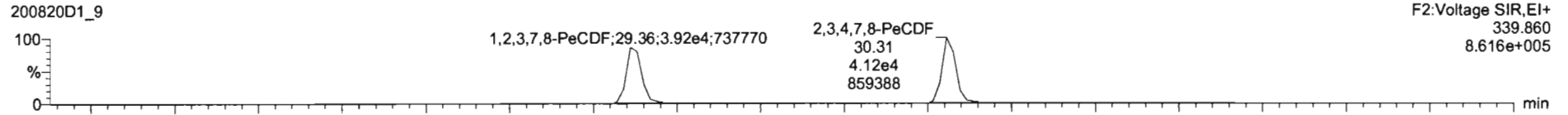


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

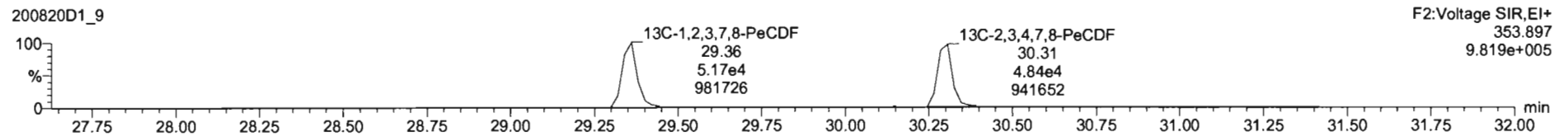
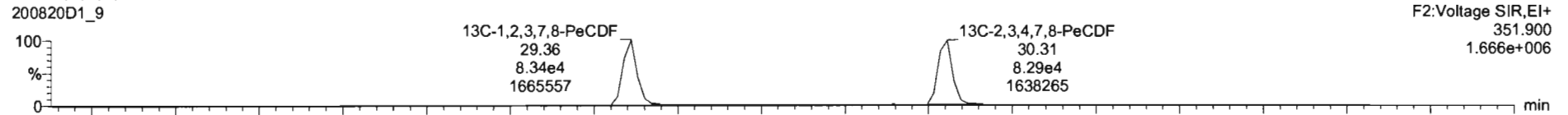
Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

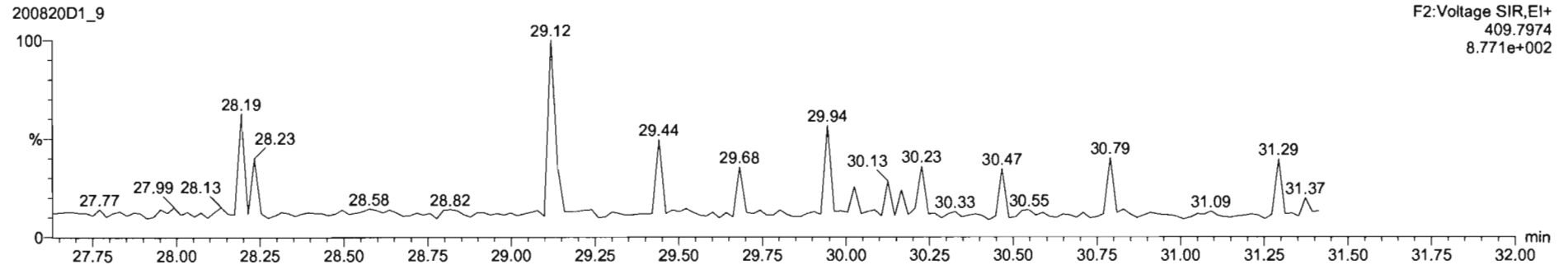
**1,2,3,7,8-PeCDF**



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



**DPE2**

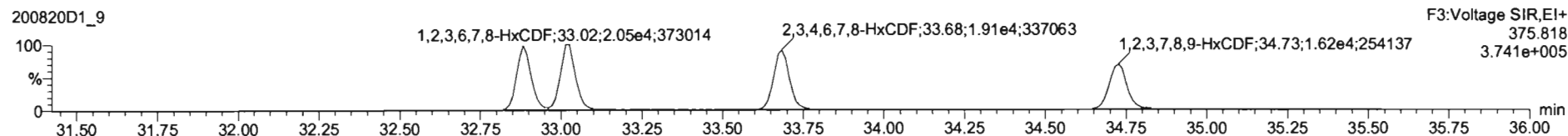
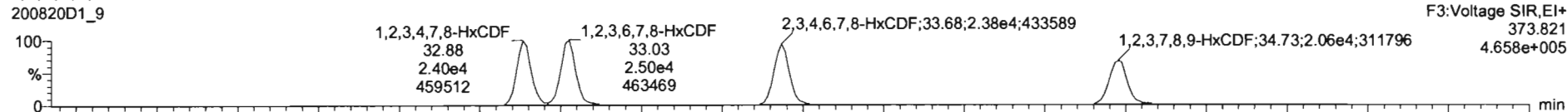


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

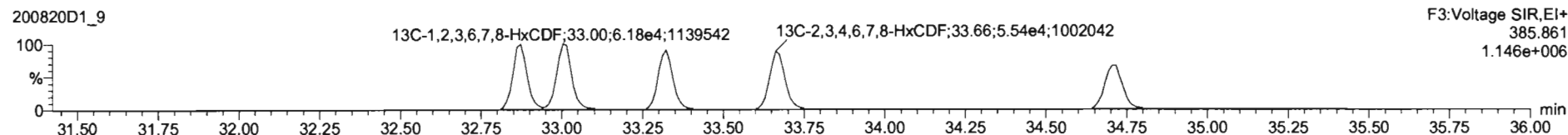
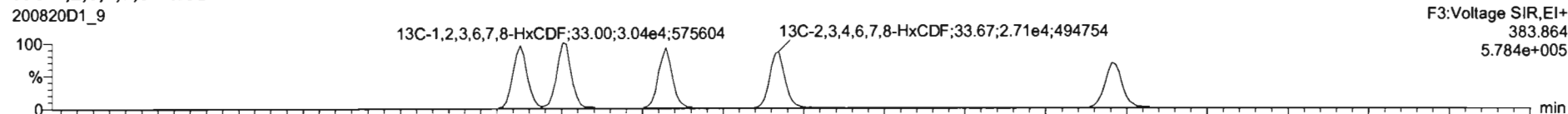
Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

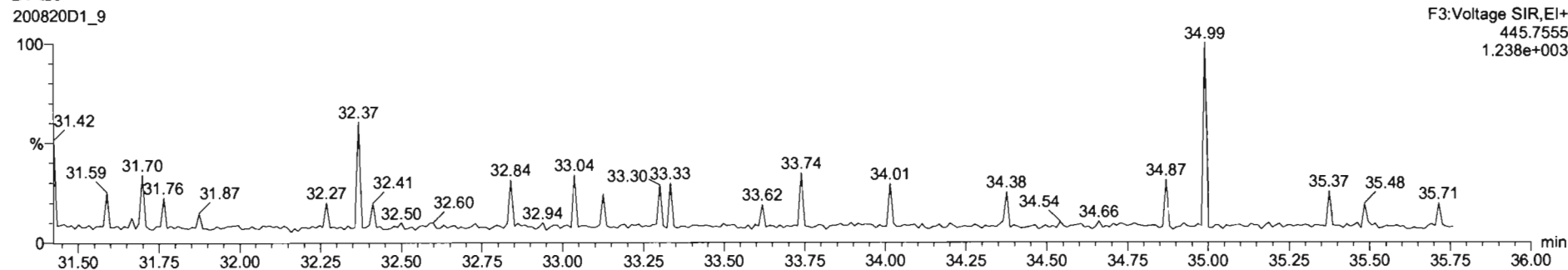
**1,2,3,4,7,8-HxCDF**



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



**DPE3**

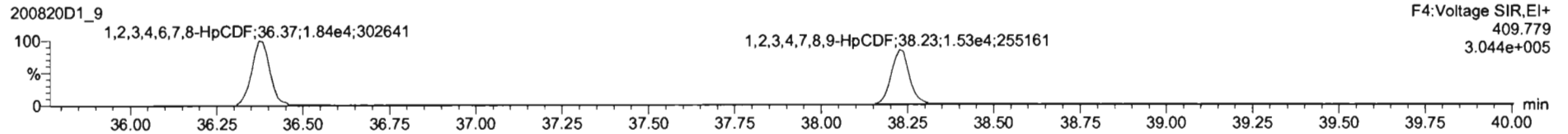
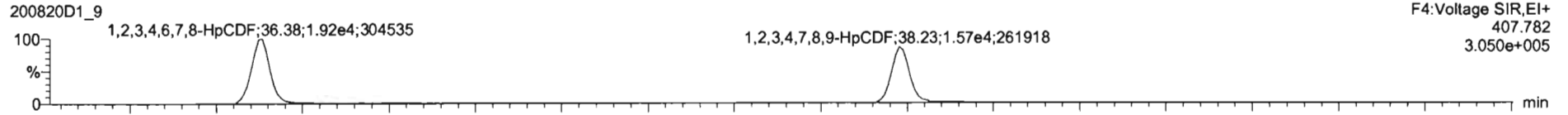


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

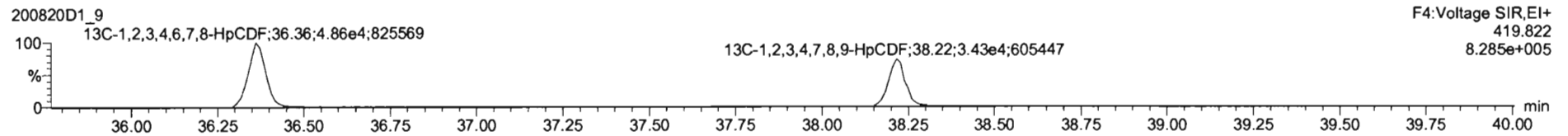
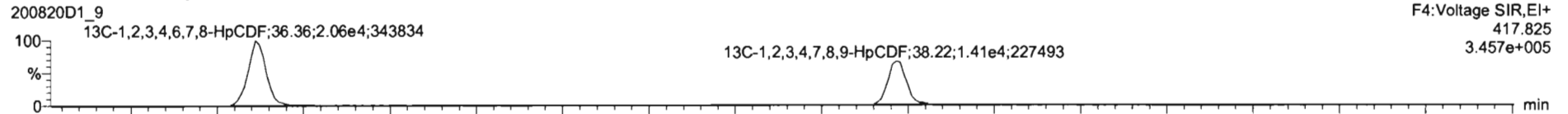
Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR

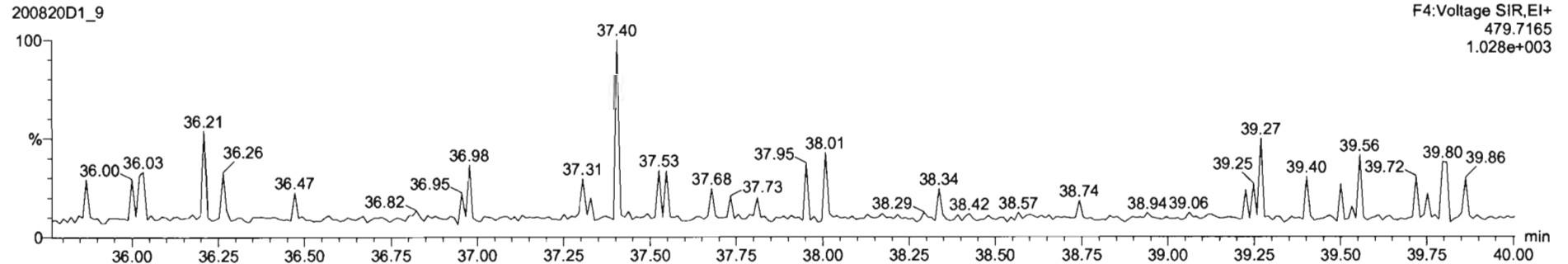
**1,2,3,4,6,7,8-HpCDF**



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



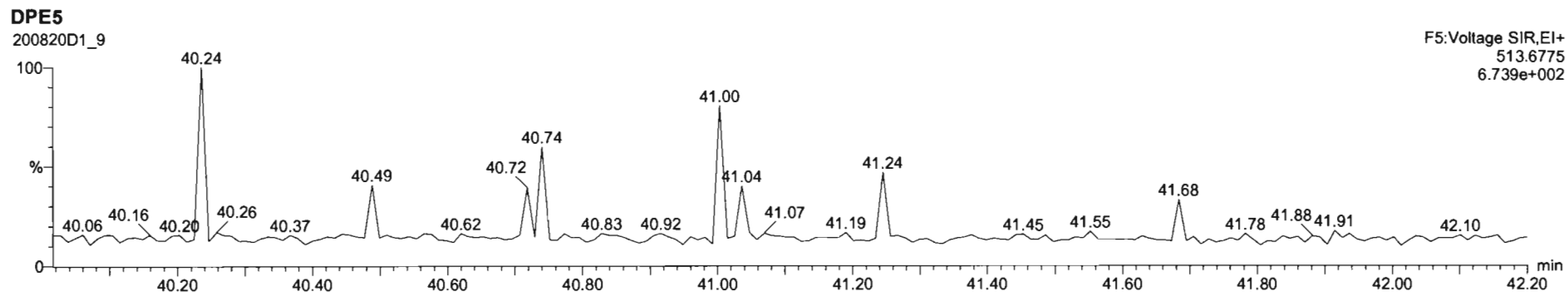
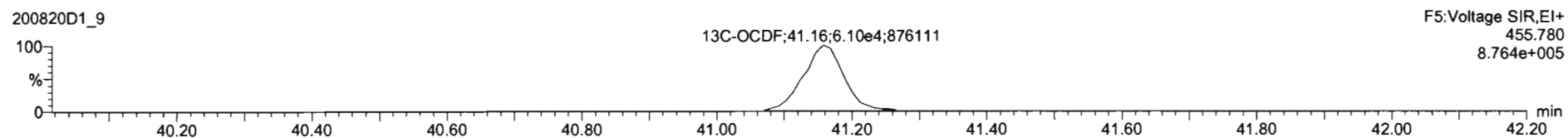
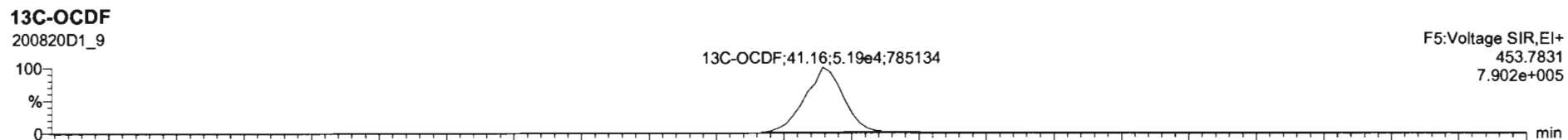
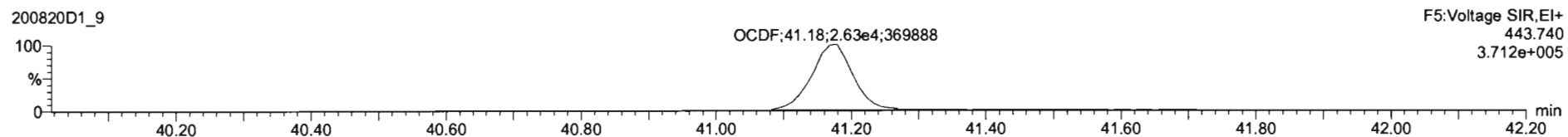
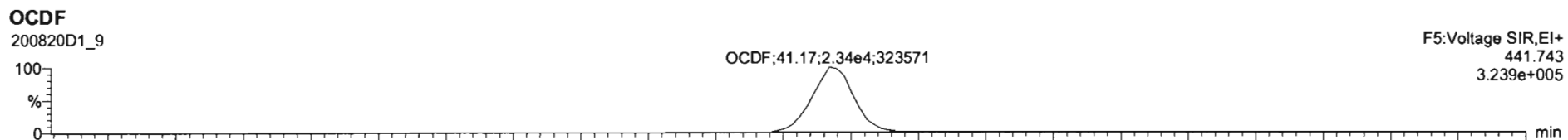
**DPE4**



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

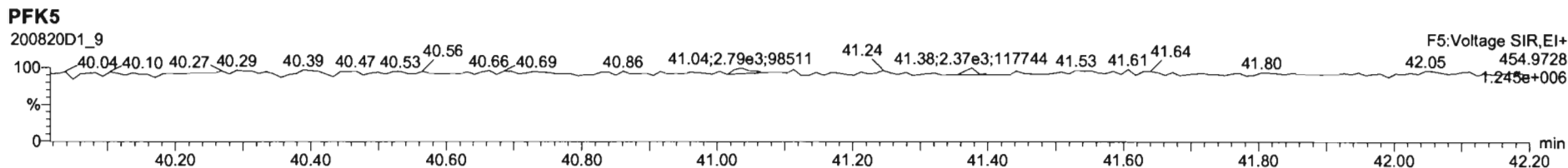
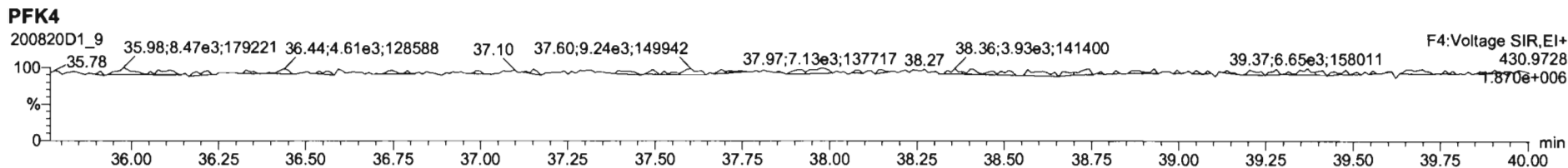
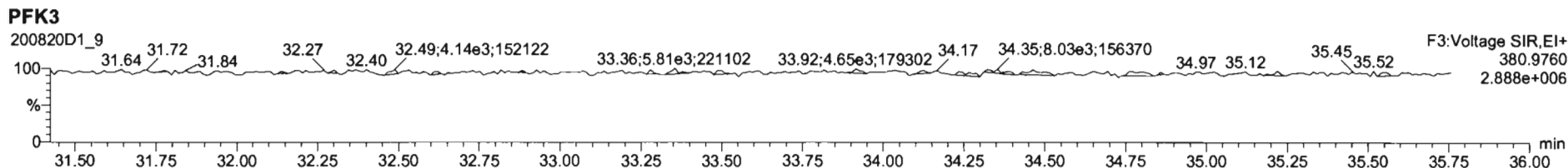
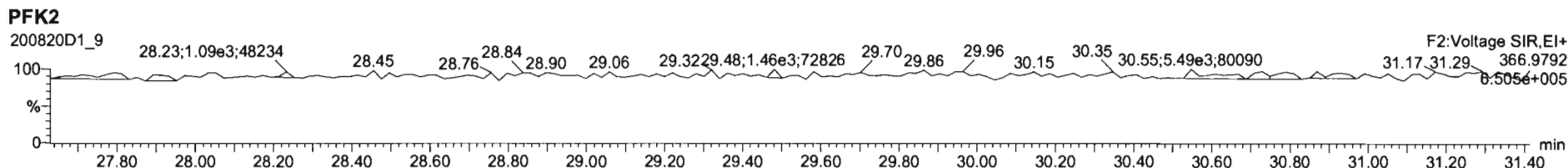
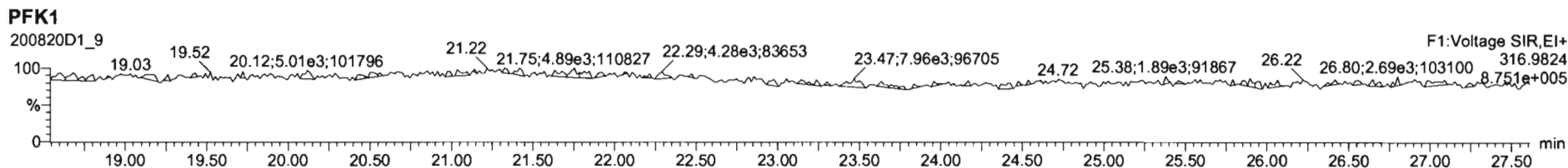
Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_9.qld

Last Altered: Friday, August 21, 2020 10:30:15 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:31:07 Pacific Daylight Time

Name: 200820D1\_9, Date: 20-Aug-2020, Time: 18:56:28, ID: B0F0201-BS1 OPR 10, Description: OPR





Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 13:33:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 13:34:39 Pacific Daylight Time

*DB 8/21/20 CT 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	1.08	10.014	26.250		1.001				0.148	
2	1,2,3,7,8-PeCDD			NO	0.991	10.014	30.508		1.001				0.131	
3	1,2,3,4,7,8-HxCDD			NO	1.04	10.014	33.782		1.000				0.415	
4	1,2,3,6,7,8-HxCDD	1.32e2	1.55	YES	0.908	10.014	33.893	33.89	1.000	1.000	0.36289		0.428	0.320
5	1,2,3,7,8,9-HxCDD			NO	0.923	10.014	34.223		1.001				0.442	
6	1,2,3,4,6,7,8-HpCDD	2.31e3	1.02	NO	0.926	10.014	37.547	37.56	1.000	1.001	7.4343		0.488	7.43
7	OCDD	1.40e4	0.89	NO	0.834	10.014	40.817	40.83	1.000	1.000	62.401		0.393	62.4
8	2,3,7,8-TCDF	1.75e2	0.60	YES	0.882	10.014	25.618	25.61	1.001	1.001	0.24855		0.144	0.215
9	1,2,3,7,8-PeCDF	1.07e2	1.55	NO	0.937	10.014	29.361	29.36	1.001	1.001	0.15234		0.0579	0.152
10	2,3,4,7,8-PeCDF	1.12e2	0.88	YES	1.03	10.014	30.316	30.31	1.001	1.001	0.15550		0.0516	0.120
11	1,2,3,4,7,8-HxCDF	1.36e2	1.35	NO	1.07	10.014	32.861	32.87	1.000	1.000	0.26073		0.201	0.261
12	1,2,3,6,7,8-HxCDF			NO	1.11	10.014	33.003		1.000				0.180	
13	2,3,4,6,7,8-HxCDF			NO	1.11	10.014	33.686		1.001				0.205	
14	1,2,3,7,8,9-HxCDF			NO	1.12	10.014	34.694		1.000				0.255	
15	1,2,3,4,6,7,8-HpCDF	3.58e2	0.91	NO	1.15	10.014	36.387	36.34	1.001	1.000	0.75280		0.125	0.753
16	1,2,3,4,7,8,9-HpCDF			NO	1.25	10.014	38.205		1.000				0.152	
17	OCDF	6.10e2	0.83	NO	0.961	10.014	41.146	41.16	1.000	1.000	1.8789		0.208	1.88
18	13C-2,3,7,8-TCDD	1.18e5	0.76	NO	1.20	10.014	26.241	26.22	1.026	1.025	195.84	98.1	0.738	
19	13C-1,2,3,7,8-PeCDD	9.39e4	0.63	NO	0.910	10.014	30.502	30.49	1.193	1.192	206.76	104	0.477	
20	13C-1,2,3,4,7,8-HxCDD	6.92e4	1.31	NO	0.789	10.014	33.777	33.77	1.014	1.014	189.12	94.7	0.730	
21	13C-1,2,3,6,7,8-HxCDD	7.99e4	1.24	NO	0.885	10.014	33.887	33.89	1.017	1.017	194.65	97.5	0.650	
22	13C-1,2,3,7,8,9-HxCDD	8.10e4	1.27	NO	0.888	10.014	34.157	34.19	1.025	1.026	196.50	98.4	0.648	
23	13C-1,2,3,4,6,7,8-HpCDD	6.71e4	1.10	NO	0.740	10.014	37.608	37.54	1.129	1.127	195.56	97.9	1.68	
24	13C-OCDD	1.08e5	0.92	NO	0.660	10.014	40.619	40.82	1.219	1.225	351.60	88.0	0.869	
25	13C-2,3,7,8-TCDF	1.59e5	0.76	NO	1.09	10.014	25.320	25.59	0.990	1.001	166.61	83.4	0.669	
26	13C-1,2,3,7,8-PeCDF	1.50e5	1.62	NO	0.857	10.014	29.558	29.34	1.156	1.147	199.78	100	0.539	
27	13C-2,3,4,7,8-PeCDF	1.41e5	1.62	NO	0.796	10.014	30.461	30.29	1.191	1.184	201.88	101	0.580	
28	13C-1,2,3,4,7,8-HxCDF	9.70e4	0.48	NO	1.02	10.014	32.911	32.86	0.988	0.986	204.87	103	1.25	
29	13C-1,2,3,6,7,8-HxCDF	1.02e5	0.50	NO	1.00	10.014	33.045	32.99	0.992	0.990	218.13	109	1.28	
30	13C-2,3,4,6,7,8-HxCDF	9.32e4	0.48	NO	0.936	10.014	33.614	33.65	1.009	1.010	214.64	107	1.37	
31	13C-1,2,3,7,8,9-HxCDF	8.78e4	0.49	NO	0.889	10.014	34.690	34.69	1.041	1.042	212.67	106	1.44	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 13:33:27 Pacific Daylight Time

Printed: Friday, August 21, 2020 13:34:39 Pacific Daylight Time

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

#	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	8.25e4	0.43	NO	0.849	10.014	36.209	36.35	1.087	1.091	209.20	105	1.11	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.68e4	0.41	NO	0.624	10.014	38.208	38.21	1.147	1.147	196.38	98.3	1.51	
34	34 13C-OCDF	1.35e5	0.90	NO	0.693	10.014	40.773	41.15	1.224	1.235	419.11	105	0.797	
35	35 37Cl-2,3,7,8-TCDD	4.37e4			1.28	10.014	26.238	26.23	1.026	1.026	68.633	85.9	0.125	
36	36 13C-1,2,3,4-TCDD	9.96e4	0.80	NO	1.00	10.014	25.550	25.58	1.000	1.000	199.71	100	0.888	
37	37 13C-1,2,3,4-TCDF	1.75e5	0.79	NO	1.00	10.014	24.250	24.28	1.000	1.000	199.71	100	0.728	
38	38 13C-1,2,3,4,6,9-HxCDF	9.27e4	0.49	NO	1.00	10.014	33.300	33.31	1.000	1.000	199.71	100	1.28	
39	39 Total Tetra-Dioxins				1.08	10.014	24.620		0.000				0.0982	
40	40 Total Penta-Dioxins				0.991	10.014	29.960		0.000				0.0486	
41	41 Total Hexa-Dioxins				0.908	10.014	33.635		0.000		1.2126		0.450	2.30
42	42 Total Hepta-Dioxins				0.926	10.014	37.640		0.000		15.347		0.488	15.3
43	43 Total Tetra-Furans				0.882	10.014	23.610		0.000		0.16083		0.144	0.376
44	44 1st Func. Penta-Furans				0.937	10.014	26.750		0.000		0.37313		0.0483	0.373
45	45 Total Penta-Furans				0.937	10.014	29.275		0.000		0.54126		0.0573	0.661
46	46 Total Hexa-Furans				1.11	10.014	33.555		0.000		0.78475		0.208	1.20
47	47 Total Hepta-Furans				1.15	10.014	37.835		0.000		2.2683		0.142	2.27

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 13:33:27 Pacific Daylight Time

Printed: Friday, August 21, 2020 13:34:39 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.13	4.380e3	4.077e3	2.274e2	1.958e2	1.16	NO	4.232e2	1.2126	1.2126	0.450
2	Total Hexa-Dioxins	33.02	6.026e3	3.495e3	1.939e2	1.200e2	1.62	YES	0.000e0	0.00000	0.77009	0.450
3	1,2,3,6,7,8-HxCDD	33.89	1.397e3	1.023e3	8.041e1	5.196e1	1.55	YES	1.324e2	0.00000	0.32007	0.428

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.68	2.258e4	2.161e4	1.227e3	1.235e3	0.99	NO	2.462e3	7.9125	7.9125	0.488
2	1,2,3,4,6,7,8-HpCDD	37.56	1.954e4	1.977e4	1.166e3	1.147e3	1.02	NO	2.313e3	7.4343	7.4343	0.488

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	24.75	9.790e2	9.310e2	4.978e1	6.288e1	0.79	NO	1.127e2	0.16083	0.16083	0.144
2	2,3,7,8-TCDF	25.61	1.316e3	1.873e3	6.545e1	1.094e2	0.60	YES	1.748e2	0.00000	0.21476	0.144

**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	2.807e3	1.746e3	1.516e2	1.027e2	1.48	NO	2.543e2	0.37313	0.37313	0.0483

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 13:33:27 Pacific Daylight Time

Printed: Friday, August 21, 2020 13:34:39 Pacific Daylight Time

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.43	1.328e3	7.760e2	9.918e1	6.595e1	1.50	NO	1.651e2	0.24231	0.24231	0.0573
2	1,2,3,7,8-PeCDF	29.36	8.780e2	8.350e2	6.508e1	4.202e1	1.55	NO	1.071e2	0.15234	0.15234	0.0579
3	Total Penta-Furans	29.58	1.176e3	8.440e2	5.912e1	4.079e1	1.45	NO	9.992e1	0.14661	0.14661	0.0573
4	2,3,4,7,8-PeCDF	30.31	8.940e2	1.175e3	5.257e1	5.986e1	0.88	YES	1.124e2	0.00000	0.11961	0.0516

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.58	1.033e3	1.241e3	4.156e1	4.902e1	0.85	YES	0.000e0	0.00000	0.14208	0.208
2	Total Hexa-Furans	31.77	2.601e3	1.377e3	1.318e2	6.419e1	2.05	YES	0.000e0	0.00000	0.27210	0.208
3	Total Hexa-Furans	32.38	3.494e3	3.596e3	1.504e2	1.265e2	1.19	NO	2.769e2	0.52402	0.52402	0.208
4	1,2,3,4,7,8-HxCDF	32.87	1.573e3	1.241e3	7.814e1	5.772e1	1.35	NO	1.359e2	0.26073	0.26073	0.201

**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	36.34	2.838e3	2.887e3	1.711e2	1.874e2	0.91	NO	3.585e2	0.75280	0.75280	0.125
2	Total Hepta-Furans	36.94	5.392e3	5.733e3	3.036e2	3.059e2	0.99	NO	6.095e2	1.5155	1.5155	0.142

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

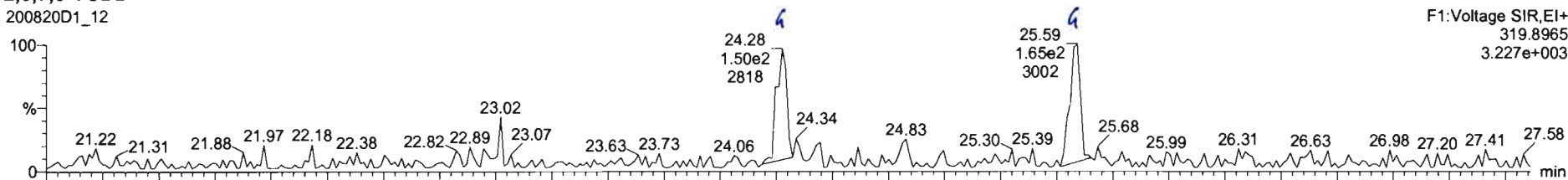
Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

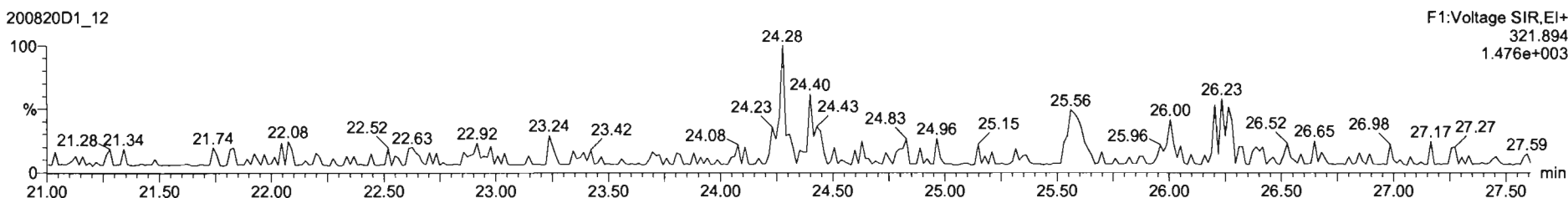
Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

2,3,7,8-TCDD

200820D1\_12

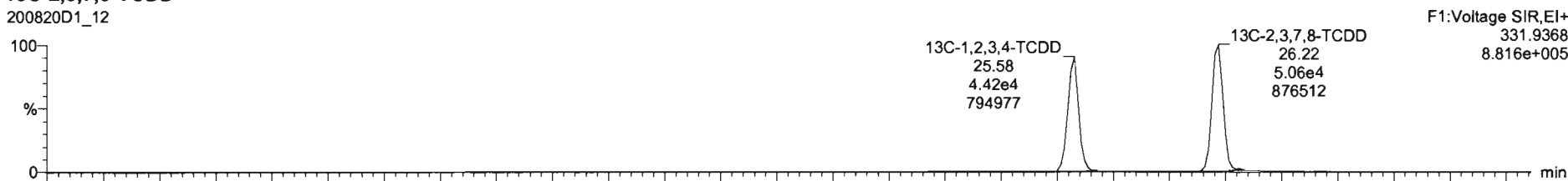


200820D1\_12

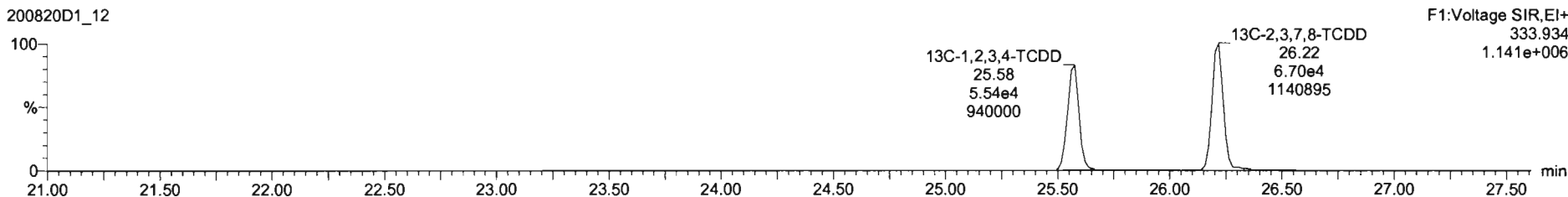


13C-2,3,7,8-TCDD

200820D1\_12



200820D1\_12



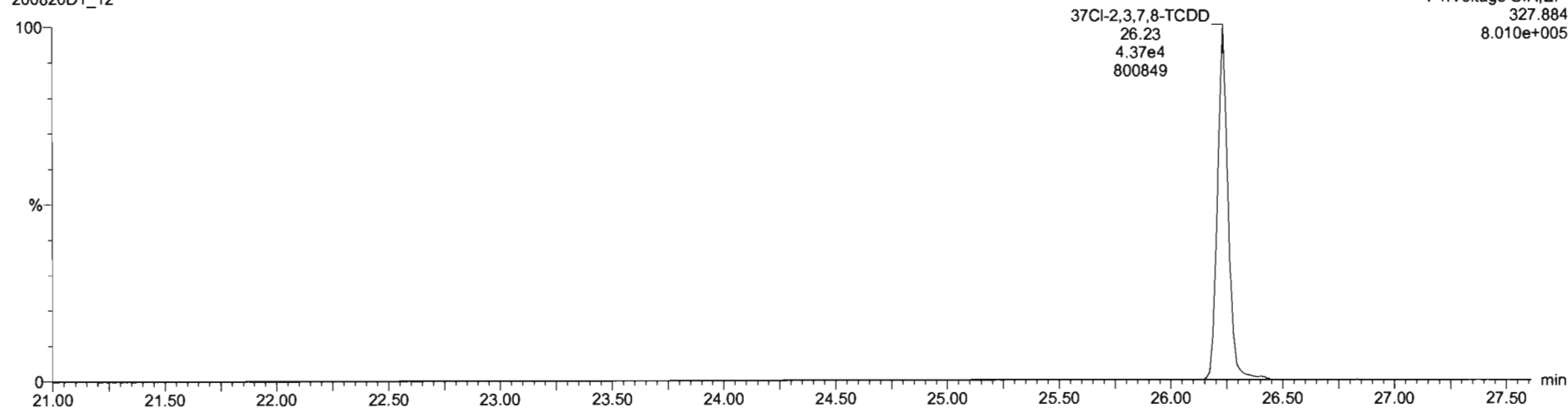
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

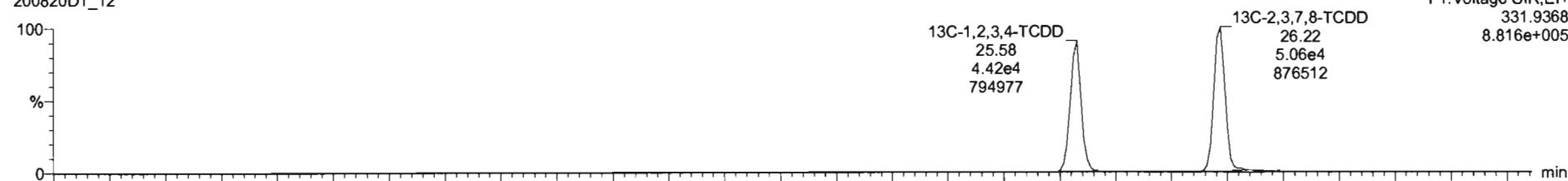
**37Cl-2,3,7,8-TCDD**

200820D1\_12

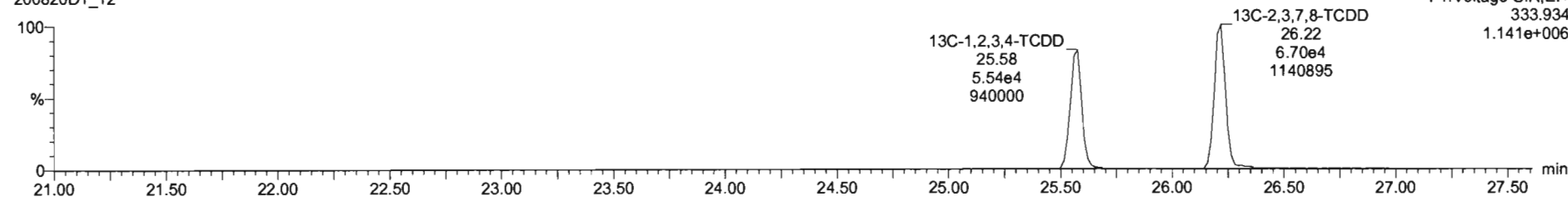


**13C-1,2,3,4-TCDD**

200820D1\_12



200820D1\_12



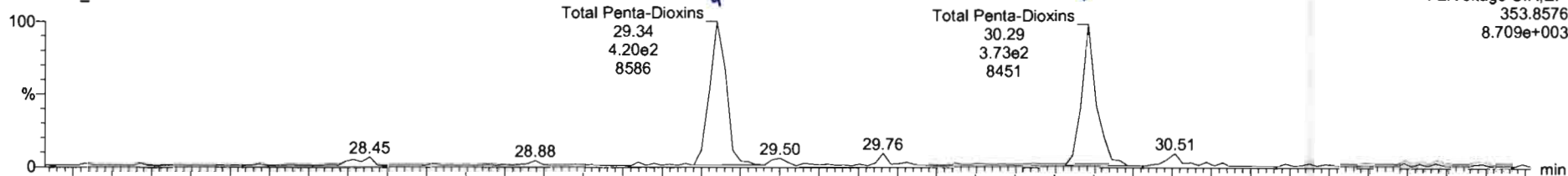
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

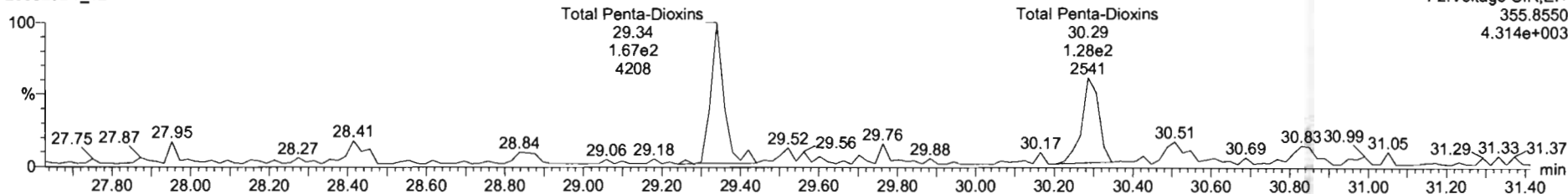
Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

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

200820D1\_12



200820D1\_12

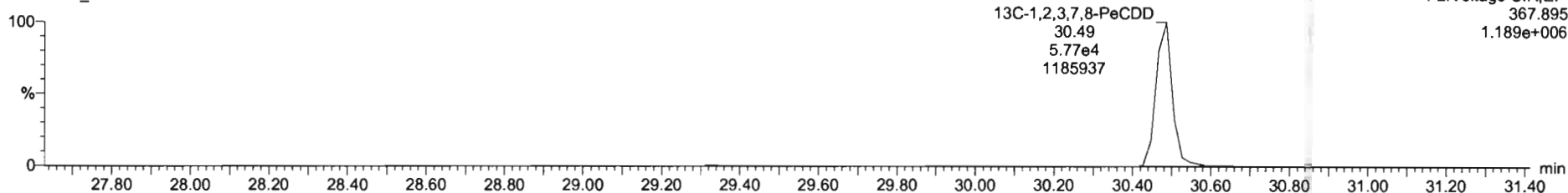


**13C-1,2,3,7,8-PeCDD**

200820D1\_12



200820D1\_12



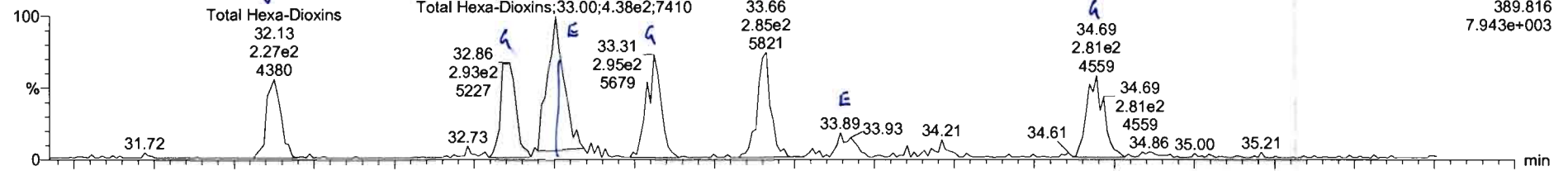
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

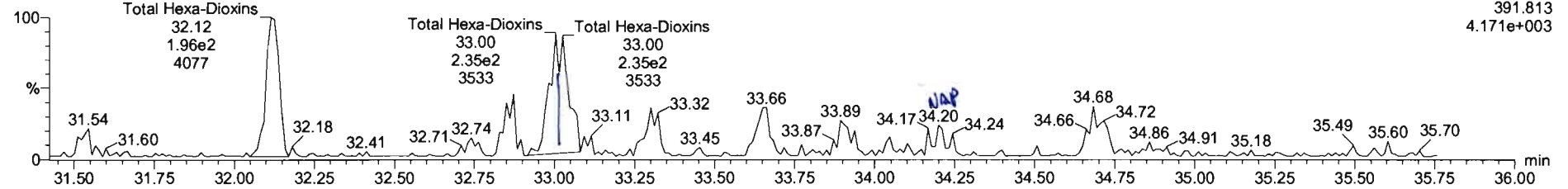
1,2,3,4,7,8-HxCDD

200820D1\_12



F3: Voltage SIR, EI+  
389.816  
7.943e+003

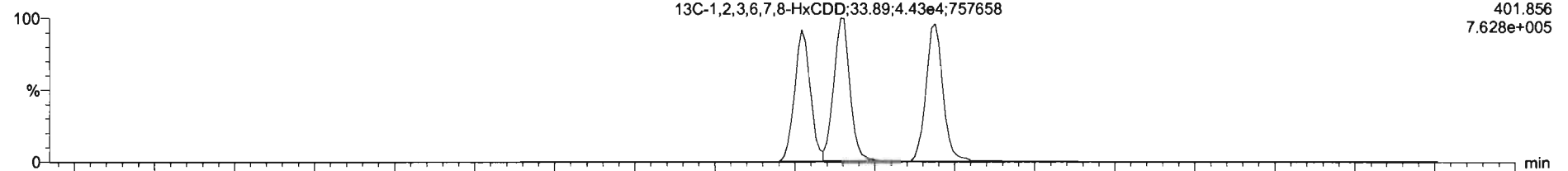
200820D1\_12



F3: Voltage SIR, EI+  
391.813  
4.171e+003

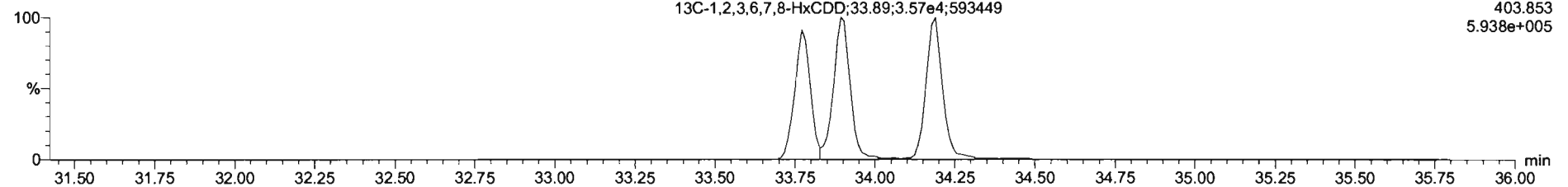
13C-1,2,3,4,7,8-HxCDD

200820D1\_12



F3: Voltage SIR, EI+  
401.856  
7.628e+005

200820D1\_12

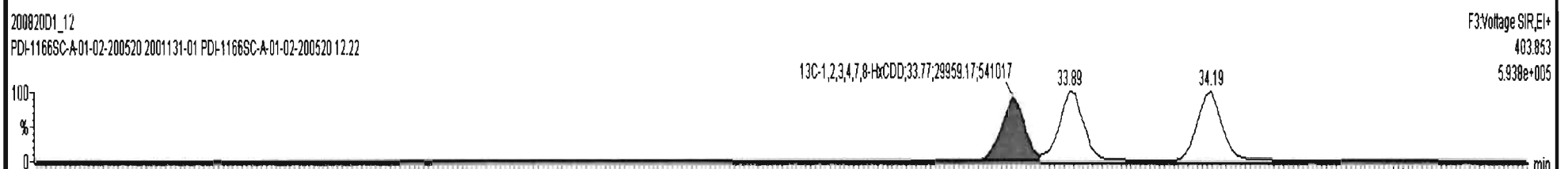
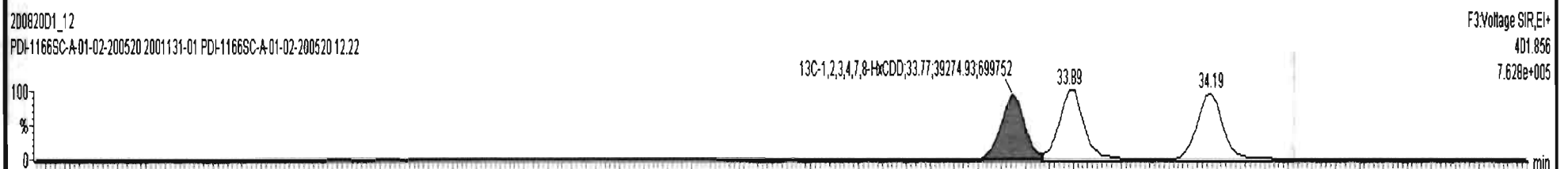
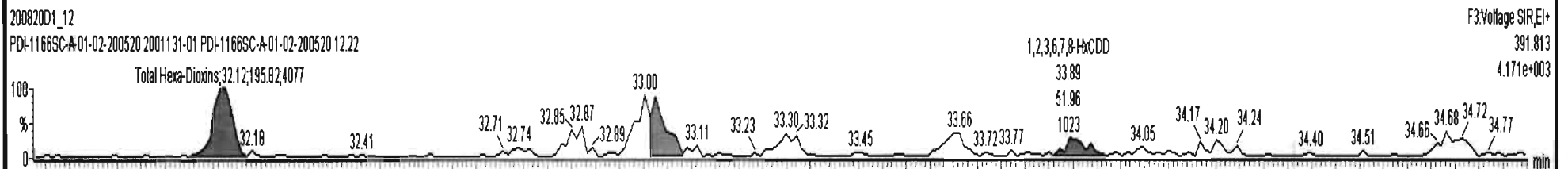
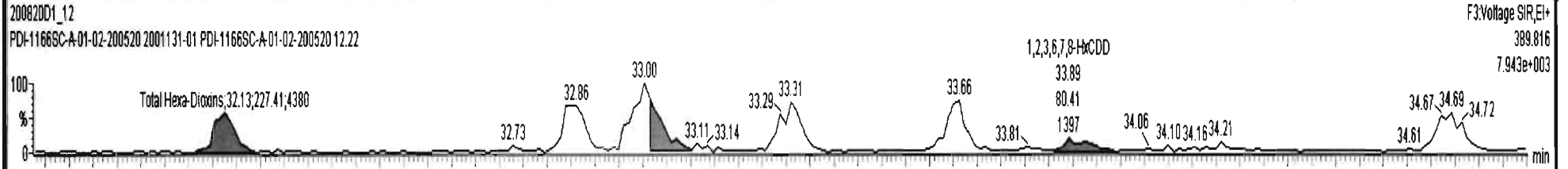


F3: Voltage SIR, EI+  
403.853  
5.938e+005



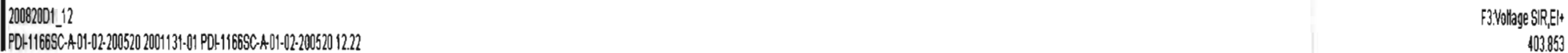
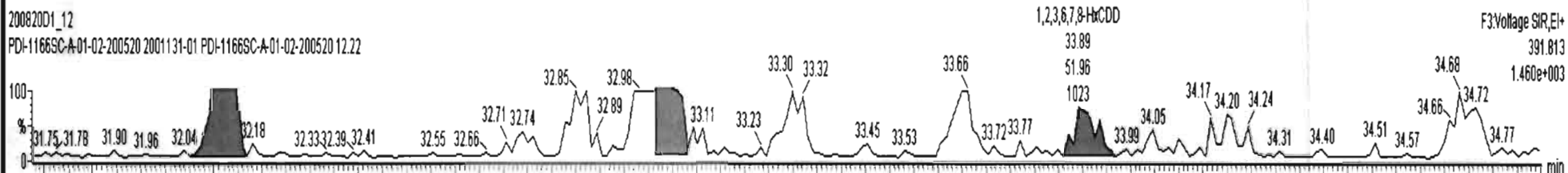
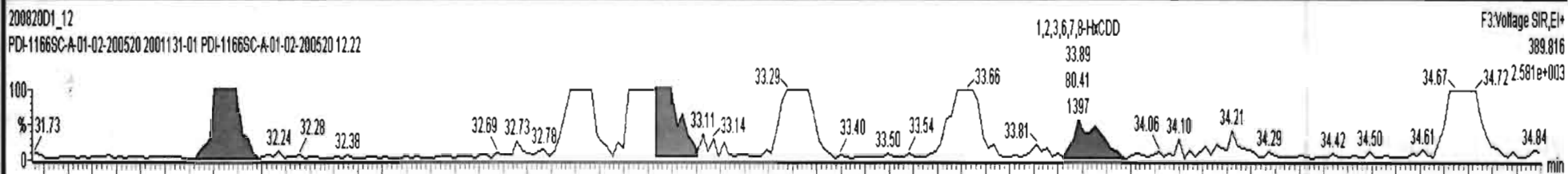


200820D1\_12 - 2001131-01 PDI-1166SC-A-01-02-200520 12.22 - PDI-1166SC-A-01-02-200520





200820D1\_12 - 2001131-01 PDI-1166SC-A-01-02-200520 12.22 - PDI-1166SC-A-01-02-200520



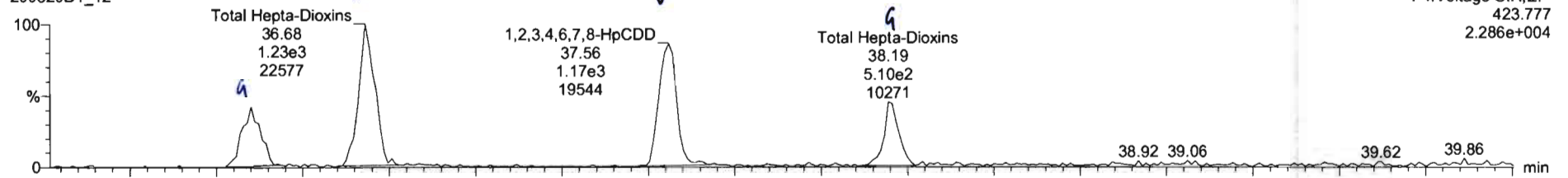
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

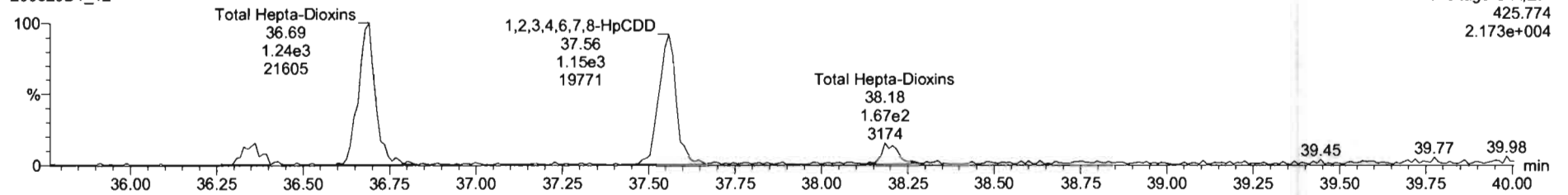
Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

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

200820D1\_12

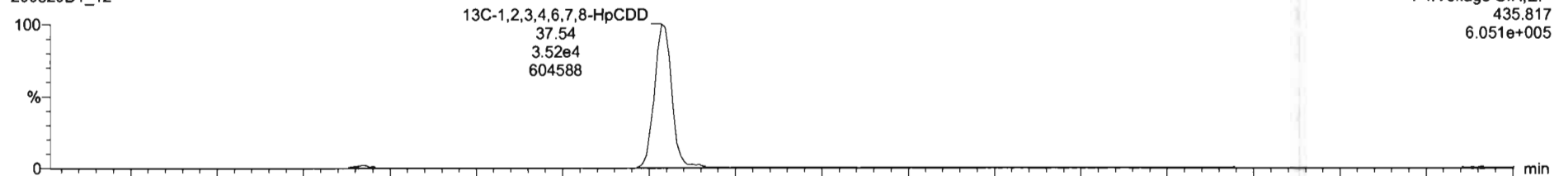


200820D1\_12

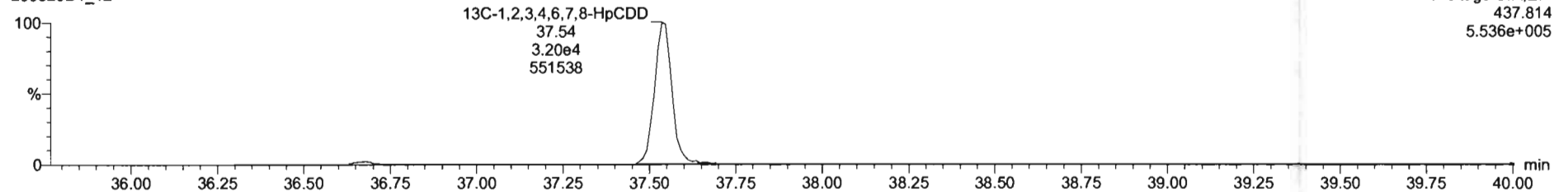


13C-1,2,3,4,6,7,8-HpCDD

200820D1\_12



200820D1\_12



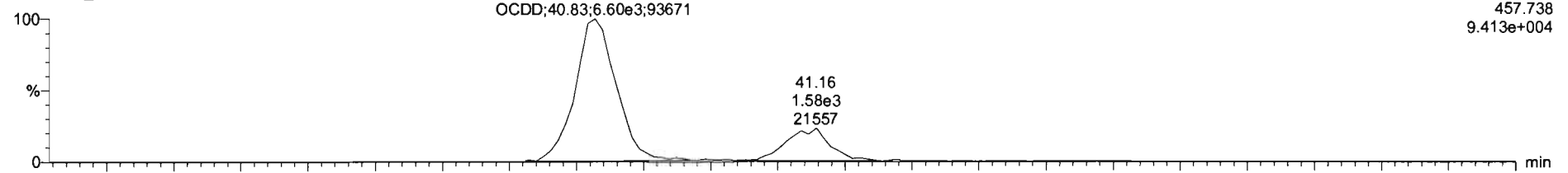
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

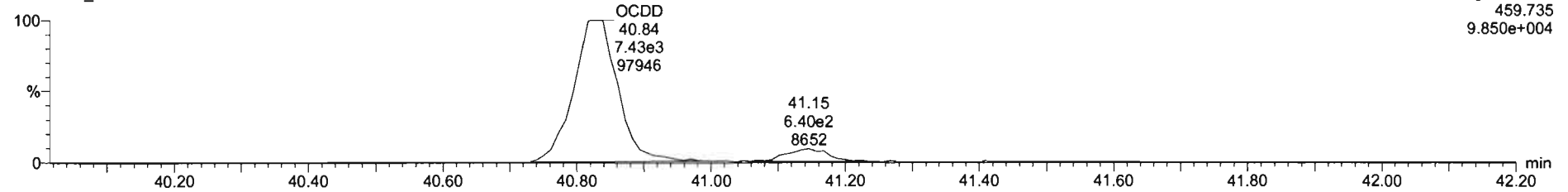
Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

**OCDD**

200820D1\_12

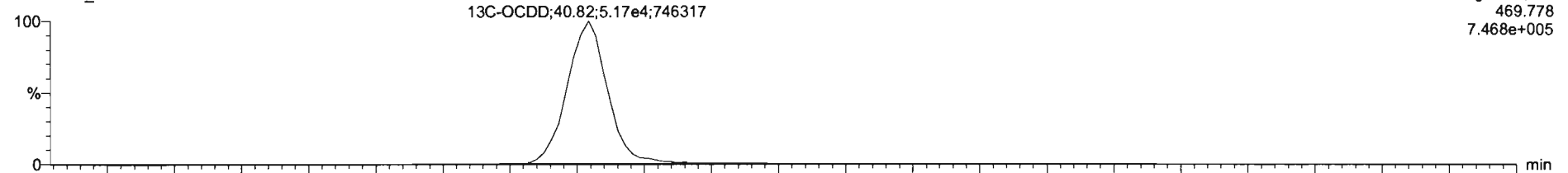


200820D1\_12

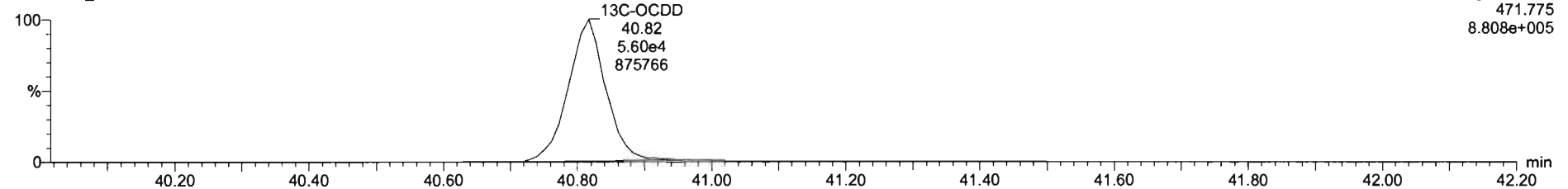


**13C-OCDD**

200820D1\_12



200820D1\_12

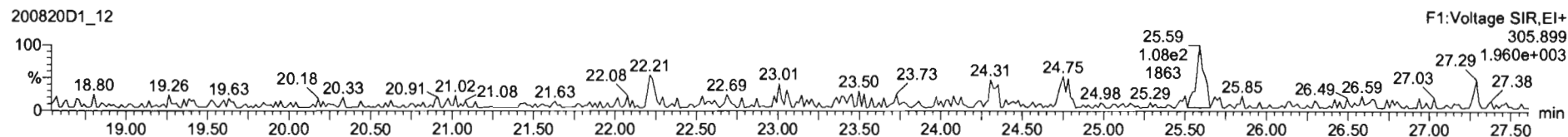
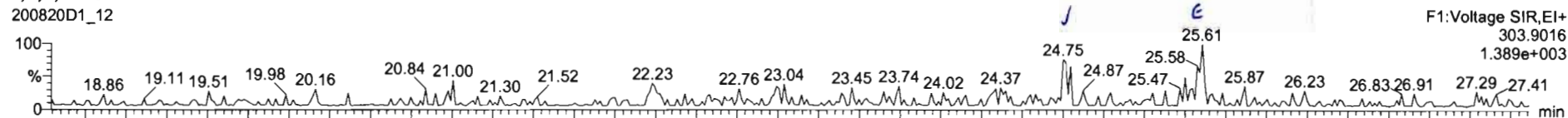


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

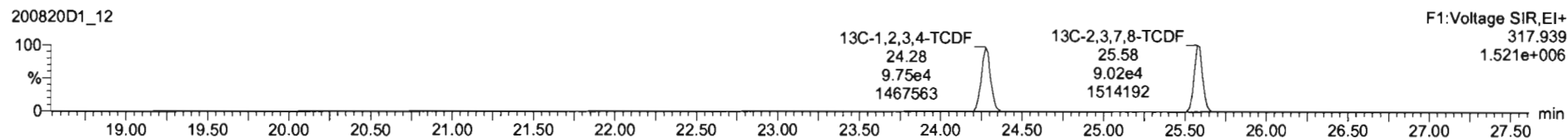
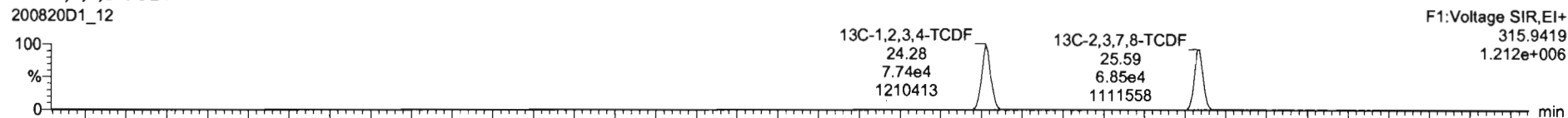
Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

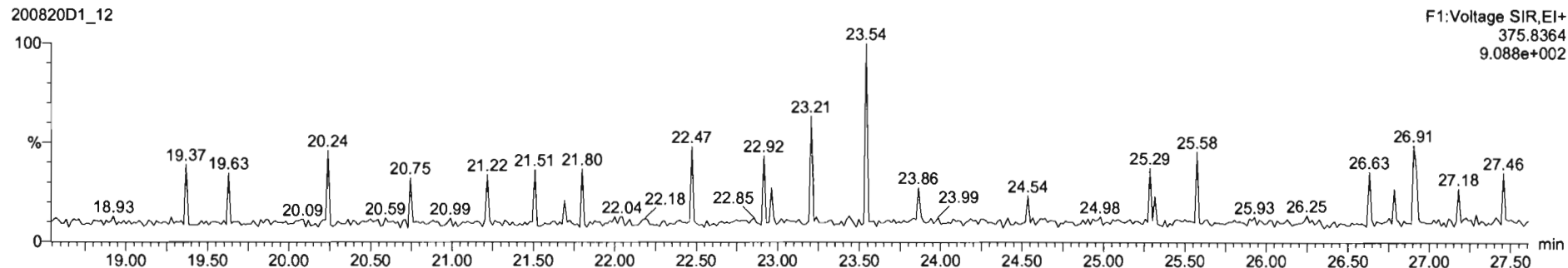
**2,3,7,8-TCDF**

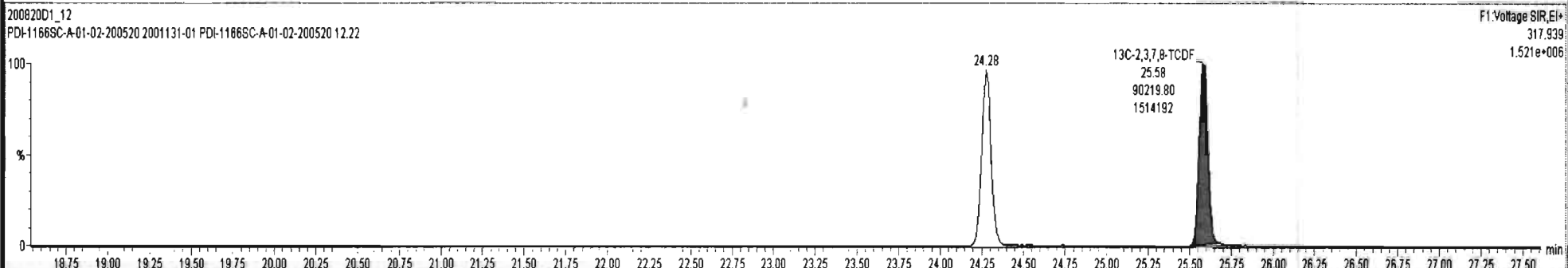
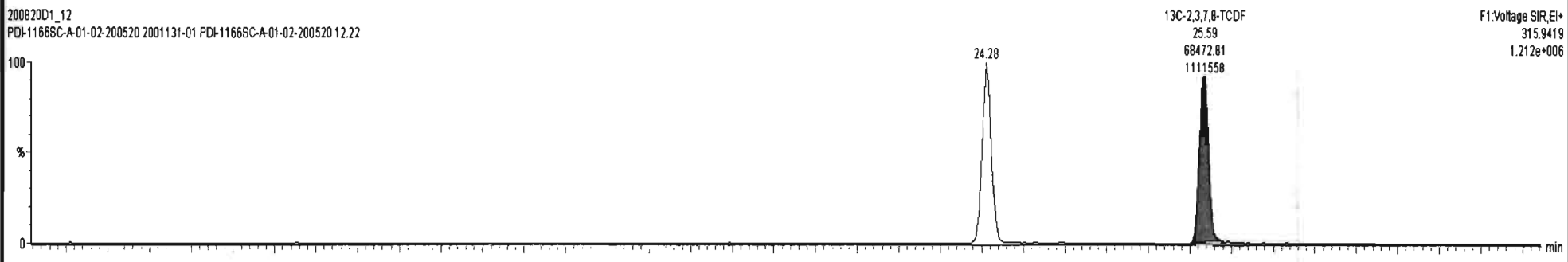
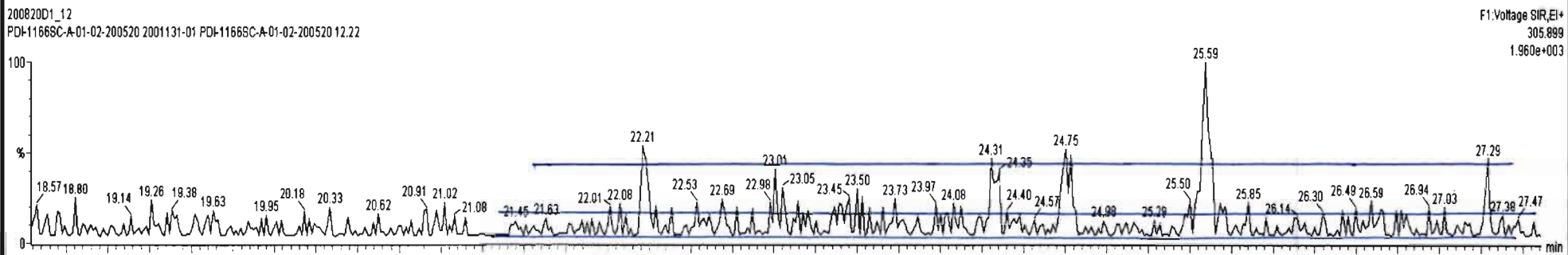
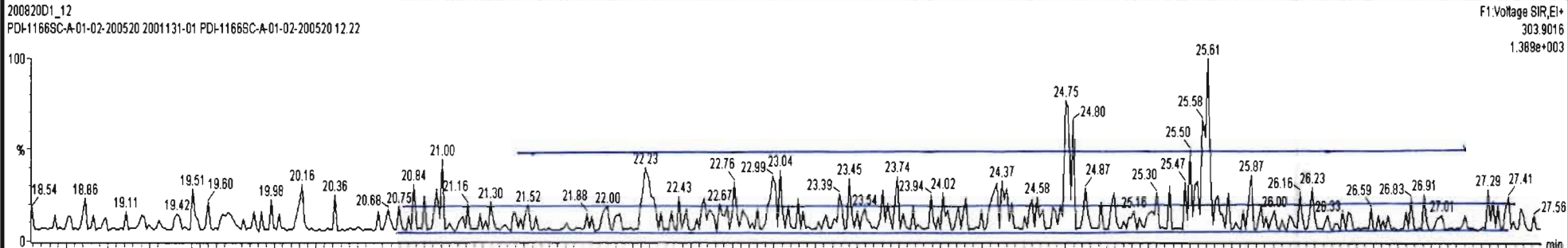


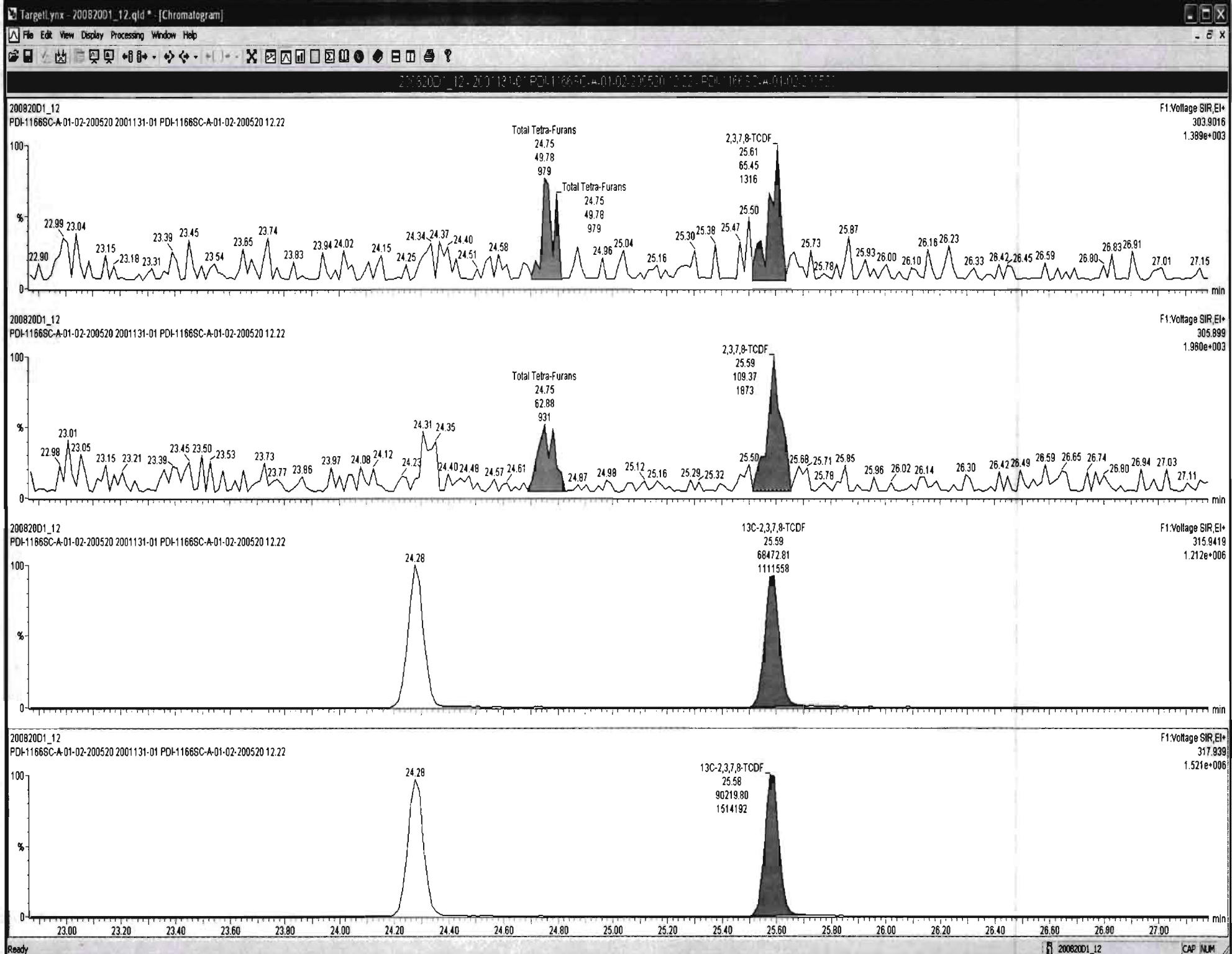
**13C-2,3,7,8-TCDF**



**DPE1**







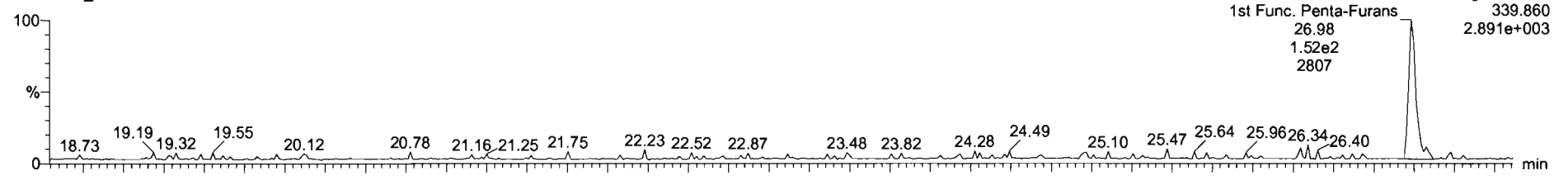
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

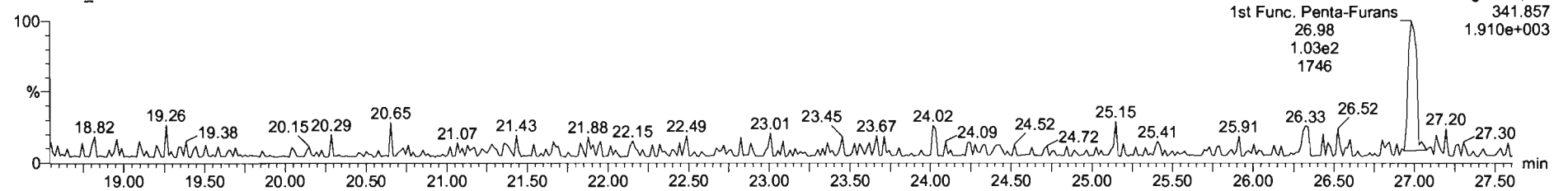
Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

1st Func. Penta-Furans

200820D1\_12

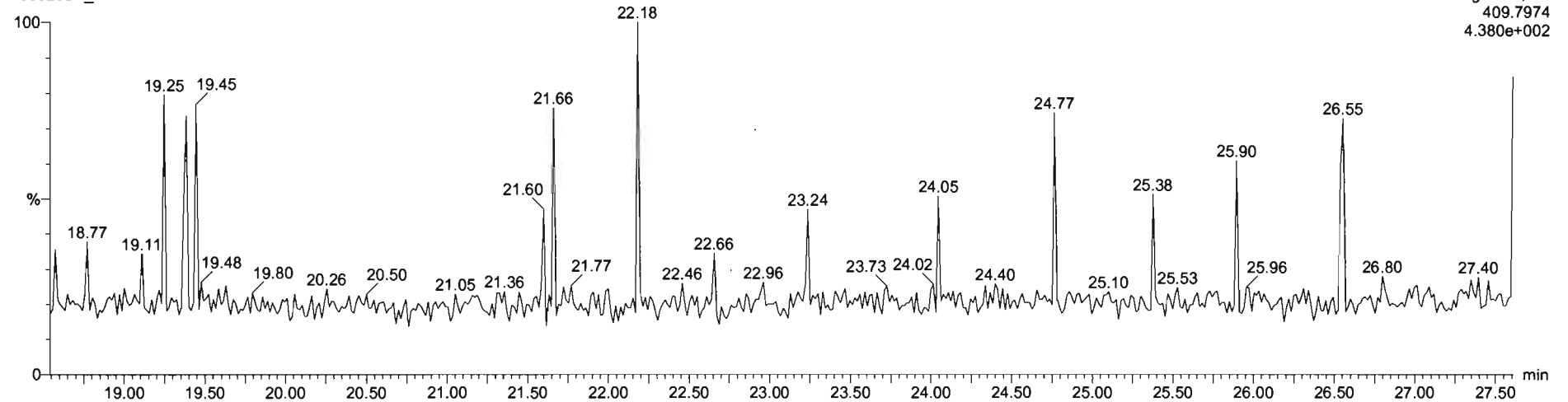


200820D1\_12



DPE6

200820D1\_12





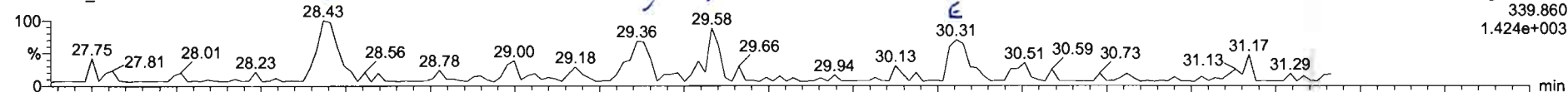
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

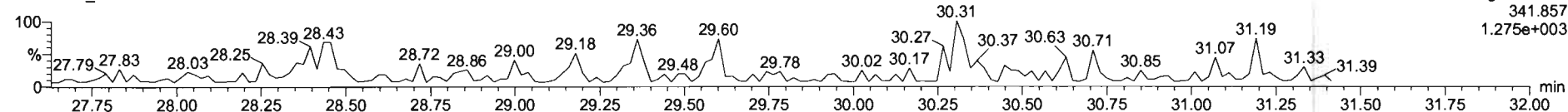
Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

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

200820D1\_12

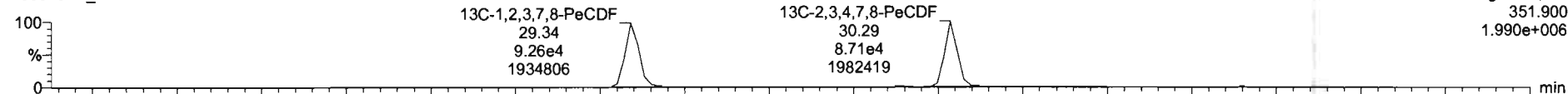


200820D1\_12

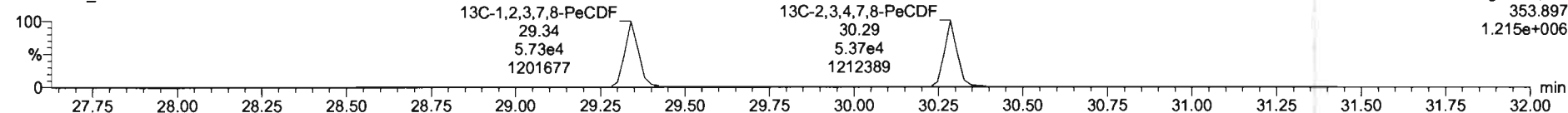


**13C-1,2,3,7,8-PeCDF**

200820D1\_12

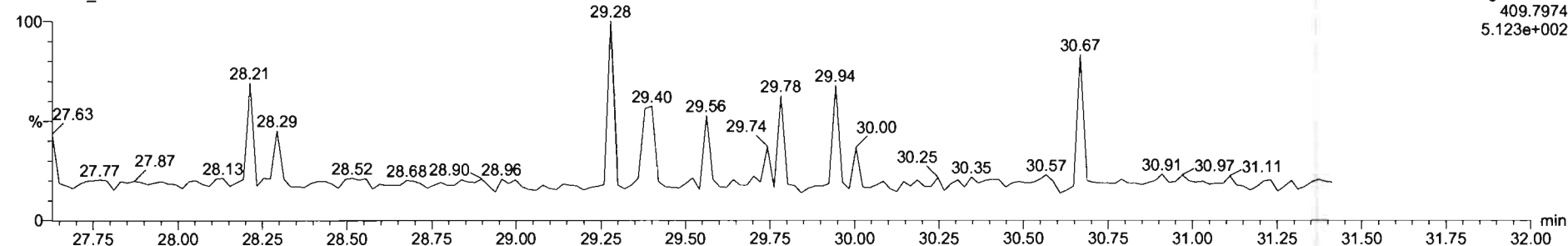


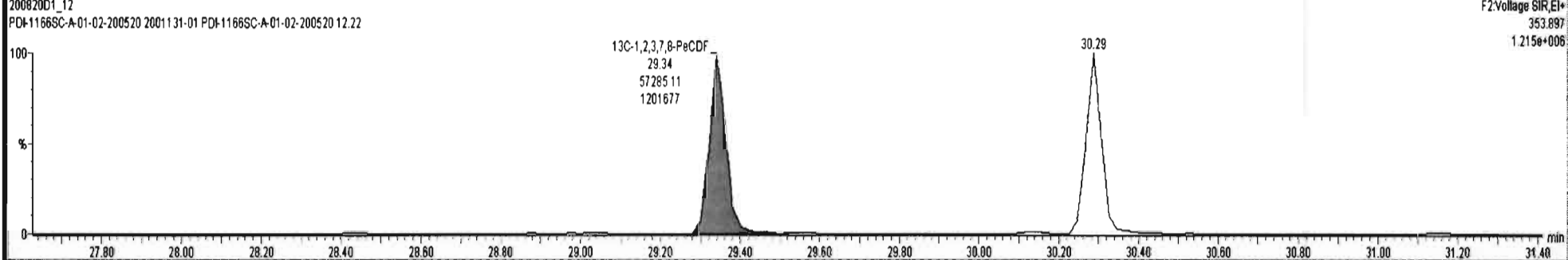
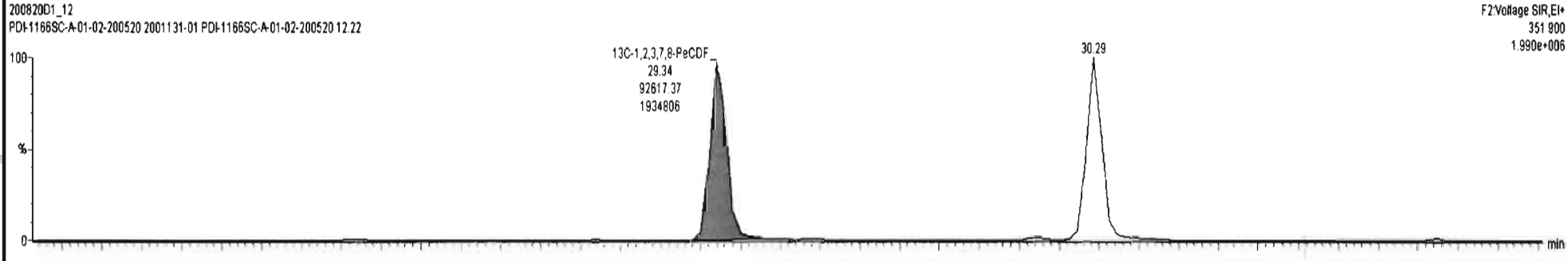
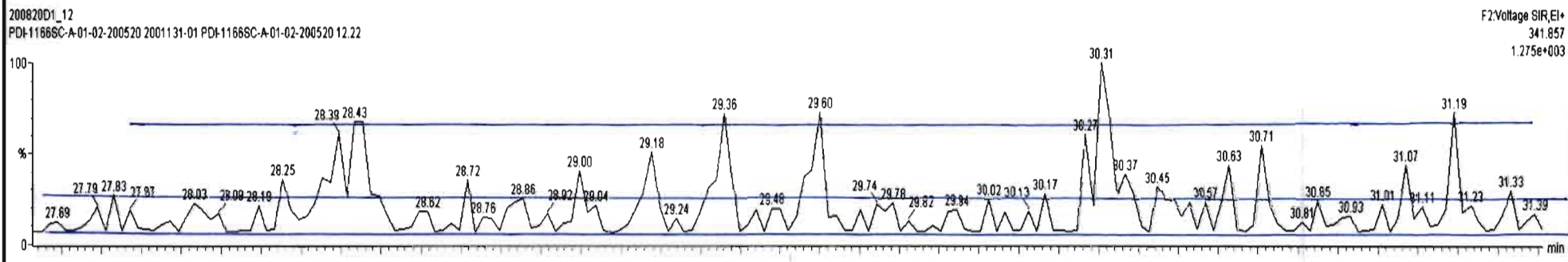
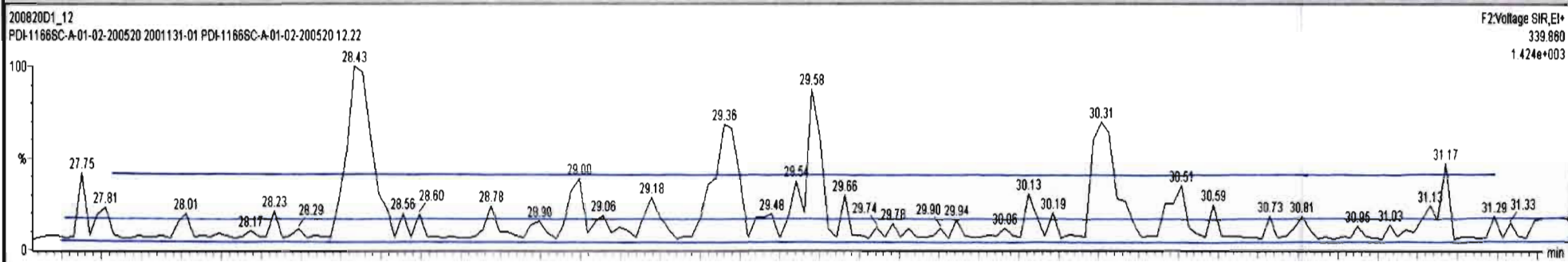
200820D1\_12



**DPE2**

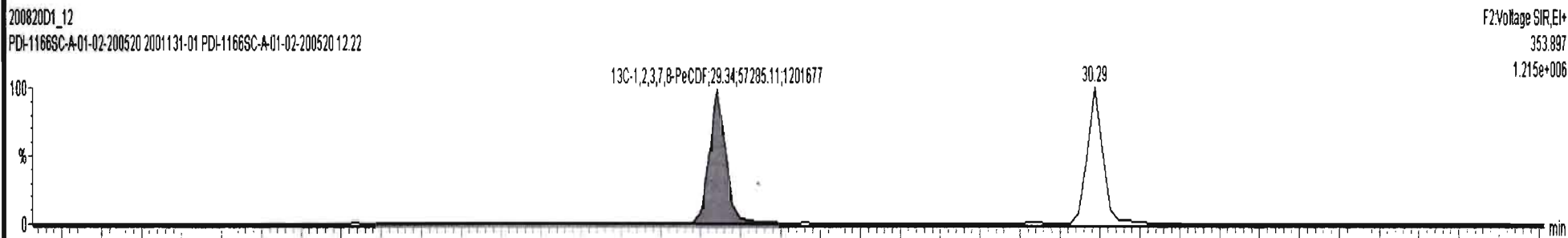
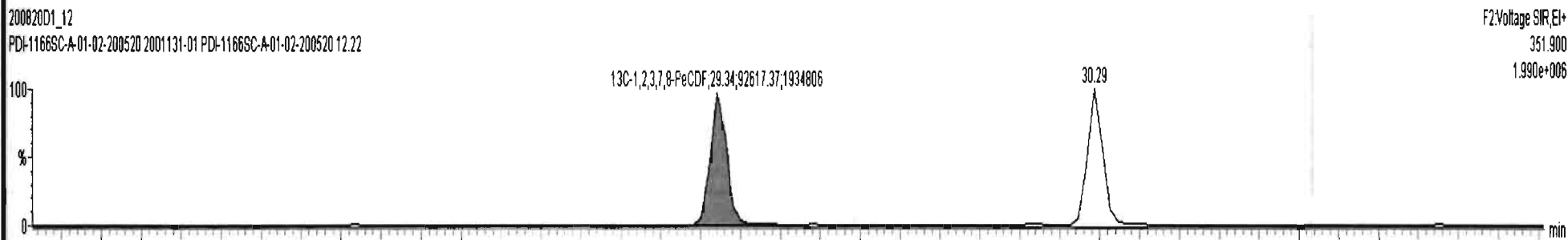
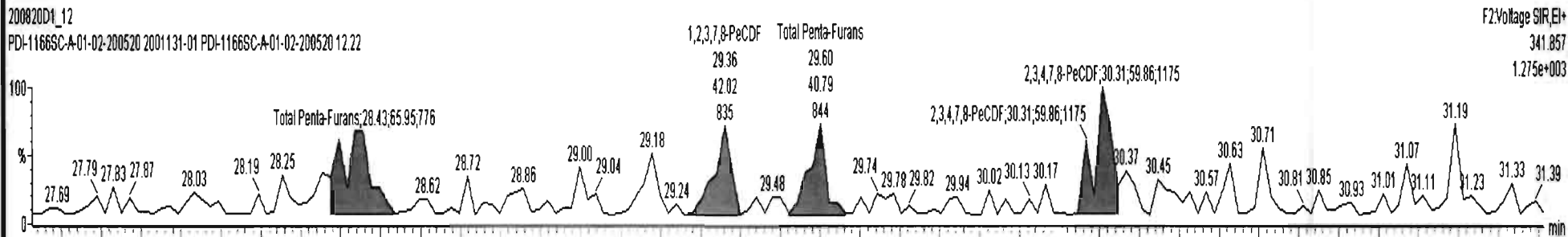
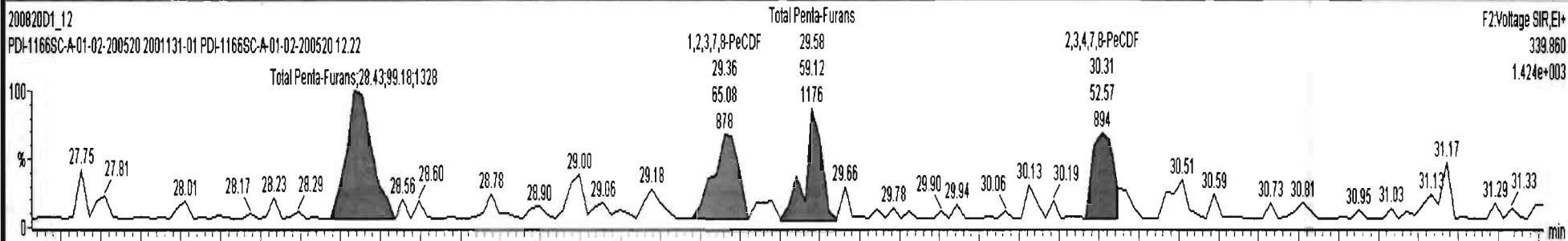
200820D1\_12







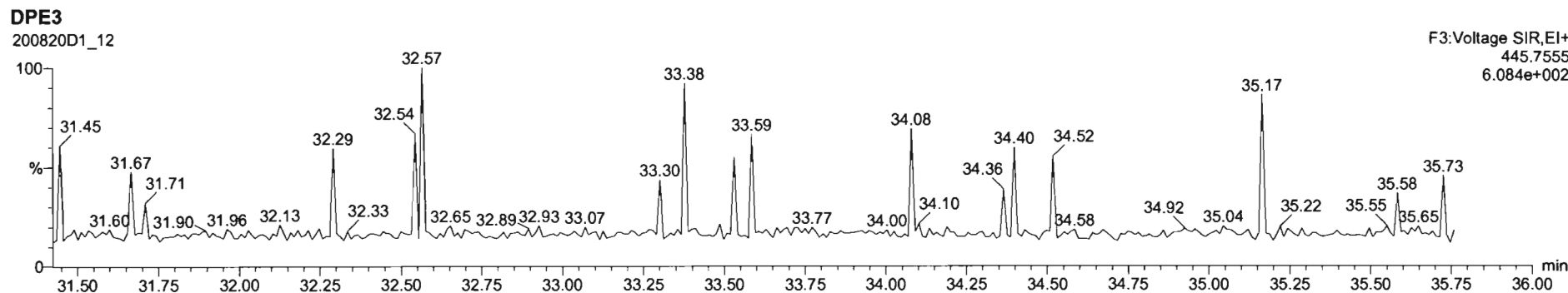
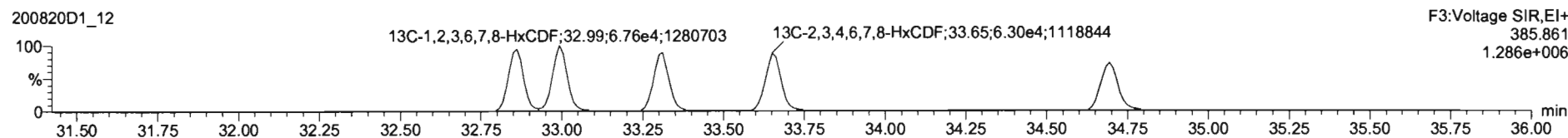
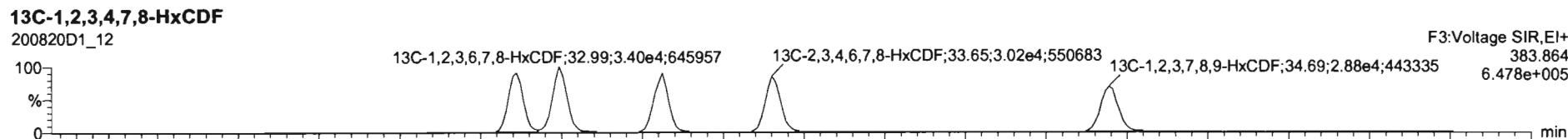
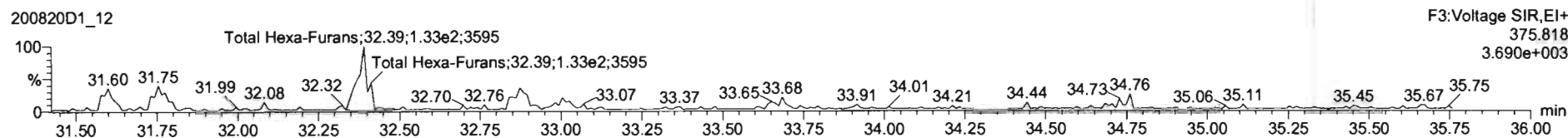
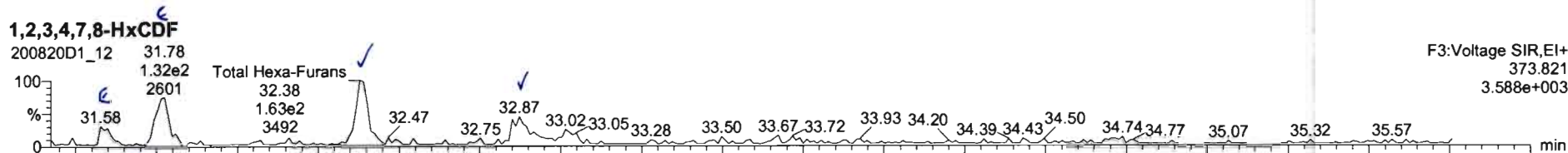
200820D1\_12 - 2001131-01 PD-1166SC-A-01-02-200520 12.22 - PD-1166SC-A-01-02-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

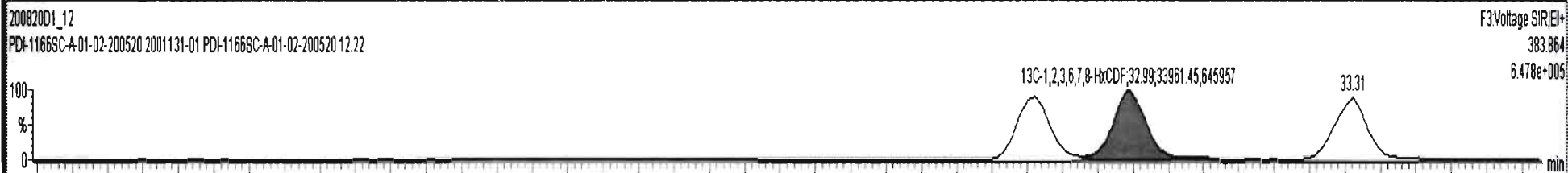
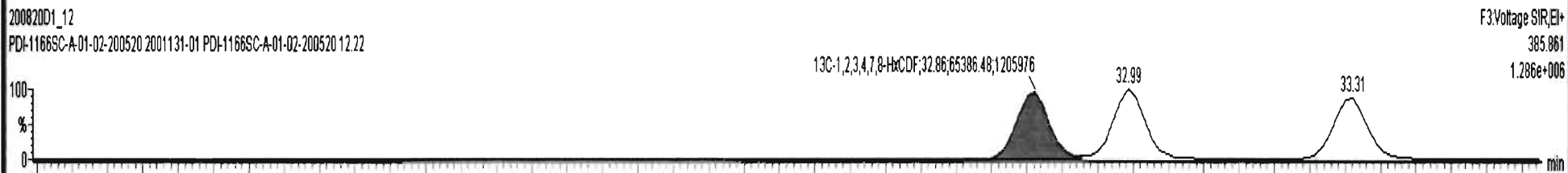
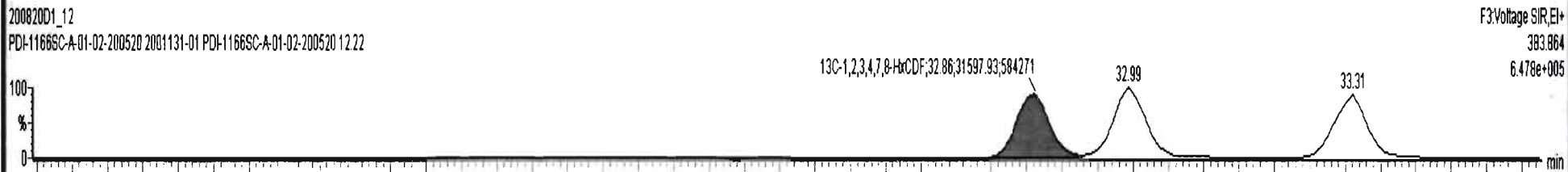
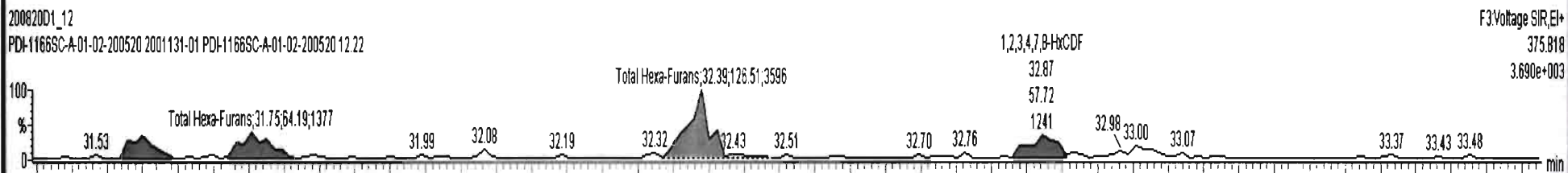
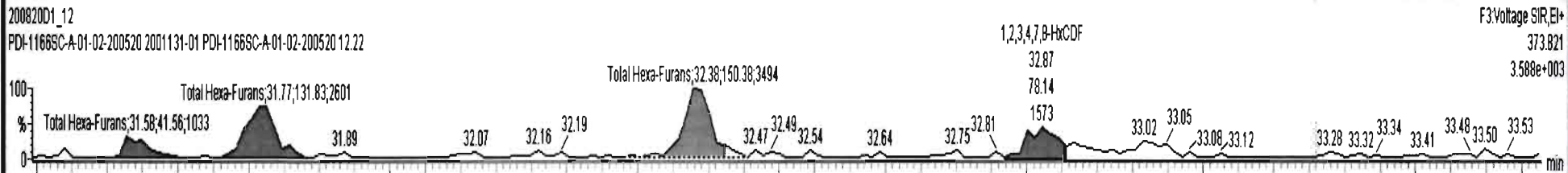
Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520



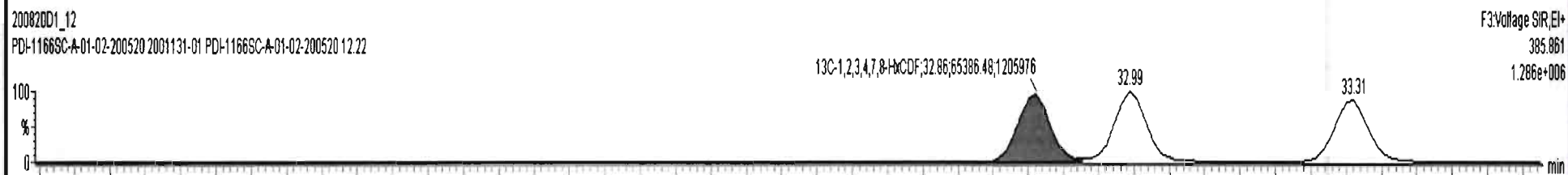
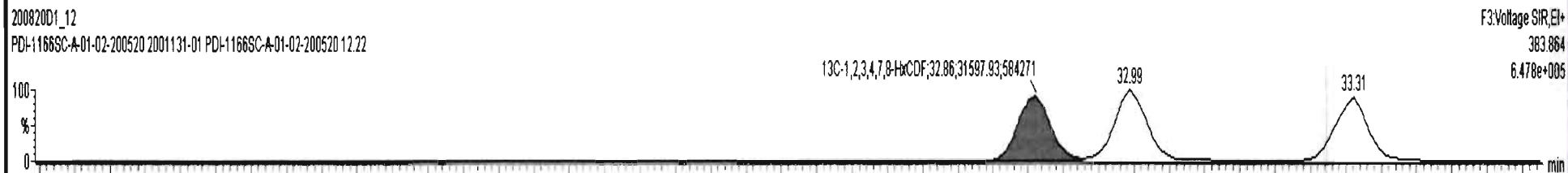
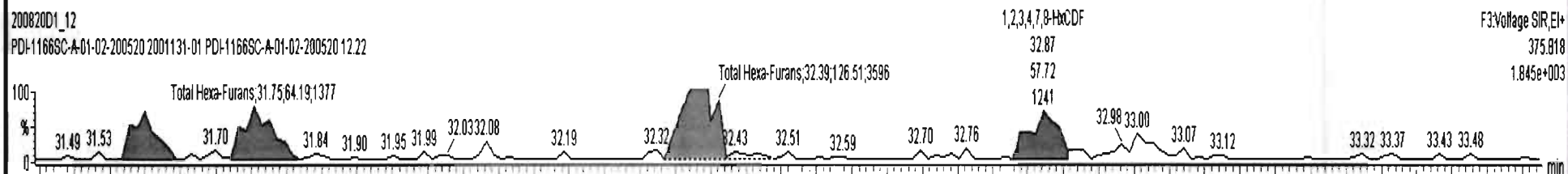
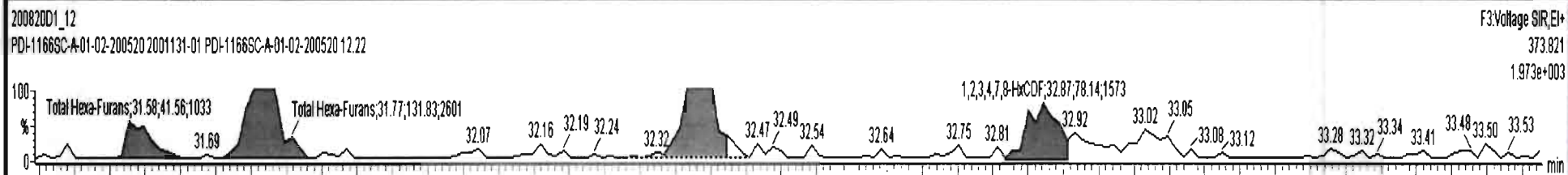


200820D1\_12 - 2001131-01 PDI-1166SC-A-01-02-200520 12.22 - PDI-1166SC-A-01-02-200520





200820D1\_12 - 2001131-01 PDI-1166SC-A-01-02-200520 12.22 - PDI-1166SC-A-01-02-200520



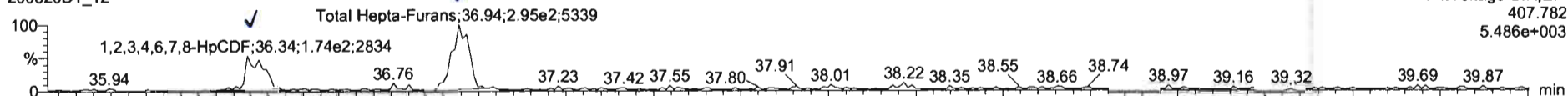
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

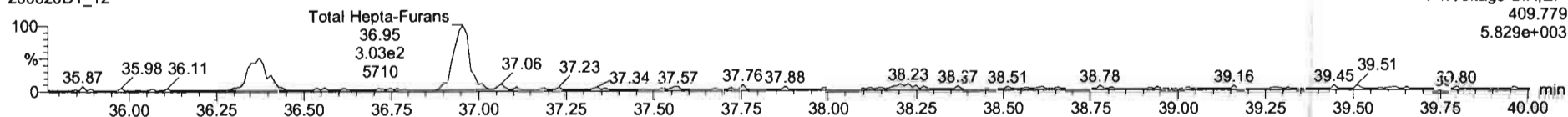
Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

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

200820D1\_12

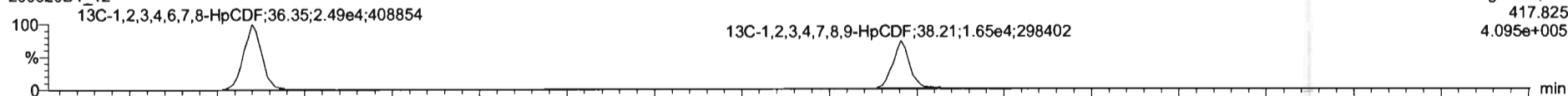


200820D1\_12

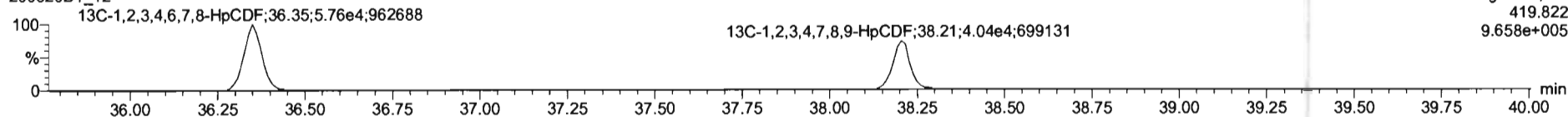


13C-1,2,3,4,6,7,8-HpCDF

200820D1\_12

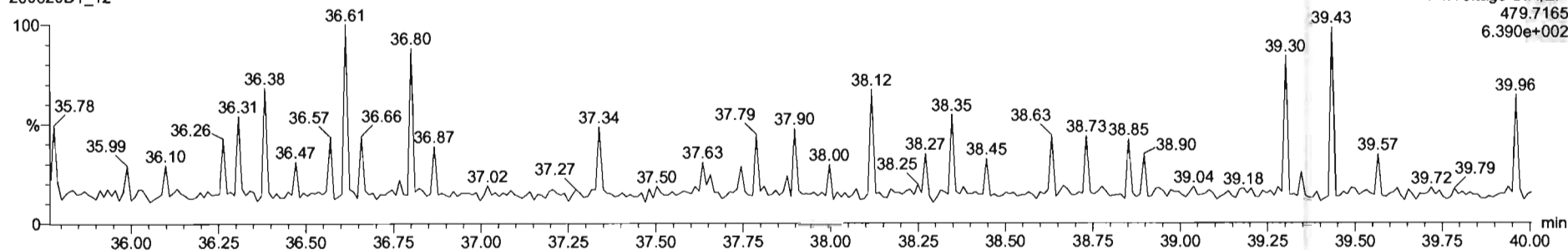


200820D1\_12



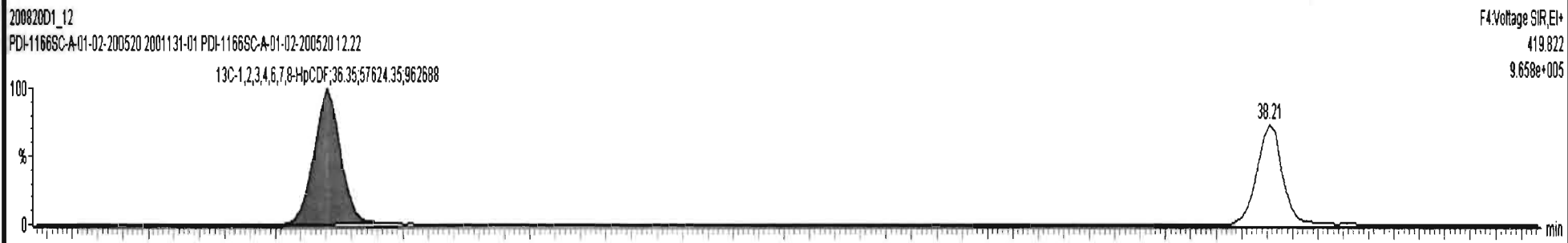
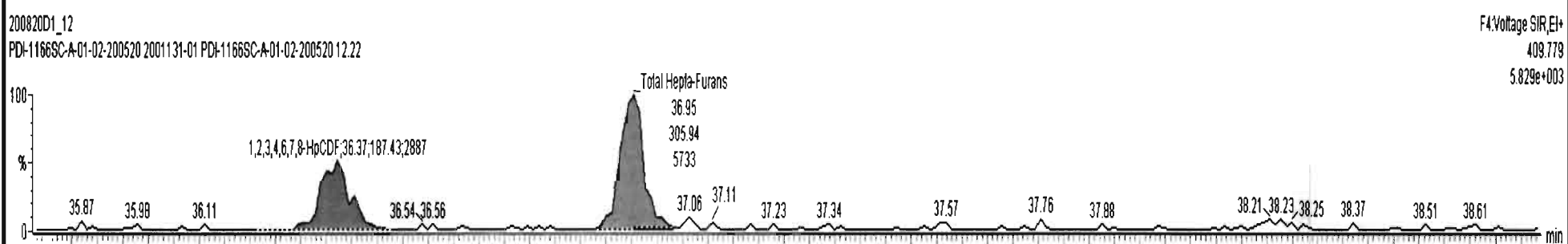
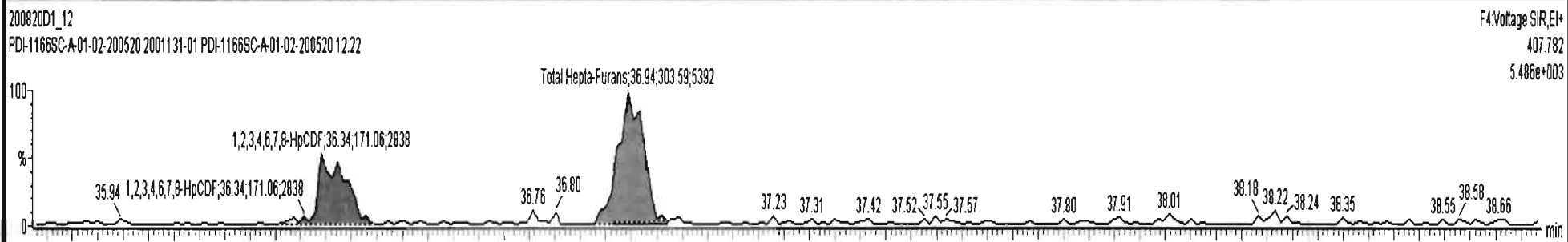
DPE4

200820D1\_12





200820D1\_12 - 2001131-01 PDI-1166SC-A-01-02-200520 12.22 - PDI-1166SC-A-01-02-200520





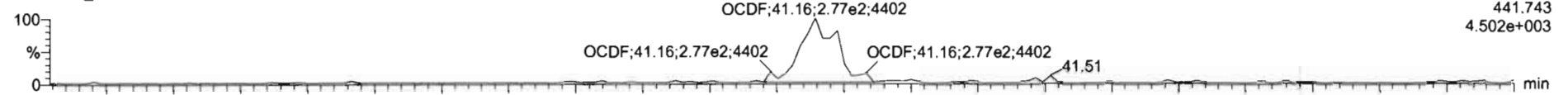
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

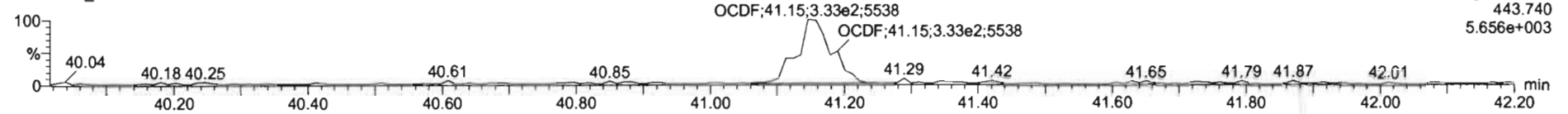
Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520

**OCDF**

200820D1\_12

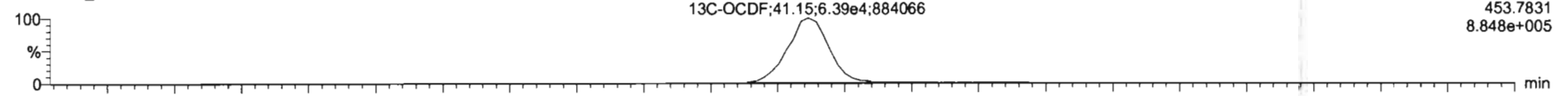


200820D1\_12

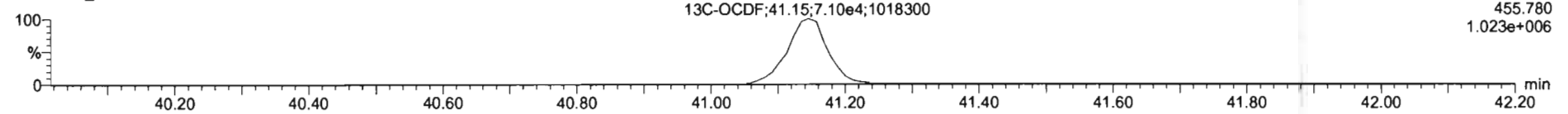


**13C-OCDF**

200820D1\_12

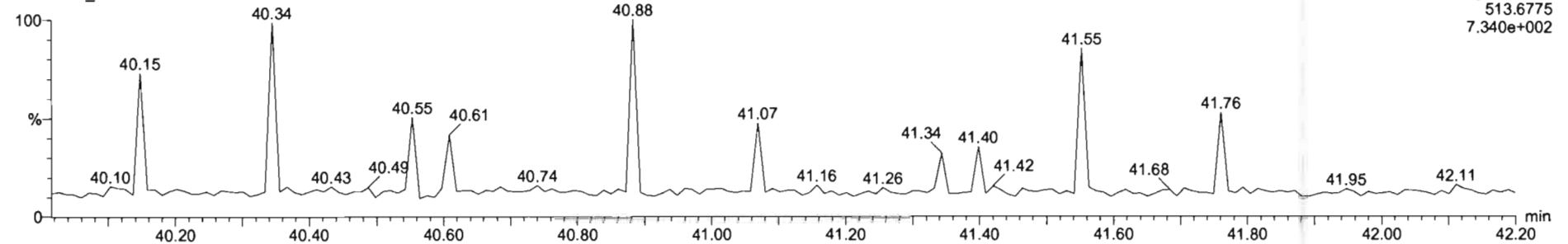


200820D1\_12



**DPE5**

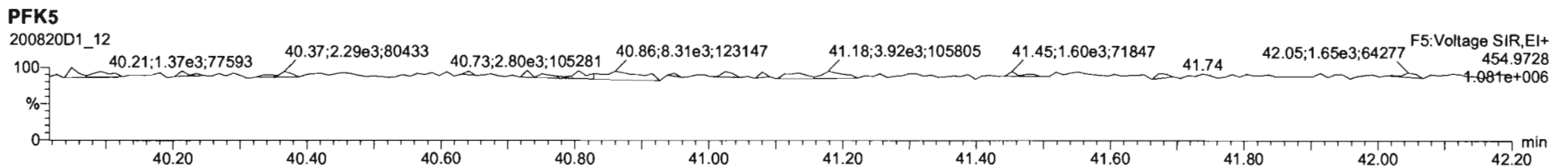
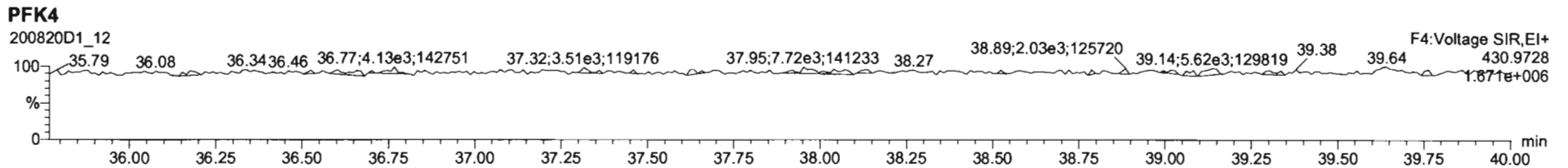
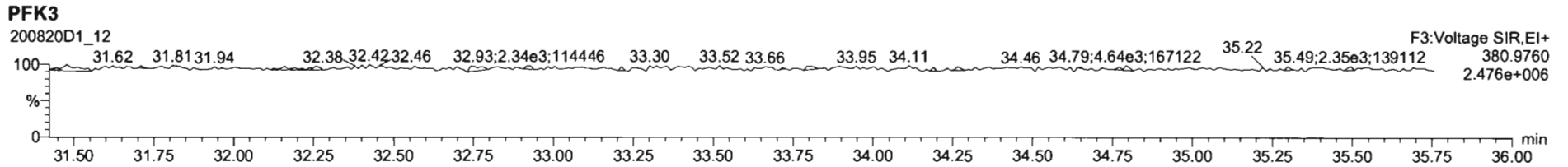
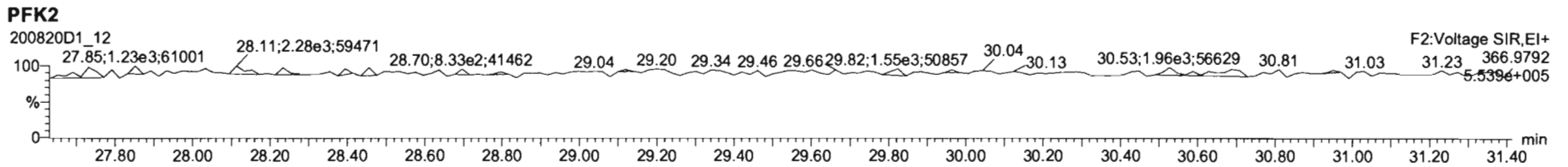
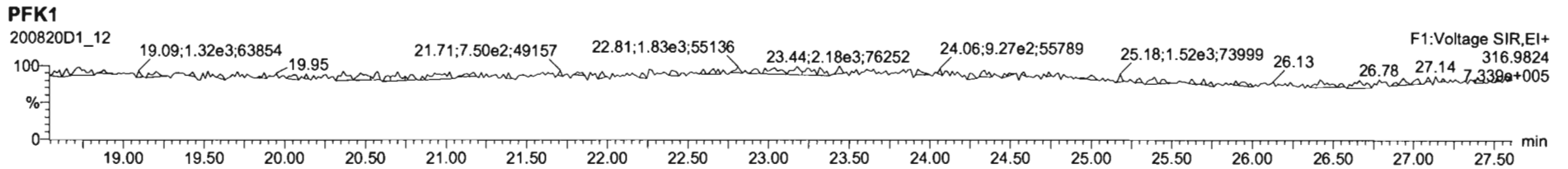
200820D1\_12



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_12.qld

Last Altered: Friday, August 21, 2020 10:32:18 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:33:56 Pacific Daylight Time

Name: 200820D1\_12, Date: 20-Aug-2020, Time: 21:13:28, ID: 2001131-01 PDI-1166SC-A-01-02-200520 12.22, Description: PDI-1166SC-A-01-02-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 14:16:35 Pacific Daylight Time  
Printed: Friday, August 21, 2020 14:17:32 Pacific Daylight Time

*DB 8/21/20*

*C7 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

#	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	1.08	10.043	26.265		1.001				0.147	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.043	30.528		1.001				0.163	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.043	33.804		1.000				0.229	
4	4 1,2,3,6,7,8-HxCDD	1.90e2	1.09	NO	0.908	10.043	33.915	33.94	1.000	1.001	0.52607		0.255	0.526
5	5 1,2,3,7,8,9-HxCDD	1.23e2	1.22	NO	0.923	10.043	34.245	34.24	1.001	1.001	0.32467		0.253	0.325
6	6 1,2,3,4,6,7,8-HpCDD	3.25e3	1.00	NO	0.926	10.043	37.569	37.57	1.000	1.000	10.419		0.468	10.4
7	7 OCDD	2.20e4	0.84	NO	0.834	10.043	40.839	40.85	1.000	1.000	98.059		0.725	98.1
8	8 2,3,7,8-TCDF	2.15e2	1.43	YES	0.882	10.043	25.633	25.62	1.001	1.001	0.33561		0.064	0.245
9	9 1,2,3,7,8-PeCDF	1.58e2	1.51	NO	0.937	10.043	29.382	29.38	1.001	1.001	0.22056		0.0356	0.221
10	10 2,3,4,7,8-PeCDF	1.28e2	1.56	NO	1.03	10.043	30.336	30.33	1.001	1.001	0.16629		0.0314	0.166
11	11 1,2,3,4,7,8-HxCDF	2.02e2	1.50	YES	1.07	10.043	32.884	32.89	1.000	1.000	0.39763		0.162	0.357
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.043	33.025		1.000				0.141	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.043	33.708		1.001				0.172	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.043	34.716		1.000				0.200	
15	15 1,2,3,4,6,7,8-HpCDF	4.66e2	1.02	NO	1.15	10.043	36.409	36.38	1.001	1.000	0.98280		0.134	0.983
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.043	38.227		1.000				0.163	
17	17 OCDF	8.30e2	0.94	NO	0.961	10.043	41.168	41.18	1.000	1.000	2.8175		0.197	2.82
18	18 13C-2,3,7,8-TCDD	1.08e5	0.79	NO	1.20	10.043	26.257	26.23	1.026	1.025	184.26	92.5	0.714	
19	19 13C-1,2,3,7,8-PeCDD	9.47e4	0.63	NO	0.910	10.043	30.521	30.51	1.193	1.192	214.12	108	0.518	
20	20 13C-1,2,3,4,7,8-HxCDD	6.98e4	1.29	NO	0.789	10.043	33.800	33.79	1.014	1.014	205.19	103	0.956	
21	21 13C-1,2,3,6,7,8-HxCDD	7.91e4	1.29	NO	0.885	10.043	33.910	33.92	1.017	1.017	207.10	104	0.852	
22	22 13C-1,2,3,7,8,9-HxCDD	8.16e4	1.29	NO	0.888	10.043	34.180	34.21	1.025	1.026	212.82	107	0.849	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.71e4	1.05	NO	0.740	10.043	37.633	37.56	1.129	1.127	210.38	106	1.41	
24	24 13C-OCDD	1.07e5	0.87	NO	0.660	10.043	40.646	40.84	1.219	1.225	376.48	94.5	0.846	
25	25 13C-2,3,7,8-TCDF	1.45e5	0.76	NO	1.09	10.043	25.336	25.61	0.990	1.001	167.41	84.1	0.653	
26	26 13C-1,2,3,7,8-PeCDF	1.52e5	1.64	NO	0.857	10.043	29.577	29.36	1.156	1.147	223.18	112	0.848	
27	27 13C-2,3,4,7,8-PeCDF	1.50e5	1.63	NO	0.796	10.043	30.480	30.31	1.191	1.184	236.55	119	0.913	
28	28 13C-1,2,3,4,7,8-HxCDF	9.44e4	0.49	NO	1.02	10.043	32.933	32.88	0.988	0.987	214.59	108	1.07	
29	29 13C-1,2,3,6,7,8-HxCDF	9.91e4	0.49	NO	1.00	10.043	33.066	33.01	0.992	0.990	228.93	115	1.09	
30	30 13C-2,3,4,6,7,8-HxCDF	9.11e4	0.48	NO	0.936	10.043	33.636	33.67	1.009	1.010	225.70	113	1.17	
31	31 13C-1,2,3,7,8,9-HxCDF	8.36e4	0.50	NO	0.889	10.043	34.713	34.72	1.041	1.041	217.74	109	1.23	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 14:16:35 Pacific Daylight Time

Printed: Friday, August 21, 2020 14:17:32 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

#	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	8.19e4	0.43	NO	0.849	10.043	36.233	36.37	1.087	1.091	223.51	112	1.19	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.52e4	0.41	NO	0.624	10.043	38.233	38.23	1.147	1.147	205.30	103	1.62	
34	34 13C-OCDF	1.22e5	0.85	NO	0.693	10.043	40.800	41.17	1.224	1.235	407.94	102	0.990	
35	35 37Cl-2,3,7,8-TCDD	4.15e4			1.28	10.043	26.255	26.25	1.026	1.026	66.997	84.1	0.135	
36	36 13C-1,2,3,4-TCDD	9.67e4	0.76	NO	1.00	10.043	25.550	25.59	1.000	1.000	199.14	100	0.859	
37	37 13C-1,2,3,4-TCDF	1.58e5	0.79	NO	1.00	10.043	24.250	24.29	1.000	1.000	199.14	100	0.710	
38	38 13C-1,2,3,4,6,9-HxCDF	8.59e4	0.51	NO	1.00	10.043	33.300	33.33	1.000	1.000	199.14	100	1.09	
39	39 Total Tetra-Dioxins				1.08	10.043	24.620		0.000				0.0875	
40	40 Total Penta-Dioxins				0.991	10.043	29.960		0.000				0.0626	
41	41 Total Hexa-Dioxins				0.908	10.043	33.635		0.000		2.1204		0.258	3.58
42	42 Total Hepta-Dioxins				0.926	10.043	37.640		0.000		31.084		0.468	31.1
43	43 Total Tetra-Furans				0.882	10.043	23.610		0.000		0.15634		0.0664	0.557
44	44 1st Func. Penta-Furans				0.937	10.043	26.750		0.000		0.43975		0.0505	0.440
45	45 Total Penta-Furans				0.937	10.043	29.275		0.000		0.70494		0.0350	0.705
46	46 Total Hexa-Furans				1.11	10.043	33.555		0.000		1.3047		0.167	1.82
47	47 Total Hepta-Furans				1.15	10.043	37.835		0.000		3.0847		0.151	3.08

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 14:16:35 Pacific Daylight Time

Printed: Friday, August 21, 2020 14:17:32 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.15	5.270e3	5.826e3	2.828e2	2.837e2	1.00	YES	0.000e0	0.00000	1.4579	0.258
2	Total Hexa-Dioxins	33.04	7.879e3	4.880e3	2.437e2	2.012e2	1.21	NO	4.449e2	1.2697	1.2697	0.258
3	1,2,3,6,7,8-HxCDD	33.94	1.976e3	2.446e3	9.901e1	9.074e1	1.09	NO	1.898e2	0.52607	0.52607	0.255
4	1,2,3,7,8,9-HxCDD	34.24	1.149e3	1.040e3	6.742e1	5.538e1	1.22	NO	1.228e2	0.32467	0.32467	0.253

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.70	5.535e4	5.313e4	3.150e3	3.298e3	0.95	NO	6.448e3	20.664	20.664	0.468
2	1,2,3,4,6,7,8-HpCDD	37.57	3.079e4	2.977e4	1.627e3	1.624e3	1.00	NO	3.251e3	10.419	10.419	0.468

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	22.23	7.990e2	9.730e2	4.499e1	5.511e1	0.82	NO	1.001e2	0.15634	0.15634	0.0664
2	Total Tetra-Furans	24.77	1.204e3	1.340e3	7.292e1	5.656e1	1.29	YES	0.000e0	0.00000	0.15635	0.0664
3	2,3,7,8-TCDF	25.62	2.095e3	1.507e3	1.264e2	8.851e1	1.43	YES	2.149e2	0.00000	0.24469	0.0664

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 14:16:35 Pacific Daylight Time

Printed: Friday, August 21, 2020 14:17:32 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

**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	27.00	3.292e3	2.634e3	1.802e2	1.315e2	1.37	NO	3.117e2	0.43975	0.43975	0.0505

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.48	1.584e3	1.557e3	1.418e2	8.368e1	1.69	NO	2.255e2	0.31808	0.31808	0.0350
2	1,2,3,7,8-PeCDF	29.38	1.951e3	9.650e2	9.468e1	6.287e1	1.51	NO	1.575e2	0.22056	0.22056	0.0356
3	2,3,4,7,8-PeCDF	30.33	1.244e3	1.131e3	7.816e1	4.998e1	1.56	NO	1.281e2	0.16629	0.16629	0.0314

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.62	1.810e3	6.380e2	5.989e1	3.554e1	1.69	YES	0.000e0	0.00000	0.15488	0.167
2	Total Hexa-Furans	31.78	3.855e3	2.833e3	1.707e2	1.235e2	1.38	NO	2.942e2	0.57228	0.57228	0.167
3	Total Hexa-Furans	32.40	3.778e3	3.784e3	2.096e2	1.669e2	1.26	NO	3.765e2	0.73246	0.73246	0.167
4	1,2,3,4,7,8-HxCDF	32.89	2.883e3	1.550e3	1.213e2	8.099e1	1.50	YES	2.023e2	0.00000	0.35656	0.162

**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	36.38	4.280e3	3.594e3	2.351e2	2.310e2	1.02	NO	4.661e2	0.98280	0.98280	0.134
2	Total Hepta-Furans	36.98	7.613e3	9.107e3	4.170e2	4.175e2	1.00	NO	8.346e2	2.1019	2.1019	0.151

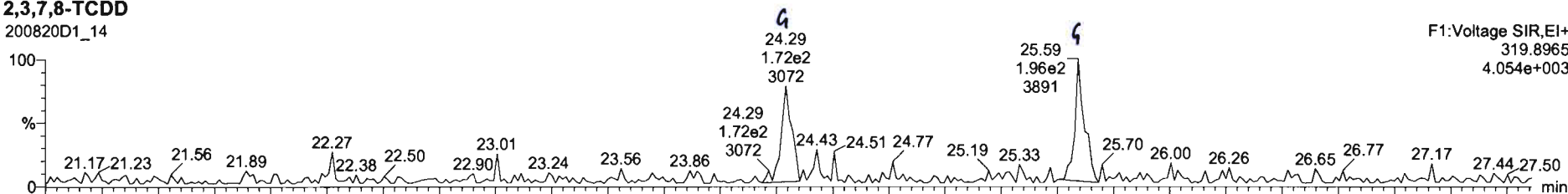
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

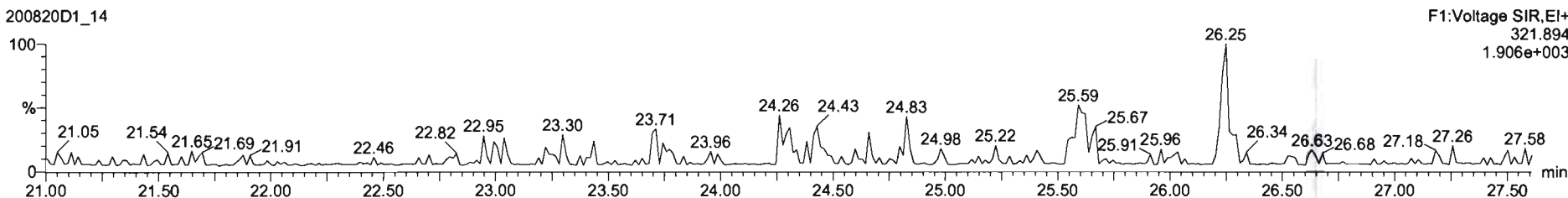
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

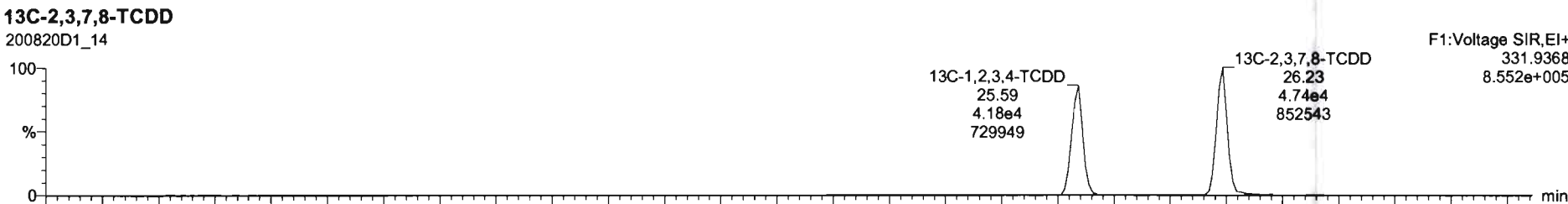
2,3,7,8-TCDD  
200820D1\_14



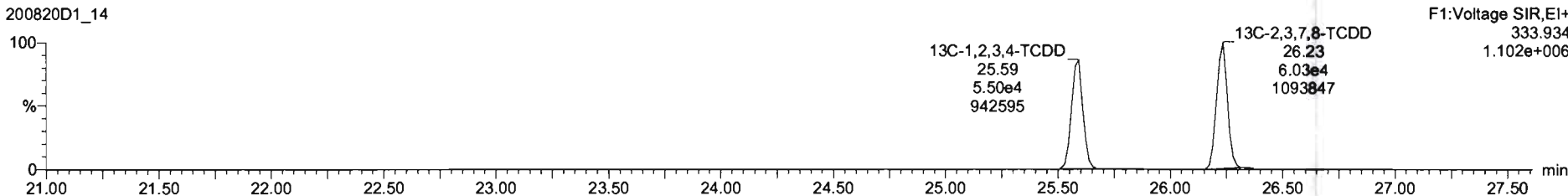
200820D1\_14



13C-2,3,7,8-TCDD  
200820D1\_14



200820D1\_14



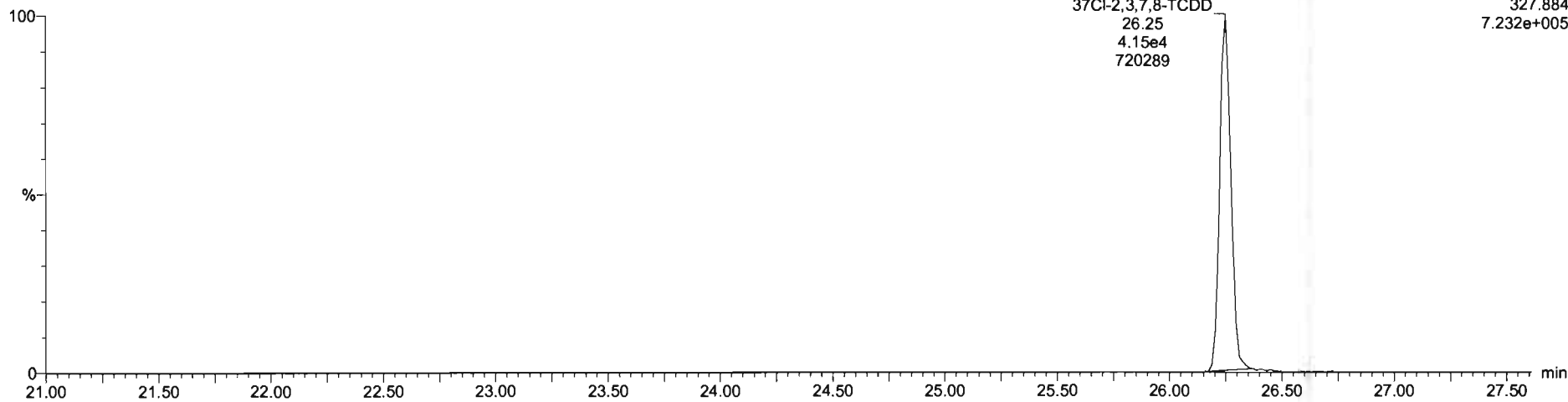
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

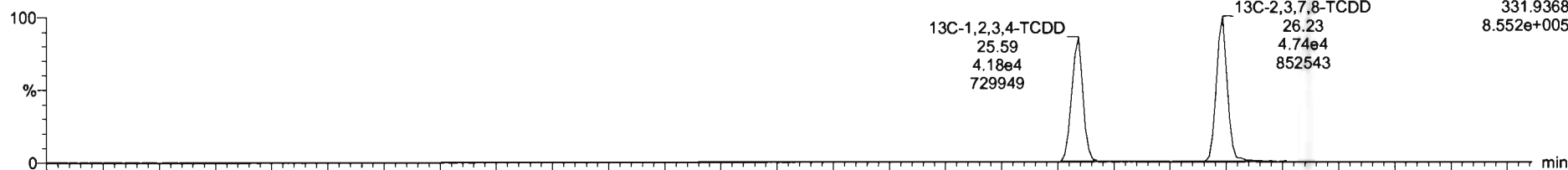
37Cl-2,3,7,8-TCDD

200820D1\_14

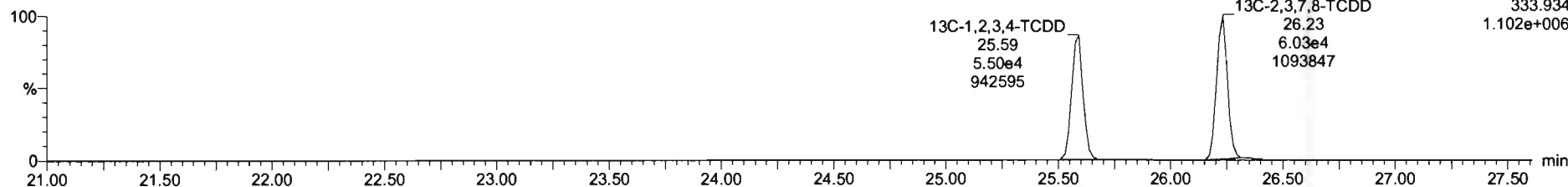


13C-1,2,3,4-TCDD

200820D1\_14



200820D1\_14





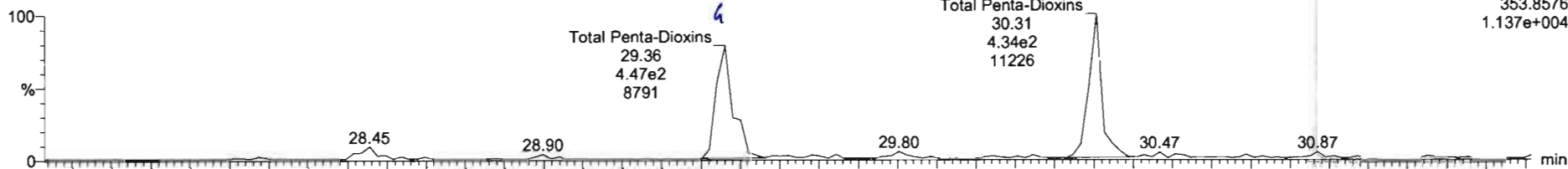
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

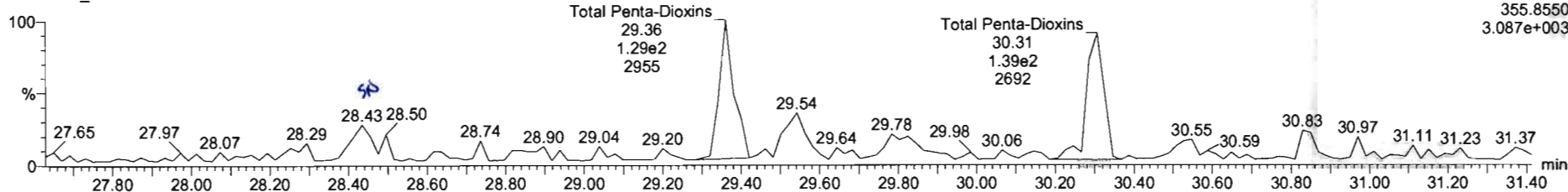
Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

1,2,3,7,8-PeCDD

200820D1\_14

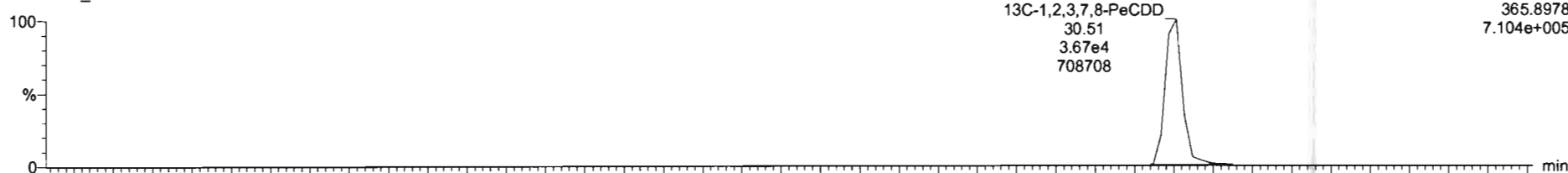


200820D1\_14

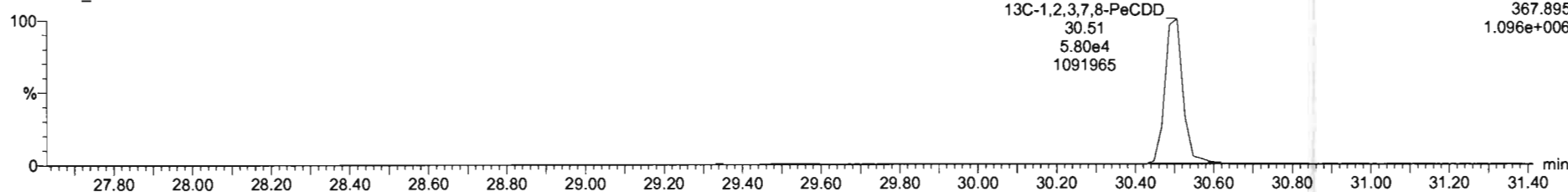


13C-1,2,3,7,8-PeCDD

200820D1\_14



200820D1\_14



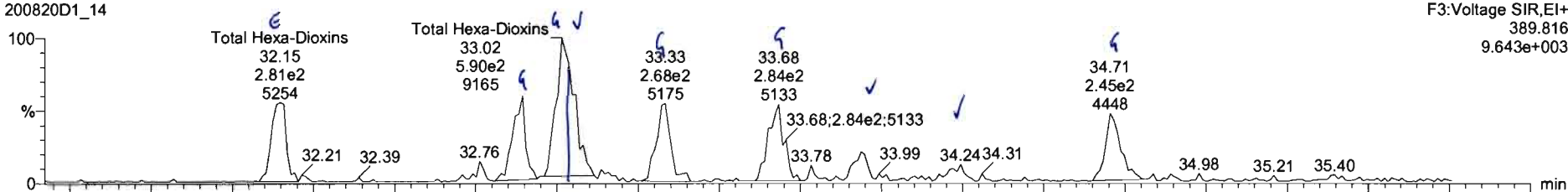
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

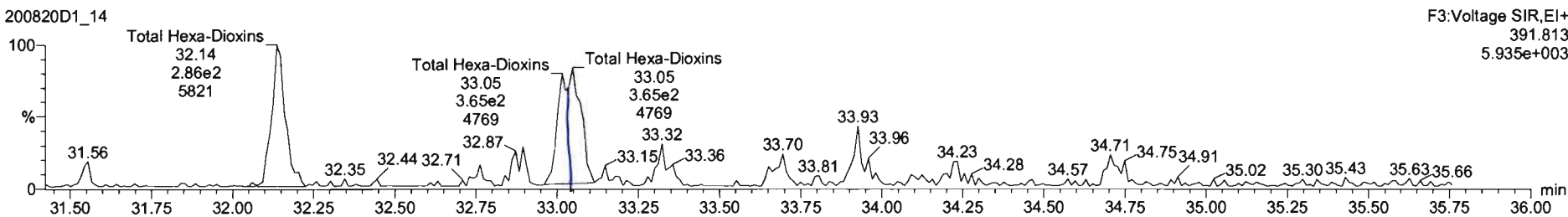
Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

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

200820D1\_14

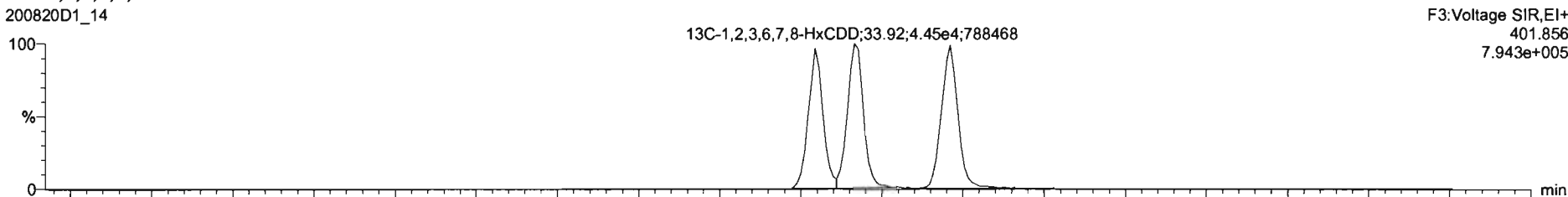


200820D1\_14

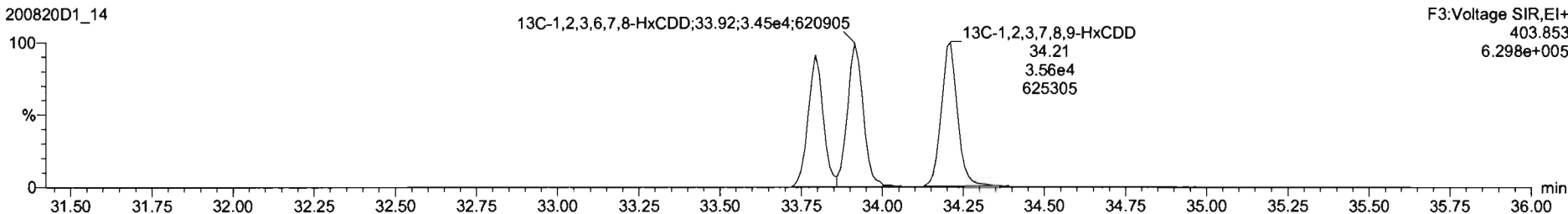


13C-1,2,3,4,7,8-HxCDD

200820D1\_14

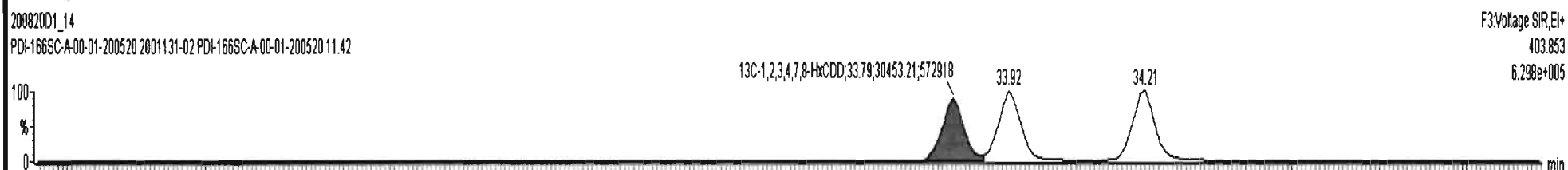
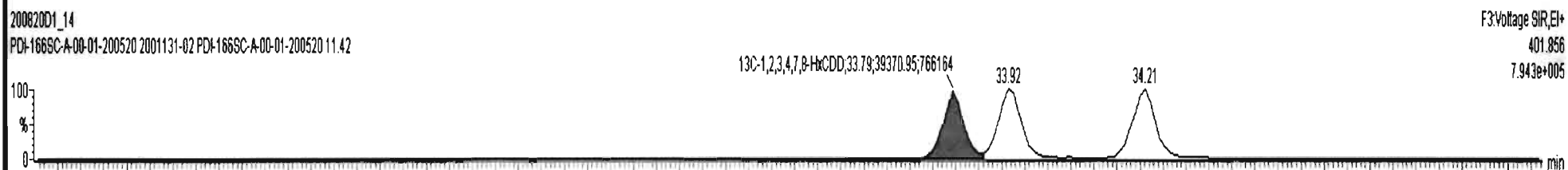
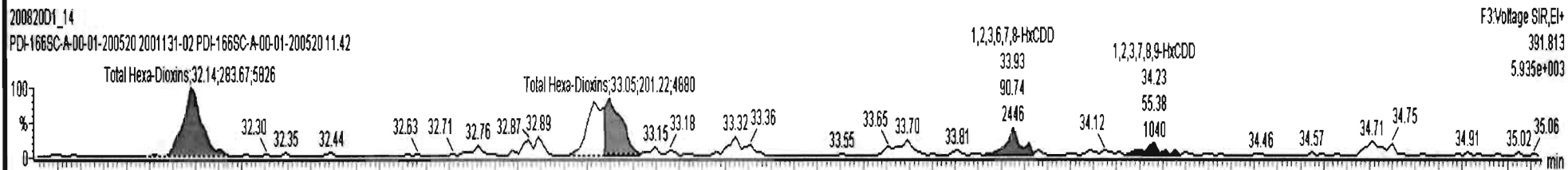
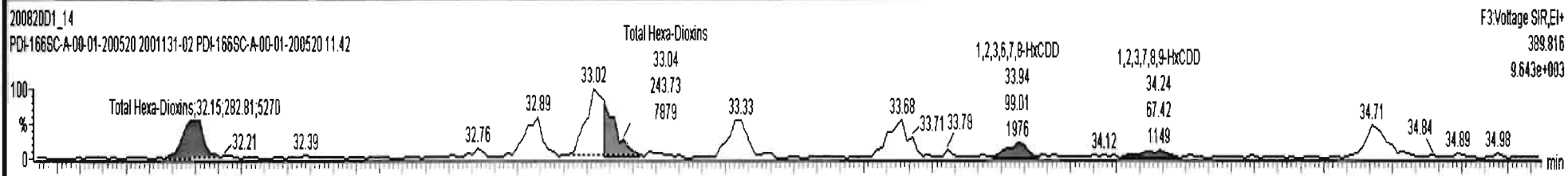


200820D1\_14



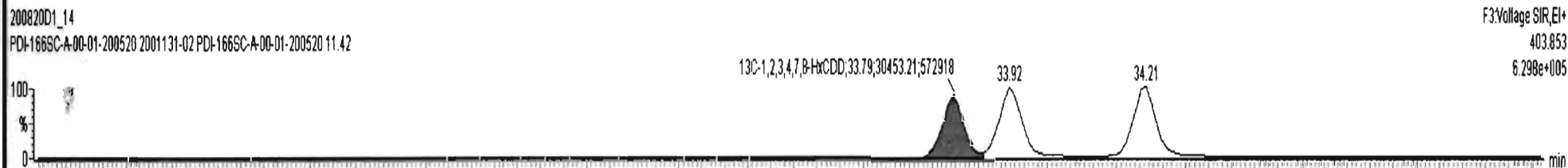
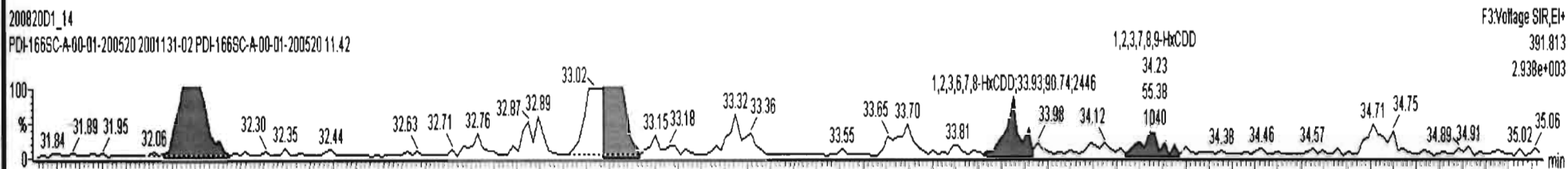
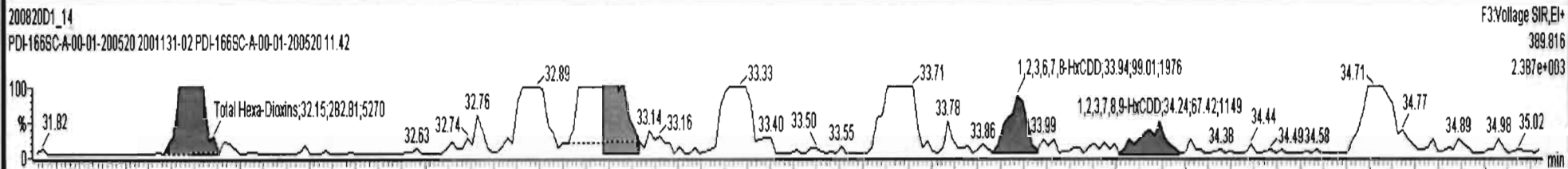


200820D1\_14 - 2001131-02 PDI-166SC-A-00-01-200520 11.42 - PDI-166SC-A-00-01-200520





200820D1\_14 - 2001131-02 PDI-166SC-A-00-01-200520 11.42 - PDI-166SC-A-00-01-200520

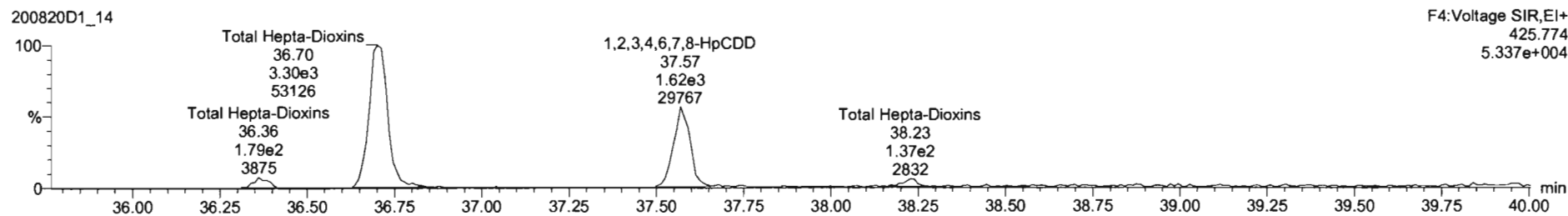
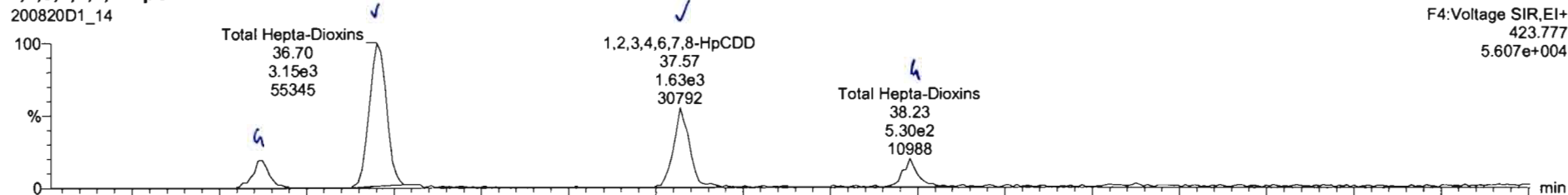


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

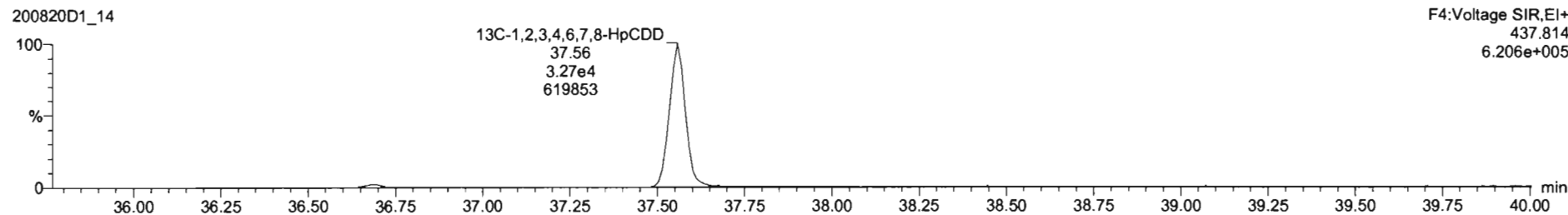
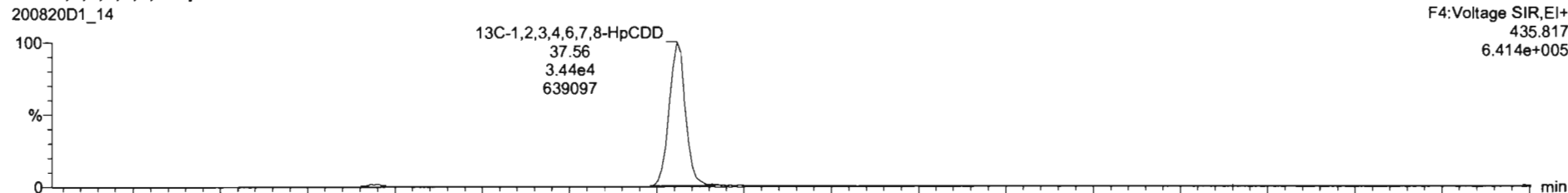
Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

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



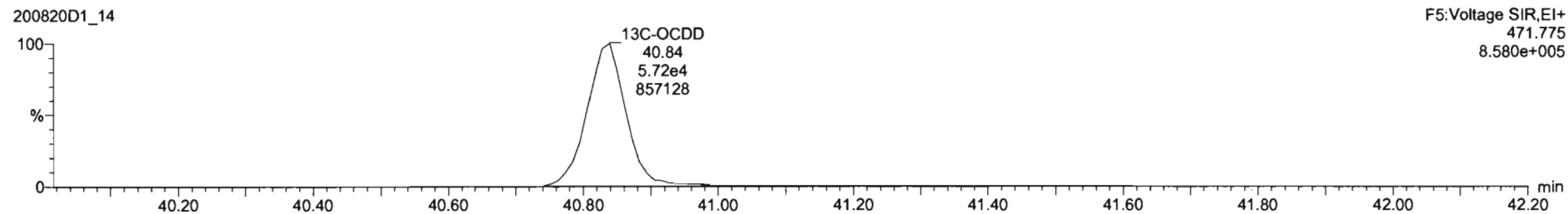
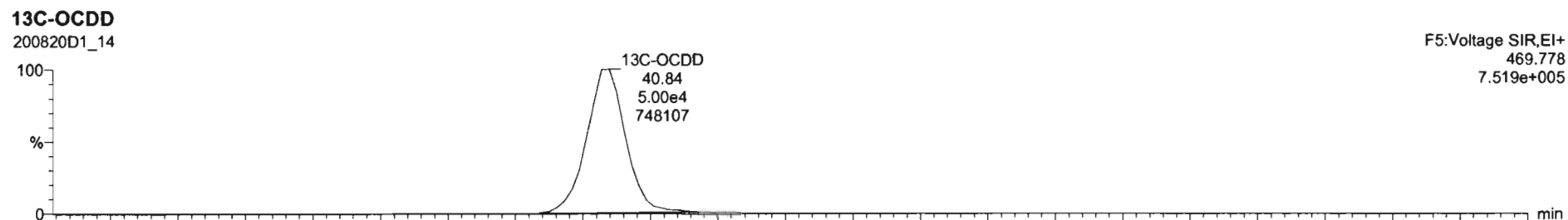
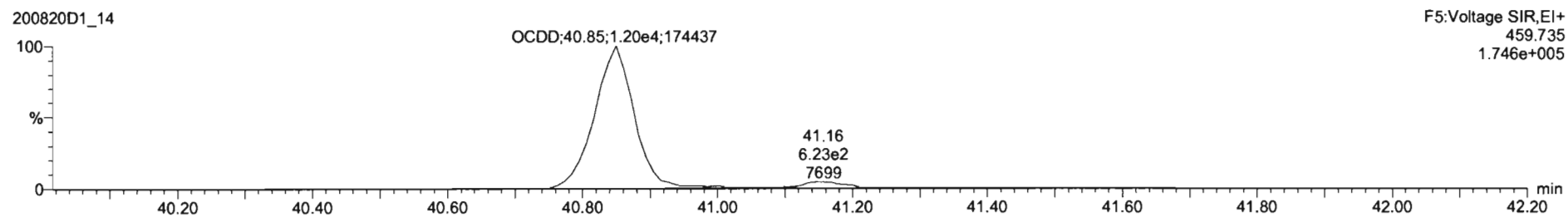
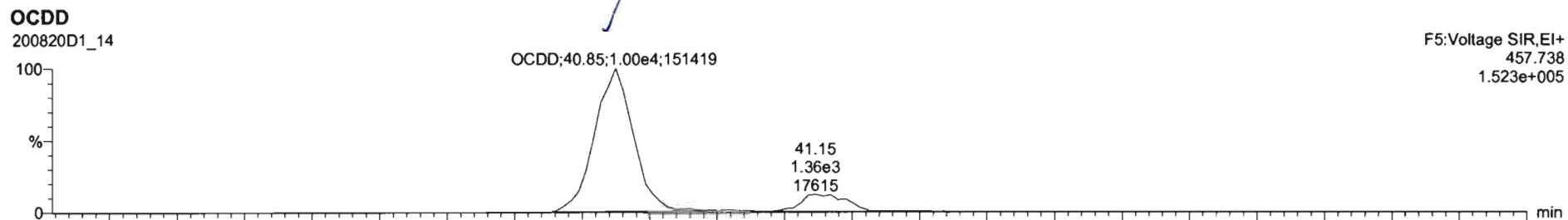
13C-1,2,3,4,6,7,8-HpCDD



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520



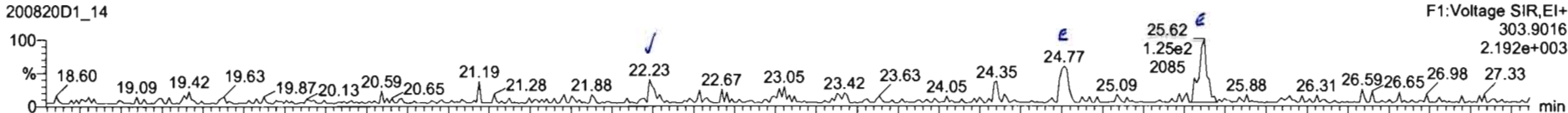
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

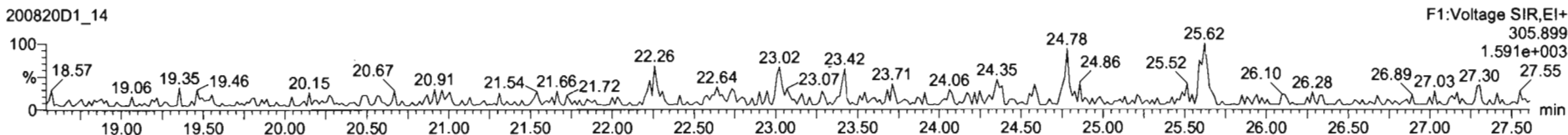
Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

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

200820D1\_14



200820D1\_14

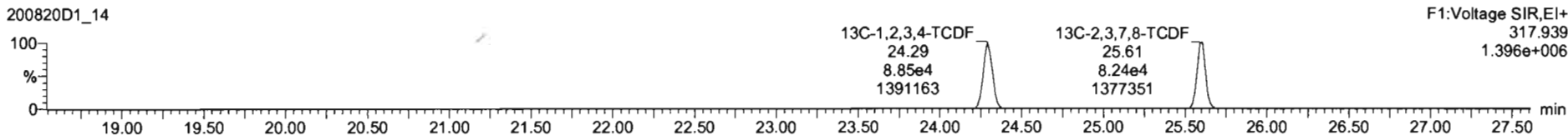


**13C-2,3,7,8-TCDF**

200820D1\_14

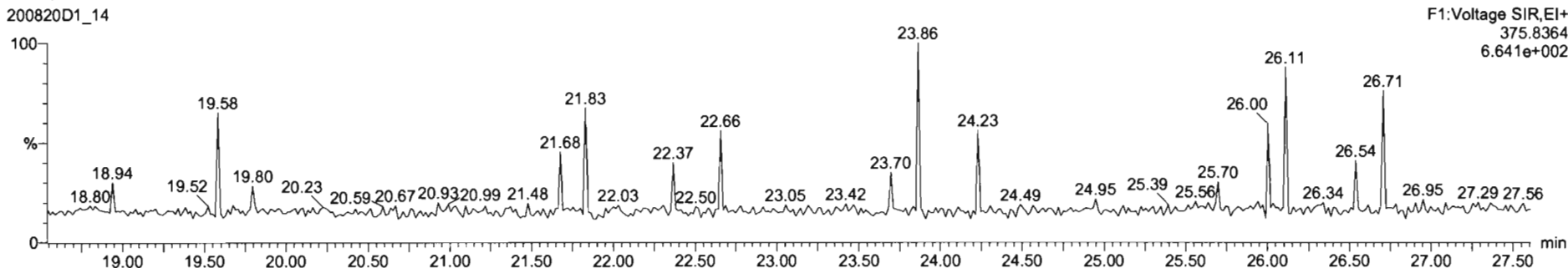


200820D1\_14

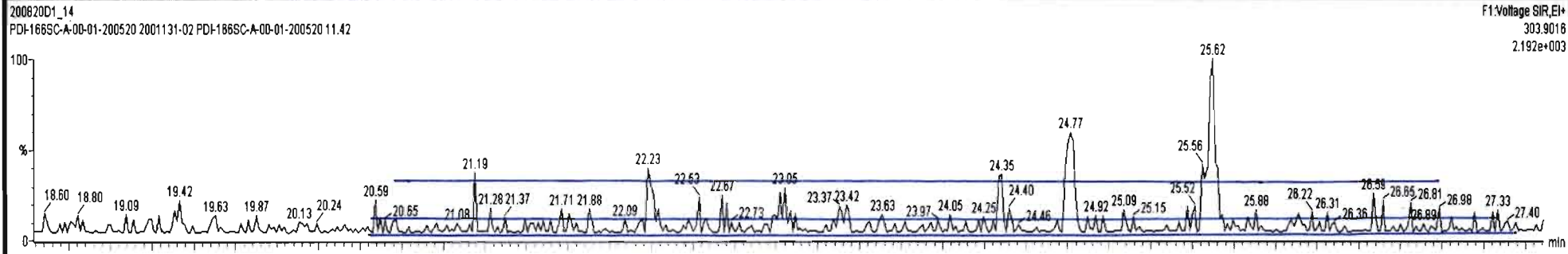


**DPE1**

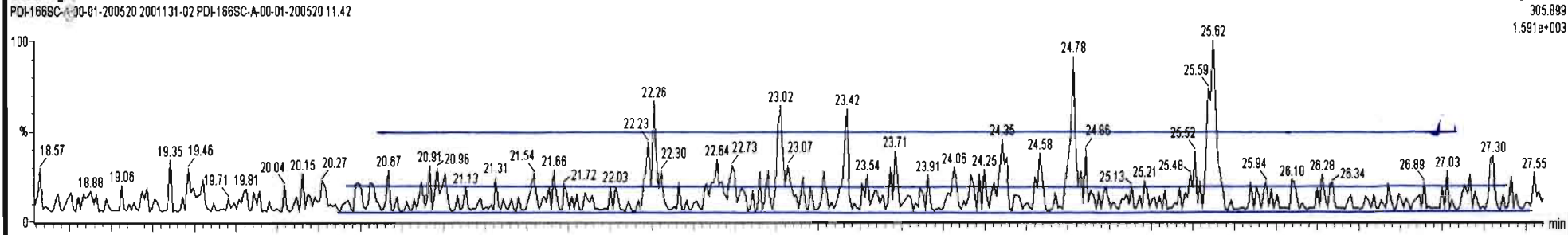
200820D1\_14



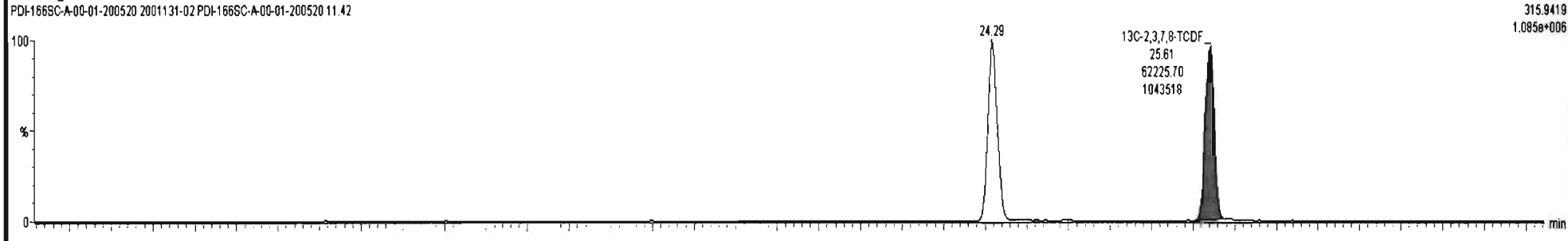
200820D1\_14 F1:Voltage SIR,EI+ 303.9016 2.192e+003



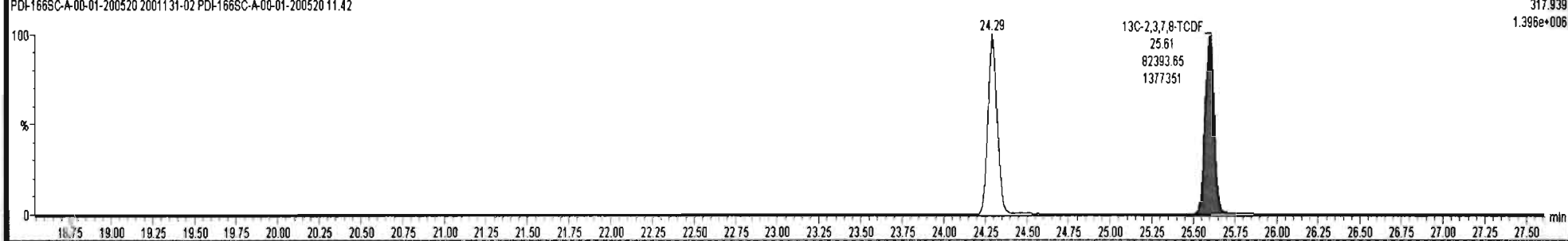
200820D1\_14 F1:Voltage SIR,EI+ 305.899 1.591e+003



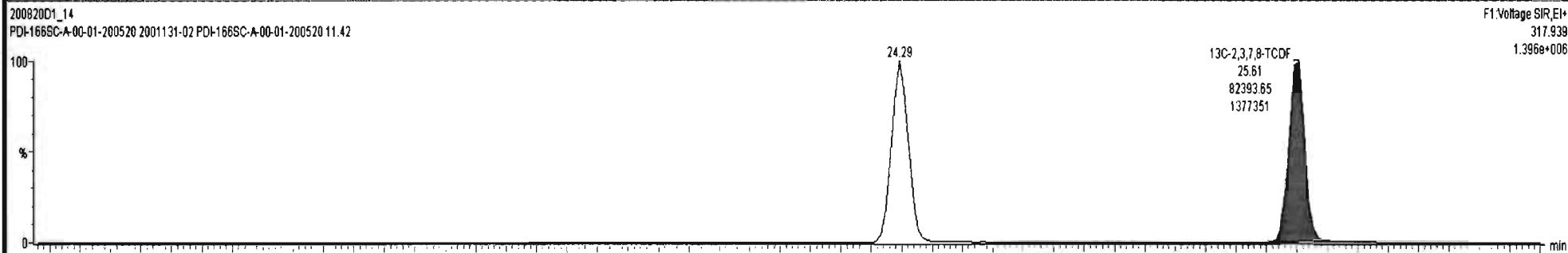
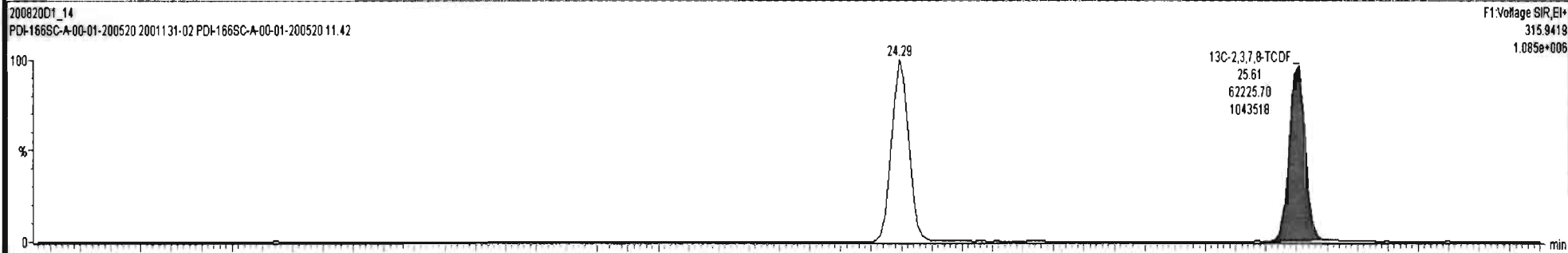
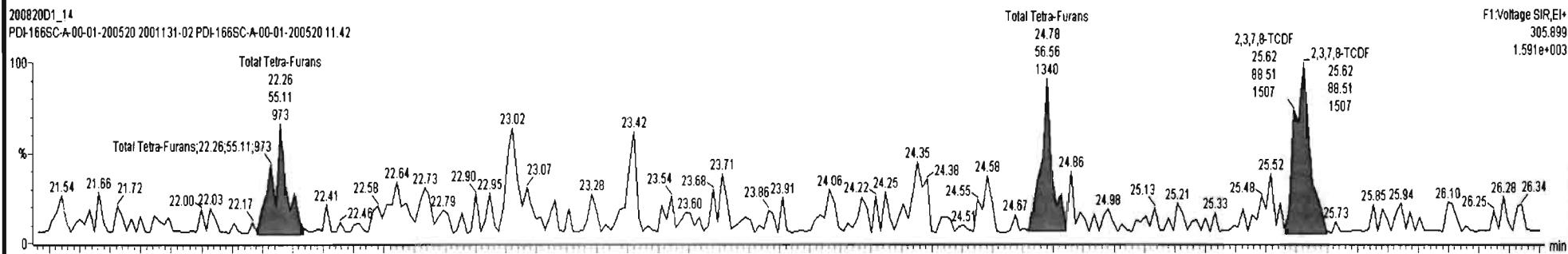
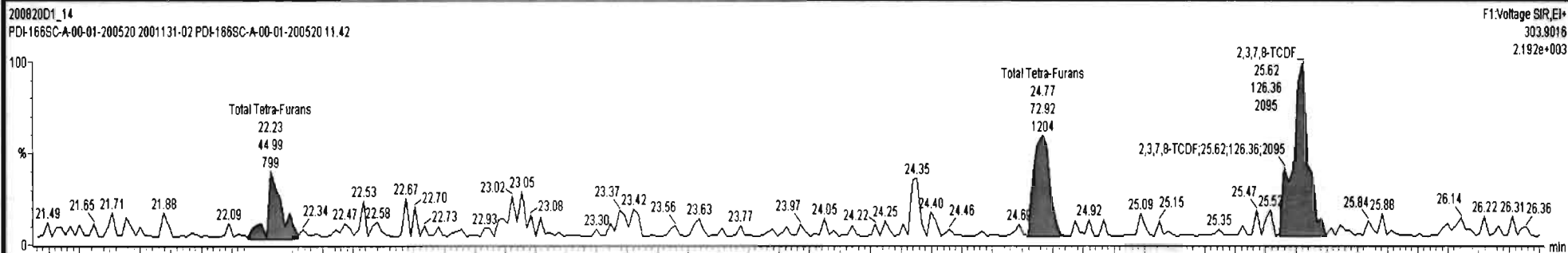
200820D1\_14 F1:Voltage SIR,EI+ 315.9419 1.085e+006



200820D1\_14 F1:Voltage SIR,EI+ 317.939 1.396e+006







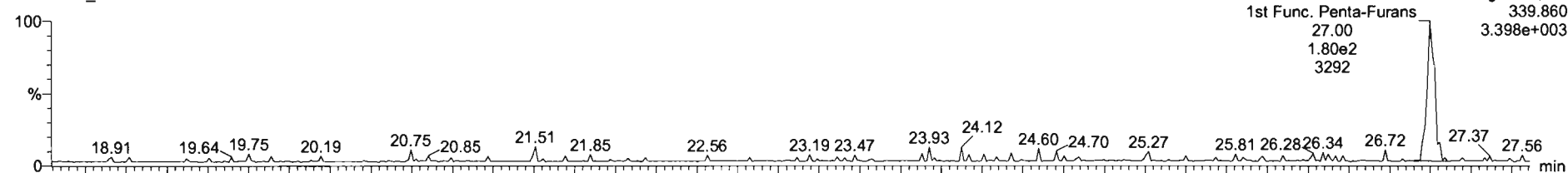
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

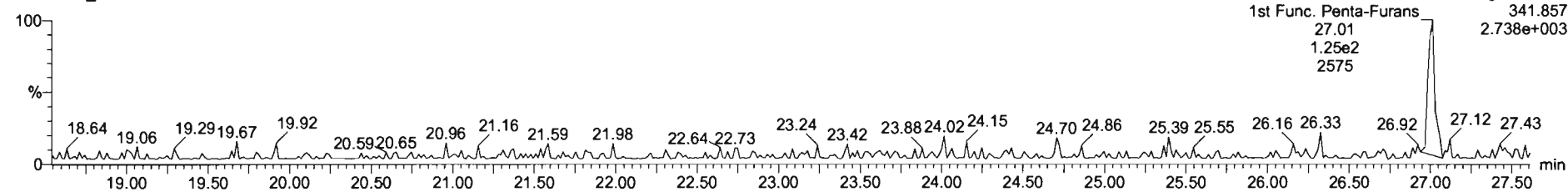
Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

1st Func. Penta-Furans

200820D1\_14

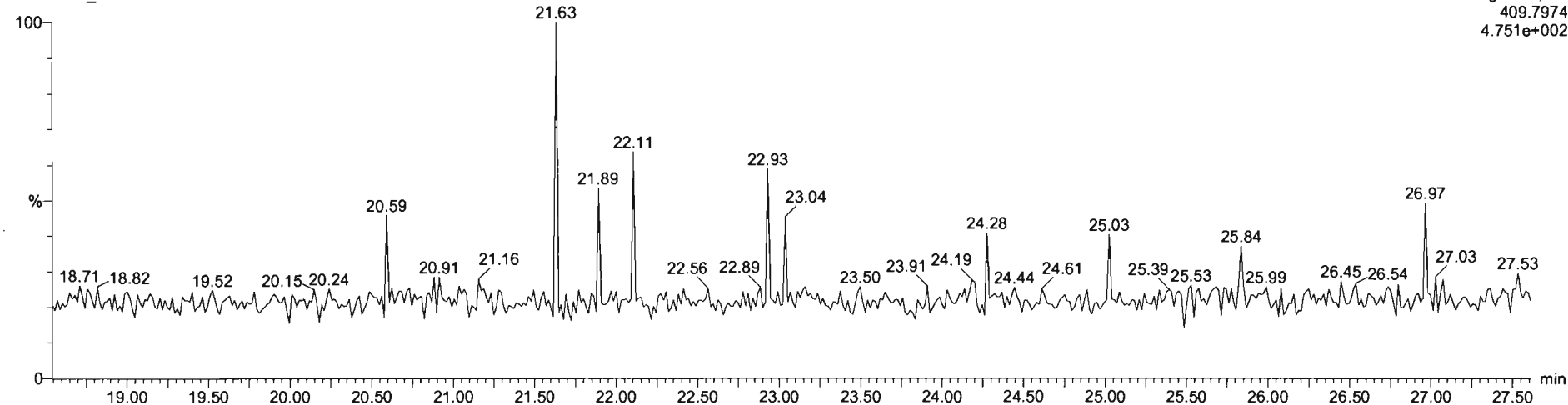


200820D1\_14



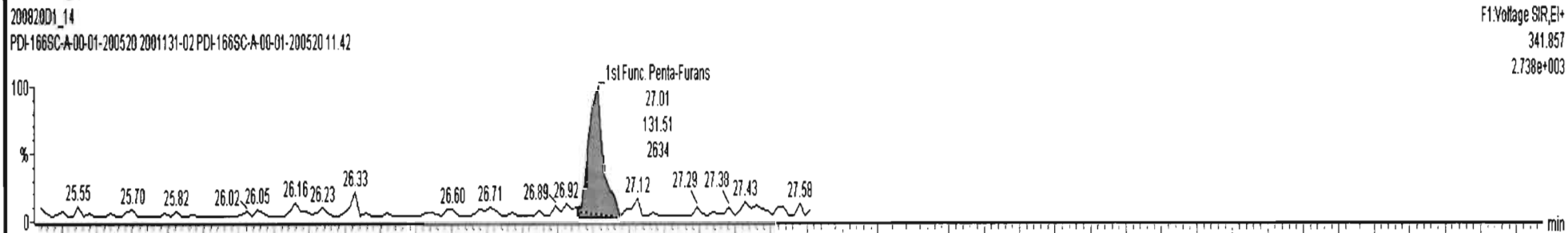
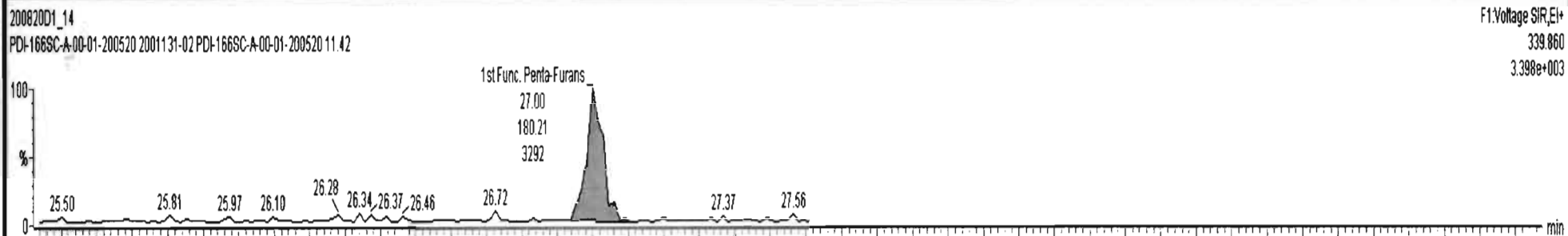
DPE6

200820D1\_14





200820D1\_14 - 2001131-02 PDI-166SC-A-00-01-200520 11.42 - PDI-166SC-A-00-01-200520

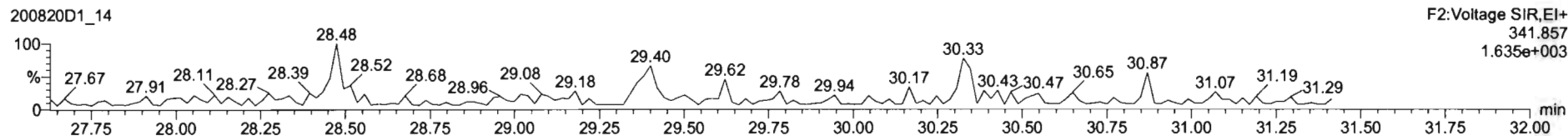
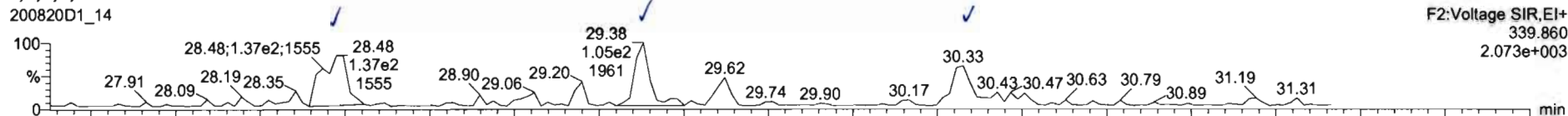


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

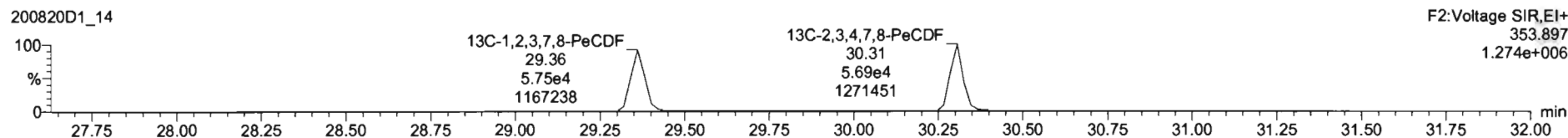
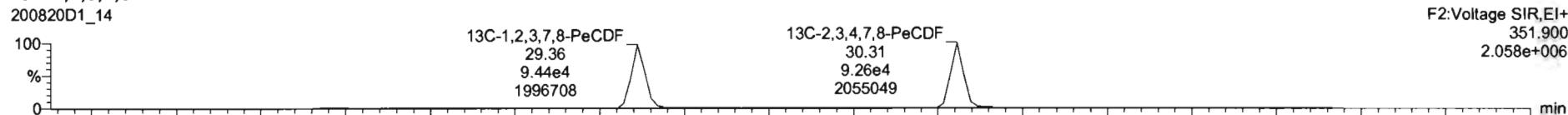
Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

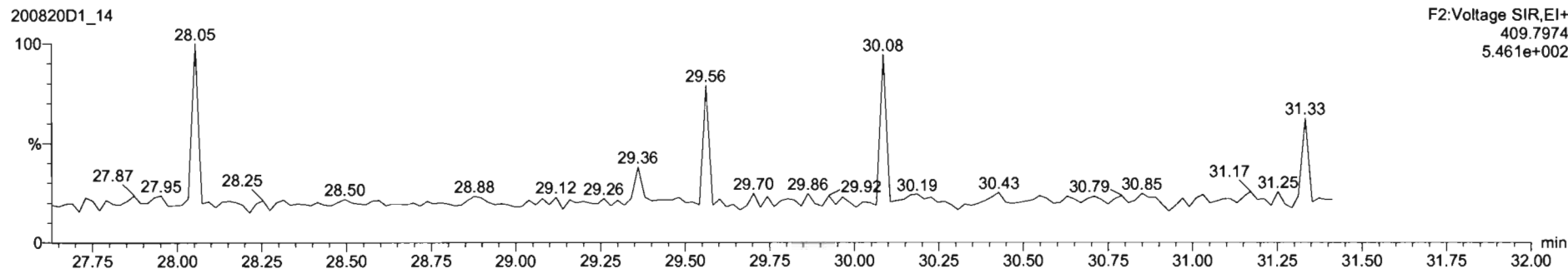
1,2,3,7,8-PeCDF



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

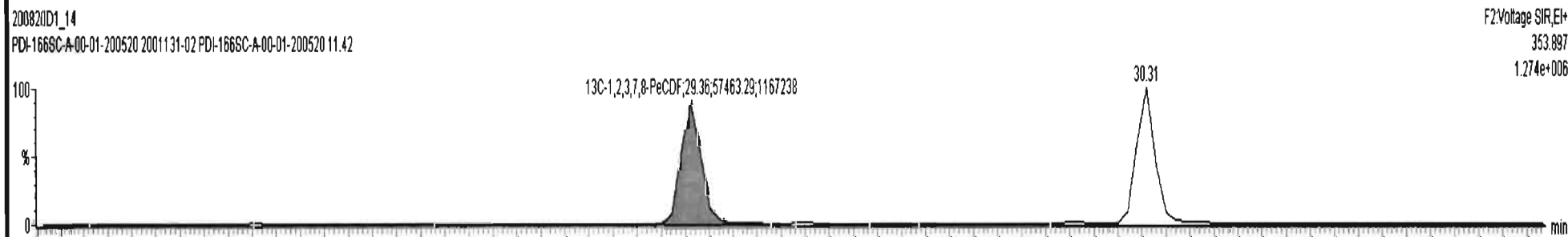
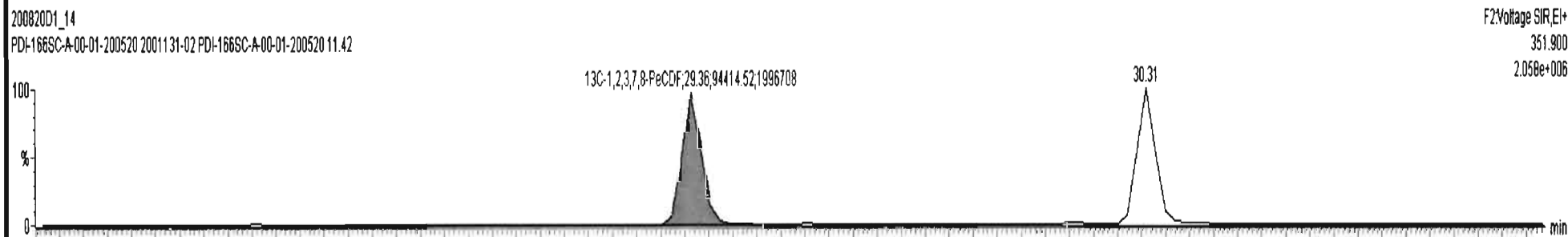
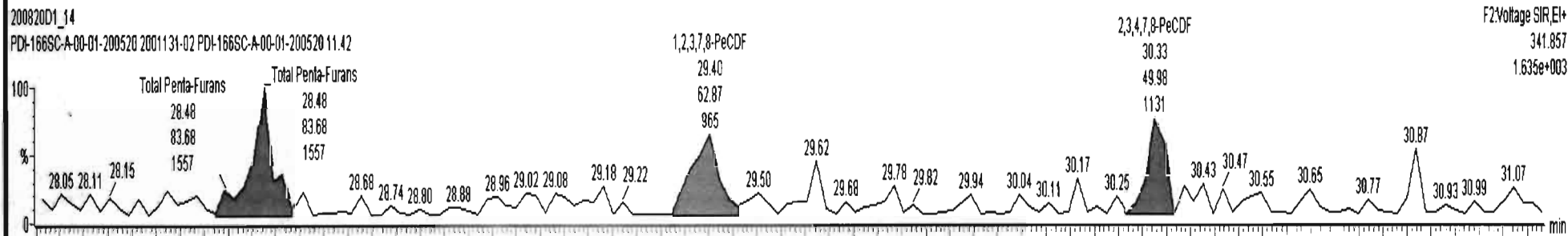
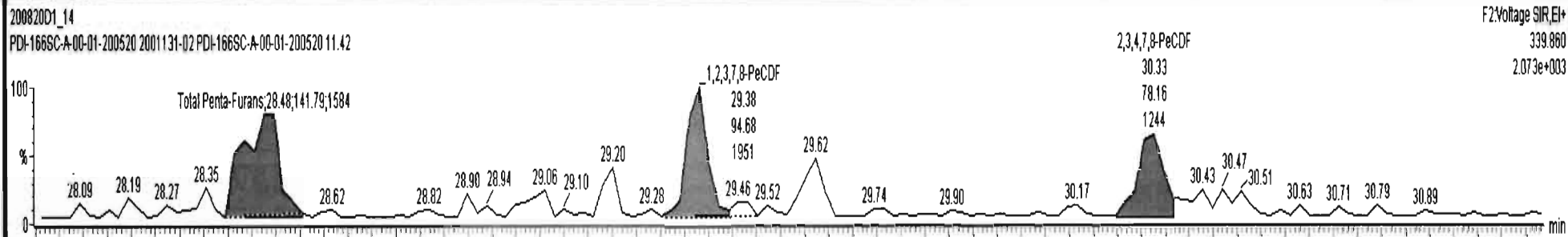


DPE2





200820D1\_14 - 2001131-02 PDI-166SC-A-00-01-200520 11.42 - PDI-166SC-A-00-01-200520

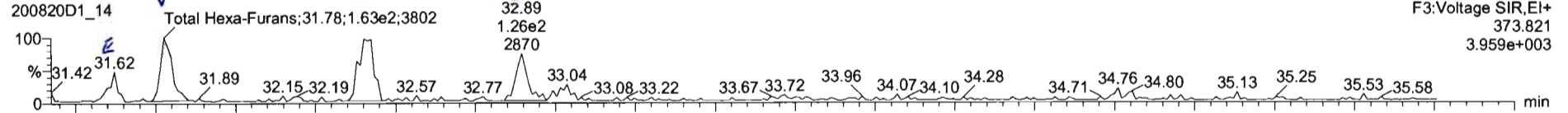


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

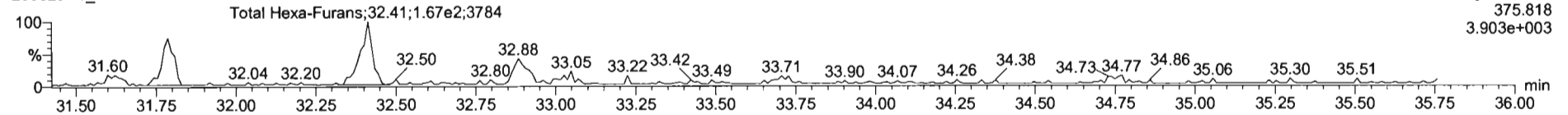
Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

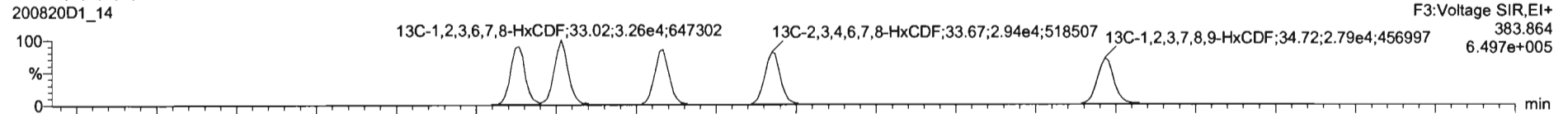
1,2,3,4,7,8-HxCDF



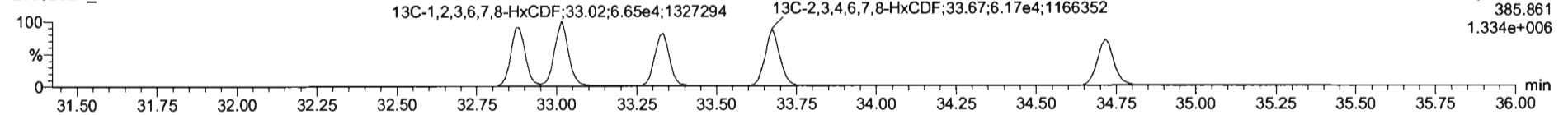
200820D1\_14



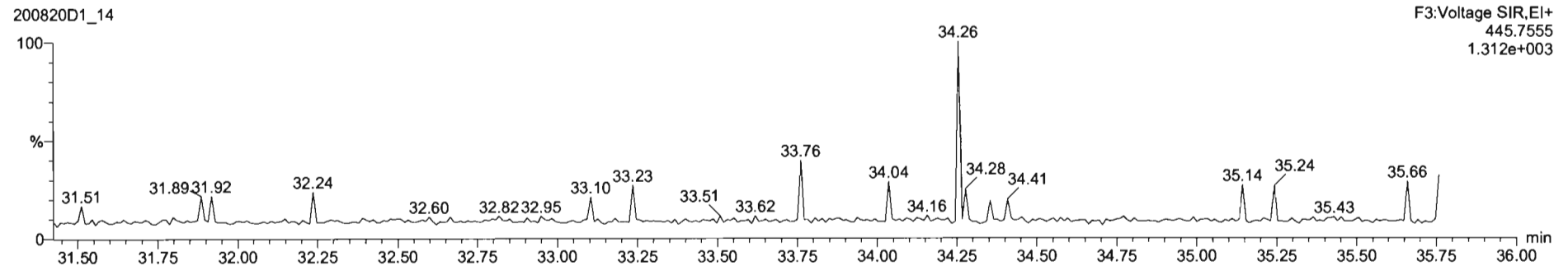
13C-1,2,3,4,7,8-HxCDF



200820D1\_14

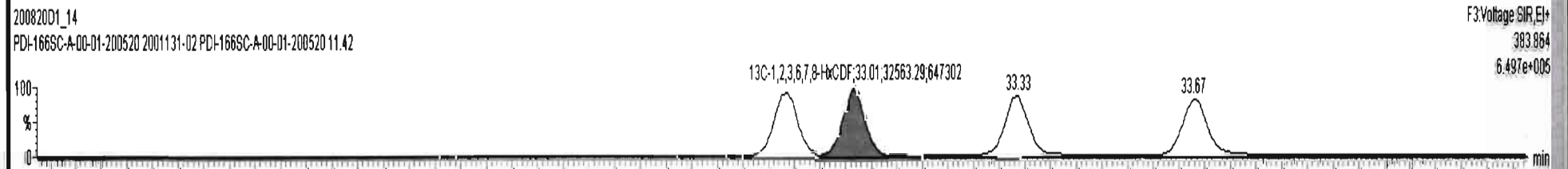
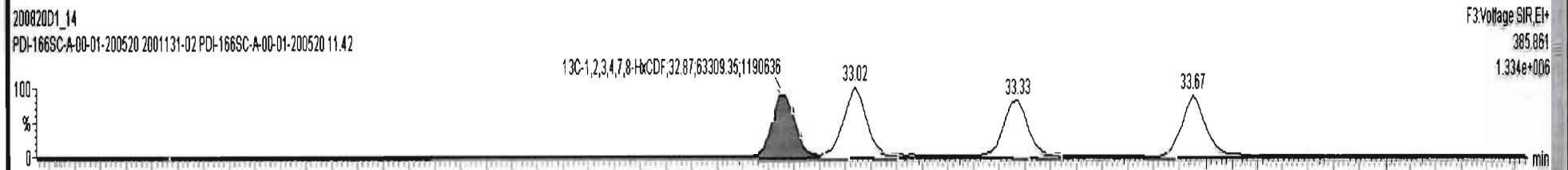
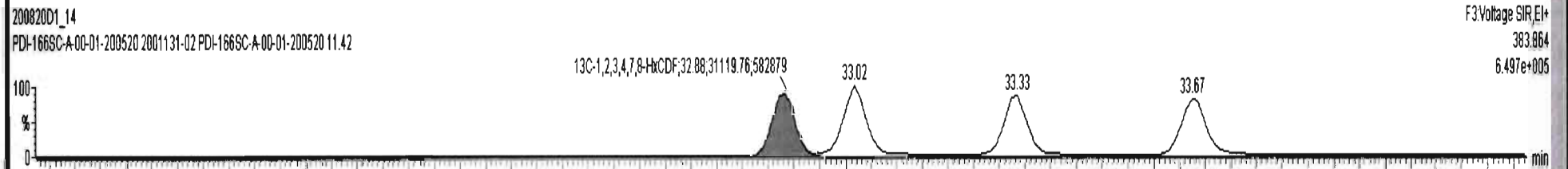
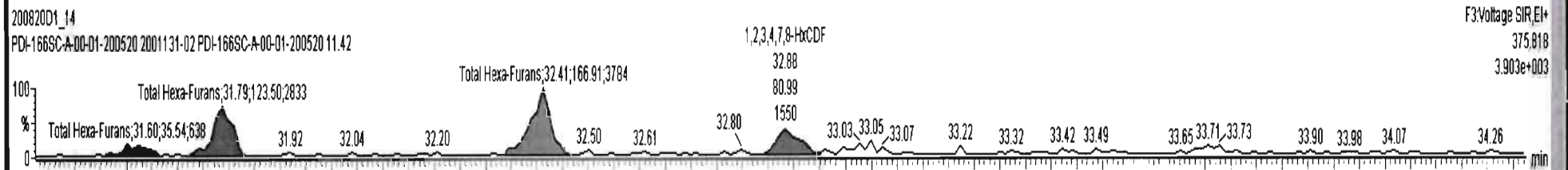
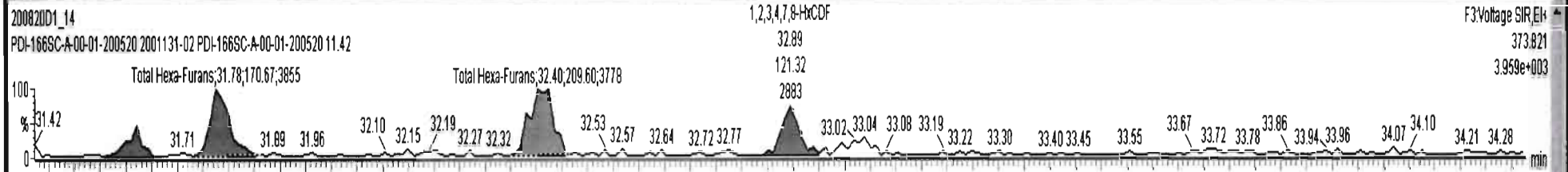


DPE3





200820D1\_14 - 2001131-02 PDI-166SC-A-00-01-200520 11.42 - PDI-166SC-A-00-01-200520

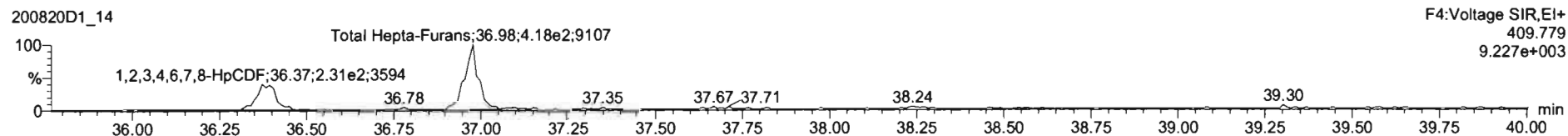


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

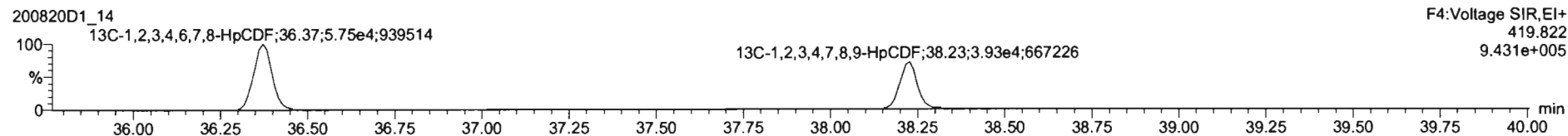
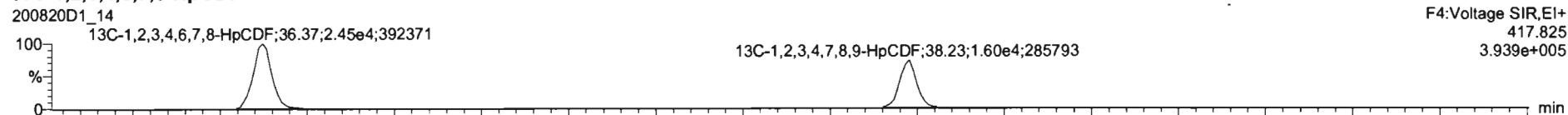
Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

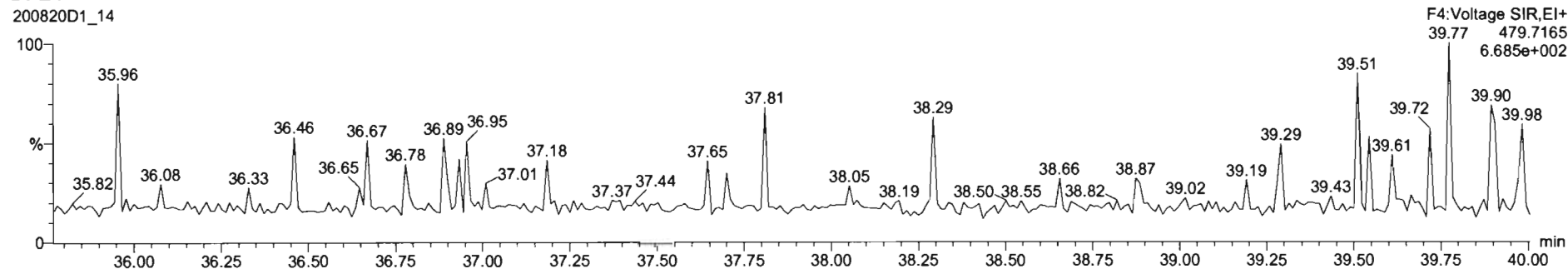
**1,2,3,4,6,7,8-HpCDF**



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



**DPE4**

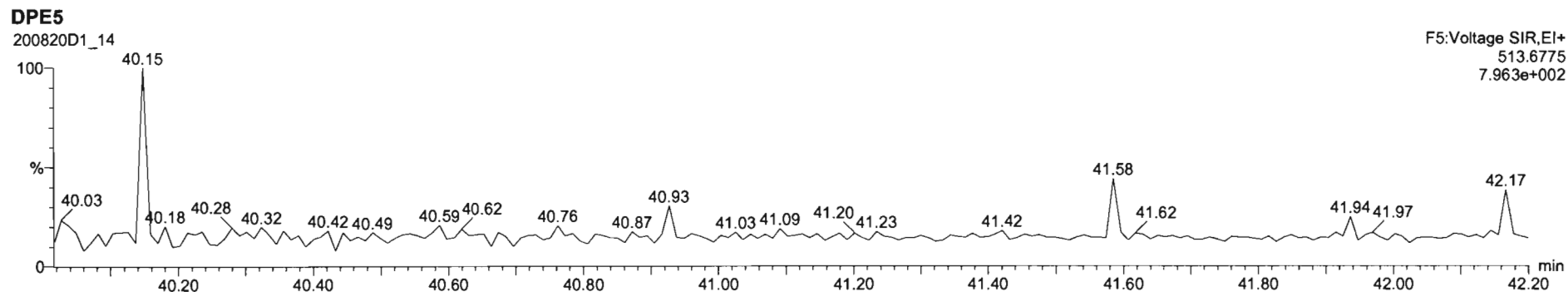
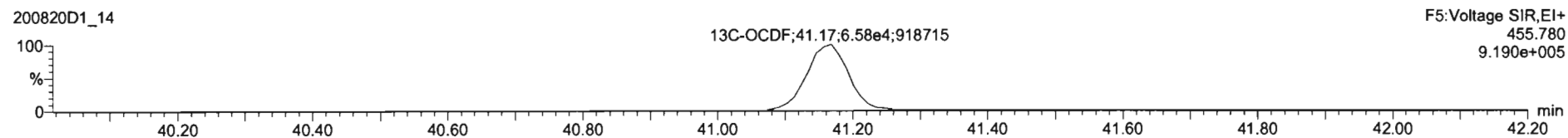
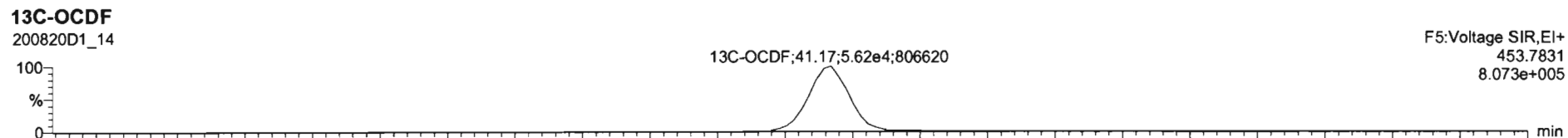
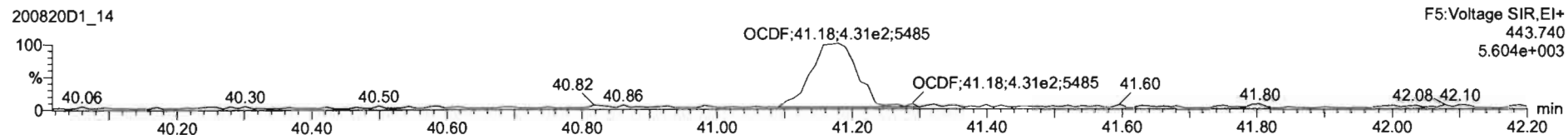
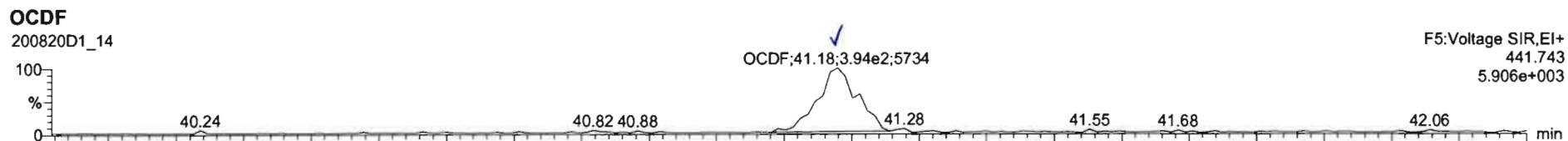


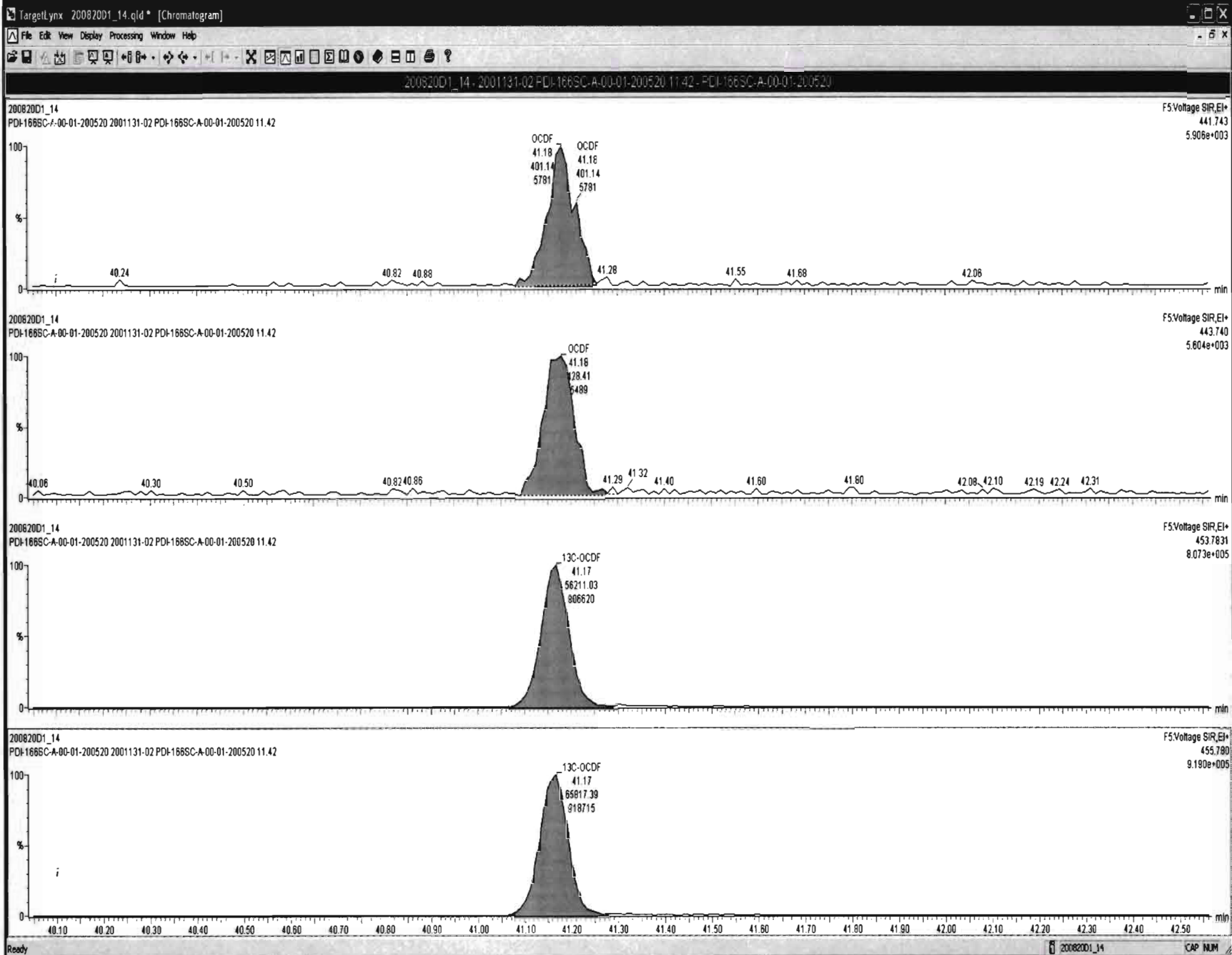


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520

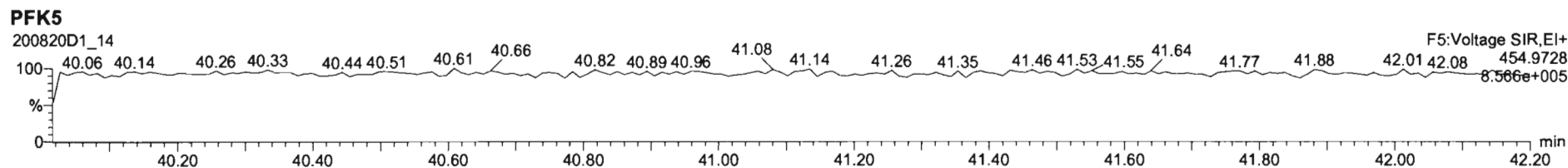
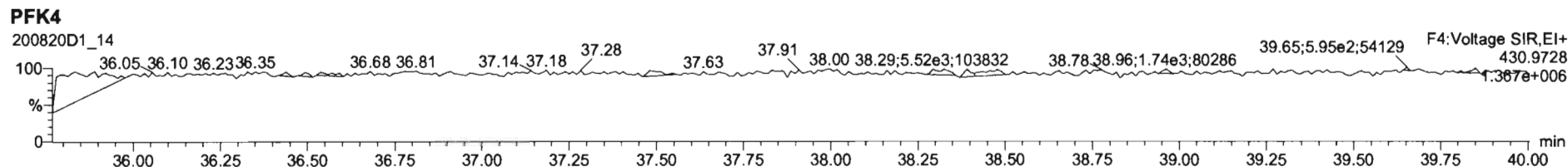
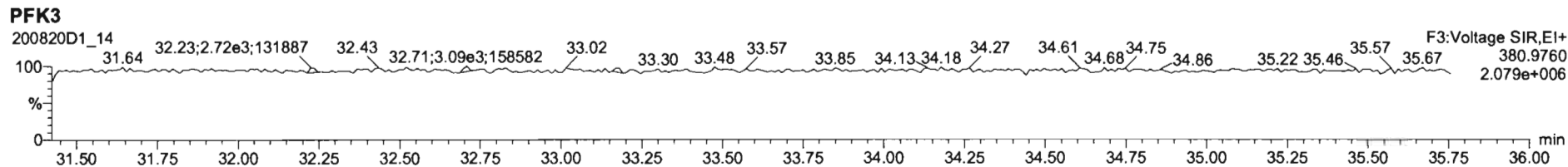
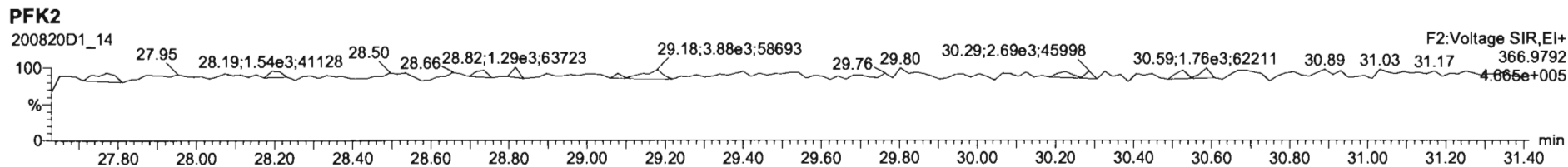
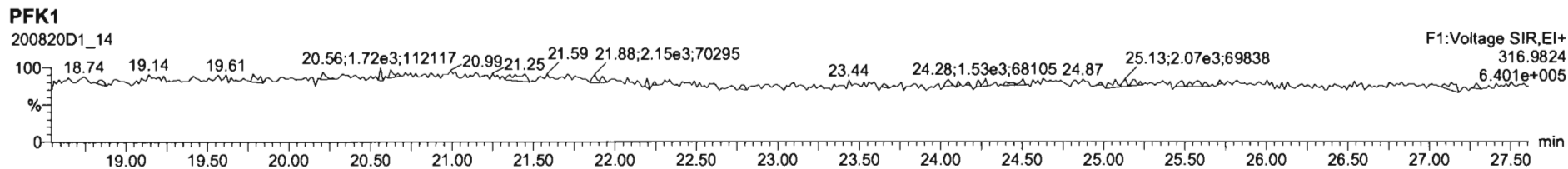




Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_14.qld

Last Altered: Friday, August 21, 2020 10:36:49 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:37:44 Pacific Daylight Time

Name: 200820D1\_14, Date: 20-Aug-2020, Time: 22:44:17, ID: 2001131-02 PDI-166SC-A-00-01-200520 11.42, Description: PDI-166SC-A-00-01-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Tuesday, August 25, 2020 14:47:26 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 14:47:57 Pacific Daylight Time

*DB 8/25/20 CT 08/25/2020*

Method: Untitled 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

	# 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	1.08	<del>11.390</del>	26.265		1.001				0.126	
2	2 1,2,3,7,8-PeCDD			NO	0.991	<del>11.390</del>	30.529		1.001				0.215	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	<del>11.390</del>	33.804		1.000				0.330	
4	4 1,2,3,6,7,8-HxCDD	1.82e2	1.56	YES	0.908	<del>11.390</del>	33.915	33.94	1.000	1.001	0.51211		0.325	0.448
5	5 1,2,3,7,8,9-HxCDD	1.21e2	1.12	NO	0.923	<del>11.390</del>	34.234	34.21	1.001	1.000	0.33413		0.370	0.334
6	6 1,2,3,4,6,7,8-HpCDD	3.42e3	0.99	NO	0.926	<del>11.390</del>	37.569	37.57	1.000	1.000	11.721		0.525	11.7
7	7 OCDD	2.17e4	0.85	NO	0.834	<del>11.390</del>	40.828	40.84	1.000	1.000	109.13		0.817	109
8	8 2,3,7,8-TCDF	2.63e2	0.97	YES	0.882	<del>11.390</del>	25.633	25.62	1.001	1.001	0.38522		0.123	0.347
9	9 1,2,3,7,8-PeCDF	1.97e2	1.24	YES	0.937	<del>11.390</del>	29.382	29.38	1.001	1.001	0.27252		0.0432	0.248
10	10 2,3,4,7,8-PeCDF	1.53e2	0.70	YES	1.03	<del>11.390</del>	30.336	30.33	1.001	1.001	0.20100		0.0365	0.136
11	11 1,2,3,4,7,8-HxCDF	2.22e2	0.88	YES	1.07	<del>11.390</del>	32.883	32.90	1.000	1.000	0.42663		0.208	0.361
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	<del>11.390</del>	33.025		1.000				0.193	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	<del>11.390</del>	33.708		1.001				0.223	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	<del>11.390</del>	34.716		1.000				0.276	
15	15 1,2,3,4,6,7,8-HpCDF	5.21e2	0.93	NO	1.15	<del>11.390</del>	36.409	36.38	1.001	1.000	1.2265		0.177	1.23
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	<del>11.390</del>	38.227		1.000				0.213	
17	17 OCDF	8.68e2	0.91	NO	0.961	<del>11.390</del>	41.168	41.18	1.000	1.000	3.0850		0.266	3.09
18	18 13C-2,3,7,8-TCDD	1.18e5	0.76	NO	1.20	<del>11.390</del>	26.256	26.23	1.026	1.025	200.09	100	0.794	
19	19 13C-1,2,3,7,8-PeCDD	9.60e4	0.61	NO	0.910	<del>11.390</del>	30.520	30.51	1.193	1.192	215.70	108	0.475	
20	20 13C-1,2,3,4,7,8-HxCDD	6.78e4	1.33	NO	0.789	<del>11.390</del>	33.800	33.79	1.014	1.014	182.62	91.5	0.798	
21	21 13C-1,2,3,6,7,8-HxCDD	7.80e4	1.33	NO	0.885	<del>11.390</del>	33.910	33.92	1.017	1.017	187.41	93.9	0.711	
22	22 13C-1,2,3,7,8,9-HxCDD	7.84e4	1.28	NO	0.888	<del>11.390</del>	34.180	34.20	1.025	1.026	187.61	94.0	0.708	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.29e4	1.05	NO	0.740	<del>11.390</del>	37.633	37.56	1.129	1.127	180.80	90.6	1.51	
24	24 13C-OCDD	9.53e4	0.92	NO	0.660	<del>11.390</del>	40.646	40.83	1.219	1.225	306.96	76.9	0.647	
25	25 13C-2,3,7,8-TCDF	1.55e5	0.74	NO	1.09	<del>11.390</del>	25.335	25.61	0.990	1.001	165.89	83.1	0.696	
26	26 13C-1,2,3,7,8-PeCDF	1.54e5	1.62	NO	0.857	<del>11.390</del>	29.576	29.36	1.156	1.147	209.52	105	0.915	
27	27 13C-2,3,4,7,8-PeCDF	1.48e5	1.60	NO	0.796	<del>11.390</del>	30.479	30.31	1.191	1.184	216.76	109	0.985	
28	28 13C-1,2,3,4,7,8-HxCDF	9.66e4	0.49	NO	1.02	<del>11.390</del>	32.933	32.88	0.988	0.986	201.36	101	0.885	
29	29 13C-1,2,3,6,7,8-HxCDF	1.02e5	0.50	NO	1.00	<del>11.390</del>	33.066	33.01	0.992	0.990	215.44	108	0.900	
30	30 13C-2,3,4,6,7,8-HxCDF	9.10e4	0.50	NO	0.936	<del>11.390</del>	33.636	33.67	1.009	1.010	206.63	103	0.964	
31	31 13C-1,2,3,7,8,9-HxCDF	8.34e4	0.48	NO	0.889	<del>11.390</del>	34.713	34.72	1.041	1.041	199.37	99.9	1.01	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Tuesday, August 25, 2020 14:47:26 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 14:47:57 Pacific Daylight Time

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

*10.017 DB 8/25/20*

#	Name	Resp	RA	n/y	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	7.35e4	0.41	NO	0.849	<del>11.390</del>	36.233	36.37	1.087	1.091	183.92	92.1	1.19	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.34e4	0.40	NO	0.624	<del>11.390</del>	38.233	38.23	1.147	1.147	182.03	91.2	1.61	
34	34 13C-OCDF	1.17e5	0.87	NO	0.693	<del>11.390</del>	40.800	41.17	1.224	1.235	358.63	89.8	0.710	
35	35 37Cl-2,3,7,8-TCDD	4.21e4			1.28	<del>11.390</del>	26.254	26.25	1.026	1.026	67.488	84.5	0.111	
36	36 13C-1,2,3,4-TCDD	9.76e4	0.76	NO	1.00	<del>11.390</del>	25.550	25.59	1.000	1.000	199.66	100	0.955	
37	37 13C-1,2,3,4-TCDF	1.71e5	0.78	NO	1.00	<del>11.390</del>	24.250	24.29	1.000	1.000	199.66	100	0.757	
38	38 13C-1,2,3,4,6,9-HxCDF	9.39e4	0.51	NO	1.00	<del>11.390</del>	33.300	33.33	1.000	1.000	199.66	100	0.902	
39	39 Total Tetra-Dioxins				1.08	<del>11.390</del>	24.620		0.000				0.0769	
40	40 Total Penta-Dioxins				0.991	<del>11.390</del>	29.960		0.000				0.0650	
41	41 Total Hexa-Dioxins				0.908	<del>11.390</del>	33.635		0.000		2.2128		0.362	3.95
42	42 Total Hepta-Dioxins				0.926	<del>11.390</del>	37.640		0.000		27.823		0.525	27.8
43	43 Total Tetra-Furans				0.882	<del>11.390</del>	23.610		0.000		0.17813		0.133	0.740
44	44 1st Func. Penta-Furans				0.937	<del>11.390</del>	26.750		0.000		0.00000		0.0208	0.317
45	45 Total Penta-Furans				0.937	<del>11.390</del>	29.275		0.000		0.00000		0.0416	0.577
46	46 Total Hexa-Furans				1.11	<del>11.390</del>	33.555		0.000		1.3600		0.222	1.90
47	47 Total Hepta-Furans				1.15	<del>11.390</del>	37.835		0.000		3.5981		0.200	3.60

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Tuesday, August 25, 2020 14:47:26 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 14:47:57 Pacific Daylight Time

Method: Untitled 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.14	7.648e3	5.086e3	3.754e2	2.634e2	1.43	NO	6.388e2	1.8787	1.8787	0.362
2	Total Hexa-Dioxins	33.05	8.601e3	5.942e3	2.888e2	1.956e2	1.48	YES	0.000e0	0.00000	1.2889	0.362
3	1,2,3,6,7,8-HxCDD	33.94	2.683e3	1.110e3	1.111e2	7.102e1	1.56	YES	1.821e2	0.00000	0.44812	0.335
4	1,2,3,7,8,9-HxCDD	34.21	1.296e3	1.024e3	6.411e1	5.705e1	1.12	NO	1.212e2	0.33413	0.33413	0.370

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.70	3.829e4	4.047e4	2.369e3	2.328e3	1.02	NO	4.696e3	16.103	16.103	0.525
2	1,2,3,4,6,7,8-HpCDD	37.57	3.062e4	2.752e4	1.697e3	1.722e3	0.99	NO	3.418e3	11.721	11.721	0.525

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	22.23	7.750e2	1.242e3	5.344e1	6.834e1	0.78	NO	1.218e2	0.17813	0.17813	0.133
2	Total Tetra-Furans	24.78	1.336e3	1.336e3	8.049e1	8.286e1	0.97	YES	0.000e0	0.00000	0.21455	0.133
3	2,3,7,8-TCDF	25.62	1.862e3	2.128e3	1.294e2	1.340e2	0.97	YES	2.633e2	0.00000	0.34693	0.133

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Tuesday, August 25, 2020 14:47:26 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 14:47:57 Pacific Daylight Time

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

**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	27.00	2.452e3	1.287e3	1.633e2	8.819e1	1.85	YES	0.000e0	0.00000	0.31739	0.0208

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.48	1.558e3	1.328e3	8.276e1	7.602e1	1.09	YES	0.000e0	0.00000	0.19217	0.0416
2	1,2,3,7,8-PeCDF	29.38	2.294e3	1.146e3	1.090e2	8.792e1	1.24	YES	1.969e2	0.00000	0.24816	0.0432
3	2,3,4,7,8-PeCDF	30.33	1.255e3	1.485e3	6.304e1	8.988e1	0.70	YES	1.529e2	0.00000	0.13632	0.0365

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.62	1.692e3	1.523e3	6.642e1	4.200e1	1.58	YES	0.000e0	0.00000	0.18130	0.222
2	Total Hexa-Furans	31.77	3.323e3	2.939e3	1.632e2	1.250e2	1.31	NO	2.881e2	0.55523	0.55523	0.222
3	Total Hexa-Furans	32.41	6.022e3	3.622e3	2.198e2	1.979e2	1.11	NO	4.176e2	0.80477	0.80477	0.222
4	1,2,3,4,7,8-HxCDF	32.90	1.790e3	2.008e3	1.038e2	1.177e2	0.88	YES	2.215e2	0.00000	0.36123	0.209

**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	36.38	4.077e3	4.679e3	2.503e2	2.703e2	0.93	NO	5.206e2	1.2265	1.2265	0.177
2	Total Hepta-Furans	36.98	8.541e3	8.096e3	4.334e2	4.356e2	0.99	NO	8.690e2	2.3716	2.3716	0.200

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

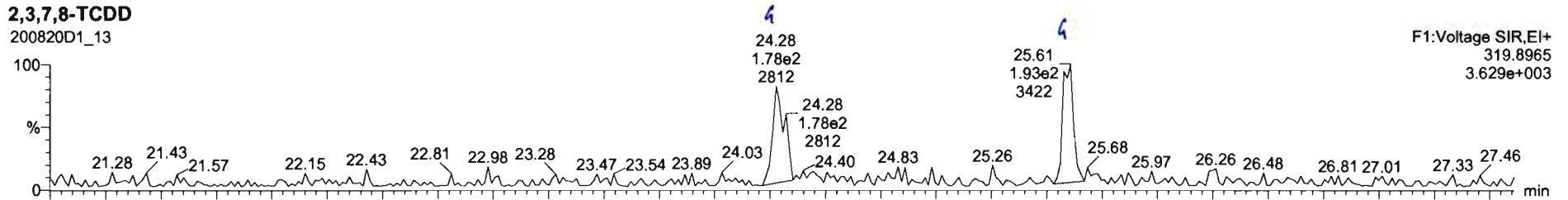
Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

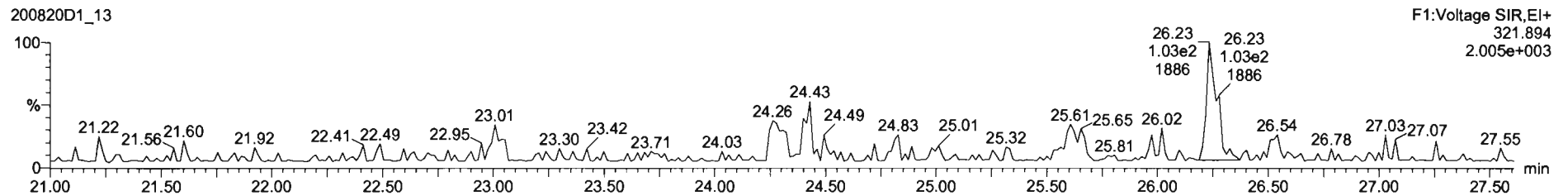
Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

2,3,7,8-TCDD

200820D1\_13

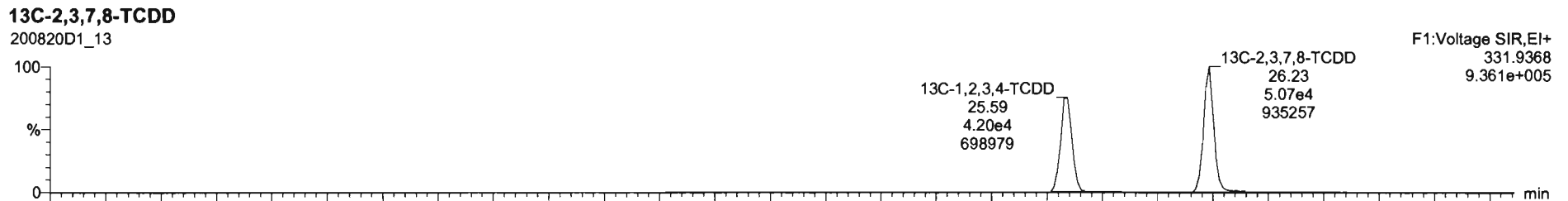


200820D1\_13

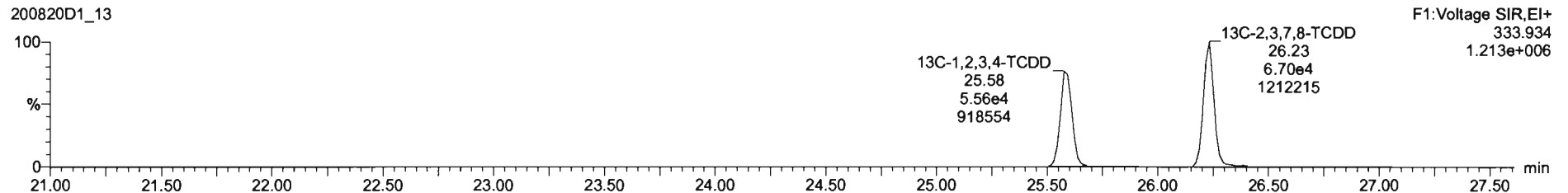


13C-2,3,7,8-TCDD

200820D1\_13



200820D1\_13



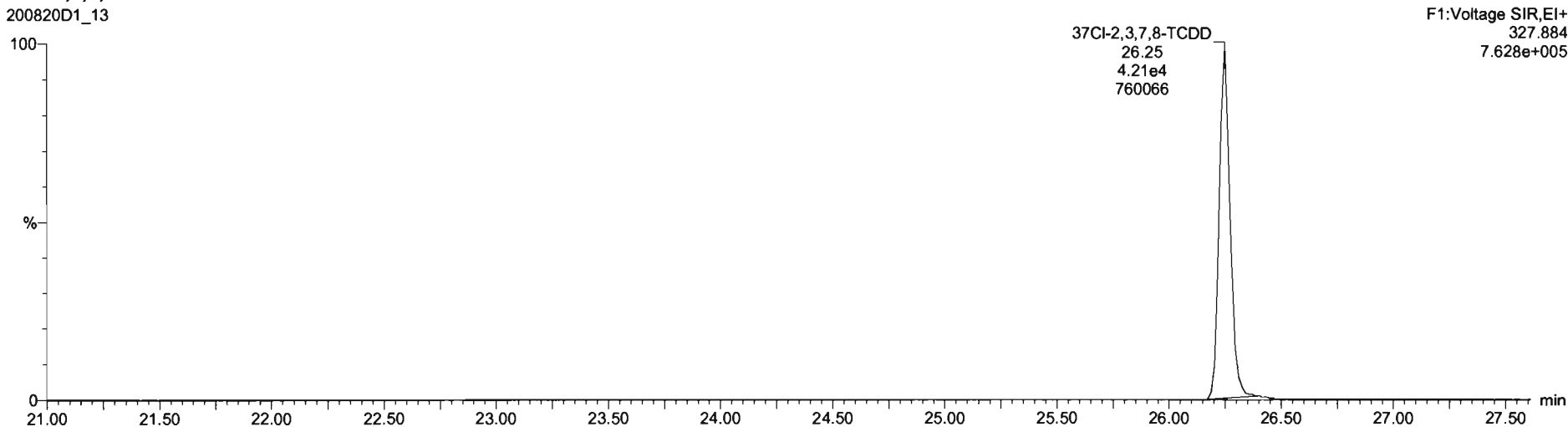


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

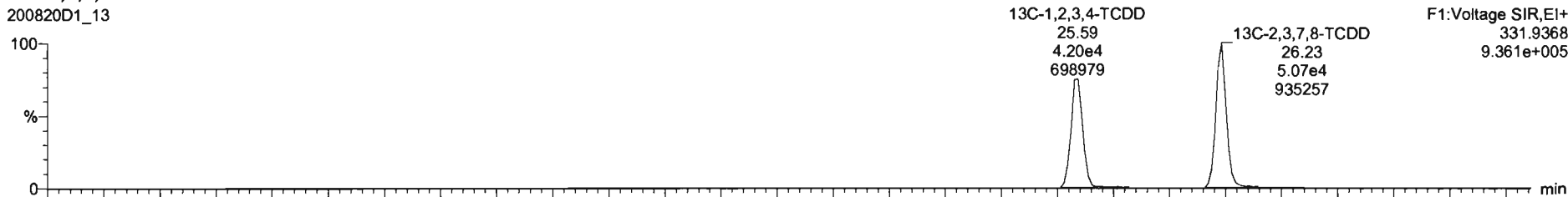
Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

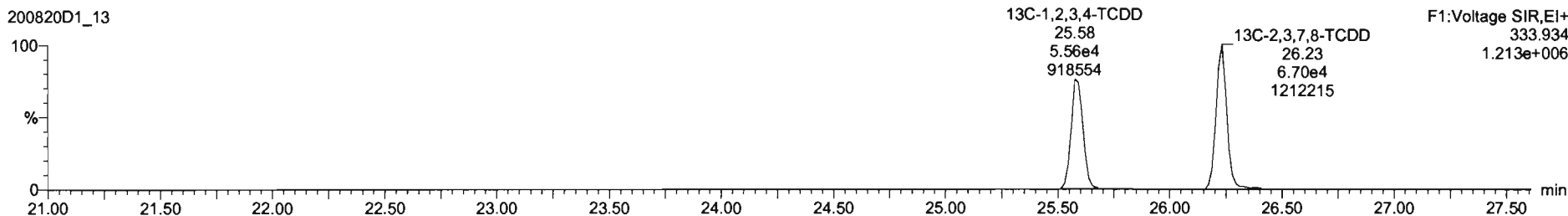
**37Cl-2,3,7,8-TCDD**  
200820D1\_13



**13C-1,2,3,4-TCDD**  
200820D1\_13



200820D1\_13



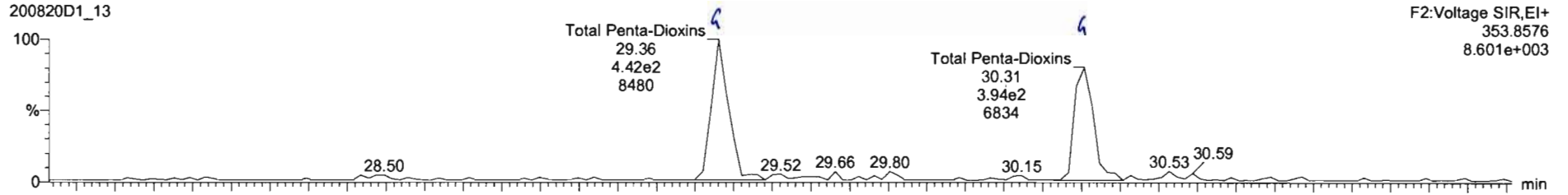
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

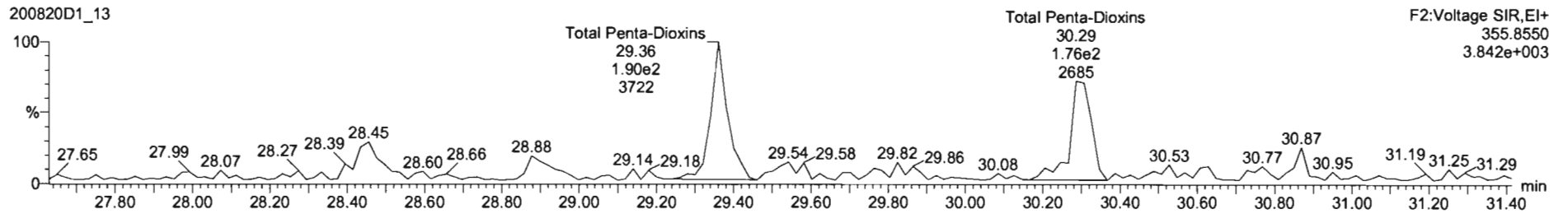
Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

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

200820D1\_13

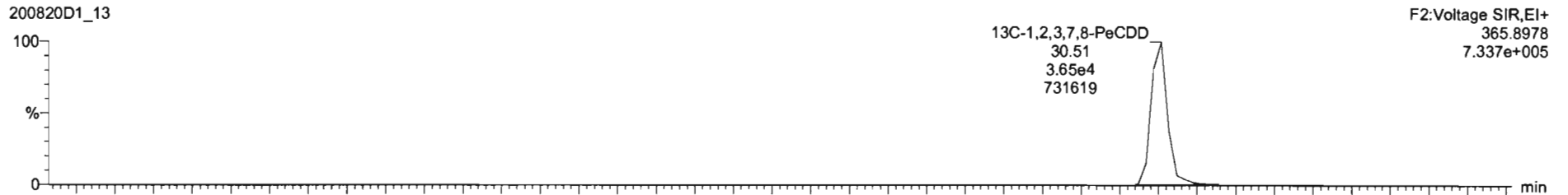


200820D1\_13

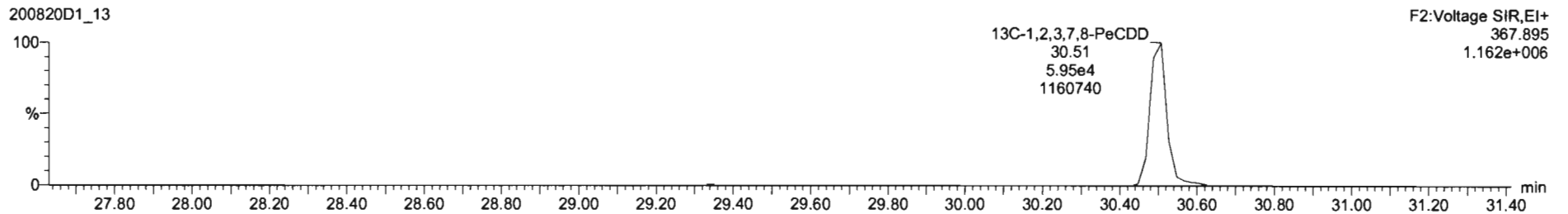


**13C-1,2,3,7,8-PeCDD**

200820D1\_13



200820D1\_13



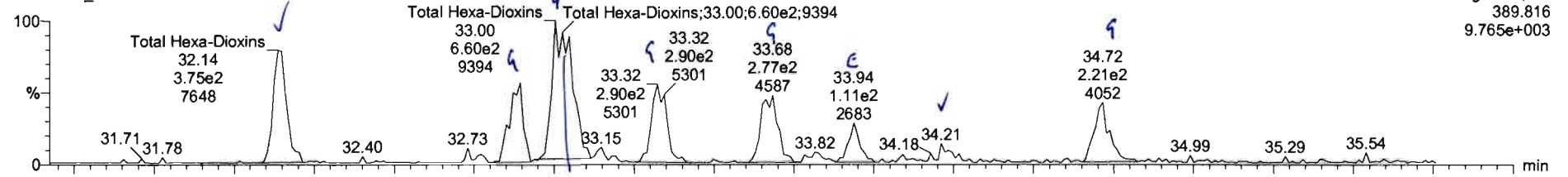
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

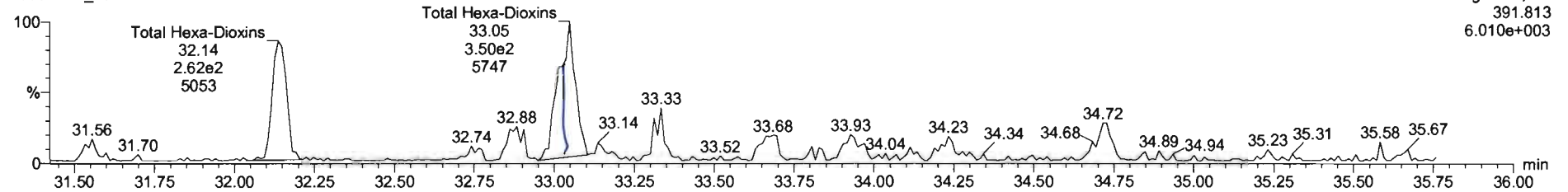
1,2,3,4,7,8-HxCDD

200820D1\_13



F3:Voltage SIR,EI+  
389.816  
9.765e+003

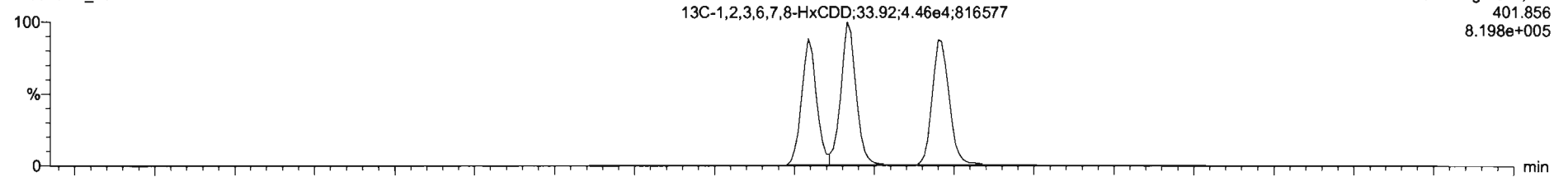
200820D1\_13



F3:Voltage SIR,EI+  
391.813  
6.010e+003

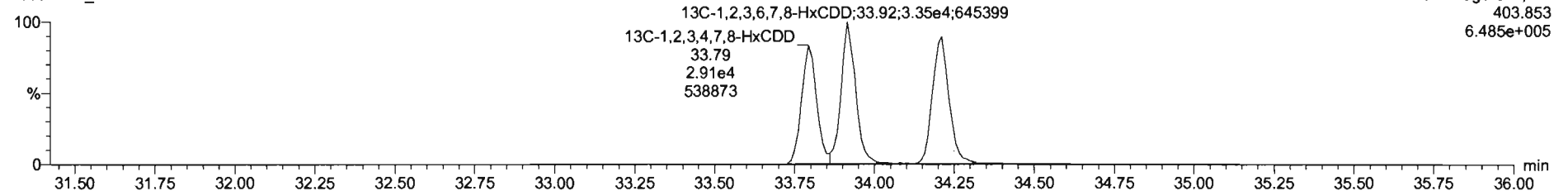
13C-1,2,3,4,7,8-HxCDD

200820D1\_13



F3:Voltage SIR,EI+  
401.856  
8.198e+005

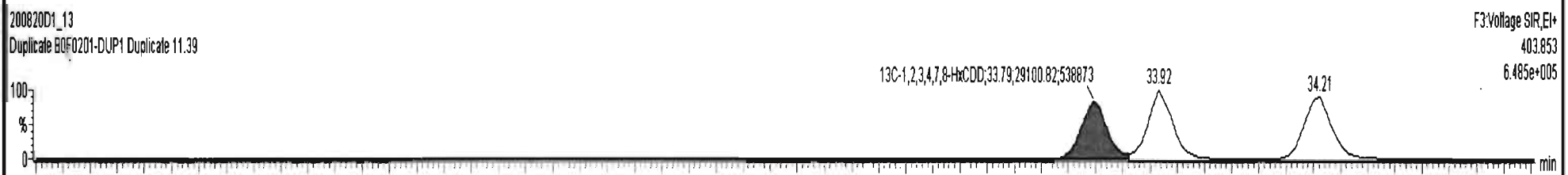
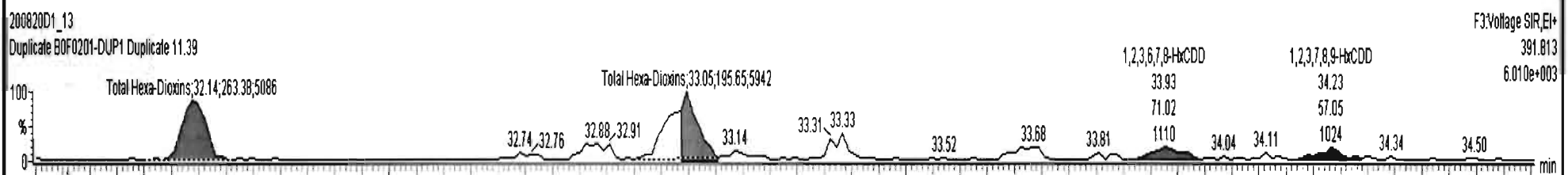
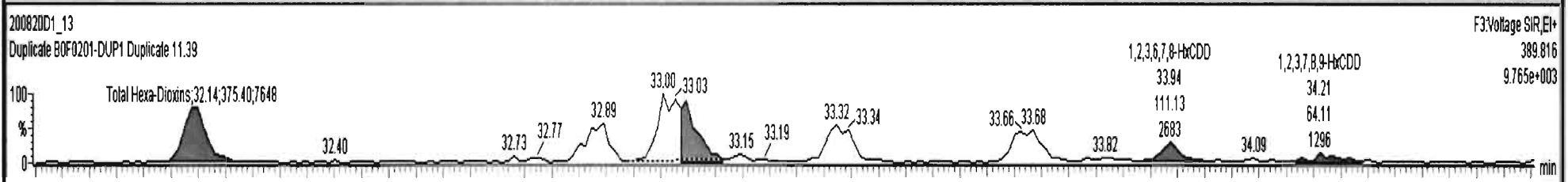
200820D1\_13



F3:Voltage SIR,EI+  
403.853  
6.485e+005

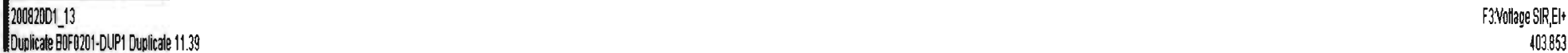
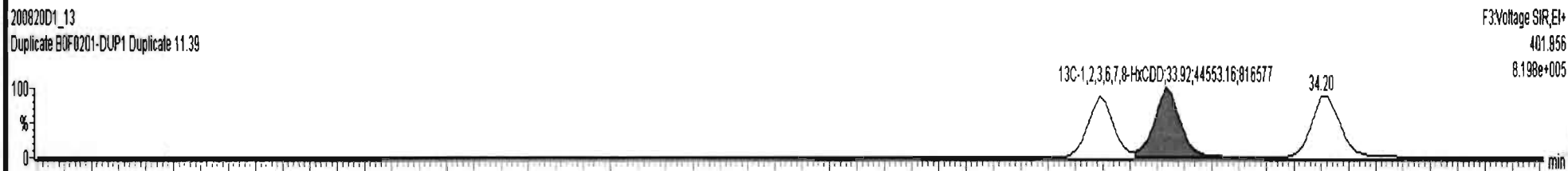
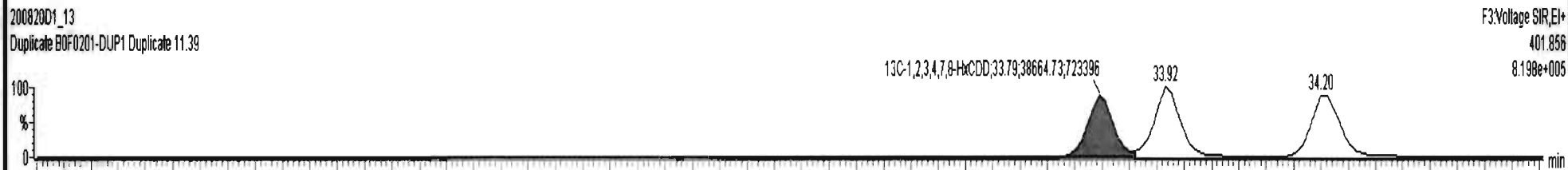
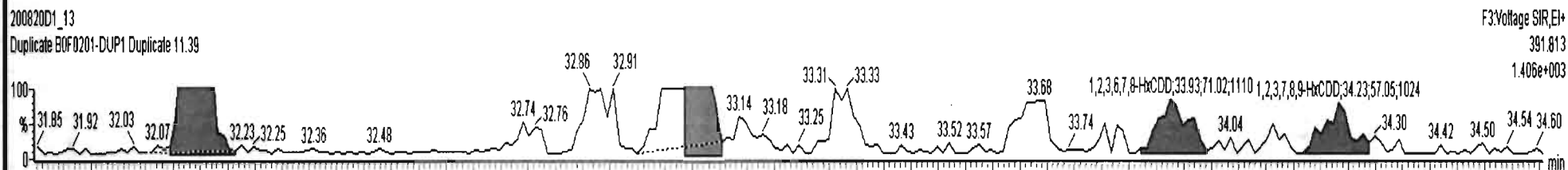
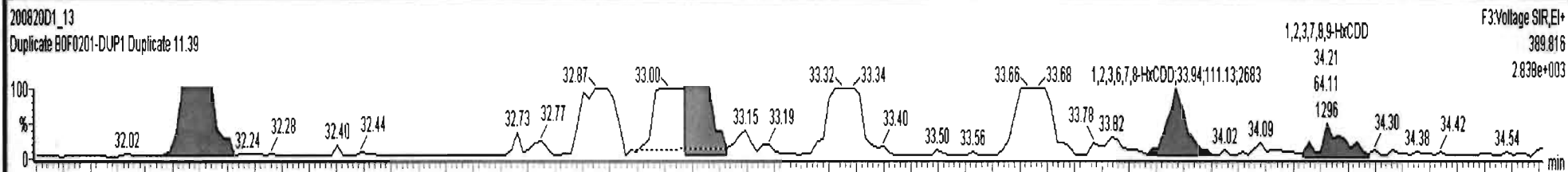


200820D1\_13 - B0F0201-DUP1 Duplicate 11.39 - Duplicate





200820D1\_13 - B0F0201-DUP1 Duplicate 11:39 - Duplicate



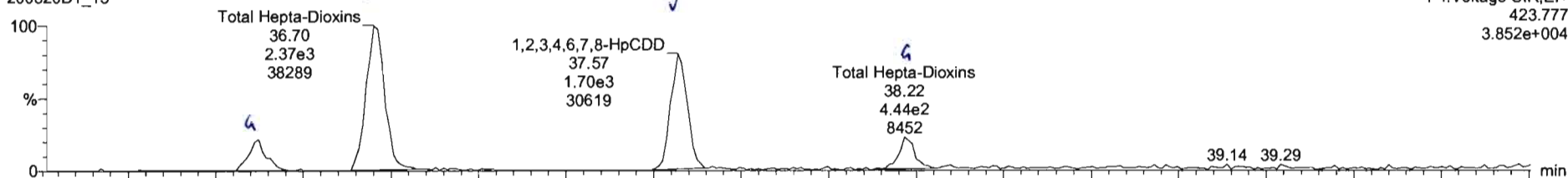
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

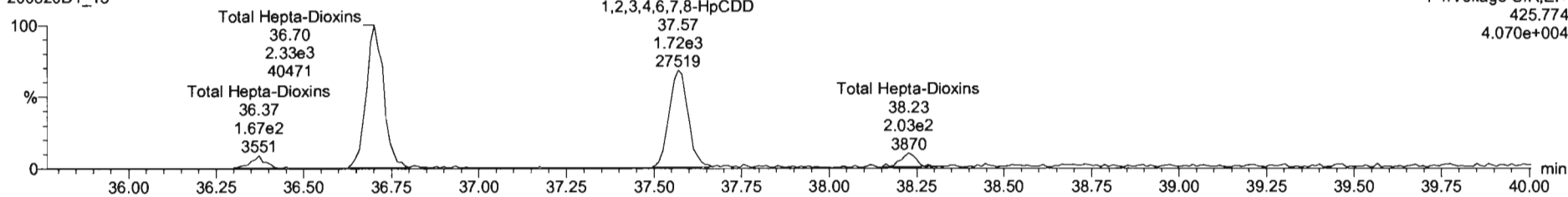
1,2,3,4,6,7,8-HpCDD

200820D1\_13



F4: Voltage SIR, EI+  
423.777  
3.852e+004

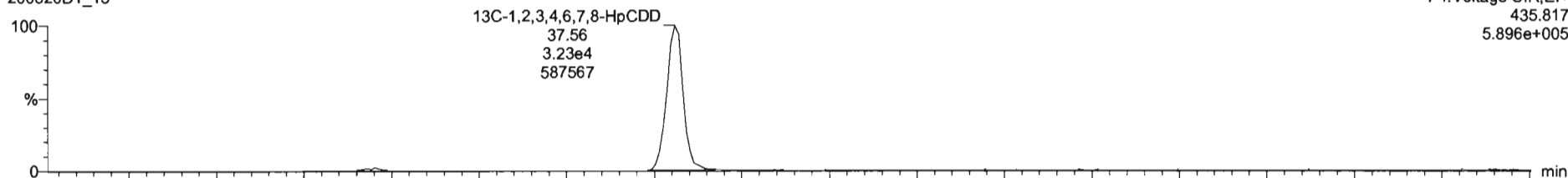
200820D1\_13



F4: Voltage SIR, EI+  
425.774  
4.070e+004

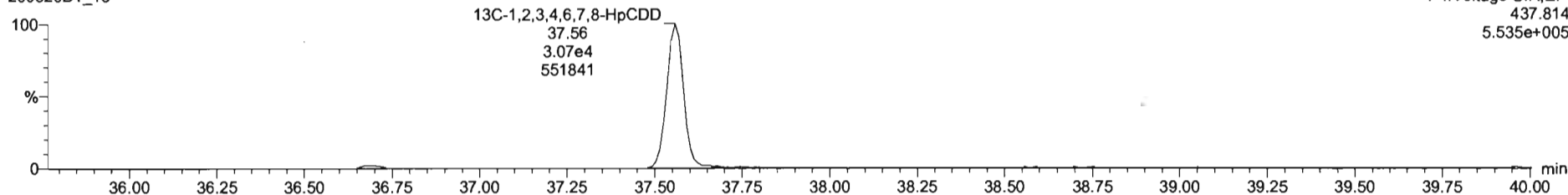
13C-1,2,3,4,6,7,8-HpCDD

200820D1\_13



F4: Voltage SIR, EI+  
435.817  
5.896e+005

200820D1\_13



F4: Voltage SIR, EI+  
437.814  
5.535e+005

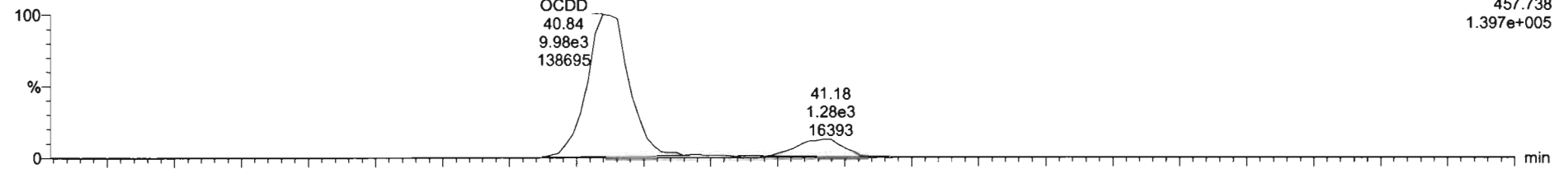
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

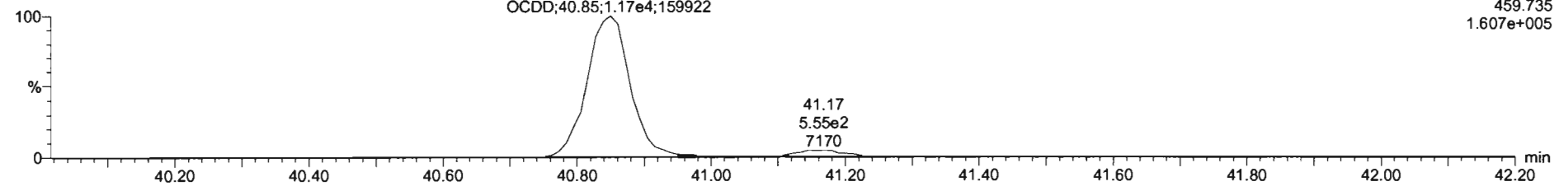
Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

**OCDD**

200820D1\_13

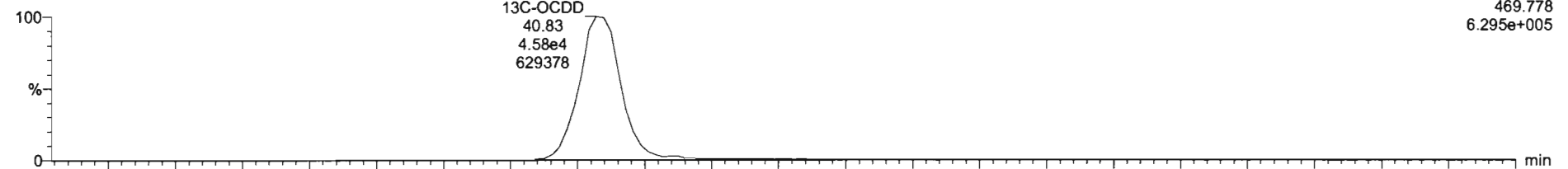


200820D1\_13

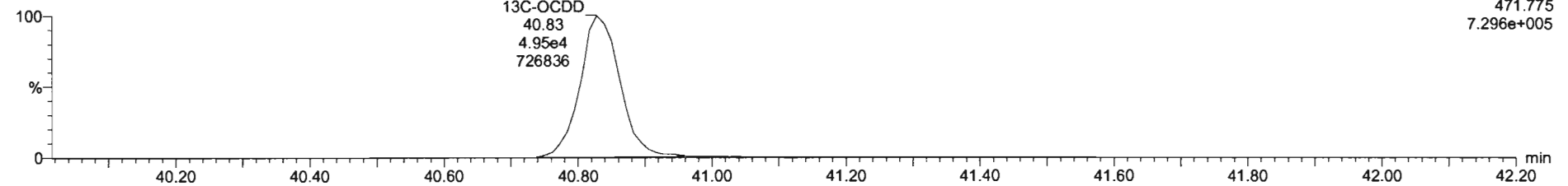


**13C-OCDD**

200820D1\_13



200820D1\_13



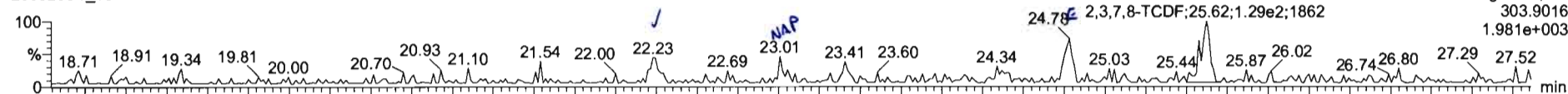
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

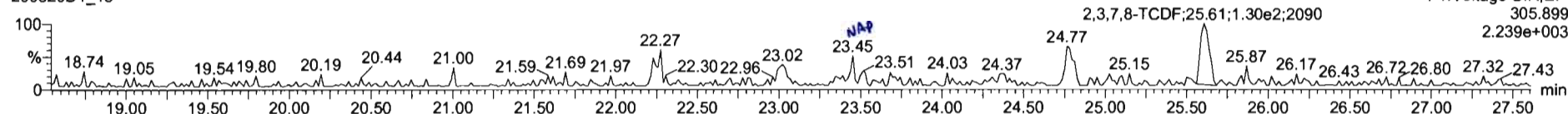
Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

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

200820D1\_13

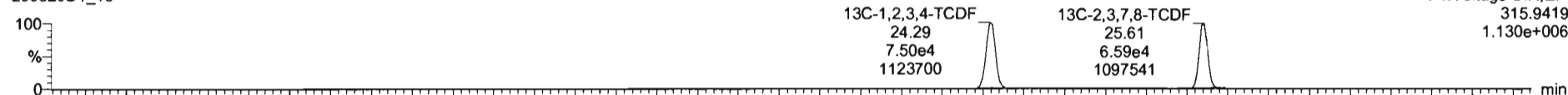


200820D1\_13

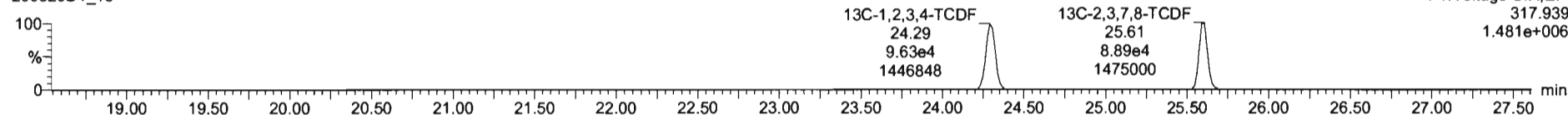


**13C-2,3,7,8-TCDF**

200820D1\_13

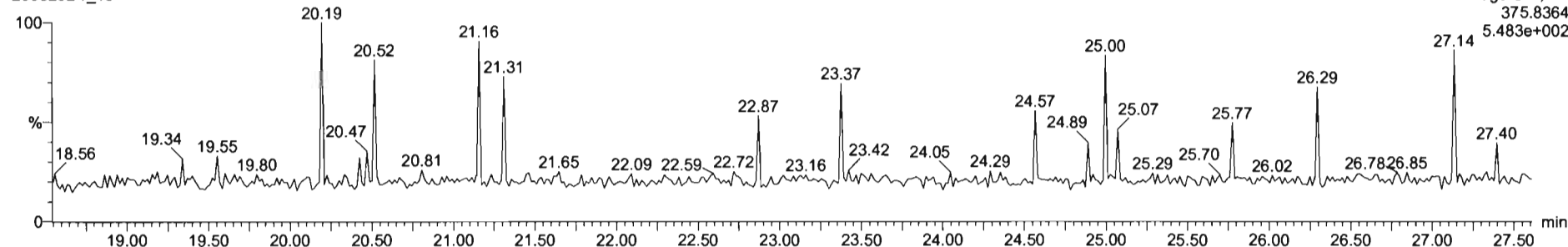


200820D1\_13

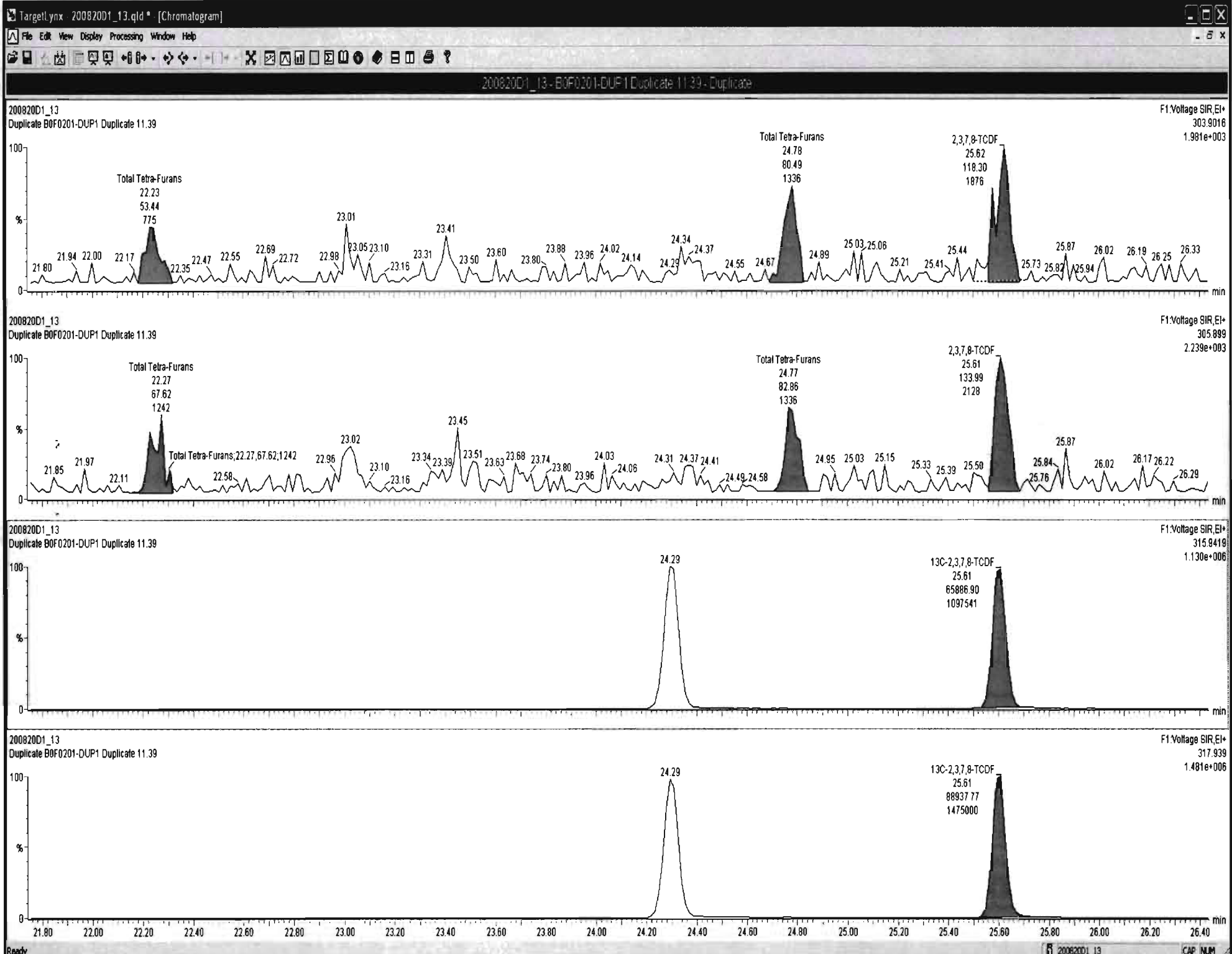


**DPE1**

200820D1\_13







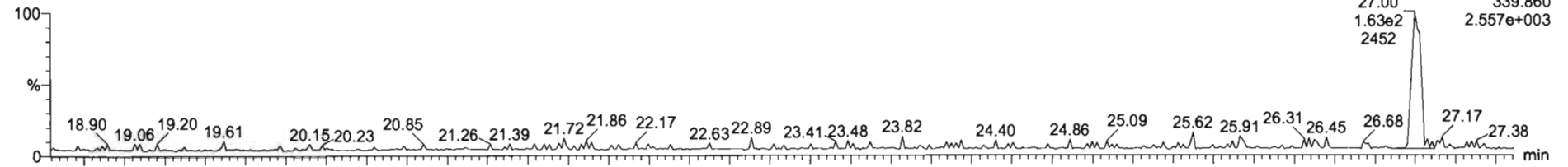
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

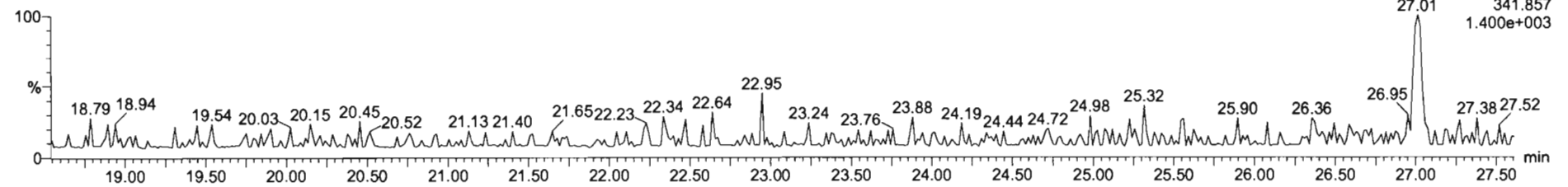
Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

1st Func. Penta-Furans

200820D1\_13

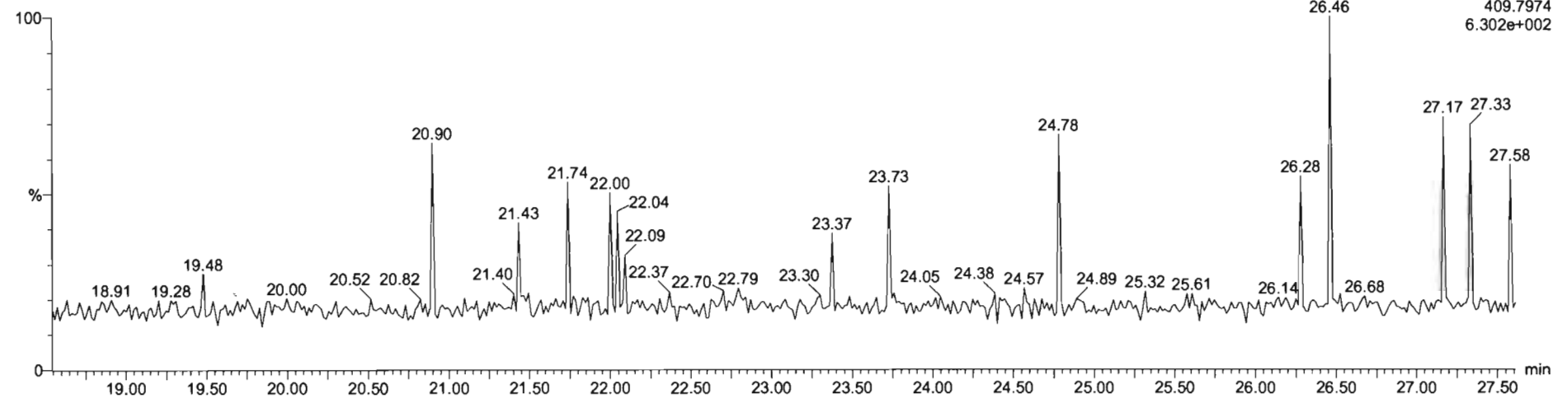


200820D1\_13



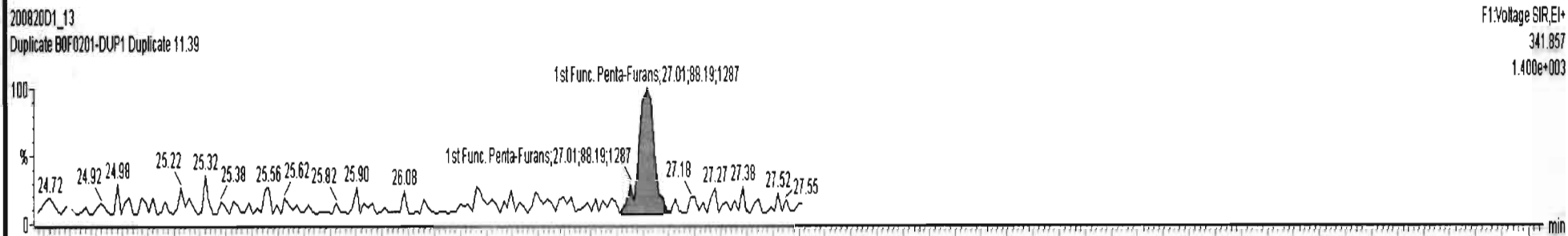
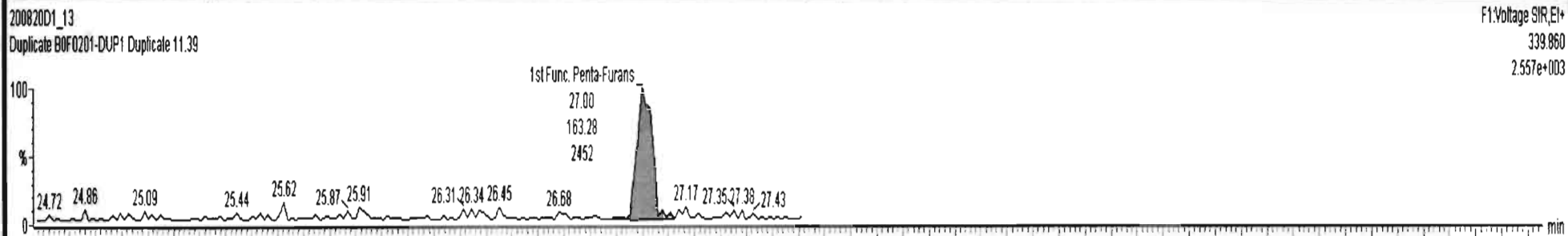
DPE6

200820D1\_13





200820D1\_13-BOF0201-DUP1 Duplicate 11.39 - Duplicate



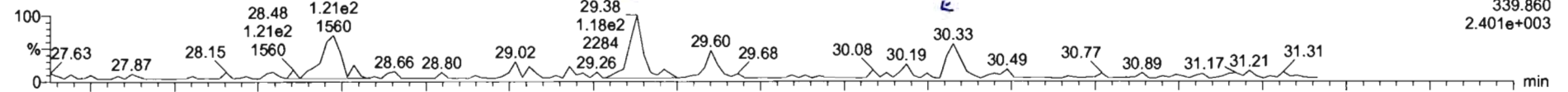
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

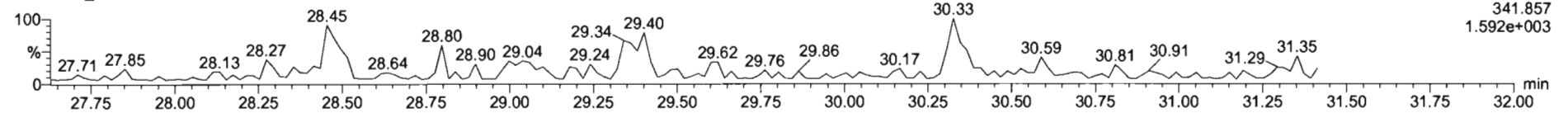
Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

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

200820D1\_13

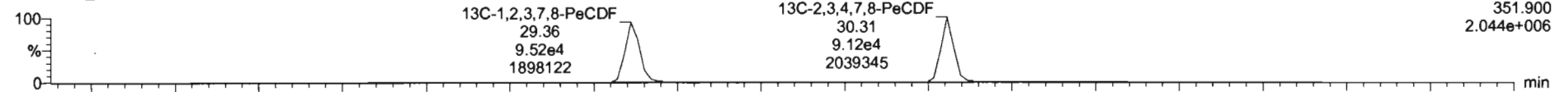


200820D1\_13

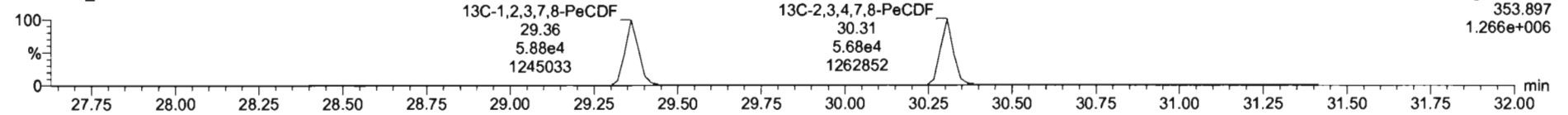


**13C-1,2,3,7,8-PeCDF**

200820D1\_13

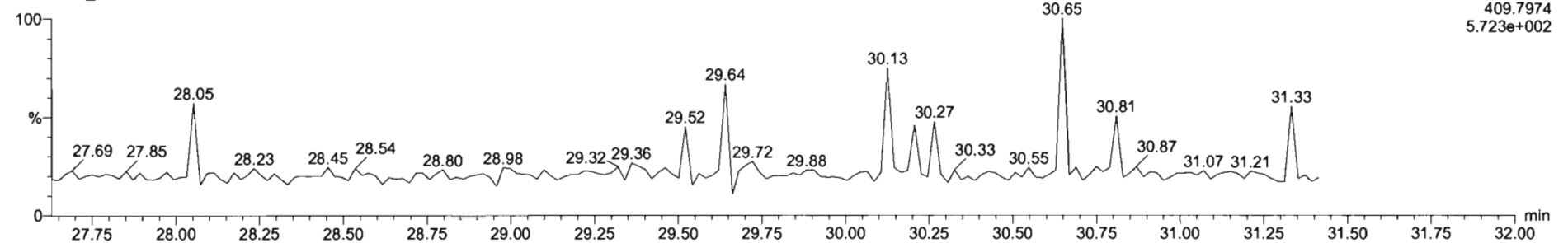


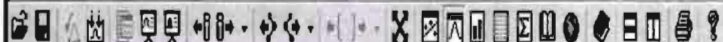
200820D1\_13



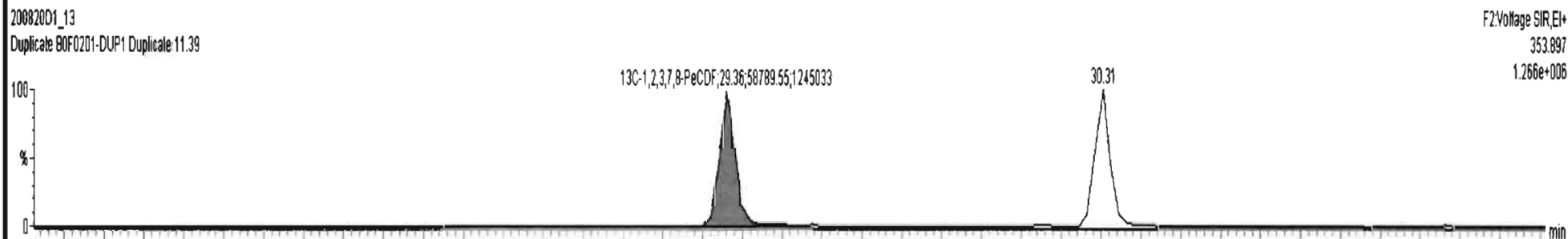
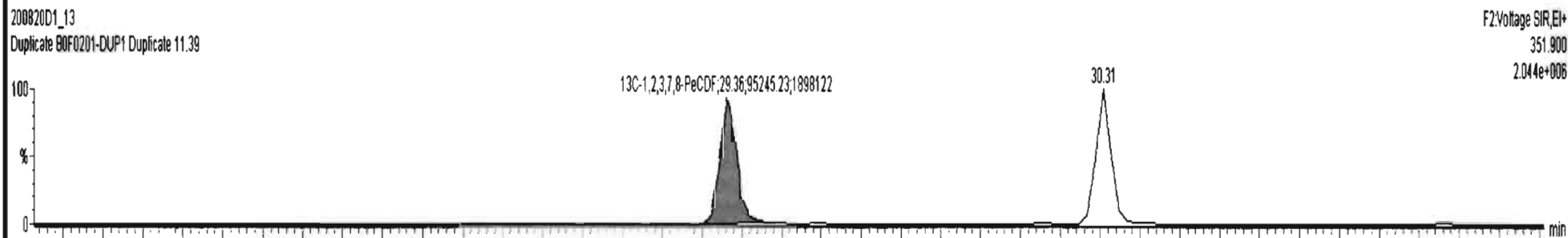
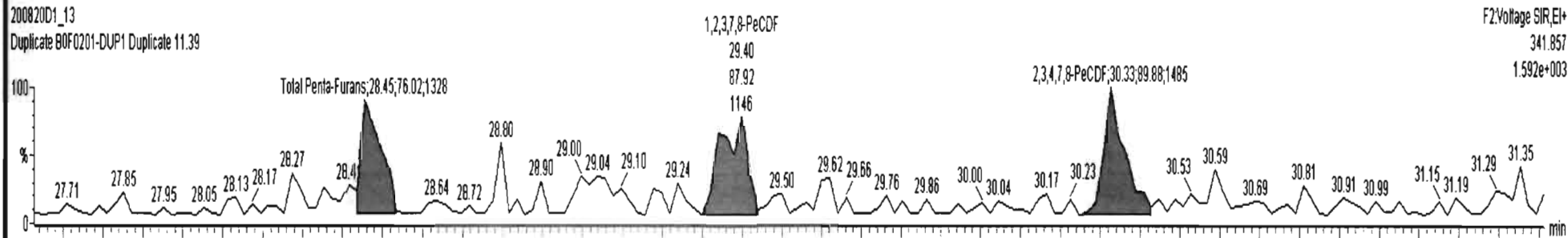
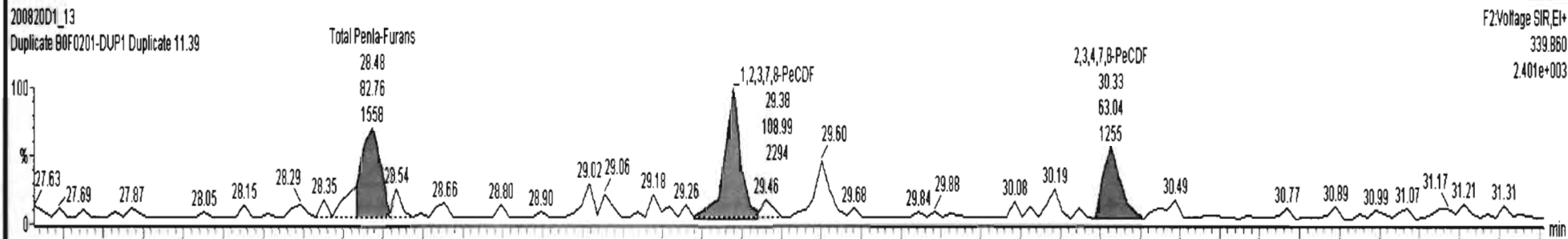
**DPE2**

200820D1\_13





200820D1\_13-BOF0201-DUP1 Dup date 11.39-Dup date

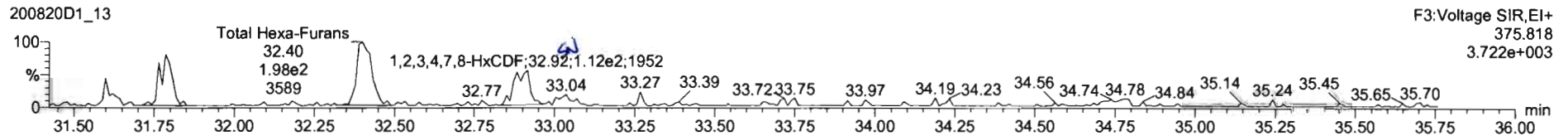
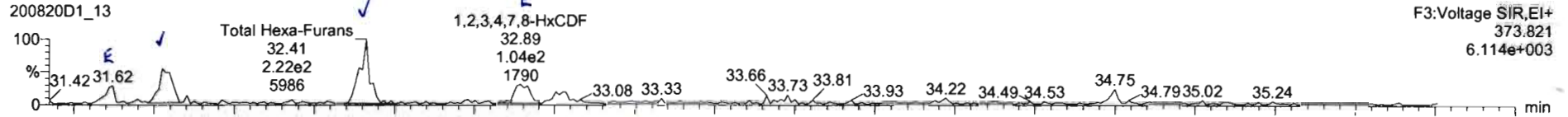


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

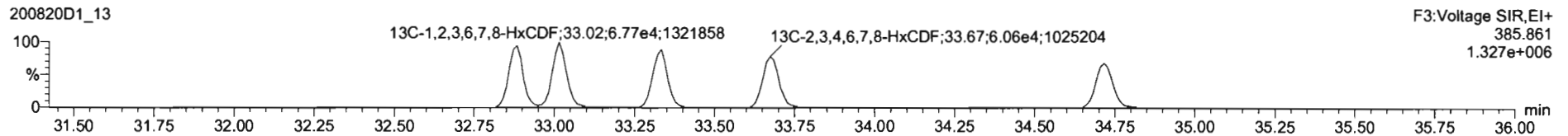
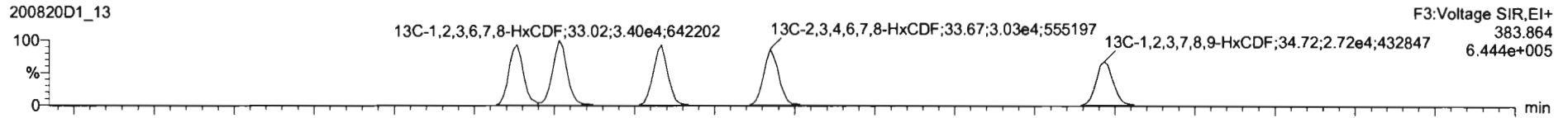
Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

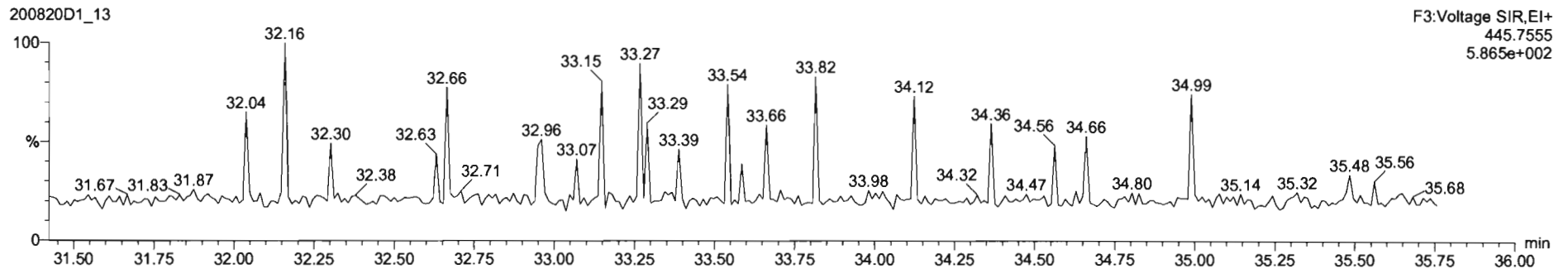
**1,2,3,4,7,8-HxCDF**



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

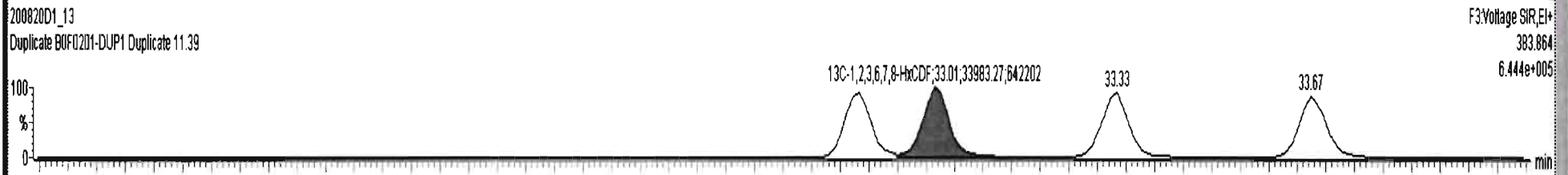
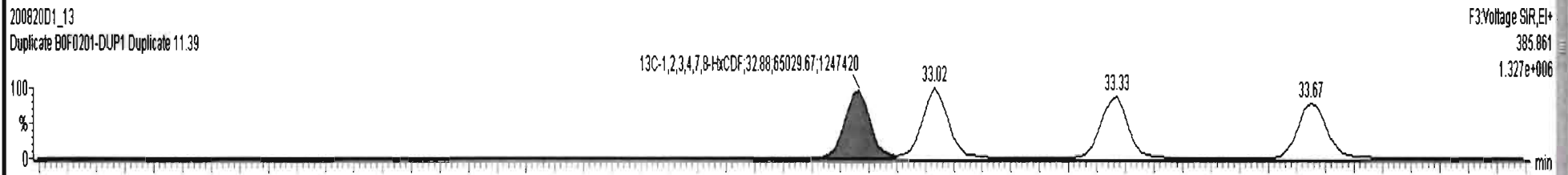
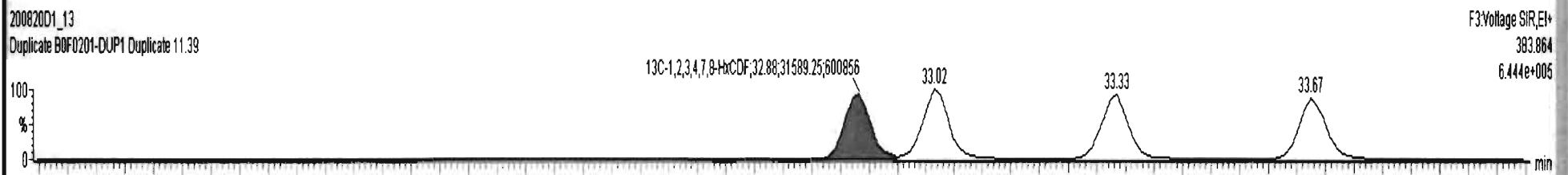
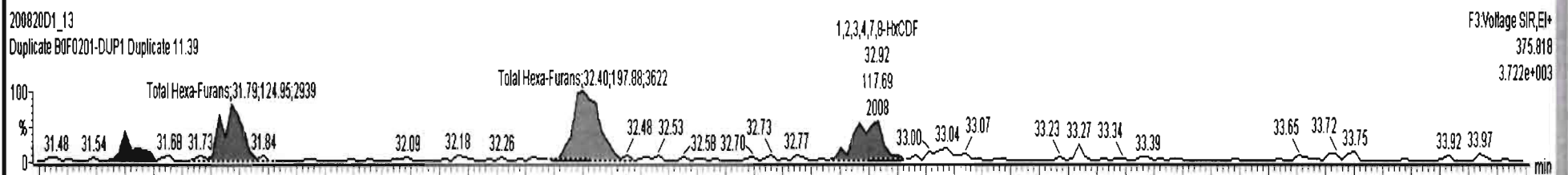
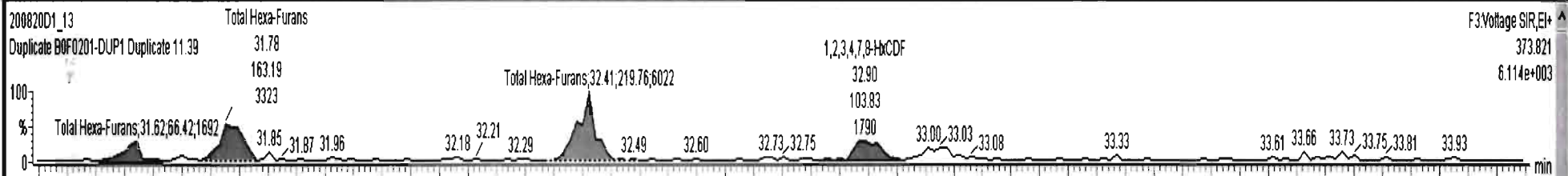


**DPE3**





200820D1\_13 - B0F0201-DUP1 Duplicate 11.39 - Duplicate



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

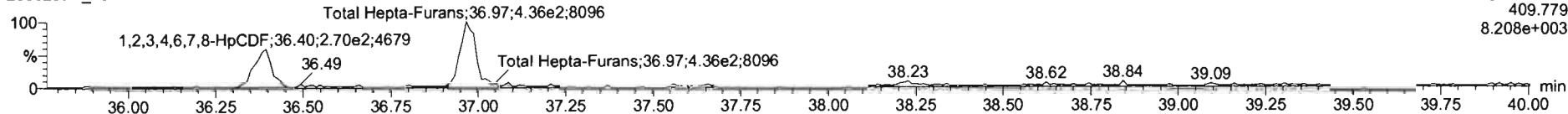
Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

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

200820D1\_13

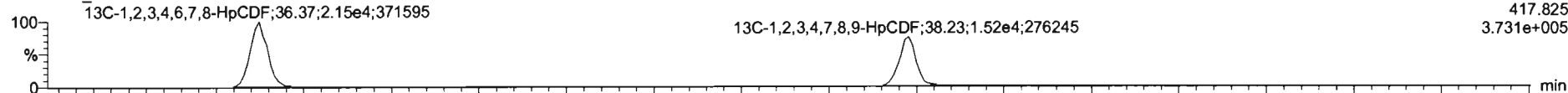


200820D1\_13

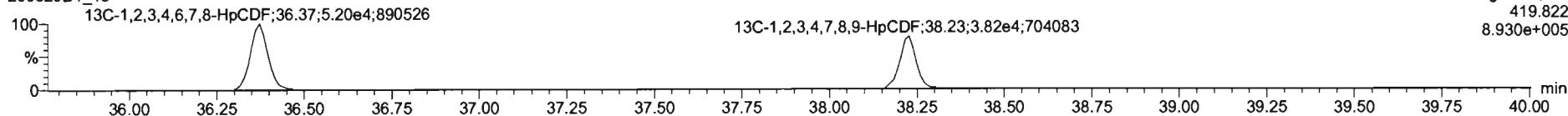


**13C-1,2,3,4,6,7,8-HpCDF**

200820D1\_13

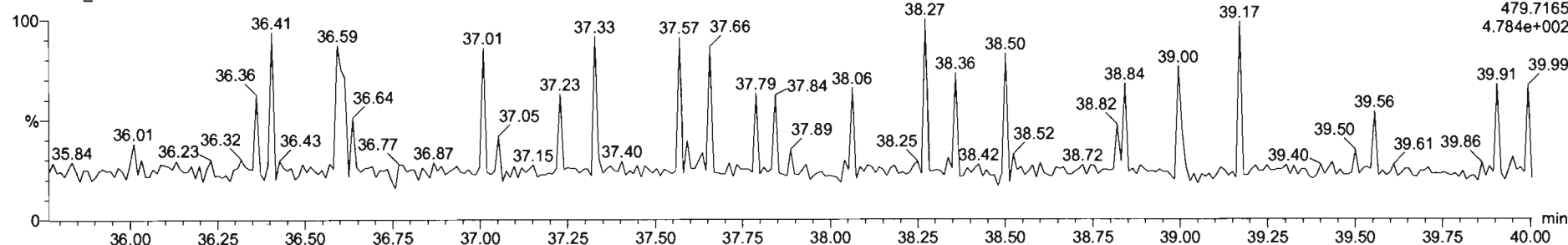


200820D1\_13



**DPE4**

200820D1\_13



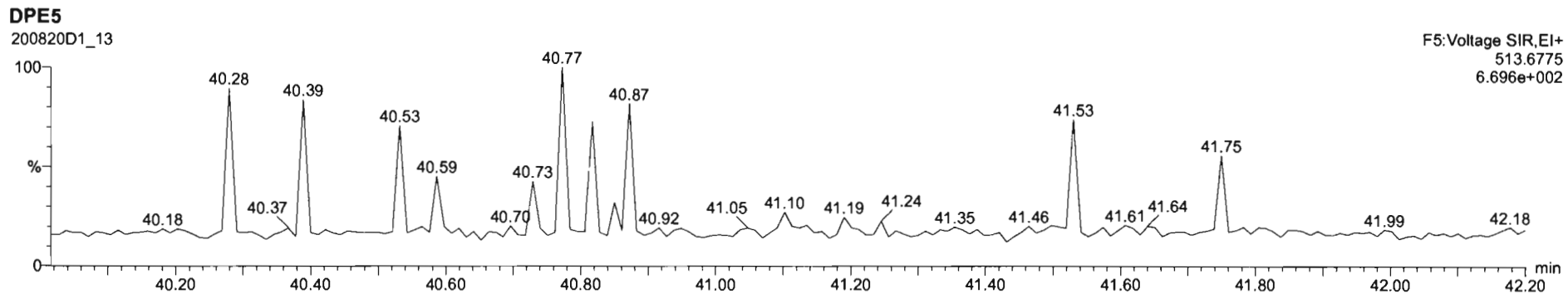
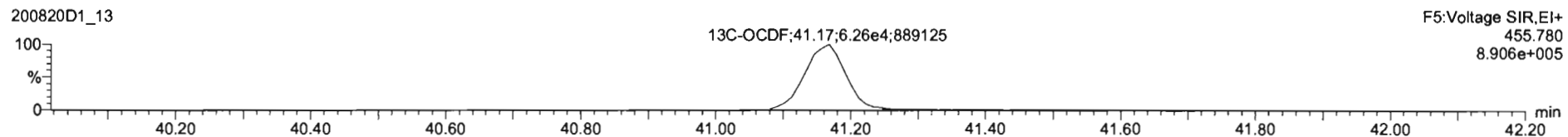
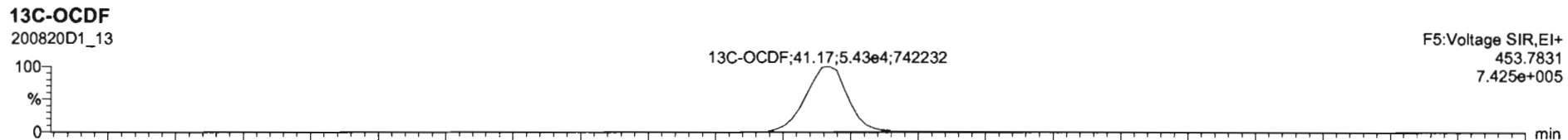
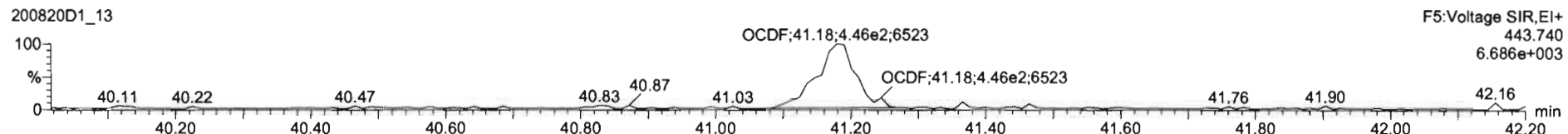
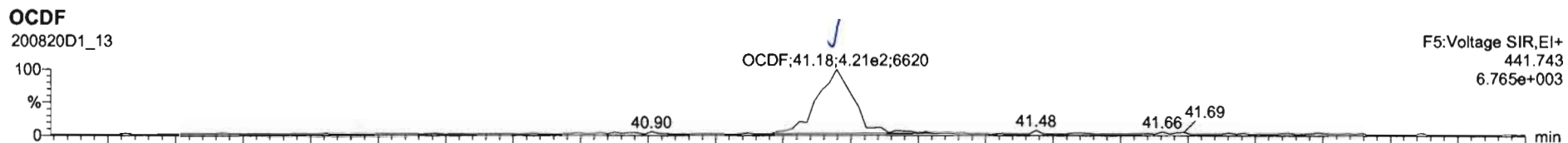


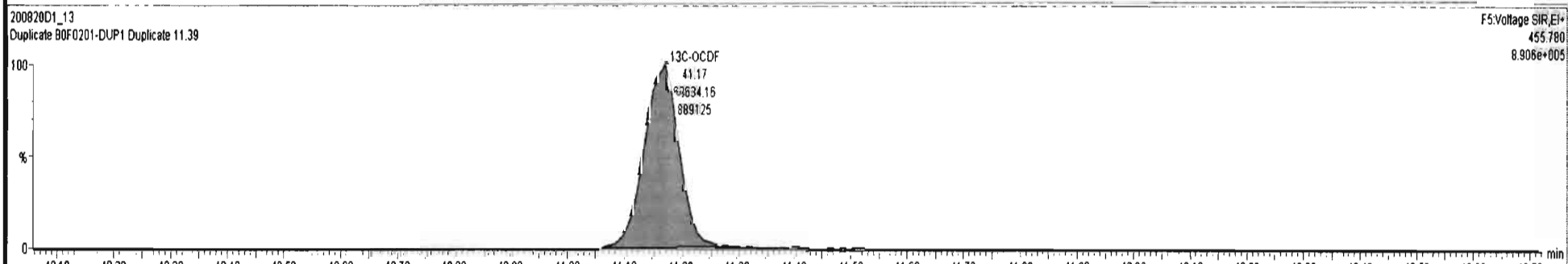
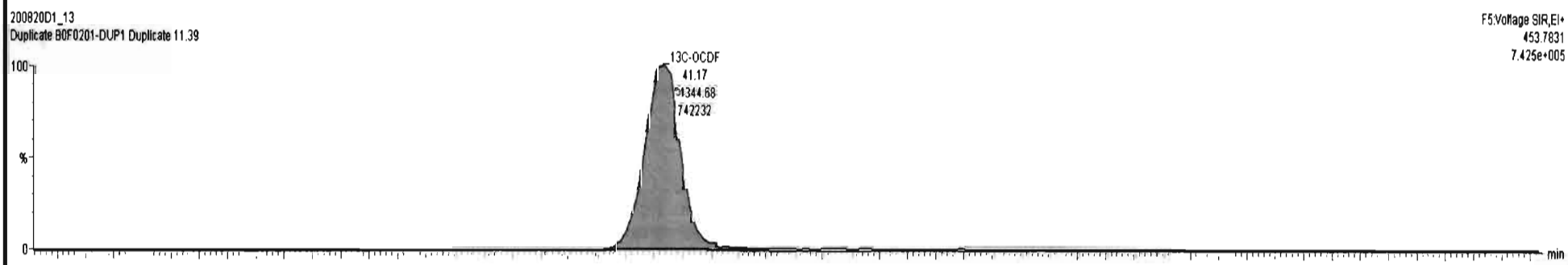
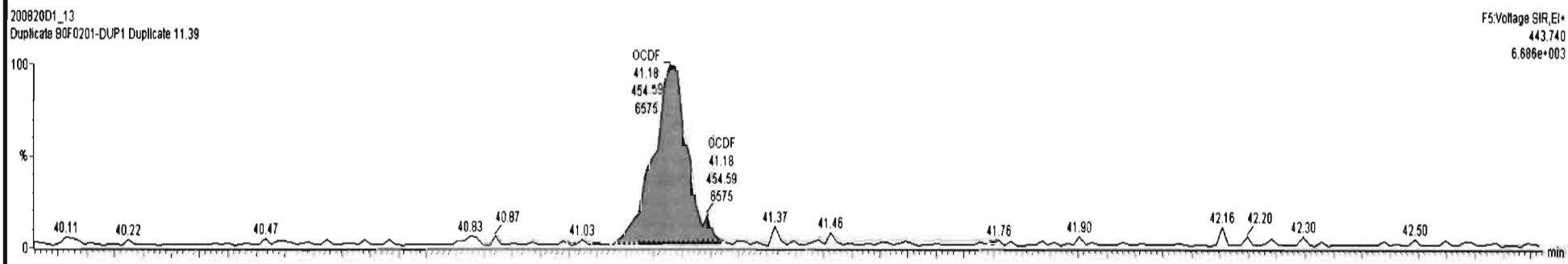
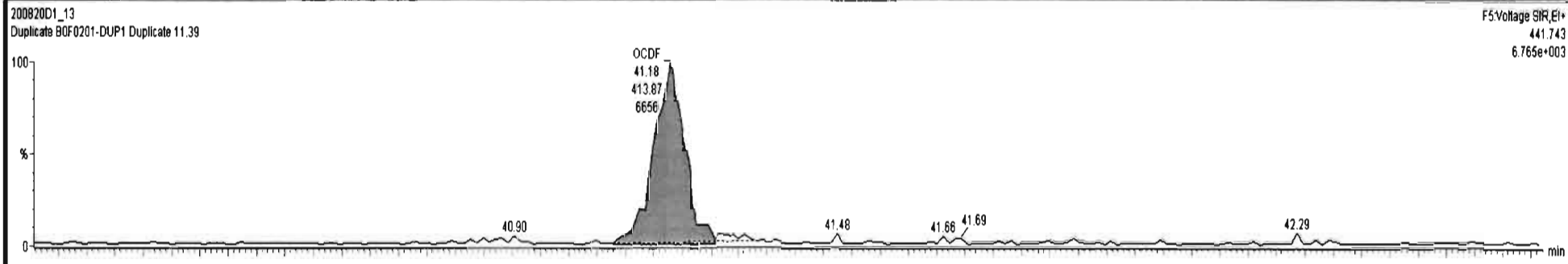
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate

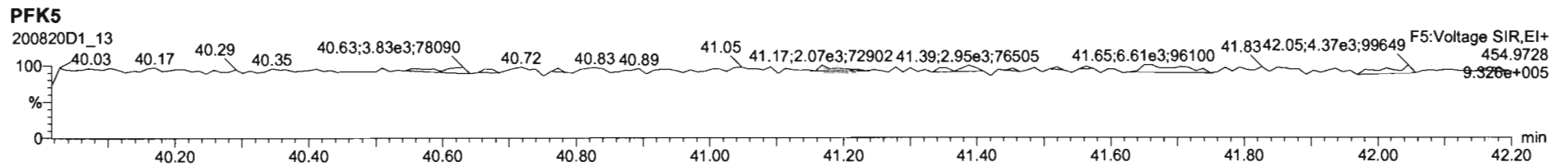
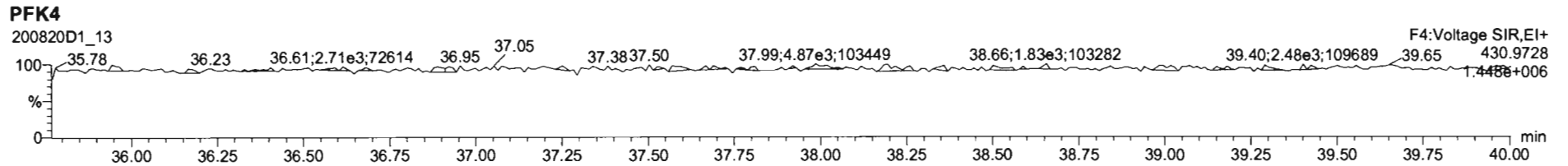
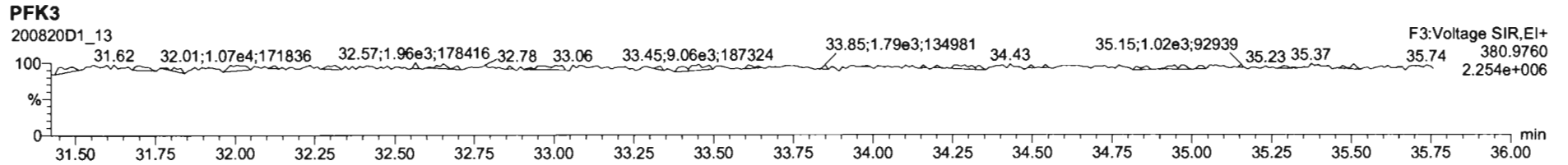
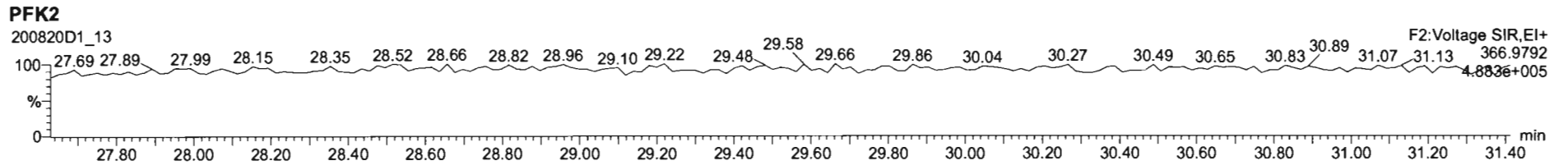
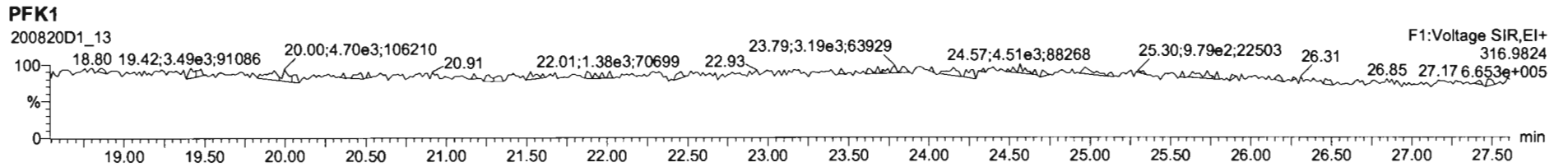




Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_13.qld

Last Altered: Friday, August 21, 2020 10:34:02 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:36:42 Pacific Daylight Time

Name: 200820D1\_13, Date: 20-Aug-2020, Time: 21:58:53, ID: B0F0201-DUP1 Duplicate 11.39, Description: Duplicate



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 15:25:10 Pacific Daylight Time

Printed: Friday, August 21, 2020 15:26:08 Pacific Daylight Time

*DB 8/21/20 CT 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	1.08	10.001	26.265		1.001				0.132	
2	1,2,3,7,8-PeCDD			NO	0.991	10.001	30.528		1.001				0.141	
3	1,2,3,4,7,8-HxCDD			NO	1.04	10.001	33.815		1.000				0.220	
4	1,2,3,6,7,8-HxCDD	1.49e2	1.35	NO	0.908	10.001	33.926	33.93	1.000	1.000	0.45137		0.227	0.451
5	1,2,3,7,8,9-HxCDD			NO	0.923	10.001	34.245		1.001				0.212	
6	1,2,3,4,6,7,8-HpCDD	2.66e3	1.07	NO	0.926	10.001	37.580	37.58	1.000	1.000	9.2021		0.447	9.20
7	OCDD	1.89e4	0.86	NO	0.834	10.001	40.839	40.85	1.000	1.000	91.825		0.528	91.8
8	2,3,7,8-TCDF	2.25e2	1.07	YES	0.882	10.001	25.633	25.62	1.001	1.001	0.34213		0.118	0.293
9	1,2,3,7,8-PeCDF	2.02e2	1.42	NO	0.937	10.001	29.382	29.38	1.001	1.001	0.30354		0.0554	0.304
10	2,3,4,7,8-PeCDF	1.47e2	1.30	YES	1.03	10.001	30.336	30.33	1.001	1.001	0.21259		0.0499	0.198
11	1,2,3,4,7,8-HxCDF	7.39e2	1.35	NO	1.07	10.001	32.883	32.90	1.000	1.001	1.5740		0.231	1.57
12	1,2,3,6,7,8-HxCDF	4.53e2	1.40	NO	1.11	10.001	33.025	33.04	1.000	1.001	0.88151		0.241	0.882
13	2,3,4,6,7,8-HxCDF	8.41e1	1.91	YES	1.11	10.001	33.718	33.70	1.001	1.000	0.17717		0.249	0.136
14	1,2,3,7,8,9-HxCDF			NO	1.12	10.001	34.727		1.000				0.294	
15	1,2,3,4,6,7,8-HpCDF	1.13e3	0.98	NO	1.15	10.001	36.420	36.41	1.001	1.001	2.7936		0.145	2.79
16	1,2,3,4,7,8,9-HpCDF	2.07e2	1.02	NO	1.25	10.001	38.227	38.23	1.000	1.000	0.64384		0.175	0.644
17	OCDF	1.04e3	0.95	NO	0.961	10.001	41.168	41.17	1.000	1.000	3.6623		0.583	3.66
18	13C-2,3,7,8-TCDD	1.10e5	0.81	NO	1.20	10.001	26.257	26.23	1.026	1.025	191.39	95.7	0.709	
19	13C-1,2,3,7,8-PeCDD	8.78e4	0.62	NO	0.910	10.001	30.521	30.51	1.193	1.192	201.45	101	0.411	
20	13C-1,2,3,4,7,8-HxCDD	6.23e4	1.29	NO	0.789	10.001	33.800	33.81	1.014	1.014	177.79	88.9	1.15	
21	13C-1,2,3,6,7,8-HxCDD	7.26e4	1.28	NO	0.885	10.001	33.910	33.93	1.017	1.018	184.59	92.3	1.03	
22	13C-1,2,3,7,8,9-HxCDD	7.45e4	1.32	NO	0.888	10.001	34.180	34.21	1.025	1.026	188.59	94.3	1.02	
23	13C-1,2,3,4,6,7,8-HpCDD	6.24e4	1.07	NO	0.740	10.001	37.633	37.57	1.129	1.127	189.89	95.0	1.53	
24	13C-OCDD	9.87e4	0.89	NO	0.660	10.001	40.646	40.84	1.219	1.225	336.54	84.1	0.918	
25	13C-2,3,7,8-TCDF	1.49e5	0.75	NO	1.09	10.001	25.336	25.61	0.990	1.001	164.09	82.1	0.600	
26	13C-1,2,3,7,8-PeCDF	1.42e5	1.61	NO	0.857	10.001	29.577	29.36	1.156	1.147	198.41	99.2	0.623	
27	13C-2,3,4,7,8-PeCDF	1.35e5	1.67	NO	0.796	10.001	30.480	30.31	1.191	1.184	202.31	101	0.671	
28	13C-1,2,3,4,7,8-HxCDF	8.75e4	0.49	NO	1.02	10.001	32.933	32.88	0.988	0.986	193.00	96.5	1.10	
29	13C-1,2,3,6,7,8-HxCDF	9.23e4	0.50	NO	1.00	10.001	33.066	33.01	0.992	0.990	206.94	103	1.12	
30	13C-2,3,4,6,7,8-HxCDF	8.54e4	0.49	NO	0.936	10.001	33.636	33.68	1.009	1.011	205.24	103	1.20	
31	13C-1,2,3,7,8,9-HxCDF	7.67e4	0.50	NO	0.889	10.001	34.713	34.73	1.041	1.042	194.02	97.0	1.26	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 15:25:10 Pacific Daylight Time

Printed: Friday, August 21, 2020 15:26:08 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

#	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	7.00e4	0.43	NO	0.849	10.001	36.233	36.38	1.087	1.092	185.39	92.7	1.22	
33	13C-1,2,3,4,7,8,9-HpCDF	5.13e4	0.42	NO	0.624	10.001	38.233	38.23	1.147	1.147	185.09	92.6	1.66	
34	13C-OCDF	1.18e5	0.89	NO	0.693	10.001	40.800	41.17	1.224	1.235	384.12	96.0	1.04	
35	37Cl-2,3,7,8-TCDD	4.07e4			1.28	10.001	26.255	26.25	1.026	1.026	66.675	83.4	0.0973	
36	13C-1,2,3,4-TCDD	9.58e4	0.82	NO	1.00	10.001	25.550	25.59	1.000	1.000	199.98	100	0.853	
37	13C-1,2,3,4-TCDF	1.67e5	0.77	NO	1.00	10.001	24.250	24.31	1.000	1.000	199.98	100	0.653	
38	13C-1,2,3,4,6,9-HxCDF	8.89e4	0.49	NO	1.00	10.001	33.300	33.33	1.000	1.000	199.98	100	1.12	
39	Total Tetra-Dioxins				1.08	10.001	24.620		0.000				0.0799	
40	Total Penta-Dioxins				0.991	10.001	29.960		0.000				0.0754	
41	Total Hexa-Dioxins				0.908	10.001	33.635		0.000		0.45137		0.230	2.28
42	Total Hepta-Dioxins				0.926	10.001	37.640		0.000		19.799		0.447	19.8
43	Total Tetra-Furans				0.882	10.001	23.610		0.000		0.00000		0.0530	0.483
44	1st Func. Penta-Furans				0.937	10.001	26.750		0.000		0.43731		0.0491	0.437
45	Total Penta-Furans				0.937	10.001	29.275		0.000		0.30354		0.0550	0.785
46	Total Hexa-Furans				1.11	10.001	33.555		0.000		3.2884		0.251	4.08
47	Total Hepta-Furans				1.15	10.001	37.835		0.000		5.5934		0.164	5.59

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 15:25:10 Pacific Daylight Time

Printed: Friday, August 21, 2020 15:26:08 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.15	6.470e3	3.921e3	2.507e2	1.709e2	1.47	YES	0.000e0	0.00000	1.2074	0.230
2	Total Hexa-Dioxins	33.06	4.749e3	3.780e3	1.258e2	8.746e1	1.44	YES	0.000e0	0.00000	0.61791	0.230
3	1,2,3,6,7,8-HxCDD	33.93	1.373e3	1.248e3	8.556e1	6.331e1	1.35	NO	1.489e2	0.45137	0.45137	0.227

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.72	2.570e4	2.351e4	1.584e3	1.478e3	1.07	NO	3.062e3	10.597	10.597	0.447
2	1,2,3,4,6,7,8-HpCDD	37.58	2.507e4	2.124e4	1.377e3	1.282e3	1.07	NO	2.659e3	9.2021	9.2021	0.447

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	24.78	1.216e3	1.377e3	7.281e1	7.045e1	1.03	YES	0.000e0	0.00000	0.18935	0.118
2	2,3,7,8-TCDF	25.62	2.376e3	1.821e3	1.162e2	1.091e2	1.07	YES	2.253e2	0.00000	0.29323	0.118

**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	2.630e3	2.039e3	1.669e2	1.168e2	1.43	NO	2.838e2	0.43731	0.43731	0.0491

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 15:25:10 Pacific Daylight Time

Printed: Friday, August 21, 2020 15:26:08 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.50	2.456e3	1.264e3	1.318e2	7.231e1	1.82	YES	0.000e0	0.00000	0.28416	0.0550
2	1,2,3,7,8-PeCDF	29.38	2.674e3	1.511e3	1.188e2	8.344e1	1.42	NO	2.023e2	0.30354	0.30354	0.0554
3	2,3,4,7,8-PeCDF	30.33	2.103e3	1.496e3	8.309e1	6.394e1	1.30	YES	1.470e2	0.00000	0.19765	0.0499

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.62	1.300e3	1.431e3	4.612e1	4.320e1	1.07	NO	8.932e1	0.18796	0.18796	0.251
2	Total Hexa-Furans	31.79	4.693e3	3.062e3	2.037e2	1.391e2	1.46	YES	0.000e0	0.00000	0.65547	0.251
3	Total Hexa-Furans	32.41	4.330e3	2.611e3	1.705e2	1.360e2	1.25	NO	3.065e2	0.64493	0.64493	0.251
4	1,2,3,4,7,8-HxCDF	32.90	9.184e3	6.674e3	4.240e2	3.149e2	1.35	NO	7.389e2	1.5740	1.5740	0.231
5	1,2,3,6,7,8-HxCDF	33.04	4.495e3	3.599e3	2.639e2	1.886e2	1.40	NO	4.525e2	0.88151	0.88151	0.241
6	2,3,4,6,7,8-HxCDF	33.70	1.094e3	5.090e2	5.521e1	2.888e1	1.91	YES	8.409e1	0.00000	0.13631	0.249

**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	36.41	8.684e3	1.013e4	5.589e2	5.685e2	0.98	NO	1.127e3	2.7936	2.7936	0.145
2	Total Hepta-Furans	36.99	6.243e3	7.464e3	3.548e2	3.991e2	0.89	NO	7.539e2	2.1560	2.1560	0.164
3	1,2,3,4,7,8,9-HpCDF	38.23	1.780e3	2.518e3	1.043e2	1.027e2	1.02	NO	2.070e2	0.64384	0.64384	0.175

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

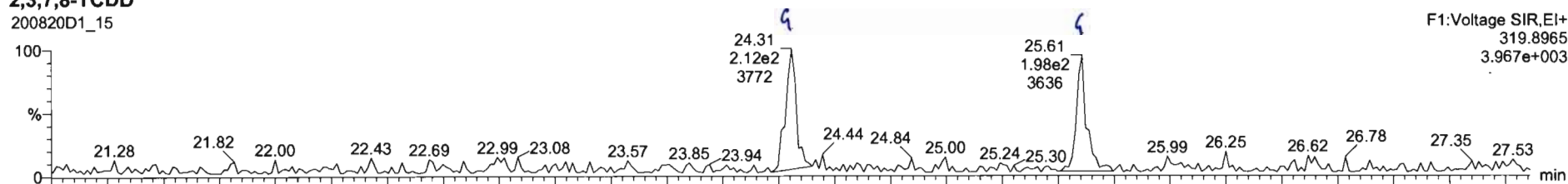
Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

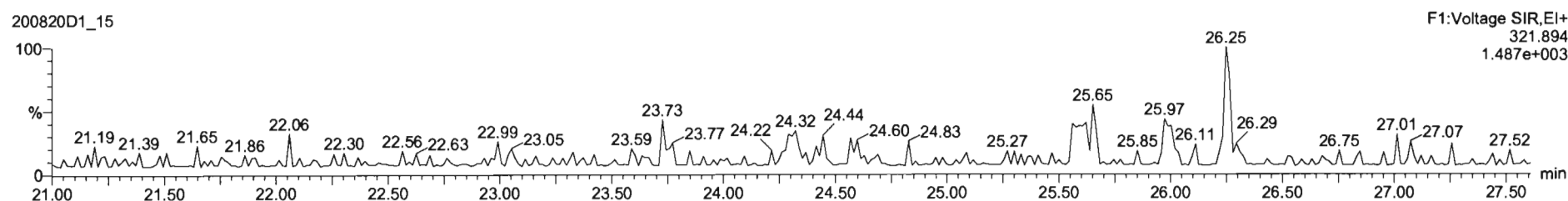
Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

2,3,7,8-TCDD

200820D1\_15

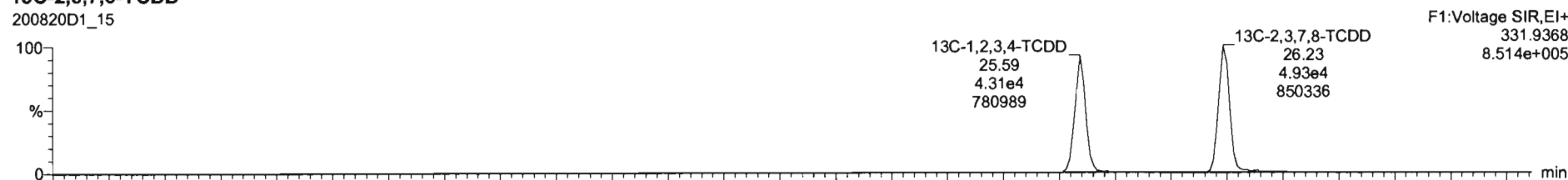


200820D1\_15

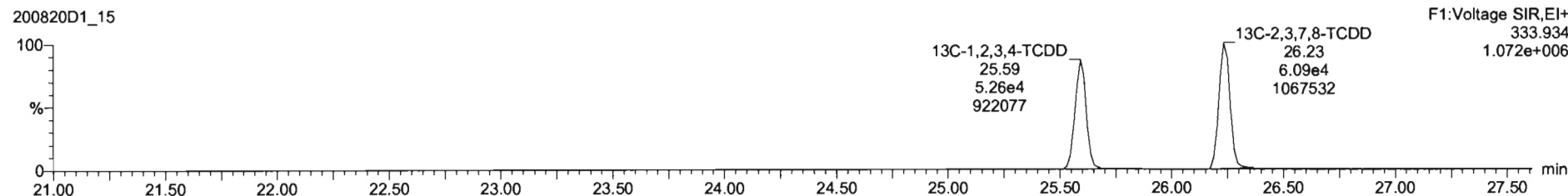


13C-2,3,7,8-TCDD

200820D1\_15



200820D1\_15



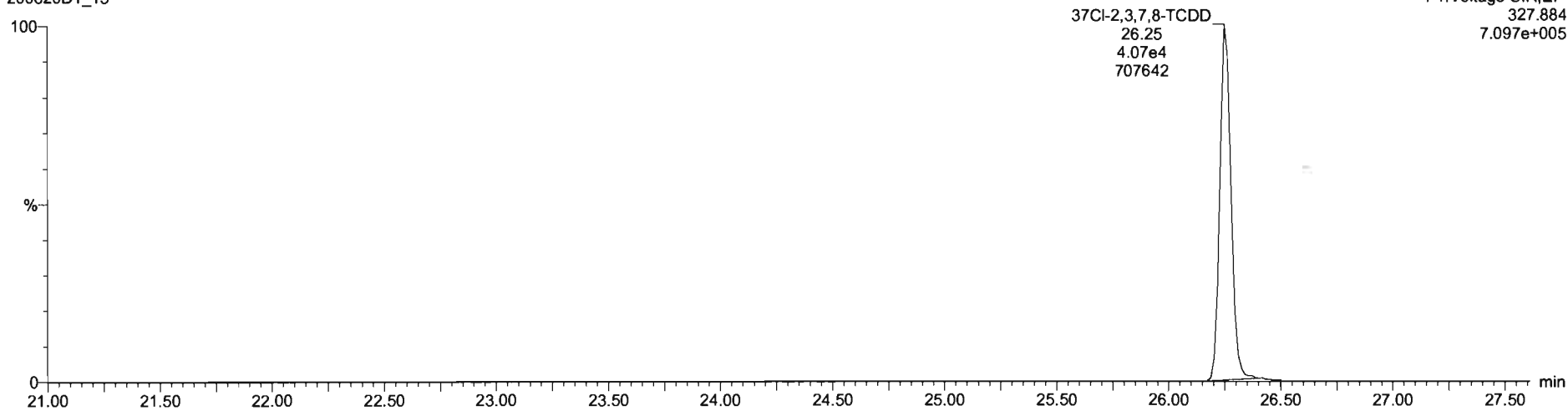


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

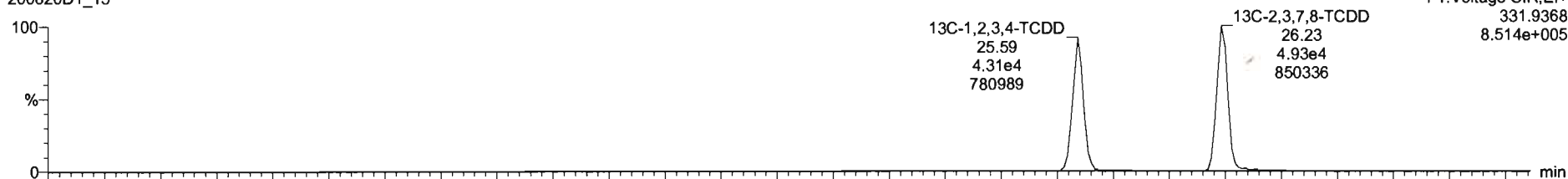
Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

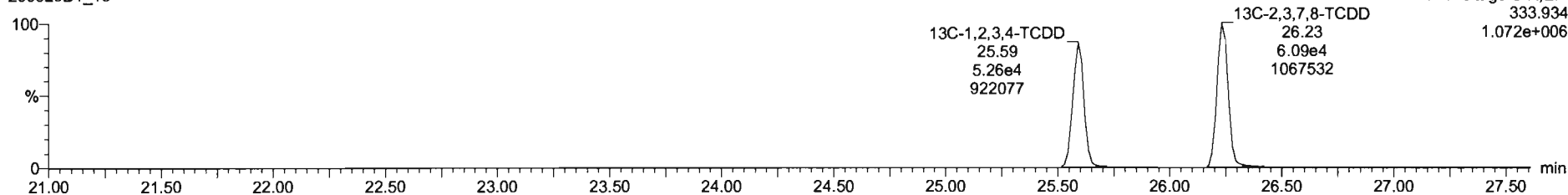
**37Cl-2,3,7,8-TCDD**  
200820D1\_15



**13C-1,2,3,4-TCDD**  
200820D1\_15



200820D1\_15



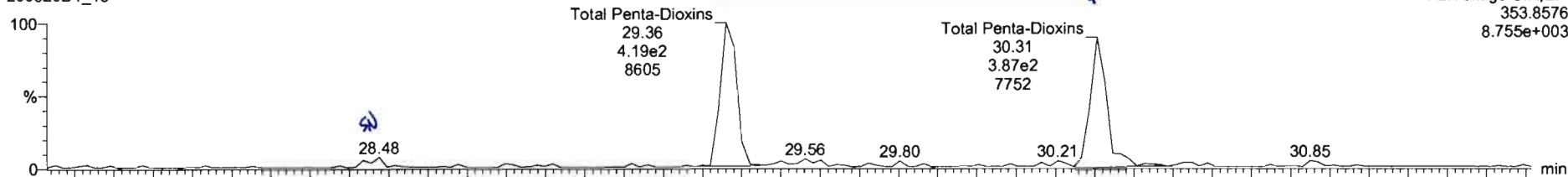
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

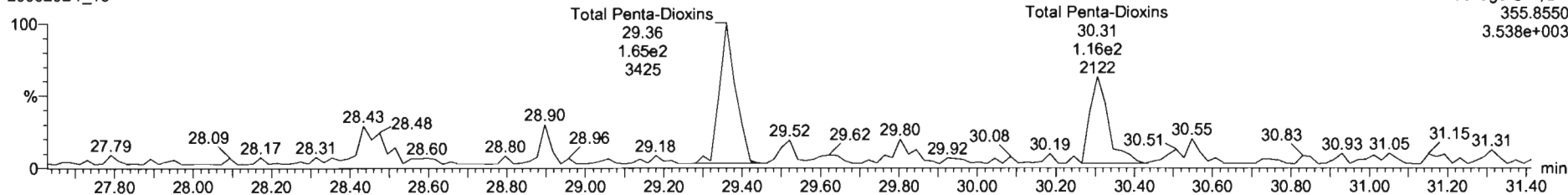
Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

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

200820D1\_15

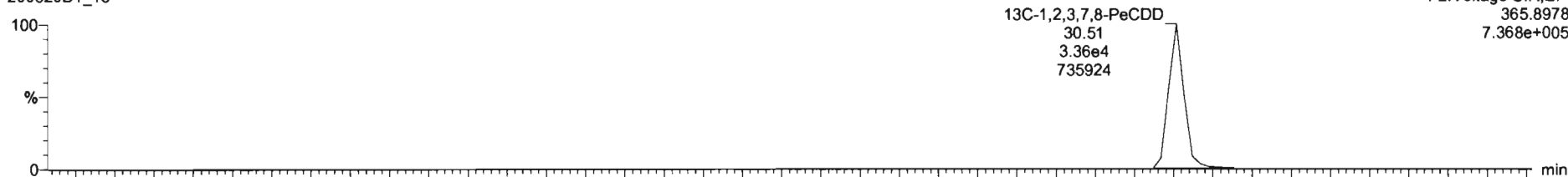


200820D1\_15

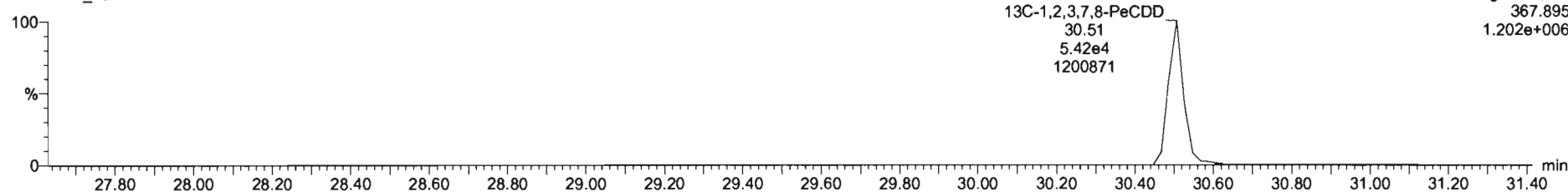


**13C-1,2,3,7,8-PeCDD**

200820D1\_15



200820D1\_15

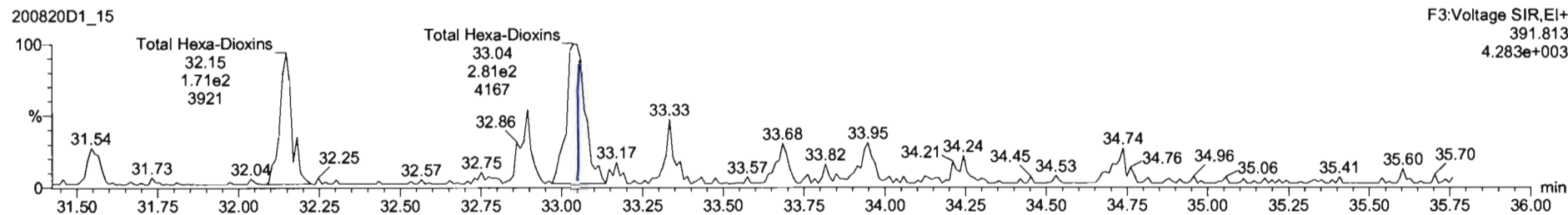
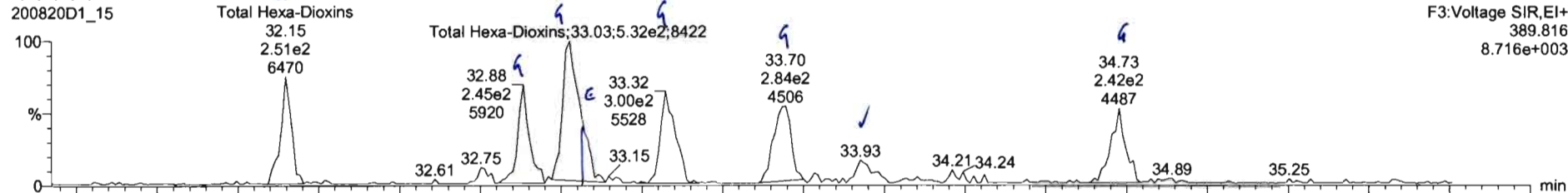


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

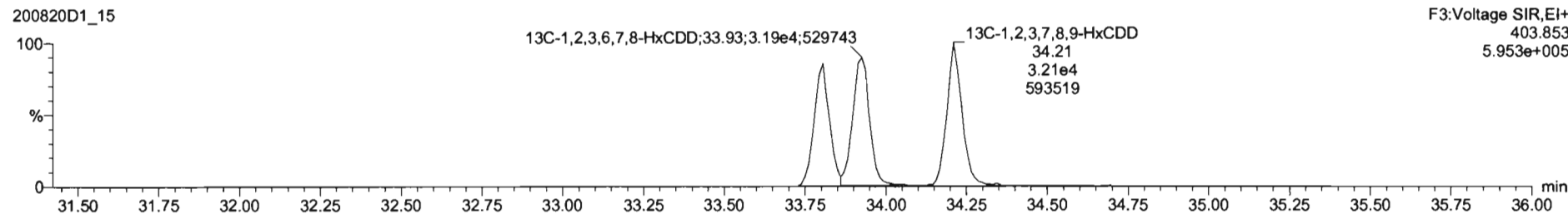
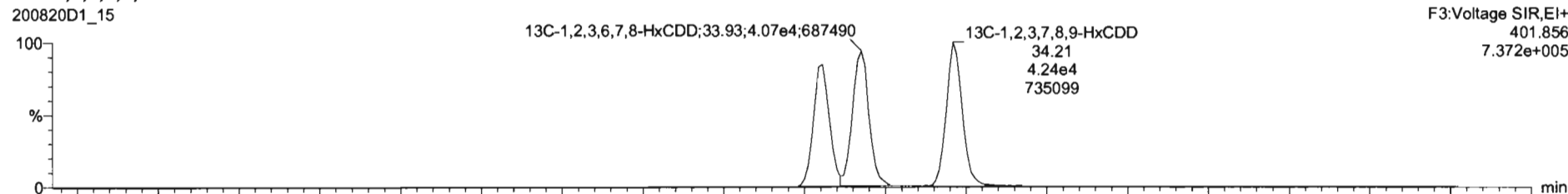
Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

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

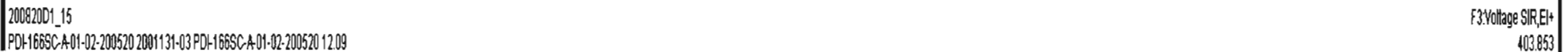
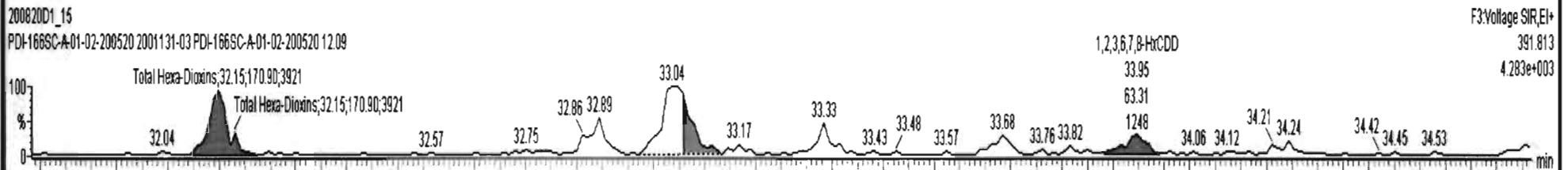
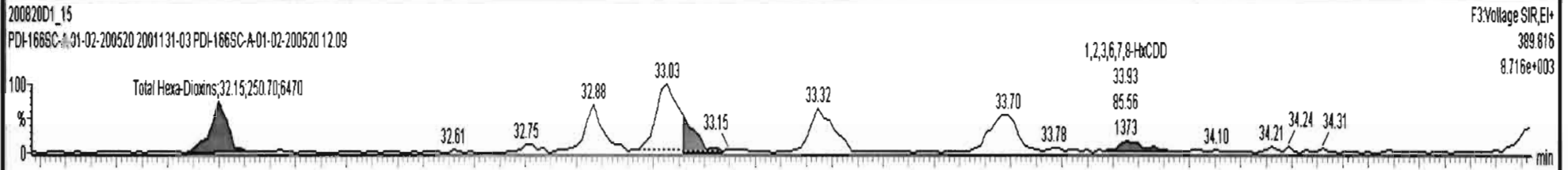


13C-1,2,3,4,7,8-HxCDD



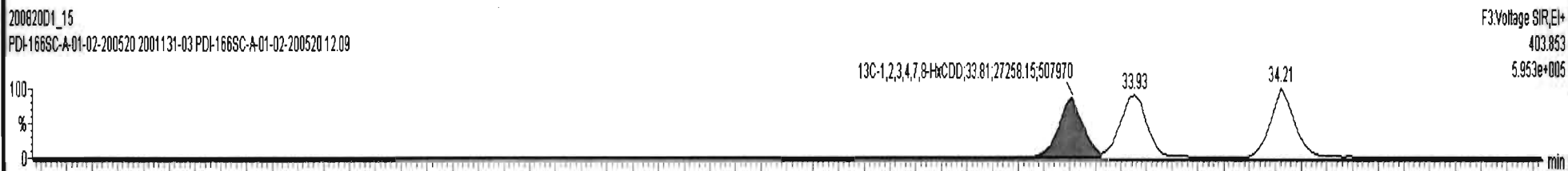
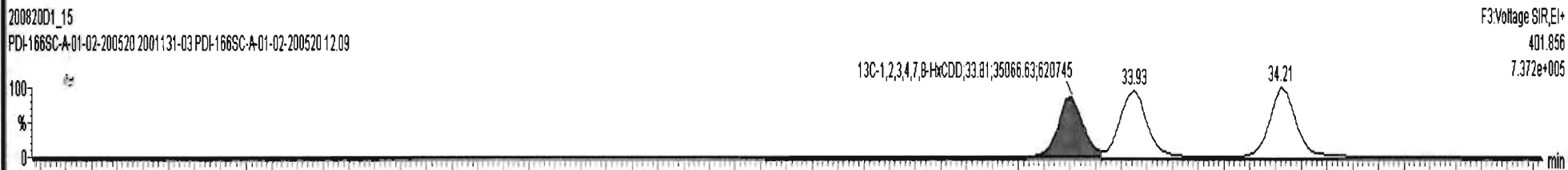
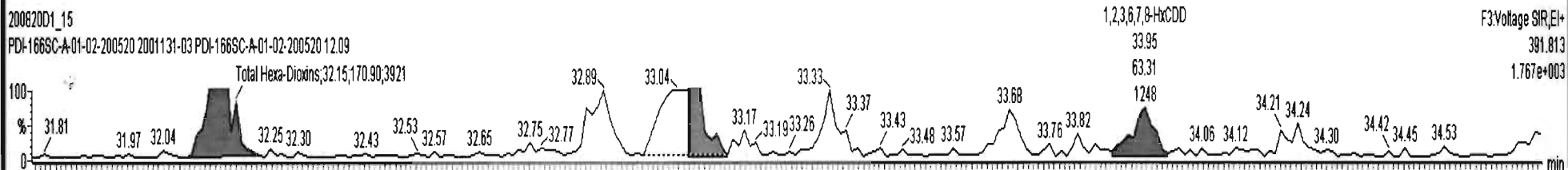
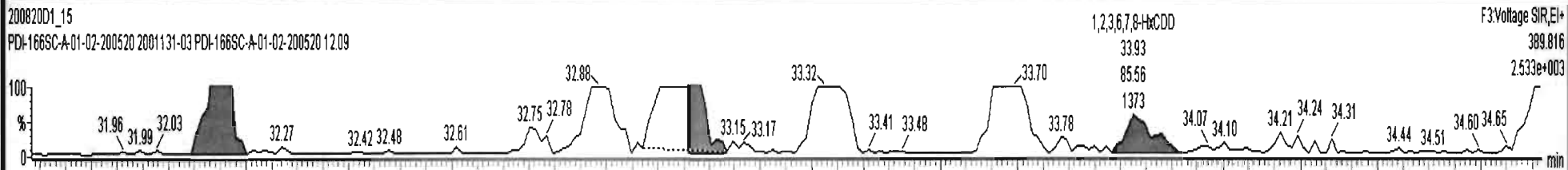


