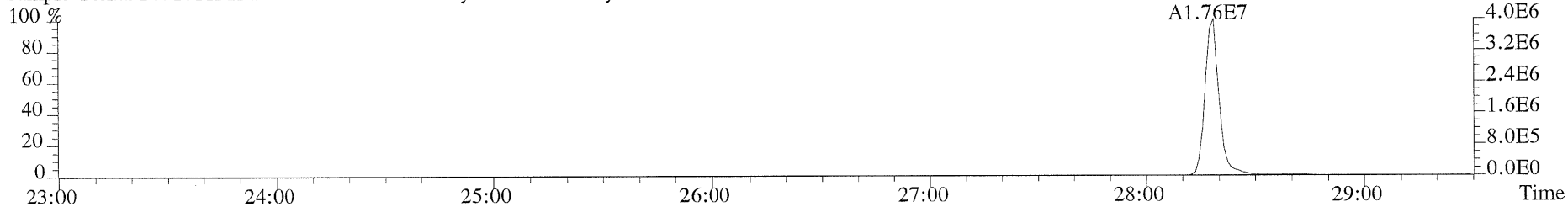
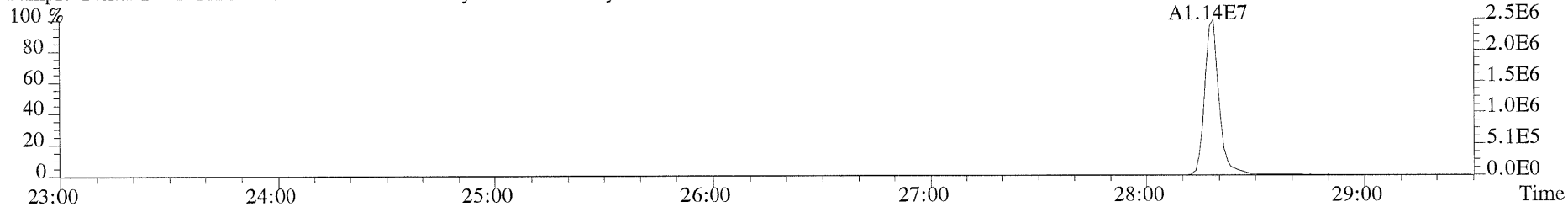
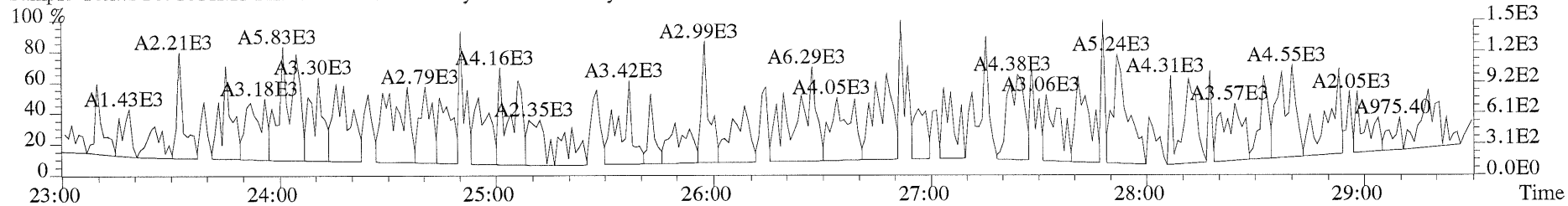
File:18MAY11M #1-426 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



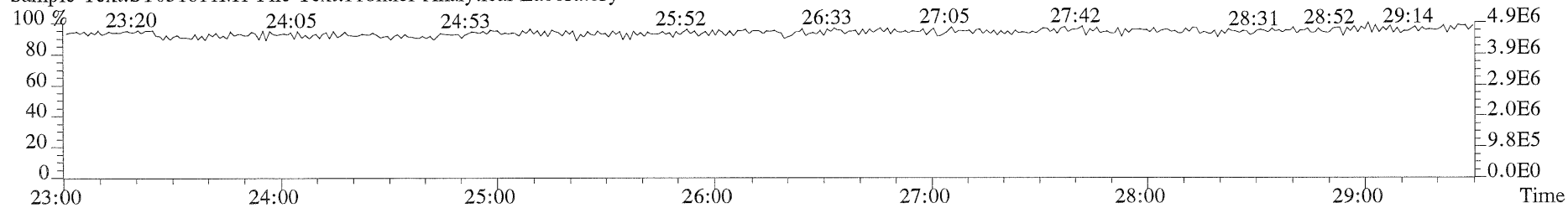
File:18MAY11M #1-426 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



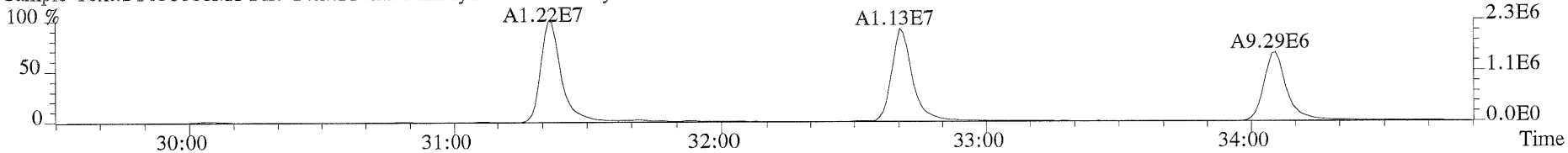
File:18MAY11M #1-426 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



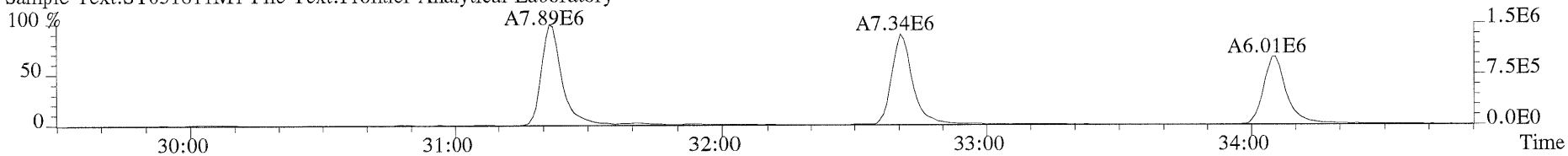
File:18MAY11M #1-426 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
316.9824 Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



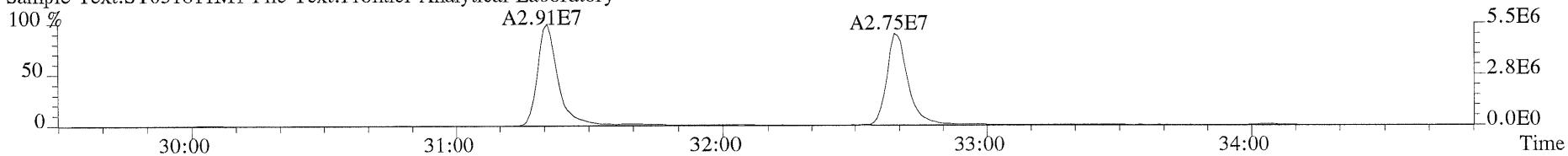
File:18MAY11M #1-412 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



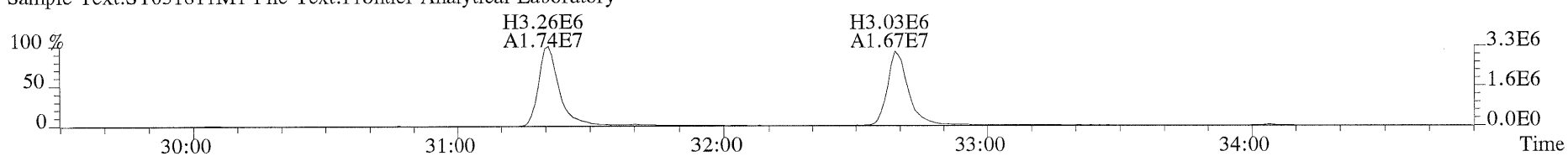
File:18MAY11M #1-412 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



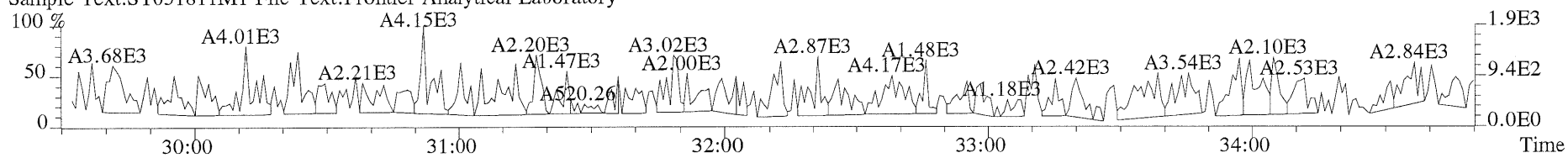
File:18MAY11M #1-412 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



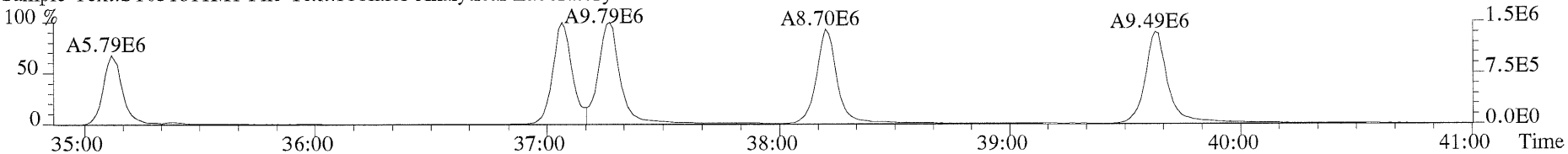
File:18MAY11M #1-412 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
353.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



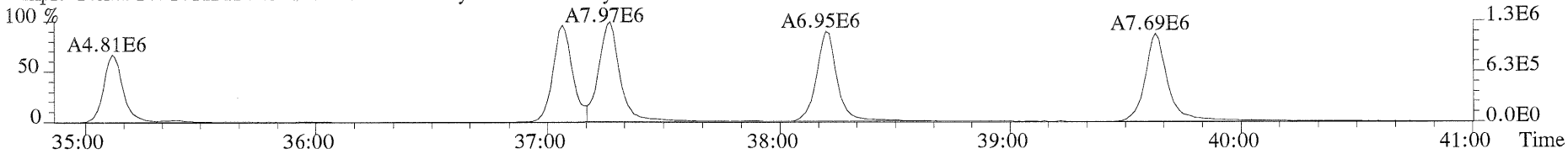
File:18MAY11M #1-412 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



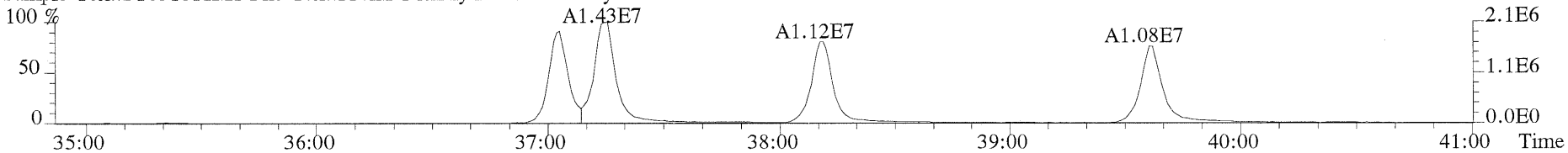
File:18MAY11M #1-476 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



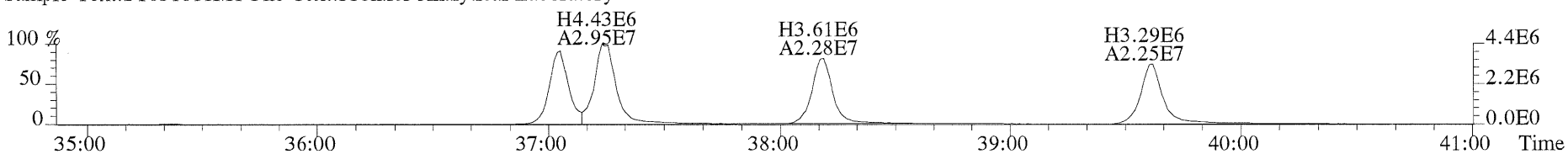
File:18MAY11M #1-476 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



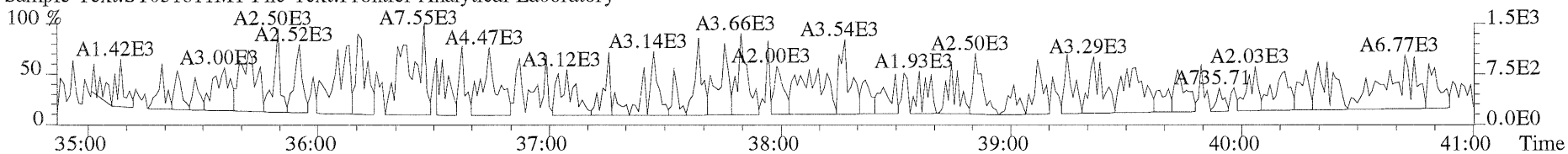
File:18MAY11M #1-476 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



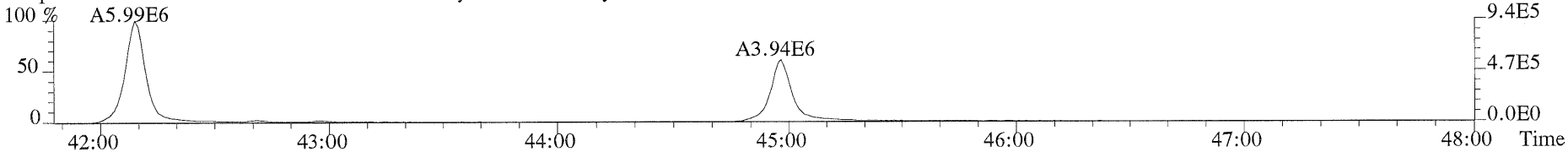
File:18MAY11M #1-476 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



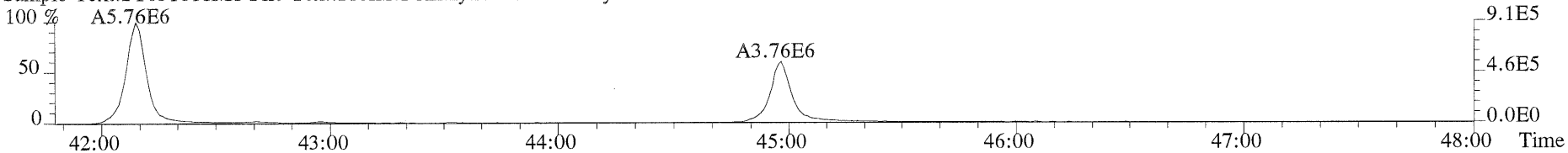
File:18MAY11M #1-476 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



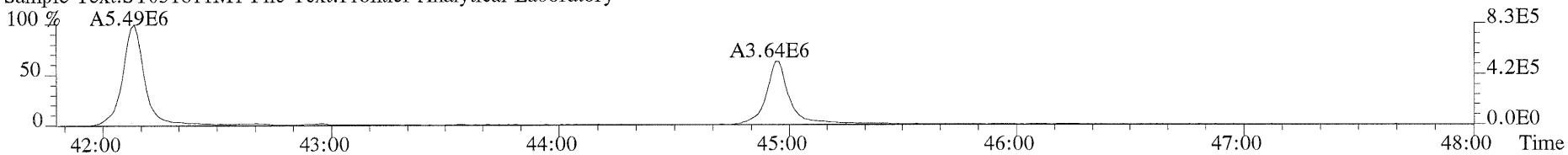
File:18MAY11M #1-542 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



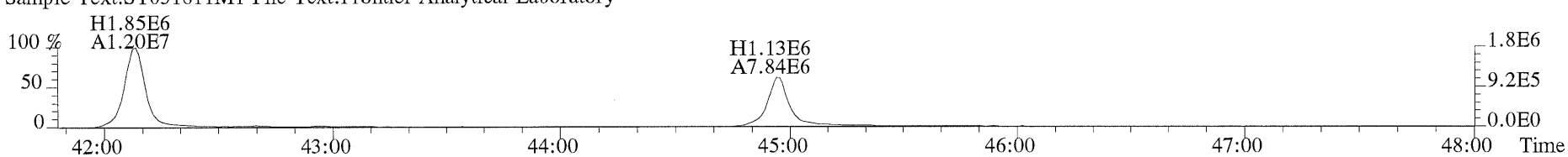
File:18MAY11M #1-542 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



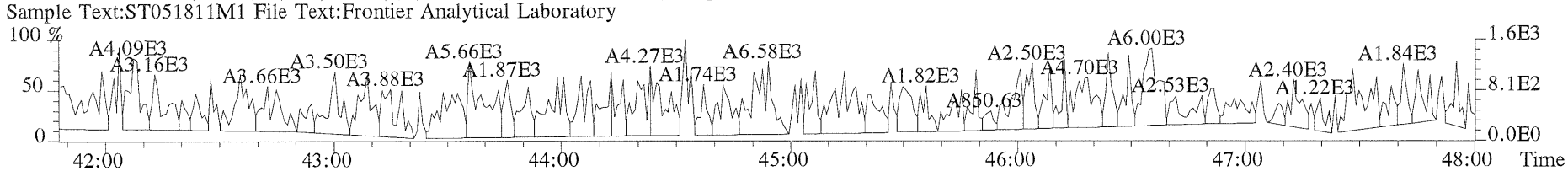
File:18MAY11M #1-542 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



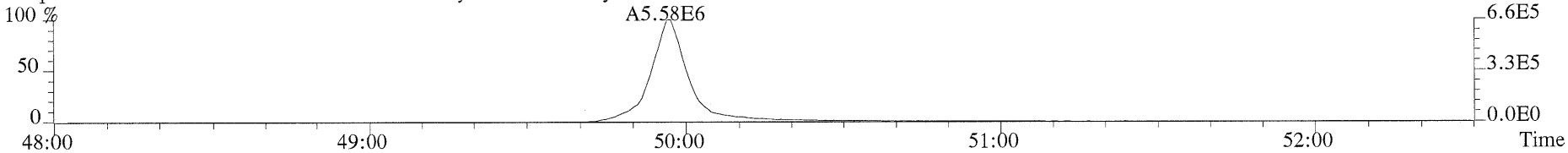
File:18MAY11M #1-542 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



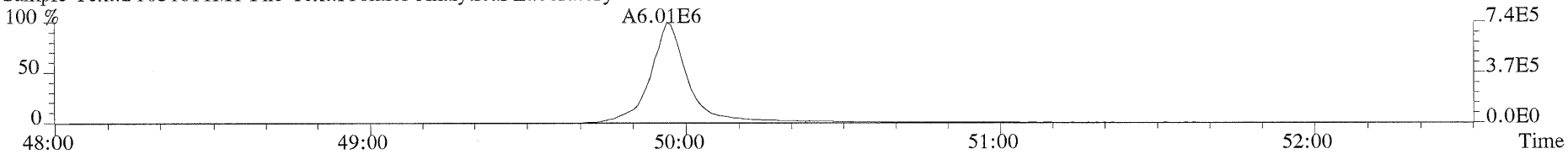
File:18MAY11M #1-542 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



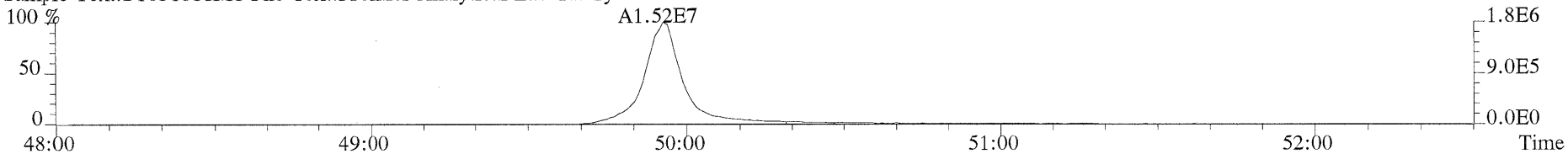
File:18MAY11M #1-347 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



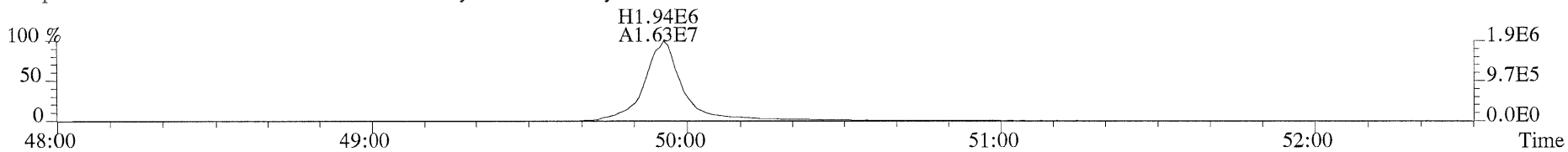
File:18MAY11M #1-347 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



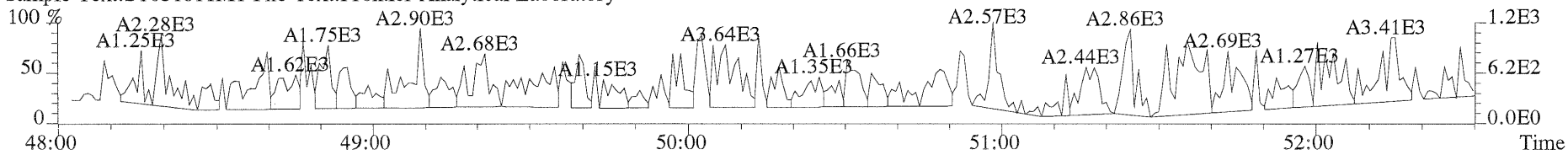
File:18MAY11M #1-347 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory



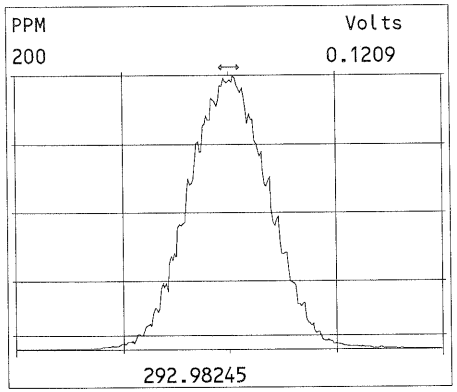
File:18MAY11M #1-347 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory

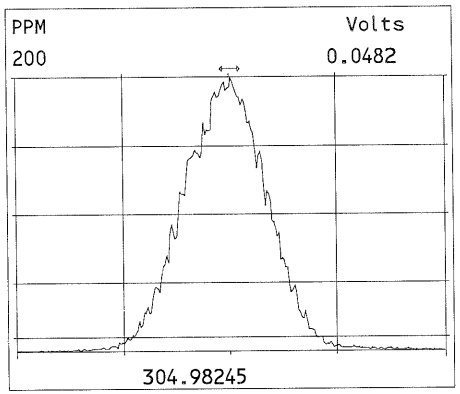


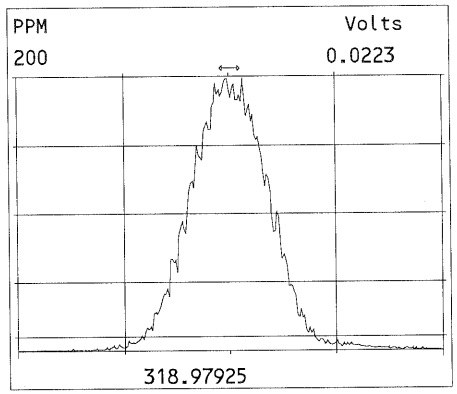
File:18MAY11M #1-347 Acq:18-MAY-2011 09:54:39 GC EI+ Voltage SIR Autospec-Ultima
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M1 File Text:Frontier Analytical Laboratory

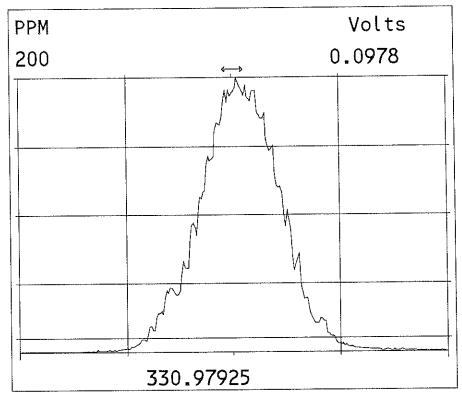


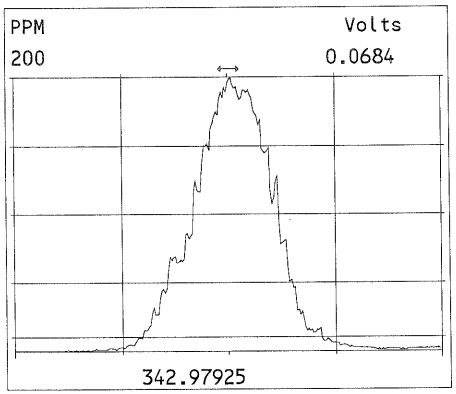
Peak Locate Examination:18-MAY-2011:21:01 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:1 Reference:PFK

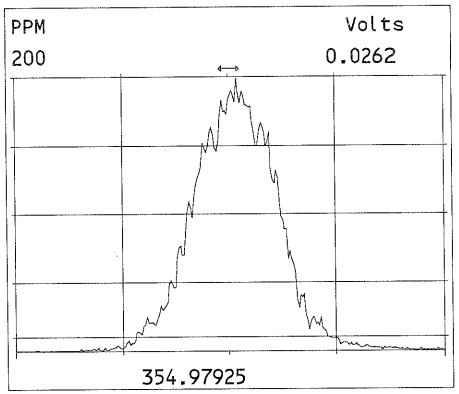


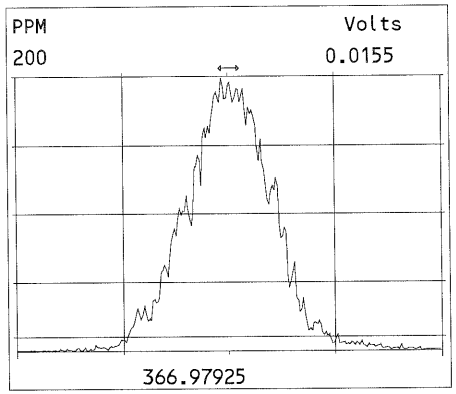


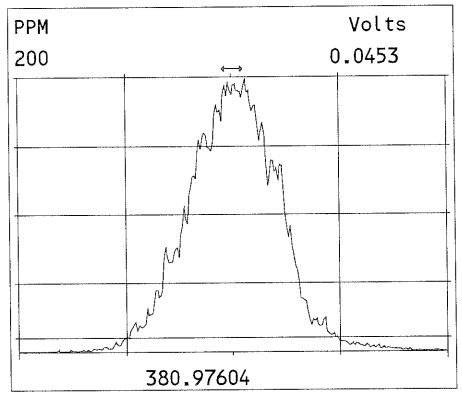


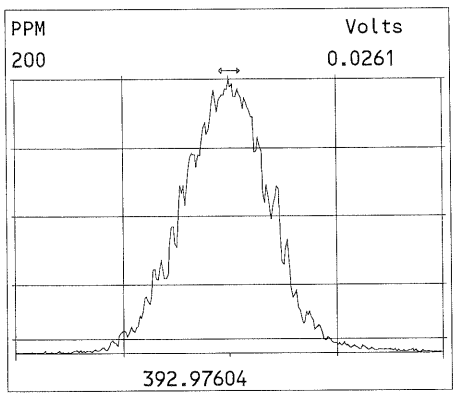


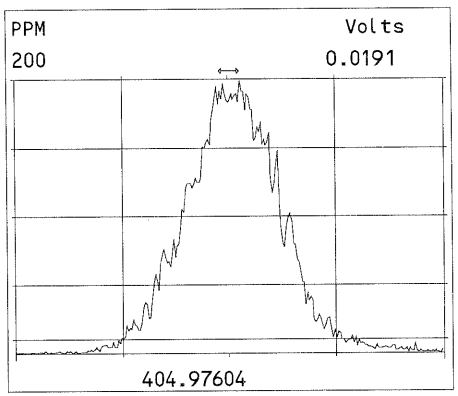


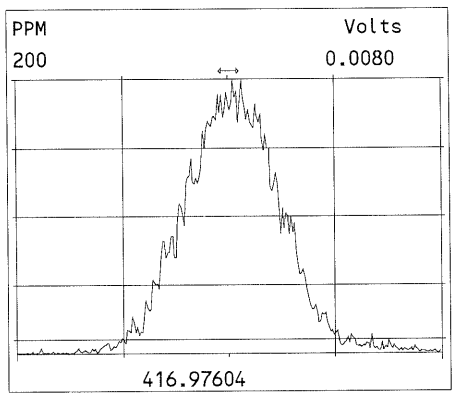




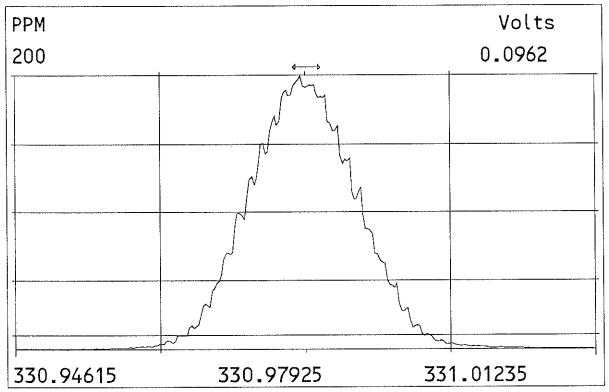


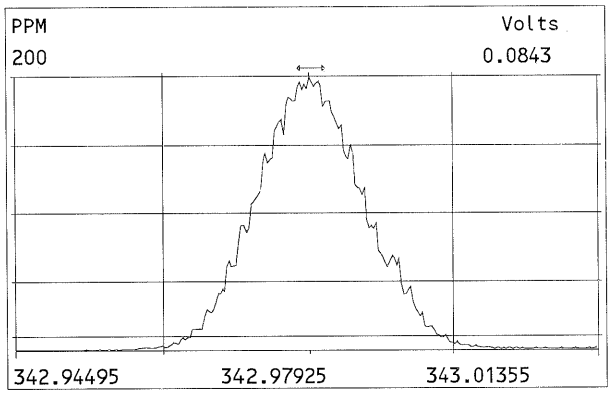


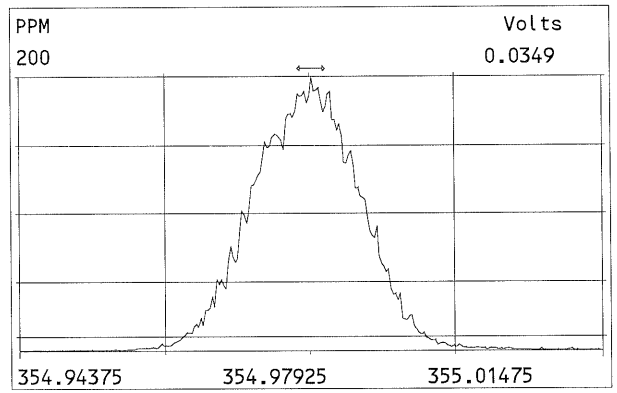


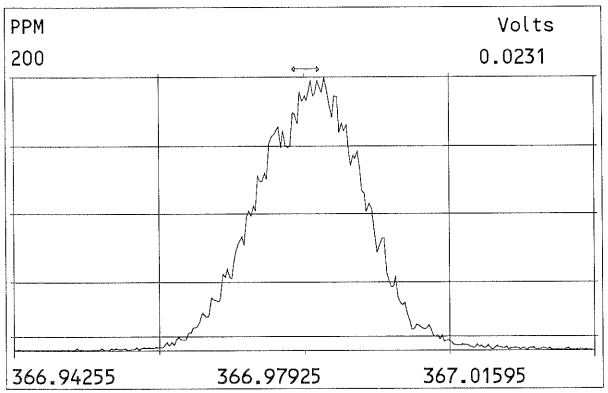


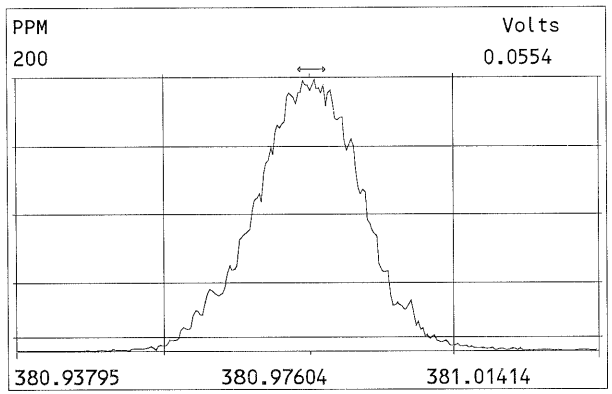
Peak Locate Examination:18-MAY-2011:21:03 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:2 Reference:PFK

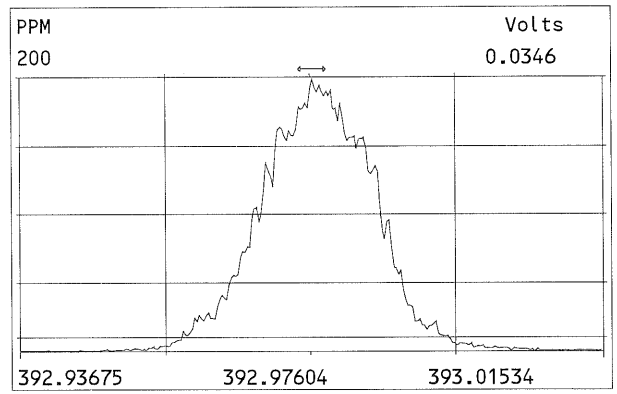


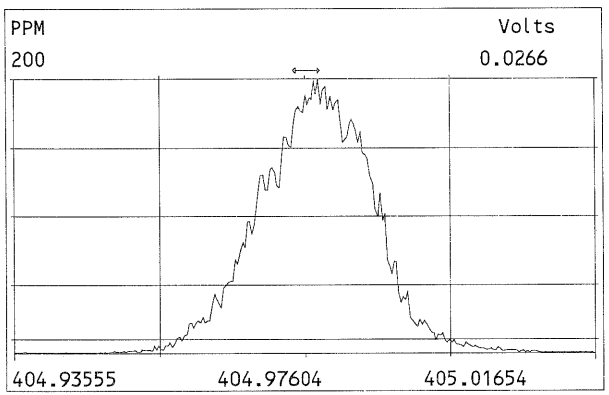


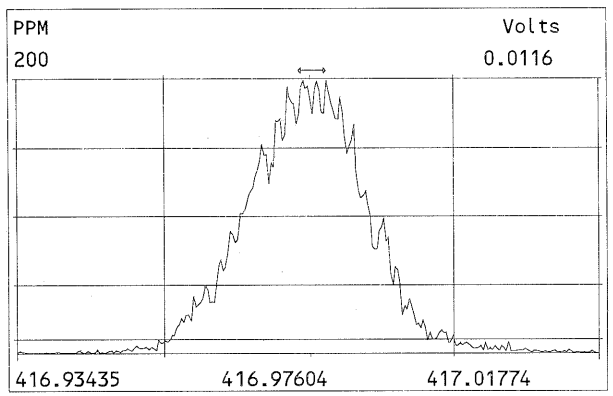




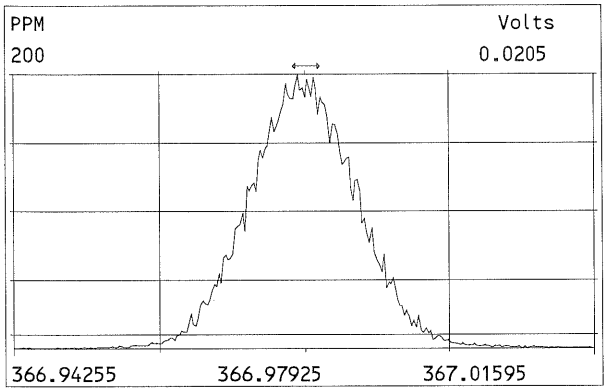


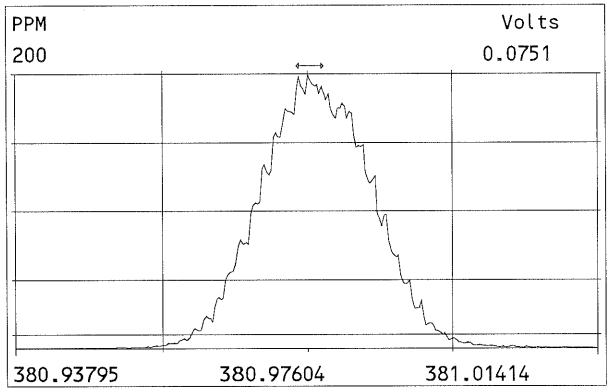


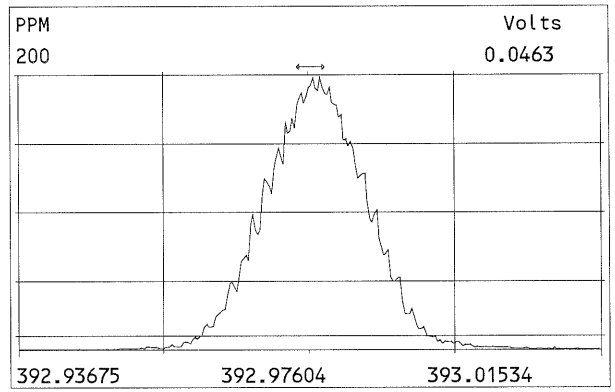


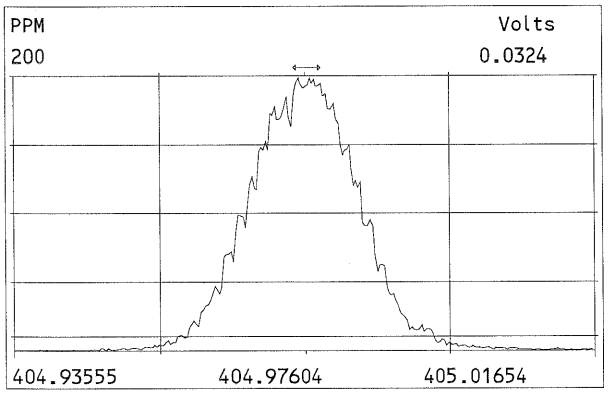


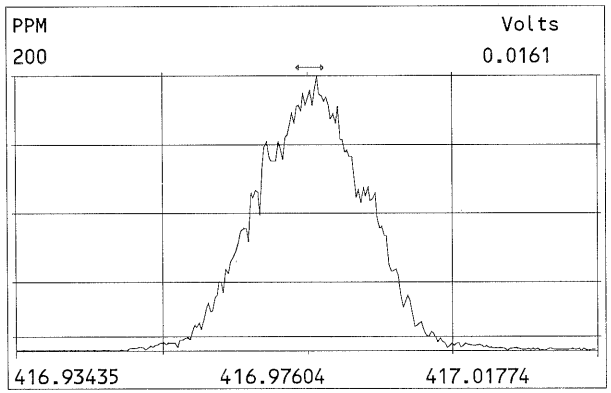
Peak Locate Examination:18-MAY-2011:21:05 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:3 Reference:PFK

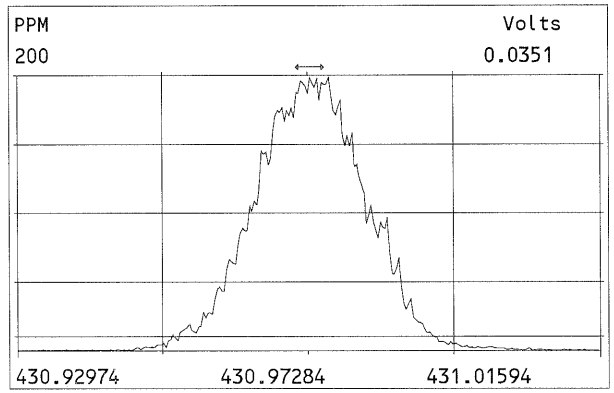


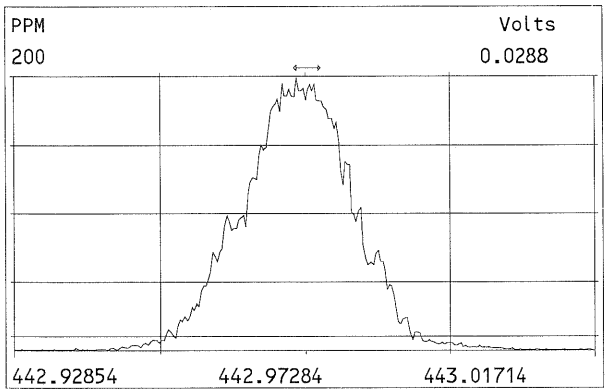


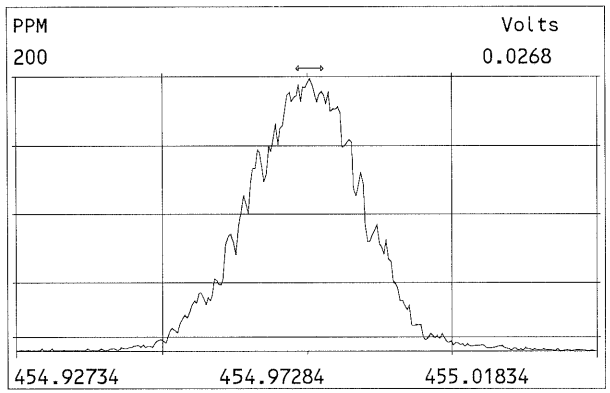




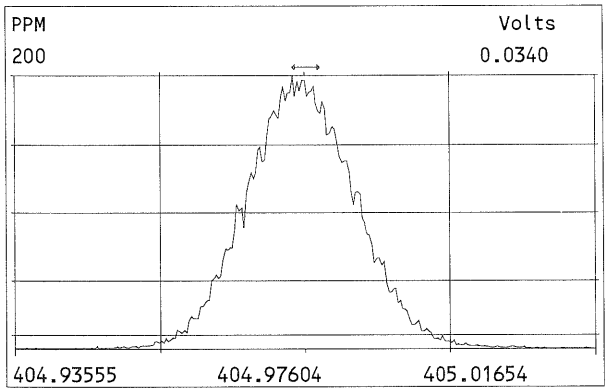


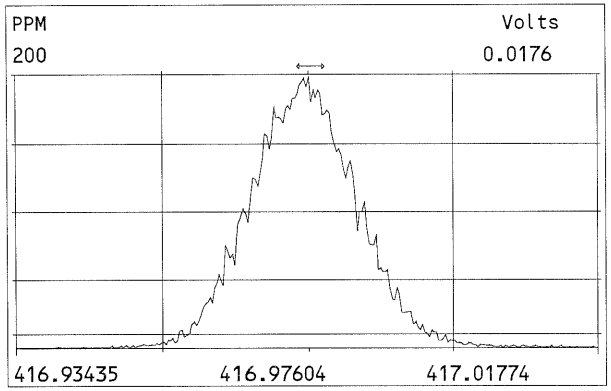


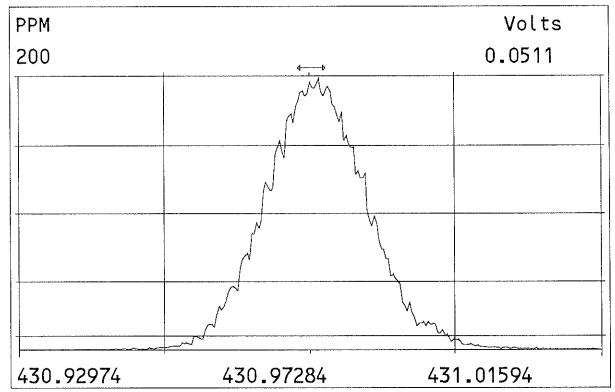


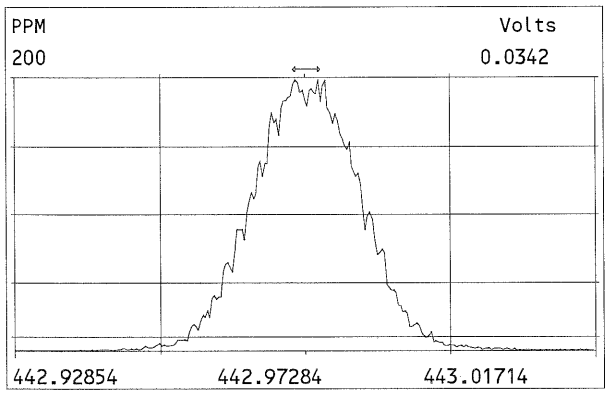


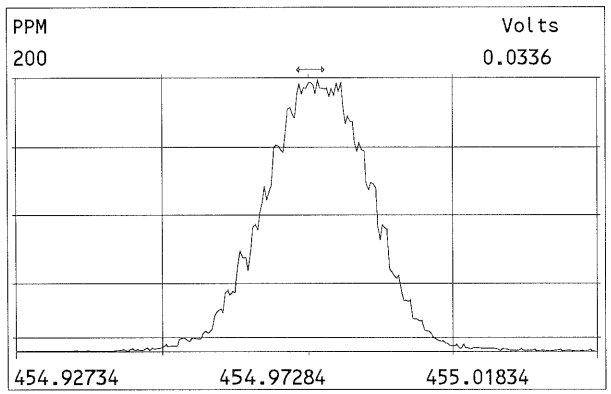
Peak Locate Examination:18-MAY-2011:21:06 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:4 Reference:PFK

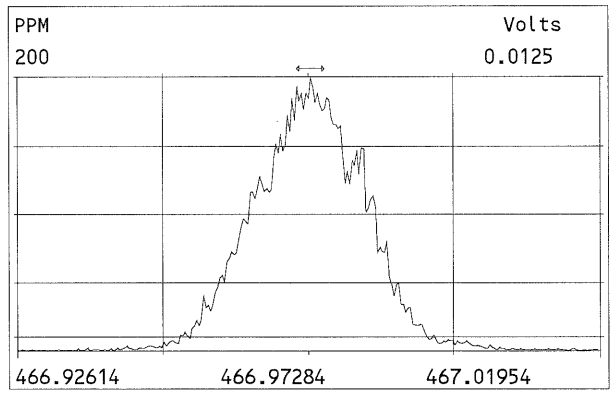


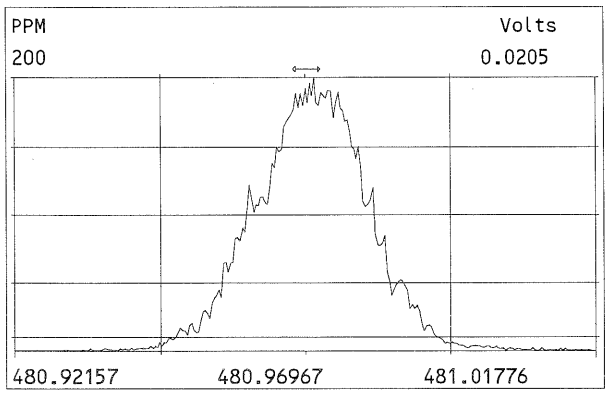




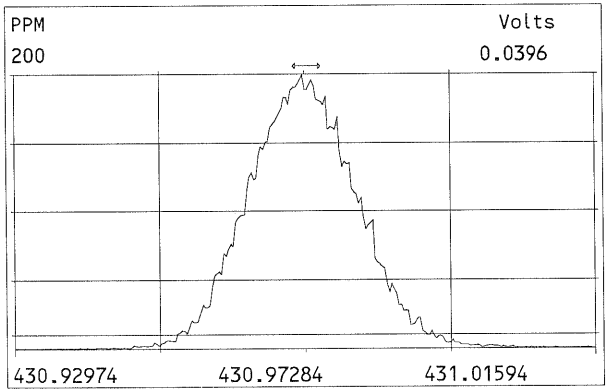


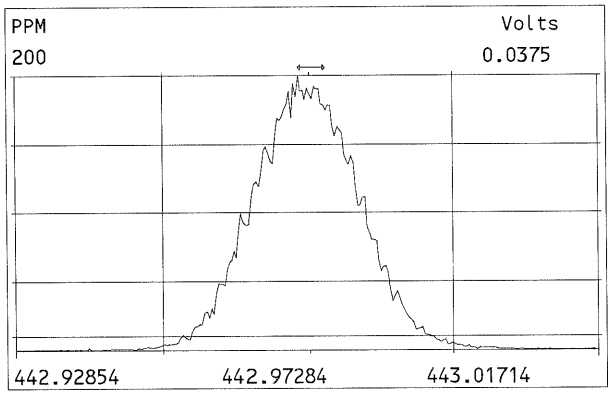


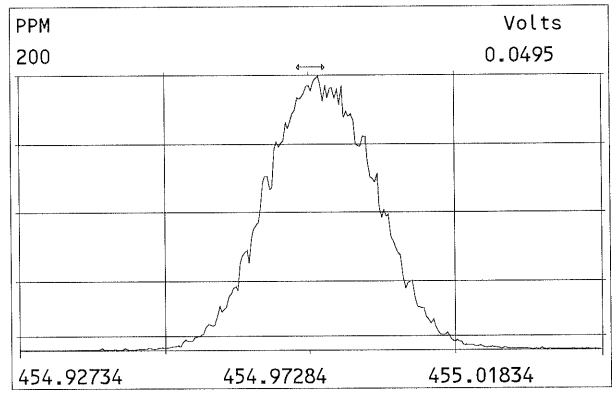


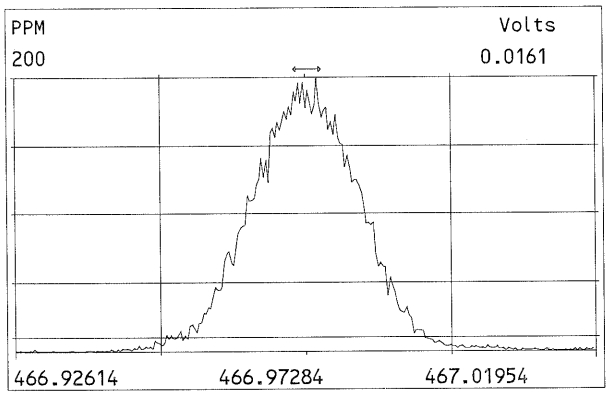


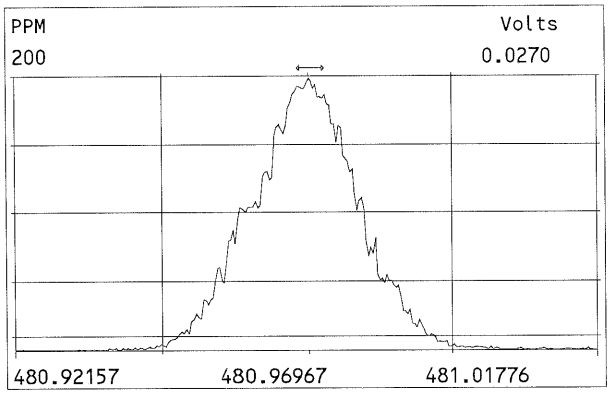
Peak Locate Examination:18-MAY-2011:21:08 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:5 Reference:PFK

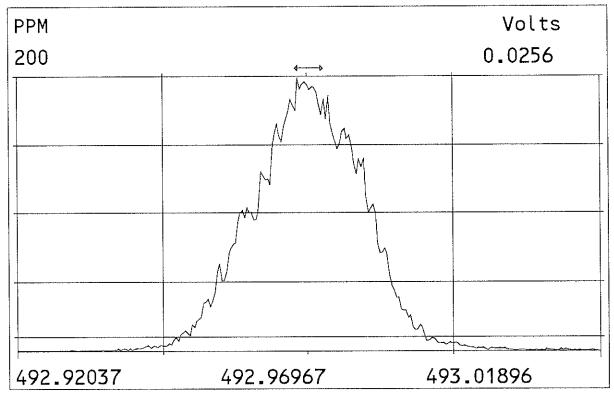


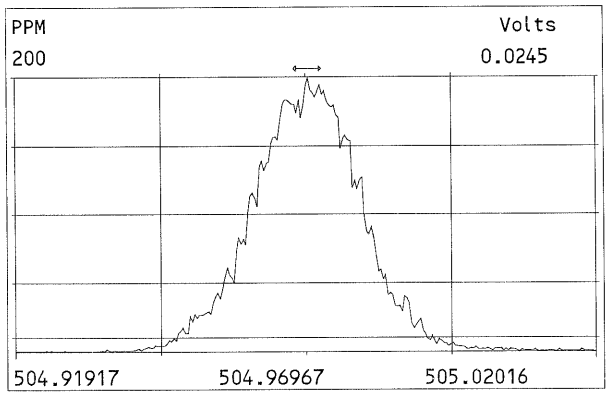


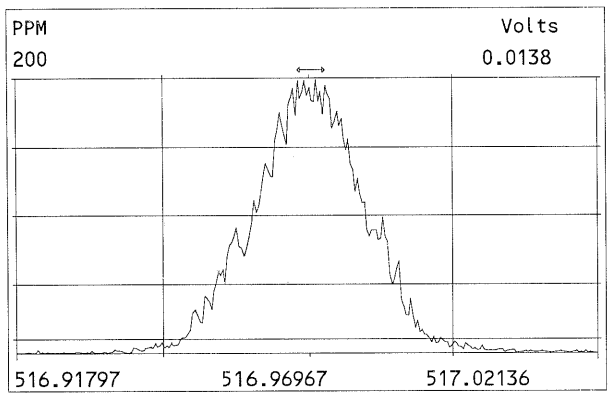












USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/7/11

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 18MAY11M Sam:12 Analysis Date: 18-MAY-11 20:03:51

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.95	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.52	1.32-1.78	y	51.5	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	45.6	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	46.5	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.30	1.05-1.43	y	48.7	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.89	0.88-1.20	y	50.0	43.0 - 58.0
OCDD	M+2/M+4	0.95	0.76-1.02	y	101	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.67	0.65-0.89	y	11.0	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	48.7	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	47.4	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	46.5	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	46.7	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	46.2	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	y	46.9	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	y	47.5	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	y	48.3	43.0 - 58.0
OCDF	M+2/M+4	0.92	0.76-1.02	y	89.4	63.0 - 159

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

Analyst: _____ Date: 5/19/11

USEPA - ITD

FORM 4B

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/7/11

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 18MAY11M Sam:12 Analysis Date: 18-MAY-11 20:03:51

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
LABELED COMPOUNDS						
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	91.6	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.73	1.32-1.78	y	82.6	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	97.8	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.21	1.05-1.43	y	100	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	101	72.0 - 138
13C-OCDD	M+2/M+4	0.93	0.76-1.02	y	157	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.87	0.65-0.89	y	94.6	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	93.1	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.67	1.32-1.78	y	93.3	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	101	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	100	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	96.4	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.43-0.59	y	90.2	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	92.1	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.47	0.37-0.51	y	84.8	77.0 - 129
13C-OCDF	M+2/M+4	0.93	0.76-1.02	y	147	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					8.70	7.80 - 12.8

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) No ion abundance ratio; report concentration found.

