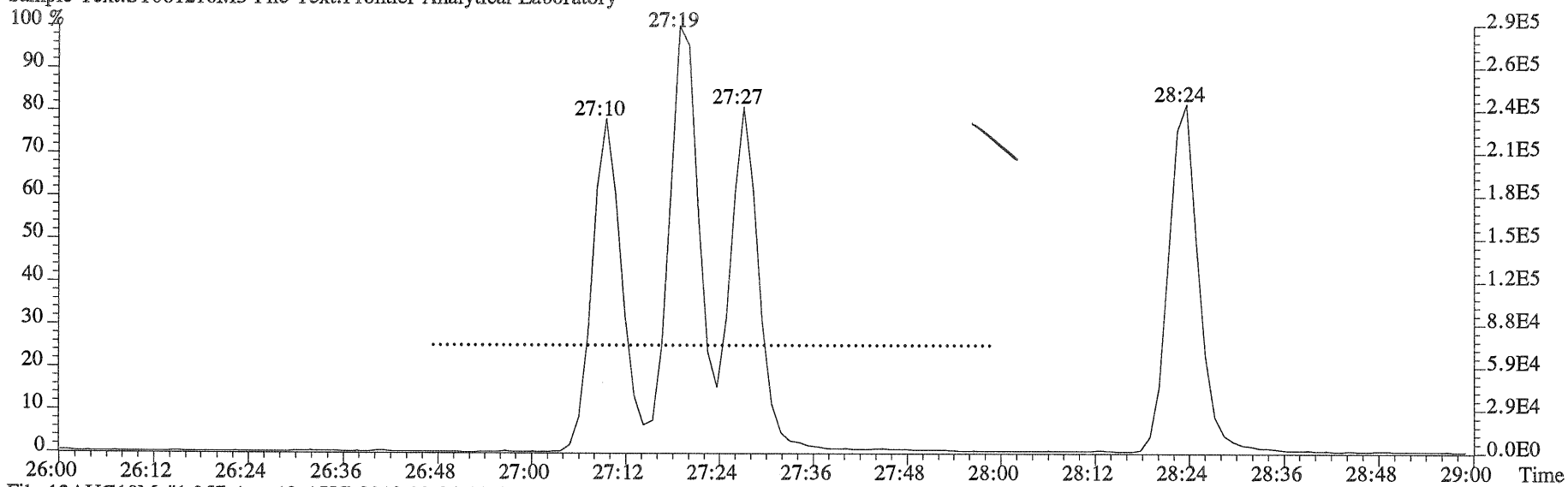
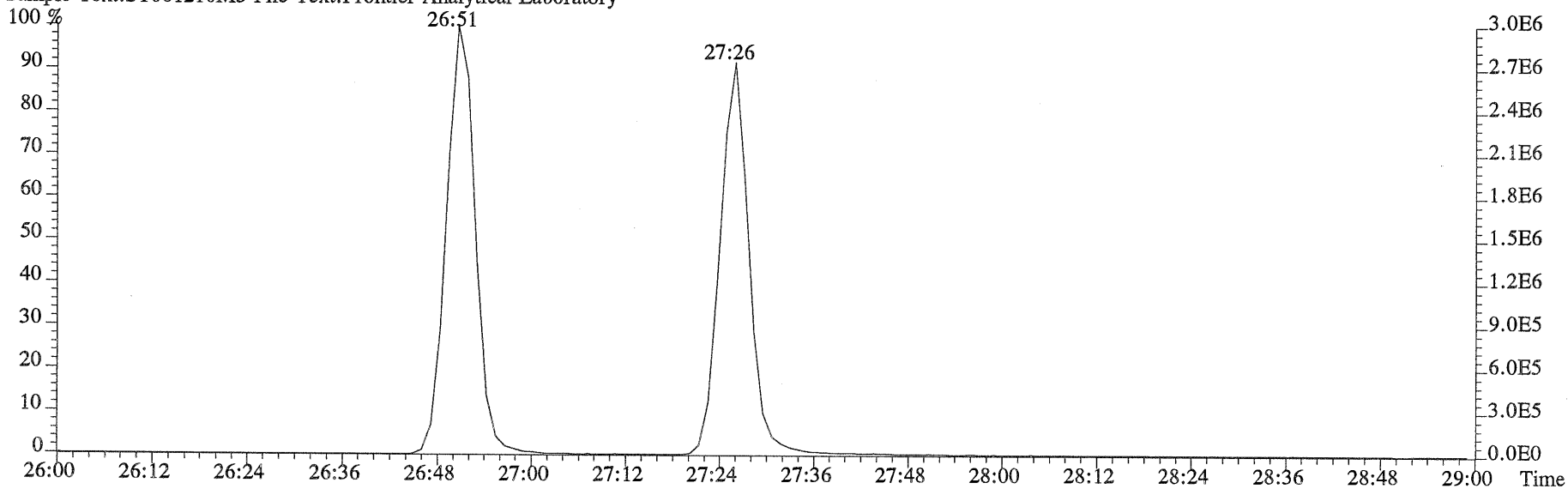
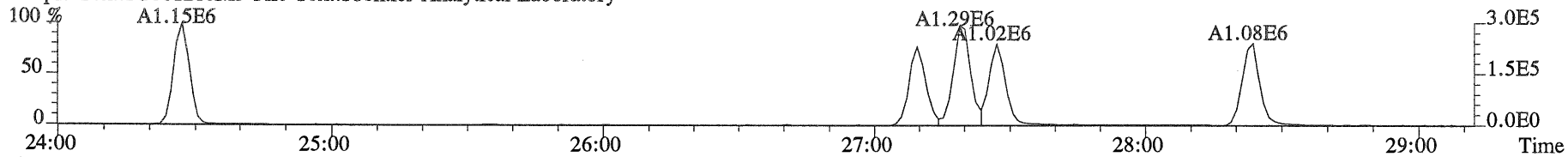
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:24 Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



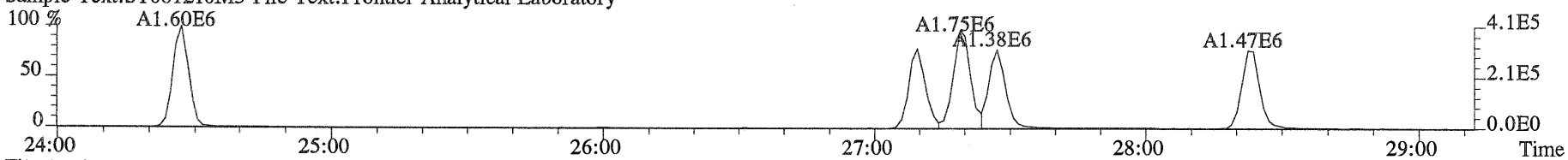
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:24 Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



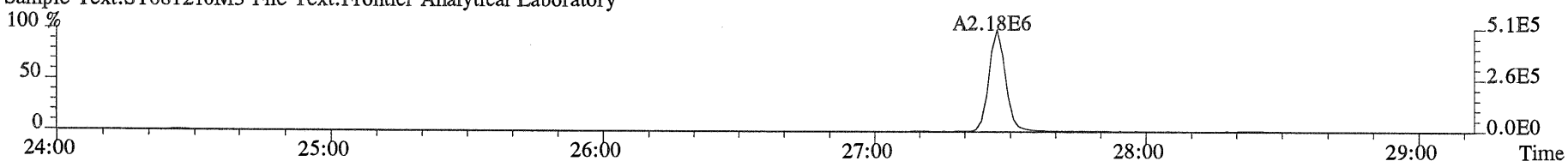
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



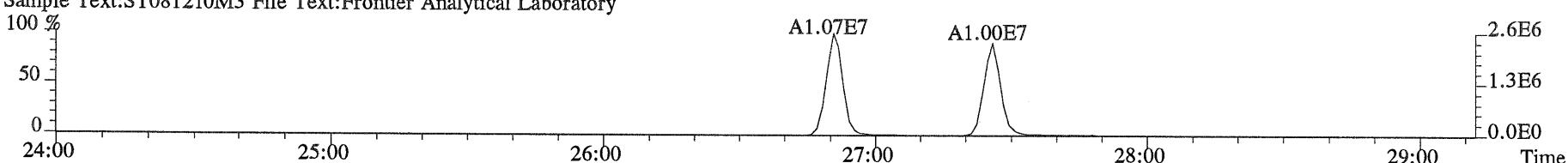
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



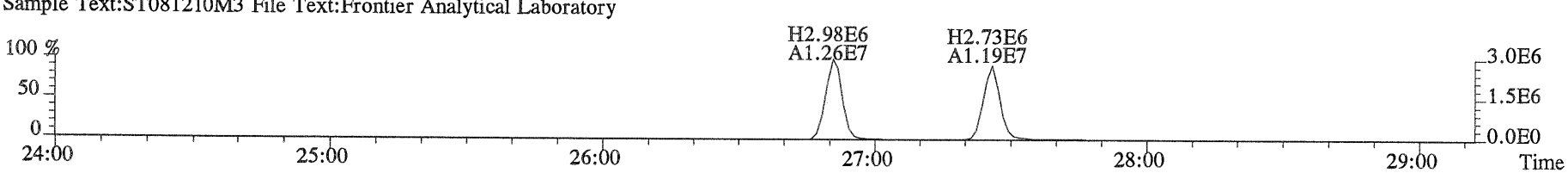
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



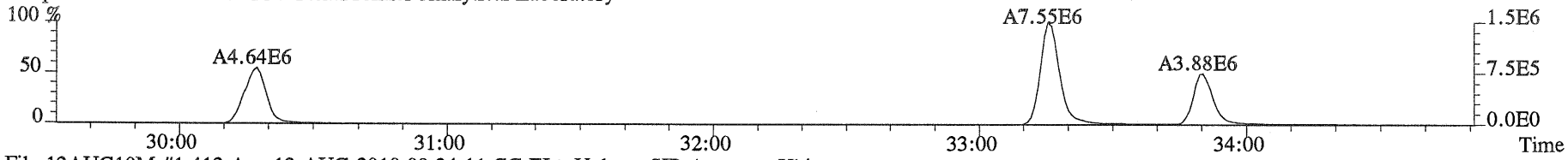
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



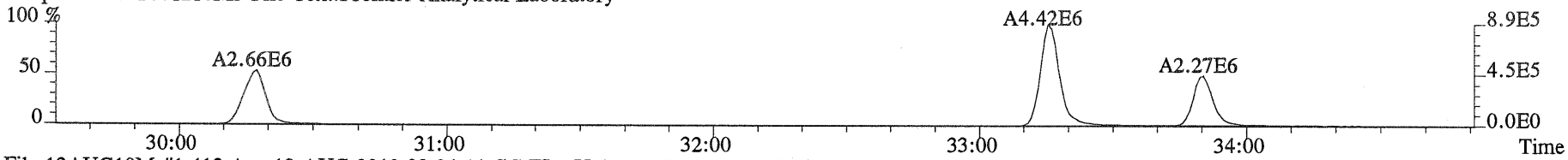
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



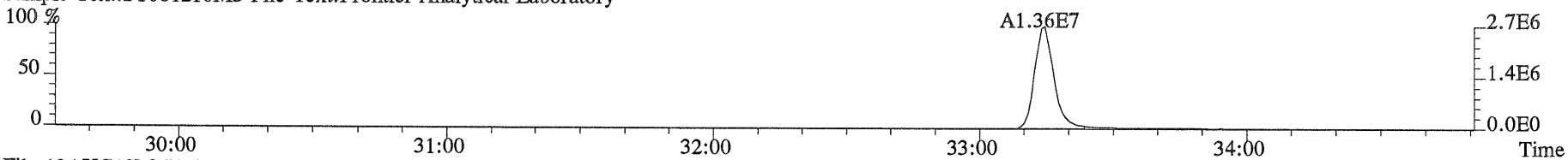
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



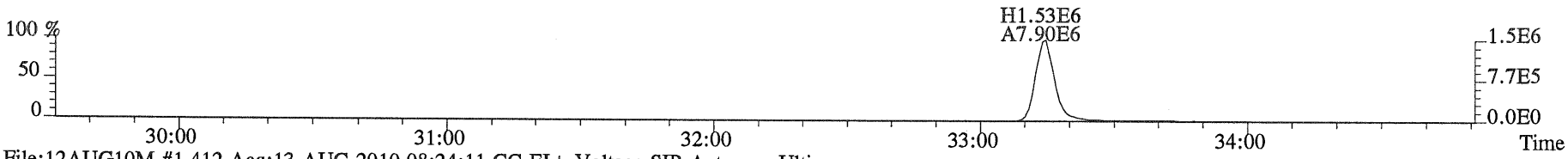
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



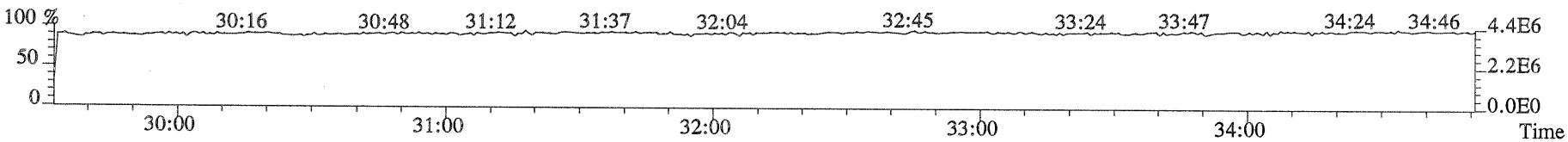
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



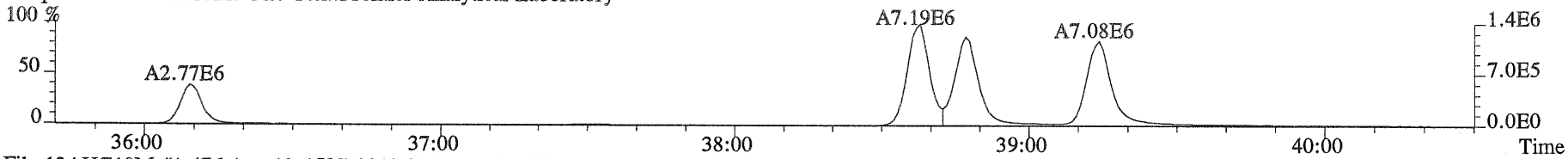
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



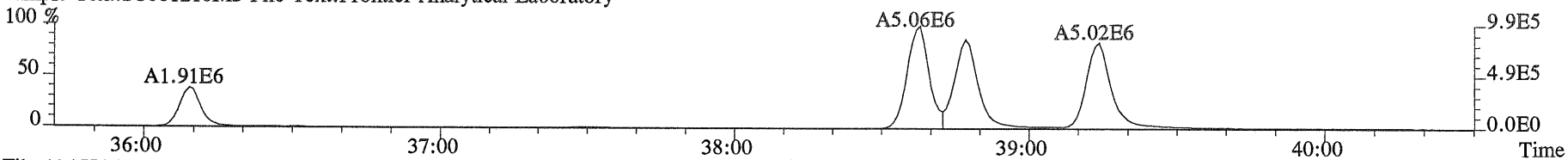
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:24 F:2 Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



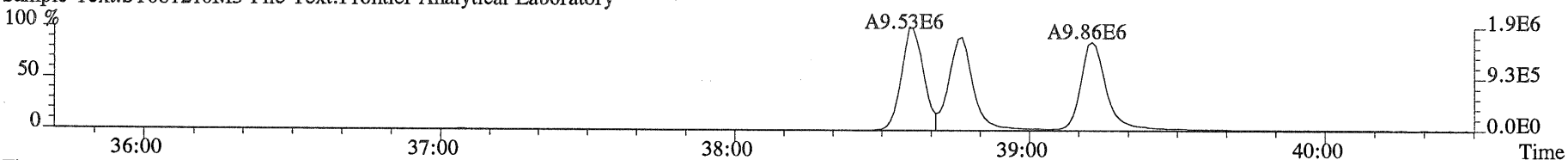
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



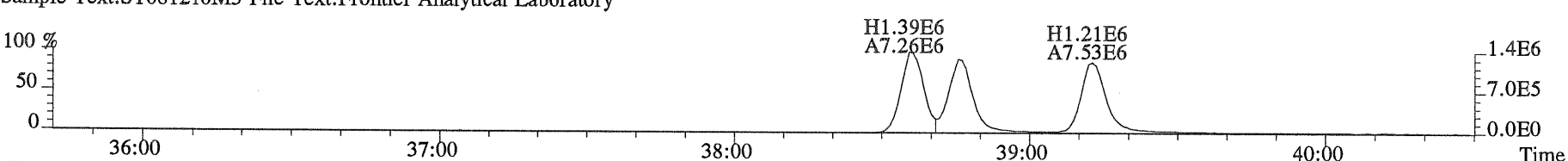
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



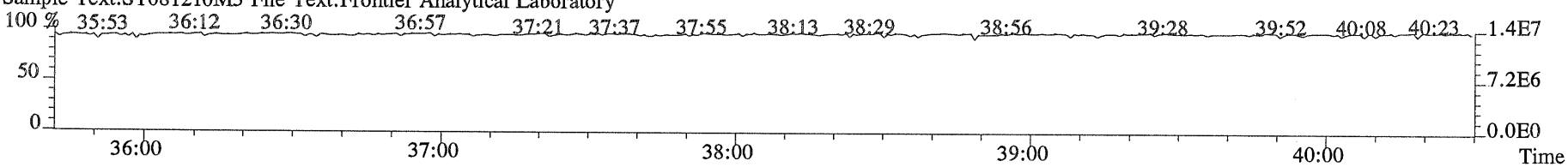
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



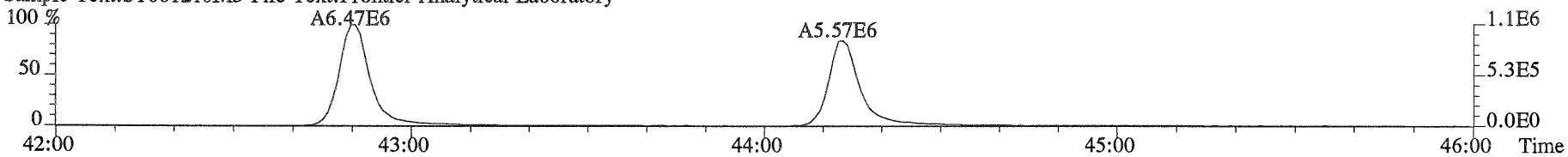
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



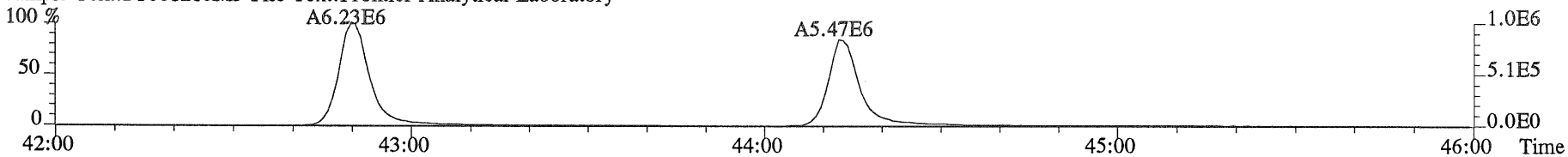
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:24 F:3 Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



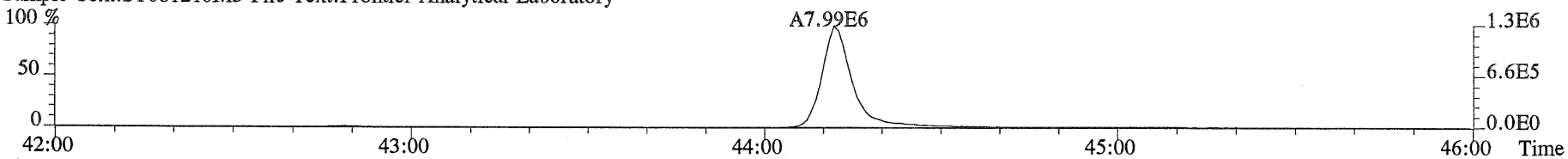
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



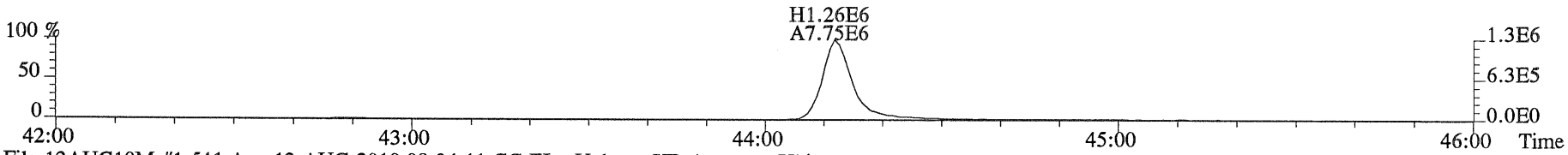
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



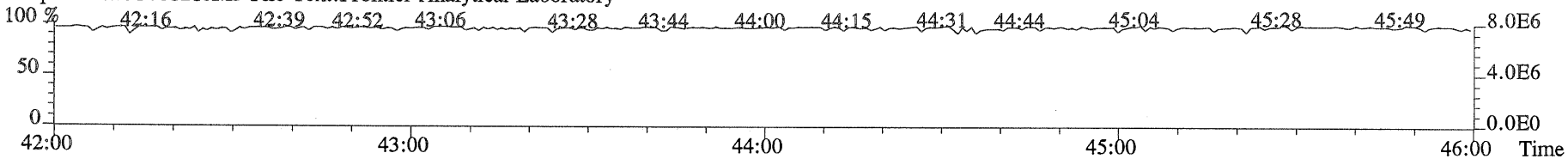
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



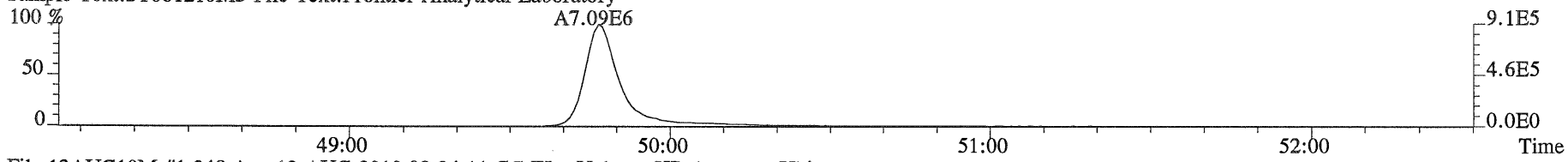
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



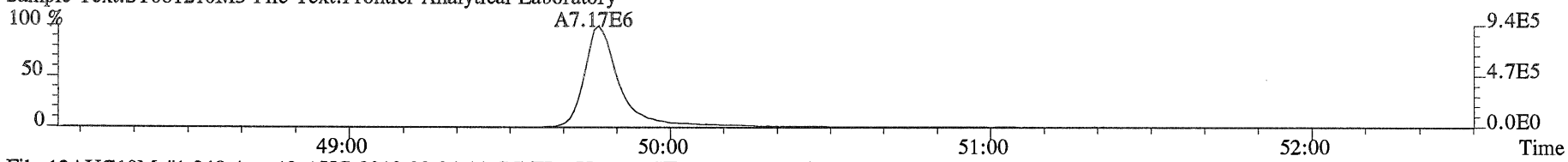
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:24 F:4 Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



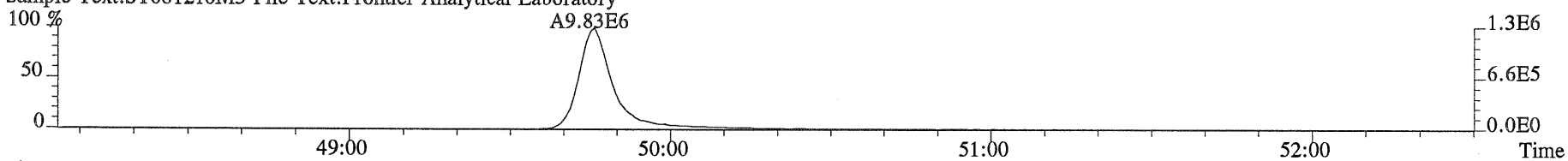
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



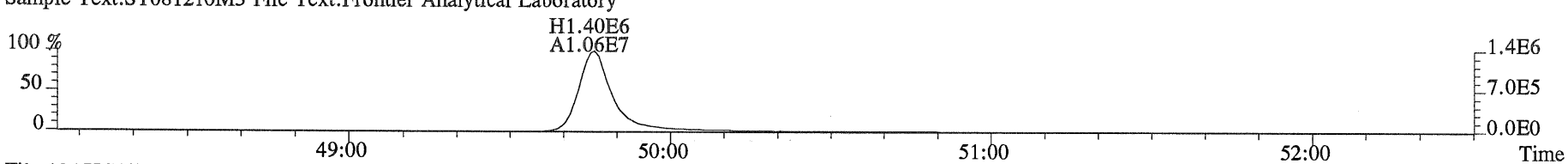
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



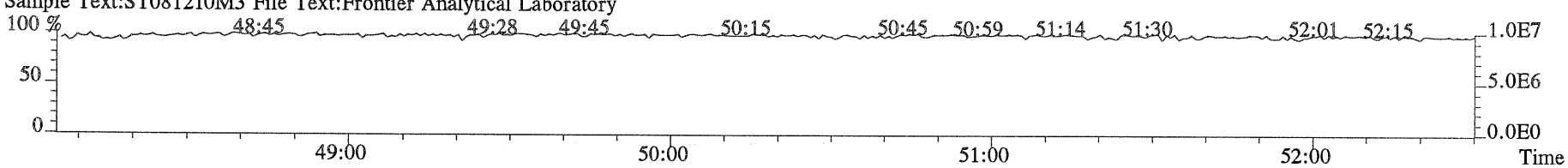
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



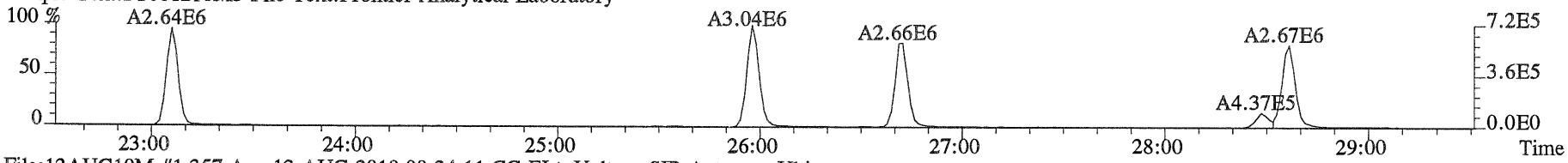
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



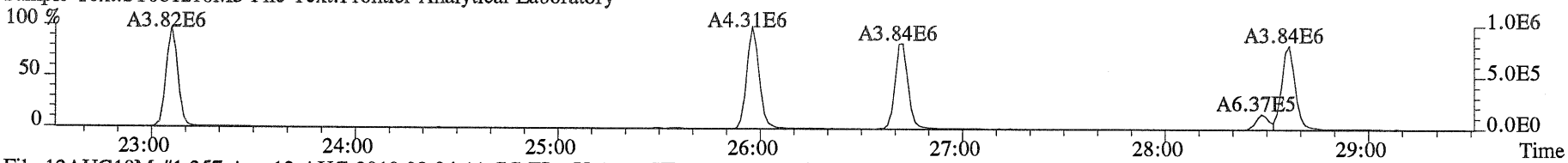
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:24 F:5 Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



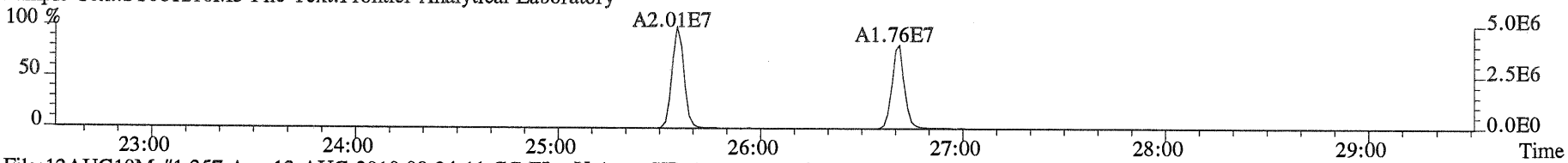
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



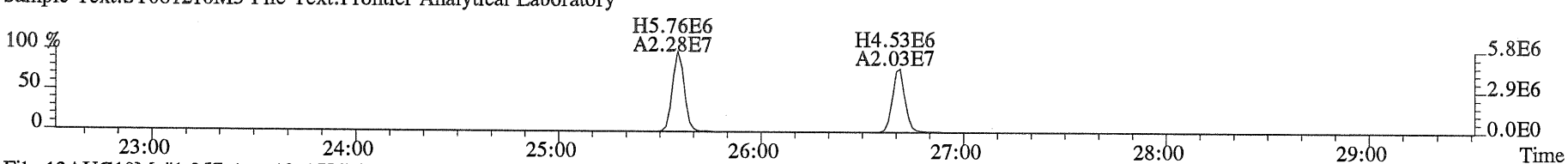
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



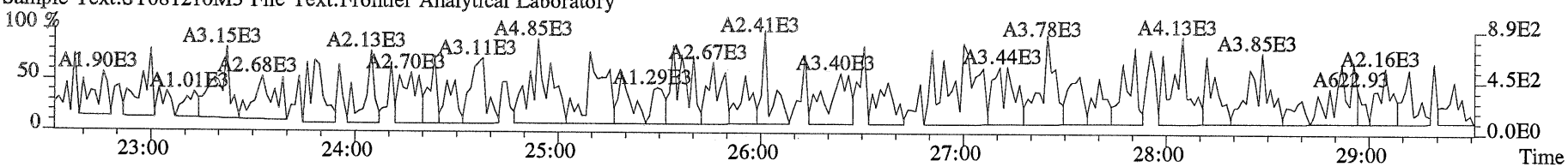
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



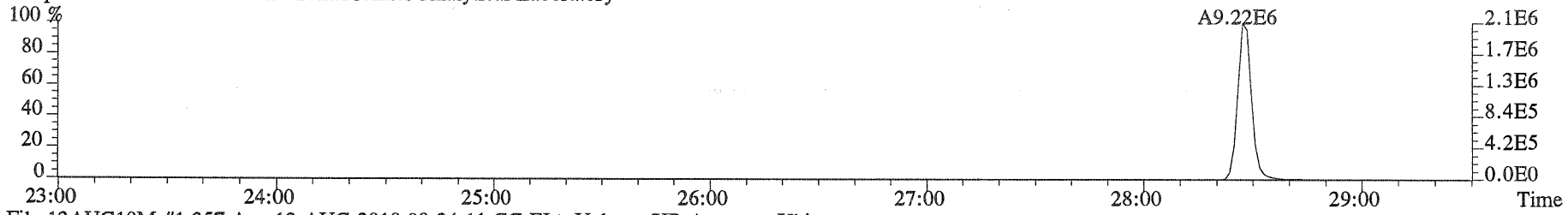
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



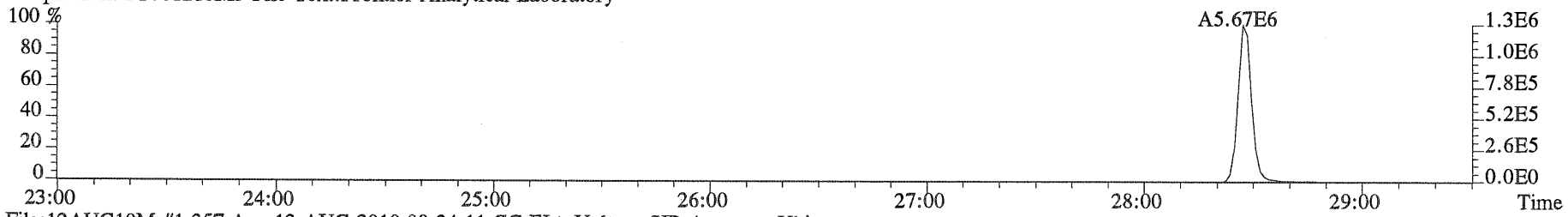
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



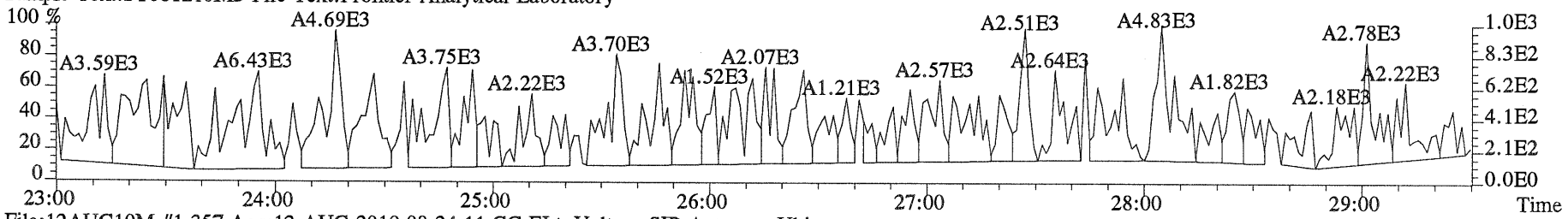
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



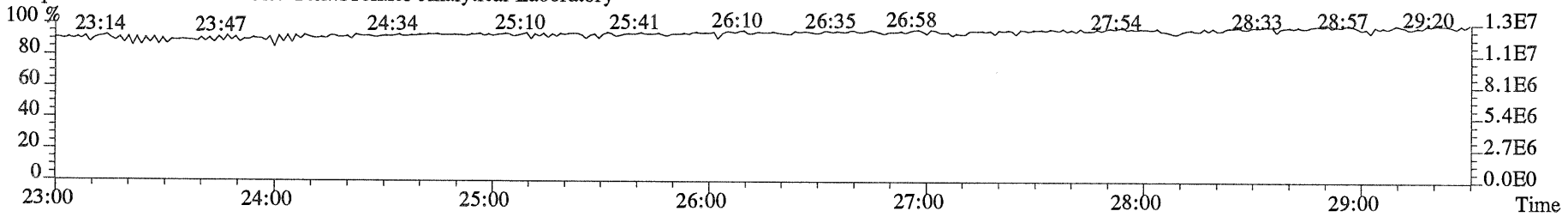
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



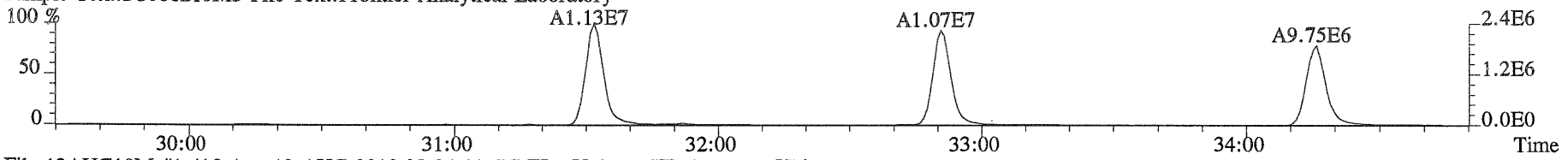
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:24 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



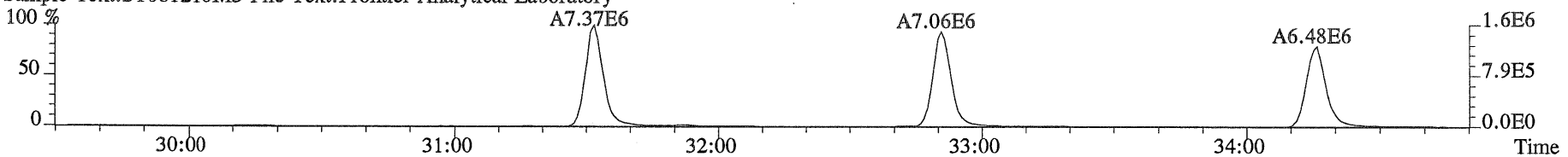
File:12AUG10M #1-357 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:24 Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



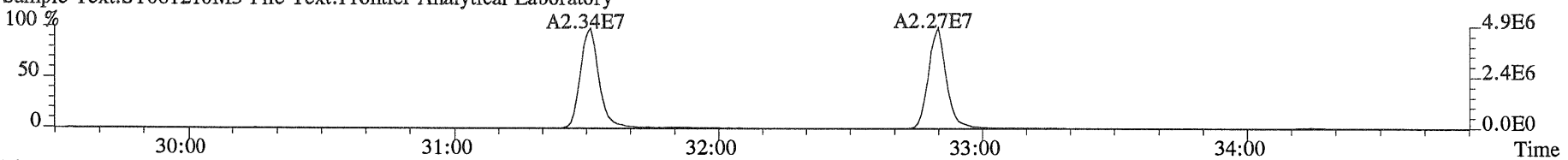
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



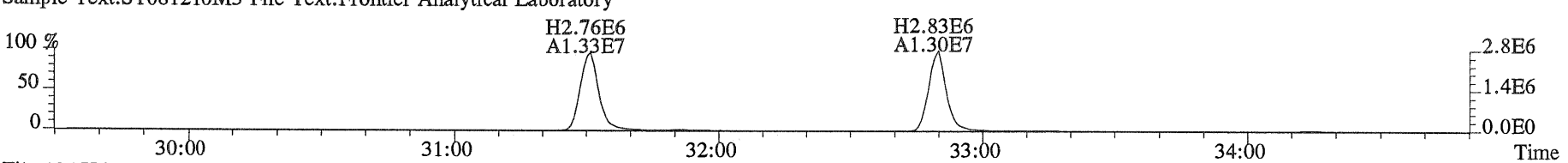
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



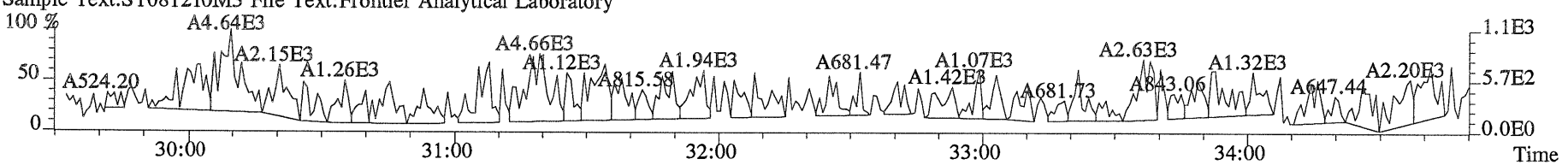
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



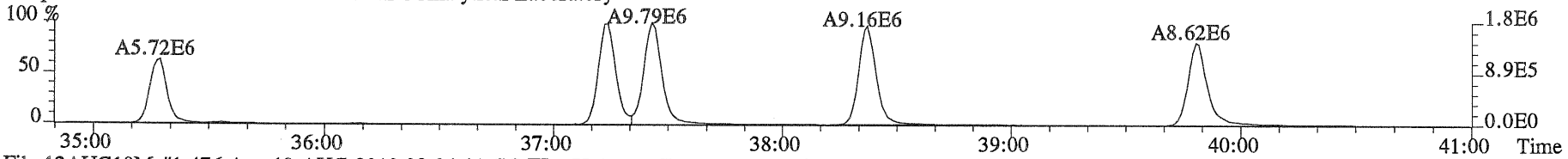
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



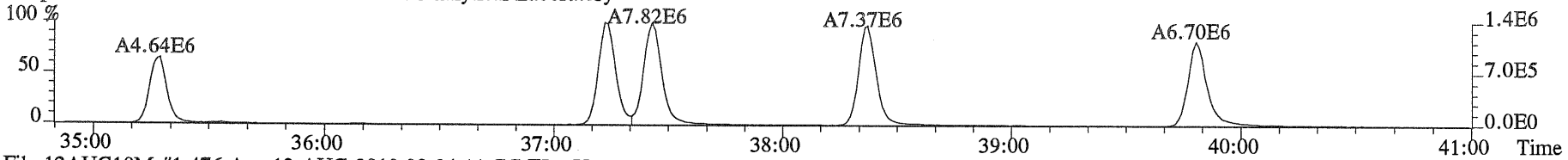
File:12AUG10M #1-412 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:24 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



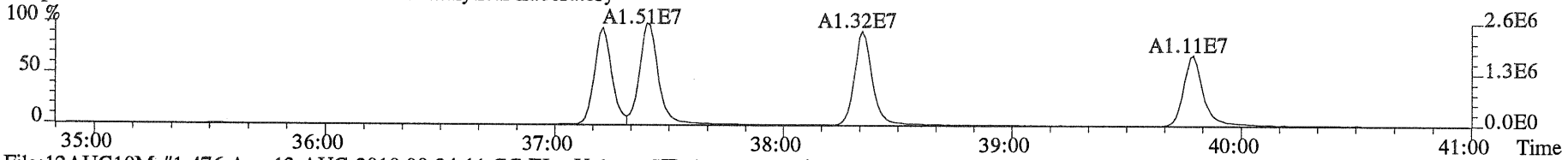
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



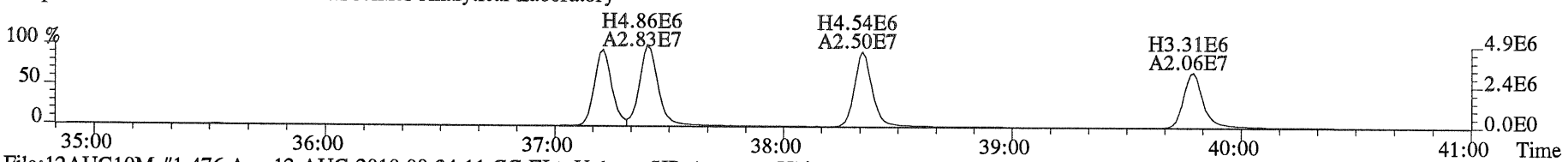
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



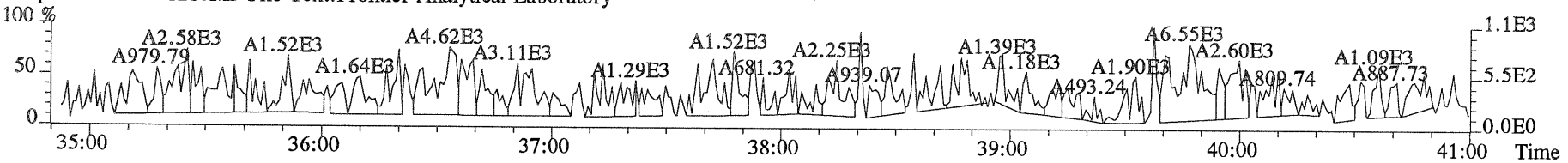
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



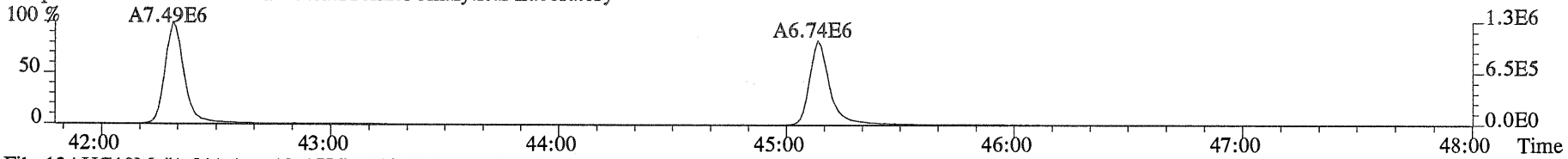
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



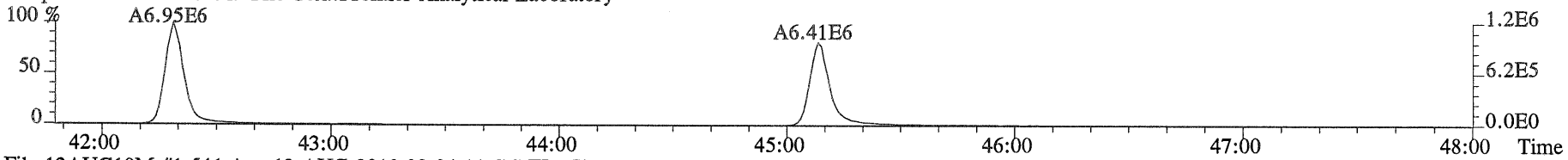
File:12AUG10M #1-476 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:24 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



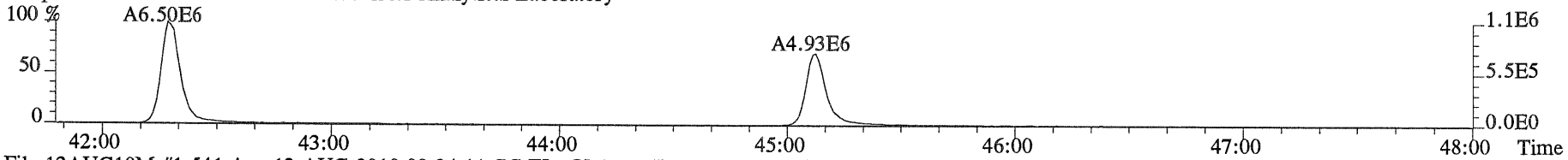
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



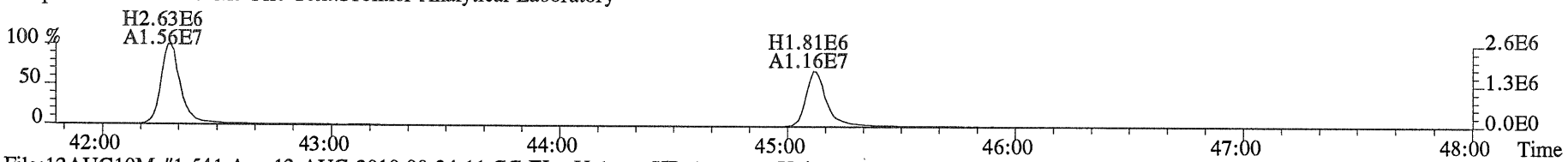
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



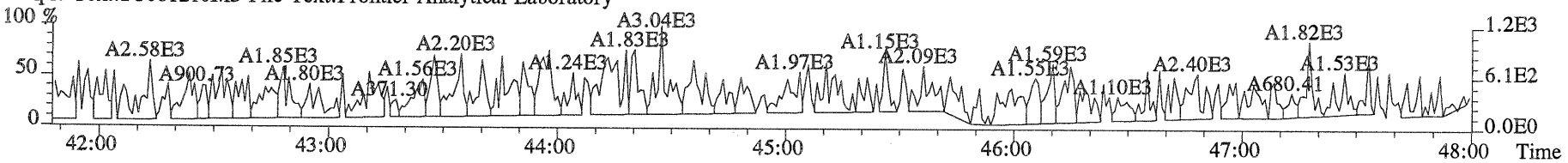
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



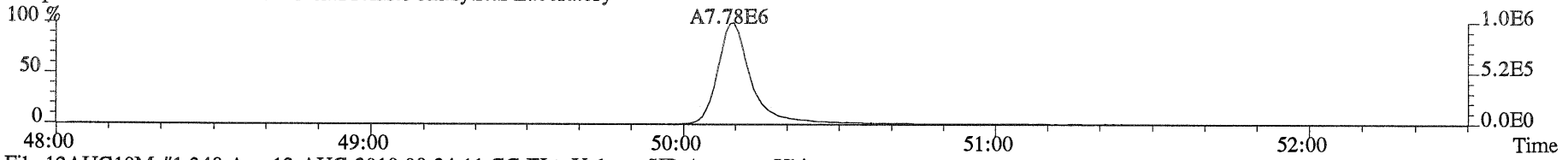
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



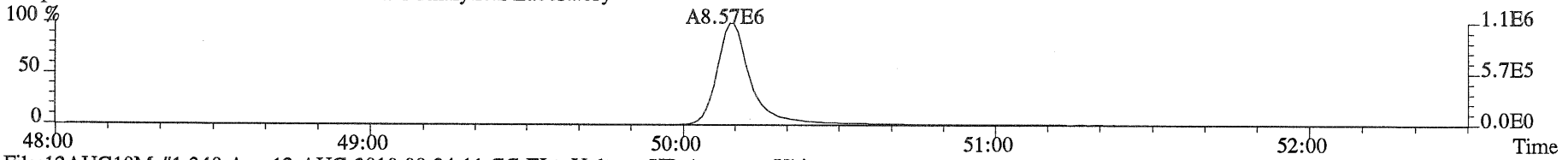
File:12AUG10M #1-541 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:24 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