200820D1\_15 - 2001131-03 PDI-166SC-A-01-02-200520 12.09 - FDI-166SC-A-01-02-200520





200820D1\_15 - 2001131-03 PDI-166SC-A-01-02-200520 12.09 - PDI-166SC-A-01-02-200520



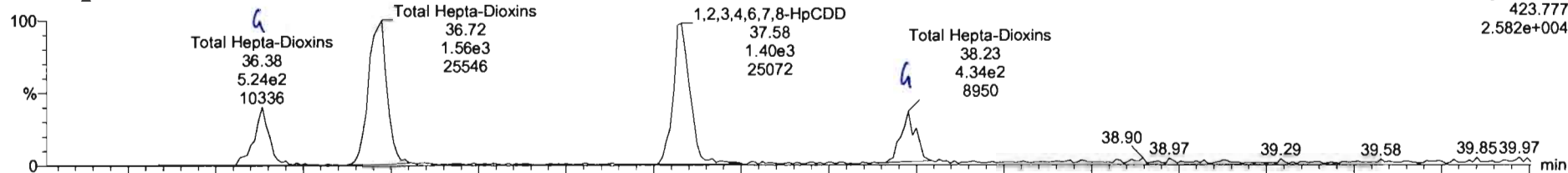
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

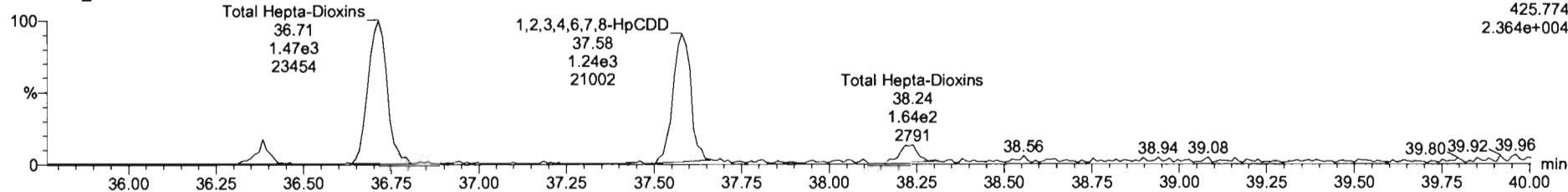
Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

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

200820D1\_15

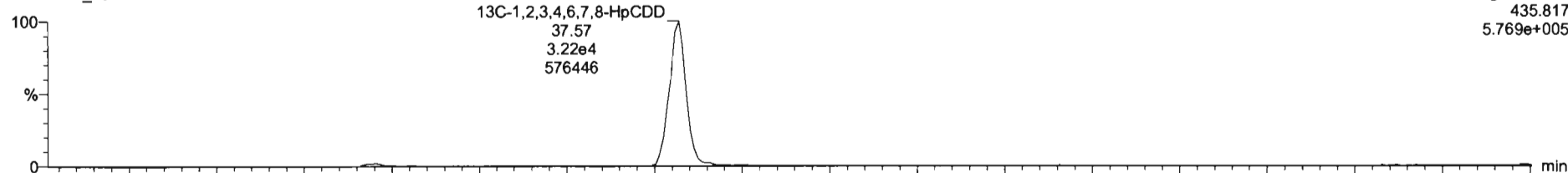


200820D1\_15

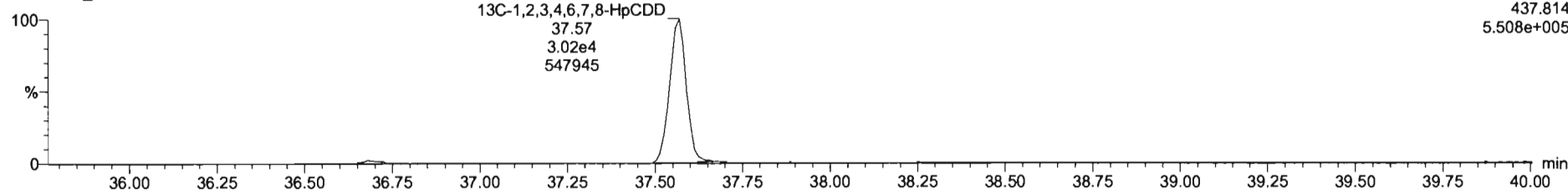


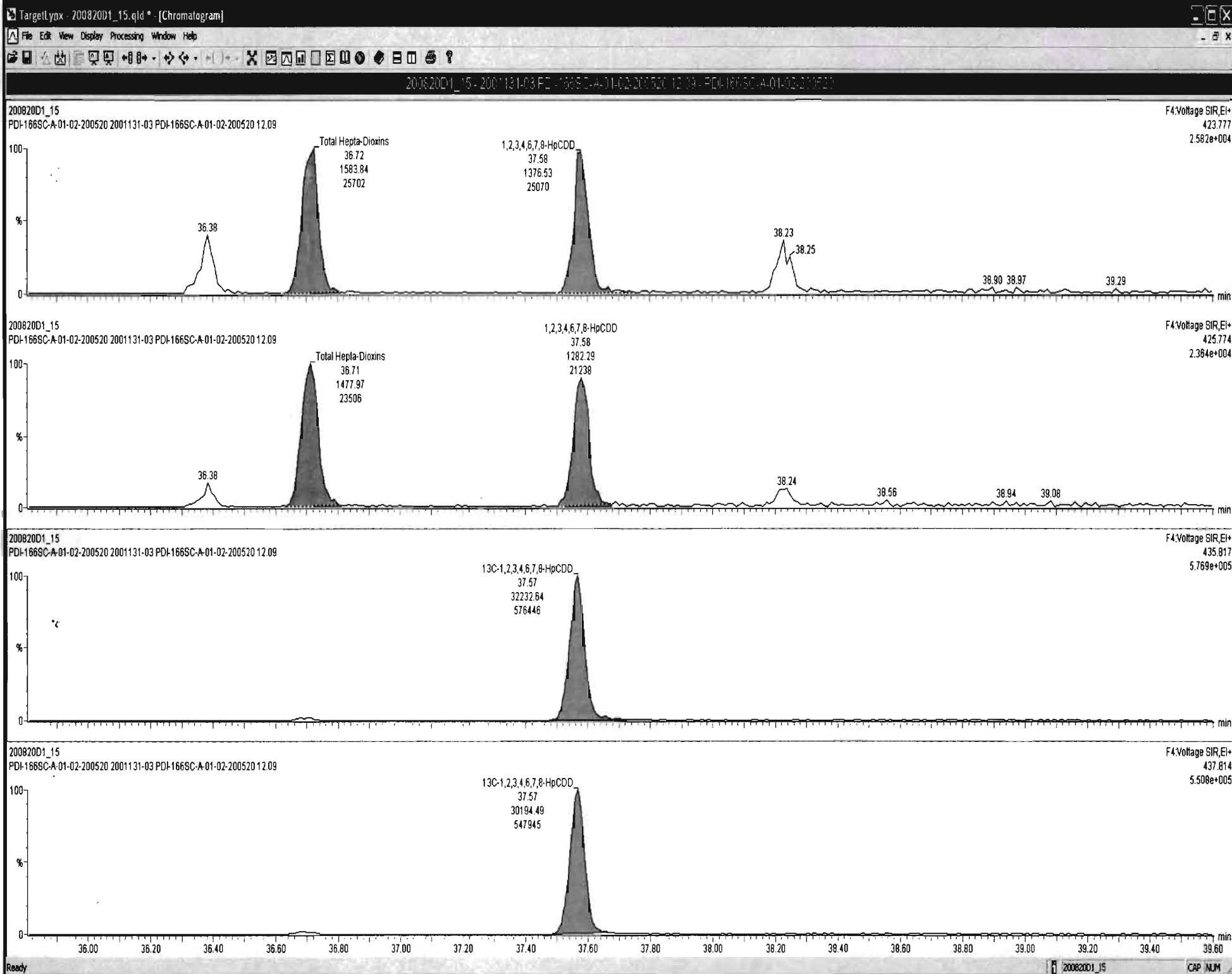
13C-1,2,3,4,6,7,8-HpCDD

200820D1\_15



200820D1\_15

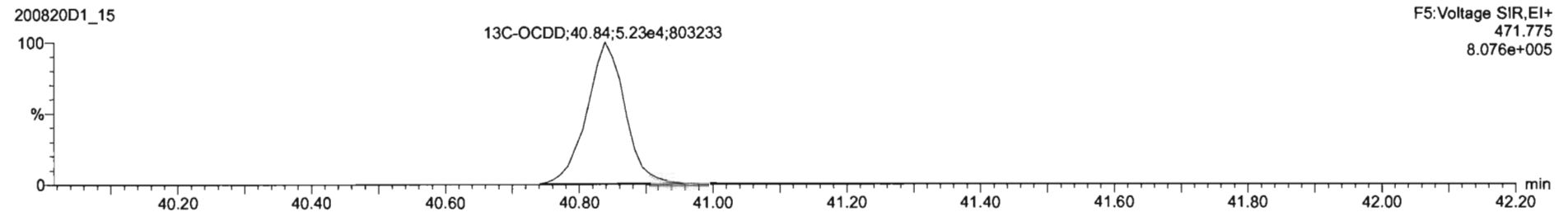
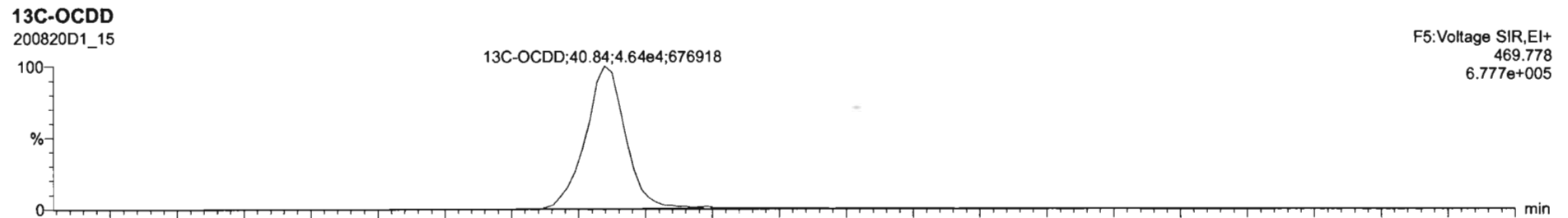
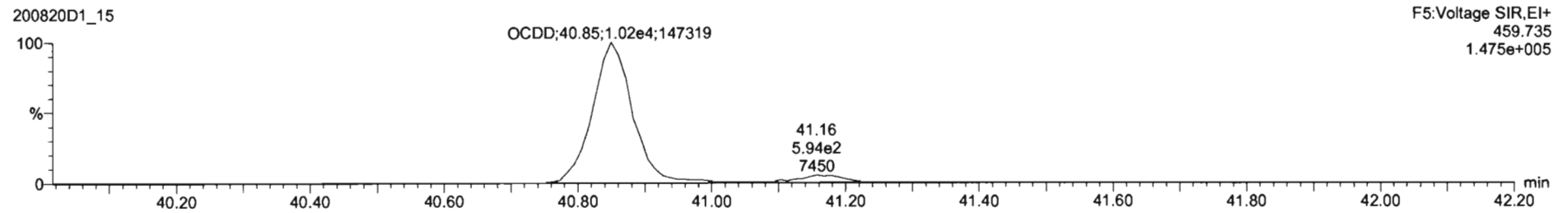
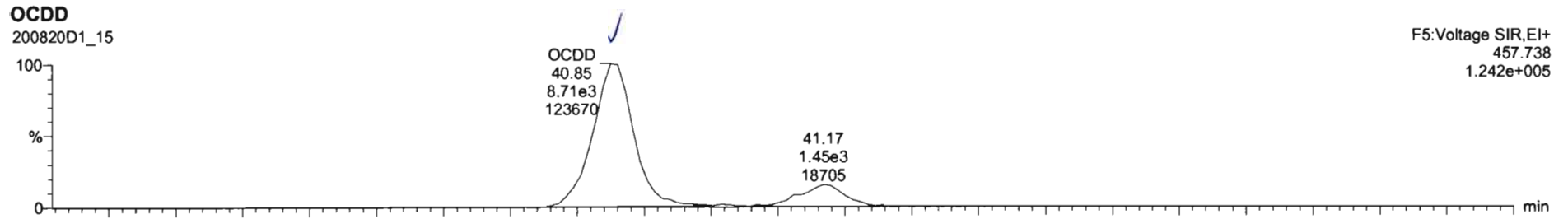




Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520



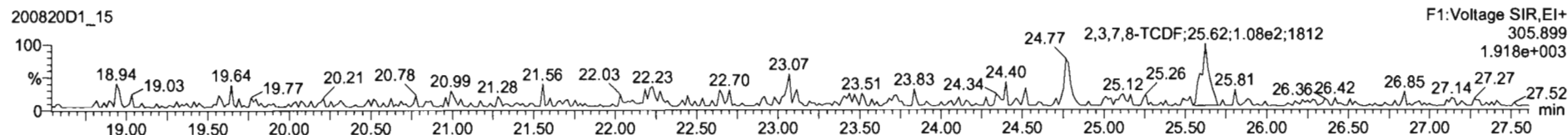
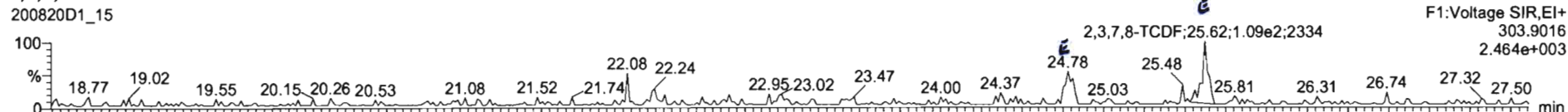


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

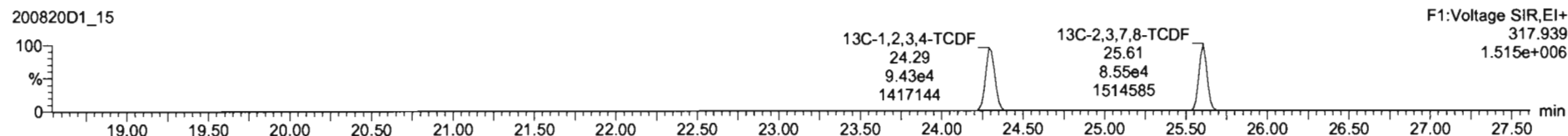
Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

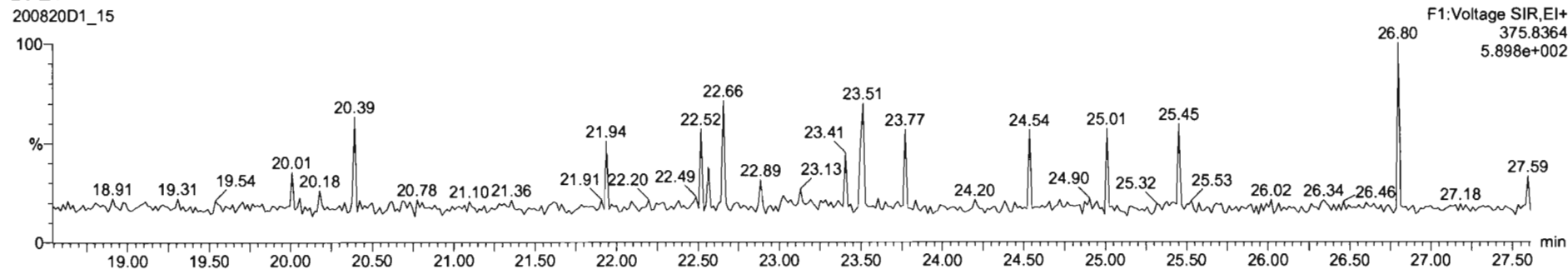
**2,3,7,8-TCDF**

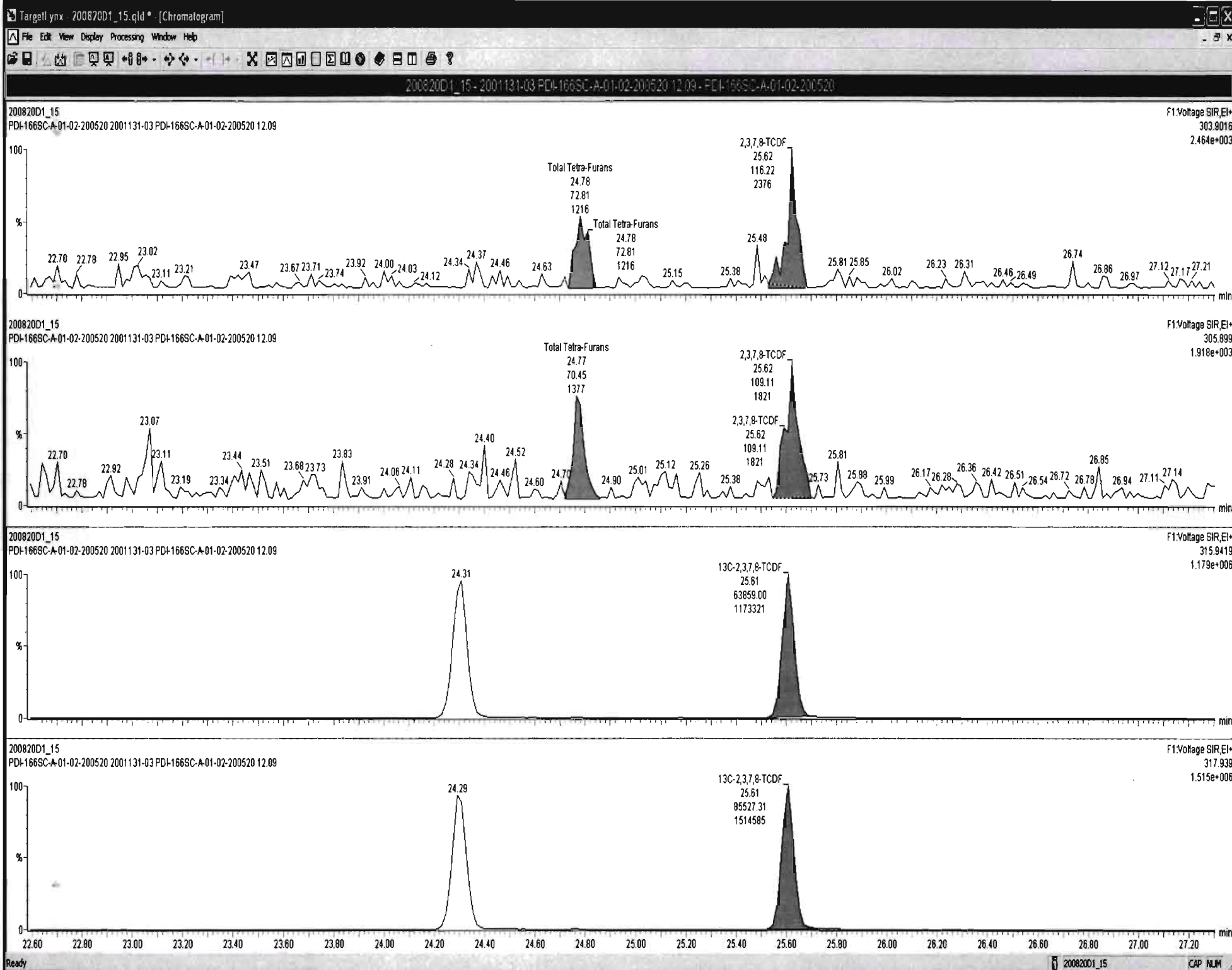


**13C-2,3,7,8-TCDF**



**DPE1**





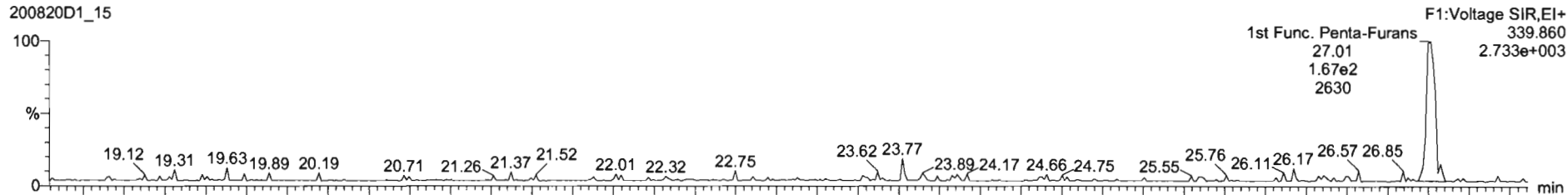
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

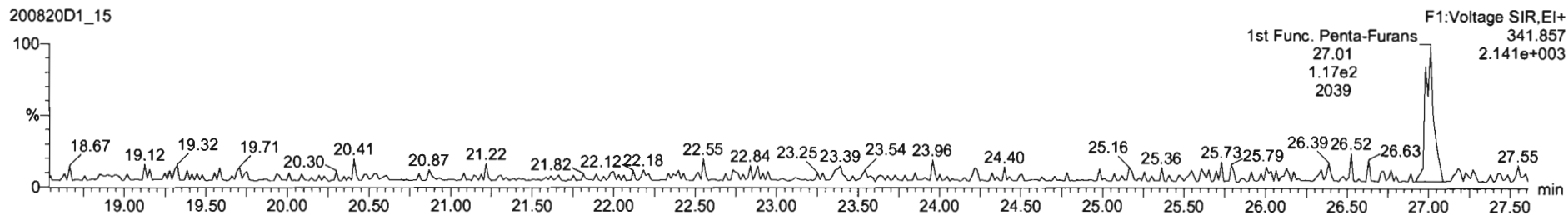
Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

1st Func. Penta-Furans

200820D1\_15

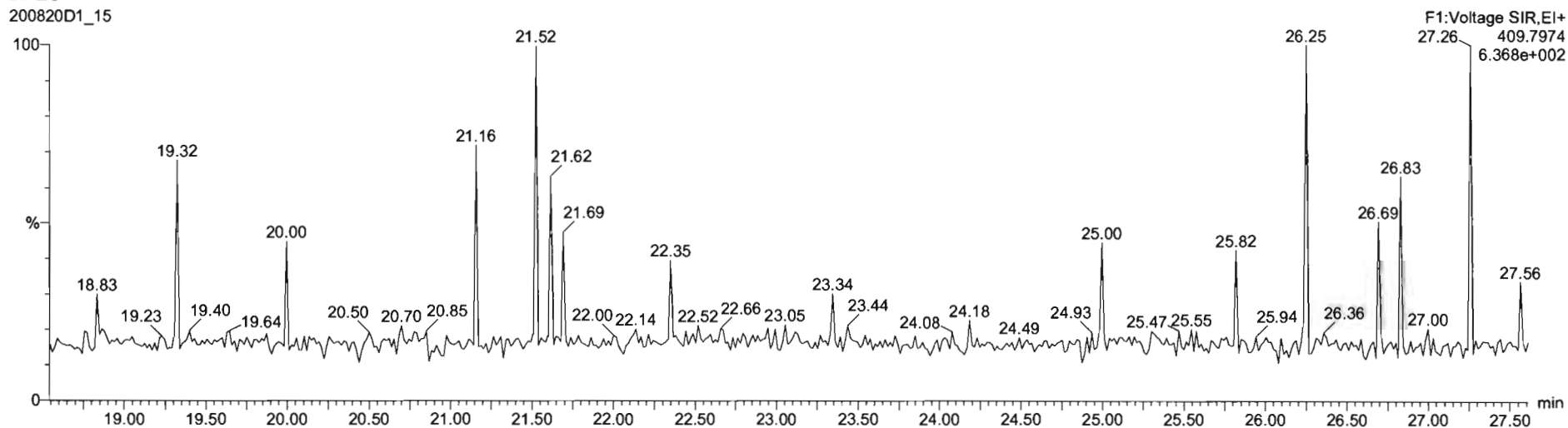


200820D1\_15



DPE6

200820D1\_15



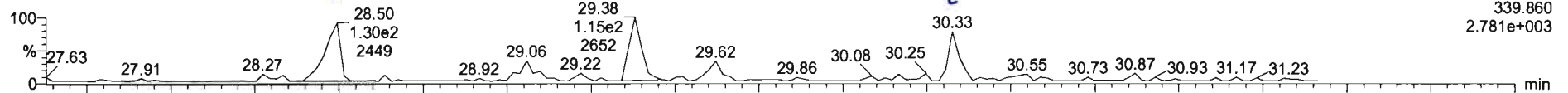
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

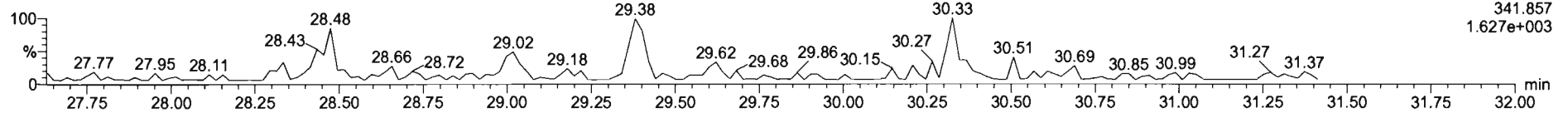
**1,2,3,7,8-PeCDF**

200820D1\_15



F2:Voltage SIR,EI+  
339.860  
2.781e+003

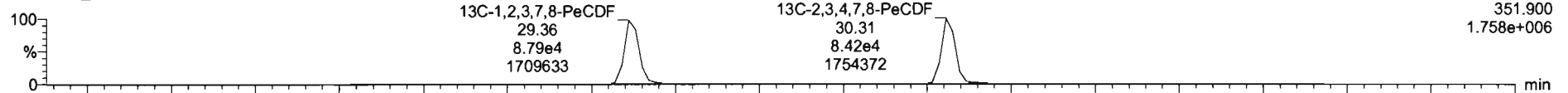
200820D1\_15



F2:Voltage SIR,EI+  
341.857  
1.627e+003

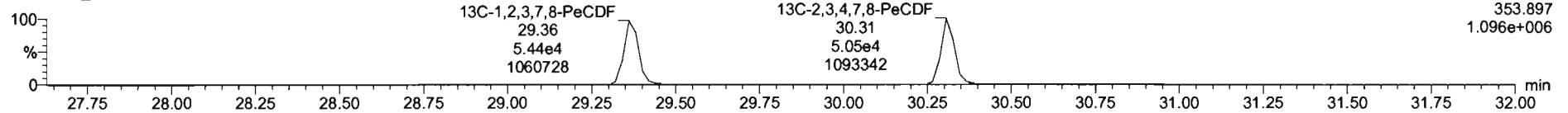
**13C-1,2,3,7,8-PeCDF**

200820D1\_15



F2:Voltage SIR,EI+  
351.900  
1.758e+006

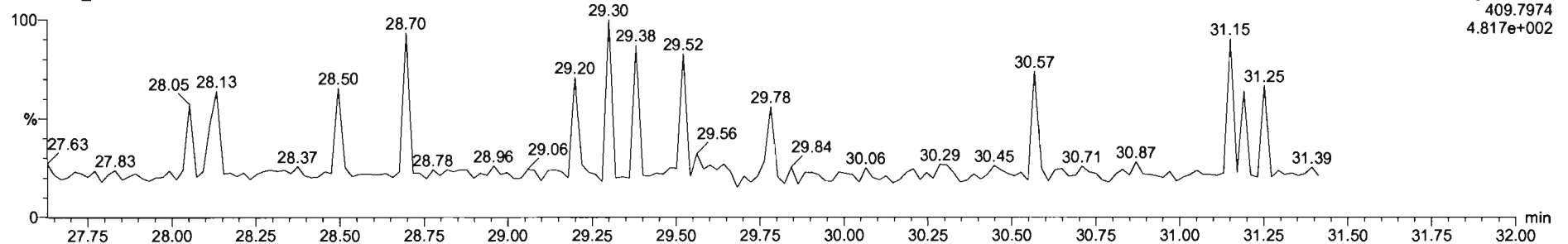
200820D1\_15



F2:Voltage SIR,EI+  
353.897  
1.096e+006

**DPE2**

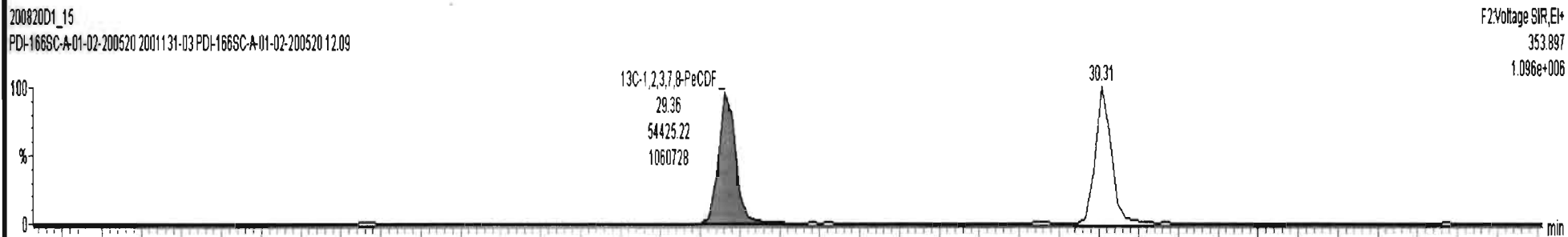
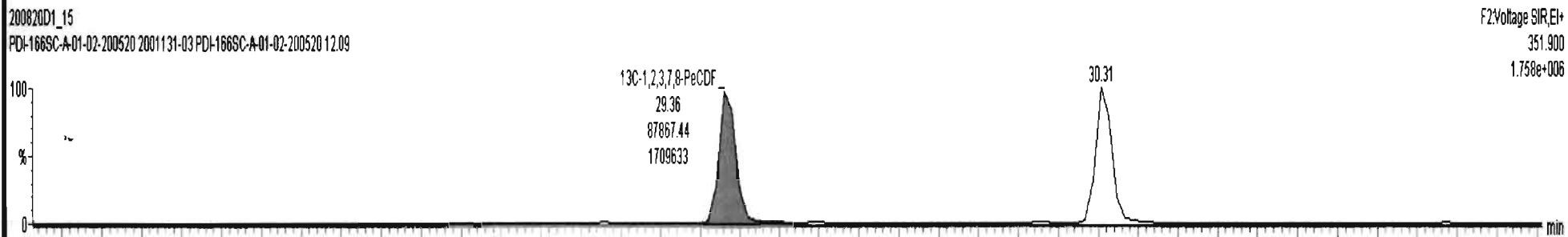
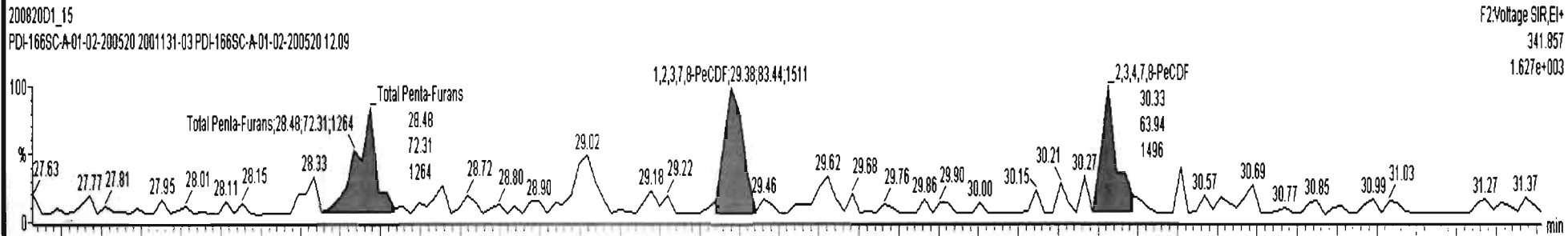
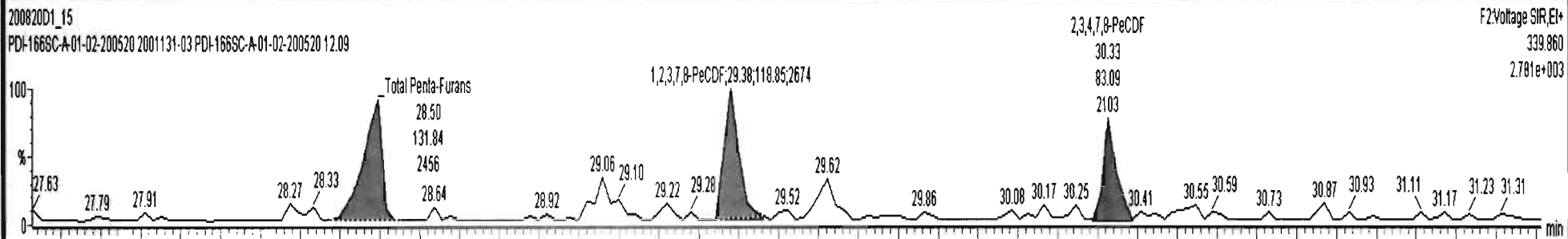
200820D1\_15



F2:Voltage SIR,EI+  
409.7974  
4.817e+002



200820D1\_15 - 2001131-03 PDI-166SC-A-01-02-200520 12.09 - PDI-166SC-A-01-02-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

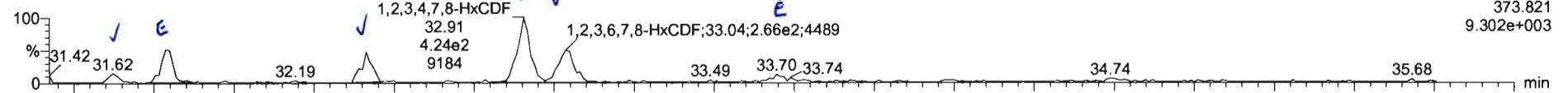
Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

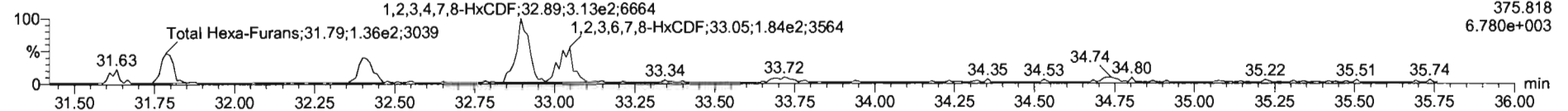
1,2,3,4,7,8-HxCDF

200820D1\_15



F3:Voltage SIR,EI+  
373.821  
9.302e+003

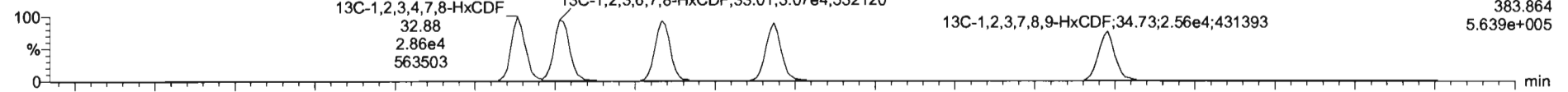
200820D1\_15



F3:Voltage SIR,EI+  
375.818  
6.780e+003

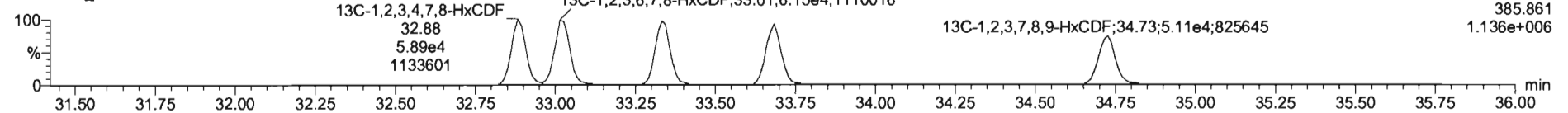
13C-1,2,3,4,7,8-HxCDF

200820D1\_15



F3:Voltage SIR,EI+  
383.864  
5.639e+005

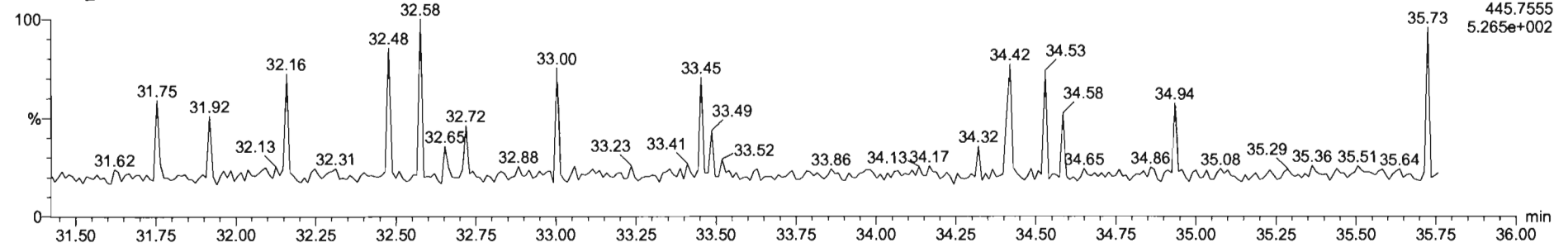
200820D1\_15



F3:Voltage SIR,EI+  
385.861  
1.136e+006

DPE3

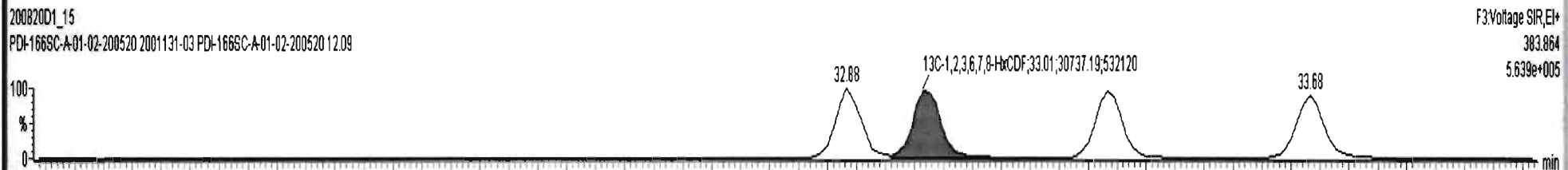
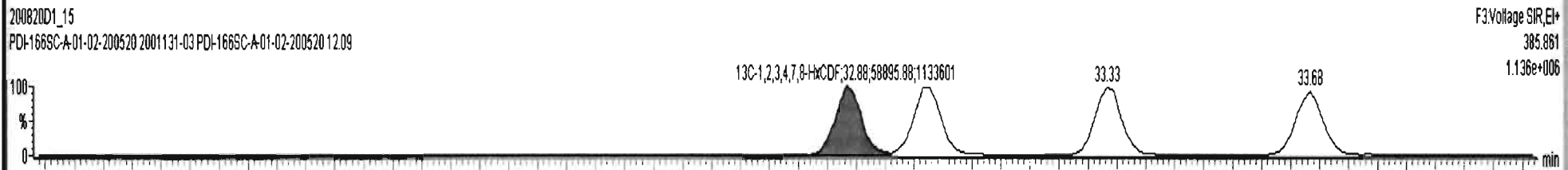
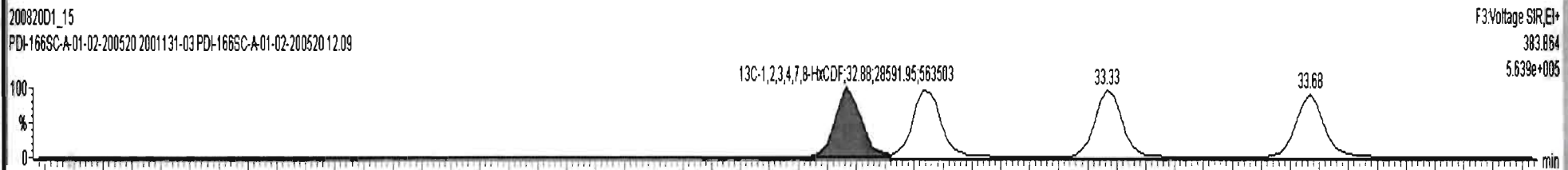
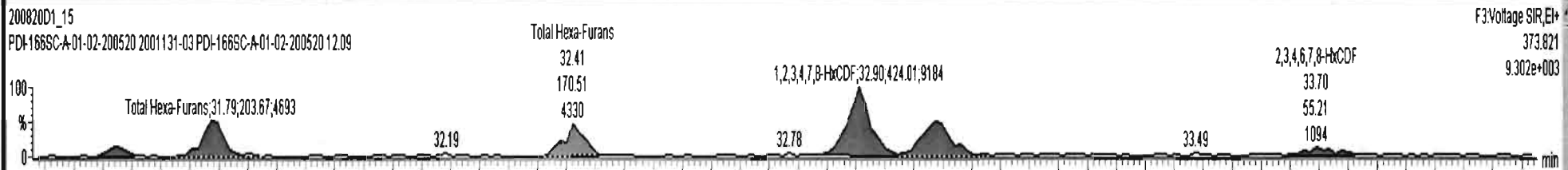
200820D1\_15



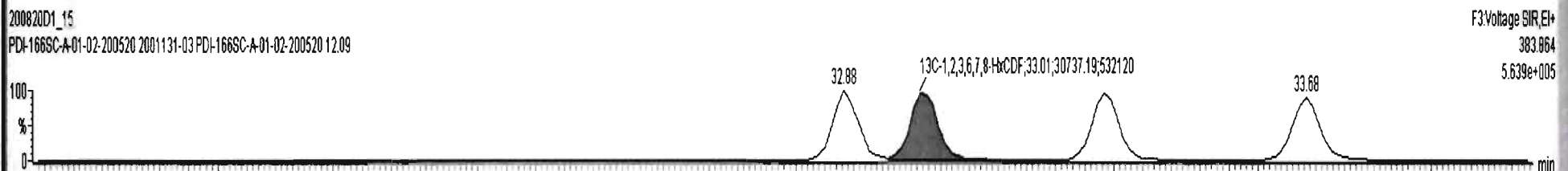
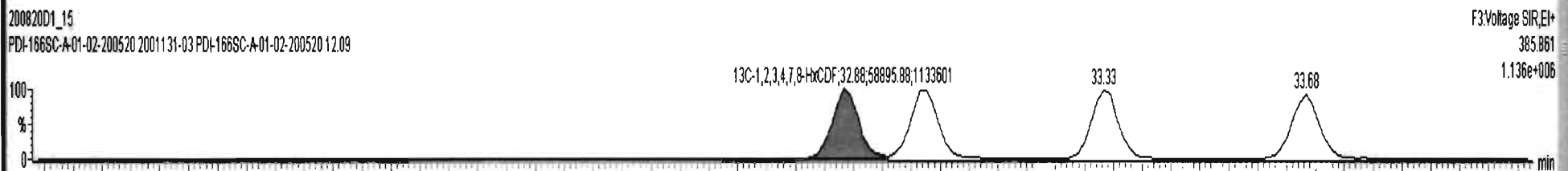
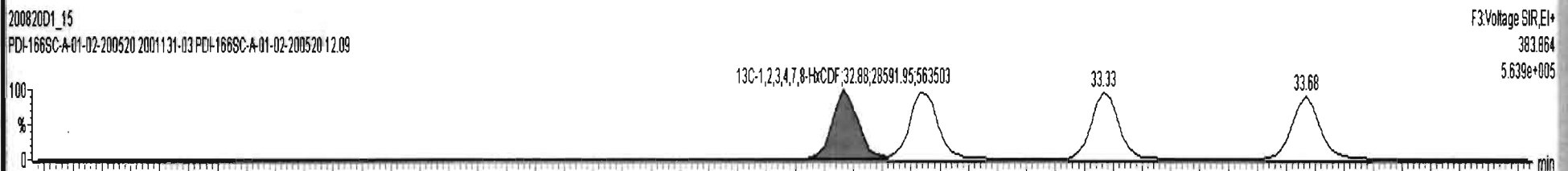
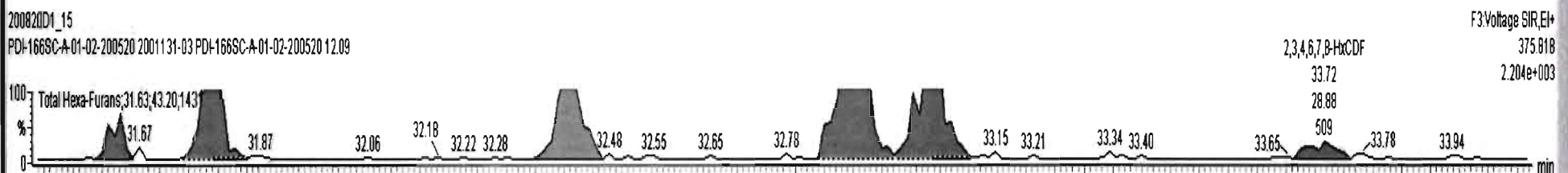
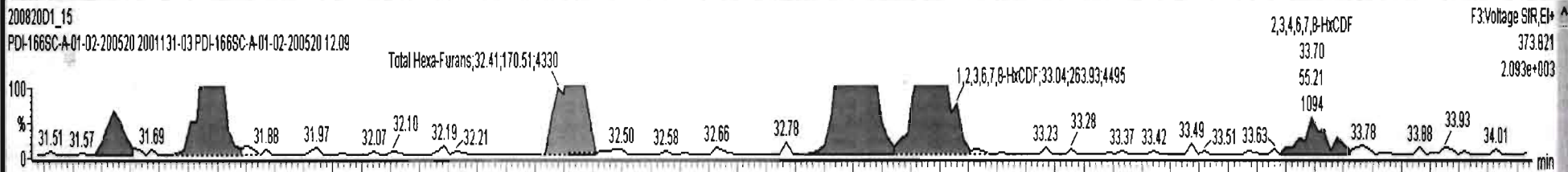
F3:Voltage SIR,EI+  
445.7555  
5.265e+002



200820D1\_15 - 2001131-03 PDI-166SC-A-01-02-200520 12.09 - PDI-166SC-A-01-02-200520



200820D1\_15 - 2001131-03 PDI-166SC-A-01-02-200520 12.09 - PDI-166SC-A-01-02-200520



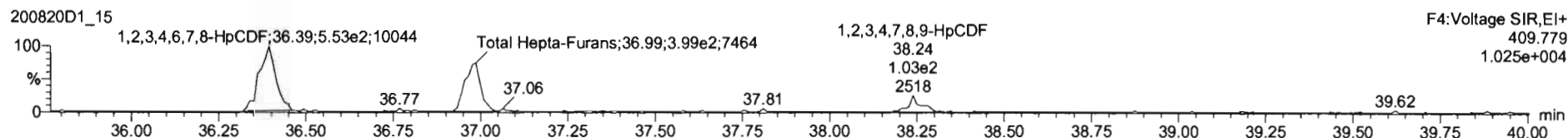
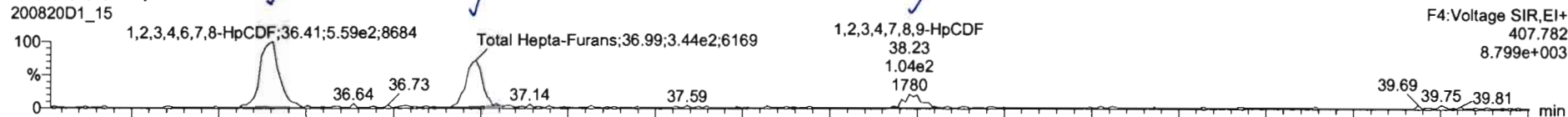


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

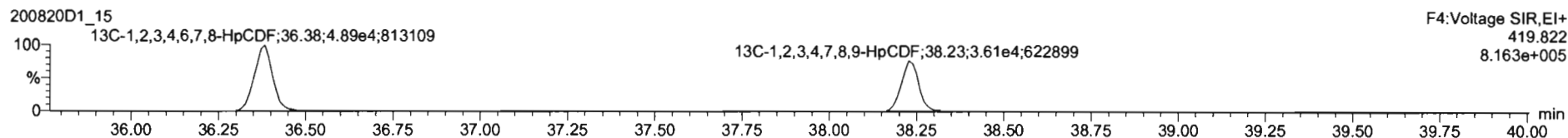
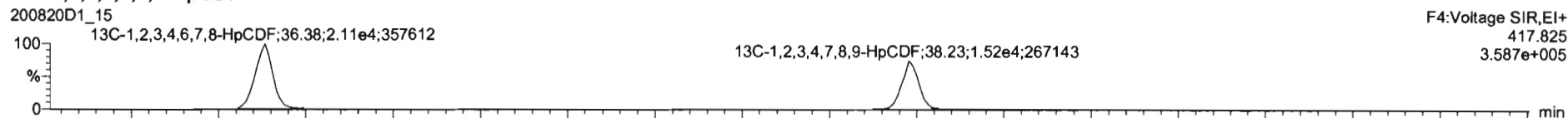
Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520

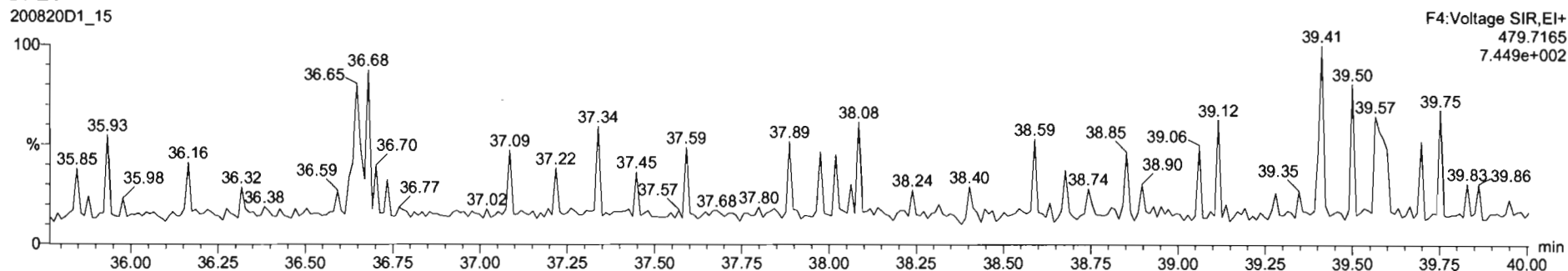
**1,2,3,4,6,7,8-HpCDF**

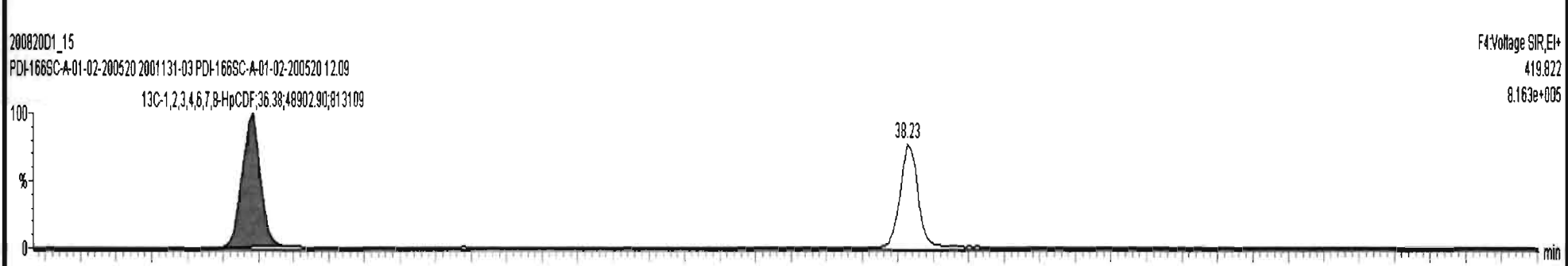
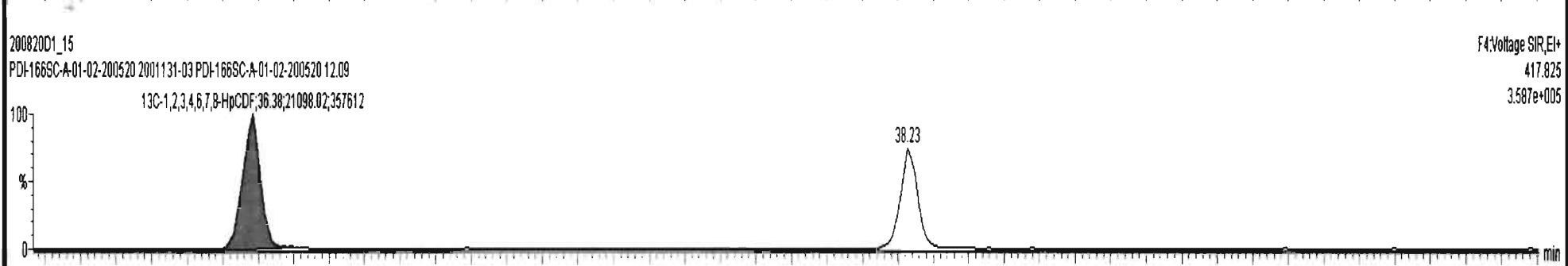
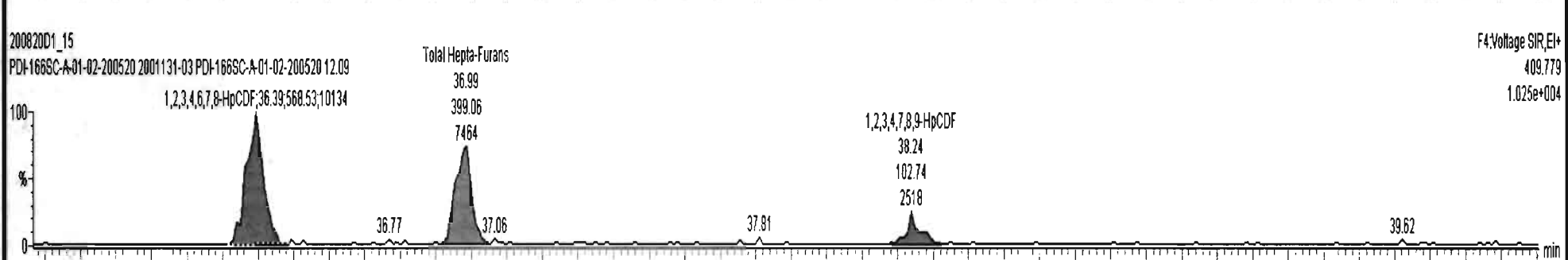
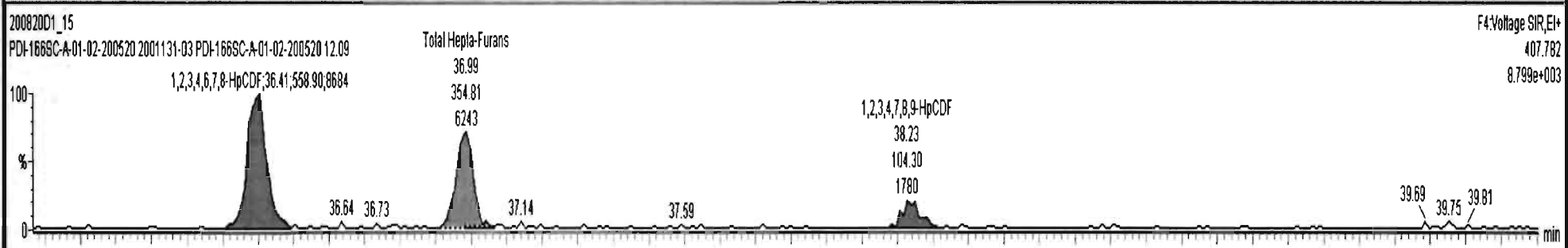


**13C-1,2,3,4,6,7,8-HpCDF**



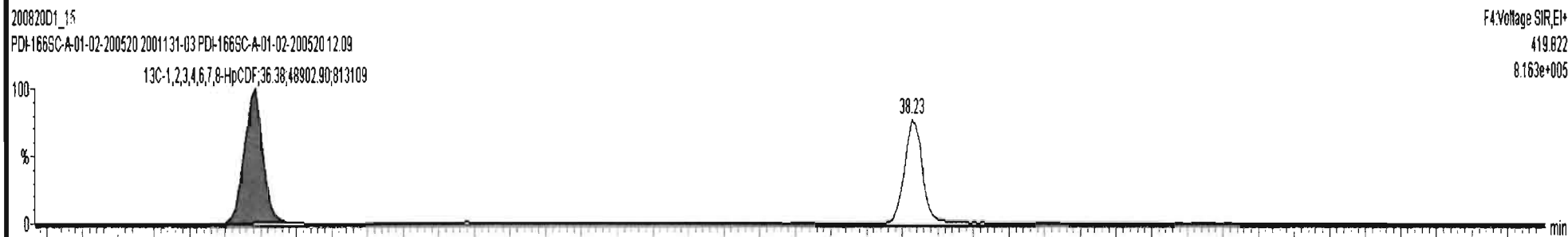
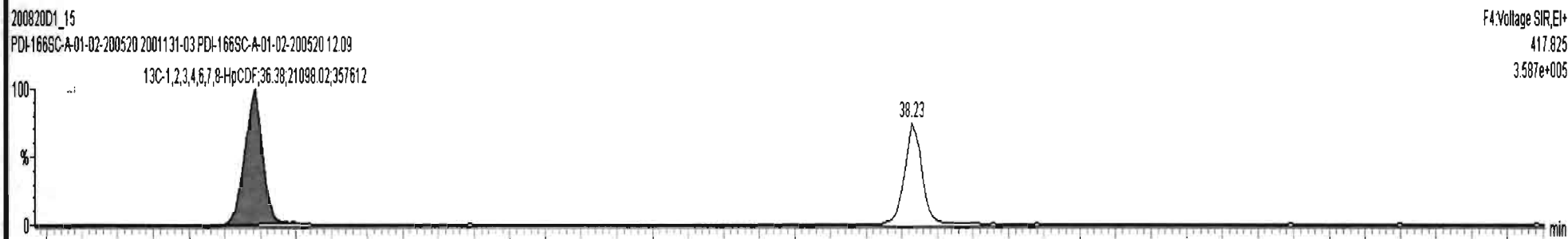
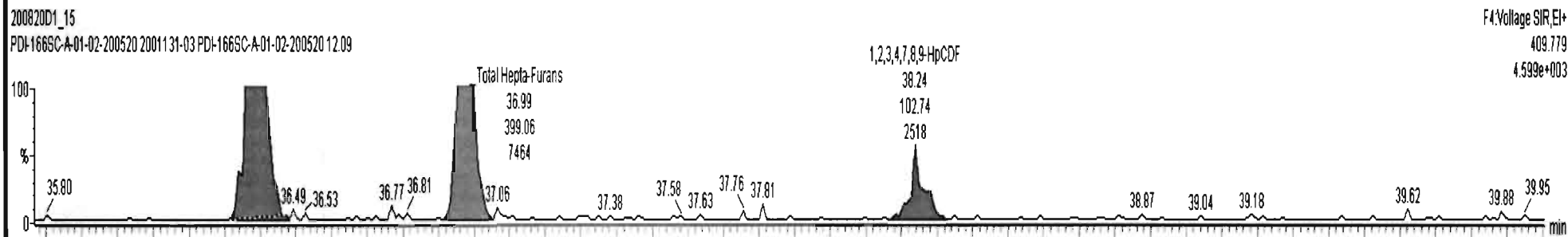
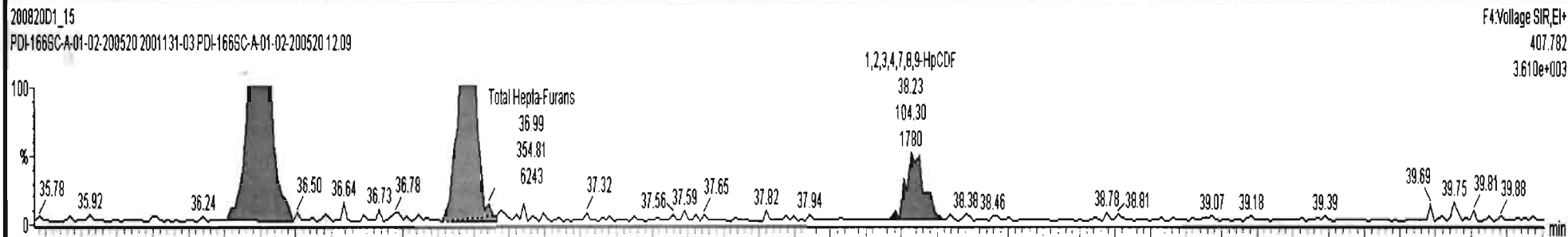
**DPE4**







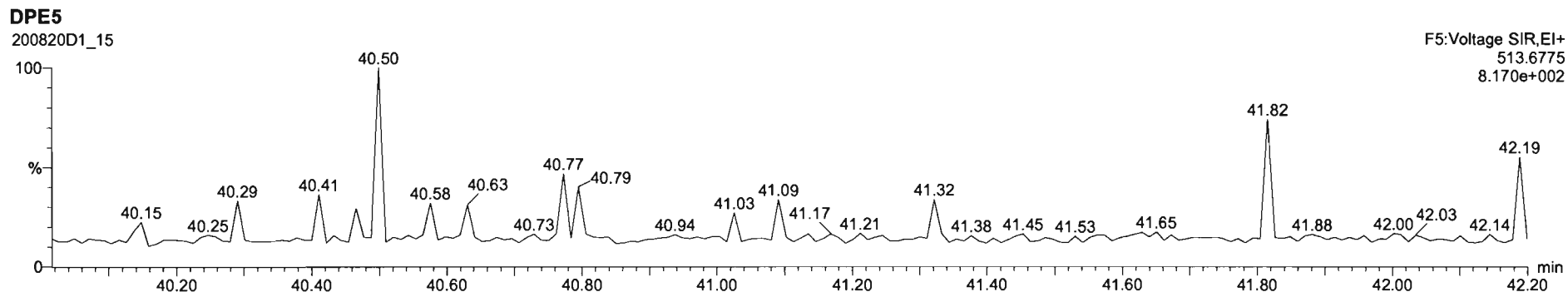
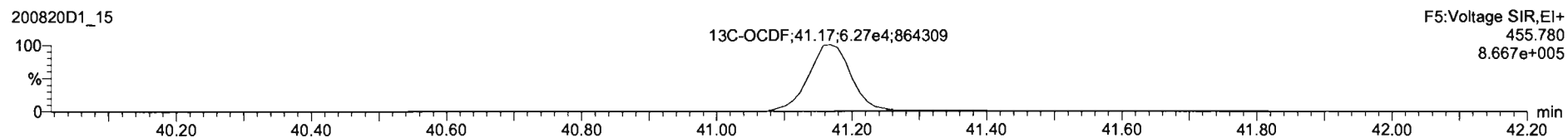
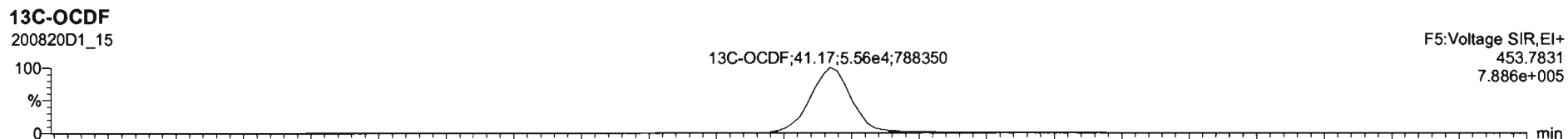
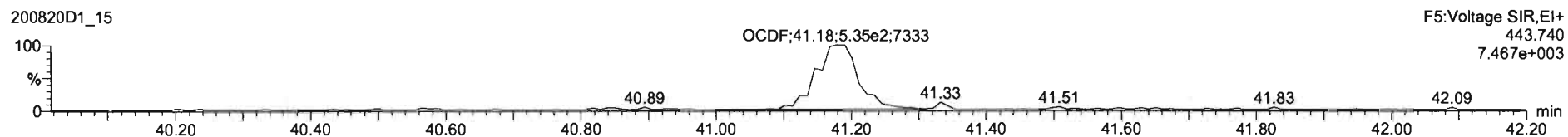
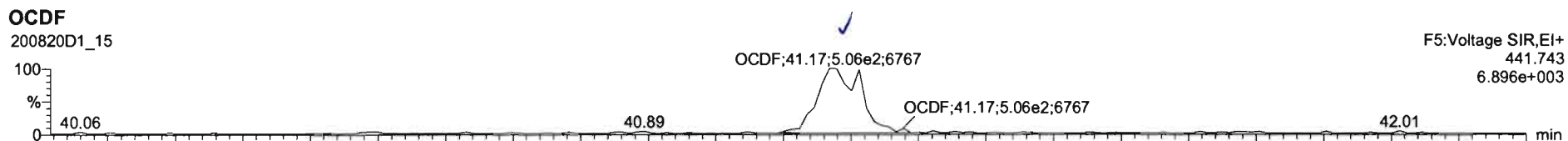
20082001\_15 - 2001131-03-PDI-166SC-A-01-02-200520 12.09 - PD-166SC-A-01-02-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

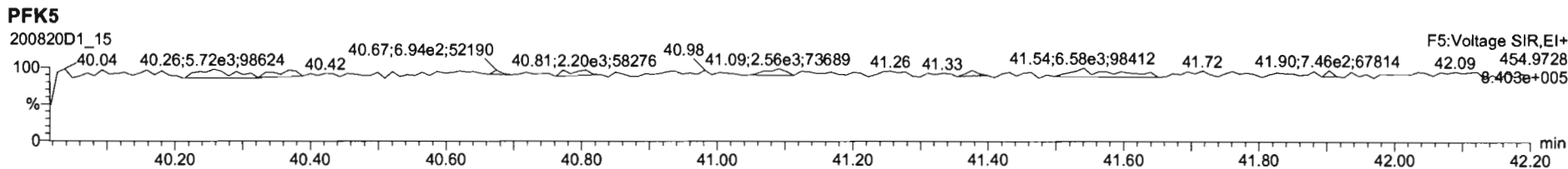
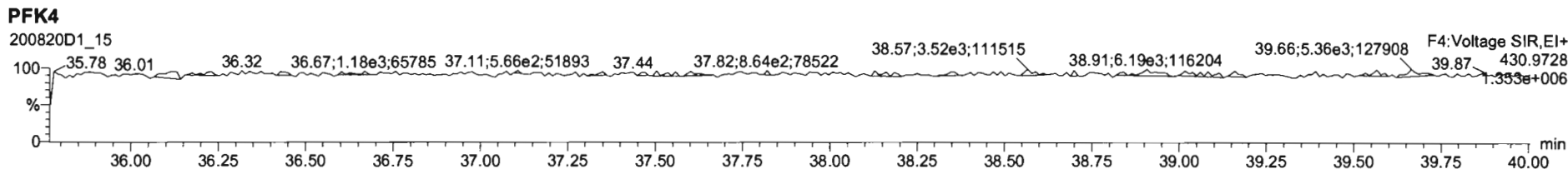
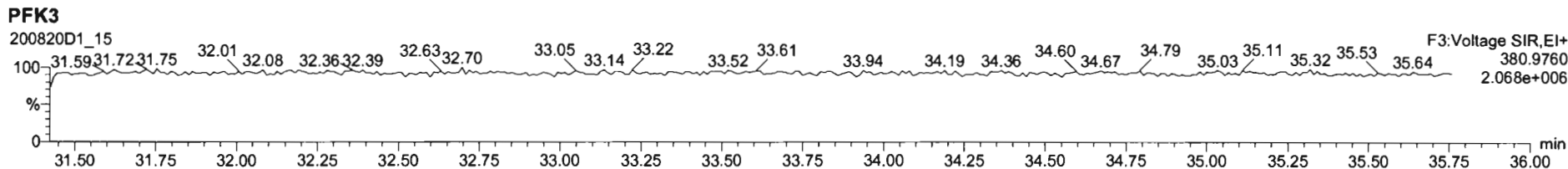
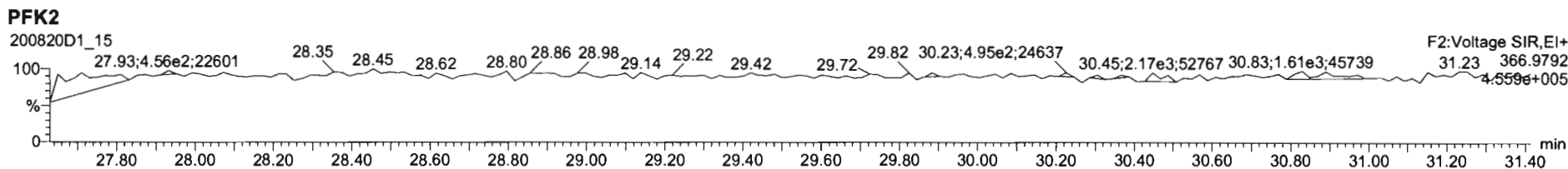
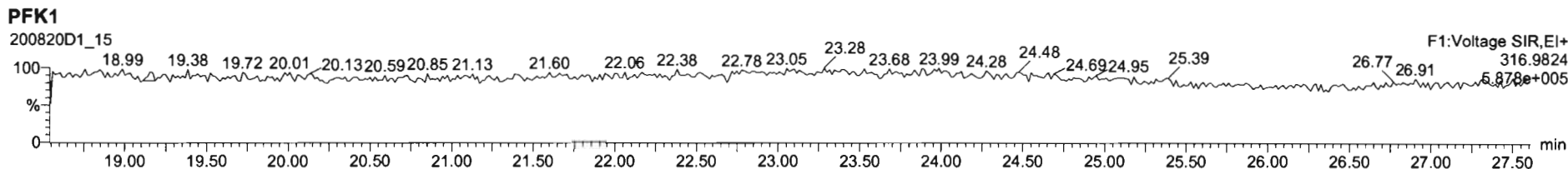
Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_15.qld

Last Altered: Friday, August 21, 2020 10:37:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:39:31 Pacific Daylight Time

Name: 200820D1\_15, Date: 20-Aug-2020, Time: 23:29:41, ID: 2001131-03 PDI-166SC-A-01-02-200520 12.09, Description: PDI-166SC-A-01-02-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 16:03:52 Pacific Daylight Time  
Printed: Friday, August 21, 2020 16:04:53 Pacific Daylight Time

*DB 8/21/20* *CT 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

#	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	1.08	10.019	26.265		1.001				0.133	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.019	30.529		1.001				0.146	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.019	33.815		1.000				0.285	
4	4 1,2,3,6,7,8-HxCDD	3.20e2	1.17	NO	0.908	10.019	33.926	33.94	1.000	1.000	0.87745		0.298	0.877
5	5 1,2,3,7,8,9-HxCDD	1.72e2	1.60	YES	0.923	10.019	34.256	34.22	1.001	1.000	0.46737		0.305	0.402
6	6 1,2,3,4,6,7,8-HpCDD	3.56e3	1.05	NO	0.926	10.019	37.580	37.58	1.000	1.000	12.066		0.693	12.1
7	7 OCDD	2.40e4	0.88	NO	0.834	10.019	40.850	40.86	1.000	1.000	113.91		0.456	114
8	8 2,3,7,8-TCDF	3.16e2	0.74	NO	0.882	10.019	25.633	25.61	1.001	1.000	0.49168		0.125	0.492
9	9 1,2,3,7,8-PeCDF	2.42e2	1.12	YES	0.937	10.019	29.382	29.40	1.001	1.001	0.34889		0.119	0.303
10	10 2,3,4,7,8-PeCDF	1.55e2	1.63	NO	1.03	10.019	30.336	30.37	1.001	1.002	0.21225		0.105	0.212
11	11 1,2,3,4,7,8-HxCDF	4.55e2	1.19	NO	1.07	10.019	32.884	32.90	1.000	1.000	0.92668		0.175	0.927
12	12 1,2,3,6,7,8-HxCDF	1.98e2	1.40	NO	1.11	10.019	33.025	33.04	1.000	1.001	0.36623		0.166	0.366
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.019	33.719		1.001				0.188	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.019	34.716		1.000				0.237	
15	15 1,2,3,4,6,7,8-HpCDF	7.54e2	0.99	NO	1.15	10.019	36.420	36.41	1.001	1.001	1.7714		0.148	1.77
16	16 1,2,3,4,7,8,9-HpCDF	8.88e1	0.83	YES	1.25	10.019	38.228	38.24	1.000	1.000	0.27049		0.167	0.241
17	17 OCDF	1.13e3	0.91	NO	0.961	10.019	41.168	41.19	1.000	1.001	4.0275		0.160	4.03
18	18 13C-2,3,7,8-TCDD	1.11e5	0.77	NO	1.20	10.019	26.257	26.23	1.026	1.025	188.84	94.6	0.639	
19	19 13C-1,2,3,7,8-PeCDD	9.45e4	0.63	NO	0.910	10.019	30.521	30.51	1.193	1.192	212.67	107	0.336	
20	20 13C-1,2,3,4,7,8-HxCDD	6.70e4	1.31	NO	0.789	10.019	33.800	33.81	1.014	1.014	183.63	92.0	0.738	
21	21 13C-1,2,3,6,7,8-HxCDD	8.00e4	1.33	NO	0.885	10.019	33.910	33.93	1.017	1.018	195.54	98.0	0.658	
22	22 13C-1,2,3,7,8,9-HxCDD	7.95e4	1.25	NO	0.888	10.019	34.180	34.22	1.025	1.027	193.41	96.9	0.656	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.37e4	1.04	NO	0.740	10.019	37.633	37.57	1.129	1.127	186.23	93.3	1.22	
24	24 13C-OCDD	1.01e5	0.91	NO	0.660	10.019	40.646	40.85	1.219	1.226	329.90	82.6	0.780	
25	25 13C-2,3,7,8-TCDF	1.46e5	0.78	NO	1.09	10.019	25.336	25.61	0.990	1.001	165.46	82.9	0.667	
26	26 13C-1,2,3,7,8-PeCDF	1.48e5	1.64	NO	0.857	10.019	29.577	29.36	1.156	1.147	213.12	107	0.843	
27	27 13C-2,3,4,7,8-PeCDF	1.42e5	1.65	NO	0.796	10.019	30.480	30.31	1.191	1.184	220.30	110	0.907	
28	28 13C-1,2,3,4,7,8-HxCDF	9.14e4	0.49	NO	1.02	10.019	32.933	32.88	0.988	0.987	193.78	97.1	0.877	
29	29 13C-1,2,3,6,7,8-HxCDF	9.69e4	0.48	NO	1.00	10.019	33.066	33.01	0.992	0.990	208.78	105	0.892	
30	30 13C-2,3,4,6,7,8-HxCDF	8.72e4	0.49	NO	0.936	10.019	33.636	33.69	1.009	1.011	201.56	101	0.956	
31	31 13C-1,2,3,7,8,9-HxCDF	8.00e4	0.48	NO	0.889	10.019	34.713	34.72	1.041	1.041	194.50	97.4	1.01	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 16:03:52 Pacific Daylight Time

Printed: Friday, August 21, 2020 16:04:53 Pacific Daylight Time

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

#	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	7.37e4	0.43	NO	0.849	10.019	36.233	36.38	1.087	1.092	187.55	93.9	1.17	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.23e4	0.44	NO	0.624	10.019	38.233	38.23	1.147	1.147	181.34	90.8	1.59	
34	34 13C-OCDF	1.16e5	0.85	NO	0.693	10.019	40.800	41.17	1.224	1.235	362.33	90.8	0.664	
35	35 37Cl-2,3,7,8-TCDD	4.21e4			1.28	10.019	26.255	26.25	1.026	1.026	67.606	84.7	0.110	
36	36 13C-1,2,3,4-TCDD	9.75e4	0.82	NO	1.00	10.019	25.550	25.59	1.000	1.000	199.63	100	0.768	
37	37 13C-1,2,3,4-TCDF	1.62e5	0.78	NO	1.00	10.019	24.250	24.29	1.000	1.000	199.63	100	0.725	
38	38 13C-1,2,3,4,6,9-HxCDF	9.24e4	0.49	NO	1.00	10.019	33.300	33.33	1.000	1.000	199.63	100	0.895	
39	39 Total Tetra-Dioxins				1.08	10.019	24.620		0.000				0.0842	
40	40 Total Penta-Dioxins				0.991	10.019	29.960		0.000		0.27942		0.0634	0.279
41	41 Total Hexa-Dioxins				0.908	10.019	33.635		0.000		2.2681		0.311	4.48
42	42 Total Hepta-Dioxins				0.926	10.019	37.640		0.000		29.364		0.693	29.4
43	43 Total Tetra-Furans				0.882	10.019	23.610		0.000		0.98288		0.125	0.983
44	44 1st Func. Penta-Furans				0.937	10.019	26.750		0.000		0.66716		0.0565	0.667
45	45 Total Penta-Furans				0.937	10.019	29.275		0.000		0.21225		0.117	0.919
46	46 Total Hexa-Furans				1.11	10.019	33.555		0.000		2.1500		0.189	3.44
47	47 Total Hepta-Furans				1.15	10.019	37.835		0.000		4.5910		0.171	4.83

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 16:03:52 Pacific Daylight Time

Printed: Friday, August 21, 2020 16:04:53 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.43	6.980e2	1.034e3	4.928e1	8.186e1	0.60	NO	1.311e2	0.27942	0.27942	0.0634

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.15	6.768e3	7.736e3	3.451e2	3.440e2	1.00	YES	0.000e0	0.00000	1.8147	0.311
2	Total Hexa-Dioxins	32.76	1.545e3	9.850e2	5.434e1	4.939e1	1.10	NO	1.037e2	0.30191	0.30191	0.311
3	Total Hexa-Dioxins	33.06	7.472e3	5.219e3	2.149e2	1.592e2	1.35	NO	3.741e2	1.0887	1.0887	0.311
4	1,2,3,6,7,8-HxCDD	33.94	3.242e3	3.043e3	1.720e2	1.476e2	1.17	NO	3.196e2	0.87745	0.87745	0.298
5	1,2,3,7,8,9-HxCDD	34.22	1.671e3	1.569e3	1.059e2	6.596e1	1.60	YES	1.718e2	0.00000	0.40192	0.305

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.71	4.688e4	4.600e4	2.587e3	2.523e3	1.03	NO	5.110e3	17.298	17.298	0.693
2	1,2,3,4,6,7,8-HpCDD	37.58	3.222e4	3.182e4	1.825e3	1.739e3	1.05	NO	3.564e3	12.066	12.066	0.693

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	22.26	9.200e2	1.344e3	5.075e1	7.307e1	0.69	NO	1.238e2	0.19258	0.19258	0.125
2	Total Tetra-Furans	24.80	9.540e2	2.417e3	7.895e1	1.130e2	0.70	NO	1.920e2	0.29862	0.29862	0.125
3	2,3,7,8-TCDF	25.61	2.297e3	3.338e3	1.340e2	1.822e2	0.74	NO	3.161e2	0.49168	0.49168	0.125



Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 16:03:52 Pacific Daylight Time

Printed: Friday, August 21, 2020 16:04:53 Pacific Daylight Time

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

**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	5.328e3	2.699e3	2.766e2	1.766e2	1.57	NO	4.532e2	0.66716	0.66716	0.0565

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.48	1.581e3	1.825e3	1.137e2	1.049e2	1.08	YES	0.000e0	0.00000	0.27526	0.117
2	1,2,3,7,8-PeCDF	29.40	2.225e3	1.548e3	1.277e2	1.141e2	1.12	YES	2.418e2	0.00000	0.30304	0.119
3	Total Penta-Furans	29.62	1.343e3	1.023e3	5.320e1	5.870e1	0.91	YES	0.000e0	0.00000	0.12884	0.117
4	2,3,4,7,8-PeCDF	30.37	1.493e3	1.231e3	9.602e1	5.874e1	1.63	NO	1.548e2	0.21225	0.21225	0.105

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.62	1.605e3	1.331e3	9.698e1	6.467e1	1.50	YES	0.000e0	0.00000	0.29254	0.189
2	Total Hexa-Furans	31.79	4.701e3	4.775e3	2.215e2	2.029e2	1.09	NO	4.244e2	0.85706	0.85706	0.189
3	Total Hexa-Furans	32.41	6.199e3	4.628e3	3.169e2	2.201e2	1.44	YES	0.000e0	0.00000	0.99567	0.189
4	1,2,3,4,7,8-HxCDF	32.90	5.158e3	3.745e3	2.470e2	2.084e2	1.19	NO	4.553e2	0.92668	0.92668	0.175
5	1,2,3,6,7,8-HxCDF	33.04	2.304e3	1.222e3	1.155e2	8.229e1	1.40	NO	1.978e2	0.36623	0.36623	0.166

**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	36.41	6.688e3	6.686e3	3.752e2	3.788e2	0.99	NO	7.540e2	1.7714	1.7714	0.148
2	Total Hepta-Furans	36.98	1.014e4	8.938e3	5.172e2	5.087e2	1.02	NO	1.026e3	2.8195	2.8195	0.171
3	1,2,3,4,7,8,9-HpCDF	38.24	9.070e2	1.043e3	4.030e1	4.854e1	0.83	YES	8.885e1	0.00000	0.24069	0.187

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

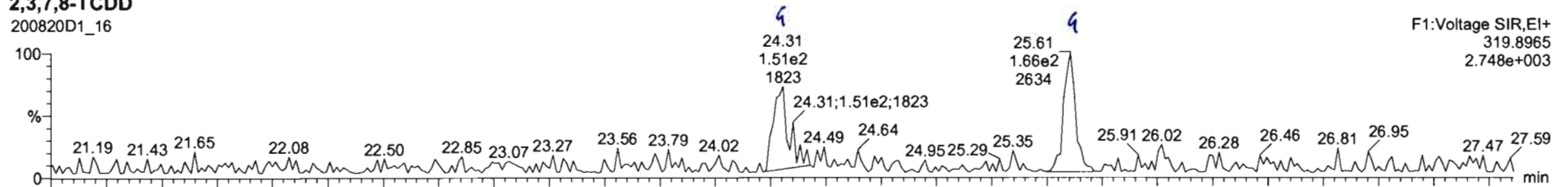
Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

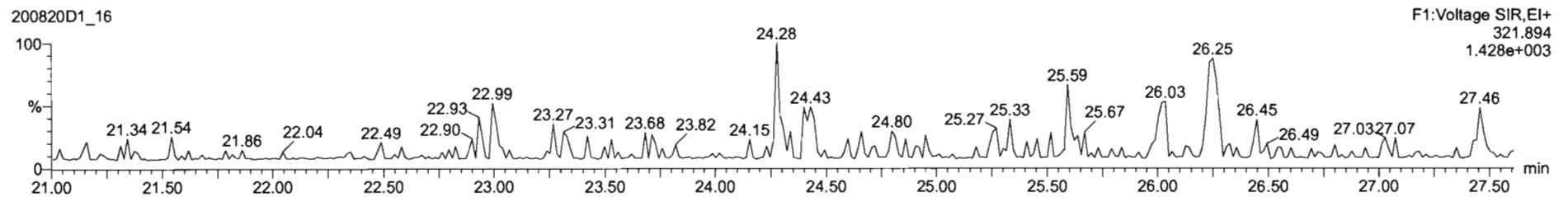
Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

2,3,7,8-TCDD

200820D1\_16

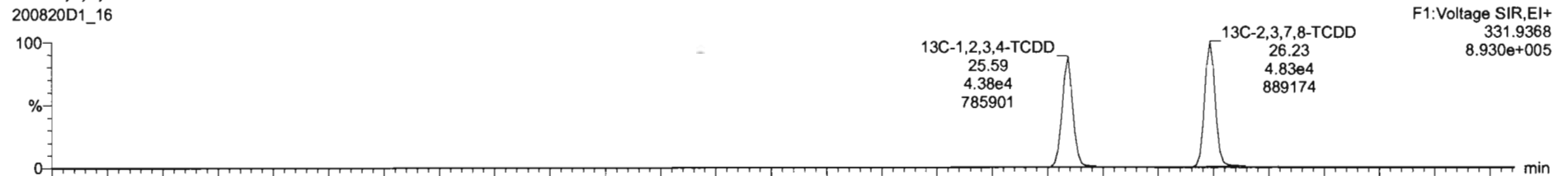


200820D1\_16

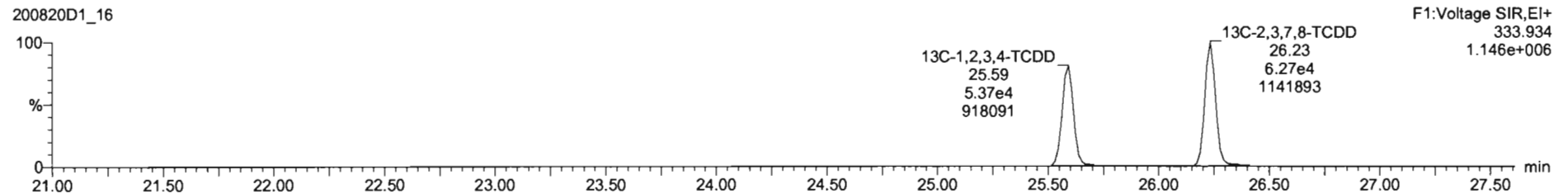


13C-2,3,7,8-TCDD

200820D1\_16



200820D1\_16

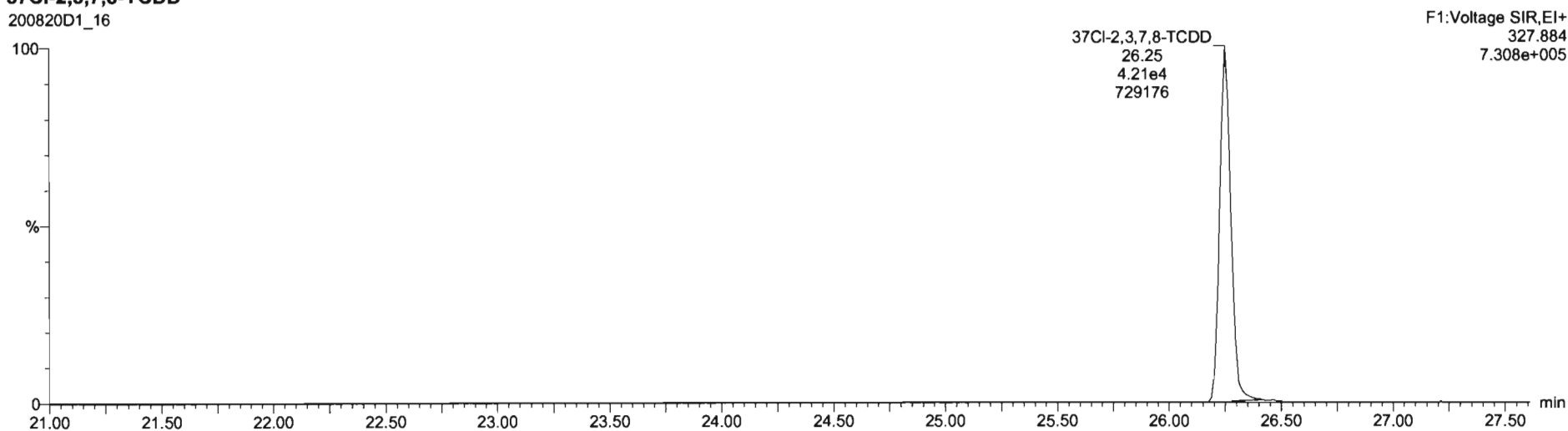


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

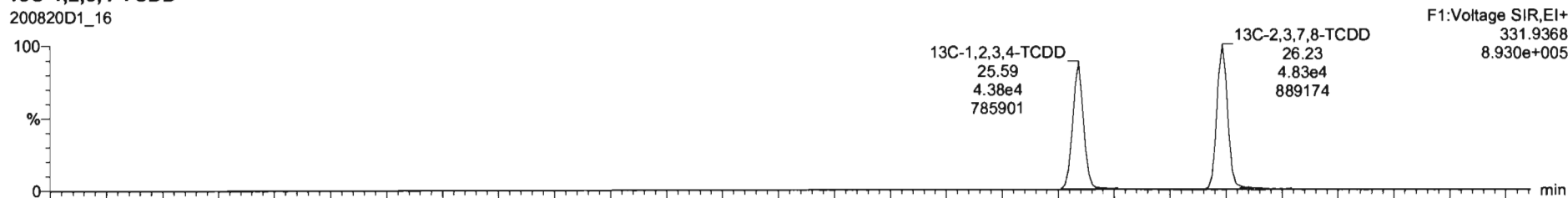
Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

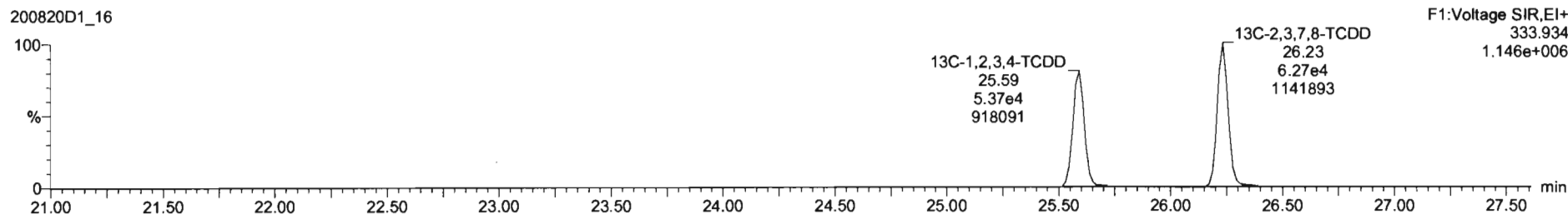
**37Cl-2,3,7,8-TCDD**  
200820D1\_16



**13C-1,2,3,4-TCDD**  
200820D1\_16



200820D1\_16



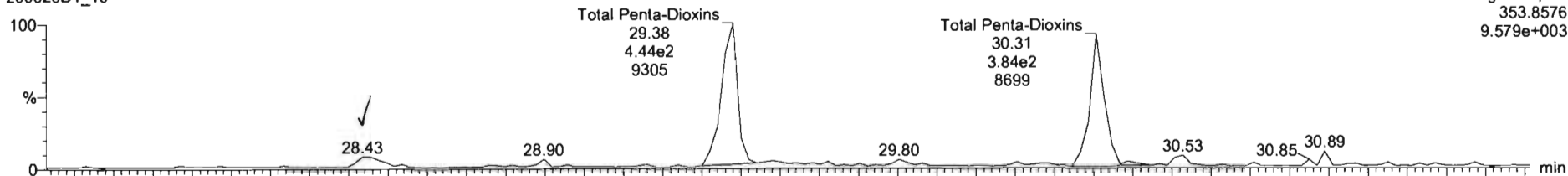
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

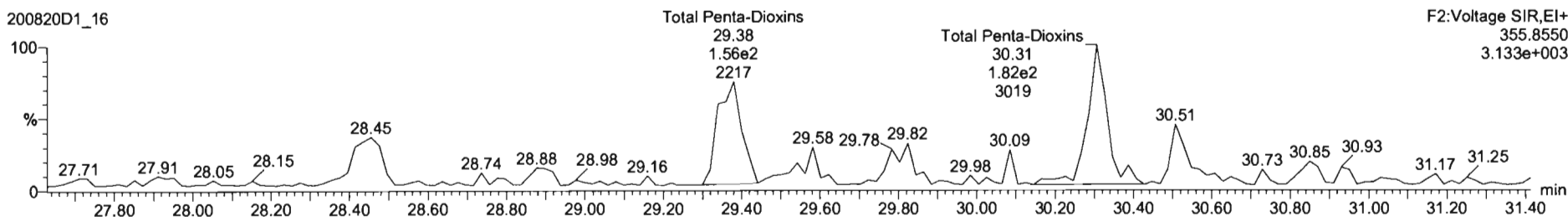
Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

1,2,3,7,8-PeCDD

200820D1\_16



200820D1\_16

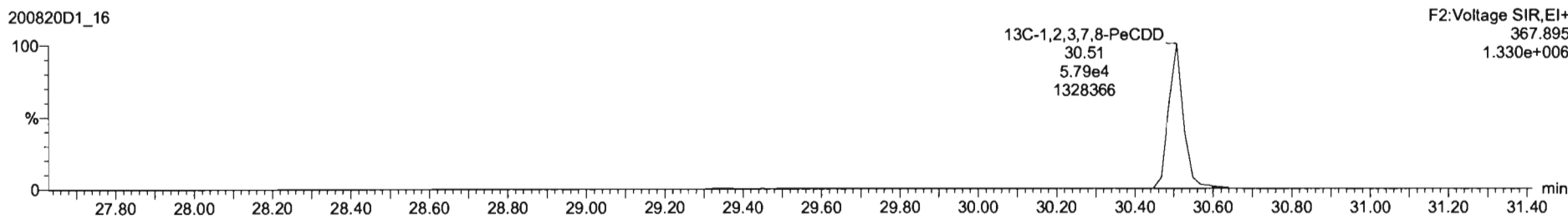


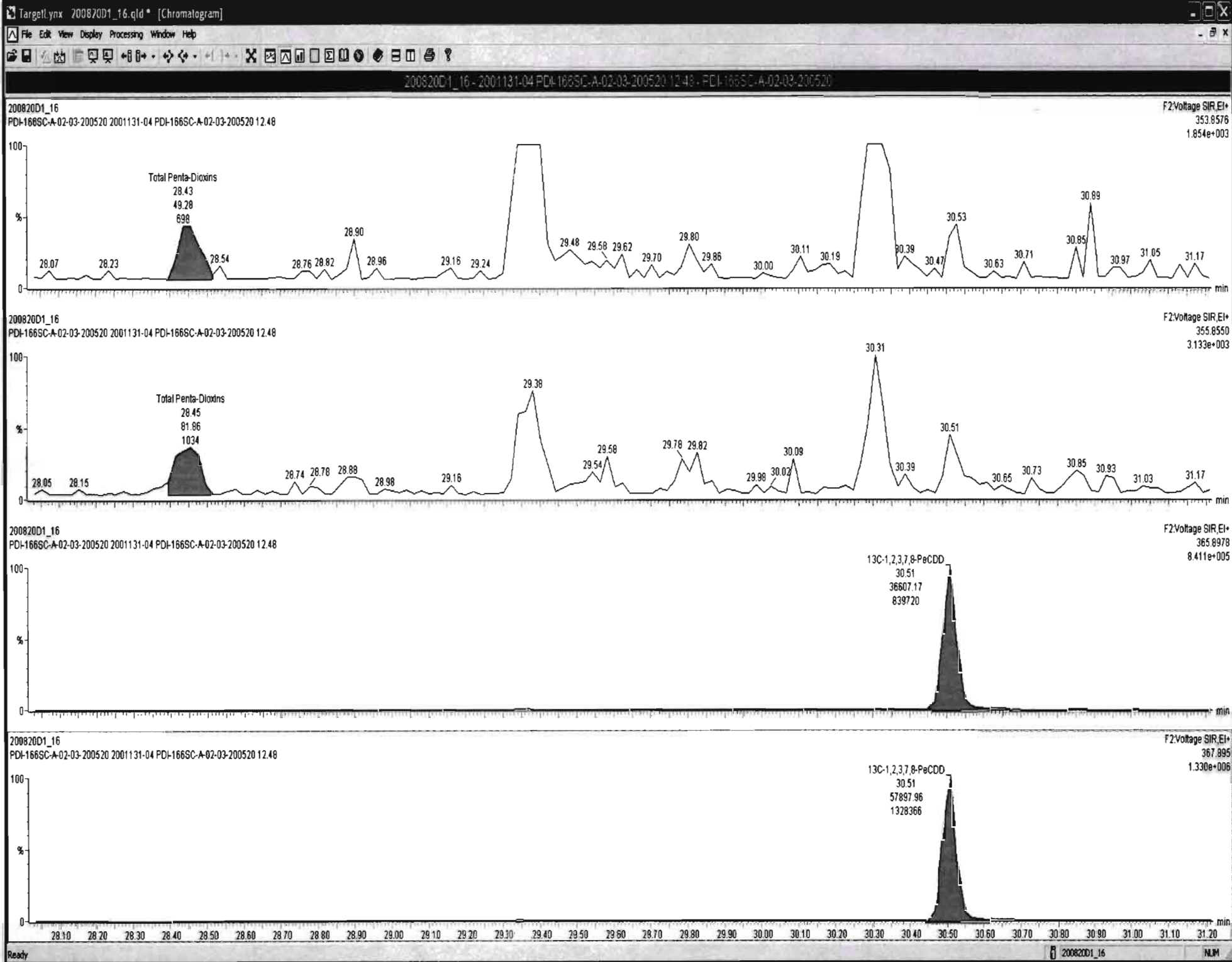
13C-1,2,3,7,8-PeCDD

200820D1\_16



200820D1\_16





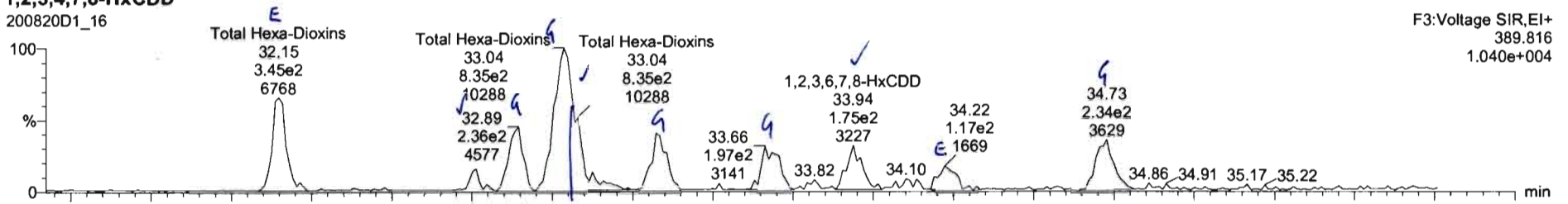
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

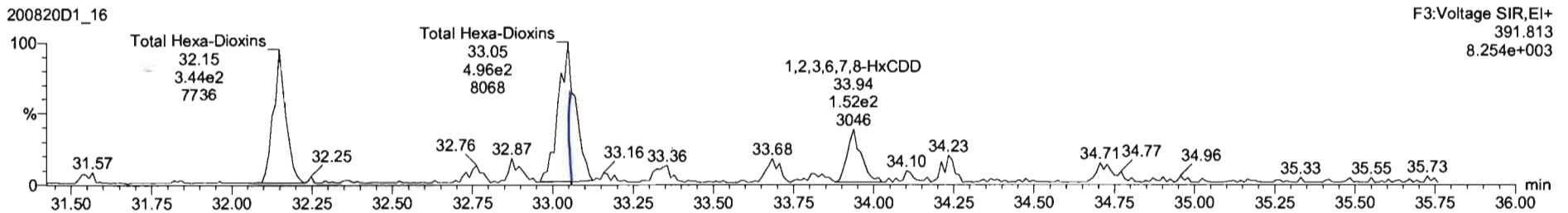
Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

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

200820D1\_16

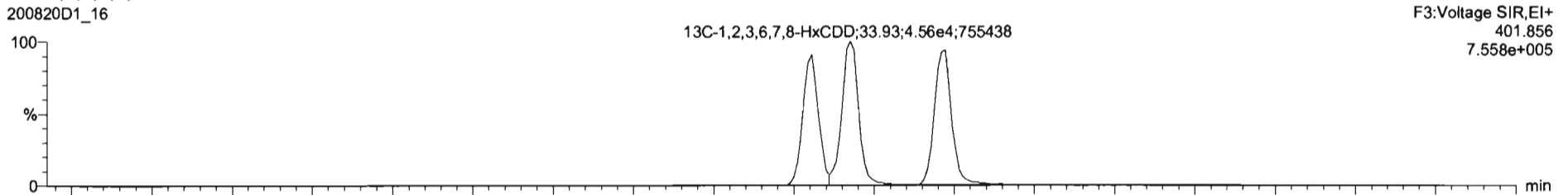


200820D1\_16

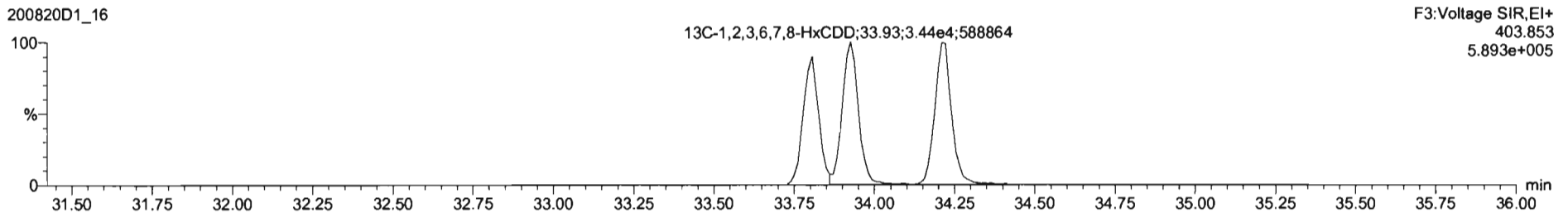


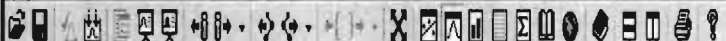
13C-1,2,3,4,7,8-HxCDD

200820D1\_16

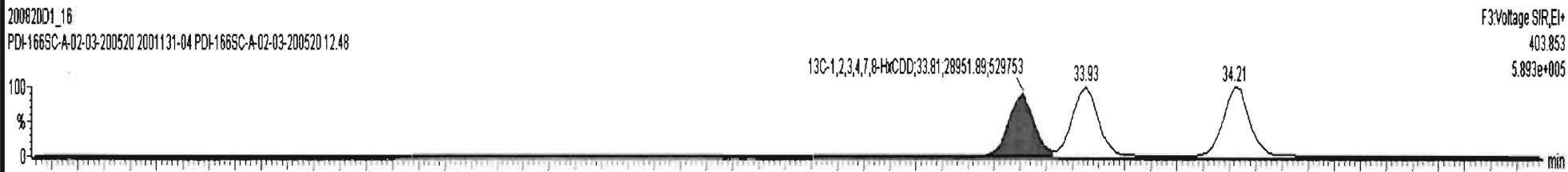
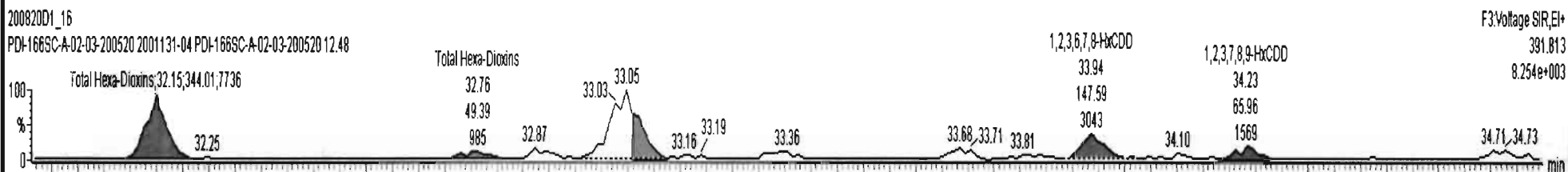
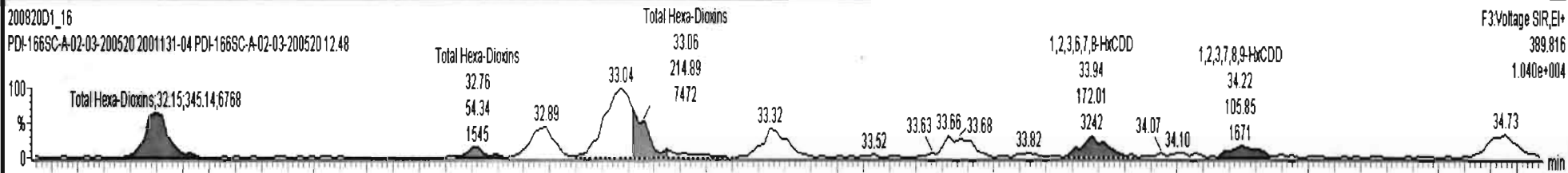


200820D1\_16



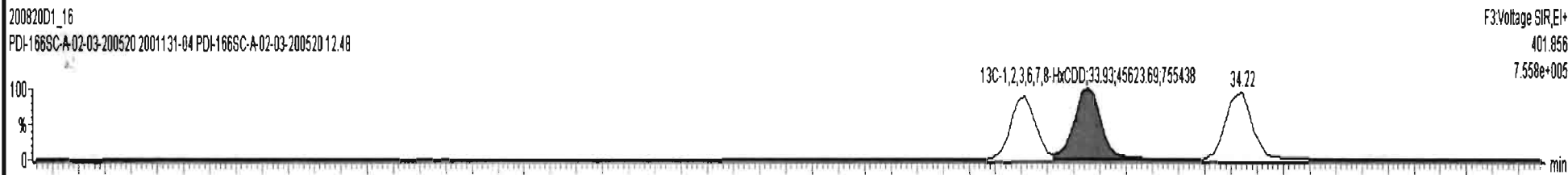
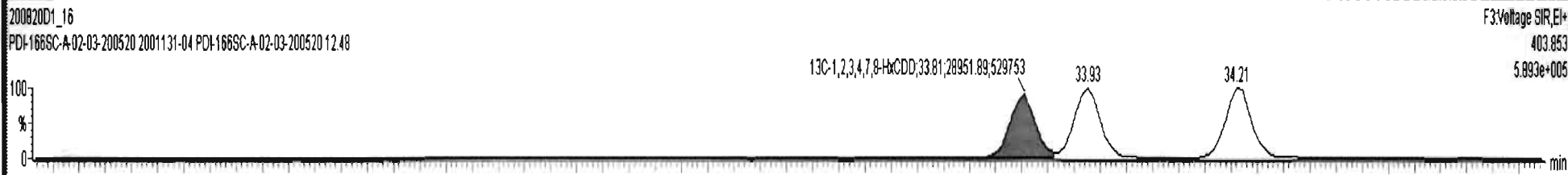
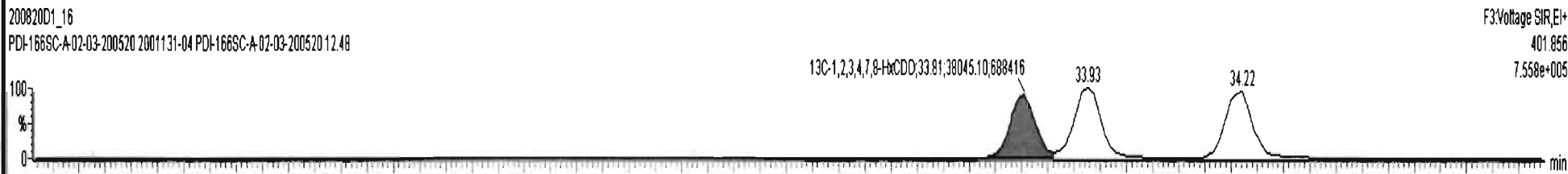
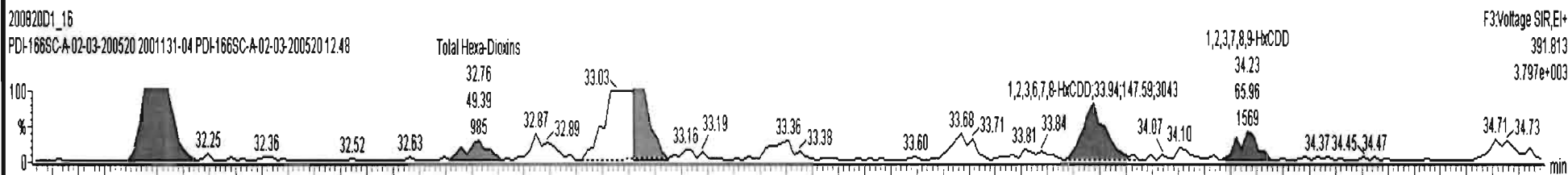
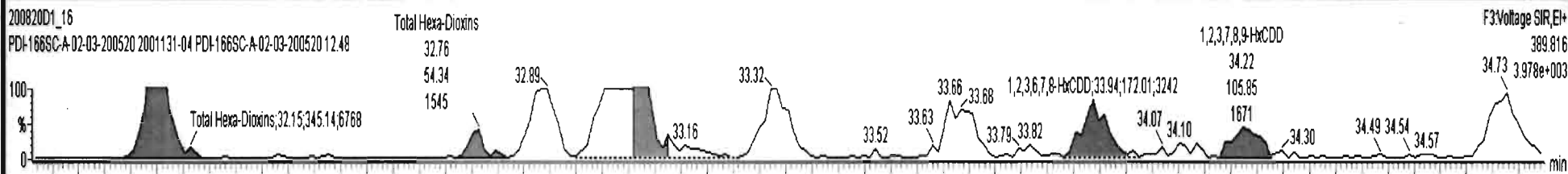


200820D1\_16 - 2001131-04 PDI-166SC-A-02-03-200520 12:48 - PDI-166SC-A-02-03-200520





20082001\_16 - 2001131-04 PDI-166SC-A-02-03-200520 12.48 - PDI-166SC-A-02-03-200520





Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

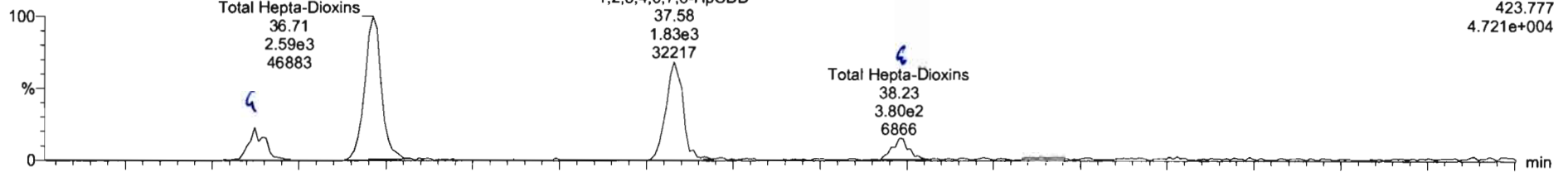
Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

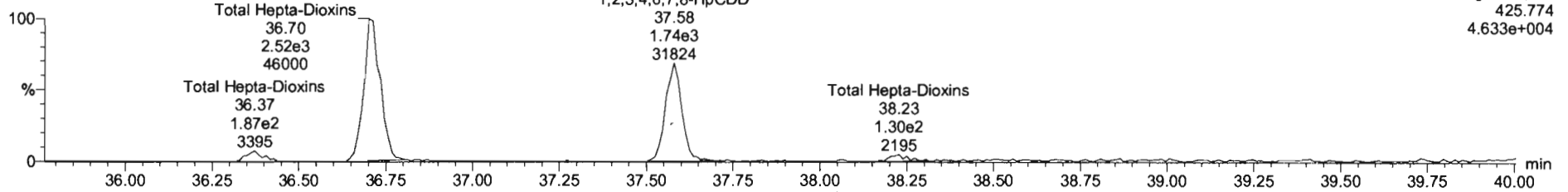
Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

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

200820D1\_16

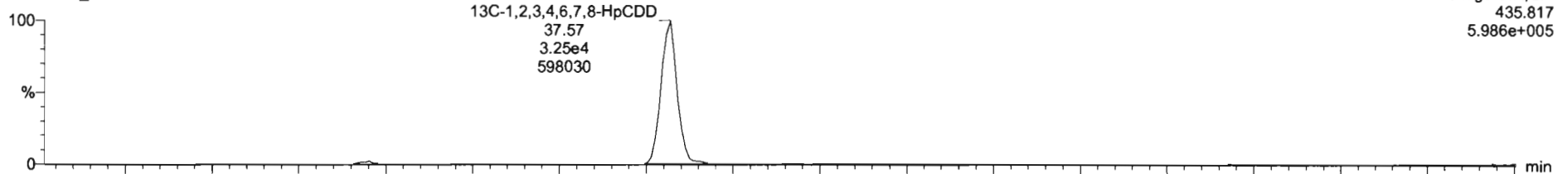


200820D1\_16

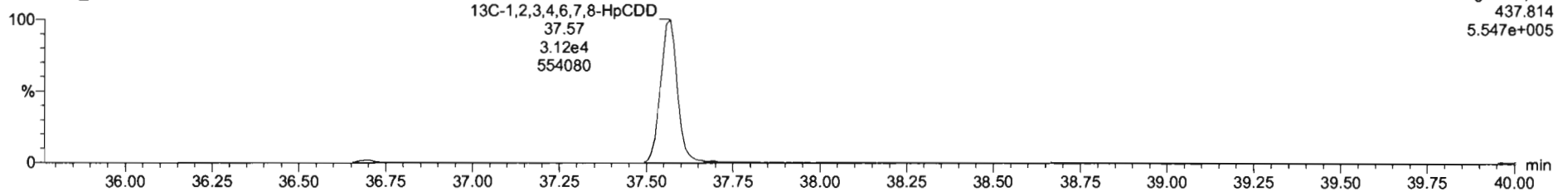


13C-1,2,3,4,6,7,8-HpCDD

200820D1\_16



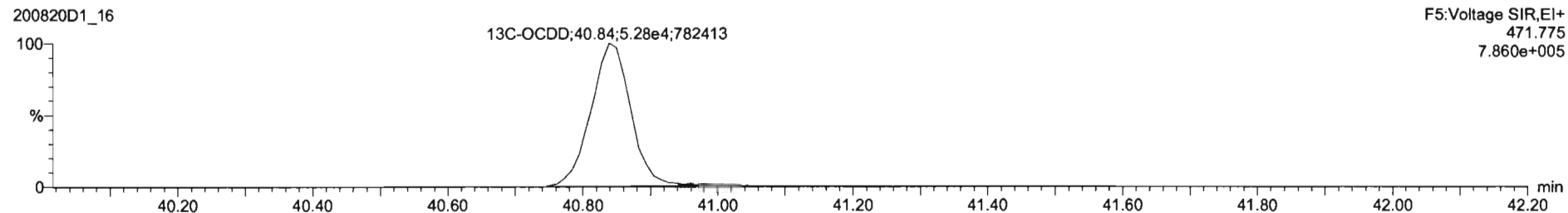
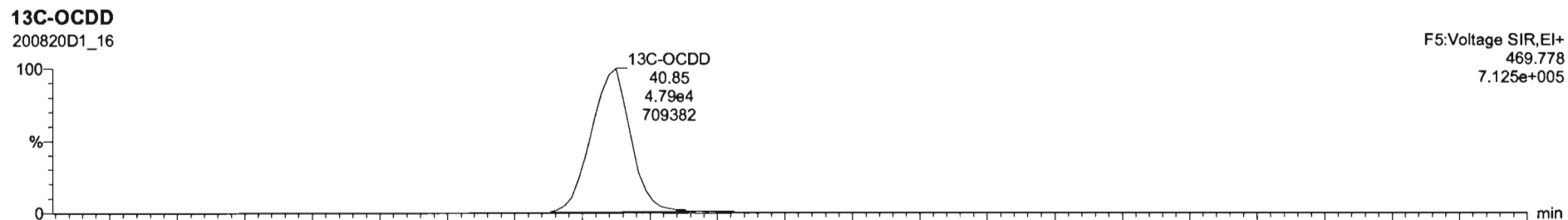
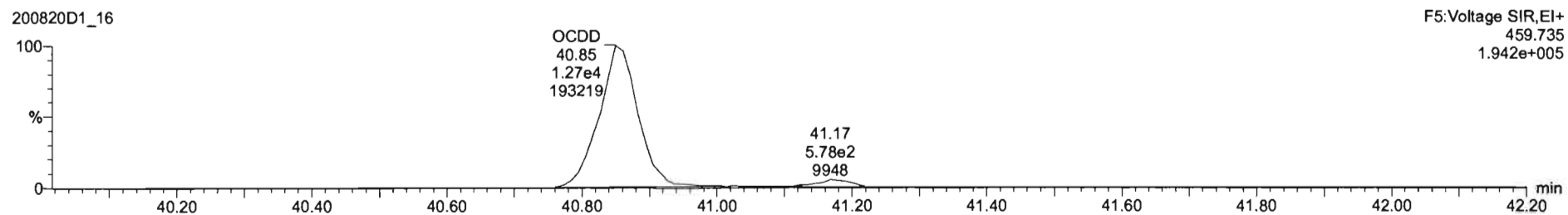
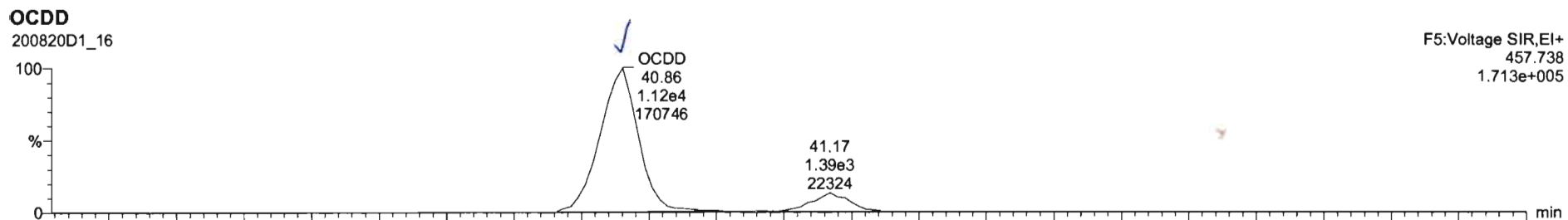
200820D1\_16



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

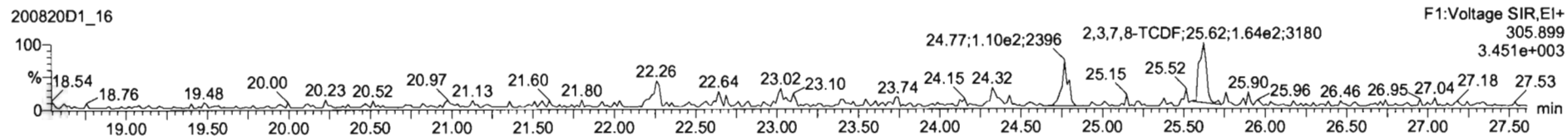
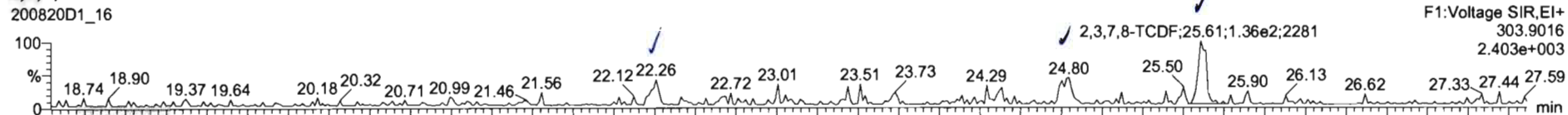


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

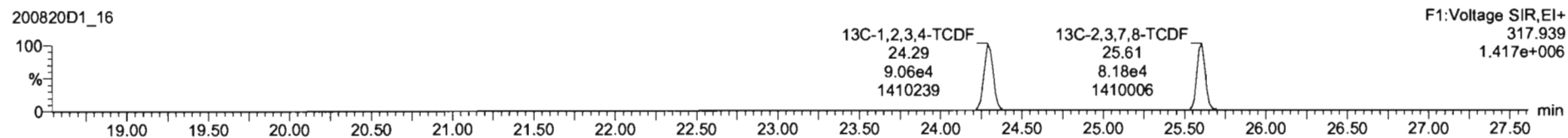
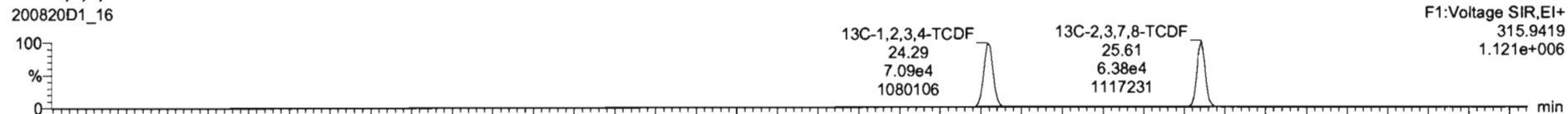
Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

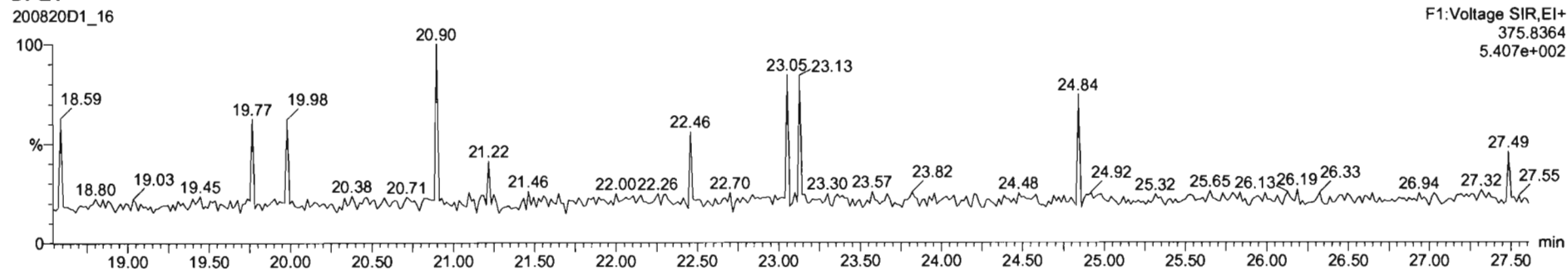
**2,3,7,8-TCDF**

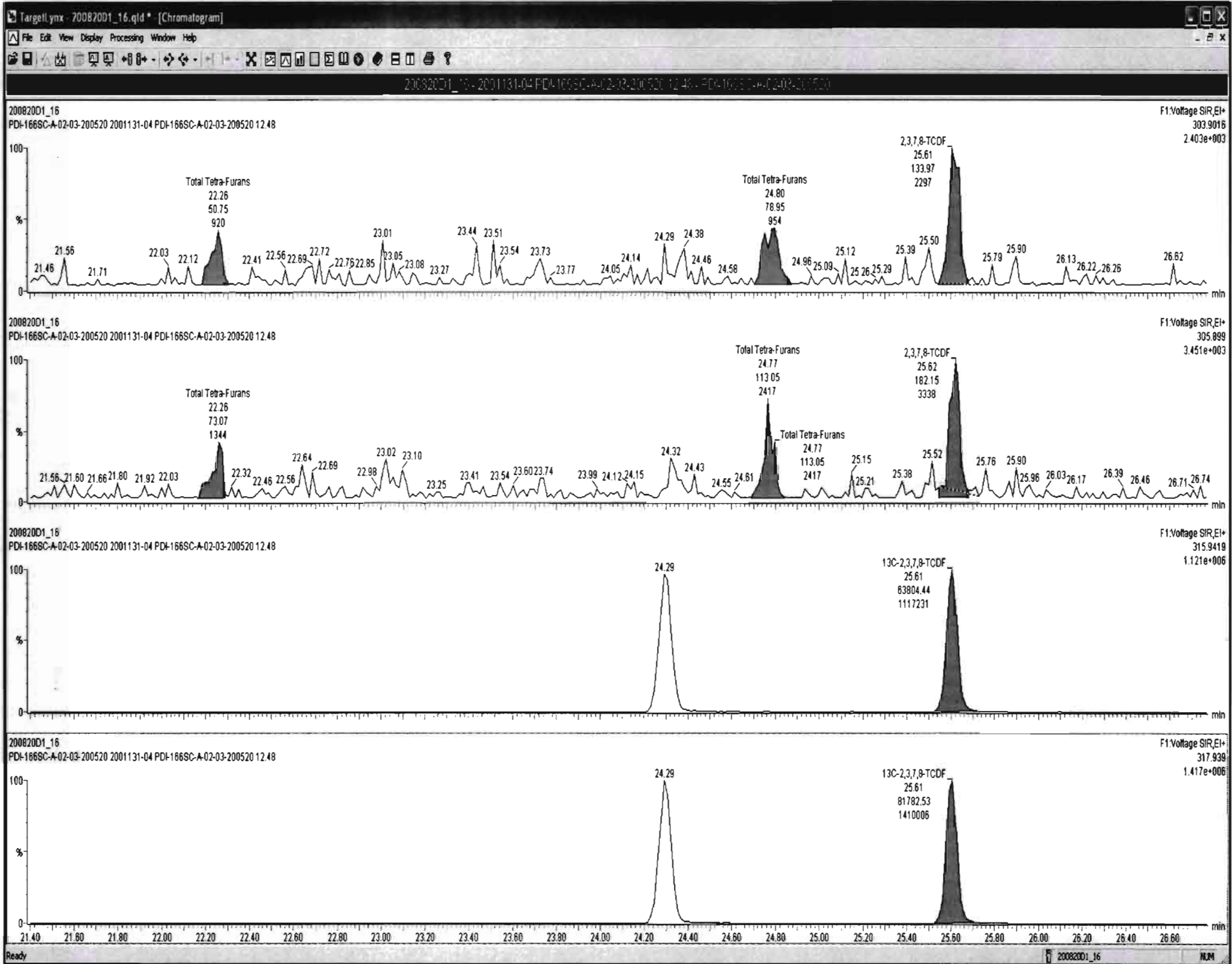


**13C-2,3,7,8-TCDF**



**DPE1**





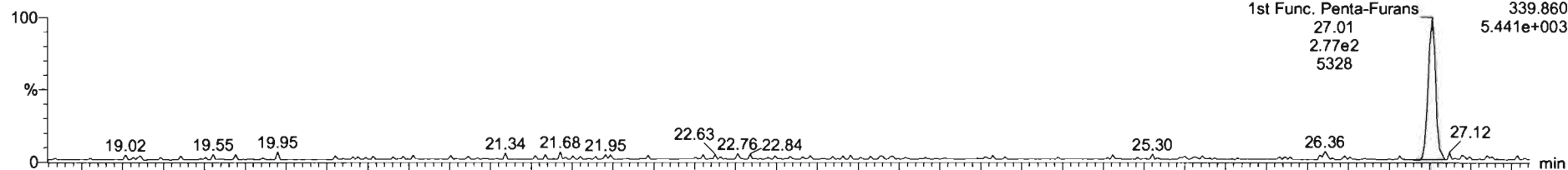
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

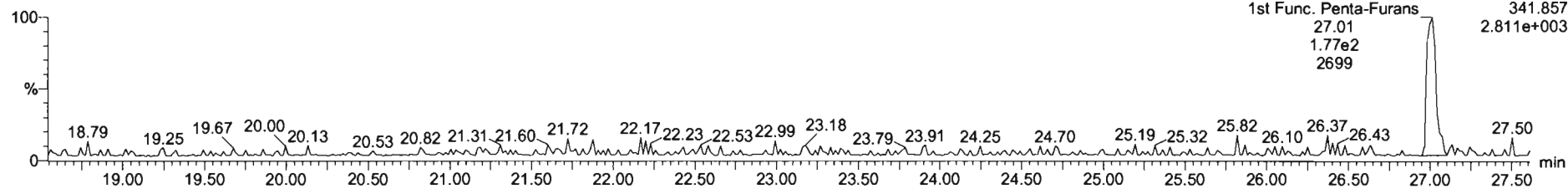
Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

1st Func. Penta-Furans

200820D1\_16

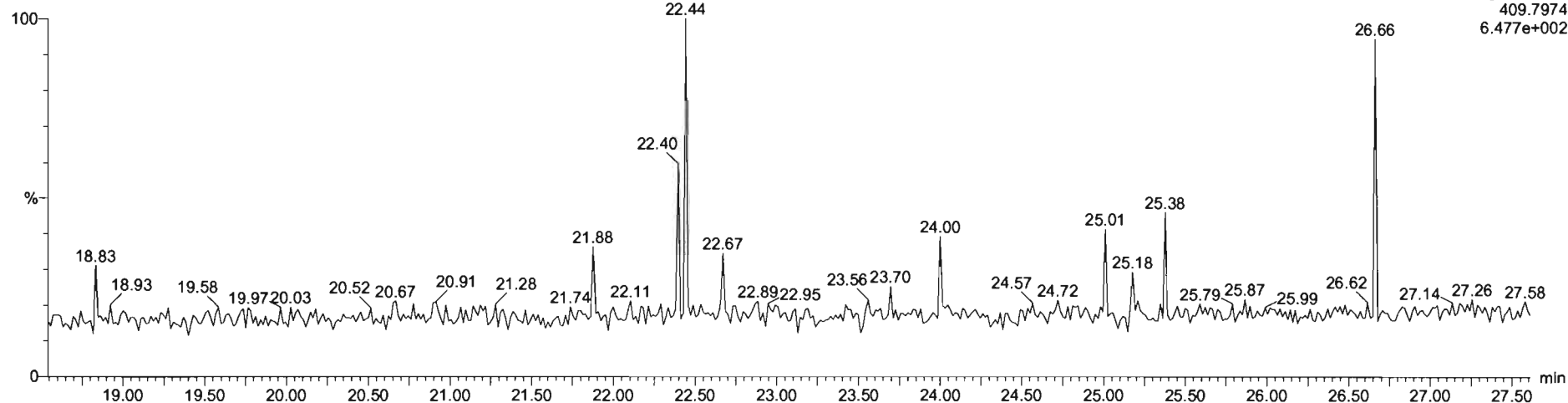


200820D1\_16



DPE6

200820D1\_16



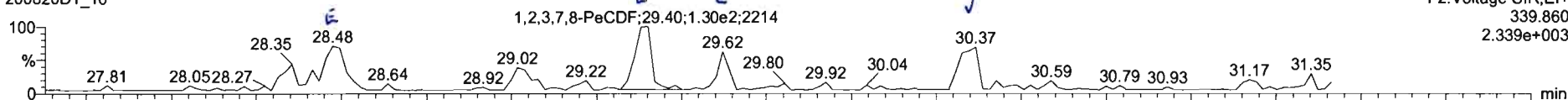
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

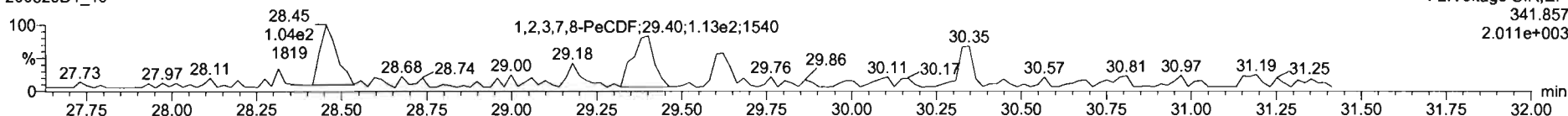
Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

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

200820D1\_16

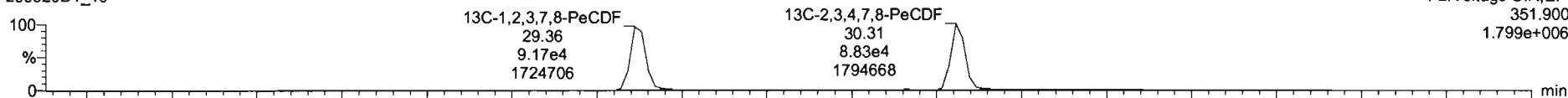


200820D1\_16

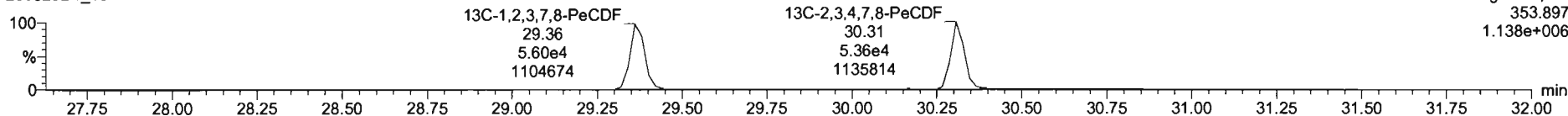


**13C-1,2,3,7,8-PeCDF**

200820D1\_16

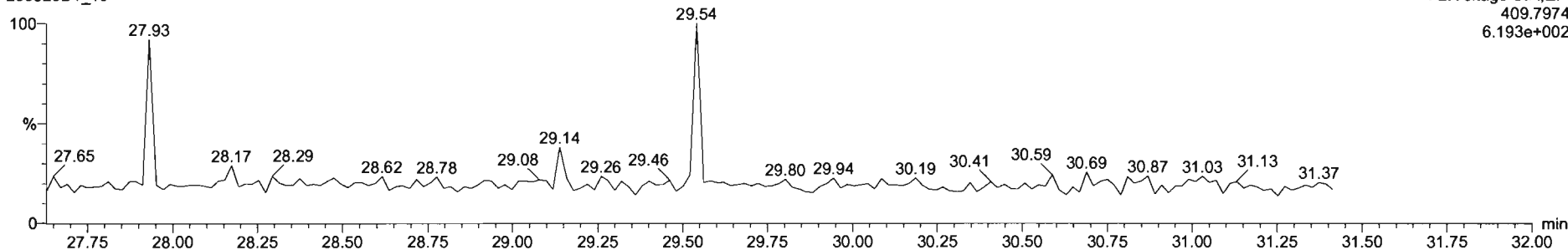


200820D1\_16



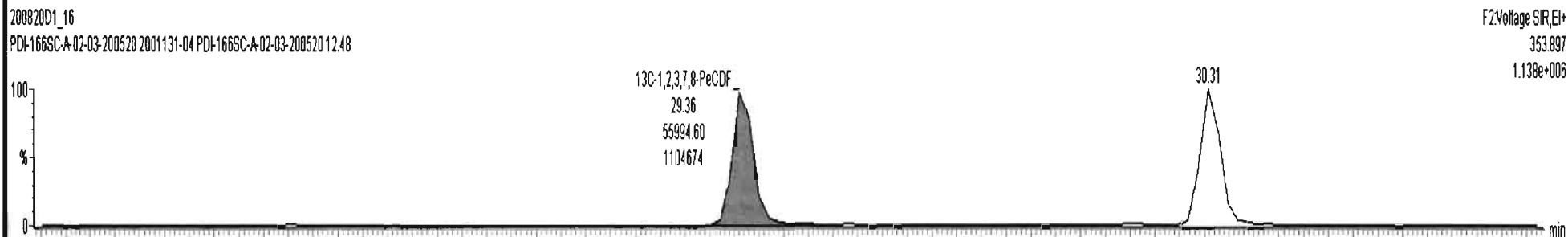
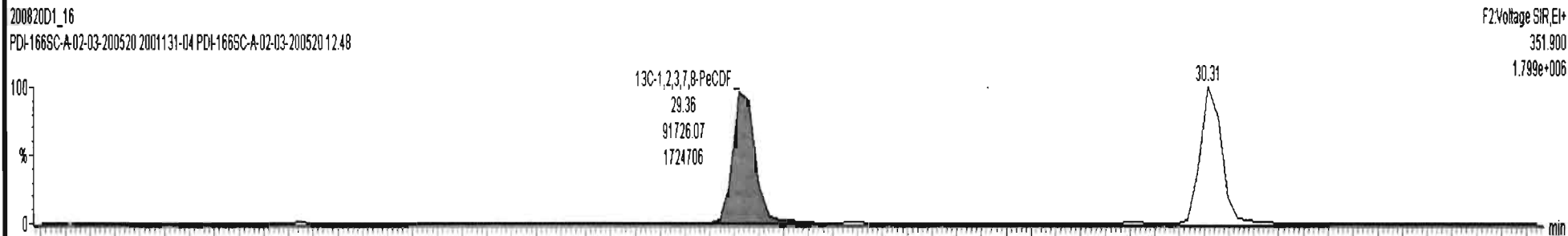
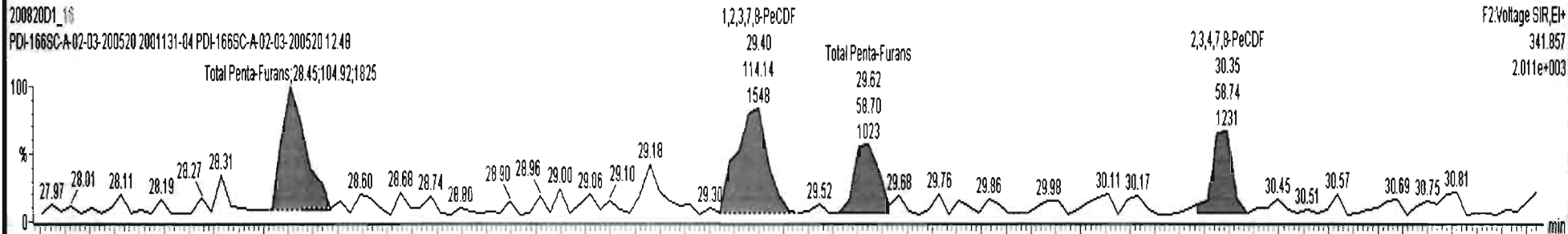
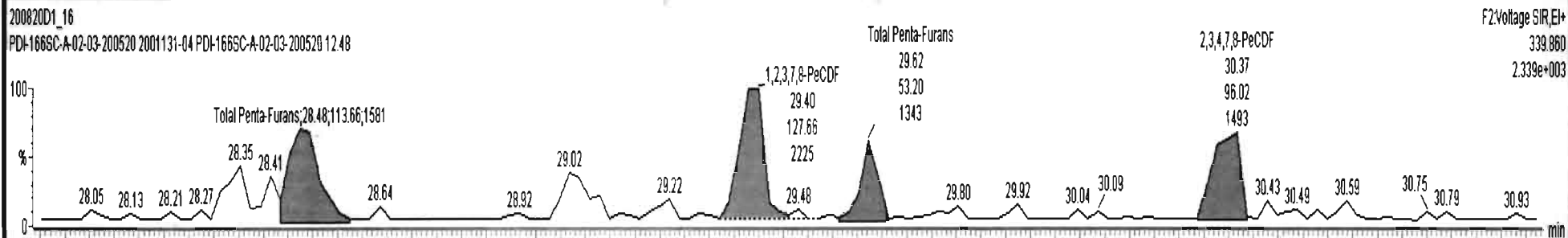
**DPE2**

200820D1\_16





200820D1\_16 - 2001131-04 PDI-1665C-A-02-03-200520 12.48 - PDI-1665C-A-02-03-200520

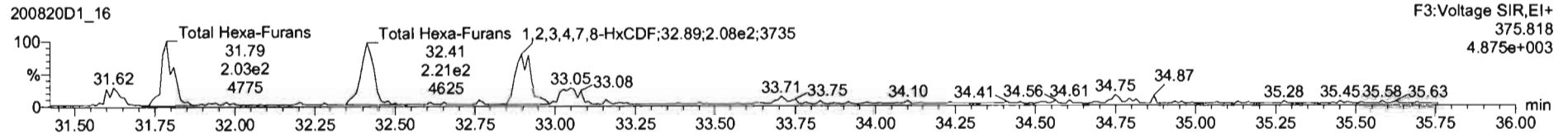
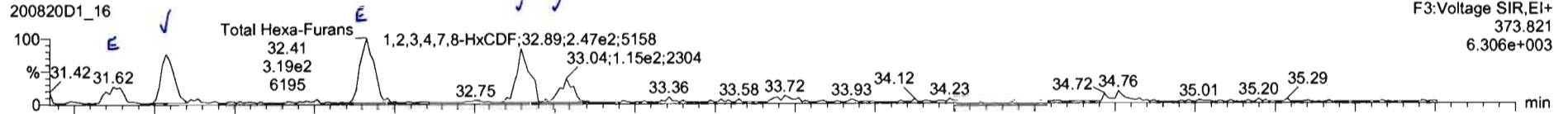


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

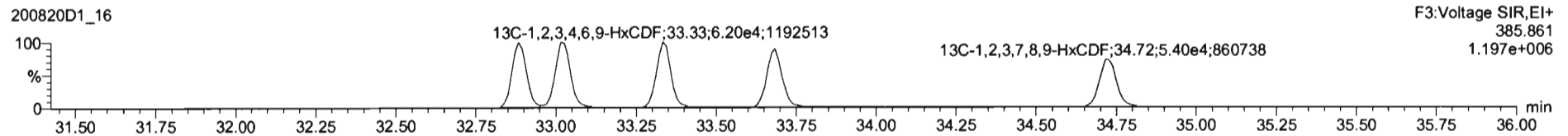
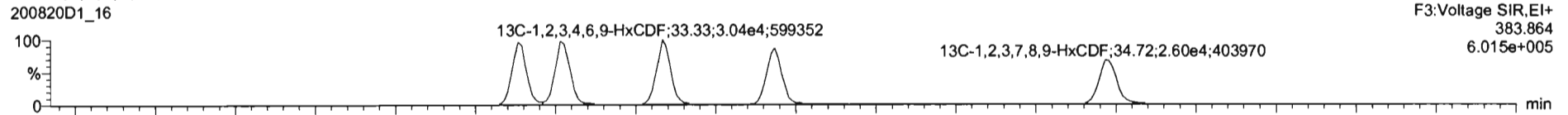
Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

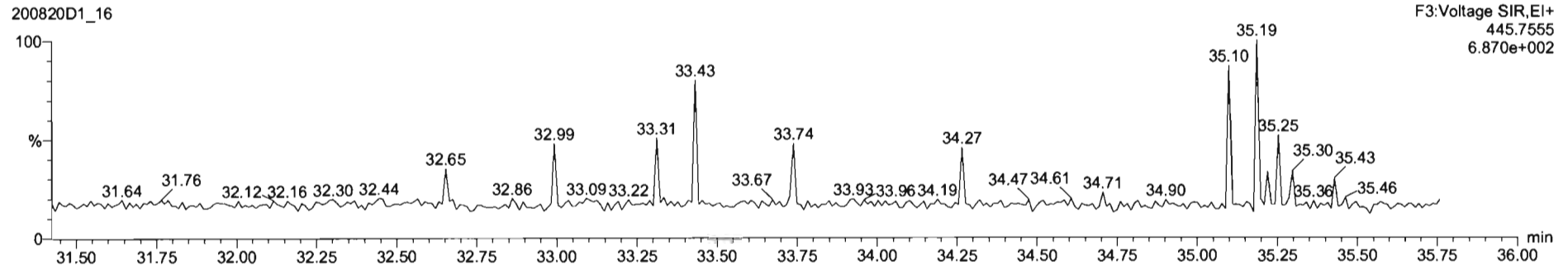
**1,2,3,4,7,8-HxCDF**



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



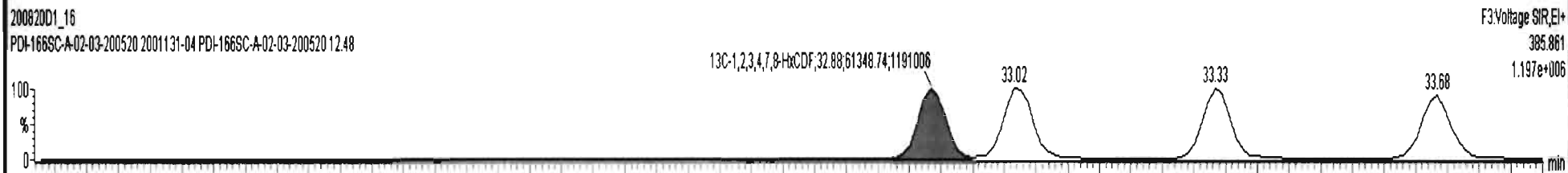
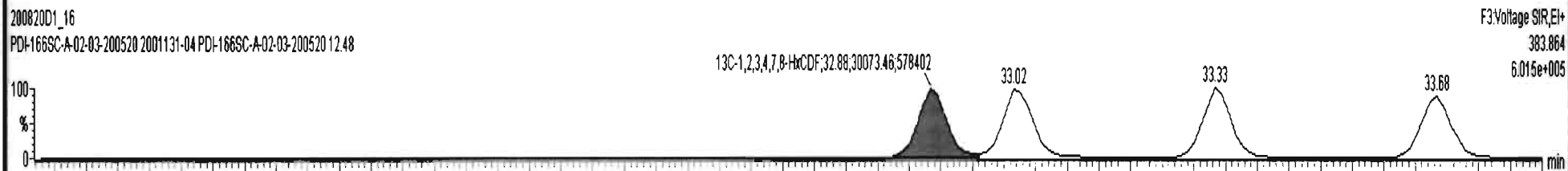
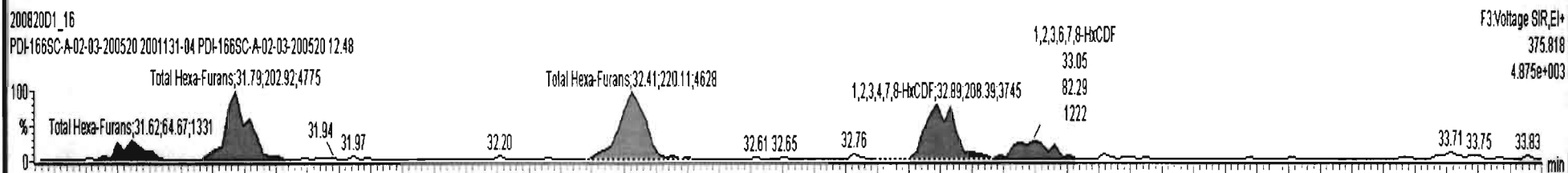
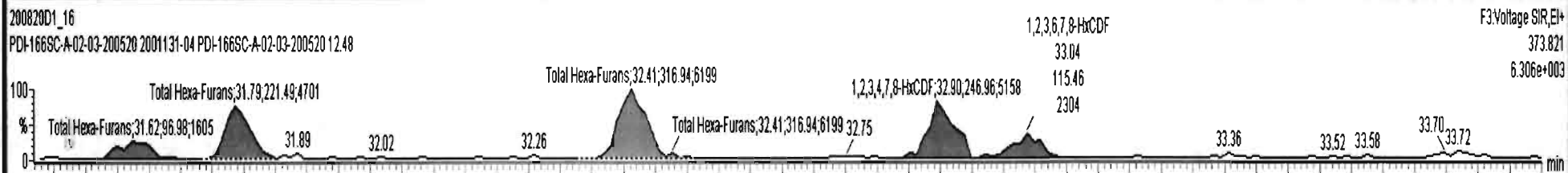
**DPE3**







200820D1\_16 - 2001131-04 PDI-166SC-A-02-03-200520 12.48 - FDI-166SC-A-02-03-200520

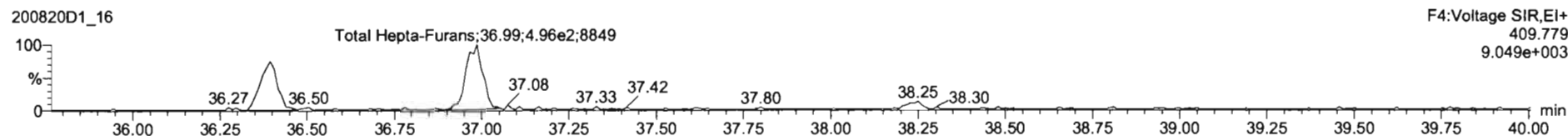
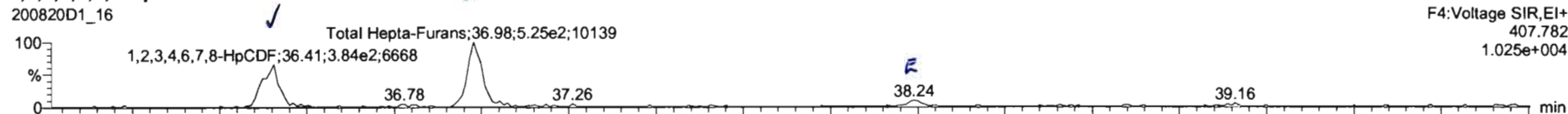


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

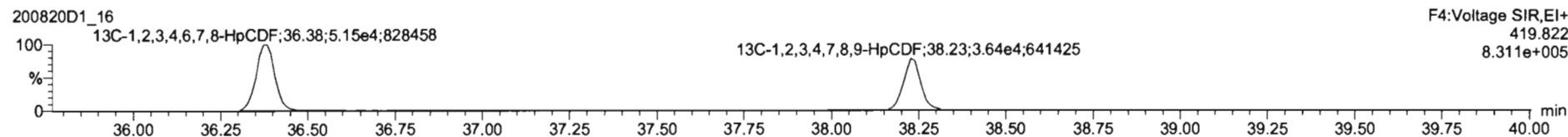
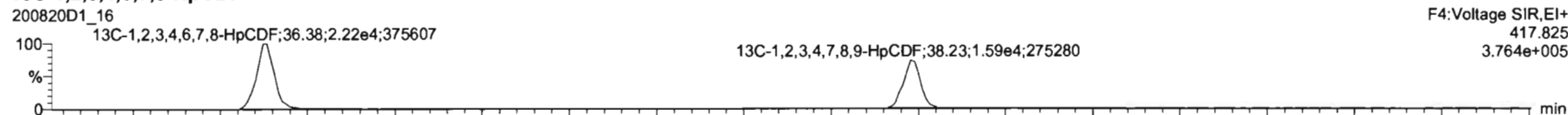
Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520

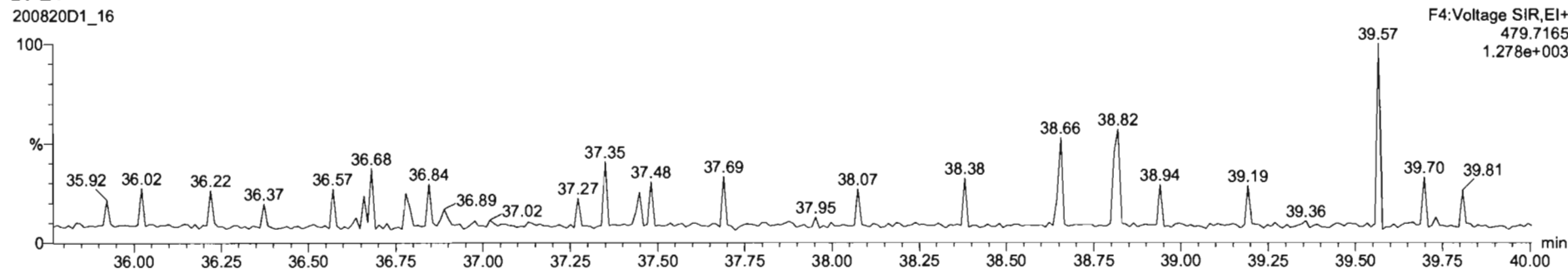
**1,2,3,4,6,7,8-HpCDF**

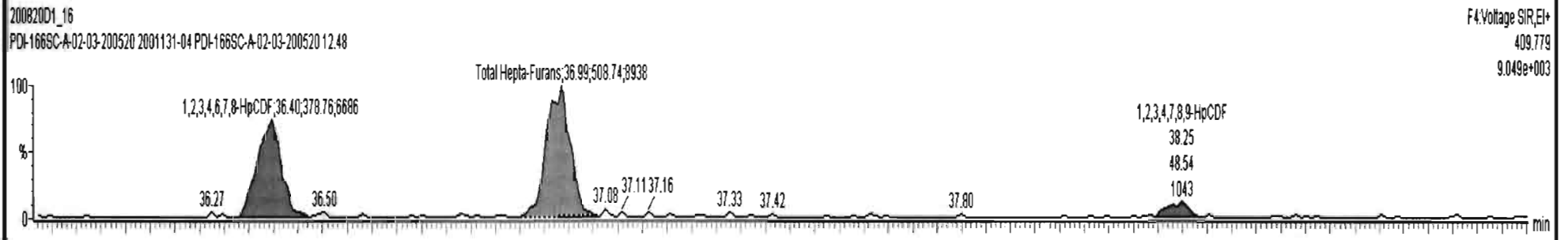
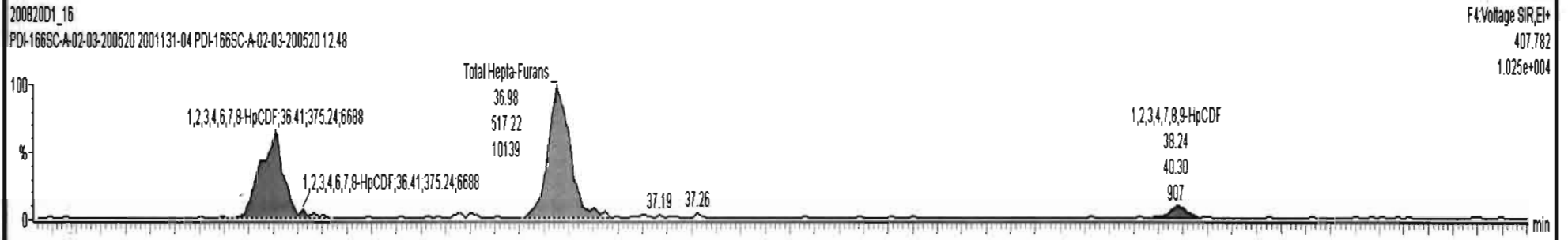


**13C-1,2,3,4,6,7,8-HpCDF**

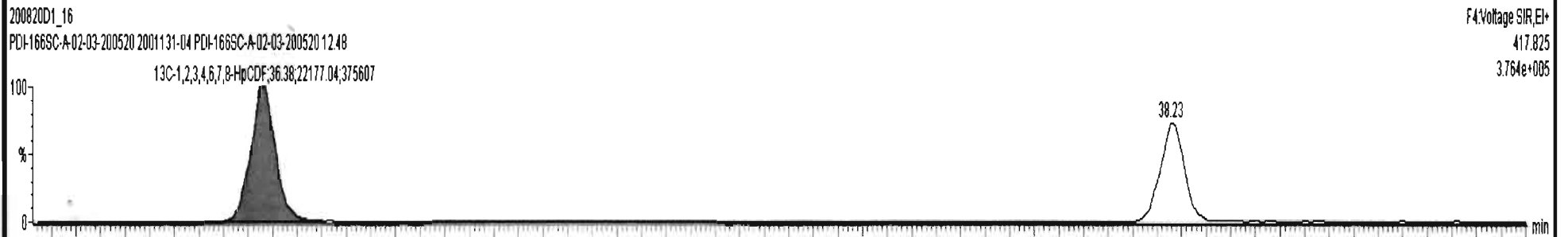
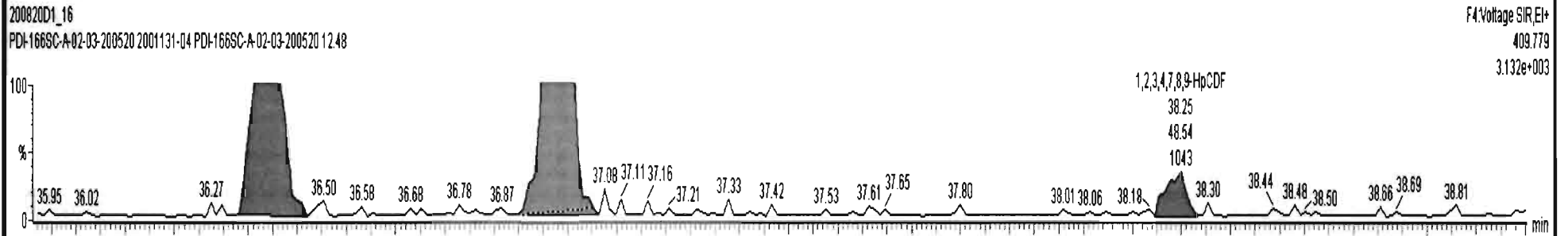
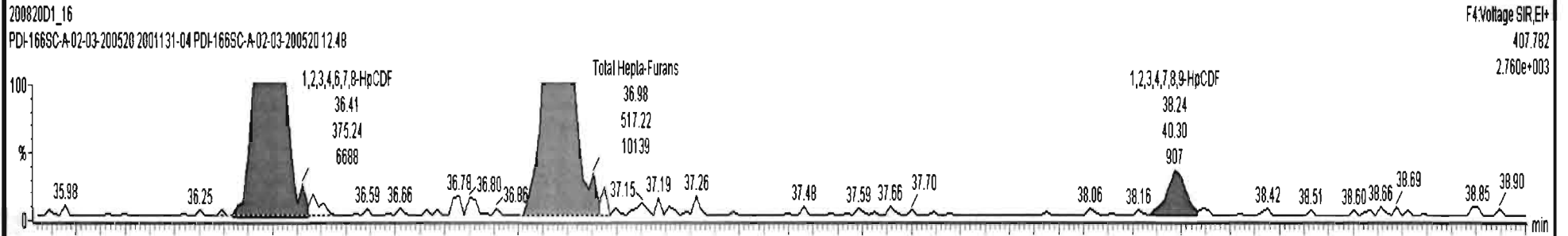


**DPE4**





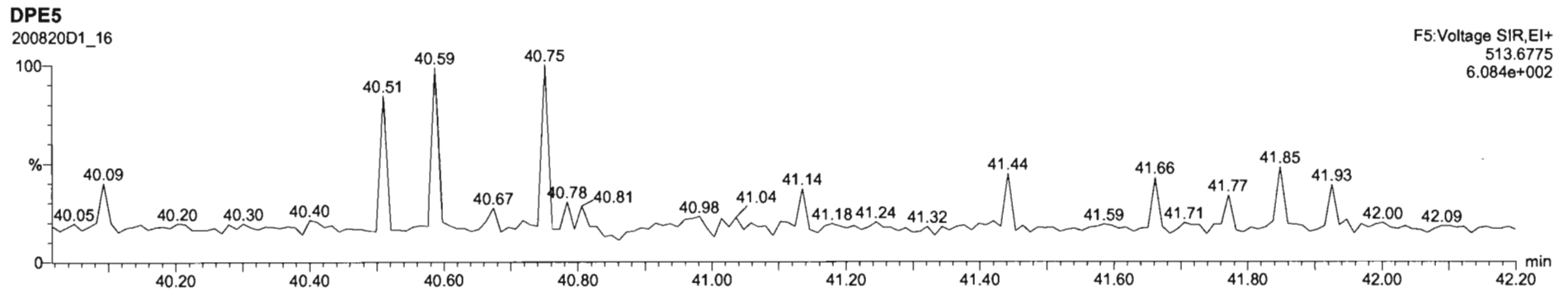
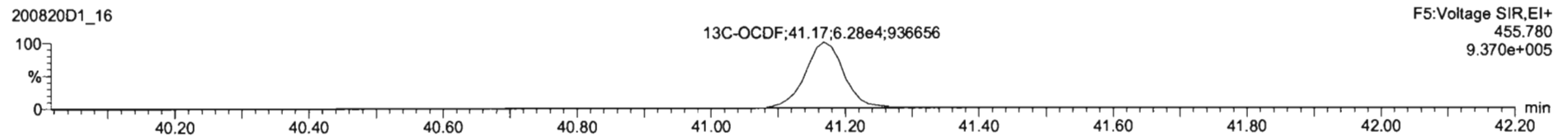
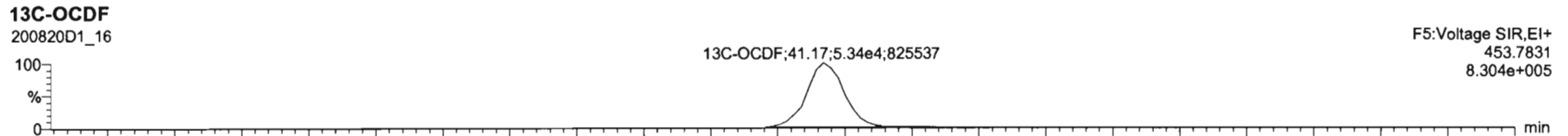
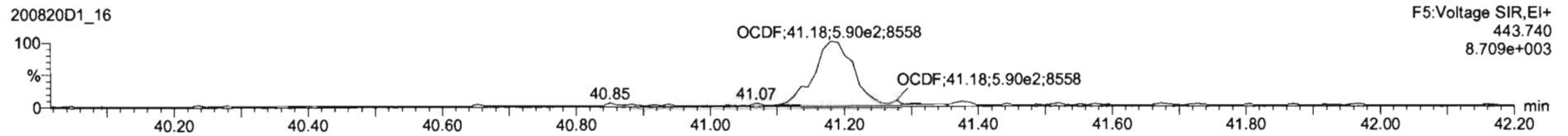
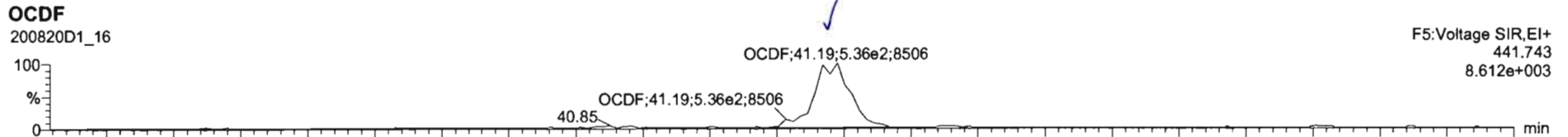
200820D1\_16 - 2001131-04 PDI-166SC-A-02-03-200520 12.48 - PDI-166SC-A-02-03-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

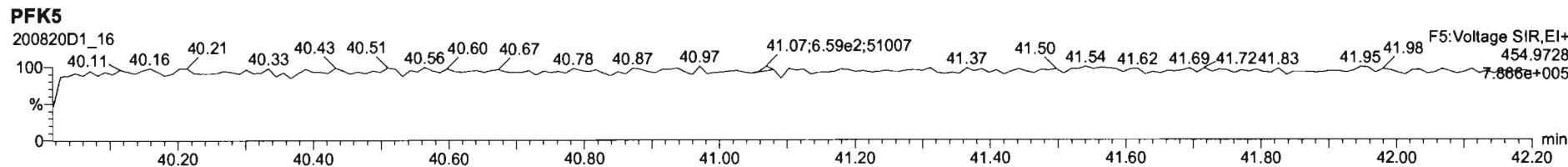
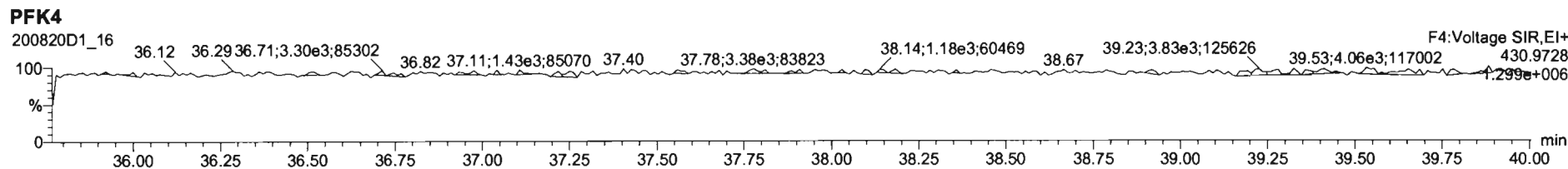
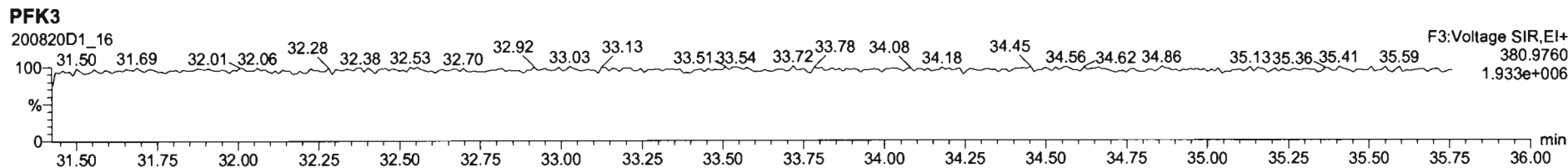
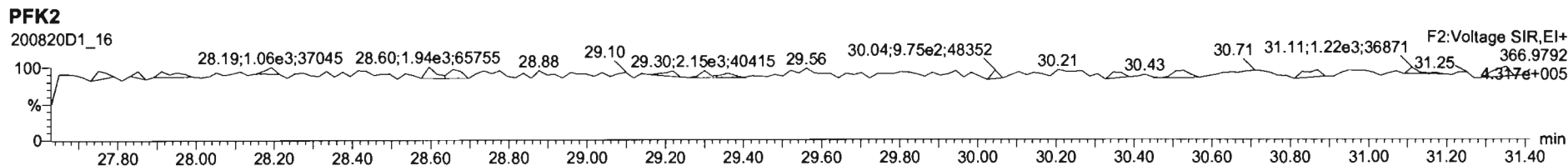
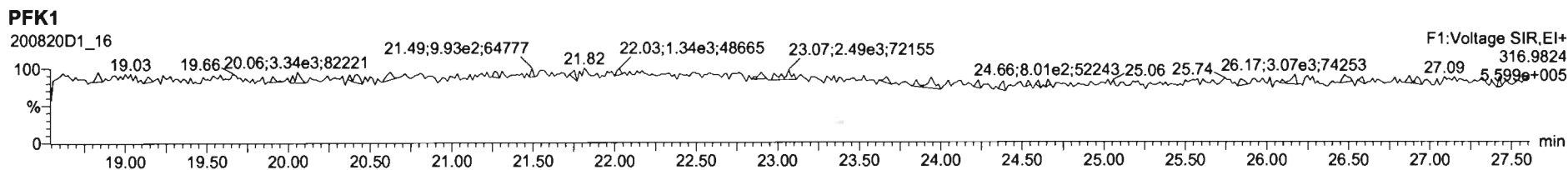
Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_16.qld

Last Altered: Friday, August 21, 2020 10:39:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:40:30 Pacific Daylight Time

Name: 200820D1\_16, Date: 21-Aug-2020, Time: 00:15:05, ID: 2001131-04 PDI-166SC-A-02-03-200520 12.48, Description: PDI-166SC-A-02-03-200520



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 16:51:04 Pacific Daylight Time  
Printed: Friday, August 21, 2020 16:51:43 Pacific Daylight Time

*DB 8/21/20 CT 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

	# 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	<i>1.08</i>	<i>10.054</i>							<i>0.138</i>	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.054	30.529		1.001				0.140	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.054	33.804		1.000				0.300	
4	4 1,2,3,6,7,8-HxCDD	2.98e2	1.17	NO	0.908	10.054	33.915	33.94	1.000	1.001	0.84521		0.310	0.845
5	5 1,2,3,7,8,9-HxCDD	1.17e2	0.98	YES	0.923	10.054	34.245	34.21	1.001	1.000	0.32451		0.314	0.291
6	6 1,2,3,4,6,7,8-HpCDD			NO	0.926	10.054	37.569		1.000				0.528	
7	7 OCDD	2.42e4	0.86	NO	0.834	10.054	40.839	40.85	1.000	1.000	111.86		0.649	112
8	8 2,3,7,8-TCDF	6.03e2	0.79	NO	0.882	10.054	25.633	25.61	1.001	1.000	0.89617		0.171	0.896
9	9 1,2,3,7,8-PeCDF	3.42e2	1.35	NO	0.937	10.054	29.382	29.38	1.001	1.001	0.49783		0.126	0.498
10	10 2,3,4,7,8-PeCDF	3.14e2	1.66	NO	1.03	10.054	30.336	30.31	1.001	1.000	0.43095		0.107	0.431
11	11 1,2,3,4,7,8-HxCDF	3.29e2	1.23	NO	1.07	10.054	32.883	32.88	1.000	1.000	0.68211		0.171	0.682
12	12 1,2,3,6,7,8-HxCDF	1.29e2	1.33	NO	1.11	10.054	33.025	33.03	1.000	1.000	0.24243		0.160	0.242
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.054	33.708		1.001				0.186	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.054	34.716		1.000				0.208	
15	15 1,2,3,4,6,7,8-HpCDF	6.94e2	1.09	NO	1.15	10.054	36.420	36.38	1.001	1.000	1.5089		0.155	1.51
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.054	38.228		1.000				0.207	
17	17 OCDF	8.87e2	0.92	NO	0.961	10.054	41.168	41.19	1.000	1.001	3.0505		0.193	3.05
18	18 13C-2,3,7,8-TCDD	1.14e5	0.77	NO	1.20	10.054	26.257	26.23	1.026	1.025	192.53	96.8	0.627	
19	19 13C-1,2,3,7,8-PeCDD	9.16e4	0.61	NO	0.910	10.054	30.521	30.51	1.193	1.192	203.76	102	0.506	
20	20 13C-1,2,3,4,7,8-HxCDD	6.69e4	1.32	NO	0.789	10.054	33.800	33.79	1.014	1.014	191.32	96.2	0.946	
21	21 13C-1,2,3,6,7,8-HxCDD	7.72e4	1.29	NO	0.885	10.054	33.910	33.92	1.017	1.017	196.88	99.0	0.843	
22	22 13C-1,2,3,7,8,9-HxCDD	7.78e4	1.25	NO	0.888	10.054	34.180	34.21	1.025	1.026	197.49	99.3	0.840	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.35e4	1.05	NO	0.740	10.054	37.633	37.56	1.129	1.127	193.80	97.4	1.46	
24	24 13C-OCDD	1.03e5	0.89	NO	0.660	10.054	40.646	40.84	1.219	1.225	353.02	88.7	0.835	
25	25 13C-2,3,7,8-TCDF	1.52e5	0.76	NO	1.09	10.054	25.336	25.61	0.990	1.001	157.38	79.1	0.561	
26	26 13C-1,2,3,7,8-PeCDF	1.46e5	1.59	NO	0.857	10.054	29.577	29.36	1.156	1.147	191.82	96.4	0.568	
27	27 13C-2,3,4,7,8-PeCDF	1.41e5	1.60	NO	0.796	10.054	30.480	30.31	1.191	1.184	200.07	101	0.611	
28	28 13C-1,2,3,4,7,8-HxCDF	8.94e4	0.49	NO	1.02	10.054	32.933	32.88	0.988	0.986	197.68	99.4	0.912	
29	29 13C-1,2,3,6,7,8-HxCDF	9.48e4	0.50	NO	1.00	10.054	33.066	33.01	0.992	0.990	213.20	107	0.928	
30	30 13C-2,3,4,6,7,8-HxCDF	8.50e4	0.51	NO	0.936	10.054	33.636	33.67	1.009	1.010	204.98	103	0.995	
31	31 13C-1,2,3,7,8,9-HxCDF	8.04e4	0.49	NO	0.889	10.054	34.713	34.72	1.041	1.041	203.99	103	1.05	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 16:51:04 Pacific Daylight Time

Printed: Friday, August 21, 2020 16:51:43 Pacific Daylight Time

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

#	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	7.94e4	0.42	NO	0.849	10.054	36.233	36.38	1.087	1.092	210.87	106	1.16	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.28e4	0.42	NO	0.624	10.054	38.233	38.23	1.147	1.147	191.01	96.0	1.58	
34	34 13C-OCDF	1.20e5	0.88	NO	0.693	10.054	40.800	41.17	1.224	1.235	391.90	98.5	0.785	
35	35 37Cl-2,3,7,8-TCDD	4.16e4			1.28	10.054	26.255	26.25	1.026	1.026	65.925	82.9	0.169	
36	36 13C-1,2,3,4-TCDD	9.83e4	0.78	NO	1.00	10.054	25.550	25.59	1.000	1.000	198.92	100	0.755	
37	37 13C-1,2,3,4-TCDF	1.77e5	0.81	NO	1.00	10.054	24.250	24.29	1.000	1.000	198.92	100	0.610	
38	38 13C-1,2,3,4,6,9-HxCDF	8.82e4	0.49	NO	1.00	10.054	33.300	33.33	1.000	1.000	198.92	100	0.930	
39	39 Total Tetra-Dioxins				1.08	10.054	24.620		0.000				0.0819	
40	40 Total Penta-Dioxins				0.991	10.054	29.960		0.000		0.00000		0.0548	0.209
41	41 Total Hexa-Dioxins				0.908	10.054	33.635		0.000		5.2209		0.323	5.68
42	42 Total Hepta-Dioxins				0.926	10.054	37.640		0.000		15.951		0.528	16.0
43	43 Total Tetra-Furans				0.882	10.054	23.610		0.000		2.1579		0.171	2.33
44	44 1st Func. Penta-Furans				0.937	10.054	26.750		0.000		0.73142		0.0529	0.731
45	45 Total Penta-Furans				0.937	10.054	29.275		0.000		1.4388		0.122	1.80
46	46 Total Hexa-Furans				1.11	10.054	33.555		0.000		3.3576		0.179	3.36
47	47 Total Hepta-Furans				1.15	10.054	37.835		0.000		3.9396		0.183	3.94



Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 16:51:04 Pacific Daylight Time

Printed: Friday, August 21, 2020 16:51:43 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.43	9.490e2	1.066e3	5.747e1	5.866e1	0.98	YES	0.000e0	0.00000	0.20934	0.140

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.15	9.956e3	8.405e3	4.583e2	3.571e2	1.28	NO	8.154e2	2.4142	2.4142	0.323
2	Total Hexa-Dioxins	32.75	1.105e3	5.900e2	4.228e1	2.606e1	1.62	YES	0.000e0	0.00000	0.17284	0.323
3	Total Hexa-Dioxins	33.05	9.354e3	6.397e3	3.834e2	2.791e2	1.37	NO	6.625e2	1.9615	1.9615	0.323
4	1,2,3,6,7,8-HxCDD	33.94	3.495e3	2.781e3	1.606e2	1.375e2	1.17	NO	2.981e2	0.84521	0.84521	0.310
5	1,2,3,7,8,9-HxCDD	34.21	1.596e3	9.610e2	5.812e1	5.902e1	0.98	YES	1.171e2	0.00000	0.29085	0.314

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.71	4.404e4	3.994e4	2.357e3	2.359e3	1.00	NO	4.716e3	15.951	15.951	0.528

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	22.27	9.090e2	8.620e2	7.306e1	6.478e1	1.13	YES	0.000e0	0.00000	0.17033	0.171
2	Total Tetra-Furans	23.05	1.124e3	1.180e3	6.853e1	9.997e1	0.69	NO	1.685e2	0.25032	0.25032	0.171
3	Total Tetra-Furans	24.34	9.640e2	2.238e3	6.059e1	8.861e1	0.68	NO	1.492e2	0.22164	0.22164	0.171
4	Total Tetra-Furans	24.77	3.489e3	4.639e3	2.154e2	3.162e2	0.68	NO	5.316e2	0.78979	0.78979	0.171
5	2,3,7,8-TCDF	25.61	3.948e3	5.151e3	2.671e2	3.362e2	0.79	NO	6.033e2	0.89617	0.89617	0.171

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 16:51:04 Pacific Daylight Time

Printed: Friday, August 21, 2020 16:51:43 Pacific Daylight Time

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

**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	6.423e3	3.124e3	2.991e2	1.954e2	1.53	NO	4.944e2	0.73142	0.73142	0.0529

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.48	3.058e3	1.911e3	2.108e2	1.340e2	1.57	NO	3.448e2	0.51006	0.51006	0.122
2	Total Penta-Furans	29.02	1.332e3	1.007e3	6.138e1	3.373e1	1.82	YES	0.000e0	0.00000	0.12725	0.122
3	1,2,3,7,8-PeCDF	29.38	4.053e3	3.293e3	1.961e2	1.458e2	1.35	NO	3.418e2	0.49783	0.49783	0.126
4	Total Penta-Furans	29.62	1.966e3	1.629e3	9.517e1	8.704e1	1.09	YES	0.000e0	0.00000	0.23160	0.122
5	2,3,4,7,8-PeCDF	30.31	3.575e3	1.961e3	1.961e2	1.180e2	1.66	NO	3.141e2	0.43095	0.43095	0.107

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.63	1.864e3	1.946e3	1.029e2	9.317e1	1.10	NO	1.961e2	0.40130	0.40130	0.179
2	Total Hexa-Furans	31.80	5.121e3	4.593e3	2.357e2	1.900e2	1.24	NO	4.257e2	0.87116	0.87116	0.179
3	Total Hexa-Furans	32.40	6.213e3	5.596e3	3.005e2	2.666e2	1.13	NO	5.671e2	1.1607	1.1607	0.179
4	1,2,3,4,7,8-HxCDF	32.88	3.243e3	2.876e3	1.816e2	1.472e2	1.23	NO	3.288e2	0.68211	0.68211	0.171
5	1,2,3,6,7,8-HxCDF	33.03	1.418e3	1.111e3	7.327e1	5.528e1	1.33	NO	1.285e2	0.24243	0.24243	0.160

**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	36.38	6.144e3	5.870e3	3.622e2	3.322e2	1.09	NO	6.944e2	1.5089	1.5089	0.155
2	Total Hepta-Furans	36.97	8.961e3	8.951e3	4.552e2	4.761e2	0.96	NO	9.313e2	2.4307	2.4307	0.183

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

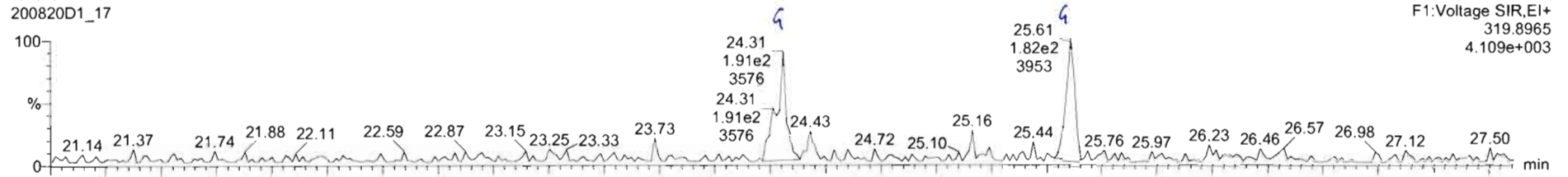
Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

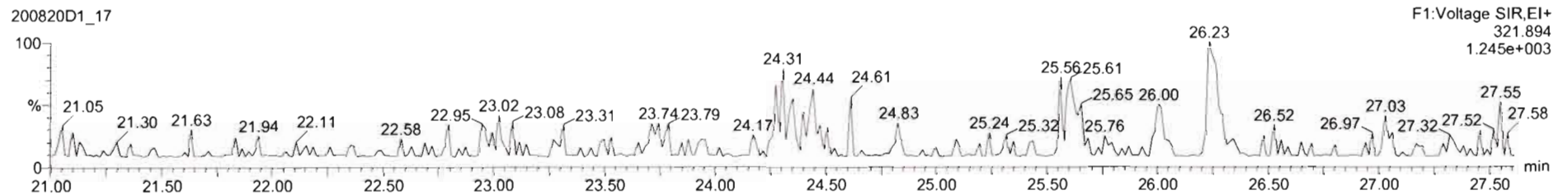
Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

2,3,7,8-TCDD

200820D1\_17

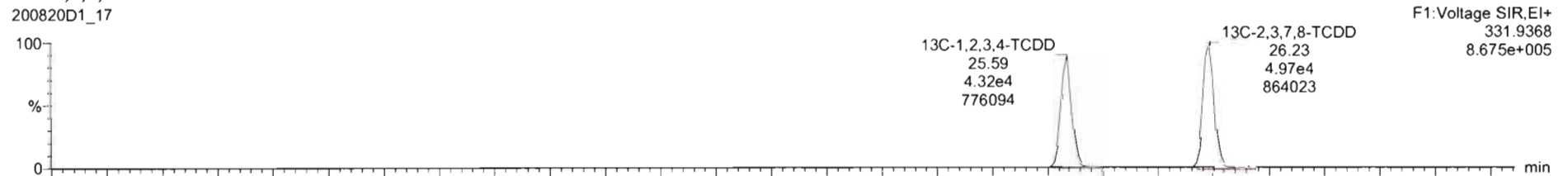


200820D1\_17

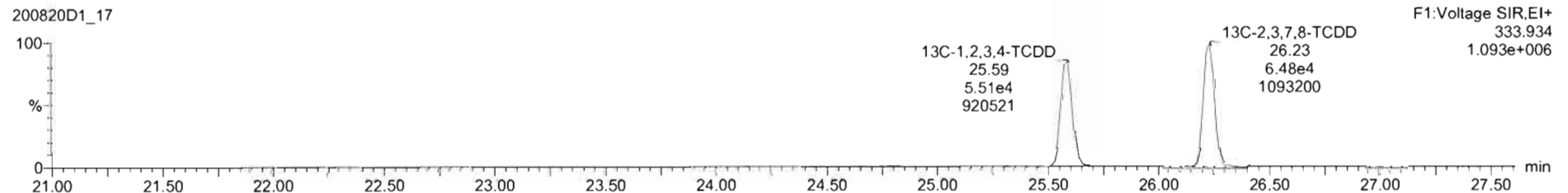


13C-2,3,7,8-TCDD

200820D1\_17



200820D1\_17



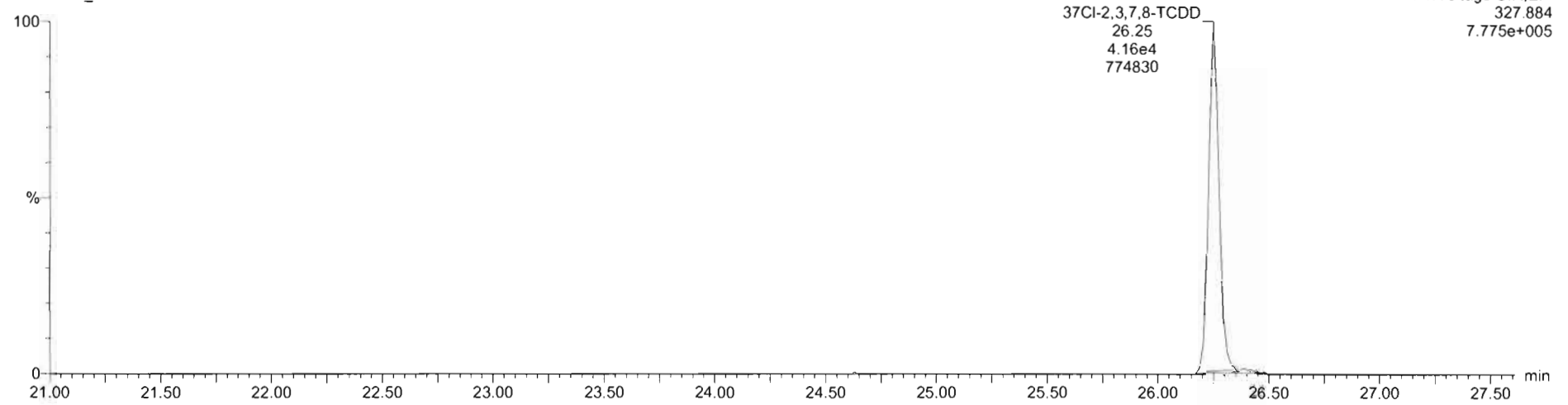
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

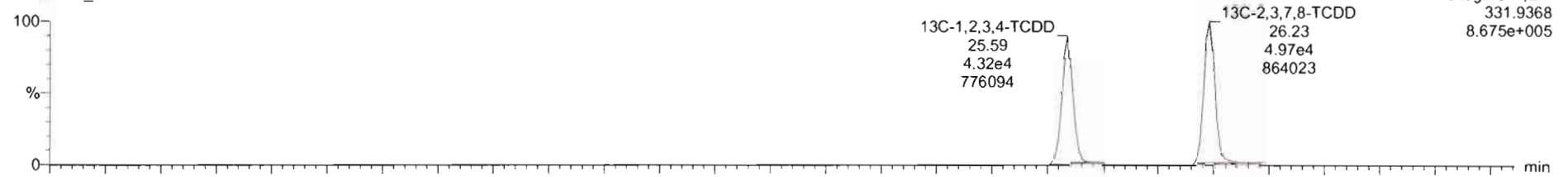
37Cl-2,3,7,8-TCDD

200820D1\_17

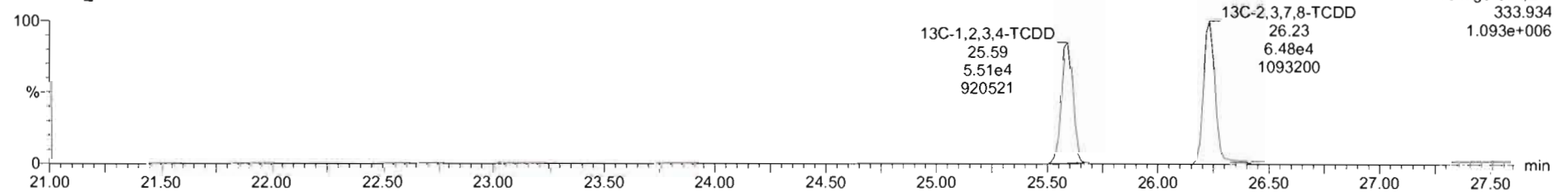


13C-1,2,3,4-TCDD

200820D1\_17



200820D1\_17



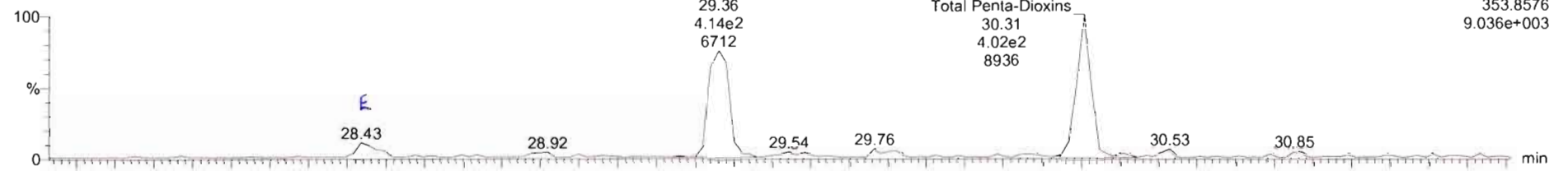
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

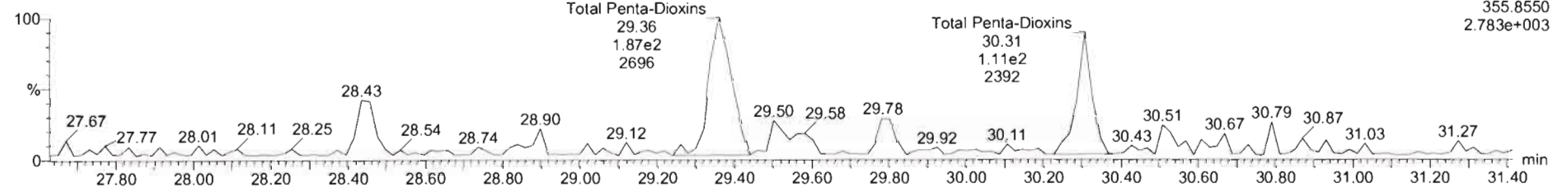
Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

1,2,3,7,8-PeCDD

200820D1\_17

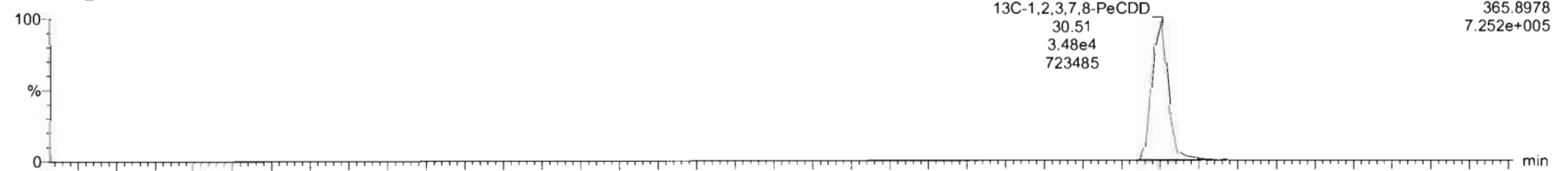


200820D1\_17

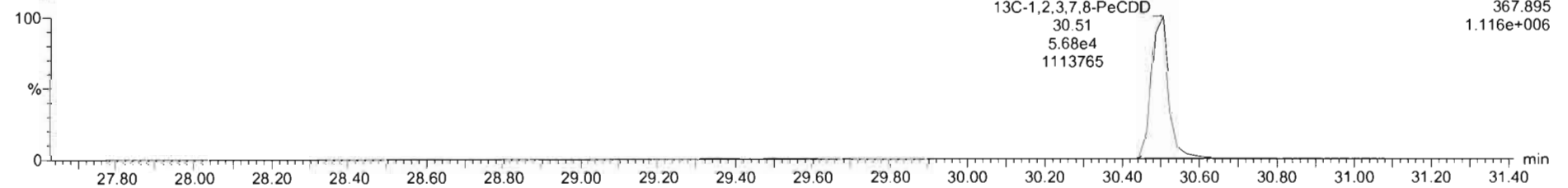


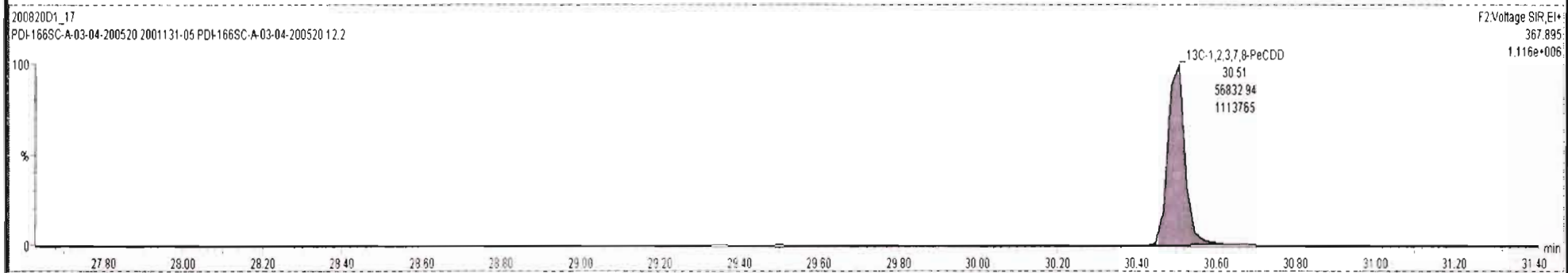
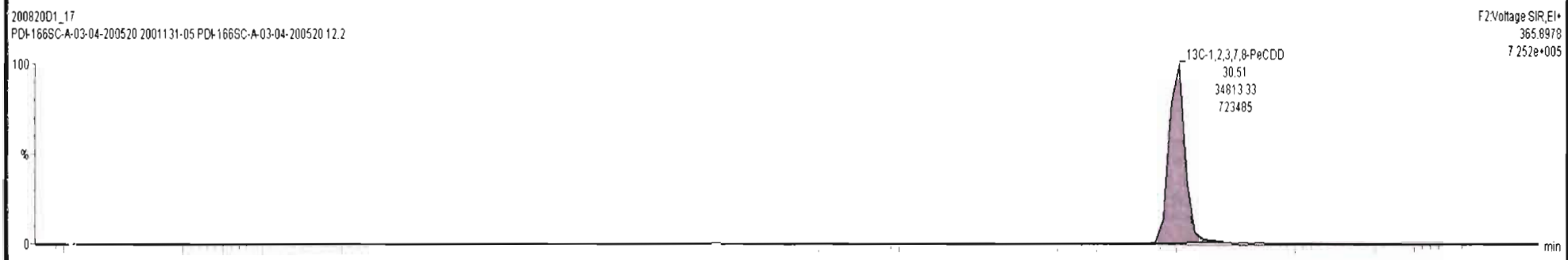
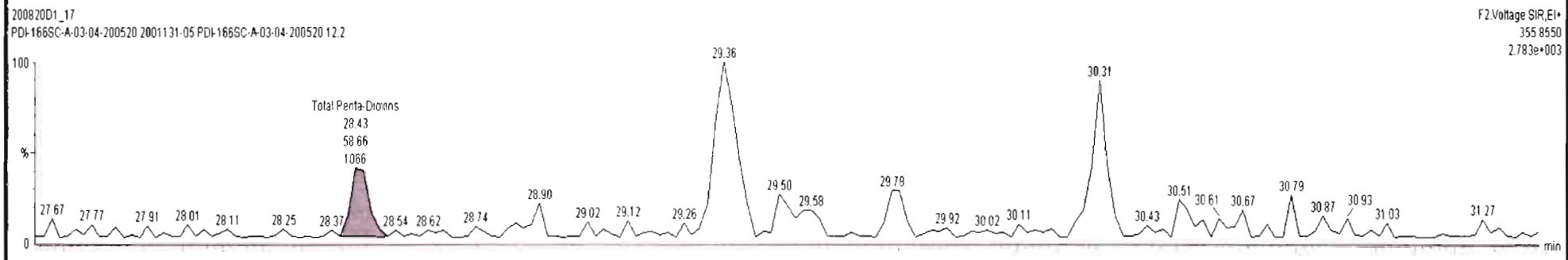
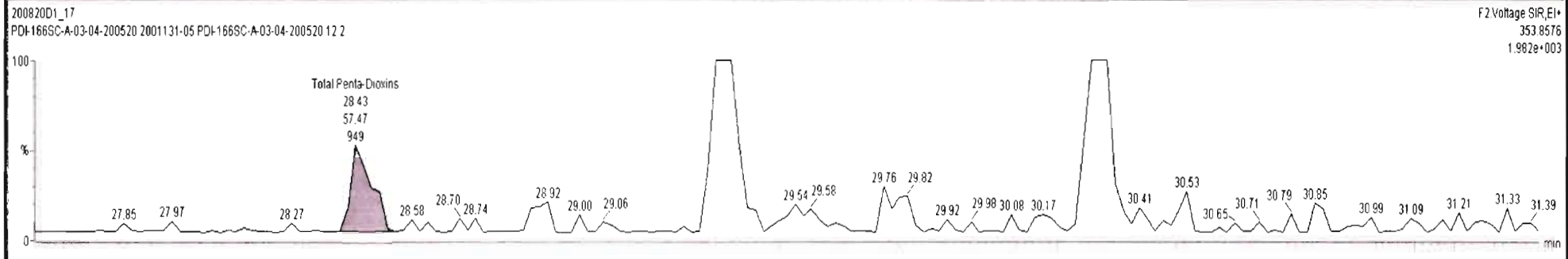
13C-1,2,3,7,8-PeCDD

200820D1\_17



200820D1\_17



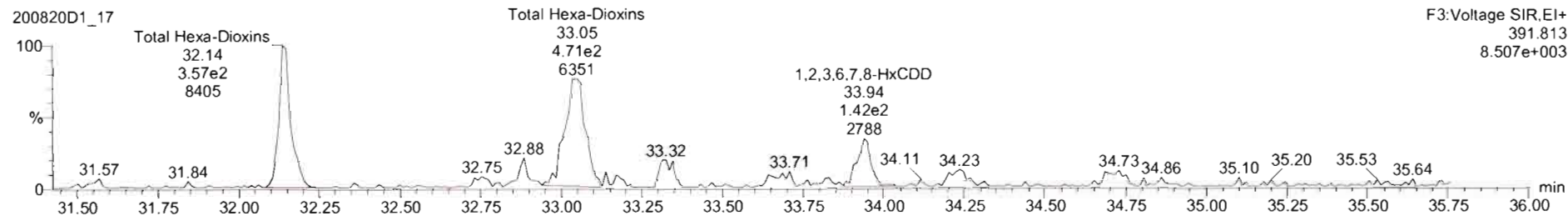
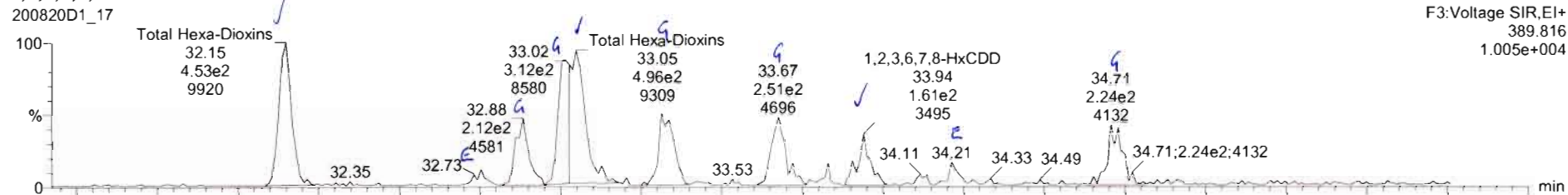


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

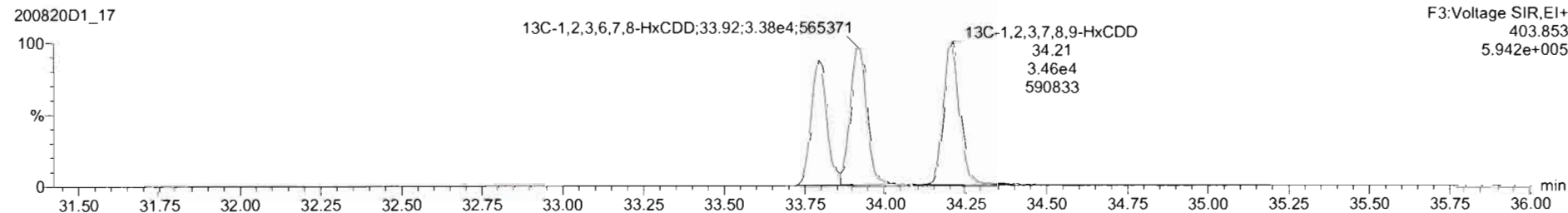
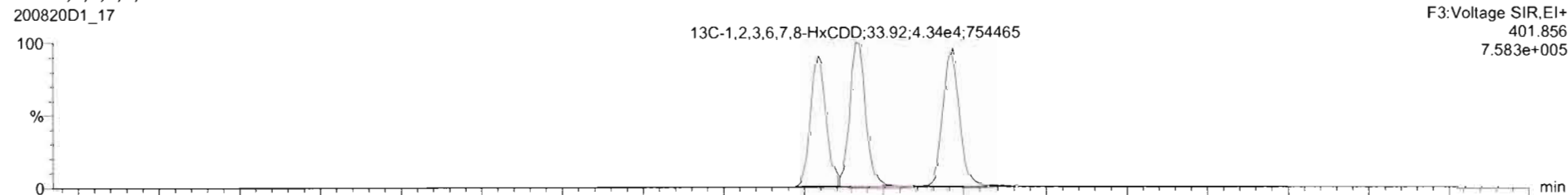
Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

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

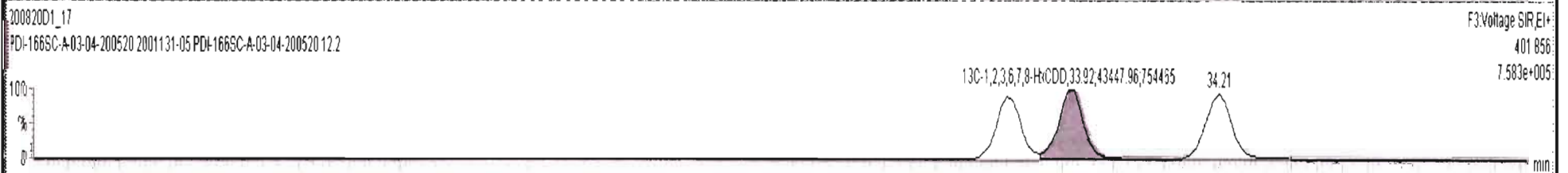
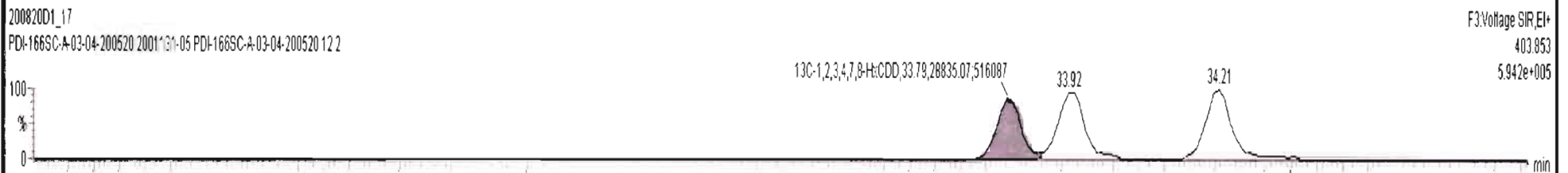
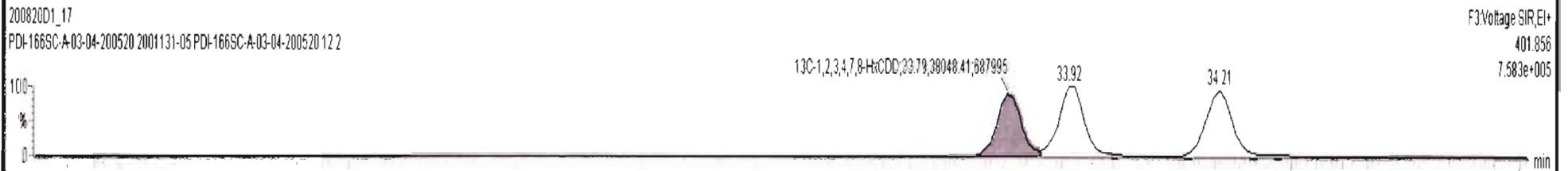
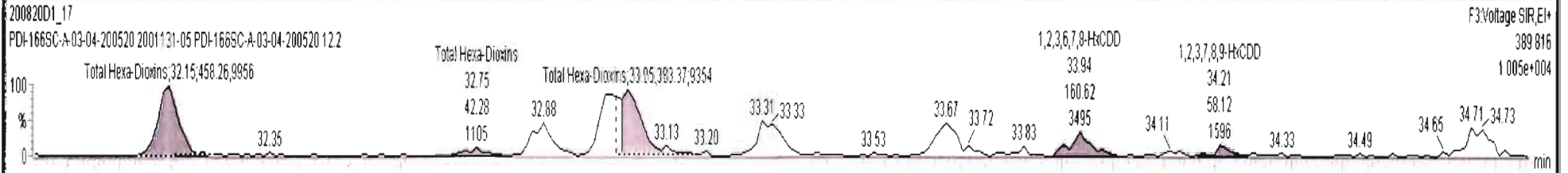


13C-1,2,3,4,7,8-HxCDD





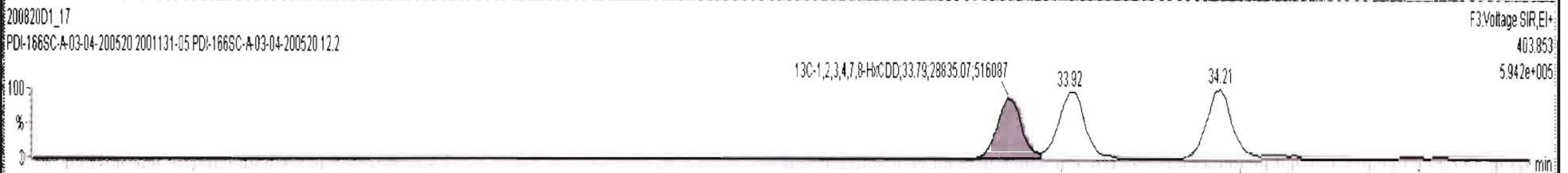
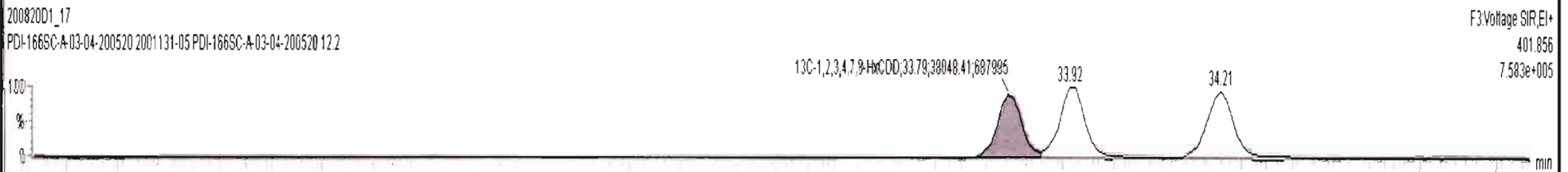
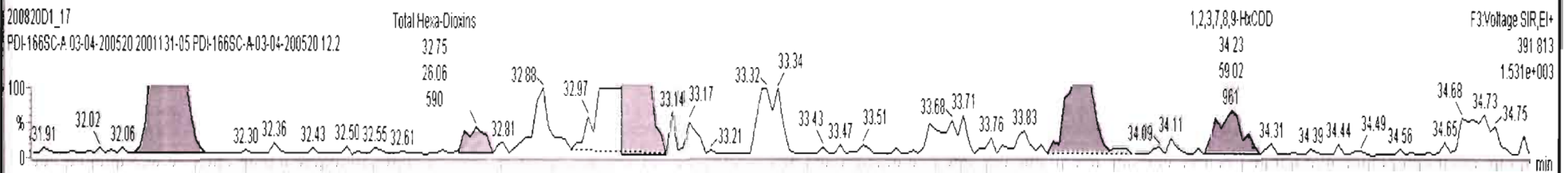
20082001\_17 - 2001131-05 PDI-166SC-A-03-04-200520 12.2 - PDI-166SC-A-03-04-200520







200820D1\_17 - 2001131-05 PDI-166SC-A-03-04-200520 12.2 - PDI-166SC-A-03-04-200520

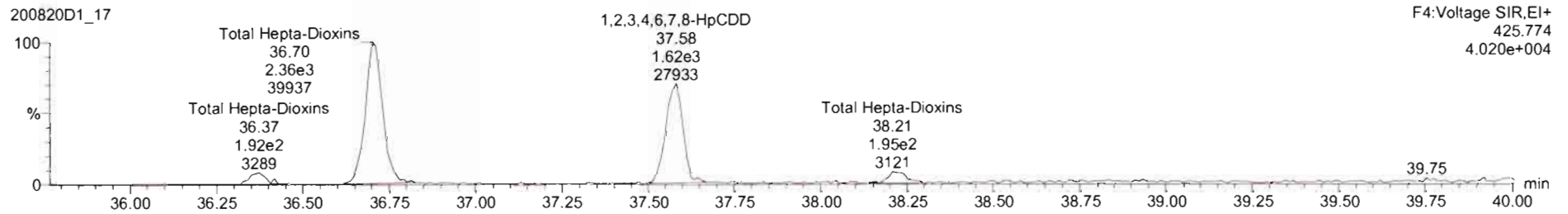
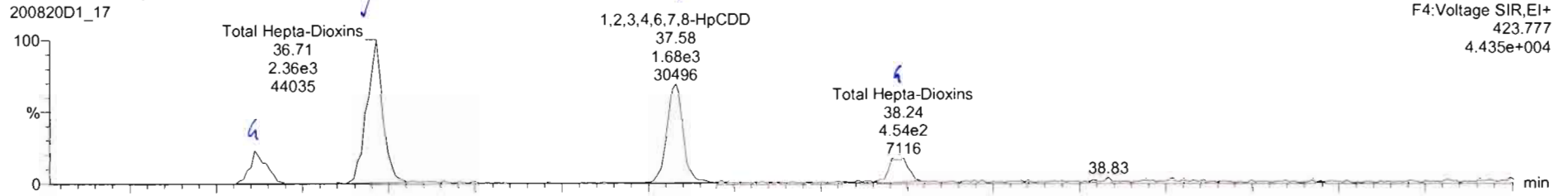


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

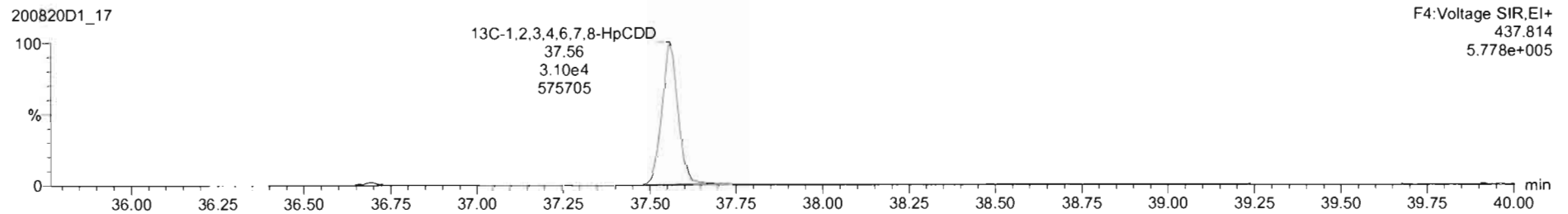
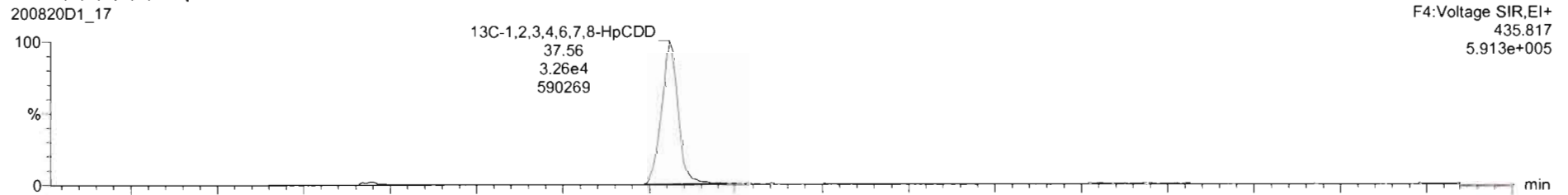
Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

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



**<sup>13</sup>C-1,2,3,4,6,7,8-HpCDD**



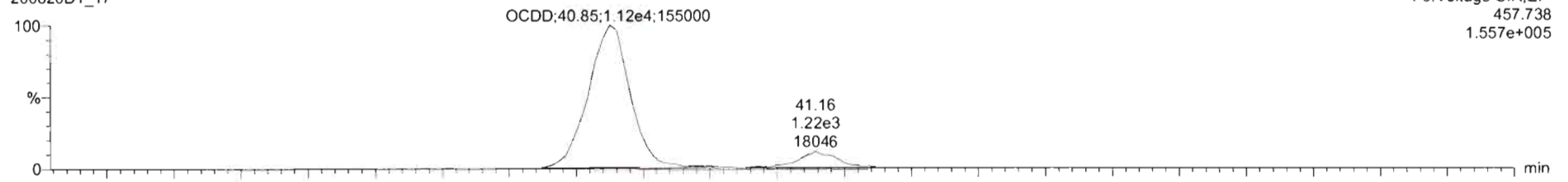
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

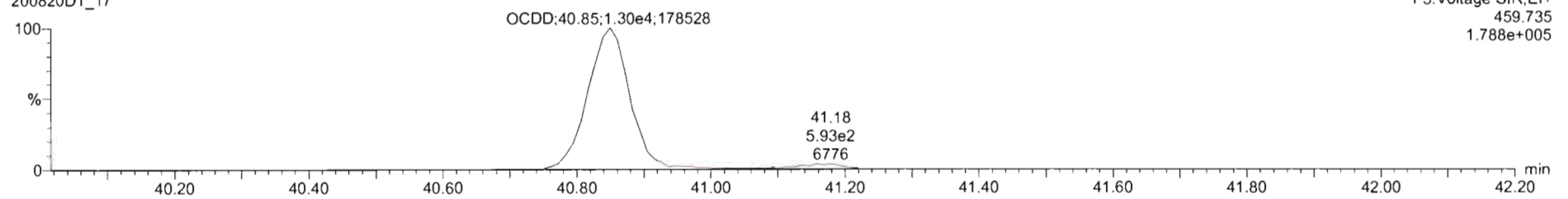
Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

OCDD

200820D1\_17

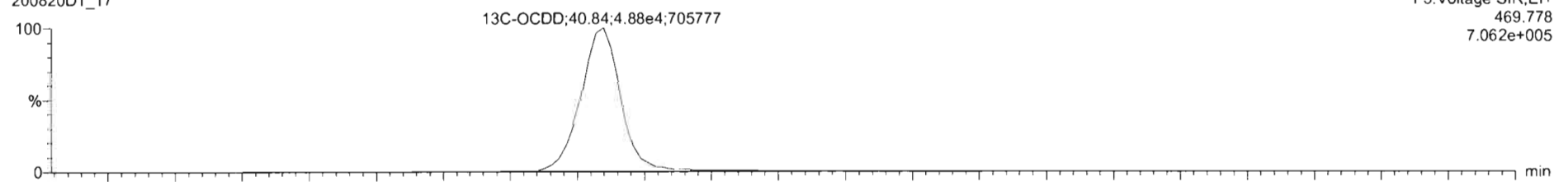


200820D1\_17

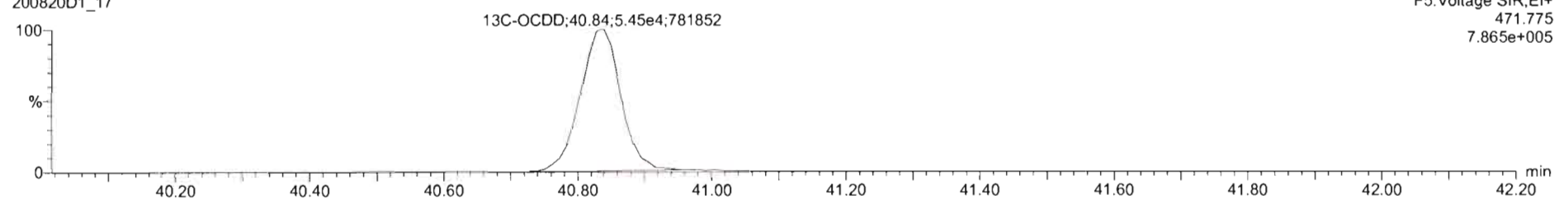


13C-OCDD

200820D1\_17



200820D1\_17



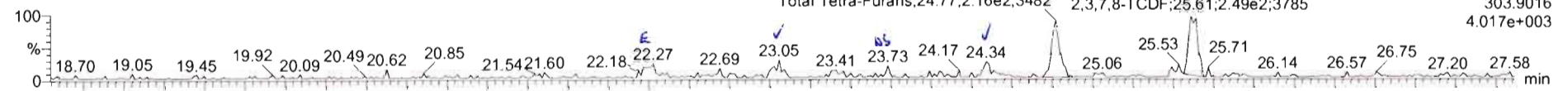
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

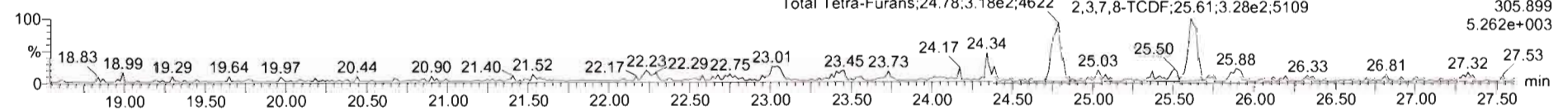
Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

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

200820D1\_17

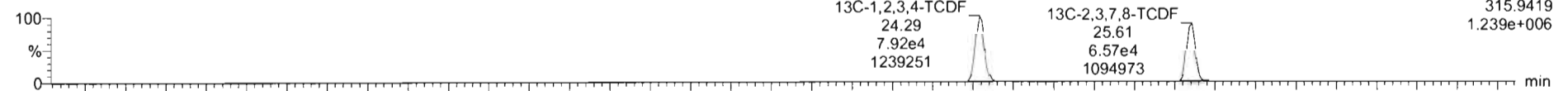


200820D1\_17

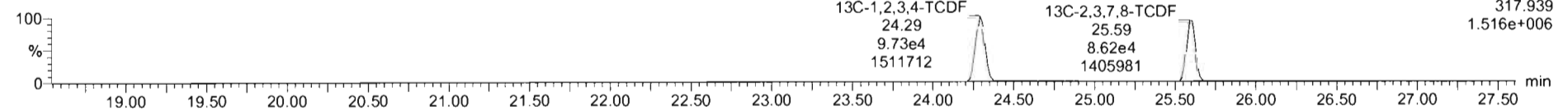


**13C-2,3,7,8-TCDF**

200820D1\_17

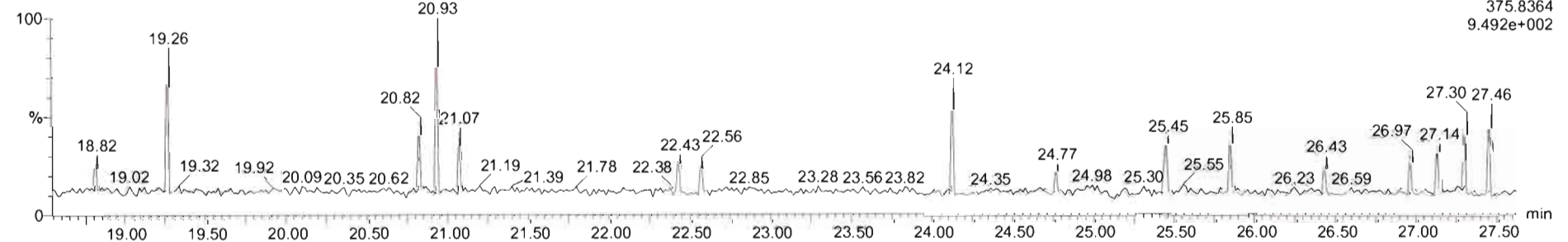


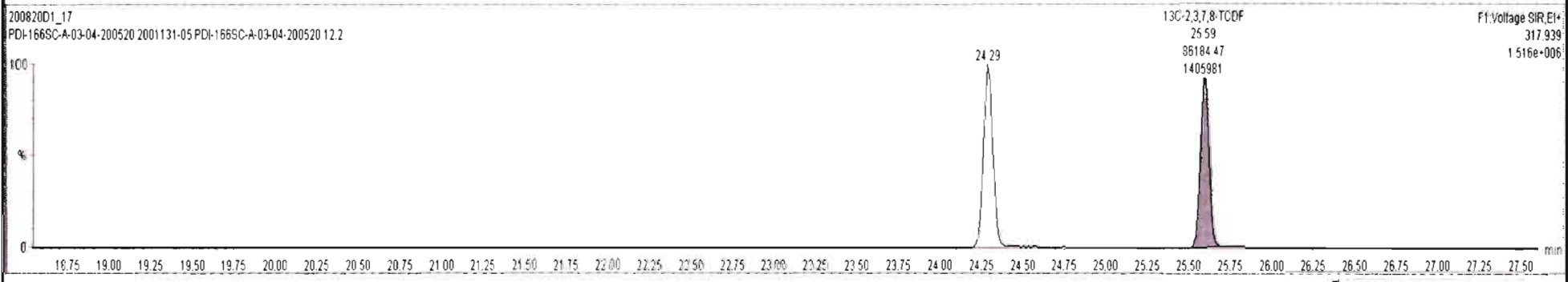
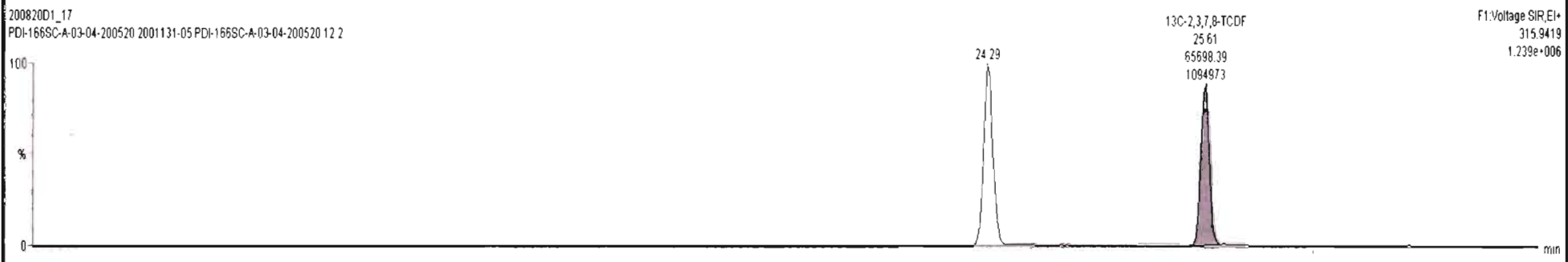
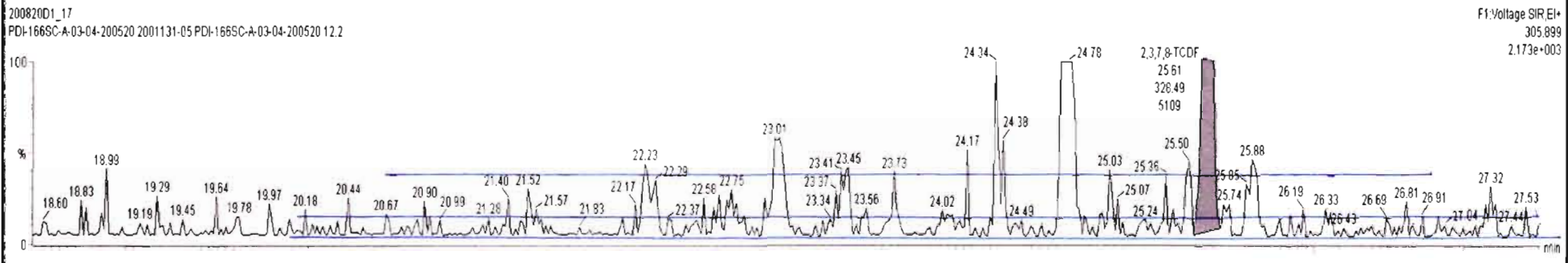
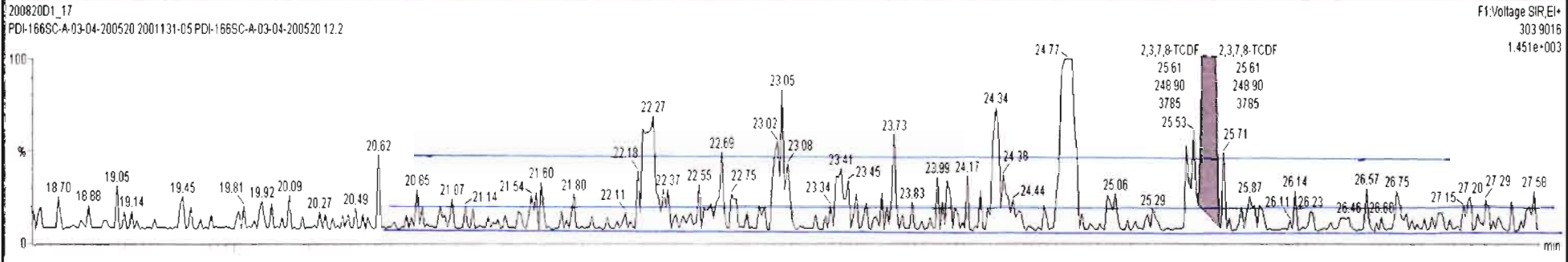
200820D1\_17

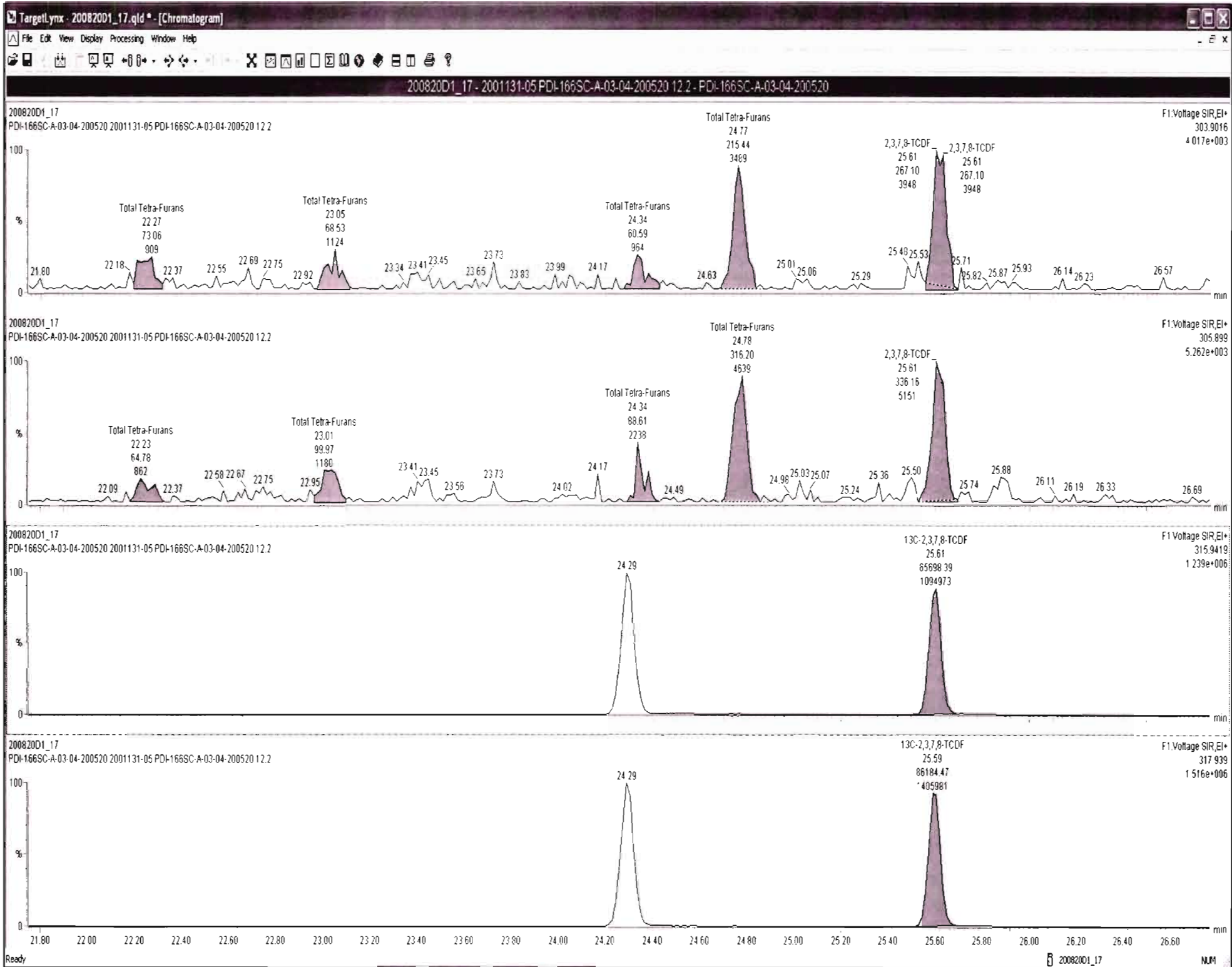


**DPE1**

200820D1\_17







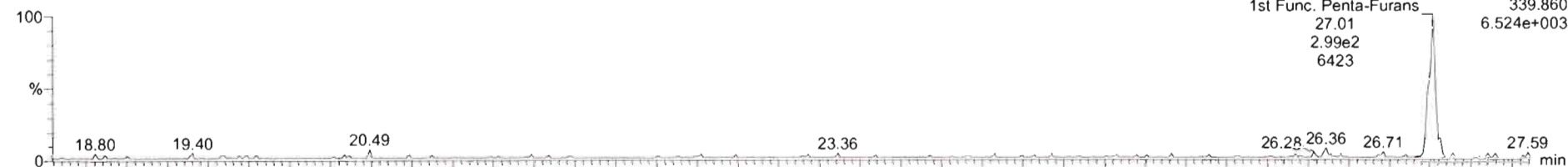
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

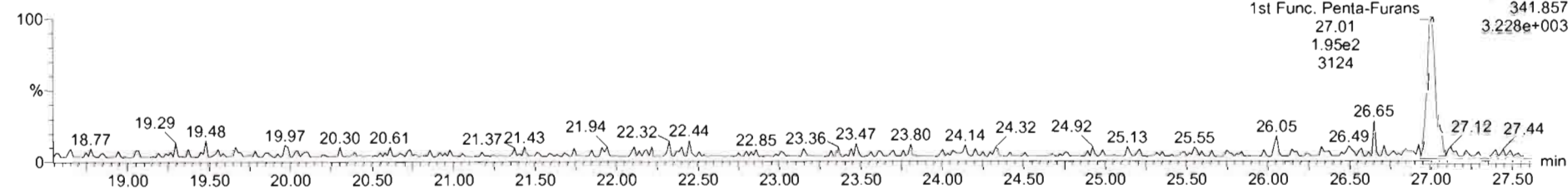
Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

1st Func. Penta-Furans

200820D1\_17

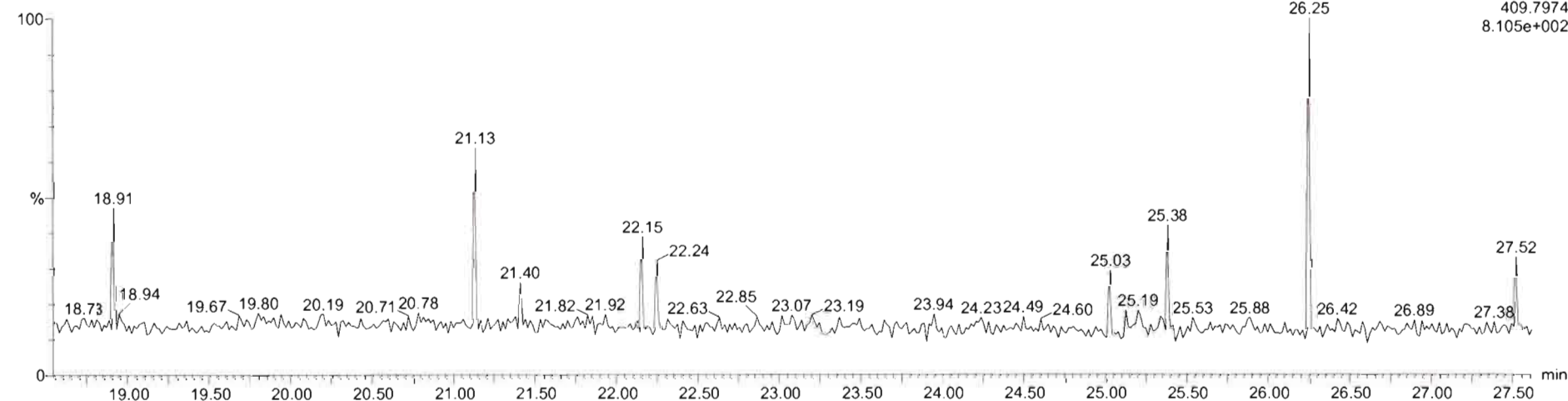


200820D1\_17



DPE6

200820D1\_17



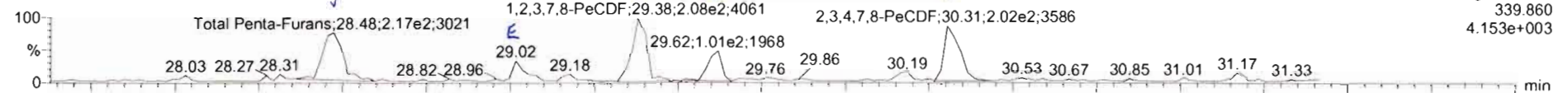
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

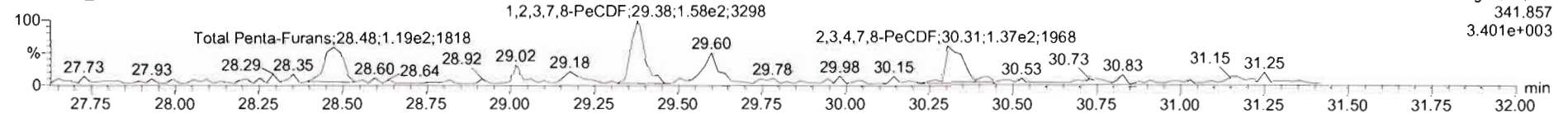
Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

1,2,3,7,8-PeCDF

200820D1\_17

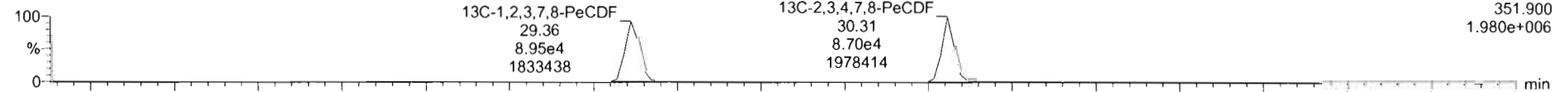


200820D1\_17

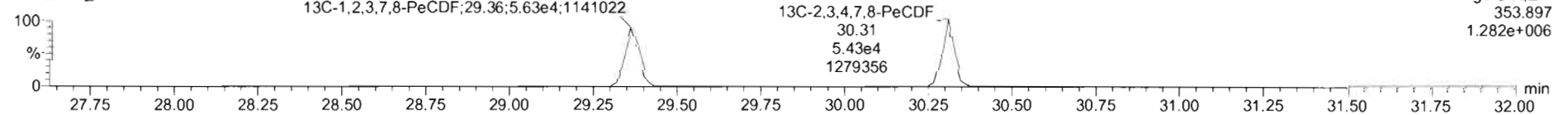


13C-1,2,3,7,8-PeCDF

200820D1\_17

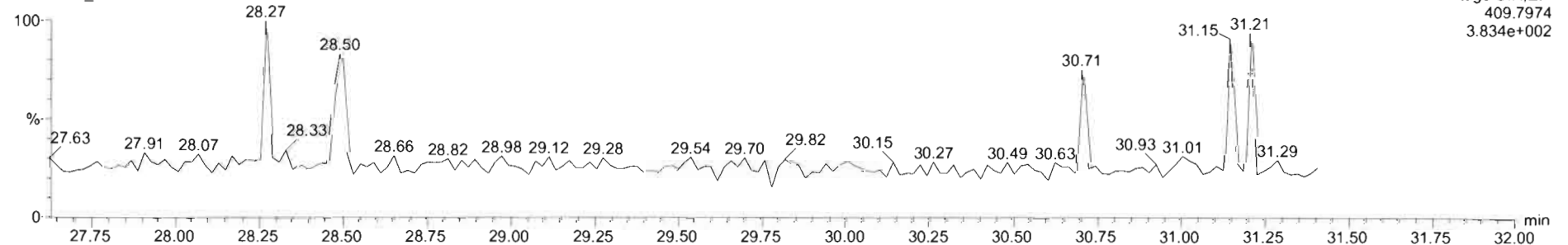


200820D1\_17



DPE2

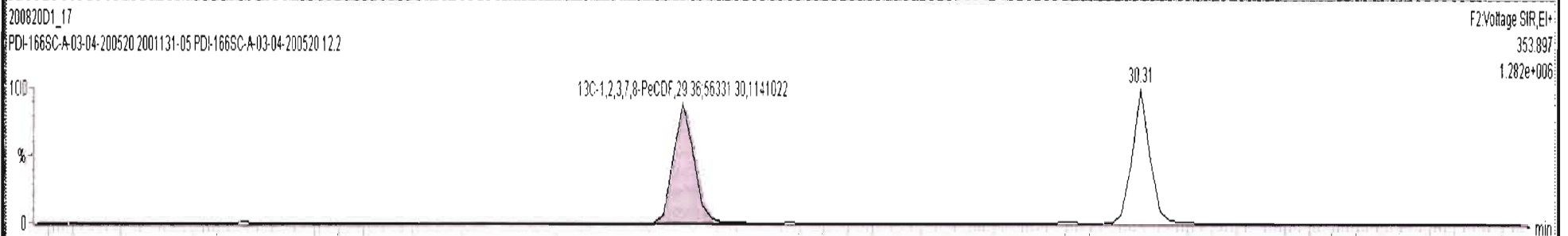
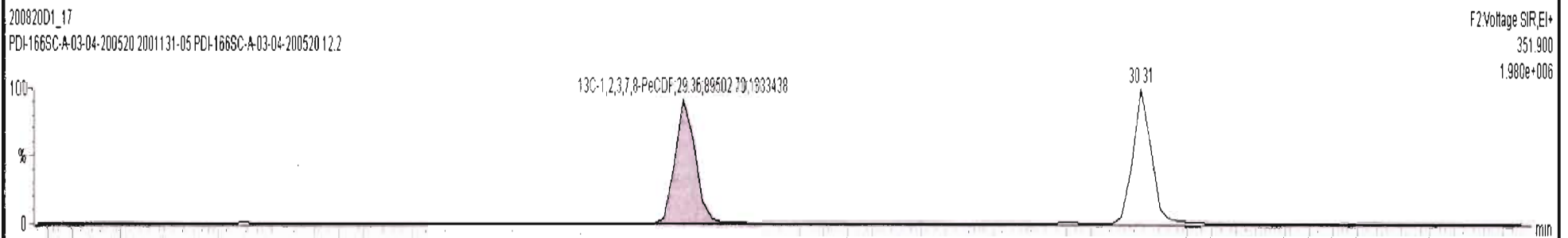
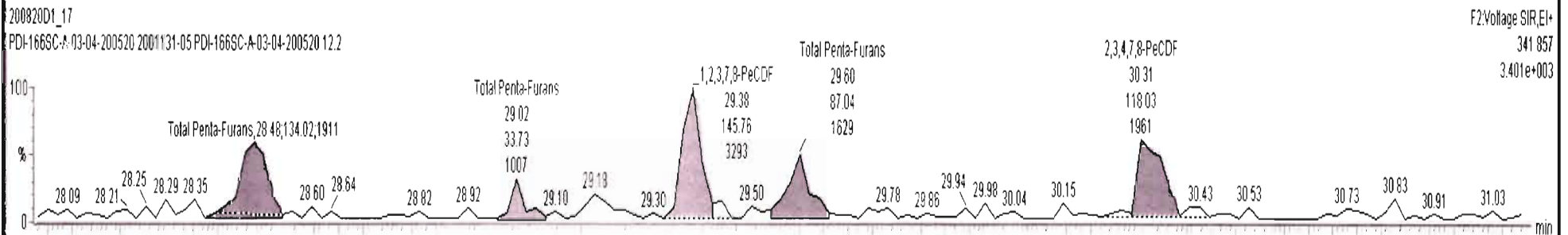
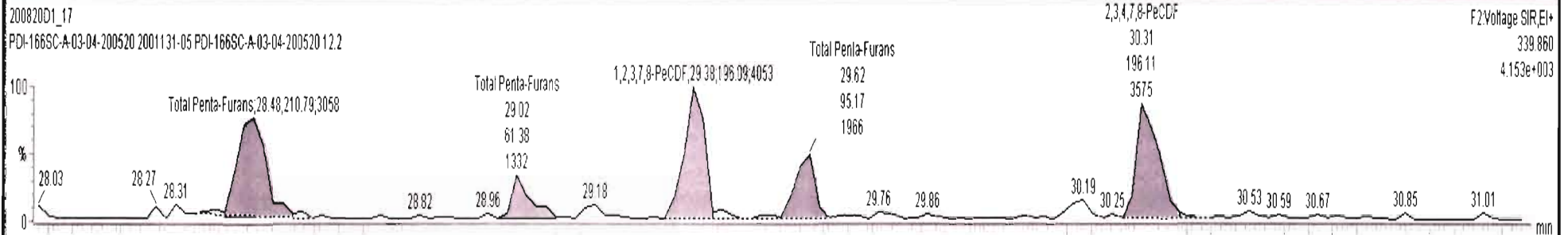
200820D1\_17







200820D1\_17 - 2001131-05 PDI-166SC-A-03-04-200520 12.2 - PDI-166SC-A-03-04-200520

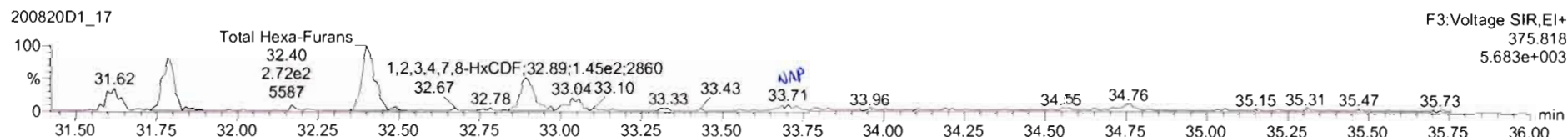


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

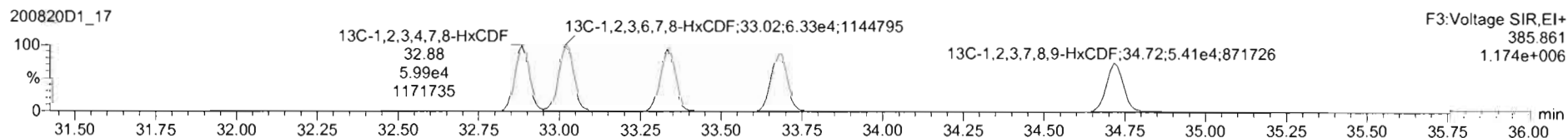
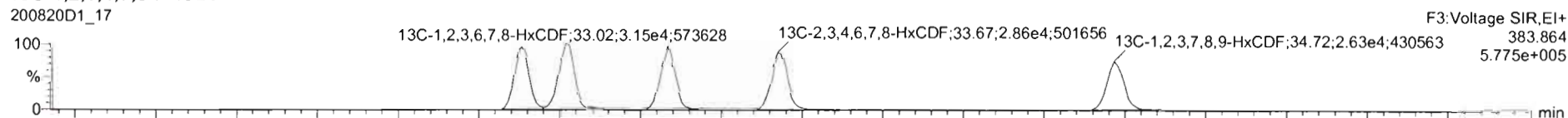
Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

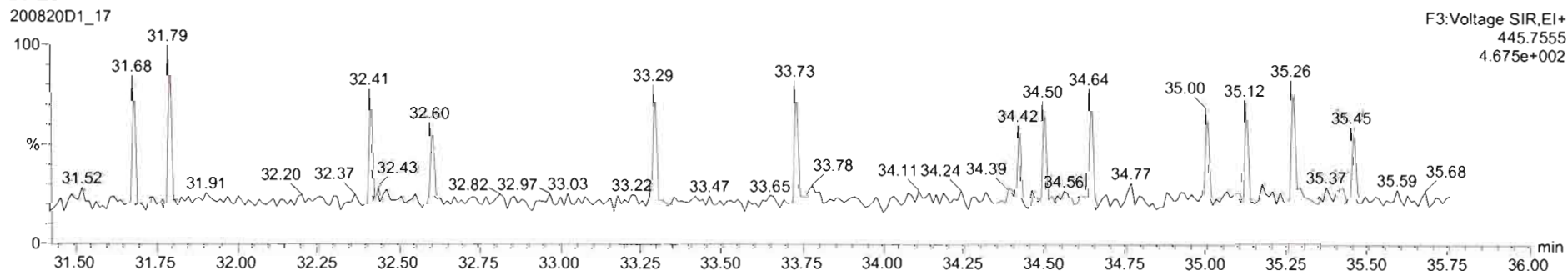
1,2,3,4,7,8-HxCDF



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

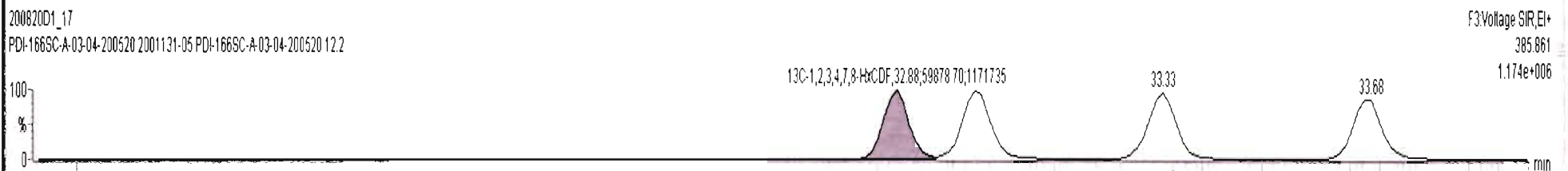
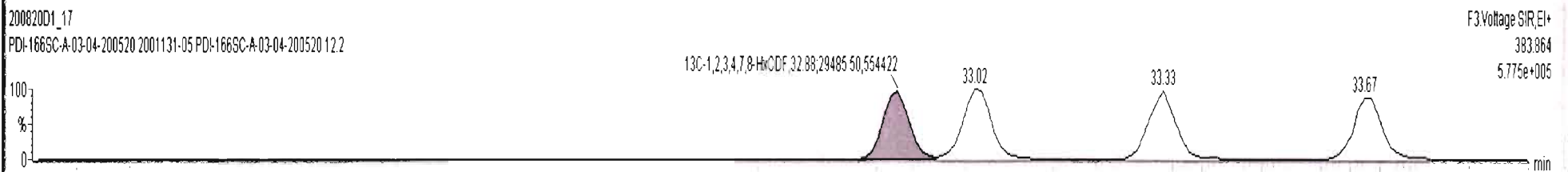
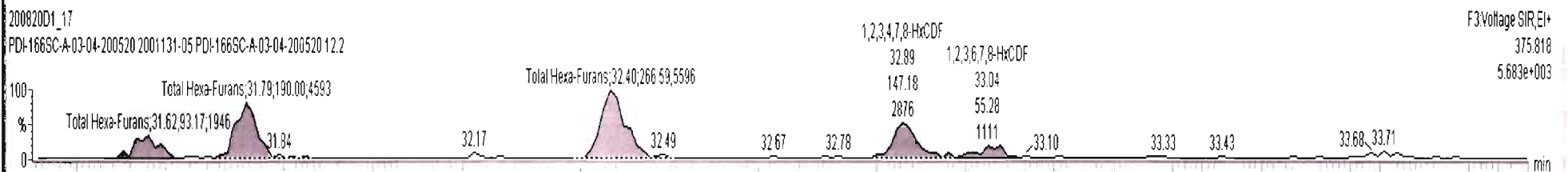
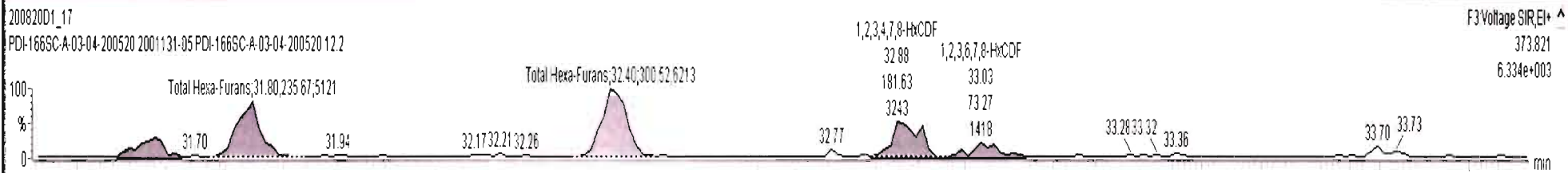


DPE3

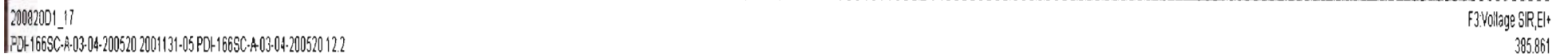
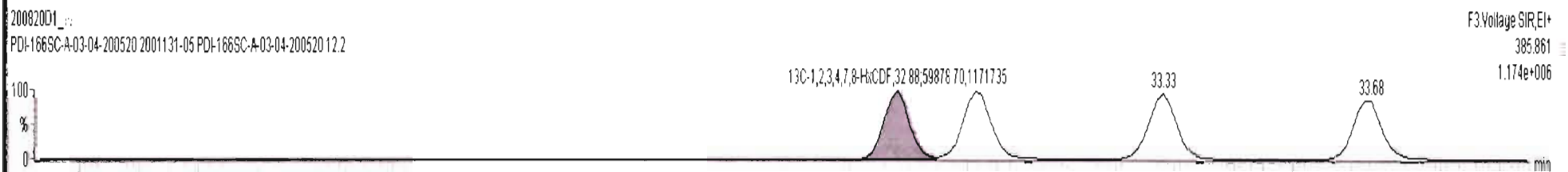
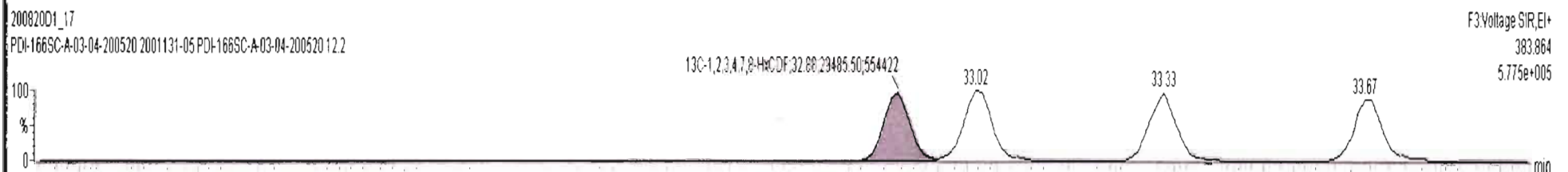
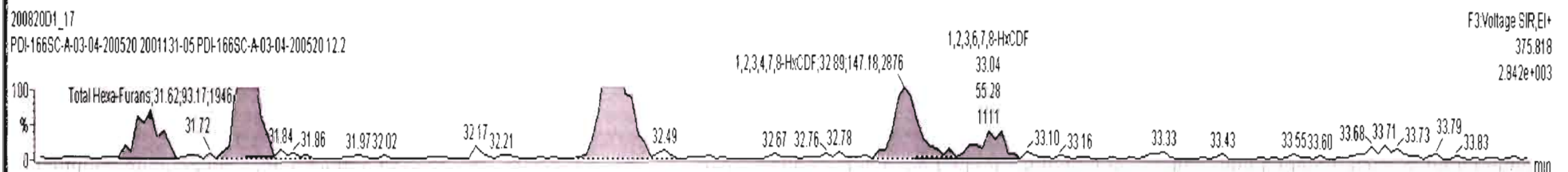
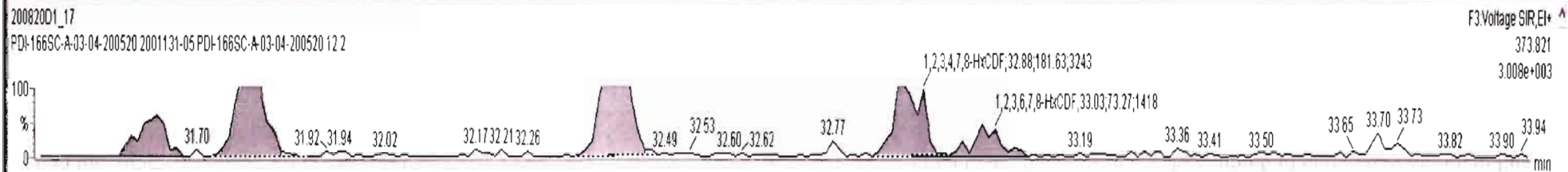




200820D1\_17 - 2001131-05 PDI-166SC-A-03-04-200520 12.2 - PDI-166SC-A-03-04-200520



200820D1\_17 - 2001131-05 PDI-166SC-A-03-04-200520 12.2 - PDI-166SC-A-03-04-200520



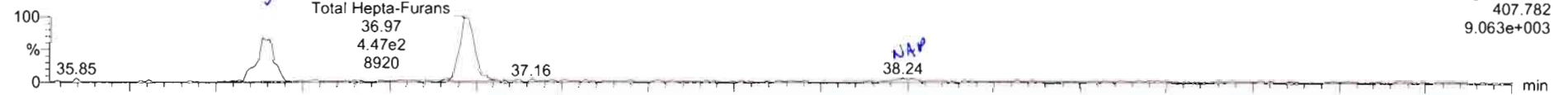
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

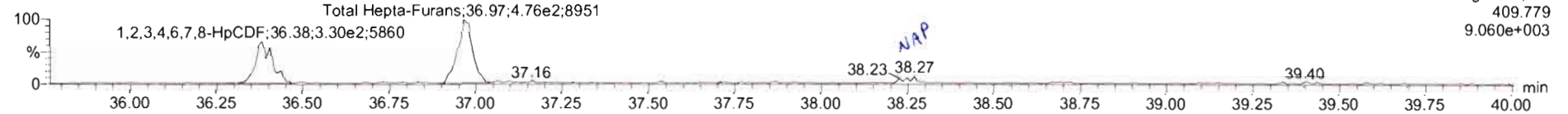
Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

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

200820D1\_17

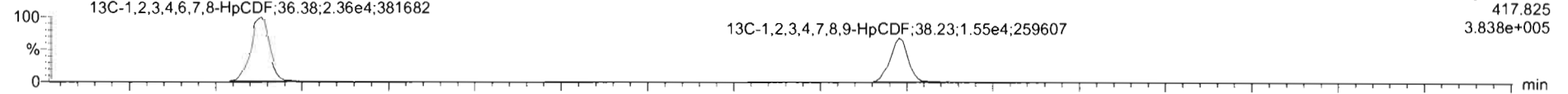


200820D1\_17

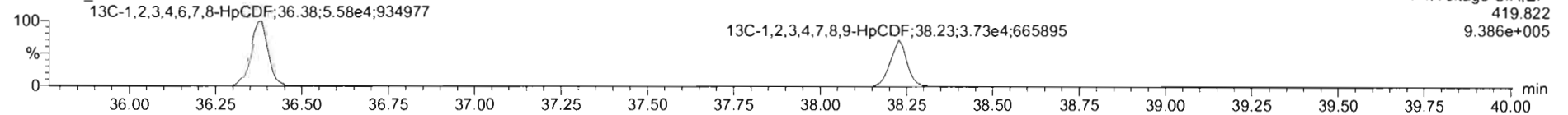


13C-1,2,3,4,6,7,8-HpCDF

200820D1\_17

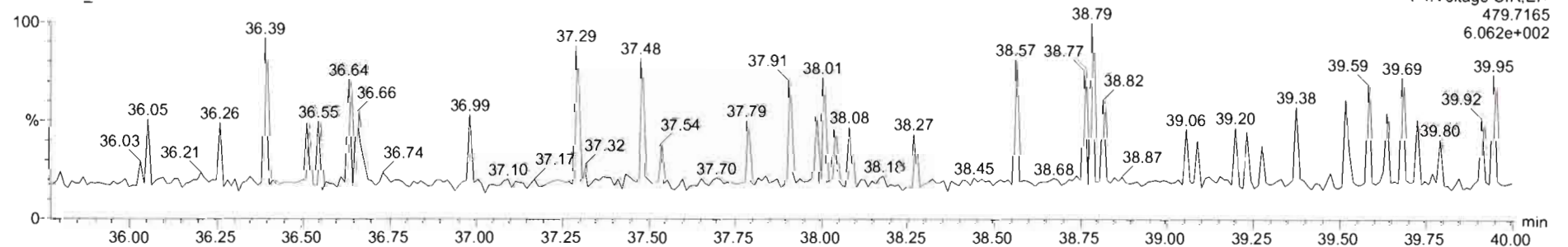


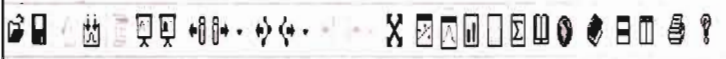
200820D1\_17



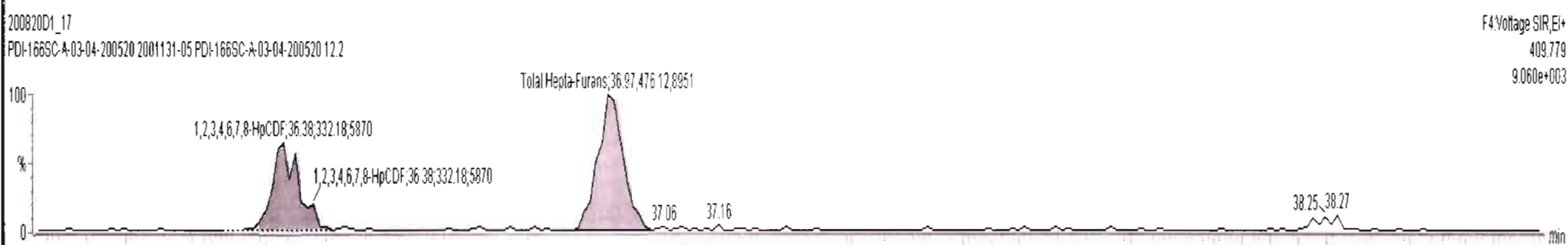
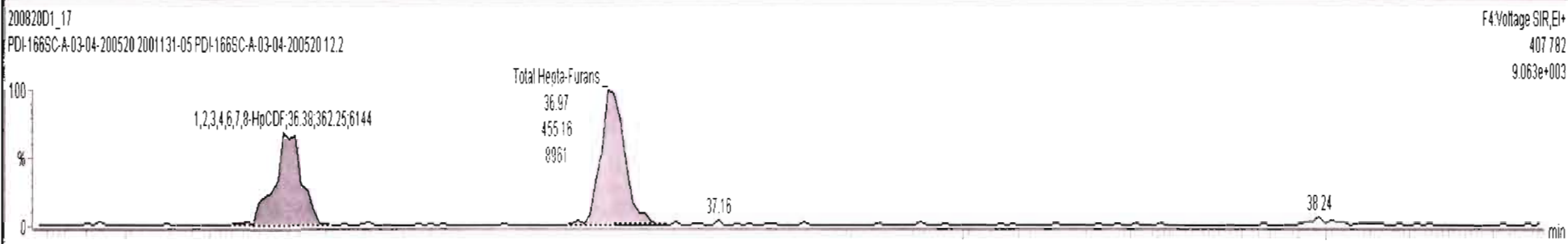
DPE4

200820D1\_17





200820D1\_17 - 2001131-05 PDI-166SC-A-03-04-200520 12.2 - PDI-166SC-A-03-04-200520



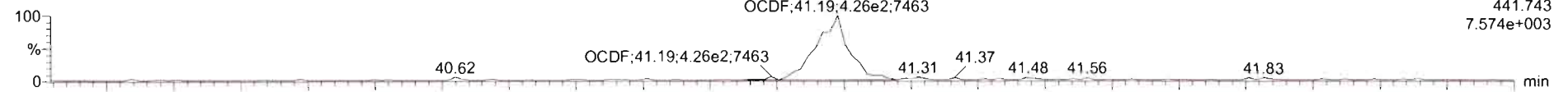
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

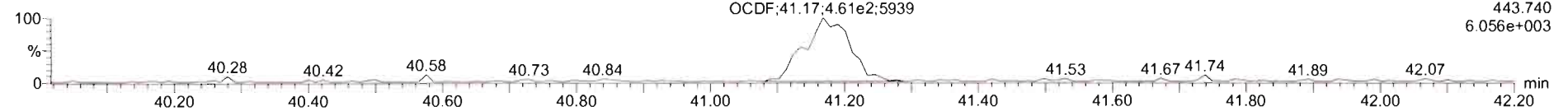
Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520

**OCDF**

200820D1\_17

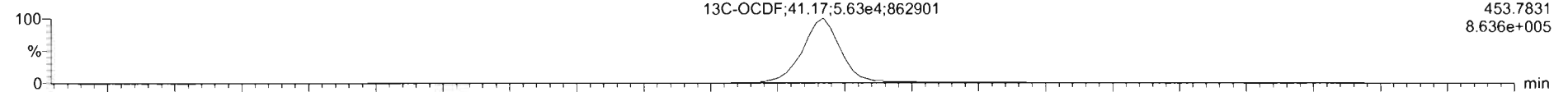


200820D1\_17

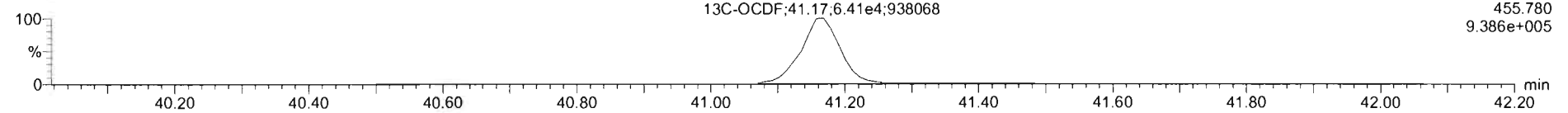


**13C-OCDF**

200820D1\_17

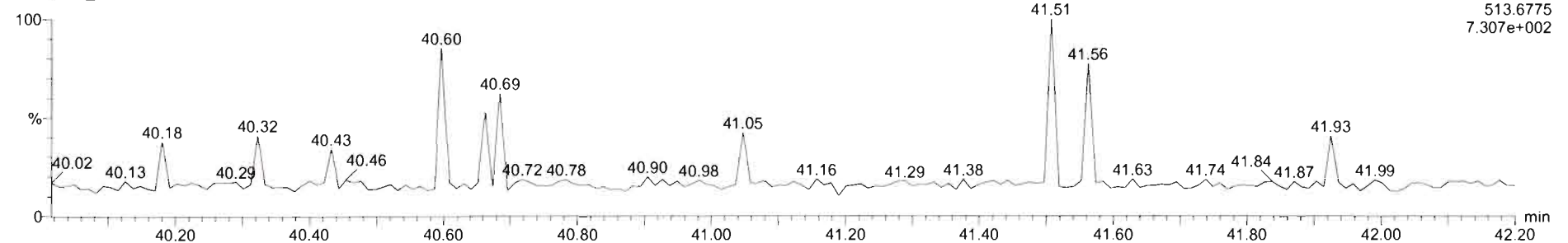


200820D1\_17



**DPE5**

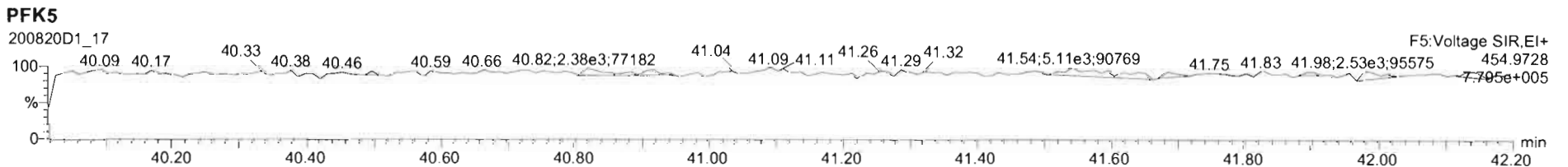
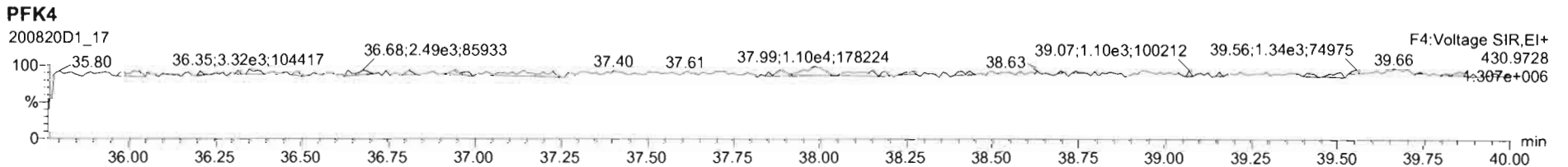
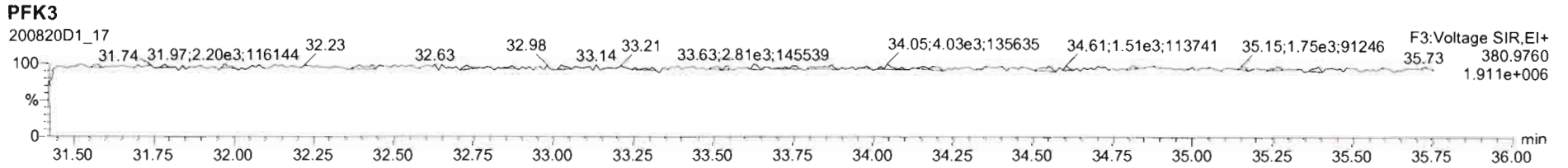
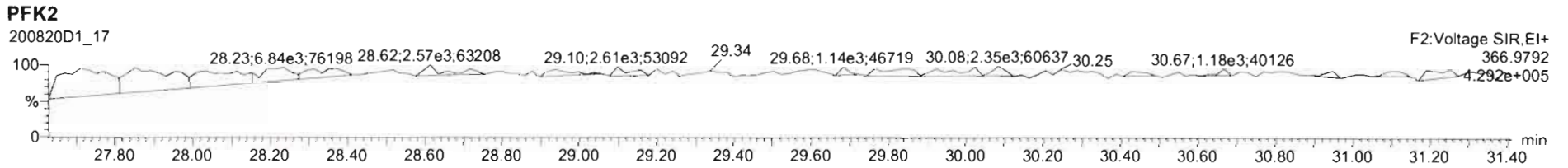
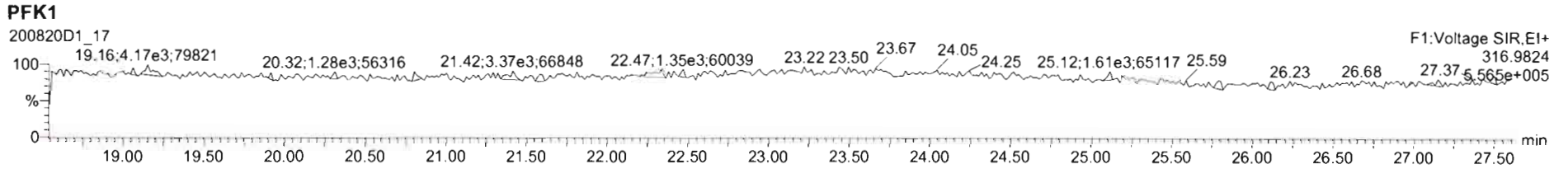
200820D1\_17



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_17.qld

Last Altered: Friday, August 21, 2020 10:40:36 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:42:20 Pacific Daylight Time

Name: 200820D1\_17, Date: 21-Aug-2020, Time: 01:01:19, ID: 2001131-05 PDI-166SC-A-03-04-200520 12.2, Description: PDI-166SC-A-03-04-200520





Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Monday, August 24, 2020 13:25:59 Pacific Daylight Time  
Printed: Monday, August 24, 2020 13:27:17 Pacific Daylight Time

*DB 8/24/20 CT 08/25/2020*

Method: Untitled 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

#	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	1.08	10.060	26.265		1.001				0.153	
2	2 1,2,3,7,8-PeCDD	1.38e2	0.55	NO	0.991	10.060	30.528	30.53	1.001	1.001	0.28697		0.212	0.287
3	3 1,2,3,4,7,8-HxCDD	1.63e2	1.00	YES	1.04	10.060	33.815	33.83	1.000	1.001	0.47118		0.400	0.425
4	4 1,2,3,6,7,8-HxCDD	8.31e2	1.10	NO	0.908	10.060	33.926	33.94	1.000	1.000	2.3017		0.431	2.30
5	5 1,2,3,7,8,9-HxCDD	3.65e2	1.16	NO	0.923	10.060	34.245	34.23	1.001	1.001	1.0121		0.417	1.01
6	6 1,2,3,4,6,7,8-HpCDD	9.84e3	0.96	NO	0.926	10.060	37.580	37.58	1.000	1.000	34.381		0.918	34.4
7	7 OCDD	6.76e4	0.87	NO	0.834	10.060	40.850	40.86	1.000	1.000	333.97		0.567	334
8	8 2,3,7,8-TCDF	7.96e2	0.81	NO	0.882	10.060	25.633	25.62	1.001	1.001	1.0982		0.180	1.10
9	9 1,2,3,7,8-PeCDF	1.04e3	1.56	NO	0.937	10.060	29.382	29.38	1.001	1.001	1.4520		0.176	1.45
10	10 2,3,4,7,8-PeCDF	7.44e2	1.32	NO	1.03	10.060	30.336	30.33	1.001	1.001	0.99274		0.159	0.993
11	11 1,2,3,4,7,8-HxCDF	1.46e3	1.14	NO	1.07	10.060	32.883	32.89	1.000	1.000	2.9355		0.187	2.94
12	12 1,2,3,6,7,8-HxCDF	4.53e2	1.20	NO	1.11	10.060	33.036	33.03	1.000	1.000	0.84566		0.184	0.846
13	13 2,3,4,6,7,8-HxCDF	2.48e2	1.06	NO	1.11	10.060	33.719	33.71	1.001	1.001	0.50997		0.210	0.510
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.060	34.727		1.000				0.250	
15	15 1,2,3,4,6,7,8-HpCDF	2.27e3	1.10	NO	1.15	10.060	36.420	36.39	1.001	1.000	5.2958		0.245	5.30
16	16 1,2,3,4,7,8,9-HpCDF	3.53e2	0.92	NO	1.25	10.060	38.238	38.25	1.000	1.000	1.1059		0.319	1.11
17	17 OCDF	5.09e3	0.89	NO	0.961	10.060	41.179	41.18	1.000	1.000	18.976		0.301	19.0
18	18 13C-2,3,7,8-TCDD	1.15e5	0.77	NO	1.20	10.060	26.257	26.23	1.026	1.025	186.09	93.6	0.571	
19	19 13C-1,2,3,7,8-PeCDD	9.63e4	0.63	NO	0.910	10.060	30.521	30.51	1.193	1.192	205.32	103	0.351	
20	20 13C-1,2,3,4,7,8-HxCDD	6.62e4	1.32	NO	0.789	10.060	33.800	33.81	1.014	1.014	179.43	90.3	1.20	
21	21 13C-1,2,3,6,7,8-HxCDD	7.90e4	1.34	NO	0.885	10.060	33.910	33.93	1.017	1.018	190.90	96.0	1.07	
22	22 13C-1,2,3,7,8,9-HxCDD	7.76e4	1.32	NO	0.888	10.060	34.180	34.21	1.025	1.026	186.78	93.9	1.06	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.14e4	1.04	NO	0.740	10.060	37.633	37.57	1.129	1.127	177.67	89.4	1.47	
24	24 13C-OCDD	9.65e4	0.92	NO	0.660	10.060	40.646	40.85	1.219	1.226	312.65	78.6	0.557	
25	25 13C-2,3,7,8-TCDF	1.63e5	0.78	NO	1.09	10.060	25.336	25.61	0.990	1.001	166.79	83.9	0.605	
26	26 13C-1,2,3,7,8-PeCDF	1.52e5	1.68	NO	0.857	10.060	29.577	29.36	1.156	1.147	196.41	98.8	0.577	
27	27 13C-2,3,4,7,8-PeCDF	1.45e5	1.60	NO	0.796	10.060	30.480	30.31	1.191	1.184	202.56	102	0.621	
28	28 13C-1,2,3,4,7,8-HxCDF	9.19e4	0.49	NO	1.02	10.060	32.933	32.88	0.988	0.986	192.64	96.9	0.943	
29	29 13C-1,2,3,6,7,8-HxCDF	9.57e4	0.49	NO	1.00	10.060	33.066	33.03	0.992	0.991	204.11	103	0.959	
30	30 13C-2,3,4,6,7,8-HxCDF	8.69e4	0.50	NO	0.936	10.060	33.636	33.69	1.009	1.011	198.58	99.9	1.03	
31	31 13C-1,2,3,7,8,9-HxCDF	7.93e4	0.50	NO	0.889	10.060	34.713	34.73	1.041	1.042	190.71	95.9	1.08	

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Monday, August 24, 2020 13:25:59 Pacific Daylight Time

Printed: Monday, August 24, 2020 13:27:17 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

	# 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	7.40e4	0.41	NO	0.849	10.060	36.233	36.38	1.087	1.092	186.25	93.7	1.12	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.06e4	0.42	NO	0.624	10.060	38.233	38.24	1.147	1.147	173.39	87.2	1.52	
34	34 13C-OCDF	1.11e5	0.88	NO	0.693	10.060	40.800	41.18	1.224	1.235	342.60	86.2	0.761	
35	35 37Cl-2,3,7,8-TCDD	4.24e4			1.28	10.060	26.255	26.25	1.026	1.026	64.436	81.0	0.134	
36	36 13C-1,2,3,4-TCDD	1.02e5	0.80	NO	1.00	10.060	25.550	25.59	1.000	1.000	198.81	100	0.687	
37	37 13C-1,2,3,4-TCDF	1.79e5	0.76	NO	1.00	10.060	24.250	24.31	1.000	1.000	198.81	100	0.658	
38	38 13C-1,2,3,4,6,9-HxCDF	9.30e4	0.51	NO	1.00	10.060	33.300	33.33	1.000	1.000	198.81	100	0.962	
39	39 Total Tetra-Dioxins				1.08	10.060	24.620		0.000				0.0890	
40	40 Total Penta-Dioxins				0.991	10.060	29.960		0.000		1.1598		0.212	1.86
41	41 Total Hexa-Dioxins				0.908	10.060	33.635		0.000		14.106		0.437	14.5
42	42 Total Hepta-Dioxins				0.926	10.060	37.640		0.000		73.948		0.918	73.9
43	43 Total Tetra-Furans				0.882	10.060	23.610		0.000		3.3013		0.180	4.73
44	44 1st Func. Penta-Furans				0.937	10.060	26.750		0.000		2.2357		0.0550	2.24
45	45 Total Penta-Furans				0.937	10.060	29.275		0.000		4.7136		0.175	5.58
46	46 Total Hexa-Furans				1.11	10.060	33.555		0.000		12.436		0.205	12.4
47	47 Total Hepta-Furans				1.15	10.060	37.835		0.000		15.534		0.286	15.5

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Monday, August 24, 2020 13:25:59 Pacific Daylight Time

Printed: Monday, August 24, 2020 13:27:17 Pacific Daylight Time

Method: Untitled 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.48	1.970e3	3.711e3	1.296e2	2.510e2	0.52	YES	0.000e0	0.00000	0.69840	0.212
2	Total Penta-Dioxins	29.54	1.321e3	2.290e3	1.050e2	1.470e2	0.71	NO	2.520e2	0.52480	0.52480	0.212
3	Total Penta-Dioxins	29.82	1.517e3	2.471e3	6.149e1	1.056e2	0.58	NO	1.671e2	0.34803	0.34803	0.212
4	1,2,3,7,8-PeCDD	30.53	1.175e3	2.002e3	4.894e1	8.887e1	0.55	NO	1.378e2	0.28697	0.28697	0.212

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.15	1.577e4	1.618e4	8.436e2	6.711e2	1.26	NO	1.515e3	4.4646	4.4646	0.437
2	Total Hexa-Dioxins	32.75	2.596e3	2.486e3	1.236e2	1.087e2	1.14	NO	2.324e2	0.68492	0.68492	0.437
3	Total Hexa-Dioxins	33.05	2.466e4	1.641e4	1.077e3	8.373e2	1.29	NO	1.914e3	5.6422	5.6422	0.437
4	1,2,3,4,7,8-HxCDD	33.83	1.656e3	1.565e3	8.148e1	8.163e1	1.00	YES	1.631e2	0.00000	0.42521	0.400
5	1,2,3,6,7,8-HxCDD	33.94	8.185e3	7.353e3	4.357e2	3.951e2	1.10	NO	8.308e2	2.3017	2.3017	0.431
6	1,2,3,7,8,9-HxCDD	34.23	3.329e3	3.303e3	1.958e2	1.689e2	1.16	NO	3.647e2	1.0121	1.0121	0.417

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.71	9.846e4	1.002e5	5.743e3	5.576e3	1.03	NO	1.132e4	39.567	39.567	0.918
2	1,2,3,4,6,7,8-HpCDD	37.58	8.850e4	9.988e4	4.824e3	5.012e3	0.96	NO	9.836e3	34.381	34.381	0.918

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Monday, August 24, 2020 13:25:59 Pacific Daylight Time

Printed: Monday, August 24, 2020 13:27:17 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	21.54	9.370e2	1.351e3	5.337e1	6.374e1	0.84	NO	1.171e2	0.16165	0.16165	0.180
2	Total Tetra-Furans	22.26	2.428e3	3.141e3	1.700e2	2.234e2	0.76	NO	3.933e2	0.54296	0.54296	0.180
3	Total Tetra-Furans	23.05	2.458e3	3.496e3	1.596e2	2.091e2	0.76	NO	3.687e2	0.50897	0.50897	0.180
4	Total Tetra-Furans	23.41	1.684e3	2.038e3	1.104e2	1.254e2	0.88	NO	0.000e0	0.00000	0.32550	0.180
5	Total Tetra-Furans	23.71	7.550e2	1.299e3	5.858e1	8.252e1	0.71	NO	1.411e2	0.19477	0.19477	0.180
6	Total Tetra-Furans	24.35	2.177e3	2.923e3	1.721e2	2.256e2	0.76	NO	3.977e2	0.54892	0.54892	0.180
7	Total Tetra-Furans	24.78	4.090e3	5.978e3	2.454e2	3.937e2	0.62	YES	0.000e0	0.00000	0.77856	0.180
8	Total Tetra-Furans	25.52	1.728e3	2.483e3	8.183e1	9.628e1	0.85	NO	1.781e2	0.24586	0.24586	0.180
9	2,3,7,8-TCDF	25.62	6.796e3	7.146e3	3.565e2	4.390e2	0.81	NO	7.955e2	1.0982	1.0982	0.180
10	Total Tetra-Furans	25.90	9.040e2	1.745e3	6.191e1	1.093e2	0.57	YES	0.000e0	0.00000	0.19644	0.180
11	Total Tetra-Furans	26.83	1.016e3	1.215e3	4.096e1	7.045e1	0.58	YES	0.000e0	0.00000	0.12998	0.180

**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	1.893e4	1.070e4	9.694e2	5.934e2	1.63	NO	1.563e3	2.2357	2.2357	0.0550

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.35	1.918e3	1.085e3	9.511e1	9.639e1	0.99	YES	0.000e0	0.00000	0.22384	0.175
2	Total Penta-Furans	28.48	1.142e4	5.444e3	6.695e2	3.914e2	1.71	NO	1.061e3	1.5179	1.5179	0.175
3	Total Penta-Furans	29.04	3.527e3	1.858e3	2.396e2	1.319e2	1.82	YES	0.000e0	0.00000	0.48135	0.175
4	Total Penta-Furans	29.20	1.517e3	1.216e3	6.975e1	6.096e1	1.14	YES	0.000e0	0.00000	0.16416	0.175
5	1,2,3,7,8-PeCDF	29.38	1.225e4	7.742e3	6.311e2	4.056e2	1.56	NO	1.037e3	1.4520	1.4520	0.176
6	Total Penta-Furans	29.60	4.407e3	3.931e3	3.003e2	2.247e2	1.34	NO	5.250e2	0.75105	0.75105	0.175
7	2,3,4,7,8-PeCDF	30.33	7.929e3	5.649e3	4.232e2	3.207e2	1.32	NO	7.439e2	0.99274	0.99274	0.159

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Monday, August 24, 2020 13:25:59 Pacific Daylight Time

Printed: Monday, August 24, 2020 13:27:17 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.62	6.423e3	4.893e3	3.161e2	2.379e2	1.33	NO	5.540e2	1.1196	1.1196	0.205
2	Total Hexa-Furans	31.80	1.625e4	1.366e4	8.140e2	6.737e2	1.21	NO	1.488e3	3.0067	3.0067	0.205
3	Total Hexa-Furans	32.41	2.222e4	1.584e4	9.839e2	8.006e2	1.23	NO	1.785e3	3.6067	3.6067	0.205
4	1,2,3,4,7,8-HxCDF	32.89	1.593e4	1.337e4	7.756e2	6.799e2	1.14	NO	1.455e3	2.9355	2.9355	0.187
5	1,2,3,6,7,8-HxCDF	33.03	4.498e3	3.858e3	2.468e2	2.064e2	1.20	NO	4.531e2	0.84566	0.84566	0.184
6	2,3,4,6,7,8-HxCDF	33.71	2.268e3	2.312e3	1.277e2	1.202e2	1.06	NO	2.479e2	0.50997	0.50997	0.210
7	Total Hexa-Furans	34.75	2.360e3	1.952e3	1.194e2	8.450e1	1.41	NO	2.039e2	0.41207	0.41207	0.205

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	36.39	2.143e4	1.732e4	1.191e3	1.081e3	1.10	NO	2.272e3	5.2958	5.2958	0.245
2	Total Hepta-Furans	36.98	2.878e4	3.003e4	1.649e3	1.649e3	1.00	NO	3.298e3	9.1327	9.1327	0.286
3	1,2,3,4,7,8,9-HpCDF	38.25	2.910e3	3.131e3	1.687e2	1.839e2	0.92	NO	3.526e2	1.1059	1.1059	0.319

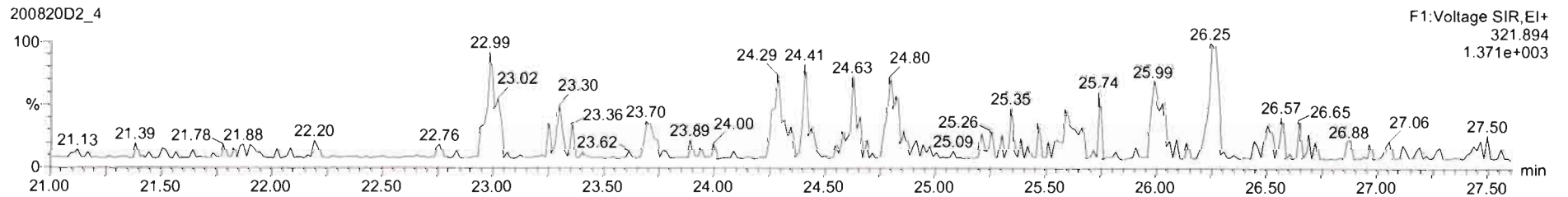
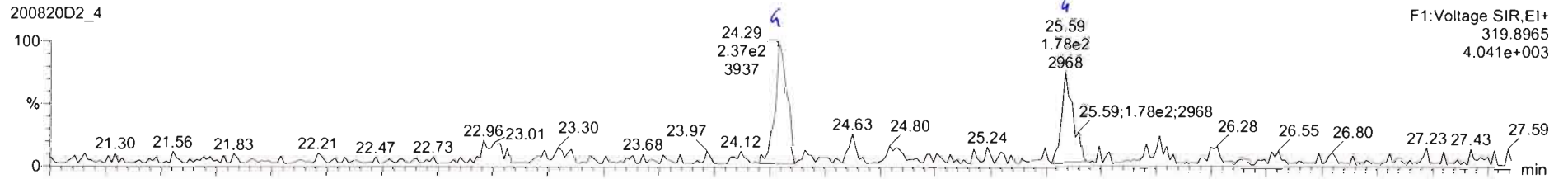
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

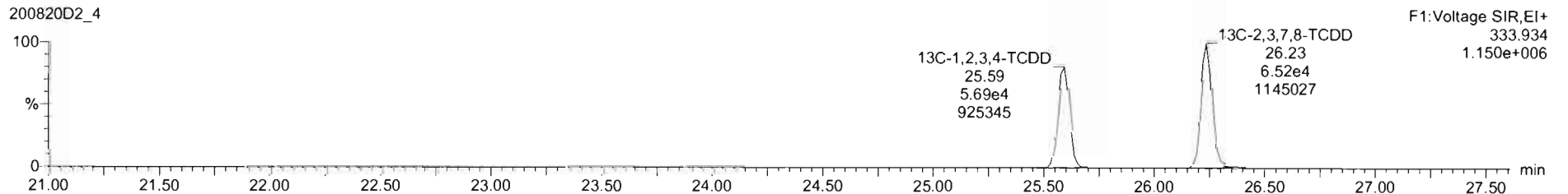
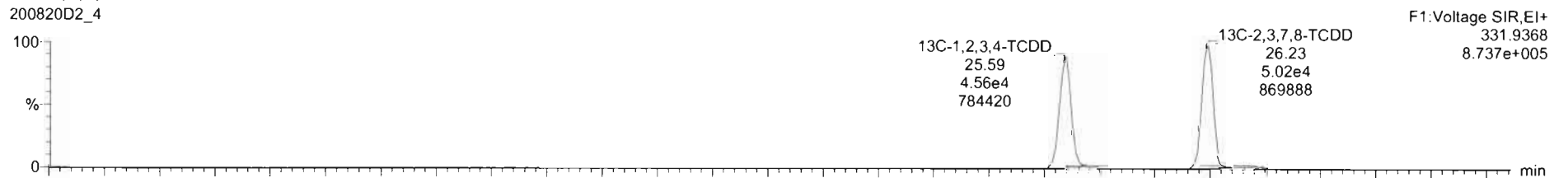
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

2,3,7,8-TCDD



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

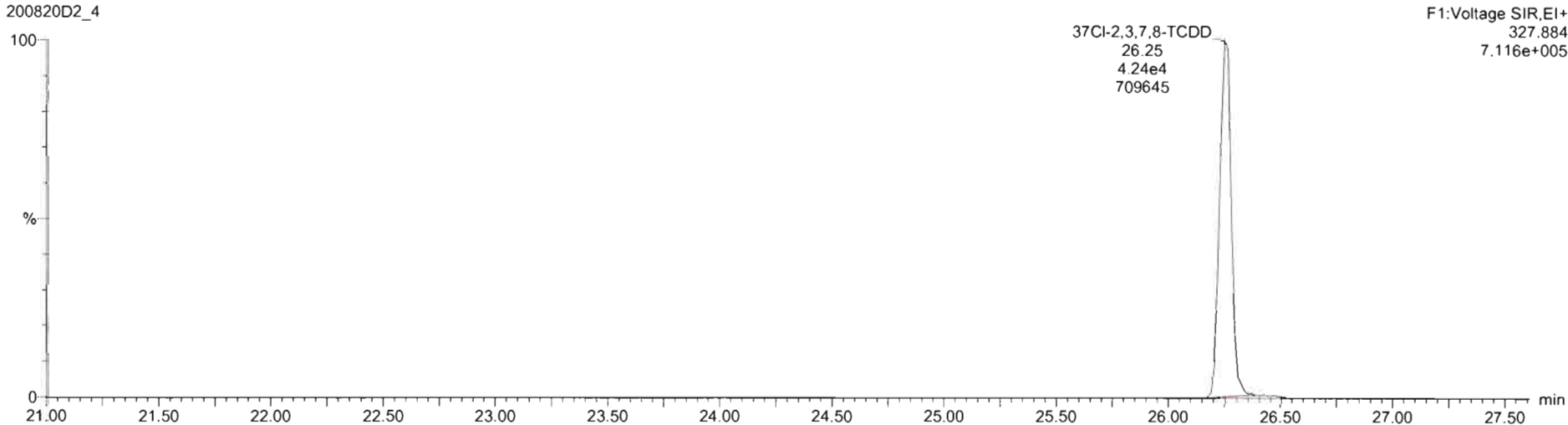


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

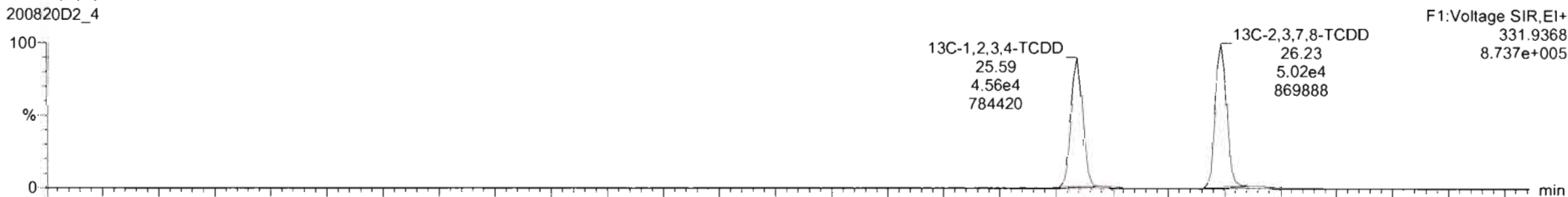
Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

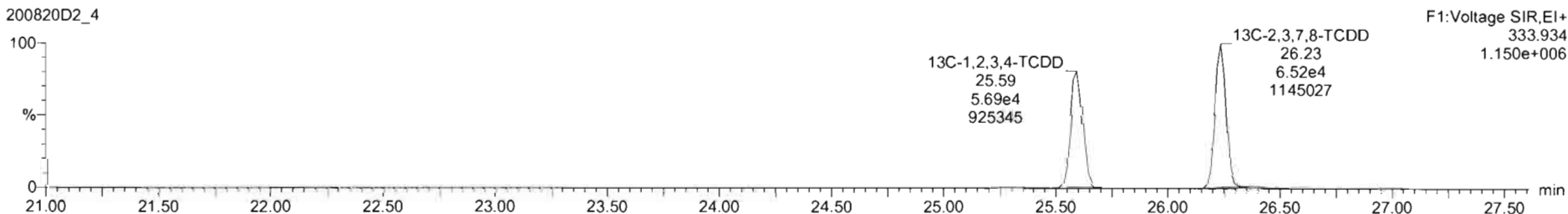
37Cl-2,3,7,8-TCDD  
200820D2\_4



13C-1,2,3,4-TCDD  
200820D2\_4



200820D2\_4

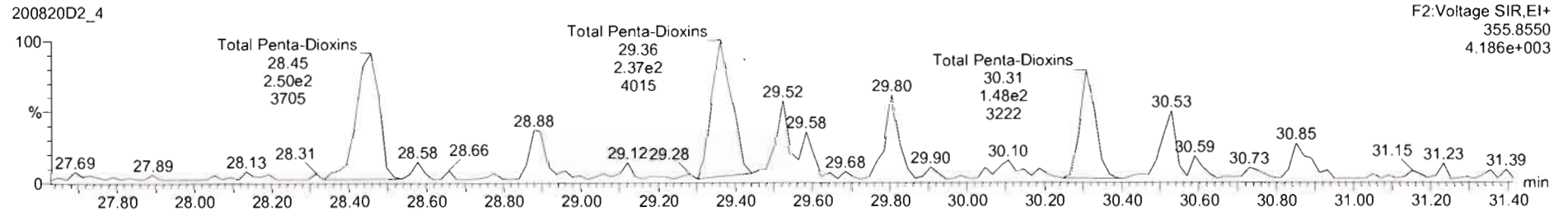
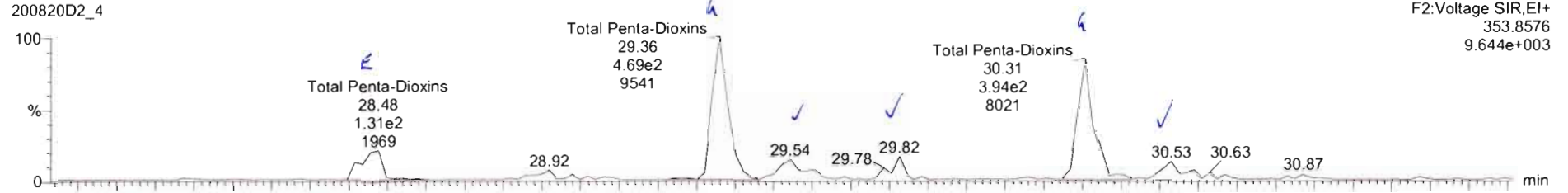


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

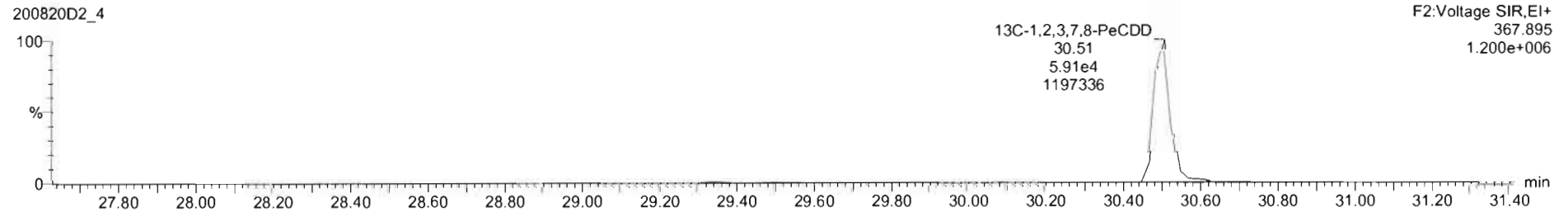
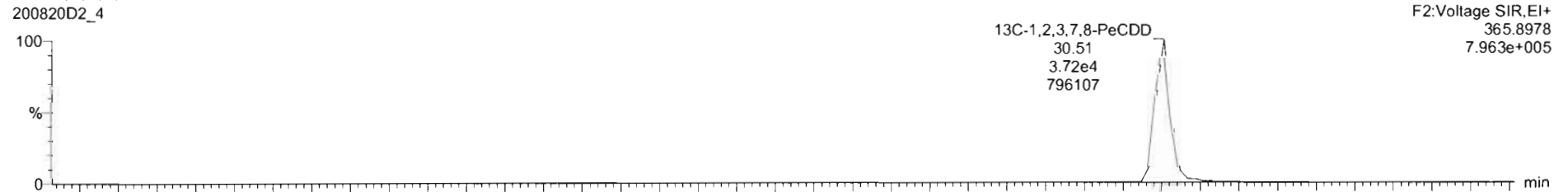
Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

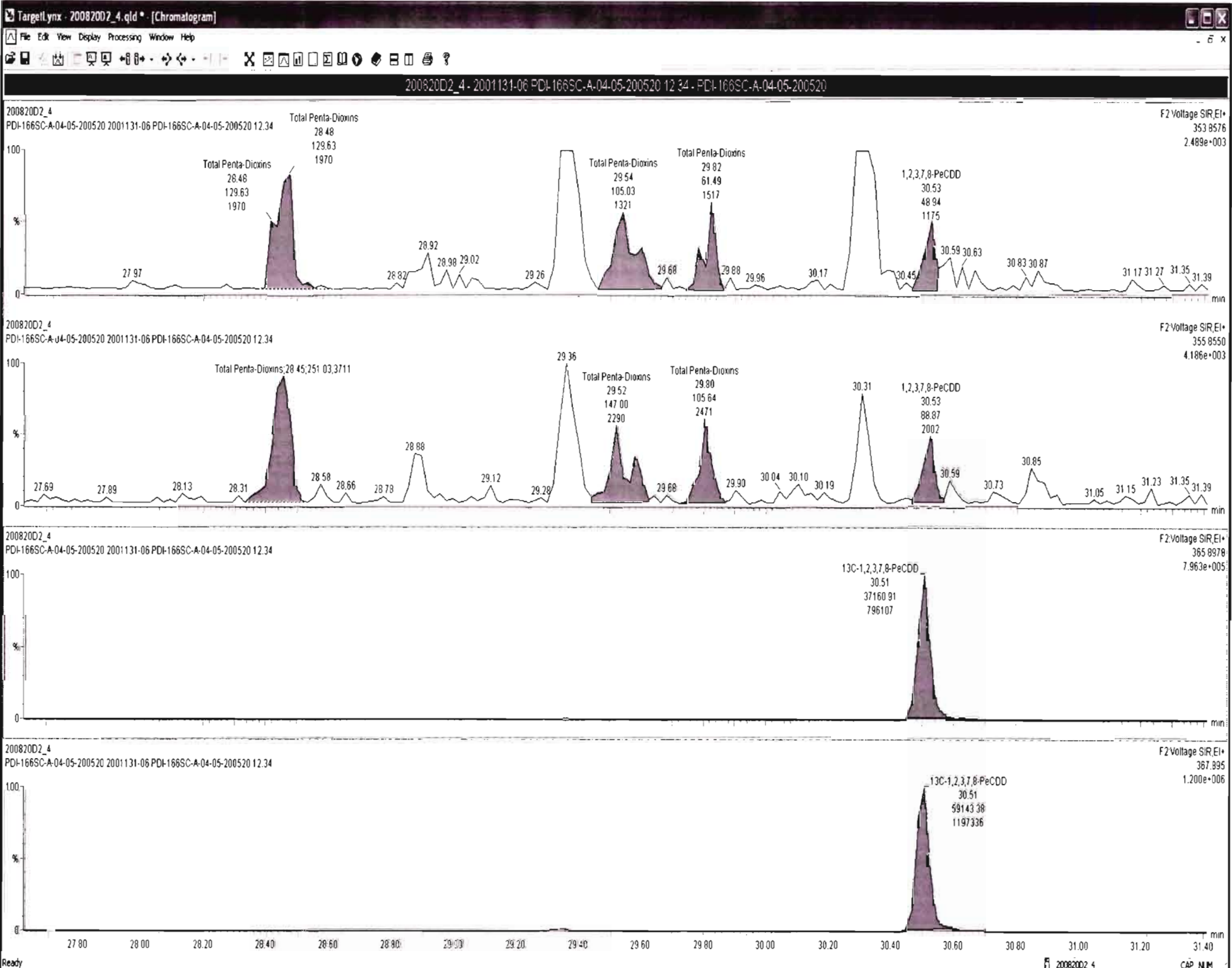
1,2,3,7,8-PeCDD



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





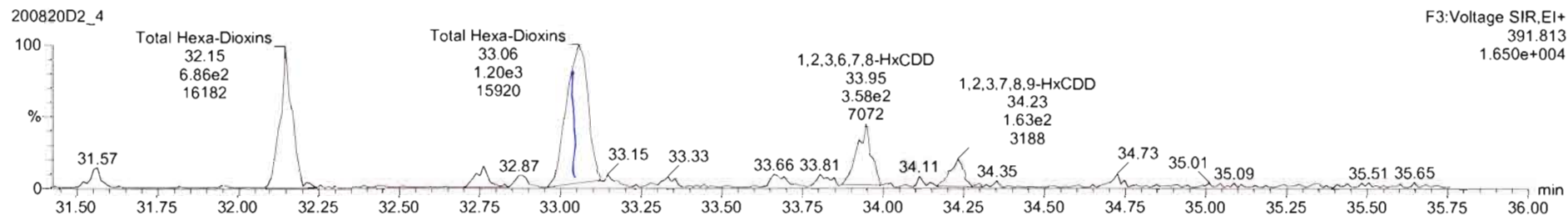
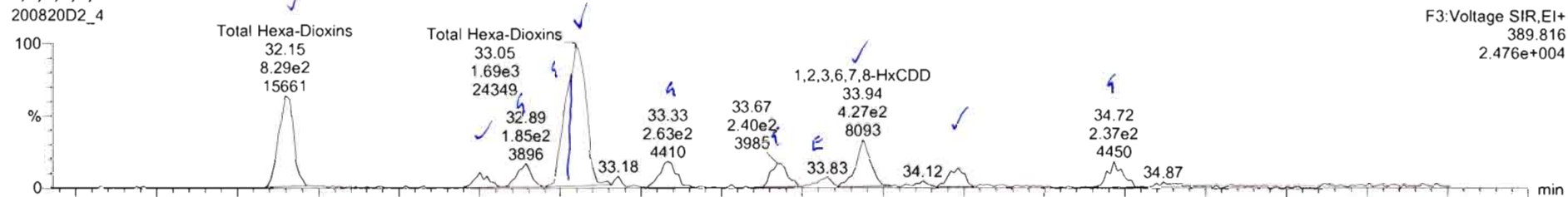


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

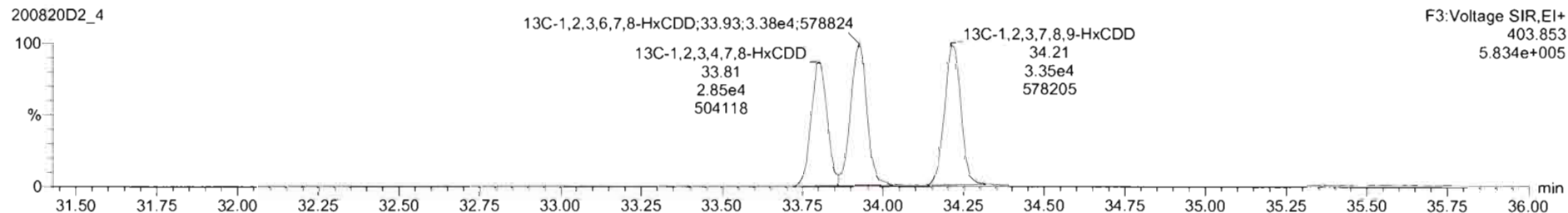
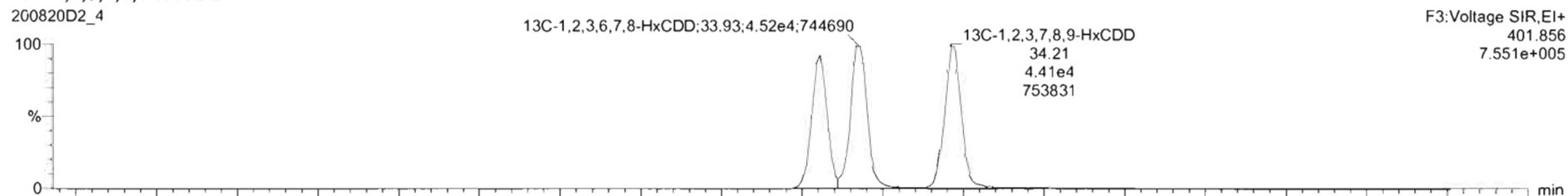
Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

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



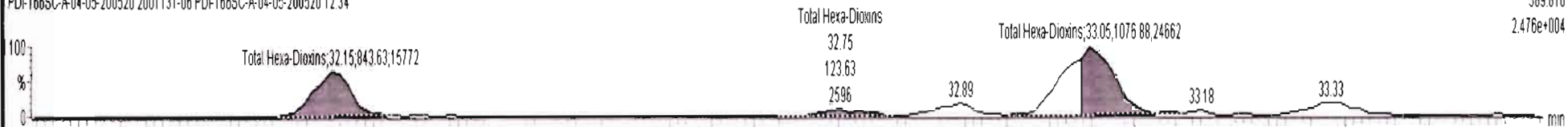
**13C-1,2,3,4,7,8-HxCDD**





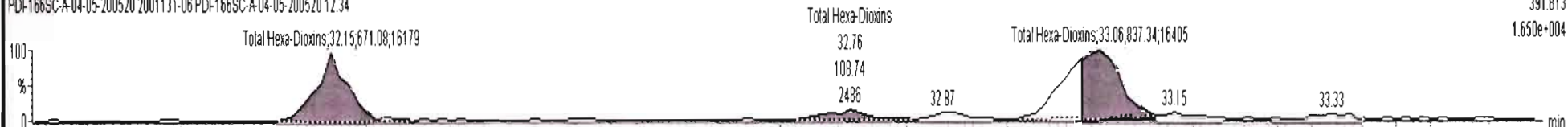
200820D2\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PD-166SC-A-04-05-200520

200820D2\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34



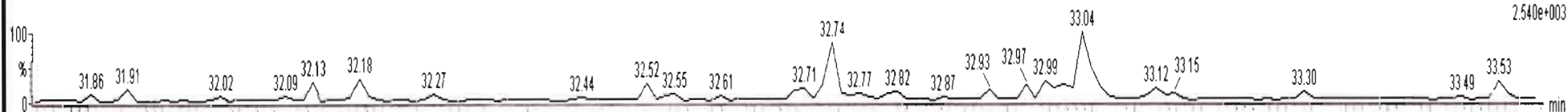
F3:Voltage SIR,EI+  
389.816  
2.476e+004

200820D2\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34



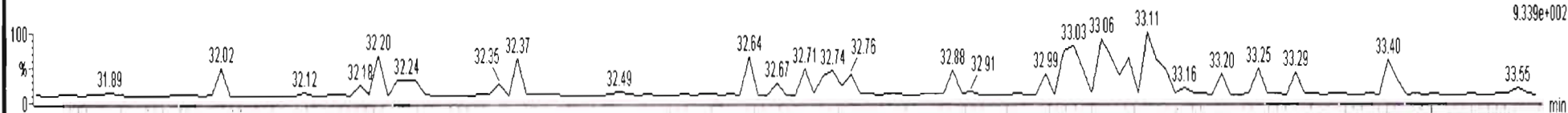
F3:Voltage SIR,EI+  
391.813  
1.650e+004

200820D2\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34



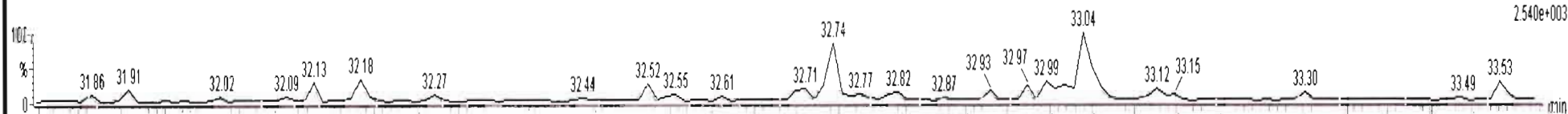
F3:Voltage SIR,EI+  
401.856  
2.540e+003

200820D2\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34



F3:Voltage SIR,EI+  
403.853  
9.339e+002

200820D2\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34



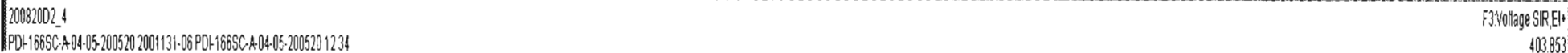
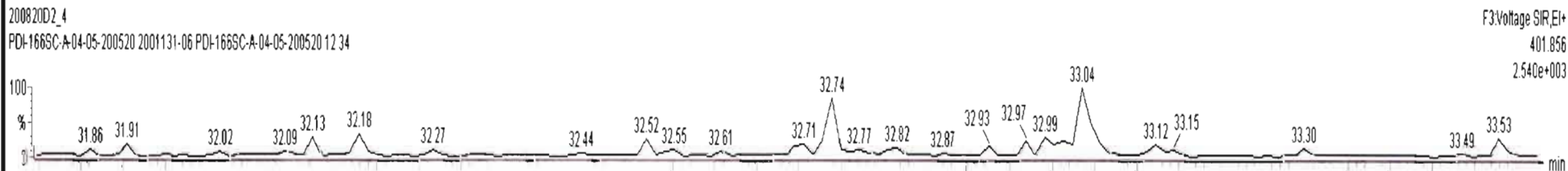
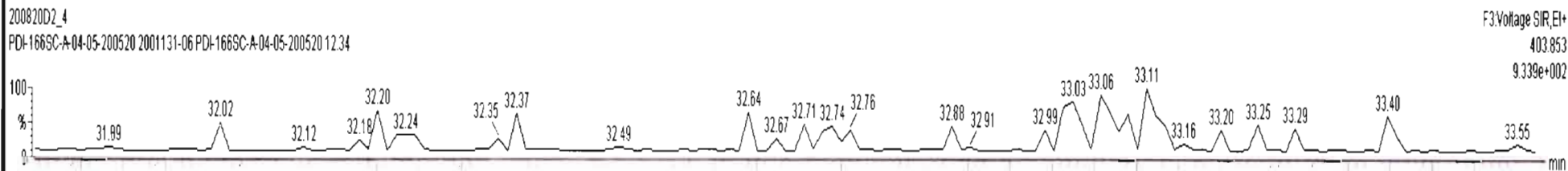
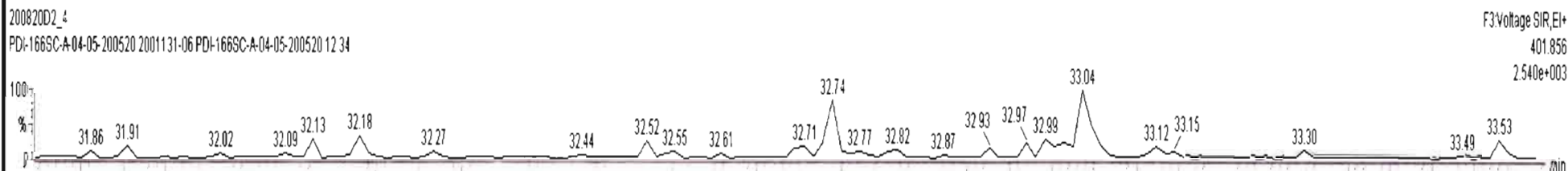
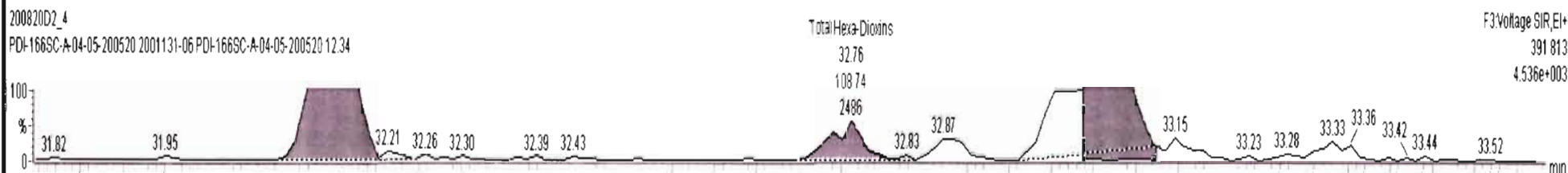
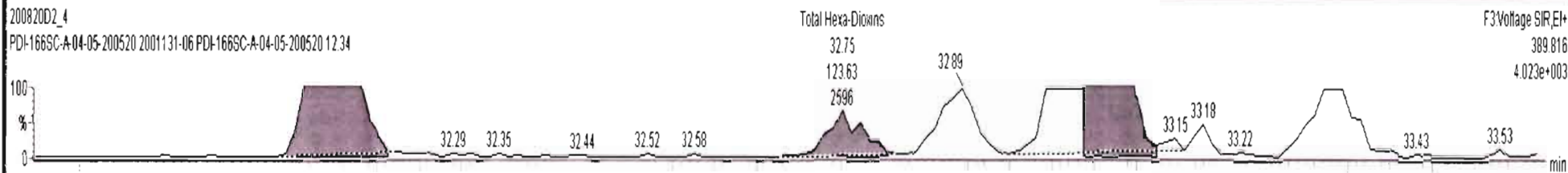
F3:Voltage SIR,EI+  
401.856  
2.540e+003

200820D2\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34

F3:Voltage SIR,EI+  
403.853

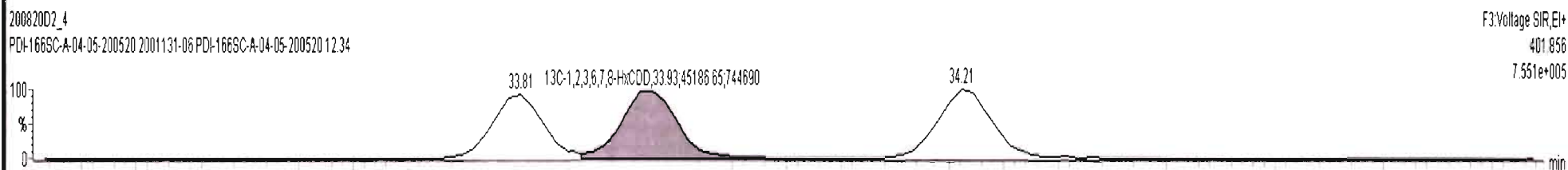
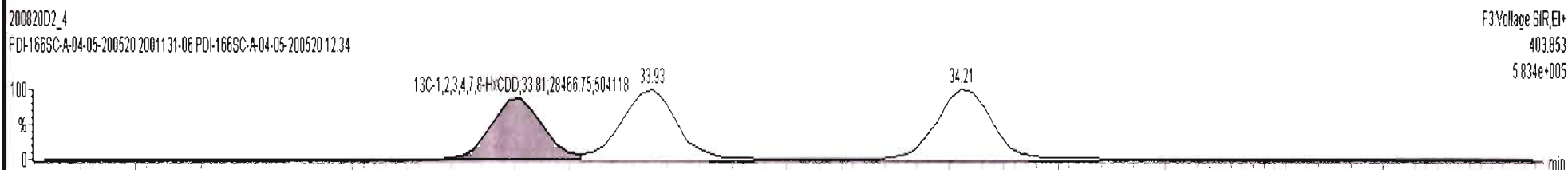
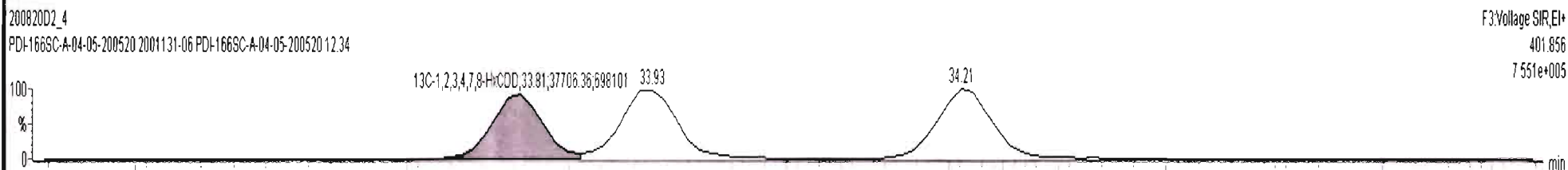
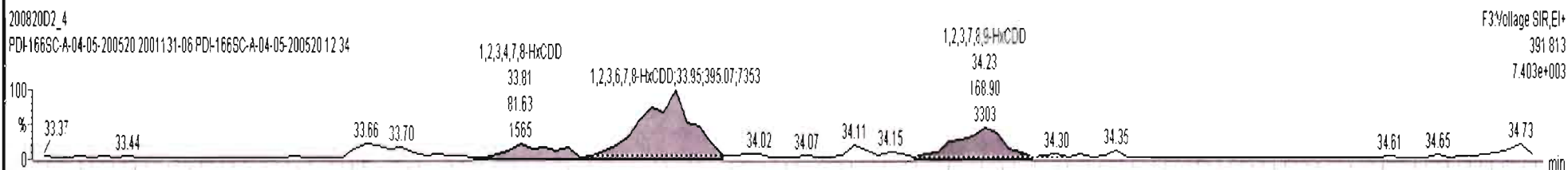
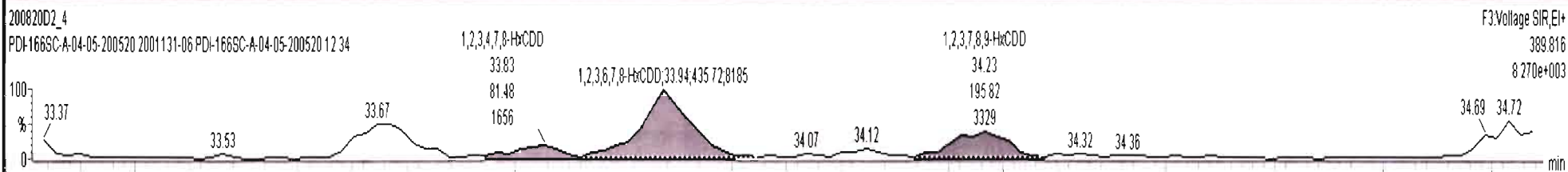


20082002\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PDI-166SC-A-04-05-200520





20082002\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PDI-166SC-A-04-05-200520



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

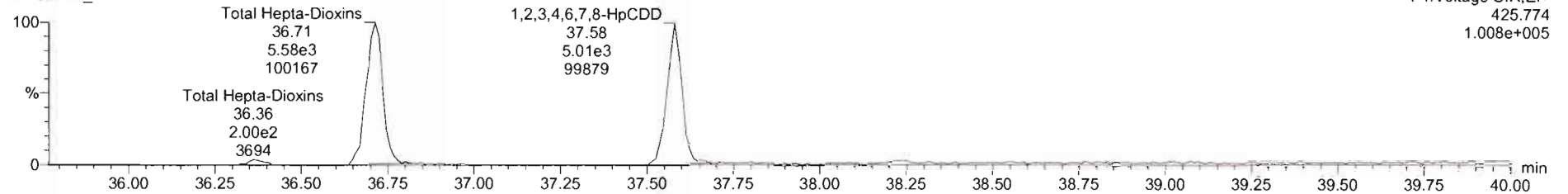
Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

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

200820D2\_4

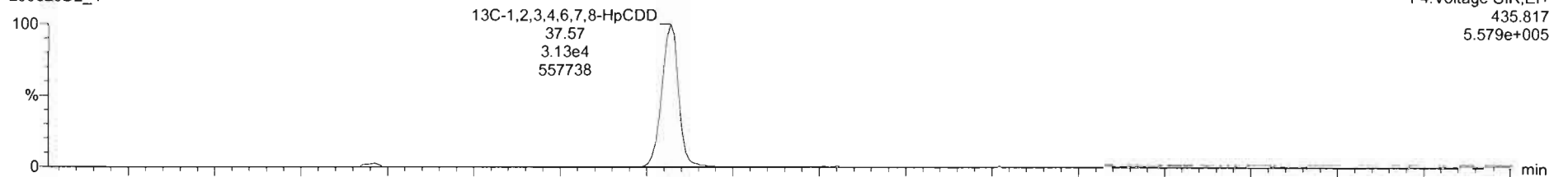


200820D2\_4

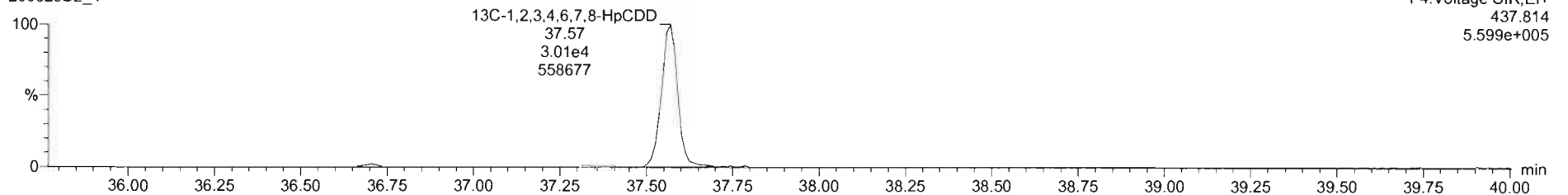


13C-1,2,3,4,6,7,8-HpCDD

200820D2\_4



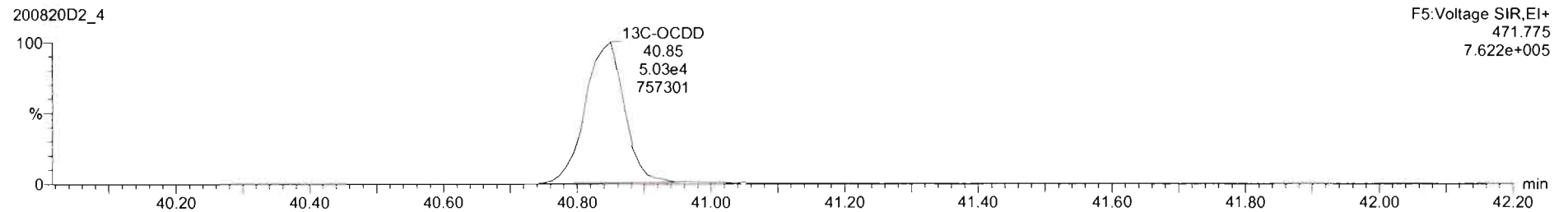
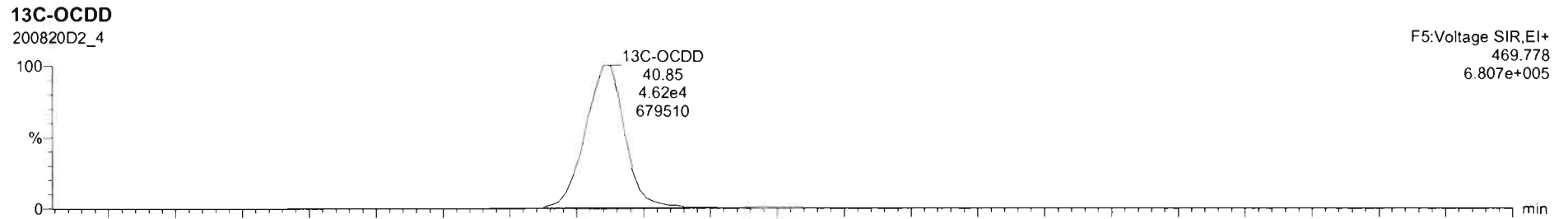
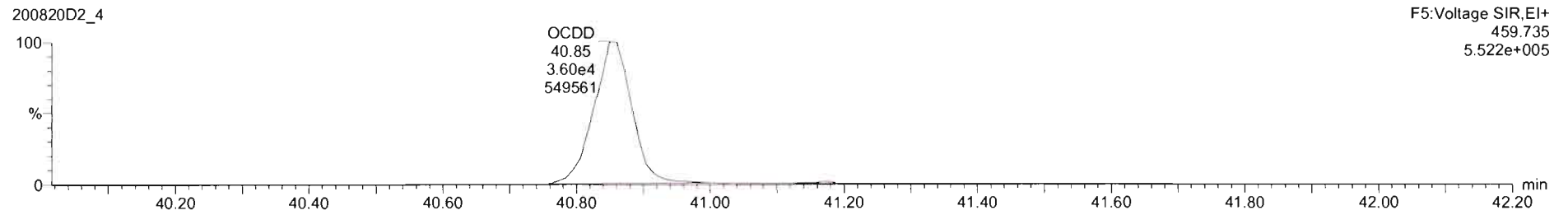
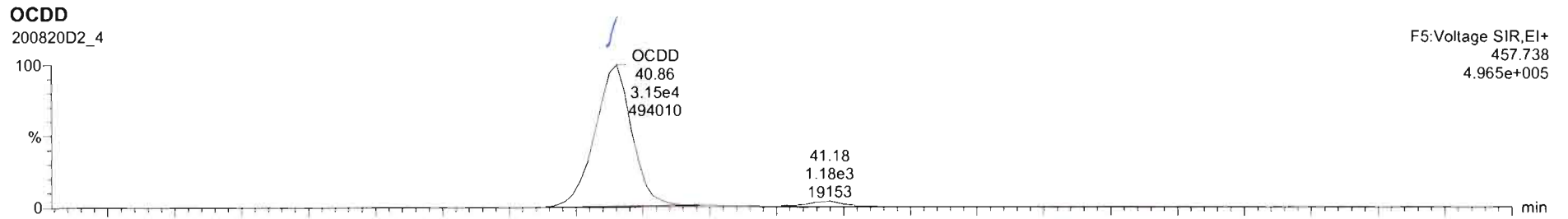
200820D2\_4



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

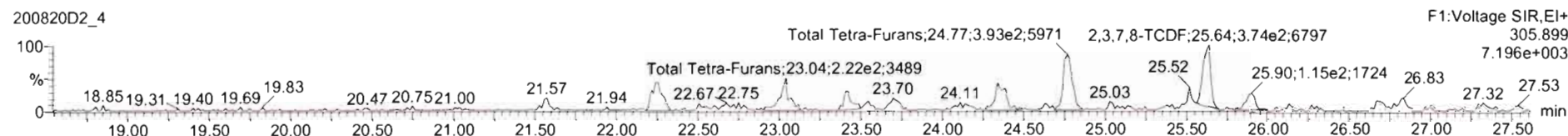
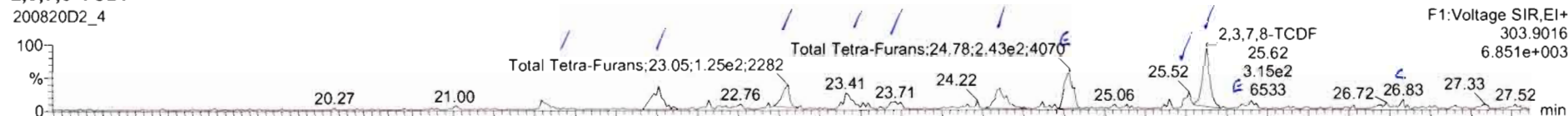


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

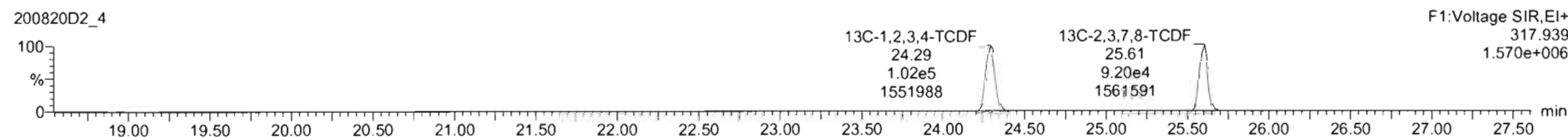
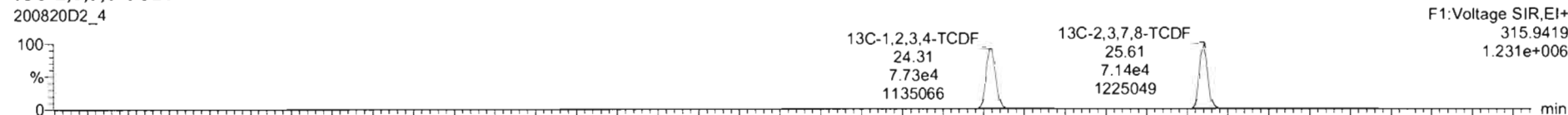
Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

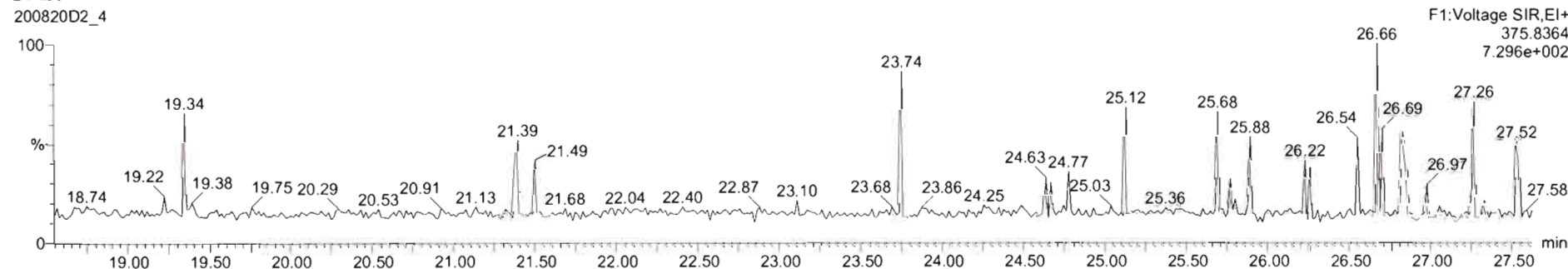
### 2,3,7,8-TCDF



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



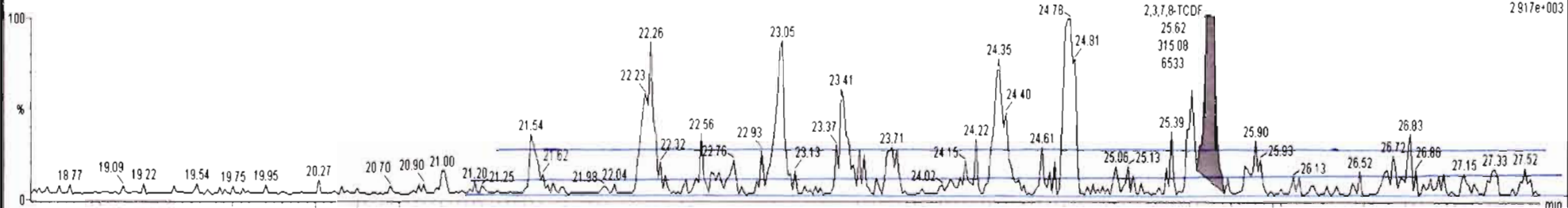
### DPE1





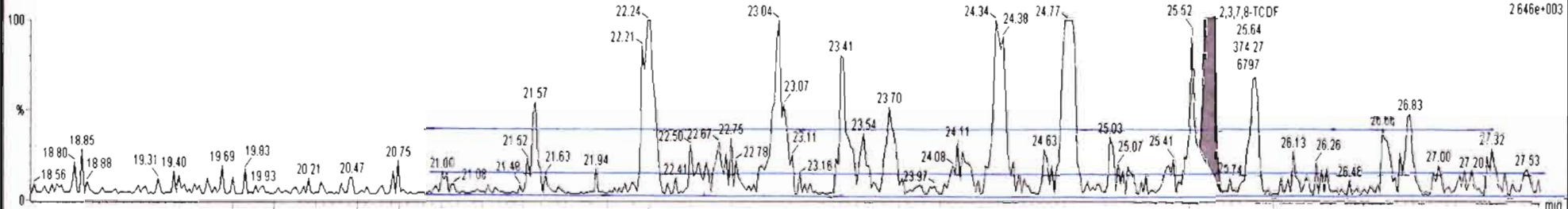
20082002\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12 34

F1:Voltage SIR.EI+  
303 9016  
2 917e+003



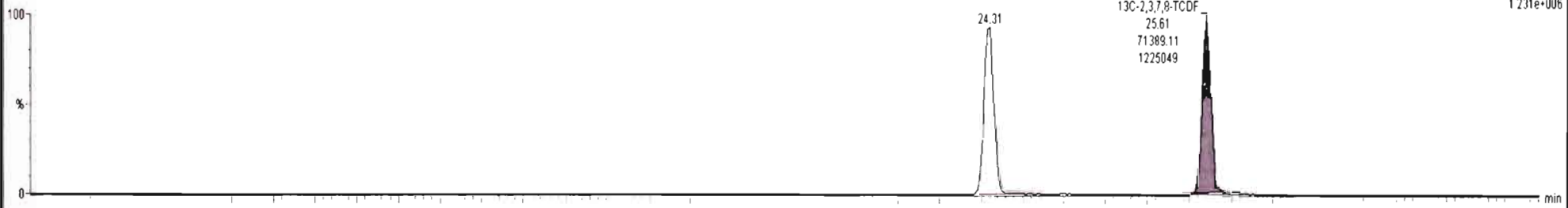
20082002\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12 34

F1:Voltage SIR.EI+  
305 899  
2 646e+003



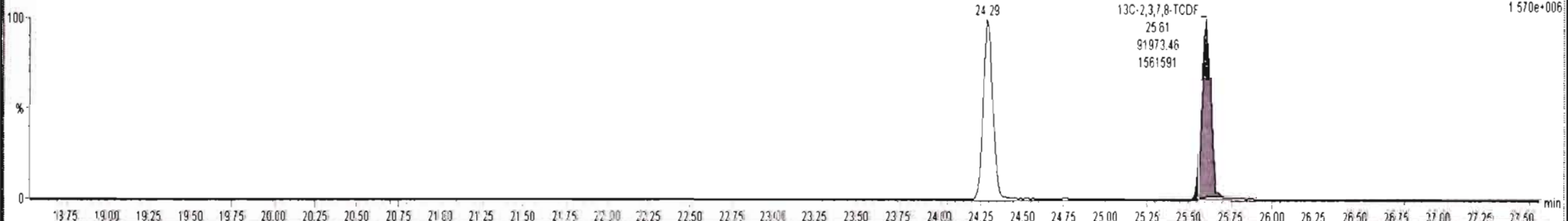
20082002\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12 34

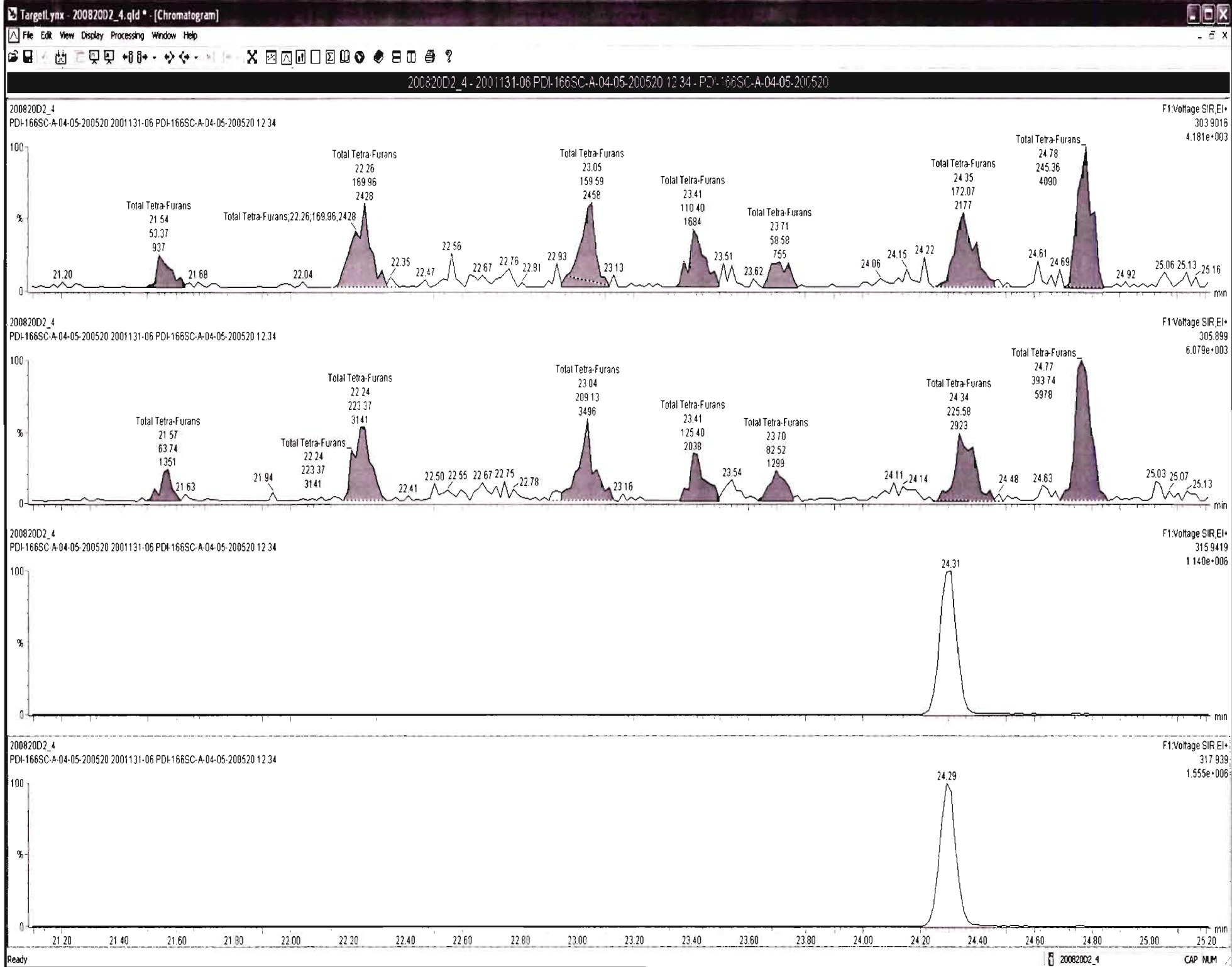
F1:Voltage SIR.EI+  
315 9419  
1 231e+006

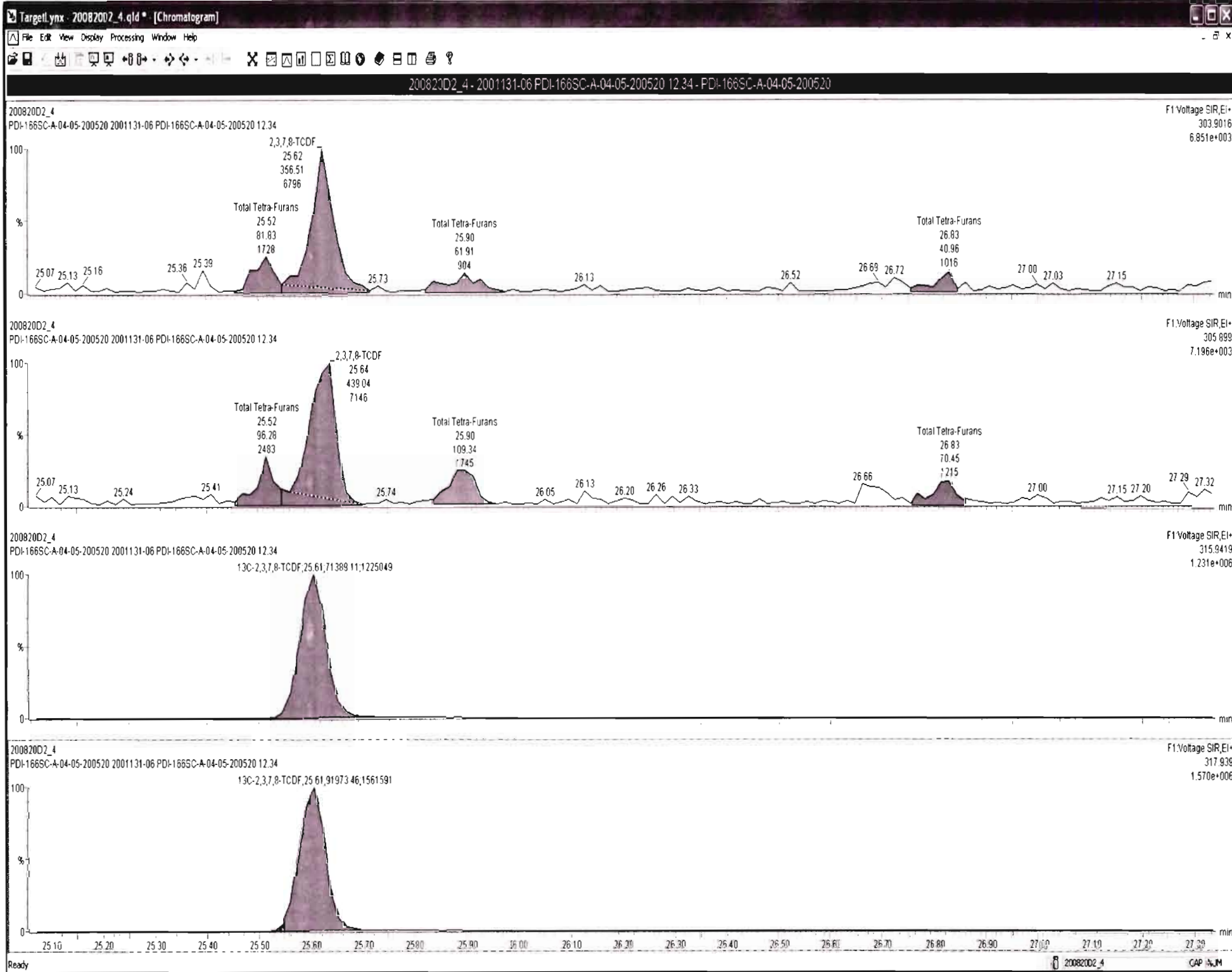


20082002\_4  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12 34

F1:Voltage SIR.EI+  
317 939  
1 570e+006







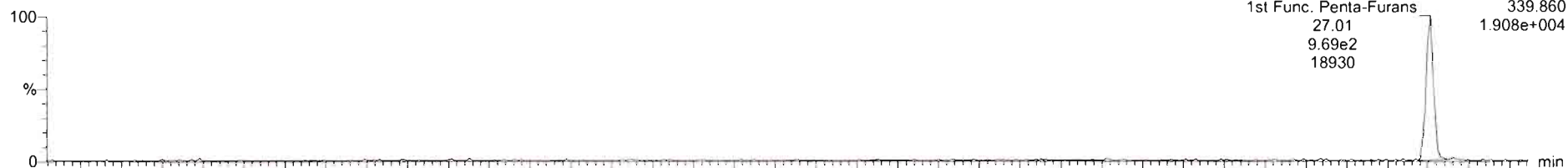
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

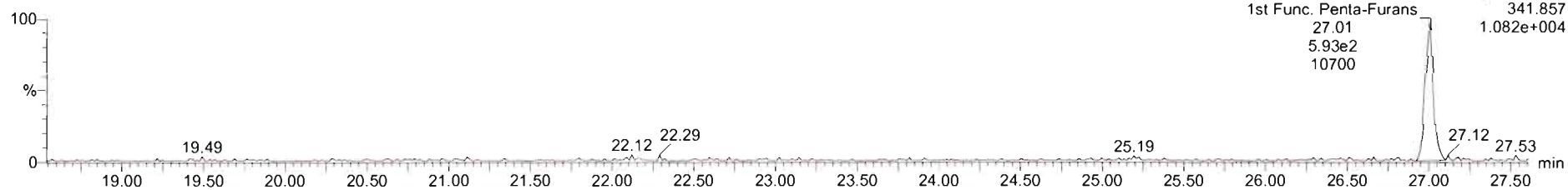
Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

1st Func. Penta-Furans

200820D2\_4

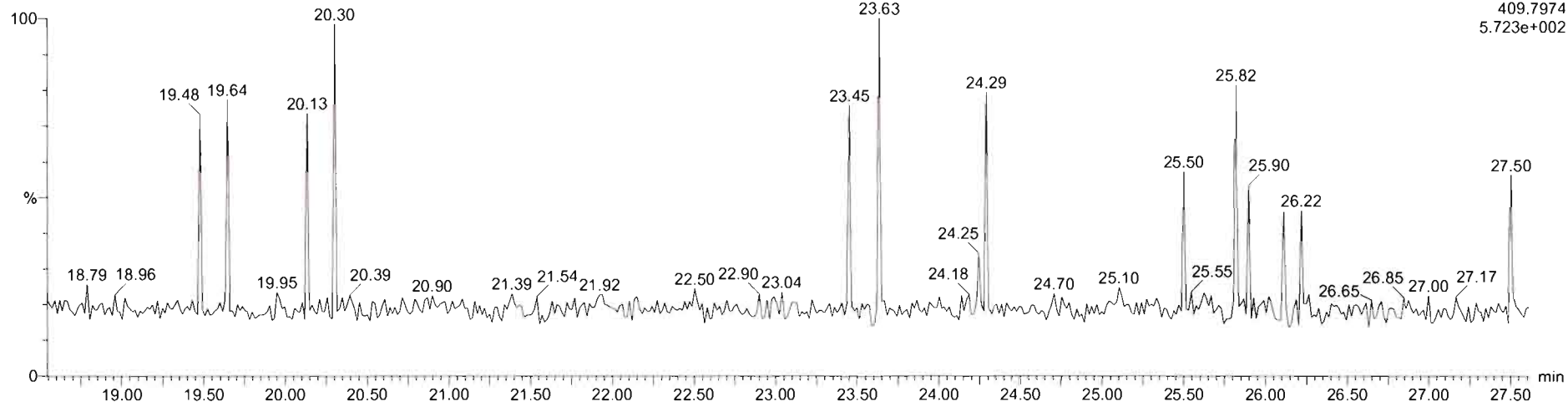


200820D2\_4



DPE6

200820D2\_4

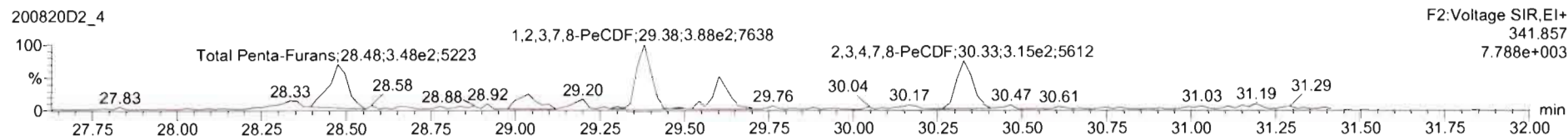
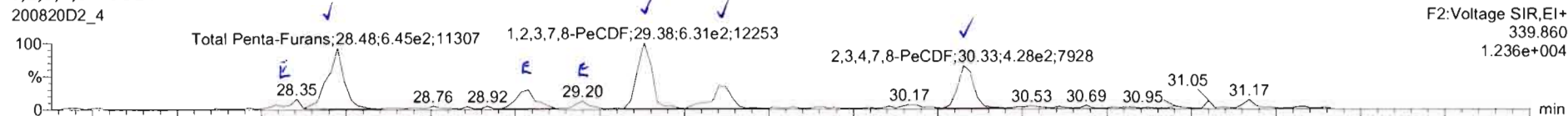