Analyst: _____ Date: 5/19/11

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: FAL3 Initial Calibration Date: 3/7/11

RT Window Data Filename: 18MAY11M Sam:12 Analysis Date: 18-MAY-11 Time: 20:03:51

DB-5 IS Data Filename: 18MAY11M Sam:12 Analysis Date: 18-MAY-11 Time: 20:03:51

DB-225 IS Date Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	24:17	1,3,6,8-TCDF (F)	22:57
1,2,8,9-TCDD (L)	28:12	1,2,8,9-TCDF (L)	28:25
1,2,4,7,9-PeCDD (F)	30:07	1,3,4,6,8-PeCDF (F)	28:17
1,2,3,8,9-PeCDD (L)	33:40	1,2,3,8,9-PeCDF (L)	34:05
1,2,4,6,7,9-HxCDD (F)	35:59	1,2,3,4,6,8-HxCDF (F)	35:07
1,2,3,7,8,9-HxCDD (L)	39:03	1,2,3,7,8,9-HxCDF (L)	39:38
1,2,3,4,6,7,9-HpCDD (F)	42:40	1,2,3,4,6,7,8-HpCDF (F)	42:08
1,2,3,4,6,7,8-HpCDD (L)	44:03	1,2,3,4,7,8,9-HpCDF (L)	44:57

(F) = First eluting iosmer (DB-5); (L) = Last eluting isomer (DB-5)

==========

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

COMPARED PEAKS (1)	% VALLEY HEIGHT BETWEEN
	<25%

(1) To meet contract requirement, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: _____ Date: 5/19/11

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 3/7/11

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 18-MAY-11 20:03:51 CS3 or VER Data Filename: 18MAY11M Sam:12

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
LABELED COMPOUNDS			
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989-1.052
13C-2,3,7,8-TCDD		1.022	0.976-1.043
13C-2,3,7,8-TCDF		0.993	0.923-1.103
13C-1,2,3,7,8-PeCDD		1.239	1.000-1.567
13C-1,2,3,7,8-PeCDF		1.174	0.923-1.203
13C-2,3,4,7,8-PeCDF		1.224	0.923-1.303

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

Analyst: _____ Date: 5/19/11

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 3/7/11

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 18-MAY-11 20:03:51 CS3 or VER Data Filename: 18MAY11M Sam:12

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.012	1.000-1.019
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.001	0.999-1.001
OCDF	13C-OCDF	1.001	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.984	0.977-1.000
13C-1,2,3,6,7,8-HxCDD		0.989	0.981-1.003
13C-1,2,3,4,7,8-HxCDF		0.949	0.944-0.970
13C-1,2,3,6,7,8-HxCDF		0.954	0.949-0.975
13C-2,3,4,6,7,8-HxCDF		0.978	0.959-1.021
13C-1,2,3,7,8,9-HxCDF		1.015	0.977-1.047
13C-1,2,3,4,6,7,8-HpCDD		1.128	1.086-1.130
13C-1,2,3,4,6,7,8-HpCDF		1.079	1.043-1.085
13C-1,2,3,4,7,8,9-HpCDF		1.151	1.057-1.154
13C-OCDD		1.269	1.032-1.311
13C-OCDF		1.278	1.000-1.311

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

Analyst: [signature] Date: 5/19/11

FAL ID: ST051811M2 Filename: 18MAY11M Sam:12 Acquired: 18-MAY-11 20:03:51 ICal: PCDDFAL3-3-7-11
Client ID: 1613 CS3 100511J ConCal: ST051811M1 EndCal: ST051811M2
Results: 6746 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 97.3
WHO 1998 Tox: 123 WHO 2005 Tox: 112

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	3.71e+06	0.79 y	27:16	1.13	9.95		2.50	-	-	*
1,2,3,7,8-PeCDD	1.52e+07	1.52 y	33:05	1.02	51.5		2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.43e+07	1.28 y	38:27	1.45	45.6		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.18e+07	1.30 y	38:37	1.45	46.5		2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.40e+07	1.30 y	39:03	1.47	48.7		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	1.00e+07	0.89 y	44:03	1.30	50.0		2.50	-	-	*
OCDD	1.29e+07	0.95 y	49:34	1.45	101		2.50	-	-	*
2,3,7,8-TCDF	6.62e+06	0.67 y	26:31	1.15	11.0		2.50	-	-	*
1,2,3,7,8-PeCDF	1.89e+07	1.55 y	31:21	0.89	48.7		2.50	-	-	*
2,3,4,7,8-PeCDF	1.80e+07	1.55 y	32:40	0.89	47.4		2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.61e+07	1.24 y	37:04	1.01	46.5		2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.77e+07	1.25 y	37:15	0.89	46.7		2.50	-	-	*
2,3,4,6,7,8-HxCDF	1.56e+07	1.23 y	38:11	1.02	46.2		2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.71e+07	1.24 y	39:38	1.10	46.9		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.18e+07	1.05 y	42:08	1.48	47.5		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	8.28e+06	1.06 y	44:57	1.43	48.3		2.50	-	-	*
OCDF	1.20e+07	0.92 y	49:56	0.84	89.4		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	3.29e+07	0.80 y	27:15	1.03	91.6					91.6
13C-1,2,3,7,8-PeCDD	2.91e+07	1.73 y	33:04	1.01	82.6					82.6
13C-1,2,3,4,7,8-HxCDD	2.16e+07	1.30 y	38:26	1.19	97.8					97.8
13C-1,2,3,6,7,8-HxCDD	1.74e+07	1.21 y	38:36	0.94	100					100
13C-1,2,3,4,6,7,8-HpCDD	1.54e+07	1.06 y	44:01	0.83	101					101
13C-OCDD	1.77e+07	0.93 y	49:32	0.61	157					78.7
13C-2,3,7,8-TCDF	5.25e+07	0.87 y	26:30	0.98	94.6					94.6
13C-1,2,3,7,8-PeCDF	4.38e+07	1.65 y	31:20	0.83	93.1					93.1
13C-2,3,4,7,8-PeCDF	4.25e+07	1.67 y	32:40	0.80	93.3					93.3
13C-1,2,3,4,7,8-HxCDF	3.43e+07	0.48 y	37:02	1.84	101					101
13C-1,2,3,6,7,8-HxCDF	4.25e+07	0.49 y	37:14	2.29	100					100
13C-2,3,4,6,7,8-HxCDF	3.32e+07	0.49 y	38:10	1.86	96.4					96.4
13C-1,2,3,7,8,9-HxCDF	3.31e+07	0.49 y	39:36	1.98	90.2					90.2
13C-1,2,3,4,6,7,8-HpCDF	1.68e+07	0.45 y	42:07	0.99	92.1					92.1
13C-1,2,3,4,7,8,9-HpCDF	1.20e+07	0.47 y	44:56	0.77	84.8					84.8
13C-OCDF	3.17e+07	0.93 y	49:54	1.17	147					73.5
37Cl-2,3,7,8-TCDD	2.22e+06		27:16	0.73	8.70					87.0
13C-1,2,3,4-TCDD	3.49e+07	0.79 y	26:41	-	91.8					
13C-1,2,3,4-TCDF	5.67e+07	0.87 y	25:26	-	78.8					
13C-1,2,3,7,8,9-HxCDD	1.85e+07	1.29 y	39:02	-	74.7					

						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	2.06e+07		24:17	1.13	55.3	2.50	-	-	*		21
Total Penta-Dioxins	3.40e+07		30:07	1.02	115	2.50	-	-	*		15
Total Hexa-Dioxins	4.60e+07		35:59	1.46	162	2.50	-	-	*		16
Total Hepta-Dioxins	2.05e+07		42:40	1.30	102	2.50	-	-	*		10
Total Tetra-Furans	3.28e+07		22:57	1.15	54.5	2.50	-	-	*		24
1st Fn. Tot Penta-Furans	2.51e+07		28:17	0.89	65.3	2.50	-	-	*	PeCDF	1
Total Penta-Furans	5.31e+07		29:54	0.89	138	2.50	-	-	*	204	15
Total Hexa-Furans	7.82e+07		35:07	1.00	219	2.50	-	-	*		18
Total Hepta-Furans	2.07e+07		42:08	1.46	98.3	2.50	-	-	*		11

Analyst: _____ Date: 5/19/11

Frontier Analytical Laboratory - Acquisition Log

Run Name:18MAY11M Instrument: FAL3 GC: DB5 Experiment:OCDD

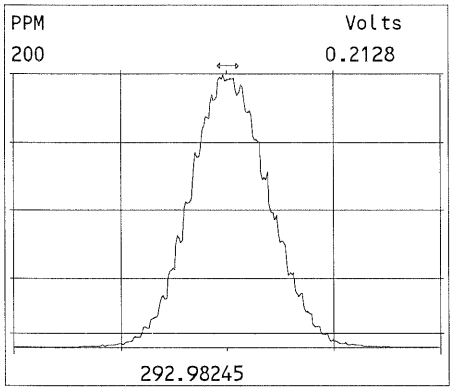
Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
18MAY11M	1	ST051811M1	1613 CS3 100511J	18-MAY-11 09:54:39	ST051811M1	ST051811M2	TC
18MAY11M	2	2292-001-0001-OPR	OPR	18-MAY-11 10:50:01	ST051811M1	ST051811M2	TC
18MAY11M	3	2292-001-0001-MB	Method Blank	18-MAY-11 11:45:24	ST051811M1	ST051811M2	TC
18MAY11M	4	6742-001-0001-SA	MW5042811	18-MAY-11 12:40:47	ST051811M1	ST051811M2	TC
18MAY11M	5	6742-002-0001-SA	MW4042811	18-MAY-11 13:36:09	ST051811M1	ST051811M2	TC
18MAY11M	6	6742-003-0001-SA	MW14042811	18-MAY-11 14:31:32	ST051811M1	ST051811M2	TC
18MAY11M	7	6746-001-0001-SA	PZ-FL-5	18-MAY-11 15:26:55	ST051811M1	ST051811M2	TC
18MAY11M	8	6746-002-0001-SA	PZ-FL-6	18-MAY-11 16:22:18	ST051811M1	ST051811M2	TC
18MAY11M	9	QC051811M1	QC1	18-MAY-11 17:17:38	ST051811M1	ST051811M2	TC
18MAY11M	10	QC051811M2	QC2	18-MAY-11 18:13:01	ST051811M1	ST051811M2	TC
18MAY11M	11	SB051811M1	Solvent Blank	18-MAY-11 19:08:28	ST051811M1	ST051811M2	TC
18MAY11M	12	ST051811M2	1613 CS3 100511J	18-MAY-11 20:03:51	ST051811M1	ST051811M2	TC

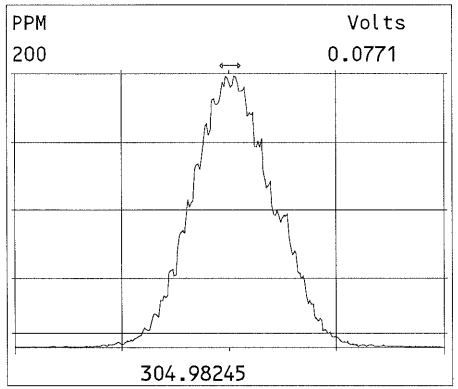
5/19/11

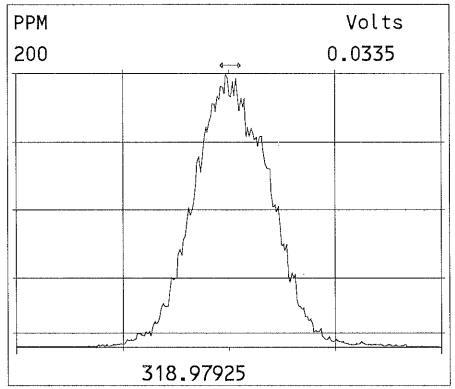
Data Backed Up:_____

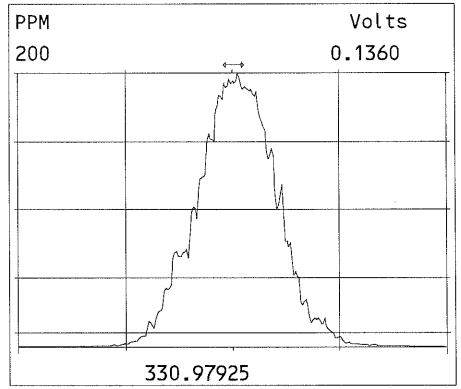
Date:_____

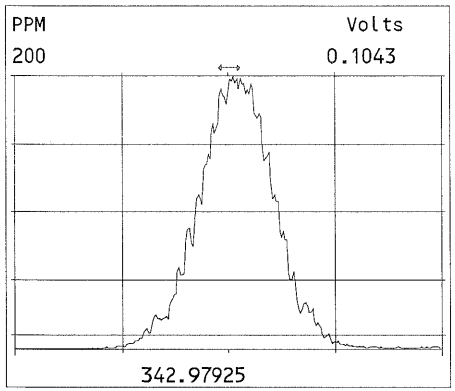
Peak Locate Examination:18-MAY-2011:09:52 File:18MAY11M
Experiment:OCDD Function:1 Reference:PFK

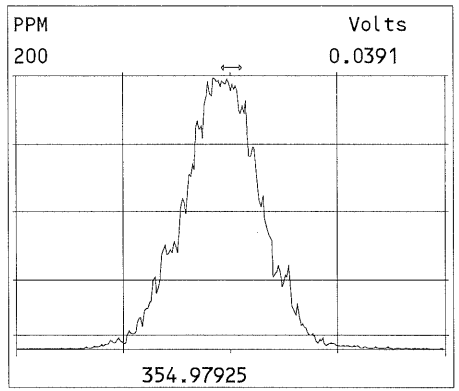


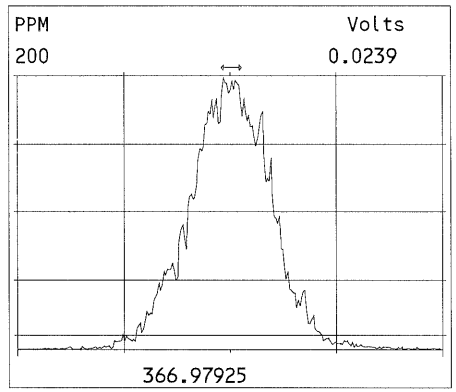


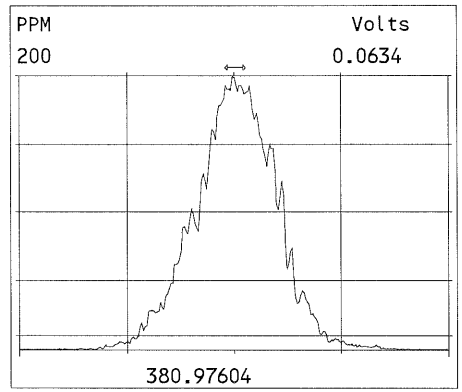


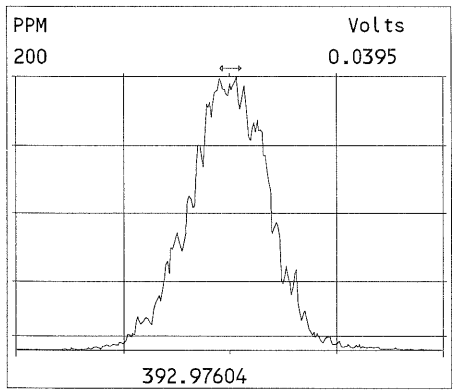


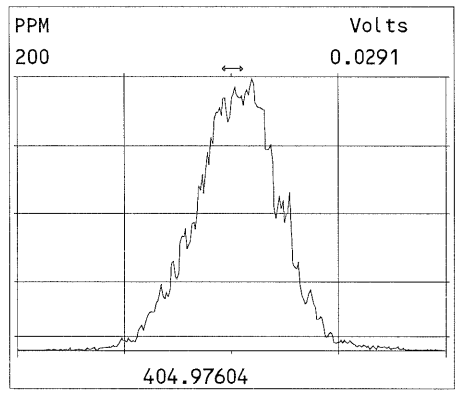


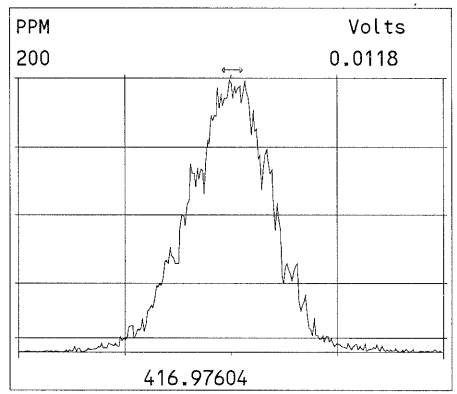




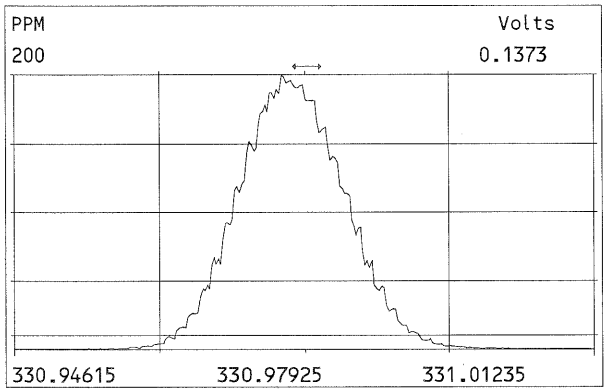


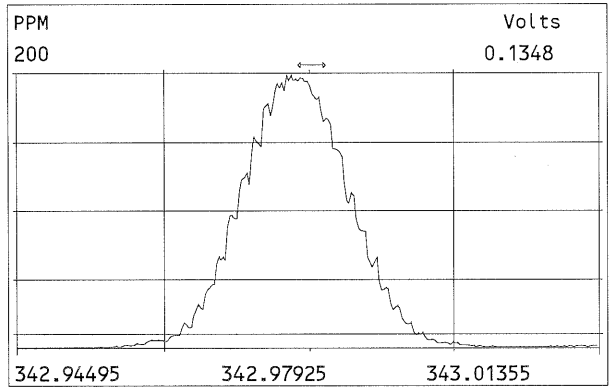


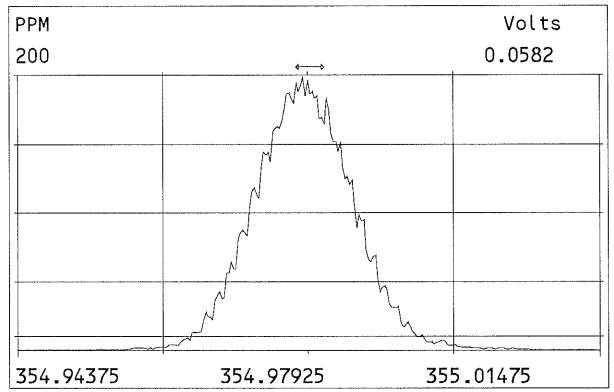


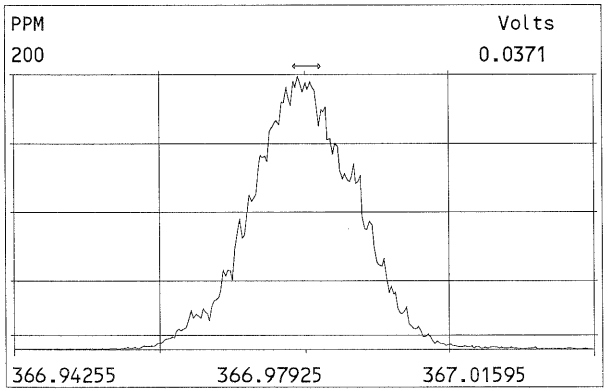


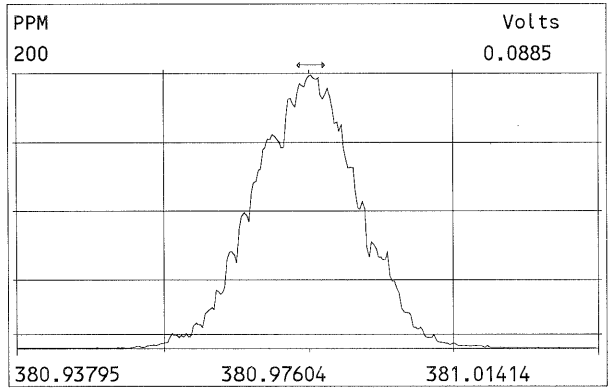
Peak Locate Examination:18-MAY-2011:09:53 File:18MAY11M
Experiment:OCDD Function:2 Reference:PFK

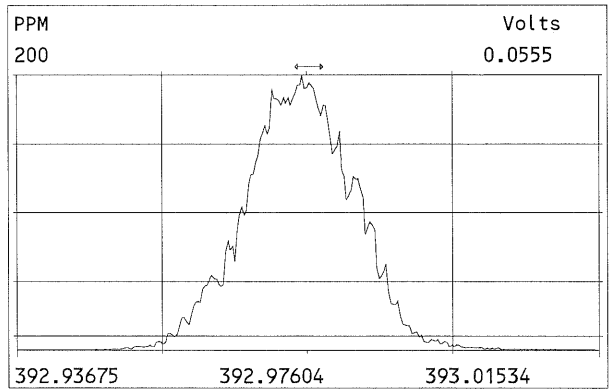


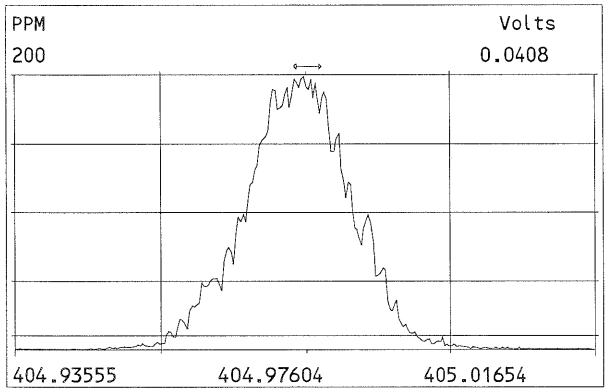


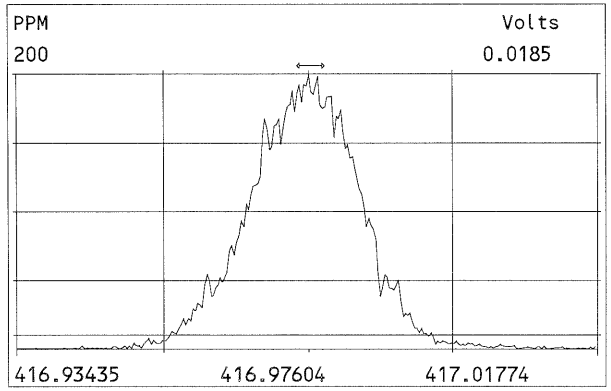




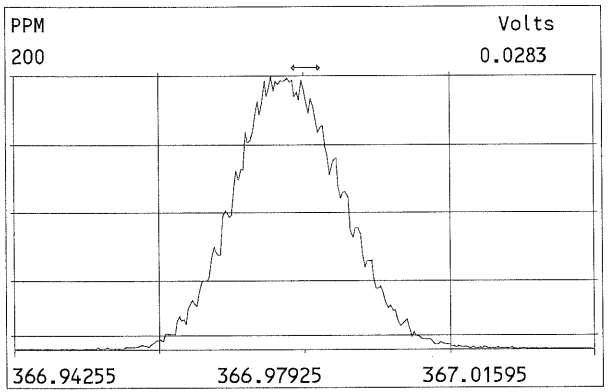


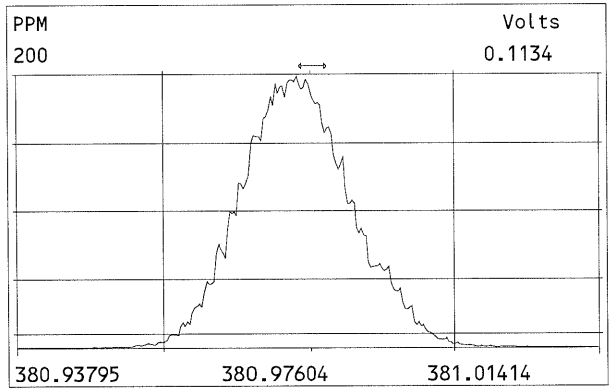


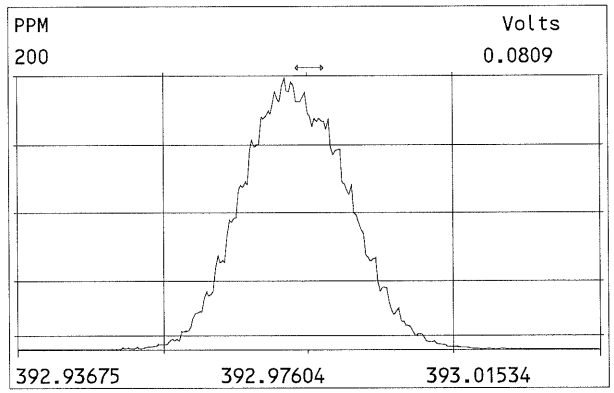


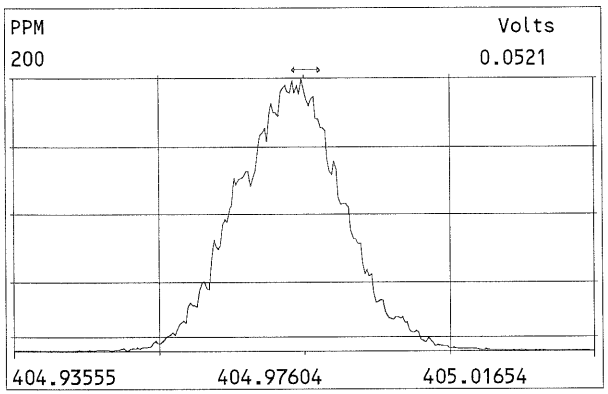


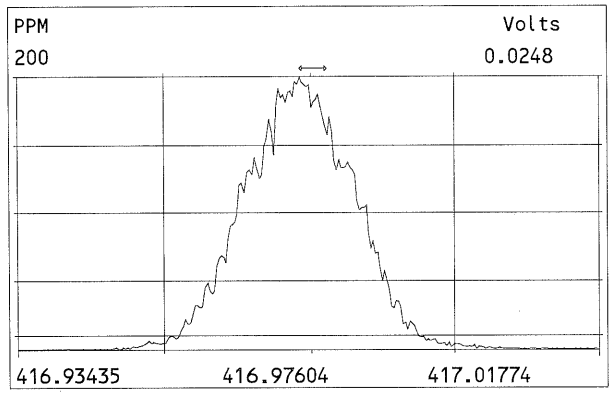
Peak Locate Examination:18-MAY-2011:09:53 File:18MAY11M
Experiment:OCDD Function:3 Reference:PFK

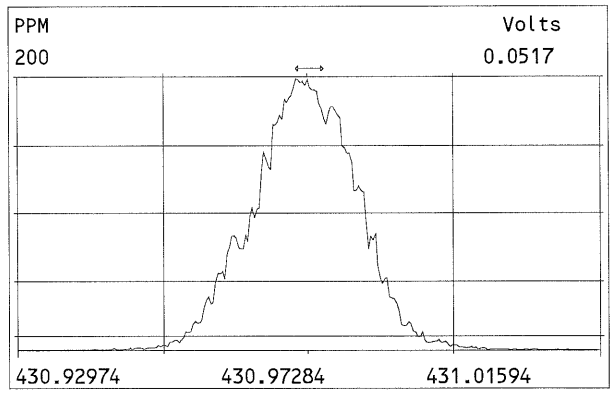


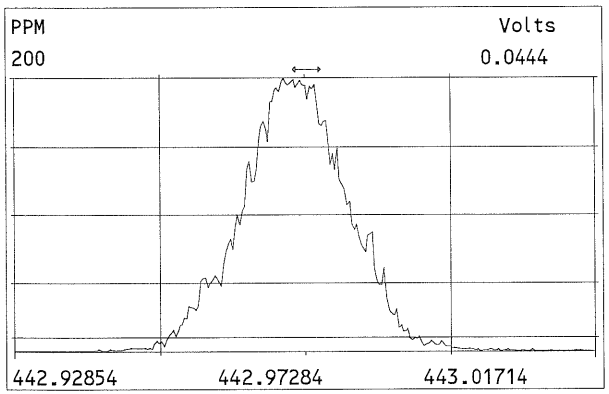


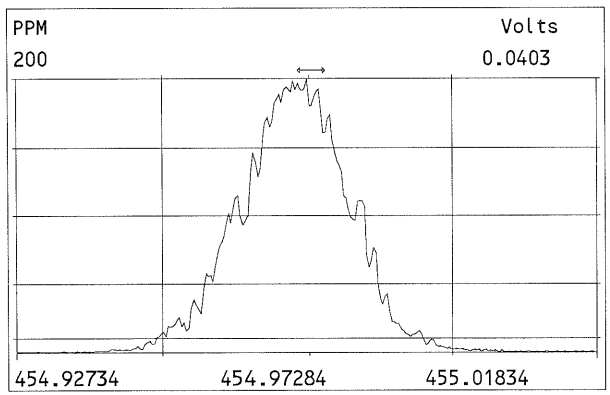




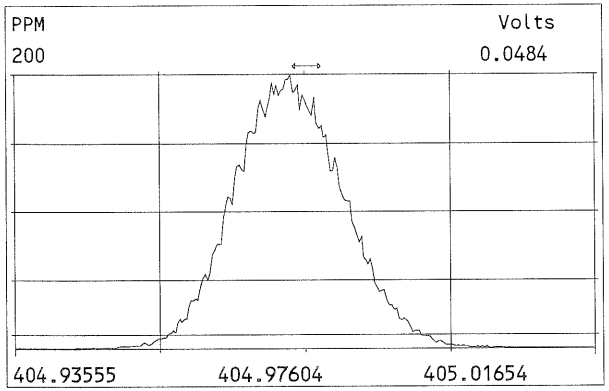


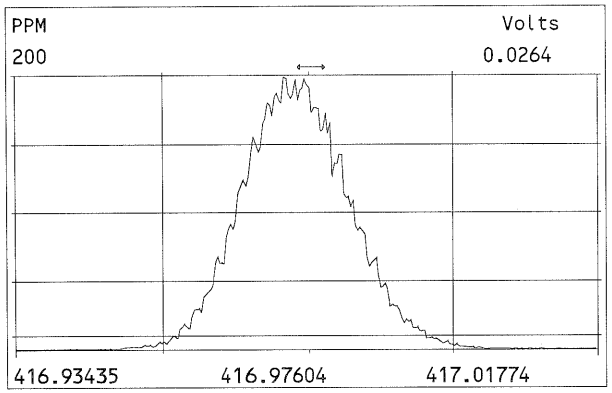


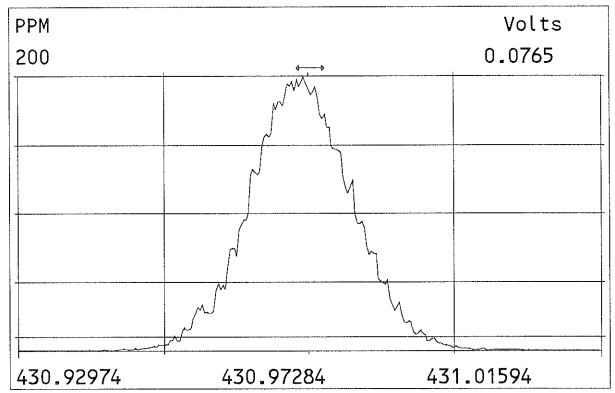


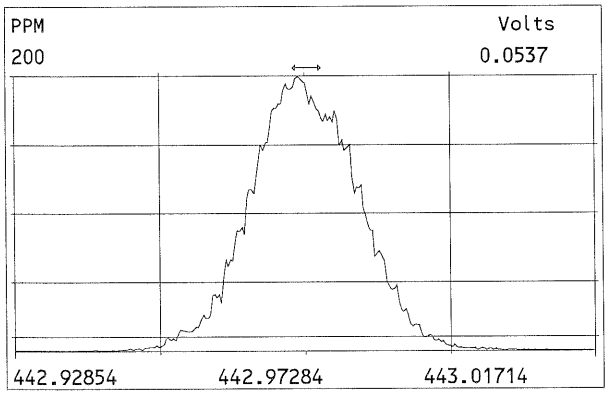


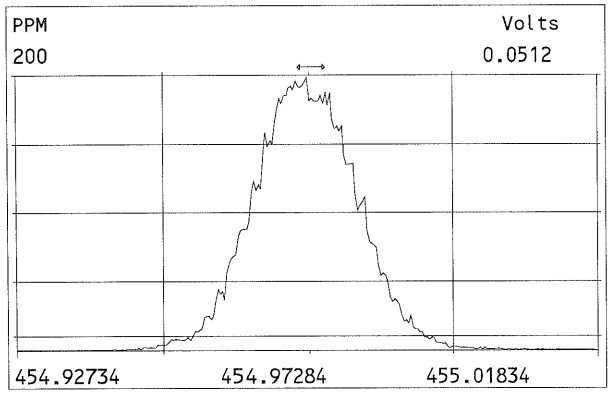
Peak Locate Examination:18-MAY-2011:09:53 File:18MAY11M
Experiment:OCDD Function:4 Reference:PFK

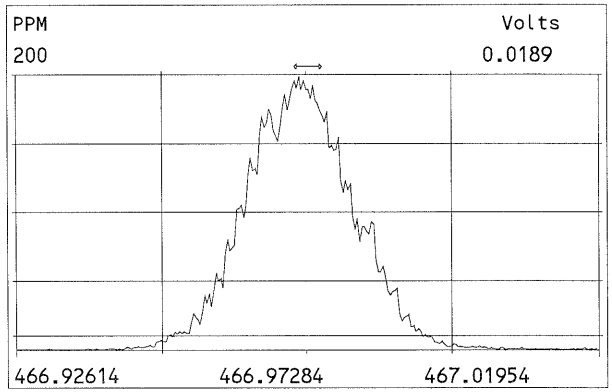


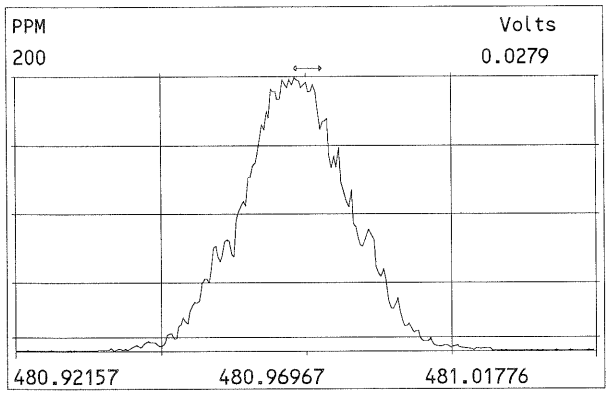




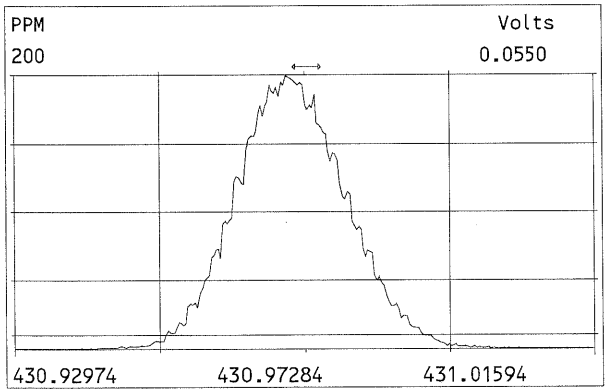


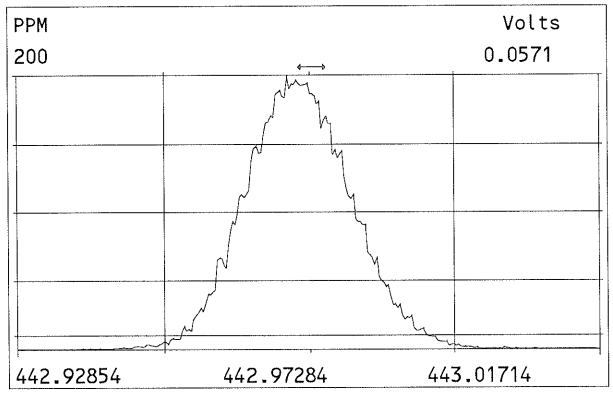


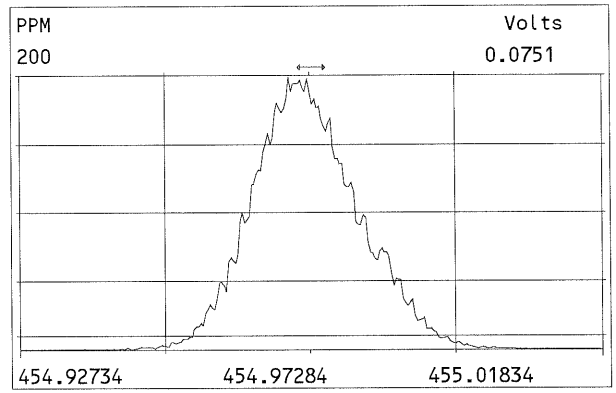


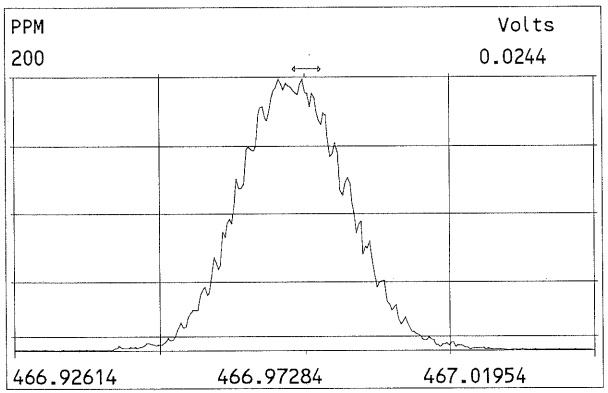


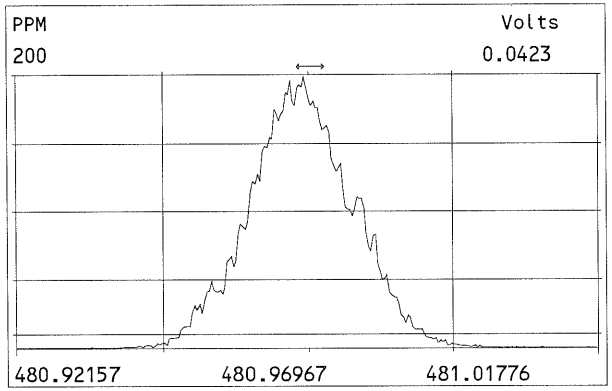
Peak Locate Examination:18-MAY-2011:09:54 File:18MAY11M
Experiment:OCDD Function:5 Reference:PFK

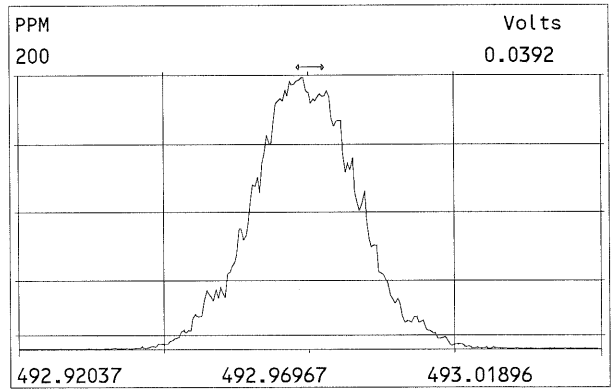


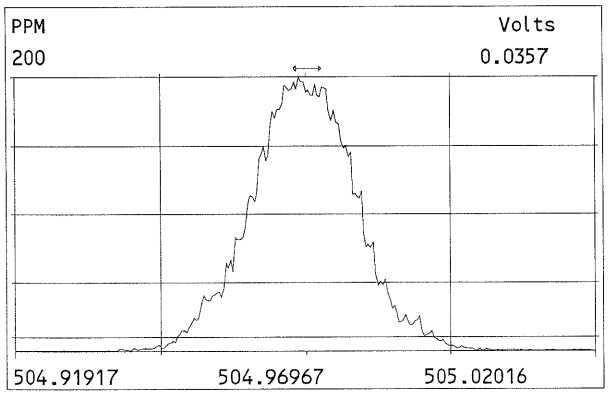


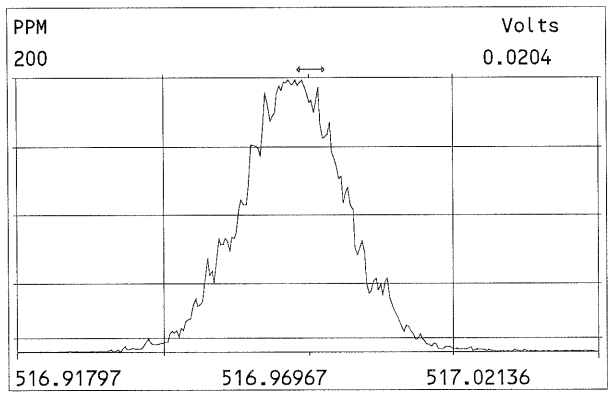




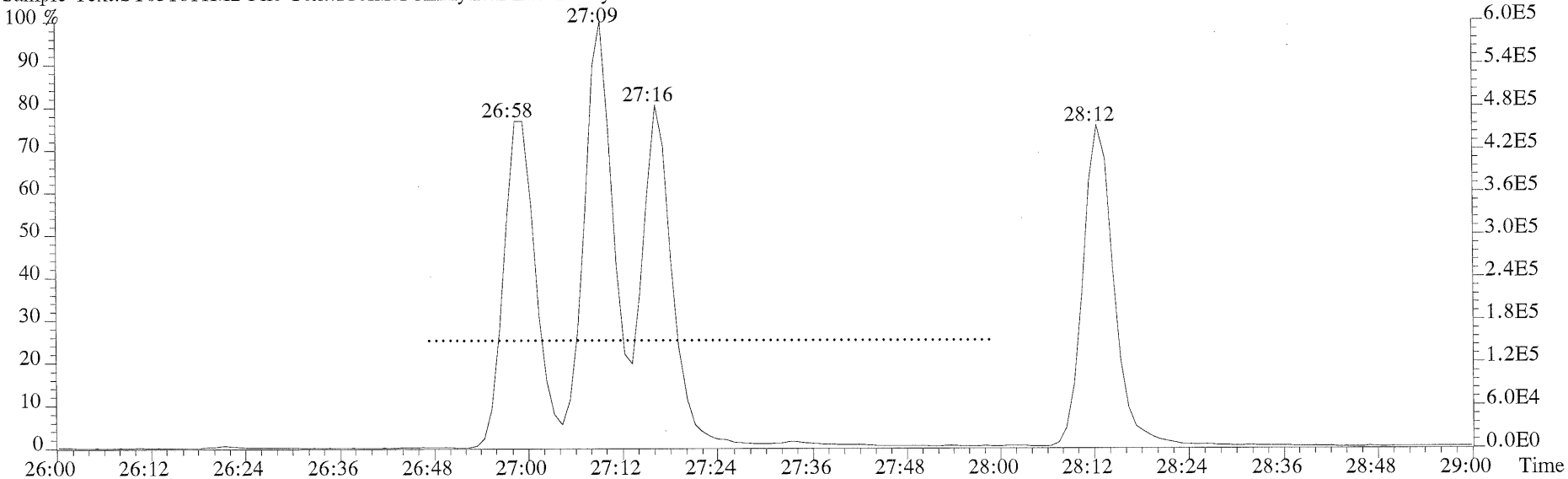




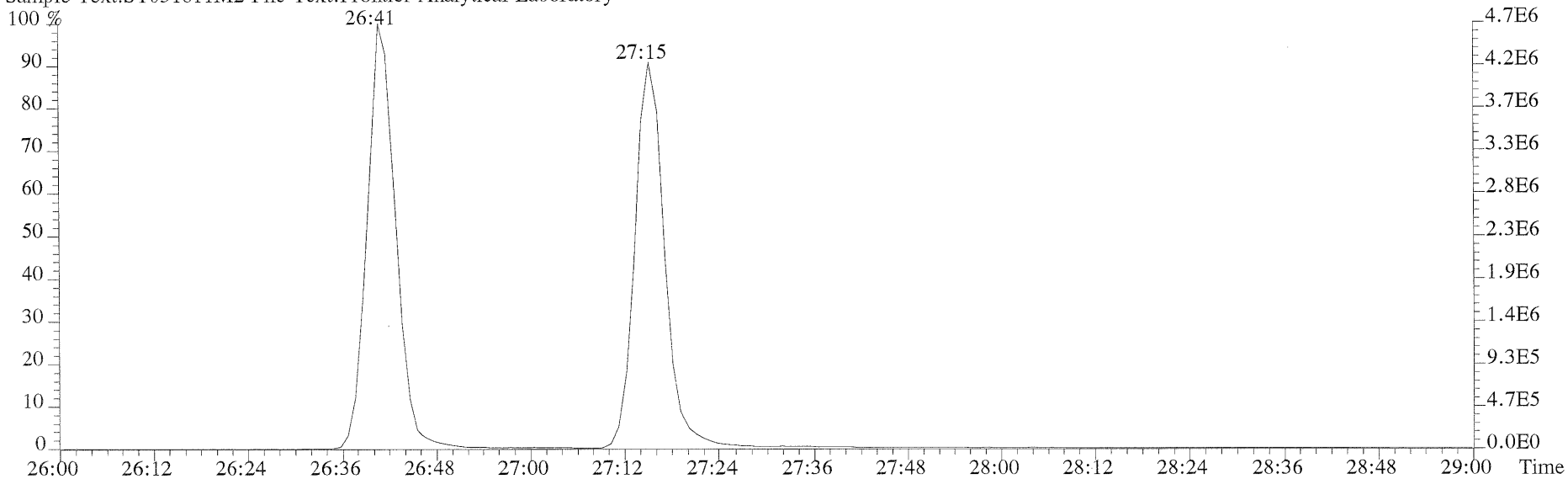




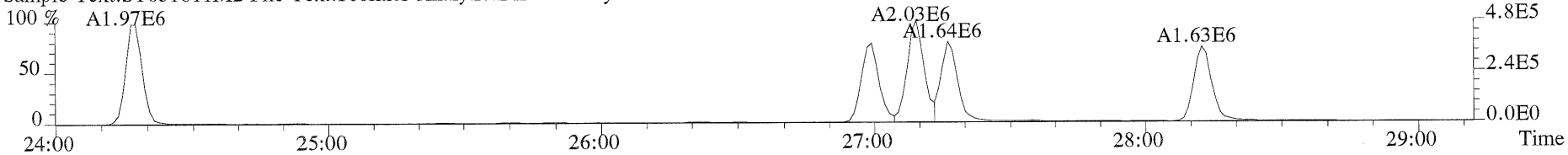
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:12 Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



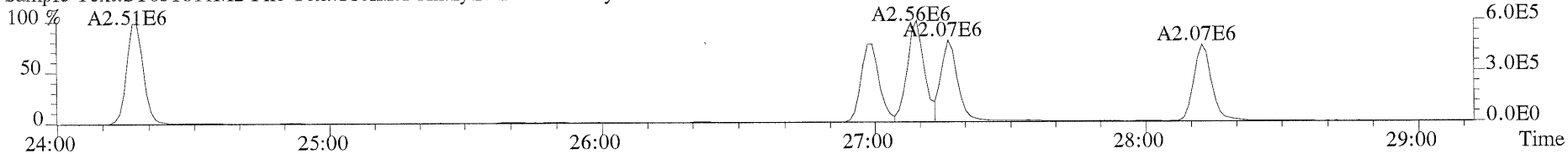
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:12 Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



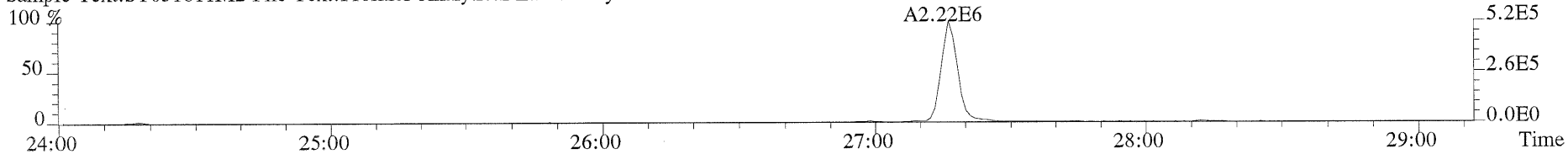
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



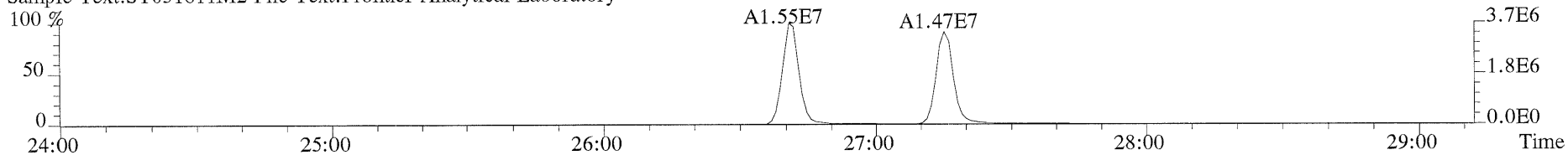
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



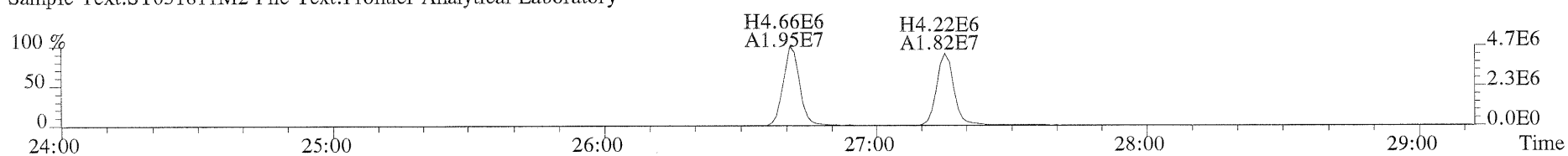
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



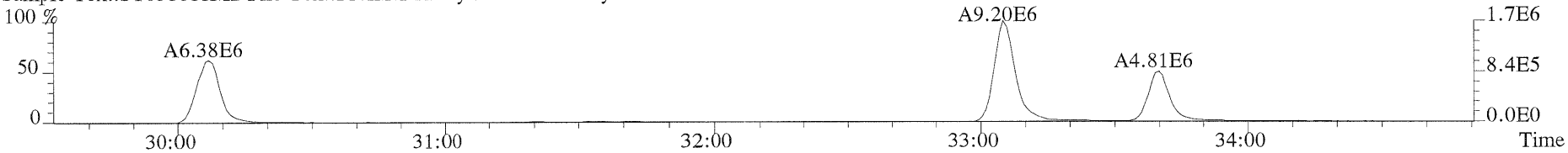
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



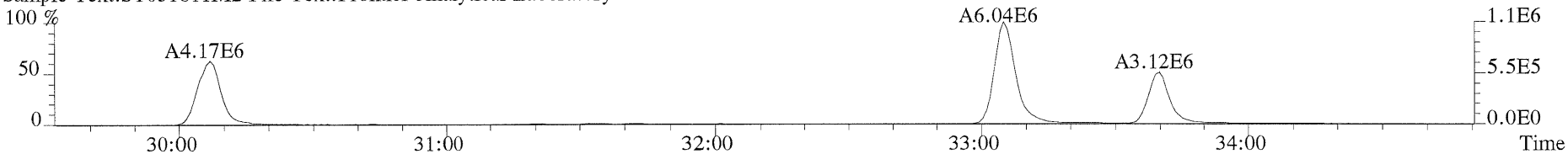
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



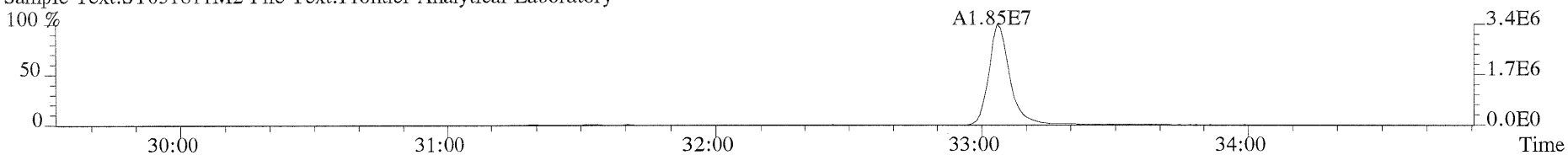
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



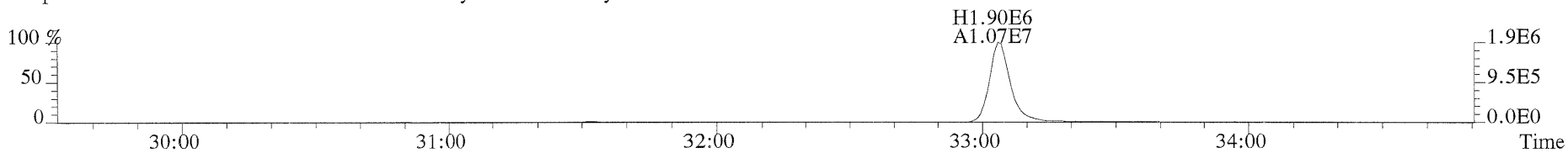
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



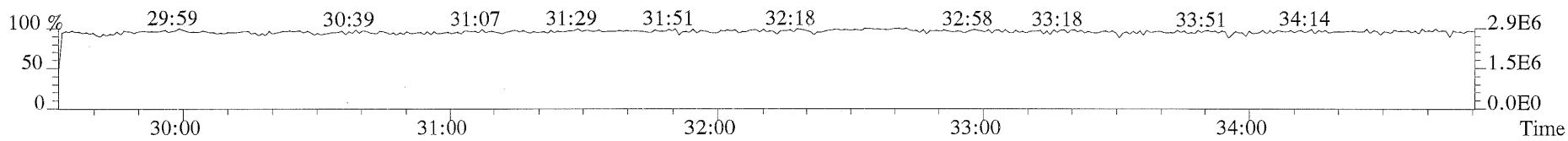
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



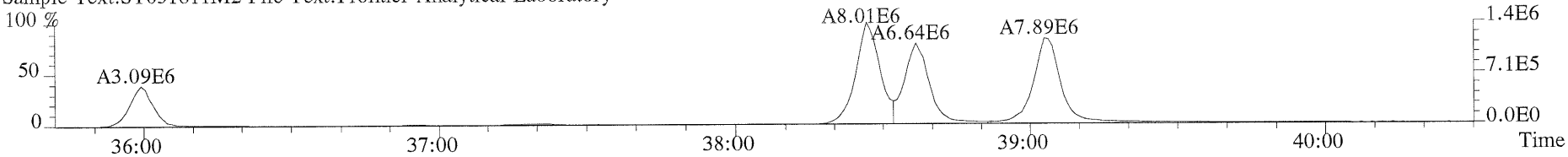
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



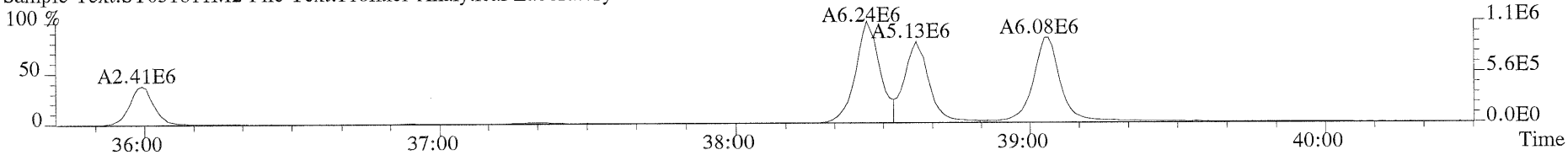
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:12 F:2 Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



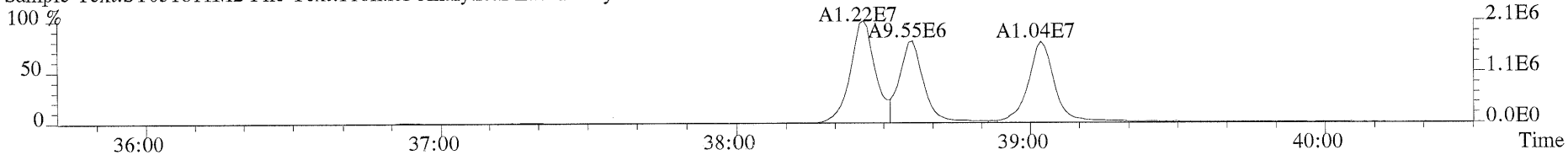
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



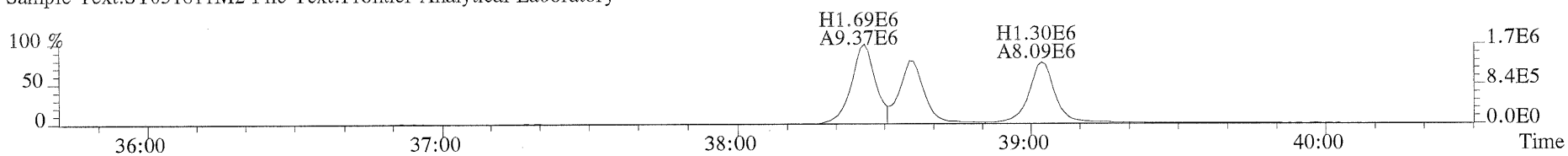
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



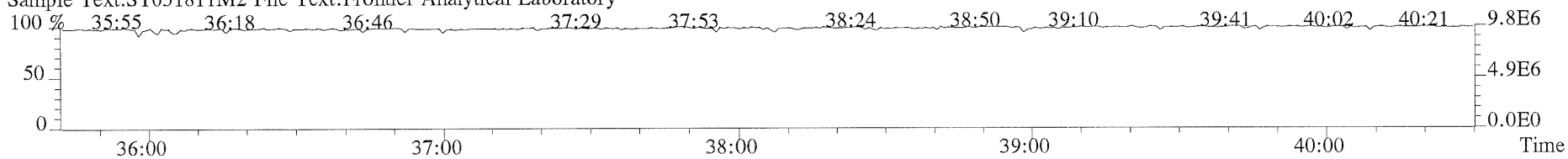
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



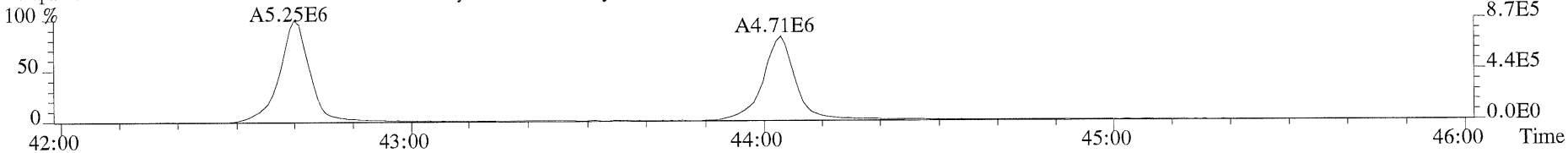
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