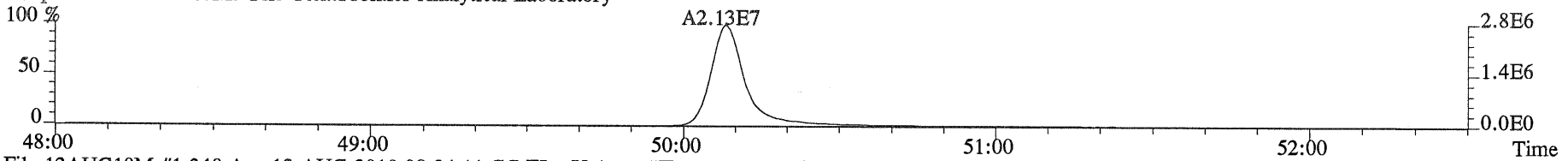
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



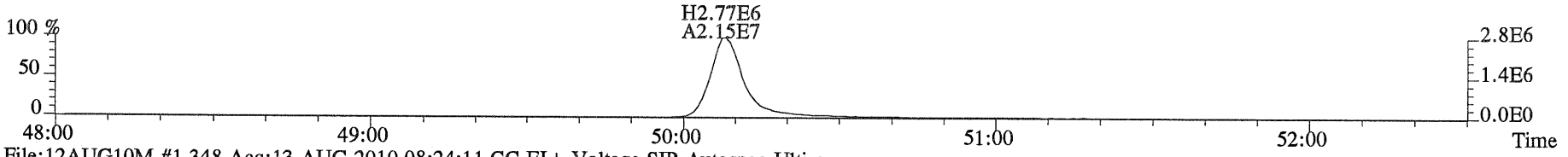
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



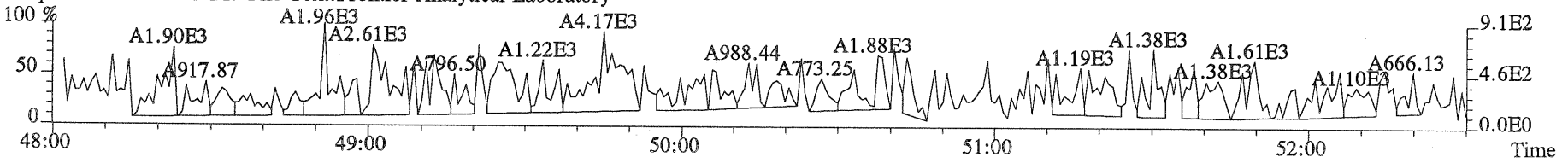
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory



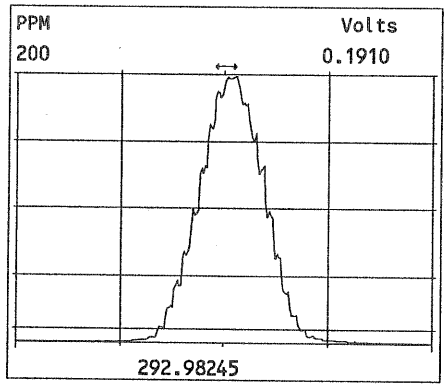
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory

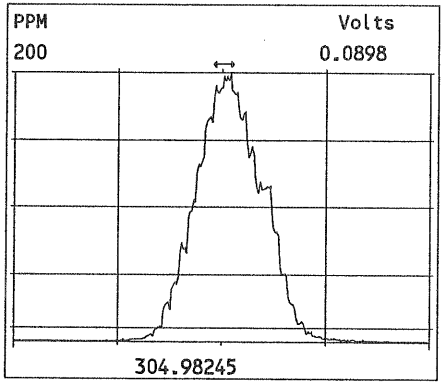


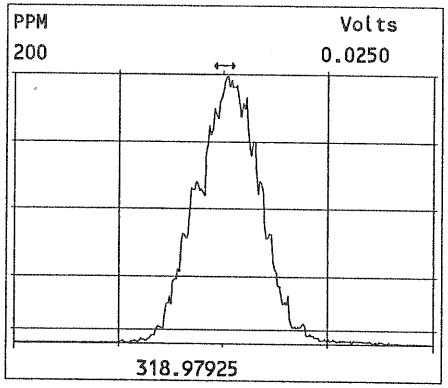
File:12AUG10M #1-348 Acq:13-AUG-2010 08:24:11 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:24 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081210M3 File Text:Frontier Analytical Laboratory

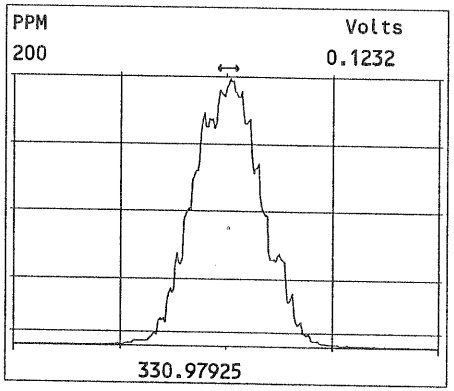


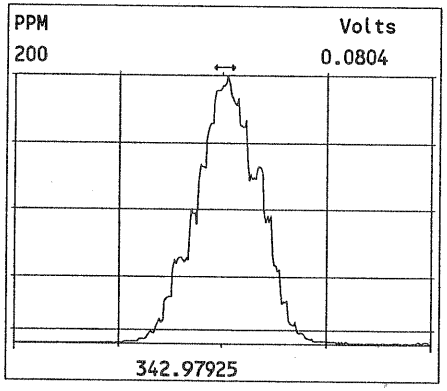
Peak Locate Examination:13-AUG-2010:09:21 File:12AUG10M_RES_CHECK
Experiment:PCDD Function:1 Reference:PFK

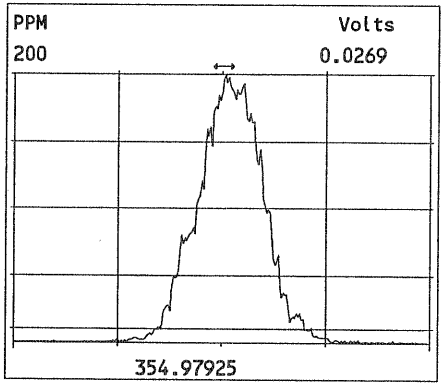


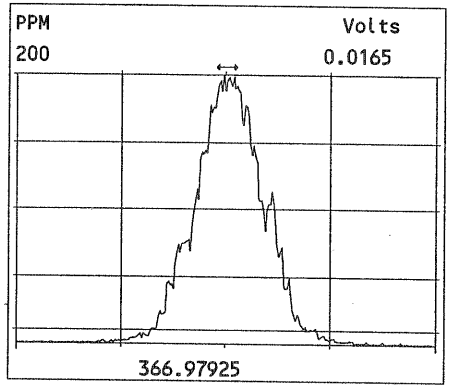


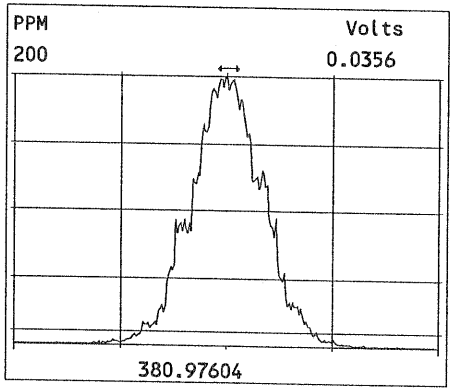


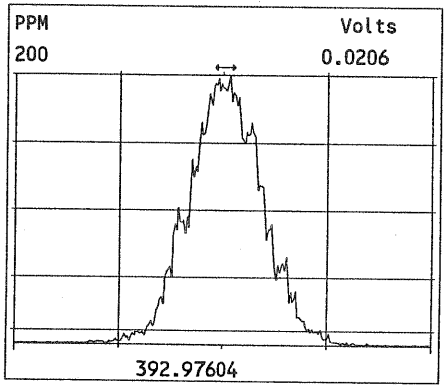


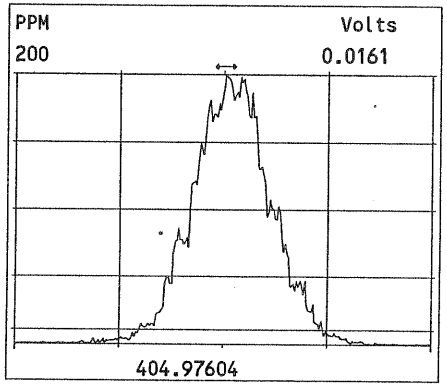


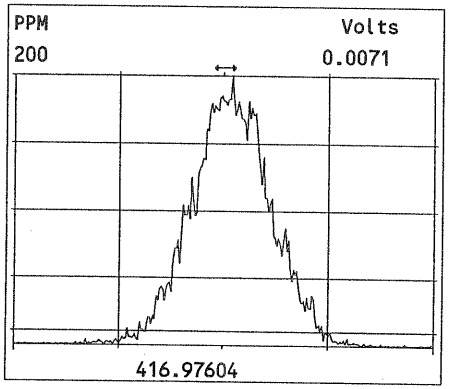




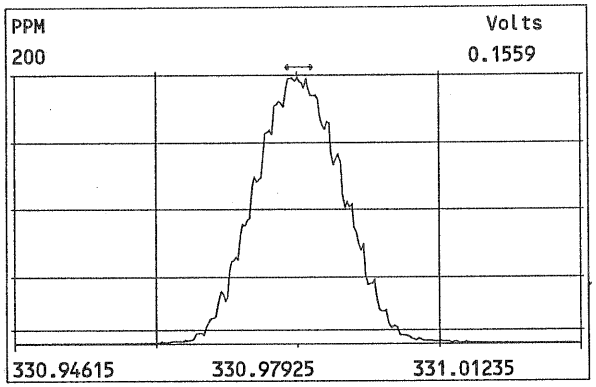


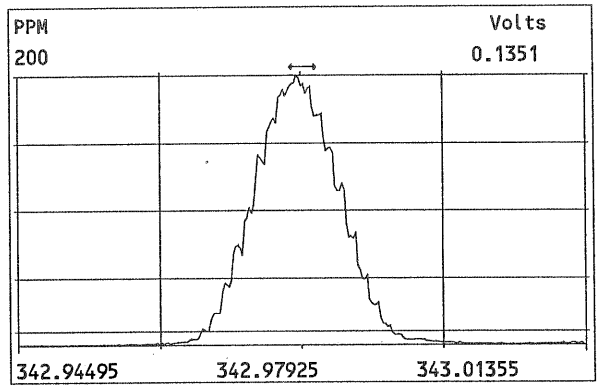


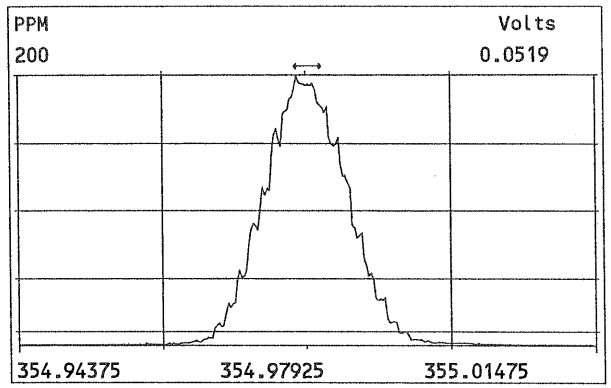


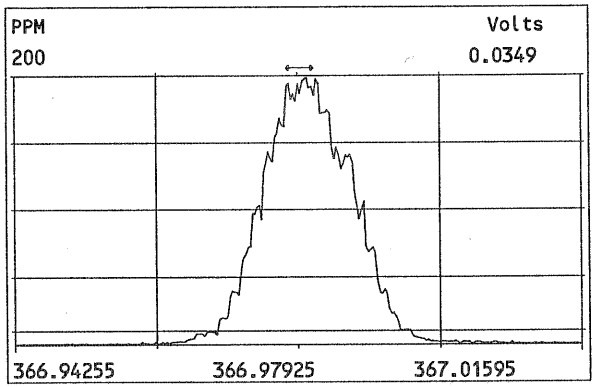


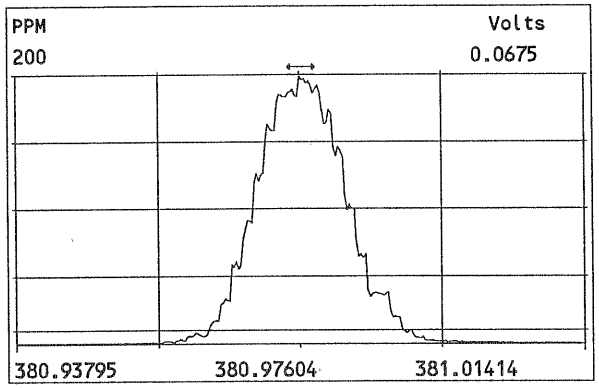
Peak Locate Examination:13-AUG-2010:09:21 File:12AUG10M_RES_CHECK
Experiment:PCDD Function:2 Reference:PFK

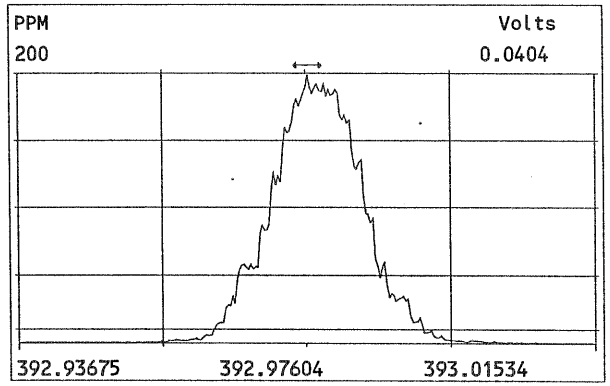


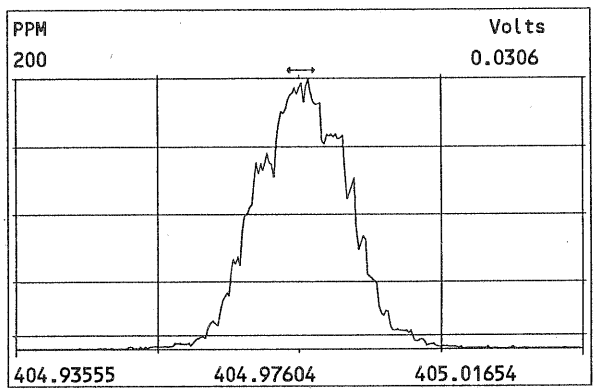


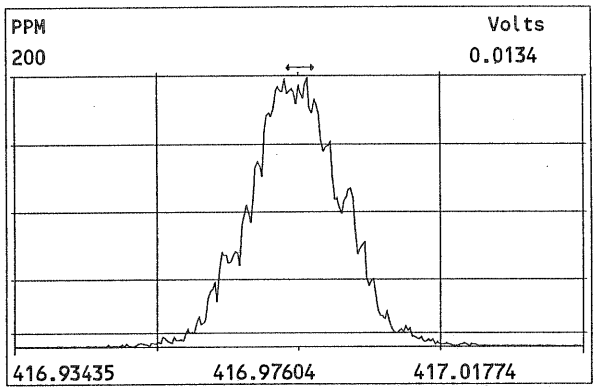




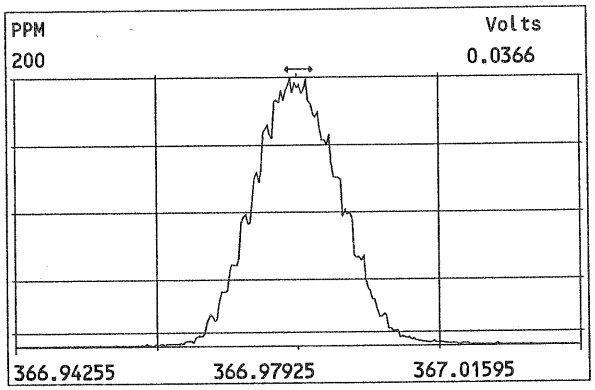


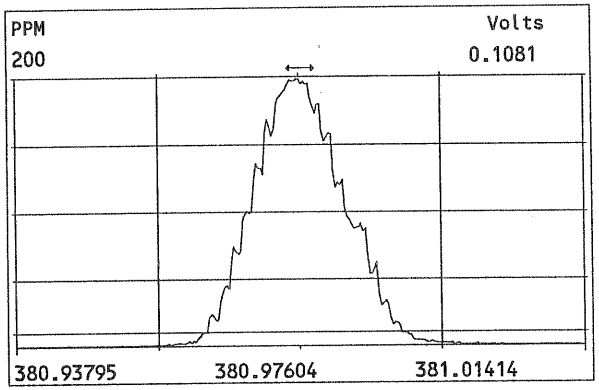


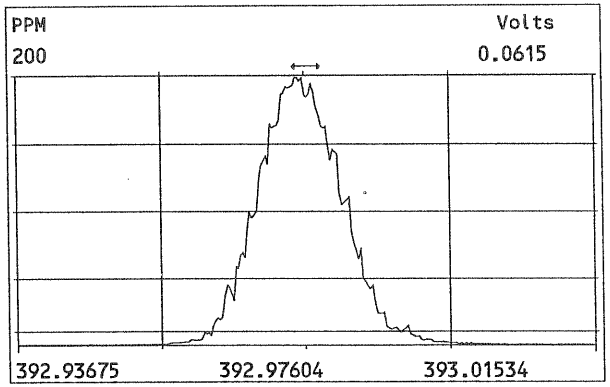


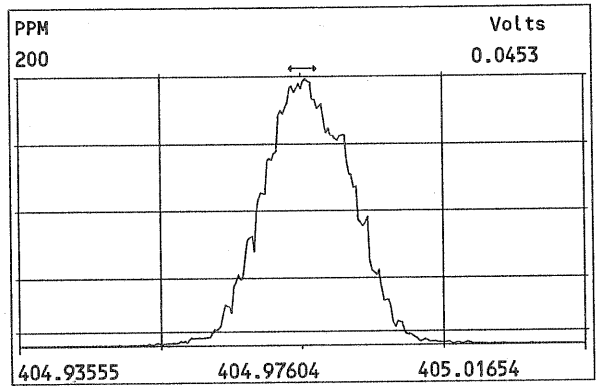


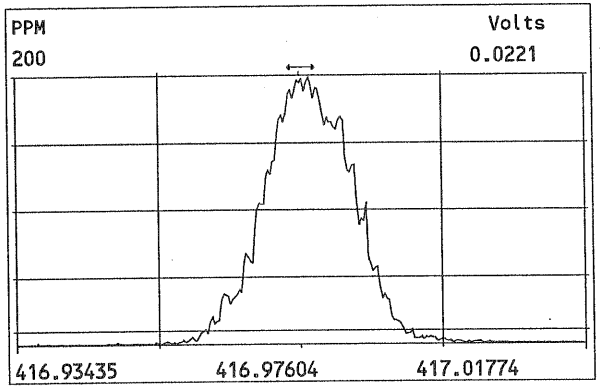
Peak Locate Examination:13-AUG-2010:09:22 File:12AUG10M_RES_CHECK
Experiment:PCDD Function:3 Reference:PFK

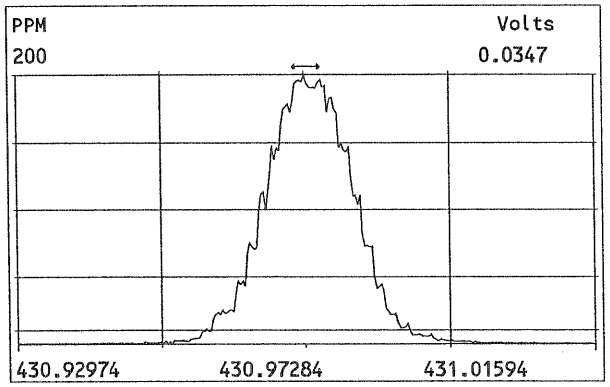


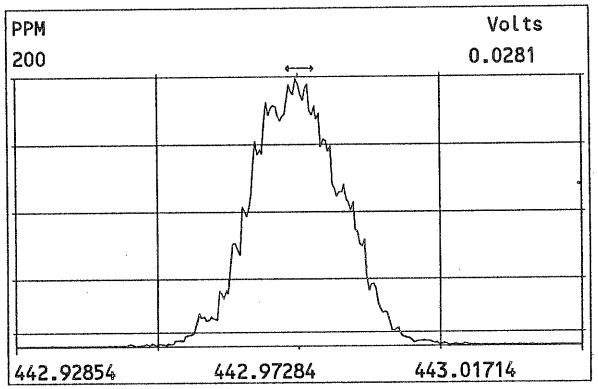


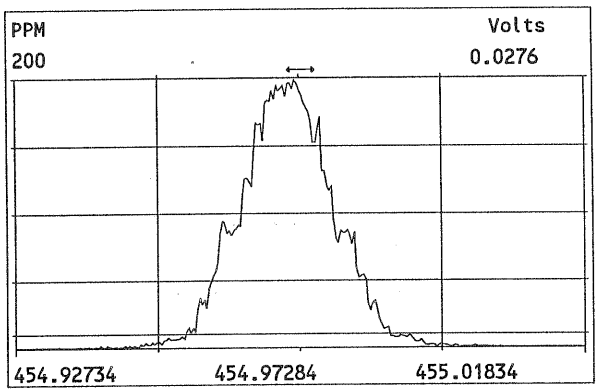




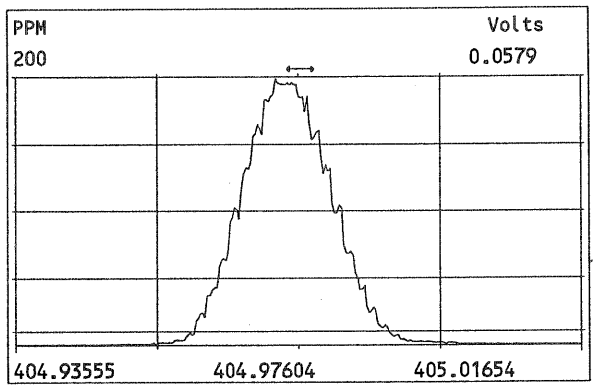


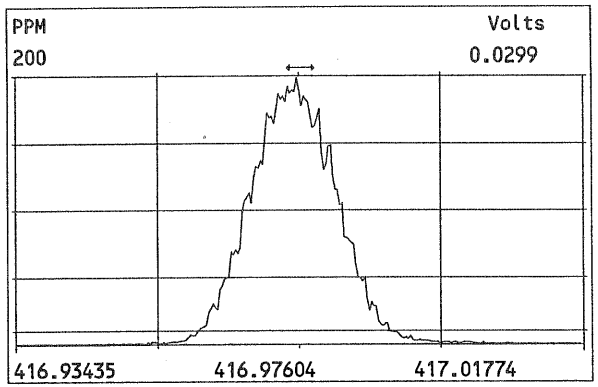


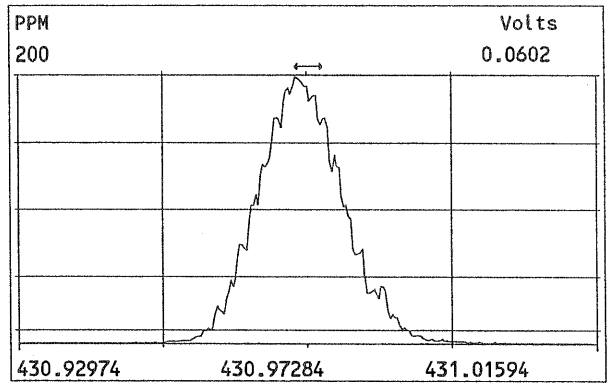


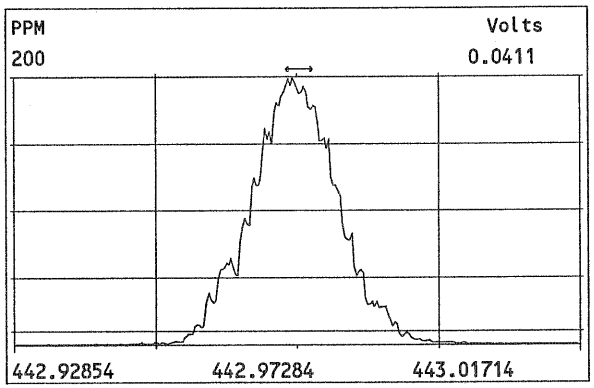


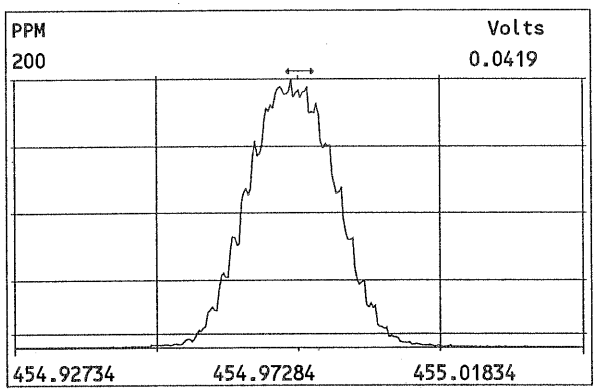
Peak Locate Examination:13-AUG-2010:09:22 File:12AUG10M_RES_CHECK
Experiment:PCDD Function:4 Reference:PFK

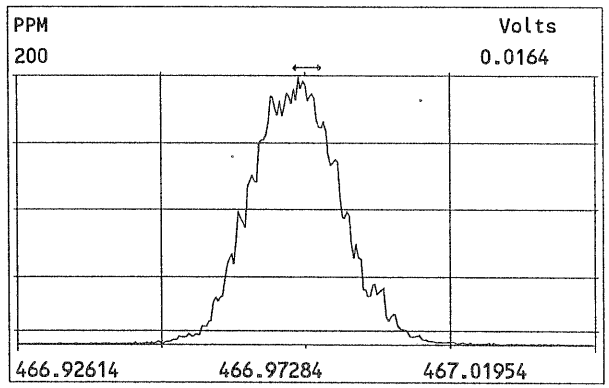


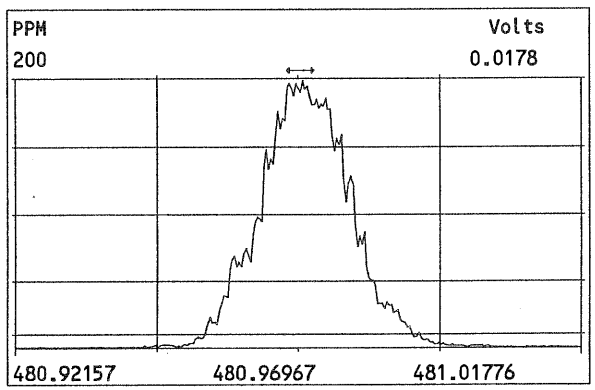




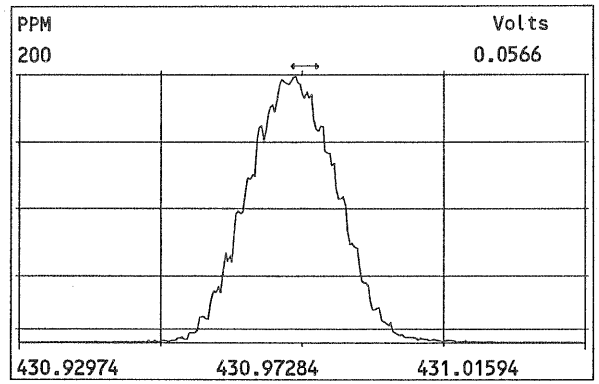


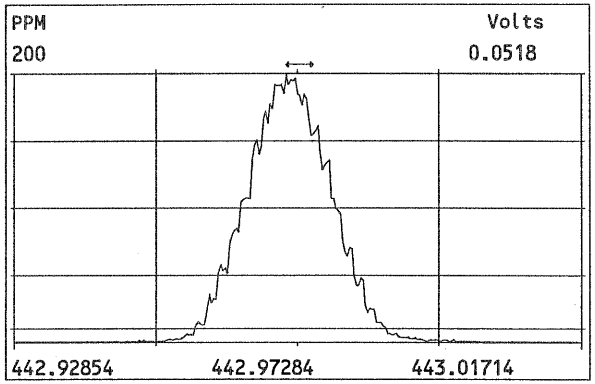


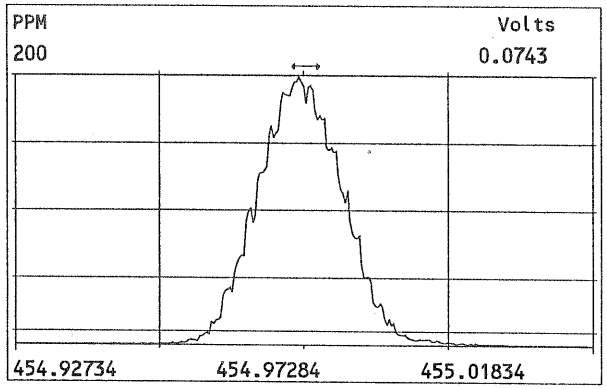


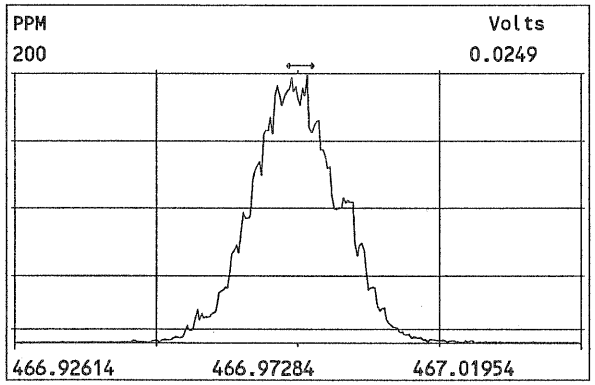


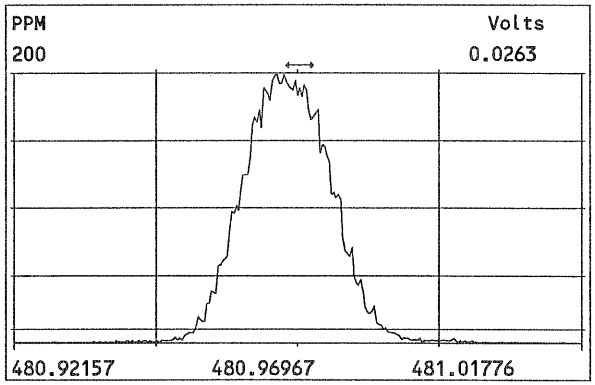
Peak Locate Examination:13-AUG-2010:09:22 File:12AUG10M_RES_CHECK
Experiment:PCDD Function:5 Reference:PFK

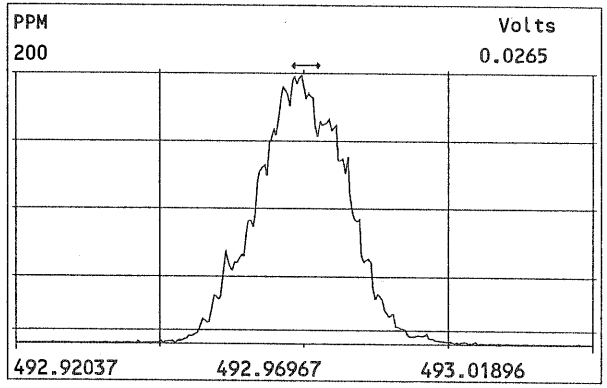


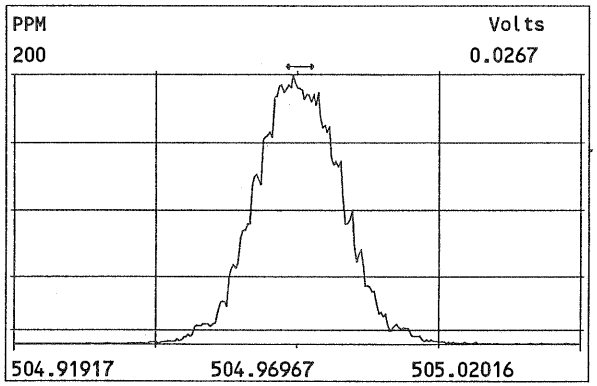


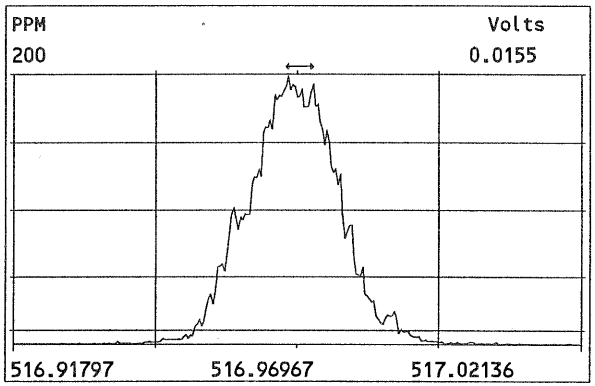












USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 17AUG10M Sam:1 Analysis Date: 17-AUG-10 07:54:40

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	0.77	0.65-0.89	y	10.7	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.65	1.32-1.78	y	51.7	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.40	1.05-1.43	y	51.8	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.40	1.05-1.43	y	50.2	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.39	1.05-1.43	y	55.1	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.01	0.88-1.20	y	48.9	43.0 - 58.0
OCDD	M+2/M+4	0.94	0.76-1.02	y	106	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.68	0.65-0.89	y	9.35	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.49	1.32-1.78	y	51.2	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.48	1.32-1.78	y	49.3	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	y	46.3	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	y	48.1	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	y	47.7	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	y	47.1	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.07	0.88-1.20	y	45.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.08	0.88-1.20	y	45.0	43.0 - 58.0
OCDF	M+2/M+4	0.88	0.76-1.02	y	96.8	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: [signature] Date: 8/17/10

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 17AUG10M Sam:1 Analysis Date: 17-AUG-10 07:54:40

	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	0.82	0.65-0.89	y	99.6	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.75	1.32-1.78	y	97.9	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	101	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	93.2	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.02	0.88-1.20	y	89.7	72.0 - 138
13C-OCDD	M+2/M+4	0.91	0.76-1.02	y	174	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.88	0.65-0.89	y	99.7	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.70	1.32-1.78	y	99.9	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.72	1.32-1.78	y	101	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	96.8	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	98.7	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.54	0.43-0.59	y	102	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.42	0.37-0.51	y	90.0	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.43	0.37-0.51	y	90.7	77.0 - 129
13C-OCDF	M+2/M+4	0.96	0.76-1.02	y	173	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.48	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: 8/17/10

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: 5/12/10

RT Window Data Filename: 17AUG10M Sam:1 Analysis Date: 17-AUG-10 Time: 07:54:40

DB-5 IS Data Filename: 17AUG10M Sam:1 Analysis Date: 17-AUG-10 Time: 07:54:40

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)	24:22	1,3,6,8-TCDF (F)	23:01
1,2,8,9-TCDD (L)	28:19	1,2,8,9-TCDF (L)	28:33
1,2,4,7,9-PeCDD (F)	30:13	1,3,4,6,8-PeCDF (F)	28:24
1,2,3,8,9-PeCDD (L)	33:46	1,2,3,8,9-PeCDF (L)	34:12
1,2,4,6,7,9-HxCDD (F)	36:06	1,2,3,4,6,8-HxCDF (F)	35:13
1,2,3,7,8,9-HxCDD (L)	39:10	1,2,3,7,8,9-HxCDF (L)	39:45
1,2,3,4,6,7,9-HpCDD (F)	42:47	1,2,3,4,6,7,8-HpCDF (F)	42:16
1,2,3,4,6,7,8-HpCDD (L)	44:09	1,2,3,4,7,8,9-HpCDF (L)	45:05

(F) = First eluting isomer (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: 8/17/10

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 17-AUG-10 07:54:40 CS3 or VER Data Filename: 17AUG10M Sam:1

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	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.001	0.999-1.002
LABELED COMPOUNDS			
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989-1.052
13C-2,3,7,8-TCDD		1.021	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		1.223	0.923-1.303

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

Analyst: _____ Date: 8/17/10

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 17-AUG-10 07:54:40 CS3 or VER Data Filename: 17AUG10M Sam:1

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	1.001	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.001	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.012	1.000-1.019
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	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	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.984	0.977-1.000
13C-1,2,3,6,7,8-HxCDD		0.988	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		1.127	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		1.279	1.000-1.311

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

Analyst: _____ Date: 8/17/10

FAL ID: ST081710M1 Filename: 17AUG10M Sam:1 Acquired: 17-AUG-10 07:54:40 ICal: PCDDFAL3-5-12-10
Client ID: 1613 CS3 191908J ConCal: ST081710M1 EndCal: ST081710M2
Results: GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 101
WHO 1998 Tox: 127 WHO 2005 Tox: 116

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	4.24e+06	0.77 y	27:24	1.04	10.7		2.50	-	-	*
1,2,3,7,8-PeCDD	1.77e+07	1.65 y	33:12	1.05	51.7		2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.68e+07	1.40 y	38:34	1.30	51.8		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.55e+07	1.40 y	38:44	1.28	50.2		2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.69e+07	1.39 y	39:10	1.25	55.1		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	1.43e+07	1.01 y	44:09	1.35	48.9		2.50	-	-	*
OCDD	1.91e+07	0.94 y	49:42	1.25	106		2.50	-	-	*
2,3,7,8-TCDF	8.75e+06	0.68 y	26:38	1.62	9.35		2.50	-	-	*
1,2,3,7,8-PeCDF	2.53e+07	1.49 y	31:28	0.92	51.2		2.50	-	-	*
2,3,4,7,8-PeCDF	2.37e+07	1.48 y	32:48	0.94	49.3		2.50	-	-	*
1,2,3,4,7,8-HxCDF	2.00e+07	1.27 y	37:10	0.93	46.3		2.50	-	-	*
1,2,3,6,7,8-HxCDF	2.21e+07	1.27 y	37:23	0.84	48.1		2.50	-	-	*
2,3,4,6,7,8-HxCDF	2.00e+07	1.26 y	38:19	0.90	47.7		2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.84e+07	1.24 y	39:45	0.98	47.1		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.62e+07	1.07 y	42:16	1.38	45.3		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.41e+07	1.08 y	45:05	1.62	45.0		2.50	-	-	*
OCDF	1.93e+07	0.88 y	50:05	0.74	96.8		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	3.83e+07	0.82 y	27:21	0.93	99.6					99.6
13C-1,2,3,7,8-PeCDD	3.28e+07	1.75 y	33:11	0.81	97.9					97.9
13C-1,2,3,4,7,8-HxCDD	2.50e+07	1.25 y	38:32	0.95	101					101
13C-1,2,3,6,7,8-HxCDD	2.43e+07	1.24 y	38:42	1.00	93.2					93.2
13C-1,2,3,4,6,7,8-HpCDD	2.16e+07	1.02 y	44:09	0.92	89.7					89.7
13C-OCDD	2.88e+07	0.91 y	49:41	0.63	174					87.1
13C-2,3,7,8-TCDF	5.78e+07	0.88 y	26:36	0.87	99.7					99.7
13C-1,2,3,7,8-PeCDF	5.38e+07	1.70 y	31:27	0.81	99.9					99.9
13C-2,3,4,7,8-PeCDF	5.09e+07	1.72 y	32:46	0.75	101					101
13C-1,2,3,4,7,8-HxCDF	4.65e+07	0.54 y	37:10	1.74	102					102
13C-1,2,3,6,7,8-HxCDF	5.49e+07	0.53 y	37:21	2.17	96.8					96.8
13C-2,3,4,6,7,8-HxCDF	4.69e+07	0.54 y	38:17	1.82	98.7					98.7
13C-1,2,3,7,8,9-HxCDF	3.98e+07	0.54 y	39:44	1.49	102					102
13C-1,2,3,4,6,7,8-HpCDF	2.58e+07	0.42 y	42:14	1.10	90.0					90.0
13C-1,2,3,4,7,8,9-HpCDF	1.93e+07	0.43 y	45:04	0.81	90.7					90.7
13C-OCDF	5.37e+07	0.96 y	50:04	1.19	173					86.6
37Cl-2,3,7,8-TCDD	3.66e+06		27:22	0.93	9.48					94.8
13C-1,2,3,4-TCDD	4.15e+07	0.83 y	26:47	-	122					
13C-1,2,3,4-TCDF	6.68e+07	0.88 y	25:32	-	125					
13C-1,2,3,7,8,9-HxCDD	2.62e+07	1.22 y	39:10	-	121					

						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	2.25e+07		24:22	1.04	56.7	2.50	-	-	*		20
Total Penta-Dioxins	3.86e+07		30:13	1.05	113	2.50	-	-	*		8
Total Hexa-Dioxins	5.65e+07		36:06	1.27	180	2.50	-	-	*		14
Total Hepta-Dioxins	3.07e+07		42:47	1.35	105	2.50	-	-	*		11
Total Tetra-Furans	3.82e+07		23:01	1.62	40.9	2.50	-	-	*		14
1st Fn. Tot Penta-Furans	2.68e+07		28:24	0.93	55.1	2.50	-	-	*	PeCDF	1
Total Penta-Furans	7.06e+07		30:10	0.93	145	2.50	-	-	*	200	11
Total Hexa-Furans	9.45e+07		35:13	0.90	222	2.50	-	-	*		10
Total Hepta-Furans	3.08e+07		42:16	1.48	91.9	2.50	-	-	*		12

Analyst: _____ Date: 8/17/10

Frontier Analytical Laboratory - Acquisition Log

Run Name:17AUG10M Instrument: FAL3 GC: DB5 Experiment:PCDD

Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
17AUG10M	1	ST081710M1	1613 CS3 191908J	17-AUG-10 07:54:40	ST081710M1	ST081710M2	BS
17AUG10M	2	6276-006-0001-SA	PSB15-1.5-2-073010	17-AUG-10 08:50:02	ST081710M1	ST081710M2	BS
17AUG10M	3	6276-001-0001-SA	PSB11-0-0.5-073010 1:10	17-AUG-10 09:45:25	ST081710M1	ST081710M2	BS
17AUG10M	4	6276-007-0001-SA	PSB15-2-4-073010 1:10	17-AUG-10 10:40:47	ST081710M1	ST081710M2	BS
17AUG10M	5	6276-009-0001-SA	PSB15-13-15-073010 1:10	17-AUG-10 11:36:06	ST081710M1	ST081710M2	BS
17AUG10M	6	6269-001-0001-SA	PSB14-0-.5-072810 1:10	17-AUG-10 12:31:24	ST081710M1	ST081710M2	BS
17AUG10M	7	6271-002-0001-SA	PSB13-1.5-2-072910 1:10	17-AUG-10 13:26:47	ST081710M1	ST081710M2	BS
17AUG10M	8	6271-003-0001-SA	PSB13-2-4-072910 1:10	17-AUG-10 14:22:06	ST081710M1	ST081710M2	BS
17AUG10M	9	QC081710M1	TEST QC	17-AUG-10 15:17:34	ST081710M1	ST081710M2	BS
17AUG10M	10	6276-008-0001-SA	PSB15-4-6-073010 1:20	17-AUG-10 16:13:01	ST081710M1	ST081710M2	BS
17AUG10M	11	6276-005-0001-SA	PSB15-0-0.5-073010 1:100	17-AUG-10 17:08:27	ST081710M1	ST081710M2	BS
17AUG10M	12	6276-002-0001-SA	PSB11-1.5-2-073010 1:200	17-AUG-10 18:03:50	ST081710M1	ST081710M2	BS
17AUG10M	13	6276-003-0001-SA	PSB11-2-4-073010 1:200	17-AUG-10 18:59:16	ST081710M1	ST081710M2	BS
17AUG10M	14	6276-004-0001-SA	PSB11-2-4-073010-D 1:200	17-AUG-10 19:54:40	ST081710M1	ST081710M2	BS
17AUG10M	15	SB081710M1	Solvent Blank	17-AUG-10 20:49:59	ST081710M1	ST081710M2	BS
17AUG10M	16	ST081710M2	1613 CS3 191908J	17-AUG-10 21:45:19	ST081710M1	ST081710M2	BS
17AUG10M	17	2083-001-0001-OPR	OPR	17-AUG-10 22:40:39	ST081710M2	ST081710M3	BS
17AUG10M	18	2083-001-0001-MB	Method Blank	17-AUG-10 23:35:58	ST081710M2	ST081710M3	BS
17AUG10M	19	6299-001-0001-SA	Barnhardt Sludge #3	18-AUG-10 00:31:17	ST081710M2	ST081710M3	BS
17AUG10M	20	6291-001-0001-SA	0080214-01	18-AUG-10 01:26:39	ST081710M2	ST081710M3	BS
17AUG10M	21	QC081710M2	TEST QC2	18-AUG-10 02:21:58	ST081710M2	ST081710M3	BS
17AUG10M	22	6274-001-0001-SA	PSB9A-1.5-2-073010	18-AUG-10 03:17:17	ST081710M2	ST081710M3	BS
17AUG10M	23	6274-002-0001-SA	PSB9A-2-4-073010	18-AUG-10 04:12:36	ST081710M2	ST081710M3	BS
17AUG10M	24	6274-003-0001-SA	PSB9A-0-0.5-073010	18-AUG-10 05:07:58	ST081710M2	ST081710M3	BS
17AUG10M	25	6274-004-0001-SA	PSB10-0-0.5-073010	18-AUG-10 06:03:21	ST081710M2	ST081710M3	BS
17AUG10M	26	6274-005-0001-SA	PSB10-1.5-2-073010	18-AUG-10 06:58:43	ST081710M2	ST081710M3	BS
17AUG10M	27	6274-006-0001-SA	PSB10-2-4-073010	18-AUG-10 07:54:06	ST081710M2	ST081710M3	BS
17AUG10M	28	6272-005-0001-SA	PSB3-0-0.5-072910 1:10	18-AUG-10 08:49:25	ST081710M1	ST081710M2	BS
17AUG10M	29	6291-002-0001-SA	0080214-02	18-AUG-10 09:44:44	ST081710M2	ST081710M3	BS
17AUG10M	30	ST081710M3	1613 CS3 191908J	18-AUG-10 10:40:03	ST081710M2	ST081710M3	BS
17AUG10M	31	QC081710M3	TEST QC3	18-AUG-10 11:35:24	ST081710M2	ST081710M3	BS

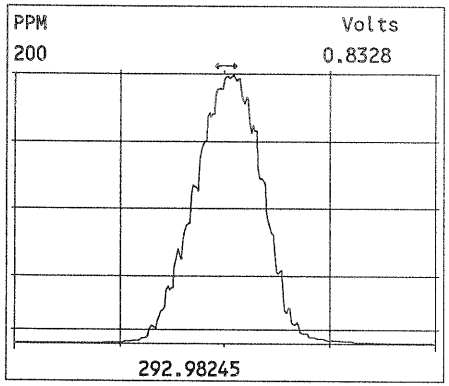
8/12/10

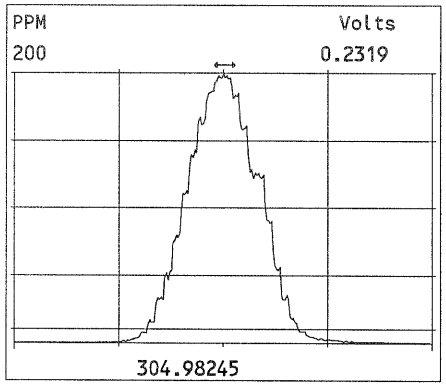
Data Backed Up:_____

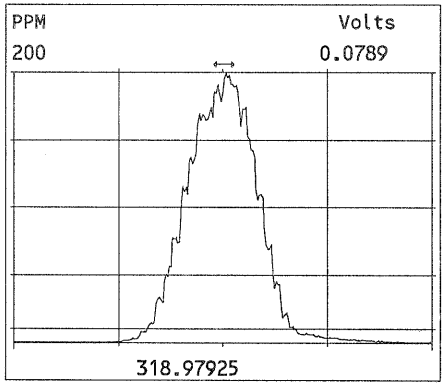
Date:_____

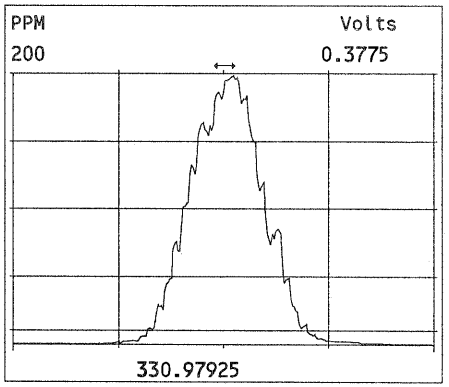
Peak Locate Examination:17-AUG-2010:07:52 File:17AUG10M