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

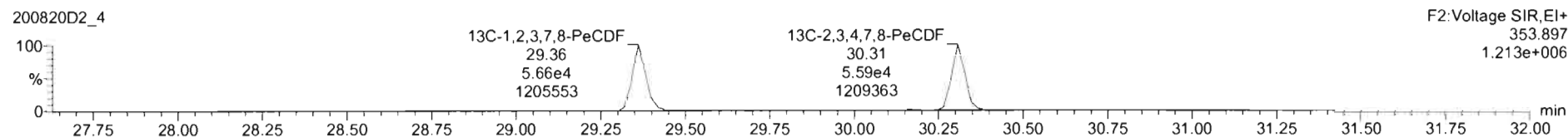
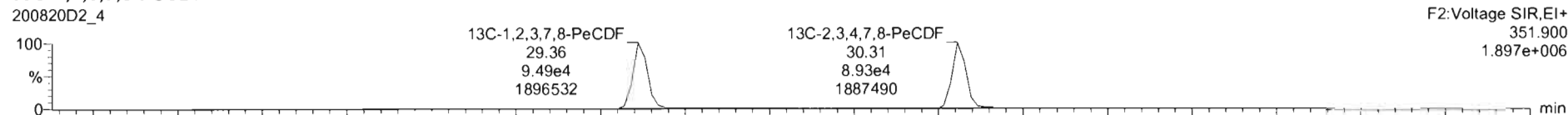
Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

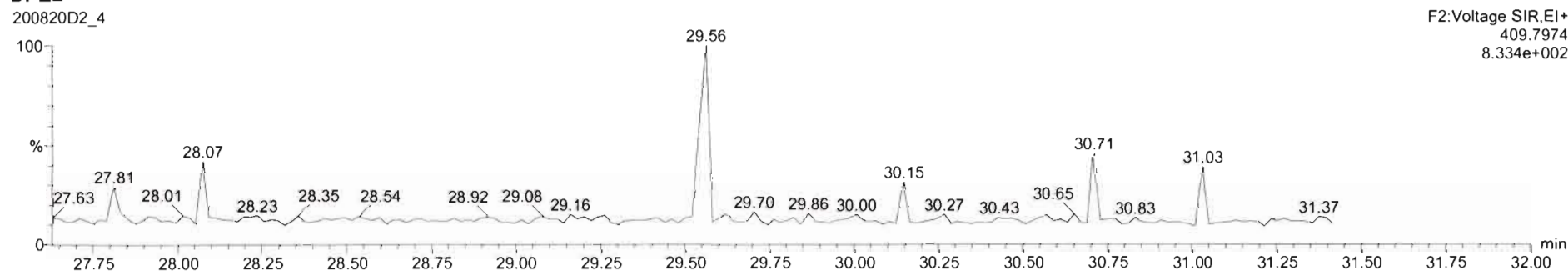
**1,2,3,7,8-PeCDF**



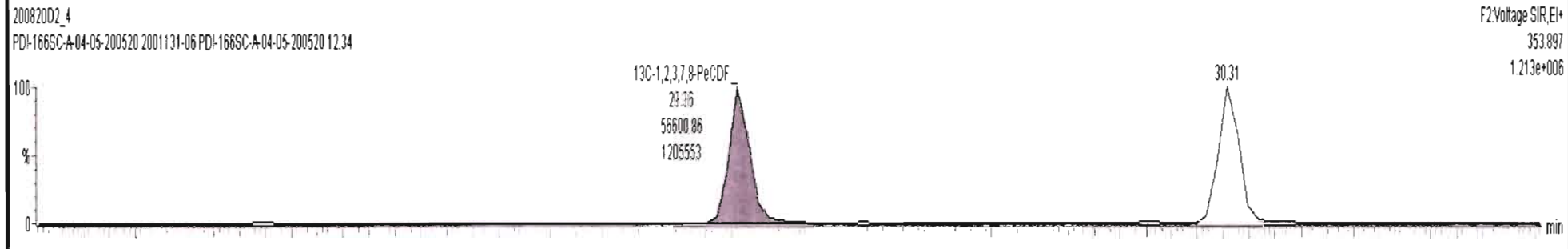
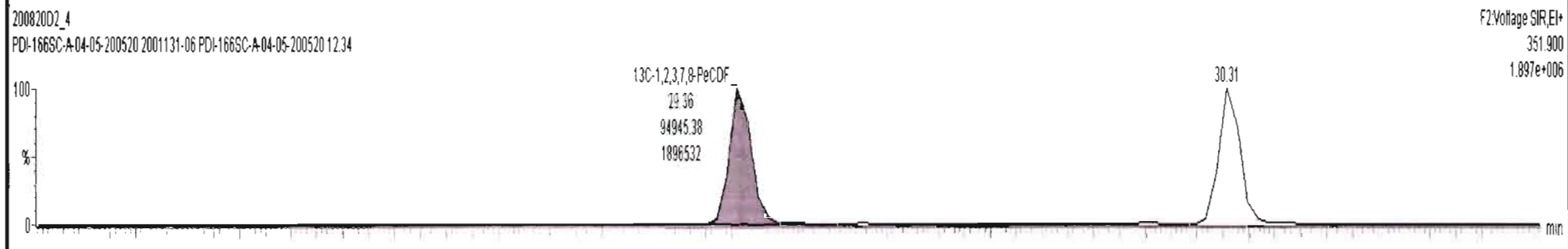
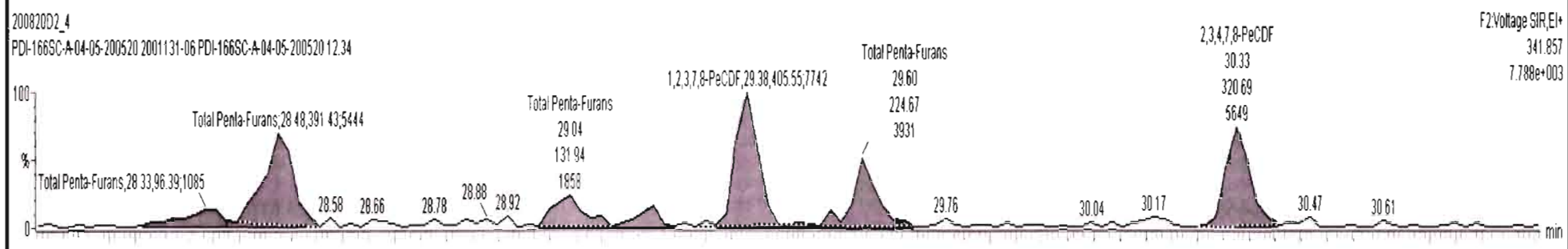
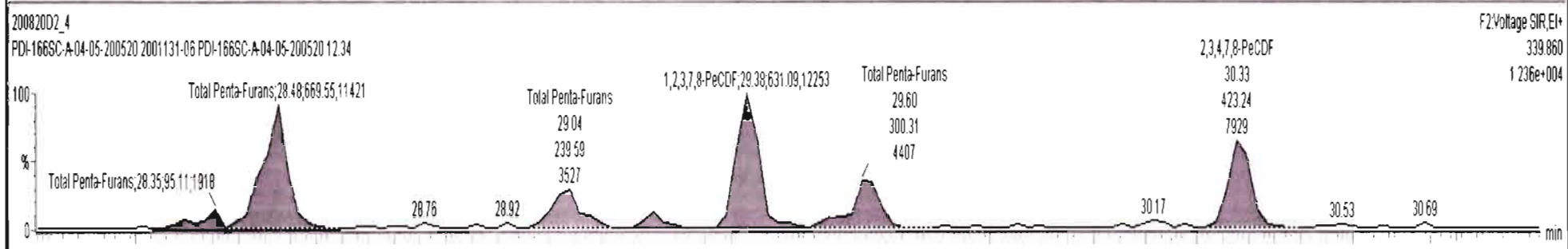
**13C-1,2,3,7,8-PeCDF**



**DPE2**

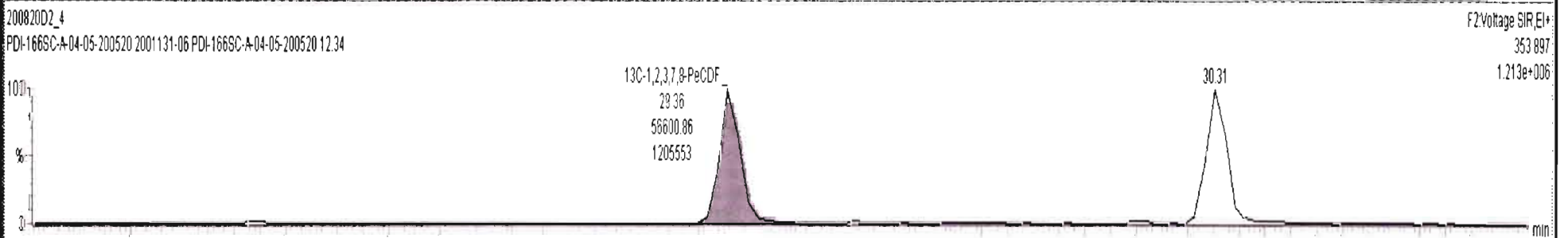
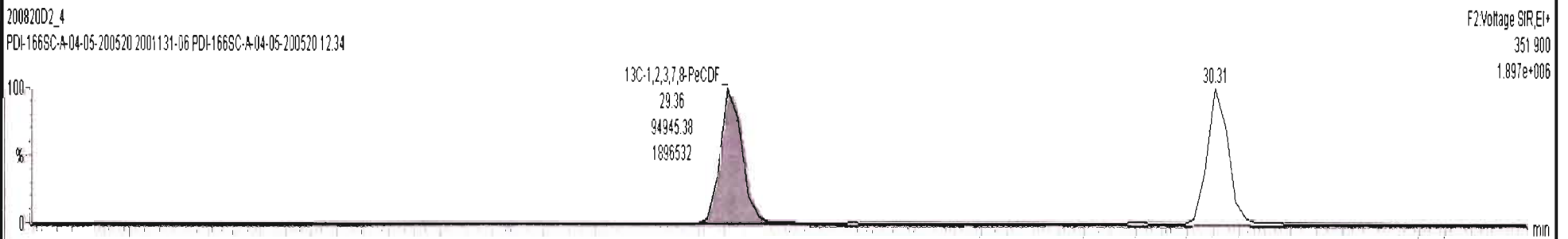
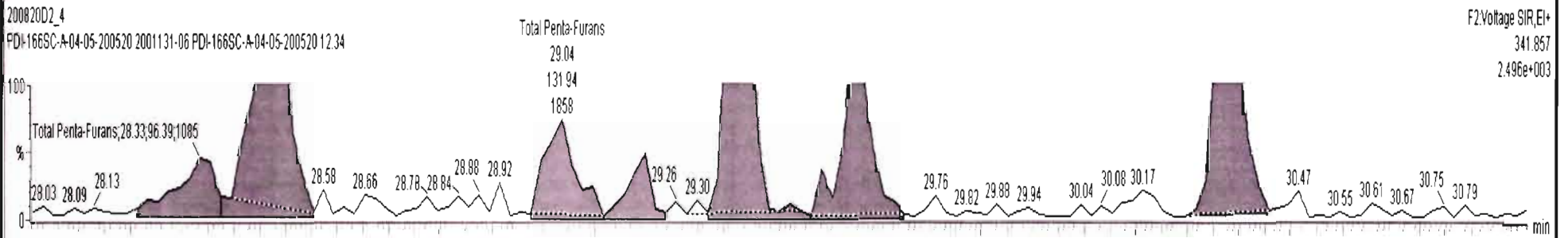
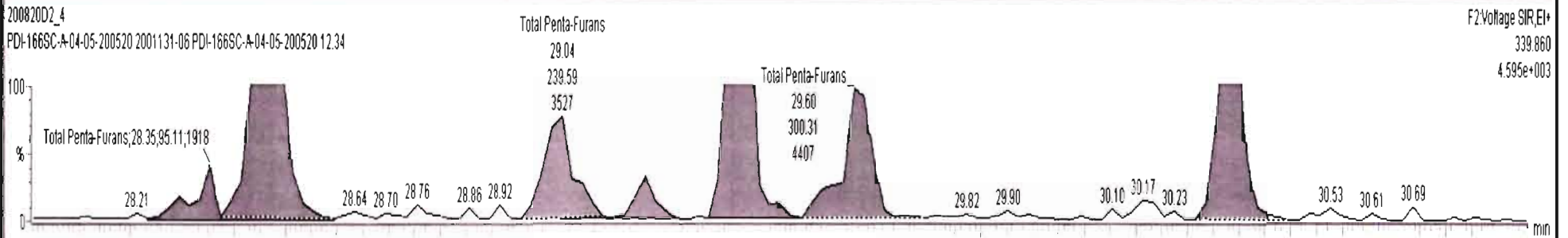


200820D2\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PDI-166SC-A-04-05-200520





20082002\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PDI-166SC-A-04-05-200520

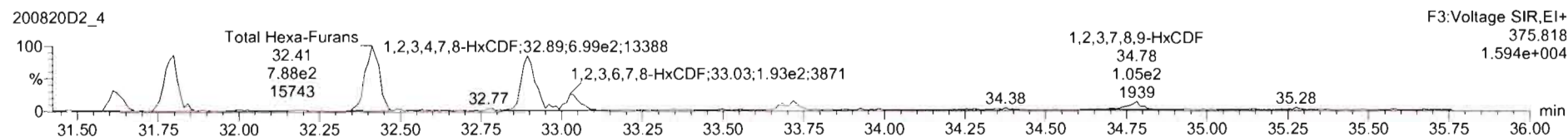
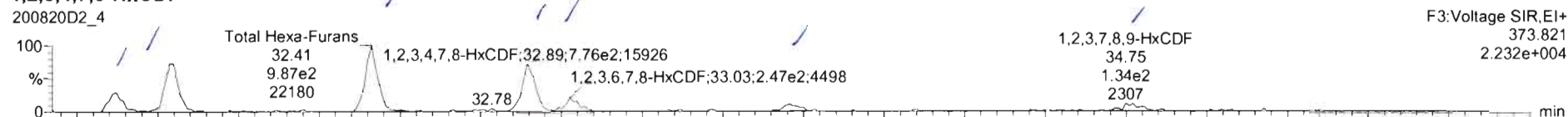


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

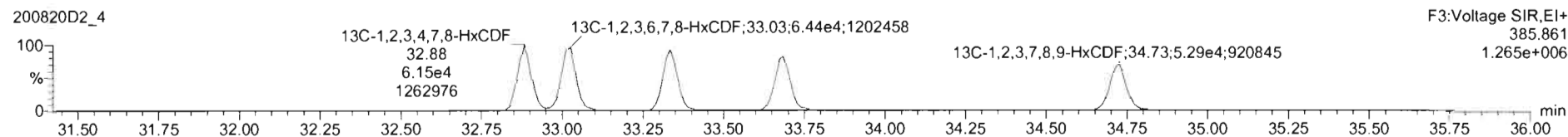
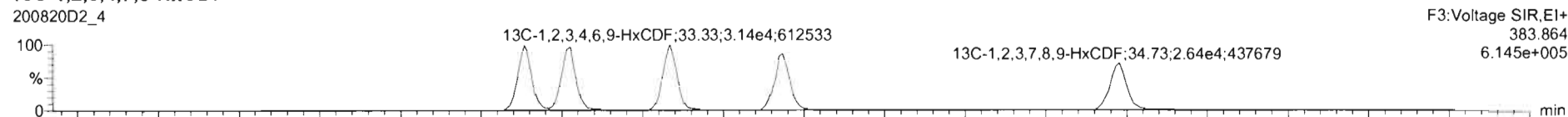
Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

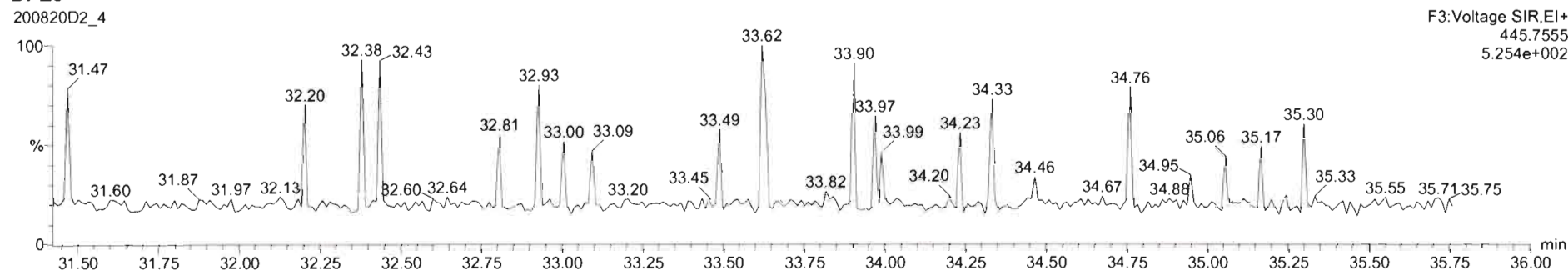
1,2,3,4,7,8-HxCDF



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



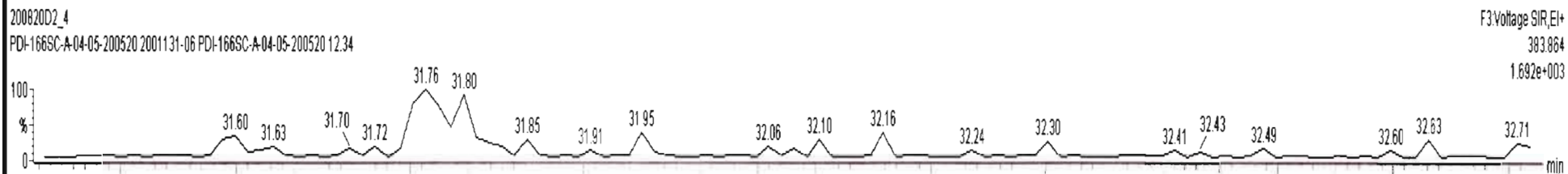
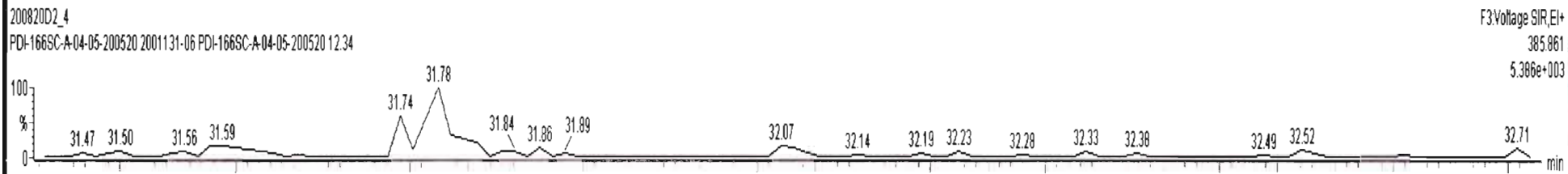
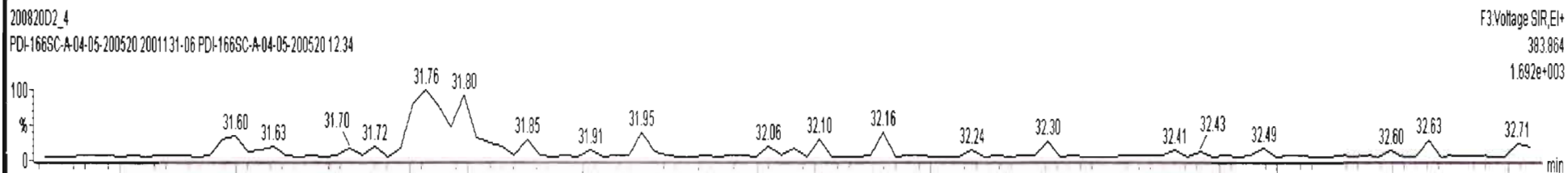
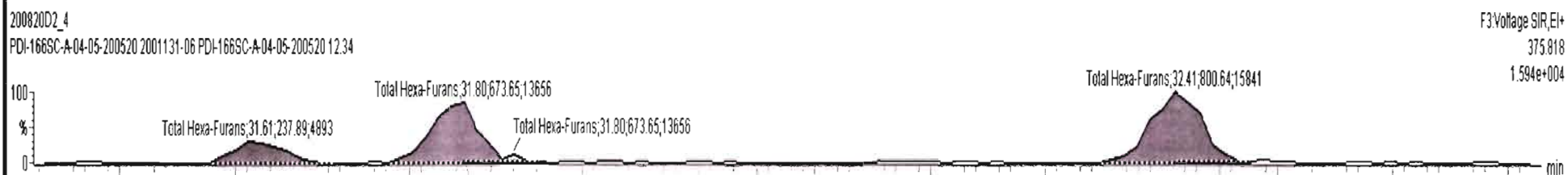
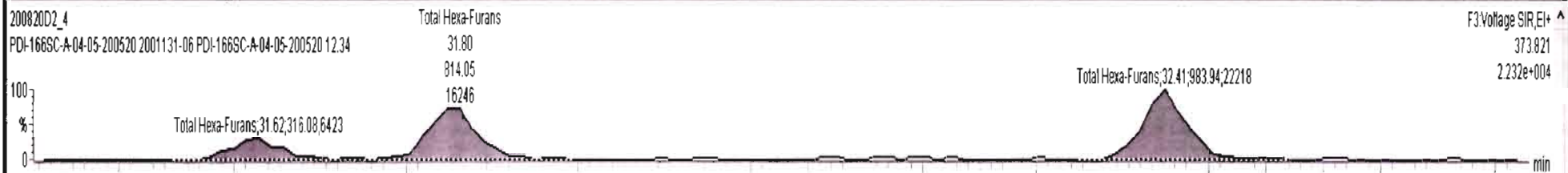
DPE3

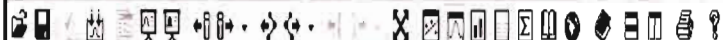




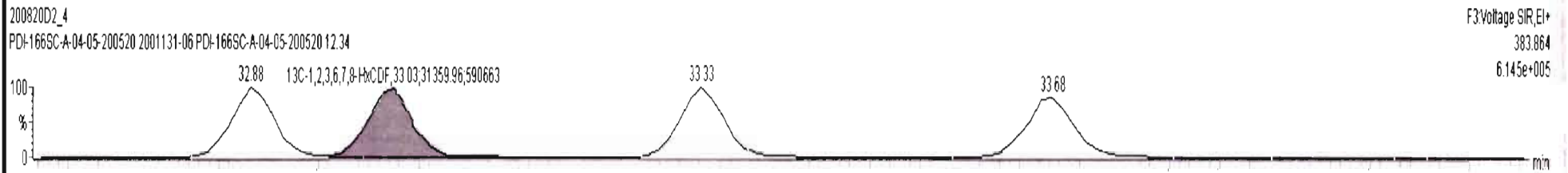
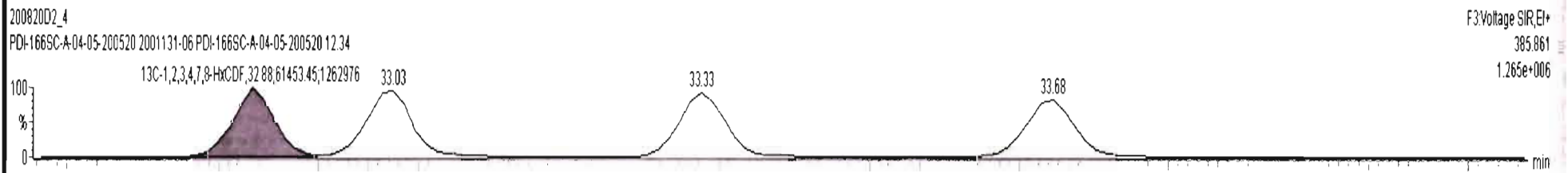
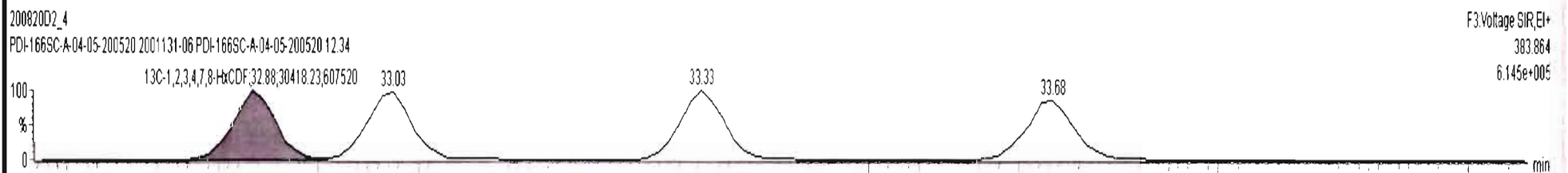
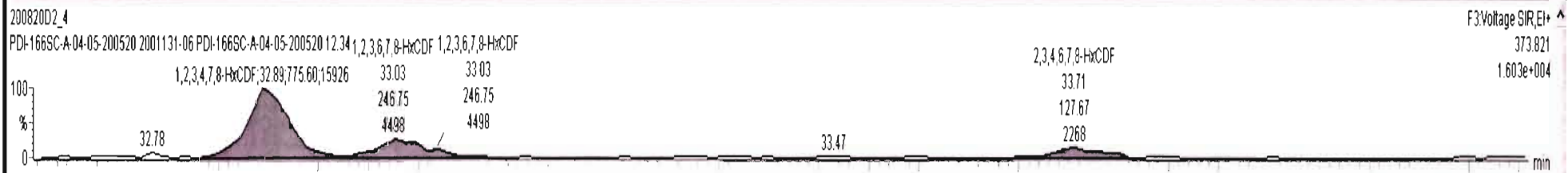


200820D2\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PDI-166SC-A-04-05-200520



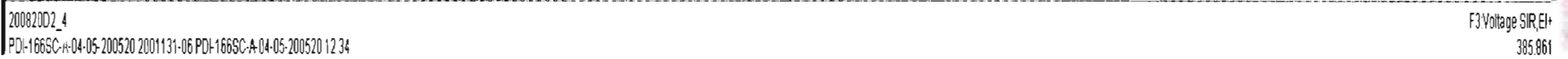
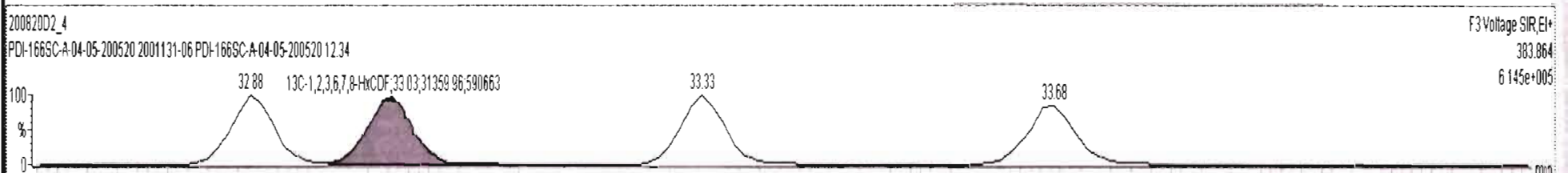
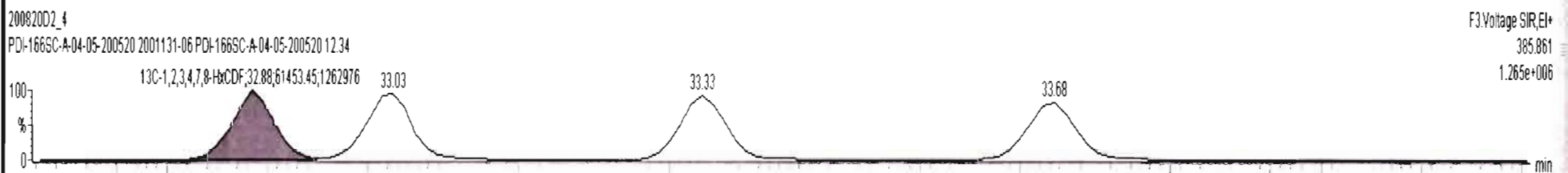
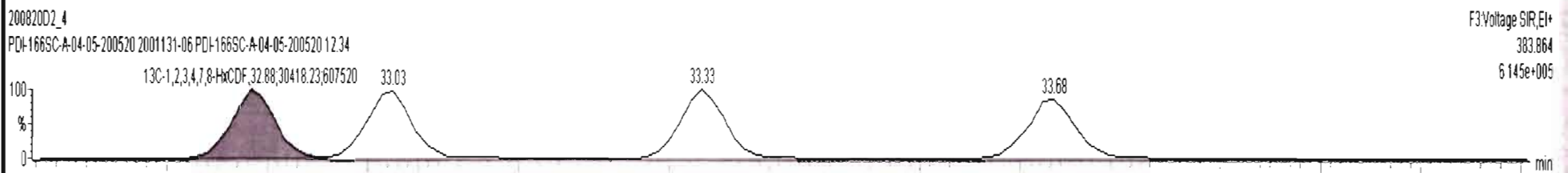
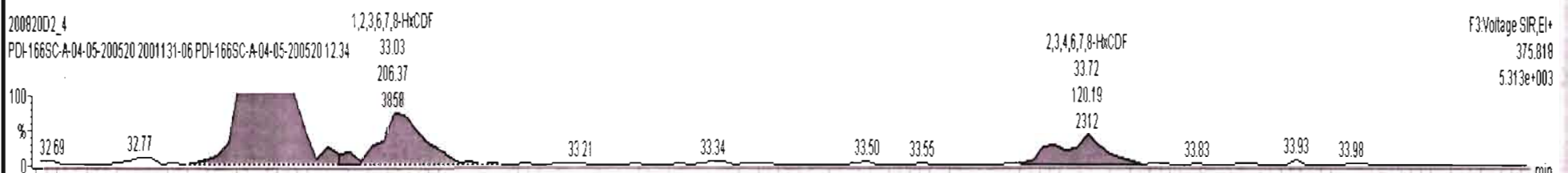
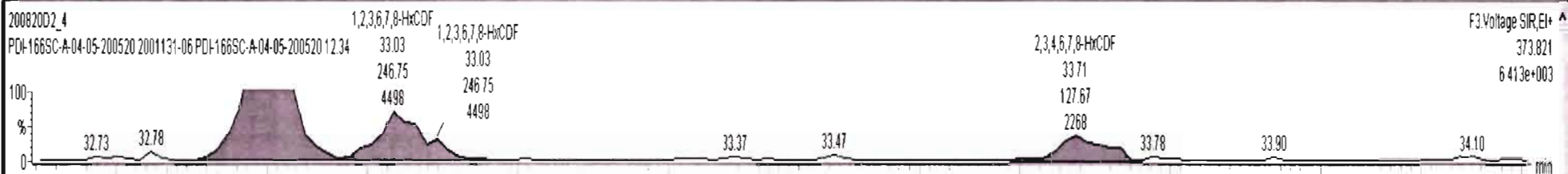


20082002\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PDI-166SC-A-04-05-200520





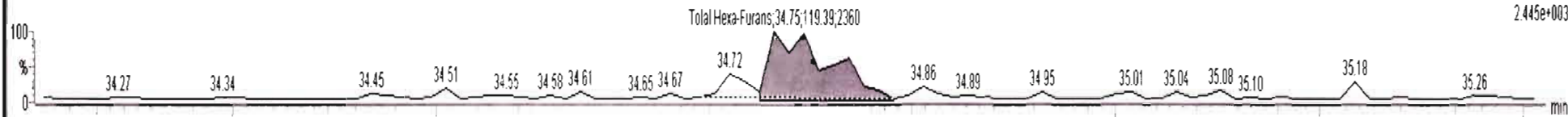
200820D2\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PDI-166SC-A-04-05-200520



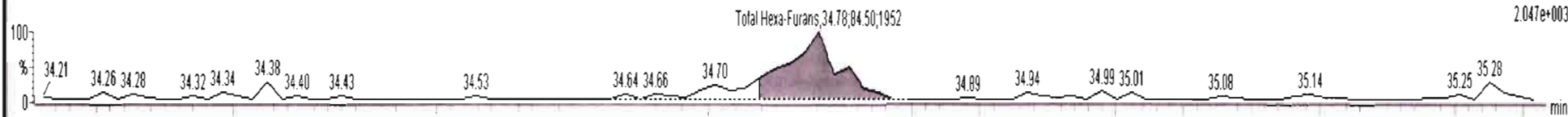


20082002\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - PDI-166SC-A-04-05-200520

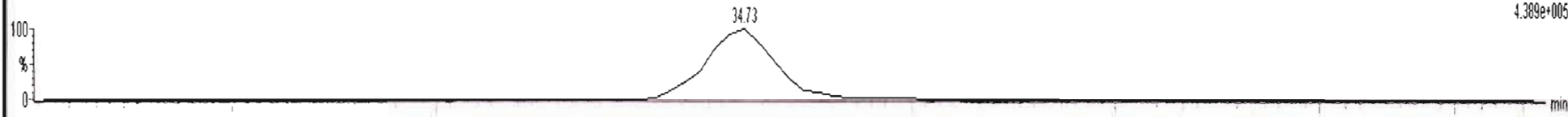
20082002\_4 F3:Voltage SIR,EI+  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34 373.821  
2.445e+003



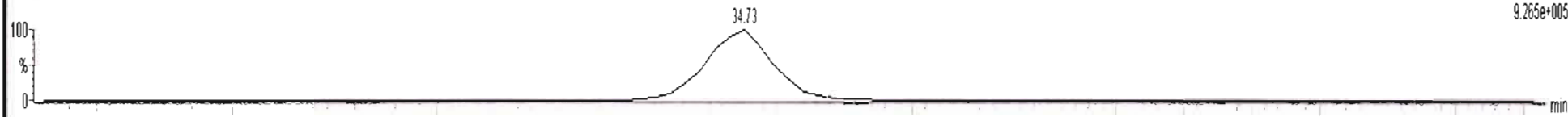
20082002\_4 F3:Voltage SIR,EI+  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34 375.818  
2.047e+003



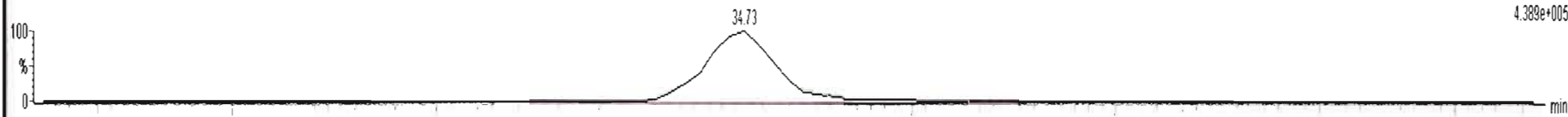
20082002\_4 F3:Voltage SIR,EI+  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34 383.864  
4.389e+005



20082002\_4 F3:Voltage SIR,EI+  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34 385.861  
9.265e+005



20082002\_4 F3:Voltage SIR,EI+  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34 383.864  
4.389e+005



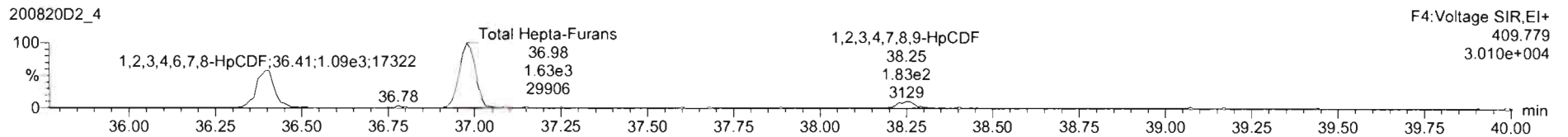
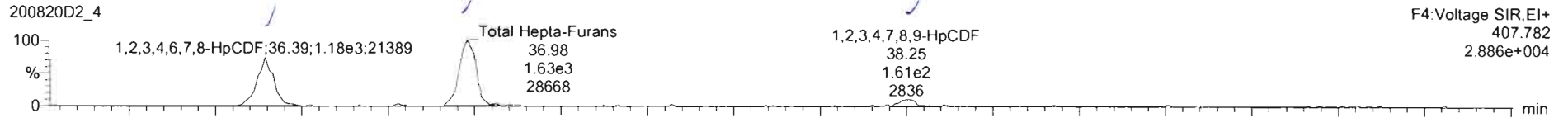
20082002\_4 F3:Voltage SIR,EI+  
PDI-166SC-A-04-05-200520 2001131-06 PDI-166SC-A-04-05-200520 12.34 385.861

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

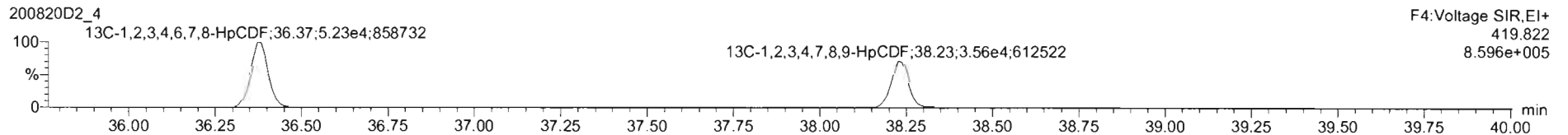
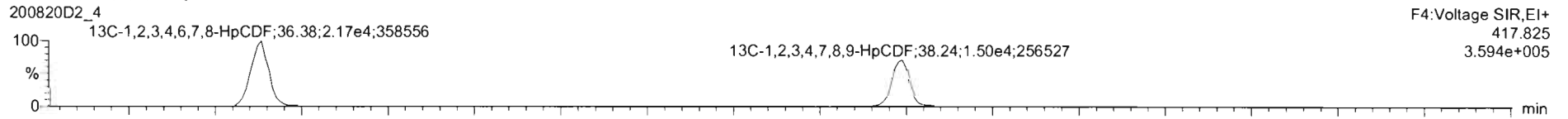
Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

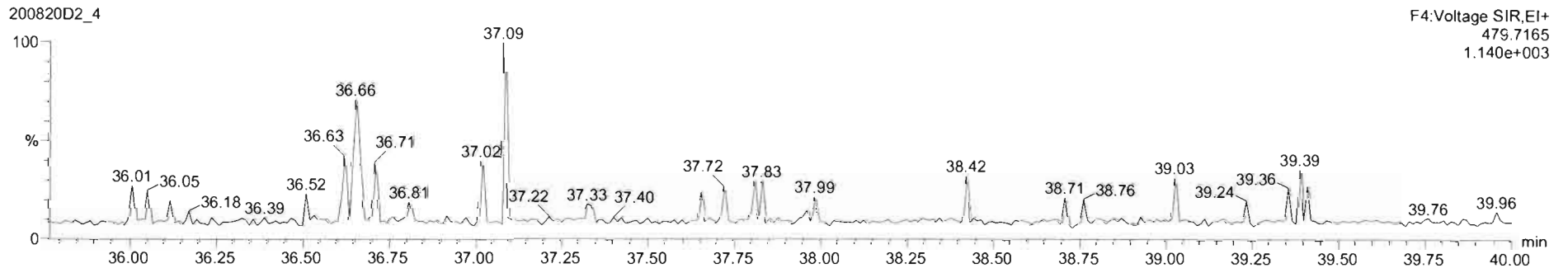
1,2,3,4,6,7,8-HpCDF

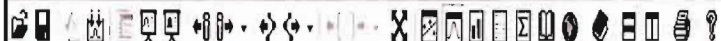


13C-1,2,3,4,6,7,8-HpCDF

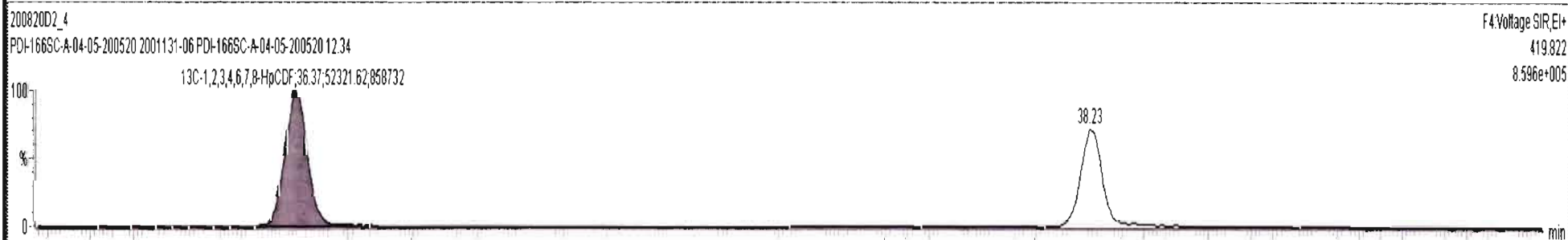
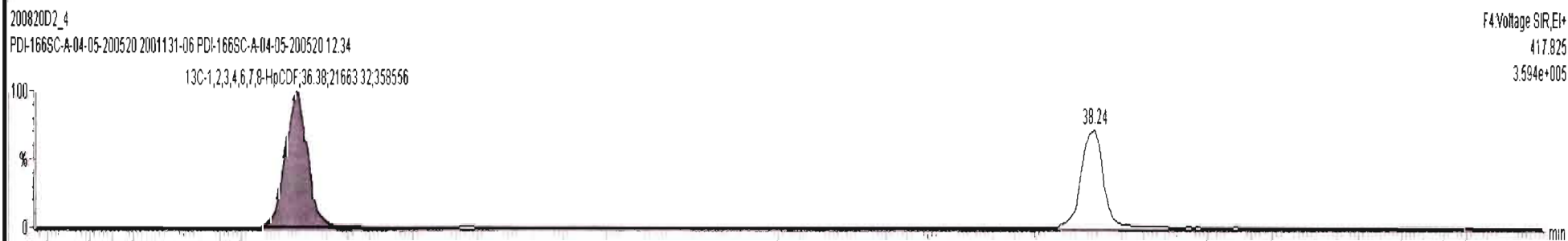
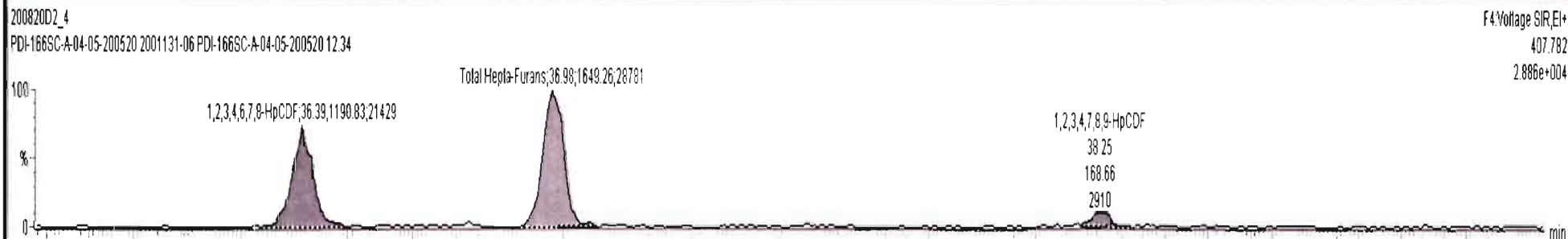


DPE4



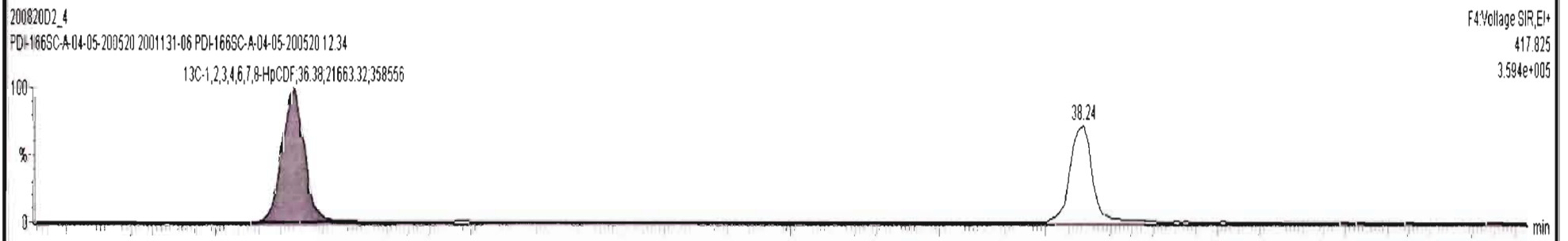
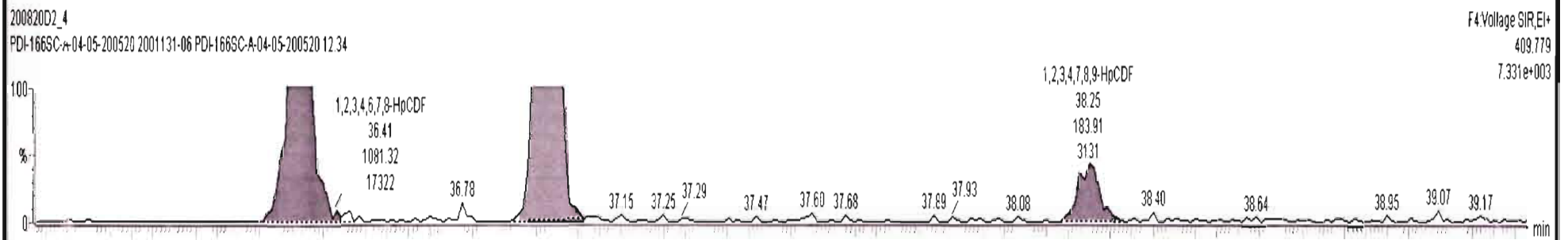
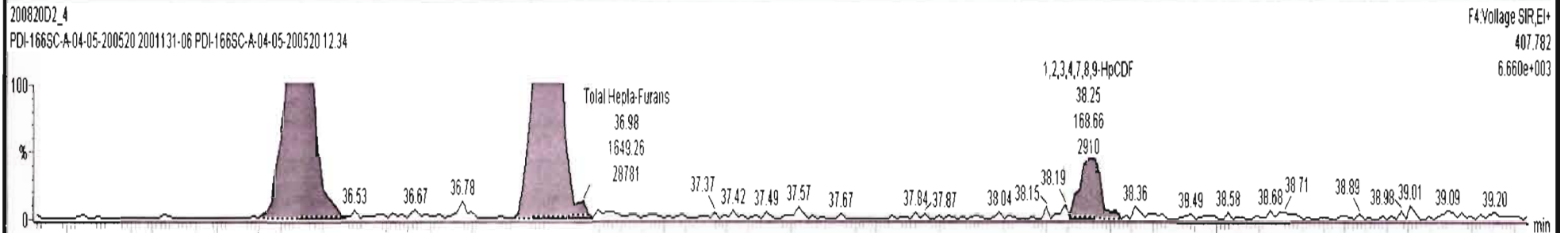


20082002\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - FDI-166SC-A-04-05-200520





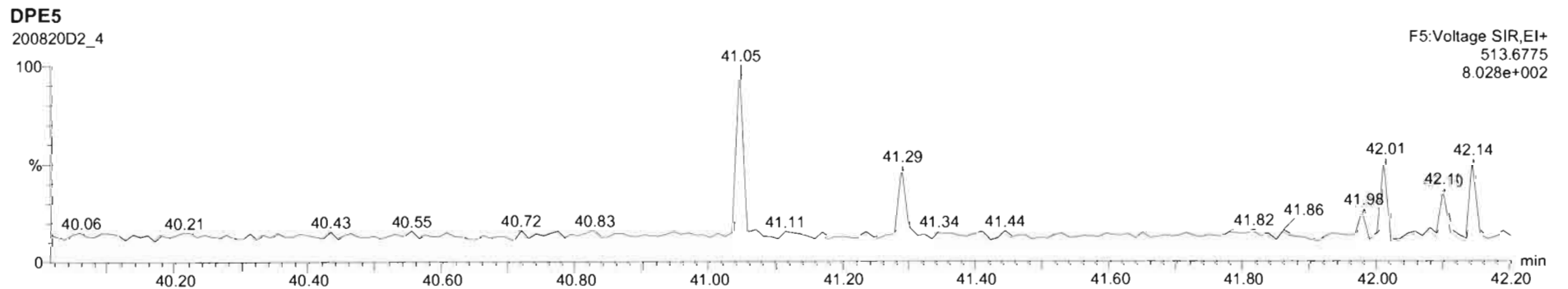
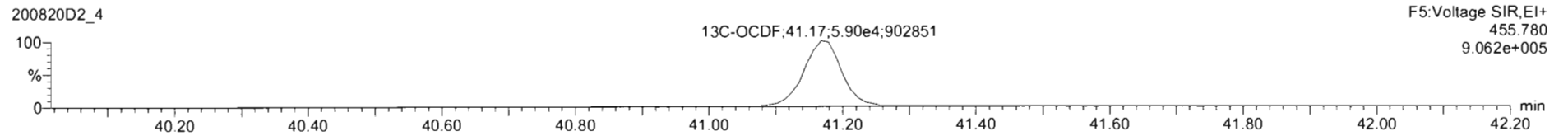
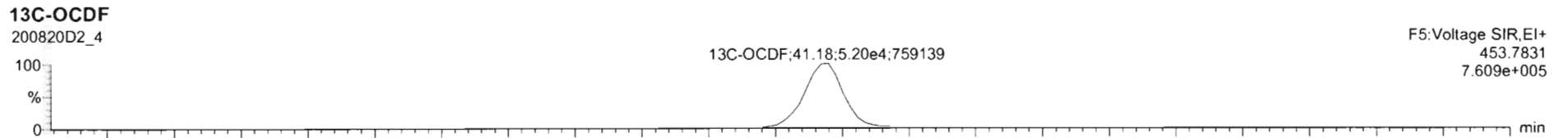
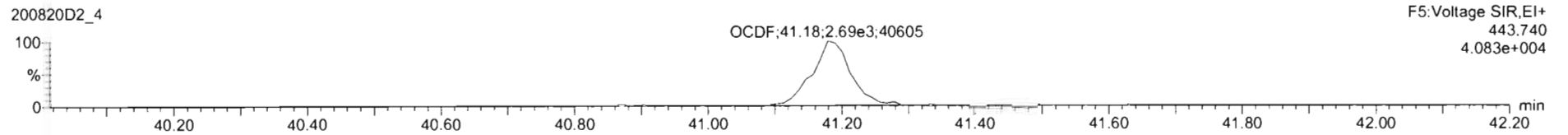
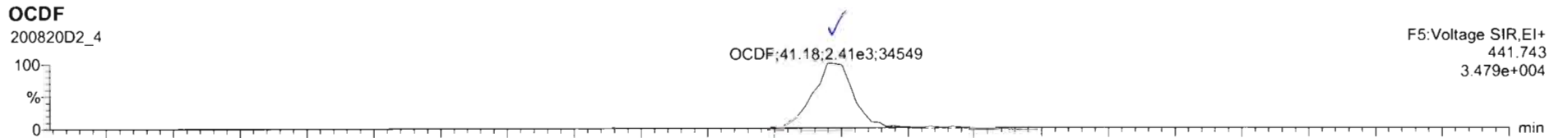
20082002\_4 - 2001131-06 PDI-166SC-A-04-05-200520 12.34 - FDI-166SC-A-04-05-200520



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520

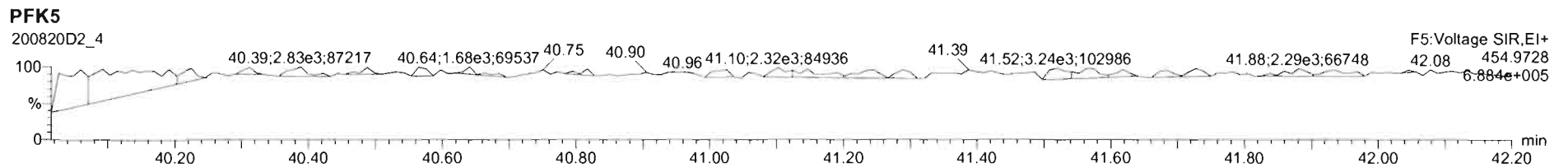
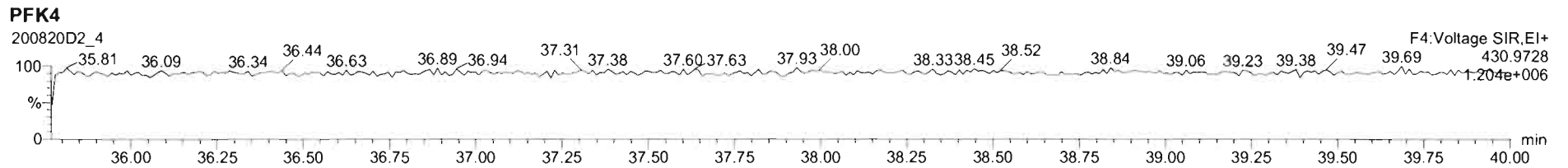
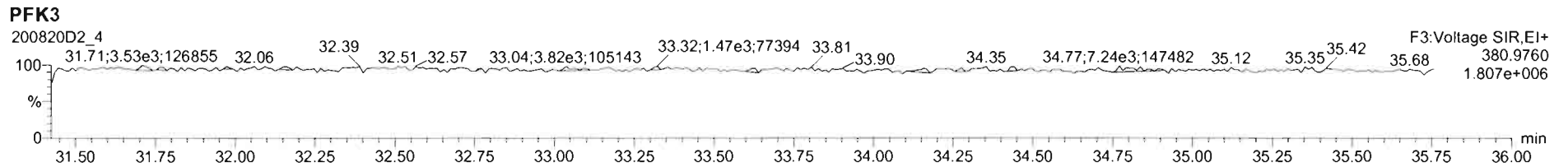
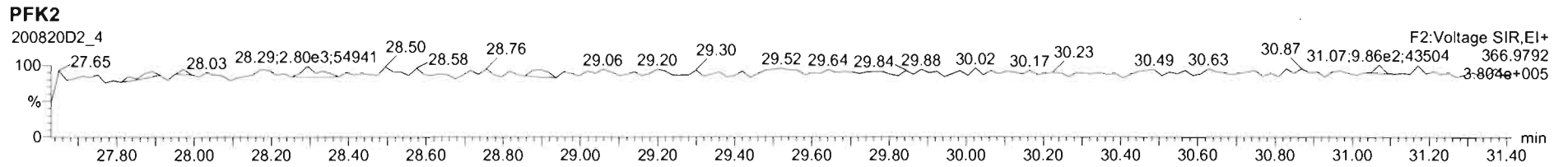
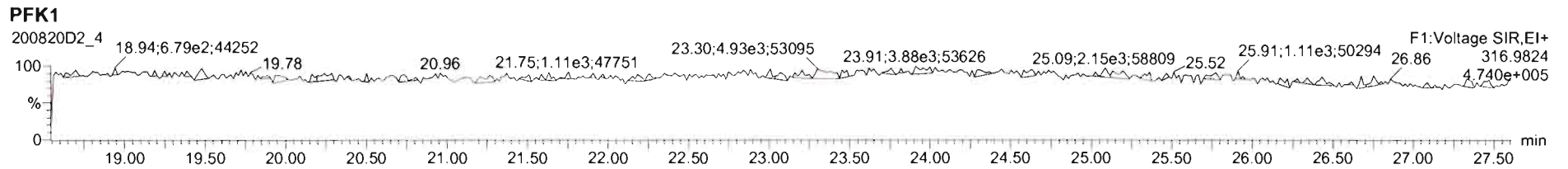




Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_4.qld

Last Altered: Friday, August 21, 2020 10:43:31 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:46:44 Pacific Daylight Time

Name: 200820D2\_4, Date: 21-Aug-2020, Time: 04:11:45, ID: 2001131-06 PDI-166SC-A-04-05-200520 12.34, Description: PDI-166SC-A-04-05-200520



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Monday, August 24, 2020 13:53:12 Pacific Daylight Time  
Printed: Monday, August 24, 2020 13:53:51 Pacific Daylight Time

*DB 8/24/20 CT 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

	# 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	1.08	10.060	26.250		1.001				0.121	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.060	30.508		1.001				0.111	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.060	33.804		1.000				0.269	
4	4 1,2,3,6,7,8-HxCDD	9.37e1	0.78	YES	0.908	10.060	33.904	33.92	1.000	1.000	0.25678		0.268	0.206
5	5 1,2,3,7,8,9-HxCDD	8.21e1	1.00	YES	0.923	10.060	34.235	34.20	1.001	1.000	0.22654		0.280	0.199
6	6 1,2,3,4,6,7,8-HpCDD	1.10e3	1.06	NO	0.926	10.060	37.558	37.57	1.000	1.001	3.5731		0.277	3.57
7	7 OCDD	7.93e3	0.89	NO	0.834	10.060	40.828	40.85	1.000	1.001	33.982		0.236	34.0
8	8 2,3,7,8-TCDF	1.51e2	0.94	YES	0.882	10.060	25.618	25.61	1.001	1.001	0.23890		0.0419	0.219
9	9 1,2,3,7,8-PeCDF	1.00e2	0.92	YES	0.937	10.060	29.382	29.36	1.001	1.000	0.14653		0.0344	0.115
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.060	30.316		1.001				0.0931	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.060	32.873		1.000				0.103	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.060	33.015		1.000				0.0879	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.060	33.697		1.001				0.105	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.060	34.705		1.000				0.133	
15	15 1,2,3,4,6,7,8-HpCDF	2.39e2	1.01	NO	1.15	10.060	36.409	36.36	1.001	1.000	0.50840		0.0654	0.508
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.060	38.216		1.000				0.0842	
17	17 OCDF	3.45e2	0.91	NO	0.961	10.060	41.157	41.19	1.000	1.001	1.1515		0.195	1.15
18	18 13C-2,3,7,8-TCDD	1.04e5	0.79	NO	1.20	10.060	26.241	26.22	1.026	1.025	167.03	84.0	0.602	
19	19 13C-1,2,3,7,8-PeCDD	9.32e4	0.61	NO	0.910	10.060	30.502	30.49	1.193	1.192	197.58	99.4	0.307	
20	20 13C-1,2,3,4,7,8-HxCDD	6.88e4	1.29	NO	0.789	10.060	33.790	33.79	1.014	1.014	184.18	92.6	0.775	
21	21 13C-1,2,3,6,7,8-HxCDD	7.89e4	1.32	NO	0.885	10.060	33.899	33.90	1.017	1.017	188.37	94.7	0.690	
22	22 13C-1,2,3,7,8,9-HxCDD	8.01e4	1.30	NO	0.888	10.060	34.169	34.20	1.025	1.026	190.50	95.8	0.688	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.61e4	1.09	NO	0.740	10.060	37.622	37.55	1.129	1.127	188.71	94.9	1.34	
24	24 13C-OCDD	1.11e5	0.89	NO	0.660	10.060	40.634	40.83	1.219	1.225	356.09	89.6	0.761	
25	25 13C-2,3,7,8-TCDF	1.42e5	0.81	NO	1.09	10.060	25.320	25.59	0.990	1.001	145.08	73.0	0.534	
26	26 13C-1,2,3,7,8-PeCDF	1.45e5	1.64	NO	0.857	10.060	29.558	29.36	1.156	1.148	188.51	94.8	0.833	
27	27 13C-2,3,4,7,8-PeCDF	1.42e5	1.59	NO	0.796	10.060	30.461	30.29	1.191	1.184	198.11	99.6	0.896	
28	28 13C-1,2,3,4,7,8-HxCDF	9.16e4	0.49	NO	1.02	10.060	32.923	32.87	0.988	0.986	189.64	95.4	0.888	
29	29 13C-1,2,3,6,7,8-HxCDF	9.77e4	0.50	NO	1.00	10.060	33.056	33.01	0.992	0.990	205.75	103	0.903	
30	30 13C-2,3,4,6,7,8-HxCDF	8.81e4	0.50	NO	0.936	10.060	33.626	33.66	1.009	1.010	198.73	100	0.968	
31	31 13C-1,2,3,7,8,9-HxCDF	8.11e4	0.49	NO	0.889	10.060	34.703	34.71	1.041	1.041	192.60	96.9	1.02	

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Monday, August 24, 2020 13:53:12 Pacific Daylight Time

Printed: Monday, August 24, 2020 13:53:51 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

#	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	8.11e4	0.41	NO	0.849	10.060	36.222	36.37	1.087	1.092	201.65	101	1.12	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.63e4	0.43	NO	0.624	10.060	38.221	38.22	1.147	1.147	190.50	95.8	1.52	
34	34 13C-OCDF	1.24e5	0.86	NO	0.693	10.060	40.787	41.16	1.224	1.235	377.58	95.0	0.779	
35	35 37Cl-2,3,7,8-TCDD	4.37e4			1.28	10.060	26.238	26.23	1.026	1.026	66.069	83.1	0.129	
36	36 13C-1,2,3,4-TCDD	1.03e5	0.79	NO	1.00	10.060	25.550	25.58	1.000	1.000	198.81	100	0.724	
37	37 13C-1,2,3,4-TCDF	1.79e5	0.78	NO	1.00	10.060	24.250	24.29	1.000	1.000	198.81	100	0.581	
38	38 13C-1,2,3,4,6,9-HxCDF	9.42e4	0.50	NO	1.00	10.060	33.300	33.32	1.000	1.000	198.81	100	0.906	
39	39 Total Tetra-Dioxins				1.08	10.060	24.620		0.000				0.0799	
40	40 Total Penta-Dioxins				0.991	10.060	29.960		0.000				0.0355	
41	41 Total Hexa-Dioxins				0.908	10.060	33.635		0.000		0.89696		0.277	2.06
42	42 Total Hepta-Dioxins				0.926	10.060	37.640		0.000		8.1662		0.277	8.17
43	43 Total Tetra-Furans				0.882	10.060	23.610		0.000		0.00000		0.0419	0.219
44	44 1st Func. Penta-Furans				0.937	10.060	26.750		0.000		0.00000		0.0165	0.168
45	45 Total Penta-Furans				0.937	10.060	29.275		0.000		0.00000		0.0347	0.115
46	46 Total Hexa-Furans				1.11	10.060	33.555		0.000		0.34254		0.0615	0.518
47	47 Total Hepta-Furans				1.15	10.060	37.835		0.000		1.4709		0.0761	1.47

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Monday, August 24, 2020 13:53:12 Pacific Daylight Time

Printed: Monday, August 24, 2020 13:53:51 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.14	3.486e3	3.568e3	1.623e2	1.490e2	1.09	NO	3.113e2	0.89696	0.89696	0.277
2	Total Hexa-Dioxins	33.02	7.284e3	3.233e3	2.341e2	1.176e2	1.99	YES	0.000e0	0.00000	0.75923	0.277
3	1,2,3,6,7,8-HxCDD	33.92	6.410e2	1.244e3	4.115e1	5.255e1	0.78	YES	9.369e1	0.00000	0.20608	0.263
4	1,2,3,7,8,9-HxCDD	34.20	7.020e2	9.410e2	4.101e1	4.108e1	1.00	YES	8.209e1	0.00000	0.19904	0.260

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.70	1.123e4	1.275e4	6.784e2	7.349e2	0.92	NO	1.413e3	4.5931	4.5931	0.277
2	1,2,3,4,6,7,8-HpCDD	37.57	1.019e4	1.043e4	5.668e2	5.327e2	1.06	NO	1.100e3	3.5731	3.5731	0.277

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	2,3,7,8-TCDF	25.61	1.235e3	1.145e3	7.311e1	7.791e1	0.94	YES	1.510e2	0.00000	0.21906	0.0419

**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	1.341e3	1.162e3	6.892e1	6.817e1	1.01	YES	0.000e0	0.00000	0.16762	0.0165

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Monday, August 24, 2020 13:53:12 Pacific Daylight Time

Printed: Monday, August 24, 2020 13:53:51 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

**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	29.36	1.166e3	1.215e3	4.800e1	5.230e1	0.92	YES	1.003e2	0.00000	0.11536	0.0344

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.78	1.581e3	8.030e2	6.941e1	3.926e1	1.77	YES	0.000e0	0.00000	0.17544	0.0615
2	Total Hexa-Furans	32.41	2.437e3	1.694e3	1.002e2	7.154e1	1.40	NO	1.717e2	0.34254	0.34254	0.0615

**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	36.36	2.609e3	2.160e3	1.205e2	1.187e2	1.01	NO	2.392e2	0.50840	0.50840	0.0654
2	Total Hepta-Furans	36.97	4.862e3	3.380e3	2.062e2	1.772e2	1.16	NO	3.834e2	0.96252	0.96252	0.0761

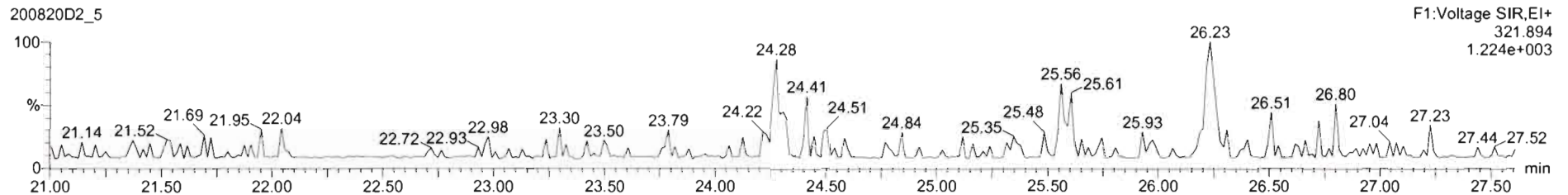
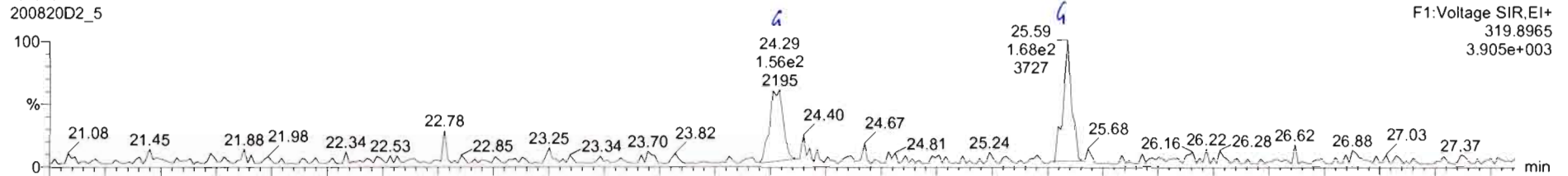
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

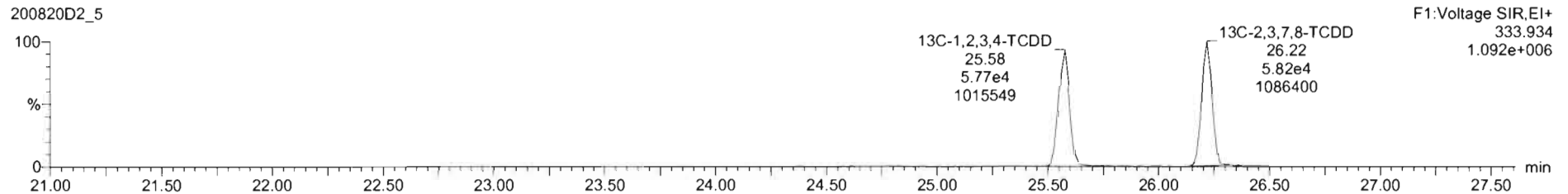
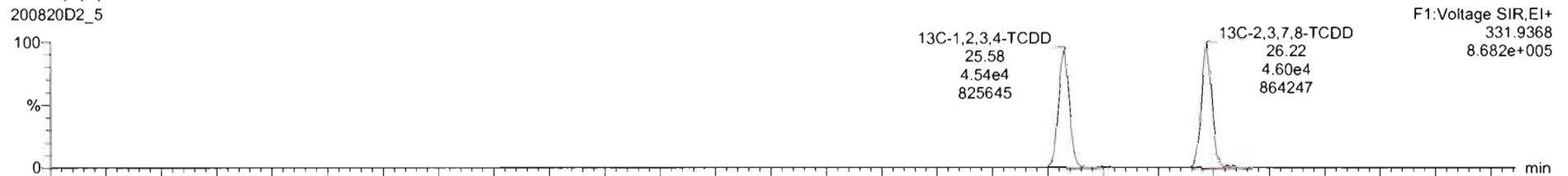
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

2,3,7,8-TCDD



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



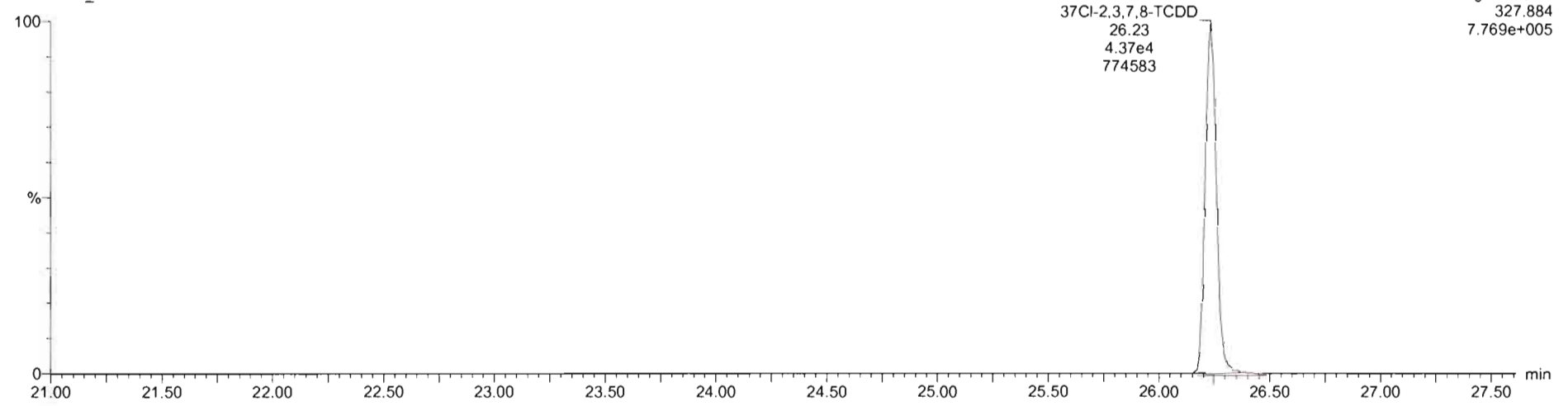
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

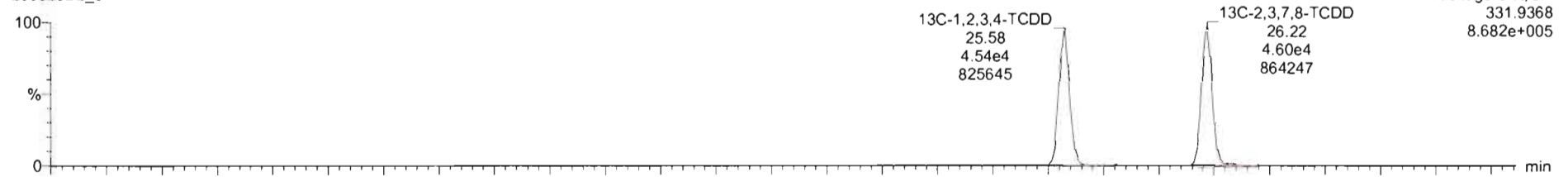
**37Cl-2,3,7,8-TCDD**

200820D2\_5

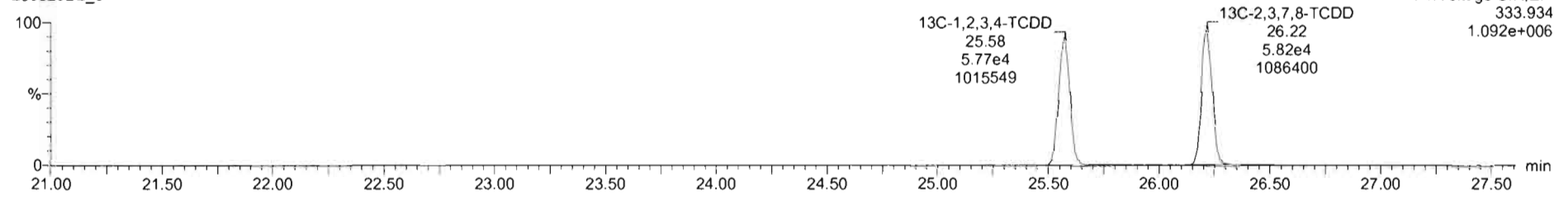


**13C-1,2,3,4-TCDD**

200820D2\_5



200820D2\_5

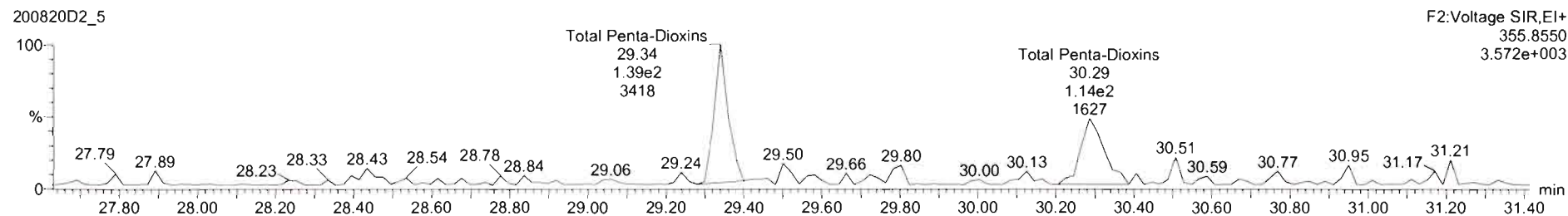
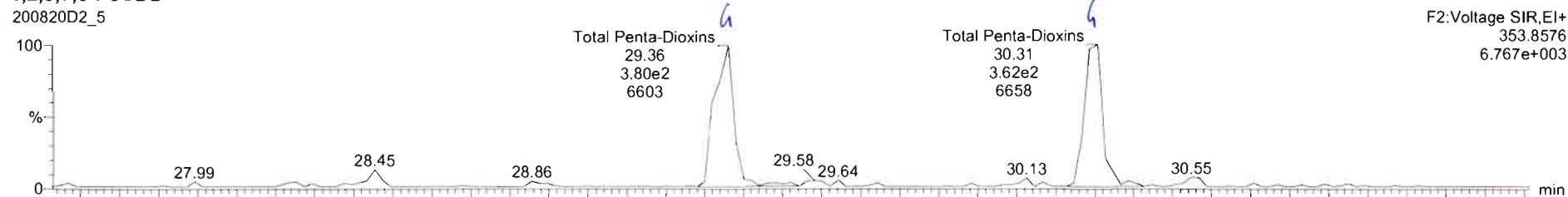


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

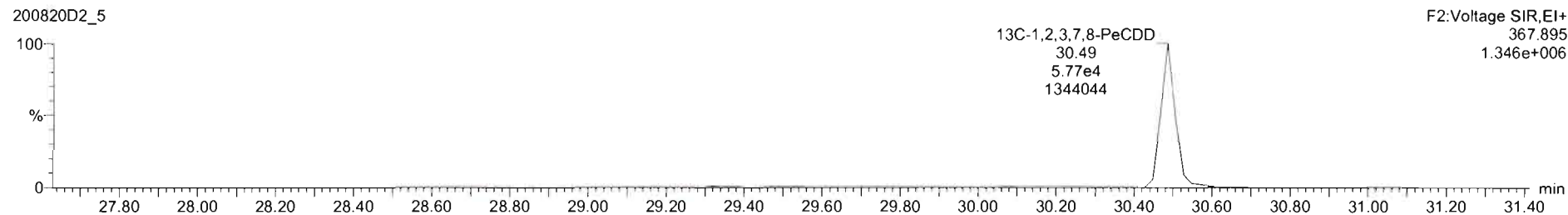
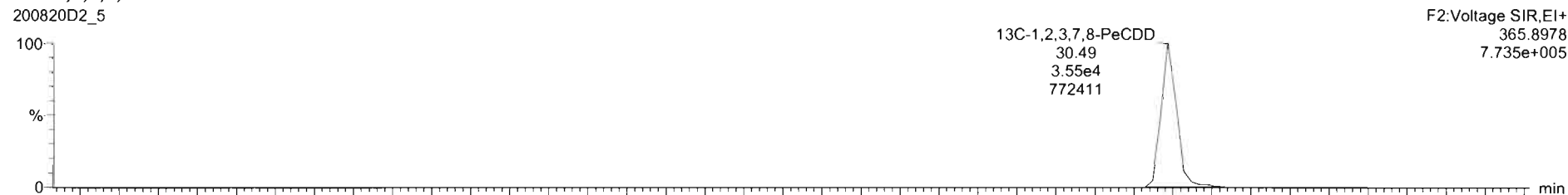
Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

1,2,3,7,8-PeCDD



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



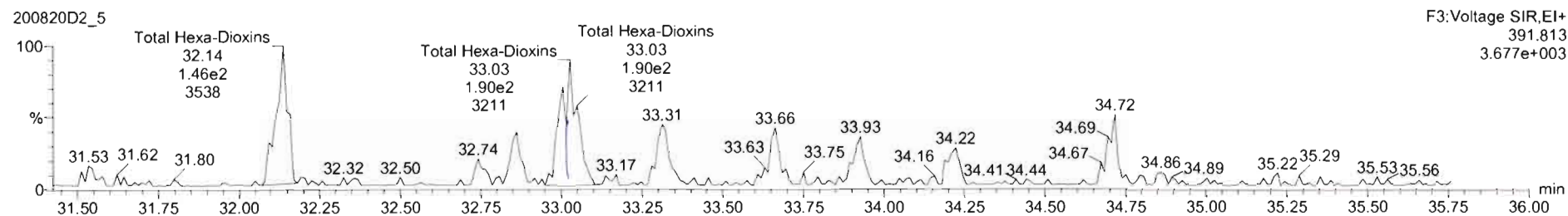
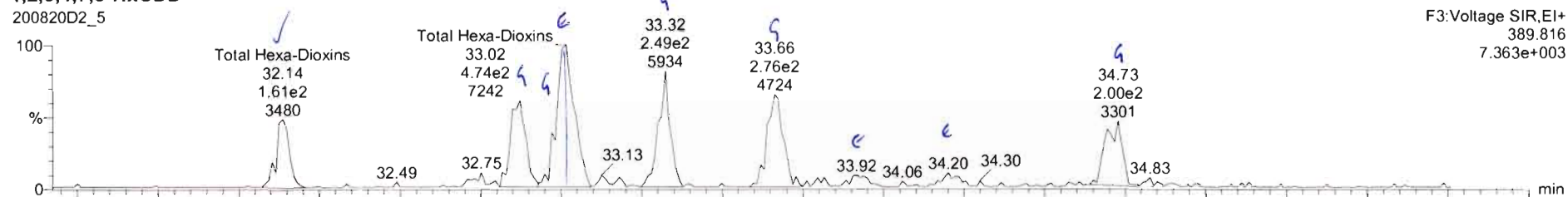


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

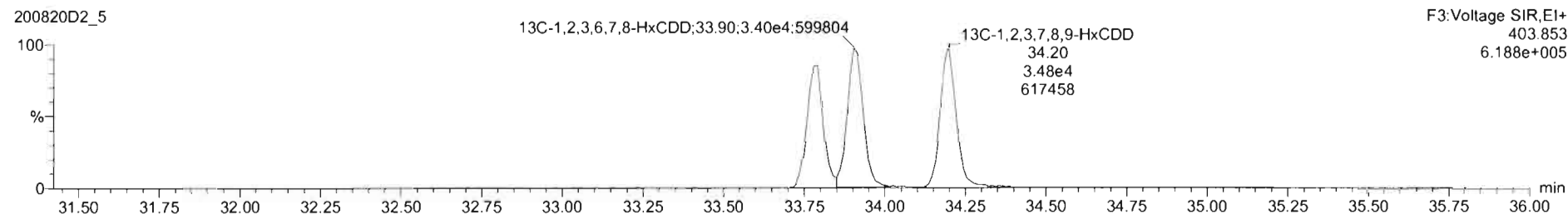
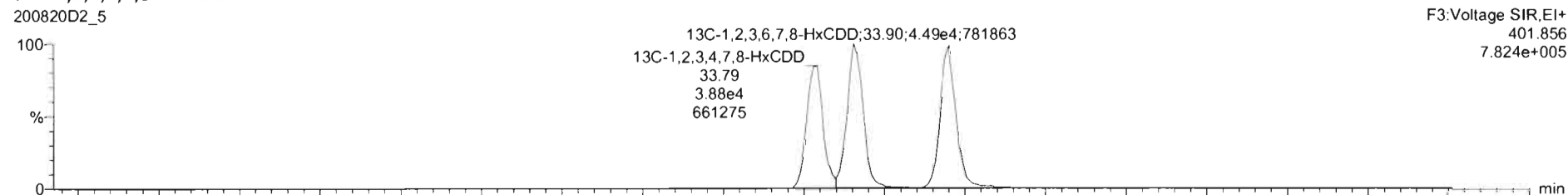
Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

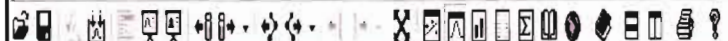
Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

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

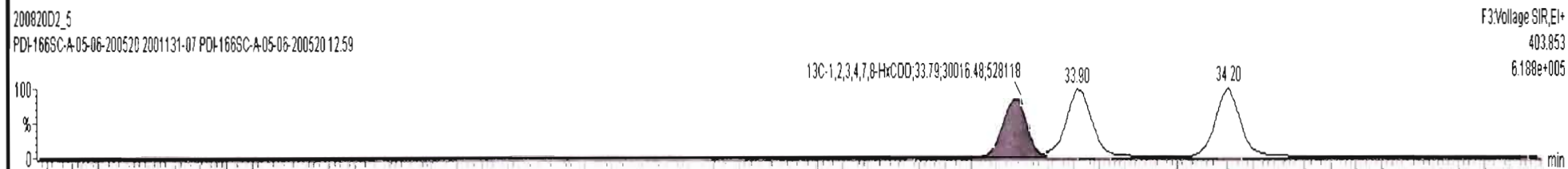
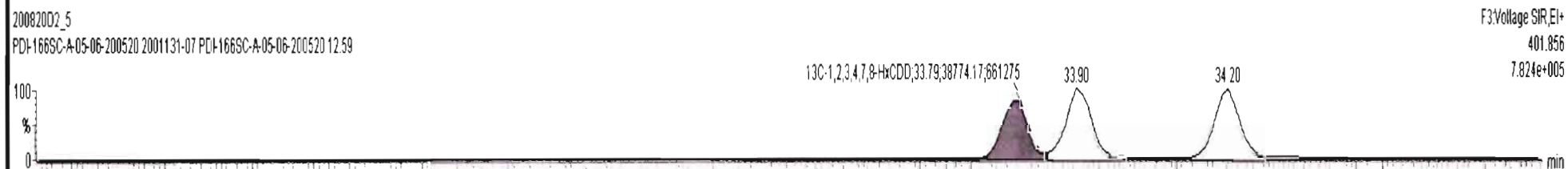
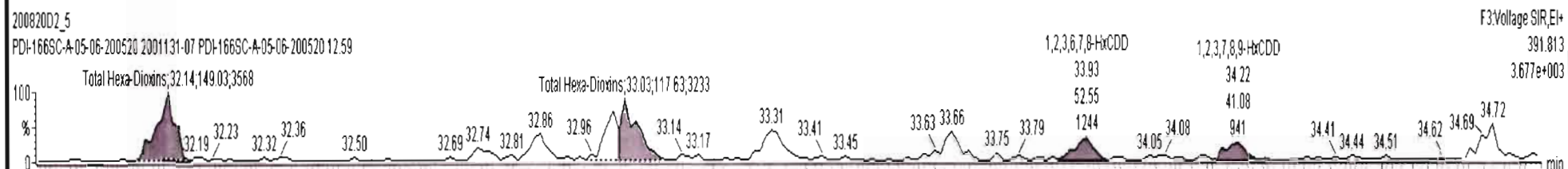
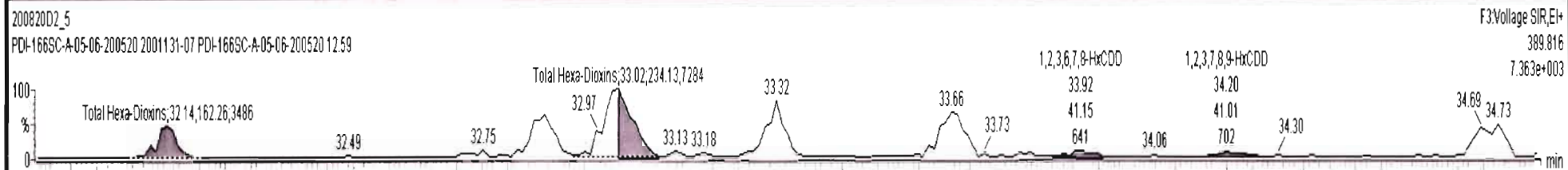


13C-1,2,3,4,7,8-HxCDD



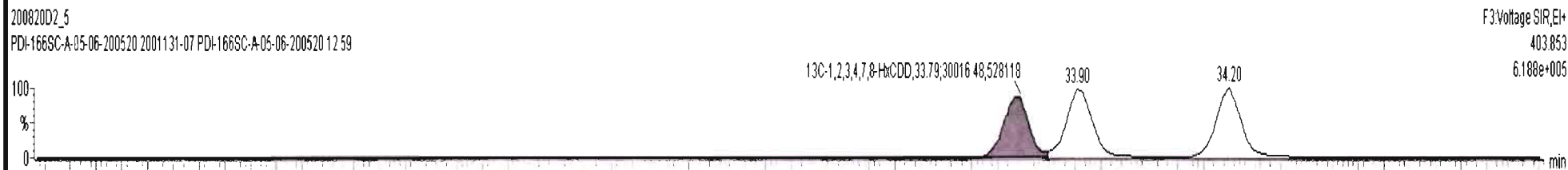
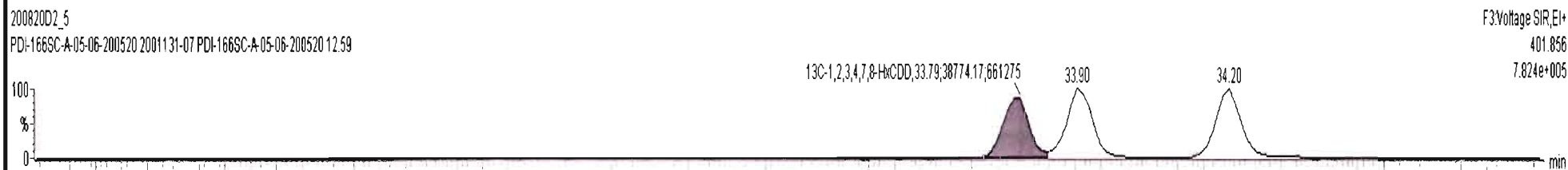
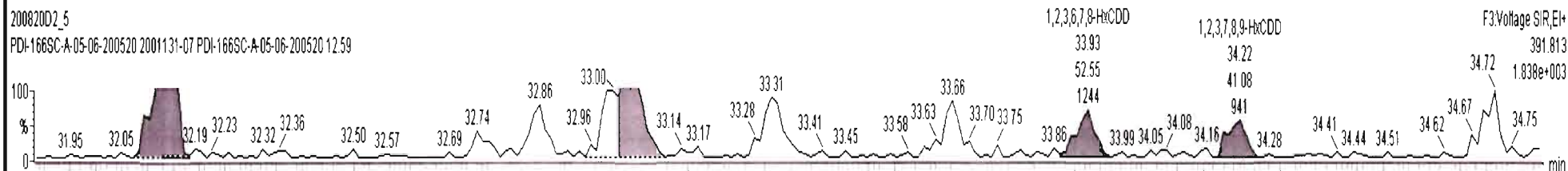
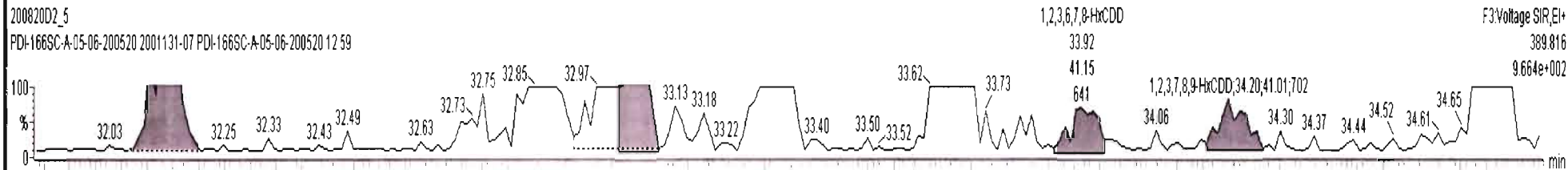


200820D2\_5 - 2001131-07 PDI-166SC-A-05-06-200520 12:59 - PDI-166SC-A-05-06-200520





200820D2\_5 - 2001131-07-PDI-166SC-A-05-06-200520 12:59 - PDI-166SC-A-05-06-200520

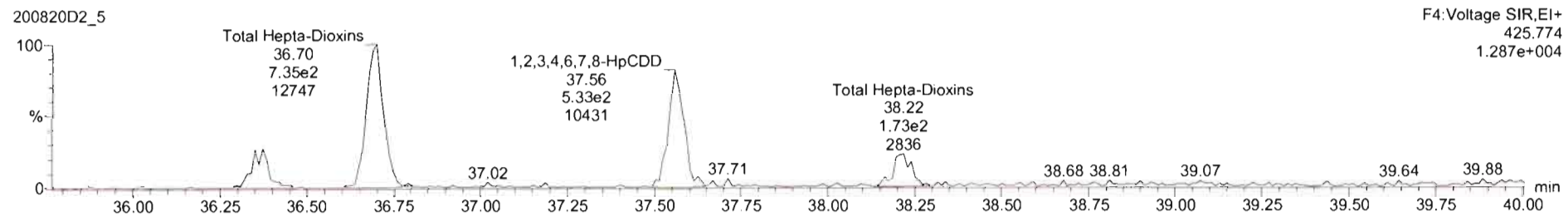
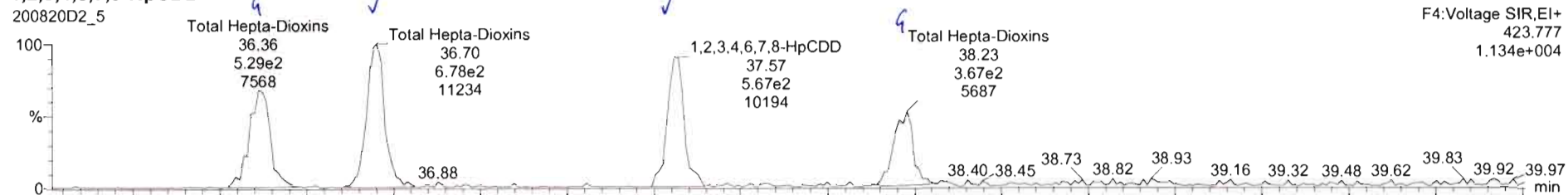


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

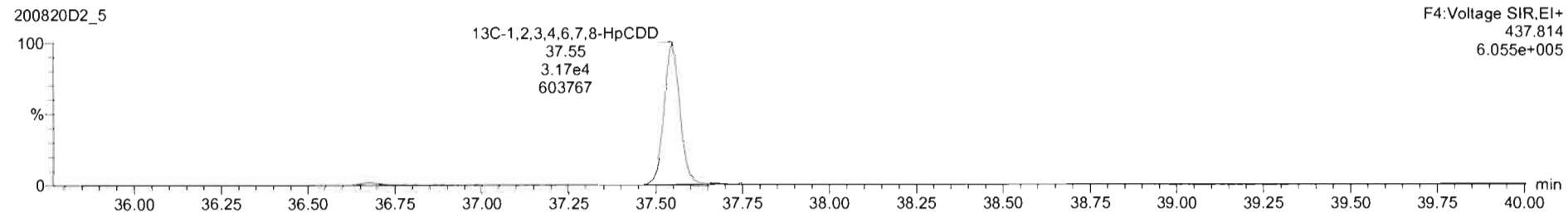
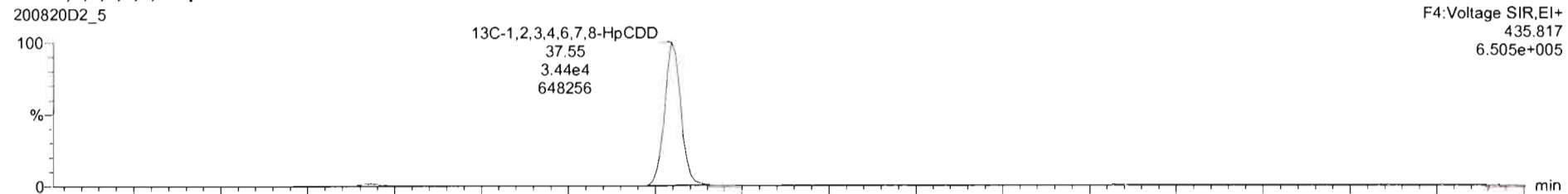
Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

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



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



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

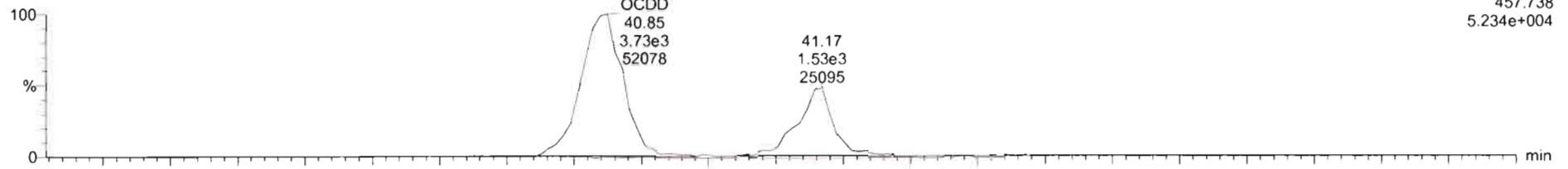
Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

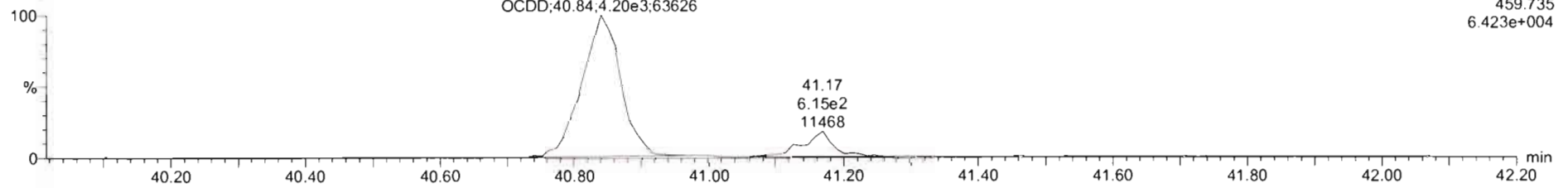
Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

**OCDD**

200820D2\_5

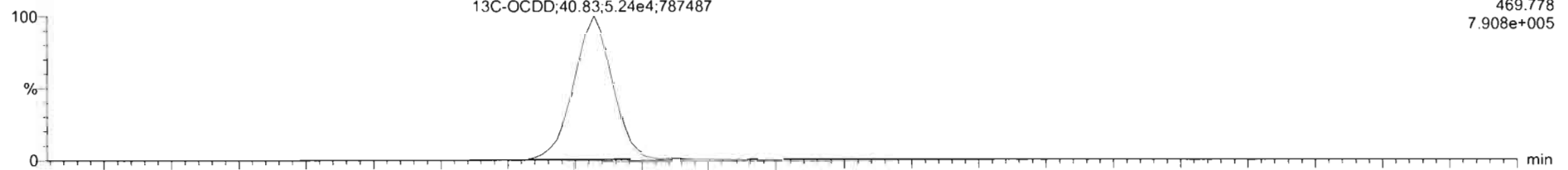


200820D2\_5

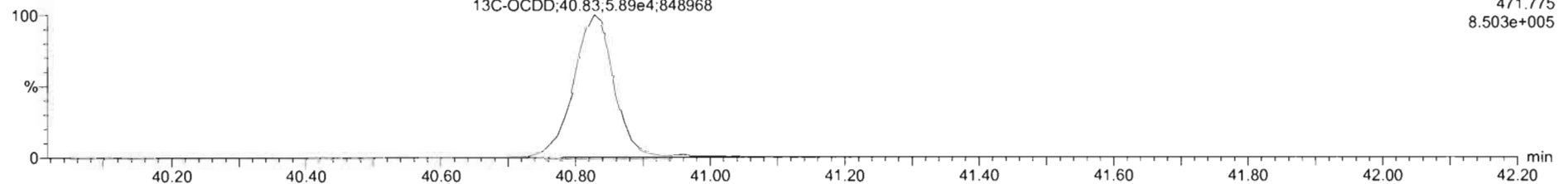


**13C-OCDD**

200820D2\_5



200820D2\_5

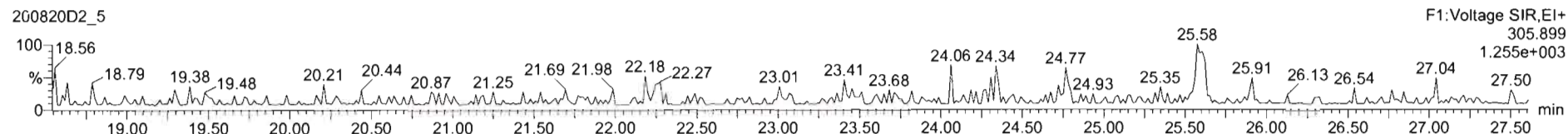
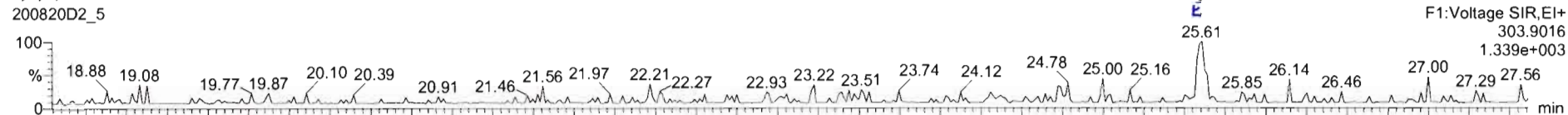


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

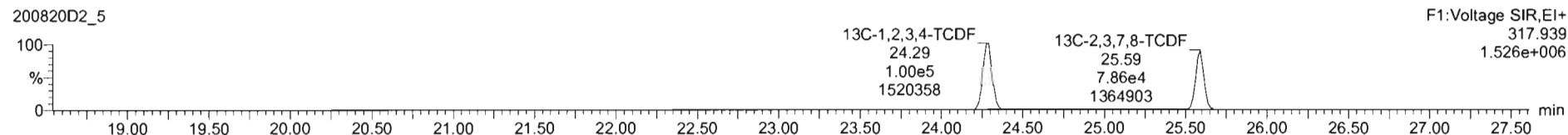
Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

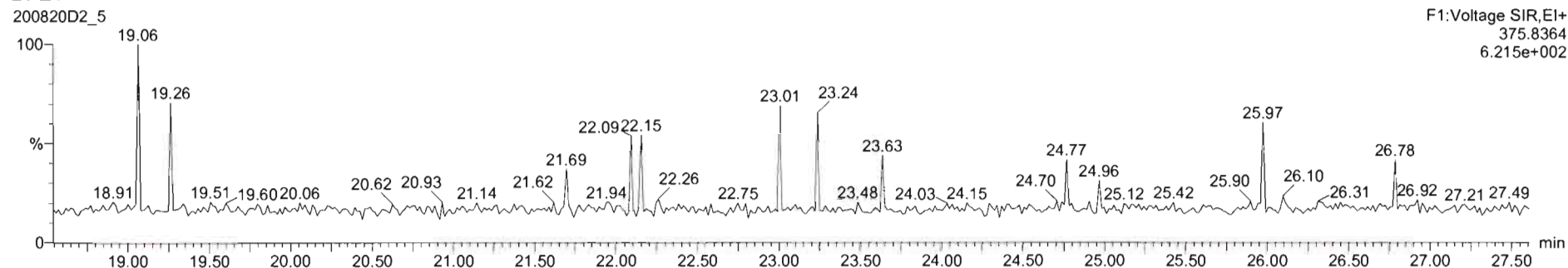
**2,3,7,8-TCDF**

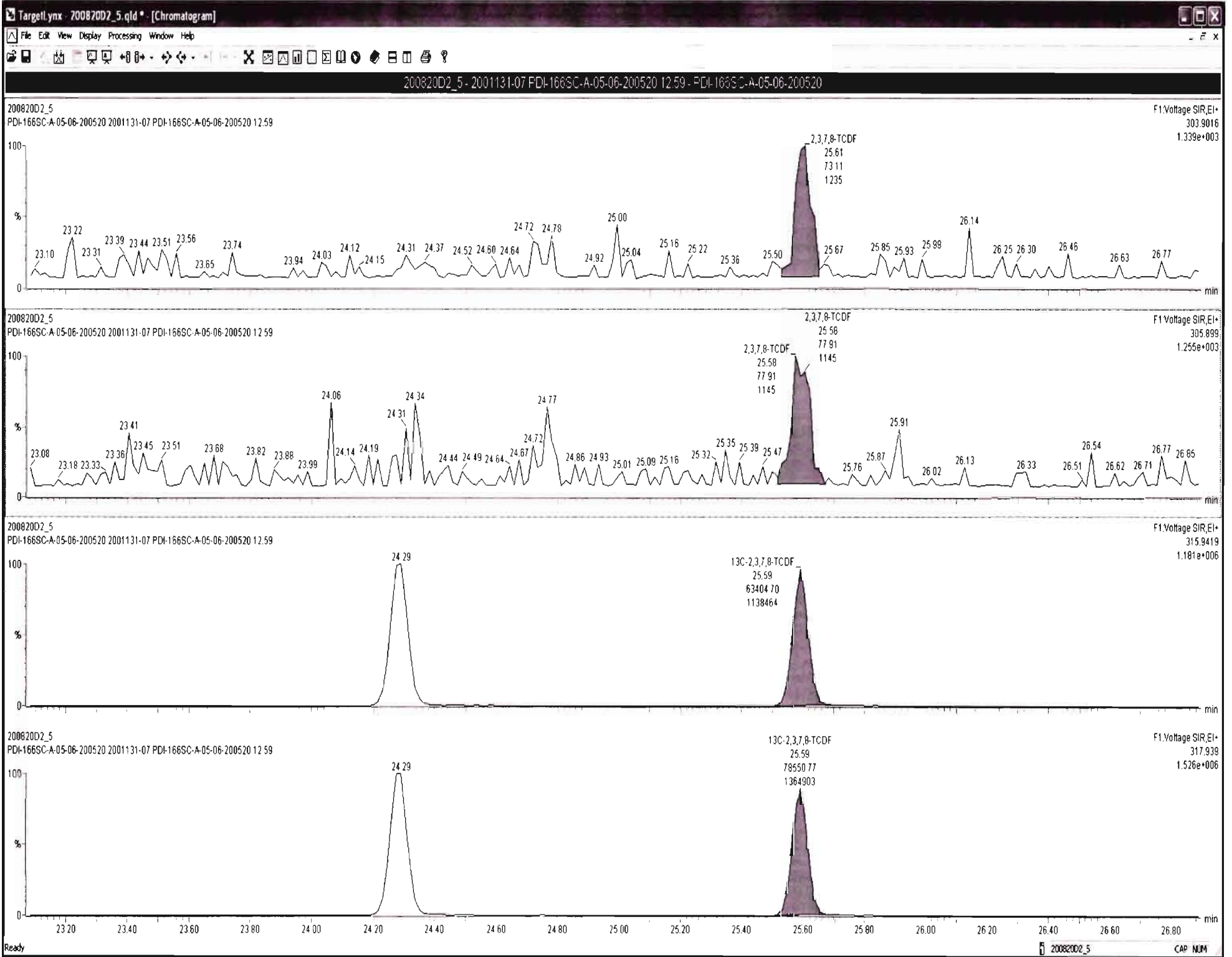


**13C-2,3,7,8-TCDF**



**DPE1**





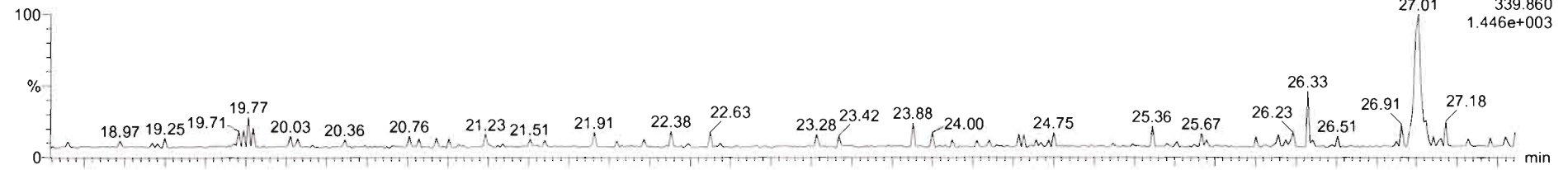
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

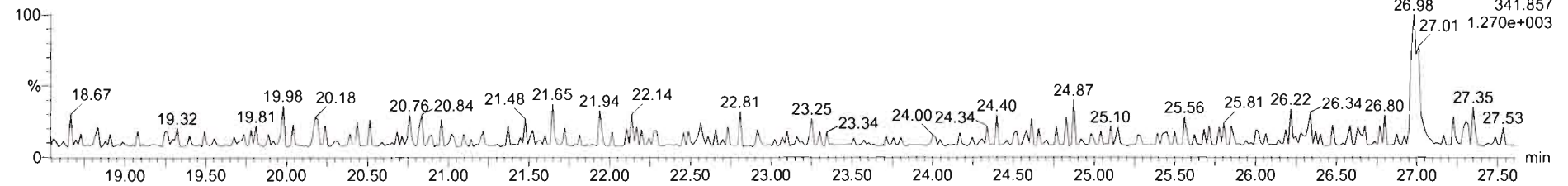
Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

1st Func. Penta-Furans

200820D2\_5

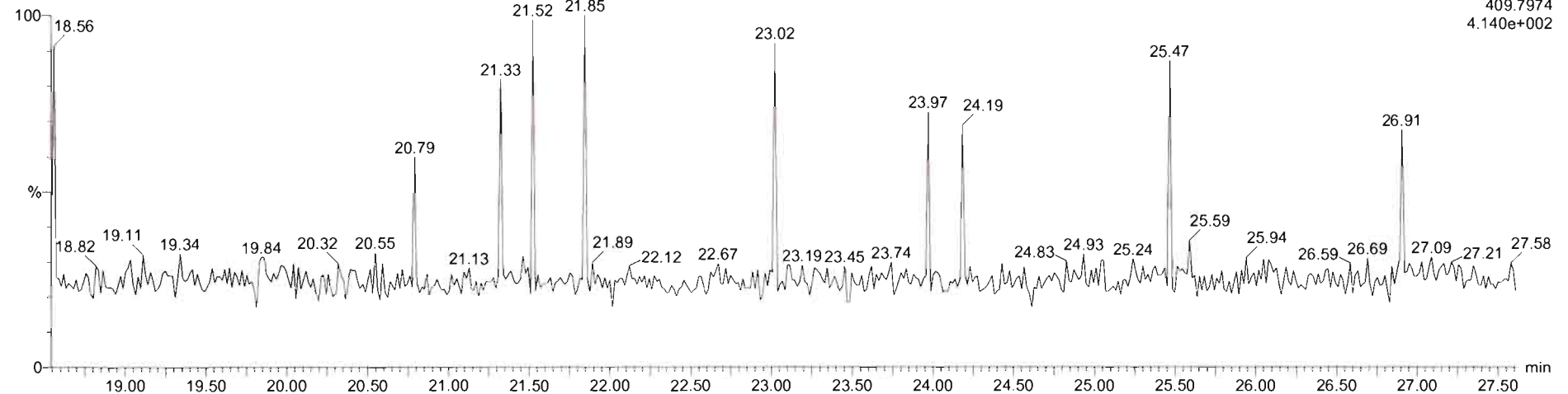


200820D2\_5



DPE6

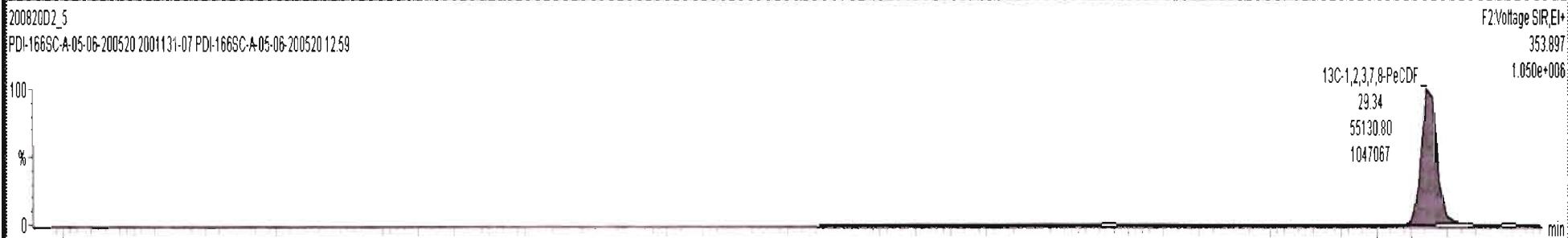
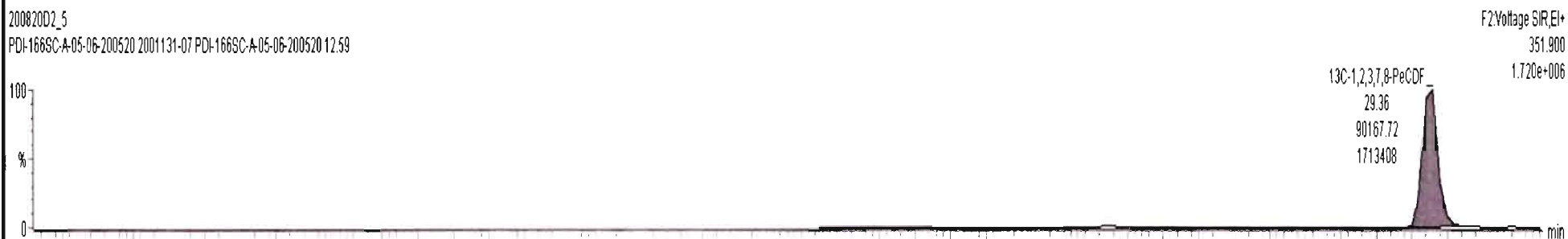
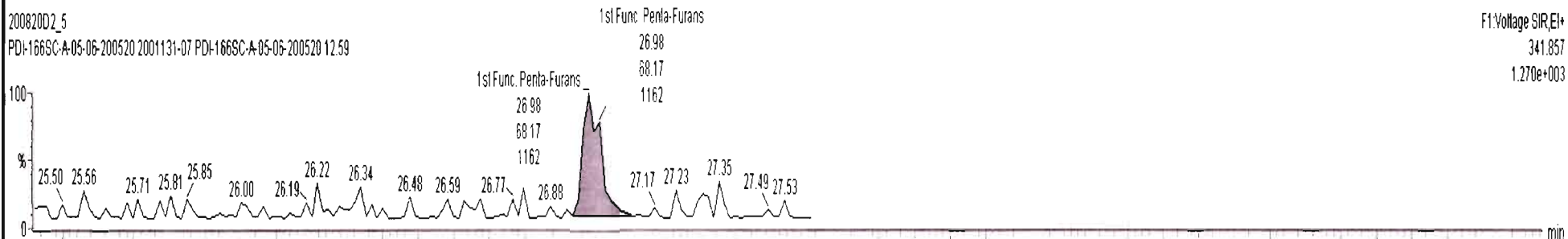
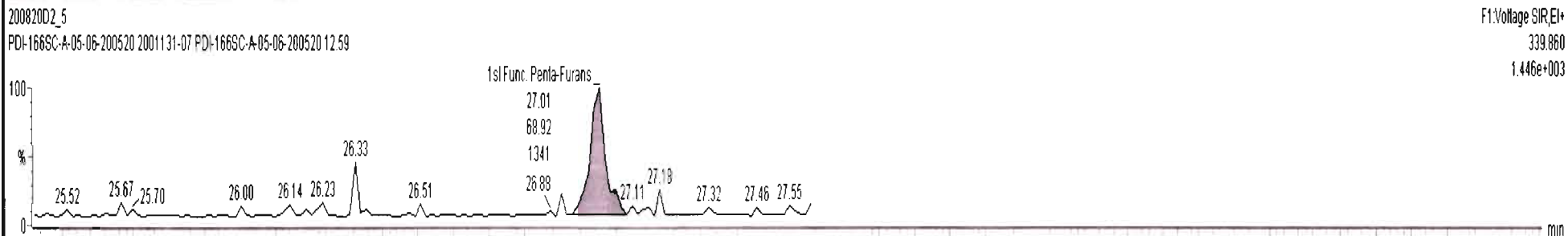
200820D2\_5







200820D2\_5 - 2001131-07 PDI-166SC-A-05-06-200520 12.59 - PDI-166SC-A-05-06-200520

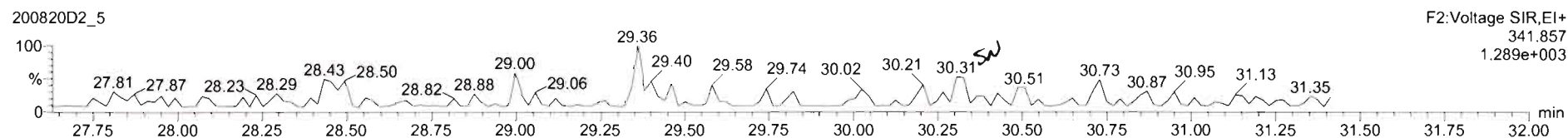
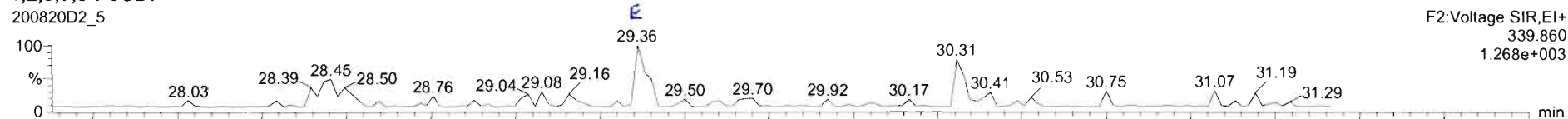


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

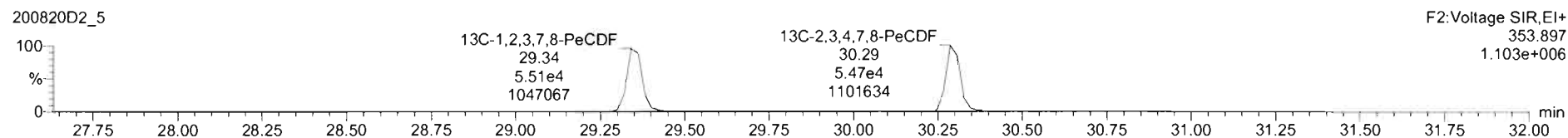
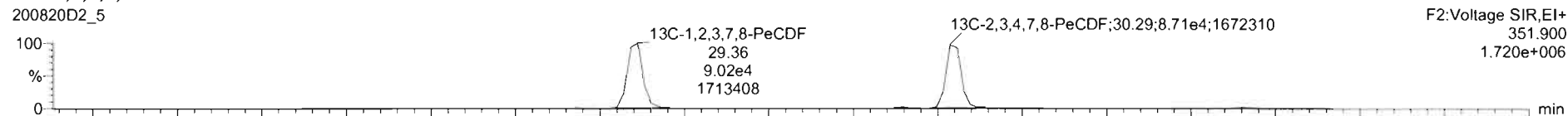
Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

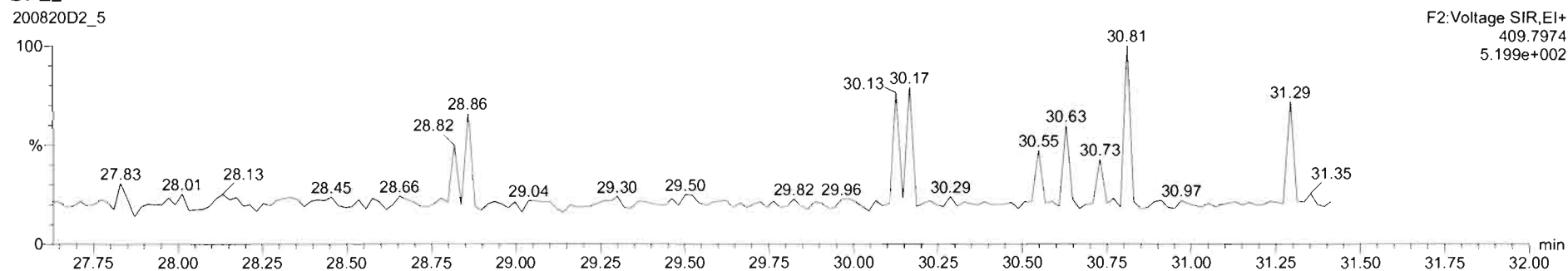
1,2,3,7,8-PeCDF



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

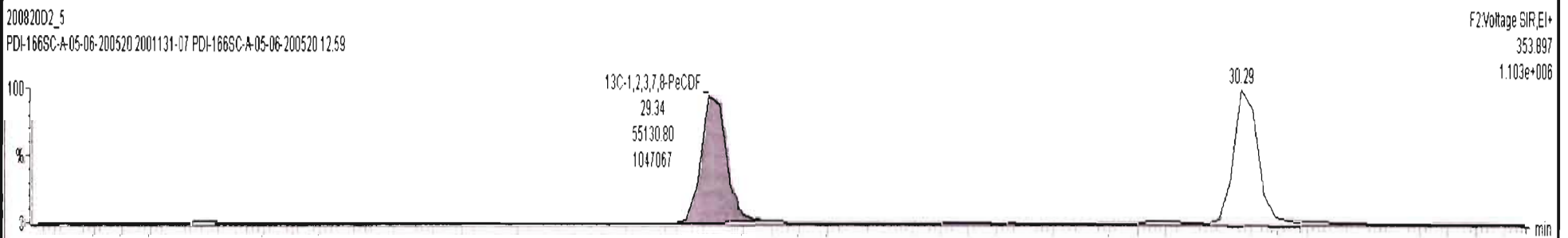
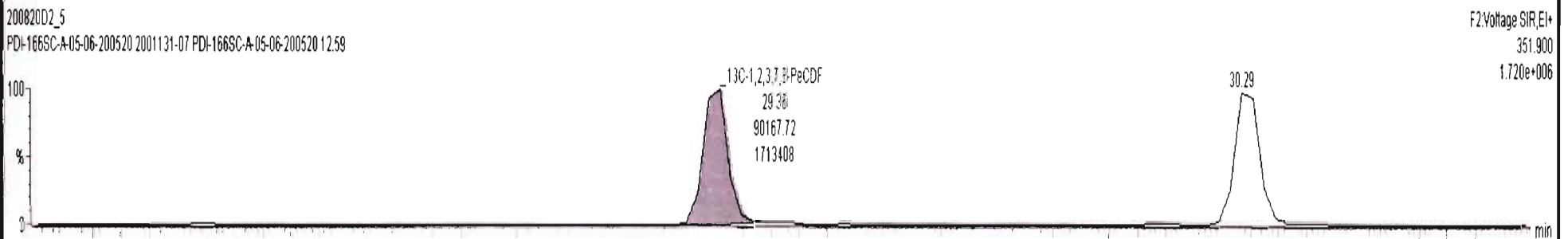
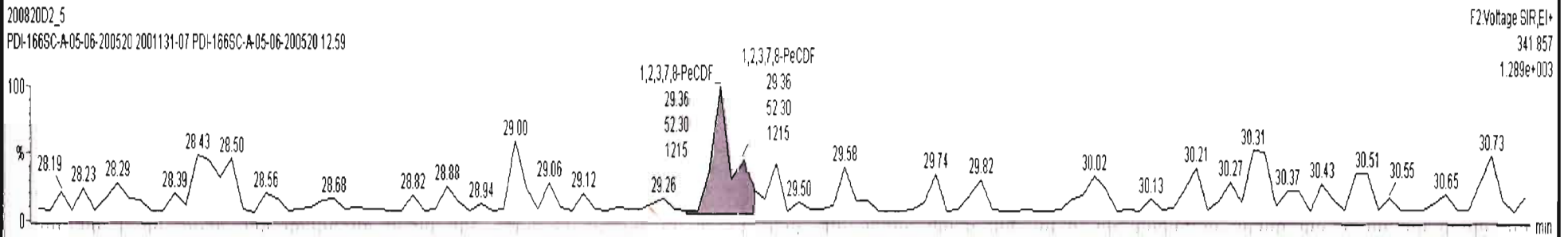
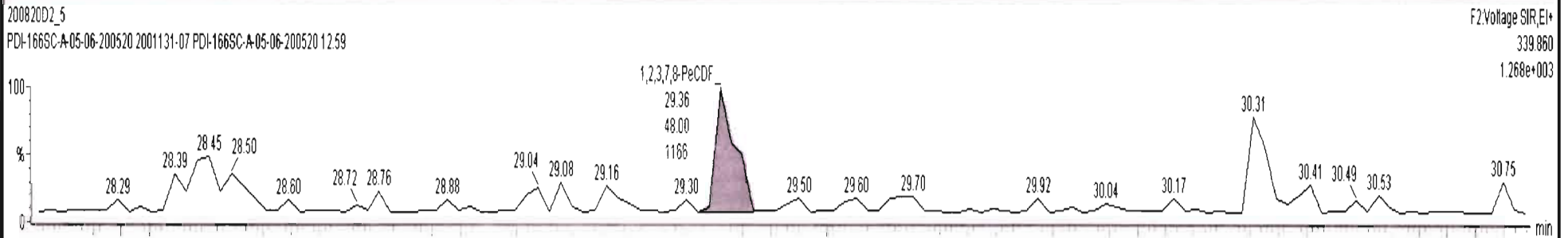


DPE2





200820D2\_5 - 2001131-07 PDI-166SC-A-05-06-200520 12.59 - PDI-166SC-A-05-06-200520

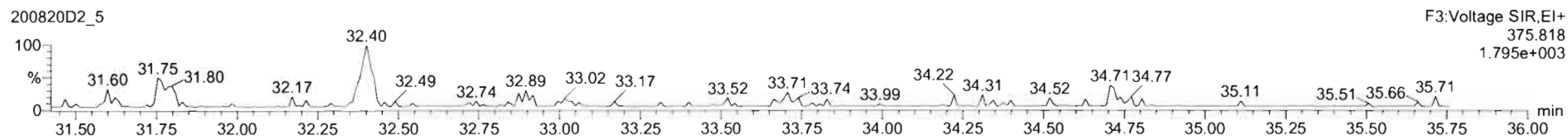
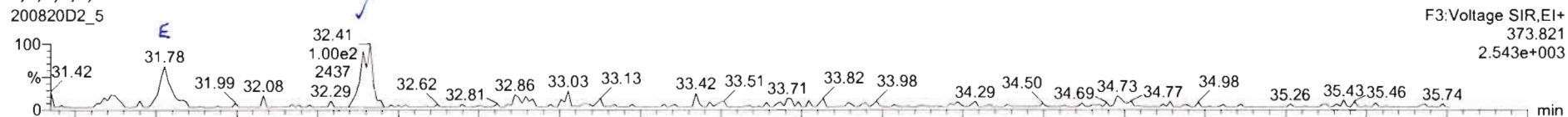


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

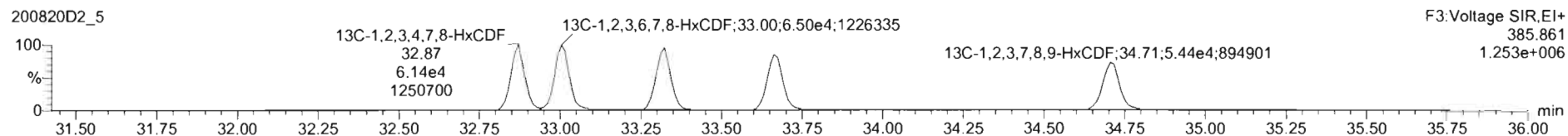
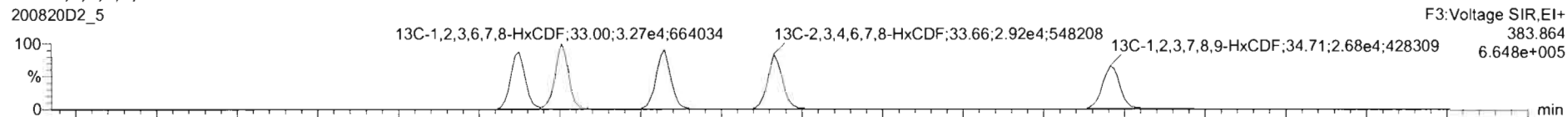
Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

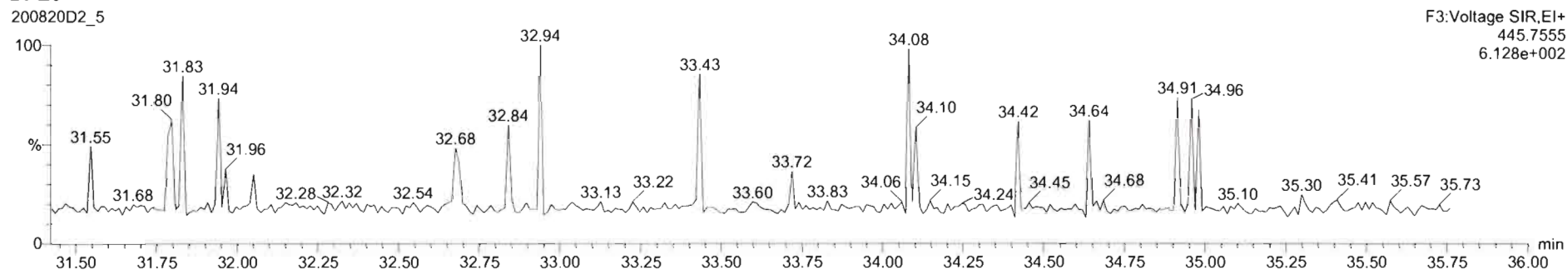
1,2,3,4,7,8-HxCDF



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

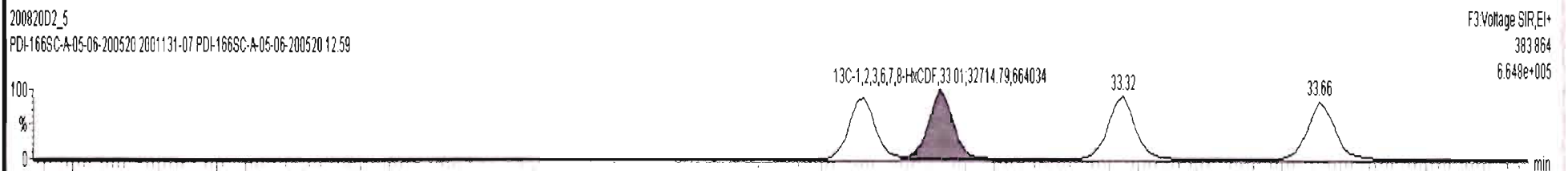
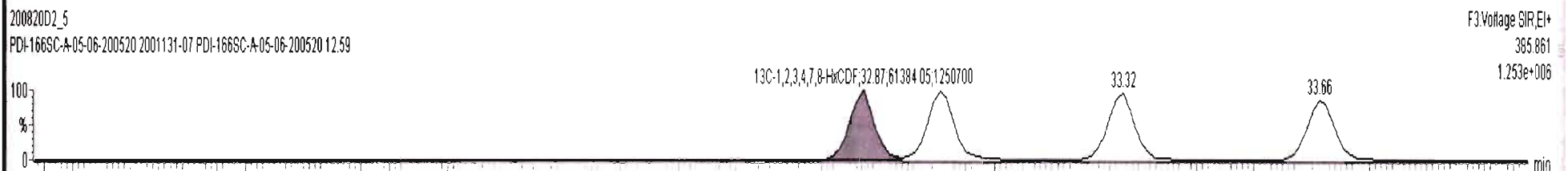
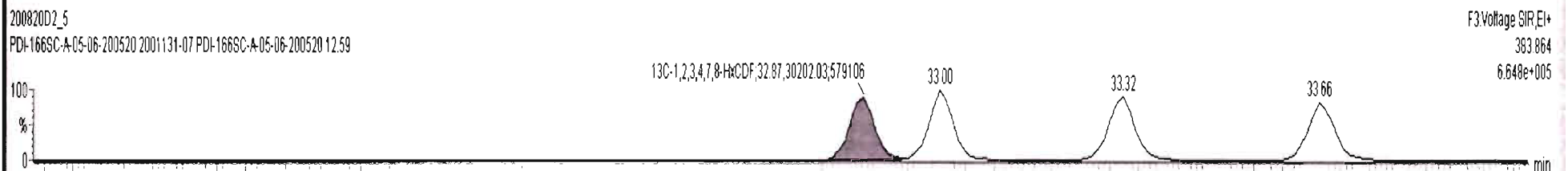
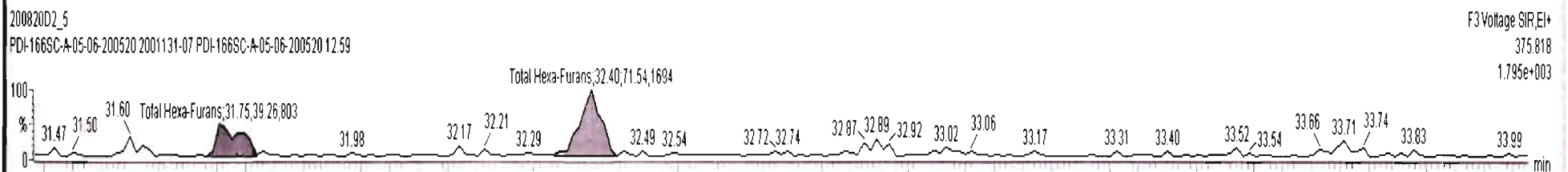
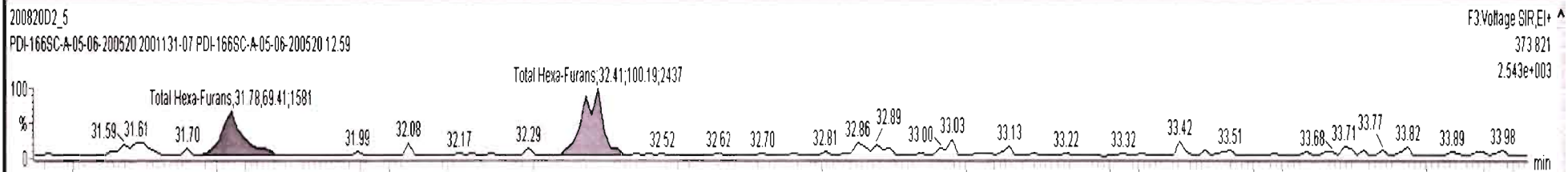


DPE3





200820D2\_5 - 2001131-07 PDI-166SC-A-05-06-200520 12.59 - PDI-166SC-A-05-06-200520

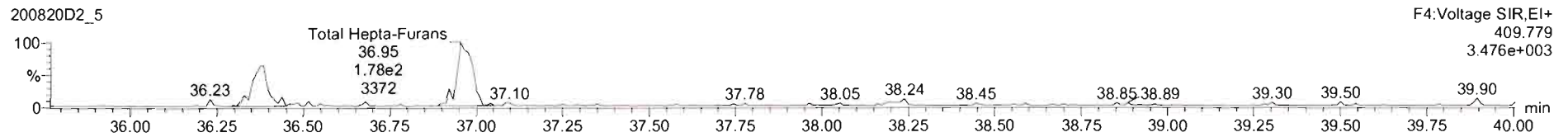


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

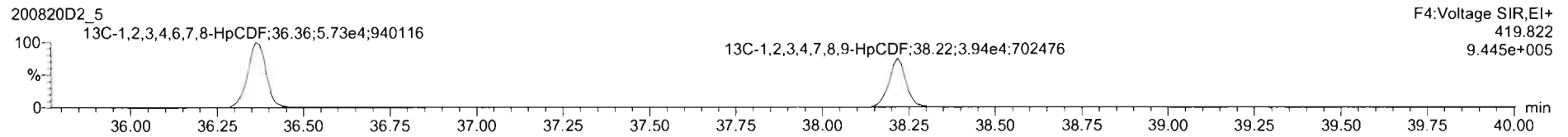
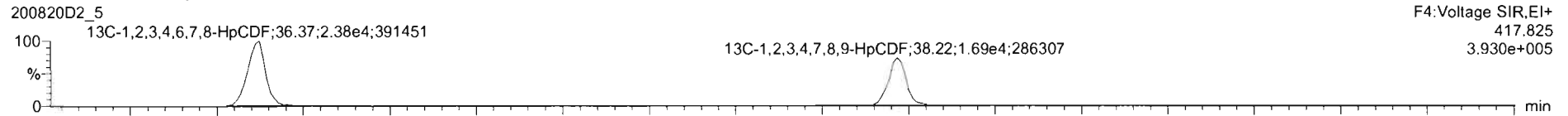
Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520

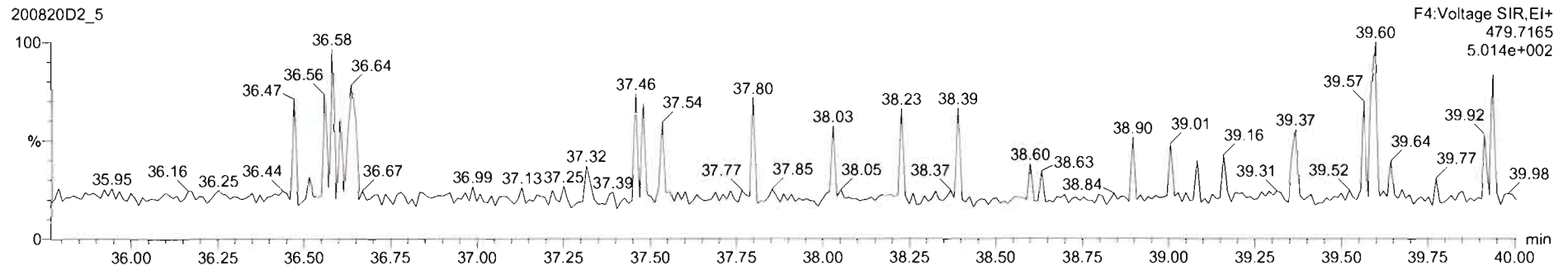
**1,2,3,4,6,7,8-HpCDF**



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

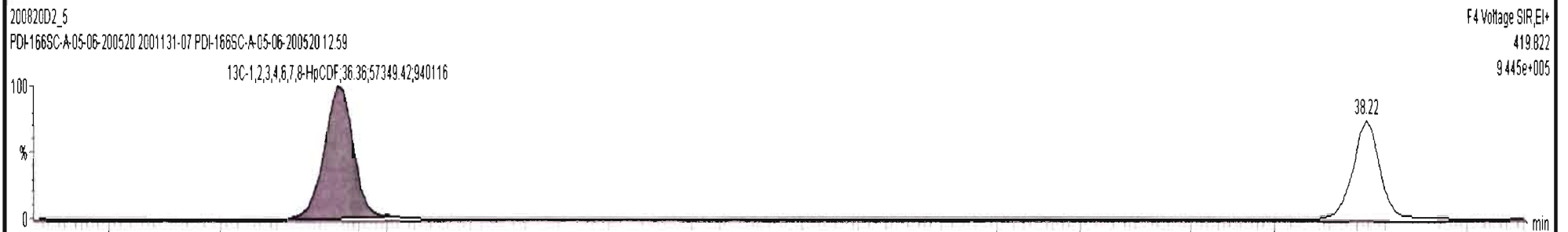
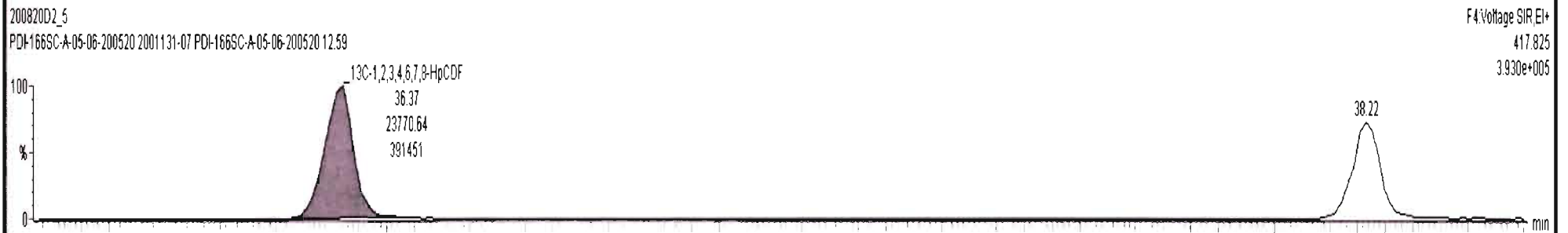
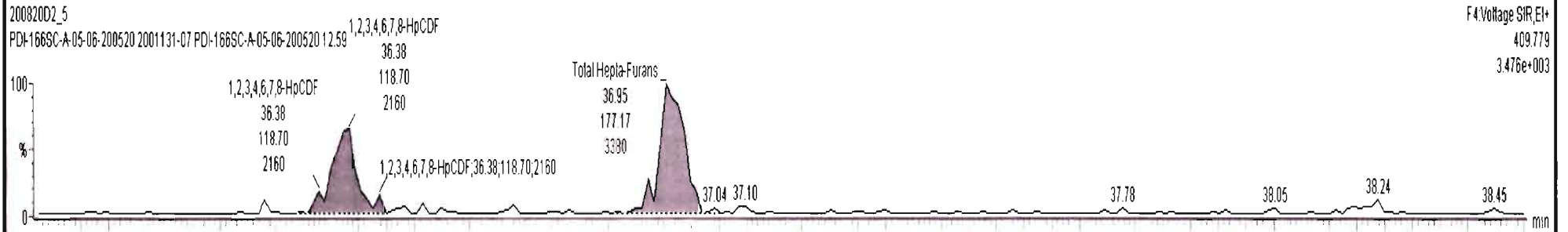
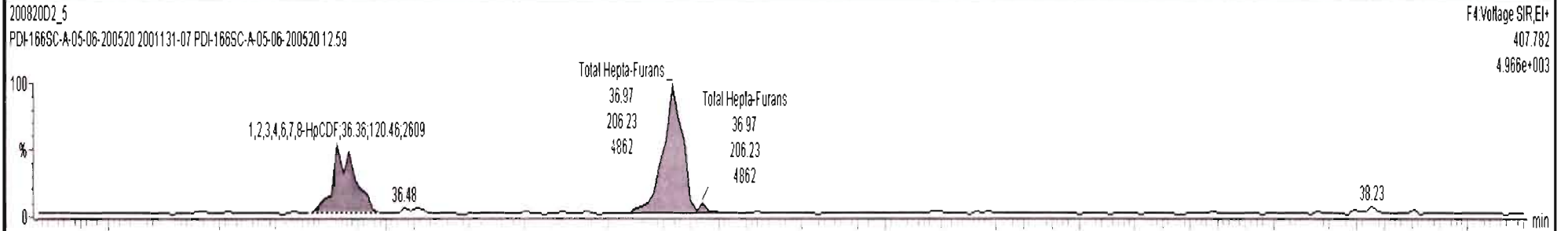


**DPE4**





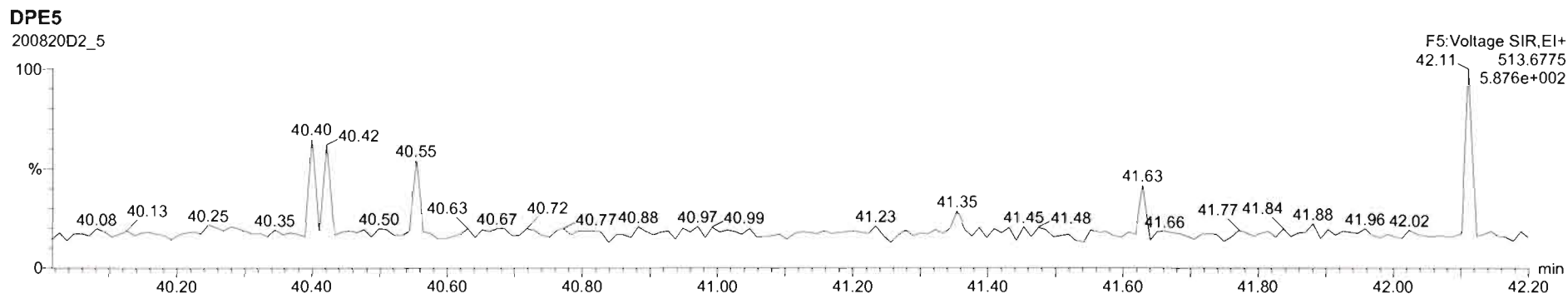
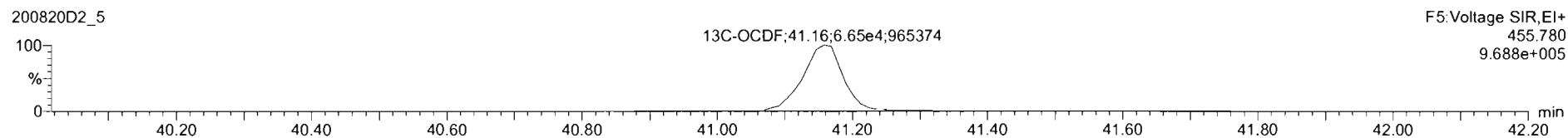
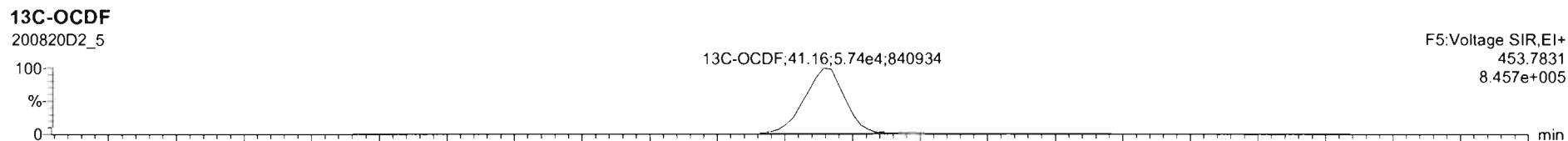
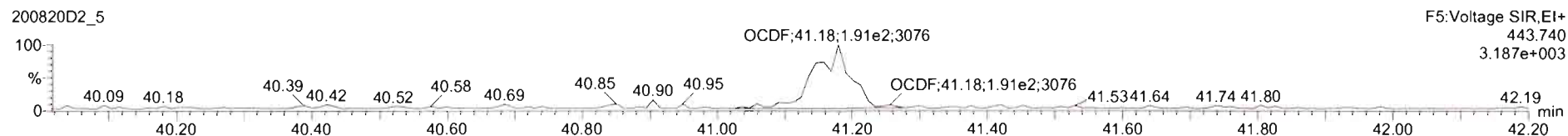
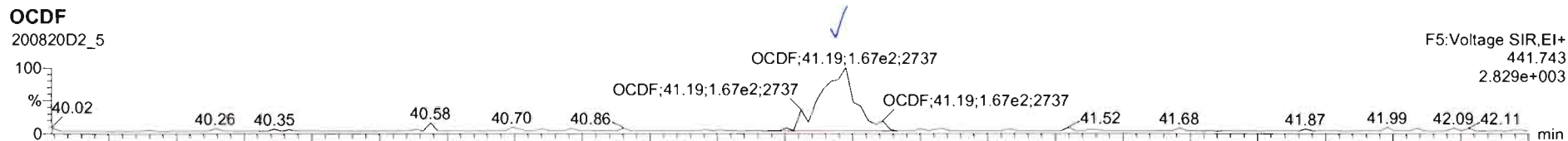
20082002\_5 - 2001131-07 PDI-166SC-A-05-06-200520 12.59 - PDI-166SC-A-05-06-200520



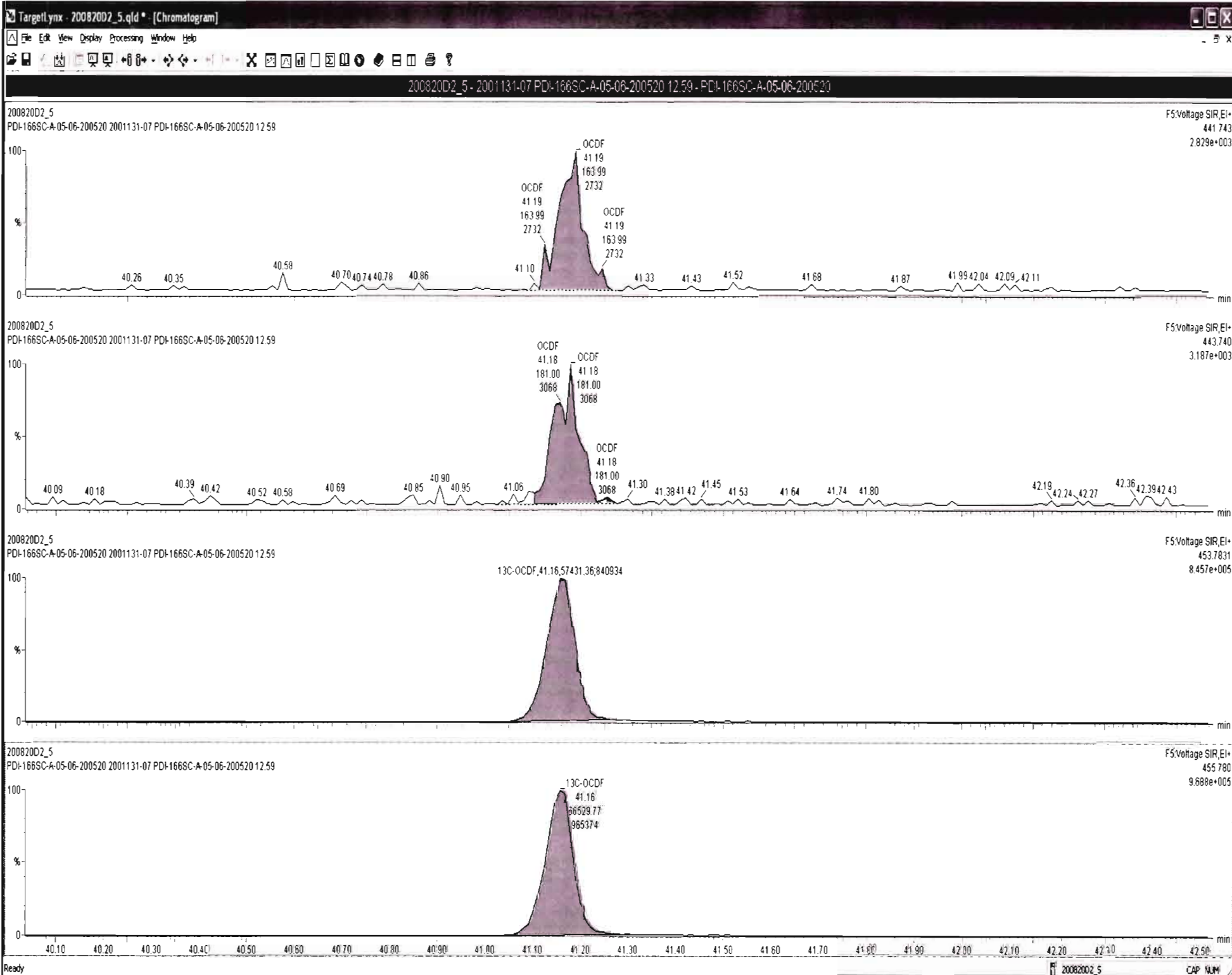
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520



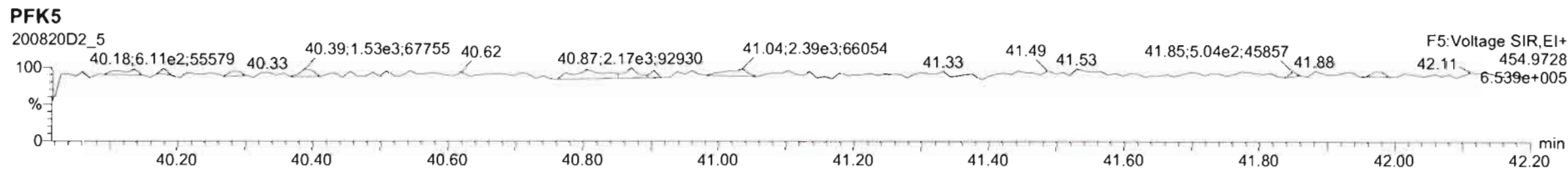
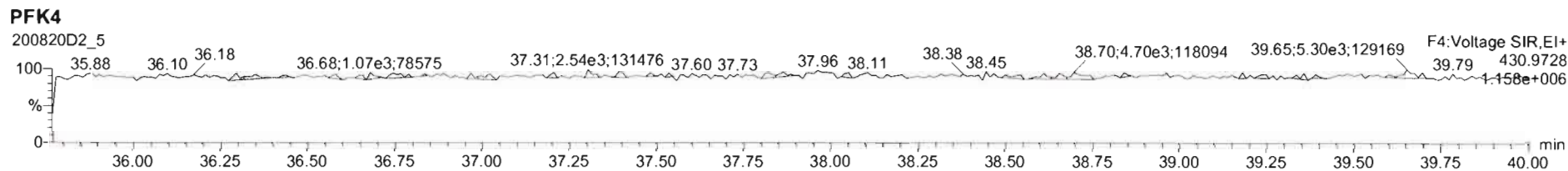
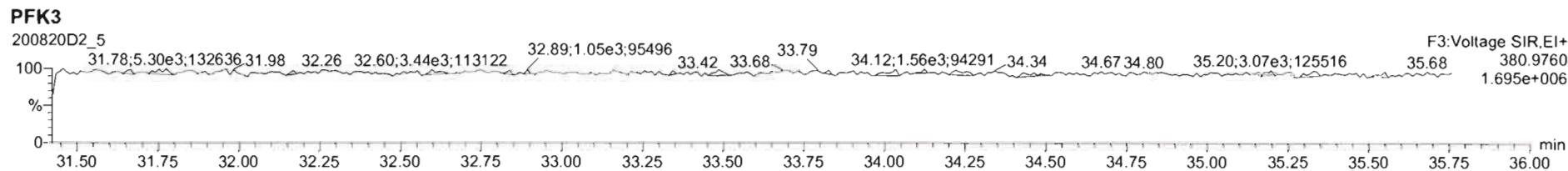
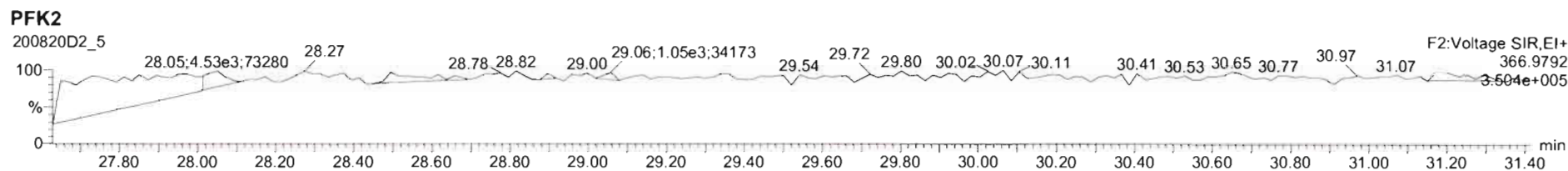
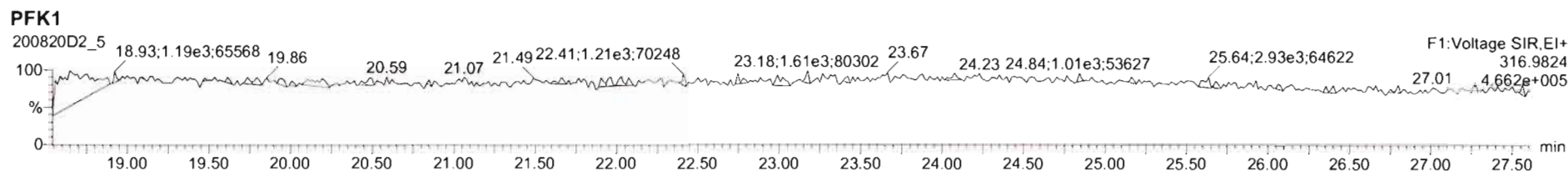




Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_5.qld

Last Altered: Friday, August 21, 2020 10:46:50 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:47:44 Pacific Daylight Time

Name: 200820D2\_5, Date: 21-Aug-2020, Time: 04:57:13, ID: 2001131-07 PDI-166SC-A-05-06-200520 12.59, Description: PDI-166SC-A-05-06-200520



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 15:15:54 Pacific Daylight Time  
Printed: Monday, August 24, 2020 15:17:10 Pacific Daylight Time

*DB 8/24/20*

*C1 08/25/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

#	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	1.77e2	0.66	NO	1.08	10.031	26.249	26.25	1.001	1.001	0.29355		0.160	0.294
2	2 1,2,3,7,8-PeCDD	1.81e2	0.99	YES	0.991	10.031	30.508	30.51	1.001	1.001	0.40208		0.247	0.330
3	3 1,2,3,4,7,8-HxCDD	1.80e2	1.33	NO	1.04	10.031	33.804	33.78	1.000	1.000	0.53174		0.448	0.532
4	4 1,2,3,6,7,8-HxCDD	1.79e3	1.07	NO	0.908	10.031	33.915	33.93	1.000	1.000	5.1784		0.457	5.18
5	5 1,2,3,7,8,9-HxCDD	4.45e2	1.39	NO	0.923	10.031	34.234	34.23	1.001	1.001	1.2890		0.446	1.29
6	6 1,2,3,4,6,7,8-HpCDD	5.54e4	1.06	NO	0.926	10.031	37.569	37.57	1.000	1.000	200.95		1.60	201
7	7 OCDD	3.92e5	0.87	NO	0.834	10.031	40.828	40.85	1.000	1.001	2105.6		1.10	2110
8	8 2,3,7,8-TCDF	1.87e3	0.83	NO	0.882	10.031	25.617	25.61	1.001	1.001	2.9234		0.212	2.92
9	9 1,2,3,7,8-PeCDF	1.26e3	1.67	NO	0.937	10.031	29.382	29.38	1.001	1.001	1.8632		0.168	1.86
10	10 2,3,4,7,8-PeCDF	1.18e3	1.70	NO	1.03	10.031	30.336	30.31	1.001	1.000	1.6705		0.150	1.67
11	11 1,2,3,4,7,8-HxCDF	1.49e3	1.29	NO	1.07	10.031	32.873	32.88	1.000	1.000	3.2455		0.284	3.25
12	12 1,2,3,6,7,8-HxCDF	6.21e2	1.25	NO	1.11	10.031	33.014	33.04	1.000	1.001	1.2315		0.280	1.23
13	13 2,3,4,6,7,8-HxCDF	3.56e2	1.62	YES	1.11	10.031	33.708	33.71	1.001	1.001	0.79054		0.305	0.676
14	14 1,2,3,7,8,9-HxCDF	8.97e1	1.14	NO	1.12	10.031	34.705	34.73	1.000	1.001	0.21391		0.392	0.214
15	15 1,2,3,4,6,7,8-HpCDF	8.52e3	1.00	NO	1.15	10.031	36.398	36.37	1.001	1.000	21.688		0.532	21.7
16	16 1,2,3,4,7,8,9-HpCDF	7.12e2	0.95	NO	1.25	10.031	38.216	38.23	1.000	1.000	2.3853		0.647	2.39
17	17 OCDF	3.45e4	0.86	NO	0.961	10.031	41.157	41.17	1.000	1.000	143.25		0.530	143
18	18 13C-2,3,7,8-TCDD	1.12e5	0.79	NO	1.20	10.031	26.241	26.22	1.026	1.025	190.41	95.5	0.631	
19	19 13C-1,2,3,7,8-PeCDD	9.04e4	0.62	NO	0.910	10.031	30.502	30.49	1.193	1.192	203.80	102	0.400	
20	20 13C-1,2,3,4,7,8-HxCDD	6.47e4	1.30	NO	0.789	10.031	33.789	33.79	1.014	1.014	183.08	91.8	0.852	
21	21 13C-1,2,3,6,7,8-HxCDD	7.59e4	1.26	NO	0.885	10.031	33.898	33.92	1.017	1.018	191.38	96.0	0.759	
22	22 13C-1,2,3,7,8,9-HxCDD	7.46e4	1.33	NO	0.888	10.031	34.168	34.20	1.025	1.026	187.35	94.0	0.756	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.94e4	1.00	NO	0.740	10.031	37.621	37.56	1.129	1.127	179.09	89.8	1.30	
24	24 13C-OCDD	8.91e4	0.84	NO	0.660	10.031	40.633	40.83	1.219	1.225	301.36	75.6	0.835	
25	25 13C-2,3,7,8-TCDF	1.44e5	0.76	NO	1.09	10.031	25.320	25.59	0.990	1.001	165.01	82.8	0.602	
26	26 13C-1,2,3,7,8-PeCDF	1.44e5	1.62	NO	0.857	10.031	29.558	29.36	1.156	1.148	208.54	105	0.477	
27	27 13C-2,3,4,7,8-PeCDF	1.37e5	1.61	NO	0.796	10.031	30.461	30.31	1.191	1.185	214.56	108	0.513	
28	28 13C-1,2,3,4,7,8-HxCDF	8.55e4	0.51	NO	1.02	10.031	32.922	32.87	0.988	0.987	187.08	93.8	0.851	
29	29 13C-1,2,3,6,7,8-HxCDF	9.04e4	0.51	NO	1.00	10.031	33.055	33.00	0.992	0.990	201.09	101	0.866	
30	30 13C-2,3,4,6,7,8-HxCDF	8.08e4	0.51	NO	0.936	10.031	33.625	33.67	1.009	1.011	192.60	96.6	0.928	
31	31 13C-1,2,3,7,8,9-HxCDF	7.45e4	0.50	NO	0.889	10.031	34.702	34.71	1.041	1.042	186.76	93.7	0.976	

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 15:15:54 Pacific Daylight Time

Printed: Monday, August 24, 2020 15:17:10 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

#	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	6.79e4	0.43	NO	0.849	10.031	36.221	36.36	1.087	1.091	178.35	89.5	1.01	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.75e4	0.45	NO	0.624	10.031	38.220	38.22	1.147	1.147	169.79	85.2	1.38	
34	34 13C-OCDF	1.00e5	0.85	NO	0.693	10.031	40.786	41.16	1.224	1.235	321.83	80.7	0.821	
35	35 37Cl-2,3,7,8-TCDD	4.19e4			1.28	10.031	26.238	26.23	1.026	1.026	67.362	84.5	0.181	
36	36 13C-1,2,3,4-TCDD	9.72e4	0.75	NO	1.00	10.031	25.550	25.58	1.000	1.000	199.37	100	0.759	
37	37 13C-1,2,3,4-TCDF	1.60e5	0.79	NO	1.00	10.031	24.250	24.29	1.000	1.000	199.37	100	0.655	
38	38 13C-1,2,3,4,6,9-HxCDF	8.94e4	0.50	NO	1.00	10.031	33.300	33.32	1.000	1.000	199.37	100	0.868	
39	39 Total Tetra-Dioxins				1.08	10.031	24.620		0.000		1.8156		0.160	2.17
40	40 Total Penta-Dioxins				0.991	10.031	29.960		0.000		2.0812		0.247	3.17
41	41 Total Hexa-Dioxins				0.908	10.031	33.635		0.000		31.869		0.473	31.9
42	42 Total Hepta-Dioxins				0.926	10.031	37.640		0.000		359.01		1.60	359
43	43 Total Tetra-Furans				0.882	10.031	23.610		0.000		12.832		0.212	14.0
44	44 1st Func. Penta-Furans				0.937	10.031	26.750		0.000		4.0299		0.0790	4.03
45	45 Total Penta-Furans				0.937	10.031	29.275		0.000		8.0181		0.166	8.32
46	46 Total Hexa-Furans				1.11	10.031	33.555		0.000		27.391		0.318	28.1
47	47 Total Hepta-Furans				1.15	10.031	37.835		0.000		112.75		0.603	113

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 15:15:54 Pacific Daylight Time

Printed: Monday, August 24, 2020 15:17:10 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.99	2.170e3	3.075e3	1.919e2	2.171e2	0.88	NO	4.090e2	0.67733	0.67733	0.160
2	Total Tetra-Dioxins	23.25	9.230e2	1.338e3	6.048e1	8.697e1	0.70	NO	1.474e2	0.24418	0.24418	0.160
3	Total Tetra-Dioxins	24.41	1.840e3	2.541e3	9.034e1	1.272e2	0.71	NO	2.175e2	0.36024	0.36024	0.160
4	Total Tetra-Dioxins	24.80	1.238e3	1.434e3	6.375e1	8.133e1	0.78	NO	1.451e2	0.24026	0.24026	0.160
5	Total Tetra-Dioxins	25.97	1.323e3	1.275e3	1.008e2	7.943e1	1.27	YES	0.000e0	0.00000	0.23282	0.160
6	2,3,7,8-TCDD	26.25	1.359e3	2.701e3	7.061e1	1.067e2	0.66	NO	1.773e2	0.29355	0.29355	0.160
7	Total Tetra-Dioxins	26.51	9.230e2	9.760e2	5.696e1	3.991e1	1.43	YES	0.000e0	0.00000	0.11698	0.160

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.43	3.407e3	5.104e3	2.604e2	3.859e2	0.67	NO	6.464e2	1.4377	1.4377	0.247
2	Total Penta-Dioxins	28.88	2.077e3	2.201e3	8.798e1	9.212e1	0.96	YES	0.000e0	0.00000	0.33398	0.247
3	Total Penta-Dioxins	29.52	2.135e3	2.218e3	1.530e2	1.168e2	1.31	YES	0.000e0	0.00000	0.42337	0.247
4	Total Penta-Dioxins	29.78	1.569e3	2.560e3	1.100e2	1.793e2	0.61	NO	2.893e2	0.64350	0.64350	0.247
5	1,2,3,7,8-PeCDD	30.51	1.560e3	2.180e3	8.974e1	9.103e1	0.99	YES	1.808e2	0.00000	0.33004	0.247

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.14	3.958e4	3.440e4	2.064e3	1.723e3	1.20	NO	3.787e3	11.585	11.585	0.473
2	Total Hexa-Dioxins	32.74	4.585e3	3.909e3	2.256e2	1.922e2	1.17	NO	4.178e2	1.2780	1.2780	0.473
3	Total Hexa-Dioxins	33.04	3.647e4	3.337e4	1.988e3	1.628e3	1.22	NO	3.616e3	11.062	11.062	0.473
4	Total Hexa-Dioxins	33.13	2.463e3	2.647e3	1.755e2	1.333e2	1.32	NO	3.089e2	0.94478	0.94478	0.473
5	1,2,3,4,7,8-HxCDD	33.78	1.832e3	1.910e3	1.024e2	7.710e1	1.33	NO	1.795e2	0.53174	0.53174	0.448
6	1,2,3,6,7,8-HxCDD	33.93	1.644e4	1.701e4	9.249e2	8.663e2	1.07	NO	1.791e3	5.1784	5.1784	0.457
7	1,2,3,7,8,9-HxCDD	34.23	3.940e3	2.937e3	2.589e2	1.865e2	1.39	NO	4.454e2	1.2890	1.2890	0.446

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 15:15:54 Pacific Daylight Time

Printed: Monday, August 24, 2020 15:17:10 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.70	3.867e5	3.717e5	2.202e4	2.155e4	1.02	NO	4.357e4	158.06	158.06	1.60
2	1,2,3,4,6,7,8-HpCDD	37.57	5.346e5	5.104e5	2.856e4	2.684e4	1.06	NO	5.539e4	200.95	200.95	1.60

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	21.54	1.407e3	2.219e3	1.159e2	1.529e2	0.76	NO	0.000e0	0.00000	0.42081	0.212
2	Total Tetra-Furans	22.23	6.633e3	7.598e3	4.668e2	6.445e2	0.72	NO	1.111e3	1.7400	1.7400	0.212
3	Total Tetra-Furans	23.01	4.224e3	5.626e3	3.782e2	4.287e2	0.88	NO	8.069e2	1.2635	1.2635	0.212
4	Total Tetra-Furans	23.42	3.244e3	3.616e3	2.237e2	2.807e2	0.80	NO	5.045e2	0.78987	0.78987	0.212
5	Total Tetra-Furans	23.51	1.296e3	2.071e3	8.627e1	1.048e2	0.82	NO	1.911e2	0.29922	0.29922	0.212
6	Total Tetra-Furans	23.70	2.205e3	1.652e3	9.674e1	1.186e2	0.82	NO	2.153e2	0.33717	0.33717	0.212
7	Total Tetra-Furans	24.14	1.626e3	1.906e3	9.117e1	1.362e2	0.67	NO	0.000e0	0.00000	0.35594	0.212
8	Total Tetra-Furans	24.34	5.307e3	6.198e3	3.907e2	5.076e2	0.77	NO	8.982e2	1.4064	1.4064	0.212
9	Total Tetra-Furans	24.77	1.206e4	1.905e4	7.466e2	1.033e3	0.72	NO	1.779e3	2.7857	2.7857	0.212
10	Total Tetra-Furans	25.48	2.370e3	3.566e3	1.445e2	2.093e2	0.69	NO	3.538e2	0.55399	0.55399	0.212
11	2,3,7,8-TCDF	25.61	1.512e4	2.005e4	8.495e2	1.017e3	0.83	NO	1.867e3	2.9234	2.9234	0.212
12	Total Tetra-Furans	25.88	4.071e3	4.371e3	1.999e2	2.679e2	0.75	NO	4.678e2	0.73243	0.73243	0.212
13	Total Tetra-Furans	26.83	1.060e3	9.090e2	6.125e1	5.823e1	1.05	YES	0.000e0	0.00000	0.16139	0.212
14	Total Tetra-Furans	27.30	1.384e3	1.233e3	8.039e1	8.328e1	0.97	YES	0.000e0	0.00000	0.23080	0.212

**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	27.00	3.042e4	1.936e4	1.570e3	1.092e3	1.44	NO	2.662e3	4.0299	4.0299	0.0790

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 15:15:54 Pacific Daylight Time

Printed: Monday, August 24, 2020 15:17:10 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.33	1.742e3	1.986e3	1.194e2	1.073e2	1.11	YES	0.000e0	0.00000	0.29743	0.166
2	Total Penta-Furans	28.48	1.364e4	1.079e4	9.051e2	6.674e2	1.36	NO	1.572e3	2.3805	2.3805	0.166
3	Total Penta-Furans	29.02	4.716e3	2.556e3	2.823e2	1.796e2	1.57	NO	4.618e2	0.69915	0.69915	0.166
4	Total Penta-Furans	29.18	3.050e3	1.633e3	1.372e2	8.622e1	1.59	NO	2.234e2	0.33823	0.33823	0.166
5	1,2,3,7,8-PeCDF	29.38	1.530e4	8.644e3	7.880e2	4.706e2	1.67	NO	1.259e3	1.8632	1.8632	0.168
6	Total Penta-Furans	29.60	8.539e3	4.202e3	4.191e2	2.854e2	1.47	NO	7.045e2	1.0665	1.0665	0.166
7	2,3,4,7,8-PeCDF	30.31	1.235e4	7.544e3	7.433e2	4.383e2	1.70	NO	1.182e3	1.6705	1.6705	0.150

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.61	8.183e3	5.460e3	3.940e2	3.131e2	1.26	NO	7.071e2	1.5309	1.5309	0.318
2	Total Hexa-Furans	31.78	2.570e4	1.907e4	1.310e3	1.031e3	1.27	NO	2.341e3	5.0686	5.0686	0.318
3	Total Hexa-Furans	32.40	7.877e4	6.562e4	3.985e3	3.269e3	1.22	NO	7.254e3	15.707	15.707	0.318
4	1,2,3,4,7,8-HxCDF	32.88	1.562e4	1.146e4	8.410e2	6.529e2	1.29	NO	1.494e3	3.2455	3.2455	0.284
5	1,2,3,6,7,8-HxCDF	33.04	5.582e3	5.405e3	3.450e2	2.765e2	1.25	NO	6.215e2	1.2315	1.2315	0.280
6	2,3,4,6,7,8-HxCDF	33.71	4.002e3	2.261e3	2.202e2	1.360e2	1.62	YES	3.562e2	0.00000	0.67623	0.335
7	1,2,3,7,8,9-HxCDF	34.73	2.153e3	1.585e3	4.775e1	4.193e1	1.14	NO	8.968e1	0.21391	0.21391	0.392
8	Total Hexa-Furans	34.76	2.307e3	1.679e3	1.061e2	7.603e1	1.40	NO	1.821e2	0.39433	0.39433	0.318

**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	36.37	6.063e4	6.541e4	4.263e3	4.255e3	1.00	NO	8.518e3	21.688	21.688	0.532
2	Total Hepta-Furans	36.97	2.772e5	2.708e5	1.478e4	1.480e4	1.00	NO	2.958e4	88.674	88.674	0.603
3	1,2,3,4,7,8,9-HpCDF	38.23	6.966e3	6.144e3	3.460e2	3.658e2	0.95	NO	7.118e2	2.3853	2.3853	0.647

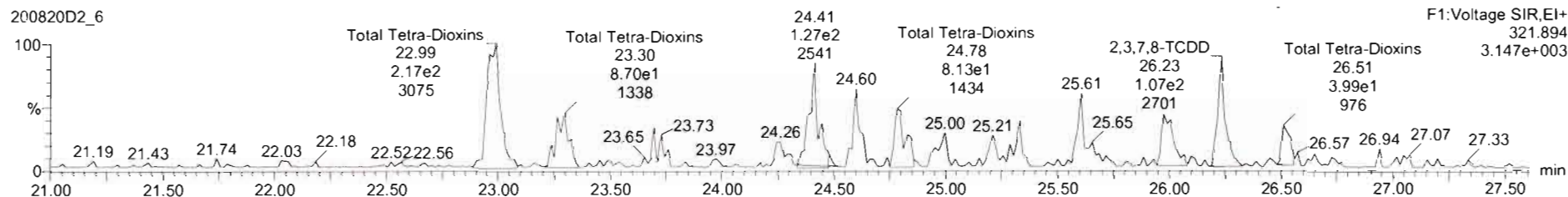
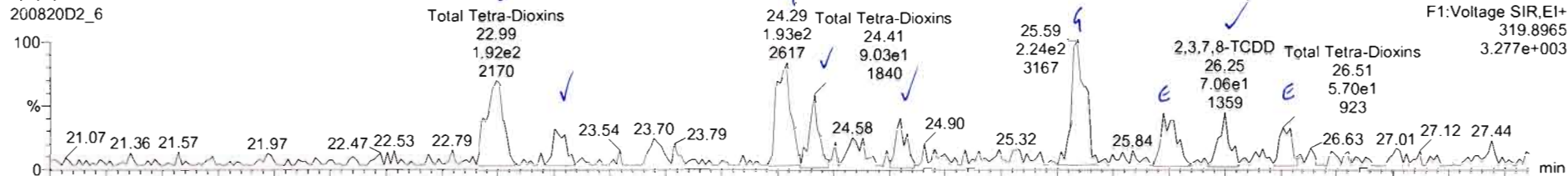
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

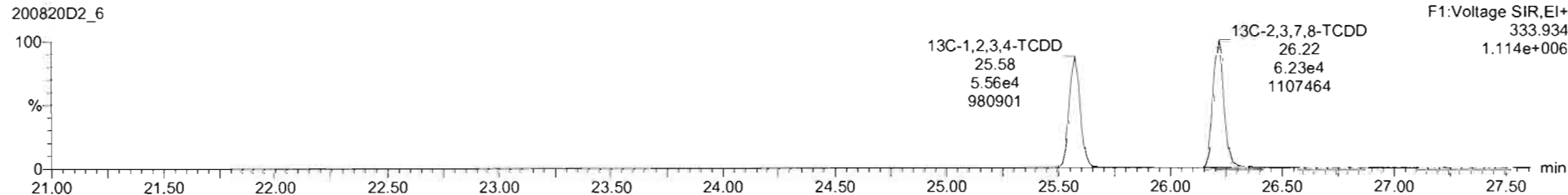
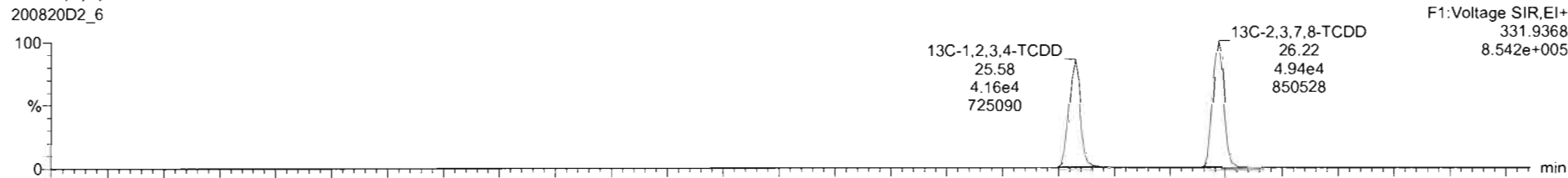
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

2,3,7,8-TCDD

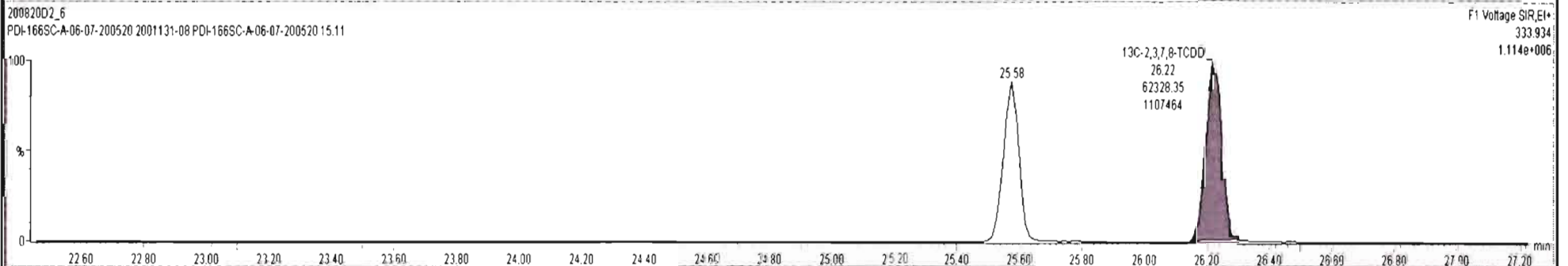
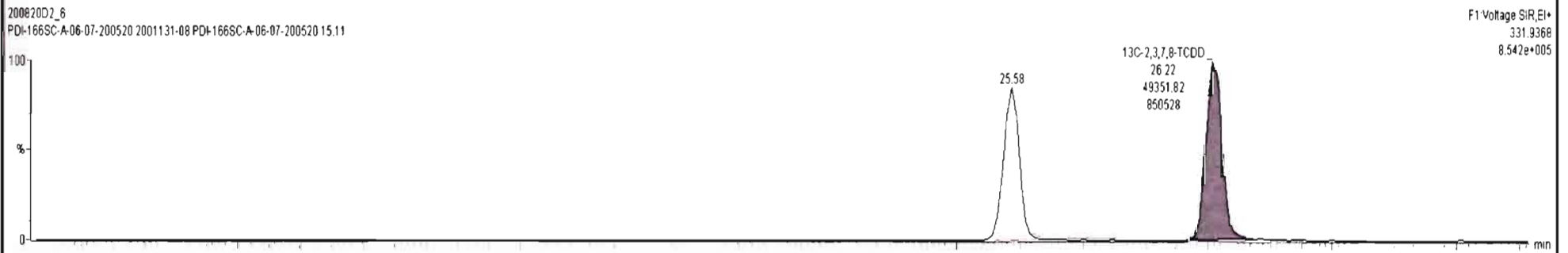
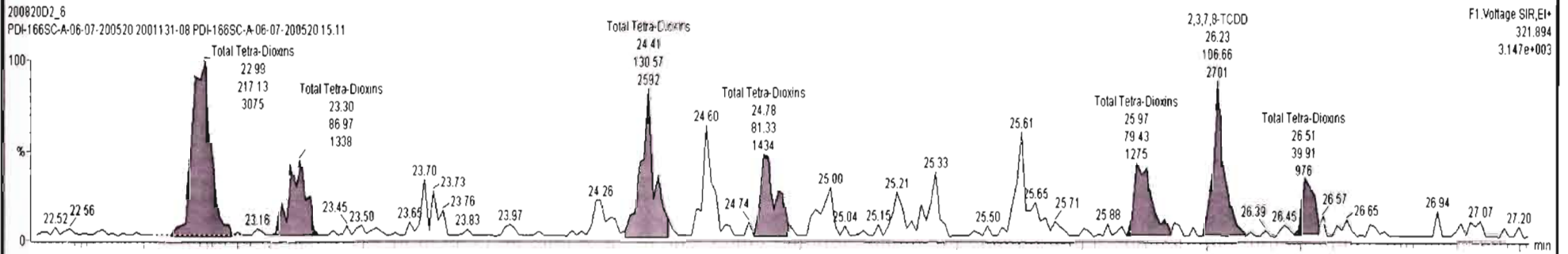
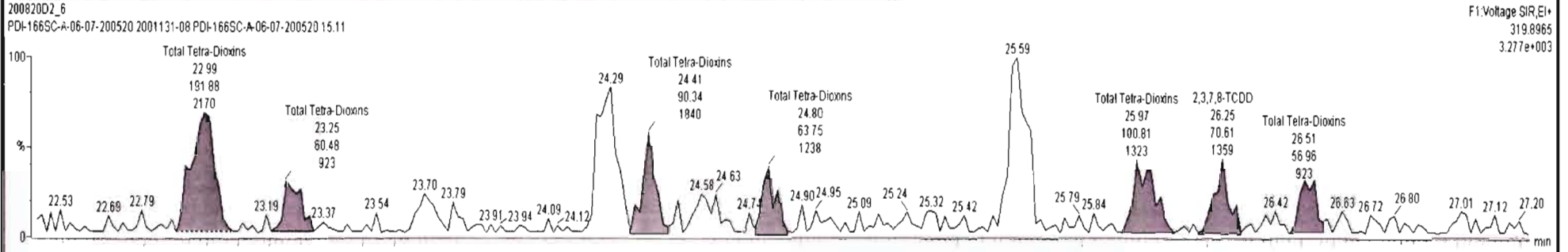


13C-2,3,7,8-TCDD





20082002\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520



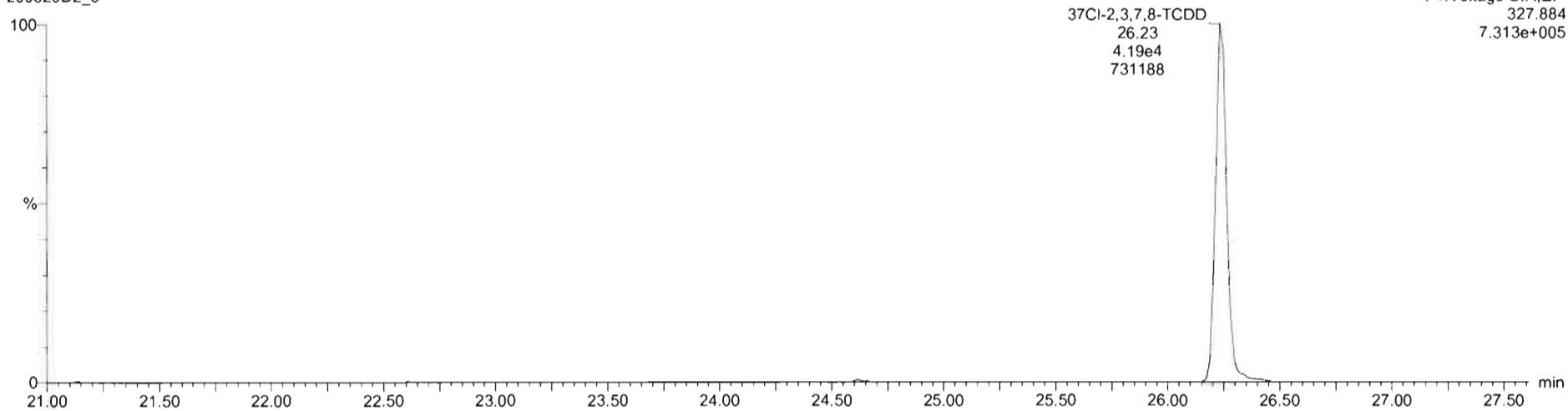
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

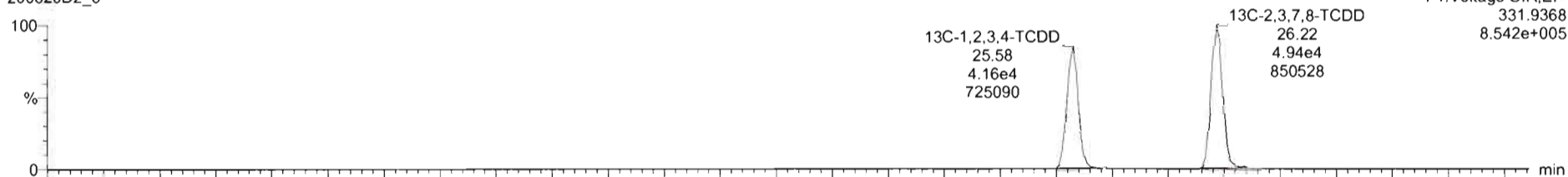
**37Cl-2,3,7,8-TCDD**

200820D2\_6

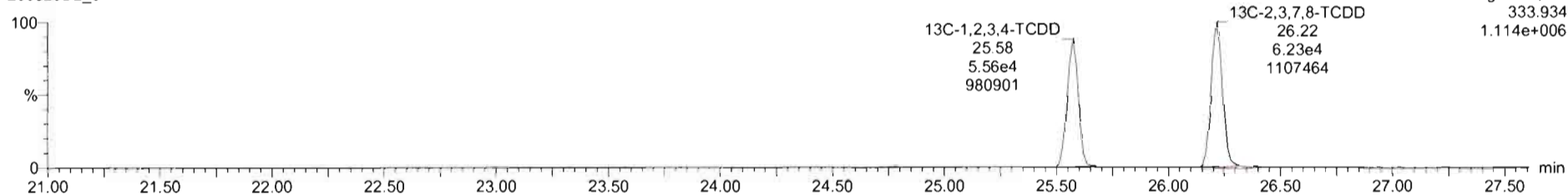


**13C-1,2,3,4-TCDD**

200820D2\_6



200820D2\_6

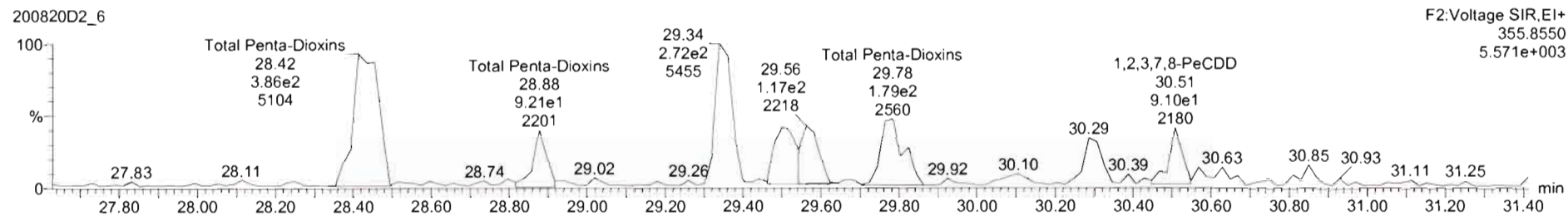
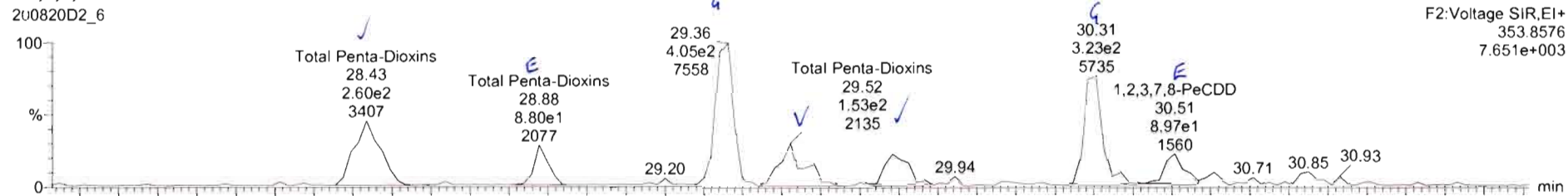


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

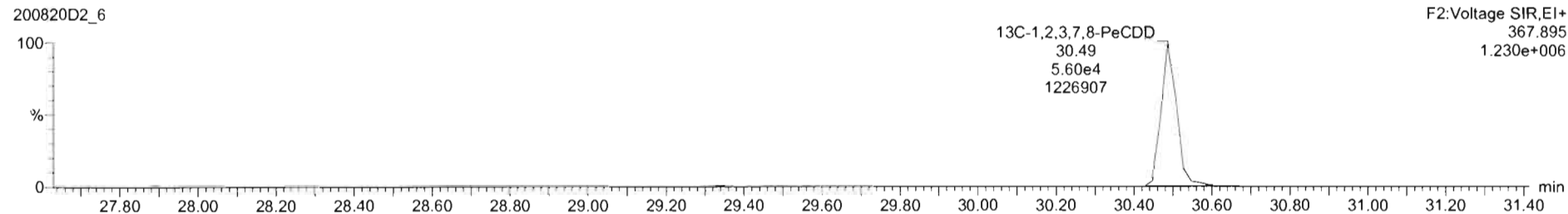
Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

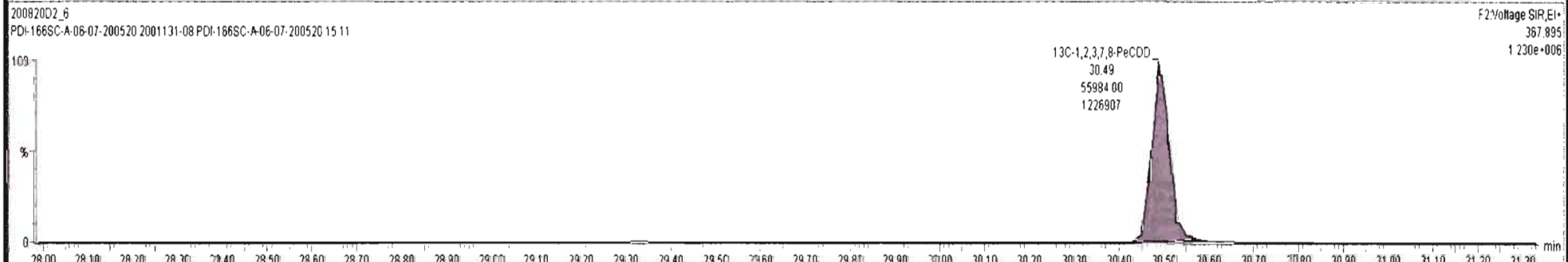
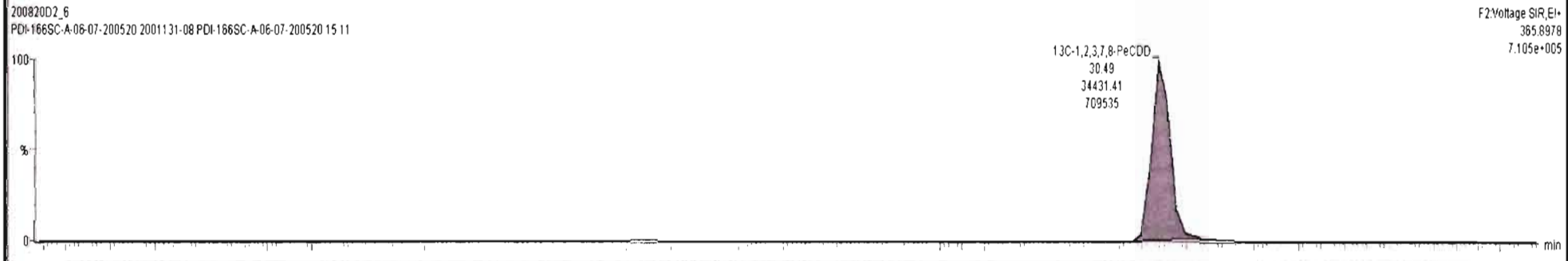
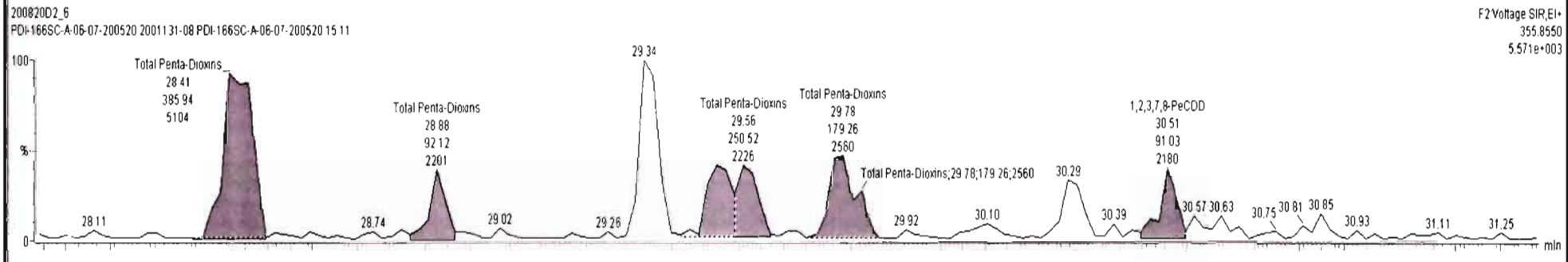
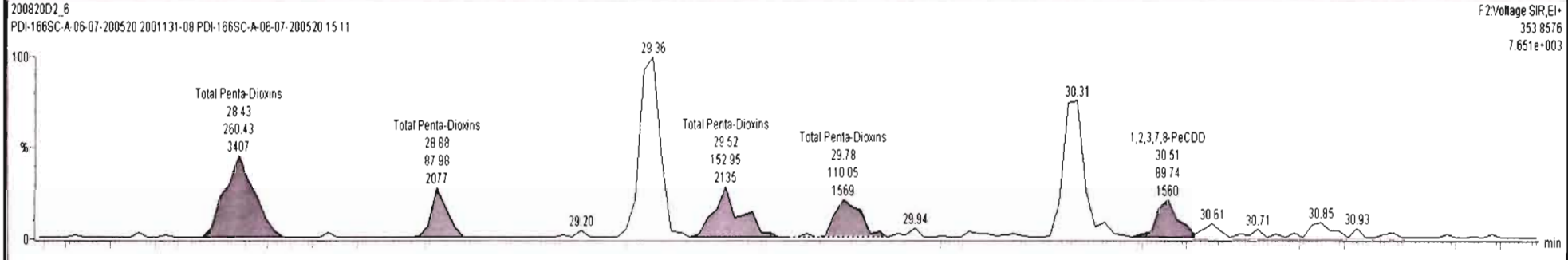
Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

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



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





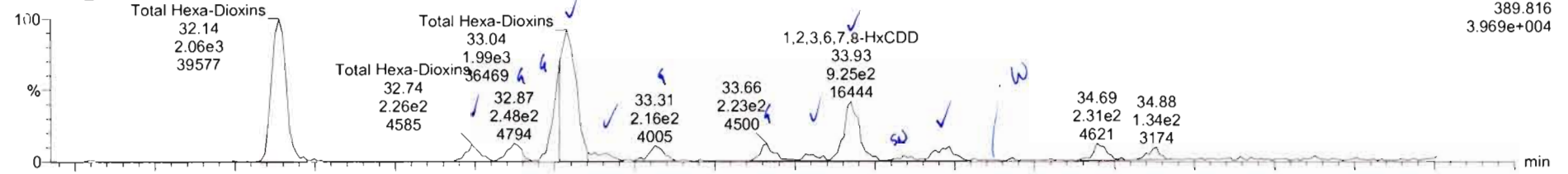
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

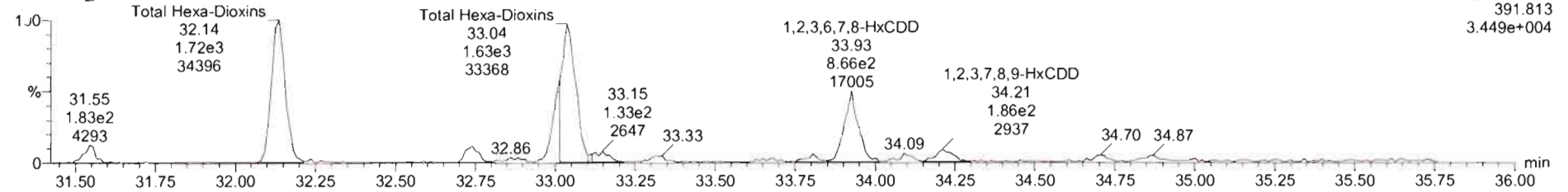
Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

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

200820D2\_6

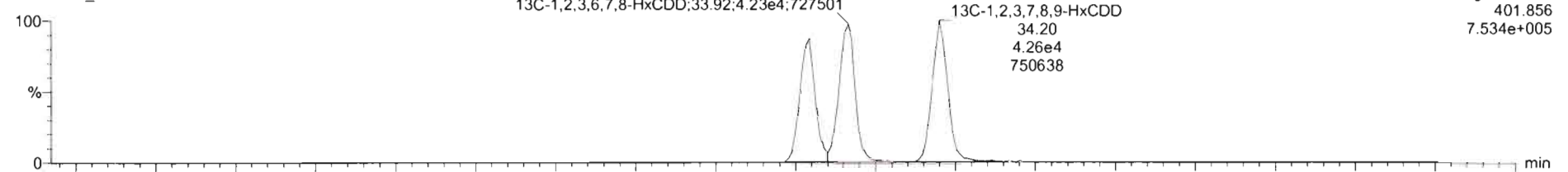


200820D2\_6

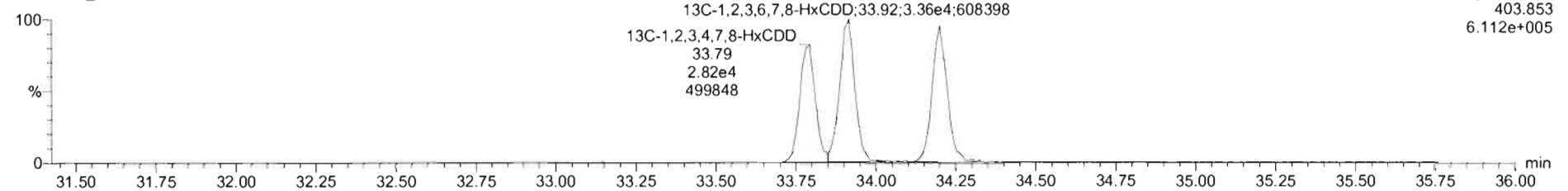


13C-1,2,3,4,7,8-HxCDD

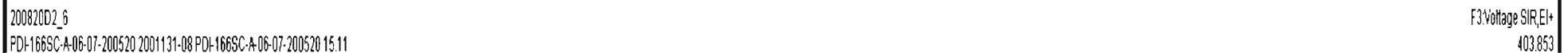
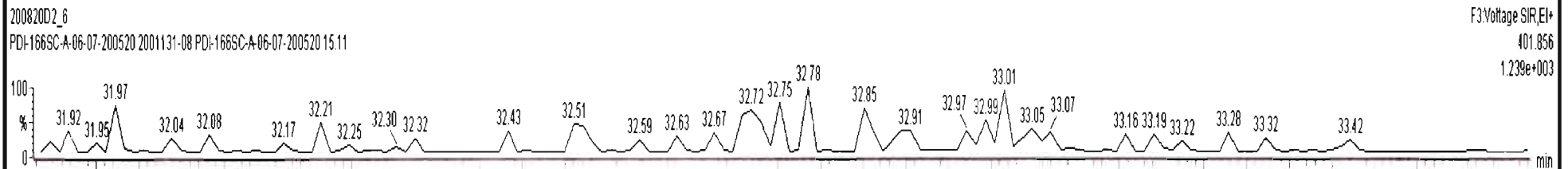
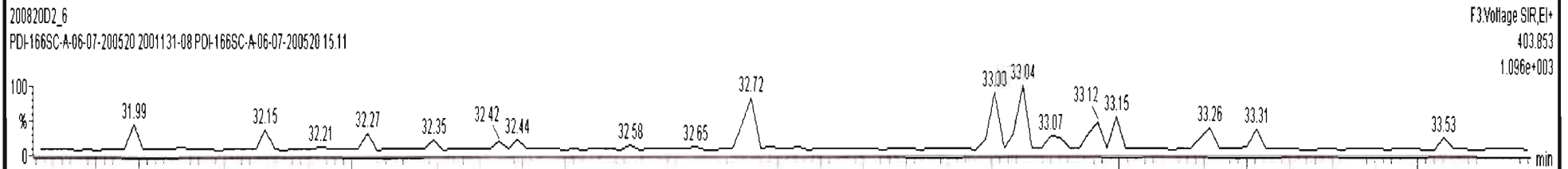
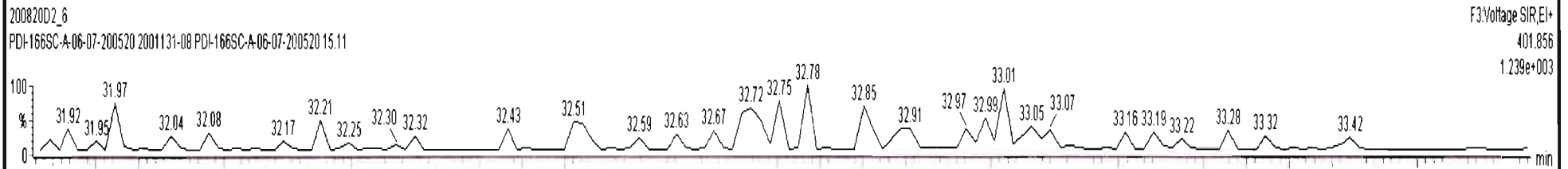
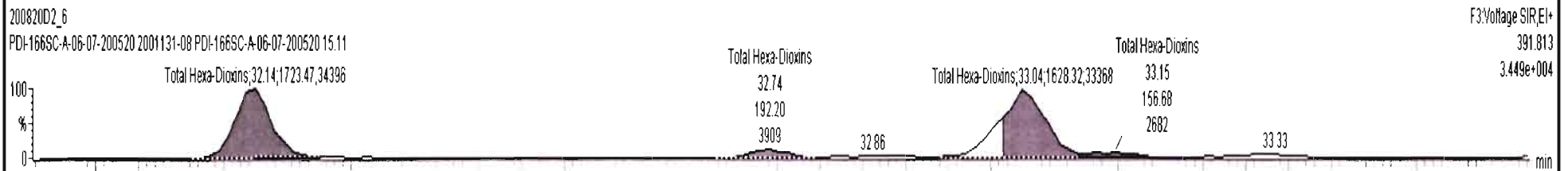
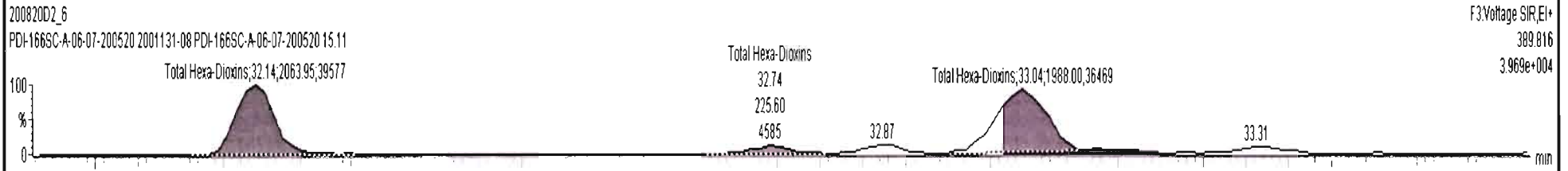
200820D2\_6



200820D2\_6

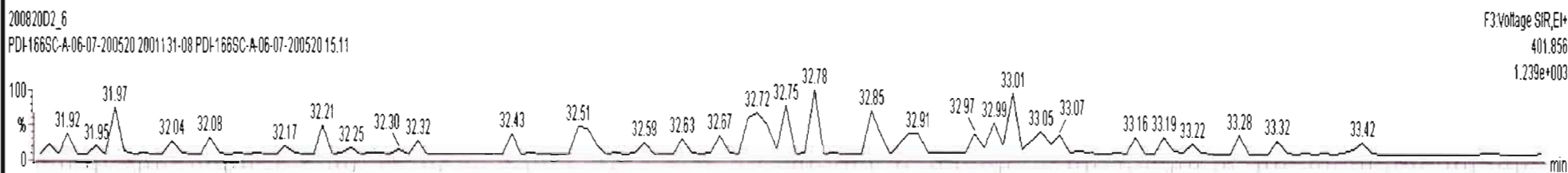
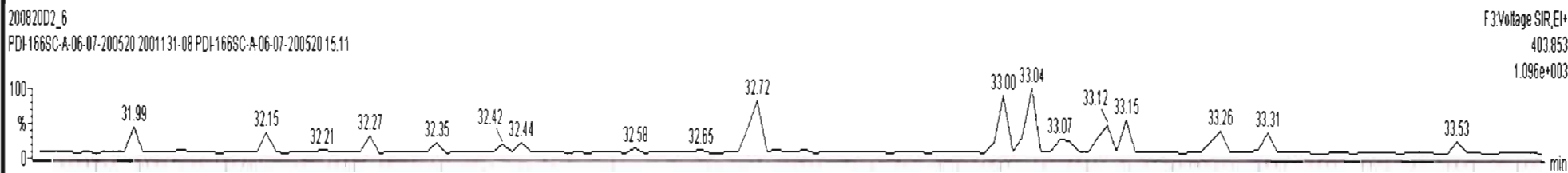
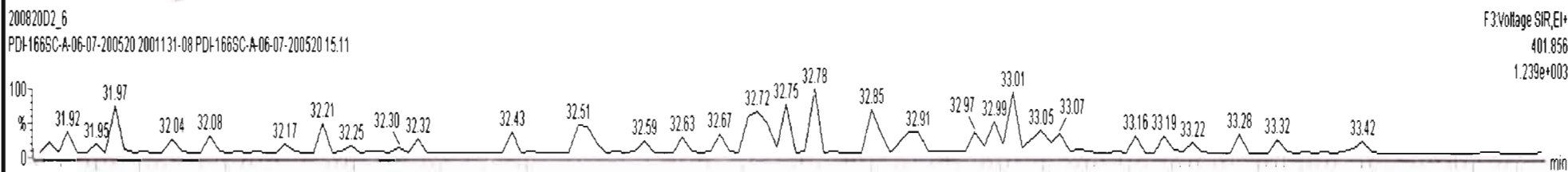
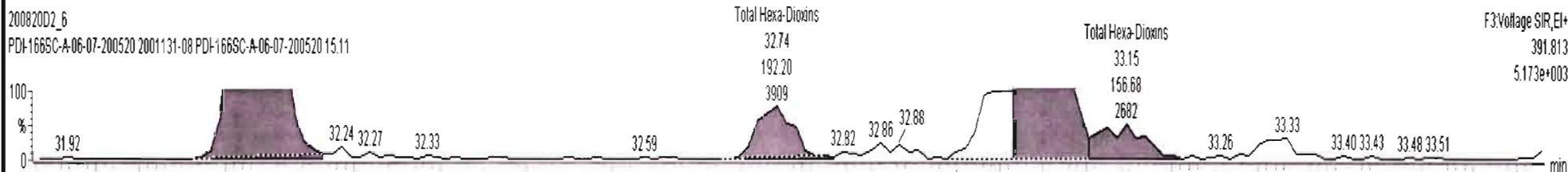


200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520



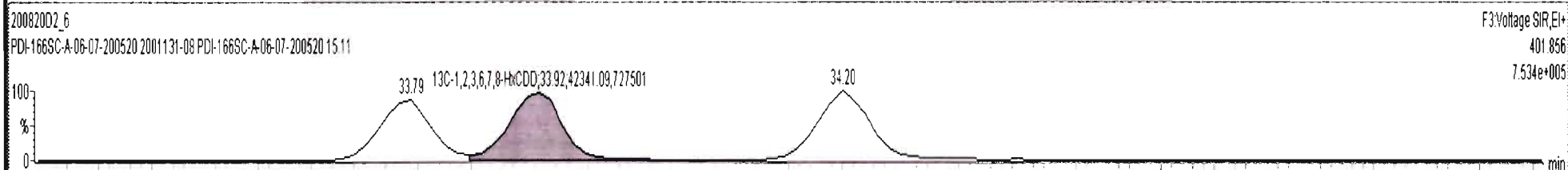
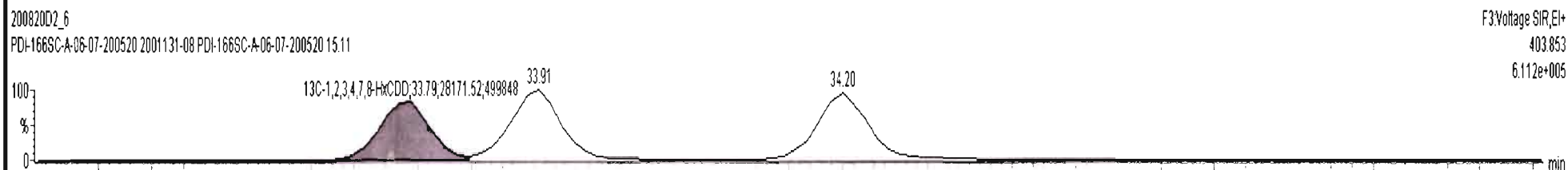
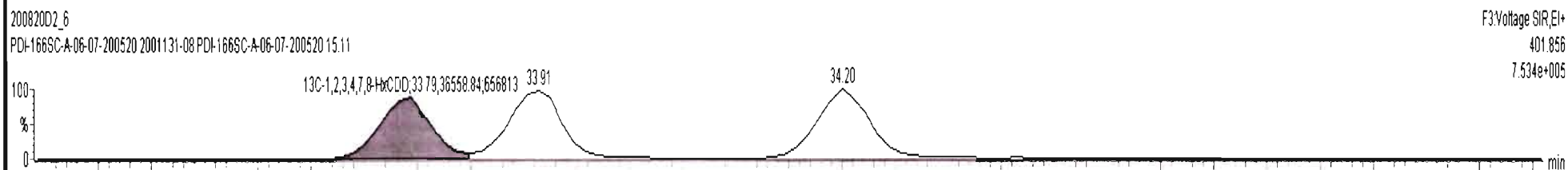
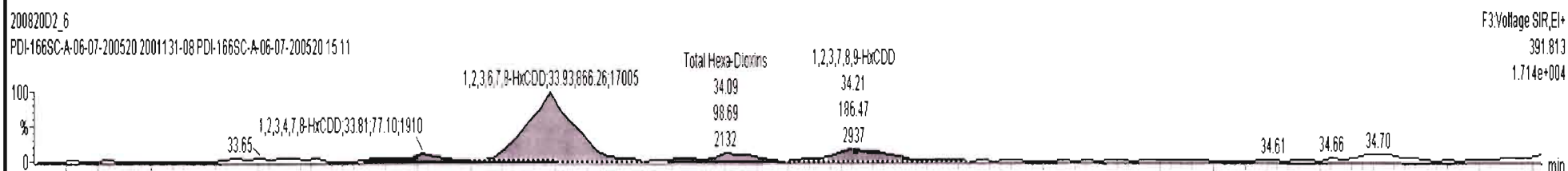
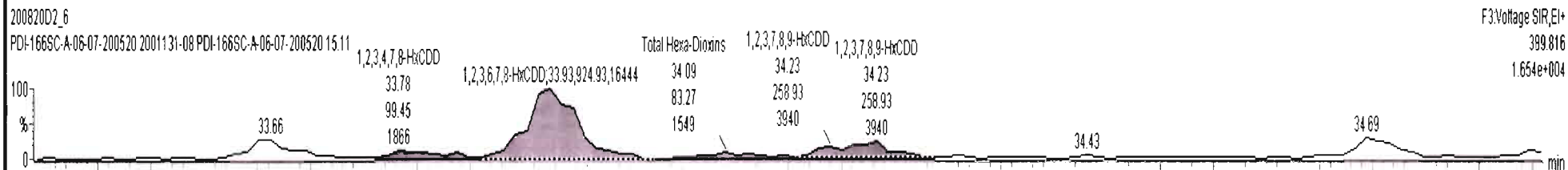


20082002\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520





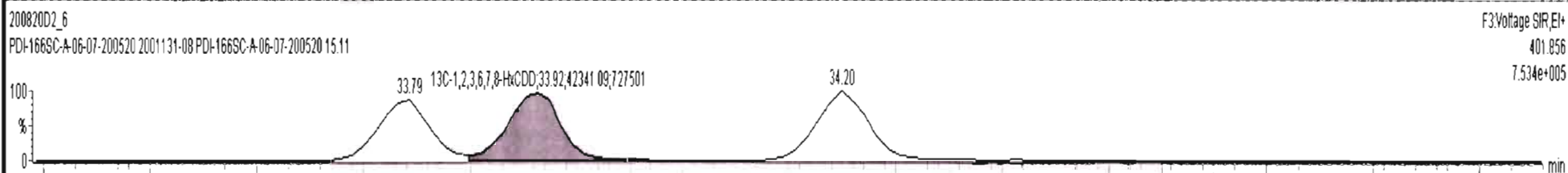
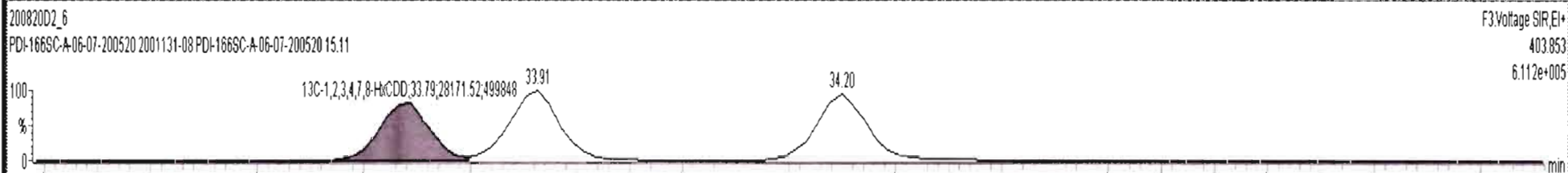
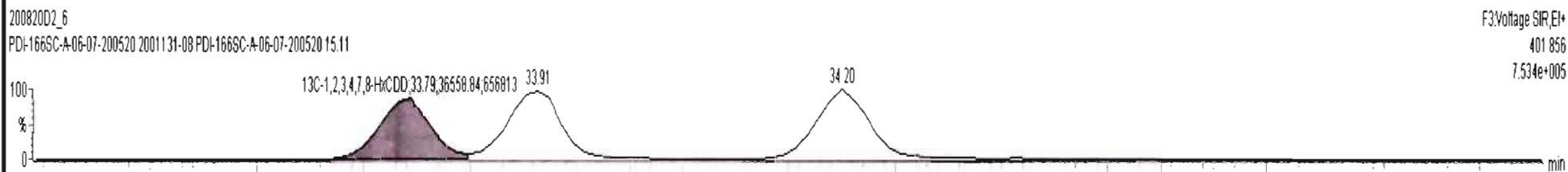
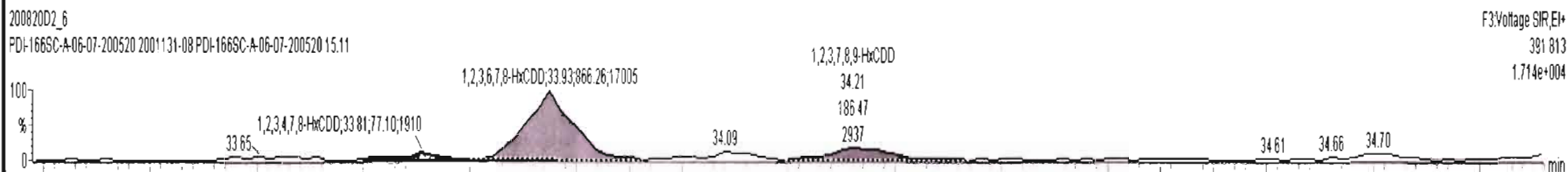
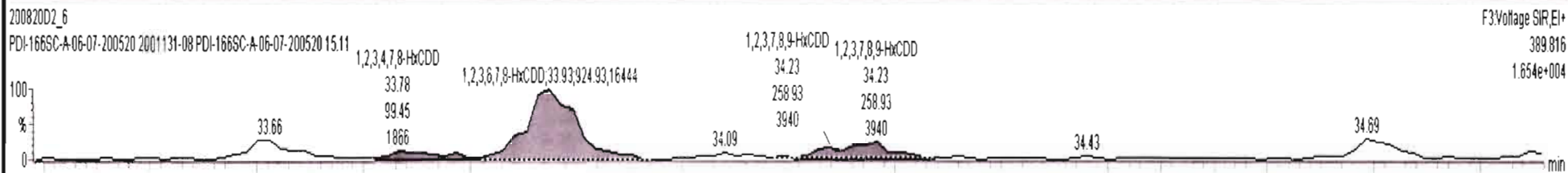
200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520

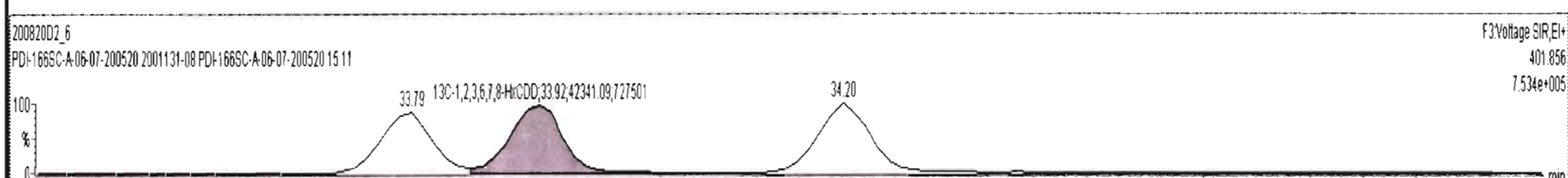
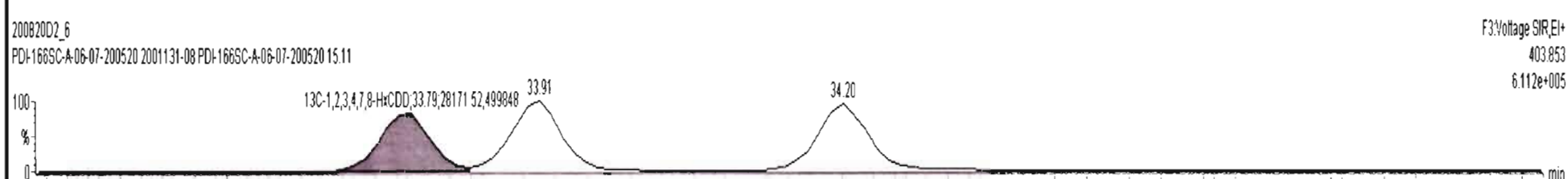
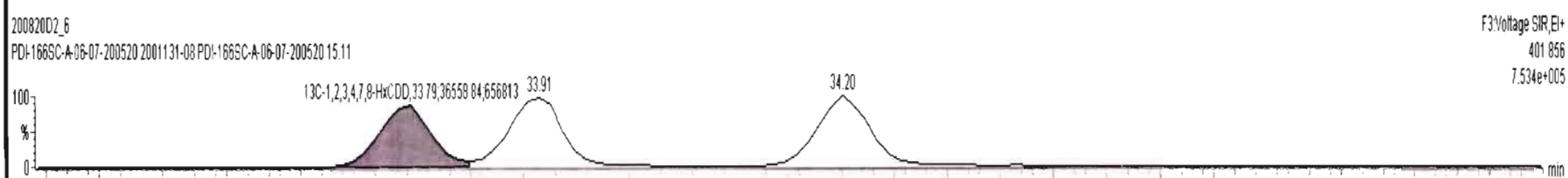
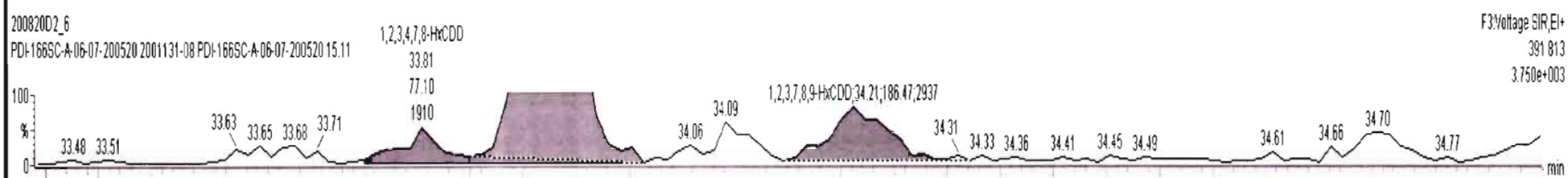
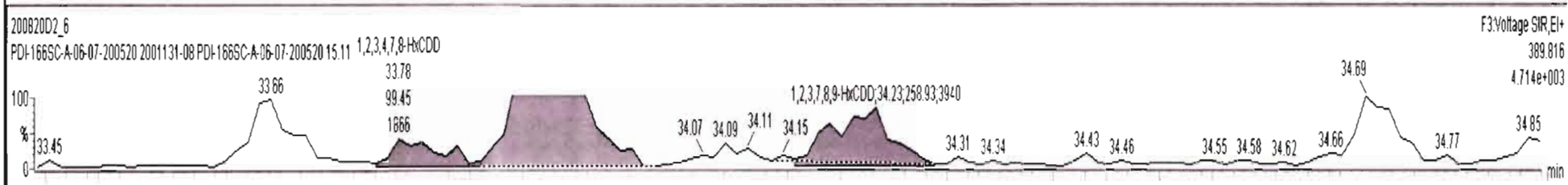






200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520





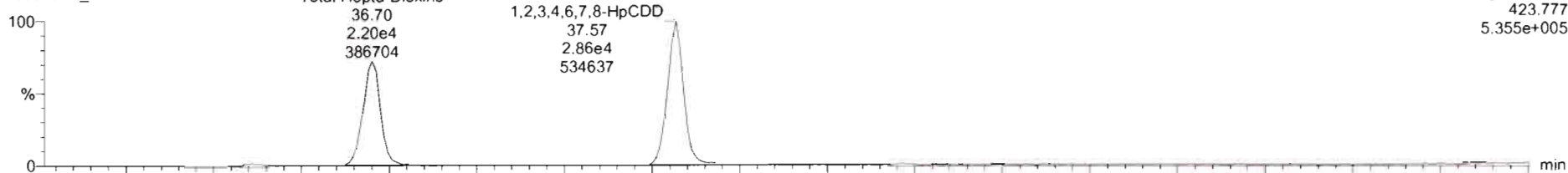
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

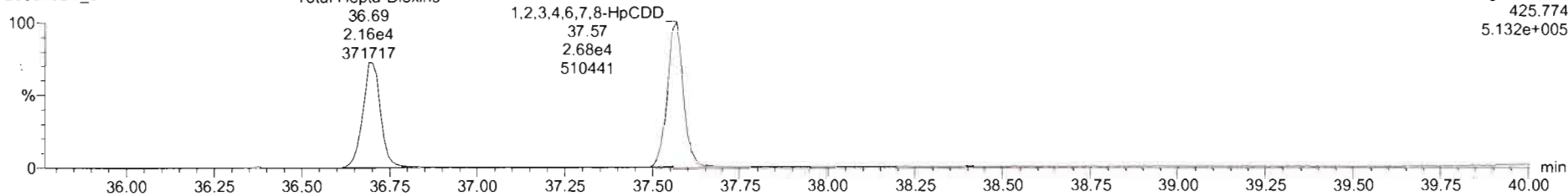
Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

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

200820D2\_6

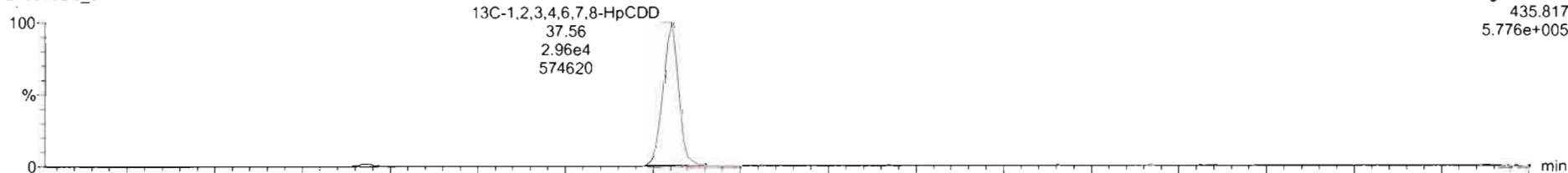


200820D2\_6

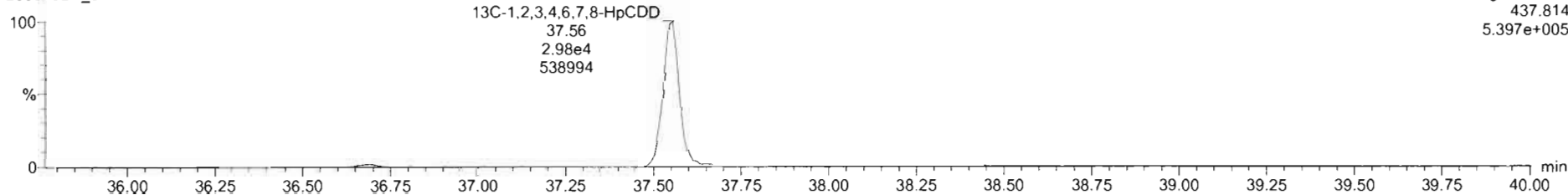


13C-1,2,3,4,6,7,8-HpCDD

200820D2\_6



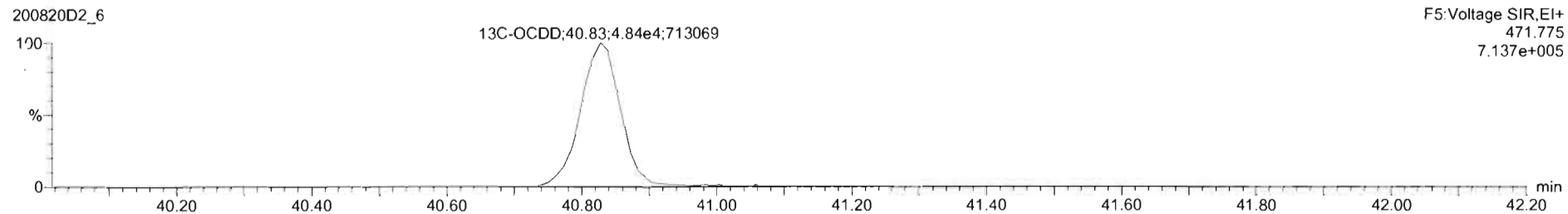
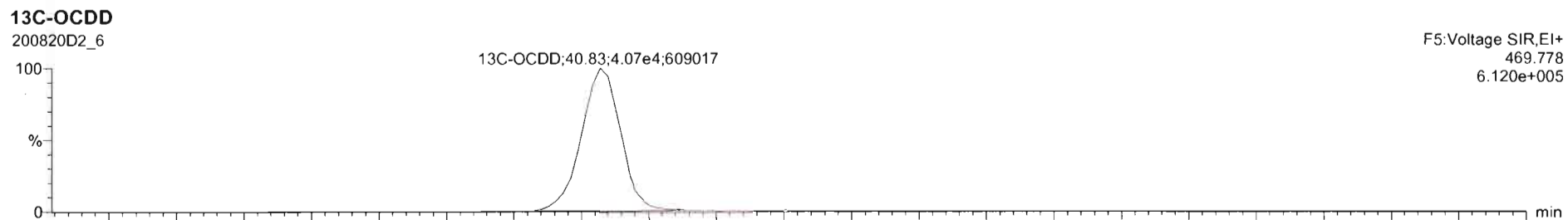
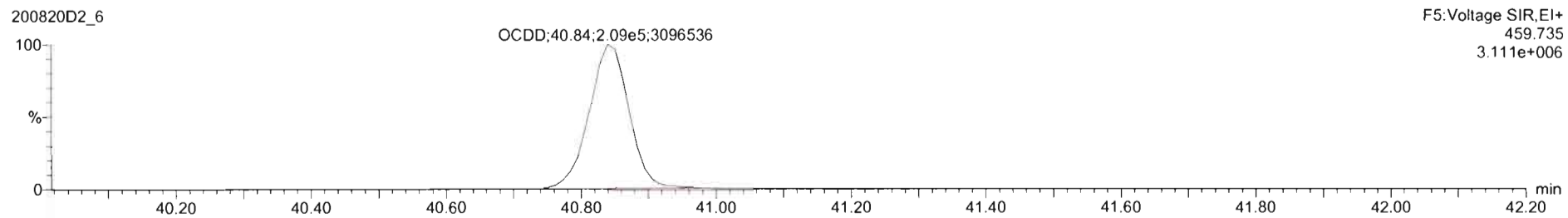
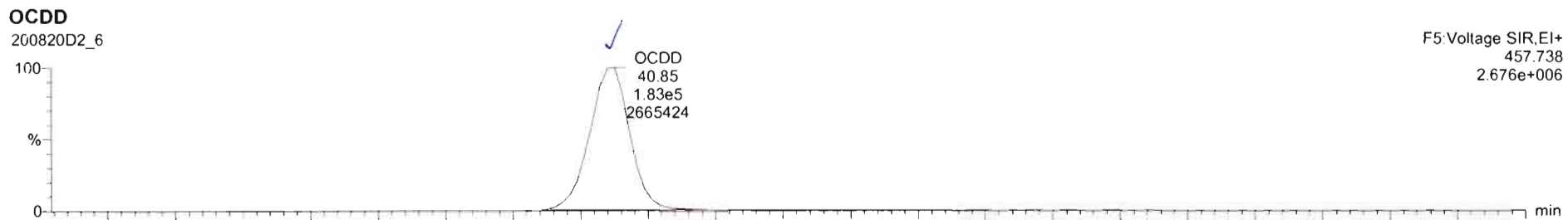
200820D2\_6



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

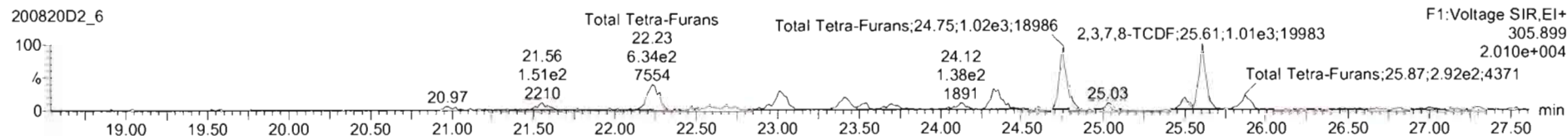
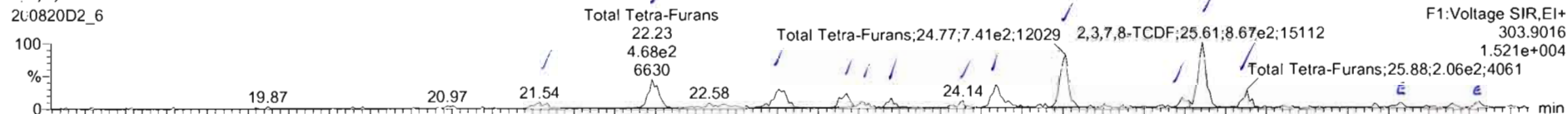


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

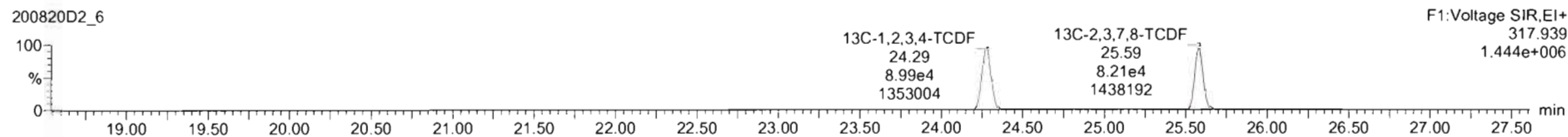
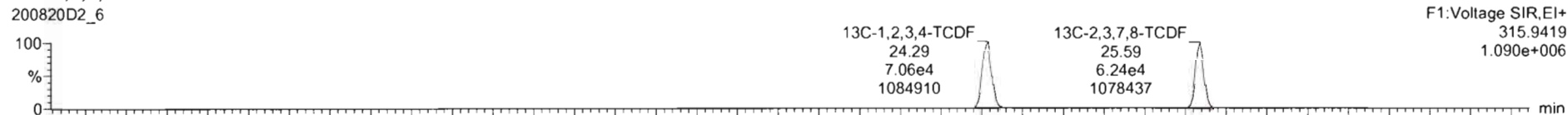
Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

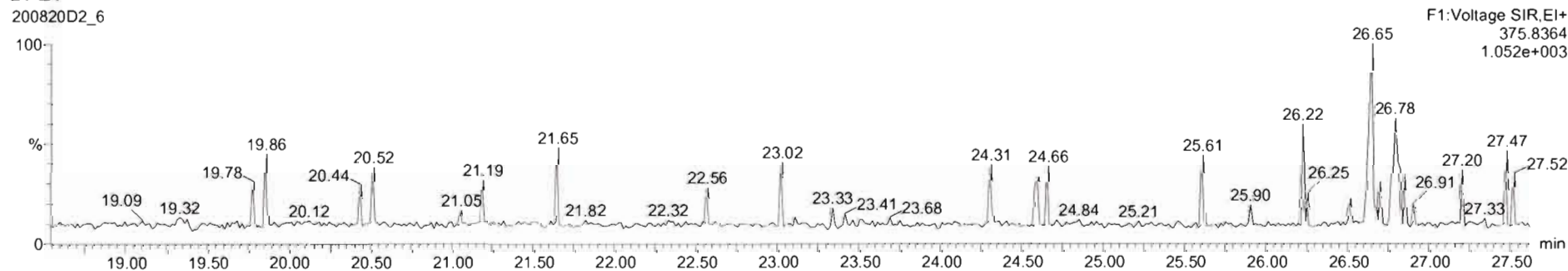
2,3,7,8-TCDF

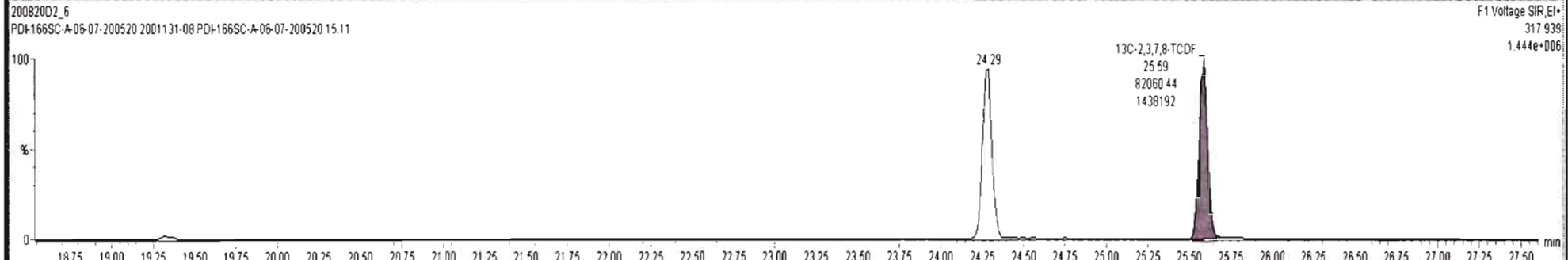
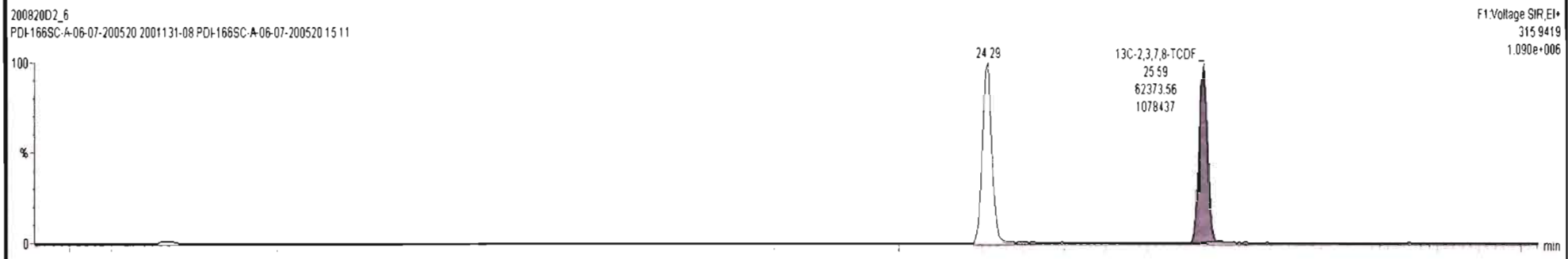
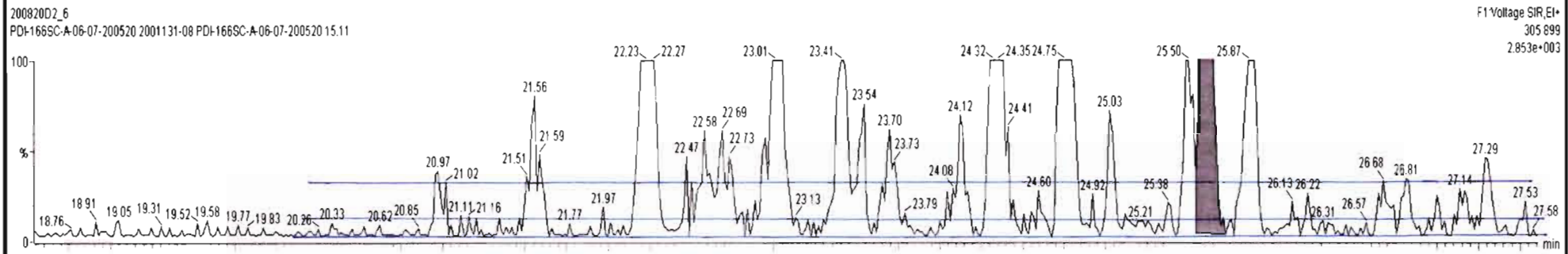
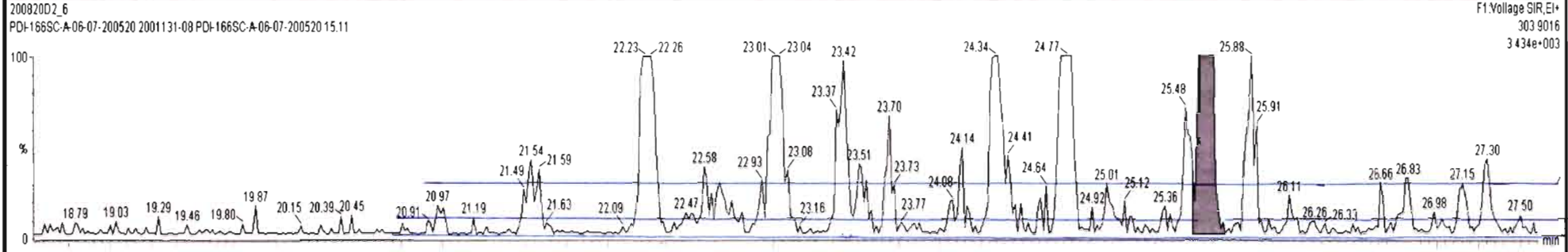


13C-2,3,7,8-TCDF

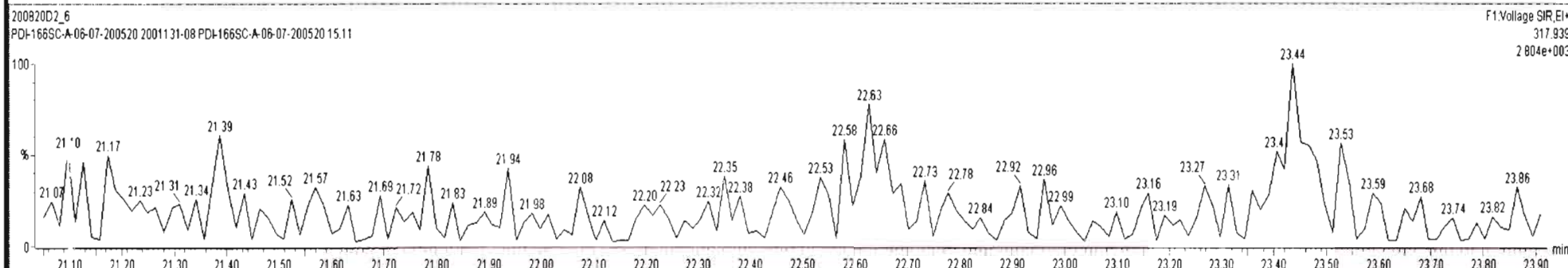
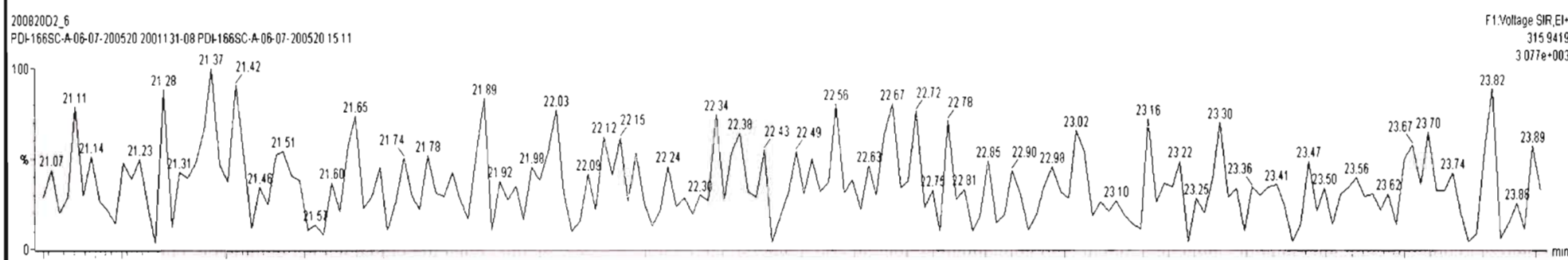
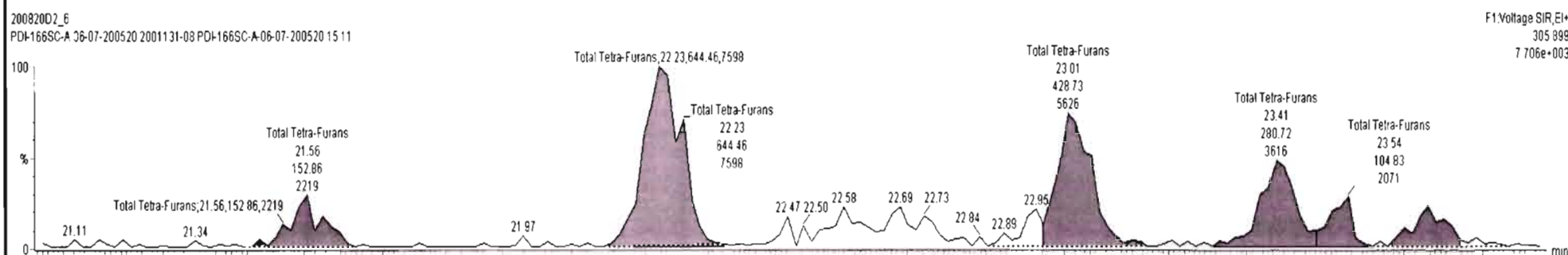
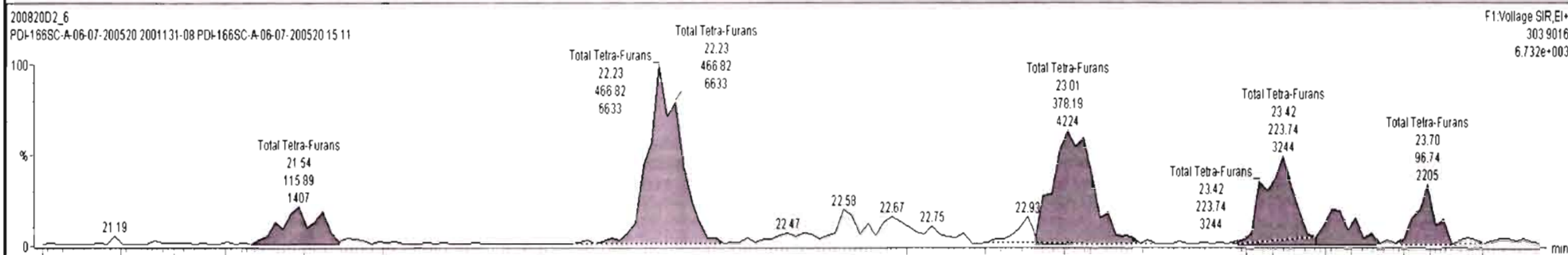


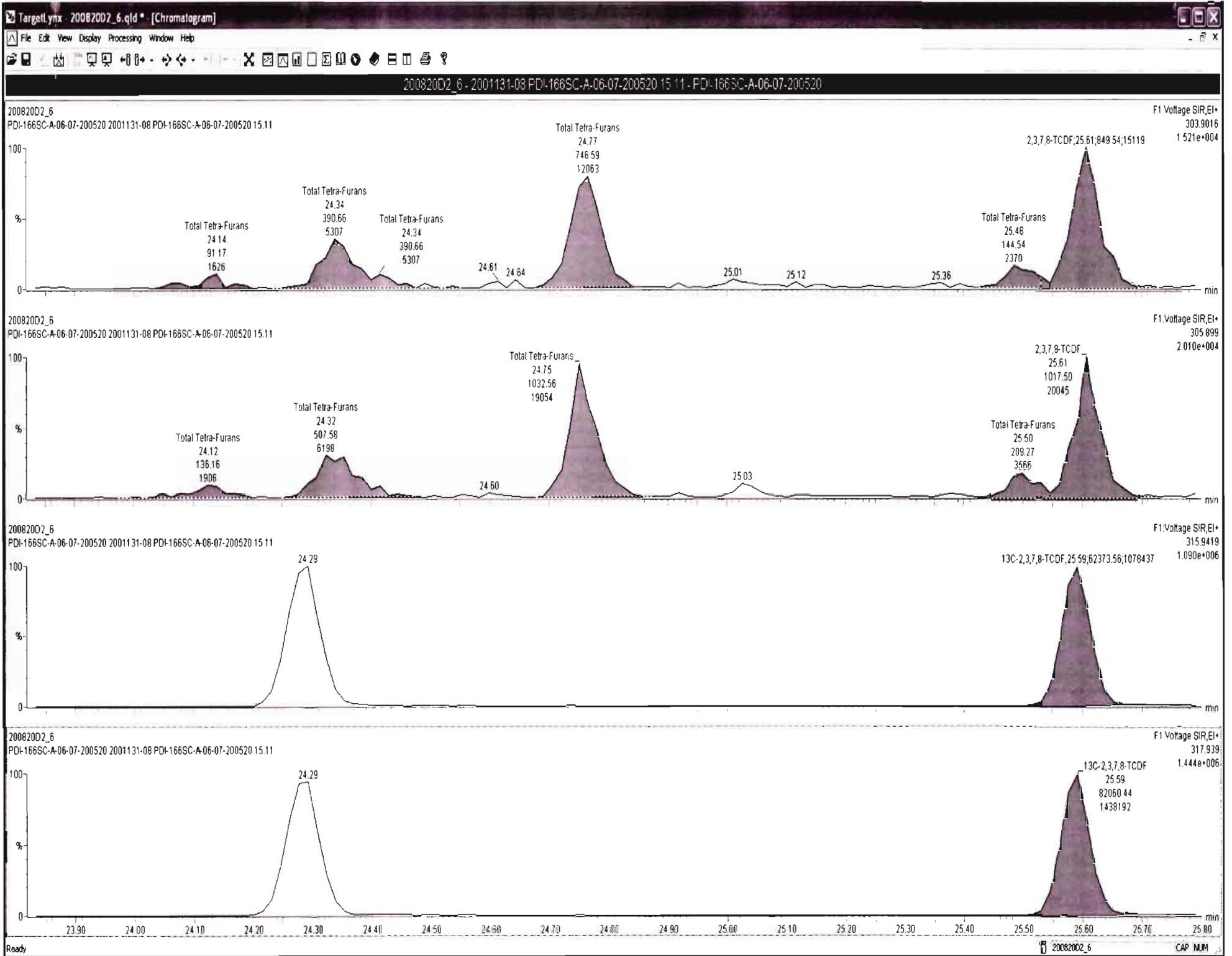
DPE1



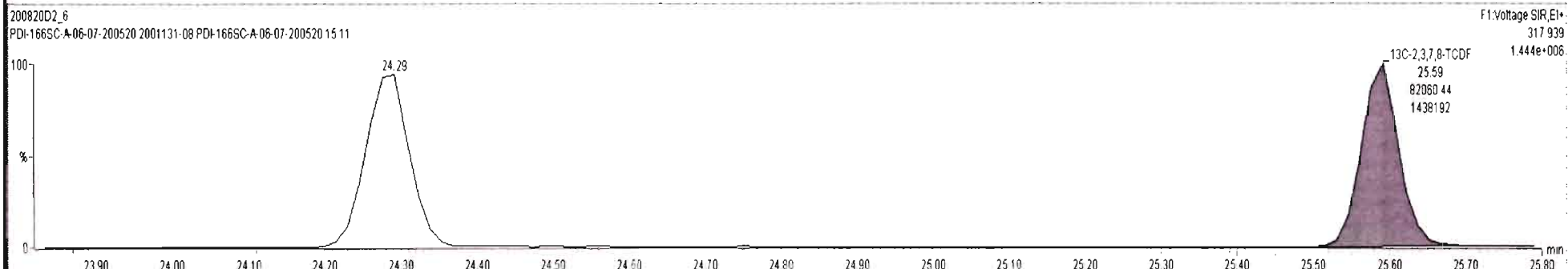
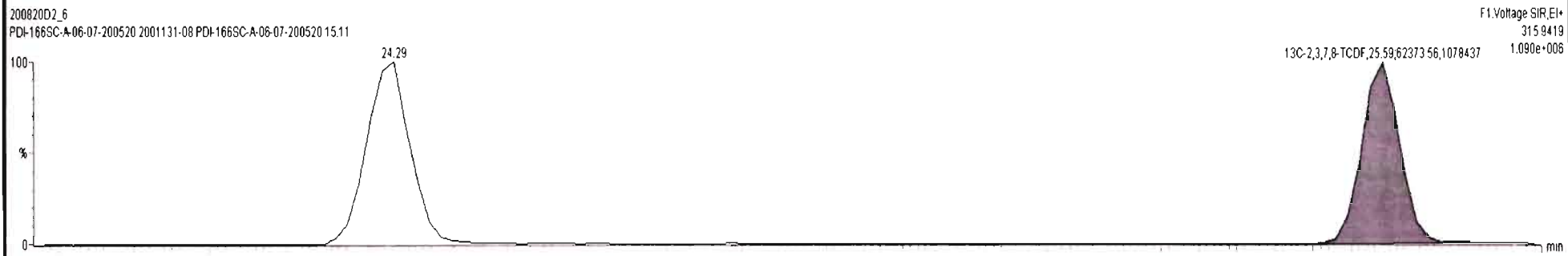
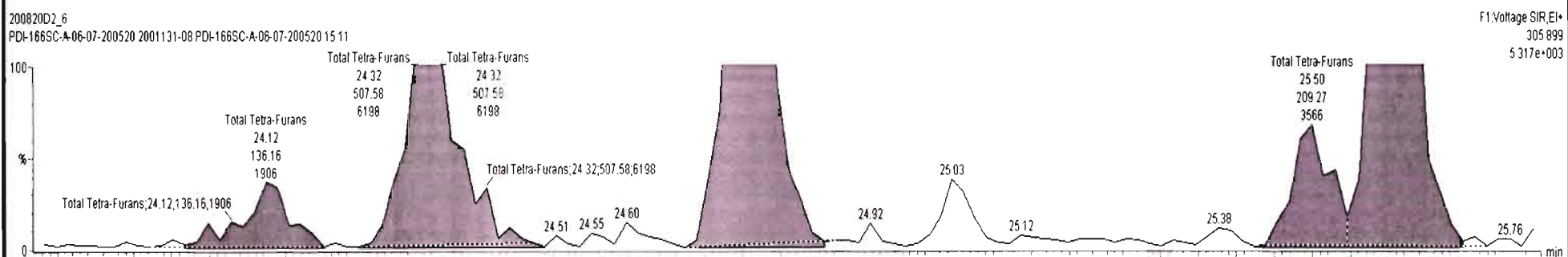
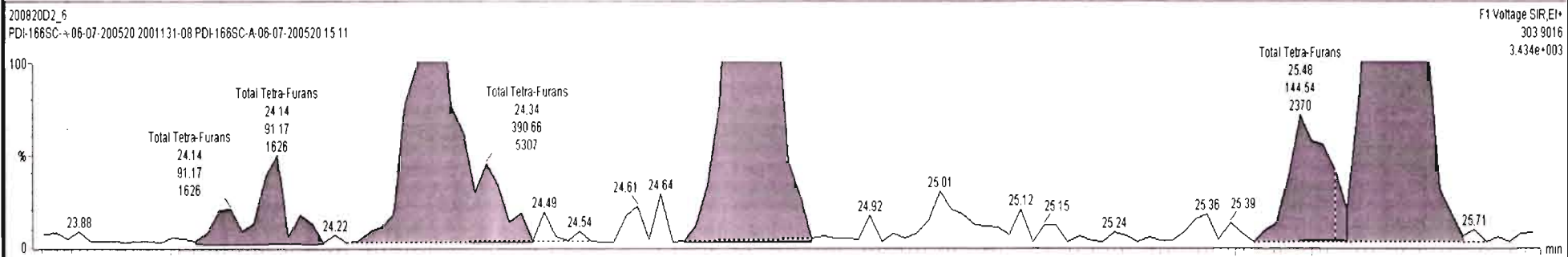


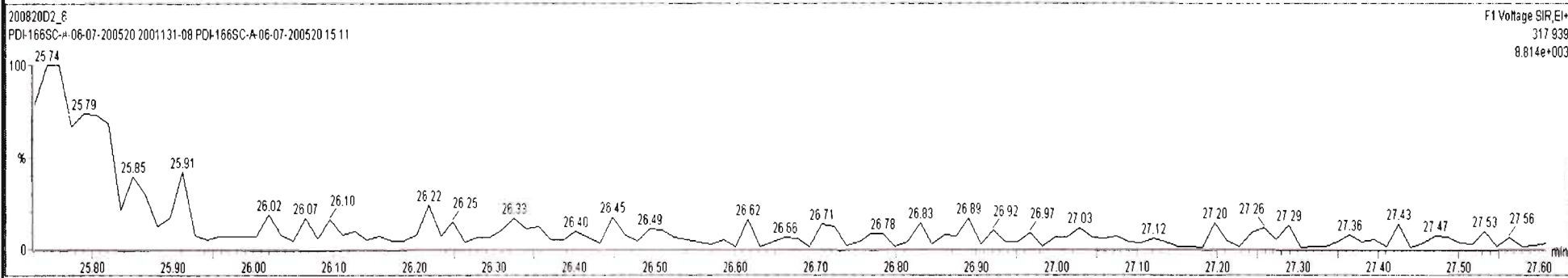
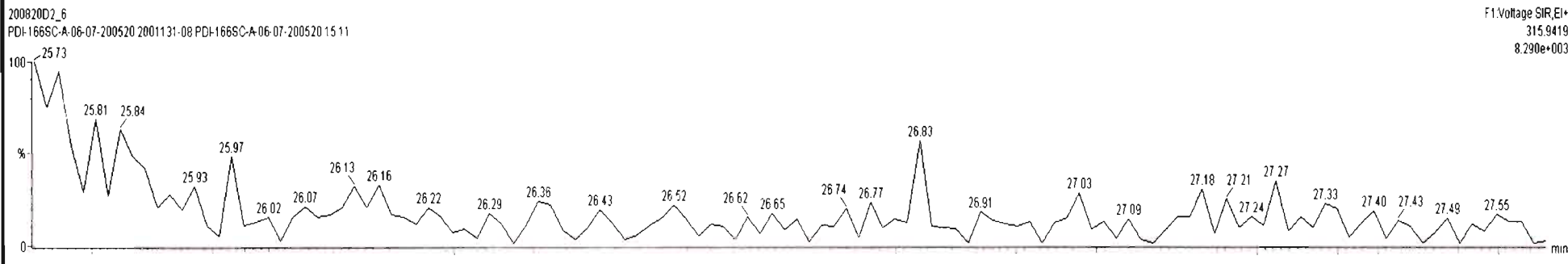
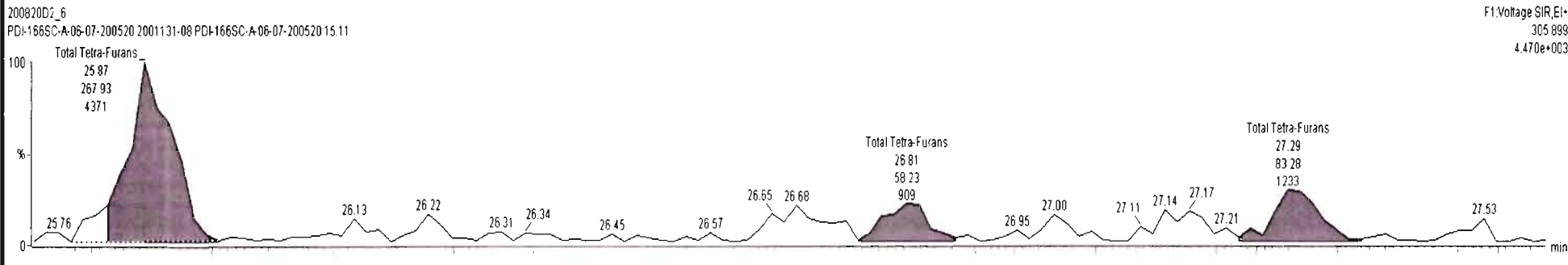
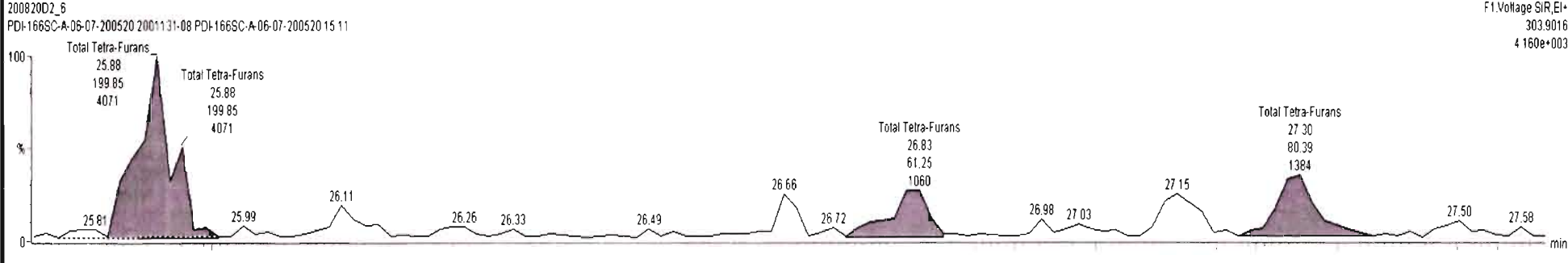
20082002\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15 11 - PDI-166SC-A-06-07-200520











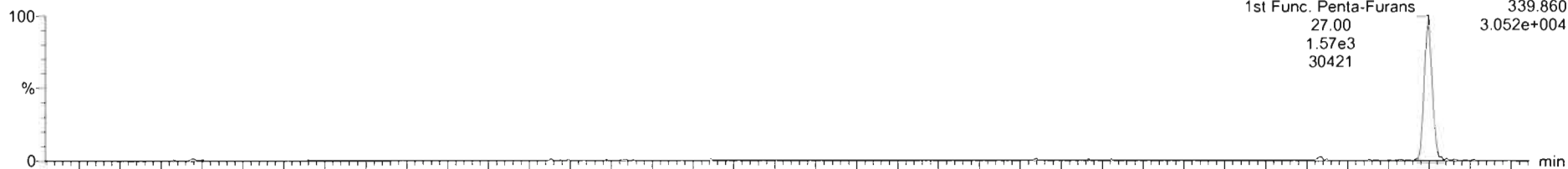
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

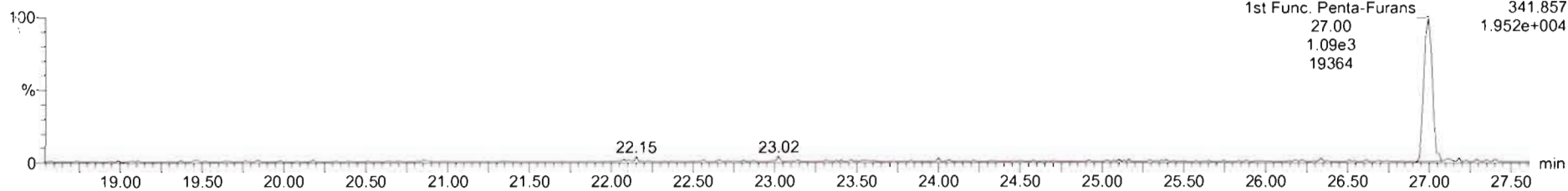
Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

1st Func. Penta-Furans

200820D2\_6

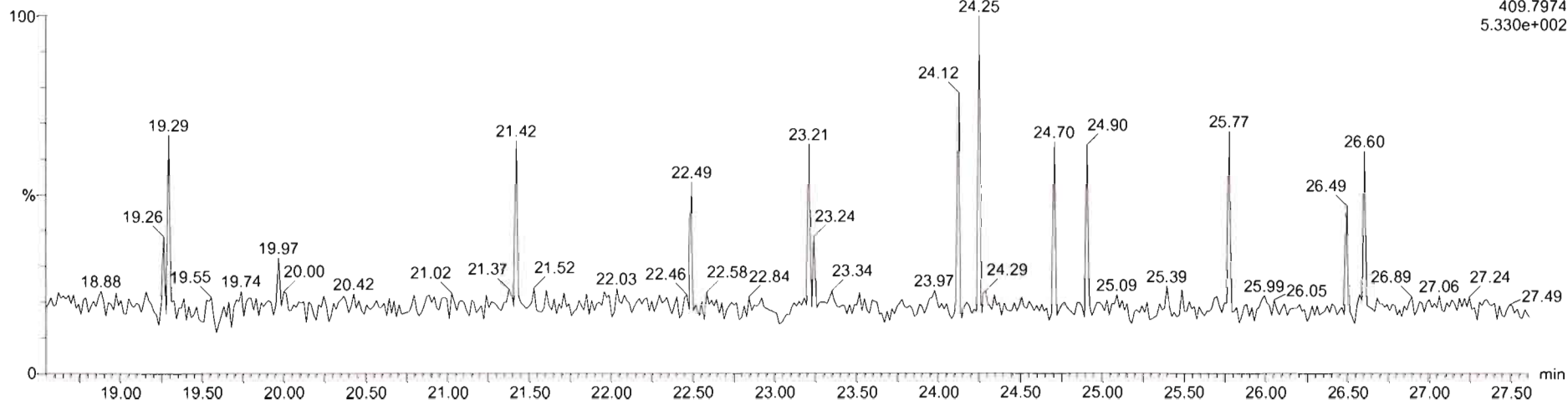


200820D2\_6



D-E6

200820D2\_6

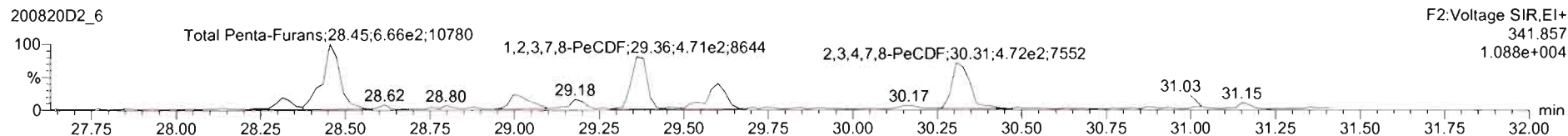
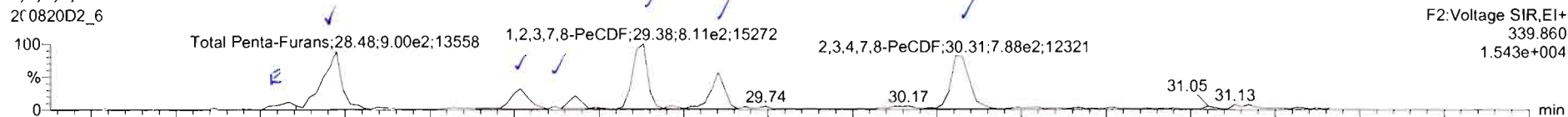


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

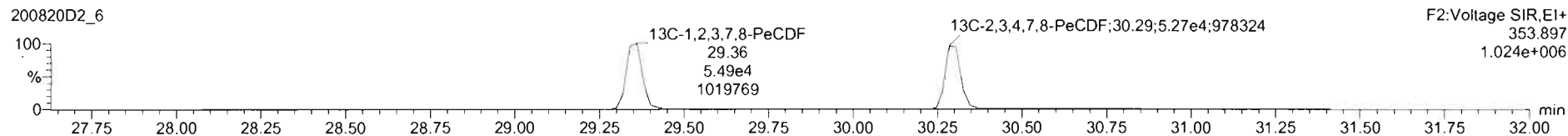
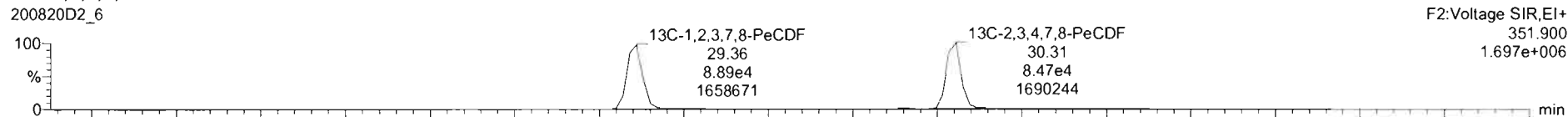
Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

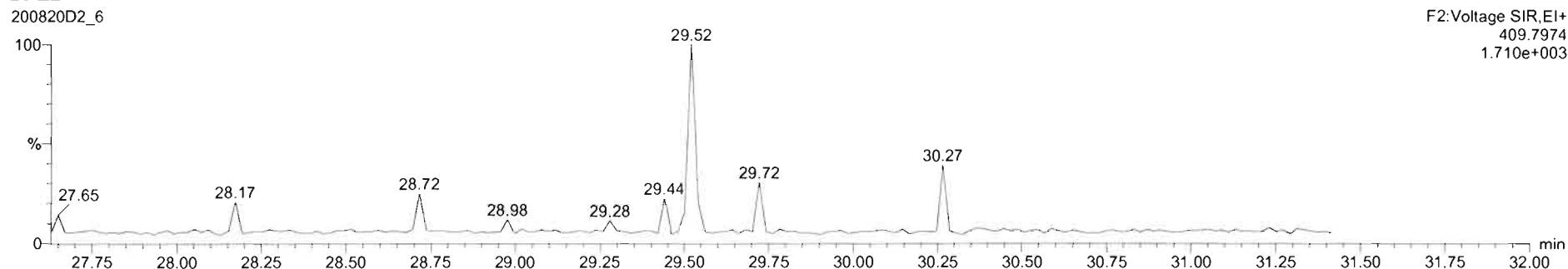
**1,2,3,7,8-PeCDF**



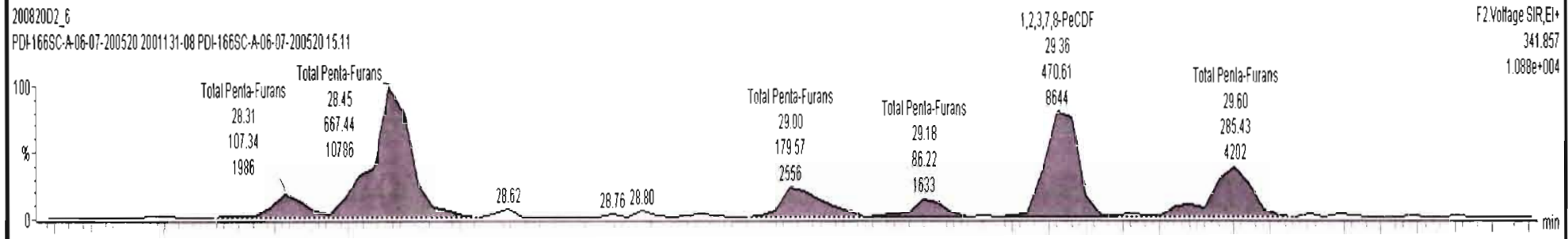
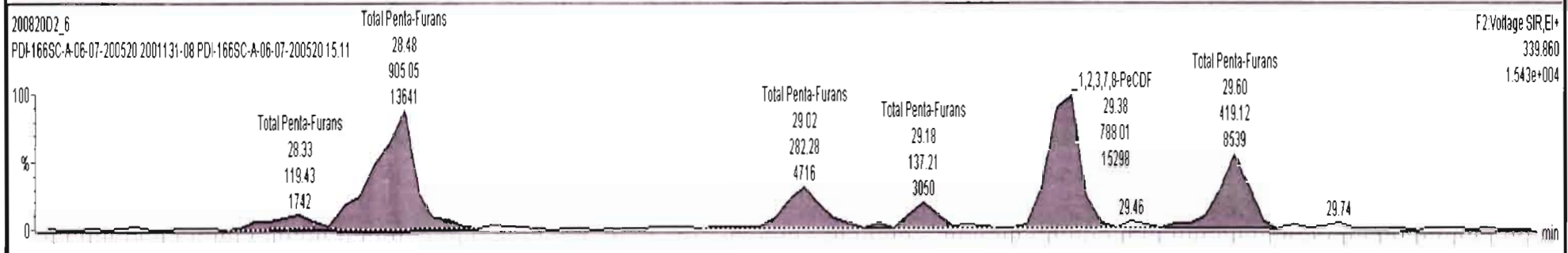
**13C-1,2,3,7,8-PeCDF**



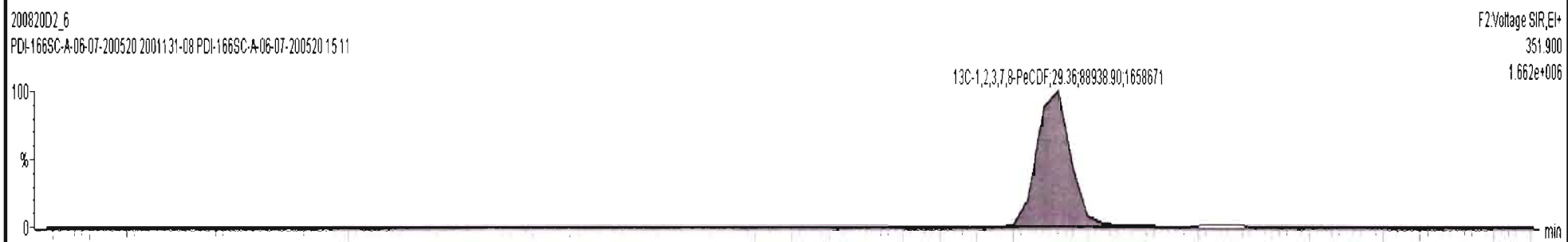
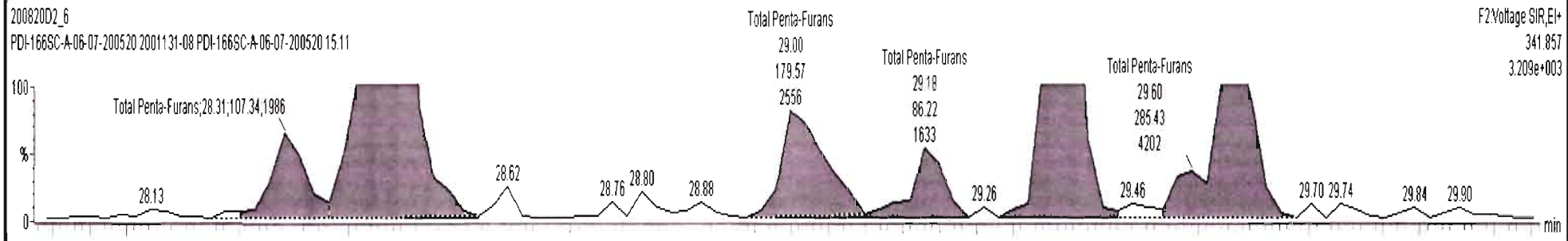
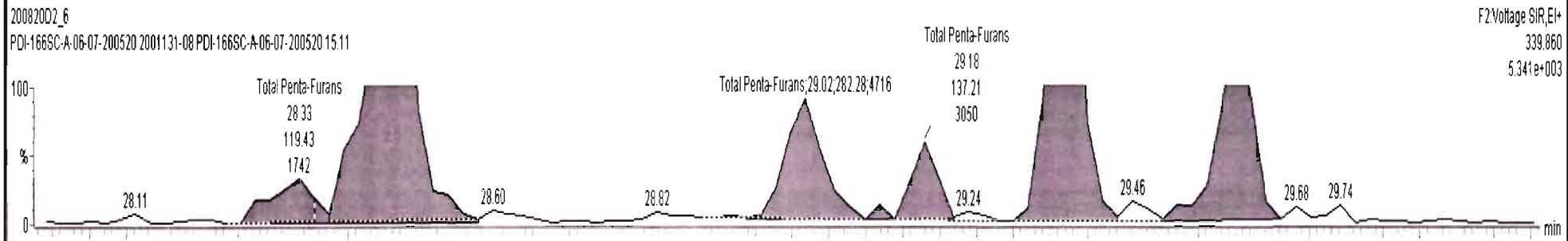
**DPE2**



200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15 11 - FDI-166SC-A-06-07-200520

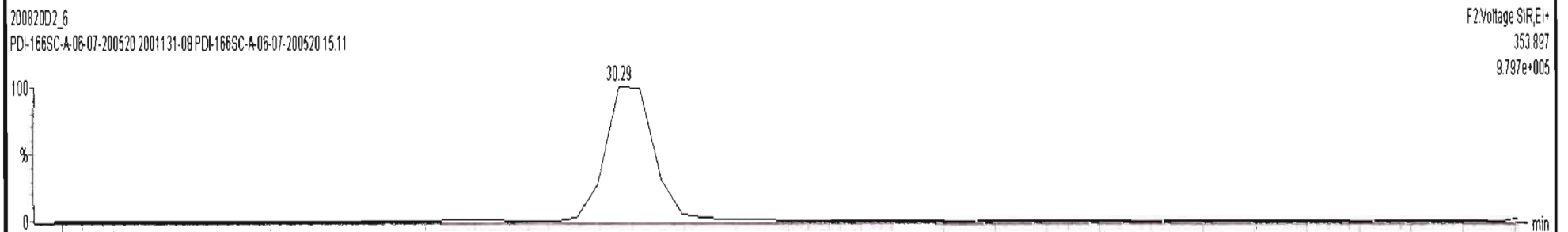
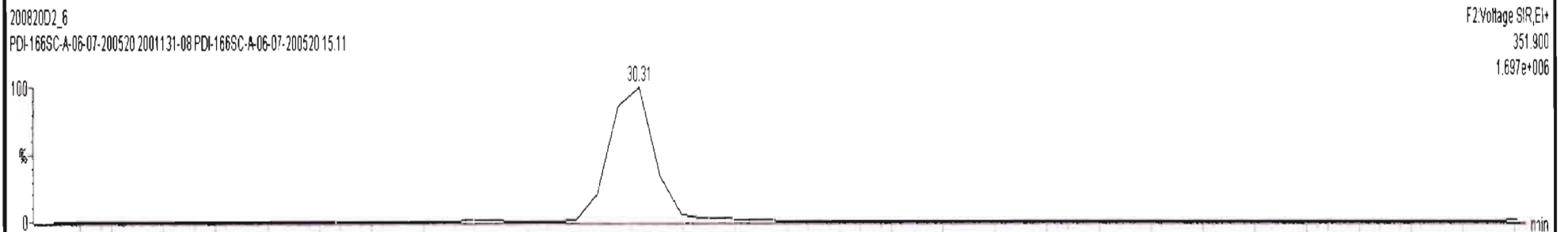
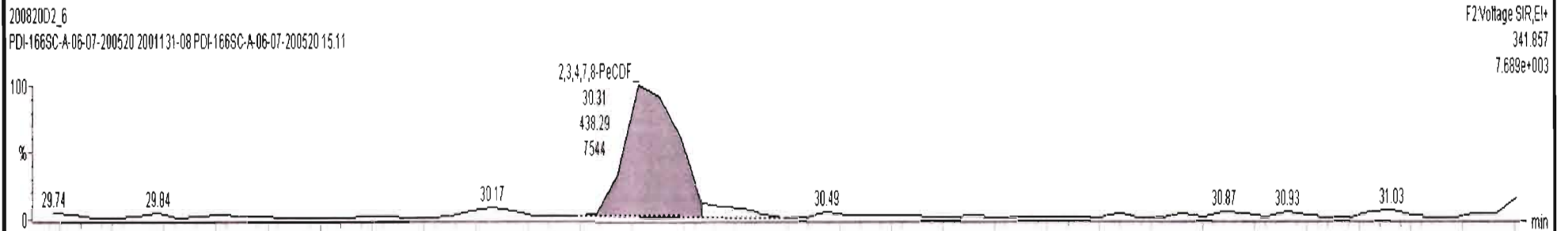
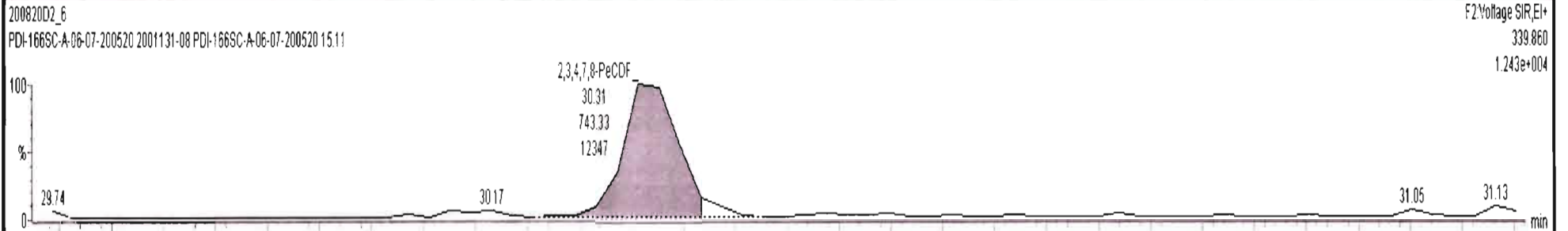


20082002\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520





200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520

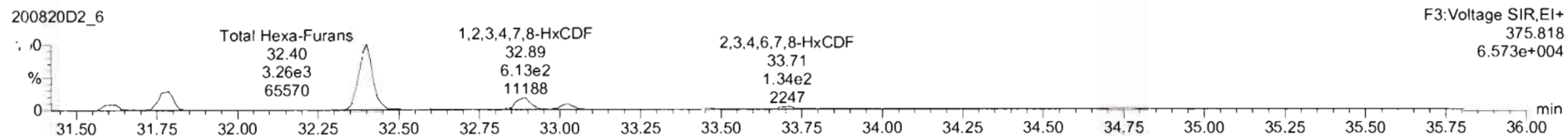
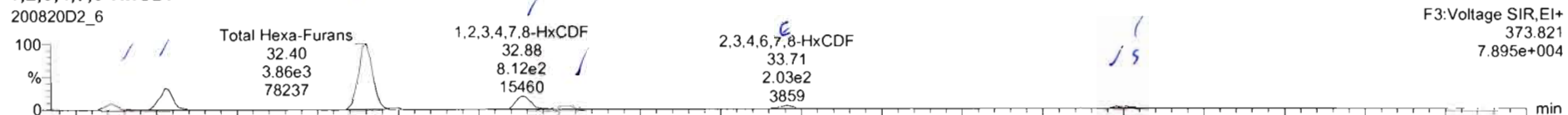


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

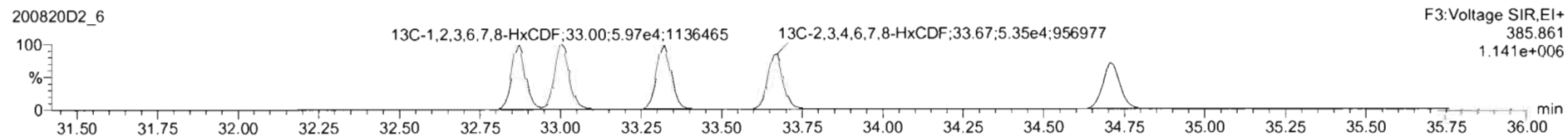
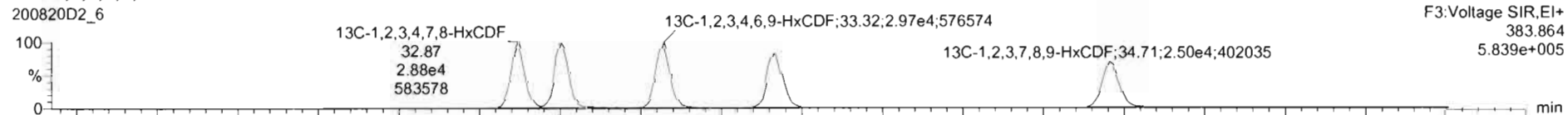
Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

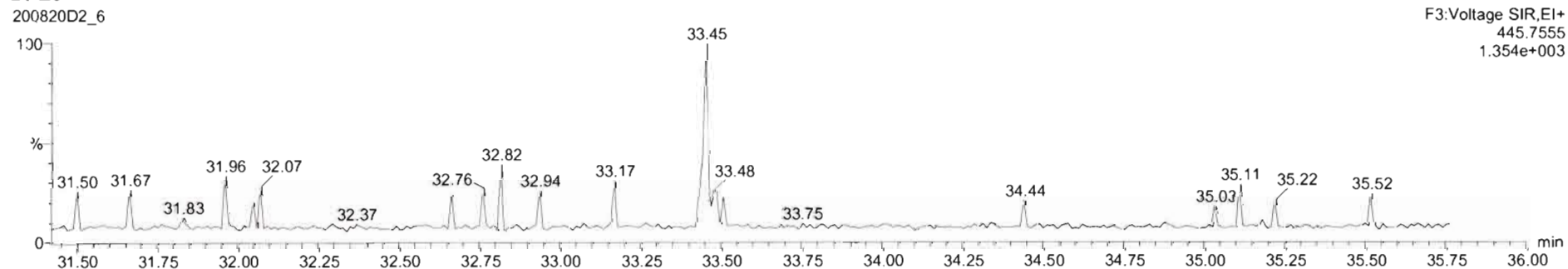
**1,2,3,4,7,8-HxCDF**



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



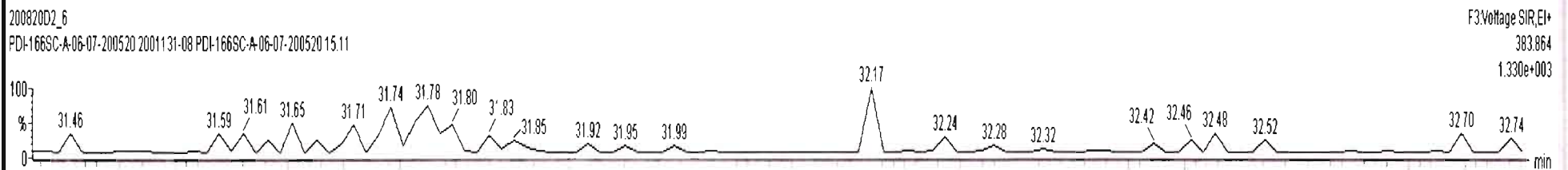
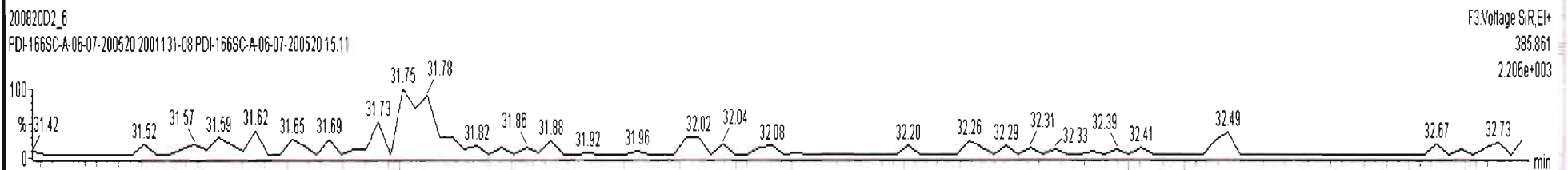
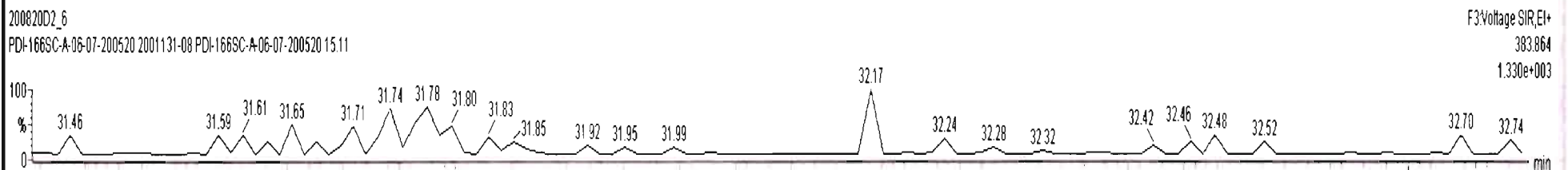
**DPE3**





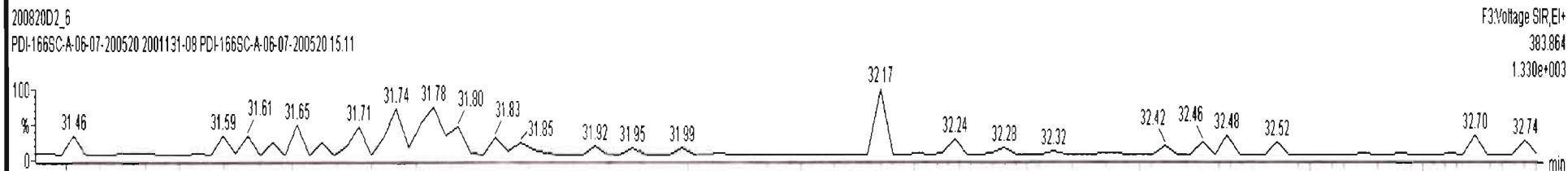
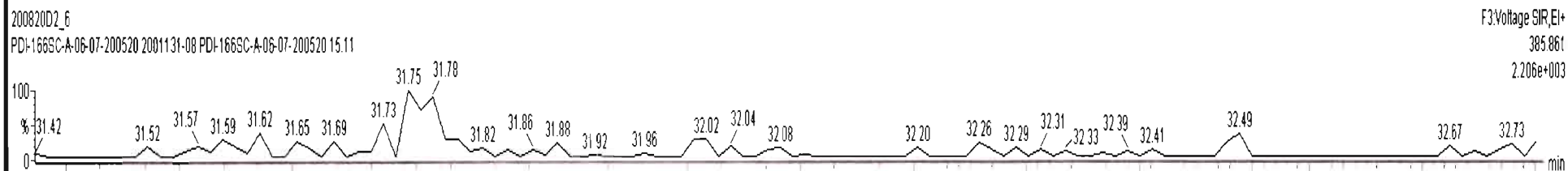
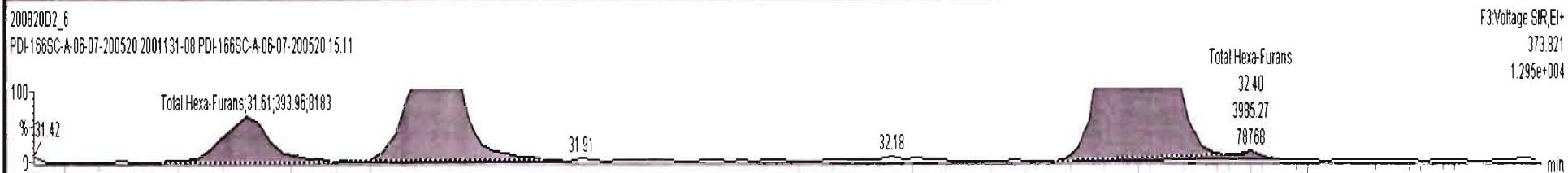


200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520



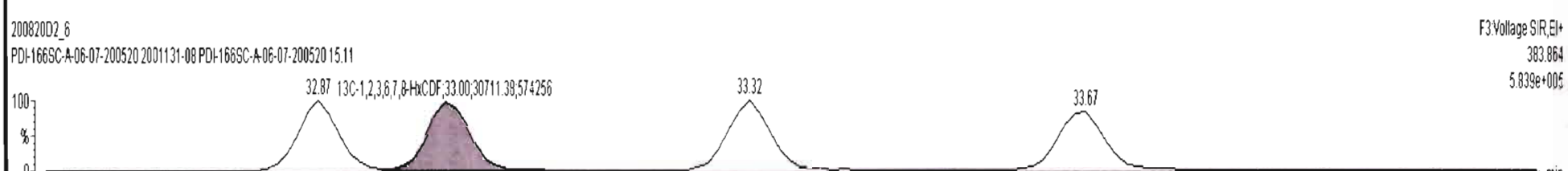
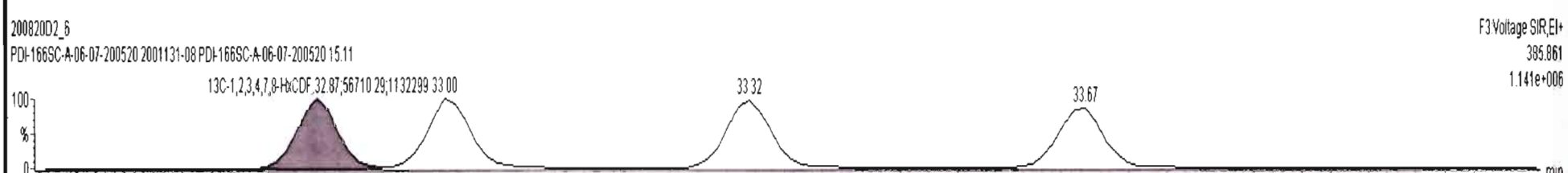
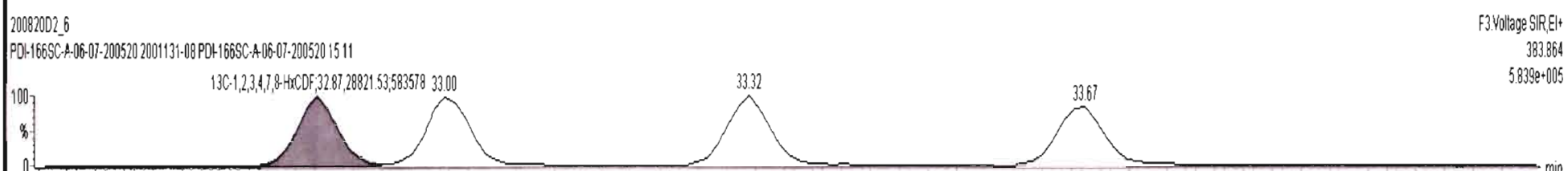
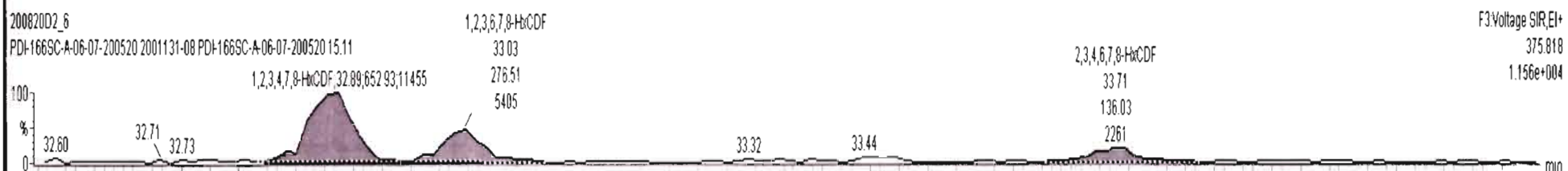


200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520



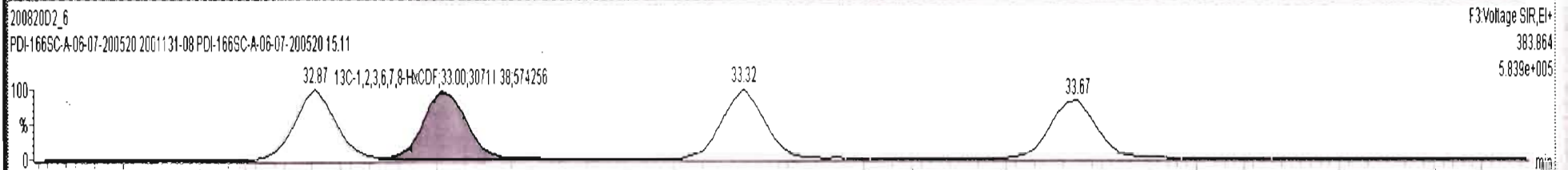
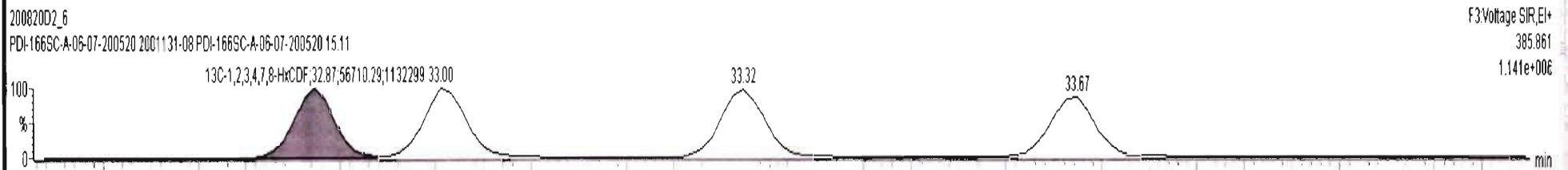
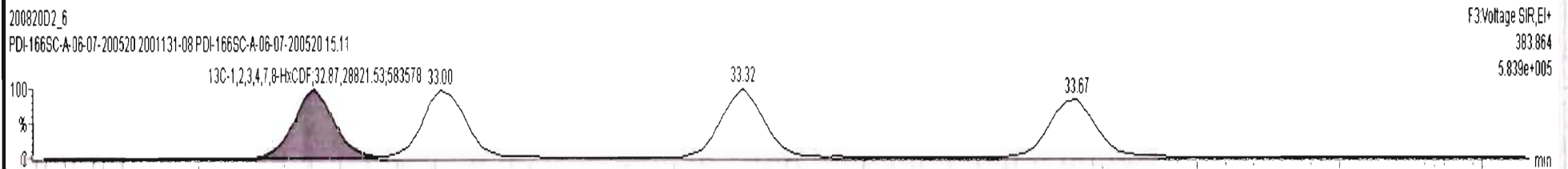
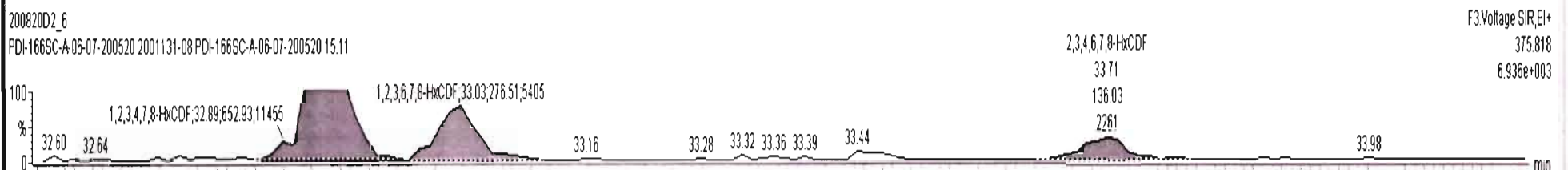
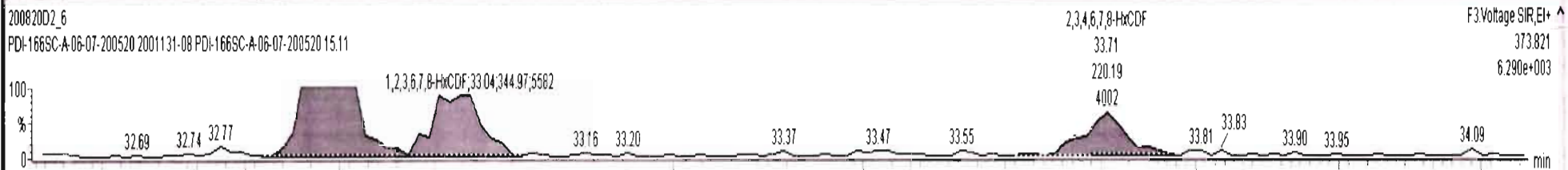


200820D2\_6 - 2001131-08 PD-166SC-A-06-07-200520 15.11 - PD-166SC-A-06-07-200520





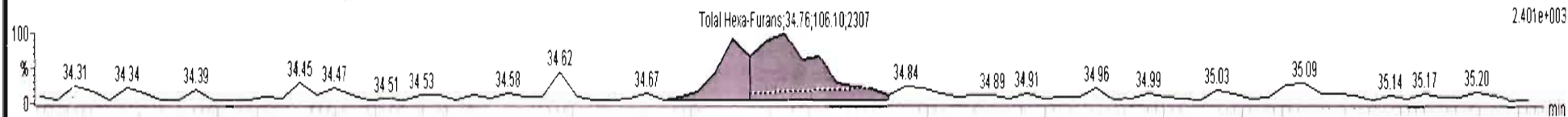
200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520



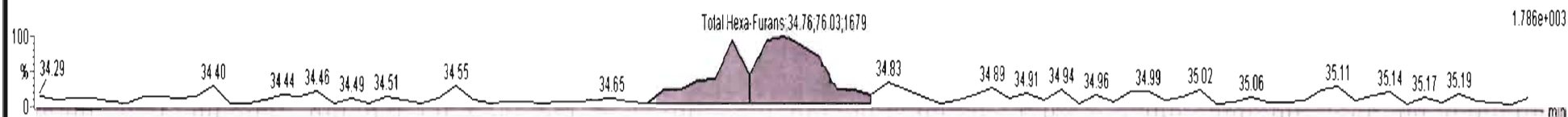


20082002\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520

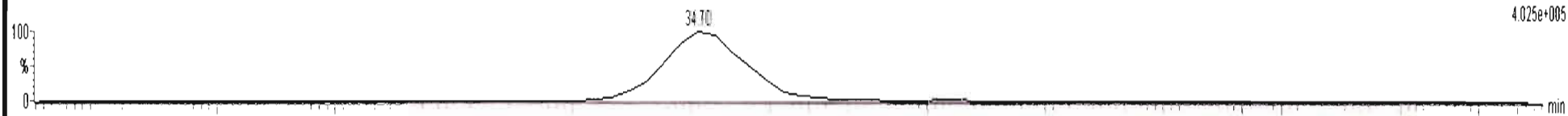
20082002\_6 F3:Voltage SIR,EI+ 373.821  
PDI-166SC-A-06-07-200520 2001131-08 PDI-166SC-A-06-07-200520 15.11 2.401e+003



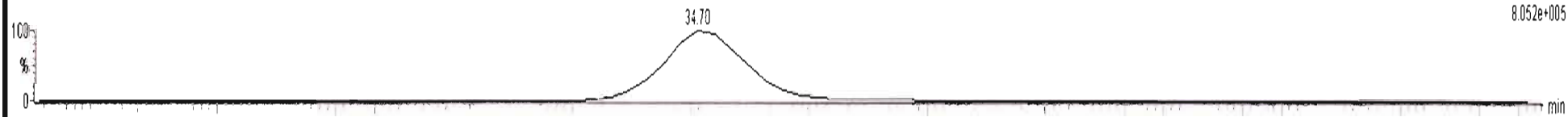
20082002\_6 F3:Voltage SIR,EI+ 375.818  
PDI-166SC-A-06-07-200520 2001131-08 PDI-166SC-A-06-07-200520 15.11 1.786e+003



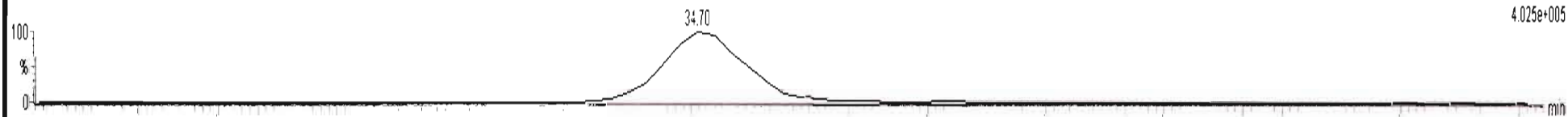
20082002\_6 F3:Voltage SIR,EI+ 383.864  
PDI-166SC-A-06-07-200520 2001131-08 PDI-166SC-A-06-07-200520 15.11 4.025e+005



20082002\_6 F3:Voltage SIR,EI+ 385.861  
PDI-166SC-A-06-07-200520 2001131-08 PDI-166SC-A-06-07-200520 15.11 8.052e+005



20082002\_F F3:Voltage SIR,EI+ 383.864  
PDI-166SC-A-06-07-200520 2001131-08 PDI-166SC-A-06-07-200520 15.11 4.025e+005



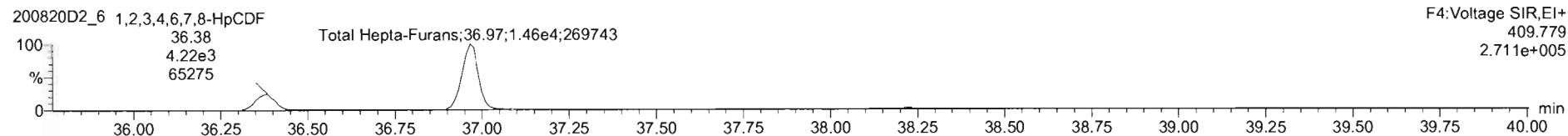
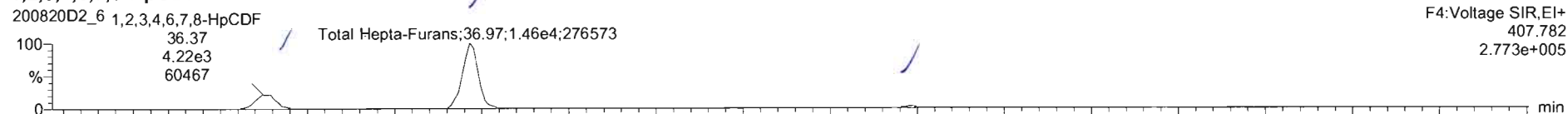
20082002\_6 F3:Voltage SIR,EI+ 385.861  
PDI-166SC-A-06-07-200520 2001131-08 PDI-166SC-A-06-07-200520 15.11

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

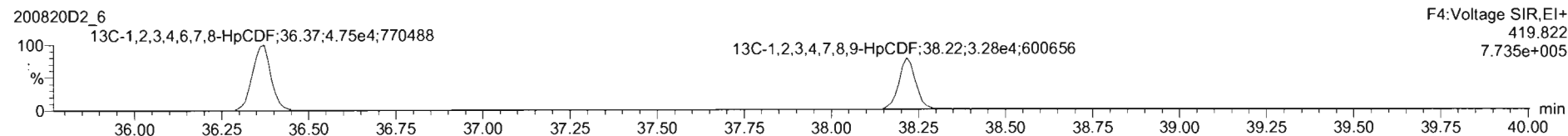
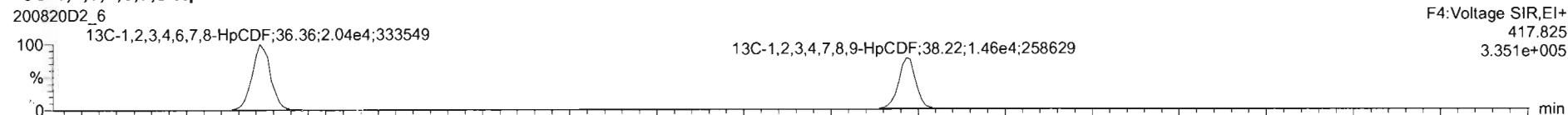
Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520

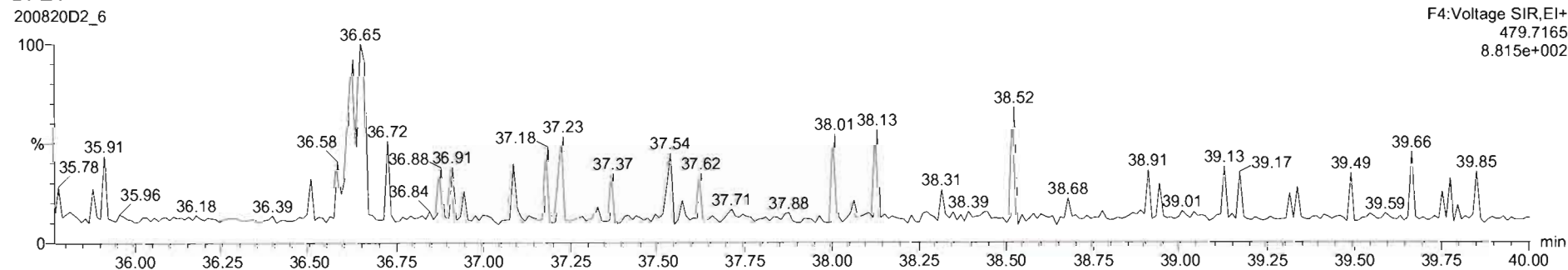
**1,2,3,4,6,7,8-HpCDF**

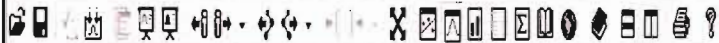


**13C-1,2,3,4,6,7,8-HpCDF**

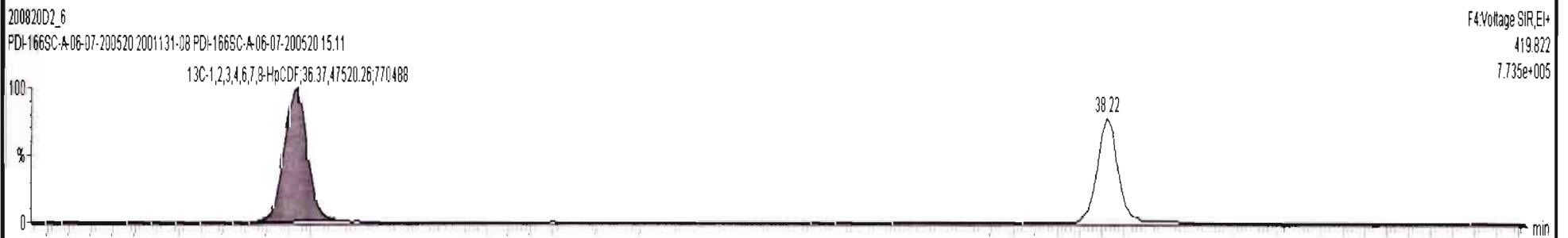
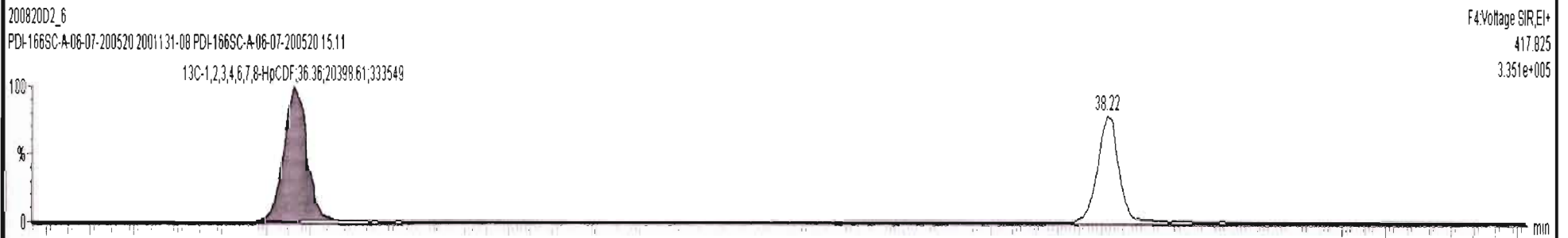
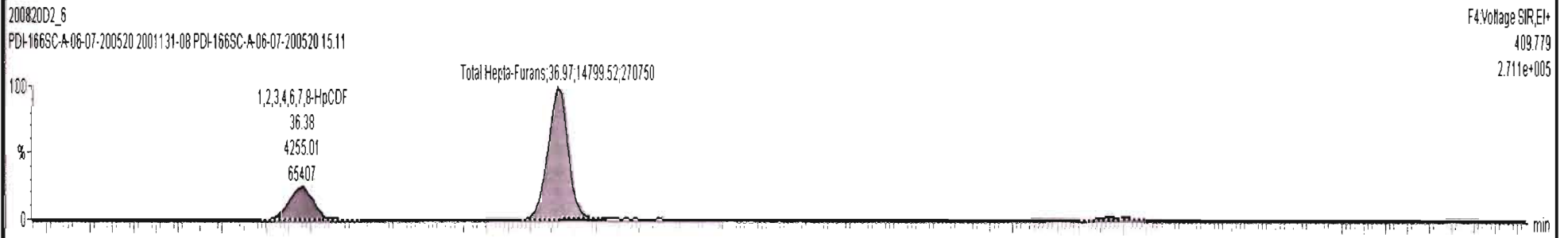
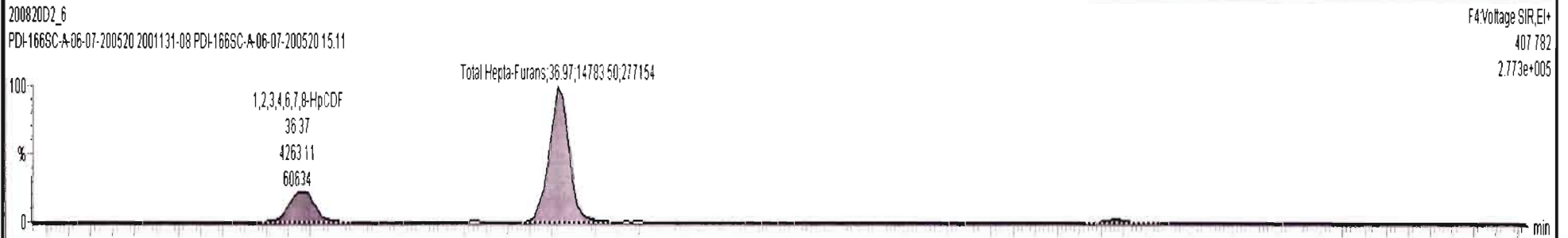


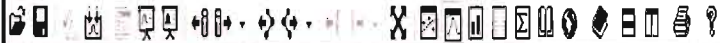
**DPE4**



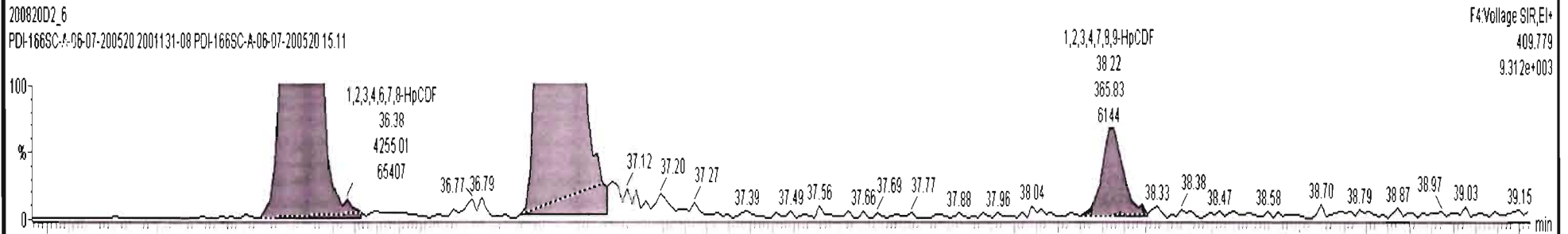
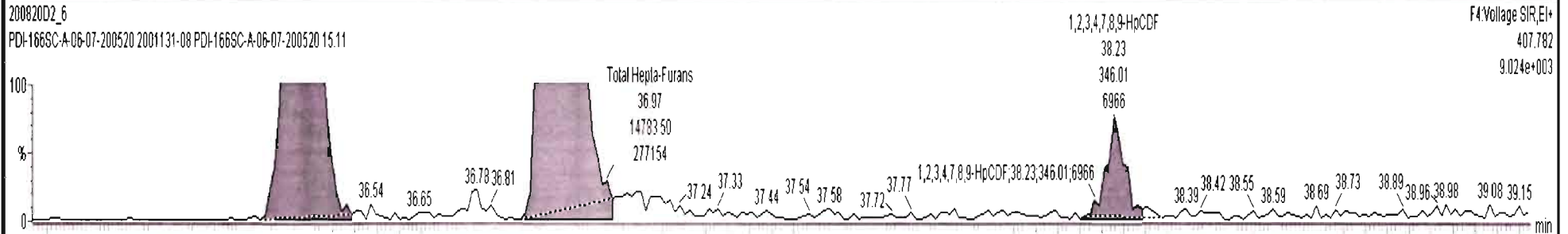


200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520





200820D2\_6 - 2001131-08 PDI-166SC-A-06-07-200520 15.11 - PDI-166SC-A-06-07-200520

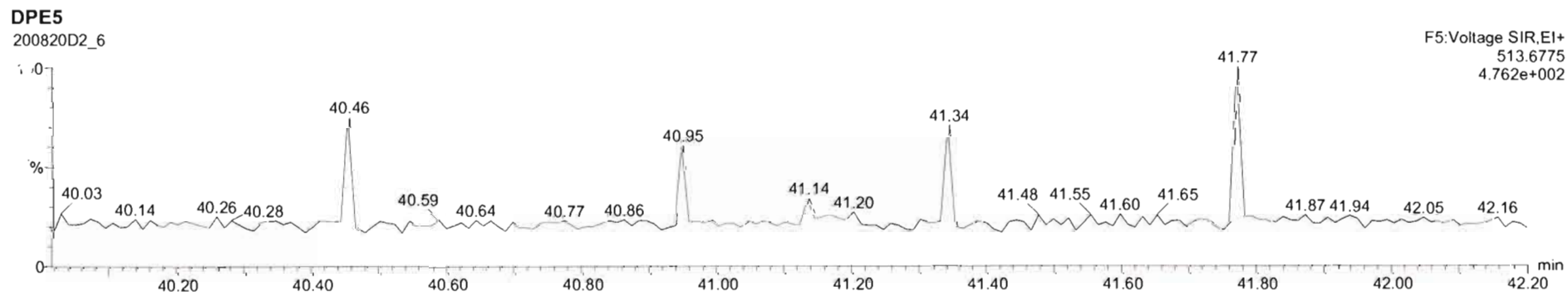
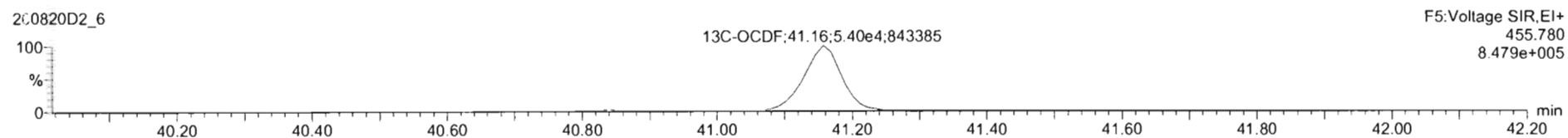
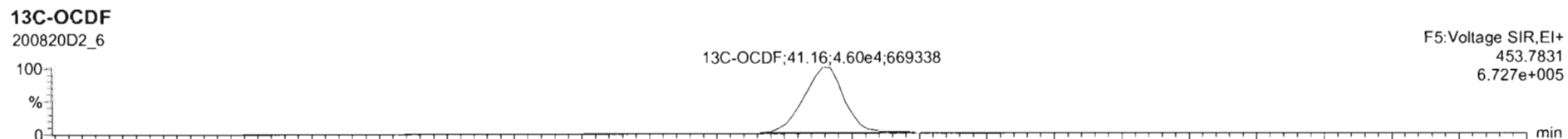
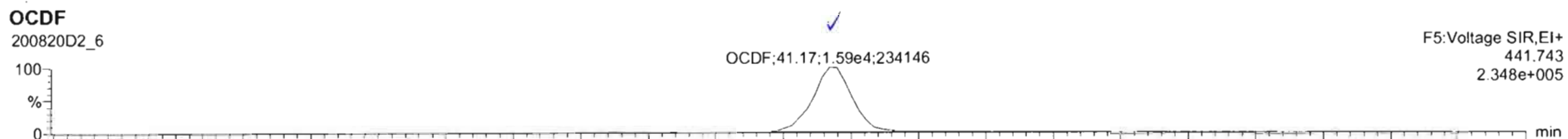




Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

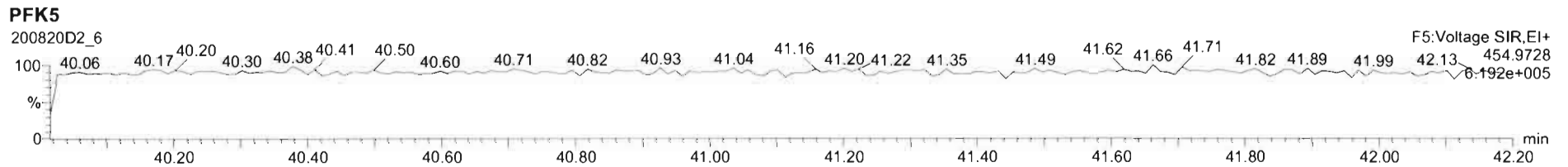
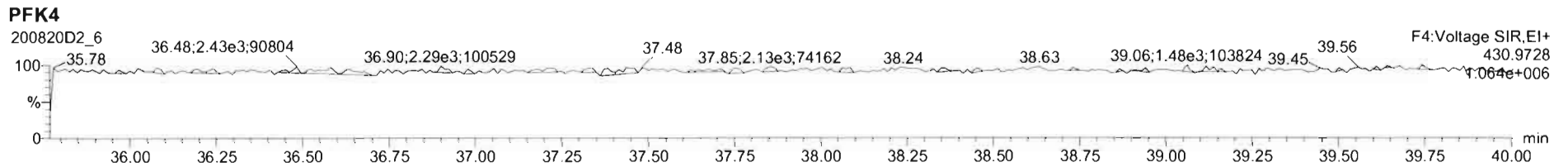
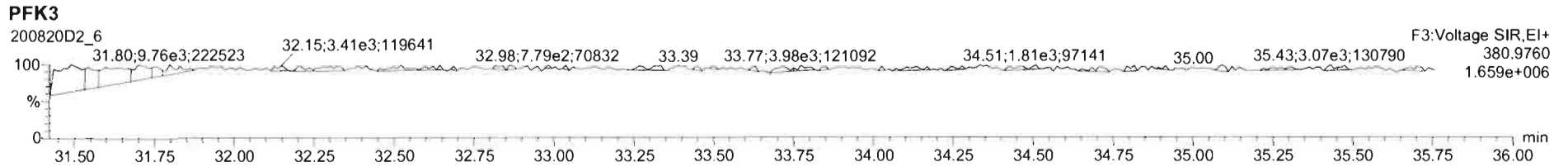
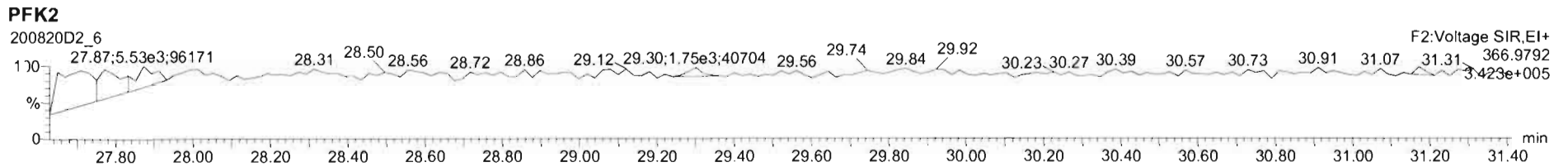
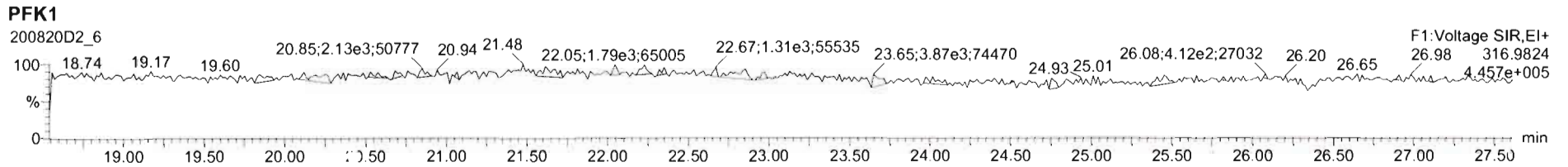
Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_6.qld

Last Altered: Monday, August 24, 2020 14:36:01 Pacific Daylight Time  
Printed: Monday, August 24, 2020 14:42:27 Pacific Daylight Time

Name: 200820D2\_6, Date: 21-Aug-2020, Time: 05:42:41, ID: 2001131-08 PDI-166SC-A-06-07-200520 15.11, Description: PDI-166SC-A-06-07-200520



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Monday, August 24, 2020 17:13:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 17:14:50 Pacific Daylight Time

*DB 8/24/20 CT 08/24/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

#	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	3.58e2	0.60	YES	1.08	10.036	26.265	26.25	1.001	1.001	0.54268		0.198	0.470
2	2 1,2,3,7,8-PeCDD	3.65e2	0.72	NO	0.991	10.036	30.528	30.53	1.001	1.001	0.86268		0.211	0.863
3	3 1,2,3,4,7,8-HxCDD	3.06e2	1.83	YES	1.04	10.036	33.804	33.81	1.000	1.000	1.0025		0.971	0.793
4	4 1,2,3,6,7,8-HxCDD	1.75e3	1.19	NO	0.908	10.036	33.915	33.94	1.000	1.001	5.8649		0.688	5.86
5	5 1,2,3,7,8,9-HxCDD	7.19e2	1.42	NO	0.923	10.036	34.245	34.22	1.001	1.000	2.5081		0.752	2.51
6	6 1,2,3,4,6,7,8-HpCDD	4.36e4	1.03	NO	0.926	10.036	37.580	37.58	1.000	1.000	194.92		2.19	195
7	7 OCDD	2.42e5	0.87	NO	0.834	10.036	40.839	40.85	1.000	1.000	1809.3		1.78	1810
8	8 2,3,7,8-TCDF	2.55e3	0.80	NO	0.882	10.036	25.633	25.64	1.001	1.001	3.1985		0.213	3.20
9	9 1,2,3,7,8-PeCDF	1.68e3	1.55	NO	0.937	10.036	29.382	29.38	1.001	1.001	2.5285		0.173	2.53
10	10 2,3,4,7,8-PeCDF	1.77e3	1.47	NO	1.03	10.036	30.336	30.33	1.001	1.001	2.6834		0.163	2.68
11	11 1,2,3,4,7,8-HxCDF	1.91e3	1.19	NO	1.07	10.036	32.883	32.90	1.000	1.000	4.6052		0.286	4.61
12	12 1,2,3,6,7,8-HxCDF	9.36e2	1.38	NO	1.11	10.036	33.025	33.03	1.000	1.000	2.0806		0.247	2.08
13	13 2,3,4,6,7,8-HxCDF	5.36e2	1.26	NO	1.11	10.036	33.719	33.70	1.001	1.000	1.4296		0.324	1.43
14	14 1,2,3,7,8,9-HxCDF	1.34e2	1.31	NO	1.12	10.036	34.727	34.75	1.000	1.001	0.36411		0.376	0.364
15	15 1,2,3,4,6,7,8-HpCDF	6.02e3	1.07	NO	1.15	10.036	36.409	36.38	1.001	1.000	16.780		0.393	16.8
16	16 1,2,3,4,7,8,9-HpCDF	4.53e2	0.89	NO	1.25	10.036	38.227	38.24	1.000	1.000	1.8576		0.511	1.86
17	17 OCDF	8.68e3	0.89	NO	0.961	10.036	41.168	41.18	1.000	1.000	47.483		0.467	47.5
18	18 13C-2,3,7,8-TCDD	1.22e5	0.78	NO	1.20	10.036	26.257	26.23	1.026	1.025	177.01	88.8	0.516	
19	19 13C-1,2,3,7,8-PeCDD	8.51e4	0.59	NO	0.910	10.036	30.521	30.51	1.193	1.192	163.51	82.0	0.391	
20	20 13C-1,2,3,4,7,8-HxCDD	5.84e4	1.29	NO	0.789	10.036	33.800	33.79	1.014	1.014	149.57	75.0	0.587	
21	21 13C-1,2,3,6,7,8-HxCDD	6.55e4	1.29	NO	0.885	10.036	33.910	33.92	1.017	1.017	149.38	75.0	0.523	
22	22 13C-1,2,3,7,8,9-HxCDD	6.18e4	1.27	NO	0.888	10.036	34.180	34.21	1.025	1.026	140.48	70.5	0.521	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.82e4	1.03	NO	0.740	10.036	37.633	37.57	1.129	1.127	131.45	66.0	0.937	
24	24 13C-OCDD	6.39e4	0.90	NO	0.660	10.036	40.646	40.84	1.219	1.225	195.51	49.1	0.601	
25	25 13C-2,3,7,8-TCDF	1.80e5	0.77	NO	1.09	10.036	25.336	25.61	0.990	1.001	172.67	86.6	0.507	
26	26 13C-1,2,3,7,8-PeCDF	1.42e5	1.65	NO	0.857	10.036	29.577	29.36	1.156	1.147	172.56	86.6	0.510	
27	27 13C-2,3,4,7,8-PeCDF	1.28e5	1.70	NO	0.796	10.036	30.480	30.31	1.191	1.184	168.11	84.4	0.549	
28	28 13C-1,2,3,4,7,8-HxCDF	7.69e4	0.49	NO	1.02	10.036	32.933	32.88	0.988	0.986	152.24	76.4	0.734	
29	29 13C-1,2,3,6,7,8-HxCDF	8.06e4	0.49	NO	1.00	10.036	33.066	33.01	0.992	0.990	162.10	81.3	0.746	
30	30 13C-2,3,4,6,7,8-HxCDF	6.72e4	0.49	NO	0.936	10.036	33.636	33.69	1.009	1.011	145.04	72.8	0.800	
31	31 13C-1,2,3,7,8,9-HxCDF	6.54e4	0.51	NO	0.889	10.036	34.713	34.73	1.041	1.042	148.43	74.5	0.841	

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Monday, August 24, 2020 17:13:36 Pacific Daylight Time

Printed: Monday, August 24, 2020 17:14:50 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

#	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	6.20e4	0.45	NO	0.849	10.036	36.233	36.37	1.087	1.091	147.30	73.9	0.904	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.88e4	0.44	NO	0.624	10.036	38.233	38.23	1.147	1.147	125.45	63.0	1.23	
34	34 13C-OCDF	7.58e4	0.88	NO	0.693	10.036	40.800	41.17	1.224	1.235	220.61	55.3	0.652	
35	35 37Cl-2,3,7,8-TCDD	4.66e4			1.28	10.036	26.255	26.25	1.026	1.026	63.963	80.2	0.122	
36	36 13C-1,2,3,4-TCDD	1.14e5	0.79	NO	1.00	10.036	25.550	25.59	1.000	1.000	199.29	100	0.621	
37	37 13C-1,2,3,4-TCDF	1.91e5	0.80	NO	1.00	10.036	24.250	24.31	1.000	1.000	199.29	100	0.551	
38	38 13C-1,2,3,4,6,9-HxCDF	9.88e4	0.50	NO	1.00	10.036	33.300	33.33	1.000	1.000	199.29	100	0.748	
39	39 Total Tetra-Dioxins				1.08	10.036	24.620		0.000		4.2373		0.168	6.40
40	40 Total Penta-Dioxins				0.991	10.036	29.960		0.000		7.1325		0.211	8.52
41	41 Total Hexa-Dioxins				0.908	10.036	33.635		0.000		57.650		0.739	60.0
42	42 Total Hepta-Dioxins				0.926	10.036	37.640		0.000		448.12		2.19	448
43	43 Total Tetra-Furans				0.882	10.036	23.610		0.000		27.765		0.213	29.8
44	44 1st Func. Penta-Furans				0.937	10.036	26.750		0.000		9.0122		0.0571	9.01
45	45 Total Penta-Furans				0.937	10.036	29.275		0.000		8.2900		0.176	14.6
46	46 Total Hexa-Furans				1.11	10.036	33.555		0.000		34.647		0.302	35.0
47	47 Total Hepta-Furans				1.15	10.036	37.835		0.000		56.381		0.455	56.4

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Monday, August 24, 2020 17:13:36 Pacific Daylight Time

Printed: Monday, August 24, 2020 17:14:50 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.01	8.737e3	9.597e3	6.328e2	7.438e2	0.85	NO	1.377e3	2.0904	2.0904	0.168
2	Total Tetra-Dioxins	23.30	4.149e3	4.322e3	2.329e2	2.643e2	0.88	NO	4.971e2	0.75491	0.75491	0.168
3	Total Tetra-Dioxins	23.76	2.311e3	1.960e3	1.325e2	1.266e2	1.05	YES	0.000e0	0.00000	0.34027	0.168
4	Total Tetra-Dioxins	24.43	3.462e3	4.323e3	2.435e2	2.614e2	0.93	YES	0.000e0	0.00000	0.70255	0.168
5	Total Tetra-Dioxins	24.61	2.516e3	2.435e3	1.611e2	1.859e2	0.87	NO	3.470e2	0.52695	0.52695	0.168
6	Total Tetra-Dioxins	24.81	2.580e3	2.844e3	1.650e2	2.062e2	0.80	NO	3.712e2	0.56370	0.56370	0.168
7	Total Tetra-Dioxins	26.00	3.469e3	3.712e3	2.412e2	2.413e2	1.00	YES	0.000e0	0.00000	0.64849	0.168
8	2,3,7,8-TCDD	26.25	2.158e3	4.575e3	1.347e2	2.228e2	0.60	YES	3.575e2	0.00000	0.47022	0.168
9	Total Tetra-Dioxins	26.55	1.160e3	2.392e3	8.568e1	1.128e2	0.76	NO	1.985e2	0.30139	0.30139	0.168

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.43	8.325e3	1.128e4	5.661e2	8.083e2	0.70	NO	1.374e3	3.2479	3.2479	0.211
2	Total Penta-Dioxins	28.90	2.180e3	3.241e3	9.778e1	2.017e2	0.48	YES	0.000e0	0.00000	0.59786	0.211
3	Total Penta-Dioxins	29.52	4.051e3	6.029e3	2.778e2	4.711e2	0.59	NO	7.489e2	1.7698	1.7698	0.211
4	Total Penta-Dioxins	29.78	2.968e3	5.401e3	1.861e2	3.437e2	0.54	NO	5.298e2	1.2521	1.2521	0.211
5	Total Penta-Dioxins	30.10	9.080e2	8.250e2	4.239e1	4.863e1	0.87	YES	0.000e0	0.00000	0.18732	0.211
6	1,2,3,7,8-PeCDD	30.53	3.698e3	3.924e3	1.532e2	2.119e2	0.72	NO	3.650e2	0.86268	0.86268	0.211
7	Total Penta-Dioxins	30.63	9.090e2	2.163e3	5.720e1	1.112e2	0.51	YES	0.000e0	0.00000	0.34976	0.211
8	Total Penta-Dioxins	30.87	8.410e2	1.020e3	5.280e1	6.599e1	0.80	YES	0.000e0	0.00000	0.25419	0.211

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Monday, August 24, 2020 17:13:36 Pacific Daylight Time

Printed: Monday, August 24, 2020 17:14:50 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.15	7.047e4	6.350e4	3.539e3	3.052e3	1.16	NO	6.590e3	23.347	23.347	0.739
2	Total Hexa-Dioxins	32.76	8.164e3	7.182e3	4.499e2	3.481e2	1.29	NO	7.979e2	2.8268	2.8268	0.739
3	Total Hexa-Dioxins	33.05	5.744e4	4.613e4	3.499e3	2.723e3	1.28	NO	6.222e3	22.041	22.041	0.739
4	Total Hexa-Dioxins	33.14	5.422e3	3.228e3	2.983e2	1.946e2	1.53	YES	0.000e0	0.00000	1.5446	0.739
5	1,2,3,4,7,8-HxCDD	33.81	3.835e3	2.109e3	1.978e2	1.080e2	1.83	YES	3.058e2	0.00000	0.79282	0.671
6	1,2,3,6,7,8-HxCDD	33.94	1.675e4	1.354e4	9.504e2	8.006e2	1.19	NO	1.751e3	5.8649	5.8649	0.688
7	Total Hexa-Dioxins	34.10	3.531e3	2.488e3	1.690e2	1.309e2	1.29	NO	2.999e2	1.0625	1.0625	0.739
8	1,2,3,7,8,9-HxCDD	34.22	7.352e3	4.312e3	4.215e2	2.971e2	1.42	NO	7.186e2	2.5081	2.5081	0.752

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.71	5.086e5	4.860e5	2.882e4	2.783e4	1.04	NO	5.665e4	253.20	253.20	2.19
2	1,2,3,4,6,7,8-HpCDD	37.58	3.984e5	3.808e5	2.211e4	2.150e4	1.03	NO	4.361e4	194.92	194.92	2.19

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Monday, August 24, 2020 17:13:36 Pacific Daylight Time

Printed: Monday, August 24, 2020 17:14:50 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	21.00	2.244e3	2.249e3	1.552e2	1.898e2	0.82	NO	3.450e2	0.43337	0.43337	0.213
2	Total Tetra-Furans	21.59	3.622e3	3.722e3	3.254e2	3.477e2	0.94	YES	0.000e0	0.00000	0.77291	0.213
3	Total Tetra-Furans	22.24	1.648e4	2.128e4	1.282e3	1.704e3	0.75	NO	2.986e3	3.7499	3.7499	0.213
4	Total Tetra-Furans	22.76	4.292e3	4.968e3	6.538e2	9.117e2	0.72	NO	1.566e3	1.9663	1.9663	0.213
5	Total Tetra-Furans	23.04	1.475e4	2.172e4	1.301e3	1.743e3	0.75	NO	3.044e3	3.8236	3.8236	0.213
6	Total Tetra-Furans	23.44	9.765e3	1.210e4	7.830e2	9.288e2	0.84	NO	1.712e3	2.1500	2.1500	0.213
7	Total Tetra-Furans	23.54	6.439e3	5.541e3	2.927e2	3.416e2	0.86	NO	6.343e2	0.79671	0.79671	0.213
8	Total Tetra-Furans	23.71	5.949e3	7.508e3	4.250e2	5.321e2	0.80	NO	9.571e2	1.2021	1.2021	0.213
9	Total Tetra-Furans	24.17	3.226e3	5.624e3	2.754e2	4.152e2	0.66	NO	6.906e2	0.86739	0.86739	0.213
10	Total Tetra-Furans	24.35	1.477e4	2.110e4	1.234e3	1.708e3	0.72	NO	2.942e3	3.6955	3.6955	0.213
11	Total Tetra-Furans	24.78	1.704e4	1.822e4	1.012e3	1.199e3	0.84	NO	2.212e3	2.7778	2.7778	0.213
12	Total Tetra-Furans	25.03	3.089e3	3.626e3	2.718e2	3.960e2	0.69	NO	6.678e2	0.83874	0.83874	0.213
13	Total Tetra-Furans	25.38	2.739e3	4.147e3	1.207e2	1.812e2	0.67	NO	3.019e2	0.37915	0.37915	0.213
14	Total Tetra-Furans	25.52	7.363e3	8.776e3	4.389e2	4.755e2	0.92	YES	0.000e0	0.00000	1.0570	0.213
15	2,3,7,8-TCDF	25.64	1.863e4	2.234e4	1.133e3	1.413e3	0.80	NO	2.547e3	3.1985	3.1985	0.213
16	Total Tetra-Furans	25.88	7.422e3	8.763e3	5.086e2	6.786e2	0.75	NO	1.187e3	1.4912	1.4912	0.213
17	Total Tetra-Furans	26.13	1.672e3	1.496e3	7.006e1	8.884e1	0.79	NO	1.589e2	0.19959	0.19959	0.213
18	Total Tetra-Furans	27.18	1.341e3	1.666e3	6.795e1	8.730e1	0.78	NO	1.553e2	0.19500	0.19500	0.213
19	Total Tetra-Furans	27.30	1.658e3	2.615e3	8.341e1	1.352e2	0.62	YES	0.000e0	0.00000	0.24083	0.213

**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	6.436e4	4.039e4	3.526e3	2.190e3	1.61	NO	5.716e3	9.0122	9.0122	0.0571

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Monday, August 24, 2020 17:13:36 Pacific Daylight Time

Printed: Monday, August 24, 2020 17:14:50 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.33	4.744e3	4.170e3	3.125e2	2.285e2	1.37	NO	5.410e2	0.85292	0.85292	0.176
2	Total Penta-Furans	28.48	3.199e4	1.992e4	1.947e3	1.504e3	1.29	YES	0.000e0	0.00000	5.0494	0.176
3	Total Penta-Furans	29.02	1.069e4	6.418e3	6.481e2	4.491e2	1.44	NO	1.097e3	1.7298	1.7298	0.176
4	Total Penta-Furans	29.20	3.906e3	2.975e3	1.833e2	1.309e2	1.40	NO	3.142e2	0.49543	0.49543	0.176
5	1,2,3,7,8-PeCDF	29.38	1.977e4	1.494e4	1.023e3	6.602e2	1.55	NO	1.684e3	2.5285	2.5285	0.173
6	Total Penta-Furans	29.60	9.413e3	7.102e3	5.024e2	3.985e2	1.26	YES	0.000e0	0.00000	1.3031	0.176
7	2,3,4,7,8-PeCDF	30.33	1.907e4	1.103e4	1.053e3	7.185e2	1.47	NO	1.772e3	2.6834	2.6834	0.163

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.62	1.607e4	1.077e4	6.703e2	5.698e2	1.18	NO	1.240e3	3.0638	3.0638	0.302
2	Total Hexa-Furans	31.79	3.878e4	2.843e4	2.037e3	1.507e3	1.35	NO	3.544e3	8.7559	8.7559	0.302
3	Total Hexa-Furans	32.41	6.037e4	4.965e4	3.240e3	2.567e3	1.26	NO	5.808e3	14.348	14.348	0.302
4	1,2,3,4,7,8-HxCDF	32.90	2.013e4	1.615e4	1.037e3	8.709e2	1.19	NO	1.907e3	4.6052	4.6052	0.286
5	1,2,3,6,7,8-HxCDF	33.03	9.329e3	7.149e3	5.429e2	3.930e2	1.38	NO	9.359e2	2.0806	2.0806	0.247
6	2,3,4,6,7,8-HxCDF	33.70	5.004e3	3.491e3	2.990e2	2.374e2	1.26	NO	5.364e2	1.4296	1.4296	0.324
7	1,2,3,7,8,9-HxCDF	34.75	2.245e3	1.715e3	7.597e1	5.819e1	1.31	NO	1.342e2	0.36411	0.36411	0.376
8	Total Hexa-Furans	34.76	2.661e3	1.613e3	8.997e1	5.569e1	1.62	YES	0.000e0	0.00000	0.30817	0.302

**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	36.38	5.190e4	4.754e4	3.107e3	2.912e3	1.07	NO	6.019e3	16.780	16.780	0.393
2	Total Hepta-Furans	36.98	9.752e4	9.856e4	5.500e3	5.501e3	1.00	NO	1.100e4	37.743	37.743	0.455
3	1,2,3,4,7,8,9-HpCDF	38.24	3.696e3	4.162e3	2.130e2	2.400e2	0.89	NO	4.529e2	1.8576	1.8576	0.511



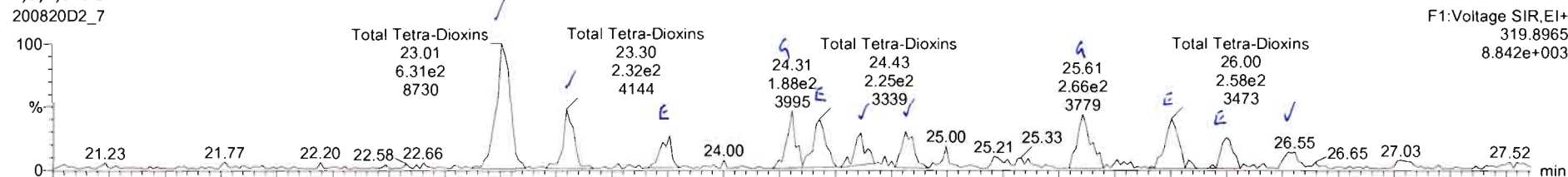
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

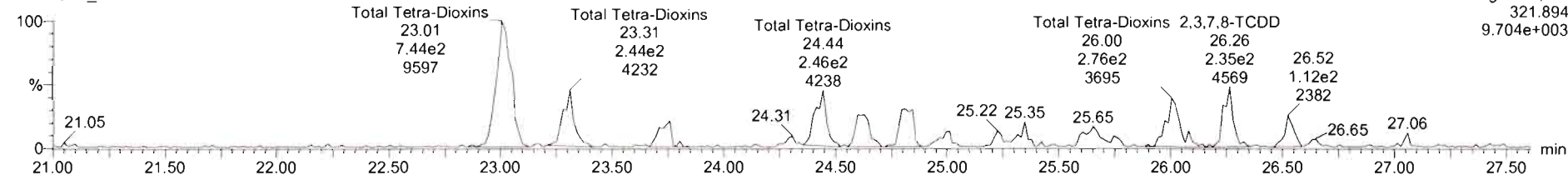
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