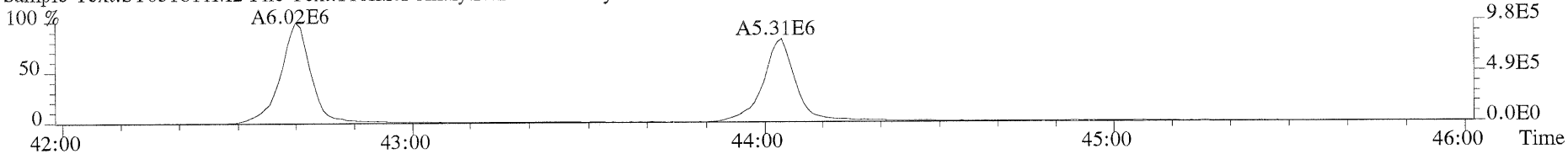
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:12 F:3 Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



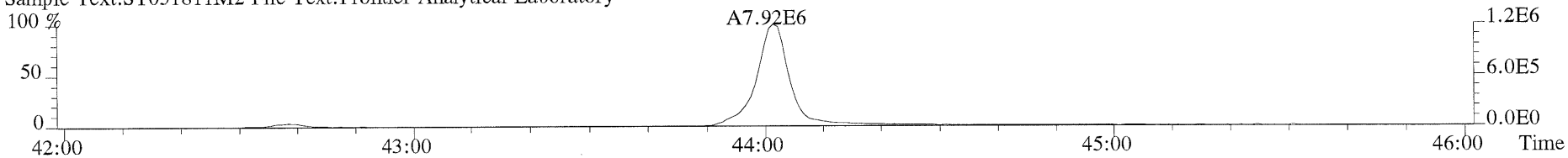
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



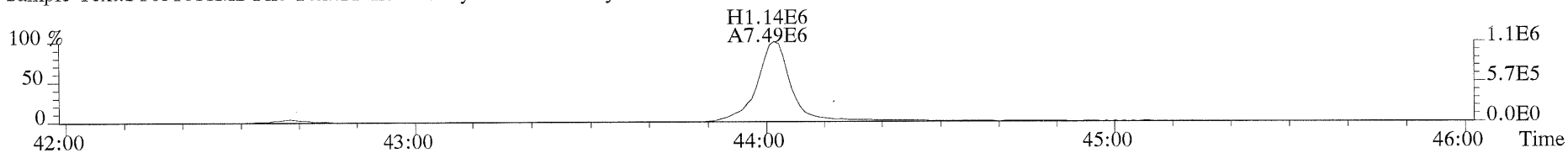
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



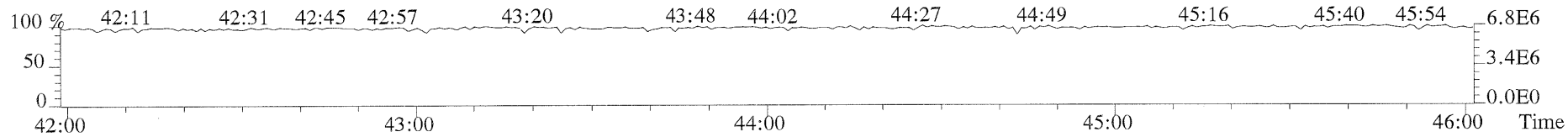
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



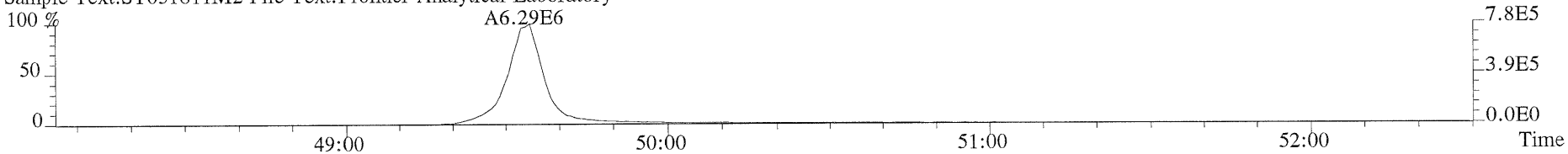
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



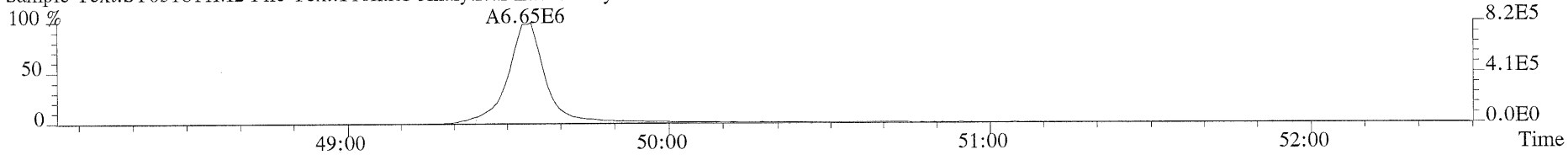
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:12 F:4 Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



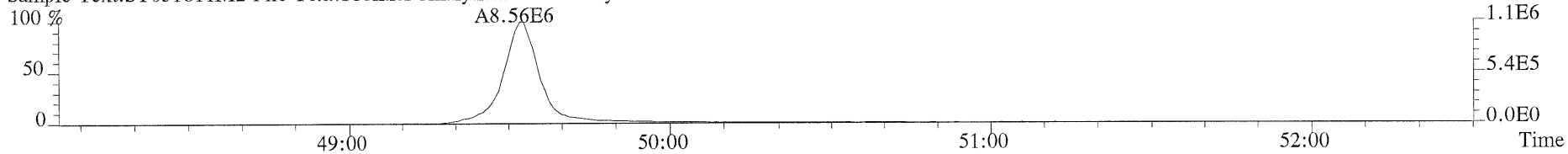
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



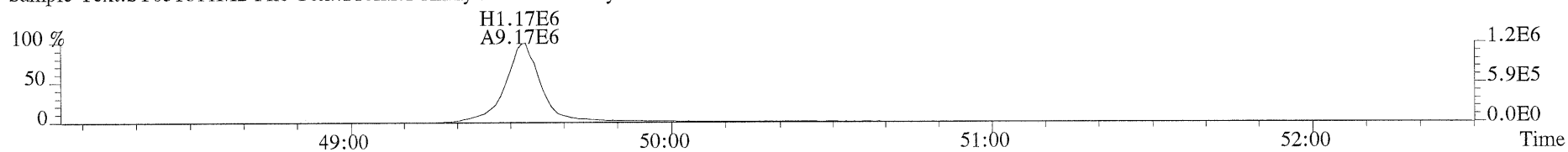
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



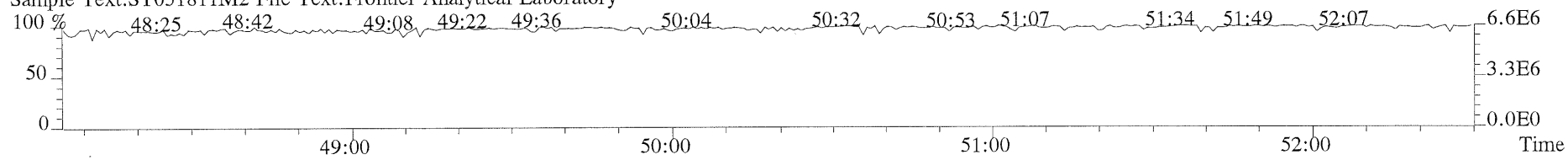
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



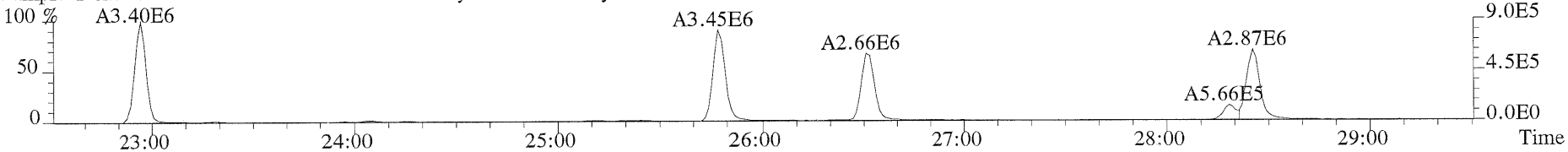
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



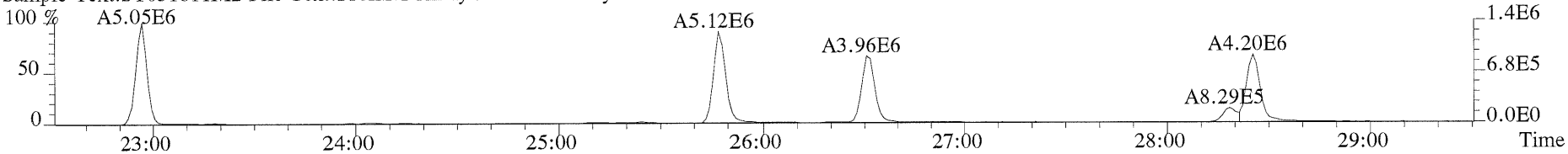
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:12 F:5 Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



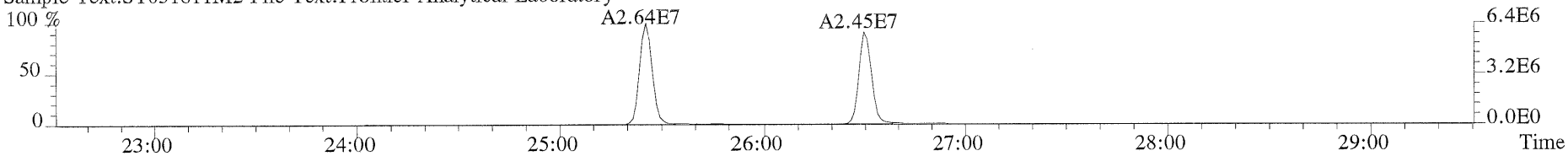
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



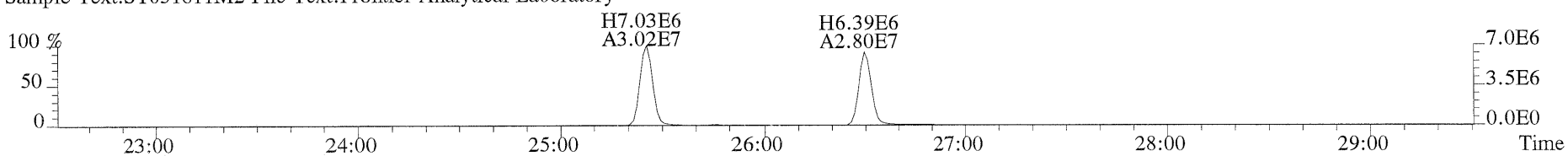
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



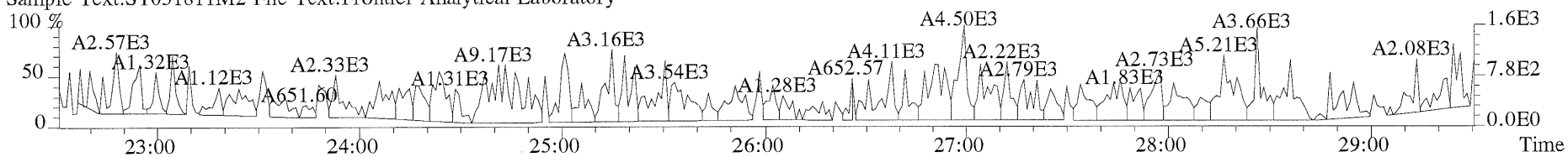
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



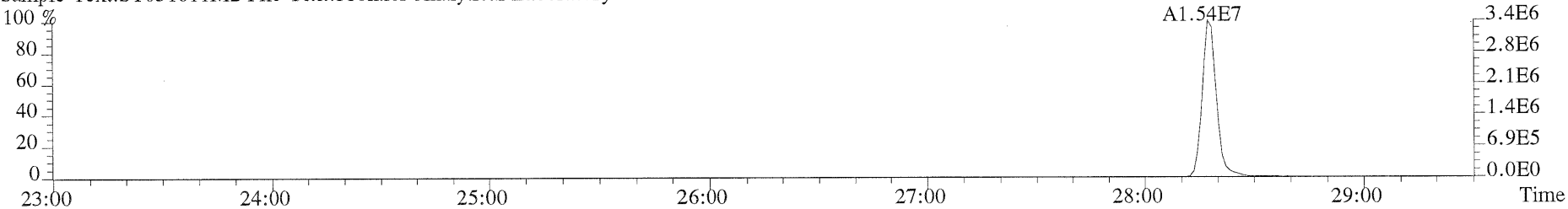
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



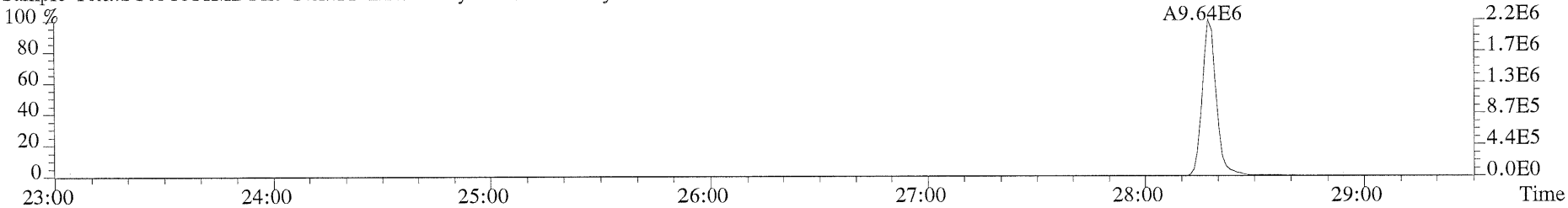
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



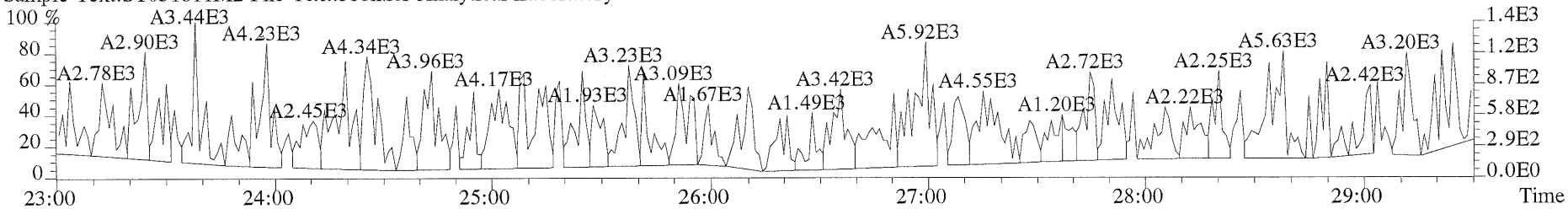
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



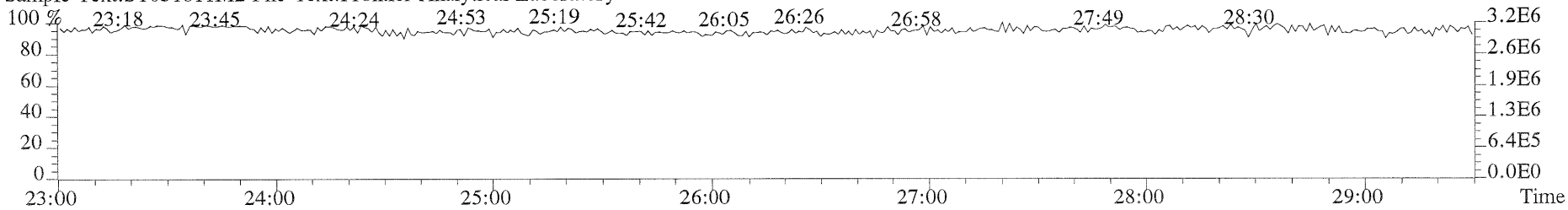
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



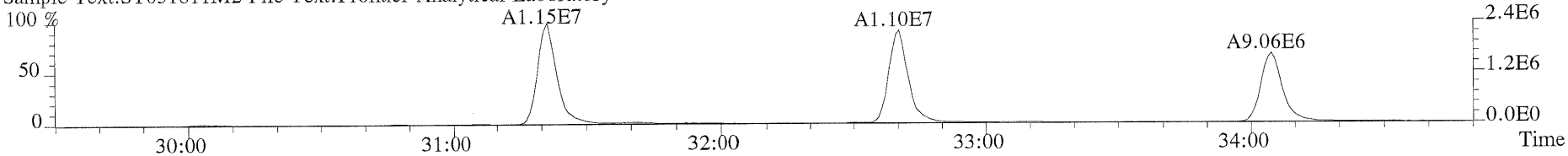
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



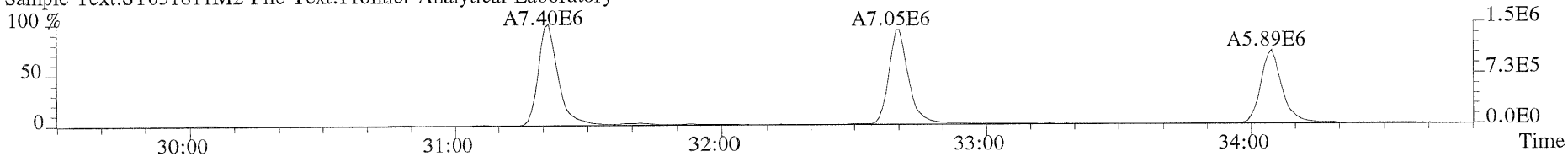
File:18MAY11M #1-426 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
316.9824 S:12 Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



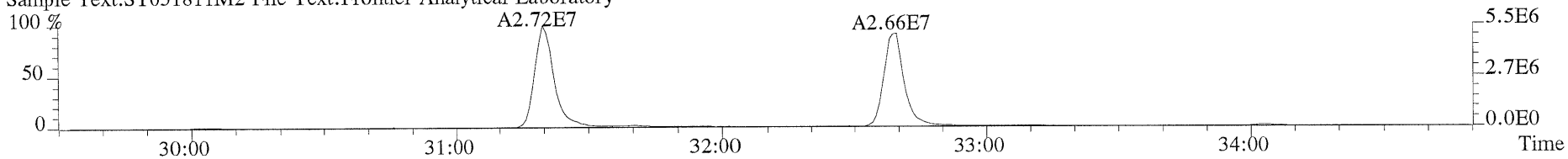
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



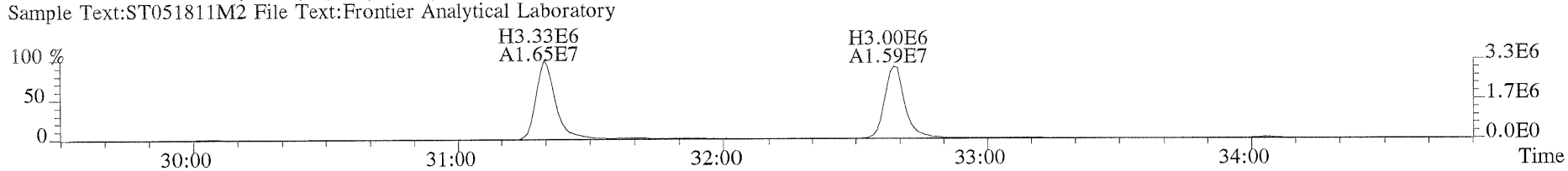
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



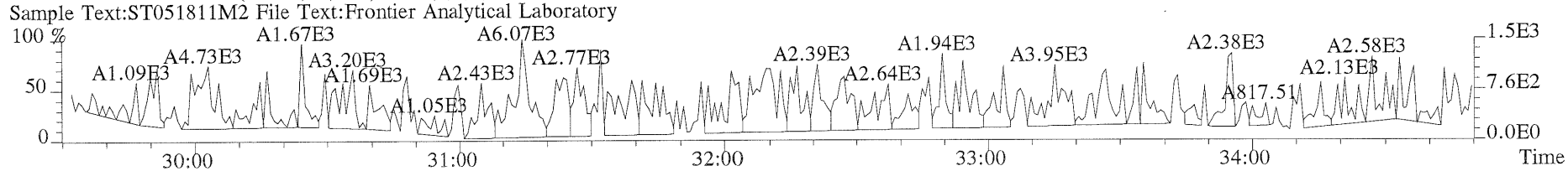
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



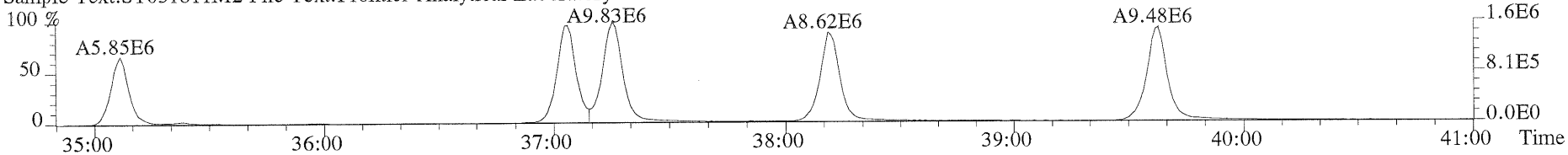
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



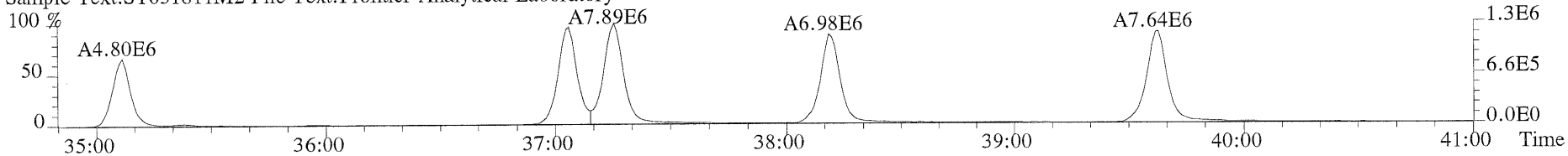
File:18MAY11M #1-412 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



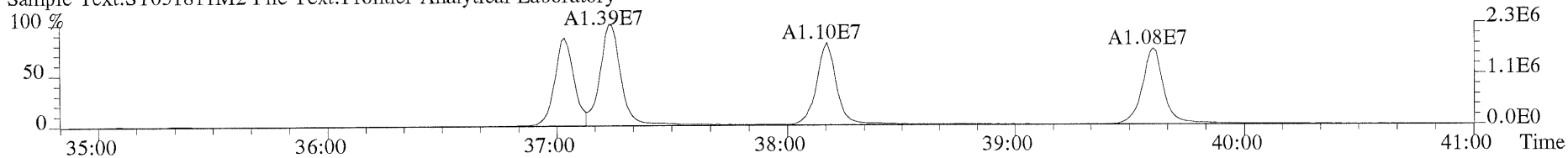
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



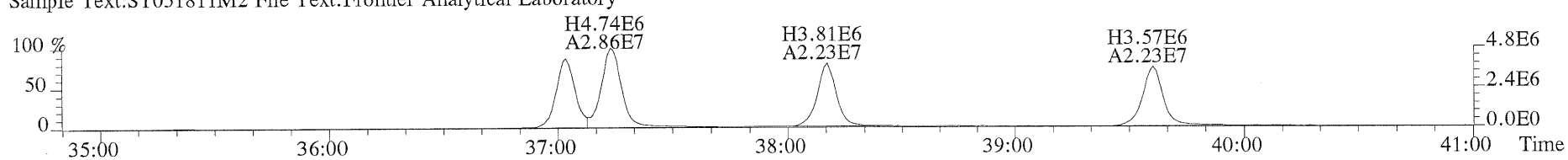
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



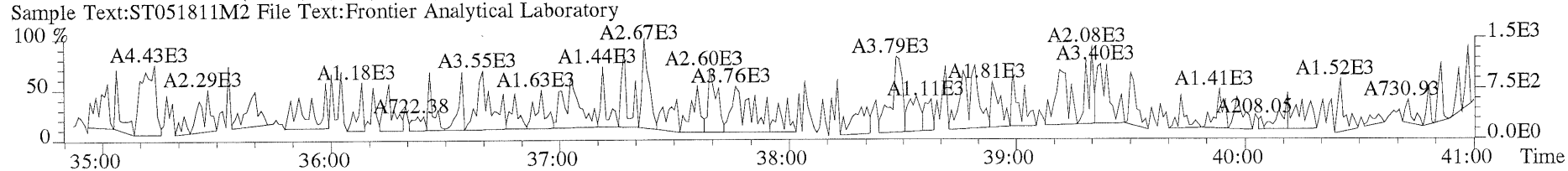
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



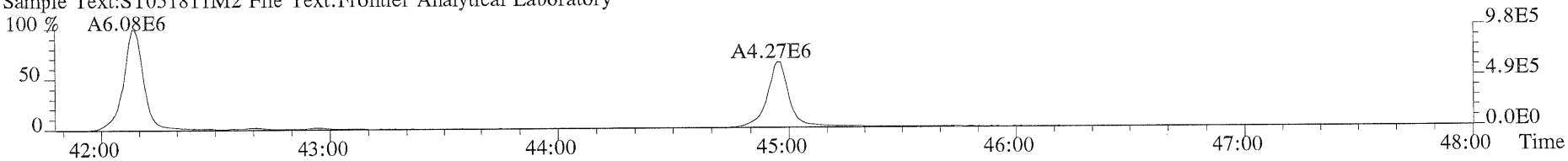
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



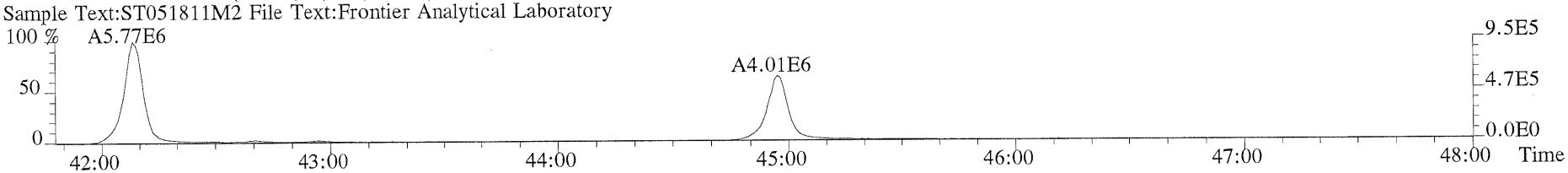
File:18MAY11M #1-477 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



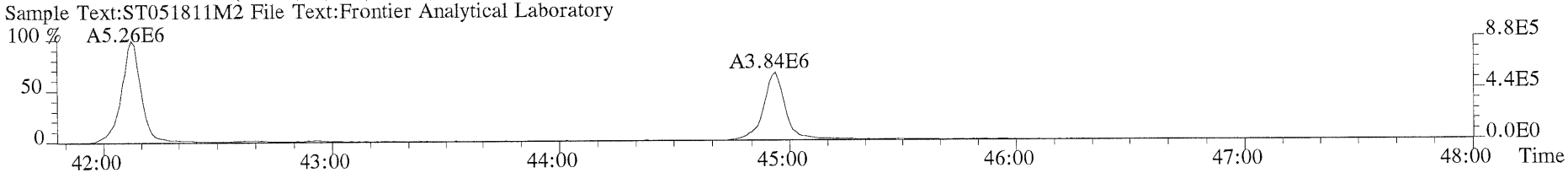
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



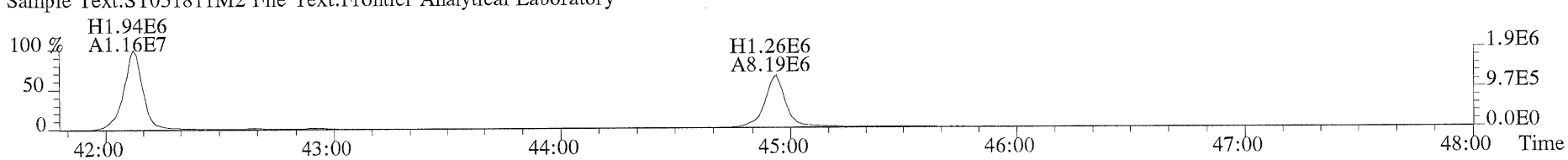
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



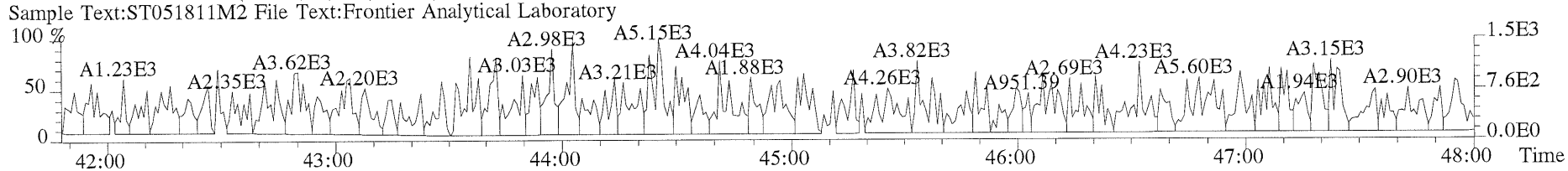
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



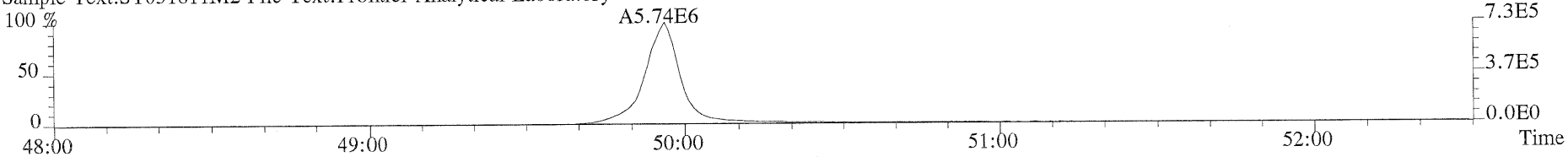
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



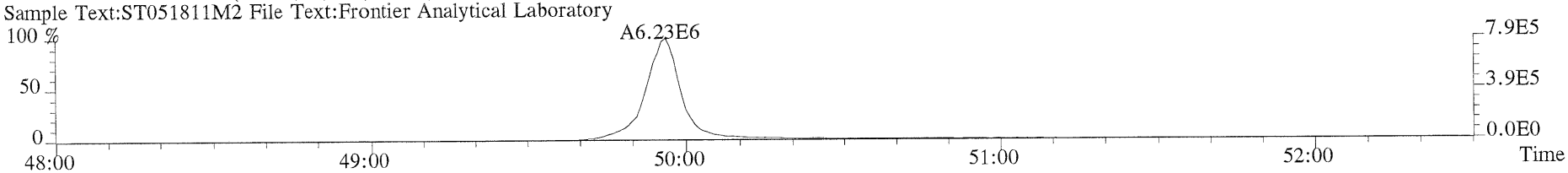
File:18MAY11M #1-541 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



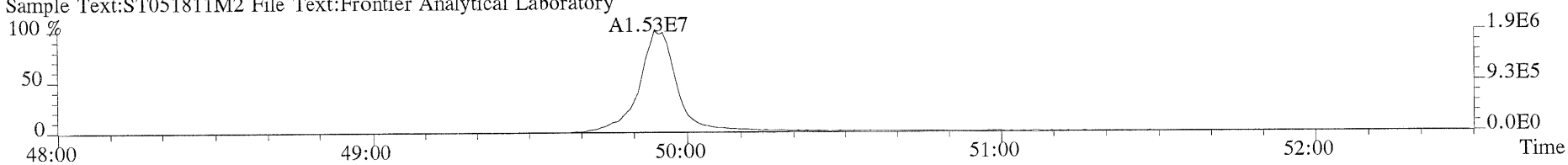
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



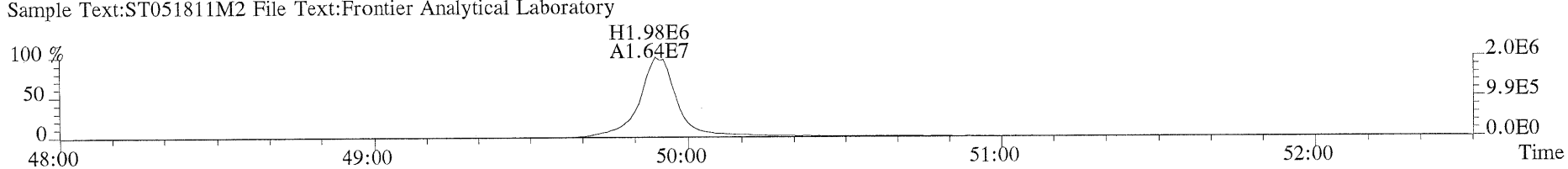
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



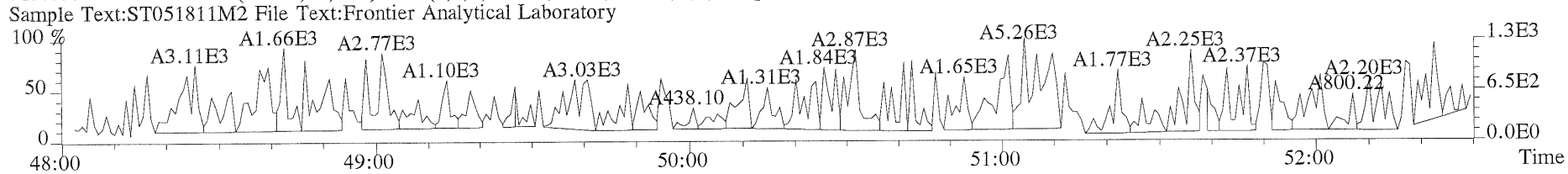
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory



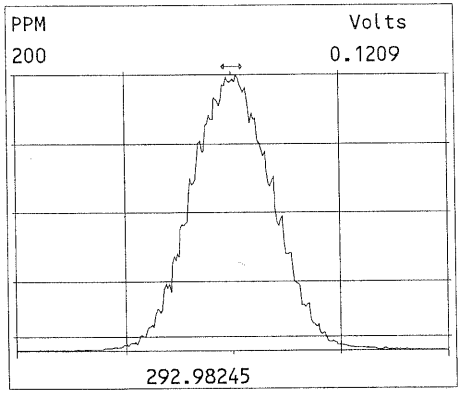
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory

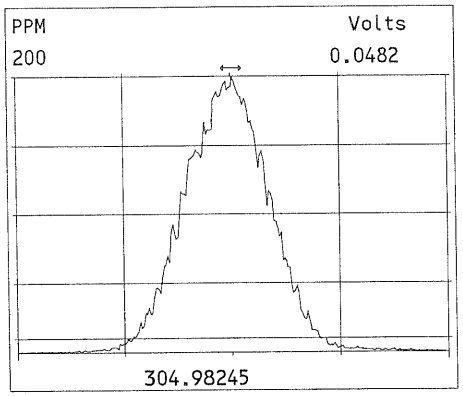


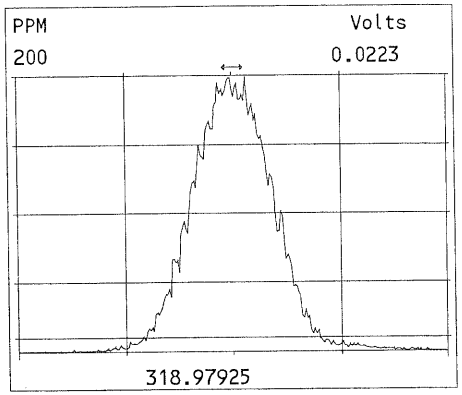
File:18MAY11M #1-347 Acq:18-MAY-2011 20:03:51 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:ST051811M2 File Text:Frontier Analytical Laboratory

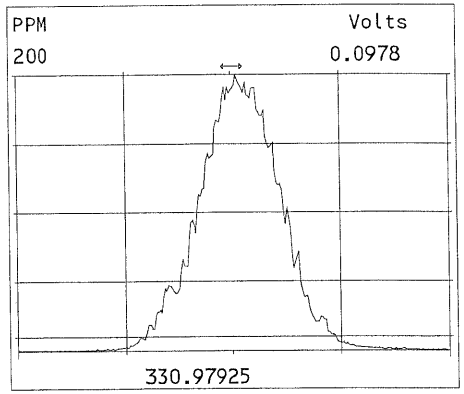


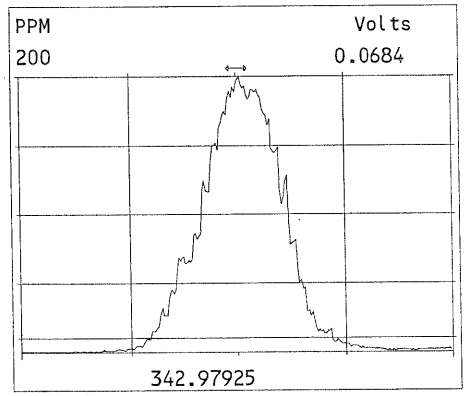
Peak Locate Examination:18-MAY-2011:21:01 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:1 Reference:PFK

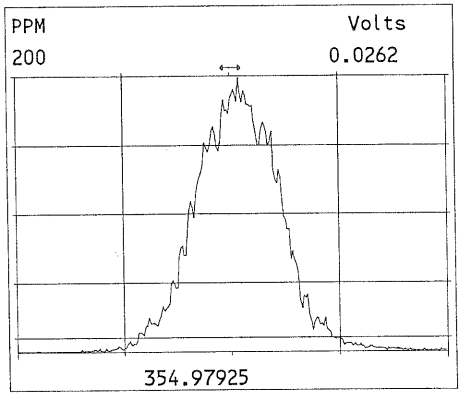


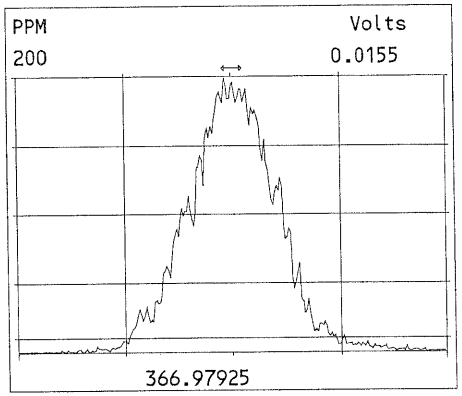


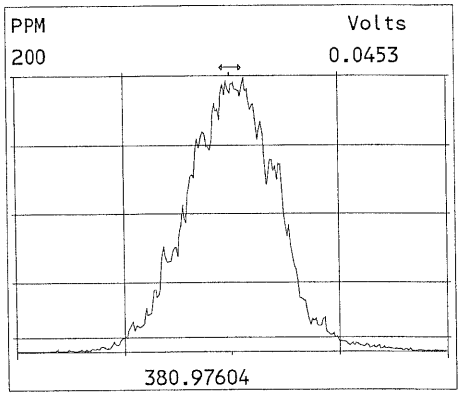


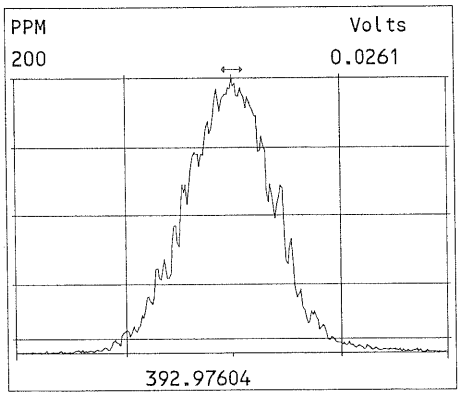


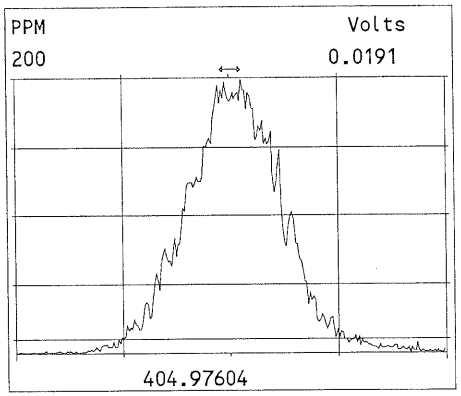


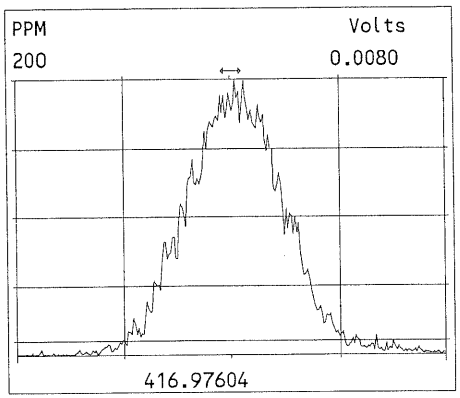




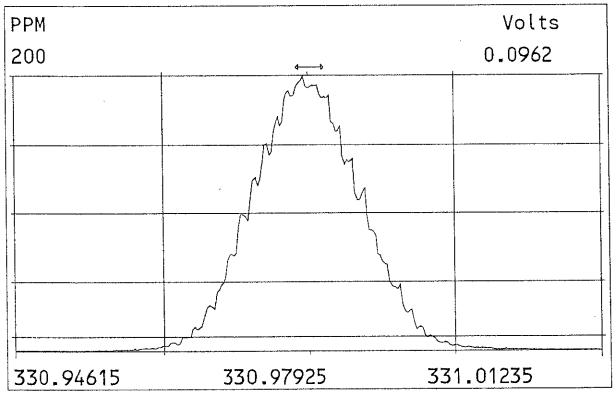


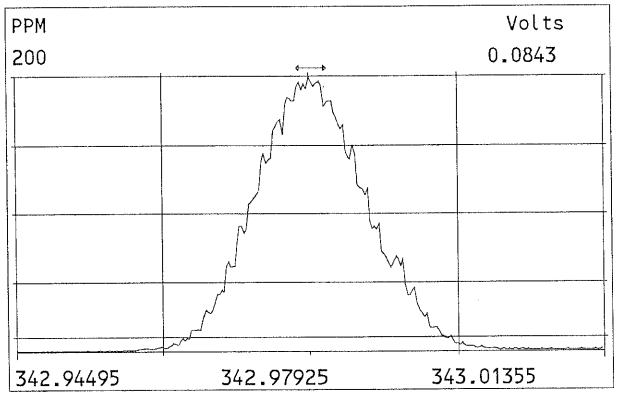


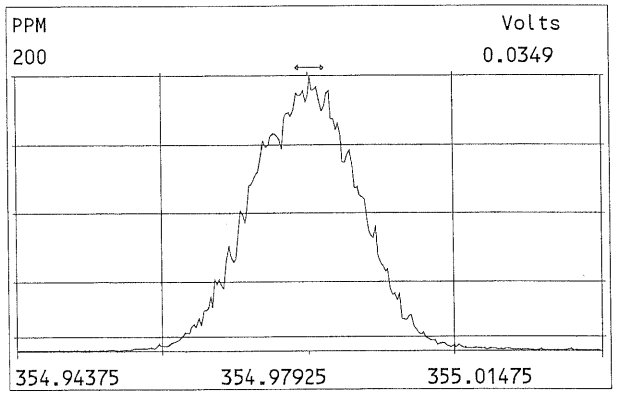


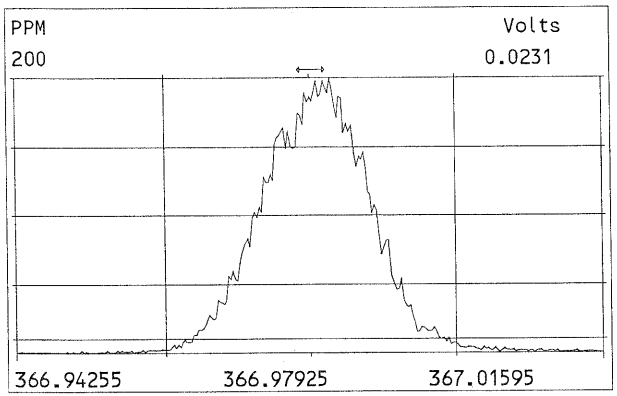


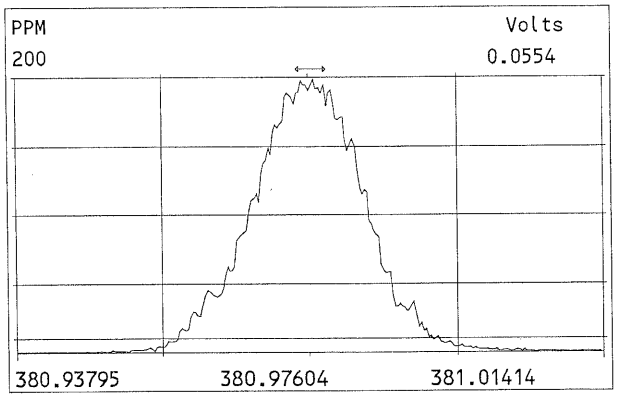
Peak Locate Examination:18-MAY-2011:21:03 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:2 Reference:PFK

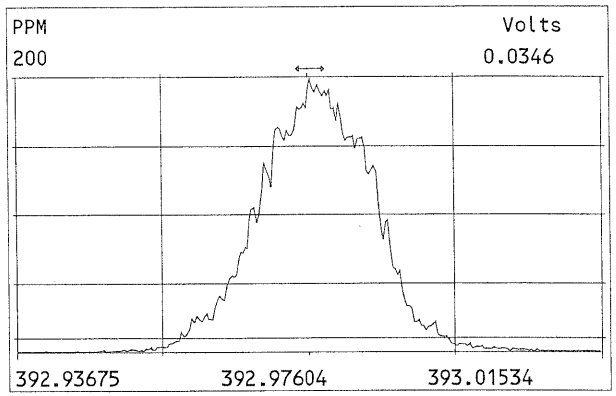


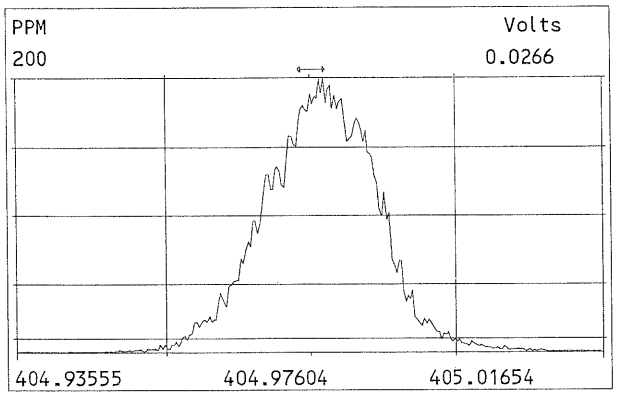


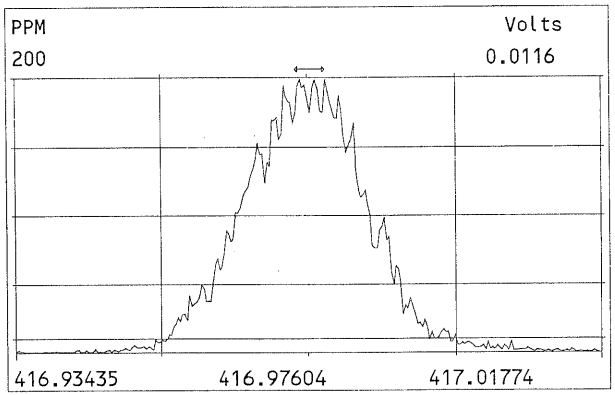




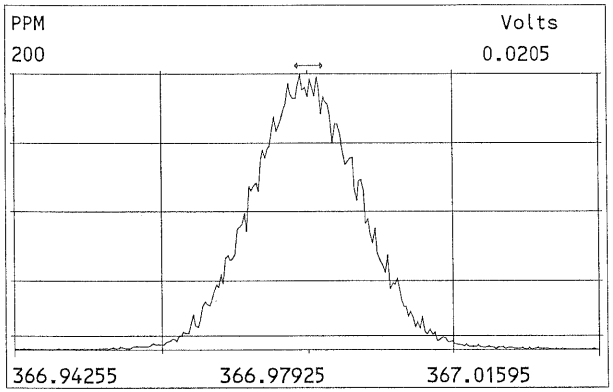


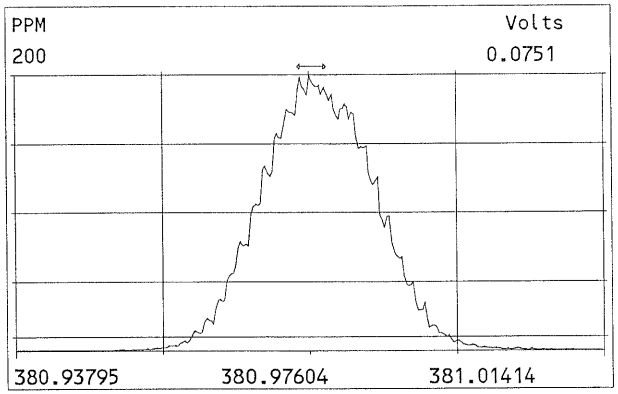


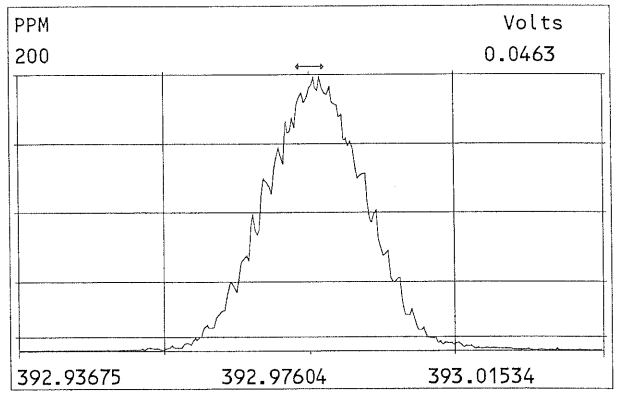


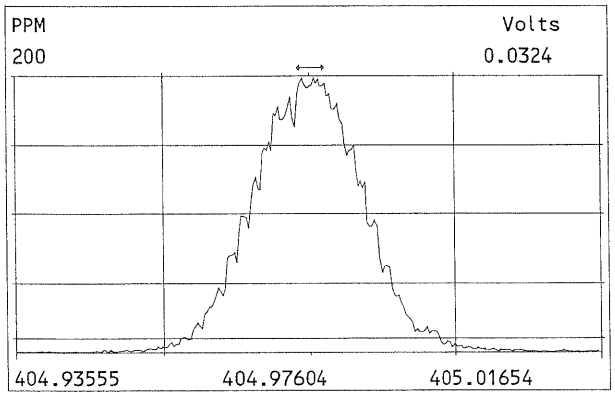


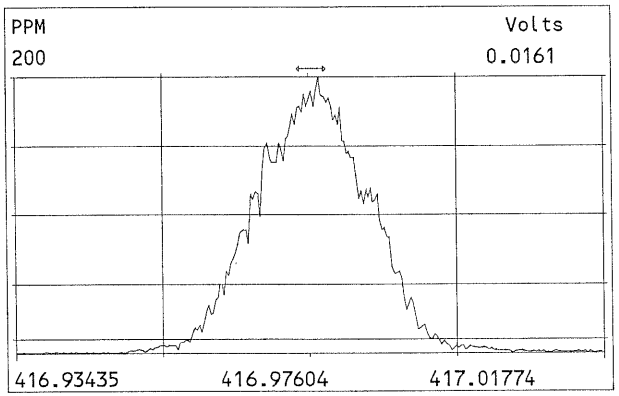
Peak Locate Examination:18-MAY-2011:21:05 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:3 Reference:PFK

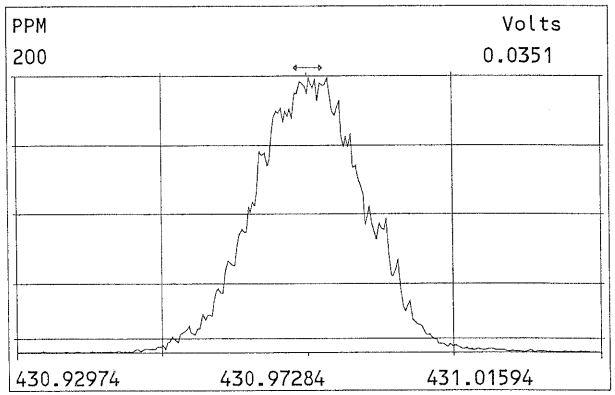


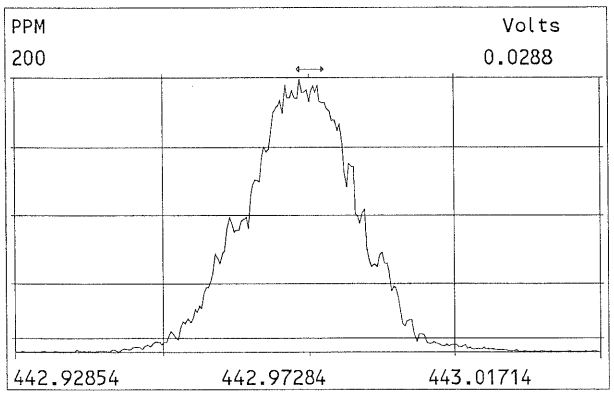


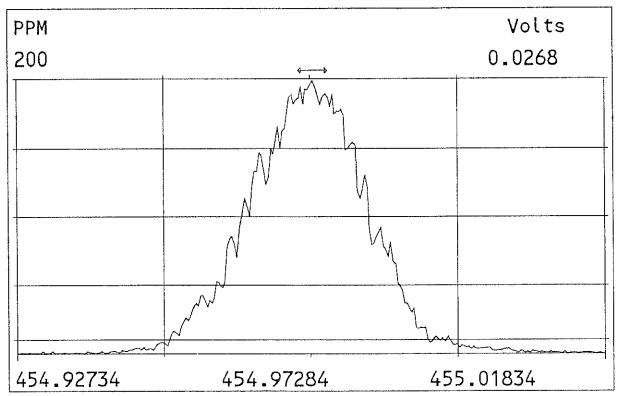




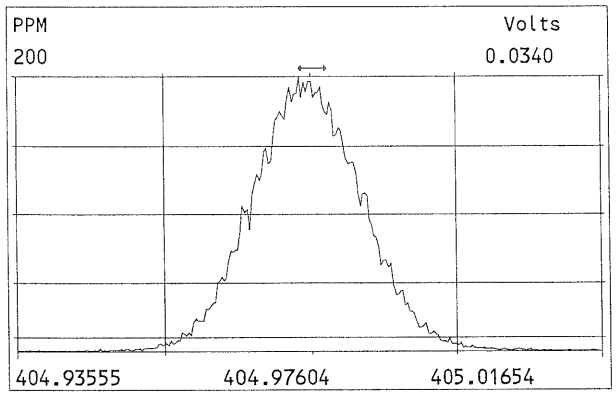


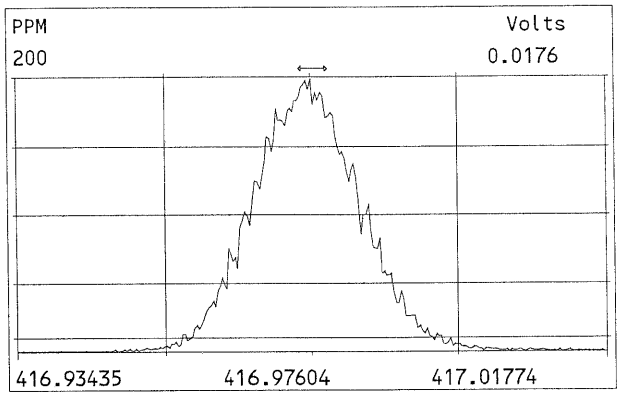


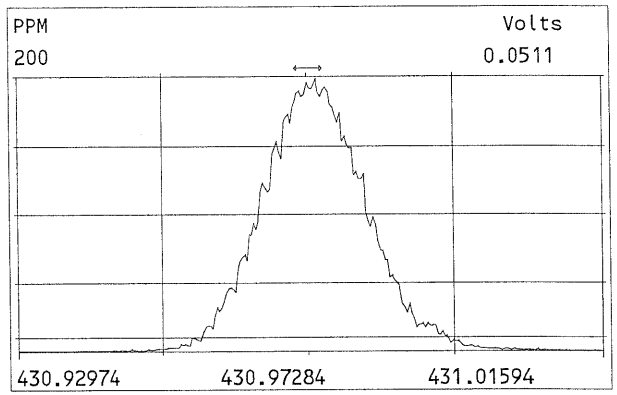


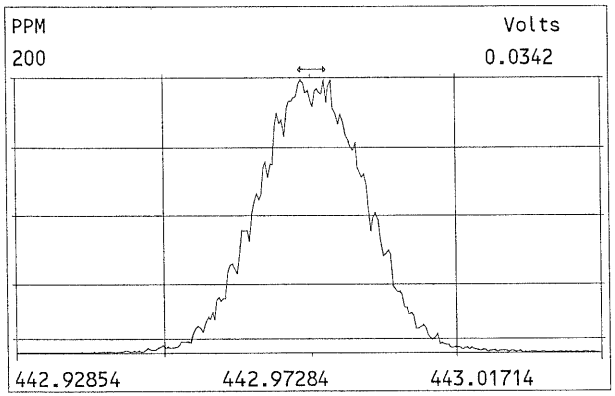


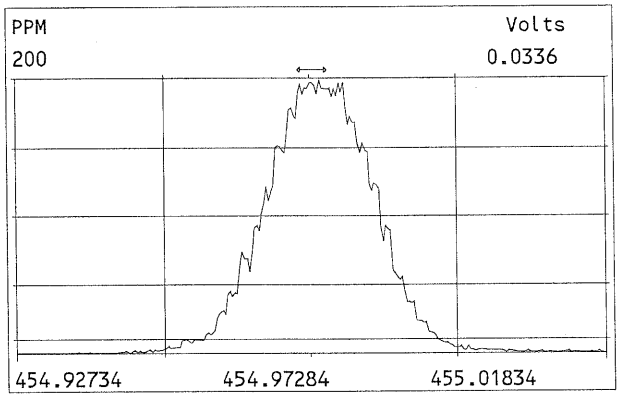
Peak Locate Examination:18-MAY-2011:21:06 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:4 Reference:PFK