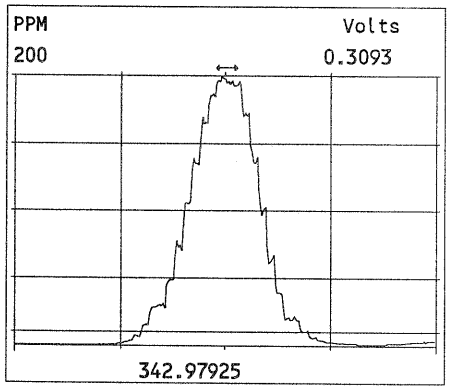
Experiment:PCDD Function:1 Reference:PFK

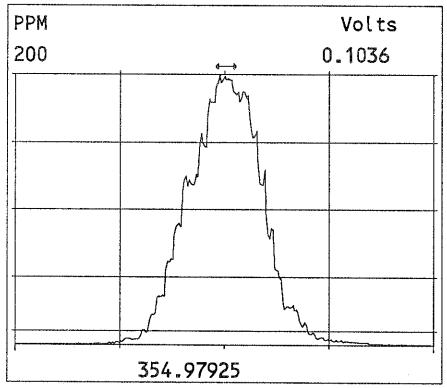


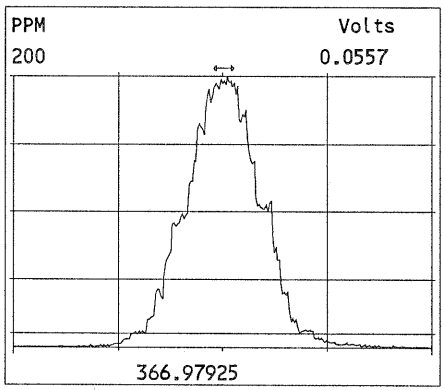


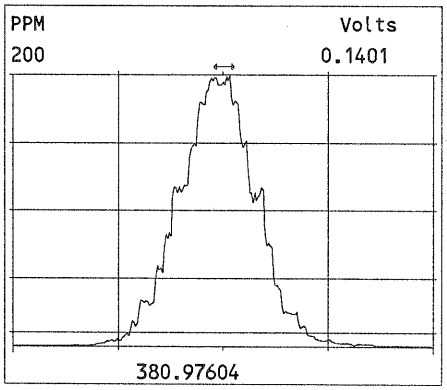


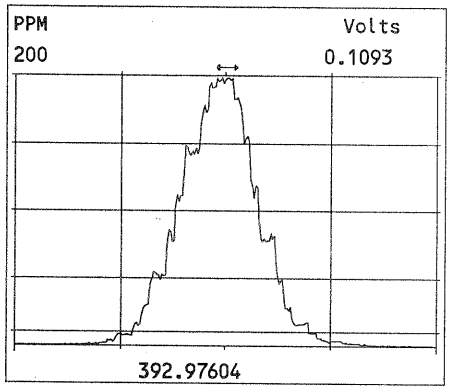


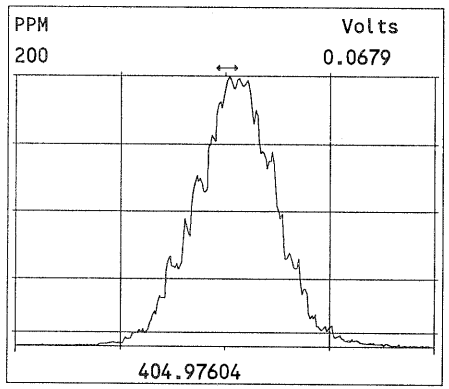


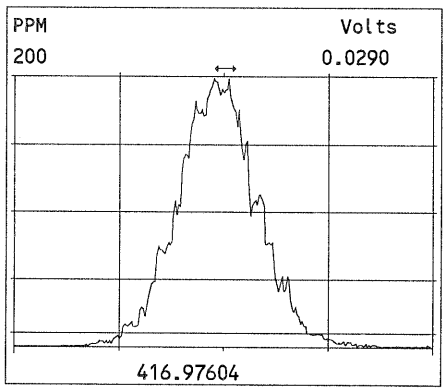




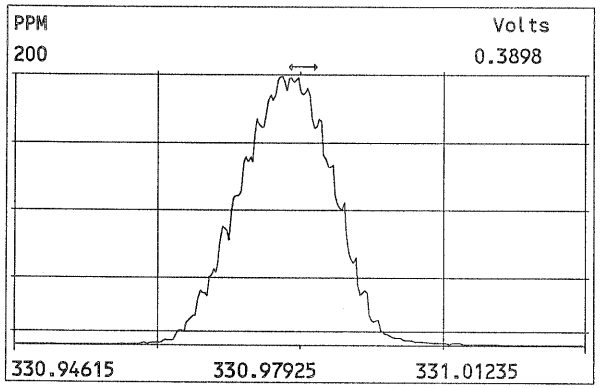


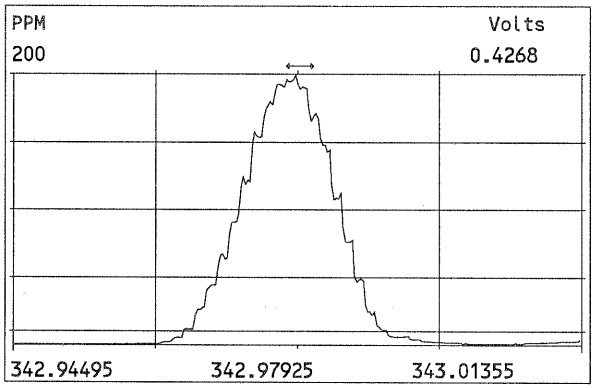


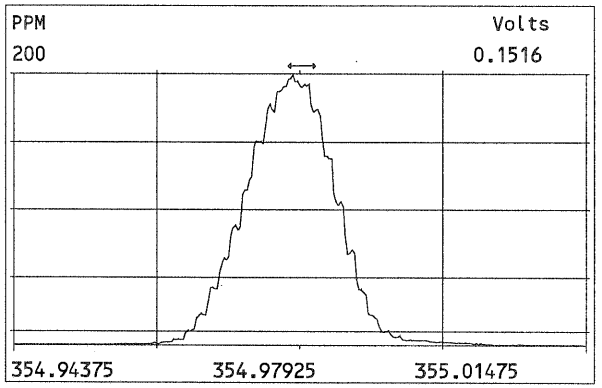


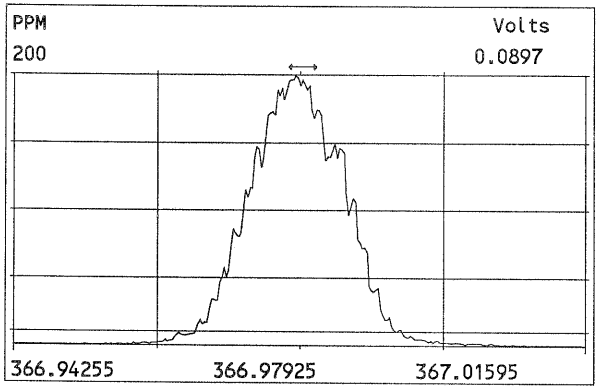


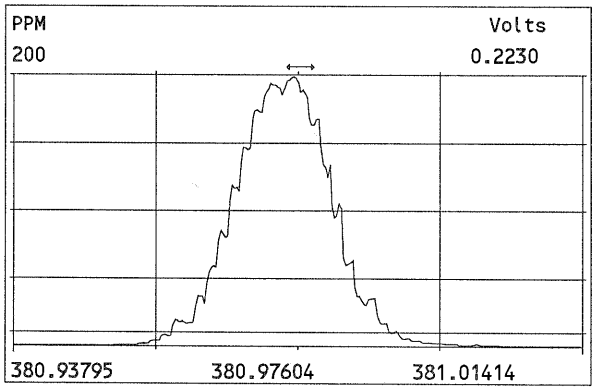
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:2 Reference:PFK

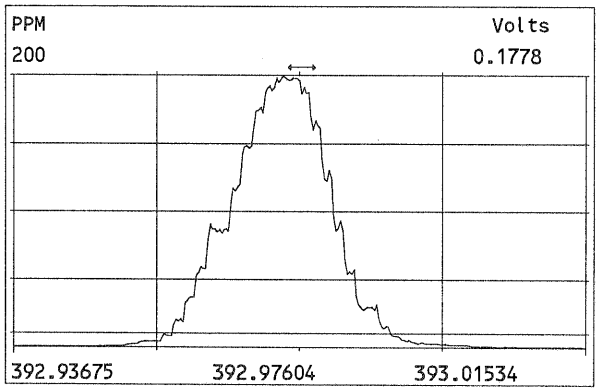


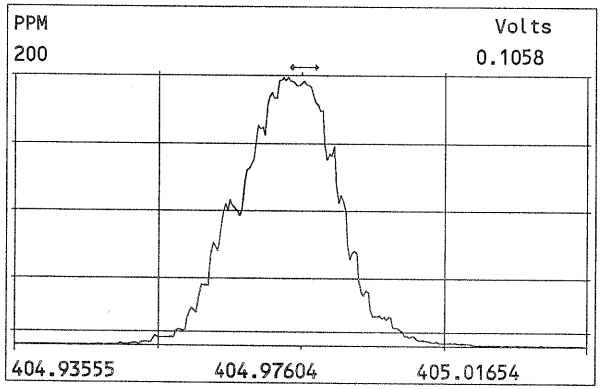


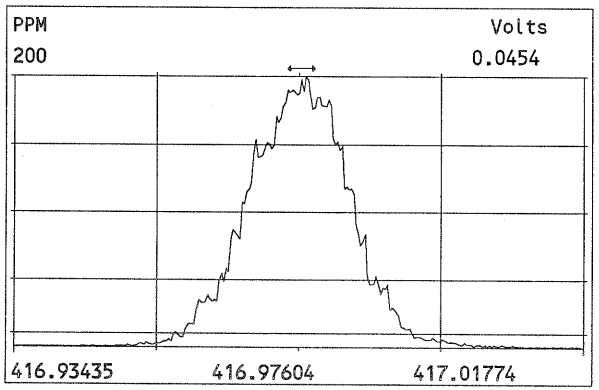




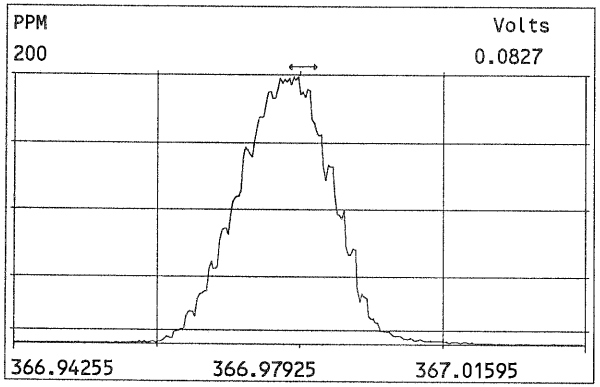


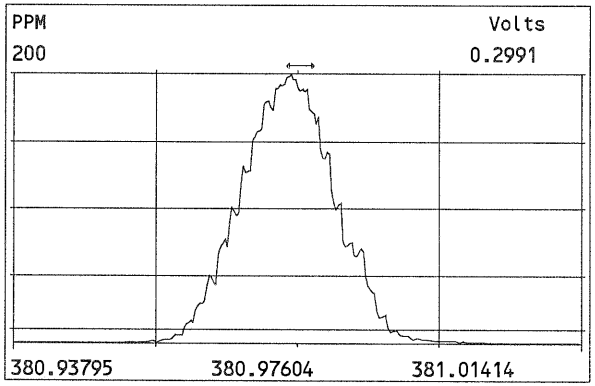


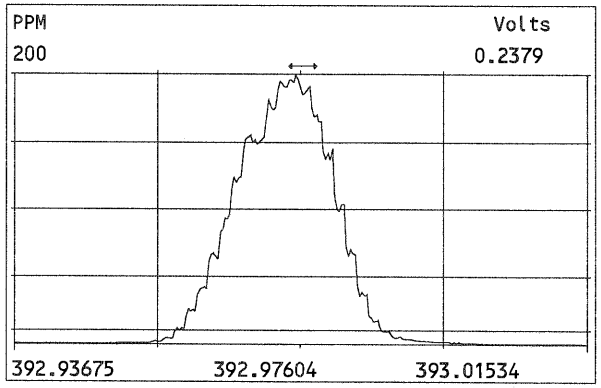


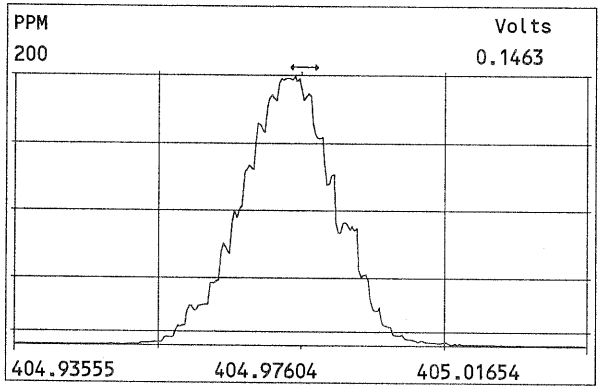


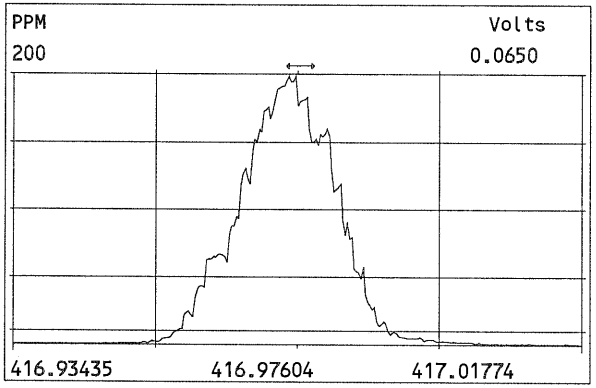
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:3 Reference:PFK

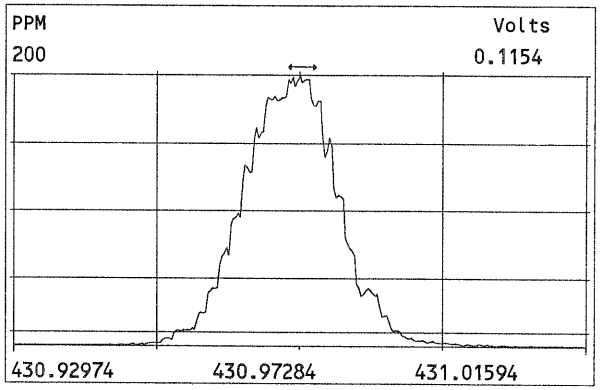


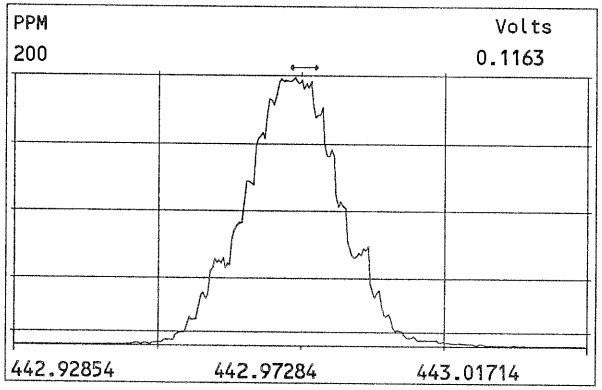


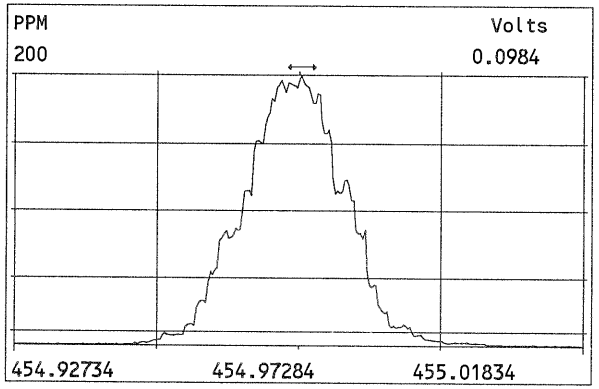




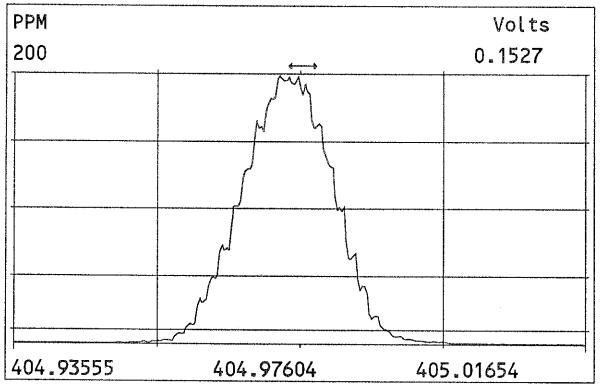


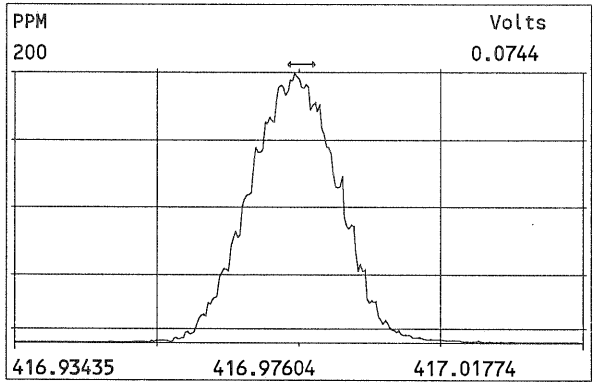


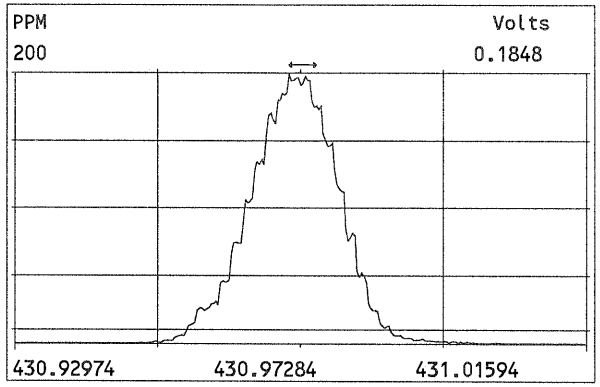


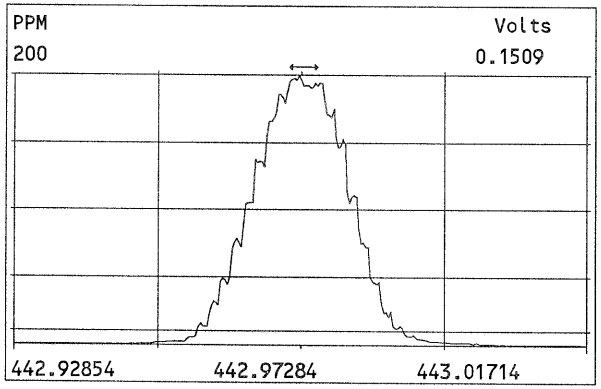


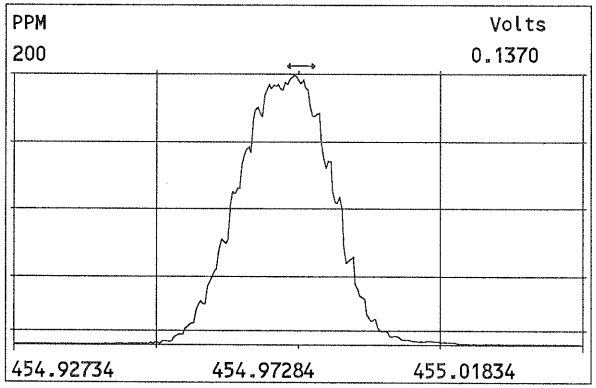
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:4 Reference:PFK

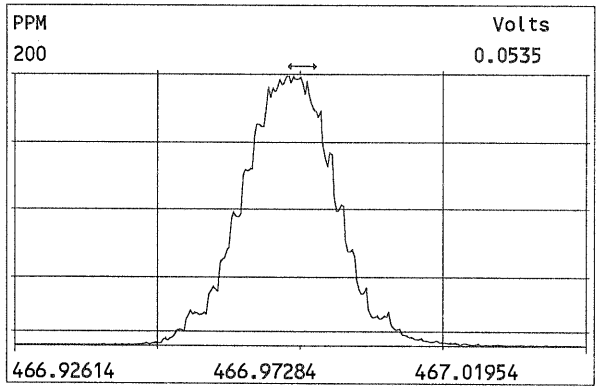


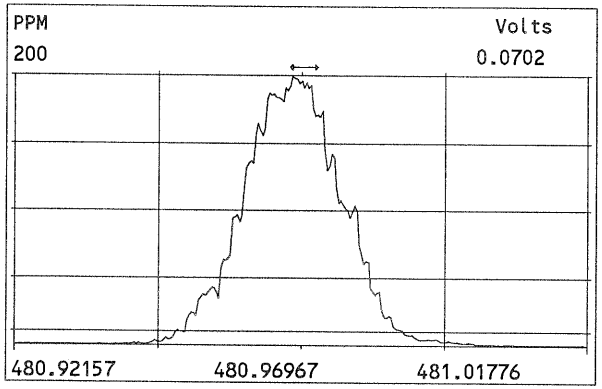






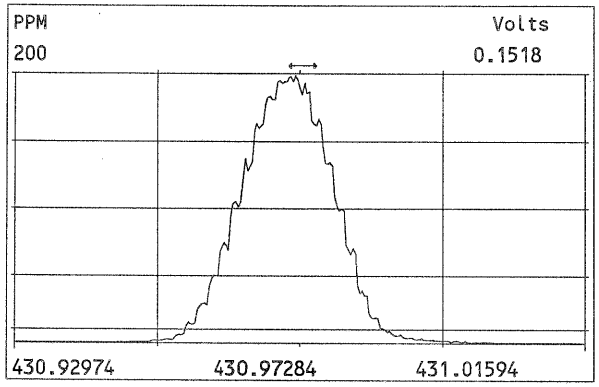


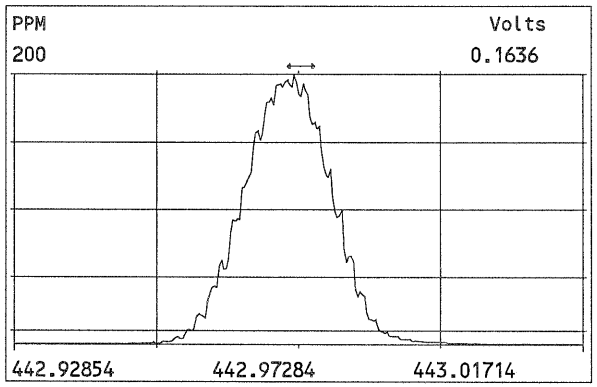


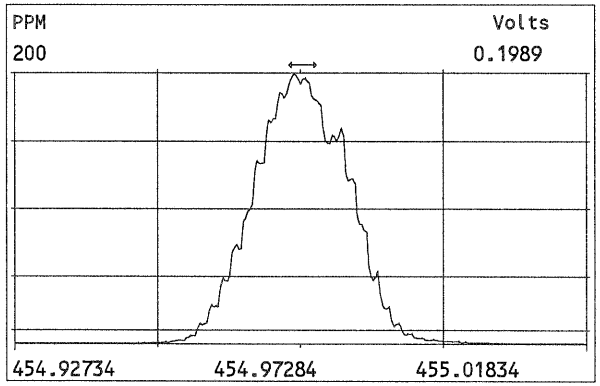


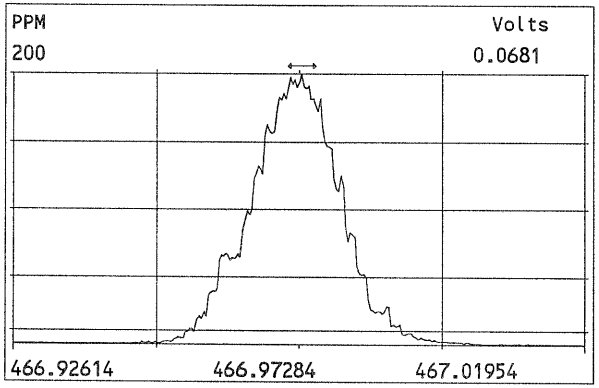
Peak Locate Examination:17-AUG-2010:07:54 File:17AUG10M

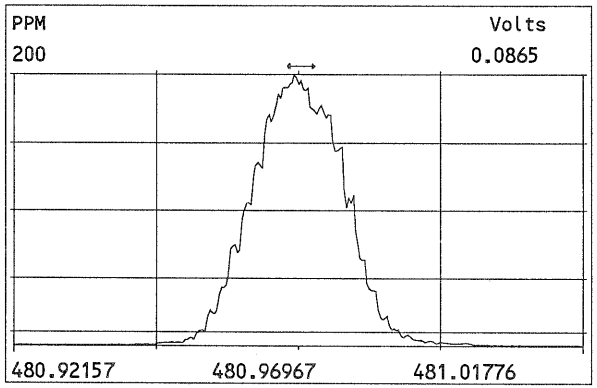
Experiment:PCDD Function:5 Reference:PFK

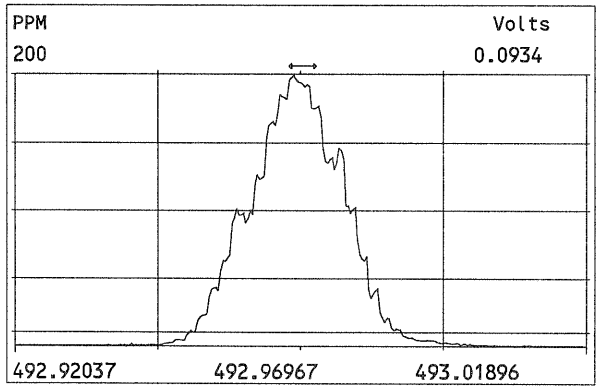


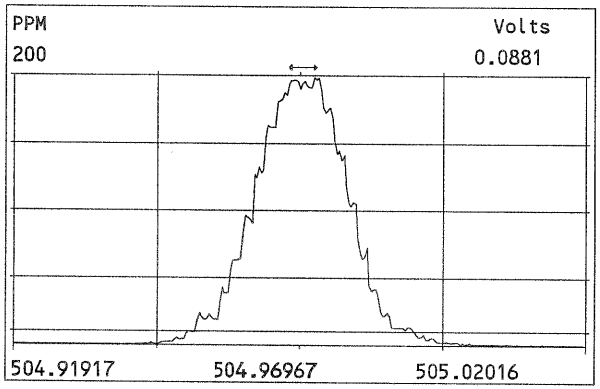


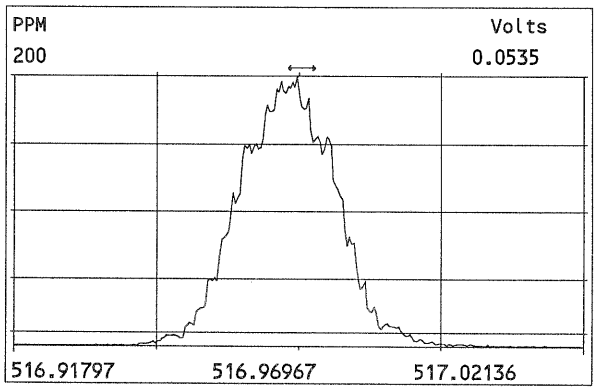




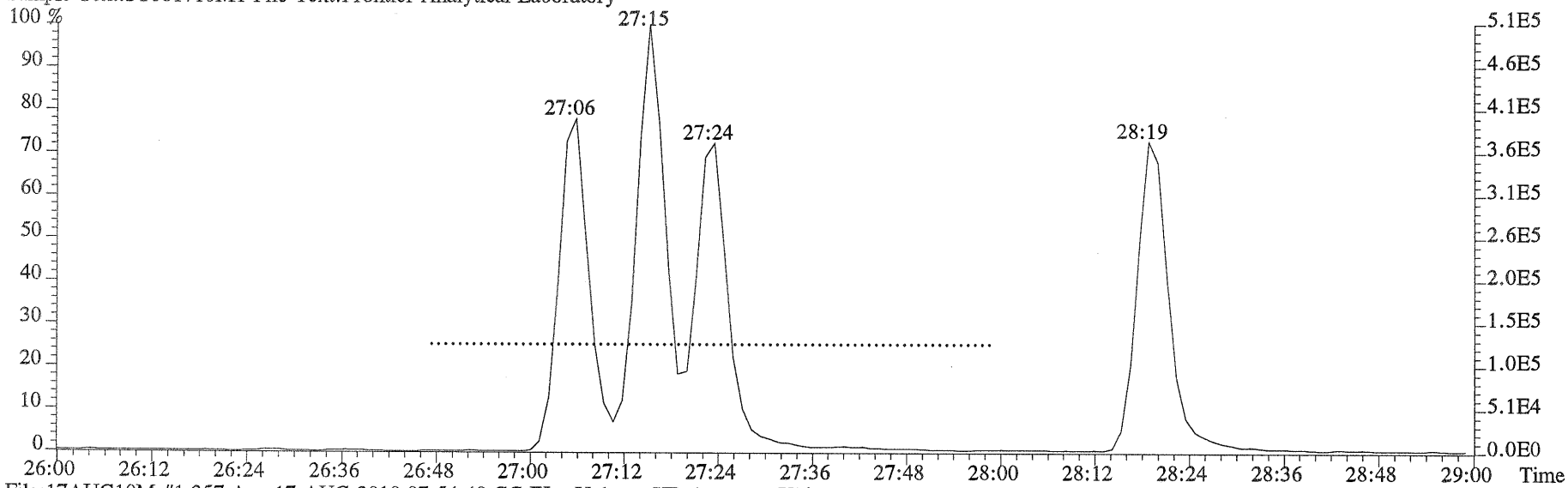




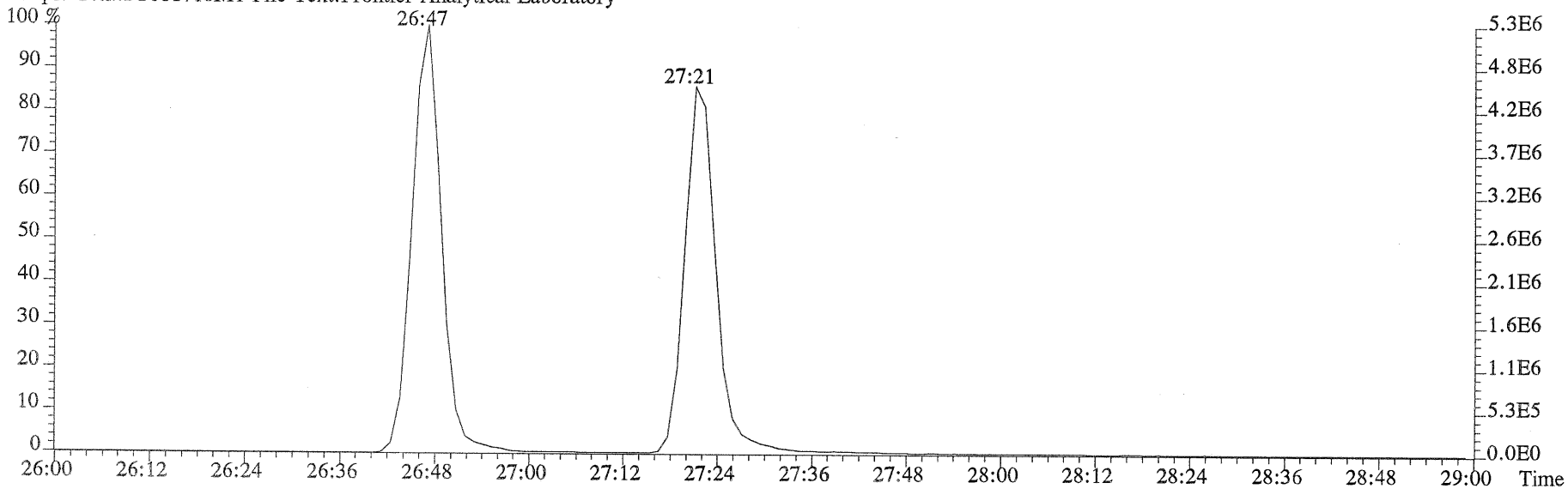




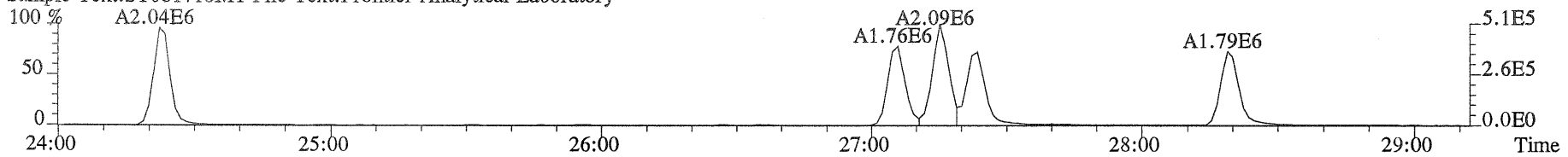
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
319.8965 Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



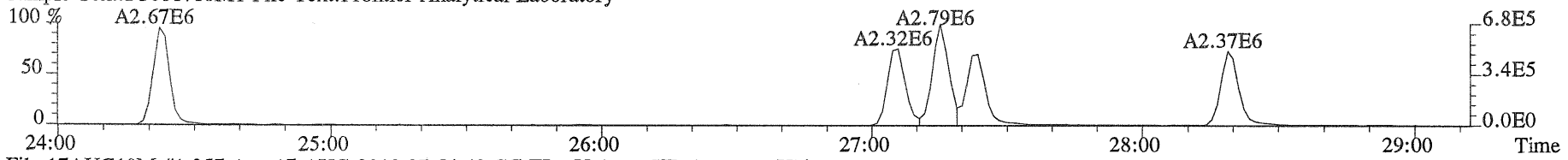
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
333.9339 Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



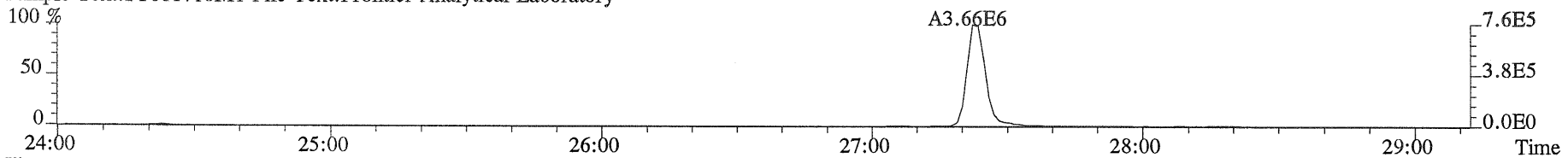
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



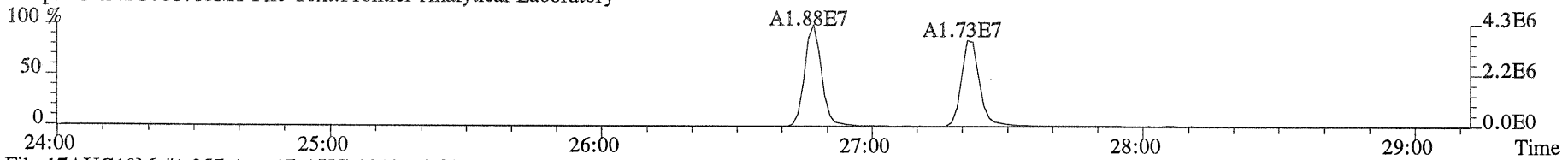
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



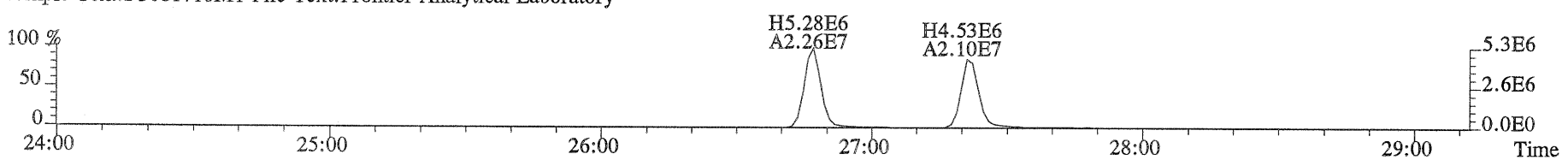
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



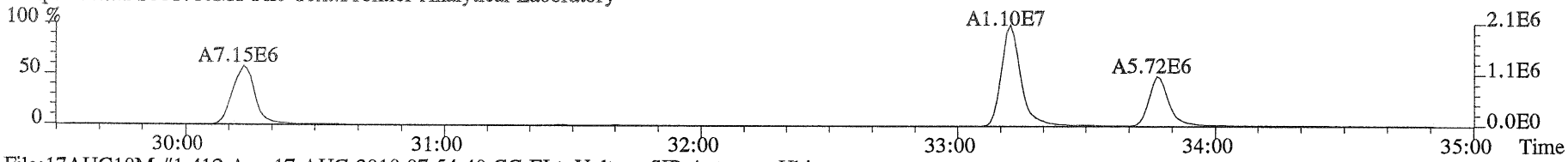
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



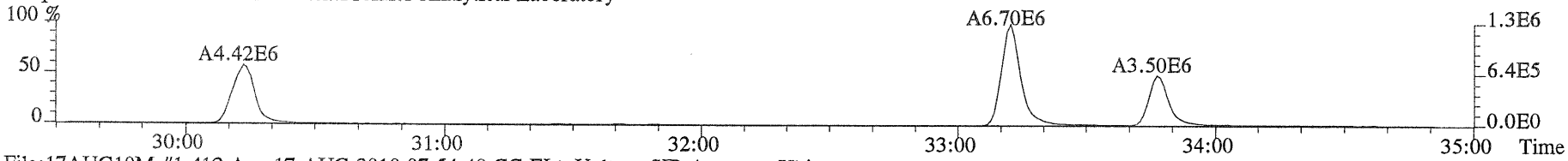
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



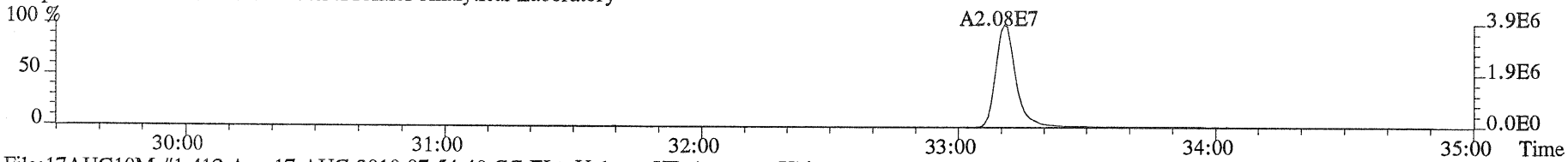
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



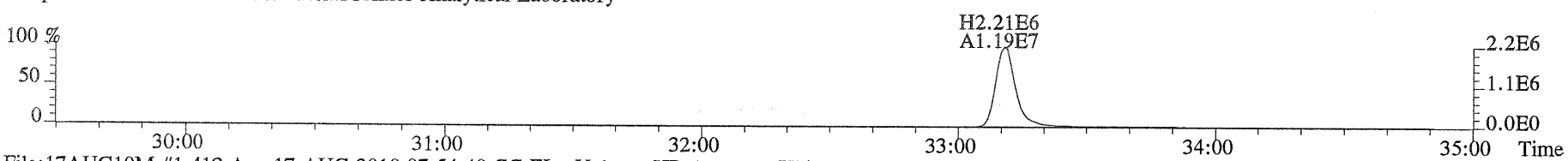
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
357.8517 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



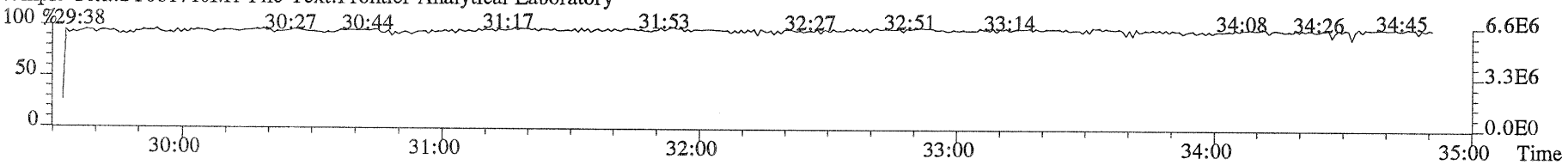
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
367.8949 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



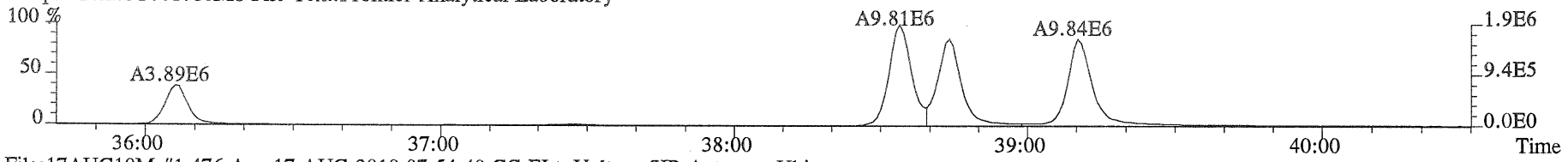
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
369.8919 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



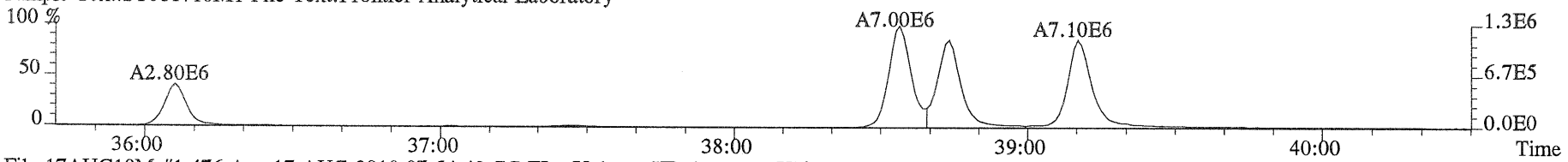
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
366.9792 F:2 Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



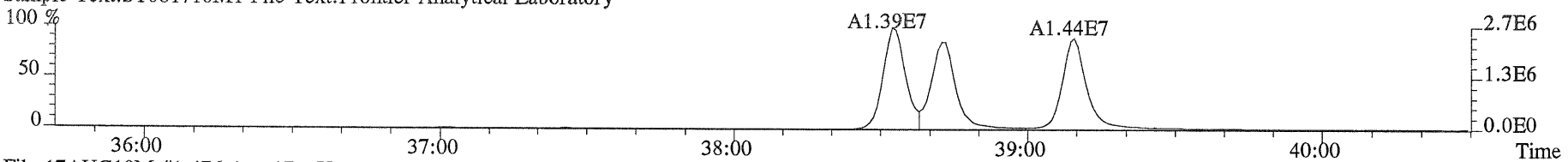
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



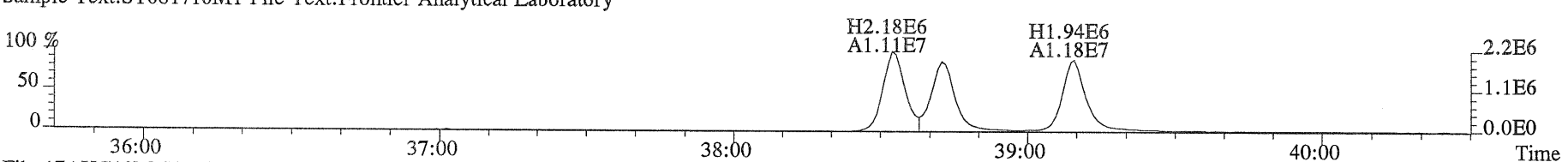
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



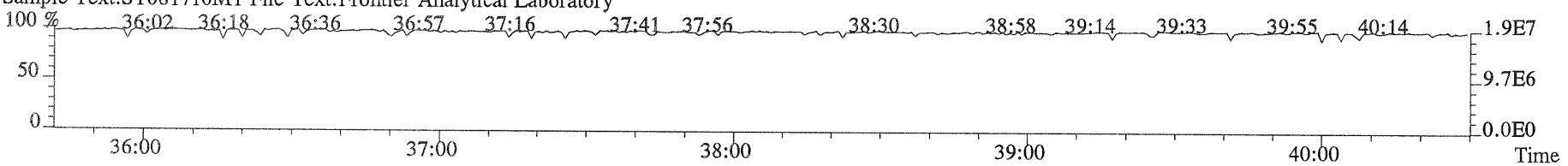
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



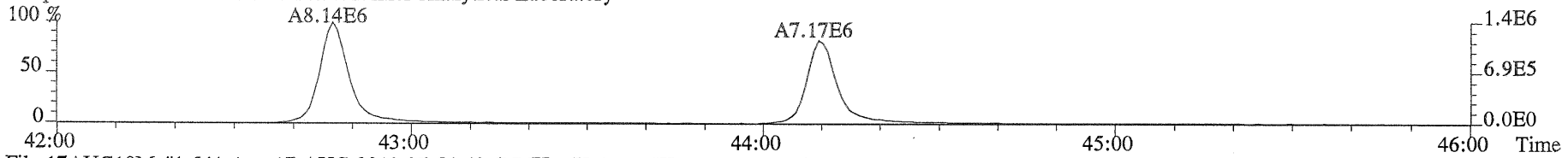
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



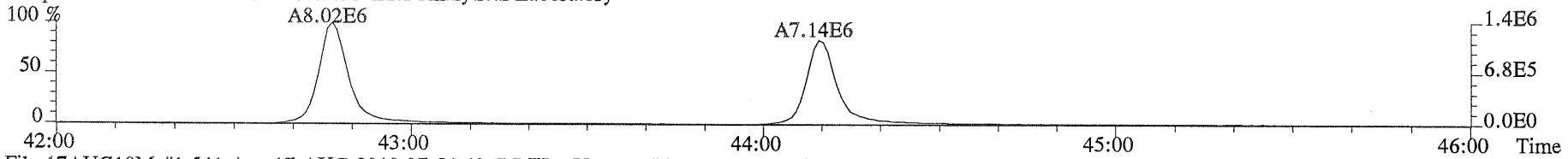
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
380.9760 F:3 Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



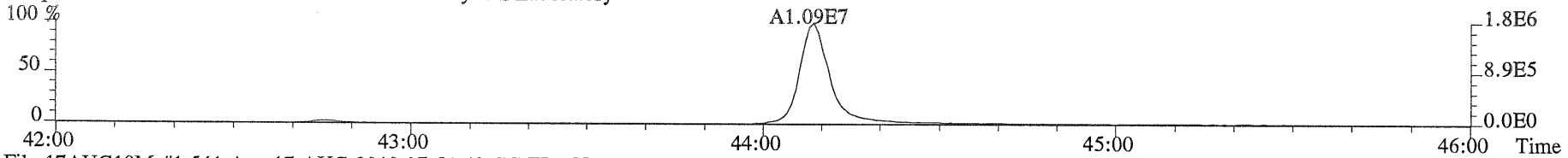
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



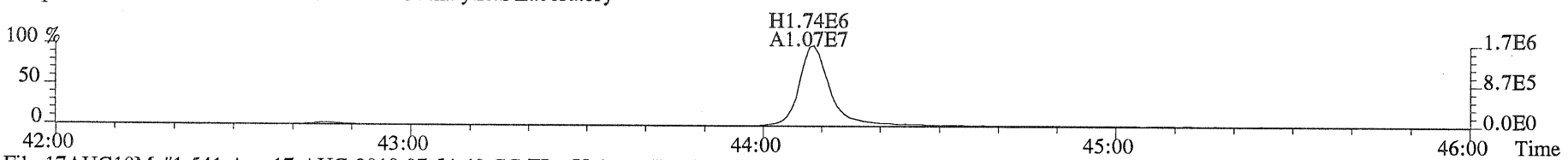
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