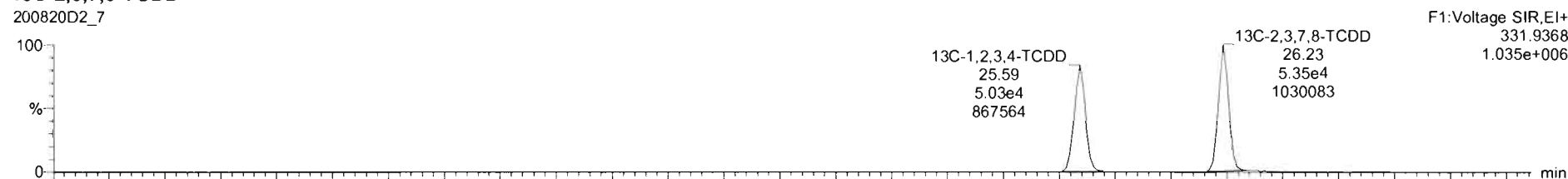
2,3,7,8-TCDD



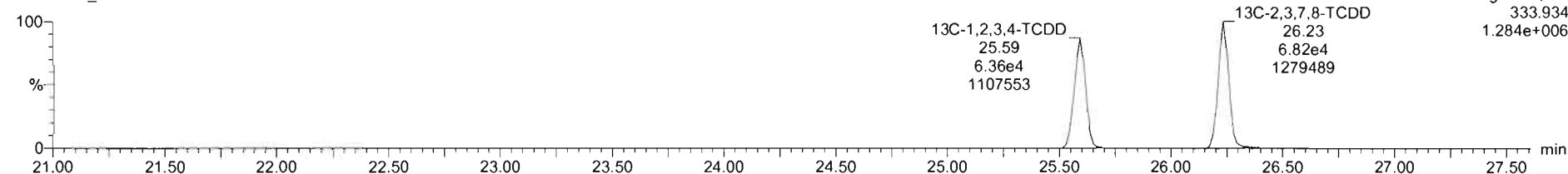
200820D2\_7

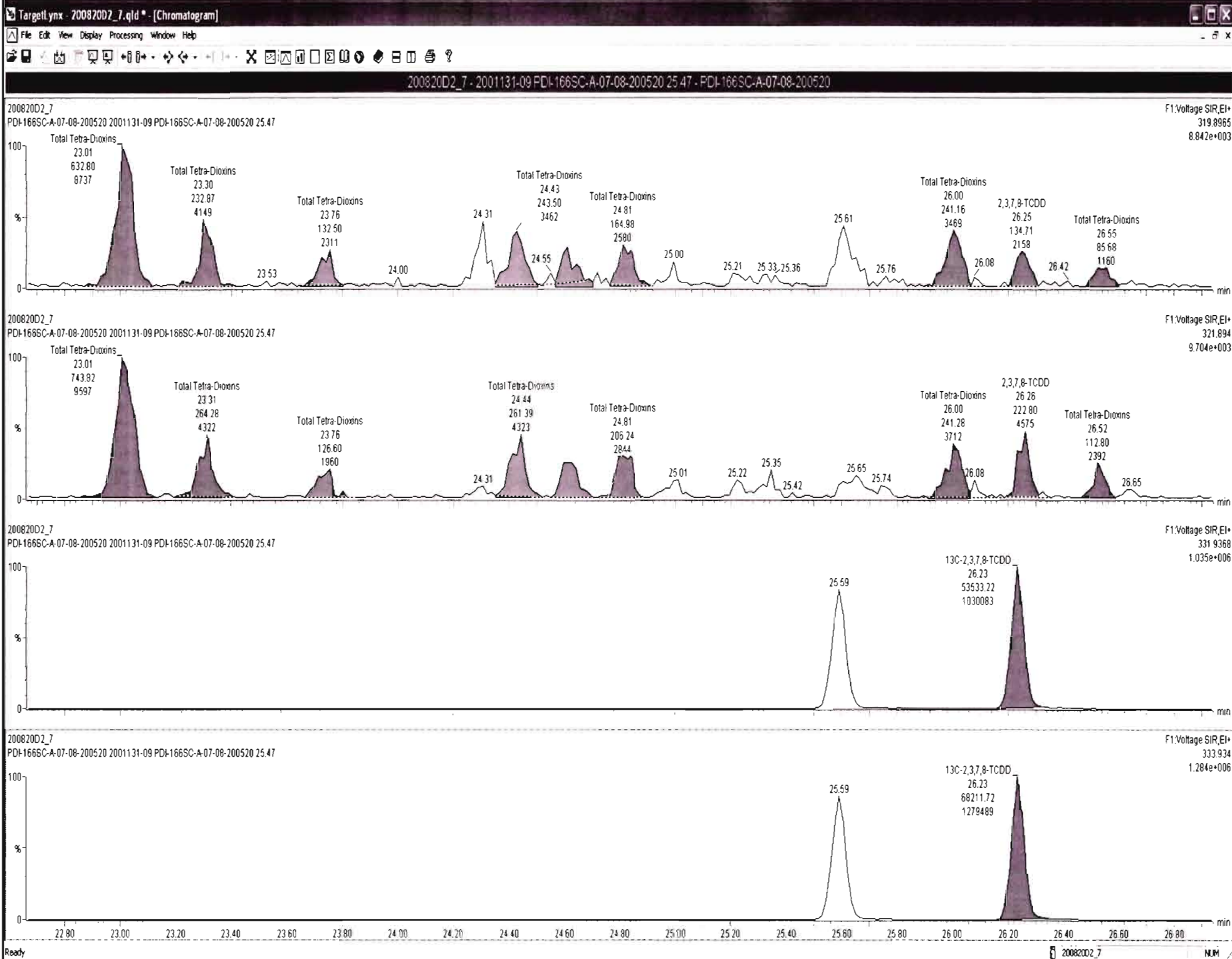


13C-2,3,7,8-TCDD



200820D2\_7



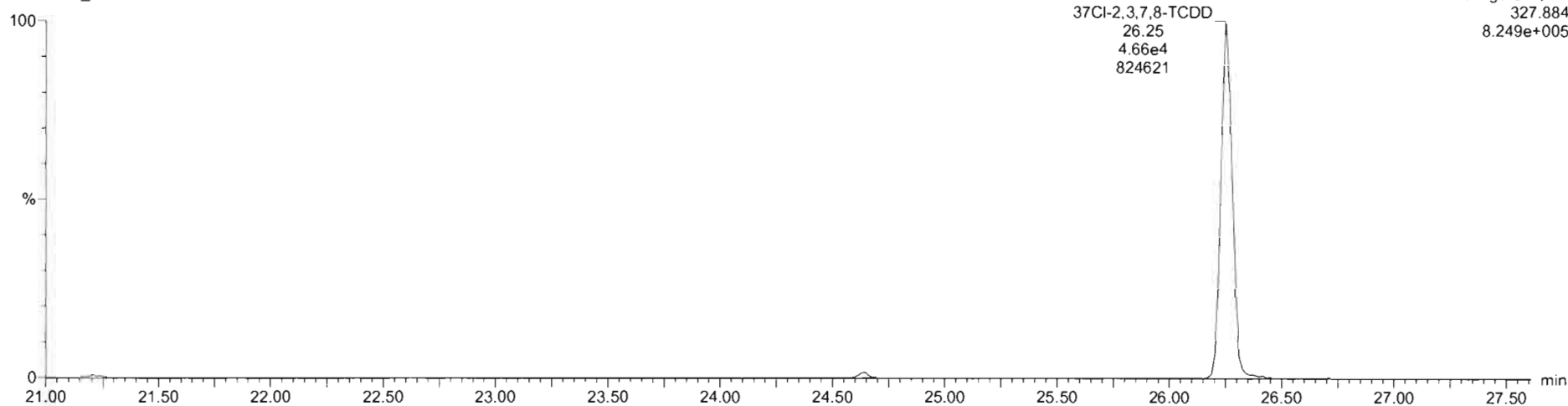


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

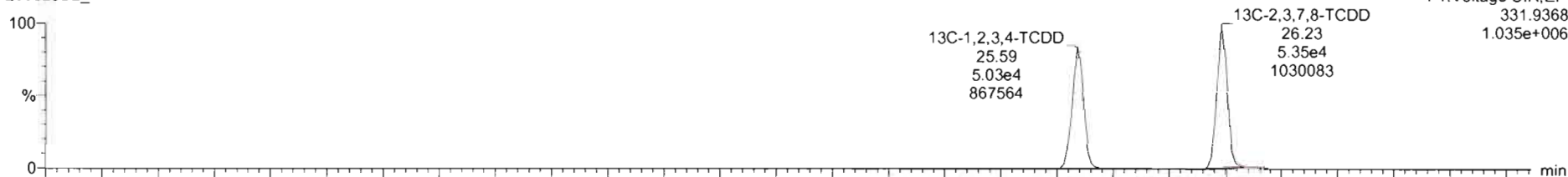
Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

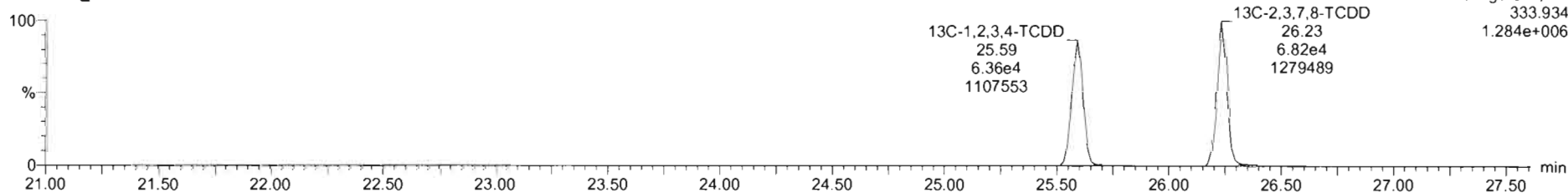
**37Cl-2,3,7,8-TCDD**  
200820D2\_7



**13C-1,2,3,4-TCDD**  
200820D2\_7



200820D2\_7

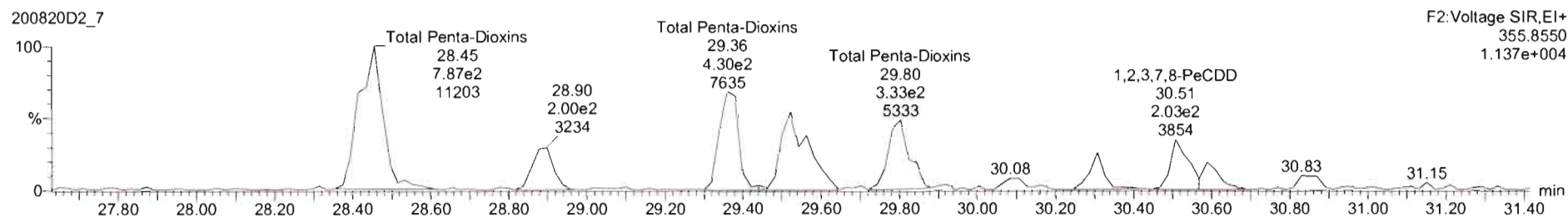
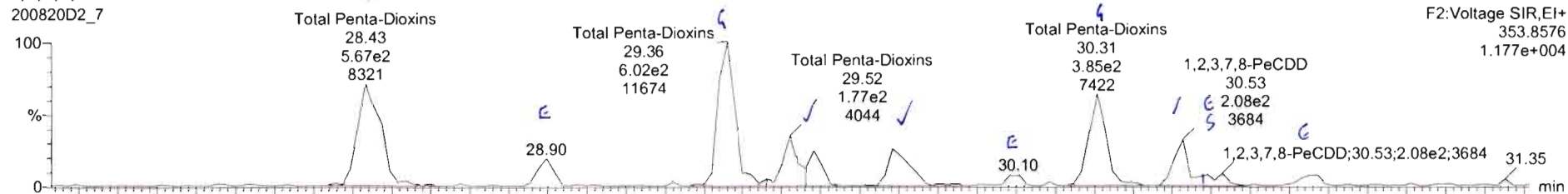


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

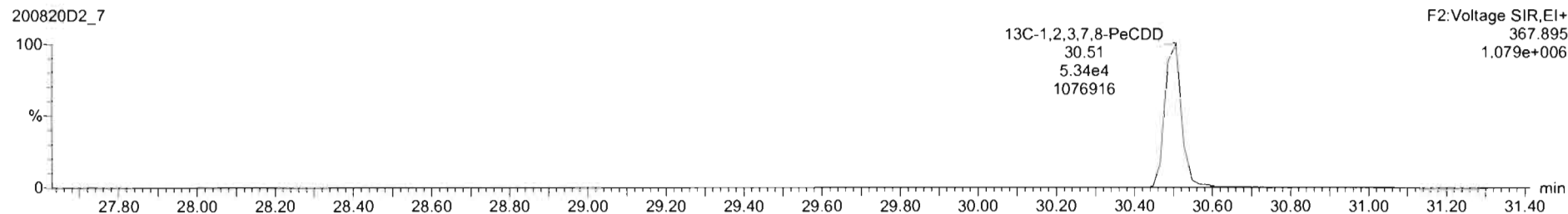
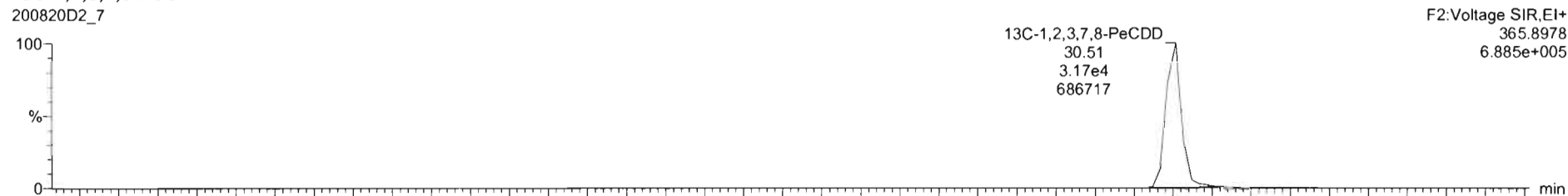
Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

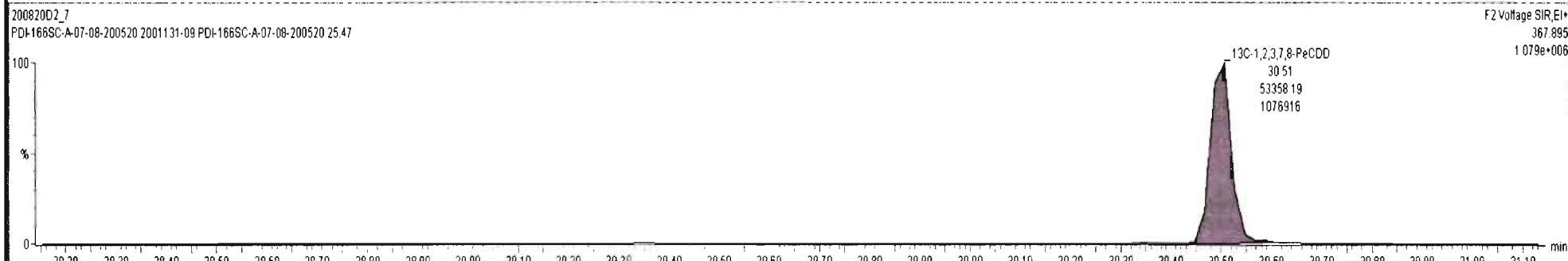
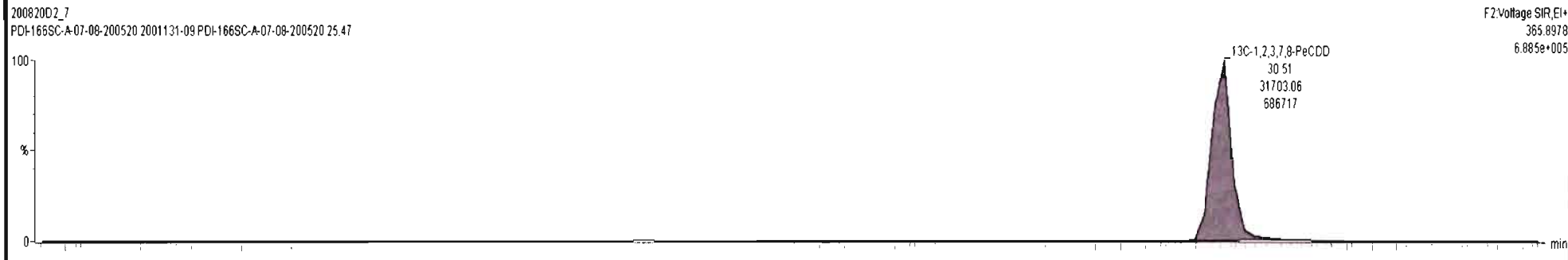
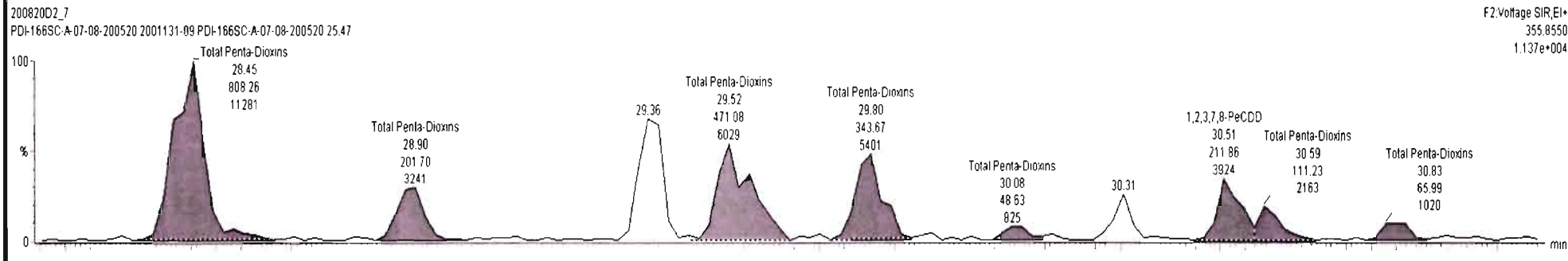
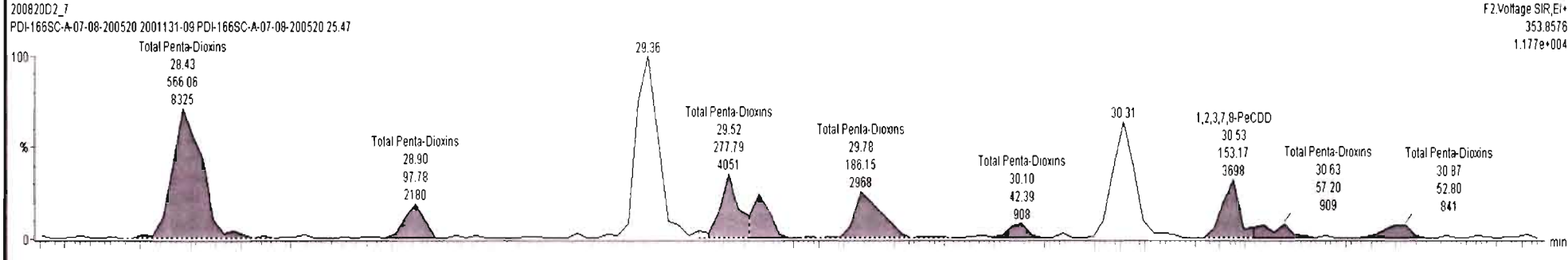
Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

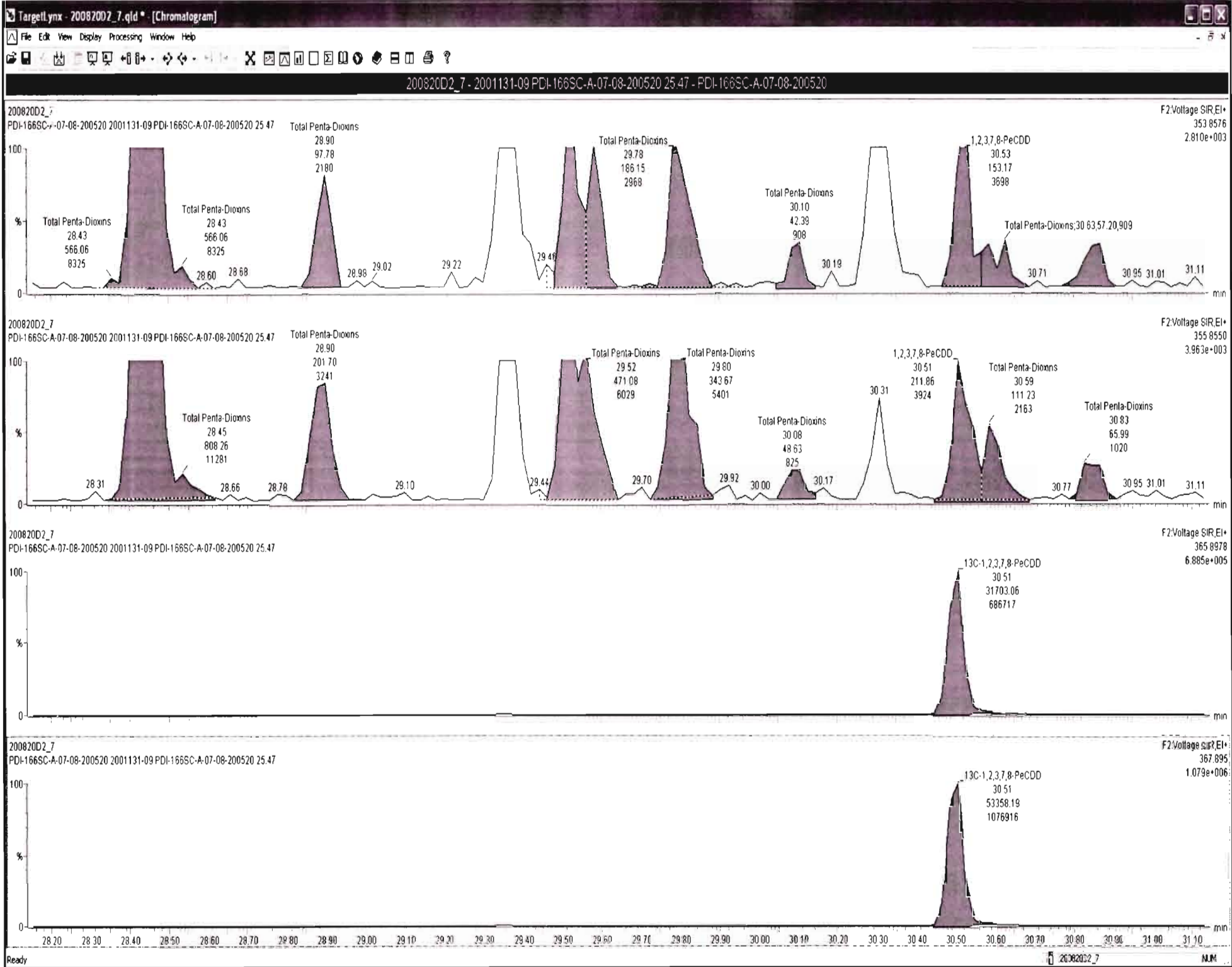
1,2,3,7,8-PeCDD



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





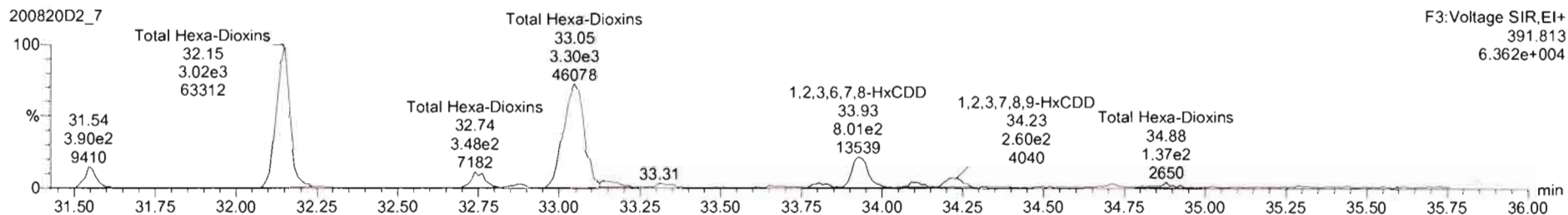
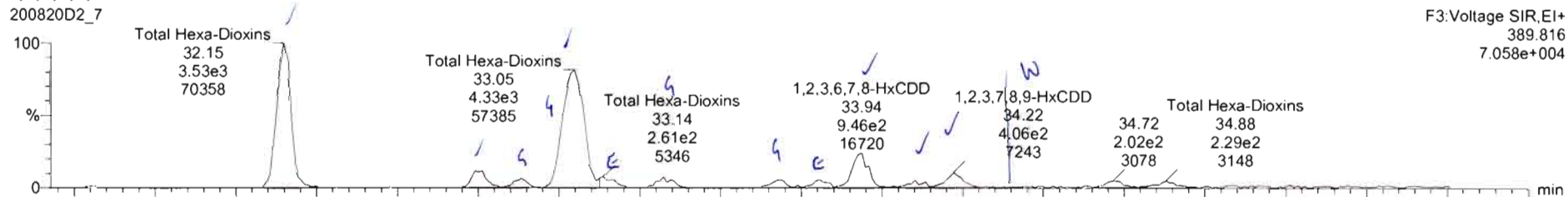


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

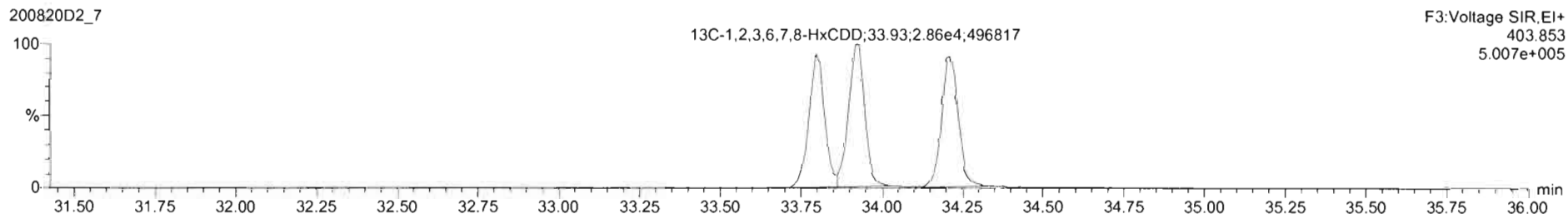
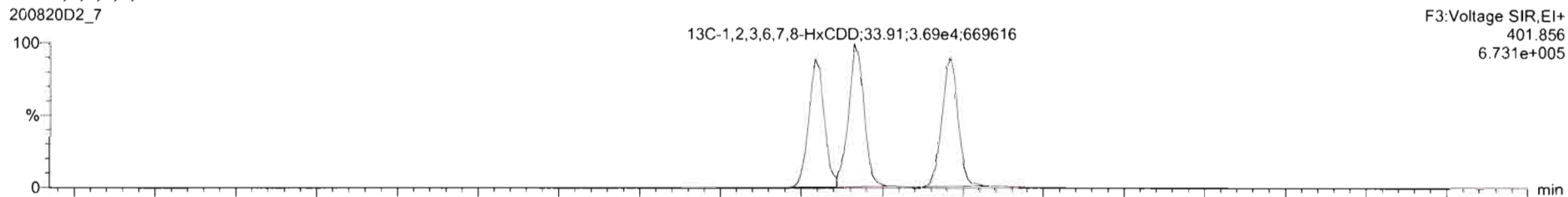
Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

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

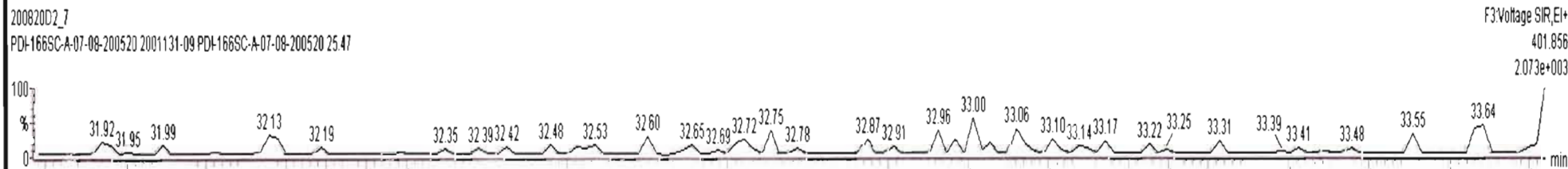
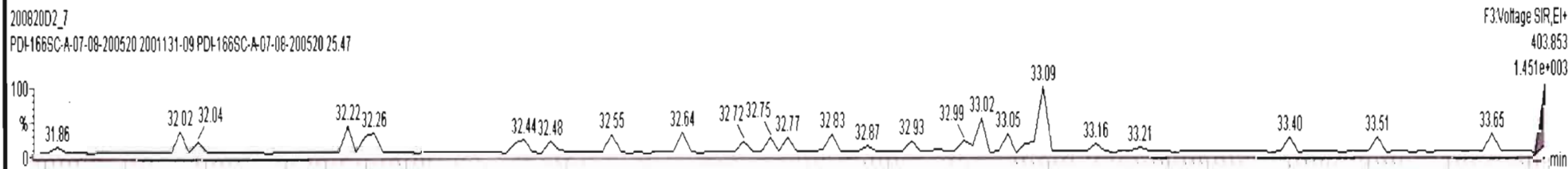
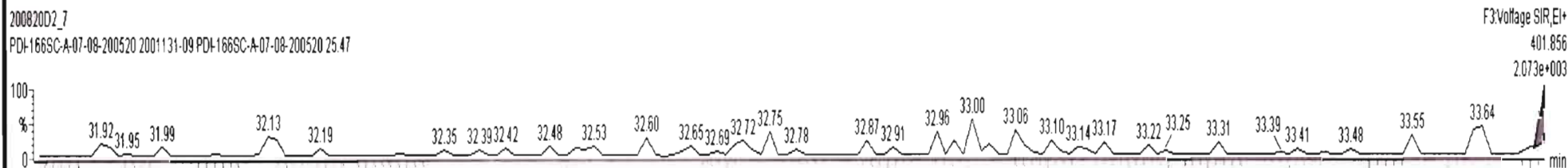
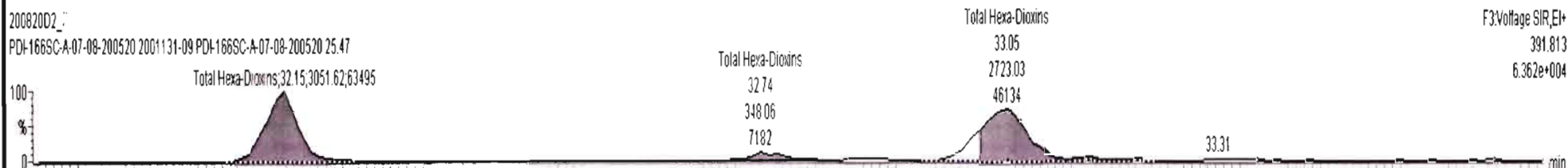
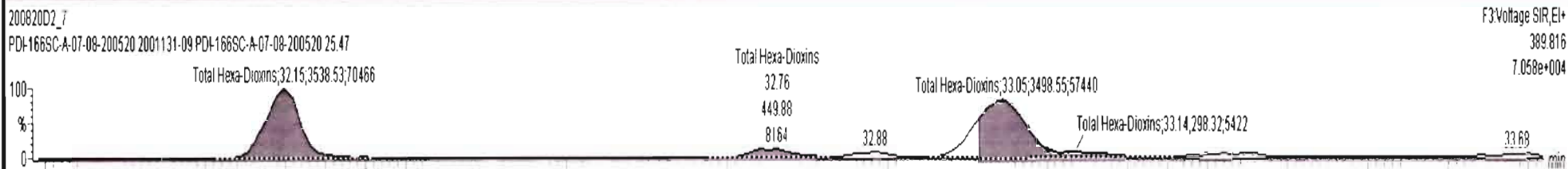


**13C-1,2,3,4,7,8-HxCDD**

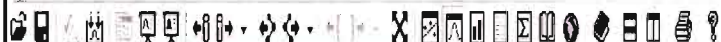




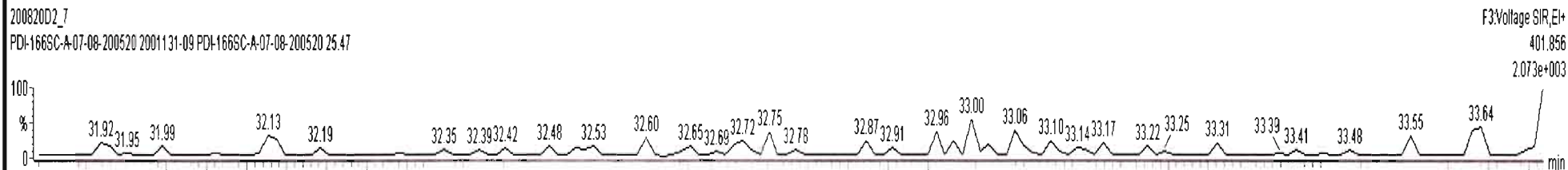
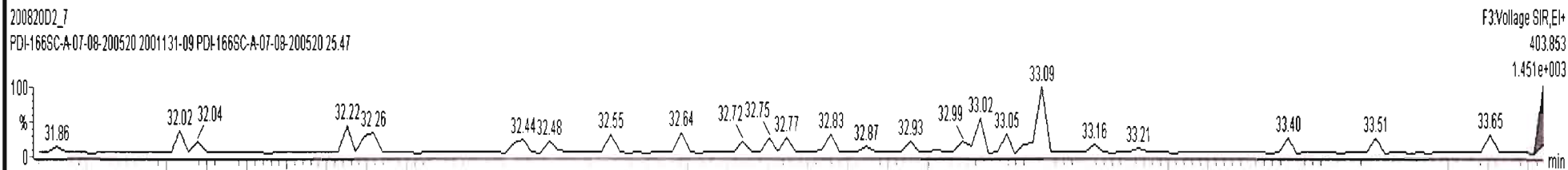
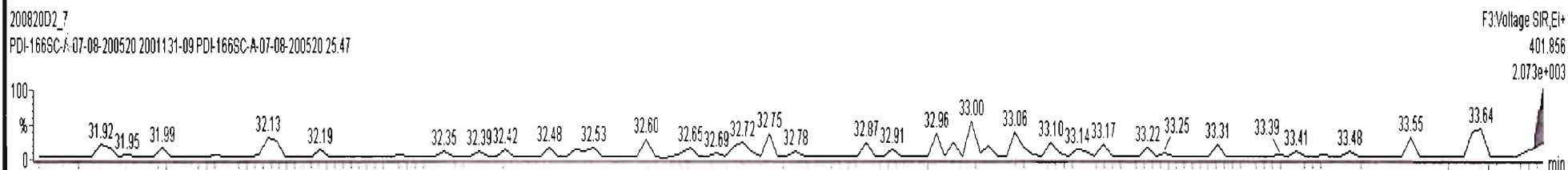
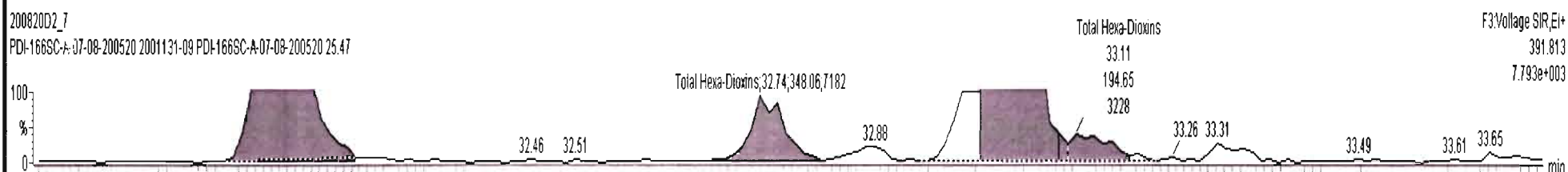
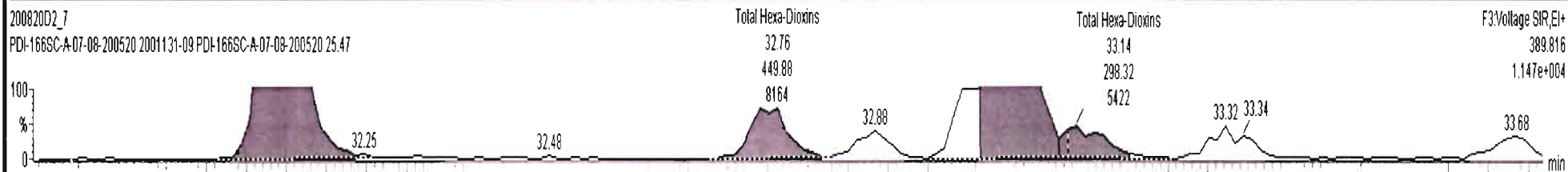
200820D2\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520





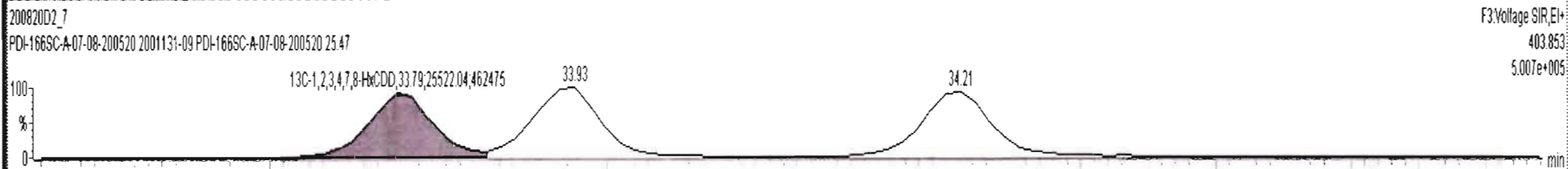
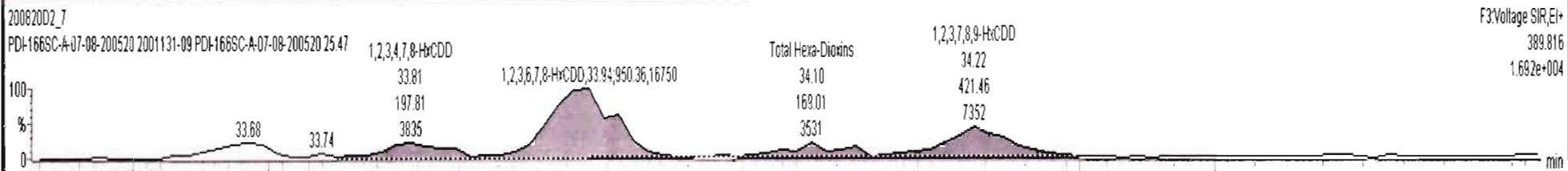


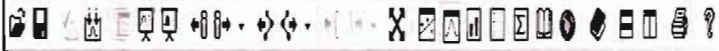
20082002\_7 - 2001131-09 PD1-166SC-A-07-08-200520 25.47 - PD1-166SC-A-07-08-200520



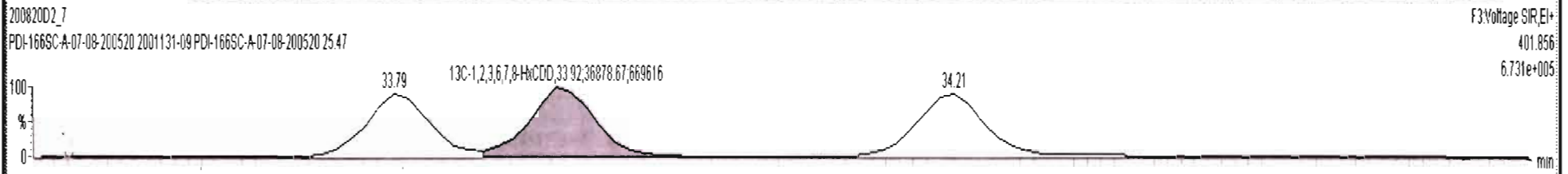
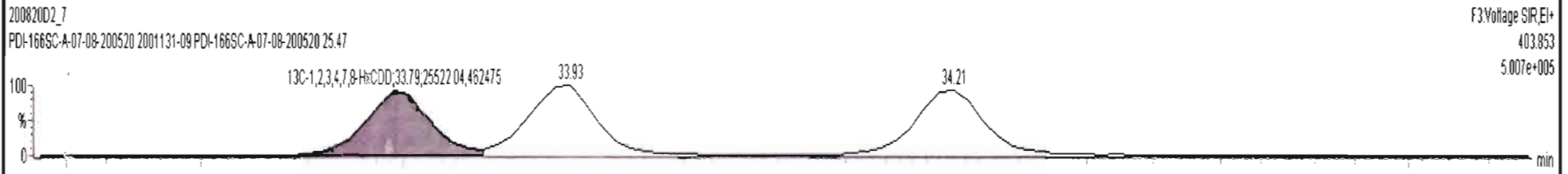
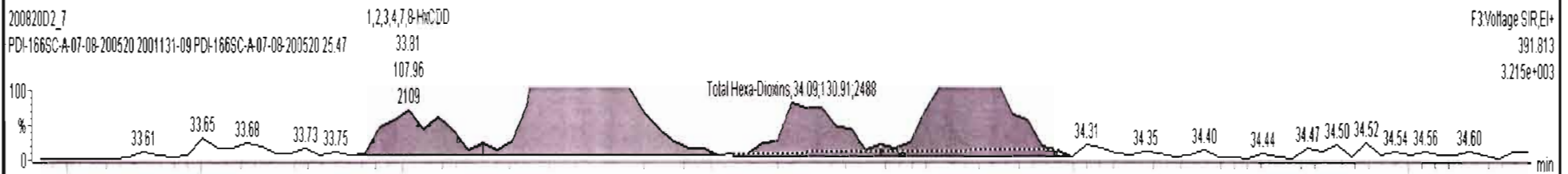
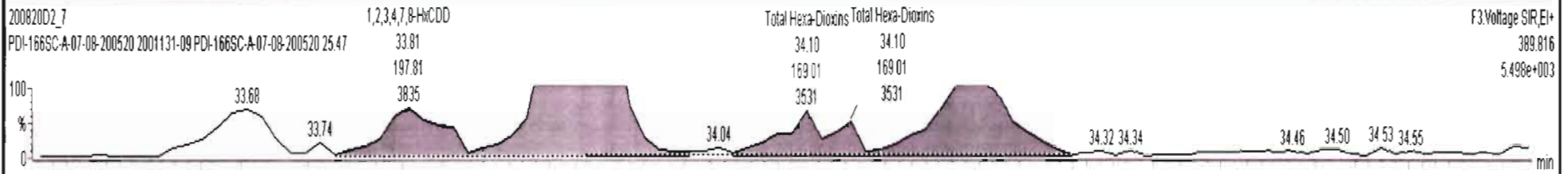


200820D2\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25 47 - PDI-166SC-A-07-08-200520





200820D2\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - FDI-166SC-A-07-08-200520



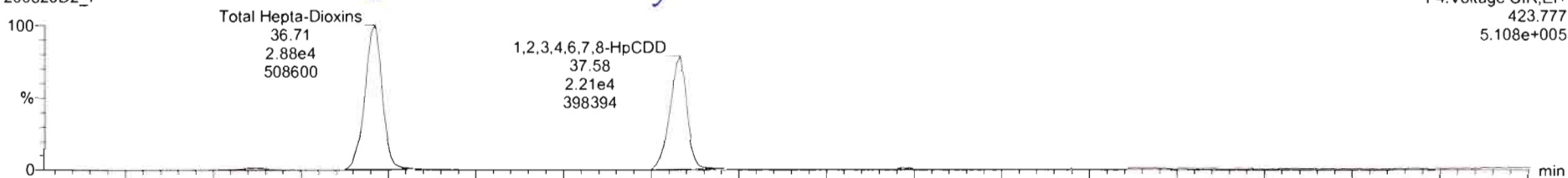
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

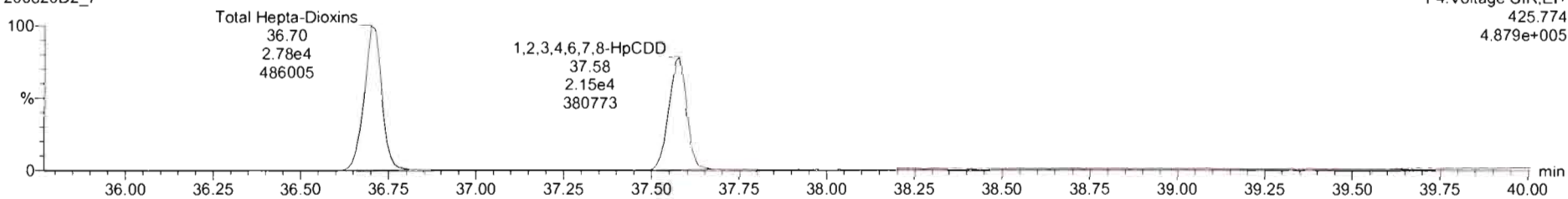
Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

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

200820D2\_7

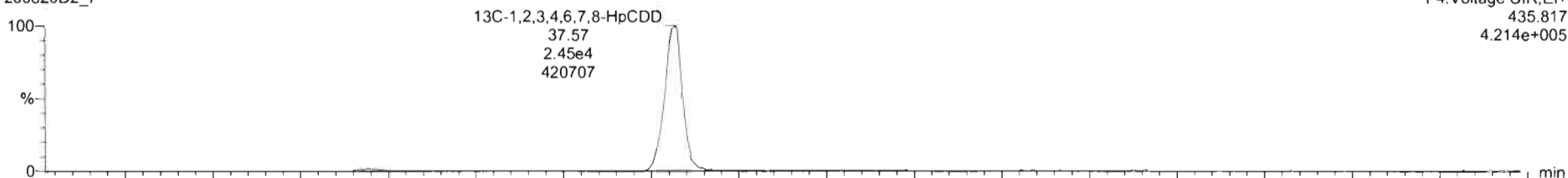


200820D2\_7

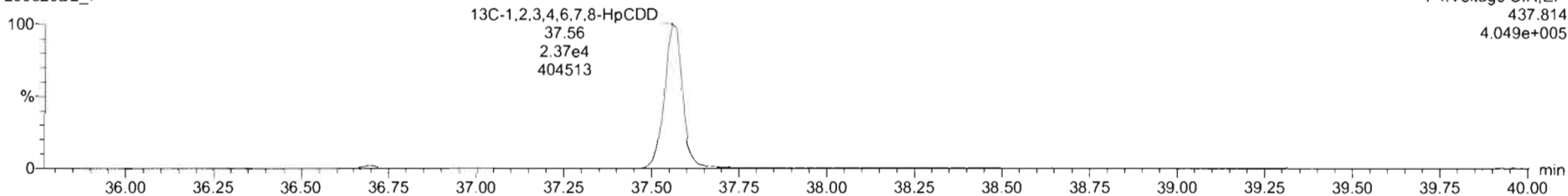


**13C-1,2,3,4,6,7,8-HpCDD**

200820D2\_7



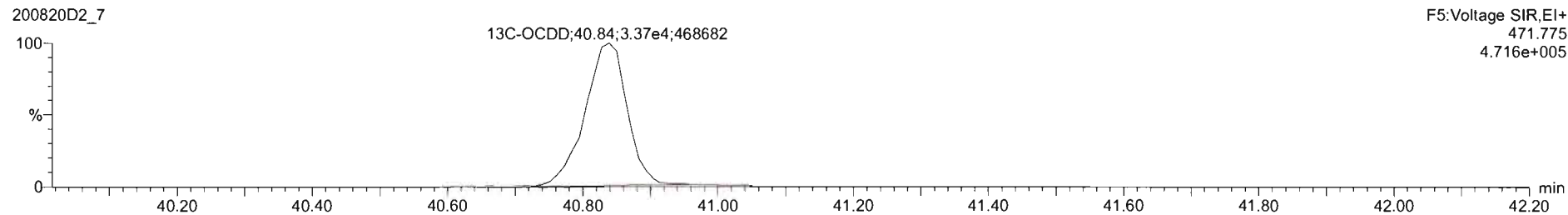
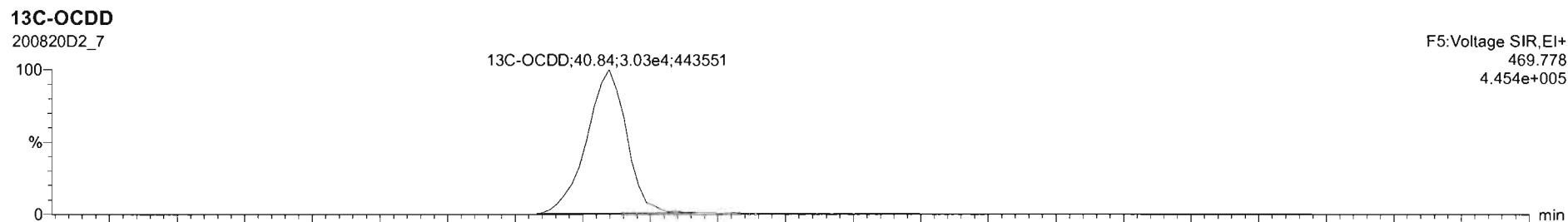
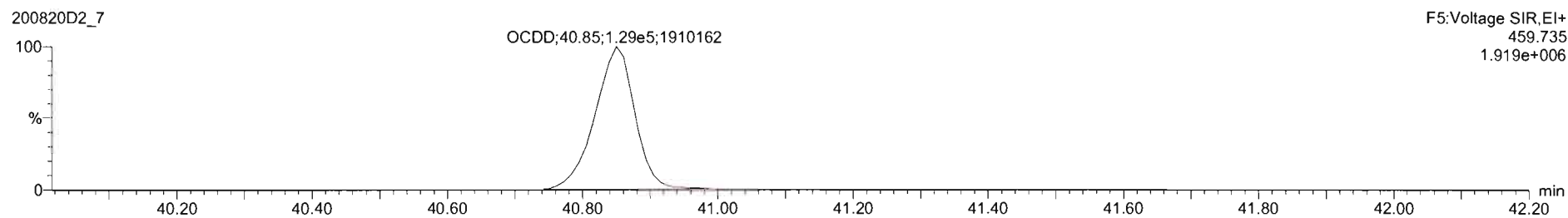
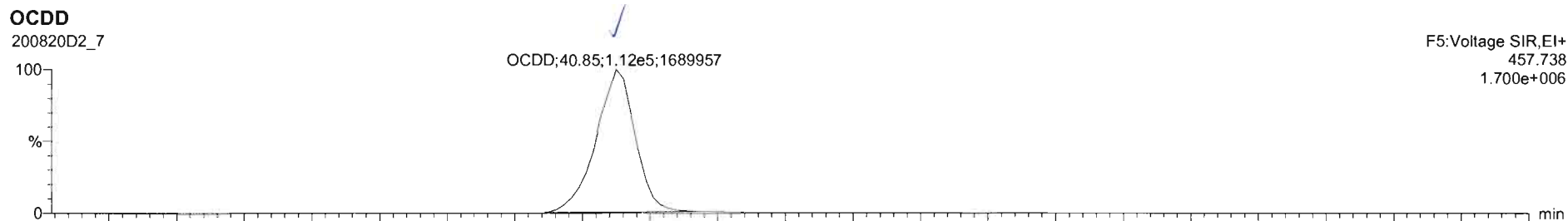
200820D2\_7



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

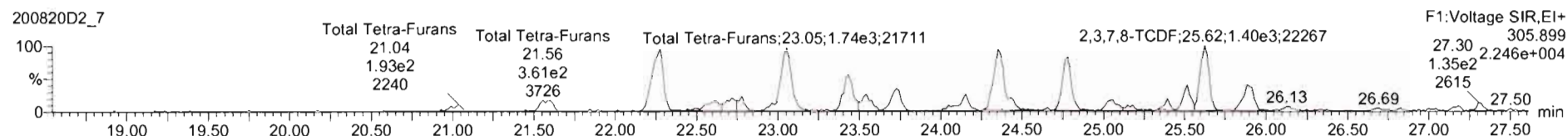
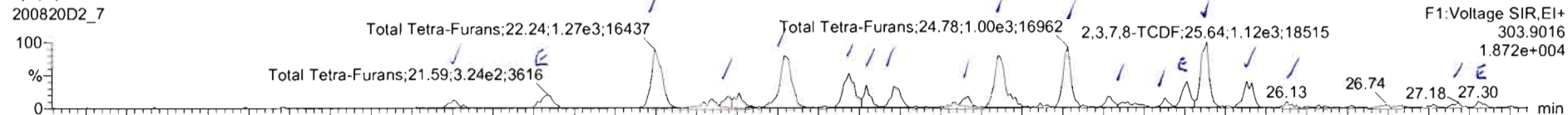


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

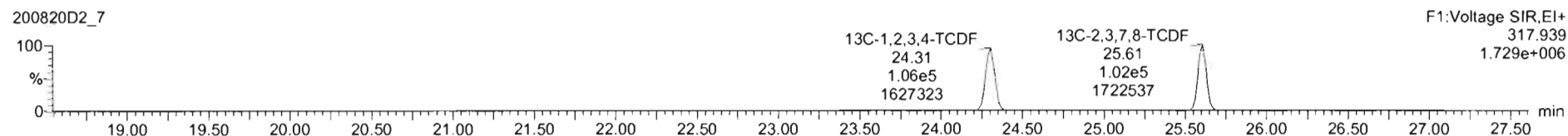
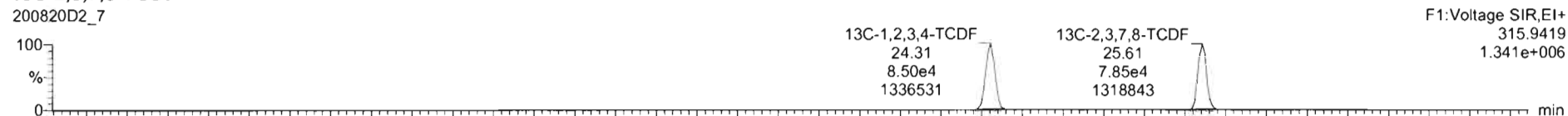
Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

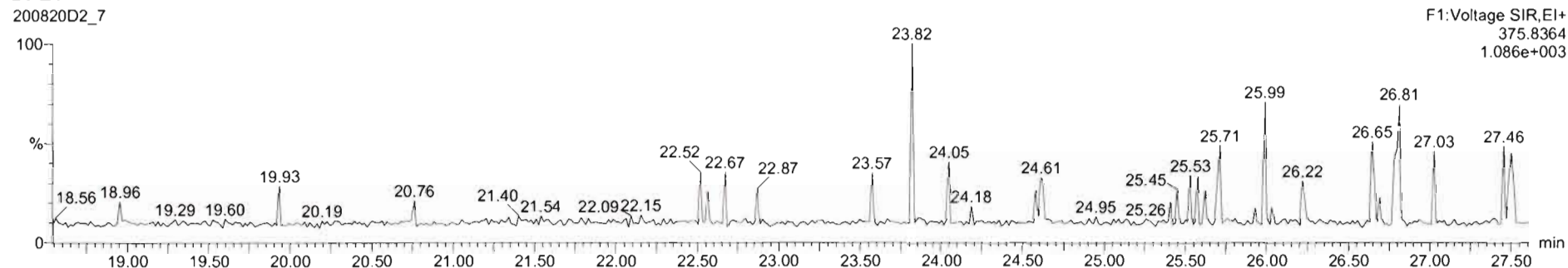
**2,3,7,8-TCDF**

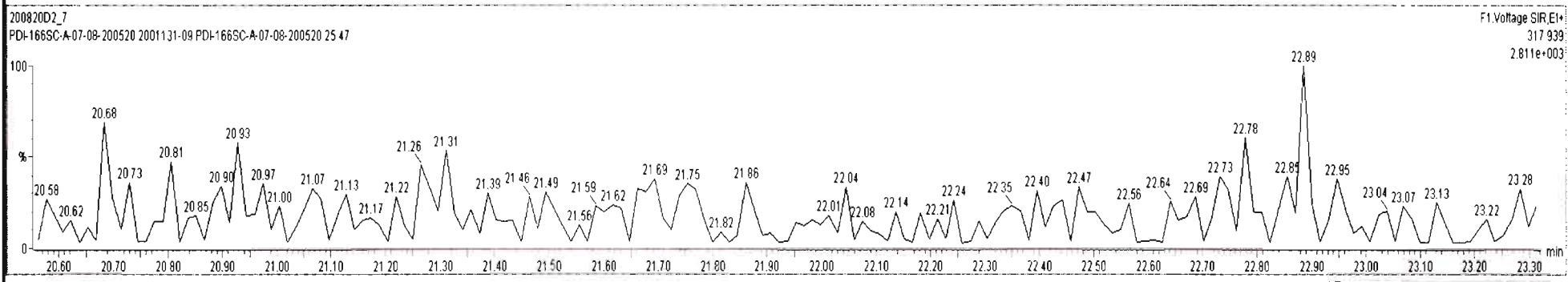
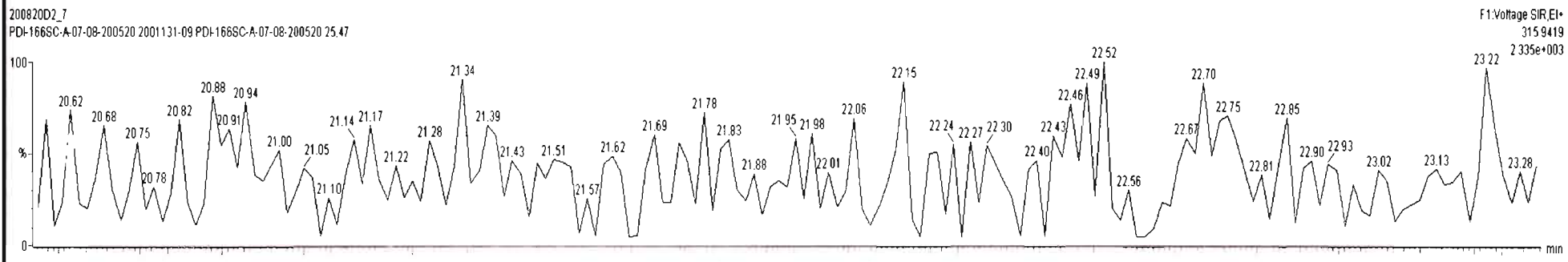
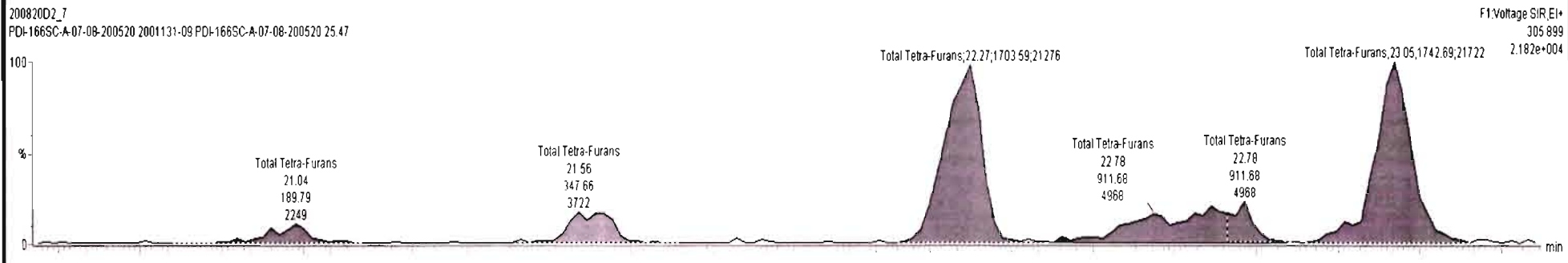
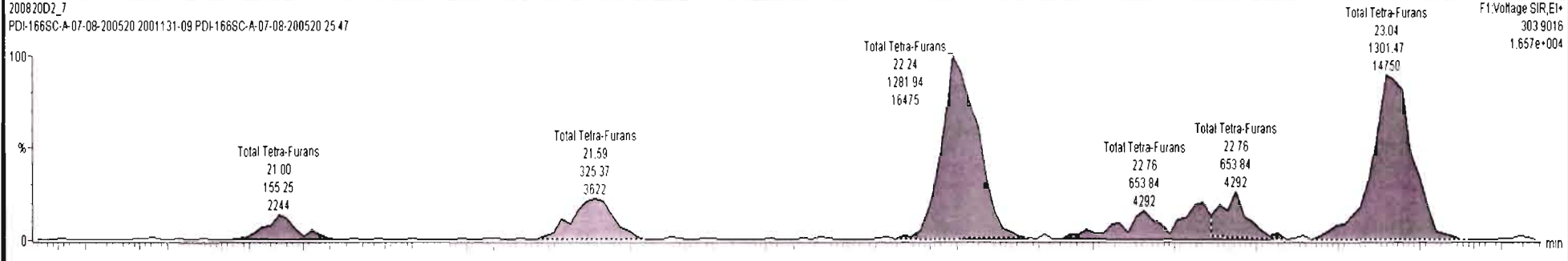


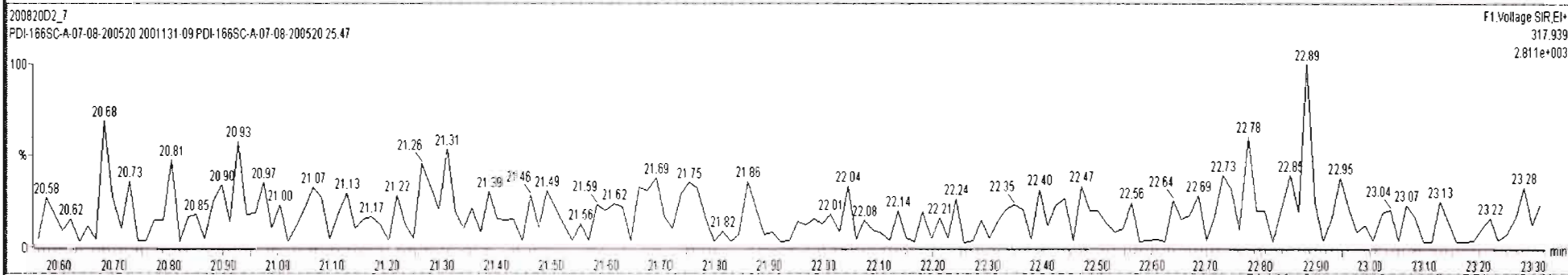
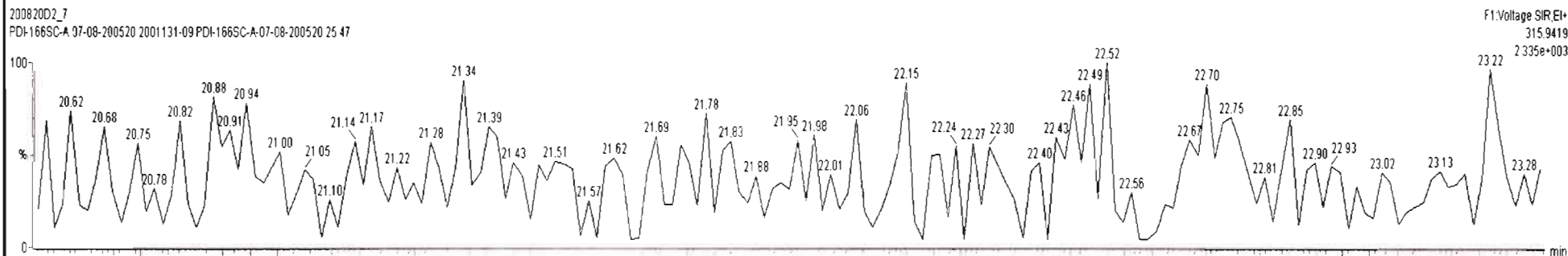
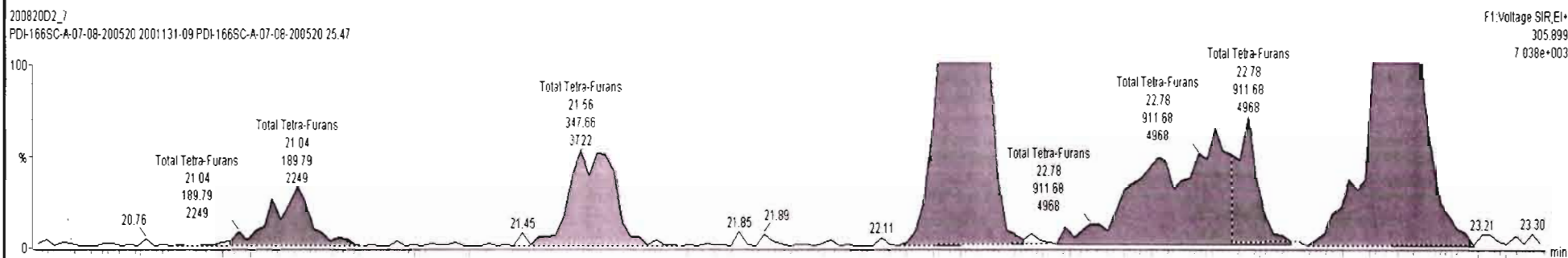
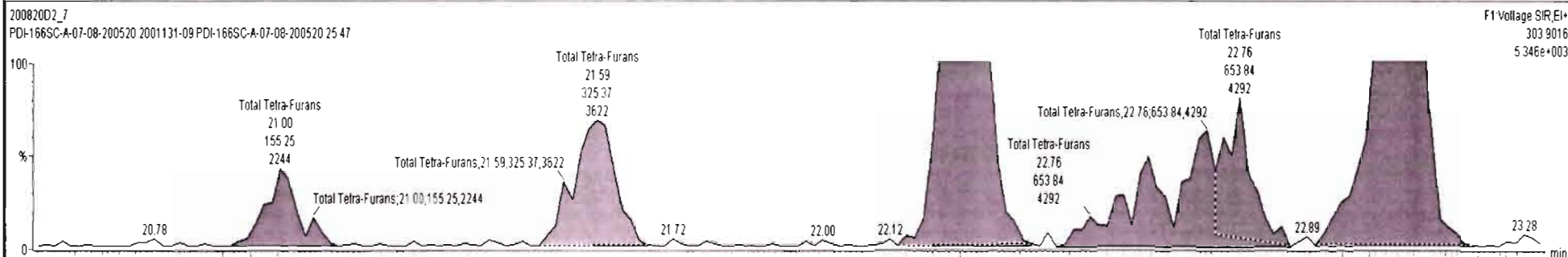
**13C-2,3,7,8-TCDF**



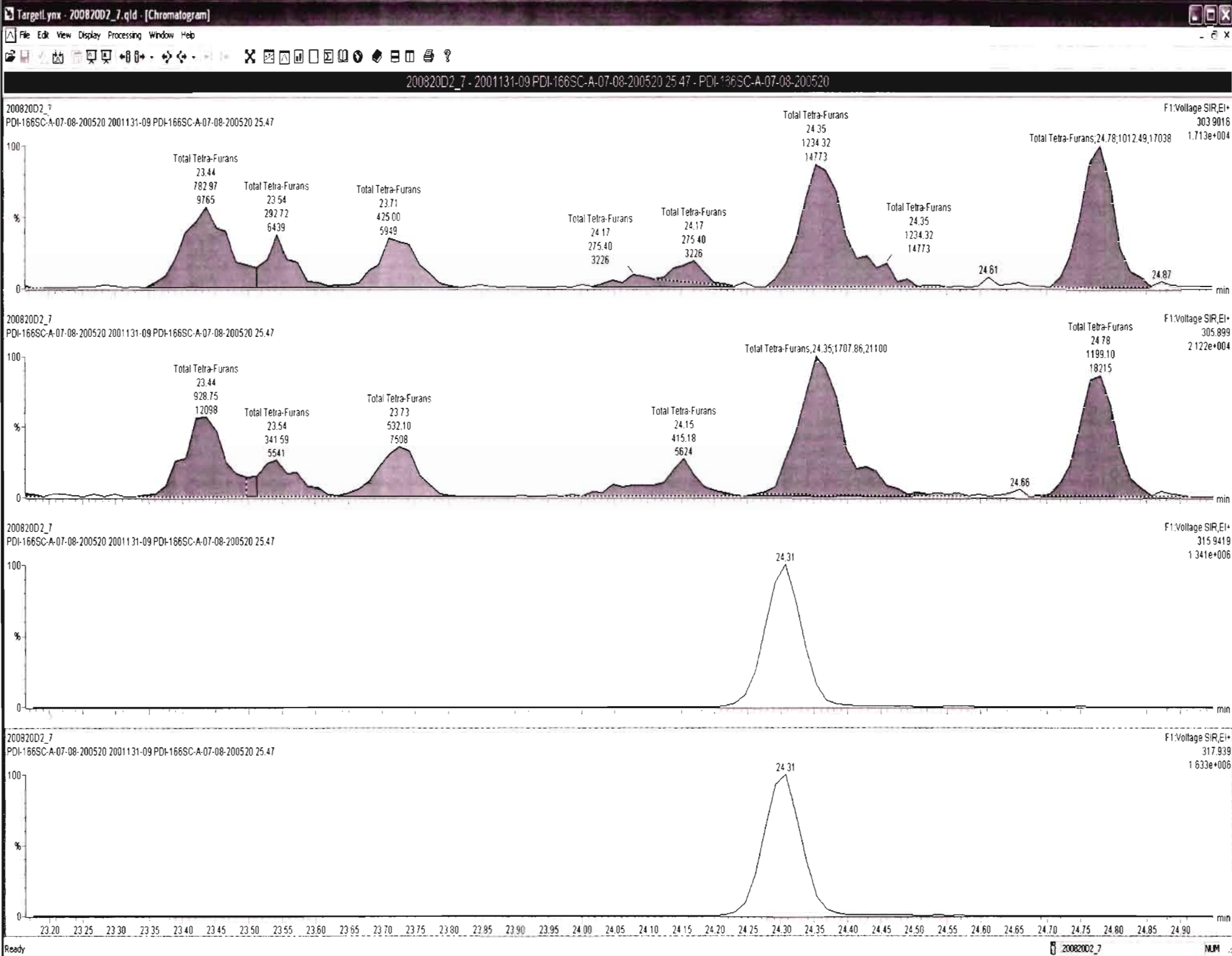
**DPE1**



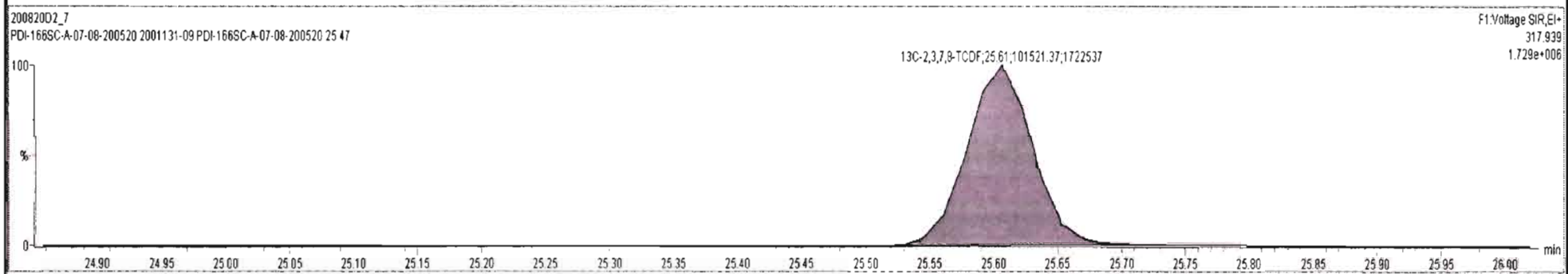
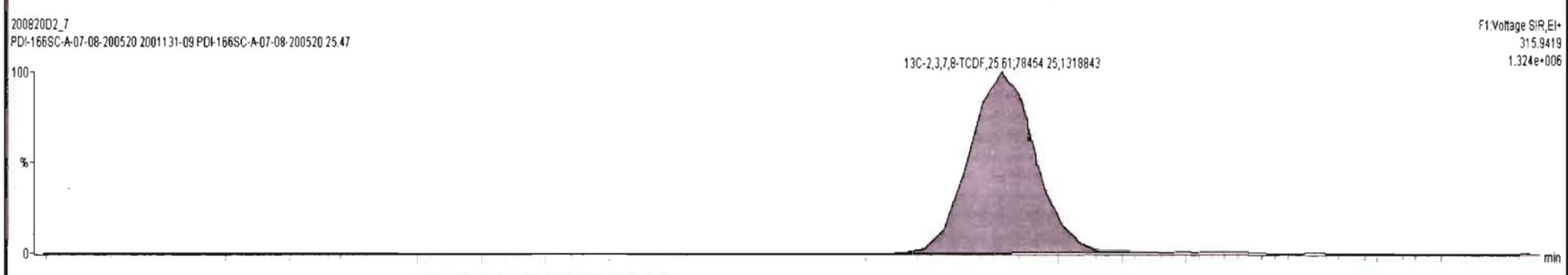
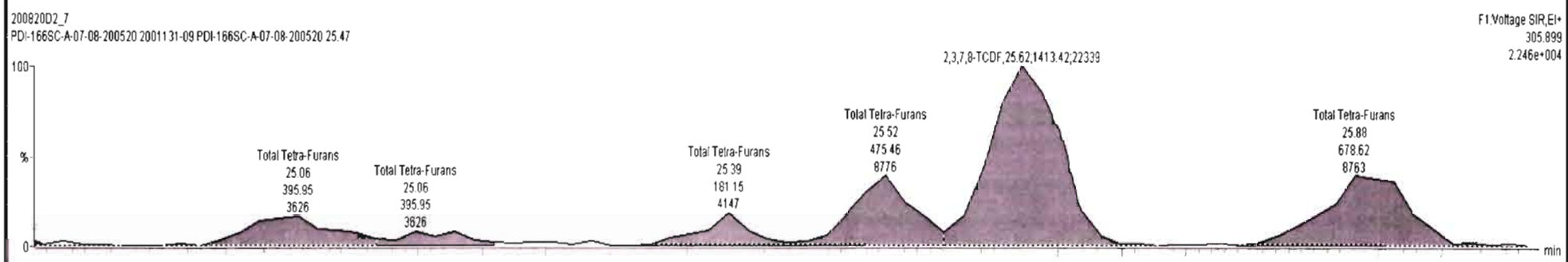
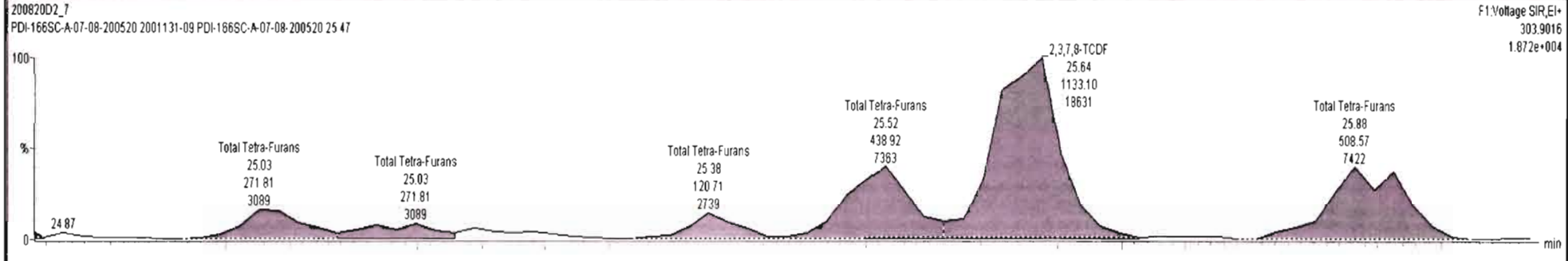


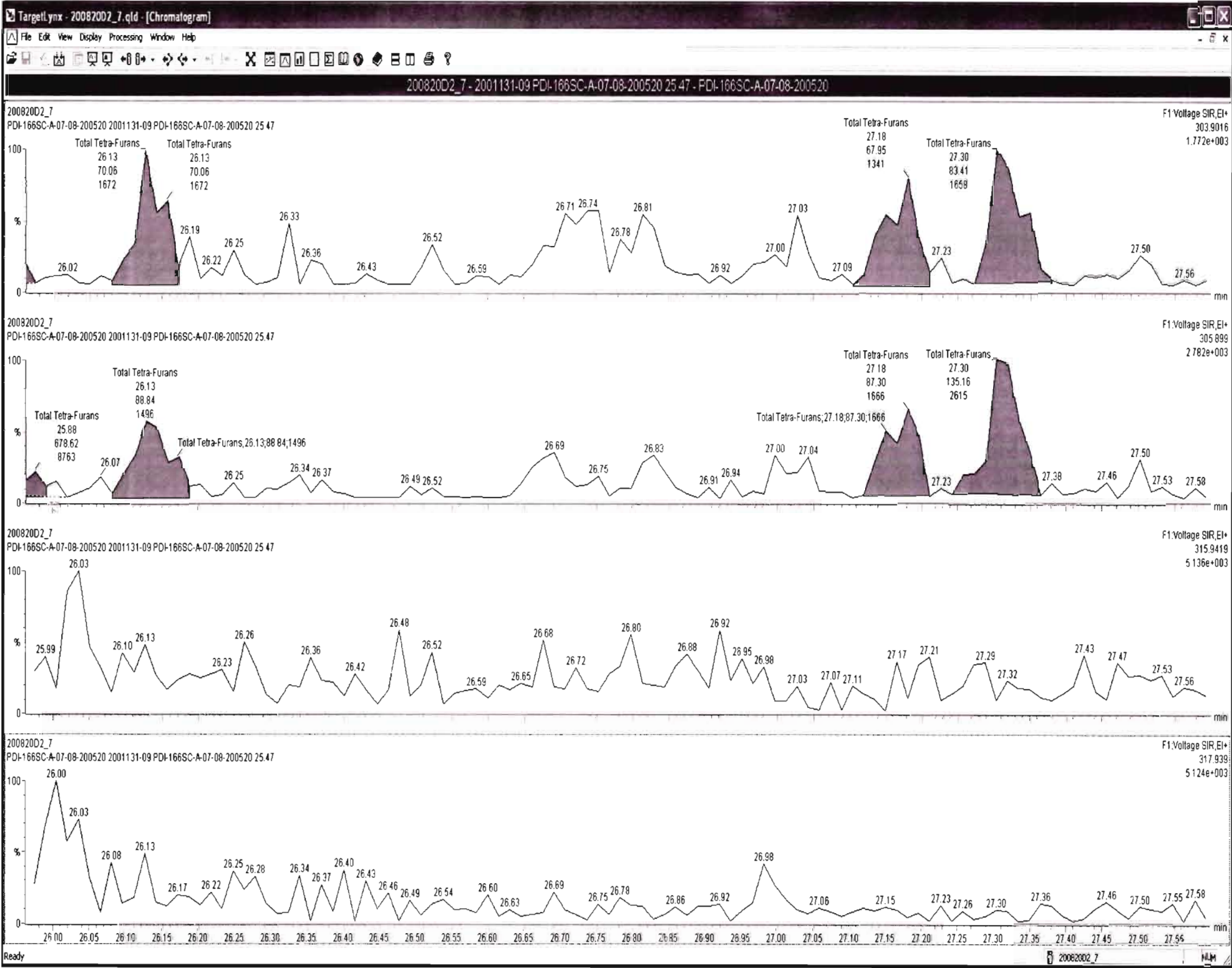






20082002\_7 - 2001131-09 FDI-166SC-A-07-08-200520 25.47 - FDI-166SC-A-07-08-200520





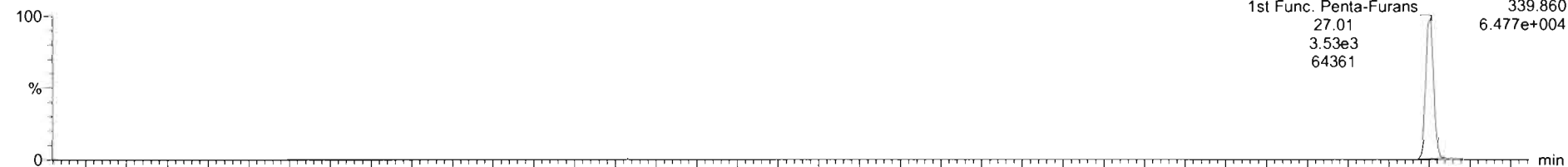
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

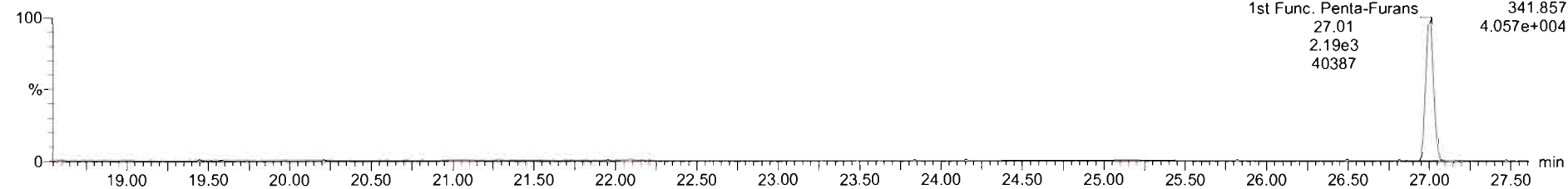
Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

1st Func. Penta-Furans

200820D2\_7

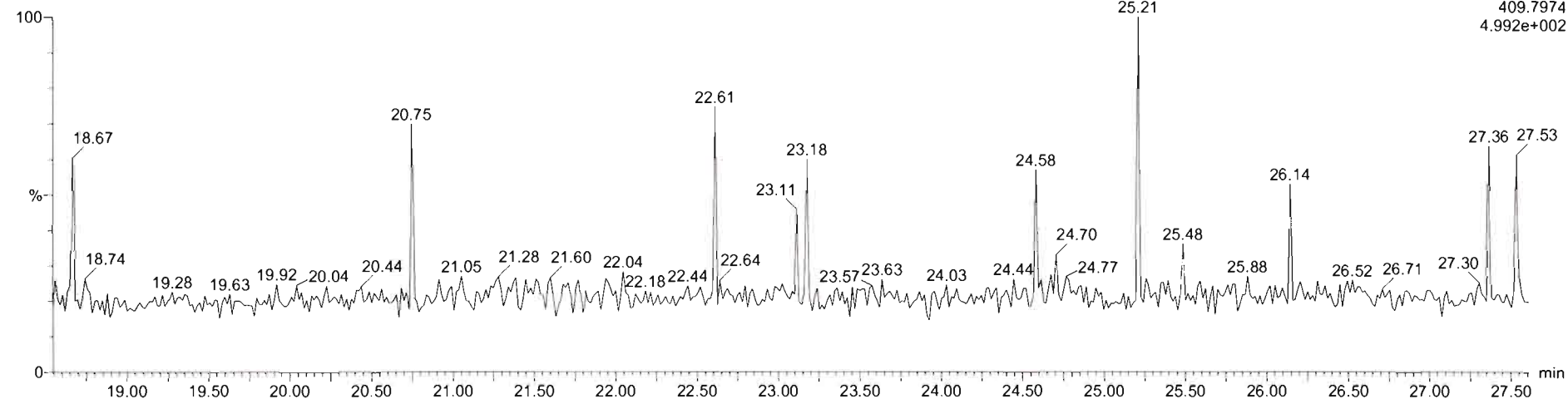


200820D2\_7



DPE6

200820D2\_7

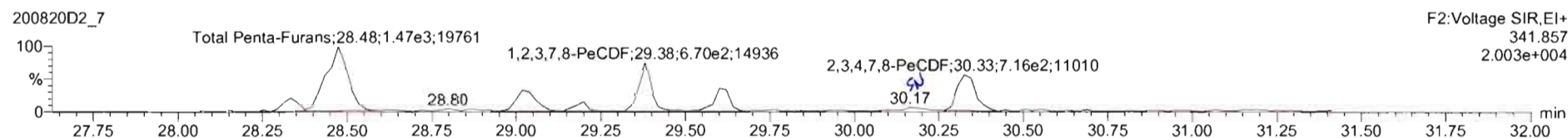
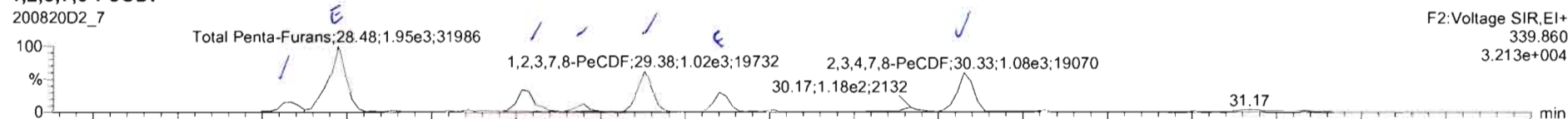


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

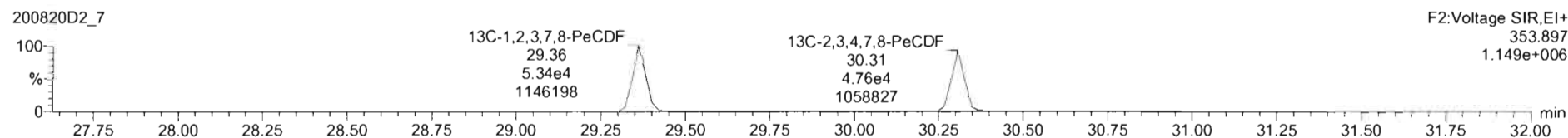
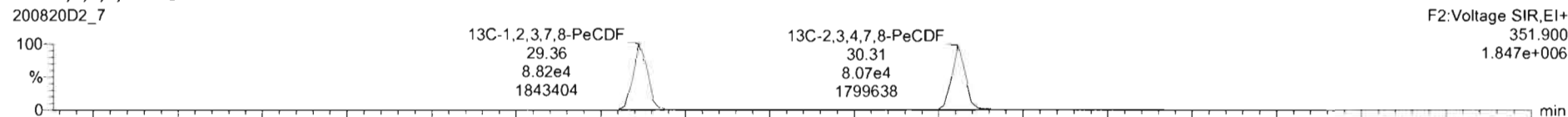
Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

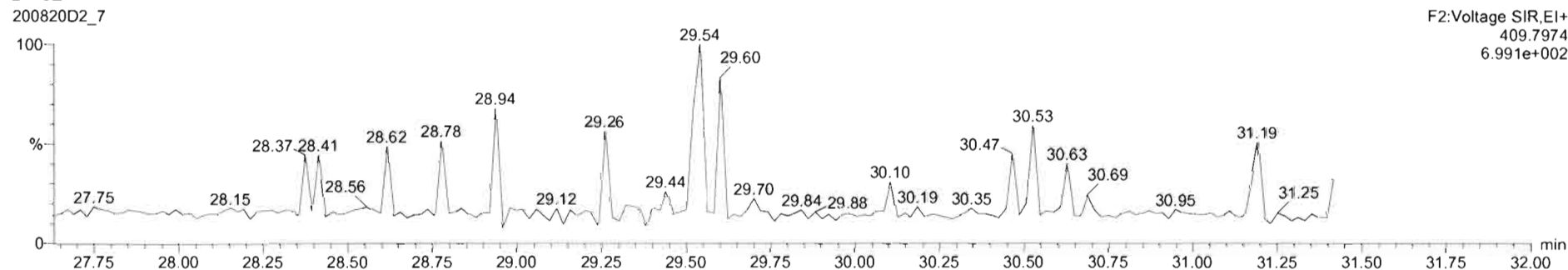
1,2,3,7,8-PeCDF



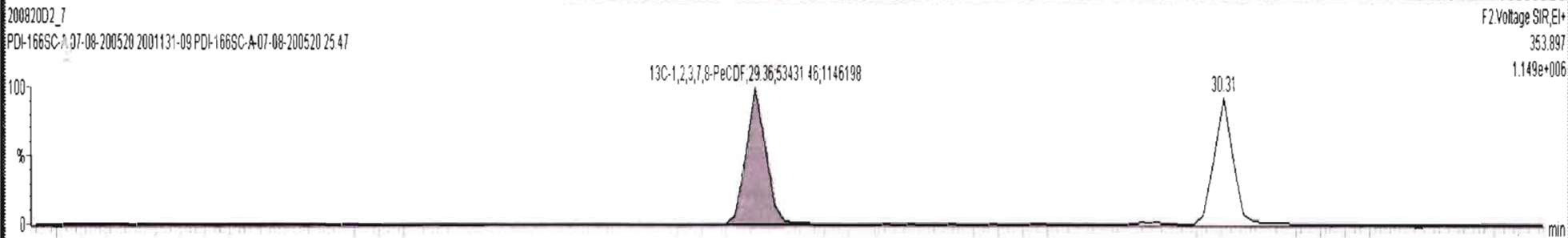
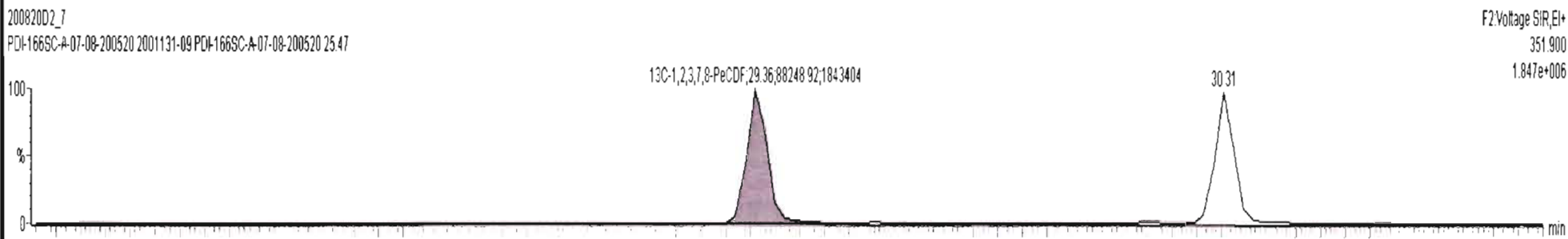
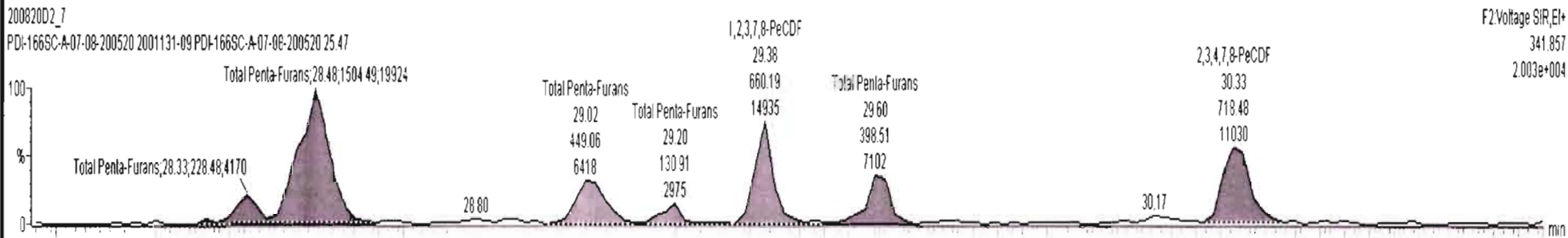
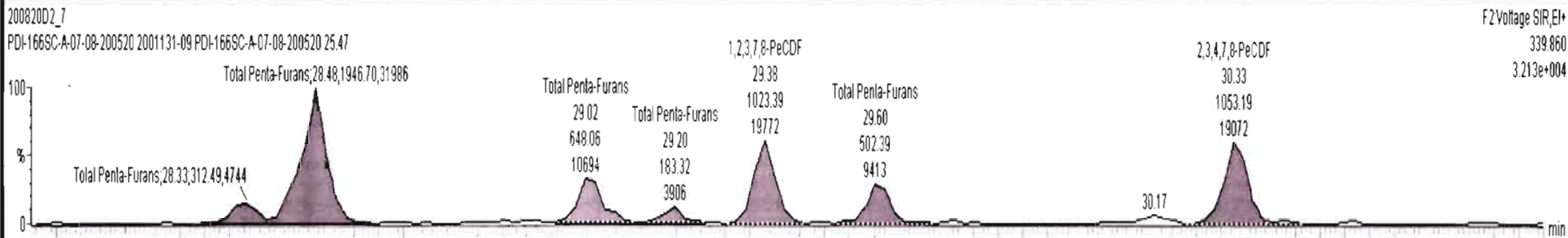
13C-1,2,3,7,8-PeCDF



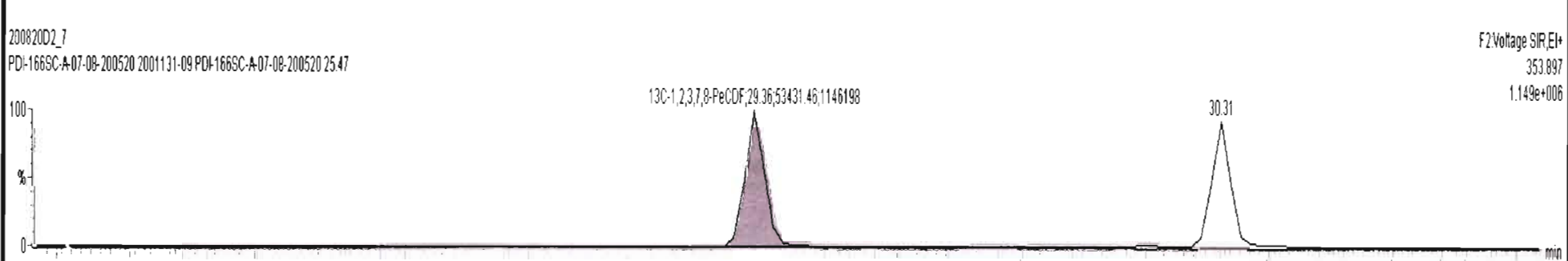
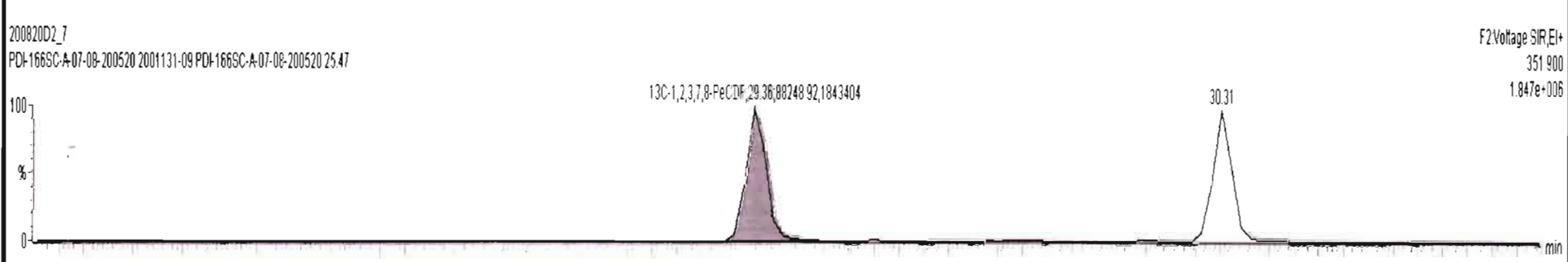
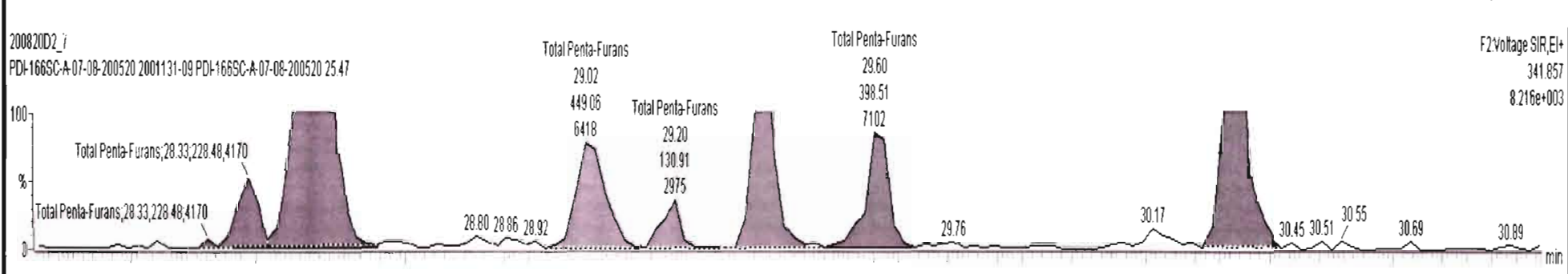
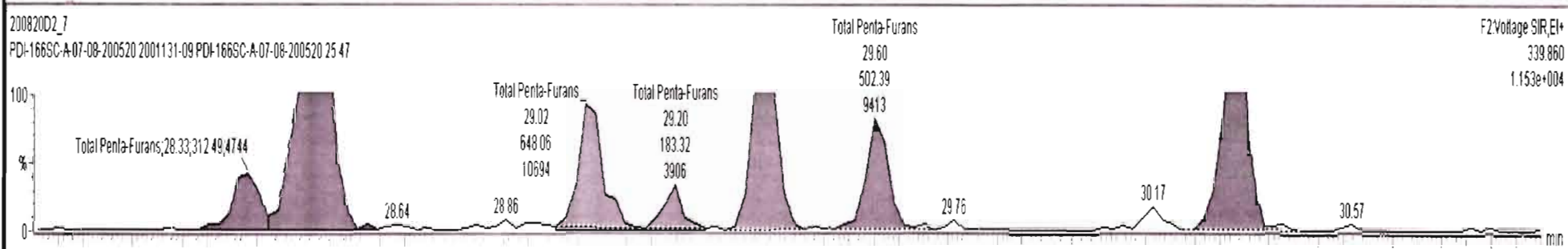
DPE2



20082002\_7 - 2001131-09-PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520



20082002\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520

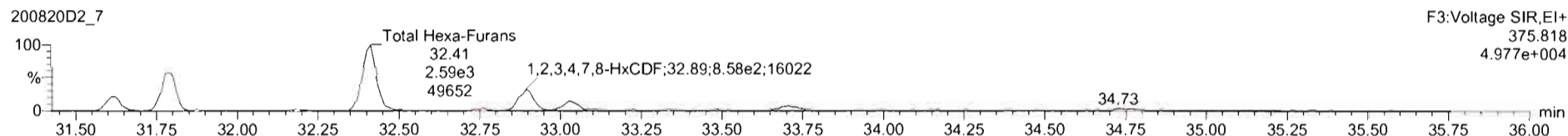
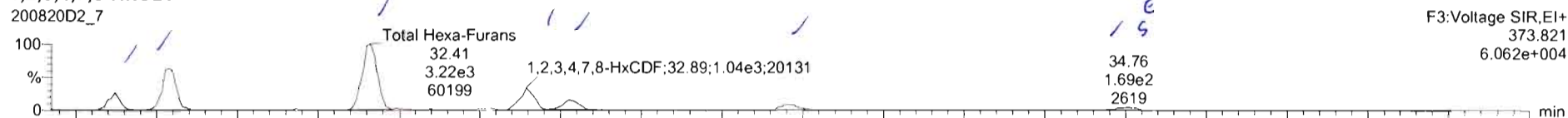


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

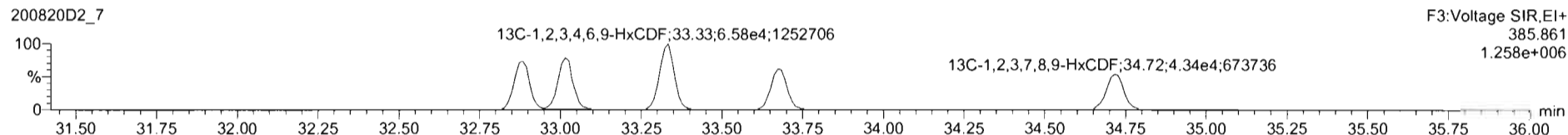
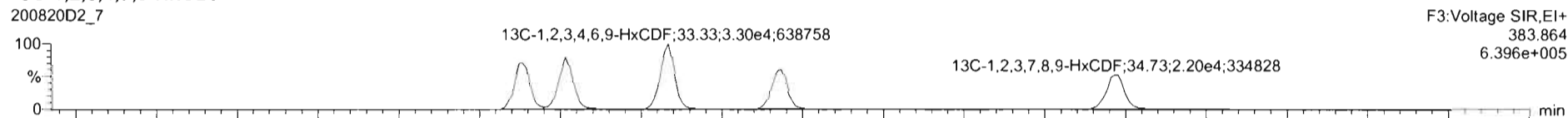
Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

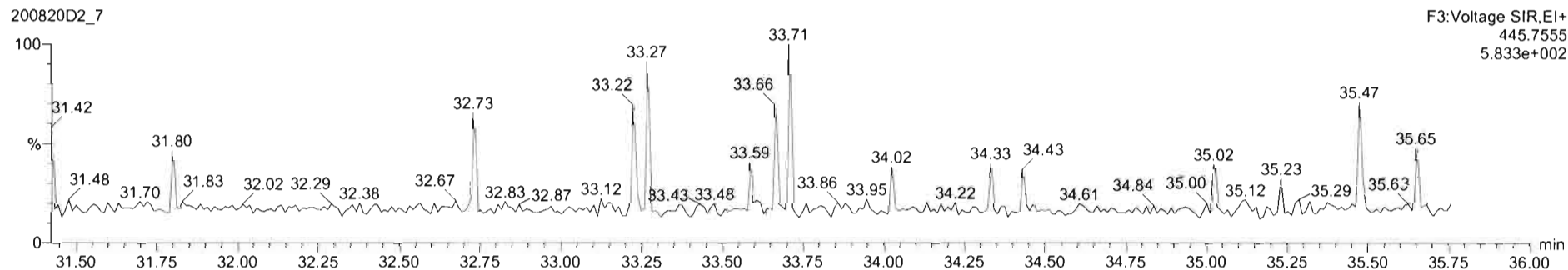
1,2,3,4,7,8-HxCDF



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



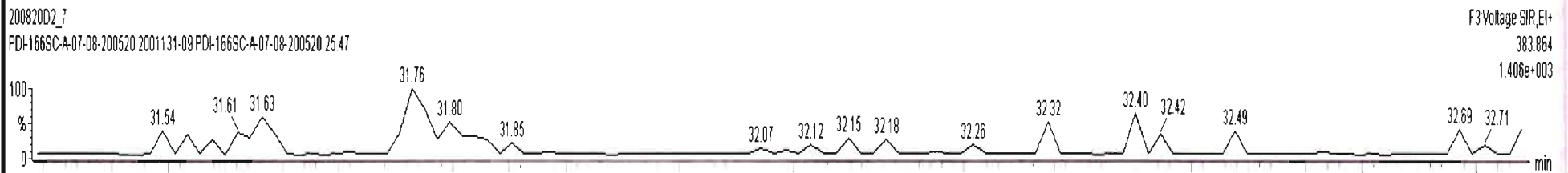
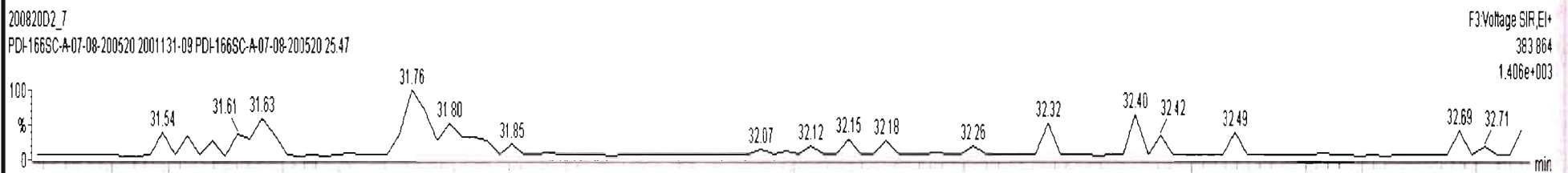
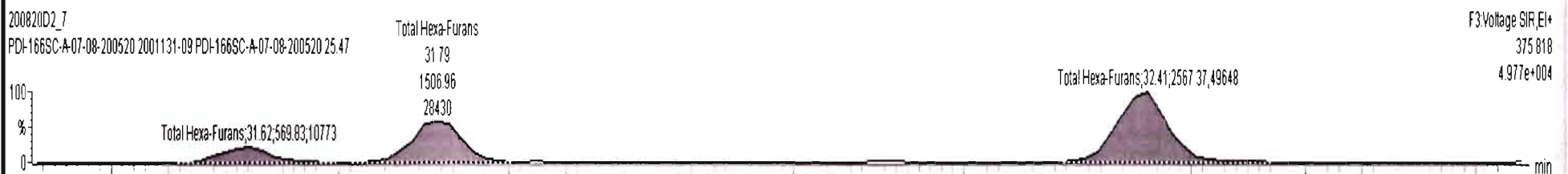
DPE3







200820D2\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520





200820D2\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520

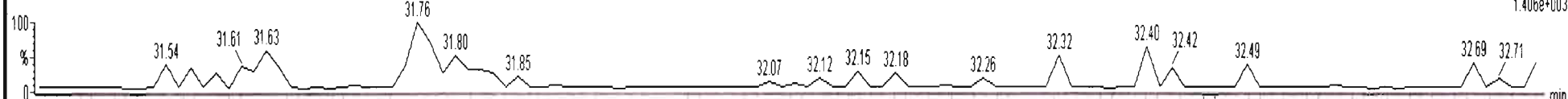
200820D2\_7 F3Voltage SIR,EI+ 373.821 2.576e+004  
PDI-166SC-A-07-08-200520 2001131-09 PDI-166SC-A-07-08-200520 25.47



200820D2\_7 F3Voltage SIR,EI+ 375.818 1.241e+004  
PDI-166SC-A-07-08-200520 2001131-09 PDI-166SC-A-07-08-200520 25.47



200820D2\_7 F3Voltage SIR,EI+ 383.864 1.406e+003  
PDI-166SC-A-07-08-200520 2001131-09 PDI-166SC-A-07-08-200520 25.47



200820D2\_7 F3Voltage SIR,EI+ 385.861 4.295e+003  
PDI-166SC-A-07-08-200520 2001131-09 PDI-166SC-A-07-08-200520 25.47



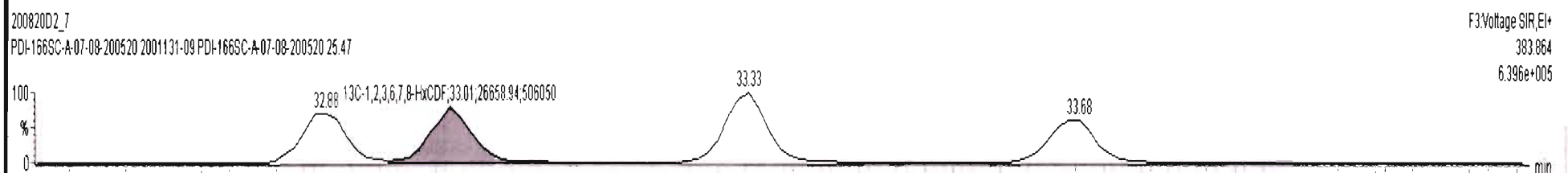
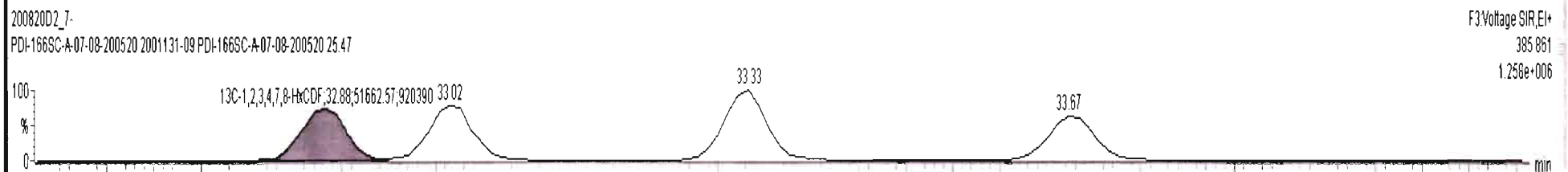
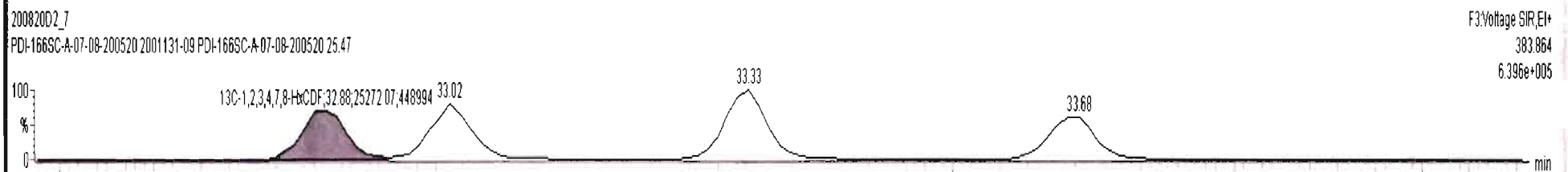
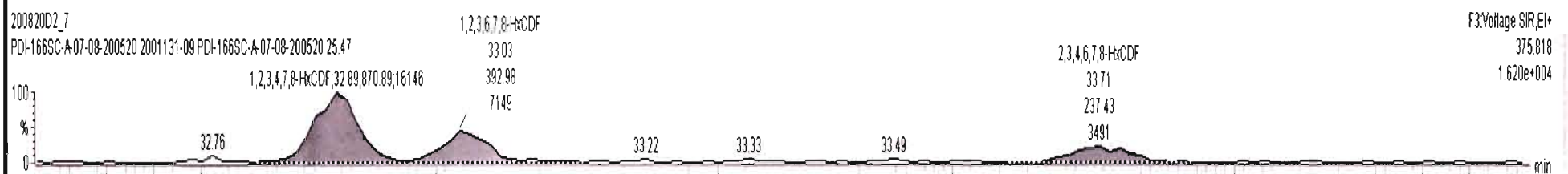
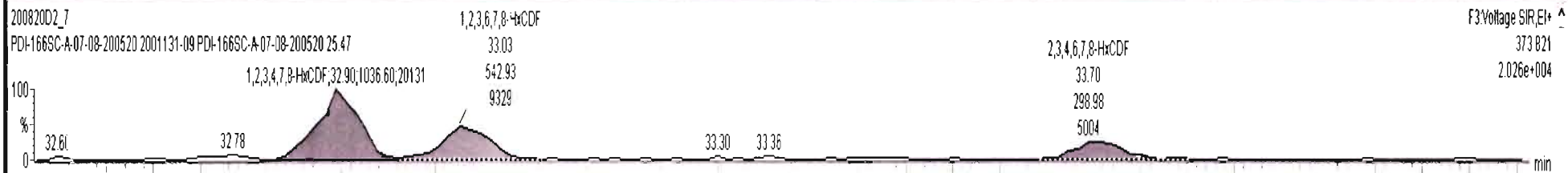
200820D2\_7 F3Voltage SIR,EI+ 383.864 1.406e+003  
PDI-166SC-A-07-08-200520 2001131-09 PDI-166SC-A-07-08-200520 25.47



200820D2\_7 F3Voltage SIR,EI+ 385.861  
PDI-166SC-A-07-08-200520 2001131-09 PDI-166SC-A-07-08-200520 25.47

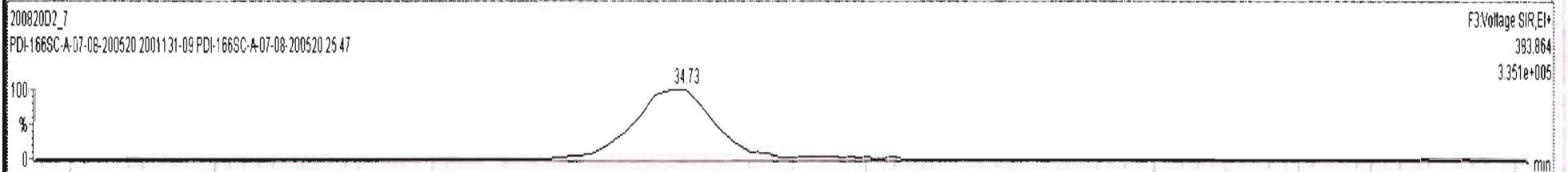
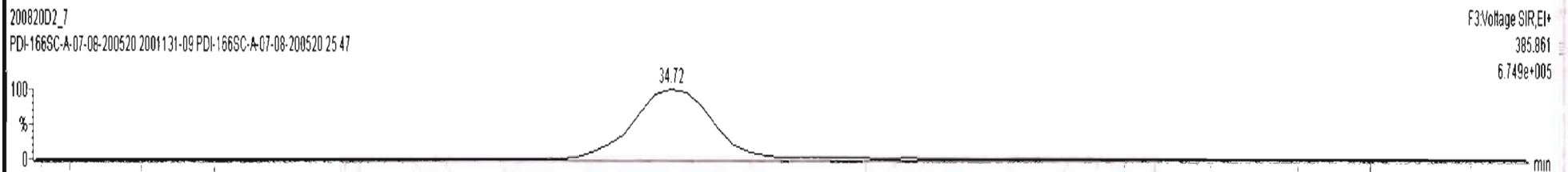
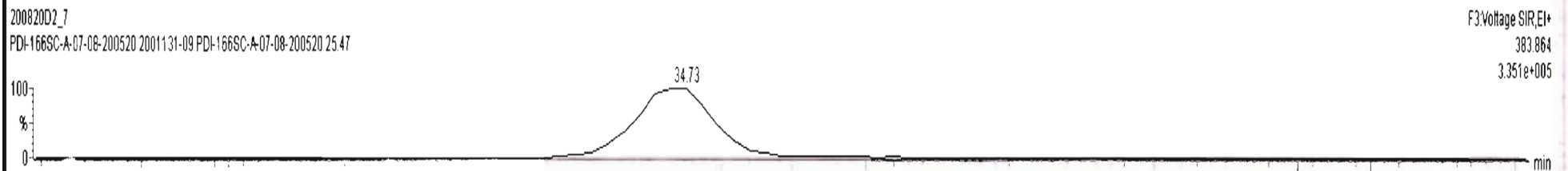
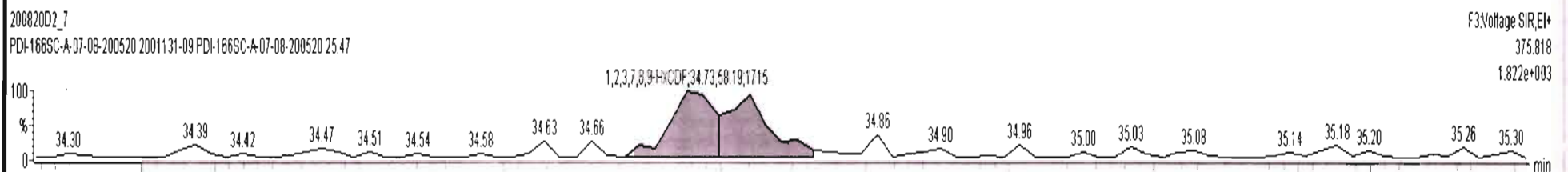
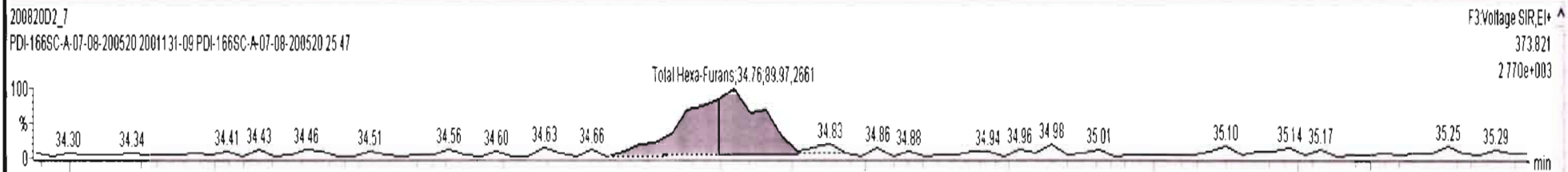


200820D2\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520





200820D2\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520

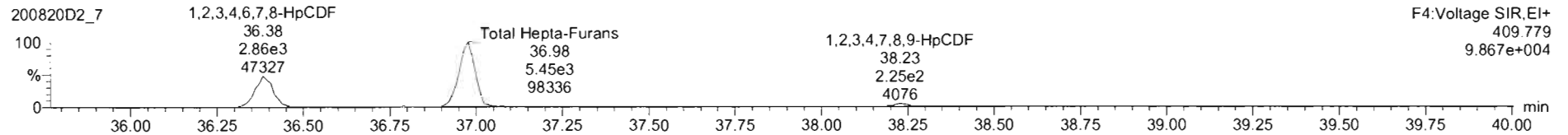
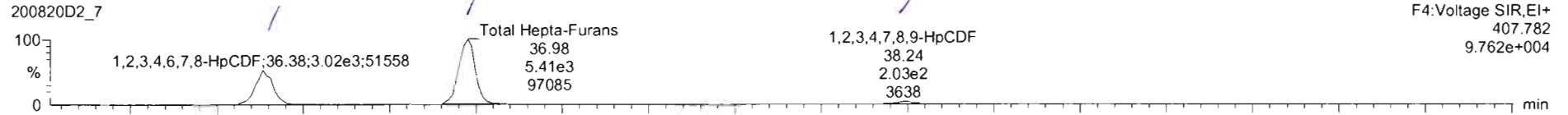


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

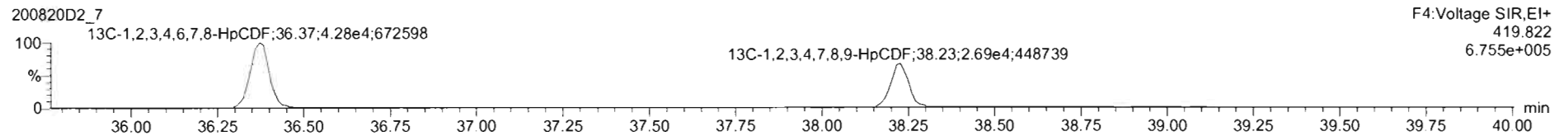
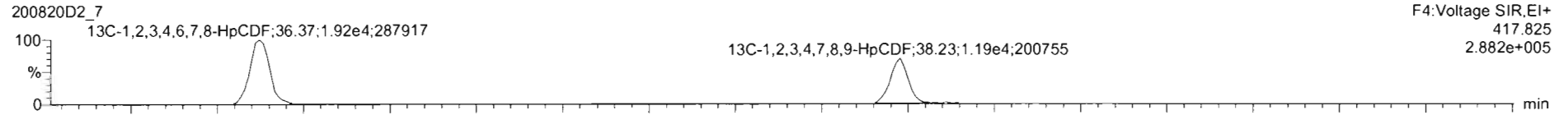
Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

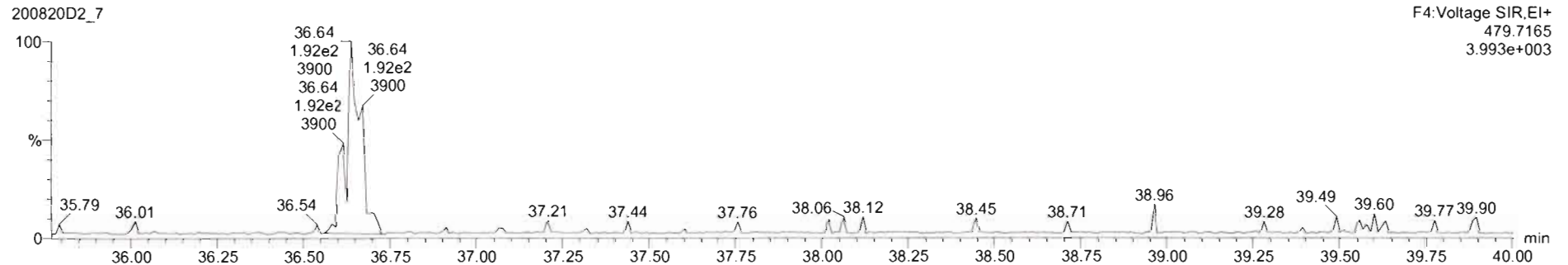
1,2,3,4,6,7,8-HpCDF



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



DPE4

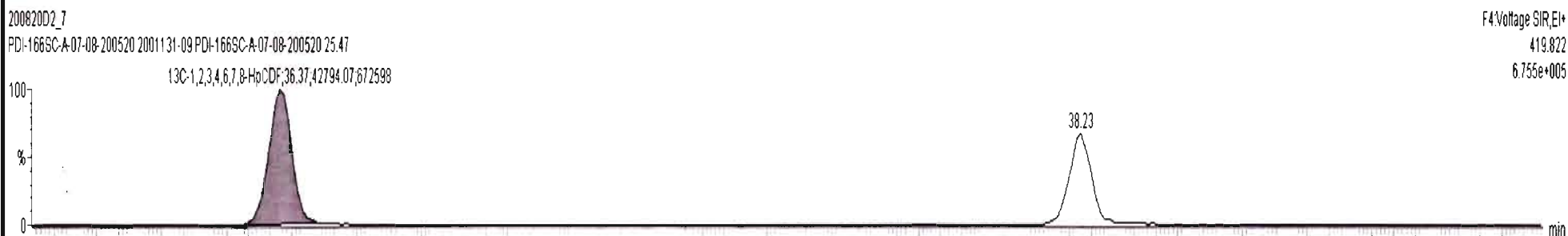
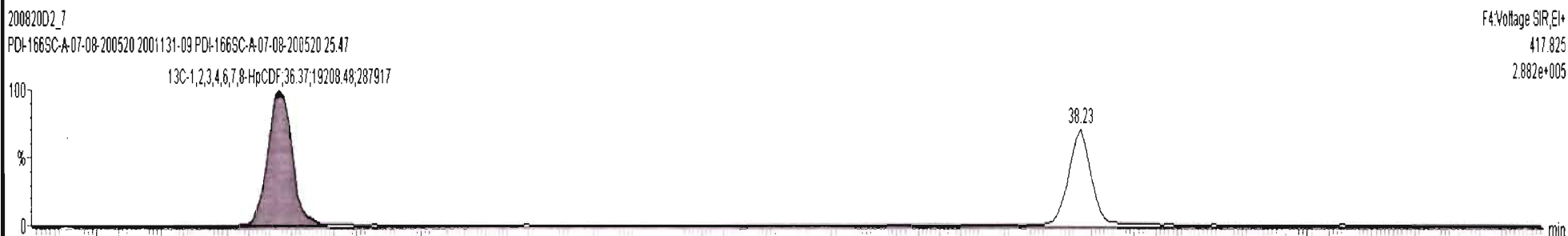
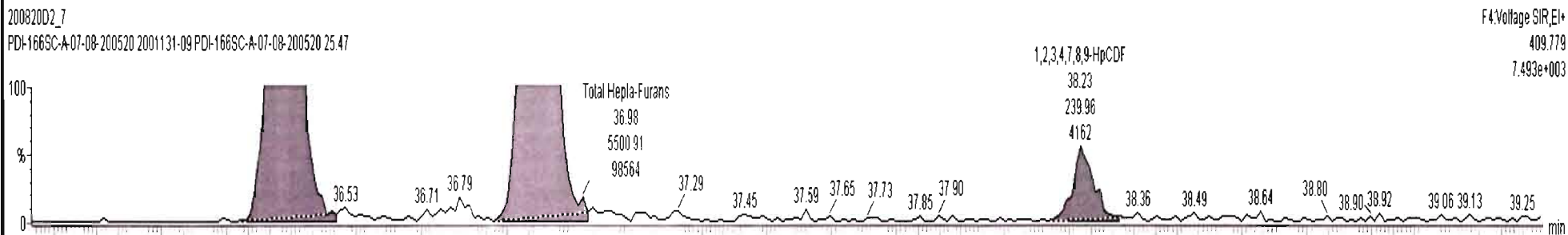
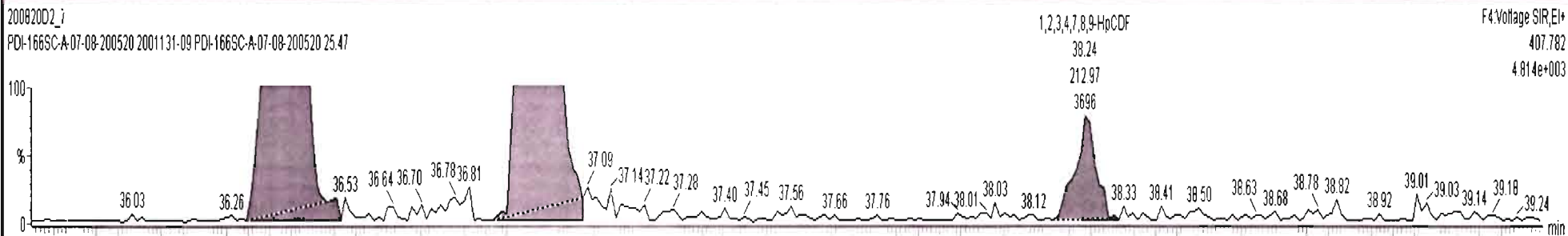




200820D2\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520



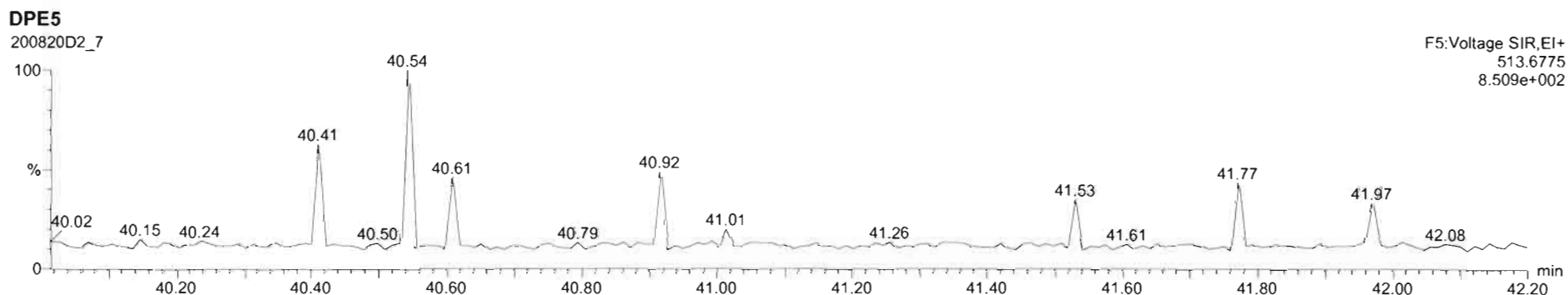
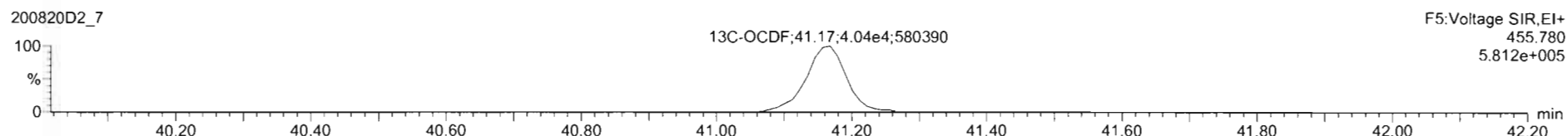
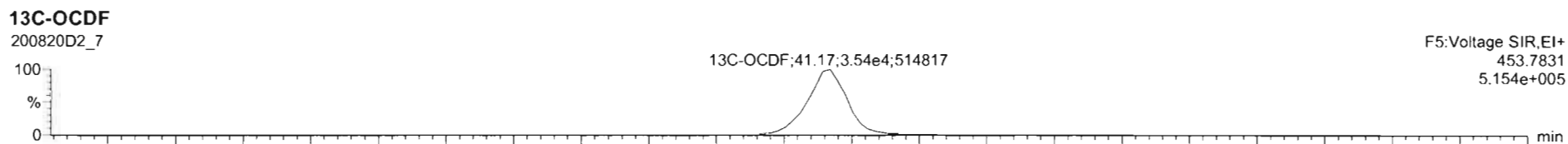
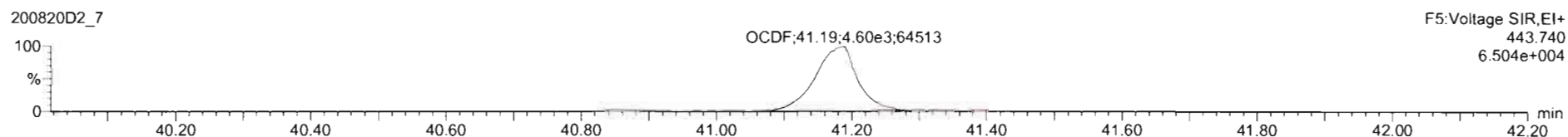
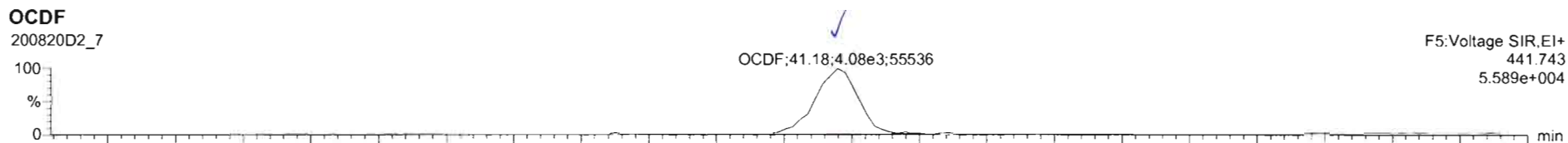
20082002\_7 - 2001131-09 PDI-166SC-A-07-08-200520 25.47 - PDI-166SC-A-07-08-200520



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520

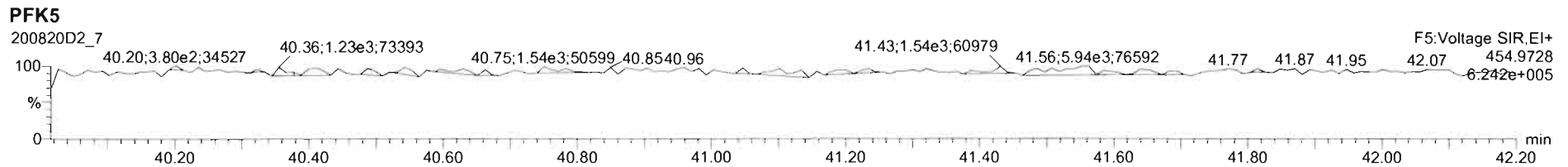
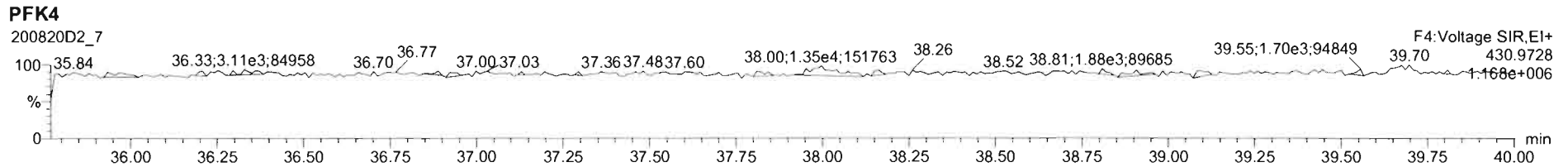
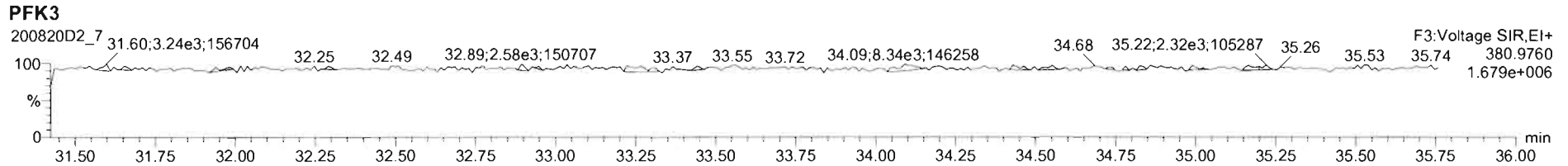
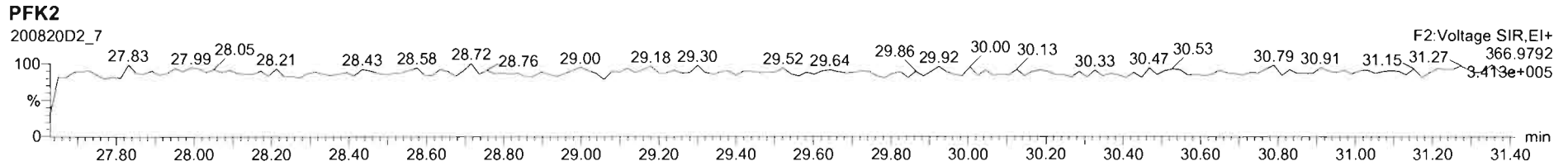
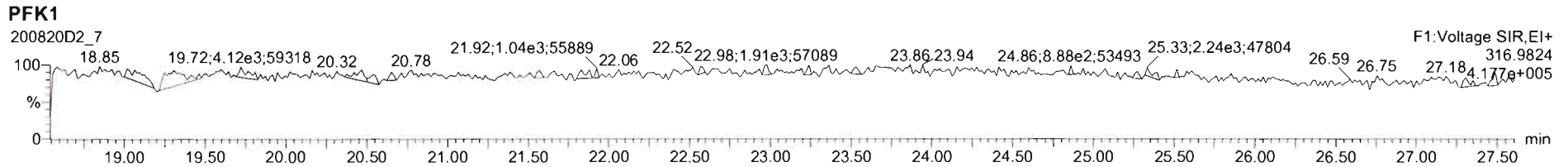




Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_7.qld

Last Altered: Friday, August 21, 2020 10:49:37 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:29 Pacific Daylight Time

Name: 200820D2\_7, Date: 21-Aug-2020, Time: 06:28:08, ID: 2001131-09 PDI-166SC-A-07-08-200520 25.47, Description: PDI-166SC-A-07-08-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Tuesday, August 25, 2020 10:59:47 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:00:48 Pacific Daylight Time

*DB 8/25/20 CT 08/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

	# 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	1.08	10.000	26.234		1.001				0.125	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.000	30.508		1.001				0.136	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.000	33.782		1.000				0.266	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.000	33.904		1.000				0.284	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.000	34.223		1.001				0.262	
6	6 1,2,3,4,6,7,8-HpCDD	7.81e2	1.10	NO	0.926	10.000	37.558	37.55	1.000	1.000	3.3083		0.451	3.31
7	7 OCDD	5.08e3	0.88	NO	0.834	10.000	40.817	40.84	1.000	1.001	27.828		0.470	27.8
8	8 2,3,7,8-TCDF	1.01e2	0.98	YES	0.882	10.000	25.602	25.58	1.001	1.000	0.16016		0.120	0.143
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.000	29.361		1.001				0.110	
10	10 2,3,4,7,8-PeCDF	1.67e2	1.47	NO	1.03	10.000	30.316	30.31	1.001	1.001	0.24026		0.0995	0.240
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.000	32.862		1.000				0.204	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.000	33.003		1.000				0.206	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.000	33.696		1.001				0.234	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.000	34.705		1.000				0.287	
15	15 1,2,3,4,6,7,8-HpCDF	1.46e2	1.13	NO	1.15	10.000	36.387	36.36	1.001	1.000	0.38674		0.0985	0.387
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.000	38.205		1.000				0.116	
17	17 OCDF	1.82e2	0.90	NO	0.961	10.000	41.146	41.18	1.000	1.001	0.78193		0.155	0.782
18	18 13C-2,3,7,8-TCDD	1.07e5	0.79	NO	1.20	10.000	26.226	26.20	1.026	1.025	213.56	107	0.664	
19	19 13C-1,2,3,7,8-PeCDD	8.30e4	0.60	NO	0.910	10.000	30.484	30.49	1.193	1.193	218.53	109	0.597	
20	20 13C-1,2,3,4,7,8-HxCDD	5.85e4	1.31	NO	0.789	10.000	33.778	33.77	1.014	1.014	200.28	100	1.07	
21	21 13C-1,2,3,6,7,8-HxCDD	6.71e4	1.26	NO	0.885	10.000	33.888	33.90	1.017	1.018	204.81	102	0.956	
22	22 13C-1,2,3,7,8,9-HxCDD	6.70e4	1.23	NO	0.888	10.000	34.158	34.19	1.025	1.026	203.88	102	0.952	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.10e4	1.07	NO	0.740	10.000	37.609	37.55	1.129	1.127	186.30	93.1	1.61	
24	24 13C-OCDD	8.75e4	0.86	NO	0.660	10.000	40.621	40.82	1.219	1.225	358.37	89.6	0.868	
25	25 13C-2,3,7,8-TCDF	1.43e5	0.73	NO	1.09	10.000	25.305	25.58	0.990	1.001	201.95	101	0.629	
26	26 13C-1,2,3,7,8-PeCDF	1.40e5	1.60	NO	0.857	10.000	29.541	29.34	1.156	1.148	251.02	126	0.739	
27	27 13C-2,3,4,7,8-PeCDF	1.35e5	1.58	NO	0.796	10.000	30.443	30.29	1.191	1.185	261.09	131	0.795	
28	28 13C-1,2,3,4,7,8-HxCDF	7.89e4	0.51	NO	1.02	10.000	32.912	32.86	0.988	0.986	209.10	105	1.08	
29	29 13C-1,2,3,6,7,8-HxCDF	8.28e4	0.52	NO	1.00	10.000	33.046	32.99	0.992	0.990	223.18	112	1.10	
30	30 13C-2,3,4,6,7,8-HxCDF	7.51e4	0.50	NO	0.936	10.000	33.615	33.66	1.009	1.011	216.92	108	1.18	
31	31 13C-1,2,3,7,8,9-HxCDF	6.93e4	0.52	NO	0.889	10.000	34.691	34.71	1.041	1.042	210.48	105	1.24	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Tuesday, August 25, 2020 10:59:47 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:00:48 Pacific Daylight Time

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

#	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	6.53e4	0.41	NO	0.849	10.000	36.210	36.35	1.087	1.091	207.69	104	1.21	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.73e4	0.41	NO	0.624	10.000	38.209	38.21	1.147	1.147	204.94	102	1.64	
34	34 13C-OCDF	9.71e4	0.90	NO	0.693	10.000	40.774	41.15	1.224	1.235	378.56	94.6	0.874	
35	35 37Cl-2,3,7,8-TCDD	3.89e4			1.28	10.000	26.223	26.22	1.026	1.026	73.174	91.5	0.136	
36	36 13C-1,2,3,4-TCDD	8.35e4	0.82	NO	1.00	10.000	25.550	25.56	1.000	1.000	200.01	100	0.799	
37	37 13C-1,2,3,4-TCDF	1.30e5	0.75	NO	1.00	10.000	24.250	24.28	1.000	1.000	200.01	100	0.685	
38	38 13C-1,2,3,4,6,9-HxCDF	7.40e4	0.50	NO	1.00	10.000	33.300	33.31	1.000	1.000	200.01	100	1.11	
39	39 Total Tetra-Dioxins				1.08	10.000	24.620		0.000				0.0781	
40	40 Total Penta-Dioxins				0.991	10.000	29.960		0.000				0.0694	
41	41 Total Hexa-Dioxins				0.908	10.000	33.635		0.000		1.1289		0.284	1.53
42	42 Total Hepta-Dioxins				0.926	10.000	37.640		0.000		8.0181		0.451	8.02
43	43 Total Tetra-Furans				0.882	10.000	23.610		0.000		0.99351		0.120	1.14
44	44 1st Func. Penta-Furans				0.937	10.000	26.750		0.000		1.1719		0.0385	1.17
45	45 Total Penta-Furans				0.937	10.000	29.275		0.000		0.24026		0.110	0.758
46	46 Total Hexa-Furans				1.11	10.000	33.555		0.000		0.54891		0.230	1.23
47	47 Total Hepta-Furans				1.15	10.000	37.835		0.000		0.38674		0.110	0.911

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Tuesday, August 25, 2020 10:59:47 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:00:48 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.13	3.414e3	3.269e3	1.823e2	1.468e2	1.24	NO	3.291e2	1.1289	1.1289	0.284
2	Total Hexa-Dioxins	33.03	4.789e3	1.863e3	1.055e2	5.176e1	2.04	YES	0.000e0	0.00000	0.39770	0.284

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.68	9.356e3	1.032e4	5.994e2	5.120e2	1.17	NO	1.111e3	4.7098	4.7098	0.451
2	1,2,3,4,6,7,8-HpCDD	37.55	7.008e3	7.258e3	4.096e2	3.711e2	1.10	NO	7.807e2	3.3083	3.3083	0.451

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	22.24	1.989e3	1.993e3	1.347e2	1.745e2	0.77	NO	3.091e2	0.49111	0.49111	0.120
2	Total Tetra-Furans	23.34	9.920e2	1.335e3	7.427e1	9.159e1	0.81	NO	1.659e2	0.26352	0.26352	0.120
3	Total Tetra-Furans	24.31	1.382e3	1.291e3	6.690e1	8.345e1	0.80	NO	1.504e2	0.23889	0.23889	0.120
4	2,3,7,8-TCDF	25.58	9.280e2	1.354e3	4.994e1	5.087e1	0.98	YES	1.008e2	0.00000	0.14305	0.120

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Tuesday, August 25, 2020 10:59:47 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:00:48 Pacific Daylight Time

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

**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	8.871e3	5.518e3	4.577e2	2.967e2	1.54	NO	7.544e2	1.1719	1.1719	0.0385

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.45	2.391e3	2.435e3	2.026e2	1.714e2	1.18	YES	0.000e0	0.00000	0.51778	0.110
2	2,3,4,7,8-PeCDF	30.31	2.165e3	1.029e3	9.910e1	6.743e1	1.47	NO	1.665e2	0.24026	0.24026	0.0995

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.59	1.444e3	6.400e2	5.093e1	2.753e1	1.85	YES	0.000e0	0.00000	0.14491	0.230
2	Total Hexa-Furans	31.76	3.060e3	2.496e3	1.314e2	1.022e2	1.29	NO	2.336e2	0.54891	0.54891	0.230
3	Total Hexa-Furans	32.39	2.828e3	2.480e3	1.509e2	1.011e2	1.49	YES	0.000e0	0.00000	0.53211	0.230

**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	36.36	1.390e3	1.194e3	7.709e1	6.847e1	1.13	NO	1.456e2	0.38674	0.38674	0.0985
2	Total Hepta-Furans	36.94	2.042e3	1.926e3	8.669e1	1.027e2	0.84	YES	0.000e0	0.00000	0.52400	0.110

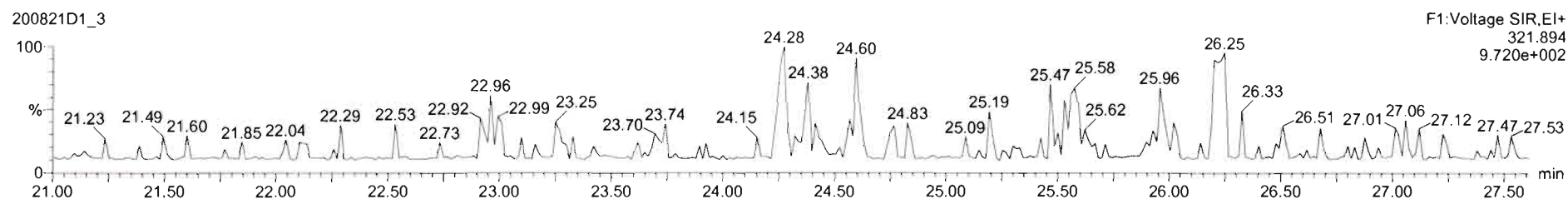
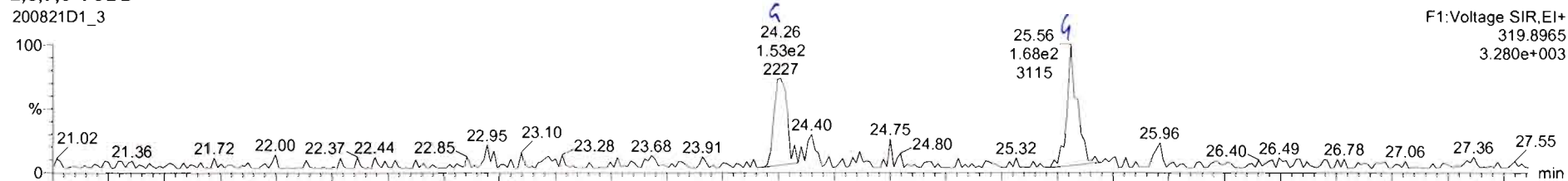
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

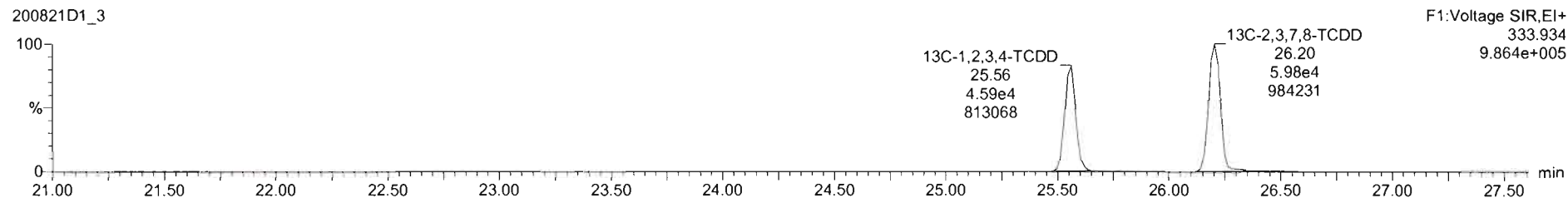
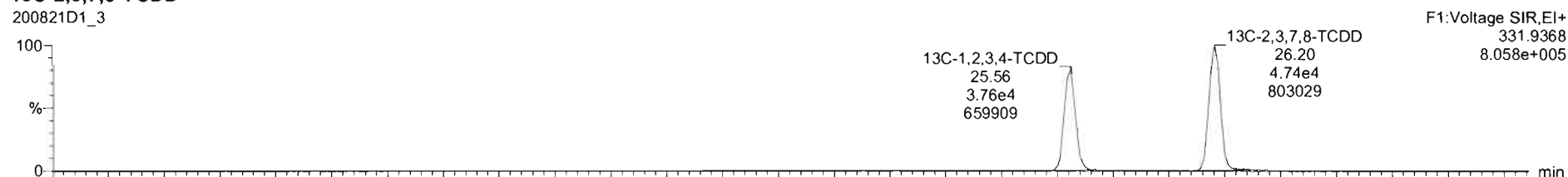
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

2,3,7,8-TCDD



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

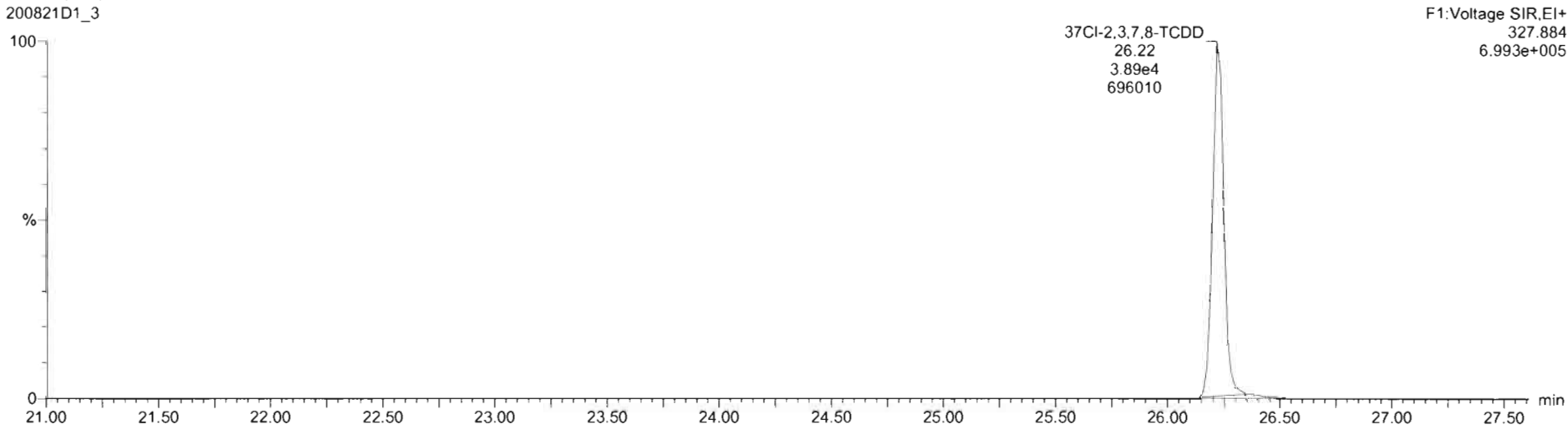


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

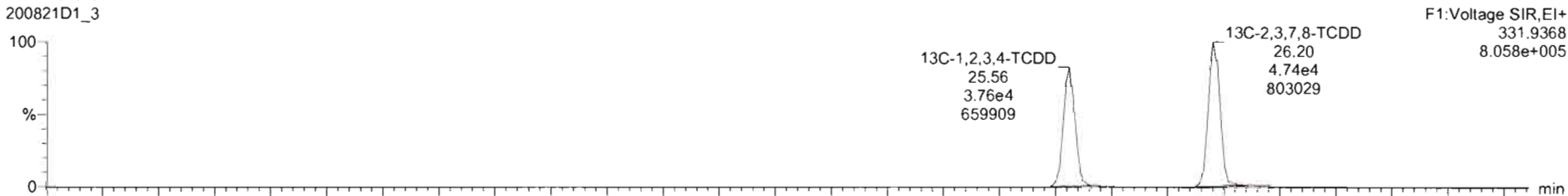
Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

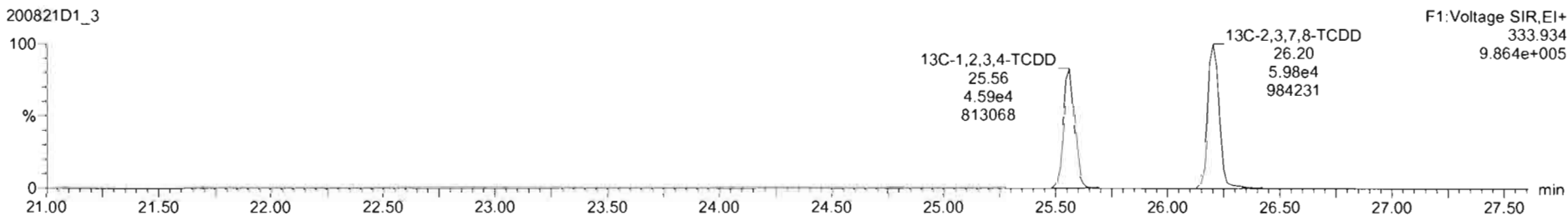
**37Cl-2,3,7,8-TCDD**  
200821D1\_3



**13C-1,2,3,4-TCDD**  
200821D1\_3



200821D1\_3



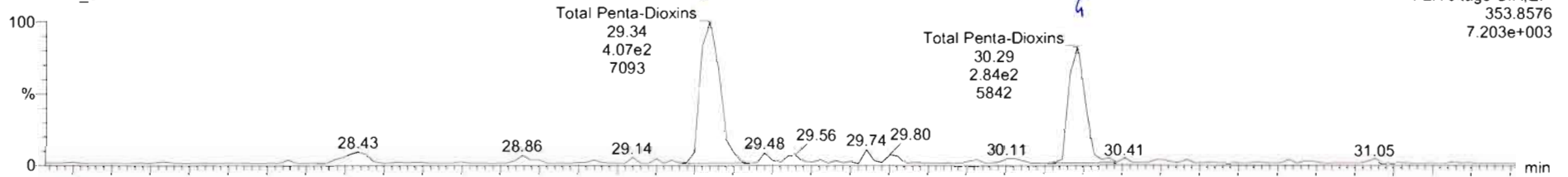
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

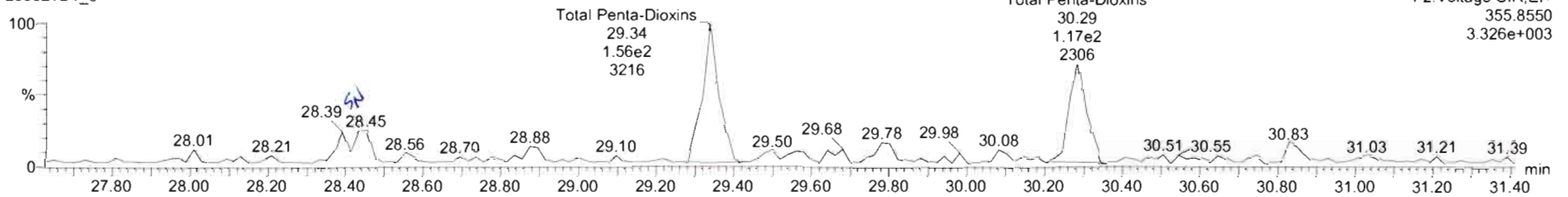
Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

1,2,3,7,8-PeCDD

200821D1\_3

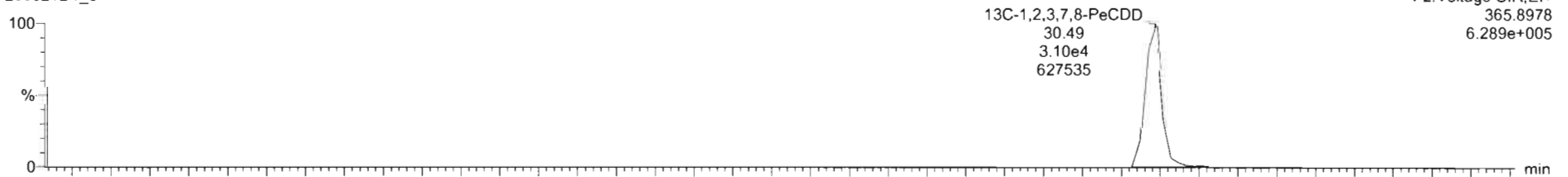


200821D1\_3

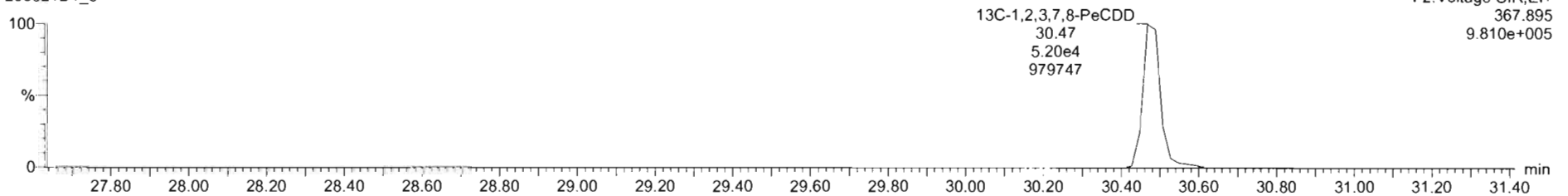


13C-1,2,3,7,8-PeCDD

200821D1\_3



200821D1\_3





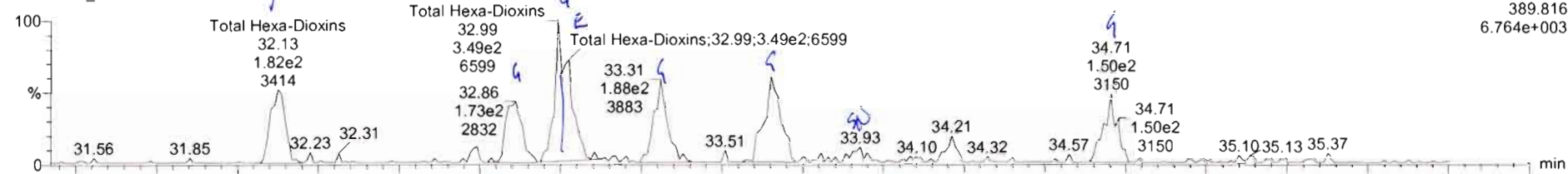
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

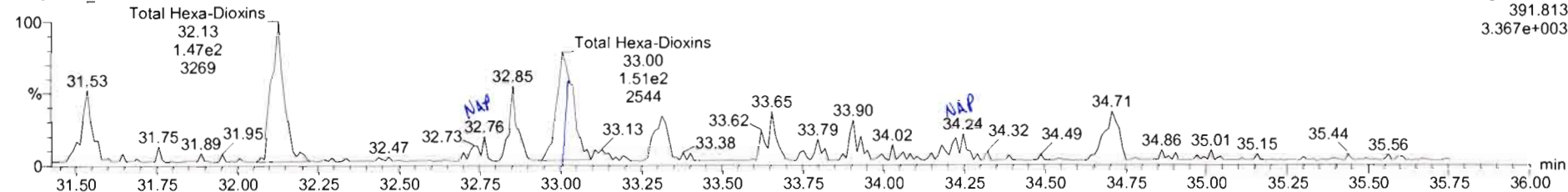
Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

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

200821D1\_3

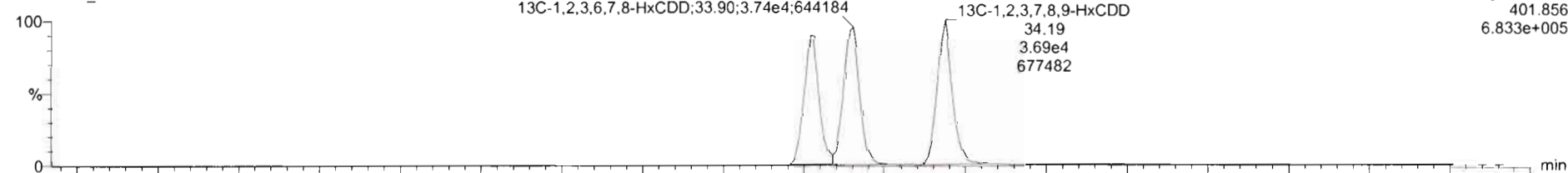


200821D1\_3

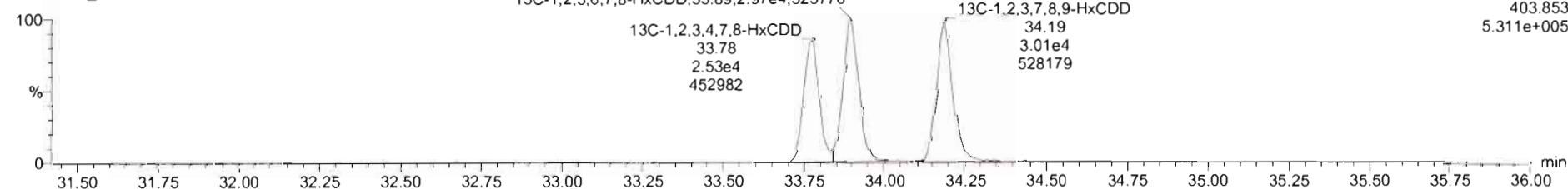


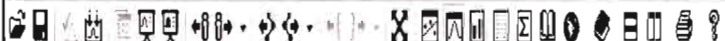
13C-1,2,3,4,7,8-HxCDD

200821D1\_3

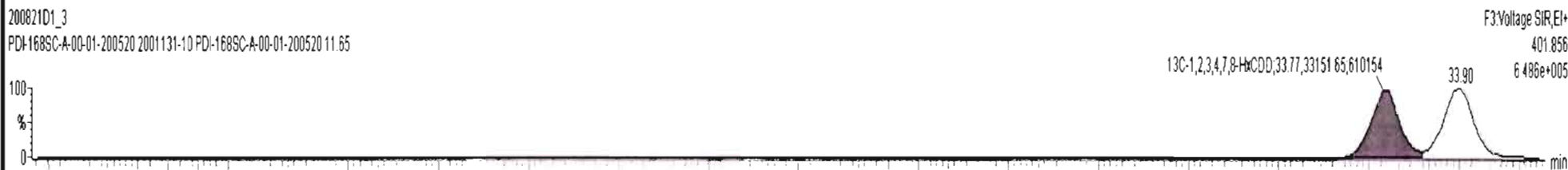
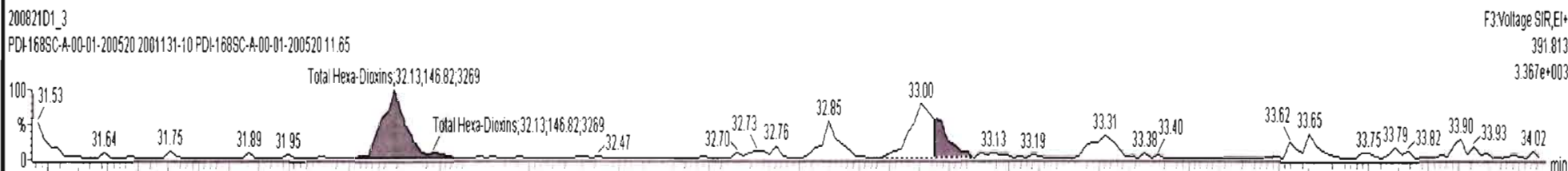
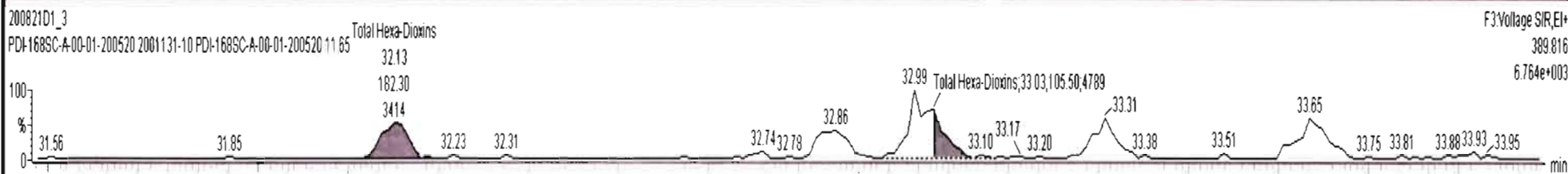


200821D1\_3





200821D1\_3 - 2001131-10 PDI-168SC-A-00-01-200520 11.65 - PDI-168SC-A-00-01-200520

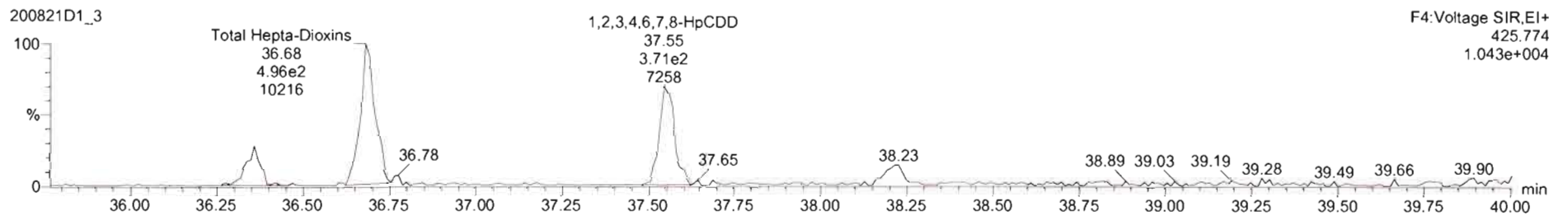
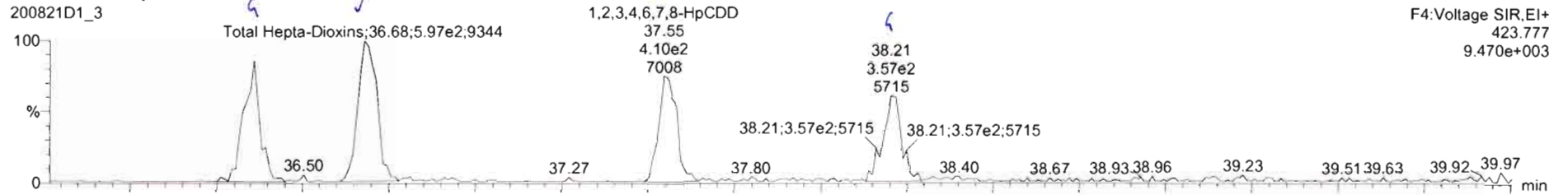


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

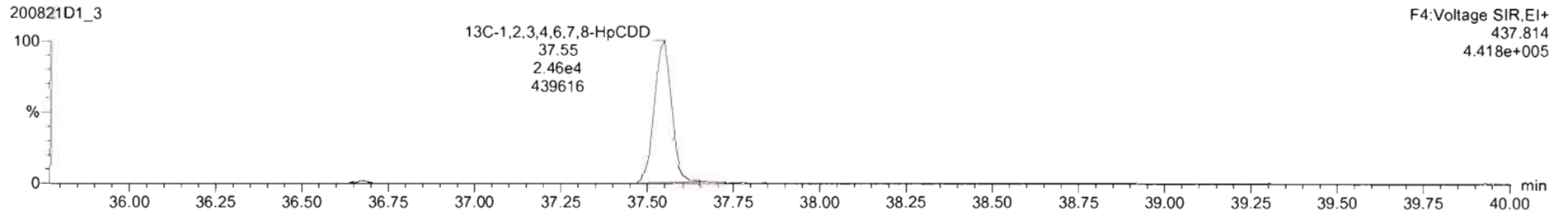
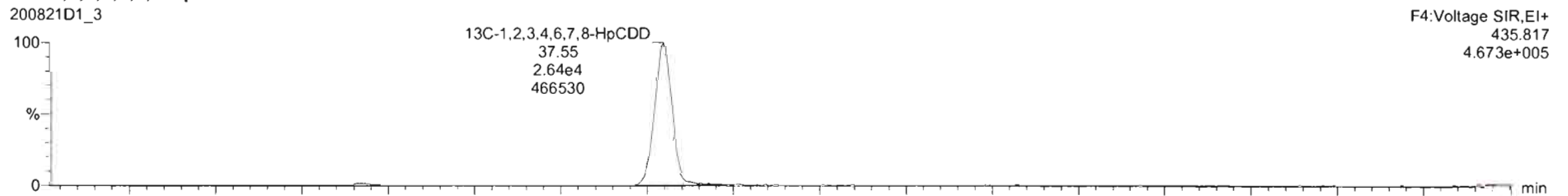
Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

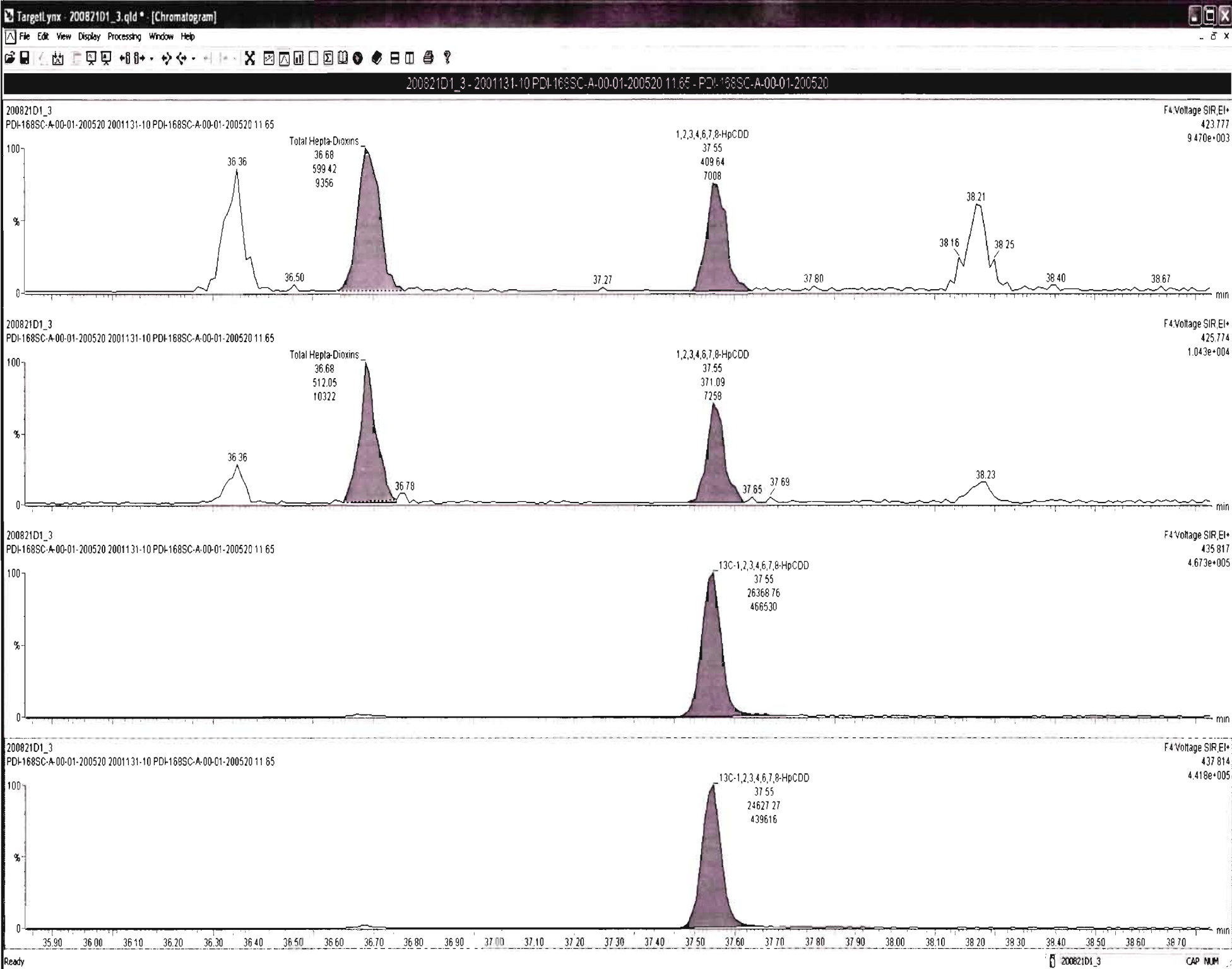
Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

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



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





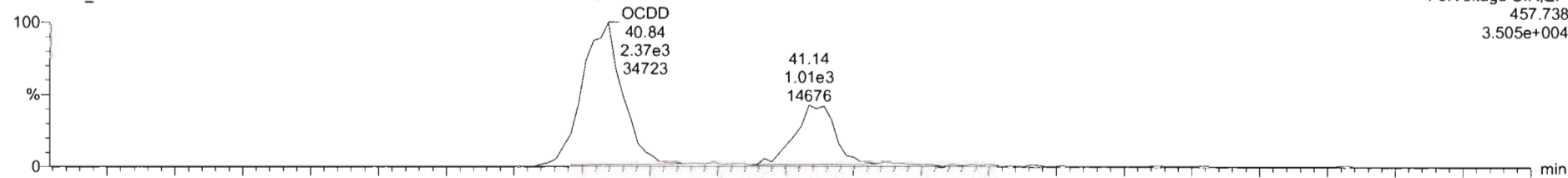
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

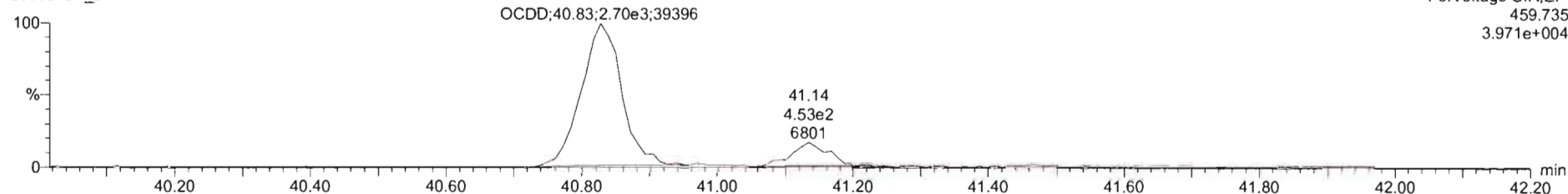
Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

**OCDD**

200821D1\_3

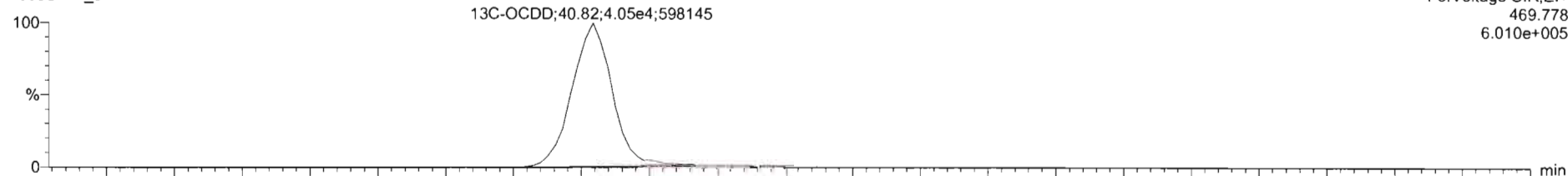


200821D1\_3

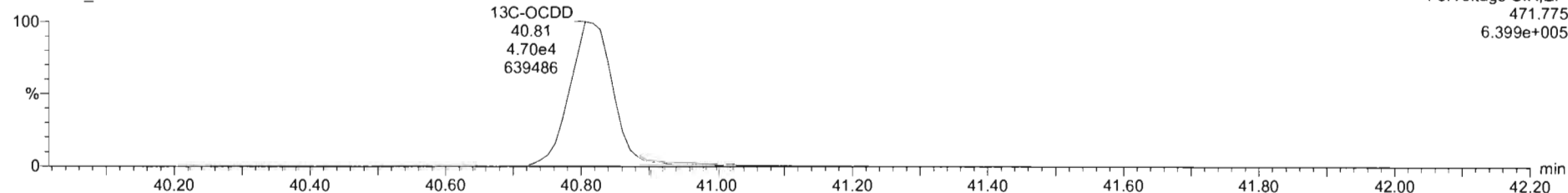


**13C-OCDD**

200821D1\_3



200821D1\_3

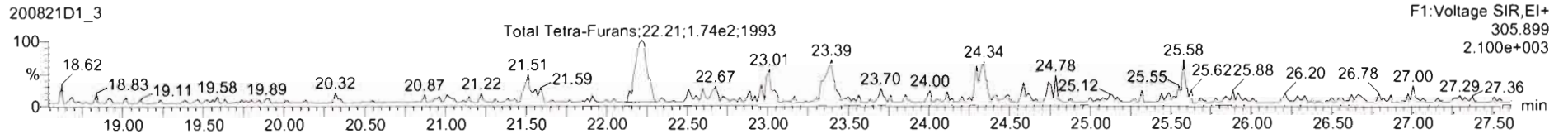
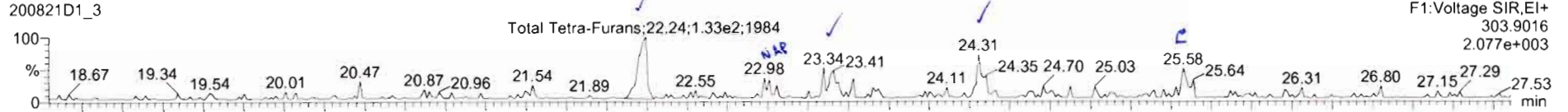


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

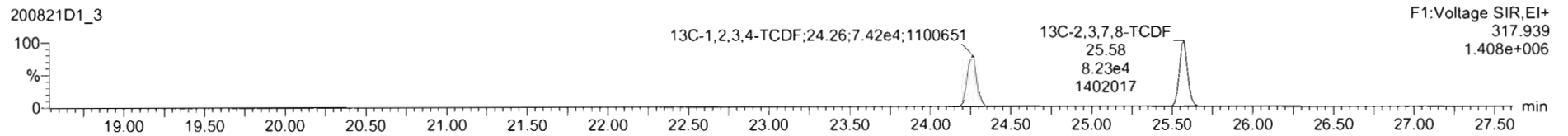
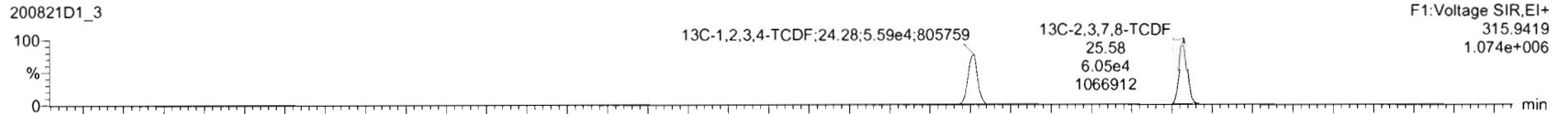
Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

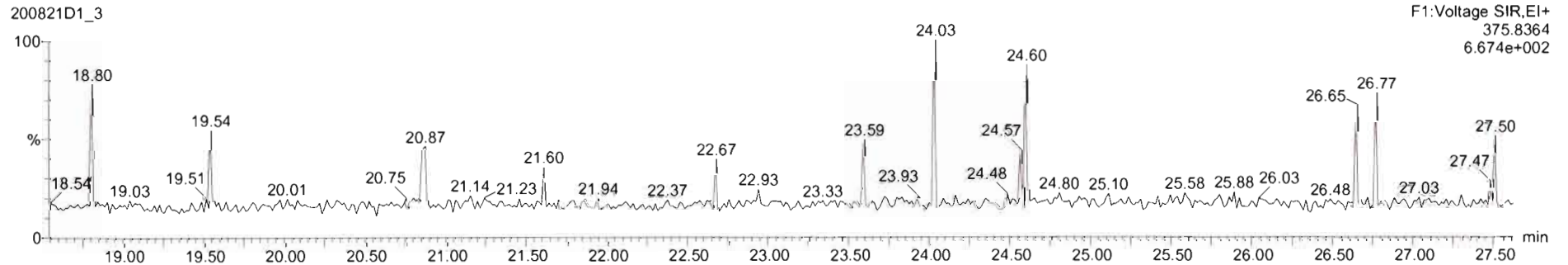
**2,3,7,8-TCDF**

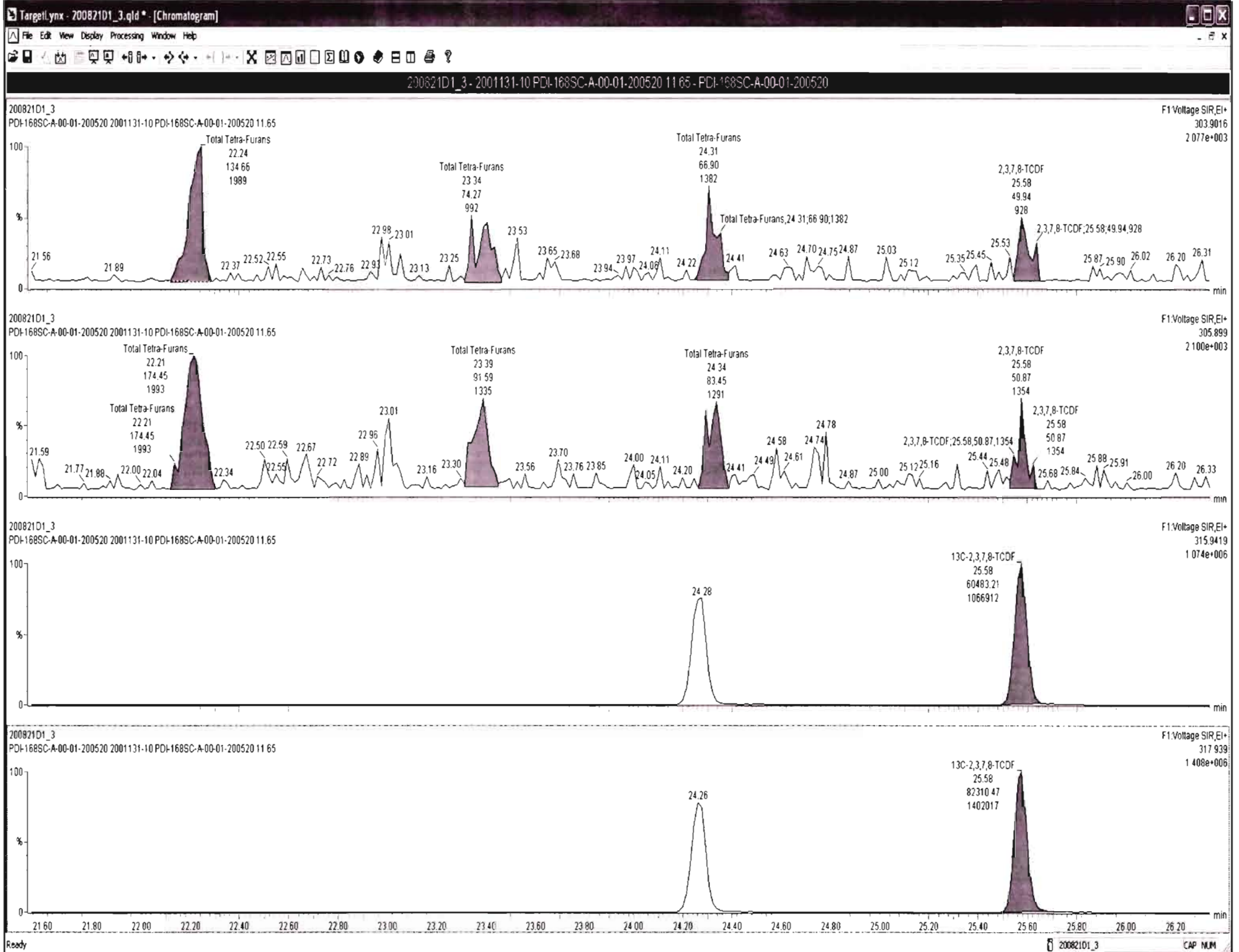


**13C-2,3,7,8-TCDF**



**DPE1**





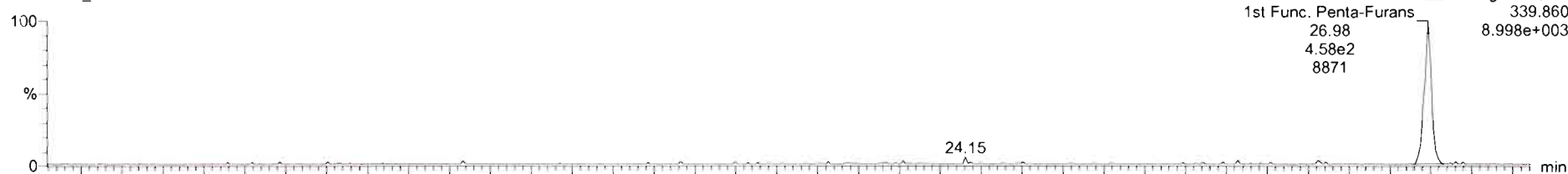
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

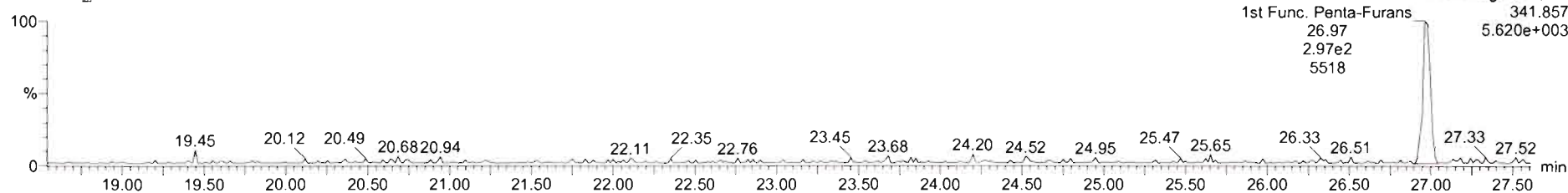
Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

1st Func. Penta-Furans

200821D1\_3

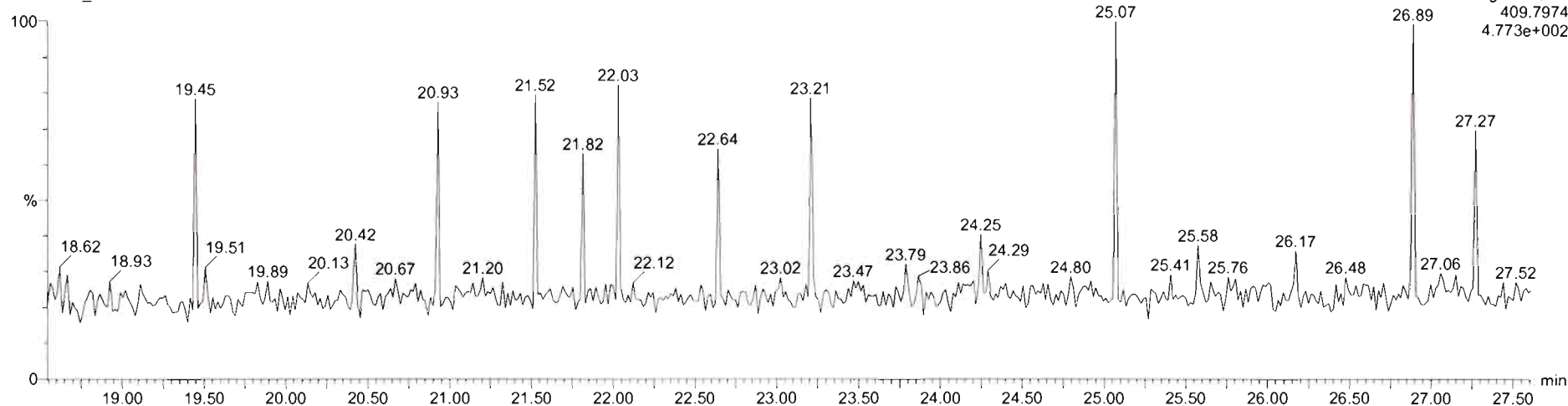


200821D1\_3



DPE6

200821D1\_3



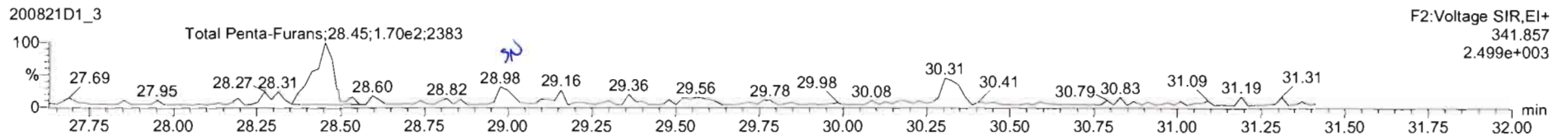
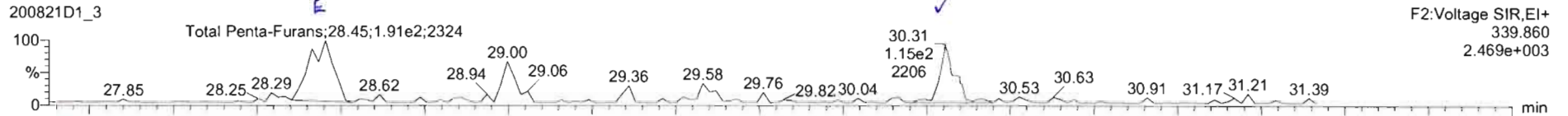


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

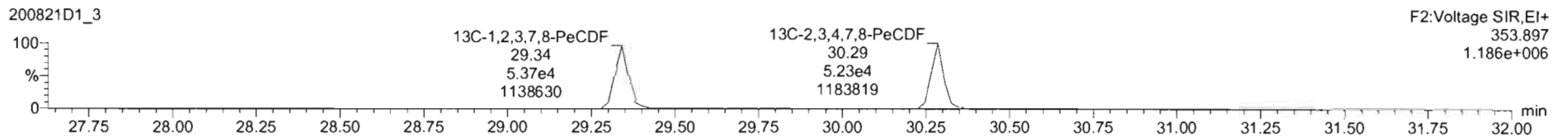
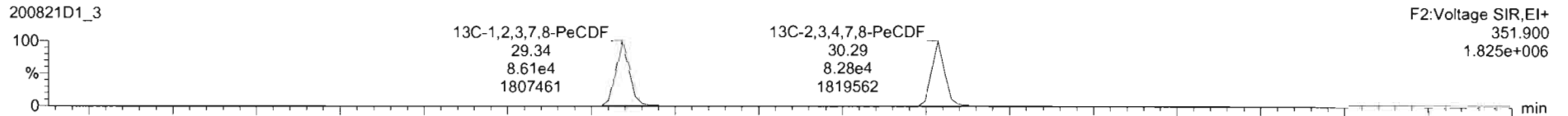
Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

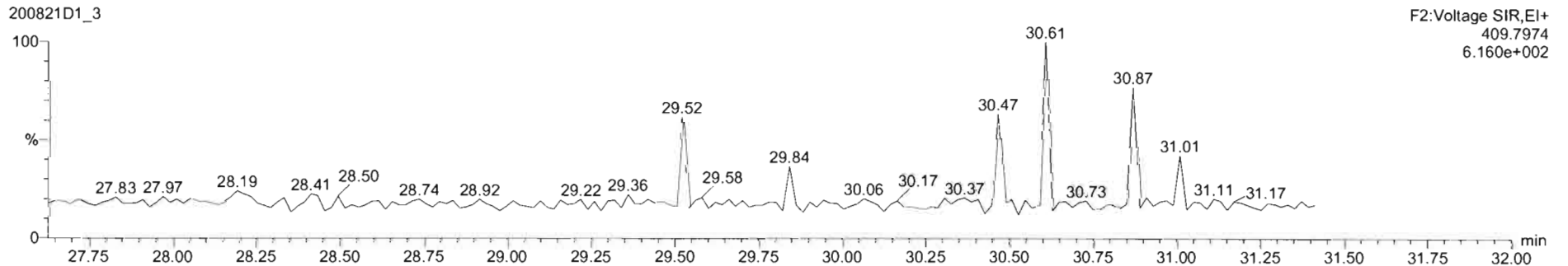
1,2,3,7,8-PeCDF

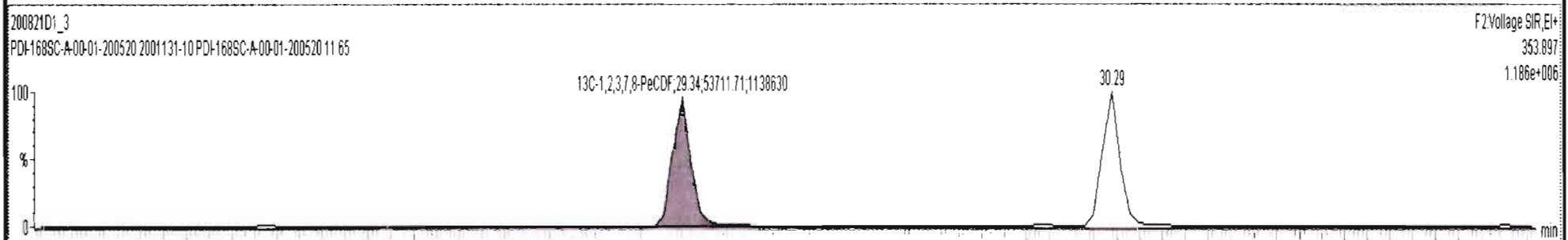
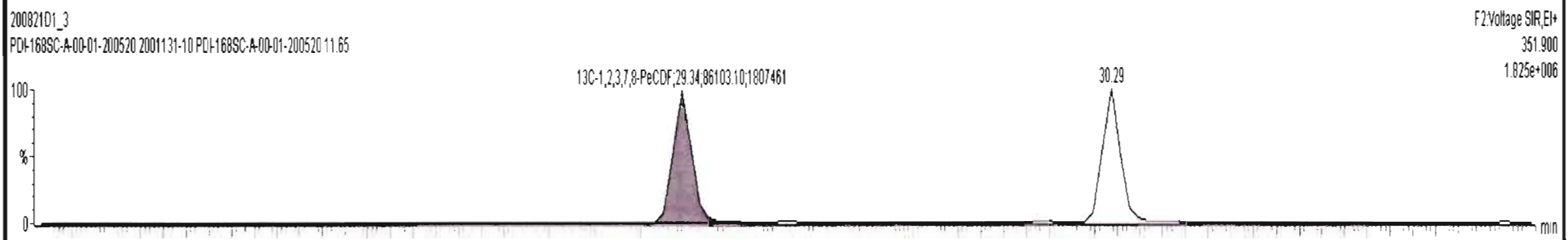
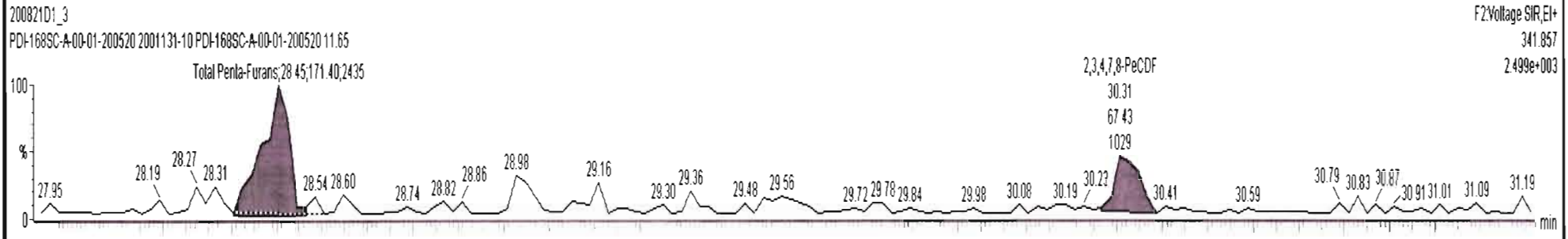
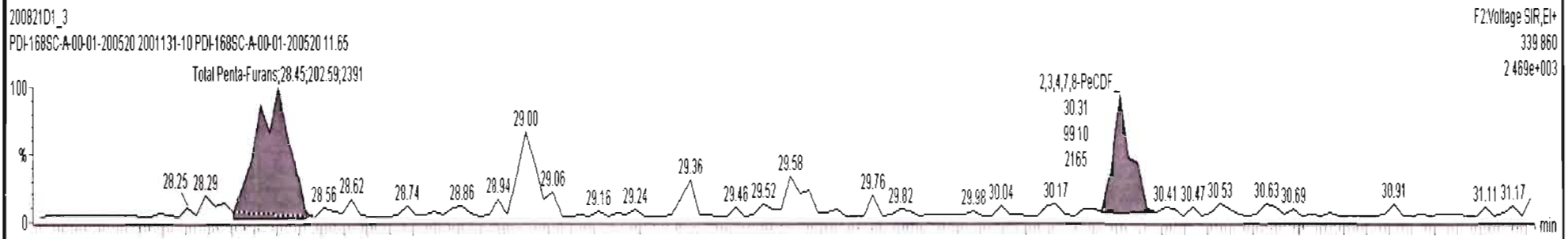


13C-1,2,3,7,8-PeCDF



DPE2



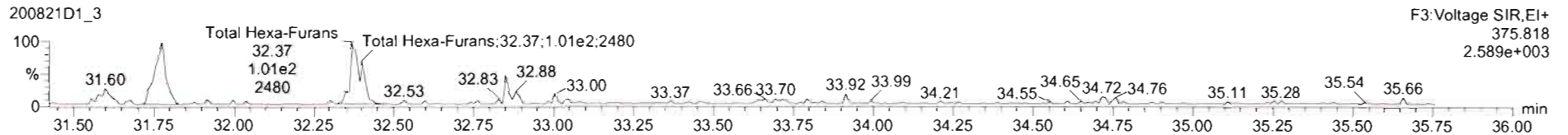
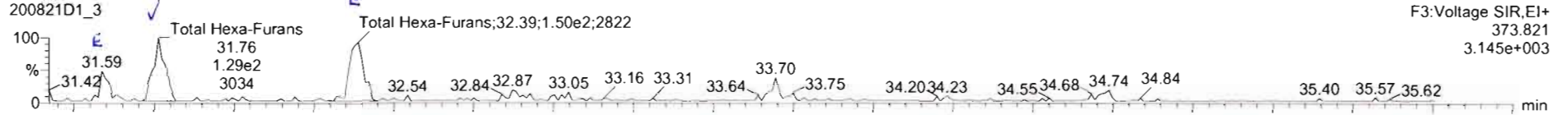


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

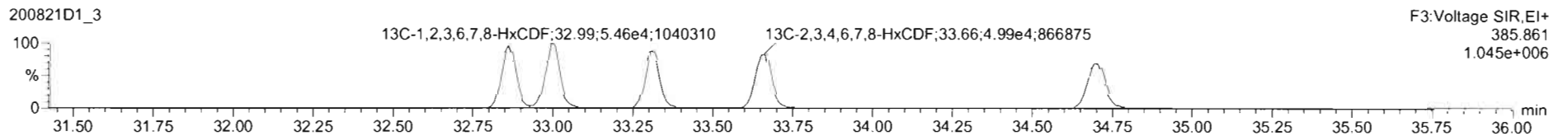
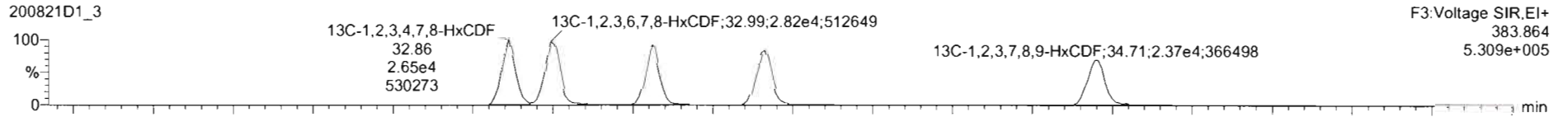
Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

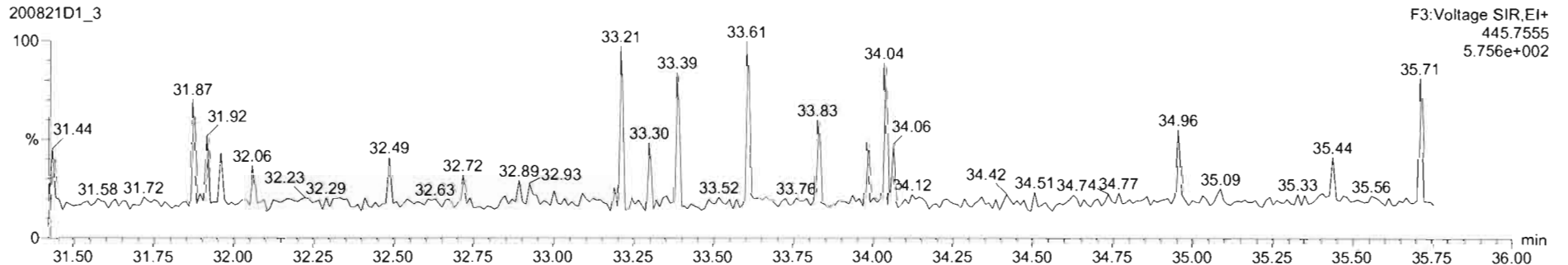
1,2,3,4,7,8-HxCDF

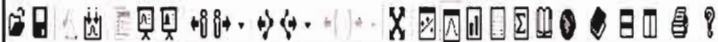


13C-1,2,3,4,7,8-HxCDF

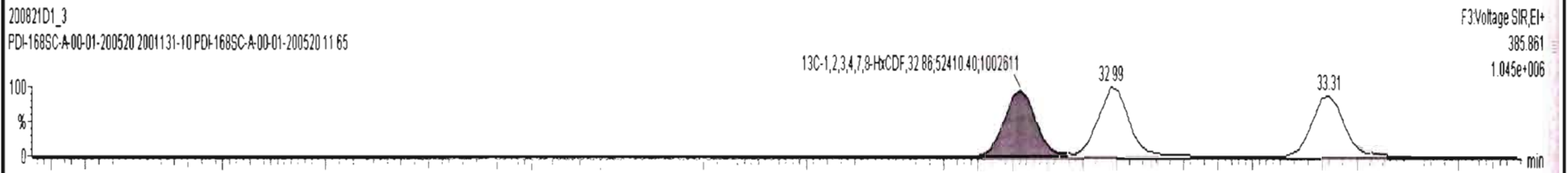
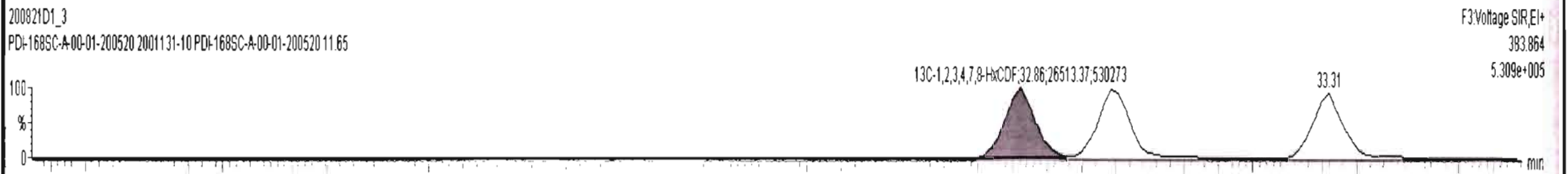
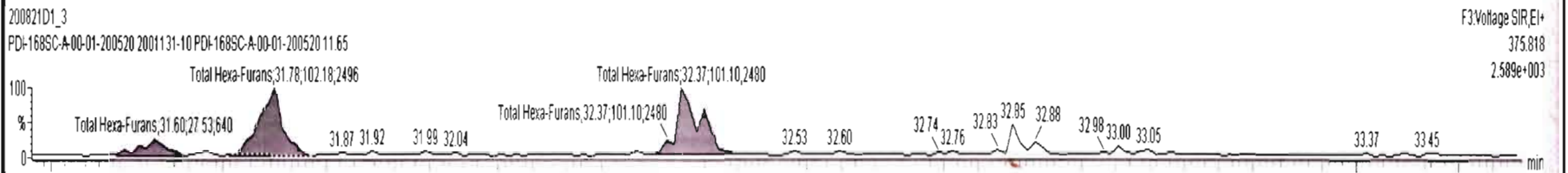
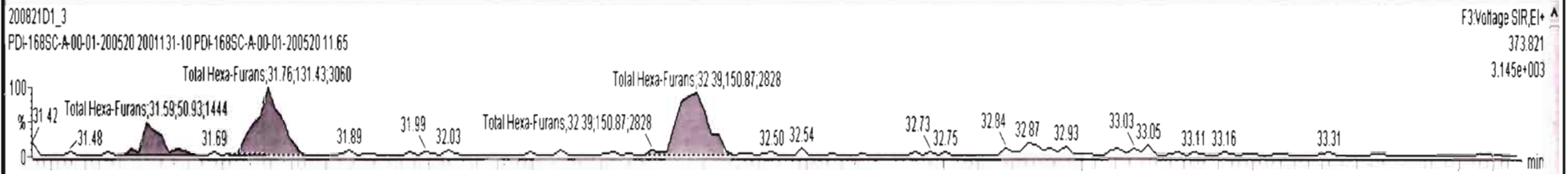


DPE3





200821D1\_3 - 2001131-10 PDI-168SC-A-00-01-200520 11.65 - PDI-168SC-A-00-01-200520



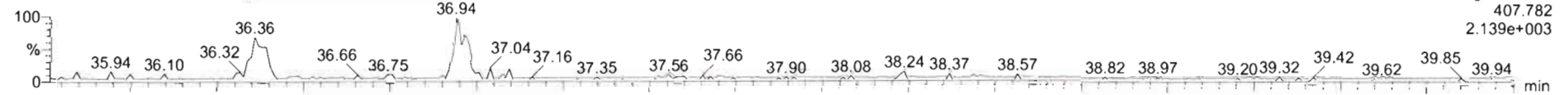
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

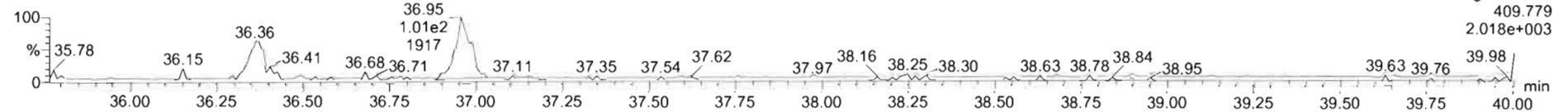
Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520

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

200821D1\_3

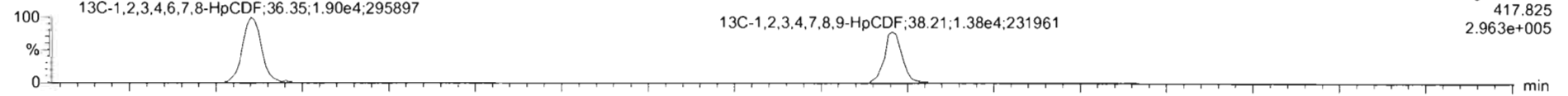


200821D1\_3

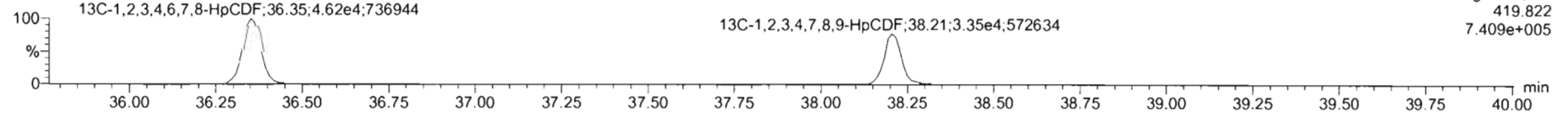


13C-1,2,3,4,6,7,8-HpCDF

200821D1\_3

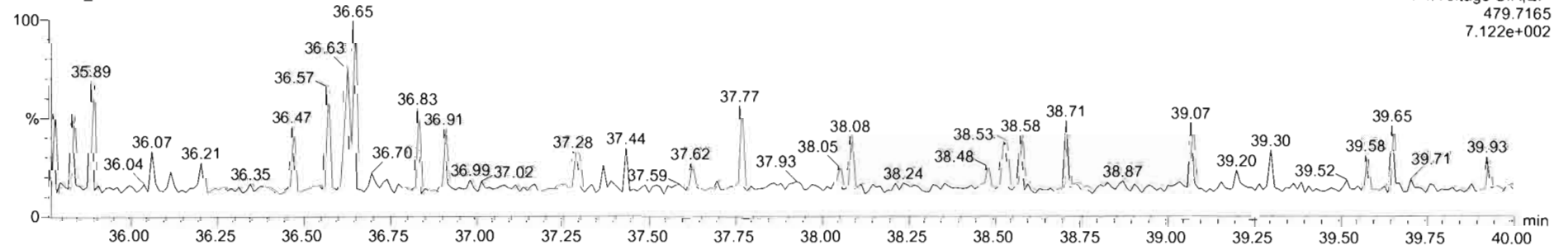


200821D1\_3



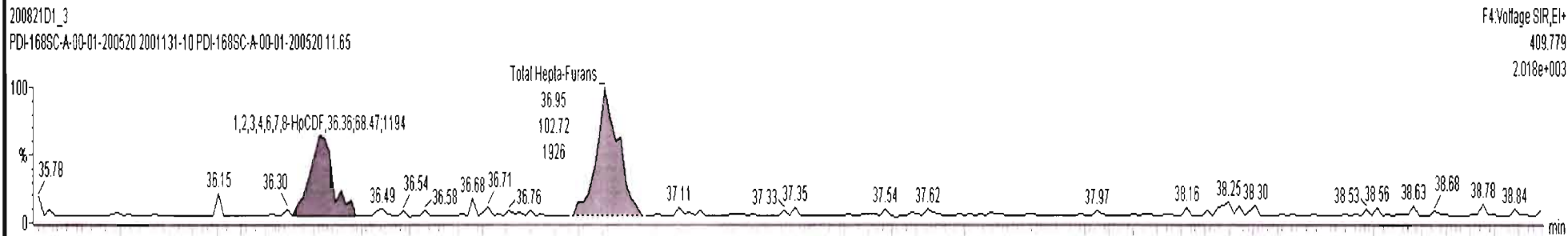
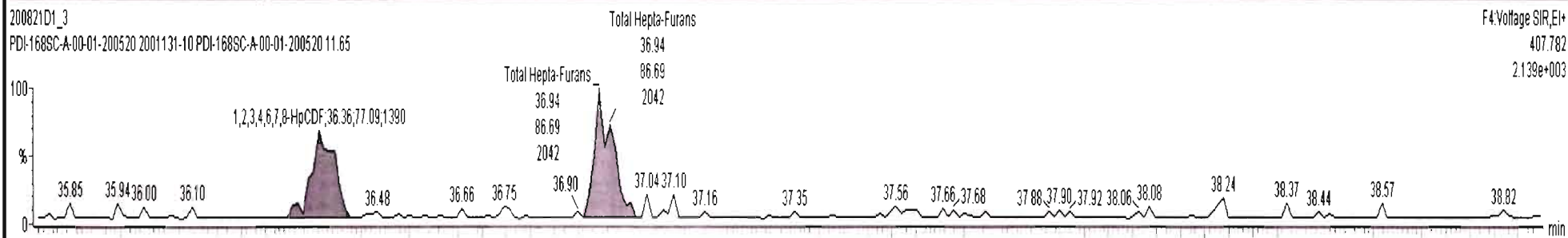
DPE4

200821D1\_3





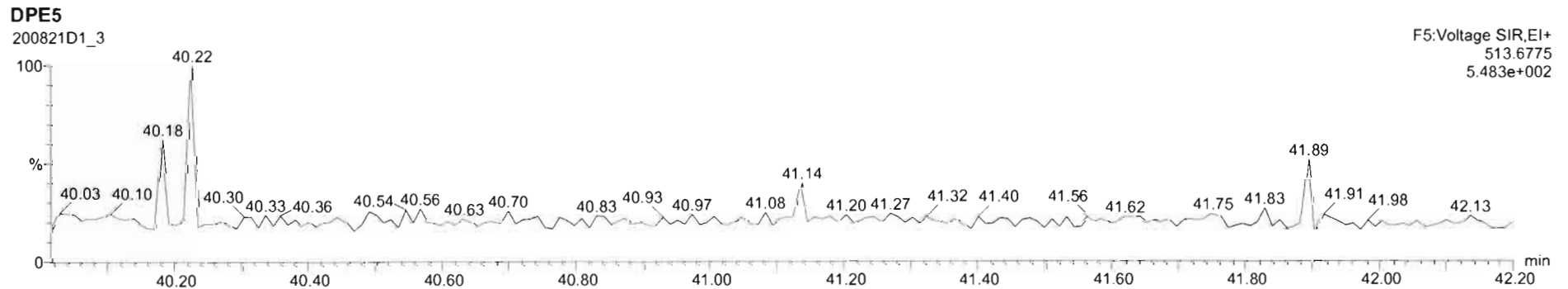
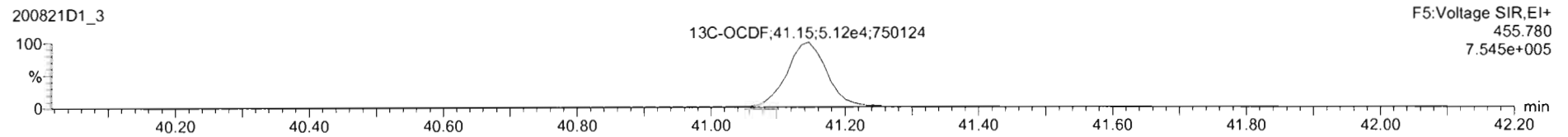
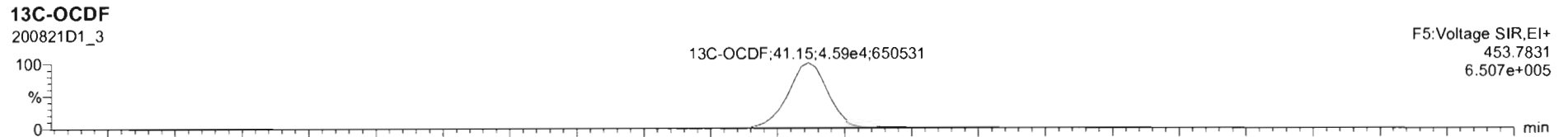
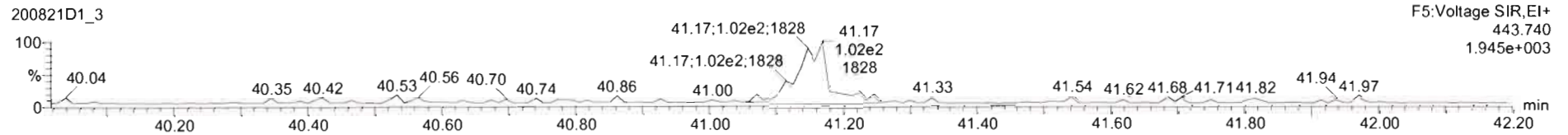
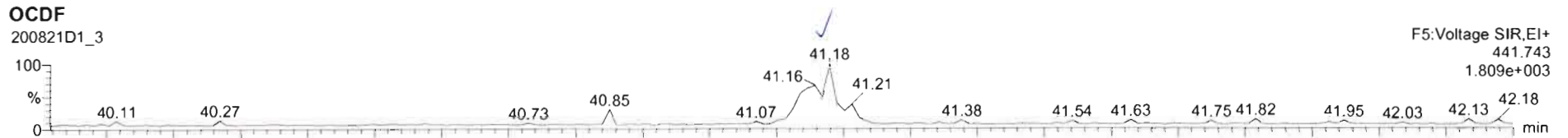
200821D1\_3 - 2001131-10 PDI-168SC-A-00-01-200520 11.65 - PDI-168SC-A-00-01-200520

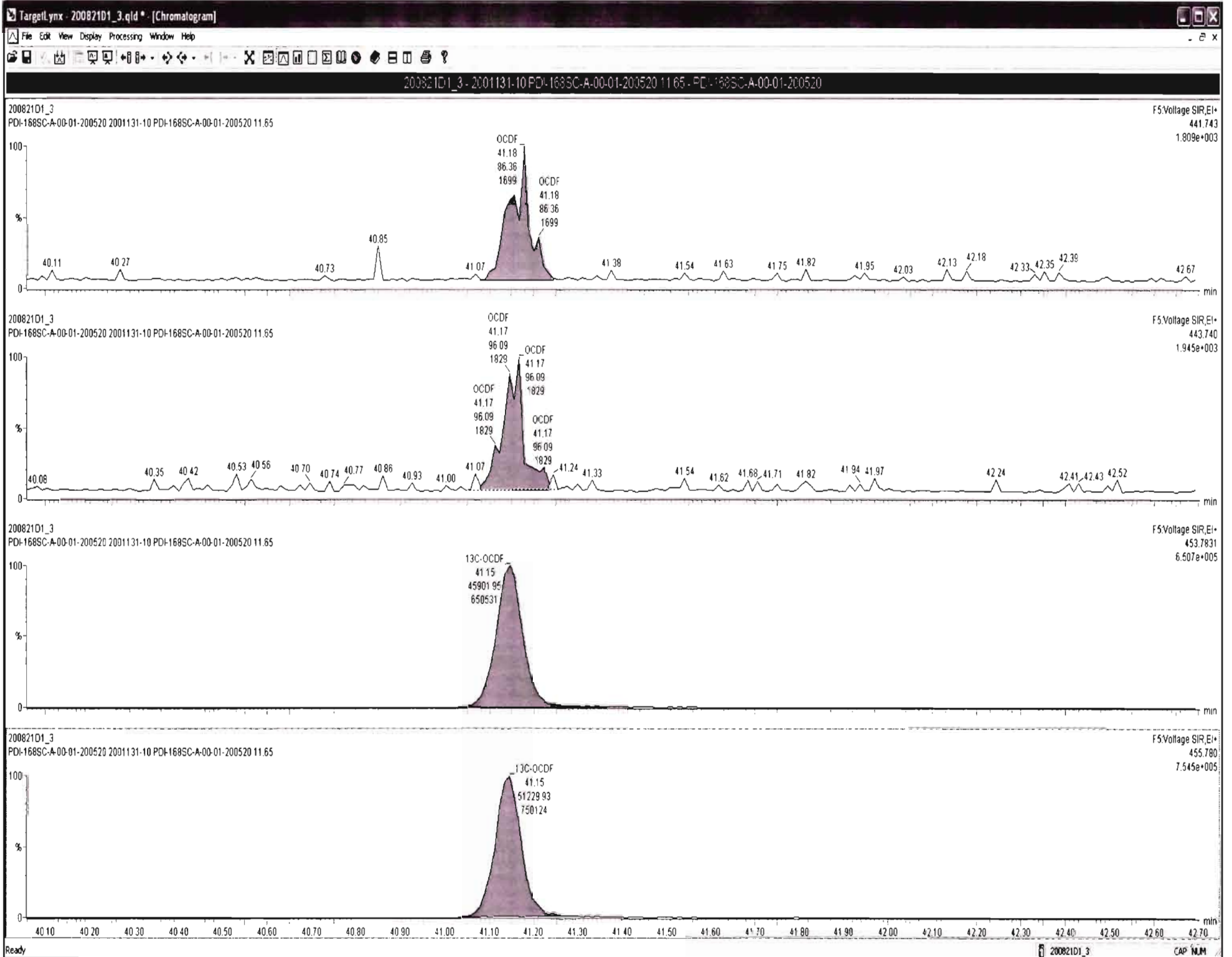


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520



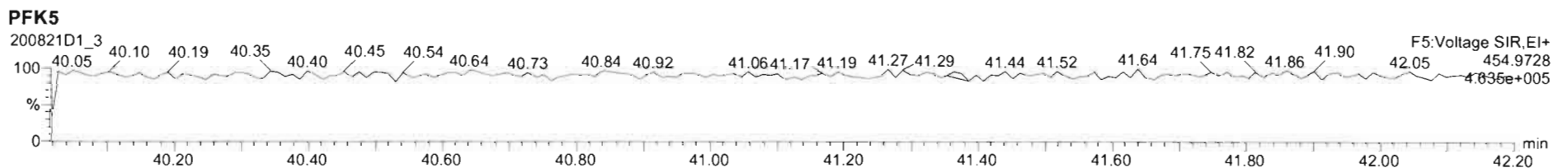
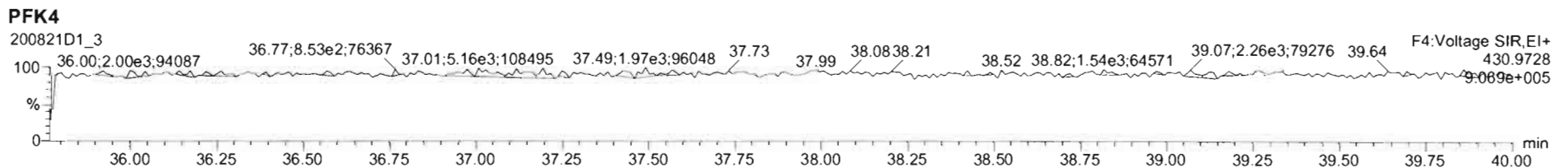
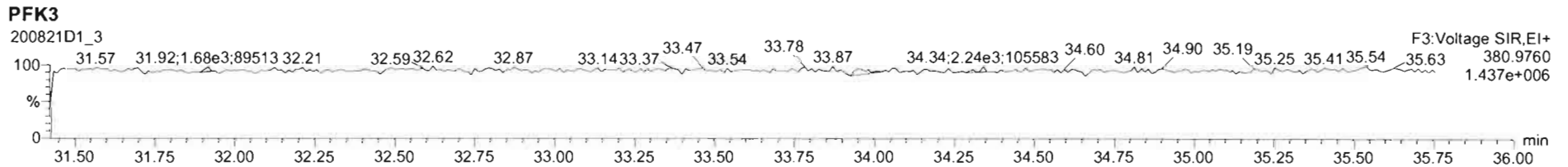
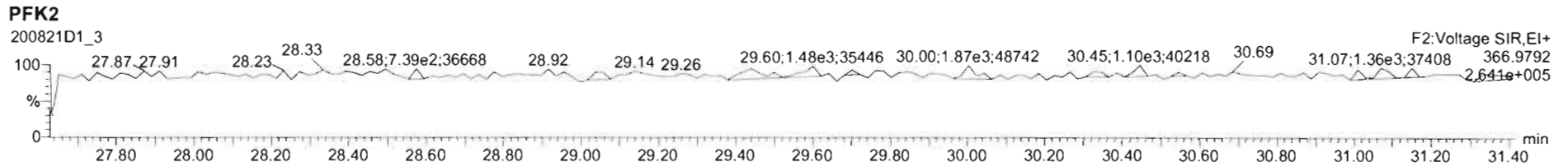
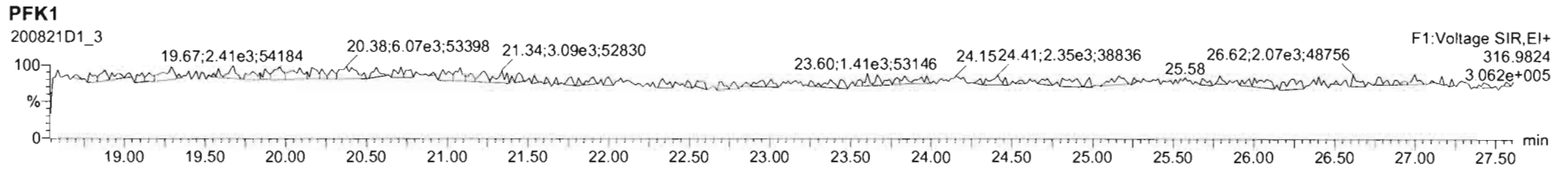




Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_3.qld

Last Altered: Monday, August 24, 2020 09:12:20 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:13:39 Pacific Daylight Time

Name: 200821D1\_3, Date: 21-Aug-2020, Time: 12:56:04, ID: 2001131-10 PDI-168SC-A-00-01-200520 11.65, Description: PDI-168SC-A-00-01-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Tuesday, August 25, 2020 11:08:14 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:08:53 Pacific Daylight Time

*DB 8/25/20 CT 08/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

#	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	1.08	10.053	26.250		1.001				0.225	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.053	30.508		1.001				0.178	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.053	33.804		1.000				0.216	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.053	33.915		1.000				0.236	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.053	34.234		1.001				0.223	
6	6 1,2,3,4,6,7,8-HpCDD	1.09e2	1.60	YES	0.926	10.053	37.569	37.58	1.000	1.001	0.38649		0.311	0.303
7	7 OCDD	8.82e2	0.95	NO	0.834	10.053	40.828	40.84	1.000	1.000	4.3203		0.297	4.32
8	8 2,3,7,8-TCDF			NO	0.882	10.053	25.618		1.001				0.192	
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.053	29.382		1.001				0.0970	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.053	30.336		1.001				0.0907	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.053	32.873		1.000				0.108	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.053	33.014		1.000				0.105	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.053	33.697		1.001				0.114	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.053	34.705		1.000				0.137	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.15	10.053	36.398		1.001				0.121	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.053	38.228		1.000				0.141	
17	17 OCDF			NO	0.961	10.053	41.157		1.000				0.318	
18	18 13C-2,3,7,8-TCDD	1.19e5	0.81	NO	1.20	10.053	26.241	26.22	1.026	1.025	209.59	105	1.30	
19	19 13C-1,2,3,7,8-PeCDD	9.06e4	0.62	NO	0.910	10.053	30.502	30.49	1.193	1.192	210.57	106	0.608	
20	20 13C-1,2,3,4,7,8-HxCDD	6.62e4	1.27	NO	0.789	10.053	33.789	33.79	1.014	1.014	198.36	99.7	0.824	
21	21 13C-1,2,3,6,7,8-HxCDD	7.57e4	1.24	NO	0.885	10.053	33.898	33.92	1.017	1.018	202.23	102	0.735	
22	22 13C-1,2,3,7,8,9-HxCDD	7.63e4	1.19	NO	0.888	10.053	34.168	34.20	1.025	1.026	203.04	102	0.732	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.04e4	1.09	NO	0.740	10.053	37.621	37.56	1.129	1.127	193.04	97.0	1.44	
24	24 13C-OCDD	9.74e4	0.88	NO	0.660	10.053	40.633	40.83	1.219	1.225	348.88	87.7	0.838	
25	25 13C-2,3,7,8-TCDF	1.58e5	0.75	NO	1.09	10.053	25.320	25.59	0.990	1.001	180.73	90.8	1.28	
26	26 13C-1,2,3,7,8-PeCDF	1.44e5	1.68	NO	0.857	10.053	29.558	29.36	1.156	1.148	209.79	105	0.489	
27	27 13C-2,3,4,7,8-PeCDF	1.38e5	1.68	NO	0.796	10.053	30.461	30.31	1.191	1.185	216.47	109	0.527	
28	28 13C-1,2,3,4,7,8-HxCDF	8.48e4	0.49	NO	1.02	10.053	32.922	32.87	0.988	0.987	196.52	98.8	1.15	
29	29 13C-1,2,3,6,7,8-HxCDF	8.89e4	0.51	NO	1.00	10.053	33.055	33.00	0.992	0.990	209.55	105	1.17	
30	30 13C-2,3,4,6,7,8-HxCDF	8.45e4	0.50	NO	0.936	10.053	33.625	33.66	1.009	1.010	213.53	107	1.25	
31	31 13C-1,2,3,7,8,9-HxCDF	7.73e4	0.49	NO	0.889	10.053	34.702	34.71	1.041	1.042	205.45	103	1.32	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Tuesday, August 25, 2020 11:08:14 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:08:53 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

#	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	6.90e4	0.43	NO	0.849	10.053	36.221	36.36	1.087	1.091	192.06	96.5	1.30	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.19e4	0.43	NO	0.624	10.053	38.220	38.23	1.147	1.147	196.79	98.9	1.77	
34	34 13C-OCDF	1.14e5	0.90	NO	0.693	10.053	40.786	41.16	1.224	1.235	389.43	97.9	1.11	
35	35 37Cl-2,3,7,8-TCDD	4.39e4			1.28	10.053	26.238	26.23	1.026	1.026	72.761	91.4	0.202	
36	36 13C-1,2,3,4-TCDD	9.40e4	0.77	NO	1.00	10.053	25.550	25.58	1.000	1.000	198.94	100	1.56	
37	37 13C-1,2,3,4-TCDF	1.60e5	0.78	NO	1.00	10.053	24.250	24.28	1.000	1.000	198.94	100	1.40	
38	38 13C-1,2,3,4,6,9-HxCDF	8.42e4	0.50	NO	1.00	10.053	33.300	33.32	1.000	1.000	198.94	100	1.17	
39	39 Total Tetra-Dioxins				1.08	10.053	24.620		0.000				0.149	
40	40 Total Penta-Dioxins				0.991	10.053	29.960		0.000				0.0689	
41	41 Total Hexa-Dioxins				0.908	10.053	33.635		0.000		0.21453		0.0801	0.215
42	42 Total Hepta-Dioxins				0.926	10.053	37.640		0.000		0.00000		0.138	0.929
43	43 Total Tetra-Furans				0.882	10.053	23.610		0.000				0.0810	
44	44 1st Func. Penta-Furans				0.937	10.053	26.750		0.000				0.0313	
45	45 Total Penta-Furans				0.937	10.053	29.275		0.000				0.0279	
46	46 Total Hexa-Furans				1.11	10.053	33.555		0.000				0.0713	
47	47 Total Hepta-Furans				1.15	10.053	37.835		0.000		0.14697		0.0787	0.147

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Tuesday, August 25, 2020 11:08:14 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:08:53 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.14	1.170e3	9.540e2	3.915e1	3.209e1	1.22	NO	7.124e1	0.21453	0.21453	0.0801

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.69	2.237e3	1.668e3	1.091e2	8.626e1	1.26	YES	0.000e0	0.00000	0.62622	0.311
2	1,2,3,4,6,7,8-HpCDD	37.58	1.336e3	1.154e3	6.691e1	4.170e1	1.60	YES	1.086e2	0.00000	0.30273	0.311

**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:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Tuesday, August 25, 2020 11:08:14 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:08:53 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

Penta-Furans

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

Hexa-Furans

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

Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Furans	36.97	7.240e2	6.490e2	2.544e1	2.606e1	0.98	NO	5.150e1	0.14697	0.14697	0.0787

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

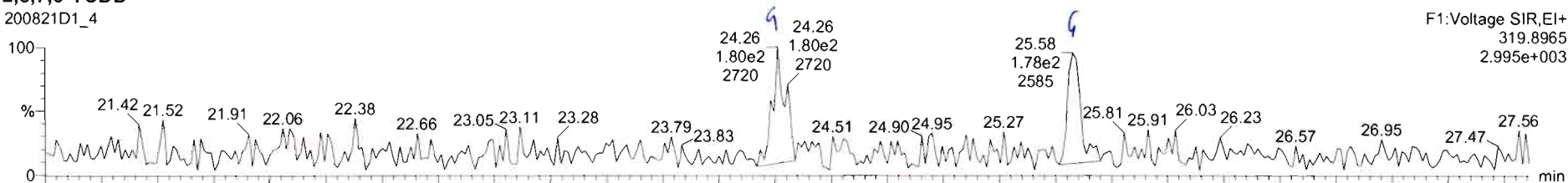
Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

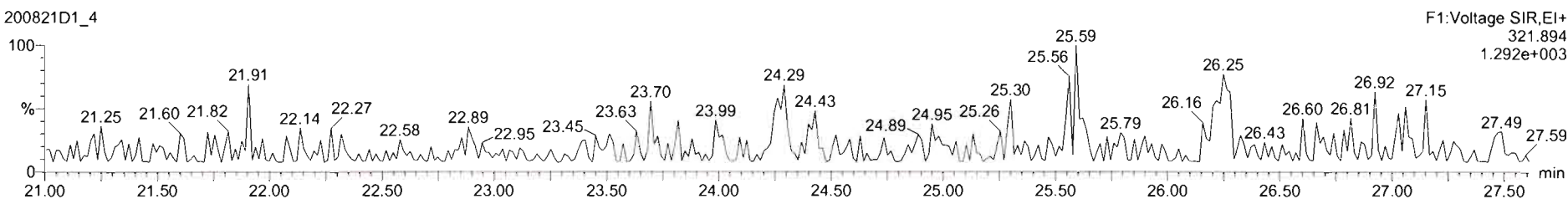
Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

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

200821D1\_4

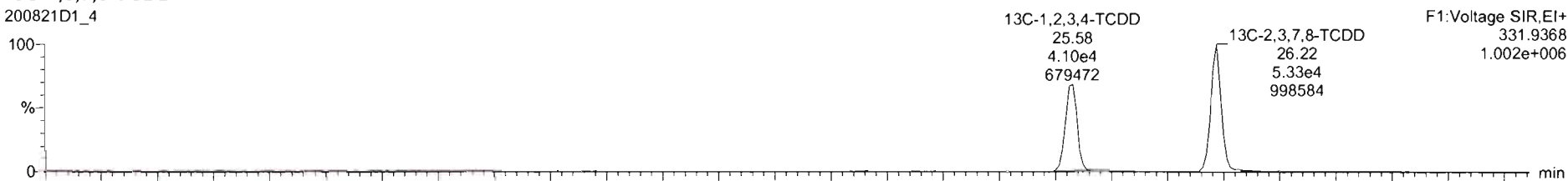


200821D1\_4

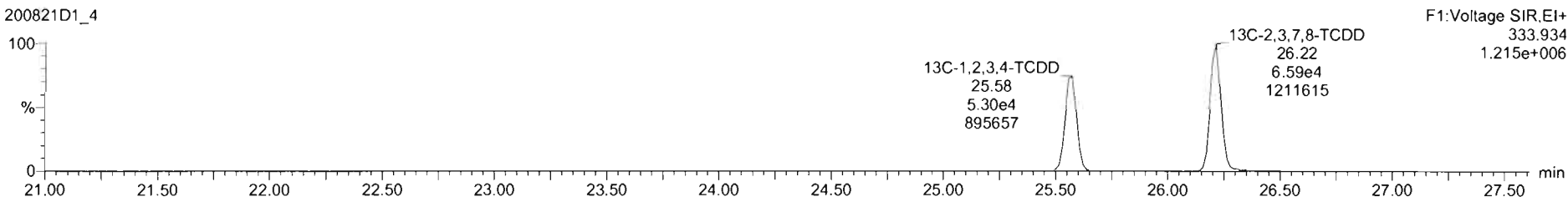


**13C-2,3,7,8-TCDD**

200821D1\_4



200821D1\_4



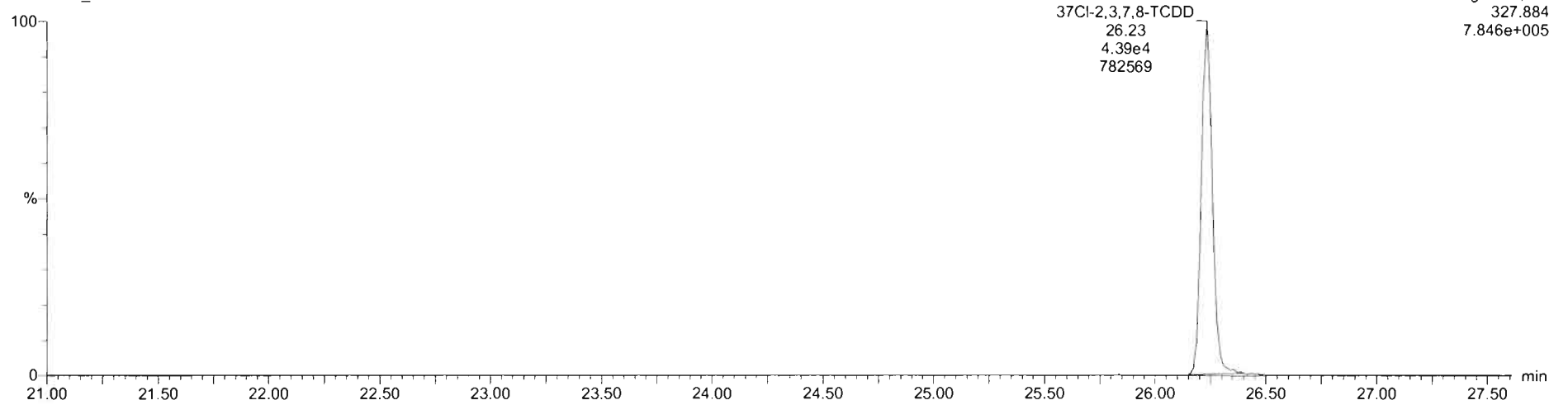
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

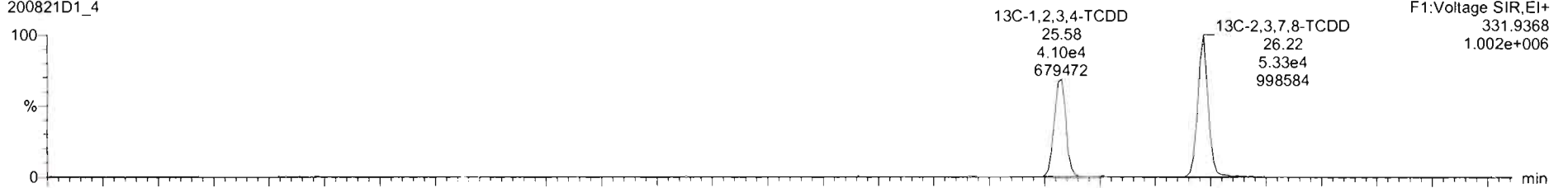
37Cl-2,3,7,8-TCDD

200821D1\_4

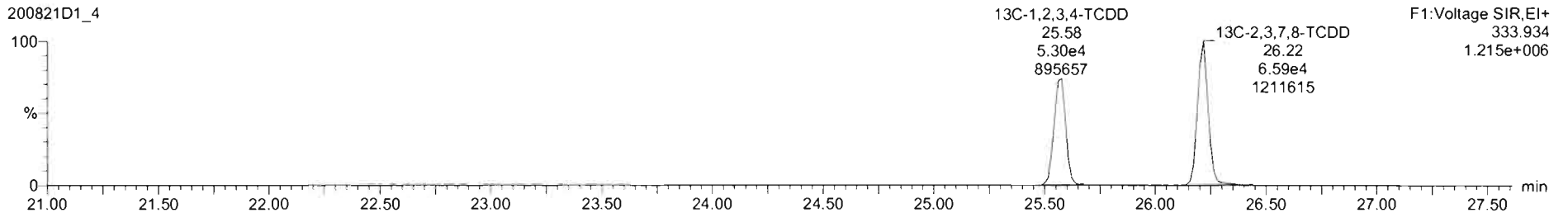


13C-1,2,3,4-TCDD

200821D1\_4



200821D1\_4

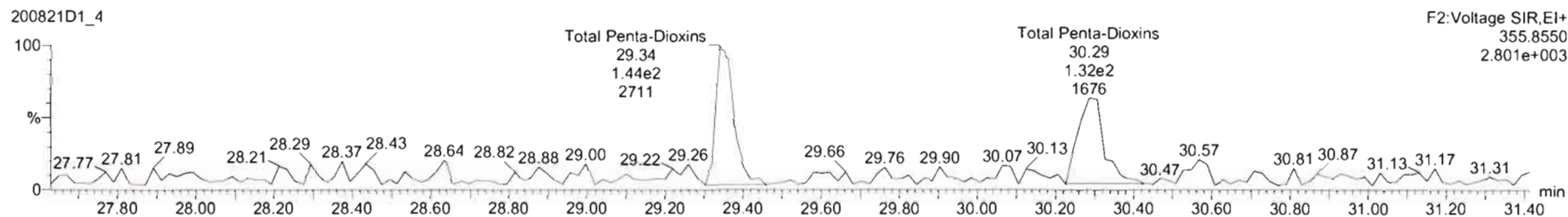
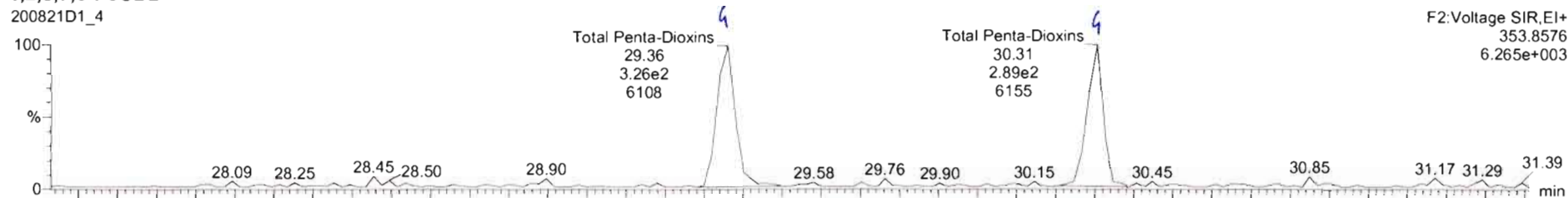


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

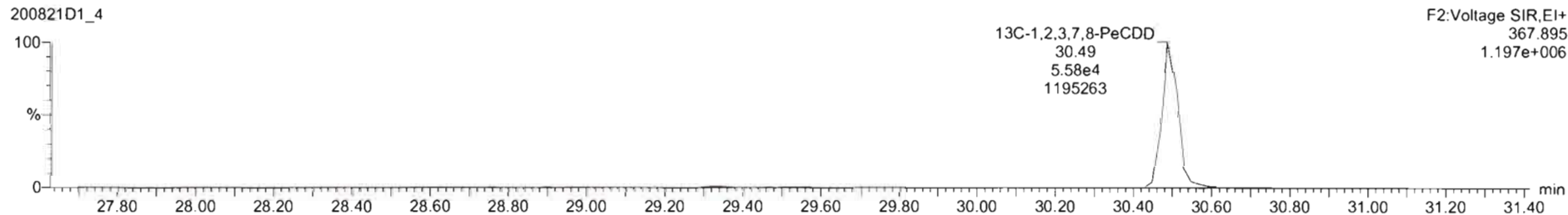
Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

1,2,3,7,8-PeCDD



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



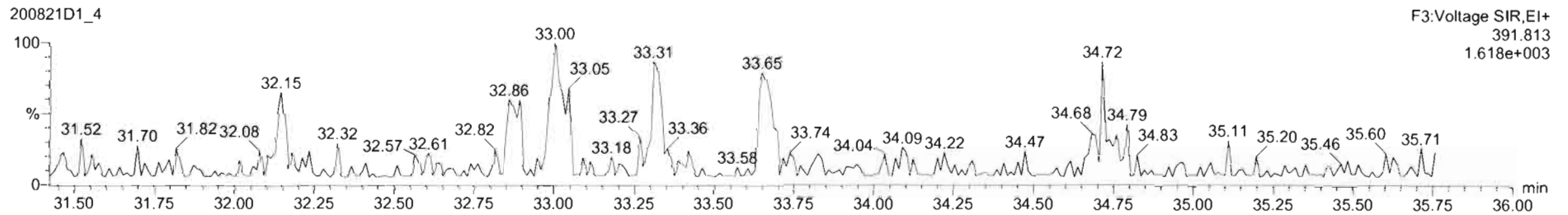
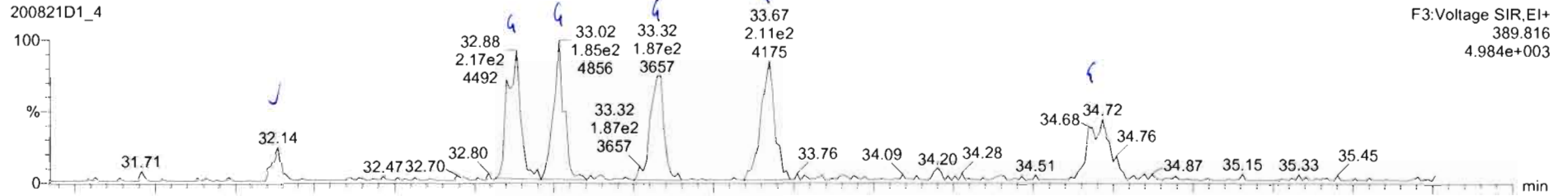


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

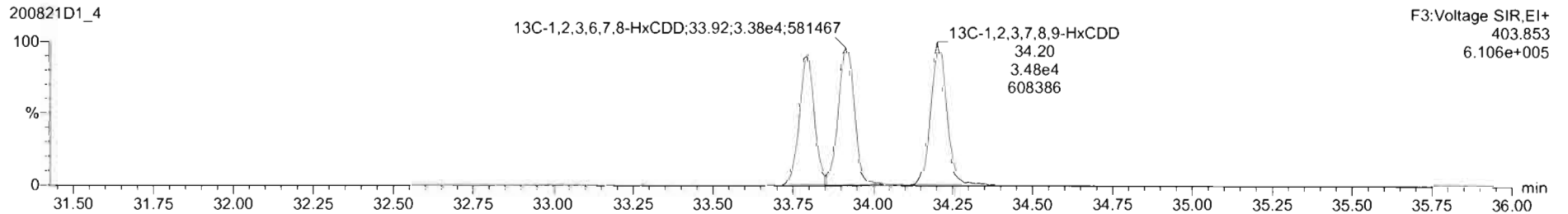
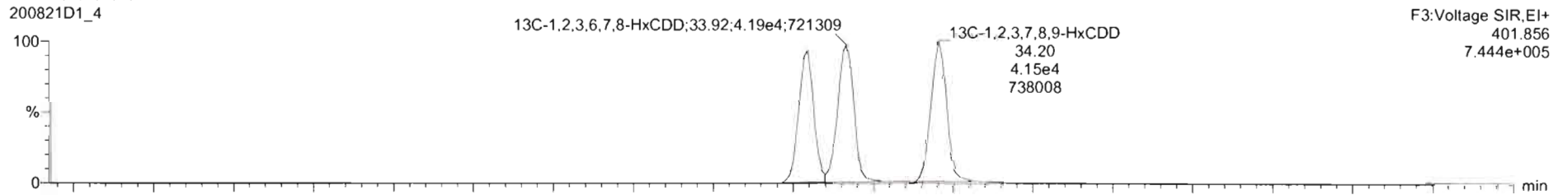
Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

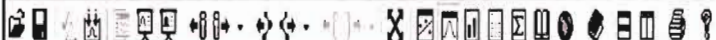
Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

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

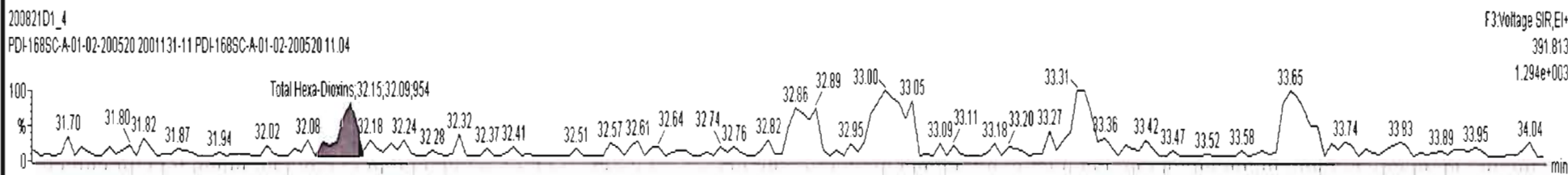


13C-1,2,3,4,7,8-HxCDD





200821D1\_4 - 2001131-11 PDI-168SC-A-01-02-200520 11.04 - PDI-168SC-A-01-02-200520



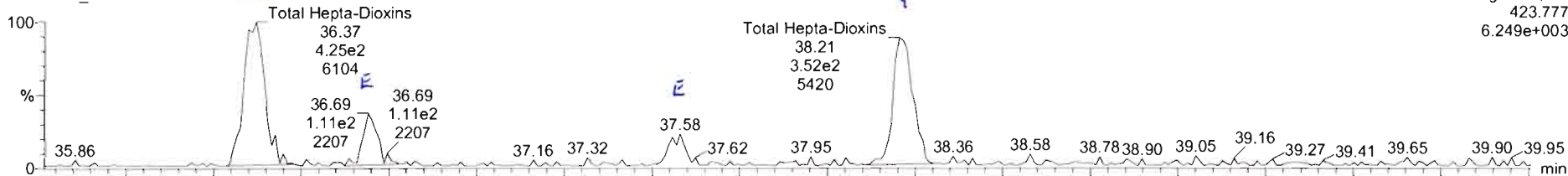
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

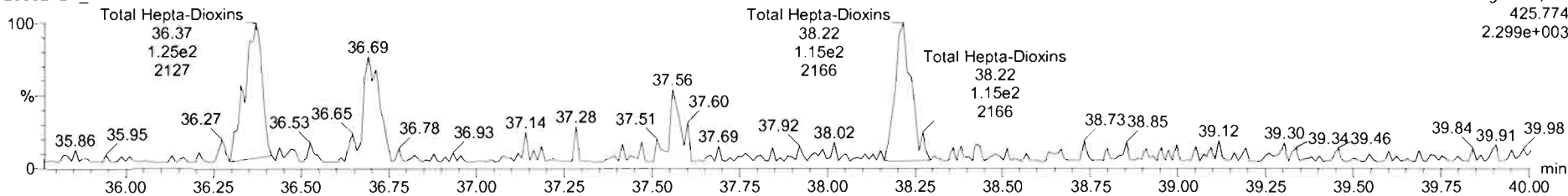
Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

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

200821D1\_4

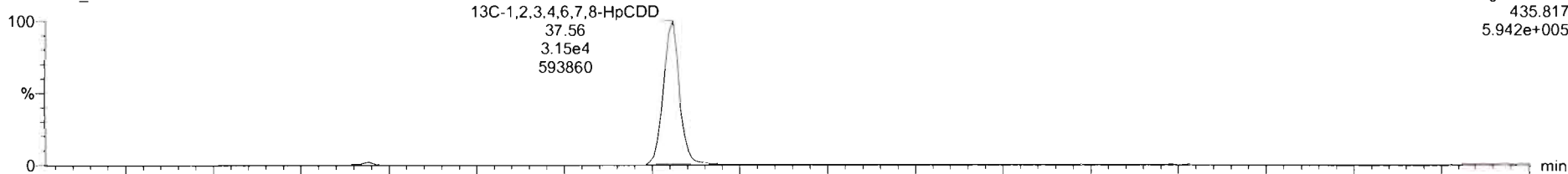


200821D1\_4

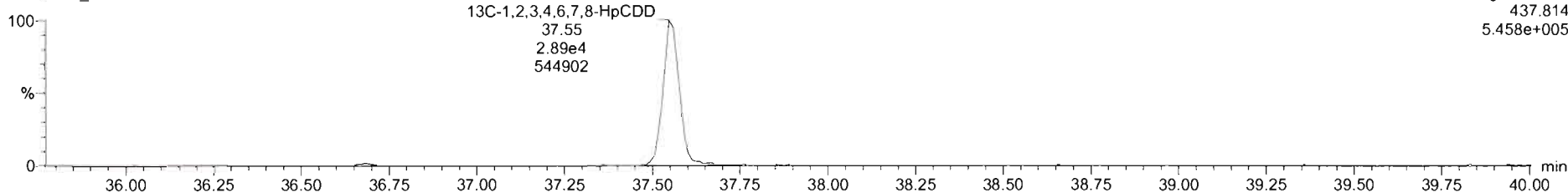


13C-1,2,3,4,6,7,8-HpCDD

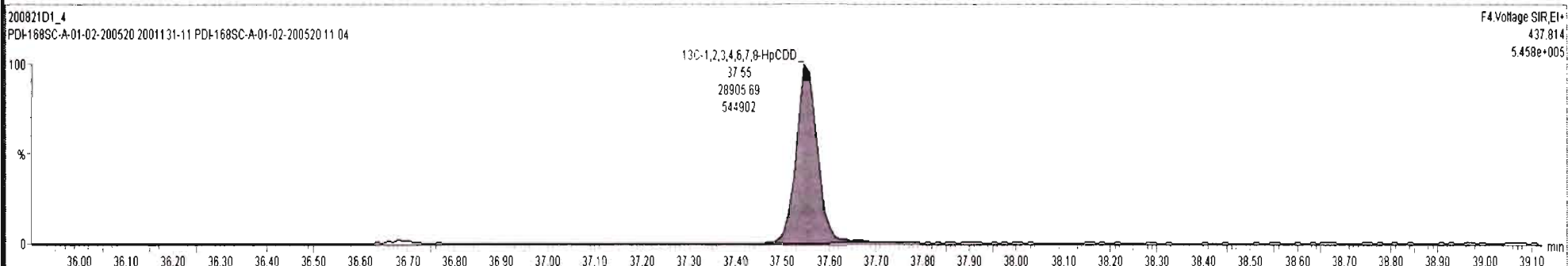
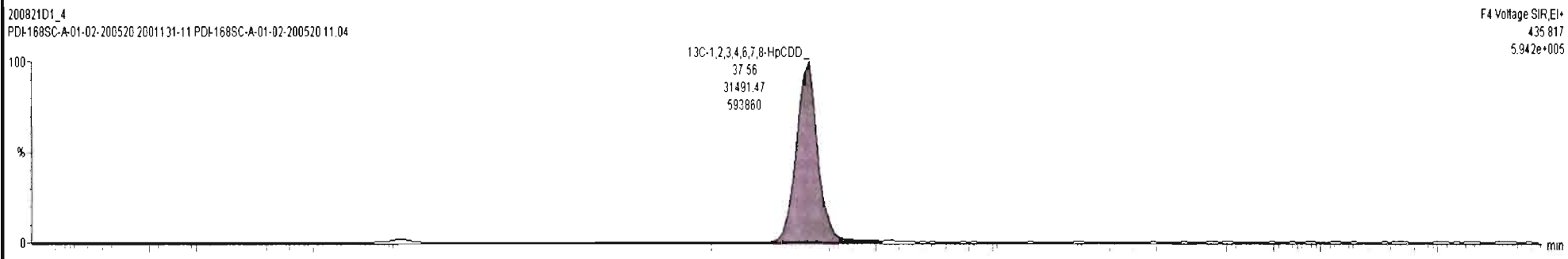
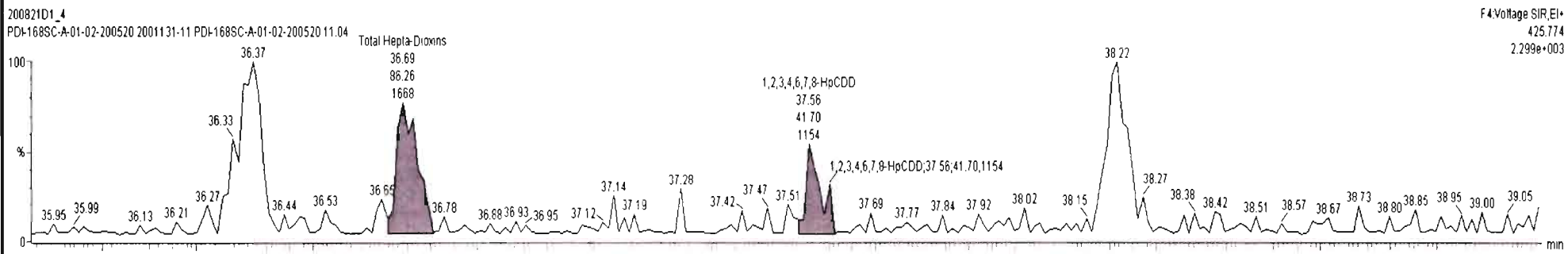
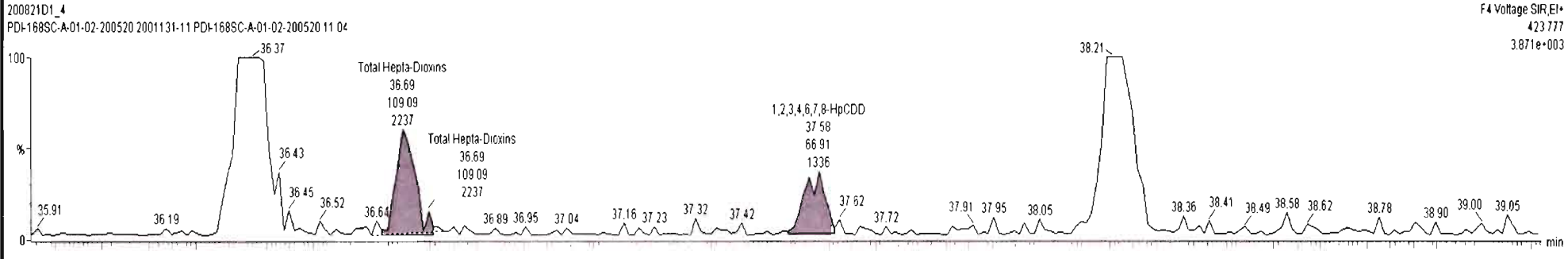
200821D1\_4



200821D1\_4



200821D1\_4 - 2001131-11 PDI-168SC-A-01-02-200520 11.04 - PDI-168SC-A-01-02-200520



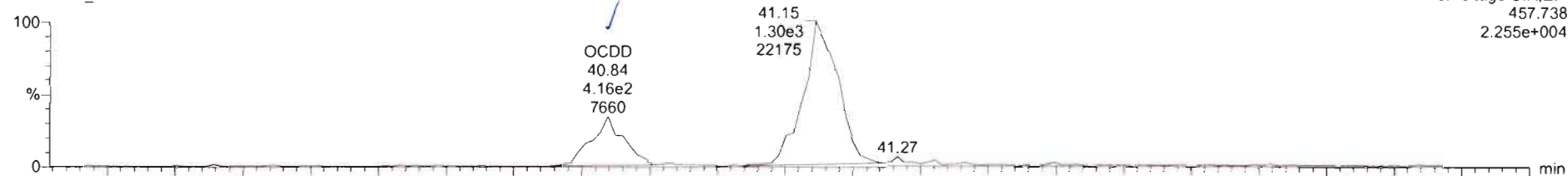
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

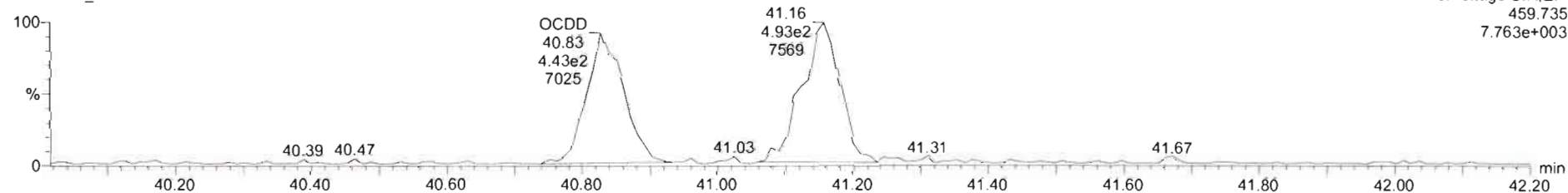
Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

**OCDD**

200821D1\_4

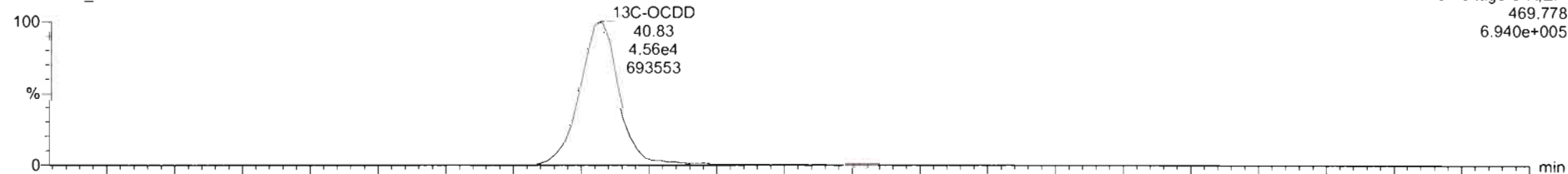


200821D1\_4

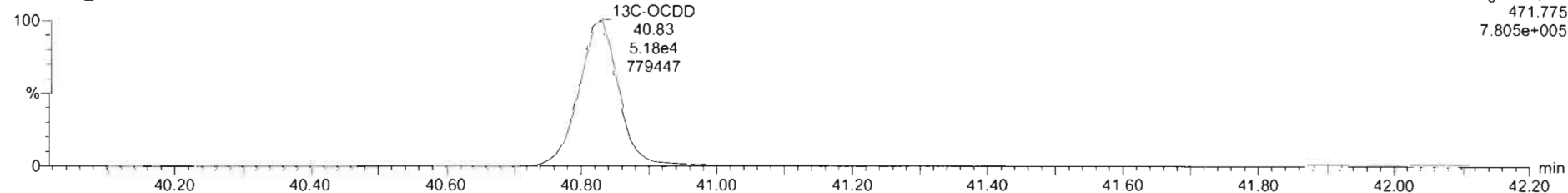


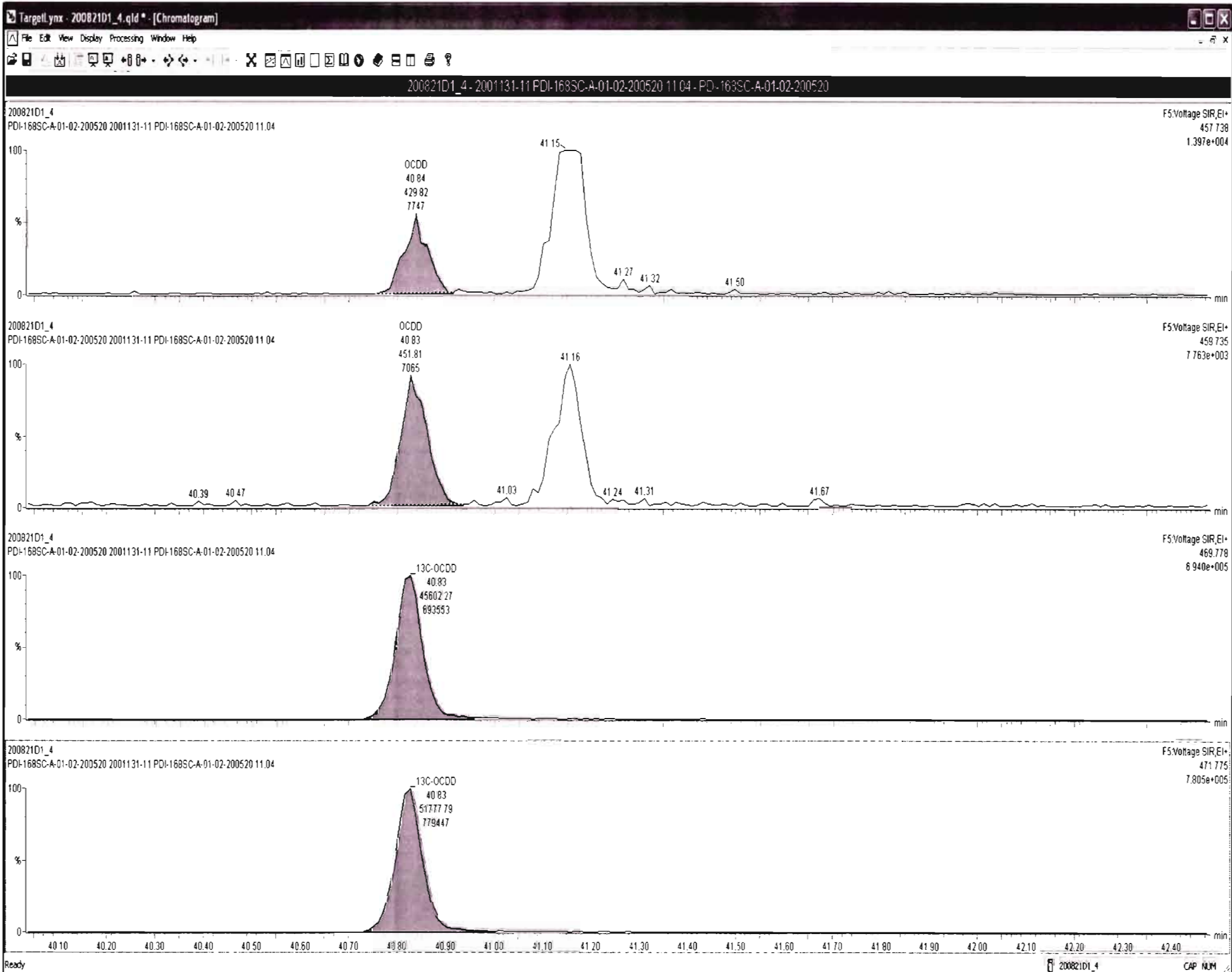
**13C-OCDD**

200821D1\_4



200821D1\_4



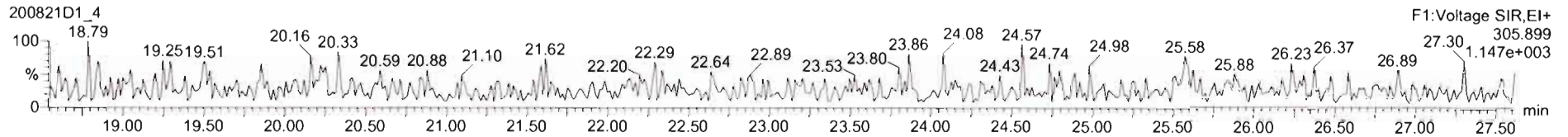
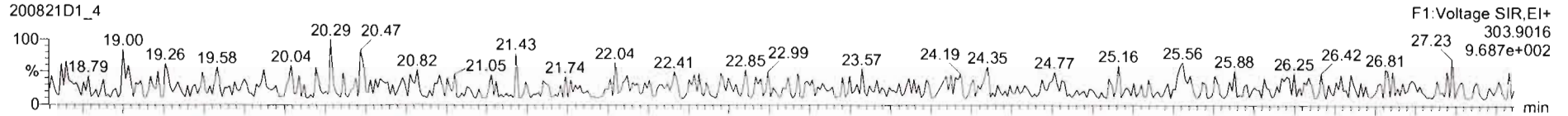


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

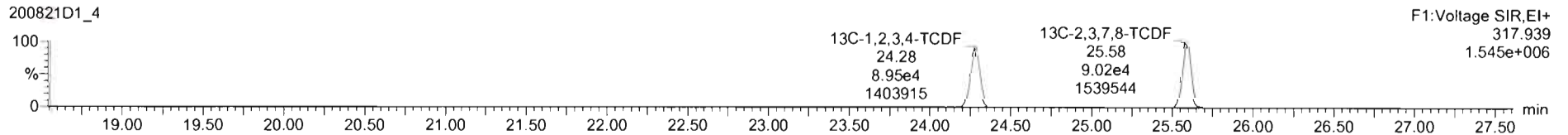
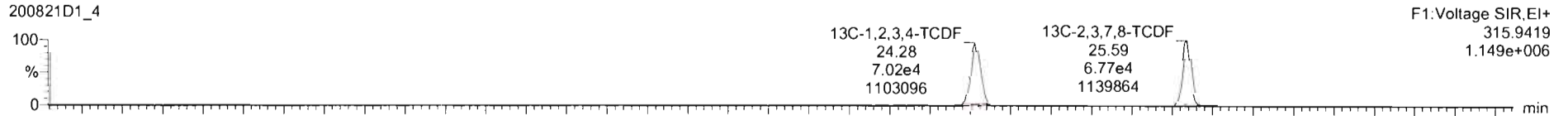
Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

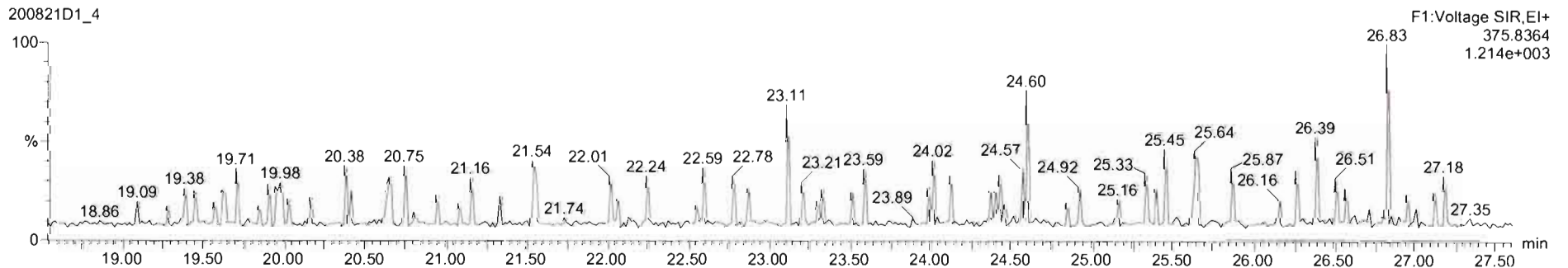
**2,3,7,8-TCDF**



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



**DPE1**



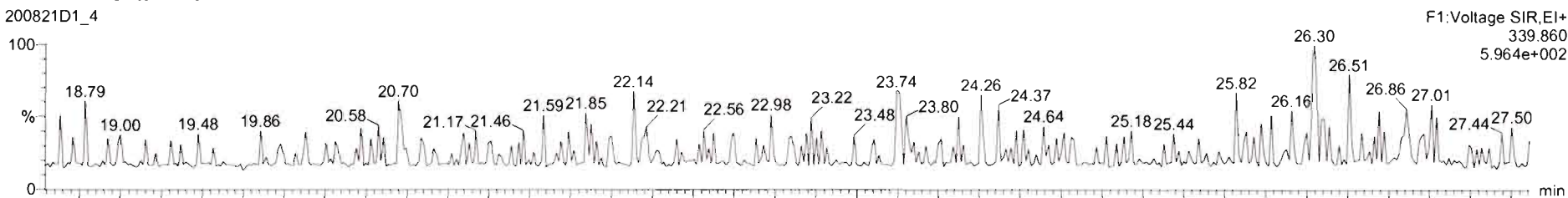
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

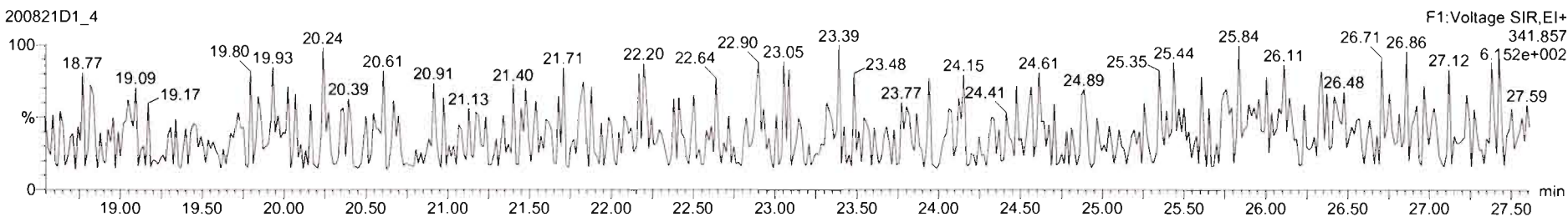
Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

1st Func. Penta-Furans

200821D1\_4

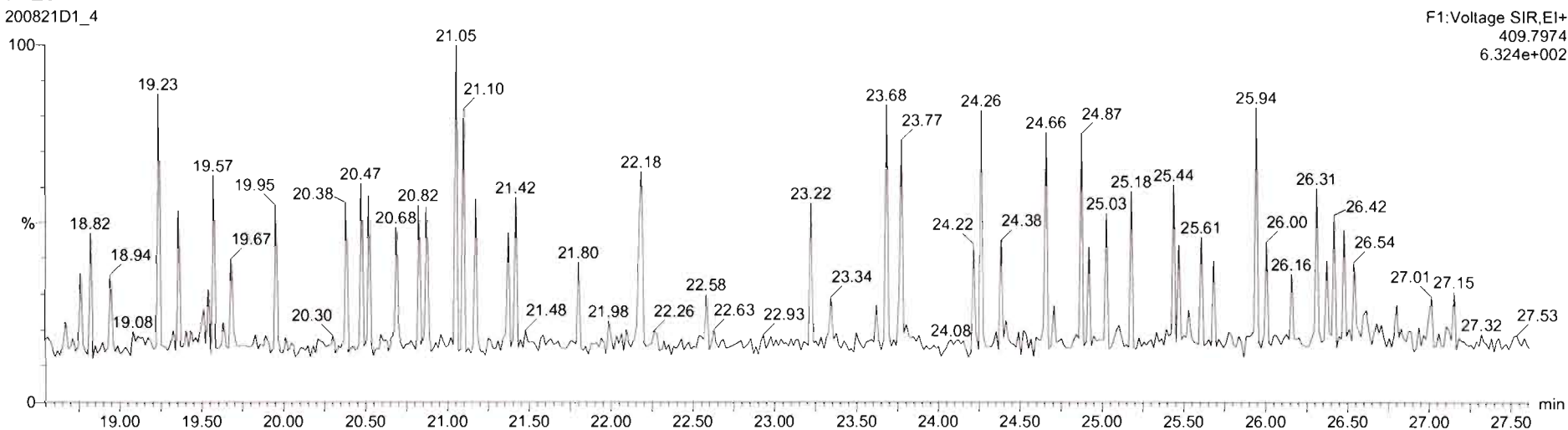


200821D1\_4



DPE6

200821D1\_4





Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

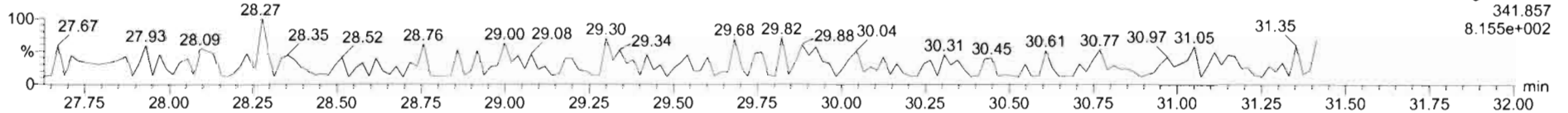
Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

1,2,3,7,8-PeCDF

200821D1\_4

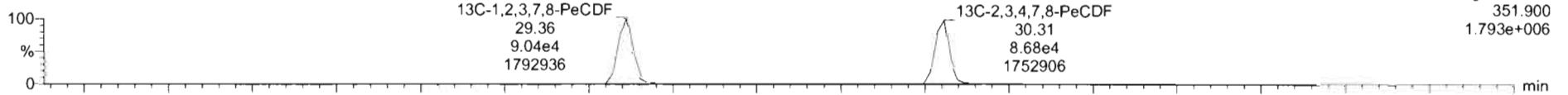


200821D1\_4

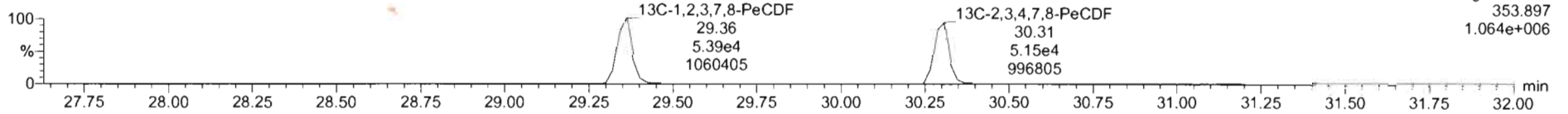


13C-1,2,3,7,8-PeCDF

200821D1\_4

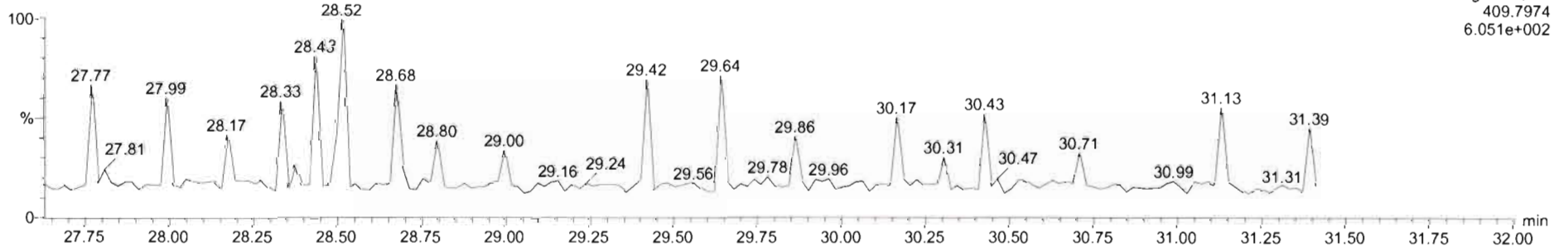


200821D1\_4



DPE2

200821D1\_4

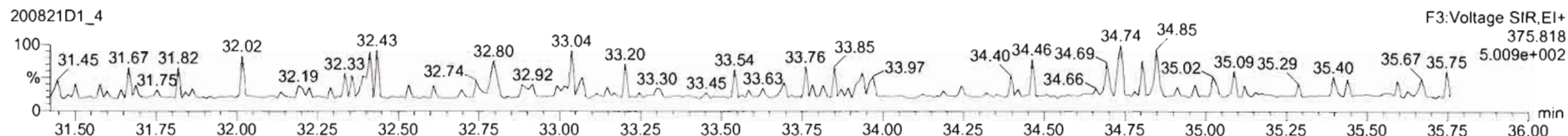
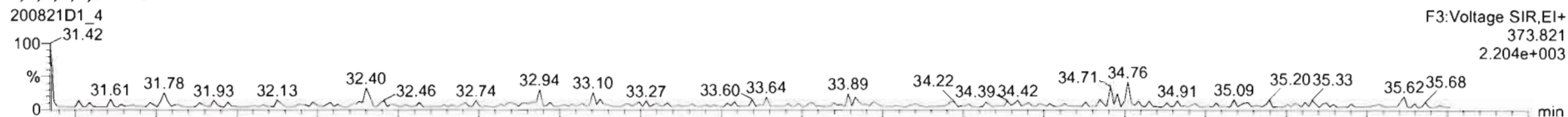


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

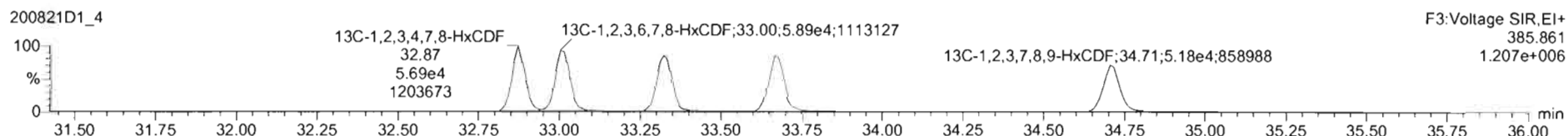
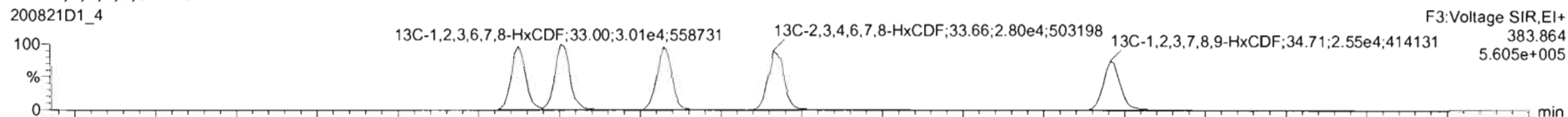
Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

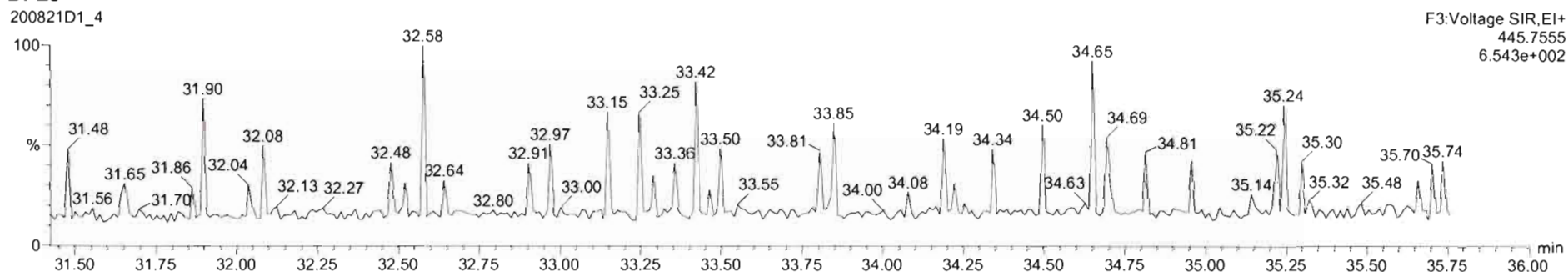
1,2,3,4,7,8-HxCDF



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



DPE3

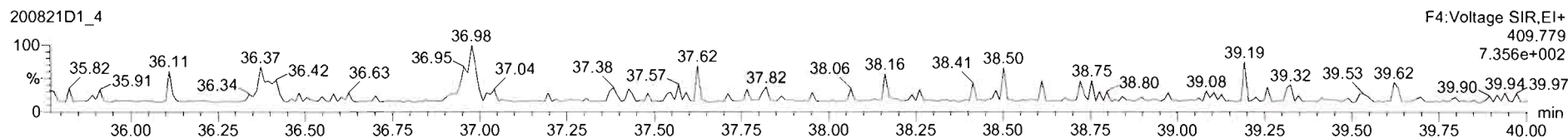
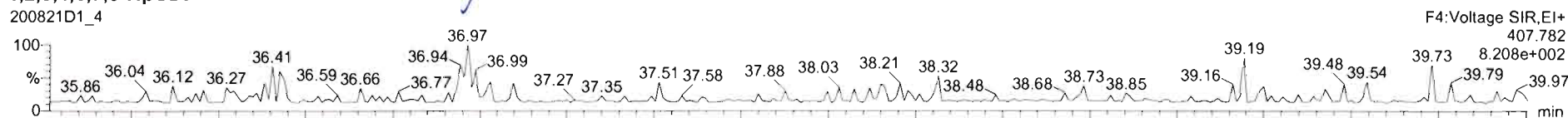


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

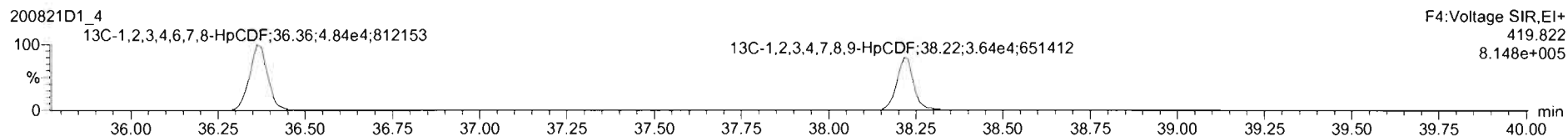
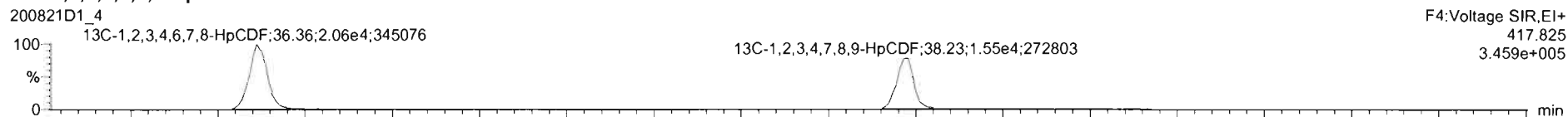
Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

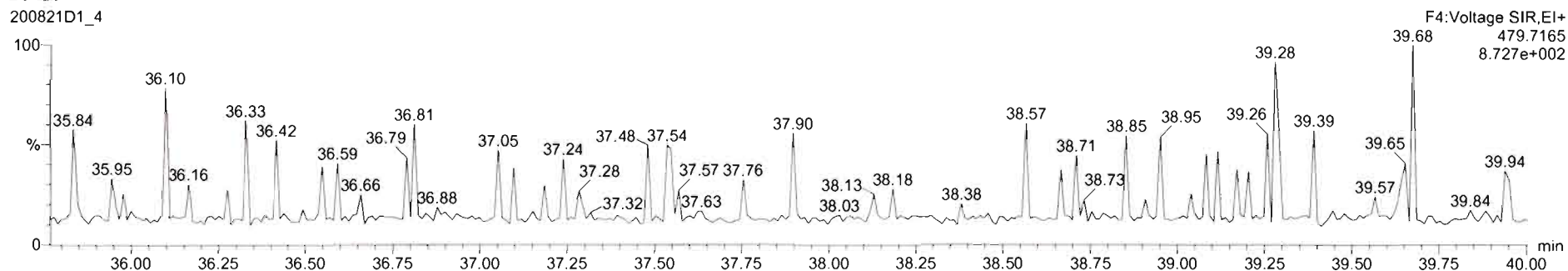
1,2,3,4,6,7,8-HpCDF



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

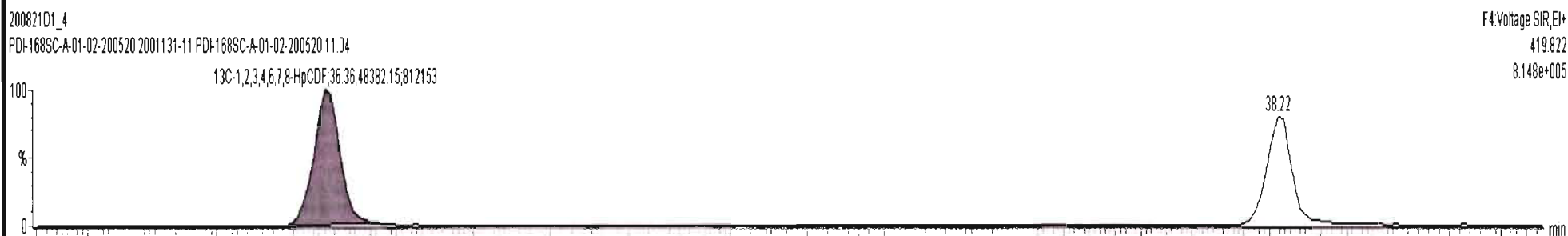
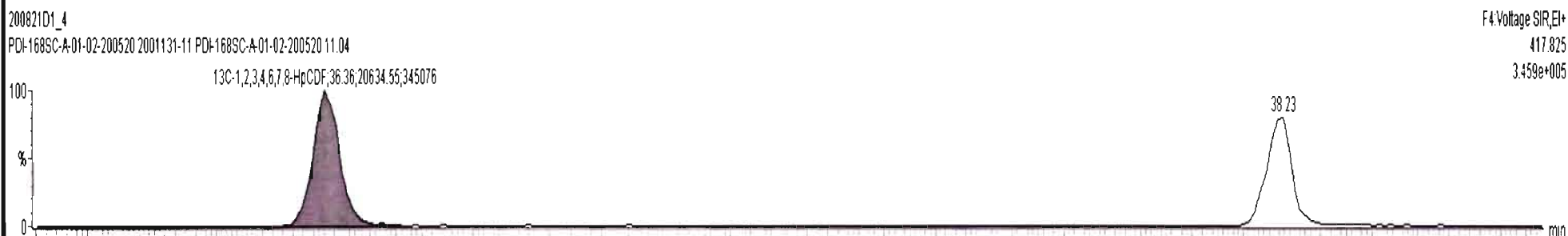
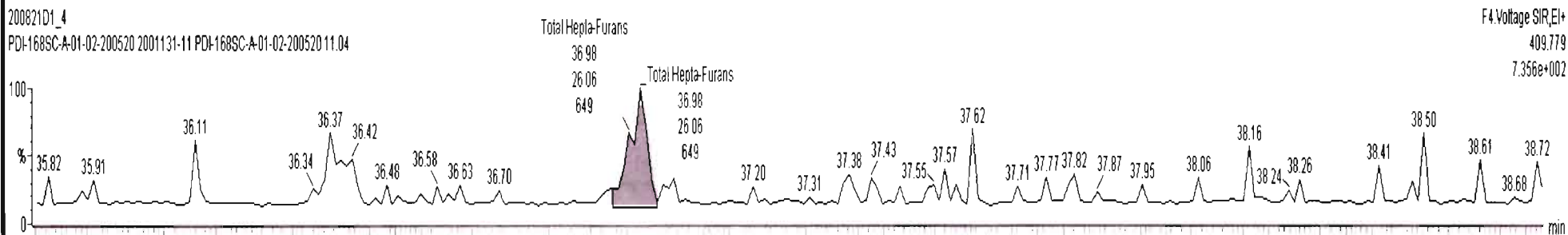
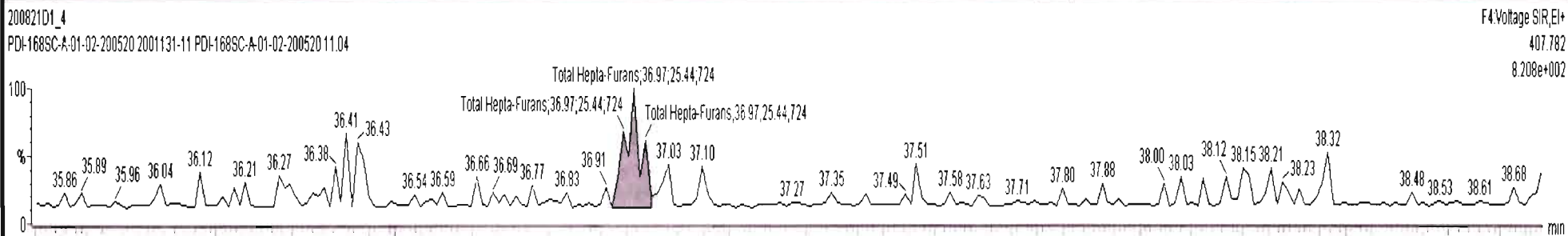


DPE4





200821D1\_4 - 2001131-11 PDI-168SC-A-01-02-200520 11.04 - PDI-168SC-A-01-02-200520

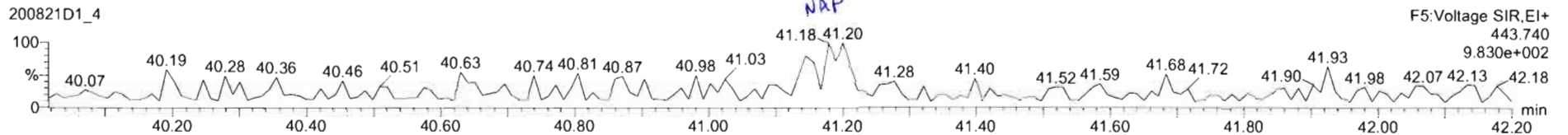
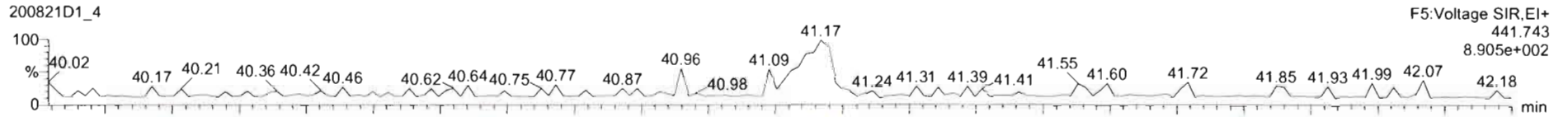


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

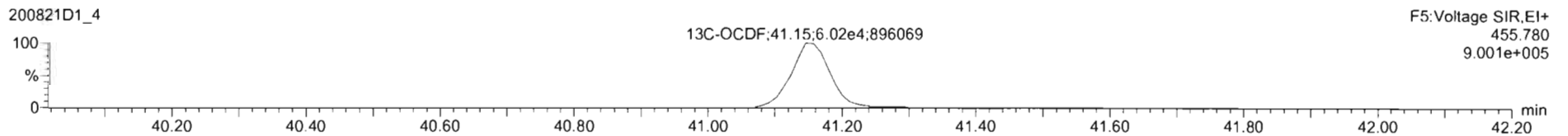
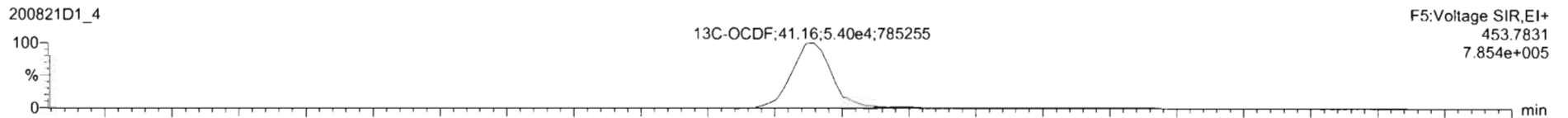
Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520

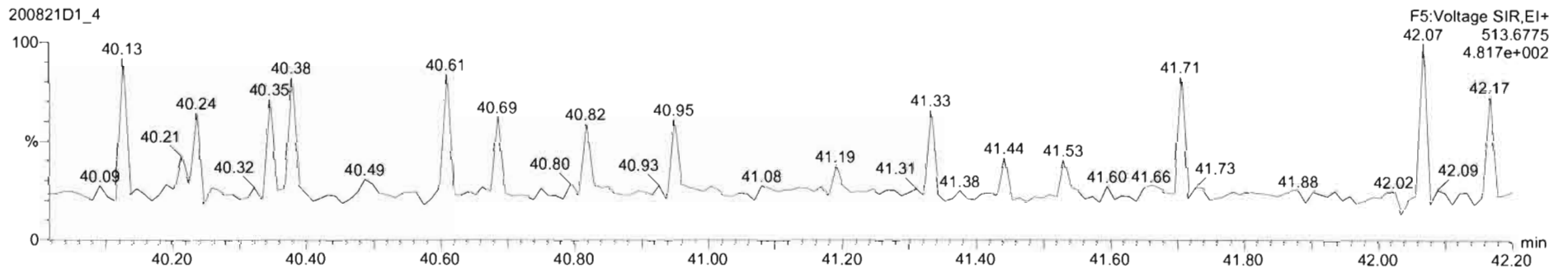
**OCDF**



**13C-OCDF**



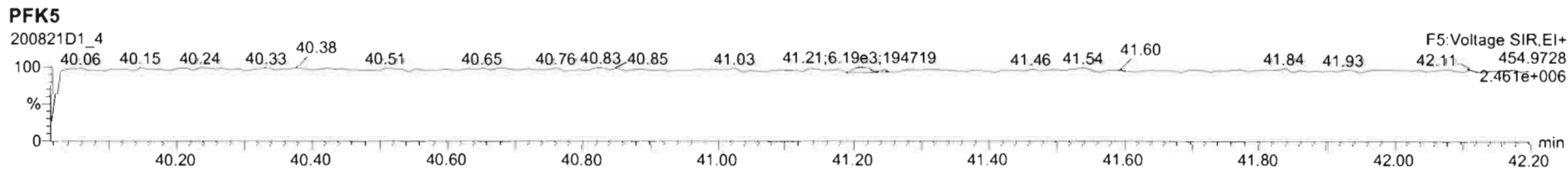
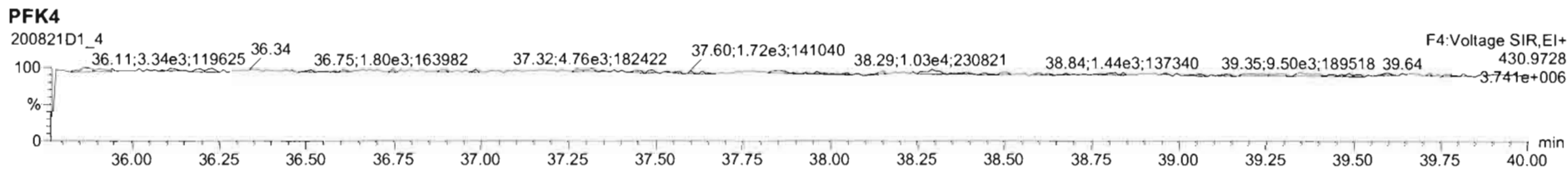
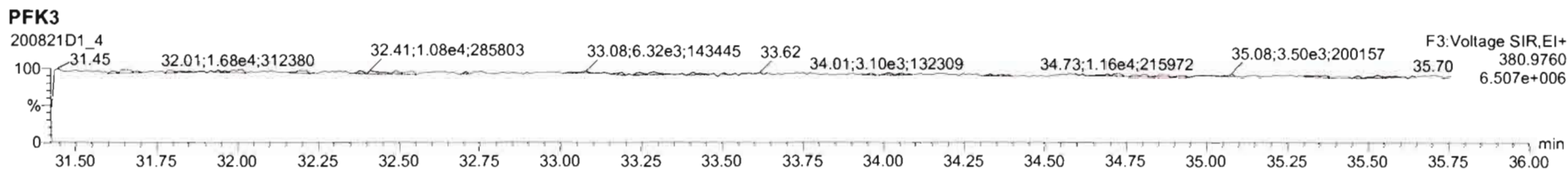
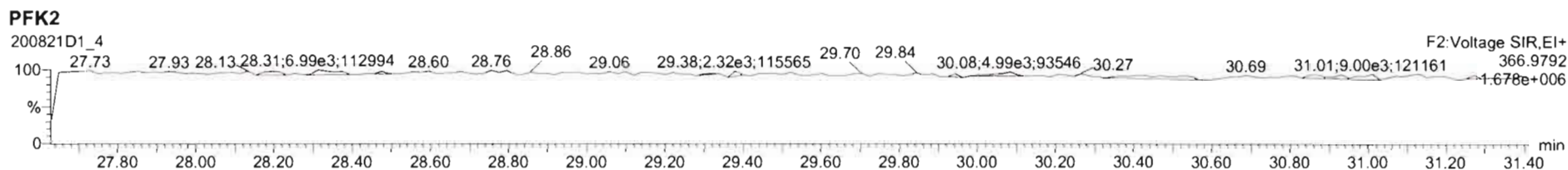
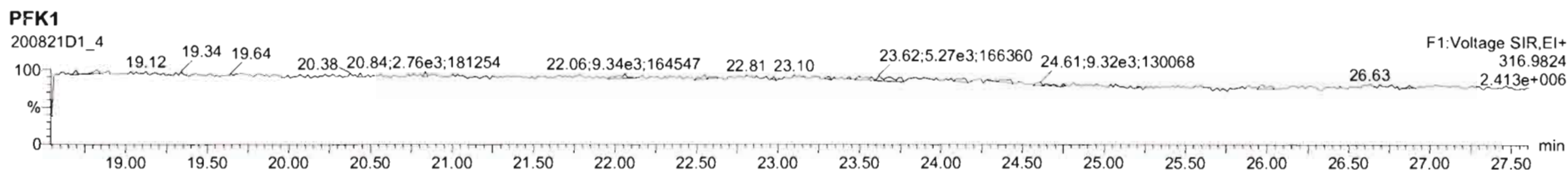
**DPE5**



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_4.qld

Last Altered: Monday, August 24, 2020 09:13:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:14:38 Pacific Daylight Time

Name: 200821D1\_4, Date: 21-Aug-2020, Time: 13:42:20, ID: 2001131-11 PDI-168SC-A-01-02-200520 11.04, Description: PDI-168SC-A-01-02-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Tuesday, August 25, 2020 11:13:40 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:14:03 Pacific Daylight Time

*DB 8/25/20 CT 08/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\BZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

#	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	1.08	10.161	26.250		1.001				0.162	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.161	30.508		1.001				0.110	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.161	33.793		1.000				0.198	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.161	33.904		1.000				0.190	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.161	34.234		1.001				0.189	
6	6 1,2,3,4,6,7,8-HpCDD			NO	0.926	10.161	37.558		1.000				0.294	
7	7 OCDD	3.89e2	1.04	YES	0.834	10.161	40.828	40.84	1.000	1.000	1.7138		0.106	1.58
8	8 2,3,7,8-TCDF			NO	0.882	10.161	25.602		1.001				0.135	
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.161	29.361		1.001				0.104	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.161	30.316		1.001				0.0873	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.161	32.862		1.000				0.0757	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.161	33.014		1.000				0.0731	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.161	33.697		1.001				0.0803	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.161	34.705		1.000				0.0999	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.15	10.161	36.398		1.001				0.0914	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.161	38.216		1.000				0.107	
17	17 OCDF			NO	0.961	10.161	41.146		1.000				0.201	
18	18 13C-2,3,7,8-TCDD	1.14e5	0.78	NO	1.20	10.161	26.226	26.22	1.026	1.026	202.76	103	0.955	
19	19 13C-1,2,3,7,8-PeCDD	9.45e4	0.63	NO	0.910	10.161	30.484	30.49	1.193	1.193	222.05	113	0.576	
20	20 13C-1,2,3,4,7,8-HxCDD	6.82e4	1.27	NO	0.789	10.161	33.789	33.78	1.014	1.014	206.80	105	0.796	
21	21 13C-1,2,3,6,7,8-HxCDD	7.92e4	1.26	NO	0.885	10.161	33.898	33.90	1.017	1.017	214.28	109	0.710	
22	22 13C-1,2,3,7,8,9-HxCDD	7.76e4	1.21	NO	0.888	10.161	34.168	34.20	1.025	1.026	208.93	106	0.707	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.24e4	1.03	NO	0.740	10.161	37.621	37.55	1.129	1.127	201.89	103	1.60	
24	24 13C-OCDD	1.07e5	0.88	NO	0.660	10.161	40.633	40.83	1.219	1.225	388.21	98.6	1.10	
25	25 13C-2,3,7,8-TCDF	1.54e5	0.76	NO	1.09	10.161	25.305	25.58	0.990	1.001	174.37	88.6	1.05	
26	26 13C-1,2,3,7,8-PeCDF	1.52e5	1.61	NO	0.857	10.161	29.541	29.34	1.156	1.148	219.14	111	0.768	
27	27 13C-2,3,4,7,8-PeCDF	1.49e5	1.68	NO	0.796	10.161	30.443	30.29	1.191	1.185	230.77	117	0.827	
28	28 13C-1,2,3,4,7,8-HxCDF	8.88e4	0.50	NO	1.02	10.161	32.922	32.86	0.988	0.986	208.45	106	0.976	
29	29 13C-1,2,3,6,7,8-HxCDF	9.33e4	0.52	NO	1.00	10.161	33.055	33.00	0.992	0.990	222.70	113	0.992	
30	30 13C-2,3,4,6,7,8-HxCDF	8.62e4	0.49	NO	0.936	10.161	33.625	33.66	1.009	1.010	220.35	112	1.06	
31	31 13C-1,2,3,7,8,9-HxCDF	7.87e4	0.50	NO	0.889	10.161	34.702	34.71	1.041	1.042	211.72	108	1.12	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Tuesday, August 25, 2020 11:13:40 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:14:03 Pacific Daylight Time

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

#	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	7.62e4	0.44	NO	0.849	10.161	36.221	36.36	1.087	1.091	214.75	109	1.51	
33	13C-1,2,3,4,7,8,9-HpCDF	5.33e4	0.43	NO	0.624	10.161	38.220	38.22	1.147	1.147	204.45	104	2.06	
34	13C-OCDF	1.20e5	0.86	NO	0.693	10.161	40.786	41.15	1.224	1.235	412.94	105	1.07	
35	37Cl-2,3,7,8-TCDD	4.27e4			1.28	10.161	26.223	26.23	1.026	1.026	71.500	90.8	0.127	
36	13C-1,2,3,4-TCDD	9.20e4	0.79	NO	1.00	10.161	25.550	25.56	1.000	1.000	196.82	100	1.15	
37	13C-1,2,3,4-TCDF	1.60e5	0.78	NO	1.00	10.161	24.250	24.28	1.000	1.000	196.82	100	1.14	
38	13C-1,2,3,4,6,9-HxCDF	8.23e4	0.49	NO	1.00	10.161	33.300	33.32	1.000	1.000	196.82	100	0.995	
39	Total Tetra-Dioxins				1.08	10.161	24.620		0.000				0.109	
40	Total Penta-Dioxins				0.991	10.161	29.960		0.000				0.0355	
41	Total Hexa-Dioxins				0.908	10.161	33.635		0.000				0.0662	
42	Total Hepta-Dioxins				0.926	10.161	37.640		0.000				0.155	
43	Total Tetra-Furans				0.882	10.161	23.610		0.000				0.0598	
44	1st Func. Penta-Furans				0.937	10.161	26.750		0.000				0.0200	
45	Total Penta-Furans				0.937	10.161	29.275		0.000				0.0357	
46	Total Hexa-Furans				1.11	10.161	33.555		0.000				0.0570	
47	Total Hepta-Furans				1.15	10.161	37.835		0.000				0.0532	



Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Tuesday, August 25, 2020 11:13:40 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:14:03 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

Tetra-Dioxins

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

Penta-Dioxins

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

Hexa-Dioxins

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

Hepta-Dioxins

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

Tetra-Furans

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

Penta-Furans function 1

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

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Tuesday, August 25, 2020 11:13:40 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:14:03 Pacific Daylight Time

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

Penta-Furans

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

Hexa-Furans

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

Hepta-Furans

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

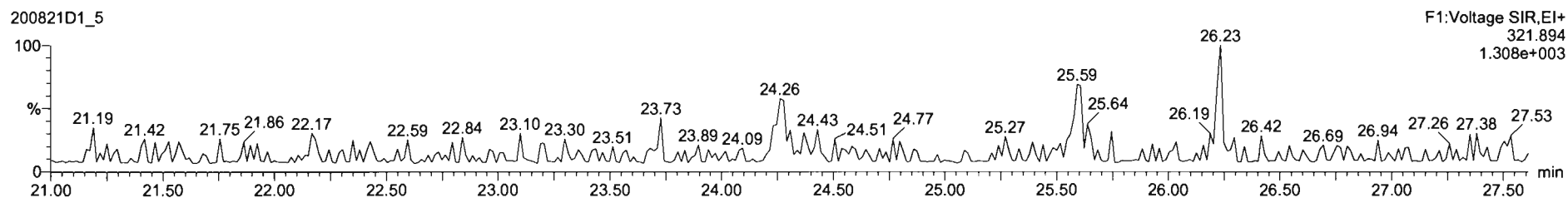
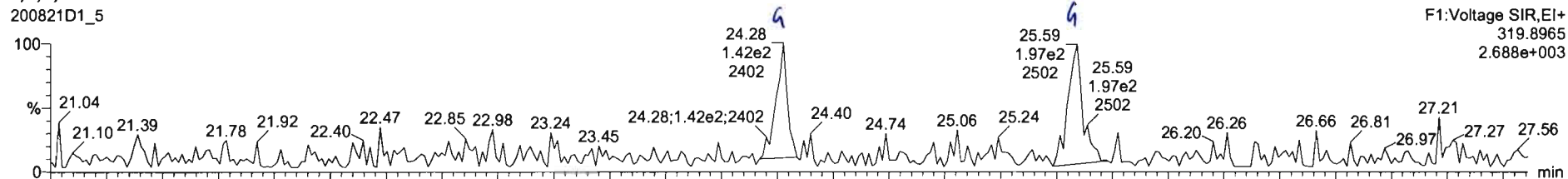
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

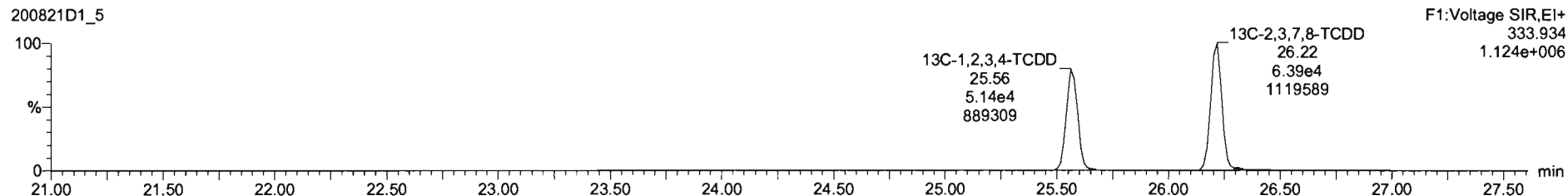
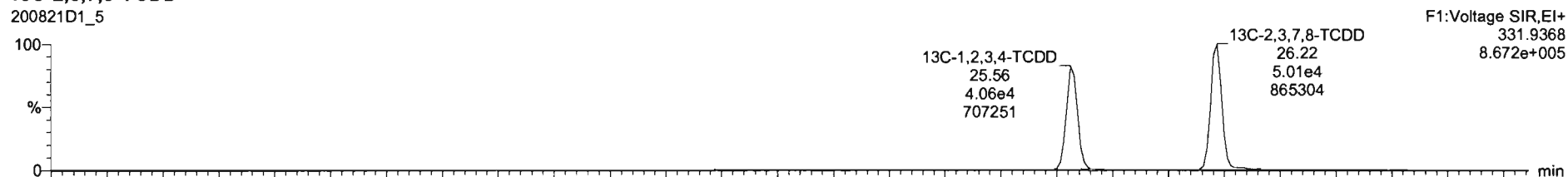
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

2,3,7,8-TCDD



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

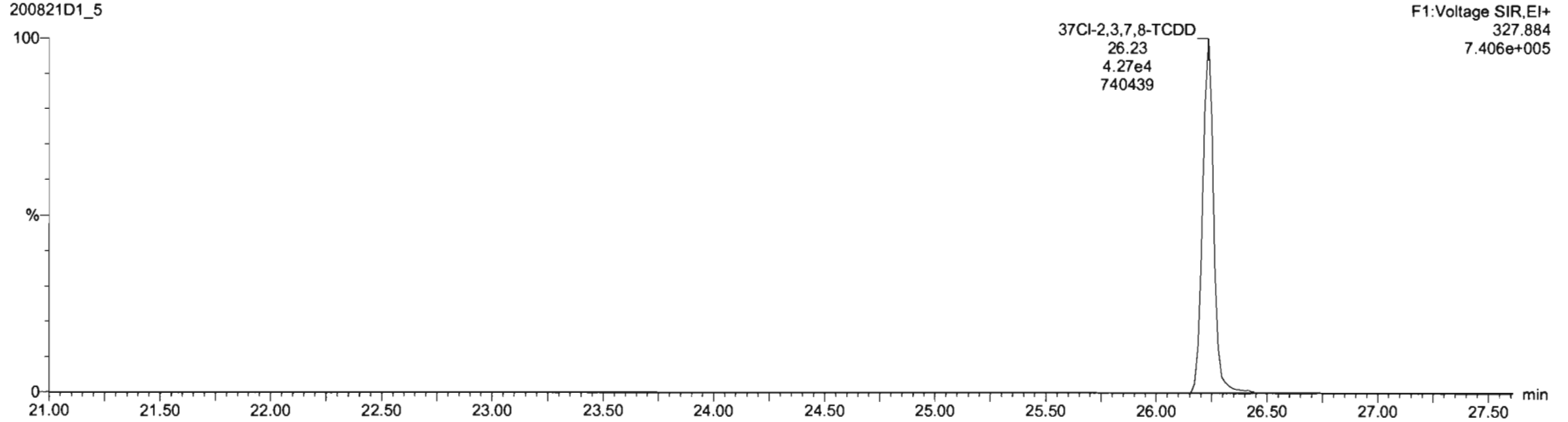


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

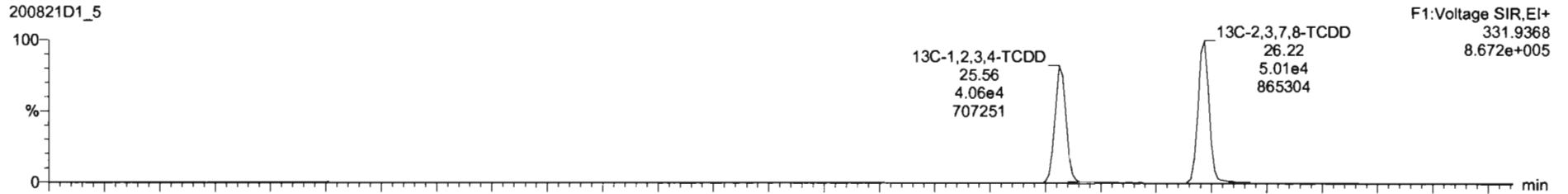
Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

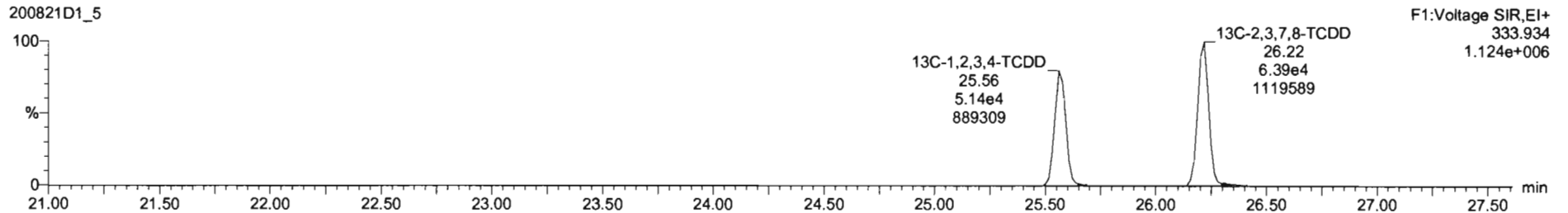
**37Cl-2,3,7,8-TCDD**  
200821D1\_5



**13C-1,2,3,4-TCDD**  
200821D1\_5



200821D1\_5



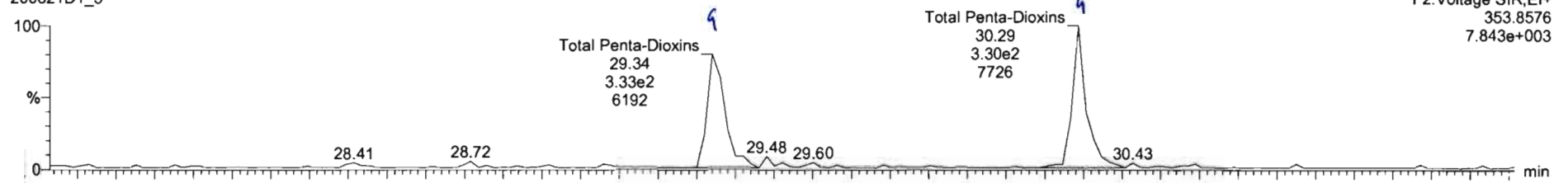
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

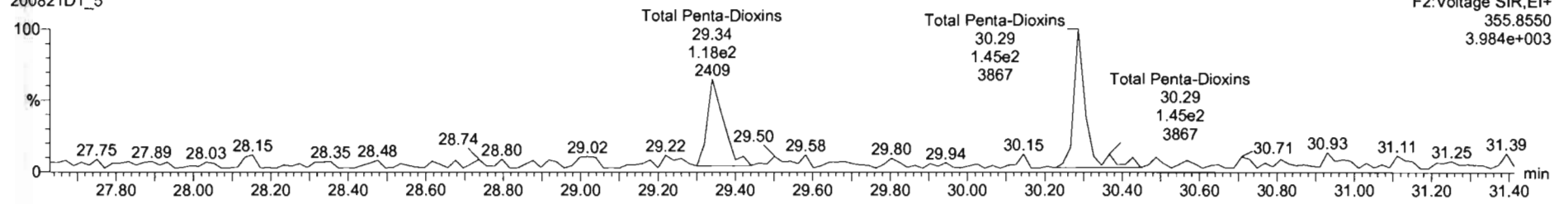
Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

1,2,3,7,8-PeCDD

200821D1\_5

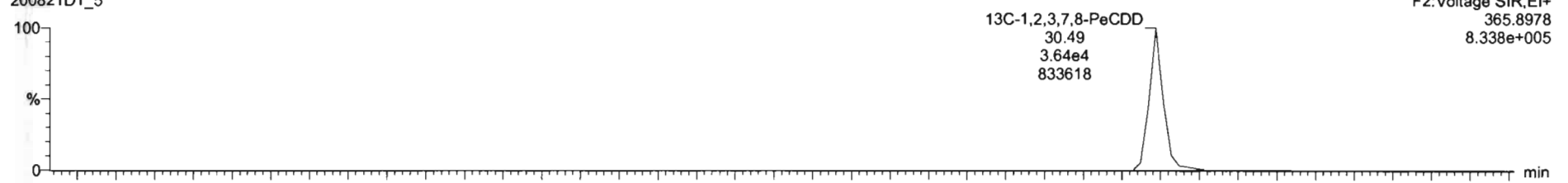


200821D1\_5

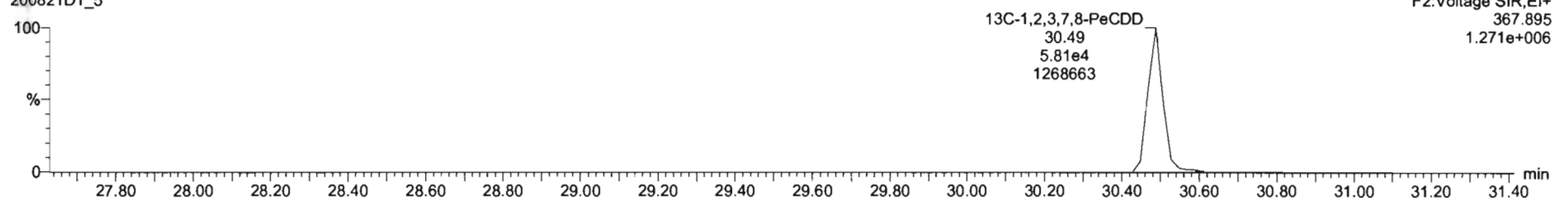


13C-1,2,3,7,8-PeCDD

200821D1\_5



200821D1\_5



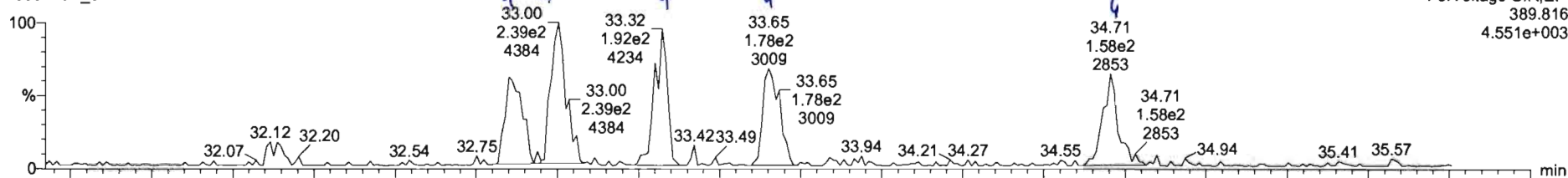
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

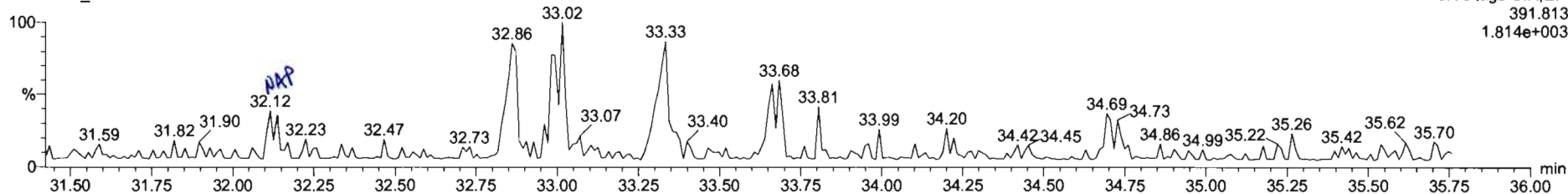
Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

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

200821D1\_5

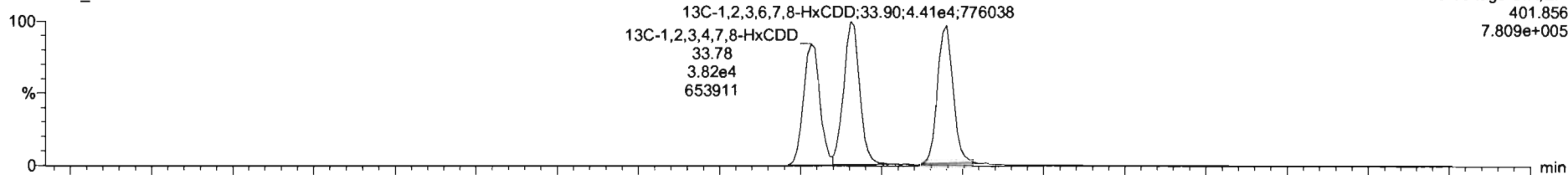


200821D1\_5

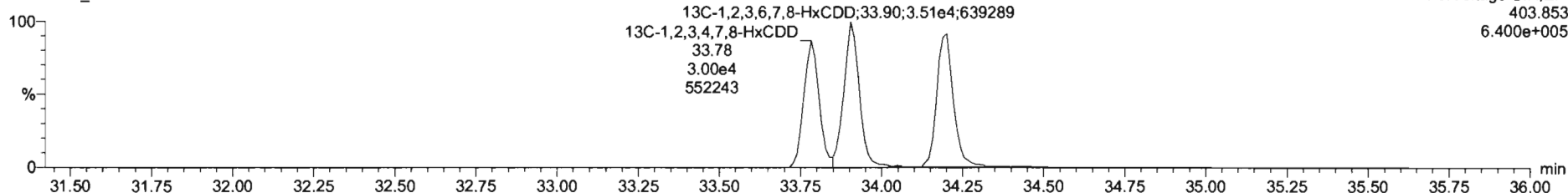


13C-1,2,3,4,7,8-HxCDD

200821D1\_5



200821D1\_5

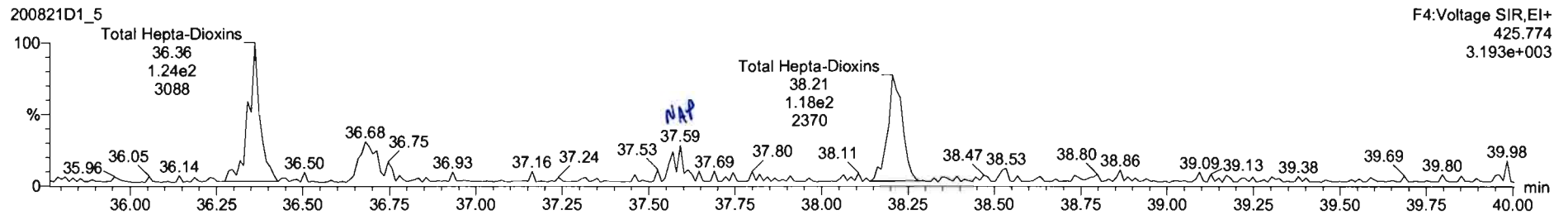
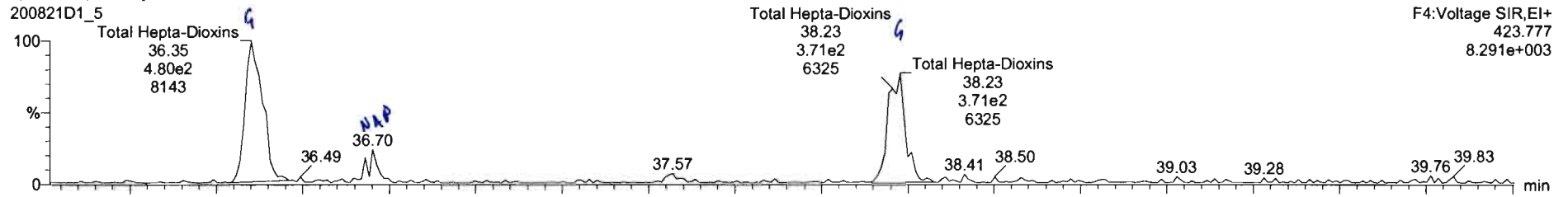


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

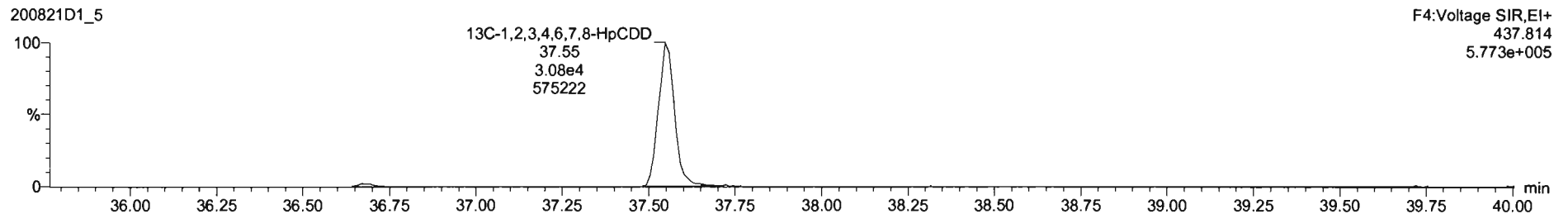
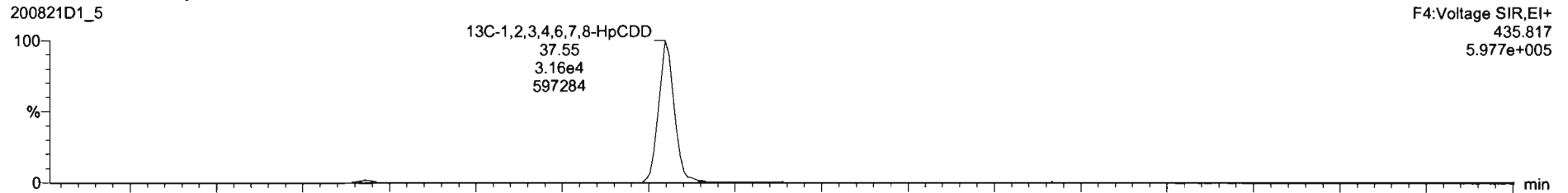
Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

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



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



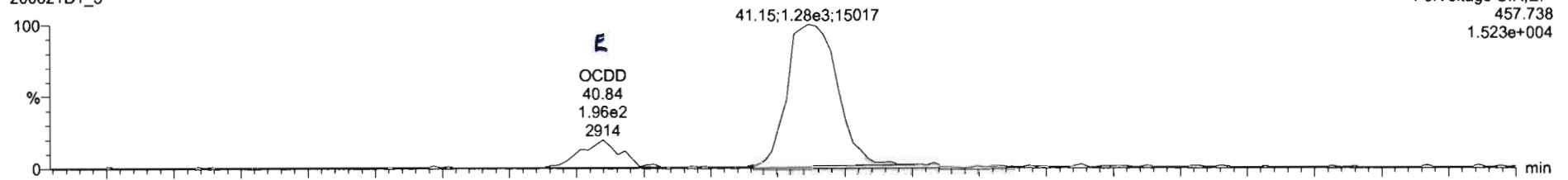
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

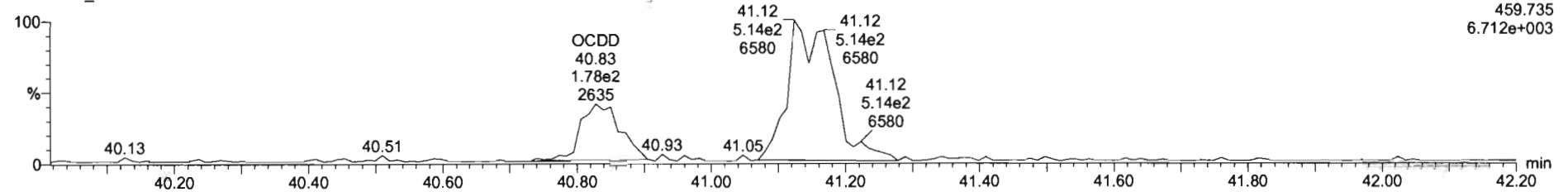
Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

OCDD

200821D1\_5

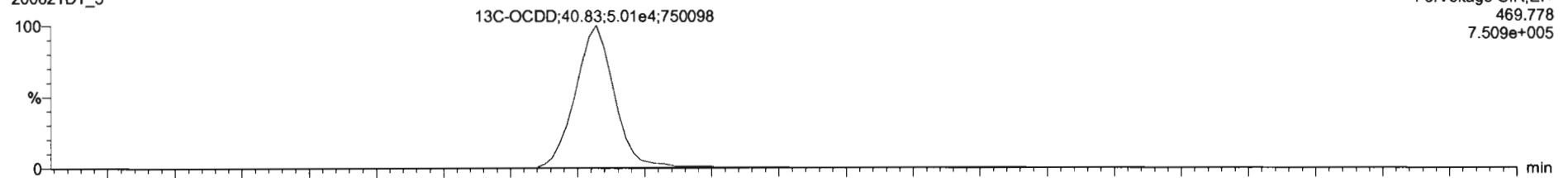


200821D1\_5

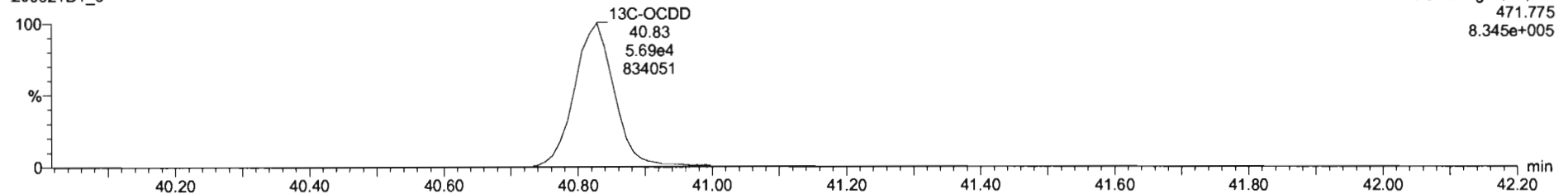


13C-OCDD

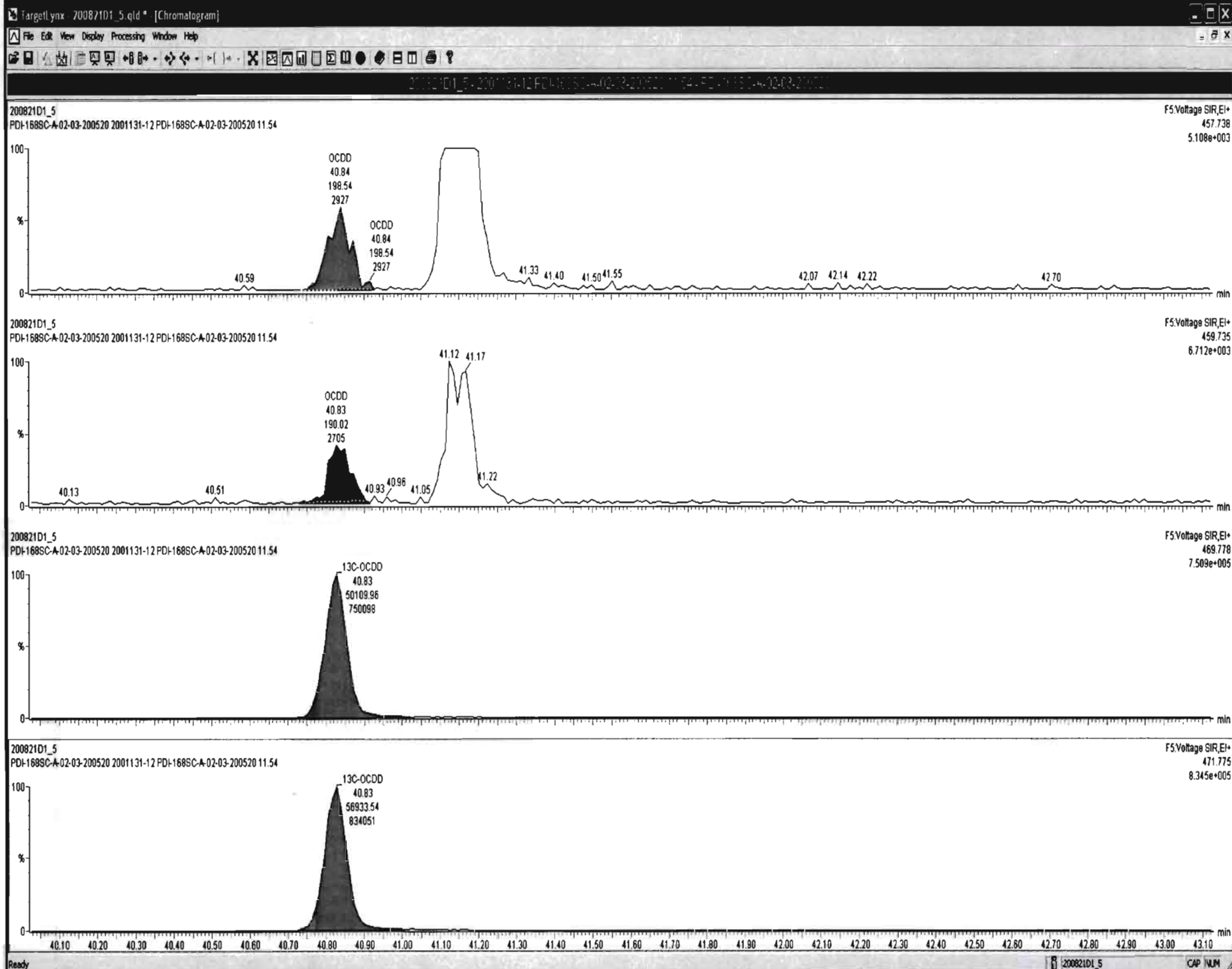
200821D1\_5



200821D1\_5





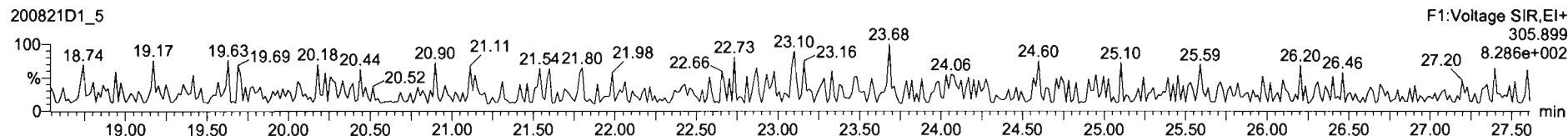
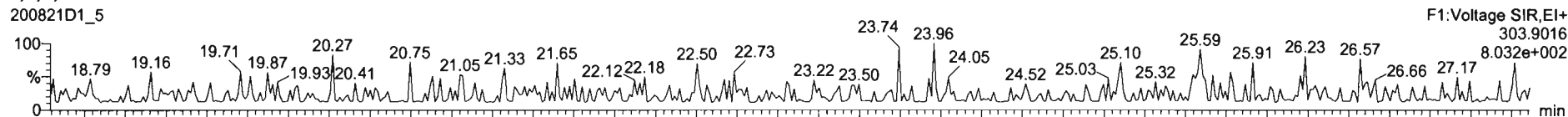


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

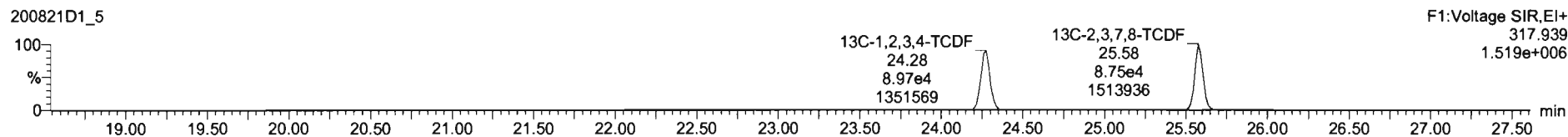
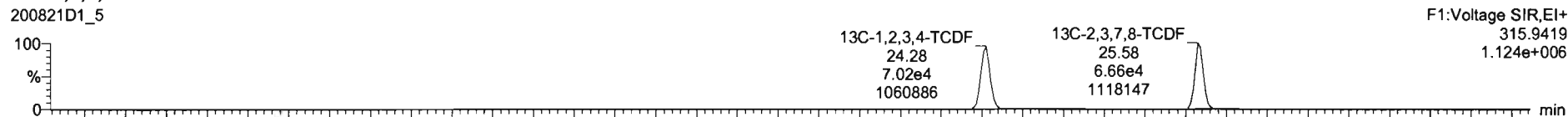
Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

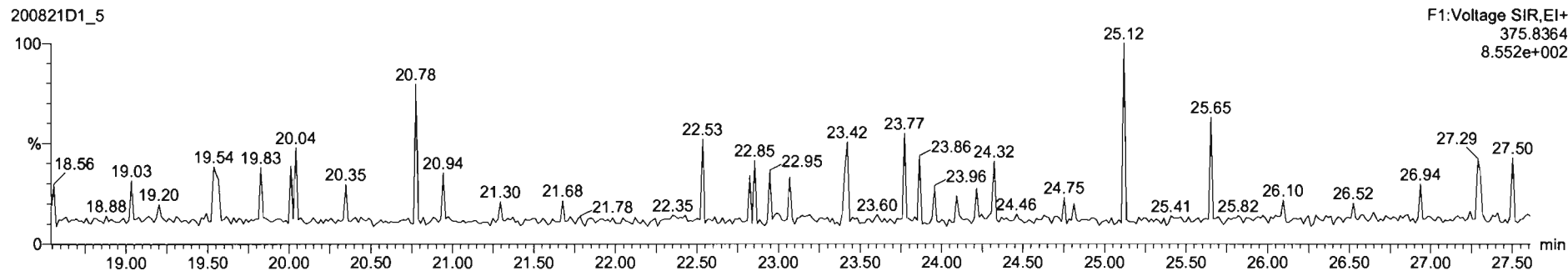
**2,3,7,8-TCDF**



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



**DPE1**



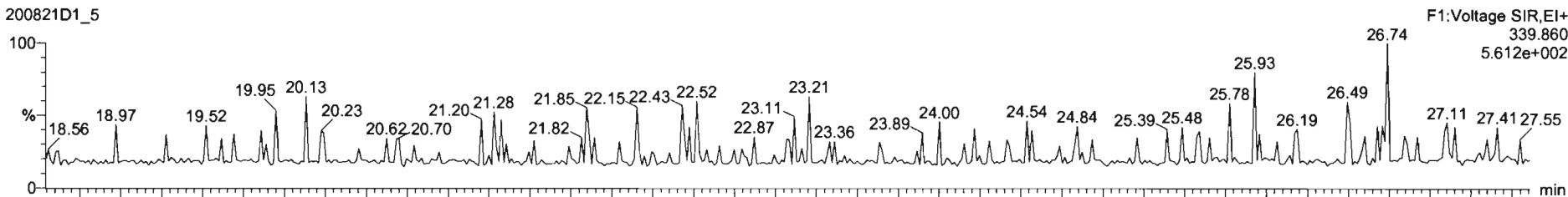
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

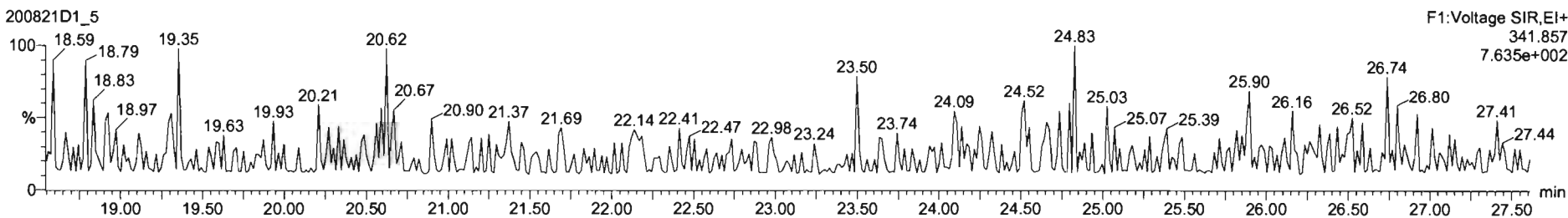
Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

1st Func. Penta-Furans

200821D1\_5

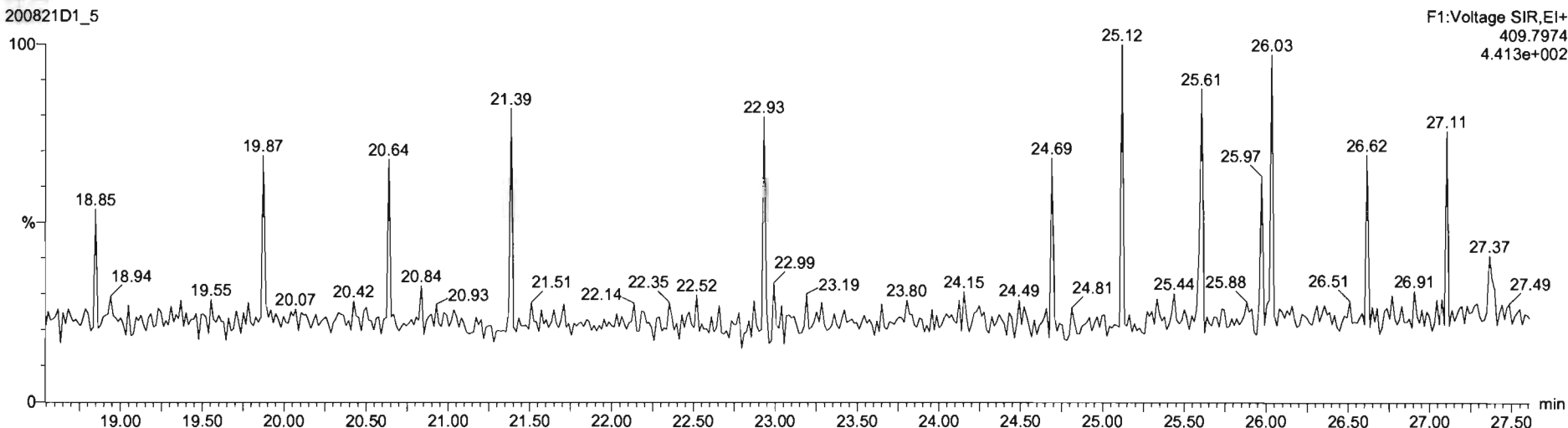


200821D1\_5



DPE6

200821D1\_5



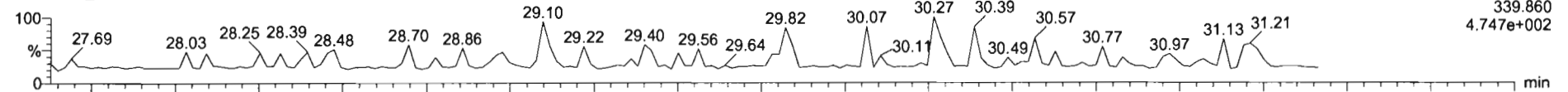
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

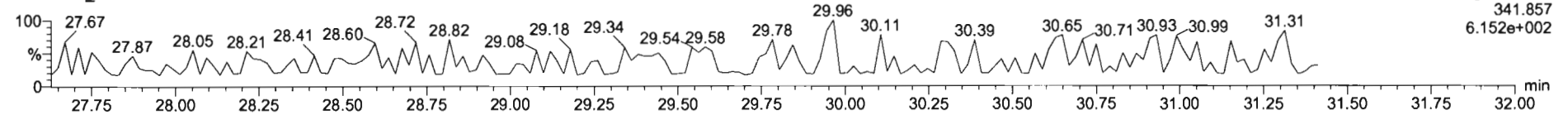
Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

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

200821D1\_5

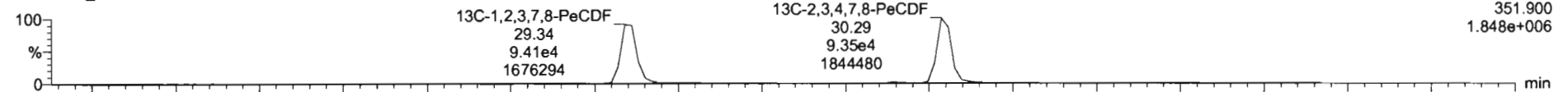


200821D1\_5

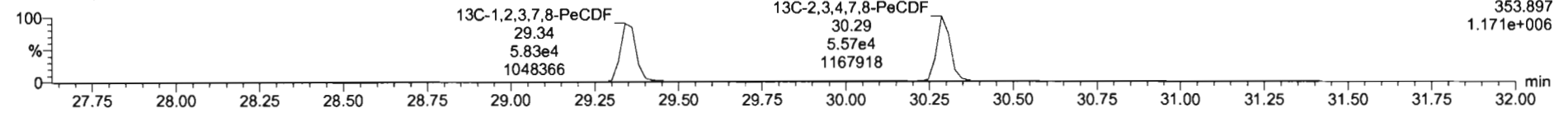


**13C-1,2,3,7,8-PeCDF**

200821D1\_5

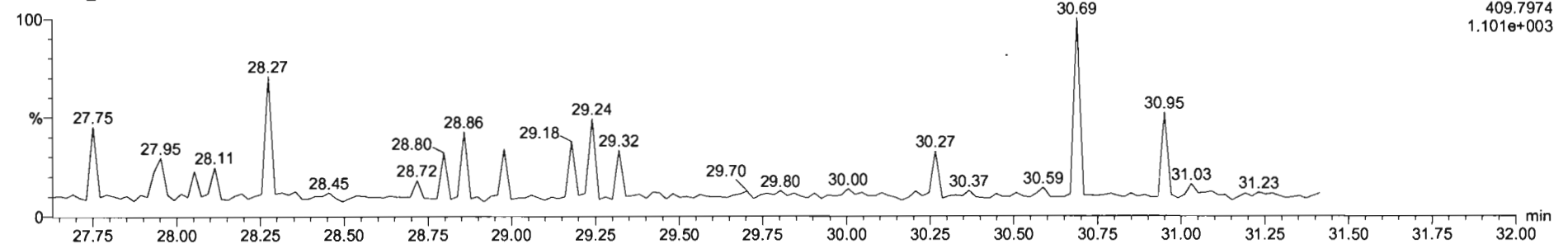


200821D1\_5



**DPE2**

200821D1\_5

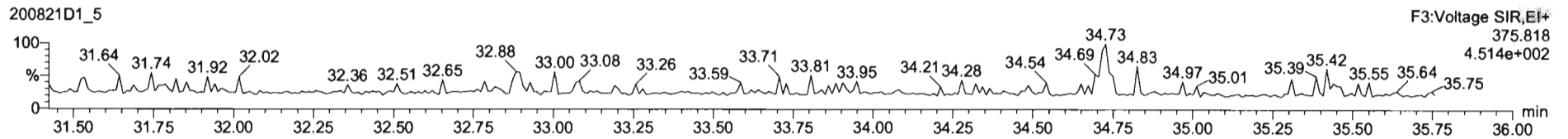
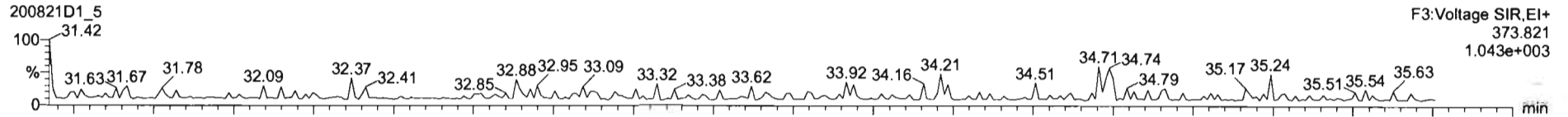


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

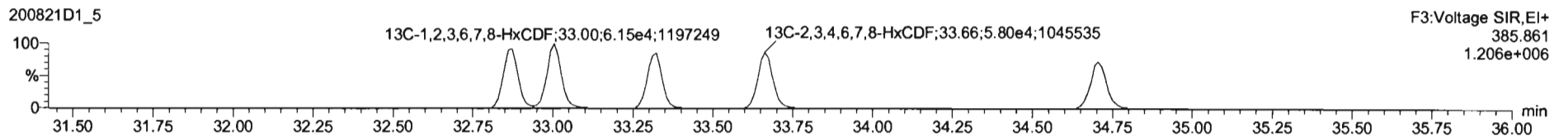
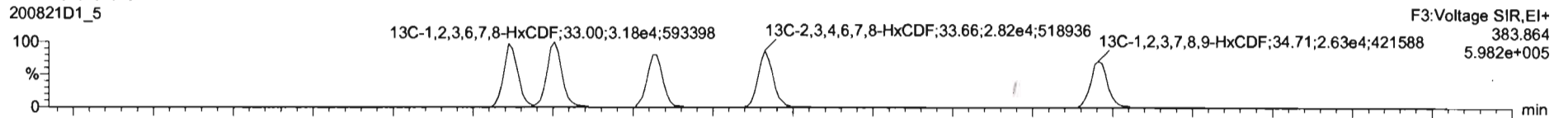
Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