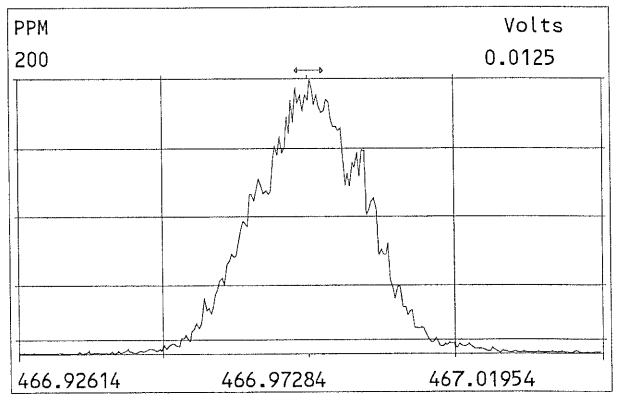


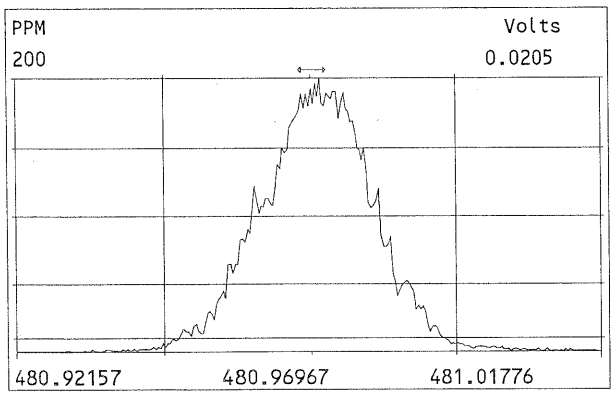




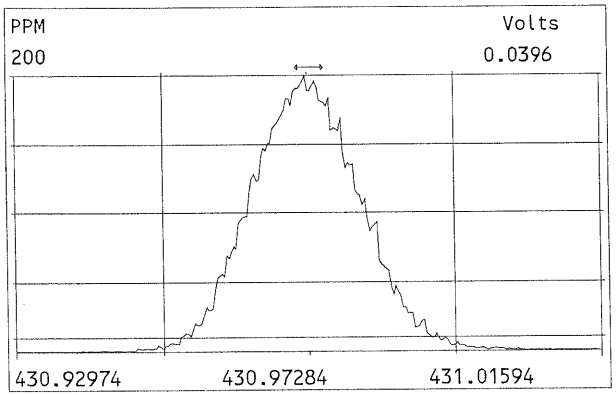


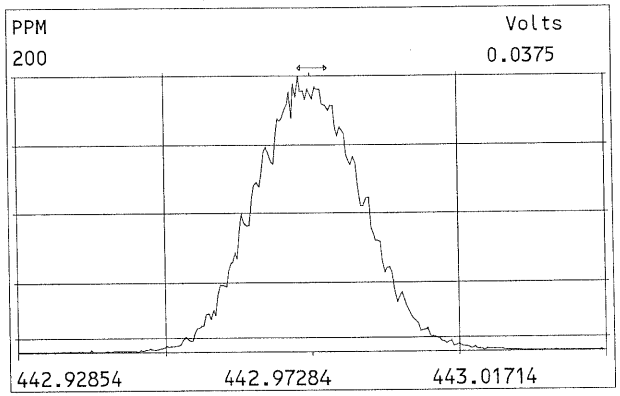


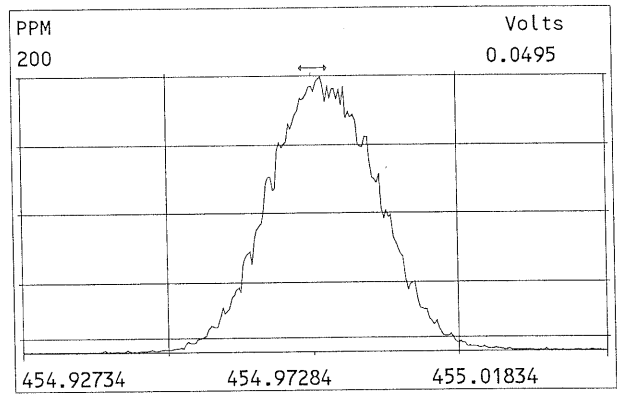


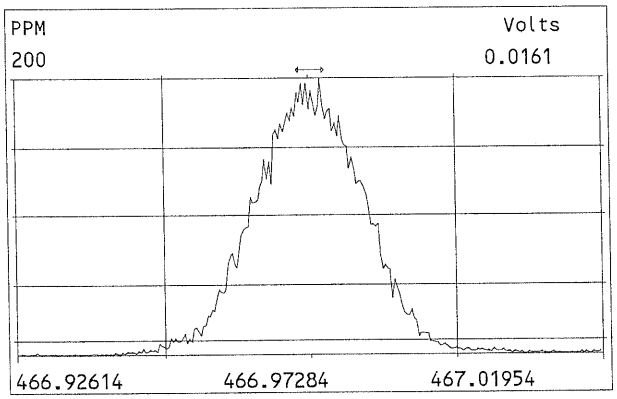


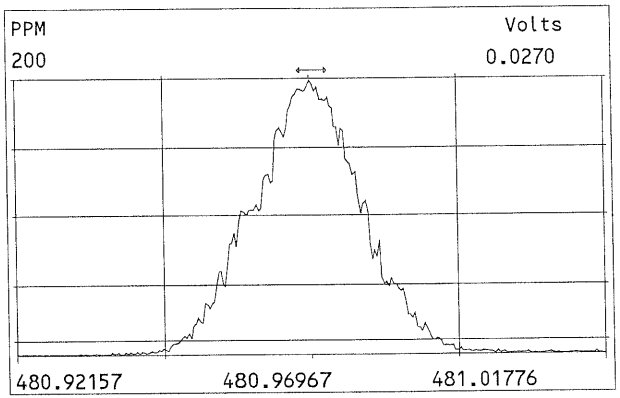
Peak Locate Examination:18-MAY-2011:21:08 File:18MAY11M_RES_CHECK
Experiment:OCDD Function:5 Reference:PFK

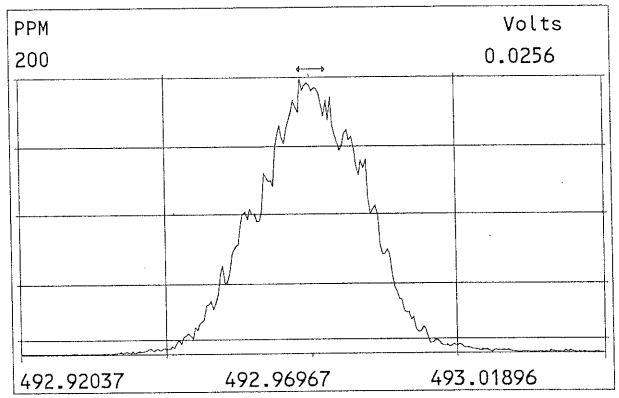


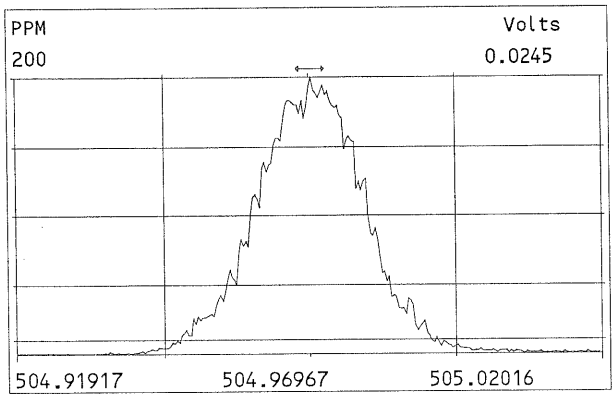


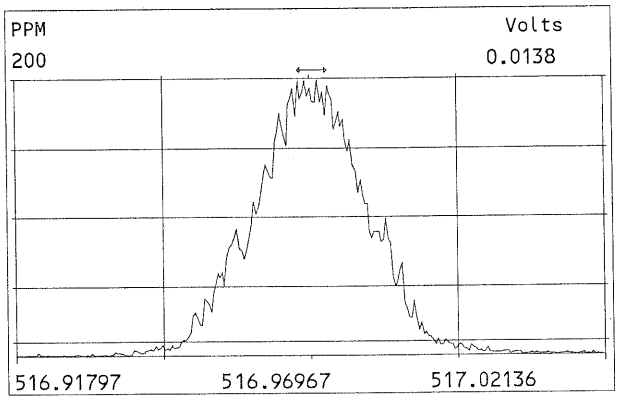












FRONTIER
ANALYTICAL LABORATORY

May 20, 2011

Ms. Sue Dunnihoo
Analytical Resources Incorporated
4611 South 134th Place
Tukwila, WA 98168-3240

Dear Ms. Dunnihoo,

Enclosed are the results for Frontier Analytical Laboratory project **6743**. This corresponds to your **Lora Lake Apts RI** project under ARI project number **SU73**. Two aqueous samples were received on 5/4/2011 in good condition. These samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The 2005 World Health Organizations toxic equivalency factors (TEFs) were used to calculate the toxic equivalents (TEQ) on your report. Analytical Resources Incorporated requested a Level IV data package and a turnaround time of fifteen business days for project **6743**.

The following Level IV report consists of an Analytical Data section, a Sample Receipt section, a Laboratory Raw Data section, and an Instrument Raw Data section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of custodies, our sample login form and the sample photo. The Laboratory Raw Data section contains our project request sheet, a percent solids sheet, an extraction bench sheet and the cleanup bench sheet. The instrument raw data section contains three sub-sections; the sample results section, the initial calibration section and the continuing/ending calibration section. The sample results sub-section consists of the quantitation summary forms with chromatograms for all samples and QC. The initial calibration sub-section consists of the individual quantitation summary forms and chromatograms for each point of the initial calibration curve as well as an overall quantitation summary form of the initial calibration curve. The continuing/ending calibration sub-section consists of the quantitation summary forms and chromatograms for all beginning and ending calibration injections associated with the samples and QC. You also requested Electronic Data Deliverables (EDD) for this project. The EDD and Level I summary have been sent to you via email. The Level IV report has been sent to you on compact disk. A hardcopy of the data package will not be forwarded unless specifically requested. The attached results are specifically for the samples referenced in this report only. These results meet all NELAC requirements and shall not be reproduced except in full.

If you have any questions regarding project **6743**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **6743**

Received on: **05/04/2011** Project Due: **05/26/2011** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
6743-001-SA	1	SU73	MW-01-042911	EPA 1613 D/F	Aqueous	04/29/2011	09:55 am	04/30/2012
6743-002-SA	1	SU73	MW-01-042911-D	EPA 1613 D/F	Aqueous	04/29/2011	10:00 am	04/30/2012

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6743-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X2294

Date Extracted: 05-18-2011
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/L

Acquired: 05-19-2011
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.07		-	0.215				
1,2,3,7,8-PeCDD	ND	2.04		-	0.317				
1,2,3,4,7,8-HxCDD	ND	2.42		-	0.326				
1,2,3,6,7,8-HxCDD	ND	3.16		-	0.424	Total TCDD	ND	1.07	
1,2,3,7,8,9-HxCDD	ND	2.71		-	0.367	Total PeCDD	ND	2.04	
1,2,3,4,6,7,8-HpCDD	ND	3.57		-	0.497	Total HxCDD	ND	3.16	
OCDD	ND	7.45		-	1.41	Total HpCDD	ND	3.57	
2,3,7,8-TCDF	ND	0.953		-	0.209				
1,2,3,7,8-PeCDF	ND	1.49		-	0.235				
2,3,4,7,8-PeCDF	ND	1.56		-	0.243				
1,2,3,4,7,8-HxCDF	ND	1.77		-	0.255				
1,2,3,6,7,8-HxCDF	ND	1.76		-	0.248				
2,3,4,6,7,8-HxCDF	ND	1.92		-	0.262				
1,2,3,7,8,9-HxCDF	ND	2.00		-	0.258	Total TCDF	ND	0.953	
1,2,3,4,6,7,8-HpCDF	ND	2.42		-	0.324	Total PeCDF	ND	1.56	
1,2,3,4,7,8,9-HpCDF	ND	3.99		-	0.490	Total HxCDF	ND	2.00	
OCDF	ND	5.70		-	0.805	Total HpCDF	ND	3.99	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	76.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	70.5	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	73.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	75.6	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	74.1	23.0 - 140	
13C-OCDD	60.0	17.0 - 157	
13C-2,3,7,8-TCDF	78.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	74.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	75.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	77.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	77.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	76.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	65.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	69.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	60.7	26.0 - 138	
13C-OCDF	54.3	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	79.2	35.0 - 197

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 5/20/11

Reviewed By: _____
Date: 5/20/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6743-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X2294

Date Extracted: 05-18-2011
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: ng/ml

Acquired: 05-19-2011
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	11.1	6.70 - 15.8	
1,2,3,7,8-PeCDD	58.0	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	52.9	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	55.9	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	54.7	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	55.3	35.0 - 70.0	
OCDD	107	78.0 - 144	
2,3,7,8-TCDF	12.3	7.50 - 15.8	
1,2,3,7,8-PeCDF	54.5	40.0 - 67.0	
2,3,4,7,8-PeCDF	53.2	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	51.3	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	52.3	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	51.8	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	51.2	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.0	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	52.5	39.0 - 69.0	
OCDF	102	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.7	20.0 - 175	
13C-1,2,3,7,8-PeCDD	79.9	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	88.9	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	90.7	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	98.0	26.0 - 166	
13C-OCDD	86.7	13.0 - 198	
13C-2,3,7,8-TCDF	81.6	22.0 - 152	
13C-1,2,3,7,8-PeCDF	87.7	21.0 - 192	
13C-2,3,4,7,8-PeCDF	79.9	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	98.9	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	97.1	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	84.8	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	83.7	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	96.8	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	86.5	20.0 - 186	
13C-OCDF	80.8	13.0 - 198	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	87.9	31.0 - 191	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 5/20/11

Reviewed By: _____
Date: 5/20/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6743-001-SA
Client ID: MW-01-042911
Matrix: Aqueous
Batch No: X2294

Date Extracted: 05-18-2011
Date Received: 05-04-2011
Amount: 0.960 L

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/L

Acquired: 05-19-2011
2005 WHO TEQ: 24.1

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	2.27	-		2.27	0.215				
1,2,3,7,8-PeCDD	4.97	-	J	4.97	0.317				
1,2,3,4,7,8-HxCDD	4.05	-	J	0.405	0.326				
1,2,3,6,7,8-HxCDD	27.1	-		2.71	0.424	Total TCDD	11.2	-	
1,2,3,7,8,9-HxCDD	11.8	-		1.18	0.367	Total PeCDD	150	-	
1,2,3,4,6,7,8-HpCDD	599	-		5.99	0.497	Total HxCDD	322	-	
OCDD	8430	-		2.53	1.41	Total HpCDD	1290	-	
2,3,7,8-TCDF	ND	1.56		-	0.209				
1,2,3,7,8-PeCDF	14.6	-	J	0.438	0.235				
2,3,4,7,8-PeCDF	3.23	-	J	0.969	0.243				
1,2,3,4,7,8-HxCDF	4.20	-	J	0.420	0.255				
1,2,3,6,7,8-HxCDF	6.06	-	J	0.606	0.248				
2,3,4,6,7,8-HxCDF	7.38	-	J	0.738	0.262				
1,2,3,7,8,9-HxCDF	2.04	-	J	0.204	0.258	Total TCDF	333	-	D,M
1,2,3,4,6,7,8-HpCDF	54.3	-		0.543	0.324	Total PeCDF	547	-	D,M
1,2,3,4,7,8,9-HpCDF	6.30	-	J	0.0630	0.490	Total HxCDF	183	-	D,M
OCDF	207	-		0.0621	0.805	Total HpCDF	197	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	81.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	79.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	86.7	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	90.6	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	103	23.0 - 140	
13C-OCDD	96.0	17.0 - 157	
13C-2,3,7,8-TCDF	83.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	91.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	90.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	87.0	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	87.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	87.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	80.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	93.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	88.1	26.0 - 138	
13C-OCDF	84.6	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	78.3	35.0 - 197

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 5/20/11

Reviewed By: _____
Date: 5/20/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6743-002-SA
Client ID: MW-01-042911-D
Matrix: Aqueous
Batch No: X2294

Date Extracted: 05-18-2011
Date Received: 05-04-2011
Amount: 1.005 L

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/L

Acquired: 05-19-2011
2005 WHO TEQ: 11.2

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.17		-	0.215				
1,2,3,7,8-PeCDD	1.50	-	J	1.50	0.317				
1,2,3,4,7,8-HxCDD	2.91	-	J	0.291	0.326				
1,2,3,6,7,8-HxCDD	16.0	-	J	1.60	0.424	Total TCDD	2.30	-	J
1,2,3,7,8,9-HxCDD	6.43	-	J	0.643	0.367	Total PeCDD	76.8	-	
1,2,3,4,6,7,8-HpCDD	305	-		3.05	0.497	Total HxCDD	183	-	
OCDD	3520	-		1.06	1.41	Total HpCDD	638	-	
2,3,7,8-TCDF	ND	1.25		-	0.209				
1,2,3,7,8-PeCDF	13.1	-	J	0.393	0.235				
2,3,4,7,8-PeCDF	2.50	-	J	0.750	0.243				
1,2,3,4,7,8-HxCDF	2.58	-	J	0.258	0.255				
1,2,3,6,7,8-HxCDF	4.42	-	J	0.442	0.248				
2,3,4,6,7,8-HxCDF	6.34	-	J	0.634	0.262				
1,2,3,7,8,9-HxCDF	2.11	-	J	0.211	0.258	Total TCDF	248	-	D,M
1,2,3,4,6,7,8-HpCDF	31.8	-		0.318	0.324	Total PeCDF	508	-	D,M
1,2,3,4,7,8,9-HpCDF	4.16	-	J	0.0416	0.490	Total HxCDF	103	-	D,M
OCDF	113	-		0.0339	0.805	Total HpCDF	119	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	87.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	84.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	92.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	98.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	109	23.0 - 140	
13C-OCDD	99.2	17.0 - 157	
13C-2,3,7,8-TCDF	93.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	99.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	96.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	93.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	95.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	93.7	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	88.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	101	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	95.5	26.0 - 138	
13C-OCDF	87.4	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	77.8	35.0 - 197	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 5/20/11

Reviewed By: _____
Date: 5/20/11

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 04/29/11

ANALYTICAL RESOURCES INCORPORATED

6743
8c

ARI Project: SU73

Laboratory: Frontier Analytical Laboratory
Lab Contact: BRAD SILVERBUSH
Lab Address: 5172 Hillsdale Circle
El Dorado Hills, CA 95762
Phone: 916-934-0900
Fax: 916-934-0999

ARI Client: Floyd Snider
Project ID: Lora Lake Apts RI
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
Fax: 206-695-6201

Analytical Protocol: In-house
Special Instructions:

Requested Turn Around:
Email Results (Y/N): **email**

Limits of Liability. *Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
11-9762-SU73A	MW-01-042911	04/29/11 09:55	Water	2	Dioxin/Furans 1613(Sub)
Special Instructions: None					
11-9763-SU73B	MW-01-042911-D	04/29/11 10:00	Water	2	Dioxin/Furans 1613(Sub)
Special Instructions: None					

Carrier UPS	Airbill 1Z832695015096 8222 / 1Z832695015093 6633	Date 5/3/11	
Relinquished by	Company ARI	Date 5/3/11	Time 1509
Received by	Company FAL	Date 5/4/11	Time 1030

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **6743**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	SU73
Date Received:	05/04/2011
Time Received:	10:30 am
Received By:	BS
Logged In By:	KZ
# of Samples Received:	2
Duplicates:	2
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950150933633
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	Yes
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	04/30/2012
Adequate Sample Volume	Yes
pH Range	Between 4 and 9
Anomalies or additional comments: L4 & EDD	


Frontier Analytical Laboratory
6743-001-SA
Client ID: MW-01-042911
Storage: R1
(01 of 02)
Client: FS
Project:
Sample MW-01-042911
Site LLA
Date 4/29/11 Time 0955 Sampler EM
Analysis Dioxin
Comments:
Frontier Analytical Laboratory
6743-002-SA
Client ID: MW-01-042911-D
Storage: R1
(01 of 02)
Client: FS
Sample MW-01-042911-D Site LLA
Date 4/29/11 Time 1000 Sampler JF
Analysis Dioxin
Comments:

Frontier Analytical Laboratory

PROJECT REQUEST SHEET

Project #:	6743	Sample #:	1 - 2	Client Manager:	BS
Client:	Analytical Resources Inc. Sue Dunnihoo		2294	Hold Time:	04/30/2012
Matrix:	Aqueous	Extraction Batch:	~~2296~~ GN 5/18/11	Due Date:	05/26/2011
Method:	EPA 1613 D/F			Storage:	R1
SOP:	SOPs: EP2A Rev.9 IP2A Rev.10				

COMMENTS/INSTRUCTIONS:

-NC-

Sample	Full Weight (g)	Empty Weight (g)
6743-001-0001-SA	1452.9	492.87
6743-002-0001-SA	GN+S 1499.5 5/18/11	494.67

Results: 6743

Extract/s located in box: 110 xymonn V

Standards: 6743

Instrument: Tul 3
DB5 ____
DB225 ____
DB1 ____
Other ____

L4 & EDD

Frontier Analytical Laboratory
Percent Solids

FAL Project: 6743

Sample ID	Chemist	Date	Wet Sample Weight (g)	Dry Sample Weight (g)	% Solids	10g Equiv
1.32 6743-001-0001-SA	GN	5/18/11	12.53	0.01	0.08	—
1.32 6743-002-0001-SA	↓	↓	11.62	0.00	0.00	—

% Solids Summary:

Non-Filtered Determination

1. Place an aliquot of sample into a pre-weighed aluminum weighing boat. Use approximately two to ten grams for solid samples, approximately 10 mL for aqueous samples.
2. Record the weight.
3. Dry sample overnight at approximately 110 C.

Filtered Determination

1. Pre-weigh a glass fiber filter of appropriate pore size and pressure filter a sample aliquot (200-1000mL) through it.
2. Air dry the filter and record the dry weight.

% Solids calculation

% solids = aliquot after drying/aliquot before drying x 100

- Samples containing one percent solids or less are prepared as aqueous samples.
- Samples containing greater than one percent solids prepared as solid samples.

Frontier Analytical Laboratory

EXTRACTION SHEET

Project #: 6743 Extraction Date: 2011-05-18 Extraction Chemist: GN

Method/Analysis: EPA 1613 D/F

Procedure: SPE/SOX Solvent: Toluene

Sample ID	Wet wt. (g/L)	Dry wt. (g/L)	IS Amt: 10.0uL ID: 100511A Vial: 6 Chemist/Witness/Date	NS Amt: 10.0uL ID: 100511B Vial: 6 Chemist/Witness/Date	CSS Amt: 10.0uL ID: 100511C Vial: 6 Chemist/Witness/Date
2294-001-0001-MB	(1.000L)		GN 5/18/11	NA	GN 5/19/11
2294-001-0001-OPR	(1.000L)			GN 5/18/11	
6743-001-0001-SA	0.960			NA	
6743-002-0001-SA	1.005				

AX-21 Charcoal Cleaned	082510	Acetone	107203	Acid Alumina	A0281479	Hexane	110182
Hydrochloric Acid	B08505	Methanol	108367	Methylene Chloride (DCM)	51020	Silica Gel	TA1592834
Sodium Hydroxide	0062836	Sodium Sulfate	1750C277	Sulfuric Acid	110205	Tetradecane	086237
Toluene	108273	Water	51004	C-18 Empore Discs	320552	Cyclohexane	50204

Comments: GN 5/18/11
~~6743-1~~ ORR MB
6744-1
6744-3 6744-2 6743-2
6745 GN
6759-1 6758-1 6743-1

Frontier Analytical Laboratory

CLEANUP SHEET

Project #: 6743

Method/Analysis: EPA 1613 D/F

Splits: 0 Split Date: N/A Final Volume: 20.0uL

Sample ID	Cleanup 1 MSG/AA Chemist/Date	Cleanup 2 NA Chemist/Date	Cleanup 3 NA Chemist/Date	RS Amt: 10.0uL ID: 100511D Vial: 8 Chemist/Witness/Date
2294-001-0001-MB	GN 5/19/11	NA	NA	GN 5/19/11
2294-001-0001-OPR	↓	↓	↓	↓
6743-001-0001-SA	↓	↓	↓	↓
6743-002-0001-SA	↓	↓	↓	↓

Comments:

FAL ID: 2294-001-0001-MB Filename: 19MAY11M Sam:6 Acquired: 19-MAY-11 18:18:30 ICal: PCDDFAL3-3-7-11
Client ID: Method Blank ConCal: ST051911M1 EndCal: ST051911M2
Results: 2294 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 0.00
WHO 1998 Tox: 0.00 WHO 2005 Tox: 0.00

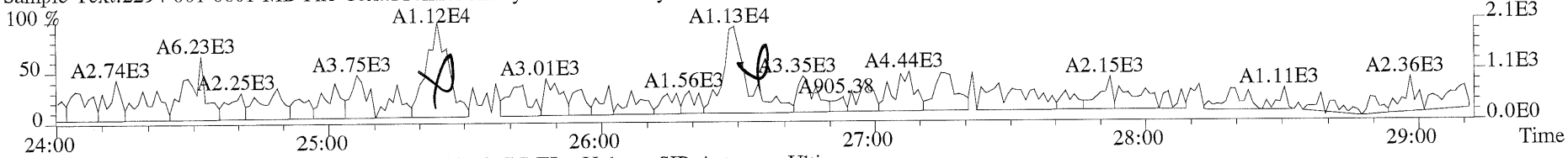
Name	Resp	RA		RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	*	*	n	NotFnd	1.13	*		2.50	595	459	1.07
1,2,3,7,8-PeCDD	*	*	n	NotFnd	1.02	*		2.50	672	644	2.04
1,2,3,4,7,8-HxCDD	*	*	n	NotFnd	1.45	*		2.50	808	772	2.42
1,2,3,6,7,8-HxCDD	*	*	n	NotFnd	1.45	*		2.50	808	772	3.16
1,2,3,7,8,9-HxCDD	*	*	n	NotFnd	1.47	*		2.50	808	772	2.71
1,2,3,4,6,7,8-HpCDD	*	*	n	NotFnd	1.30	*		2.50	704	588	3.57
OCDD	*	*	n	NotFnd	1.45	*		2.50	780	680	7.45
2,3,7,8-TCDF	*	*	n	NotFnd	1.15	*		2.50	744	876	0.953
1,2,3,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	616	748	1.49
2,3,4,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	616	748	1.56
1,2,3,4,7,8-HxCDF	*	*	n	NotFnd	1.01	*		2.50	668	640	1.77
1,2,3,6,7,8-HxCDF	*	*	n	NotFnd	0.89	*		2.50	668	640	1.76
2,3,4,6,7,8-HxCDF	*	*	n	NotFnd	1.02	*		2.50	668	640	1.92
1,2,3,7,8,9-HxCDF	*	*	n	NotFnd	1.10	*		2.50	668	640	2.00
1,2,3,4,6,7,8-HpCDF	*	*	n	NotFnd	1.48	*		2.50	584	596	2.42
1,2,3,4,7,8,9-HpCDF	*	*	n	NotFnd	1.43	*		2.50	584	596	3.99
OCDF	*	*	n	NotFnd	0.84	*		2.50	552	552	5.70

						Rec
13C-2,3,7,8-TCDD	1.91e+07	0.73	y	27:14	1.03	1520	76.1
13C-1,2,3,7,8-PeCDD	1.74e+07	1.75	y	33:02	1.01	1410	70.5
13C-1,2,3,4,7,8-HxCDD	1.29e+07	1.31	y	38:24	1.19	1460	73.0
13C-1,2,3,6,7,8-HxCDD	1.05e+07	1.22	y	38:34	0.94	1510	75.6
13C-1,2,3,4,6,7,8-HpCDD	9.08e+06	1.04	y	43:59	0.83	1480	74.1
13C-OCDD	1.08e+07	0.95	y	49:30	0.61	2400	60.0
13C-2,3,7,8-TCDF	3.29e+07	0.86	y	26:28	0.98	1560	78.2
13C-1,2,3,7,8-PeCDF	2.66e+07	1.70	y	31:19	0.83	1490	74.6
13C-2,3,4,7,8-PeCDF	2.62e+07	1.69	y	32:37	0.80	1520	75.8
13C-1,2,3,4,7,8-HxCDF	2.11e+07	0.49	y	37:00	1.84	1550	77.4
13C-1,2,3,6,7,8-HxCDF	2.62e+07	0.48	y	37:12	2.29	1540	77.0
13C-2,3,4,6,7,8-HxCDF	2.11e+07	0.48	y	38:09	1.86	1530	76.5
13C-1,2,3,7,8,9-HxCDF	1.94e+07	0.49	y	39:34	1.98	1320	65.8
13C-1,2,3,4,6,7,8-HpCDF	1.02e+07	0.47	y	42:06	0.99	1400	69.9
13C-1,2,3,4,7,8,9-HpCDF	6.90e+06	0.48	y	44:54	0.77	1210	60.7
13C-OCDF	1.88e+07	0.97	y	49:52	1.17	2170	54.3
37Cl-2,3,7,8-TCDD	5.64e+06			27:15	0.73	634	79.2
13C-1,2,3,4-TCDD	2.44e+07	0.74	y	26:39	-	64.2	
13C-1,2,3,4-TCDF	4.30e+07	0.87	y	25:24	-	59.7	
13C-1,2,3,7,8,9-HxCDD	1.48e+07	1.27	y	39:00	-	59.8	

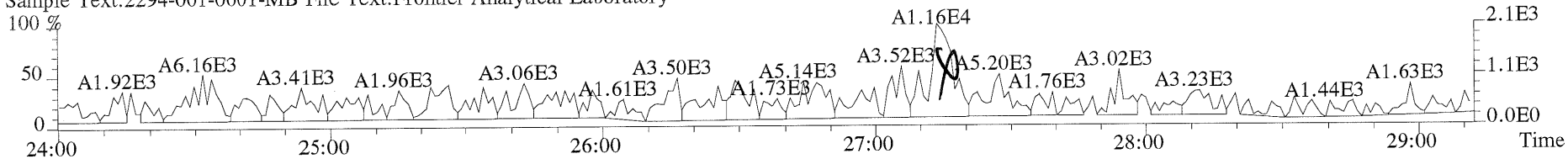
						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	*			NotFnd	1.13	*	2.50	595	459	1.07		0
Total Penta-Dioxins	*			NotFnd	1.02	*	2.50	672	644	2.04		0
Total Hexa-Dioxins	*			NotFnd	1.46	*	2.50	808	772	3.16		0
Total Hepta-Dioxins	*			NotFnd	1.30	*	2.50	704	588	3.57		0
Total Tetra-Furans	*			NotFnd	1.15	*	2.50	744	876	0.953		0
1st Fn. Tot Penta-Furans	*			NotFnd	0.89	*	2.50	616	748	1.56	PeCDF	0
Total Penta-Furans	*			NotFnd	0.89	*	2.50	616	748	1.56	*	0
Total Hexa-Furans	*			NotFnd	1.00	*	2.50	668	640	2.00		0
Total Hepta-Furans	*			NotFnd	1.46	*	2.50	584	596	3.99		0

Analyst: _____ Date: 5/20/11

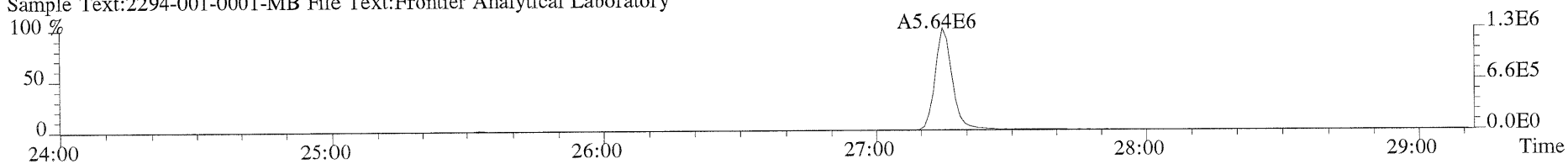
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



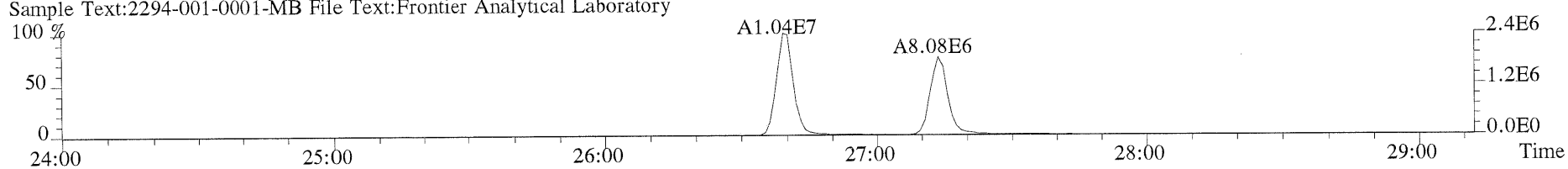
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



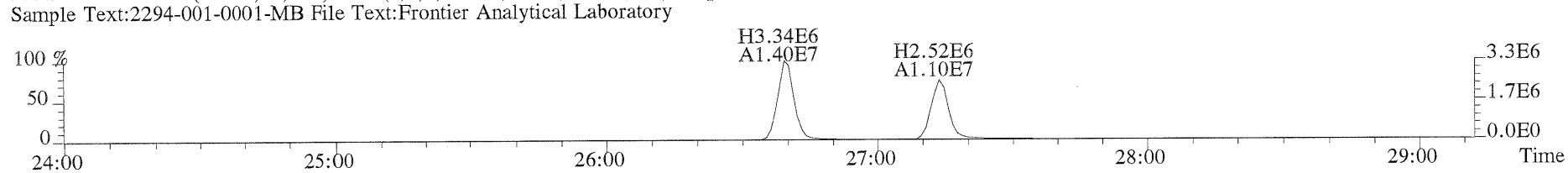
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



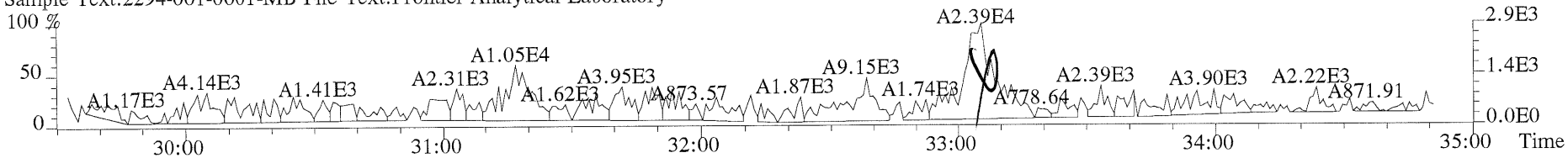
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



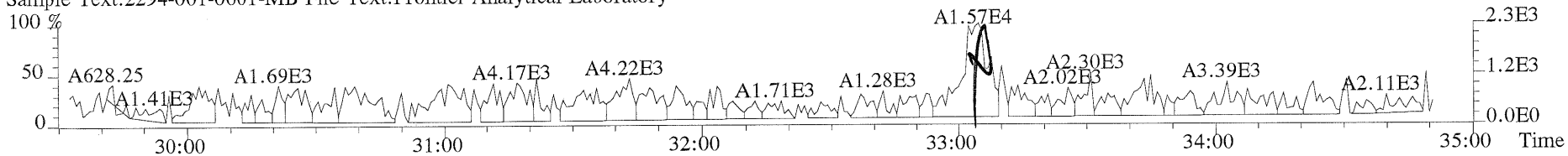
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



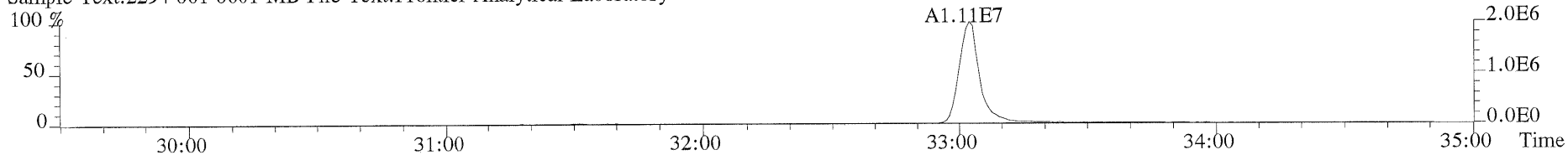
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



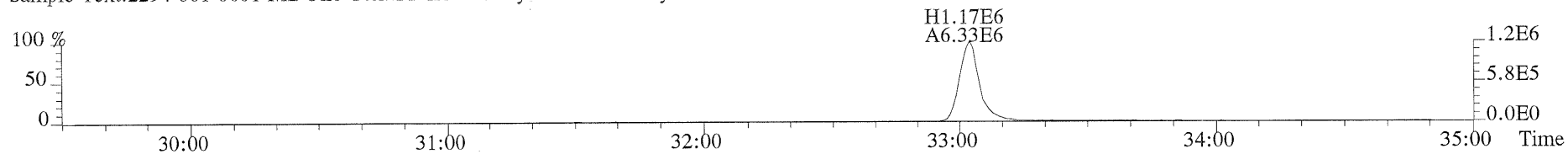
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



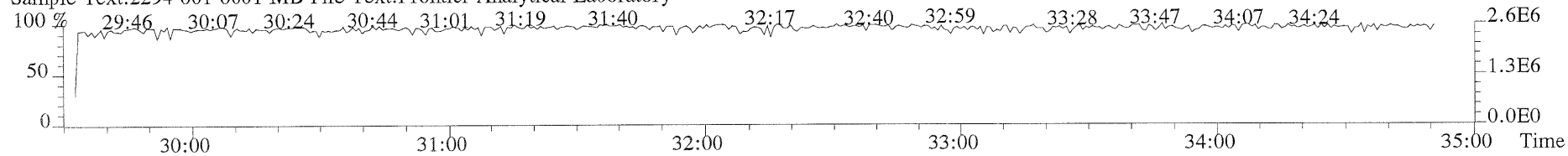
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



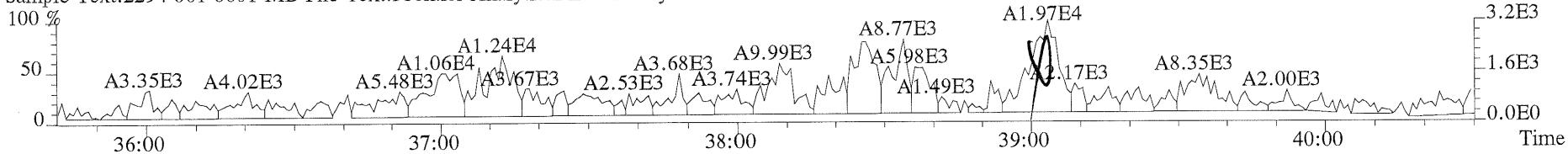
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



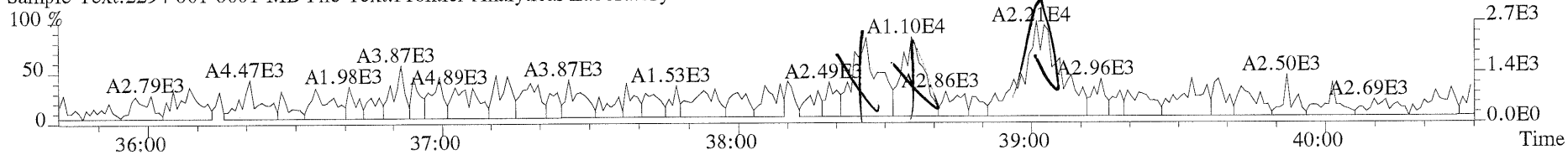
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:6 F:2 Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



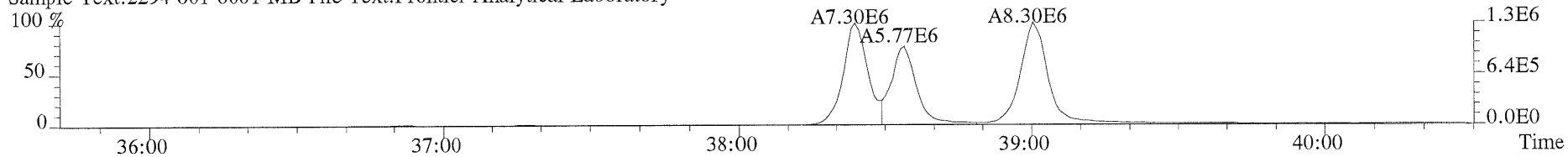
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



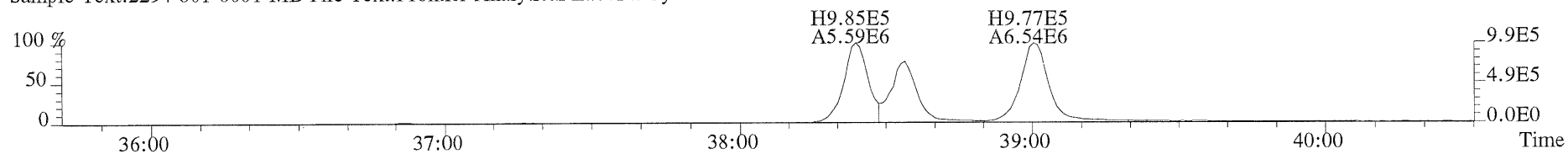
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



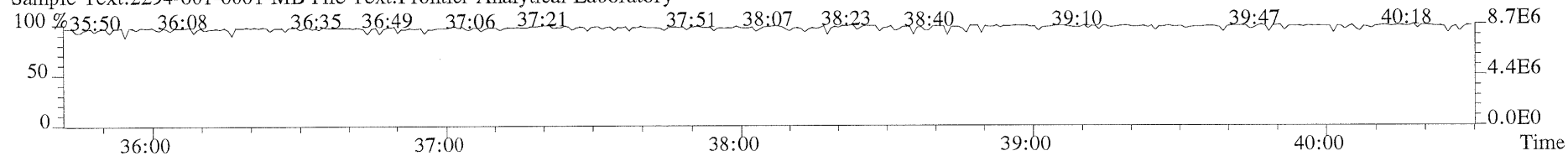
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



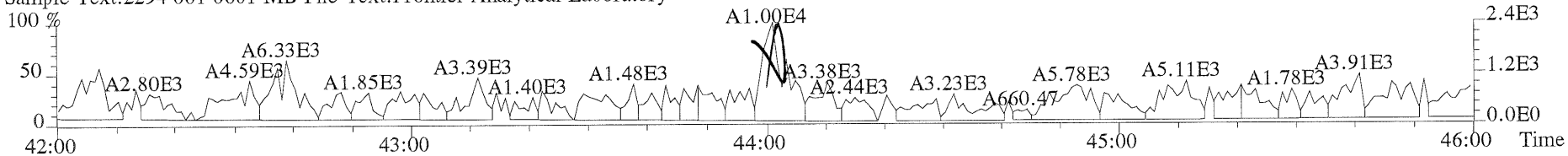
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



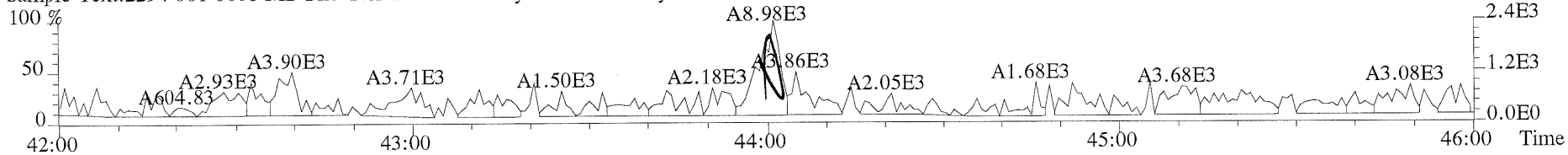
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:6 F:3 Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



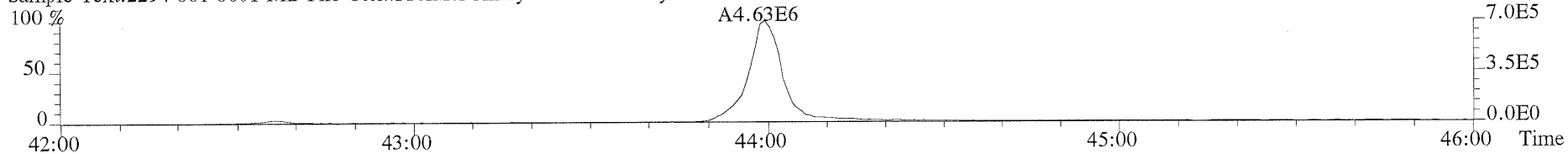
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



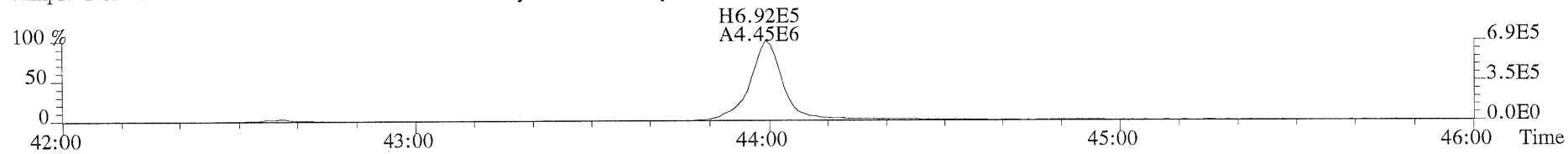
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



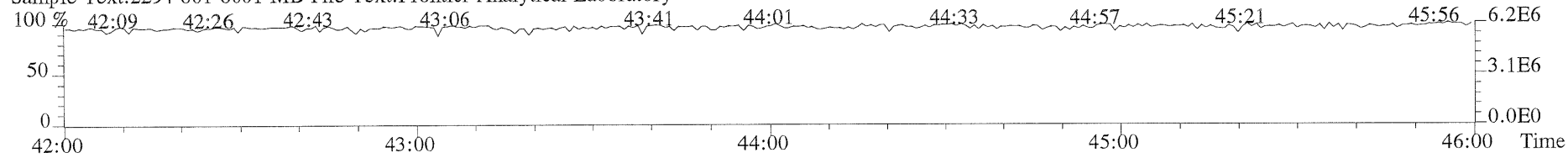
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



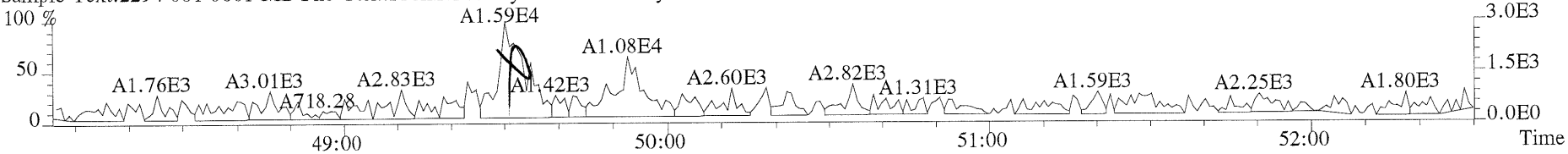
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



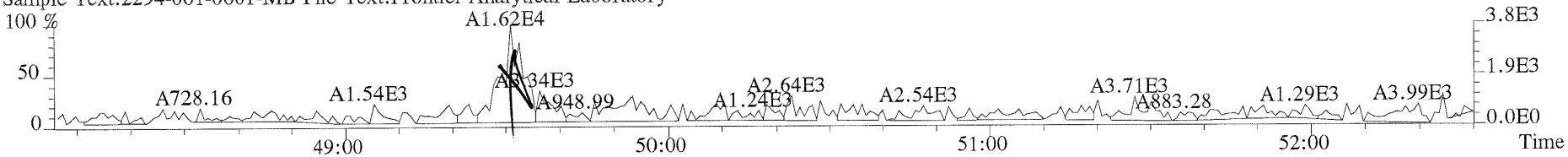
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:6 F:4 Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



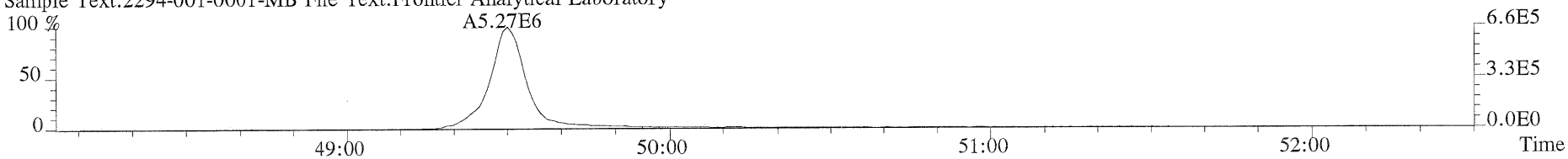
File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



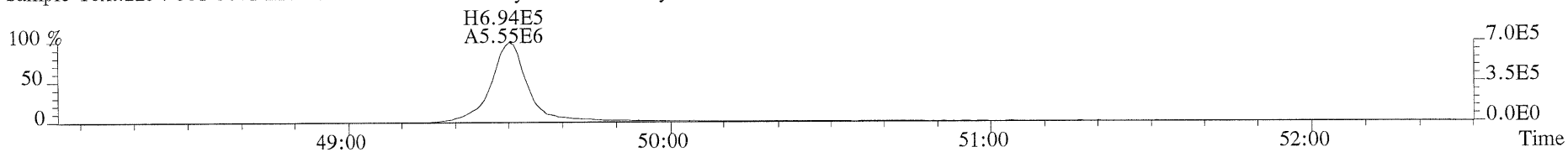
File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



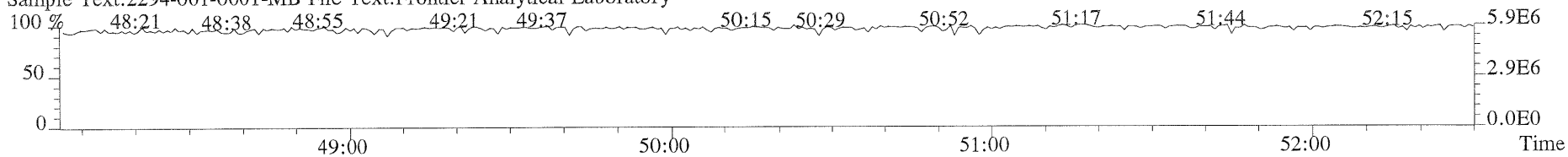
File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



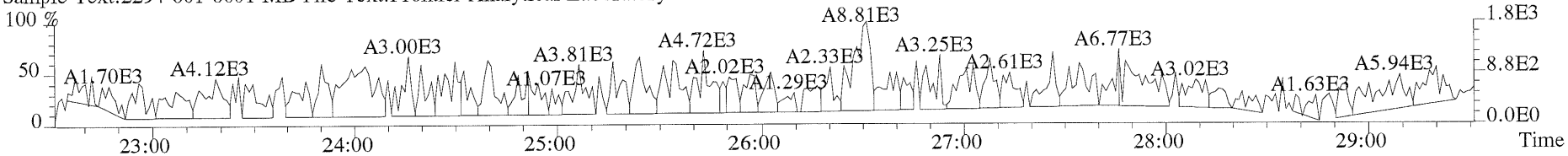
File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



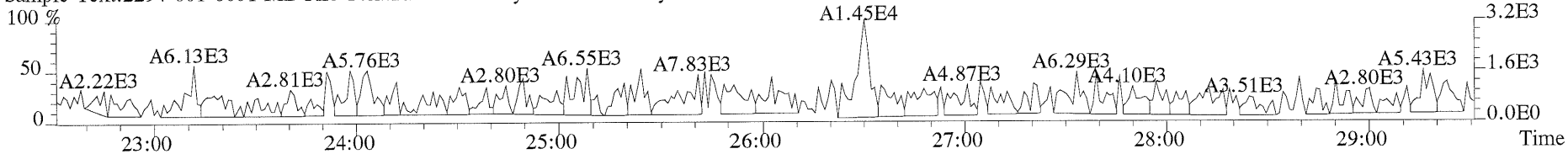
File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:6 F:5 Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



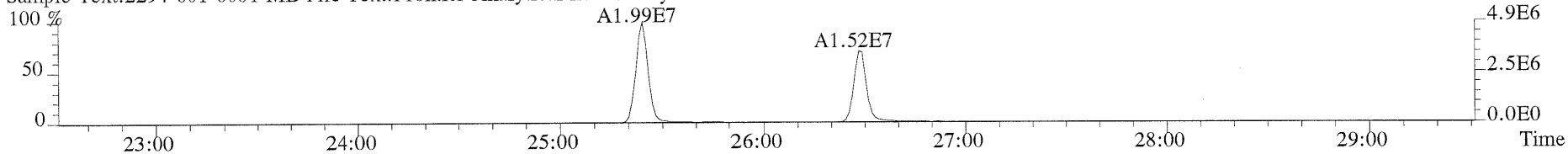
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



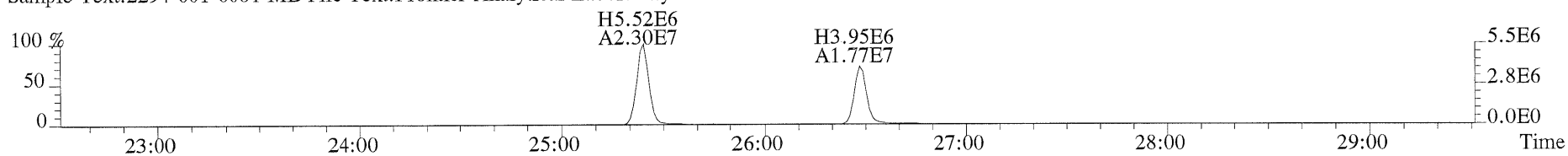
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



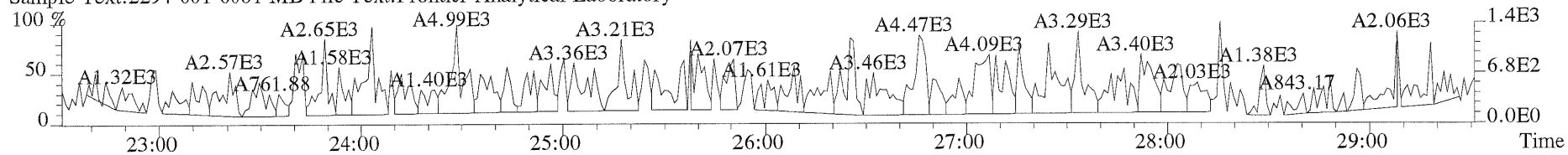
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



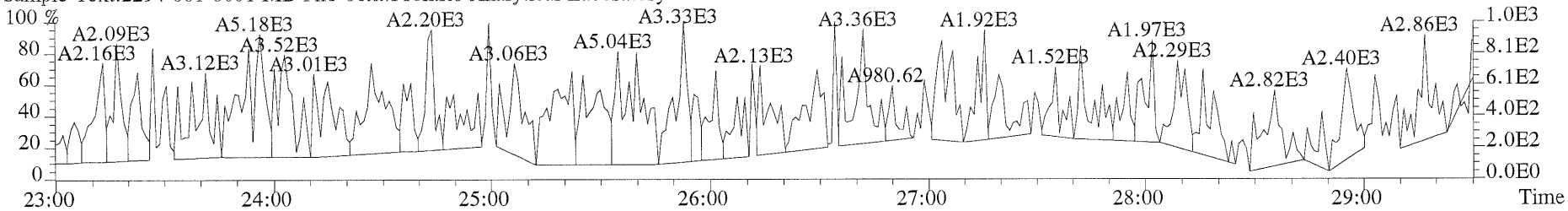
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



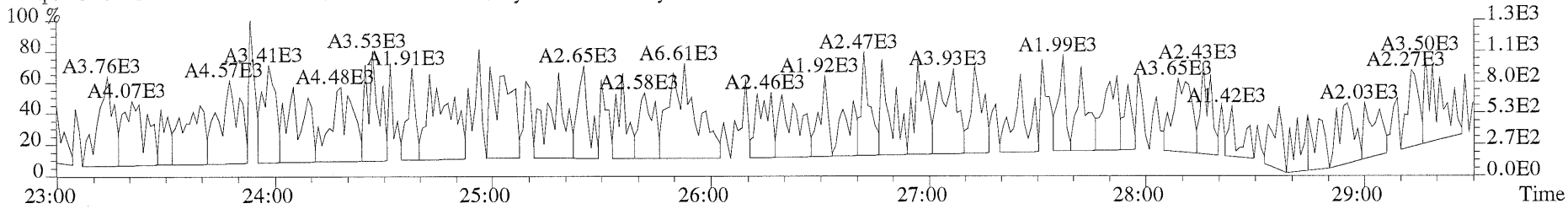
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