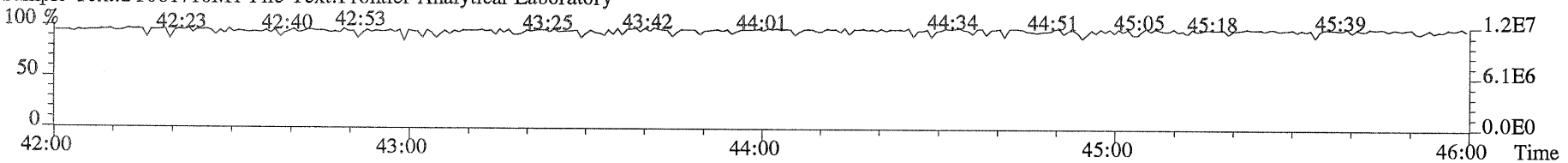
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



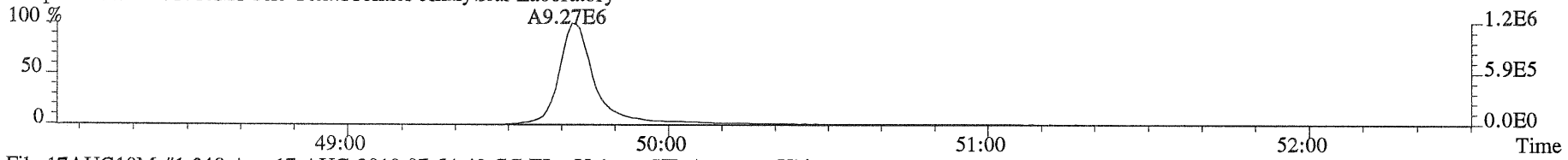
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



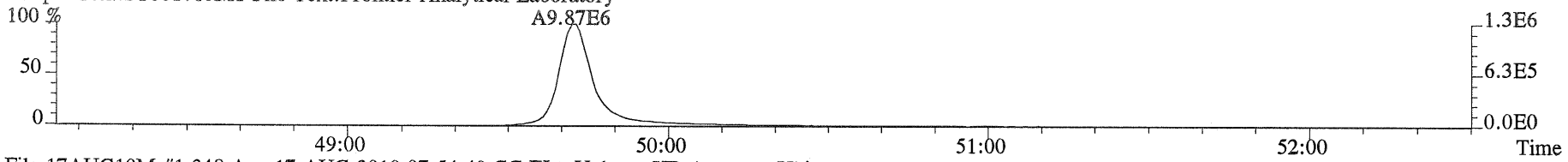
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
430.9728 F:4 Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



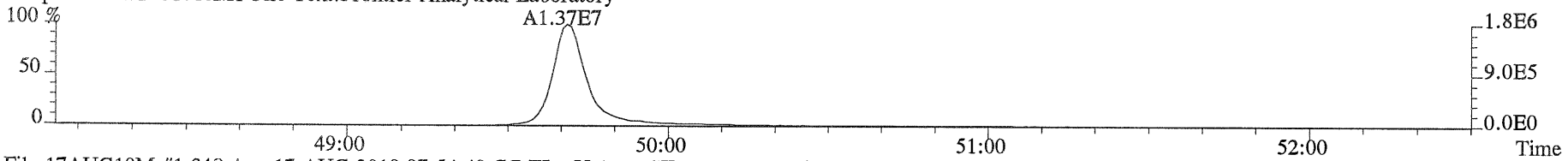
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



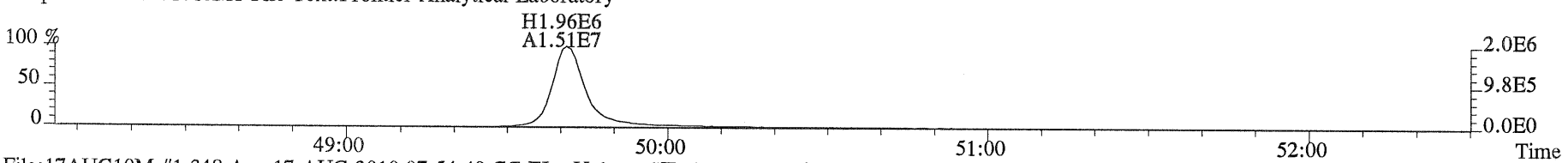
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



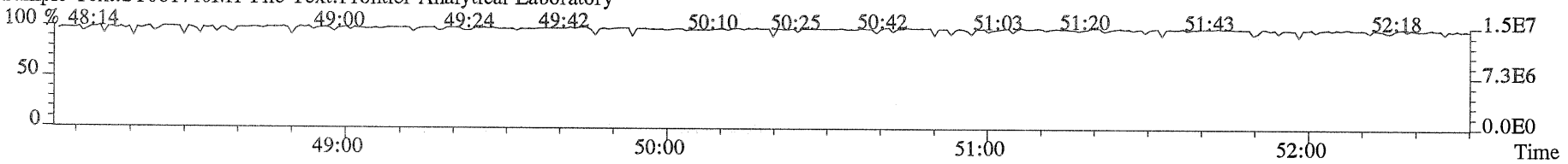
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



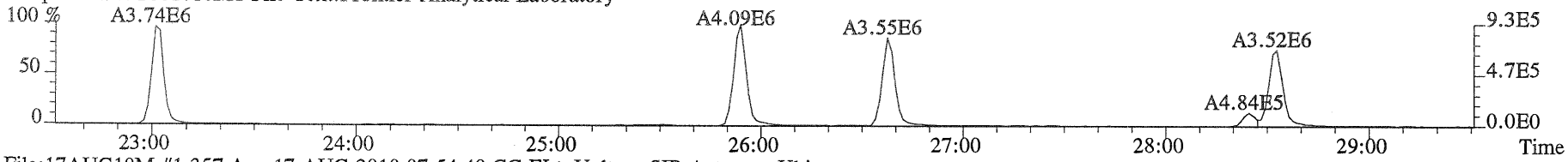
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



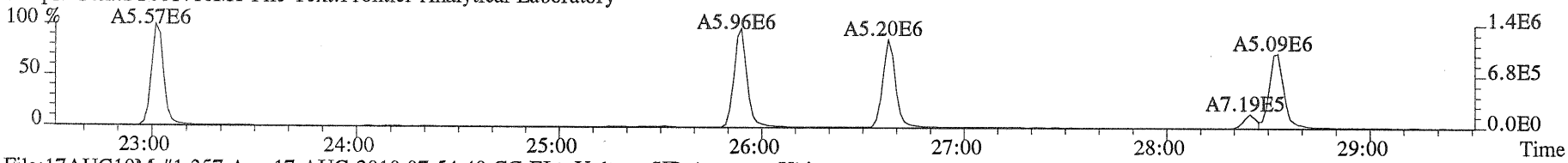
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
454.9728 F:5 Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



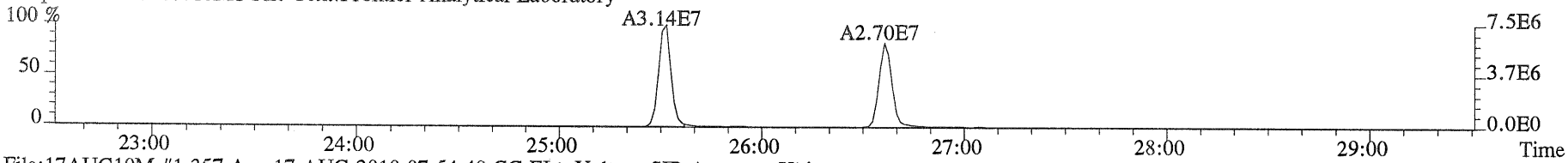
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



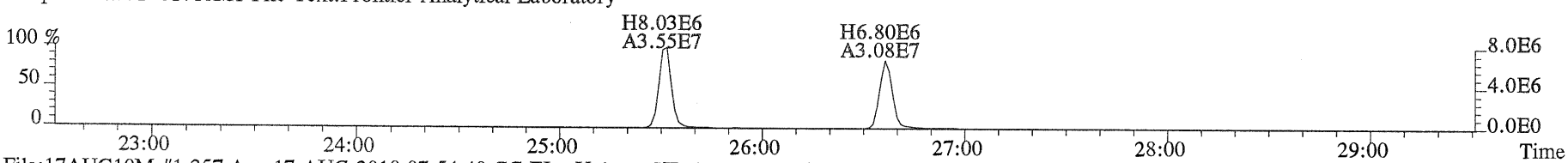
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



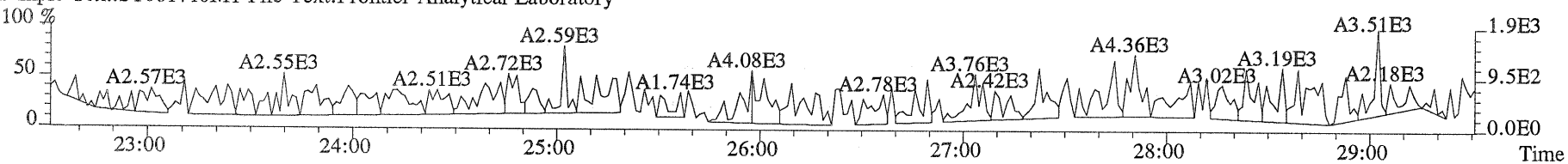
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



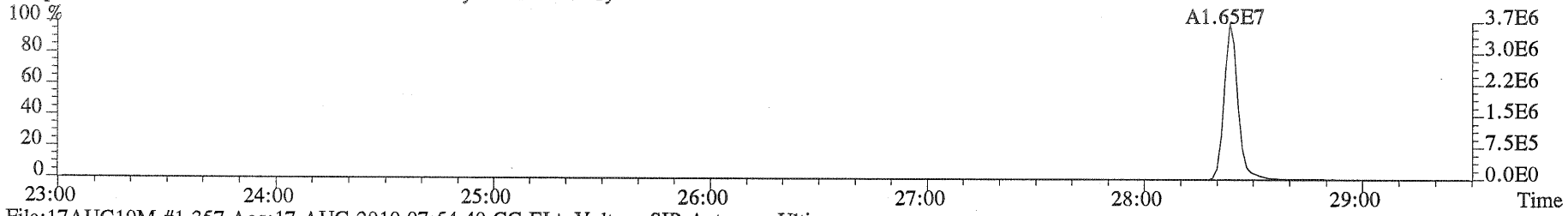
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



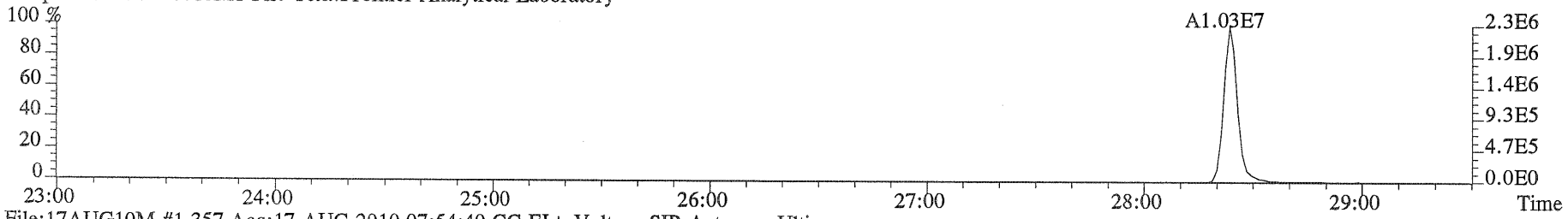
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



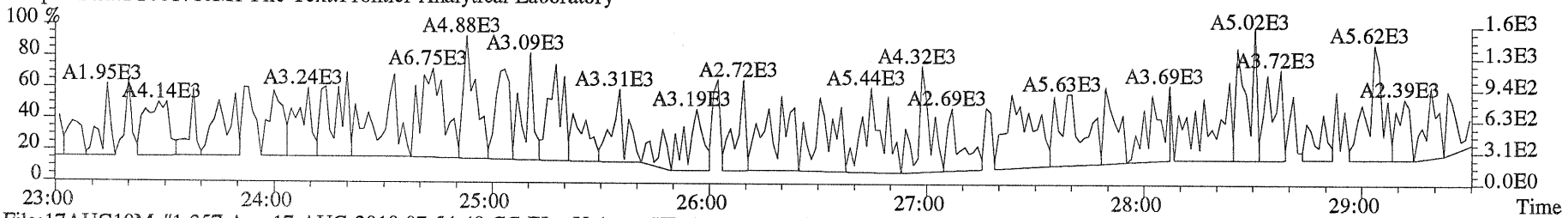
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



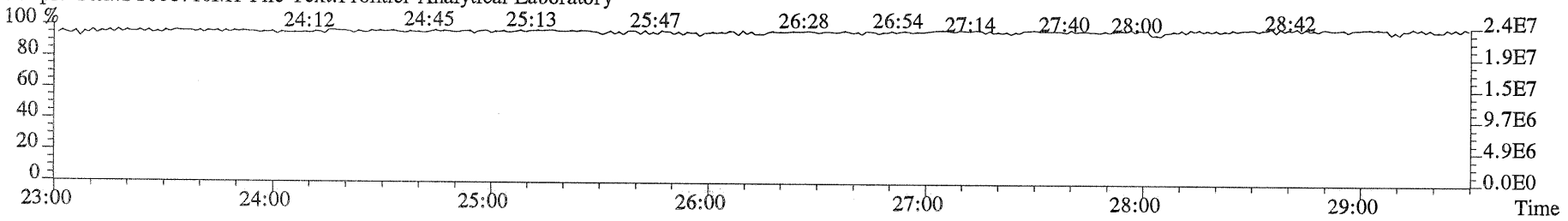
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



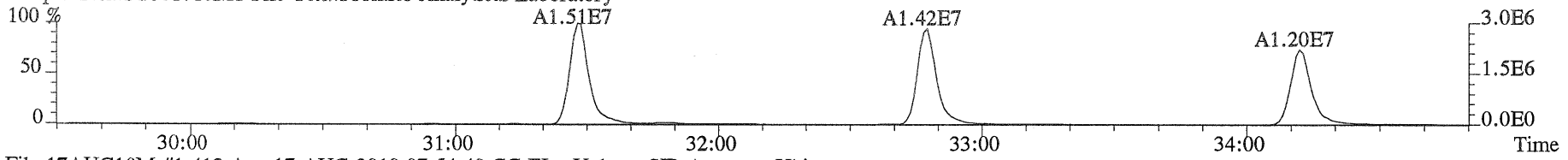
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



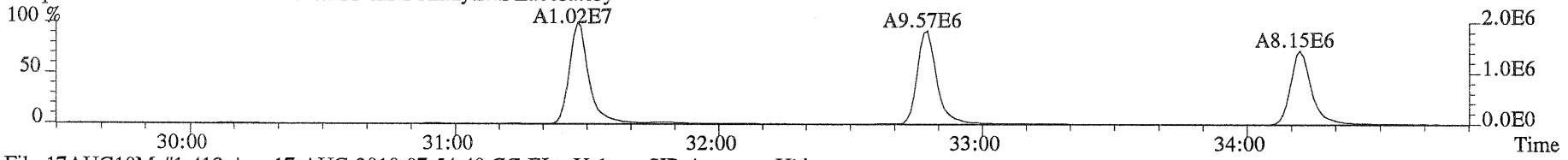
File:17AUG10M #1-357 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
330.9792 Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



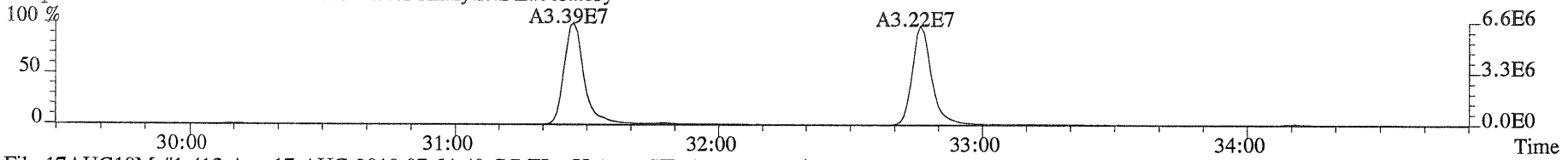
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



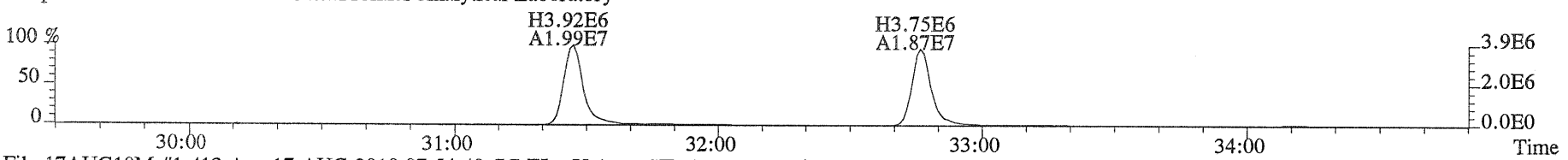
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



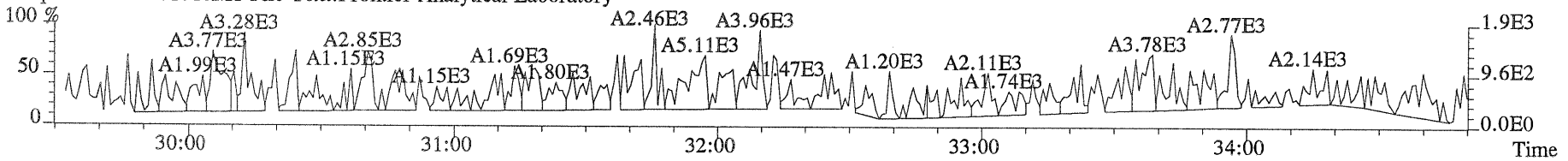
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



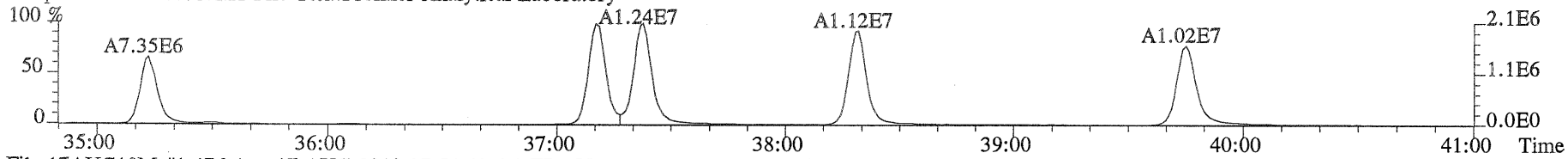
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
353.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



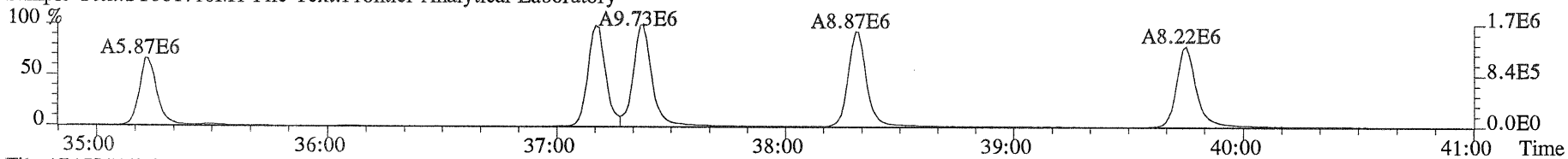
File:17AUG10M #1-412 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



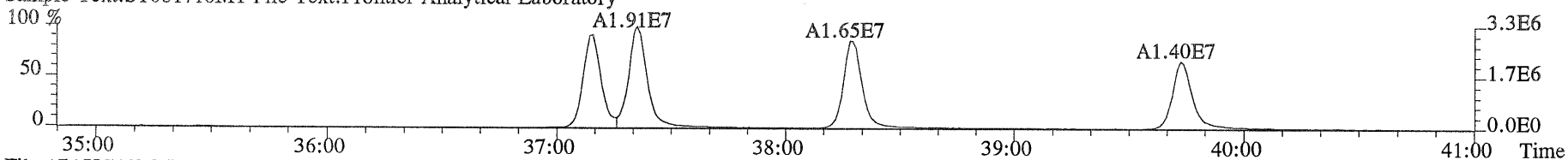
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



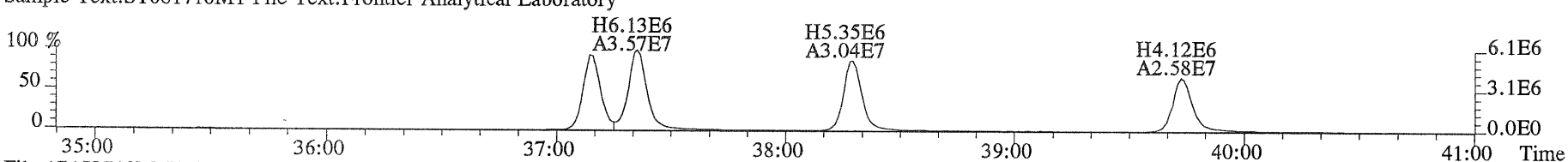
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



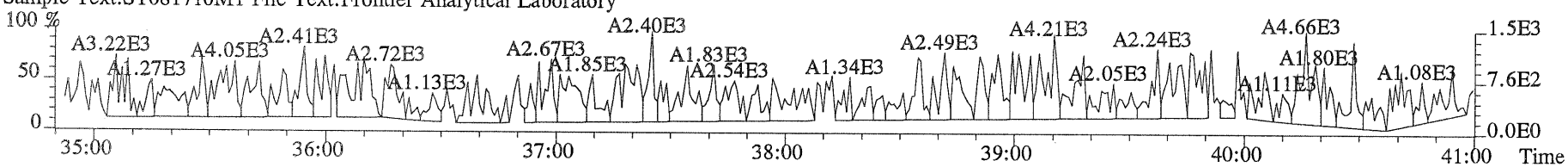
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



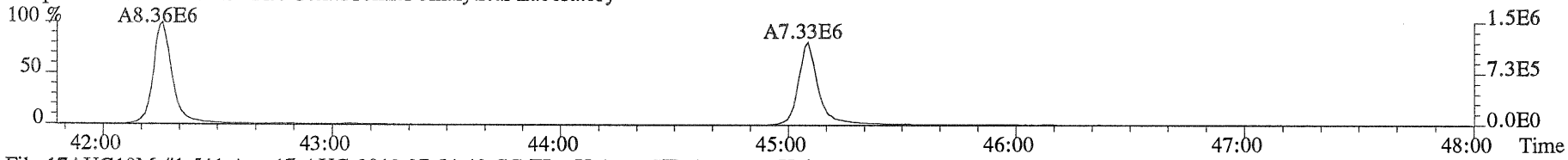
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



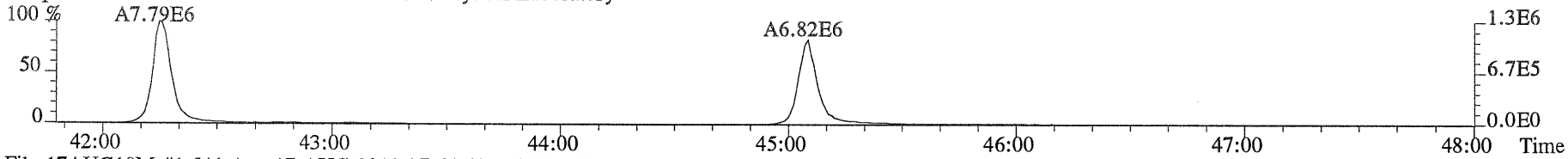
File:17AUG10M #1-476 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



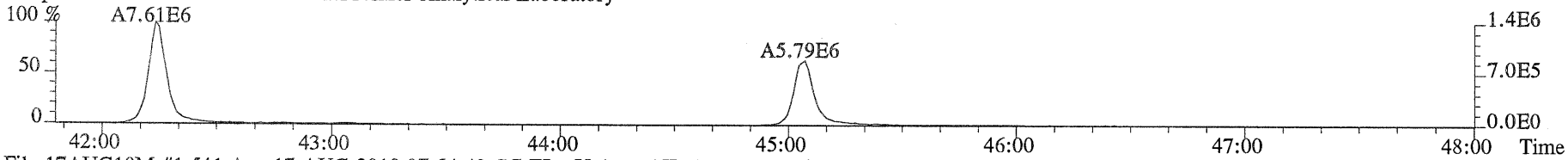
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



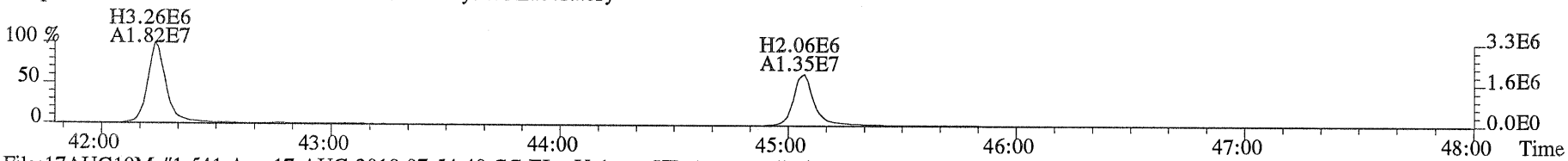
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



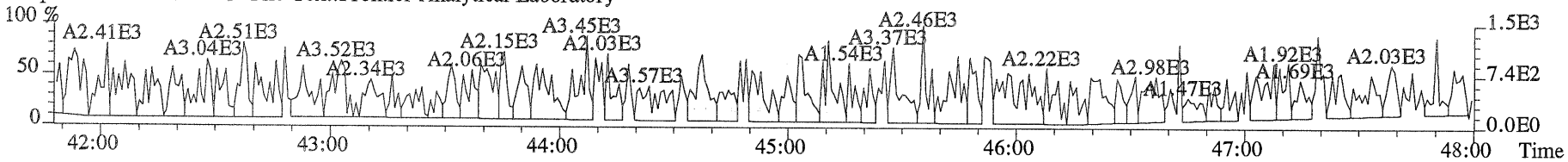
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



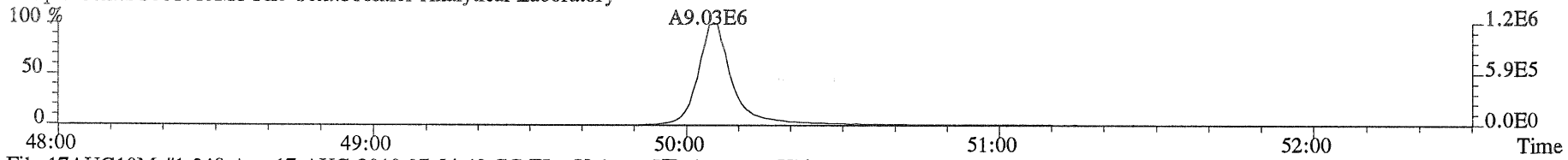
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



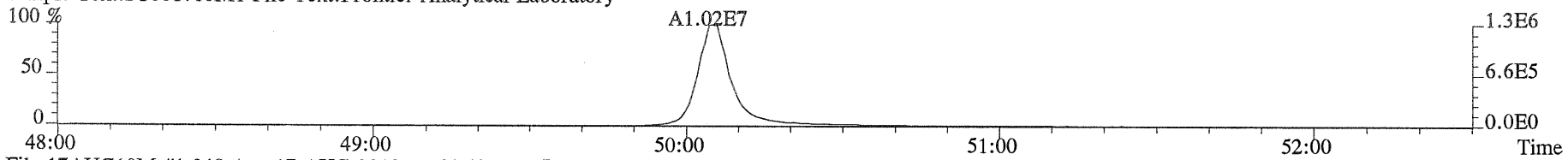
File:17AUG10M #1-541 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



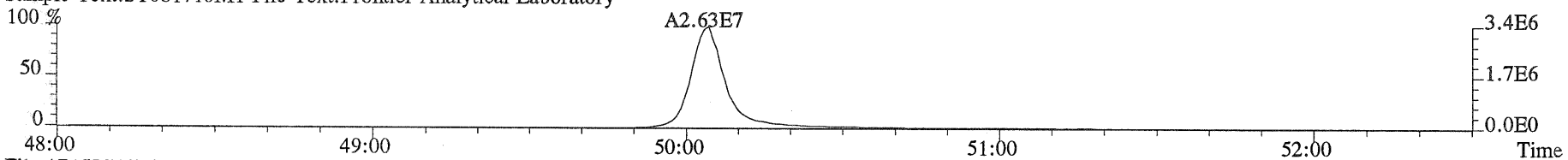
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



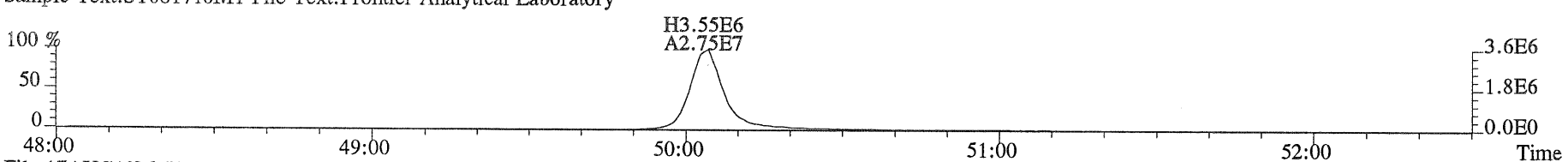
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



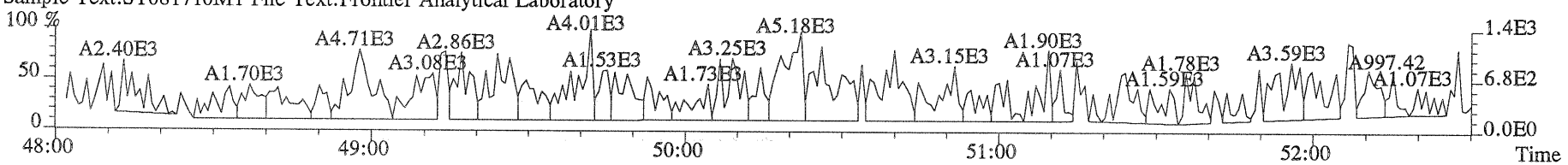
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory



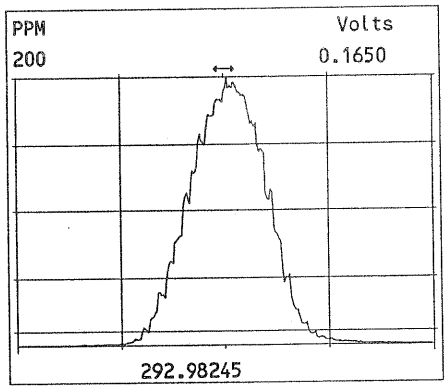
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory

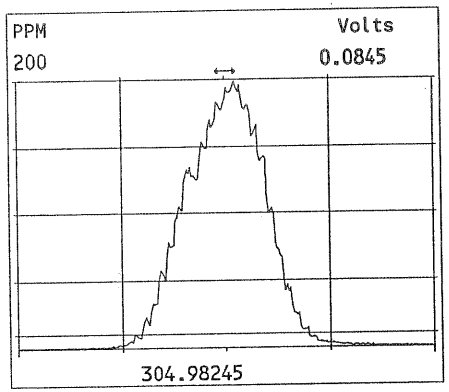


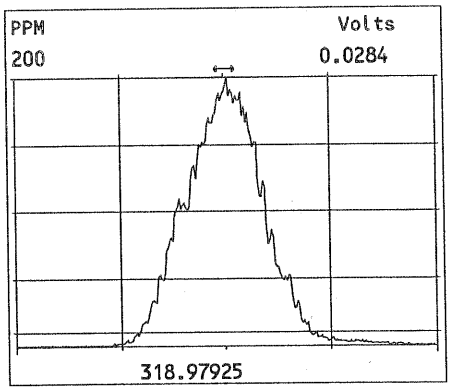
File:17AUG10M #1-348 Acq:17-AUG-2010 07:54:40 GC EI+ Voltage SIR Autospec-Ultima
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M1 File Text:Frontier Analytical Laboratory

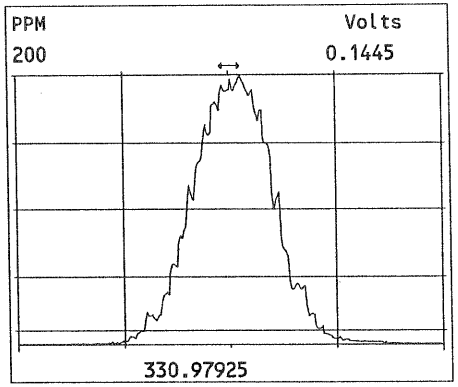


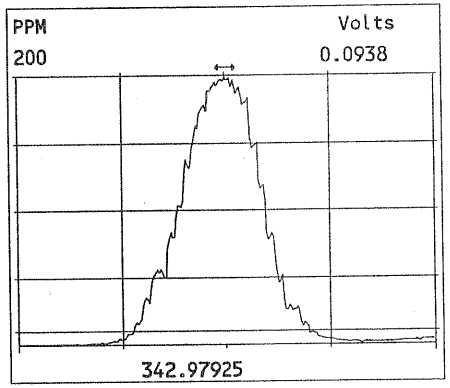
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:1 Reference:PFK

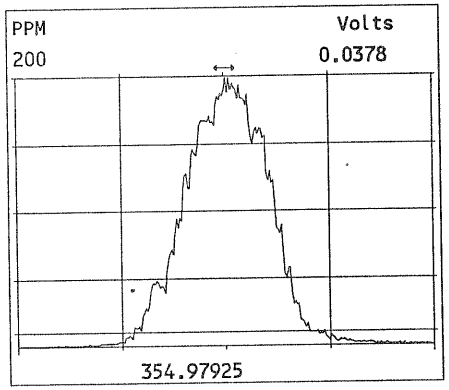


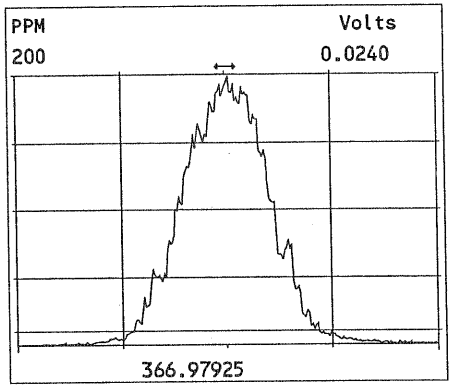


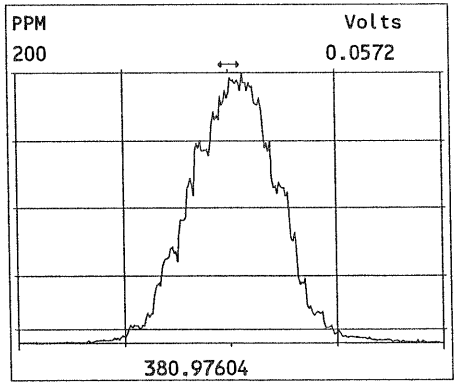


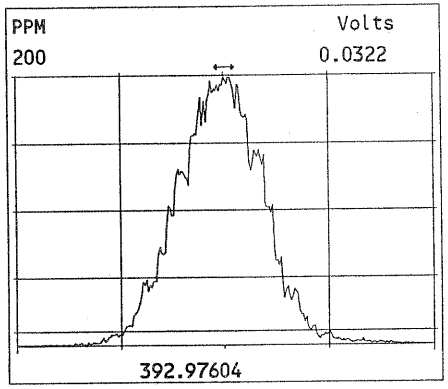


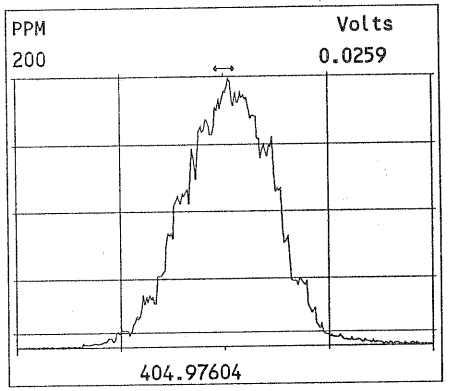


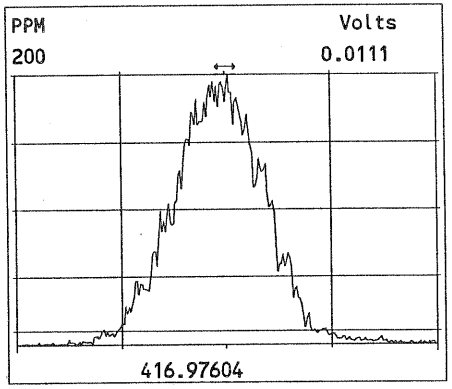




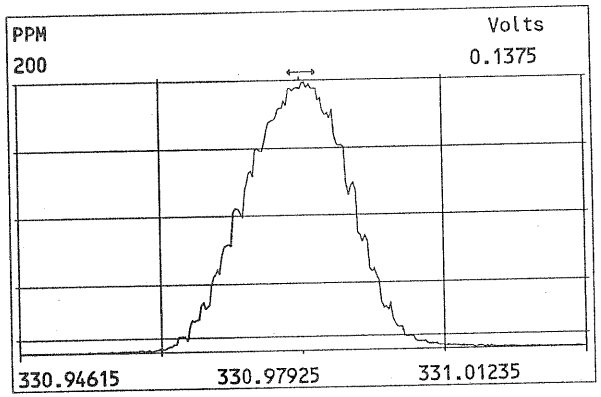


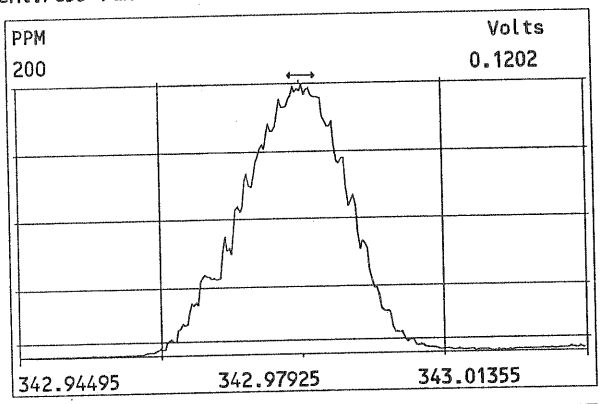


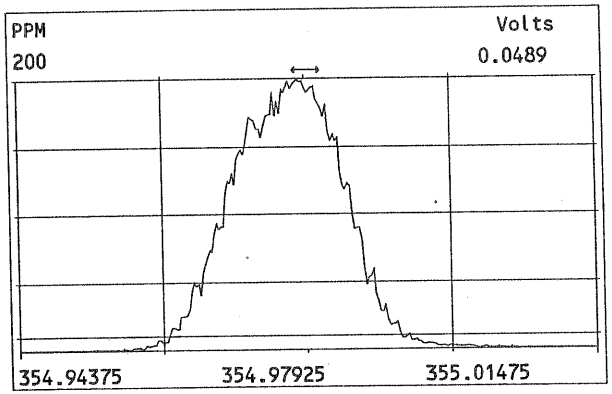


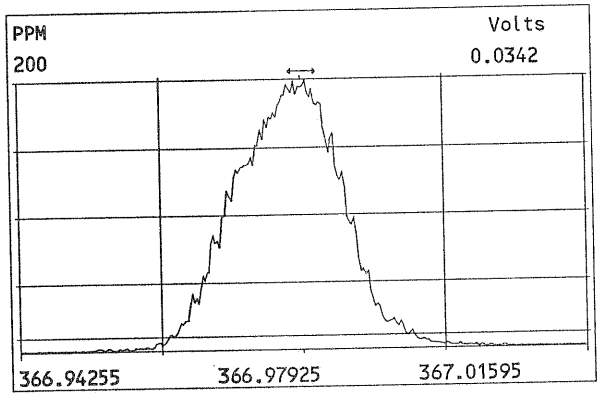


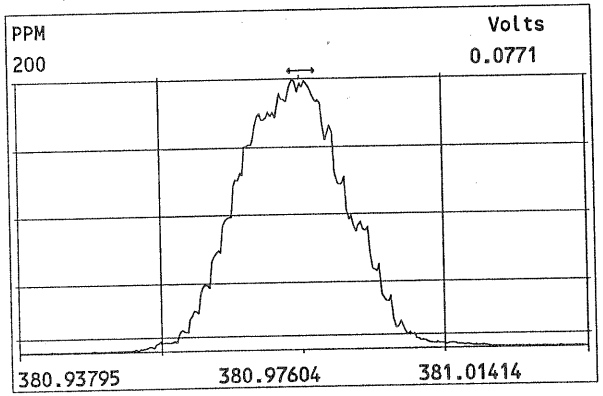
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:2 Reference:PFK

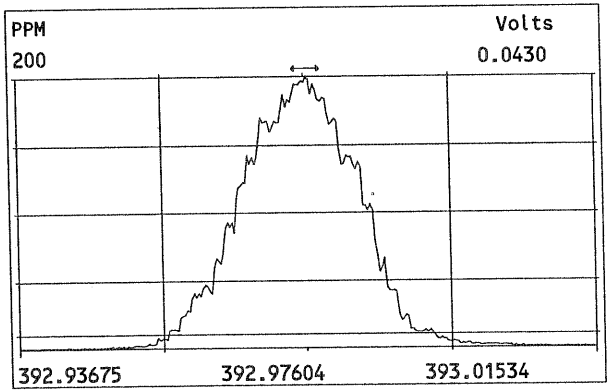


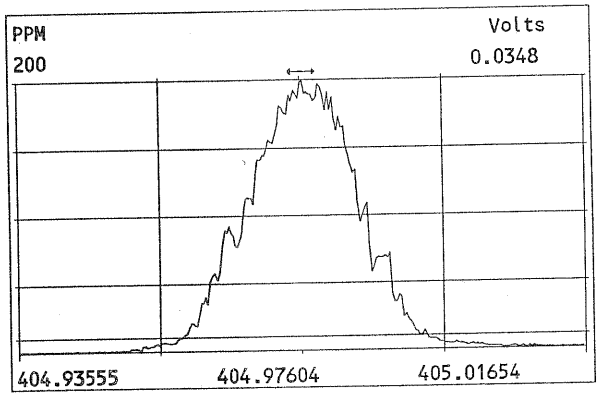


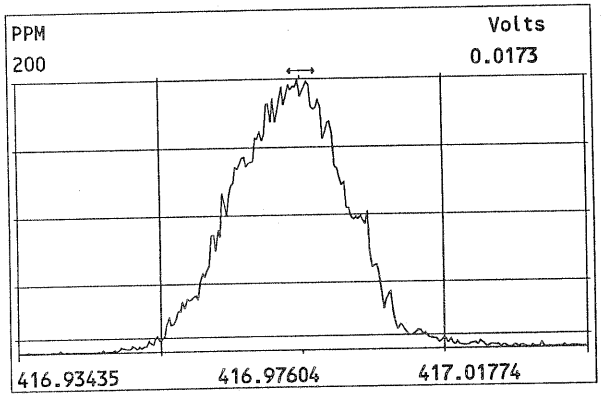




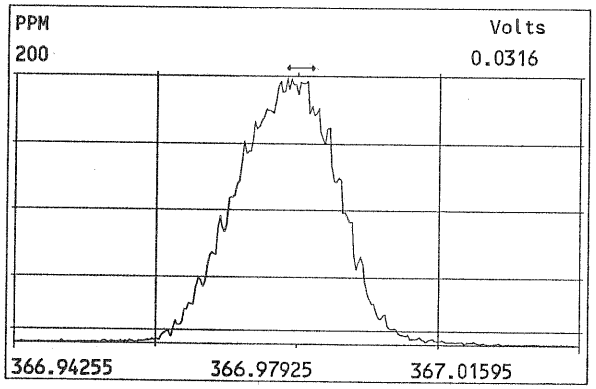


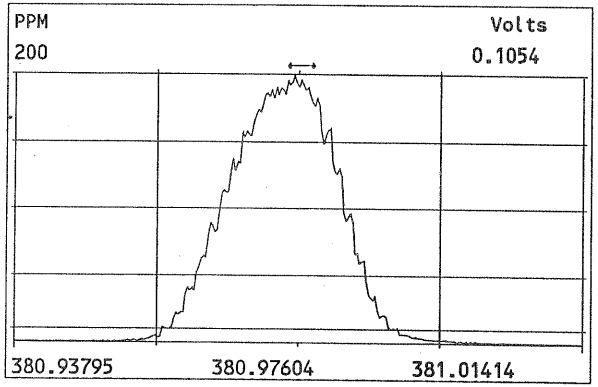


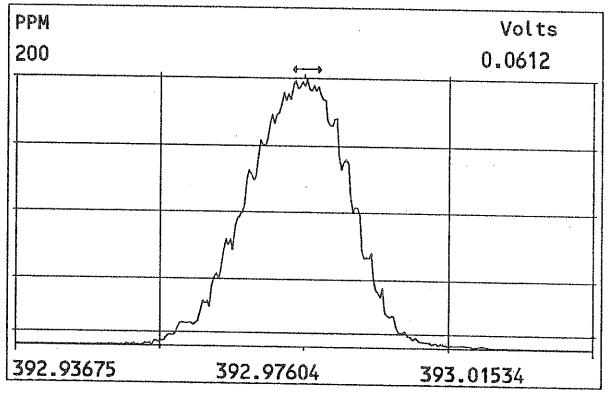


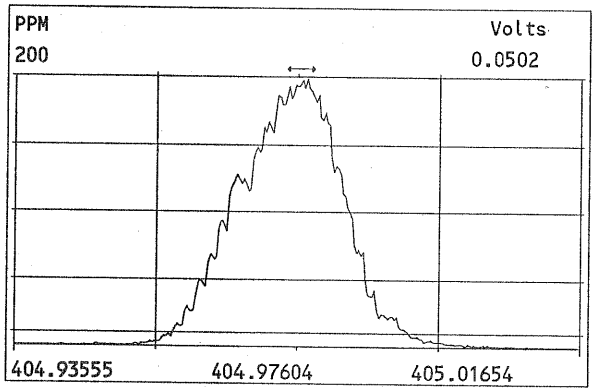


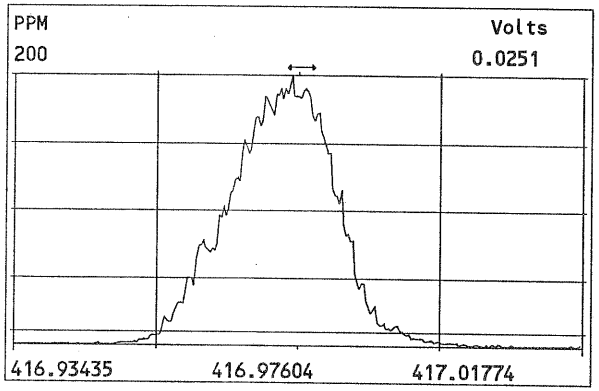
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:3 Reference:PFK