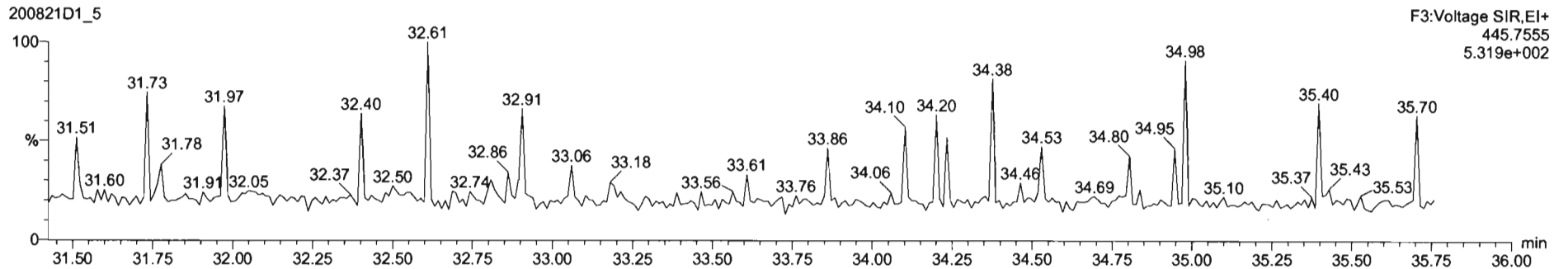
1,2,3,4,7,8-HxCDF



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



DPE3



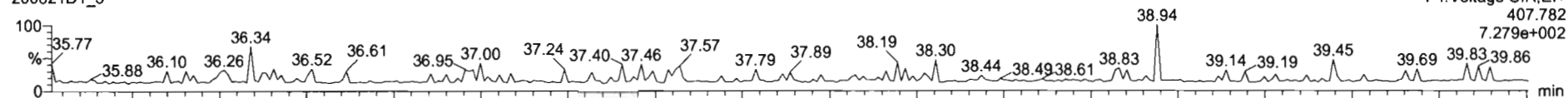
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

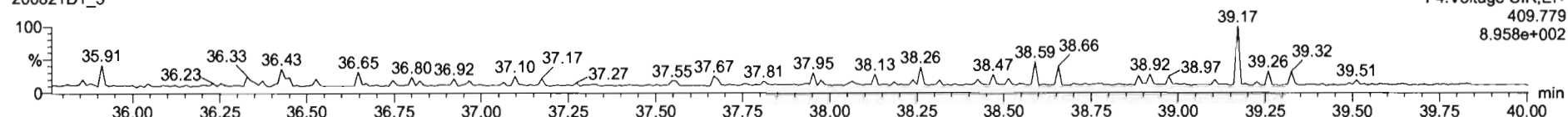
Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520

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

200821D1\_5

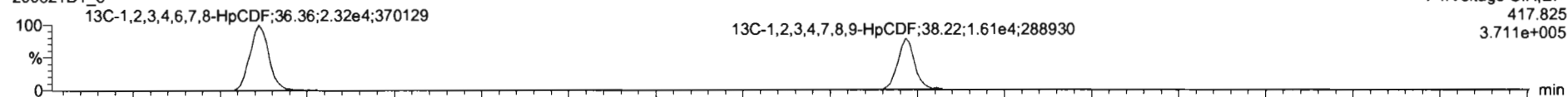


200821D1\_5

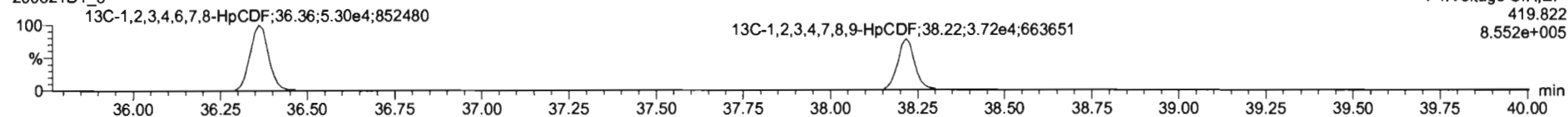


**13C-1,2,3,4,6,7,8-HpCDF**

200821D1\_5

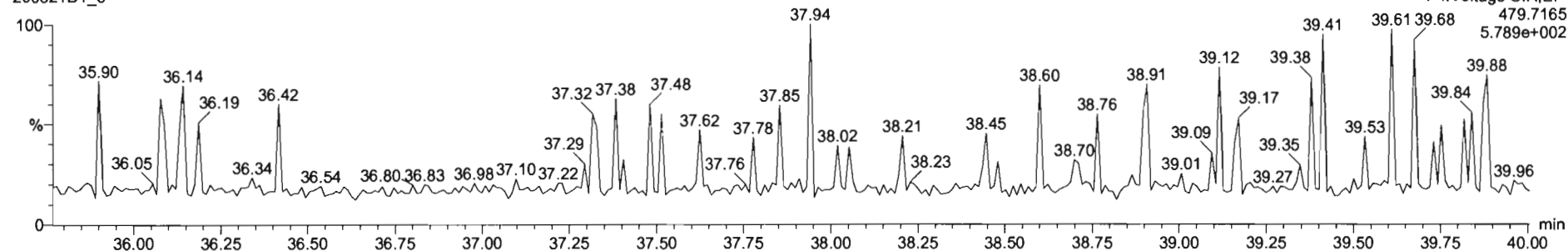


200821D1\_5



**DPE4**

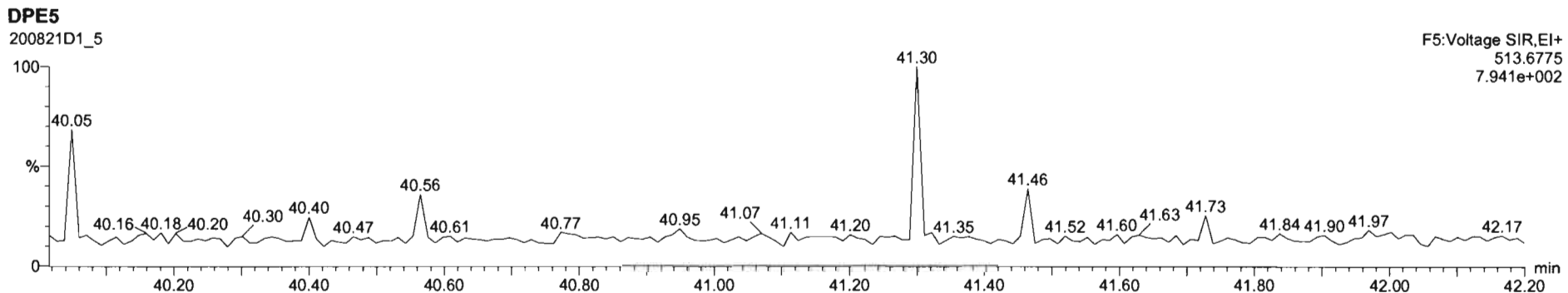
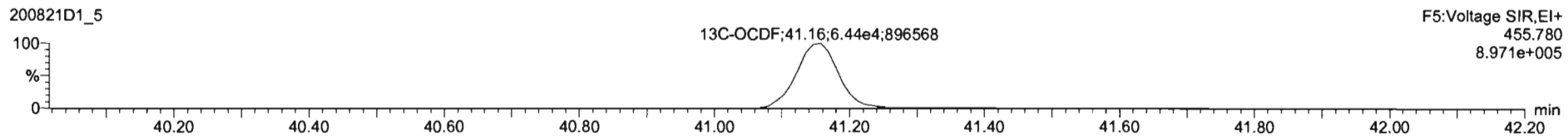
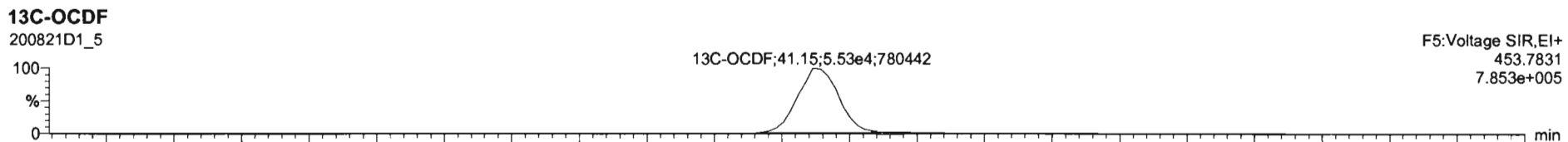
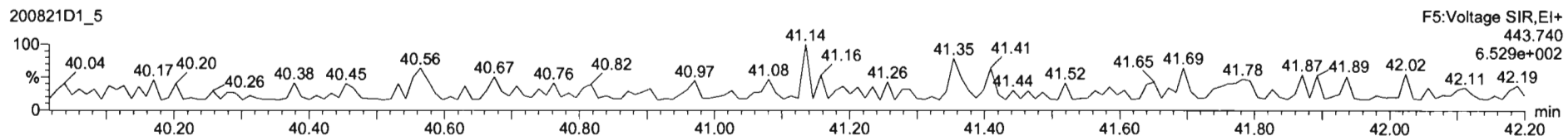
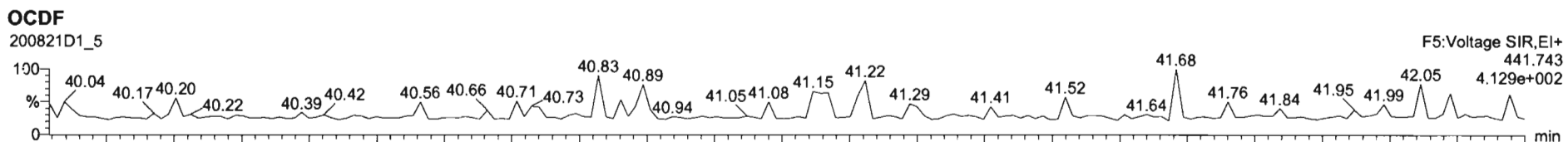
200821D1\_5



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

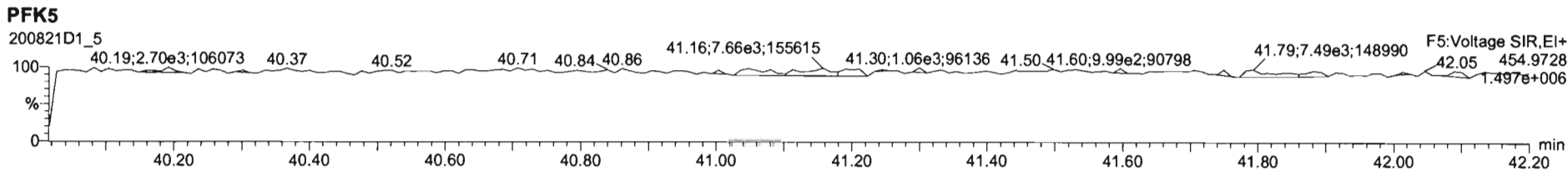
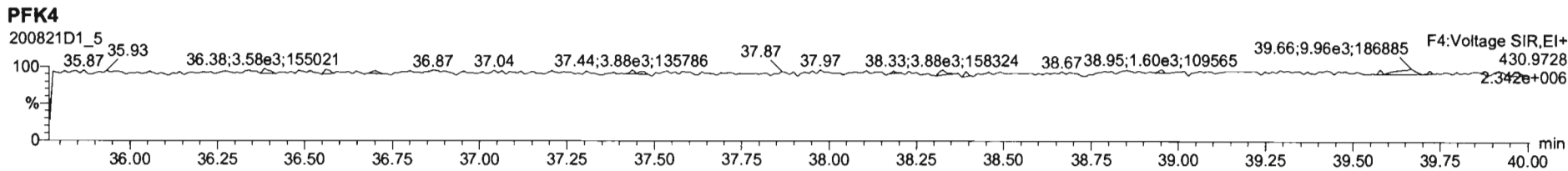
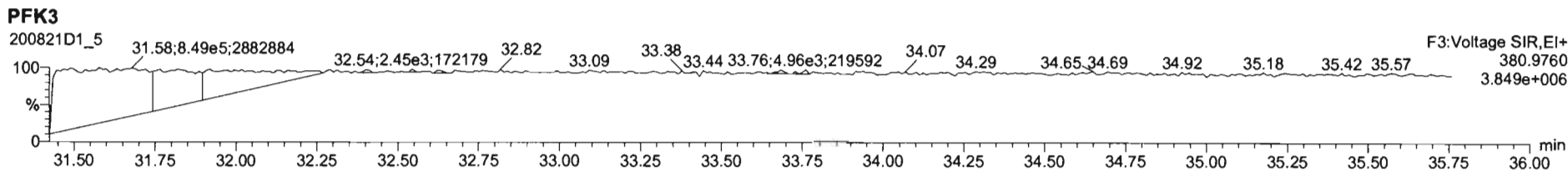
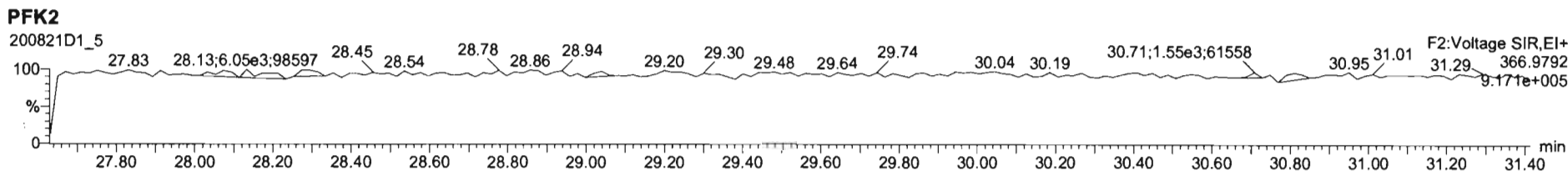
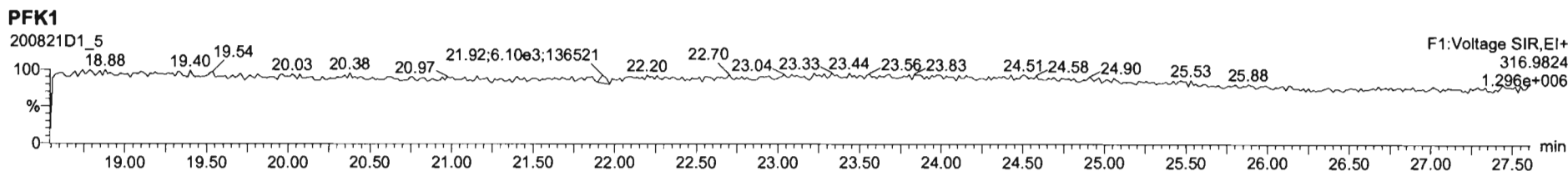
Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_5.qld

Last Altered: Monday, August 24, 2020 09:14:45 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:16:38 Pacific Daylight Time

Name: 200821D1\_5, Date: 21-Aug-2020, Time: 14:28:36, ID: 2001131-12 PDI-168SC-A-02-03-200520 11.54, Description: PDI-168SC-A-02-03-200520





Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Tuesday, August 25, 2020 11:19:59 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:20:52 Pacific Daylight Time

*DB 8/25/20*

*CT 08/24/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

#	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	1.08	10.006	26.234		1.001				0.156	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.006	30.508		1.001				0.150	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.006	33.782		1.000				0.194	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.006	33.893		1.000				0.196	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.006	34.223		1.001				0.202	
6	6 1,2,3,4,6,7,8-HpCDD	6.19e1	1.08	NO	0.926	10.006	37.547	37.55	1.000	1.000	0.23546		0.504	0.235
7	7 OCDD	4.01e2	0.87	NO	0.834	10.006	40.817	40.82	1.000	1.000	2.0552		0.261	2.06
8	8 2,3,7,8-TCDF			NO	0.882	10.006	25.602		1.001				0.127	
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.006	29.361		1.001				0.103	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.006	30.316		1.001				0.0839	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.006	32.862		1.000				0.0844	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.006	33.003		1.000				0.0809	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.006	33.686		1.001				0.0952	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.006	34.694		1.000				0.107	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.15	10.006	36.387		1.001				0.0636	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.006	38.206		1.000				0.0717	
17	17 OCDF			NO	0.961	10.006	41.135		1.000				0.228	
18	18 13C-2,3,7,8-TCDD	1.03e5	0.75	NO	1.20	10.006	26.226	26.20	1.026	1.025	192.39	96.3	0.845	
19	19 13C-1,2,3,7,8-PeCDD	8.38e4	0.62	NO	0.910	10.006	30.484	30.49	1.193	1.193	206.03	103	0.499	
20	20 13C-1,2,3,4,7,8-HxCDD	6.18e4	1.31	NO	0.789	10.006	33.778	33.77	1.014	1.014	191.65	95.9	1.01	
21	21 13C-1,2,3,6,7,8-HxCDD	7.13e4	1.33	NO	0.885	10.006	33.888	33.89	1.017	1.017	196.92	98.5	0.903	
22	22 13C-1,2,3,7,8,9-HxCDD	7.12e4	1.29	NO	0.888	10.006	34.158	34.19	1.025	1.026	195.84	98.0	0.900	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.67e4	1.01	NO	0.740	10.006	37.609	37.54	1.129	1.127	187.53	93.8	1.55	
24	24 13C-OCDD	9.37e4	0.87	NO	0.660	10.006	40.621	40.82	1.219	1.225	347.02	86.8	0.818	
25	25 13C-2,3,7,8-TCDF	1.37e5	0.76	NO	1.09	10.006	25.305	25.58	0.990	1.001	171.21	85.7	0.861	
26	26 13C-1,2,3,7,8-PeCDF	1.28e5	1.68	NO	0.857	10.006	29.541	29.34	1.156	1.148	203.92	102	1.02	
27	27 13C-2,3,4,7,8-PeCDF	1.28e5	1.66	NO	0.796	10.006	30.443	30.29	1.191	1.185	218.42	109	1.10	
28	28 13C-1,2,3,4,7,8-HxCDF	8.15e4	0.50	NO	1.02	10.006	32.912	32.86	0.988	0.986	195.31	97.7	1.18	
29	29 13C-1,2,3,6,7,8-HxCDF	8.58e4	0.50	NO	1.00	10.006	33.046	32.99	0.992	0.990	209.05	105	1.20	
30	30 13C-2,3,4,6,7,8-HxCDF	7.82e4	0.50	NO	0.936	10.006	33.615	33.65	1.009	1.010	204.30	102	1.28	
31	31 13C-1,2,3,7,8,9-HxCDF	7.14e4	0.51	NO	0.889	10.006	34.691	34.69	1.041	1.041	196.39	98.3	1.35	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Tuesday, August 25, 2020 11:19:59 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:20:52 Pacific Daylight Time

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

#	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	6.84e4	0.44	NO	0.849	10.006	36.210	36.35	1.087	1.091	196.92	98.5	1.26	
33	13C-1,2,3,4,7,8,9-HpCDF	4.80e4	0.43	NO	0.624	10.006	38.209	38.21	1.147	1.147	187.99	94.1	1.72	
34	13C-OCDF	1.02e5	0.88	NO	0.693	10.006	40.774	41.13	1.224	1.235	359.52	89.9	0.817	
35	37Cl-2,3,7,8-TCDD	4.20e4			1.28	10.006	26.223	26.23	1.026	1.026	73.731	92.2	0.130	
36	13C-1,2,3,4-TCDD	8.94e4	0.76	NO	1.00	10.006	25.550	25.56	1.000	1.000	199.88	100	1.02	
37	13C-1,2,3,4-TCDF	1.47e5	0.77	NO	1.00	10.006	24.250	24.28	1.000	1.000	199.88	100	0.937	
38	13C-1,2,3,4,6,9-HxCDF	8.18e4	0.50	NO	1.00	10.006	33.300	33.31	1.000	1.000	199.88	100	1.20	
39	Total Tetra-Dioxins				1.08	10.006	24.620		0.000				0.0977	
40	Total Penta-Dioxins				0.991	10.006	29.960		0.000				0.0595	
41	Total Hexa-Dioxins				0.908	10.006	33.635		0.000		0.26428		0.0811	0.264
42	Total Hepta-Dioxins				0.926	10.006	37.640		0.000		0.23546		0.504	0.640
43	Total Tetra-Furans				0.882	10.006	23.610		0.000				0.0609	
44	1st Func. Penta-Furans				0.937	10.006	26.750		0.000				0.0207	
45	Total Penta-Furans				0.937	10.006	29.275		0.000				0.0319	
46	Total Hexa-Furans				1.11	10.006	33.555		0.000				0.0541	
47	Total Hepta-Furans				1.15	10.006	37.835		0.000				0.0329	

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Tuesday, August 25, 2020 11:19:59 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:20:52 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.13	1.000e3	8.700e2	4.199e1	3.978e1	1.06	NO	8.178e1	0.26428	0.26428	0.0811

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.70	1.287e3	2.000e3	5.420e1	8.765e1	0.62	YES	0.000e0	0.00000	0.40467	0.504
2	1,2,3,4,6,7,8-HpCDD	37.55	7.700e2	6.500e2	3.215e1	2.971e1	1.08	NO	6.186e1	0.23546	0.23546	0.504

**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:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Tuesday, August 25, 2020 11:19:59 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:20:52 Pacific Daylight Time

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

**Penta-Furans**

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

**Hexa-Furans**

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

**Hepta-Furans**

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

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

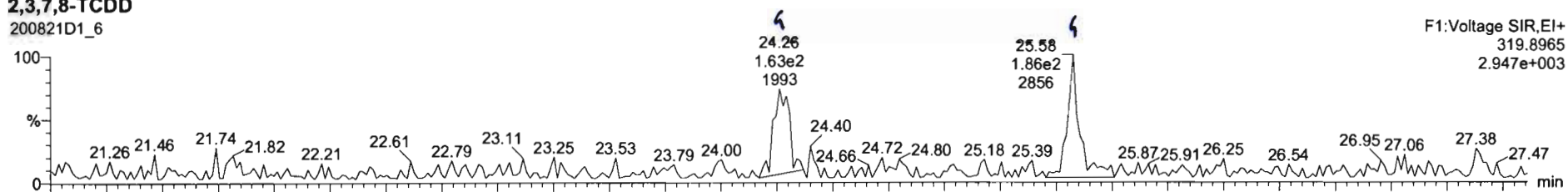
Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

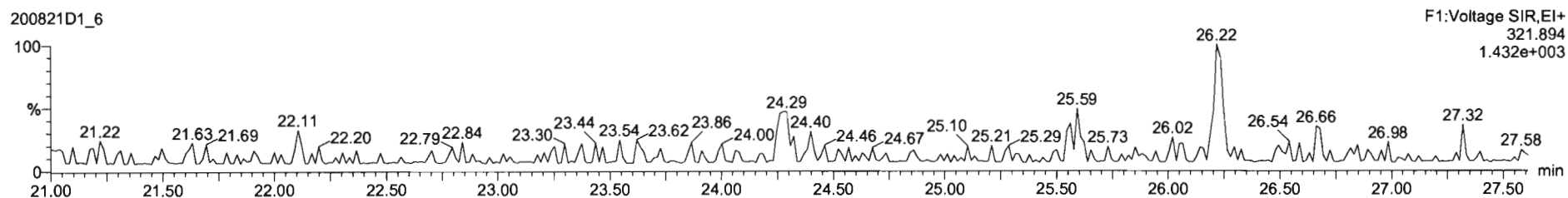
Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

2,3,7,8-TCDD

200821D1\_6

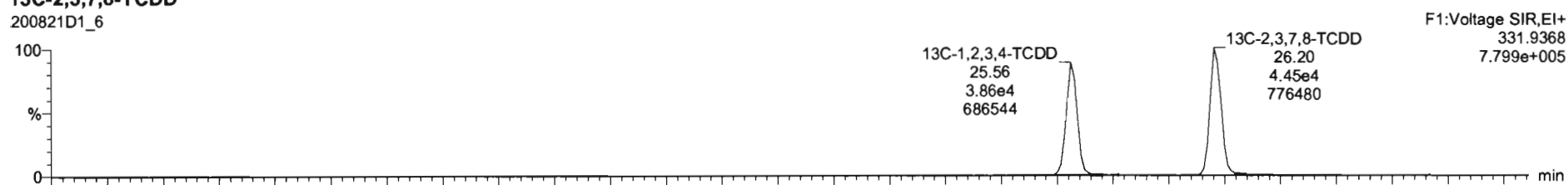


200821D1\_6

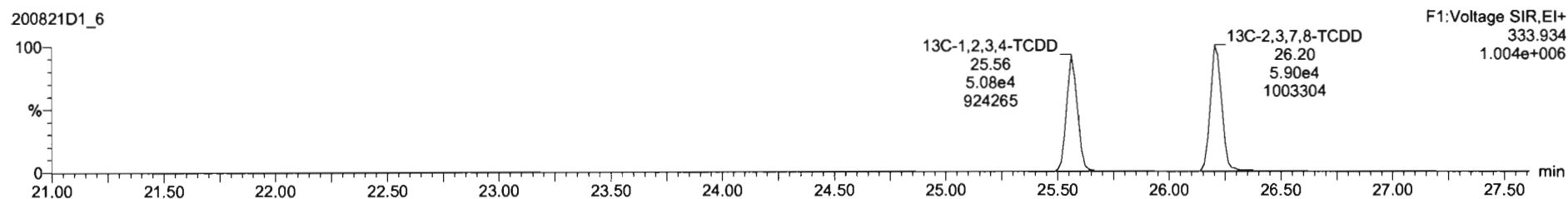


13C-2,3,7,8-TCDD

200821D1\_6



200821D1\_6



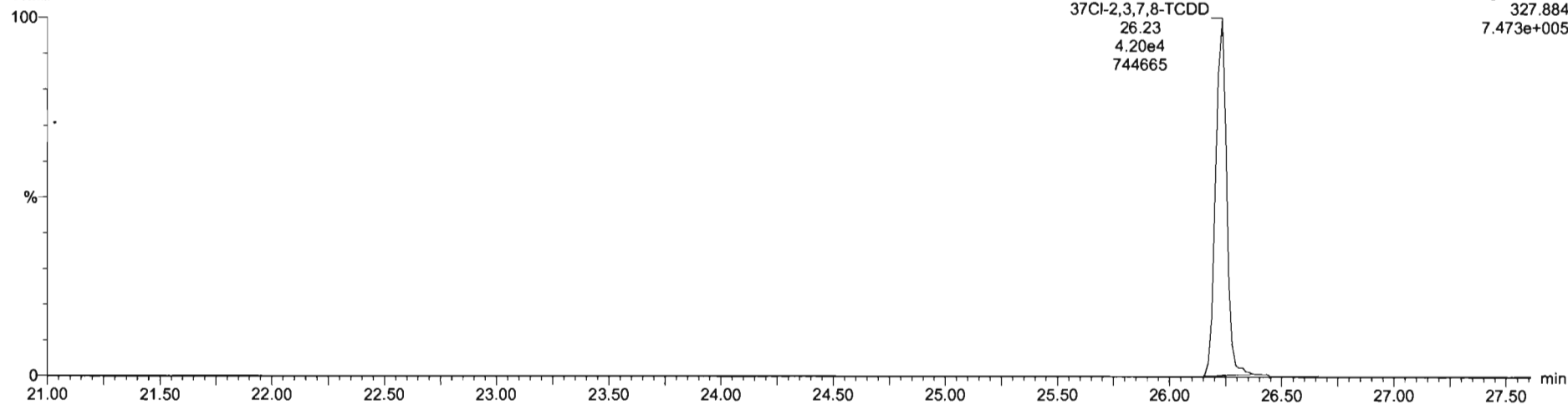
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

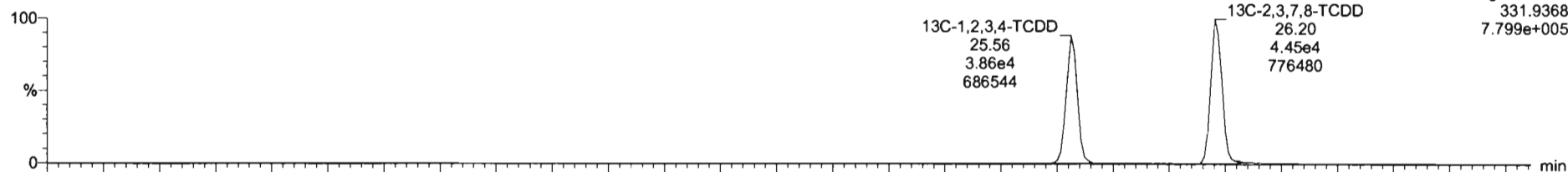
**37Cl-2,3,7,8-TCDD**

200821D1\_6

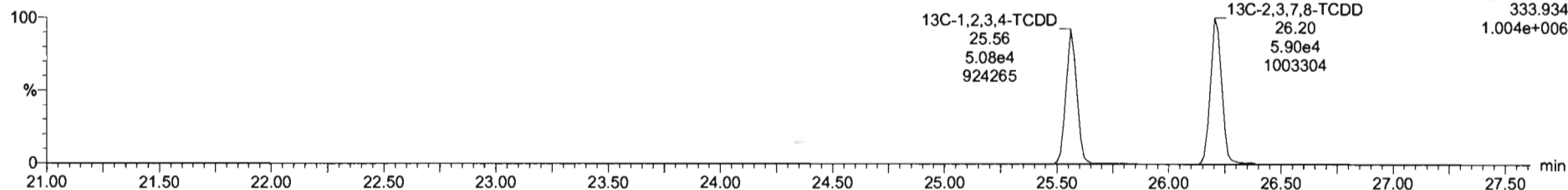


**13C-1,2,3,4-TCDD**

200821D1\_6



200821D1\_6



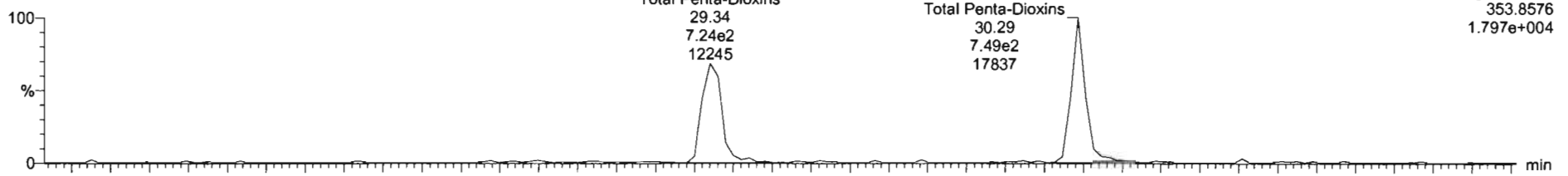
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

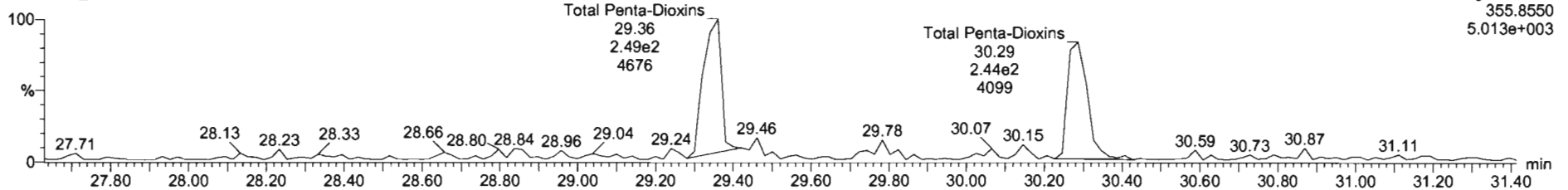
Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

1,2,3,7,8-PeCDD

200821D1\_6

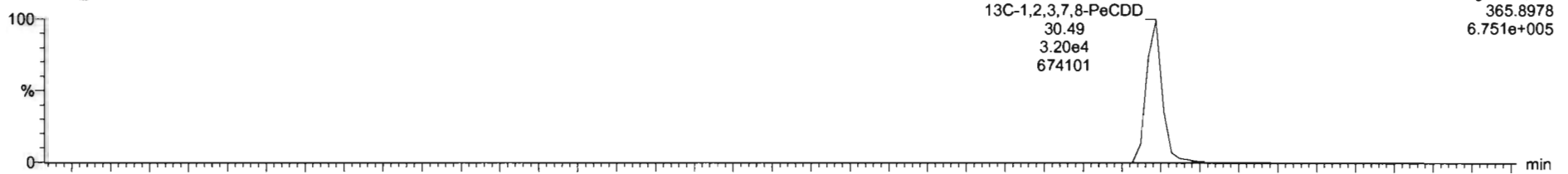


200821D1\_6

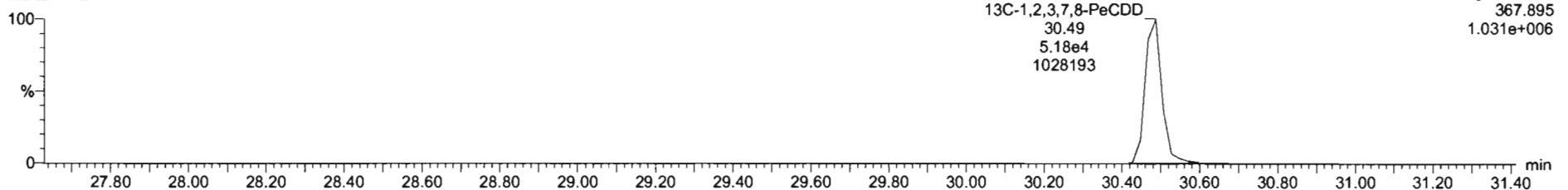


13C-1,2,3,7,8-PeCDD

200821D1\_6



200821D1\_6

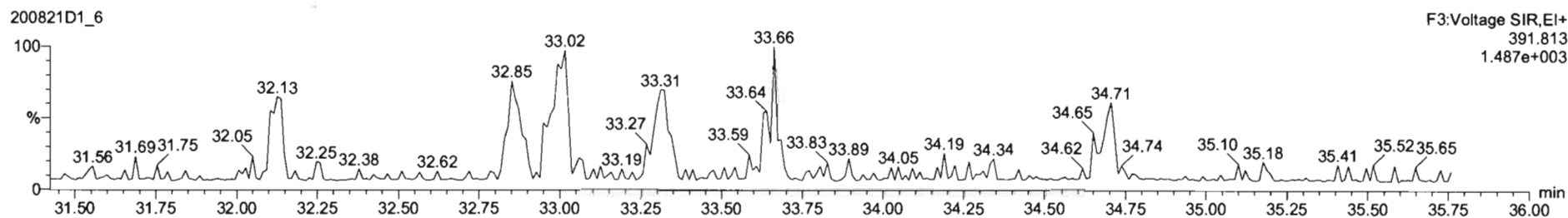
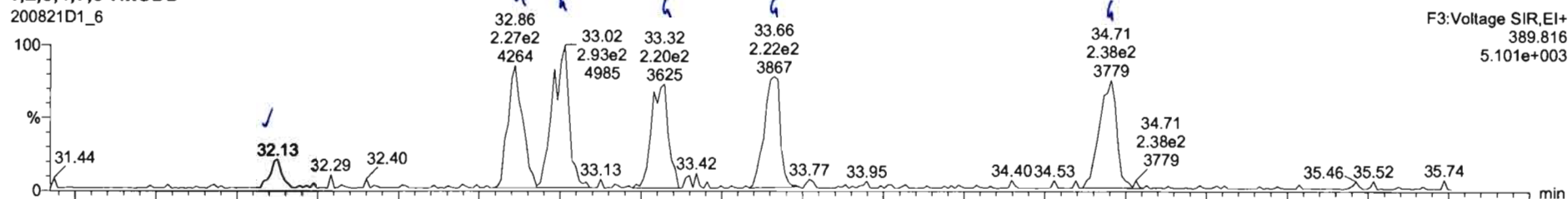


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

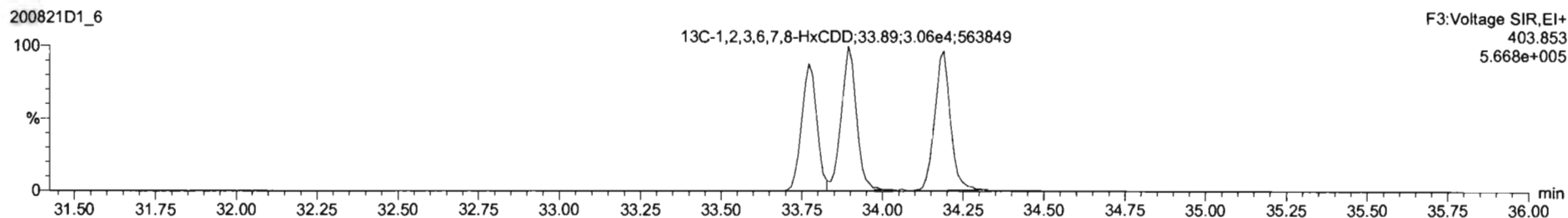
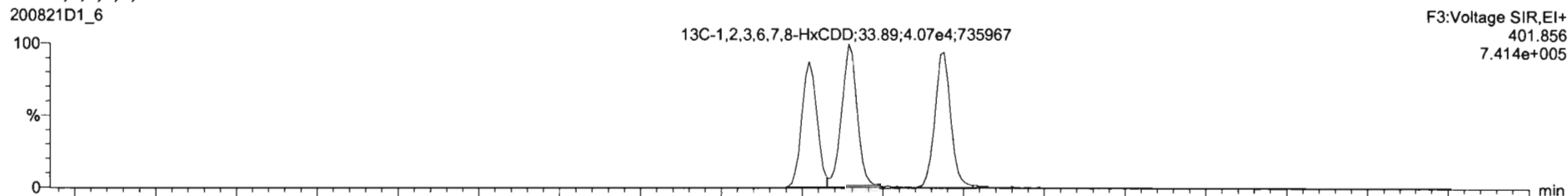
Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

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



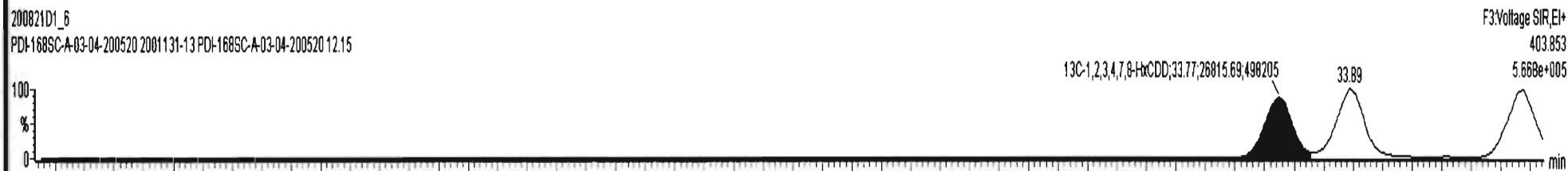
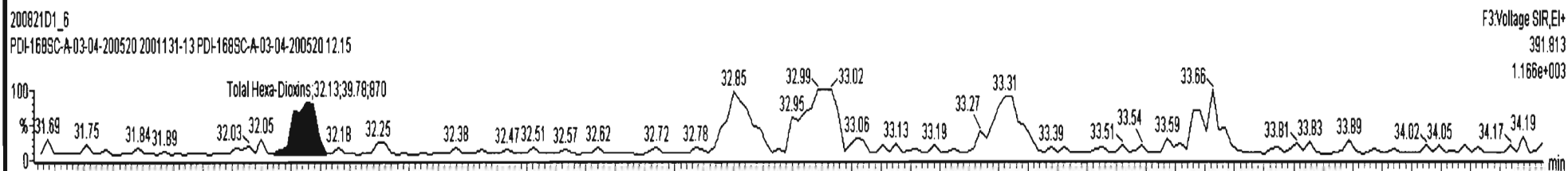
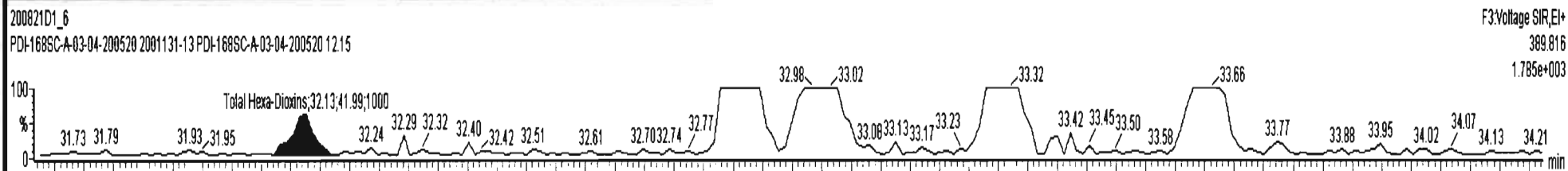
13C-1,2,3,4,7,8-HxCDD







200821D1\_6 - 2001131-13 PDI-168SC-A-03-04-200520 12.15 - PDI-168SC-A-03-04-200520

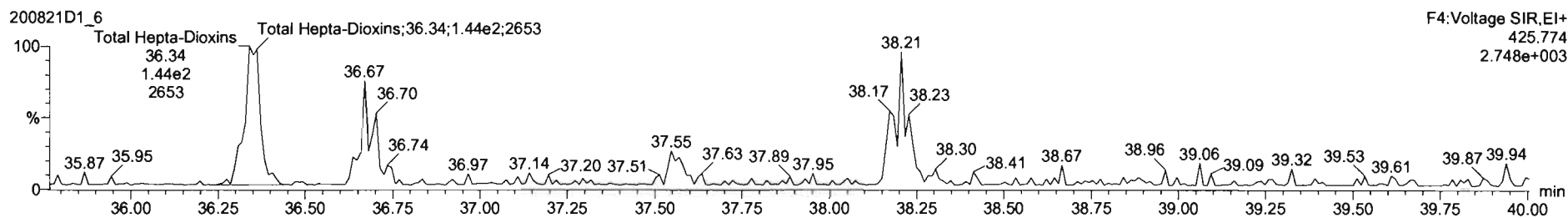
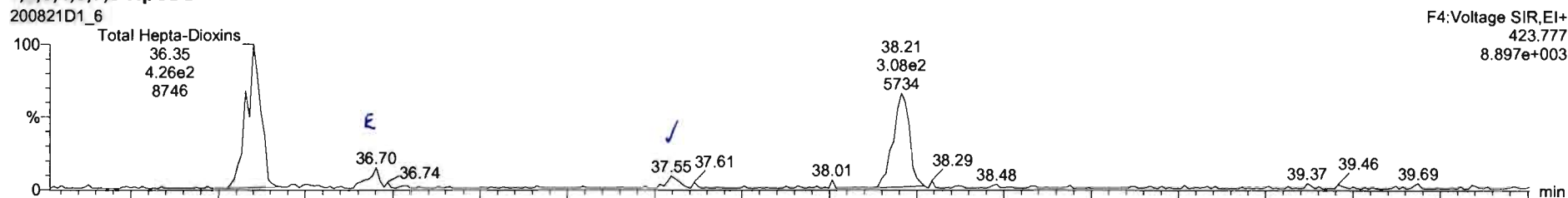


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

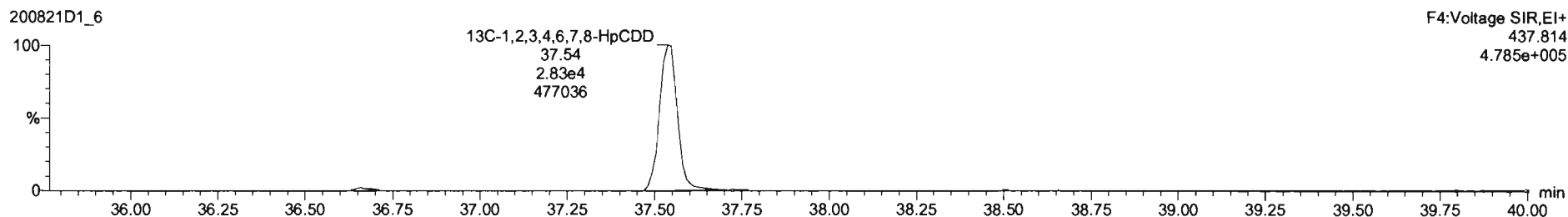
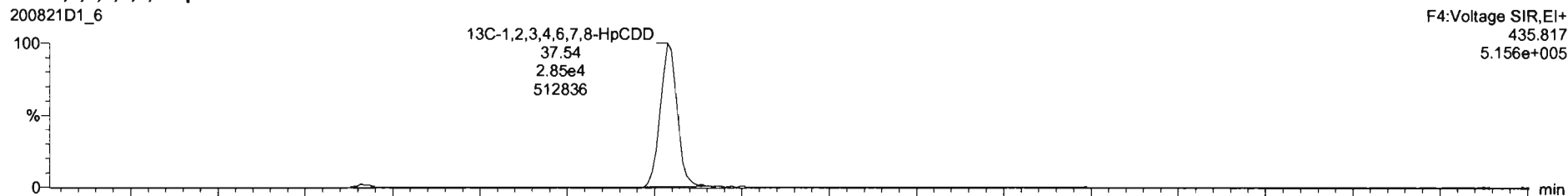
Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

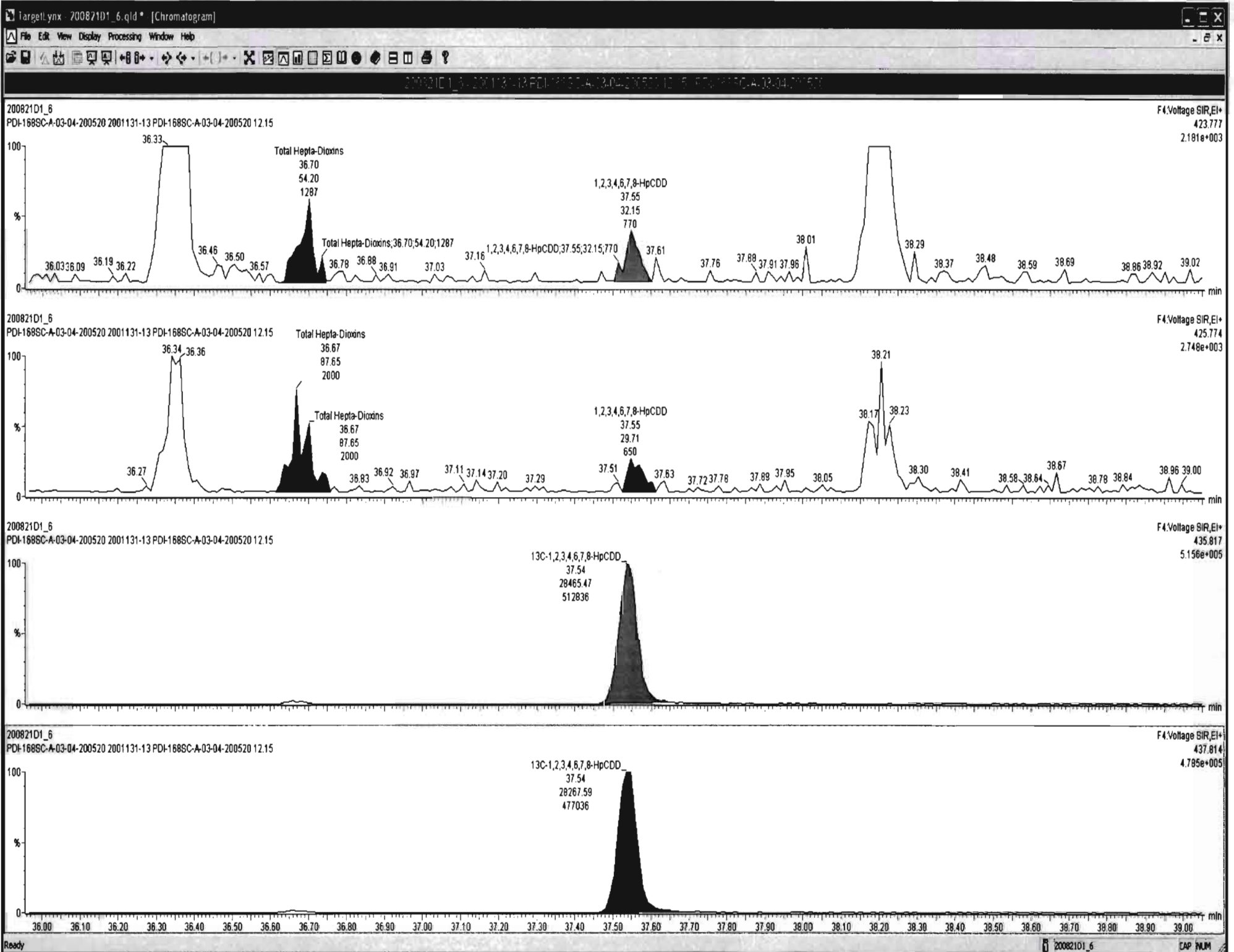
Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

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



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

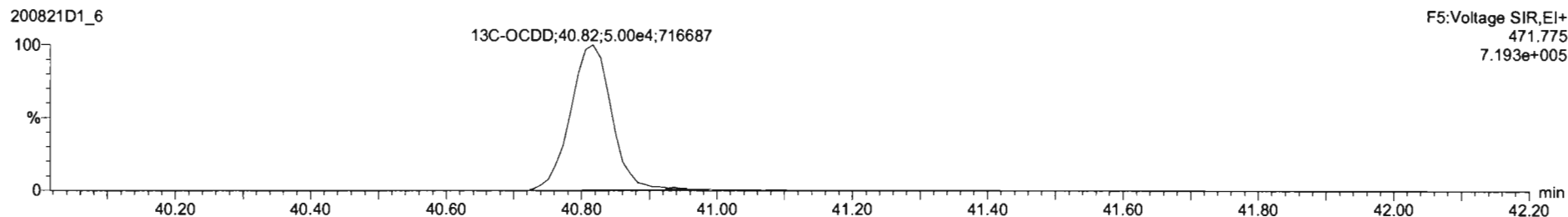
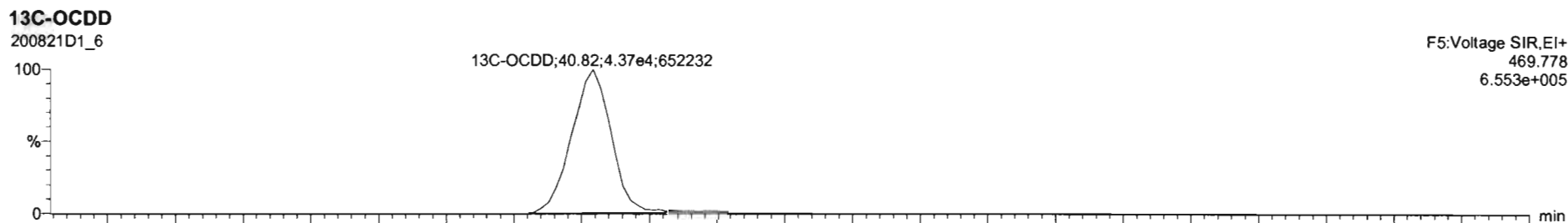
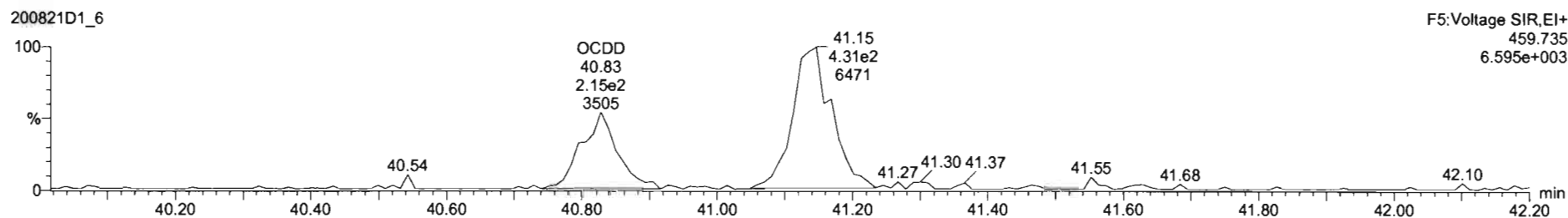
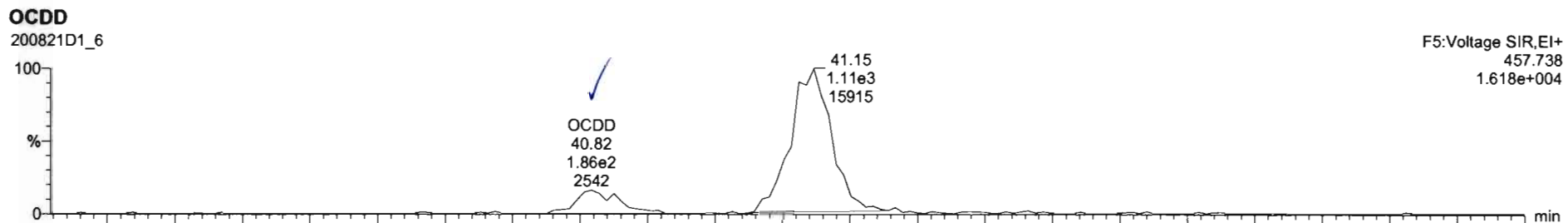


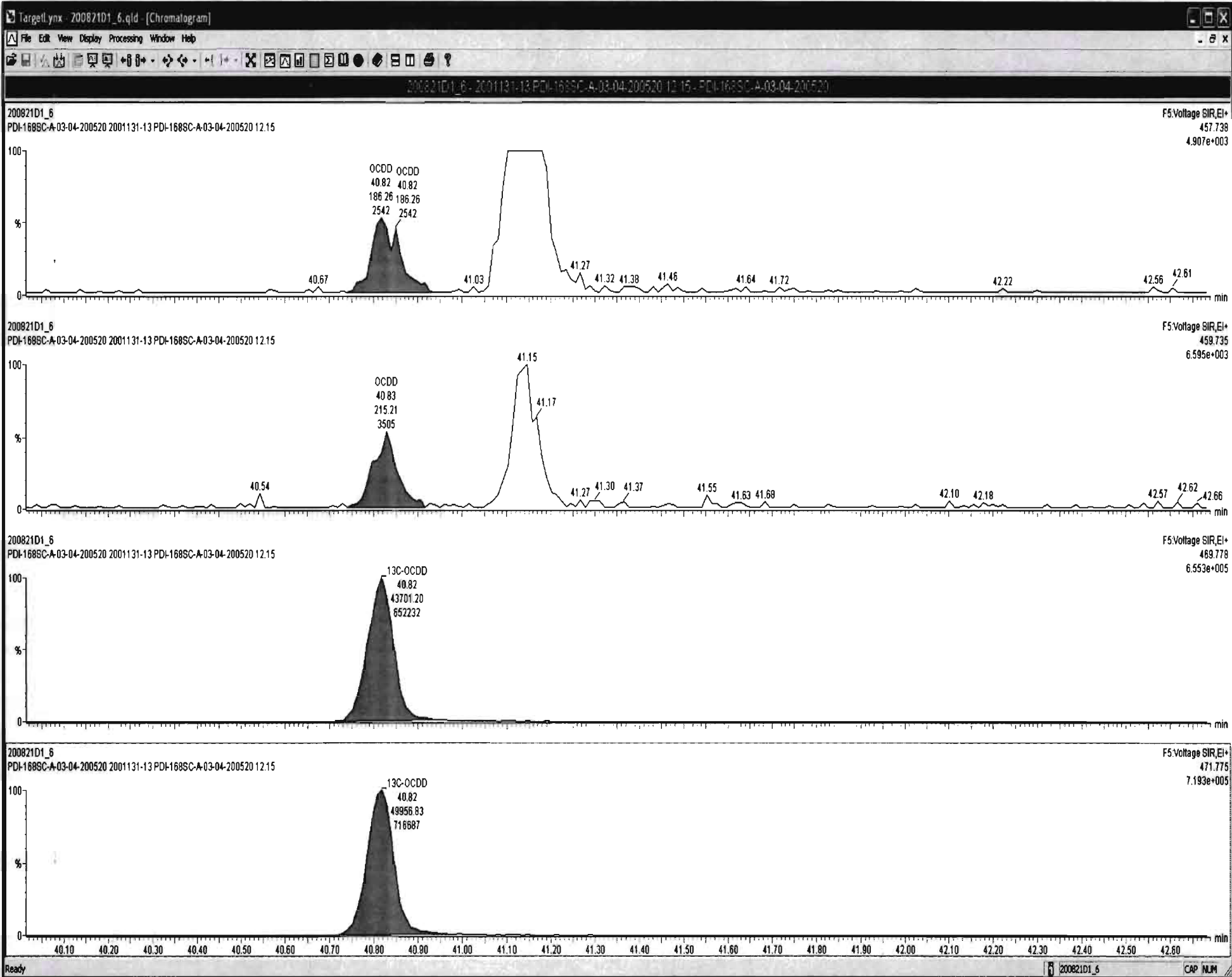


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520





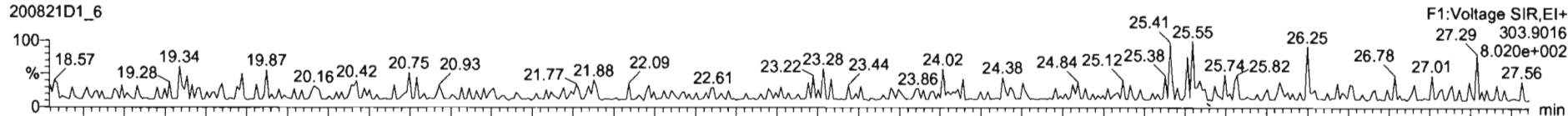
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

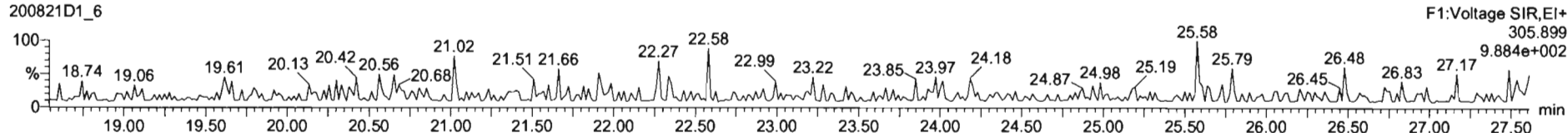
Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

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

200821D1\_6

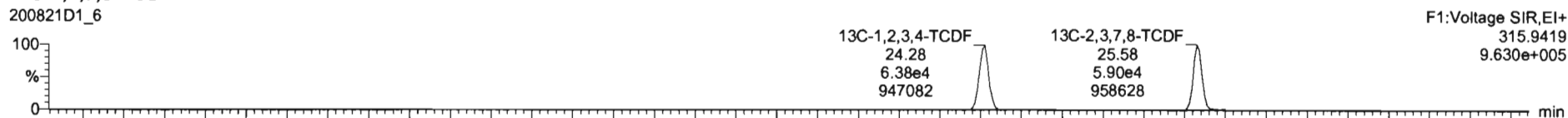


200821D1\_6

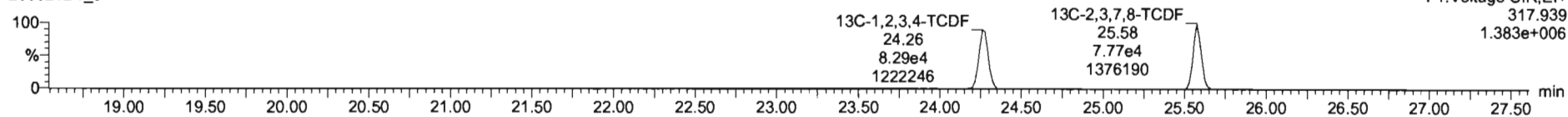


**13C-2,3,7,8-TCDF**

200821D1\_6

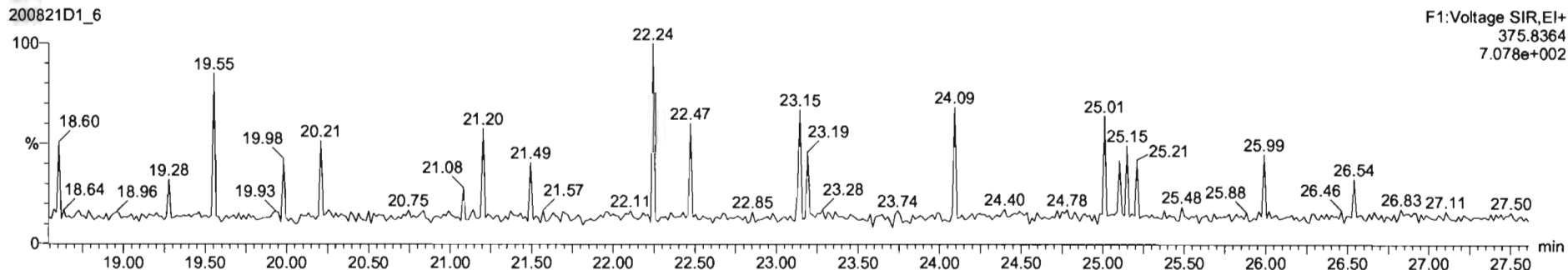


200821D1\_6



**DPE1**

200821D1\_6



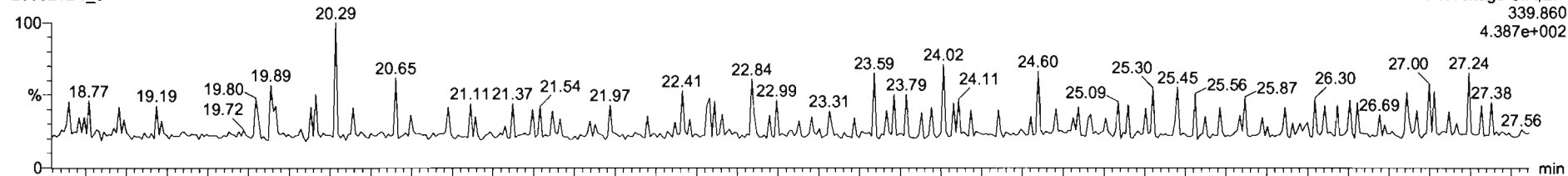
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

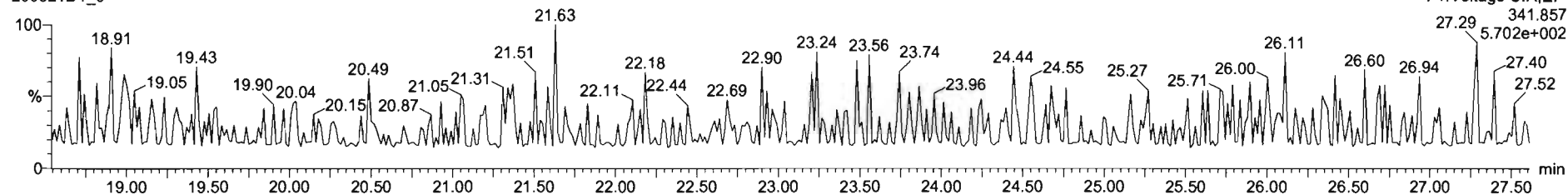
Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

1st Func. Penta-Furans

200821D1\_6

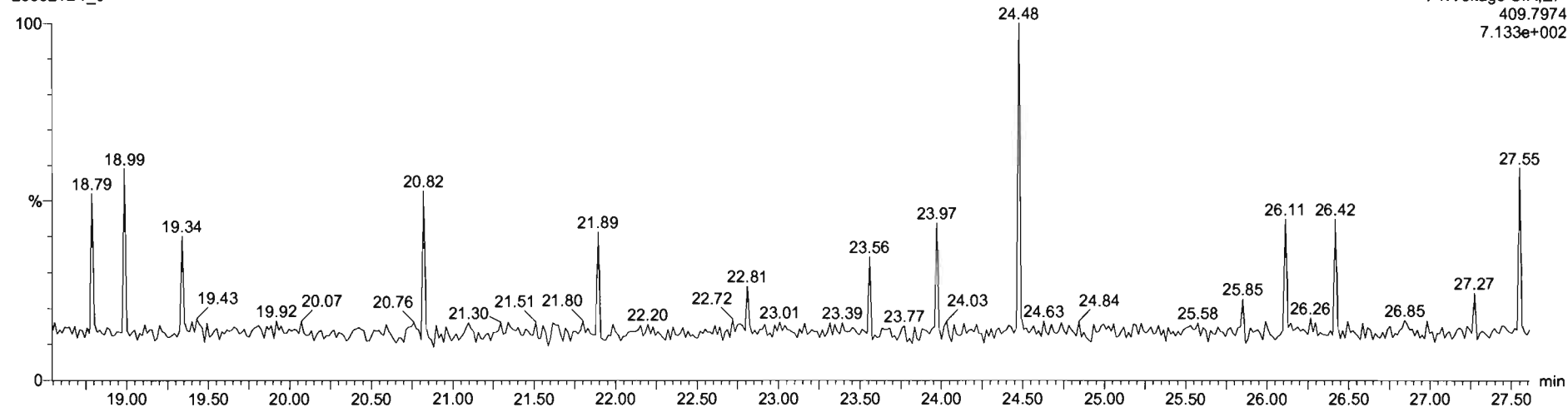


200821D1\_6



DPE6

200821D1\_6



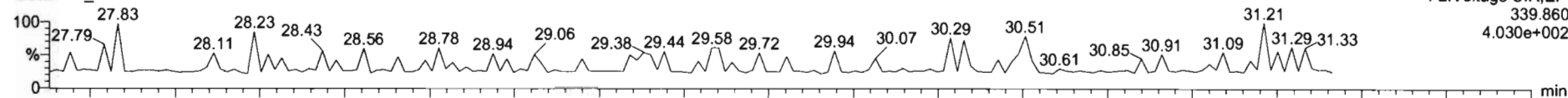
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

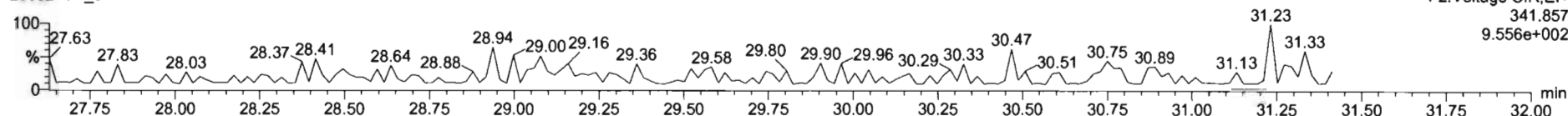
Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

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

200821D1\_6

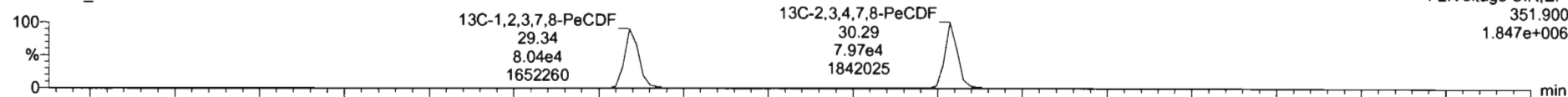


200821D1\_6

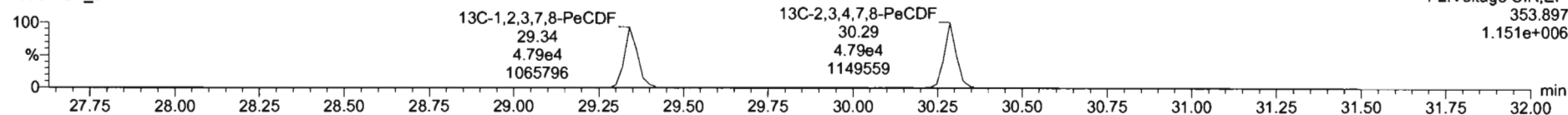


**13C-1,2,3,7,8-PeCDF**

200821D1\_6

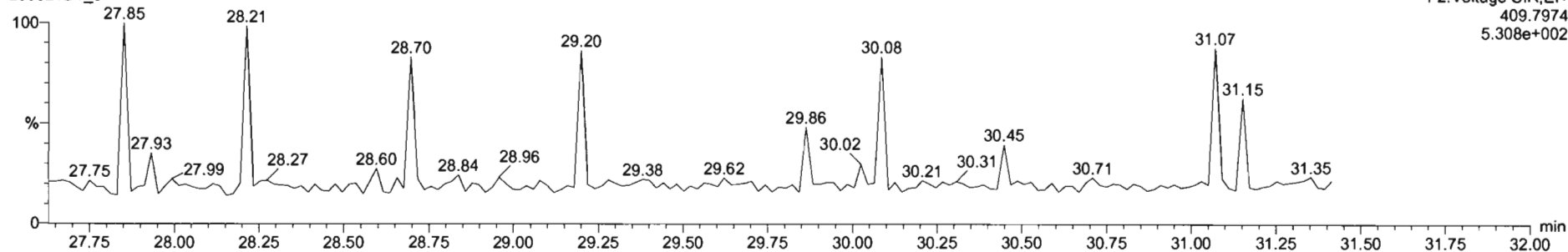


200821D1\_6



**DPE2**

200821D1\_6



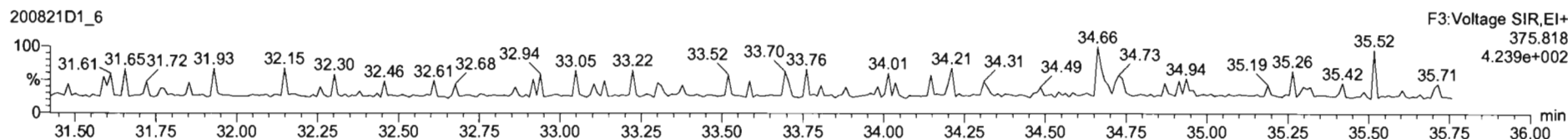
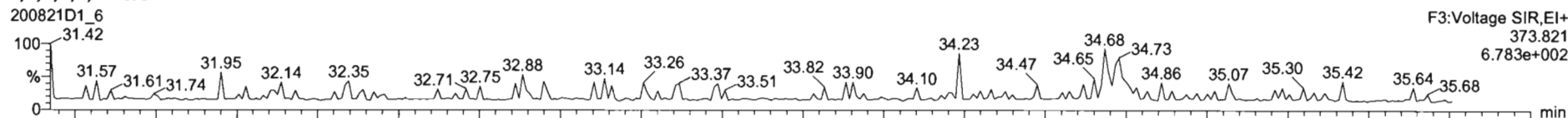


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

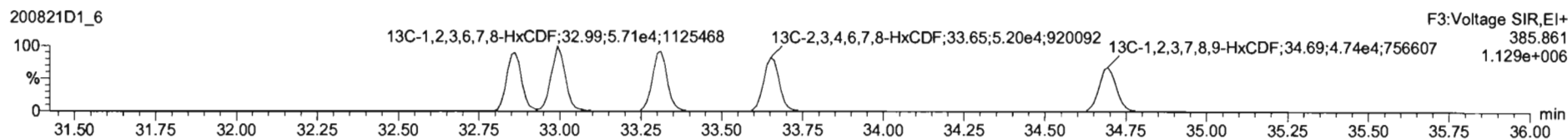
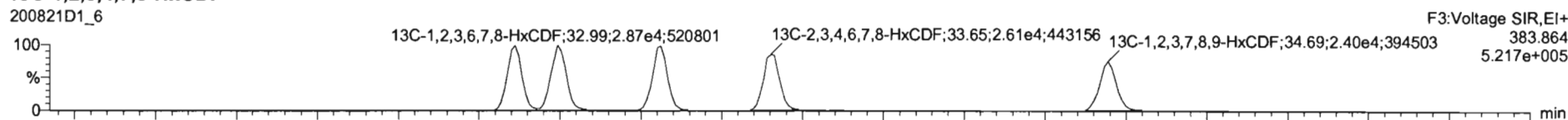
Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

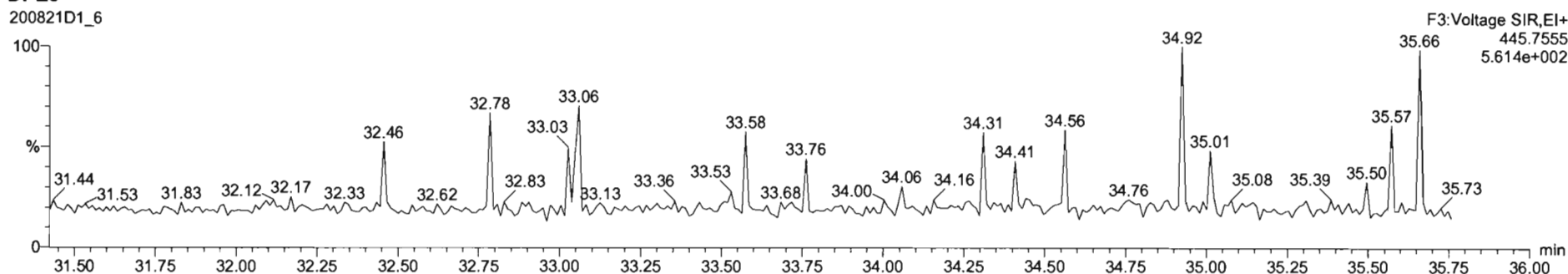
**1,2,3,4,7,8-HxCDF**



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



**DPE3**

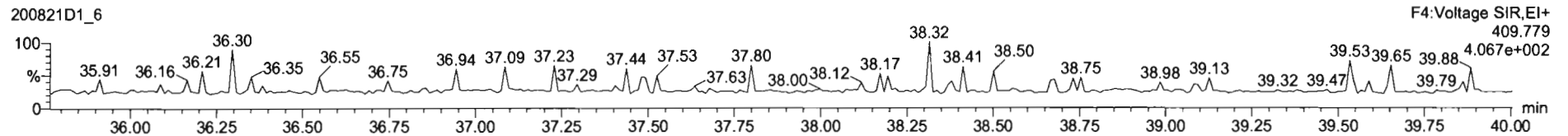
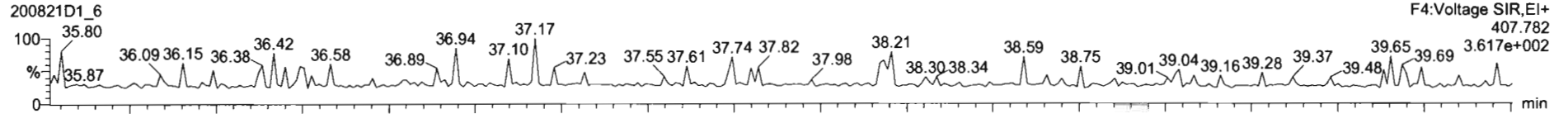


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

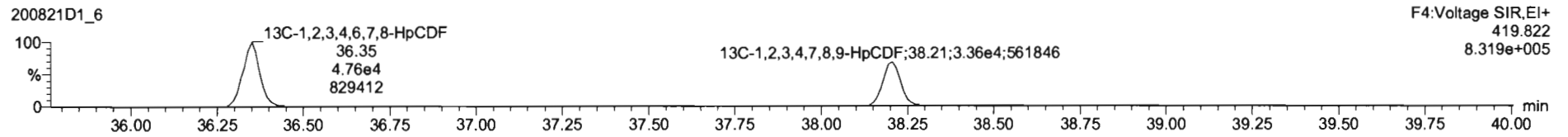
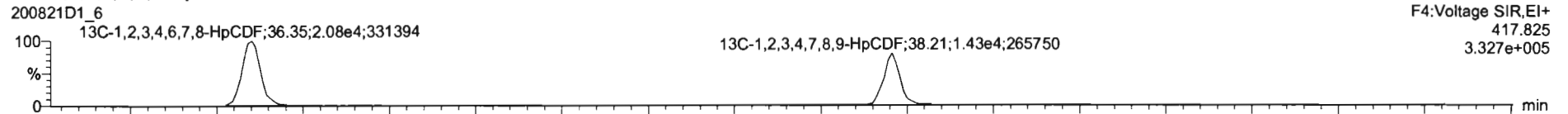
Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520

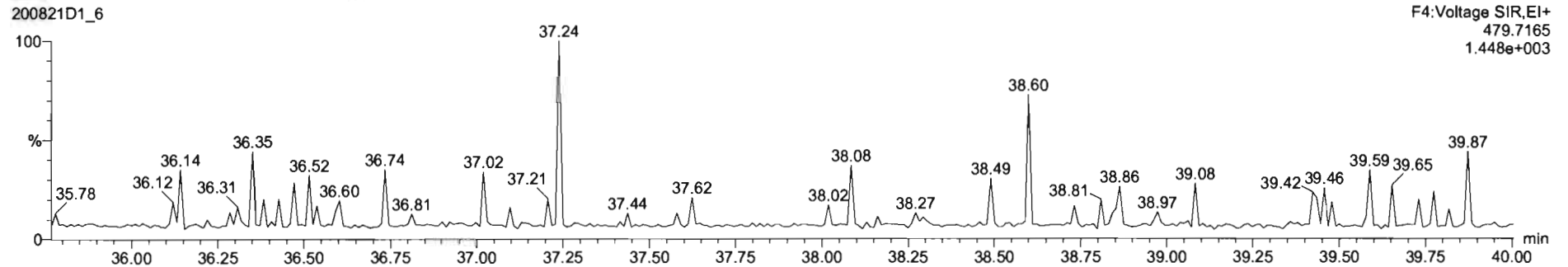
**1,2,3,4,6,7,8-HpCDF**



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



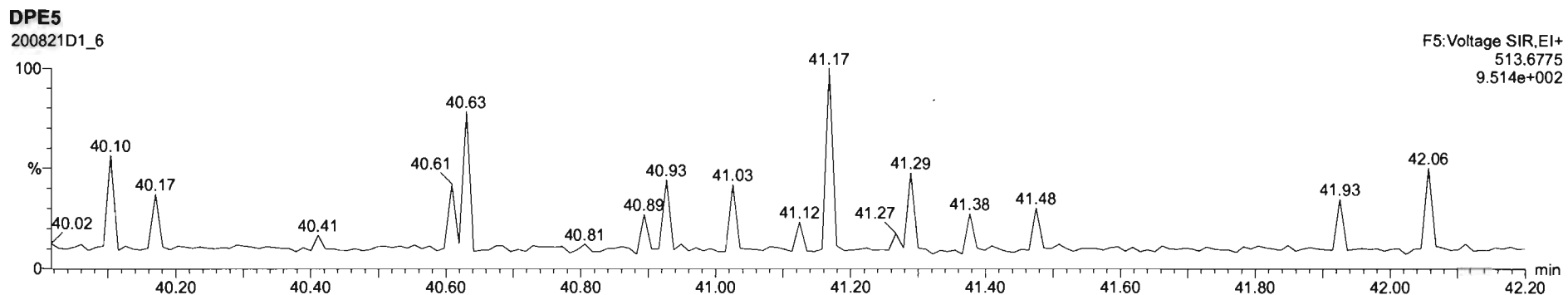
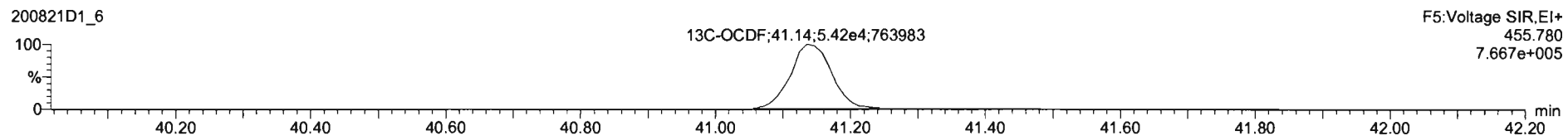
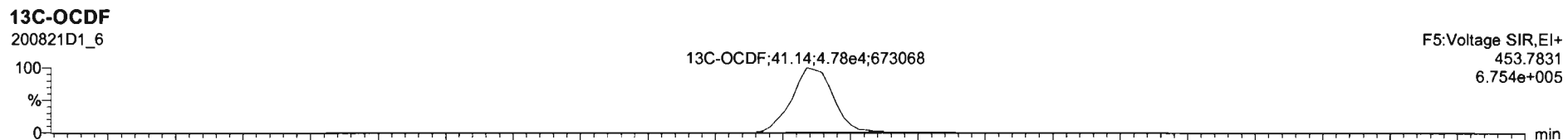
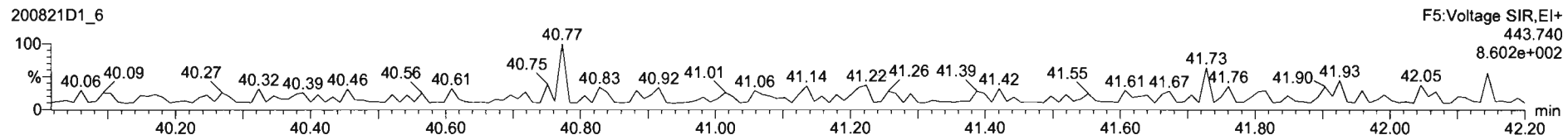
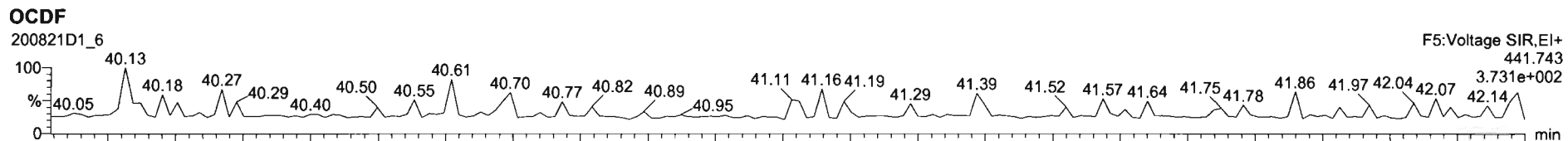
**DPE4**



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

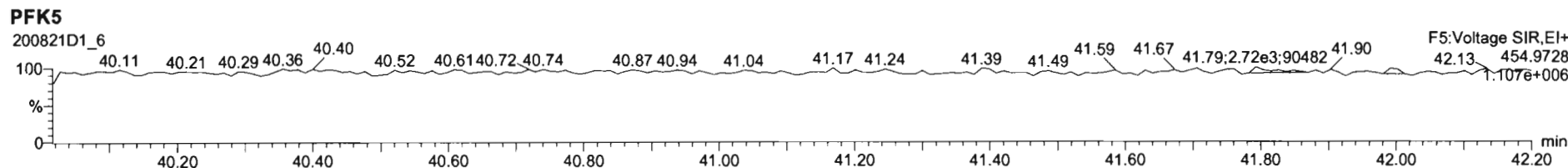
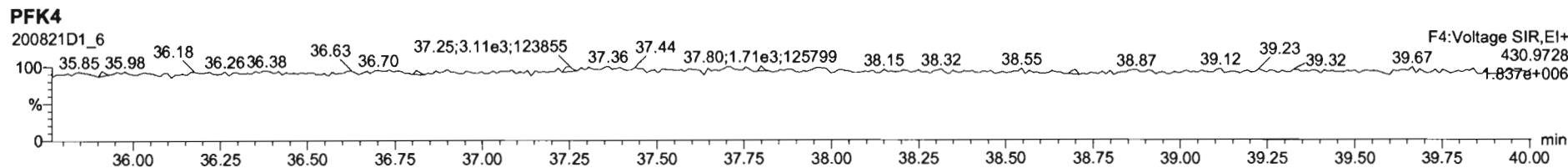
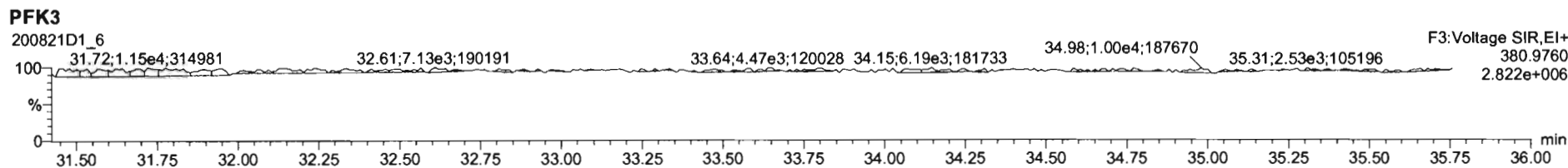
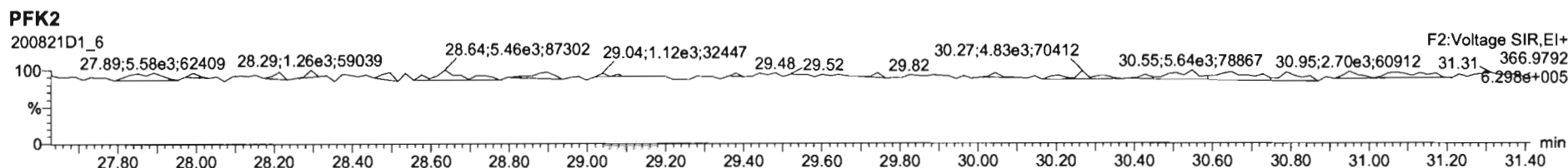
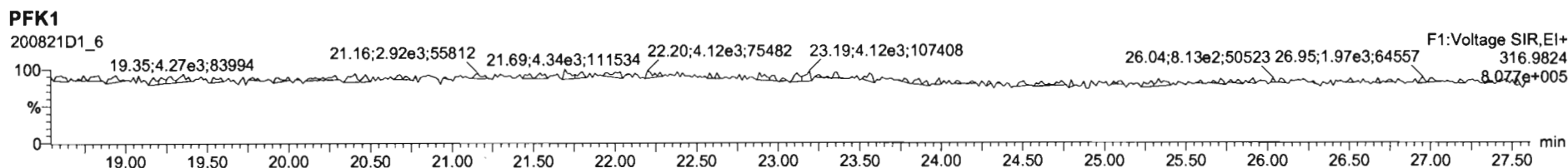
Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_6.qld

Last Altered: Monday, August 24, 2020 09:16:43 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:17:36 Pacific Daylight Time

Name: 200821D1\_6, Date: 21-Aug-2020, Time: 15:44:56, ID: 2001131-13 PDI-168SC-A-03-04-200520 12.15, Description: PDI-168SC-A-03-04-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Tuesday, August 25, 2020 11:24:28 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:26:29 Pacific Daylight Time

*DB 8/25/20 C708/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

#	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	1.08	10.025	26.250		1.001				0.152	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.025	30.508		1.001				0.153	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.025	33.804		1.000				0.186	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.025	33.915		1.000				0.193	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.025	34.234		1.001				0.203	
6	6 1,2,3,4,6,7,8-HpCDD	1.45e2	1.29	YES	0.926	10.025	37.569	37.56	1.000	1.000	0.50899		0.328	0.450
7	7 OCDD	1.39e3	0.94	NO	0.834	10.025	40.828	40.84	1.000	1.000	6.1784		0.327	6.18
8	8 2,3,7,8-TCDF			NO	0.882	10.025	25.618		1.001				0.108	
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.025	29.382		1.001				0.0801	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.025	30.336		1.001				0.0754	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.025	32.873		1.000				0.0675	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.025	33.025		1.000				0.0658	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.025	33.708		1.001				0.0728	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.025	34.705		1.000				0.0949	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.15	10.025	36.398		1.001				0.0503	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.025	38.216		1.000				0.0647	
17	17 OCDF			NO	0.961	10.025	41.157		1.000				0.177	
18	18 13C-2,3,7,8-TCDD	1.09e5	0.79	NO	1.20	10.025	26.241	26.22	1.026	1.025	194.54	97.5	0.839	
19	19 13C-1,2,3,7,8-PeCDD	9.29e4	0.63	NO	0.910	10.025	30.502	30.49	1.193	1.192	218.90	110	0.655	
20	20 13C-1,2,3,4,7,8-HxCDD	6.86e4	1.31	NO	0.789	10.025	33.790	33.79	1.014	1.014	205.47	103	0.804	
21	21 13C-1,2,3,6,7,8-HxCDD	7.96e4	1.30	NO	0.885	10.025	33.899	33.92	1.017	1.018	212.39	106	0.717	
22	22 13C-1,2,3,7,8,9-HxCDD	8.08e4	1.31	NO	0.888	10.025	34.169	34.20	1.025	1.026	214.76	108	0.714	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.21e4	1.04	NO	0.740	10.025	37.622	37.56	1.129	1.127	198.42	99.5	1.35	
24	24 13C-OCDD	1.08e5	0.90	NO	0.660	10.025	40.634	40.83	1.219	1.225	386.67	96.9	0.809	
25	25 13C-2,3,7,8-TCDF	1.41e5	0.79	NO	1.09	10.025	25.320	25.59	0.990	1.001	166.23	83.3	0.770	
26	26 13C-1,2,3,7,8-PeCDF	1.45e5	1.66	NO	0.857	10.025	29.558	29.36	1.156	1.148	217.62	109	0.649	
27	27 13C-2,3,4,7,8-PeCDF	1.34e5	1.66	NO	0.796	10.025	30.461	30.31	1.191	1.185	215.38	108	0.699	
28	28 13C-1,2,3,4,7,8-HxCDF	9.03e4	0.50	NO	1.02	10.025	32.923	32.87	0.988	0.986	209.01	105	0.956	
29	29 13C-1,2,3,6,7,8-HxCDF	9.37e4	0.50	NO	1.00	10.025	33.056	33.01	0.992	0.991	220.62	111	0.972	
30	30 13C-2,3,4,6,7,8-HxCDF	8.76e4	0.50	NO	0.936	10.025	33.626	33.67	1.009	1.011	221.01	111	1.04	
31	31 13C-1,2,3,7,8,9-HxCDF	8.01e4	0.50	NO	0.889	10.025	34.703	34.71	1.041	1.041	212.79	107	1.10	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Tuesday, August 25, 2020 11:24:28 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:26:29 Pacific Daylight Time

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

#	Name	Resp	RA	n/y	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	8.04e4	0.43	NO	0.849	10.025	36.222	36.36	1.087	1.091	223.46	112	1.28	
33	13C-1,2,3,4,7,8,9-HpCDF	5.47e4	0.45	NO	0.624	10.025	38.221	38.22	1.147	1.147	207.10	104	1.75	
34	13C-OCDF	1.22e5	0.90	NO	0.693	10.025	40.787	41.16	1.224	1.235	416.37	104	0.770	
35	37Cl-2,3,7,8-TCDD	4.04e4			1.28	10.025	26.238	26.25	1.026	1.026	67.912	85.1	0.124	
36	13C-1,2,3,4-TCDD	9.30e4	0.79	NO	1.00	10.025	25.550	25.58	1.000	1.000	199.50	100	1.01	
37	13C-1,2,3,4-TCDF	1.55e5	0.78	NO	1.00	10.025	24.250	24.29	1.000	1.000	199.50	100	0.837	
38	13C-1,2,3,4,6,9-HxCDF	8.45e4	0.48	NO	1.00	10.025	33.300	33.32	1.000	1.000	199.50	100	0.975	
39	Total Tetra-Dioxins				1.08	10.025	24.620		0.000				0.0946	
40	Total Penta-Dioxins				0.991	10.025	29.960		0.000				0.0600	
41	Total Hexa-Dioxins				0.908	10.025	33.635		0.000		0.00000		0.0787	0.532
42	Total Hepta-Dioxins				0.926	10.025	37.640		0.000		1.2034		0.338	1.65
43	Total Tetra-Furans				0.882	10.025	23.610		0.000				0.0483	
44	1st Func. Penta-Furans				0.937	10.025	26.750		0.000				0.0197	
45	Total Penta-Furans				0.937	10.025	29.275		0.000				0.0335	
46	Total Hexa-Furans				1.11	10.025	33.555		0.000				0.0400	
47	Total Hepta-Furans				1.15	10.025	37.835		0.000				0.0352	

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Tuesday, August 25, 2020 11:24:28 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:26:29 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.14	2.510e3	1.859e3	1.219e2	8.248e1	1.48	YES	0.000e0	0.00000	0.53155	0.204

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.70	3.742e3	3.745e3	1.659e2	1.810e2	0.92	NO	3.469e2	1.2034	1.2034	0.338
2	1,2,3,4,6,7,8-HpCDD	37.56	1.606e3	1.396e3	8.172e1	6.358e1	1.29	YES	1.453e2	0.00000	0.44988	0.338

**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:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Tuesday, August 25, 2020 11:24:28 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:26:29 Pacific Daylight Time

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

**Penta-Furans**

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

**Hexa-Furans**

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

**Hepta-Furans**

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



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

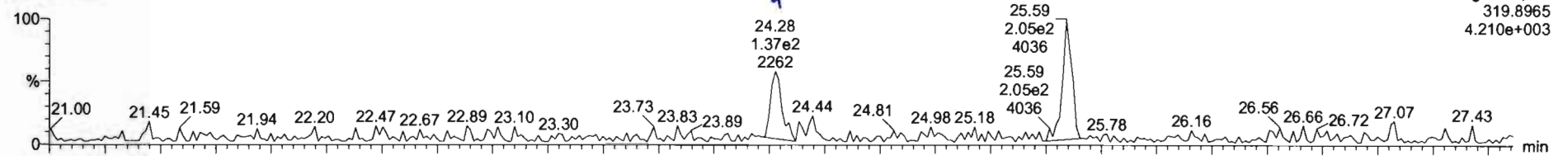
Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

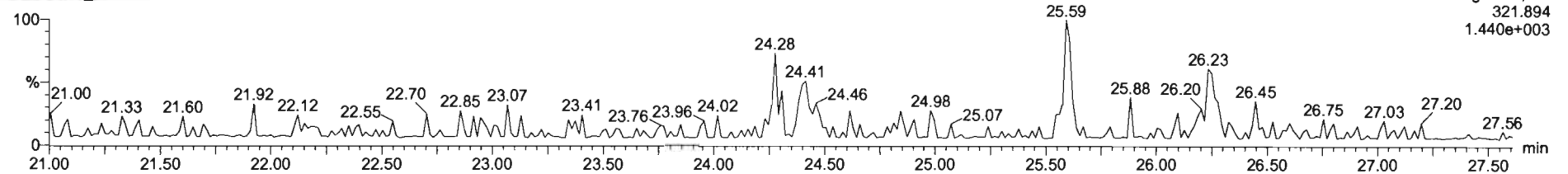
Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

2,3,7,8-TCDD

200821D1\_7

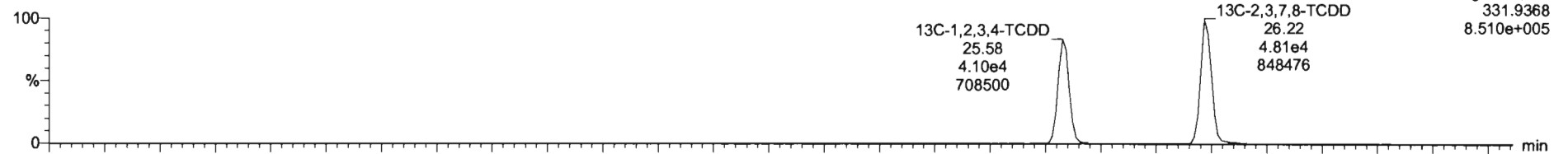


200821D1\_7

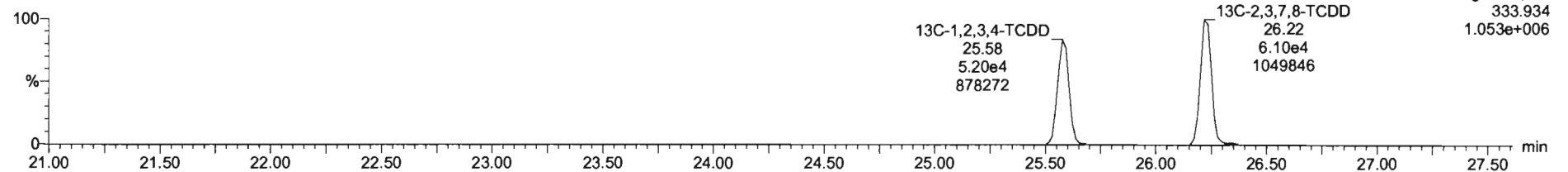


13C-2,3,7,8-TCDD

200821D1\_7



200821D1\_7

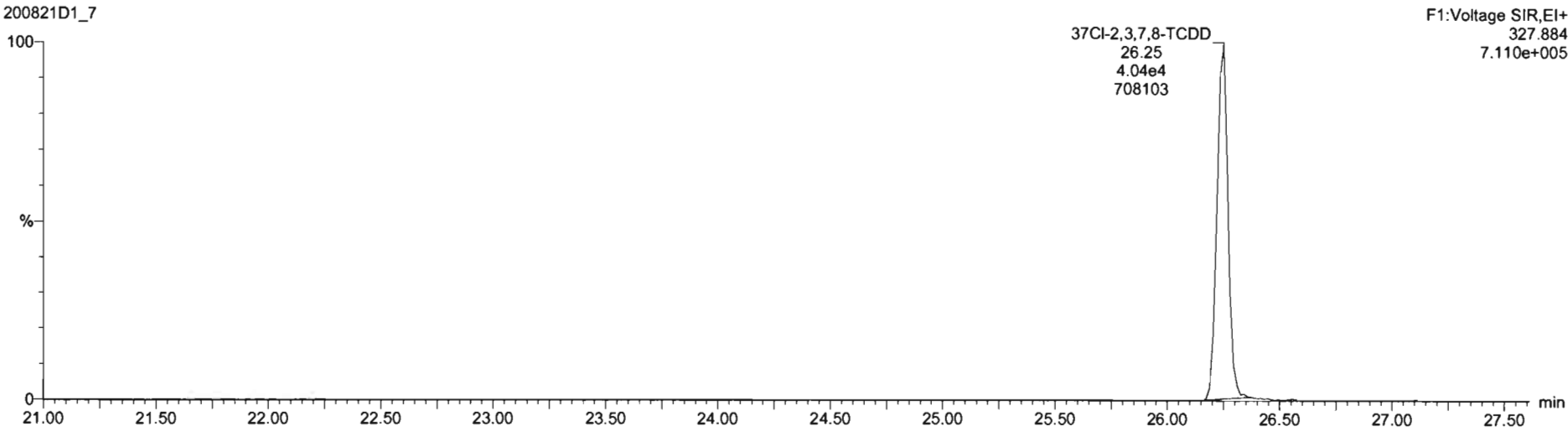


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

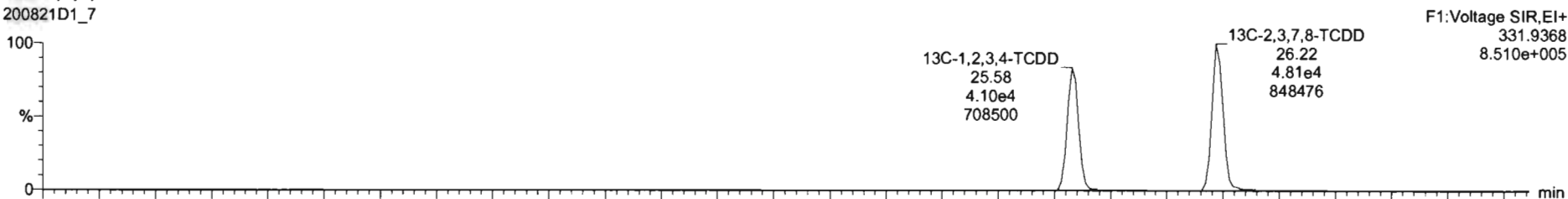
Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

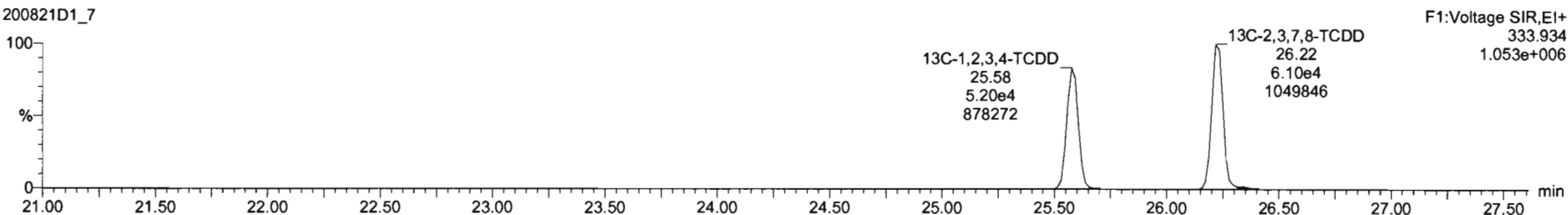
**37Cl-2,3,7,8-TCDD**  
200821D1\_7



**13C-1,2,3,4-TCDD**  
200821D1\_7



200821D1\_7



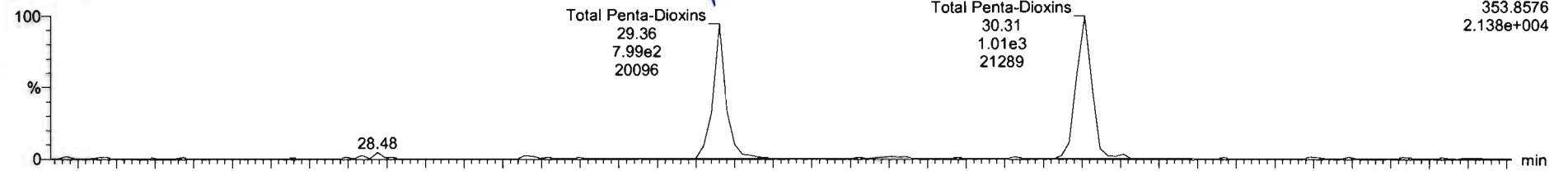
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

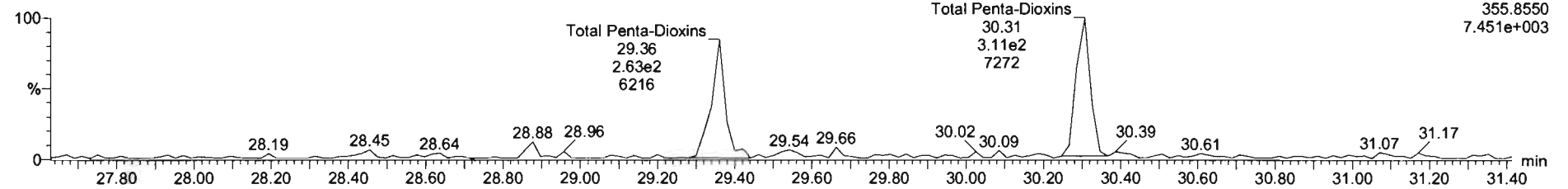
Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

1,2,3,7,8-PeCDD

200821D1\_7

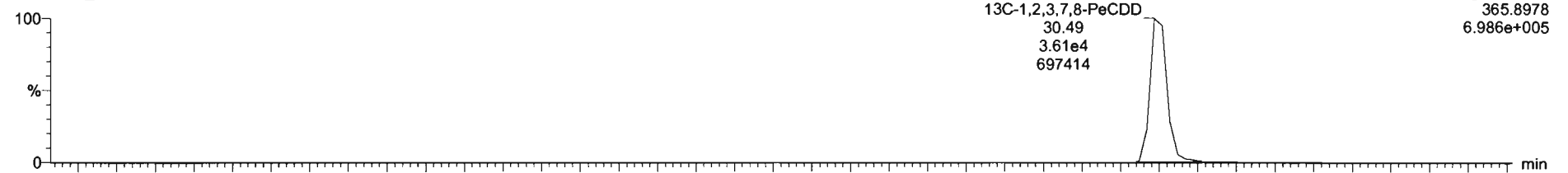


200821D1\_7

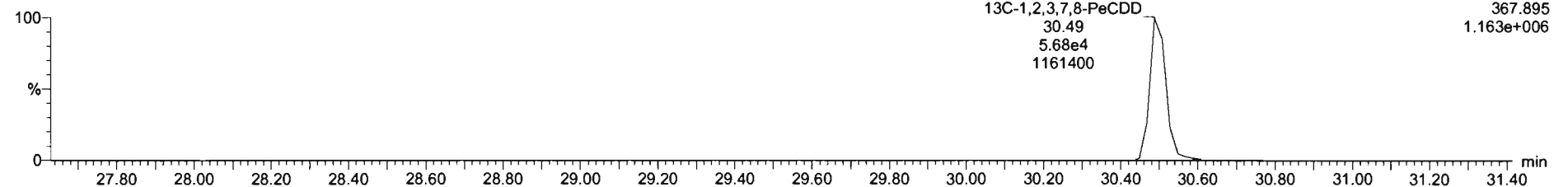


13C-1,2,3,7,8-PeCDD

200821D1\_7



200821D1\_7



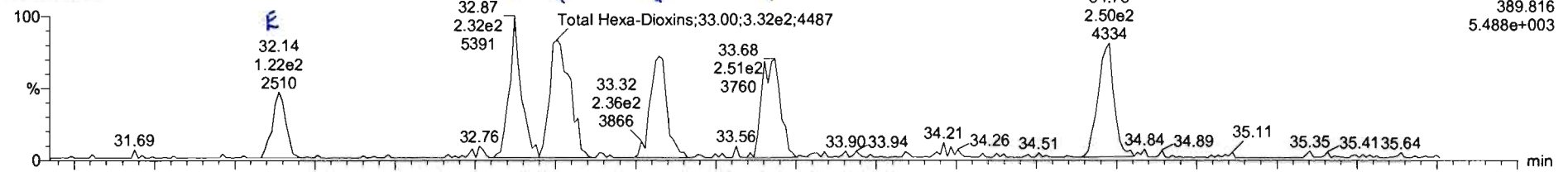
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

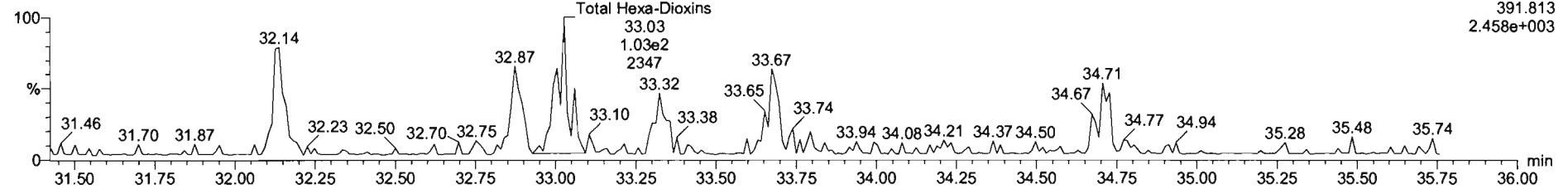
Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

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

200821D1\_7

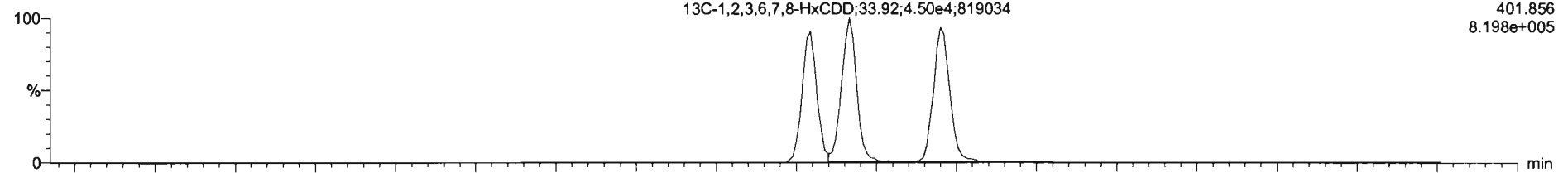


200821D1\_7

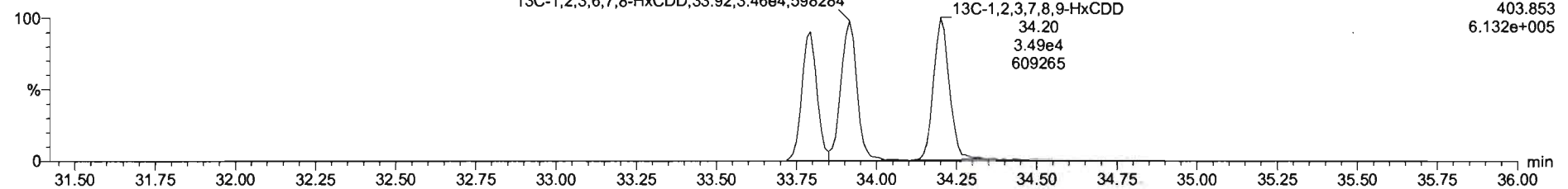


13C-1,2,3,4,7,8-HxCDD

200821D1\_7

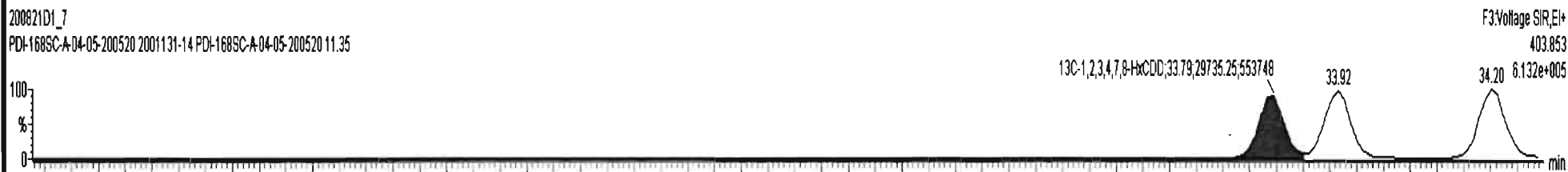
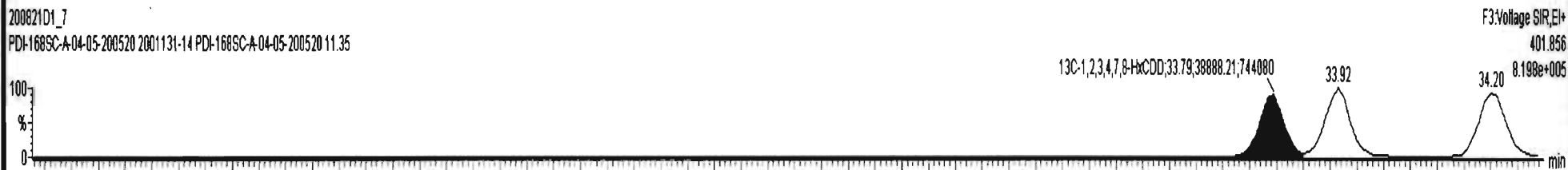
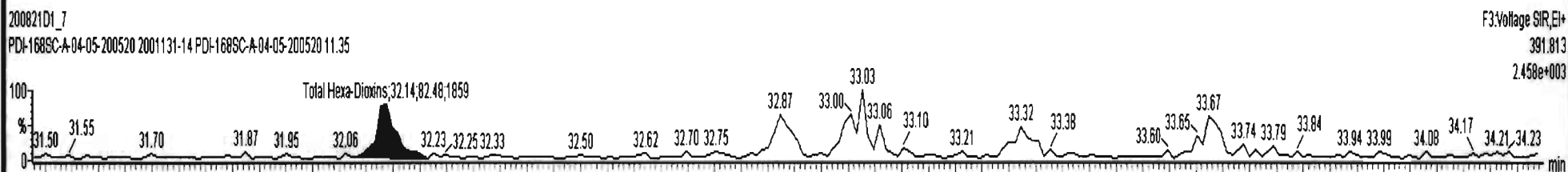
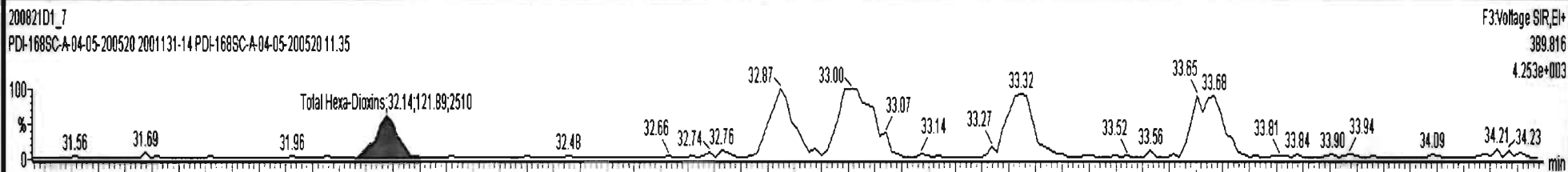


200821D1\_7





200821D1\_7 - 2001131-14 PDI-168SC-A-04-05-200520 11.35 - PDI-168SC-A-04-05-200520

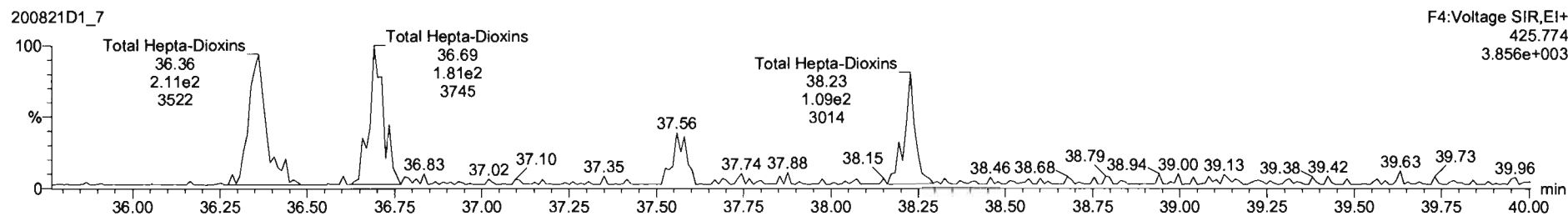
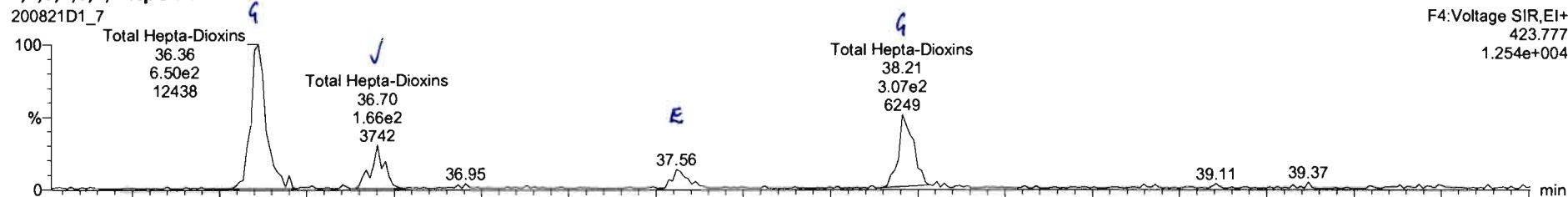


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

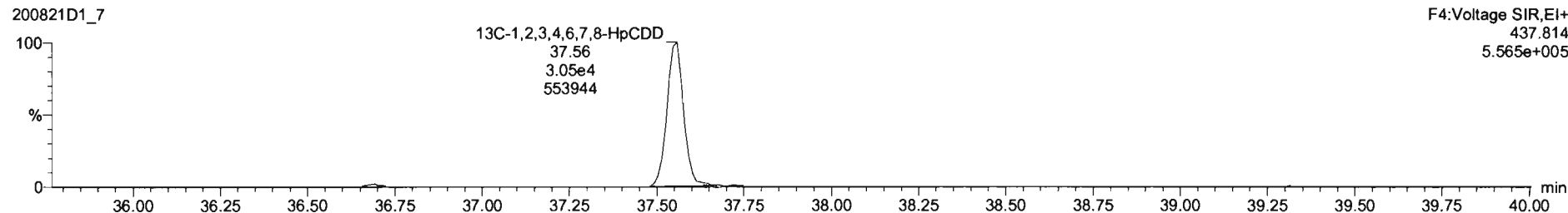
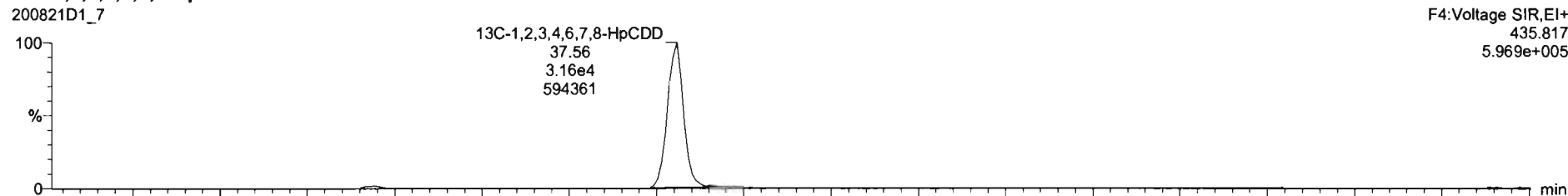
Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

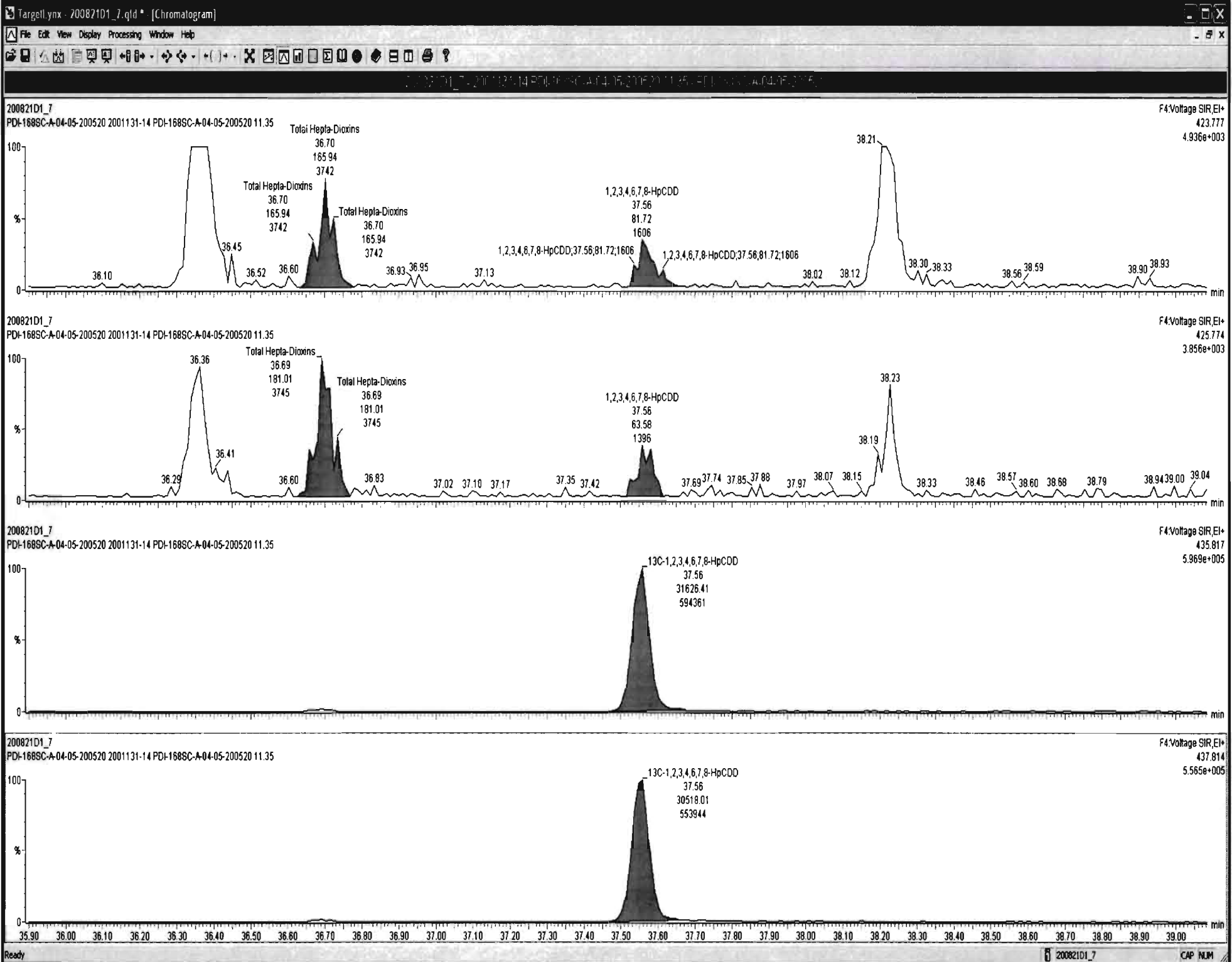
Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

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



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





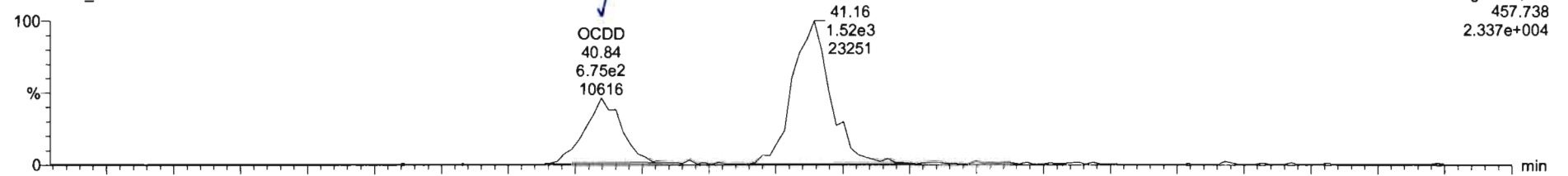
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

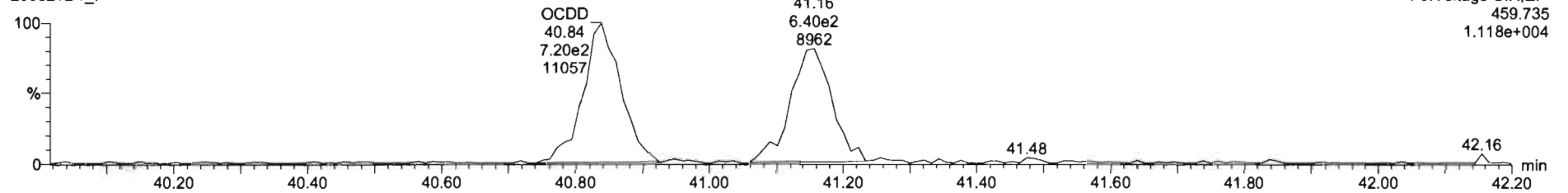
OCDD

200821D1\_7



F5:Voltage SIR,EI+  
457.738  
2.337e+004

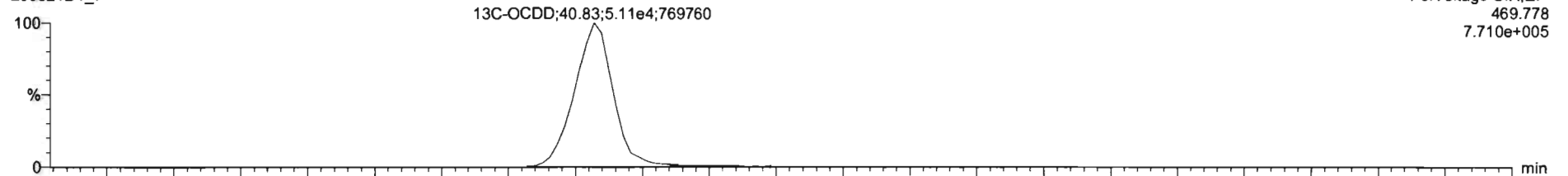
200821D1\_7



F5:Voltage SIR,EI+  
459.735  
1.118e+004

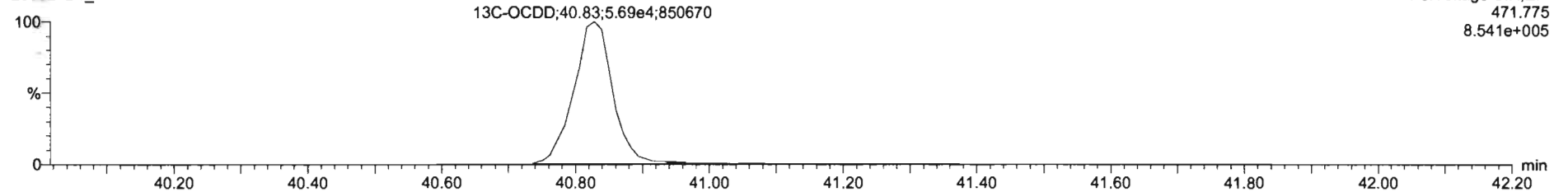
13C-OCDD

200821D1\_7



F5:Voltage SIR,EI+  
469.778  
7.710e+005

200821D1\_7



F5:Voltage SIR,EI+  
471.775  
8.541e+005

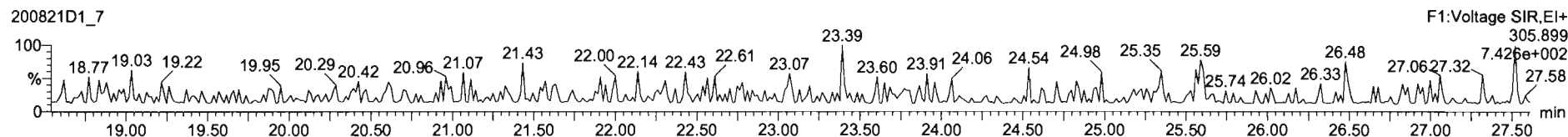
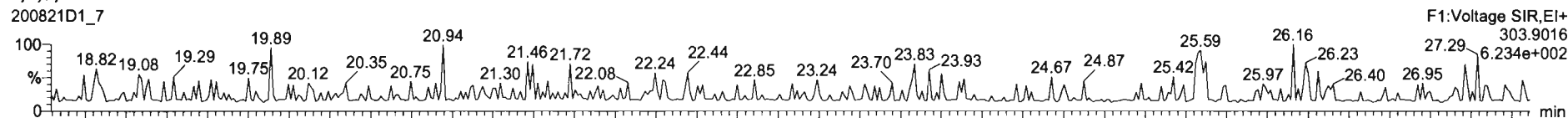


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

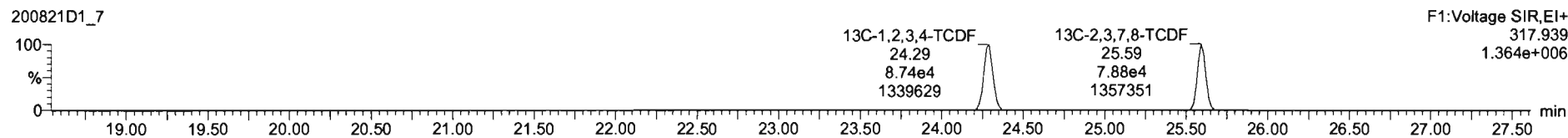
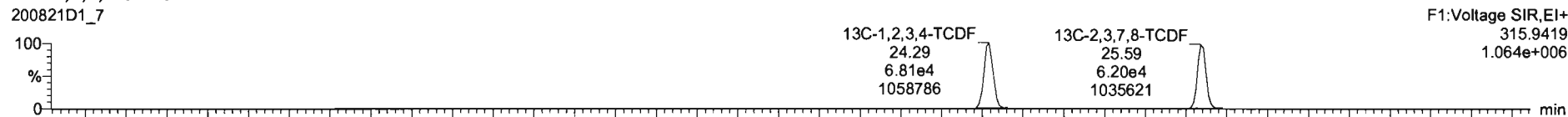
Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

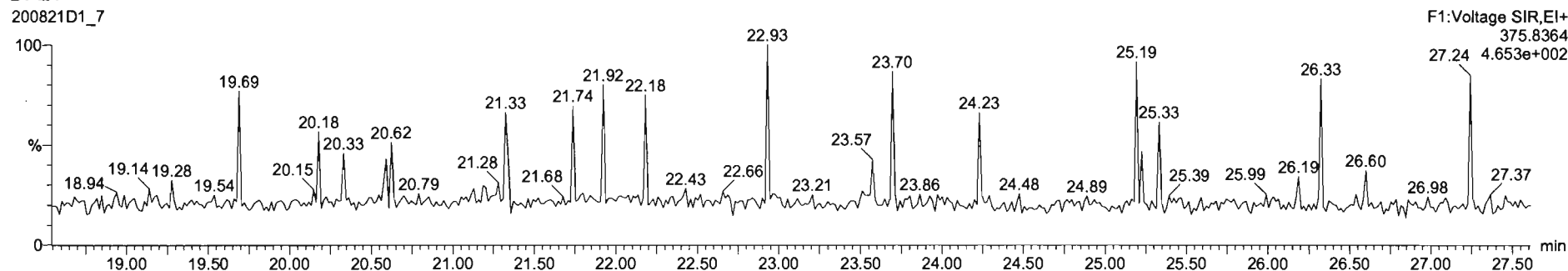
2,3,7,8-TCDF



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



DPE1



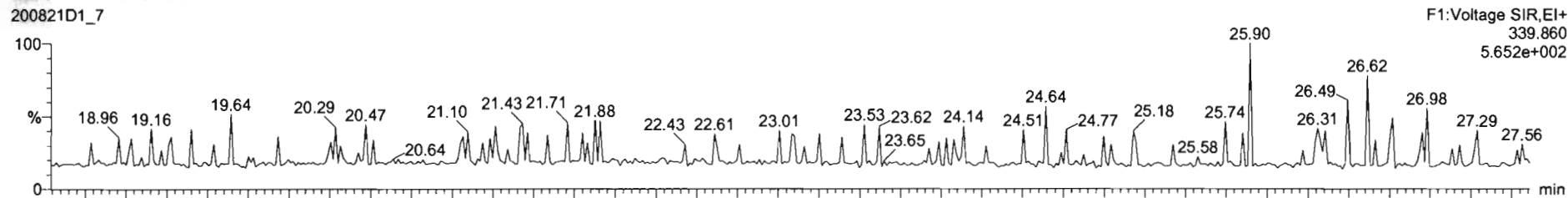
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

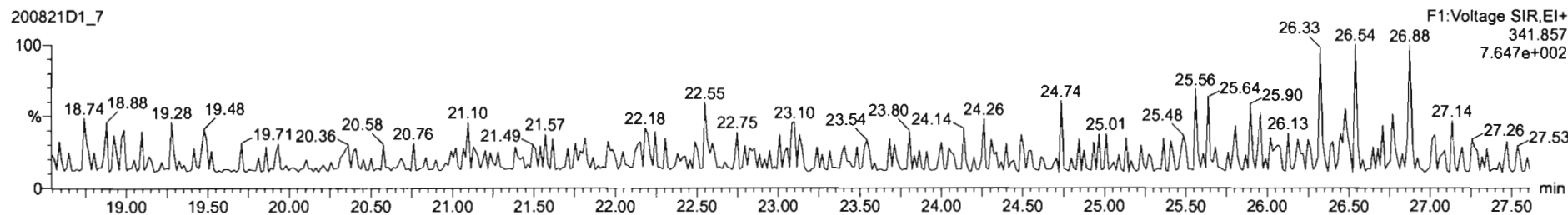
Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

1st Func. Penta-Furans

200821D1\_7

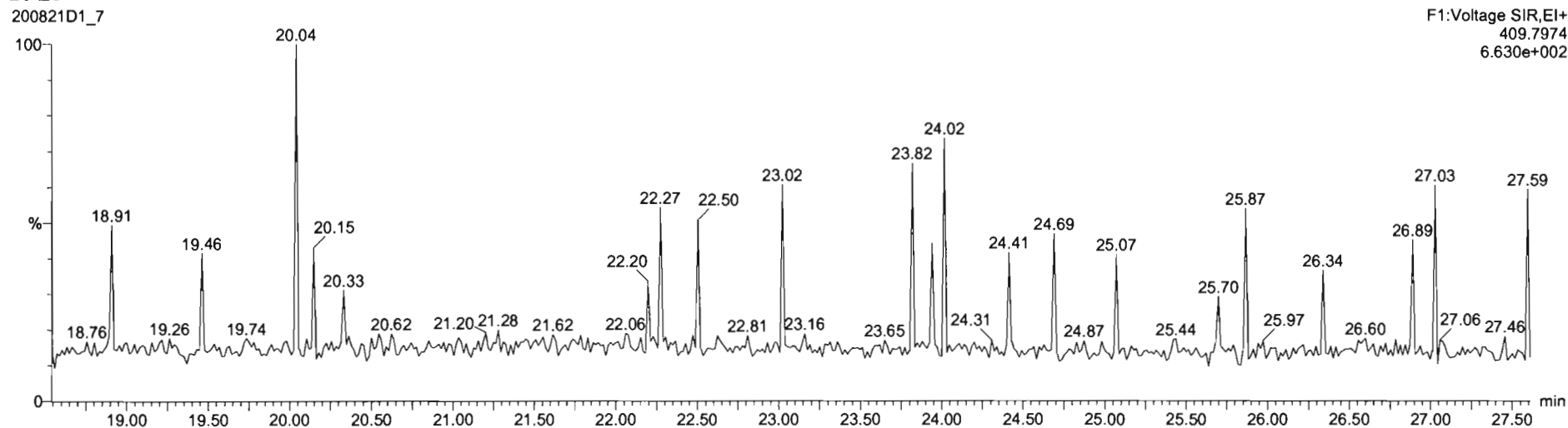


200821D1\_7



DPE6

200821D1\_7



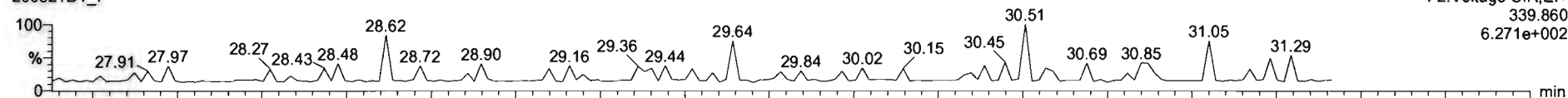
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

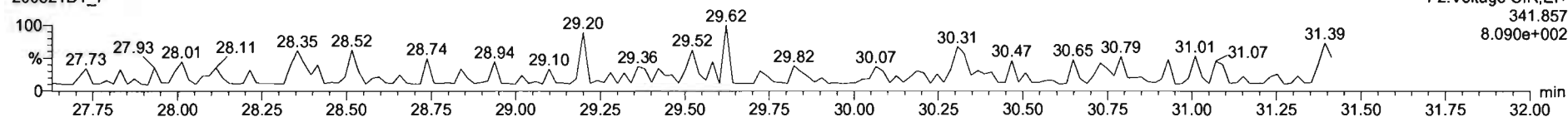
Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

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

200821D1\_7

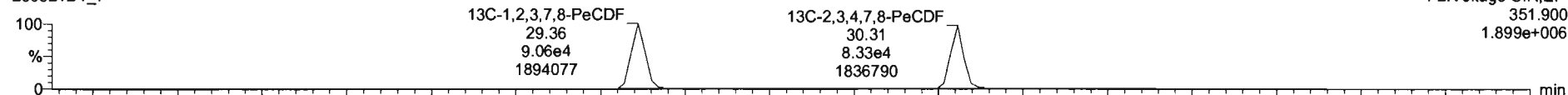


200821D1\_7

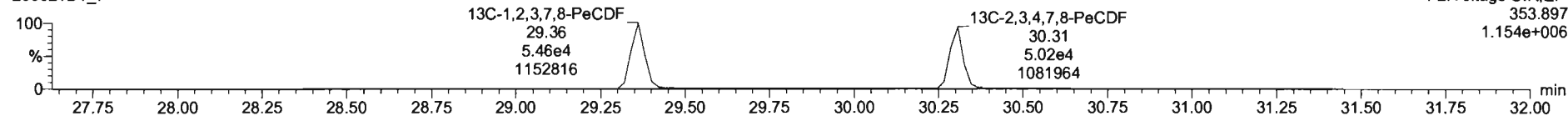


**13C-1,2,3,7,8-PeCDF**

200821D1\_7

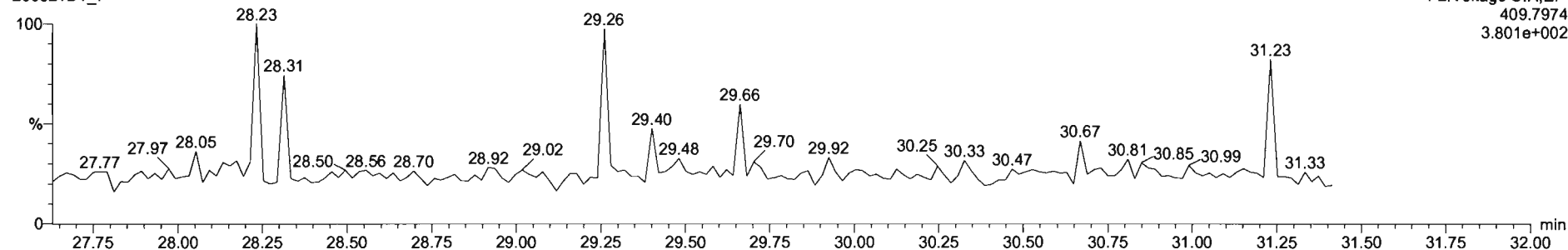


200821D1\_7



**DPE2**

200821D1\_7

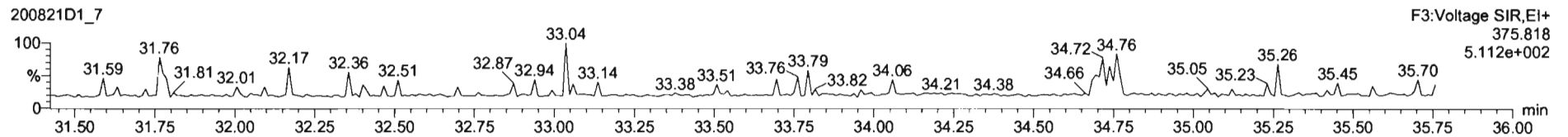
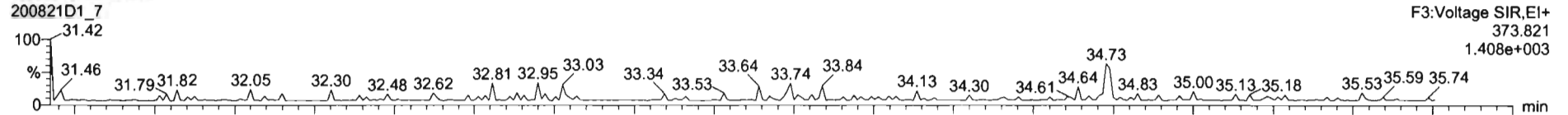


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

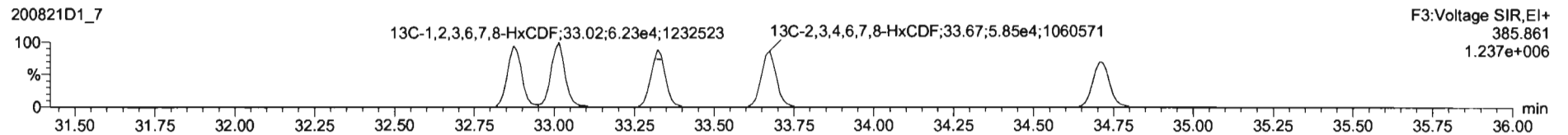
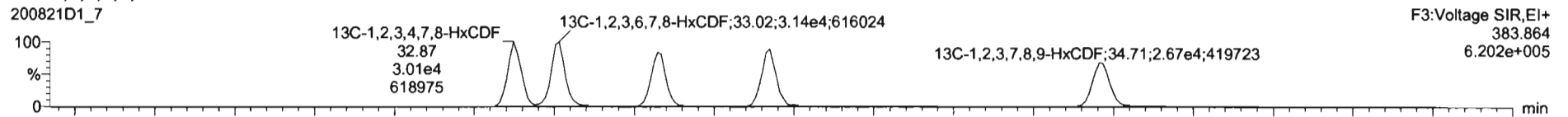
Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

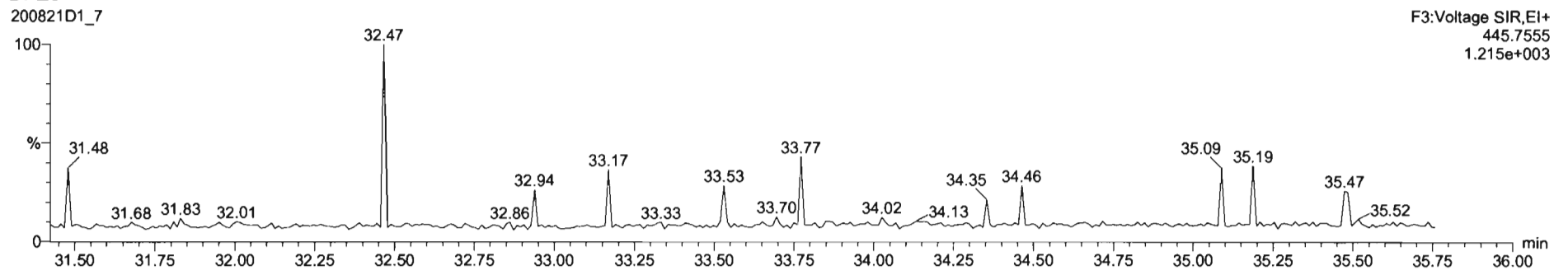
1,2,3,4,7,8-HxCDF



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



DPE3

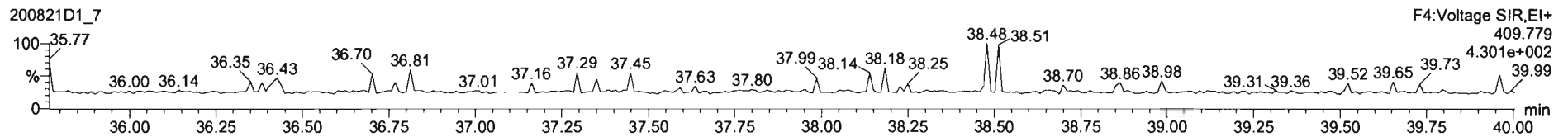
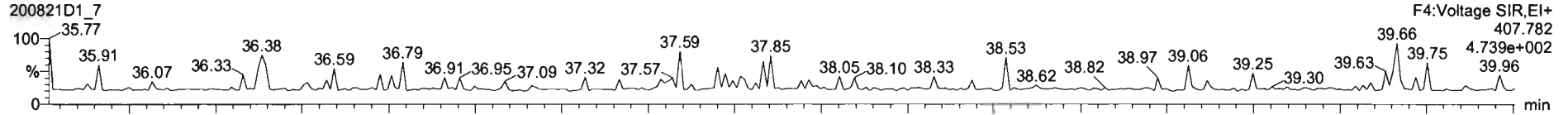


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qid

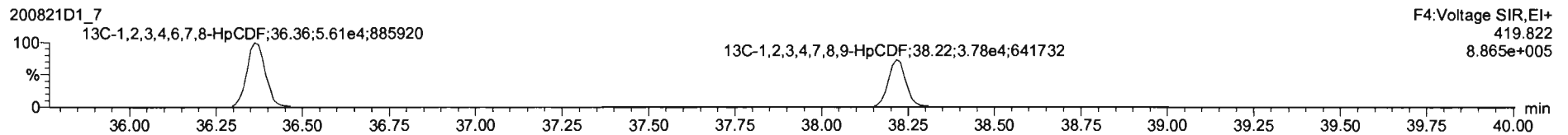
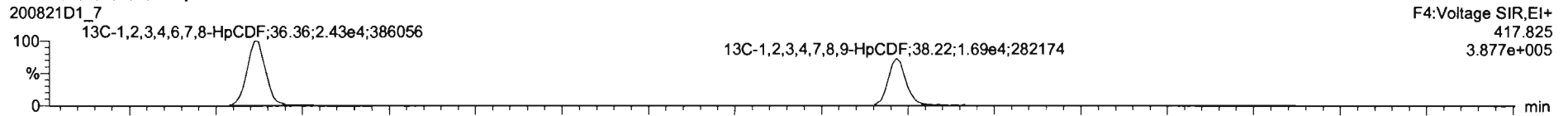
Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520

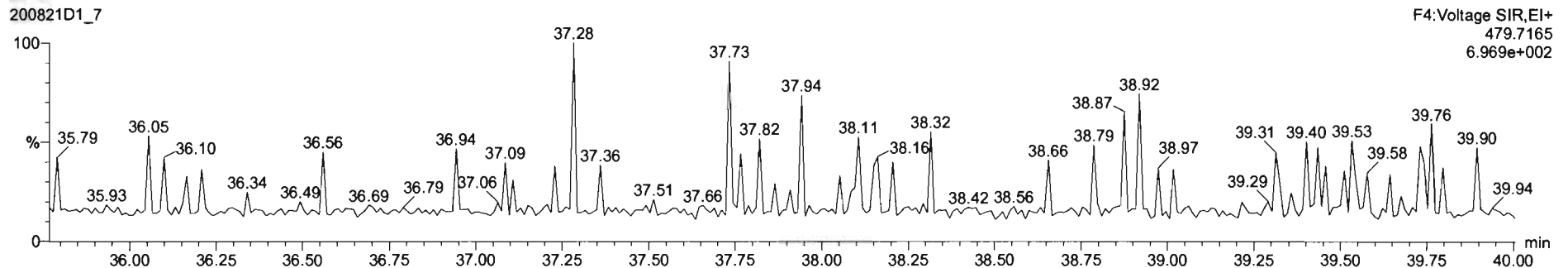
1,2,3,4,6,7,8-HpCDF



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



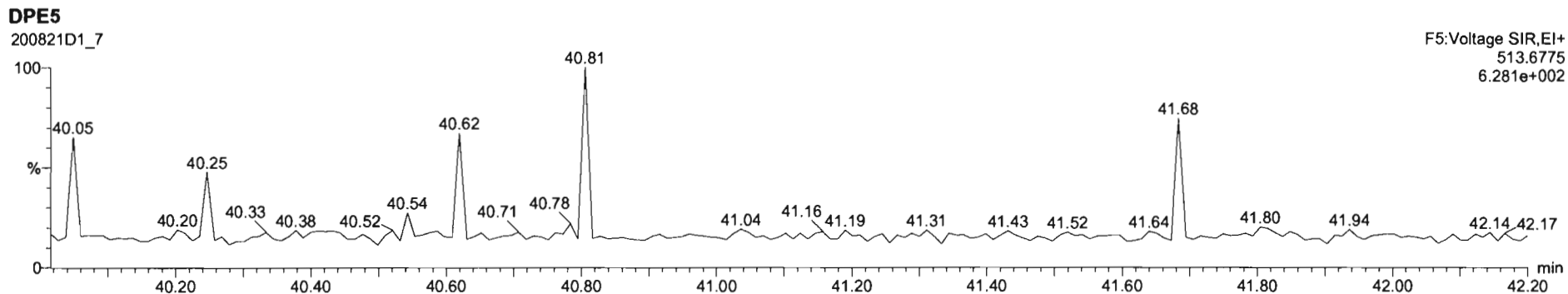
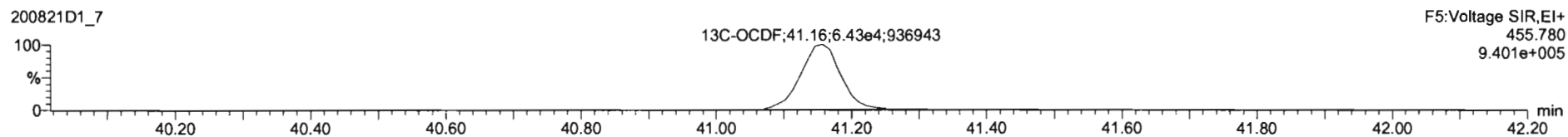
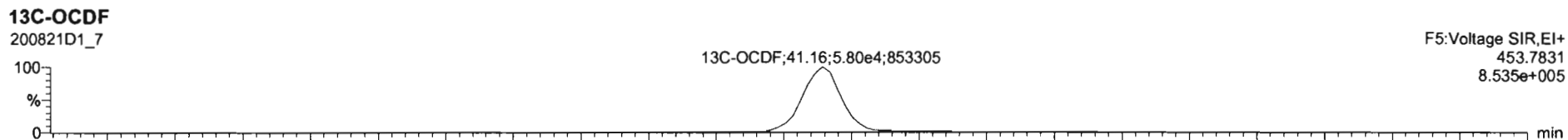
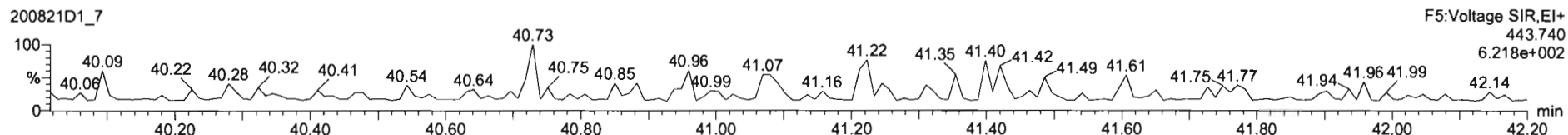
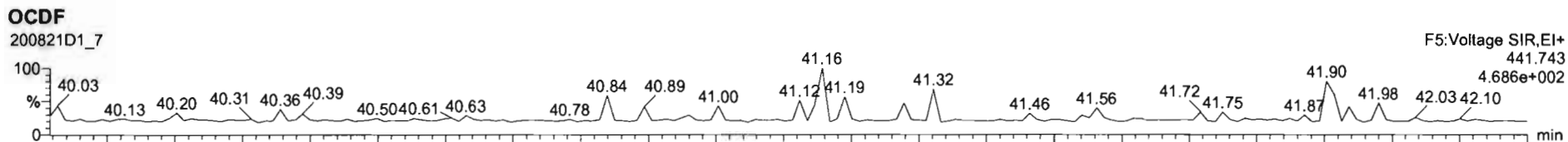
DPE4



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

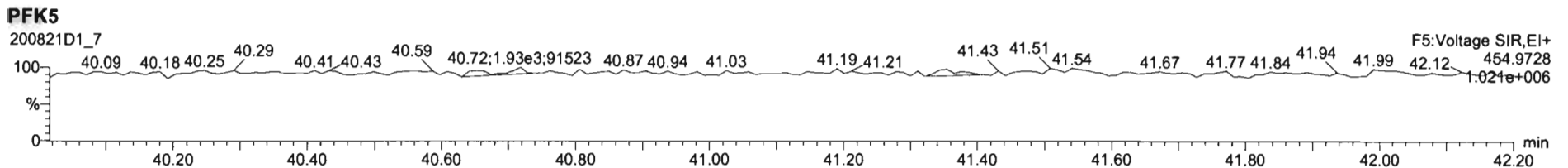
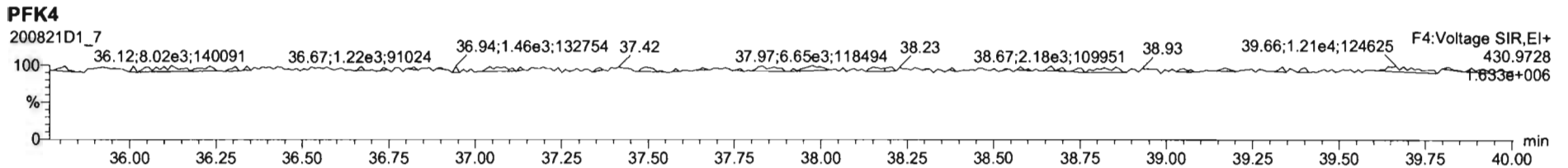
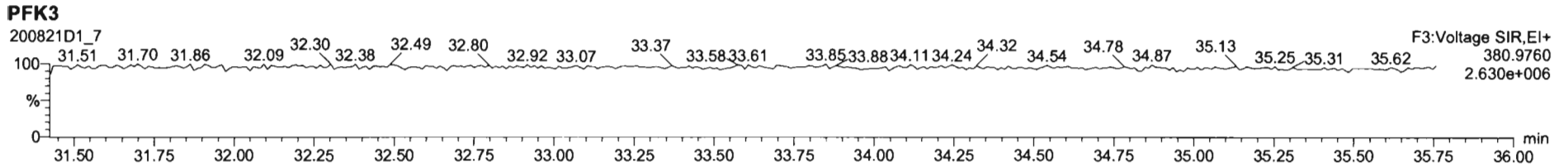
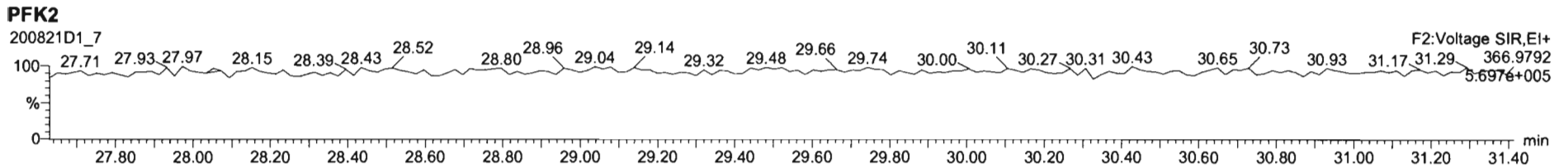
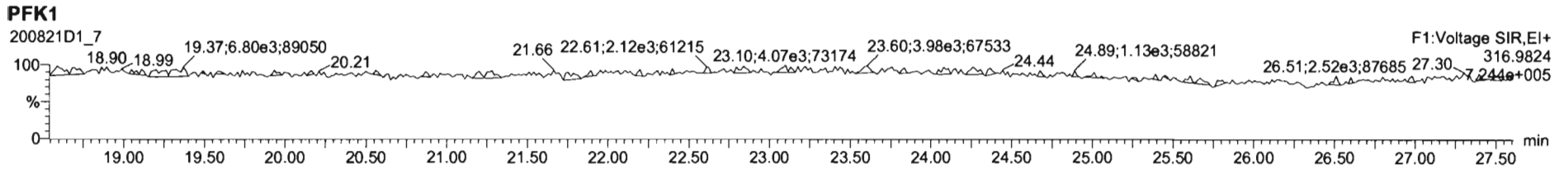
Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_7.qld

Last Altered: Monday, August 24, 2020 09:17:42 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:19:28 Pacific Daylight Time

Name: 200821D1\_7, Date: 21-Aug-2020, Time: 16:31:44, ID: 2001131-14 PDI-168SC-A-04-05-200520 11.35, Description: PDI-168SC-A-04-05-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Tuesday, August 25, 2020 11:31:30 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:32:18 Pacific Daylight Time

*DB 8/25/20 CT 08/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

#	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	1.08	10.077	26.250		1.001				0.128	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.077	30.529		1.001				0.124	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.077	33.816		1.000				0.134	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.077	33.926		1.000				0.136	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.077	34.245		1.001				0.132	
6	6 1,2,3,4,6,7,8-HpCDD	5.66e1	1.48	YES	0.926	10.077	37.569	37.56	1.000	1.000	0.17827		0.167	0.145
7	7 OCDD	5.34e2	0.76	NO	0.834	10.077	40.839	40.87	1.000	1.001	2.1742		0.330	2.17
8	8 2,3,7,8-TCDF			NO	0.882	10.077	25.618		1.001				0.105	
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.077	29.382		1.001				0.0837	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.077	30.336		1.001				0.0710	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.077	32.884		1.000				0.0689	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.077	33.025		1.000				0.0691	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.077	33.719		1.001				0.0740	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.077	34.716		1.000				0.0865	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.15	10.077	36.409		1.001				0.0881	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.077	38.228		1.000				0.0980	
17	17 OCDF			NO	0.961	10.077	41.168		1.000				0.172	
18	18 13C-2,3,7,8-TCDD	1.26e5	0.75	NO	1.20	10.077	26.241	26.22	1.026	1.025	208.79	105	0.762	
19	19 13C-1,2,3,7,8-PeCDD	9.93e4	0.63	NO	0.910	10.077	30.502	30.51	1.193	1.193	217.71	110	0.515	
20	20 13C-1,2,3,4,7,8-HxCDD	7.37e4	1.30	NO	0.789	10.077	33.801	33.81	1.014	1.014	203.35	102	0.788	
21	21 13C-1,2,3,6,7,8-HxCDD	8.37e4	1.27	NO	0.885	10.077	33.911	33.93	1.017	1.018	205.80	104	0.702	
22	22 13C-1,2,3,7,8,9-HxCDD	8.58e4	1.28	NO	0.888	10.077	34.181	34.21	1.025	1.026	210.26	106	0.700	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.88e4	1.03	NO	0.740	10.077	37.634	37.56	1.129	1.127	202.47	102	1.39	
24	24 13C-OCDD	1.17e5	0.88	NO	0.660	10.077	40.647	40.84	1.219	1.225	385.80	97.2	0.886	
25	25 13C-2,3,7,8-TCDF	1.75e5	0.79	NO	1.09	10.077	25.320	25.59	0.990	1.001	186.96	94.2	0.671	
26	26 13C-1,2,3,7,8-PeCDF	1.51e5	1.72	NO	0.857	10.077	29.558	29.36	1.156	1.148	205.51	104	0.656	
27	27 13C-2,3,4,7,8-PeCDF	1.49e5	1.63	NO	0.796	10.077	30.461	30.31	1.191	1.185	218.02	110	0.706	
28	28 13C-1,2,3,4,7,8-HxCDF	9.69e4	0.50	NO	1.02	10.077	32.934	32.88	0.988	0.987	206.90	104	1.04	
29	29 13C-1,2,3,6,7,8-HxCDF	1.01e5	0.50	NO	1.00	10.077	33.067	33.01	0.992	0.990	219.42	111	1.05	
30	30 13C-2,3,4,6,7,8-HxCDF	9.41e4	0.50	NO	0.936	10.077	33.637	33.69	1.009	1.011	218.82	110	1.13	
31	31 13C-1,2,3,7,8,9-HxCDF	8.59e4	0.50	NO	0.889	10.077	34.714	34.72	1.041	1.041	210.35	106	1.19	



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Tuesday, August 25, 2020 11:31:30 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:32:18 Pacific Daylight Time

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

#	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	8.07e4	0.43	NO	0.849	10.077	36.234	36.37	1.087	1.091	206.70	104	1.18	
33	13C-1,2,3,4,7,8,9-HpCDF	5.75e4	0.44	NO	0.624	10.077	38.234	38.23	1.147	1.147	200.82	101	1.60	
34	13C-OCDF	1.33e5	0.87	NO	0.693	10.077	40.801	41.17	1.224	1.235	416.61	105	0.877	
35	37Cl-2,3,7,8-TCDD	4.60e4			1.28	10.077	26.238	26.25	1.026	1.026	71.973	90.7	0.128	
36	13C-1,2,3,4-TCDD	9.95e4	0.80	NO	1.00	10.077	25.550	25.58	1.000	1.000	198.48	100	0.917	
37	13C-1,2,3,4-TCDF	1.70e5	0.78	NO	1.00	10.077	24.250	24.29	1.000	1.000	198.48	100	0.730	
38	13C-1,2,3,4,6,9-HxCDF	9.12e4	0.50	NO	1.00	10.077	33.300	33.33	1.000	1.000	198.48	100	1.06	
39	Total Tetra-Dioxins				1.08	10.077	24.620		0.000				0.0851	
40	Total Penta-Dioxins				0.991	10.077	29.960		0.000				0.0587	
41	Total Hexa-Dioxins				0.908	10.077	33.635		0.000				0.0640	
42	Total Hepta-Dioxins				0.926	10.077	37.640		0.000		0.00000		0.0822	0.342
43	Total Tetra-Furans				0.882	10.077	23.610		0.000				0.0456	
44	1st Func. Penta-Furans				0.937	10.077	26.750		0.000				0.0173	
45	Total Penta-Furans				0.937	10.077	29.275		0.000				0.0313	
46	Total Hexa-Furans				1.11	10.077	33.555		0.000				0.0418	
47	Total Hepta-Furans				1.15	10.077	37.835		0.000				0.0504	

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Tuesday, August 25, 2020 11:31:30 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:32:18 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

**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	Total Hepta-Dioxins	36.70	1.068e3	8.840e2	4.900e1	3.104e1	1.58	YES	0.000e0	0.00000	0.19740	0.157
2	1,2,3,4,6,7,8-HpCDD	37.56	7.770e2	7.250e2	3.379e1	2.276e1	1.48	YES	5.655e1	0.00000	0.14472	0.157

**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:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Tuesday, August 25, 2020 11:31:30 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:32:18 Pacific Daylight Time

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

**Penta-Furans**

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

**Hexa-Furans**

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

**Hepta-Furans**

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

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

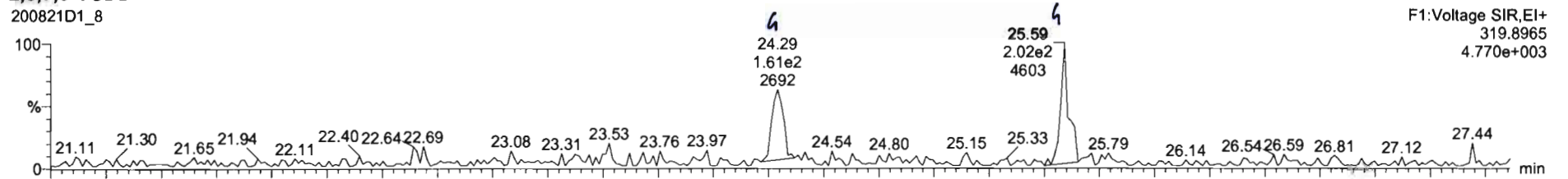
Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

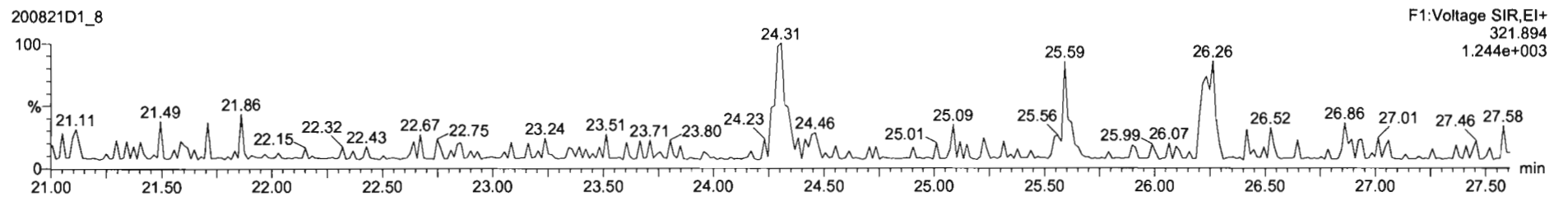
Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

2,3,7,8-TCDD

200821D1\_8

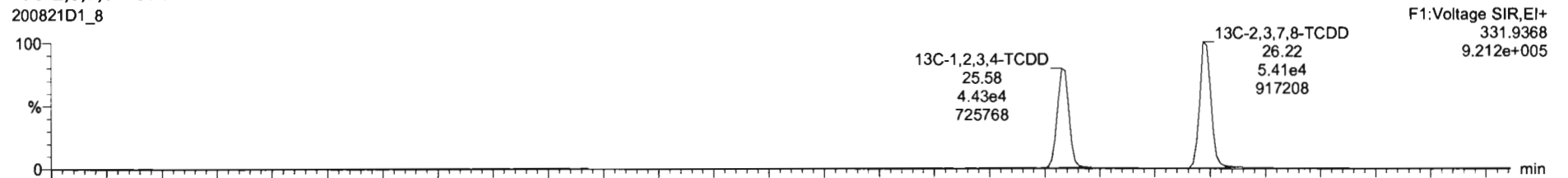


200821D1\_8

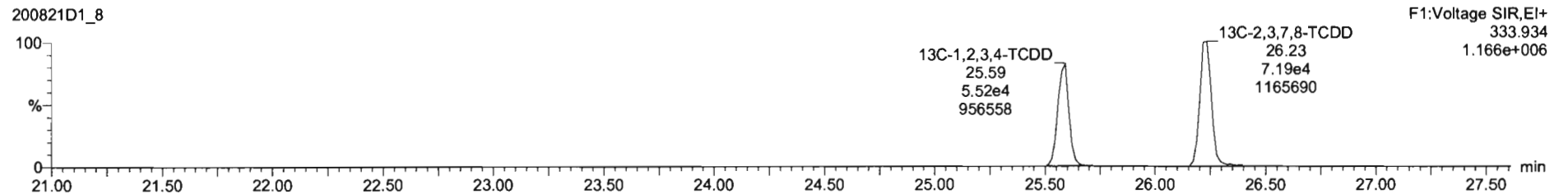


13C-2,3,7,8-TCDD

200821D1\_8



200821D1\_8

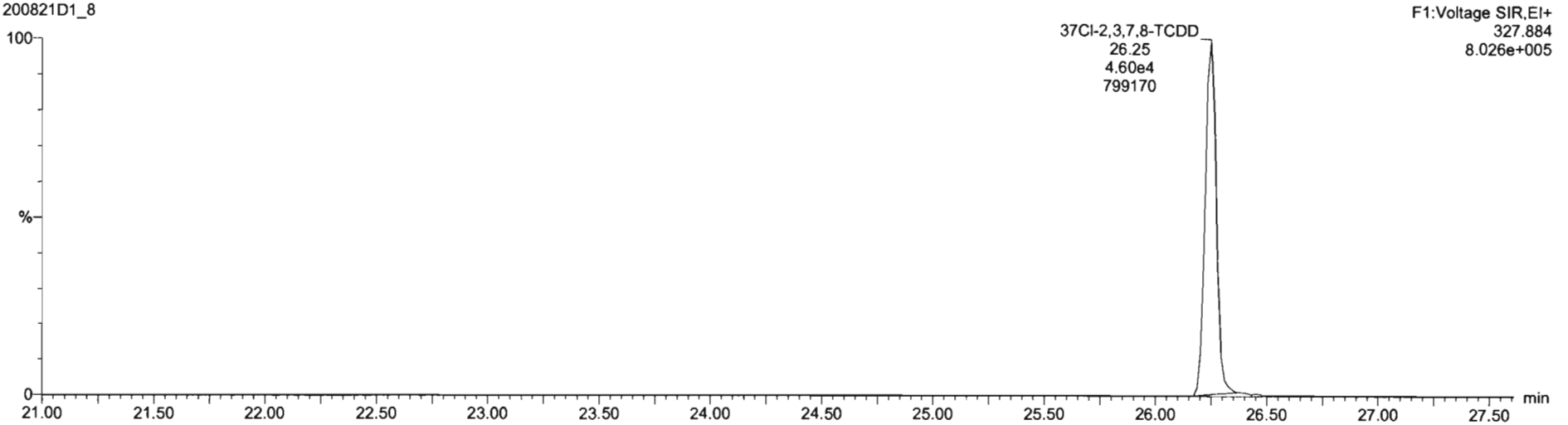


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

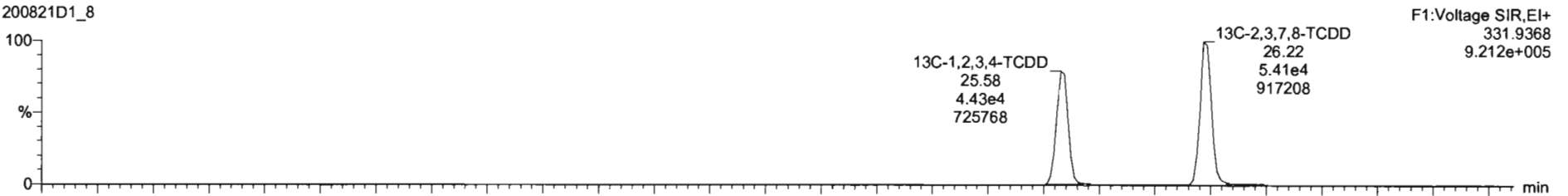
Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

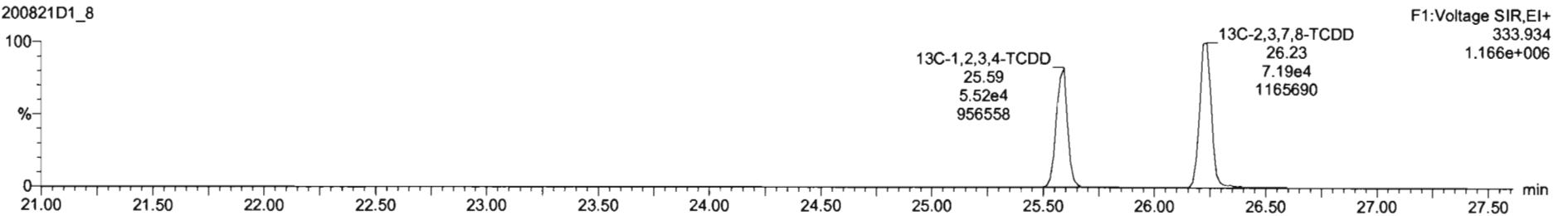
**37Cl-2,3,7,8-TCDD**  
200821D1\_8



**13C-1,2,3,4-TCDD**  
200821D1\_8



200821D1\_8

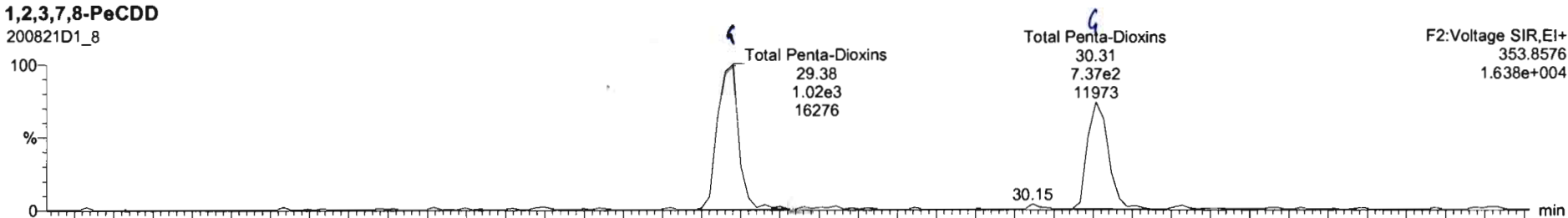


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

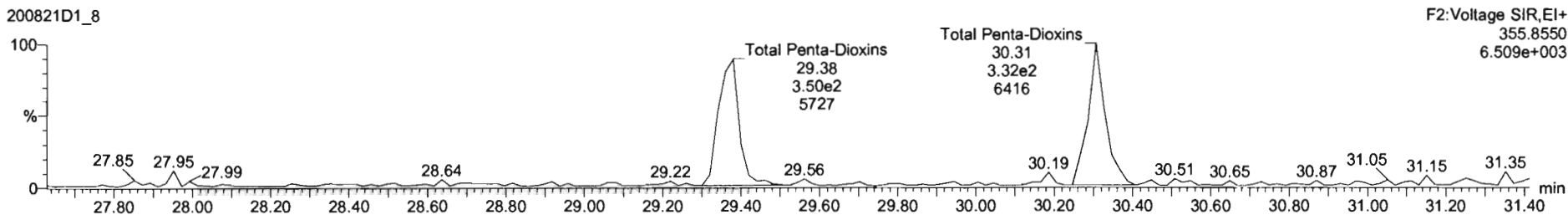
Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

**1,2,3,7,8-PeCDD**  
200821D1\_8



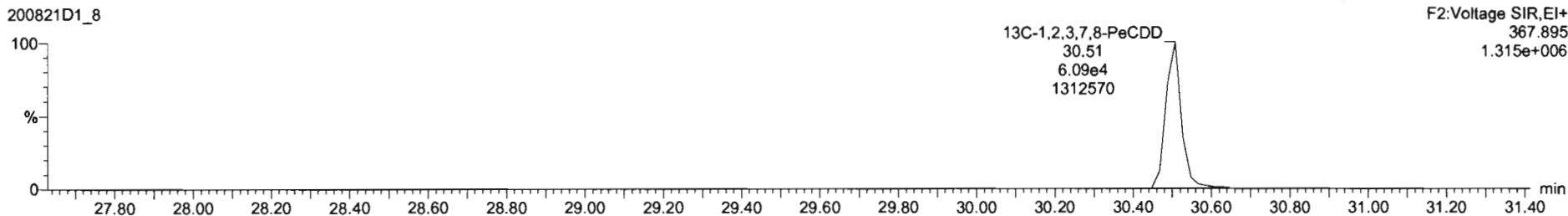
200821D1\_8



**13C-1,2,3,7,8-PeCDD**  
200821D1\_8



200821D1\_8



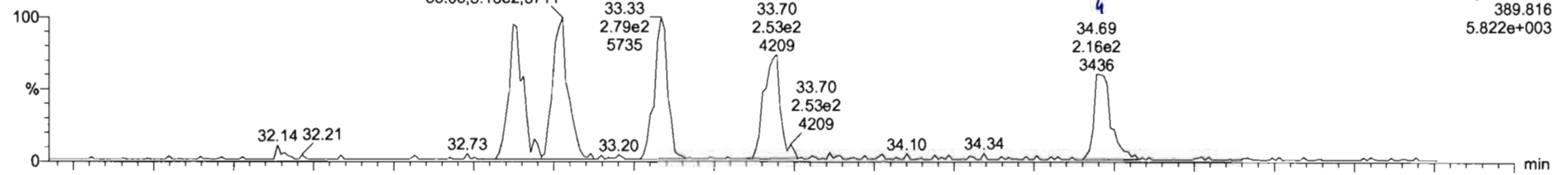
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

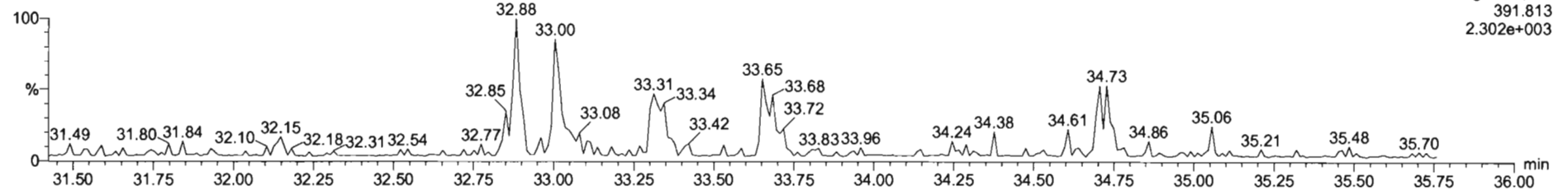
Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

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

200821D1\_8

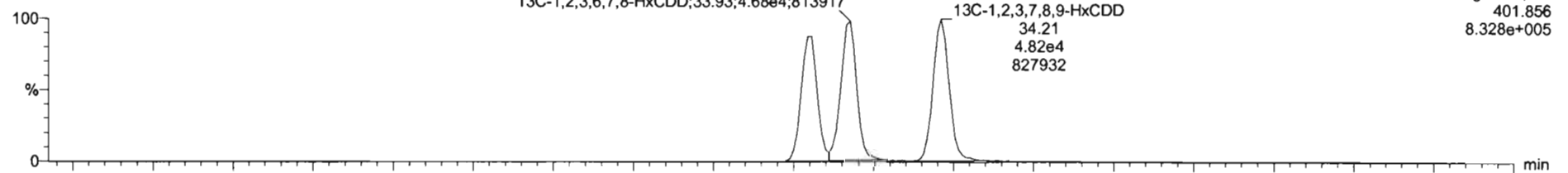


200821D1\_8

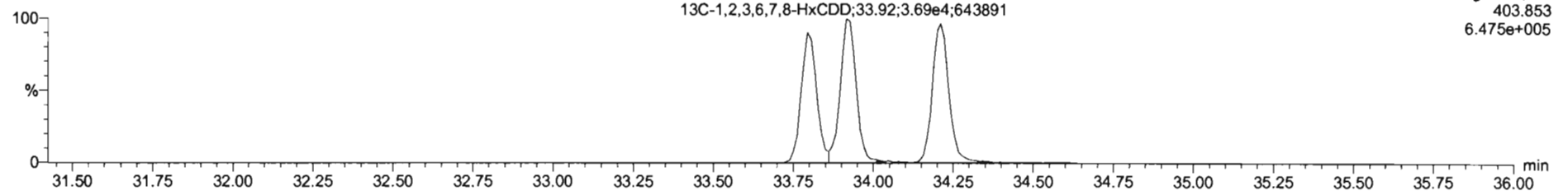


13C-1,2,3,4,7,8-HxCDD

200821D1\_8



200821D1\_8

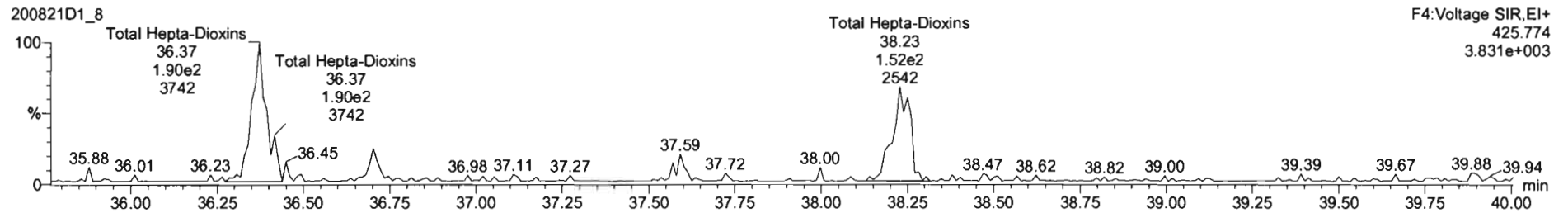
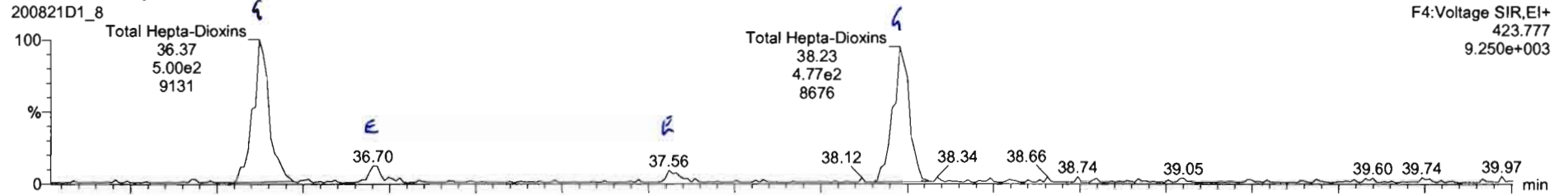


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

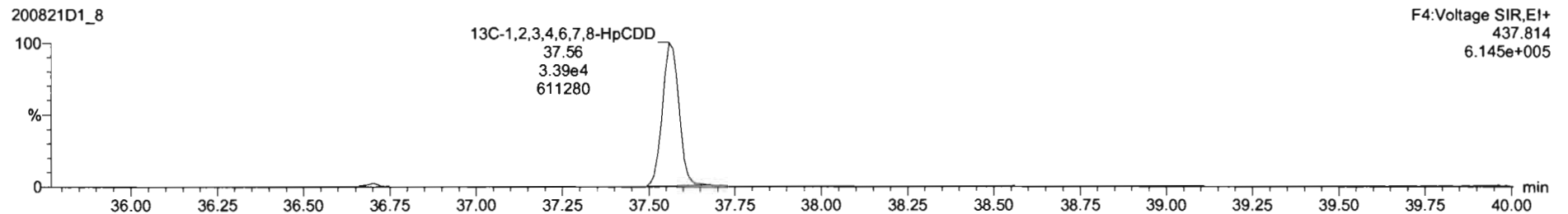
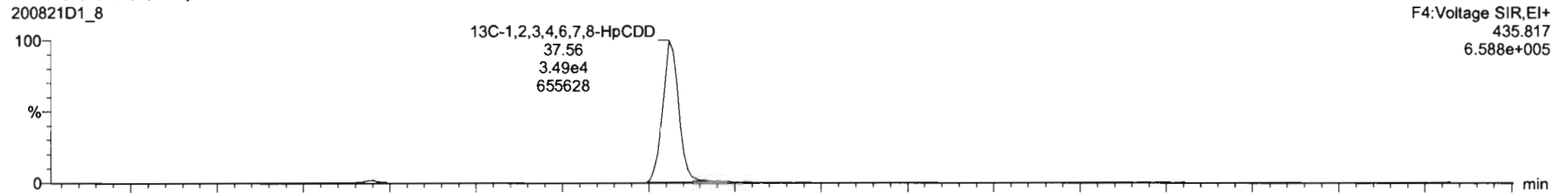
Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

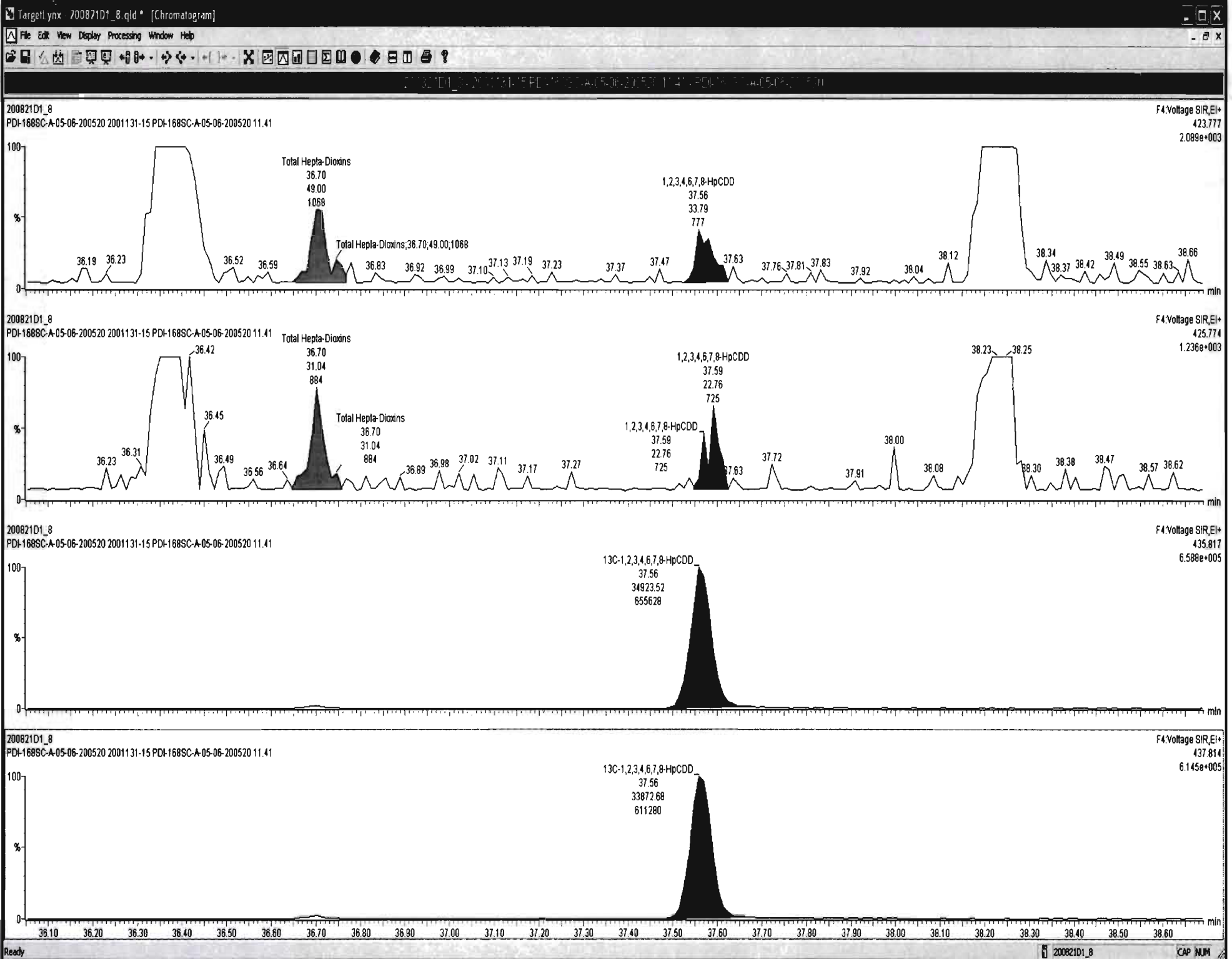
1,2,3,4,6,7,8-HpCDD



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







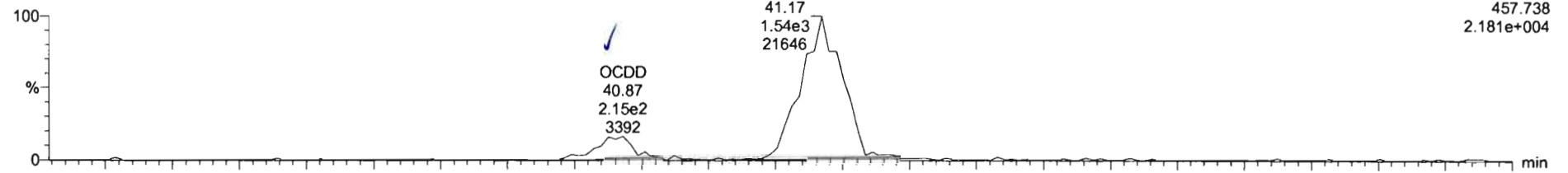
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

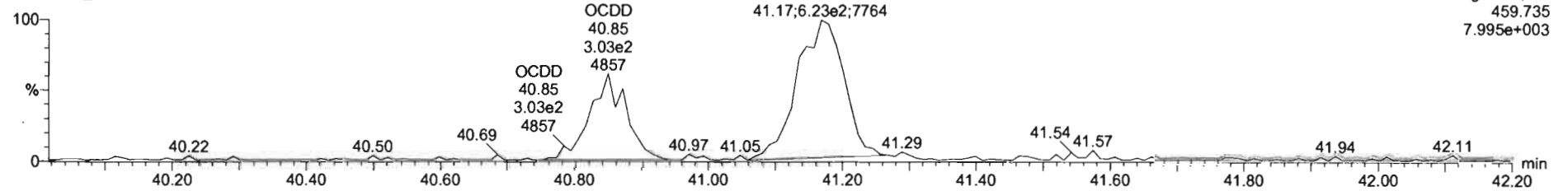
Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

**OCDD**

200821D1\_8

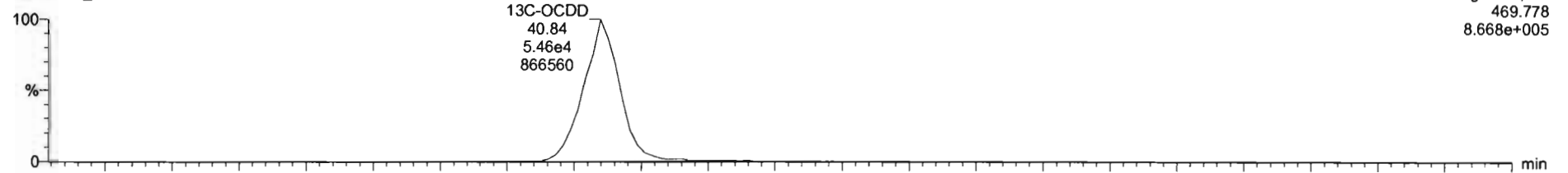


200821D1\_8

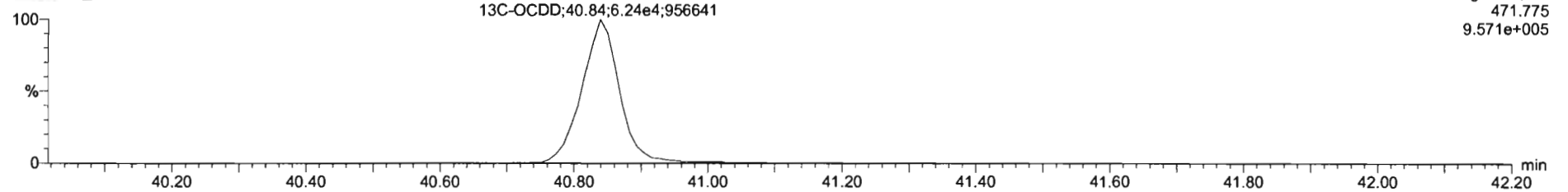


**13C-OCDD**

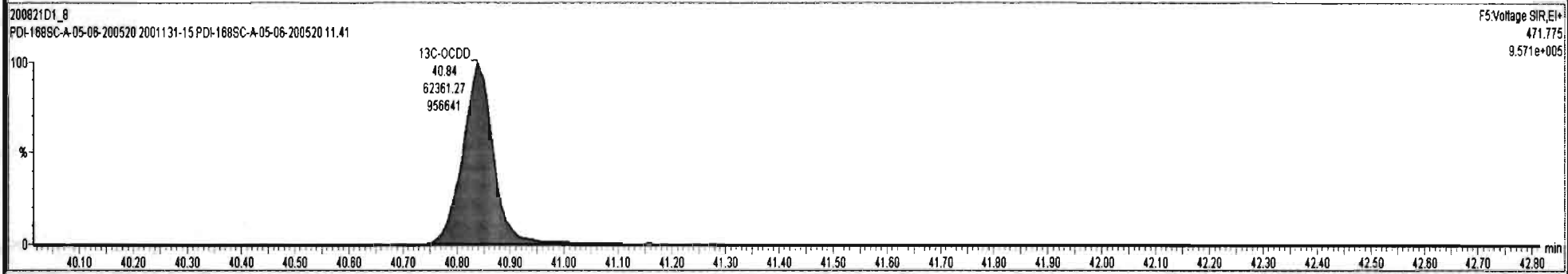
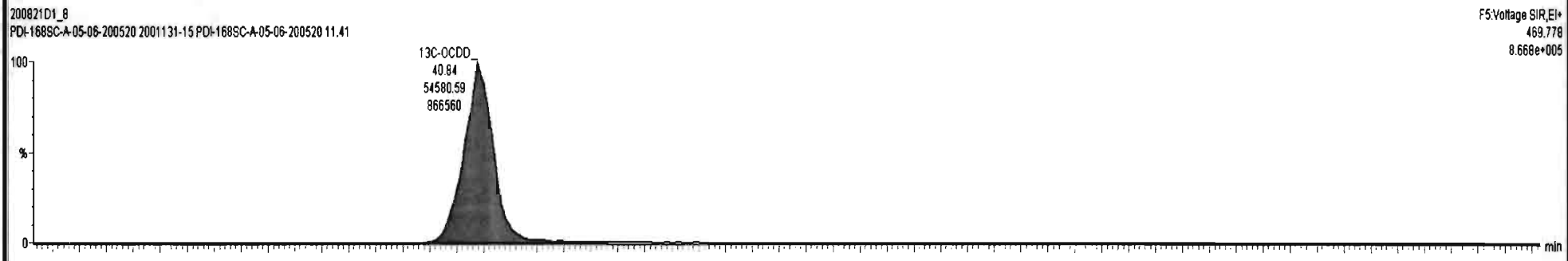
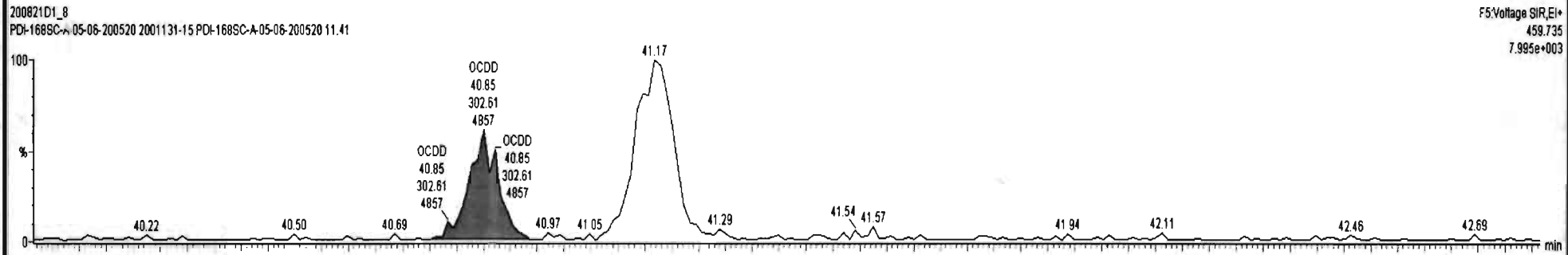
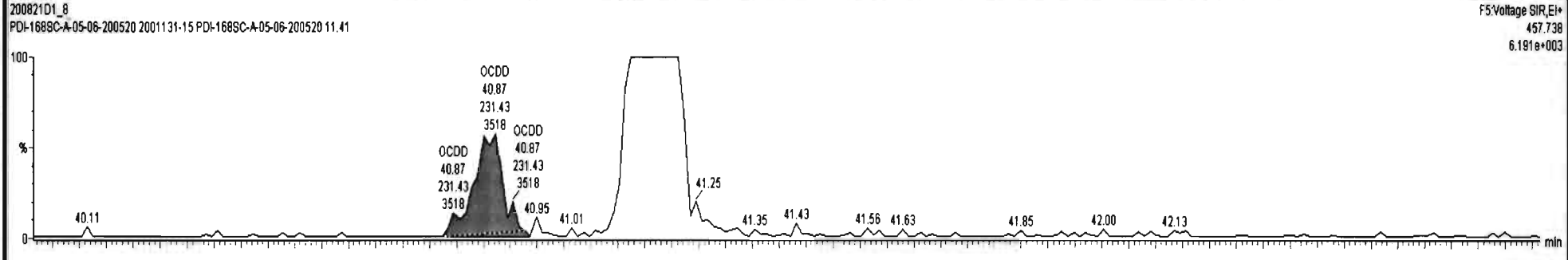
200821D1\_8



200821D1\_8



200821D1\_8 - 2001131-15 PDI-168SC-A-05-06-200520 11.41 - PDI-168SC-A-05-06-200520

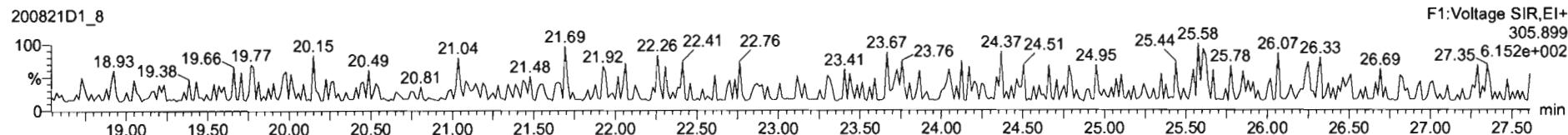
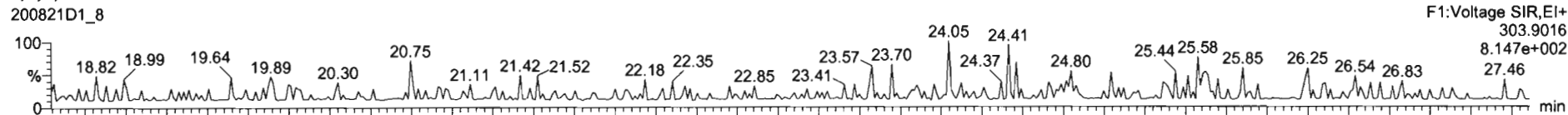


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

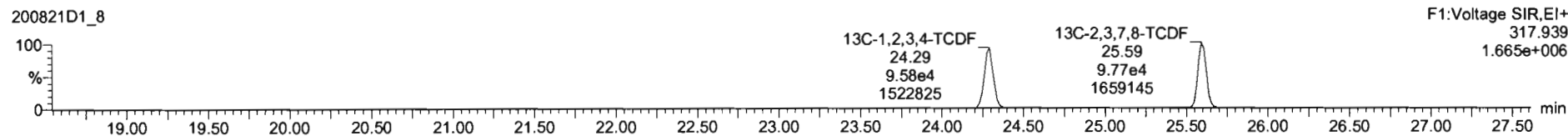
Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

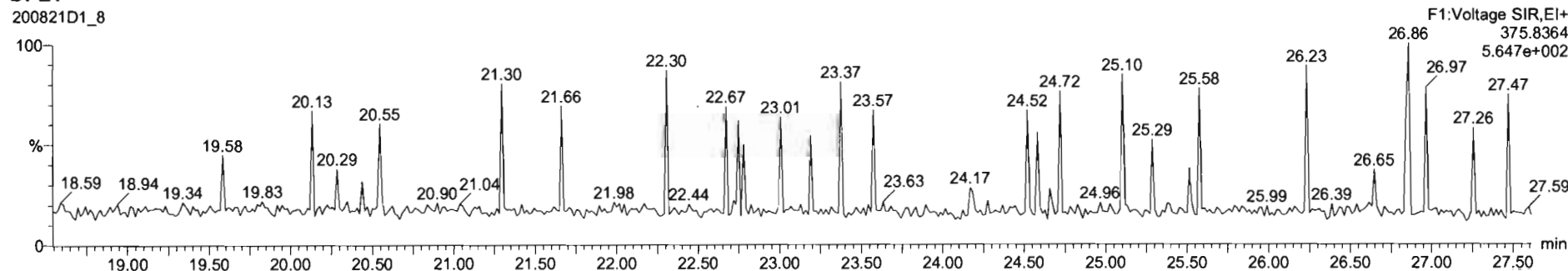
2,3,7,8-TCDF



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



DPE1



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

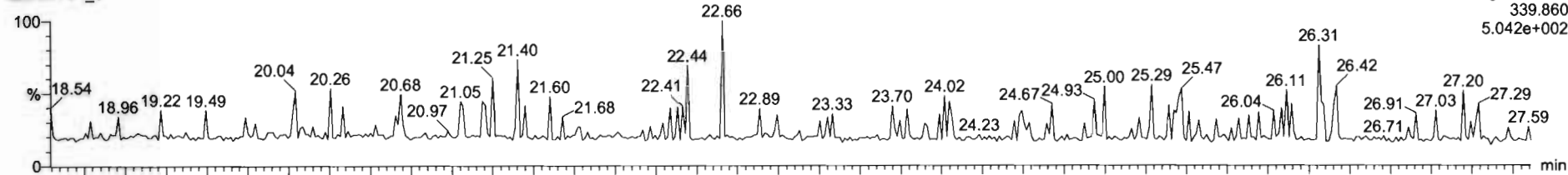
Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time

Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

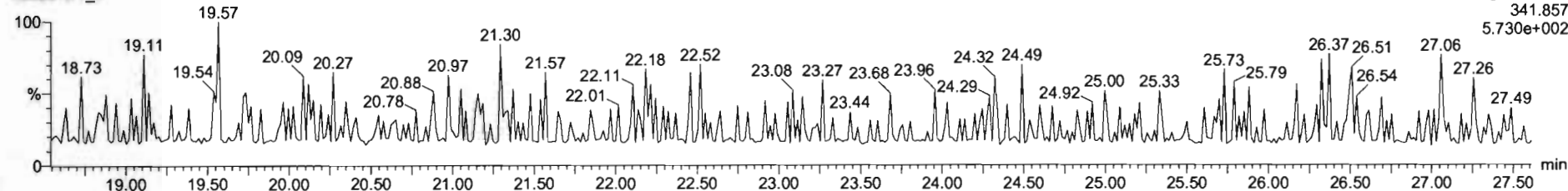
Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

1st Func. Penta-Furans

200821D1\_8

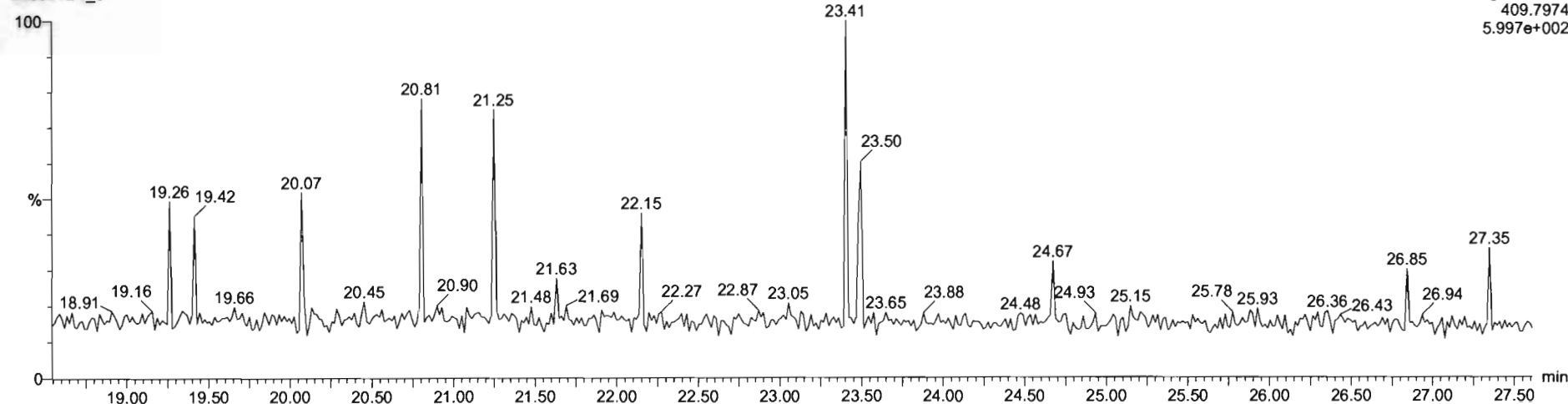


200821D1\_8



DPE6

200821D1\_8



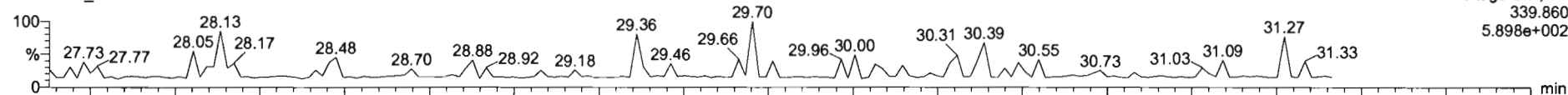
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

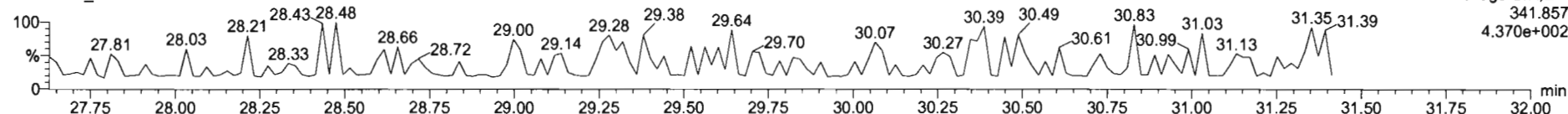
Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

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

200821D1\_8

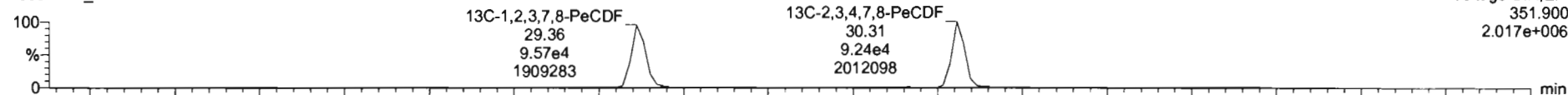


200821D1\_8

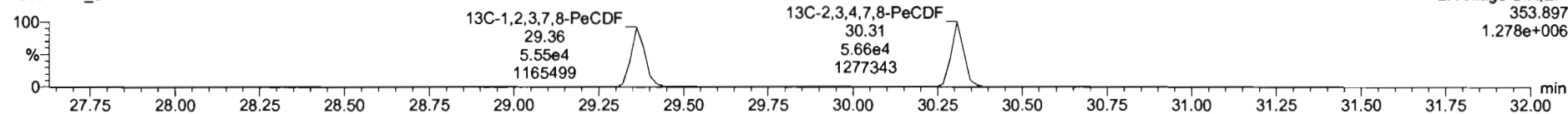


**13C-1,2,3,7,8-PeCDF**

200821D1\_8

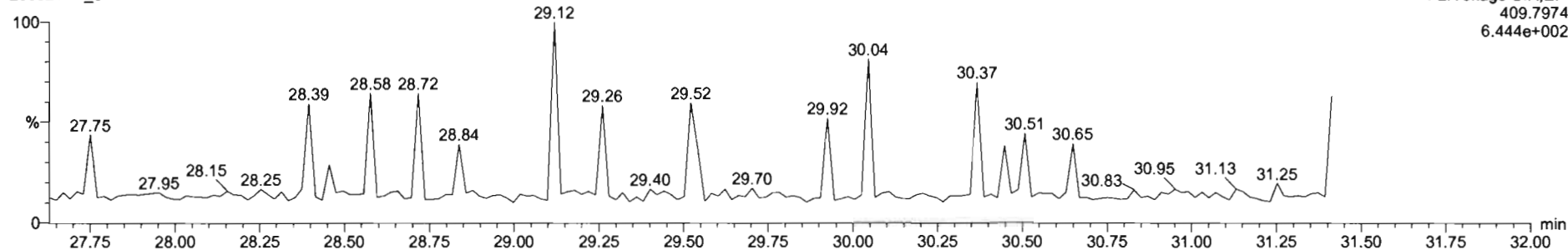


200821D1\_8



**DPE2**

200821D1\_8



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

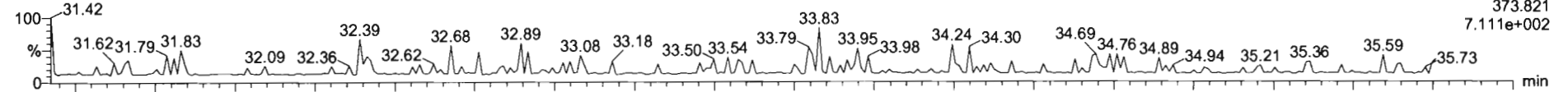
Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time

Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

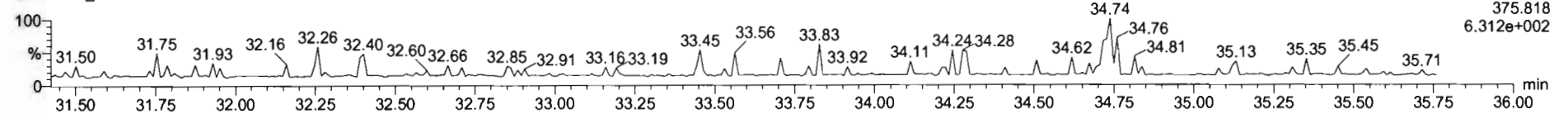
Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

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

200821D1\_8

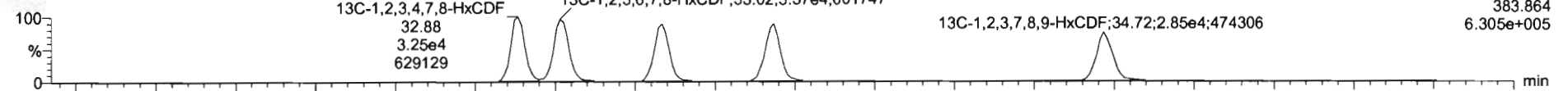


200821D1\_8

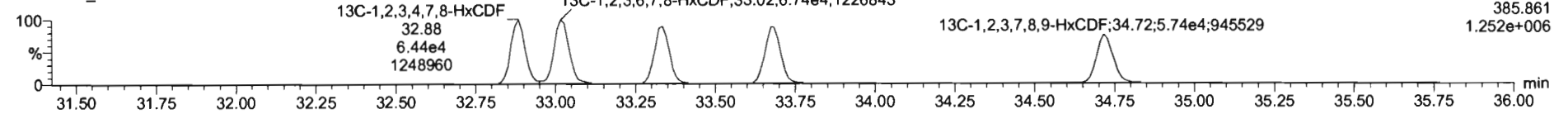


**13C-1,2,3,4,7,8-HxCDF**

200821D1\_8

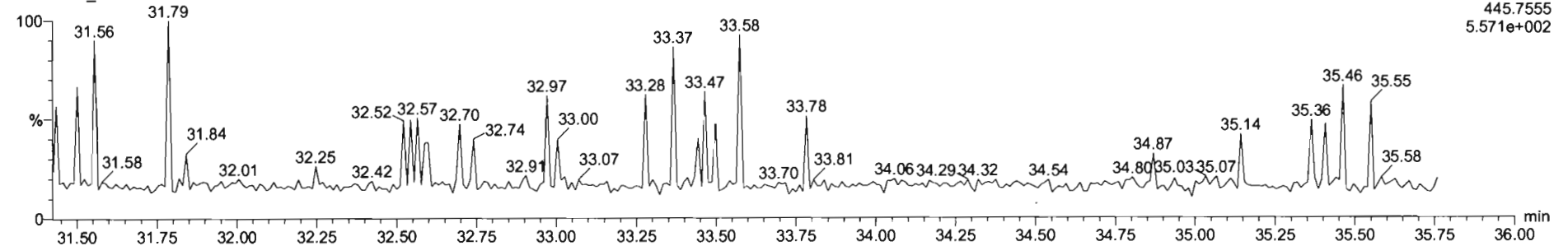


200821D1\_8



**DPE3**

200821D1\_8

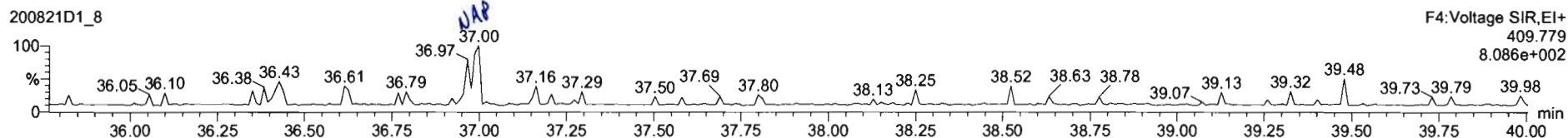
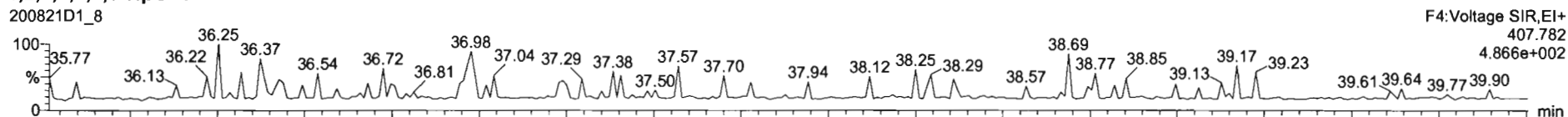


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

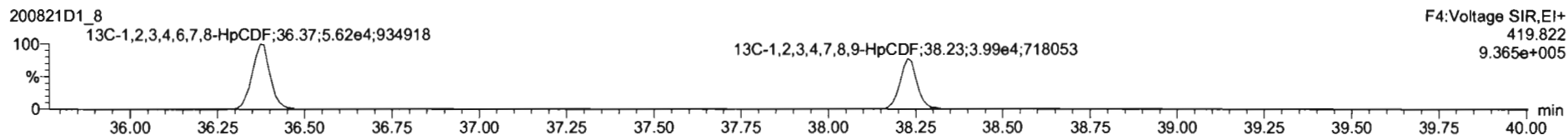
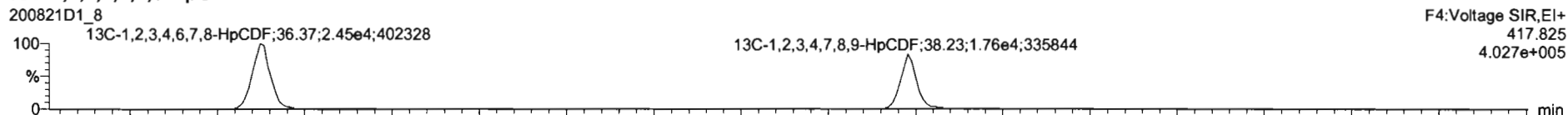
Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520

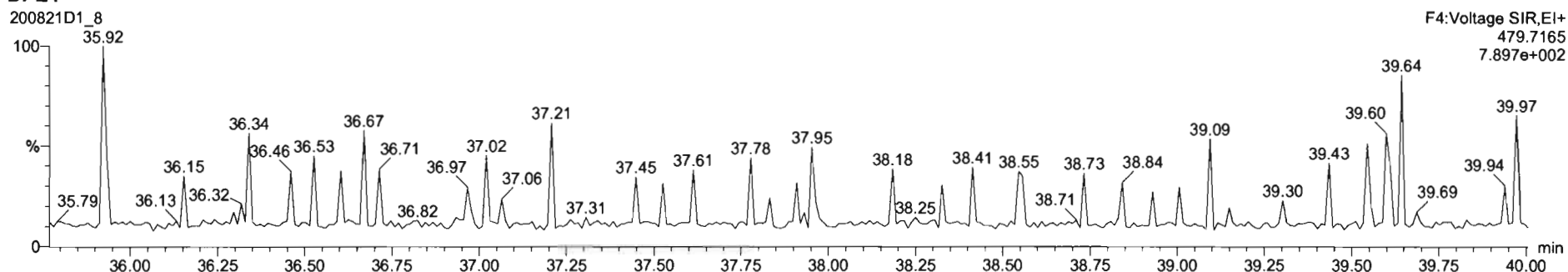
1,2,3,4,6,7,8-HpCDF



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



DPE4

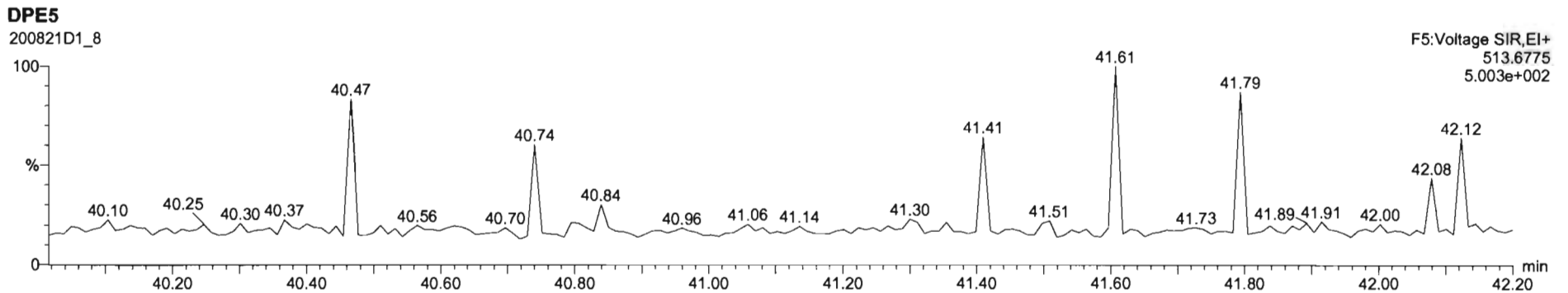
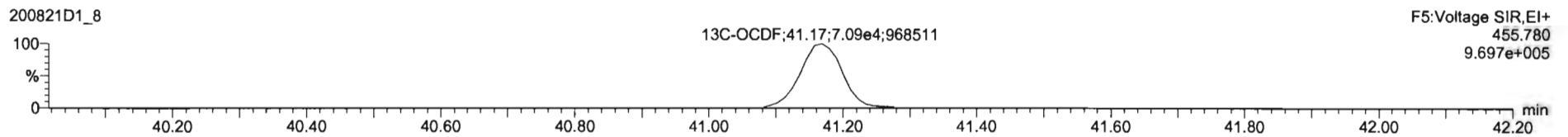
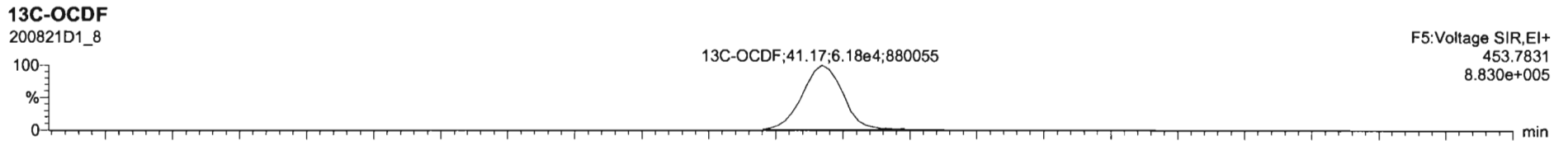
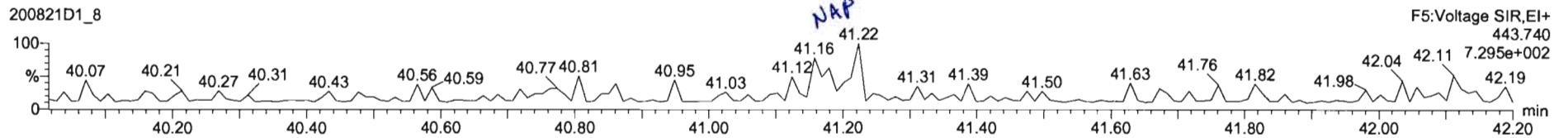
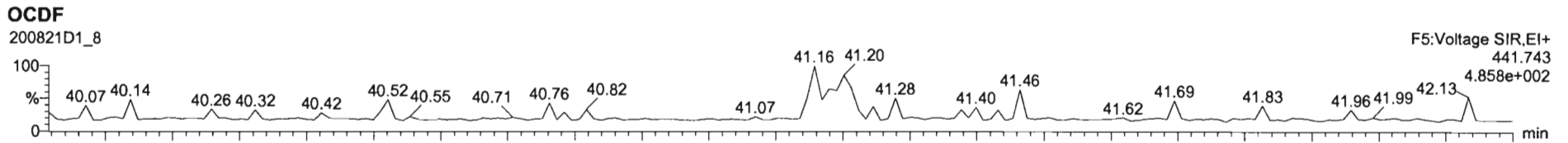




Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

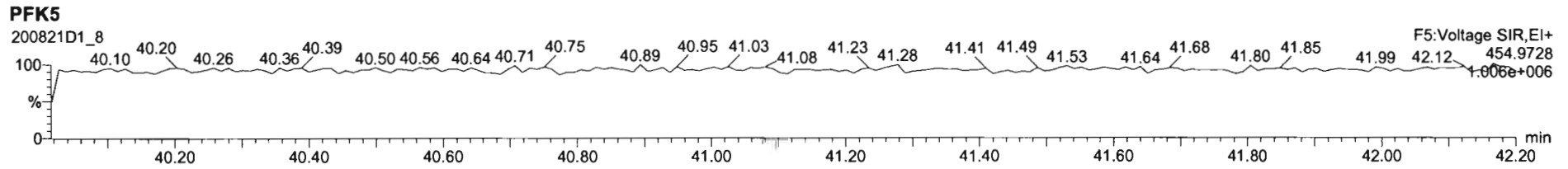
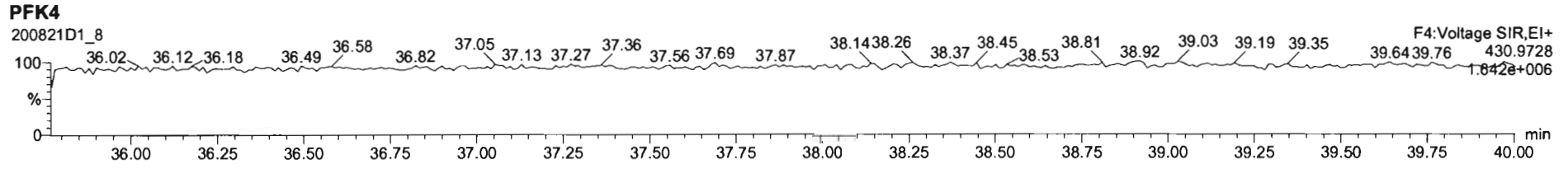
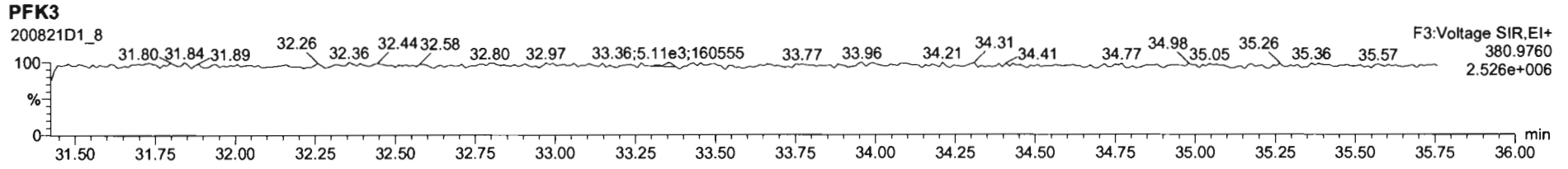
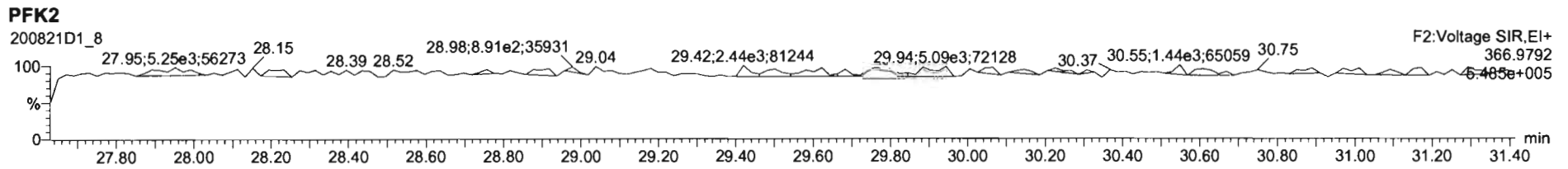
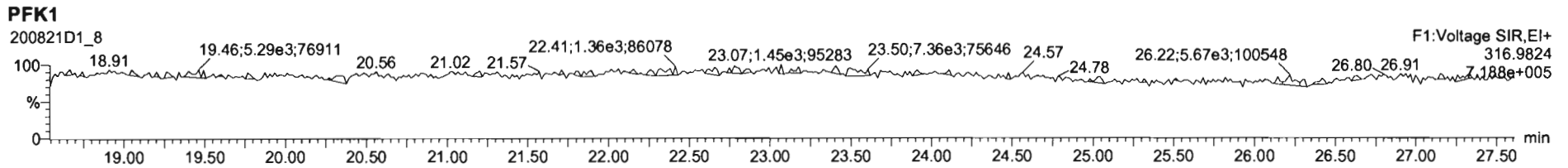
Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_8.qld

Last Altered: Monday, August 24, 2020 09:19:35 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:20:28 Pacific Daylight Time

Name: 200821D1\_8, Date: 21-Aug-2020, Time: 17:17:09, ID: 2001131-15 PDI-168SC-A-05-06-200520 11.41, Description: PDI-168SC-A-05-06-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Tuesday, August 25, 2020 11:44:16 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:45:08 Pacific Daylight Time

*DB 8/25/20*

*CT 08/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

#	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	1.08	10.079	26.250		1.001				0.126	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.079	30.529		1.001				0.177	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.079	33.804		1.000				0.188	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.079	33.915		1.000				0.200	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.079	34.245		1.001				0.214	
6	6 1,2,3,4,6,7,8-HpCDD	2.40e2	0.81	YES	0.926	10.079	37.569	37.59	1.000	1.001	0.7125		0.170	0.677
7	7 OCDD	9.17e2	0.89	NO	0.834	10.079	40.828	40.85	1.000	1.001	3.9903		0.346	3.99
8	8 2,3,7,8-TCDF			NO	0.882	10.079	25.618		1.001				0.0997	
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.079	29.382		1.001				0.0752	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.079	30.336		1.001				0.0657	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.079	32.873		1.000				0.0614	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.079	33.025		1.000				0.0558	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.079	33.708		1.001				0.0679	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.079	34.716		1.000				0.0773	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.15	10.079	36.409		1.001				0.0502	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.079	38.228		1.000				0.0628	
17	17 OCDF			NO	0.961	10.079	41.158		1.000				0.185	
18	18 13C-2,3,7,8-TCDD	1.23e5	0.79	NO	1.20	10.079	26.241	26.22	1.026	1.025	211.56	107	0.755	
19	19 13C-1,2,3,7,8-PeCDD	9.60e4	0.62	NO	0.910	10.079	30.502	30.51	1.193	1.193	218.58	110	0.488	
20	20 13C-1,2,3,4,7,8-HxCDD	6.93e4	1.31	NO	0.789	10.079	33.801	33.79	1.014	1.014	193.14	97.3	0.947	
21	21 13C-1,2,3,6,7,8-HxCDD	8.12e4	1.31	NO	0.885	10.079	33.911	33.92	1.017	1.017	201.81	102	0.844	
22	22 13C-1,2,3,7,8,9-HxCDD	8.03e4	1.30	NO	0.888	10.079	34.181	34.21	1.025	1.026	198.79	100	0.840	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.66e4	1.05	NO	0.740	10.079	37.634	37.56	1.129	1.127	198.12	99.8	1.44	
24	24 13C-OCDD	1.09e5	0.90	NO	0.660	10.079	40.647	40.83	1.219	1.225	364.60	91.9	1.13	
25	25 13C-2,3,7,8-TCDF	1.58e5	0.76	NO	1.09	10.079	25.320	25.59	0.990	1.001	175.37	88.4	0.703	
26	26 13C-1,2,3,7,8-PeCDF	1.42e5	1.65	NO	0.857	10.079	29.558	29.36	1.156	1.148	200.02	101	0.646	
27	27 13C-2,3,4,7,8-PeCDF	1.41e5	1.67	NO	0.796	10.079	30.461	30.31	1.191	1.185	213.06	107	0.695	
28	28 13C-1,2,3,4,7,8-HxCDF	9.67e4	0.50	NO	1.02	10.079	32.934	32.87	0.988	0.986	208.49	105	0.957	
29	29 13C-1,2,3,6,7,8-HxCDF	1.02e5	0.49	NO	1.00	10.079	33.067	33.01	0.992	0.990	224.08	113	0.973	
30	30 13C-2,3,4,6,7,8-HxCDF	9.34e4	0.50	NO	0.936	10.079	33.637	33.67	1.009	1.010	219.57	111	1.04	
31	31 13C-1,2,3,7,8,9-HxCDF	8.61e4	0.49	NO	0.889	10.079	34.714	34.72	1.041	1.041	212.81	107	1.10	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Tuesday, August 25, 2020 11:44:16 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:45:08 Pacific Daylight Time

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

#	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	7.67e4	0.42	NO	0.849	10.079	36.234	36.37	1.087	1.091	198.55	100	1.19	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.60e4	0.42	NO	0.624	10.079	38.234	38.23	1.147	1.147	197.39	99.5	1.62	
34	34 13C-OCDF	1.27e5	0.88	NO	0.693	10.079	40.801	41.16	1.224	1.235	403.19	102	0.825	
35	35 37Cl-2,3,7,8-TCDD	4.57e4			1.28	10.079	26.238	26.25	1.026	1.026	74.237	93.5	0.116	
36	36 13C-1,2,3,4-TCDD	9.58e4	0.76	NO	1.00	10.079	25.550	25.58	1.000	1.000	198.43	100	0.909	
37	37 13C-1,2,3,4-TCDF	1.65e5	0.80	NO	1.00	10.079	24.250	24.29	1.000	1.000	198.43	100	0.765	
38	38 13C-1,2,3,4,6,9-HxCDF	9.02e4	0.48	NO	1.00	10.079	33.300	33.33	1.000	1.000	198.43	100	0.976	
39	39 Total Tetra-Dioxins				1.08	10.079	24.620		0.000				0.0767	
40	40 Total Penta-Dioxins				0.991	10.079	29.960		0.000				0.0743	
41	41 Total Hexa-Dioxins				0.908	10.079	33.635		0.000		0.00000		0.0786	0.483
42	42 Total Hepta-Dioxins				0.926	10.079	37.640		0.000		1.1839		0.170	1.86
43	43 Total Tetra-Furans				0.882	10.079	23.610		0.000				0.0441	
44	44 1st Func. Penta-Furans				0.937	10.079	26.750		0.000				0.0198	
45	45 Total Penta-Furans				0.937	10.079	29.275		0.000				0.0236	
46	46 Total Hexa-Furans				1.11	10.079	33.555		0.000				0.0393	
47	47 Total Hepta-Furans				1.15	10.079	37.835		0.000				0.0398	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Tuesday, August 25, 2020 11:44:16 Pacific Daylight Time  
 Printed: Tuesday, August 25, 2020 11:45:08 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
 Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.15	2.079e3	2.230e3	9.425e1	9.212e1	1.02	YES	0.000e0	0.00000	0.48348	0.211

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.71	2.822e3	2.882e3	2.001e2	1.679e2	1.19	NO	3.680e2	1.1839	1.1839	0.170
2	1,2,3,4,6,7,8-HpCDD	37.59	2.360e3	2.779e3	1.072e2	1.325e2	0.81	YES	2.397e2	0.00000	0.67667	0.170

**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:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Tuesday, August 25, 2020 11:44:16 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:45:08 Pacific Daylight Time

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

Penta-Furans

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

Hexa-Furans

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

Hepta-Furans

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

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

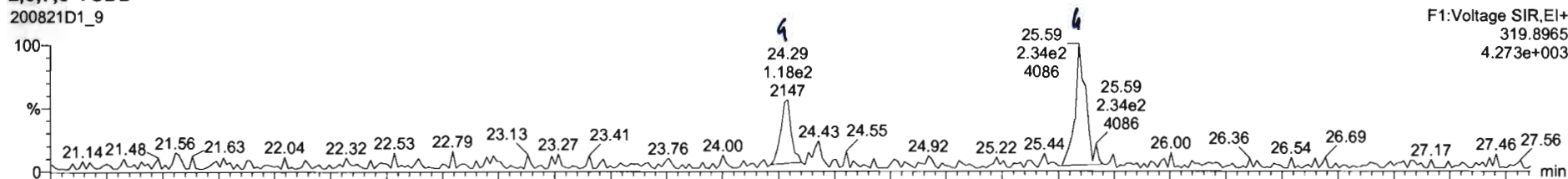
Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

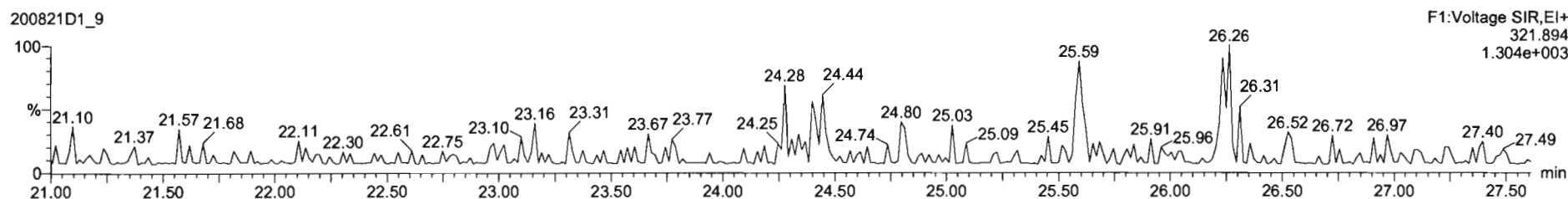
Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

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

200821D1\_9

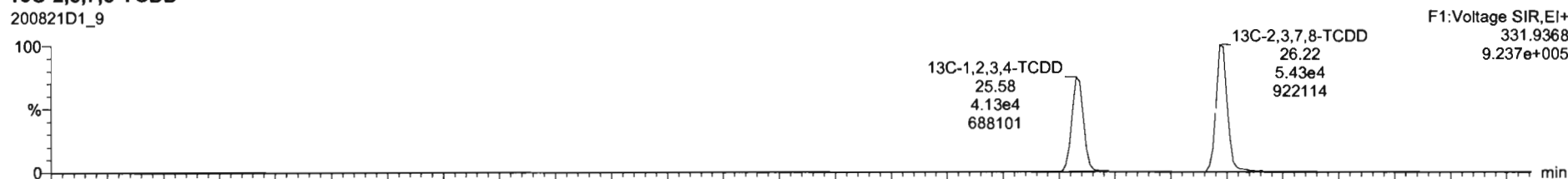


200821D1\_9

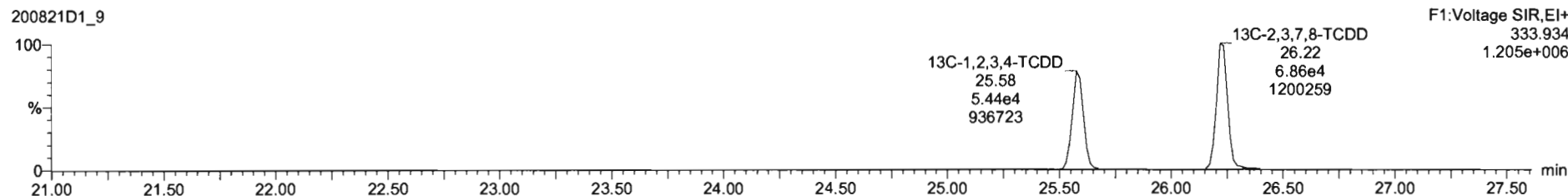


**13C-2,3,7,8-TCDD**

200821D1\_9



200821D1\_9



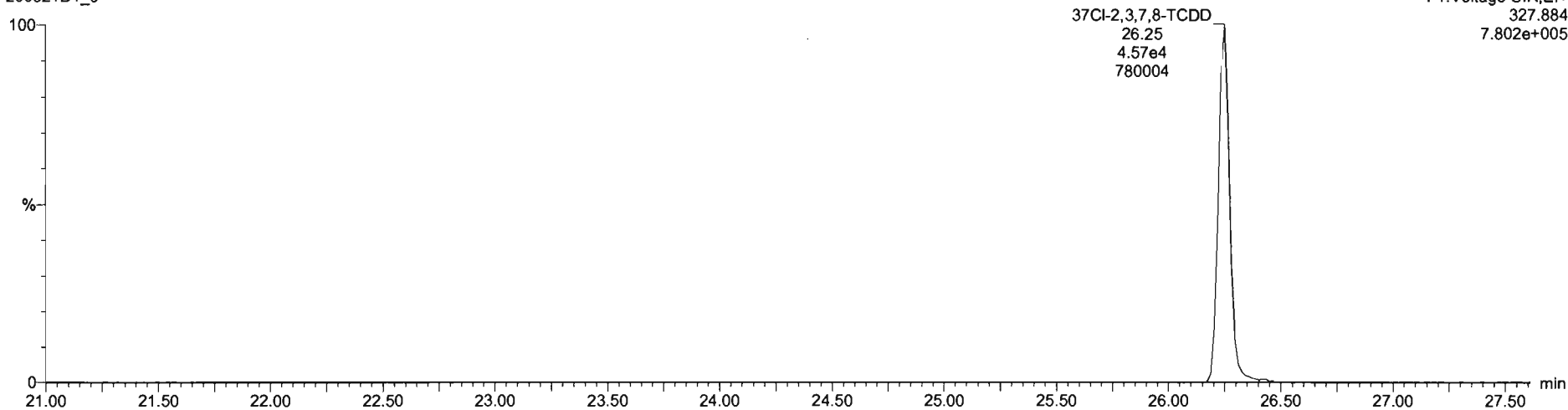
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

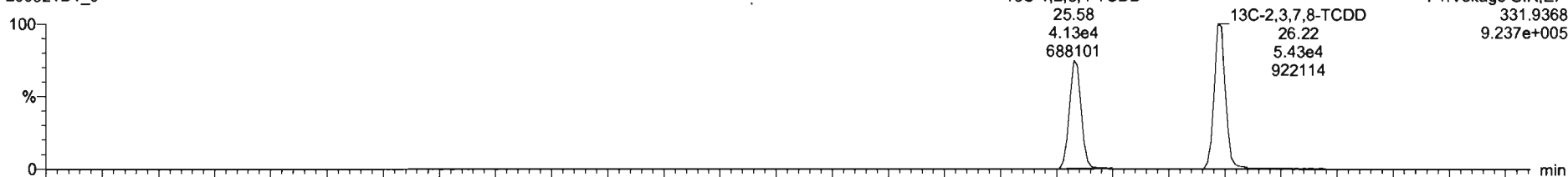
**37Cl-2,3,7,8-TCDD**

200821D1\_9

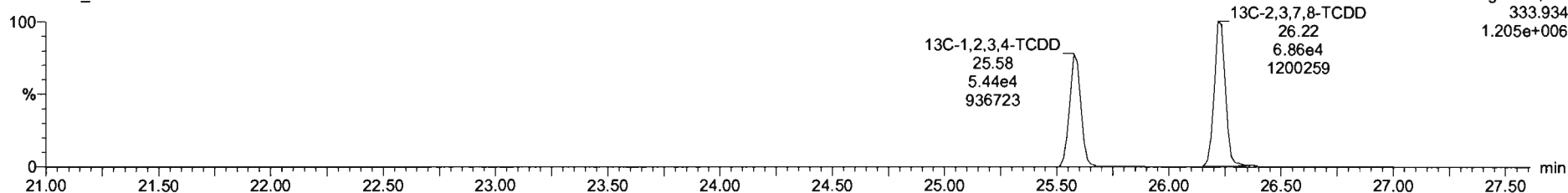


**13C-1,2,3,4-TCDD**

200821D1\_9



200821D1\_9



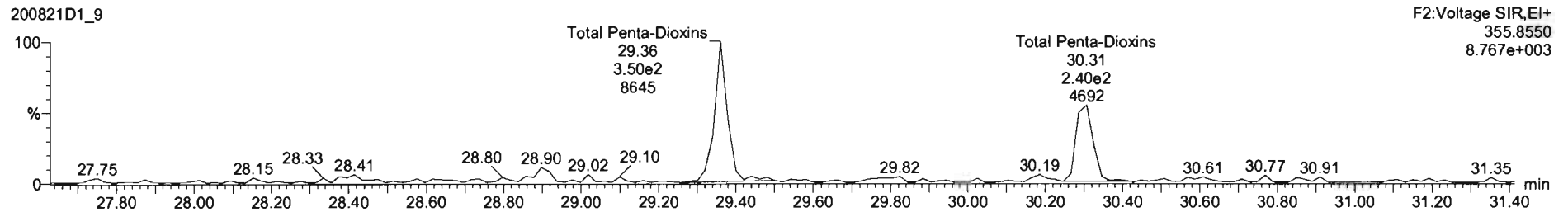
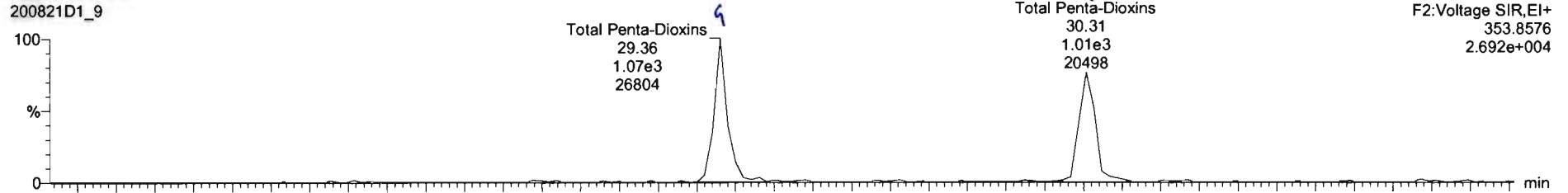


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

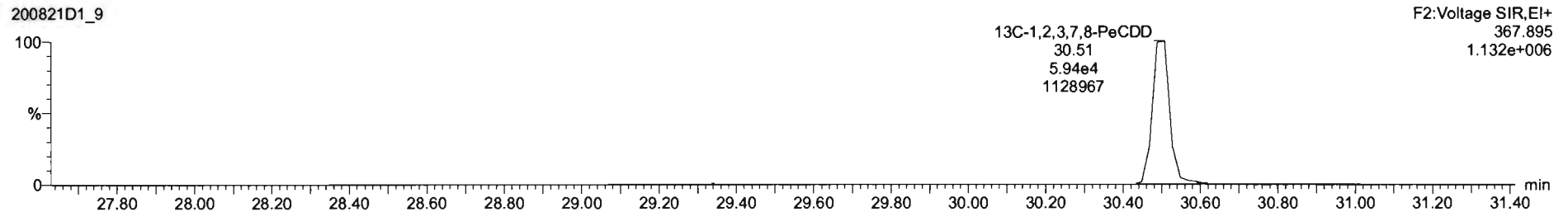
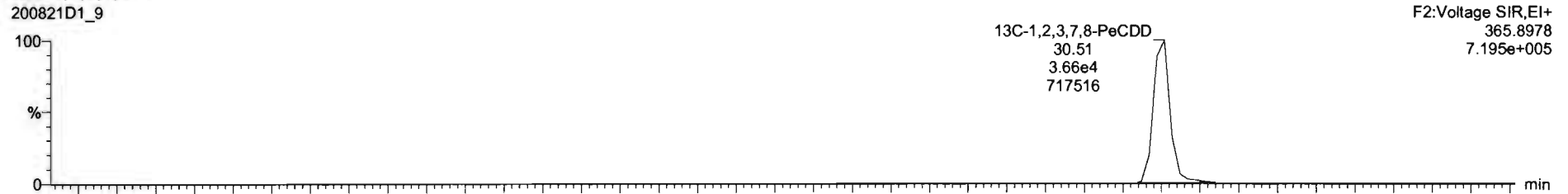
Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

1,2,3,7,8-PeCDD



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

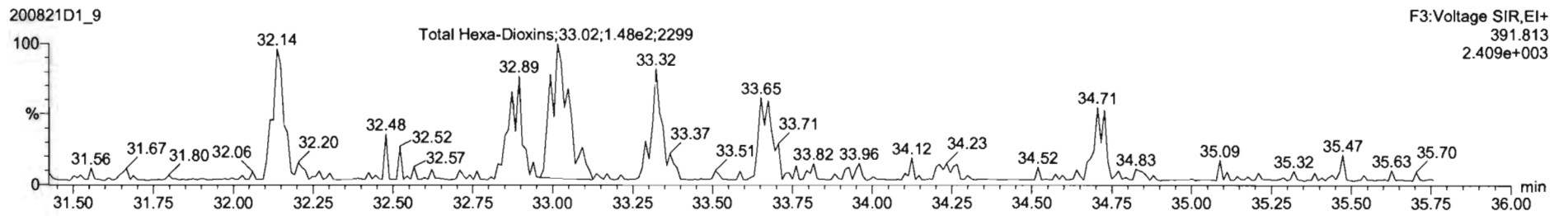
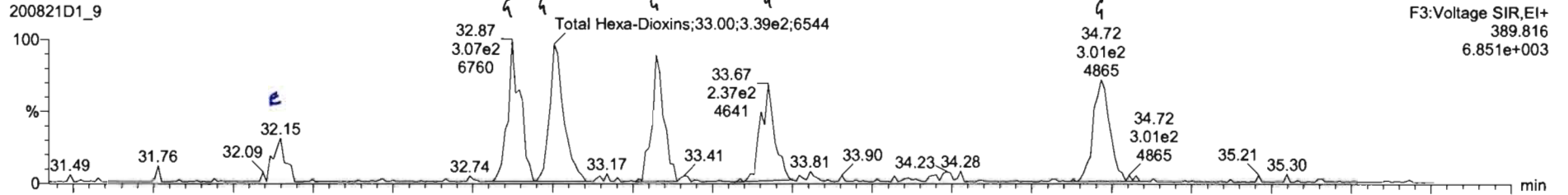


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

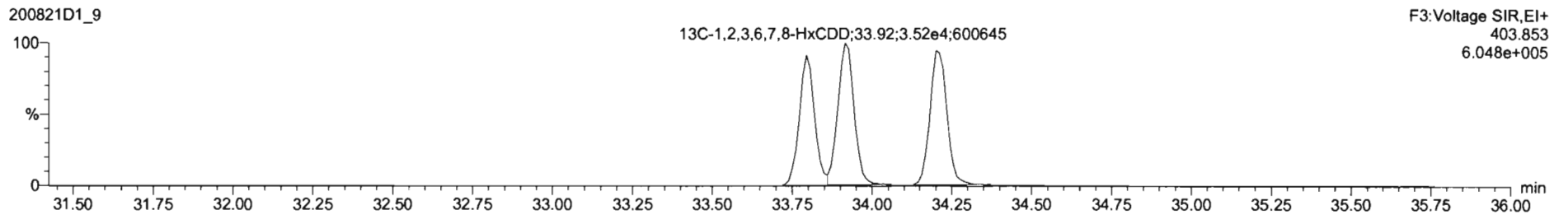
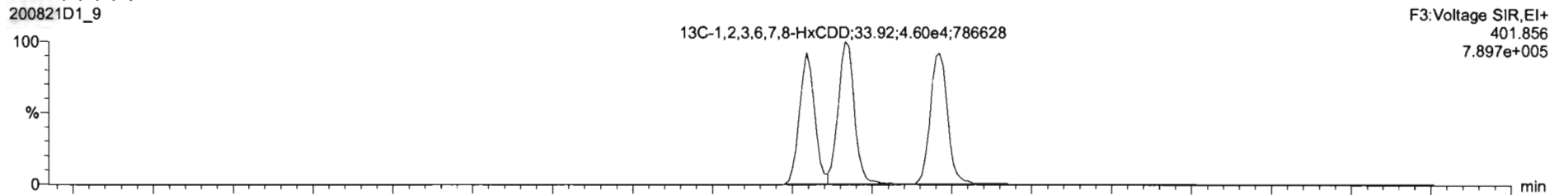
Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

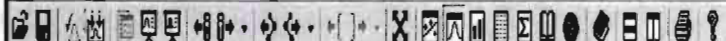
Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

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

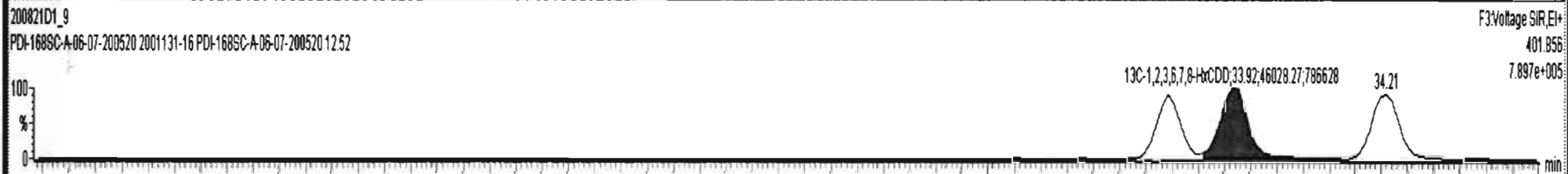
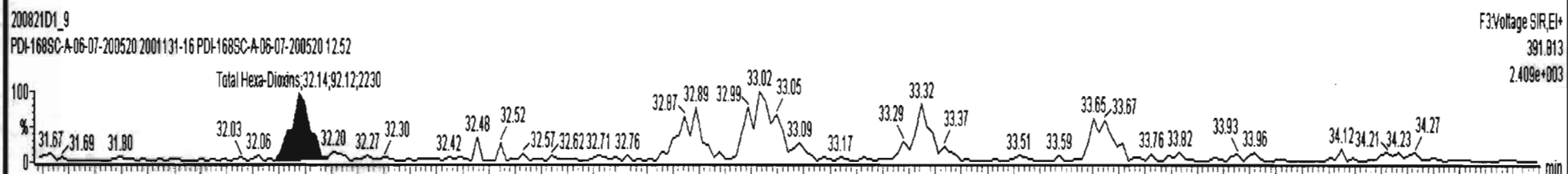
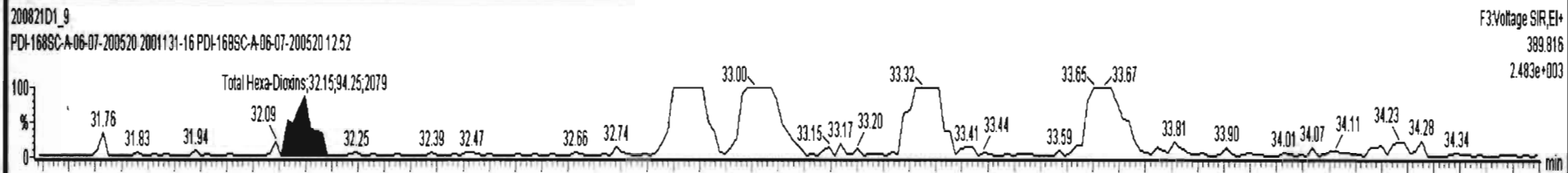


13C-1,2,3,4,7,8-HxCDD





200821D1\_9 - 2001131-16 PDI-168SC-A-06-07-200520 12.52 - PDI-168SC-A-06-07-200520



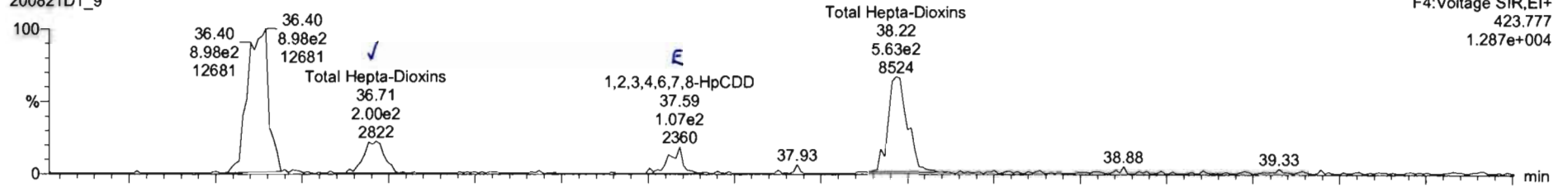
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

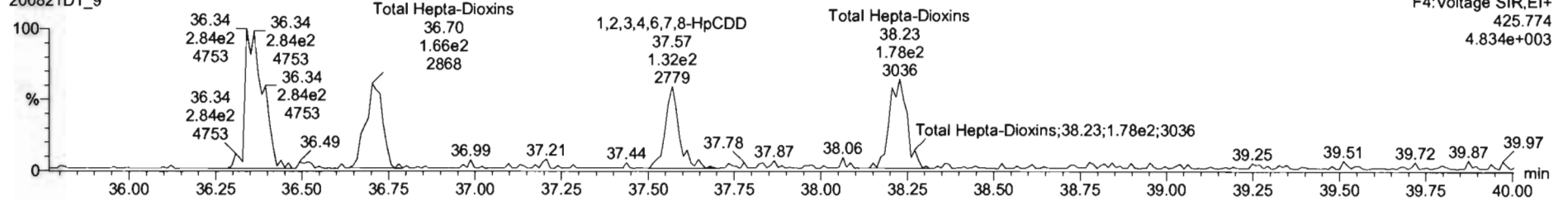
Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

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

200821D1\_9

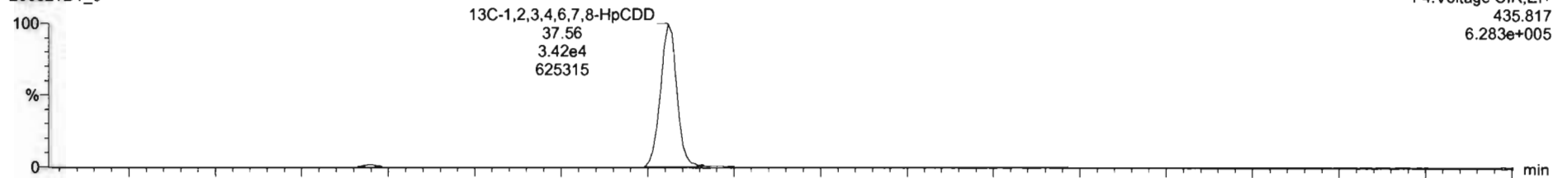


200821D1\_9

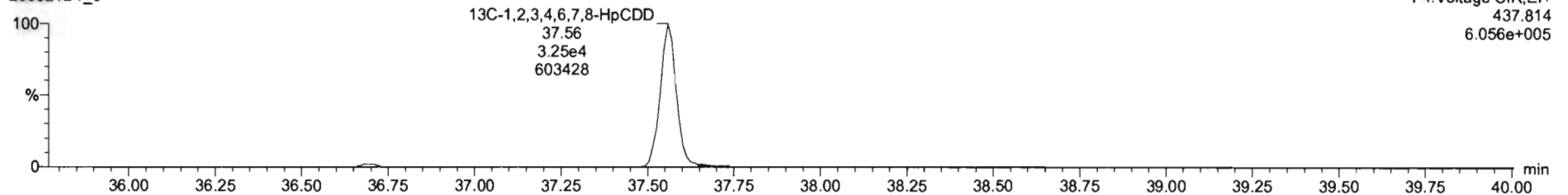


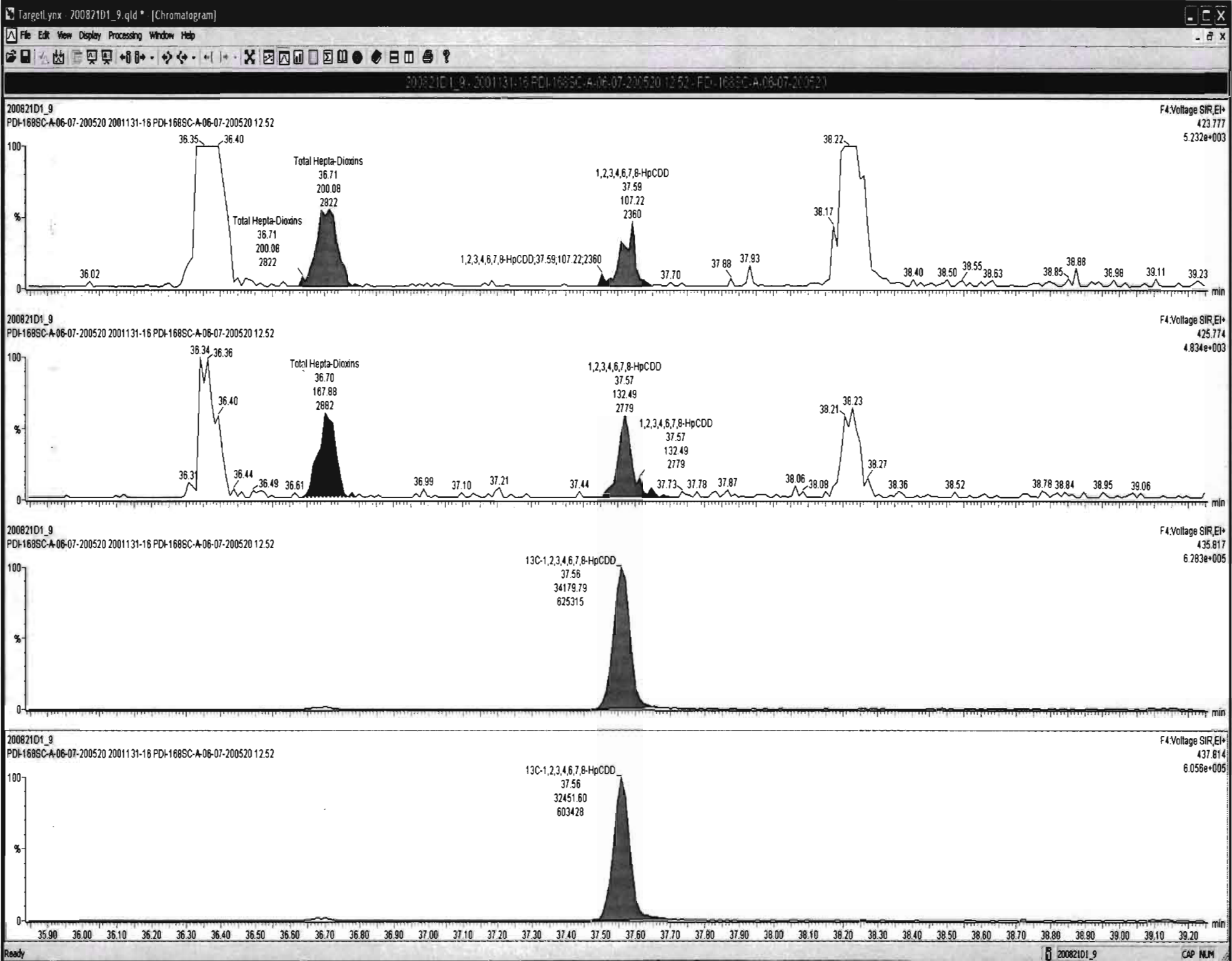
13C-1,2,3,4,6,7,8-HpCDD

200821D1\_9



200821D1\_9





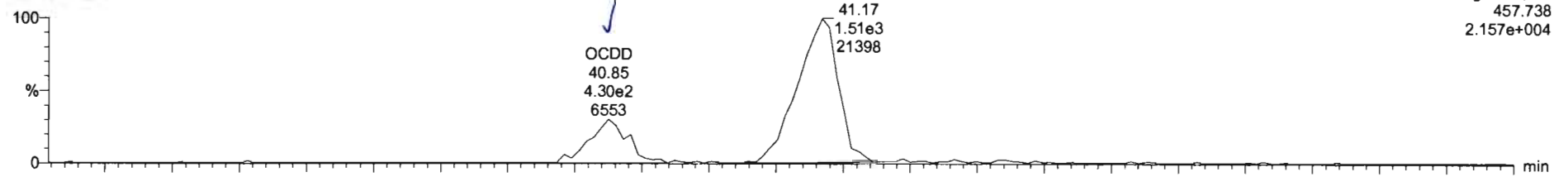
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

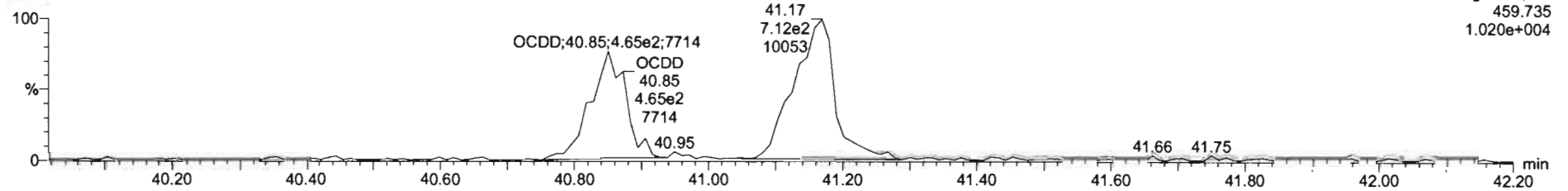
Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

**OCDD**

200821D1\_9

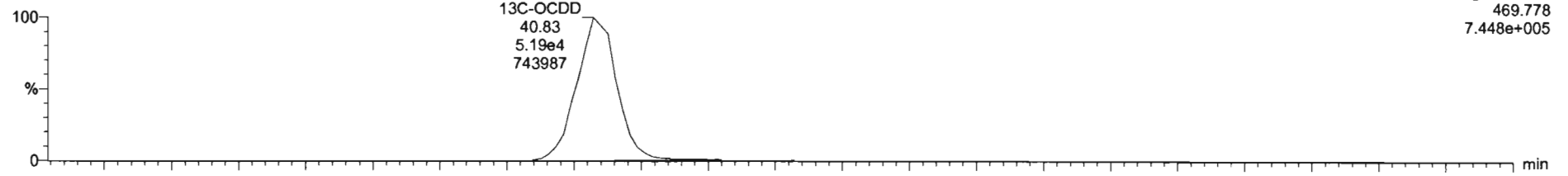


200821D1\_9

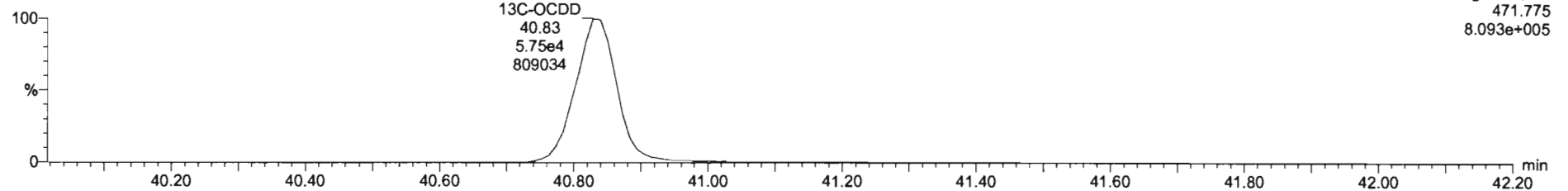


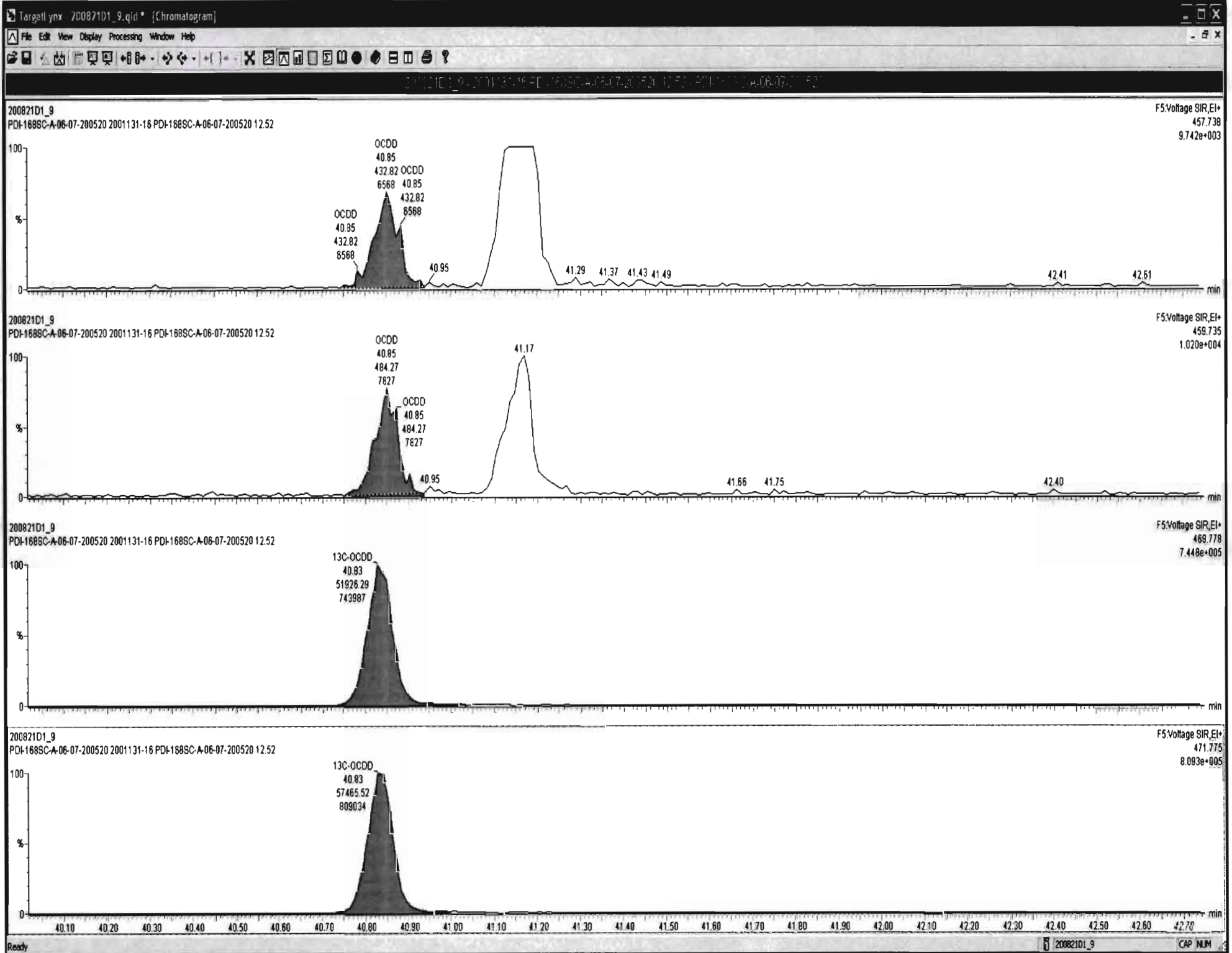
**13C-OCDD**

200821D1\_9



200821D1\_9



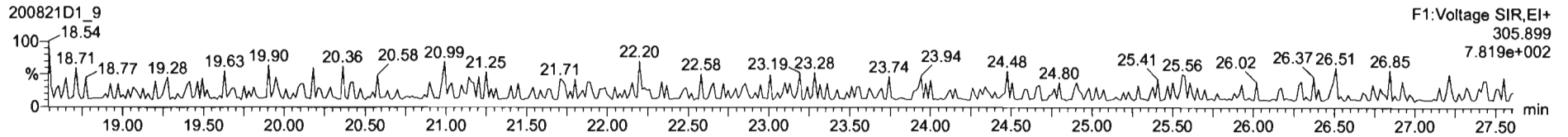
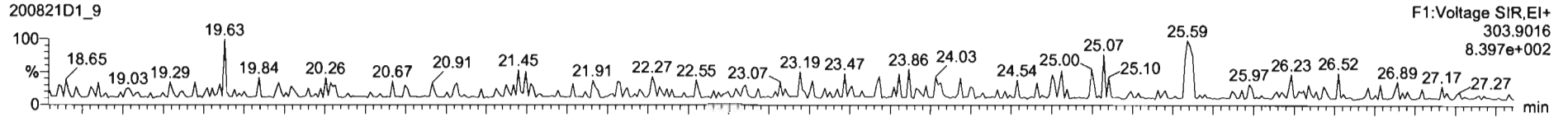


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

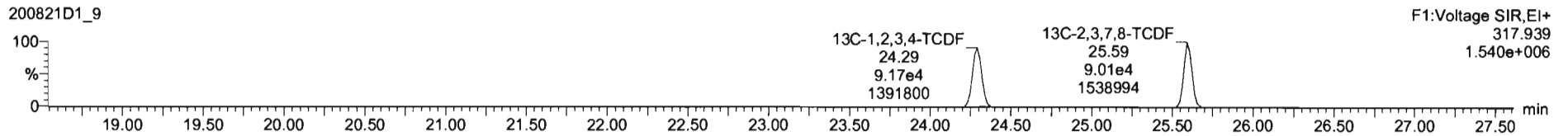
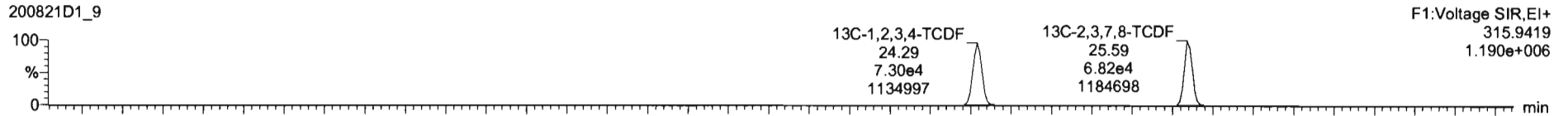
Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

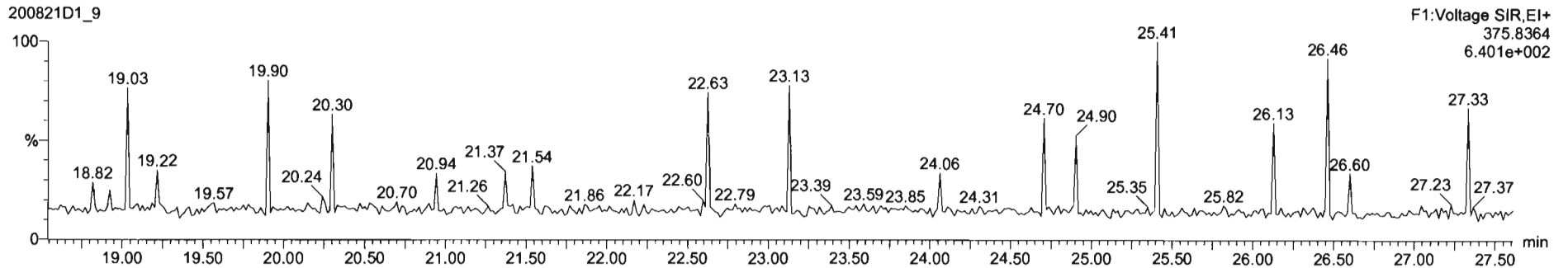
2,3,7,8-TCDF



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



DPE1





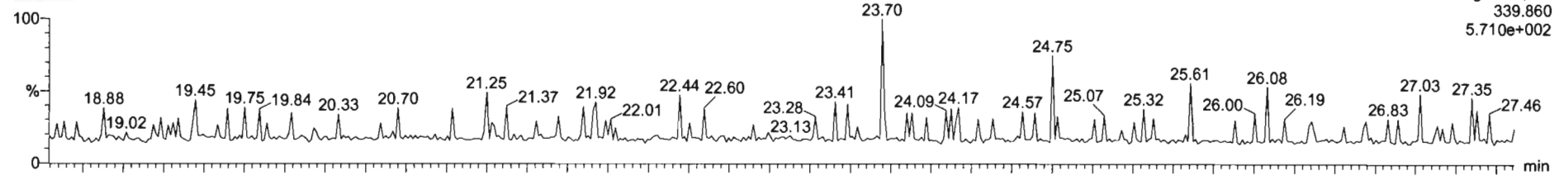
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

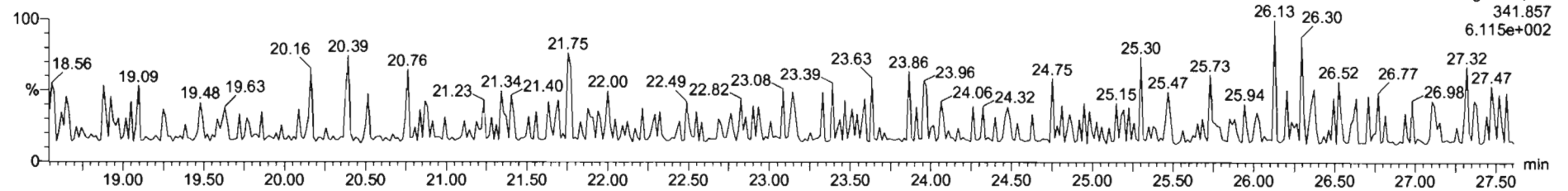
Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

1st Func. Penta-Furans

200821D1\_9

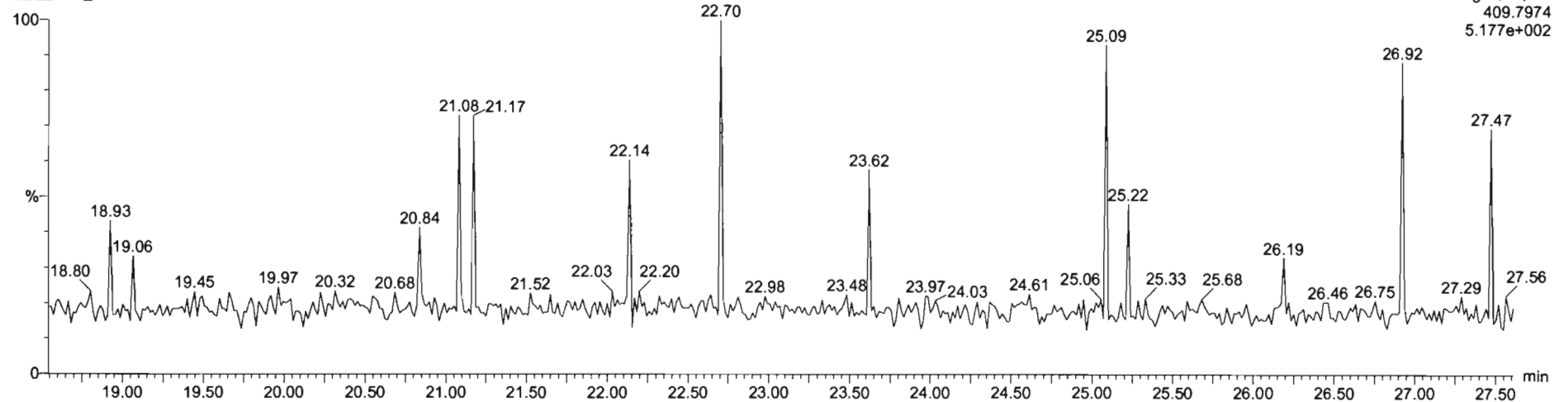


200821D1\_9



DPE6

200821D1\_9



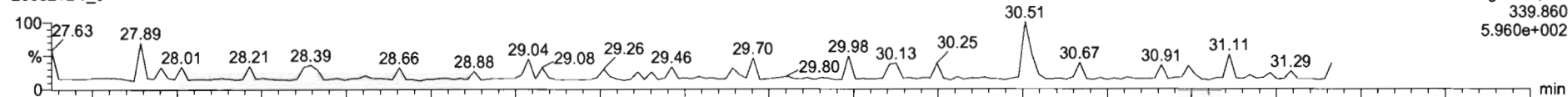
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

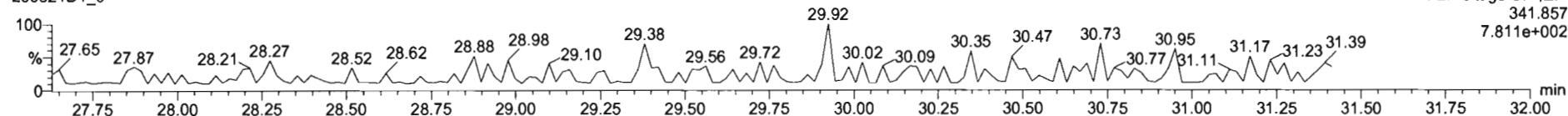
Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

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

200821D1\_9

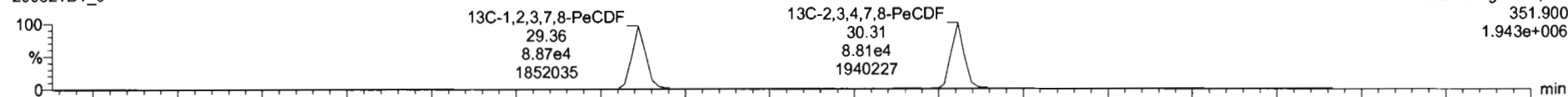


200821D1\_9

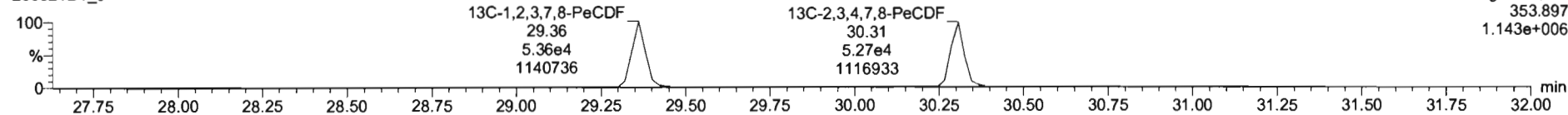


**13C-1,2,3,7,8-PeCDF**

200821D1\_9

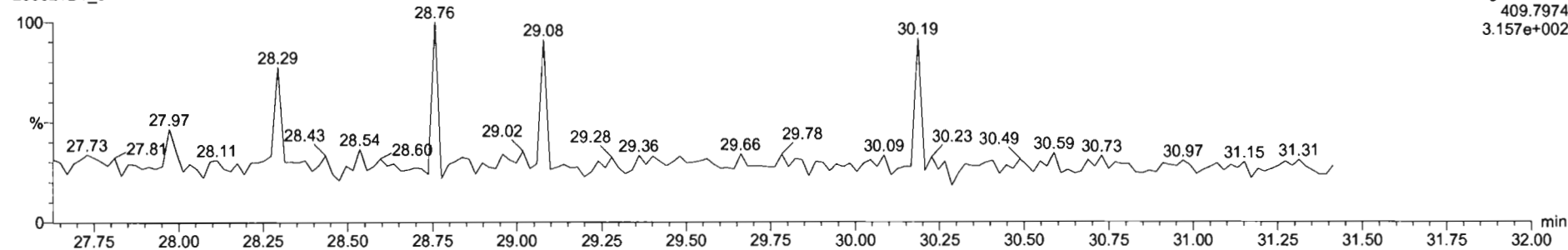


200821D1\_9



**DPE2**

200821D1\_9

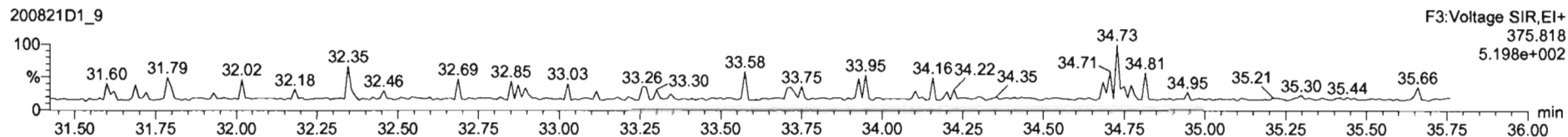
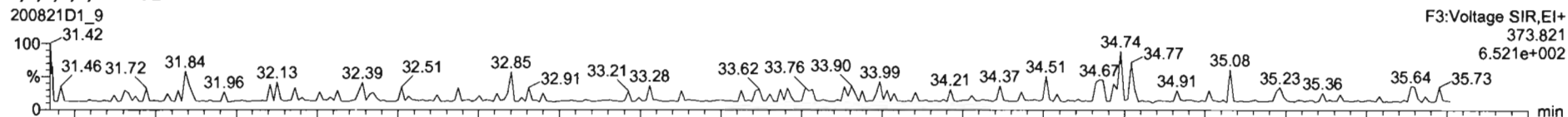


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

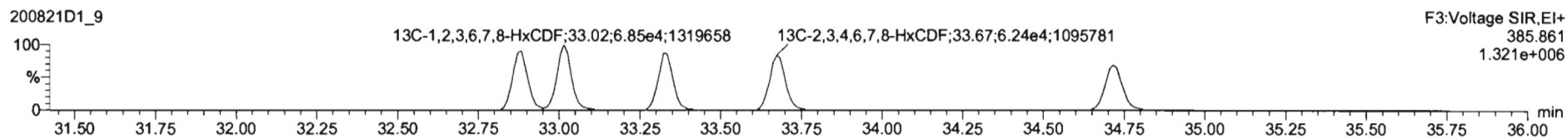
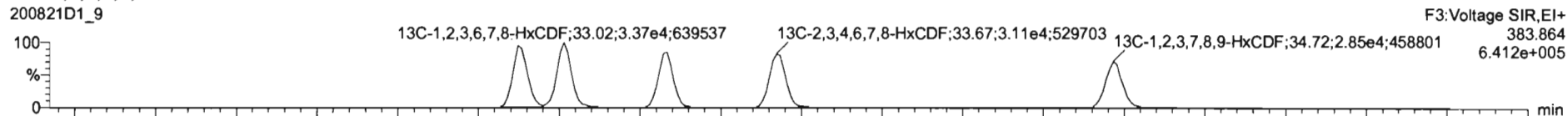
Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

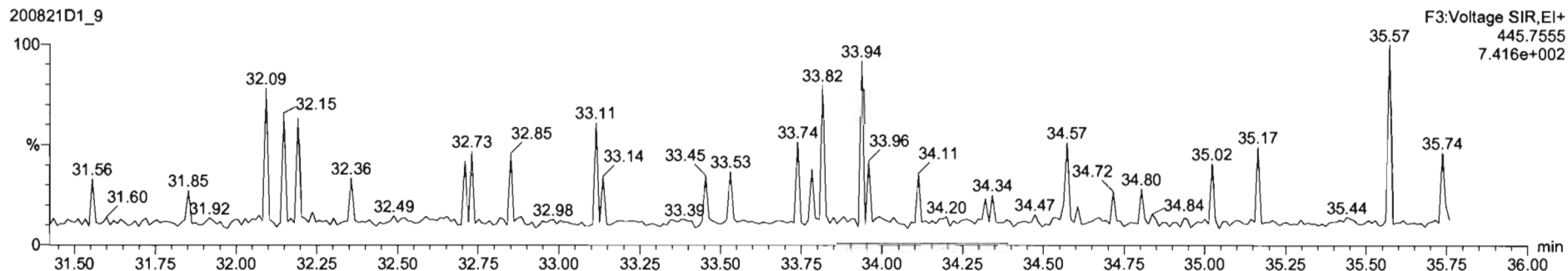
**1,2,3,4,7,8-HxCDF**



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



**DPE3**

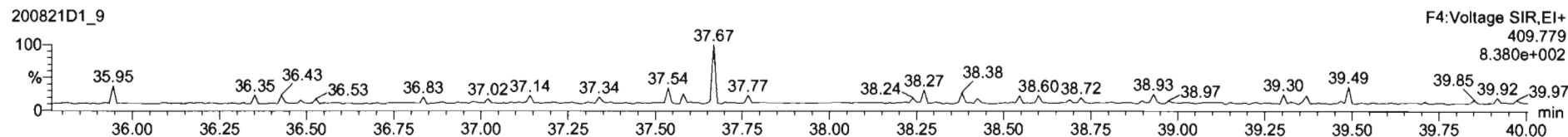
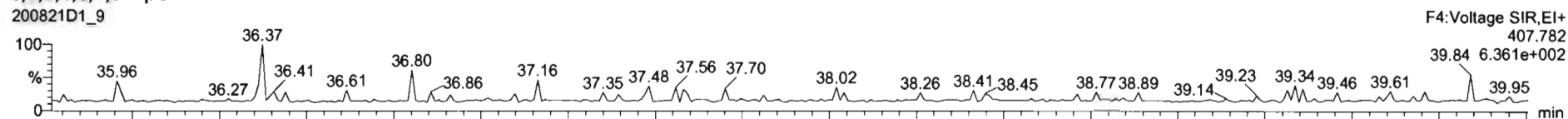


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

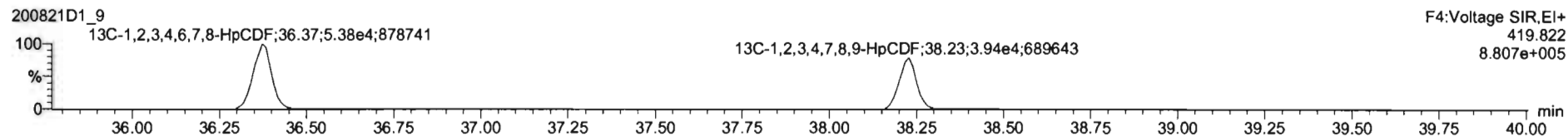
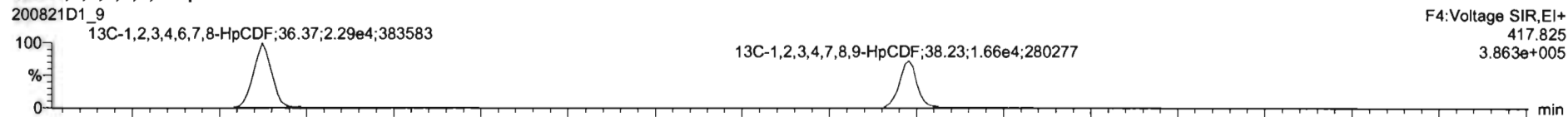
Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520

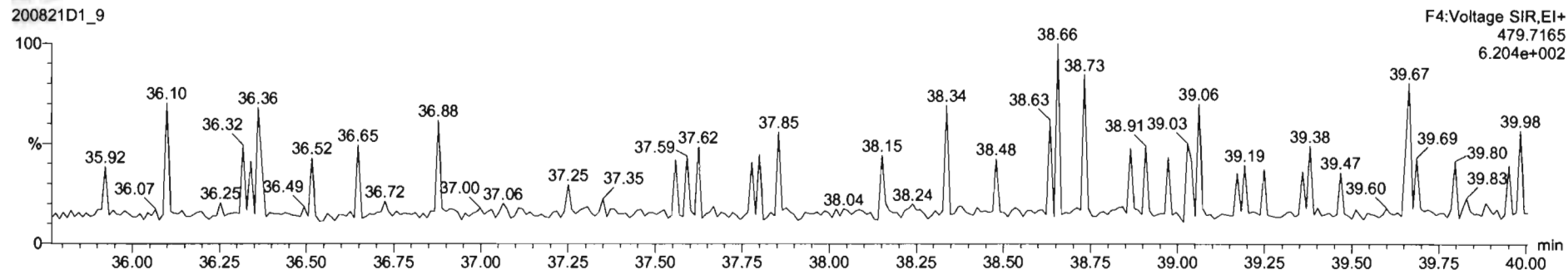
1,2,3,4,6,7,8-HpCDF



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



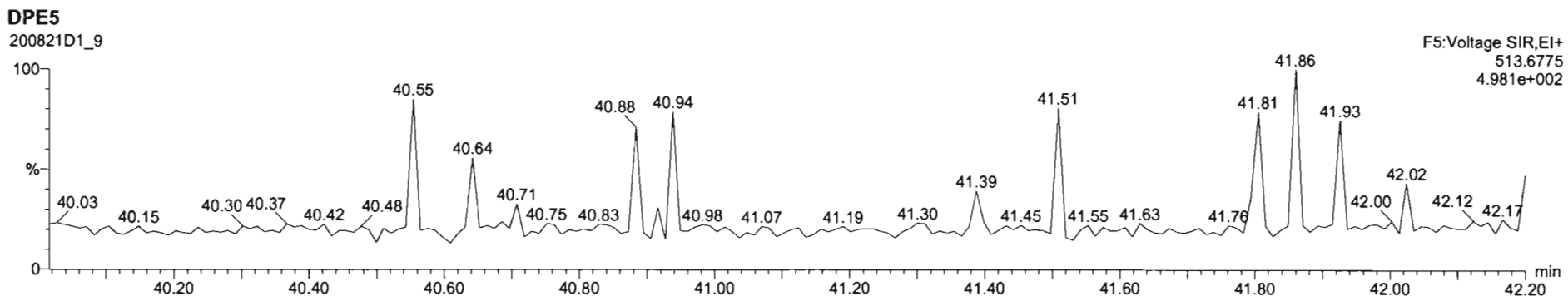
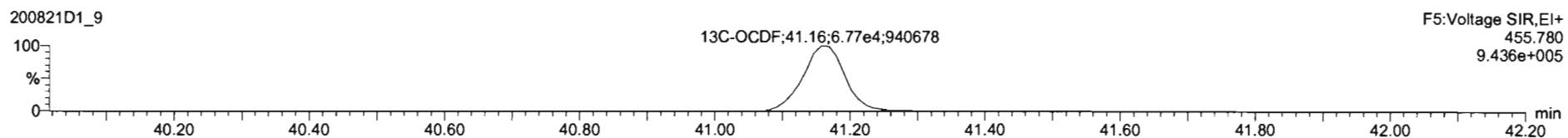
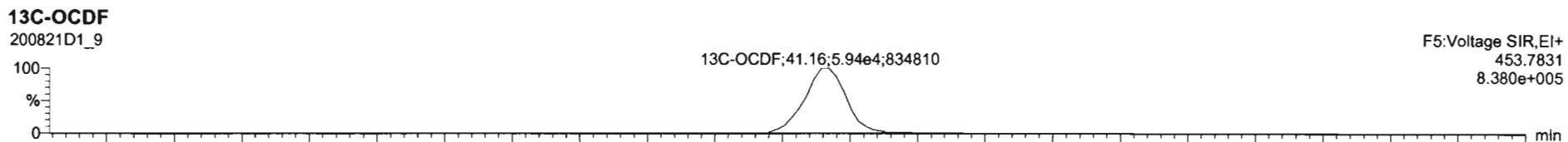
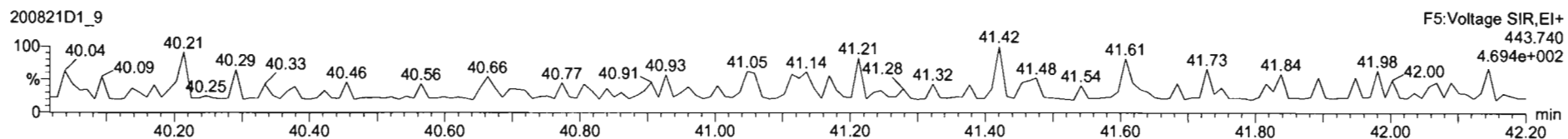
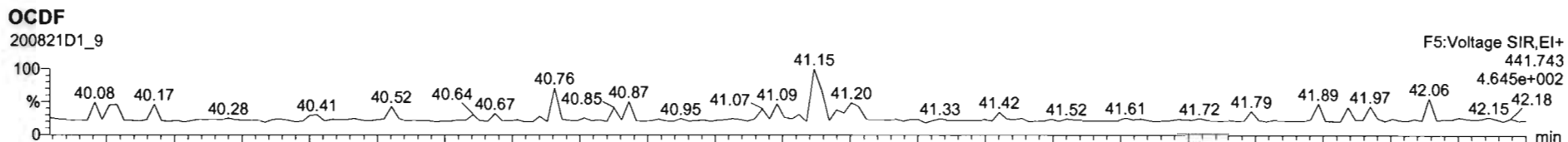
DPE4



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

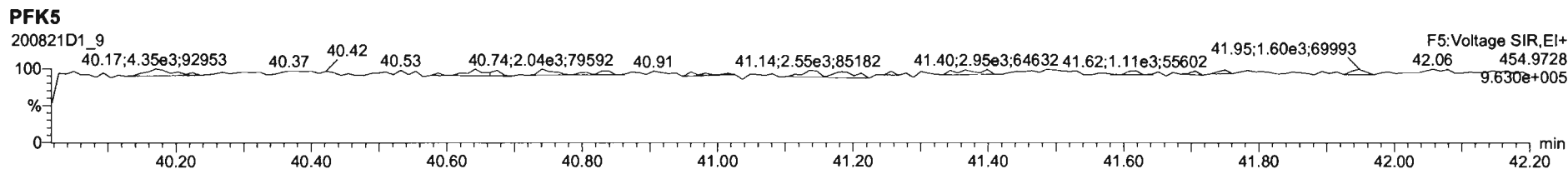
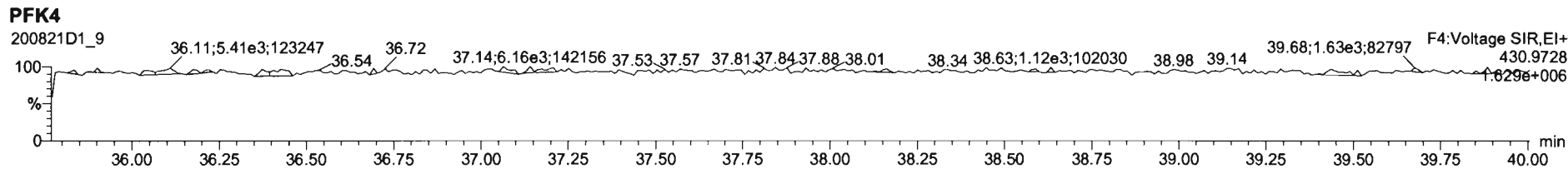
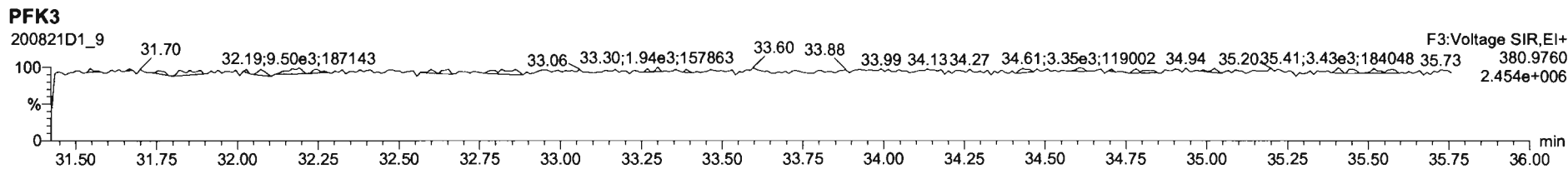
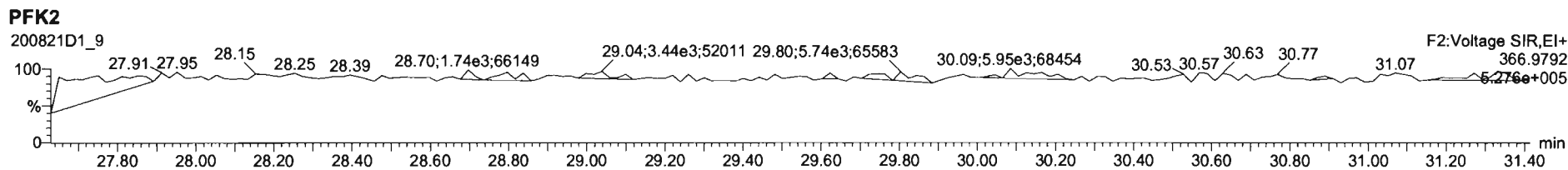
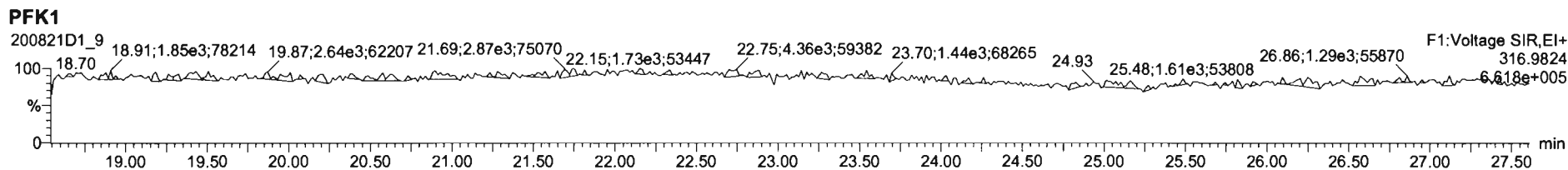
Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_9.qld

Last Altered: Monday, August 24, 2020 09:20:34 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:22:25 Pacific Daylight Time

Name: 200821D1\_9, Date: 21-Aug-2020, Time: 18:03:18, ID: 2001131-16 PDI-168SC-A-06-07-200520 12.52, Description: PDI-168SC-A-06-07-200520



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Tuesday, August 25, 2020 11:50:01 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 11:50:18 Pacific Daylight Time

*DB 8/25/20 CT 08/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

#	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	1.08	9.997	26.265		1.001				0.112	
2	2 1,2,3,7,8-PeCDD			NO	0.991	9.997	30.529		1.001				0.112	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	9.997	33.805		1.000				0.139	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	9.997	33.926		1.000				0.142	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	9.997	34.246		1.001				0.149	
6	6 1,2,3,4,6,7,8-HpCDD			NO	0.926	9.997	37.569		1.000				0.181	
7	7 OCDD			NO	0.834	9.997	40.839		1.000				0.243	
8	8 2,3,7,8-TCDF			NO	0.882	9.997	25.633		1.001				0.0872	
9	9 1,2,3,7,8-PeCDF			NO	0.937	9.997	29.382		1.001				0.0951	
10	10 2,3,4,7,8-PeCDF			NO	1.03	9.997	30.337		1.001				0.0758	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	9.997	32.884		1.000				0.0732	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	9.997	33.025		1.000				0.0763	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	9.997	33.719		1.001				0.0840	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	9.997	34.716		1.000				0.0997	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.15	9.997	36.409		1.001				0.0478	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	9.997	38.228		1.000				0.0595	
17	17 OCDF	1.19e2	0.61	YES	0.961	9.997	41.168	41.19	1.000	1.001	0.37591		0.289	0.300
18	18 13C-2,3,7,8-TCDD	1.25e5	0.79	NO	1.20	9.997	26.257	26.23	1.026	1.025	214.27	107	0.796	
19	19 13C-1,2,3,7,8-PeCDD	1.01e5	0.60	NO	0.910	9.997	30.521	30.51	1.193	1.192	230.09	115	0.590	
20	20 13C-1,2,3,4,7,8-HxCDD	7.28e4	1.33	NO	0.789	9.997	33.801	33.79	1.014	1.014	200.15	100	0.836	
21	21 13C-1,2,3,6,7,8-HxCDD	8.50e4	1.24	NO	0.885	9.997	33.911	33.93	1.017	1.018	208.23	104	0.745	
22	22 13C-1,2,3,7,8,9-HxCDD	8.42e4	1.26	NO	0.888	9.997	34.181	34.21	1.025	1.026	205.56	103	0.742	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.03e4	1.03	NO	0.740	9.997	37.634	37.56	1.129	1.127	206.16	103	1.50	
24	24 13C-OCDD	1.13e5	0.89	NO	0.660	9.997	40.647	40.84	1.219	1.225	372.42	93.1	0.973	
25	25 13C-2,3,7,8-TCDF	1.67e5	0.77	NO	1.09	9.997	25.336	25.61	0.990	1.001	191.54	95.7	0.653	
26	26 13C-1,2,3,7,8-PeCDF	1.45e5	1.65	NO	0.857	9.997	29.577	29.36	1.156	1.147	211.43	106	0.708	
27	27 13C-2,3,4,7,8-PeCDF	1.47e5	1.59	NO	0.796	9.997	30.480	30.31	1.191	1.184	229.48	115	0.762	
28	28 13C-1,2,3,4,7,8-HxCDF	1.02e5	0.48	NO	1.02	9.997	32.934	32.88	0.988	0.987	216.31	108	1.02	
29	29 13C-1,2,3,6,7,8-HxCDF	1.07e5	0.51	NO	1.00	9.997	33.067	33.01	0.992	0.990	231.88	116	1.03	
30	30 13C-2,3,4,6,7,8-HxCDF	9.89e4	0.50	NO	0.936	9.997	33.637	33.69	1.009	1.011	229.28	115	1.11	
31	31 13C-1,2,3,7,8,9-HxCDF	8.86e4	0.50	NO	0.889	9.997	34.714	34.72	1.041	1.041	215.96	108	1.16	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Tuesday, August 25, 2020 11:50:01 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:50:18 Pacific Daylight Time

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

#	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	8.24e4	0.42	NO	0.849	9.997	36.234	36.37	1.087	1.091	210.37	105	1.21	
33	13C-1,2,3,4,7,8,9-HpCDF	5.85e4	0.42	NO	0.624	9.997	38.234	38.23	1.147	1.147	203.61	102	1.65	
34	13C-OCDF	1.33e5	0.85	NO	0.693	9.997	40.801	41.17	1.224	1.235	414.71	104	1.12	
35	37Cl-2,3,7,8-TCDD	4.64e4			1.28	9.997	26.255	26.25	1.026	1.026	75.303	94.1	0.129	
36	13C-1,2,3,4-TCDD	9.66e4	0.80	NO	1.00	9.997	25.550	25.59	1.000	1.000	200.06	100	0.958	
37	13C-1,2,3,4-TCDF	1.61e5	0.77	NO	1.00	9.997	24.250	24.29	1.000	1.000	200.06	100	0.711	
38	13C-1,2,3,4,6,9-HxCDF	9.22e4	0.49	NO	1.00	9.997	33.300	33.33	1.000	1.000	200.06	100	1.04	
39	Total Tetra-Dioxins				1.08	9.997	24.620		0.000				0.0672	
40	Total Penta-Dioxins				0.991	9.997	29.960		0.000				0.0590	
41	Total Hexa-Dioxins				0.908	9.997	33.635		0.000				0.0672	
42	Total Hepta-Dioxins				0.926	9.997	37.640		0.000				0.108	
43	Total Tetra-Furans				0.882	9.997	23.610		0.000				0.0360	
44	1st Func. Penta-Furans				0.937	9.997	26.750		0.000				0.0167	
45	Total Penta-Furans				0.937	9.997	29.275		0.000				0.0380	
46	Total Hexa-Furans				1.11	9.997	33.555		0.000				0.0532	
47	Total Hepta-Furans				1.15	9.997	37.835		0.000				0.0263	



Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Tuesday, August 25, 2020 11:50:01 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:50:18 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

Tetra-Dioxins

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

Penta-Dioxins

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

Hexa-Dioxins

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

Hepta-Dioxins

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

Tetra-Furans

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

Penta-Furans function 1

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

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Tuesday, August 25, 2020 11:50:01 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 11:50:18 Pacific Daylight Time

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

**Penta-Furans**

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

**Hexa-Furans**

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

**Hepta-Furans**

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

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

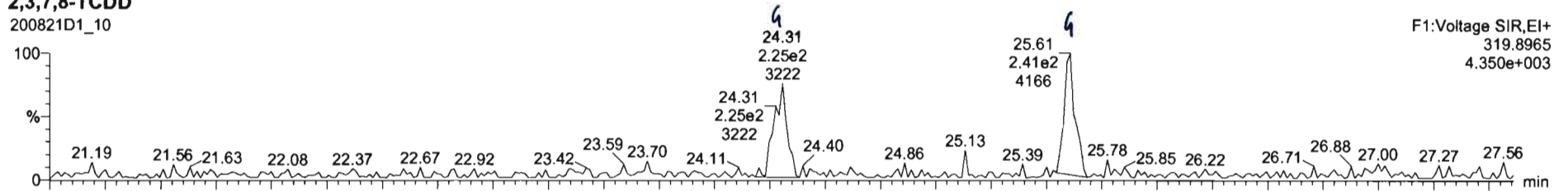
Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

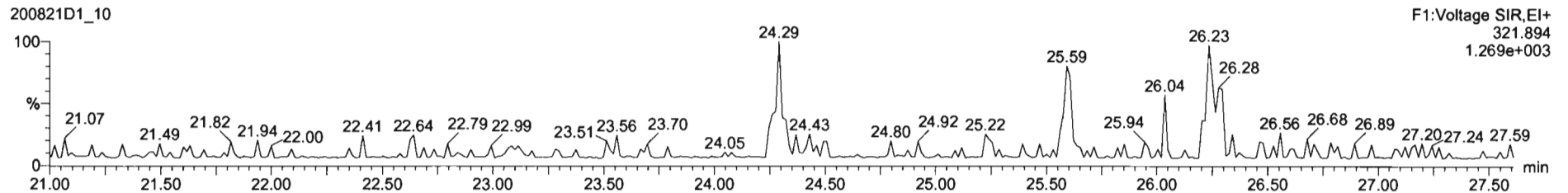
Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

2,3,7,8-TCDD

200821D1\_10

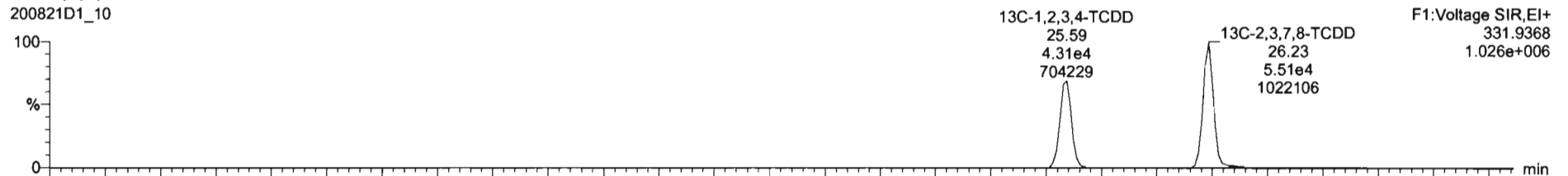


200821D1\_10

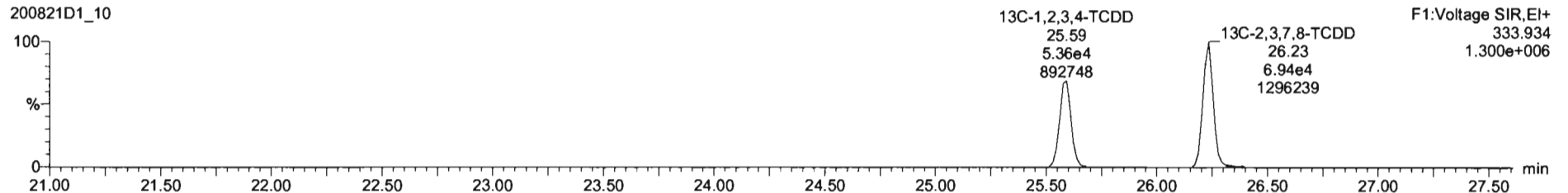


13C-2,3,7,8-TCDD

200821D1\_10



200821D1\_10



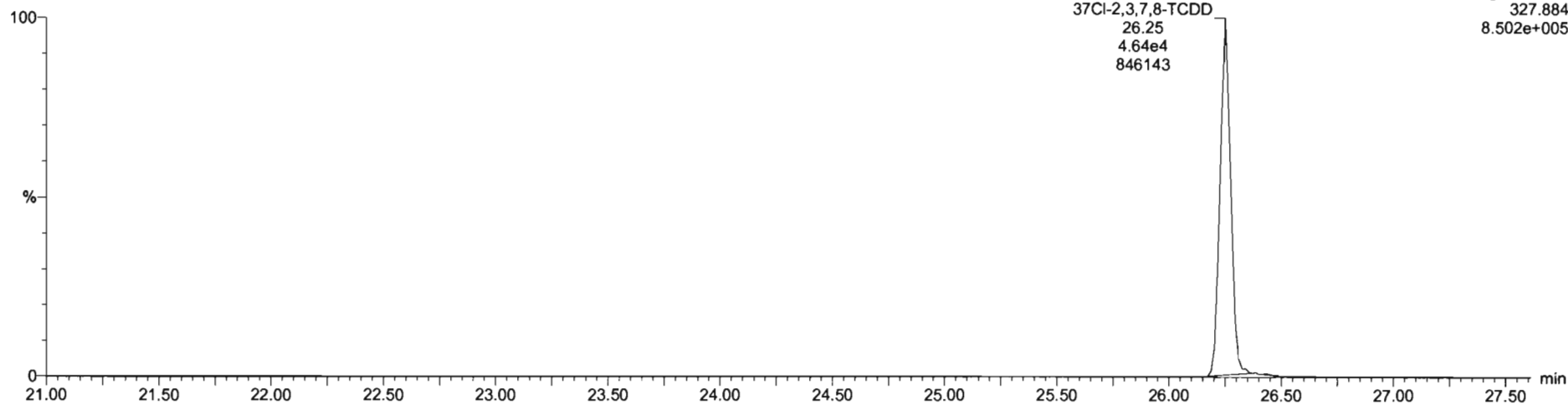
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

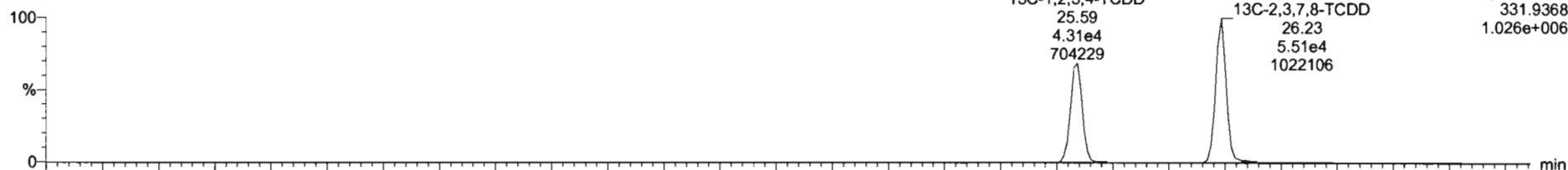
**37Cl-2,3,7,8-TCDD**

200821D1\_10

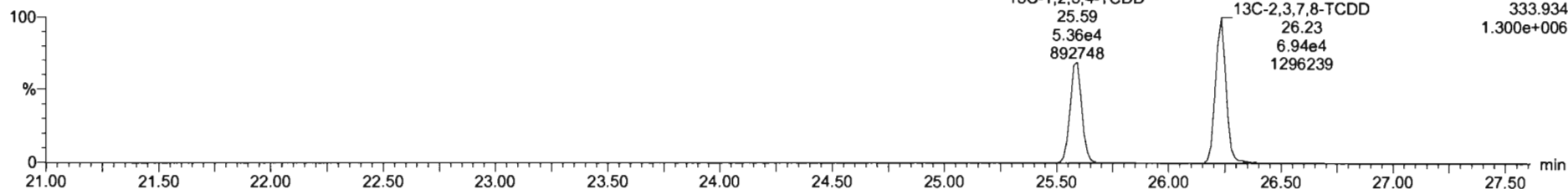


**13C-1,2,3,4-TCDD**

200821D1\_10



200821D1\_10



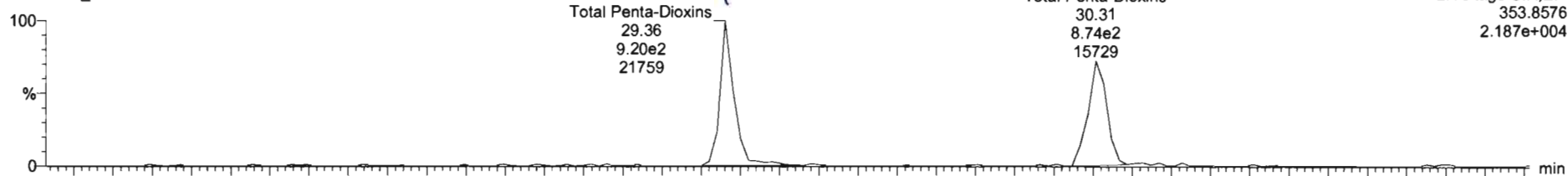
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

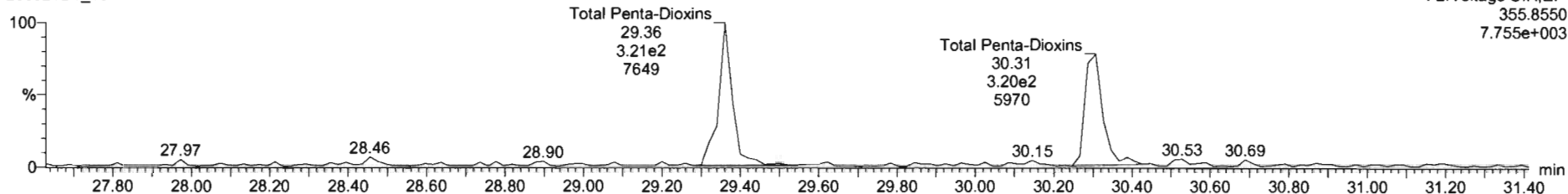
Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

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

200821D1\_10

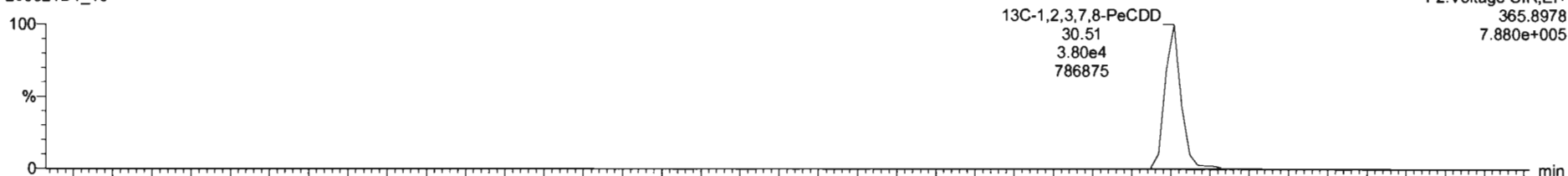


200821D1\_10

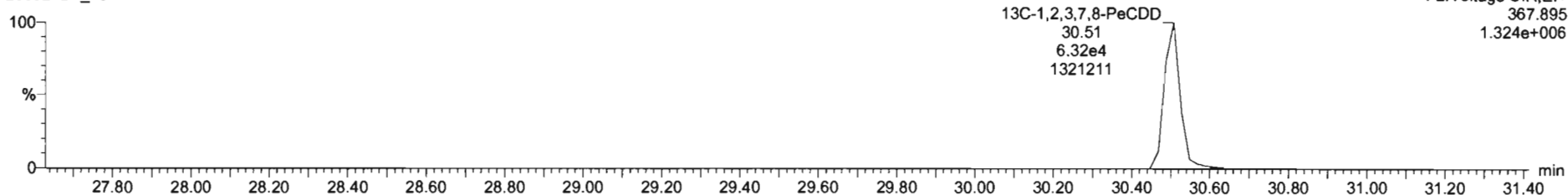


**13C-1,2,3,7,8-PeCDD**

200821D1\_10



200821D1\_10



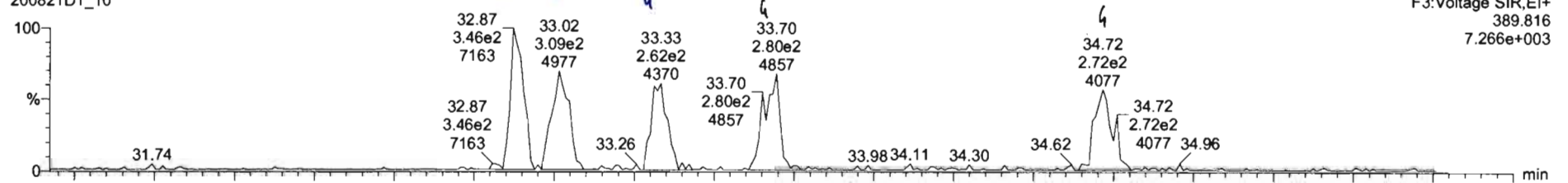
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

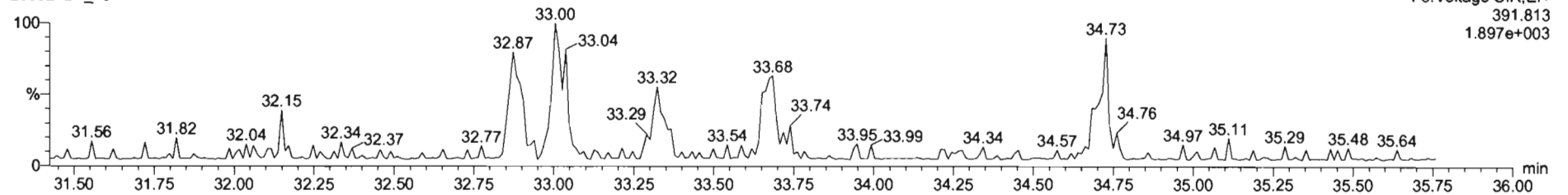
Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

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

200821D1\_10

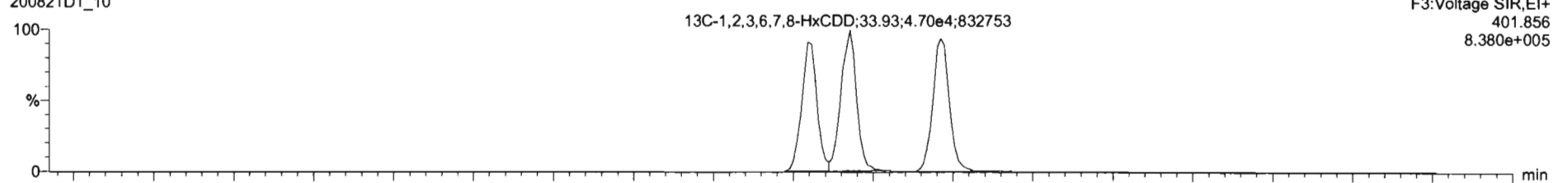


200821D1\_10

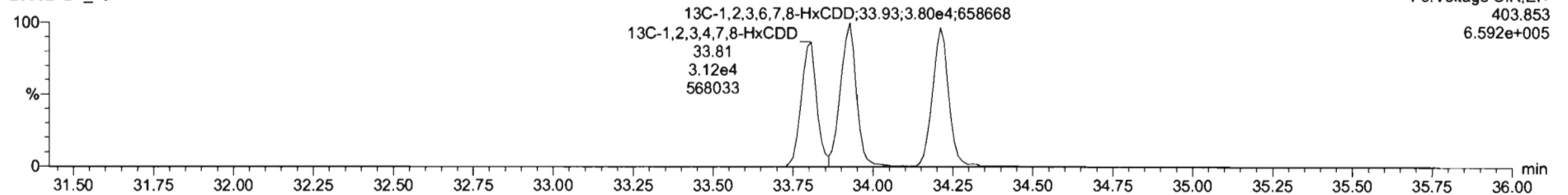


13C-1,2,3,4,7,8-HxCDD

200821D1\_10



200821D1\_10



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

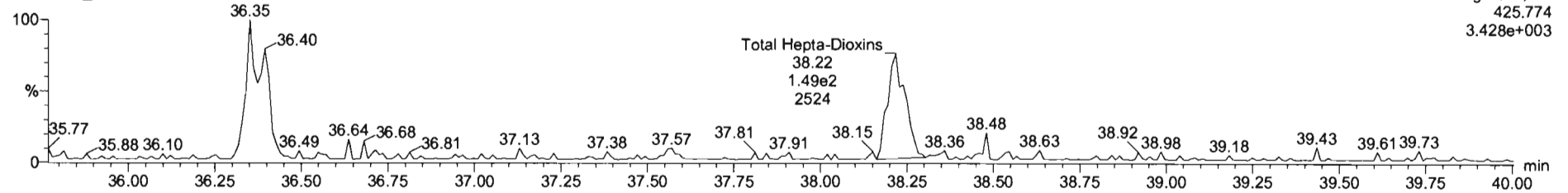
Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

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

200821D1\_10

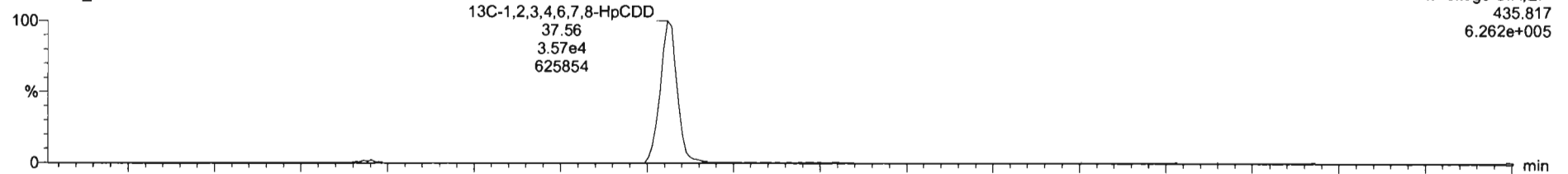


200821D1\_10

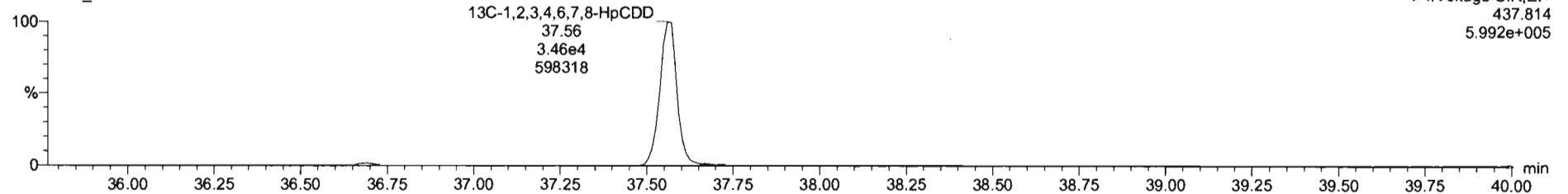


13C-1,2,3,4,6,7,8-HpCDD

200821D1\_10



200821D1\_10



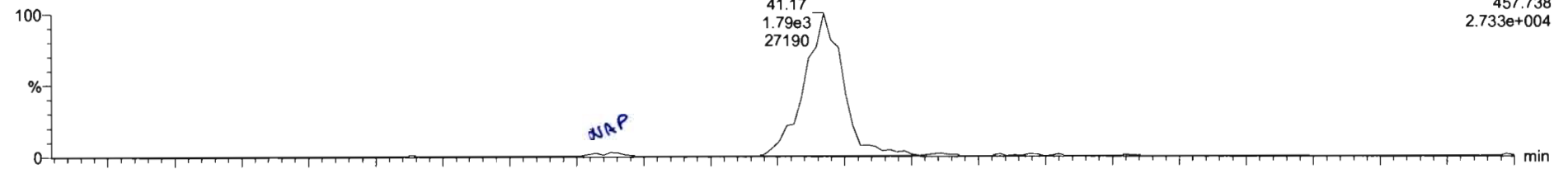
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

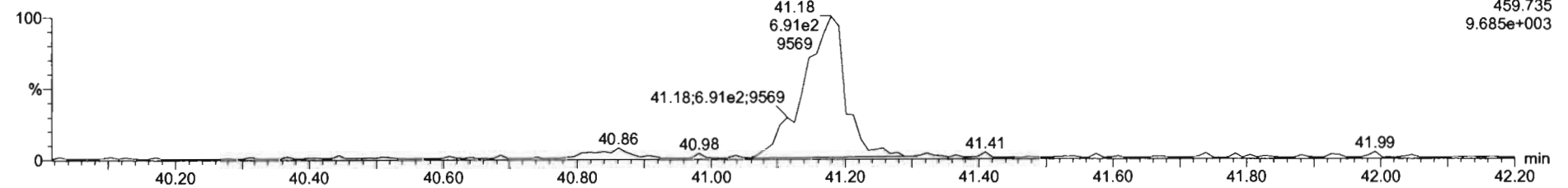
Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

OCDD

200821D1\_10

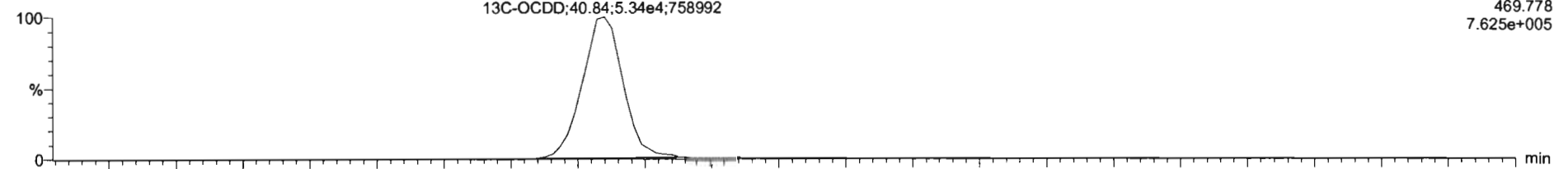


200821D1\_10

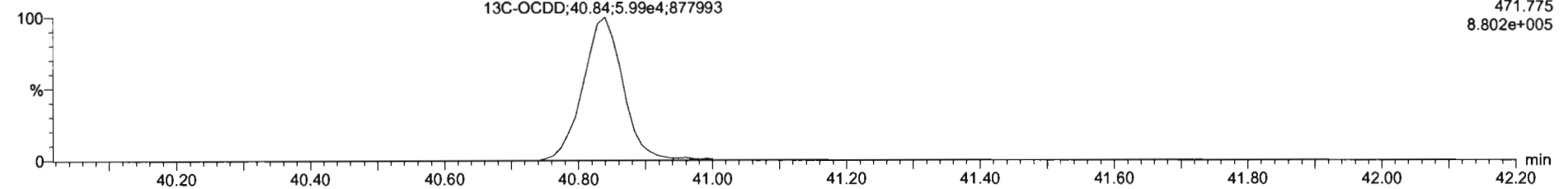


13C-OCDD

200821D1\_10



200821D1\_10



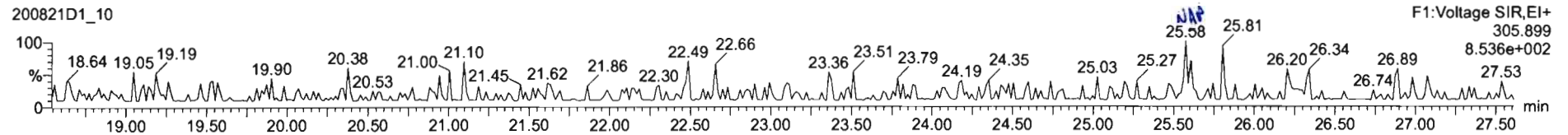
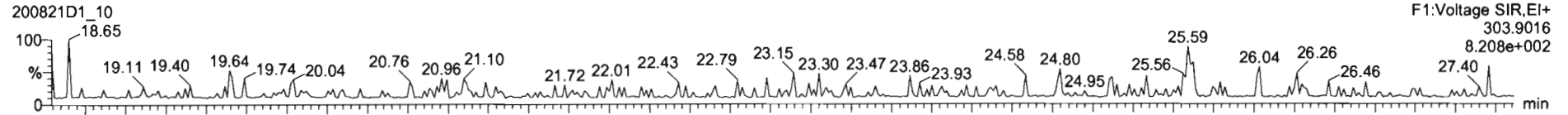


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

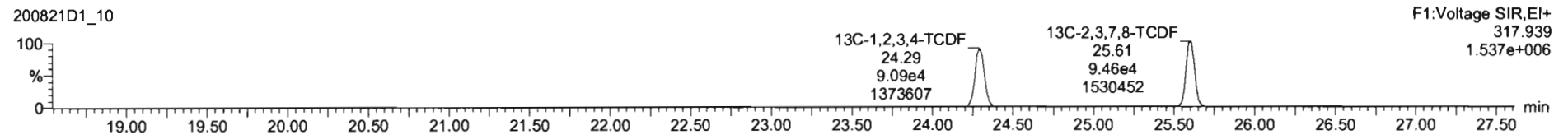
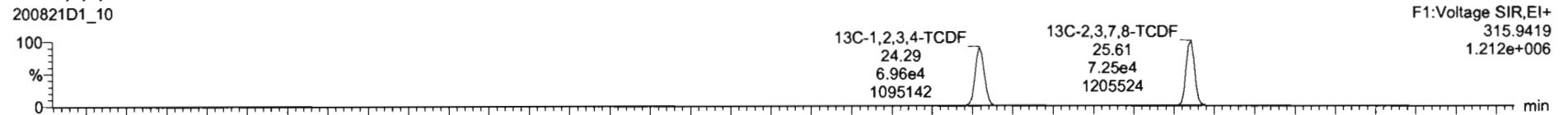
Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

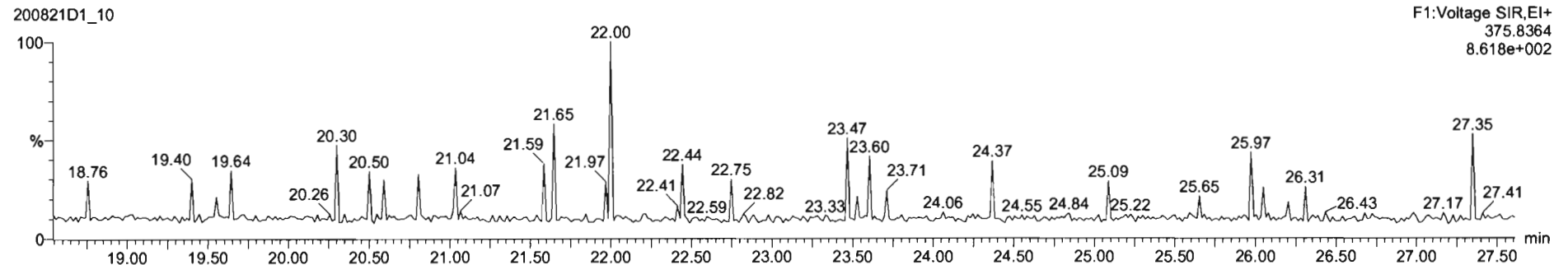
**2,3,7,8-TCDF**



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



**DPE1**



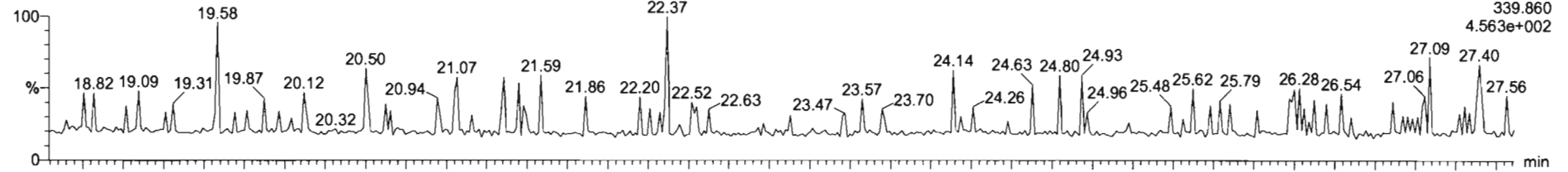
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

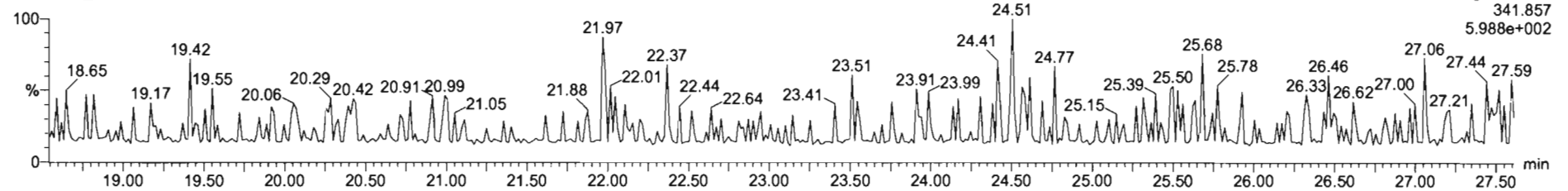
Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

1st Func. Penta-Furans

200821D1\_10

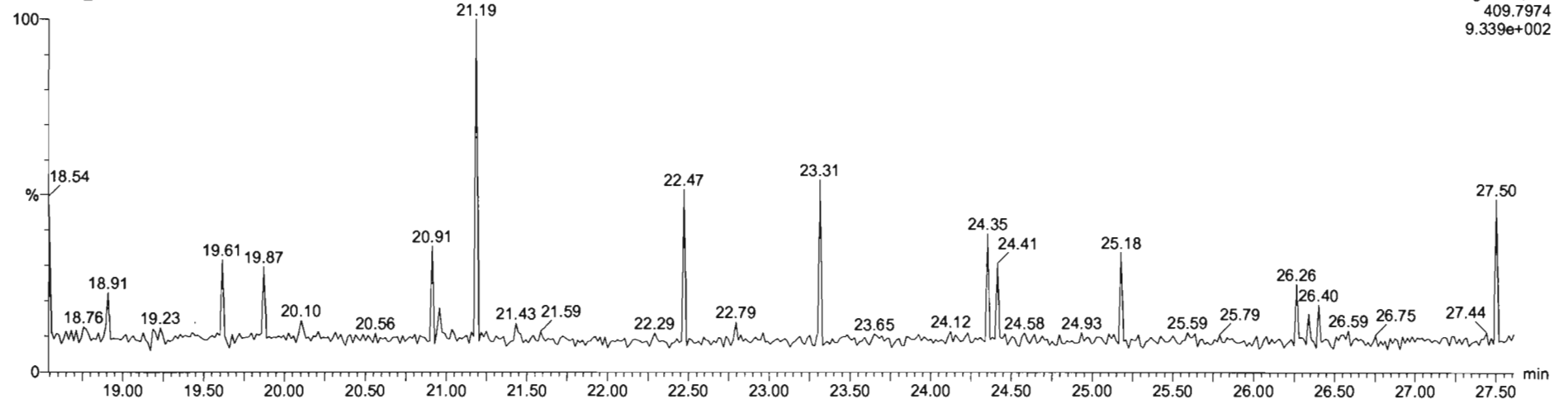


200821D1\_10



DPE6

200821D1\_10



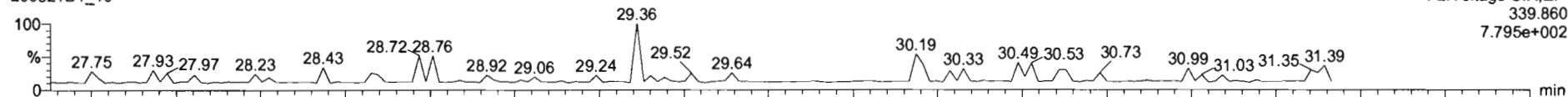
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

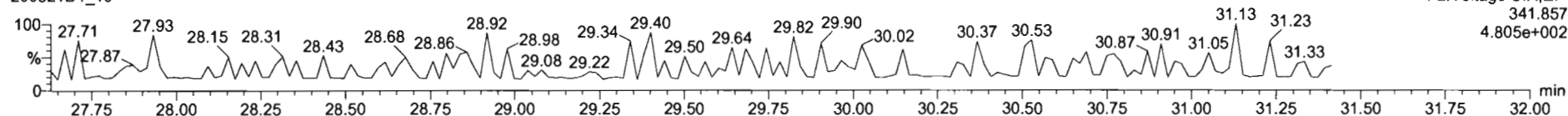
Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

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

200821D1\_10

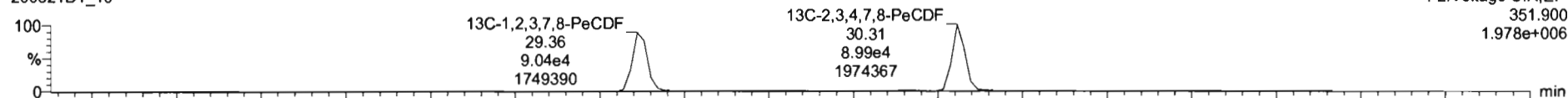


200821D1\_10

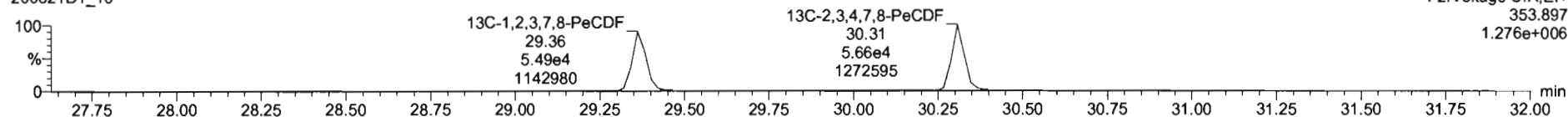


**13C-1,2,3,7,8-PeCDF**

200821D1\_10

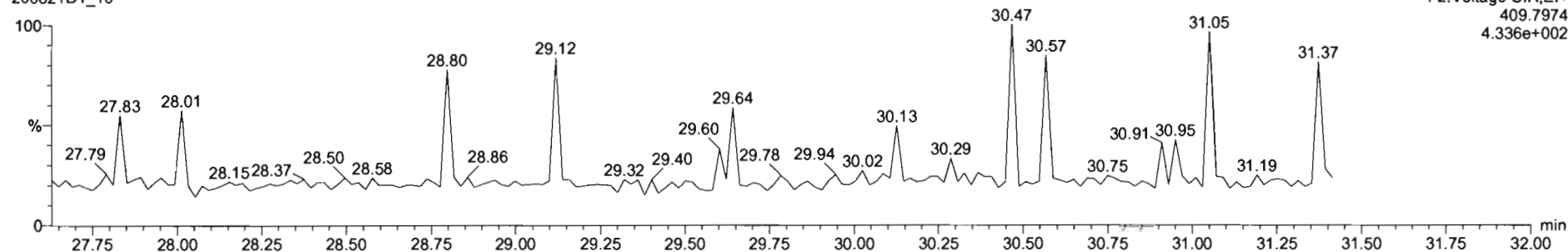


200821D1\_10



**DPE2**

200821D1\_10

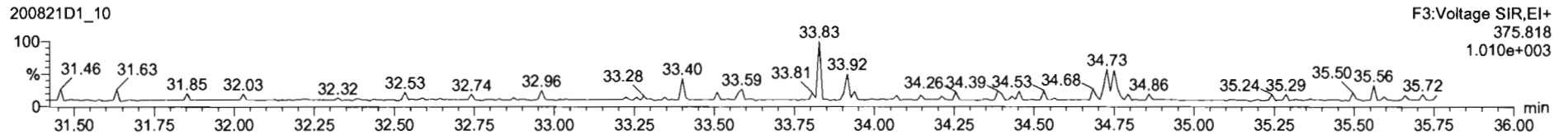
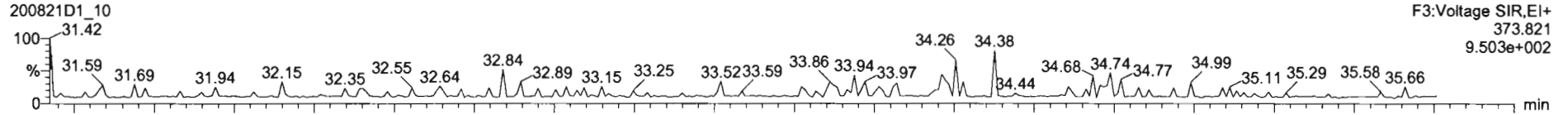


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

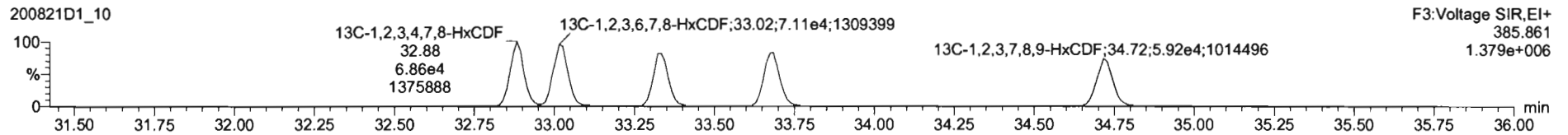
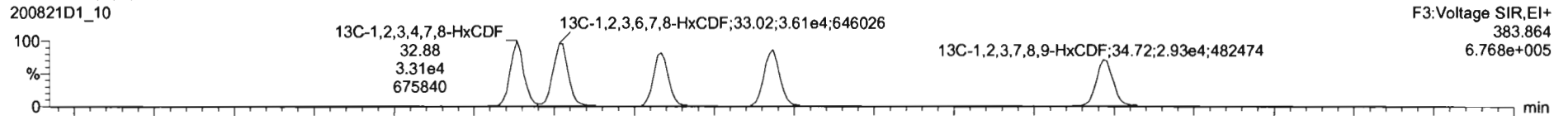
Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

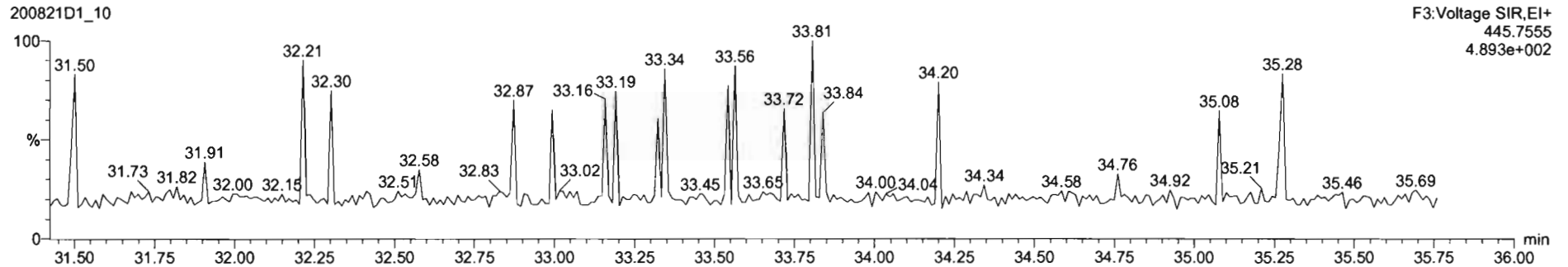
1,2,3,4,7,8-HxCDF



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



DPE3



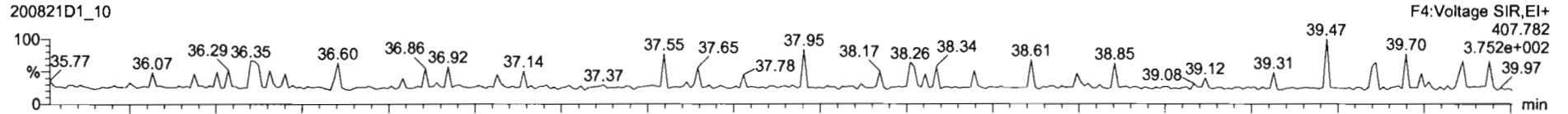
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

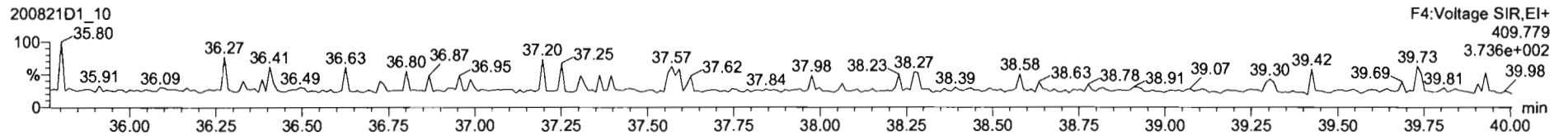
Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520