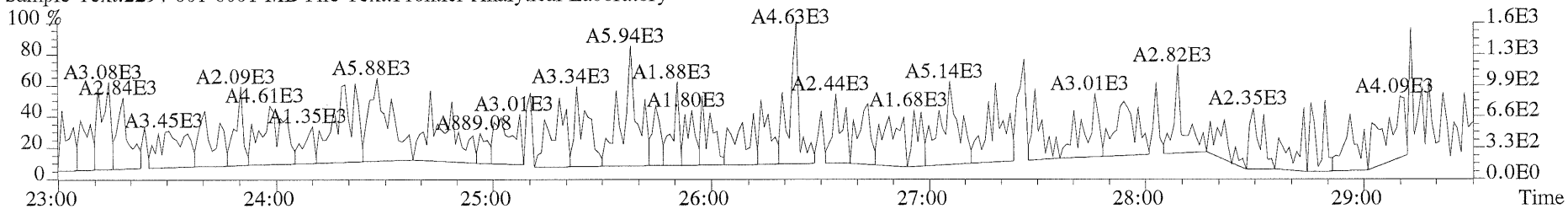
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



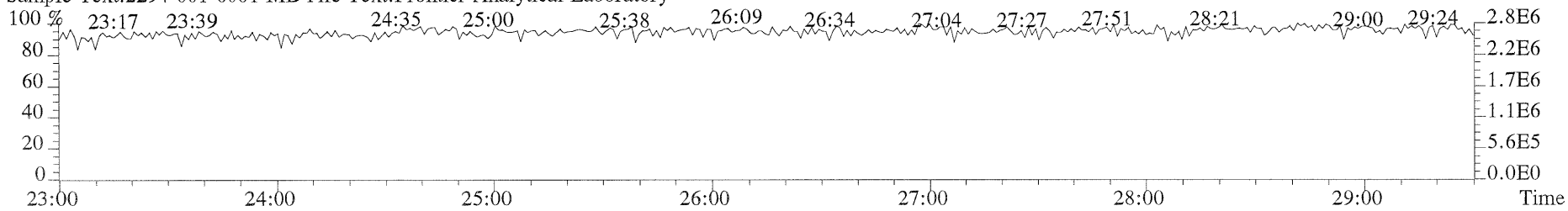
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



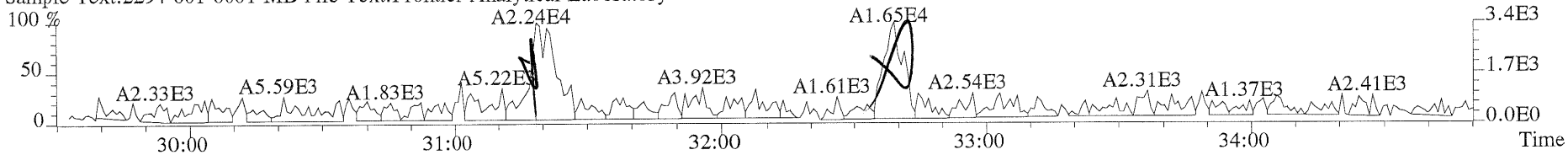
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



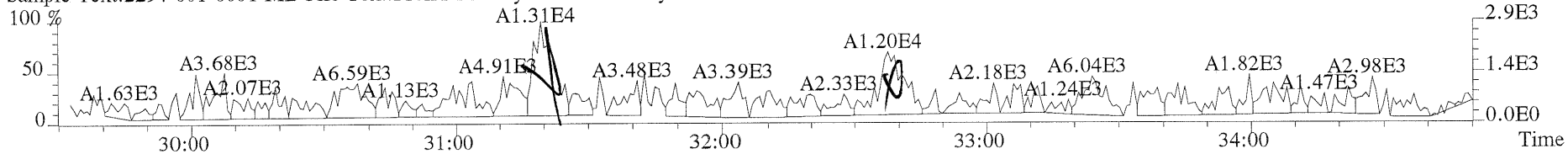
File:19MAY11M #1-426 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
316.9824 S:6 Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



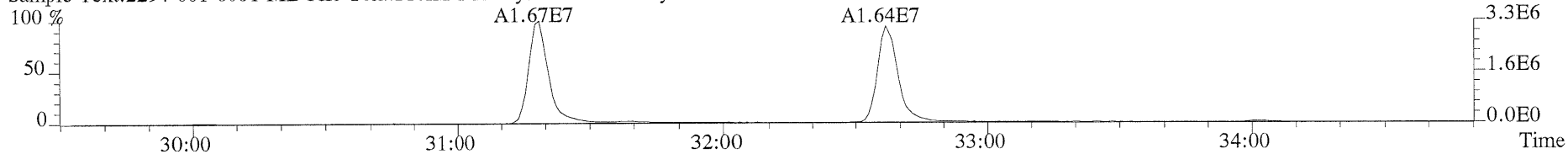
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



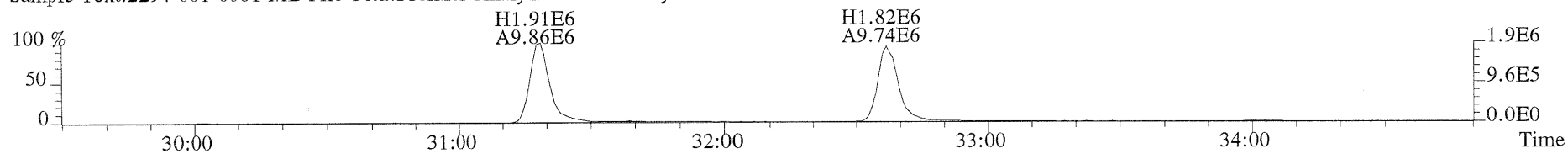
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



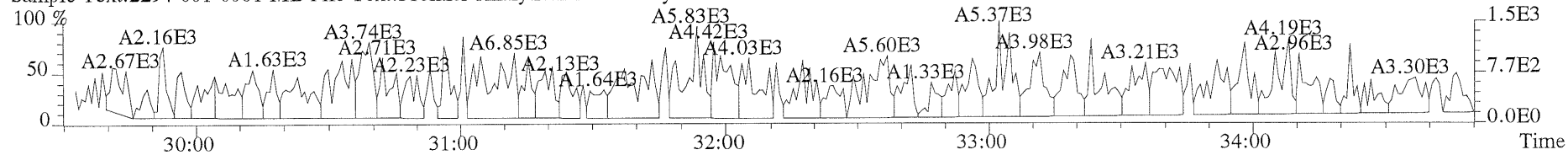
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



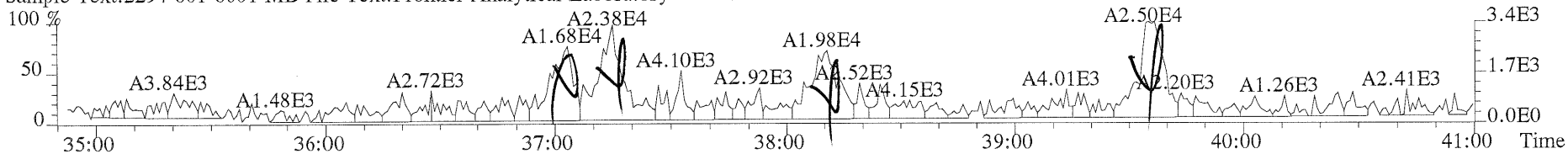
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



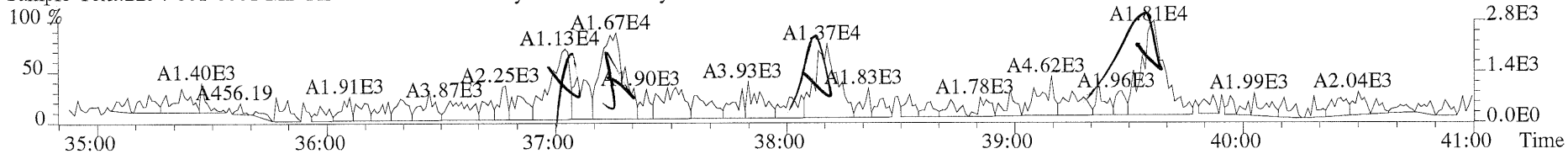
File:19MAY11M #1-412 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



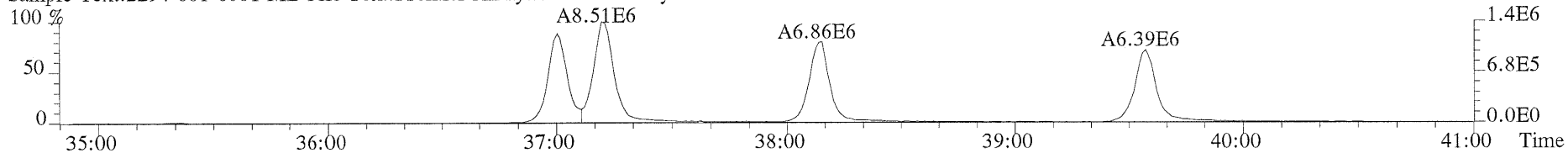
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



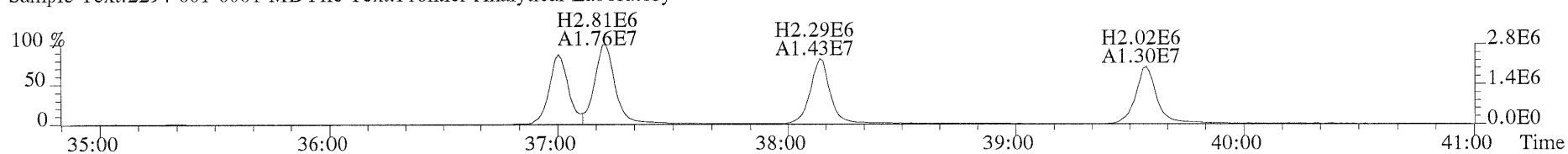
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



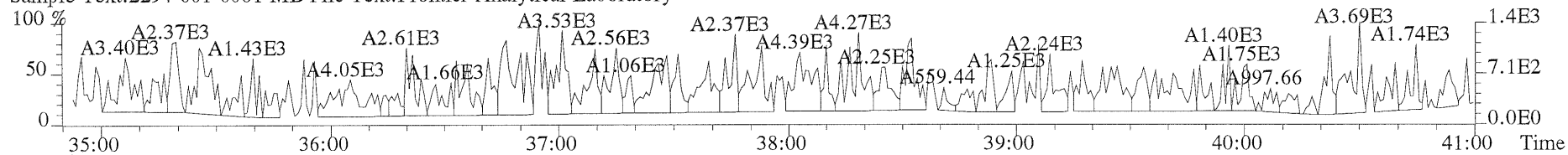
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



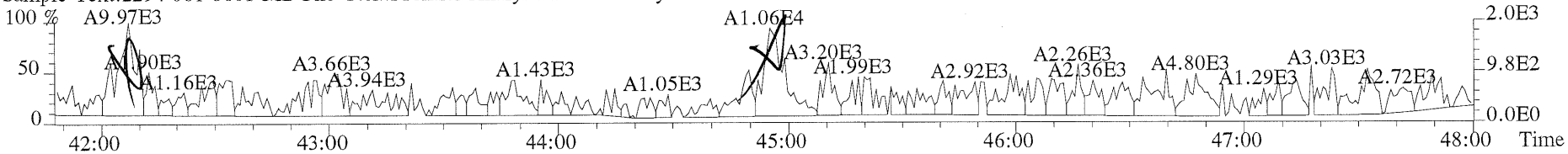
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



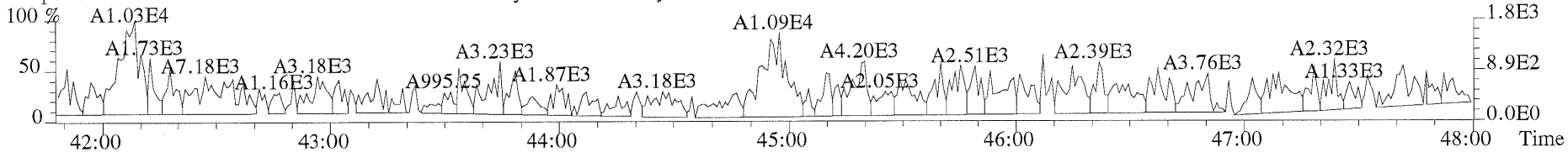
File:19MAY11M #1-476 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



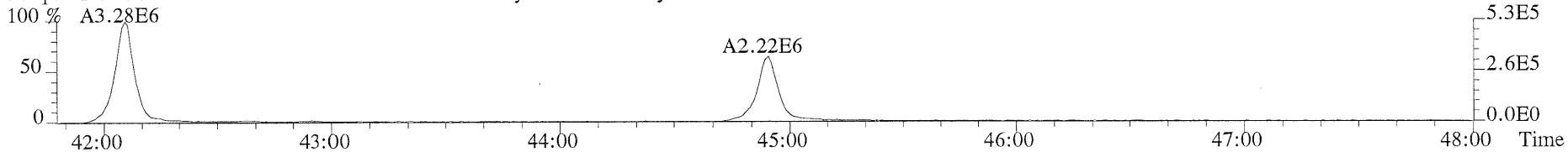
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



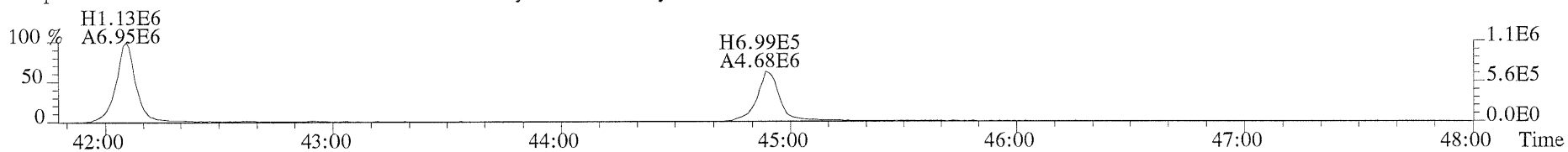
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



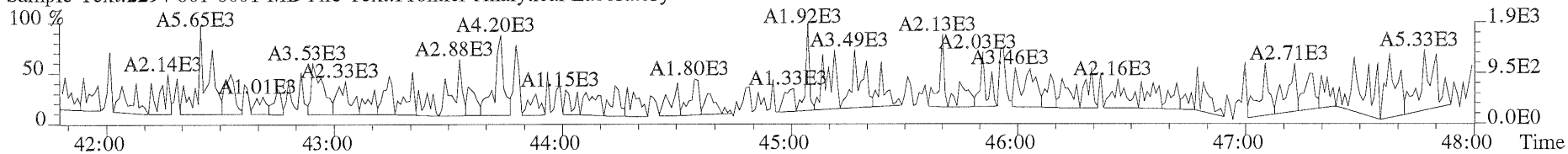
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



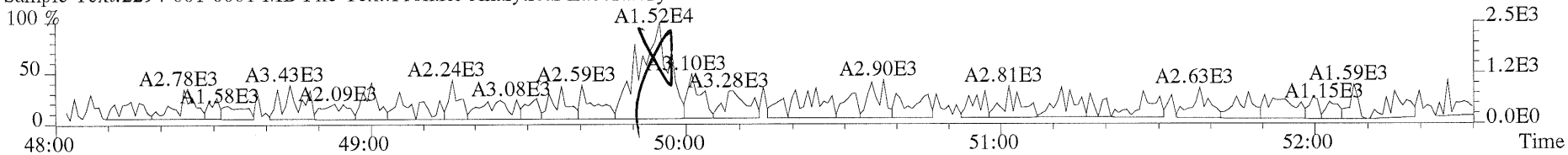
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



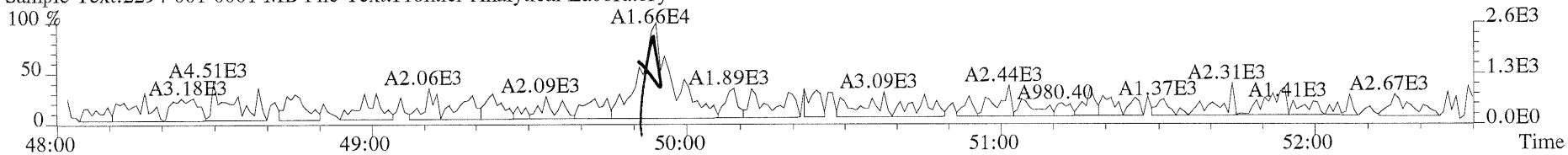
File:19MAY11M #1-541 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



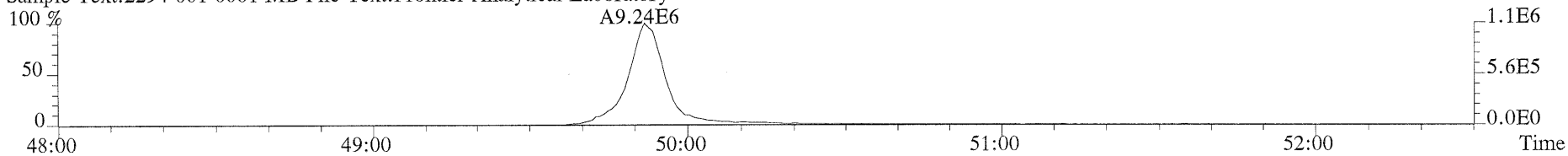
File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



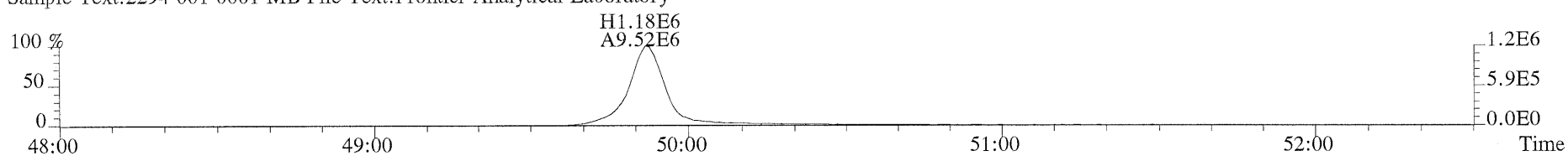
File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



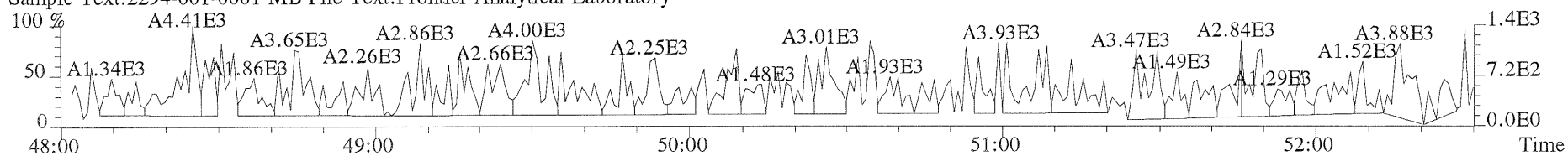
File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



File:19MAY11M #1-348 Acq:19-MAY-2011 18:18:30 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-MB File Text:Frontier Analytical Laboratory



USEPA - ITD

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

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): Aqueous OPR Data Filename: 19MAY11M Sam:5

Ext. Date: 5/18/11 Shift: Day Analysis Date: 19-MAY-11 17:23:07

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
NATIVE ANALYTES			
2,3,7,8-TCDD	10	11.1	6.70 - 15.8
1,2,3,7,8-PeCDD	50	58.0	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	52.9	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	55.9	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	54.7	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	55.3	35.0 - 70.0
OCDD	100	107	78.0 - 144
2,3,7,8-TCDF	10	12.3	7.50 - 15.8
1,2,3,7,8-PeCDF	50	54.5	40.0 - 67.0
2,3,4,7,8-PeCDF	50	53.2	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	51.3	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	52.3	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	51.8	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	51.2	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	51.0	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	52.5	39.0 - 69.0
OCDF	100	102	63.0 - 170

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

Analyst: _____ Date: 5/20/11

USEPA - ITD

FORM 8B

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

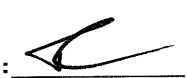
Matrix (aqueous/solid/leachate): Aqueous OPR Data Filename: 19MAY11M Sam:5

Ext. Date: 5/18/11 Shift: Day Analysis Date: 19-MAY-11 17:23:07

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
LABELED COMPOUNDS			
13C-2,3,7,8-TCDD	100	88.7	20.0 - 175
13C-1,2,3,7,8-PeCDD	100	79.9	21.0 - 227
13C-1,2,3,4,7,8-HxCDD	100	88.9	21.0 - 193
13C-1,2,3,6,7,8-HxCDD	100	90.7	25.0 - 163
13C-1,2,3,4,6,7,8-HpCDD	100	98.0	26.0 - 166
13C-OCDD	200	173	26.0 - 397
13C-2,3,7,8-TCDF	100	81.6	22.0 - 152
13C-1,2,3,7,8-PeCDF	100	87.7	21.0 - 192
13C-2,3,4,7,8-PeCDF	100	79.9	13.0 - 328
13C-1,2,3,4,7,8-HxCDF	100	98.9	19.0 - 202
13C-1,2,3,6,7,8-HxCDF	100	97.1	21.0 - 159
13C-2,3,4,6,7,8-HxCDF	100	84.8	22.0 - 176
13C-1,2,3,7,8,9-HxCDF	100	83.7	17.0 - 205
13C-1,2,3,4,6,7,8-HpCDF	100	96.8	21.0 - 158
13C-1,2,3,4,7,8,9-HpCDF	100	86.5	20.0 - 186
13C-OCDF	200	162	26.0 - 397
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	35.2	12.4 - 76.4

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613
Labeled compound concentration limits are based on required percent recovery of 25%-150%.

Analyst:  Date: 5/20/11

FAL ID: 2294-001-0001-OPR Filename: 19MAY11M Sam:5 Acquired: 19-MAY-11 17:23:07 ICal: PCDDFAL3-3-7-11
Client ID: OPR ConCal: ST051911M1 EndCal: ST051911M2
Results: 2294 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 109
WHO 1998 Tox: 138 WHO 2005 Tox: 127

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.19e+06	0.79 y	27:15	1.13	11.1		2.50	-	-	*
1,2,3,7,8-PeCDD	9.09e+06	1.55 y	33:04	1.02	58.0		2.50	-	-	*
1,2,3,4,7,8-HxCDD	9.45e+06	1.33 y	38:24	1.45	52.9		2.50	-	-	*
1,2,3,6,7,8-HxCDD	8.04e+06	1.34 y	38:35	1.45	55.9		2.50	-	-	*
1,2,3,7,8,9-HxCDD	8.93e+06	1.33 y	39:02	1.47	54.7		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	6.78e+06	0.91 y	44:01	1.30	55.3		2.50	-	-	*
OCDD	9.50e+06	0.93 y	49:32	1.45	107		2.50	-	-	*
2,3,7,8-TCDF	3.96e+06	0.68 y	26:29	1.15	12.3		2.50	-	-	*
1,2,3,7,8-PeCDF	1.24e+07	1.59 y	31:19	0.89	54.5		2.50	-	-	*
2,3,4,7,8-PeCDF	1.07e+07	1.59 y	32:38	0.89	53.2		2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.10e+07	1.23 y	37:02	1.01	51.3		2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.21e+07	1.23 y	37:13	0.89	52.3		2.50	-	-	*
2,3,4,6,7,8-HxCDF	9.69e+06	1.24 y	38:10	1.02	51.8		2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.09e+07	1.23 y	39:36	1.10	51.2		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	8.40e+06	1.01 y	42:07	1.48	51.0		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	5.78e+06	1.04 y	44:56	1.43	52.5		2.50	-	-	*
OCDF	9.43e+06	0.92 y	49:53	0.84	102		2.50	-	-	*

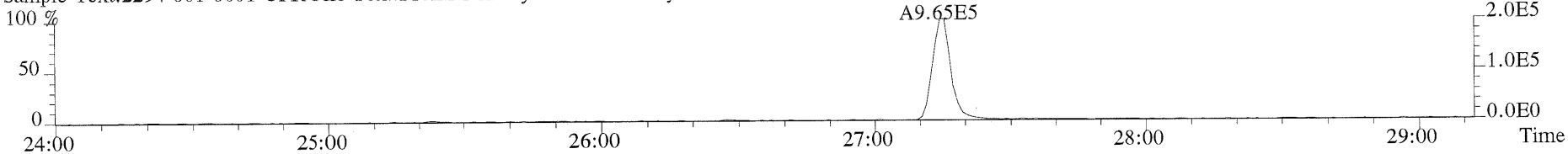
						Rec
13C-2,3,7,8-TCDD	1.74e+07	0.76 y	27:13	1.03	88.7	88.7
13C-1,2,3,7,8-PeCDD	1.54e+07	1.77 y	33:02	1.01	79.9	79.9
13C-1,2,3,4,7,8-HxCDD	1.23e+07	1.27 y	38:24	1.19	88.9	88.9
13C-1,2,3,6,7,8-HxCDD	9.89e+06	1.30 y	38:33	0.94	90.7	90.7
13C-1,2,3,4,6,7,8-HpCDD	9.43e+06	1.02 y	43:59	0.83	98.0	98.0
13C-OCDD	1.23e+07	0.96 y	49:30	0.61	173	86.7
13C-2,3,7,8-TCDF	2.81e+07	0.85 y	26:28	0.98	81.6	81.6
13C-1,2,3,7,8-PeCDF	2.56e+07	1.67 y	31:18	0.83	87.7	87.7
13C-2,3,4,7,8-PeCDF	2.26e+07	1.67 y	32:37	0.80	79.9	79.9
13C-1,2,3,4,7,8-HxCDF	2.12e+07	0.48 y	37:00	1.84	98.9	98.9
13C-1,2,3,6,7,8-HxCDF	2.59e+07	0.48 y	37:12	2.29	97.1	97.1
13C-2,3,4,6,7,8-HxCDF	1.84e+07	0.49 y	38:08	1.86	84.8	84.8
13C-1,2,3,7,8,9-HxCDF	1.93e+07	0.49 y	39:34	1.98	83.7	83.7
13C-1,2,3,4,6,7,8-HpCDF	1.11e+07	0.47 y	42:05	0.99	96.8	96.8
13C-1,2,3,4,7,8,9-HpCDF	7.72e+06	0.48 y	44:54	0.77	86.5	86.5
13C-OCDF	2.19e+07	0.96 y	49:52	1.17	162	80.8
37Cl-2,3,7,8-TCDD	4.90e+06		27:14	0.73	35.2	87.9

13C-1,2,3,4-TCDD	1.91e+07	0.78 y	26:39	-	50.3
13C-1,2,3,4-TCDF	3.52e+07	0.87 y	25:24	-	48.9
13C-1,2,3,7,8,9-HxCDD	1.17e+07	1.24 y	39:01	-	46.9

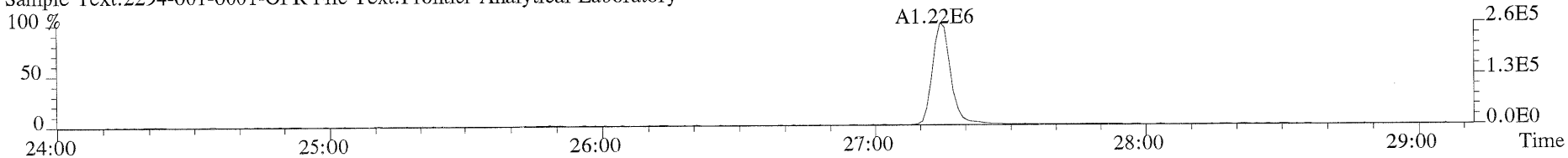
						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	2.35e+06		23:07	1.13	11.9	2.50	-	-	*		27
Total Penta-Dioxins	9.26e+06		31:18	1.02	59.1	2.50	-	-	*		11
Total Hexa-Dioxins	2.67e+07		37:18	1.46	165	2.50	-	-	*		12
Total Hepta-Dioxins	7.32e+06		42:37	1.30	59.7	2.50	-	-	*		41
Total Tetra-Furans	4.30e+06		22:40	1.15	13.3	2.50	-	-	*		27
1st Fn. Tot Penta-Furans	1.91e+05		22:43	0.89	0.891	2.50	-	-	*	PeCDF	39
Total Penta-Furans	2.37e+07		30:03	0.89	111	2.50	-	-	*	112	11
Total Hexa-Furans	4.42e+07		35:04	1.00	209	2.50	-	-	*		25
Total Hepta-Furans	1.45e+07		42:07	1.46	106	2.50	-	-	*		20

Analyst: _____ Date: 5/20/11

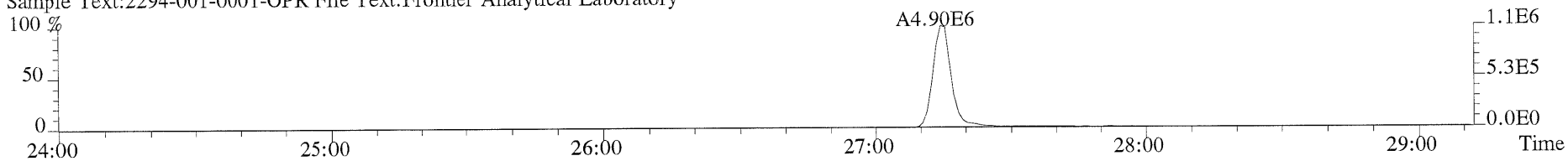
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



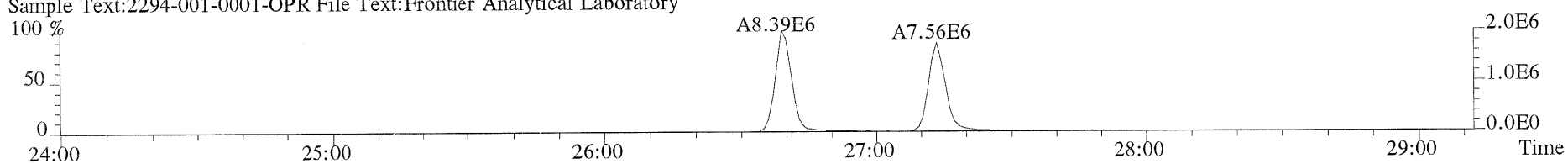
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



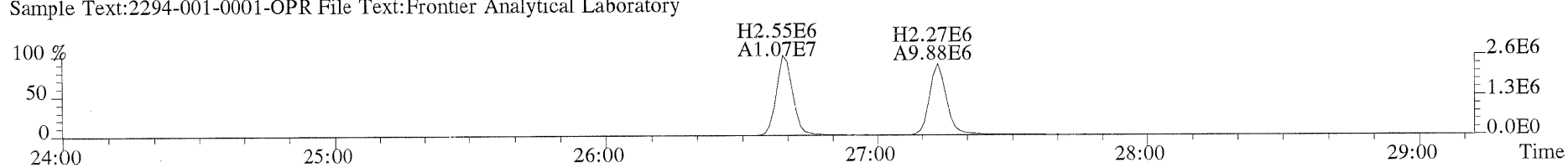
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



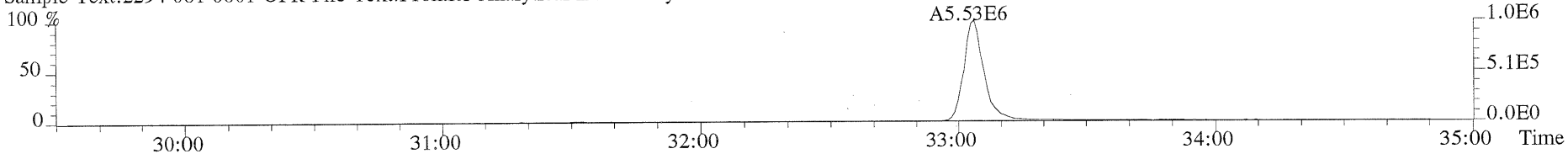
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



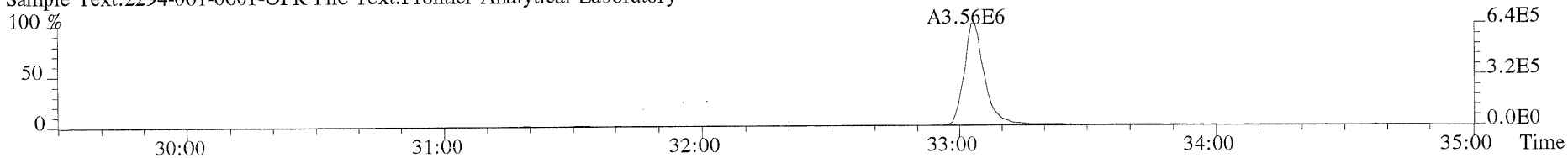
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



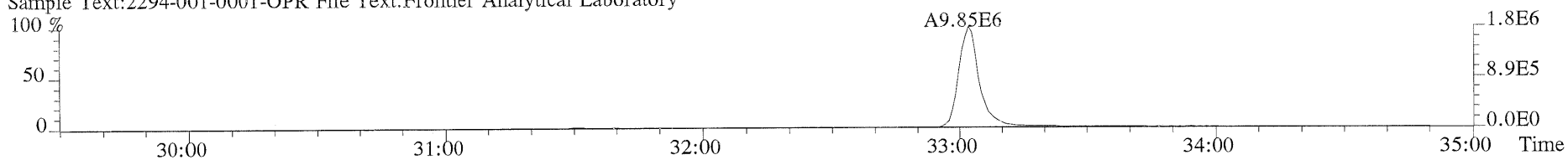
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



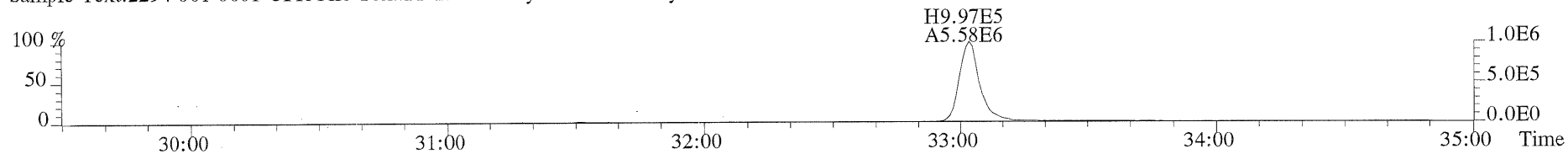
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



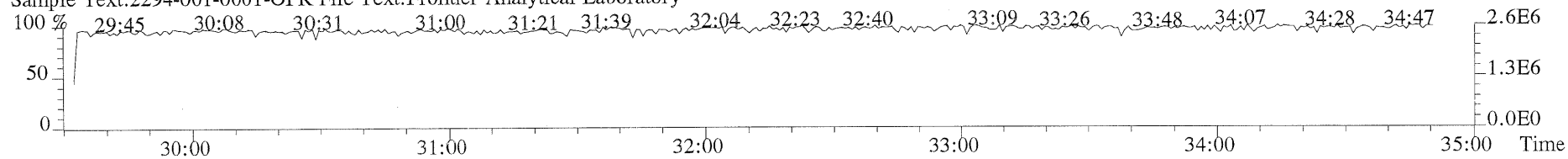
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



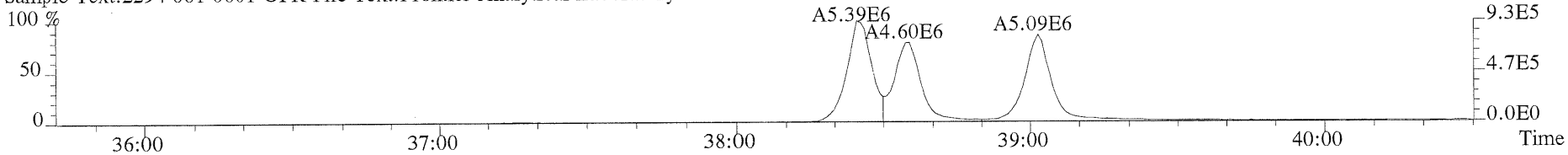
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



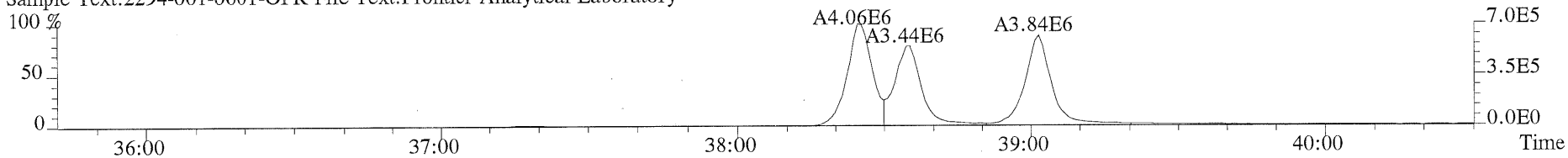
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:5 F:2 Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



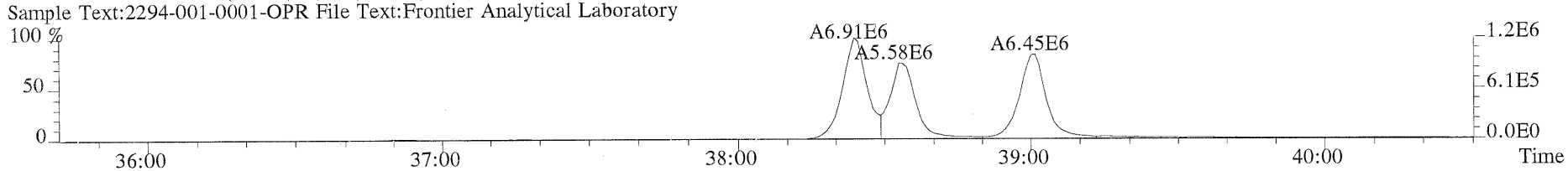
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



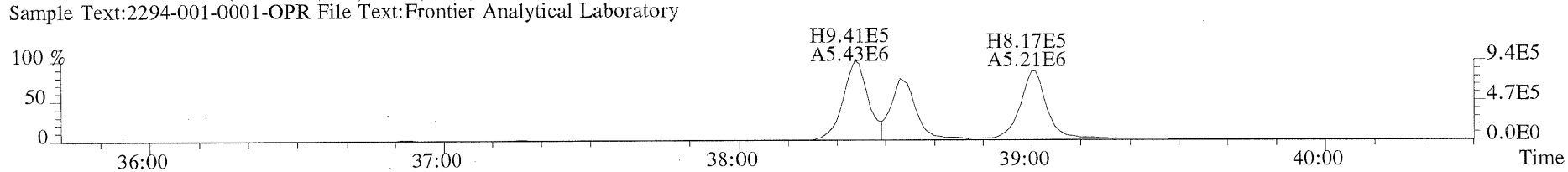
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



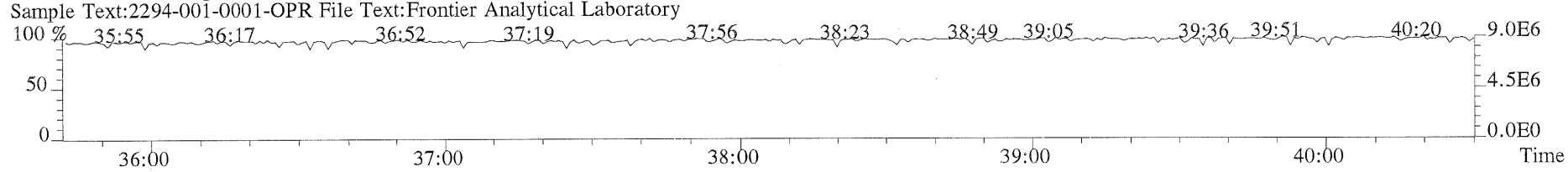
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



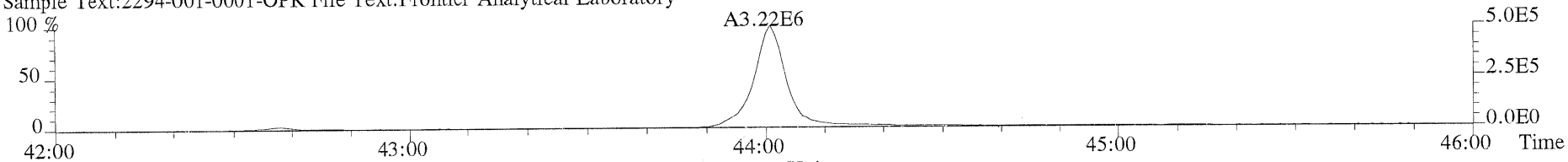
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



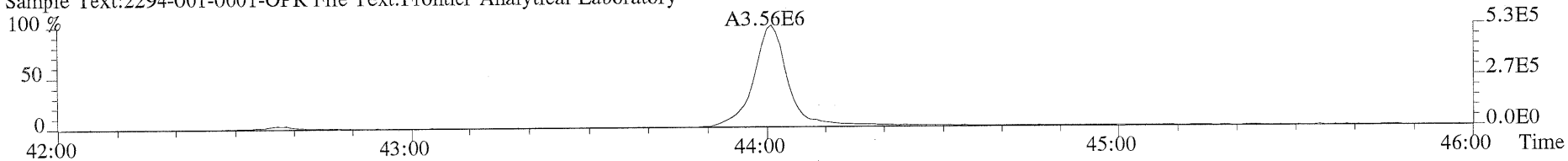
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:5 F:3 Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



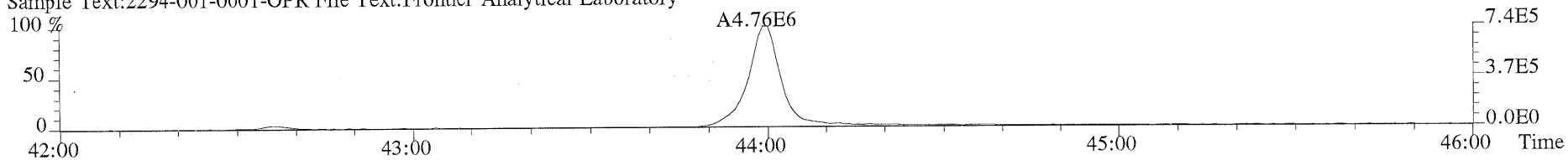
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



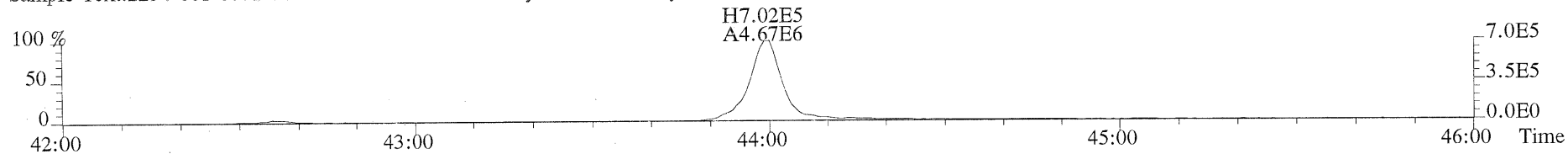
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



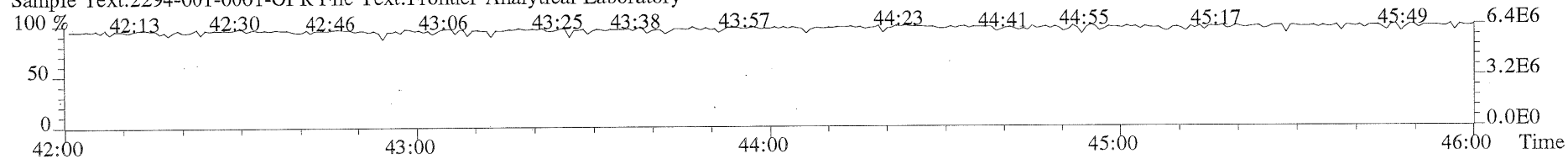
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



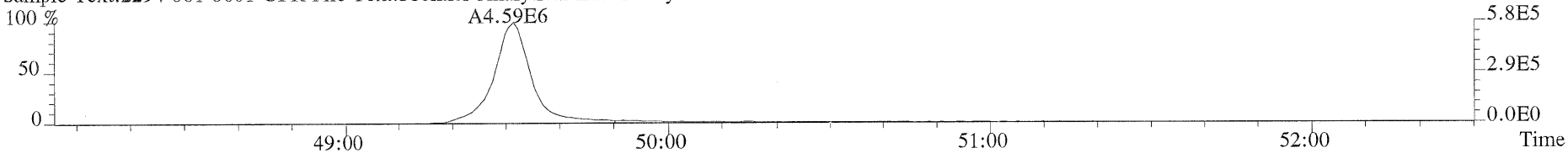
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



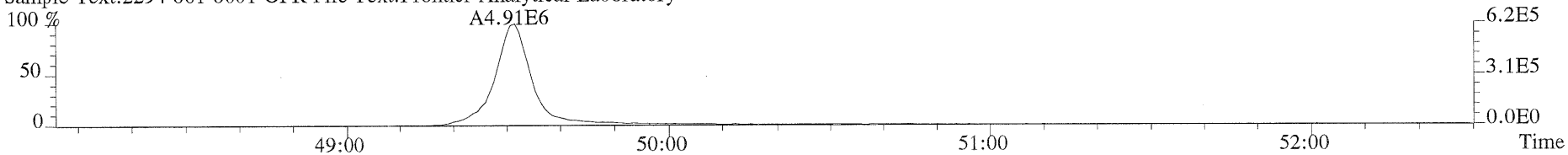
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:5 F:4 Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



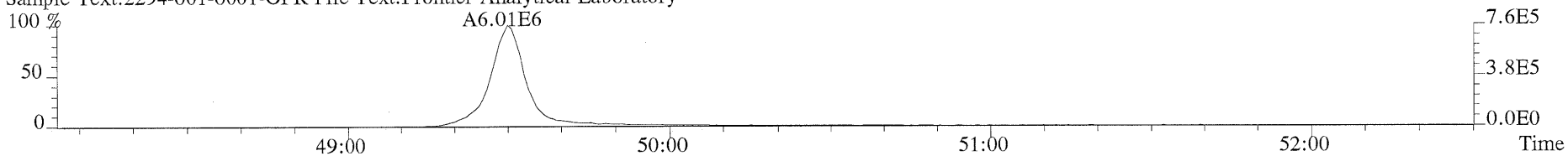
File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



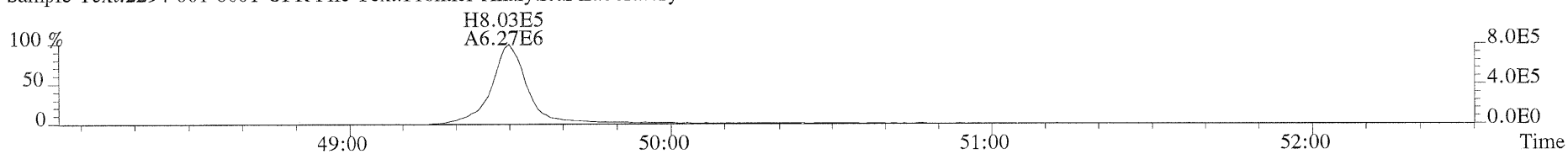
File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



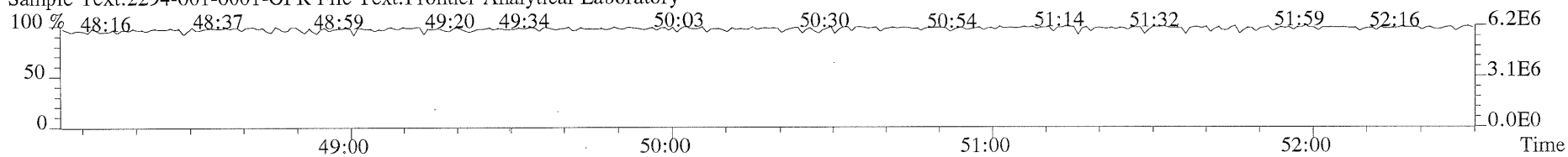
File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



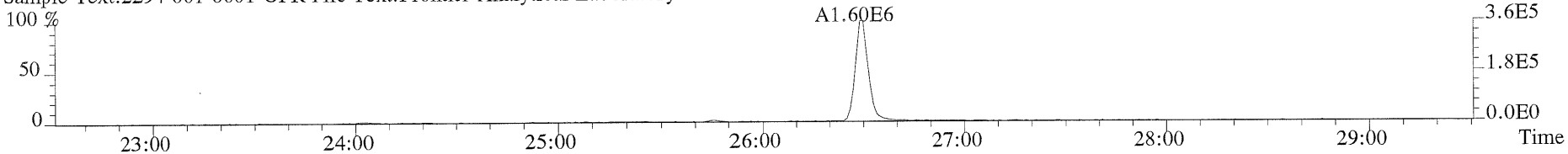
File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



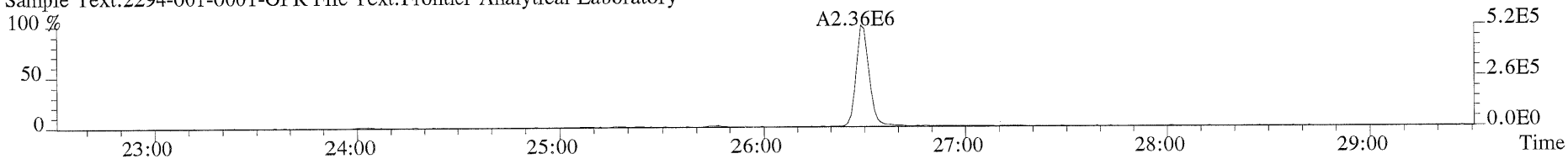
File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:5 F:5 Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



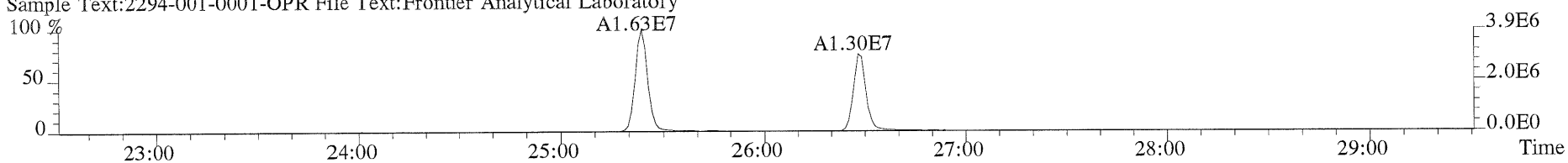
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



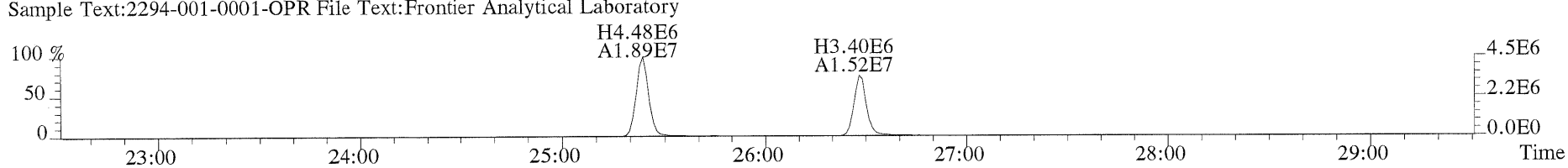
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



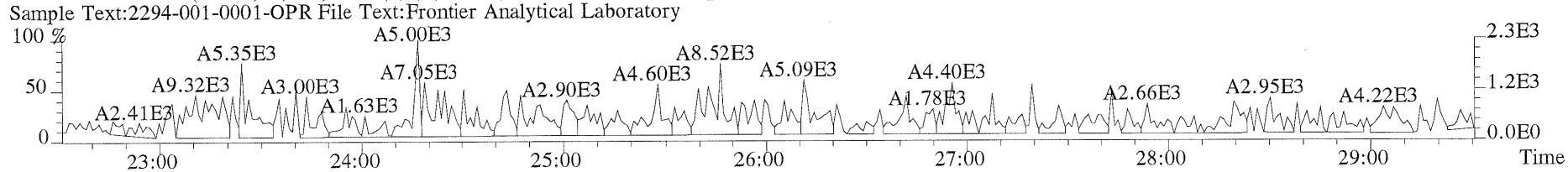
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



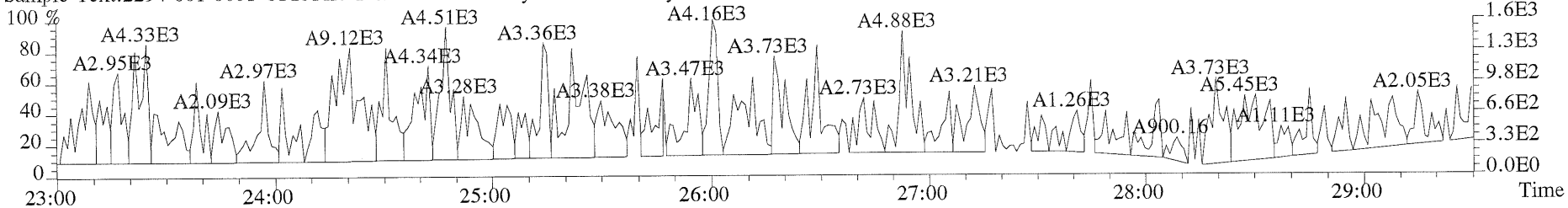
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



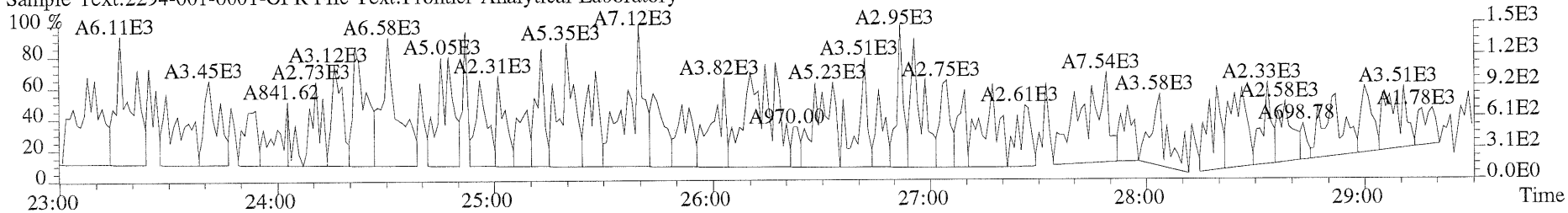
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



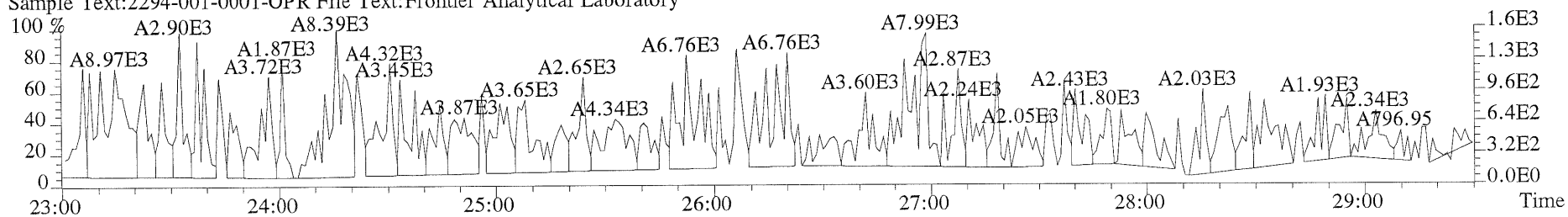
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



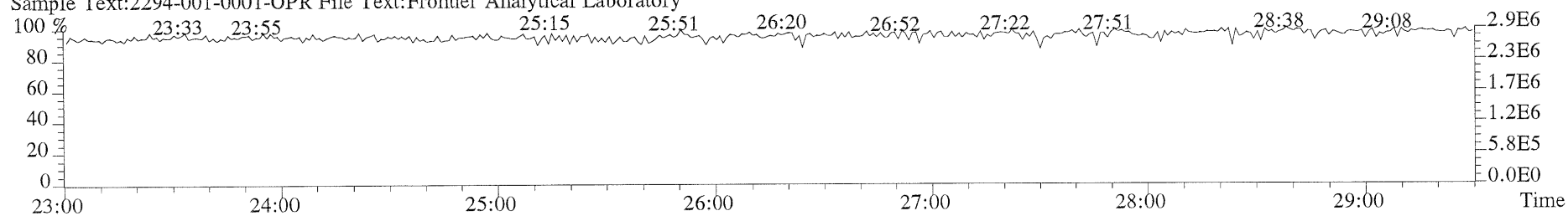
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



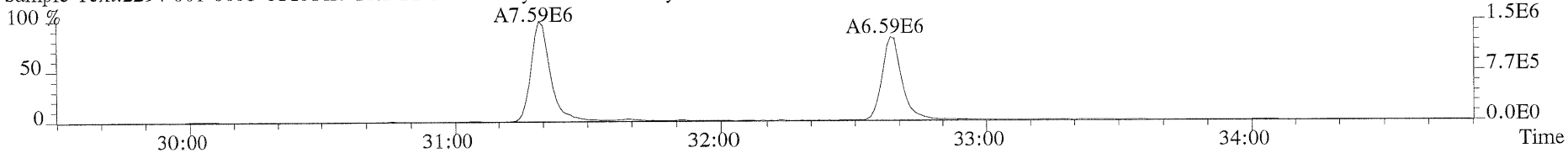
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