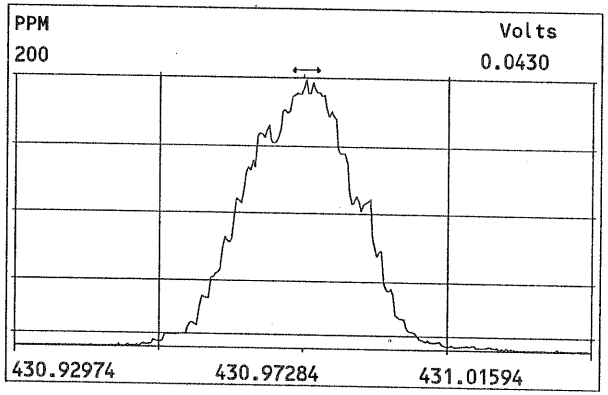


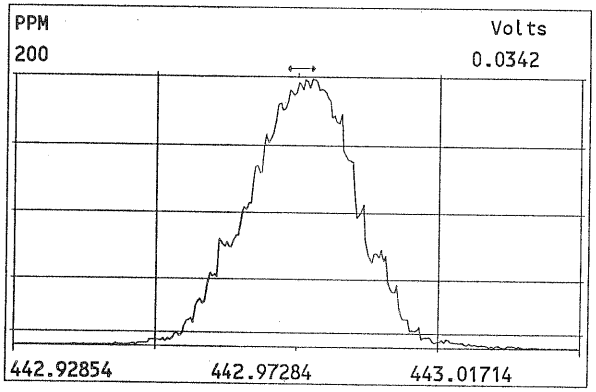


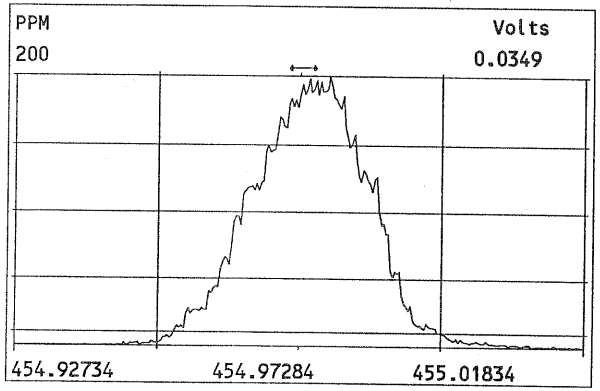




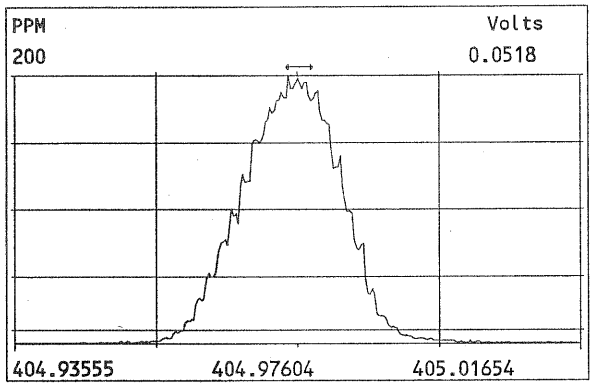


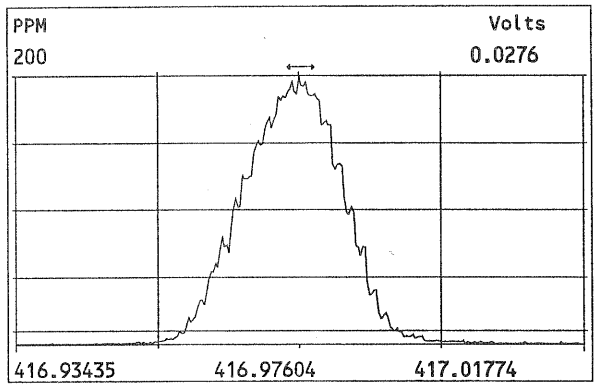


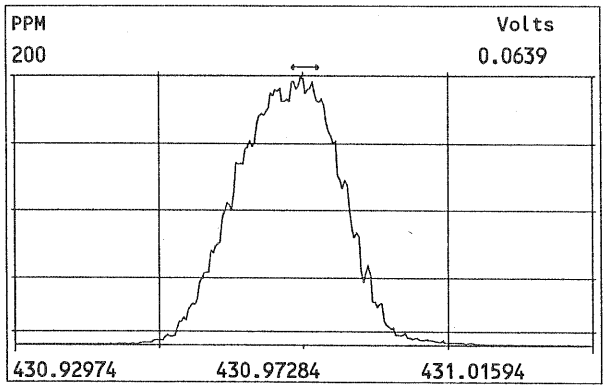


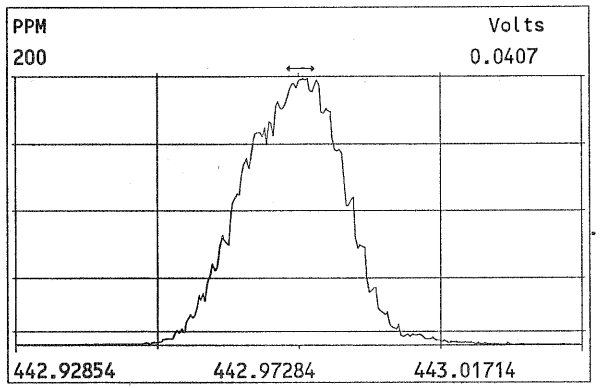


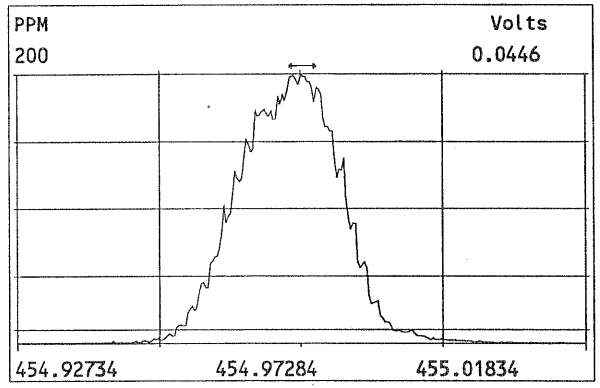
Peak Locate Examination:18-AUG-2010:12:33 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:4 Reference:PFK

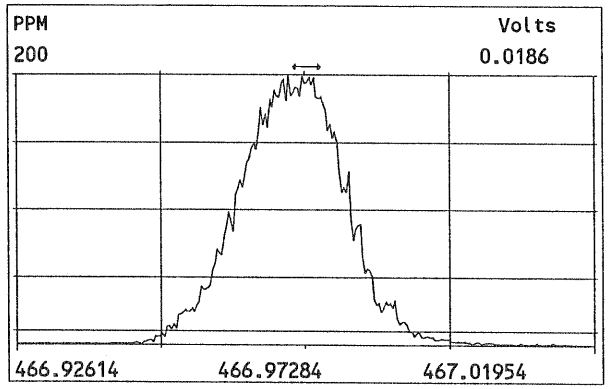


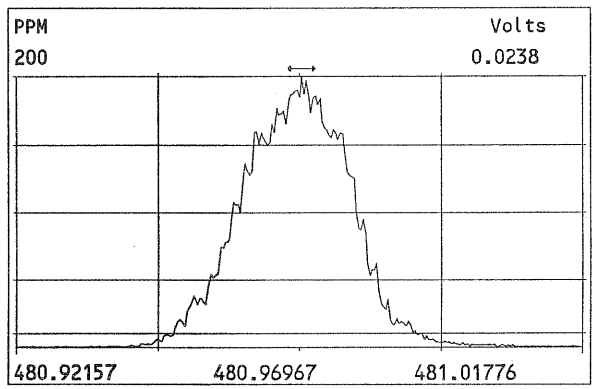




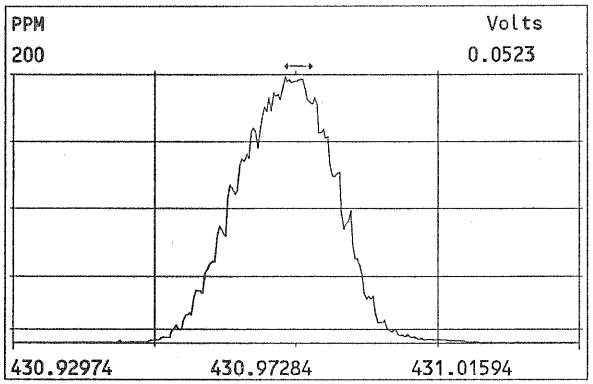


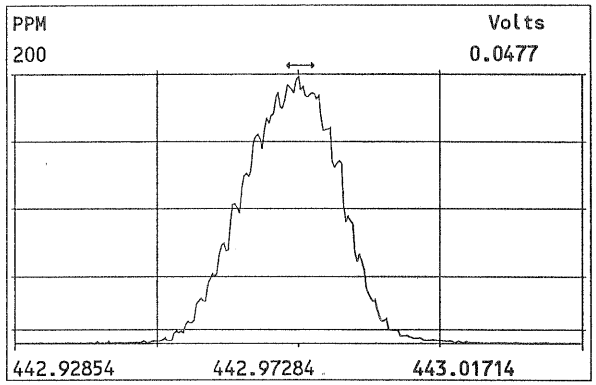


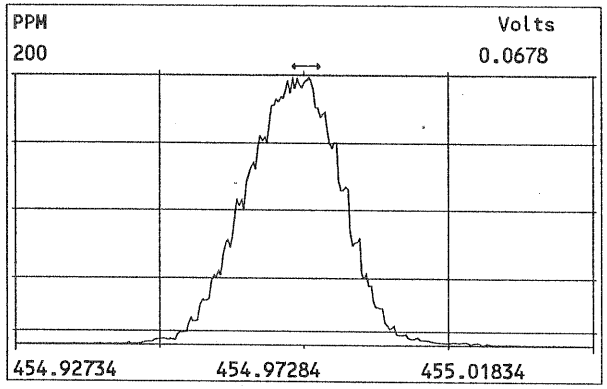


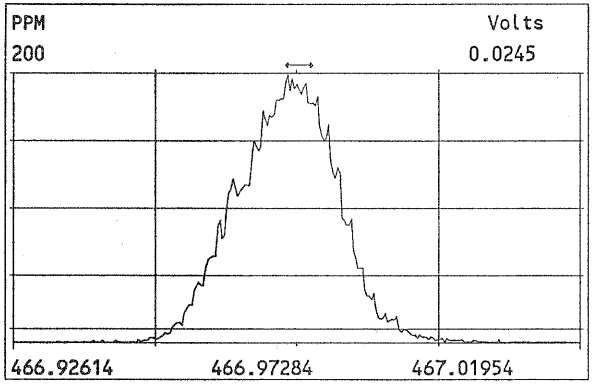


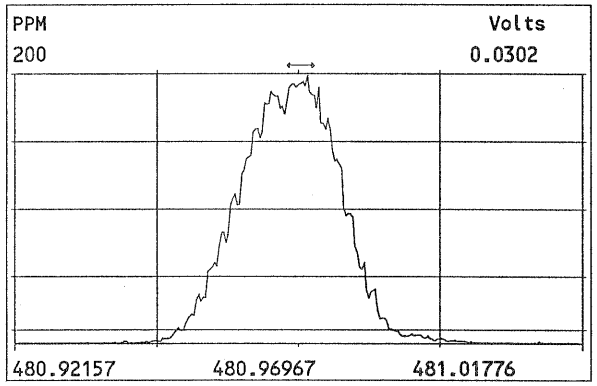
Peak Locate Examination:18-AUG-2010:12:33 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:5 Reference:PFK

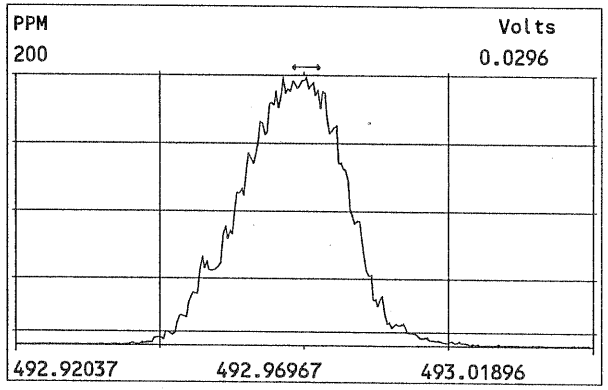


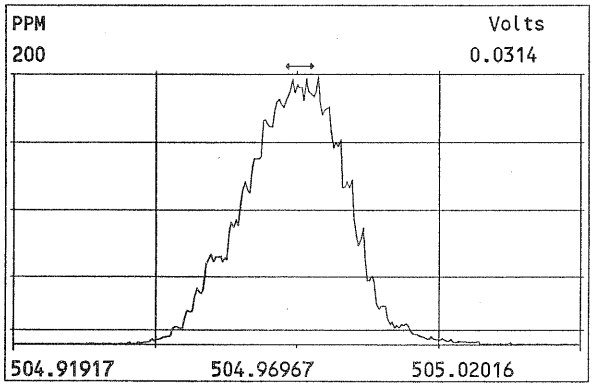


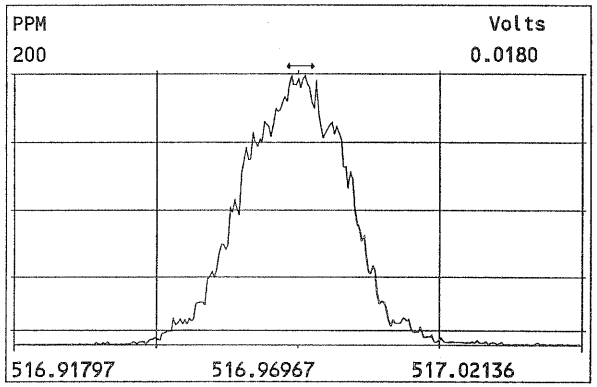












USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 17AUG10M Sam:16 Analysis Date: 17-AUG-10 21:45:19

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	0.74	0.65-0.89	y	10.8	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.63	1.32-1.78	y	51.1	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.41	1.05-1.43	y	50.8	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.41	1.05-1.43	y	49.3	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.42	1.05-1.43	y	51.3	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	47.2	43.0 - 58.0
OCDD	M+2/M+4	1.00	0.76-1.02	y	106	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.68	0.65-0.89	y	9.49	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.49	1.32-1.78	y	50.8	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.48	1.32-1.78	y	47.8	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	y	45.9	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.29	1.05-1.43	y	47.7	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.30	1.05-1.43	y	47.0	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	y	47.4	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.09	0.88-1.20	y	46.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.07	0.88-1.20	y	45.1	43.0 - 58.0
OCDF	M+2/M+4	0.88	0.76-1.02	y	96.2	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: 8/18/10

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 17AUG10M Sam:16 Analysis Date: 17-AUG-10 21:45:19

	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	0.85	0.65-0.89	y	97.5	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.73	1.32-1.78	y	98.5	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	103	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	99.0	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.00	0.88-1.20	y	84.9	72.0 - 138
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	159	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.86	0.65-0.89	y	96.2	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.71	1.32-1.78	y	99.8	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.68	1.32-1.78	y	102	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	104	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	101	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	102	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.55	0.43-0.59	y	101	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	y	87.1	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.43	0.37-0.51	y	85.4	77.0 - 129
13C-OCDF	M+2/M+4	0.95	0.76-1.02	y	164	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.50	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: 8/18/10

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: 5/12/10

RT Window Data Filename: 17AUG10M Sam:16 Analysis Date: 17-AUG-10 Time: 21:45:19

DB-5 IS Data Filename: 17AUG10M Sam:16 Analysis Date: 17-AUG-10 Time: 21:45:19

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)	24:23	1,3,6,8-TCDF (F)	23:02
1,2,8,9-TCDD (L)	28:20	1,2,8,9-TCDF (L)	28:32
1,2,4,7,9-PeCDD (F)	30:15	1,3,4,6,8-PeCDF (F)	28:24
1,2,3,8,9-PeCDD (L)	33:47	1,2,3,8,9-PeCDF (L)	34:12
1,2,4,6,7,9-HxCDD (F)	36:06	1,2,3,4,6,8-HxCDF (F)	35:14
1,2,3,7,8,9-HxCDD (L)	39:11	1,2,3,7,8,9-HxCDF (L)	39:45
1,2,3,4,6,7,9-HpCDD (F)	42:47	1,2,3,4,6,7,8-HpCDF (F)	42:16
1,2,3,4,6,7,8-HpCDD (L)	44:10	1,2,3,4,7,8,9-HpCDF (L)	45:05

(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: 8/18/10

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 17-AUG-10 21:45:19 CS3 or VER Data Filename: 17AUG10M Sam:16

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	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.001	0.999-1.002
LABELED COMPOUNDS			
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989-1.052
13C-2,3,7,8-TCDD		1.021	0.976-1.043
13C-2,3,7,8-TCDF		0.993	0.923-1.103
13C-1,2,3,7,8-PeCDD		1.238	1.000-1.567
13C-1,2,3,7,8-PeCDF		1.174	0.923-1.203
13C-2,3,4,7,8-PeCDF		1.223	0.923-1.303

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

Analyst: _____ Date: 8/18/10

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 17-AUG-10 21:45:19 CS3 or VER Data Filename: 17AUG10M Sam:16

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	1.001	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	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	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	1.000	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.985	0.977-1.000
13C-1,2,3,6,7,8-HxCDD		0.988	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		1.127	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		1.279	1.000-1.311

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

Analyst: _____ Date: 8/18/10

FAL ID: ST081710M2 Filename: 17AUG10M Sam:16 Acquired: 17-AUG-10 21:45:19 ICal: PCDDFAL3-5-12-10
Client ID: 1613 CS3 191908J ConCal: ST081710M1 EndCal: ST081710M2
Results: 6269D GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 99.3
WHO 1998 Tox: 125 WHO 2005 Tox: 114

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	
2,3,7,8-TCDD	4.70e+06	0.74 y	27:23	1.04	10.8		2.50	-	-	*	
1,2,3,7,8-PeCDD	1.99e+07	1.63 y	33:13	1.05	51.1		2.50	-	-	*	
1,2,3,4,7,8-HxCDD	1.79e+07	1.41 y	38:34	1.30	50.8		2.50	-	-	*	
1,2,3,6,7,8-HxCDD	1.74e+07	1.41 y	38:44	1.28	49.3		2.50	-	-	*	
1,2,3,7,8,9-HxCDD	1.75e+07	1.42 y	39:11	1.25	51.3		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	1.40e+07	1.03 y	44:10	1.35	47.2		2.50	-	-	*	
OCDD	1.87e+07	1.00 y	49:44	1.25	106		2.50	-	-	*	
2,3,7,8-TCDF	9.56e+06	0.68 y	26:38	1.62	9.49		2.50	-	-	*	
1,2,3,7,8-PeCDF	2.79e+07	1.49 y	31:28	0.92	50.8		2.50	-	-	*	
2,3,4,7,8-PeCDF	2.59e+07	1.48 y	32:48	0.94	47.8		2.50	-	-	*	
1,2,3,4,7,8-HxCDF	2.16e+07	1.27 y	37:11	0.93	45.9		2.50	-	-	*	
1,2,3,6,7,8-HxCDF	2.44e+07	1.29 y	37:23	0.84	47.7		2.50	-	-	*	
2,3,4,6,7,8-HxCDF	2.17e+07	1.30 y	38:19	0.90	47.0		2.50	-	-	*	
1,2,3,7,8,9-HxCDF	1.95e+07	1.27 y	39:45	0.98	47.4		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	1.71e+07	1.09 y	42:16	1.38	46.3		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	1.43e+07	1.07 y	45:05	1.62	45.1		2.50	-	-	*	
OCDF	1.93e+07	0.88 y	50:05	0.74	96.2		2.50	-	-	*	
										Rec	
13C-2,3,7,8-TCDD	4.21e+07	0.85 y	27:22	0.93	97.5					97.5	
13C-1,2,3,7,8-PeCDD	3.71e+07	1.73 y	33:11	0.81	98.5					98.5	
13C-1,2,3,4,7,8-HxCDD	2.71e+07	1.25 y	38:33	0.95	103					103	
13C-1,2,3,6,7,8-HxCDD	2.75e+07	1.24 y	38:43	1.00	99.0					99.0	
13C-1,2,3,4,6,7,8-HpCDD	2.18e+07	1.00 y	44:09	0.92	84.9					84.9	
13C-OCDD	2.82e+07	0.89 y	49:42	0.63	159					79.7	
13C-2,3,7,8-TCDF	6.23e+07	0.86 y	26:37	0.87	96.2					96.2	
13C-1,2,3,7,8-PeCDF	6.00e+07	1.71 y	31:27	0.81	99.8					99.8	
13C-2,3,4,7,8-PeCDF	5.72e+07	1.68 y	32:46	0.75	102					102	
13C-1,2,3,4,7,8-HxCDF	5.07e+07	0.53 y	37:10	1.74	104					104	
13C-1,2,3,6,7,8-HxCDF	6.12e+07	0.53 y	37:21	2.17	101					101	
13C-2,3,4,6,7,8-HxCDF	5.17e+07	0.52 y	38:18	1.82	102					102	
13C-1,2,3,7,8,9-HxCDF	4.18e+07	0.55 y	39:44	1.49	101					101	
13C-1,2,3,4,6,7,8-HpCDF	2.67e+07	0.43 y	42:15	1.10	87.1					87.1	
13C-1,2,3,4,7,8,9-HpCDF	1.95e+07	0.43 y	45:04	0.81	85.4					85.4	
13C-OCDF	5.43e+07	0.95 y	50:05	1.19	164					81.8	
37Cl-2,3,7,8-TCDD	4.12e+06		27:23	0.93	9.50					95.0	
13C-1,2,3,4-TCDD	4.67e+07	0.84 y	26:48	-	138						
13C-1,2,3,4-TCDF	7.45e+07	0.88 y	25:31	-	140						
13C-1,2,3,7,8,9-HxCDD	2.80e+07	1.26 y	39:10	-	130						
							Fac	Noise-1	Noise-2	DL	#Hom
Total Tetra-Dioxins	2.43e+07		24:23	1.04	55.7		2.50	-	-	*	15
Total Penta-Dioxins	4.36e+07		30:15	1.05	112		2.50	-	-	*	5
Total Hexa-Dioxins	6.07e+07		36:06	1.27	174		2.50	-	-	*	12
Total Hepta-Dioxins	3.05e+07		42:47	1.35	103		2.50	-	-	*	10
Total Tetra-Furans	4.24e+07		23:02	1.62	42.1		2.50	-	-	*	13
1st Fn. Tot Penta-Furans	3.11e+07		28:24	0.93	57.0		2.50	-	-	* PeCDF	1
Total Penta-Furans	7.78e+07		30:11	0.93	143		2.50	-	-	* 200	14
Total Hexa-Furans	1.03e+08		35:14	0.90	222		2.50	-	-	*	19
Total Hepta-Furans	3.15e+07		42:16	1.48	91.8		2.50	-	-	*	12

Analyst: _____ Date: 8/18/10

Frontier Analytical Laboratory - Acquisition Log

Run Name:17AUG10M Instrument: FAL3 GC: DB5 Experiment:PCDD

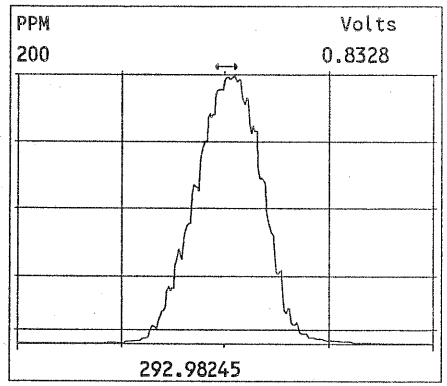
Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
17AUG10M	1	ST081710M1	1613 CS3 191908J	17-AUG-10 07:54:40	ST081710M1	ST081710M2	BS
17AUG10M	2	6276-006-0001-SA	PSB15-1.5-2-073010	17-AUG-10 08:50:02	ST081710M1	ST081710M2	BS
17AUG10M	3	6276-001-0001-SA	PSB11-0-0.5-073010 1:10	17-AUG-10 09:45:25	ST081710M1	ST081710M2	BS
17AUG10M	4	6276-007-0001-SA	PSB15-2-4-073010 1:10	17-AUG-10 10:40:47	ST081710M1	ST081710M2	BS
17AUG10M	5	6276-009-0001-SA	PSB15-13-15-073010 1:10	17-AUG-10 11:36:06	ST081710M1	ST081710M2	BS
17AUG10M	6	6269-001-0001-SA	PSB14-0-.5-072810 1:10	17-AUG-10 12:31:24	ST081710M1	ST081710M2	BS
17AUG10M	7	6271-002-0001-SA	PSB13-1.5-2-072910 1:10	17-AUG-10 13:26:47	ST081710M1	ST081710M2	BS
17AUG10M	8	6271-003-0001-SA	PSB13-2-4-072910 1:10	17-AUG-10 14:22:06	ST081710M1	ST081710M2	BS
17AUG10M	9	QC081710M1	TEST QC	17-AUG-10 15:17:34	ST081710M1	ST081710M2	BS
17AUG10M	10	6276-008-0001-SA	PSB15-4-6-073010 1:20	17-AUG-10 16:13:01	ST081710M1	ST081710M2	BS
17AUG10M	11	6276-005-0001-SA	PSB15-0-0.5-073010 1:100	17-AUG-10 17:08:27	ST081710M1	ST081710M2	BS
17AUG10M	12	6276-002-0001-SA	PSB11-1.5-2-073010 1:200	17-AUG-10 18:03:50	ST081710M1	ST081710M2	BS
17AUG10M	13	6276-003-0001-SA	PSB11-2-4-073010 1:200	17-AUG-10 18:59:16	ST081710M1	ST081710M2	BS
17AUG10M	14	6276-004-0001-SA	PSB11-2-4-073010-D 1:200	17-AUG-10 19:54:40	ST081710M1	ST081710M2	BS
17AUG10M	15	SB081710M1	Solvent Blank	17-AUG-10 20:49:59	ST081710M1	ST081710M2	BS
17AUG10M	16	ST081710M2	1613 CS3 191908J	17-AUG-10 21:45:19	ST081710M1	ST081710M2	BS
17AUG10M	17	2083-001-0001-OPR	OPR	17-AUG-10 22:40:39	ST081710M2	ST081710M3	BS
17AUG10M	18	2083-001-0001-MB	Method Blank	17-AUG-10 23:35:58	ST081710M2	ST081710M3	BS
17AUG10M	19	6299-001-0001-SA	Barnhardt Sludge #3	18-AUG-10 00:31:17	ST081710M2	ST081710M3	BS
17AUG10M	20	6291-001-0001-SA	0080214-01	18-AUG-10 01:26:39	ST081710M2	ST081710M3	BS
17AUG10M	21	QC081710M2	TEST QC2	18-AUG-10 02:21:58	ST081710M2	ST081710M3	BS
17AUG10M	22	6274-001-0001-SA	PSB9A-1.5-2-073010	18-AUG-10 03:17:17	ST081710M2	ST081710M3	BS
17AUG10M	23	6274-002-0001-SA	PSB9A-2-4-073010	18-AUG-10 04:12:36	ST081710M2	ST081710M3	BS
17AUG10M	24	6274-003-0001-SA	PSB9A-0-0.5-073010	18-AUG-10 05:07:58	ST081710M2	ST081710M3	BS
17AUG10M	25	6274-004-0001-SA	PSB10-0-0.5-073010	18-AUG-10 06:03:21	ST081710M2	ST081710M3	BS
17AUG10M	26	6274-005-0001-SA	PSB10-1.5-2-073010	18-AUG-10 06:58:43	ST081710M2	ST081710M3	BS
17AUG10M	27	6274-006-0001-SA	PSB10-2-4-073010	18-AUG-10 07:54:06	ST081710M2	ST081710M3	BS
17AUG10M	28	6272-005-0001-SA	PSB3-0-0.5-072910 1:10	18-AUG-10 08:49:25	ST081710M1	ST081710M2	BS
17AUG10M	29	6291-002-0001-SA	0080214-02	18-AUG-10 09:44:44	ST081710M2	ST081710M3	BS
17AUG10M	30	ST081710M3	1613 CS3 191908J	18-AUG-10 10:40:03	ST081710M2	ST081710M3	BS
17AUG10M	31	QC081710M3	TEST QC3	18-AUG-10 11:35:24	ST081710M2	ST081710M3	BS

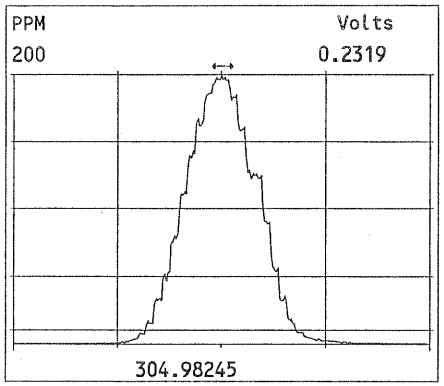
8/18/10

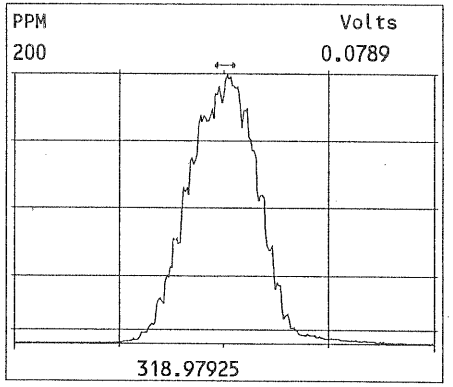
Data Backed Up:_____

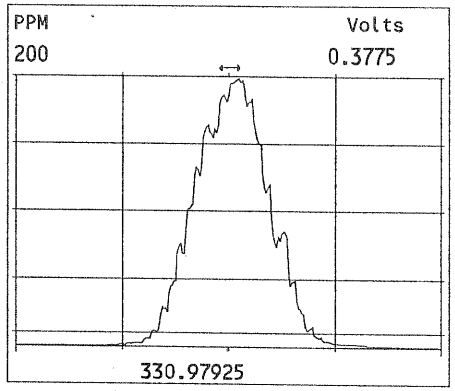
Date:_____

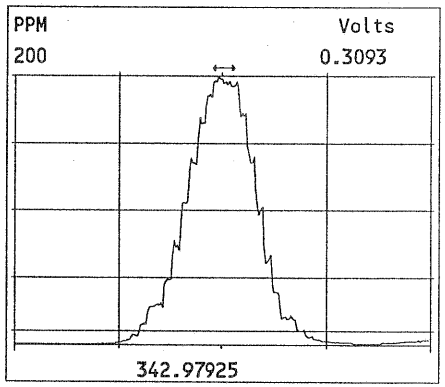
Peak Locate Examination:17-AUG-2010:07:52 File:17AUG10M
Experiment:PCDD Function:1 Reference:PFK

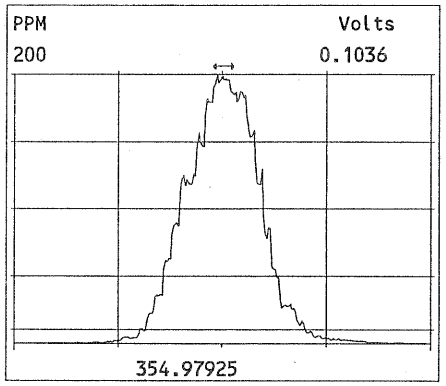


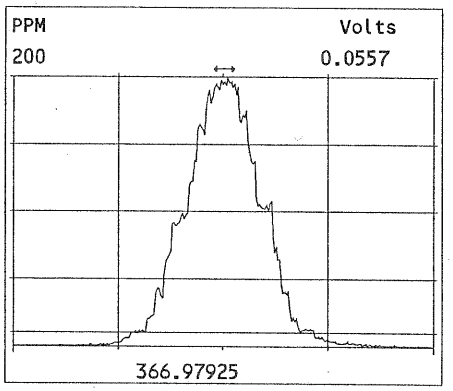


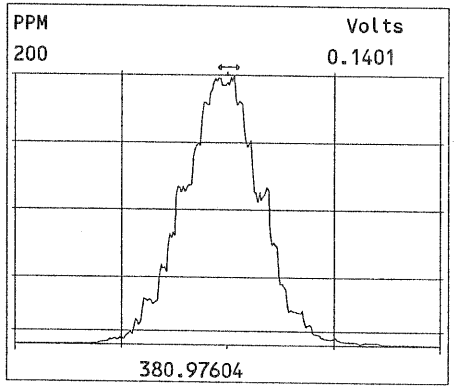


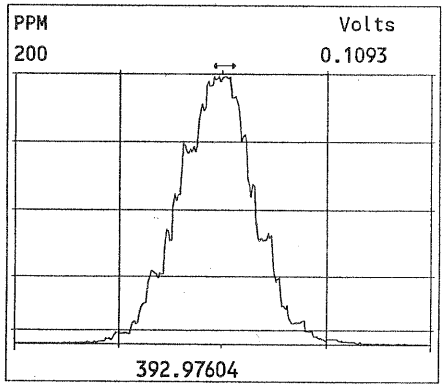


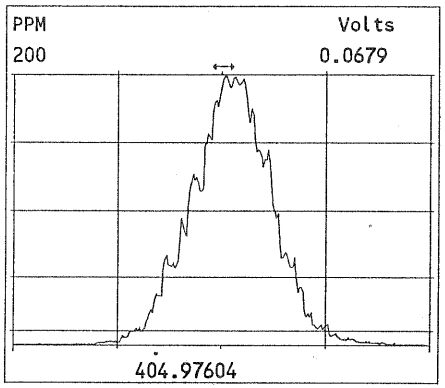


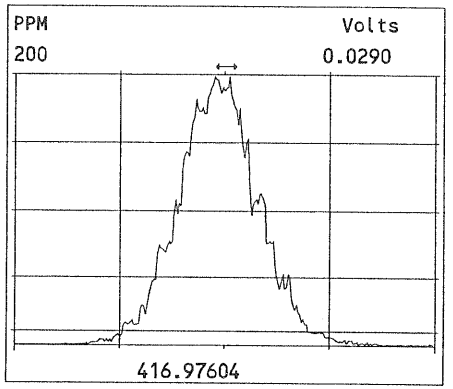




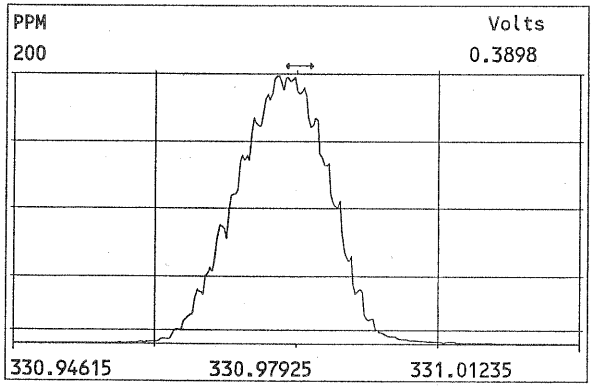


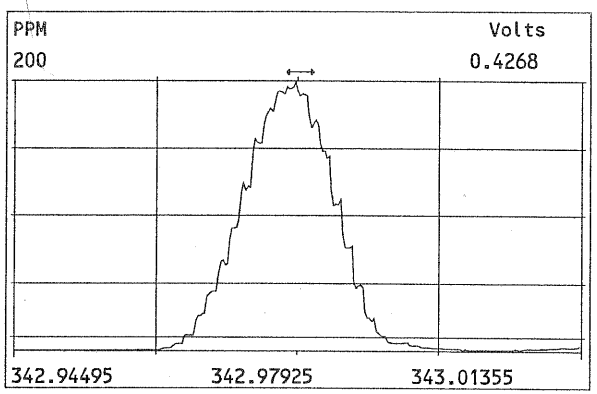


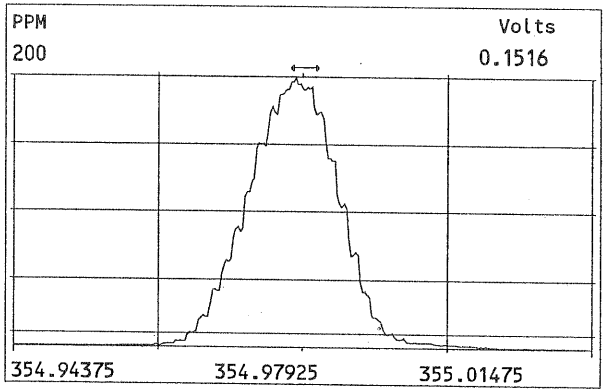


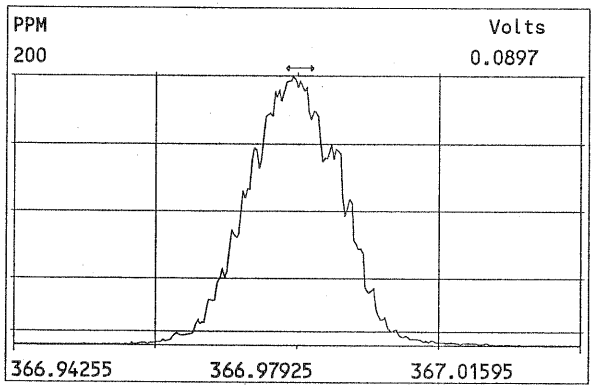


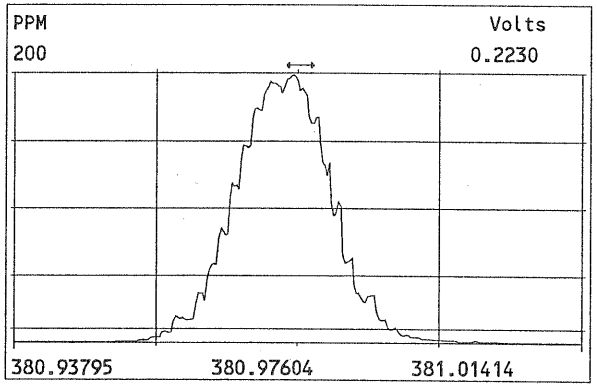
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:2 Reference:PFK

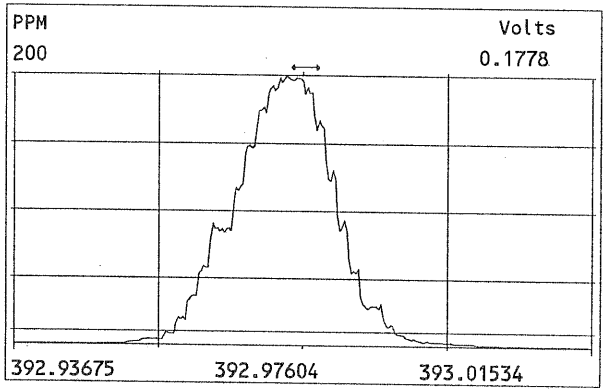


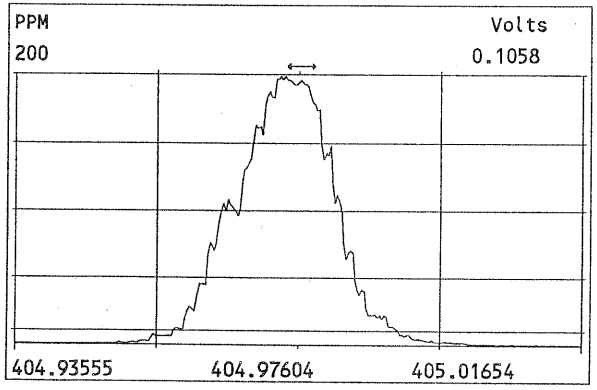


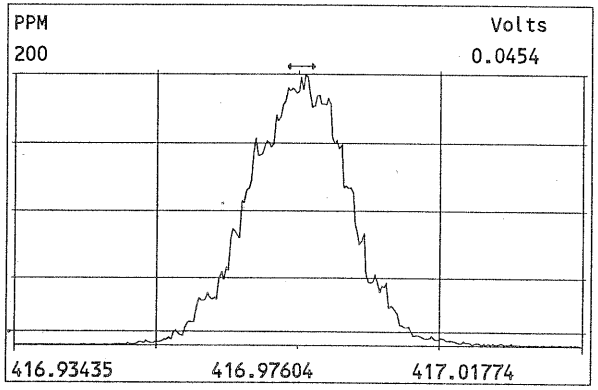




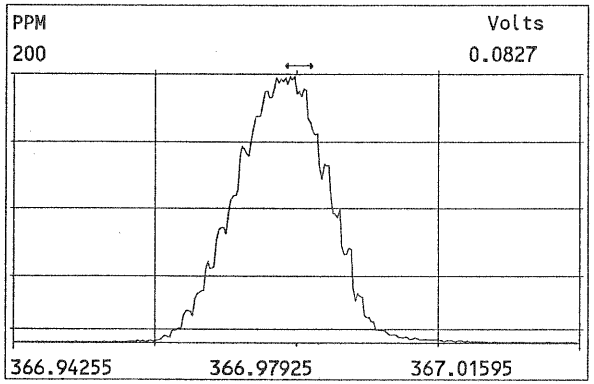


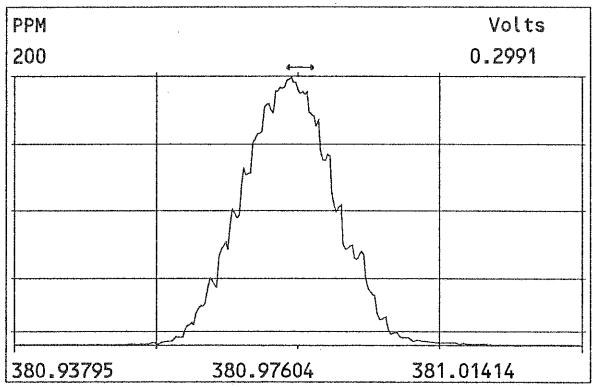


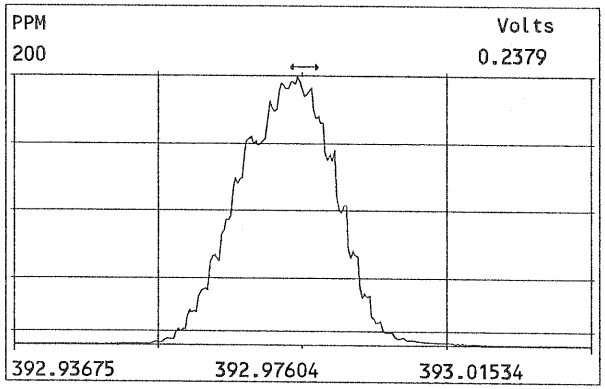


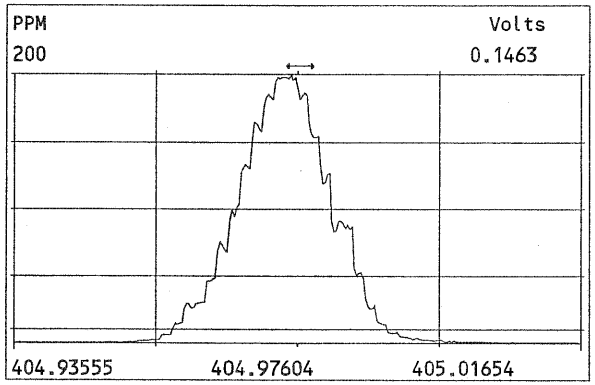


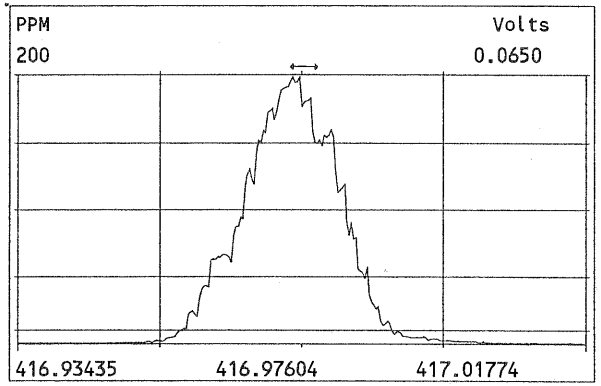
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:3 Reference:PFK

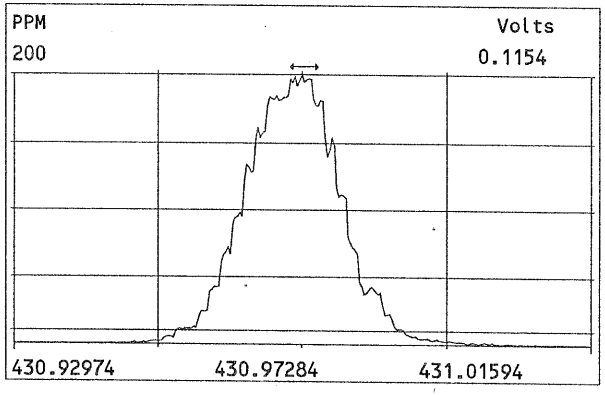


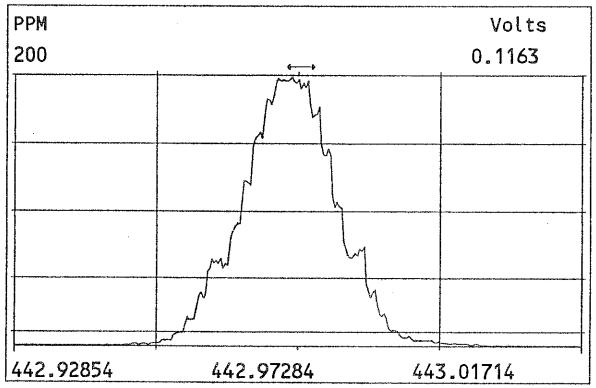


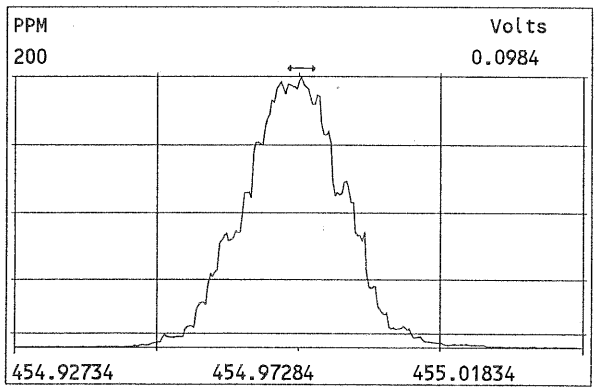




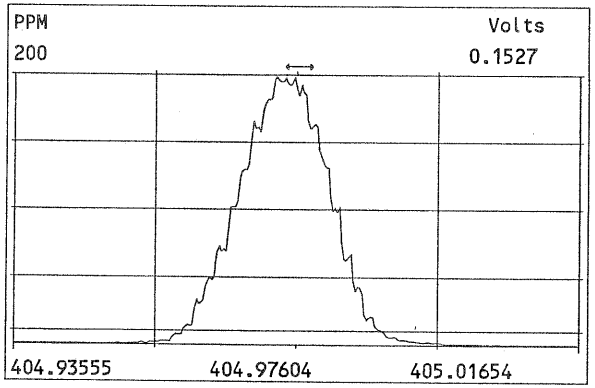


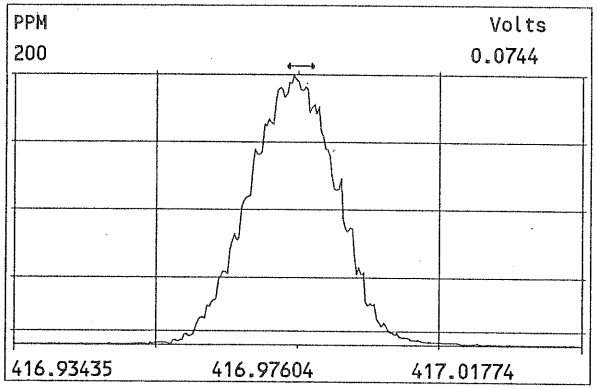


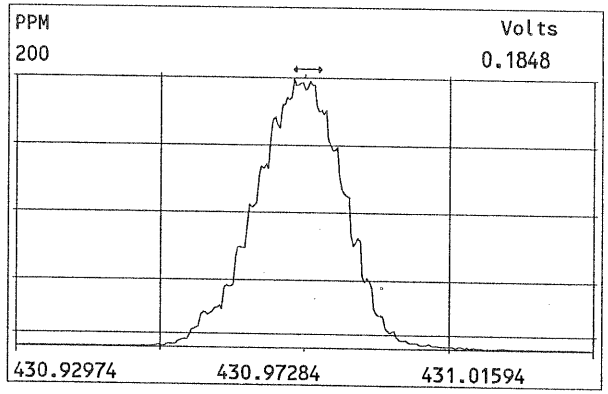


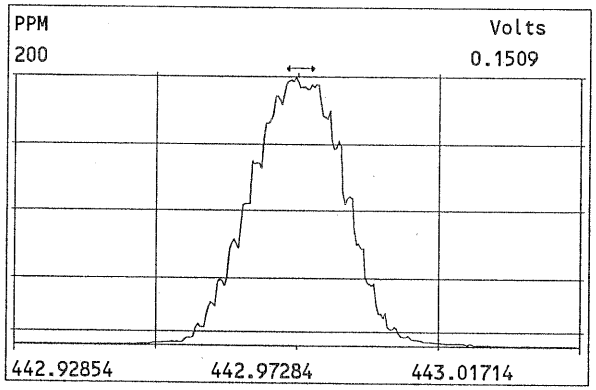


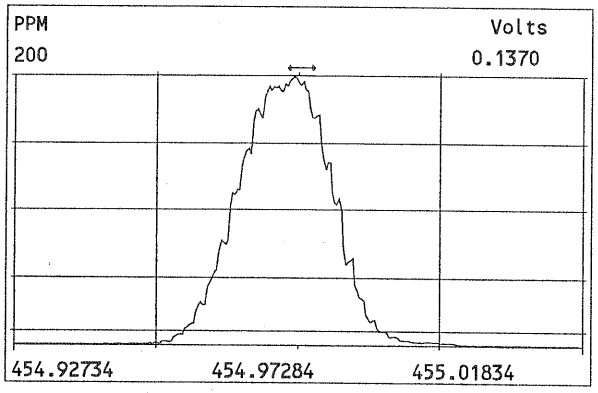
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:4 Reference:PFK