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

200821D1\_10

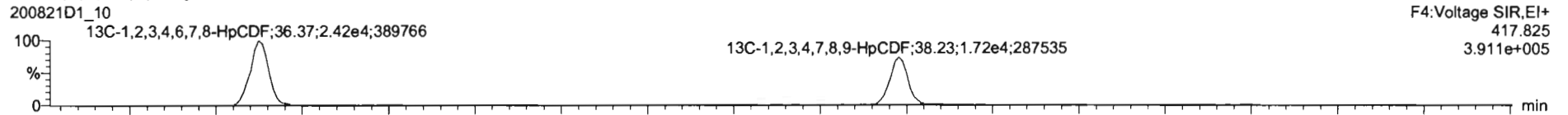


200821D1\_10

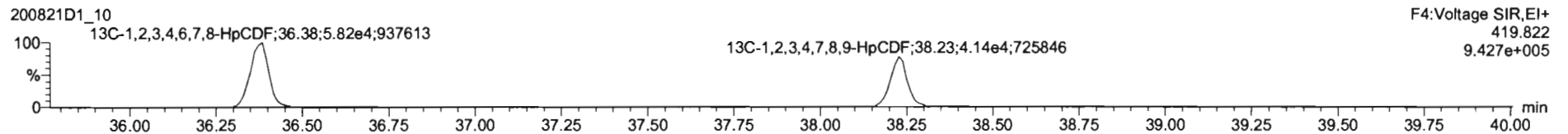


13C-1,2,3,4,6,7,8-HpCDF

200821D1\_10

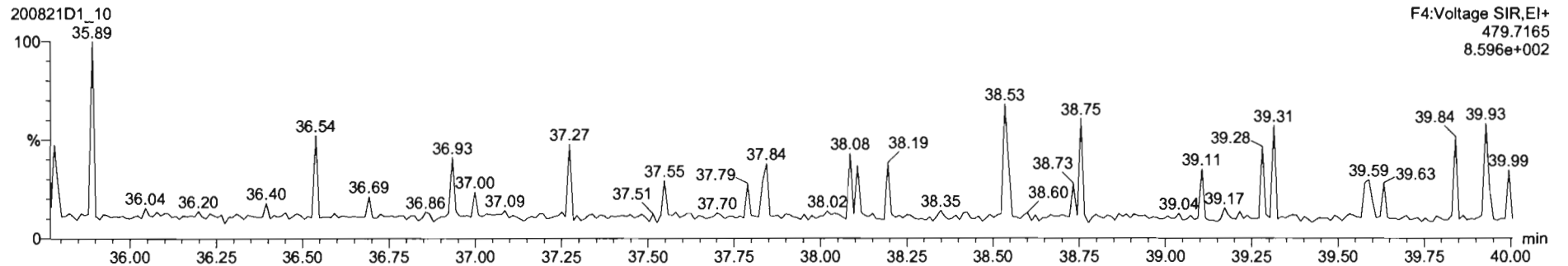


200821D1\_10



DPE4

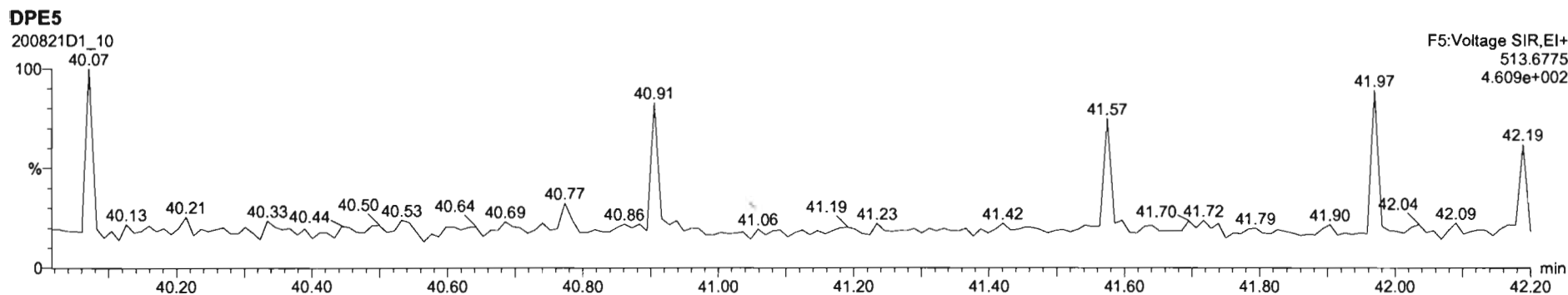
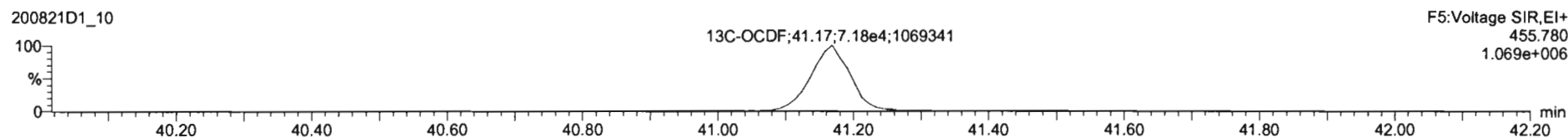
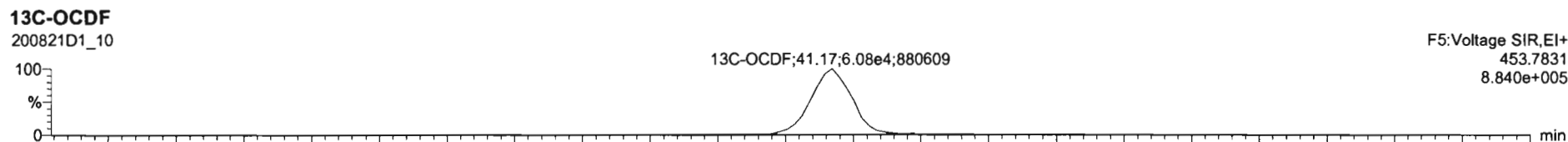
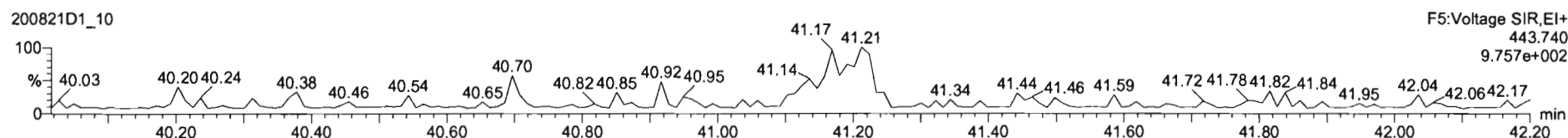
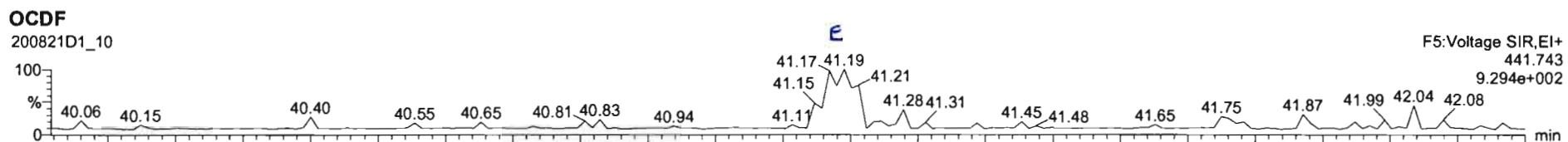
200821D1\_10



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

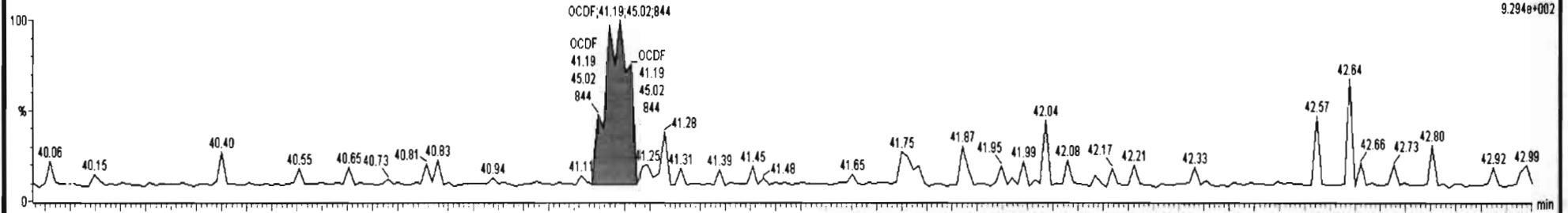
Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520



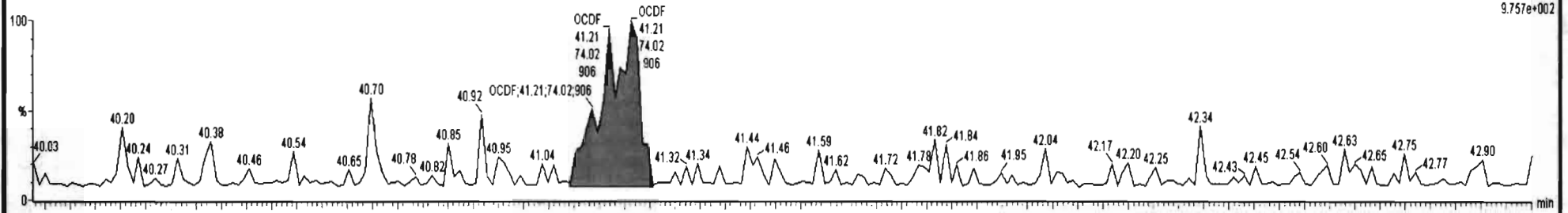
200821D1\_10  
PDI-168SC-A-07-08-200520 2001131-17 PDI-168SC-A-07-08-200520 12.52

F5:Voltage SIR,EI+  
441.743  
9.294e+002



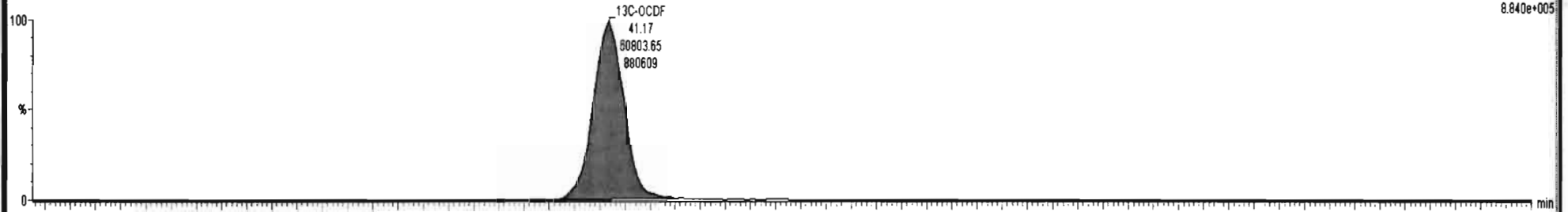
200821D1\_10  
PDI-168SC-A-07-08-200520 2001131-17 PDI-168SC-A-07-08-200520 12.52

F5:Voltage SIR,EI+  
443.740  
9.757e+002



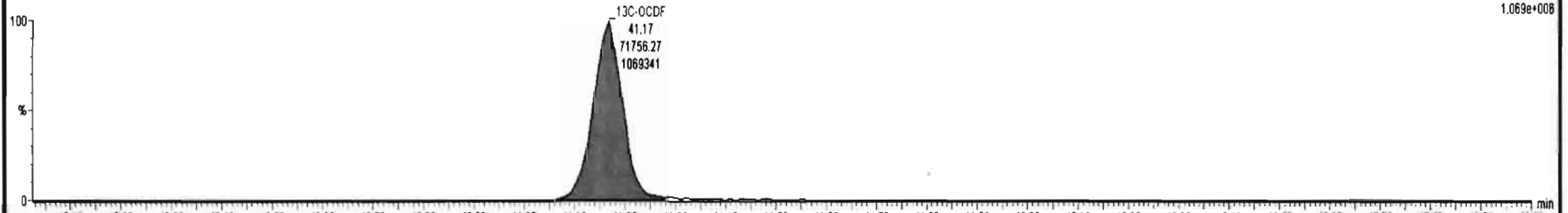
200821D1\_10  
PDI-168SC-A-07-08-200520 2001131-17 PDI-168SC-A-07-08-200520 12.52

F5:Voltage SIR,EI+  
453.7831  
8.840e+005



200821D1\_10  
PDI-168SC-A-07-08-200520 2001131-17 PDI-168SC-A-07-08-200520 12.52

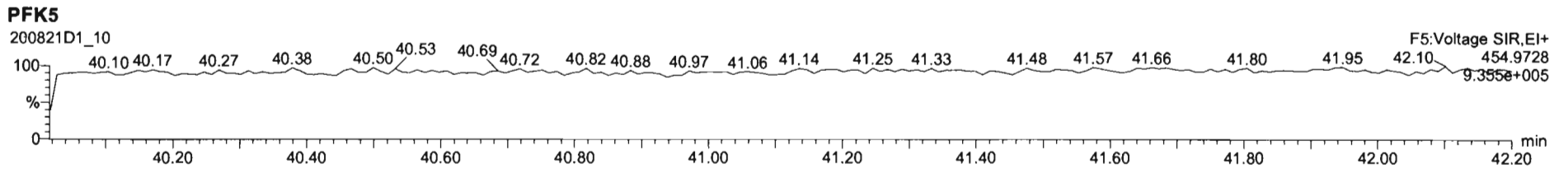
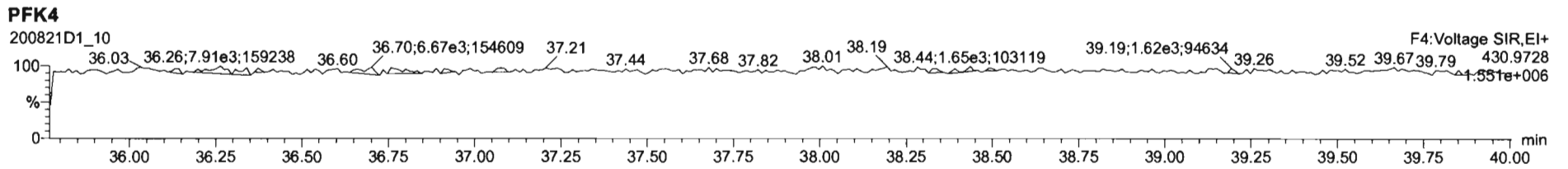
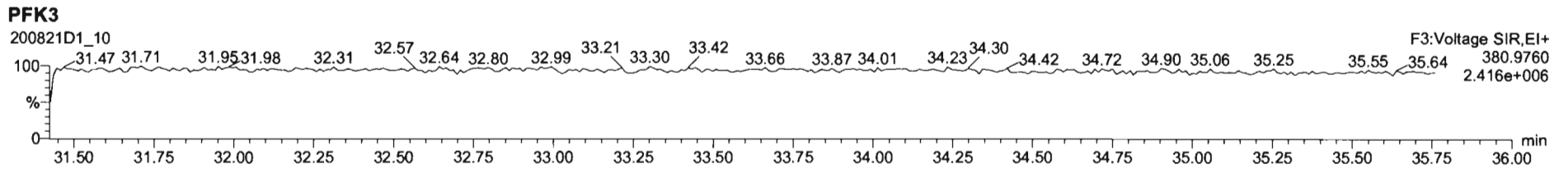
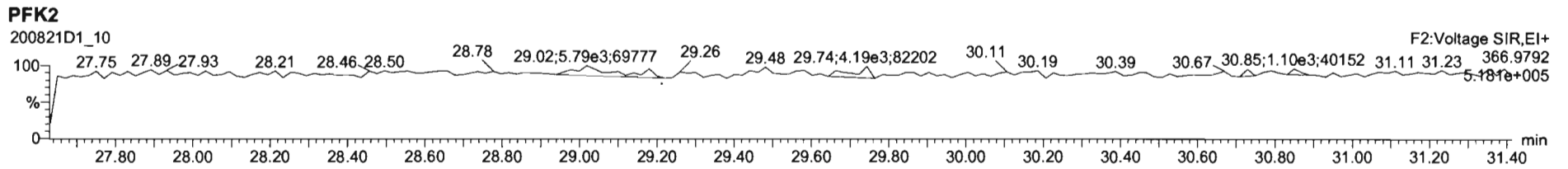
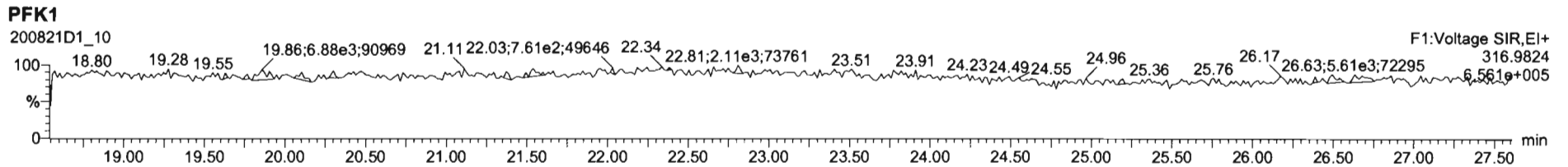
F5:Voltage SIR,EI+  
455.780  
1.069e+008



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_10.qld

Last Altered: Monday, August 24, 2020 09:22:32 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:23:30 Pacific Daylight Time

Name: 200821D1\_10, Date: 21-Aug-2020, Time: 18:48:42, ID: 2001131-17 PDI-168SC-A-07-08-200520 12.52, Description: PDI-168SC-A-07-08-200520





Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Tuesday, August 25, 2020 12:01:56 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 12:02:32 Pacific Daylight Time

*DB 8/25/20 CT 08/26/20*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	1.08	10.069	26.250		1.001				0.132	
2	1,2,3,7,8-PeCDD			NO	0.991	10.069	30.509		1.001				0.117	
3	1,2,3,4,7,8-HxCDD			NO	1.04	10.069	33.782		1.000				0.179	
4	1,2,3,6,7,8-HxCDD			NO	0.908	10.069	33.904		1.000				0.189	
5	1,2,3,7,8,9-HxCDD			NO	0.923	10.069	34.223		1.001				0.191	
6	1,2,3,4,6,7,8-HpCDD	1.20e3	1.03	NO	0.926	10.069	37.558	37.55	1.000	1.000	3.9151		0.308	3.92
7	OCDD	8.48e3	0.88	NO	0.834	10.069	40.817	40.83	1.000	1.000	36.631		0.470	36.6
8	2,3,7,8-TCDF			NO	0.882	10.069	25.602		1.001				0.0969	
9	1,2,3,7,8-PeCDF			NO	0.937	10.069	29.382		1.001				0.102	
10	2,3,4,7,8-PeCDF			NO	1.03	10.069	30.316		1.001				0.0857	
11	1,2,3,4,7,8-HxCDF			NO	1.07	10.069	32.862		1.000				0.132	
12	1,2,3,6,7,8-HxCDF			NO	1.11	10.069	33.015		1.000				0.116	
13	2,3,4,6,7,8-HxCDF			NO	1.11	10.069	33.697		1.001				0.148	
14	1,2,3,7,8,9-HxCDF			NO	1.12	10.069	34.694		1.000				0.168	
15	1,2,3,4,6,7,8-HpCDF	5.36e2	0.89	NO	1.15	10.069	36.398	36.37	1.001	1.000	1.1462		0.0909	1.15
16	1,2,3,4,7,8,9-HpCDF			NO	1.25	10.069	38.206		1.000				0.110	
17	OCDF	9.40e2	0.84	NO	0.961	10.069	41.146	41.15	1.000	1.000	3.1314		0.190	3.13
18	13C-2,3,7,8-TCDD	1.20e5	0.77	NO	1.20	10.069	26.241	26.22	1.026	1.025	211.82	107	0.746	
19	13C-1,2,3,7,8-PeCDD	9.61e4	0.61	NO	0.910	10.069	30.502	30.49	1.193	1.192	224.16	113	0.426	
20	13C-1,2,3,4,7,8-HxCDD	6.97e4	1.26	NO	0.789	10.069	33.778	33.77	1.014	1.014	191.13	96.2	0.814	
21	13C-1,2,3,6,7,8-HxCDD	8.06e4	1.29	NO	0.885	10.069	33.888	33.90	1.017	1.018	196.93	99.1	0.725	
22	13C-1,2,3,7,8,9-HxCDD	8.27e4	1.28	NO	0.888	10.069	34.158	34.19	1.025	1.026	201.15	101	0.722	
23	13C-1,2,3,4,6,7,8-HpCDD	6.56e4	1.03	NO	0.740	10.069	37.609	37.55	1.129	1.127	191.67	96.5	1.23	
24	13C-OCDD	1.10e5	0.88	NO	0.660	10.069	40.621	40.82	1.219	1.225	361.24	90.9	0.735	
25	13C-2,3,7,8-TCDF	1.70e5	0.79	NO	1.09	10.069	25.320	25.58	0.990	1.000	191.04	96.2	0.691	
26	13C-1,2,3,7,8-PeCDF	1.45e5	1.74	NO	0.857	10.069	29.558	29.36	1.156	1.148	207.13	104	0.802	
27	13C-2,3,4,7,8-PeCDF	1.42e5	1.71	NO	0.796	10.069	30.461	30.29	1.191	1.184	218.29	110	0.864	
28	13C-1,2,3,4,7,8-HxCDF	9.56e4	0.50	NO	1.02	10.069	32.912	32.86	0.988	0.986	202.60	102	0.862	
29	13C-1,2,3,6,7,8-HxCDF	1.01e5	0.51	NO	1.00	10.069	33.046	33.01	0.992	0.991	217.51	110	0.877	
30	13C-2,3,4,6,7,8-HxCDF	9.02e4	0.51	NO	0.936	10.069	33.615	33.66	1.009	1.011	208.46	105	0.940	
31	13C-1,2,3,7,8,9-HxCDF	8.38e4	0.47	NO	0.889	10.069	34.691	34.69	1.041	1.041	203.68	103	0.989	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Tuesday, August 25, 2020 12:01:56 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:02:32 Pacific Daylight Time

Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

	# 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	8.06e4	0.43	NO	0.849	10.069	36.210	36.36	1.087	1.092	205.03	103	1.10	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.63e4	0.42	NO	0.624	10.069	38.209	38.21	1.147	1.147	195.22	98.3	1.49	
34	34 13C-OCDF	1.24e5	0.86	NO	0.693	10.069	40.774	41.15	1.224	1.235	386.90	97.4	0.815	
35	35 37Cl-2,3,7,8-TCDD	4.78e4			1.28	10.069	26.238	26.23	1.026	1.026	79.492	100	0.135	
36	36 13C-1,2,3,4-TCDD	9.36e4	0.81	NO	1.00	10.069	25.550	25.58	1.000	1.000	198.63	100	0.897	
37	37 13C-1,2,3,4-TCDF	1.63e5	0.78	NO	1.00	10.069	24.250	24.28	1.000	1.000	198.63	100	0.751	
38	38 13C-1,2,3,4,6,9-HxCDF	9.19e4	0.51	NO	1.00	10.069	33.300	33.31	1.000	1.000	198.63	100	0.879	
39	39 Total Tetra-Dioxins				1.08	10.069	24.620		0.000				0.0762	
40	40 Total Penta-Dioxins				0.991	10.069	29.960		0.000				0.0387	
41	41 Total Hexa-Dioxins				0.908	10.069	33.635		0.000		0.00000		0.0955	0.445
42	42 Total Hepta-Dioxins				0.926	10.069	37.640		0.000		7.4724		0.308	7.47
43	43 Total Tetra-Furans				0.882	10.069	23.610		0.000				0.0444	
44	44 1st Func. Penta-Furans				0.937	10.069	26.750		0.000		0.00000		0.0206	0.322
45	45 Total Penta-Furans				0.937	10.069	29.275		0.000				0.0417	
46	46 Total Hexa-Furans				1.11	10.069	33.555		0.000	1.1	0.92726		0.139	1.27
47	47 Total Hepta-Furans				1.15	10.069	37.835		0.000		3.9365		0.103	3.94

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Tuesday, August 25, 2020 12:01:56 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:02:32 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.14	3.709e3	1.609e3	1.183e2	7.055e1	1.68	YES	0.000e0	0.00000	0.44494	0.0955

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.69	8.343e3	9.967e3	5.139e2	5.730e2	0.90	NO	1.087e3	3.5573	3.5573	0.308
2	1,2,3,4,6,7,8-HpCDD	37.55	1.077e4	1.082e4	6.061e2	5.902e2	1.03	NO	1.196e3	3.9151	3.9151	0.308

**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	1st Func. Penta-Furans	27.00	3.105e3	1.636e3	1.610e2	8.558e1	1.88	YES	0.000e0	0.00000	0.32170	0.0206

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Tuesday, August 25, 2020 12:01:56 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:02:32 Pacific Daylight Time

Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

**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	31.60	7.920e2	1.204e3	3.569e1	3.171e1	1.13	NO	6.740e1	0.12996	0.12996	0.139
2	Total Hexa-Furans	31.77	3.007e3	2.340e3	1.183e2	7.958e1	1.49	YES	0.000e0	0.00000	0.34370	0.139
3	Total Hexa-Furans	32.39	4.690e3	4.098e3	2.247e2	1.888e2	1.19	NO	4.135e2	0.79730	0.79730	0.139

**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	36.37	3.984e3	4.883e3	2.521e2	2.839e2	0.89	NO	5.360e2	1.1462	1.1462	0.0909
2	Total Hepta-Furans	36.97	9.790e3	1.004e4	5.311e2	5.773e2	0.92	NO	1.108e3	2.7903	2.7903	0.103

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

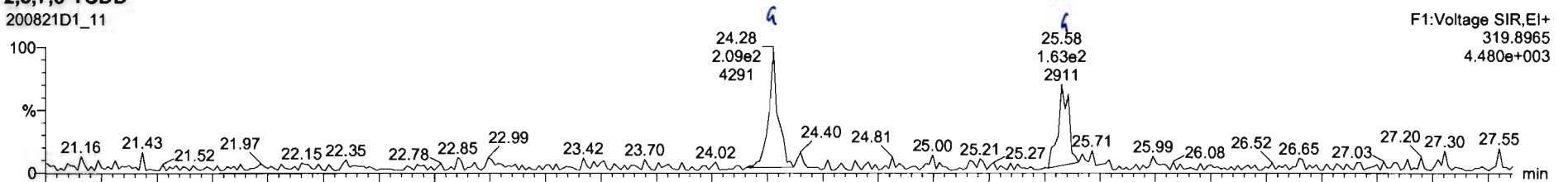
Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

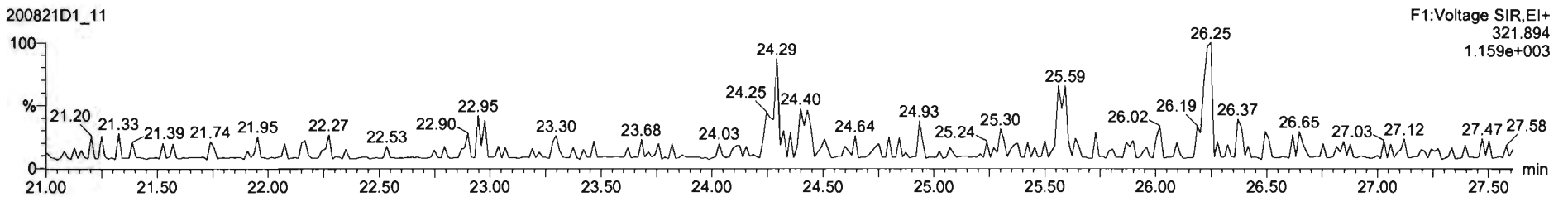
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

2,3,7,8-TCDD

200821D1\_11

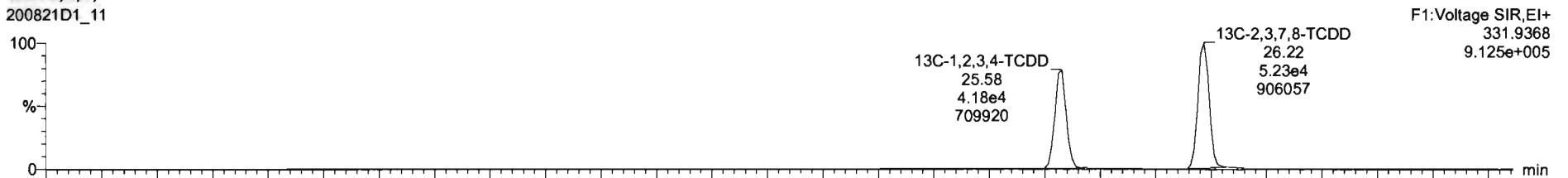


200821D1\_11

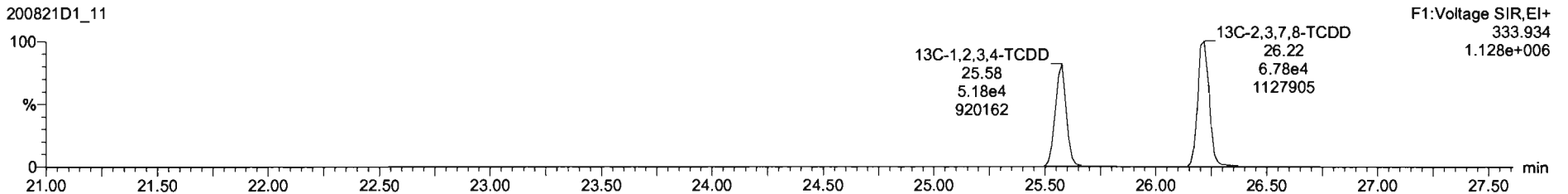


13C-2,3,7,8-TCDD

200821D1\_11



200821D1\_11



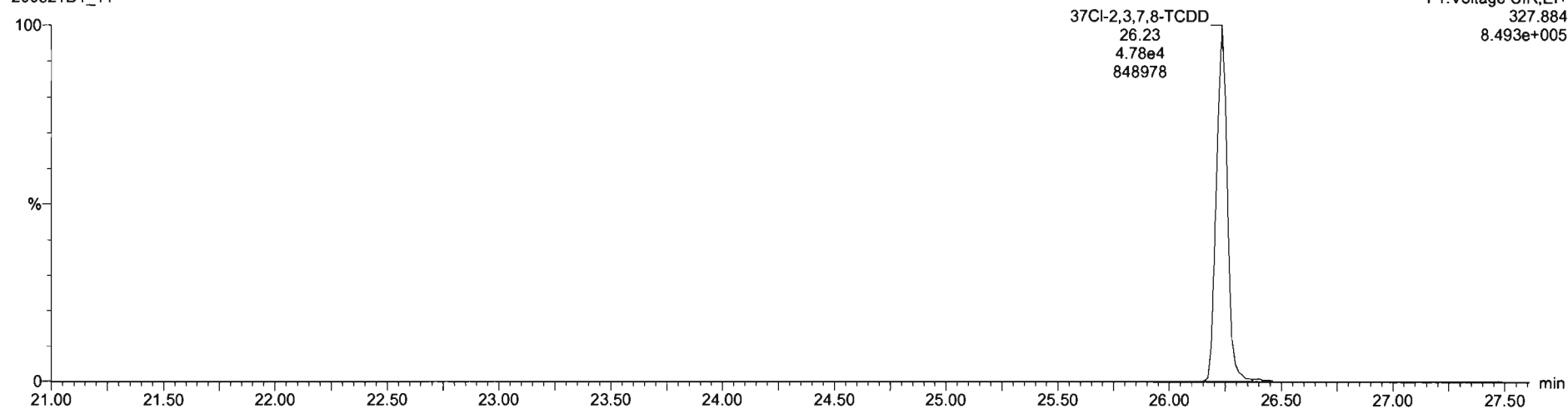
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

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

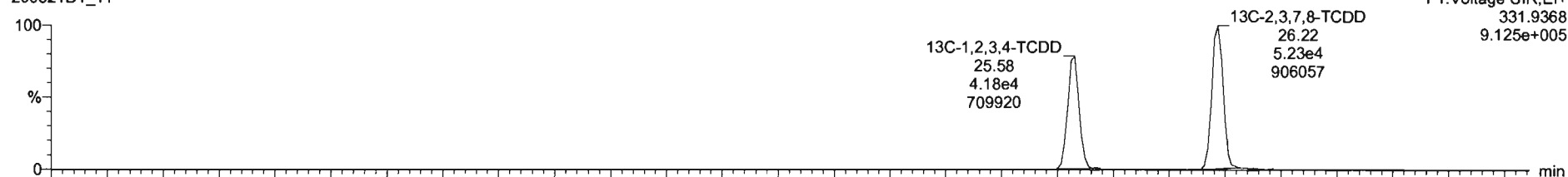
200821D1\_11



F1:Voltage SIR,EI+  
327.884  
8.493e+005

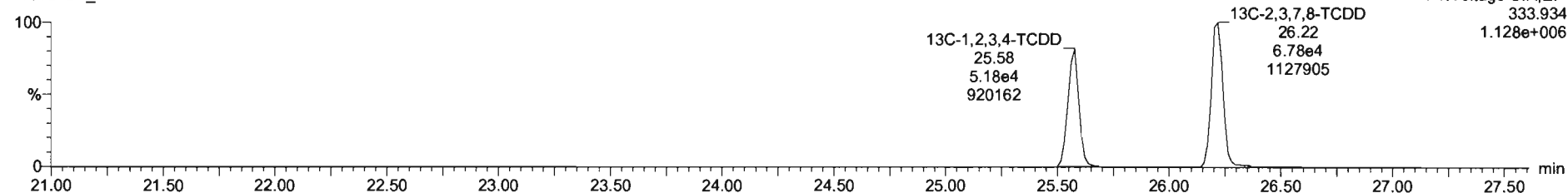
13C-1,2,3,4-TCDD

200821D1\_11



F1:Voltage SIR,EI+  
331.9368  
9.125e+005

200821D1\_11



F1:Voltage SIR,EI+  
333.934  
1.128e+006

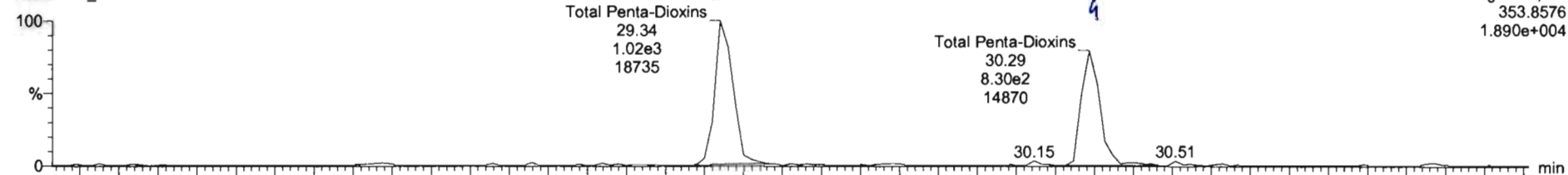
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

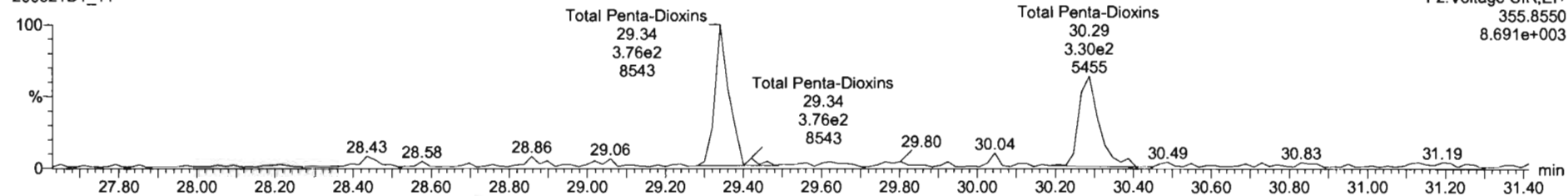
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

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

200821D1\_11

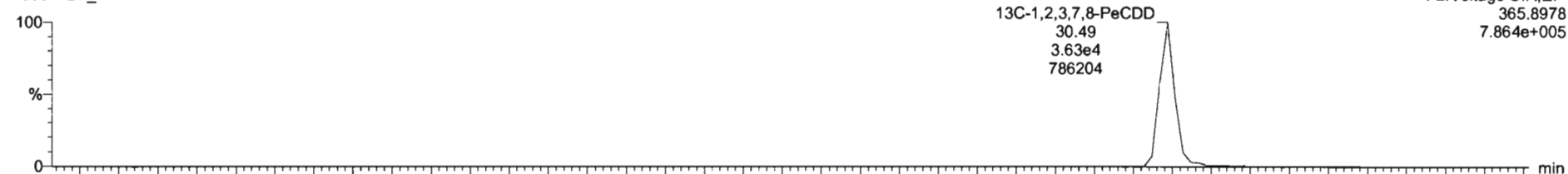


200821D1\_11

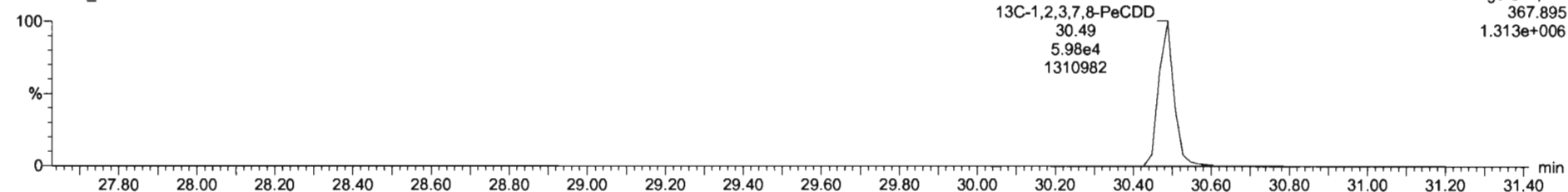


**13C-1,2,3,7,8-PeCDD**

200821D1\_11



200821D1\_11



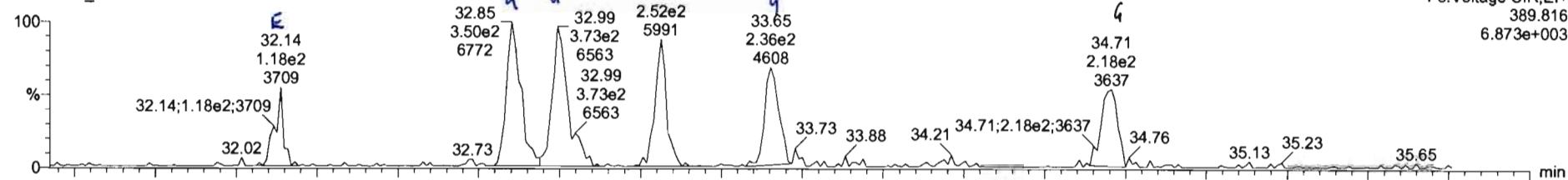
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

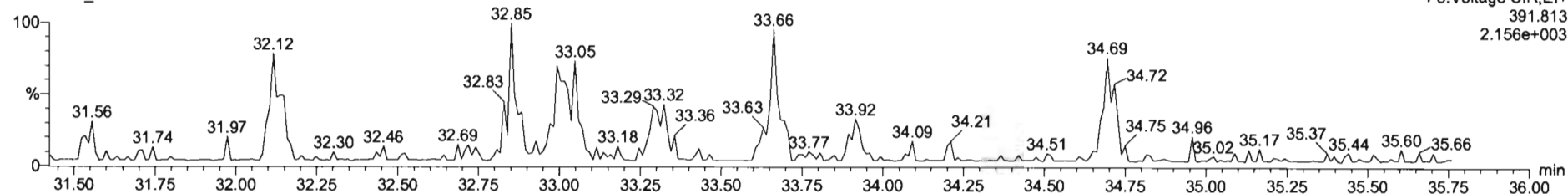
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

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

200821D1\_11

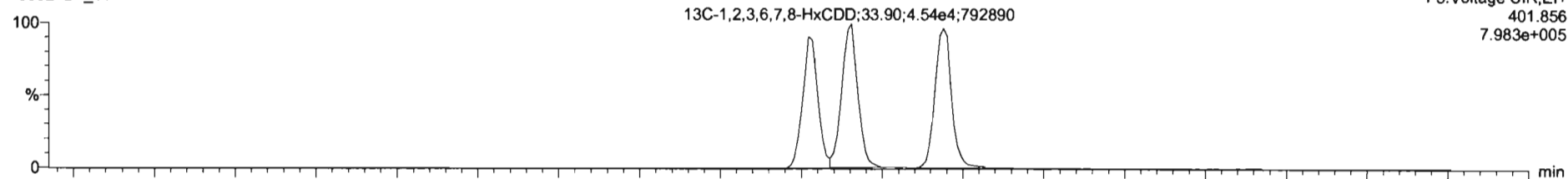


200821D1\_11

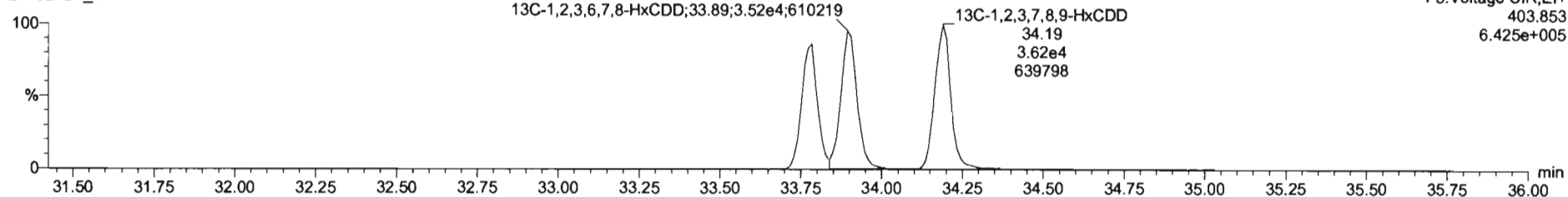


13C-1,2,3,4,7,8-HxCDD

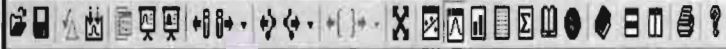
200821D1\_11



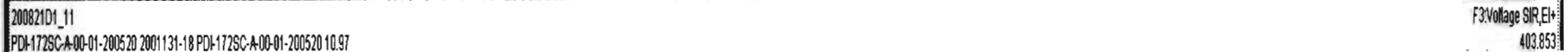
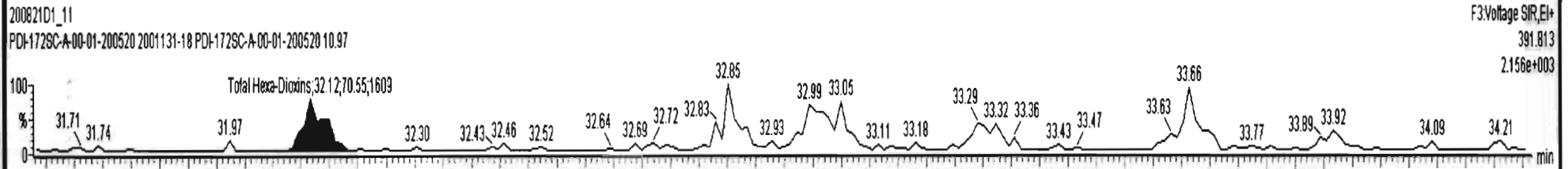
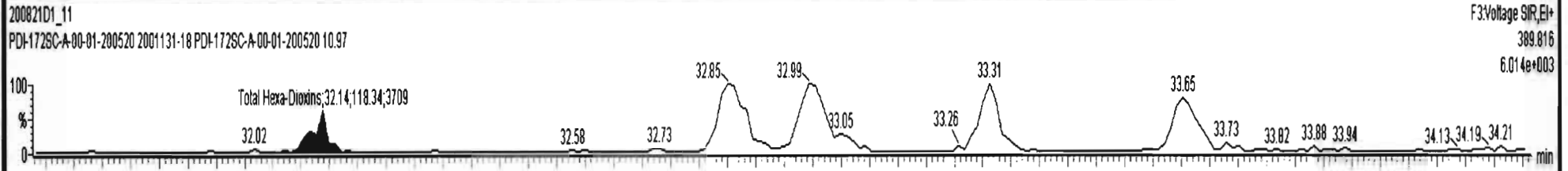
200821D1\_11







200821D1\_11 - 2001131-18 PDI-172SC-A-00-01-200520 10.97 - PDI-172SC-A-00-01-200520



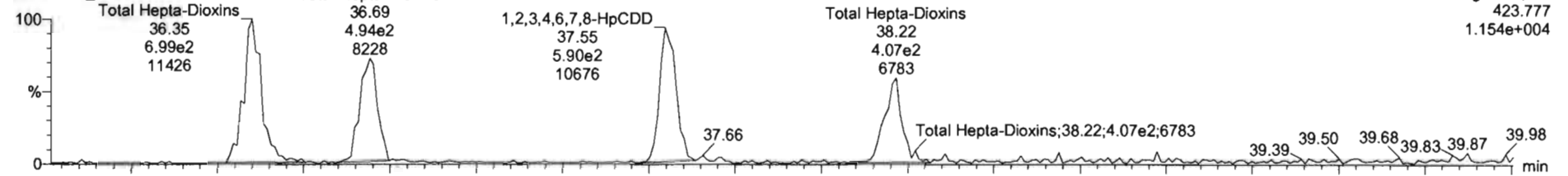
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

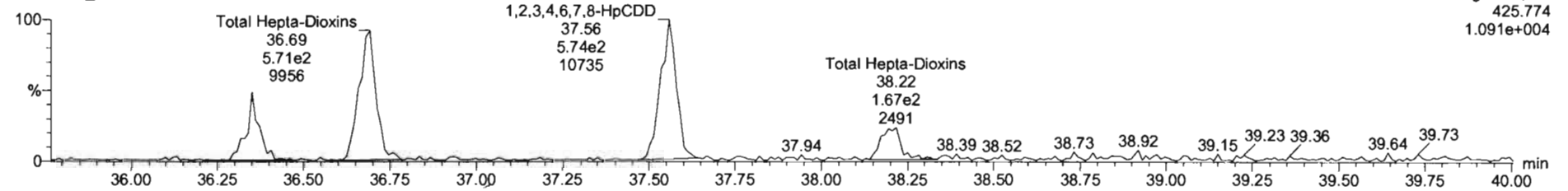
1,2,3,4,6,7,8-HpCDD

200821D1\_11



F4: Voltage SIR, EI+  
423.777  
1.154e+004

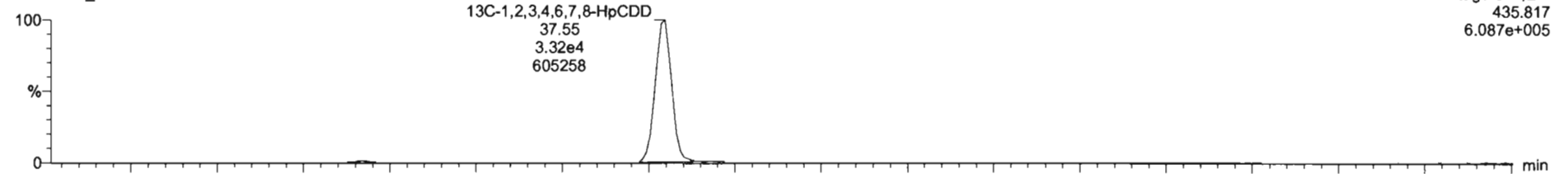
200821D1\_11



F4: Voltage SIR, EI+  
425.774  
1.091e+004

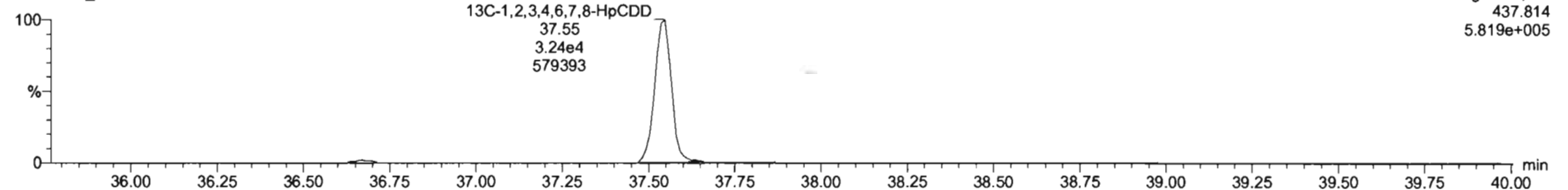
13C-1,2,3,4,6,7,8-HpCDD

200821D1\_11

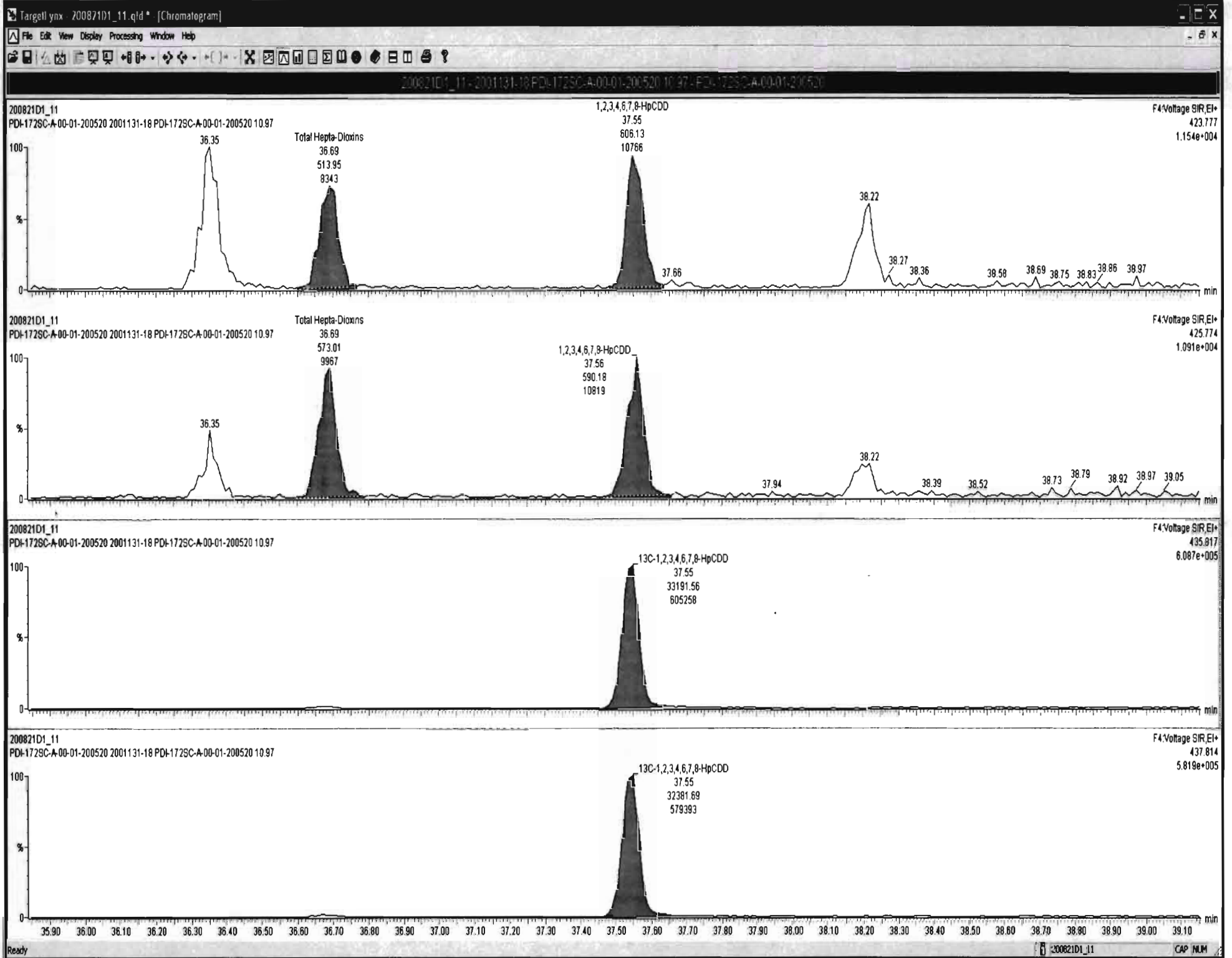


F4: Voltage SIR, EI+  
435.817  
6.087e+005

200821D1\_11



F4: Voltage SIR, EI+  
437.814  
5.819e+005



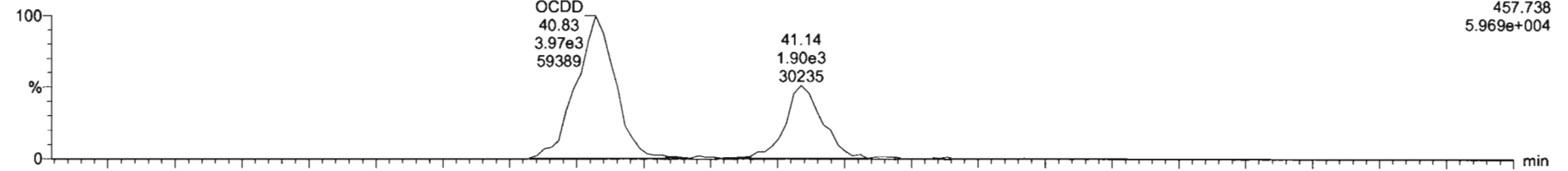
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

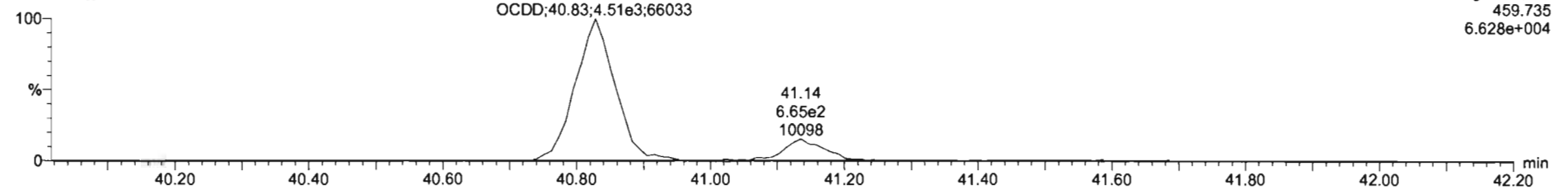
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

**OCDD**

200821D1\_11

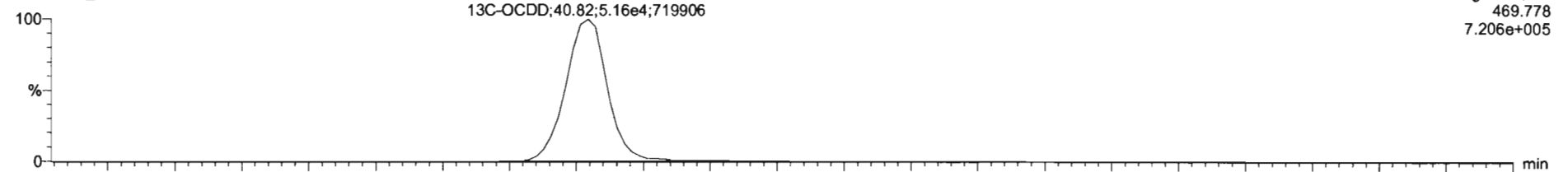


200821D1\_11

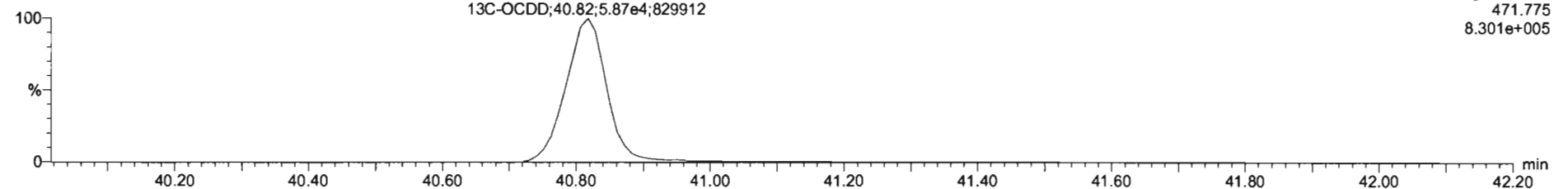


**13C-OCDD**

200821D1\_11



200821D1\_11



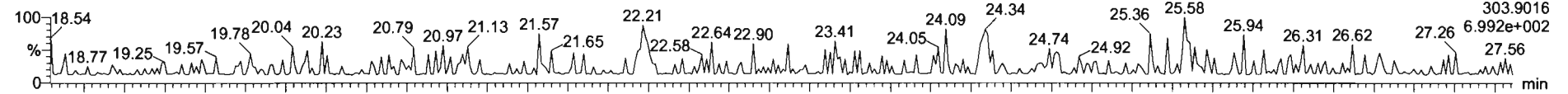
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

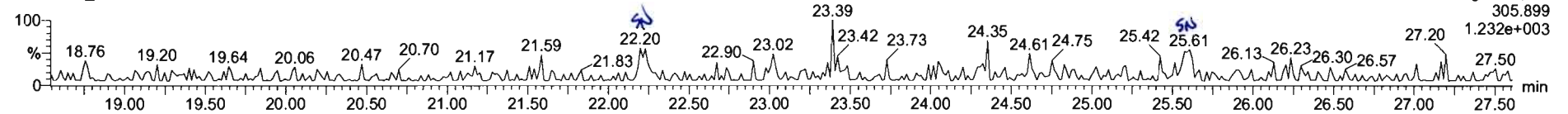
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

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

200821D1\_11

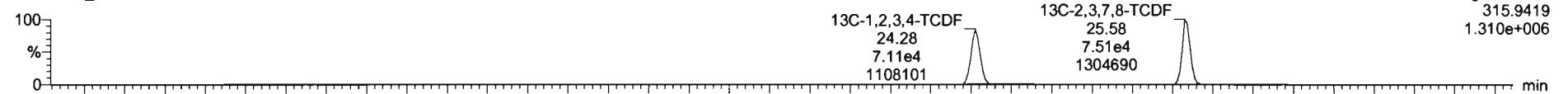


200821D1\_11

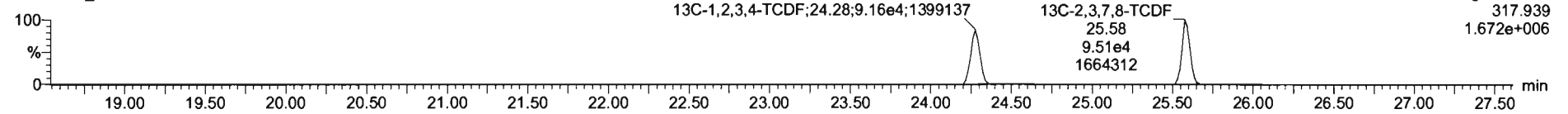


**13C-2,3,7,8-TCDF**

200821D1\_11

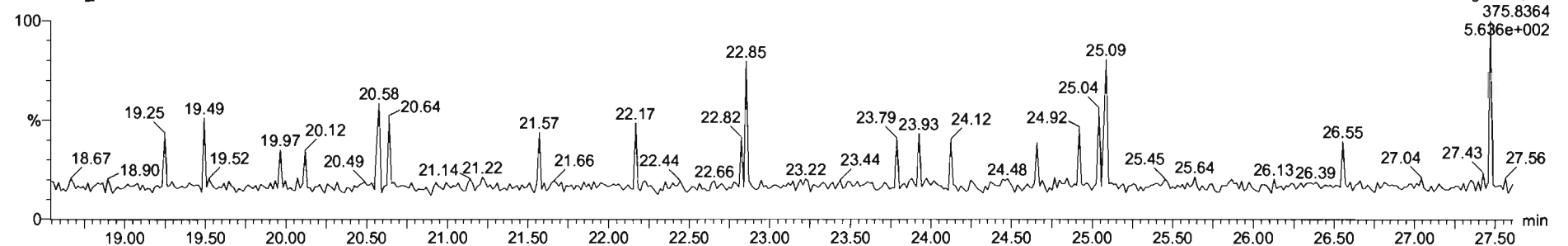


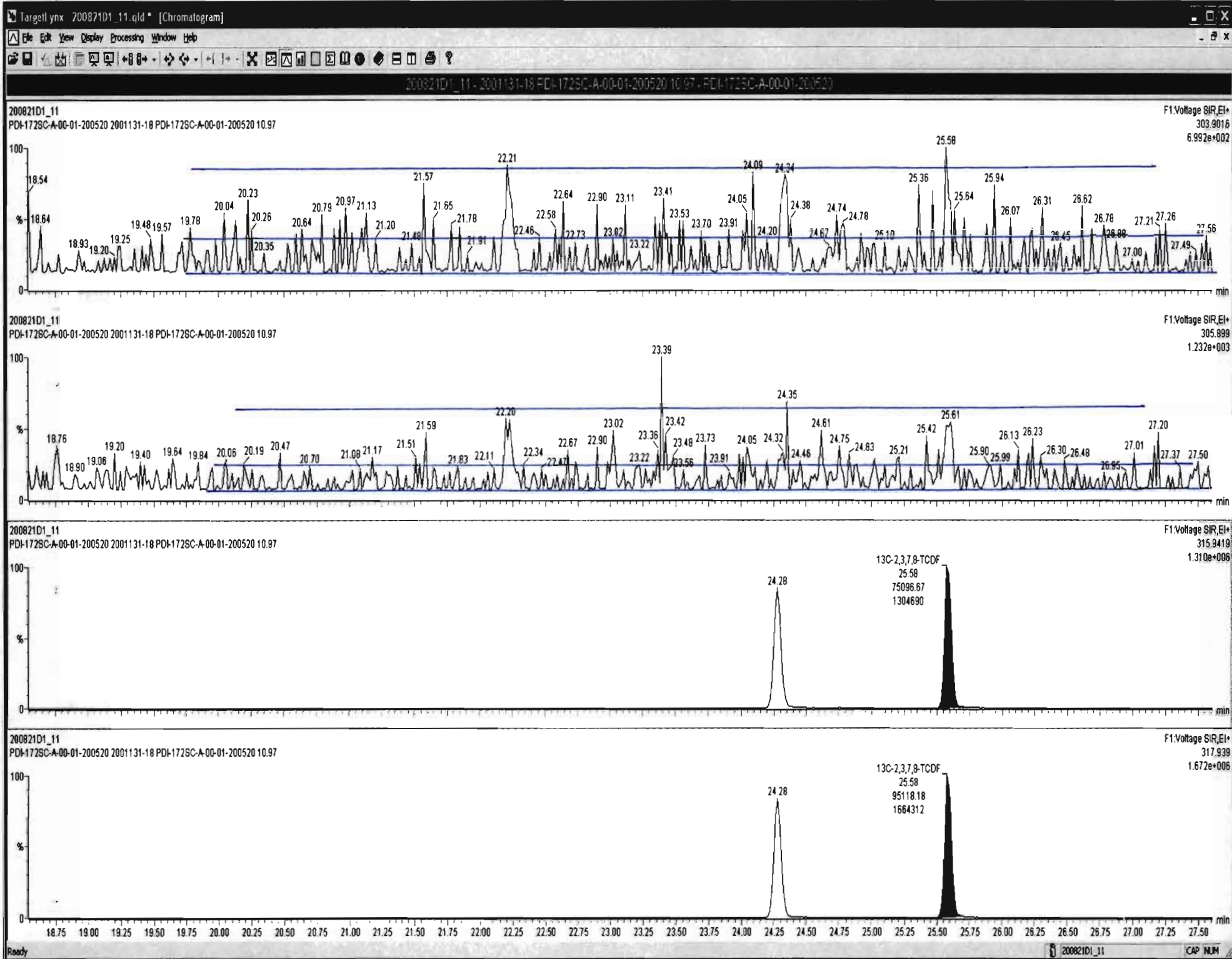
200821D1\_11



**DPE1**

200821D1\_11





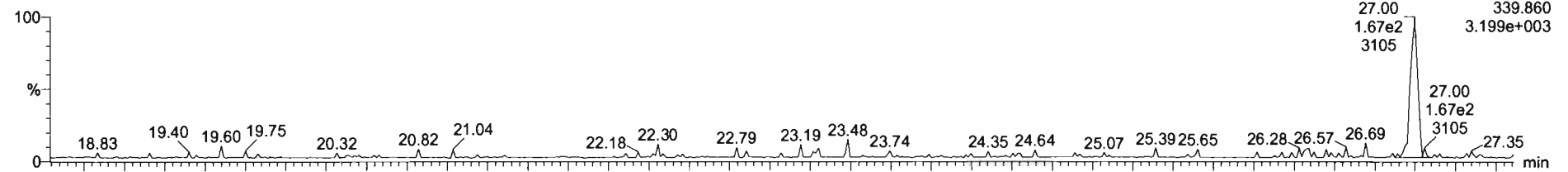
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

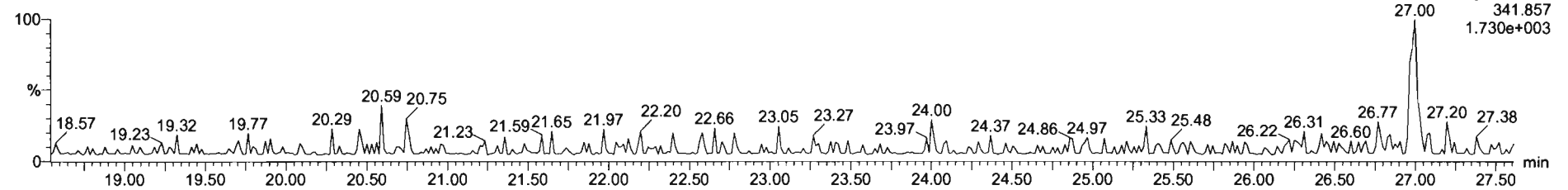
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

1st Func. Penta-Furans

200821D1\_11

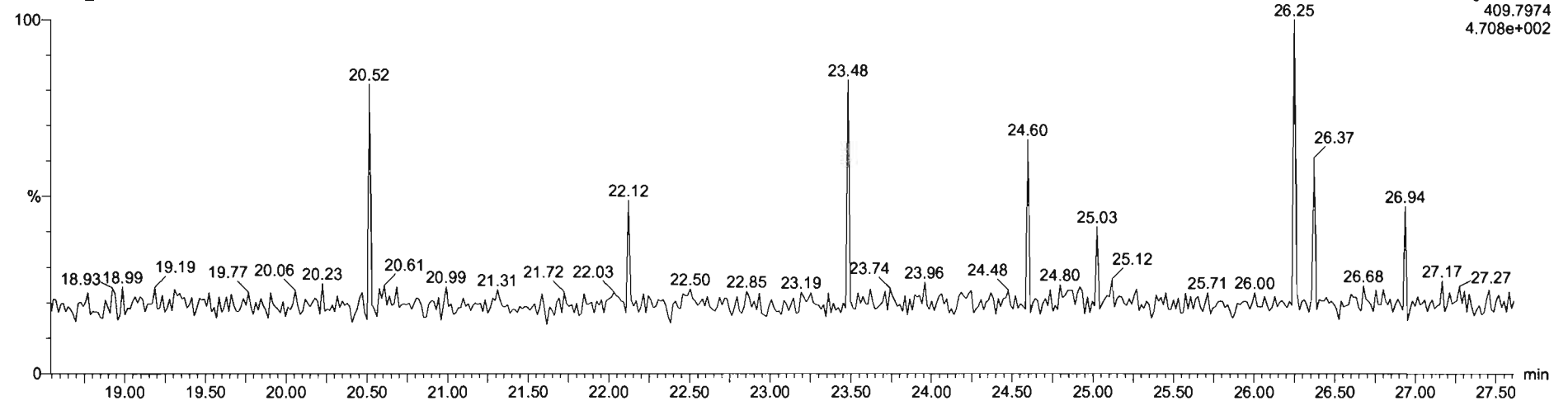


200821D1\_11



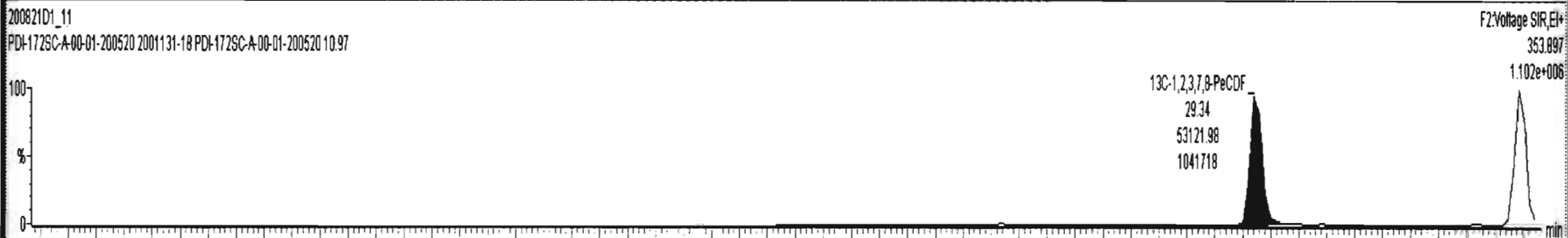
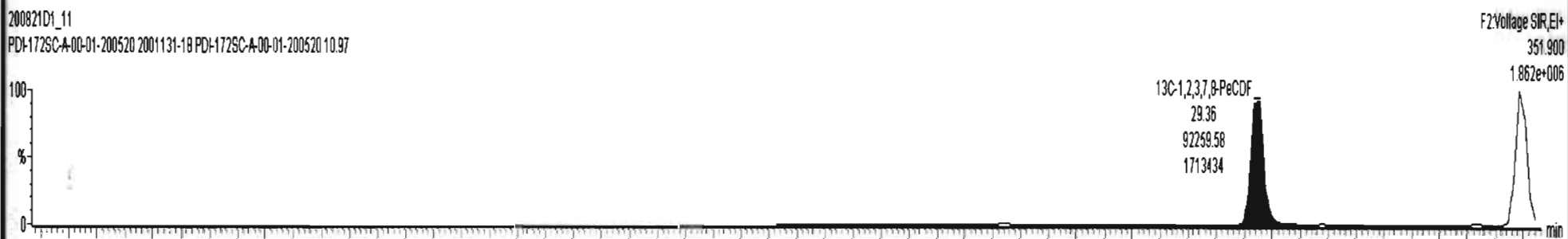
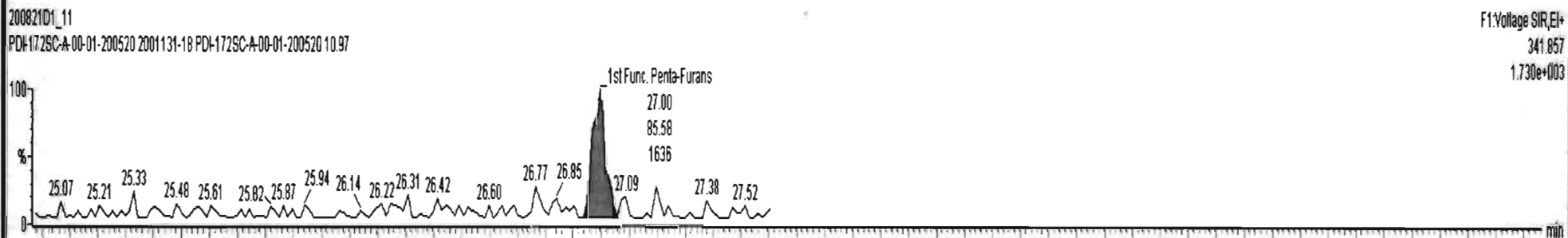
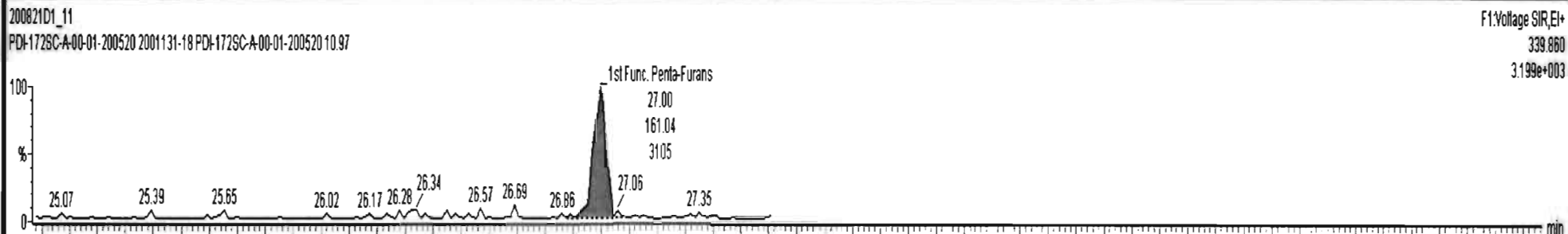
DPE6

200821D1\_11





200821D1\_11 - 2001131-18 PDI-172SC-A-00-01-200520 10.97 - PDI-172SC-A-00-01-200520





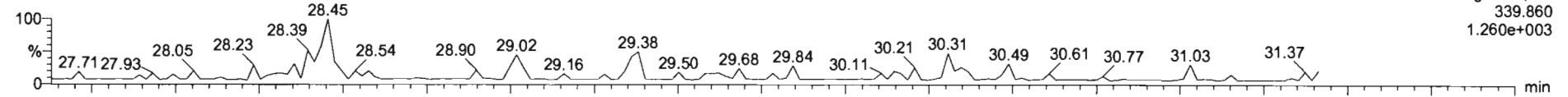
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

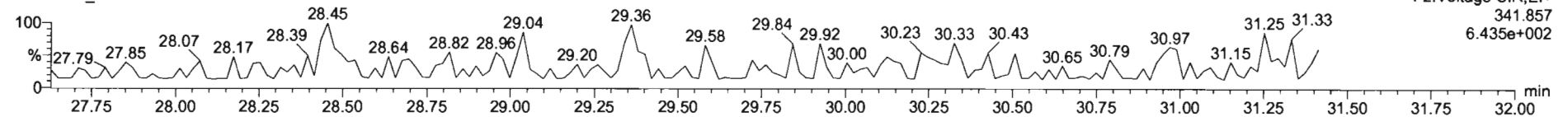
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

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

200821D1\_11

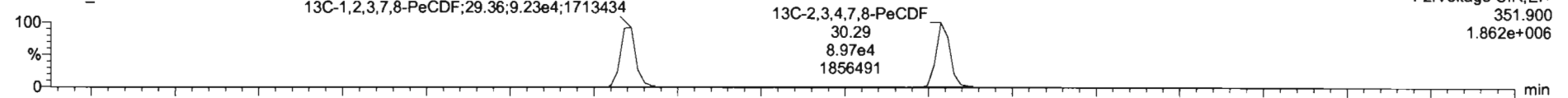


200821D1\_11

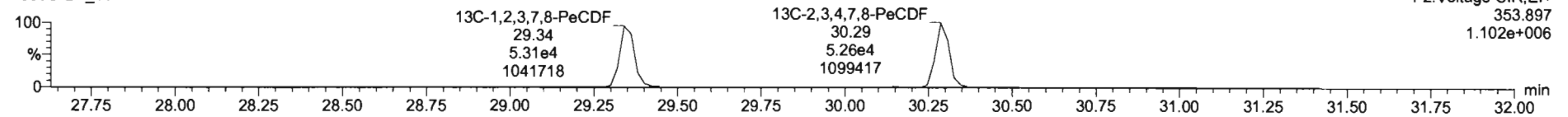


**13C-1,2,3,7,8-PeCDF**

200821D1\_11

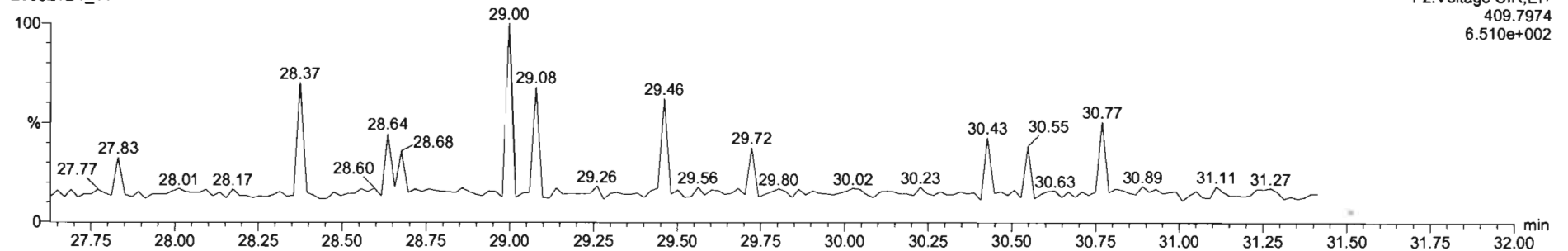


200821D1\_11



**DPE2**

200821D1\_11

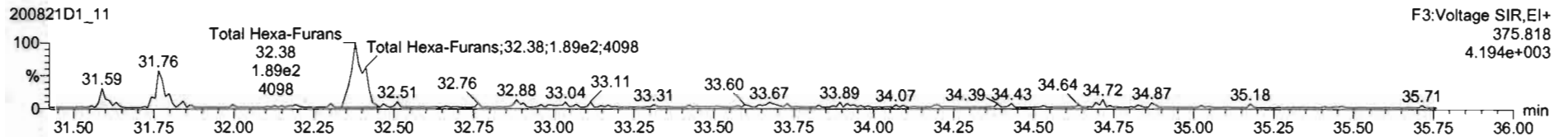
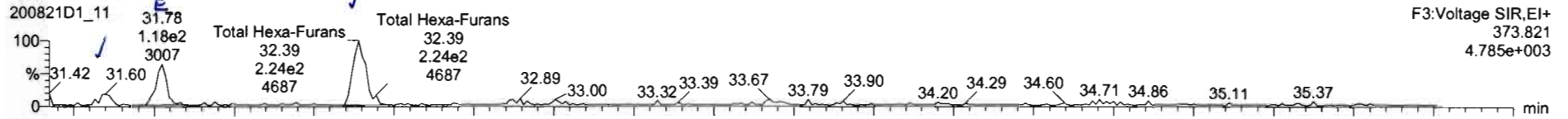


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

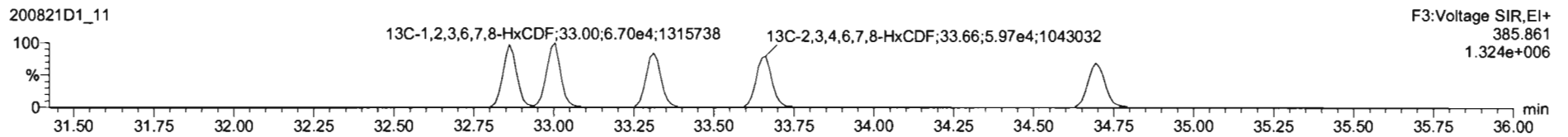
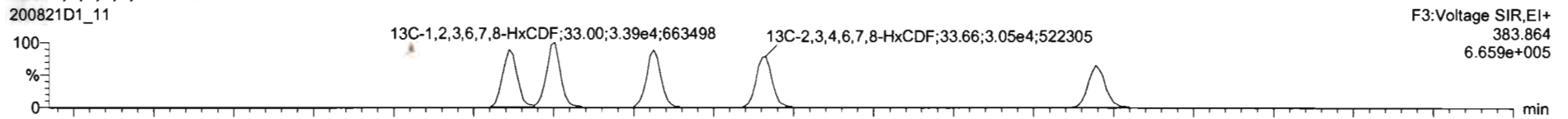
Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

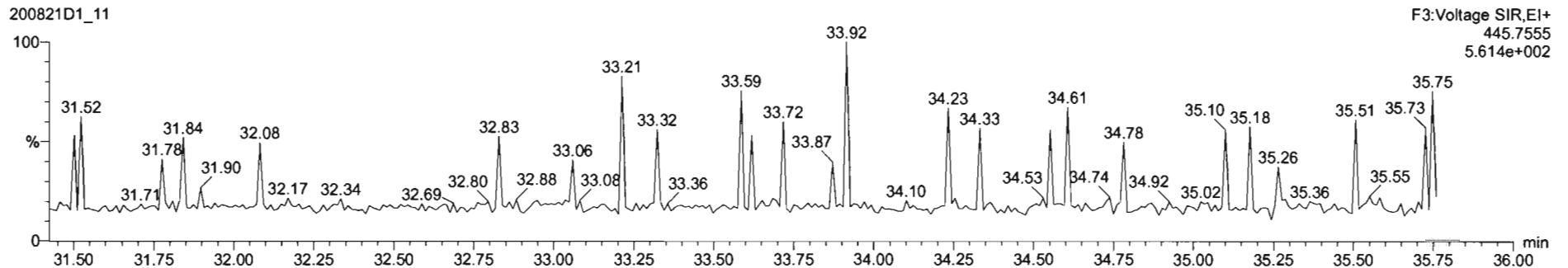
**1,2,3,4,7,8-HxCDF**

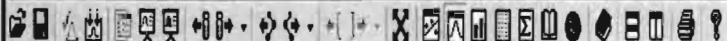


**13C-1,2,3,4,7,8-HxCDF**

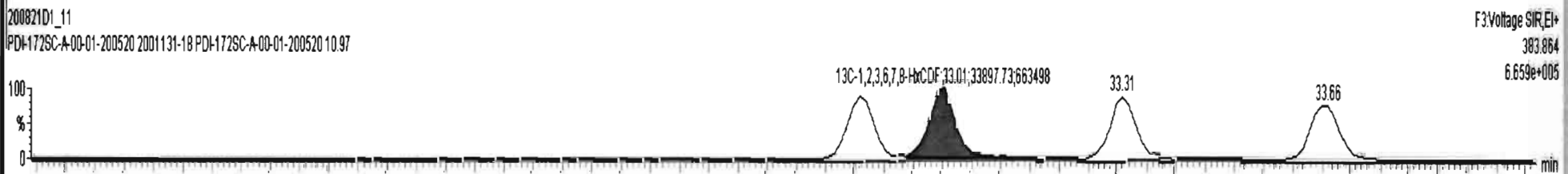
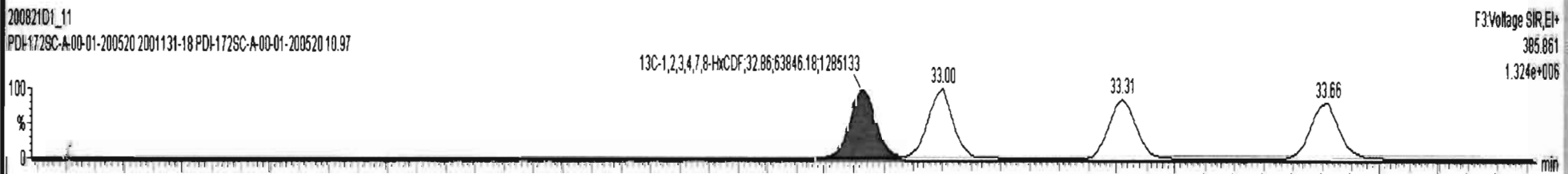
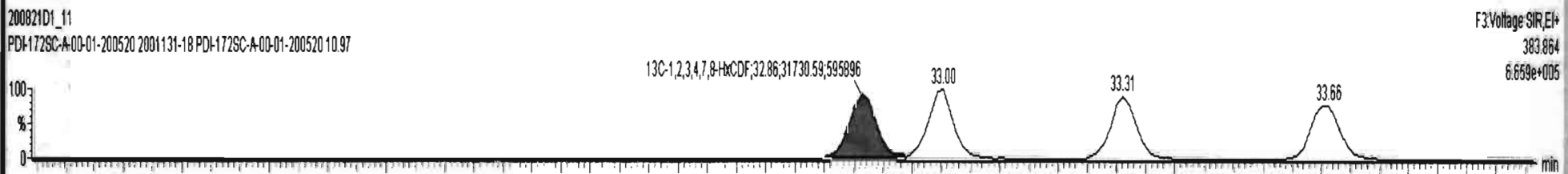
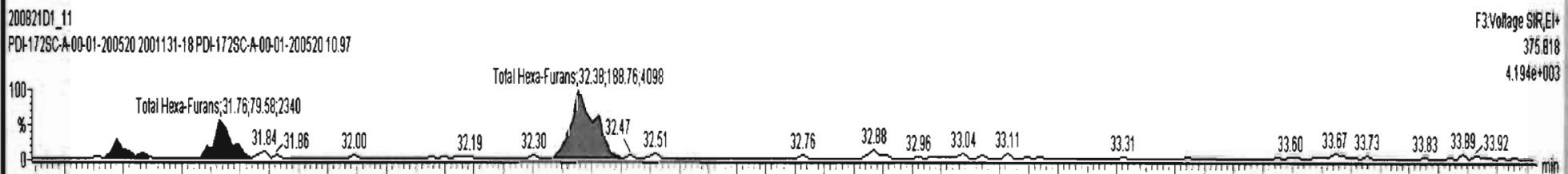
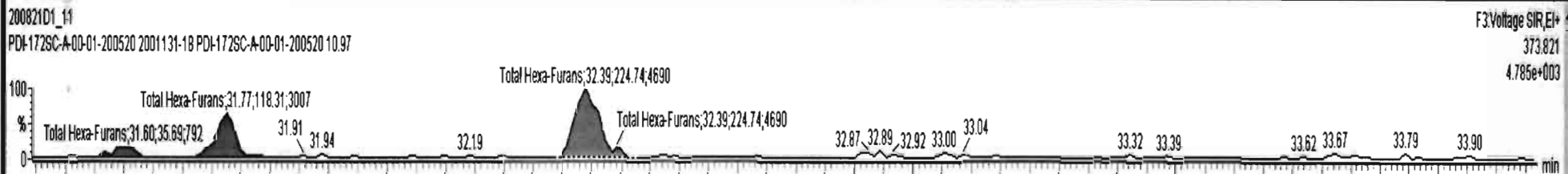


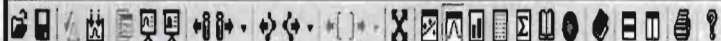
**DPE3**





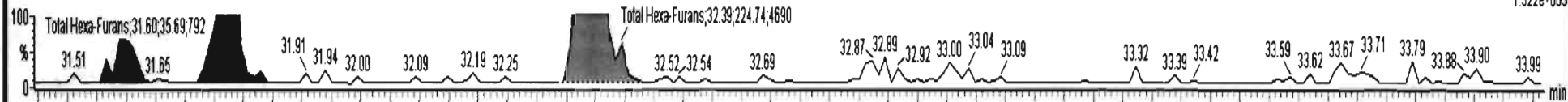
200821D1\_11 - 2001131-18 PDI-172SC-A-00-01-200520 10.97 - PDI-172SC-A-00-01-200520



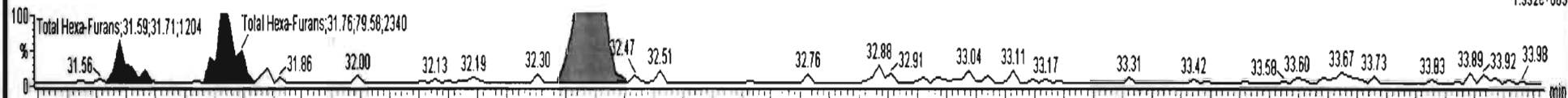


200821D1\_11 - 2001131-18 PDI-172SC-A-00-01-200520 10.97 - PDI-172SC-A-00-01-200520

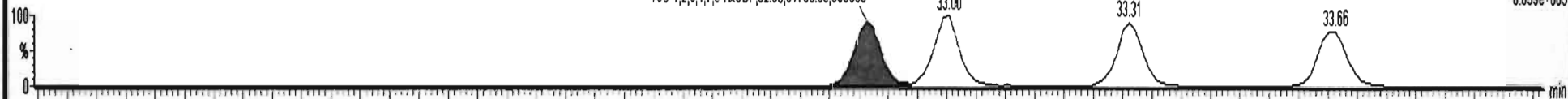
200821D1\_11  
PDI-172SC-A-00-01-200520 2001131-18 PDI-172SC-A-00-01-200520 10.97  
F3:Voltage SIR,EI+  
373.821  
1.322e+003



200821D1\_11  
PDI-172SC-A-00-01-200520 2001131-18 PDI-172SC-A-00-01-200520 10.97  
F3:Voltage SIR,EI+  
375.818  
1.992e+003



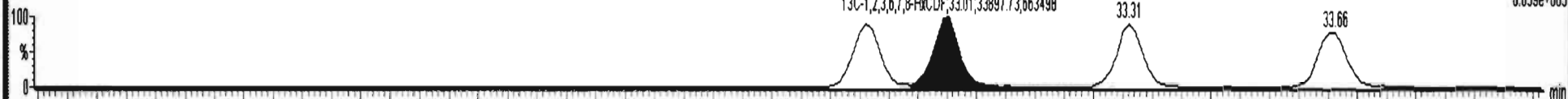
200821D1\_11  
PDI-172SC-A-00-01-200520 2001131-18 PDI-172SC-A-00-01-200520 10.97  
F3:Voltage SIR,EI+  
383.864  
6.659e+005



200821D1\_11  
PDI-172SC-A-00-01-200520 2001131-18 PDI-172SC-A-00-01-200520 10.97  
F3:Voltage SIR,EI+  
385.861  
1.324e+006



200821D1\_11  
PDI-172SC-A-00-01-200520 2001131-18 PDI-172SC-A-00-01-200520 10.97  
F3:Voltage SIR,EI+  
383.864  
6.659e+005



200821D1\_11  
PDI-172SC-A-00-01-200520 2001131-18 PDI-172SC-A-00-01-200520 10.97  
F3:Voltage SIR,EI+  
385.861

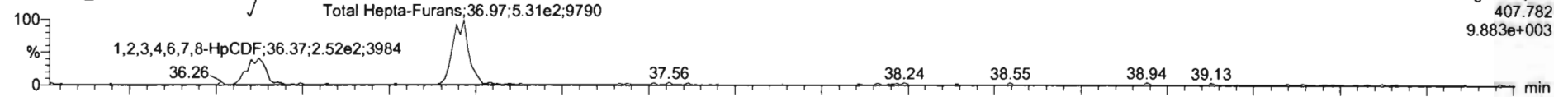
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

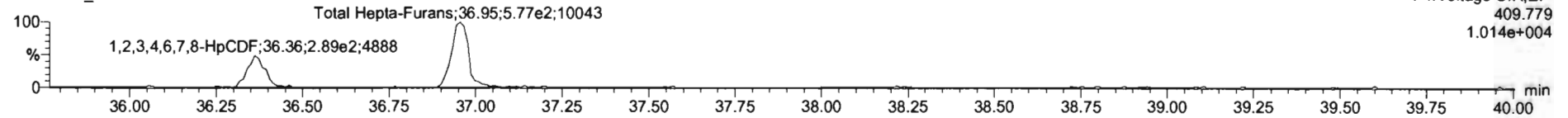
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

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

200821D1\_11

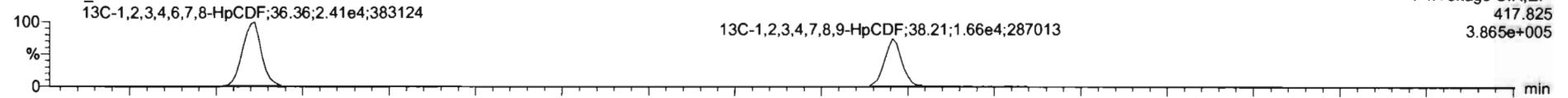


200821D1\_11

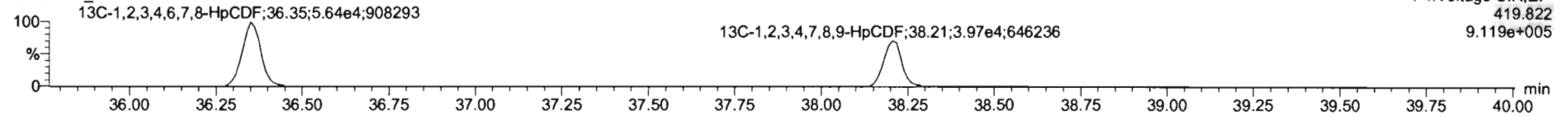


13C-1,2,3,4,6,7,8-HpCDF

200821D1\_11

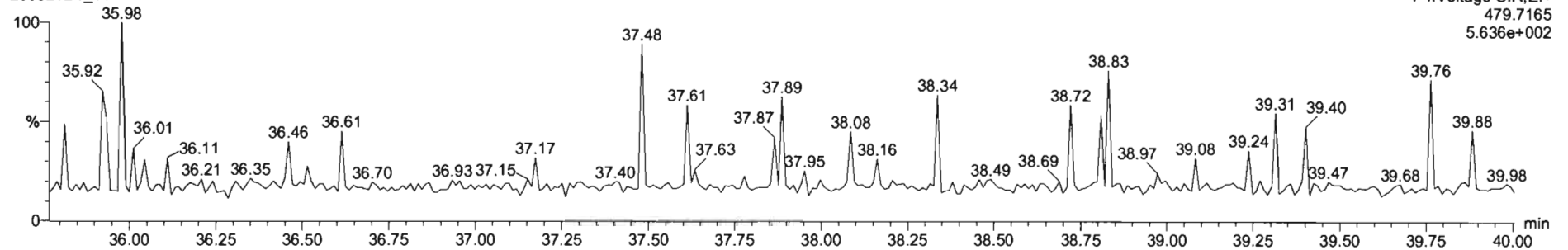


200821D1\_11



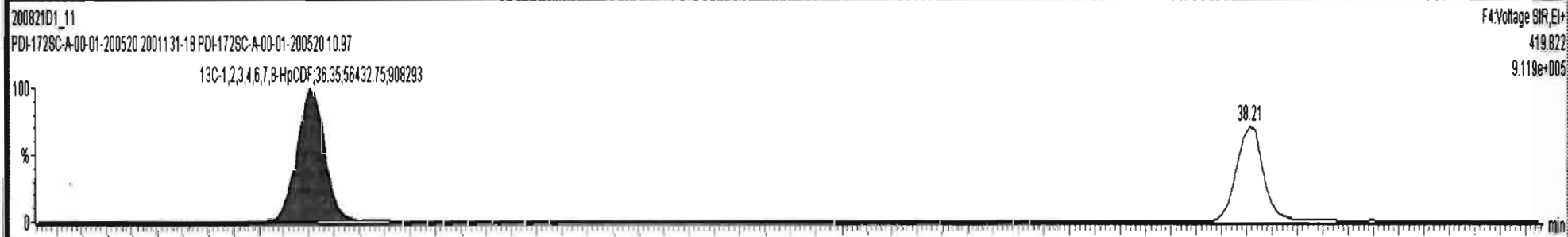
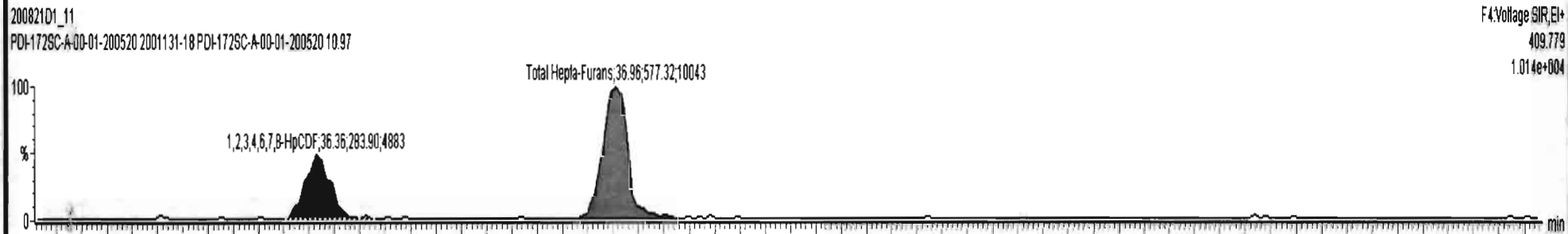
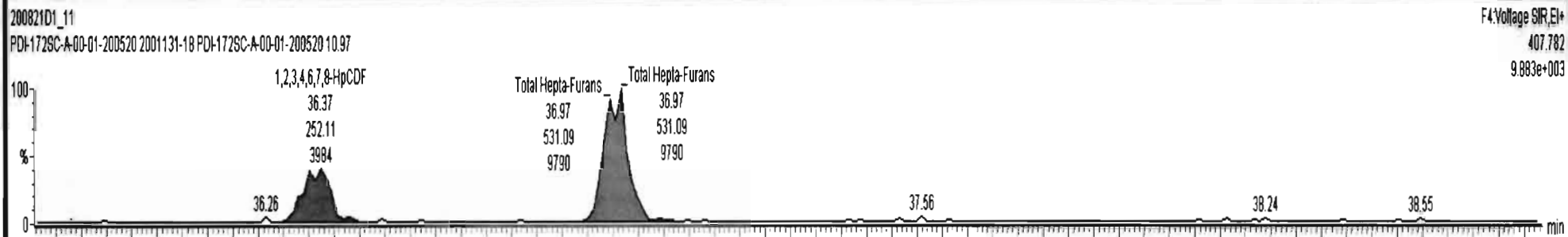
DPE4

200821D1\_11





200821D1\_11 - 2001131-18 PDI-172SC-A-00-01-200520 10.97 - PDI-172SC-A-00-01-200520



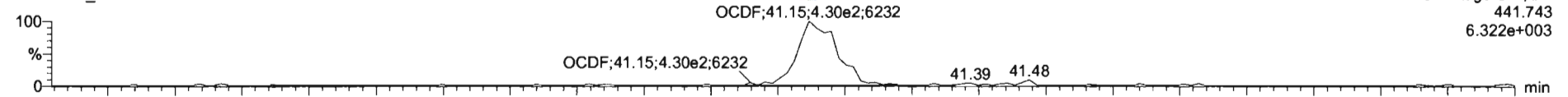
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

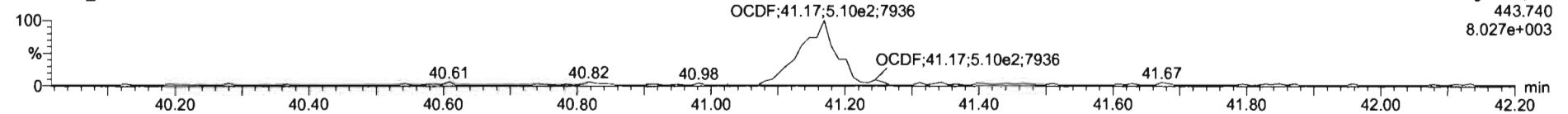
Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520

**OCDF**

200821D1\_11

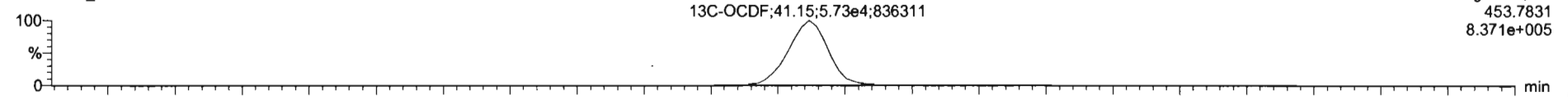


200821D1\_11

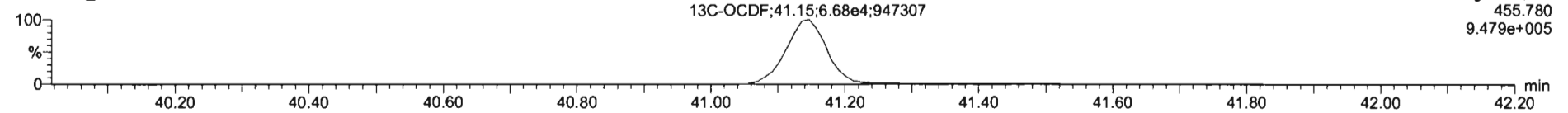


**13C-OCDF**

200821D1\_11

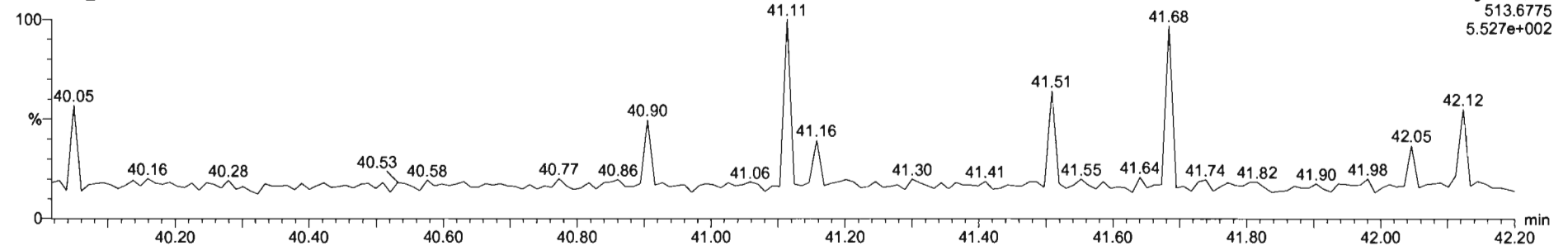


200821D1\_11



**DPE5**

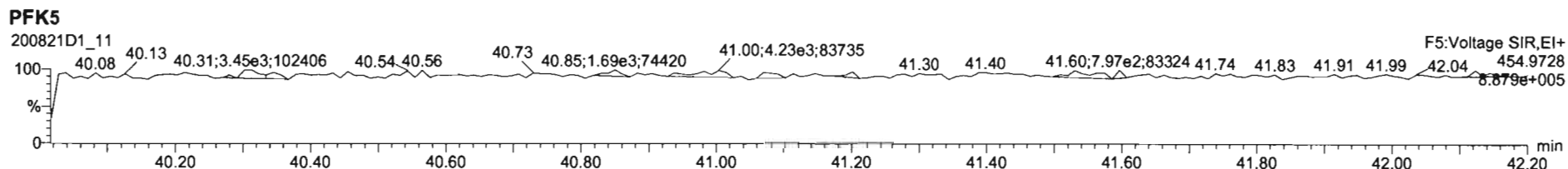
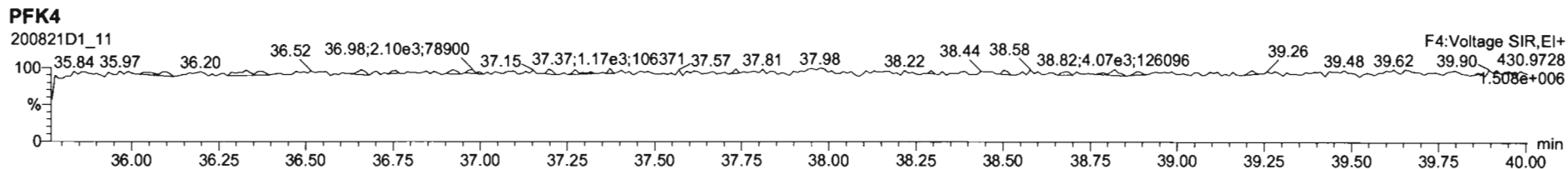
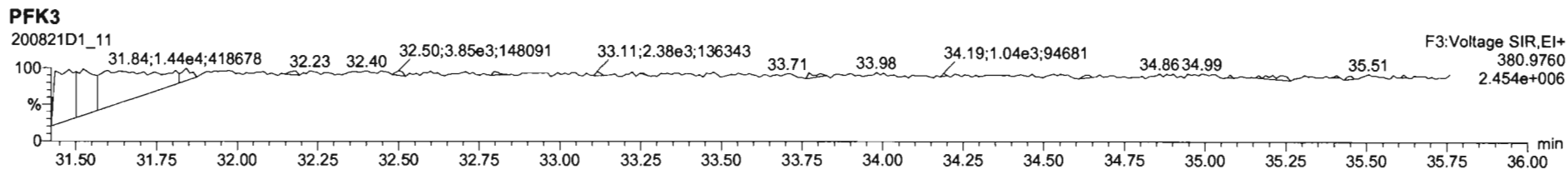
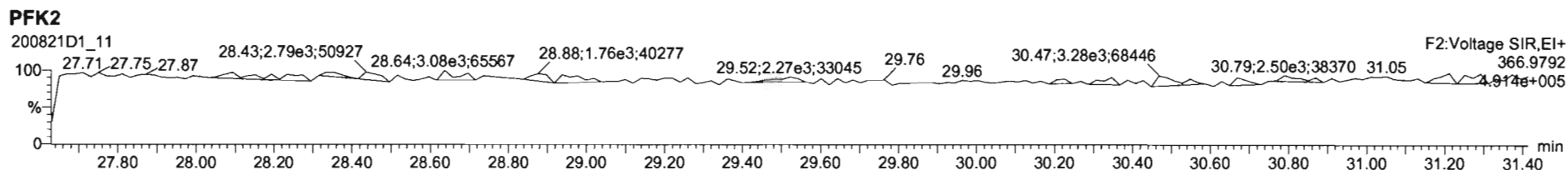
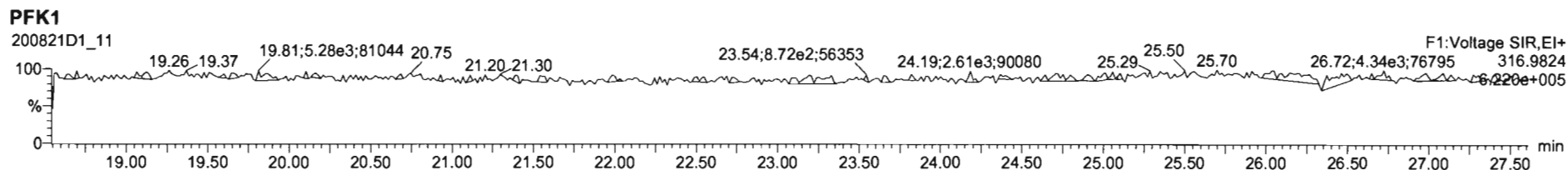
200821D1\_11



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_11.qld

Last Altered: Monday, August 24, 2020 09:23:36 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:25:30 Pacific Daylight Time

Name: 200821D1\_11, Date: 21-Aug-2020, Time: 19:34:07, ID: 2001131-18 PDI-172SC-A-00-01-200520 10.97, Description: PDI-172SC-A-00-01-200520





Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Tuesday, August 25, 2020 12:24:56 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 12:25:46 Pacific Daylight Time

*DB 8/25/20 CT 08/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

#	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	1.08	10.167	26.265		1.001				0.121	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.167	30.529		1.001				0.134	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.167	33.804		1.000				0.159	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.167	33.915		1.000				0.161	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.167	34.245		1.001				0.158	
6	6 1,2,3,4,6,7,8-HpCDD	7.63e2	1.08	NO	0.926	10.167	37.569	37.57	1.000	1.000	2.3912		0.249	2.39
7	7 OCDD	5.34e3	0.92	NO	0.834	10.167	40.828	40.85	1.000	1.001	22.476		0.325	22.5
8	8 2,3,7,8-TCDF			NO	0.882	10.167	25.633		1.001				0.0999	
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.167	29.402		1.001				0.0818	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.167	30.336		1.001				0.0738	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.167	32.884		1.000				0.0728	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.167	33.036		1.000				0.0660	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.167	33.708		1.001				0.0736	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.167	34.716		1.000				0.0936	
15	15 1,2,3,4,6,7,8-HpCDF	2.26e2	1.06	NO	1.15	10.167	36.409	36.38	1.001	1.000	0.49020		0.149	0.490
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.167	38.227		1.000				0.178	
17	17 OCDF	1.72e2	0.92	NO	0.961	10.167	41.157	41.19	1.000	1.001	0.53526		0.165	0.535
18	18 13C-2,3,7,8-TCDD	1.21e5	0.77	NO	1.20	10.167	26.257	26.23	1.026	1.025	211.23	107	0.796	
19	19 13C-1,2,3,7,8-PeCDD	9.73e4	0.61	NO	0.910	10.167	30.521	30.51	1.193	1.192	224.77	114	0.603	
20	20 13C-1,2,3,4,7,8-HxCDD	7.23e4	1.37	NO	0.789	10.167	33.800	33.79	1.014	1.014	202.52	103	0.976	
21	21 13C-1,2,3,6,7,8-HxCDD	8.54e4	1.27	NO	0.885	10.167	33.910	33.92	1.017	1.017	213.14	108	0.870	
22	22 13C-1,2,3,7,8,9-HxCDD	8.52e4	1.28	NO	0.888	10.167	34.180	34.21	1.025	1.026	211.75	108	0.867	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.78e4	1.06	NO	0.740	10.167	37.633	37.56	1.129	1.127	202.49	103	1.54	
24	24 13C-OCDD	1.12e5	0.90	NO	0.660	10.167	40.646	40.83	1.219	1.225	375.33	95.4	0.765	
25	25 13C-2,3,7,8-TCDF	1.61e5	0.80	NO	1.09	10.167	25.336	25.61	0.990	1.001	172.66	87.8	0.625	
26	26 13C-1,2,3,7,8-PeCDF	1.51e5	1.62	NO	0.857	10.167	29.577	29.38	1.156	1.148	206.49	105	0.390	
27	27 13C-2,3,4,7,8-PeCDF	1.45e5	1.61	NO	0.796	10.167	30.480	30.31	1.191	1.184	213.61	109	0.420	
28	28 13C-1,2,3,4,7,8-HxCDF	9.73e4	0.49	NO	1.02	10.167	32.933	32.88	0.988	0.987	210.56	107	1.01	
29	29 13C-1,2,3,6,7,8-HxCDF	1.02e5	0.50	NO	1.00	10.167	33.066	33.03	0.992	0.991	224.16	114	1.02	
30	30 13C-2,3,4,6,7,8-HxCDF	9.19e4	0.49	NO	0.936	10.167	33.636	33.67	1.009	1.010	216.81	110	1.10	
31	31 13C-1,2,3,7,8,9-HxCDF	8.45e4	0.49	NO	0.889	10.167	34.713	34.72	1.041	1.041	209.80	107	1.15	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Tuesday, August 25, 2020 12:24:56 Pacific Daylight Time  
Printed: Tuesday, August 25, 2020 12:25:46 Pacific Daylight Time

Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

#	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	7.88e4	0.42	NO	0.849	10.167	36.233	36.37	1.087	1.091	204.81	104	1.26	
33	13C-1,2,3,4,7,8,9-HpCDF	5.54e4	0.43	NO	0.624	10.167	38.233	38.23	1.147	1.147	196.03	99.7	1.72	
34	13C-OCDF	1.32e5	0.87	NO	0.693	10.167	40.800	41.16	1.224	1.235	419.31	107	1.06	
35	37Cl-2,3,7,8-TCDD	4.42e4			1.28	10.167	26.255	26.26	1.026	1.026	72.821	92.5	0.125	
36	13C-1,2,3,4-TCDD	9.36e4	0.77	NO	1.00	10.167	25.550	25.59	1.000	1.000	196.72	100	0.958	
37	13C-1,2,3,4-TCDF	1.68e5	0.80	NO	1.00	10.167	24.250	24.31	1.000	1.000	196.72	100	0.679	
38	13C-1,2,3,4,6,9-HxCDF	8.91e4	0.49	NO	1.00	10.167	33.300	33.33	1.000	1.000	196.72	100	1.03	
39	Total Tetra-Dioxins				1.08	10.167	24.620		0.000				0.0765	
40	Total Penta-Dioxins				0.991	10.167	29.960		0.000				0.0600	
41	Total Hexa-Dioxins				0.908	10.167	33.635		0.000		0.45072		0.167	0.451
42	Total Hepta-Dioxins				0.926	10.167	37.640		0.000		5.4783		0.249	5.48
43	Total Tetra-Furans				0.882	10.167	23.610		0.000				0.0489	
44	1st Func. Penta-Furans				0.937	10.167	26.750		0.000		0.26877		0.0138	0.269
45	Total Penta-Furans				0.937	10.167	29.275		0.000				0.0286	
46	Total Hexa-Furans				1.11	10.167	33.555		0.000		0.14643		0.0414	0.417
47	Total Hepta-Furans				1.15	10.167	37.835		0.000		1.0590		0.168	1.06

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Tuesday, August 25, 2020 12:24:56 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:25:46 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
 Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.14	2.602e3	2.201e3	9.683e1	7.173e1	1.35	NO	1.686e2	0.45072	0.45072	0.167

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.70	9.835e3	7.860e3	5.230e2	4.623e2	1.13	NO	9.853e2	3.0871	3.0871	0.249
2	1,2,3,4,6,7,8-HpCDD	37.57	8.017e3	7.575e3	3.966e2	3.665e2	1.08	NO	7.631e2	2.3912	2.3912	0.249

**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	1st Func. Penta-Furans	27.03	2.589e3	1.630e3	1.121e2	7.777e1	1.44	NO	1.899e2	0.26877	0.26877	0.0138

**Quantify Totals Report MassLynx 4.1**

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Tuesday, August 25, 2020 12:24:56 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:25:46 Pacific Daylight Time

Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

**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	31.79	1.105e3	7.060e2	4.289e1	3.482e1	1.23	NO	7.771e1	0.14643	0.14643	0.0414
2	Total Hexa-Furans	32.41	1.852e3	2.225e3	7.944e1	7.867e1	1.01	YES	0.000e0	0.00000	0.27043	0.0414

**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	36.38	2.087e3	2.226e3	1.166e2	1.097e2	1.06	NO	2.264e2	0.49020	0.49020	0.149
2	Total Hepta-Furans	36.98	2.227e3	2.193e3	1.180e2	1.057e2	1.12	NO	2.236e2	0.56884	0.56884	0.168

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

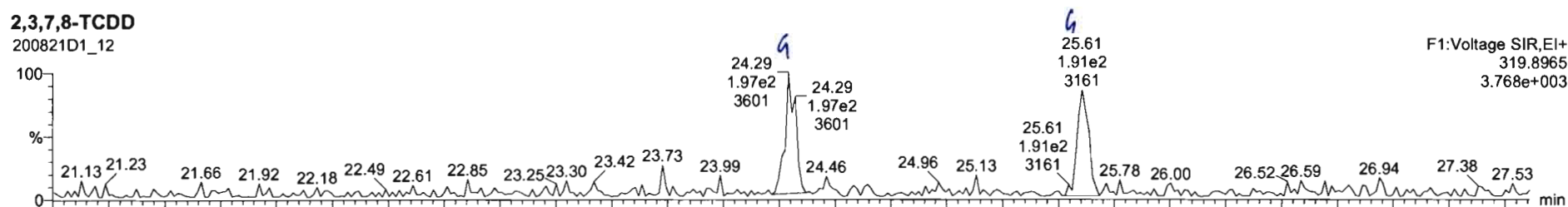
Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

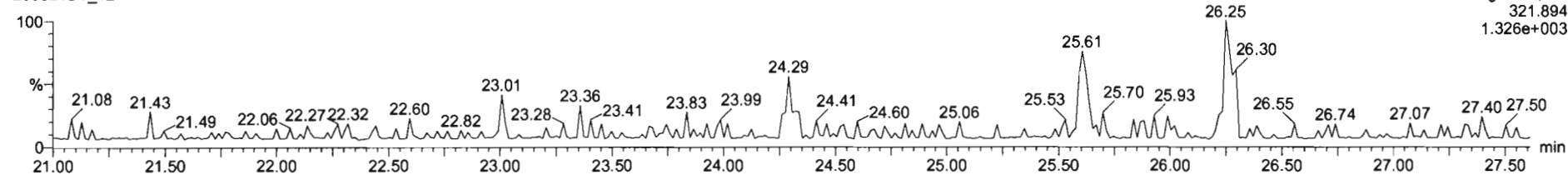
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

2,3,7,8-TCDD

200821D1\_12

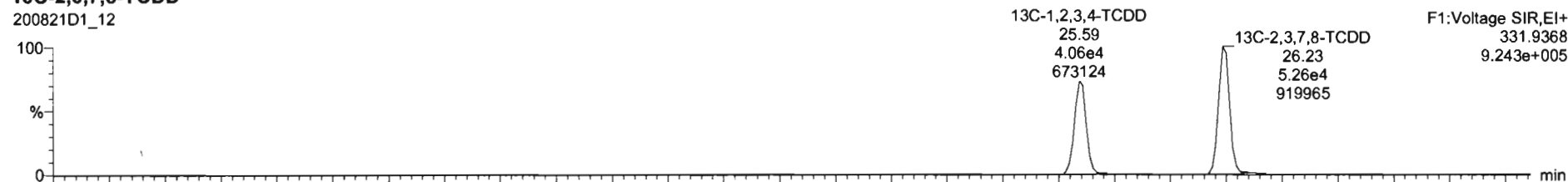


200821D1\_12

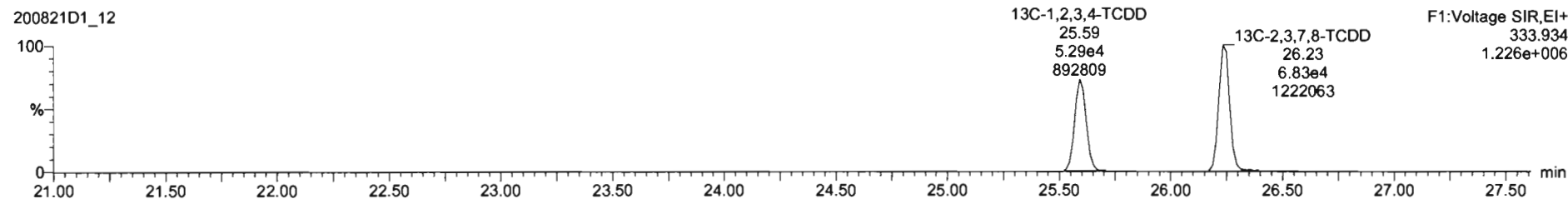


13C-2,3,7,8-TCDD

200821D1\_12



200821D1\_12



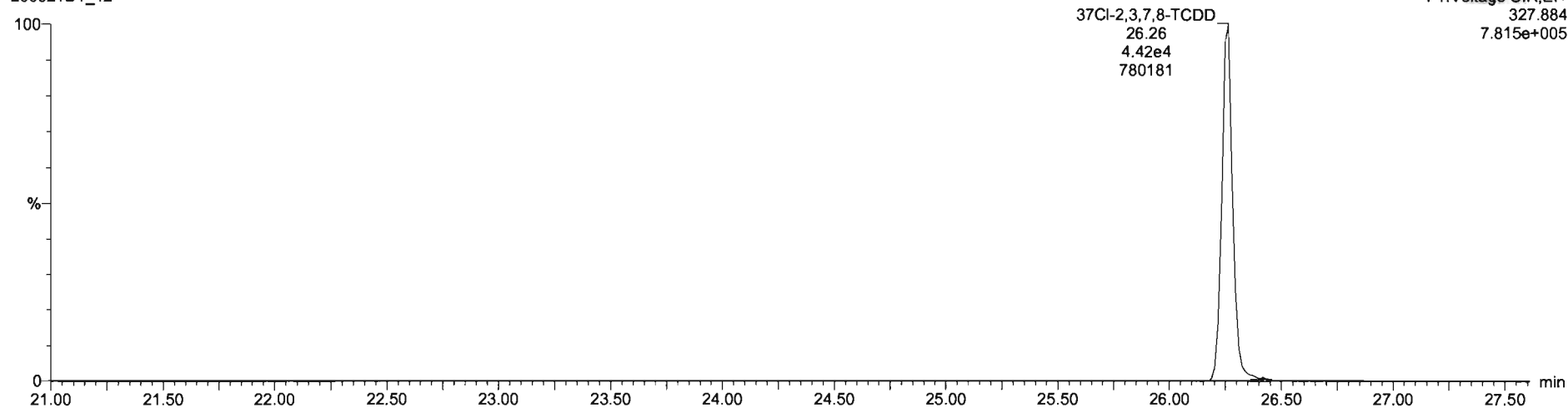
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

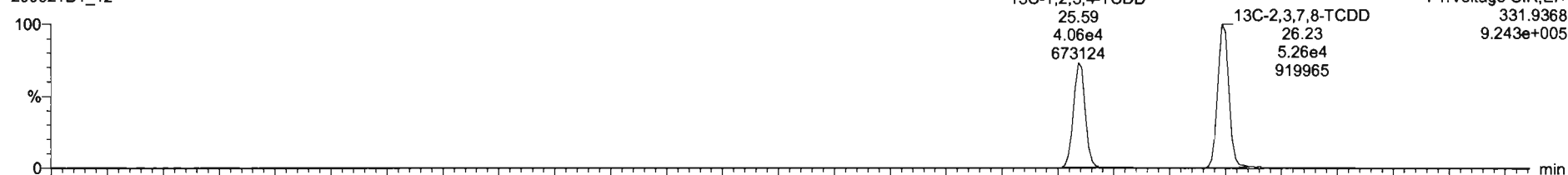
37Cl-2,3,7,8-TCDD

200821D1\_12

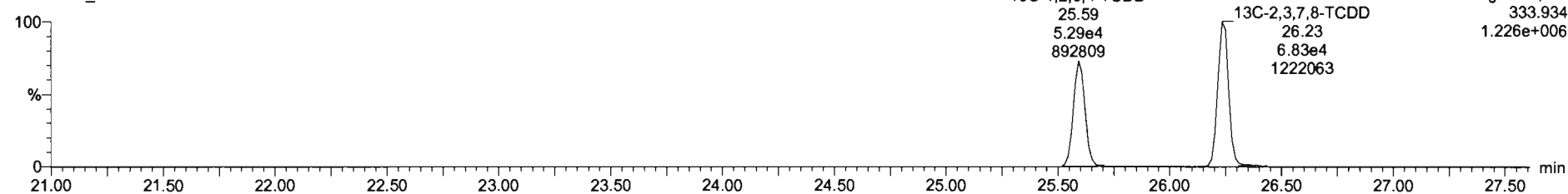


13C-1,2,3,4-TCDD

200821D1\_12



200821D1\_12



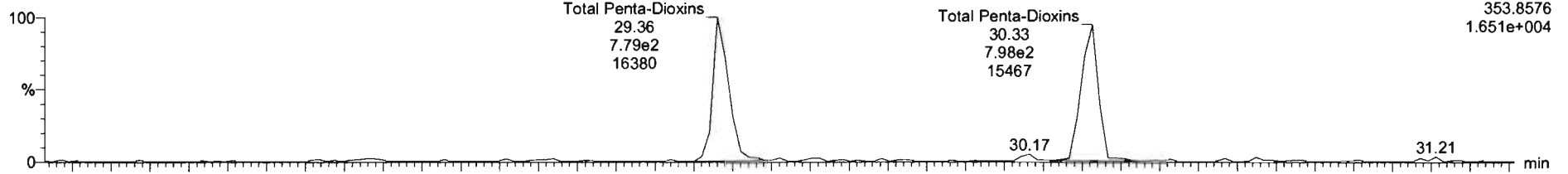
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

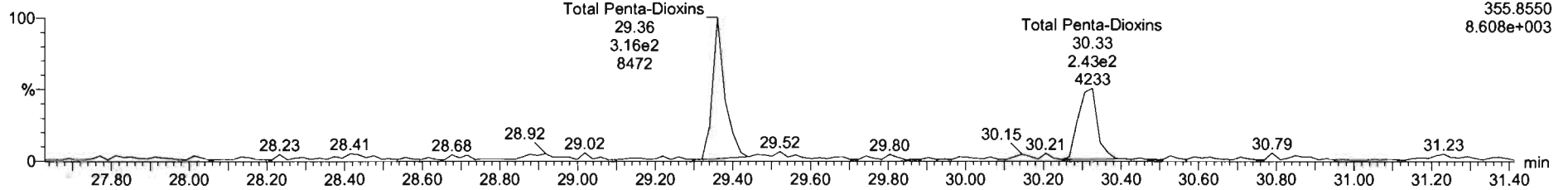
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

1,2,3,7,8-PeCDD

200821D1\_12

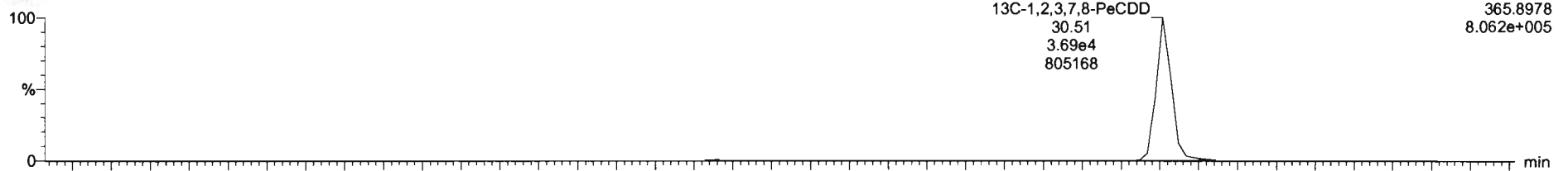


200821D1\_12

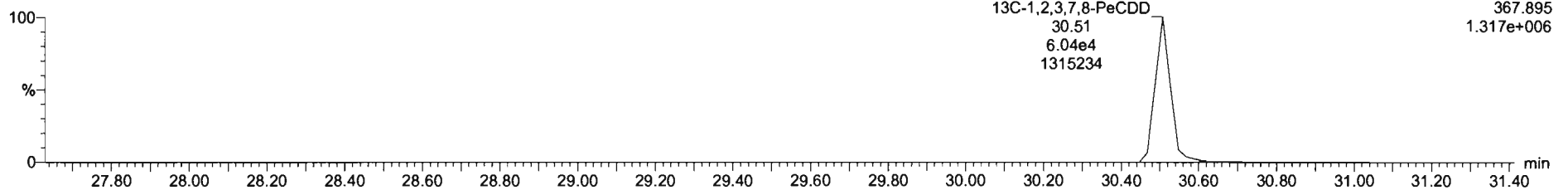


13C-1,2,3,7,8-PeCDD

200821D1\_12



200821D1\_12



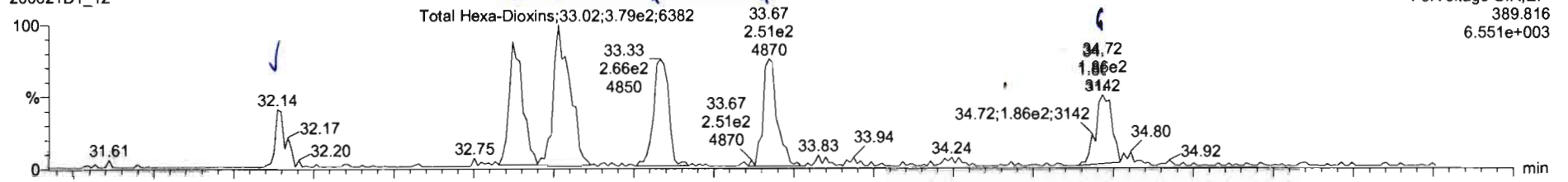
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

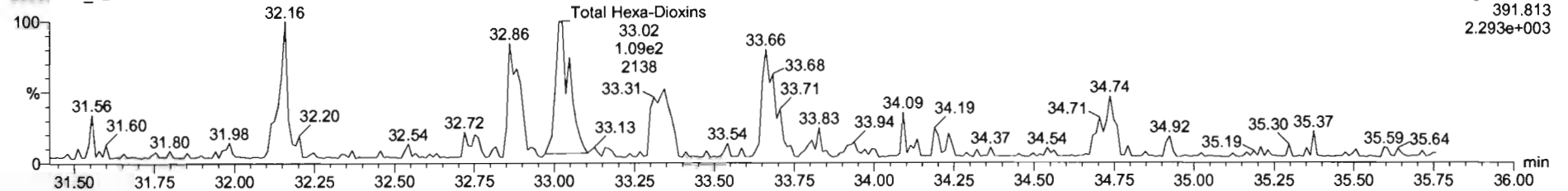
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

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

200821D1\_12

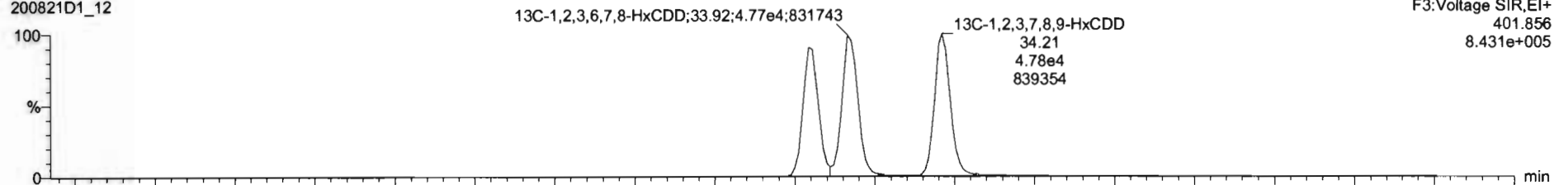


200821D1\_12

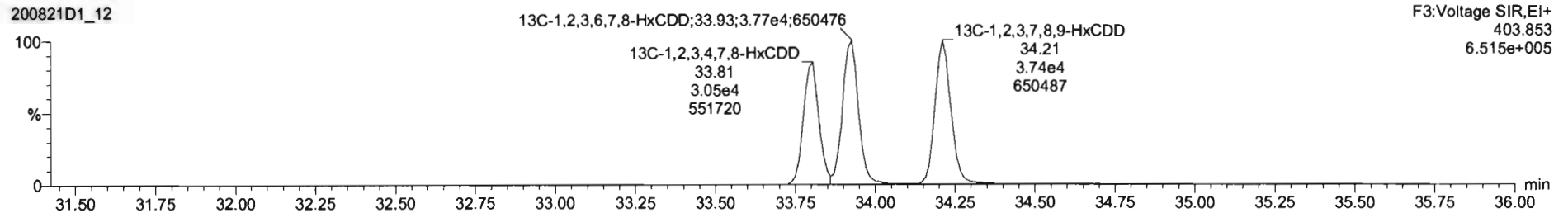


13C-1,2,3,4,7,8-HxCDD

200821D1\_12



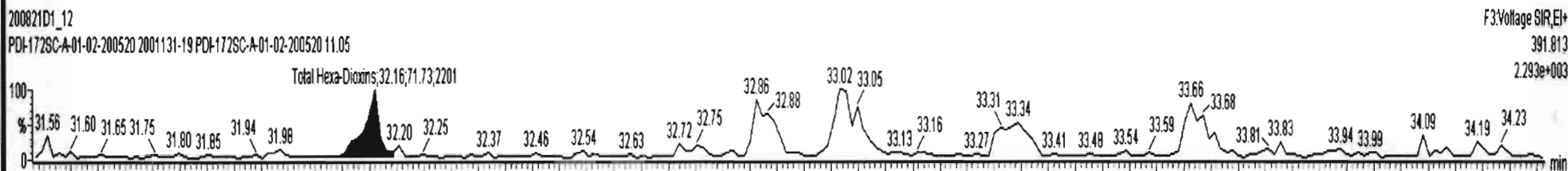
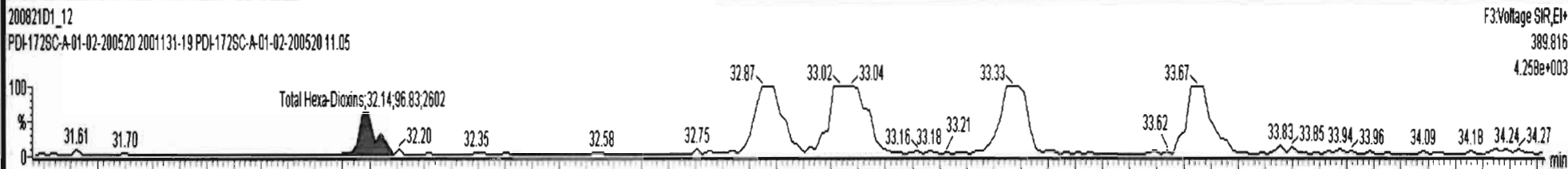
200821D1\_12







200821D1\_12 - 2001131-19 PDI-172SC-A-01-02-200520 11.05 - PDI-172SC-A-01-02-200520



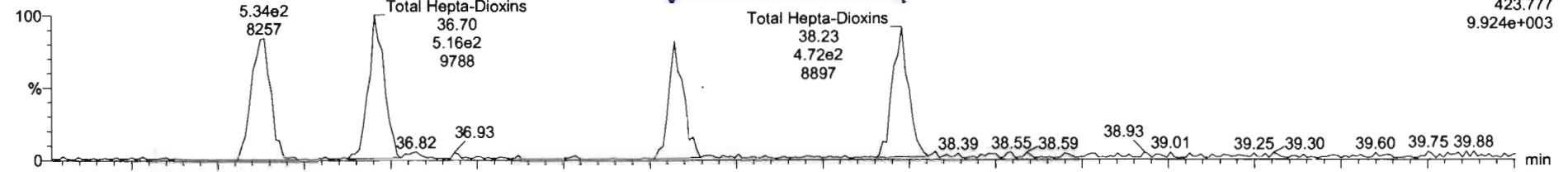
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

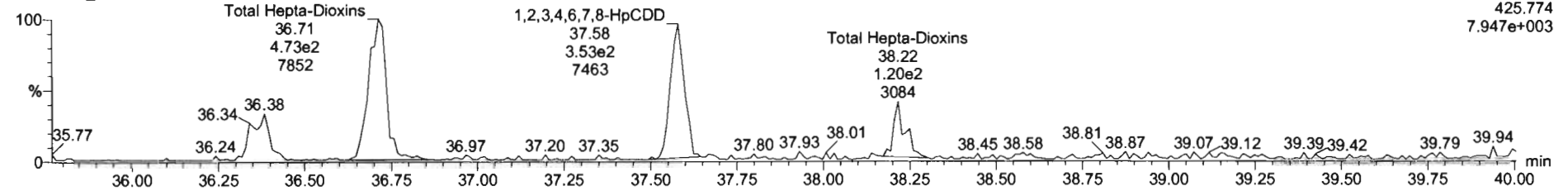
1,2,3,4,6,7,8-HpCDD

200821D1\_12



F4:Voltage SIR,EI+  
423.777  
9.924e+003

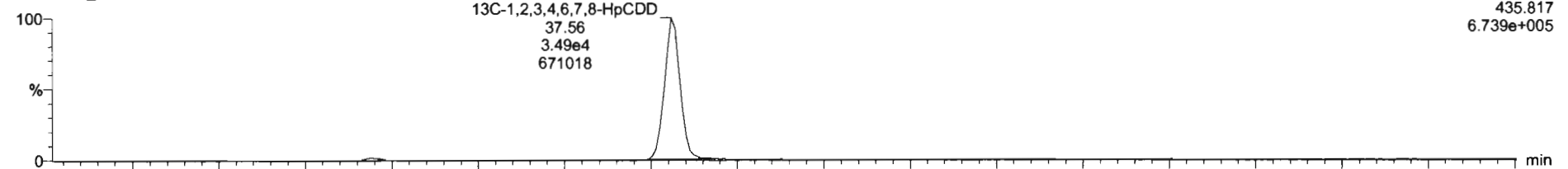
200821D1\_12



F4:Voltage SIR,EI+  
425.774  
7.947e+003

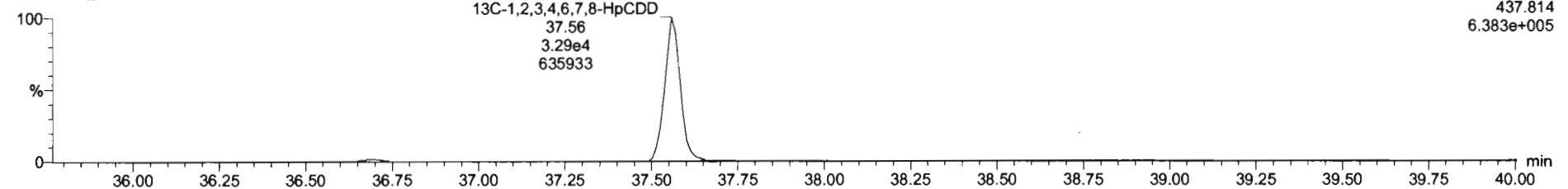
13C-1,2,3,4,6,7,8-HpCDD

200821D1\_12

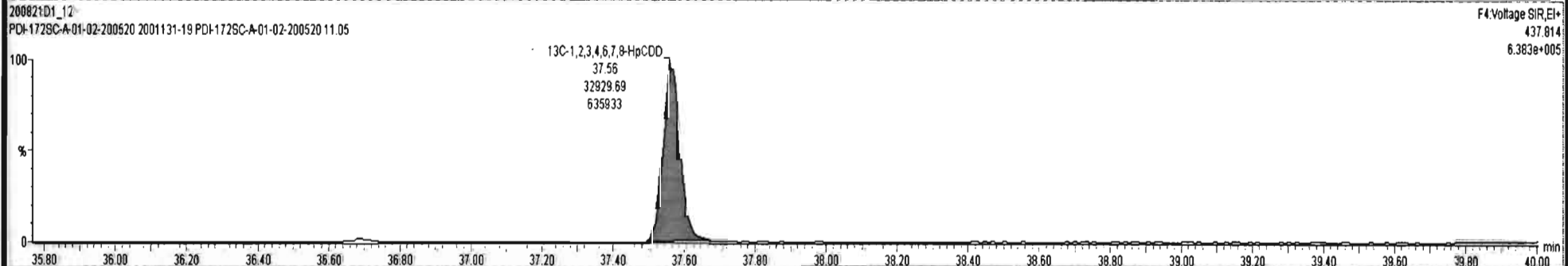
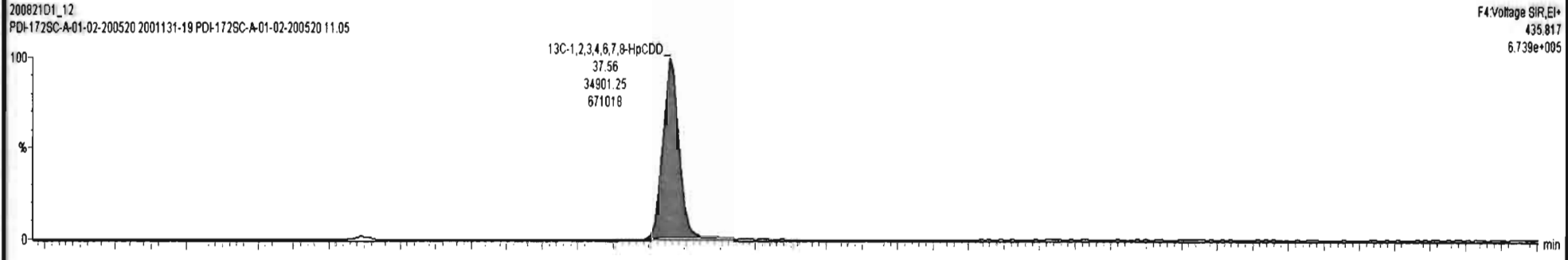
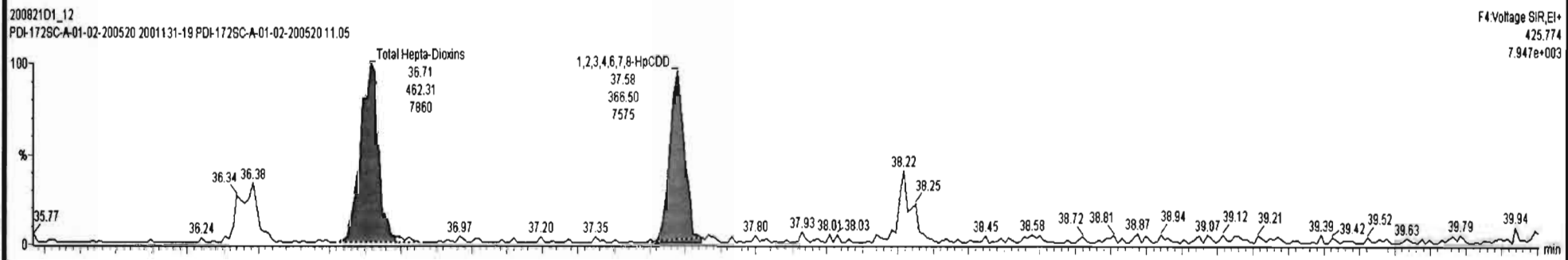
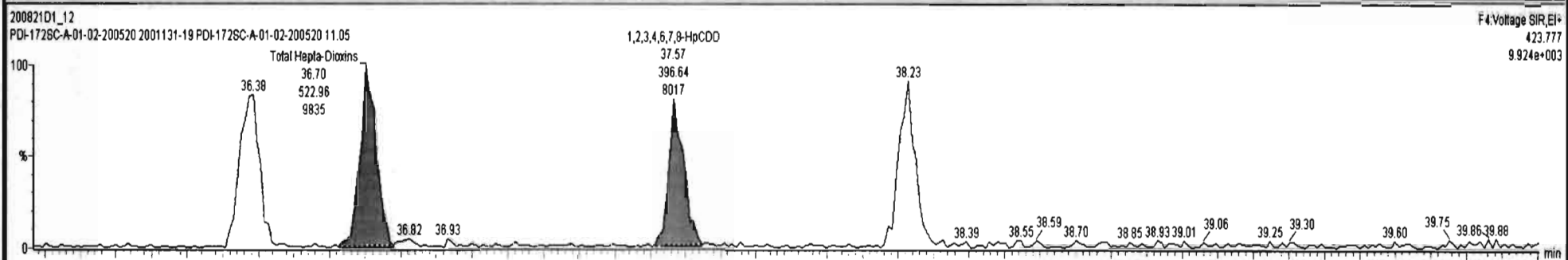


F4:Voltage SIR,EI+  
435.817  
6.739e+005

200821D1\_12



F4:Voltage SIR,EI+  
437.814  
6.383e+005



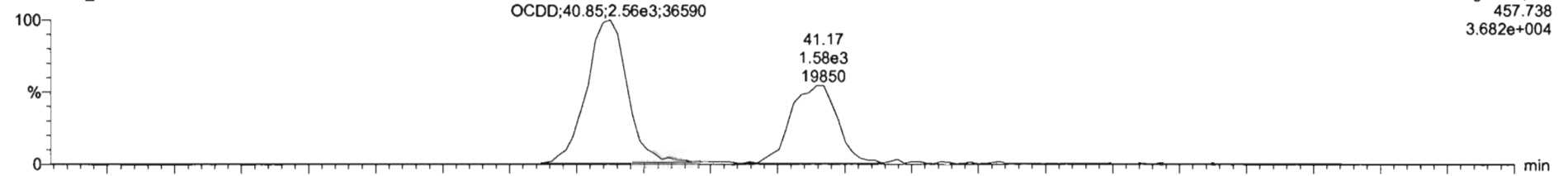
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

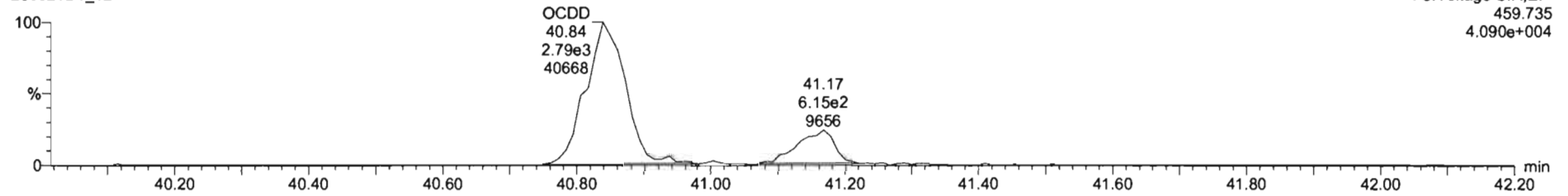
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

**OCDD**

200821D1\_12

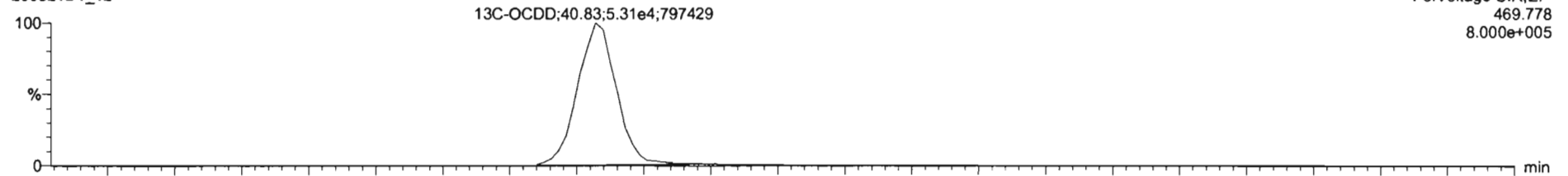


200821D1\_12

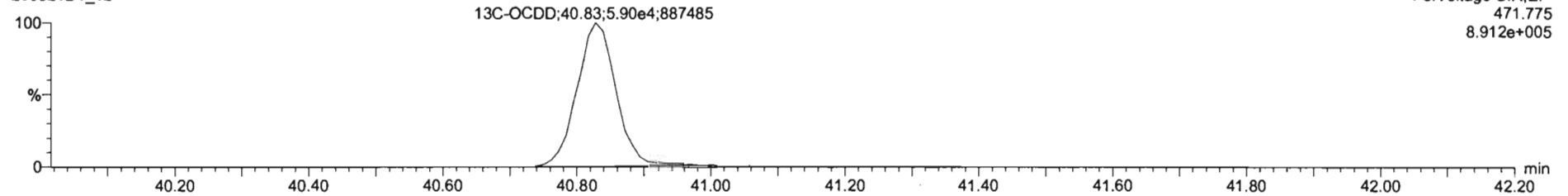


**13C-OCDD**

200821D1\_12



200821D1\_12



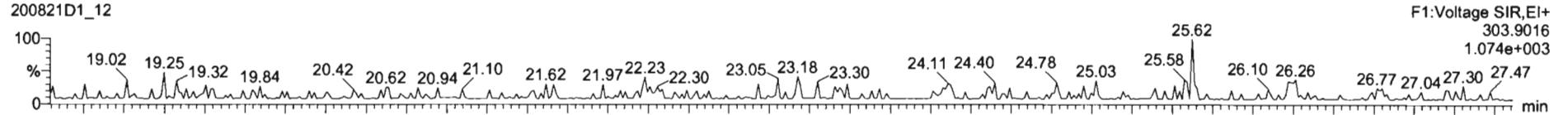
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

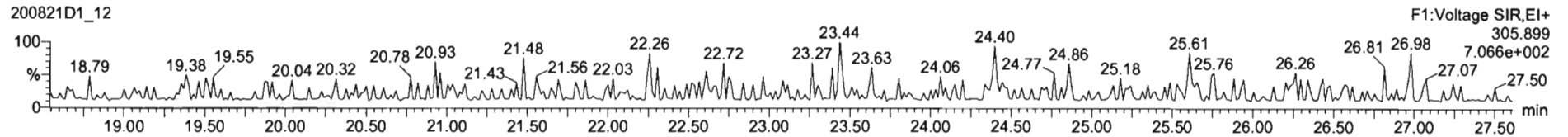
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

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

200821D1\_12

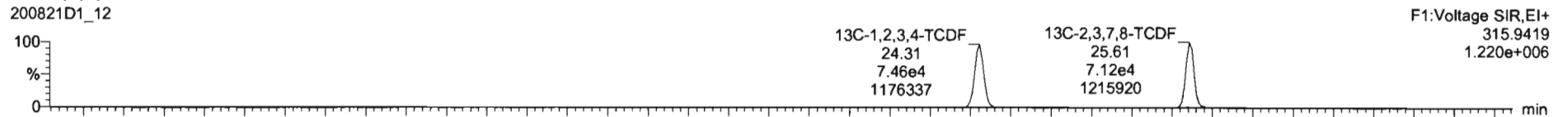


200821D1\_12

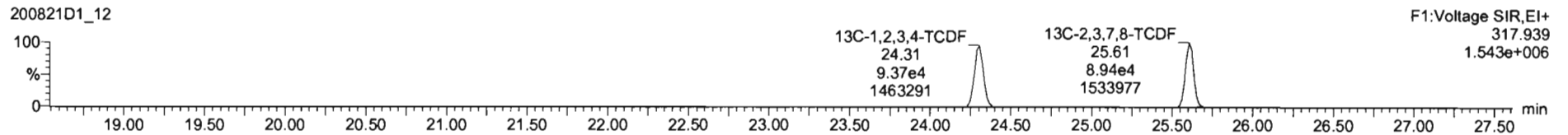


**13C-2,3,7,8-TCDF**

200821D1\_12

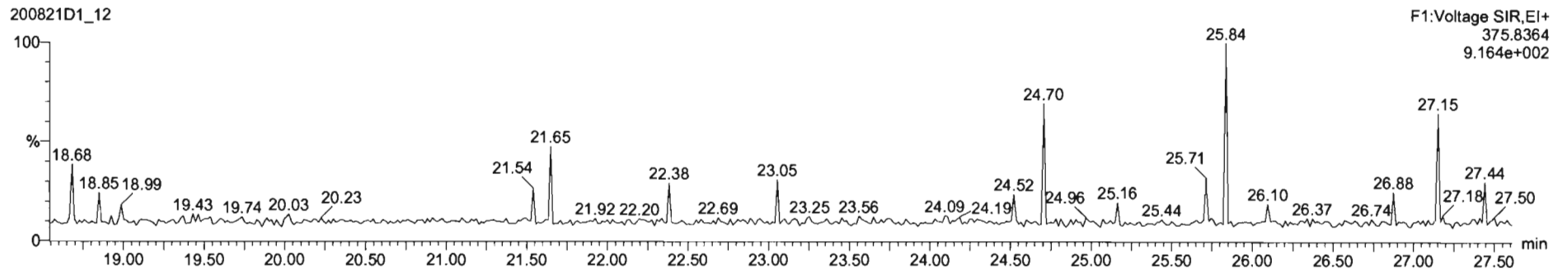


200821D1\_12



**DPE1**

200821D1\_12



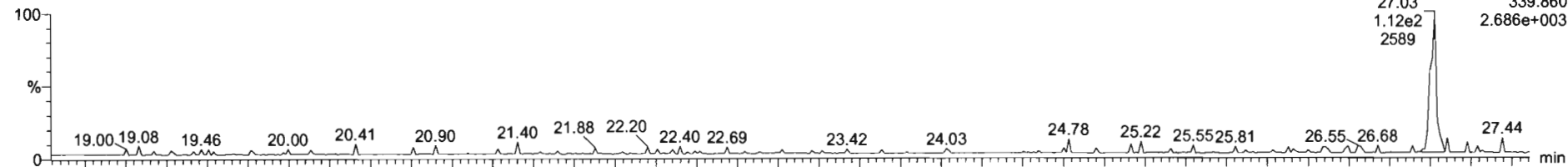
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

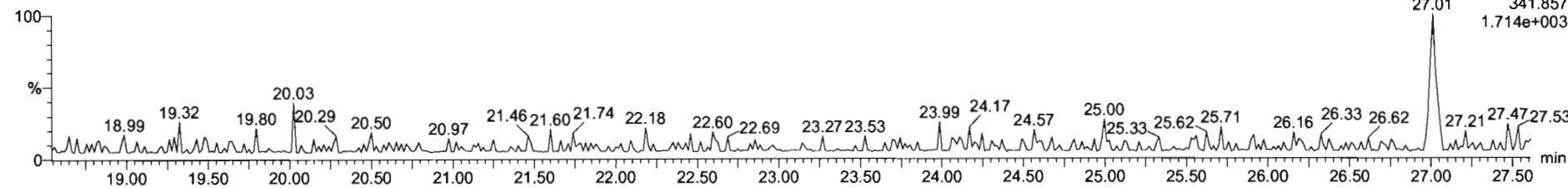
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

1st Func. Penta-Furans

200821D1\_12

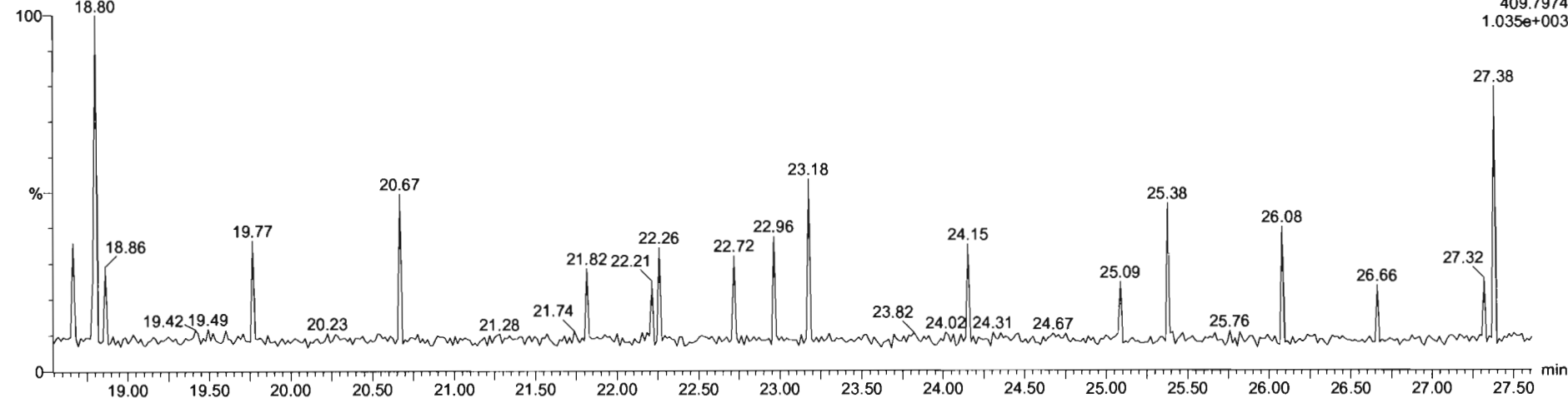


200821D1\_12



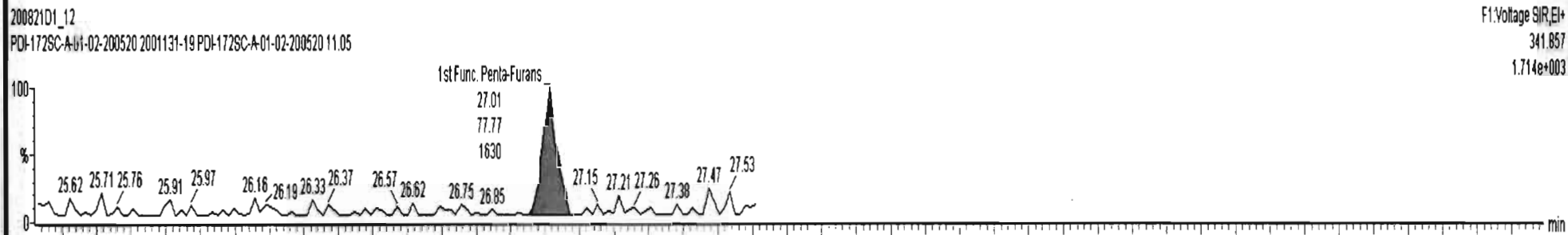
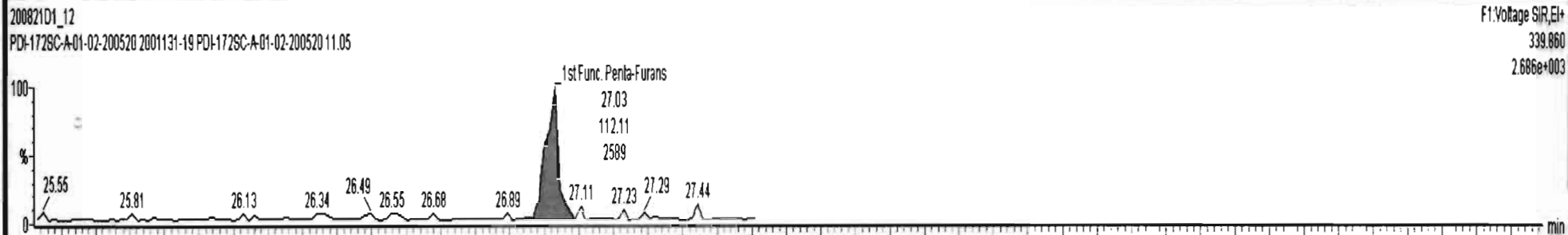
DPE6

200821D1\_12





200821D1\_12 - 20011214 19 PDI-172SC-A-01-02-200520 11.05 - PDI-172SC-A-01-02-200520



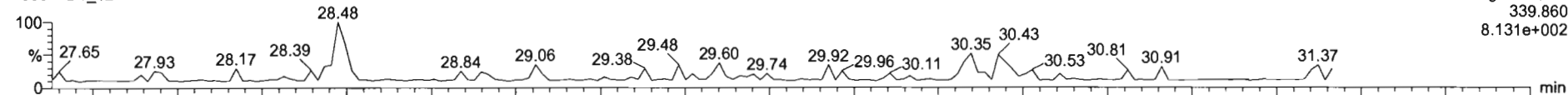
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

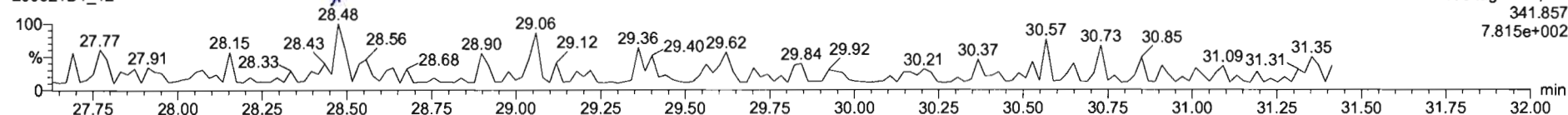
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

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

200821D1\_12

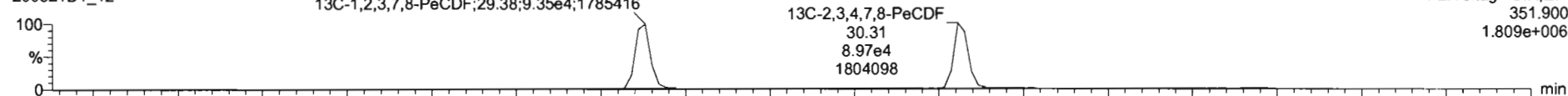


200821D1\_12

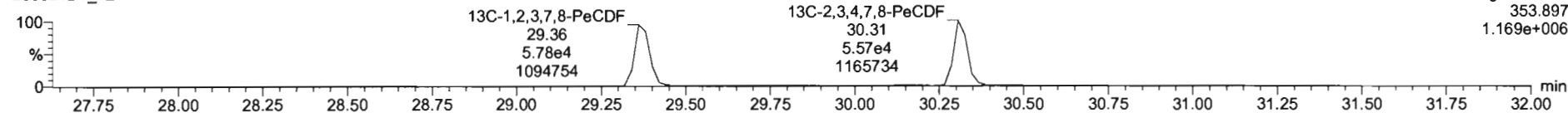


**13C-1,2,3,7,8-PeCDF**

200821D1\_12

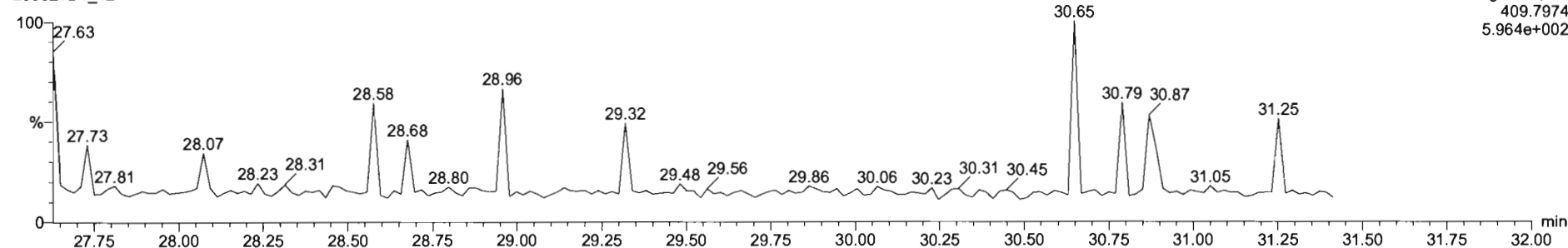


200821D1\_12

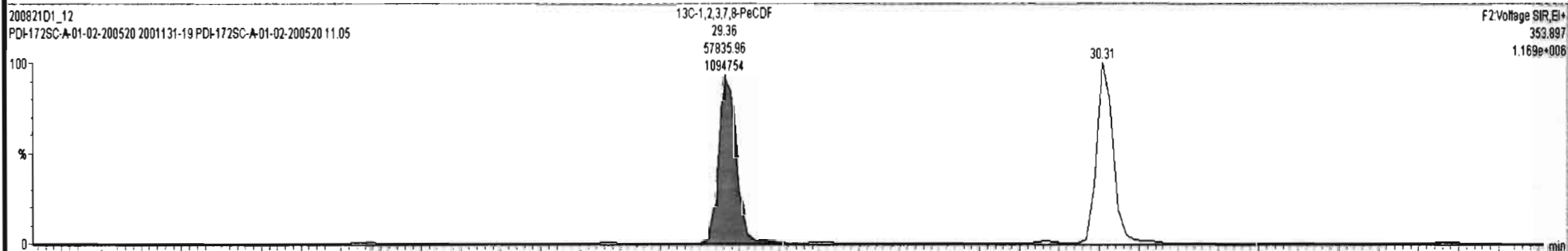
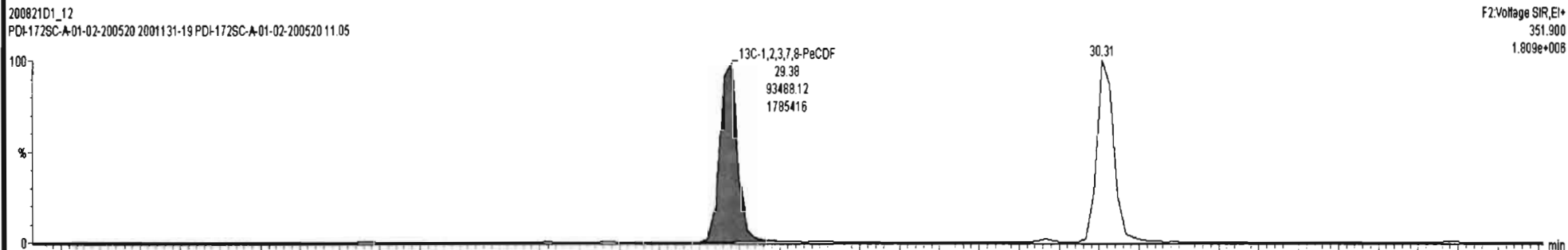
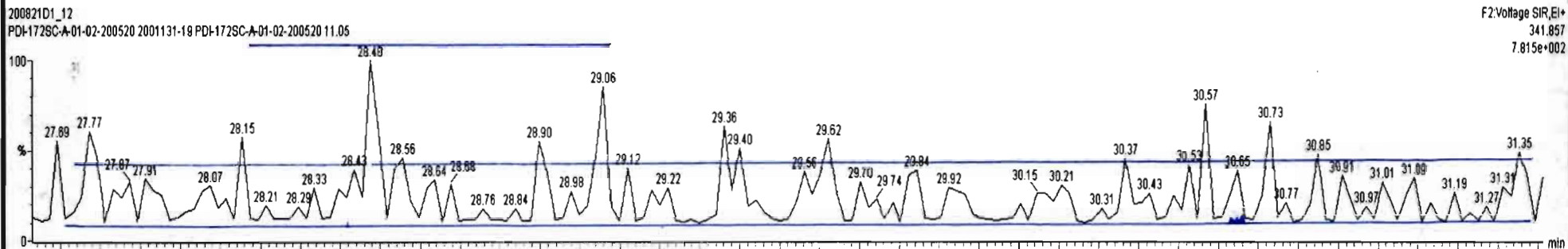
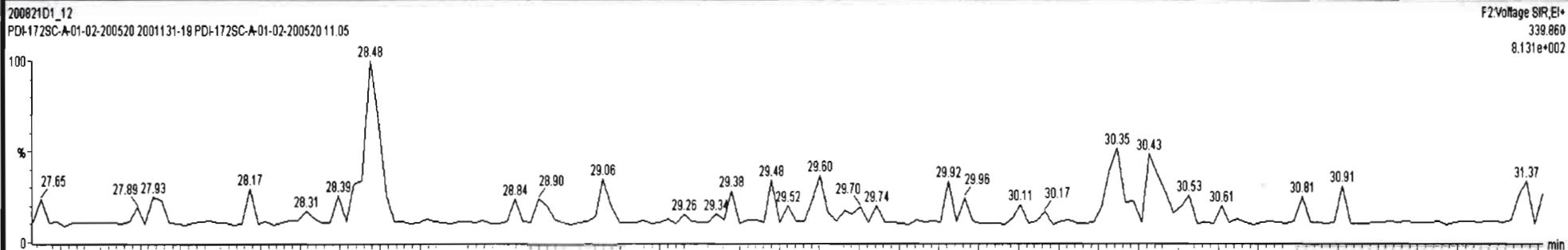


**DPE2**

200821D1\_12







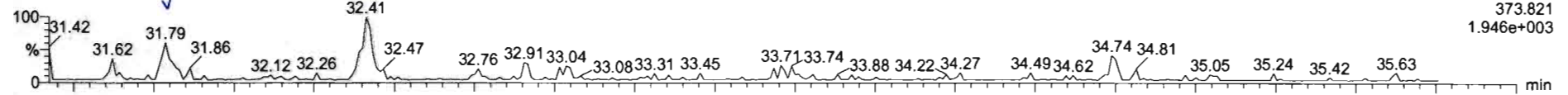
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

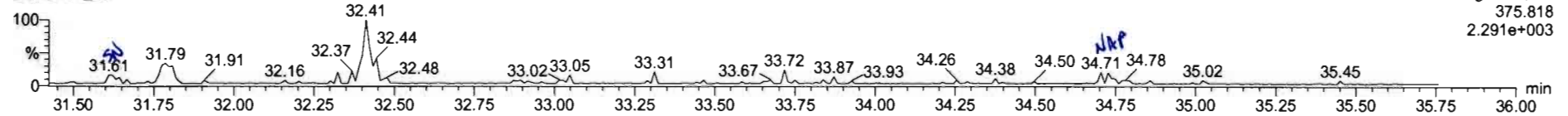
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

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

200821D1\_12

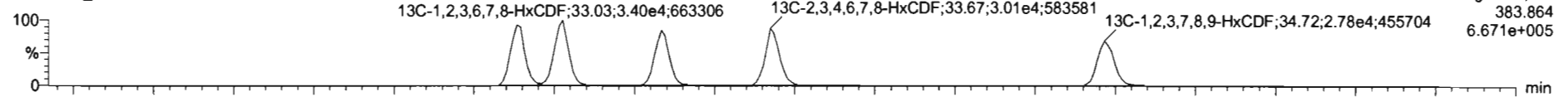


200821D1\_12

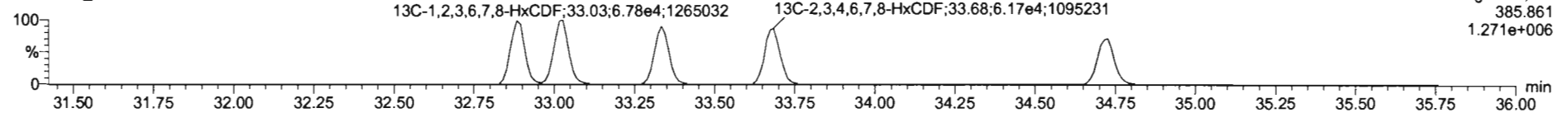


13C-1,2,3,4,7,8-HxCDF

200821D1\_12

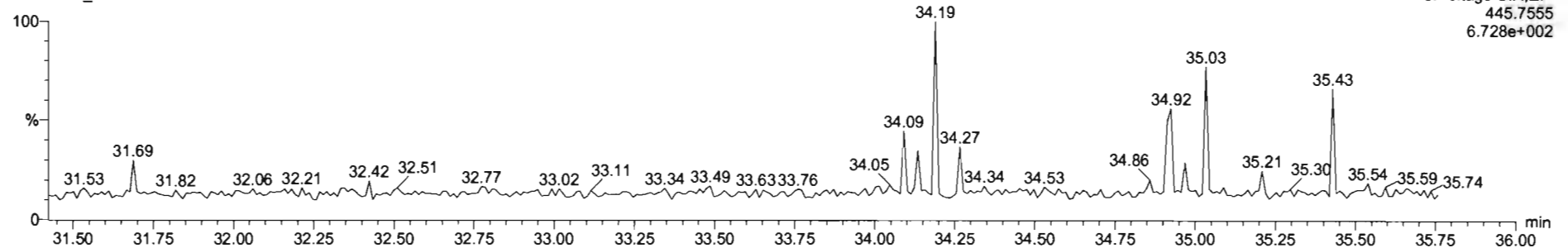


200821D1\_12



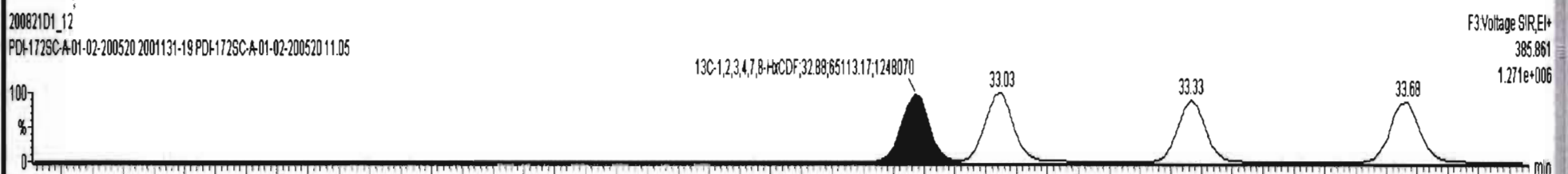
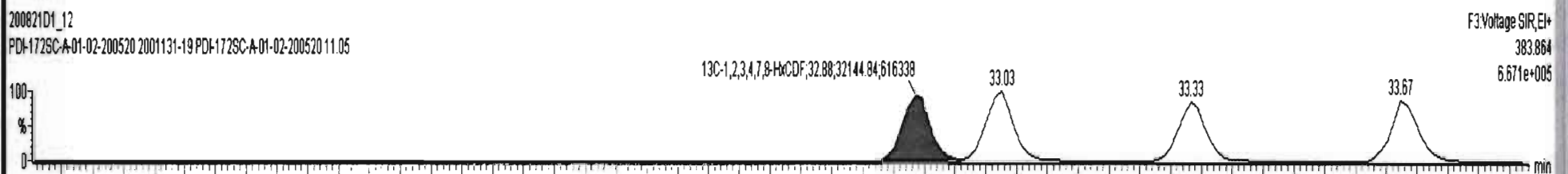
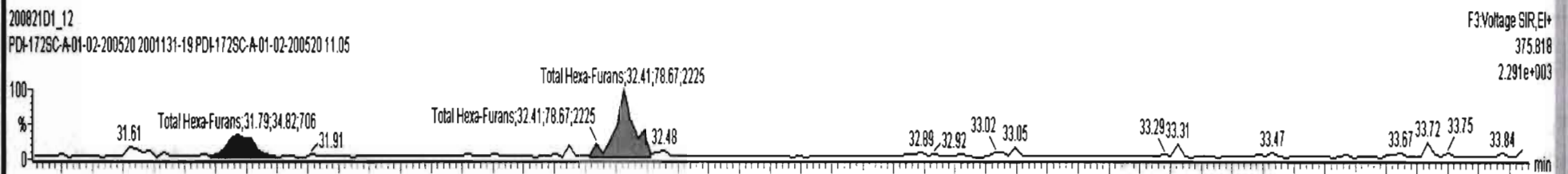
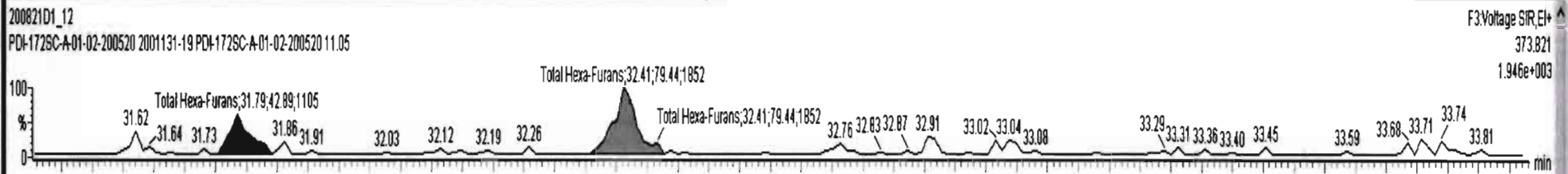
DPE3

200821D1\_12





200821D1\_12 - 2001131-19 PDI-1725C-A-01-02-200520 11.05 - PDI-1725C-A-01-02-200520



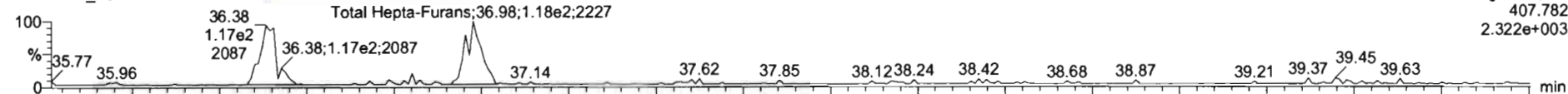
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

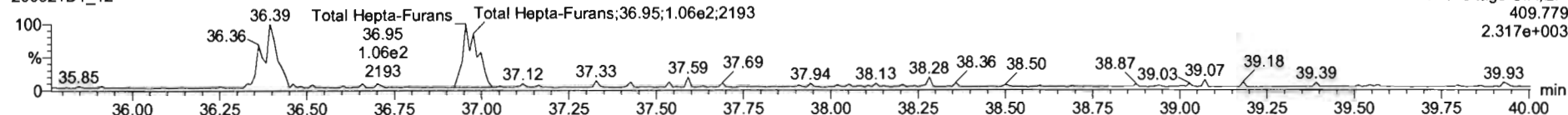
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

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

200821D1\_12

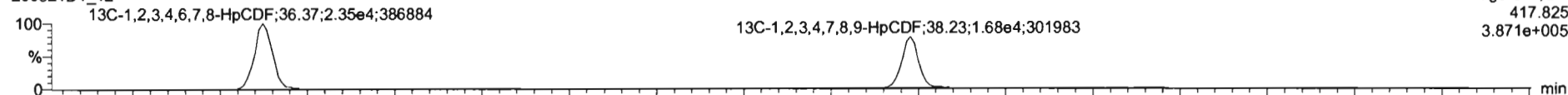


200821D1\_12

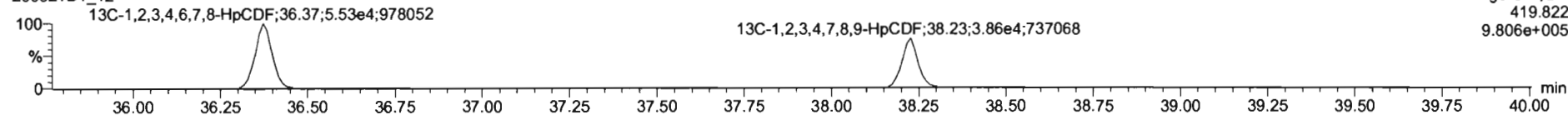


**<sup>13</sup>C-1,2,3,4,6,7,8-HpCDF**

200821D1\_12

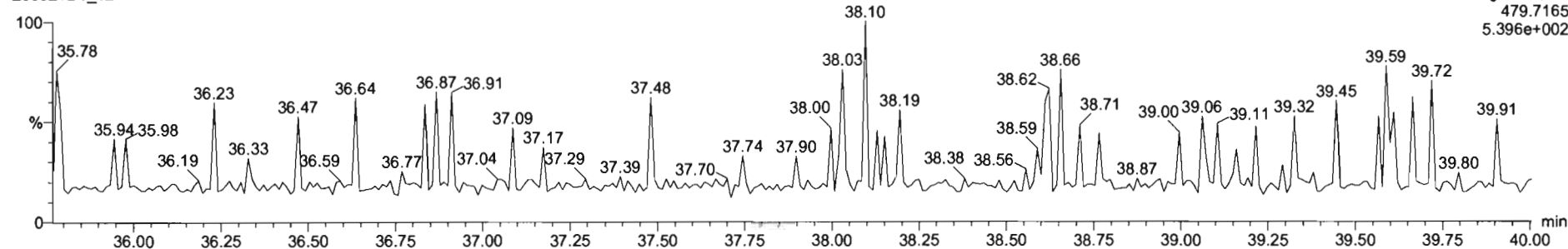


200821D1\_12



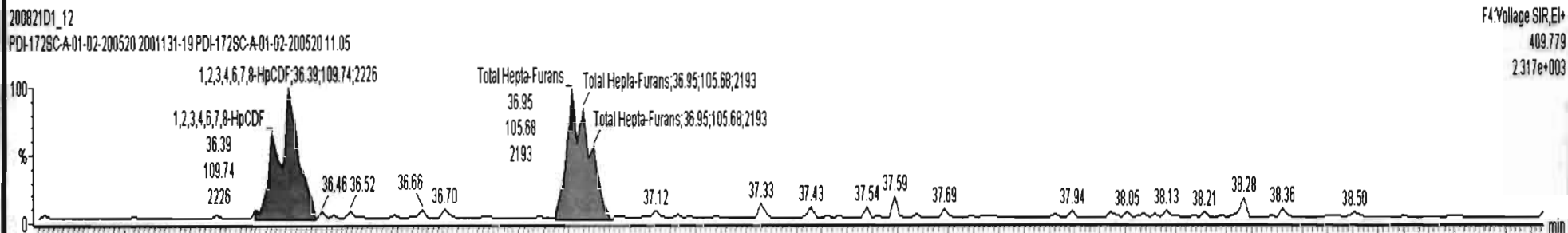
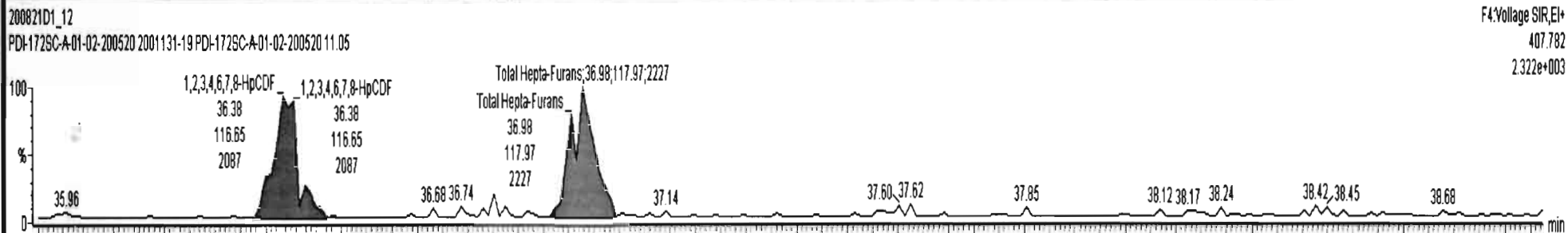
**DPE4**

200821D1\_12





200821D1\_12 - 2001131-19 PDI-172SC-A-01-02-200520 11.05 - FDI-172SC-A-01-02-200520



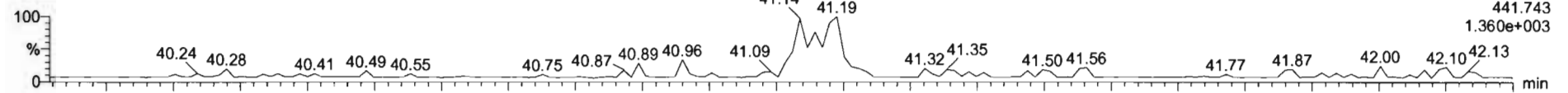
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

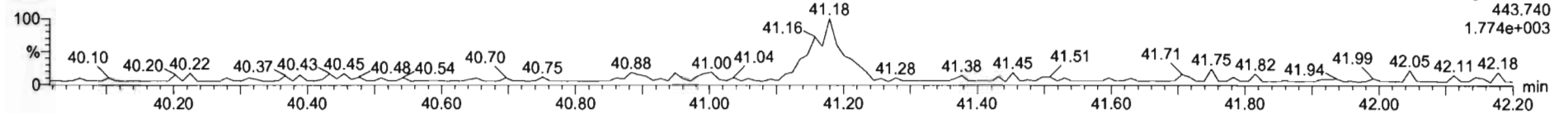
Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520

**OCDF**

200821D1\_12

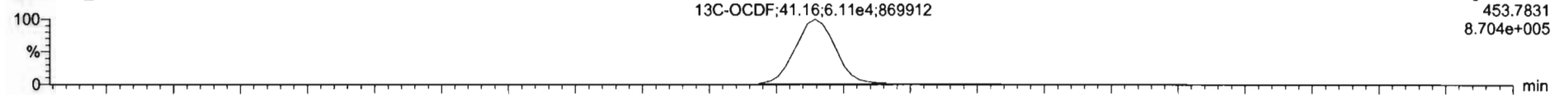


200821D1\_12

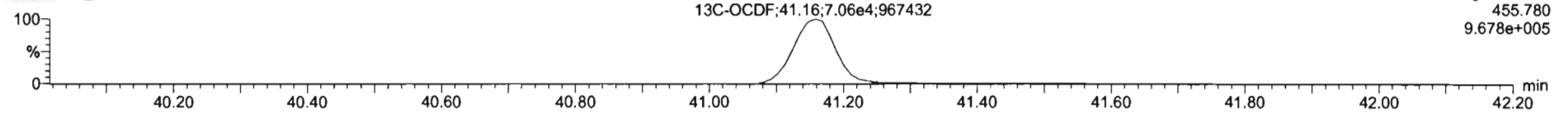


**13C-OCDF**

200821D1\_12

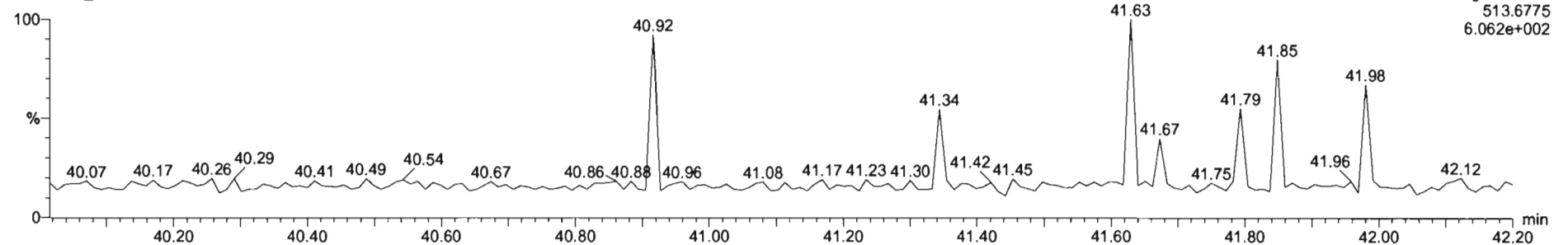


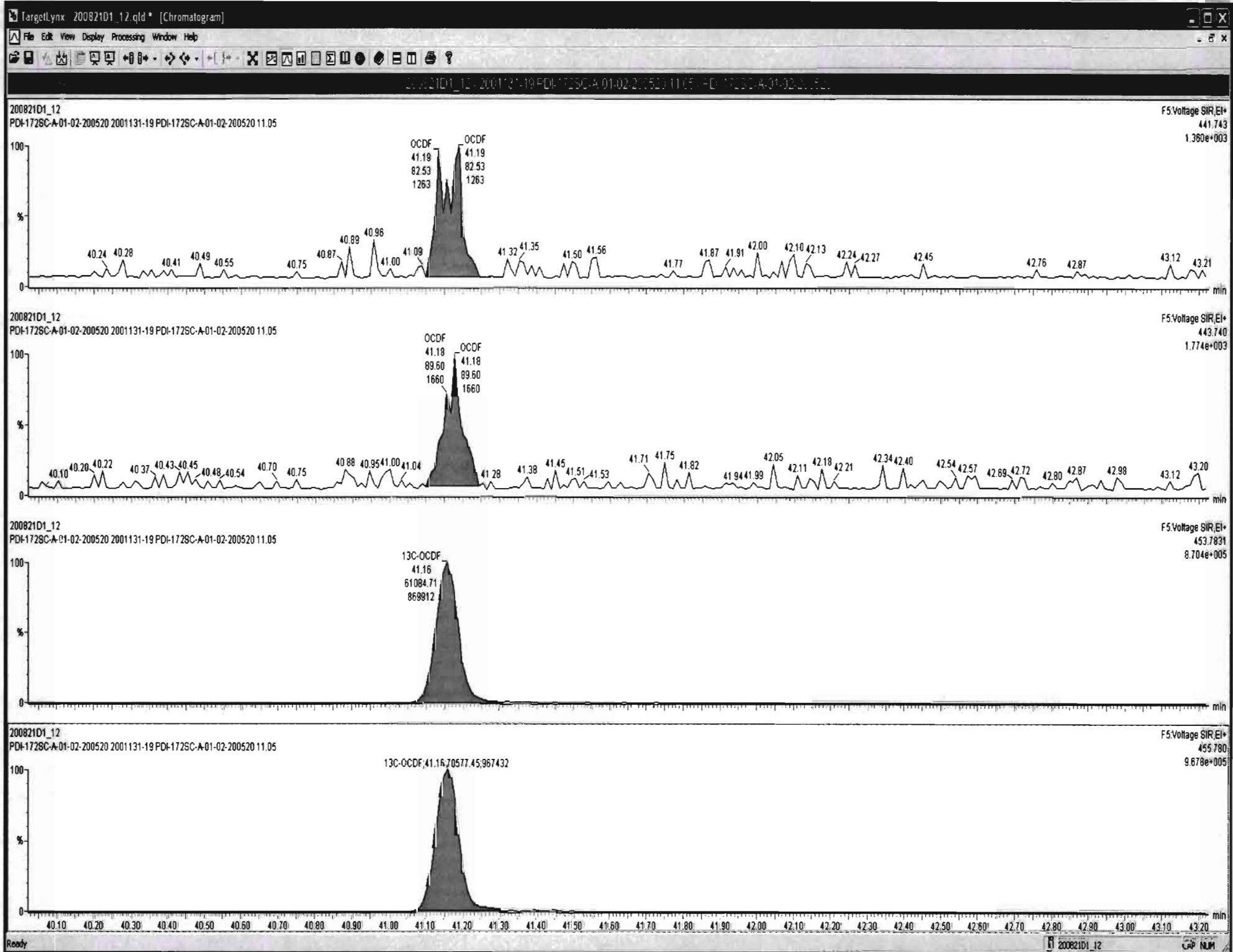
200821D1\_12



**DPE5**

200821D1\_12

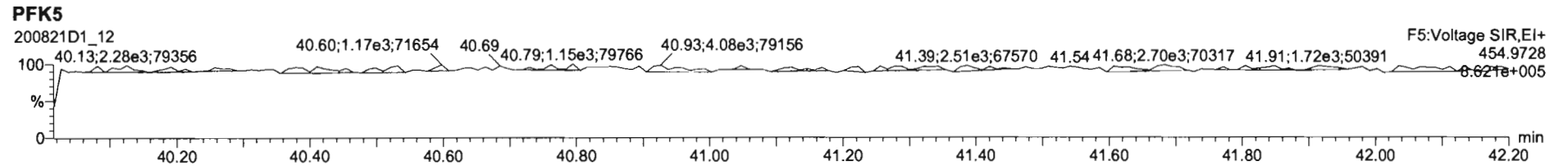
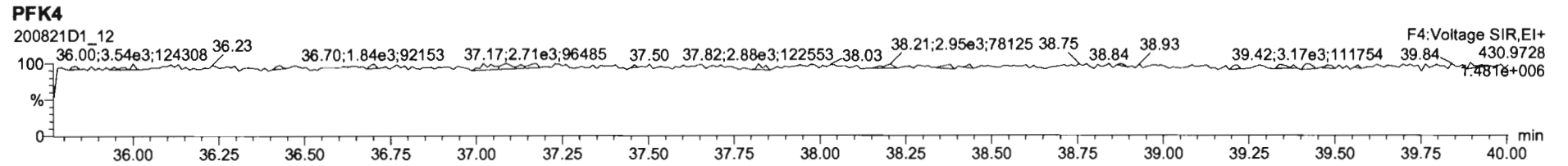
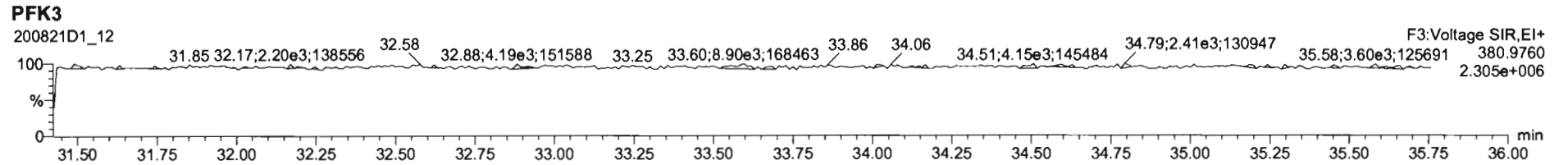
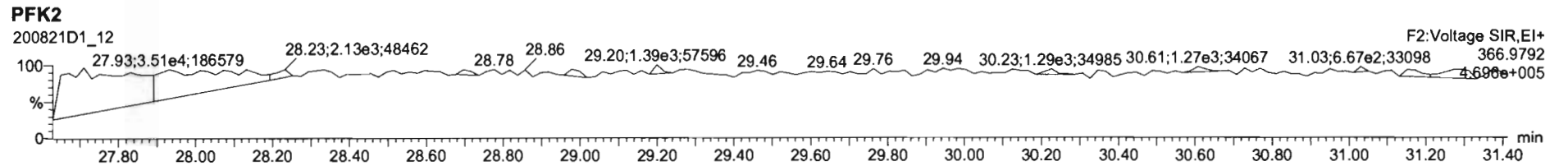
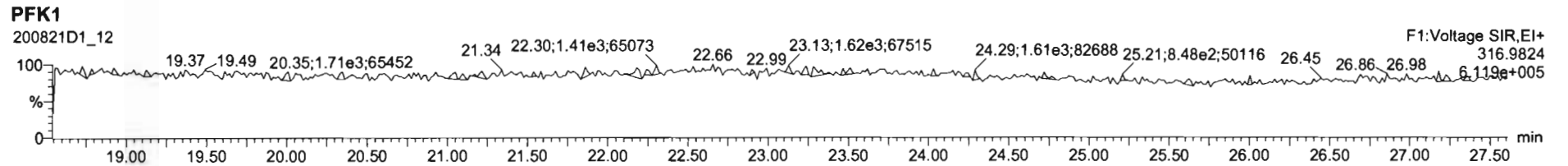




Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_12.qld

Last Altered: Monday, August 24, 2020 09:25:38 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:26:33 Pacific Daylight Time

Name: 200821D1\_12, Date: 21-Aug-2020, Time: 20:20:16, ID: 2001131-19 PDI-172SC-A-01-02-200520 11.05, Description: PDI-172SC-A-01-02-200520





Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Tuesday, August 25, 2020 12:37:35 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:38:20 Pacific Daylight Time

*DB 8/25/20 CT 08/26/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

#	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	1.08	10.040	26.265		1.001				0.111	
2	2 1,2,3,7,8-PeCDD			NO	0.991	10.040	30.529		1.001				0.121	
3	3 1,2,3,4,7,8-HxCDD			NO	1.04	10.040	33.816		1.000				0.281	
4	4 1,2,3,6,7,8-HxCDD			NO	0.908	10.040	33.926		1.000				0.297	
5	5 1,2,3,7,8,9-HxCDD			NO	0.923	10.040	34.256		1.001				0.314	
6	6 1,2,3,4,6,7,8-HpCDD	2.32e2	0.99	NO	0.926	10.040	37.580	37.58	1.000	1.000	0.74812		0.515	0.748
7	7 OCDD	1.85e3	0.85	NO	0.834	10.040	40.839	40.85	1.000	1.000	8.0832		0.214	8.08
8	8 2,3,7,8-TCDF	6.30e1	1.03	YES	0.882	10.040	25.633	25.59	1.001	0.999	0.081577		0.0397	0.0710
9	9 1,2,3,7,8-PeCDF			NO	0.937	10.040	29.382		1.001				0.0979	
10	10 2,3,4,7,8-PeCDF			NO	1.03	10.040	30.336		1.001				0.0781	
11	11 1,2,3,4,7,8-HxCDF			NO	1.07	10.040	32.884		1.000				0.0809	
12	12 1,2,3,6,7,8-HxCDF			NO	1.11	10.040	33.036		1.000				0.0736	
13	13 2,3,4,6,7,8-HxCDF			NO	1.11	10.040	33.719		1.001				0.0877	
14	14 1,2,3,7,8,9-HxCDF			NO	1.12	10.040	34.727		1.000				0.102	
15	15 1,2,3,4,6,7,8-HpCDF	1.46e2	0.97	NO	1.15	10.040	36.420	36.38	1.001	1.000	0.30853		0.0373	0.309
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.25	10.040	38.238		1.000				0.0837	
17	17 OCDF	8.96e1	0.87	NO	0.961	10.040	41.168	41.19	1.000	1.001	0.30042		0.199	0.300
18	18 13C-2,3,7,8-TCDD	1.25e5	0.76	NO	1.20	10.040	26.257	26.23	1.026	1.025	207.51	104	0.723	
19	19 13C-1,2,3,7,8-PeCDD	1.04e5	0.60	NO	0.910	10.040	30.521	30.51	1.193	1.192	227.12	114	0.494	
20	20 13C-1,2,3,4,7,8-HxCDD	7.14e4	1.31	NO	0.789	10.040	33.801	33.81	1.014	1.014	189.30	95.0	0.684	
21	21 13C-1,2,3,6,7,8-HxCDD	8.36e4	1.29	NO	0.885	10.040	33.911	33.93	1.017	1.018	197.60	99.2	0.610	
22	22 13C-1,2,3,7,8,9-HxCDD	8.49e4	1.29	NO	0.888	10.040	34.181	34.22	1.025	1.027	200.08	100	0.608	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.68e4	1.08	NO	0.740	10.040	37.634	37.57	1.129	1.127	188.87	94.8	1.29	
24	24 13C-OCDD	1.09e5	0.89	NO	0.660	10.040	40.647	40.84	1.219	1.225	346.23	86.9	0.717	
25	25 13C-2,3,7,8-TCDF	1.75e5	0.77	NO	1.09	10.040	25.336	25.61	0.990	1.001	187.17	94.0	0.657	
26	26 13C-1,2,3,7,8-PeCDF	1.44e5	1.67	NO	0.857	10.040	29.577	29.36	1.156	1.147	194.87	97.8	1.20	
27	27 13C-2,3,4,7,8-PeCDF	1.48e5	1.68	NO	0.796	10.040	30.480	30.31	1.191	1.184	216.09	108	1.29	
28	28 13C-1,2,3,4,7,8-HxCDF	1.02e5	0.49	NO	1.02	10.040	32.934	32.88	0.988	0.987	208.72	105	1.09	
29	29 13C-1,2,3,6,7,8-HxCDF	1.07e5	0.49	NO	1.00	10.040	33.067	33.03	0.992	0.991	222.56	112	1.11	
30	30 13C-2,3,4,6,7,8-HxCDF	9.97e4	0.48	NO	0.936	10.040	33.637	33.69	1.009	1.011	223.00	112	1.19	
31	31 13C-1,2,3,7,8,9-HxCDF	8.92e4	0.51	NO	0.889	10.040	34.714	34.73	1.041	1.042	209.90	105	1.25	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Tuesday, August 25, 2020 12:37:35 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:38:20 Pacific Daylight Time

Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

#	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	8.19e4	0.43	NO	0.849	10.040	36.234	36.38	1.087	1.091	201.62	101	1.06	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.63e4	0.43	NO	0.624	10.040	38.234	38.24	1.147	1.147	188.94	94.9	1.45	
34	34 13C-OCDF	1.24e5	0.89	NO	0.693	10.040	40.801	41.17	1.224	1.235	373.35	93.7	0.739	
35	35 37Cl-2,3,7,8-TCDD	4.78e4			1.28	10.040	26.255	26.26	1.026	1.026	74.671	93.7	0.125	
36	36 13C-1,2,3,4-TCDD	9.99e4	0.78	NO	1.00	10.040	25.550	25.59	1.000	1.000	199.20	100	0.870	
37	37 13C-1,2,3,4-TCDF	1.71e5	0.80	NO	1.00	10.040	24.250	24.31	1.000	1.000	199.20	100	0.714	
38	38 13C-1,2,3,4,6,9-HxCDF	9.52e4	0.49	NO	1.00	10.040	33.300	33.33	1.000	1.000	199.20	100	1.11	
39	39 Total Tetra-Dioxins				1.08	10.040	24.620		0.000				0.0699	
40	40 Total Penta-Dioxins				0.991	10.040	29.960		0.000				0.0492	
41	41 Total Hexa-Dioxins				0.908	10.040	33.635		0.000		0.00000		0.188	0.256
42	42 Total Hepta-Dioxins				0.926	10.040	37.640		0.000		1.9457		0.515	1.95
43	43 Total Tetra-Furans				0.882	10.040	23.610		0.000		0.00000		0.0397	0.0710
44	44 1st Func. Penta-Furans				0.937	10.040	26.750		0.000		0.16965		0.0371	0.170
45	45 Total Penta-Furans				0.937	10.040	29.275		0.000				0.0411	
46	46 Total Hexa-Furans				1.11	10.040	33.555		0.000		0.18418		0.0517	0.184
47	47 Total Hepta-Furans				1.15	10.040	37.835		0.000		0.30853		0.0428	0.668

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Tuesday, August 25, 2020 12:37:35 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:38:20 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.15	1.705e3	1.325e3	5.160e1	5.208e1	0.99	YES	0.000e0	0.00000	0.25567	0.188

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.71	3.622e3	2.961e3	2.020e2	1.695e2	1.19	NO	3.715e2	1.1976	1.1976	0.515
2	1,2,3,4,6,7,8-HpCDD	37.58	2.475e3	2.121e3	1.156e2	1.164e2	0.99	NO	2.321e2	0.74812	0.74812	0.515

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	2,3,7,8-TCDF	25.59	6.420e2	6.790e2	3.195e1	3.109e1	1.03	YES	6.304e1	0.00000	0.071045	0.0397

**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	27.00	1.477e3	7.900e2	6.770e1	4.853e1	1.40	NO	1.162e2	0.16965	0.16965	0.0371

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Tuesday, August 25, 2020 12:37:35 Pacific Daylight Time

Printed: Tuesday, August 25, 2020 12:38:20 Pacific Daylight Time

Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

**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	32.39	1.464e3	8.640e2	5.541e1	4.674e1	1.19	NO	1.021e2	0.18418	0.18418	0.0517

**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	36.38	1.812e3	1.024e3	7.201e1	7.416e1	0.97	NO	1.462e2	0.30853	0.30853	0.0373
2	Total Hepta-Furans	36.99	2.082e3	1.666e3	8.700e1	7.048e1	1.23	YES	0.000e0	0.00000	0.35961	0.0428

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

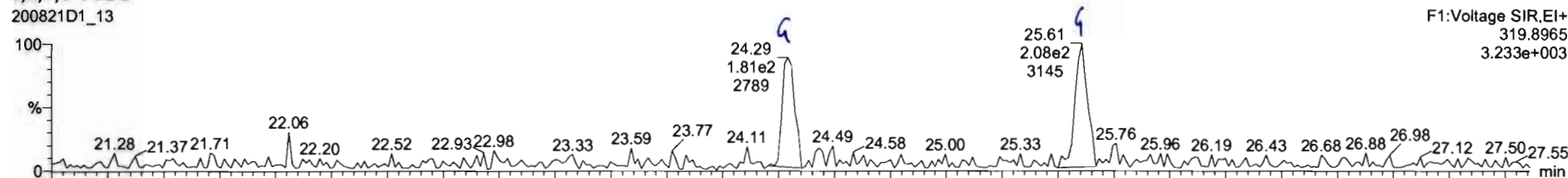
Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

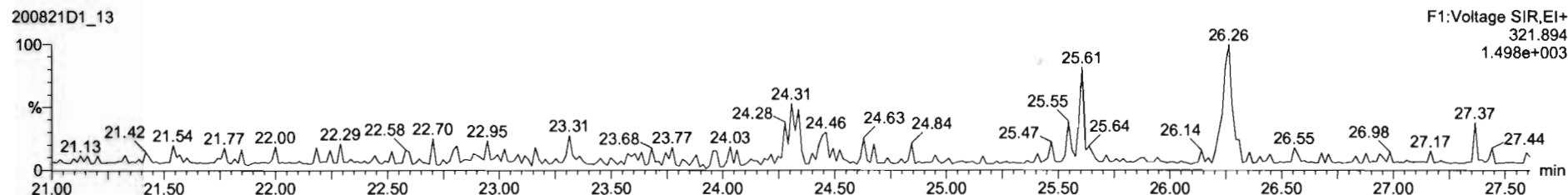
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

2,3,7,8-TCDD

200821D1\_13

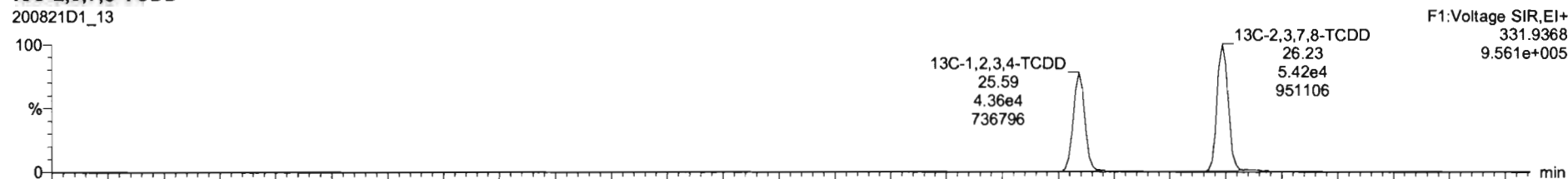


200821D1\_13

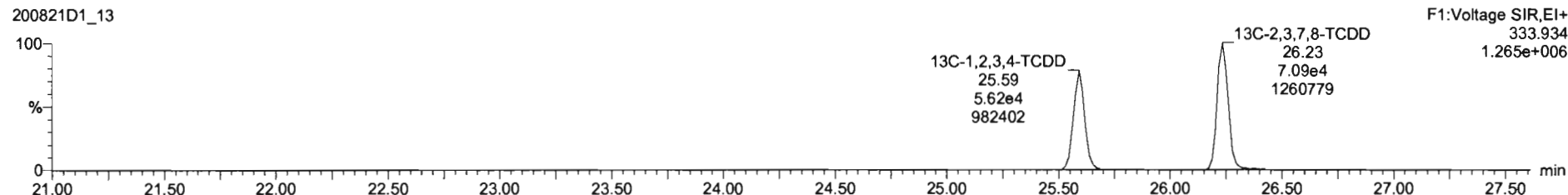


13C-2,3,7,8-TCDD

200821D1\_13



200821D1\_13



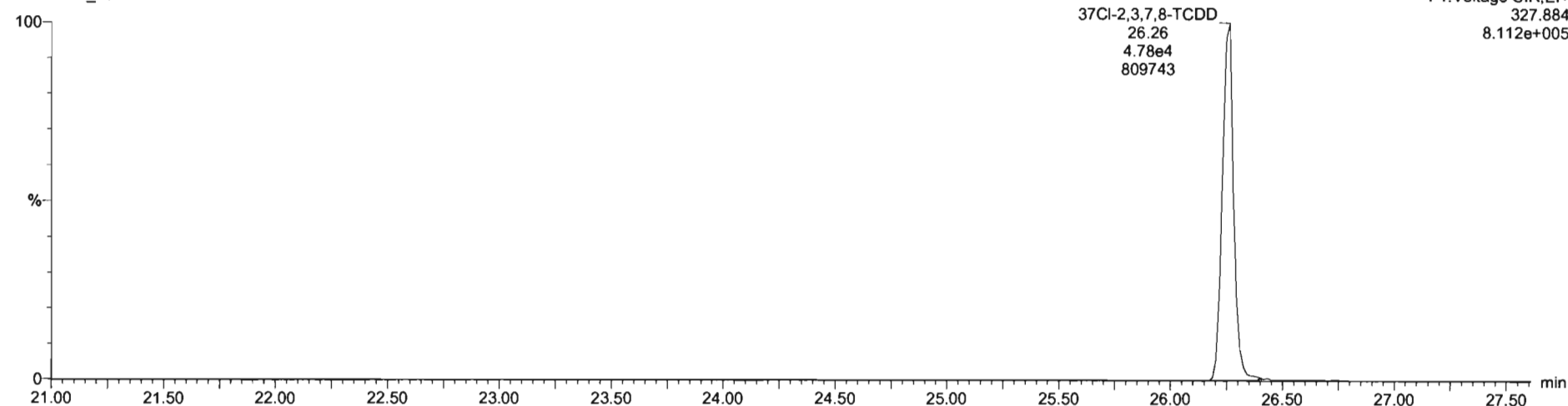
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

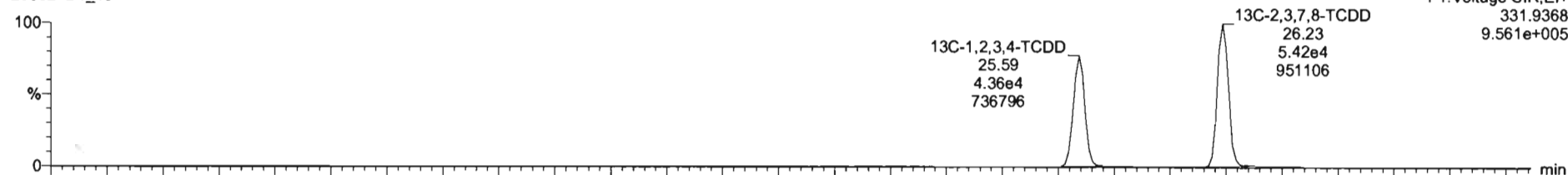
**37Cl-2,3,7,8-TCDD**

200821D1\_13

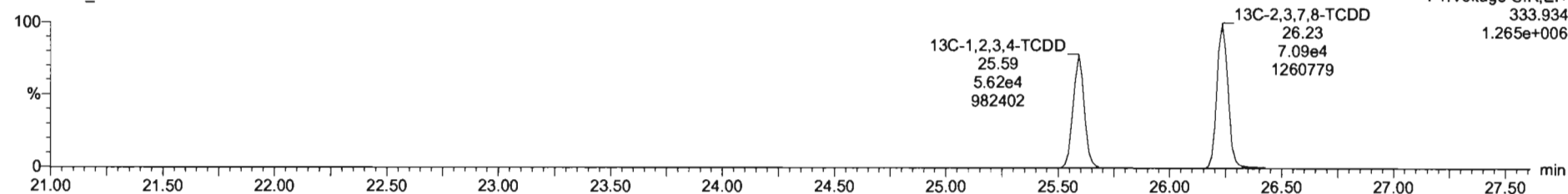


**13C-1,2,3,4-TCDD**

200821D1\_13



200821D1\_13



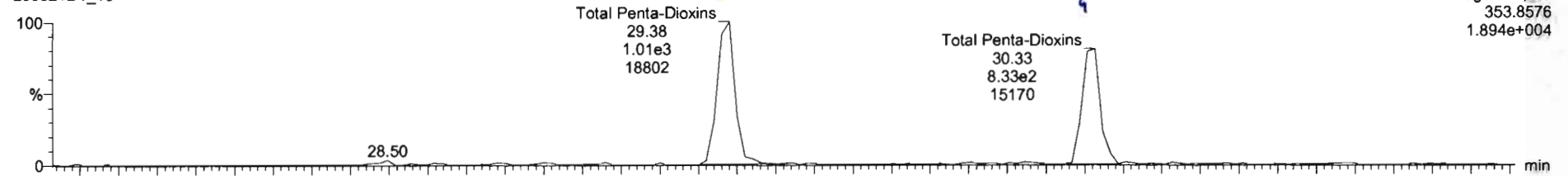
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

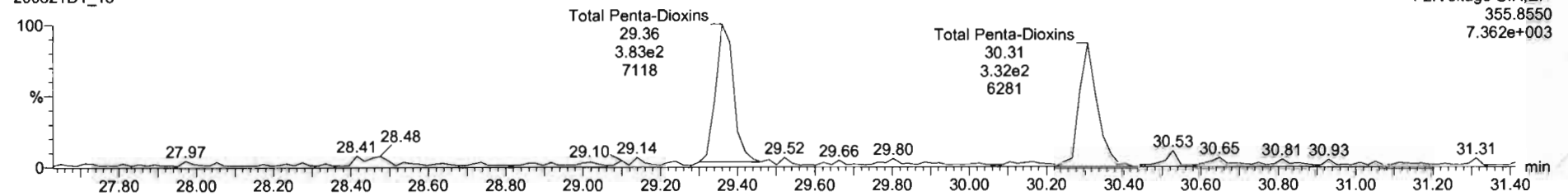
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

1,2,3,7,8-PeCDD

200821D1\_13



200821D1\_13

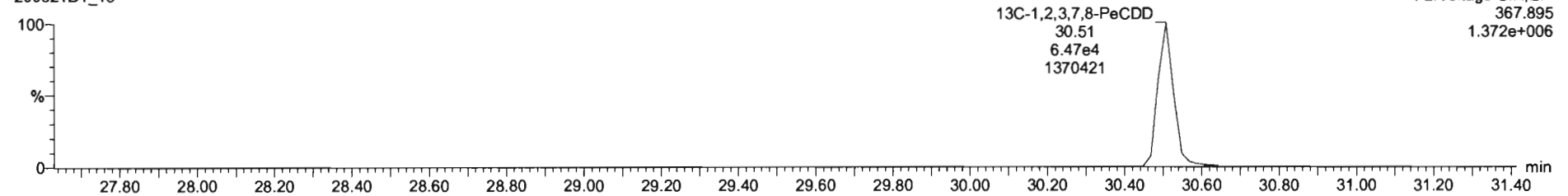


13C-1,2,3,7,8-PeCDD

200821D1\_13



200821D1\_13



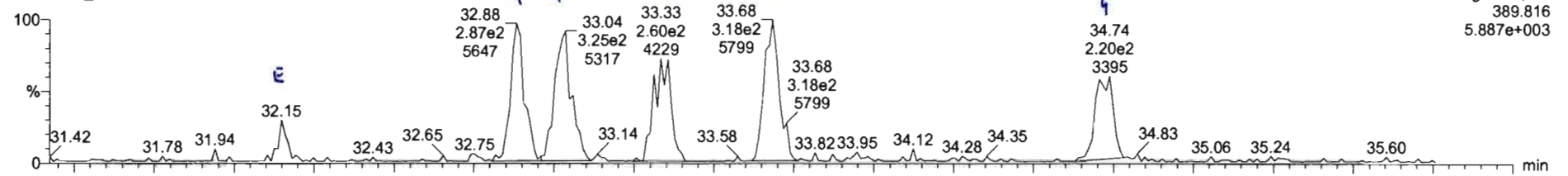
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

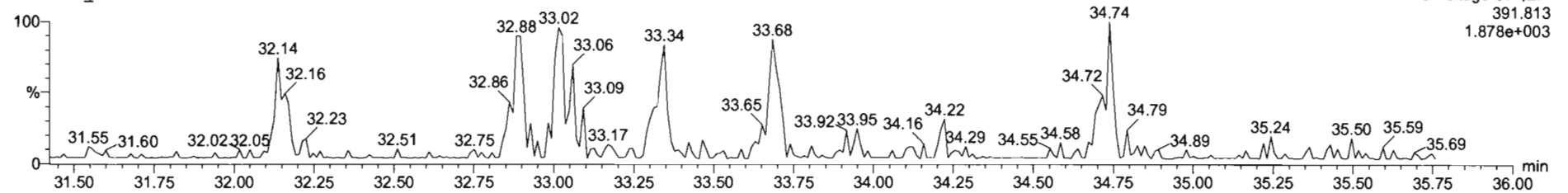
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

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

200821D1\_13

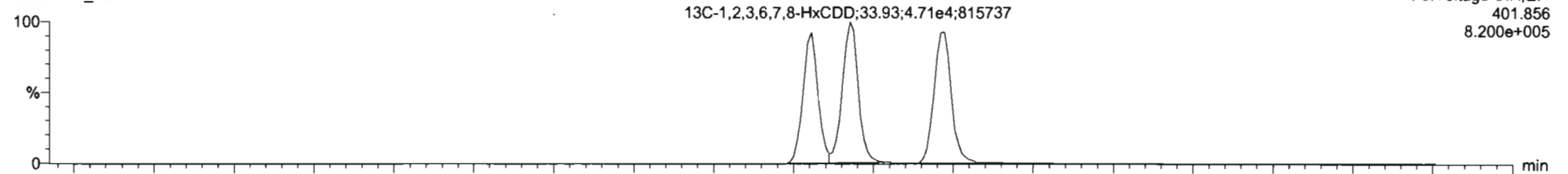


200821D1\_13

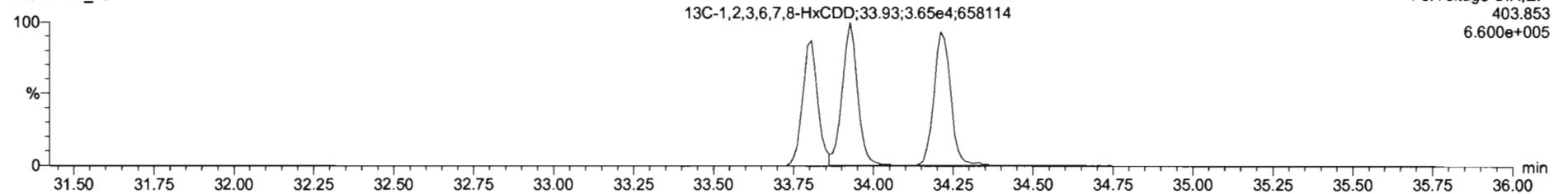


13C-1,2,3,4,7,8-HxCDD

200821D1\_13



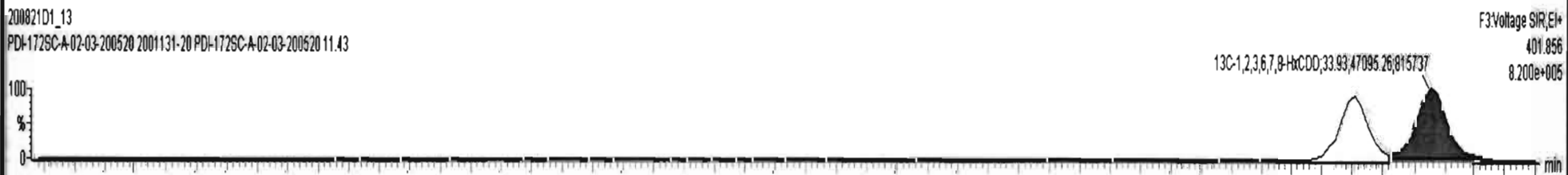
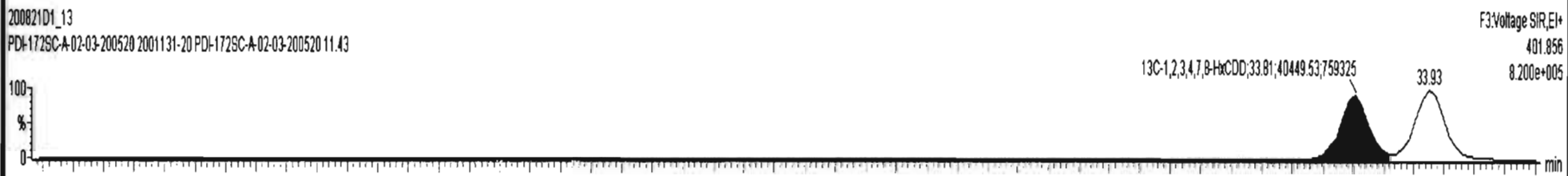
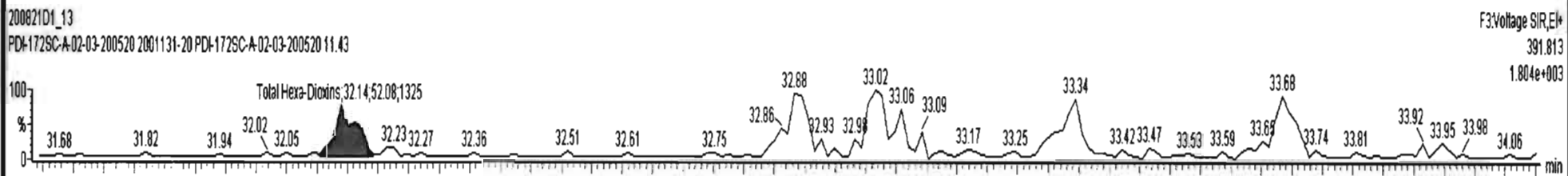
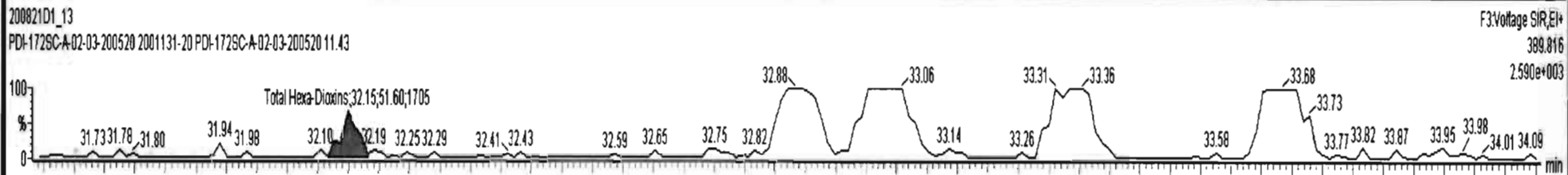
200821D1\_13







200821D1\_13 - 2001131-20 PDI-172SC-A-02-03-200520 11.43 - PDI-172SC-A-02-03-200520



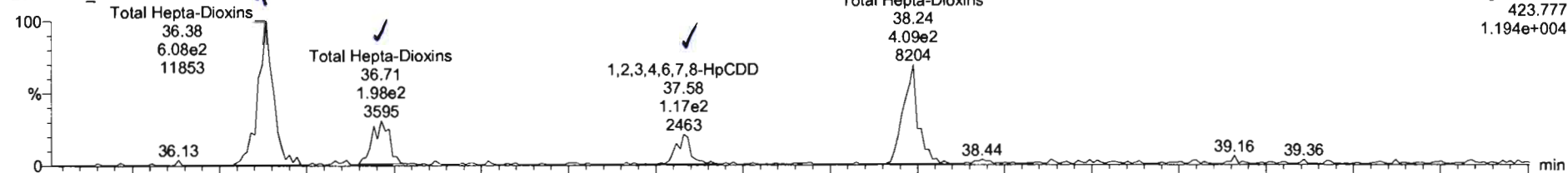
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

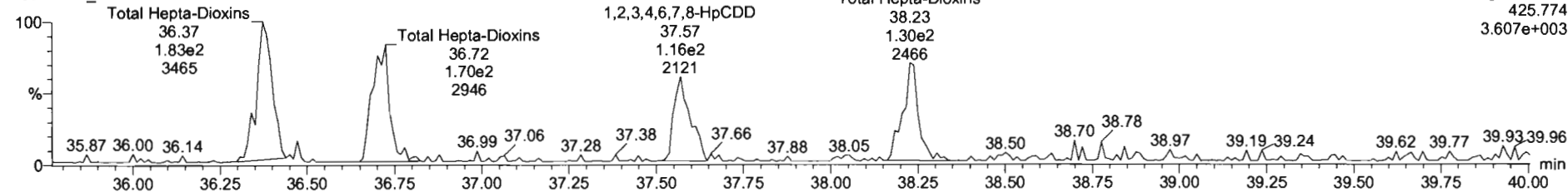
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

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

200821D1\_13

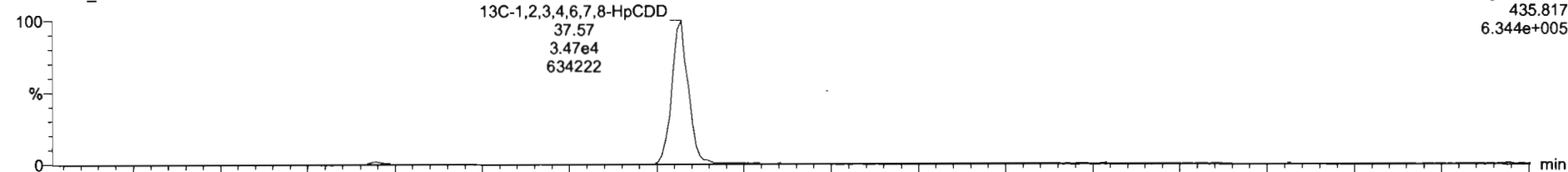


200821D1\_13

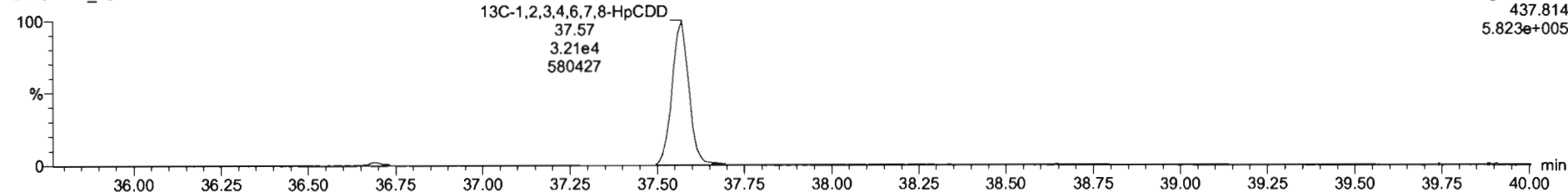


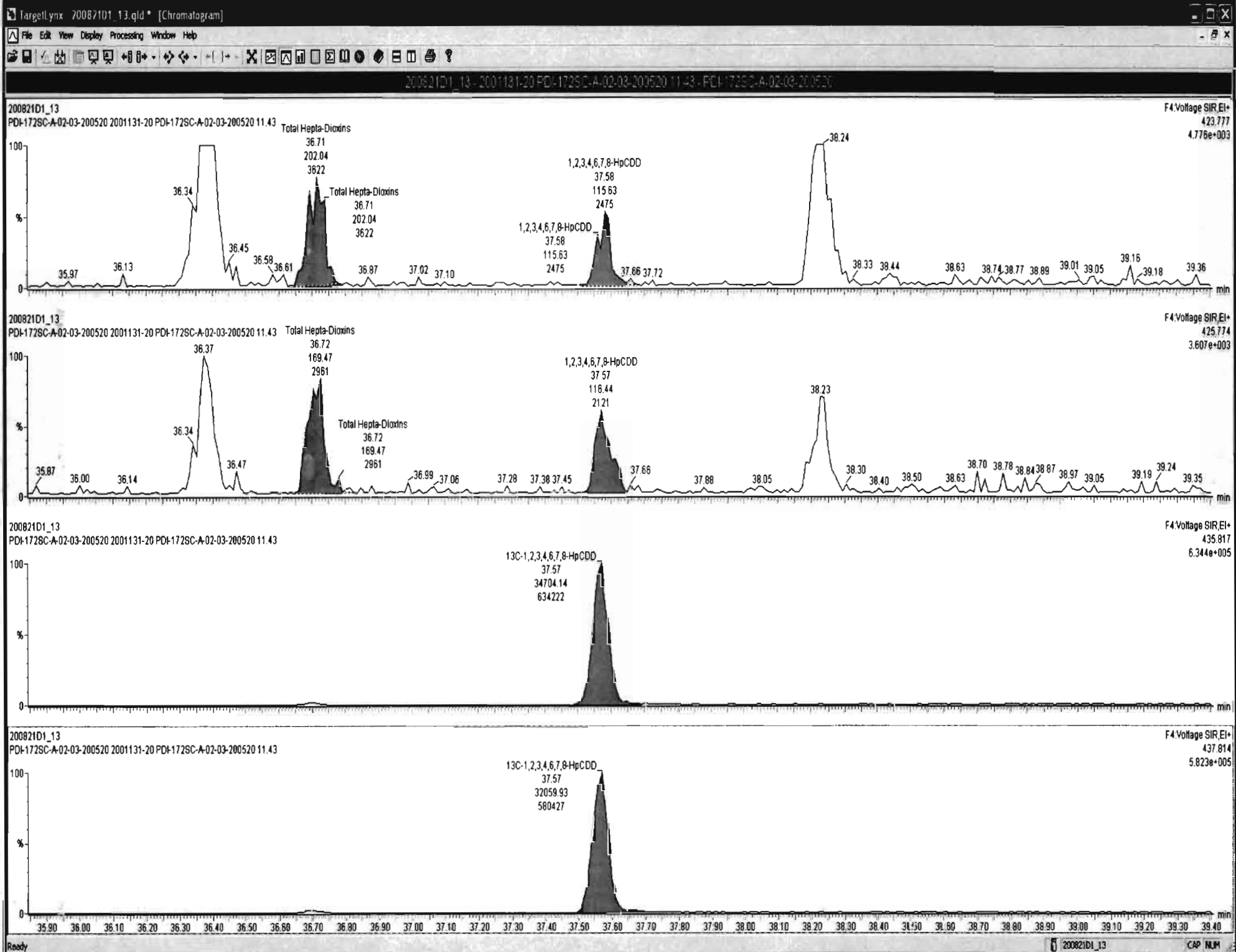
13C-1,2,3,4,6,7,8-HpCDD

200821D1\_13



200821D1\_13





Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

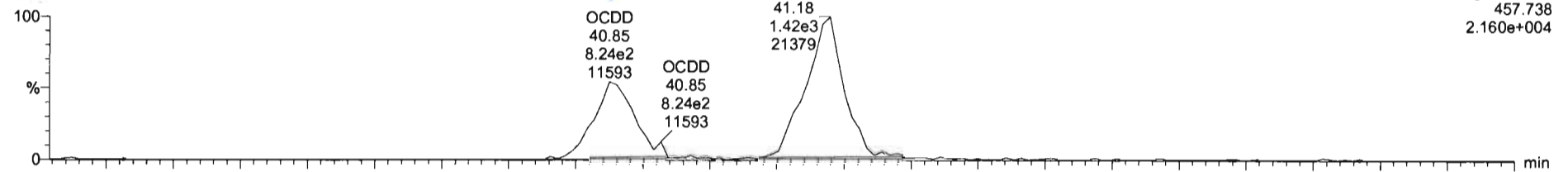
Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time

Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

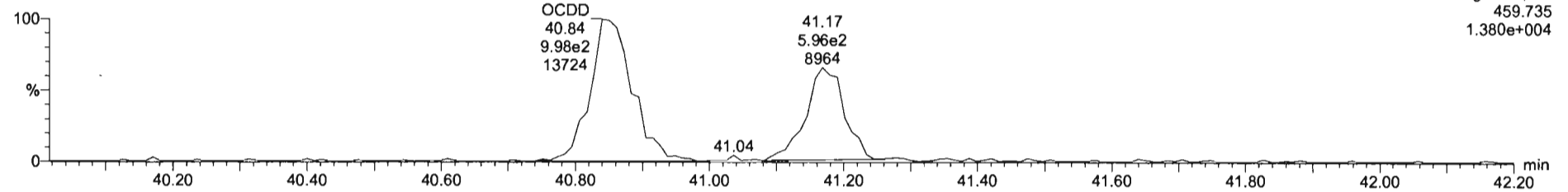
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

**OCDD**

200821D1\_13

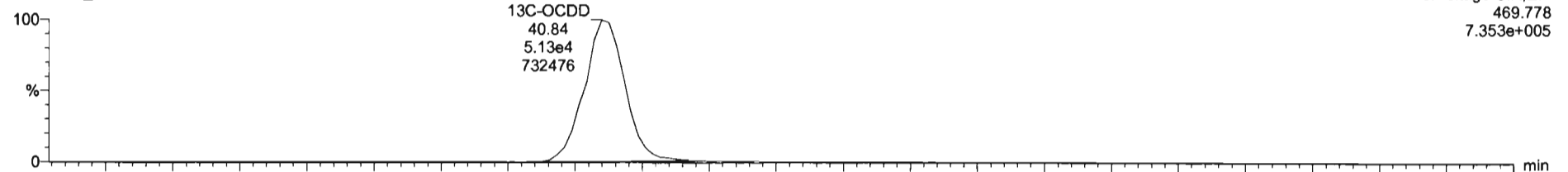


200821D1\_13

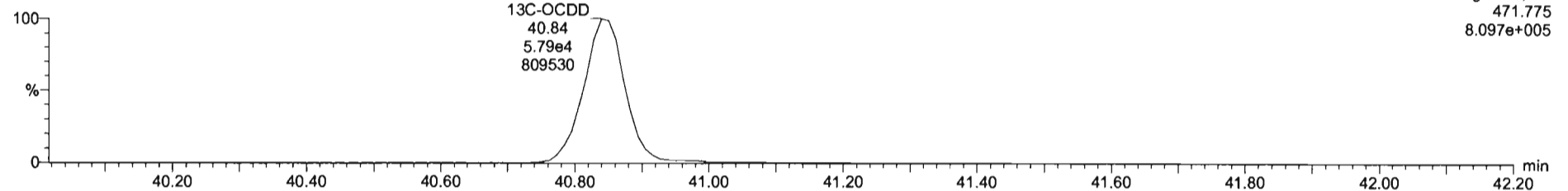


**13C-OCDD**

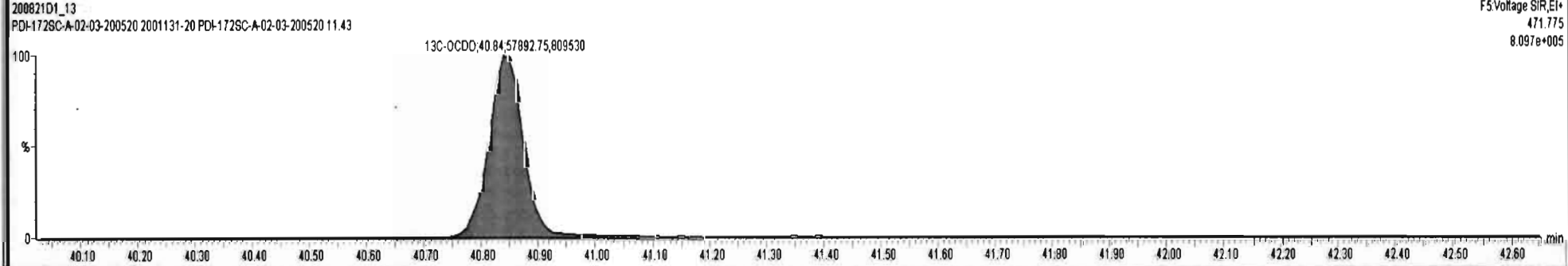
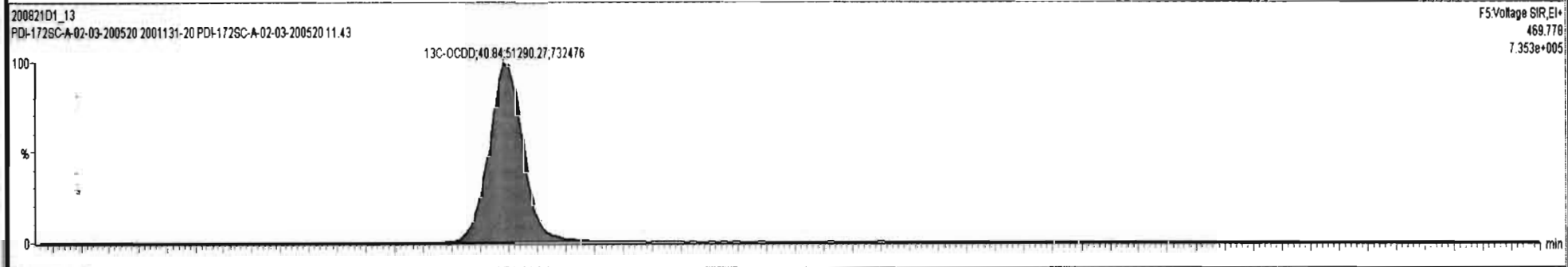
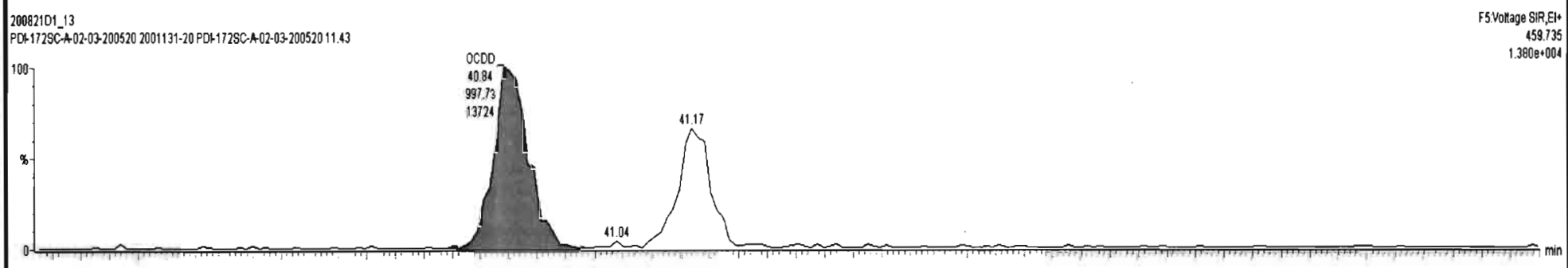
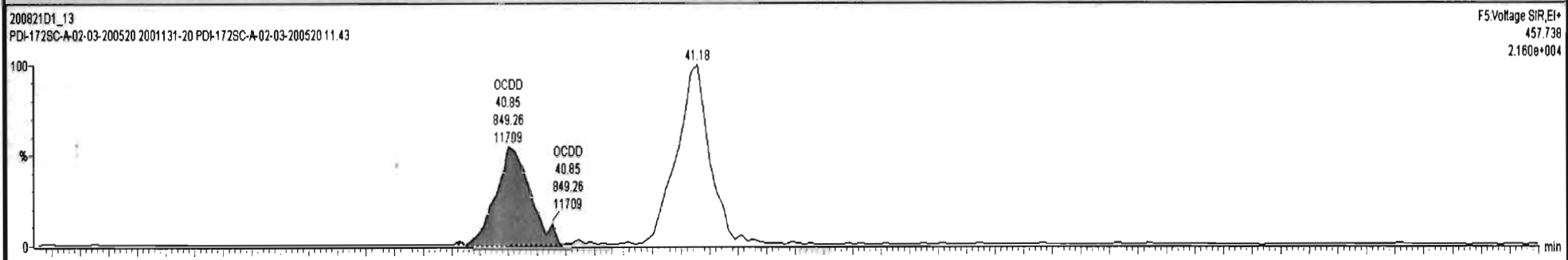
200821D1\_13



200821D1\_13



200821D1\_13-2001131-20 PDI-172SC-A-02-03-200520 11.43 PDI-172SC-A-02-03-200520



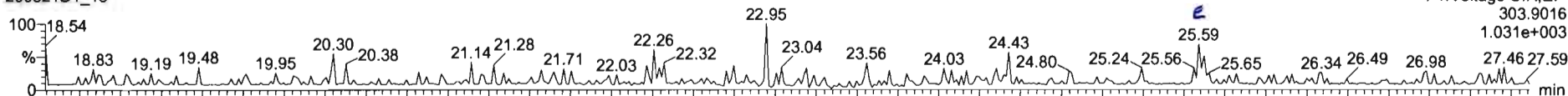
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

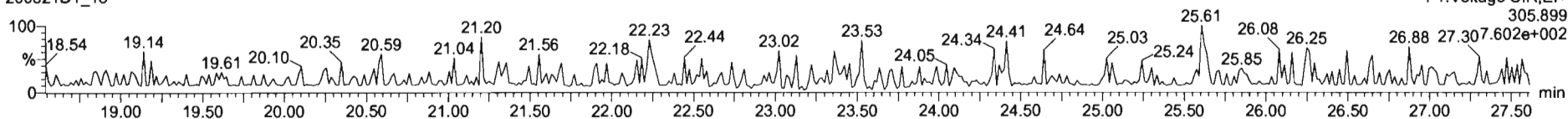
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

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

200821D1\_13

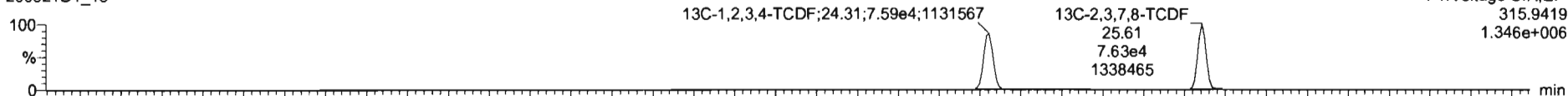


200821D1\_13

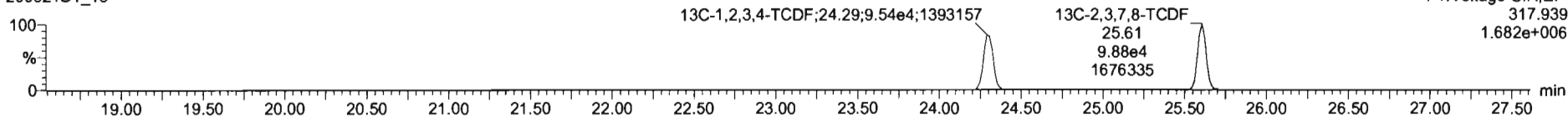


**13C-2,3,7,8-TCDF**

200821D1\_13

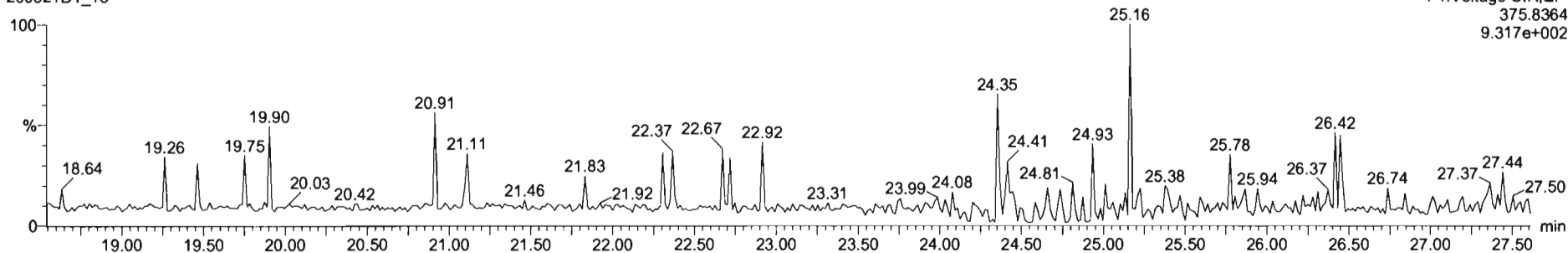


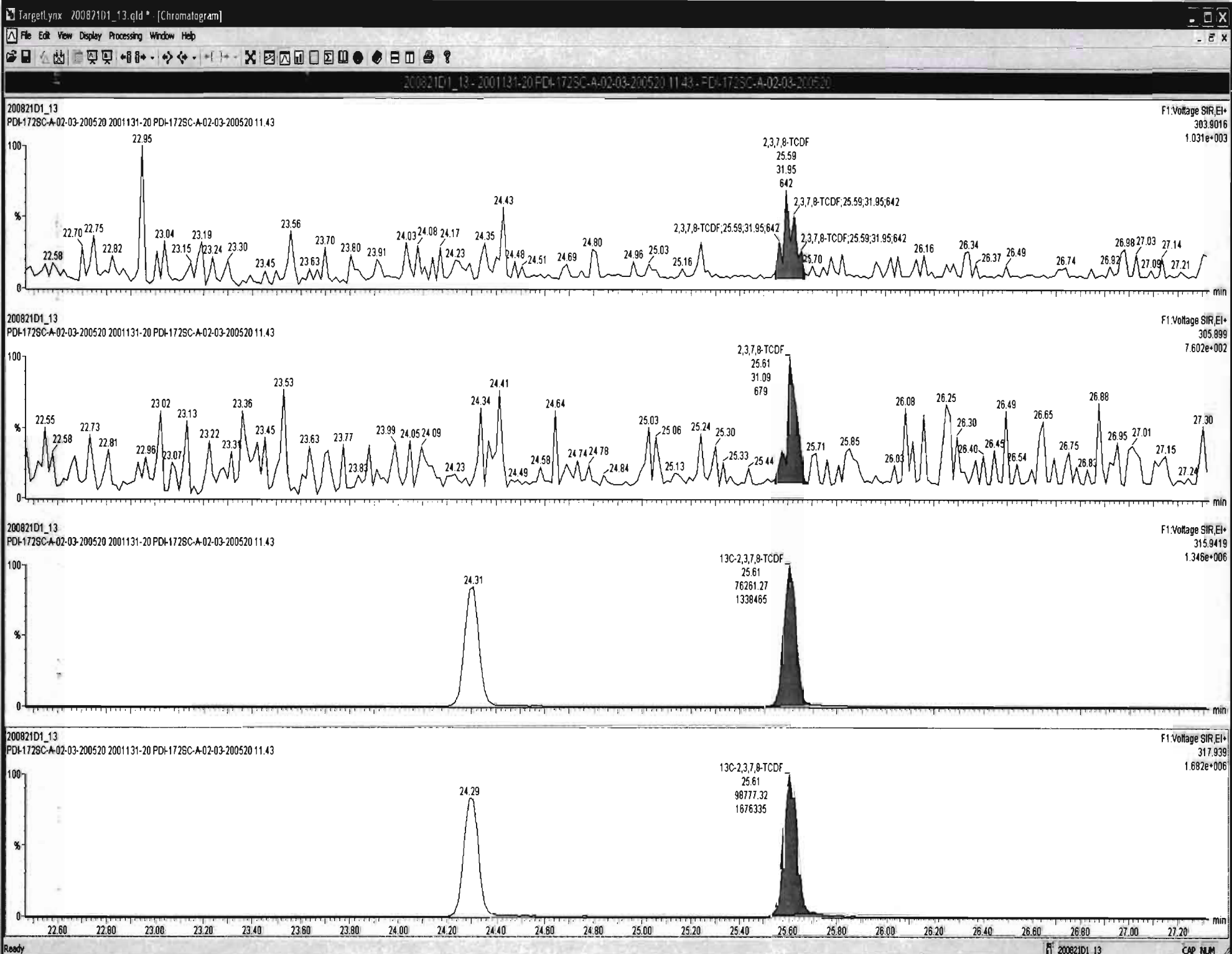
200821D1\_13



**DPE1**

200821D1\_13





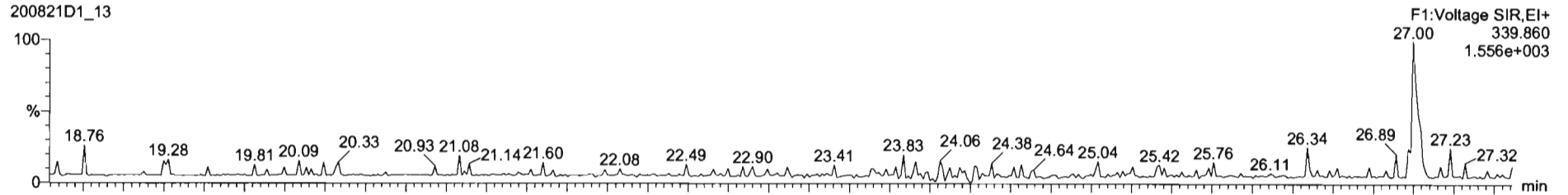
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

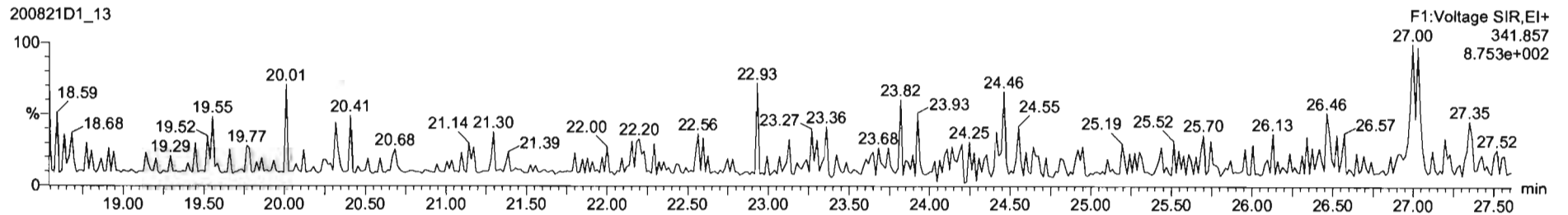
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

1st Func. Penta-Furans

200821D1\_13

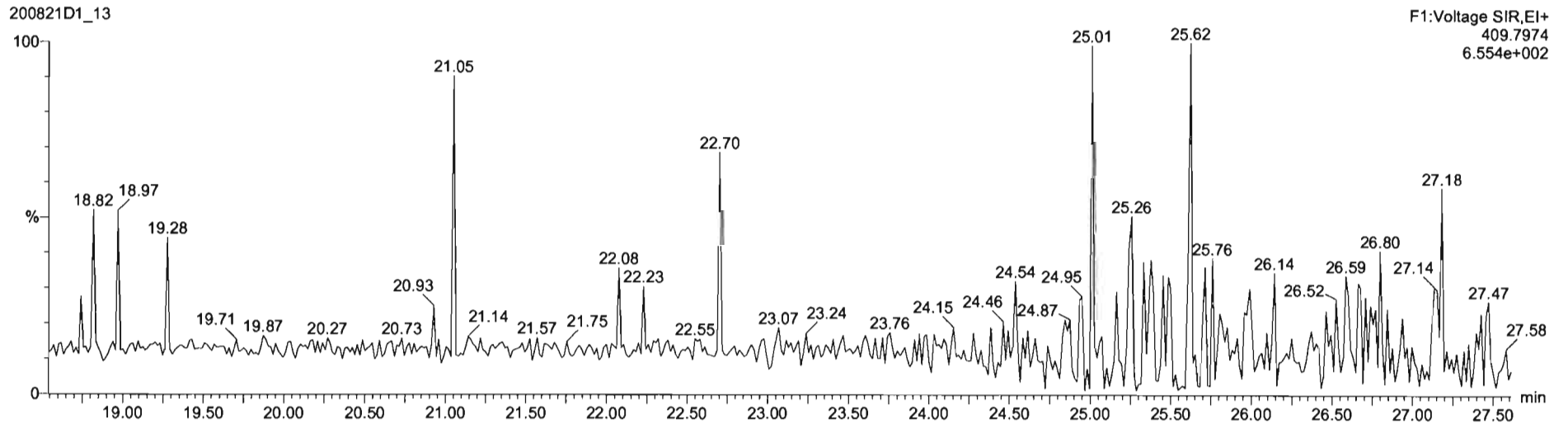


200821D1\_13

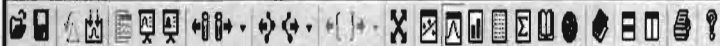


DPE6

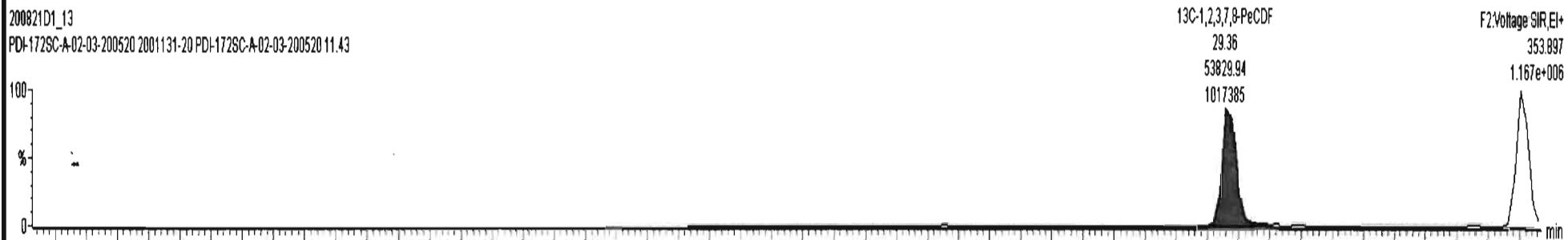
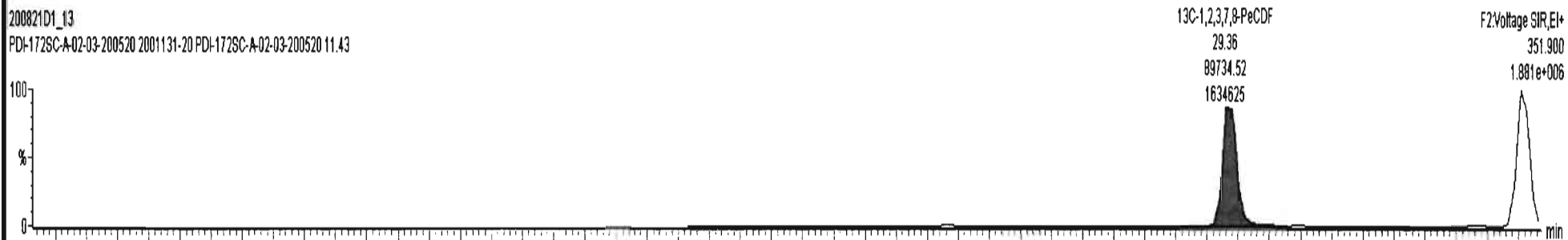
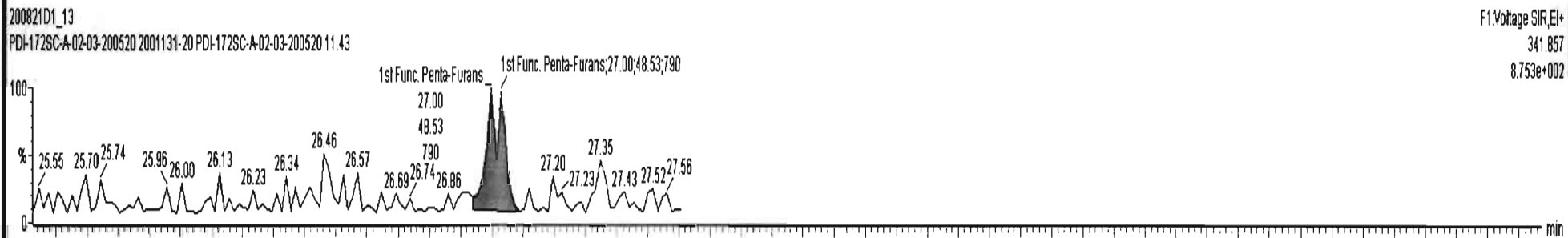
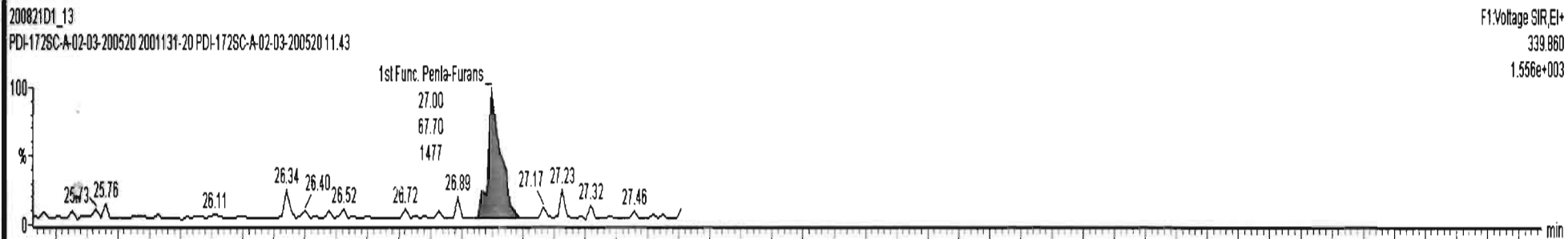
200821D1\_13







200821D1\_13 - 2001131-20 PDI-172SC-A-02-03-200520 11.43 - PDI-172SC-A-02-03-200520



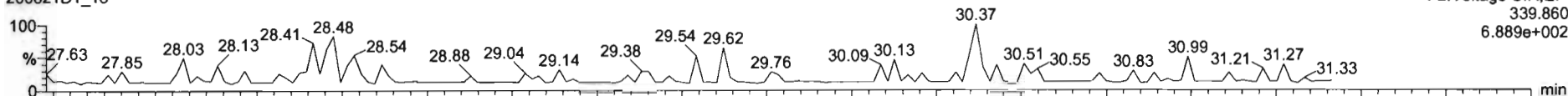
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

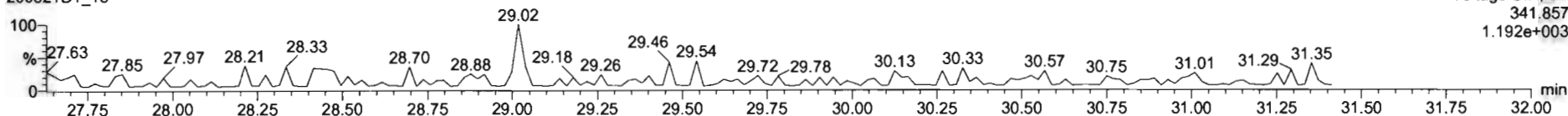
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

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

200821D1\_13

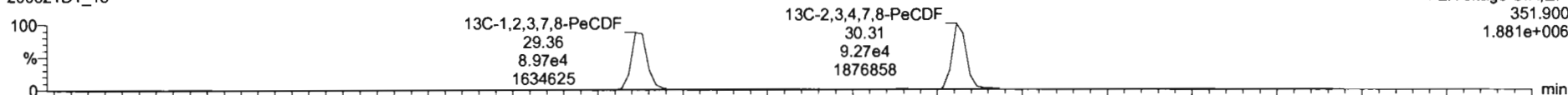


200821D1\_13

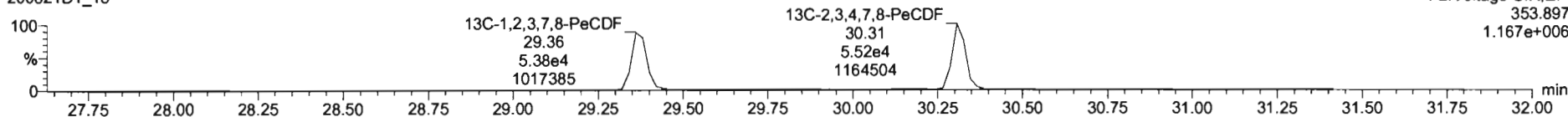


**13C-1,2,3,7,8-PeCDF**

200821D1\_13

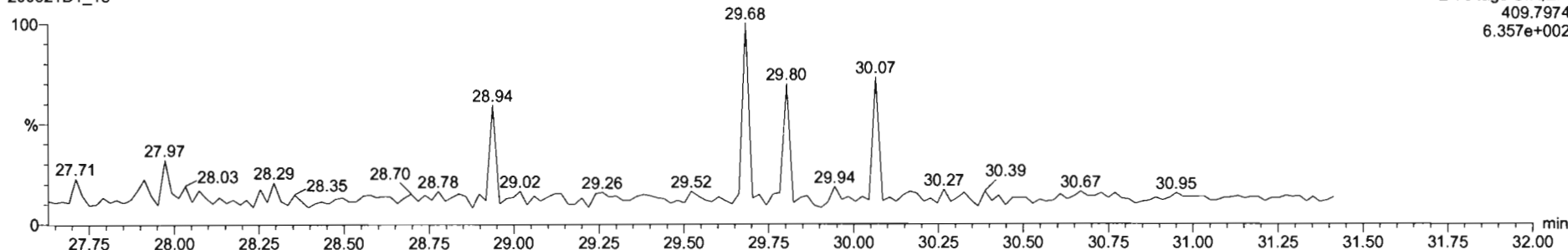


200821D1\_13



**DPE2**

200821D1\_13



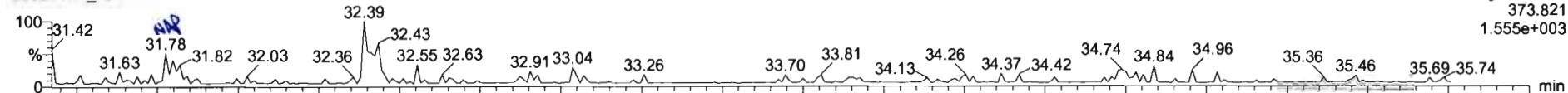
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

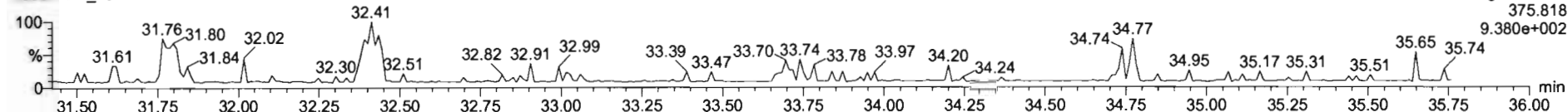
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

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

200821D1\_13

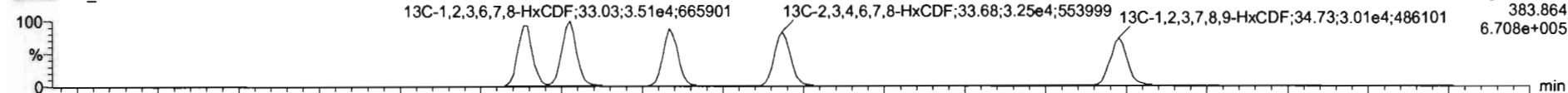


200821D1\_13

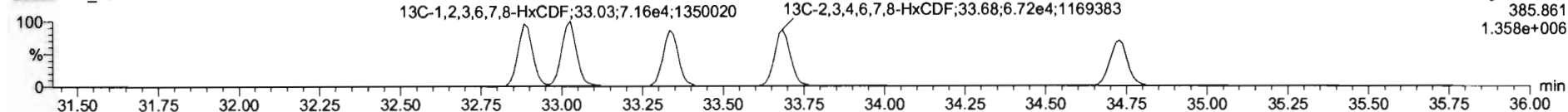


13C-1,2,3,4,7,8-HxCDF

200821D1\_13

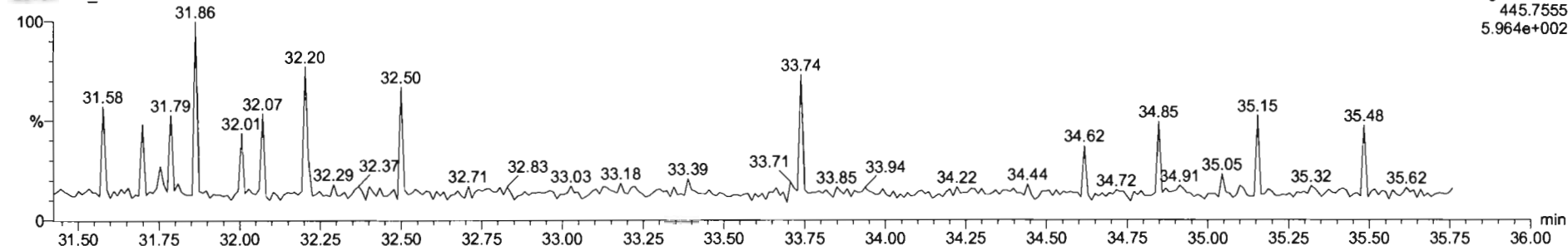


200821D1\_13



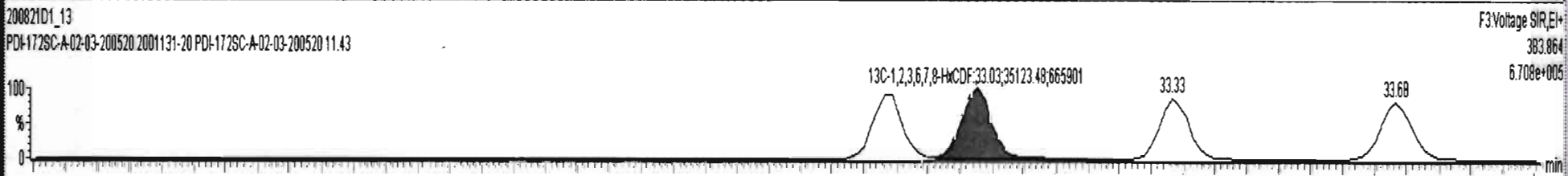
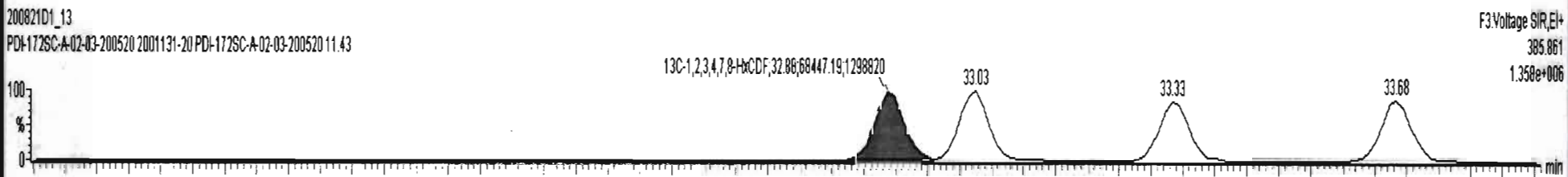
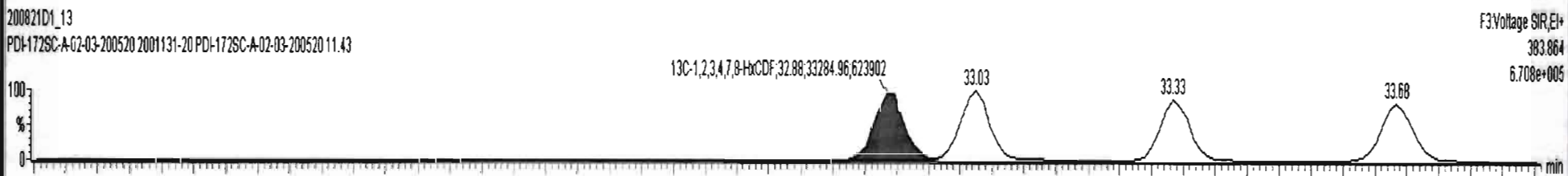
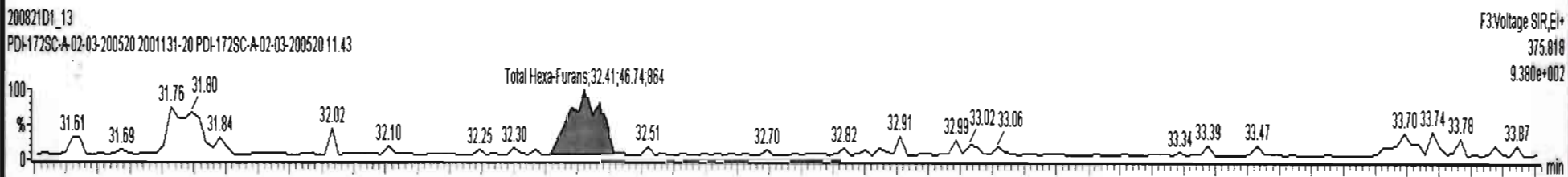
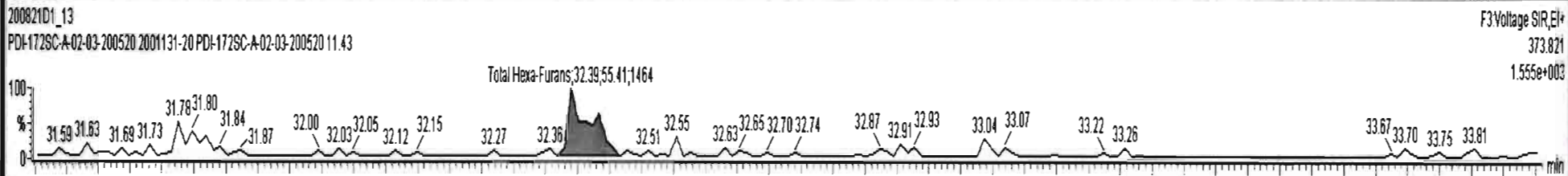
DPE3

200821D1\_13





200821D1\_13 - 2001131-20 PDI-172SC-A-02-03-200520 11.43 - PDI-172SC-A-02-03-200520



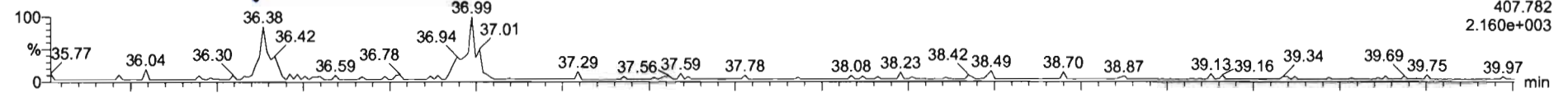
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

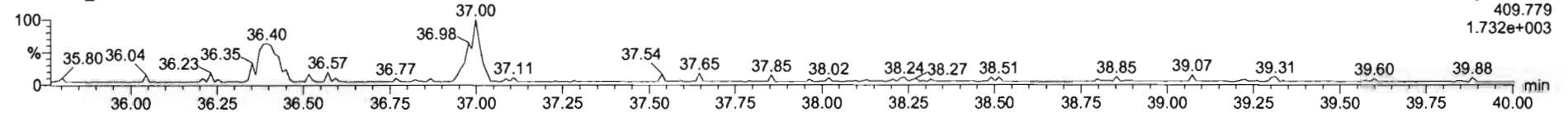
Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520

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

200821D1\_13

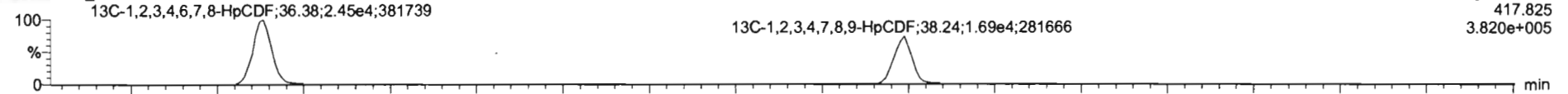


200821D1\_13

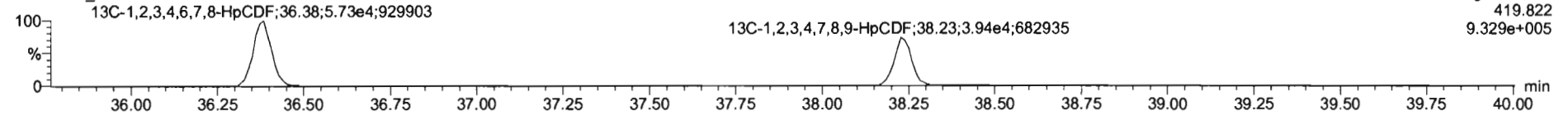


13C-1,2,3,4,6,7,8-HpCDF

200821D1\_13

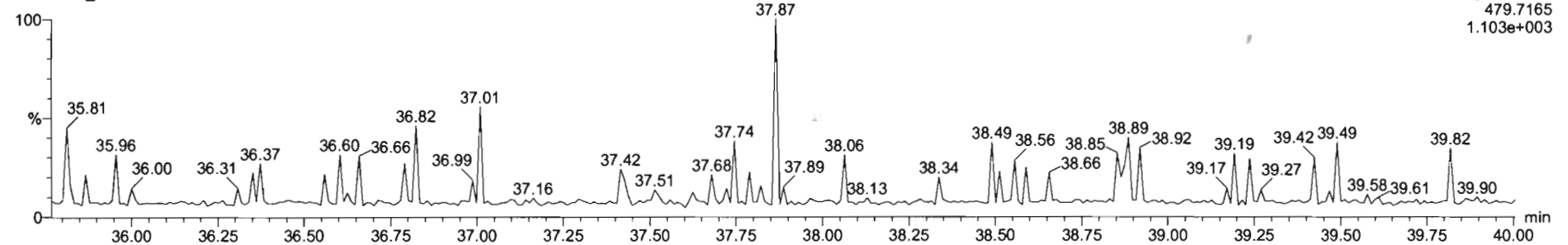


200821D1\_13



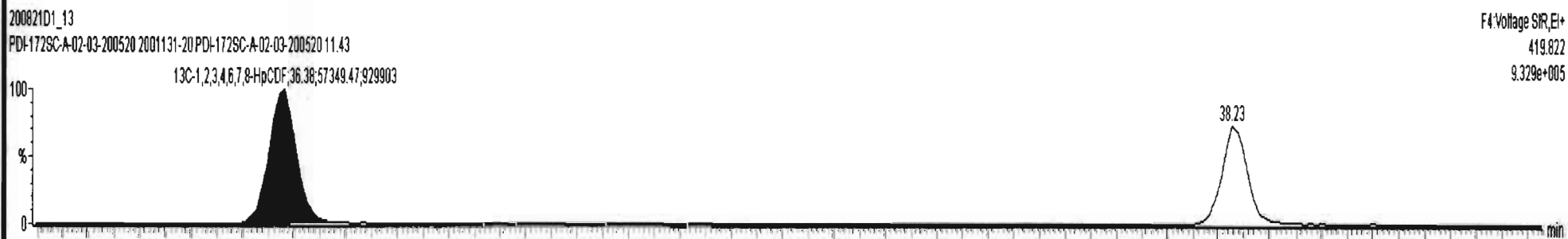
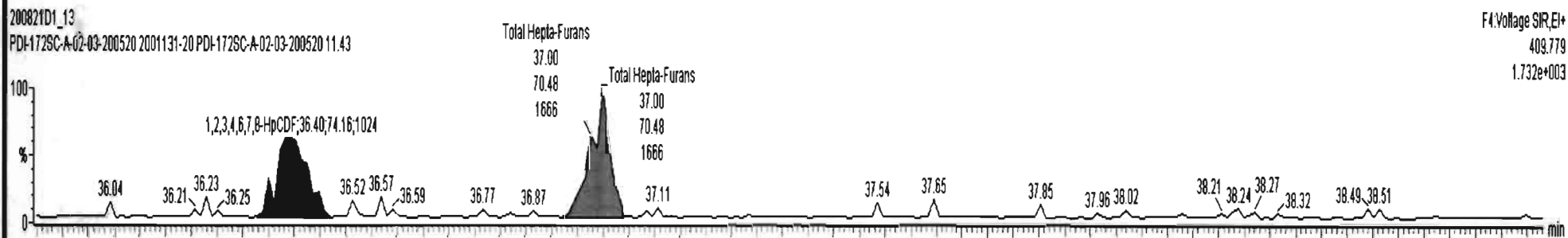
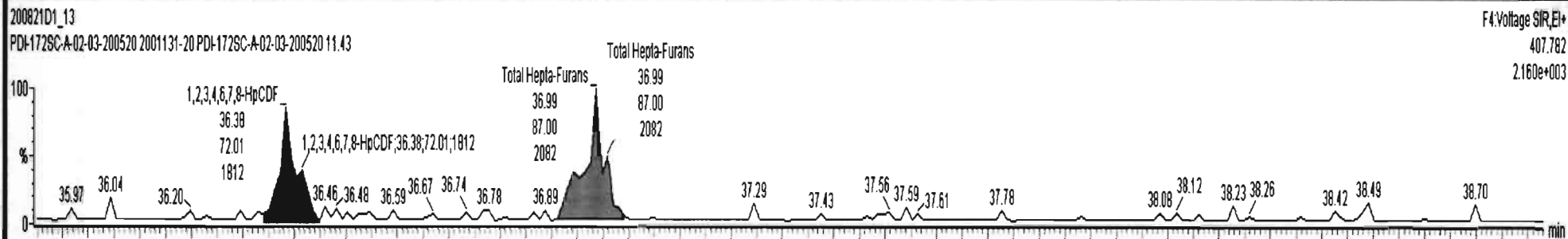
DPE4

200821D1\_13





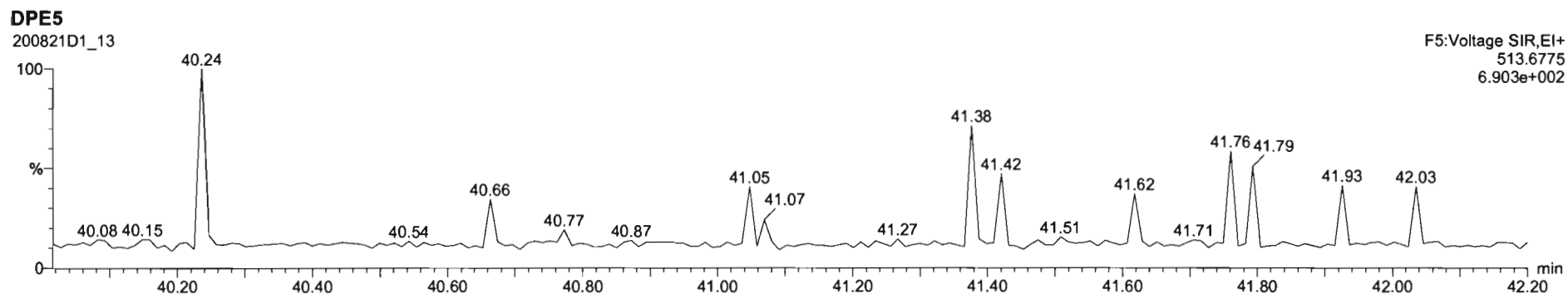
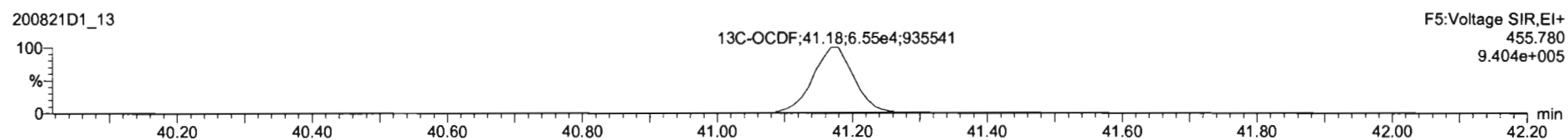
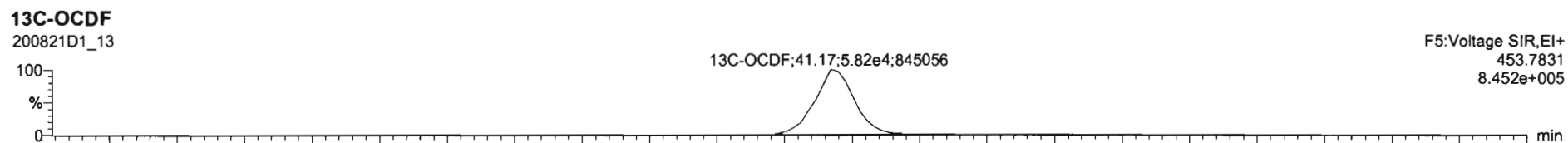
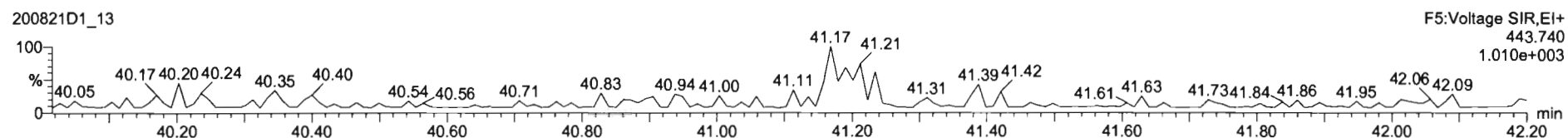
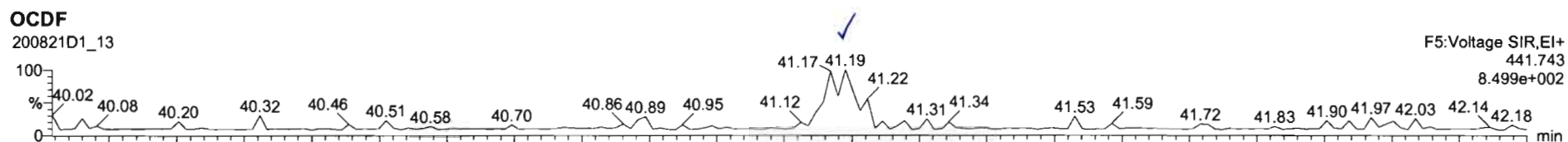
200821D1\_13 - 2001131-20 PDI-172SC-A-02-03-200520 11.43 - PDI-172SC-A-02-03-200520

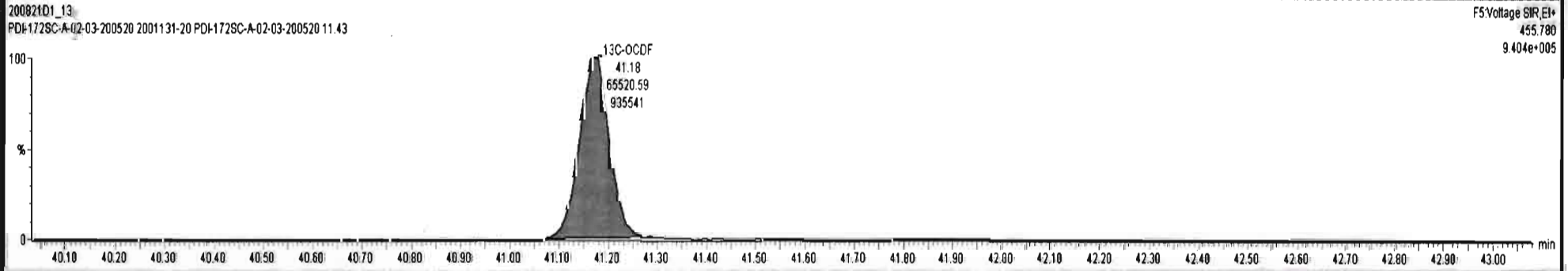
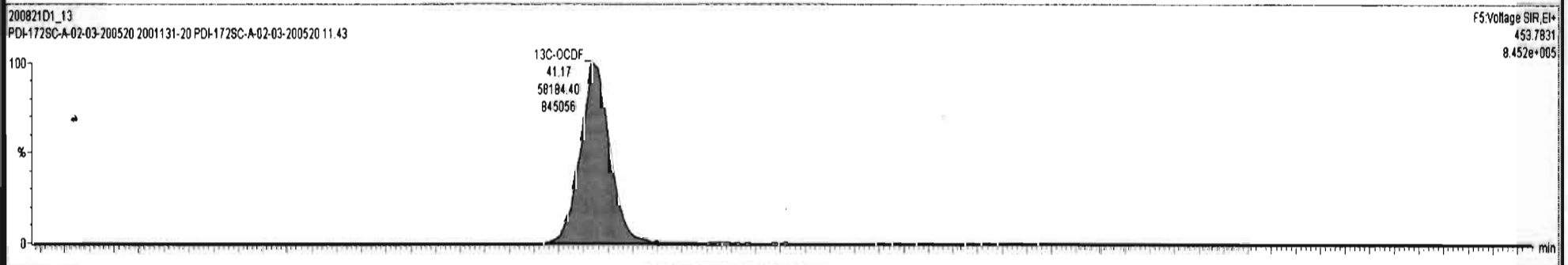
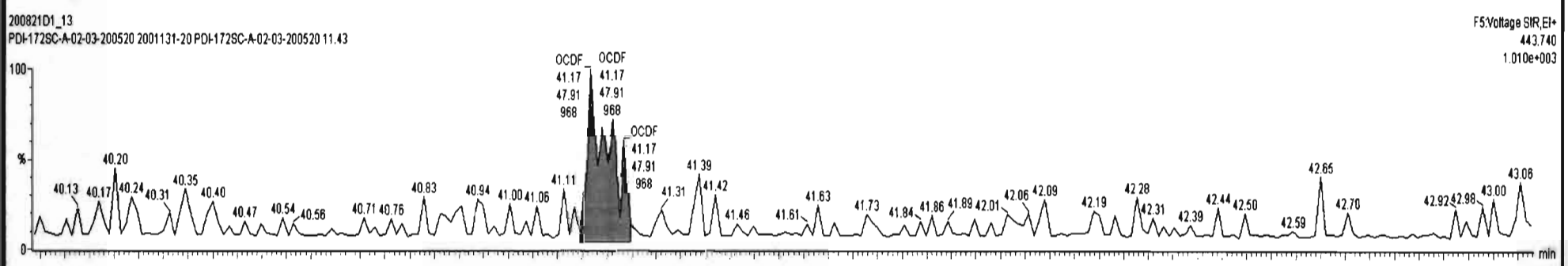
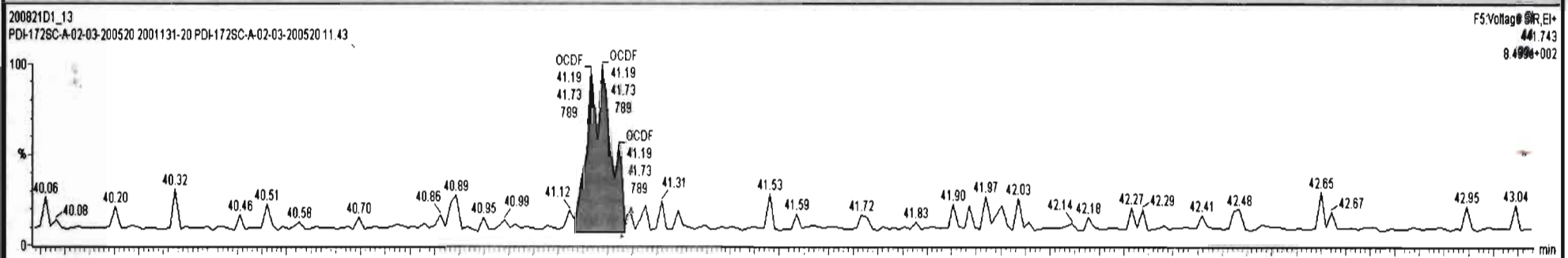


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520



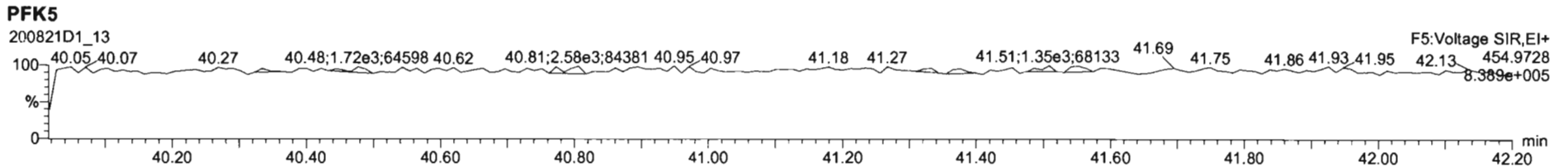
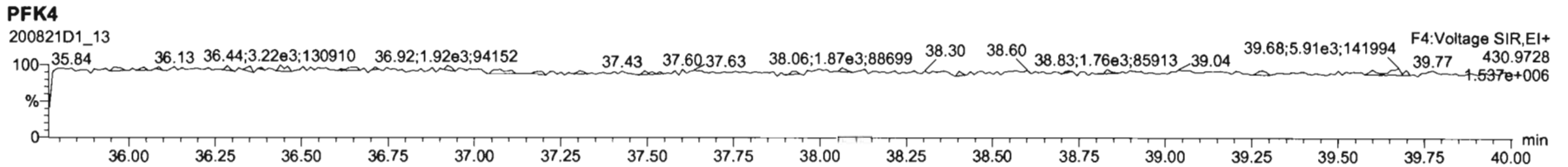
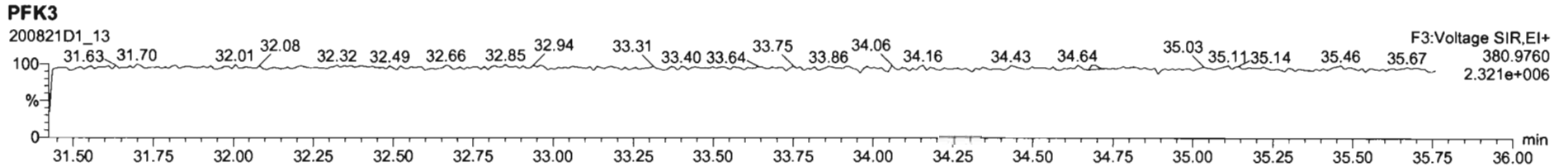
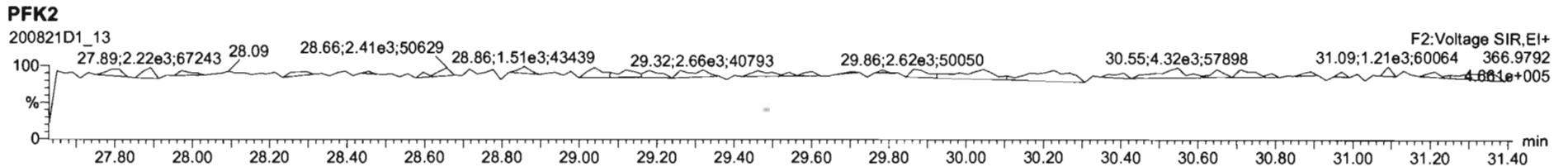
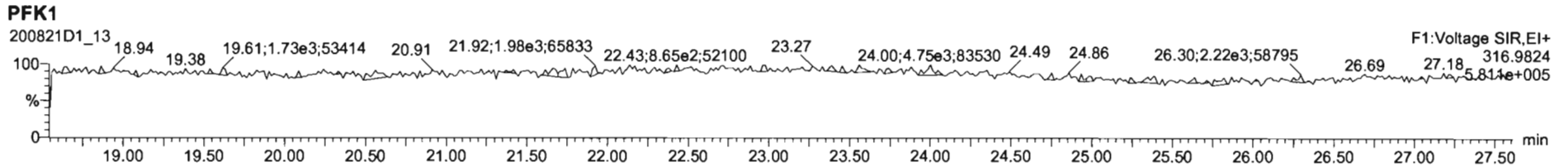




Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_13.qld

Last Altered: Monday, August 24, 2020 09:26:40 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:27:33 Pacific Daylight Time

Name: 200821D1\_13, Date: 21-Aug-2020, Time: 21:05:39, ID: 2001131-20 PDI-172SC-A-02-03-200520 11.43, Description: PDI-172SC-A-02-03-200520



**CONTINUING CALIBRATION**

**HRMS CALIBRATION STANDARDS REVIEW CHECKLIST**

Beg. Calibration ID: ST200820D21

Reviewed By: C7 08/21/2020  
*Initials & Date*

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
Concentrations within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TCDD/TCDF Valleys <25%	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<u>DB</u>	<u>DB</u>
<u>Run Log:</u>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Samples within 12 hour clock?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
- Bottle position verified?	<input checked="" type="checkbox"/>	<input checked="" 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:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:50:54 Pacific Daylight Time

*DB 8/21/20 CT 08/21/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	Name	Resp	RA	n/y	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	9.74e3	0.82	NO	1.08	1.000	26.250	26.25	1.001	1.001	10.238	102 <i>78-129</i>	0.123	10.2
2	2 1,2,3,7,8-PeCDD	3.03e4	0.63	NO	0.991	1.000	30.509	30.51	1.001	1.001	49.103	98.2 <i>78-130</i>	0.188	49.1
3	3 1,2,3,4,7,8-HxCDD	2.73e4	1.26	NO	1.04	1.000	33.804	33.81	1.000	1.000	49.620	99.2 <i>78-128</i>	0.528	49.6
4	4 1,2,3,6,7,8-HxCDD	2.70e4	1.26	NO	0.908	1.000	33.915	33.93	1.000	1.000	51.465	103 <i>78-128</i>	0.556	51.5
5	5 1,2,3,7,8,9-HxCDD	2.84e4	1.25	NO	0.923	1.000	34.235	34.22	1.001	1.001	52.967	106 <i>82-122</i>	0.565	53.0
6	6 1,2,3,4,6,7,8-HpCDD	2.27e4	1.02	NO	0.926	1.000	37.569	37.57	1.000	1.000	46.249	92.5 <i>86-116</i>	0.489	46.2
7	7 OCDD	3.99e4	0.84	NO	0.834	1.000	40.839	40.85	1.000	1.000	103.38	103 <i>79-126</i>	0.289	103
8	8 2,3,7,8-TCDF	1.11e4	0.74	NO	0.882	1.000	25.617	25.61	1.001	1.001	8.9211	89.2 <i>84-120</i>	0.0767	8.92
9	9 1,2,3,7,8-PeCDF	4.96e4	1.55	NO	0.937	1.000	29.381	29.38	1.001	1.001	52.446	105 <i>82-120</i>	0.142	52.4
10	10 2,3,4,7,8-PeCDF	5.17e4	1.55	NO	1.03	1.000	30.337	30.31	1.001	1.000	54.962	110 <i>82-120</i>	0.142	55.0
11	11 1,2,3,4,7,8-HxCDF	3.54e4	1.24	NO	1.07	1.000	32.873	32.90	1.000	1.001	47.192	94.4 <i>90-112</i>	0.247	47.2
12	12 1,2,3,6,7,8-HxCDF	3.63e4	1.27	NO	1.11	1.000	33.025	33.03	1.000	1.000	47.873	95.7 <i>88-114</i>	0.239	47.9
13	13 2,3,4,6,7,8-HxCDF	3.42e4	1.23	NO	1.11	1.000	33.707	33.69	1.001	1.000	48.364	96.7 <i>88-114</i>	0.286	48.4
14	14 1,2,3,7,8,9-HxCDF	3.07e4	1.28	NO	1.12	1.000	34.716	34.73	1.000	1.000	46.221	92.4 <i>90-112</i>	0.348	46.2
15	15 1,2,3,4,6,7,8-HpCDF	3.25e4	1.01	NO	1.15	1.000	36.409	36.38	1.001	1.000	49.030	98.1 <i>90-110</i>	0.316	49.0
16	16 1,2,3,4,7,8,9-HpCDF	2.63e4	1.04	NO	1.25	1.000	38.216	38.24	1.000	1.001	49.784	99.6 <i>86-116</i>	0.412	49.8
17	17 OCDF	4.45e4	0.87	NO	0.961	1.000	41.157	41.18	1.000	1.000	94.889	94.9 <i>63-159</i>	0.248	94.9
18	18 13C-2,3,7,8-TCDD	8.82e4	0.79	NO	1.20	1.000	26.241	26.22	1.026	1.025	96.495	96.5 <i>82-121</i>	0.402	
19	19 13C-1,2,3,7,8-PeCDD	6.22e4	0.63	NO	0.910	1.000	30.502	30.49	1.193	1.192	89.939	89.9 <i>62-160</i>	0.207	
20	20 13C-1,2,3,4,7,8-HxCDD	5.28e4	1.31	NO	0.789	1.000	33.789	33.79	1.014	1.014	97.654	97.7 <i>85-117</i>	0.472	
21	21 13C-1,2,3,6,7,8-HxCDD	5.77e4	1.27	NO	0.885	1.000	33.899	33.92	1.017	1.018	95.112	95.1 <i>85-118</i>	0.421	
22	22 13C-1,2,3,7,8,9-HxCDD	5.80e4	1.24	NO	0.888	1.000	34.169	34.20	1.025	1.026	95.265	95.3 <i>85-118</i>	0.419	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.30e4	1.08	NO	0.740	1.000	37.621	37.56	1.129	1.127	104.42	104 <i>72-138</i>	0.748	
24	24 13C-OCDD	9.26e4	0.90	NO	0.660	1.000	40.633	40.84	1.219	1.226	204.70	102 <i>48-207</i>	0.552	
25	25 13C-2,3,7,8-TCDF	1.41e5	0.77	NO	1.09	1.000	25.321	25.59	0.990	1.001	95.387	95.4 <i>71-140</i>	0.354	
26	26 13C-1,2,3,7,8-PeCDF	1.01e5	1.66	NO	0.857	1.000	29.559	29.36	1.156	1.148	86.807	86.8 <i>76-130</i>	0.279	
27	27 13C-2,3,4,7,8-PeCDF	9.16e4	1.69	NO	0.796	1.000	30.461	30.31	1.191	1.185	84.859	84.9 <i>77-130</i>	0.300	
28	28 13C-1,2,3,4,7,8-HxCDF	6.99e4	0.47	NO	1.02	1.000	32.923	32.87	0.988	0.987	99.908	99.9 <i>76-131</i>	0.789	
29	29 13C-1,2,3,6,7,8-HxCDF	6.82e4	0.50	NO	1.00	1.000	33.056	33.01	0.992	0.991	99.177	99.2 <i>70-143</i>	0.802	
30	30 13C-2,3,4,6,7,8-HxCDF	6.35e4	0.50	NO	0.936	1.000	33.626	33.67	1.009	1.010	98.962	99.0 <i>73-137</i>	0.860	
31	31 13C-1,2,3,7,8,9-HxCDF	5.91e4	0.50	NO	0.889	1.000	34.702	34.72	1.041	1.042	96.982	97.0 <i>74-135</i>	0.904	

Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:50:54 Pacific Daylight Time

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	5.75e4	0.42	NO	0.849	1.000	36.222	36.37	1.087	1.092	98.770	98.8 <del>78-129</del>	0.702	
33	13C-1,2,3,4,7,8,9-HpCDF	4.22e4	0.44	NO	0.624	1.000	38.221	38.22	1.147	1.147	98.736	98.7 <del>77-129</del>	0.957	
34	13C-OCDF	9.75e4	0.85	NO	0.693	1.000	40.787	41.16	1.224	1.235	205.13	103 <del>48-207</del>	0.601	
35	37Cl-2,3,7,8-TCDD	9.55e3			1.28	1.000	26.239	26.25	1.026	1.026	9.8452	98.5 <del>79-127</del>	0.0762	
36	13C-1,2,3,4-TCDD	7.60e4	0.79	NO	1.00	1.000	25.550	25.58	1.000	1.000	100.00	100	0.484	
37	13C-1,2,3,4-TCDF	1.36e5	0.81	NO	1.00	1.000	24.250	24.29	1.000	1.000	100.00	100	0.385	
38	13C-1,2,3,4,6,9-HxCDF	6.86e4	0.50	NO	1.00	1.000	33.300	33.32	1.000	1.000	100.00	100	0.804	

Dataset: Untitled

Last Altered: Friday, August 21, 2020 10:52:28 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:52:54 Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\CPSM.mdb 21 Aug 2020 10:22:49

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	Name	RT
1	1,3,6,8-TCDD (First)	22.99
2	1,2,8,9-TCDD (Last)	27.04
3	1,2,4,7,9-PeCDD (First)	28.45
4	1,2,3,8,9-PeCDD (Last)	30.85
5	1,2,4,6,7,9-HxCDD (First)	32.14
6	1,2,3,7,8,9-HxCDD (Last)	34.22
7	1,2,3,4,6,7,9-HpCDD (First)	36.70
8	1,2,3,4,6,7,8-HpCDD (Last)	37.57
9	1,3,6,8-TCDF (First)	20.99
10	1,2,8,9-TCDF (Last)	27.30
11	1,3,4,6,8-PeCDF (First)	26.97
12	1,2,3,8,9-PeCDF (Last)	31.17
13	1,2,3,4,6,8-HxCDF (First)	31.61
14	1,2,3,7,8,9-HxCDF (Last)	34.73
15	1,2,3,4,6,7,8-HpCDF (First)	36.38
16	1,2,3,4,7,8,9-HpCDF (Last)	38.24

Dataset: Untitled

Last Altered: Friday, August 21, 2020 10:53:10 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:53:23 Pacific Daylight Time

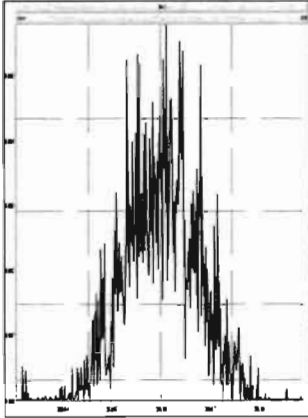
Method: C:\MassLynx\Default.pro\Methdb\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

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

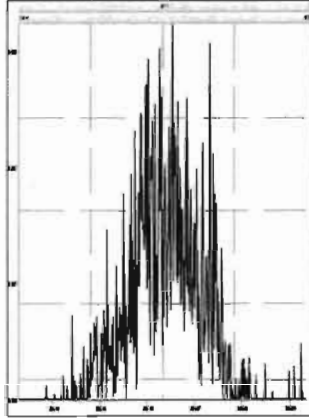
	Name	ID	Acq.Date	Acq.Time
1	200820D2_1	SOLVENT BLANK	21-Aug-20	01:55:38
2	200820D2_2	ST200820D2-1 1613 CS3 20F1105	21-Aug-20	02:40:50
3	200820D2_3	SOLVENT BLANK	21-Aug-20	03:26:18
4	200820D2_4	2001131-06 PDI-166SC-A-04-05-200520 12.34	21-Aug-20	04:11:45
5	200820D2_5	2001131-07 PDI-166SC-A-05-06-200520 12.59	21-Aug-20	04:57:13
6	200820D2_6	2001131-08 PDI-166SC-A-06-07-200520 15.11	21-Aug-20	05:42:41
7	200820D2_7	2001131-09 PDI-166SC-A-07-08-200520 25.47	21-Aug-20	06:28:08

Printed: Friday, August 21, 2020 01:55:25 Pacific Daylight Time

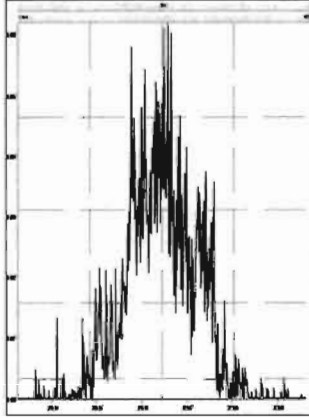
M 292.9824 R 11940



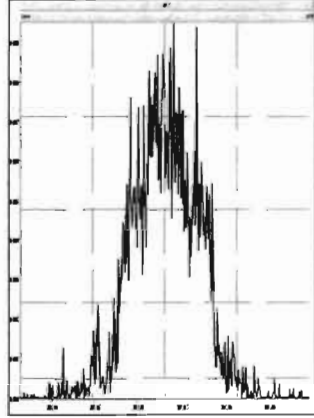
M 304.9824 R 15565



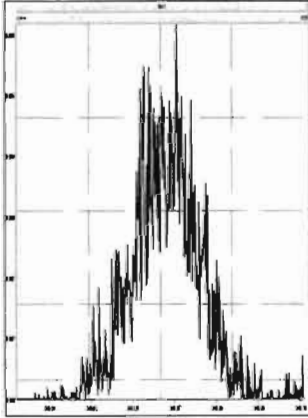
M 318.9792 R 11499



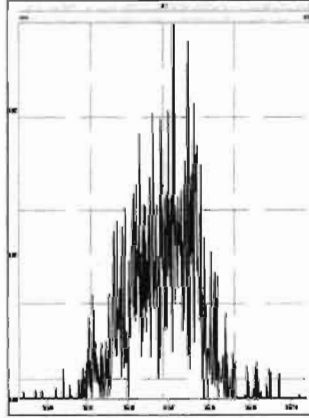
M 330.9792 R 12347



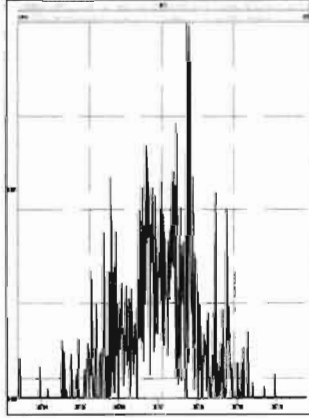
M 342.9792 R 12228



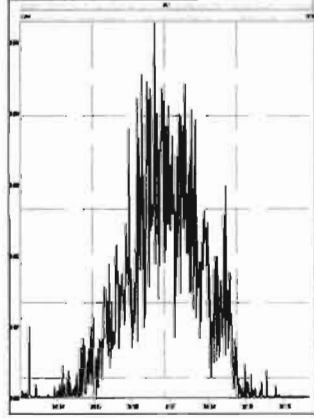
M 354.9792 R 20950



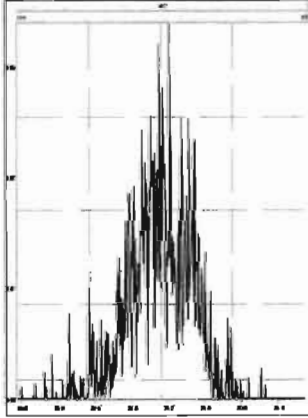
M 366.9792 R 31507



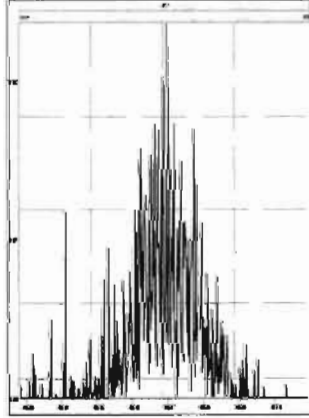
M 380.9760 R 12548



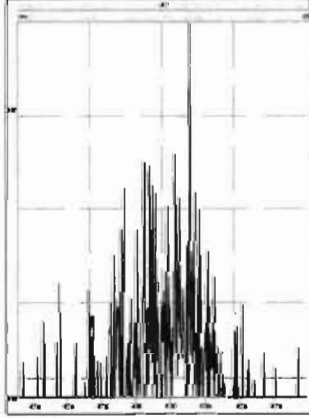
M 392.9760 R 16563



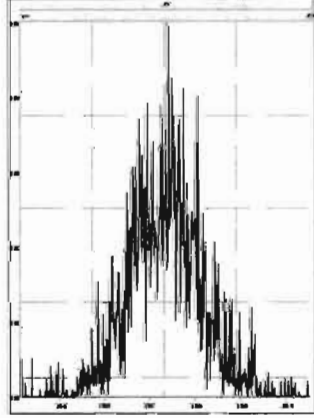
M 404.9760 R 23328



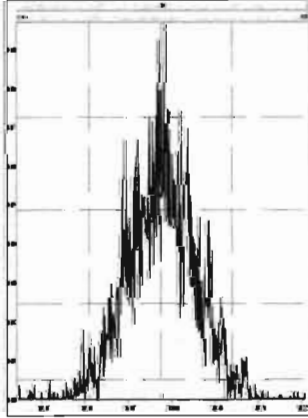
M 416.9760 R 281249



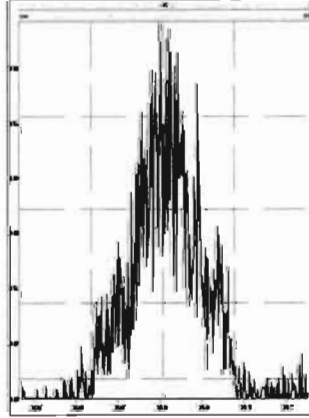
M 318.9792 R 13420



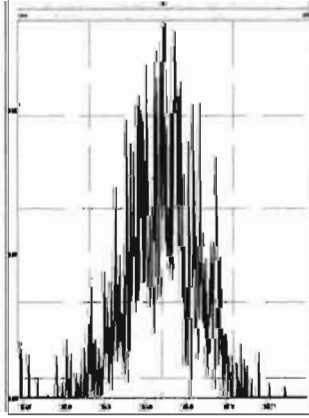
M 330.9792 R 11312



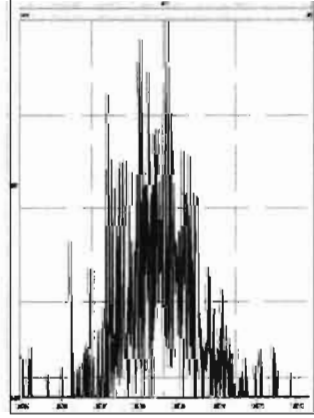
M 342.9792 R 11491



M 354.9792 R 21623

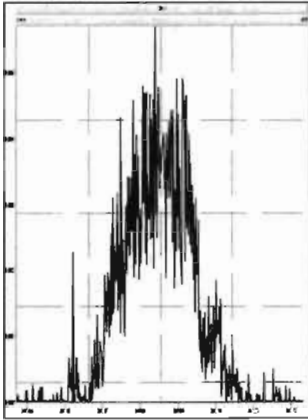


M 366.9792 R 41743

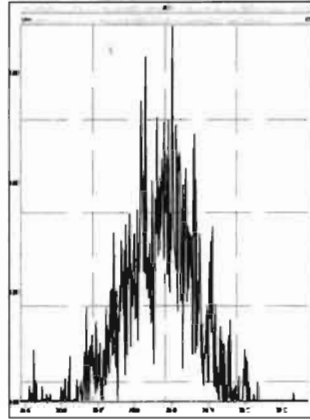




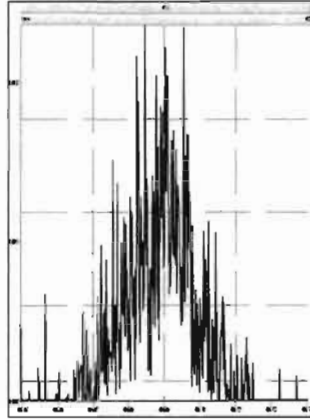
M 380.9760 R 11823



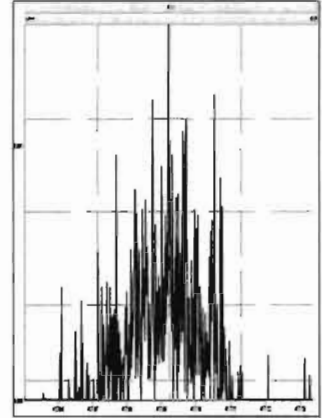
M 392.9760 R 13888



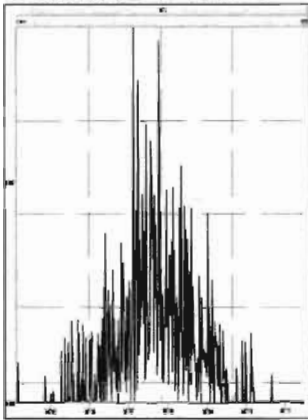
M 404.9760 R 19364



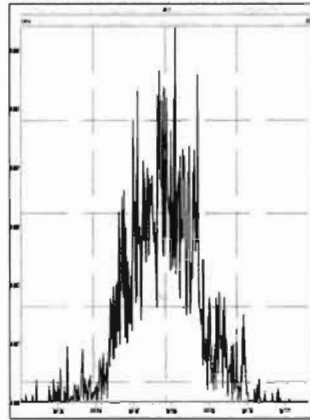
M 416.9760 R 85358



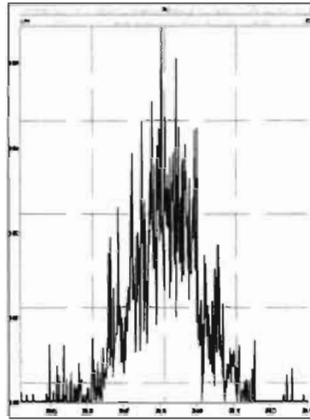
M 366.9792 R 106176



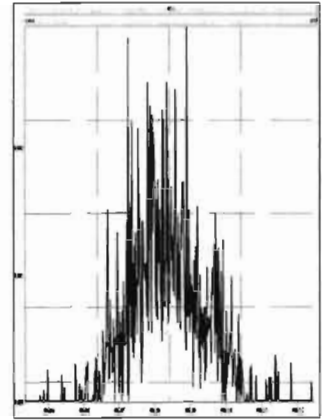
M 380.9760 R 11740



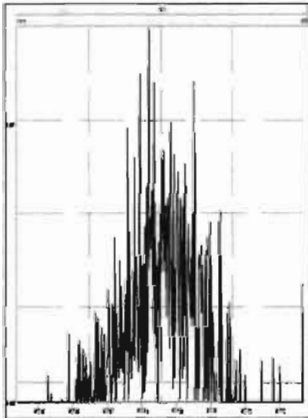
M 392.9760 R 14289



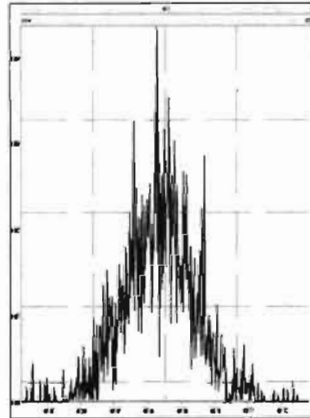
M 404.9760 R 16097



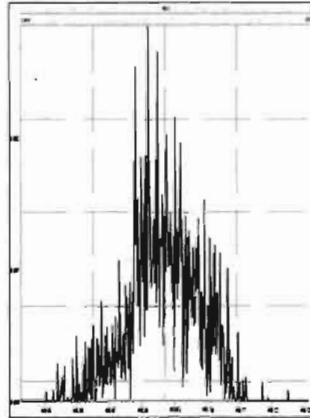
M 416.9760 R 82894



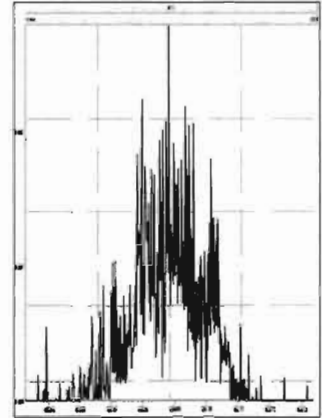
M 430.9728 R 13813



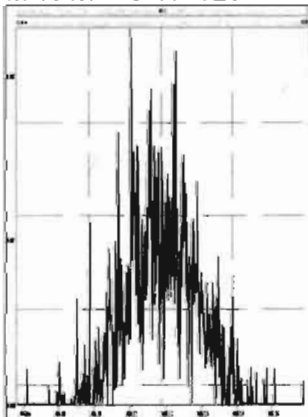
M 442.9728 R 17380



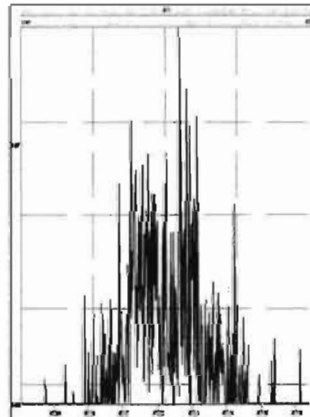
M 454.9728 R 15551



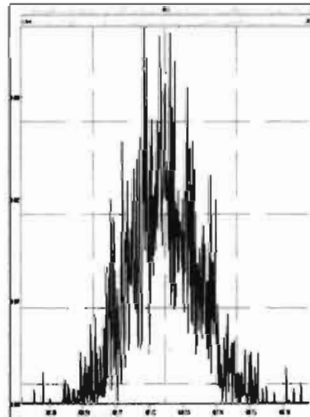
M 404.9760 R 19204



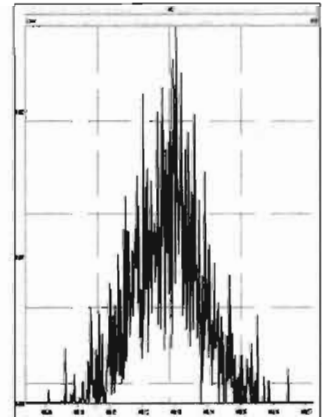
M 416.9760 R 88675



M 430.9728 R 13519

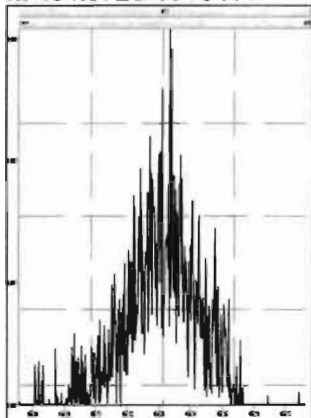


M 442.9728 R 15196

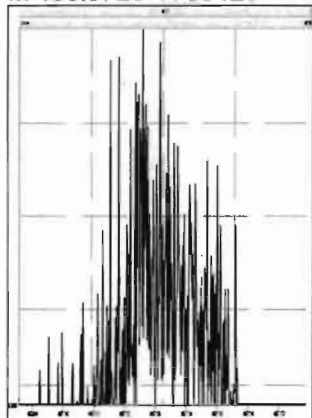


Printed: Friday, August 21, 2020 01:55:25 Pacific Daylight Time

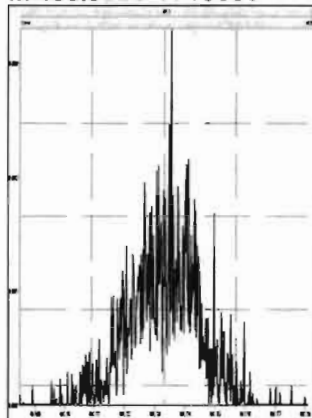
M 454.9728 R 15411



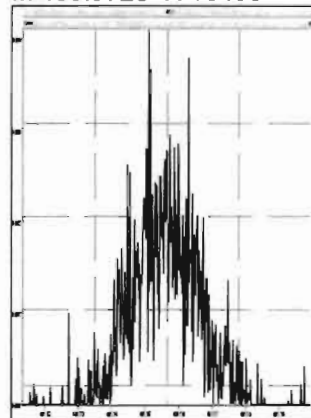
M 466.9728 R 83425



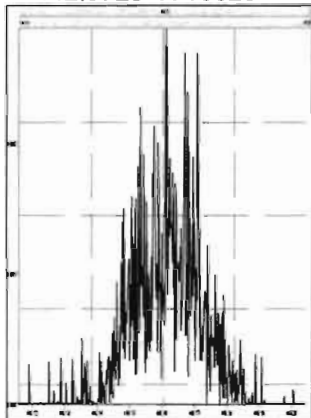
M 480.9696 R 15605



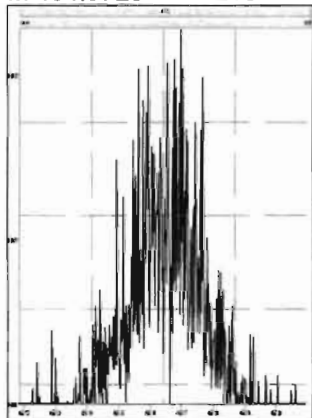
M 430.9728 R 13498



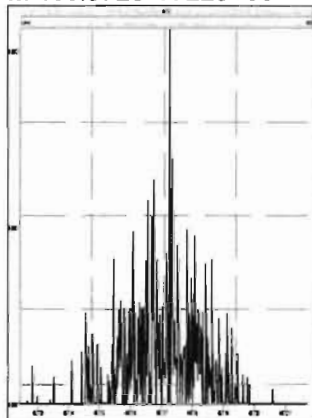
M 442.9728 R 15528



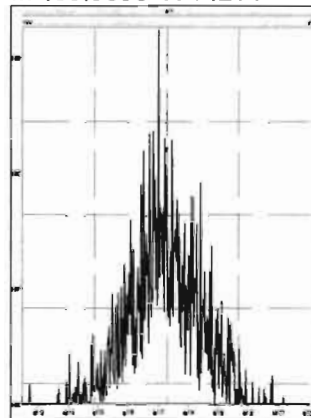
M 454.9728 R 24210



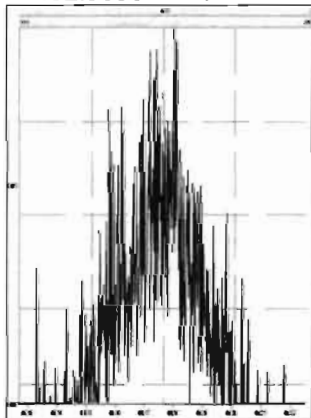
M 466.9728 R 229166



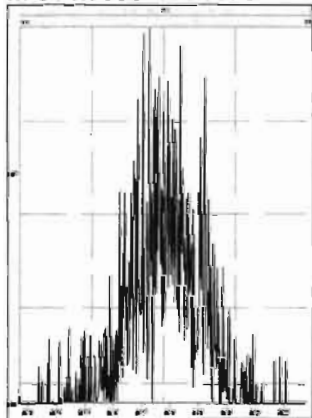
M 480.9696 R 14214



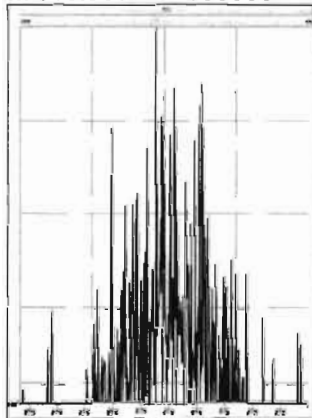
M 492.9696 R 21367

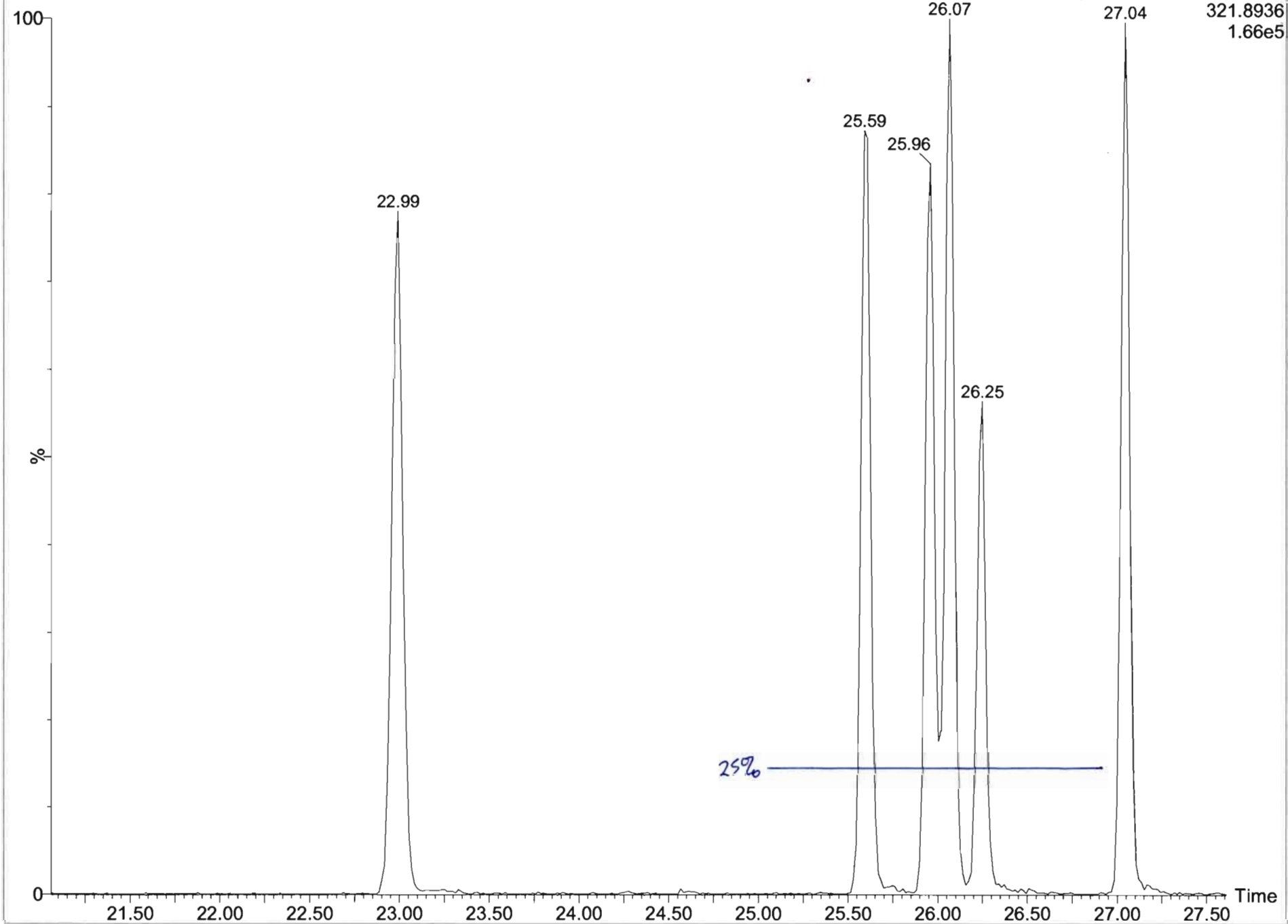


M 504.9696 R 26670



M 516.9697 R 166666





Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time

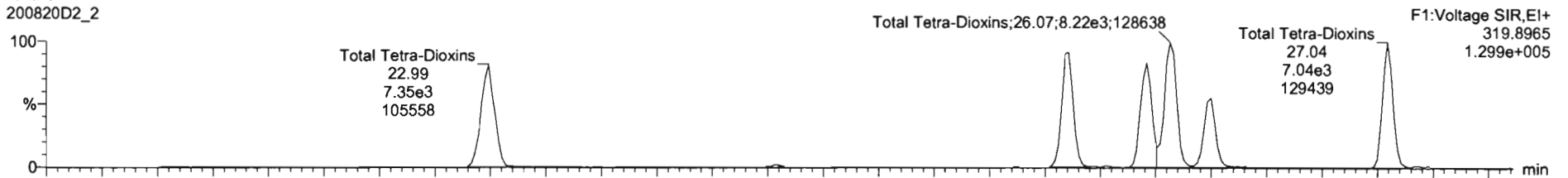
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

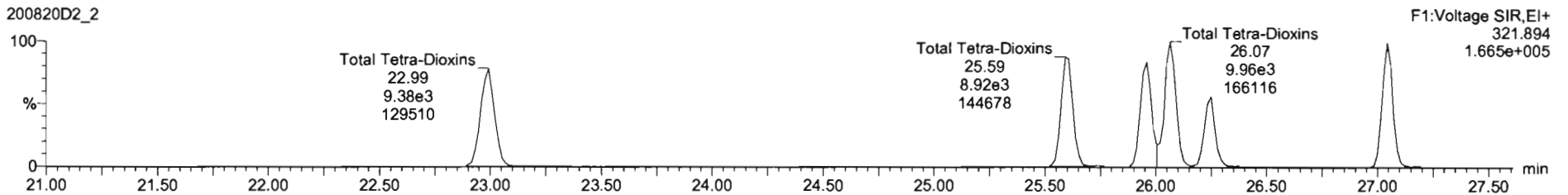
Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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

200820D2\_2

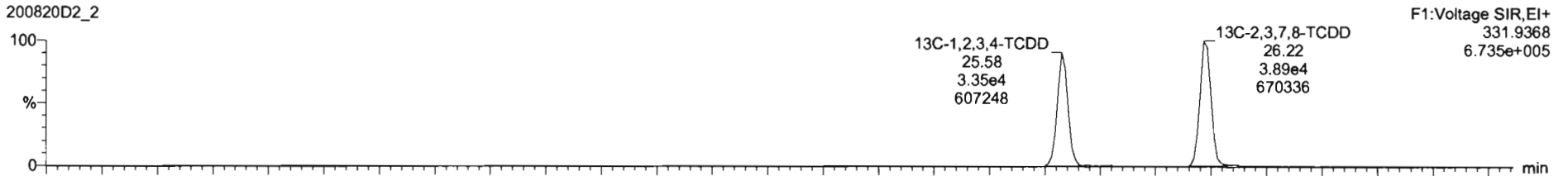


200820D2\_2

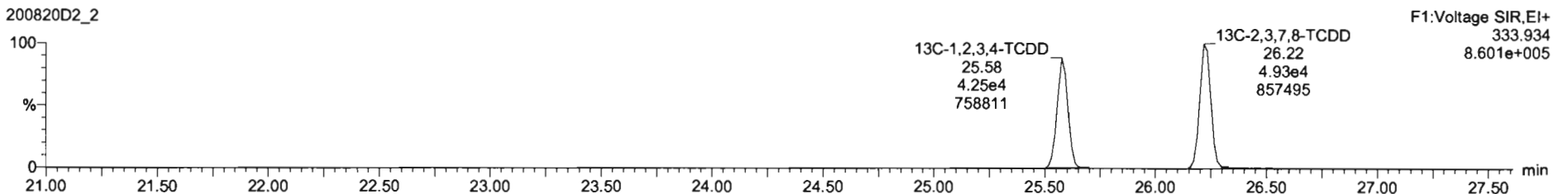


**13C-2,3,7,8-TCDD**

200820D2\_2



200820D2\_2



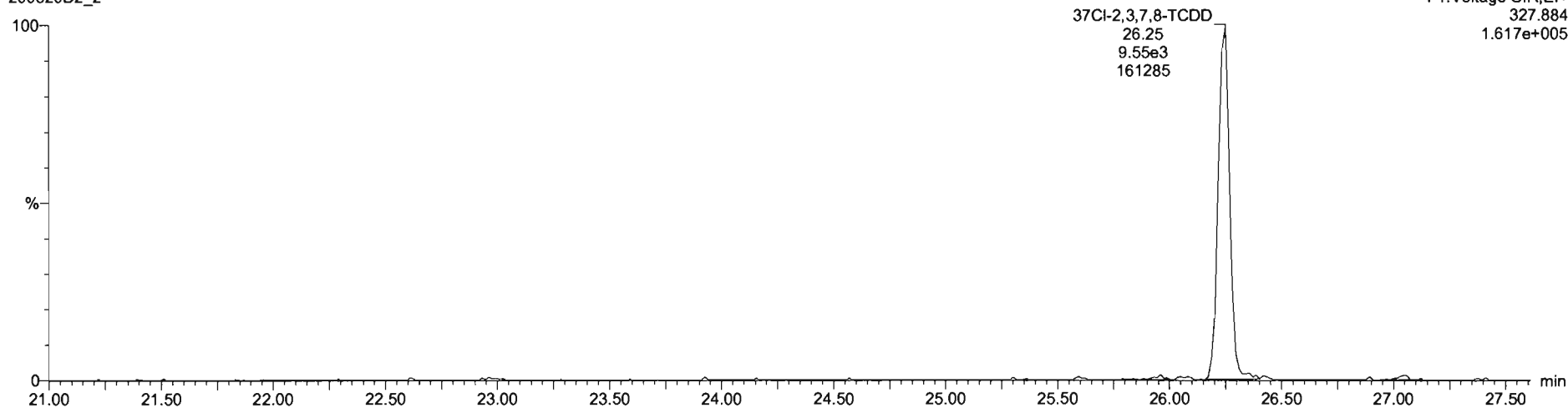
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

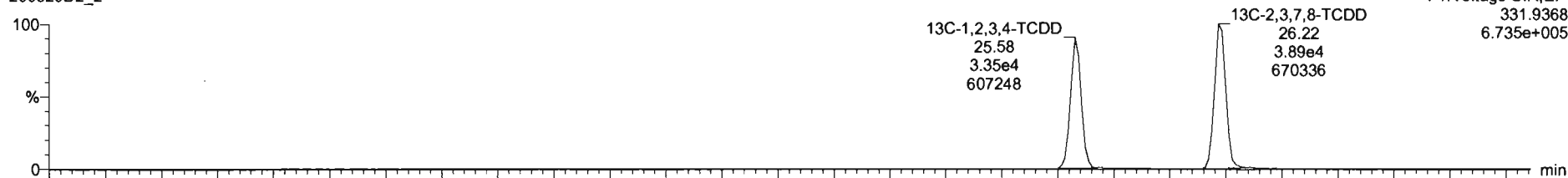
37Cl-2,3,7,8-TCDD

200820D2\_2

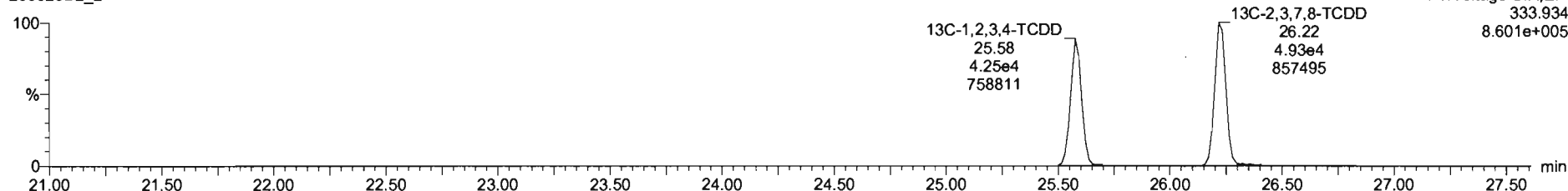


13C-1,2,3,4-TCDD

200820D2\_2



200820D2\_2



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

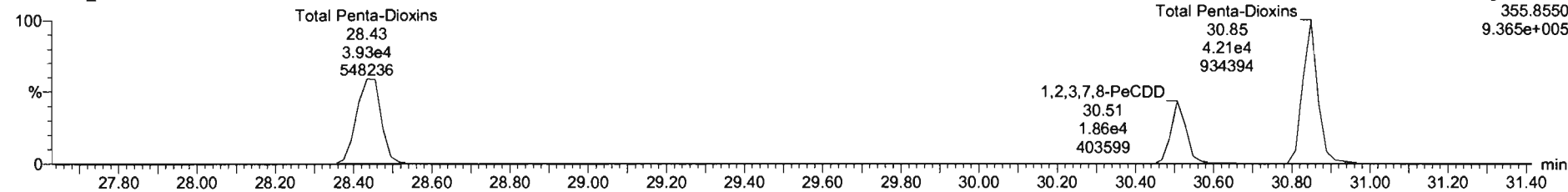
Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1,2,3,7,8-PeCDD

200820D2\_2

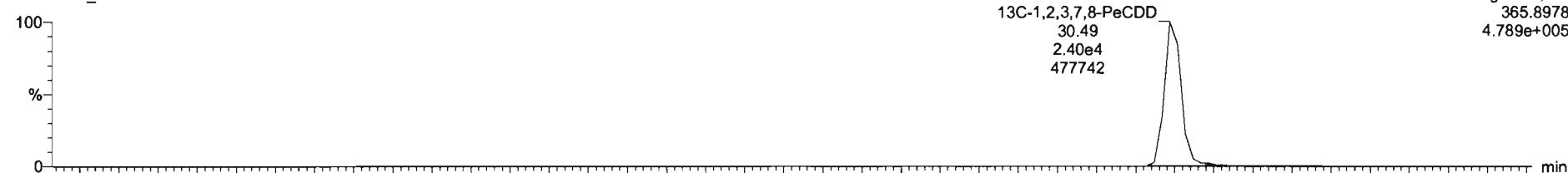


200820D2\_2

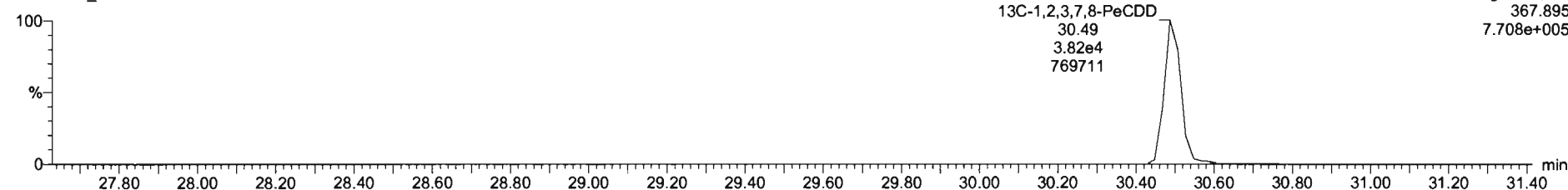


13C-1,2,3,7,8-PeCDD

200820D2\_2



200820D2\_2

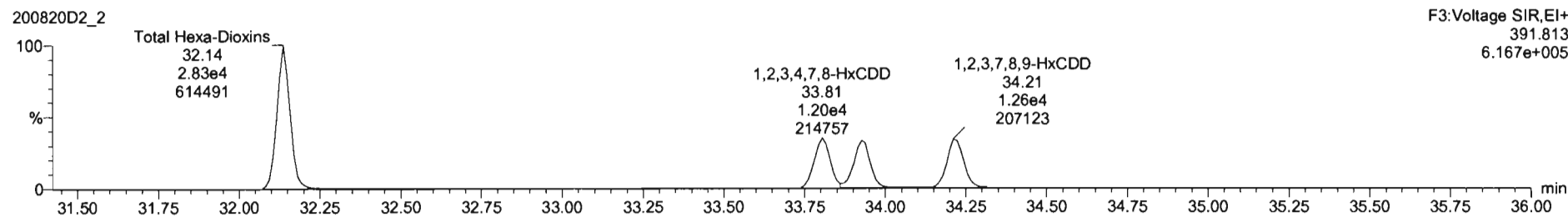
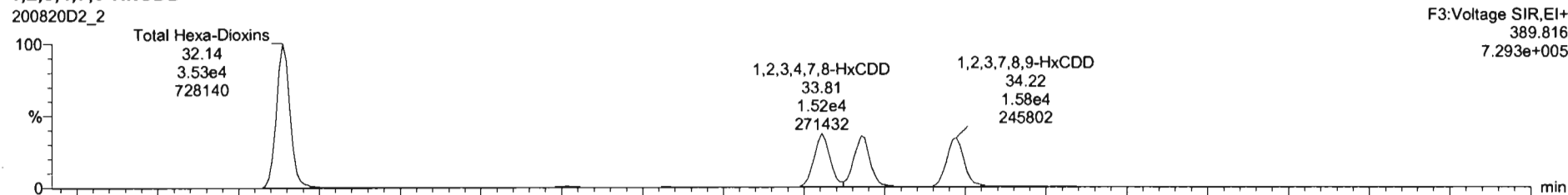


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

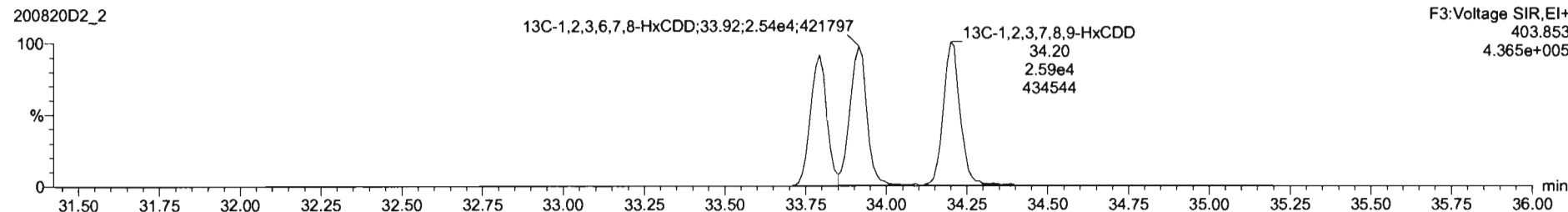
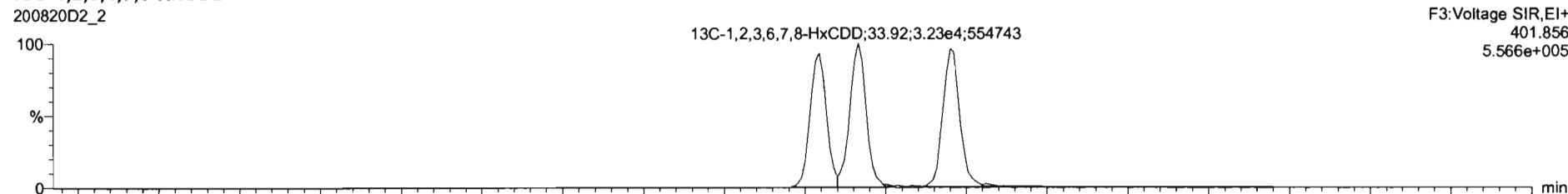
Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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



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



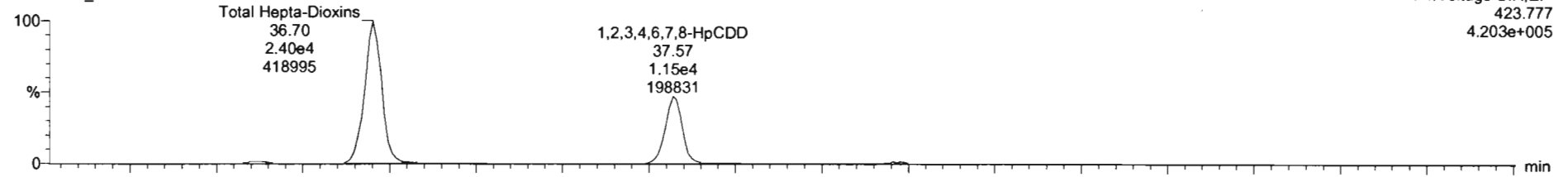
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

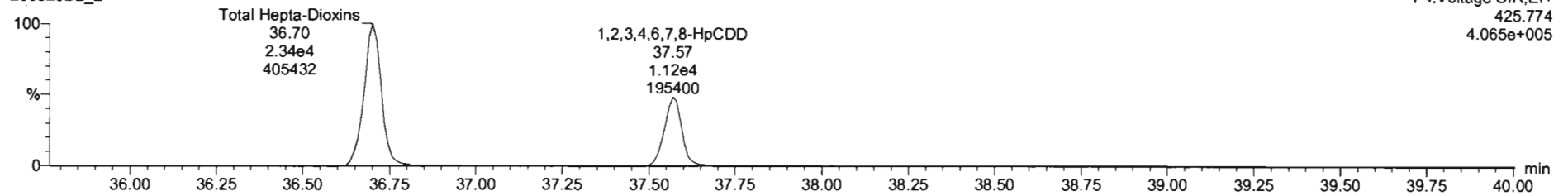
Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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

200820D2\_2

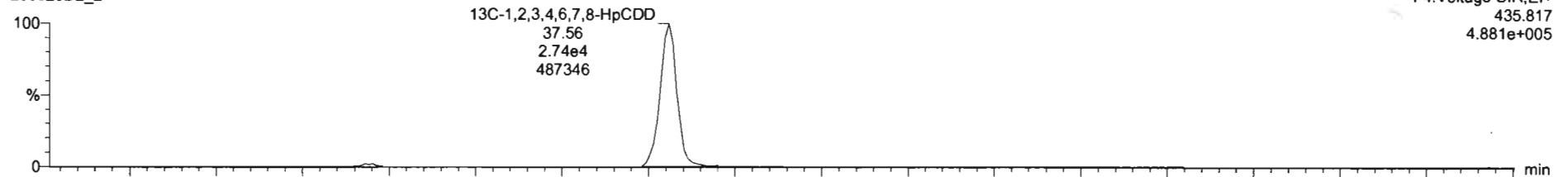


200820D2\_2

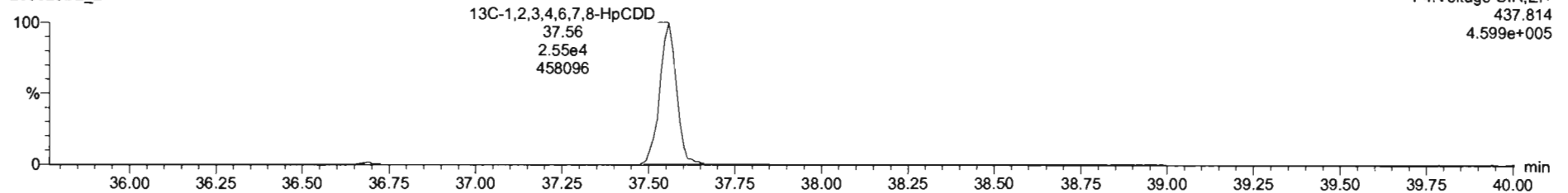


13C-1,2,3,4,6,7,8-HpCDD

200820D2\_2



200820D2\_2





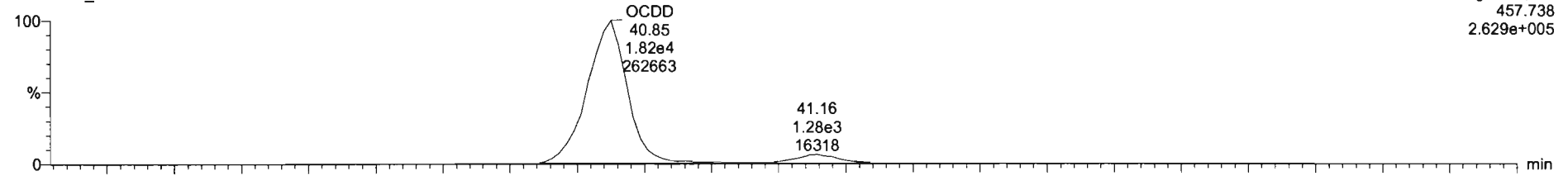
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

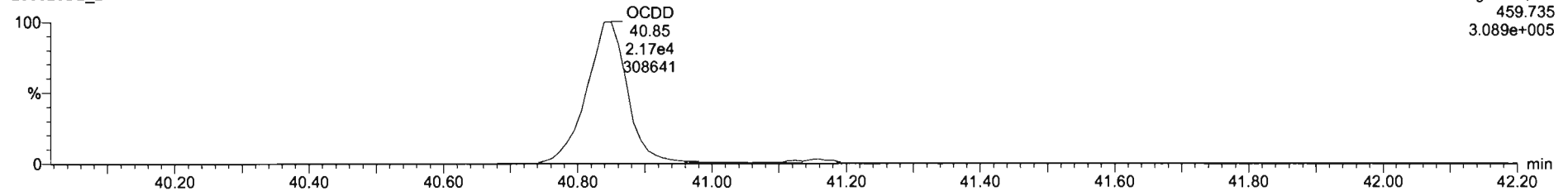
Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

**OCDD**

200820D2\_2

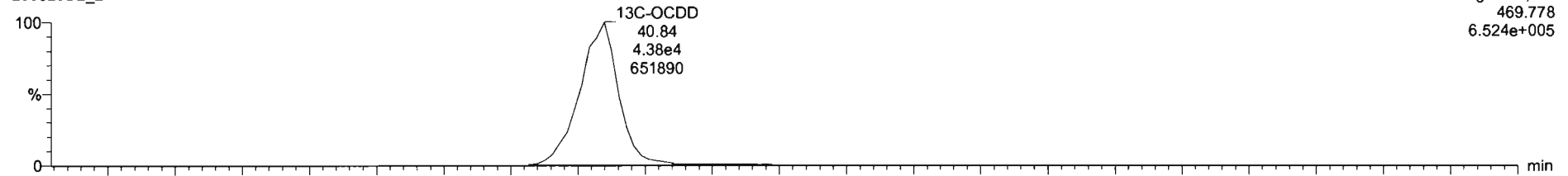


200820D2\_2

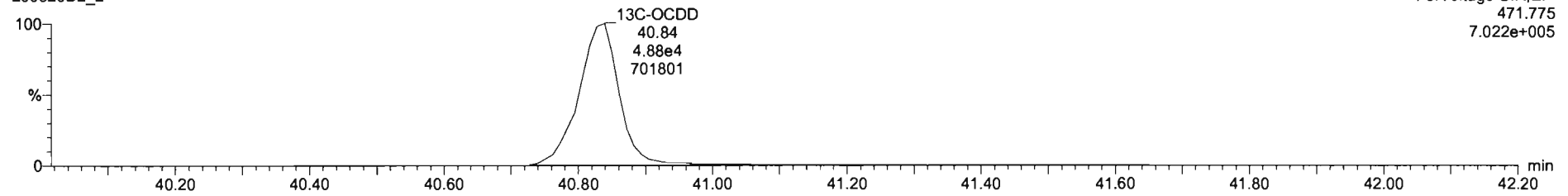


**13C-OCDD**

200820D2\_2



200820D2\_2



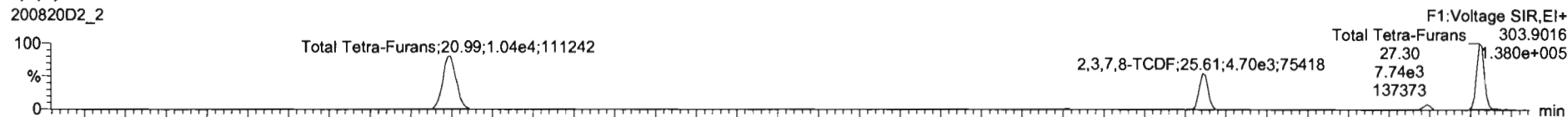
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

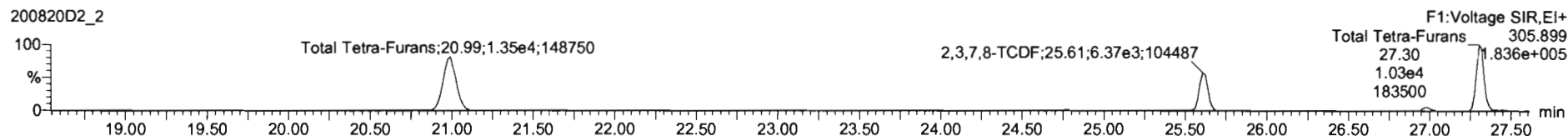
Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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