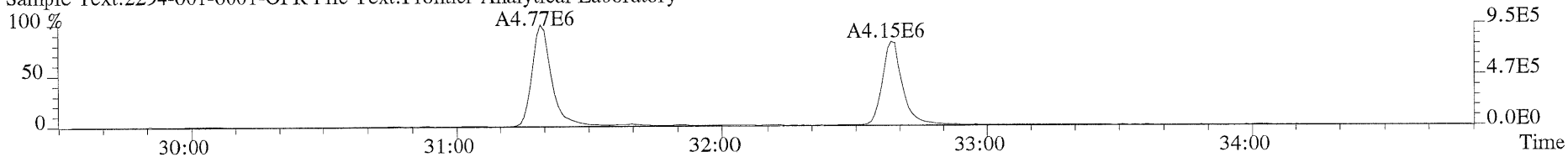
File:19MAY11M #1-426 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
316.9824 S:5 Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



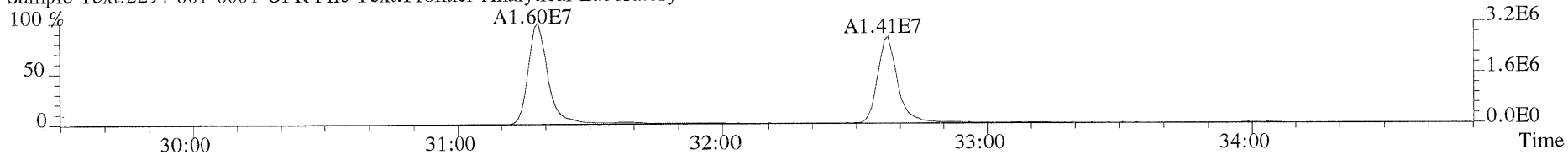
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



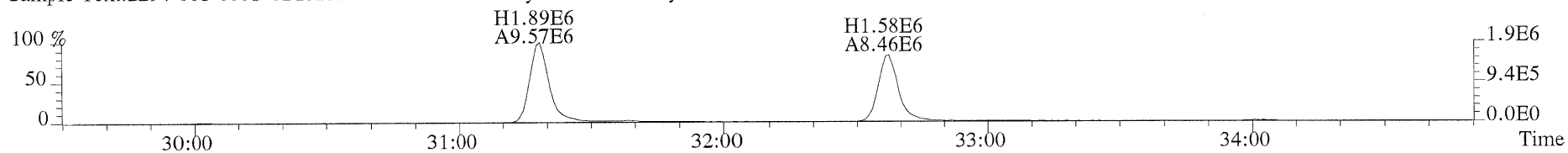
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



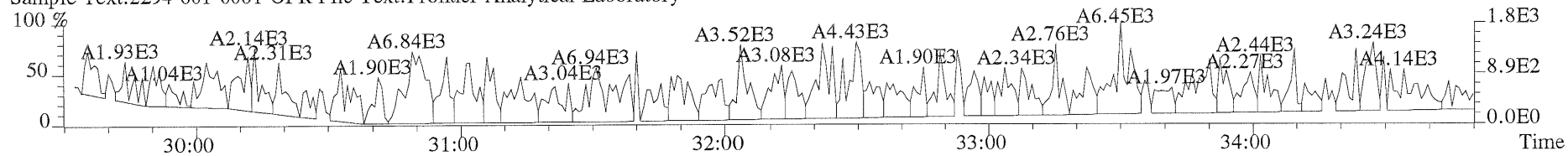
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



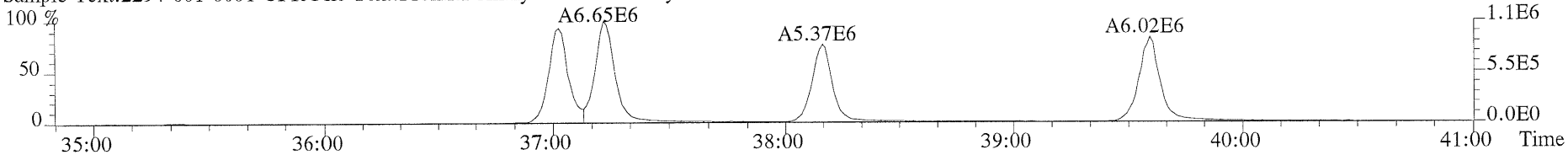
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



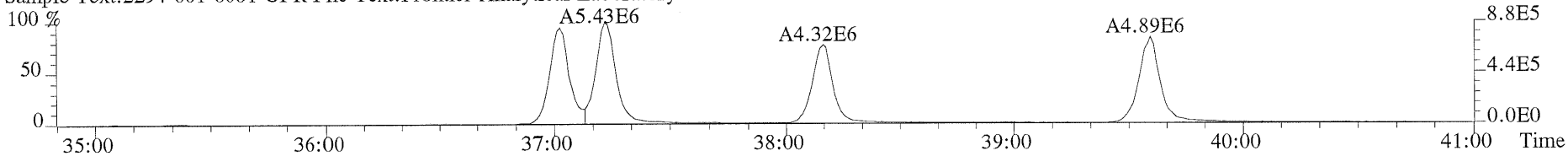
File:19MAY11M #1-412 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



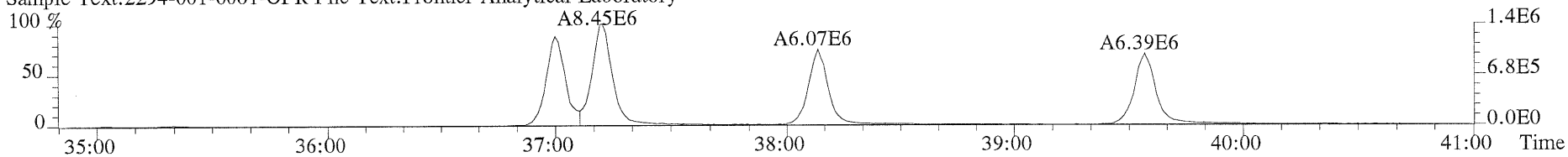
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



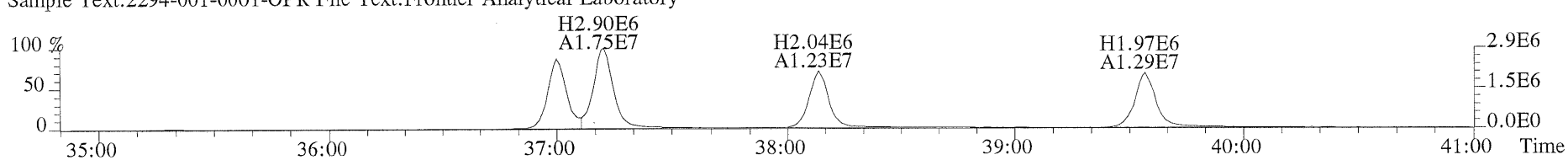
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



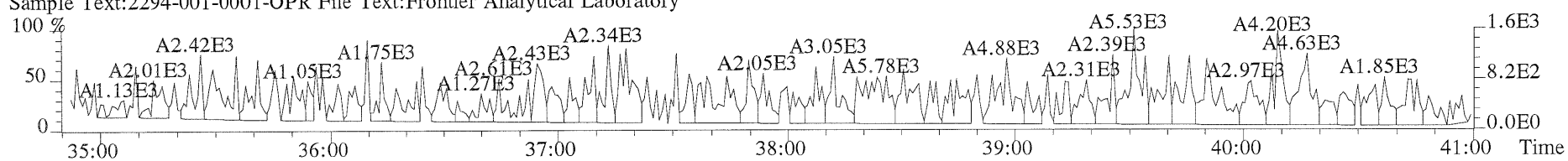
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



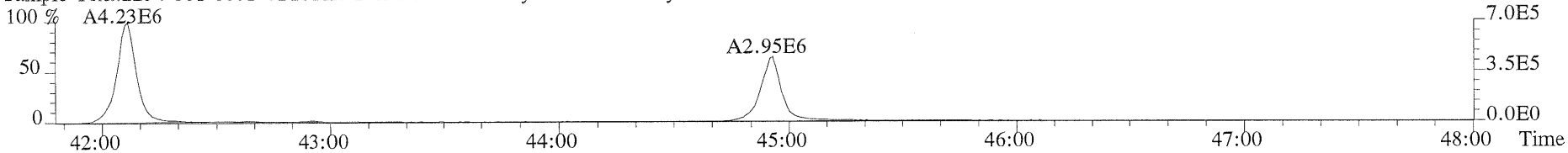
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



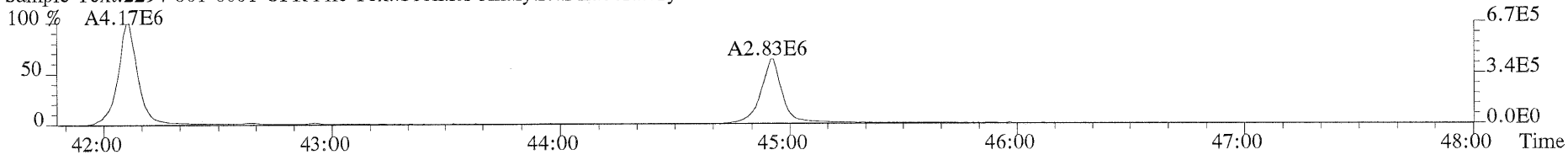
File:19MAY11M #1-476 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



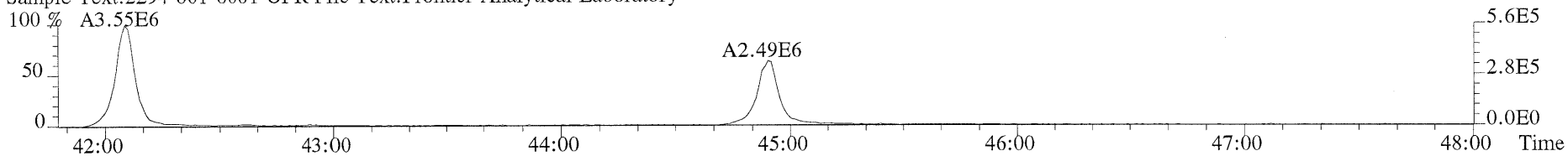
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



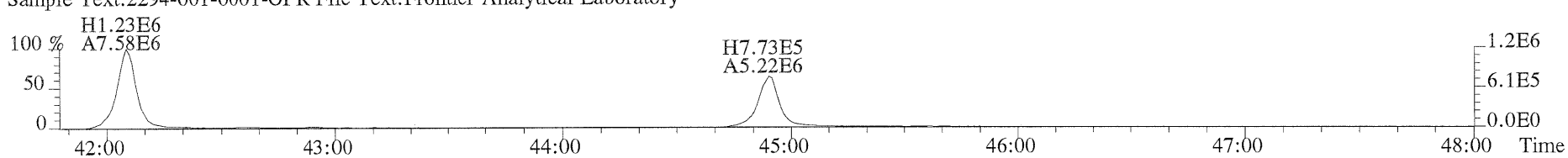
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



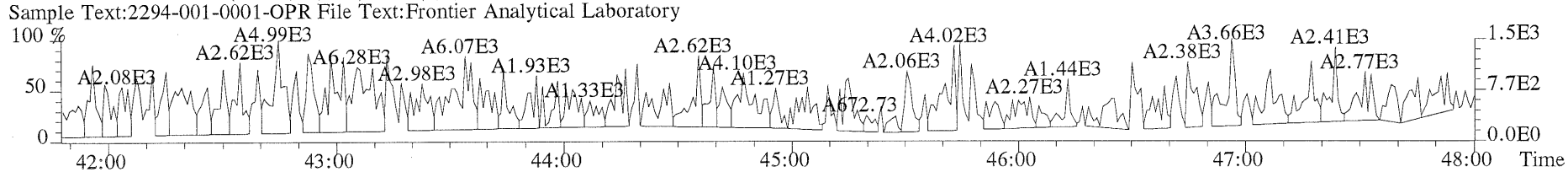
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



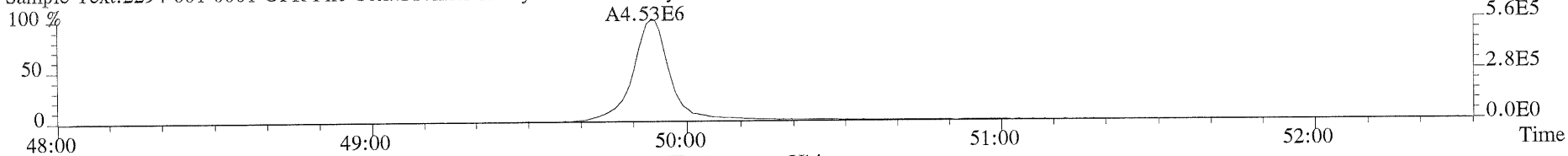
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



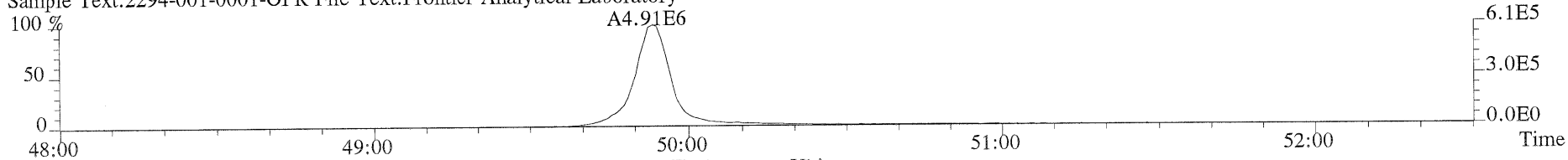
File:19MAY11M #1-542 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



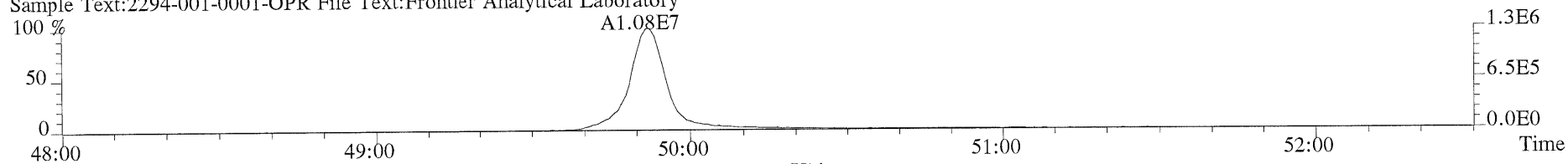
File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



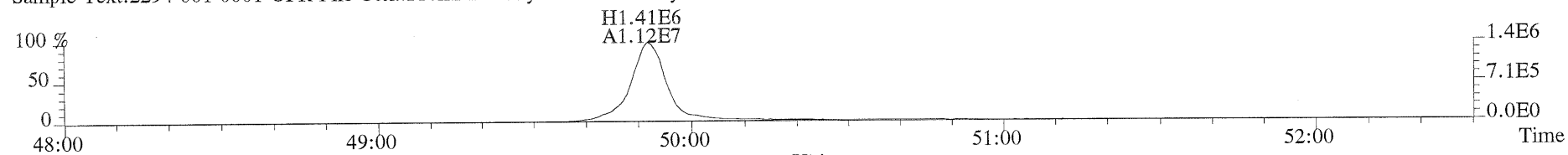
File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



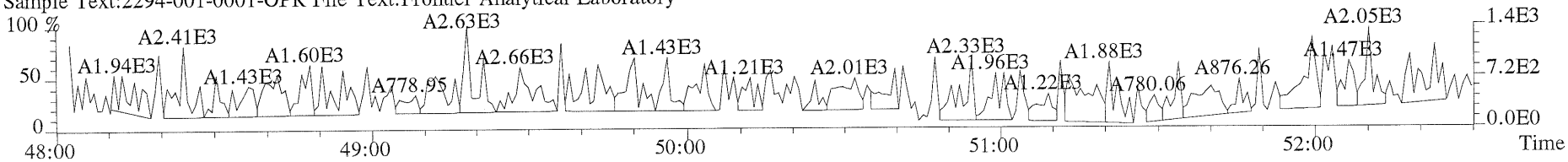
File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



File:19MAY11M #1-347 Acq:19-MAY-2011 17:23:07 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2294-001-0001-OPR File Text:Frontier Analytical Laboratory



FAL ID: 6743-001-0001-SA Filename: 19MAY11M Sam:7 Acquired: 19-MAY-11 19:13:53 ICal: PCDDFAL3-3-7-11
Client ID: MW-01-042911 ConCal: ST051911M1 EndCal: ST051911M2
Results: 6743 GC Column: DB5 Amount: 0.9600 NATO 1989 Tox: 28.6
WHO 1998 Tox: 23.3 WHO 2005 Tox: 24.1

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.66e+04	0.74 y	27:15	1.13	2.27		2.50	-	-	*
1,2,3,7,8-PeCDD	5.04e+04	1.61 y	33:05	1.02	4.97	J	2.50	-	-	*
1,2,3,4,7,8-HxCDD	4.92e+04	1.07 y	38:26	1.45	4.05	J	2.50	-	-	*
1,2,3,6,7,8-HxCDD	2.72e+05	1.22 y	38:35	1.45	27.1		2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.32e+05	1.31 y	39:02	1.47	11.8		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	5.37e+06	0.89 y	44:02	1.30	599		2.50	-	-	*
OCDD	5.79e+07	0.94 y	49:33	1.45	8430		2.50	-	-	*
2,3,7,8-TCDF	*	* n	NotFnd	1.15	*		2.50	1360	1420	1.56
1,2,3,7,8-PeCDF	2.01e+05	1.68 y	31:18	0.89	14.6	J	2.50	-	-	*
2,3,4,7,8-PeCDF	4.29e+04	1.63 y	32:40	0.89	3.23	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	5.52e+04	1.35 y	37:02	1.01	4.20	J	2.50	-	-	*
1,2,3,6,7,8-HxCDF	8.83e+04	1.26 y	37:13	0.89	6.06	J	2.50	-	-	*
2,3,4,6,7,8-HxCDF	9.90e+04	1.20 y	38:11	1.02	7.38	J	2.50	-	-	*
1,2,3,7,8,9-HxCDF	2.94e+04	1.08 y	39:40	1.10	2.04	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	6.06e+05	1.06 y	42:07	1.48	54.3		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	4.93e+04	1.11 y	44:57	1.43	6.30	J	2.50	-	-	*
OCDF	1.40e+06	0.92 y	49:55	0.84	207		2.50	-	-	*

						Rec
13C-2,3,7,8-TCDD	2.15e+07	0.77 y	27:15	1.03	1690	81.1
13C-1,2,3,7,8-PeCDD	2.08e+07	1.74 y	33:03	1.01	1660	79.8
13C-1,2,3,4,7,8-HxCDD	1.75e+07	1.27 y	38:25	1.19	1810	86.7
13C-1,2,3,6,7,8-HxCDD	1.44e+07	1.28 y	38:35	0.94	1890	90.6
13C-1,2,3,4,6,7,8-HpCDD	1.44e+07	1.03 y	44:01	0.83	2140	103
13C-OCDD	1.98e+07	0.96 y	49:32	0.61	4000	96.0
13C-2,3,7,8-TCDF	3.51e+07	0.87 y	26:29	0.98	1740	83.7
13C-1,2,3,7,8-PeCDF	3.24e+07	1.67 y	31:19	0.83	1900	91.4
13C-2,3,4,7,8-PeCDF	3.10e+07	1.70 y	32:37	0.80	1880	90.2
13C-1,2,3,4,7,8-HxCDF	2.71e+07	0.48 y	37:01	1.84	1810	87.0
13C-1,2,3,6,7,8-HxCDF	3.41e+07	0.48 y	37:13	2.29	1830	87.7
13C-2,3,4,6,7,8-HxCDF	2.75e+07	0.48 y	38:09	1.86	1820	87.1
13C-1,2,3,7,8,9-HxCDF	2.71e+07	0.48 y	39:35	1.98	1680	80.8
13C-1,2,3,4,6,7,8-HpCDF	1.57e+07	0.46 y	42:06	0.99	1950	93.7
13C-1,2,3,4,7,8,9-HpCDF	1.14e+07	0.47 y	44:55	0.77	1840	88.1
13C-OCDF	3.34e+07	0.95 y	49:53	1.17	3530	84.6
37Cl-2,3,7,8-TCDD	5.89e+06		27:15	0.73	652	78.3
13C-1,2,3,4-TCDD	2.58e+07	0.76 y	26:40	-	70.7	
13C-1,2,3,4-TCDF	4.28e+07	0.88 y	25:24	-	61.9	
13C-1,2,3,7,8,9-HxCDD	1.70e+07	1.28 y	39:01	-	71.2	

							Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	1.32e+05		24:16	1.13	11.2		2.50	-	-	*		4
Total Penta-Dioxins	1.52e+06		30:04	1.02	150		2.50	-	-	*		9
Total Hexa-Dioxins	3.56e+06		35:58	1.46	322		2.50	-	-	*		8
Total Hepta-Dioxins	1.16e+07		42:39	1.30	1290		2.50	-	-	*		2
Total Tetra-Furans	6.43e+06		23:17	1.15	333	D,M	2.50	-	-	*		15
1st Fn. Tot Penta-Furans	4.29e+05		28:18	0.89	31.7	D,M	2.50	-	-	*	PeCDF	3
Total Penta-Furans	6.97e+06		29:51	0.89	515	D,M	2.50	-	-	*	547	13
Total Hexa-Furans	2.54e+06		35:05	1.00	183	D,M	2.50	-	-	*		14
Total Hepta-Furans	1.95e+06		42:07	1.46	197		2.50	-	-	*		4

Analyst: _____ Date: 5/20/11

Totals class: Total Tetra-Dioxins Entry #: 38

Run: 11 File: 19MAY11M S: 7 I: 1 F: 1
Acquired: 19-MAY-11 19:13:53

Total Concentration: 11.2 Unnamed Concentration: 8.957

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
24:16	1.14e+04	1.47e+04	0.78 y	2.61e+04	2.23	
25:49	1.02e+04	1.47e+04	0.69 y	2.49e+04	2.12	
26:39	2.37e+04	3.02e+04	0.79 y	5.39e+04	4.61	
27:15	1.14e+04	1.53e+04	0.74 y	2.66e+04	2.27	2,3,7,8-TCDD

Totals class: Total Penta-Dioxins Entry #: 39

Run: 11 File: 19MAY11M S: 7 I: 1 F: 2
Acquired: 19-MAY-11 19:13:53

Total Concentration: 150 Unnamed Concentration: 144.738

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:04	5.55e+05	3.54e+05	1.57	y	9.09e+05	89.6	
30:25	5.35e+04	3.57e+04	1.50	y	8.93e+04	8.80	
31:20	4.88e+04	3.08e+04	1.58	y	7.96e+04	7.85	
31:32	5.44e+04	3.53e+04	1.54	y	8.97e+04	8.84	
31:40	3.25e+04	1.86e+04	1.75	y	5.12e+04	5.04	
31:58	4.54e+04	2.70e+04	1.69	y	7.24e+04	7.14	
32:44	3.22e+04	2.05e+04	1.57	y	5.27e+04	5.20	
33:05	3.11e+04	1.93e+04	1.61	y	5.04e+04	4.97	1,2,3,7,8-PeCDD
33:07	7.91e+04	4.51e+04	1.75	y	1.24e+05	12.3	

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 11 File: 19MAY11M S: 7 I: 1 F: 3
Acquired: 19-MAY-11 19:13:53

Total Concentration: 322 Unnamed Concentration: 278.873

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:58	9.15e+05	7.00e+05	1.31 y	1.61e+06	145	
36:53	1.05e+05	7.66e+04	1.37 y	1.82e+05	16.3	
36:59	5.40e+04	4.15e+04	1.30 y	9.55e+04	8.57	
37:19	5.69e+05	4.21e+05	1.35 y	9.90e+05	88.8	
37:26	1.23e+05	1.02e+05	1.20 y	2.25e+05	20.2	
38:26	2.54e+04	2.38e+04	1.07 y	4.92e+04	4.05	1,2,3,4,7,8-HxCDD
38:35	1.49e+05	1.22e+05	1.22 y	2.72e+05	27.1	1,2,3,6,7,8-HxCDD
39:02	7.51e+04	5.71e+04	1.31 y	1.32e+05	11.8	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 11 File: 19MAY11M S: 7 I: 1 F: 4
Acquired: 19-MAY-11 19:13:53

Total Concentration: 1290 Unnamed Concentration: 695.120

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
42:39	2.93e+06	3.30e+06	0.89	y	6.23e+06	695	
44:02	2.53e+06	2.84e+06	0.89	y	5.37e+06	599	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans Entry #: 42

Run: 11 File: 19MAY11M S: 7 I: 1 F: 1
Acquired: 19-MAY-11 19:13:53

Total Concentration: 333 Unnamed Concentration: 332.898

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
23:17	1.57e+04	2.23e+04	0.71	y	3.80e+04	1.97	
23:32	1.74e+04	2.05e+04	0.85	y	3.80e+04	1.97	
23:39	5.93e+04	8.16e+04	0.73	y	1.41e+05	7.29	
23:59	6.17e+04	9.16e+04	0.67	y	1.53e+05	7.93	
24:17	1.02e+05	1.54e+05	0.66	y	2.57e+05	13.3	
24:29	1.46e+04	1.86e+04	0.79	y	3.32e+04	1.72	
24:36	2.65e+04	3.76e+04	0.70	y	6.40e+04	3.31	
25:18	2.84e+04	3.53e+04	0.80	y	6.37e+04	3.29	
25:27	9.46e+04	1.37e+05	0.69	y	2.31e+05	12.0	
25:40	1.37e+06	1.98e+06	0.69	y	3.34e+06	173	
26:52	2.66e+04	3.84e+04	0.69	y	6.51e+04	3.37	
27:15	1.11e+05	1.48e+05	0.75	y	2.59e+05	13.4	
27:27	2.89e+04	4.28e+04	0.68	y	7.17e+04	3.71	
27:44	3.25e+05	4.96e+05	0.66	y	8.21e+05	42.5	
27:56	3.56e+05	5.00e+05	0.71	y	8.57e+05	44.3	

Totals class: 1st Fn. Tot Penta-Furans Entry #: 43

Run: 11 File: 19MAY11M S: 7 I: 1 F: 1
Acquired: 19-MAY-11 19:13:53

Total Concentration: 31.7 Unnamed Concentration: 31.724

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:18	1.47e+05	1.03e+05	1.43 y	2.51e+05	18.5	
28:57	5.36e+04	3.73e+04	1.44 y	9.09e+04	6.72	
29:28	5.38e+04	3.42e+04	1.57 y	8.80e+04	6.50	

Totals class: Total Penta-Furans Entry #: 44

Run: 11 File: 19MAY11M S: 7 I: 1 F: 2
Acquired: 19-MAY-11 19:13:53

Total Concentration: 515 Unnamed Concentration: 497.151

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
29:51	5.60e+04	3.62e+04	1.55	y	9.22e+04	6.81	
30:04	1.07e+05	6.90e+04	1.55	y	1.76e+05	13.0	
30:26	5.33e+04	3.29e+04	1.62	y	8.61e+04	6.36	
30:32	3.32e+04	2.26e+04	1.47	y	5.57e+04	4.12	
30:50	3.95e+04	2.82e+04	1.40	y	6.77e+04	5.00	
30:57	5.93e+05	3.84e+05	1.55	y	9.77e+05	72.2	
31:12	2.37e+06	1.49e+06	1.59	y	3.86e+06	285	
31:18	1.26e+05	7.50e+04	1.68	y	2.01e+05	14.6	1,2,3,7,8-PeCDF
31:37	3.61e+05	2.40e+05	1.50	y	6.01e+05	44.4	
31:56	8.06e+04	5.42e+04	1.49	y	1.35e+05	9.96	
32:33	3.21e+05	1.98e+05	1.62	y	5.20e+05	38.4	
32:40	2.66e+04	1.63e+04	1.63	y	4.29e+04	3.23	2,3,4,7,8-PeCDF
33:59	9.65e+04	5.97e+04	1.62	y	1.56e+05	11.5	

Totals class: Total Hexa-Furans Entry #: 45

Run: 11 File: 19MAY11M S: 7 I: 1 F: 3
Acquired: 19-MAY-11 19:13:53

Total Concentration: 183 Unnamed Concentration: 162.927

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
35:05	2.86e+04	2.48e+04	1.15	y	5.34e+04	3.84	
35:22	1.24e+05	9.67e+04	1.29	y	2.21e+05	15.9	
35:47	4.67e+05	3.64e+05	1.28	y	8.32e+05	59.8	
35:57	7.20e+04	5.90e+04	1.22	y	1.31e+05	9.42	
36:16	2.28e+05	1.87e+05	1.22	y	4.15e+05	29.8	
36:34	3.78e+04	2.94e+04	1.29	y	6.72e+04	4.83	
36:51	1.98e+04	1.42e+04	1.39	y	3.40e+04	2.45	
37:02	3.17e+04	2.34e+04	1.35	y	5.52e+04	4.20	1,2,3,4,7,8-HxCDF
37:13	4.92e+04	3.91e+04	1.26	y	8.83e+04	6.06	1,2,3,6,7,8-HxCDF
37:30	2.32e+04	2.03e+04	1.15	y	4.35e+04	3.13	
37:42	5.34e+04	4.64e+04	1.15	y	9.98e+04	7.17	
37:57	2.08e+05	1.62e+05	1.28	y	3.69e+05	26.6	
38:11	5.40e+04	4.51e+04	1.20	y	9.90e+04	7.38	2,3,4,6,7,8-HxCDF
39:40	1.53e+04	1.41e+04	1.08	y	2.94e+04	2.04	1,2,3,7,8,9-HxCDF

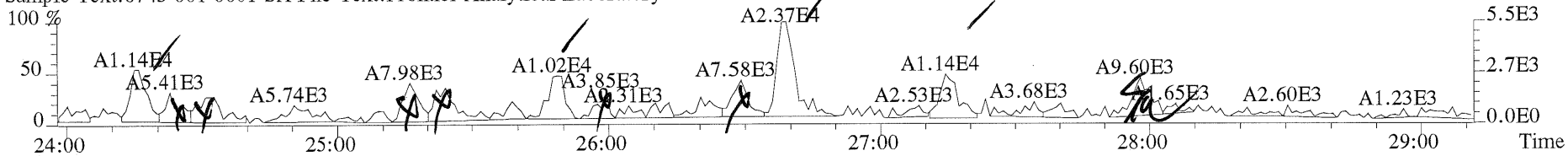
Totals class: Total Hepta-Furans Entry #: 46

Run: 11 File: 19MAY11M S: 7 I: 1 F: 4
Acquired: 19-MAY-11 19:13:53

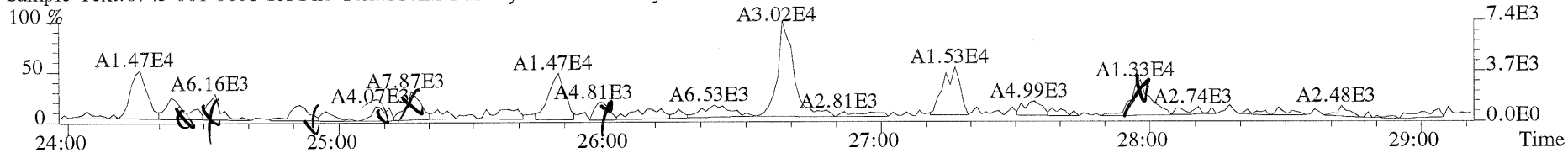
Total Concentration: 197 Unnamed Concentration: 136.403

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
42:07	3.11e+05	2.95e+05	1.06	y	6.06e+05	54.3	1,2,3,4,6,7,8-HpCDF
42:40	2.17e+04	2.19e+04	0.99	y	4.36e+04	4.60	
42:57	6.26e+05	6.24e+05	1.00	y	1.25e+06	132	
44:57	2.60e+04	2.33e+04	1.11	y	4.93e+04	6.30	1,2,3,4,7,8,9-HpCDF

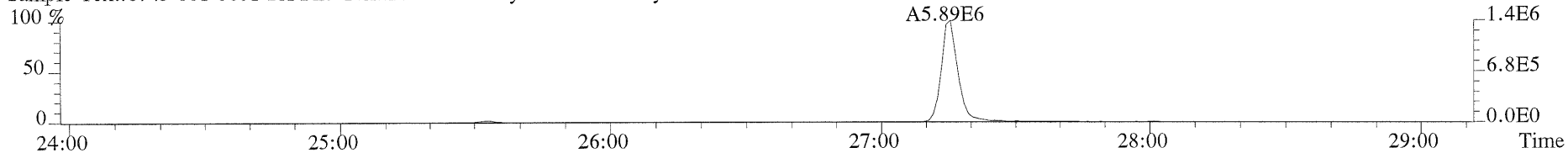
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



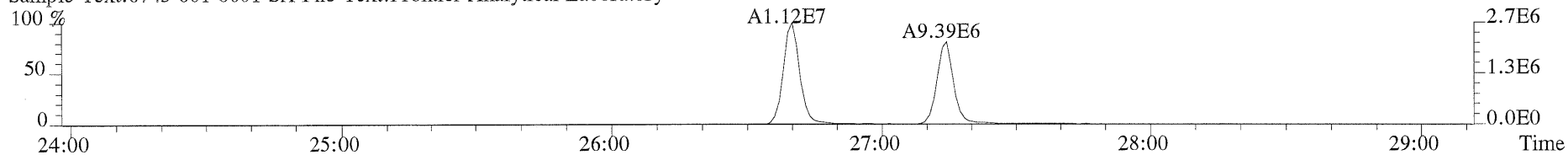
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



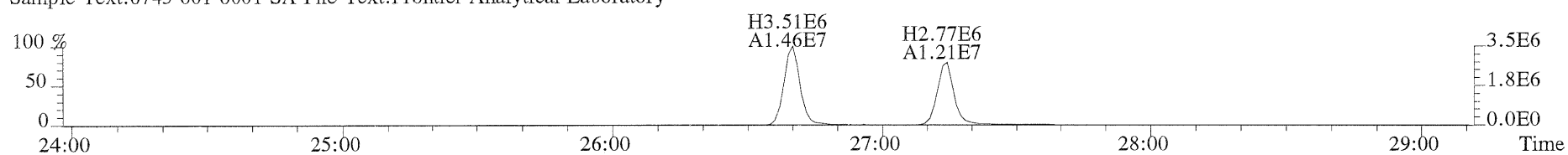
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



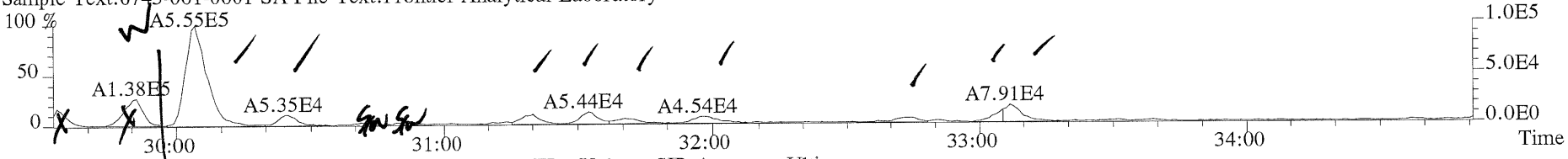
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



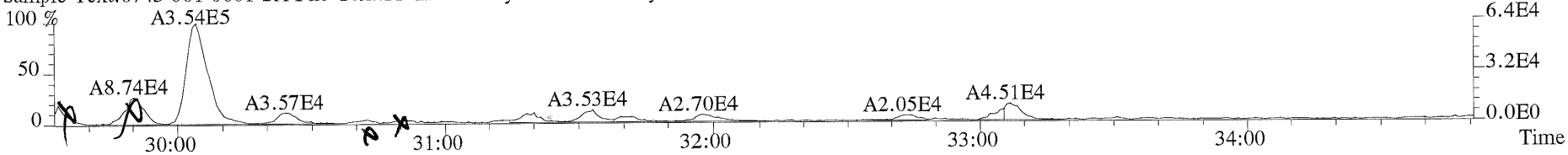
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



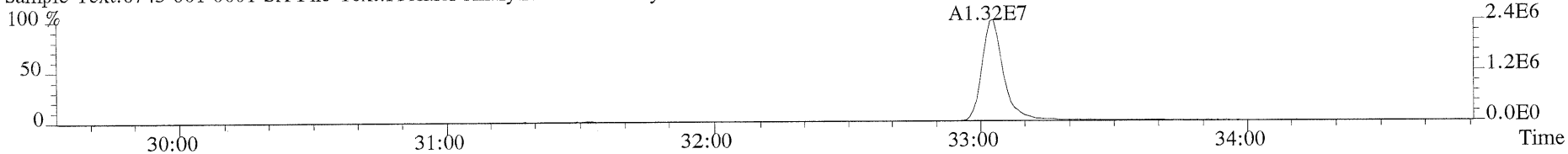
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



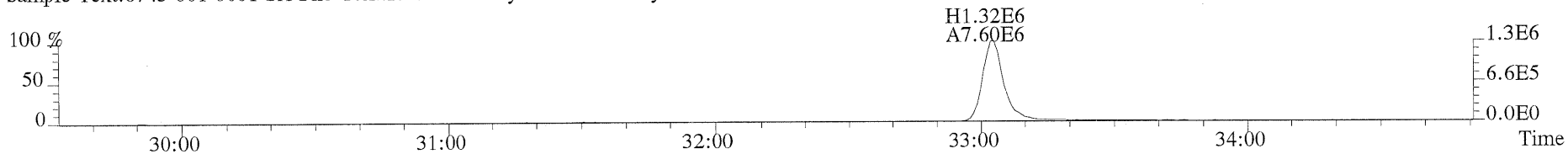
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



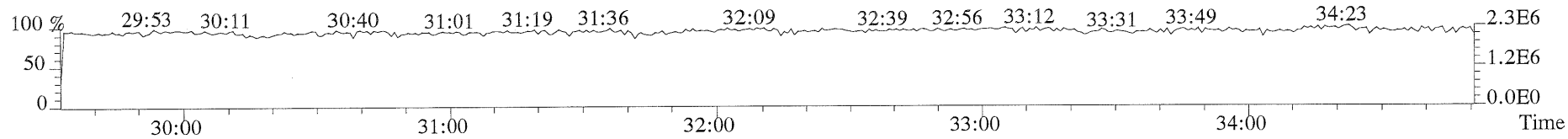
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



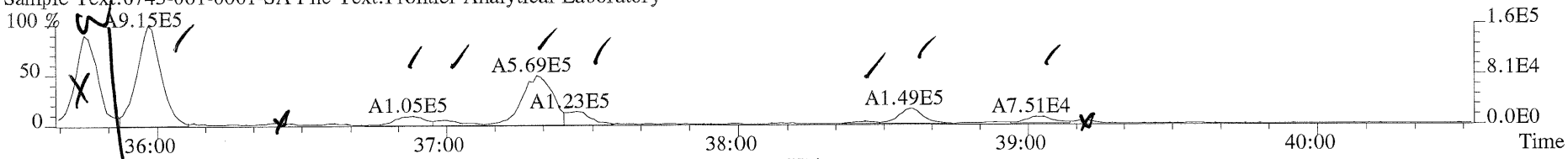
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



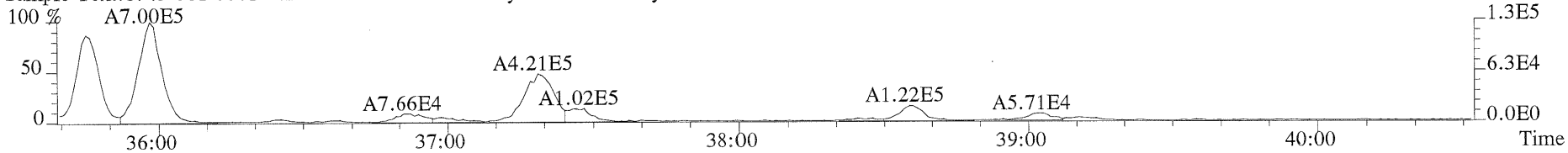
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:7 F:2 Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



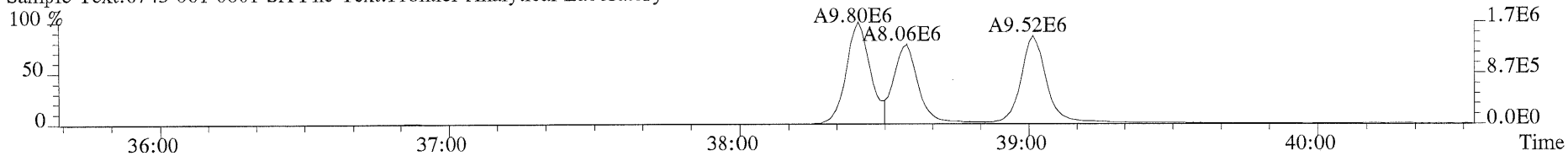
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



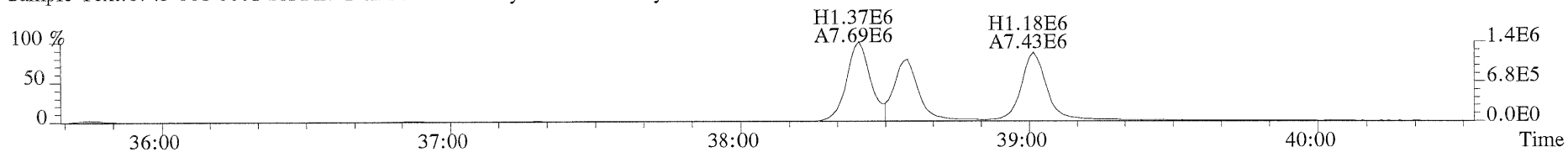
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



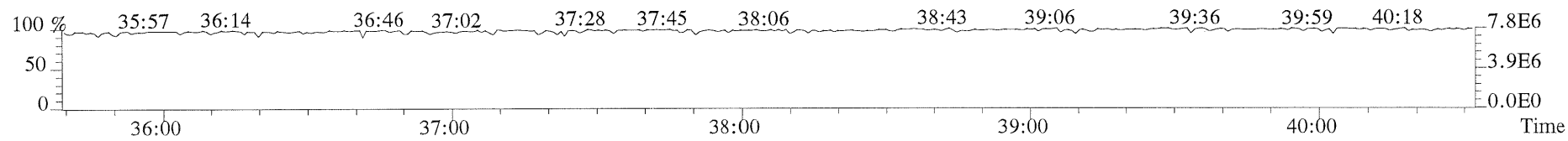
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



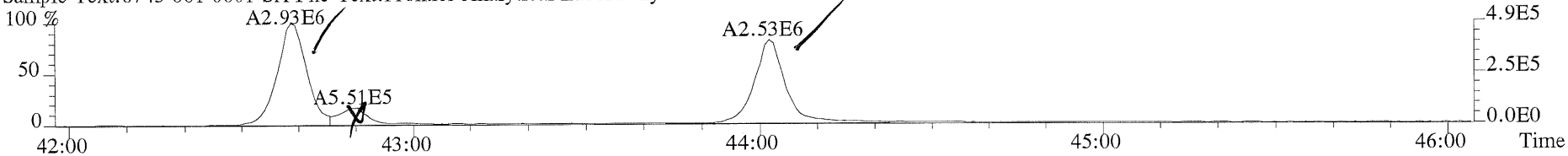
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



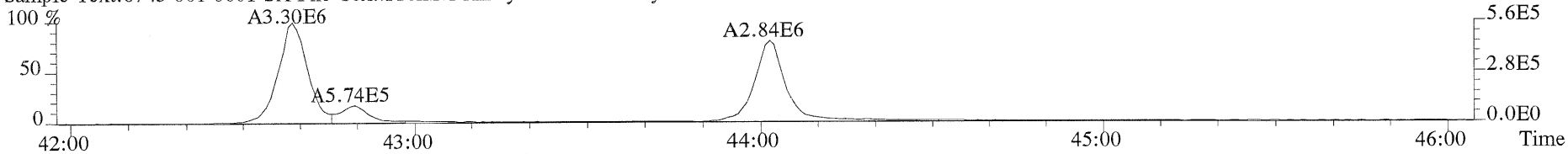
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:7 F:3 Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



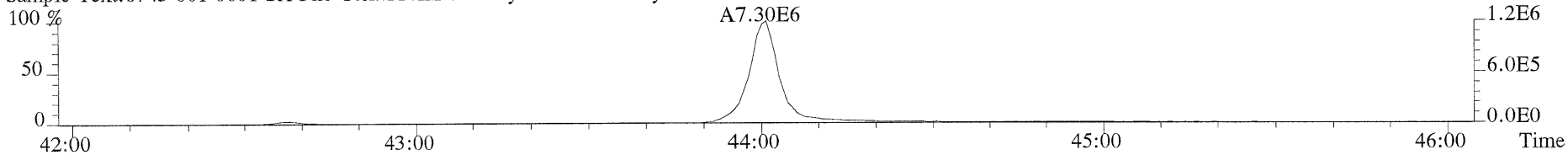
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



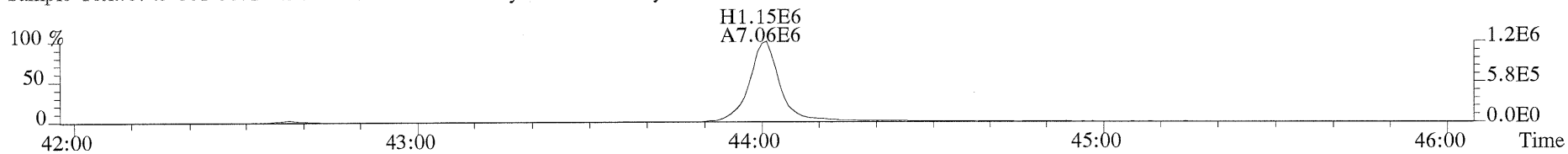
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



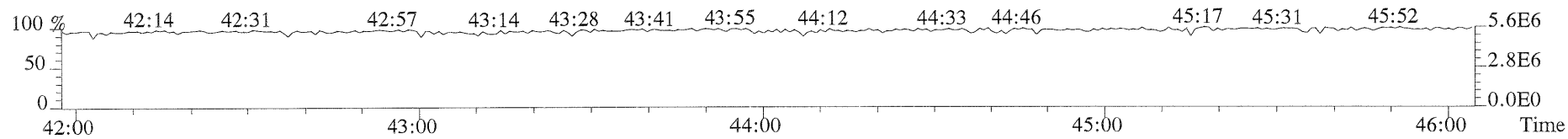
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



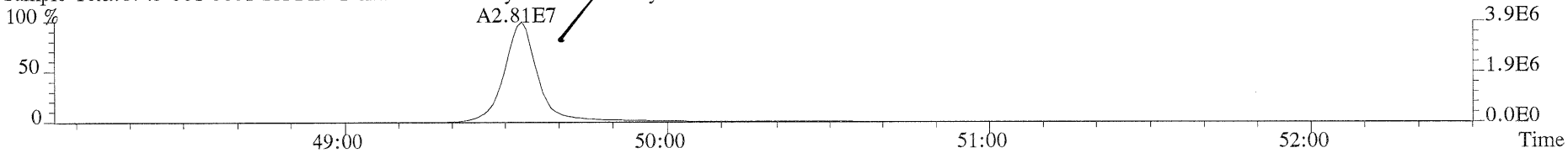
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



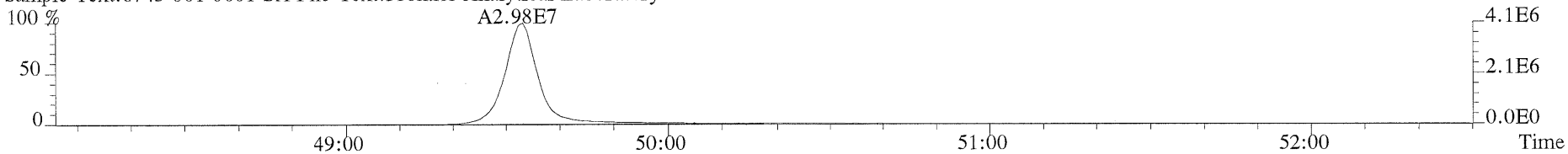
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:7 F:4 Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



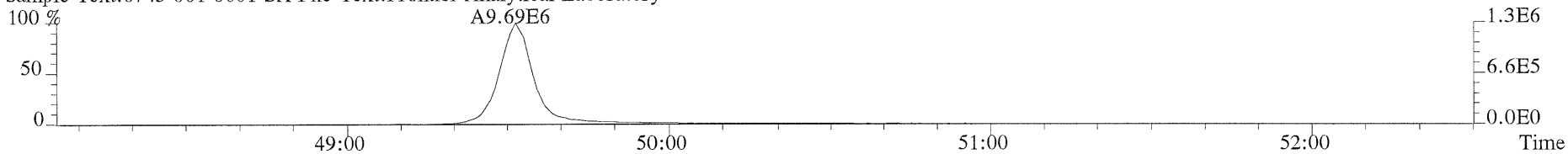
File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



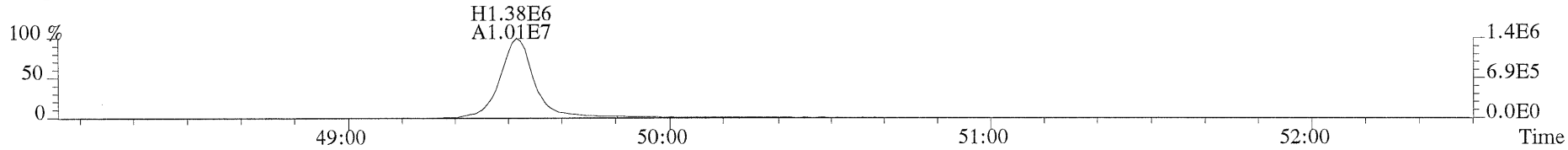
File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



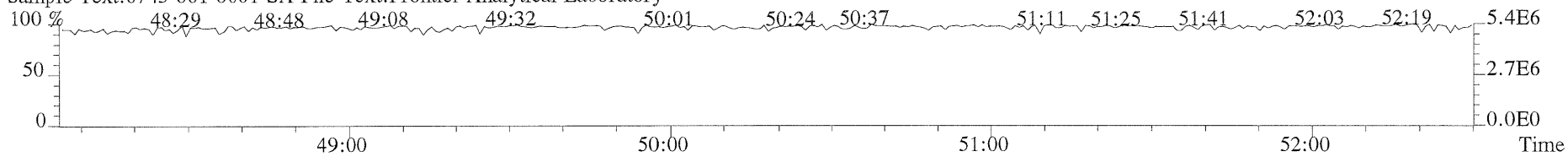
File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



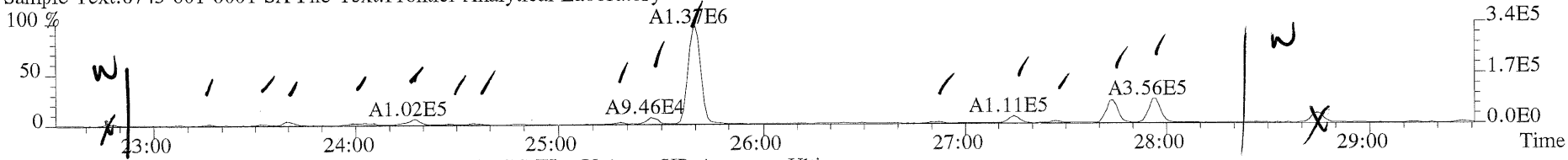
File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



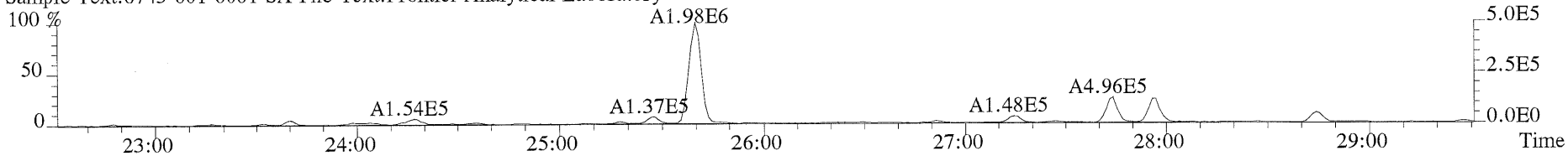
File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:7 F:5 Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



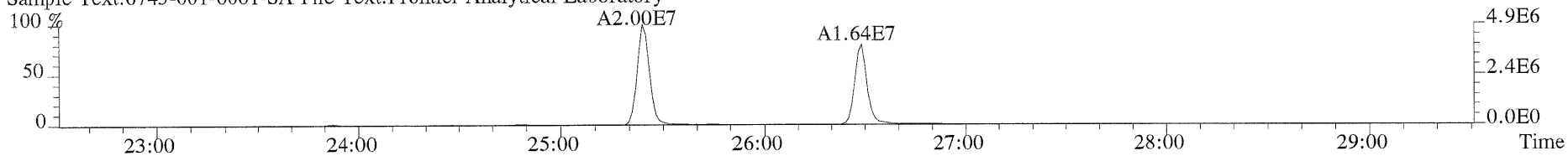
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



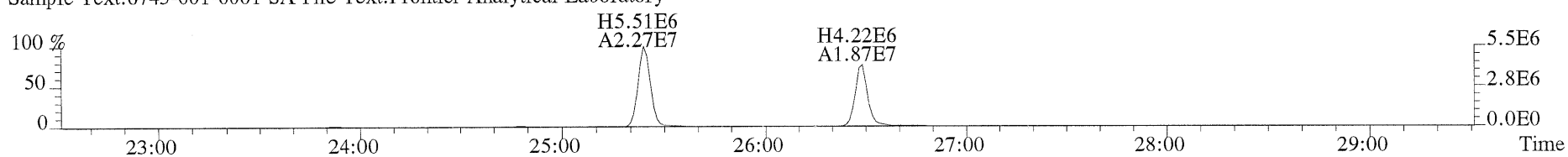
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



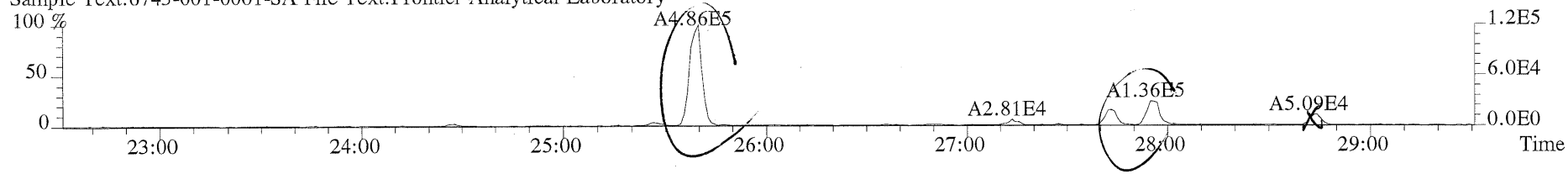
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



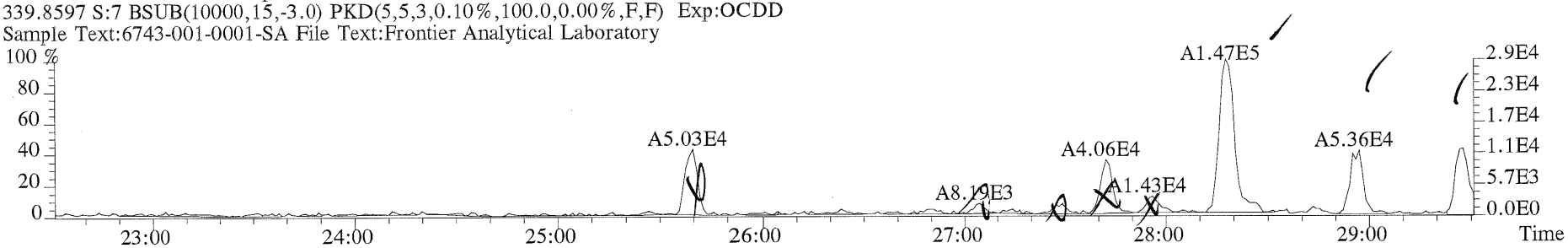
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



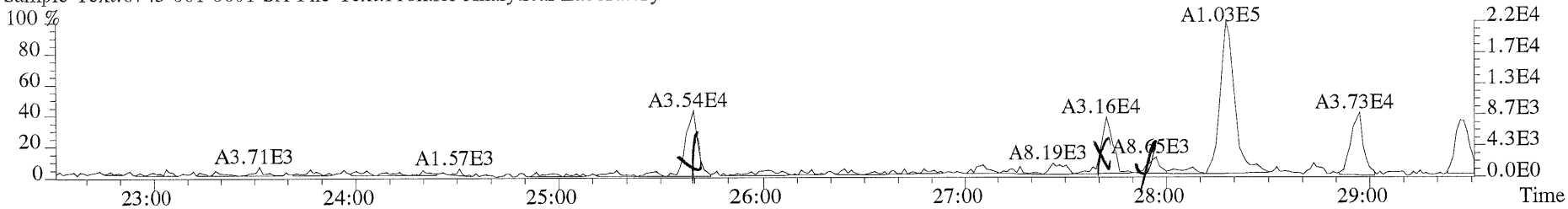
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