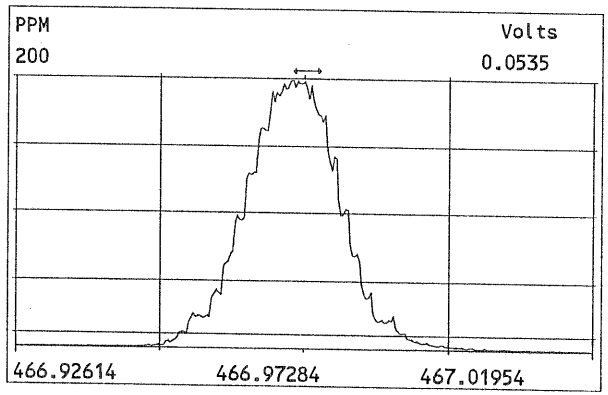


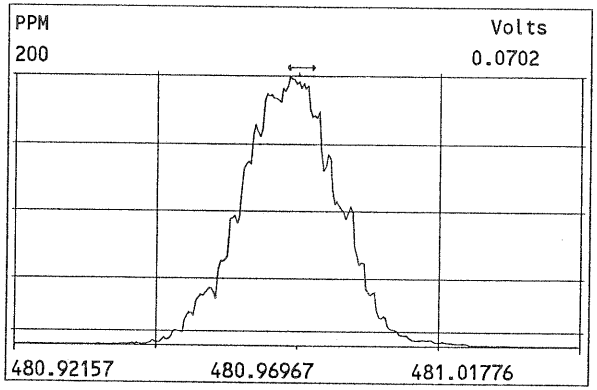




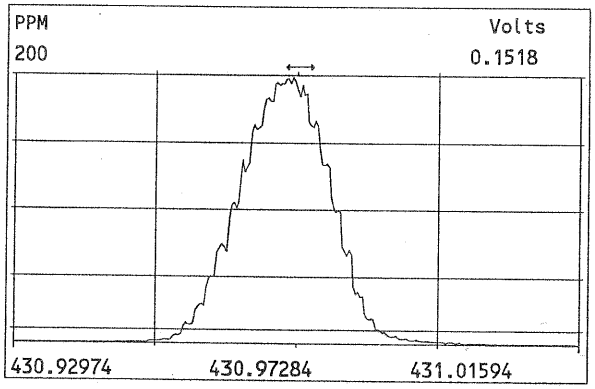


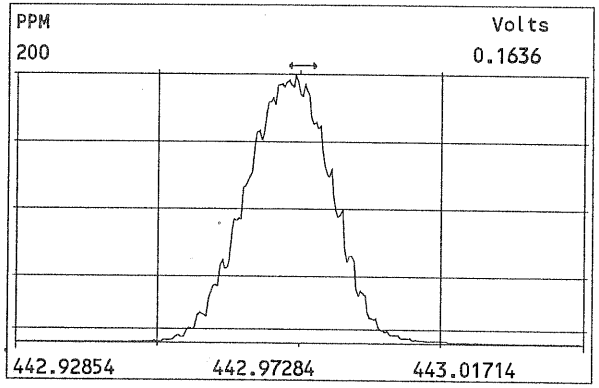


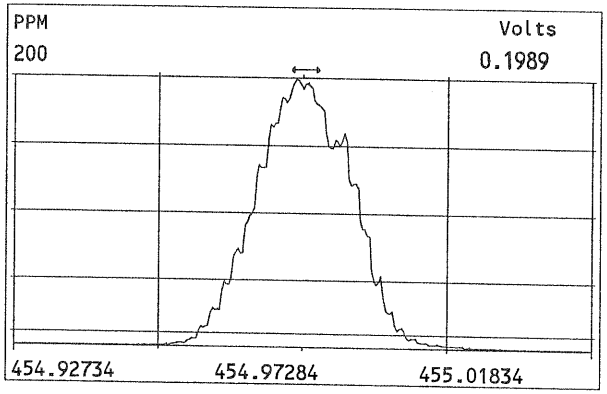


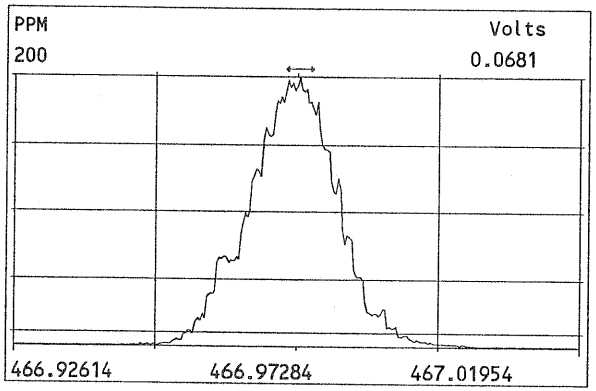


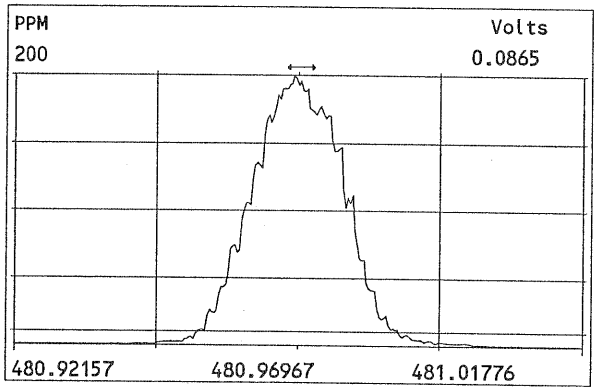
Peak Locate Examination:17-AUG-2010:07:54 File:17AUG10M
Experiment:PCDD Function:5 Reference:PFK

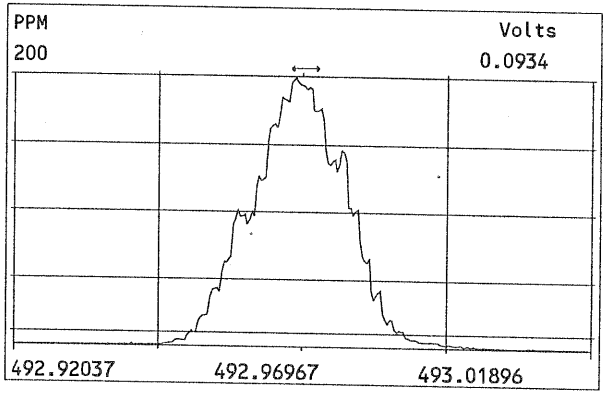


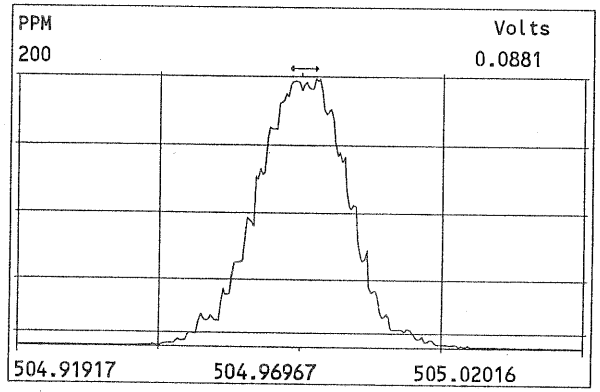


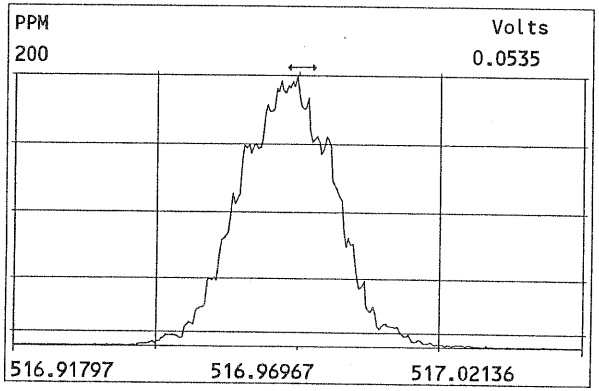




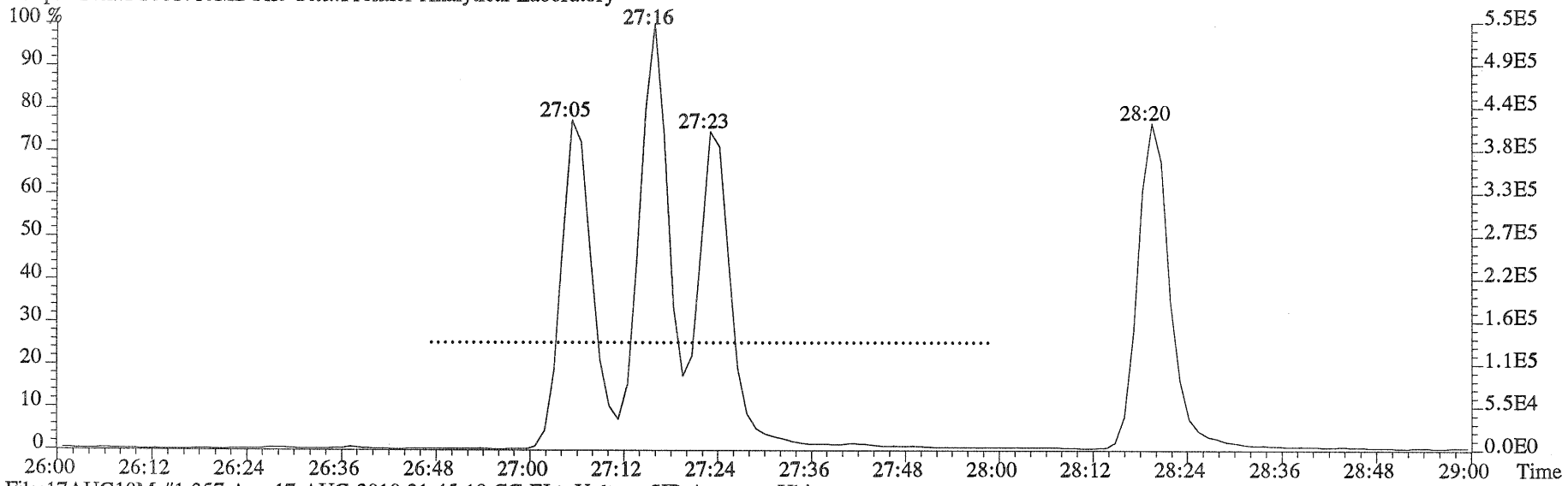




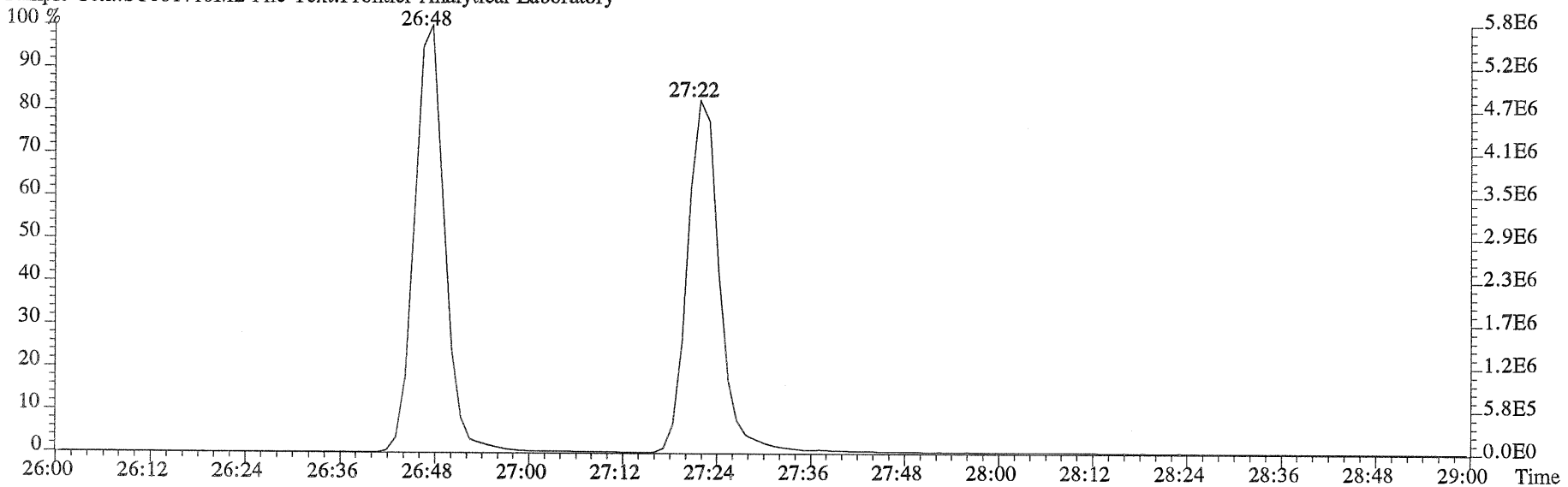




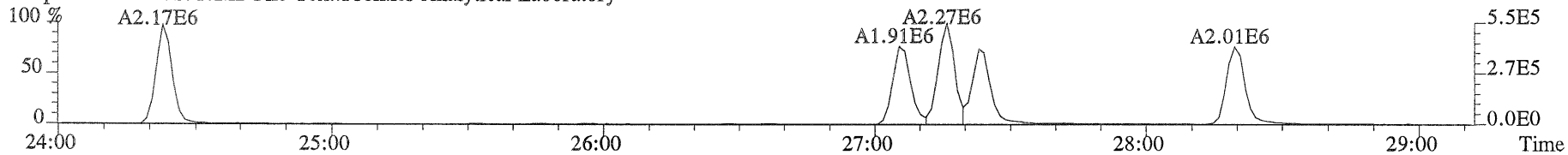
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:16 Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



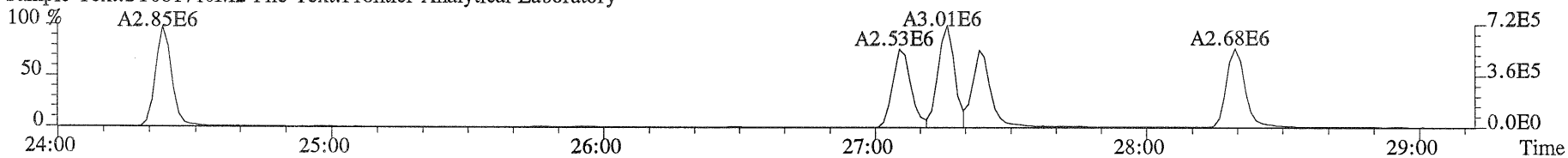
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:16 Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



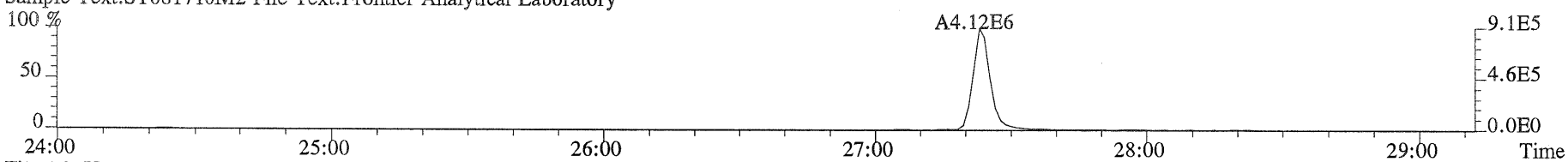
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



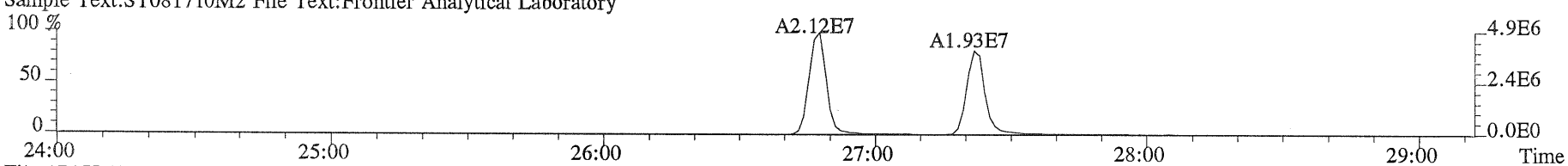
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



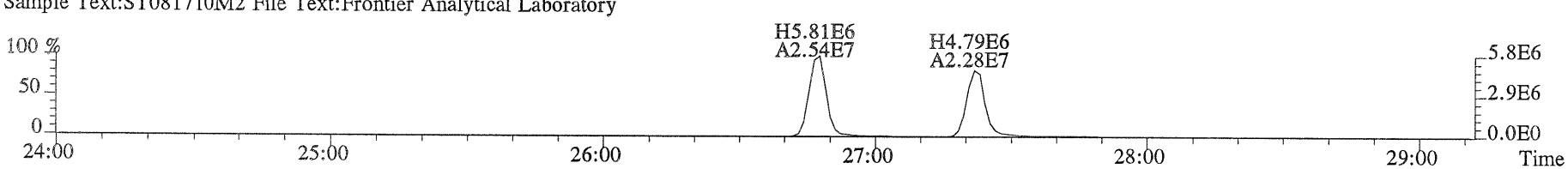
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



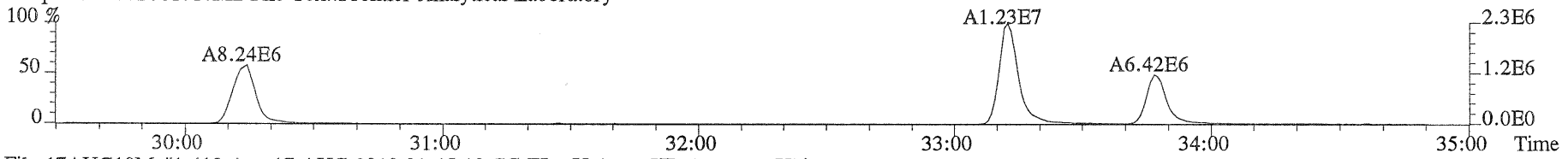
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



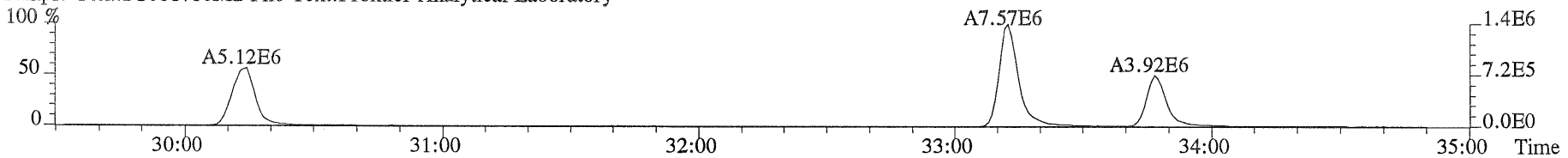
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



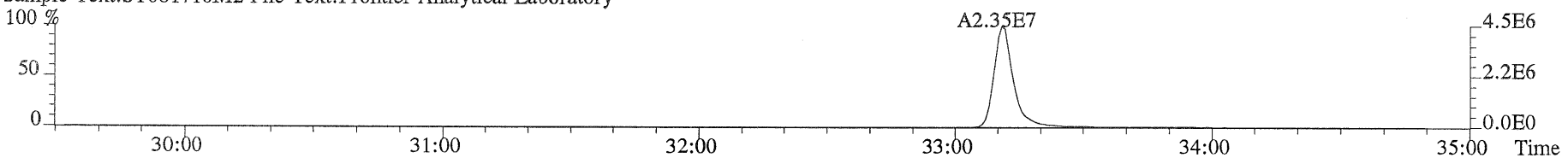
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



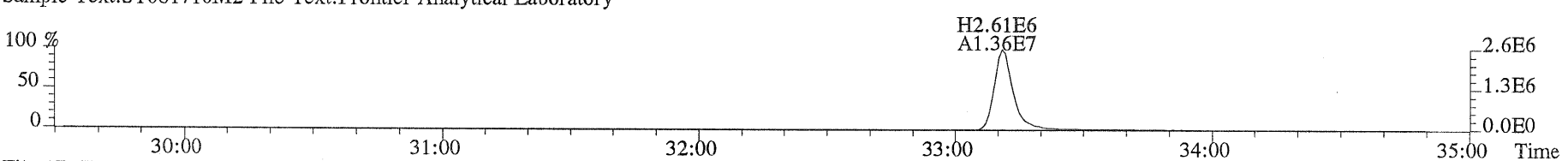
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



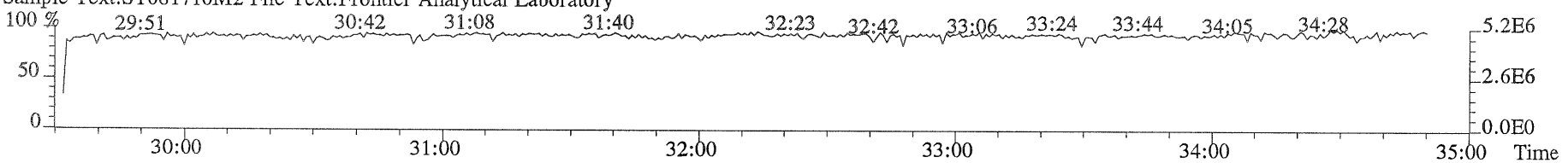
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



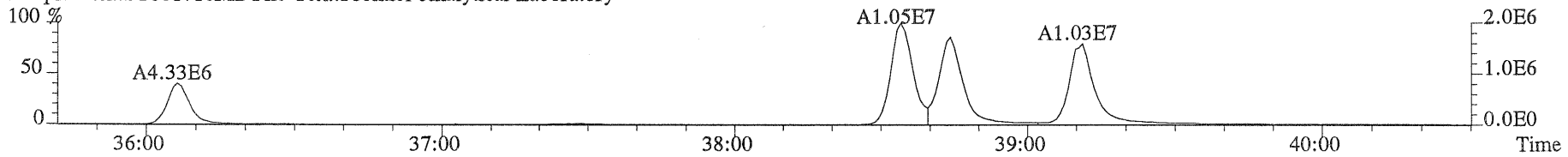
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



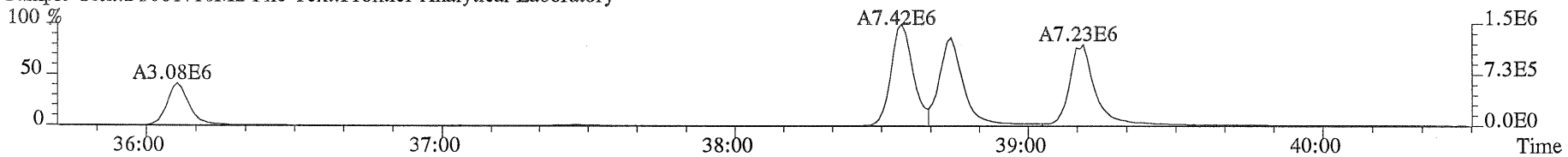
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:16 F:2 Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



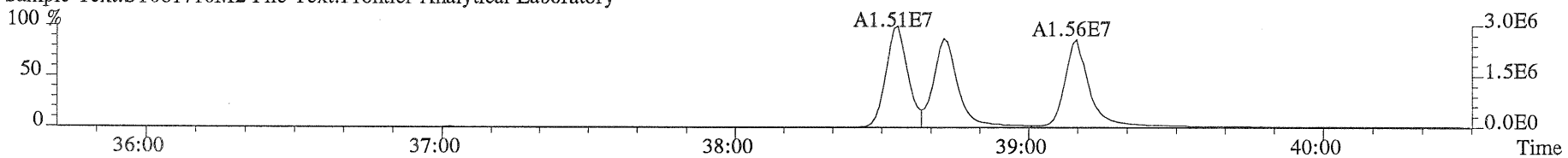
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



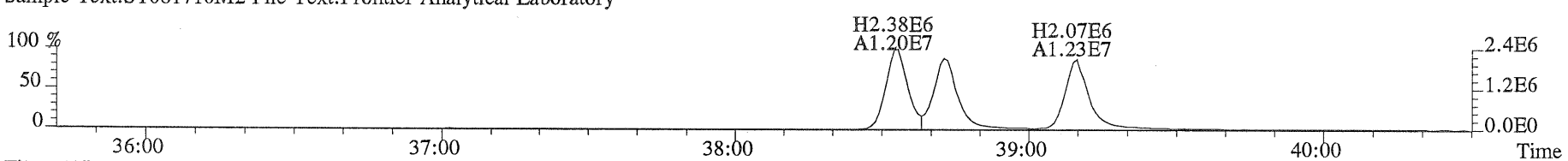
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



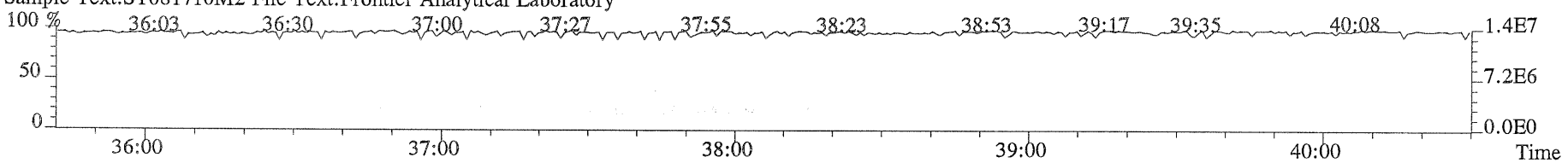
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



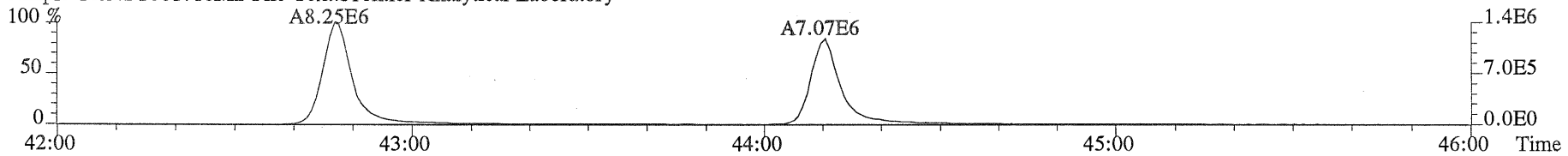
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



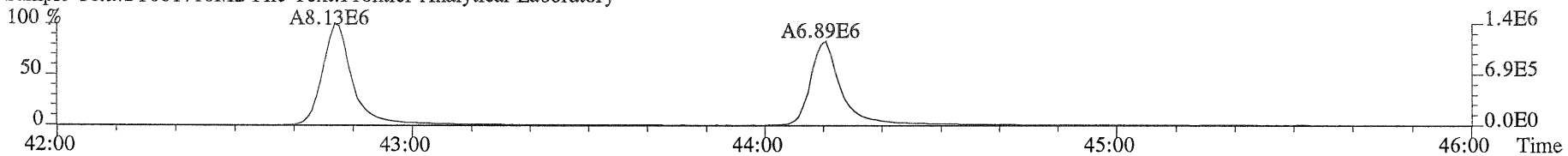
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:16 F:3 Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



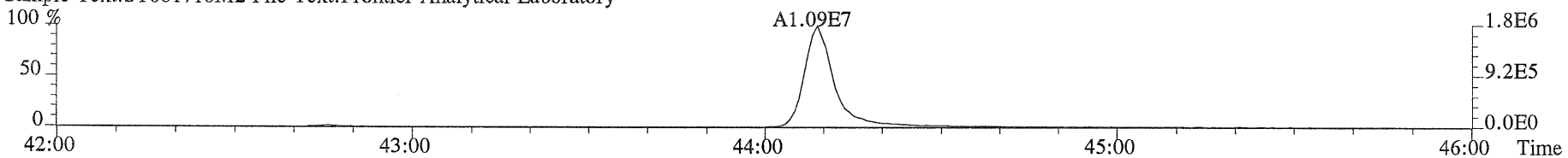
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



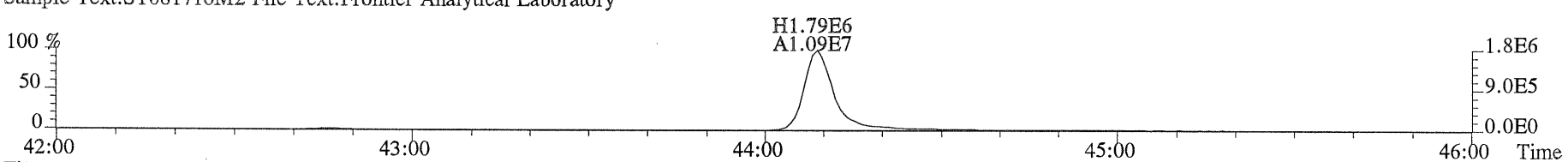
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



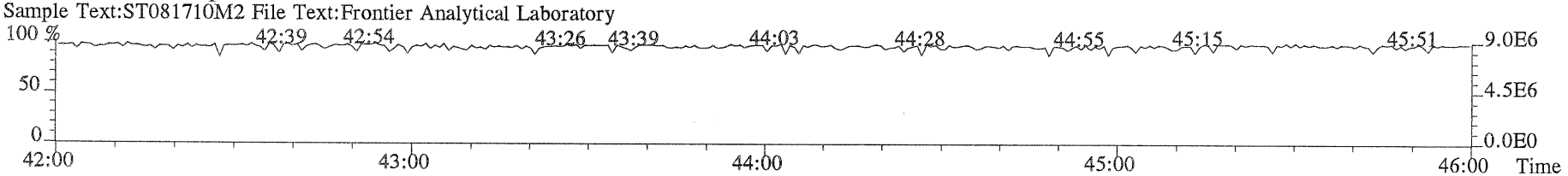
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



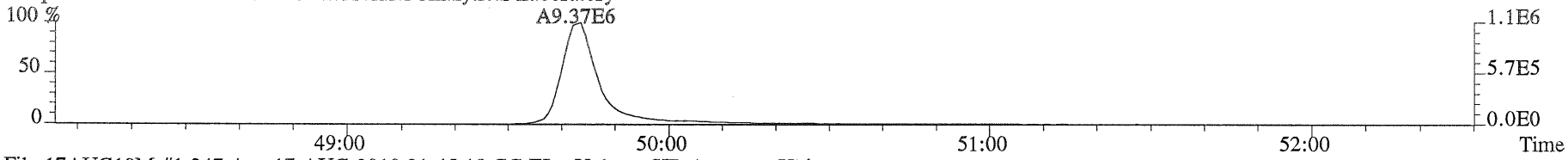
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



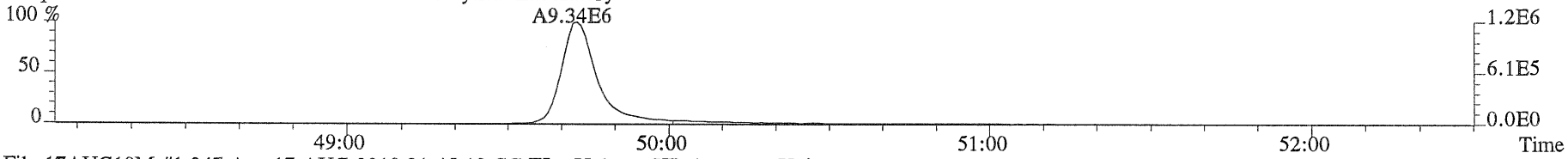
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:16 F:4 Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



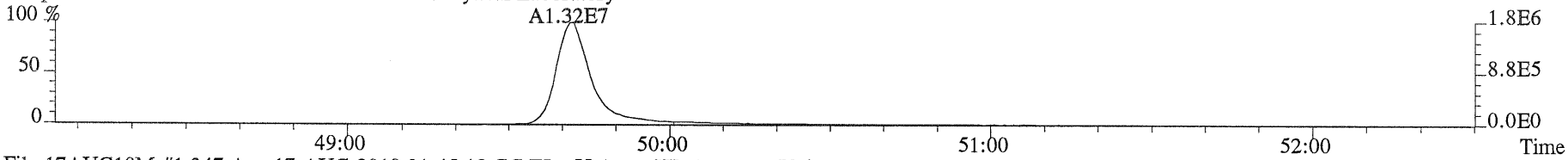
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



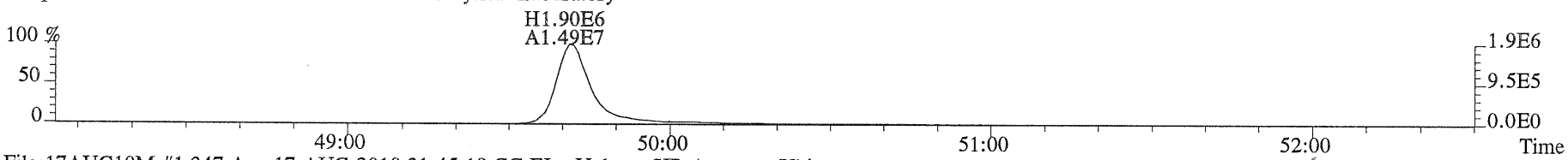
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



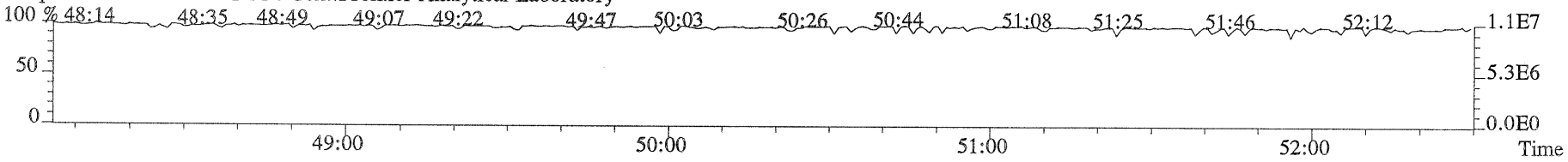
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



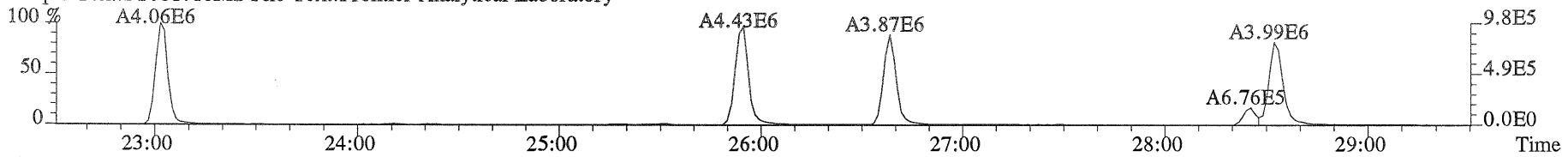
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



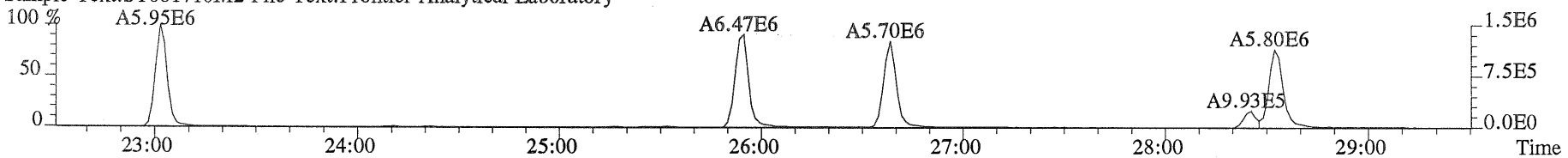
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:16 F:5 Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



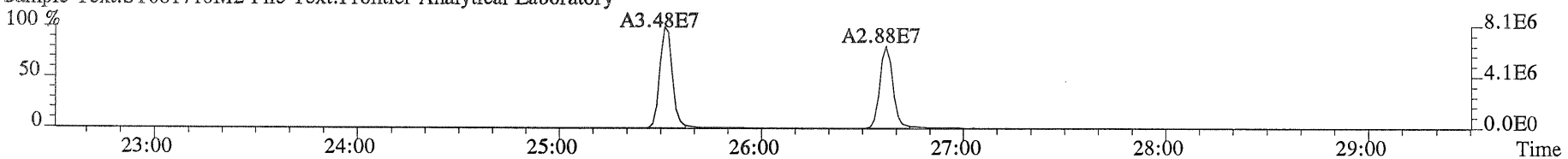
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



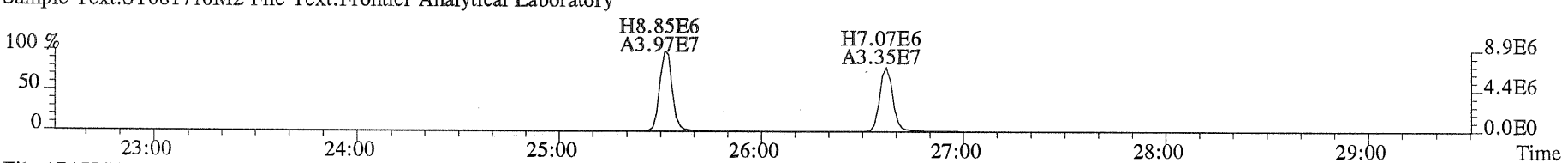
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



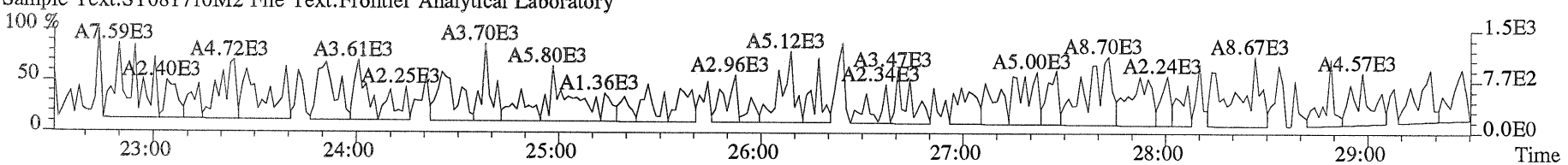
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



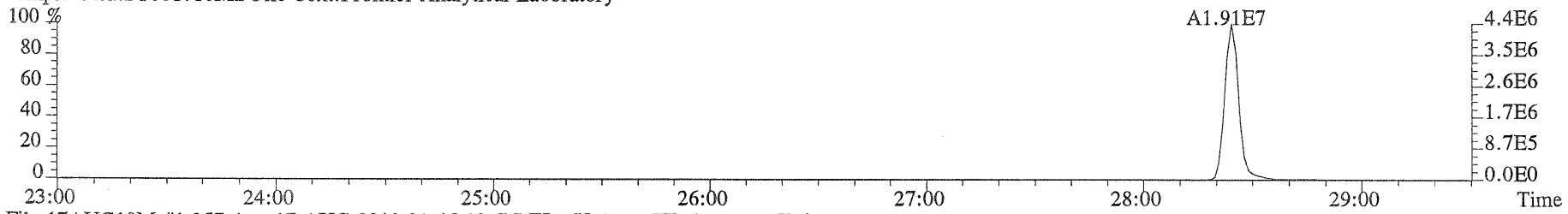
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



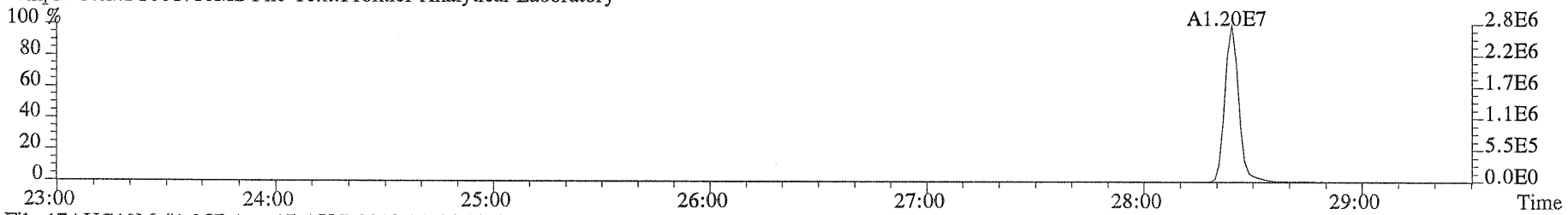
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



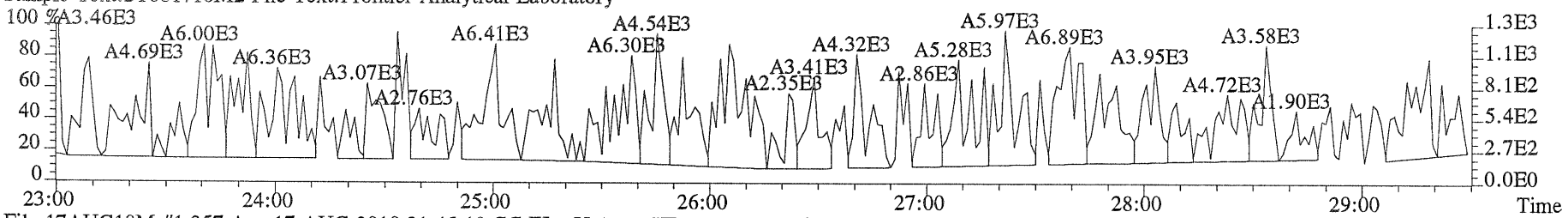
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



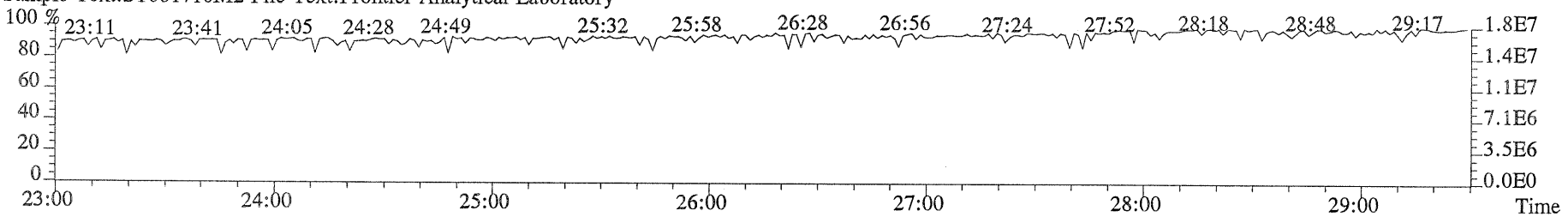
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



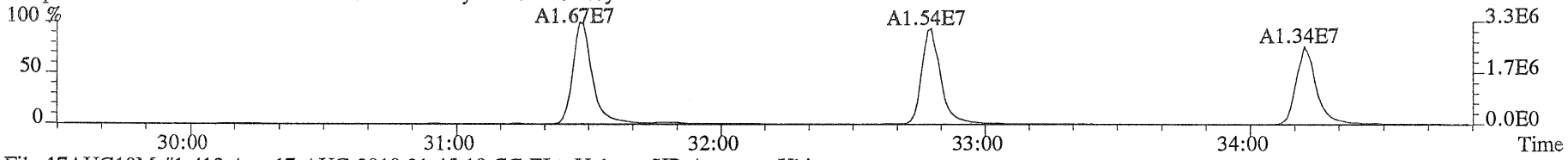
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



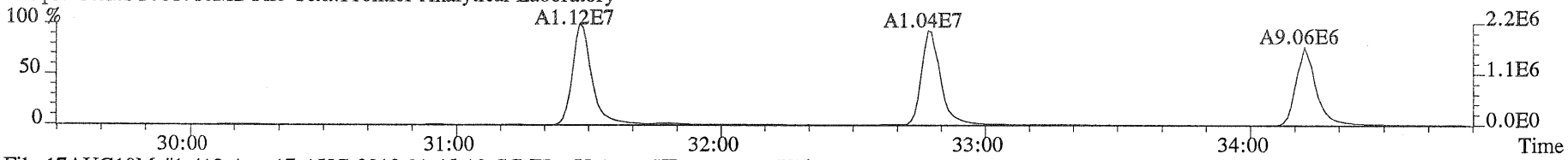
File:17AUG10M #1-357 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:16 Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



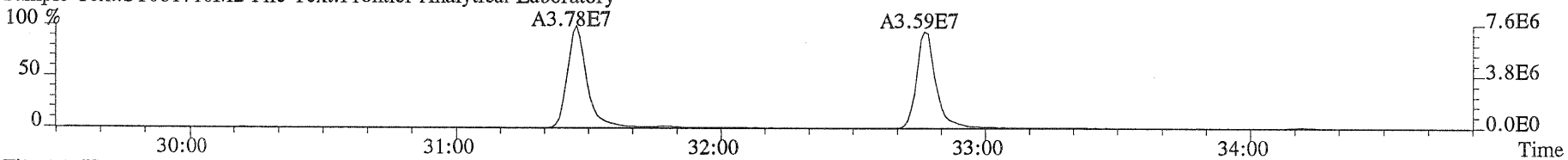
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



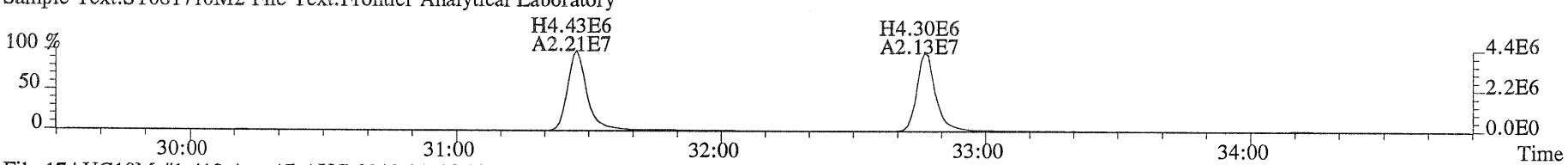
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



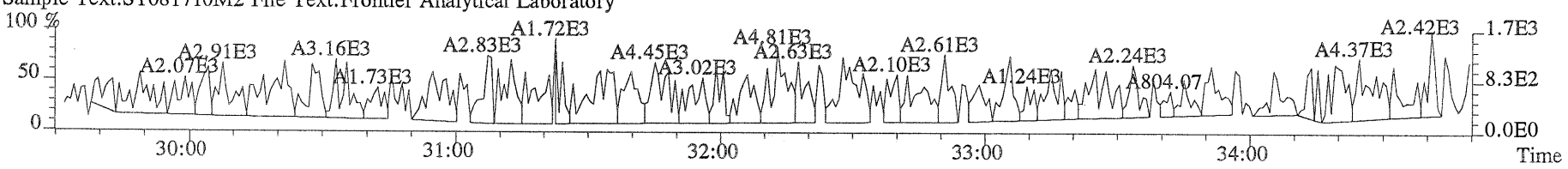
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



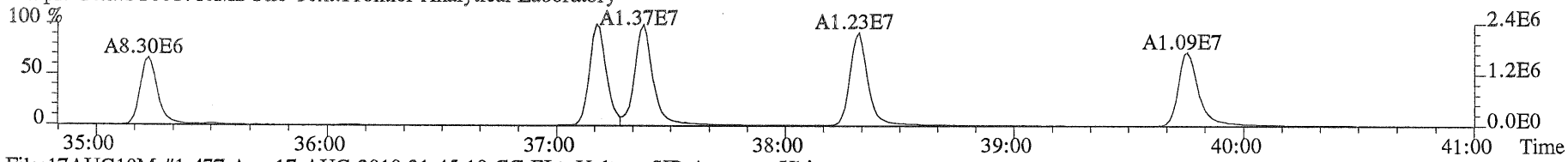
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



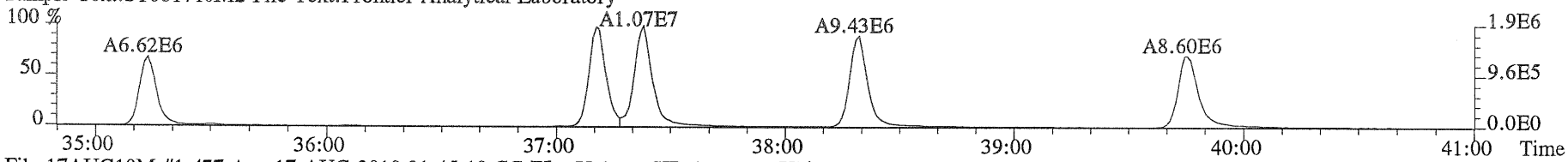
File:17AUG10M #1-412 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



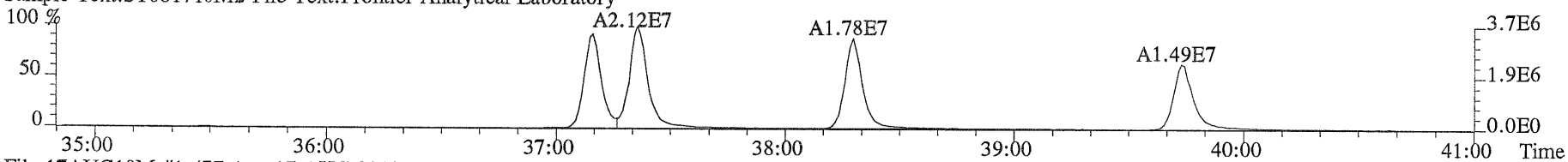
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