200820D2\_2

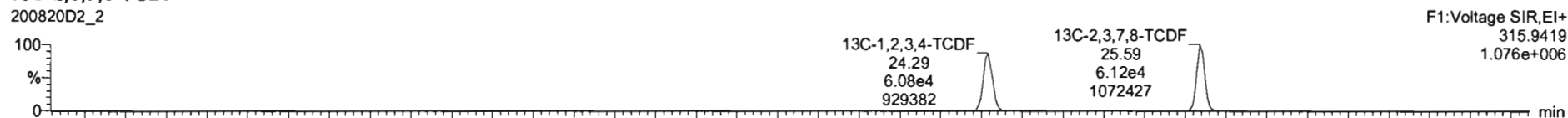


200820D2\_2

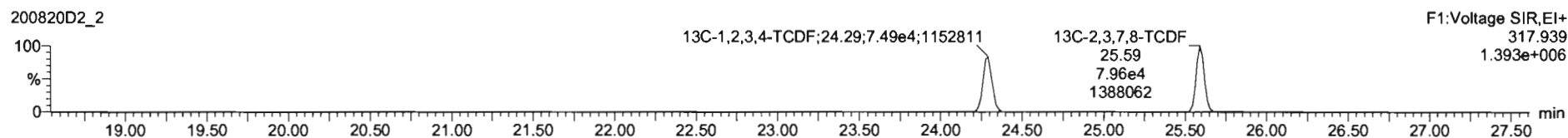


**13C-2,3,7,8-TCDF**

200820D2\_2

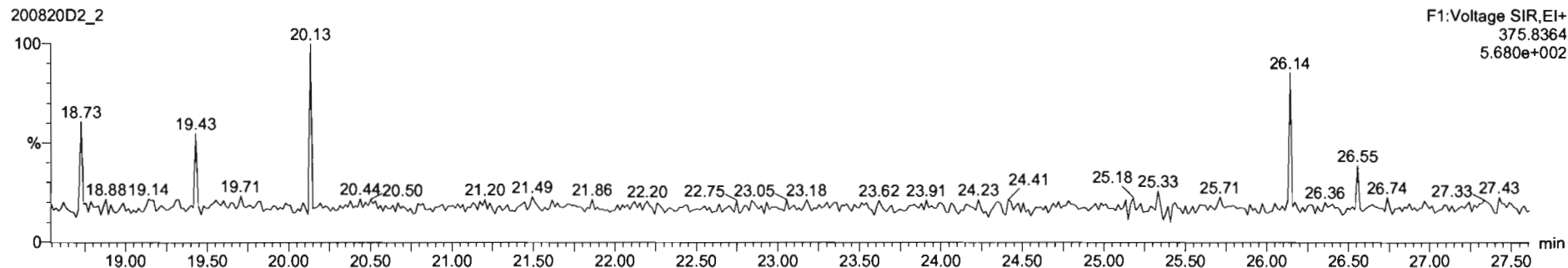


200820D2\_2



**DPE1**

200820D2\_2



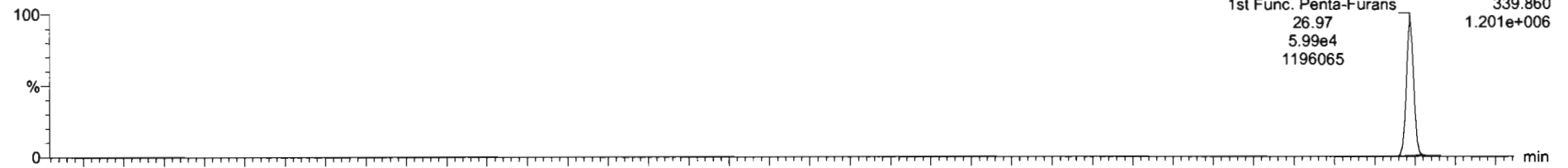
Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

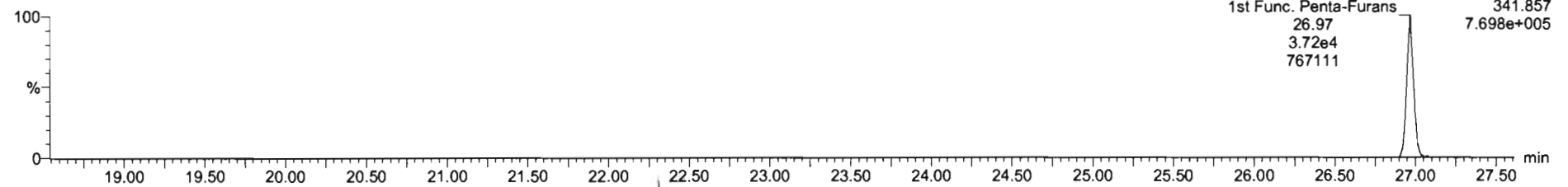
Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1st Func. Penta-Furans

200820D2\_2

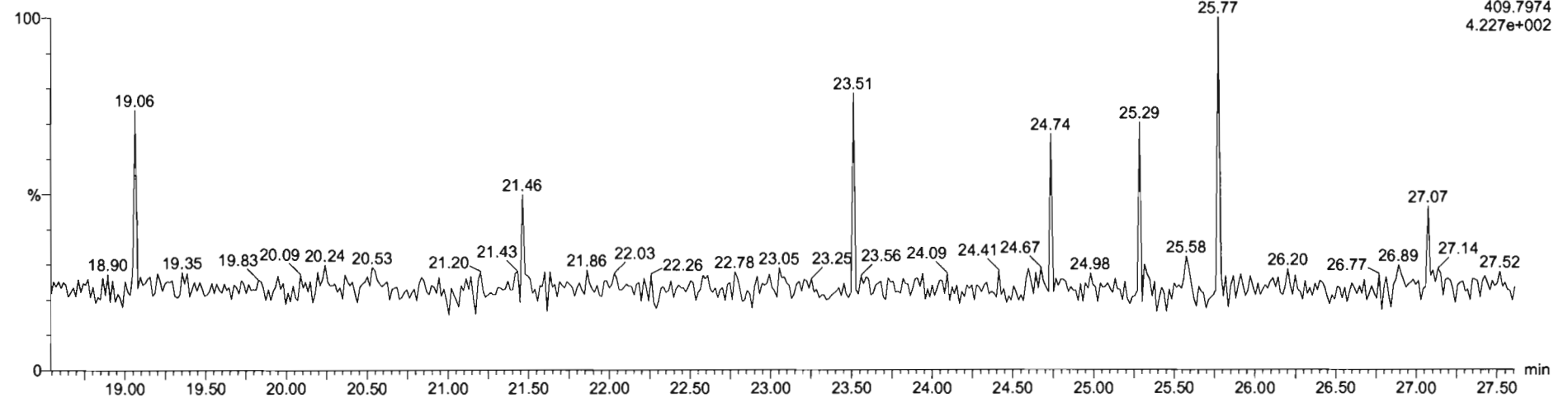


200820D2\_2



DPE6

200820D2\_2

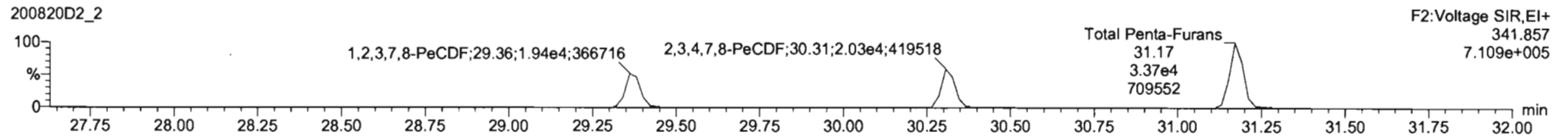
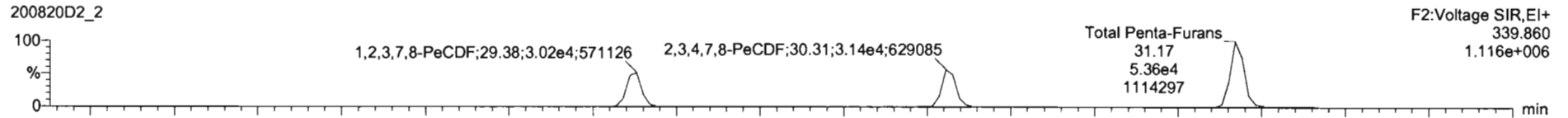


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

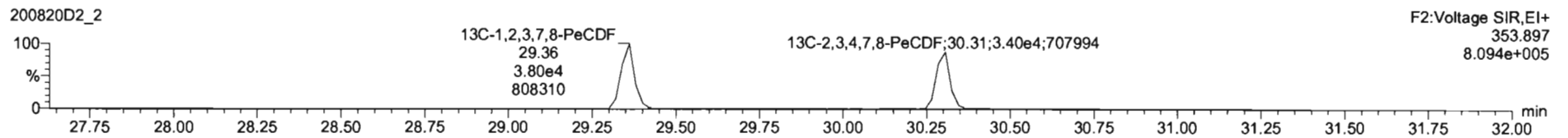
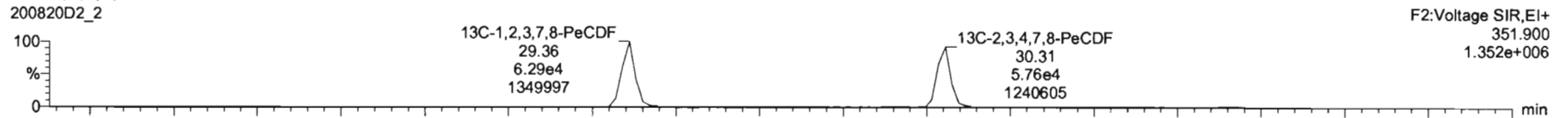
Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

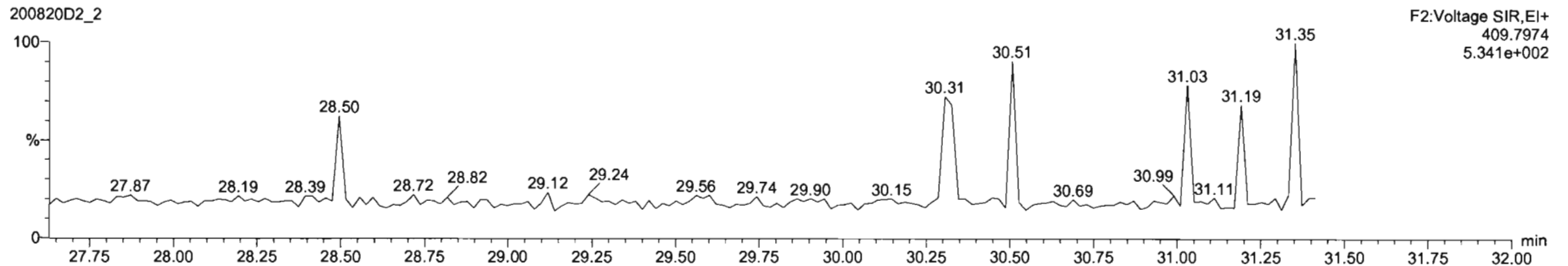
**1,2,3,7,8-PeCDF**



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



**DPE2**

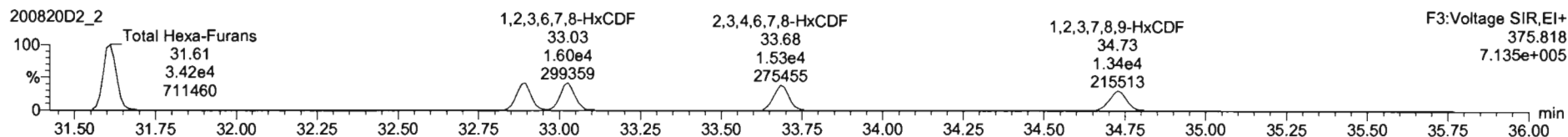
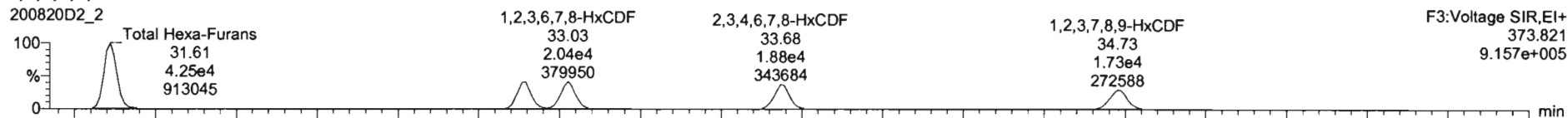


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

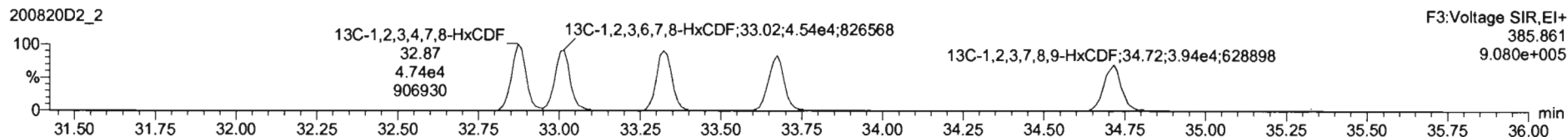
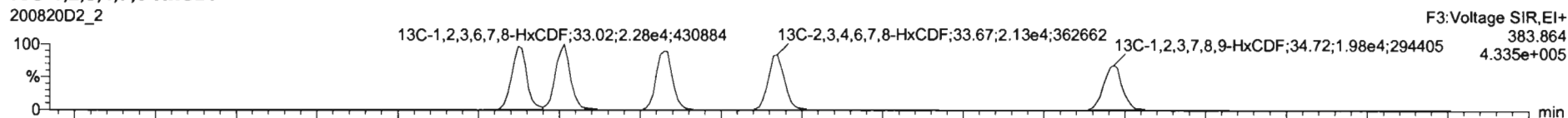
Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

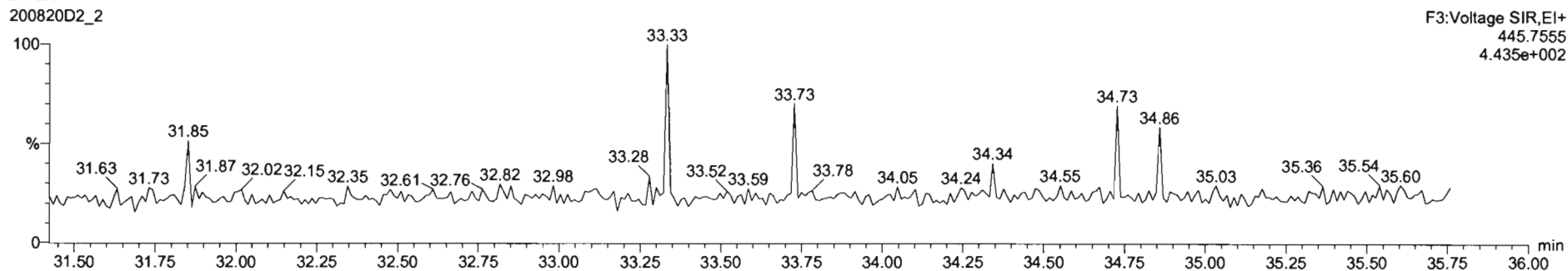
1,2,3,4,7,8-HxCDF



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



DPE3

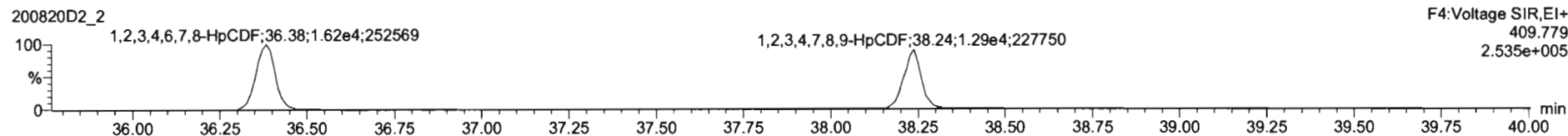
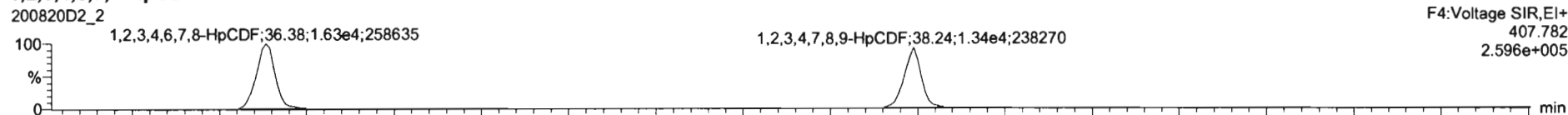


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

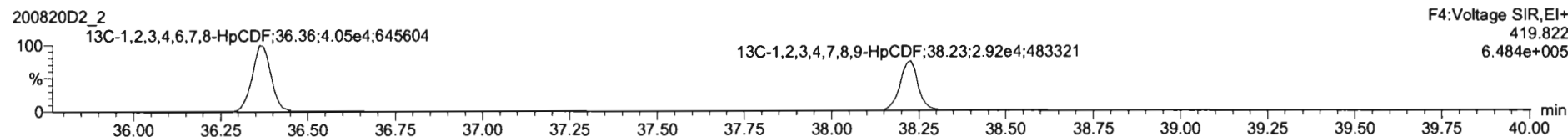
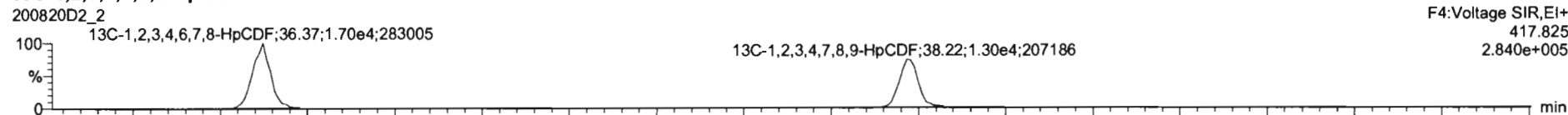
Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

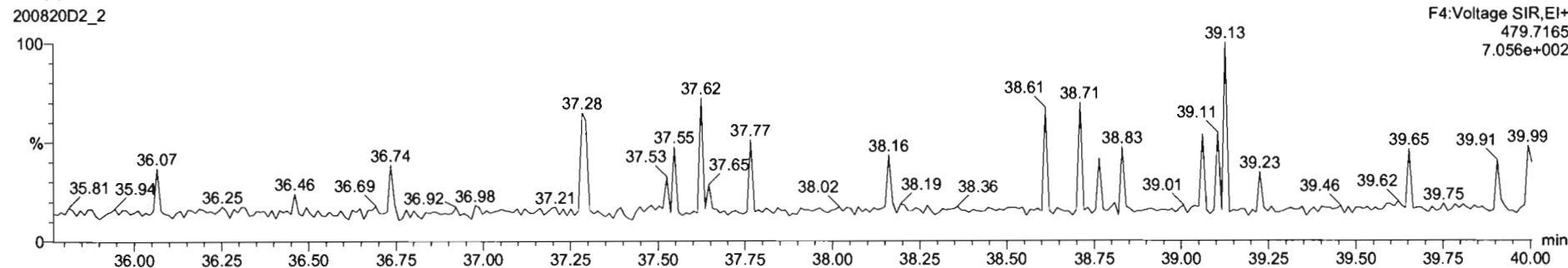
**1,2,3,4,6,7,8-HpCDF**



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



**DPE4**

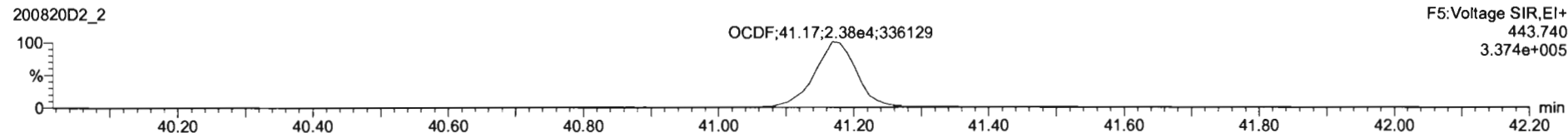
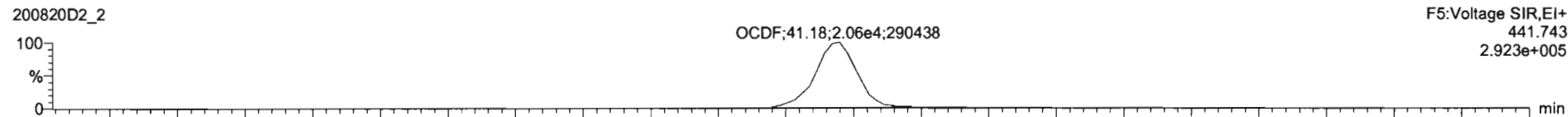


Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

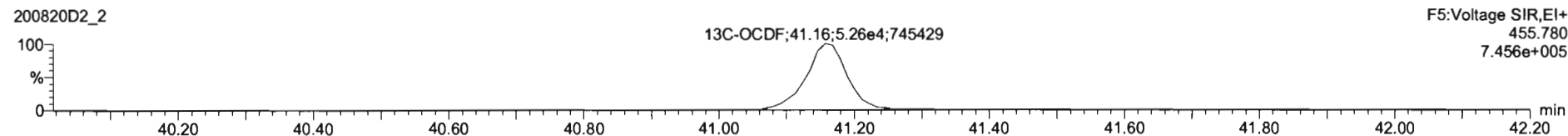
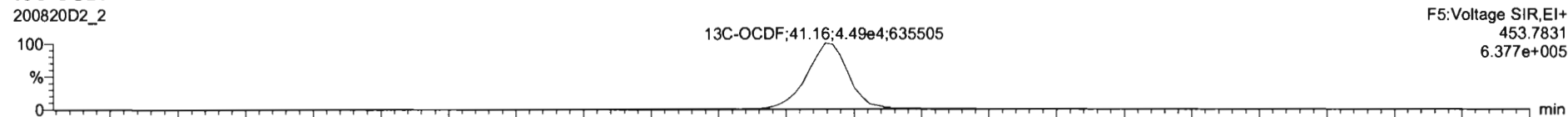
Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

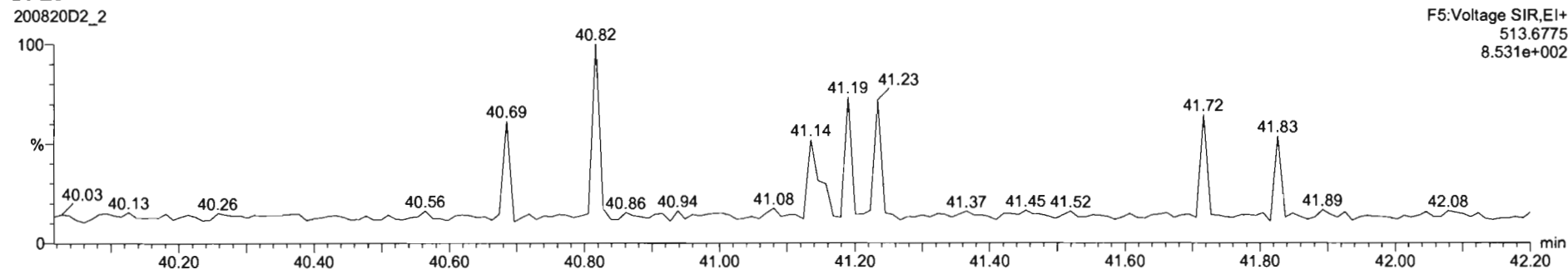
**OCDF**



**13C-OCDF**



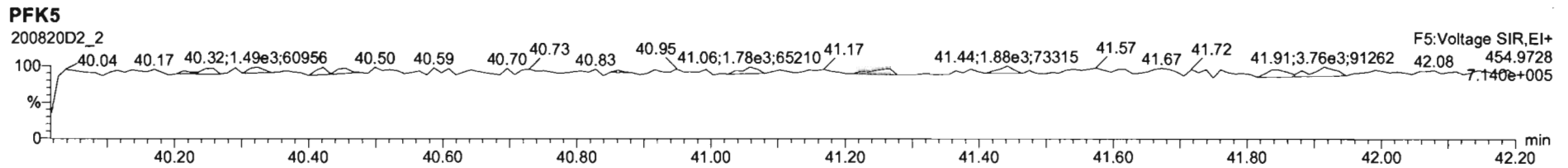
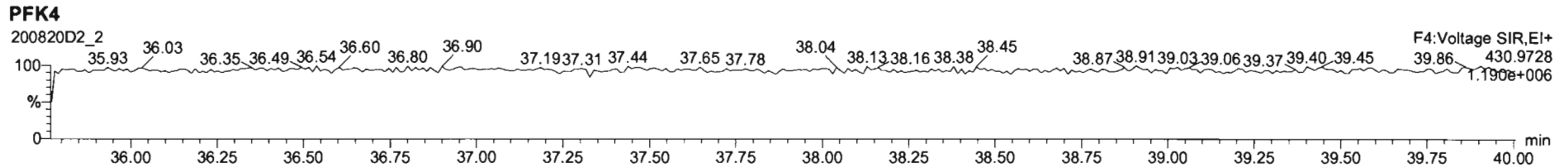
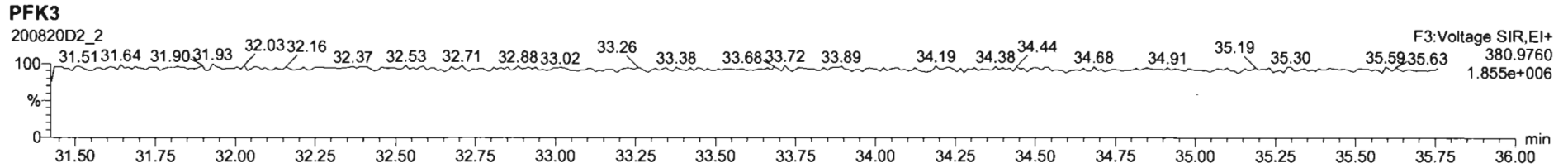
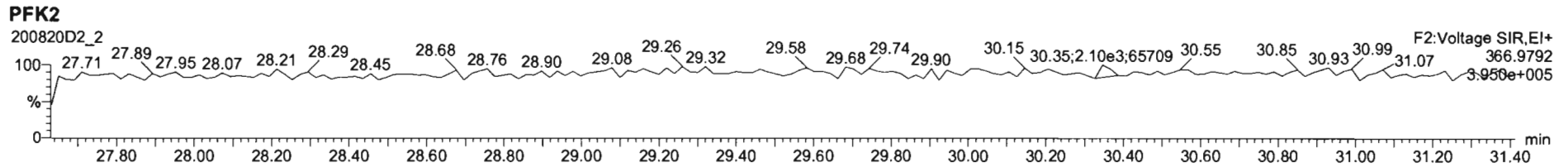
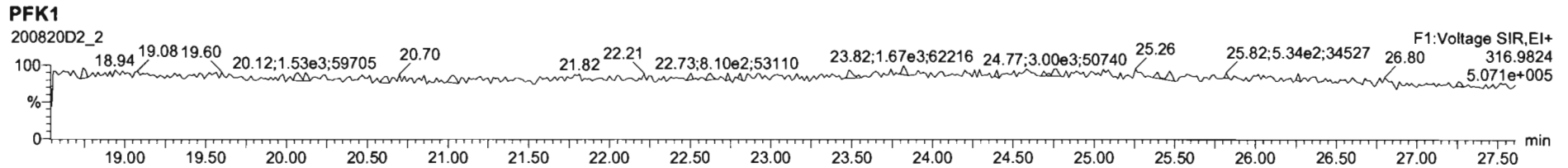
**DPE5**



Dataset: U:\VG7.PRO\Results\200820D2\200820D2\_2.qld

Last Altered: Friday, August 21, 2020 10:42:27 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:43:25 Pacific Daylight Time

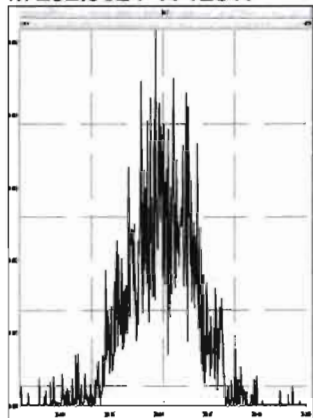
Name: 200820D2\_2, Date: 21-Aug-2020, Time: 02:40:50, ID: ST200820D2-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105



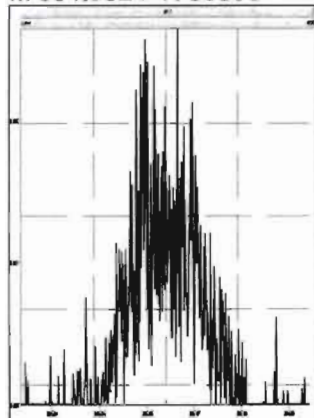


Printed: Friday, August 21, 2020 07:22:16 Pacific Daylight Time

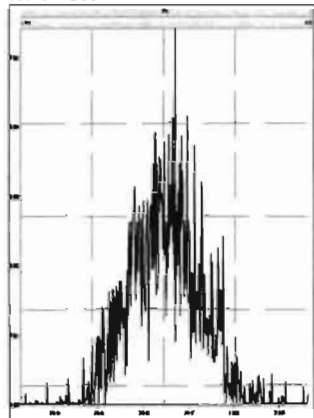
M 292.9824 R 12317



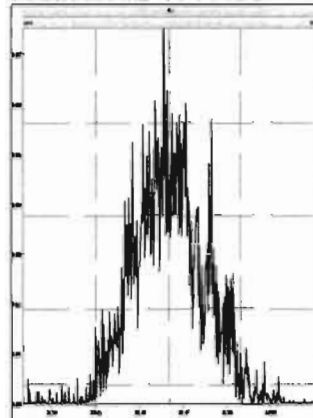
M 304.9824 R 35506



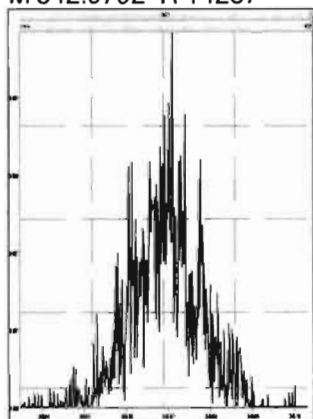
M 318.9792 R 12869



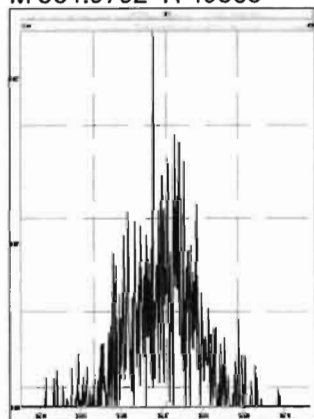
M 330.9792 R 11403



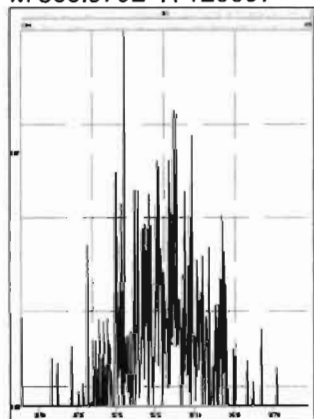
M 342.9792 R 14287



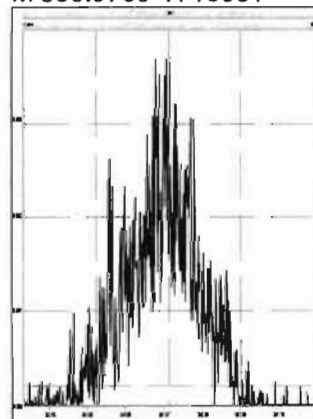
M 354.9792 R 49365



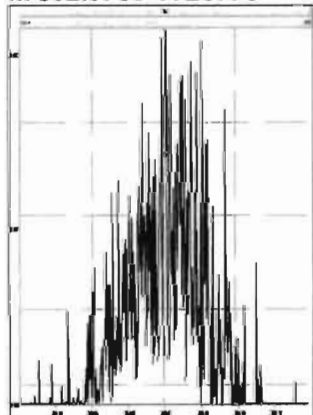
M 366.9792 R 120097



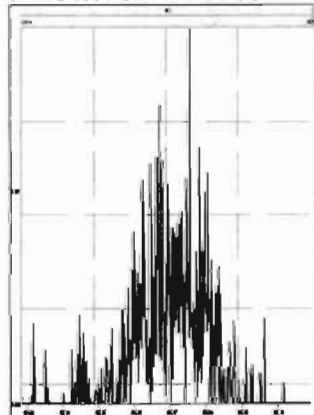
M 380.9760 R 13981



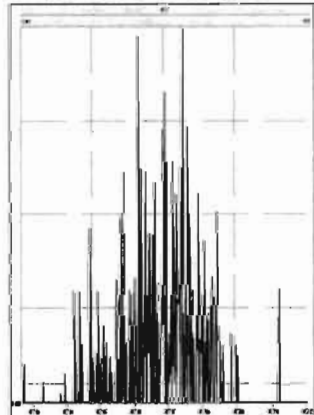
M 392.9760 R 25775



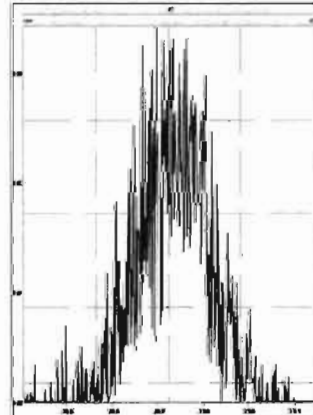
M 404.9760 R 70833



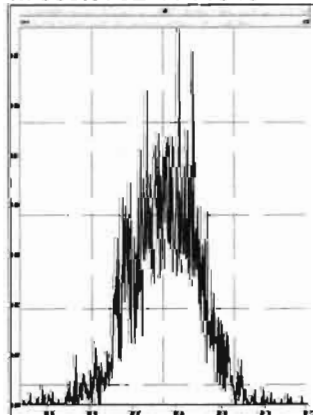
M 416.9760 R 374999



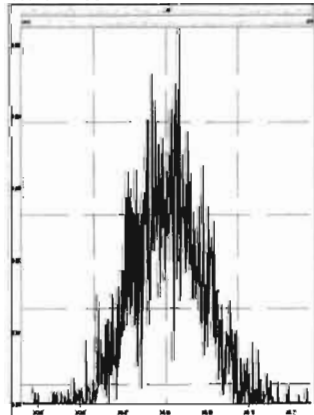
M 318.9792 R 13895



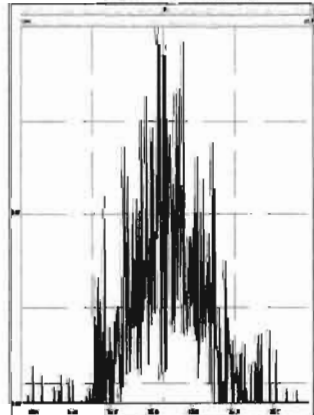
M 330.9792 R 11345



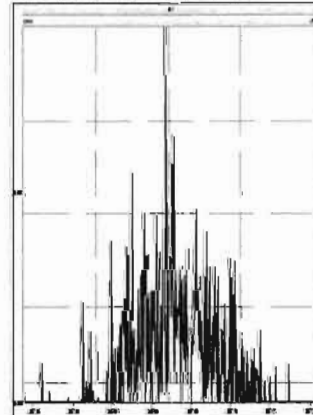
M 342.9792 R 13981



M 354.9792 R 19620

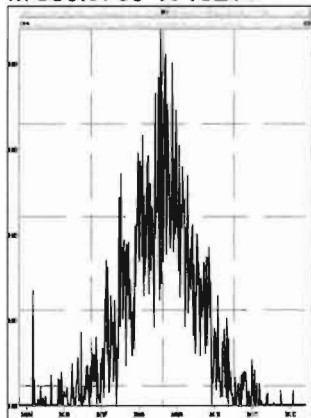


M 366.9792 R 84722

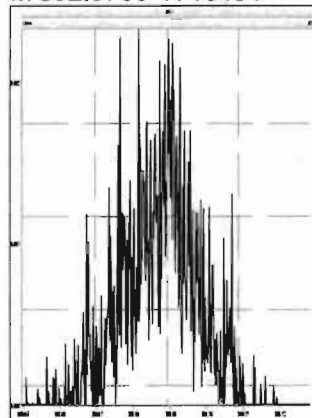


Printed: Friday, August 21, 2020 07:22:16 Pacific Daylight Time

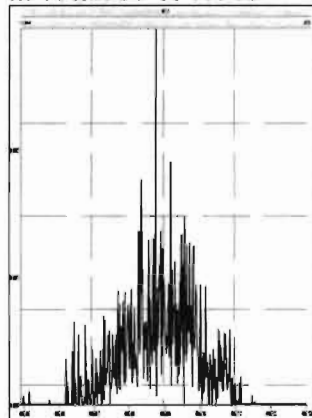
M 380.9760 R 13211



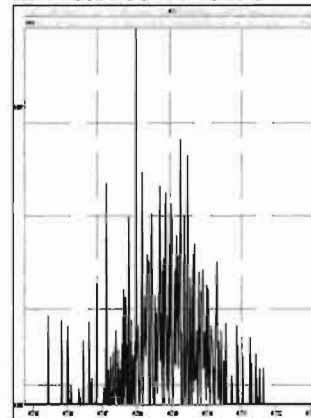
M 392.9760 R 16484



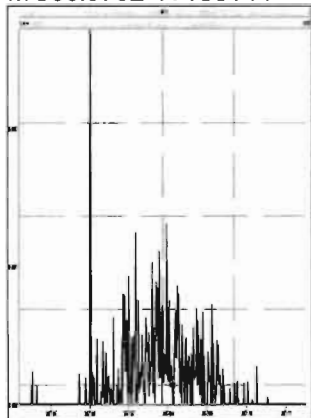
M 404.9760 R 41740



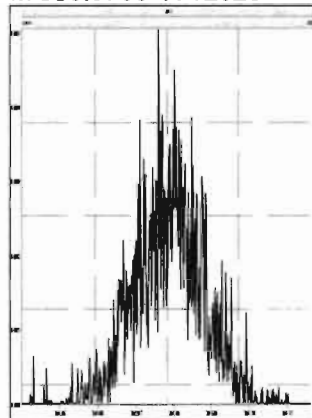
M 416.9760 R 401784



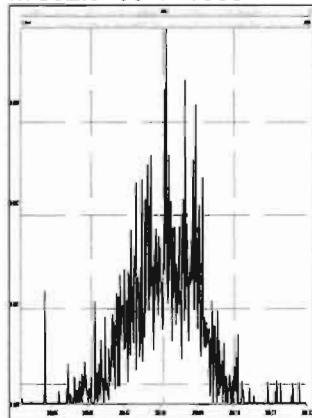
M 366.9792 R 138144



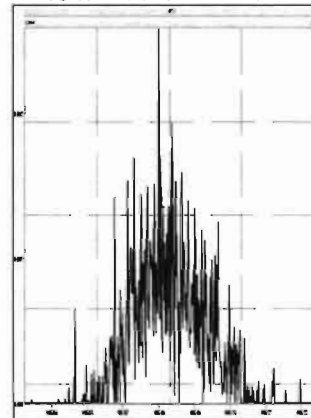
M 380.9760 R 12625



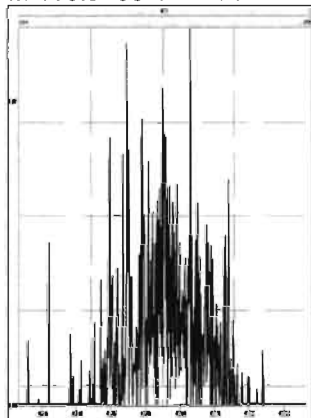
M 392.9760 R 15583



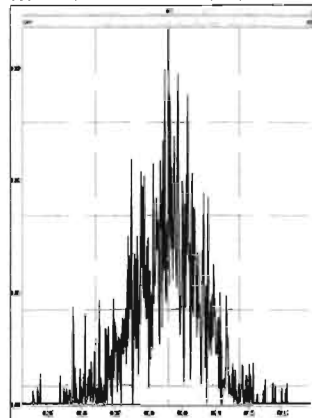
M 404.9760 R 22776



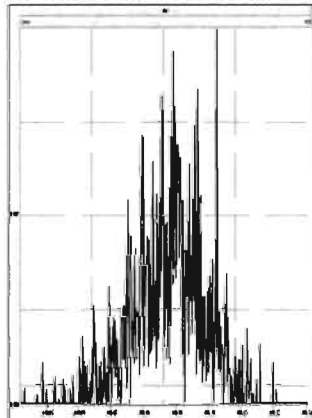
M 416.9760 R 286457



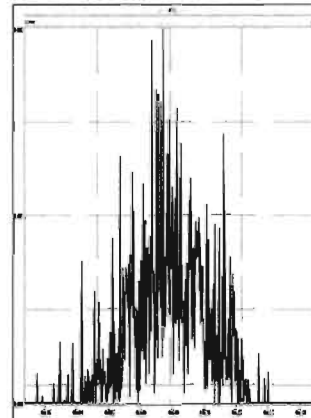
M 430.9728 R 16908



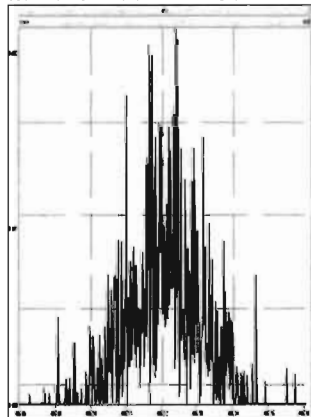
M 442.9728 R 24167



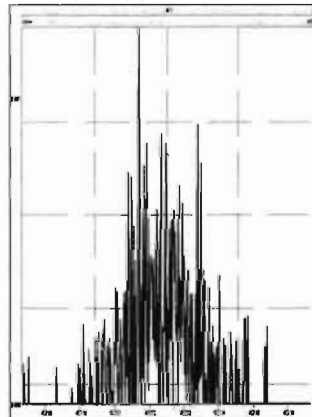
M 454.9728 R 52718



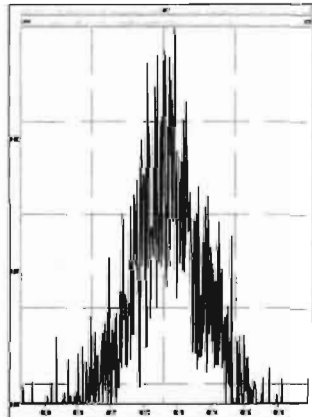
M 404.9760 R 42568



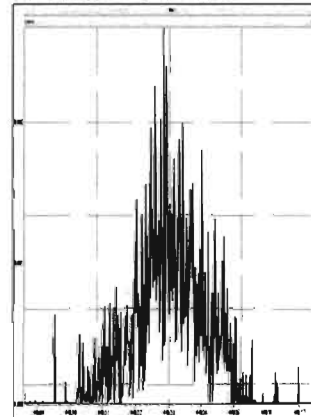
M 416.9760 R 346152



M 430.9728 R 13715

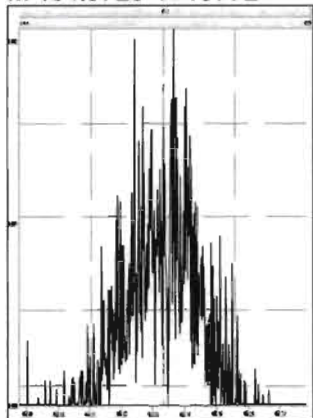


M 442.9728 R 19307

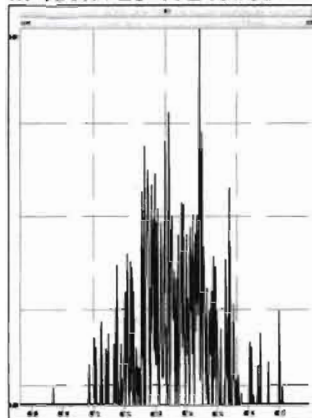


Printed: Friday, August 21, 2020 07:22:16 Pacific Daylight Time

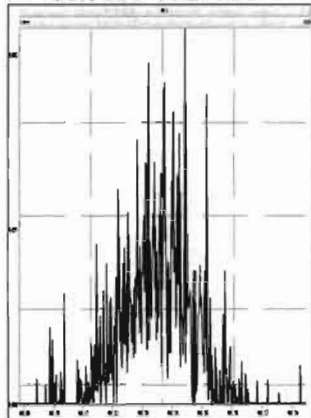
M 454.9728 R 19772



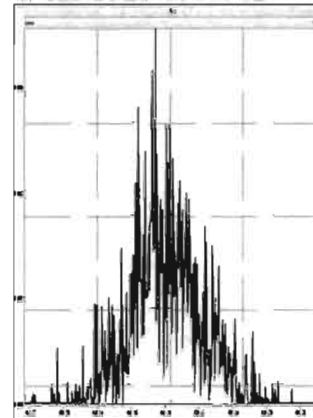
M 466.9728 R 243056



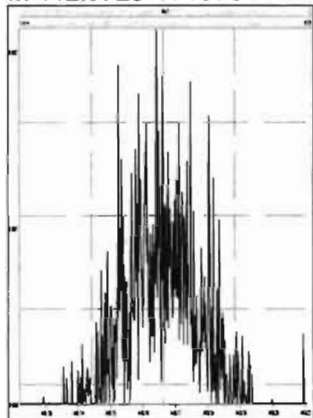
M 480.9696 R 20751



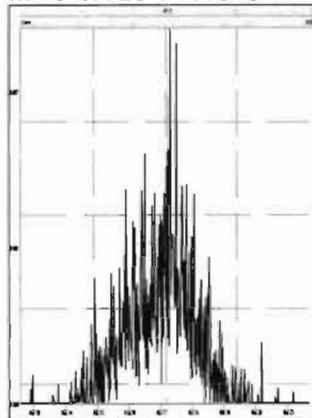
M 430.9728 R 17762



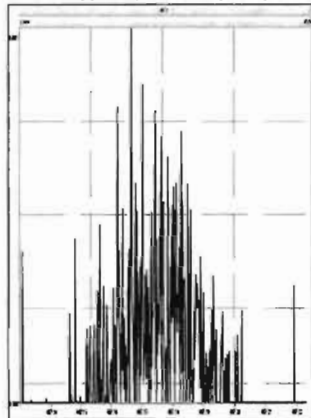
M 442.9728 R 19734



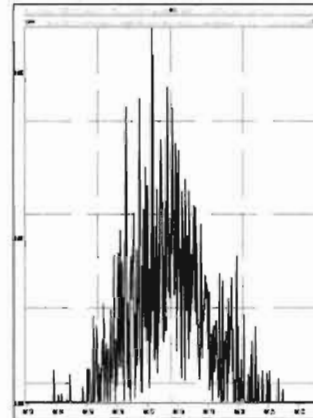
M 454.9728 R 15873



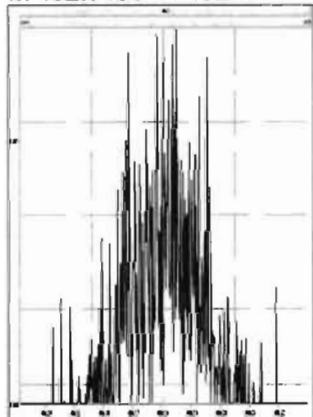
M 466.9728 R 203123



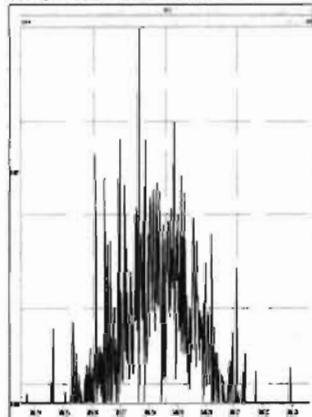
M 480.9696 R 21884



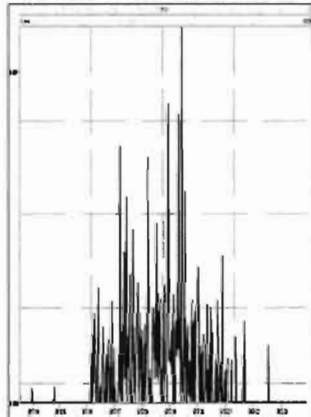
M 492.9696 R 40271



M 504.9696 R 58925



M 516.9697 R 196968



**HRMS CALIBRATION STANDARDS REVIEW CHECKLIST**

Beg. Calibration ID: ST200821D1-1

Reviewed By: CT08/24/2020  
*Initials & Date*

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
Concentrations within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TCDD/TCDF Valleys <25%	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<input checked="" type="checkbox"/> DB	<input type="checkbox"/>
<b><u>Run Log:</u></b>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input type="checkbox"/> V
- Samples within 12 hour clock?	<input checked="" type="checkbox"/> Y	N
- Bottle position verified?	<input checked="" type="checkbox"/> DB	

Mass resolution ≥

5k    6-8K    8K    10K

1614   1699   429   1613/1668/8280

Intergrated peaks display correctly?       NA

GC Break <20%    NA

**8280 CS1 End Standard:**

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours    NA

**Comments:**

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:12:59 Pacific Daylight Time

*DB 8/21/20 CT 08/24/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	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	8.49e3	0.74	NO	1.08	1.000	26.219	26.22	1.001	1.001	10.012	100 <i>78-129</i>	0.0916	10.0
2	2 1,2,3,7,8-PeCDD	2.77e4	0.60	NO	0.991	1.000	30.509	30.49	1.001	1.000	49.350	98.7 <i>78-130</i>	0.185	49.4
3	3 1,2,3,4,7,8-HxCDD	2.29e4	1.23	NO	1.04	1.000	33.793	33.79	1.000	1.000	48.524	97.0 <i>78-128</i>	0.330	48.5
4	4 1,2,3,6,7,8-HxCDD	2.23e4	1.22	NO	0.908	1.000	33.904	33.91	1.000	1.000	46.865	93.7 <i>78-128</i>	0.339	46.9
5	5 1,2,3,7,8,9-HxCDD	2.28e4	1.30	NO	0.923	1.000	34.223	34.21	1.001	1.001	47.428	94.9 <i>82-122</i>	0.345	47.4
6	6 1,2,3,4,6,7,8-HpCDD	1.92e4	1.08	NO	0.926	1.000	37.558	37.57	1.000	1.001	46.631	93.3 <i>86-116</i>	0.490	46.6
7	7 OCDD	3.24e4	0.91	NO	0.834	1.000	40.827	40.84	1.000	1.000	98.552	98.6 <i>79-126</i>	0.353	98.6
8	8 2,3,7,8-TCDF	8.58e3	0.76	NO	0.882	1.000	25.586	25.58	1.001	1.001	9.1084	91.1 <i>84-120</i>	0.0958	9.11
9	9 1,2,3,7,8-PeCDF	4.18e4	1.51	NO	0.937	1.000	29.361	29.36	1.001	1.001	50.664	101 <i>82-170</i>	0.158	50.7
10	10 2,3,4,7,8-PeCDF	4.45e4	1.52	NO	1.03	1.000	30.316	30.31	1.001	1.001	50.803	102 <i>82-120</i>	0.139	50.8
11	11 1,2,3,4,7,8-HxCDF	3.02e4	1.20	NO	1.07	1.000	32.861	32.87	1.000	1.000	49.087	98.2 <i>90-112</i>	0.359	49.1
12	12 1,2,3,6,7,8-HxCDF	3.17e4	1.27	NO	1.11	1.000	33.014	33.01	1.000	1.000	48.999	98.0 <i>88-114</i>	0.385	49.0
13	13 2,3,4,6,7,8-HxCDF	3.01e4	1.23	NO	1.11	1.000	33.696	33.67	1.001	1.000	49.840	99.7 <i>98-114</i>	0.421	49.8
14	14 1,2,3,7,8,9-HxCDF	3.02e4	1.20	NO	1.12	1.000	34.705	34.73	1.000	1.001	47.634	95.3 <i>90-112</i>	0.464	47.6
15	15 1,2,3,4,6,7,8-HpCDF	2.68e4	0.99	NO	1.15	1.000	36.398	36.37	1.001	1.000	47.349	94.7 <i>90-110</i>	0.367	47.3
16	16 1,2,3,4,7,8,9-HpCDF	2.24e4	1.02	NO	1.25	1.000	38.216	38.23	1.000	1.000	49.712	99.4 <i>86-116</i>	0.414	49.7
17	17 OCDF	3.89e4	0.88	NO	0.961	1.000	41.157	41.18	1.000	1.001	102.25	102 <i>63-159</i>	0.361	102
18	18 13C-2,3,7,8-TCDD	7.86e4	0.80	NO	1.20	1.000	26.210	26.19	1.026	1.025	102.62	103 <i>82-121</i>	0.437	
19	19 13C-1,2,3,7,8-PeCDD	5.67e4	0.64	NO	0.910	1.000	30.466	30.49	1.193	1.193	97.810	97.8 <i>62-160</i>	0.415	
20	20 13C-1,2,3,4,7,8-HxCDD	4.53e4	1.29	NO	0.789	1.000	33.778	33.78	1.014	1.014	99.079	99.1 <i>85-117</i>	0.622	
21	21 13C-1,2,3,6,7,8-HxCDD	5.24e4	1.29	NO	0.885	1.000	33.888	33.90	1.017	1.018	102.13	102 <i>85-118</i>	0.554	
22	22 13C-1,2,3,7,8,9-HxCDD	5.21e4	1.29	NO	0.888	1.000	34.157	34.19	1.025	1.026	101.20	101 <i>85-118</i>	0.552	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.46e4	1.03	NO	0.740	1.000	37.608	37.55	1.129	1.127	104.01	104 <i>72-138</i>	1.04	
24	24 13C-OCDD	7.89e4	0.87	NO	0.660	1.000	40.620	40.83	1.219	1.226	206.20	103 <i>48-207</i>	0.777	
25	25 13C-2,3,7,8-TCDF	1.07e5	0.76	NO	1.09	1.000	25.290	25.56	0.990	1.001	88.605	88.6 <i>71-140</i>	0.365	
26	26 13C-1,2,3,7,8-PeCDF	8.81e4	1.72	NO	0.857	1.000	29.523	29.34	1.156	1.149	92.804	92.8 <i>76-130</i>	0.450	
27	27 13C-2,3,4,7,8-PeCDF	8.53e4	1.64	NO	0.796	1.000	30.425	30.29	1.191	1.186	96.668	96.7 <i>77-130</i>	0.484	
28	28 13C-1,2,3,4,7,8-HxCDF	5.73e4	0.50	NO	1.02	1.000	32.912	32.86	0.988	0.986	96.987	97.0 <i>76-131</i>	0.785	
29	29 13C-1,2,3,6,7,8-HxCDF	5.81e4	0.50	NO	1.00	1.000	33.045	33.00	0.992	0.991	99.971	100 <i>70-143</i>	0.799	
30	30 13C-2,3,4,6,7,8-HxCDF	5.44e4	0.49	NO	0.936	1.000	33.614	33.66	1.009	1.011	100.23	100 <i>73-137</i>	0.856	
31	31 13C-1,2,3,7,8,9-HxCDF	5.66e4	0.49	NO	0.889	1.000	34.690	34.70	1.041	1.042	109.70	110 <i>74-135</i>	0.901	

Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:12:59 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	4.91e4	0.43	NO	0.849	1.000	36.209	36.36	1.087	1.092	99.709	99.7 78-129	0.881	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.60e4	0.41	NO	0.624	1.000	38.208	38.22	1.147	1.147	99.607	99.6 77-129	1.20	
34	34 13C-OCDF	7.93e4	0.87	NO	0.693	1.000	40.773	41.16	1.224	1.236	197.18	98.6 48-207	0.519	
35	35 37Cl-2,3,7,8-TCDD	8.21e3			1.28	1.000	26.207	26.20	1.026	1.026	10.102	101 79-127	0.0830	
36	36 13C-1,2,3,4-TCDD	6.37e4	0.80	NO	1.00	1.000	25.550	25.55	1.000	1.000	100.00	100	0.526	
37	37 13C-1,2,3,4-TCDF	1.11e5	0.81	NO	1.00	1.000	24.250	24.25	1.000	1.000	100.00	100	0.397	
38	38 13C-1,2,3,4,6,9-HxCDF	5.80e4	0.51	NO	1.00	1.000	33.300	33.31	1.000	1.000	100.00	100	0.801	

Dataset: Untitled

Last Altered: Monday, August 24, 2020 09:29:28 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:29:53 Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\CPSM.mdb 21 Aug 2020 10:22:49  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.93
2	2 1,2,8,9-TCDD (Last)	27.01
3	3 1,2,4,7,9-PeCDD (First)	28.43
4	4 1,2,3,8,9-PeCDD (Last)	30.83
5	5 1,2,4,6,7,9-HxCDD (First)	32.13
6	6 1,2,3,7,8,9-HxCDD (Last)	34.21
7	7 1,2,3,4,6,7,9-HpCDD (First)	36.70
8	8 1,2,3,4,6,7,8-HpCDD (Last)	37.57
9	9 1,3,6,8-TCDF (First)	20.93
10	10 1,2,8,9-TCDF (Last)	27.29
11	11 1,3,4,6,8-PeCDF (First)	26.94
12	12 1,2,3,8,9-PeCDF (Last)	31.15
13	13 1,2,3,4,6,8-HxCDF (First)	31.60
14	14 1,2,3,7,8,9-HxCDF (Last)	34.73
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.37
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.23

Dataset: Untitled

Last Altered: Monday, August 24, 2020 09:28:59 Pacific Daylight Time  
Printed: Monday, August 24, 2020 09:29:13 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

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

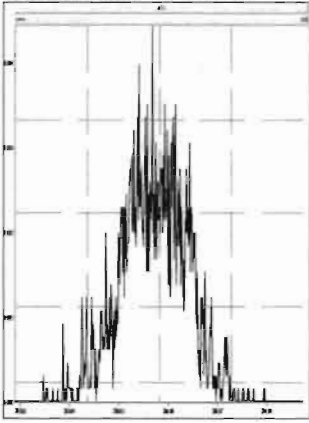
	Name	ID	Acq.Date	Acq.Time
1	200821D1_1	ST200821D1-1 1613 CS3 20F1105	21-Aug-20	11:23:18
2	200821D1_2	SOLVENT BLANK	21-Aug-20	12:09:46
3	200821D1_3	2001131-10 PDI-168SC-A-00-01-200520 11.65	21-Aug-20	12:56:04
4	200821D1_4	2001131-11 PDI-168SC-A-01-02-200520 11.04	21-Aug-20	13:42:20
5	200821D1_5	2001131-12 PDI-168SC-A-02-03-200520 11.54	21-Aug-20	14:28:36
6	200821D1_6	2001131-13 PDI-168SC-A-03-04-200520 12.15	21-Aug-20	15:44:56
7	200821D1_7	2001131-14 PDI-168SC-A-04-05-200520 11.35	21-Aug-20	16:31:44
8	200821D1_8	2001131-15 PDI-168SC-A-05-06-200520 11.41	21-Aug-20	17:17:09
9	200821D1_9	2001131-16 PDI-168SC-A-06-07-200520 12.52	21-Aug-20	18:03:18
10	200821D1_10	2001131-17 PDI-168SC-A-07-08-200520 12.52	21-Aug-20	18:48:42
11	200821D1_11	2001131-18 PDI-172SC-A-00-01-200520 10.97	21-Aug-20	19:34:07
12	200821D1_12	2001131-19 PDI-172SC-A-01-02-200520 11.05	21-Aug-20	20:20:16
13	200821D1_13	2001131-20 PDI-172SC-A-02-03-200520 11.43	21-Aug-20	21:05:39



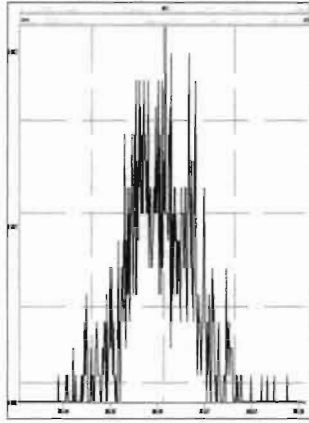
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, August 21, 2020 11:18:34 Pacific Daylight Time

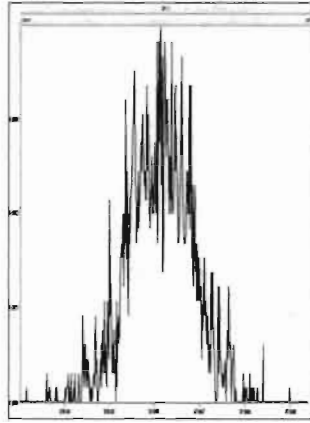
M 292.9824 R 10546



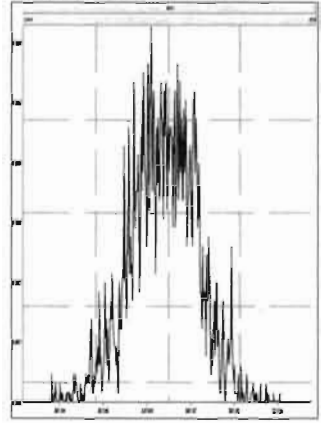
M 304.9824 R 15153



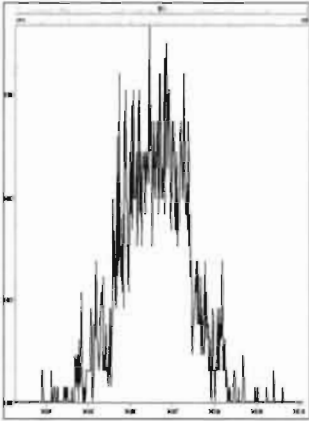
M 318.9792 R 14534



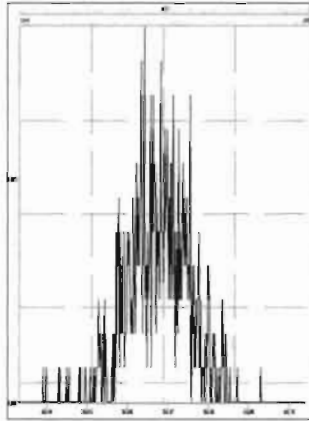
M 330.9792 R 13511



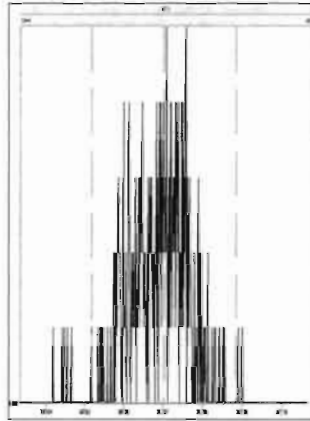
M 342.9792 R 12196



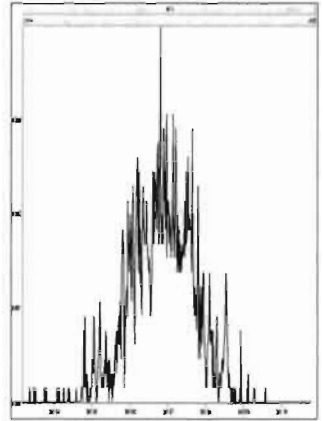
M 354.9792 R 14619



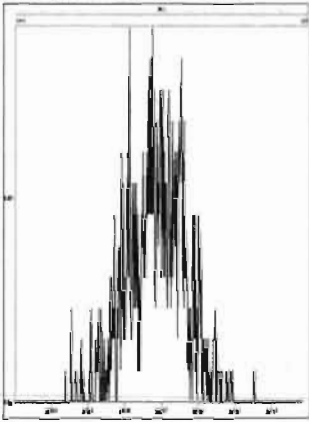
M 366.9792 R 30859



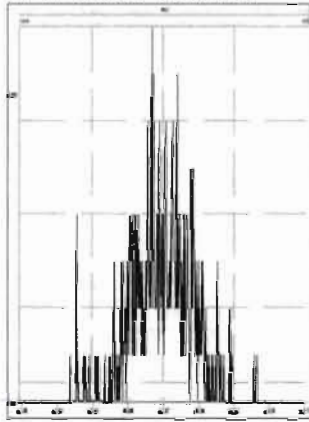
M 380.9760 R 12197



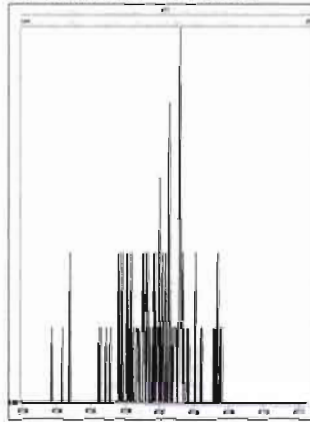
M 392.9760 R 19685



M 404.9760 R 17610



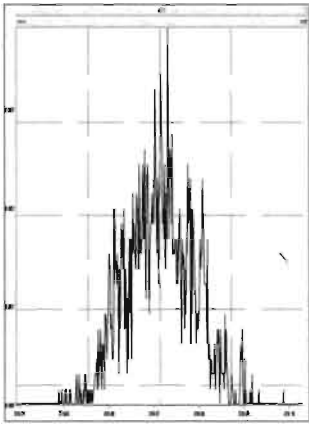
M 416.9760 R 25003



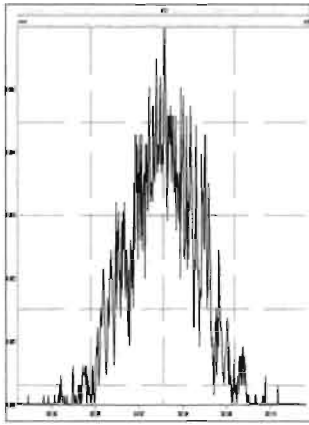
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, August 21, 2020 11:19:14 Pacific Daylight Time

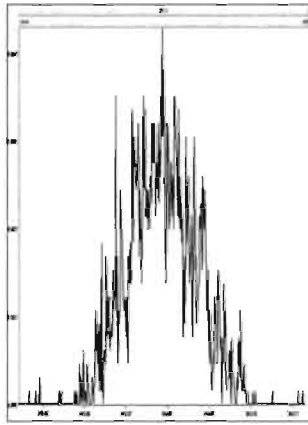
M 318.9792 R 10504



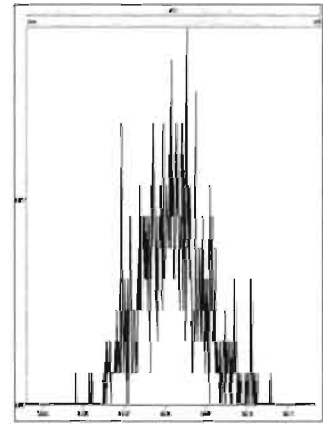
M 330.9792 R 10591



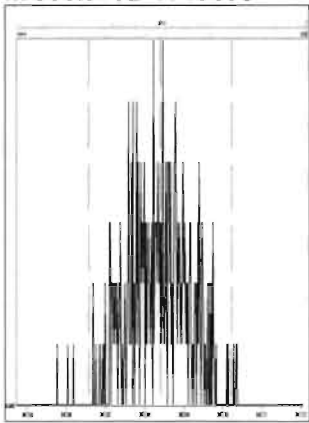
M 342.9792 R 12074



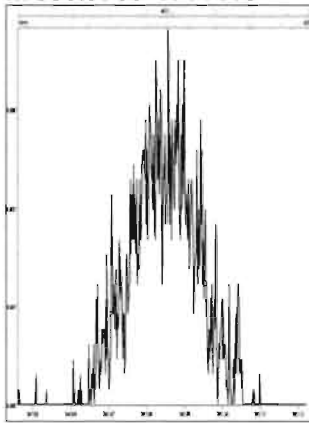
M 354.9792 R 18116



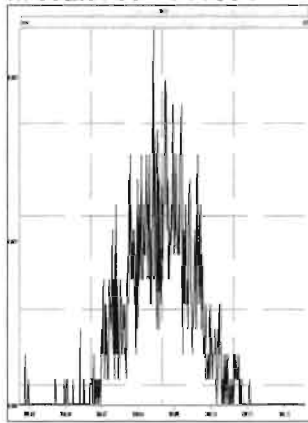
M 366.9792 R 19690



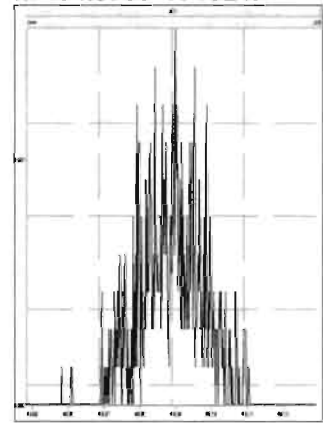
M 380.9760 R 11413



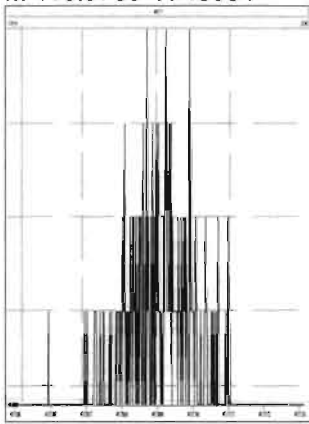
M 392.9760 R 11364



M 404.9760 R 15242



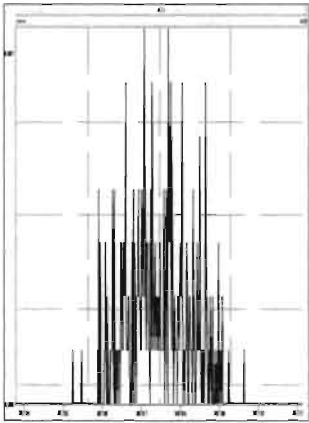
M 416.9760 R 48084



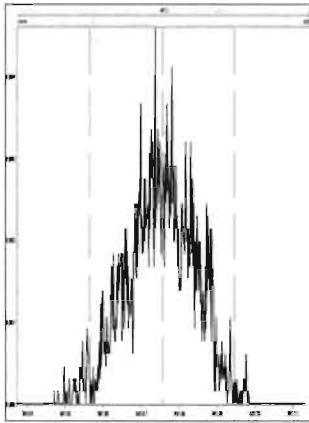
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, August 21, 2020 11:20:31 Pacific Daylight Time

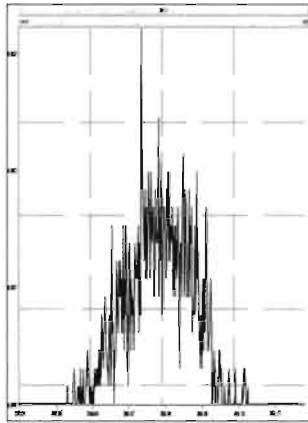
M 366.9792 R 18113



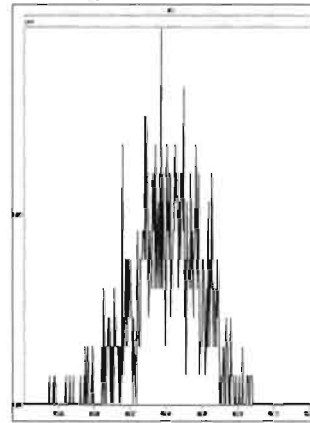
M 380.9760 R 10962



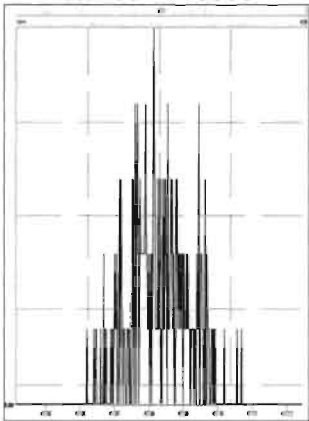
M 392.9760 R 14706



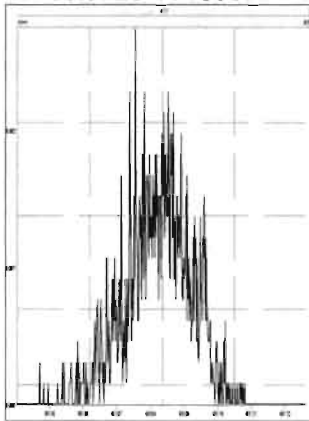
M 404.9760 R 12375



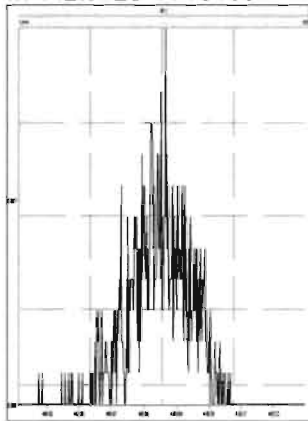
M 416.9760 R 19086



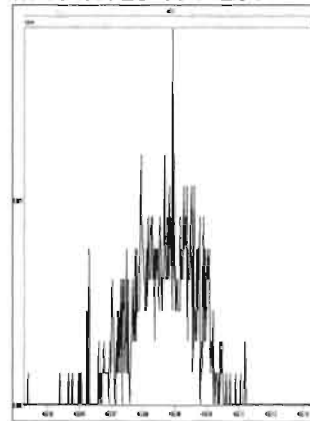
M 430.9728 R 13089



M 442.9728 R 15150



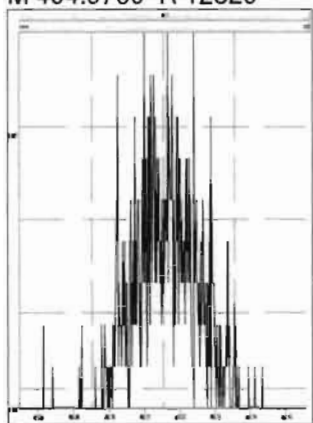
M 454.9728 R 14201



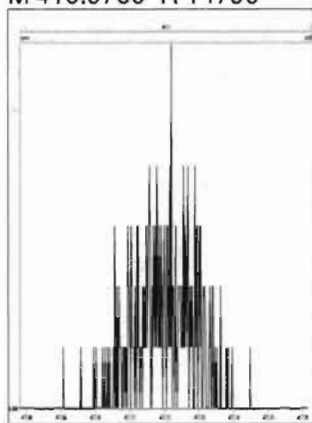
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Friday, August 21, 2020 11:21:17 Pacific Daylight Time

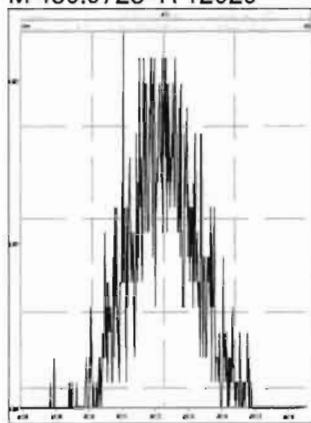
M 404.9760 R 12820



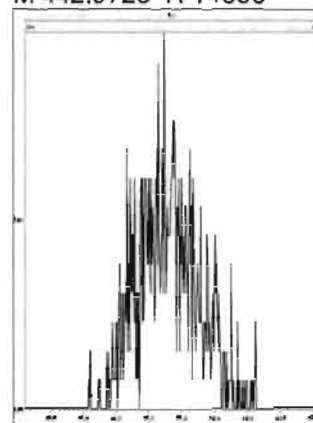
M 416.9760 R 14796



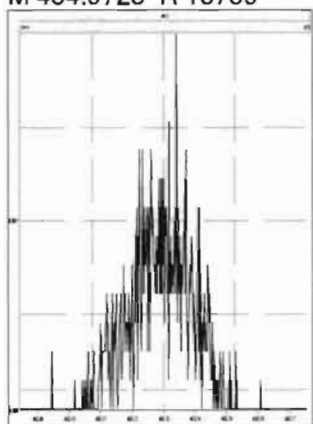
M 430.9728 R 12020



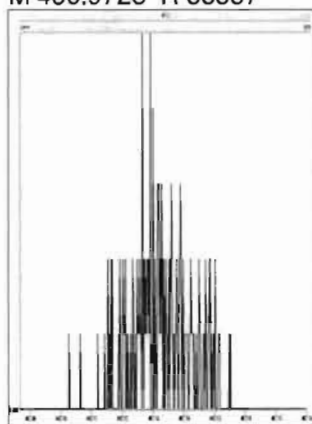
M 442.9728 R 14535



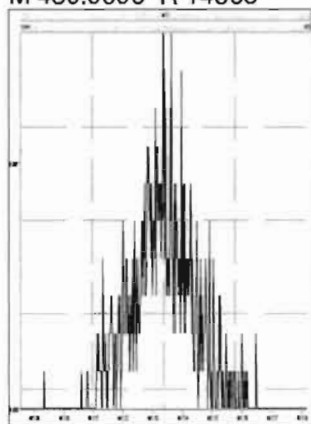
M 454.9728 R 13739



M 466.9728 R 33337



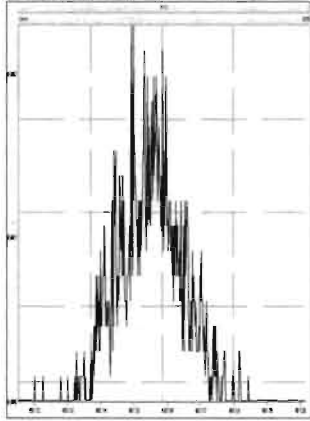
M 480.9696 R 14368



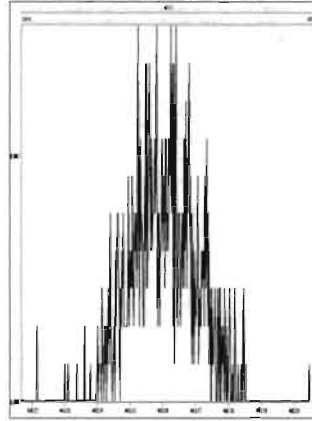
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, August 21, 2020 11:21:53 Pacific Daylight Time

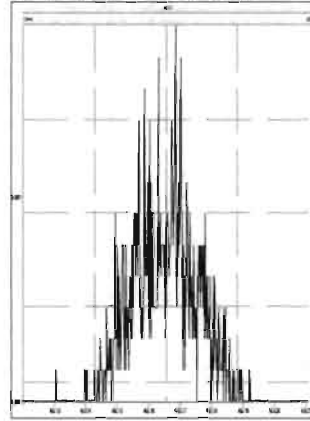
M 430.9728 R 11310



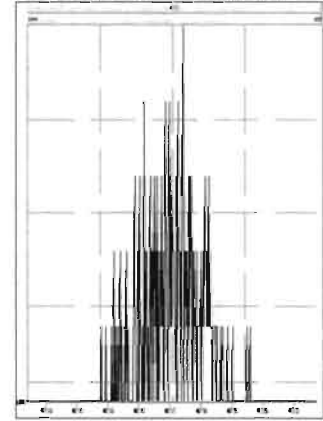
M 442.9728 R 14707



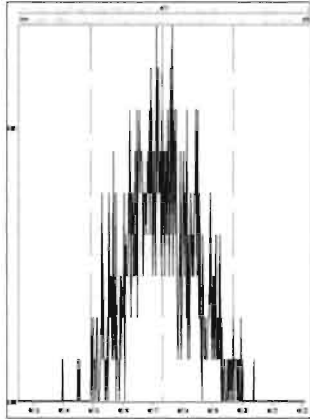
M 454.9728 R 11415



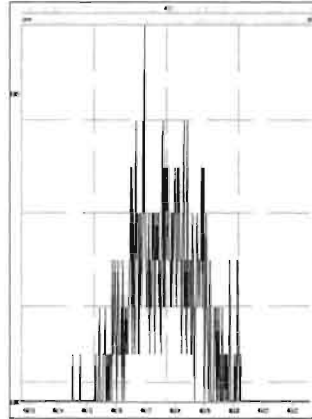
M 466.9728 R 124985



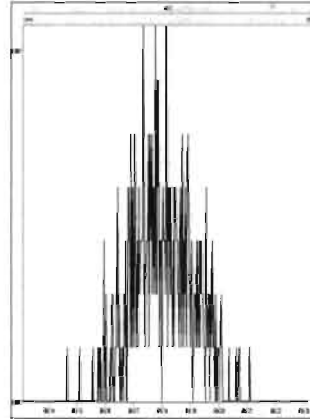
M 480.9696 R 14046



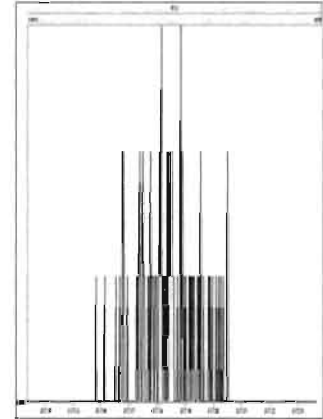
M 492.9696 R 16556

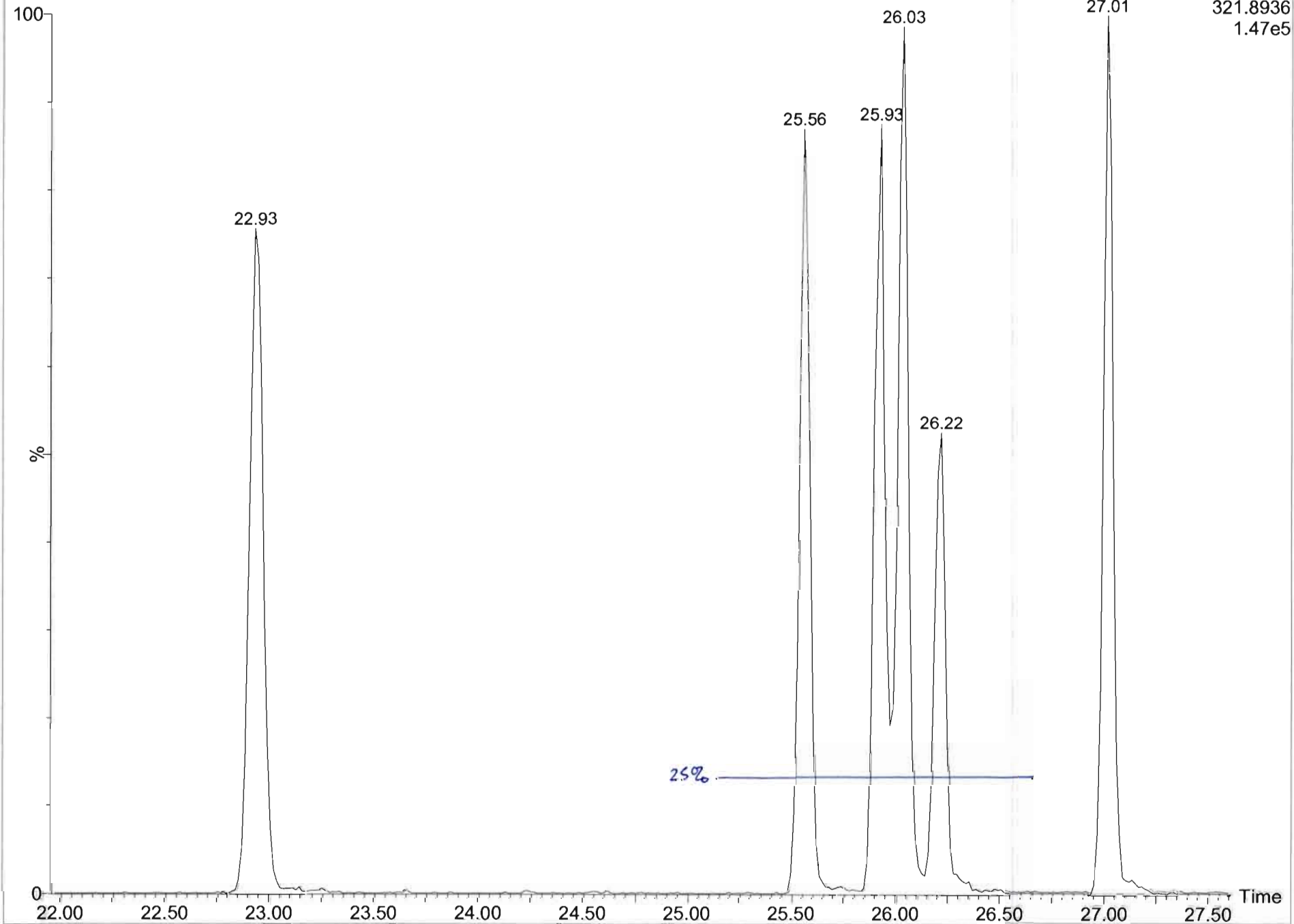


M 504.9696 R 15059



M 516.9697 R 35205





Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

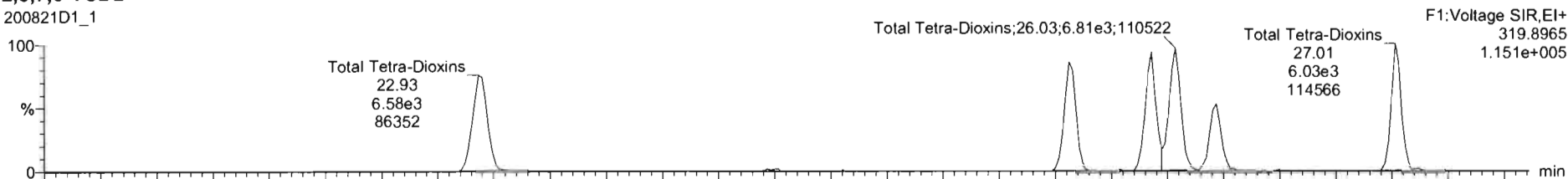
Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

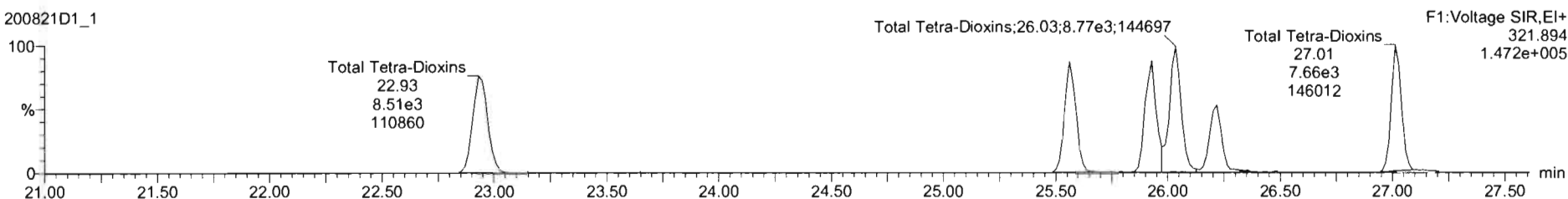
Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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

200821D1\_1

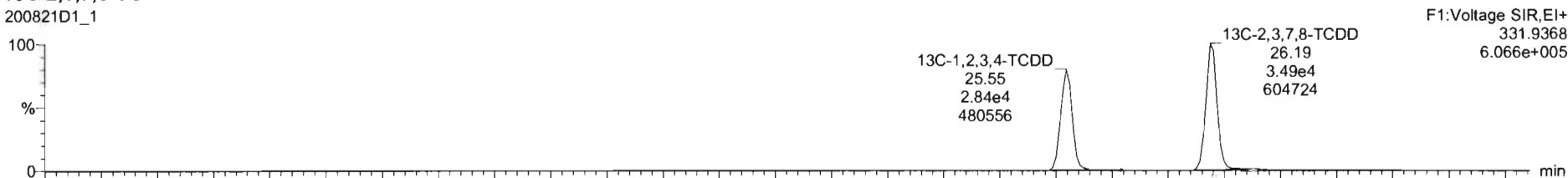


200821D1\_1

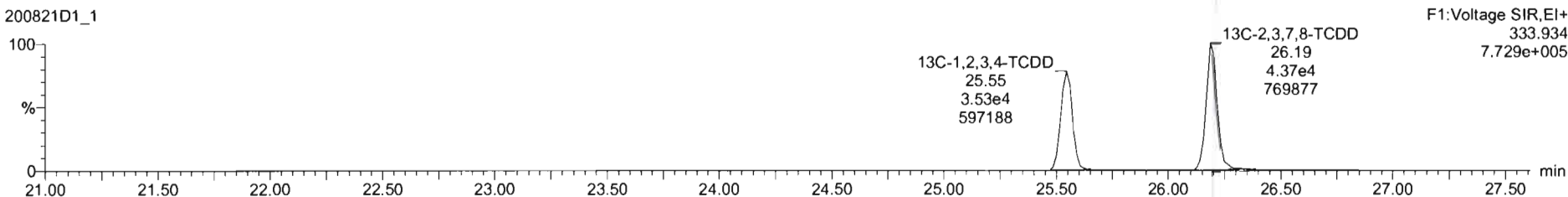


**13C-2,3,7,8-TCDD**

200821D1\_1



200821D1\_1



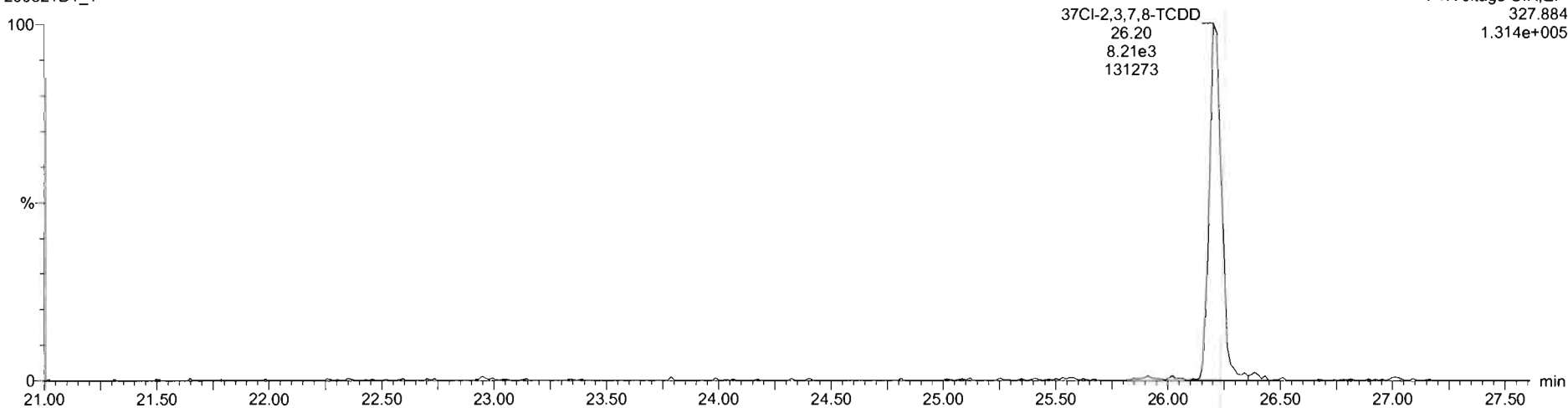
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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

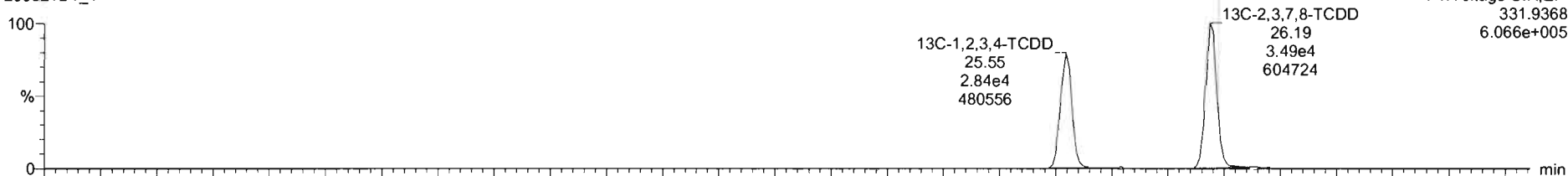
200821D1\_1



F1:Voltage SIR,EI+  
327.884  
1.314e+005

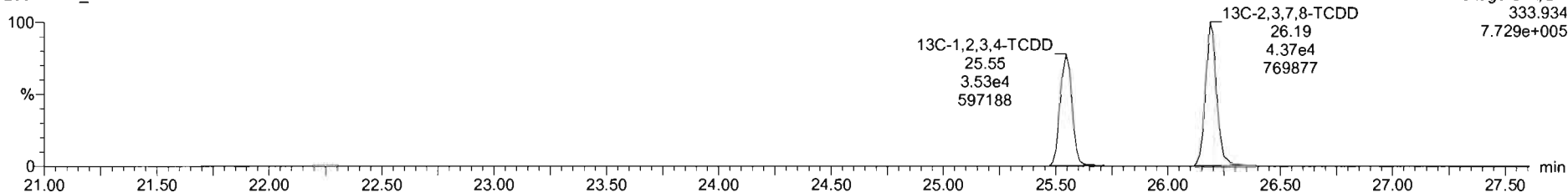
**13C-1,2,3,4-TCDD**

200821D1\_1



F1:Voltage SIR,EI+  
331.9368  
6.066e+005

200821D1\_1



F1:Voltage SIR,EI+  
333.934  
7.729e+005

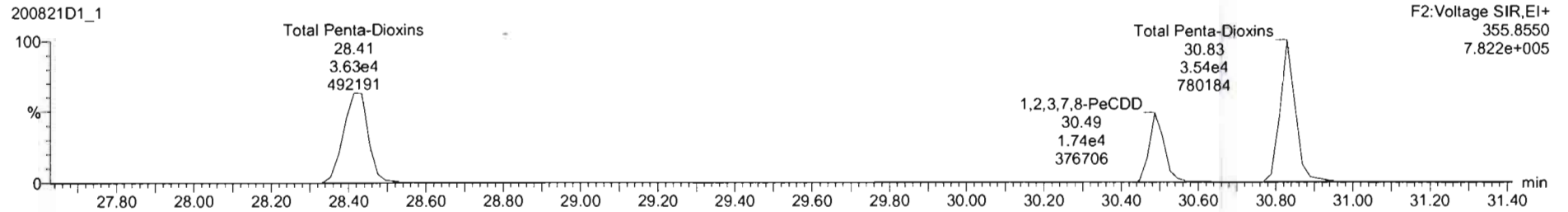
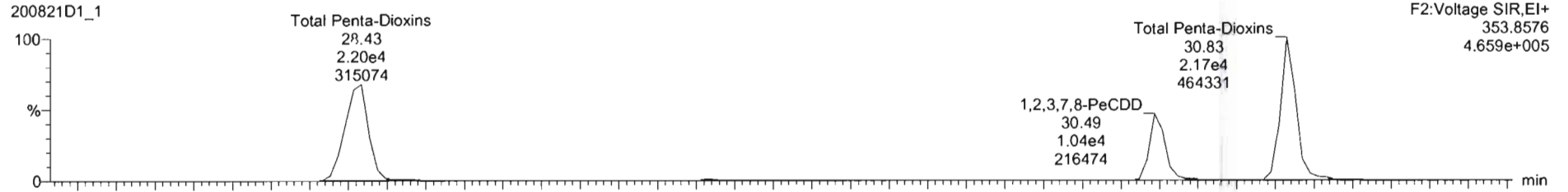


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

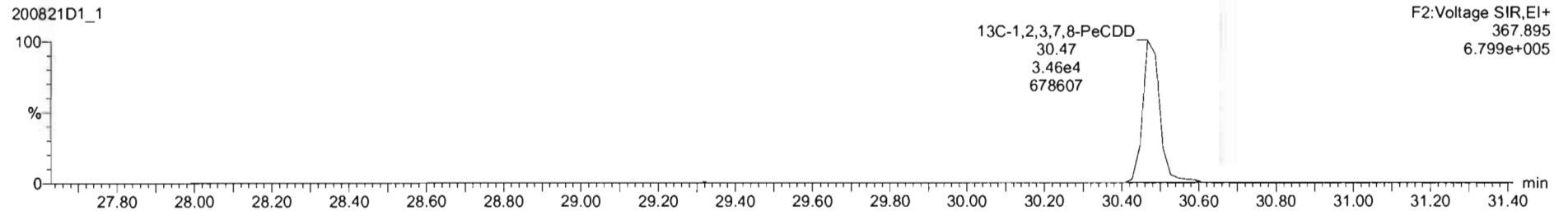
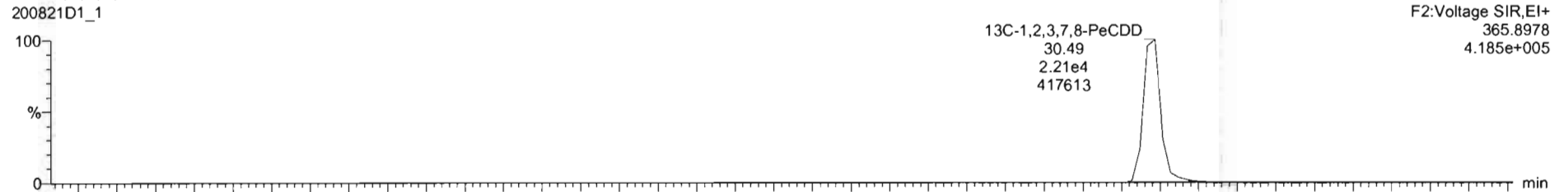
Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1,2,3,7,8-PeCDD



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

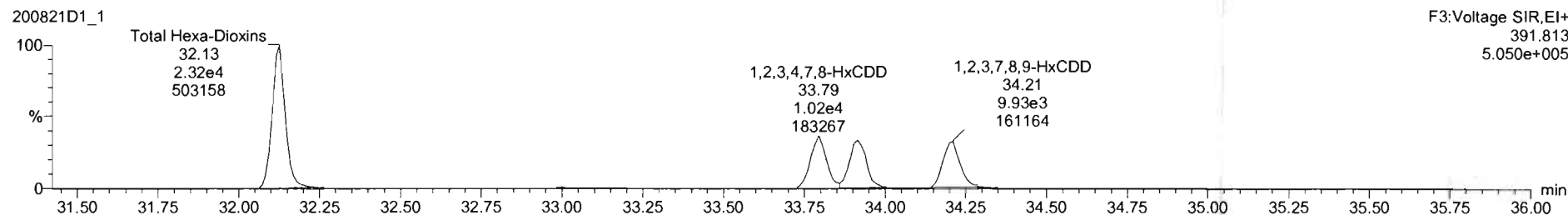
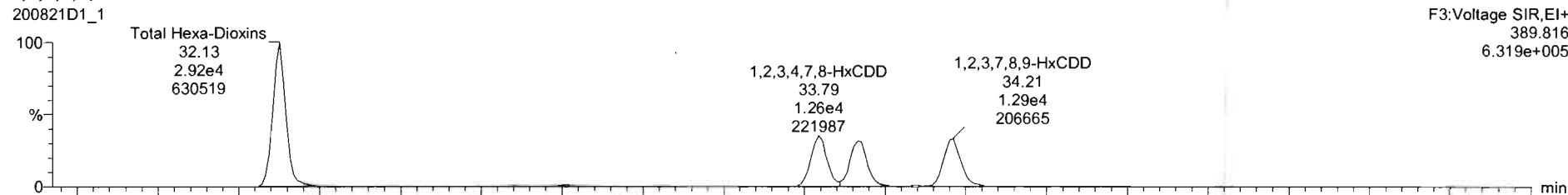


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

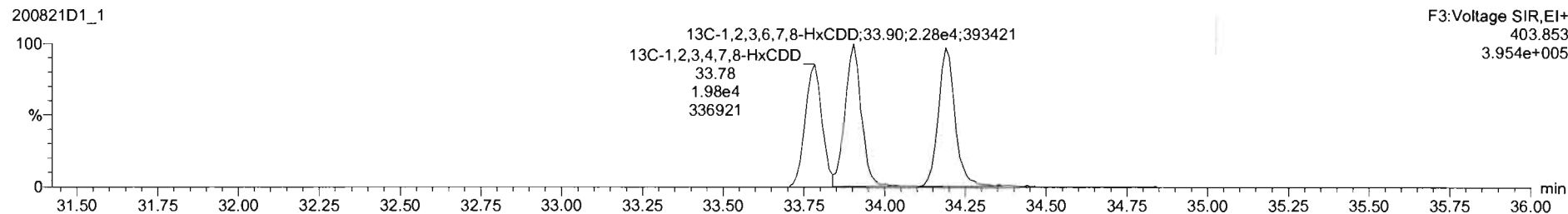
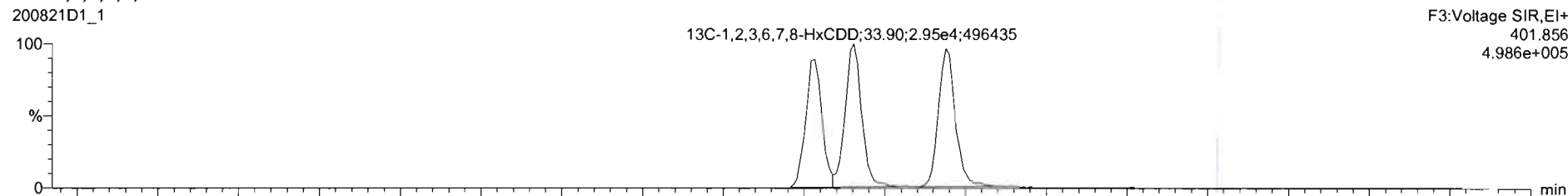
Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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



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



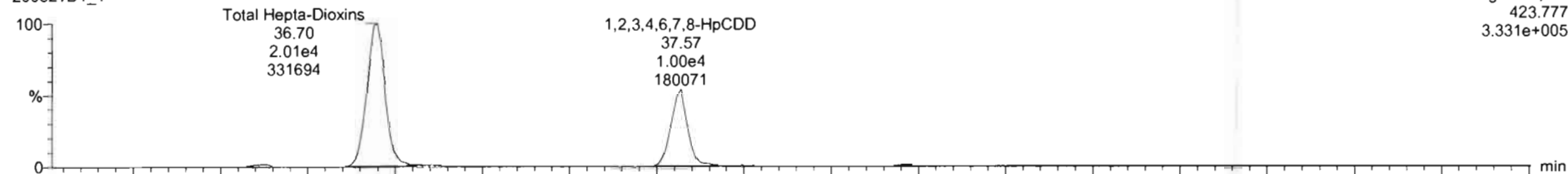
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

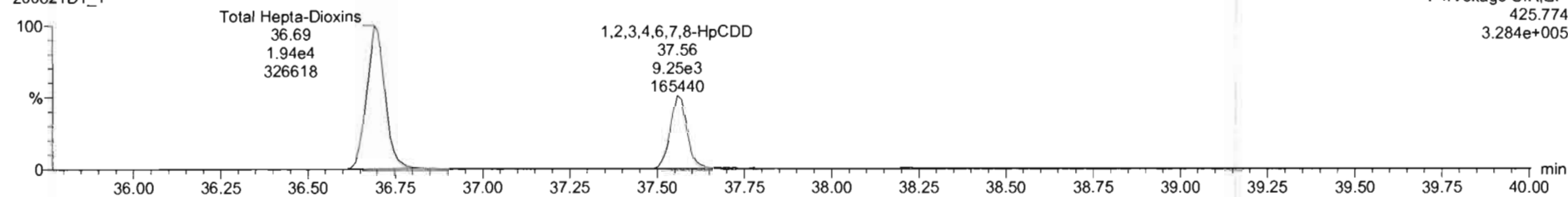
1,2,3,4,6,7,8-HpCDD

200821D1\_1



F4:Voltage SIR,EI+  
423.777  
3.331e+005

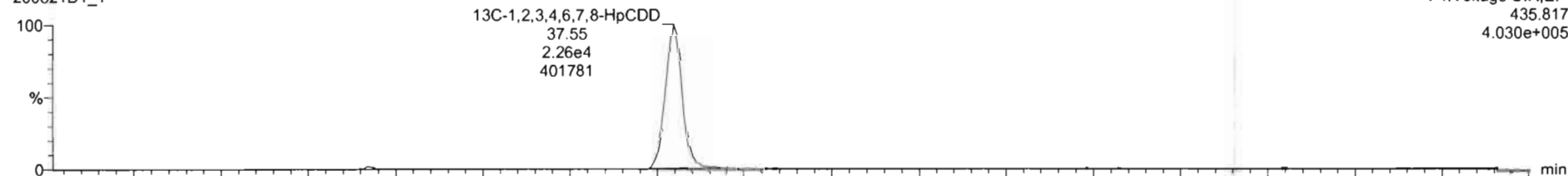
200821D1\_1



F4:Voltage SIR,EI+  
425.774  
3.284e+005

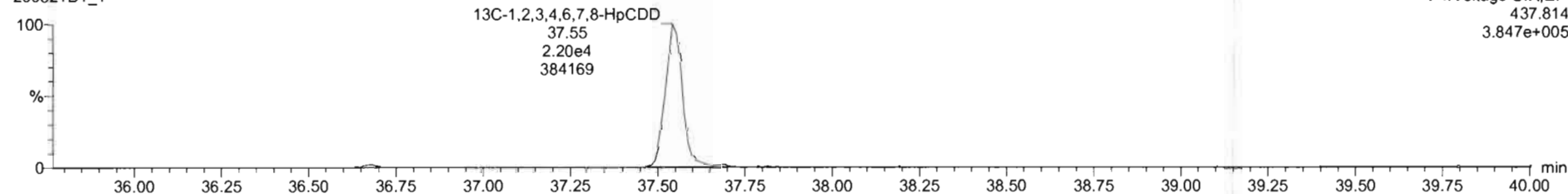
13C-1,2,3,4,6,7,8-HpCDD

200821D1\_1



F4:Voltage SIR,EI+  
435.817  
4.030e+005

200821D1\_1



F4:Voltage SIR,EI+  
437.814  
3.847e+005

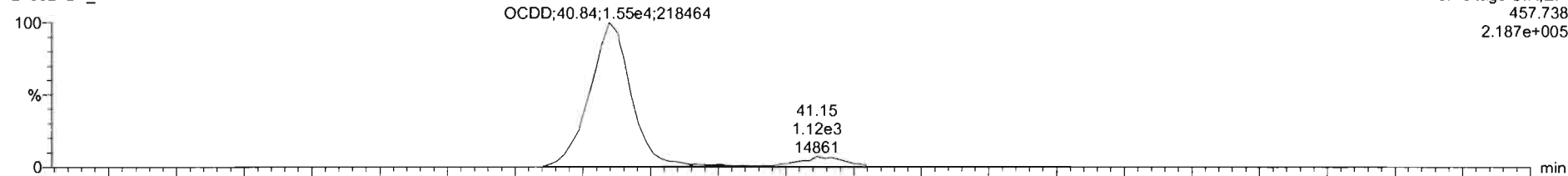
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

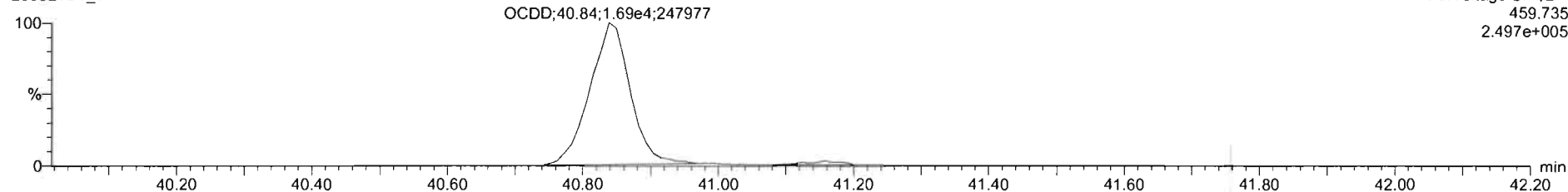
Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

**OCDD**

2:0821D1\_1

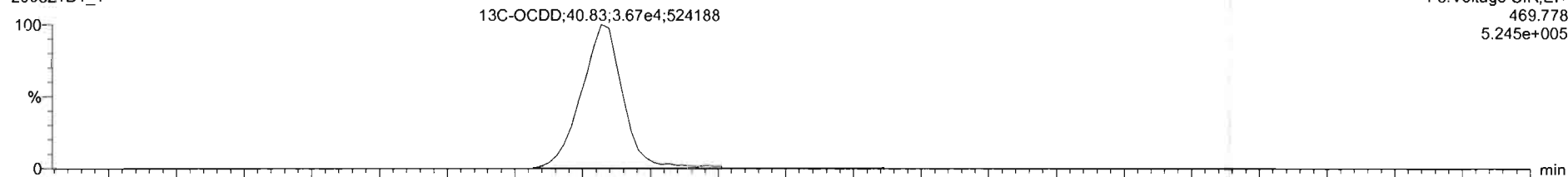


200821D1\_1

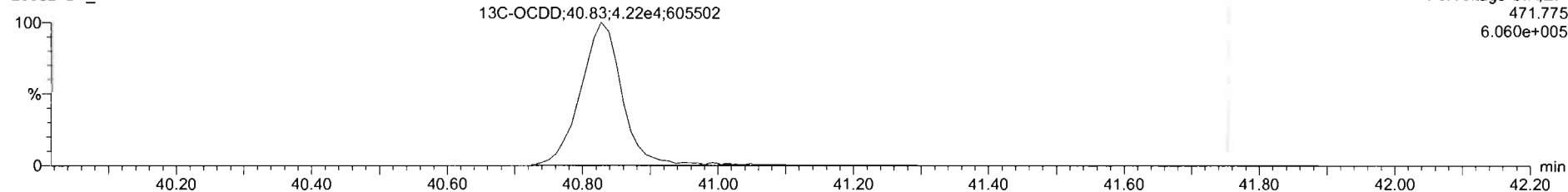


**13C-OCDD**

200821D1\_1



200821D1\_1



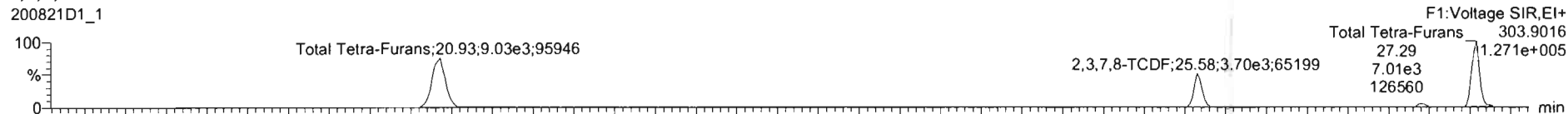
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

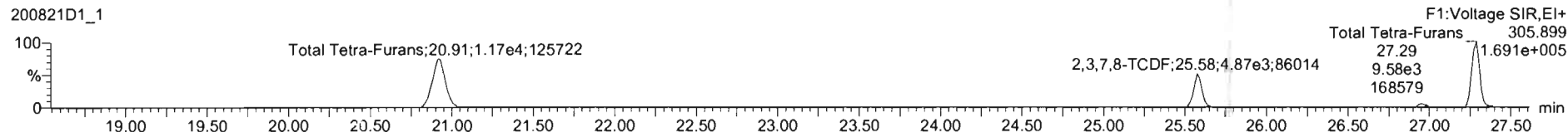
Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

2,3,7,8-TCDF

200821D1\_1

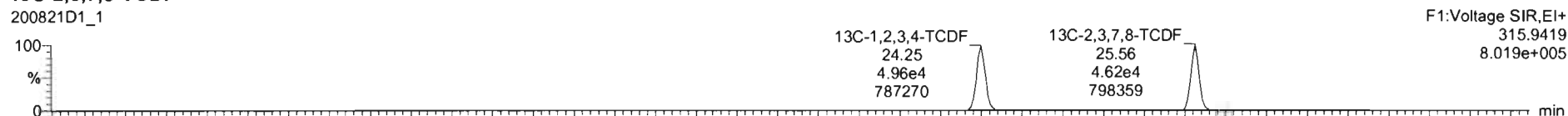


200821D1\_1

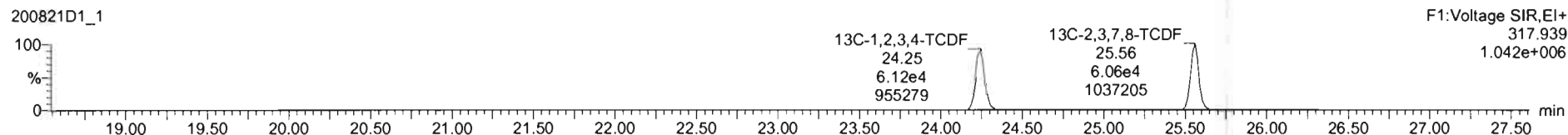


13C-2,3,7,8-TCDF

200821D1\_1

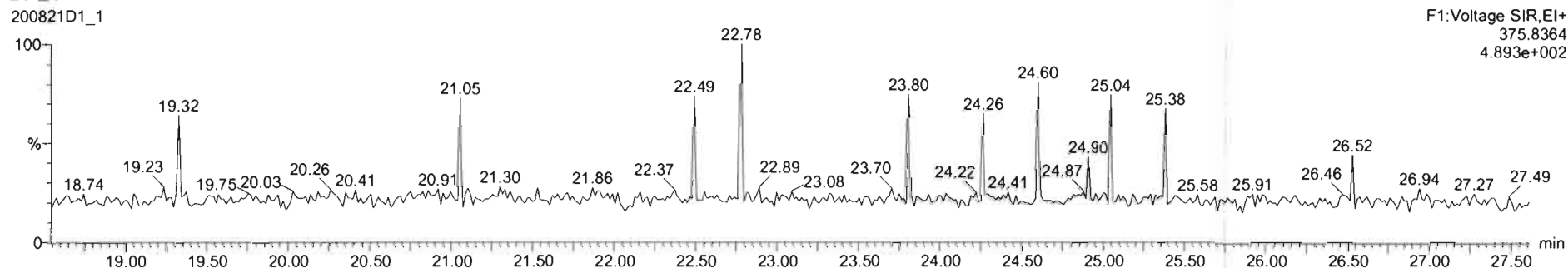


200821D1\_1



DPE1

200821D1\_1



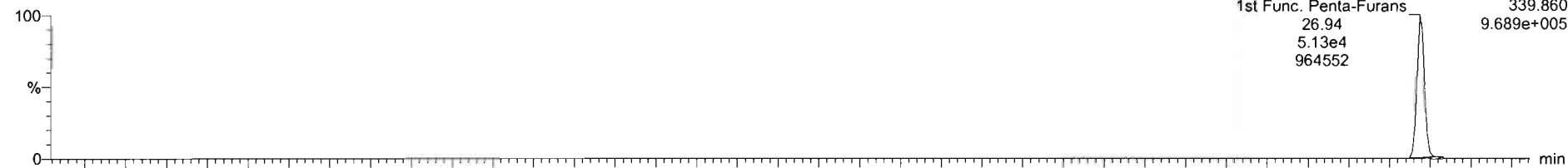
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

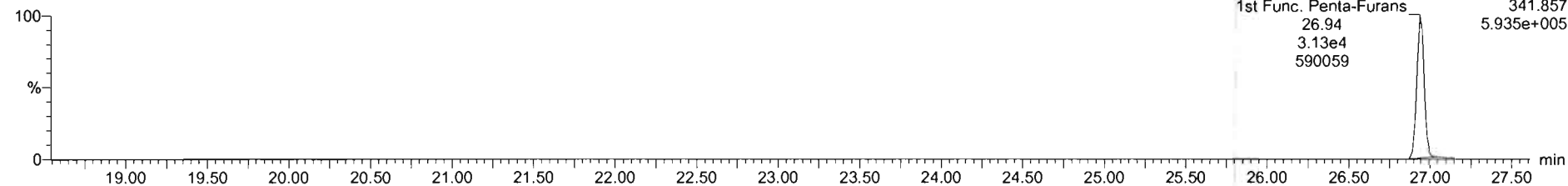
Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1st Func. Penta-Furans

200821D1\_1

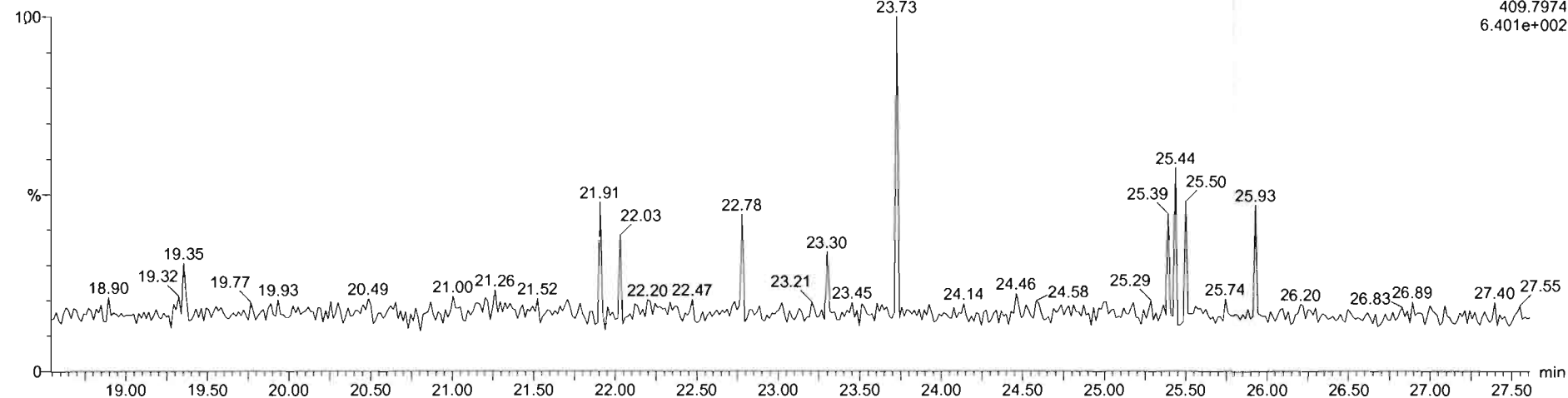


200821D1\_1



DPE6

200821D1\_1



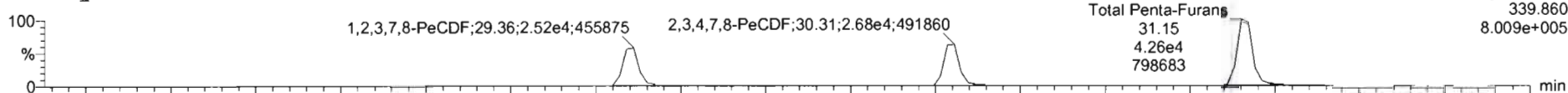
Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

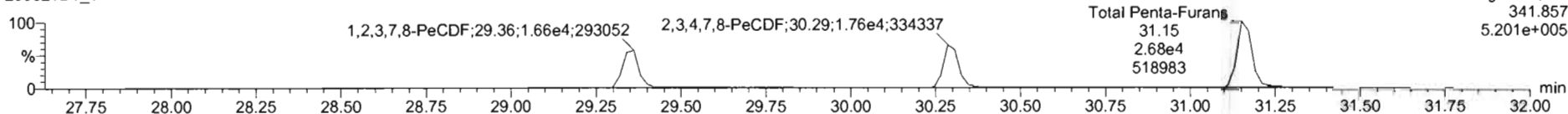
Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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

200821D1\_1

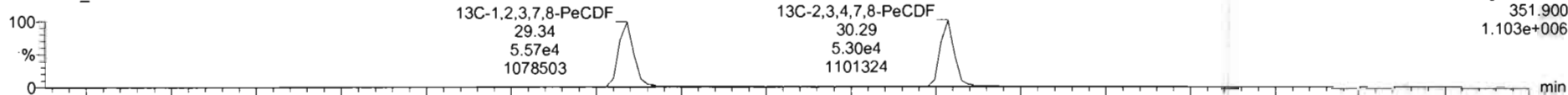


200821D1\_1

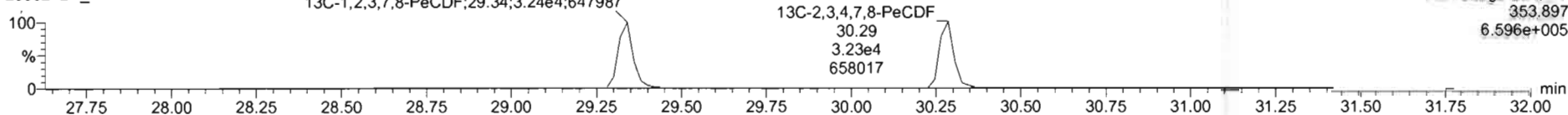


**13C-1,2,3,7,8-PeCDF**

200821D1\_1

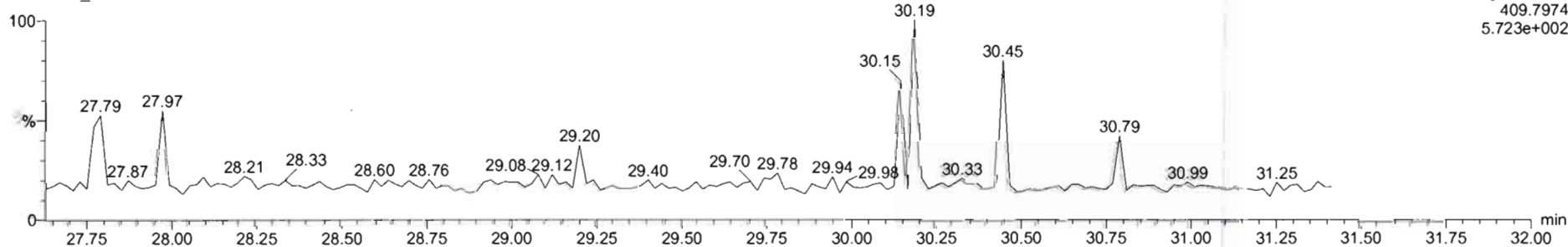


200821D1\_1



**DPE2**

200821D1\_1

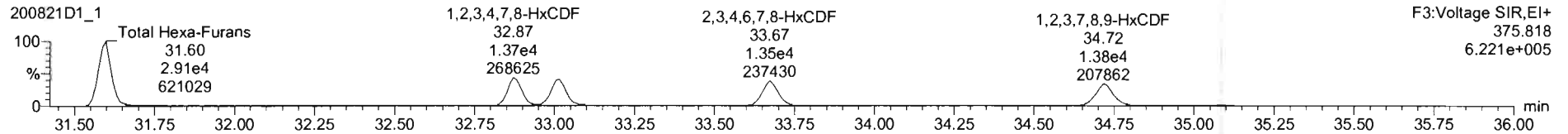
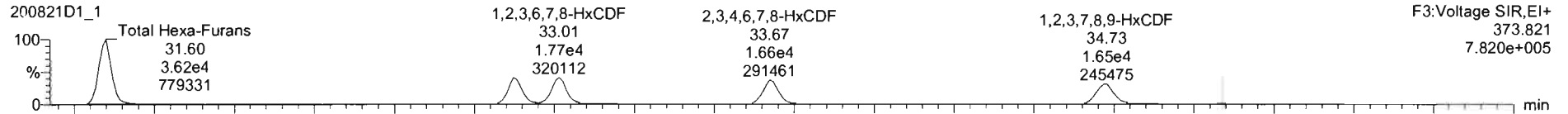


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

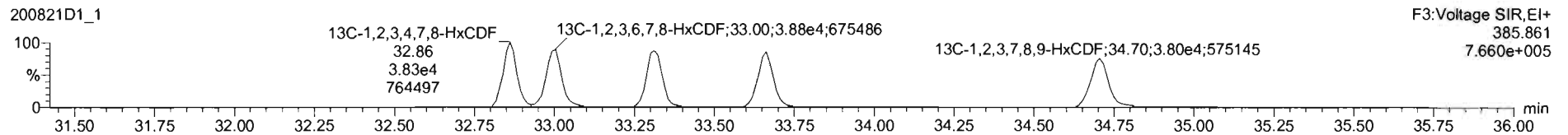
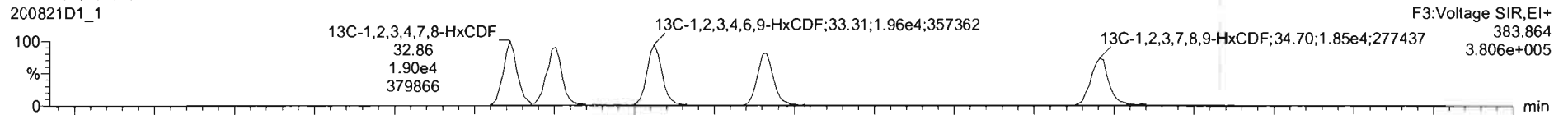
Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

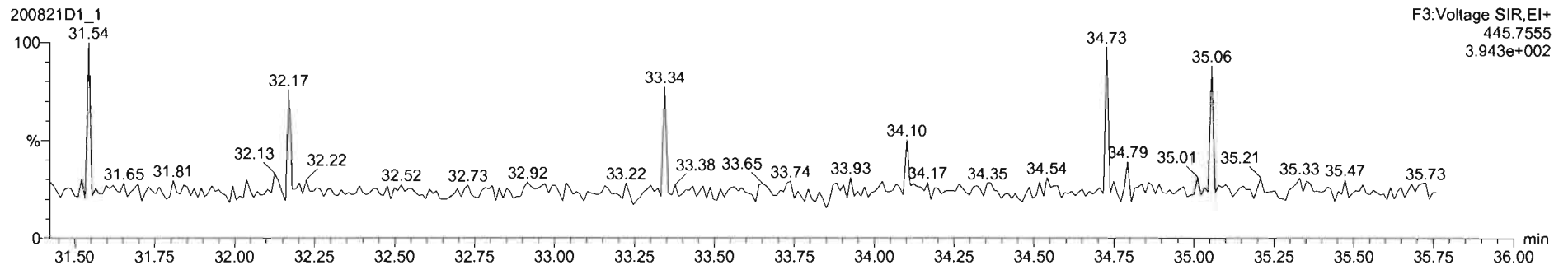
1,2,3,4,7,8-HxCDF



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



DPE3



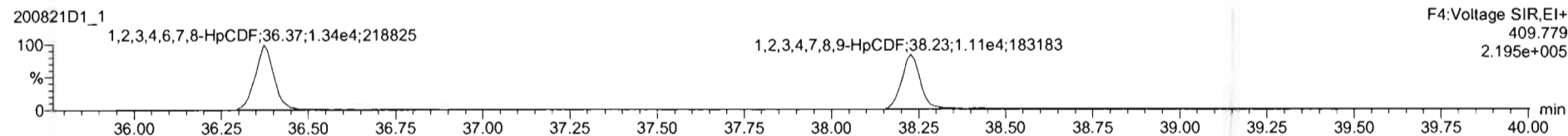
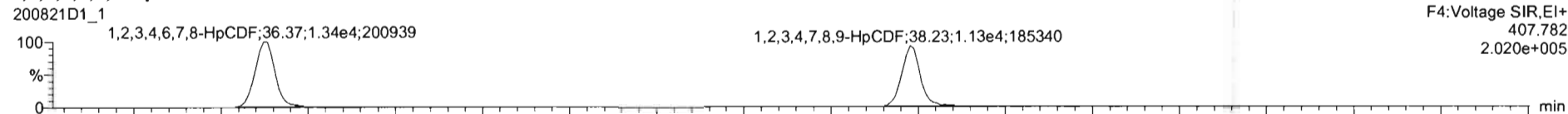


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

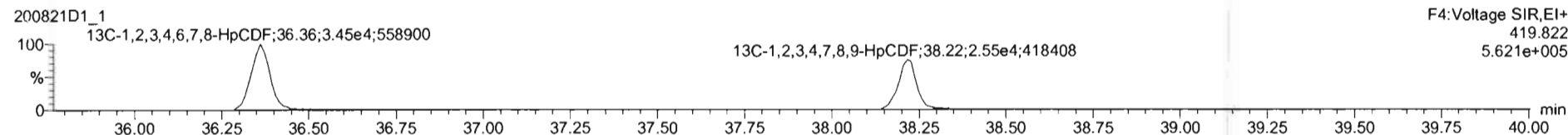
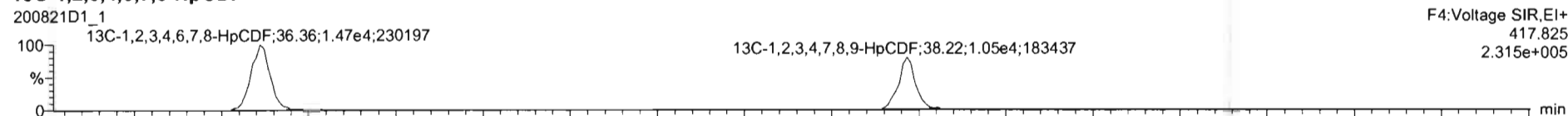
Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

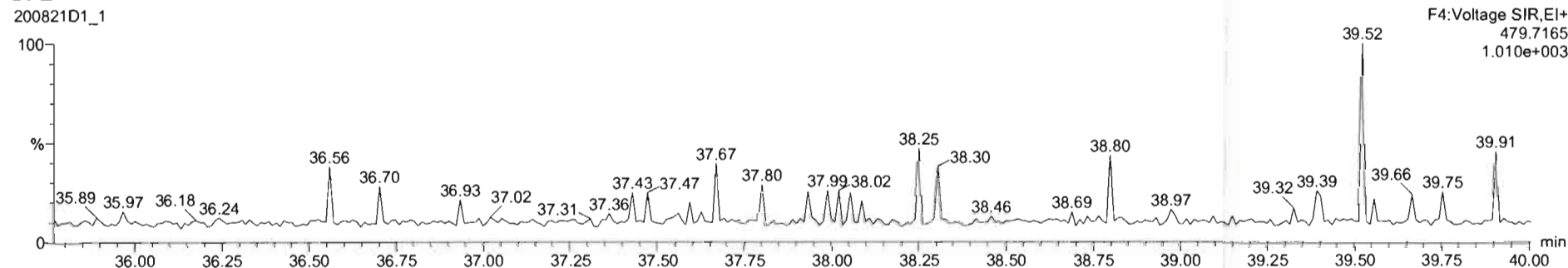
**1,2,3,4,6,7,8-HpCDF**



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



**DPE4**

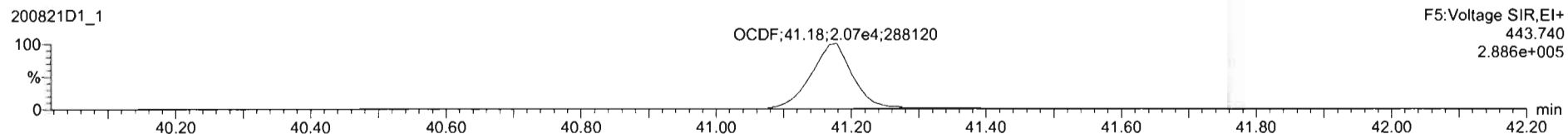
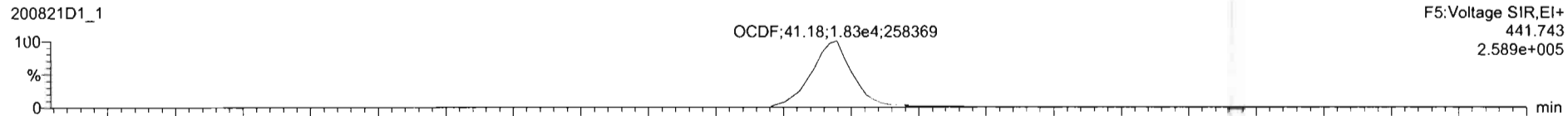


Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

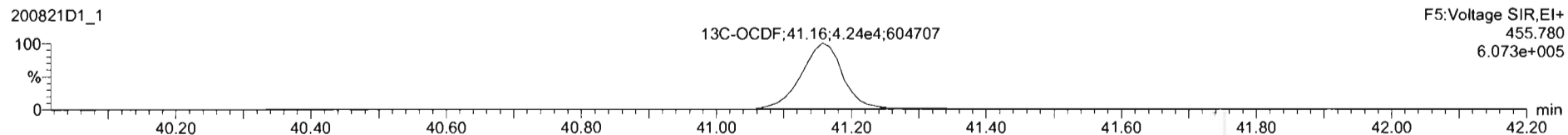
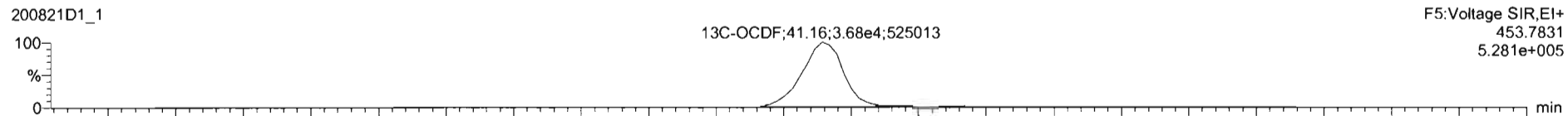
Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

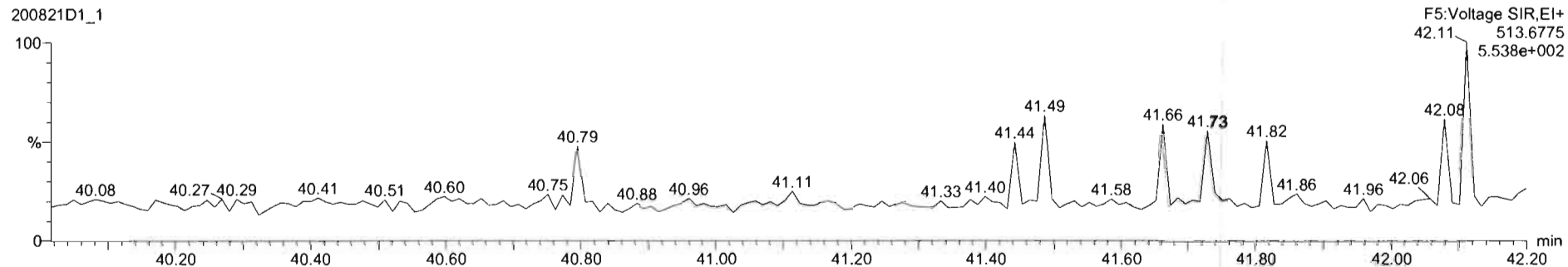
**OCDF**



**13C-OCDF**



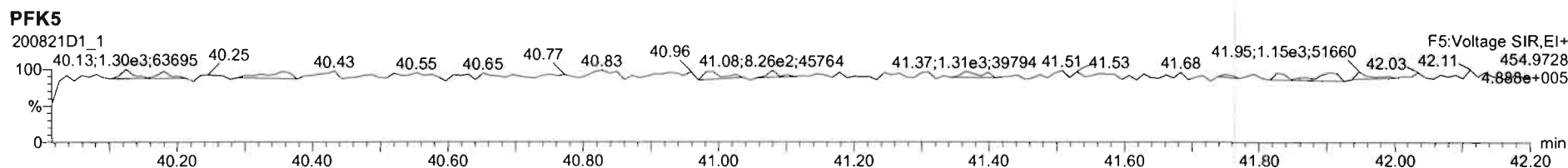
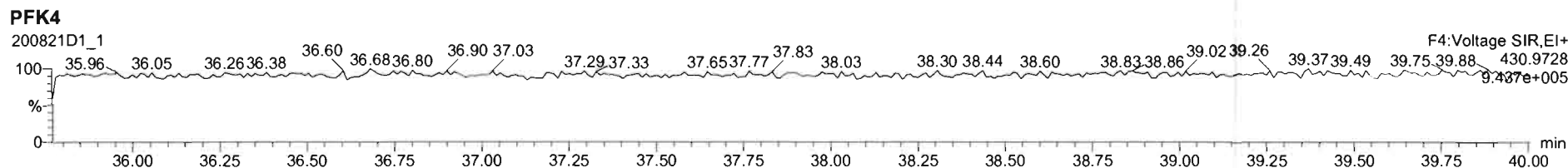
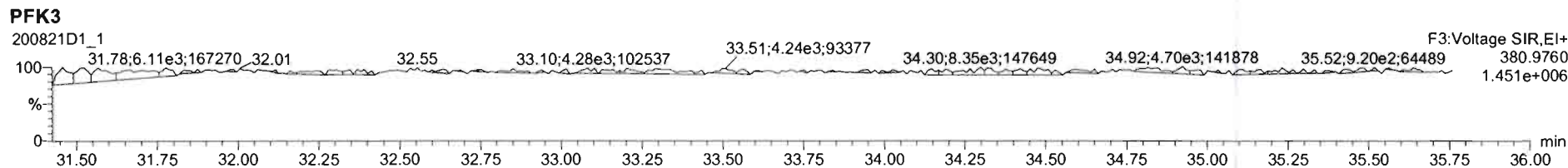
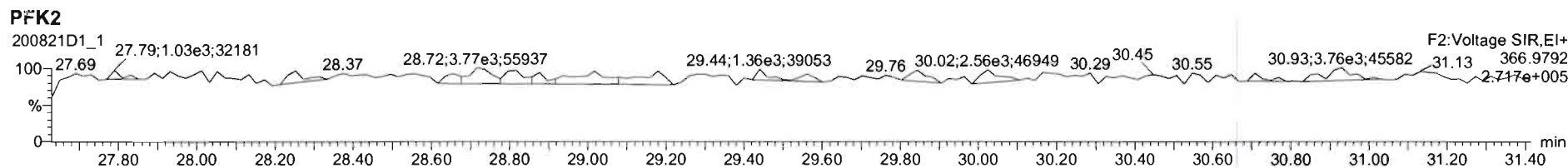
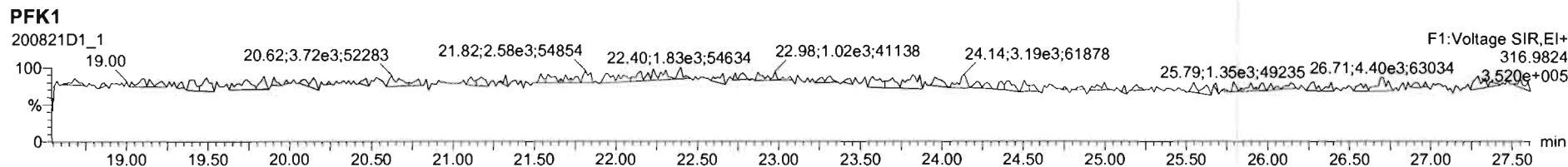
**DPE5**



Dataset: U:\VG7.PRO\Results\200821D1\200821D1\_1.qld

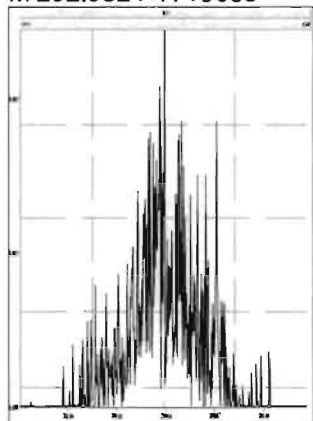
Last Altered: Friday, August 21, 2020 12:11:44 Pacific Daylight Time  
Printed: Friday, August 21, 2020 12:13:15 Pacific Daylight Time

Name: 200821D1\_1, Date: 21-Aug-2020, Time: 11:23:18, ID: ST200821D1-1 1613 CS3 20F1105, Description: 1613 CS3 20F1105

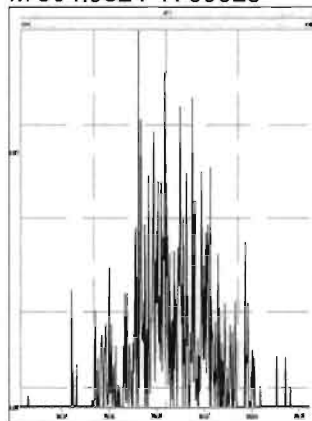


Printed: Friday, August 21, 2020 21:59:52 Pacific Daylight Time

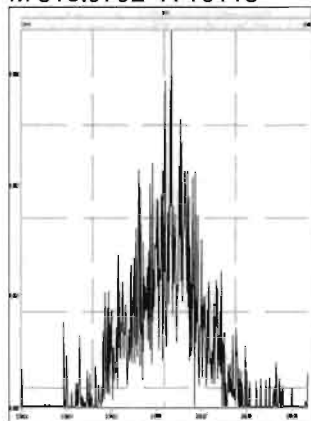
M 292.9824 R 19658



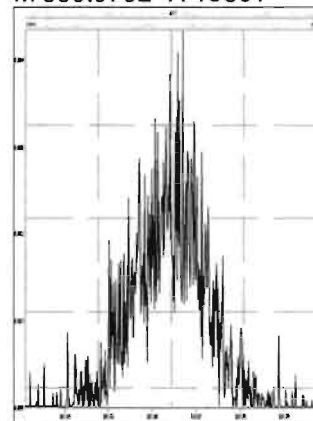
M 304.9824 R 59523



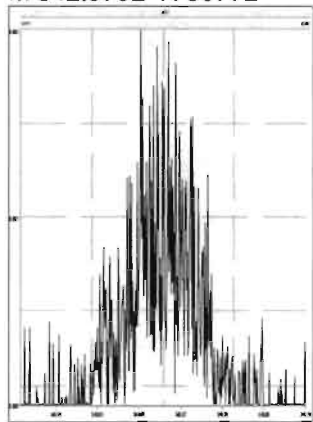
M 318.9792 R 15118



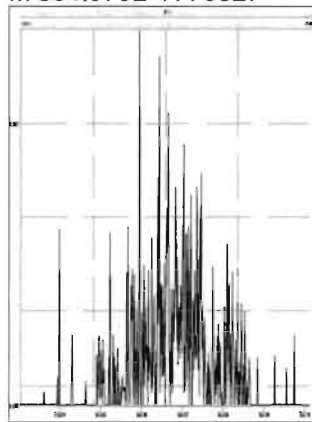
M 330.9792 R 13561



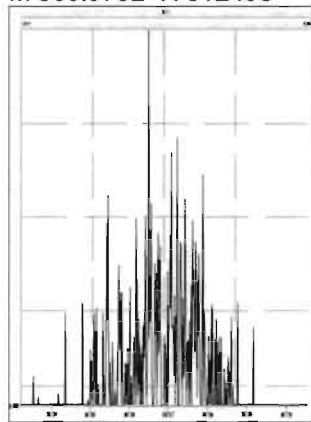
M 342.9792 R 36772



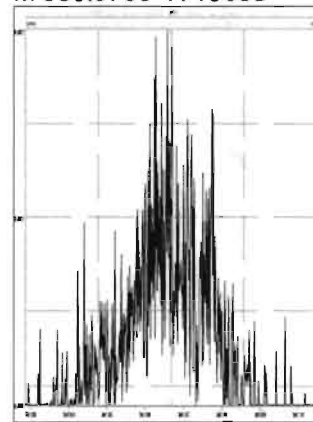
M 354.9792 R 75827



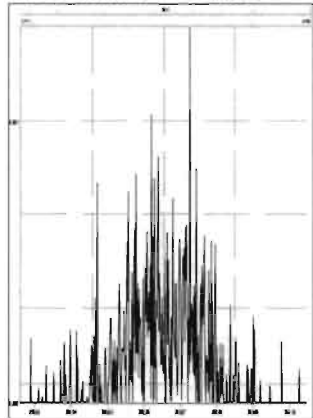
M 366.9792 R 312498



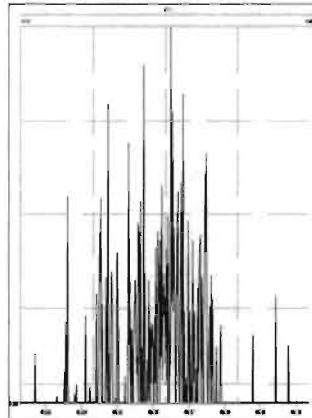
M 380.9760 R 19638



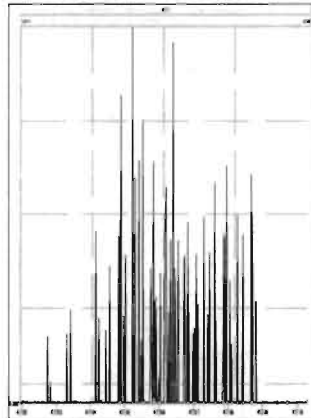
M 392.9760 R 89285



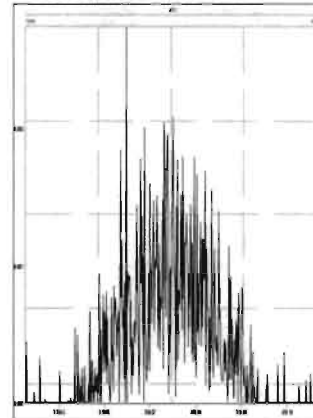
M 404.9760 R 875006



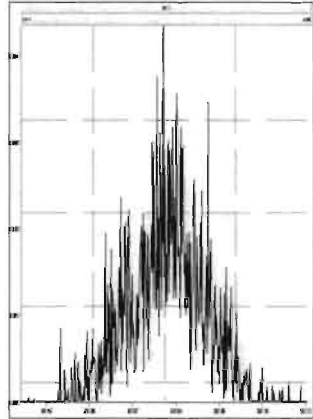
M 416.9760 R 625005



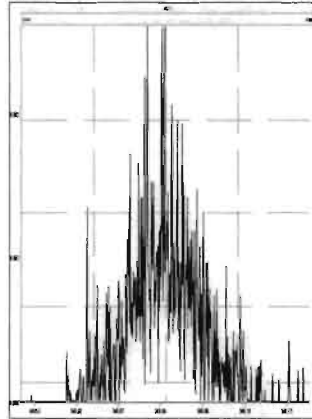
M 318.9792 R 19424



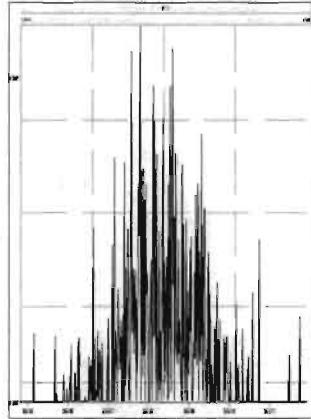
M 330.9792 R 15404



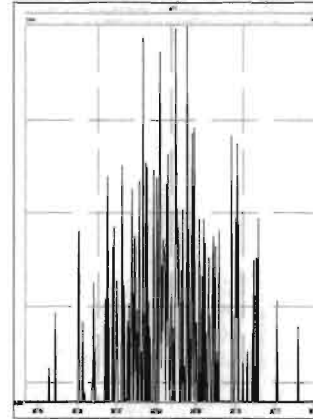
M 342.9792 R 87740



M 354.9792 R 499999

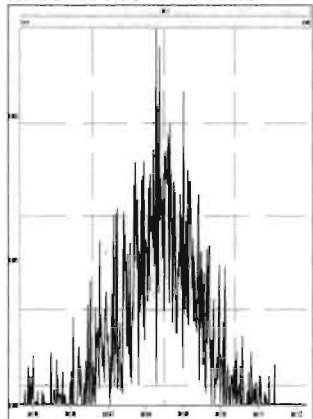


M 366.9792 R 520834

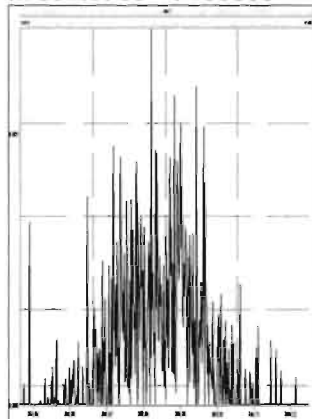


Printed: Friday, August 21, 2020 21:59:52 Pacific Daylight Time

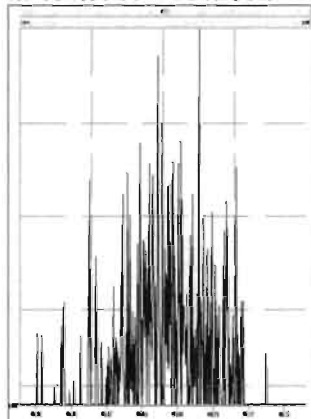
M 380.9760 R 14626



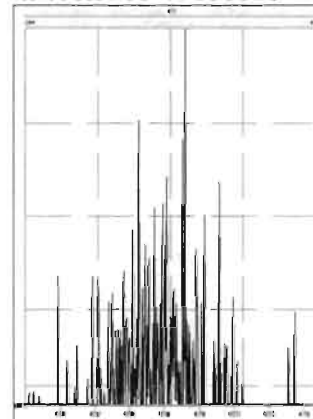
M 392.9760 R 138888



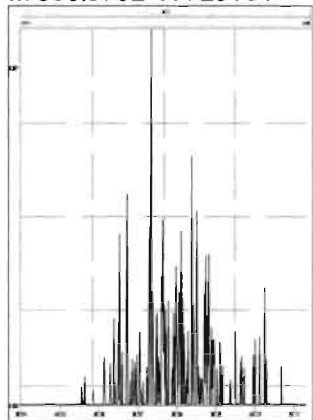
M 404.9760 R 312502



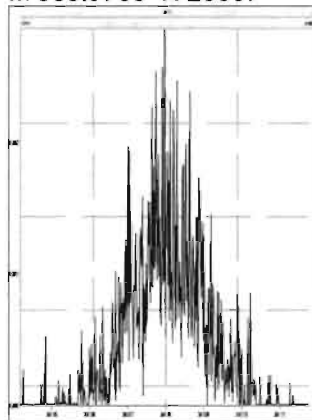
M 416.9760 R 390626



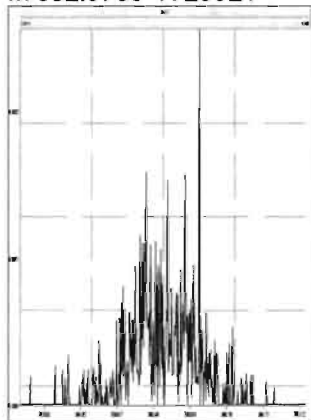
M 366.9792 R 729164



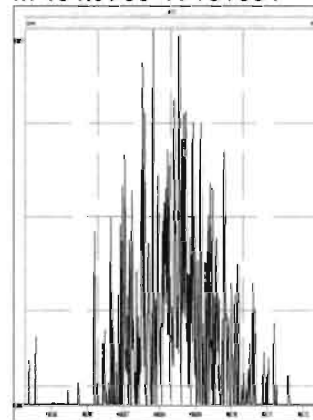
M 380.9760 R 25567



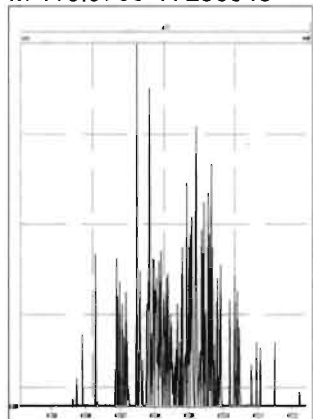
M 392.9760 R 29921



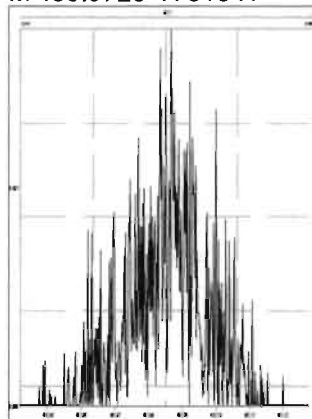
M 404.9760 R 151654



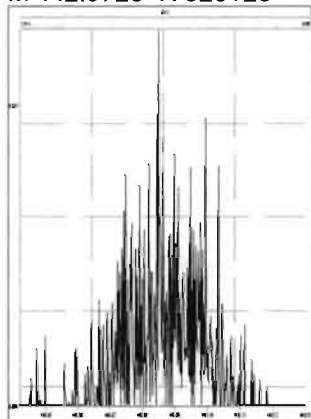
M 416.9760 R 235043



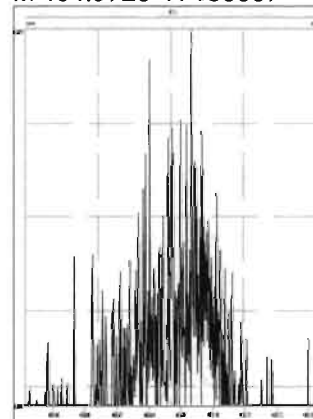
M 430.9728 R 31341



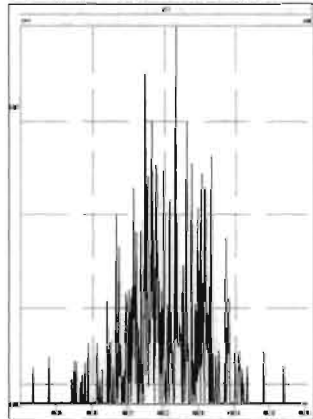
M 442.9728 R 328123



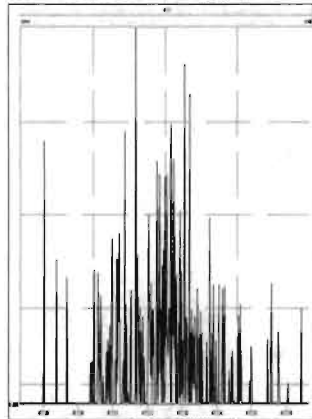
M 454.9728 R 138887



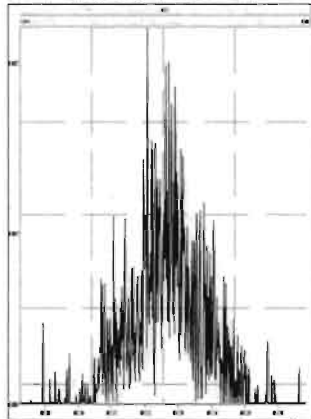
M 404.9760 R 520832



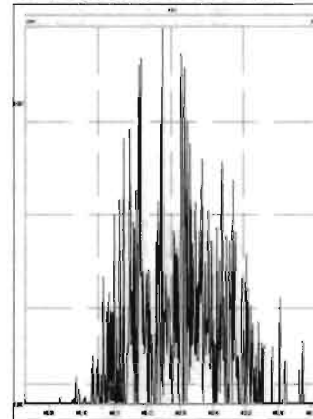
M 416.9760 R 428568



M 430.9728 R 20591

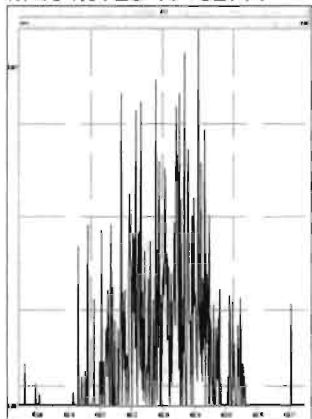


M 442.9728 R 209790

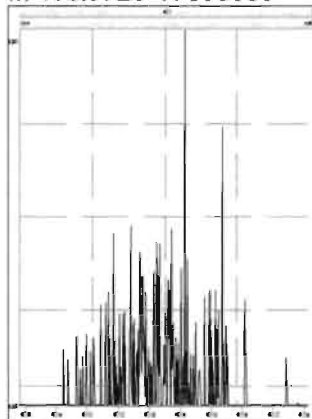


Printed: Friday, August 21, 2020 21:59:52 Pacific Daylight Time

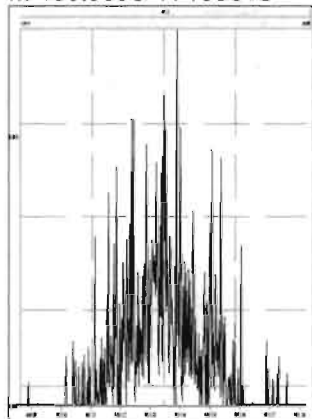
M 454.9728 R 152777



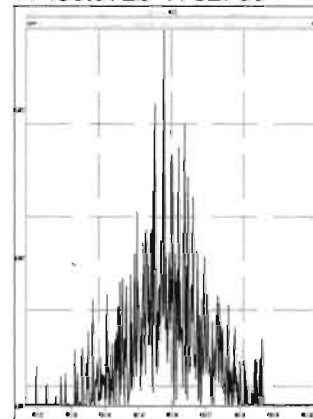
M 466.9728 R 500000



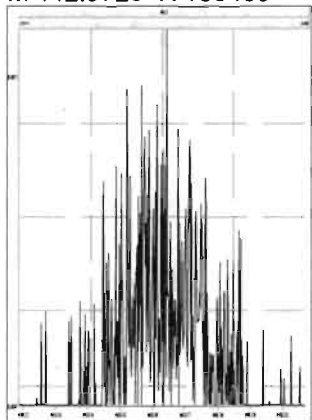
M 480.9696 R 193815



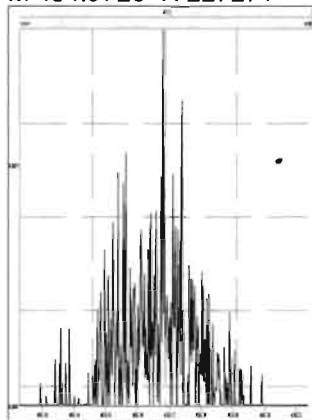
M 430.9728 R 52789



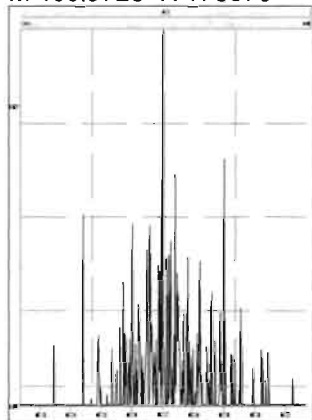
M 442.9728 R 185439



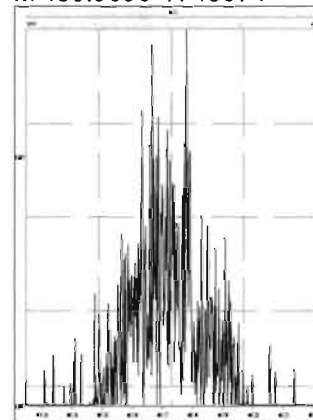
M 454.9728 R 227271



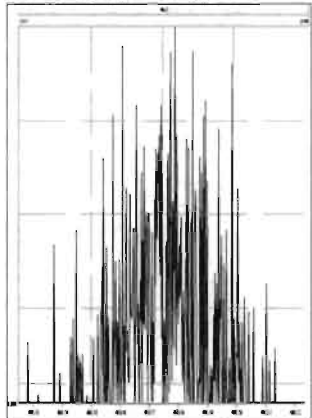
M 466.9728 R 178570



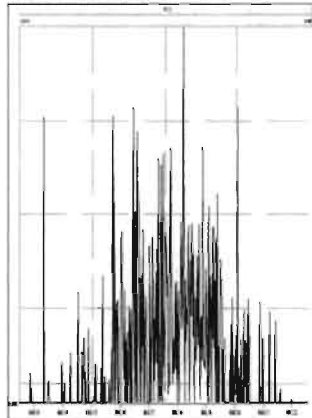
M 480.9696 R 40674



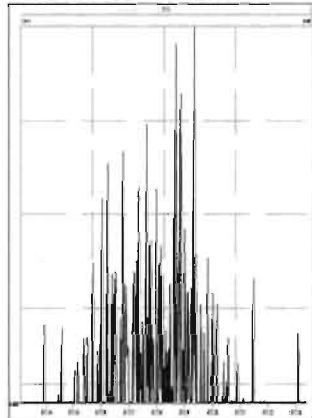
M 492.9696 R 89285



M 504.9696 R 131410



M 516.9697 R 357141



## **INITIAL CALIBRATION**

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:15:00 Pacific Daylight Time

*DB 8/21/20 CT 08/21/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
 Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

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

Response Factor: 1.07802  
 RRF SD: 0.108616, Relative SD: 10.0755  
 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	200820D1_1	0.250	0.88	NO	26.25	1.001	2.00e2	7.99e4	0.232	-7.1	1.00	MM
2	200820D1_2	0.500	0.66	NO	26.23	1.001	3.88e2	7.69e4	0.468	-6.4	1.01	MM
3	200820D1_3	2.00	0.79	NO	26.23	1.001	1.93e3	9.70e4	1.84	-7.9	0.992	bb
4	200820D1_4	10.0	0.77	NO	26.23	1.001	9.08e3	8.37e4	10.1	0.7	1.09	db
5	200820D1_5	40.0	0.79	NO	26.25	1.001	3.94e4	8.95e4	40.8	2.1	1.10	bb
6	200820D1_6	300	0.78	NO	26.25	1.001	3.69e5	9.62e4	356	18.7	1.28	bb

**Compound name: 1,2,3,7,8-PeCDD**

Response Factor: 0.991387  
 RRF SD: 0.118462, Relative SD: 11.9491  
 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	200820D1_1	1.25	0.68	NO	30.51	1.001	7.87e2	6.24e4	1.27	1.8	1.01	bb
2	200820D1_2	2.50	0.63	NO	30.51	1.001	1.19e3	5.49e4	2.19	-12.4	0.868	MM
3	200820D1_3	10.0	0.62	NO	30.51	1.001	7.24e3	8.29e4	8.82	-11.8	0.874	bb
4	200820D1_4	50.0	0.58	NO	30.51	1.001	2.82e4	6.01e4	47.3	-5.3	0.939	bb
5	200820D1_5	200	0.61	NO	30.51	1.001	1.44e5	6.42e4	226	12.9	1.12	bb
6	200820D1_6	1500	0.63	NO	30.53	1.001	1.24e6	7.28e4	1720	14.9	1.14	bb



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:15:00 Pacific Daylight Time

**Compound name: 1,2,3,4,7,8-HxCDD**

Response Factor: 1.04002  
 RRF SD: 0.106197, Relative SD: 10.2111  
 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	200820D1_1	1.25	1.07	NO	33.81	1.000	6.68e2	5.35e4	1.20	-3.9	0.999	dd
2	200820D1_2	2.50	1.06	NO	33.81	1.001	1.13e3	4.60e4	2.37	-5.3	0.985	MM
3	200820D1_3	10.0	1.21	NO	33.79	1.000	5.10e3	5.34e4	9.20	-8.0	0.956	dd
4	200820D1_4	50.0	1.28	NO	33.79	1.001	2.34e4	4.82e4	46.6	-6.7	0.970	dd
5	200820D1_5	200	1.24	NO	33.81	1.000	1.21e5	5.52e4	211	5.6	1.10	bd
6	200820D1_6	1500	1.23	NO	33.82	1.000	1.10e6	5.96e4	1780	18.4	1.23	bd

**Compound name: 1,2,3,6,7,8-HxCDD**

Response Factor: 0.908401  
 RRF SD: 0.094769, Relative SD: 10.4325  
 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	200820D1_1	1.25	1.31	NO	33.94	1.000	6.85e2	6.17e4	1.22	-2.3	0.887	db
2	200820D1_2	2.50	1.10	NO	33.92	1.000	1.07e3	5.12e4	2.30	-8.0	0.836	MM
3	200820D1_3	10.0	1.31	NO	33.92	1.000	5.03e3	6.00e4	9.22	-7.8	0.837	db
4	200820D1_4	50.0	1.23	NO	33.92	1.000	2.34e4	5.46e4	47.1	-5.8	0.856	dd
5	200820D1_5	200	1.23	NO	33.93	1.000	1.18e5	6.15e4	210	5.2	0.956	db
6	200820D1_6	1500	1.23	NO	33.95	1.001	1.06e6	6.55e4	1780	18.8	1.08	db

**Compound name: 1,2,3,7,8,9-HxCDD**

Response Factor: 0.923364  
 RRF SD: 0.106421, Relative SD: 11.5253  
 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	200820D1_1	1.25	1.17	NO	34.22	1.000	6.15e2	6.07e4	1.10	-12.2	0.811	bb
2	200820D1_2	2.50	1.17	NO	34.21	1.000	1.14e3	5.13e4	2.40	-3.8	0.888	bb

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:15:00 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	200820D1_3	10.0	1.22	NO	34.20	1.000	5.14e3	5.96e4	9.34	-6.6	0.862	bb
4	200820D1_4	50.0	1.27	NO	34.21	1.000	2.44e4	5.52e4	47.9	-4.2	0.884	dd
5	200820D1_5	200	1.25	NO	34.22	1.000	1.23e5	6.21e4	214	7.2	0.990	bb
6	200820D1_6	1500	1.23	NO	34.23	1.001	1.11e6	6.69e4	1790	19.6	1.10	bb

**Compound name: 1,2,3,4,6,7,8-HpCDD**

Response Factor: 0.925568

RRF SD: 0.0893063, Relative SD: 9.6488

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	200820D1_1	1.25	1.04	NO	37.58	1.000	5.00e2	4.77e4	1.13	-9.3	0.839	bb
2	200820D1_2	2.50	1.01	NO	37.57	1.001	9.93e2	4.51e4	2.38	-4.8	0.881	bb
3	200820D1_3	10.0	1.00	NO	37.56	1.000	4.30e3	4.85e4	9.60	-4.0	0.888	bb
4	200820D1_4	50.0	1.03	NO	37.56	1.000	2.01e4	4.55e4	47.7	-4.5	0.884	bb
5	200820D1_5	200	1.07	NO	37.58	1.001	1.00e5	5.13e4	212	5.8	0.979	bd
6	200820D1_6	1500	1.03	NO	37.58	1.000	9.37e5	5.78e4	1750	16.9	1.08	bb

**Compound name: OCDD**

Response Factor: 0.833778

RRF SD: 0.118308, Relative SD: 14.1893

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	200820D1_1	2.50	0.95	NO	40.84	1.000	7.86e2	8.92e4	2.11	-15.5	0.705	bb
2	200820D1_2	5.00	0.86	NO	40.83	1.000	1.48e3	7.73e4	4.59	-8.2	0.765	bb
3	200820D1_3	20.0	0.89	NO	40.84	1.001	6.39e3	8.33e4	18.4	-7.9	0.768	bb
4	200820D1_4	100	0.85	NO	40.83	1.000	3.23e4	7.82e4	99.1	-0.9	0.826	bb
5	200820D1_5	400	0.87	NO	40.85	1.000	1.73e5	9.55e4	436	8.9	0.908	bb
6	200820D1_6	3000	0.87	NO	40.87	1.001	1.63e6	1.05e5	3710	23.6	1.03	bb

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:15:00 Pacific Daylight Time

**Compound name: 2,3,7,8-TCDF**

Response Factor: 0.881602  
 RRF SD: 0.0768401, Relative SD: 8.71596  
 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	200820D1_1	0.250	0.88	NO	25.59	1.001	2.90e2	1.24e5	0.265	5.9	0.934	MM
2	200820D1_2	0.500	0.67	NO	25.59	1.000	4.47e2	1.08e5	0.470	-6.0	0.829	bb
3	200820D1_3	2.00	0.71	NO	25.61	1.001	2.45e3	1.47e5	1.90	-5.2	0.836	bb
4	200820D1_4	10.0	0.82	NO	25.59	1.001	1.02e4	1.23e5	9.47	-5.3	0.835	bb
5	200820D1_5	40.0	0.76	NO	25.62	1.001	4.57e4	1.36e5	38.1	-4.7	0.840	bb
6	200820D1_6	300	0.76	NO	25.62	1.001	4.26e5	1.40e5	346	15.2	1.02	bb

**Compound name: 1,2,3,7,8-PeCDF**

Response Factor: 0.936606  
 RRF SD: 0.097049, Relative SD: 10.3618  
 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	200820D1_1	1.25	1.49	NO	29.36	1.000	1.14e3	9.95e4	1.23	-1.7	0.921	bb
2	200820D1_2	2.50	1.39	NO	29.36	1.000	1.82e3	8.79e4	2.22	-11.4	0.830	bb
3	200820D1_3	10.0	1.52	NO	29.36	1.001	9.31e3	1.09e5	9.12	-8.8	0.854	bb
4	200820D1_4	50.0	1.60	NO	29.36	1.001	4.46e4	9.63e4	49.4	-1.2	0.925	bd
5	200820D1_5	200	1.57	NO	29.38	1.001	2.17e5	1.09e5	212	6.2	0.994	bb
6	200820D1_6	1500	1.54	NO	29.38	1.001	1.80e6	1.09e5	1750	17.0	1.10	bb

**Compound name: 2,3,4,7,8-PeCDF**

Response Factor: 1.02608  
 RRF SD: 0.122941, Relative SD: 11.9817  
 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	200820D1_1	1.25	1.58	NO	30.31	1.000	1.11e3	9.57e4	1.13	-9.9	0.924	bb
2	200820D1_2	2.50	1.40	NO	30.31	1.001	1.93e3	8.23e4	2.29	-8.4	0.940	bb

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:15:00 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	200820D1_3	10.0	1.51	NO	30.31	1.001	9.20e3	9.65e4	9.29	-7.1	0.953	bb
4	200820D1_4	50.0	1.56	NO	30.31	1.001	4.32e4	8.82e4	47.8	-4.4	0.981	bb
5	200820D1_5	200	1.55	NO	30.31	1.000	2.24e5	9.83e4	222	10.9	1.14	bb
6	200820D1_6	1500	1.52	NO	30.33	1.001	1.94e6	1.06e5	1780	18.9	1.22	bb

**Compound name: 1,2,3,4,7,8-HxCDF**

Response Factor: 1.07297  
 RRF SD: 0.125265, Relative SD: 11.6746  
 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	200820D1_1	1.25	1.24	NO	32.88	1.000	9.33e2	6.92e4	1.26	0.5	1.08	bd
2	200820D1_2	2.50	1.31	NO	32.88	1.000	1.41e3	5.87e4	2.25	-10.2	0.964	bd
3	200820D1_3	10.0	1.20	NO	32.87	1.000	6.70e3	7.18e4	8.70	-13.0	0.933	bd
4	200820D1_4	50.0	1.21	NO	32.88	1.001	3.22e4	6.23e4	48.2	-3.6	1.03	bd
5	200820D1_5	200	1.22	NO	32.90	1.001	1.63e5	7.04e4	216	8.0	1.16	bd
6	200820D1_6	1500	1.22	NO	32.90	1.000	1.45e6	7.64e4	1770	18.2	1.27	bd

**Compound name: 1,2,3,6,7,8-HxCDF**

Response Factor: 1.11276  
 RRF SD: 0.150647, Relative SD: 13.5381  
 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	200820D1_1	1.25	1.17	NO	33.04	1.001	8.77e2	7.00e4	1.13	-9.9	1.00	db
2	200820D1_2	2.50	1.42	NO	33.02	1.000	1.42e3	5.70e4	2.25	-10.1	1.00	MM
3	200820D1_3	10.0	1.21	NO	33.01	1.000	7.15e3	7.17e4	8.95	-10.5	0.996	db
4	200820D1_4	50.0	1.22	NO	33.01	1.000	3.29e4	6.09e4	48.6	-2.7	1.08	db
5	200820D1_5	200	1.25	NO	33.03	1.000	1.71e5	6.87e4	223	11.7	1.24	db
6	200820D1_6	1500	1.23	NO	33.04	1.000	1.50e6	7.39e4	1820	21.5	1.35	db

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:15:00 Pacific Daylight Time

**Compound name: 2,3,4,6,7,8-HxCDF**

Response Factor: 1.11212

RRF SD: 0.141956, Relative SD: 12.7645

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	200820D1_1	1.25	1.15	NO	33.69	1.001	7.78e2	6.59e4	1.06	-15.1	0.944	bb
2	200820D1_2	2.50	1.24	NO	33.67	1.000	1.41e3	5.32e4	2.38	-4.9	1.06	bb
3	200820D1_3	10.0	1.26	NO	33.67	1.000	6.64e3	6.42e4	9.30	-7.0	1.03	bb
4	200820D1_4	50.0	1.23	NO	33.67	1.000	3.09e4	5.72e4	48.6	-2.7	1.08	bb
5	200820D1_5	200	1.25	NO	33.69	1.000	1.59e5	6.54e4	218	9.2	1.21	bb
6	200820D1_6	1500	1.22	NO	33.70	1.000	1.39e6	6.92e4	1810	20.5	1.34	bb

**Compound name: 1,2,3,7,8,9-HxCDF**

Response Factor: 1.12256

RRF SD: 0.113801, Relative SD: 10.1376

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	200820D1_1	1.25	1.31	NO	34.74	1.001	8.02e2	6.01e4	1.19	-4.9	1.07	bb
2	200820D1_2	2.50	1.35	NO	34.72	1.000	1.34e3	5.01e4	2.37	-5.1	1.07	bb
3	200820D1_3	10.0	1.15	NO	34.72	1.000	6.72e3	6.59e4	9.09	-9.1	1.02	bb
4	200820D1_4	50.0	1.25	NO	34.72	1.000	2.86e4	5.34e4	47.8	-4.4	1.07	bb
5	200820D1_5	200	1.29	NO	34.74	1.001	1.47e5	6.21e4	210	5.2	1.18	bd
6	200820D1_6	1500	1.24	NO	34.74	1.000	1.30e6	6.51e4	1770	18.3	1.33	bb

**Compound name: 1,2,3,4,6,7,8-HpCDF**

Response Factor: 1.15291

RRF SD: 0.129359, Relative SD: 11.2202

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	200820D1_1	1.25	1.09	NO	36.40	1.001	8.59e2	6.00e4	1.24	-0.7	1.15	bb
2	200820D1_2	2.50	1.05	NO	36.38	1.001	1.30e3	4.78e4	2.36	-5.4	1.09	bb

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:15:00 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	200820D1_3	10.0	1.02	NO	36.37	1.000	5.55e3	5.49e4	8.77	-12.3	1.01	bb
4	200820D1_4	50.0	1.06	NO	36.37	1.000	2.80e4	5.13e4	47.3	-5.5	1.09	bb
5	200820D1_5	200	1.01	NO	36.40	1.001	1.51e5	6.31e4	208	3.8	1.20	bb
6	200820D1_6	1500	1.02	NO	36.40	1.000	1.32e6	6.35e4	1800	20.1	1.38	bb

**Compound name: 1,2,3,4,7,8,9-HpCDF**

Response Factor: 1.25349

RRF SD: 0.154307, Relative SD: 12.3102

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	200820D1_1	1.25	0.98	NO	38.24	1.000	5.62e2	3.88e4	1.15	-7.6	1.16	bb
2	200820D1_2	2.50	1.01	NO	38.24	1.001	9.74e2	3.38e4	2.30	-8.0	1.15	bb
3	200820D1_3	10.0	1.04	NO	38.22	1.000	5.37e3	4.78e4	8.97	-10.3	1.12	bb
4	200820D1_4	50.0	1.04	NO	38.23	1.001	2.31e4	3.84e4	48.0	-3.9	1.20	bd
5	200820D1_5	200	1.03	NO	38.24	1.000	1.20e5	4.38e4	218	9.2	1.37	bb
6	200820D1_6	1500	1.02	NO	38.25	1.000	1.08e6	4.77e4	1810	20.7	1.51	bb

**Compound name: OCDF**

Response Factor: 0.960954

RRF SD: 0.123432, Relative SD: 12.8448

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	200820D1_1	2.50	0.82	NO	41.18	1.000	9.83e2	9.07e4	2.26	-9.7	0.867	bb
2	200820D1_2	5.00	0.87	NO	41.17	1.001	1.81e3	8.06e4	4.66	-6.8	0.896	bb
3	200820D1_3	20.0	0.85	NO	41.16	1.000	7.55e3	8.79e4	17.9	-10.7	0.858	bb
4	200820D1_4	100	0.89	NO	41.16	1.000	3.89e4	8.40e4	96.4	-3.6	0.927	bb
5	200820D1_5	400	0.89	NO	41.18	1.000	2.08e5	9.93e4	436	8.9	1.05	bb
6	200820D1_6	3000	0.89	NO	41.20	1.001	1.98e6	1.13e5	3660	21.9	1.17	bb

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:15:00 Pacific Daylight Time

**Compound name: 13C-2,3,7,8-TCDD**

Response Factor: 1.20317

RRF SD: 0.0336978, Relative SD: 2.80076

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	200820D1_1	100	0.76	NO	26.22	1.026	7.99e4	6.93e4	95.9	-4.1	1.15	bb
2	200820D1_2	100	0.77	NO	26.22	1.026	7.69e4	6.27e4	102	1.9	1.23	bb
3	200820D1_3	100	0.77	NO	26.22	1.025	9.70e4	8.12e4	99.2	-0.8	1.19	bb
4	200820D1_4	100	0.78	NO	26.20	1.025	8.37e4	6.69e4	104	4.0	1.25	bb
5	200820D1_5	100	0.77	NO	26.22	1.025	8.95e4	7.39e4	101	0.6	1.21	bb
6	200820D1_6	100	0.76	NO	26.23	1.025	9.62e4	8.12e4	98.5	-1.5	1.18	bb

**Compound name: 13C-1,2,3,7,8-PeCDD**

Response Factor: 0.910056

RRF SD: 0.0554429, Relative SD: 6.09225

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	200820D1_1	100	0.59	NO	30.49	1.193	6.24e4	6.93e4	98.9	-1.1	0.900	bb
2	200820D1_2	100	0.59	NO	30.49	1.193	5.49e4	6.27e4	96.3	-3.7	0.876	bb
3	200820D1_3	100	0.62	NO	30.49	1.192	8.29e4	8.12e4	112	12.1	1.02	bd
4	200820D1_4	100	0.65	NO	30.49	1.193	6.01e4	6.69e4	98.8	-1.2	0.899	bb
5	200820D1_5	100	0.63	NO	30.49	1.192	6.42e4	7.39e4	95.4	-4.6	0.868	bb
6	200820D1_6	100	0.62	NO	30.51	1.192	7.28e4	8.12e4	98.6	-1.4	0.897	bb

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

Response Factor: 0.788634

RRF SD: 0.0366568, Relative SD: 4.64813

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	200820D1_1	100	1.25	NO	33.79	1.014	5.35e4	7.05e4	96.2	-3.8	0.759	bd
2	200820D1_2	100	1.30	NO	33.78	1.014	4.60e4	5.80e4	101	0.6	0.793	bd

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:15:00 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	200820D1_3	100	1.28	NO	33.78	1.014	5.34e4	7.06e4	95.9	-4.1	0.756	bd
4	200820D1_4	100	1.30	NO	33.77	1.014	4.82e4	6.27e4	97.6	-2.4	0.770	bd
5	200820D1_5	100	1.27	NO	33.79	1.014	5.52e4	6.90e4	101	1.5	0.800	bd
6	200820D1_6	100	1.28	NO	33.81	1.014	5.96e4	6.98e4	108	8.3	0.854	bd

**Compound name: 13C-1,2,3,6,7,8-HxCDD**

Response Factor: 0.884831  
RRF SD: 0.0297169, Relative SD: 3.35849  
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	200820D1_1	100	1.27	NO	33.93	1.018	6.17e4	7.05e4	98.9	-1.1	0.875	db
2	200820D1_2	100	1.36	NO	33.92	1.018	5.12e4	5.80e4	99.7	-0.3	0.882	dd
3	200820D1_3	100	1.25	NO	33.90	1.018	6.00e4	7.06e4	96.1	-3.9	0.850	db
4	200820D1_4	100	1.28	NO	33.90	1.018	5.46e4	6.27e4	98.5	-1.5	0.871	db
5	200820D1_5	100	1.26	NO	33.92	1.018	6.15e4	6.90e4	101	0.8	0.892	db
6	200820D1_6	100	1.31	NO	33.93	1.018	6.55e4	6.98e4	106	6.1	0.938	db

**Compound name: 13C-1,2,3,7,8,9-HxCDD**

Response Factor: 0.888269  
RRF SD: 0.0393305, Relative SD: 4.42777  
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	200820D1_1	100	1.22	NO	34.21	1.026	6.07e4	7.05e4	96.9	-3.1	0.861	bd
2	200820D1_2	100	1.31	NO	34.20	1.027	5.13e4	5.80e4	99.7	-0.3	0.885	db
3	200820D1_3	100	1.32	NO	34.19	1.026	5.96e4	7.06e4	95.1	-4.9	0.844	bd
4	200820D1_4	100	1.29	NO	34.20	1.027	5.52e4	6.27e4	99.3	-0.7	0.882	bd
5	200820D1_5	100	1.21	NO	34.21	1.027	6.21e4	6.90e4	101	1.3	0.899	bb
6	200820D1_6	100	1.29	NO	34.21	1.026	6.69e4	6.98e4	108	7.9	0.958	bd



Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:15:00 Pacific Daylight Time

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

Response Factor: 0.739571

RRF SD: 0.0568004, Relative SD: 7.68019

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	200820D1_1	100	1.07	NO	37.57	1.127	4.77e4	7.05e4	91.5	-8.5	0.676	bd
2	200820D1_2	100	1.08	NO	37.55	1.127	4.51e4	5.80e4	105	5.0	0.777	bd
3	200820D1_3	100	1.07	NO	37.55	1.127	4.85e4	7.06e4	92.8	-7.2	0.686	bd
4	200820D1_4	100	1.06	NO	37.55	1.127	4.55e4	6.27e4	98.3	-1.7	0.727	bd
5	200820D1_5	100	0.99	NO	37.56	1.127	5.13e4	6.90e4	100	0.5	0.743	bb
6	200820D1_6	100	1.04	NO	37.57	1.127	5.78e4	6.98e4	112	11.9	0.828	bb

**Compound name: 13C-OCDD**

Response Factor: 0.659775

RRF SD: 0.0580208, Relative SD: 8.79403

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	200820D1_1	200	0.88	NO	40.84	1.225	8.92e4	7.05e4	192	-4.1	0.632	bd
2	200820D1_2	200	0.87	NO	40.82	1.225	7.73e4	5.80e4	202	1.0	0.666	bd
3	200820D1_3	200	0.86	NO	40.82	1.225	8.33e4	7.06e4	179	-10.6	0.590	bb
4	200820D1_4	200	0.87	NO	40.82	1.225	7.82e4	6.27e4	189	-5.4	0.624	bd
5	200820D1_5	200	0.92	NO	40.84	1.226	9.55e4	6.90e4	210	4.9	0.692	bb
6	200820D1_6	200	0.90	NO	40.85	1.226	1.05e5	6.98e4	228	14.2	0.754	bb

**Compound name: 13C-2,3,7,8-TCDF**

Response Factor: 1.08762

RRF SD: 0.0241958, Relative SD: 2.22465

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	200820D1_1	100	0.78	NO	25.58	1.001	1.24e5	1.14e5	100	-0.0	1.09	bb
2	200820D1_2	100	0.74	NO	25.59	1.001	1.08e5	1.01e5	97.9	-2.1	1.07	bb

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 10:15:00 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	200820D1_3	100	0.74	NO	25.59	1.001	1.47e5	1.31e5	103	3.2	1.12	bd
4	200820D1_4	100	0.74	NO	25.58	1.001	1.23e5	1.14e5	98.9	-1.1	1.08	bb
5	200820D1_5	100	0.75	NO	25.59	1.001	1.36e5	1.28e5	97.9	-2.1	1.06	bb
6	200820D1_6	100	0.77	NO	25.59	1.000	1.40e5	1.26e5	102	2.1	1.11	bb

**Compound name: 13C-1,2,3,7,8-PeCDF**

Response Factor: 0.856776  
 RRF SD: 0.0151363, Relative SD: 1.76666  
 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	200820D1_1	100	1.65	NO	29.36	1.149	9.95e4	1.14e5	102	1.6	0.871	bb
2	200820D1_2	100	1.68	NO	29.36	1.149	8.79e4	1.01e5	101	1.3	0.868	bb
3	200820D1_3	100	1.59	NO	29.34	1.147	1.09e5	1.31e5	97.3	-2.7	0.834	bb
4	200820D1_4	100	1.65	NO	29.34	1.148	9.63e4	1.14e5	98.6	-1.4	0.845	bb
5	200820D1_5	100	1.62	NO	29.36	1.148	1.09e5	1.28e5	99.7	-0.3	0.854	bb
6	200820D1_6	100	1.60	NO	29.36	1.147	1.09e5	1.26e5	101	1.4	0.869	bb

**Compound name: 13C-2,3,4,7,8-PeCDF**

Response Factor: 0.795959  
 RRF SD: 0.0422632, Relative SD: 5.30972  
 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	200820D1_1	100	1.67	NO	30.31	1.186	9.57e4	1.14e5	105	5.3	0.838	bb
2	200820D1_2	100	1.66	NO	30.29	1.185	8.23e4	1.01e5	102	2.1	0.813	dd
3	200820D1_3	100	1.64	NO	30.29	1.184	9.65e4	1.31e5	92.7	-7.3	0.738	bb
4	200820D1_4	100	1.65	NO	30.29	1.185	8.82e4	1.14e5	97.1	-2.9	0.773	bb
5	200820D1_5	100	1.62	NO	30.31	1.185	9.83e4	1.28e5	96.8	-3.2	0.770	bb
6	200820D1_6	100	1.63	NO	30.31	1.184	1.06e5	1.26e5	106	6.0	0.844	bb

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:15:00 Pacific Daylight Time

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

Response Factor: 1.01978

RRF SD: 0.0393671, Relative SD: 3.86035

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	200820D1_1	100	0.50	NO	32.87	0.986	6.92e4	7.05e4	96.2	-3.8	0.981	bd
2	200820D1_2	100	0.49	NO	32.87	0.987	5.87e4	5.80e4	99.2	-0.8	1.01	bd
3	200820D1_3	100	0.51	NO	32.86	0.986	7.18e4	7.06e4	99.8	-0.2	1.02	bd
4	200820D1_4	100	0.49	NO	32.86	0.986	6.23e4	6.27e4	97.5	-2.5	0.994	bd
5	200820D1_5	100	0.49	NO	32.87	0.987	7.04e4	6.90e4	100	0.0	1.02	bd
6	200820D1_6	100	0.48	NO	32.88	0.987	7.64e4	6.98e4	107	7.3	1.09	bd

**Compound name: 13C-1,2,3,6,7,8-HxCDF**

Response Factor: 1.00293

RRF SD: 0.0313155, Relative SD: 3.1224

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	200820D1_1	100	0.51	NO	33.01	0.990	7.00e4	7.05e4	99.0	-1.0	0.993	db
2	200820D1_2	100	0.53	NO	33.00	0.991	5.70e4	5.80e4	98.0	-2.0	0.983	dd
3	200820D1_3	100	0.52	NO	33.00	0.991	7.17e4	7.06e4	101	1.3	1.02	dd
4	200820D1_4	100	0.53	NO	33.01	0.991	6.09e4	6.27e4	96.8	-3.2	0.971	dd
5	200820D1_5	100	0.50	NO	33.01	0.991	6.87e4	6.90e4	99.3	-0.7	0.996	db
6	200820D1_6	100	0.50	NO	33.03	0.991	7.39e4	6.98e4	106	5.6	1.06	db

**Compound name: 13C-2,3,4,6,7,8-HxCDF**

Response Factor: 0.935571

RRF SD: 0.0313111, Relative SD: 3.34673

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	200820D1_1	100	0.50	NO	33.67	1.010	6.59e4	7.05e4	99.9	-0.1	0.935	bd
2	200820D1_2	100	0.50	NO	33.66	1.011	5.32e4	5.80e4	98.1	-1.9	0.918	bb

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:15:00 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	200820D1_3	100	0.50	NO	33.66	1.011	6.42e4	7.06e4	97.1	-2.9	0.909	bb
4	200820D1_4	100	0.49	NO	33.66	1.011	5.72e4	6.27e4	97.6	-2.4	0.913	bb
5	200820D1_5	100	0.49	NO	33.67	1.011	6.54e4	6.90e4	101	1.2	0.947	bb
6	200820D1_6	100	0.52	NO	33.69	1.011	6.92e4	6.98e4	106	6.0	0.992	bd

**Compound name: 13C-1,2,3,7,8,9-HxCDF**

Response Factor: 0.889335  
RRF SD: 0.0381939, Relative SD: 4.29466  
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	200820D1_1	100	0.52	NO	34.72	1.041	6.01e4	7.05e4	95.9	-4.1	0.853	bd
2	200820D1_2	100	0.48	NO	34.71	1.042	5.01e4	5.80e4	97.2	-2.8	0.865	bb
3	200820D1_3	100	0.50	NO	34.71	1.042	6.59e4	7.06e4	105	4.9	0.933	bb
4	200820D1_4	100	0.52	NO	34.71	1.042	5.34e4	6.27e4	95.8	-4.2	0.852	bd
5	200820D1_5	100	0.49	NO	34.72	1.042	6.21e4	6.90e4	101	1.3	0.901	bb
6	200820D1_6	100	0.51	NO	34.73	1.042	6.51e4	6.98e4	105	4.9	0.933	bb

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

Response Factor: 0.849444  
RRF SD: 0.0540255, Relative SD: 6.36011  
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	200820D1_1	100	0.44	NO	36.37	1.091	6.00e4	7.05e4	100	0.2	0.851	bd
2	200820D1_2	100	0.43	NO	36.36	1.092	4.78e4	5.80e4	97.0	-3.0	0.824	bb
3	200820D1_3	100	0.42	NO	36.36	1.092	5.49e4	7.06e4	91.6	-8.4	0.778	bb
4	200820D1_4	100	0.43	NO	36.36	1.092	5.13e4	6.27e4	96.4	-3.6	0.819	bd
5	200820D1_5	100	0.42	NO	36.37	1.092	6.31e4	6.90e4	108	7.7	0.915	bb
6	200820D1_6	100	0.43	NO	36.38	1.092	6.35e4	6.98e4	107	7.1	0.910	bb

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:15:00 Pacific Daylight Time

**Compound name: 13C-1,2,3,4,7,8,9-HpCDF**

Response Factor: 0.62356

RRF SD: 0.0524949, Relative SD: 8.41857

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	200820D1_1	100	0.41	NO	38.23	1.147	3.88e4	7.05e4	88.3	-11.7	0.551	bb
2	200820D1_2	100	0.43	NO	38.22	1.147	3.38e4	5.80e4	93.4	-6.6	0.583	bb
3	200820D1_3	100	0.42	NO	38.21	1.147	4.78e4	7.06e4	109	8.6	0.677	bb
4	200820D1_4	100	0.41	NO	38.21	1.147	3.84e4	6.27e4	98.3	-1.7	0.613	bb
5	200820D1_5	100	0.44	NO	38.23	1.147	4.38e4	6.90e4	102	1.7	0.634	bb
6	200820D1_6	100	0.45	NO	38.24	1.147	4.77e4	6.98e4	110	9.7	0.684	bb

**Compound name: 13C-OCDF**

Response Factor: 0.693234

RRF SD: 0.0665885, Relative SD: 9.60549

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	200820D1_1	200	0.89	NO	41.17	1.235	9.07e4	7.05e4	185	-7.3	0.643	bd
2	200820D1_2	200	0.88	NO	41.15	1.235	8.06e4	5.80e4	201	0.3	0.695	bd
3	200820D1_3	200	0.91	NO	41.15	1.235	8.79e4	7.06e4	180	-10.2	0.623	bb
4	200820D1_4	200	0.87	NO	41.15	1.235	8.40e4	6.27e4	193	-3.3	0.670	bd
5	200820D1_5	200	0.90	NO	41.17	1.235	9.93e4	6.90e4	207	3.7	0.719	bd
6	200820D1_6	200	0.88	NO	41.18	1.235	1.13e5	6.98e4	233	16.7	0.809	bb

**Compound name: 37Cl-2,3,7,8-TCDD**

Response Factor: 1.27569

RRF SD: 0.195799, Relative SD: 15.3484

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	200820D1_1	0.250			26.22	1.026	1.67e2	6.93e4	0.189	-24.5	0.964	bb
2	200820D1_2	0.500			26.23	1.026	3.66e2	6.27e4	0.458	-8.5	1.17	MM

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:15:00 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	200820D1_3	2.00			26.23	1.026	2.08e3	8.12e4	2.00	0.2	1.28	bb
4	200820D1_4	10.0			26.23	1.026	8.73e3	6.69e4	10.2	2.3	1.30	bd
5	200820D1_5	40.0			26.23	1.026	4.18e4	7.39e4	44.3	10.8	1.41	bd
6	200820D1_6	200			26.25	1.026	2.48e5	8.12e4	239	19.6	1.53	bb

**Compound name: 13C-1,2,3,4-TCDD**

Response Factor: 1

RRF SD: 4.96507e-017, Relative SD: 4.96507e-015

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200820D1_1	100	0.77	NO	25.56	1.000	6.93e4	6.93e4	100	0.0	1.00	bb
2	200820D1_2	100	0.77	NO	25.56	1.000	6.27e4	6.27e4	100	-0.0	1.00	bb
3	200820D1_3	100	0.79	NO	25.58	1.000	8.12e4	8.12e4	100	0.0	1.00	bb
4	200820D1_4	100	0.79	NO	25.56	1.000	6.69e4	6.69e4	100	0.0	1.00	bb
5	200820D1_5	100	0.78	NO	25.58	1.000	7.39e4	7.39e4	100	0.0	1.00	bb
6	200820D1_6	100	0.79	NO	25.59	1.000	8.12e4	8.12e4	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	200820D1_1	100	0.78	NO	24.28	1.000	1.14e5	1.14e5	100	0.0	1.00	bb
2	200820D1_2	100	0.80	NO	24.28	1.000	1.01e5	1.01e5	100	0.0	1.00	bb
3	200820D1_3	100	0.78	NO	24.28	1.000	1.31e5	1.31e5	100	0.0	1.00	bb
4	200820D1_4	100	0.76	NO	24.28	1.000	1.14e5	1.14e5	100	0.0	1.00	bb
5	200820D1_5	100	0.80	NO	24.28	1.000	1.28e5	1.28e5	100	0.0	1.00	bb
6	200820D1_6	100	0.76	NO	24.29	1.000	1.26e5	1.26e5	100	0.0	1.00	bb

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:15:00 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	200820D1_1	100	0.49	NO	33.33	1.000	7.05e4	7.05e4	100	0.0	1.00	bb
2	200820D1_2	100	0.50	NO	33.31	1.000	5.80e4	5.80e4	100	0.0	1.00	bb
3	200820D1_3	100	0.50	NO	33.31	1.000	7.06e4	7.06e4	100	0.0	1.00	dd
4	200820D1_4	100	0.50	NO	33.31	1.000	6.27e4	6.27e4	100	0.0	1.00	db
5	200820D1_5	100	0.49	NO	33.32	1.000	6.90e4	6.90e4	100	0.0	1.00	bb
6	200820D1_6	100	0.50	NO	33.33	1.000	6.98e4	6.98e4	100	0.0	1.00	bb

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

	# 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	2.00e2	0.88	NO	1.08	1.000	26.249	26.25	1.001	1.001	0.23235	92.9	0.113	0.232
2	2 1,2,3,7,8-PeCDD	7.87e2	0.68	NO	0.991	1.000	30.508	30.51	1.001	1.001	1.2722	102	0.127	1.27
3	3 1,2,3,4,7,8-HxCDD	6.68e2	1.07	NO	1.04	1.000	33.804	33.81	1.000	1.000	1.2010	96.1	0.179	1.20
4	4 1,2,3,6,7,8-HxCDD	6.85e2	1.31	NO	0.908	1.000	33.926	33.94	1.000	1.000	1.2211	97.7	0.181	1.22
5	5 1,2,3,7,8,9-HxCDD	6.15e2	1.17	NO	0.923	1.000	34.245	34.22	1.001	1.000	1.0973	87.8	0.171	1.10
6	6 1,2,3,4,6,7,8-HpCDD	5.00e2	1.04	NO	0.926	1.000	37.580	37.58	1.000	1.000	1.1334	90.7	0.283	1.13
7	7 OCDD	7.86e2	0.95	NO	0.834	1.000	40.839	40.84	1.000	1.000	2.1132	84.5	0.179	2.11
8	8 2,3,7,8-TCDF	2.90e2	0.88	NO	0.882	1.000	25.602	25.59	1.001	1.001	0.26486	106	0.0802	0.265
9	9 1,2,3,7,8-PeCDF	1.14e3	1.49	NO	0.937	1.000	29.381	29.36	1.001	1.000	1.2286	98.3	0.0894	1.23
10	10 2,3,4,7,8-PeCDF	1.11e3	1.58	NO	1.03	1.000	30.336	30.31	1.001	1.000	1.1257	90.1	0.0796	1.13
11	11 1,2,3,4,7,8-HxCDF	9.33e2	1.24	NO	1.07	1.000	32.872	32.88	1.000	1.000	1.2562	100	0.111	1.26
12	12 1,2,3,6,7,8-HxCDF	8.77e2	1.17	NO	1.11	1.000	33.025	33.04	1.000	1.001	1.1266	90.1	0.114	1.13
13	13 2,3,4,6,7,8-HxCDF	7.78e2	1.15	NO	1.11	1.000	33.707	33.69	1.001	1.001	1.0611	84.9	0.128	1.06
14	14 1,2,3,7,8,9-HxCDF	8.02e2	1.31	NO	1.12	1.000	34.716	34.74	1.000	1.001	1.1885	95.1	0.140	1.19
15	15 1,2,3,4,6,7,8-HpCDF	8.59e2	1.09	NO	1.15	1.000	36.409	36.40	1.001	1.001	1.2416	99.3	0.0681	1.24
16	16 1,2,3,4,7,8,9-HpCDF	5.62e2	0.98	NO	1.25	1.000	38.227	38.24	1.000	1.000	1.1549	92.4	0.0905	1.15
17	17 OCDF	9.83e2	0.82	NO	0.961	1.000	41.168	41.18	1.000	1.000	2.2568	90.3	0.127	2.26
18	18 13C-2,3,7,8-TCDD	7.99e4	0.76	NO	1.20	1.000	26.226	26.22	1.026	1.026	95.898	95.9	0.774	
19	19 13C-1,2,3,7,8-PeCDD	6.24e4	0.59	NO	0.910	1.000	30.484	30.49	1.193	1.193	98.946	98.9	0.348	
20	20 13C-1,2,3,4,7,8-HxCDD	5.35e4	1.25	NO	0.789	1.000	33.800	33.79	1.014	1.014	96.217	96.2	0.574	
21	21 13C-1,2,3,6,7,8-HxCDD	6.17e4	1.27	NO	0.885	1.000	33.910	33.93	1.017	1.018	98.917	98.9	0.512	
22	22 13C-1,2,3,7,8,9-HxCDD	6.07e4	1.22	NO	0.888	1.000	34.180	34.21	1.025	1.026	96.895	96.9	0.510	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.77e4	1.07	NO	0.740	1.000	37.633	37.57	1.129	1.127	91.472	91.5	0.671	
24	24 13C-OCDD	8.92e4	0.88	NO	0.660	1.000	40.646	40.84	1.219	1.225	191.71	95.9	0.696	
25	25 13C-2,3,7,8-TCDF	1.24e5	0.78	NO	1.09	1.000	25.305	25.58	0.990	1.001	99.996	100	0.674	
26	26 13C-1,2,3,7,8-PeCDF	9.95e4	1.65	NO	0.857	1.000	29.541	29.36	1.156	1.149	101.62	102	0.285	
27	27 13C-2,3,4,7,8-PeCDF	9.57e4	1.67	NO	0.796	1.000	30.443	30.31	1.191	1.186	105.30	105	0.307	
28	28 13C-1,2,3,4,7,8-HxCDF	6.92e4	0.50	NO	1.02	1.000	32.933	32.87	0.988	0.986	96.219	96.2	0.534	
29	29 13C-1,2,3,6,7,8-HxCDF	7.00e4	0.51	NO	1.00	1.000	33.066	33.01	0.992	0.990	98.966	99.0	0.543	
30	30 13C-2,3,4,6,7,8-HxCDF	6.59e4	0.50	NO	0.936	1.000	33.636	33.67	1.009	1.010	99.949	99.9	0.582	
31	31 13C-1,2,3,7,8,9-HxCDF	6.01e4	0.52	NO	0.889	1.000	34.713	34.72	1.041	1.041	95.894	95.9	0.612	



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

	# 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	6.00e4	0.44	NO	0.849	1.000	36.233	36.37	1.087	1.091	100.17	100	0.667	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.88e4	0.41	NO	0.624	1.000	38.233	38.23	1.147	1.147	88.302	88.3	0.909	
34	34 13C-OCDF	9.07e4	0.89	NO	0.693	1.000	40.800	41.17	1.224	1.235	185.46	92.7	0.494	
35	35 37Cl-2,3,7,8-TCDD	1.67e2			1.28	1.000	26.223	26.22	1.026	1.026	0.18886	75.5	0.0925	
36	36 13C-1,2,3,4-TCDD	6.93e4	0.77	NO	1.00	1.000	25.550	25.56	1.000	1.000	100.00	100	0.931	
37	37 13C-1,2,3,4-TCDF	1.14e5	0.78	NO	1.00	1.000	24.250	24.28	1.000	1.000	100.00	100	0.733	
38	38 13C-1,2,3,4,6,9-HxCDF	7.05e4	0.49	NO	1.00	1.000	33.300	33.33	1.000	1.000	100.00	100	0.544	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

#	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	3.88e2	0.66	NO	1.08	1.000	26.250	26.23	1.001	1.001	0.46793	93.6	0.0979	0.468
2	2 1,2,3,7,8-PeCDD	1.19e3	0.63	NO	0.991	1.000	30.508	30.51	1.001	1.001	2.1889	87.6	0.0927	2.19
3	3 1,2,3,4,7,8-HxCDD	1.13e3	1.06	NO	1.04	1.000	33.793	33.81	1.000	1.001	2.3677	94.7	0.159	2.37
4	4 1,2,3,6,7,8-HxCDD	1.07e3	1.10	NO	0.908	1.000	33.915	33.92	1.000	1.000	2.2994	92.0	0.175	2.30
5	5 1,2,3,7,8,9-HxCDD	1.14e3	1.17	NO	0.923	1.000	34.234	34.21	1.001	1.000	2.4040	96.2	0.181	2.40
6	6 1,2,3,4,6,7,8-HpCDD	9.93e2	1.01	NO	0.926	1.000	37.558	37.57	1.000	1.001	2.3806	95.2	0.160	2.38
7	7 OCDD	1.48e3	0.86	NO	0.834	1.000	40.817	40.83	1.000	1.000	4.5895	91.8	0.162	4.59
8	8 2,3,7,8-TCDF	4.47e2	0.67	NO	0.882	1.000	25.618	25.59	1.001	1.000	0.47013	94.0	0.0744	0.470
9	9 1,2,3,7,8-PeCDF	1.82e3	1.39	NO	0.937	1.000	29.382	29.36	1.001	1.000	2.2161	88.6	0.0794	2.22
10	10 2,3,4,7,8-PeCDF	1.93e3	1.40	NO	1.03	1.000	30.316	30.31	1.001	1.001	2.2893	91.6	0.0658	2.29
11	11 1,2,3,4,7,8-HxCDF	1.41e3	1.31	NO	1.07	1.000	32.873	32.88	1.000	1.000	2.2457	89.8	0.0872	2.25
12	12 1,2,3,6,7,8-HxCDF	1.42e3	1.42	NO	1.11	1.000	33.014	33.02	1.000	1.000	2.2464	89.9	0.0926	2.25
13	13 2,3,4,6,7,8-HxCDF	1.41e3	1.24	NO	1.11	1.000	33.697	33.67	1.001	1.000	2.3779	95.1	0.106	2.38
14	14 1,2,3,7,8,9-HxCDF	1.34e3	1.35	NO	1.12	1.000	34.705	34.72	1.000	1.000	2.3730	94.9	0.114	2.37
15	15 1,2,3,4,6,7,8-HpCDF	1.30e3	1.05	NO	1.15	1.000	36.398	36.38	1.001	1.001	2.3647	94.6	0.0866	2.36
16	16 1,2,3,4,7,8,9-HpCDF	9.74e2	1.01	NO	1.25	1.000	38.216	38.24	1.000	1.001	2.3000	92.0	0.107	2.30
17	17 OCDF	1.81e3	0.87	NO	0.961	1.000	41.146	41.17	1.000	1.001	4.6601	93.2	0.173	4.66
18	18 13C-2,3,7,8-TCDD	7.69e4	0.77	NO	1.20	1.000	26.226	26.22	1.026	1.026	101.86	102	0.695	
19	19 13C-1,2,3,7,8-PeCDD	5.49e4	0.59	NO	0.910	1.000	30.484	30.49	1.193	1.193	96.253	96.3	0.339	
20	20 13C-1,2,3,4,7,8-HxCDD	4.60e4	1.30	NO	0.789	1.000	33.778	33.78	1.014	1.014	100.57	101	0.572	
21	21 13C-1,2,3,6,7,8-HxCDD	5.12e4	1.36	NO	0.885	1.000	33.888	33.92	1.017	1.018	99.712	99.7	0.509	
22	22 13C-1,2,3,7,8,9-HxCDD	5.13e4	1.31	NO	0.888	1.000	34.158	34.20	1.025	1.027	99.655	99.7	0.507	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.51e4	1.08	NO	0.740	1.000	37.609	37.55	1.129	1.127	105.05	105	0.838	
24	24 13C-OCDD	7.73e4	0.87	NO	0.660	1.000	40.621	40.82	1.219	1.225	201.99	101	0.660	
25	25 13C-2,3,7,8-TCDF	1.08e5	0.74	NO	1.09	1.000	25.305	25.59	0.990	1.001	97.945	97.9	0.606	
26	26 13C-1,2,3,7,8-PeCDF	8.79e4	1.68	NO	0.857	1.000	29.541	29.36	1.156	1.149	101.29	101	0.543	
27	27 13C-2,3,4,7,8-PeCDF	8.23e4	1.66	NO	0.796	1.000	30.443	30.29	1.191	1.185	102.08	102	0.585	
28	28 13C-1,2,3,4,7,8-HxCDF	5.87e4	0.49	NO	1.02	1.000	32.912	32.87	0.988	0.987	99.178	99.2	0.775	
29	29 13C-1,2,3,6,7,8-HxCDF	5.70e4	0.53	NO	1.00	1.000	33.046	33.00	0.992	0.991	97.972	98.0	0.788	
30	30 13C-2,3,4,6,7,8-HxCDF	5.32e4	0.50	NO	0.936	1.000	33.615	33.66	1.009	1.011	98.076	98.1	0.845	
31	31 13C-1,2,3,7,8,9-HxCDF	5.01e4	0.48	NO	0.889	1.000	34.691	34.71	1.041	1.042	97.218	97.2	0.889	
32	32 13C-1,2,3,4,6,7,8-HpCDF	4.78e4	0.43	NO	0.849	1.000	36.210	36.36	1.087	1.092	97.047	97.0	0.758	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.38e4	0.43	NO	0.624	1.000	38.209	38.22	1.147	1.147	93.423	93.4	1.03	
34	34 13C-OCDF	8.06e4	0.88	NO	0.693	1.000	40.774	41.15	1.224	1.235	200.53	100	0.634	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
35	35 37Cl-2,3,7,8-TCDD	3.66e2			1.28	1.000	26.223	26.23	1.026	1.026	0.45765	91.5	0.105	
36	36 13C-1,2,3,4-TCDD	6.27e4	0.77	NO	1.00	1.000	25.550	25.56	1.000	1.000	100.00	100	0.836	
37	37 13C-1,2,3,4-TCDF	1.01e5	0.80	NO	1.00	1.000	24.250	24.28	1.000	1.000	100.00	100	0.660	
38	38 13C-1,2,3,4,6,9-HxCDF	5.80e4	0.50	NO	1.00	1.000	33.300	33.31	1.000	1.000	100.00	100	0.791	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

#	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	1.93e3	0.79	NO	1.08	1.000	26.249	26.23	1.001	1.001	1.8413	92.1	0.0913	1.84
2	2 1,2,3,7,8-PeCDD	7.24e3	0.62	NO	0.991	1.000	30.508	30.51	1.001	1.001	8.8187	88.2	0.149	8.82
3	3 1,2,3,4,7,8-HxCDD	5.10e3	1.21	NO	1.04	1.000	33.793	33.79	1.000	1.000	9.1956	92.0	0.157	9.20
4	4 1,2,3,6,7,8-HxCDD	5.03e3	1.31	NO	0.908	1.000	33.904	33.92	1.000	1.000	9.2164	92.2	0.157	9.22
5	5 1,2,3,7,8,9-HxCDD	5.14e3	1.22	NO	0.923	1.000	34.223	34.20	1.001	1.000	9.3388	93.4	0.156	9.34
6	6 1,2,3,4,6,7,8-HpCDD	4.30e3	1.00	NO	0.926	1.000	37.558	37.56	1.000	1.000	9.5962	96.0	0.293	9.60
7	7 OCDD	6.39e3	0.89	NO	0.834	1.000	40.817	40.84	1.000	1.001	18.421	92.1	0.314	18.4
8	8 2,3,7,8-TCDF	2.45e3	0.71	NO	0.882	1.000	25.617	25.61	1.001	1.001	1.8960	94.8	0.0531	1.90
9	9 1,2,3,7,8-PeCDF	9.31e3	1.52	NO	0.937	1.000	29.361	29.36	1.001	1.001	9.1162	91.2	0.0931	9.12
10	10 2,3,4,7,8-PeCDF	9.20e3	1.51	NO	1.03	1.000	30.316	30.31	1.001	1.001	9.2916	92.9	0.0905	9.29
11	11 1,2,3,4,7,8-HxCDF	6.70e3	1.20	NO	1.07	1.000	32.861	32.87	1.000	1.000	8.6995	87.0	0.117	8.70
12	12 1,2,3,6,7,8-HxCDF	7.15e3	1.21	NO	1.11	1.000	33.014	33.01	1.000	1.000	8.9546	89.5	0.127	8.95
13	13 2,3,4,6,7,8-HxCDF	6.64e3	1.26	NO	1.11	1.000	33.696	33.67	1.001	1.000	9.2985	93.0	0.142	9.30
14	14 1,2,3,7,8,9-HxCDF	6.72e3	1.15	NO	1.12	1.000	34.705	34.72	1.000	1.000	9.0903	90.9	0.157	9.09
15	15 1,2,3,4,6,7,8-HpCDF	5.55e3	1.02	NO	1.15	1.000	36.398	36.37	1.001	1.000	8.7694	87.7	0.157	8.77
16	16 1,2,3,4,7,8,9-HpCDF	5.37e3	1.04	NO	1.25	1.000	38.205	38.22	1.000	1.000	8.9656	89.7	0.157	8.97
17	17 OCDF	7.55e3	0.85	NO	0.961	1.000	41.146	41.16	1.000	1.000	17.867	89.3	0.207	17.9
18	18 13C-2,3,7,8-TCDD	9.70e4	0.77	NO	1.20	1.000	26.241	26.22	1.026	1.025	99.236	99.2	0.442	
19	19 13C-1,2,3,7,8-PeCDD	8.29e4	0.62	NO	0.910	1.000	30.502	30.49	1.193	1.192	112.06	112	0.348	
20	20 13C-1,2,3,4,7,8-HxCDD	5.34e4	1.28	NO	0.789	1.000	33.777	33.78	1.014	1.014	95.864	95.9	0.533	
21	21 13C-1,2,3,6,7,8-HxCDD	6.00e4	1.25	NO	0.885	1.000	33.887	33.90	1.017	1.018	96.078	96.1	0.475	
22	22 13C-1,2,3,7,8,9-HxCDD	5.96e4	1.32	NO	0.888	1.000	34.157	34.19	1.025	1.026	95.066	95.1	0.473	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.85e4	1.07	NO	0.740	1.000	37.608	37.55	1.129	1.127	92.817	92.8	0.905	
24	24 13C-OCDD	8.33e4	0.86	NO	0.660	1.000	40.619	40.82	1.219	1.225	178.72	89.4	0.661	
25	25 13C-2,3,7,8-TCDF	1.47e5	0.74	NO	1.09	1.000	25.320	25.59	0.990	1.001	103.17	103	0.430	
26	26 13C-1,2,3,7,8-PeCDF	1.09e5	1.59	NO	0.857	1.000	29.558	29.34	1.156	1.147	97.315	97.3	0.296	
27	27 13C-2,3,4,7,8-PeCDF	9.65e4	1.64	NO	0.796	1.000	30.461	30.29	1.191	1.184	92.688	92.7	0.318	
28	28 13C-1,2,3,4,7,8-HxCDF	7.18e4	0.51	NO	1.02	1.000	32.911	32.86	0.988	0.986	99.765	99.8	0.512	
29	29 13C-1,2,3,6,7,8-HxCDF	7.17e4	0.52	NO	1.00	1.000	33.045	33.00	0.992	0.991	101.32	101	0.521	
30	30 13C-2,3,4,6,7,8-HxCDF	6.42e4	0.50	NO	0.936	1.000	33.614	33.66	1.009	1.011	97.140	97.1	0.558	
31	31 13C-1,2,3,7,8,9-HxCDF	6.59e4	0.50	NO	0.889	1.000	34.690	34.71	1.041	1.042	104.91	105	0.587	
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.49e4	0.42	NO	0.849	1.000	36.209	36.36	1.087	1.092	91.601	91.6	0.728	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.78e4	0.42	NO	0.624	1.000	38.208	38.21	1.147	1.147	108.62	109	0.992	
34	34 13C-OCDF	8.79e4	0.91	NO	0.693	1.000	40.773	41.15	1.224	1.235	179.66	89.8	0.532	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
35	35 37Cl-2,3,7,8-TCDD	2.08e3			1.28	1.000	26.238	26.23	1.026	1.026	2.0034	100	0.0578	
36	36 13C-1,2,3,4-TCDD	8.12e4	0.79	NO	1.00	1.000	25.550	25.58	1.000	1.000	100.00	100	0.532	
37	37 13C-1,2,3,4-TCDF	1.31e5	0.78	NO	1.00	1.000	24.250	24.28	1.000	1.000	100.00	100	0.468	
38	38 13C-1,2,3,4,6,9-HxCDF	7.06e4	0.50	NO	1.00	1.000	33.300	33.31	1.000	1.000	100.00	100	0.522	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	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	9.08e3	0.77	NO	1.08	1.000	26.234	26.23	1.001	1.001	10.066	101	0.122	10.1
2	2 1,2,3,7,8-PeCDD	2.82e4	0.58	NO	0.991	1.000	30.509	30.51	1.001	1.001	47.348	94.7	0.193	47.3
3	3 1,2,3,4,7,8-HxCDD	2.34e4	1.28	NO	1.04	1.000	33.782	33.79	1.000	1.001	46.650	93.3	0.350	46.6
4	4 1,2,3,6,7,8-HxCDD	2.34e4	1.23	NO	0.908	1.000	33.904	33.92	1.000	1.000	47.095	94.2	0.386	47.1
5	5 1,2,3,7,8,9-HxCDD	2.44e4	1.27	NO	0.923	1.000	34.235	34.21	1.001	1.000	47.886	95.8	0.394	47.9
6	6 1,2,3,4,6,7,8-HpCDD	2.01e4	1.03	NO	0.926	1.000	37.558	37.56	1.000	1.000	47.728	95.5	0.515	47.7
7	7 OCDD	3.23e4	0.85	NO	0.834	1.000	40.817	40.83	1.000	1.000	99.073	99.1	0.276	99.1
8	8 2,3,7,8-TCDF	1.02e4	0.82	NO	0.882	1.000	25.602	25.59	1.001	1.001	9.4681	94.7	0.0892	9.47
9	9 1,2,3,7,8-PeCDF	4.46e4	1.60	NO	0.937	1.000	29.362	29.36	1.001	1.001	49.398	98.8	0.172	49.4
10	10 2,3,4,7,8-PeCDF	4.32e4	1.56	NO	1.03	1.000	30.317	30.31	1.001	1.001	47.793	95.6	0.161	47.8
11	11 1,2,3,4,7,8-HxCDF	3.22e4	1.21	NO	1.07	1.000	32.862	32.88	1.000	1.001	48.217	96.4	0.367	48.2
12	12 1,2,3,6,7,8-HxCDF	3.29e4	1.22	NO	1.11	1.000	33.015	33.01	1.000	1.000	48.630	97.3	0.352	48.6
13	13 2,3,4,6,7,8-HxCDF	3.09e4	1.23	NO	1.11	1.000	33.697	33.67	1.001	1.000	48.636	97.3	0.366	48.6
14	14 1,2,3,7,8,9-HxCDF	2.86e4	1.25	NO	1.12	1.000	34.705	34.72	1.000	1.000	47.795	95.6	0.474	47.8
15	15 1,2,3,4,6,7,8-HpCDF	2.80e4	1.06	NO	1.15	1.000	36.398	36.37	1.001	1.000	47.262	94.5	0.355	47.3
16	16 1,2,3,4,7,8,9-HpCDF	2.31e4	1.04	NO	1.25	1.000	38.206	38.23	1.000	1.001	48.028	96.1	0.378	48.0
17	17 OCDF	3.89e4	0.89	NO	0.961	1.000	41.146	41.16	1.000	1.000	96.431	96.4	0.338	96.4
18	18 13C-2,3,7,8-TCDD	8.37e4	0.78	NO	1.20	1.000	26.226	26.20	1.026	1.025	103.96	104	0.470	
19	19 13C-1,2,3,7,8-PeCDD	6.01e4	0.65	NO	0.910	1.000	30.484	30.49	1.193	1.193	98.777	98.8	0.312	
20	20 13C-1,2,3,4,7,8-HxCDD	4.82e4	1.30	NO	0.789	1.000	33.778	33.77	1.014	1.014	97.599	97.6	0.784	
21	21 13C-1,2,3,6,7,8-HxCDD	5.46e4	1.28	NO	0.885	1.000	33.888	33.90	1.017	1.018	98.457	98.5	0.699	
22	22 13C-1,2,3,7,8,9-HxCDD	5.52e4	1.29	NO	0.888	1.000	34.158	34.20	1.025	1.027	99.262	99.3	0.696	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.55e4	1.06	NO	0.740	1.000	37.609	37.55	1.129	1.127	98.284	98.3	0.688	
24	24 13C-OCDD	7.82e4	0.87	NO	0.660	1.000	40.621	40.82	1.219	1.225	189.28	94.6	0.589	
25	25 13C-2,3,7,8-TCDF	1.23e5	0.74	NO	1.09	1.000	25.305	25.58	0.990	1.001	98.889	98.9	0.425	
26	26 13C-1,2,3,7,8-PeCDF	9.63e4	1.65	NO	0.857	1.000	29.541	29.34	1.156	1.148	98.608	98.6	0.396	
27	27 13C-2,3,4,7,8-PeCDF	8.82e4	1.65	NO	0.796	1.000	30.443	30.29	1.191	1.185	97.130	97.1	0.427	
28	28 13C-1,2,3,4,7,8-HxCDF	6.23e4	0.49	NO	1.02	1.000	32.912	32.86	0.988	0.986	97.515	97.5	0.584	
29	29 13C-1,2,3,6,7,8-HxCDF	6.09e4	0.53	NO	1.00	1.000	33.046	33.01	0.992	0.991	96.840	96.8	0.594	
30	30 13C-2,3,4,6,7,8-HxCDF	5.72e4	0.49	NO	0.936	1.000	33.615	33.66	1.009	1.011	97.550	97.6	0.637	
31	31 13C-1,2,3,7,8,9-HxCDF	5.34e4	0.52	NO	0.889	1.000	34.691	34.71	1.041	1.042	95.793	95.8	0.670	
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.13e4	0.43	NO	0.849	1.000	36.210	36.36	1.087	1.092	96.378	96.4	0.761	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.84e4	0.41	NO	0.624	1.000	38.209	38.21	1.147	1.147	98.269	98.3	1.04	
34	34 13C-OCDF	8.40e4	0.87	NO	0.693	1.000	40.774	41.15	1.224	1.235	193.40	96.7	0.611	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
35	37Cl-2,3,7,8-TCDD	8.73e3			1.28	1.000	26.223	26.23	1.026	1.026	10.228	102	0.111	
36	13C-1,2,3,4-TCDD	6.69e4	0.79	NO	1.00	1.000	25.550	25.56	1.000	1.000	100.00	100	0.566	
37	13C-1,2,3,4-TCDF	1.14e5	0.76	NO	1.00	1.000	24.250	24.28	1.000	1.000	100.00	100	0.462	
38	13C-1,2,3,4,6,9-HxCDF	6.27e4	0.50	NO	1.00	1.000	33.300	33.31	1.000	1.000	100.00	100	0.596	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

#	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	3.94e4	0.79	NO	1.08	1.000	26.249	26.25	1.001	1.001	40.827	102	0.0898	40.8
2	2 1,2,3,7,8-PeCDD	1.44e5	0.61	NO	0.991	1.000	30.508	30.51	1.001	1.001	225.75	113	0.183	226
3	3 1,2,3,4,7,8-HxCDD	1.21e5	1.24	NO	1.04	1.000	33.804	33.81	1.000	1.000	211.19	106	0.362	211
4	4 1,2,3,6,7,8-HxCDD	1.18e5	1.23	NO	0.908	1.000	33.915	33.93	1.000	1.000	210.45	105	0.388	210
5	5 1,2,3,7,8,9-HxCDD	1.23e5	1.25	NO	0.923	1.000	34.245	34.22	1.001	1.000	214.49	107	0.400	214
6	6 1,2,3,4,6,7,8-HpCDD	1.00e5	1.07	NO	0.926	1.000	37.569	37.58	1.000	1.001	211.61	106	0.649	212
7	7 OCDD	1.73e5	0.87	NO	0.834	1.000	40.839	40.85	1.000	1.000	435.54	109	0.501	436
8	8 2,3,7,8-TCDF	4.57e4	0.76	NO	0.882	1.000	25.617	25.62	1.001	1.001	38.131	95.3	0.0749	38.1
9	9 1,2,3,7,8-PeCDF	2.17e5	1.57	NO	0.937	1.000	29.382	29.38	1.001	1.001	212.31	106	0.163	212
10	10 2,3,4,7,8-PeCDF	2.24e5	1.55	NO	1.03	1.000	30.336	30.31	1.001	1.000	221.86	111	0.165	222
11	11 1,2,3,4,7,8-HxCDF	1.63e5	1.22	NO	1.07	1.000	32.873	32.90	1.000	1.001	216.09	108	0.436	216
12	12 1,2,3,6,7,8-HxCDF	1.71e5	1.25	NO	1.11	1.000	33.025	33.03	1.000	1.000	223.42	112	0.435	223
13	13 2,3,4,6,7,8-HxCDF	1.59e5	1.25	NO	1.11	1.000	33.708	33.69	1.001	1.000	218.45	109	0.470	218
14	14 1,2,3,7,8,9-HxCDF	1.47e5	1.29	NO	1.12	1.000	34.716	34.74	1.000	1.001	210.43	105	0.567	210
15	15 1,2,3,4,6,7,8-HpCDF	1.51e5	1.01	NO	1.15	1.000	36.409	36.40	1.001	1.001	207.53	104	0.581	208
16	16 1,2,3,4,7,8,9-HpCDF	1.20e5	1.03	NO	1.25	1.000	38.227	38.24	1.000	1.000	218.39	109	0.699	218
17	17 OCDF	2.08e5	0.89	NO	0.961	1.000	41.168	41.18	1.000	1.000	435.54	109	0.686	436
18	18 13C-2,3,7,8-TCDD	8.95e4	0.77	NO	1.20	1.000	26.241	26.22	1.026	1.025	100.57	101	0.399	
19	19 13C-1,2,3,7,8-PeCDD	6.42e4	0.63	NO	0.910	1.000	30.502	30.49	1.193	1.192	95.376	95.4	0.279	
20	20 13C-1,2,3,4,7,8-HxCDD	5.52e4	1.27	NO	0.789	1.000	33.789	33.79	1.014	1.014	101.48	101	0.475	
21	21 13C-1,2,3,6,7,8-HxCDD	6.15e4	1.26	NO	0.885	1.000	33.898	33.92	1.017	1.018	100.77	101	0.423	
22	22 13C-1,2,3,7,8,9-HxCDD	6.21e4	1.21	NO	0.888	1.000	34.168	34.21	1.025	1.027	101.26	101	0.421	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.13e4	0.99	NO	0.740	1.000	37.621	37.56	1.129	1.127	100.46	100	0.763	
24	24 13C-OCDD	9.55e4	0.92	NO	0.660	1.000	40.633	40.84	1.219	1.226	209.84	105	0.437	
25	25 13C-2,3,7,8-TCDF	1.36e5	0.75	NO	1.09	1.000	25.320	25.59	0.990	1.001	97.850	97.9	0.415	
26	26 13C-1,2,3,7,8-PeCDF	1.09e5	1.62	NO	0.857	1.000	29.558	29.36	1.156	1.148	99.721	99.7	0.300	
27	27 13C-2,3,4,7,8-PeCDF	9.83e4	1.62	NO	0.796	1.000	30.461	30.31	1.191	1.185	96.769	96.8	0.323	
28	28 13C-1,2,3,4,7,8-HxCDF	7.04e4	0.49	NO	1.02	1.000	32.922	32.87	0.988	0.987	100.02	100	0.641	
29	29 13C-1,2,3,6,7,8-HxCDF	6.87e4	0.50	NO	1.00	1.000	33.055	33.01	0.992	0.991	99.303	99.3	0.652	
30	30 13C-2,3,4,6,7,8-HxCDF	6.54e4	0.49	NO	0.936	1.000	33.625	33.67	1.009	1.011	101.23	101	0.699	
31	31 13C-1,2,3,7,8,9-HxCDF	6.21e4	0.49	NO	0.889	1.000	34.702	34.72	1.041	1.042	101.27	101	0.735	
32	32 13C-1,2,3,4,6,7,8-HpCDF	6.31e4	0.42	NO	0.849	1.000	36.221	36.37	1.087	1.092	107.72	108	0.727	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.38e4	0.44	NO	0.624	1.000	38.220	38.23	1.147	1.147	101.69	102	0.990	
34	34 13C-OCDF	9.93e4	0.90	NO	0.693	1.000	40.786	41.17	1.224	1.235	207.47	104	0.457	



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
35	35 37Cl-2,3,7,8-TCDD	4.18e4			1.28	1.000	26.238	26.23	1.026	1.026	44.338	111	0.0959	
36	36 13C-1,2,3,4-TCDD	7.39e4	0.78	NO	1.00	1.000	25.550	25.58	1.000	1.000	100.00	100	0.480	
37	37 13C-1,2,3,4-TCDF	1.28e5	0.80	NO	1.00	1.000	24.250	24.28	1.000	1.000	100.00	100	0.451	
38	38 13C-1,2,3,4,6,9-HxCDF	6.90e4	0.49	NO	1.00	1.000	33.300	33.32	1.000	1.000	100.00	100	0.654	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

#	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	3.69e5	0.78	NO	1.08	1.000	26.265	26.25	1.001	1.001	356.04	119	0.177	356
2	2 1,2,3,7,8-PeCDD	1.24e6	0.63	NO	0.991	1.000	30.529	30.53	1.001	1.001	1723.7	115	0.312	1720
3	3 1,2,3,4,7,8-HxCDD	1.10e6	1.23	NO	1.04	1.000	33.815	33.82	1.000	1.000	1775.4	118	0.754	1780
4	4 1,2,3,6,7,8-HxCDD	1.06e6	1.23	NO	0.908	1.000	33.926	33.95	1.000	1.001	1781.4	119	0.817	1780
5	5 1,2,3,7,8,9-HxCDD	1.11e6	1.23	NO	0.923	1.000	34.245	34.23	1.001	1.001	1794.7	120	0.809	1790
6	6 1,2,3,4,6,7,8-HpCDD	9.37e5	1.03	NO	0.926	1.000	37.580	37.58	1.000	1.000	1753.2	117	1.55	1750
7	7 OCDD	1.63e6	0.87	NO	0.834	1.000	40.850	40.87	1.000	1.001	3708.5	124	1.12	3710
8	8 2,3,7,8-TCDF	4.26e5	0.76	NO	0.882	1.000	25.618	25.62	1.001	1.001	345.66	115	0.162	346
9	9 1,2,3,7,8-PeCDF	1.80e6	1.54	NO	0.937	1.000	29.382	29.38	1.001	1.001	1754.3	117	0.353	1750
10	10 2,3,4,7,8-PeCDF	1.94e6	1.52	NO	1.03	1.000	30.336	30.33	1.001	1.001	1784.1	119	0.313	1780
11	11 1,2,3,4,7,8-HxCDF	1.45e6	1.22	NO	1.07	1.000	32.884	32.90	1.000	1.000	1773.0	118	0.893	1770
12	12 1,2,3,6,7,8-HxCDF	1.50e6	1.23	NO	1.11	1.000	33.036	33.04	1.000	1.000	1822.5	121	0.929	1820
13	13 2,3,4,6,7,8-HxCDF	1.39e6	1.22	NO	1.11	1.000	33.719	33.70	1.001	1.000	1807.7	121	1.06	1810
14	14 1,2,3,7,8,9-HxCDF	1.30e6	1.24	NO	1.12	1.000	34.727	34.74	1.000	1.000	1774.3	118	1.16	1770
15	15 1,2,3,4,6,7,8-HpCDF	1.32e6	1.02	NO	1.15	1.000	36.420	36.40	1.001	1.000	1801.5	120	1.35	1800
16	16 1,2,3,4,7,8,9-HpCDF	1.08e6	1.02	NO	1.25	1.000	38.238	38.25	1.000	1.000	1810.6	121	1.46	1810
17	17 OCDF	1.98e6	0.89	NO	0.961	1.000	41.179	41.20	1.000	1.001	3656.3	122	1.08	3660
18	18 13C-2,3,7,8-TCDD	9.62e4	0.76	NO	1.20	1.000	26.257	26.23	1.026	1.025	98.473	98.5	0.805	
19	19 13C-1,2,3,7,8-PeCDD	7.28e4	0.62	NO	0.910	1.000	30.521	30.51	1.193	1.192	98.585	98.6	0.310	
20	20 13C-1,2,3,4,7,8-HxCDD	5.96e4	1.28	NO	0.789	1.000	33.800	33.81	1.014	1.014	108.26	108	0.440	
21	21 13C-1,2,3,6,7,8-HxCDD	6.55e4	1.31	NO	0.885	1.000	33.910	33.93	1.017	1.018	106.07	106	0.392	
22	22 13C-1,2,3,7,8,9-HxCDD	6.69e4	1.29	NO	0.888	1.000	34.180	34.21	1.025	1.026	107.86	108	0.390	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.78e4	1.04	NO	0.740	1.000	37.633	37.57	1.129	1.127	111.91	112	0.605	
24	24 13C-OCDD	1.05e5	0.90	NO	0.660	1.000	40.646	40.85	1.219	1.226	228.45	114	0.450	
25	25 13C-2,3,7,8-TCDF	1.40e5	0.77	NO	1.09	1.000	25.336	25.59	0.990	1.000	102.15	102	0.810	
26	26 13C-1,2,3,7,8-PeCDF	1.09e5	1.60	NO	0.857	1.000	29.577	29.36	1.156	1.147	101.45	101	0.446	
27	27 13C-2,3,4,7,8-PeCDF	1.06e5	1.63	NO	0.796	1.000	30.480	30.31	1.191	1.184	106.03	106	0.480	
28	28 13C-1,2,3,4,7,8-HxCDF	7.64e4	0.48	NO	1.02	1.000	32.933	32.88	0.988	0.987	107.30	107	0.461	
29	29 13C-1,2,3,6,7,8-HxCDF	7.39e4	0.50	NO	1.00	1.000	33.066	33.03	0.992	0.991	105.60	106	0.468	
30	30 13C-2,3,4,6,7,8-HxCDF	6.92e4	0.52	NO	0.936	1.000	33.636	33.69	1.009	1.011	106.05	106	0.502	
31	31 13C-1,2,3,7,8,9-HxCDF	6.51e4	0.51	NO	0.889	1.000	34.713	34.73	1.041	1.042	104.92	105	0.528	
32	32 13C-1,2,3,4,6,7,8-HpCDF	6.35e4	0.43	NO	0.849	1.000	36.233	36.38	1.087	1.092	107.09	107	0.549	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.77e4	0.45	NO	0.624	1.000	38.233	38.24	1.147	1.147	109.71	110	0.748	
34	34 13C-OCDF	1.13e5	0.88	NO	0.693	1.000	40.800	41.18	1.224	1.235	233.48	117	0.466	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 10:14:46 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:16:16 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
35	35 37Cl-2,3,7,8-TCDD	2.48e5			1.28	1.000	26.255	26.25	1.026	1.026	239.25	120	0.174	
36	36 13C-1,2,3,4-TCDD	8.12e4	0.79	NO	1.00	1.000	25.550	25.59	1.000	1.000	100.00	100	0.969	
37	37 13C-1,2,3,4-TCDF	1.26e5	0.76	NO	1.00	1.000	24.250	24.29	1.000	1.000	100.00	100	0.881	
38	38 13C-1,2,3,4,6,9-HxCDF	6.98e4	0.50	NO	1.00	1.000	33.300	33.33	1.000	1.000	100.00	100	0.470	

Dataset: Untitled

Last Altered: Friday, August 21, 2020 10:23:10 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:23:23 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\CPSM.mdb 21 Aug 2020 10:22:49

Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	Name	RT
1	1,3,6,8-TCDD (First)	22.96
2	1,2,8,9-TCDD (Last)	27.03
3	1,2,4,7,9-PeCDD (First)	28.43
4	1,2,3,8,9-PeCDD (Last)	30.83
5	1,2,4,6,7,9-HxCDD (First)	32.13
6	1,2,3,7,8,9-HxCDD (Last)	34.21
7	1,2,3,4,6,7,9-HpCDD (First)	36.69
8	1,2,3,4,6,7,8-HpCDD (Last)	37.56
9	1,3,6,8-TCDF (First)	20.96
10	1,2,8,9-TCDF (Last)	27.30
11	1,3,4,6,8-PeCDF (First)	26.95
12	1,2,3,8,9-PeCDF (Last)	31.17
13	1,2,3,4,6,8-HxCDF (First)	31.60
14	1,2,3,7,8,9-HxCDF (Last)	34.72
15	1,2,3,4,6,7,8-HpCDF (First)	36.37
16	1,2,3,4,7,8,9-HpCDF (Last)	38.23

Dataset: Untitled

Last Altered: Friday, August 21, 2020 10:18:20 Pacific Daylight Time

Printed: Friday, August 21, 2020 10:18:37 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

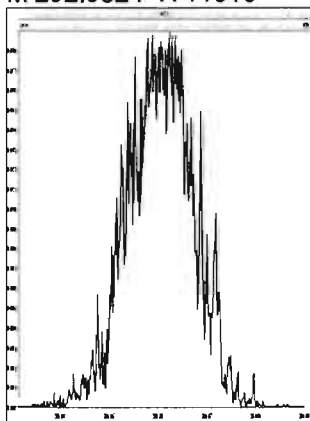
Compound name: 2,3,7,8-TCDD

	Name	ID	Acq.Date	Acq.Time
1	200820D1_1	ST200820D1-1 1613 CS0 20F1102	20-Aug-20	12:29:56
2	200820D1_2	ST200820D1-2 1613 CS1 20F1103	20-Aug-20	13:15:22
3	200820D1_3	ST200820D1-3 1613 CS2 20F1104	20-Aug-20	14:19:12
4	200820D1_4	ST200820D1-4 1613 CS3 20F1105	20-Aug-20	15:06:01
5	200820D1_5	ST200820D1-5 1613 CS4 20F1106	20-Aug-20	15:52:18
6	200820D1_6	ST200820D1-6 1613 CS5 20F1107	20-Aug-20	16:38:34
7	200820D1_7	SOLVENT BLANK	20-Aug-20	17:24:48
8	200820D1_8	SS200820D1-1 1613 SSS 20F1108	20-Aug-20	18:10:59
9	200820D1_9	B0F0201-BS1 OPR 10	20-Aug-20	18:56:28
10	200820D1_10	SOLVENT BLANK	20-Aug-20	19:41:52
11	200820D1_11	B0F0201-BLK1 Method Blank 10	20-Aug-20	20:27:18
12	200820D1_12	2001131-01 PDI-1166SC-A-01-02-200520 12.22	20-Aug-20	21:13:28
13	200820D1_13	B0F0201-DUP1 Duplicate 11.39	20-Aug-20	21:58:53
14	200820D1_14	2001131-02 PDI-166SC-A-00-01-200520 11.42	20-Aug-20	22:44:17
15	200820D1_15	2001131-03 PDI-166SC-A-01-02-200520 12.09	20-Aug-20	23:29:41
16	200820D1_16	2001131-04 PDI-166SC-A-02-03-200520 12.48	21-Aug-20	00:15:05
17	200820D1_17	2001131-05 PDI-166SC-A-03-04-200520 12.2	21-Aug-20	01:01:19

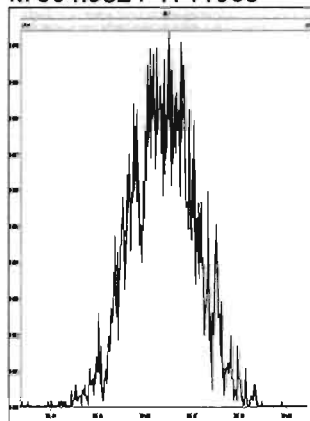
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, August 20, 2020 12:23:50 Pacific Daylight Time

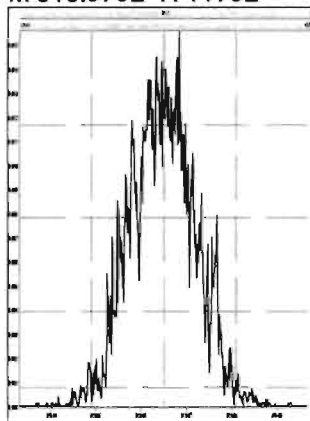
M 292.9824 R 11010



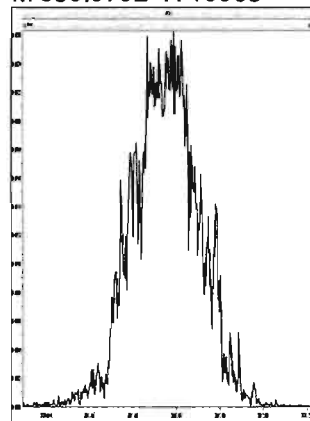
M 304.9824 R 11963



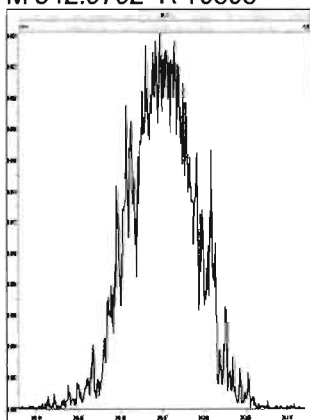
M 318.9792 R 11792



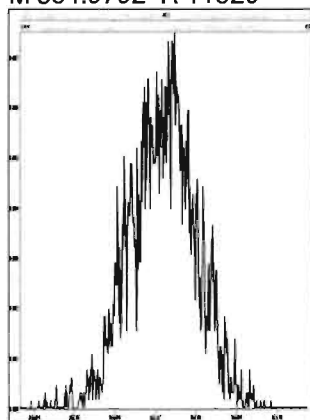
M 330.9792 R 10968



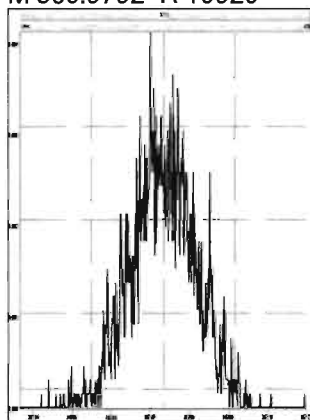
M 342.9792 R 10505



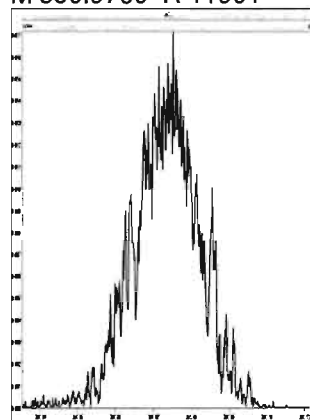
M 354.9792 R 11520



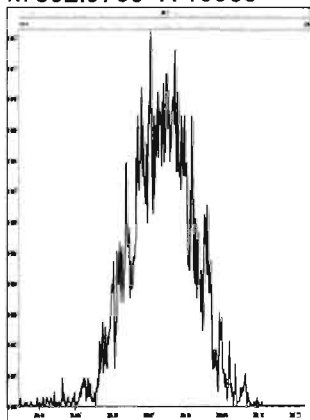
M 366.9792 R 10920



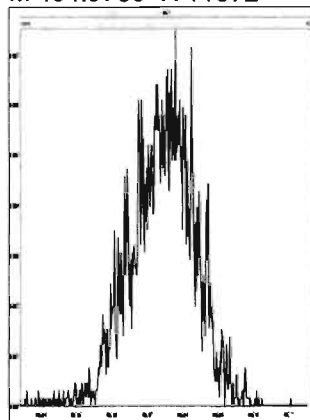
M 380.9760 R 11901



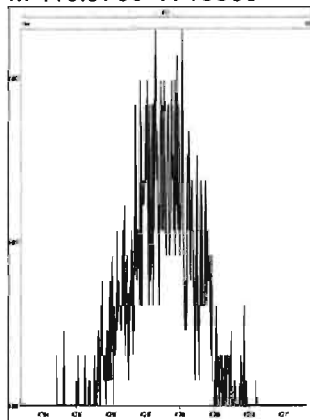
M 392.9760 R 10965



M 404.9760 R 11572



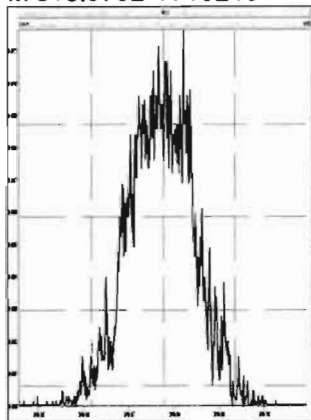
M 416.9760 R 13365



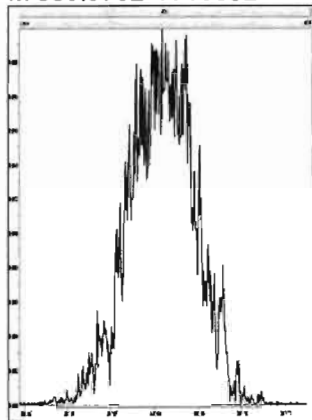
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Thursday, August 20, 2020 12:24:49 Pacific Daylight Time

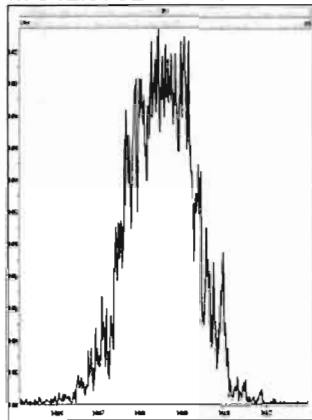
M 318.9792 R 10246



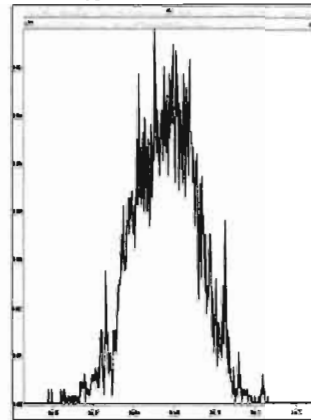
M 330.9792 R 10592



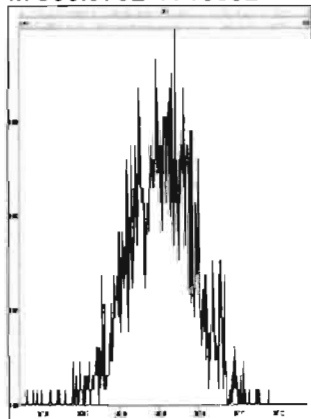
M 342.9792 R 10640



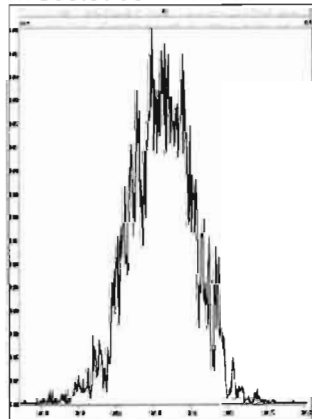
M 354.9792 R 11211



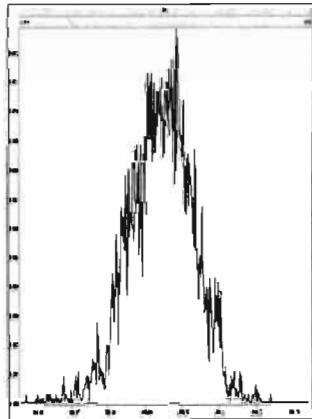
M 366.9792 R 10592



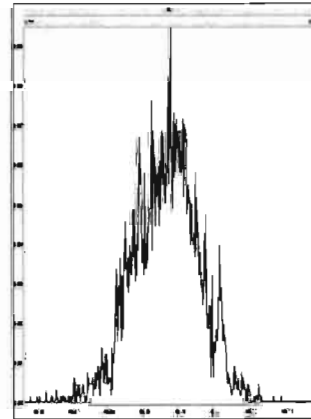
M 380.9760 R 11959



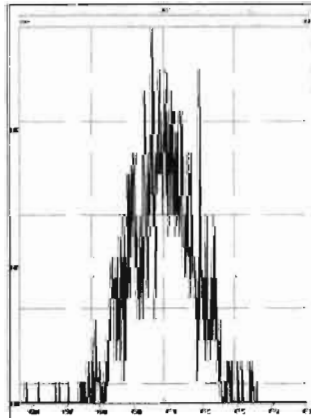
M 392.9760 R 11905



M 404.9760 R 11961



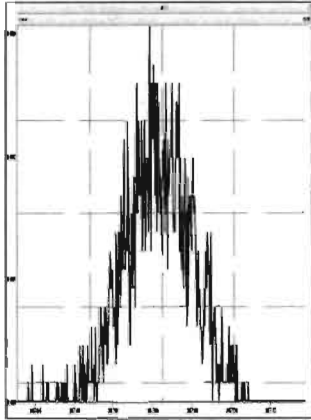
M 416.9760 R 12133



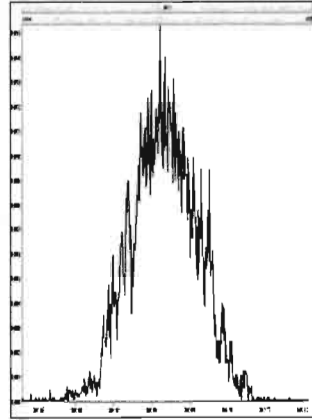
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Thursday, August 20, 2020 12:25:58 Pacific Daylight Time

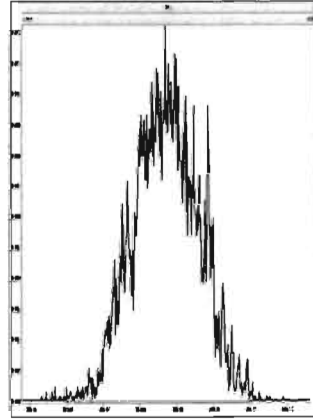
M 366.9792 R 10463



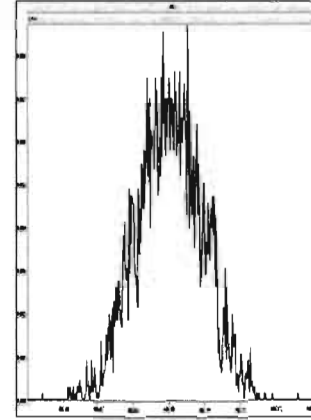
M 380.9760 R 10160



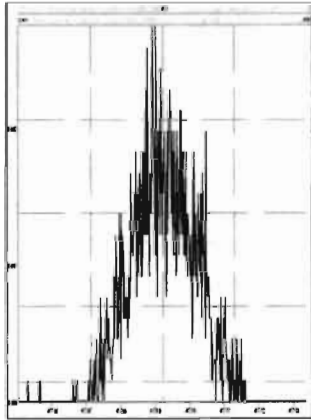
M 392.9760 R 10965



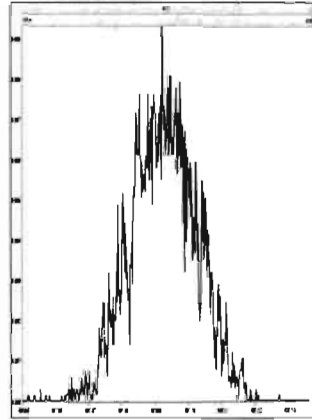
M 404.9760 R 10728



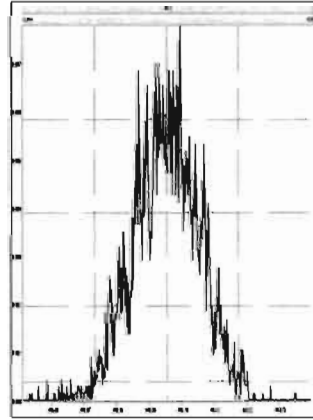
M 416.9760 R 11059



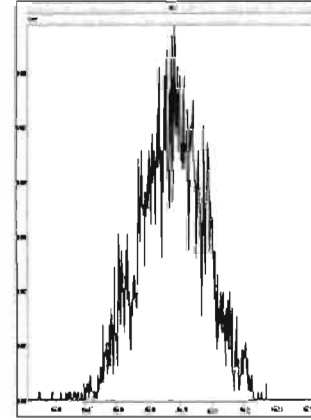
M 430.9728 R 10684



M 442.9728 R 10203



M 454.9728 R 10636

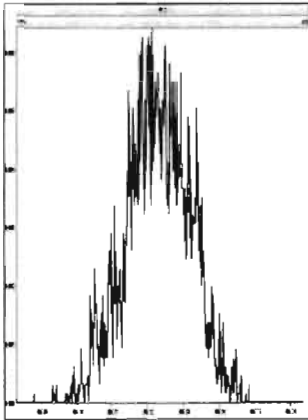




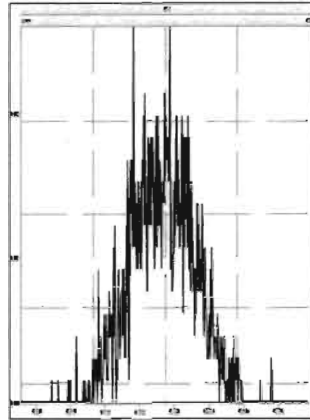
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Thursday, August 20, 2020 12:26:48 Pacific Daylight Time

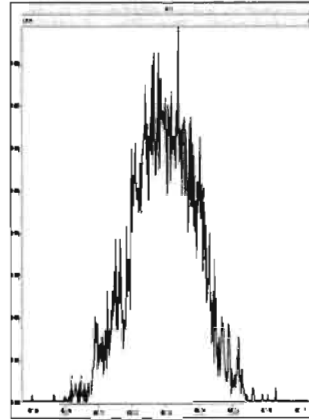
M 404.9760 R 10822



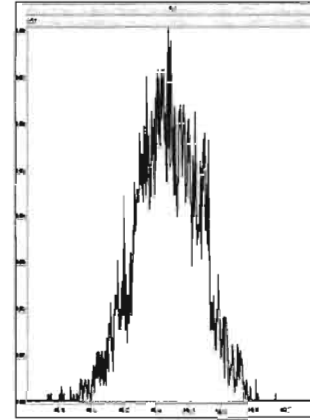
M 416.9760 R 11011



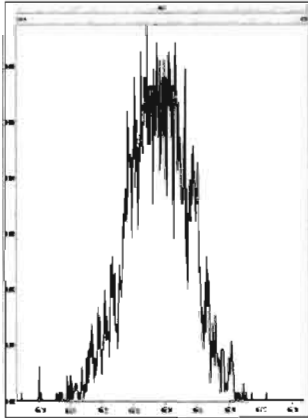
M 430.9728 R 10375



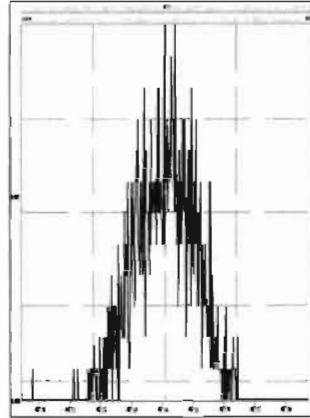
M 442.9728 R 11737



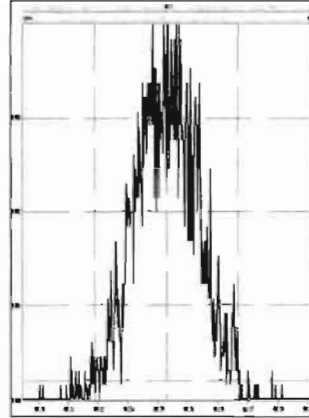
M 454.9728 R 10333



M 466.9728 R 12256



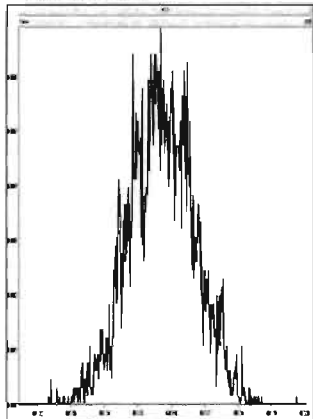
M 480.9696 R 11416



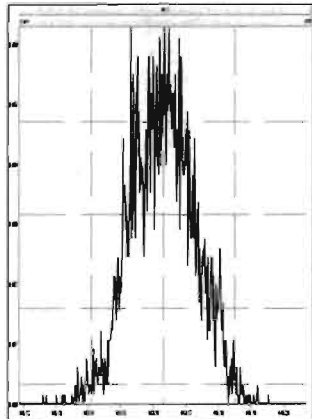
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Thursday, August 20, 2020 12:28:31 Pacific Daylight Time

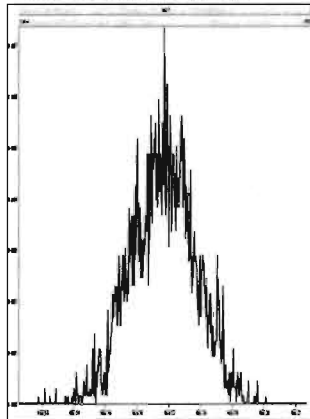
M 430.9728 R 10550



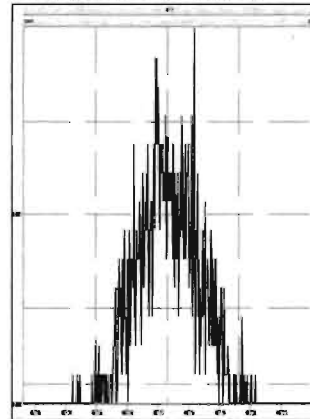
M 442.9728 R 11575



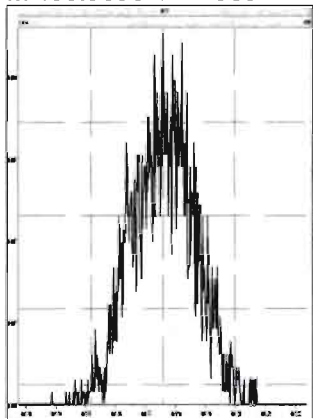
M 454.9728 R 11627



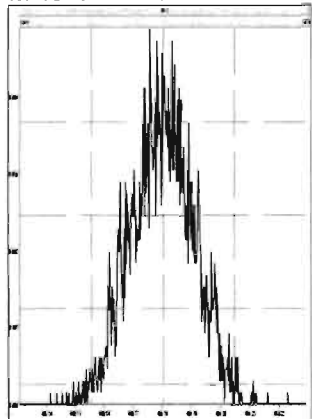
M 466.9728 R 14043



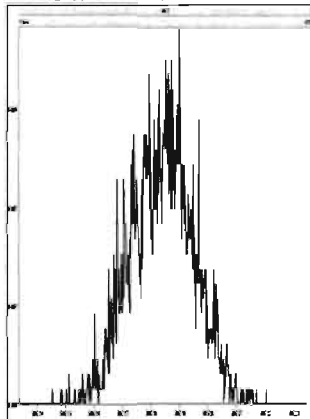
M 480.9696 R 11959



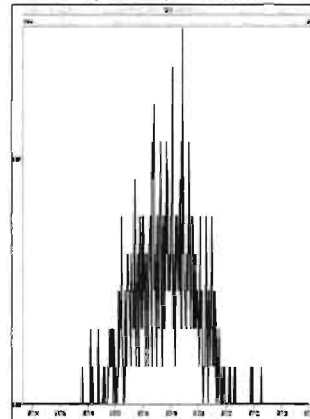
M 492.9696 R 11679

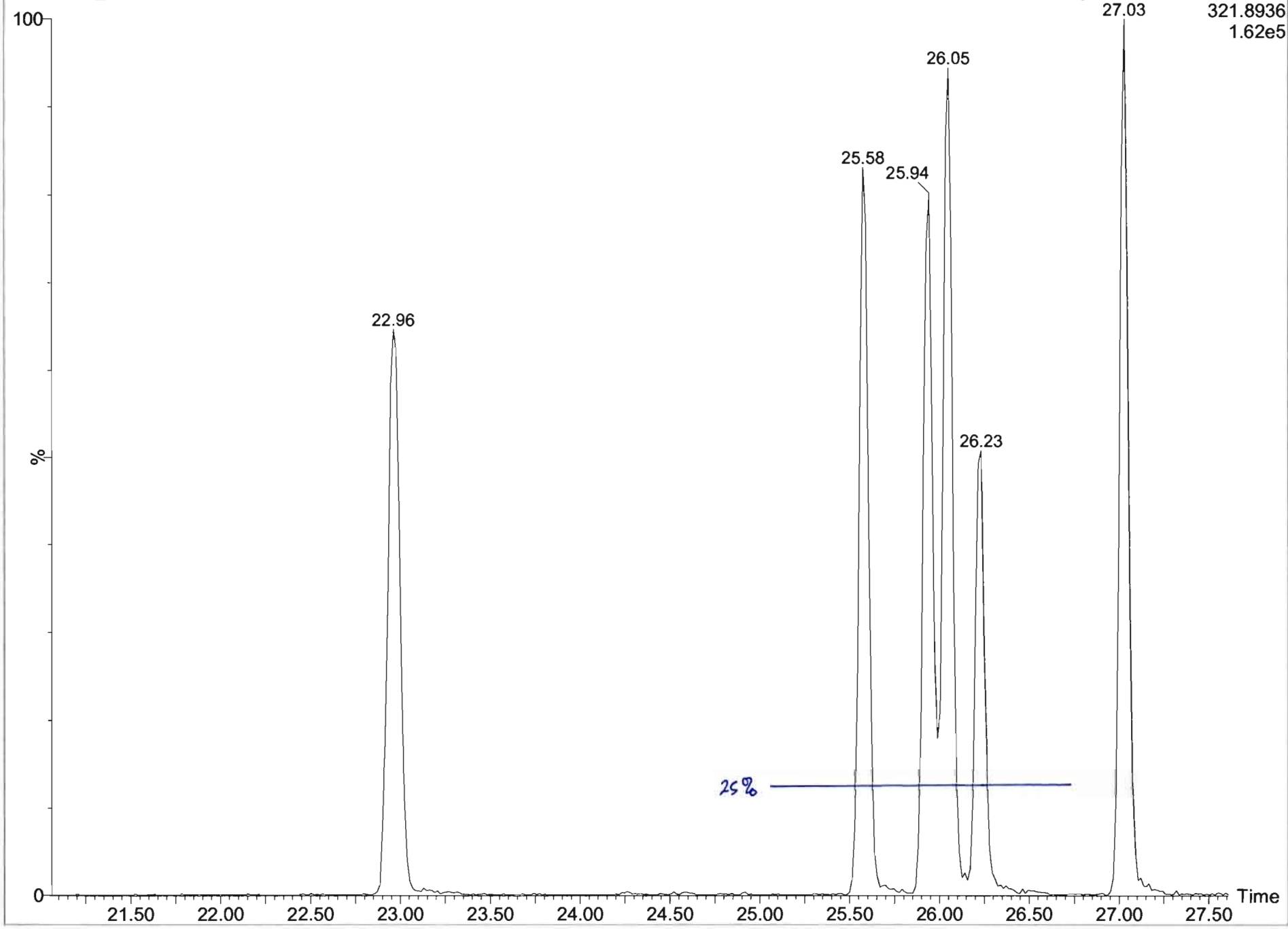


M 504.9696 R 10120



M 516.9697 R 13366





321.8936  
1.62e5

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

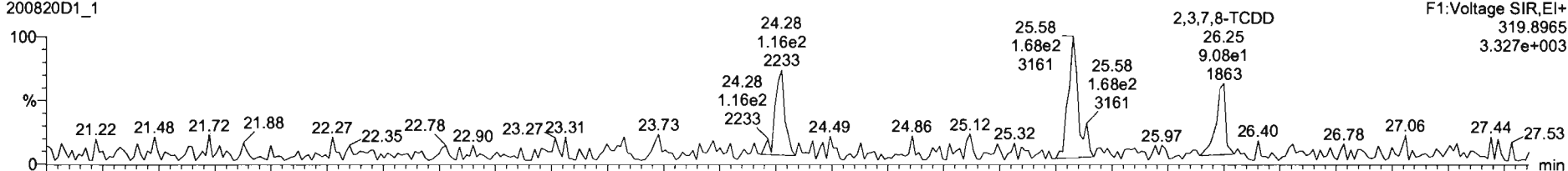
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: 21 Aug 2020 09:06:09

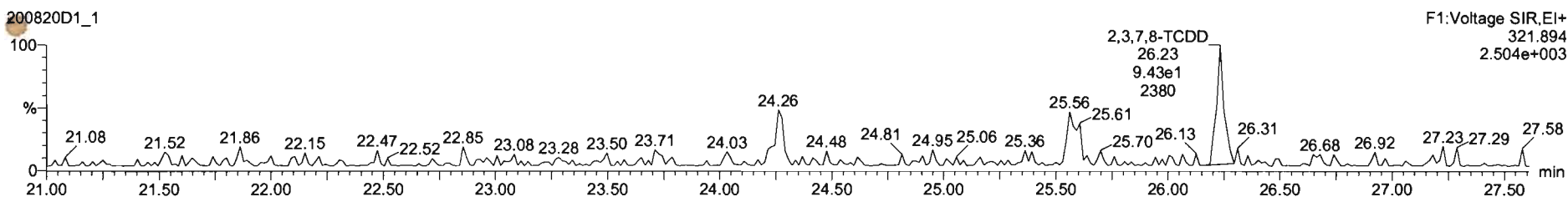
Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

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

200820D1\_1

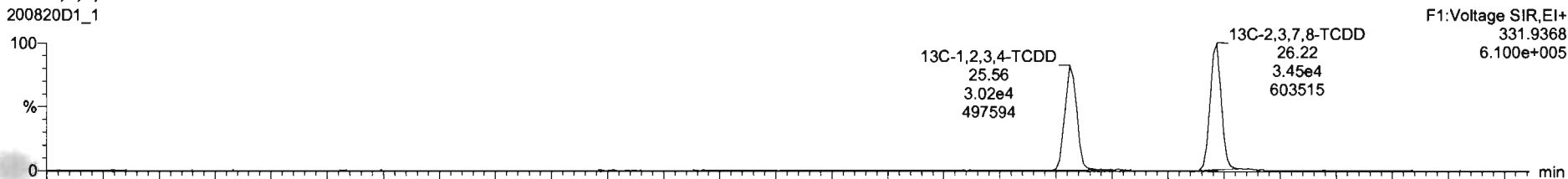


200820D1\_1

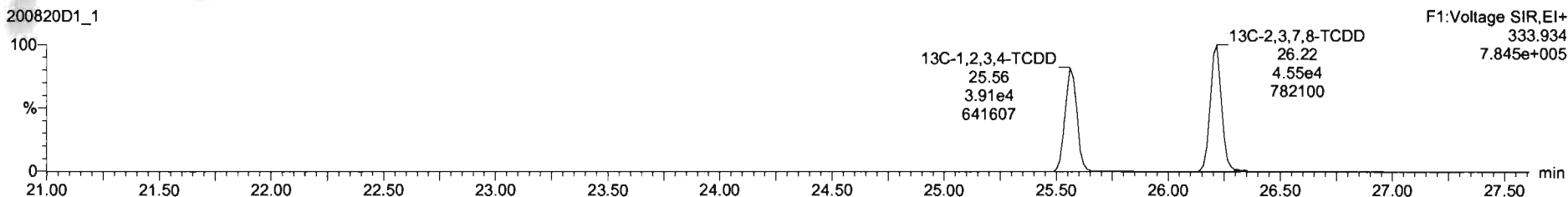


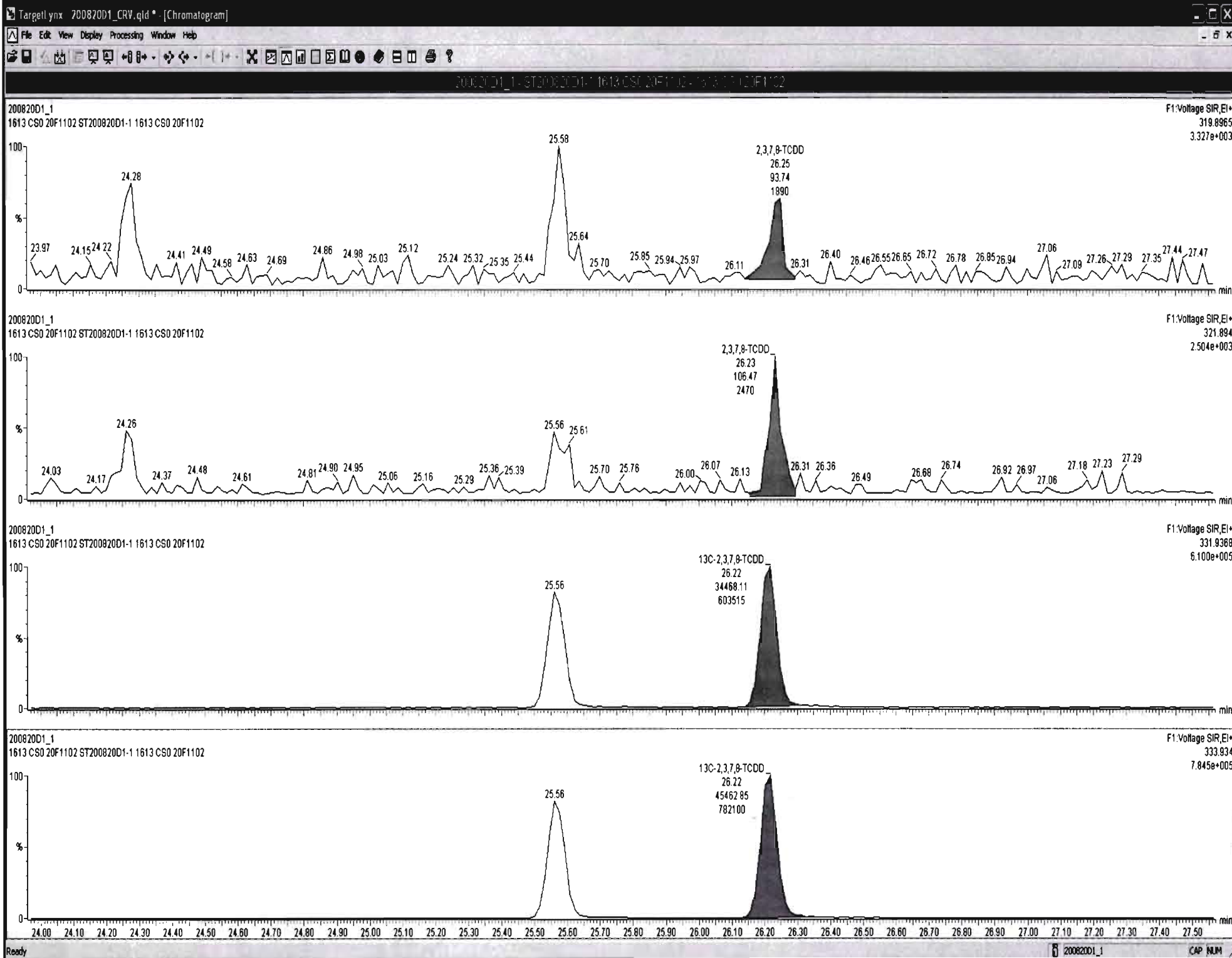
**13C-2,3,7,8-TCDD**

200820D1\_1



200820D1\_1





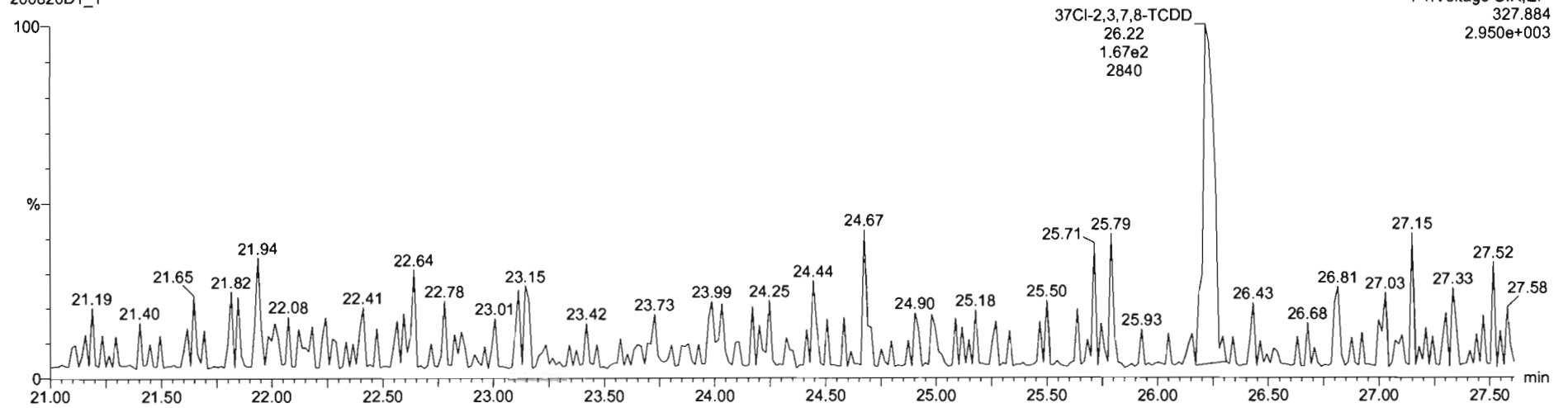
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

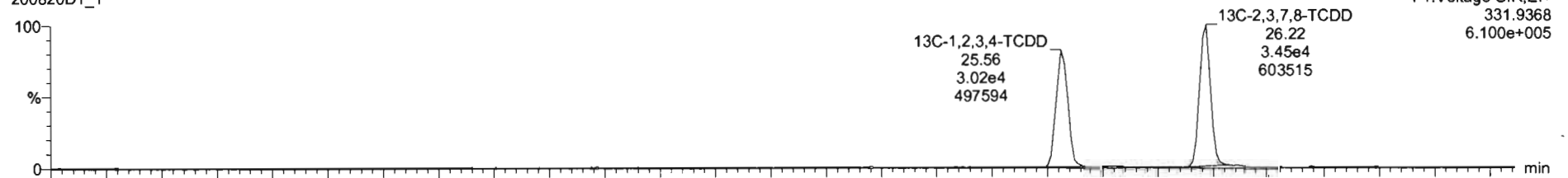
37Cl-2,3,7,8-TCDD

200820D1\_1

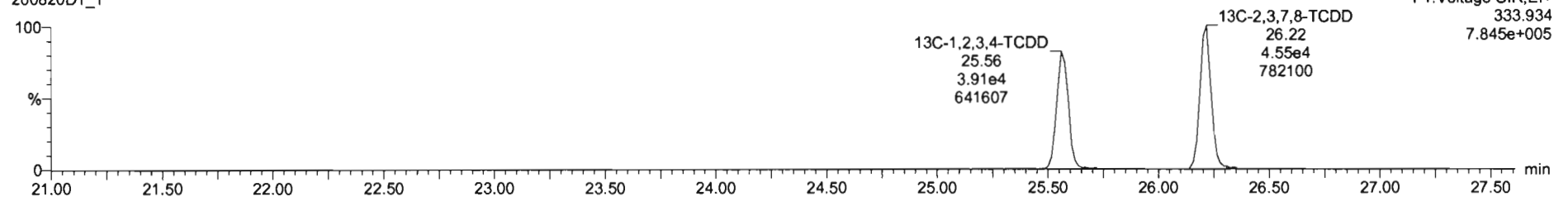


13C-1,2,3,4-TCDD

200820D1\_1



200820D1\_1



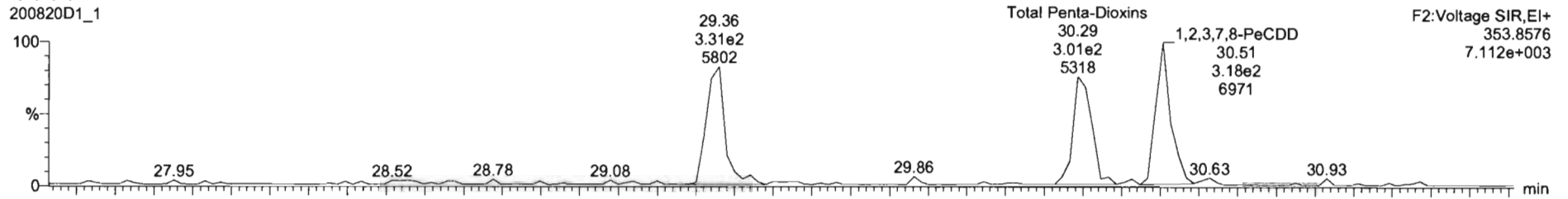
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

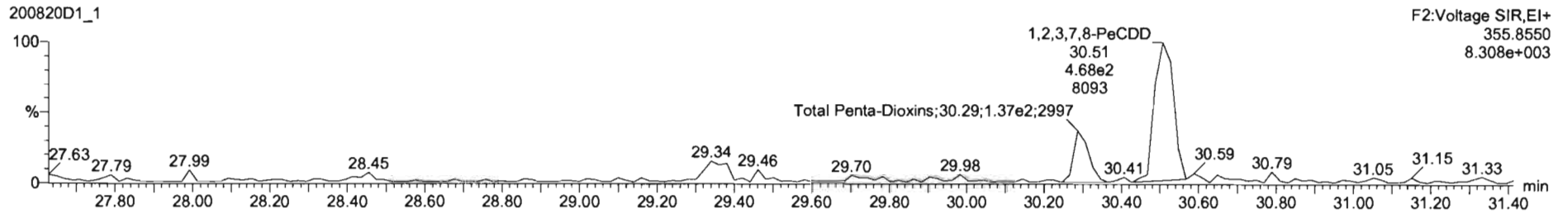
Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

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

200820D1\_1

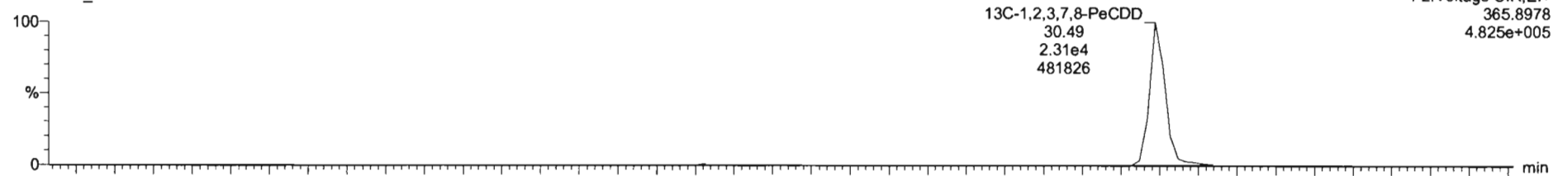


200820D1\_1

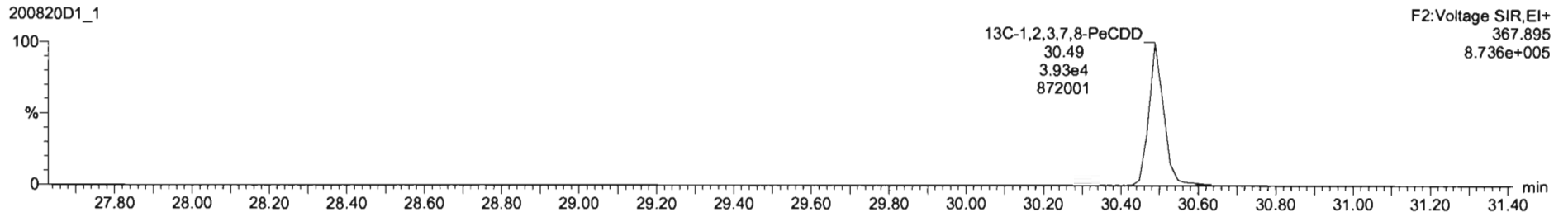


**13C-1,2,3,7,8-PeCDD**

200820D1\_1



200820D1\_1

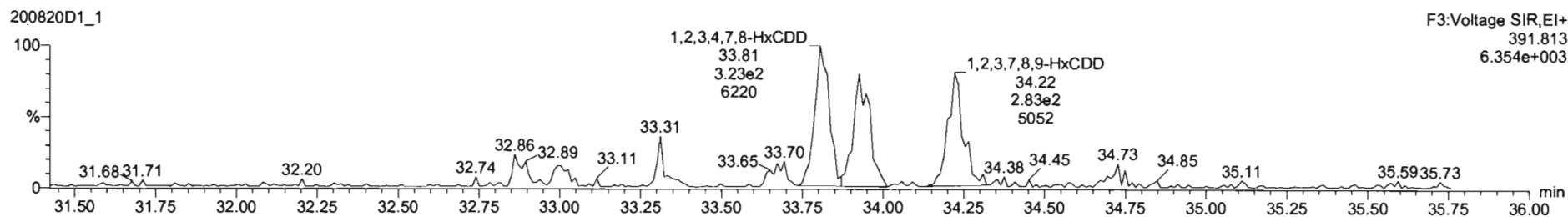
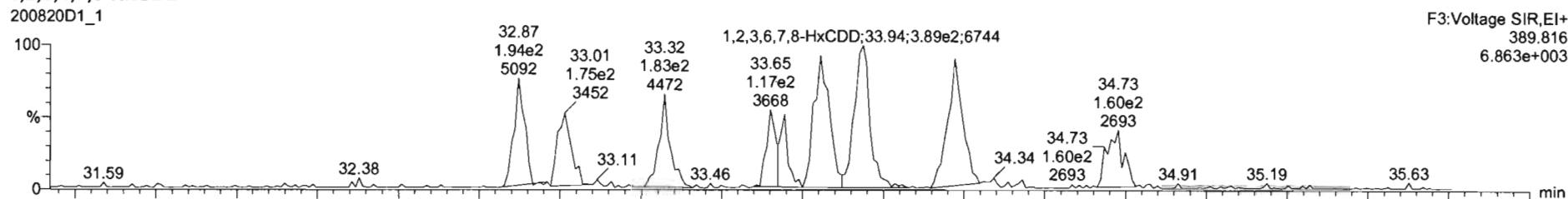


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

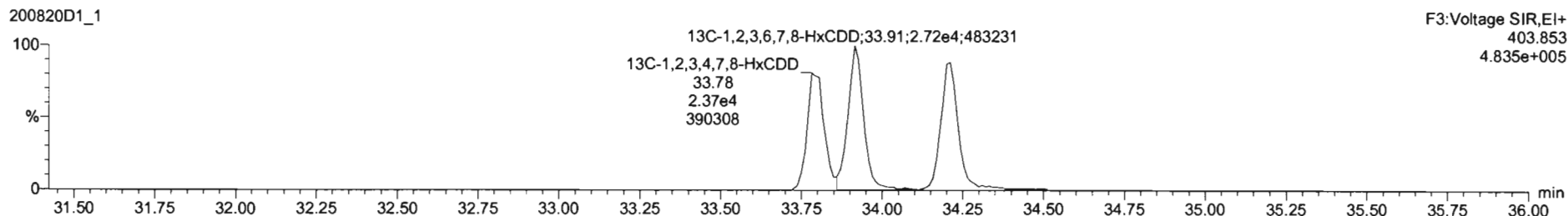
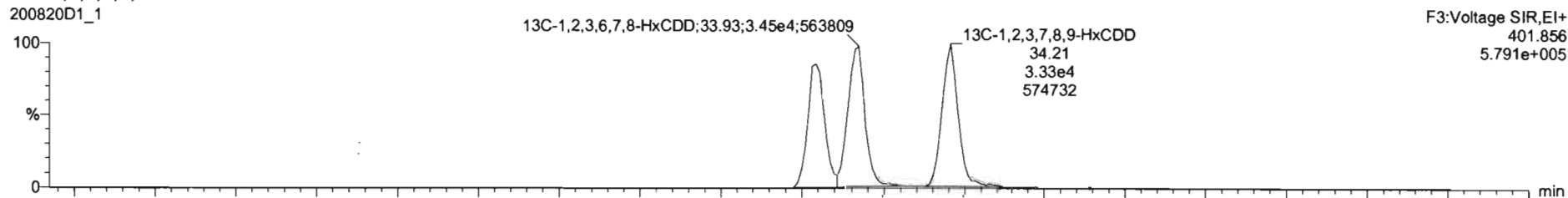
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

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



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



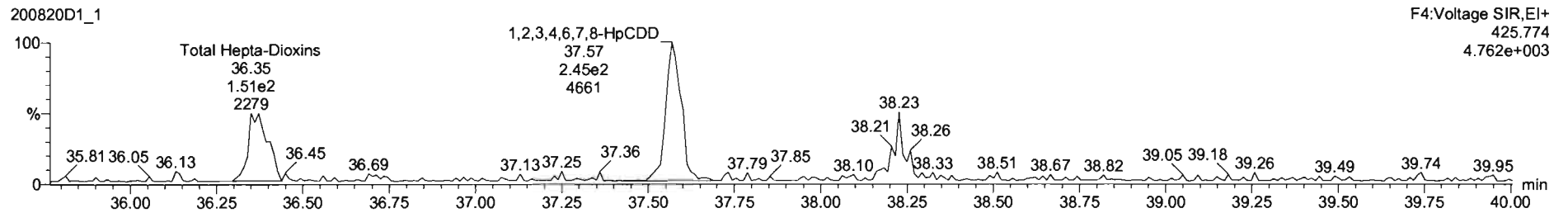
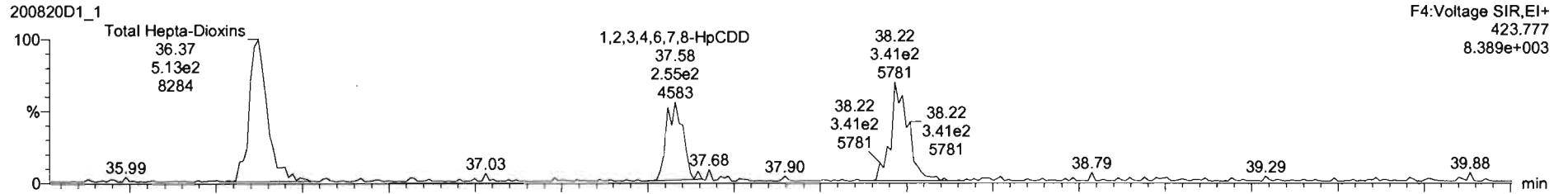


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

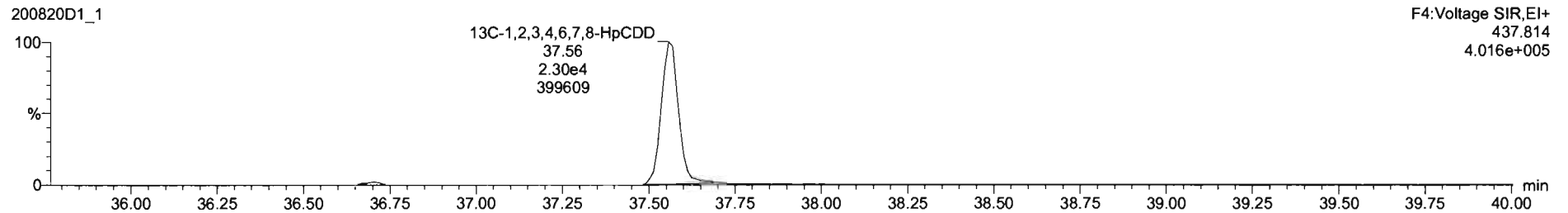
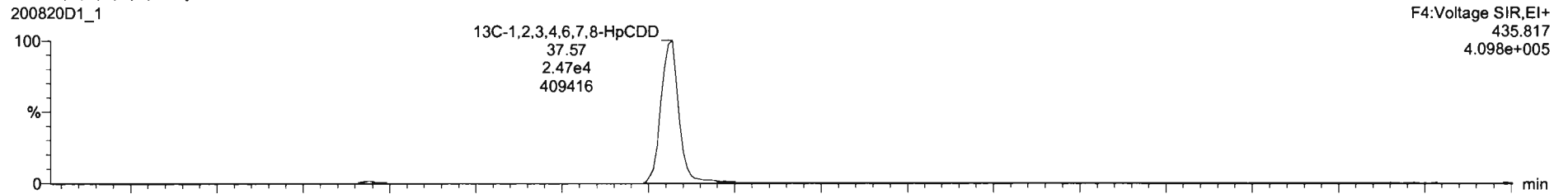
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

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



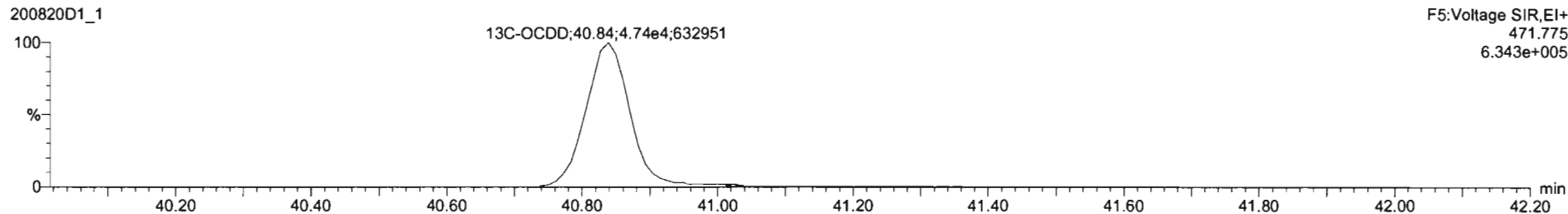
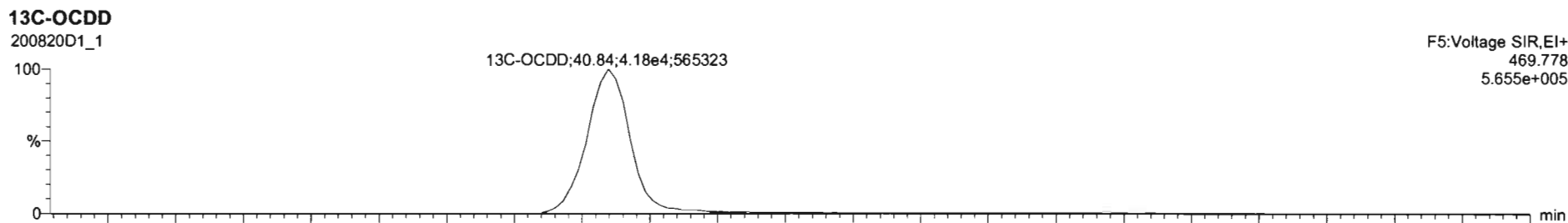
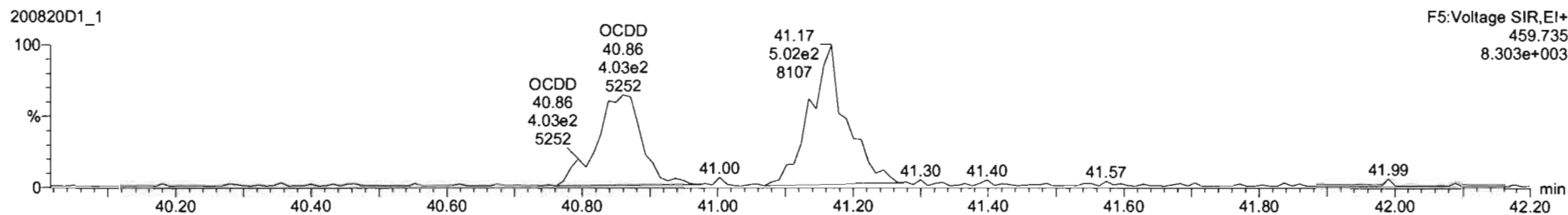
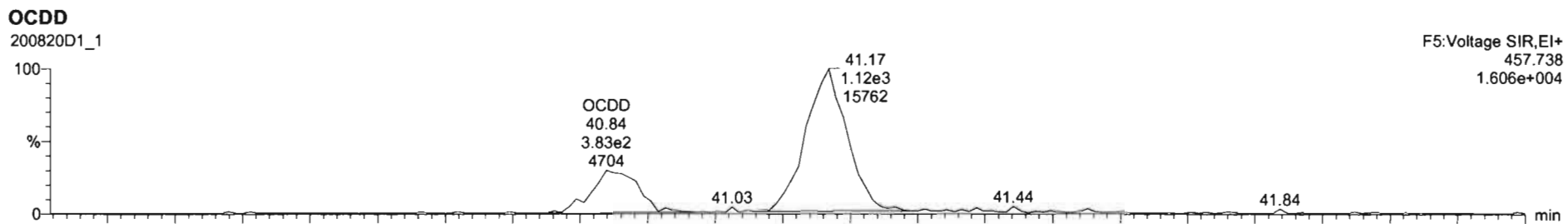
13C-1,2,3,4,6,7,8-HpCDD



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102



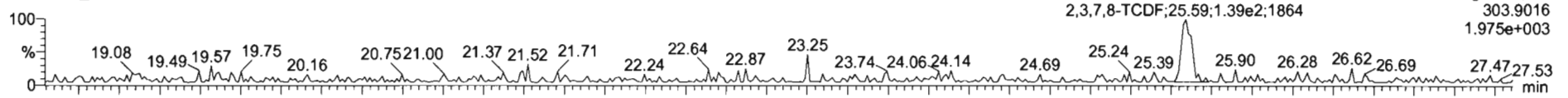
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

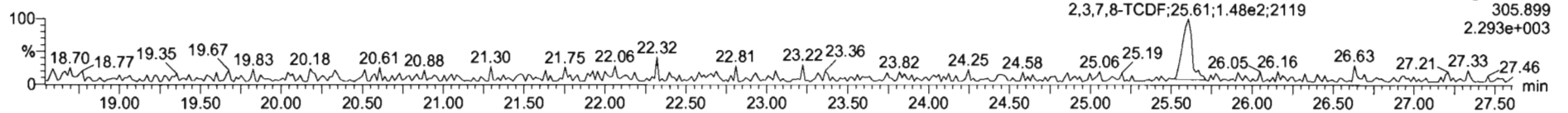
Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

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

200820D1\_1

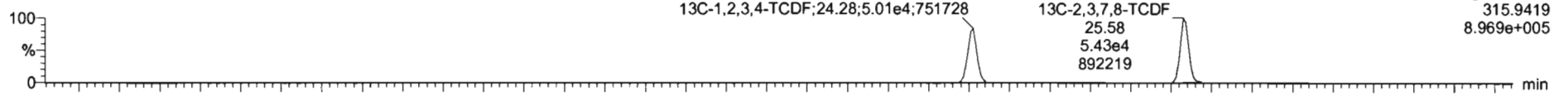


200820D1\_1

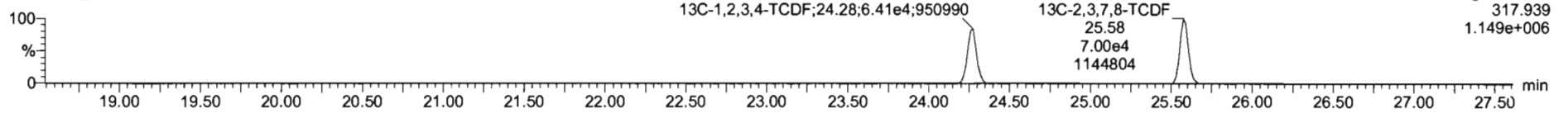


**13C-2,3,7,8-TCDF**

200820D1\_1

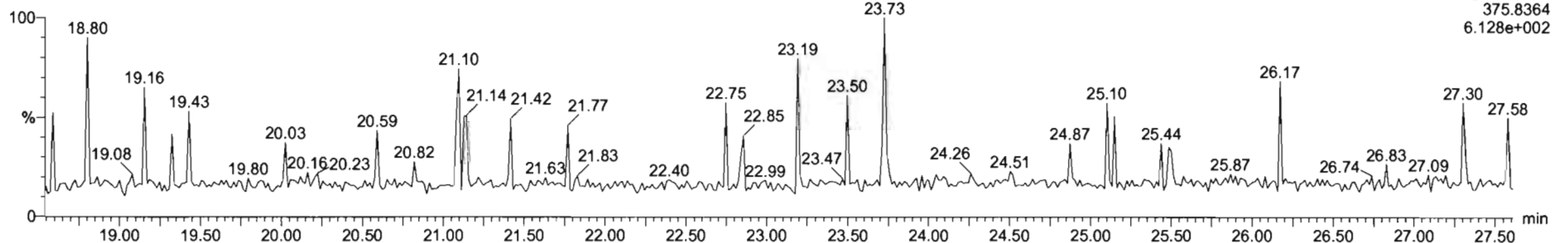


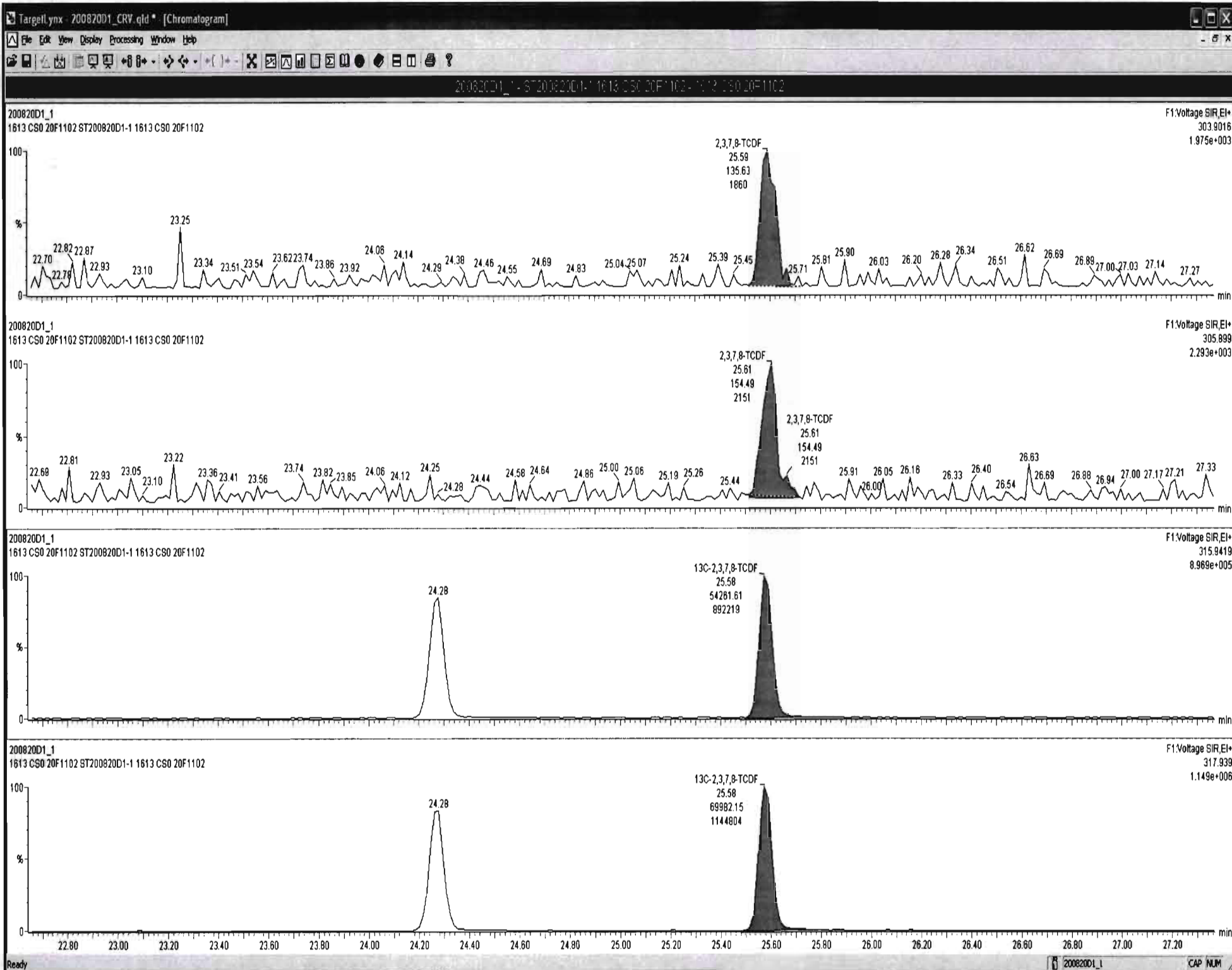
200820D1\_1



**DPE1**

200820D1\_1





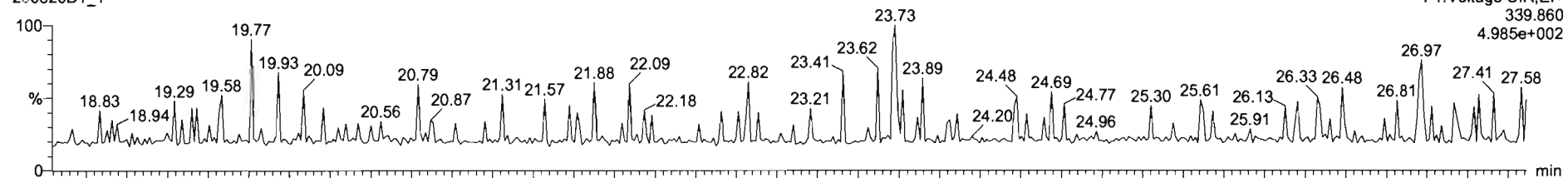
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

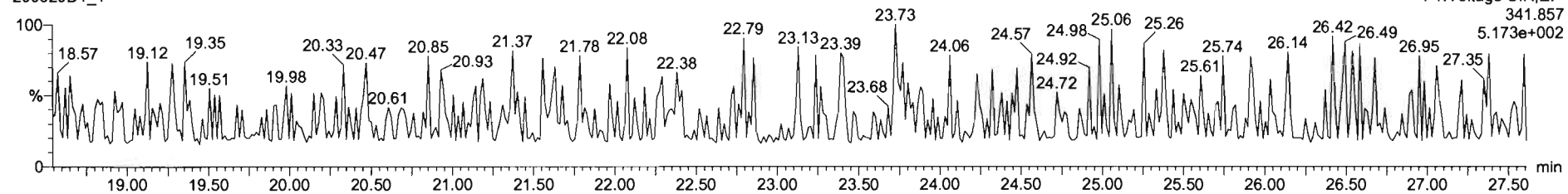
Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

1st Func. Penta-Furans

200820D1\_1

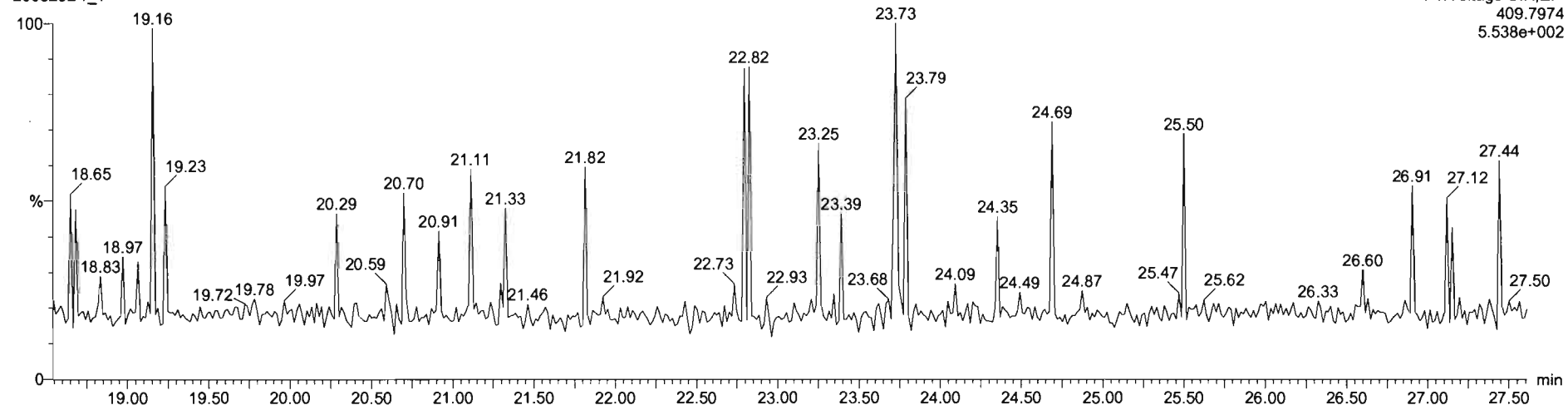


200820D1\_1



DPE6

200820D1\_1



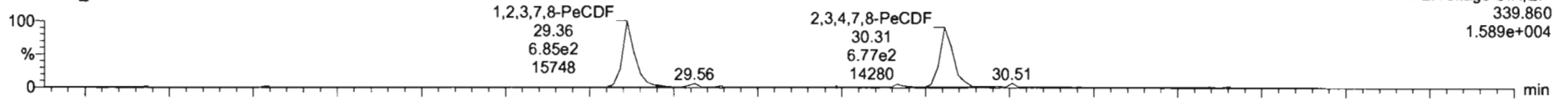
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

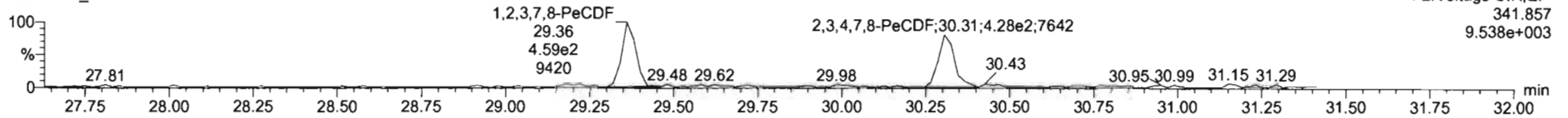
Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

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

200820D1\_1

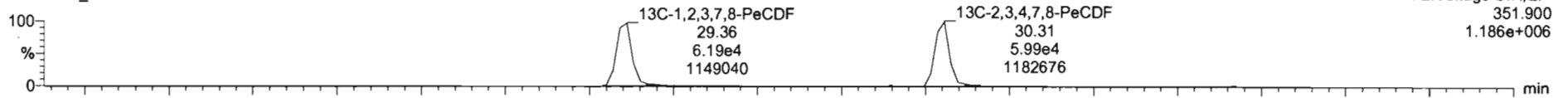


200820D1\_1

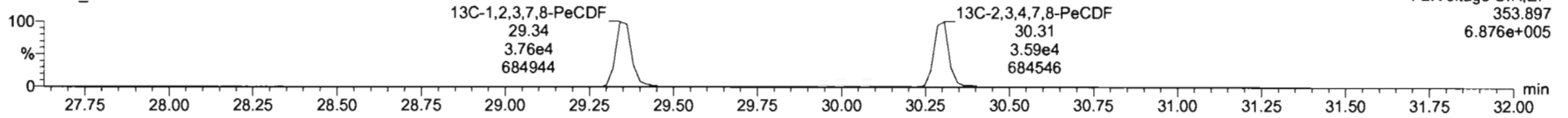


**13C-1,2,3,7,8-PeCDF**

200820D1\_1

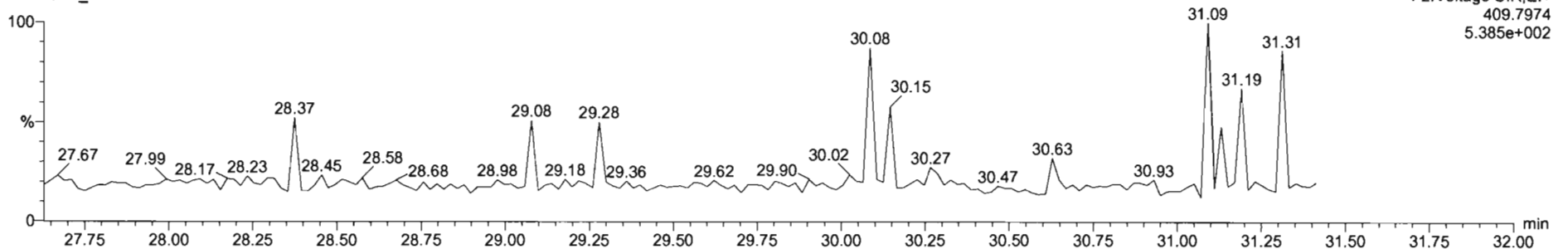


200820D1\_1



**DPE2**

200820D1\_1

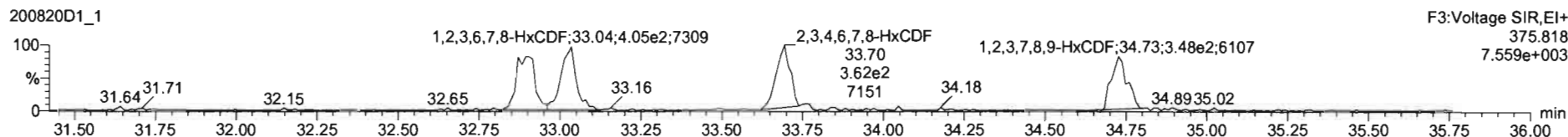
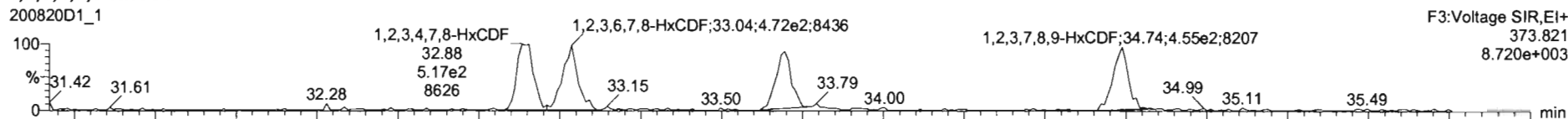


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

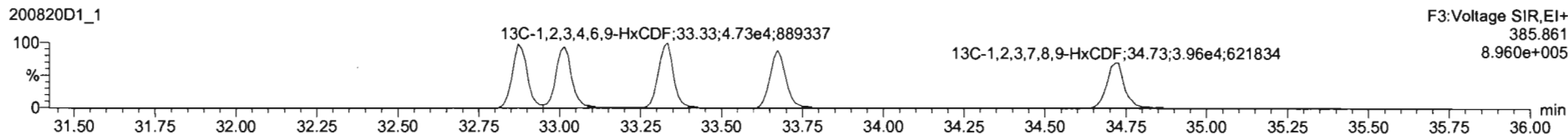
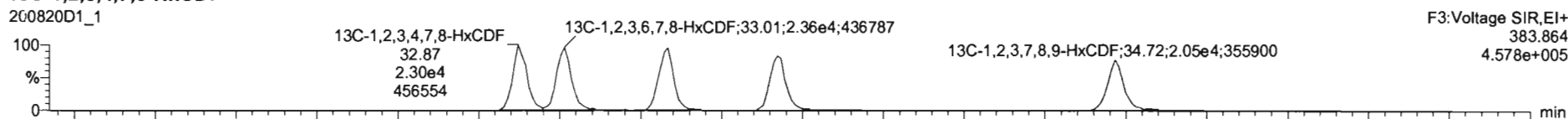
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

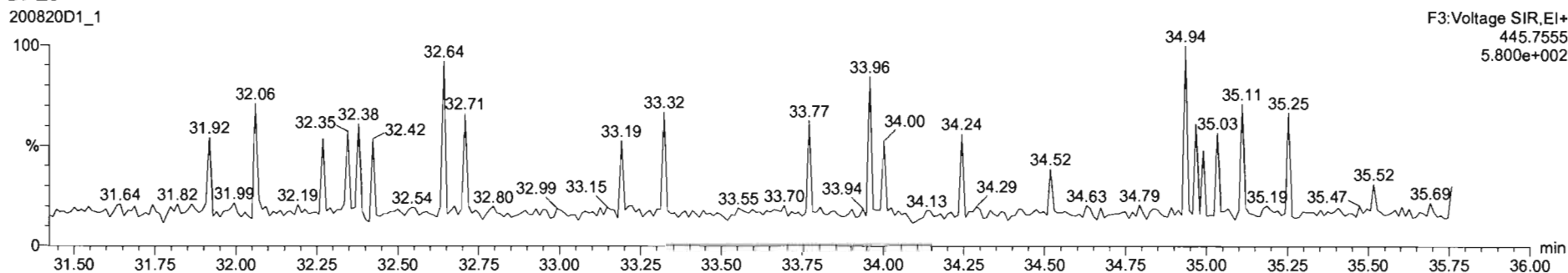
1,2,3,4,7,8-HxCDF



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



DPE3

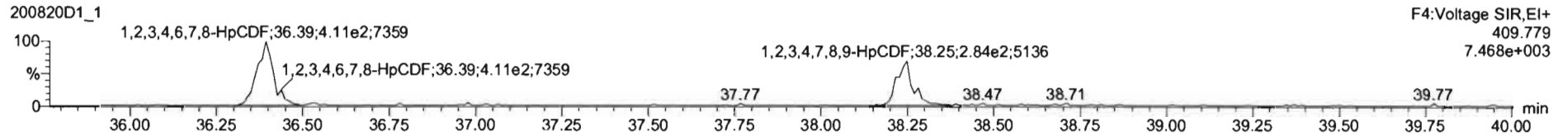
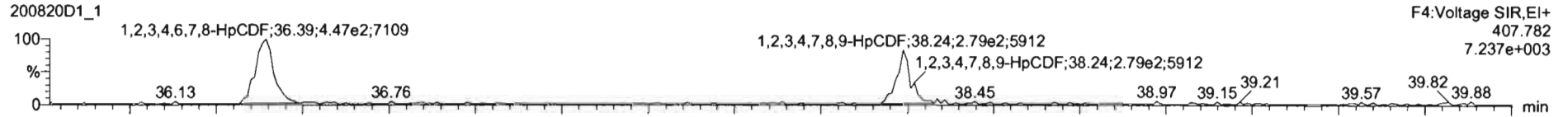


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

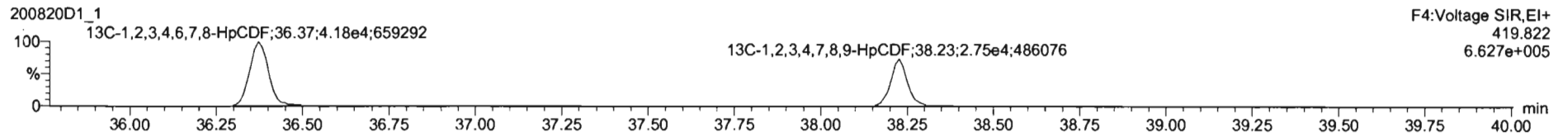
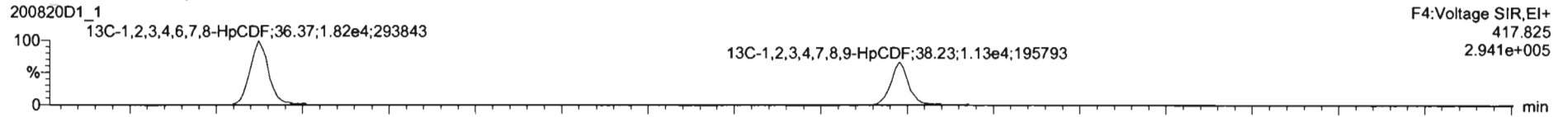
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

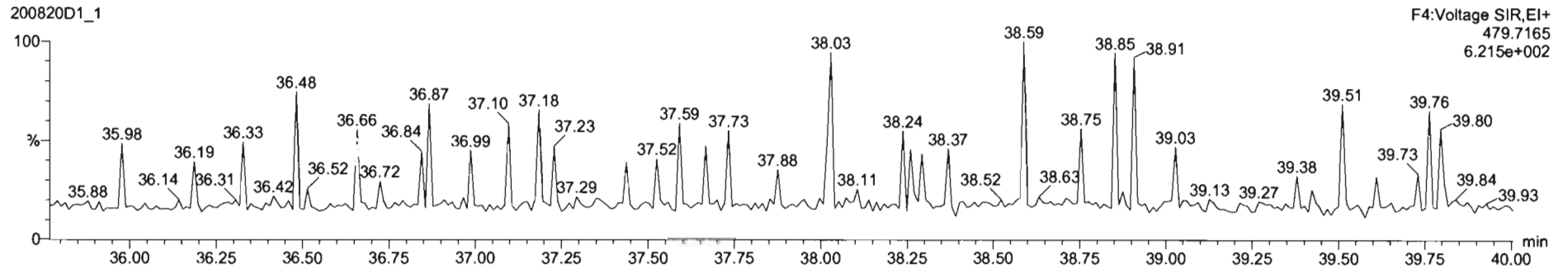
**1,2,3,4,6,7,8-HpCDF**



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



**DPE4**





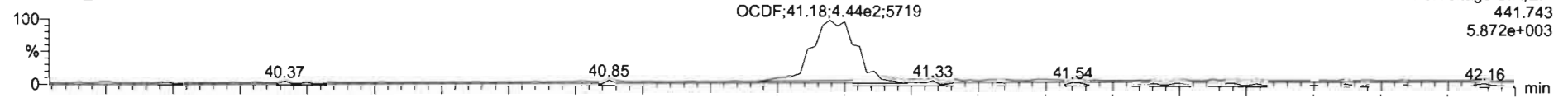
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

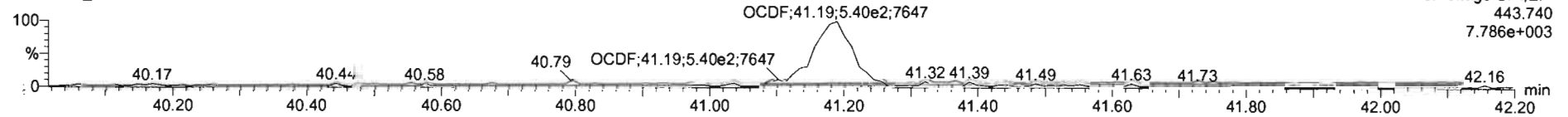
Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

**OCDF**

200820D1\_1

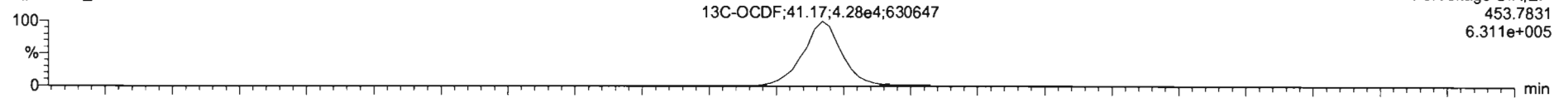


200820D1\_1

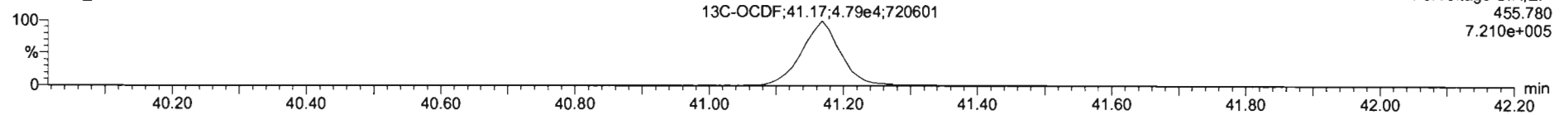


**13C-OCDF**

200820D1\_1

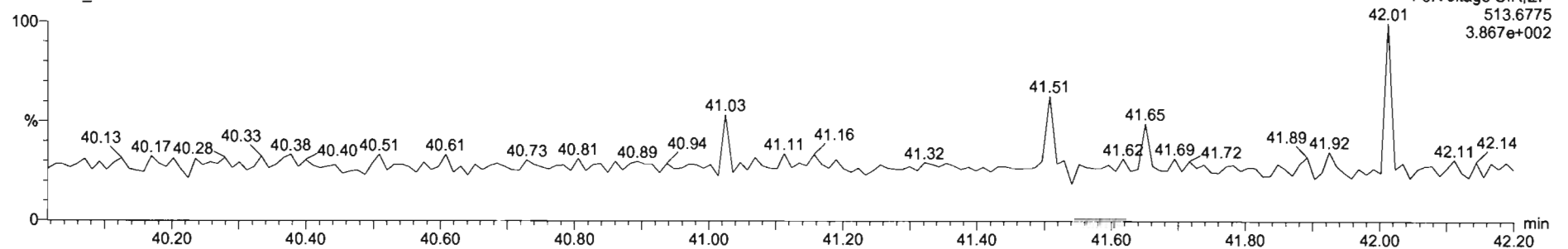


200820D1\_1



**DPE5**

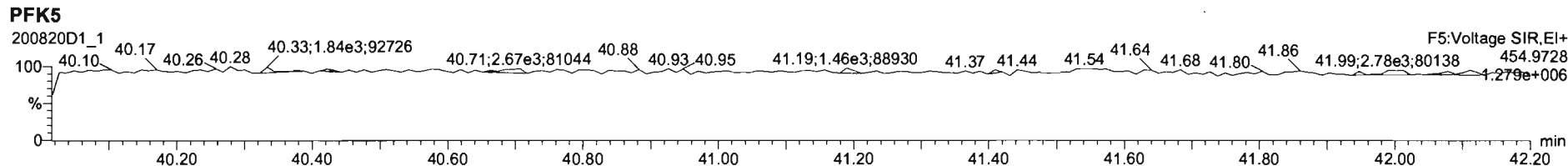
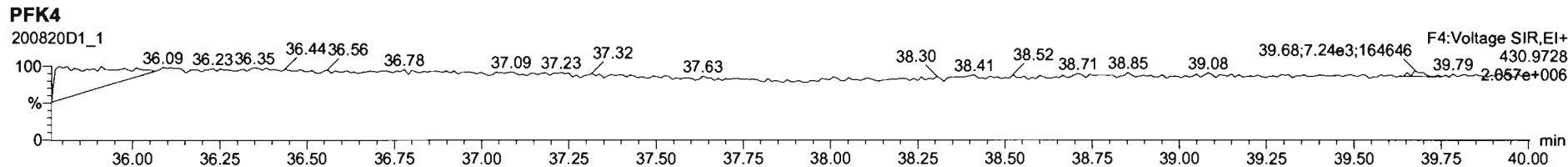
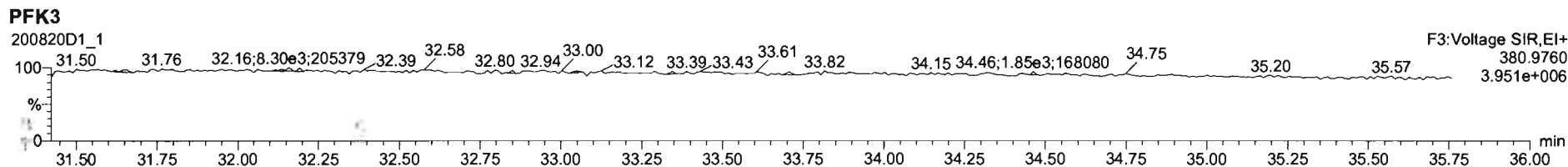
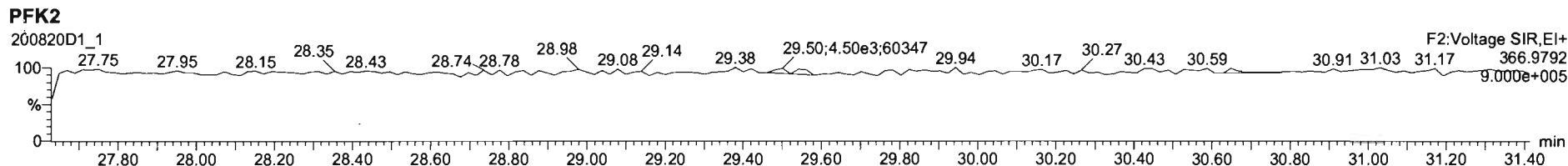
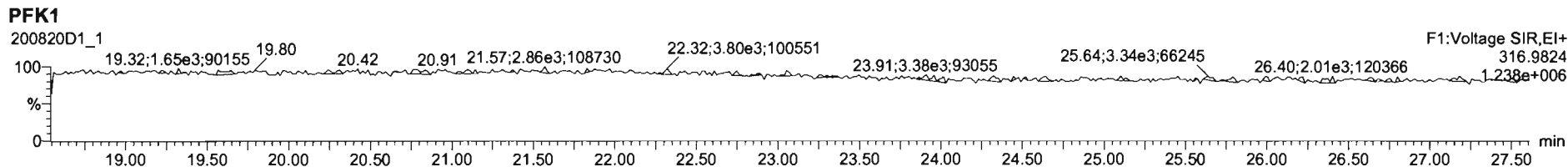
200820D1\_1



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_1, Date: 20-Aug-2020, Time: 12:29:56, ID: ST200820D1-1 1613 CS0 20F1102, Description: 1613 CS0 20F1102



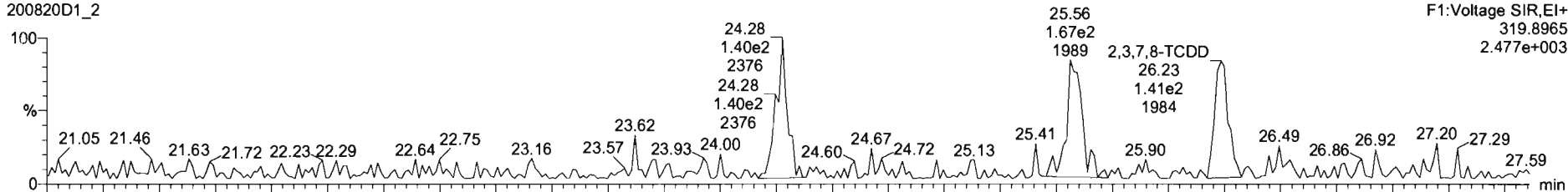
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

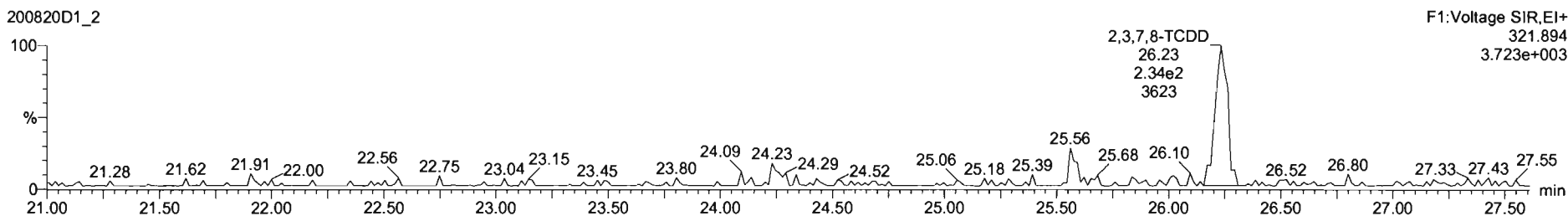
Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

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

200820D1\_2

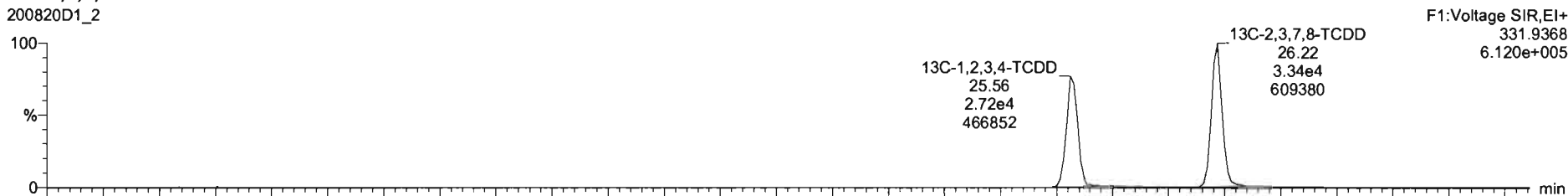


200820D1\_2

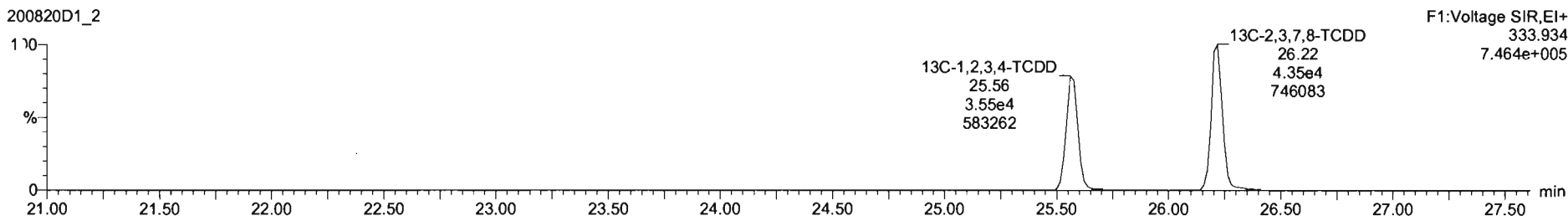


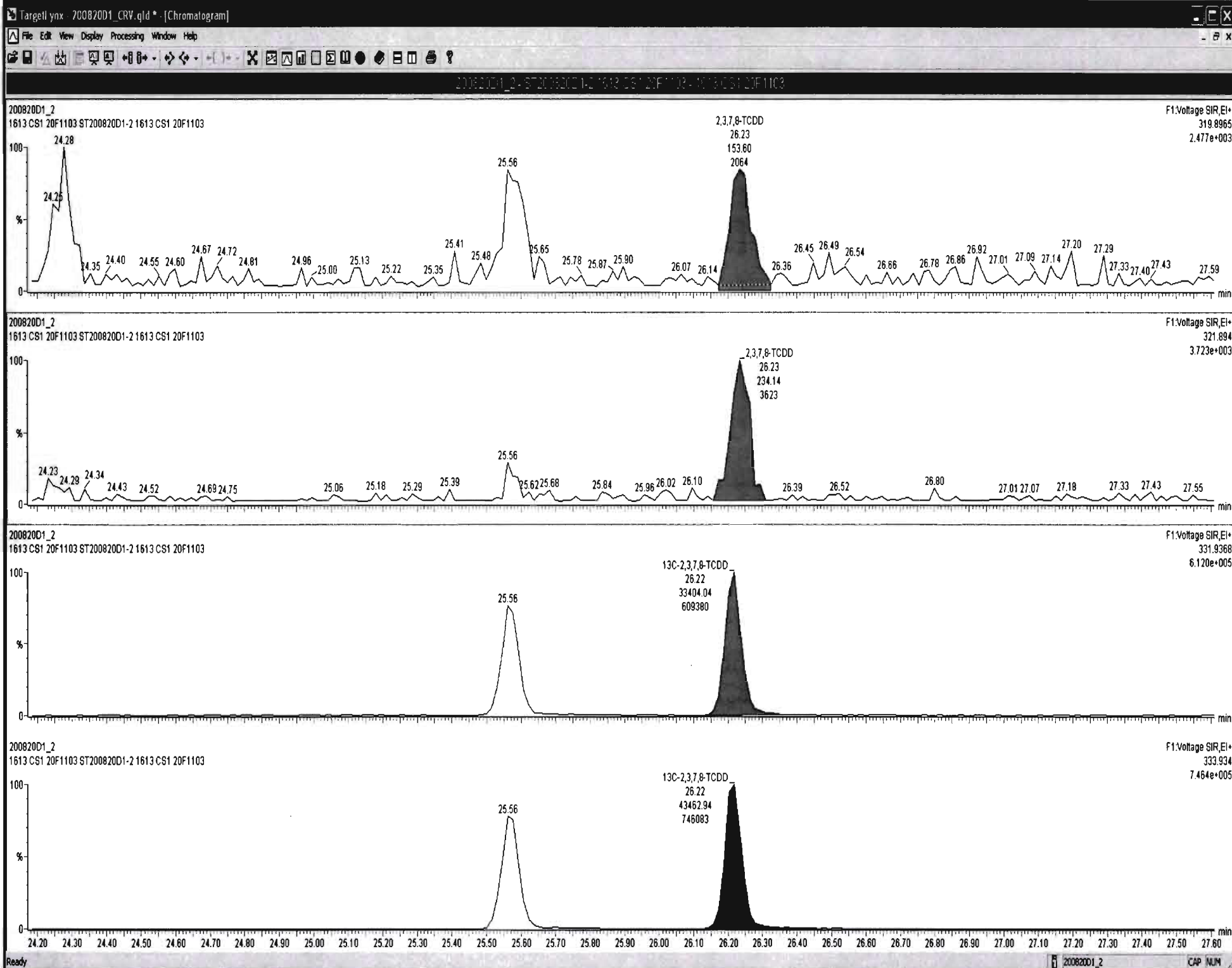
**13C-2,3,7,8-TCDD**

200820D1\_2



200820D1\_2





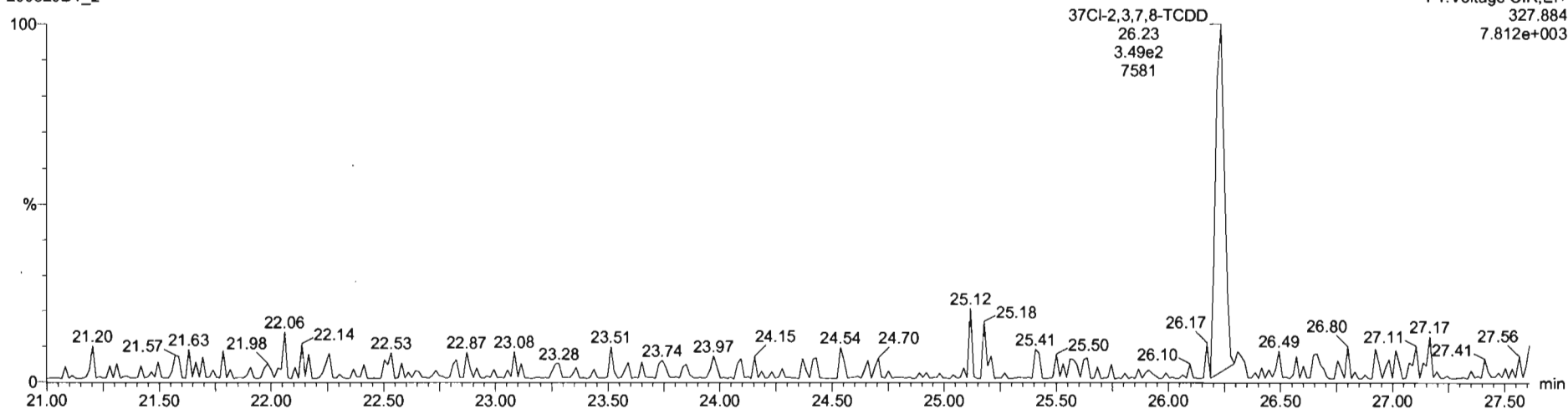
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

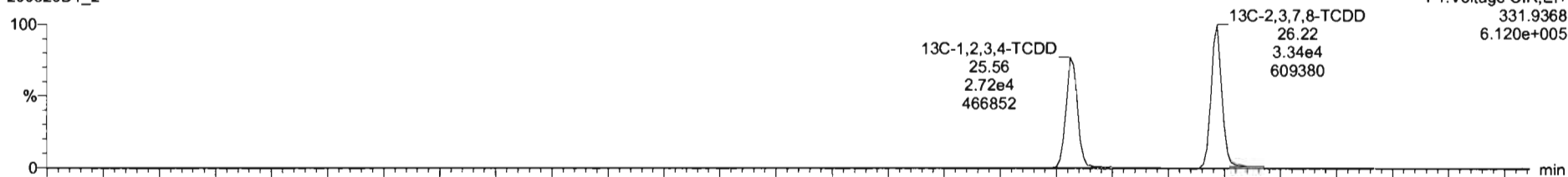
**37Cl-2,3,7,8-TCDD**

200820D1\_2

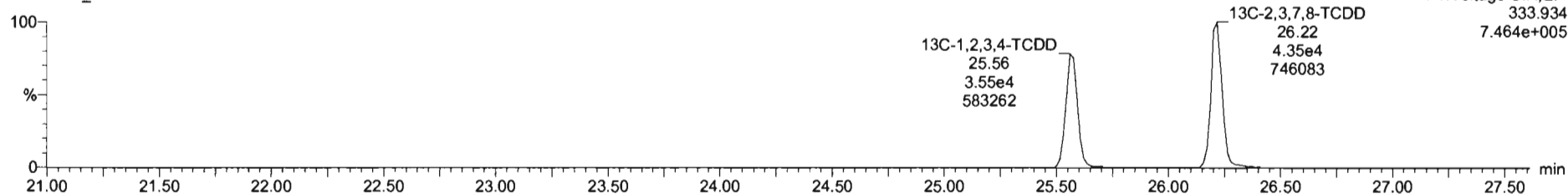


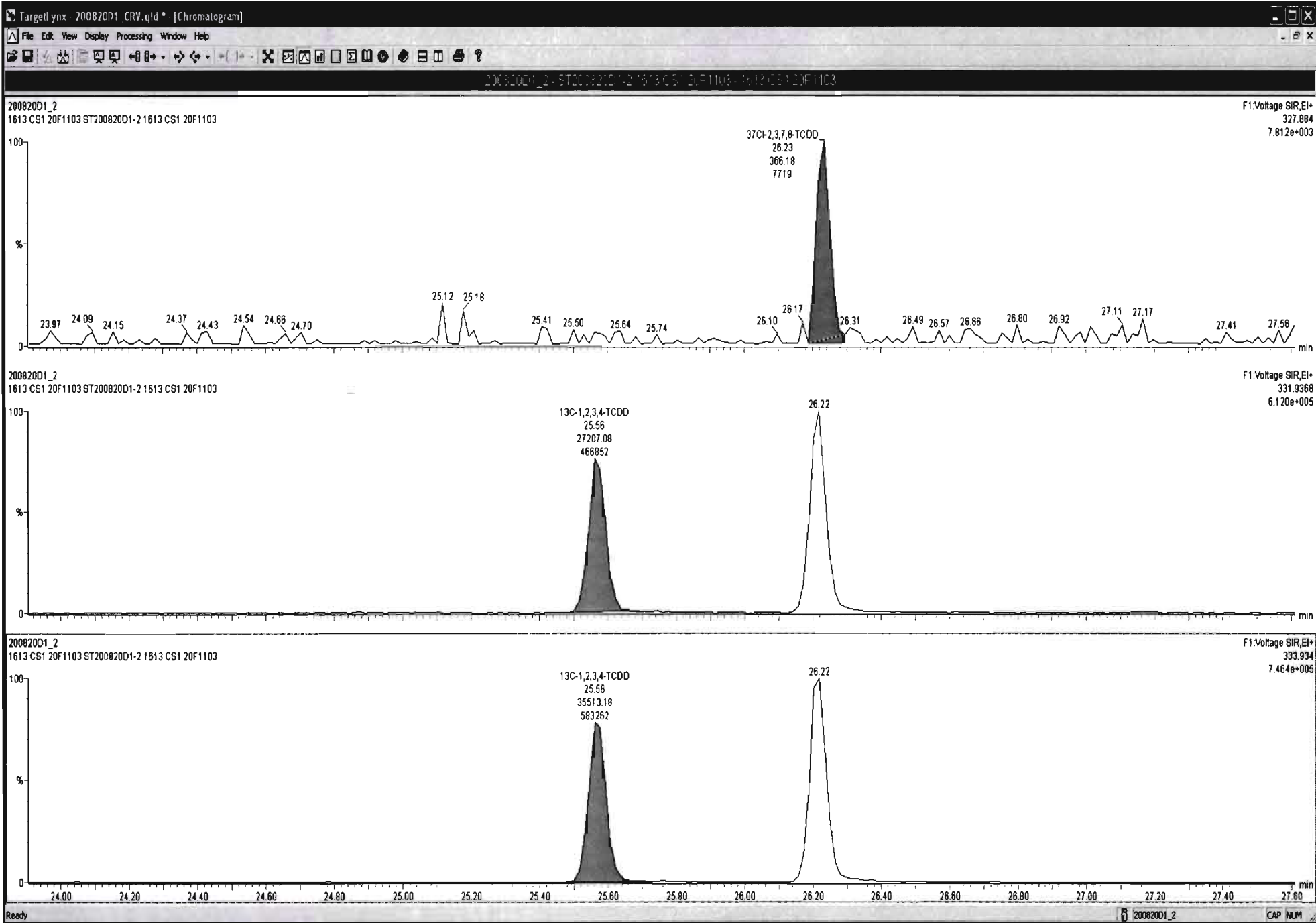
**13C-1,2,3,4-TCDD**

200820D1\_2



200820D1\_2





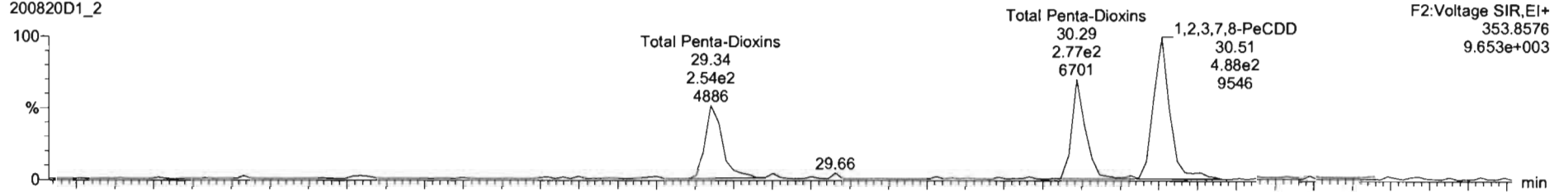
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

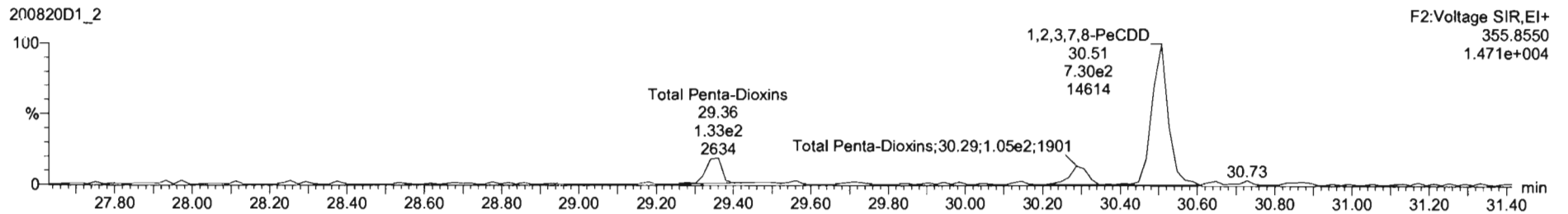
Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

1,2,3,7,8-PeCDD

200820D1\_2

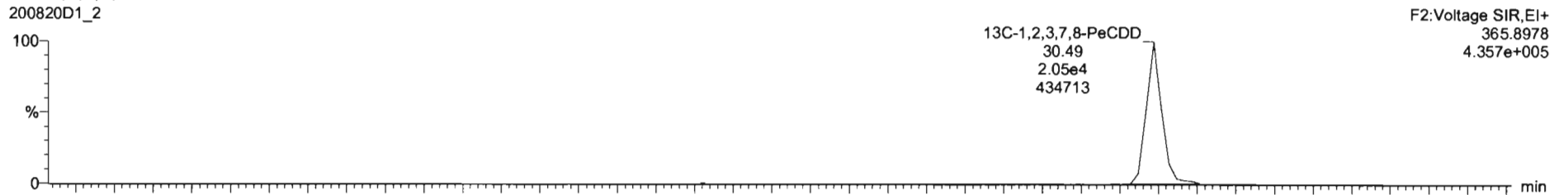


200820D1\_2

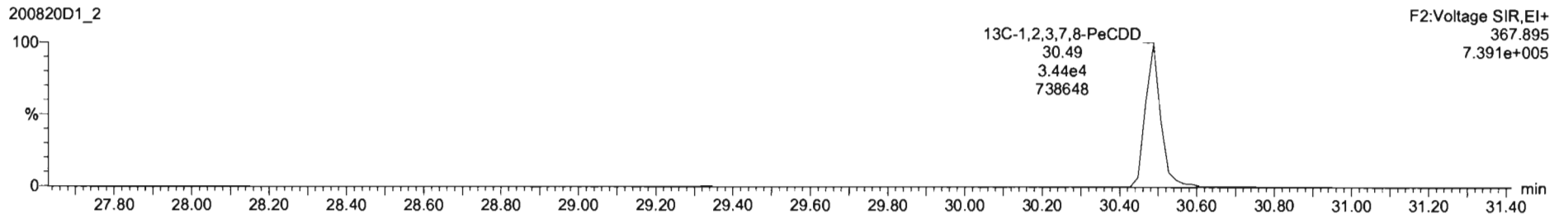


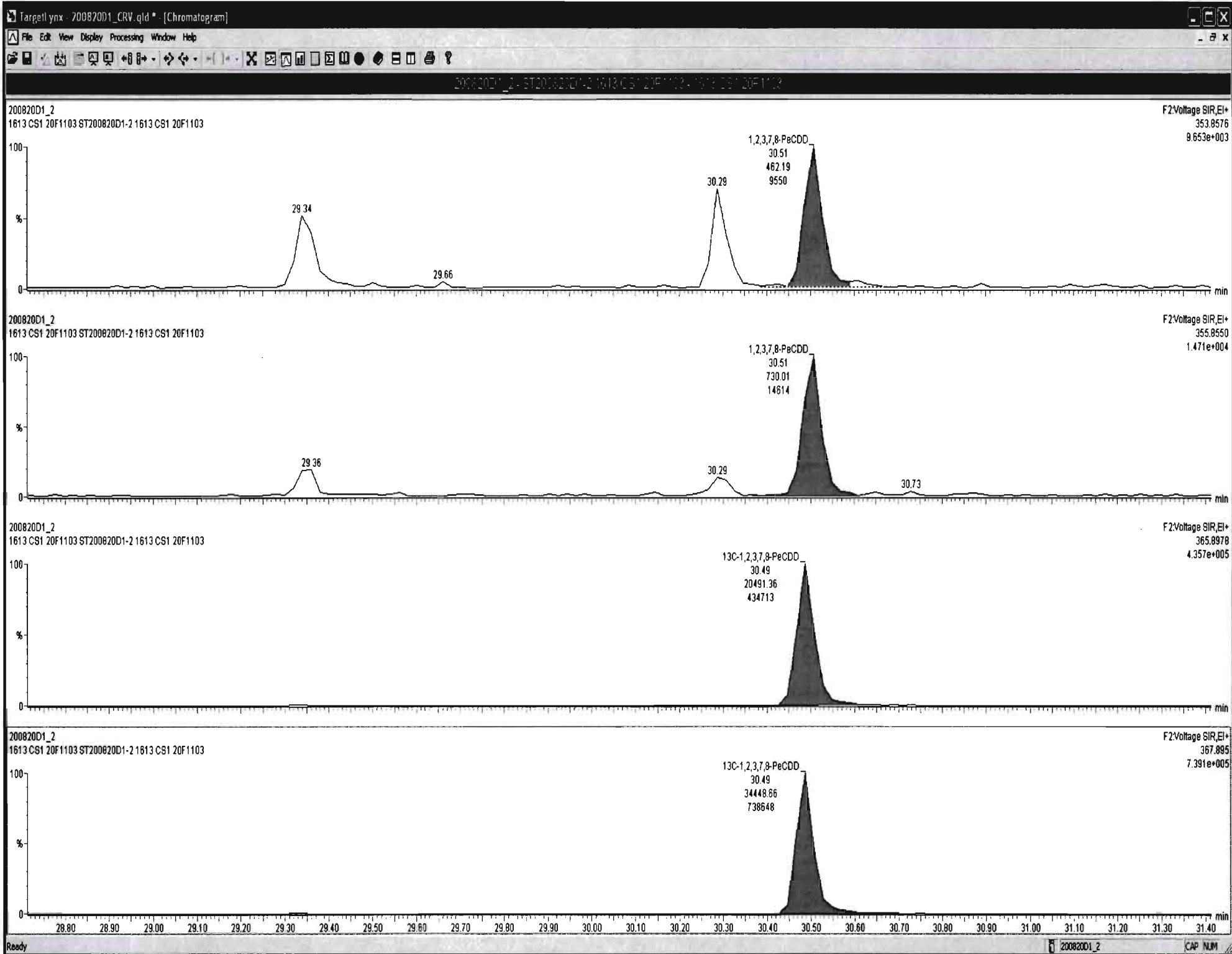
13C-1,2,3,7,8-PeCDD

200820D1\_2



200820D1\_2







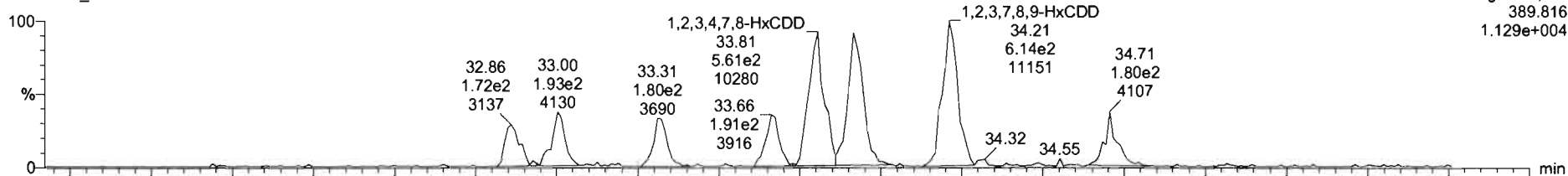
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