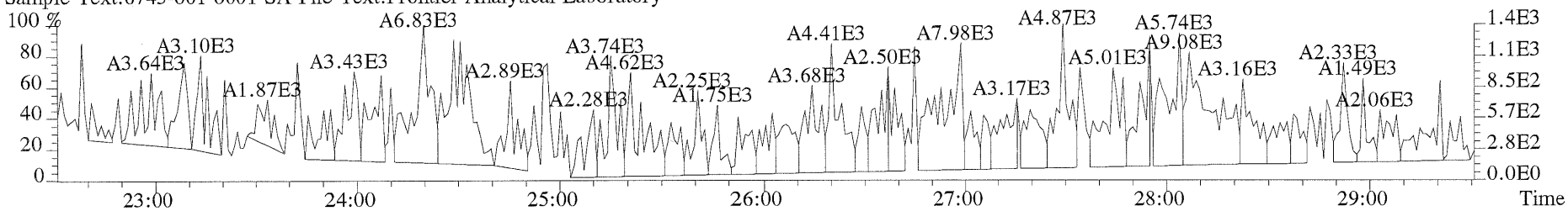
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



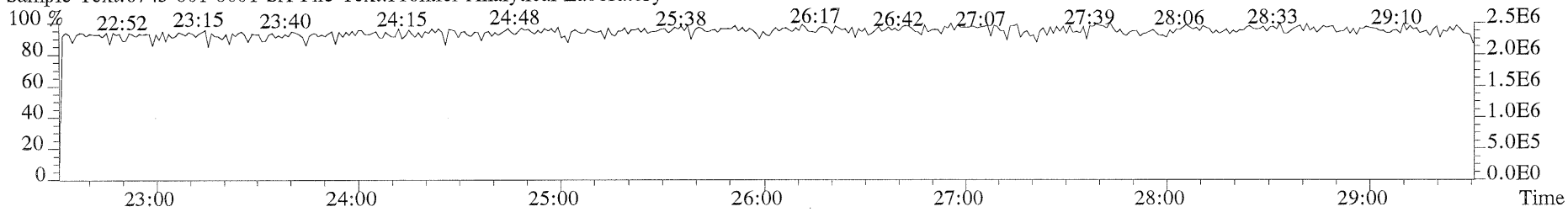
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



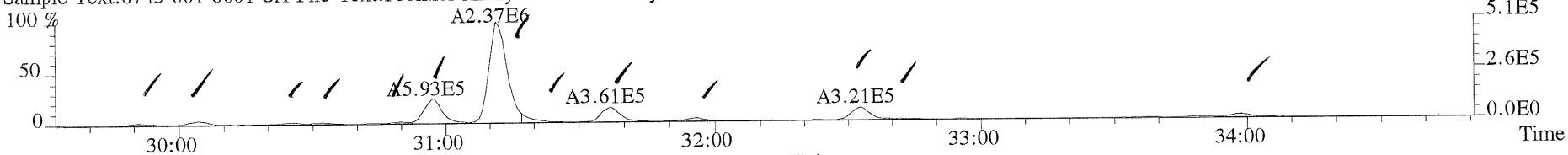
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



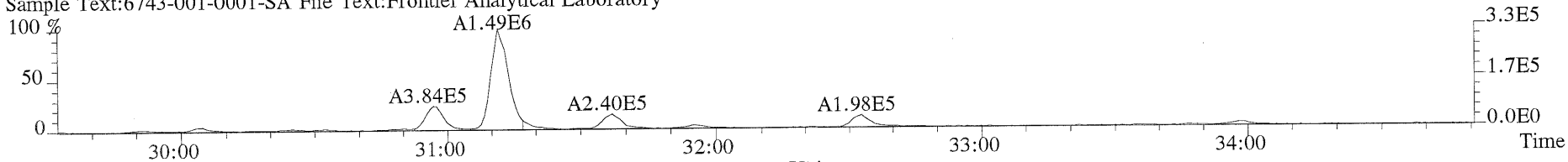
File:19MAY11M #1-426 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
LOCK_MASS_CHECK S:7 Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



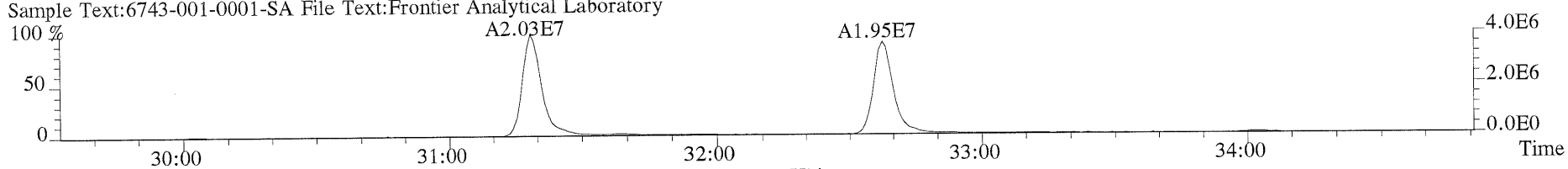
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:7 F:2 BSUB(10000,15,-3.0) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



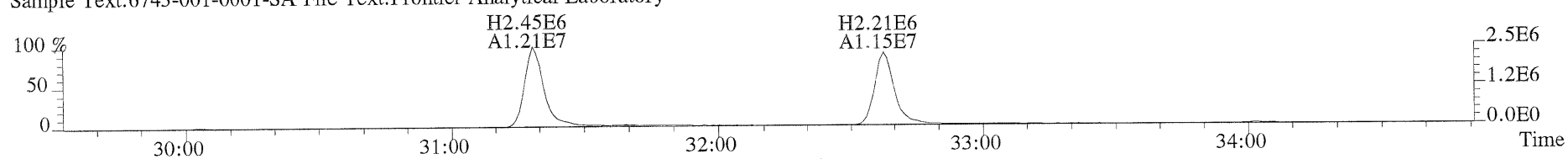
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:7 F:2 BSUB(10000,15,-3.0) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



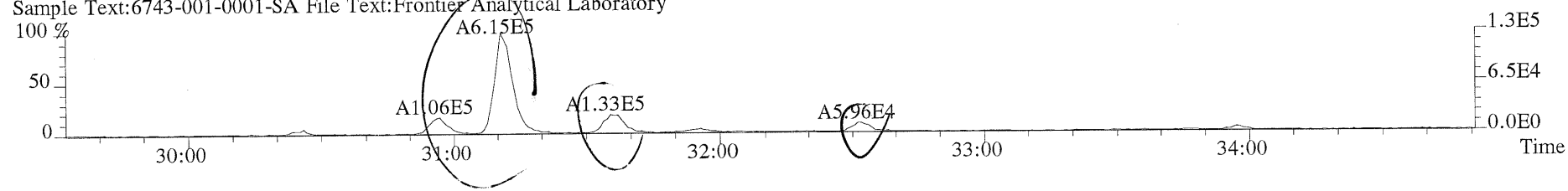
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



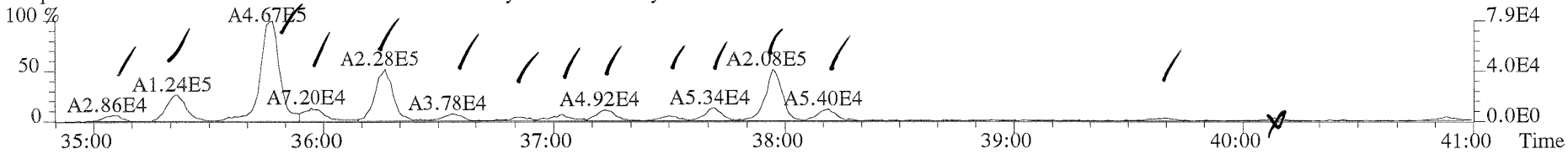
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



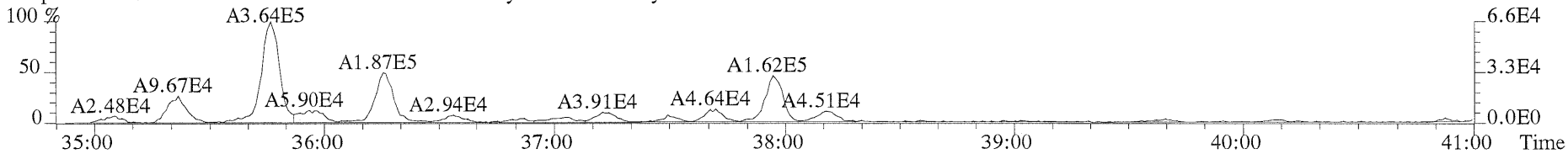
File:19MAY11M #1-412 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



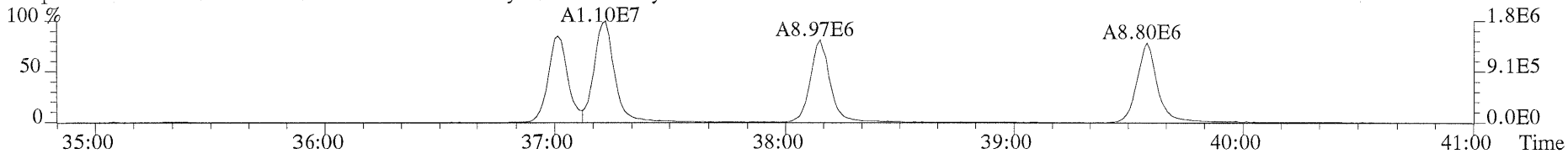
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



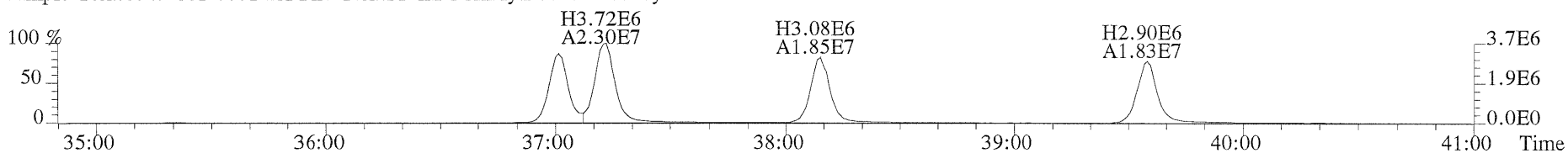
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



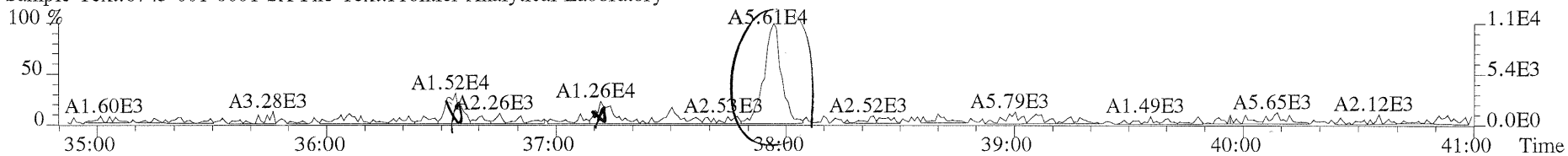
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



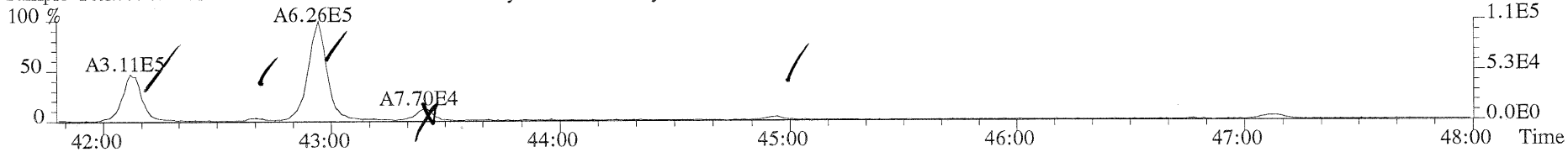
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



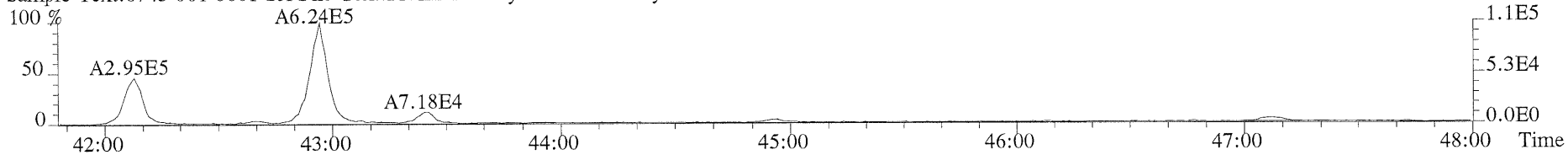
File:19MAY11M #1-476 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



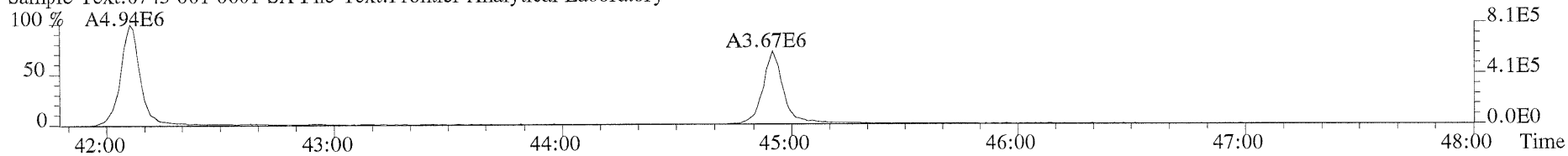
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



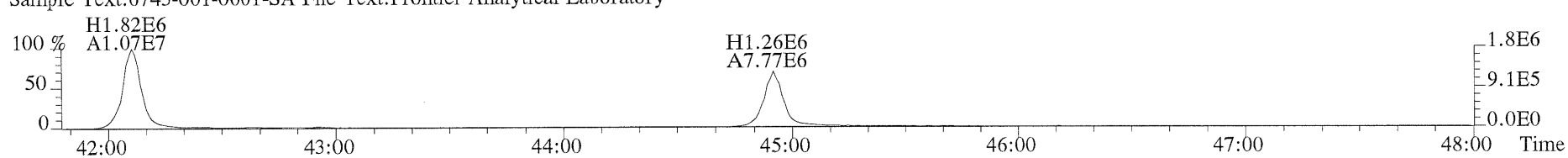
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



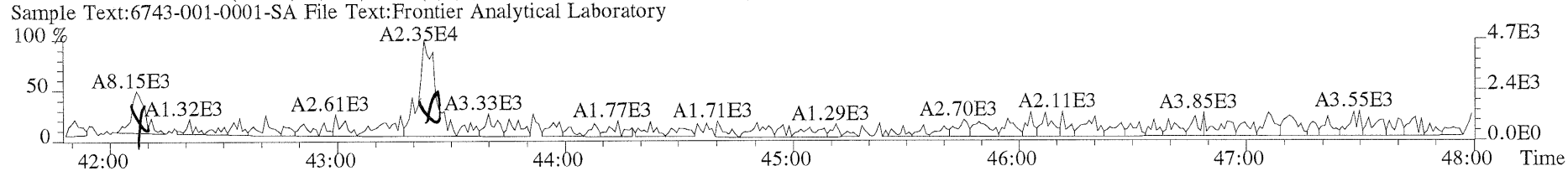
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



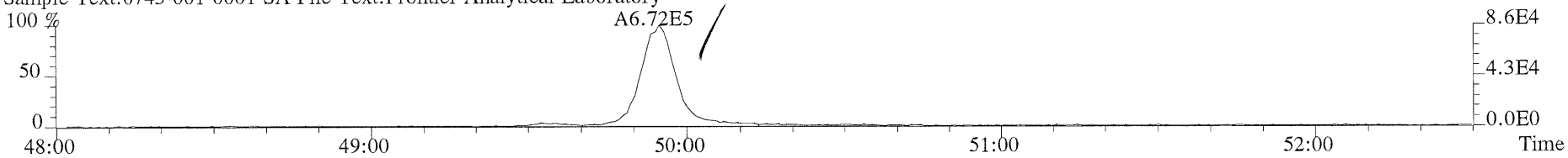
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



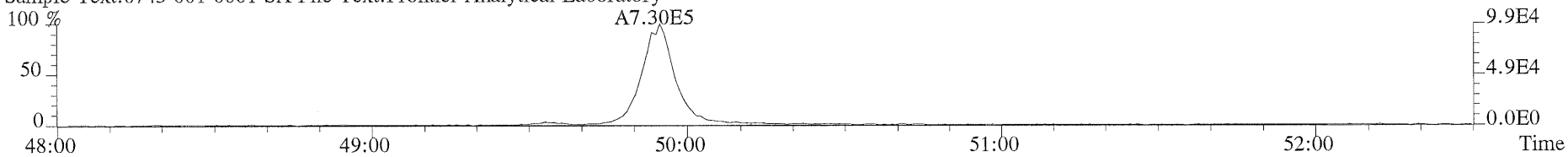
File:19MAY11M #1-541 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



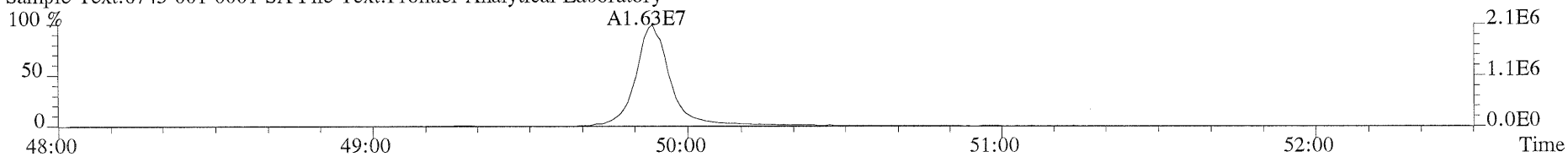
File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



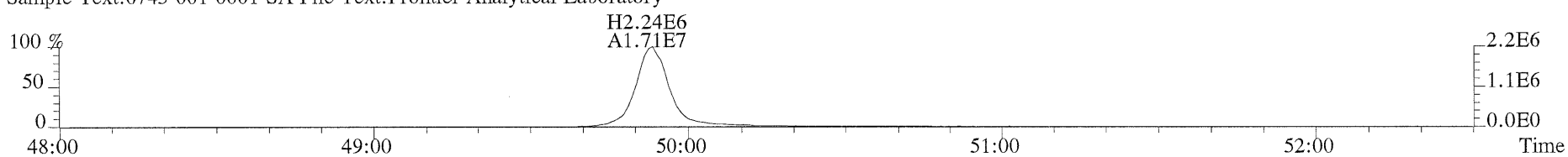
File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



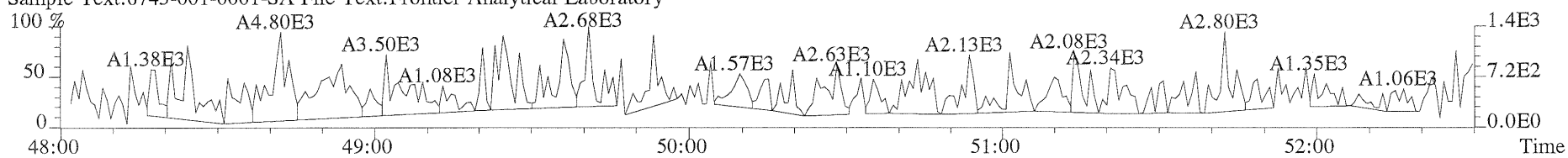
File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



File:19MAY11M #1-348 Acq:19-MAY-2011 19:13:53 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-001-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 6743-002-0001-SA Filename: 19MAY11M Sam:8 Acquired: 19-MAY-11 20:09:21 ICal: PCDDFAL3-3-7-11
Client ID: MW-01-042911-D ConCal: ST051911M1 EndCal: ST051911M2
Results: 6743 GC Column: DB5 Amount: 1.005 NATO 1989 Tox: 13.8
WHO 1998 Tox: 11.3 WHO 2005 Tox: 11.2

Name	Resp	RA		RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	*	*	n	NotFnd	1.13	*		2.50	652	700	1.17
1,2,3,7,8-PeCDD	1.69e+04	1.46	y	33:04	1.02	1.50	J	2.50	-	-	*
1,2,3,4,7,8-HxCDD	3.91e+04	1.38	y	38:25	1.45	2.91	J	2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.81e+05	1.36	y	38:35	1.45	16.0	J	2.50	-	-	*
1,2,3,7,8,9-HxCDD	8.05e+04	1.41	y	39:03	1.47	6.43	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	3.00e+06	0.89	y	44:02	1.30	305		2.50	-	-	*
OCDD	2.59e+07	0.93	y	49:32	1.45	3520		2.50	-	-	*
2,3,7,8-TCDF	*	*	n	NotFnd	1.15	*		2.50	1240	1340	1.25
1,2,3,7,8-PeCDF	2.03e+05	1.72	y	31:17	0.89	13.1	J	2.50	-	-	*
2,3,4,7,8-PeCDF	3.68e+04	1.48	y	32:43	0.89	2.50	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	3.77e+04	1.27	y	37:02	1.01	2.58	J	2.50	-	-	*
1,2,3,6,7,8-HxCDF	7.27e+04	1.28	y	37:13	0.89	4.42	J	2.50	-	-	*
2,3,4,6,7,8-HxCDF	9.46e+04	1.29	y	38:09	1.02	6.34	J	2.50	-	-	*
1,2,3,7,8,9-HxCDF	3.44e+04	1.11	y	39:38	1.10	2.11	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	3.94e+05	1.07	y	42:08	1.48	31.8		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	3.65e+04	0.98	y	44:55	1.43	4.16	J	2.50	-	-	*
OCDF	8.18e+05	0.90	y	49:55	0.84	113		2.50	-	-	*

							Rec
13C-2,3,7,8-TCDD	2.34e+07	0.75	y	27:15	1.03	1740	87.2
13C-1,2,3,7,8-PeCDD	2.22e+07	1.73	y	33:02	1.01	1680	84.2
13C-1,2,3,4,7,8-HxCDD	1.85e+07	1.26	y	38:25	1.19	1840	92.6
13C-1,2,3,6,7,8-HxCDD	1.55e+07	1.27	y	38:34	0.94	1960	98.7
13C-1,2,3,4,6,7,8-HpCDD	1.51e+07	1.03	y	44:00	0.83	2160	109
13C-OCDD	2.02e+07	0.95	y	49:32	0.61	3950	99.2
13C-2,3,7,8-TCDF	3.86e+07	0.86	y	26:29	0.98	1850	93.1
13C-1,2,3,7,8-PeCDF	3.48e+07	1.65	y	31:19	0.83	1970	99.2
13C-2,3,4,7,8-PeCDF	3.29e+07	1.67	y	32:37	0.80	1930	96.8
13C-1,2,3,4,7,8-HxCDF	2.88e+07	0.48	y	37:00	1.84	1860	93.6
13C-1,2,3,6,7,8-HxCDF	3.67e+07	0.48	y	37:13	2.29	1900	95.7
13C-2,3,4,6,7,8-HxCDF	2.92e+07	0.48	y	38:08	1.86	1860	93.7
13C-1,2,3,7,8,9-HxCDF	2.94e+07	0.48	y	39:34	1.98	1760	88.5
13C-1,2,3,4,6,7,8-HpCDF	1.67e+07	0.45	y	42:06	0.99	2010	101
13C-1,2,3,4,7,8,9-HpCDF	1.22e+07	0.47	y	44:55	0.77	1900	95.5
13C-OCDF	3.41e+07	0.94	y	49:53	1.17	3480	87.4
37Cl-2,3,7,8-TCDD	5.92e+06			27:16	0.73	619	77.8

13C-1,2,3,4-TCDD	2.61e+07	0.76	y	26:40	-	68.2
13C-1,2,3,4-TCDF	4.23e+07	0.87	y	25:24	-	58.4
13C-1,2,3,7,8,9-HxCDD	1.67e+07	1.30	y	39:01	-	67.1

								Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	3.06e+04			24:16	1.13	2.30	J	2.50	-	-	*		1
Total Penta-Dioxins	8.70e+05			30:03	1.02	76.8		2.50	-	-	*		8
Total Hexa-Dioxins	2.26e+06			35:58	1.46	183		2.50	-	-	*		6
Total Hepta-Dioxins	6.28e+06			42:39	1.30	638		2.50	-	-	*		2
Total Tetra-Furans	5.52e+06			23:39	1.15	248	D,M	2.50	-	-	*		10
1st Fn. Tot Penta-Furans	2.92e+05			28:18	0.89	19.3	D,M	2.50	-	-	*	PeCDF	2
Total Penta-Furans	7.39e+06			30:04	0.89	489	D,M	2.50	-	-	*	508	11
Total Hexa-Furans	1.61e+06			35:05	1.00	103	D,M	2.50	-	-	*		13
Total Hepta-Furans	1.31e+06			42:08	1.46	119		2.50	-	-	*		4

Analyst: _____ Date: 5/20/11

Totals class: Total Tetra-Dioxins Entry #: 38

Run: 12 File: 19MAY11M S: 8 I: 1 F: 1
Acquired: 19-MAY-11 20:09:21

Total Concentration: 2.30 Unnamed Concentration: 2.301

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
24:16	1.32e+04	1.74e+04	0.76	y	3.06e+04	2.30	

Totals class: Total Penta-Dioxins Entry #: 39

Run: 12 File: 19MAY11M S: 8 I: 1 F: 2
Acquired: 19-MAY-11 20:09:21

Total Concentration: 76.8 Unnamed Concentration: 75.319

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:03	3.09e+05	2.02e+05	1.53	y	5.11e+05	45.2	
30:25	1.86e+04	1.35e+04	1.38	y	3.21e+04	2.83	
31:19	5.06e+04	2.89e+04	1.75	y	7.96e+04	7.03	
31:32	4.09e+04	3.04e+04	1.35	y	7.13e+04	6.29	
31:39	2.39e+04	1.50e+04	1.59	y	3.90e+04	3.44	
31:57	4.35e+04	2.94e+04	1.48	y	7.30e+04	6.44	
33:04	1.01e+04	6.89e+03	1.46	y	1.69e+04	1.50	1,2,3,7,8-PeCDD
33:05	2.81e+04	1.85e+04	1.52	y	4.65e+04	4.11	

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 12 File: 19MAY11M S: 8 I: 1 F: 3
Acquired: 19-MAY-11 20:09:21

Total Concentration: 183 Unnamed Concentration: 158.038

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:58	6.01e+05	4.64e+05	1.29 y	1.07e+06	85.8	
36:53	4.17e+04	3.11e+04	1.34 y	7.28e+04	5.86	
37:19	4.77e+05	3.48e+05	1.37 y	8.24e+05	66.4	
38:25	2.27e+04	1.64e+04	1.38 y	3.91e+04	2.91	1,2,3,4,7,8-HxCDD
38:35	1.04e+05	7.68e+04	1.36 y	1.81e+05	16.0	1,2,3,6,7,8-HxCDD
39:03	4.71e+04	3.34e+04	1.41 y	8.05e+04	6.43	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 12 File: 19MAY11M S: 8 I: 1 F: 4
Acquired: 19-MAY-11 20:09:21

Total Concentration: 638 Unnamed Concentration: 333.216

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:39	1.55e+06	1.73e+06	0.89 y	3.28e+06	333	
44:02	1.41e+06	1.59e+06	0.89 y	3.00e+06	305	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans Entry #: 42

Run: 12 File: 19MAY11M S: 8 I: 1 F: 1
Acquired: 19-MAY-11 20:09:21

Total Concentration: 248 Unnamed Concentration: 248.416

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
23:39	3.16e+04	4.34e+04	0.73	y	7.49e+04	3.37	
23:59	7.87e+04	1.19e+05	0.66	y	1.97e+05	8.88	
24:18	1.53e+05	2.26e+05	0.68	y	3.79e+05	17.0	
25:28	1.09e+05	1.64e+05	0.67	y	2.73e+05	12.3	
25:40	1.45e+06	2.13e+06	0.68	y	3.58e+06	161	
26:51	2.55e+04	3.45e+04	0.74	y	6.00e+04	2.70	
27:15	7.07e+04	9.48e+04	0.75	y	1.65e+05	7.44	
27:26	2.60e+04	3.20e+04	0.81	y	5.80e+04	2.61	
27:44	1.49e+05	2.20e+05	0.68	y	3.69e+05	16.6	
27:56	1.51e+05	2.13e+05	0.71	y	3.64e+05	16.4	

Totals class: 1st Fn. Tot Penta-Furans Entry #: 43

Run: 12 File: 19MAY11M S: 8 I: 1 F: 1
Acquired: 19-MAY-11 20:09:21

Total Concentration: 19.3 Unnamed Concentration: 19.324

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:18	1.54e+05	1.04e+05	1.48 y	2.58e+05	17.0	
28:56	2.10e+04	1.34e+04	1.56 y	3.44e+04	2.28	

Totals class: Total Penta-Furans Entry #: 44

Run: 12 File: 19MAY11M S: 8 I: 1 F: 2
Acquired: 19-MAY-11 20:09:21

Total Concentration: 489 Unnamed Concentration: 472.966

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:04	9.29e+04	5.37e+04	1.73 y	1.47e+05	9.70	
30:32	7.59e+04	4.82e+04	1.57 y	1.24e+05	8.21	
30:49	6.02e+04	4.02e+04	1.50 y	1.00e+05	6.65	
30:57	6.68e+05	4.25e+05	1.57 y	1.09e+06	72.3	
31:12	2.82e+06	1.80e+06	1.57 y	4.63e+06	306	
31:17	1.28e+05	7.44e+04	1.72 y	2.03e+05	13.1	1,2,3,7,8-PeCDF
31:36	2.25e+05	1.39e+05	1.62 y	3.64e+05	24.1	
31:56	6.22e+04	4.03e+04	1.54 y	1.02e+05	6.78	
32:33	3.16e+05	2.09e+05	1.51 y	5.24e+05	34.7	
32:43	2.20e+04	1.48e+04	1.48 y	3.68e+04	2.50	2,3,4,7,8-PeCDF
33:58	3.96e+04	2.58e+04	1.54 y	6.53e+04	4.32	

Totals class: Total Hexa-Furans Entry #: 45

Run: 12 File: 19MAY11M S: 8 I: 1 F: 3
Acquired: 19-MAY-11 20:09:21

Total Concentration: 103 Unnamed Concentration: 87.683

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
35:05	2.20e+04	1.62e+04	1.36	y	3.83e+04	2.45	
35:20	7.46e+04	6.10e+04	1.22	y	1.36e+05	8.69	
35:47	9.78e+04	8.01e+04	1.22	y	1.78e+05	11.4	
35:57	6.78e+04	5.01e+04	1.35	y	1.18e+05	7.56	
36:16	2.03e+05	1.56e+05	1.30	y	3.59e+05	23.0	
36:33	2.76e+04	2.22e+04	1.24	y	4.98e+04	3.19	
37:02	2.11e+04	1.66e+04	1.27	y	3.77e+04	2.58	1,2,3,4,7,8-HxCDF
37:13	4.08e+04	3.19e+04	1.28	y	7.27e+04	4.42	1,2,3,6,7,8-HxCDF
37:30	2.43e+04	1.85e+04	1.31	y	4.28e+04	2.75	
37:40	1.07e+05	8.61e+04	1.24	y	1.93e+05	12.4	
37:57	1.42e+05	1.12e+05	1.27	y	2.54e+05	16.3	
38:09	5.33e+04	4.13e+04	1.29	y	9.46e+04	6.34	2,3,4,6,7,8-HxCDF
39:38	1.81e+04	1.63e+04	1.11	y	3.44e+04	2.11	1,2,3,7,8,9-HxCDF

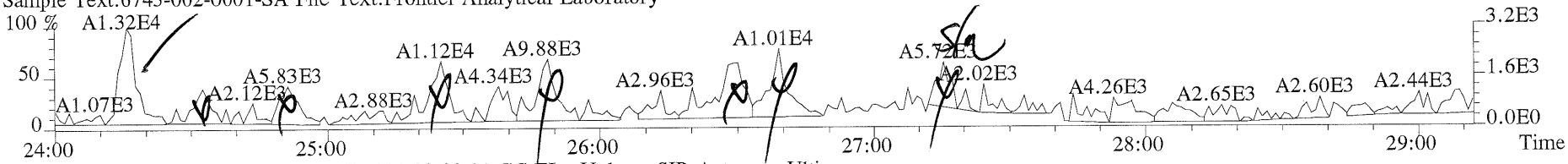
Totals class: Total Hepta-Furans Entry #: 46

Run: 12 File: 19MAY11M S: 8 I: 1 F: 4
Acquired: 19-MAY-11 20:09:21

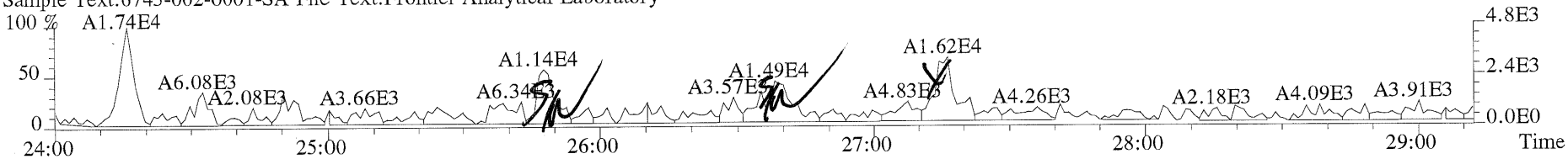
Total Concentration: 119 Unnamed Concentration: 82.716

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:08	2.03e+05	1.91e+05	1.07 y	3.94e+05	31.8	1,2,3,4,6,7,8-HpCDF
42:40	1.49e+04	1.29e+04	1.15 y	2.77e+04	2.62	
42:56	4.32e+05	4.17e+05	1.04 y	8.48e+05	80.1	
44:55	1.81e+04	1.84e+04	0.98 y	3.65e+04	4.16	1,2,3,4,7,8,9-HpCDF

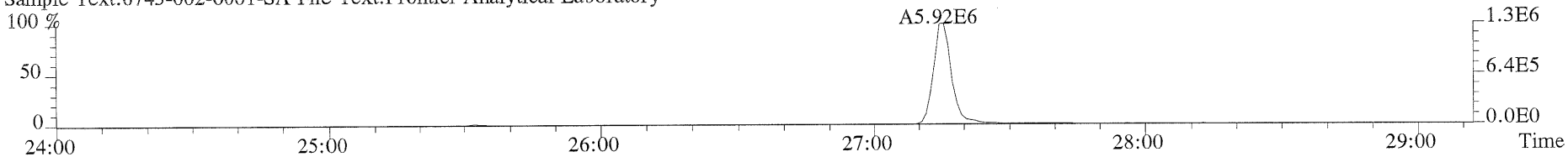
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



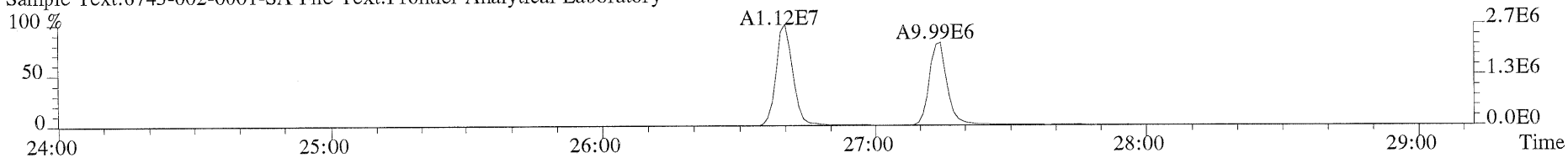
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



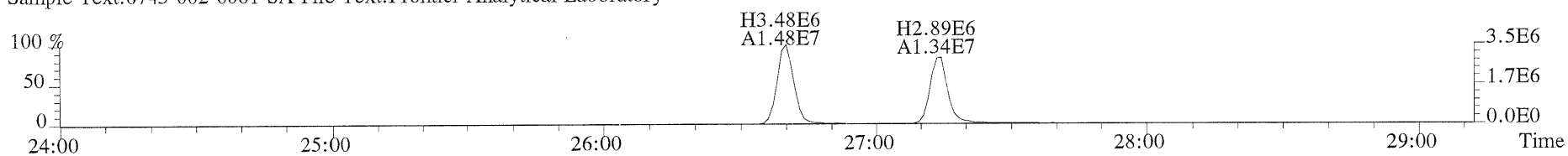
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



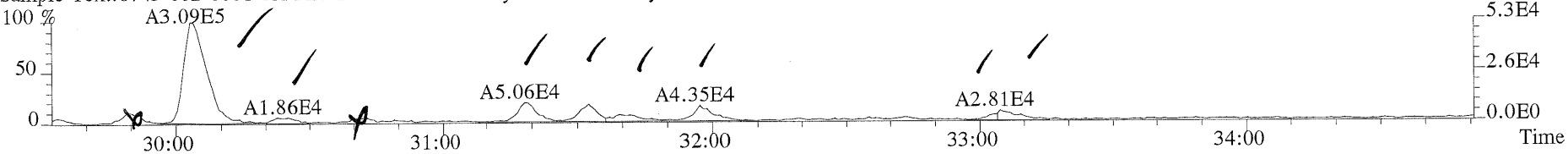
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



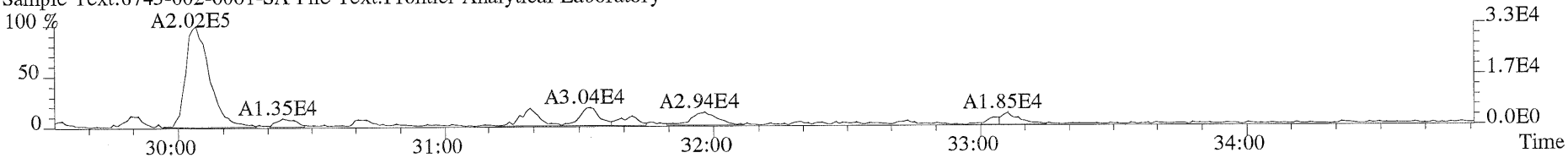
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



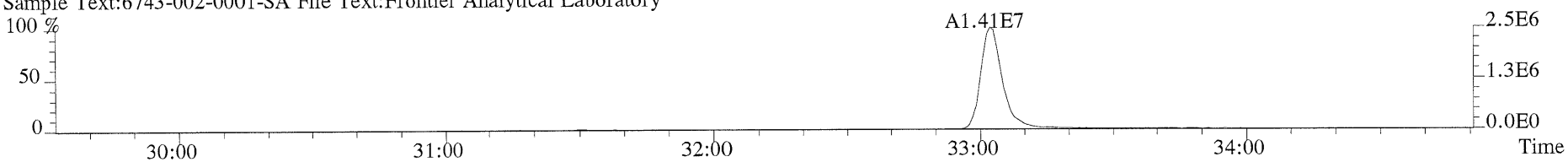
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



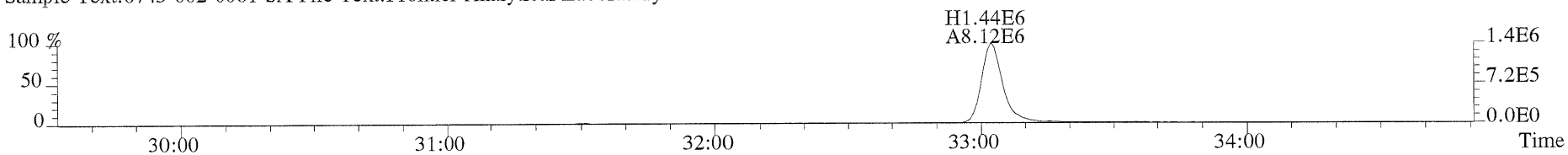
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



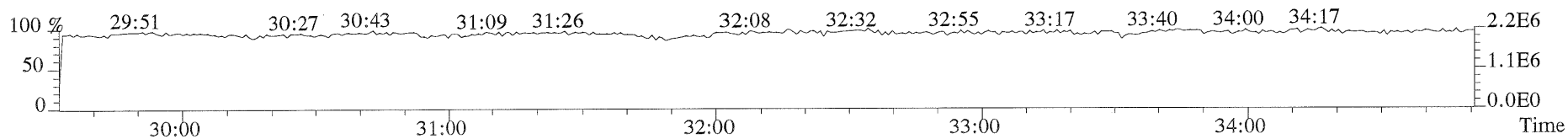
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



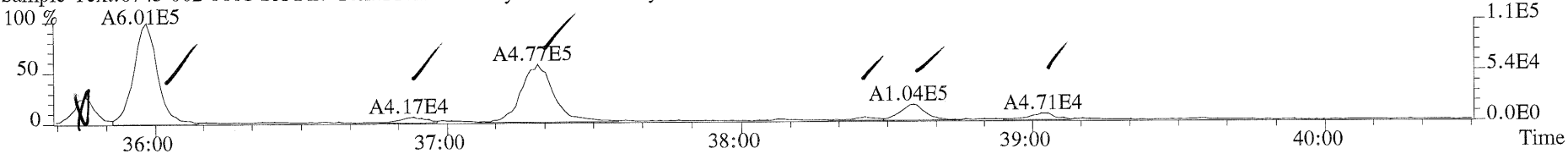
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



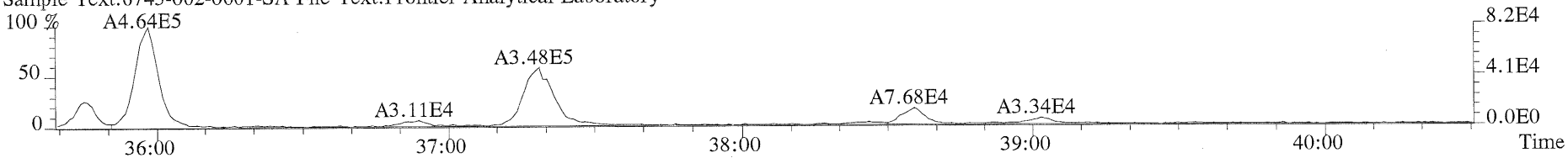
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:8 F:2 Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



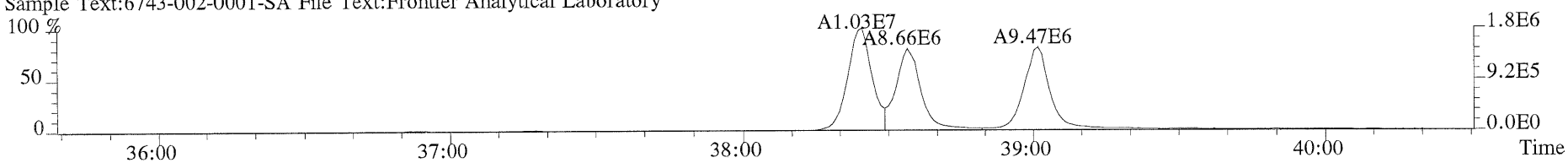
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



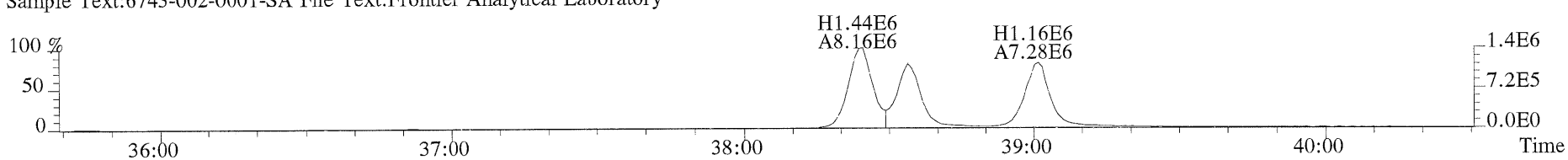
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



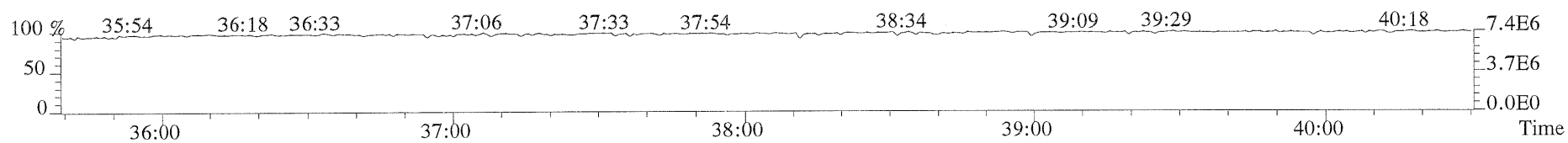
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



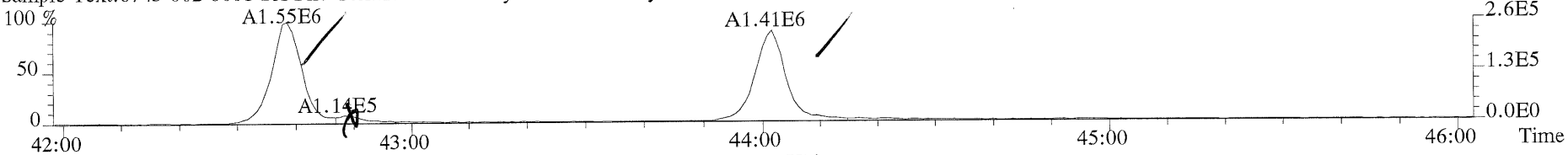
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



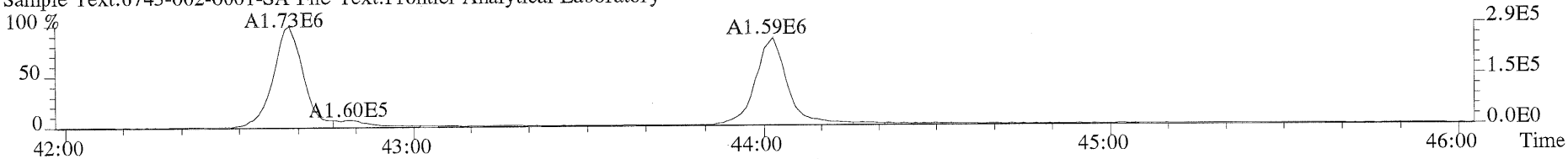
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:8 F:3 Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



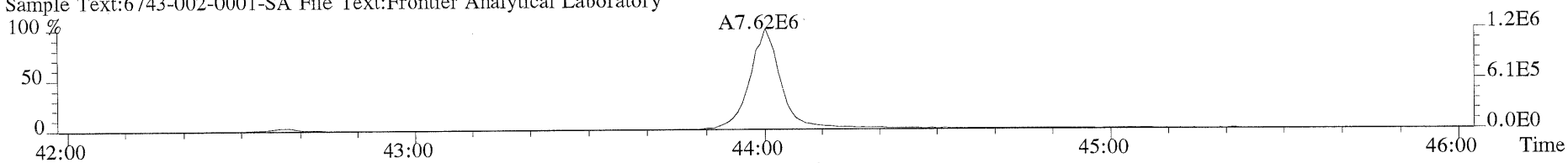
File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



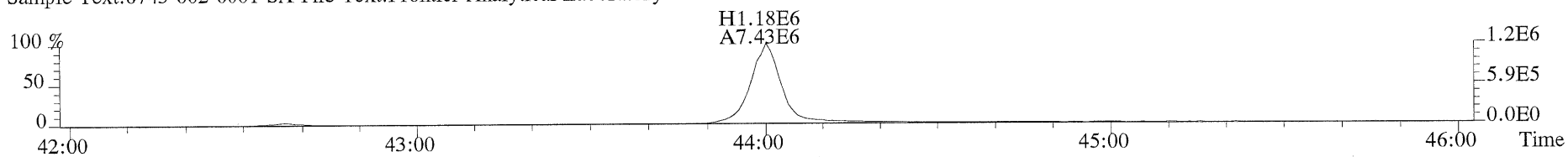
File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



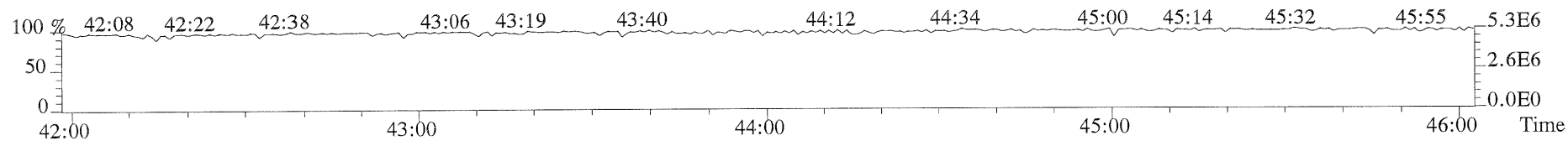
File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



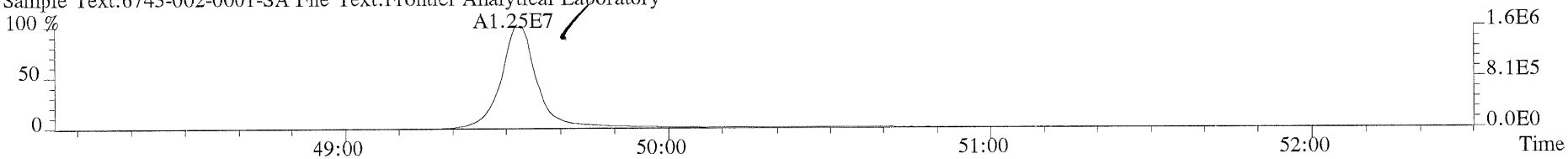
File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



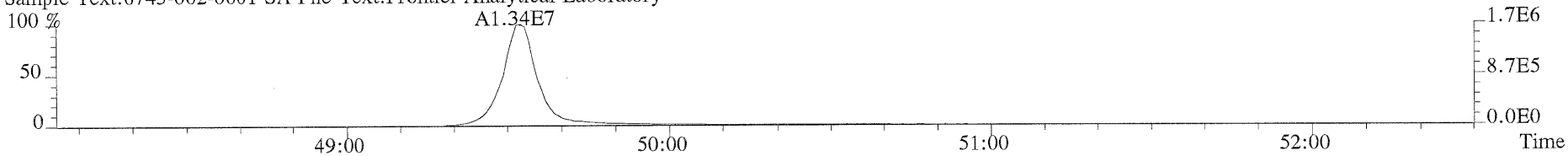
File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:8 F:4 Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



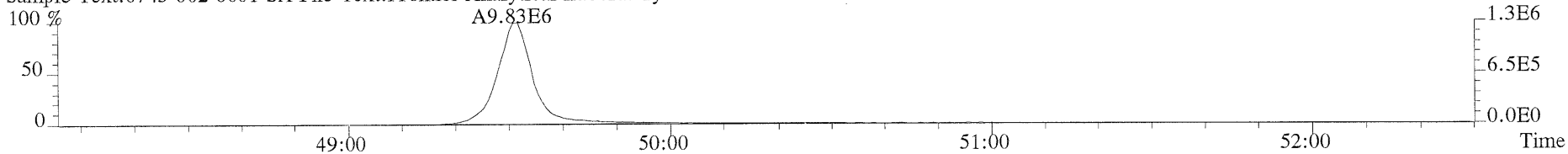
File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



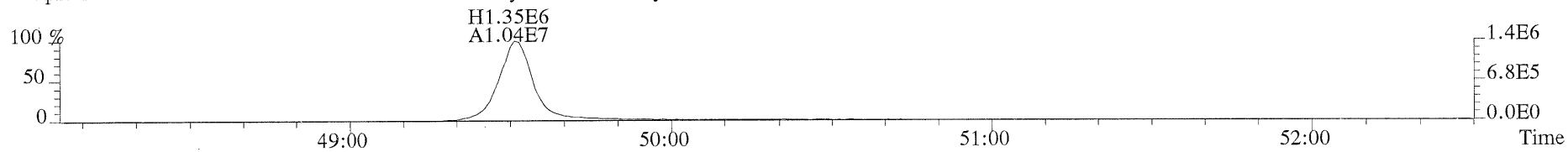
File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



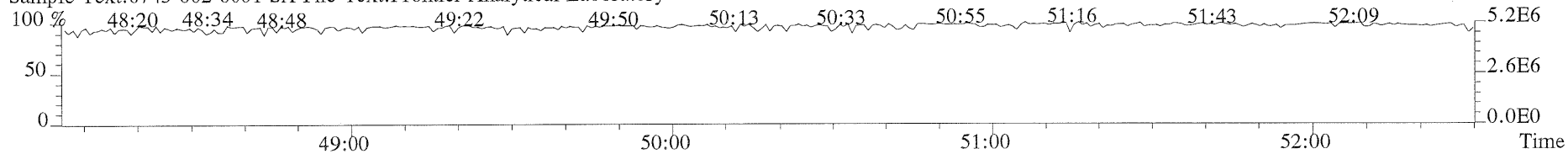
File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



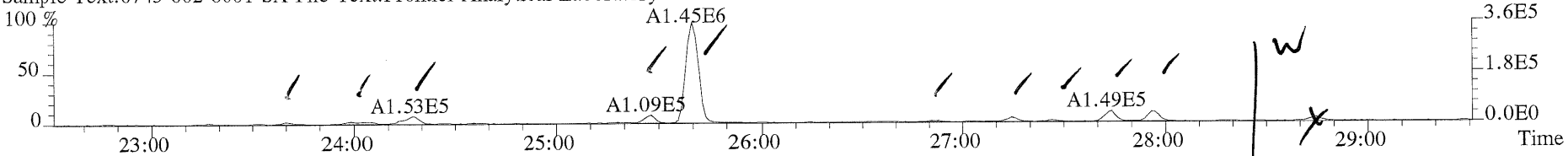
File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



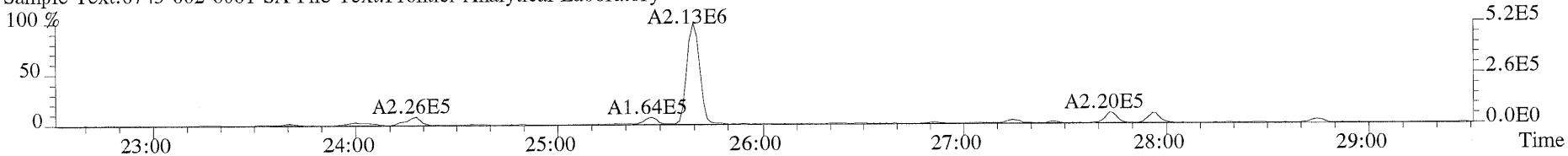
File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:8 F:5 Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



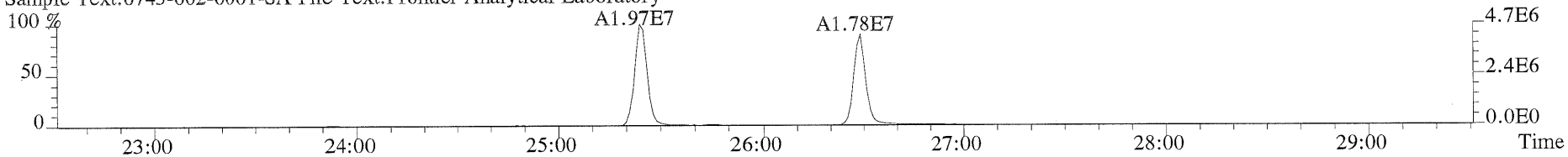
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



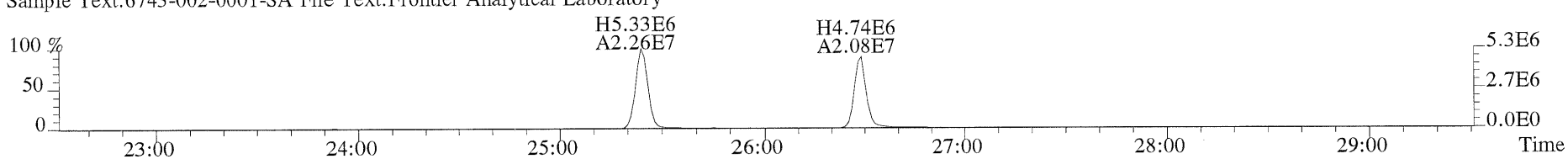
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



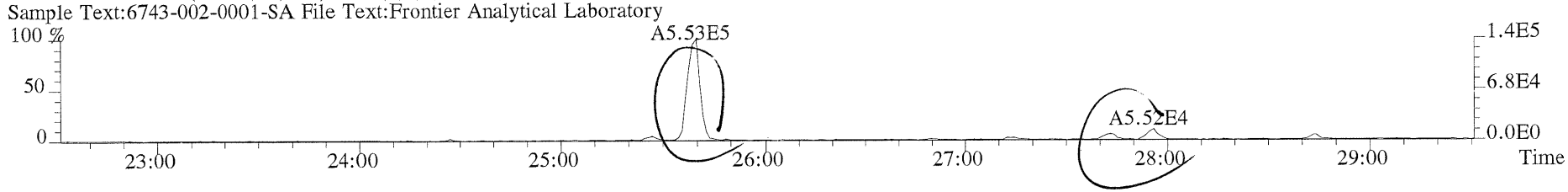
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