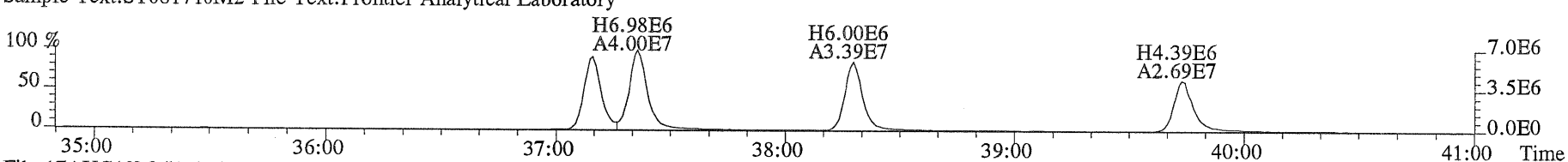
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



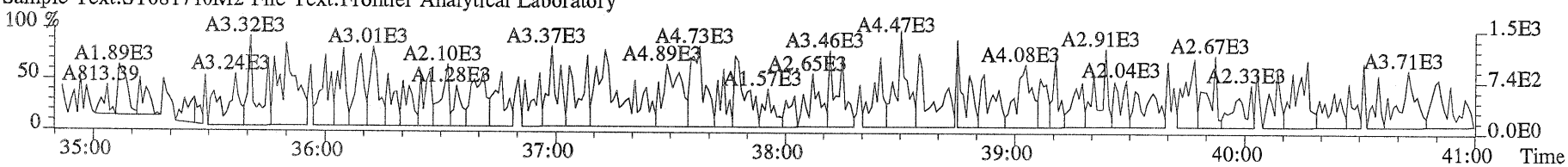
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



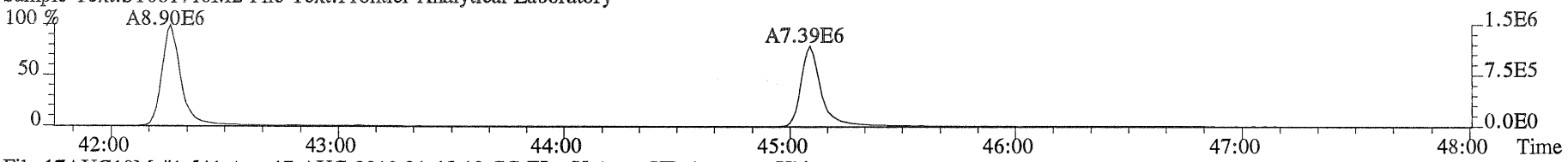
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



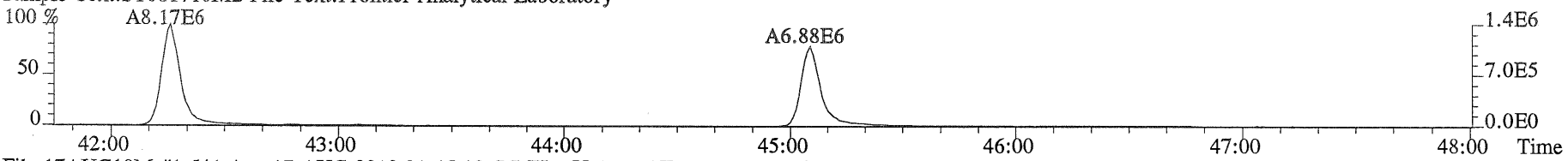
File:17AUG10M #1-477 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



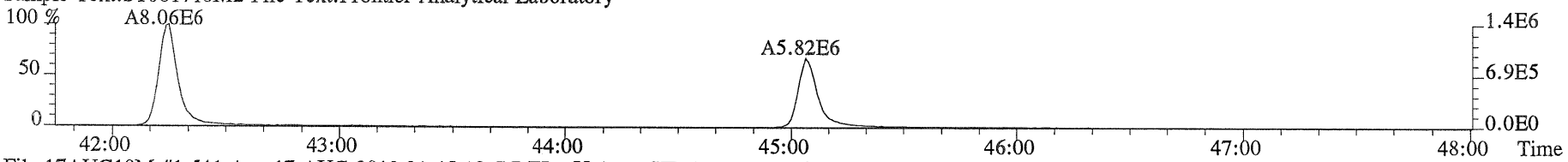
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



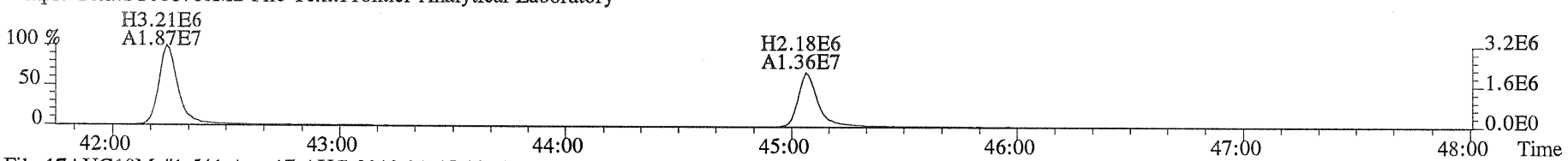
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



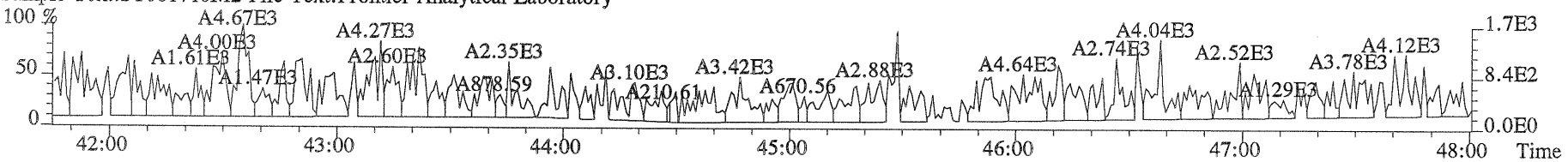
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



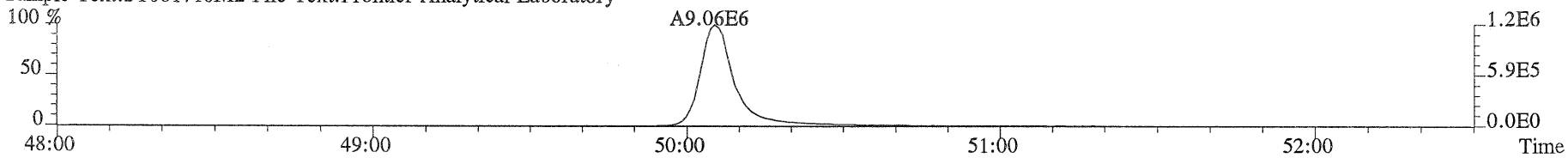
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



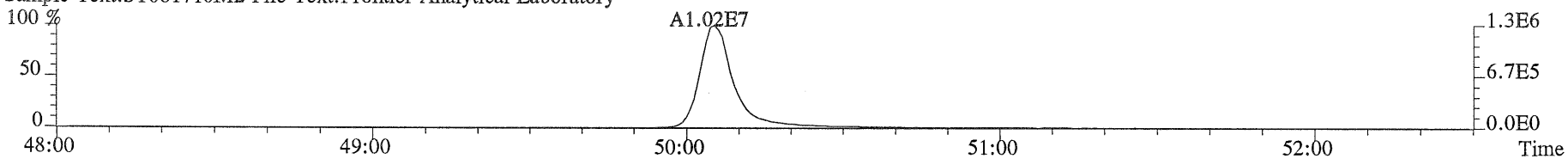
File:17AUG10M #1-541 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



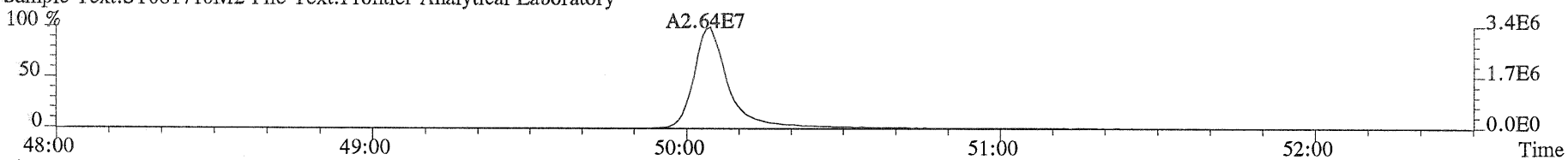
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



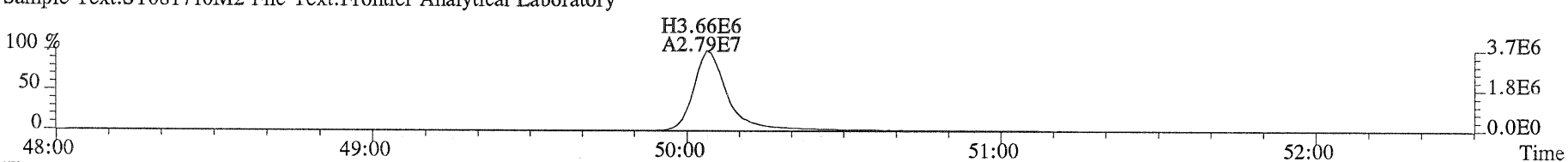
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



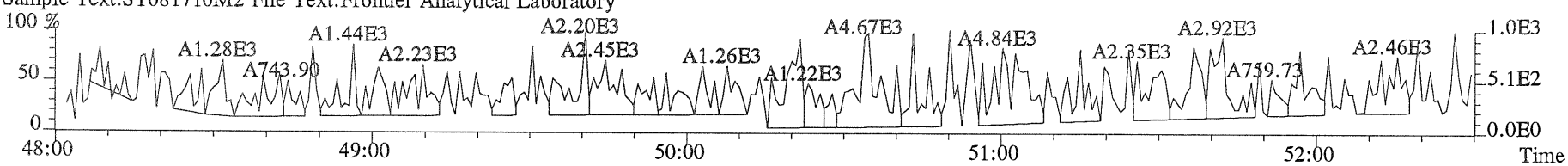
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory



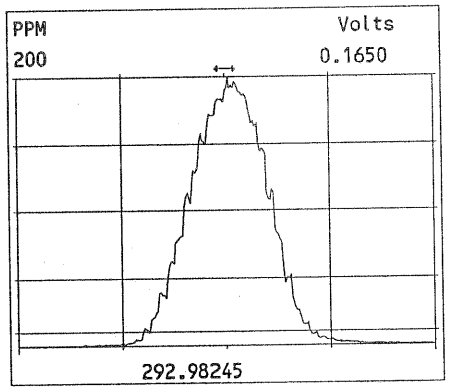
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory

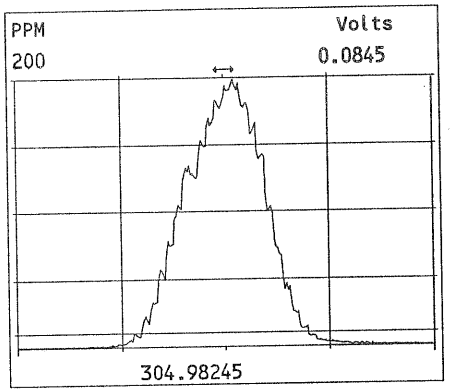


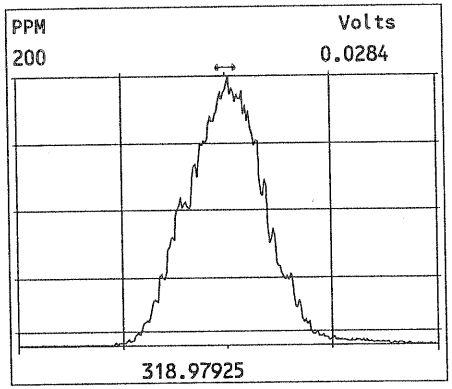
File:17AUG10M #1-347 Acq:17-AUG-2010 21:45:19 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M2 File Text:Frontier Analytical Laboratory

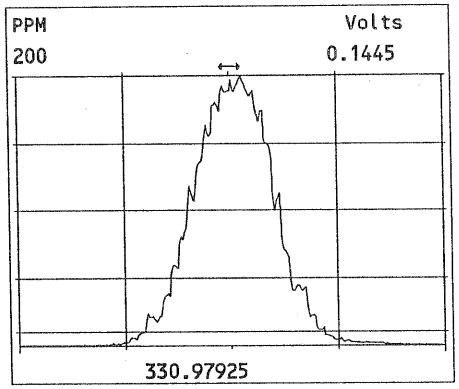


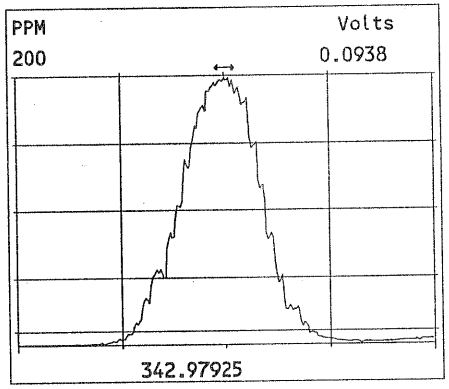
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:1 Reference:PFK

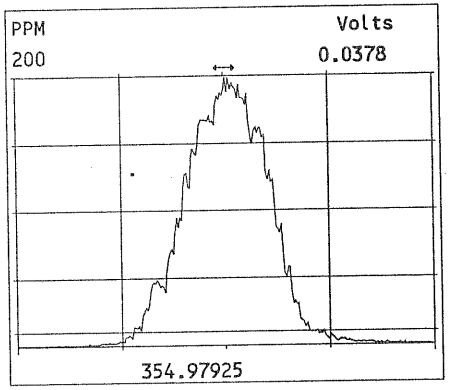


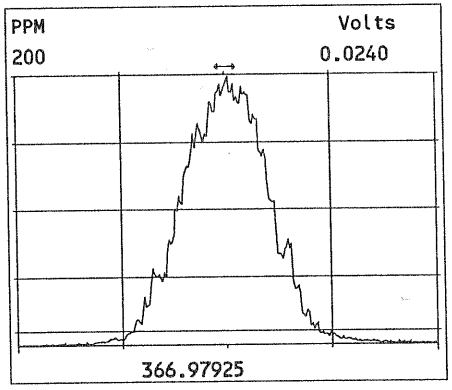


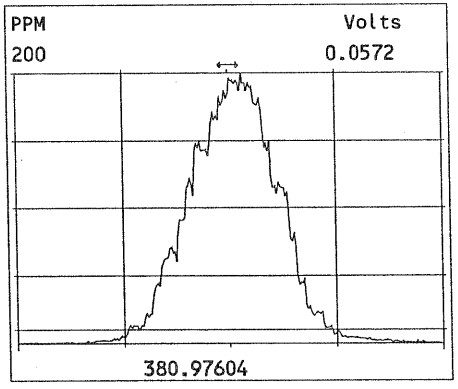


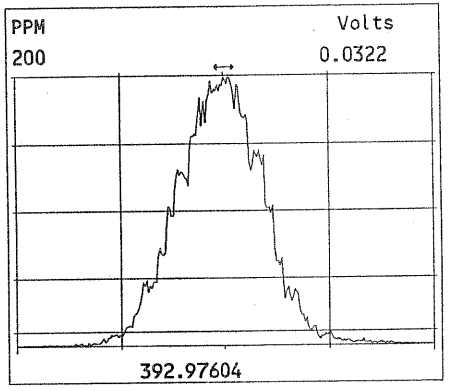


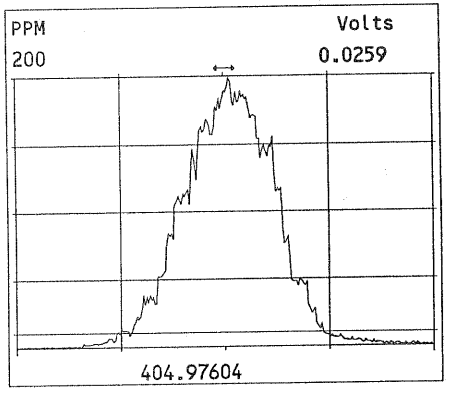


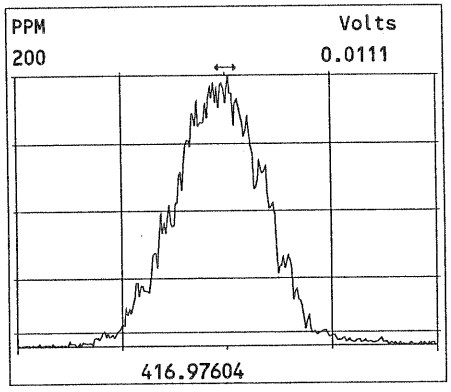




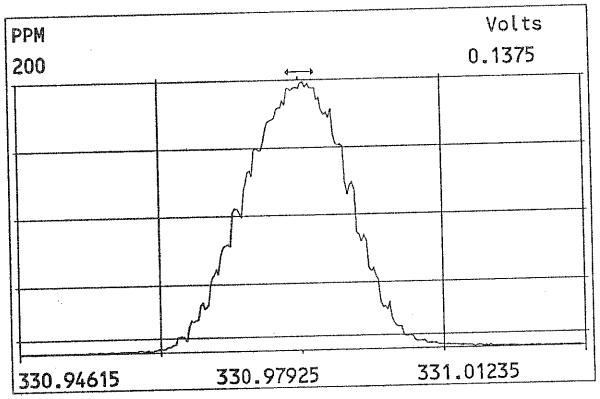


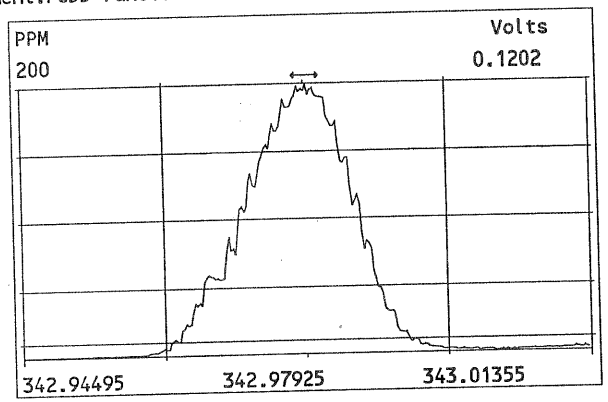


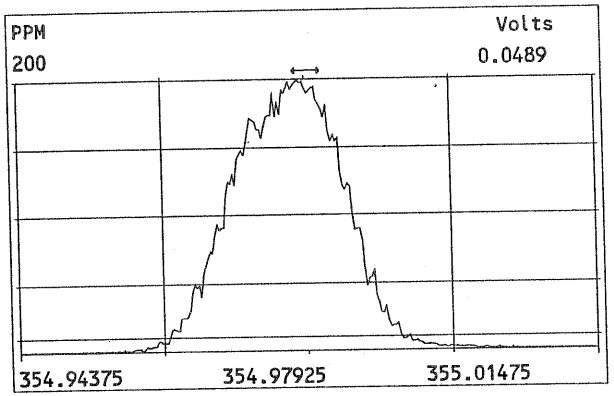


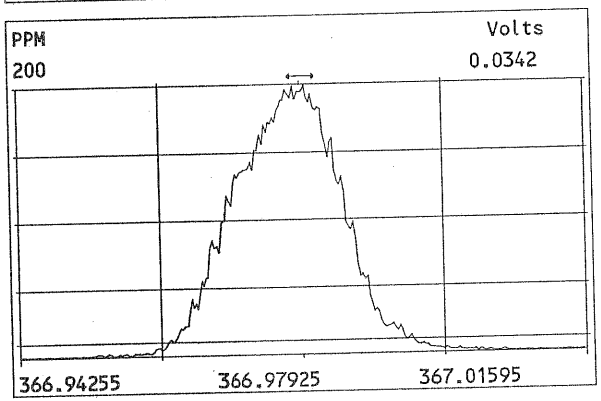


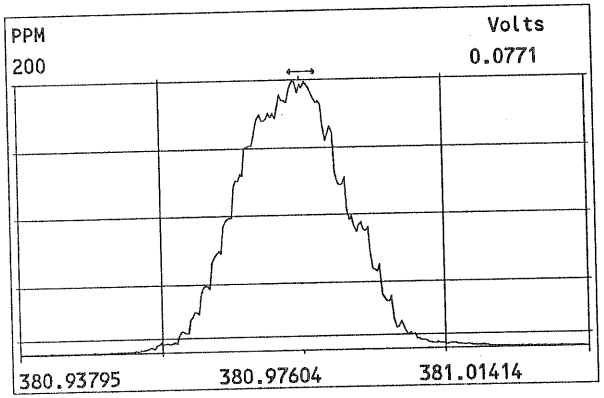
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:2 Reference:PFK

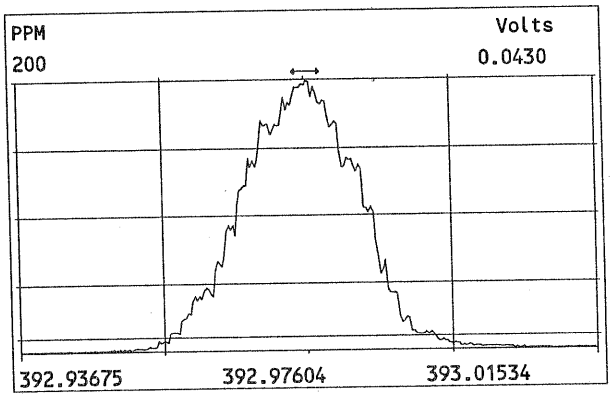


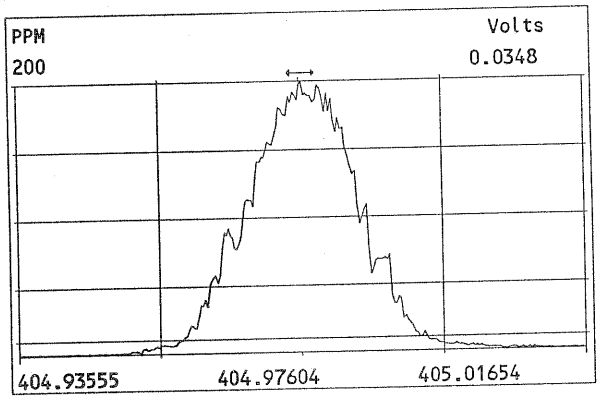


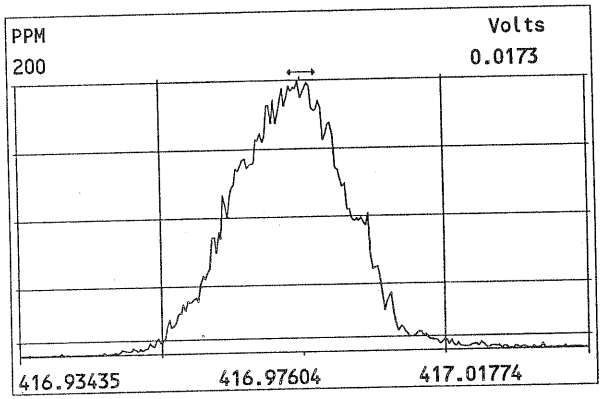




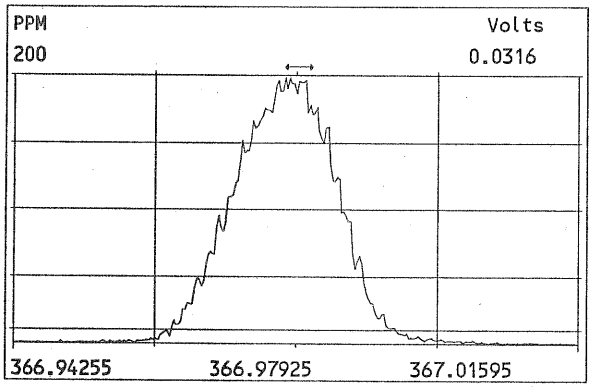


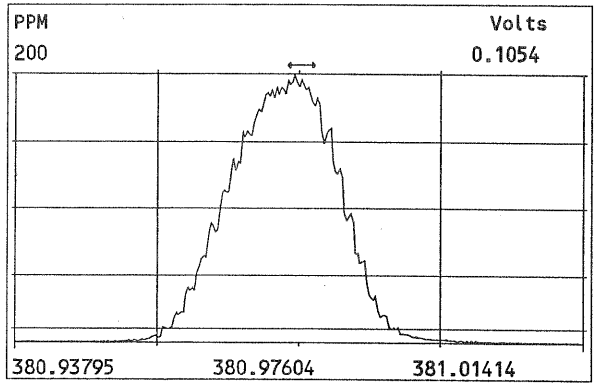


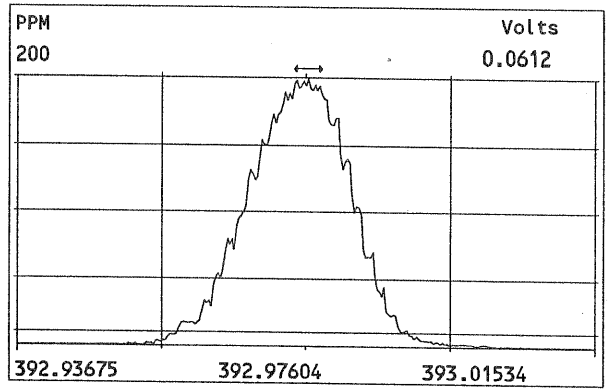


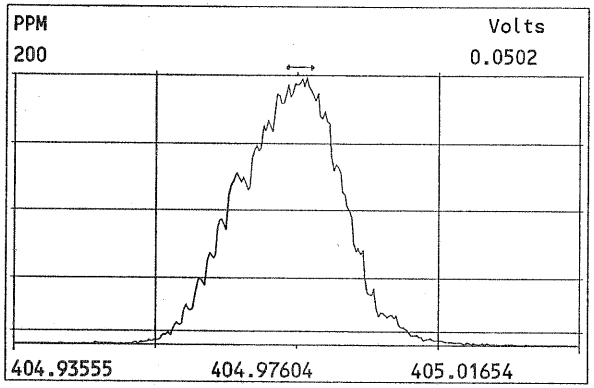


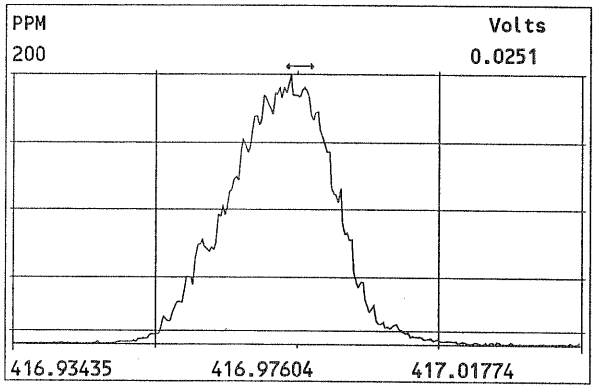
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:3 Reference:PFK

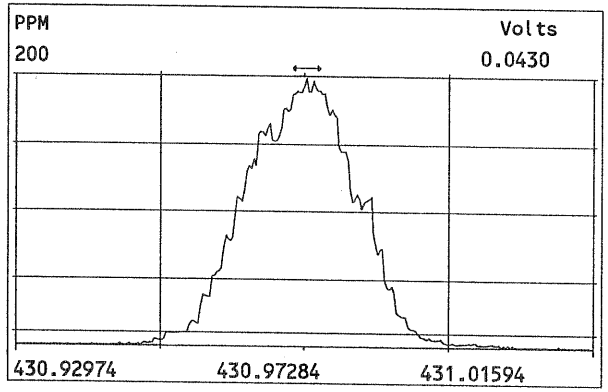


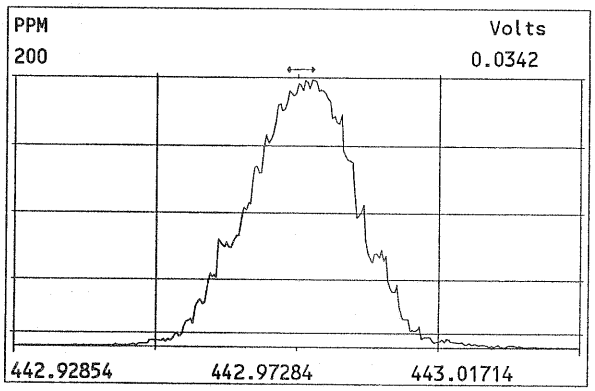


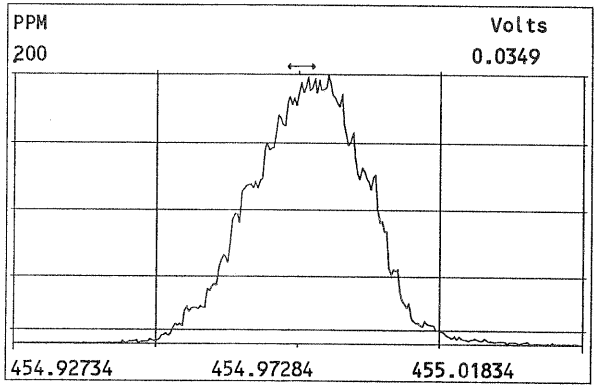




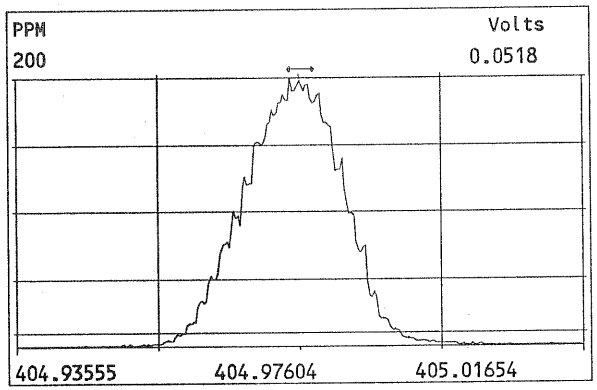


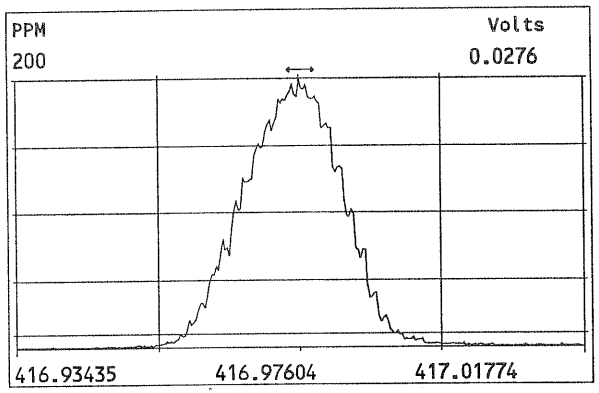


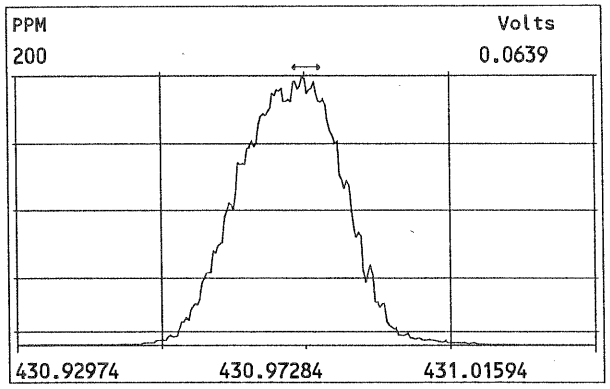


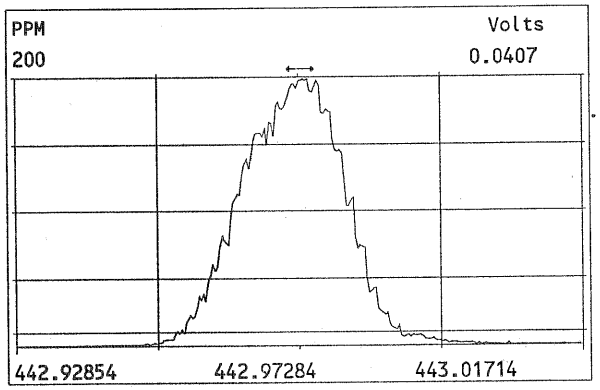


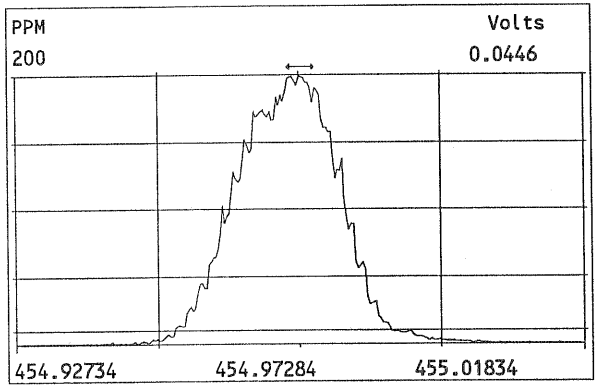
Peak Locate Examination:18-AUG-2010:12:33 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:4 Reference:PFK

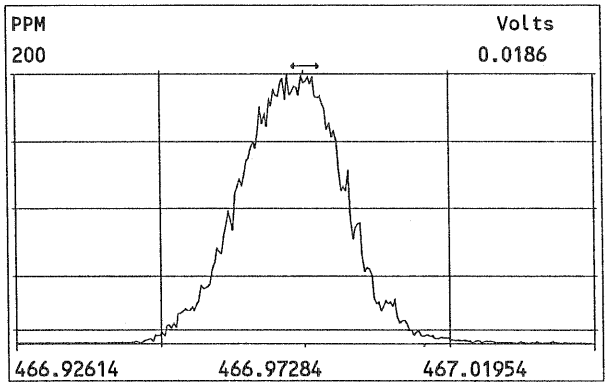


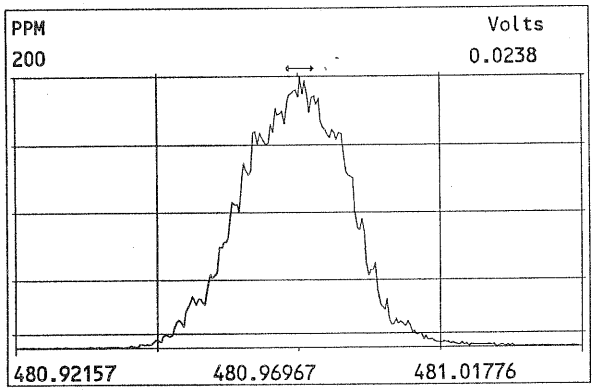




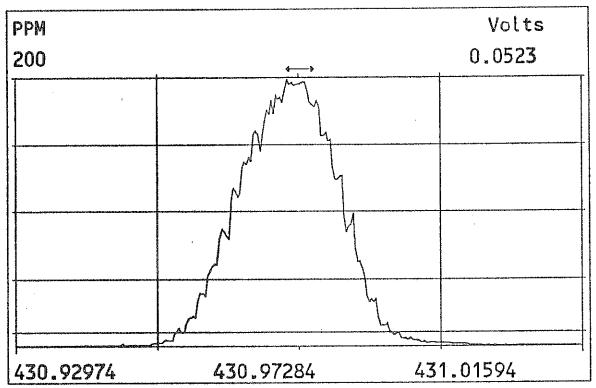


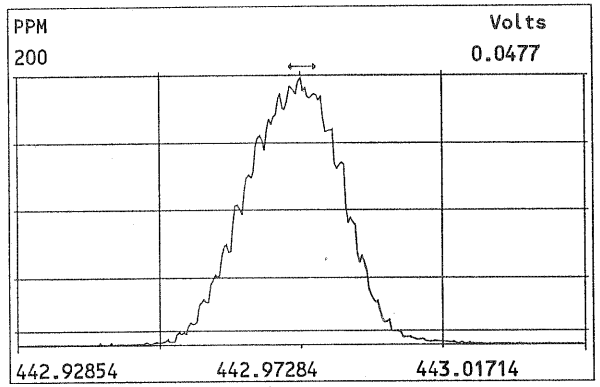


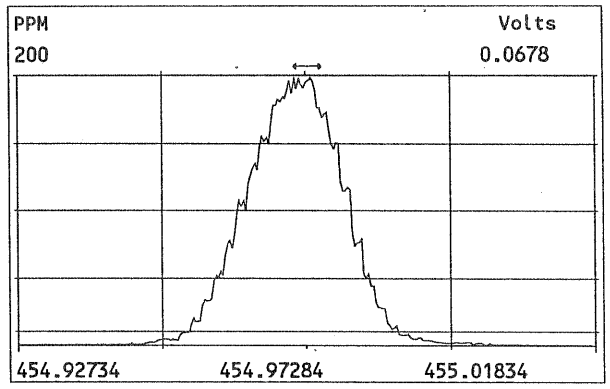


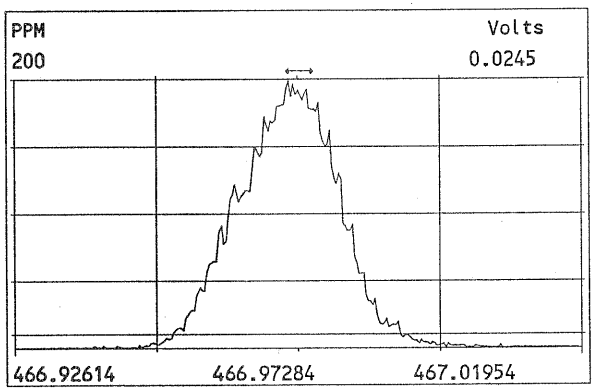


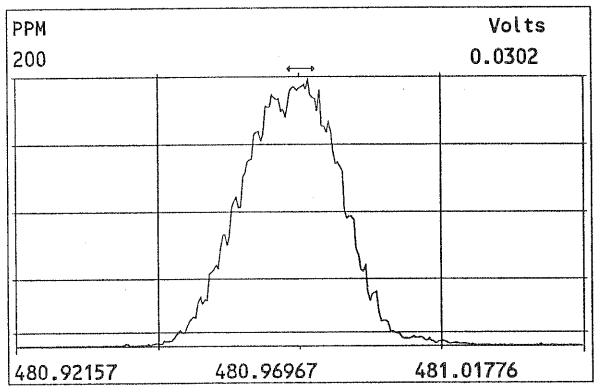
Peak Locate Examination:18-AUG-2010:12:33 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:5 Reference:PFK

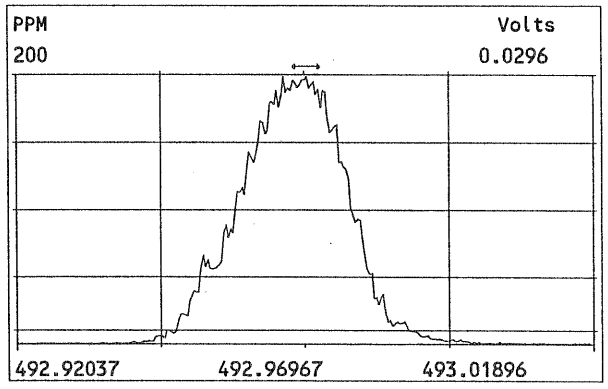


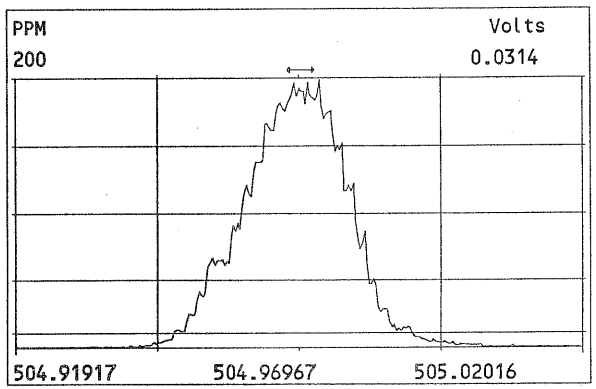


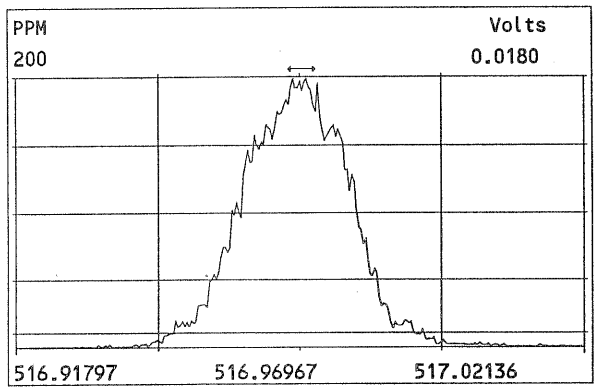












USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 17AUG10M Sam:30 Analysis Date: 18-AUG-10 10:40:03

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	0.77	0.65-0.89	y	9.85	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	y	51.3	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.40	1.05-1.43	y	54.1	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.40	1.05-1.43	y	52.5	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.41	1.05-1.43	y	57.2	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.99	0.88-1.20	y	47.1	43.0 - 58.0
OCDD	M+2/M+4	0.96	0.76-1.02	y	104	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.71	0.65-0.89	y	9.31	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.48	1.32-1.78	y	51.1	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.46	1.32-1.78	y	48.6	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	y	46.2	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	48.7	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	48.3	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.29	1.05-1.43	y	47.7	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.07	0.88-1.20	y	46.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.07	0.88-1.20	y	46.1	43.0 - 58.0
OCDF	M+2/M+4	0.88	0.76-1.02	y	94.8	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: 8/18/10

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 17AUG10M Sam:30 Analysis Date: 18-AUG-10 10:40:03

	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	0.78	0.65-0.89	y	100	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.75	1.32-1.78	y	101	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	111	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	103	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.01	0.88-1.20	y	96.1	72.0 - 138
13C-OCDD	M+2/M+4	0.93	0.76-1.02	y	146	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.86	0.65-0.89	y	102	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	110	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.67	1.32-1.78	y	114	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	115	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	109	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.56	0.43-0.59	y	113	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.55	0.43-0.59	y	112	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	y	97.6	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	92.8	77.0 - 129
13C-OCDF	M+2/M+4	0.94	0.76-1.02	y	141	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.59	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: 8/18/10

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: 5/12/10

RT Window Data Filename: 17AUG10M Sam:30 Analysis Date: 18-AUG-10 Time: 10:40:03

DB-5 IS Data Filename: 17AUG10M Sam:30 Analysis Date: 18-AUG-10 Time: 10:40:03

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)	24:25	1,3,6,8-TCDF (F)	23:04
1,2,8,9-TCDD (L)	28:20	1,2,8,9-TCDF (L)	28:34
1,2,4,7,9-PeCDD (F)	30:15	1,3,4,6,8-PeCDF (F)	28:25
1,2,3,8,9-PeCDD (L)	33:48	1,2,3,8,9-PeCDF (L)	34:14
1,2,4,6,7,9-HxCDD (F)	36:08	1,2,3,4,6,8-HxCDF (F)	35:15
1,2,3,7,8,9-HxCDD (L)	39:12	1,2,3,7,8,9-HxCDF (L)	39:47
1,2,3,4,6,7,9-HpCDD (F)	42:48	1,2,3,4,6,7,8-HpCDF (F)	42:16
1,2,3,4,6,7,8-HpCDD (L)	44:11	1,2,3,4,7,8,9-HpCDF (L)	45:07

(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: 8/18/10

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 18-AUG-10 10:40:03 CS3 or VER Data Filename: 17AUG10M Sam:30

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	1.000	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	1.001	0.999-1.002
LABELED COMPOUNDS			
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989-1.052
13C-2,3,7,8-TCDD		1.022	0.976-1.043
13C-2,3,7,8-TCDF		0.994	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		1.223	0.923-1.303

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

Analyst: _____ Date: 8/18/10

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 5/12/10

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 18-AUG-10 10:40:03 CS3 or VER Data Filename: 17AUG10M Sam:30

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	1.001	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	1.001	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	1.001	0.999-1.001
OCDD	13C-OCDD	1.000	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	0.985	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		1.127	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		1.279	1.000-1.311

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

Analyst: _____ Date: 8/19/10

FAL ID: ST081710M3 Filename: 17AUG10M Sam:30 Acquired: 18-AUG-10 10:40:03 ICal: PCDDFAL3-5-12-10
Client ID: 1613 CS3 090918J ConCal: ST081710M2 EndCal: ST081710M3
Results: 6299 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 100
WHO 1998 Tox: 126 WHO 2005 Tox: 115

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	4.78e+06	0.77 y	27:25	1.04	9.85		2.50	-	-	*
1,2,3,7,8-PeCDD	2.22e+07	1.60 y	33:14	1.05	51.3		2.50	-	-	*
1,2,3,4,7,8-HxCDD	2.19e+07	1.40 y	38:35	1.30	54.1		2.50	-	-	*
1,2,3,6,7,8-HxCDD	2.03e+07	1.40 y	38:46	1.28	52.5		2.50	-	-	*
1,2,3,7,8,9-HxCDD	2.19e+07	1.41 y	39:12	1.25	57.2		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	1.67e+07	0.99 y	44:11	1.35	47.1		2.50	-	-	*
OCDD	1.77e+07	0.96 y	49:44	1.25	104		2.50	-	-	*
2,3,7,8-TCDF	1.03e+07	0.71 y	26:39	1.62	9.31		2.50	-	-	*
1,2,3,7,8-PeCDF	3.21e+07	1.48 y	31:30	0.92	51.1		2.50	-	-	*
2,3,4,7,8-PeCDF	3.02e+07	1.46 y	32:49	0.94	48.6		2.50	-	-	*
1,2,3,4,7,8-HxCDF	2.54e+07	1.27 y	37:12	0.93	46.2		2.50	-	-	*
1,2,3,6,7,8-HxCDF	2.86e+07	1.25 y	37:24	0.84	48.7		2.50	-	-	*
2,3,4,6,7,8-HxCDF	2.64e+07	1.24 y	38:21	0.90	48.3		2.50	-	-	*
1,2,3,7,8,9-HxCDF	2.32e+07	1.29 y	39:47	0.98	47.7		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	2.02e+07	1.07 y	42:16	1.38	46.3		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.68e+07	1.07 y	45:07	1.62	46.1		2.50	-	-	*
OCDF	1.73e+07	0.88 y	50:07	0.74	94.8		2.50	-	-	*

						Rec
13C-2,3,7,8-TCDD	4.68e+07	0.78 y	27:24	0.93	100	100
13C-1,2,3,7,8-PeCDD	4.13e+07	1.75 y	33:12	0.81	101	101
13C-1,2,3,4,7,8-HxCDD	3.11e+07	1.25 y	38:34	0.95	111	111
13C-1,2,3,6,7,8-HxCDD	3.03e+07	1.27 y	38:44	1.00	103	103
13C-1,2,3,4,6,7,8-HpCDD	2.62e+07	1.01 y	44:09	0.92	96.1	96.1
13C-OCDD	2.73e+07	0.93 y	49:43	0.63	146	73.0
13C-2,3,7,8-TCDF	6.85e+07	0.86 y	26:39	0.87	102	102
13C-1,2,3,7,8-PeCDF	6.84e+07	1.69 y	31:29	0.81	110	110
13C-2,3,4,7,8-PeCDF	6.59e+07	1.67 y	32:48	0.75	114	114
13C-1,2,3,4,7,8-HxCDF	5.90e+07	0.53 y	37:10	1.74	115	115
13C-1,2,3,6,7,8-HxCDF	7.01e+07	0.54 y	37:23	2.17	109	109
13C-2,3,4,6,7,8-HxCDF	6.09e+07	0.56 y	38:19	1.82	113	113
13C-1,2,3,7,8,9-HxCDF	4.93e+07	0.55 y	39:45	1.49	112	112
13C-1,2,3,4,6,7,8-HpCDF	3.17e+07	0.43 y	42:16	1.10	97.6	97.6
13C-1,2,3,4,7,8,9-HpCDF	2.24e+07	0.44 y	45:05	0.81	92.8	92.8
13C-OCDF	4.93e+07	0.94 y	50:05	1.19	141	70.3
37Cl-2,3,7,8-TCDD	4.51e+06		27:25	0.93	9.59	95.9
13C-1,2,3,4-TCDD	5.05e+07	0.82 y	26:48	-	149	
13C-1,2,3,4-TCDF	7.70e+07	0.88 y	25:33	-	144	
13C-1,2,3,7,8,9-HxCDD	2.96e+07	1.24 y	39:10	-	137	