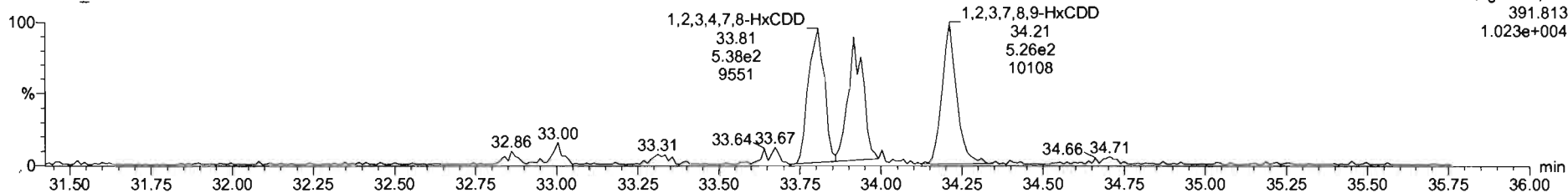
Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

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

200820D1\_2

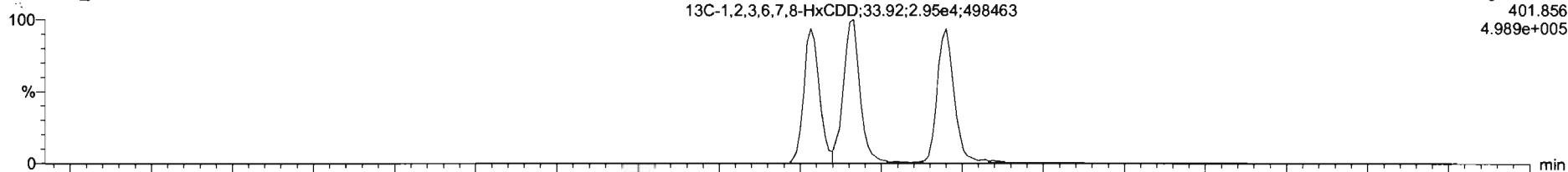


200820D1\_2

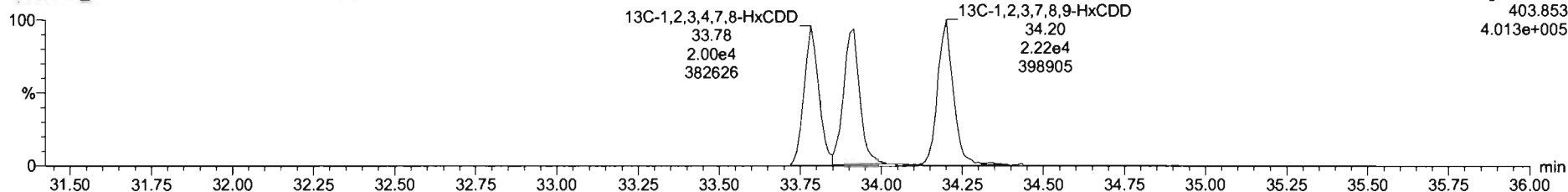


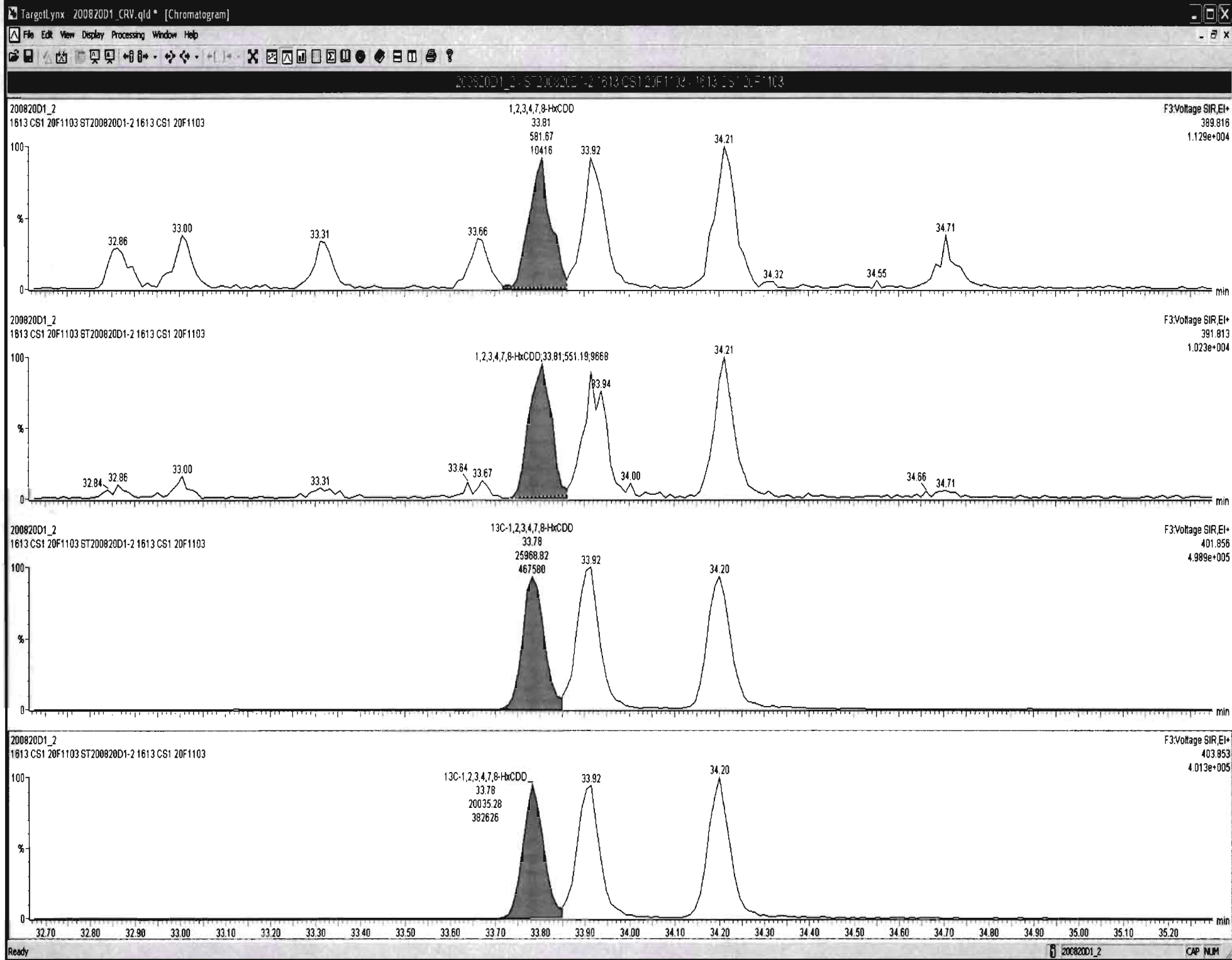
13C-1,2,3,4,7,8-HxCDD

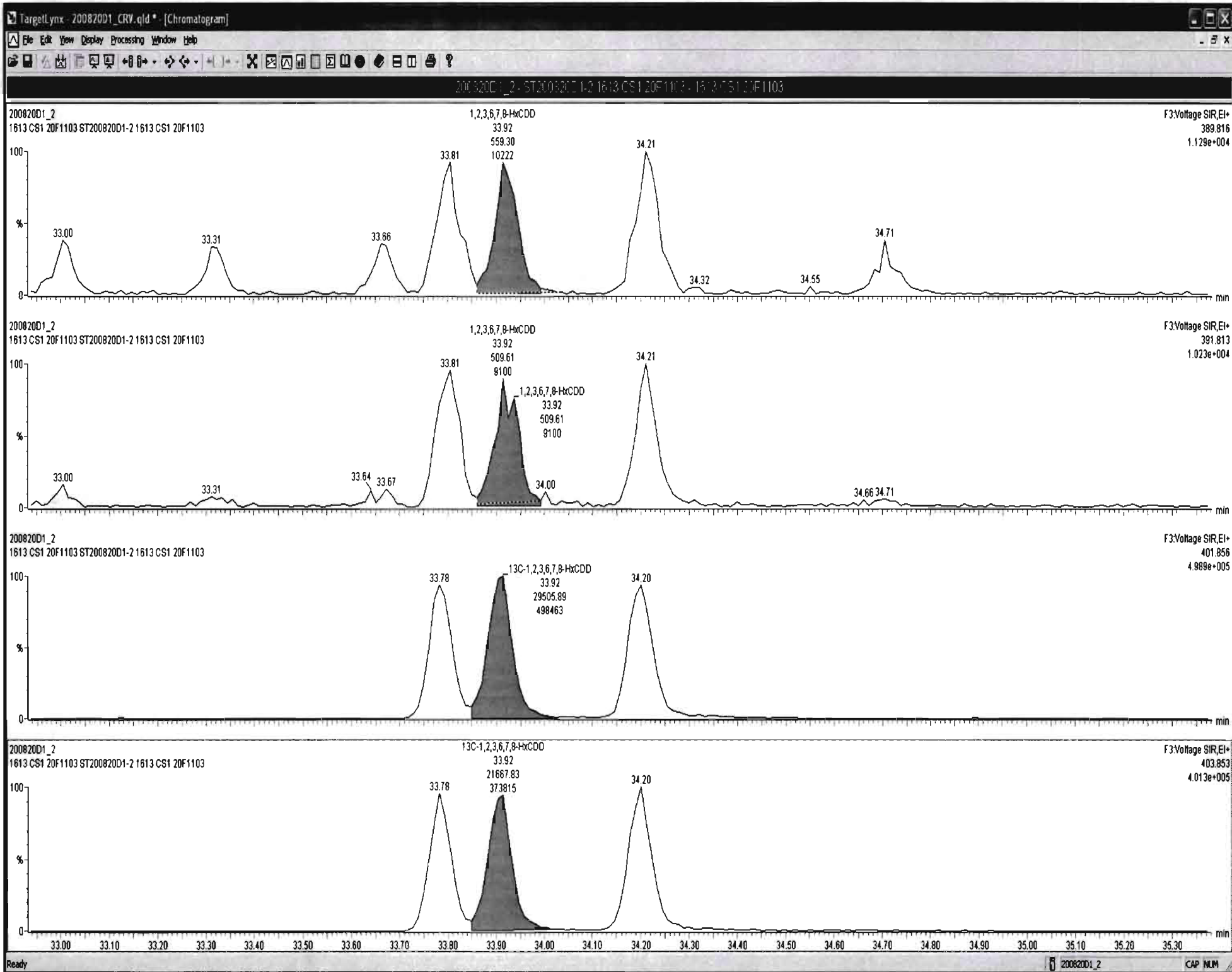
200820D1\_2



200820D1\_2





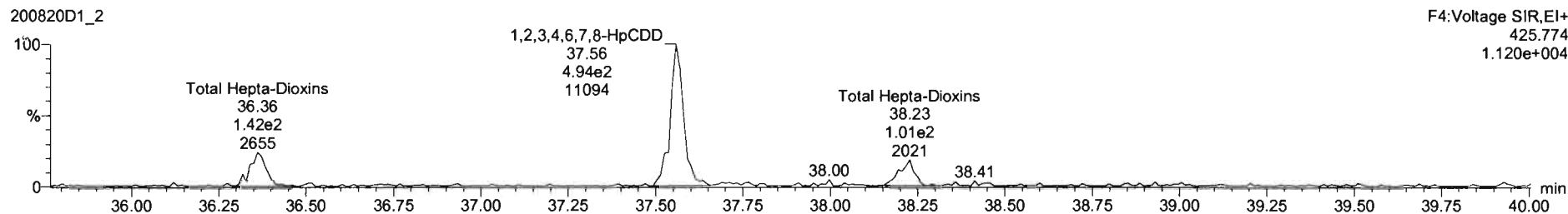
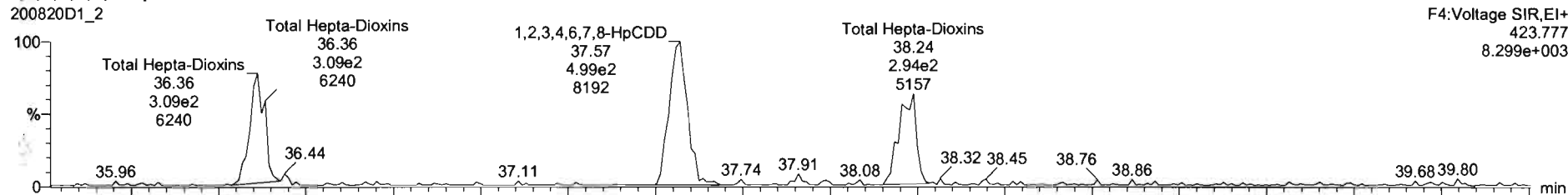


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

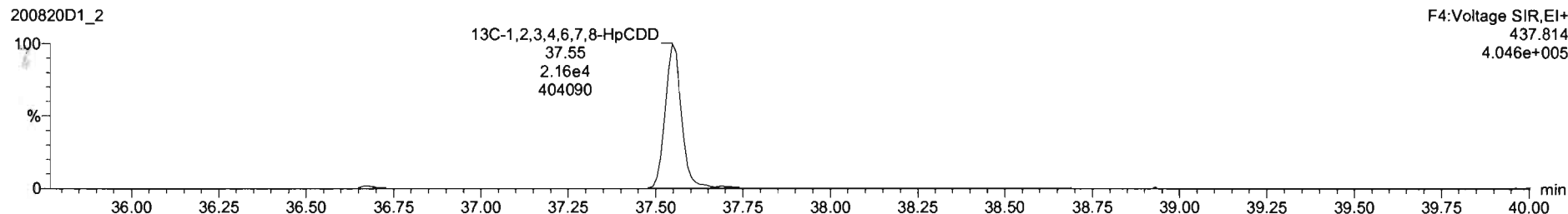
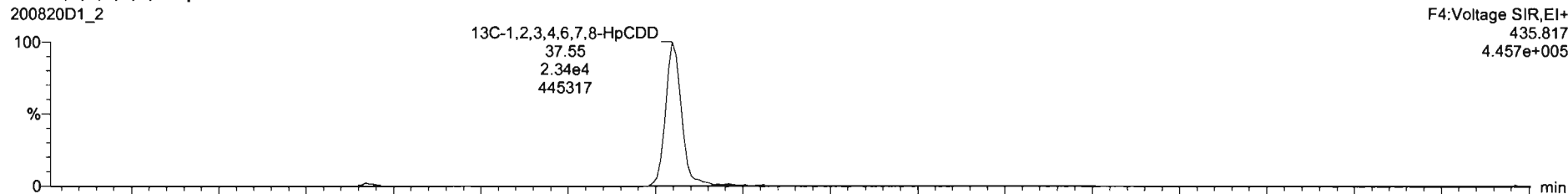
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

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



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



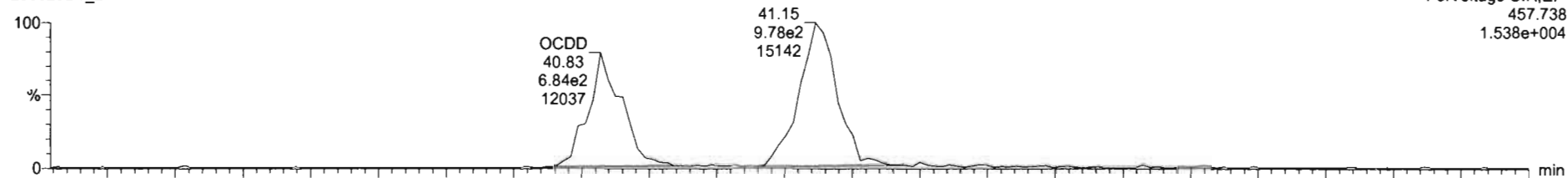
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

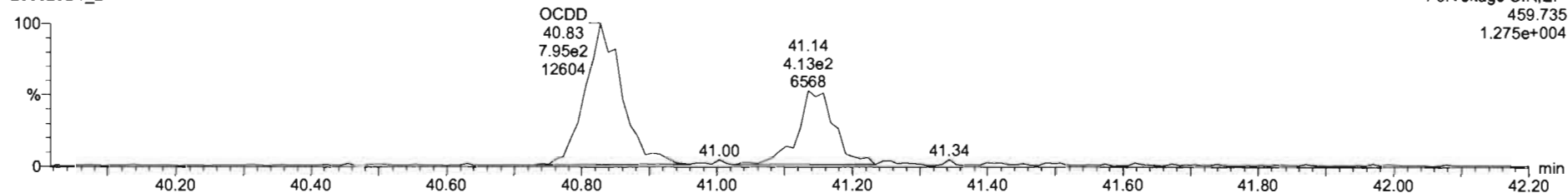
Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

**OCDD**

200820D1\_2

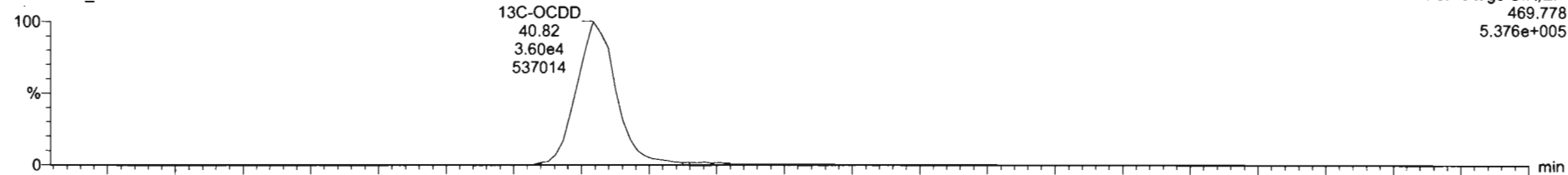


200820D1\_2

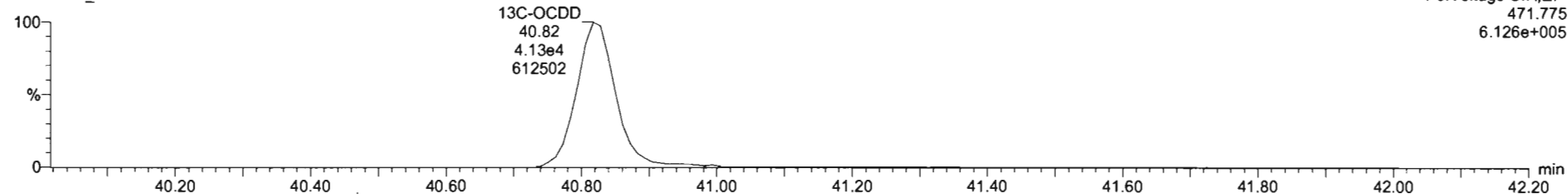


**13C-OCDD**

200820D1\_2



200820D1\_2

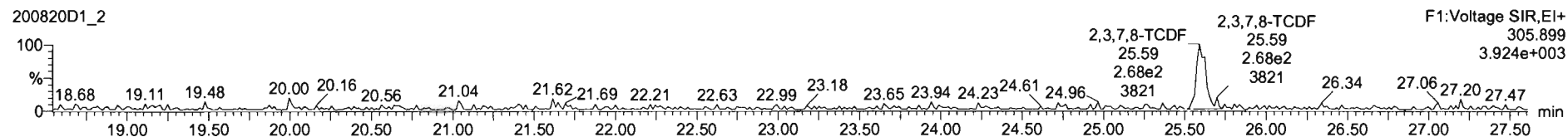
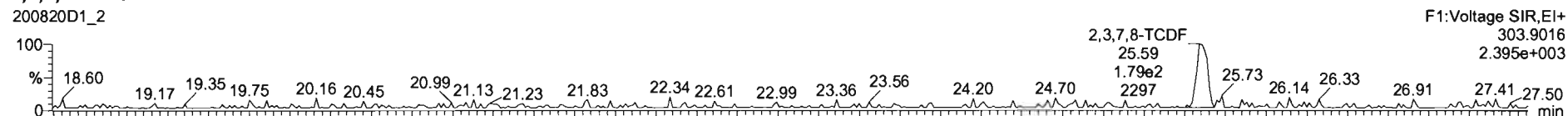


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

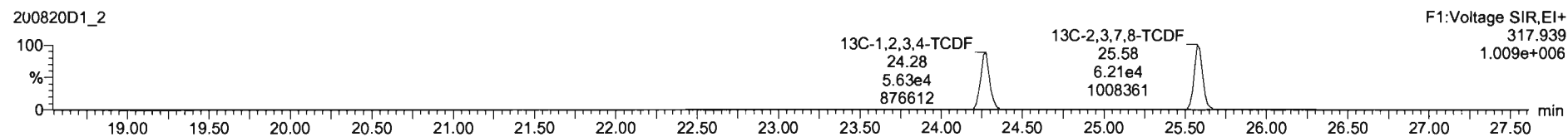
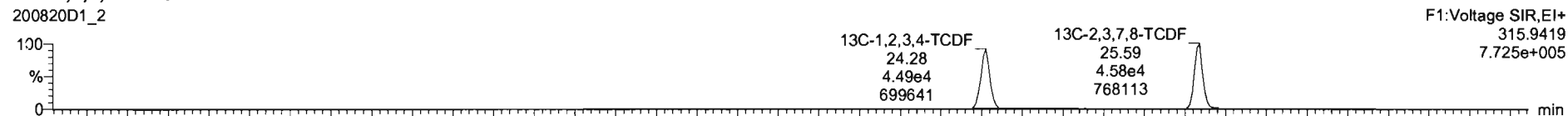
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

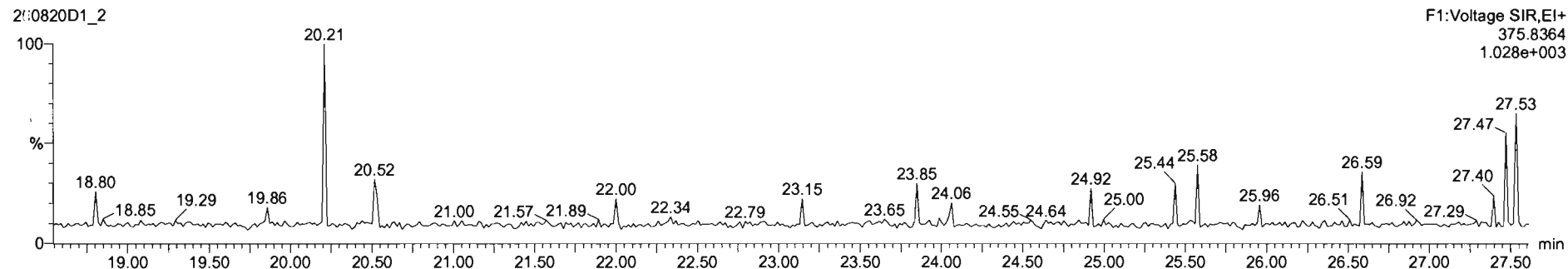
**2,3,7,8-TCDF**



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



**DPE1**

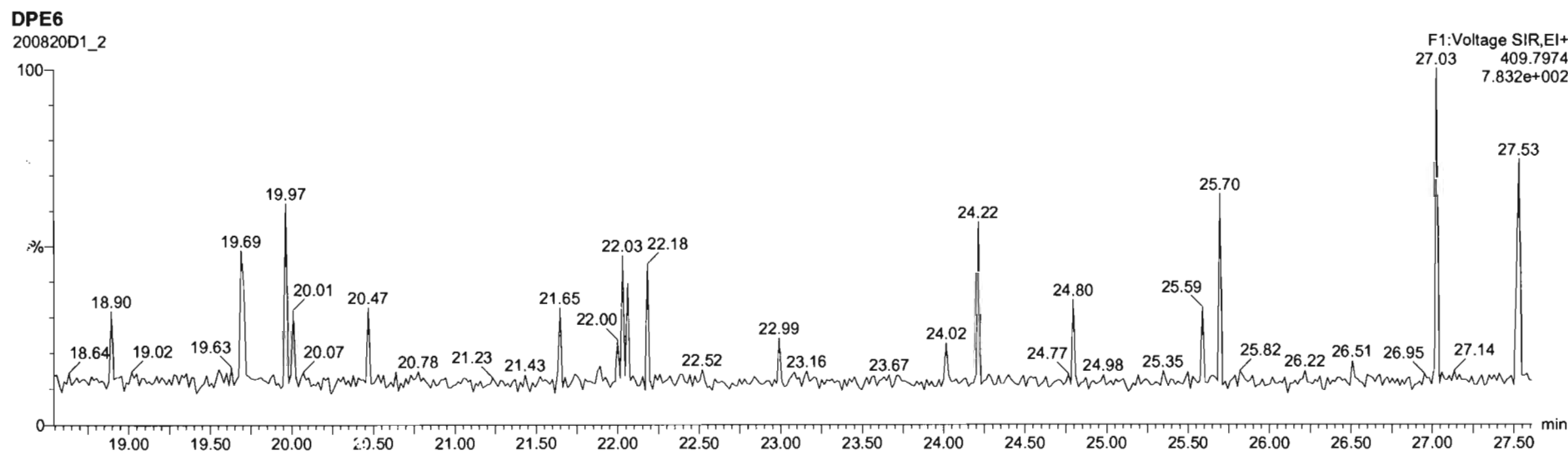
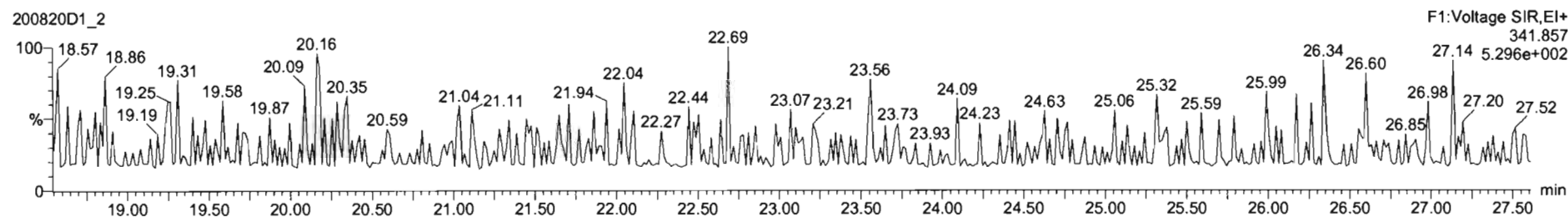
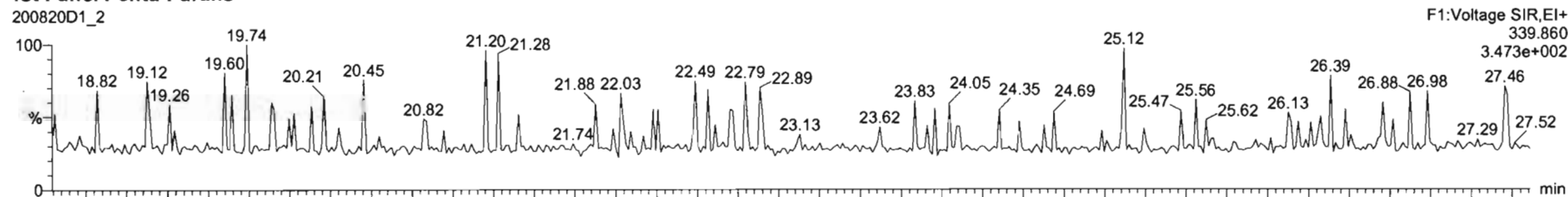


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

1st Func. Penta-Furans



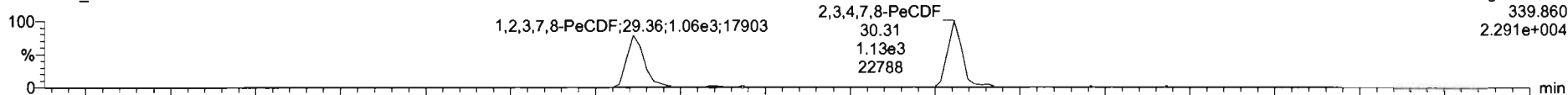
Dataset: U:\WG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

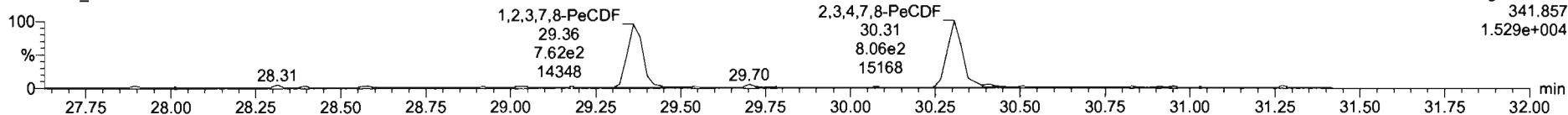
**1,2,3,7,8-PeCDF**

200820D1\_2



F2:Voltage SIR,EI+  
339.860  
2.291e+004

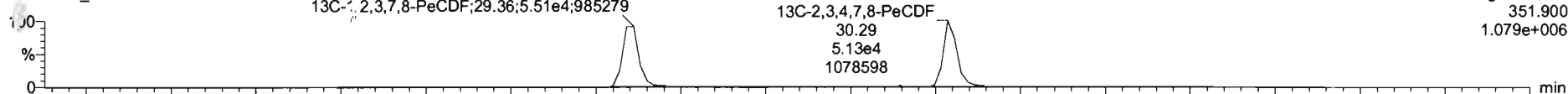
200820D1\_2



F2:Voltage SIR,EI+  
341.857  
1.529e+004

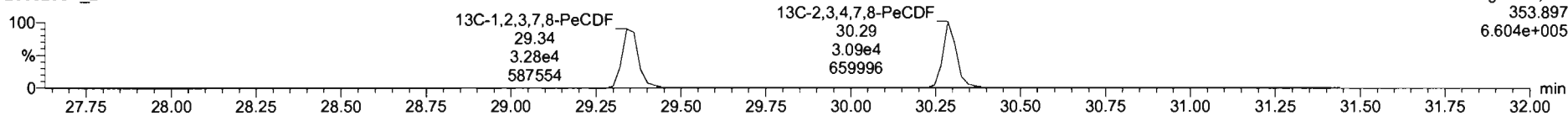
**13C-1,2,3,7,8-PeCDF**

200820D1\_2



F2:Voltage SIR,EI+  
351.900  
1.079e+006

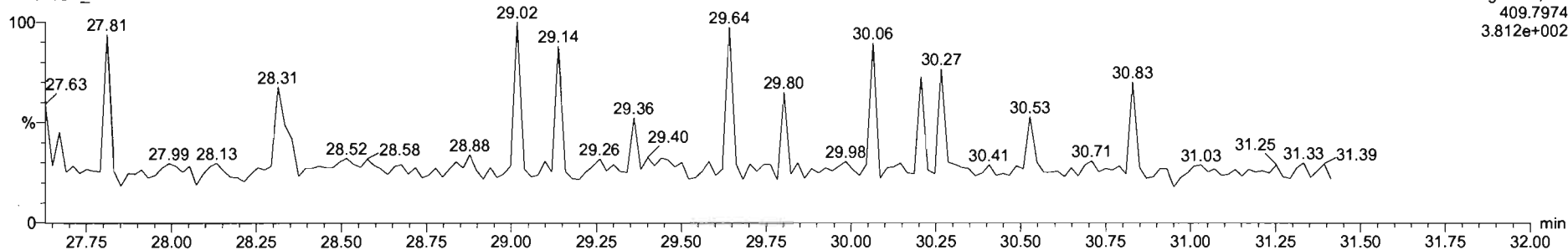
200820D1\_2



F2:Voltage SIR,EI+  
353.897  
6.604e+005

**DPE2**

200820D1\_2



F2:Voltage SIR,EI+  
409.7974  
3.812e+002

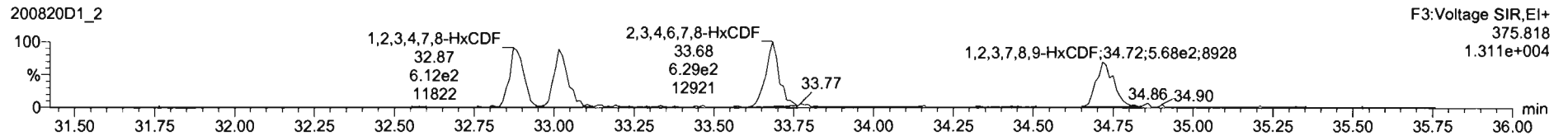
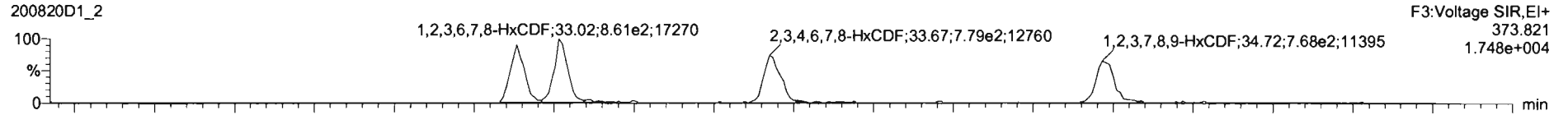


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

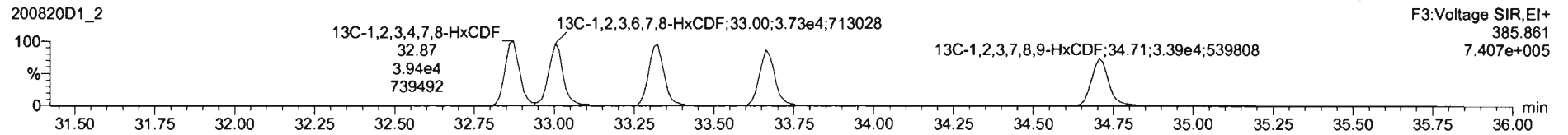
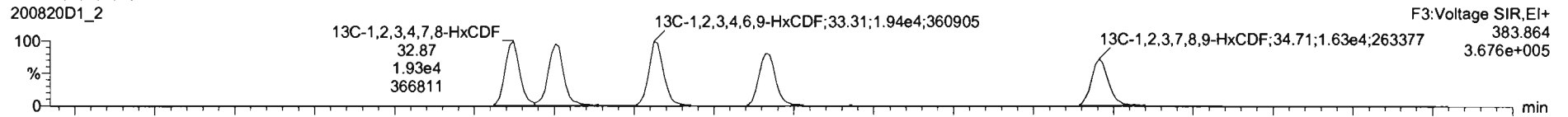
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

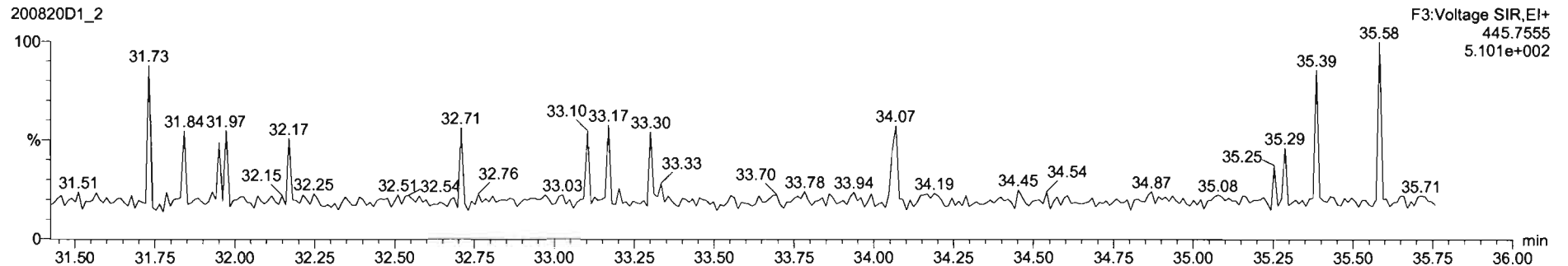
1,2,3,4,7,8-HxCDF

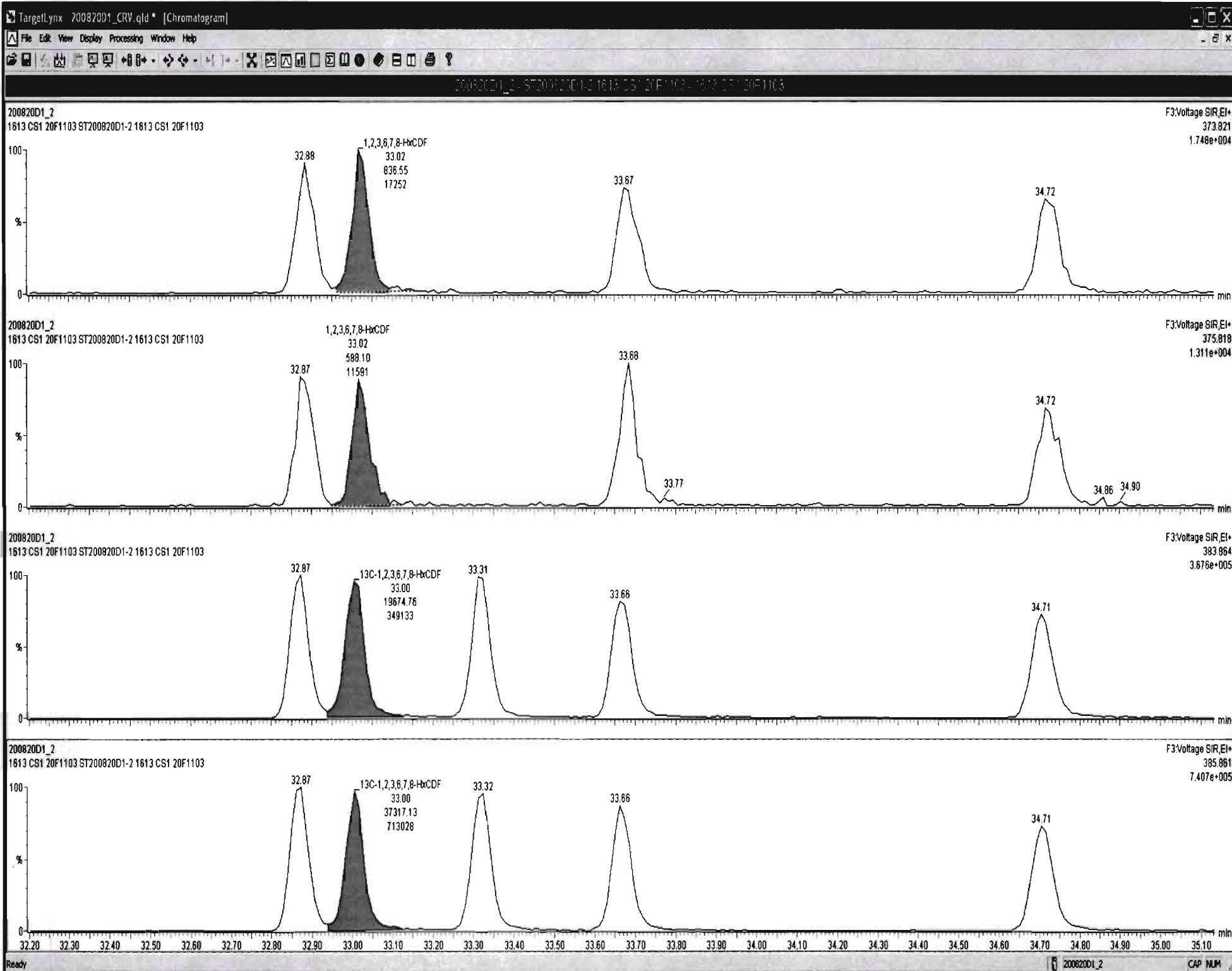


13C-1,2,3,4,7,8-HxCDF



DPE3



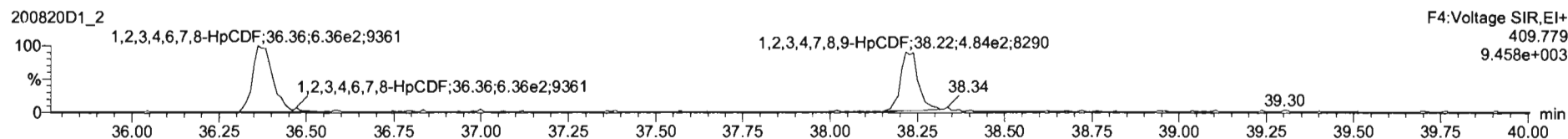
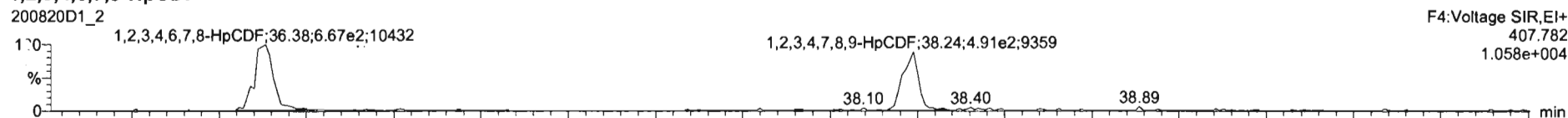


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

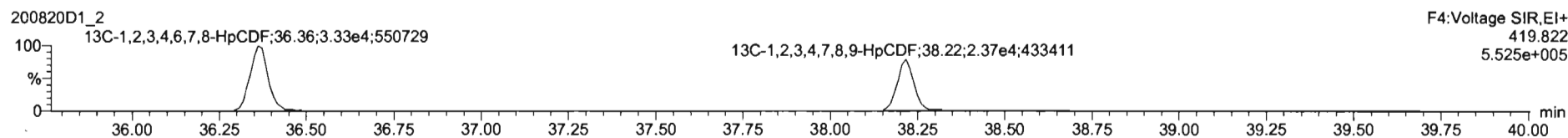
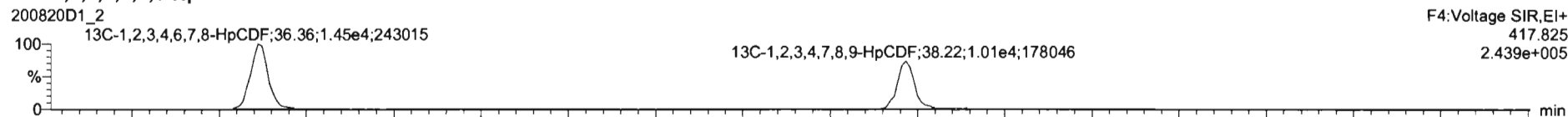
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

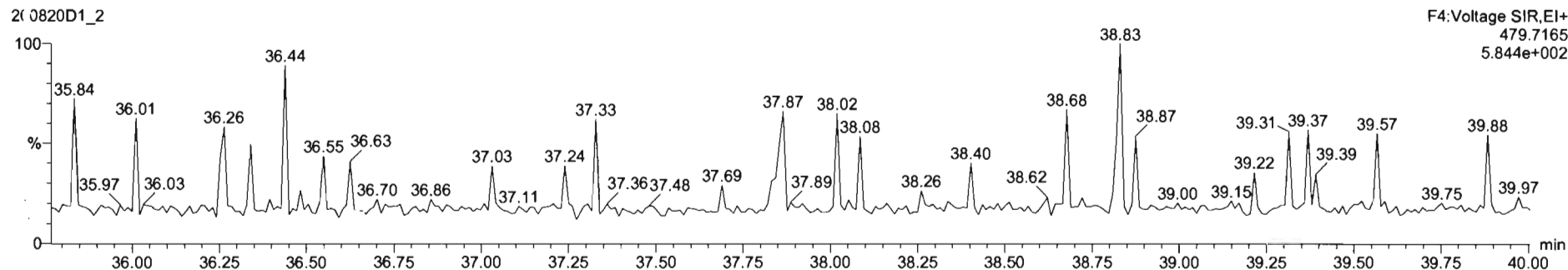
1,2,3,4,6,7,8-HpCDF



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



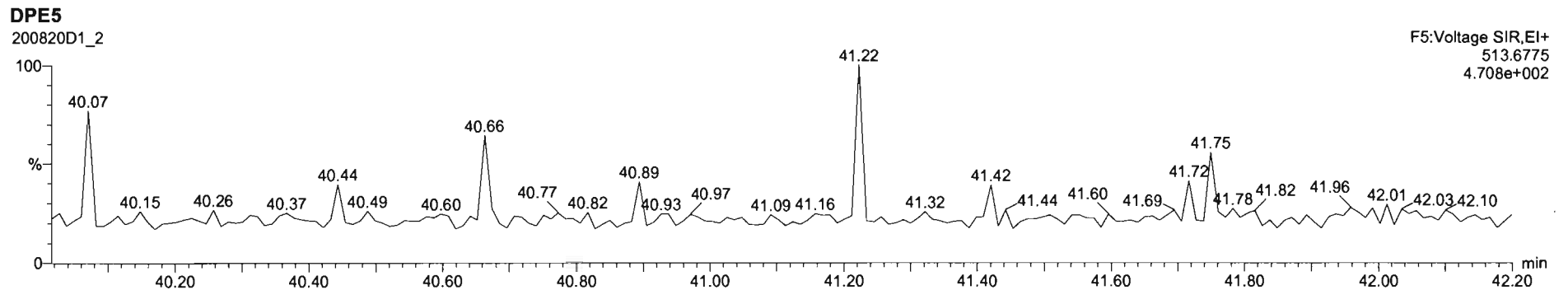
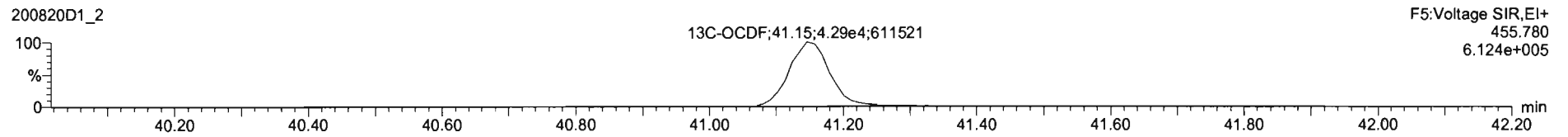
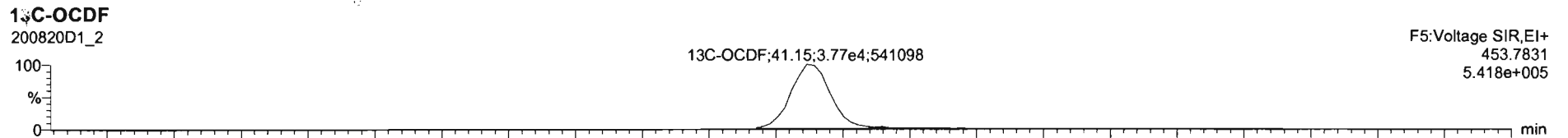
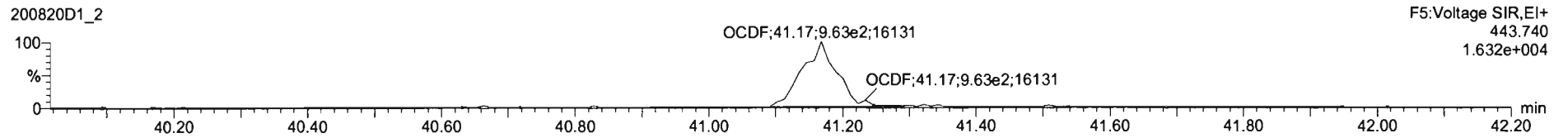
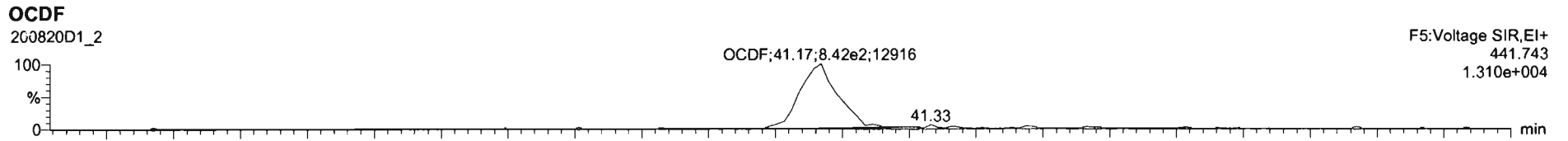
DPE4



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

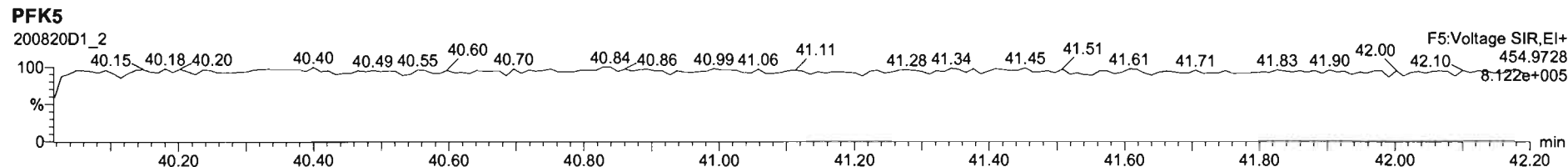
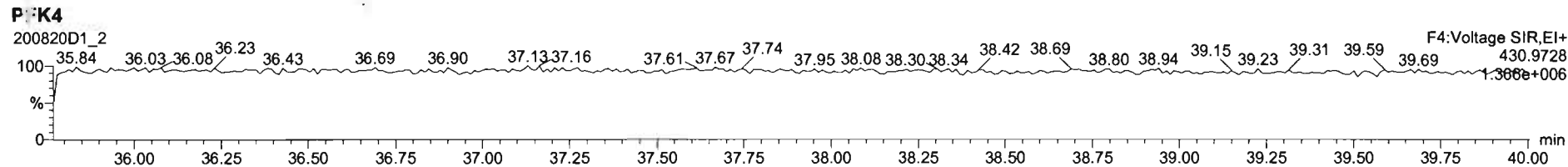
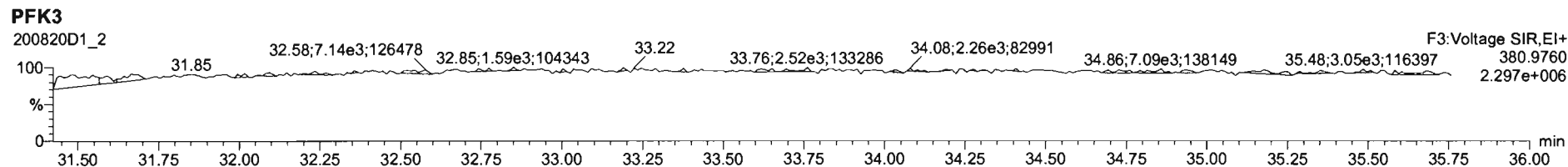
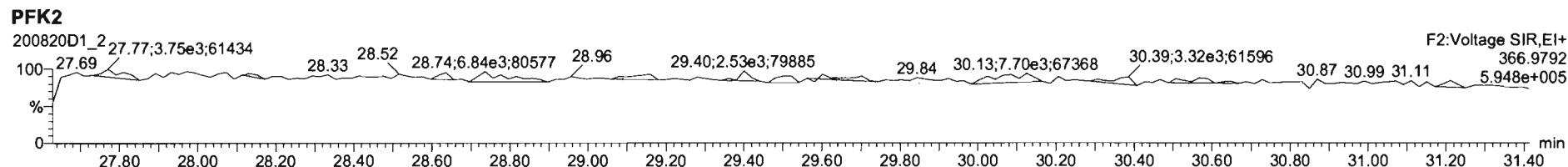
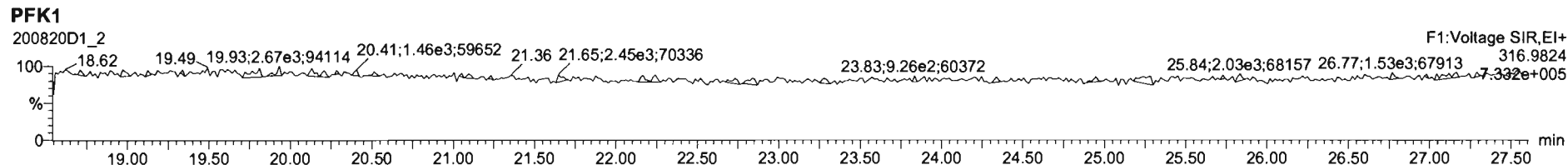
Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_2, Date: 20-Aug-2020, Time: 13:15:22, ID: ST200820D1-2 1613 CS1 20F1103, Description: 1613 CS1 20F1103



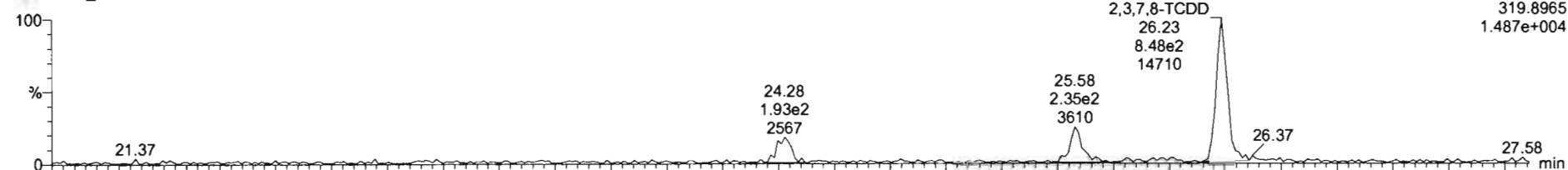
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

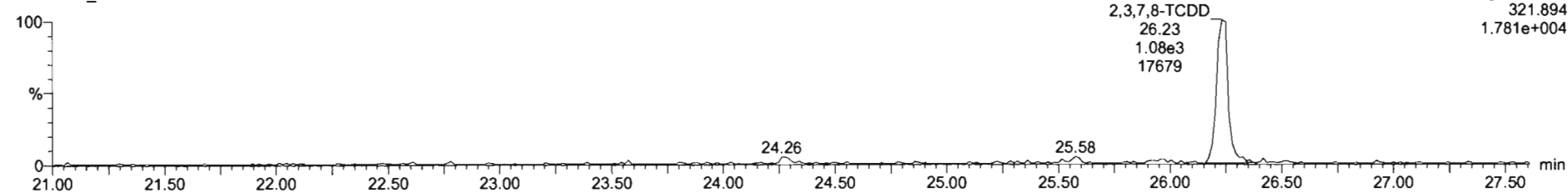
Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

2,3,7,8-TCDD

200820D1\_3

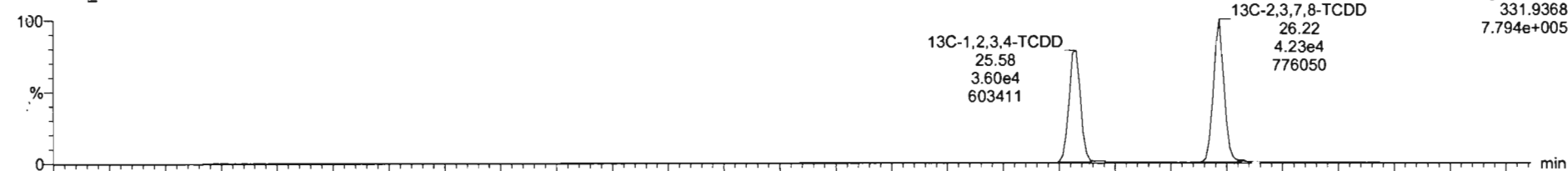


200820D1\_3

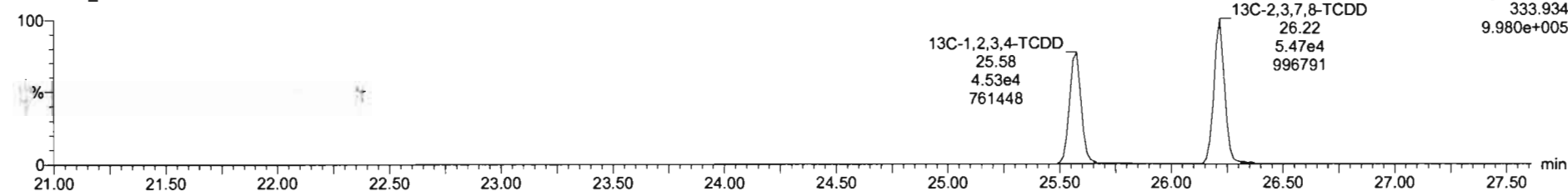


13C-2,3,7,8-TCDD

200820D1\_3



200820D1\_3



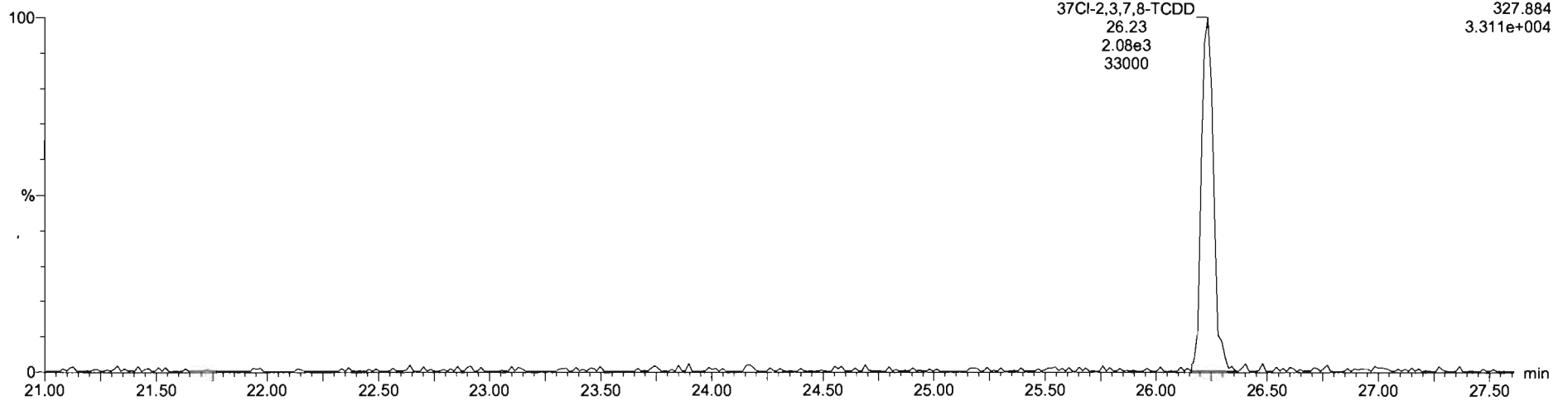
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

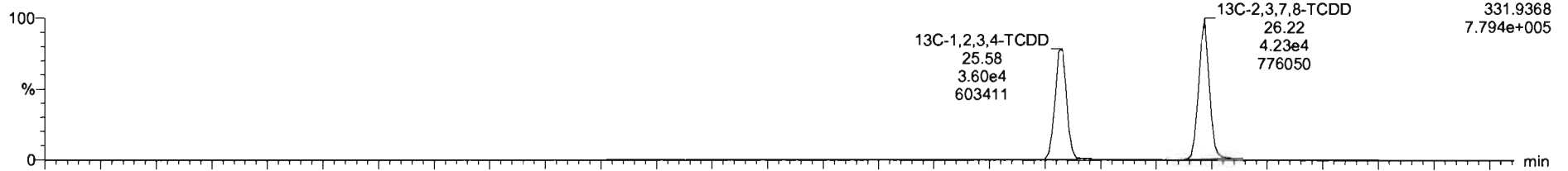
**37Cl-2,3,7,8-TCDD**

200820D1\_3

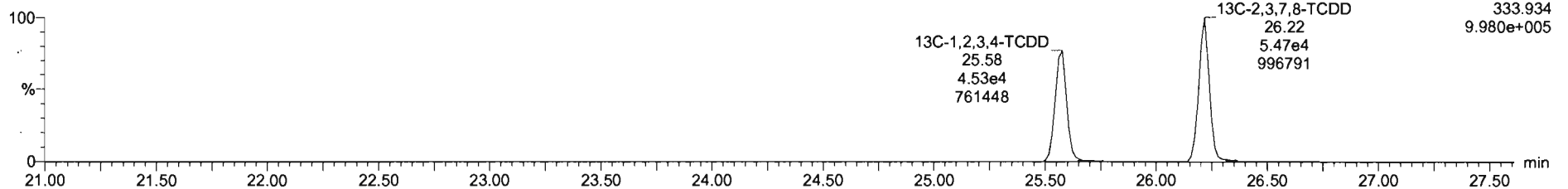


**13C-1,2,3,4-TCDD**

200820D1\_3



200820D1\_3



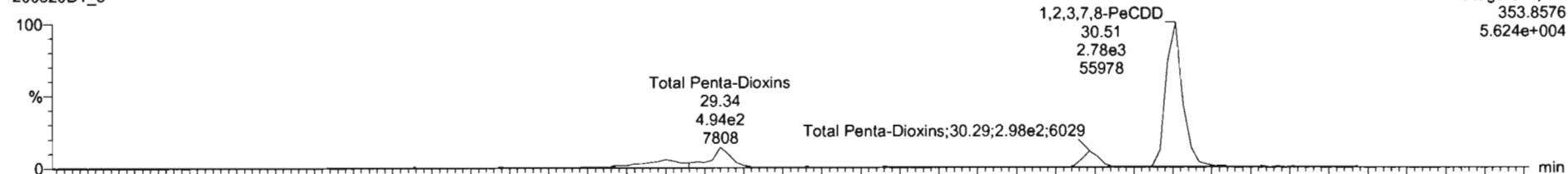
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

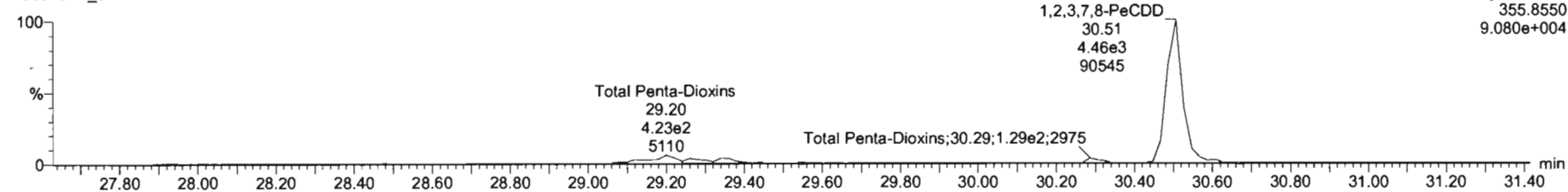
Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

1,2,3,7,8-PeCDD

200820D1\_3

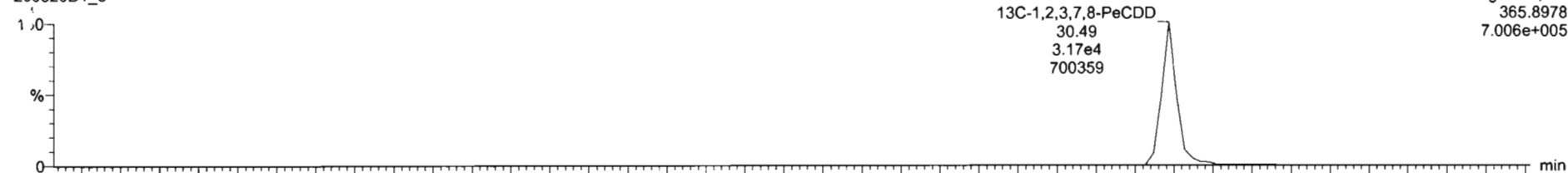


200820D1\_3

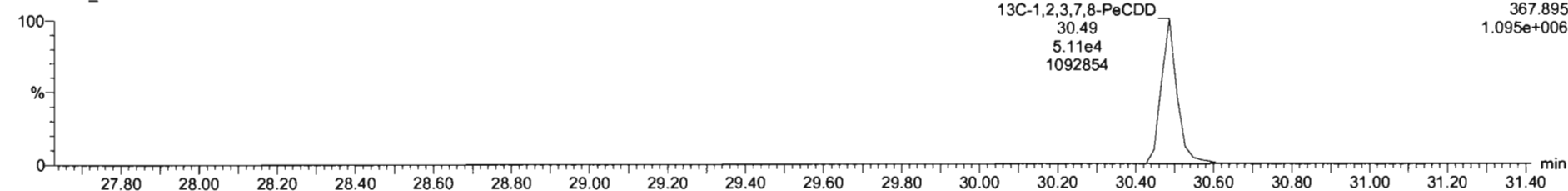


13C-1,2,3,7,8-PeCDD

200820D1\_3



200820D1\_3





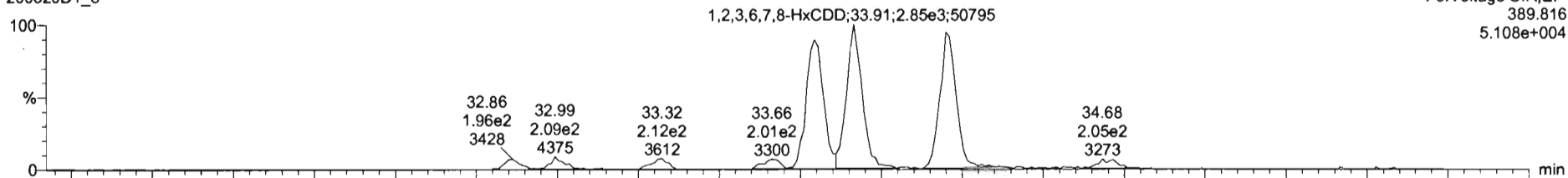
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

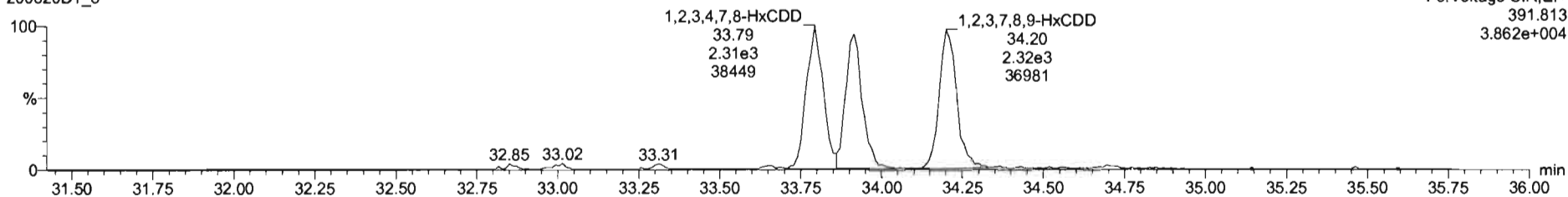
Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

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

200820D1\_3

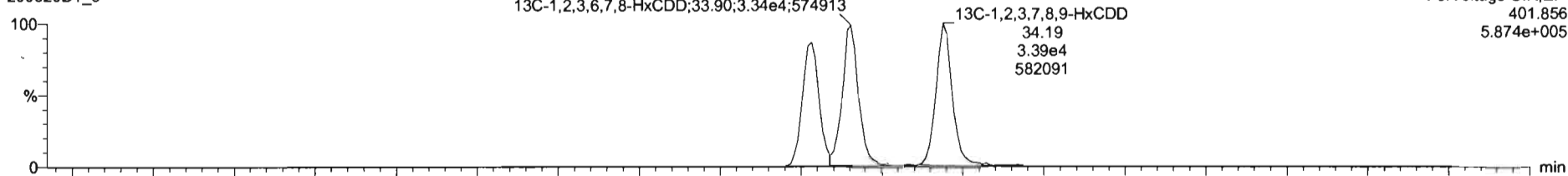


200820D1\_3

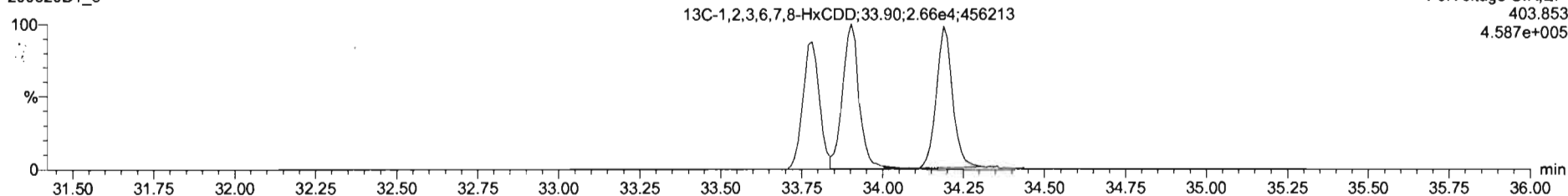


13C-1,2,3,4,7,8-HxCDD

200820D1\_3



200820D1\_3



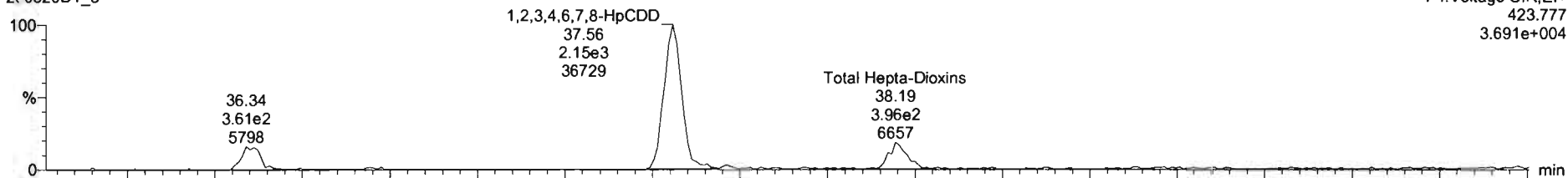
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

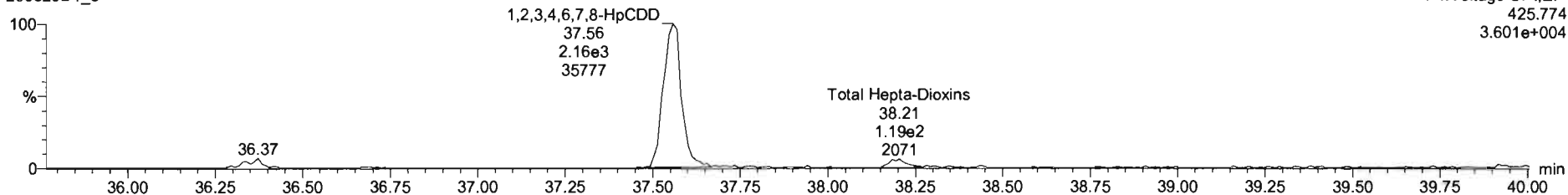
Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

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

200820D1\_3

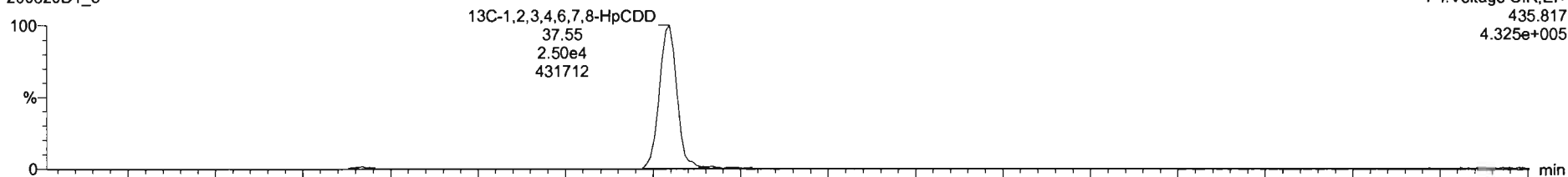


200820D1\_3

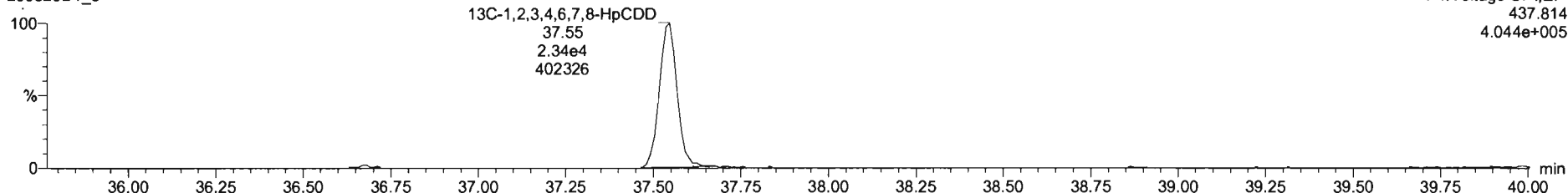


13C-1,2,3,4,6,7,8-HpCDD

200820D1\_3



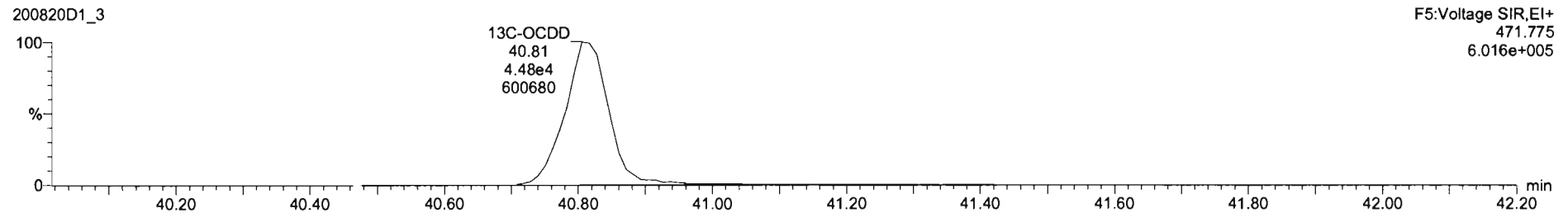
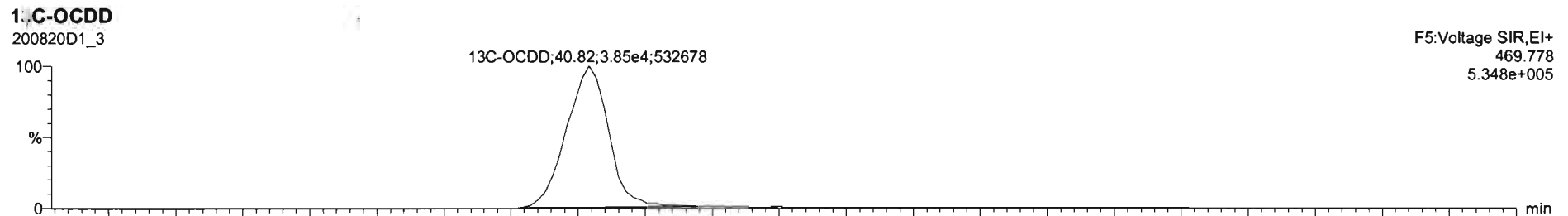
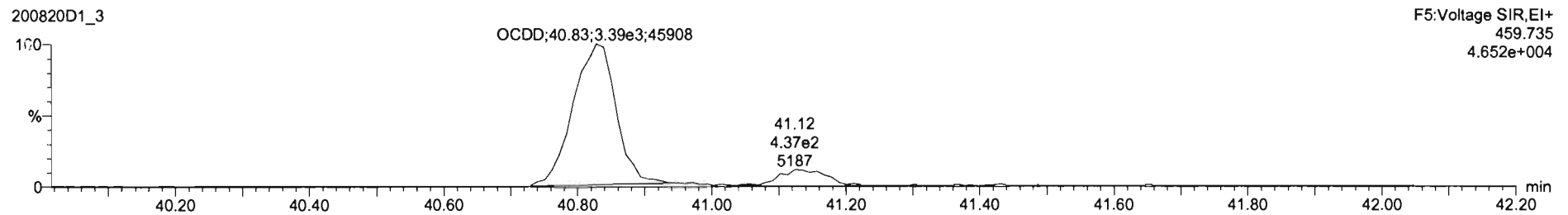
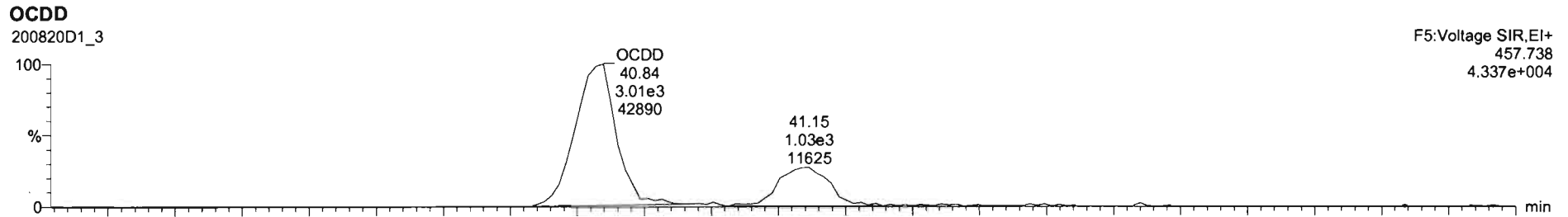
200820D1\_3



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

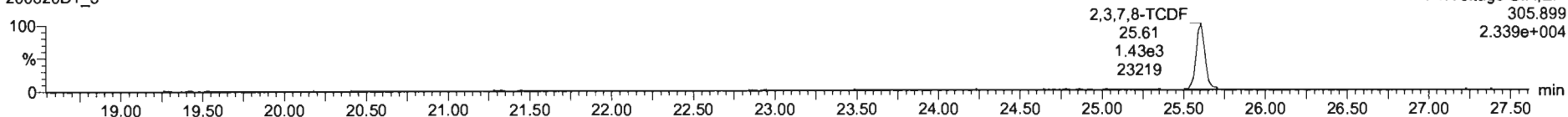
Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

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

200820D1\_3

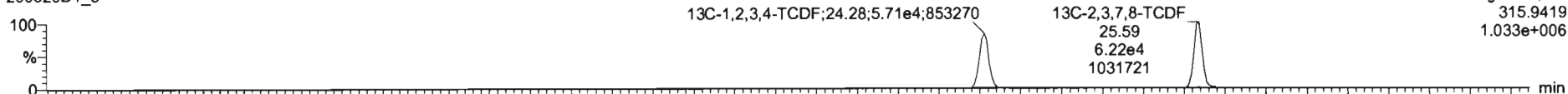


200820D1\_3

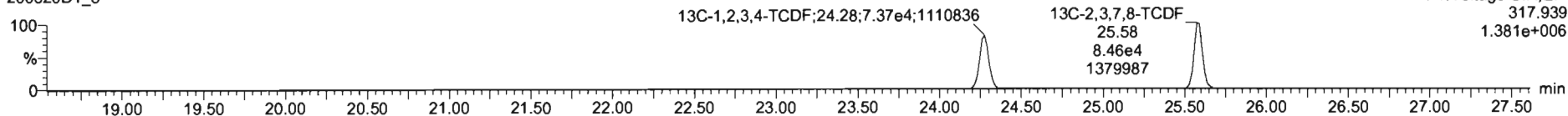


**13C-2,3,7,8-TCDF**

200820D1\_3

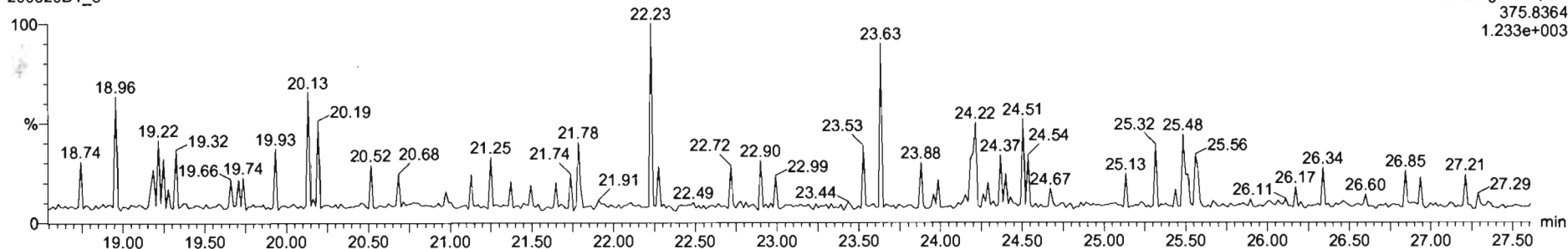


200820D1\_3



**DPE1**

200820D1\_3



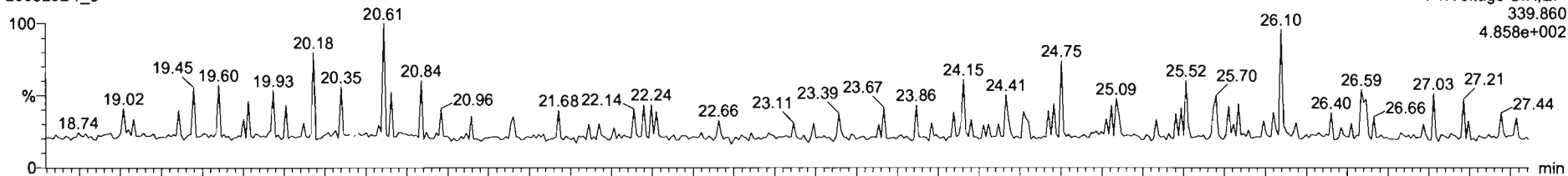
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

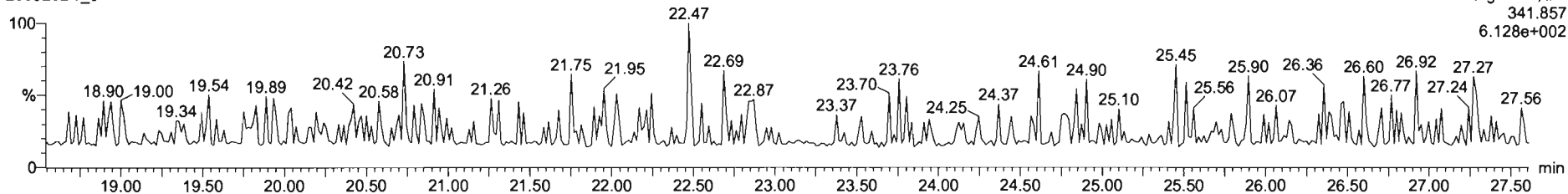
Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

1st Func. Penta-Furans

200820D1\_3

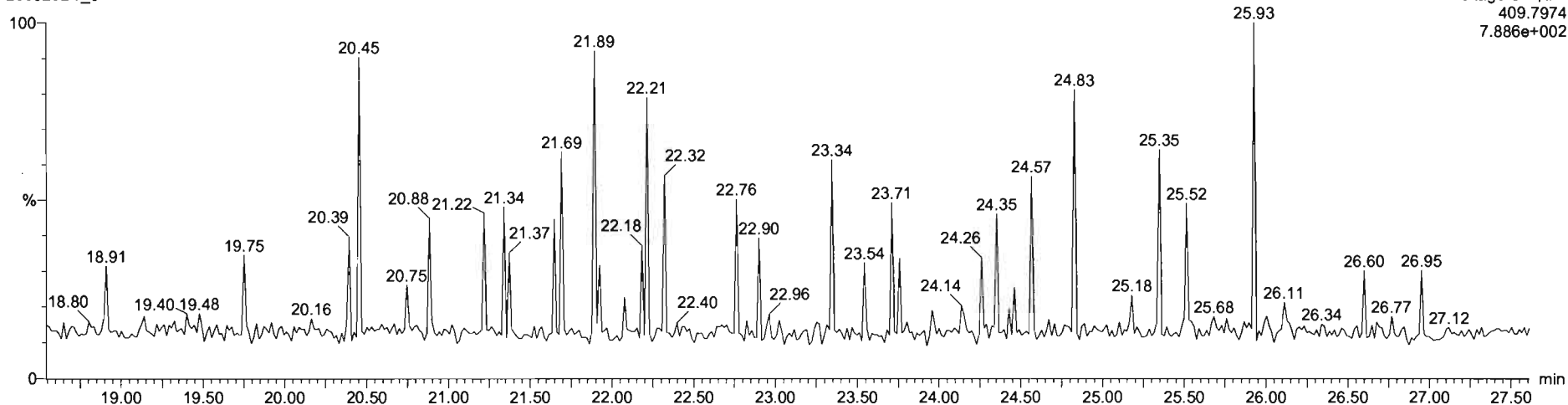


200820D1\_3



DPE6

200820D1\_3

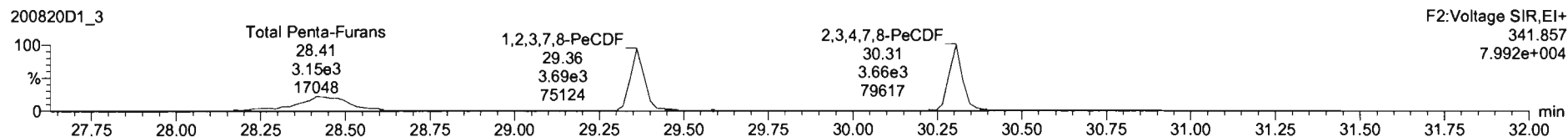
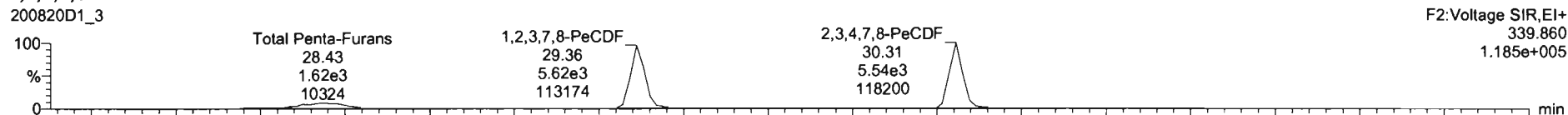


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

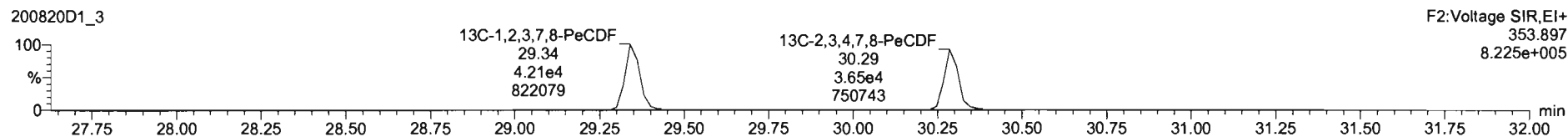
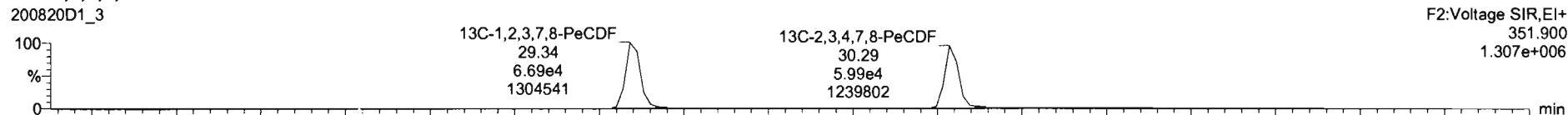
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

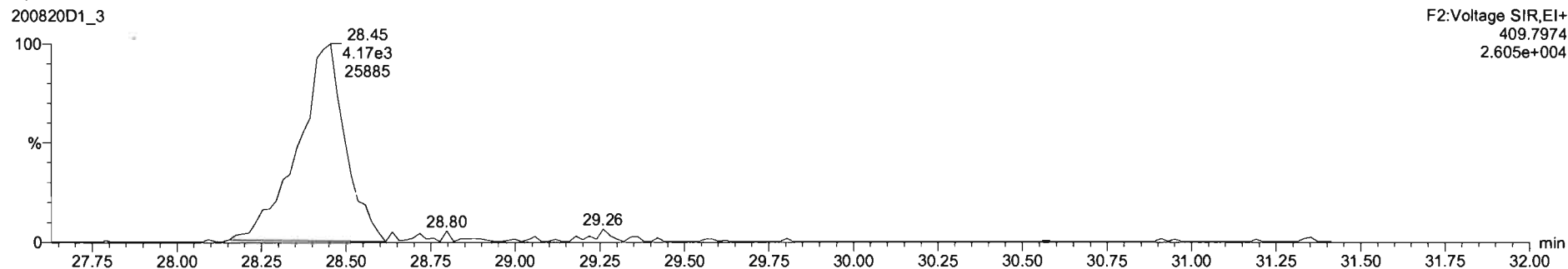
**1,2,3,7,8-PeCDF**



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



**DPE2**

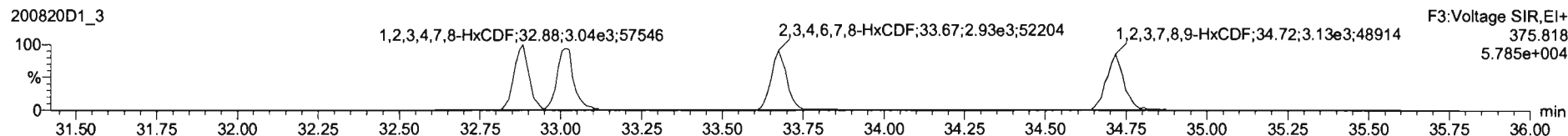
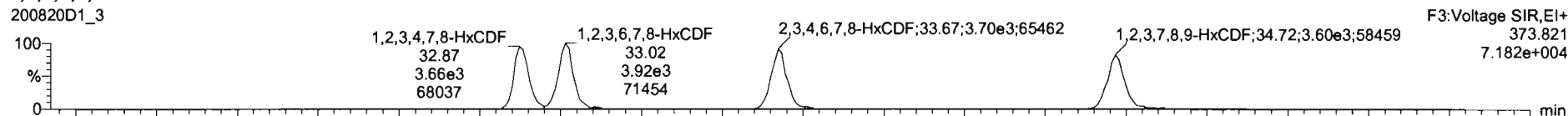


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

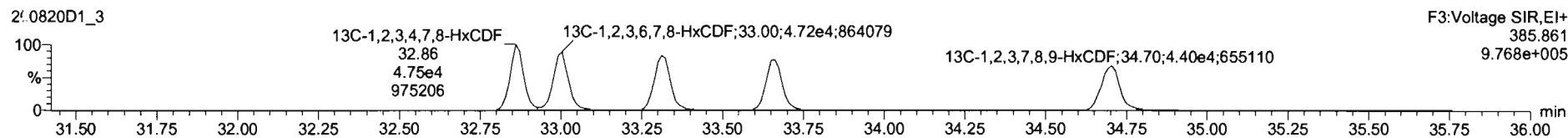
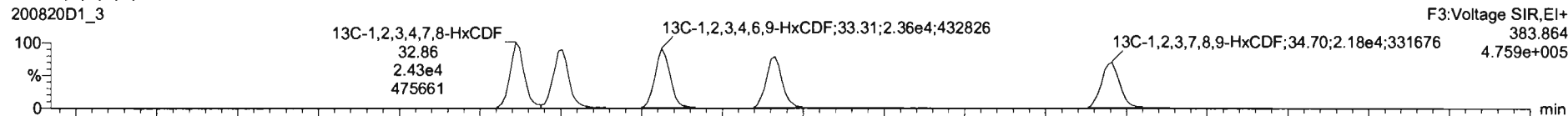
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

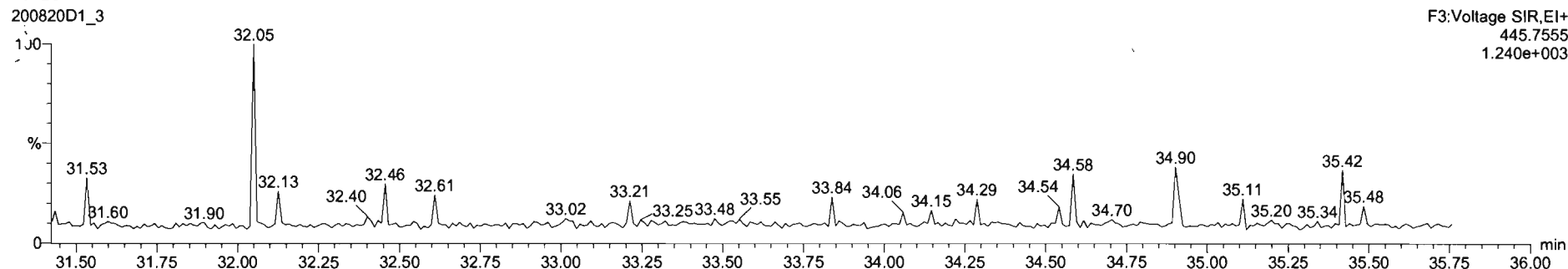
**1,2,3,4,7,8-HxCDF**



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



**DPE3**

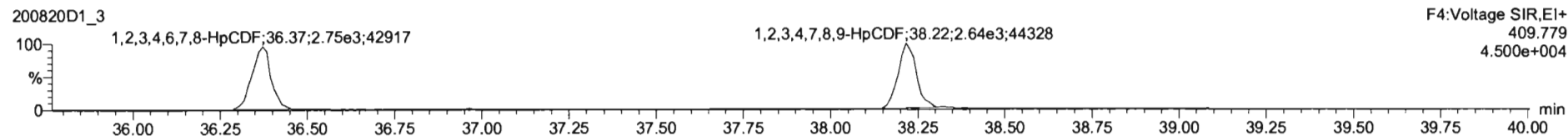
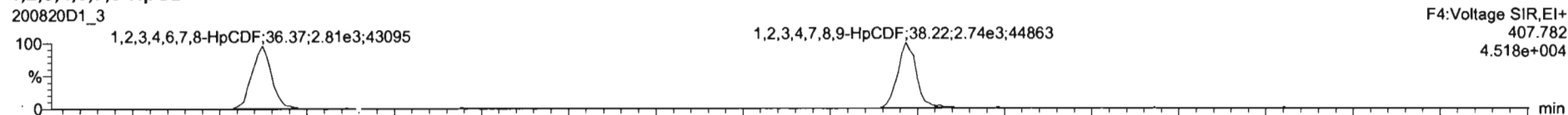


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

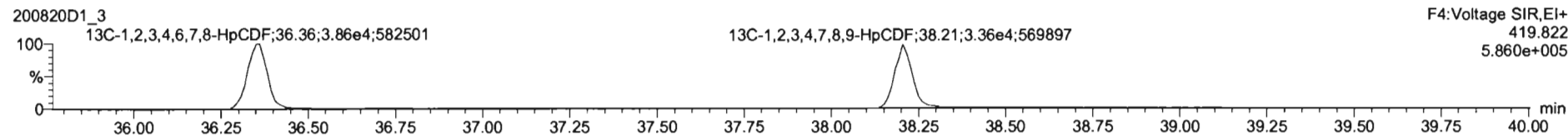
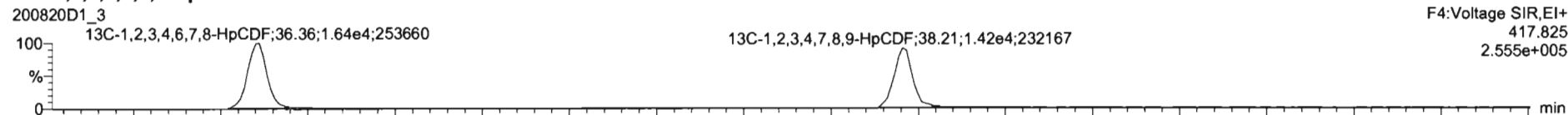
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

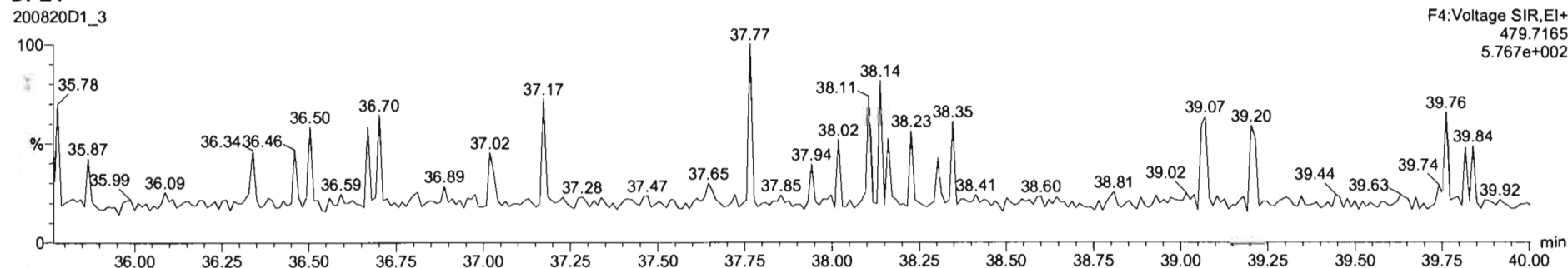
1,2,3,4,6,7,8-HpCDF



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



DPE4

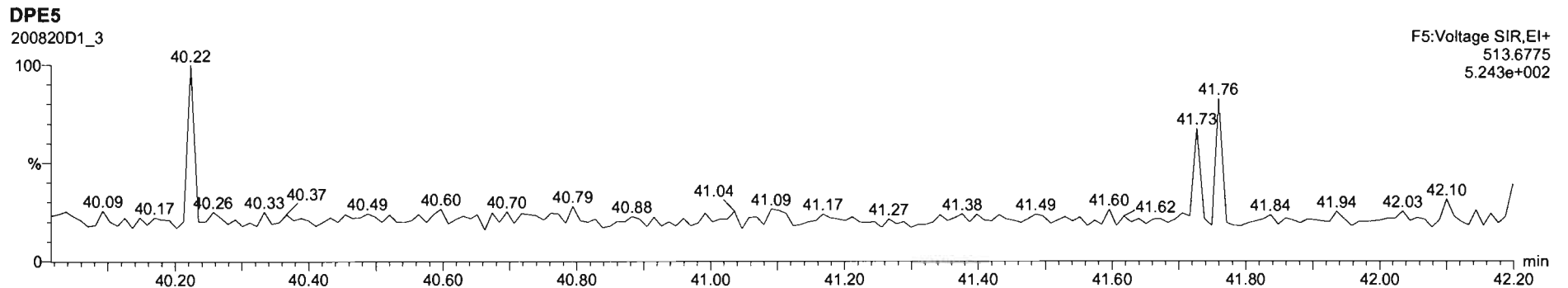
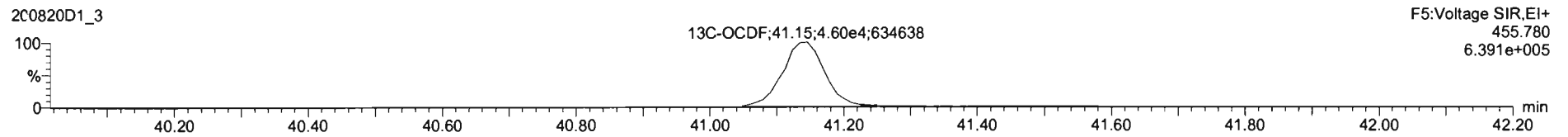
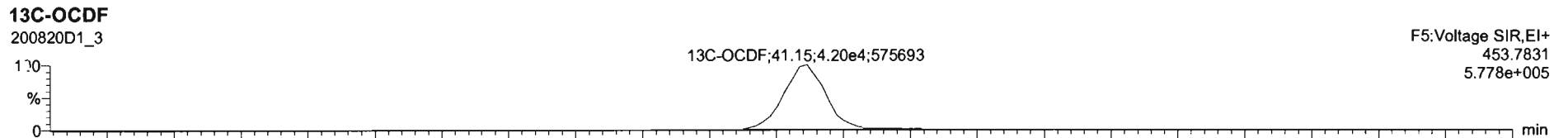
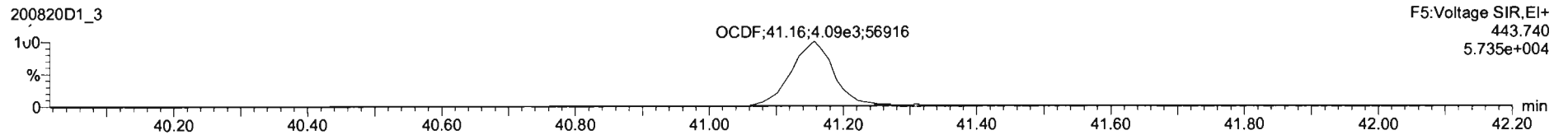
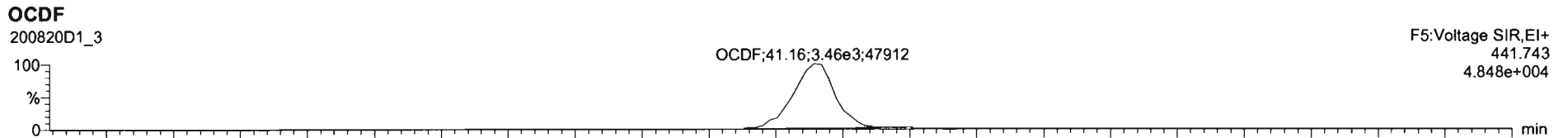




Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

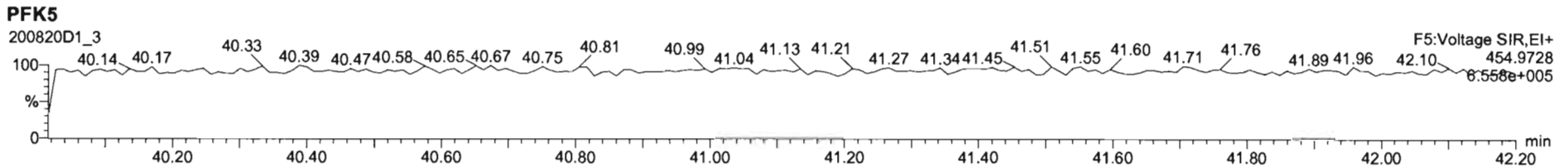
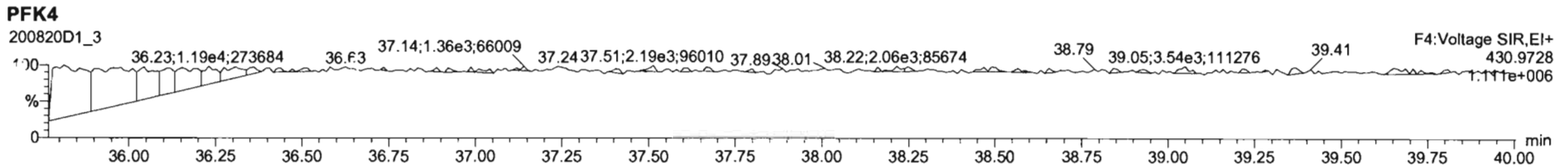
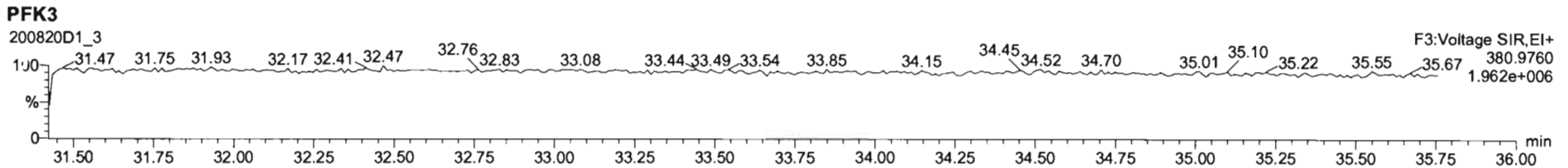
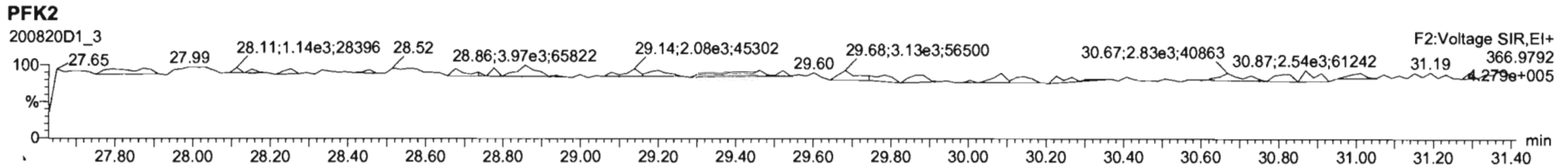
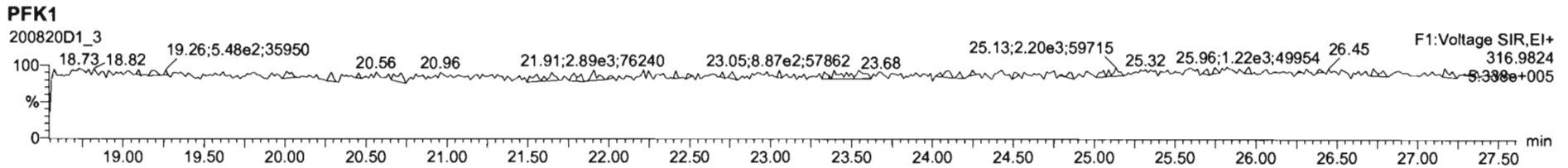
Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_3, Date: 20-Aug-2020, Time: 14:19:12, ID: ST200820D1-3 1613 CS2 20F1104, Description: 1613 CS2 20F1104



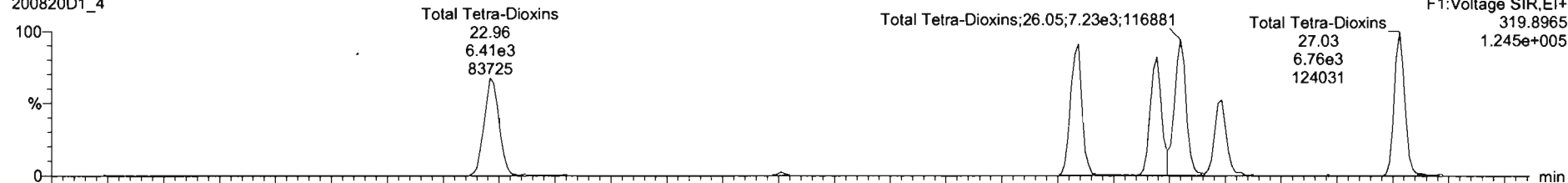
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

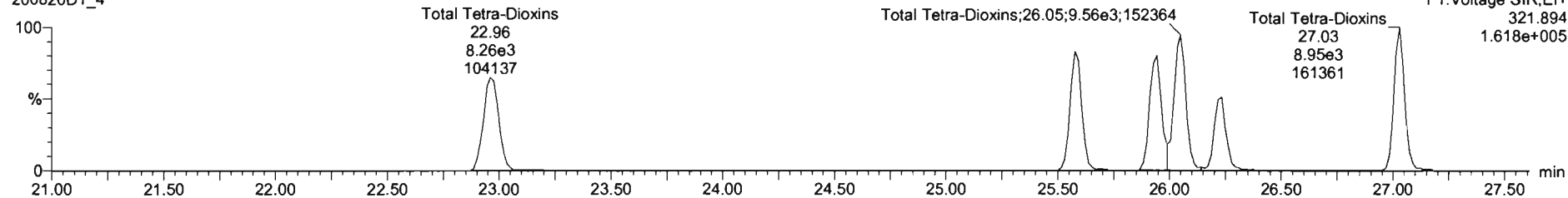
Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

2,3,7,8-TCDD

200820D1\_4

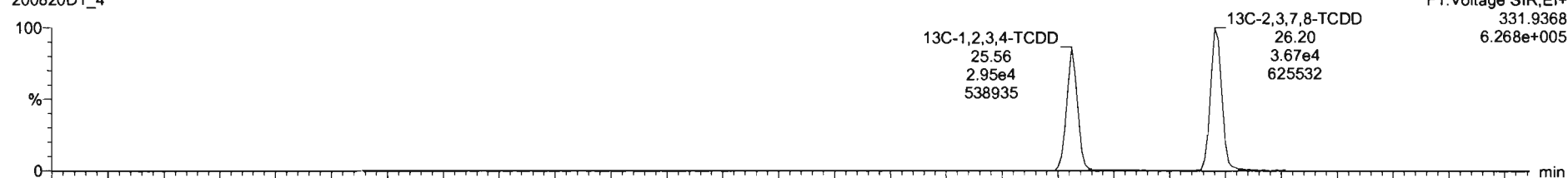


200820D1\_4

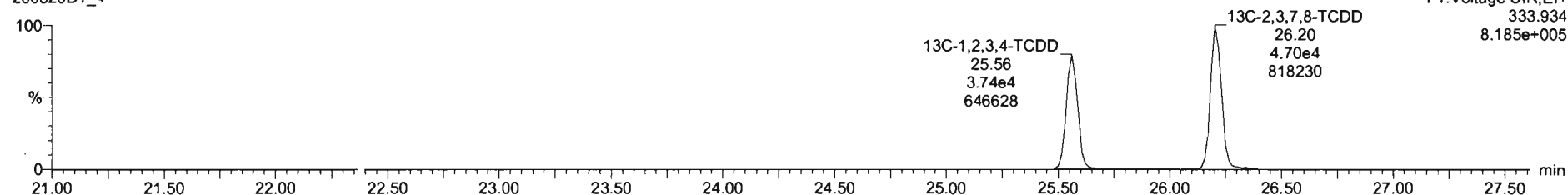


13C-2,3,7,8-TCDD

200820D1\_4



200820D1\_4

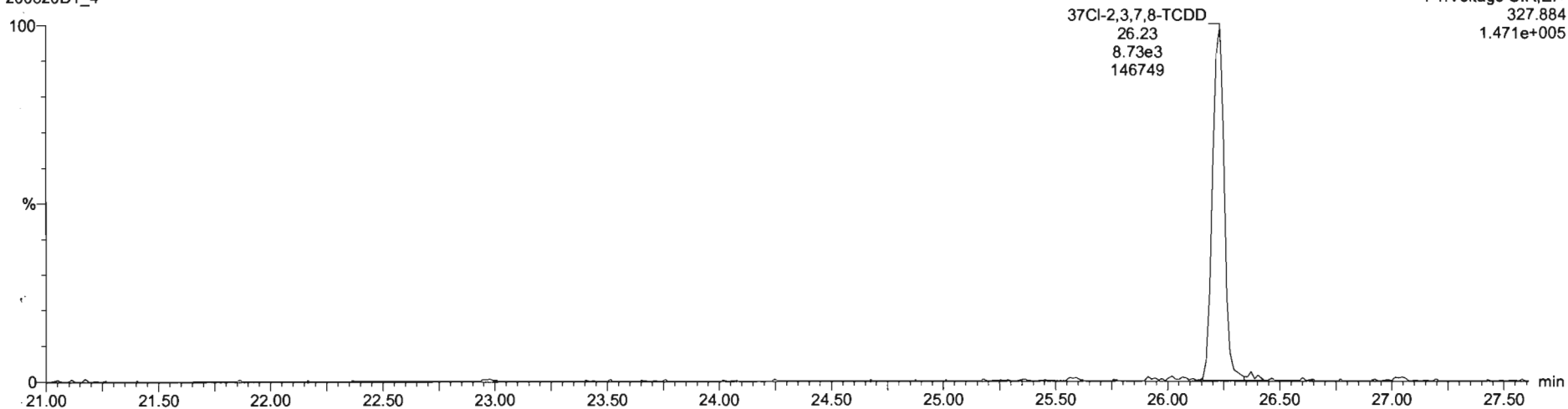


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

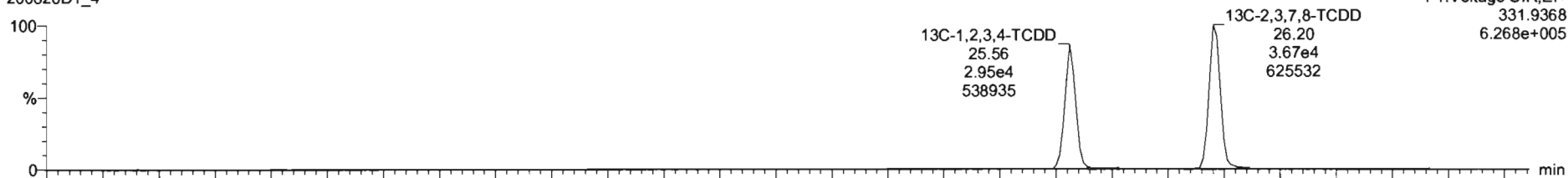
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

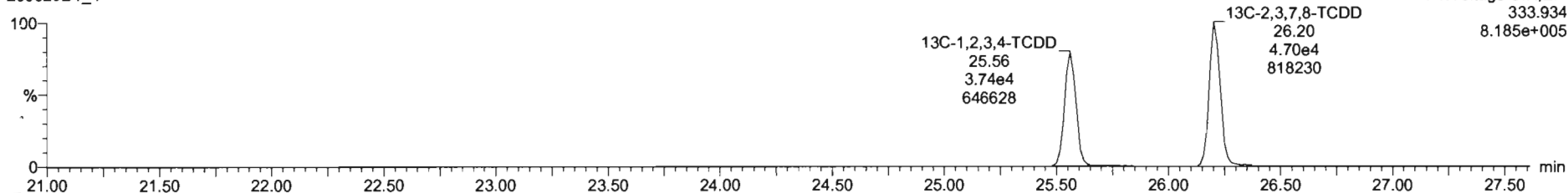
**37Cl-2,3,7,8-TCDD**  
200820D1\_4



**13C-1,2,3,4-TCDD**  
200820D1\_4



200820D1\_4



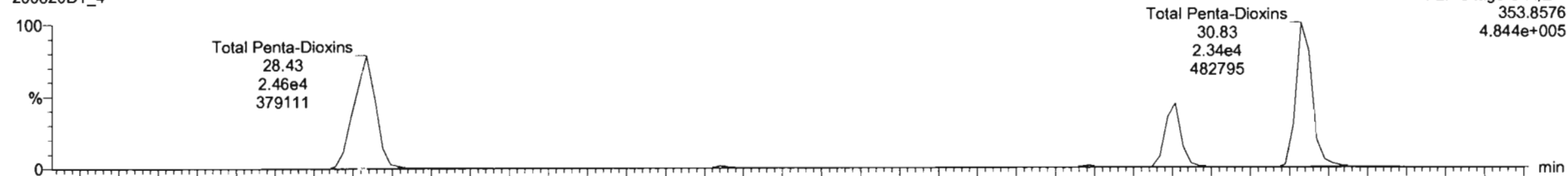
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

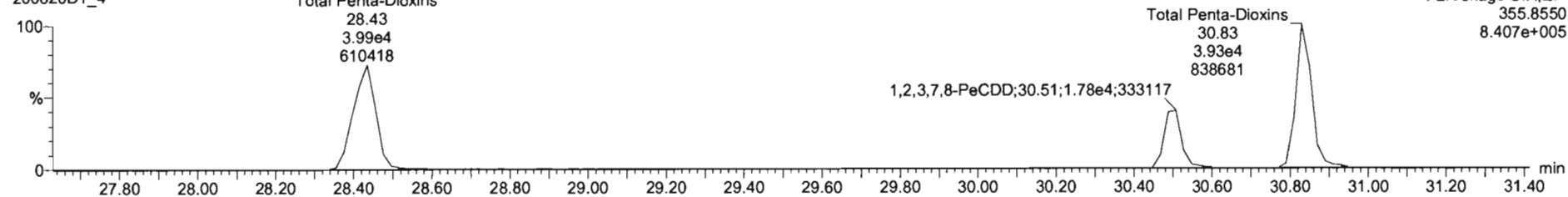
Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1,2,3,7,8-PeCDD

200820D1\_4

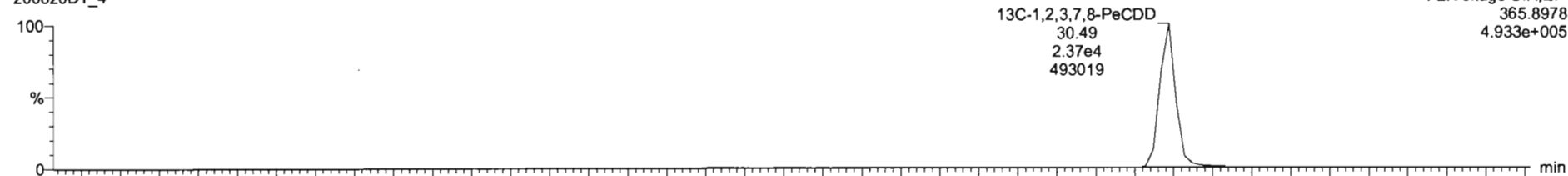


200820D1\_4

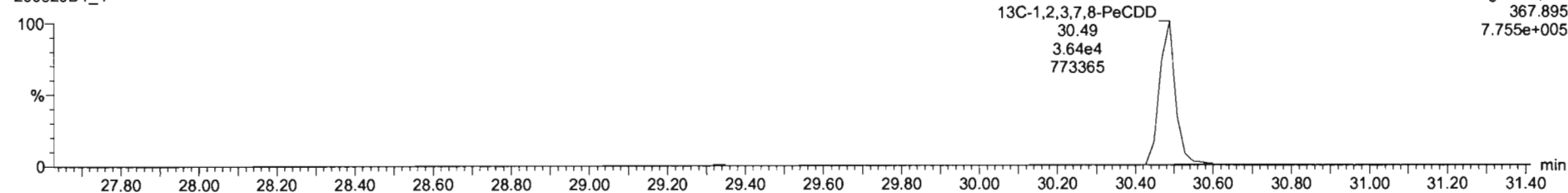


13C-1,2,3,7,8-PeCDD

200820D1\_4



200820D1\_4



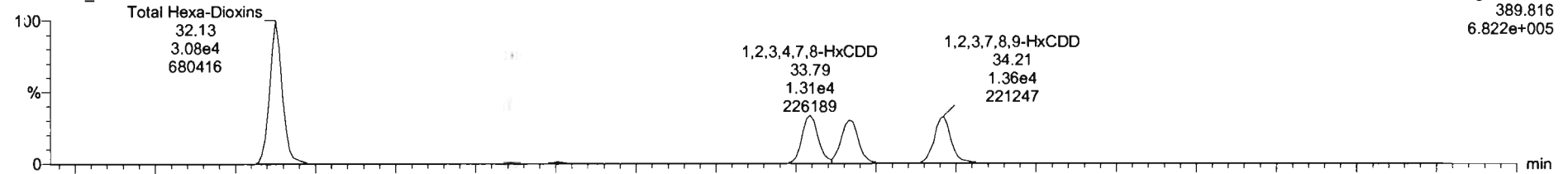
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

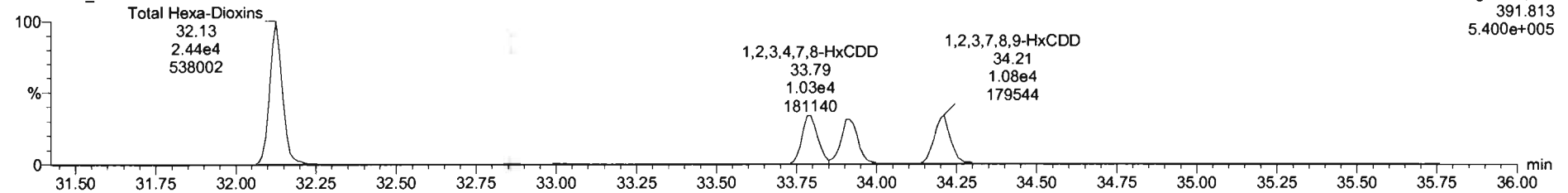
Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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

200820D1\_4

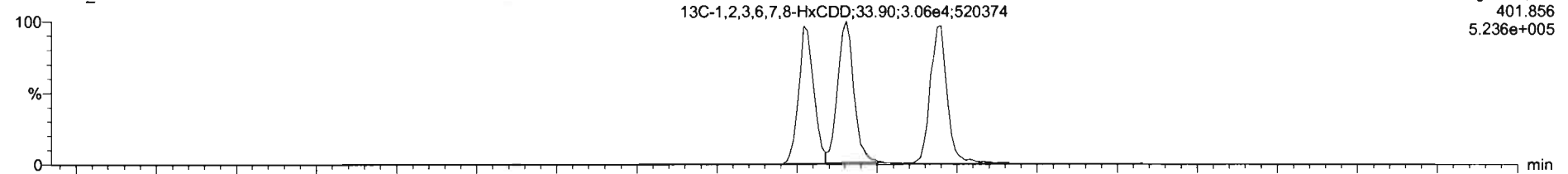


200820D1\_4

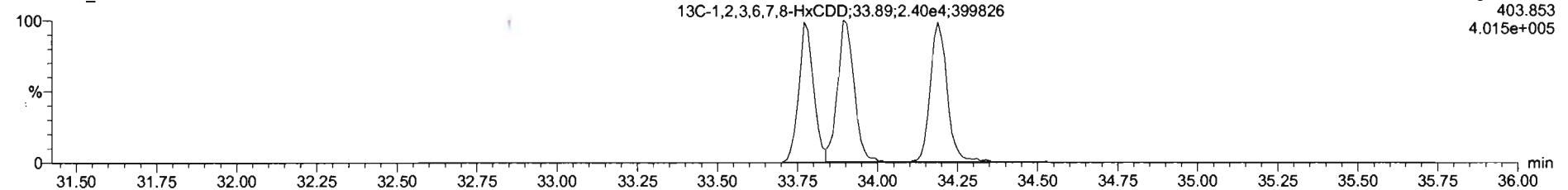


13C-1,2,3,4,7,8-HxCDD

200820D1\_4



200820D1\_4



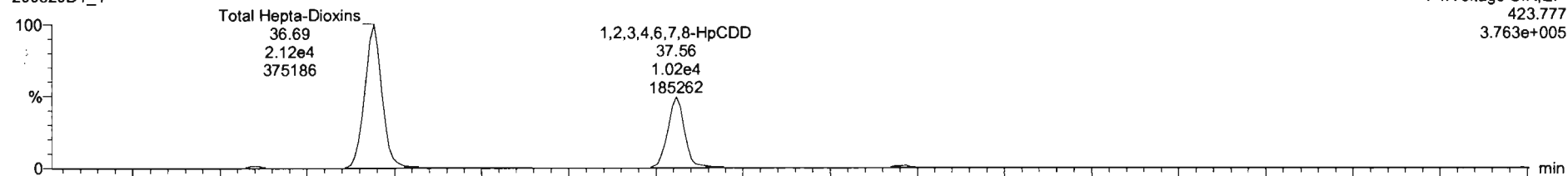
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

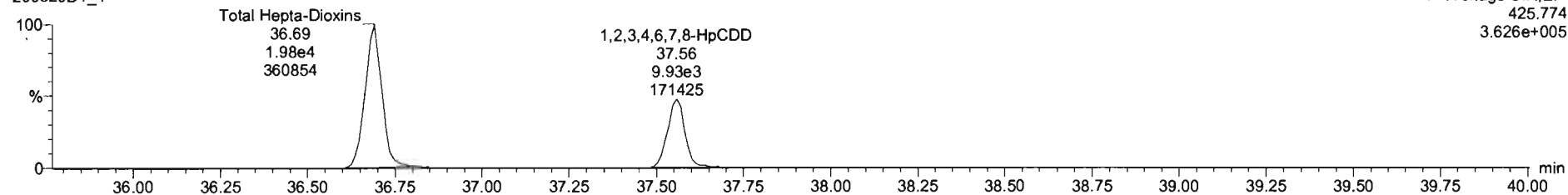
1,2,3,4,6,7,8-HpCDD

200820D1\_4



F4:Voltage SIR,EI+  
423.777  
3.763e+005

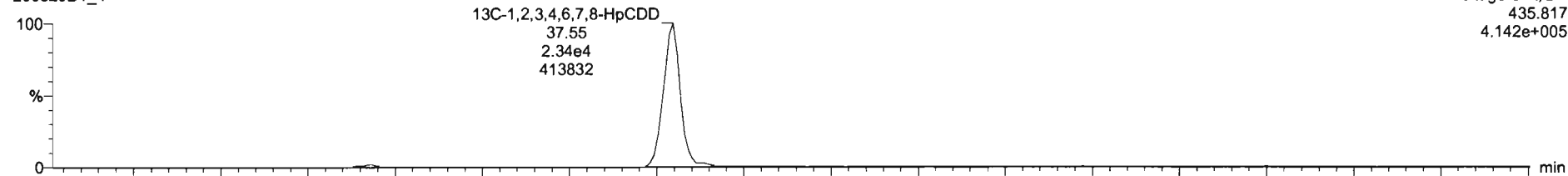
200820D1\_4



F4:Voltage SIR,EI+  
425.774  
3.626e+005

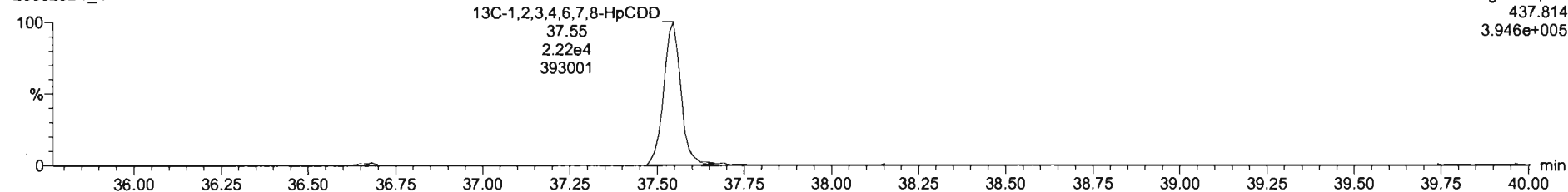
13C-1,2,3,4,6,7,8-HpCDD

200820D1\_4



F4:Voltage SIR,EI+  
435.817  
4.142e+005

200820D1\_4

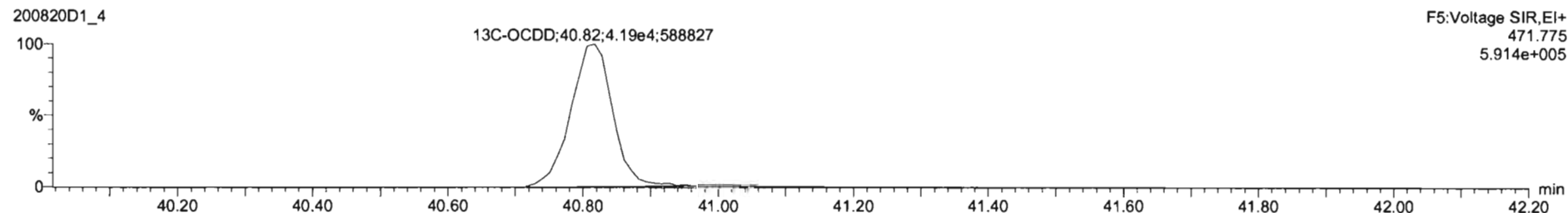
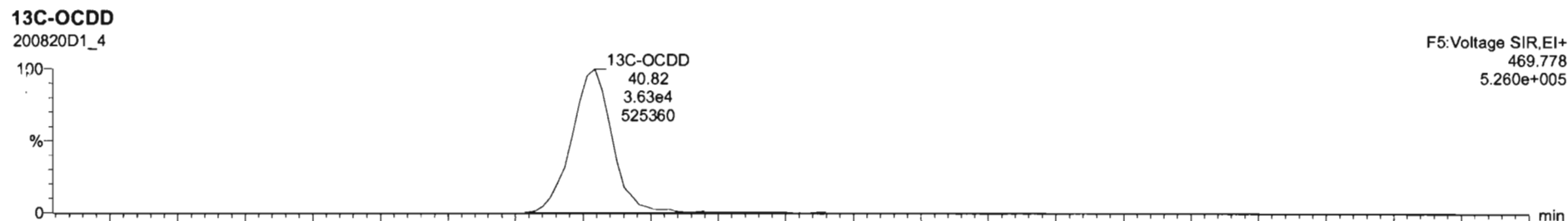
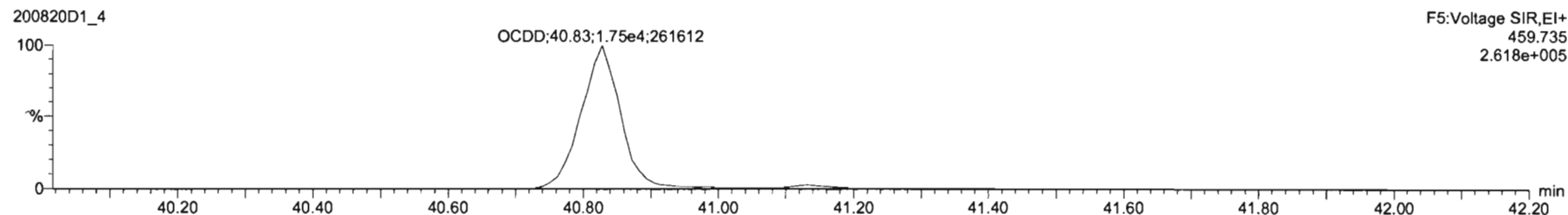
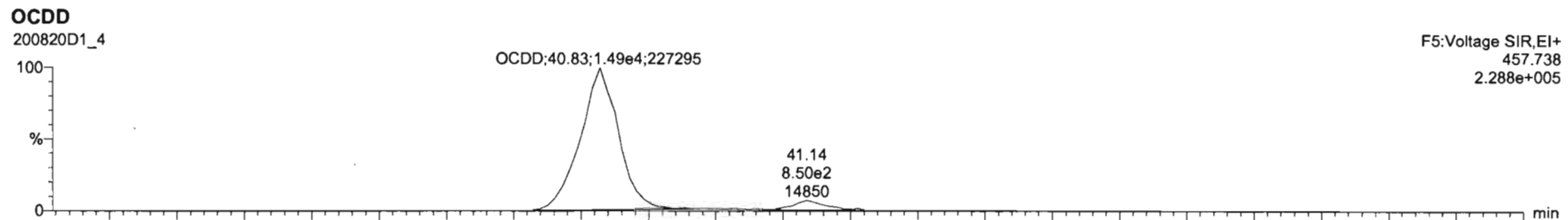


F4:Voltage SIR,EI+  
437.814  
3.946e+005

Dataset:        U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered:    Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed:         Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105





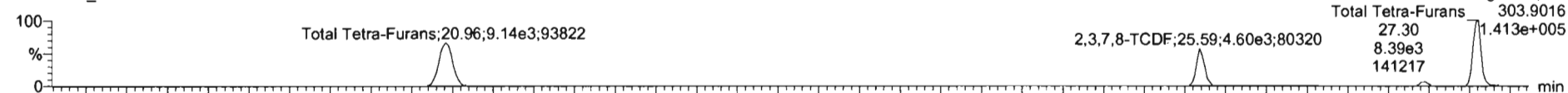
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
 Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

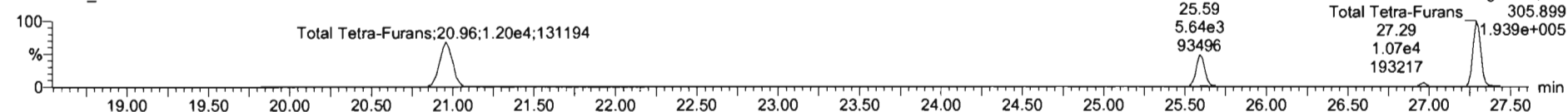
Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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

200820D1\_4

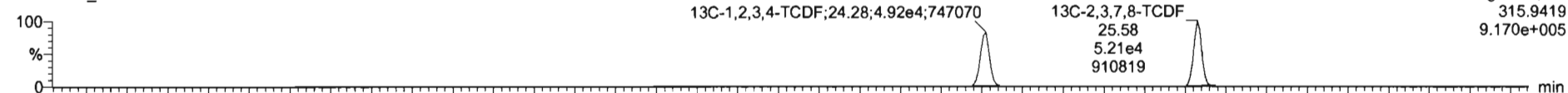


200820D1\_4

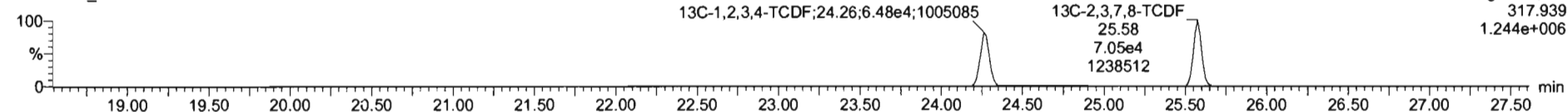


**13C-2,3,7,8-TCDF**

200820D1\_4

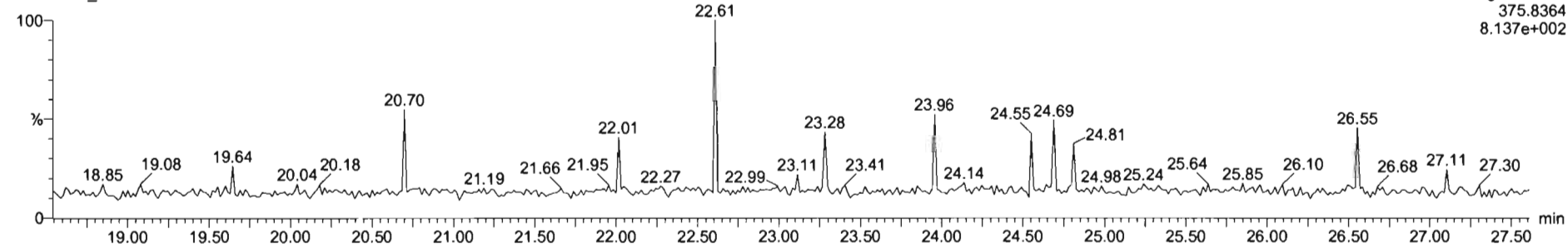


200820D1\_4



**DPE1**

200820D1\_4



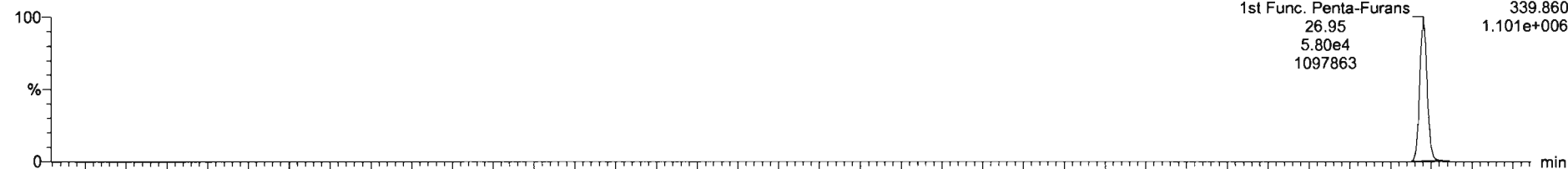
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

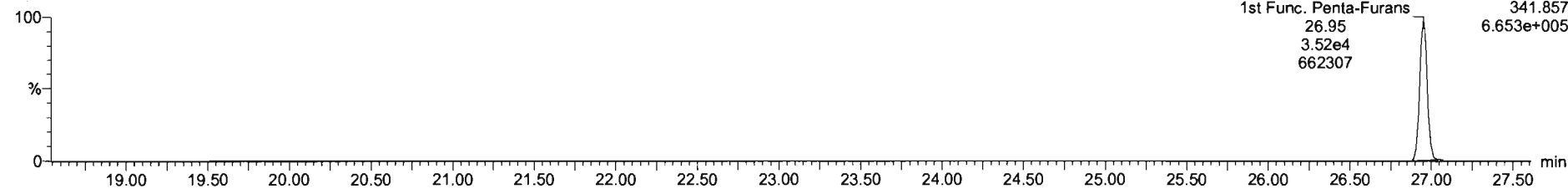
Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1st Func. Penta-Furans

200820D1\_4

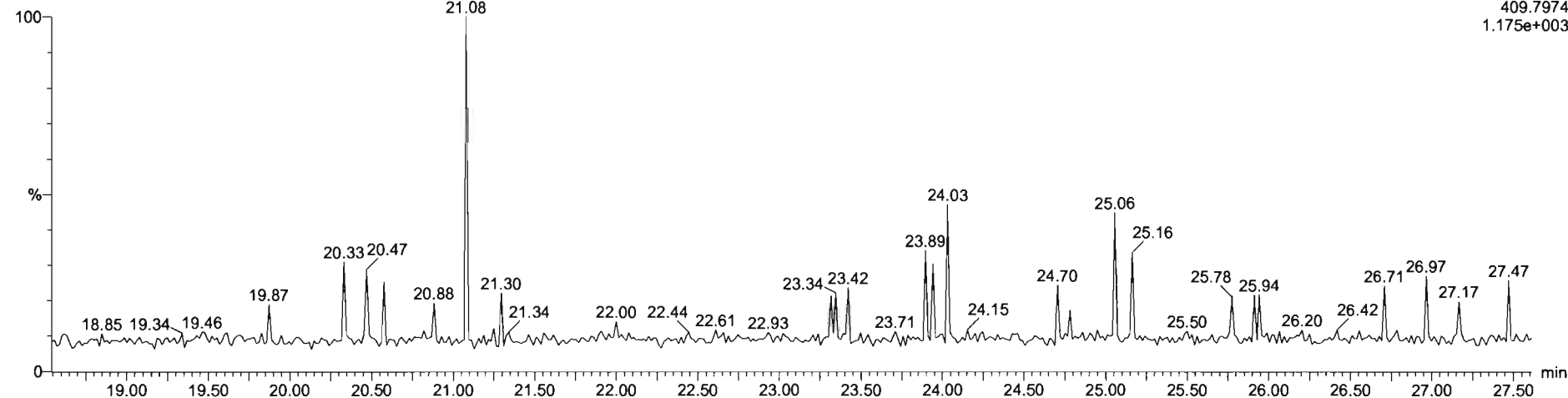


2: 0820D1\_4



DPE6

200820D1\_4



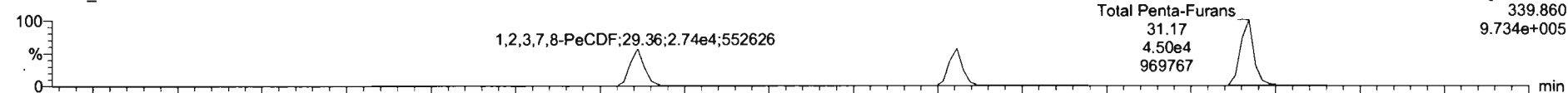
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

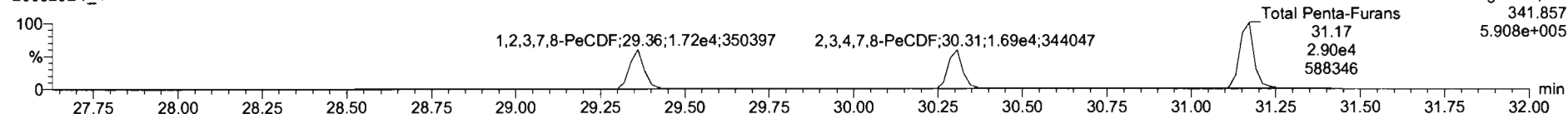
Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1,2,3,7,8-PeCDF

200820D1\_4

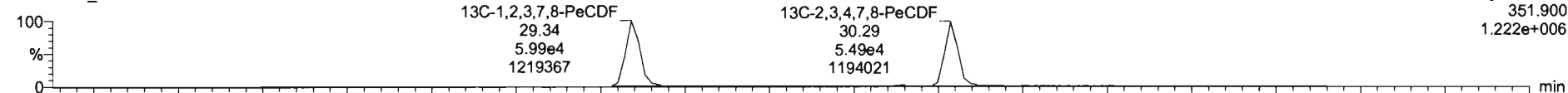


200820D1\_4

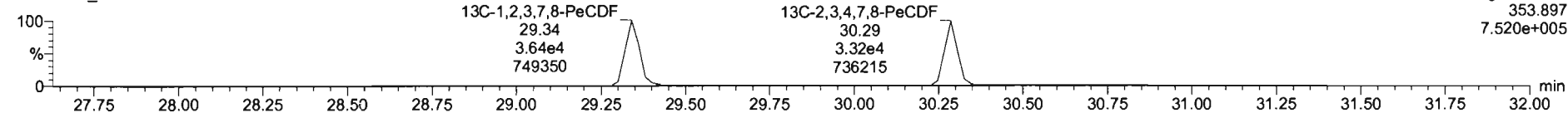


13C-1,2,3,7,8-PeCDF

200820D1\_4

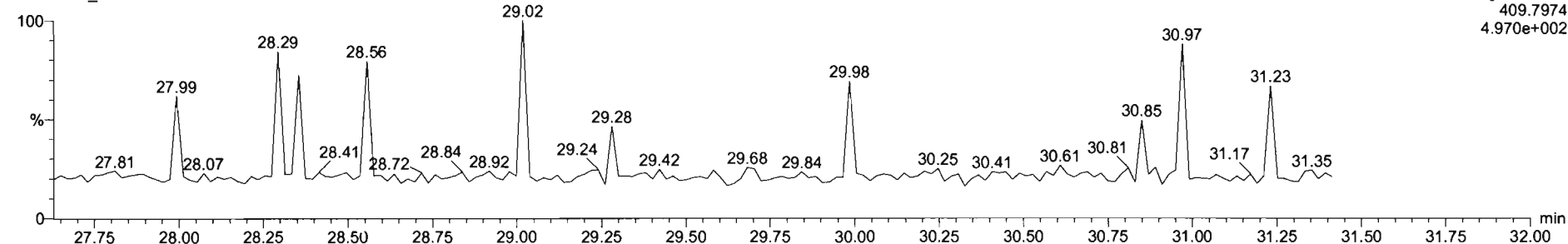


200820D1\_4



DPE2

200820D1\_4

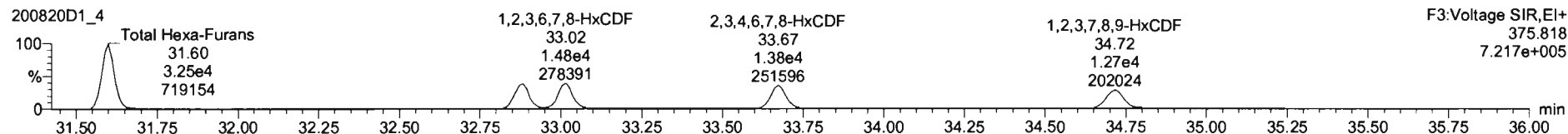
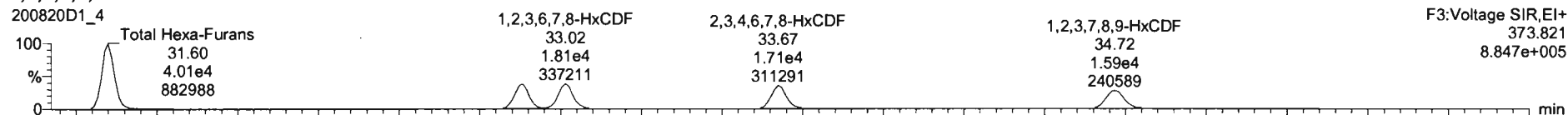


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

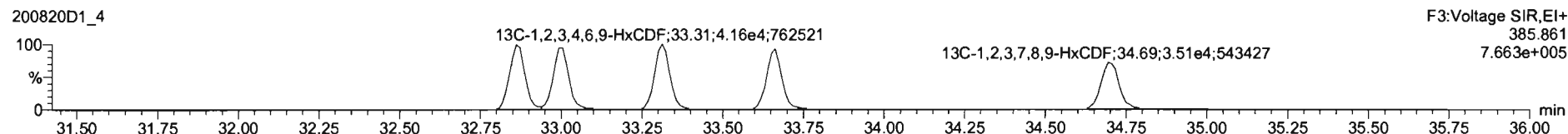
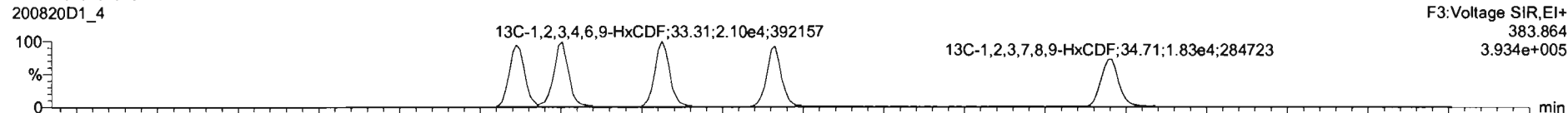
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

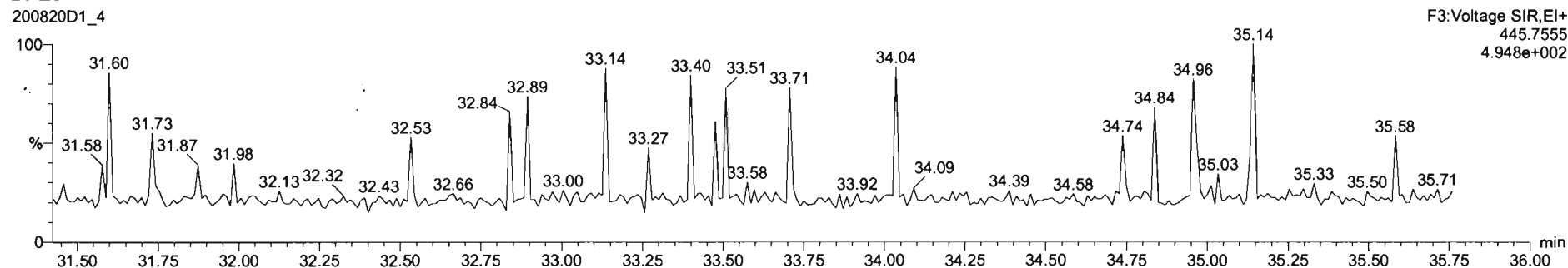
1,2,3,4,7,8-HxCDF



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



DPE3

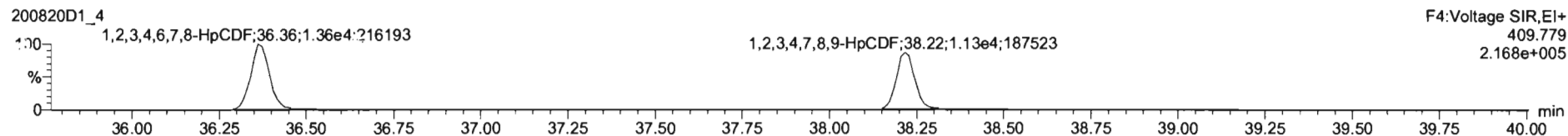
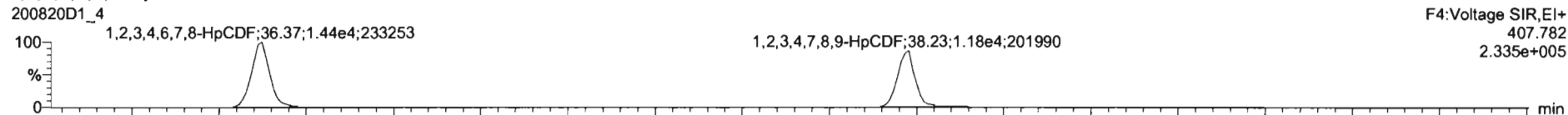


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

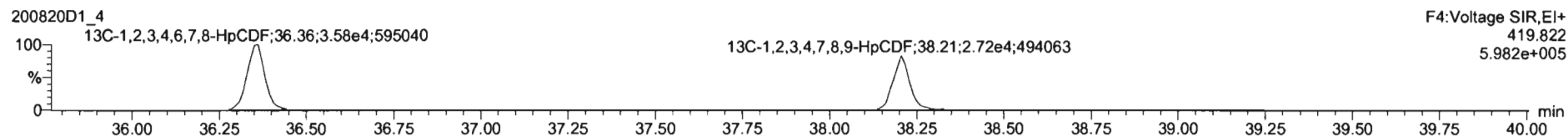
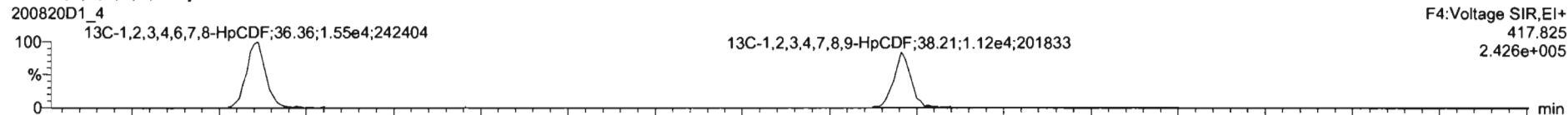
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105

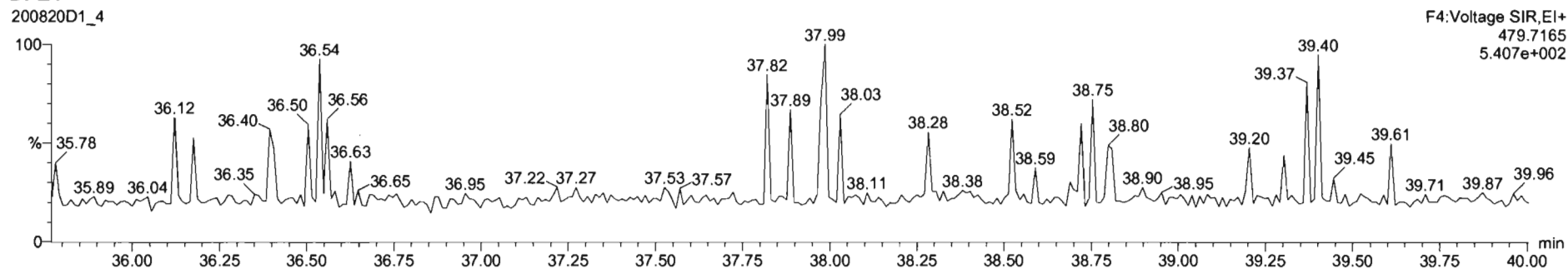
1,2,3,4,6,7,8-HpCDF



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



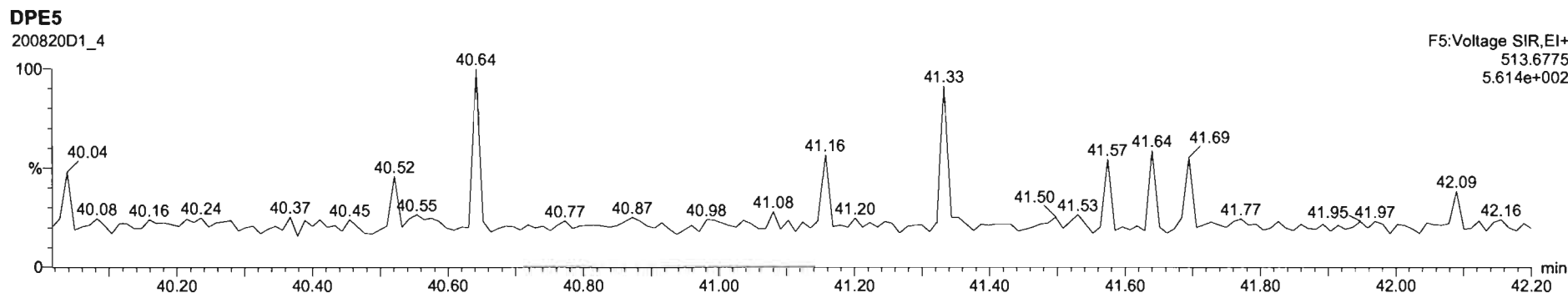
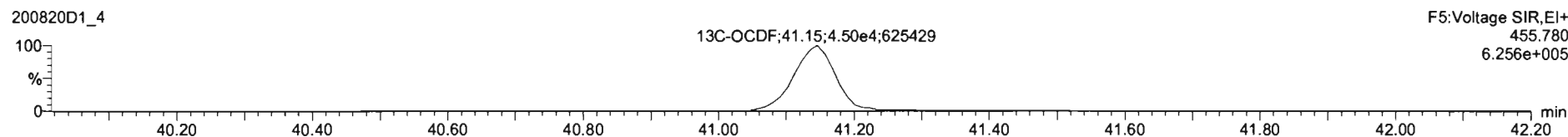
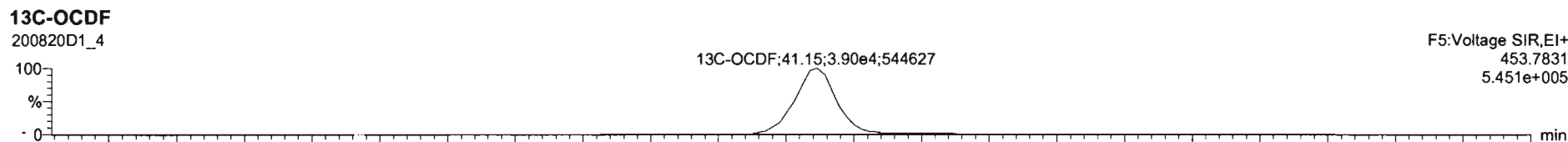
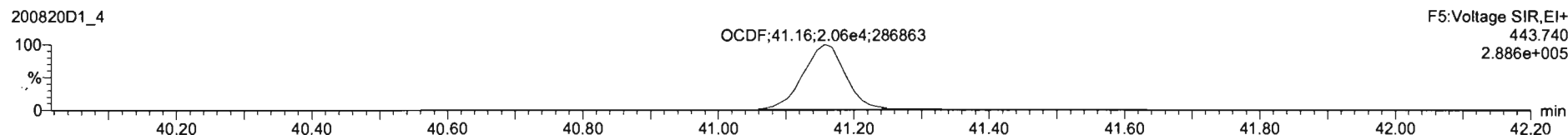
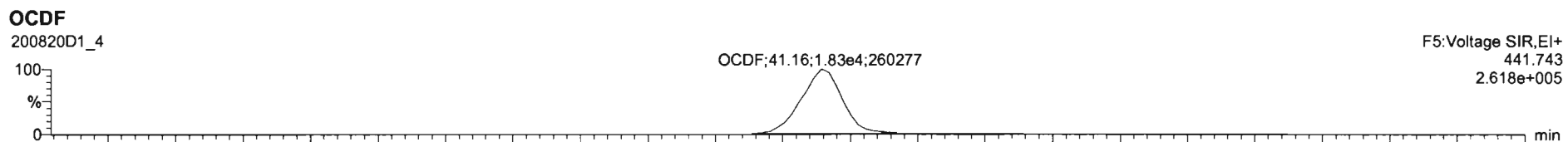
DPE4



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

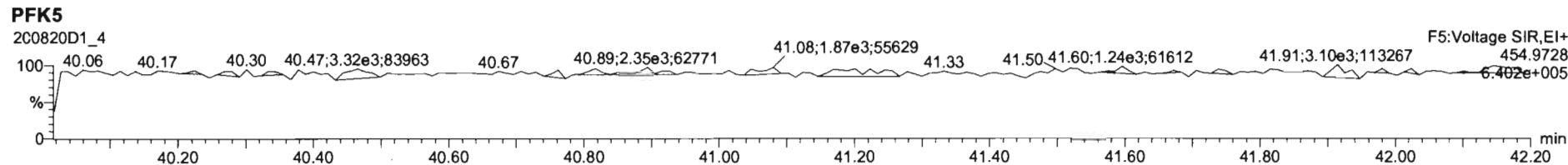
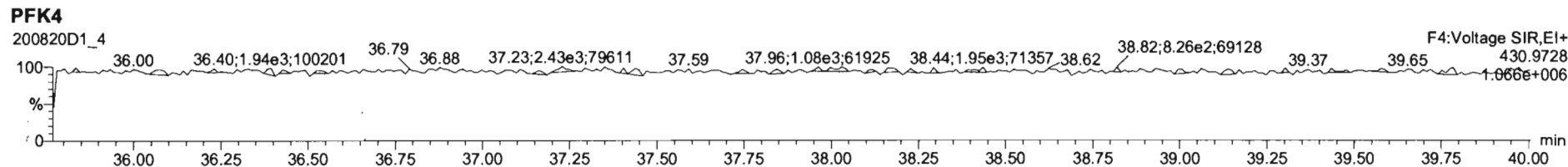
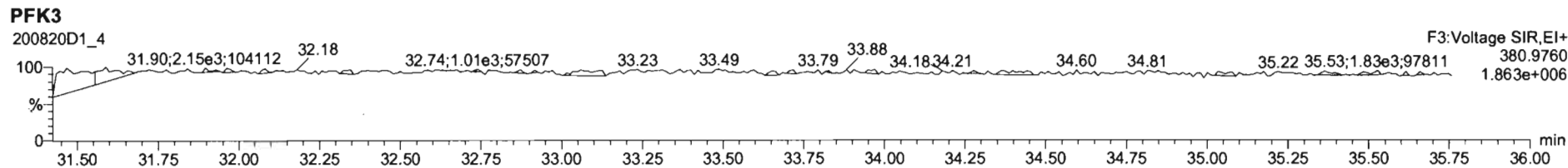
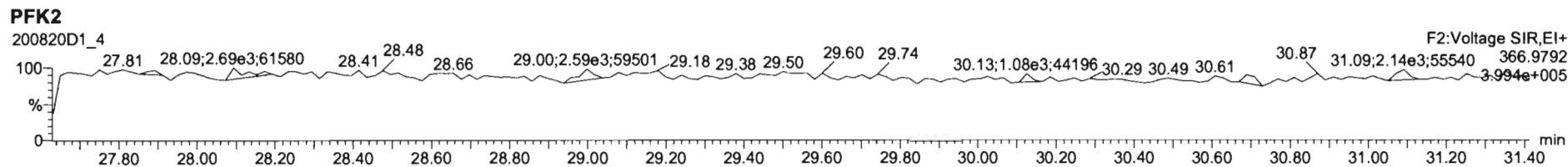
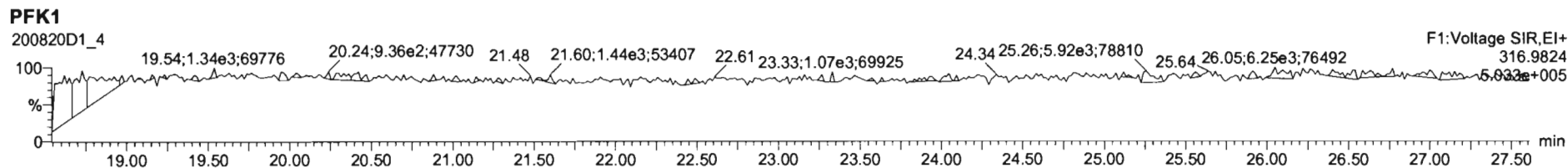
Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_4, Date: 20-Aug-2020, Time: 15:06:01, ID: ST200820D1-4 1613 CS3 20F1105, Description: 1613 CS3 20F1105



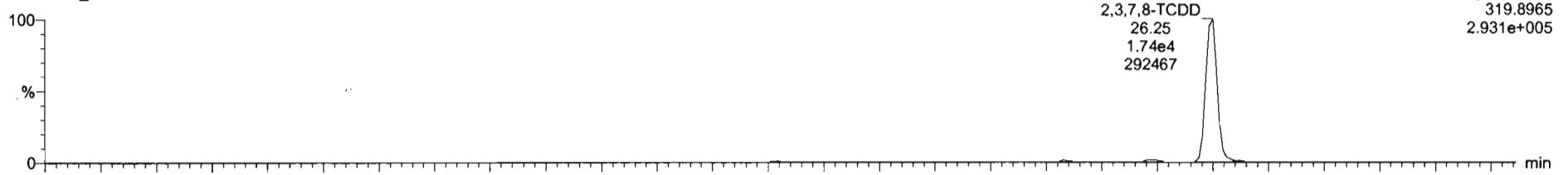
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

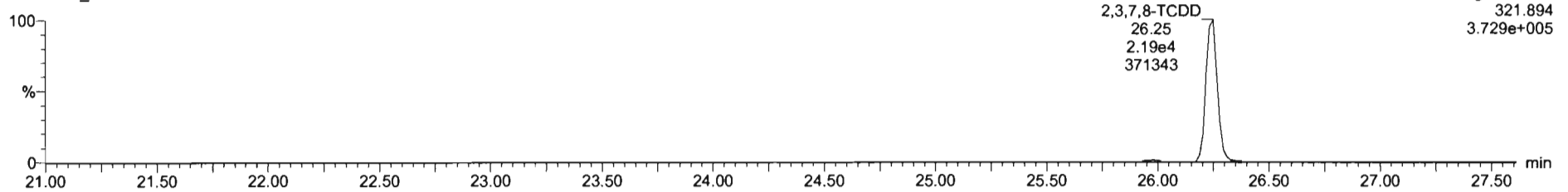
Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

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

200820D1\_5

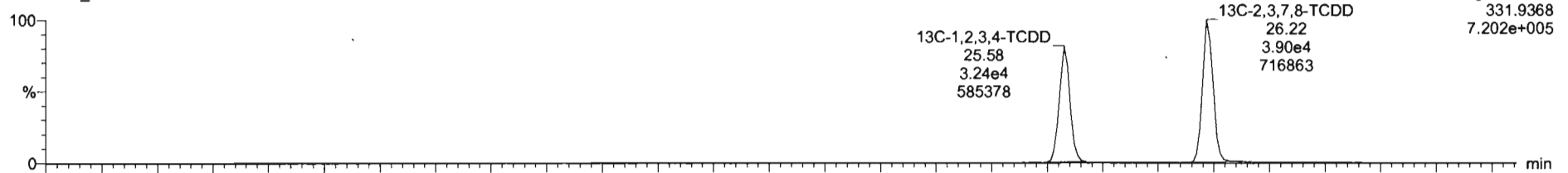


200820D1\_5

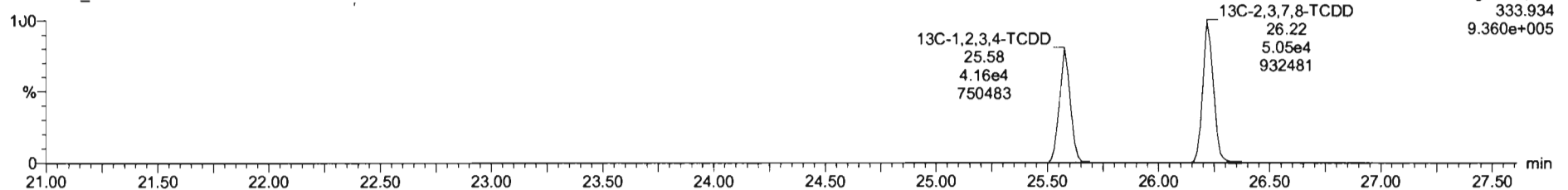


**13C-2,3,7,8-TCDD**

200820D1\_5



200820D1\_5





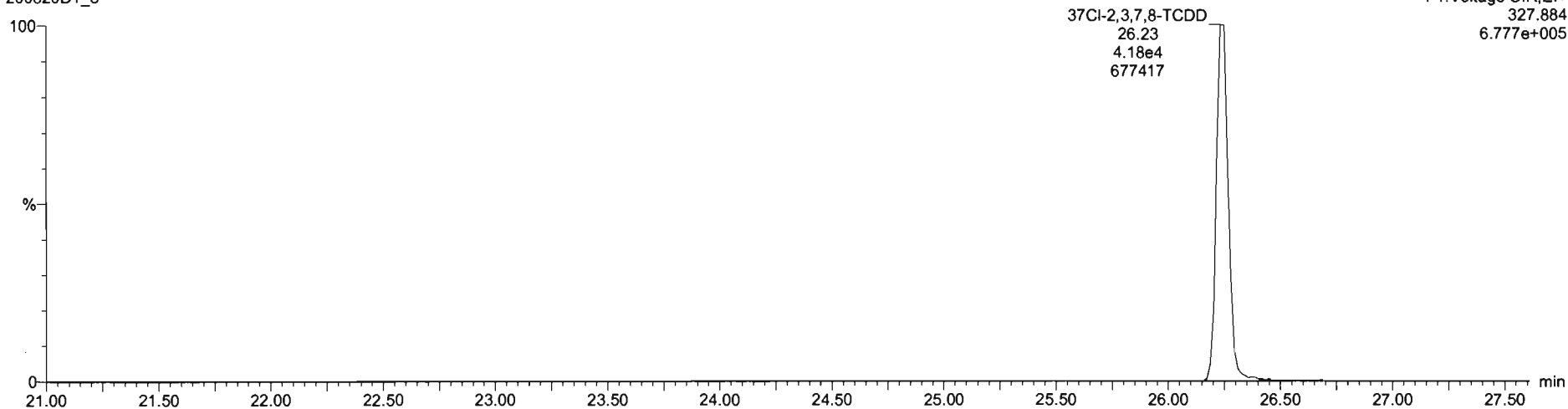
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

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

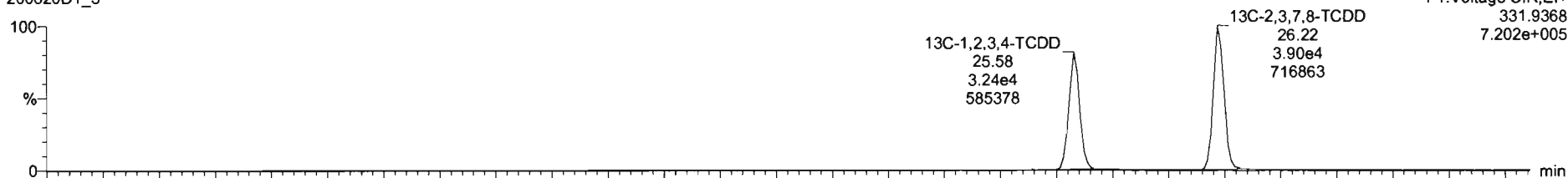
200820D1\_5



F1:Voltage SIR,EI+  
327.884  
6.777e+005

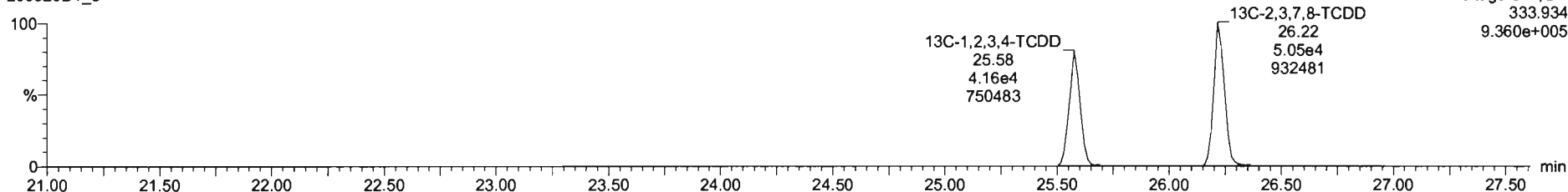
13C-1,2,3,4-TCDD

200820D1\_5



F1:Voltage SIR,EI+  
331.9368  
7.202e+005

200820D1\_5



F1:Voltage SIR,EI+  
333.934  
9.360e+005

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

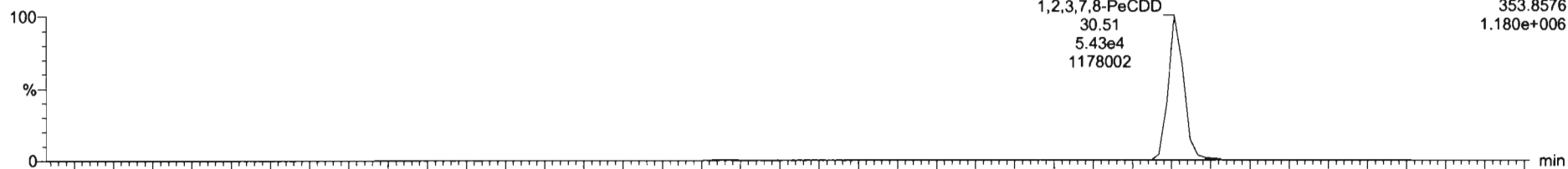
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time

Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

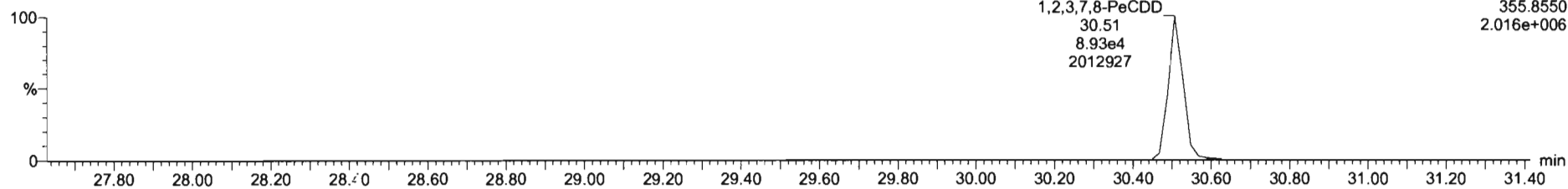
Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

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

200820D1\_5

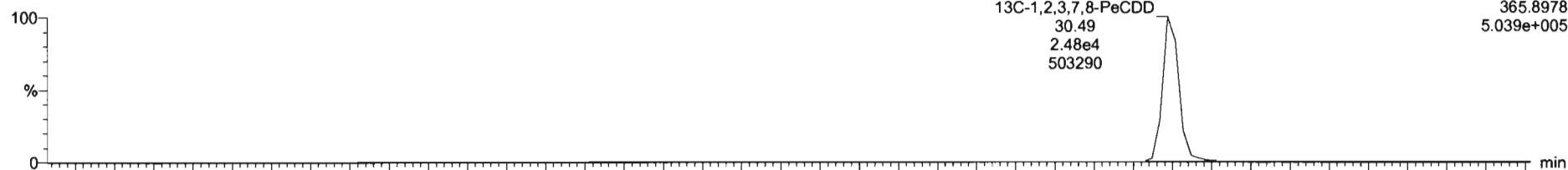


200820D1\_5

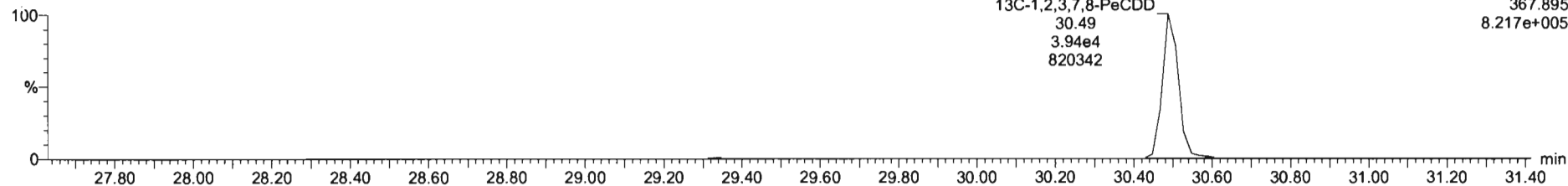


**13C-1,2,3,7,8-PeCDD**

200820D1\_5



200820D1\_5



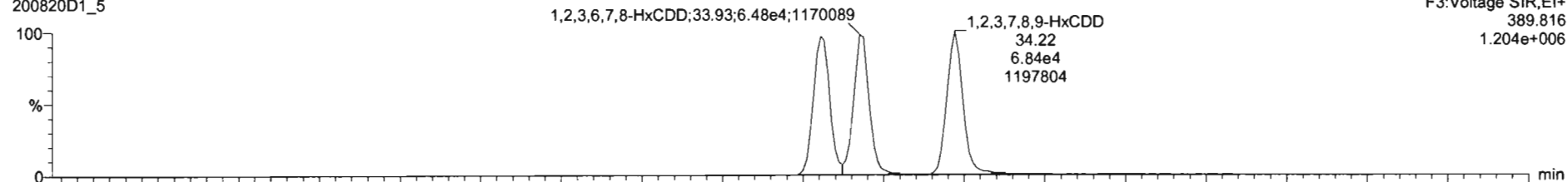
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

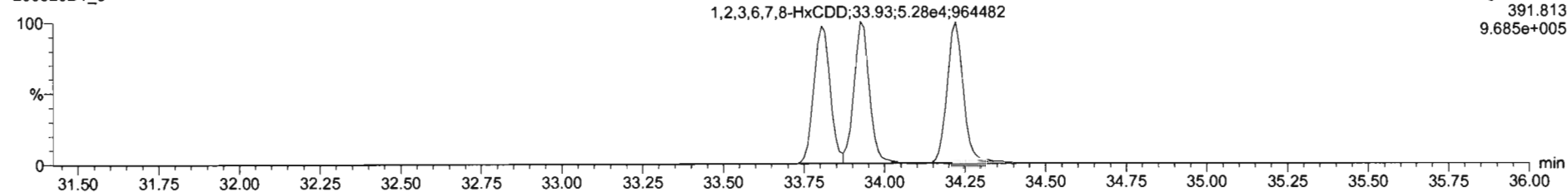
1,2,3,4,7,8-HxCDD

200820D1\_5



F3:Voltage SIR,EI+  
389.816  
1.204e+006

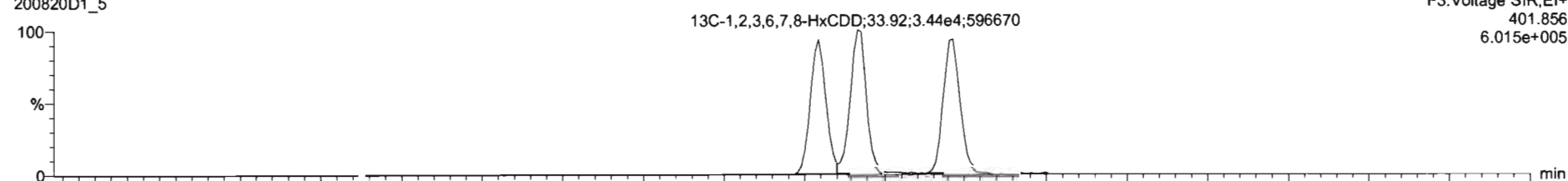
200820D1\_5



F3:Voltage SIR,EI+  
391.813  
9.685e+005

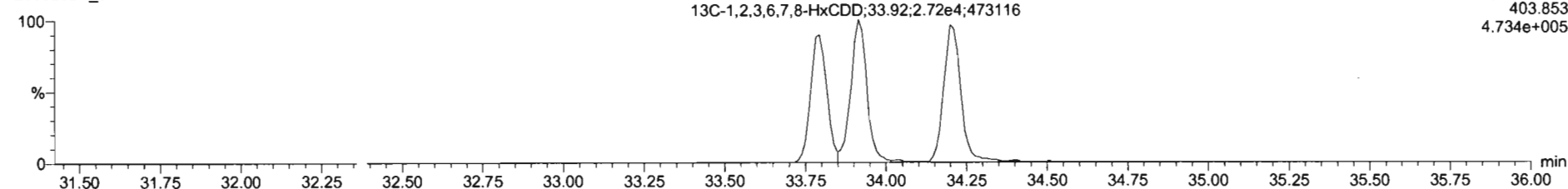
13C-1,2,3,4,7,8-HxCDD

200820D1\_5



F3:Voltage SIR,EI+  
401.856  
6.015e+005

200820D1\_5



F3:Voltage SIR,EI+  
403.853  
4.734e+005

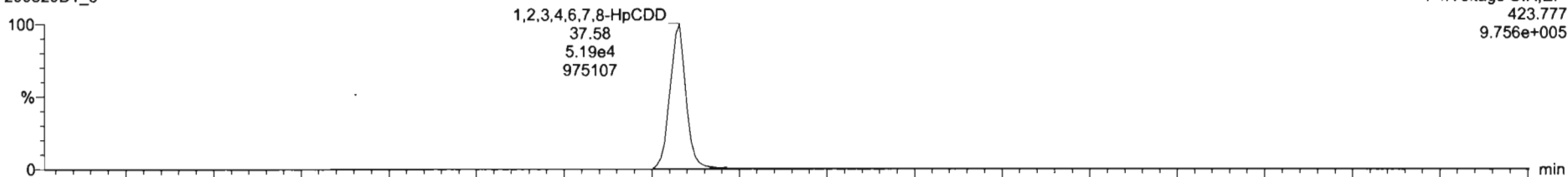
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

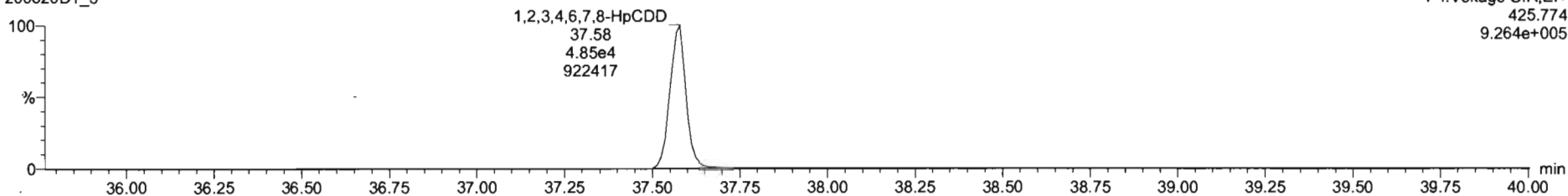
**1,2,3,4,6,7,8-HpCDD**

200820D1\_5



F4:Voltage SIR,EI+  
423.777  
9.756e+005

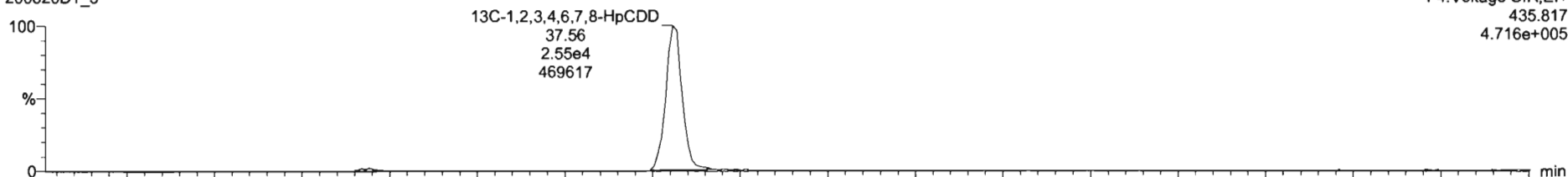
200820D1\_5



F4:Voltage SIR,EI+  
425.774  
9.264e+005

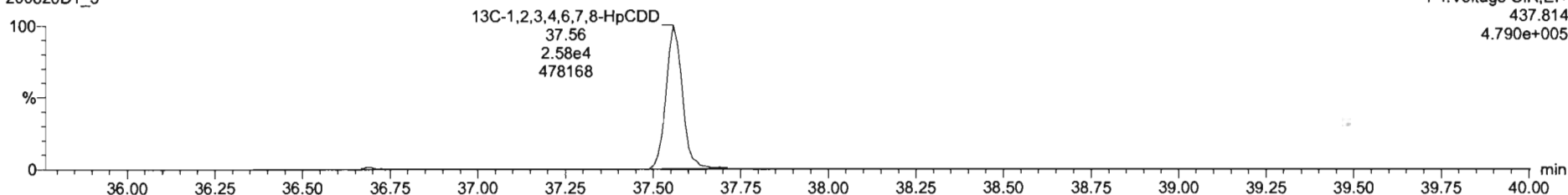
**13C-1,2,3,4,6,7,8-HpCDD**

200820D1\_5



F4:Voltage SIR,EI+  
435.817  
4.716e+005

200820D1\_5

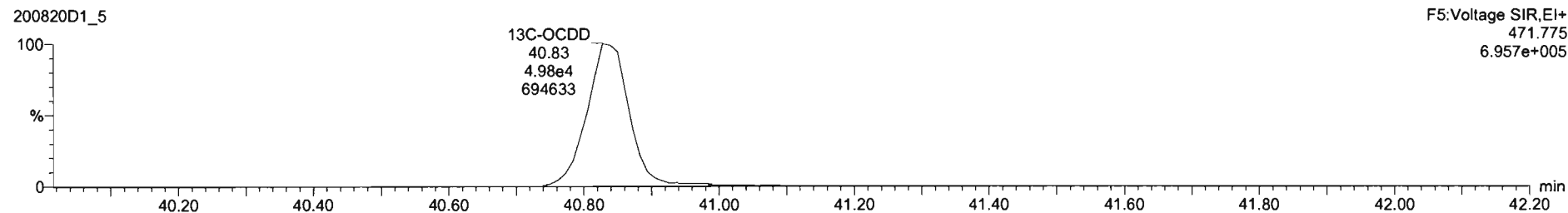
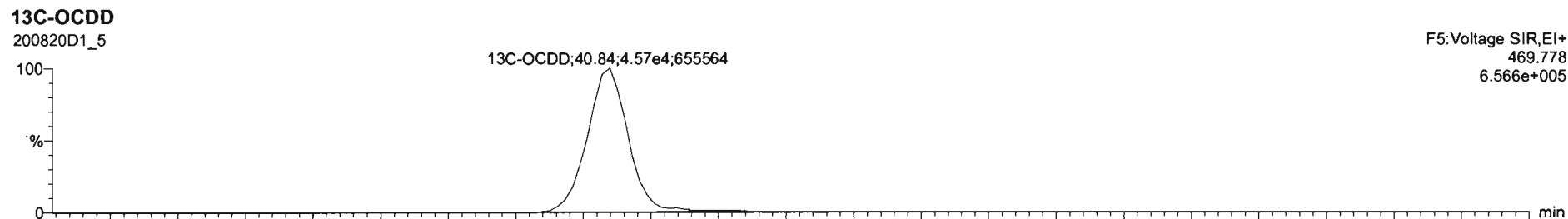
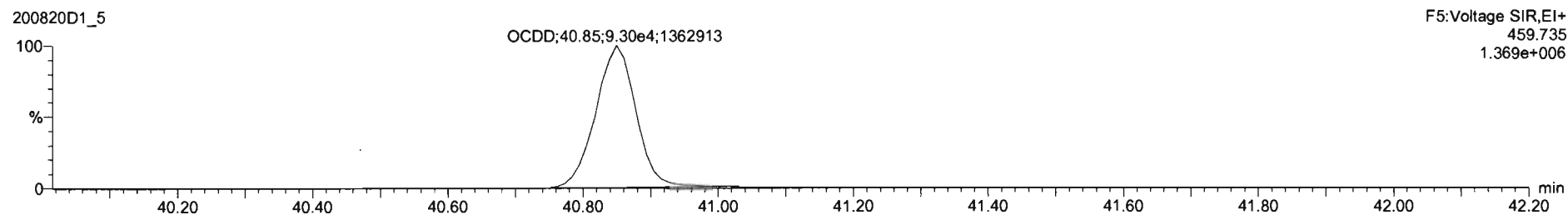
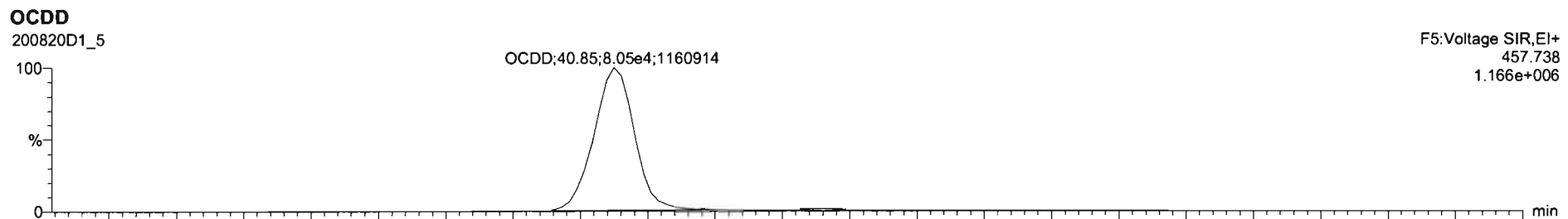


F4:Voltage SIR,EI+  
437.814  
4.790e+005

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

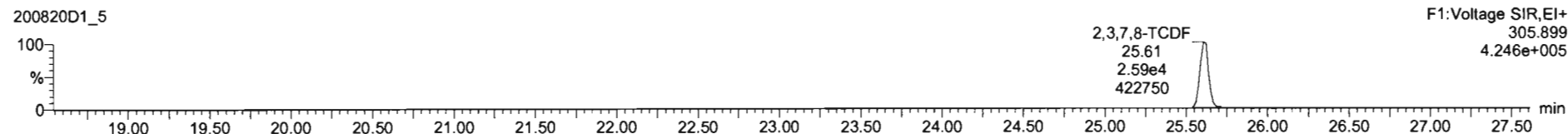


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

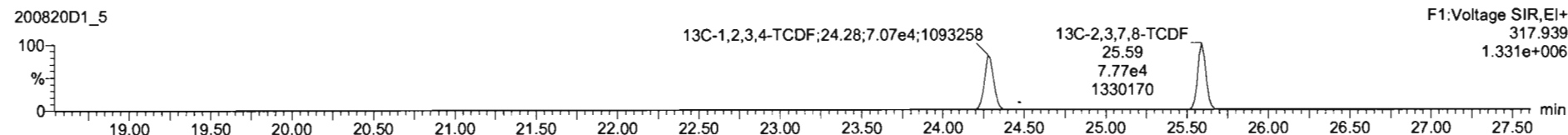
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

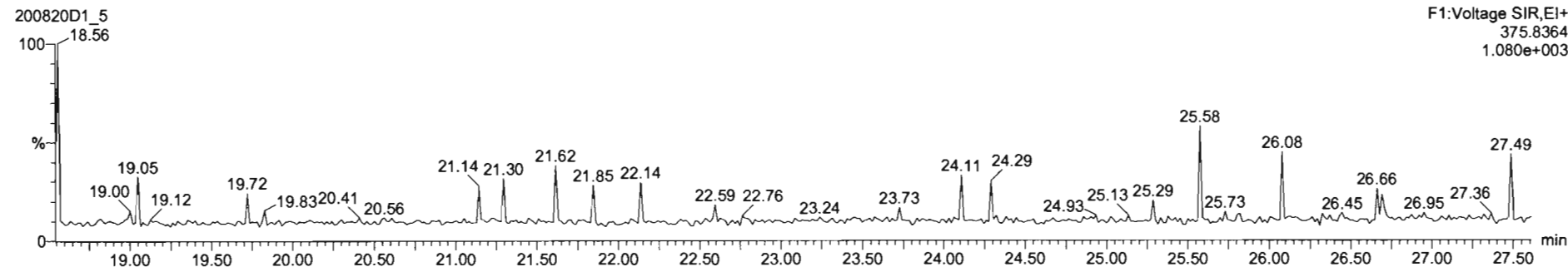
**2,3,7,8-TCDF**



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



**D>E1**

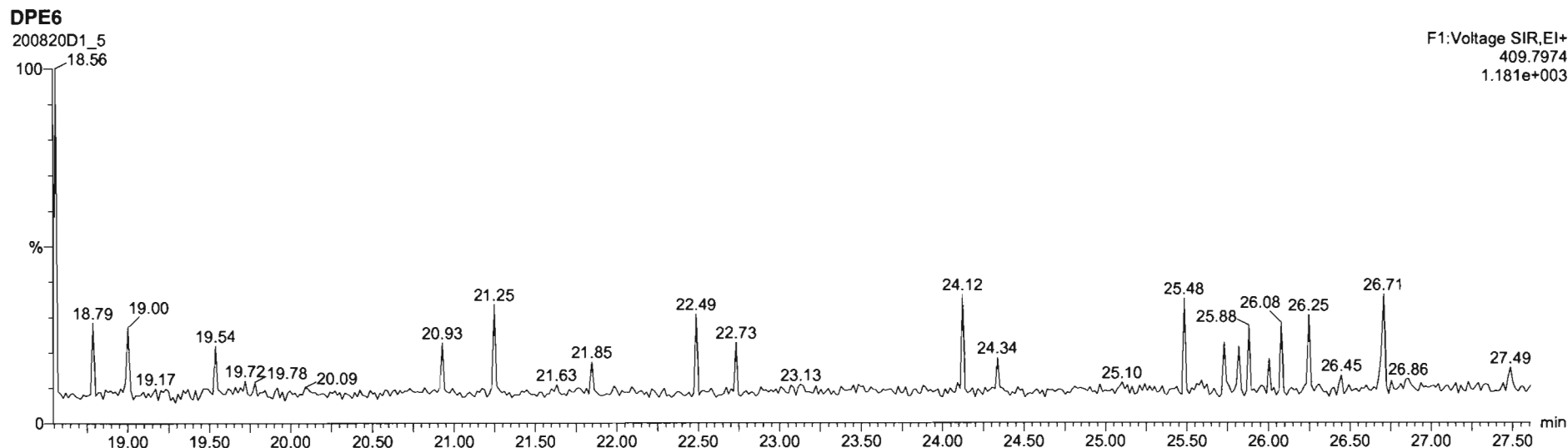
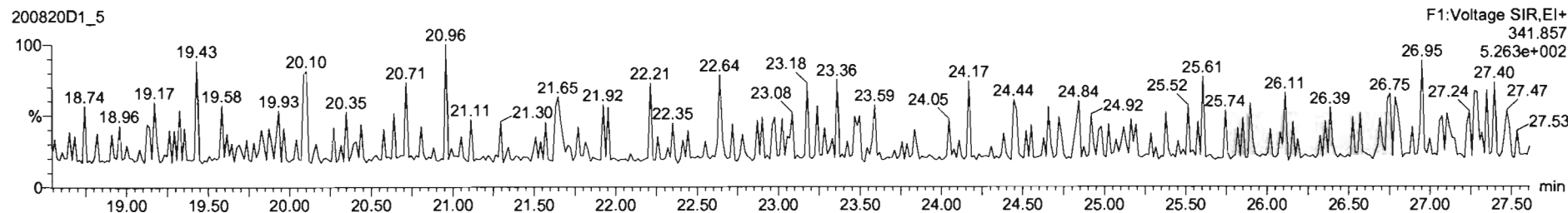
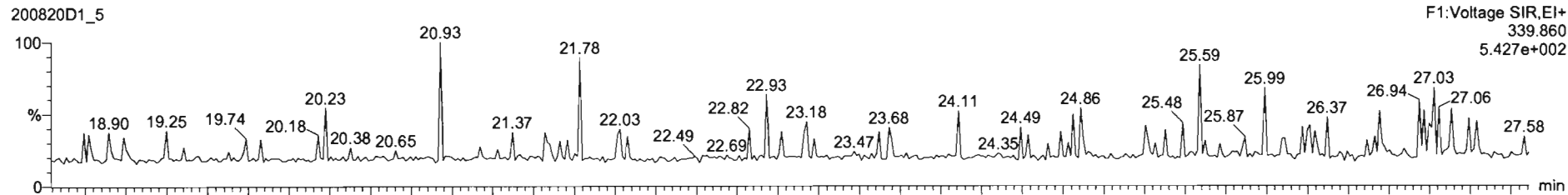


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

1st Func. Penta-Furans



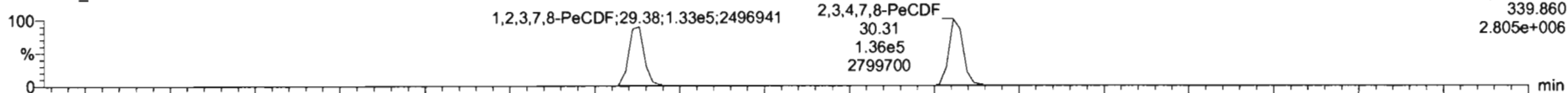
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

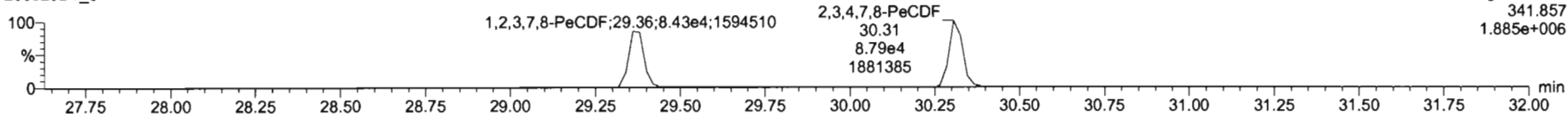
**1,2,3,7,8-PeCDF**

200820D1\_5



F2:Voltage SIR,EI+  
339.860  
2.805e+006

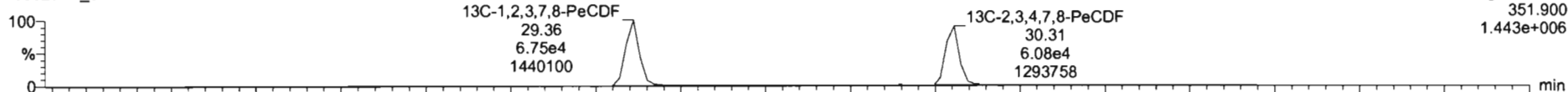
200820D1\_5



F2:Voltage SIR,EI+  
341.857  
1.885e+006

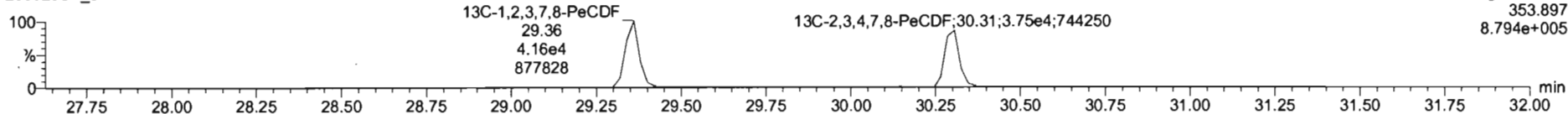
**13C-1,2,3,7,8-PeCDF**

200820D1\_5



F2:Voltage SIR,EI+  
351.900  
1.443e+006

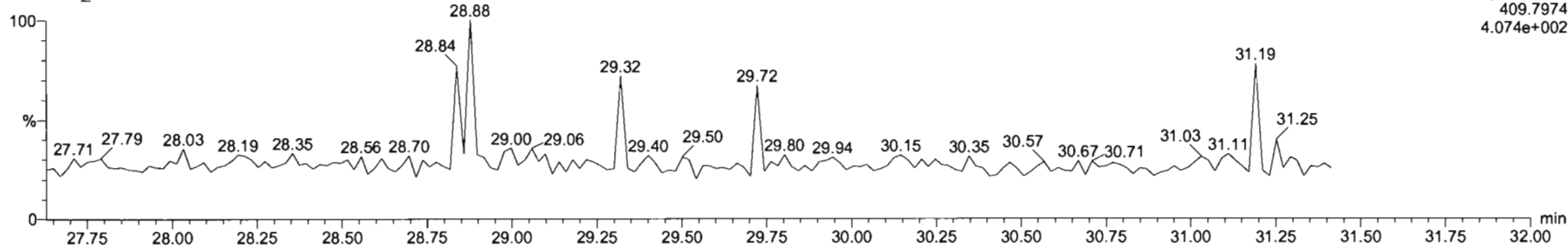
200820D1\_5



F2:Voltage SIR,EI+  
353.897  
8.794e+005

**DPE2**

200820D1\_5



F2:Voltage SIR,EI+  
409.7974  
4.074e+002

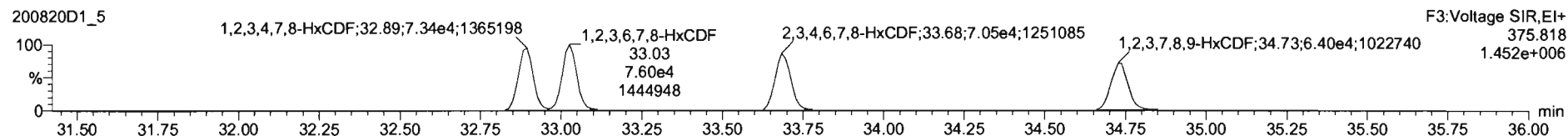
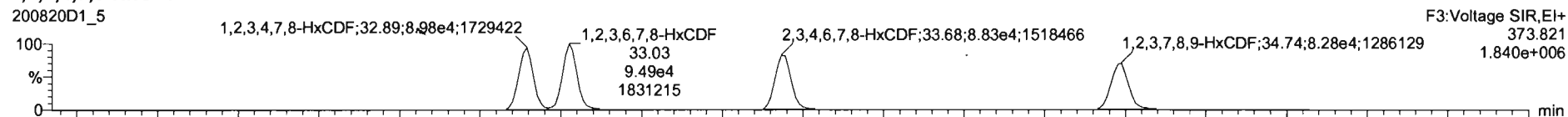


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

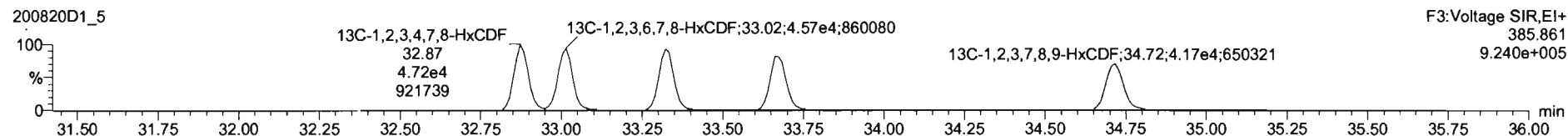
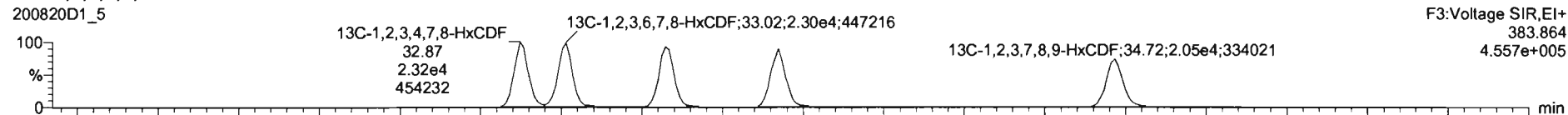
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

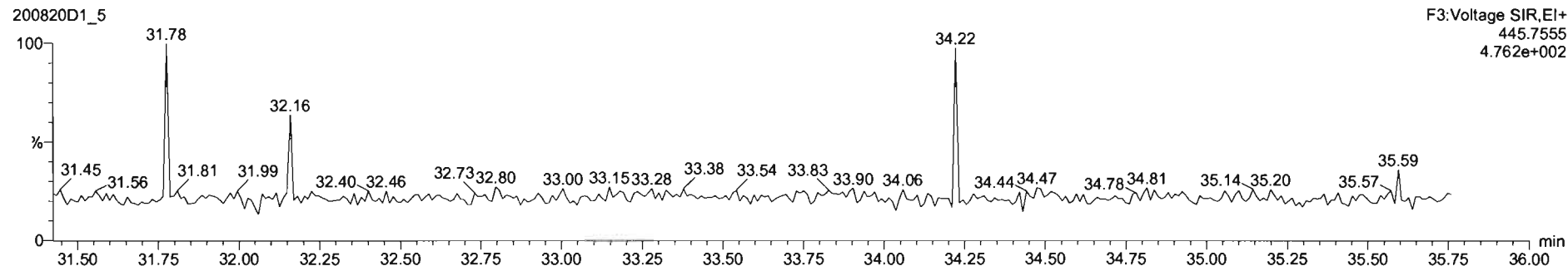
1,2,3,4,7,8-HxCDF



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



DPE3

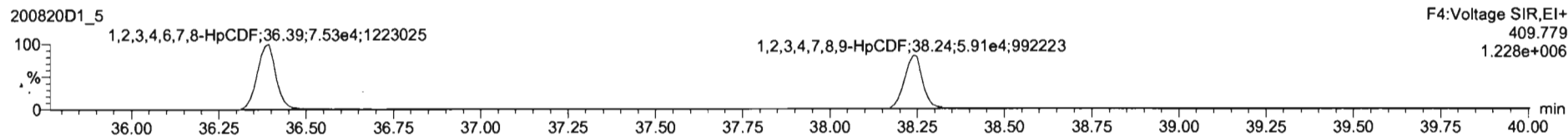
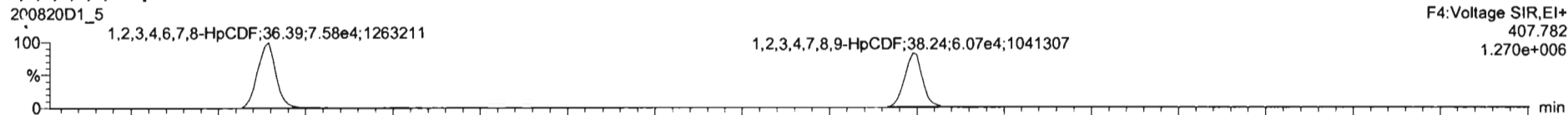


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

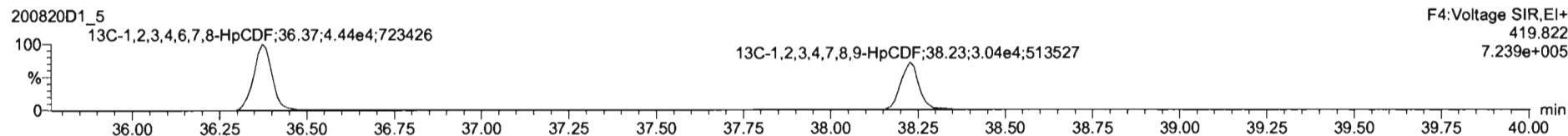
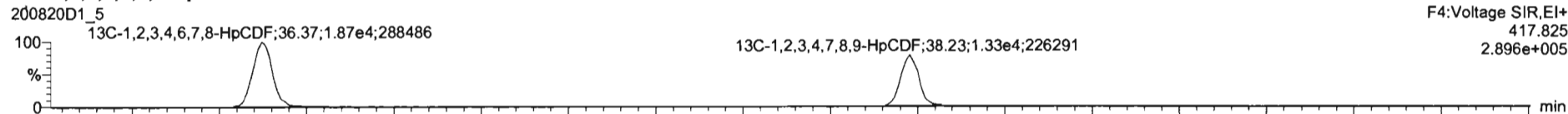
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106

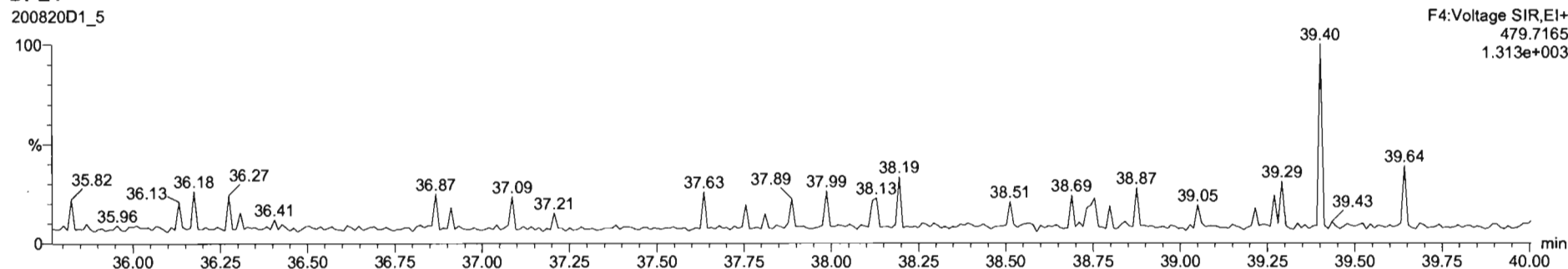
1,2,3,4,6,7,8-HpCDF



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



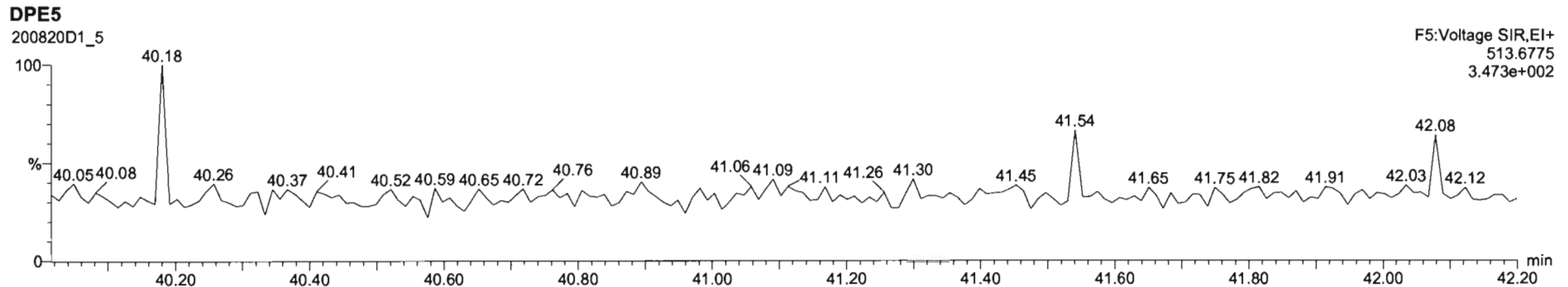
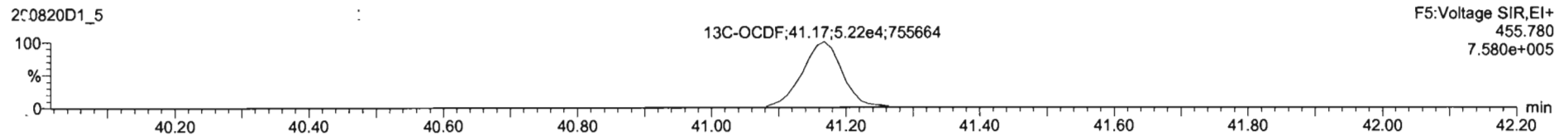
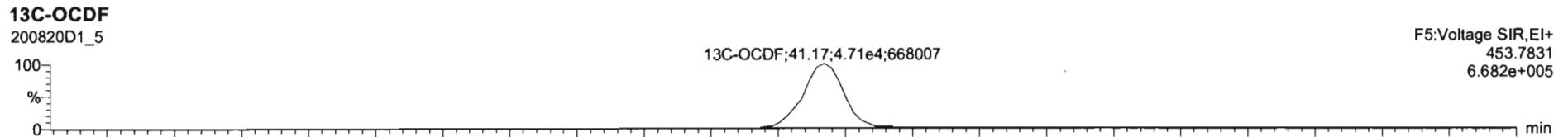
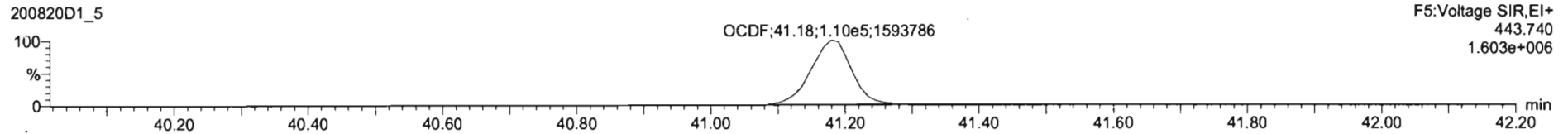
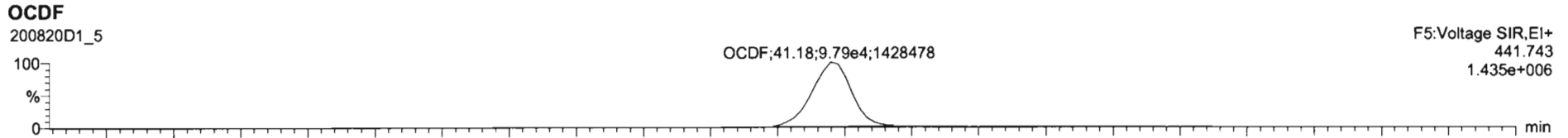
DPE4



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

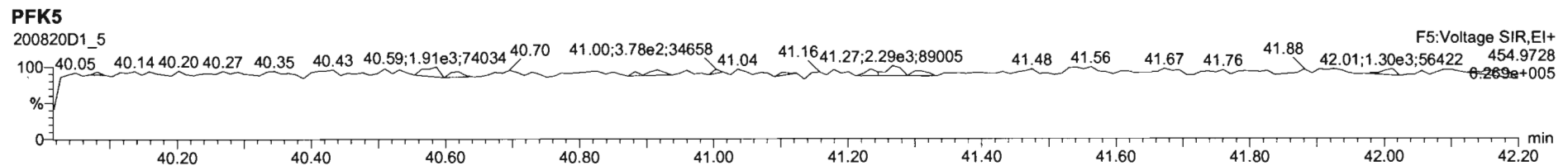
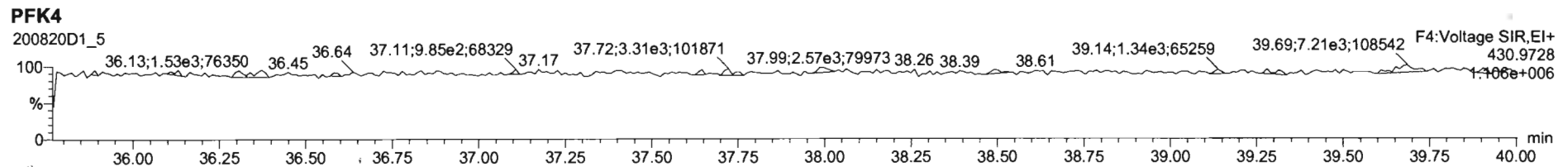
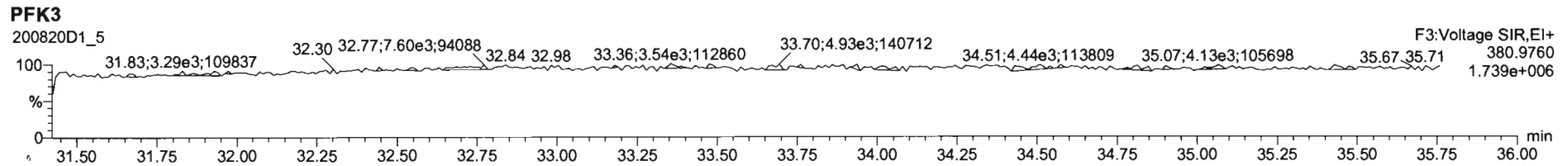
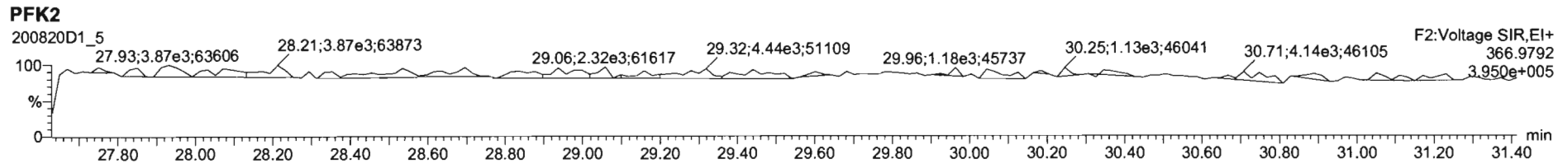
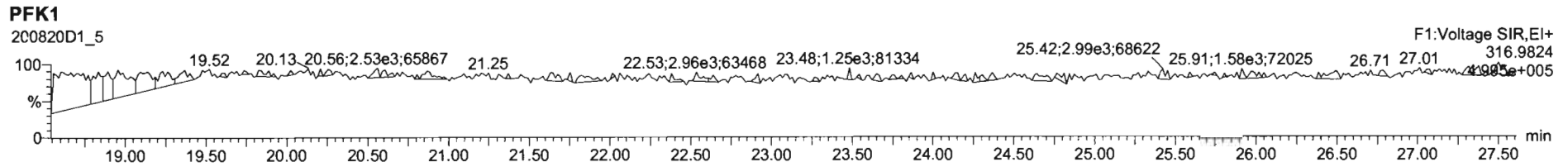
Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_5, Date: 20-Aug-2020, Time: 15:52:18, ID: ST200820D1-5 1613 CS4 20F1106, Description: 1613 CS4 20F1106



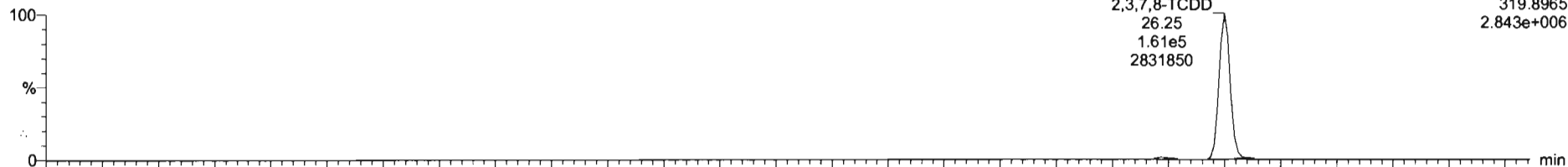
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

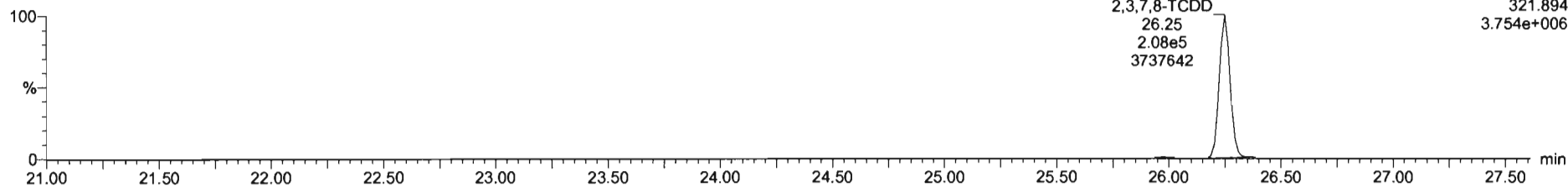
**2,3,7,8-TCDD**

200820D1\_6



F1:Voltage SIR,EI+  
319.8965  
2.843e+006

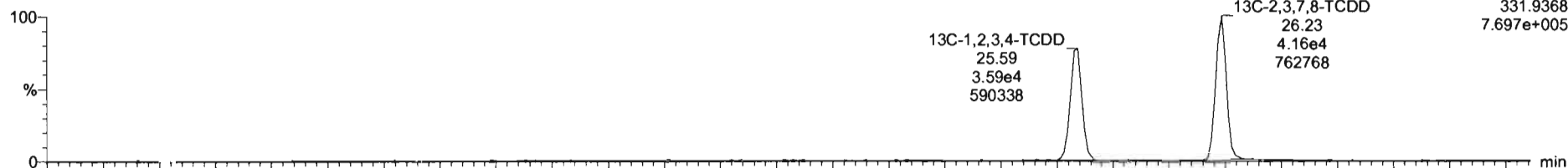
200820D1\_6



F1:Voltage SIR,EI+  
321.894  
3.754e+006

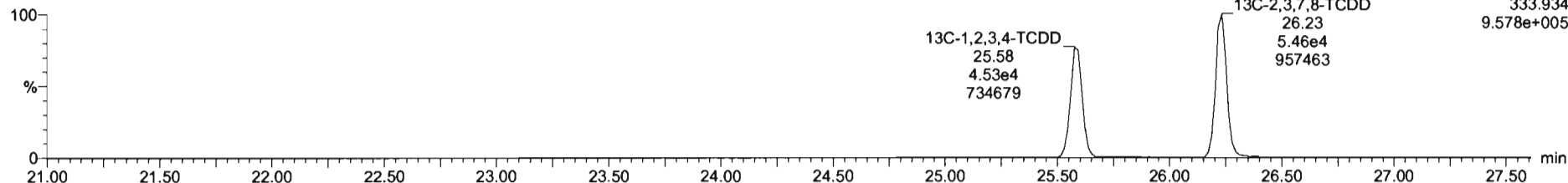
**13C-2,3,7,8-TCDD**

200820D1\_6



F1:Voltage SIR,EI+  
331.9368  
7.697e+005

200820D1\_6



F1:Voltage SIR,EI+  
333.934  
9.578e+005

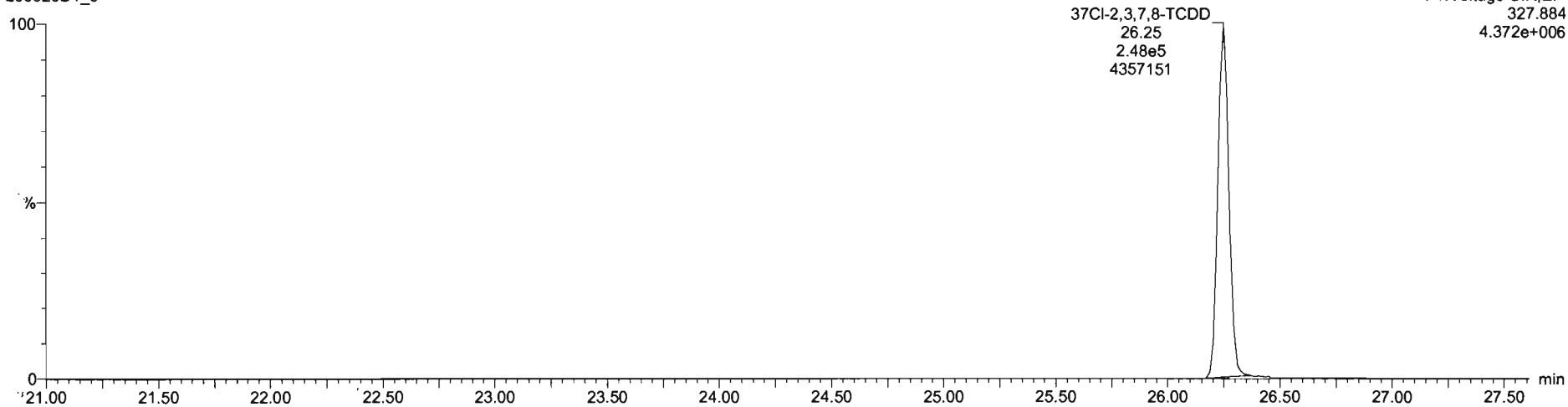
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

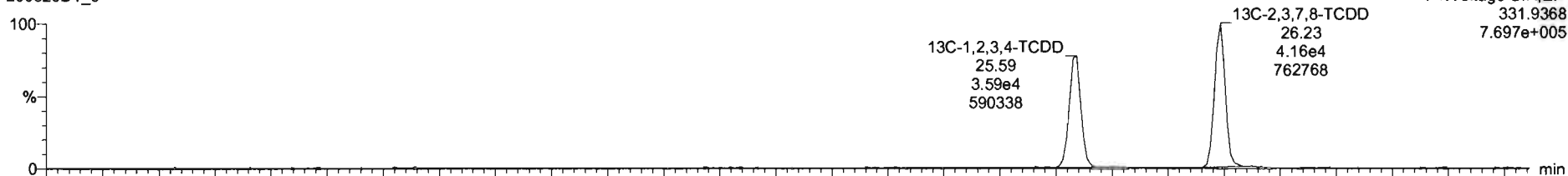
37Cl-2,3,7,8-TCDD

200820D1\_6

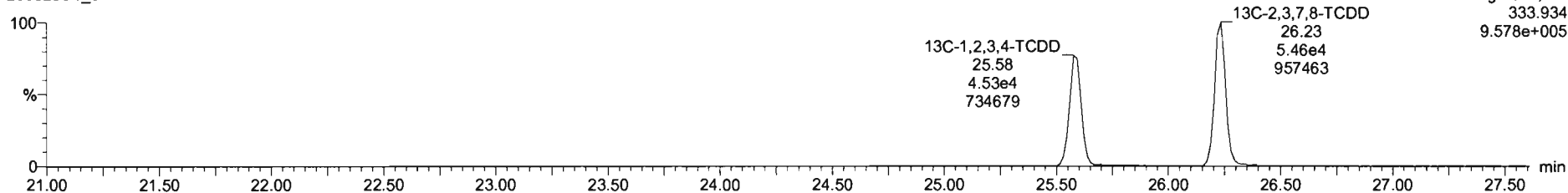


13C-1,2,3,4-TCDD

200820D1\_6



200820D1\_6



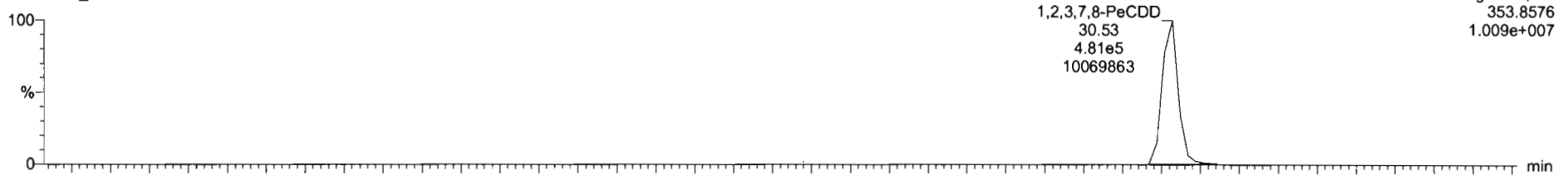
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

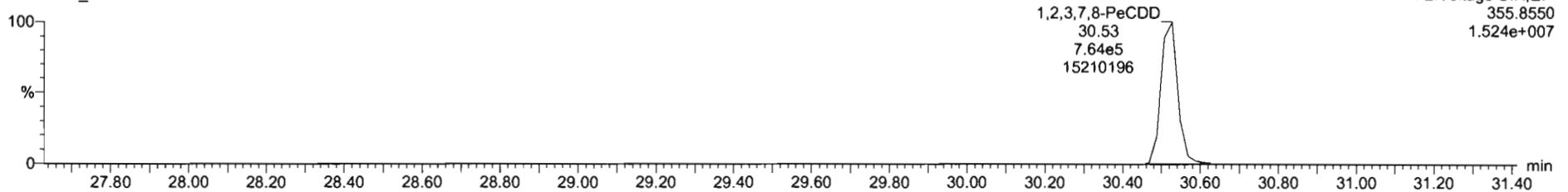
Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

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

200820D1\_6

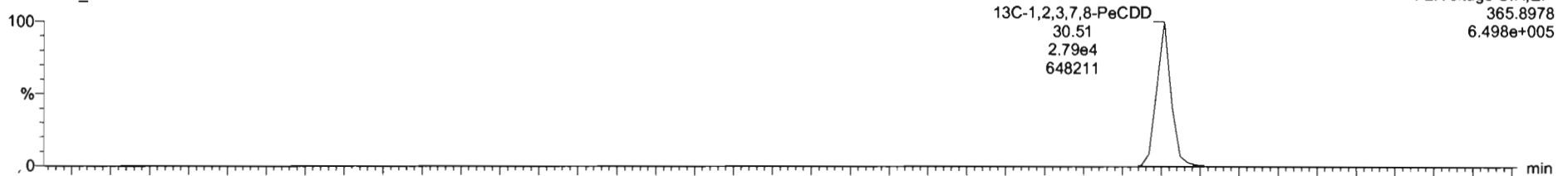


200820D1\_6

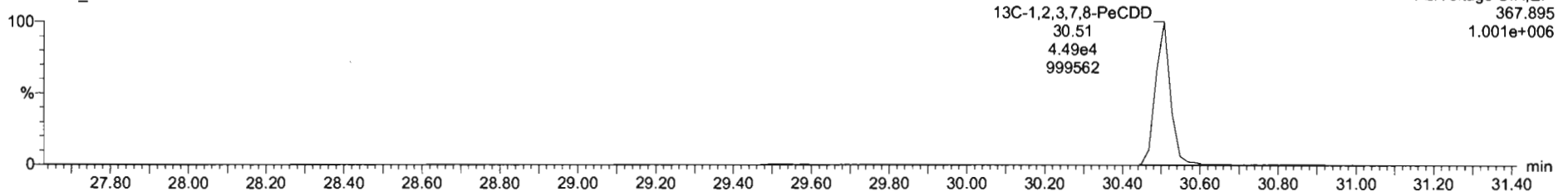


**<sup>13</sup>C-1,2,3,7,8-PeCDD**

200820D1\_6



200820D1\_6



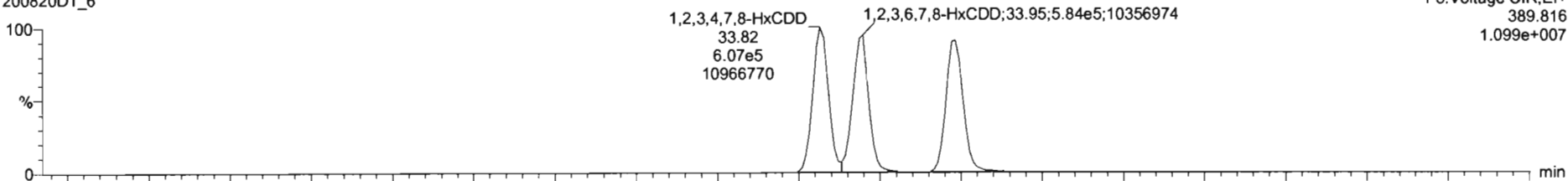
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

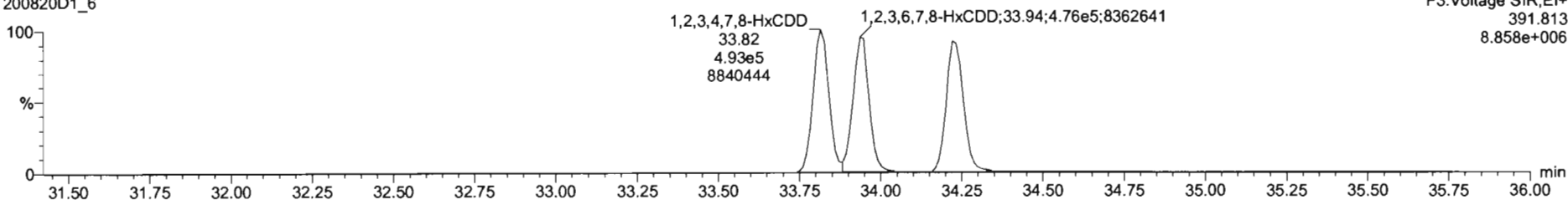
Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

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

200820D1\_6

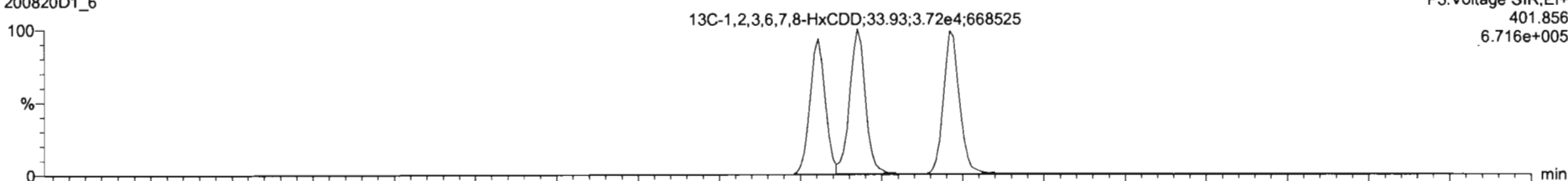


200820D1\_6

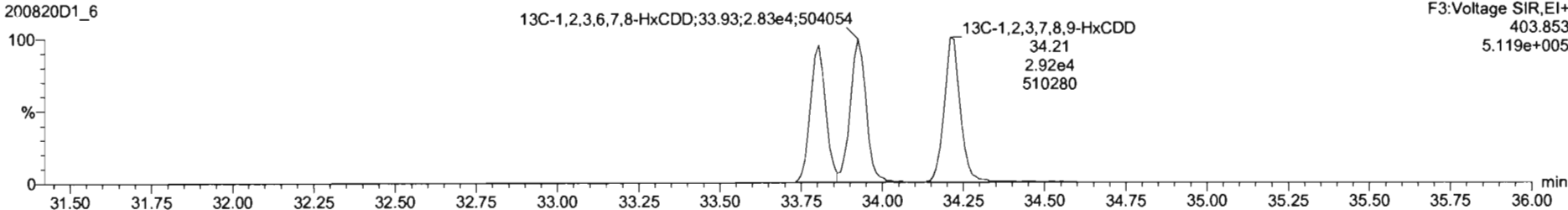


**13C-1,2,3,4,7,8-HxCDD**

200820D1\_6



200820D1\_6





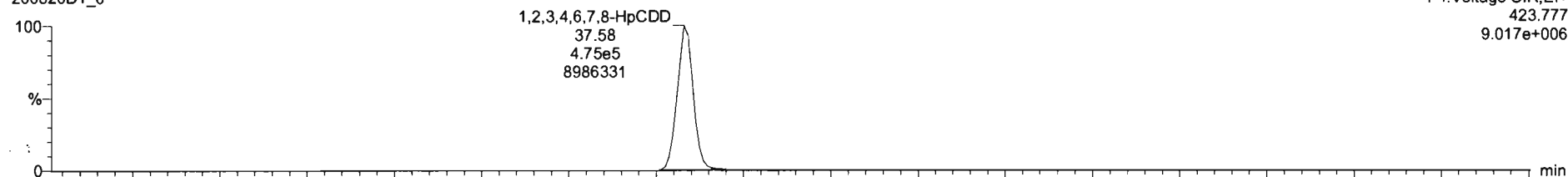
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

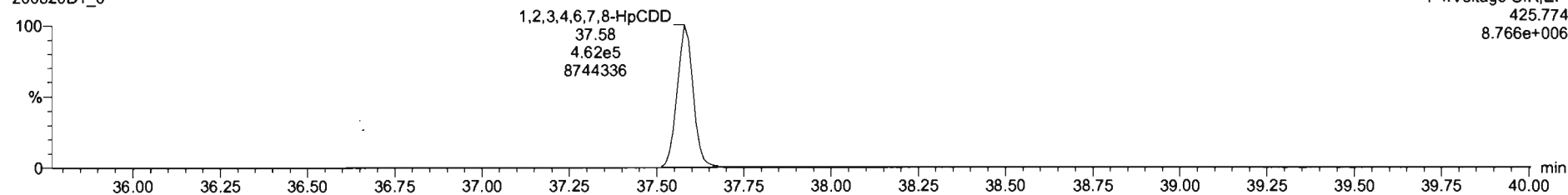
Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

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

200820D1\_6

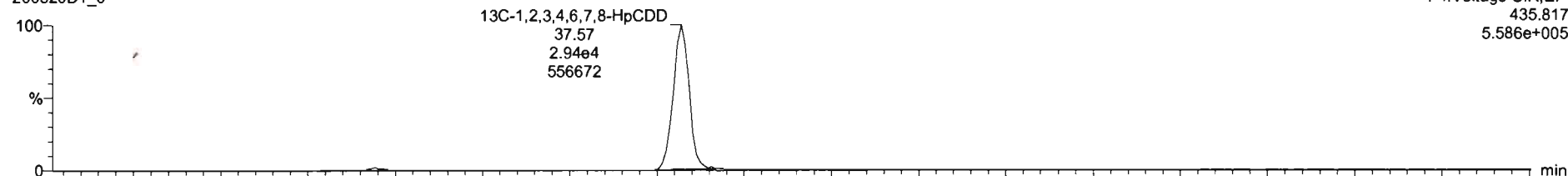


200820D1\_6

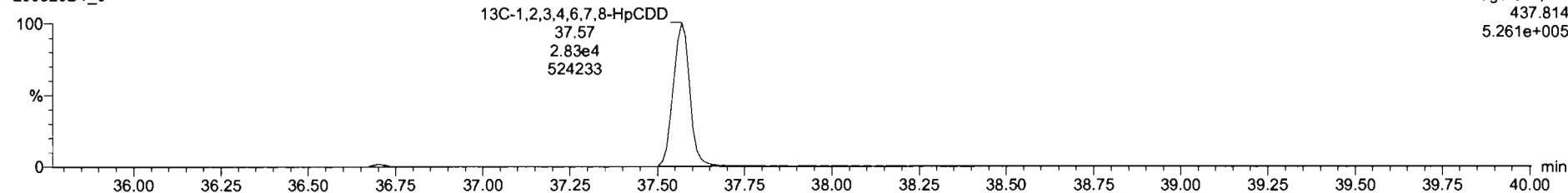


13C-1,2,3,4,6,7,8-HpCDD

200820D1\_6



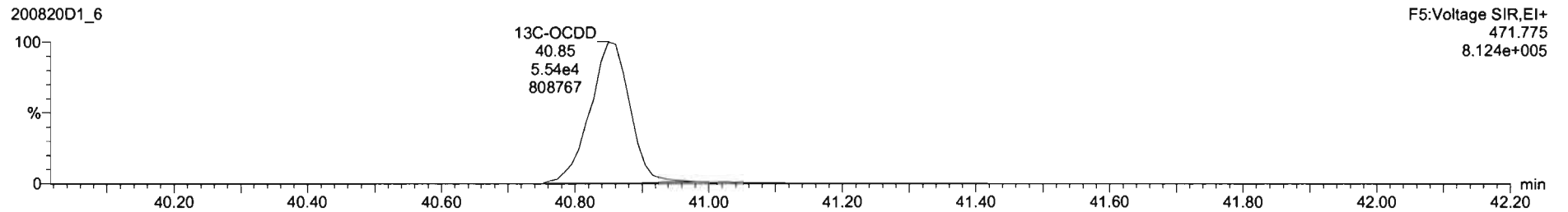
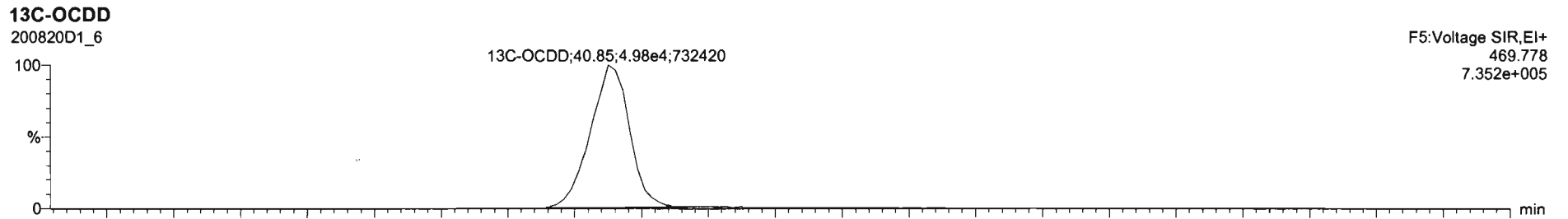
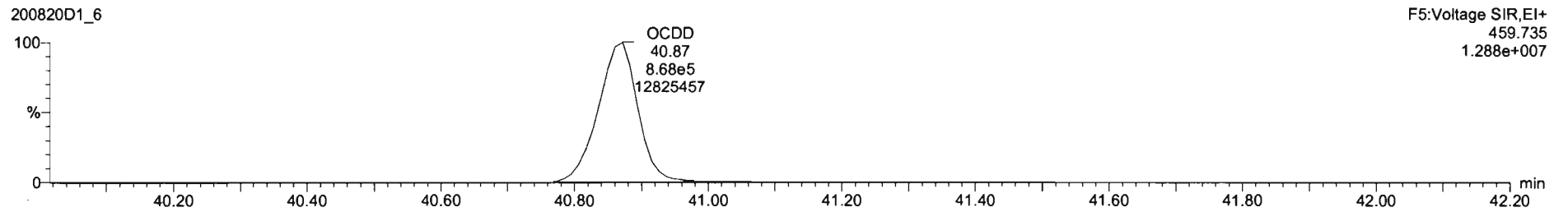
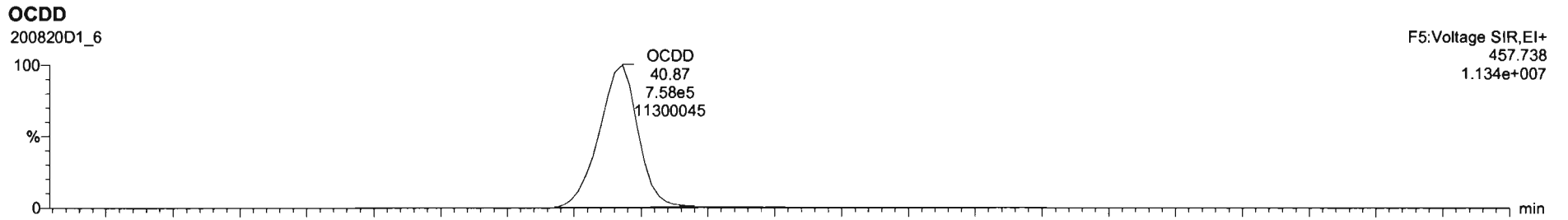
200820D1\_6



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107



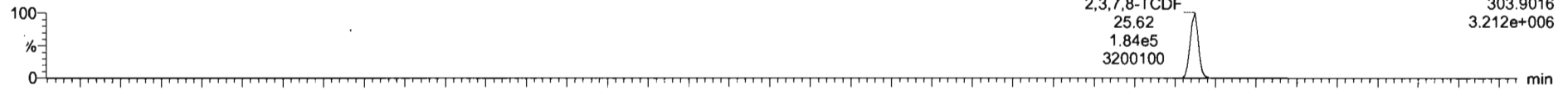
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

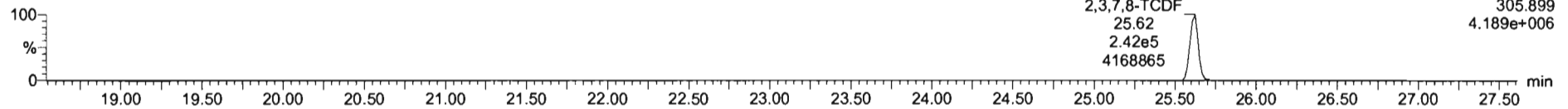
Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

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

200820D1\_6

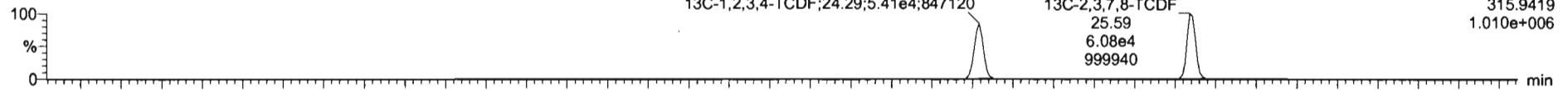


200820D1\_6

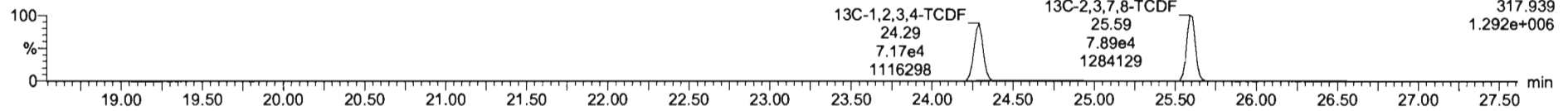


**13C-2,3,7,8-TCDF**

200820D1\_6

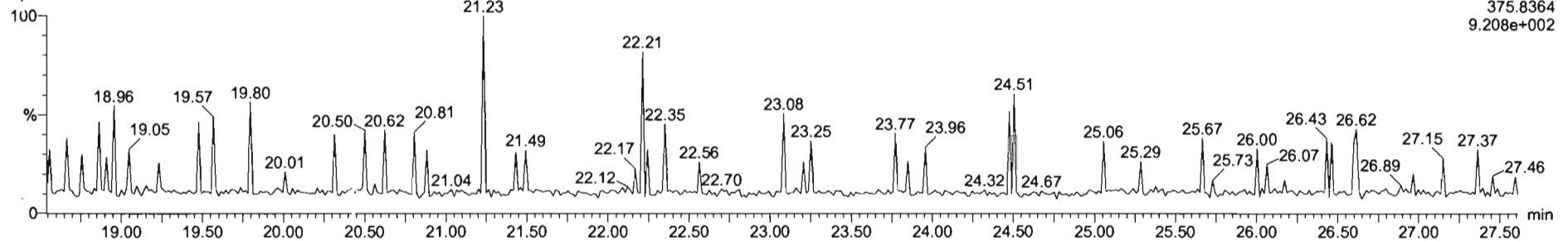


200820D1\_6



**DPE1**

200820D1\_6



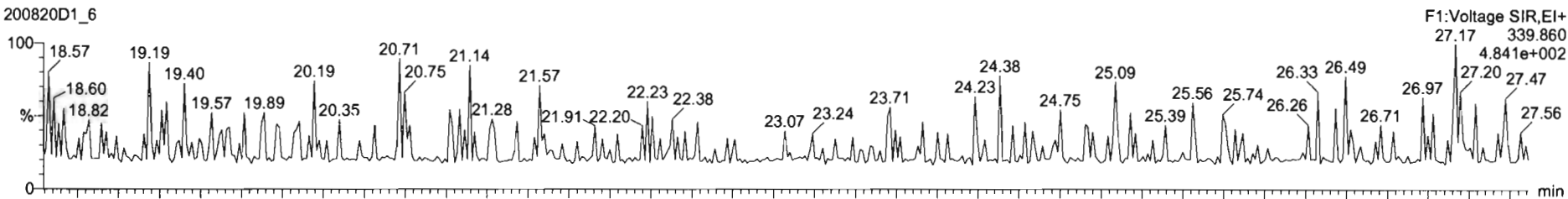
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

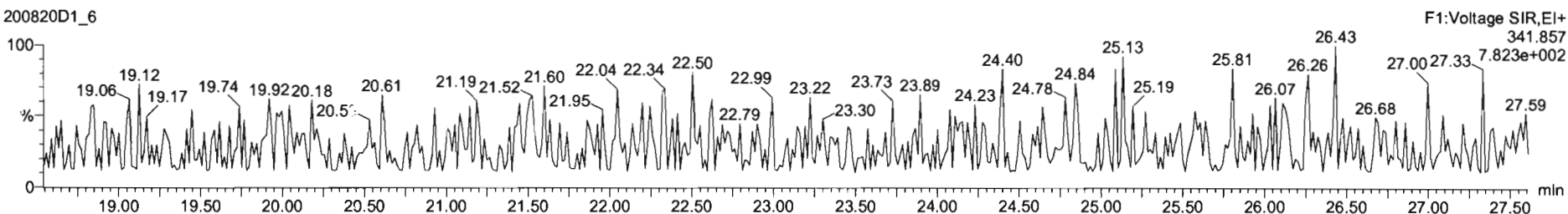
Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

1st Func. Penta-Furans

200820D1\_6

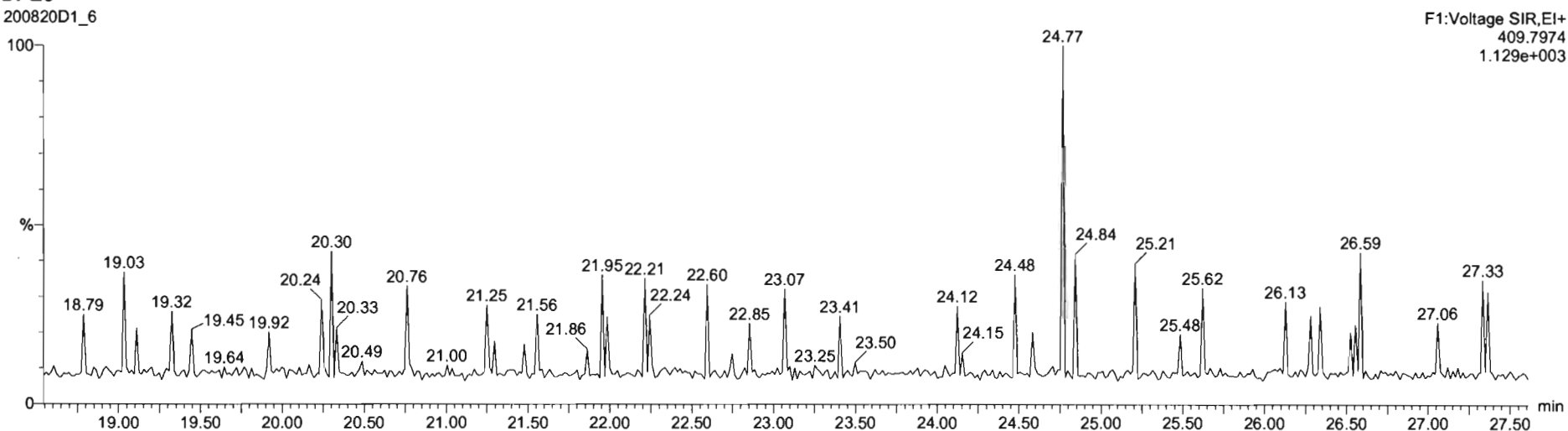


200820D1\_6



DPE6

200820D1\_6

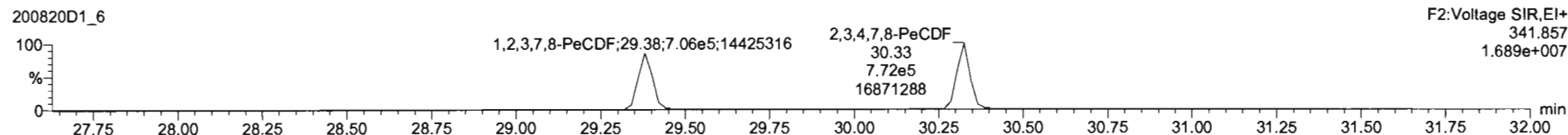
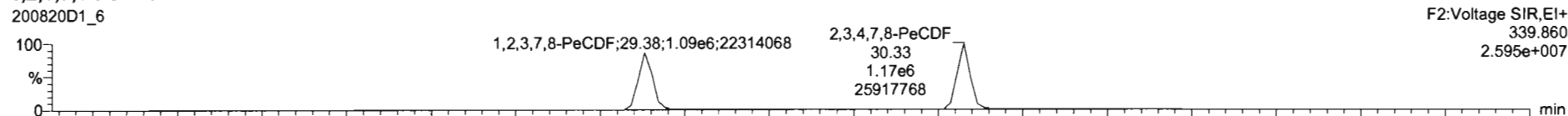


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

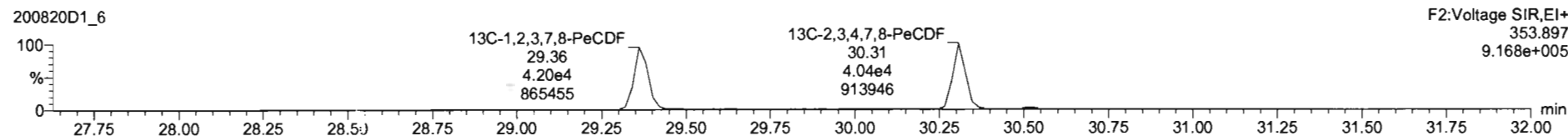
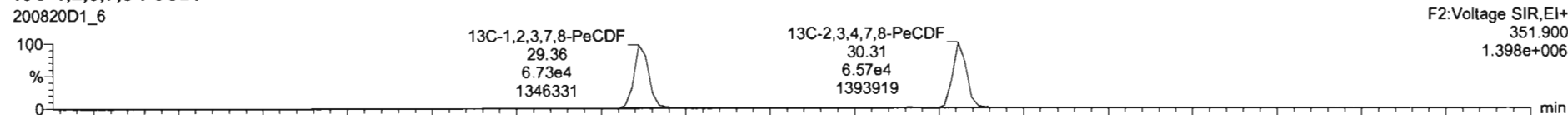
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

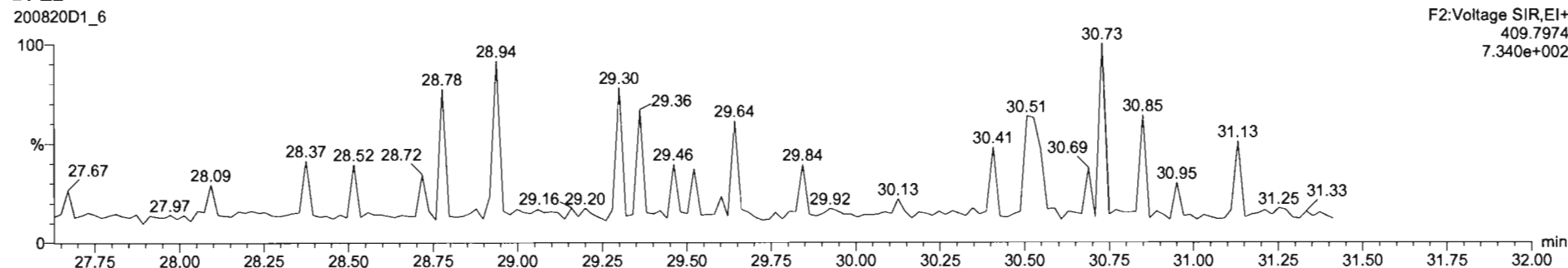
**1,2,3,7,8-PeCDF**



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



**DPE2**

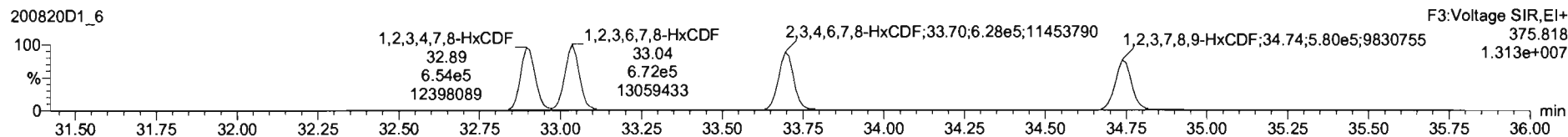
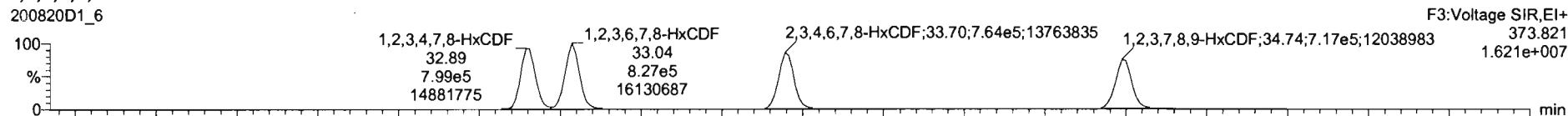


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

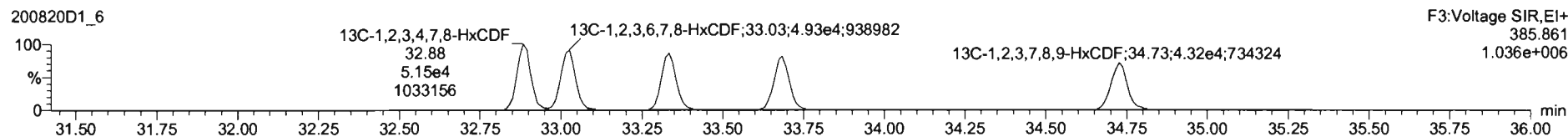
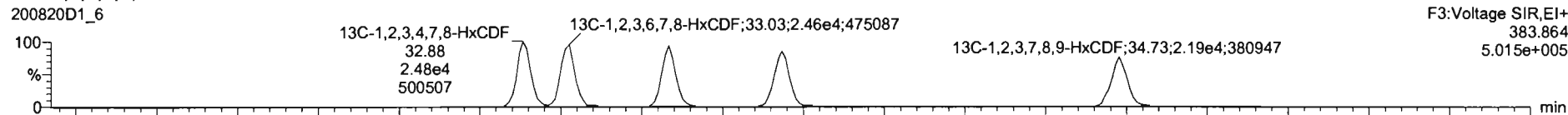
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

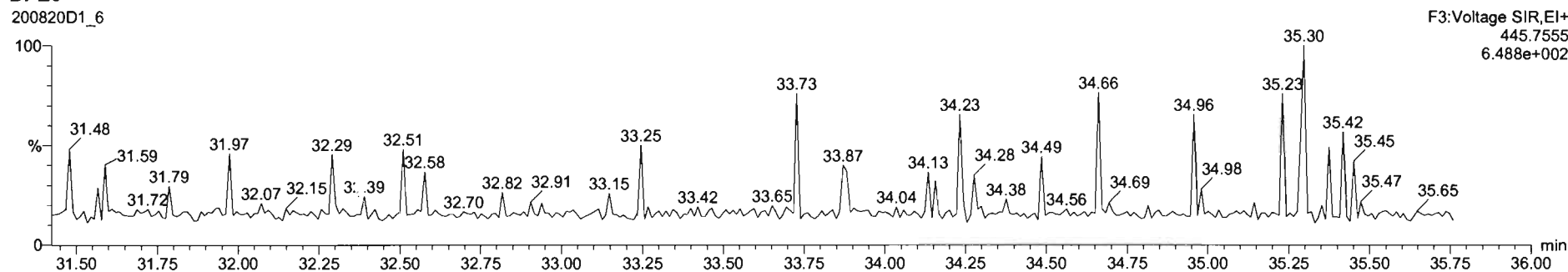
1,2,3,4,7,8-HxCDF



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



D,PE3

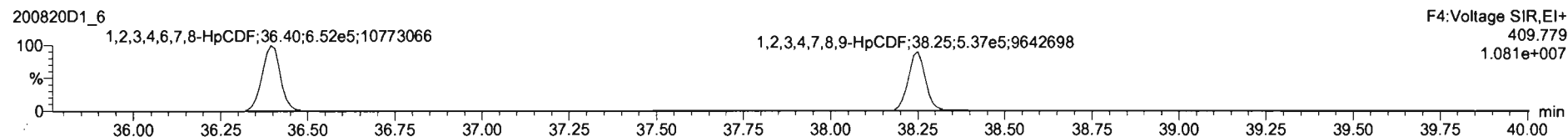
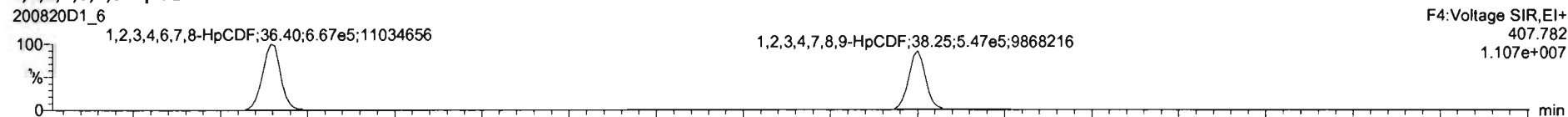


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

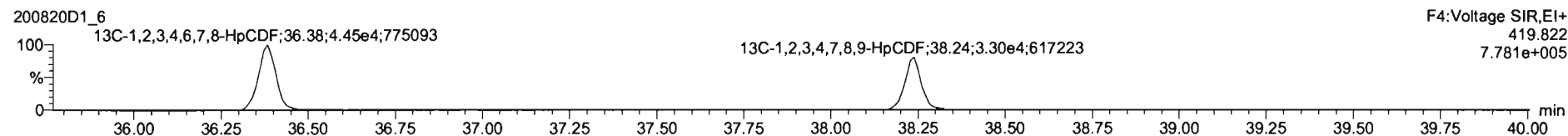
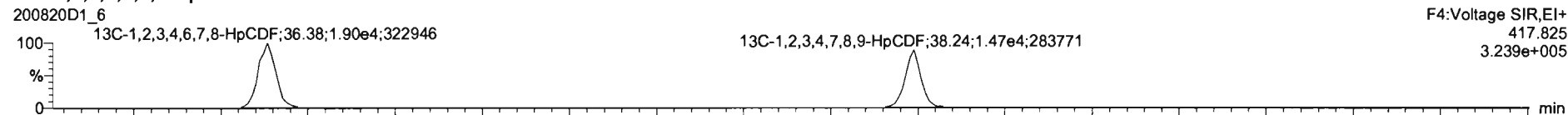
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

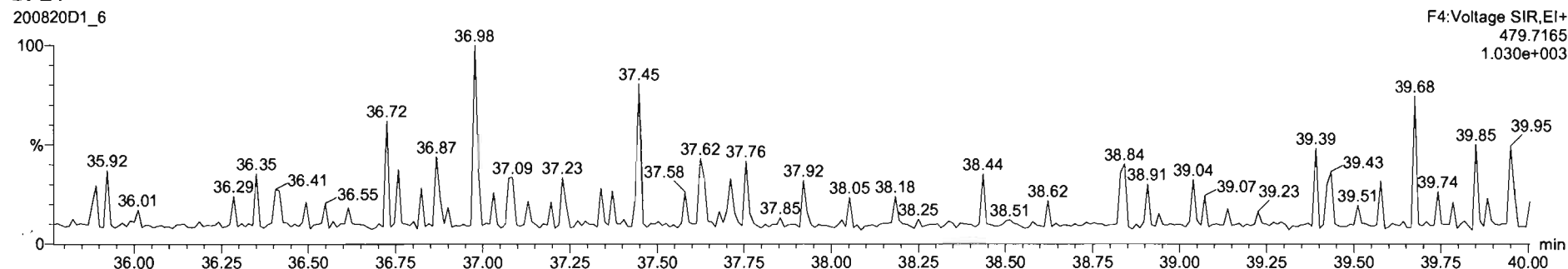
**1,2,3,4,6,7,8-HpCDF**



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



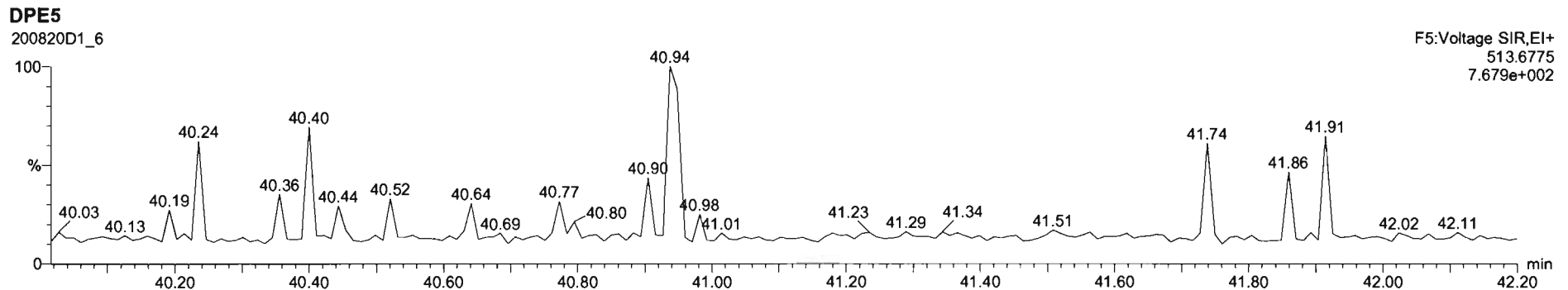
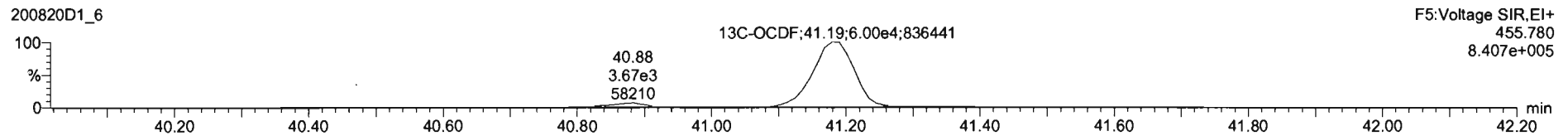
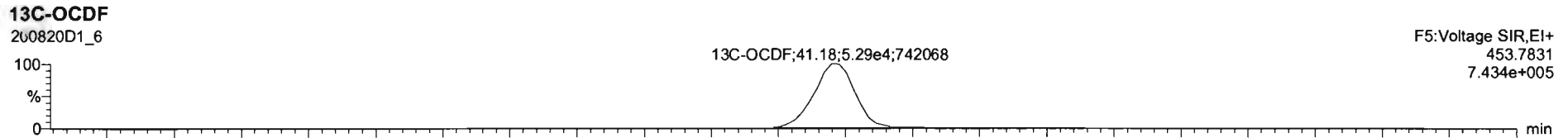
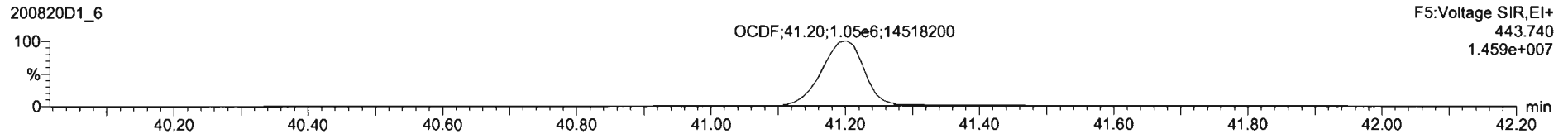
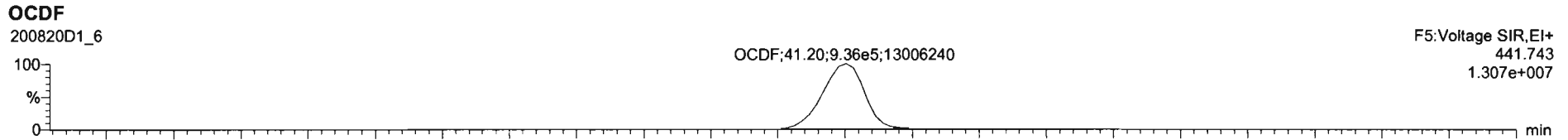
**DPE4**



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

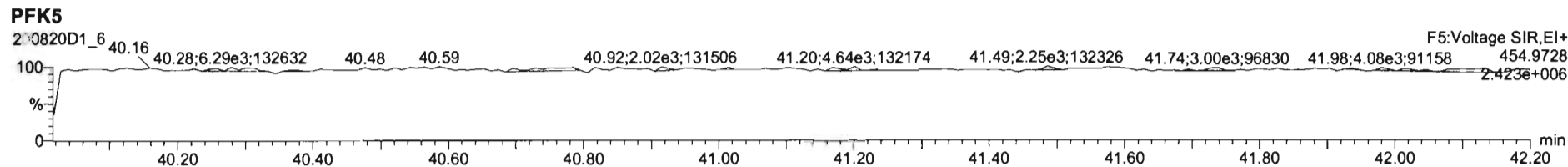
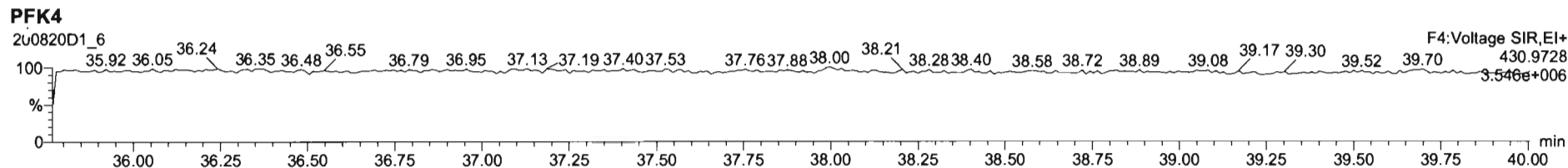
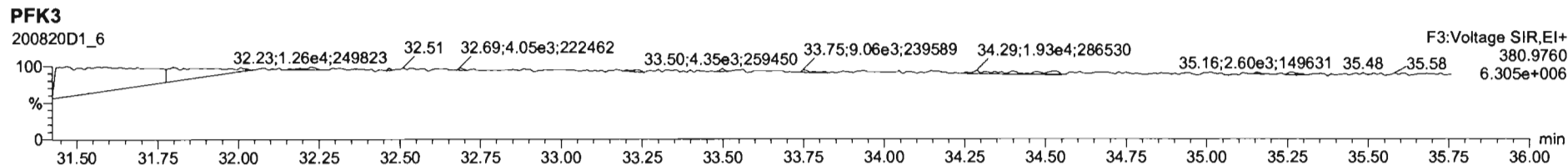
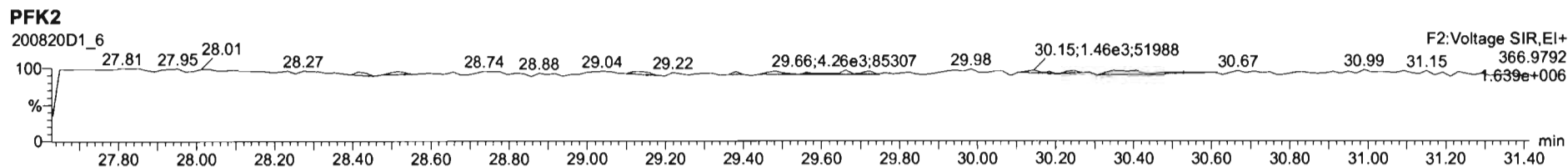
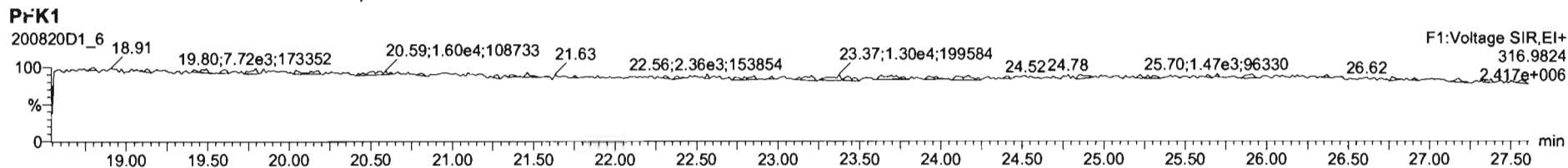




Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_CRV.qld

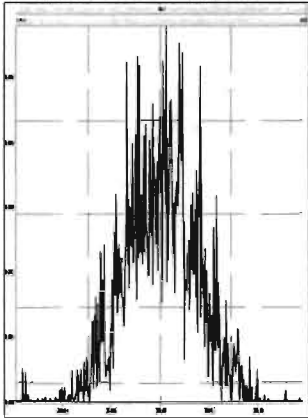
Last Altered: Friday, August 21, 2020 09:06:09 Pacific Daylight Time  
Printed: Friday, August 21, 2020 09:11:42 Pacific Daylight Time

Name: 200820D1\_6, Date: 20-Aug-2020, Time: 16:38:34, ID: ST200820D1-6 1613 CS5 20F1107, Description: 1613 CS5 20F1107

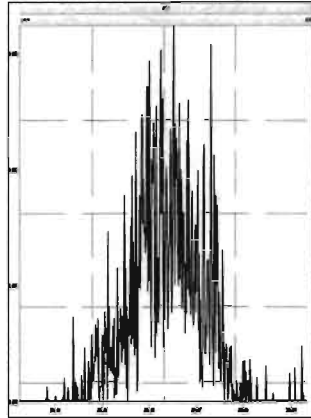


Printed: Friday, August 21, 2020 01:55:25 Pacific Daylight Time

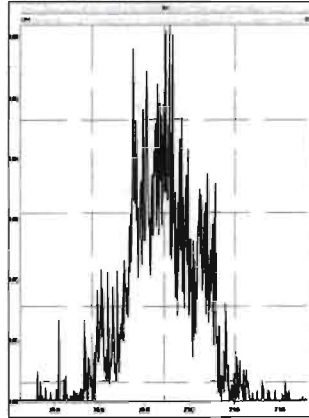
M 292.9824 R 11940



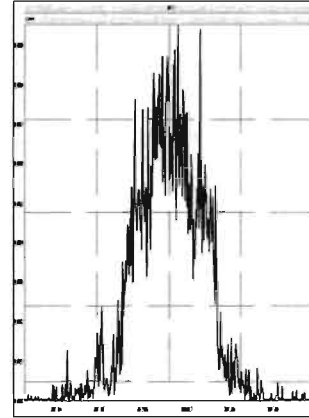
M 304.9824 R 15565



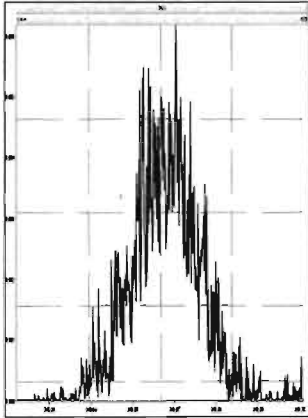
M 318.9792 R 11499



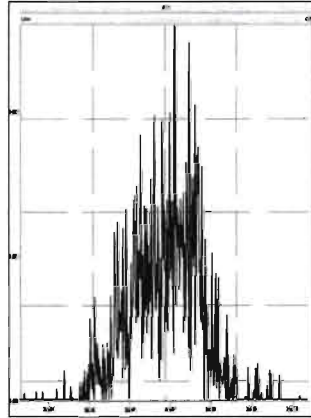
M 330.9792 R 12347



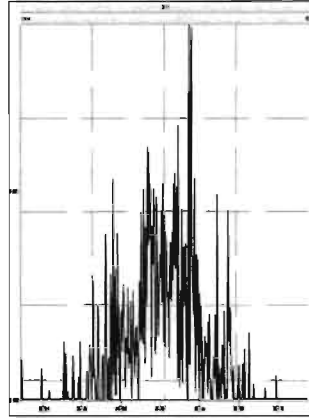
M 342.9792 R 12228



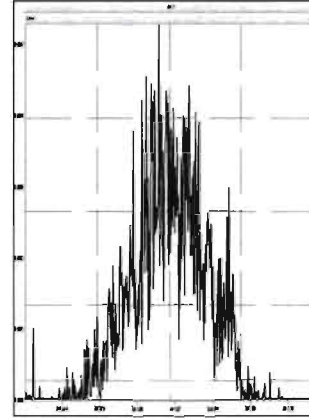
M 354.9792 R 20950



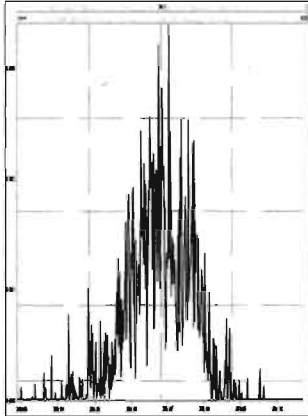
M 366.9792 R 31507



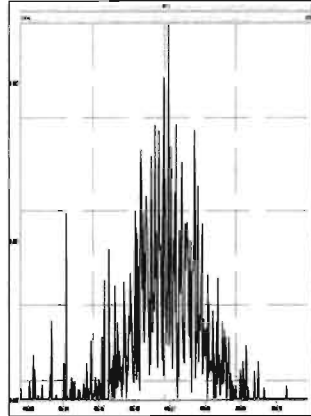
M 380.9760 R 12548



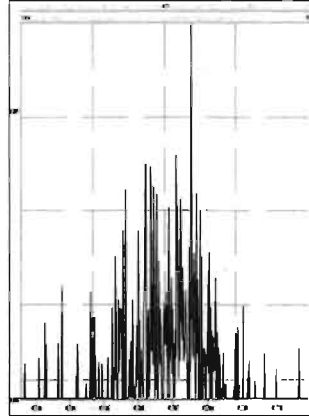
M 392.9760 R 16563



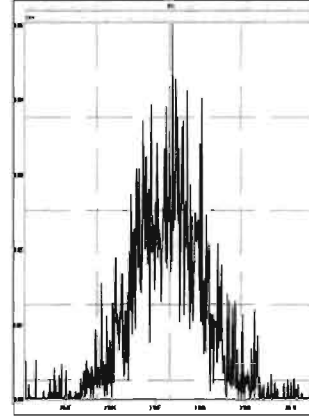
M 404.9760 R 23328



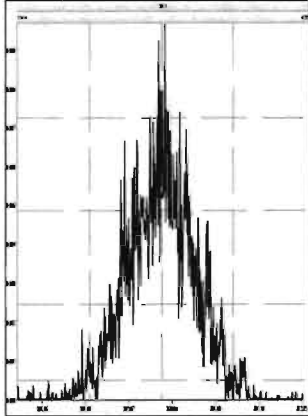
M 416.9760 R 281249



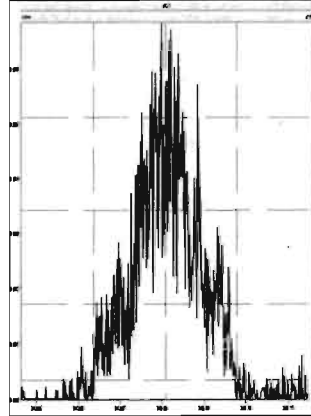
M 318.9792 R 13420



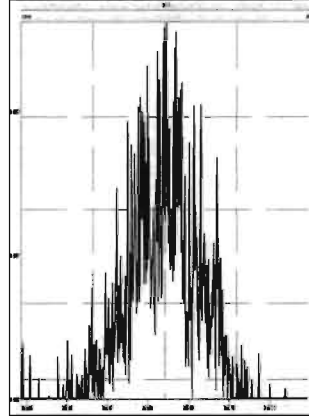
M 330.9792 R 11312



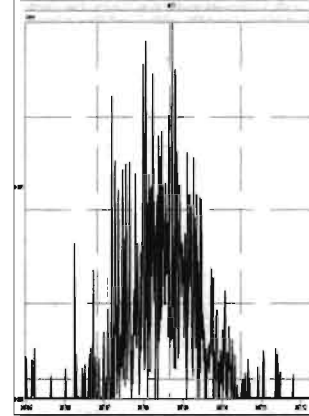
M 342.9792 R 11491



M 354.9792 R 21623

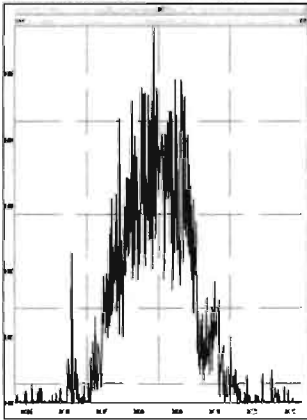


M 366.9792 R 41743

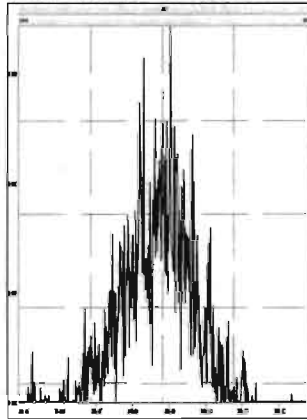


Printed: Friday, August 21, 2020 01:55:25 Pacific Daylight Time

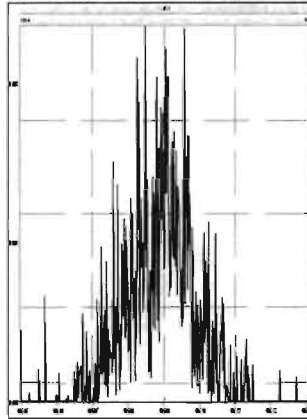
M 380.9760 R 11823



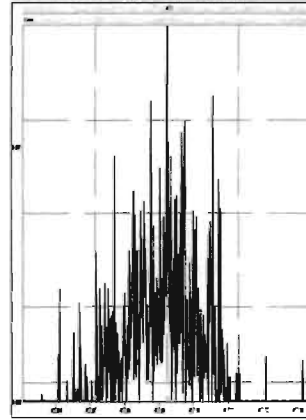
M 392.9760 R 13888



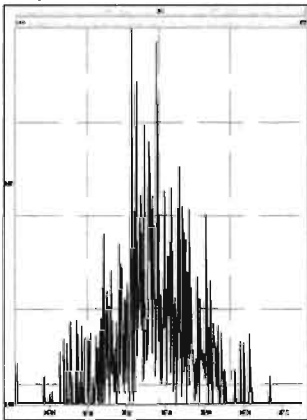
M 404.9760 R 19364



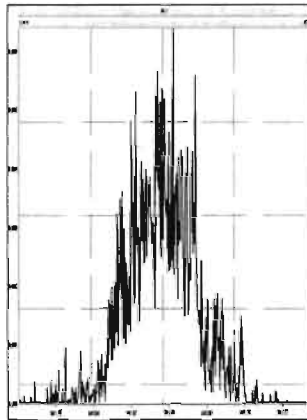
M 416.9760 R 85358



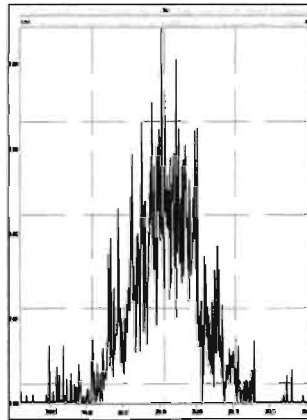
M 366.9792 R 106176



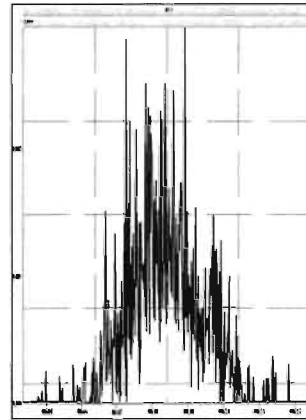
M 380.9760 R 11740



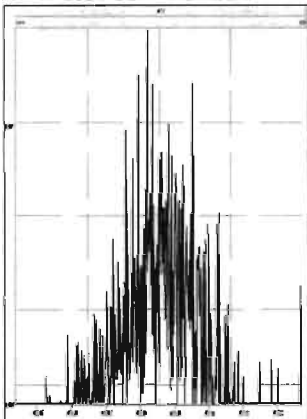
M 392.9760 R 14289



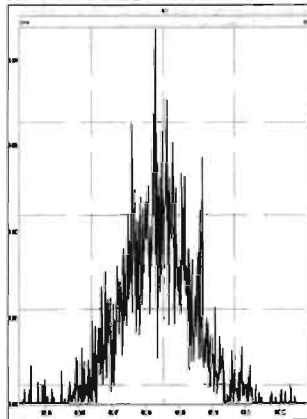
M 404.9760 R 16097



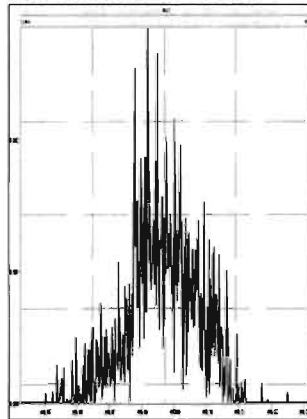
M 416.9760 R 82894



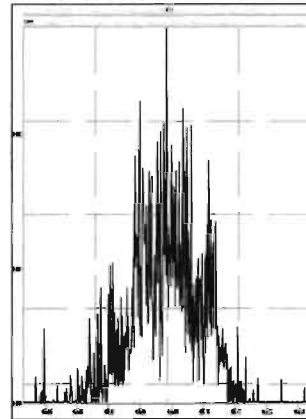
M 430.9728 R 13813



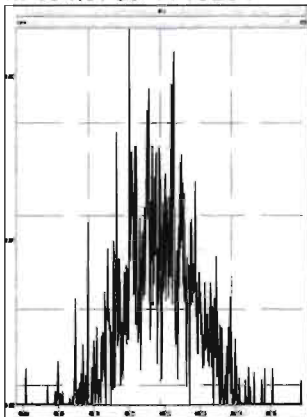
M 442.9728 R 17380



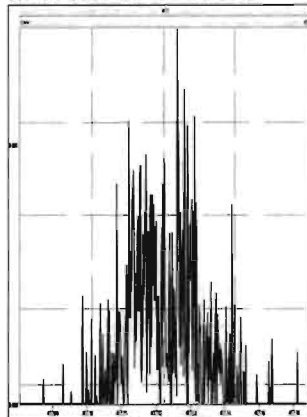
M 454.9728 R 15551



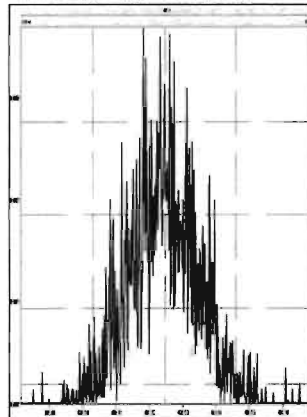
M 404.9760 R 19204



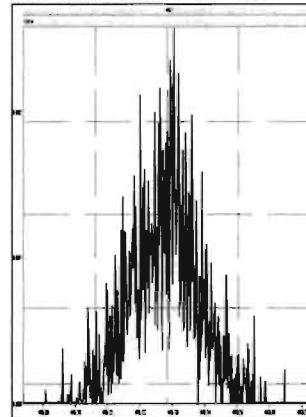
M 416.9760 R 88675



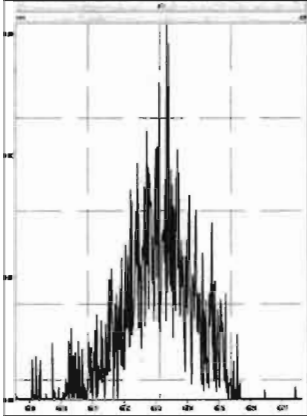
M 430.9728 R 13519



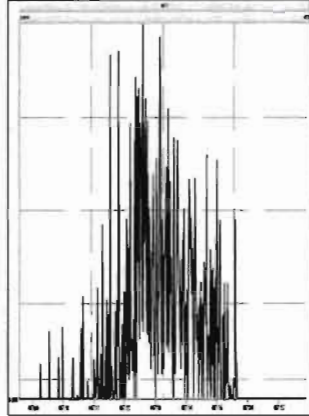
M 442.9728 R 15196



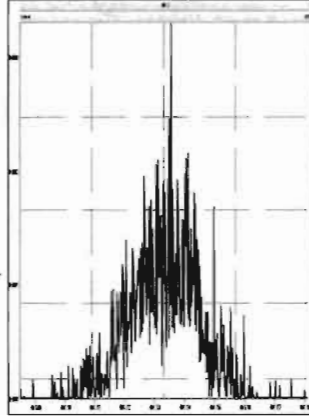
M 454.9728 R 15411



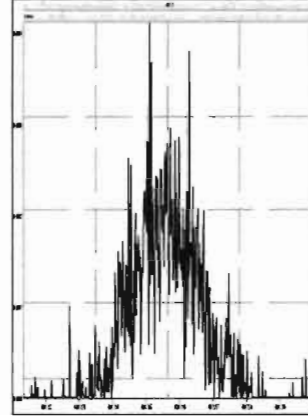
M 466.9728 R 83425



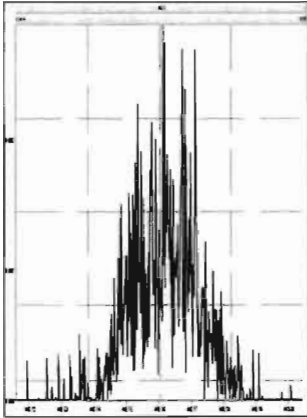
M 480.9696 R 15605



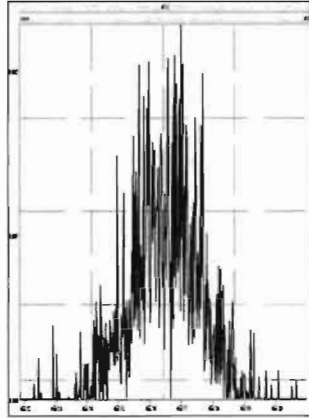
M 430.9728 R 13498



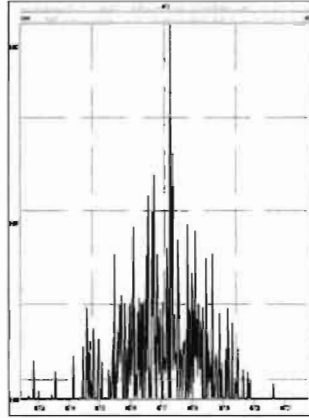
M 442.9728 R 15528



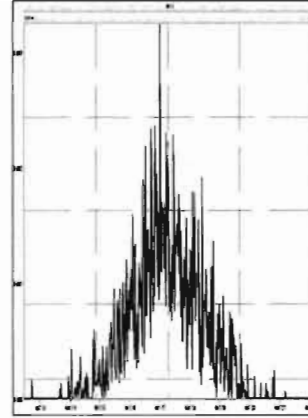
M 454.9728 R 24210



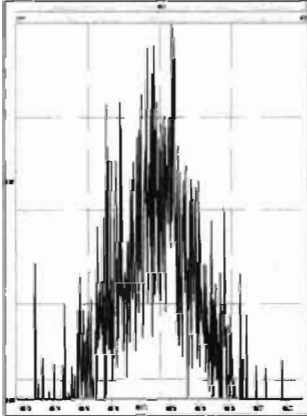
M 466.9728 R 229166



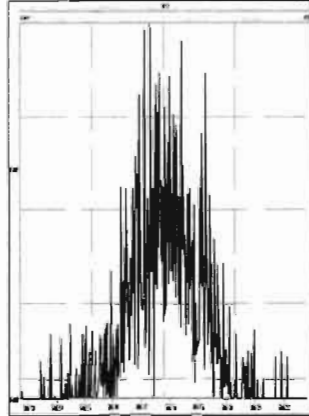
M 480.9696 R 14214



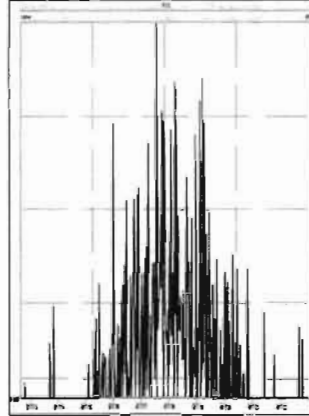
M 492.9696 R 21367



M 504.9696 R 26670



M 516.9697 R 166666



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:31 Pacific Daylight Time

*DB 8/21/20 C1 08/21/2020*

Method: C:\MassLynx\Default.pro\Methdb\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

#	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	1.10e4	0.77	NO	1.08	1.000	26.250	26.25	1.001	1.001	9.6152	96.2	0.0886	9.62
2	2 1,2,3,7,8-PeCDD	3.64e4	0.62	NO	0.991	1.000	30.509	30.51	1.001	1.001	51.698	103	0.109	51.7
3	3 1,2,3,4,7,8-HxCDD	3.21e4	1.23	NO	1.04	1.000	33.793	33.81	1.000	1.001	49.567	99.1	0.260	49.6
4	4 1,2,3,6,7,8-HxCDD	3.35e4	1.21	NO	0.908	1.000	33.904	33.93	1.000	1.001	53.258	107	0.272	53.3
5	5 1,2,3,7,8,9-HxCDD	3.24e4	1.25	NO	0.923	1.000	34.234	34.21	1.001	1.000	49.932	99.9	0.279	49.9
6	6 1,2,3,4,6,7,8-HpCDD	2.58e4	1.04	NO	0.926	1.000	37.558	37.56	1.000	1.000	46.521	93.0	0.425	46.5
7	7 OCDD	4.75e4	0.85	NO	0.834	1.000	40.817	40.84	1.000	1.001	110.50	110	0.452	110
8	8 2,3,7,8-TCDF	1.34e4	0.74	NO	0.882	1.000	25.617	25.62	1.001	1.001	9.3073	93.1	0.0706	9.31
9	9 1,2,3,7,8-PeCDF	5.68e4	1.52	NO	0.937	1.000	29.381	29.38	1.001	1.001	50.269	101	0.133	50.3
10	10 2,3,4,7,8-PeCDF	6.10e4	1.58	NO	1.03	1.000	30.337	30.31	1.001	1.000	54.173	108	0.134	54.2
11	11 1,2,3,4,7,8-HxCDF	4.51e4	1.24	NO	1.07	1.000	32.873	32.88	1.000	1.000	52.140	104	0.255	52.1
12	12 1,2,3,6,7,8-HxCDF	4.61e4	1.26	NO	1.11	1.000	33.014	33.03	1.000	1.001	51.184	102	0.251	51.2
13	13 2,3,4,6,7,8-HxCDF	4.23e4	1.25	NO	1.11	1.000	33.707	33.68	1.001	1.000	50.587	101	0.287	50.6
14	14 1,2,3,7,8,9-HxCDF	3.78e4	1.25	NO	1.12	1.000	34.705	34.73	1.000	1.001	48.117	96.2	0.320	48.1
15	15 1,2,3,4,6,7,8-HpCDF	3.97e4	0.99	NO	1.15	1.000	36.398	36.37	1.001	1.000	51.604	103	0.339	51.6
16	16 1,2,3,4,7,8,9-HpCDF	3.13e4	1.00	NO	1.25	1.000	38.216	38.23	1.000	1.000	52.141	104	0.425	52.1
17	17 OCDF	5.07e4	0.88	NO	0.961	1.000	41.157	41.17	1.000	1.000	95.927	95.9	0.278	95.9
18	18 13C-2,3,7,8-TCDD	1.06e5	0.81	NO	1.20	1.000	26.241	26.22	1.026	1.025	95.410	95.4	0.497	
19	19 13C-1,2,3,7,8-PeCDD	7.10e4	0.66	NO	0.910	1.000	30.502	30.49	1.193	1.192	84.663	84.7	0.226	
20	20 13C-1,2,3,4,7,8-HxCDD	6.22e4	1.30	NO	0.789	1.000	33.789	33.78	1.014	1.014	97.563	97.6	0.569	
21	21 13C-1,2,3,6,7,8-HxCDD	6.93e4	1.28	NO	0.885	1.000	33.899	33.90	1.017	1.017	96.792	96.8	0.507	
22	22 13C-1,2,3,7,8,9-HxCDD	7.02e4	1.30	NO	0.888	1.000	34.169	34.20	1.025	1.026	97.667	97.7	0.505	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.99e4	1.08	NO	0.740	1.000	37.621	37.55	1.129	1.127	100.13	100	0.706	
24	24 13C-OCDD	1.03e5	0.90	NO	0.660	1.000	40.633	40.82	1.219	1.225	193.29	96.6	0.490	
25	25 13C-2,3,7,8-TCDF	1.64e5	0.78	NO	1.09	1.000	25.321	25.59	0.990	1.001	99.943	99.9	0.501	
26	26 13C-1,2,3,7,8-PeCDF	1.21e5	1.65	NO	0.857	1.000	29.559	29.36	1.156	1.148	93.457	93.5	0.419	
27	27 13C-2,3,4,7,8-PeCDF	1.10e5	1.70	NO	0.796	1.000	30.461	30.31	1.191	1.185	91.482	91.5	0.451	
28	28 13C-1,2,3,4,7,8-HxCDF	8.06e4	0.50	NO	1.02	1.000	32.922	32.87	0.988	0.987	97.697	97.7	0.448	
29	29 13C-1,2,3,6,7,8-HxCDF	8.09e4	0.50	NO	1.00	1.000	33.056	33.00	0.992	0.990	99.692	99.7	0.456	
30	30 13C-2,3,4,6,7,8-HxCDF	7.52e4	0.48	NO	0.936	1.000	33.626	33.67	1.009	1.011	99.393	99.4	0.489	
31	31 13C-1,2,3,7,8,9-HxCDF	6.99e4	0.50	NO	0.889	1.000	34.702	34.71	1.041	1.041	97.161	97.2	0.514	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:31 Pacific Daylight Time

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

	# 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	6.68e4	0.42	NO	0.849	1.000	36.221	36.36	1.087	1.091	97.233	97.2	0.689	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.78e4	0.43	NO	0.624	1.000	38.221	38.22	1.147	1.147	94.850	94.8	0.938	
34	34 13C-OCDF	1.10e5	0.86	NO	0.693	1.000	40.787	41.16	1.224	1.235	196.16	98.1	0.506	
35	35 37Cl-2,3,7,8-TCDD	1.06e4			1.28	1.000	26.239	26.25	1.026	1.026	9.0575	90.6	0.0911	
36	36 13C-1,2,3,4-TCDD	9.22e4	0.77	NO	1.00	1.000	25.550	25.58	1.000	1.000	100.00	100	0.598	
37	37 13C-1,2,3,4-TCDF	1.51e5	0.81	NO	1.00	1.000	24.250	24.29	1.000	1.000	100.00	100	0.545	
38	38 13C-1,2,3,4,6,9-HxCDF	8.09e4	0.51	NO	1.00	1.000	33.300	33.32	1.000	1.000	100.00	100	0.457	

Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

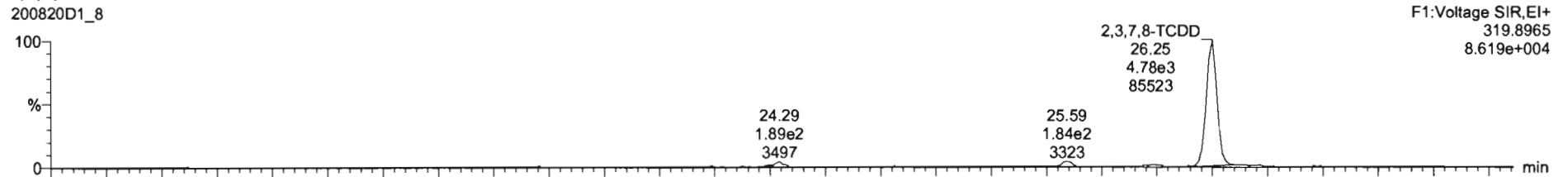
Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\1613\_rrt.mdb 20 Aug 2020 12:06:56  
Calibration: U:\VG7.PRO\CurveDB\ZB\_DIOXIN\_1613vg7-8-20-20.cdb 21 Aug 2020 10:10:46

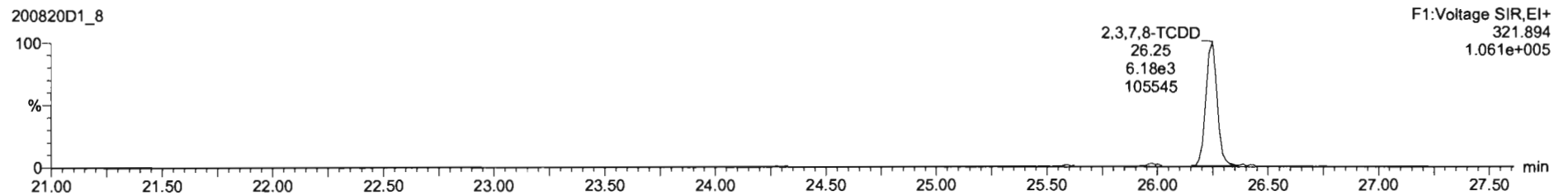
Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

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

200820D1\_8

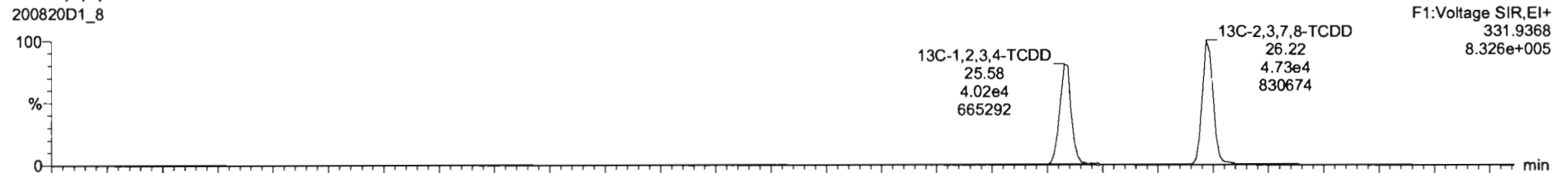


200820D1\_8

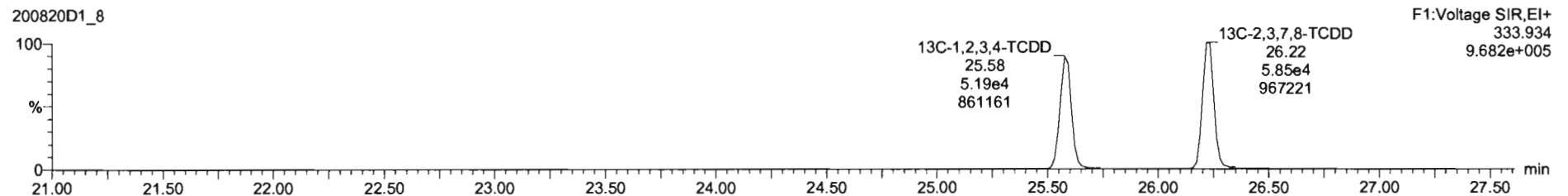


**13C-2,3,7,8-TCDD**

200820D1\_8



200820D1\_8



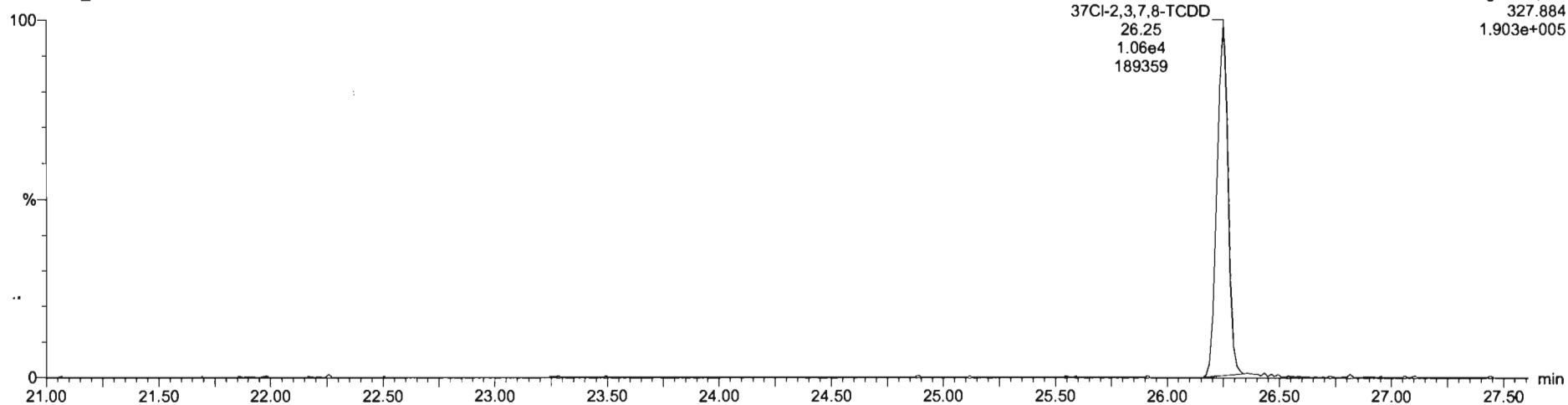
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

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

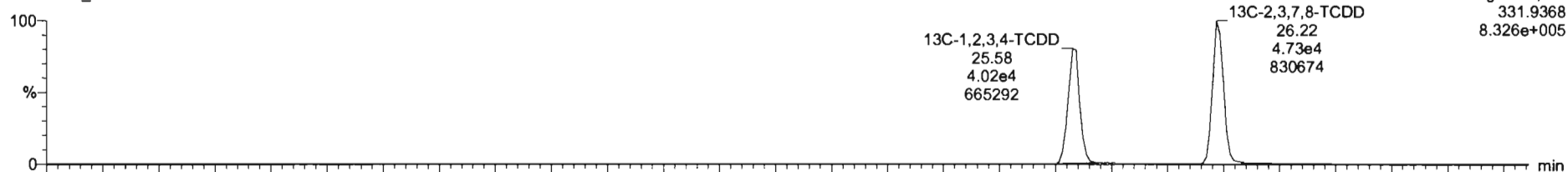
200820D1\_8



F1:Voltage SIR,EI+  
327.884  
1.903e+005

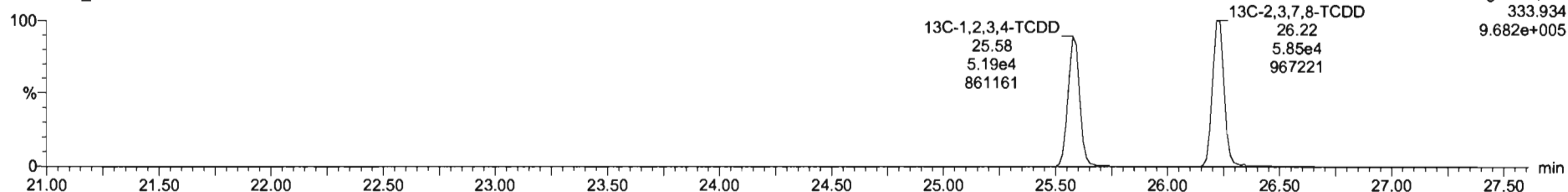
**13C-1,2,3,4-TCDD**

200820D1\_8



F1:Voltage SIR,EI+  
331.9368  
8.326e+005

200820D1\_8



F1:Voltage SIR,EI+  
333.934  
9.682e+005



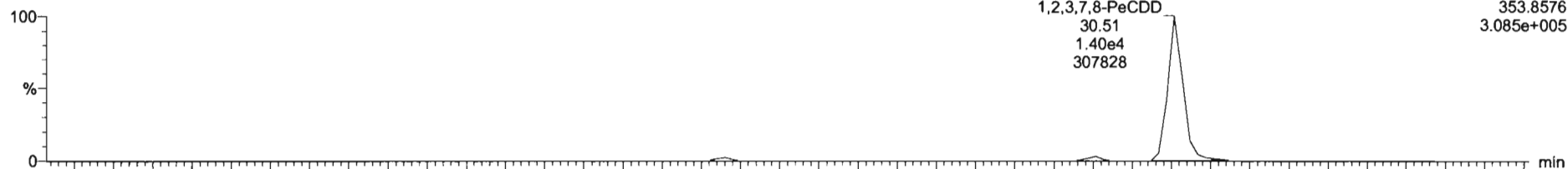
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

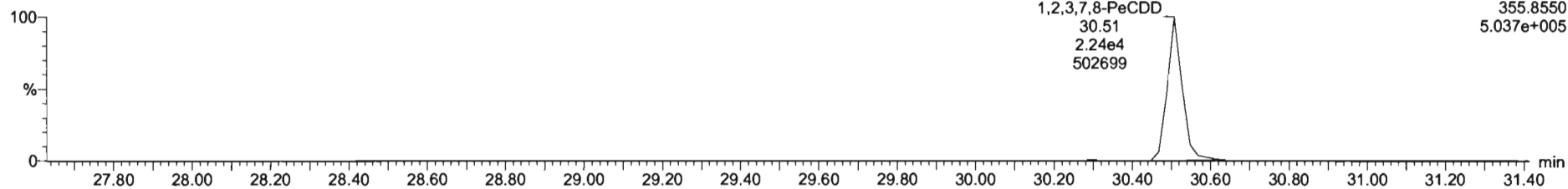
Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

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

200820D1\_8

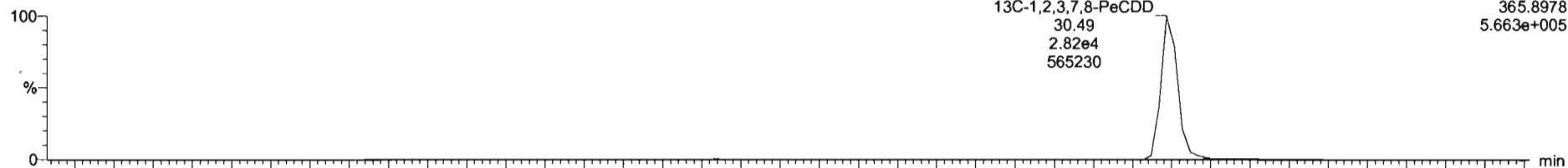


200820D1\_8

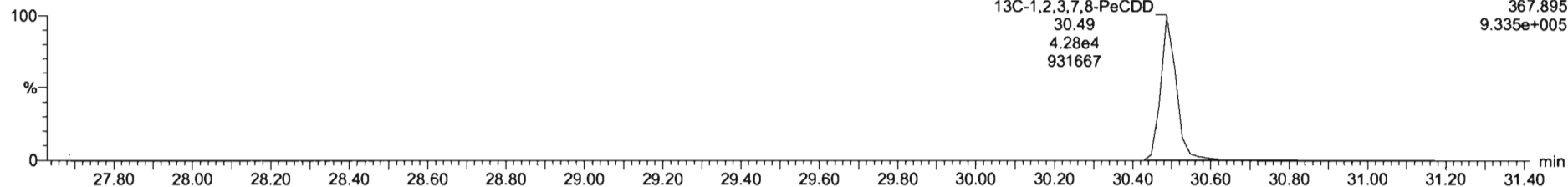


**13C-1,2,3,7,8-PeCDD**

200820D1\_8



200820D1\_8



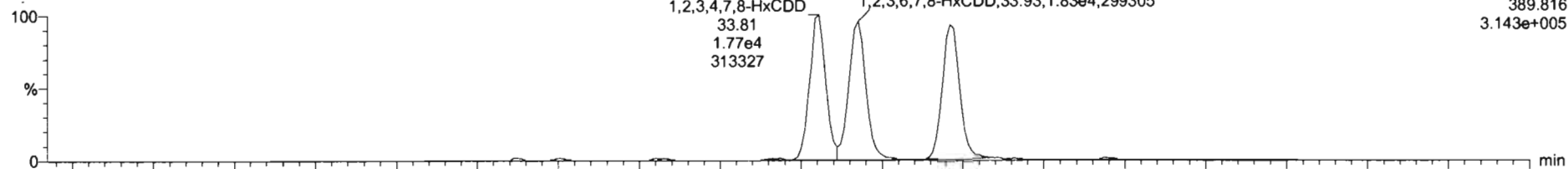
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

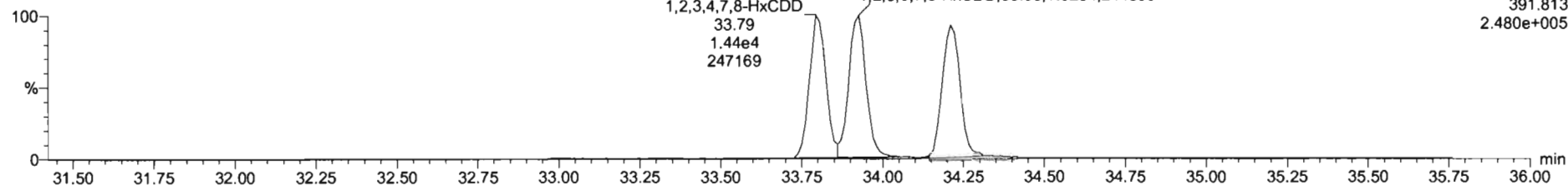
Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

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

200820D1\_8

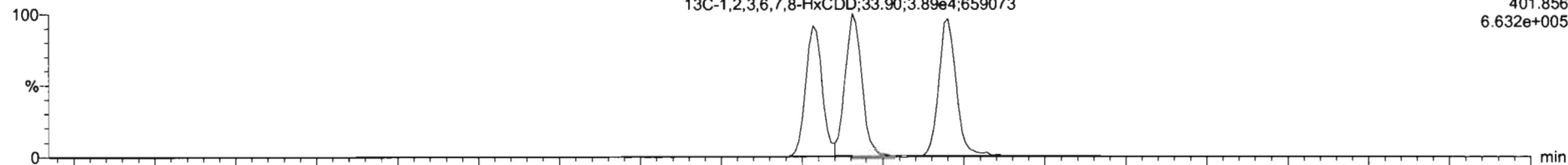


200820D1\_8

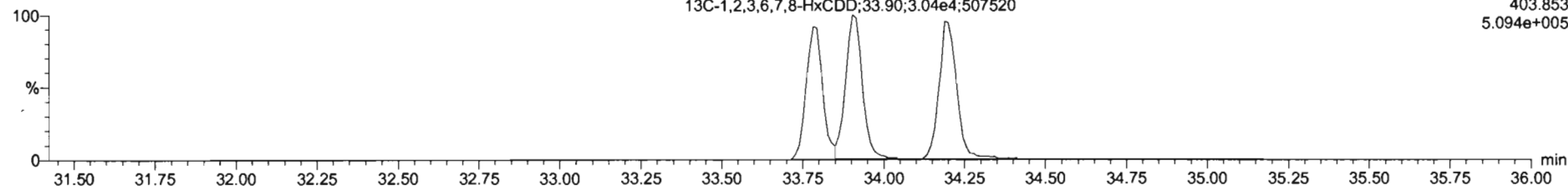


13C-1,2,3,4,7,8-HxCDD

200820D1\_8



200820D1\_8



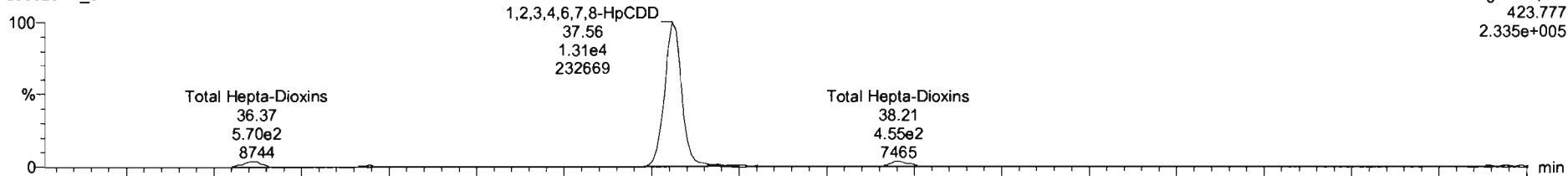
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

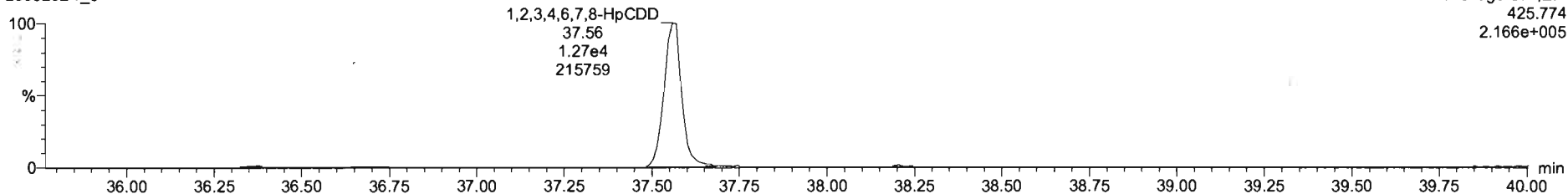
Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

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

200820D1\_8

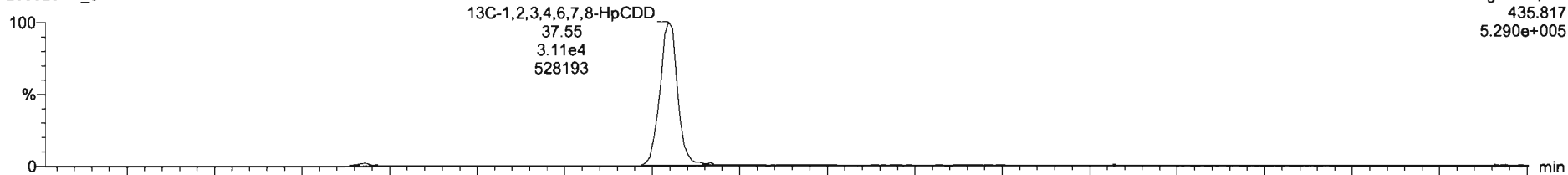


200820D1\_8

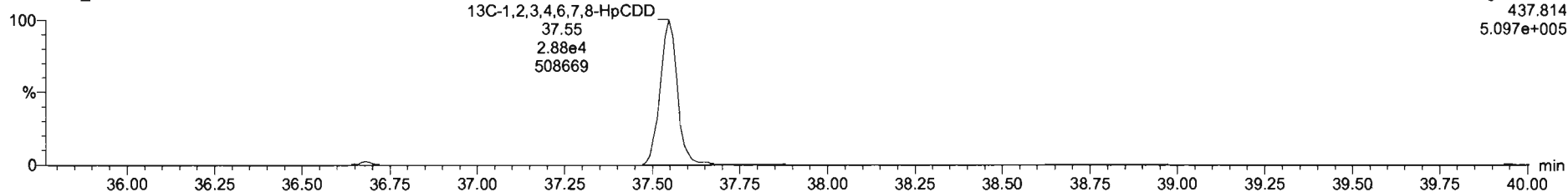


13C-1,2,3,4,6,7,8-HpCDD

200820D1\_8



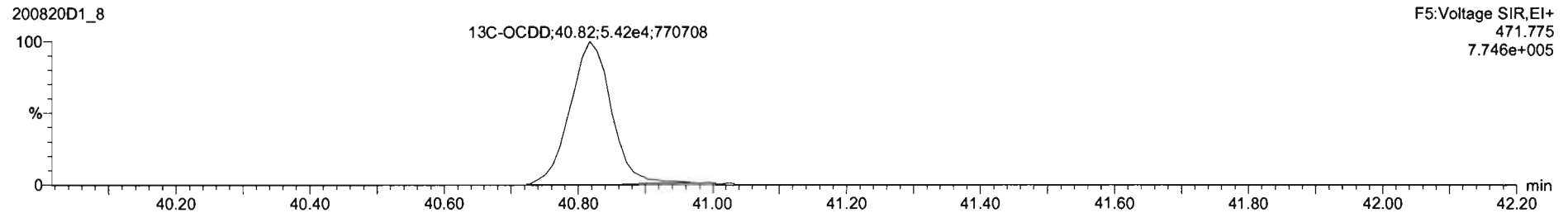
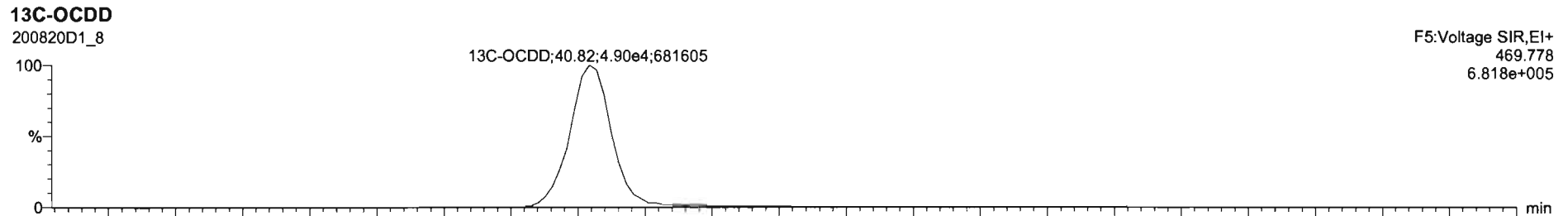
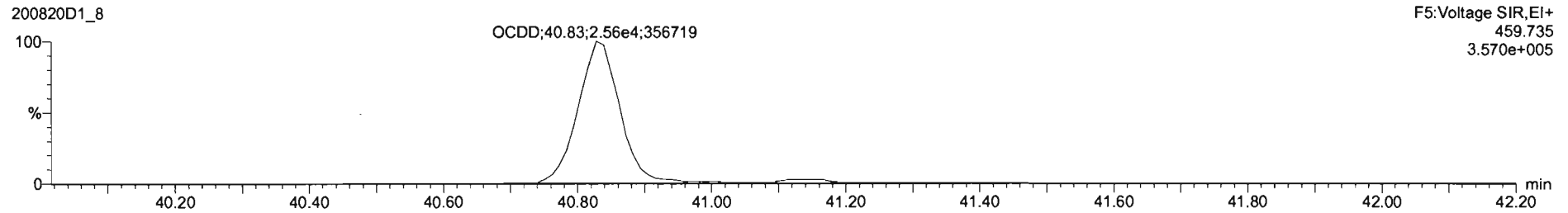
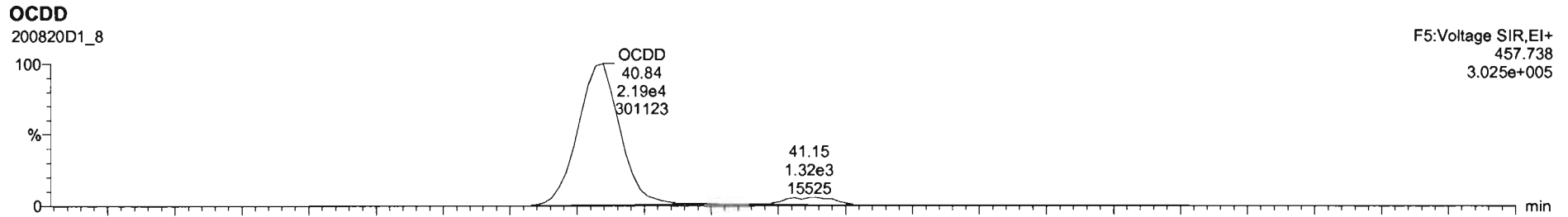
200820D1\_8



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108



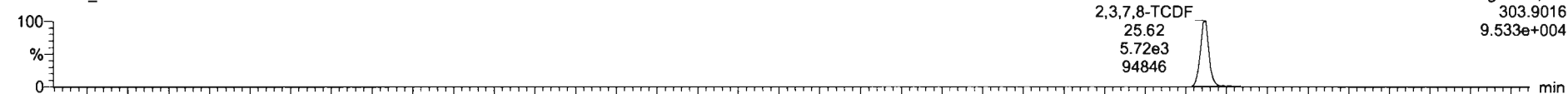
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

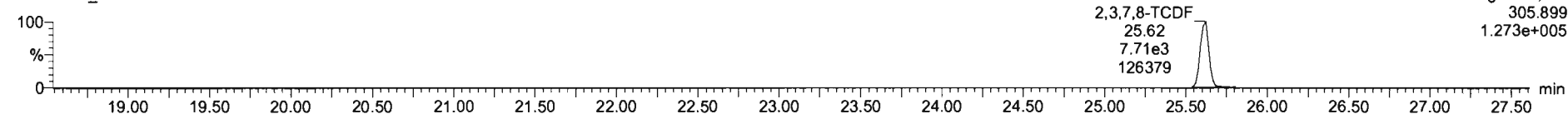
Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

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

200820D1\_8

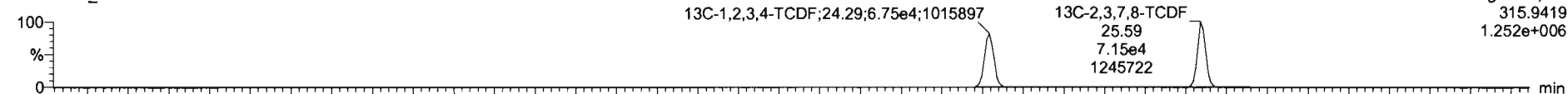


200820D1\_8

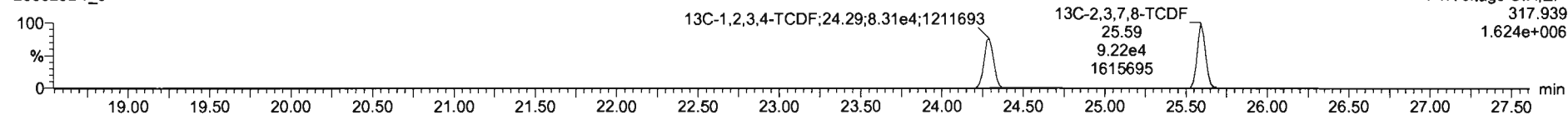


**13C-2,3,7,8-TCDF**

200820D1\_8

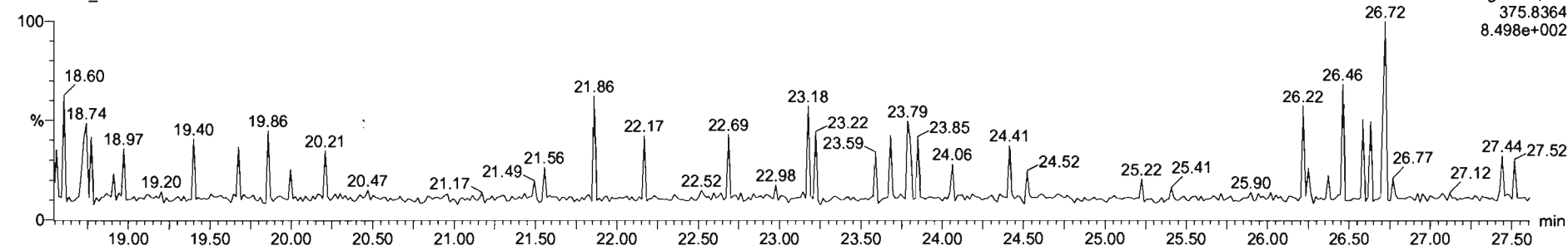


200820D1\_8



**DPE1**

200820D1\_8

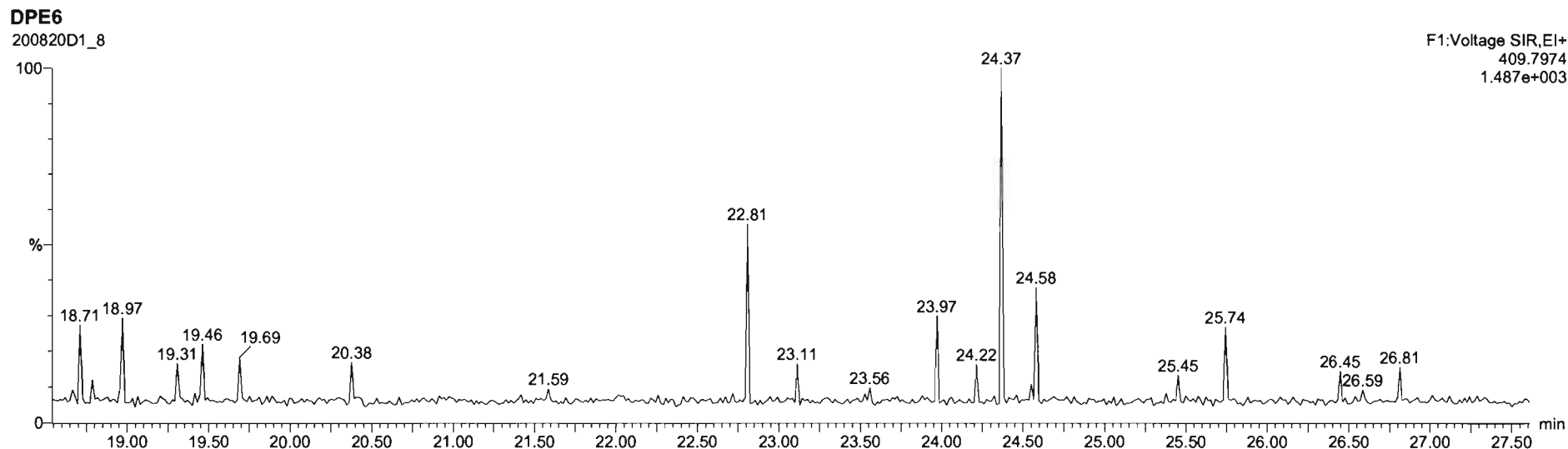
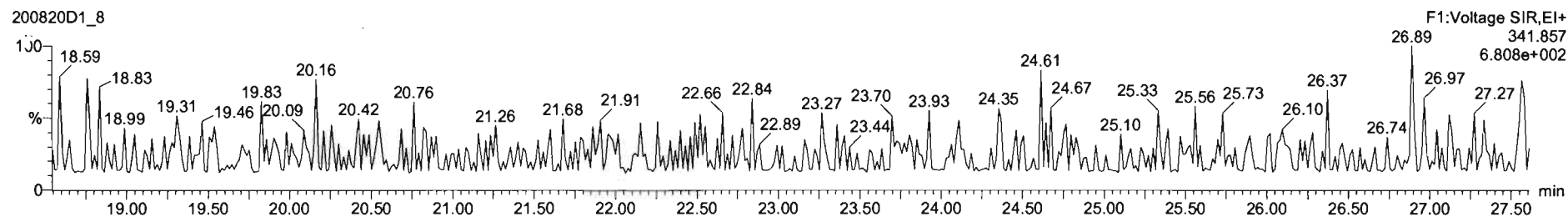
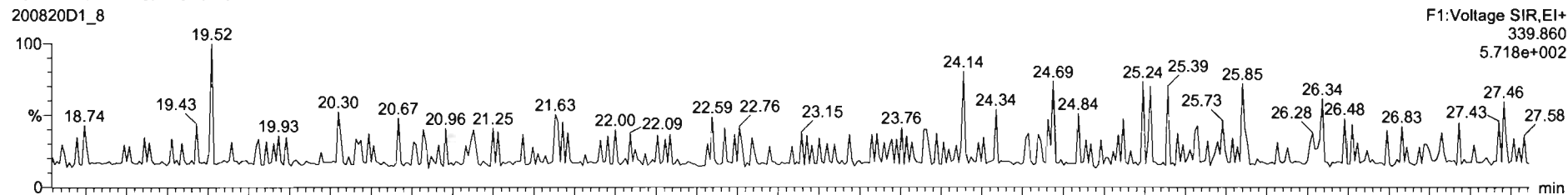


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

1st Func. Penta-Furans

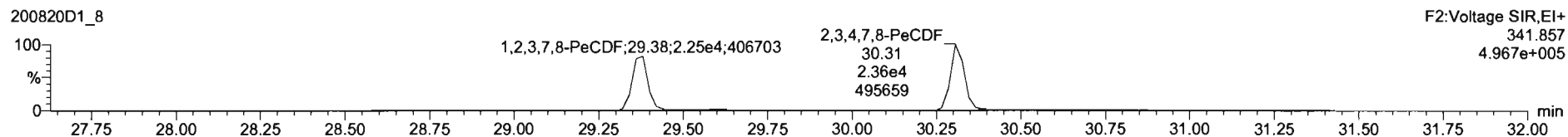
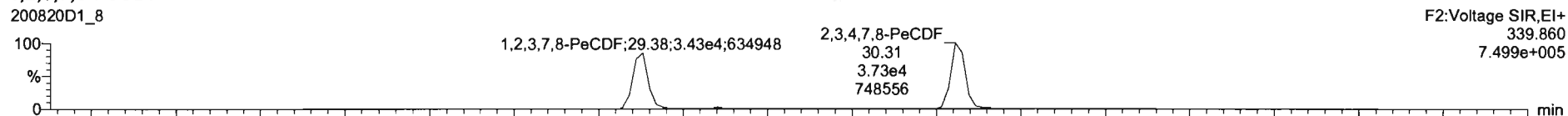


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

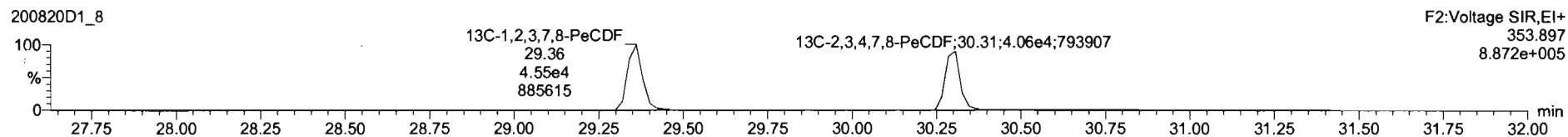
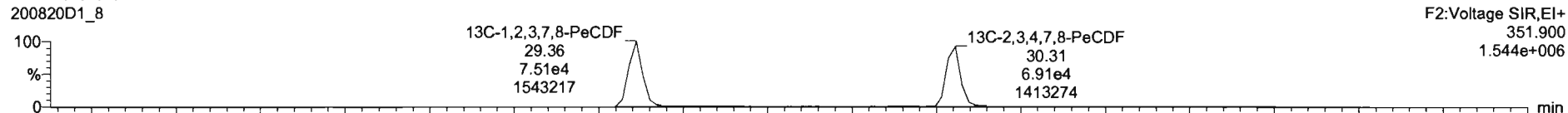
Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

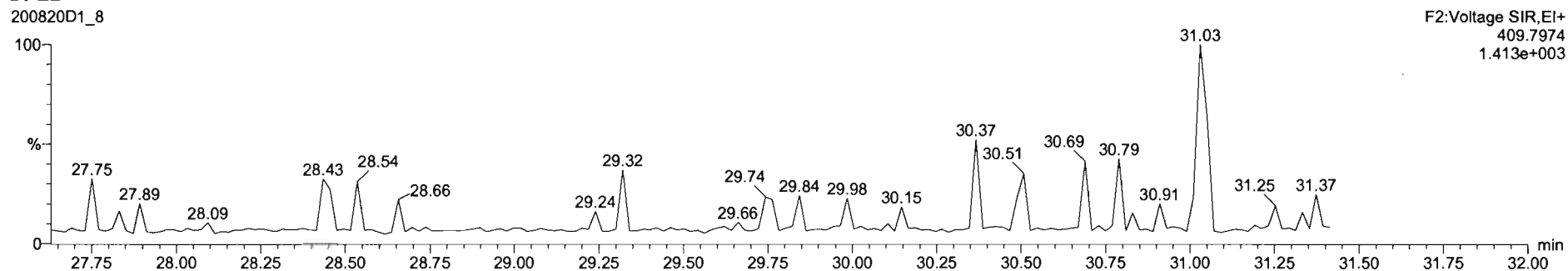
1,2,3,7,8-PeCDF



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



DPE2



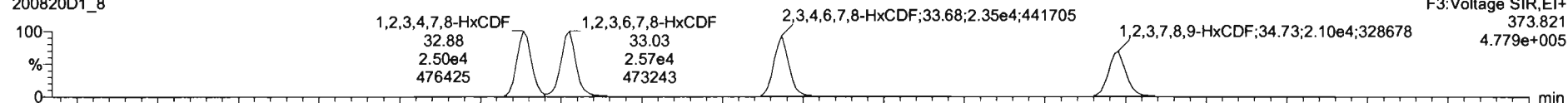
Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

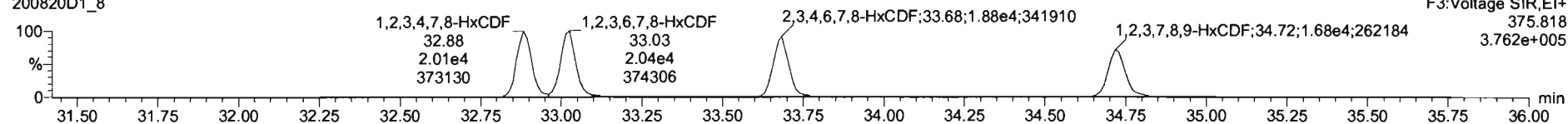
Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

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

200820D1\_8

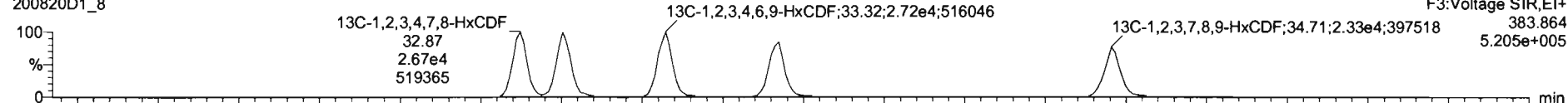


200820D1\_8

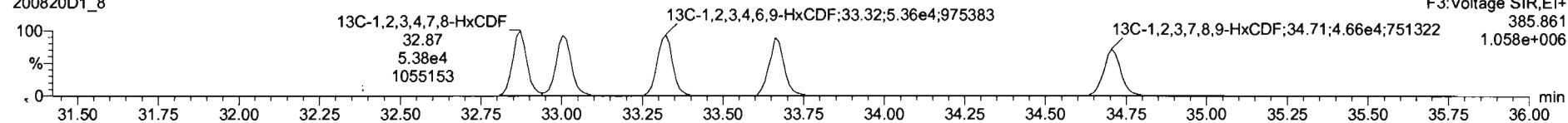


13C-1,2,3,4,7,8-HxCDF

200820D1\_8

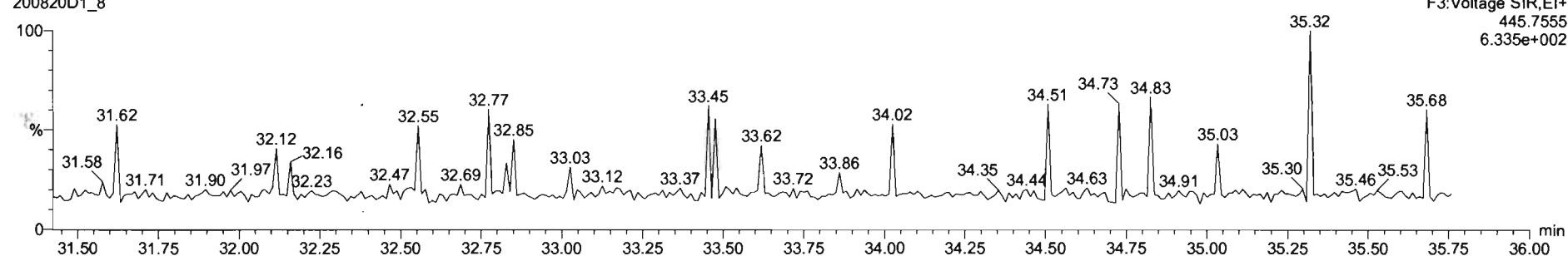


200820D1\_8



DPE3

200820D1\_8



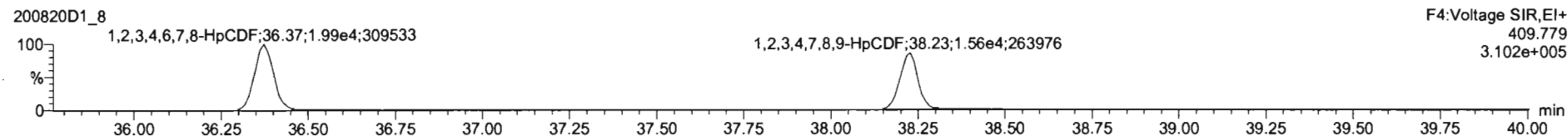
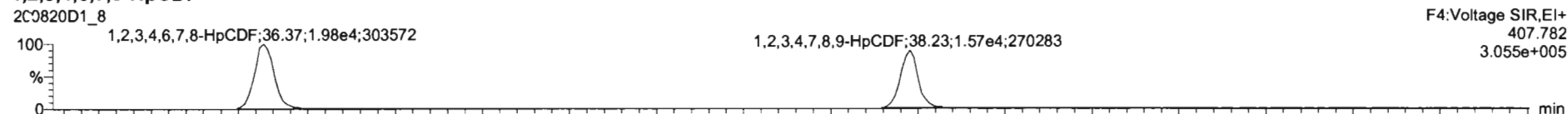


Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

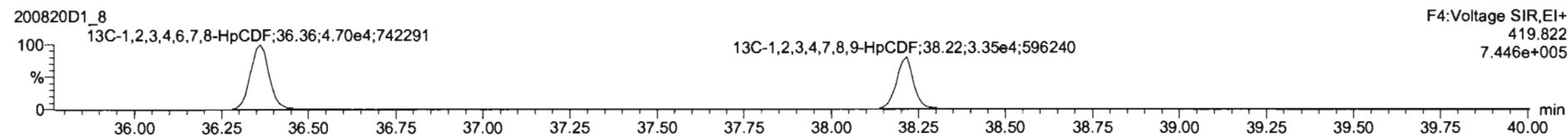
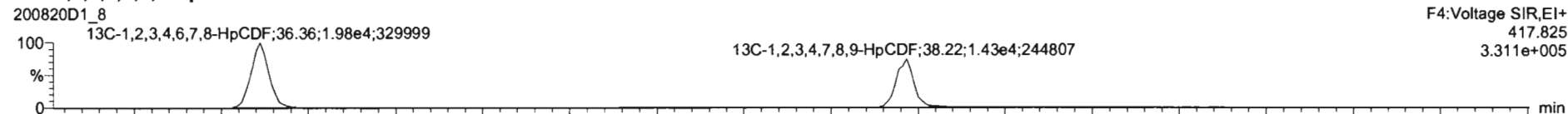
Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

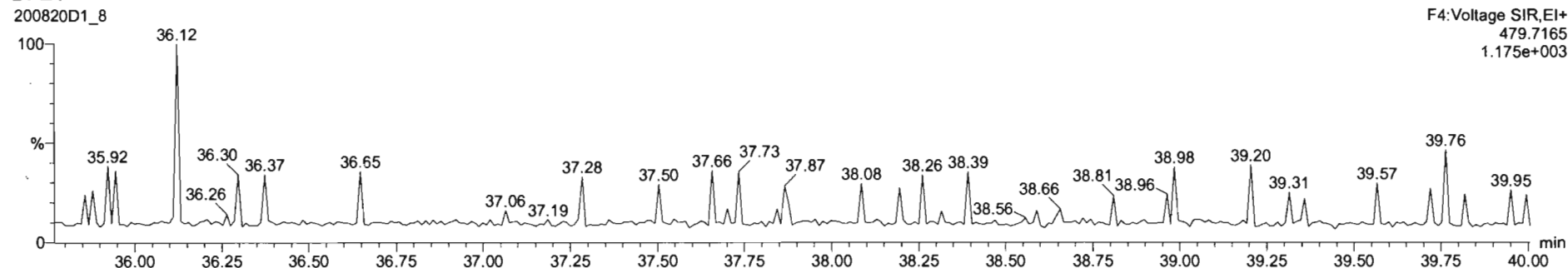
**1,2,3,4,6,7,8-HpCDF**



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



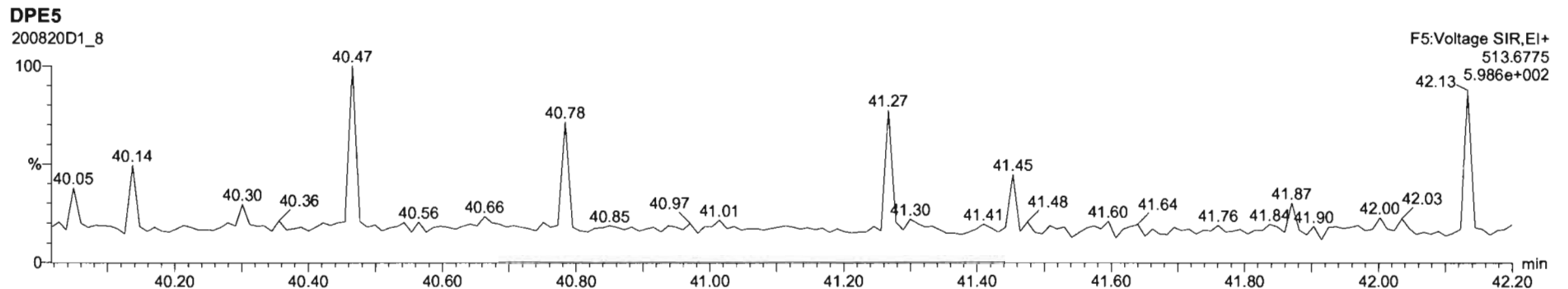
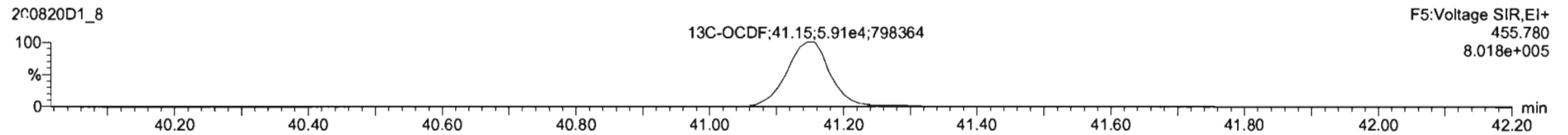
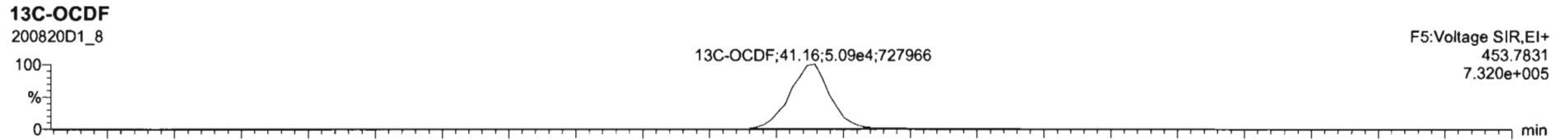
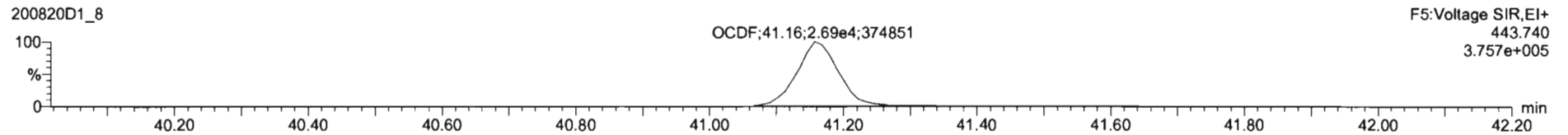
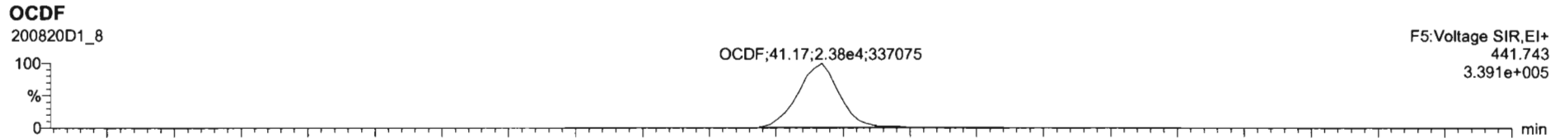
**DPE4**



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108



Dataset: U:\VG7.PRO\Results\200820D1\200820D1\_8.qld

Last Altered: Friday, August 21, 2020 10:27:21 Pacific Daylight Time  
Printed: Friday, August 21, 2020 10:28:46 Pacific Daylight Time

Name: 200820D1\_8, Date: 20-Aug-2020, Time: 18:10:59, ID: SS200820D1-1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