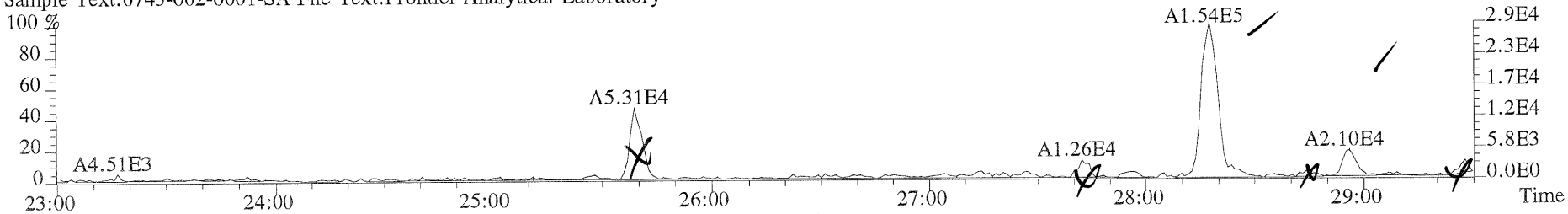
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



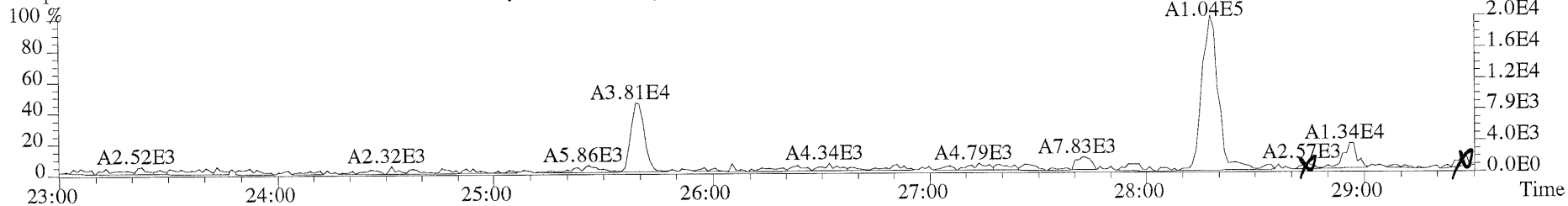
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



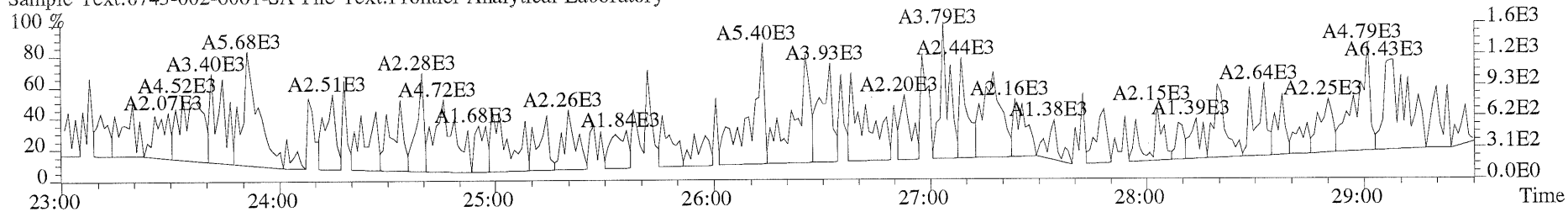
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



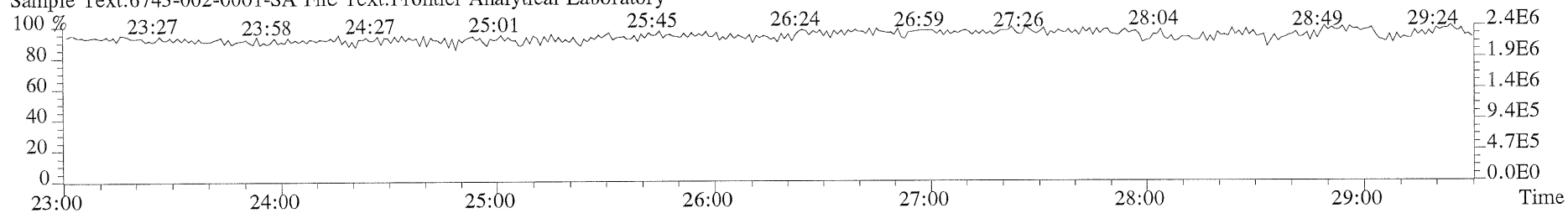
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



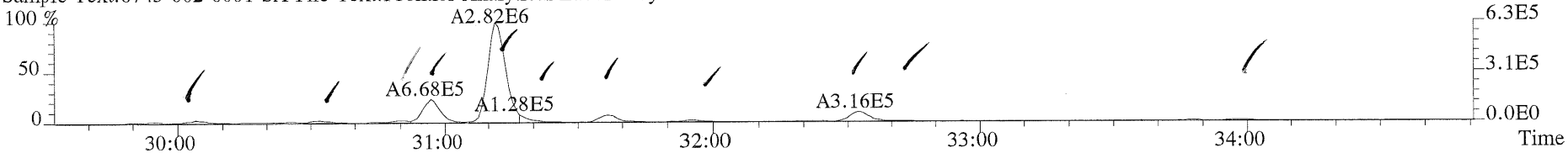
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



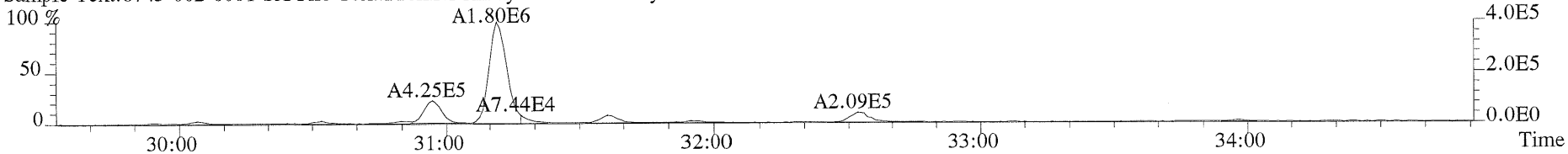
File:19MAY11M #1-426 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
316.9824 S:8 Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



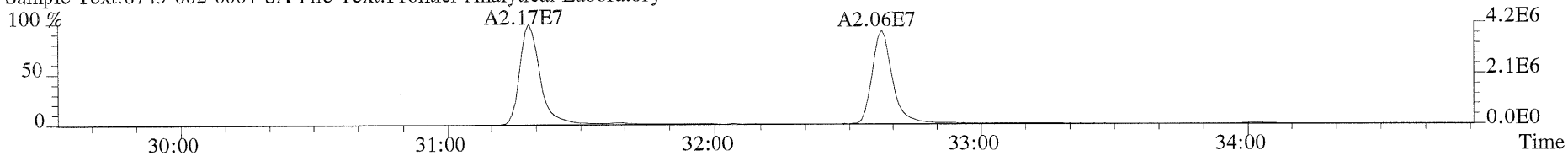
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:8 F:2 BSUB(10000,15,-3.0) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



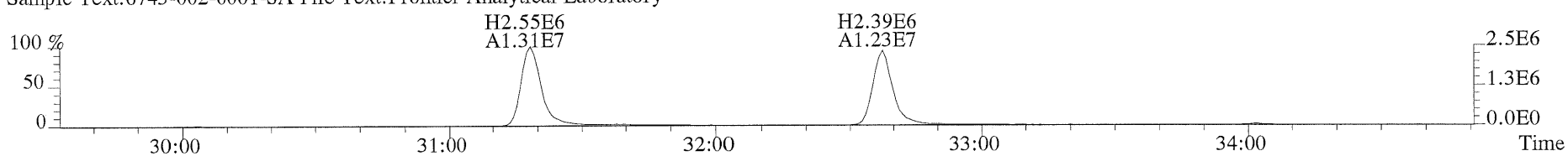
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:8 F:2 BSUB(10000,15,-3.0) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



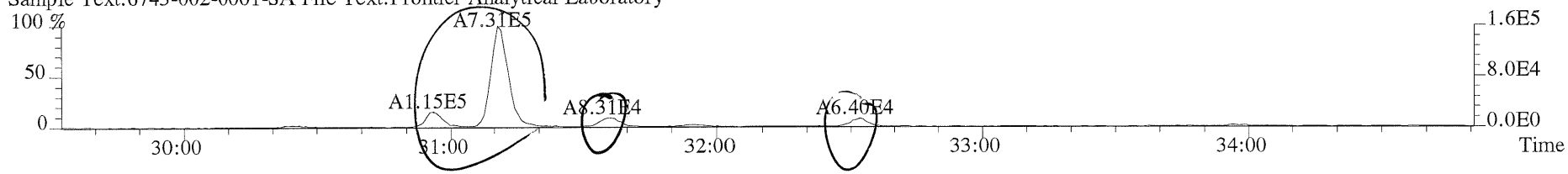
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



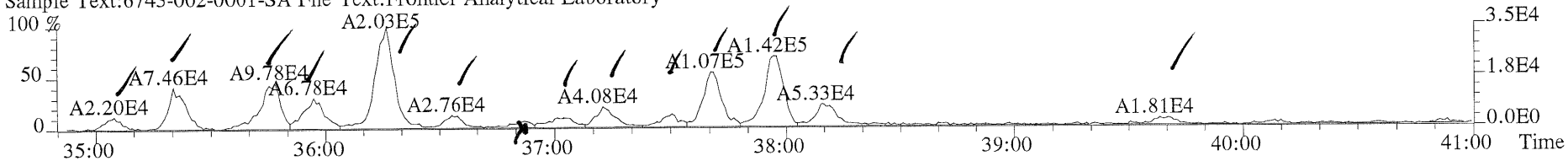
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



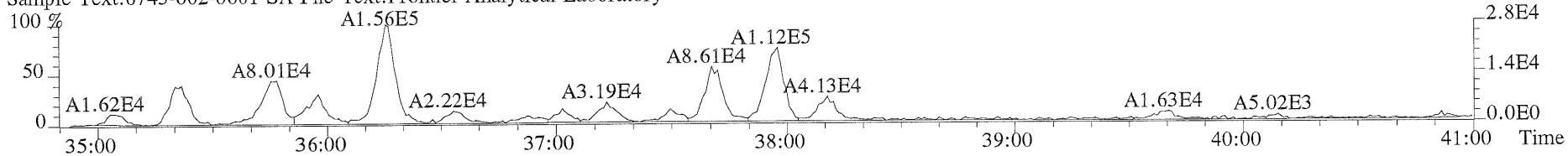
File:19MAY11M #1-412 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



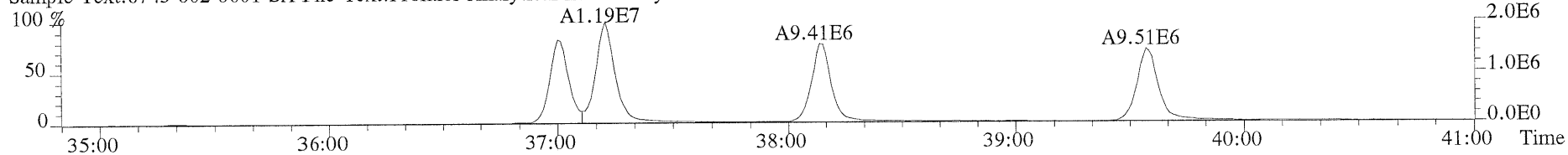
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



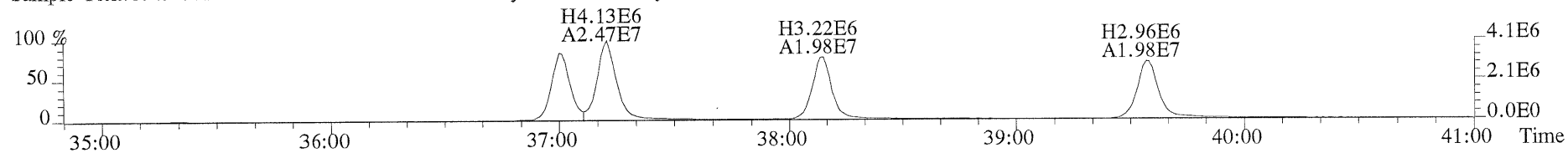
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



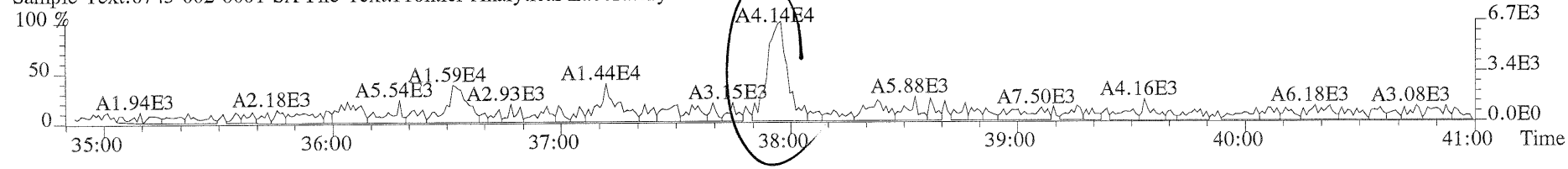
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



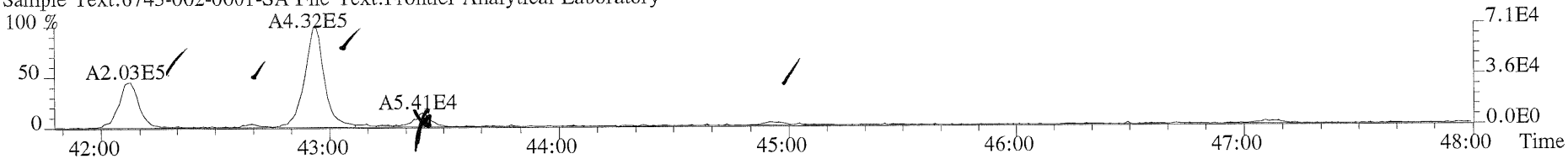
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



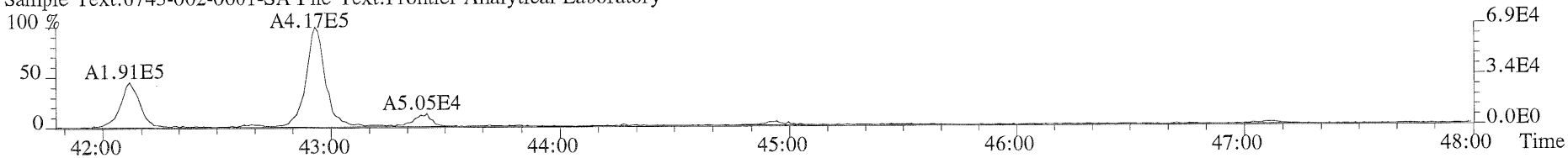
File:19MAY11M #1-476 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



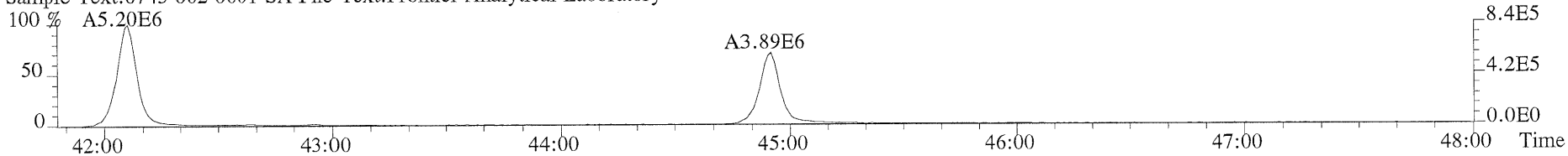
File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



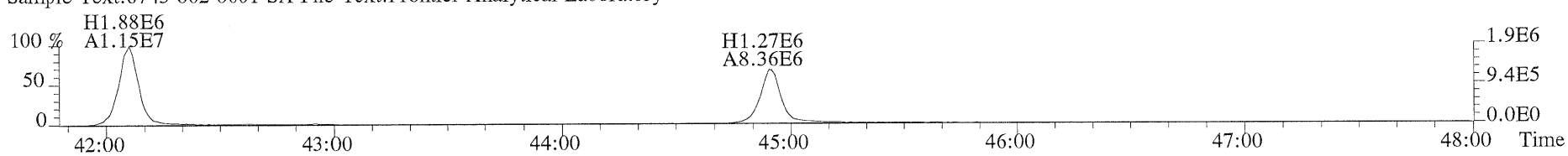
File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



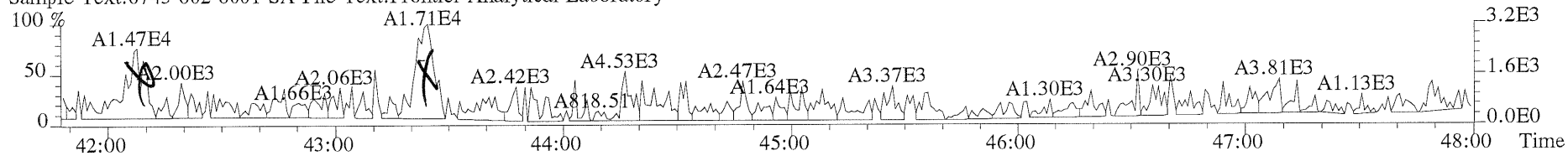
File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory

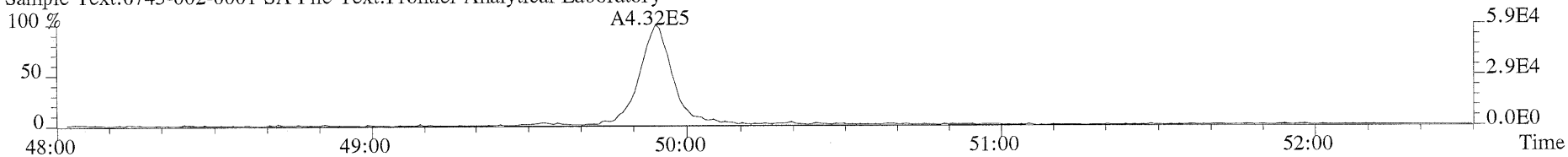


File:19MAY11M #1-541 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory

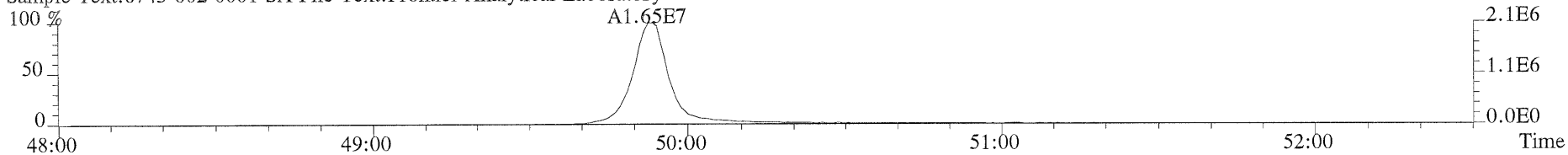


File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory

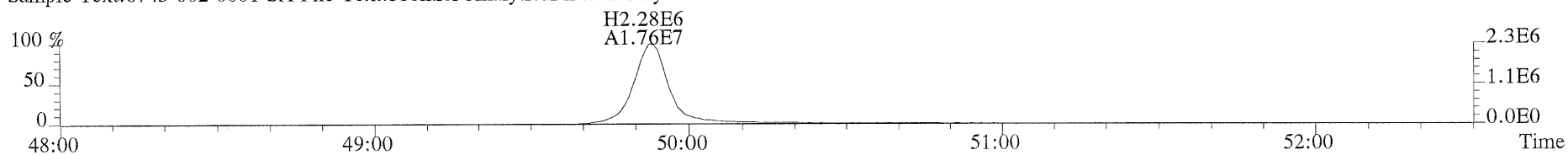
File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



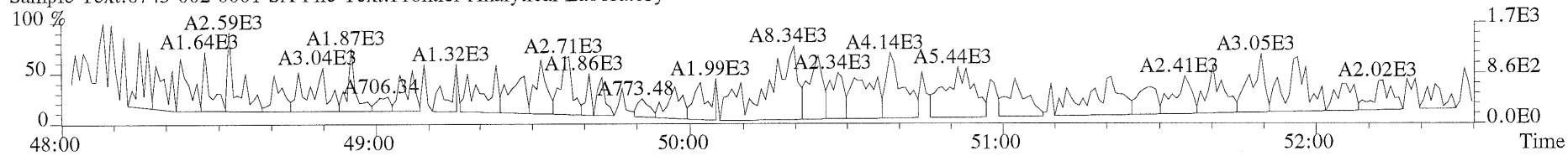
File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



File:19MAY11M #1-348 Acq:19-MAY-2011 20:09:21 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:6743-002-0001-SA File Text:Frontier Analytical Laboratory



Frontier Analytical Laboratory

Data Filename: 07MAR11M

Analyte: Cal: PCDDFAL3-3-7-11

Name	RRF	S. D.	%RSD	S1 RRF#1	S3 RRF#2	S4 RRF#3	S5 RRF#4	S6 RRF#5	S7 RRF#6
2,3,7,8-TCDD	1.13	0.0358	3.15 %	1.14	1.19	1.14	1.10	1.15	1.08
1,2,3,7,8-PeCDD	1.02	0.0355	3.50 %	1.00	1.05	1.06	0.97	1.02	0.99
1,2,3,4,7,8-HxCDD	1.45	0.0498	3.44 %	1.38	1.50	1.51	1.43	1.43	1.43
1,2,3,6,7,8-HxCDD	1.45	0.0324	2.22 %	1.43	1.45	1.47	1.41	1.51	1.46
1,2,3,7,8,9-HxCDD	1.47	0.0344	2.34 %	1.44	1.52	1.51	1.45	1.45	1.46
1,2,3,4,6,7,8-HpCDD	1.30	0.0553	4.25 %	1.23	1.29	1.28	1.27	1.35	1.38
OCDD	1.45	0.0473	3.27 %	1.38	1.45	1.47	1.40	1.48	1.51
2,3,7,8-TCDF	1.15	0.0712	6.20 %	1.08	1.12	1.13	1.11	1.28	1.17
1,2,3,7,8-PeCDF	0.89	0.0530	5.99 %	0.90	0.95	0.94	0.86	0.83	0.83
2,3,4,7,8-PeCDF	0.89	0.0412	4.61 %	0.88	0.94	0.95	0.88	0.87	0.85
1,2,3,4,7,8-HxCDF	1.01	0.0438	4.34 %	1.00	1.07	1.06	0.99	0.96	0.98
1,2,3,6,7,8-HxCDF	0.89	0.0360	4.03 %	0.89	0.93	0.94	0.88	0.85	0.86
2,3,4,6,7,8-HxCDF	1.02	0.0393	3.87 %	1.00	1.06	1.07	0.99	0.98	1.00
1,2,3,7,8,9-HxCDF	1.10	0.0452	4.09 %	1.10	1.16	1.16	1.08	1.07	1.06
1,2,3,4,6,7,8-HpCDF	1.48	0.0590	3.99 %	1.47	1.55	1.55	1.45	1.46	1.40
1,2,3,4,7,8,9-HpCDF	1.43	0.0690	4.84 %	1.42	1.50	1.53	1.37	1.37	1.37
OCDF	0.84	0.0365	4.33 %	0.82	0.87	0.90	0.82	0.84	0.81
13C-2,3,7,8-TCDD	1.03	0.0380	3.69 %	1.00	1.09	1.07	1.00	1.01	1.01
13C-1,2,3,7,8-PeCDD	1.01	0.101	9.97 %	1.03	1.19	1.04	0.94	0.93	0.94
13C-1,2,3,4,7,8-HxCDD	1.19	0.0331	2.78 %	1.20	1.13	1.22	1.18	1.22	1.19
13C-1,2,3,6,7,8-HxCDD	0.94	0.0319	3.41 %	0.92	0.89	0.98	0.95	0.92	0.95
13C-1,2,3,4,6,7,8-HpCDD	0.83	0.0350	4.23 %	0.85	0.84	0.88	0.81	0.80	0.79
13C-OCDD	0.61	0.0577	9.50 %	0.62	0.67	0.68	0.58	0.55	0.55
13C-2,3,7,8-TCDF	0.98	0.0376	3.84 %	0.96	1.03	1.02	0.96	0.96	0.94
13C-1,2,3,7,8-PeCDF	0.83	0.0801	9.66 %	0.80	0.97	0.87	0.79	0.77	0.78
13C-2,3,4,7,8-PeCDF	0.80	0.0780	9.70 %	0.79	0.95	0.83	0.75	0.77	0.74
13C-1,2,3,4,7,8-HxCDF	1.84	0.150	8.15 %	1.80	1.56	1.84	1.92	1.94	1.97
13C-1,2,3,6,7,8-HxCDF	2.29	0.135	5.90 %	2.28	2.03	2.31	2.33	2.38	2.41
13C-2,3,4,6,7,8-HxCDF	1.86	0.102	5.48 %	1.86	1.66	1.89	1.90	1.92	1.94
13C-1,2,3,7,8,9-HxCDF	1.98	0.0603	3.04 %	1.96	1.94	2.10	1.96	1.96	1.98
13C-1,2,3,4,6,7,8-HpCDF	0.99	0.0284	2.88 %	0.99	0.95	1.04	0.97	0.98	0.99
13C-1,2,3,4,7,8,9-HpCDF	0.77	0.0396	5.17 %	0.77	0.80	0.82	0.74	0.73	0.73
13C-OCDF	1.17	0.110	9.46 %	1.13	1.30	1.30	1.12	1.06	1.07
37Cl-2,3,7,8-TCDD	0.73	0.0479	6.57 %	0.68	0.81	0.75	0.68	0.74	0.71
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-	-
13C-1,2,3,4-TCDF	-	-	- %	-	-	-	-	-	-
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-	-
Total Tetra-Dioxins	1.13	0.0358	3.15 %	1.14	1.19	1.14	1.10	1.15	1.08
Total Penta-Dioxins	1.02	0.0355	3.50 %	1.00	1.05	1.06	0.97	1.02	0.99
Total Hexa-Dioxins	1.46	0.0325	2.23 %	1.42	1.49	1.50	1.43	1.46	1.45
Total Hepta-Dioxins	1.30	0.0553	4.25 %	1.23	1.29	1.28	1.27	1.35	1.38
Total Tetra-Furans	1.15	0.0712	6.20 %	1.08	1.12	1.13	1.11	1.28	1.17
1st Fn. Tot Penta-Furans	0.89	0.0461	5.19 %	0.89	0.94	0.95	0.87	0.85	0.84
Total Penta-Furans	0.89	0.0461	5.19 %	0.89	0.94	0.95	0.87	0.85	0.84
Total Hexa-Furans	1.00	0.0418	4.17 %	0.99	1.05	1.05	0.98	0.96	0.97
Total Hepta-Furans	1.46	0.0618	4.24 %	1.45	1.52	1.54	1.42	1.42	1.39

Analyst: _____ Date: 3/8/11

Run #6 Filename 07MAR11M S: 7 Acquired: 7-MAR-11 17:30:33 Cal: PCDDFAL3-3-7-11
Client ID: ST030711MO Analyte: FAL ID: 1613 CSO 100511G

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	0.25	9.59e+04	0.86	y	27:26	-	1.08	y
2	Unk	1,2,3,7,8-PeCDD	1.25	4.09e+05	1.37	y	33:16	-	0.994	y
3	Unk	1,2,3,4,7,8-HxCDD	1.25	4.19e+05	1.25	y	38:38	-	1.43	y
4	Unk	1,2,3,6,7,8-HxCDD	1.25	3.40e+05	1.31	y	38:48	-	1.46	y
5	Unk	1,2,3,7,8,9-HxCDD	1.25	3.83e+05	1.25	y	39:15	-	1.46	y
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	2.68e+05	0.90	y	44:15	-	1.38	y
7	Unk	OCDD	2.50	4.06e+05	1.00	y	49:49	-	1.51	y
8	Unk	2,3,7,8-TCDF	0.25	1.91e+05	0.68	y	26:40	-	1.17	y
9	Unk	1,2,3,7,8-PeCDF	1.25	5.55e+05	1.61	y	31:32	-	0.827	y
10	Unk	2,3,4,7,8-PeCDF	1.25	5.45e+05	1.61	y	32:51	-	0.848	y
11	Unk	1,2,3,4,7,8-HxCDF	1.25	4.74e+05	1.22	y	37:14	-	0.978	y
12	Unk	1,2,3,6,7,8-HxCDF	1.25	5.08e+05	1.18	y	37:26	-	0.859	y
13	Unk	2,3,4,6,7,8-HxCDF	1.25	4.76e+05	1.20	y	38:23	-	1.00	y
14	Unk	1,2,3,7,8,9-HxCDF	1.25	5.14e+05	1.18	y	39:50	-	1.06	y
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	3.41e+05	1.02	y	42:21	-	1.40	y
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	2.47e+05	1.03	y	45:09	-	1.37	y
17	Unk	OCDF	2.50	4.26e+05	0.90	y	50:12	-	0.808	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	3.54e+07	0.69	y	27:25	-	1.01	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	3.29e+07	1.72	y	33:15	-	0.937	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.34e+07	1.29	y	38:37	-	1.19	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.87e+07	1.29	y	38:47	-	0.950	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.55e+07	1.03	y	44:13	-	0.789	y
23	IS	13C-OCDD	200.00	2.16e+07	1.00	y	49:48	-	0.549	y
24	IS	13C-2,3,7,8-TCDF	100.00	6.53e+07	0.87	y	26:39	-	0.944	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	5.37e+07	1.66	y	31:30	-	0.776	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	5.14e+07	1.64	y	32:50	-	0.743	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.88e+07	0.45	y	37:14	-	1.97	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.73e+07	0.45	y	37:26	-	2.41	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.80e+07	0.45	y	38:22	-	1.94	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	3.88e+07	0.44	y	39:49	-	1.98	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.95e+07	0.46	y	42:19	-	0.991	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.44e+07	0.46	y	45:09	-	0.734	y
33	IS	13C-OCDF	200.00	4.22e+07	0.92	y	50:10	-	1.07	y
34	C/Up	37Cl-2,3,7,8-TCDD	0.25	6.27e+04			27:27	-	0.713	y
35	RS	13C-1,2,3,4-TCDD	100.00	3.52e+07	0.69	y	26:50	3.52e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	6.92e+07	0.87	y	25:34	6.92e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.96e+07	1.26	y	39:14	1.96e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.08	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	0.994	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.45	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.38	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.17	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.837	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.837	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	0.968	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.39	y

Analyst: _____ Date: 3/8/11

Run #5 Filename 07MAR11M S: 6 Acquired: 7-MAR-11 16:35:10 Cal: PCDDFAL3-3-7-11
Client ID: STO30711M1 Analyte: FAL ID: 1613 CS1 100511H

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	0.50	2.28e+05	0.79	y	27:27	-	1.15	y
2	Unk	1,2,3,7,8-PeCDD	2.50	9.30e+05	1.41	y	33:16	-	1.02	y
3	Unk	1,2,3,4,7,8-HxCDD	2.50	9.70e+05	1.30	y	38:39	-	1.43	y
4	Unk	1,2,3,6,7,8-HxCDD	2.50	7.73e+05	1.27	y	38:49	-	1.51	y
5	Unk	1,2,3,7,8,9-HxCDD	2.50	8.60e+05	1.26	y	39:15	-	1.45	y
6	Unk	1,2,3,4,6,7,8-HpCDD	2.50	5.96e+05	0.89	y	44:15	-	1.35	y
7	Unk	OCDD	5.00	9.00e+05	0.94	y	49:49	-	1.48	y
8	Unk	2,3,7,8-TCDF	0.50	4.62e+05	0.69	y	26:41	-	1.28	y
9	Unk	1,2,3,7,8-PeCDF	2.50	1.21e+06	1.64	y	31:32	-	0.831	y
10	Unk	2,3,4,7,8-PeCDF	2.50	1.26e+06	1.64	y	32:52	-	0.871	y
11	Unk	1,2,3,4,7,8-HxCDF	2.50	1.03e+06	1.23	y	37:15	-	0.962	y
12	Unk	1,2,3,6,7,8-HxCDF	2.50	1.13e+06	1.22	y	37:27	-	0.853	y
13	Unk	2,3,4,6,7,8-HxCDF	2.50	1.04e+06	1.22	y	38:23	-	0.978	y
14	Unk	1,2,3,7,8,9-HxCDF	2.50	1.16e+06	1.19	y	39:50	-	1.07	y
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	7.95e+05	1.02	y	42:21	-	1.46	y
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	5.56e+05	1.03	y	45:10	-	1.37	y
17	Unk	OCDF	5.00	9.90e+05	0.91	y	50:12	-	0.844	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	3.97e+07	0.69	y	27:25	-	1.01	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	3.66e+07	1.72	y	33:16	-	0.933	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.71e+07	1.29	y	38:38	-	1.22	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.05e+07	1.29	y	38:47	-	0.925	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.77e+07	1.06	y	44:14	-	0.796	y
23	IS	13C-OCDD	200.00	2.44e+07	1.01	y	49:48	-	0.550	y
24	IS	13C-2,3,7,8-TCDF	100.00	7.23e+07	0.88	y	26:40	-	0.955	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	5.81e+07	1.63	y	31:31	-	0.768	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	5.81e+07	1.65	y	32:50	-	0.767	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	4.30e+07	0.45	y	37:14	-	1.94	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	5.29e+07	0.44	y	37:25	-	2.38	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	4.25e+07	0.45	y	38:23	-	1.92	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	4.33e+07	0.45	y	39:49	-	1.96	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.18e+07	0.47	y	42:19	-	0.982	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.62e+07	0.47	y	45:09	-	0.731	y
33	IS	13C-OCDF	200.00	4.69e+07	0.92	y	50:11	-	1.06	y
34	C/Up	37Cl-2,3,7,8-TCDD	0.50	1.46e+05			27:27	-	0.743	y
35	RS	13C-1,2,3,4-TCDD	100.00	3.92e+07	0.67	y	26:50	3.92e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	7.57e+07	0.87	y	25:34	7.57e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.22e+07	1.31	y	39:14	2.22e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.15	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.02	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.46	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.35	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.28	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.851	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.851	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	0.959	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.42	y

Analyst: _____ Date: 3/8/11

Run #4 Filename 07MAR11M S: 5 Acquired: 7-MAR-11 15:39:48 Cal: PCDDFAL3-3-7-11
Client ID: ST030711M2 Analyte: FAL ID: 1613 CS2 100511I

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	2.00	8.73e+05	0.83	y	27:26	-	1.10	y
2	Unk	1,2,3,7,8-PeCDD	10.00	3.61e+06	1.37	y	33:17	-	0.968	y
3	Unk	1,2,3,4,7,8-HxCDD	10.00	3.85e+06	1.27	y	38:39	-	1.43	y
4	Unk	1,2,3,6,7,8-HxCDD	10.00	3.06e+06	1.27	y	38:49	-	1.41	y
5	Unk	1,2,3,7,8,9-HxCDD	10.00	3.51e+06	1.26	y	39:16	-	1.45	y
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	2.34e+06	0.89	y	44:16	-	1.27	y
7	Unk	OCDD	20.00	3.72e+06	0.95	y	49:50	-	1.40	y
8	Unk	2,3,7,8-TCDF	2.00	1.59e+06	0.66	y	26:41	-	1.11	y
9	Unk	1,2,3,7,8-PeCDF	10.00	5.06e+06	1.69	y	31:32	-	0.865	y
10	Unk	2,3,4,7,8-PeCDF	10.00	4.87e+06	1.64	y	32:51	-	0.875	y
11	Unk	1,2,3,4,7,8-HxCDF	10.00	4.35e+06	1.19	y	37:16	-	0.991	y
12	Unk	1,2,3,6,7,8-HxCDF	10.00	4.70e+06	1.21	y	37:27	-	0.882	y
13	Unk	2,3,4,6,7,8-HxCDF	10.00	4.30e+06	1.19	y	38:24	-	0.992	y
14	Unk	1,2,3,7,8,9-HxCDF	10.00	4.82e+06	1.21	y	39:51	-	1.08	y
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	3.23e+06	1.04	y	42:21	-	1.45	y
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	2.31e+06	1.02	y	45:11	-	1.37	y
17	Unk	OCDF	20.00	4.19e+06	0.94	y	50:13	-	0.817	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	3.96e+07	0.69	y	27:25	-	0.995	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	3.73e+07	1.67	y	33:15	-	0.938	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.70e+07	1.28	y	38:38	-	1.18	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.16e+07	1.28	y	38:48	-	0.946	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.84e+07	1.07	y	44:14	-	0.806	y
23	IS	13C-OCDD	200.00	2.65e+07	0.98	y	49:49	-	0.581	y
24	IS	13C-2,3,7,8-TCDF	100.00	7.17e+07	0.87	y	26:40	-	0.964	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	5.85e+07	1.63	y	31:31	-	0.787	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	5.57e+07	1.62	y	32:51	-	0.748	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	4.39e+07	0.44	y	37:14	-	1.92	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	5.33e+07	0.45	y	37:26	-	2.33	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	4.34e+07	0.44	y	38:23	-	1.90	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	4.48e+07	0.44	y	39:49	-	1.96	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.22e+07	0.48	y	42:19	-	0.972	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.68e+07	0.46	y	45:10	-	0.736	y
33	IS	13C-OCDF	200.00	5.13e+07	0.92	y	50:11	-	1.12	y
34	C/Up	37Cl-2,3,7,8-TCDD	2.00	5.42e+05			27:26	-	0.682	y
35	RS	13C-1,2,3,4-TCDD	100.00	3.98e+07	0.68	y	26:51	3.98e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	7.44e+07	0.87	y	25:35	7.44e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.28e+07	1.27	y	39:14	2.28e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.10	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	0.968	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.43	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.27	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.11	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.870	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.870	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	0.980	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.42	y

Analyst: _____ Date: 3/8/11

Run #1 Filename 07MAR11M S: 1 Acquired: 7-MAR-11 11:58:32 Cal: PCDDFAL3-3-7-11
Client ID: ST030711M3 Analyte: FAL ID: 1613 CS3 100511J

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	10.00	4.22e+06	0.83	y	27:27	-	1.14	y
2	Unk	1,2,3,7,8-PeCDD	50.00	1.89e+07	1.44	y	33:17	-	1.00	y
3	Unk	1,2,3,4,7,8-HxCDD	50.00	2.00e+07	1.27	y	38:40	-	1.38	y
4	Unk	1,2,3,6,7,8-HxCDD	50.00	1.59e+07	1.26	y	38:50	-	1.43	y
5	Unk	1,2,3,7,8,9-HxCDD	50.00	1.85e+07	1.24	y	39:17	-	1.44	y
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	1.27e+07	0.90	y	44:16	-	1.23	y
7	Unk	OCDD	100.00	2.05e+07	0.94	y	49:51	-	1.38	y
8	Unk	2,3,7,8-TCDF	10.00	7.31e+06	0.67	y	26:41	-	1.08	y
9	Unk	1,2,3,7,8-PeCDF	50.00	2.55e+07	1.66	y	31:33	-	0.903	y
10	Unk	2,3,4,7,8-PeCDF	50.00	2.43e+07	1.65	y	32:52	-	0.876	y
11	Unk	1,2,3,4,7,8-HxCDF	50.00	2.17e+07	1.20	y	37:16	-	0.998	y
12	Unk	1,2,3,6,7,8-HxCDF	50.00	2.44e+07	1.22	y	37:28	-	0.887	y
13	Unk	2,3,4,6,7,8-HxCDF	50.00	2.24e+07	1.20	y	38:24	-	0.997	y
14	Unk	1,2,3,7,8,9-HxCDF	50.00	2.60e+07	1.21	y	39:51	-	1.10	y
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	1.75e+07	1.04	y	42:21	-	1.47	y
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	1.32e+07	1.05	y	45:12	-	1.42	y
17	Unk	OCDF	100.00	2.23e+07	0.91	y	50:13	-	0.819	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	3.69e+07	0.67	y	27:26	-	1.00	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	3.77e+07	1.70	y	33:16	-	1.03	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.90e+07	1.27	y	38:38	-	1.20	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.22e+07	1.27	y	38:48	-	0.919	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	2.06e+07	1.06	y	44:15	-	0.852	y
23	IS	13C-OCDD	200.00	2.97e+07	1.00	y	49:49	-	0.615	y
24	IS	13C-2,3,7,8-TCDF	100.00	6.78e+07	0.86	y	26:40	-	0.960	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	5.66e+07	1.64	y	31:31	-	0.801	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	5.55e+07	1.65	y	32:51	-	0.785	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	4.35e+07	0.44	y	37:15	-	1.80	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	5.50e+07	0.44	y	37:27	-	2.28	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	4.49e+07	0.44	y	38:23	-	1.86	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	4.72e+07	0.44	y	39:49	-	1.96	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.39e+07	0.48	y	42:21	-	0.989	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.86e+07	0.47	y	45:10	-	0.768	y
33	IS	13C-OCDF	200.00	5.45e+07	0.91	y	50:12	-	1.13	y
34	C/Up	37Cl-2,3,7,8-TCDD	10.00	2.51e+06			27:27	-	0.682	y
35	RS	13C-1,2,3,4-TCDD	100.00	3.68e+07	0.68	y	26:50	3.68e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	7.07e+07	0.86	y	25:35	7.07e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.42e+07	1.26	y	39:15	2.42e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.14	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.00	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.42	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.23	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.08	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.889	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.889	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	0.991	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.45	y

Analyst: _____ Date: 3/8/11

Run #3 Filename 07MAR11M S: 4 Acquired: 7-MAR-11 14:44:29 Cal: PCDDFAL3-3-7-11
Client ID: STO30711M4 Analyte: FAL ID: 1613 CS4 100511K

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	40.00	1.84e+07	0.80	y	27:27	-	1.14	y
2	Unk	1,2,3,7,8-PeCDD	200.00	8.36e+07	1.43	y	33:16	-	1.06	y
3	Unk	1,2,3,4,7,8-HxCDD	200.00	9.27e+07	1.28	y	38:40	-	1.51	y
4	Unk	1,2,3,6,7,8-HxCDD	200.00	7.25e+07	1.27	y	38:49	-	1.47	y
5	Unk	1,2,3,7,8,9-HxCDD	200.00	8.35e+07	1.27	y	39:16	-	1.51	y
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	5.64e+07	0.89	y	44:15	-	1.28	y
7	Unk	OCDD	400.00	1.00e+08	0.91	y	49:51	-	1.47	y
8	Unk	2,3,7,8-TCDF	40.00	3.24e+07	0.67	y	26:40	-	1.13	y
9	Unk	1,2,3,7,8-PeCDF	200.00	1.15e+08	1.67	y	31:33	-	0.943	y
10	Unk	2,3,4,7,8-PeCDF	200.00	1.10e+08	1.63	y	32:52	-	0.948	y
11	Unk	1,2,3,4,7,8-HxCDF	200.00	9.76e+07	1.20	y	37:15	-	1.06	y
12	Unk	1,2,3,6,7,8-HxCDF	200.00	1.09e+08	1.20	y	37:28	-	0.943	y
13	Unk	2,3,4,6,7,8-HxCDF	200.00	1.01e+08	1.20	y	38:24	-	1.07	y
14	Unk	1,2,3,7,8,9-HxCDF	200.00	1.22e+08	1.22	y	39:50	-	1.16	y
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	8.08e+07	1.03	y	42:21	-	1.55	y
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	6.31e+07	1.04	y	45:11	-	1.53	y
17	Unk	OCDF	400.00	1.18e+08	0.93	y	50:13	-	0.902	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	4.05e+07	0.70	y	27:25	-	1.07	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	3.94e+07	1.69	y	33:16	-	1.04	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	3.06e+07	1.27	y	38:37	-	1.22	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.47e+07	1.27	y	38:48	-	0.983	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	2.20e+07	1.07	y	44:14	-	0.877	y
23	IS	13C-OCDD	200.00	3.41e+07	1.00	y	49:49	-	0.679	y
24	IS	13C-2,3,7,8-TCDF	100.00	7.18e+07	0.87	y	26:39	-	1.02	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	6.11e+07	1.64	y	31:31	-	0.872	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	5.79e+07	1.63	y	32:51	-	0.826	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	4.62e+07	0.44	y	37:14	-	1.84	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	5.78e+07	0.44	y	37:26	-	2.31	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	4.75e+07	0.44	y	38:23	-	1.89	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	5.27e+07	0.44	y	39:49	-	2.10	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.60e+07	0.47	y	42:20	-	1.04	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	2.07e+07	0.47	y	45:09	-	0.823	y
33	IS	13C-OCDF	200.00	6.54e+07	0.93	y	50:12	-	1.30	y
34	C/Up	37Cl-2,3,7,8-TCDD	40.00	1.14e+07			27:27	-	0.750	y
35	RS	13C-1,2,3,4-TCDD	100.00	3.80e+07	0.72	y	26:50	3.80e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	7.01e+07	0.85	y	25:34	7.01e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.51e+07	1.26	y	39:14	2.51e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.14	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.06	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.50	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.28	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.13	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.945	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.945	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.05	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.54	y

Analyst: _____ Date: 3/8/11

Run #2 Filename 07MAR11M S: 3 Acquired: 7-MAR-11 13:49:10 Cal: PCDDFAL3-3-7-11
Client ID: ST030711M5 Analyte: FAL ID: 1613 CS5 100511L

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	200.00	1.01e+08	0.81	y	27:27	-	1.19	y
2	Unk	1,2,3,7,8-PeCDD	1000.00	4.92e+08	1.44	y	33:17	-	1.05	y
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	5.94e+08	1.27	y	38:40	-	1.50	y
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	4.50e+08	1.27	y	38:50	-	1.45	y
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	5.37e+08	1.27	y	39:17	-	1.52	y
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	3.78e+08	0.90	y	44:16	-	1.29	y
7	Unk	OCDD	2000.00	6.82e+08	0.94	y	49:51	-	1.45	y
8	Unk	2,3,7,8-TCDF	200.00	1.66e+08	0.67	y	26:40	-	1.12	y
9	Unk	1,2,3,7,8-PeCDF	1000.00	6.62e+08	1.65	y	31:33	-	0.946	y
10	Unk	2,3,4,7,8-PeCDF	1000.00	6.43e+08	1.64	y	32:52	-	0.941	y
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	5.86e+08	1.20	y	37:17	-	1.07	y
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	6.59e+08	1.20	y	37:28	-	0.926	y
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	6.19e+08	1.19	y	38:25	-	1.06	y
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	7.85e+08	1.21	y	39:52	-	1.16	y
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	5.15e+08	1.04	y	42:22	-	1.55	y
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	4.21e+08	1.04	y	45:12	-	1.50	y
17	Unk	OCDF	2000.00	7.93e+08	0.92	y	50:15	-	0.870	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	4.25e+07	0.70	y	27:25	-	1.09	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	4.67e+07	1.68	y	33:16	-	1.19	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	3.96e+07	1.27	y	38:39	-	1.13	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	3.11e+07	1.26	y	38:49	-	0.889	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	2.94e+07	1.07	y	44:15	-	0.839	y
23	IS	13C-OCDD	200.00	4.69e+07	1.01	y	49:51	-	0.671	y
24	IS	13C-2,3,7,8-TCDF	100.00	7.41e+07	0.87	y	26:39	-	1.03	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	7.00e+07	1.66	y	31:32	-	0.974	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	6.83e+07	1.63	y	32:51	-	0.951	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	5.47e+07	0.44	y	37:15	-	1.56	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	7.11e+07	0.44	y	37:27	-	2.03	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	5.81e+07	0.44	y	38:23	-	1.66	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	6.78e+07	0.44	y	39:50	-	1.94	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	3.33e+07	0.47	y	42:21	-	0.951	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	2.81e+07	0.47	y	45:10	-	0.803	y
33	IS	13C-OCDF	200.00	9.12e+07	0.92	y	50:13	-	1.30	y
34	C/Up	37Cl-2,3,7,8-TCDD	200.00	6.33e+07			27:26	-	0.808	y
35	RS	13C-1,2,3,4-TCDD	100.00	3.92e+07	0.70	y	26:50	3.92e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	7.19e+07	0.87	y	25:34	7.19e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	3.50e+07	1.27	y	39:15	3.50e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.19	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.05	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.49	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.29	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.12	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.943	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.943	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.05	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.52	y

Analyst: _____ Date: 3/8/11

USEPA - ITD

FORM 3A

PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/7/11

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 07MAR11M S1 CS3 Data Filename: 07MAR11M S5

CS1 Data Filename: 07MAR11M S3 CS4 Data Filename: 07MAR11M S6

CS2 Data Filename: 07MAR11M S4 CS5 Data Filename: 07MAR11M S7

	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
NATIVE ANALYTES								
2,3,7,8-TCDD	1.14	1.19	1.14	1.10	1.15	1.08	1.13	3.15
1,2,3,7,8-PeCDD	1.00	1.05	1.06	0.97	1.02	0.99	1.02	3.50
1,2,3,4,7,8-HxCDD	1.38	1.50	1.51	1.43	1.43	1.43	1.45	3.44
1,2,3,6,7,8-HxCDD	1.43	1.45	1.47	1.41	1.51	1.46	1.45	2.22
1,2,3,7,8,9-HxCDD	1.44	1.52	1.51	1.45	1.45	1.46	1.47	2.34
1,2,3,4,6,7,8-HpCDD	1.23	1.29	1.28	1.27	1.35	1.38	1.30	4.25
OCDD	1.38	1.45	1.47	1.40	1.48	1.51	1.45	3.27
2,3,7,8-TCDF	1.08	1.12	1.13	1.11	1.28	1.17	1.15	6.20
1,2,3,7,8-PeCDF	0.90	0.95	0.94	0.86	0.83	0.83	0.89	5.99
2,3,4,7,8-PeCDF	0.88	0.94	0.95	0.88	0.87	0.85	0.89	4.61
1,2,3,4,7,8-HxCDF	1.00	1.07	1.06	0.99	0.96	0.98	1.01	4.34
1,2,3,6,7,8-HxCDF	0.89	0.93	0.94	0.88	0.85	0.86	0.89	4.03
2,3,4,6,7,8-HxCDF	1.00	1.06	1.07	0.99	0.98	1.00	1.02	3.87
1,2,3,7,8,9-HxCDF	1.10	1.16	1.16	1.08	1.07	1.06	1.10	4.09
1,2,3,4,6,7,8-HpCDF	1.47	1.55	1.55	1.45	1.46	1.40	1.48	3.99
1,2,3,4,7,8,9-HpCDF	1.42	1.50	1.53	1.37	1.37	1.37	1.43	4.84
OCDF	0.82	0.87	0.90	0.82	0.84	0.81	0.84	4.33

Analyst: _____ Date: 3/8/11

USEPA - ITD

FORM 3B

PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/7/11

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 07MAR11M S1 CS4 Data Filename: 07MAR11M S5

CS1 Data Filename: 07MAR11M S3 CS4 Data Filename: 07MAR11M S6

CS2 Data Filename: 07MAR11M S4 CS5 Data Filename: 07MAR11M S7

	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
LABELED COMPOUNDS								
13C-2,3,7,8-TCDD	1.00	1.09	1.07	1.00	1.01	1.01	1.03	3.69
13C-1,2,3,7,8-PeCDD	1.03	1.19	1.04	0.94	0.93	0.94	1.01	9.97
13C-1,2,3,4,7,8-HxCDD	1.20	1.13	1.22	1.18	1.22	1.19	1.19	2.78
13C-1,2,3,6,7,8-HxCDD	0.92	0.89	0.98	0.95	0.92	0.95	0.94	3.41
13C-1,2,3,4,6,7,8-HpCDD	0.85	0.84	0.88	0.81	0.80	0.79	0.83	4.23
13C-OCDD	0.62	0.67	0.68	0.58	0.55	0.55	0.61	9.50
13C-2,3,7,8-TCDF	0.96	1.03	1.02	0.96	0.96	0.94	0.98	3.84
13C-1,2,3,7,8-PeCDF	0.80	0.97	0.87	0.79	0.77	0.78	0.83	9.66
13C-2,3,4,7,8-PeCDF	0.79	0.95	0.83	0.75	0.77	0.74	0.80	9.70
13C-1,2,3,4,7,8-HxCDF	1.80	1.56	1.84	1.92	1.94	1.97	1.84	8.15
13C-1,2,3,6,7,8-HxCDF	2.28	2.03	2.31	2.33	2.38	2.41	2.29	5.90
13C-2,3,4,6,7,8-HxCDF	1.86	1.66	1.89	1.90	1.92	1.94	1.86	5.48
13C-1,2,3,7,8,9-HxCDF	1.96	1.94	2.10	1.96	1.96	1.98	1.98	3.04
13C-1,2,3,4,6,7,8-HpCDF	0.99	0.95	1.04	0.97	0.98	0.99	0.99	2.88
13C-1,2,3,4,7,8,9-HpCDF	0.77	0.80	0.82	0.74	0.73	0.73	0.77	5.17
13C-OCDF	1.13	1.30	1.30	1.12	1.06	1.07	1.17	9.46
CLEANUP STANDARD								
37Cl-2,3,7,8-TCDD	0.68	0.81	0.75	0.68	0.74	0.71	0.73	6.57

Analyst: _____ Date: 3/8/11

USEPA - ITD

FORM 3C

PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/7/11

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 07MAR11M S1 CS3 Data Filename: 07MAR11M S5

CS1 Data Filename: 07MAR11M S3 CS4 Data Filename: 07MAR11M S6

CS2 Data Filename: 07MAR11M S4 CS5 Data Filename: 07MAR11M S7

	M/Z'S FORMING	ION ABUNDANCE RATIOS						QC
	RATIO	CS1	CS2	CS3	CS4	CS5	CS6	LIMITS
NATIVE ANALYTES								
2,3,7,8-TCDD	M/M+2	0.83	0.81	0.80	0.83	0.79	0.86	0.65-0.89
1,2,3,7,8-PeCDD	M+2/M+4	1.44	1.44	1.43	1.37	1.41	1.37	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.27	1.27	1.28	1.27	1.30	1.25	1.05-1.43
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.27	1.27	1.27	1.27	1.31	1.05-1.43
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.27	1.27	1.26	1.26	1.25	1.05-1.43
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.90	0.90	0.89	0.89	0.89	0.90	0.88-1.20
OCDD	M+2/M+4	0.94	0.94	0.91	0.95	0.94	1.00	0.76-1.02
2,3,7,8-TCDF	M/M+2	0.67	0.67	0.67	0.66	0.69	0.68	0.65-0.89
1,2,3,7,8-PeCDF	M+2/M+4	1.66	1.65	1.67	1.69	1.64	1.61	1.32-1.78
2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.64	1.63	1.64	1.64	1.61	1.32-1.78
1,2,3,4,7,8-HxCDF	M+2/M+4	1.20	1.20	1.20	1.19	1.23	1.22	1.05-1.43
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.20	1.20	1.21	1.22	1.18	1.05-1.43
2,3,4,6,7,8-HxCDF	M+2/M+4	1.20	1.19	1.20	1.19	1.22	1.20	1.05-1.43
1,2,3,7,8,9-HxCDF	M+2/M+4	1.21	1.21	1.22	1.21	1.19	1.18	1.05-1.43
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	1.04	1.03	1.04	1.02	1.02	0.88-1.20
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.05	1.04	1.04	1.02	1.03	1.03	0.88-1.20
OCDF	M+2/M+4	0.91	0.92	0.93	0.94	0.91	0.90	0.76-1.02

Analyst: _____ Date: 3/8/11

USEPA - ITD

FORM 3D

PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/7/11

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 07MAR11M S1 CS3 Data Filename: 07MAR11M S5

CS1 Data Filename: 07MAR11M S3 CS4 Data Filename: 07MAR11M S6

CS2 Data Filename: 07MAR11M S4 CS5 Data Filename: 07MAR11M S7

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUNDANCE RATIOS CS1	CS2	CS3	CS4	CS5	CS6	QC LIMITS
13C-2,3,7,8-TCDD	M/M+2	0.67	0.70	0.70	0.69	0.69	0.69	0.65-0.89
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.70	1.68	1.69	1.67	1.72	1.72	1.32-1.78
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.27	1.27	1.27	1.28	1.29	1.29	1.05-1.43
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.26	1.27	1.28	1.29	1.29	1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	1.07	1.07	1.07	1.06	1.03	0.88-1.20
13C-OCDD	M+2/M+4	1.00	1.01	1.00	0.98	1.01	1.00	0.76-1.02
13C-2,3,7,8-TCDF	M/M+2	0.86	0.87	0.87	0.87	0.88	0.87	0.65-0.89
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.64	1.66	1.64	1.63	1.63	1.66	1.32-1.78
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.63	1.63	1.62	1.65	1.64	1.32-1.78
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.44	0.44	0.44	0.44	0.45	0.45	0.43-0.59
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.44	0.44	0.44	0.45	0.44	0.45	0.43-0.59
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.44	0.44	0.44	0.44	0.45	0.45	0.43-0.59
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.44	0.44	0.44	0.44	0.45	0.44	0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.48	0.47	0.47	0.48	0.47	0.46	0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.47	0.47	0.47	0.46	0.47	0.46	0.37-0.51
13C-OCDF	M+2/M+4	0.91	0.92	0.93	0.92	0.92	0.92	0.76-1.02

Analyst: _____ Date: 3/8/11