						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	2.66e+07		24:25	1.04	54.8	2.50	-	-	*		18
Total Penta-Dioxins	4.84e+07		30:15	1.05	112	2.50	-	-	*		8
Total Hexa-Dioxins	7.32e+07		36:08	1.27	187	2.50	-	-	*		9
Total Hepta-Dioxins	3.69e+07		42:48	1.35	104	2.50	-	-	*		18
Total Tetra-Furans	4.53e+07		23:04	1.62	40.8	2.50	-	-	*		19
1st Fn. Tot Penta-Furans	3.28e+07		28:25	0.93	52.6	2.50	-	-	*	PeCDF	1
Total Penta-Furans	9.01e+07		30:10	0.93	144	2.50	-	-	*	197	11
Total Hexa-Furans	1.22e+08		35:15	0.90	224	2.50	-	-	*		11
Total Hepta-Furans	3.72e+07		42:16	1.48	92.8	2.50	-	-	*		6

Analyst: _____ Date: 8/18/10

Frontier Analytical Laboratory - Acquisition Log

Run Name:17AUG10M Instrument: FAL3 GC: DB5 Experiment:PCDD

Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
17AUG10M	1	ST081710M1	1613 CS3 191908J	17-AUG-10 07:54:40	ST081710M1	ST081710M2	BS
17AUG10M	2	6276-006-0001-SA	PSB15-1.5-2-073010	17-AUG-10 08:50:02	ST081710M1	ST081710M2	BS
17AUG10M	3	6276-001-0001-SA	PSB11-0-0.5-073010 1:10	17-AUG-10 09:45:25	ST081710M1	ST081710M2	BS
17AUG10M	4	6276-007-0001-SA	PSB15-2-4-073010 1:10	17-AUG-10 10:40:47	ST081710M1	ST081710M2	BS
17AUG10M	5	6276-009-0001-SA	PSB15-13-15-073010 1:10	17-AUG-10 11:36:06	ST081710M1	ST081710M2	BS
17AUG10M	6	6269-001-0001-SA	PSB14-0-.5-072810 1:10	17-AUG-10 12:31:24	ST081710M1	ST081710M2	BS
17AUG10M	7	6271-002-0001-SA	PSB13-1.5-2-072910 1:10	17-AUG-10 13:26:47	ST081710M1	ST081710M2	BS
17AUG10M	8	6271-003-0001-SA	PSB13-2-4-072910 1:10	17-AUG-10 14:22:06	ST081710M1	ST081710M2	BS
17AUG10M	9	QC081710M1	TEST QC	17-AUG-10 15:17:34	ST081710M1	ST081710M2	BS
17AUG10M	10	6276-008-0001-SA	PSB15-4-6-073010 1:20	17-AUG-10 16:13:01	ST081710M1	ST081710M2	BS
17AUG10M	11	6276-005-0001-SA	PSB15-0-0.5-073010 1:100	17-AUG-10 17:08:27	ST081710M1	ST081710M2	BS
17AUG10M	12	6276-002-0001-SA	PSB11-1.5-2-073010 1:200	17-AUG-10 18:03:50	ST081710M1	ST081710M2	BS
17AUG10M	13	6276-003-0001-SA	PSB11-2-4-073010 1:200	17-AUG-10 18:59:16	ST081710M1	ST081710M2	BS
17AUG10M	14	6276-004-0001-SA	PSB11-2-4-073010-D 1:200	17-AUG-10 19:54:40	ST081710M1	ST081710M2	BS
17AUG10M	15	SB081710M1	Solvent Blank	17-AUG-10 20:49:59	ST081710M1	ST081710M2	BS
17AUG10M	16	ST081710M2	1613 CS3 191908J	17-AUG-10 21:45:19	ST081710M1	ST081710M2	BS
17AUG10M	17	2083-001-0001-OPR	OPR	17-AUG-10 22:40:39	ST081710M2	ST081710M3	BS
17AUG10M	18	2083-001-0001-MB	Method Blank	17-AUG-10 23:35:58	ST081710M2	ST081710M3	BS
17AUG10M	19	6299-001-0001-SA	Barnhardt Sludge #3	18-AUG-10 00:31:17	ST081710M2	ST081710M3	BS
17AUG10M	20	6291-001-0001-SA	0080214-01	18-AUG-10 01:26:39	ST081710M2	ST081710M3	BS
17AUG10M	21	QC081710M2	TEST QC2	18-AUG-10 02:21:58	ST081710M2	ST081710M3	BS
17AUG10M	22	6274-001-0001-SA	PSB9A-1.5-2-073010	18-AUG-10 03:17:17	ST081710M2	ST081710M3	BS
17AUG10M	23	6274-002-0001-SA	PSB9A-2-4-073010	18-AUG-10 04:12:36	ST081710M2	ST081710M3	BS
17AUG10M	24	6274-003-0001-SA	PSB9A-0-0.5-073010	18-AUG-10 05:07:58	ST081710M2	ST081710M3	BS
17AUG10M	25	6274-004-0001-SA	PSB10-0-0.5-073010	18-AUG-10 06:03:21	ST081710M2	ST081710M3	BS
17AUG10M	26	6274-005-0001-SA	PSB10-1.5-2-073010	18-AUG-10 06:58:43	ST081710M2	ST081710M3	BS
17AUG10M	27	6274-006-0001-SA	PSB10-2-4-073010	18-AUG-10 07:54:06	ST081710M2	ST081710M3	BS
17AUG10M	28	6272-005-0001-SA	PSB3-0-0.5-072910 1:10	18-AUG-10 08:49:25	ST081710M1	ST081710M2	BS
17AUG10M	29	6291-002-0001-SA	0080214-02	18-AUG-10 09:44:44	ST081710M2	ST081710M3	BS
17AUG10M	30	ST081710M3	1613 CS3 191908J	18-AUG-10 10:40:03	ST081710M2	ST081710M3	BS
17AUG10M	31	QC081710M3	TEST QC3	18-AUG-10 11:35:24	ST081710M2	ST081710M3	BS

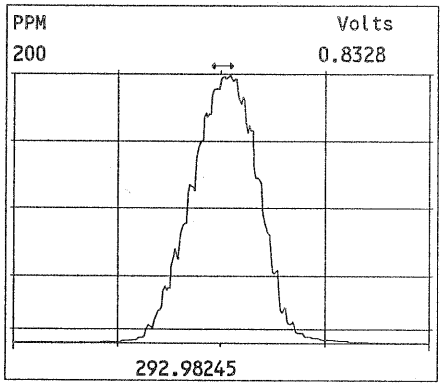
8/12/11

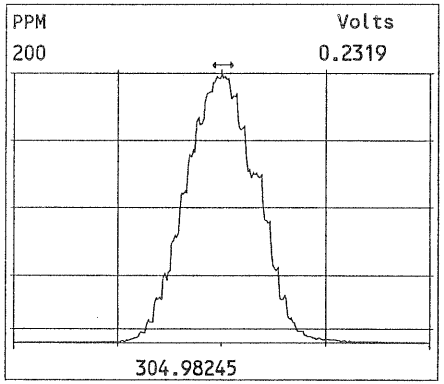
Data Backed Up:_____

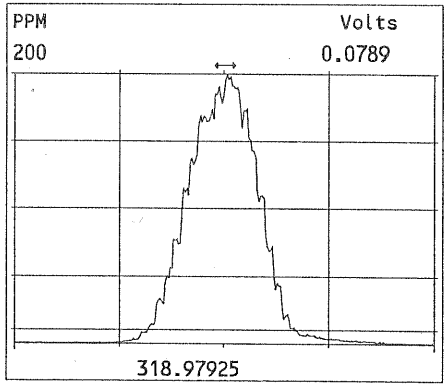
Date:_____

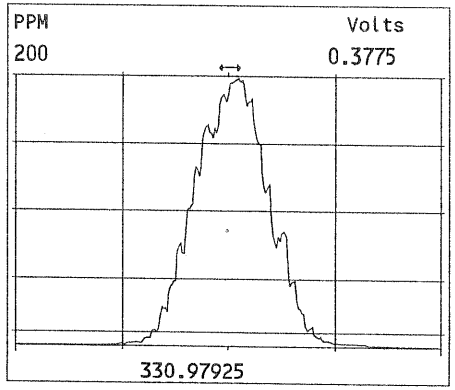
Peak Locate Examination:17-AUG-2010:07:52 File:17AUG10M

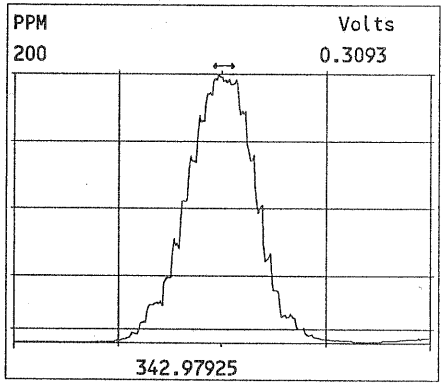
Experiment:PCDD Function:1 Reference:PFK

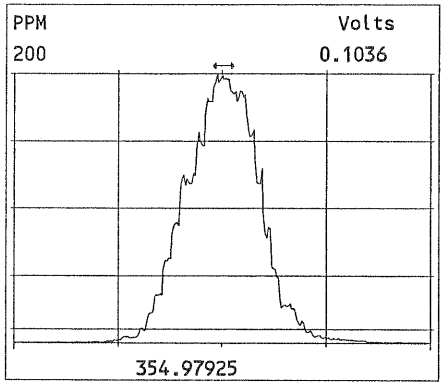


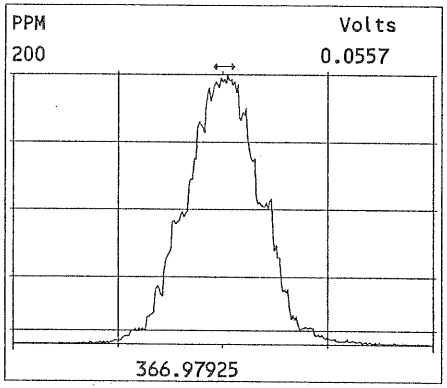


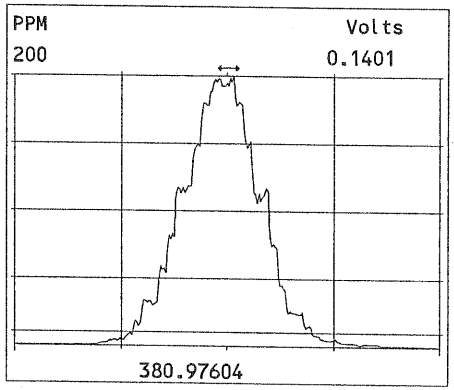


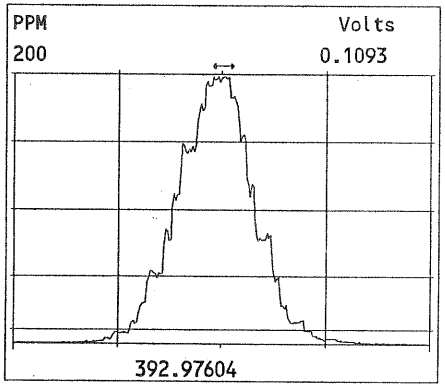


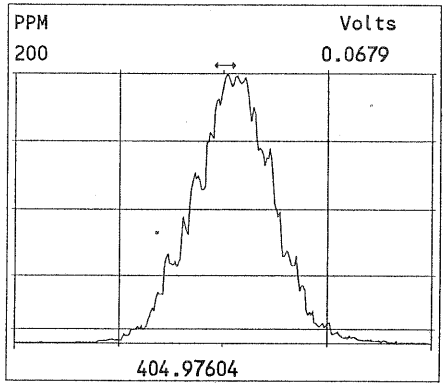


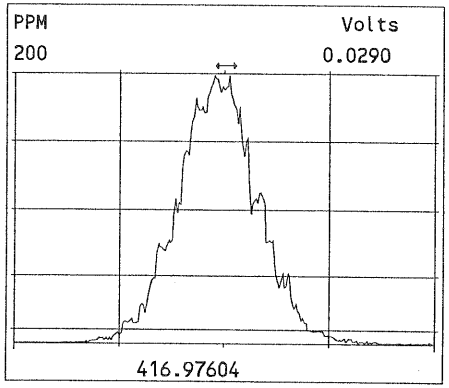




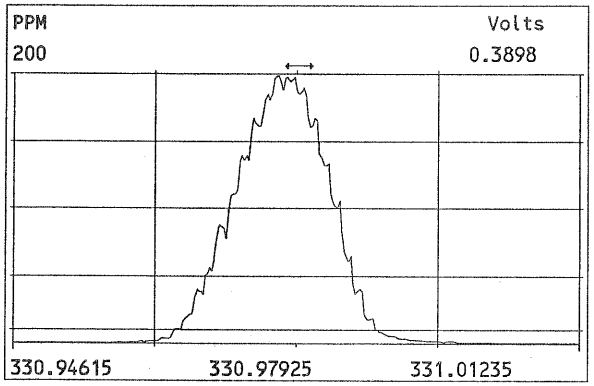


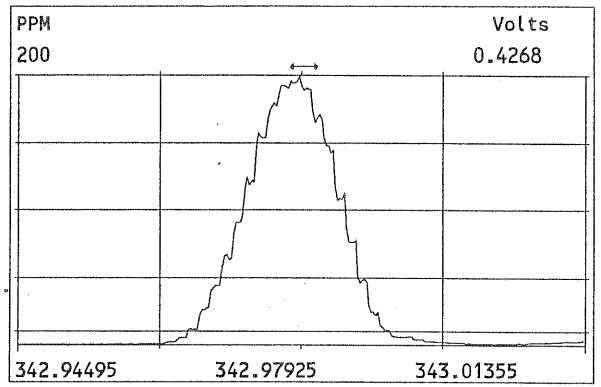


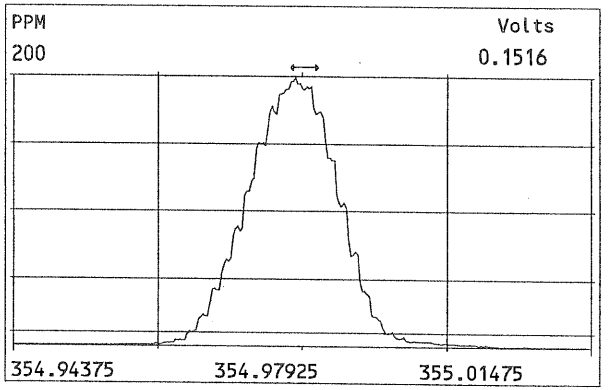


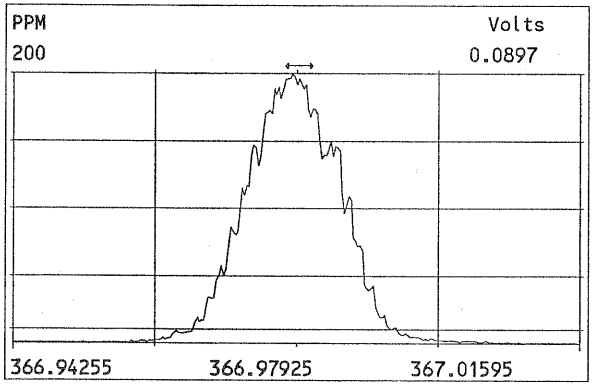


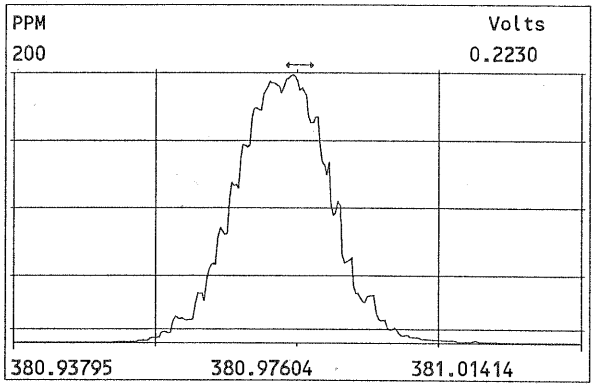
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:2 Reference:PFK

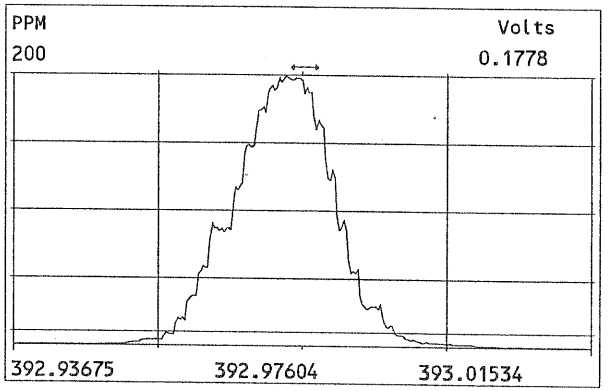


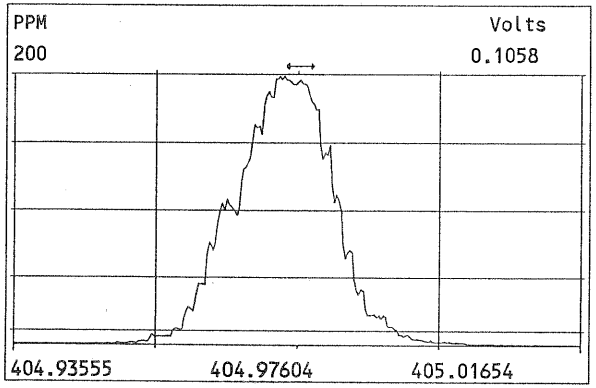


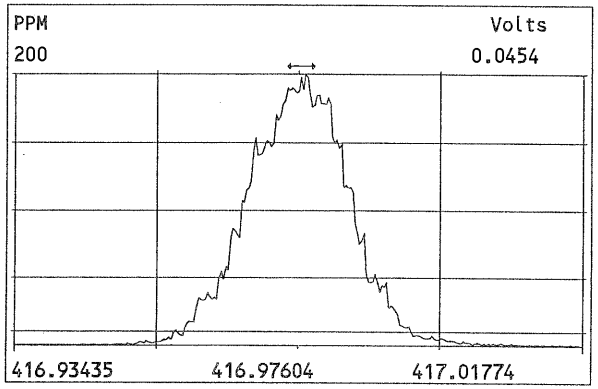




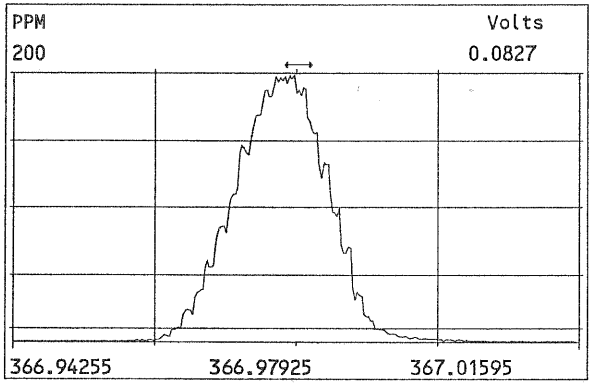


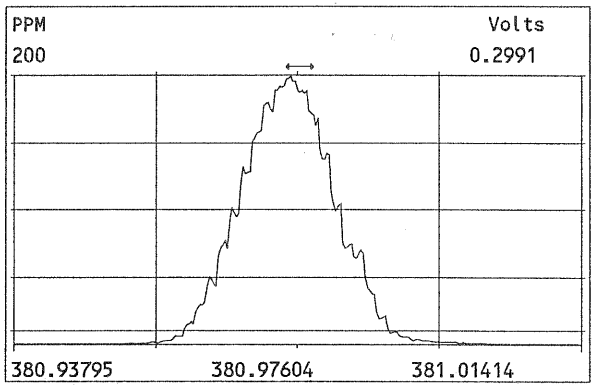


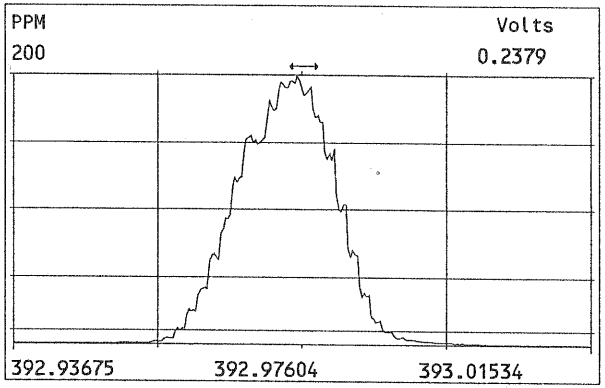


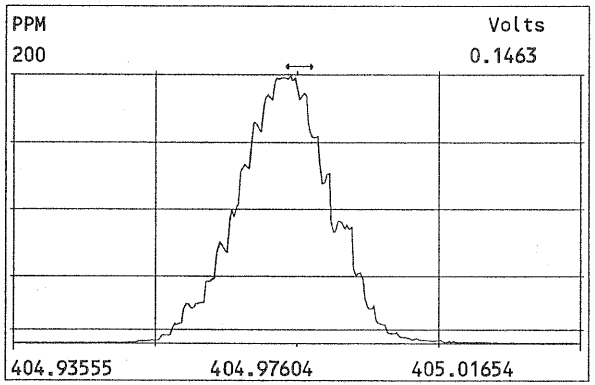


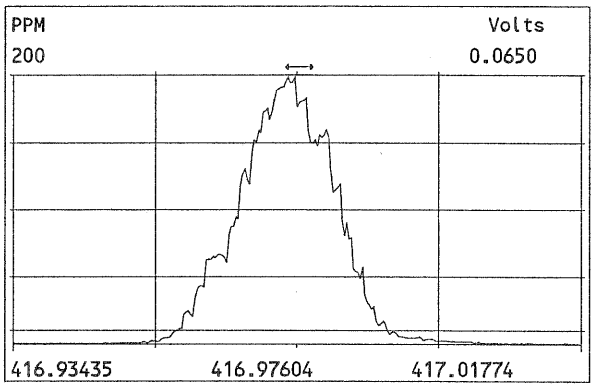
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:3 Reference:PFK

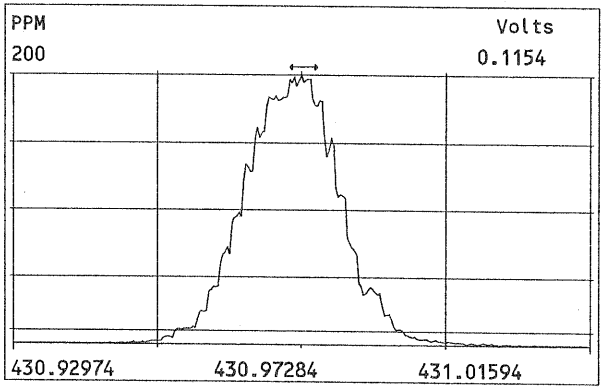


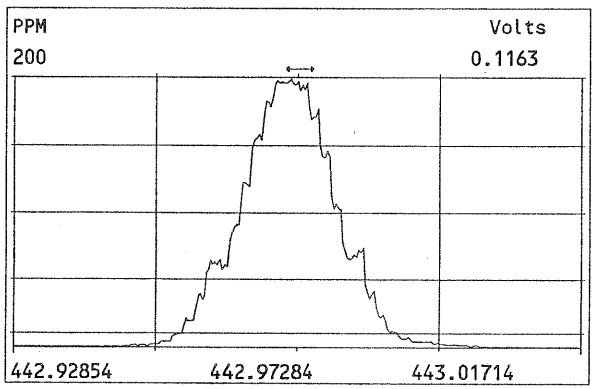


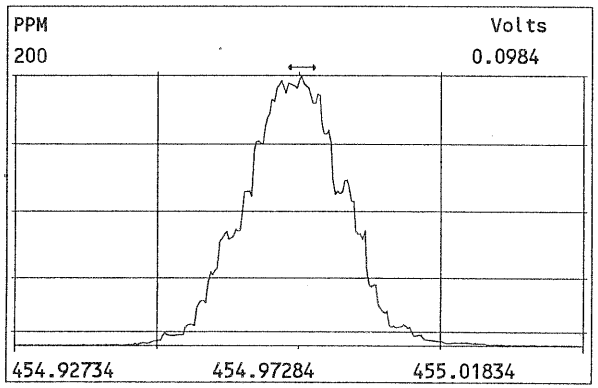




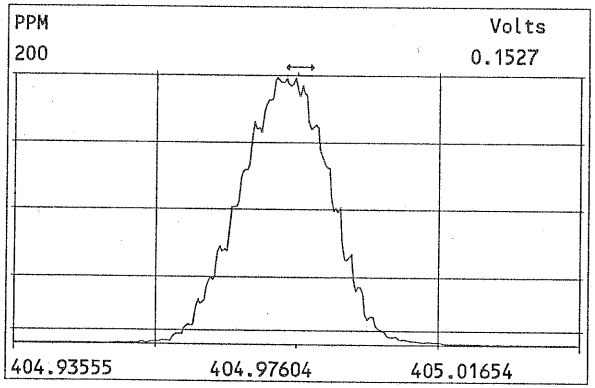


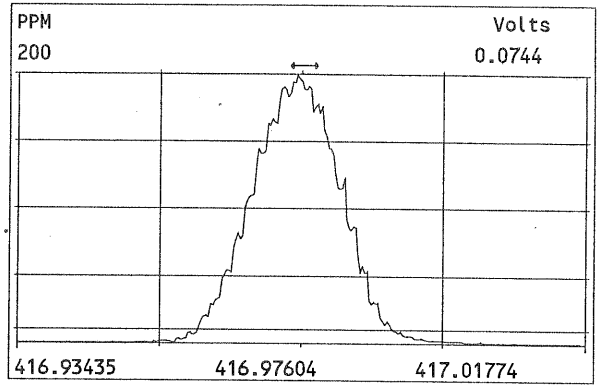


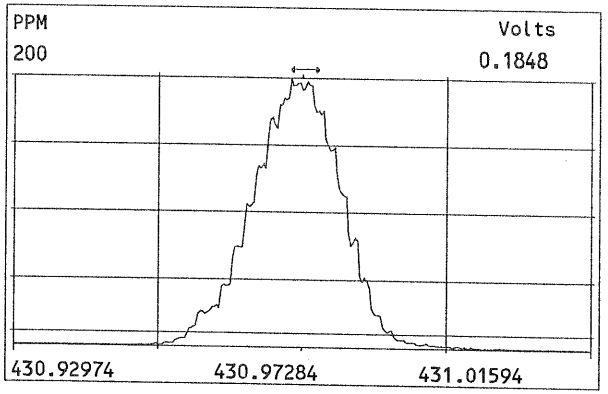


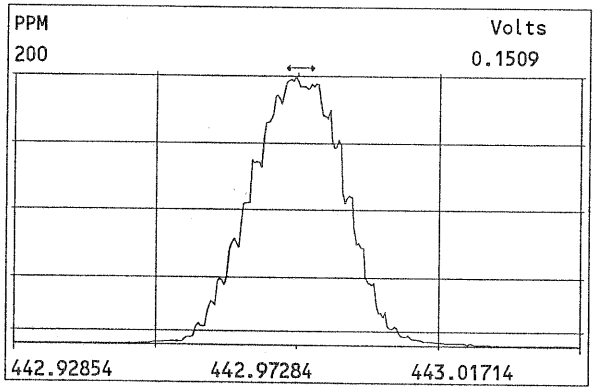


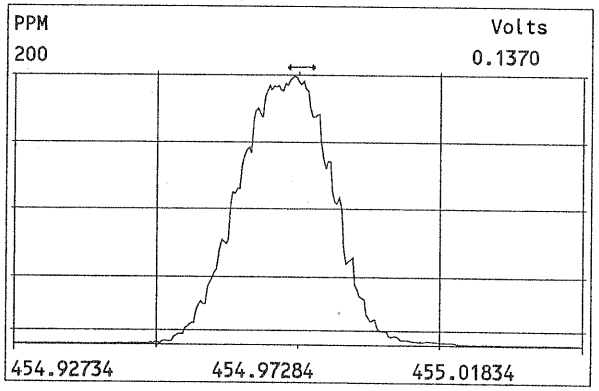
Peak Locate Examination:17-AUG-2010:07:53 File:17AUG10M
Experiment:PCDD Function:4 Reference:PFK

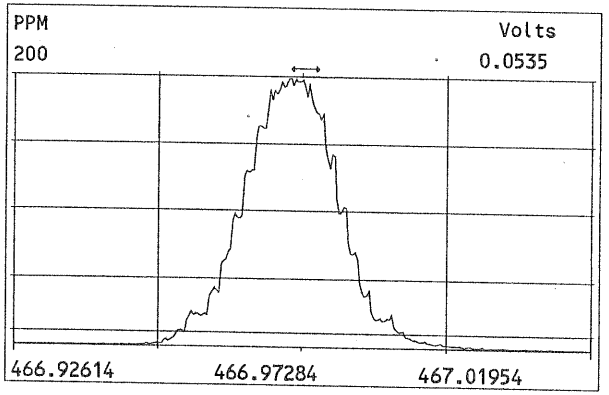


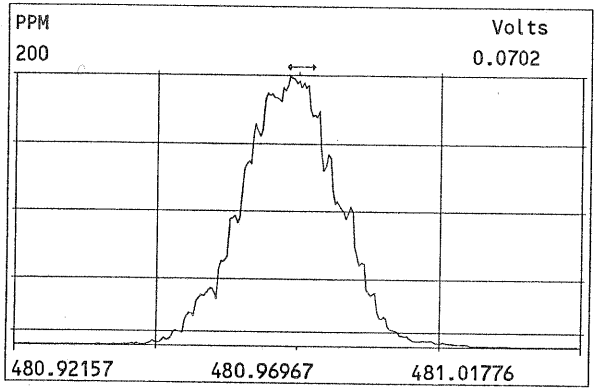




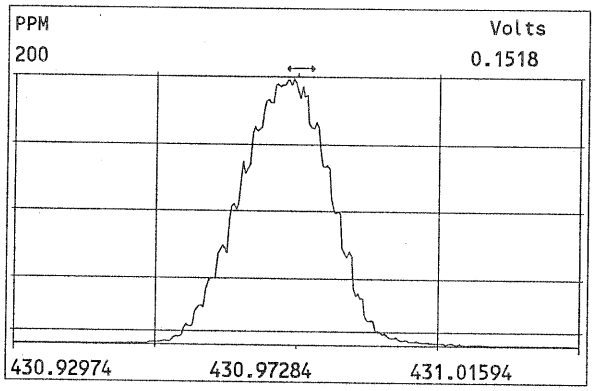


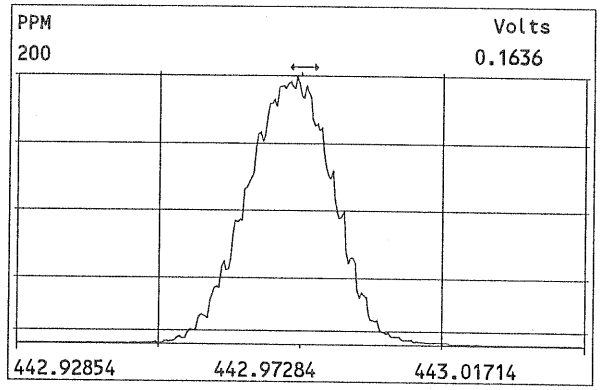


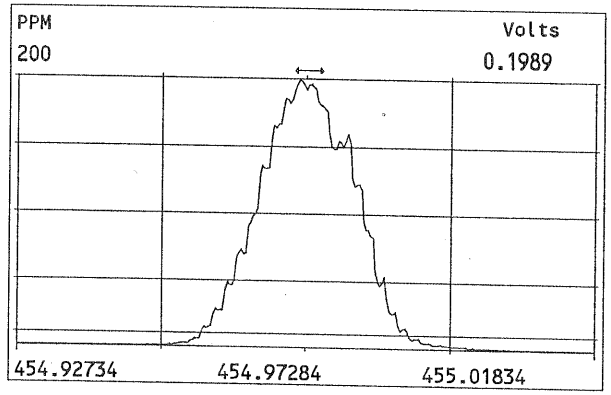


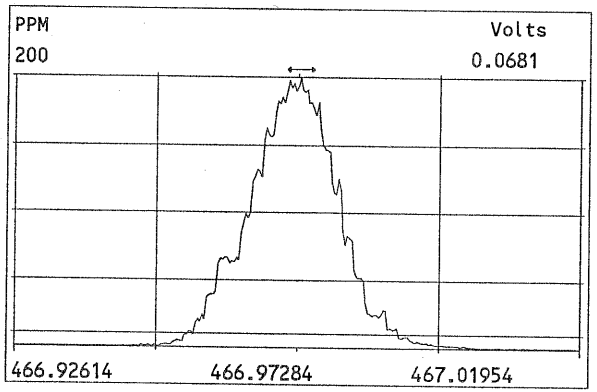


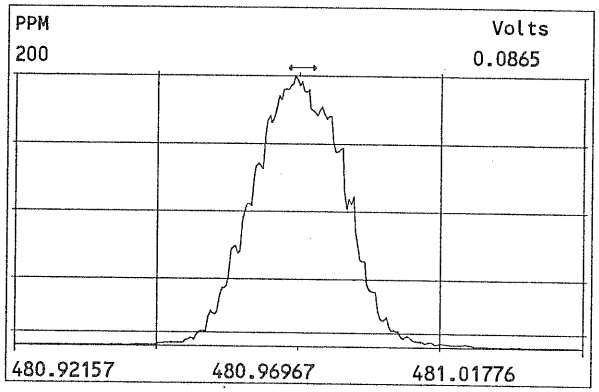
Peak Locate Examination:17-AUG-2010:07:54 File:17AUG10M
Experiment:PCDD Function:5 Reference:PFK

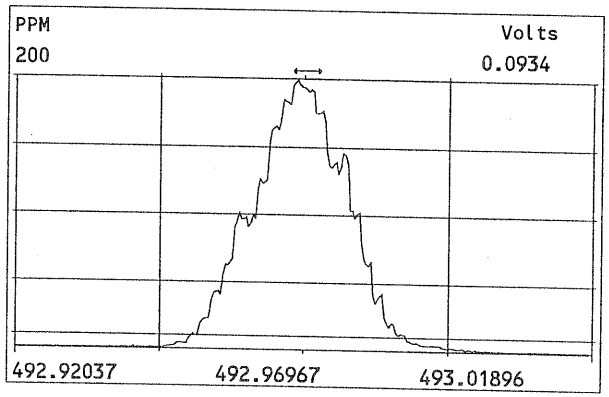


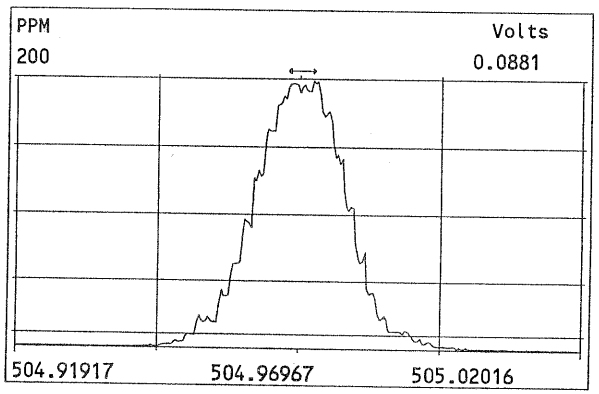


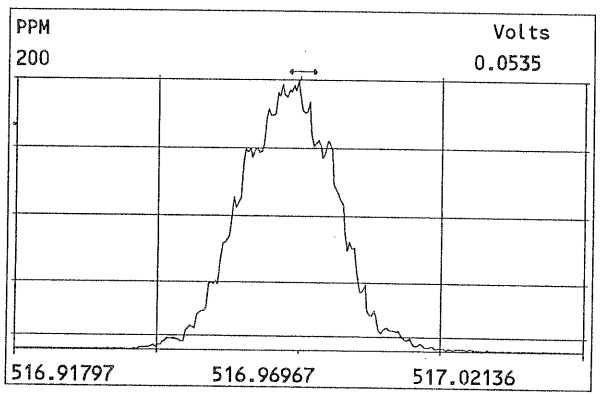




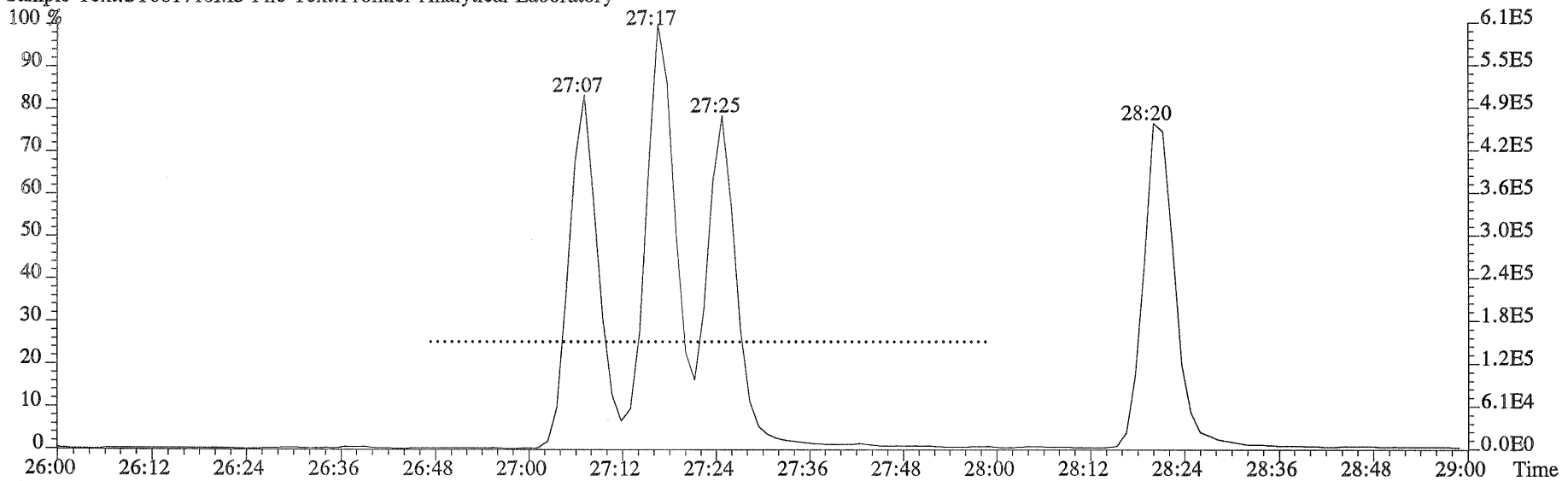




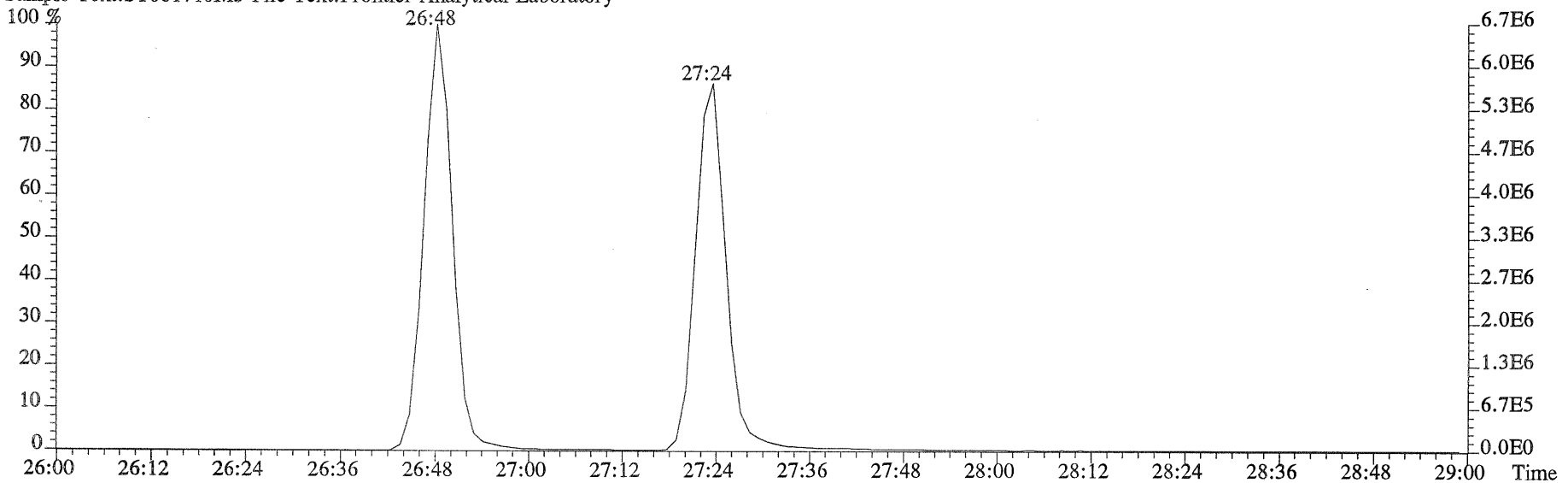




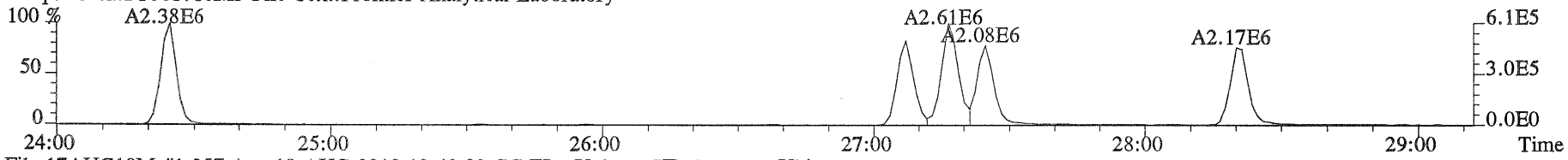
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:30 Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



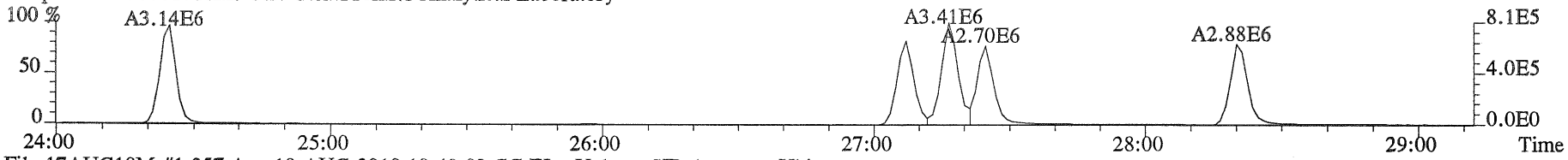
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:30 Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



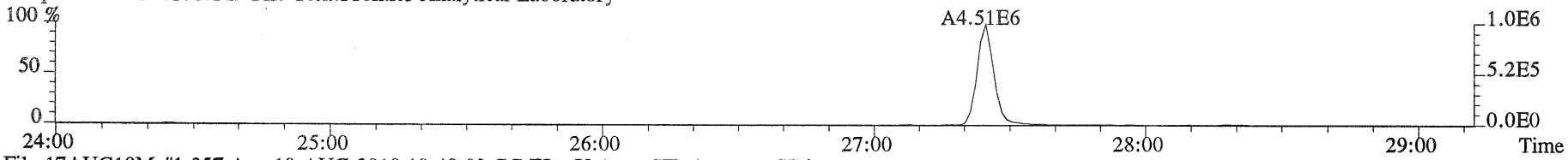
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



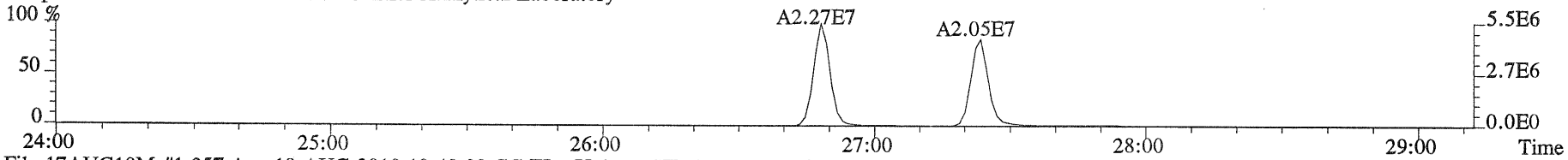
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



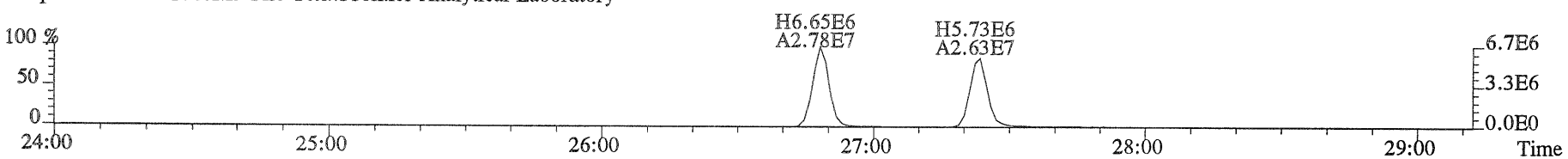
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



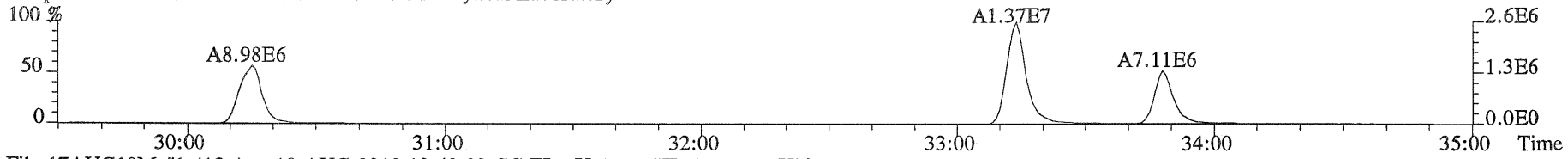
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



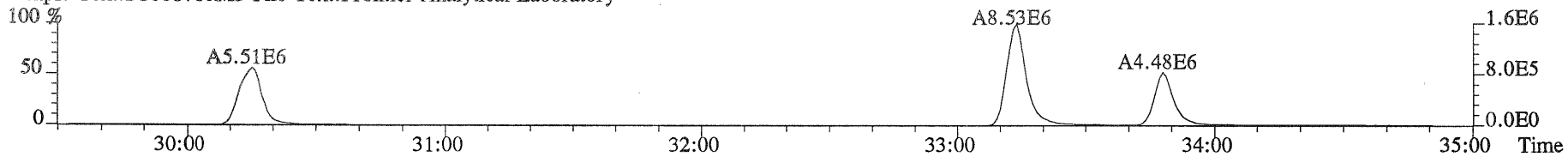
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



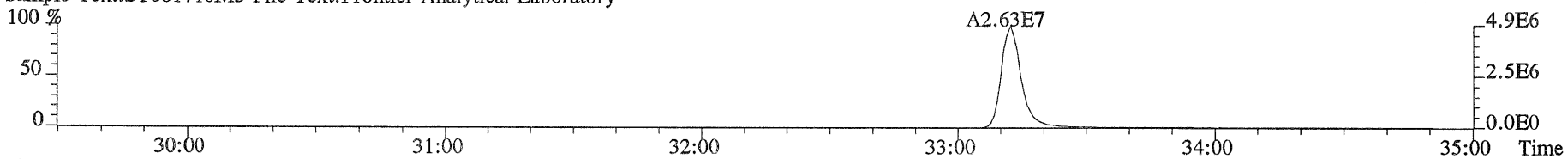
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



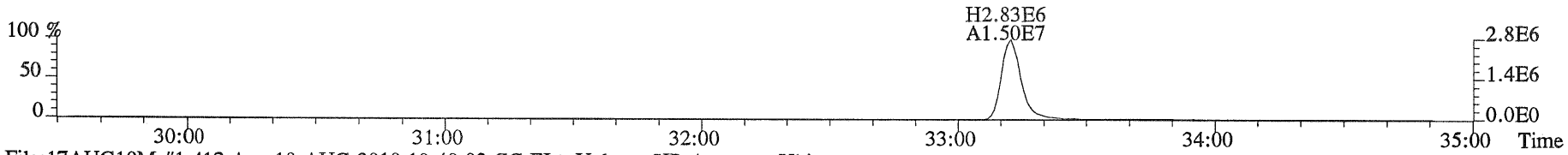
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



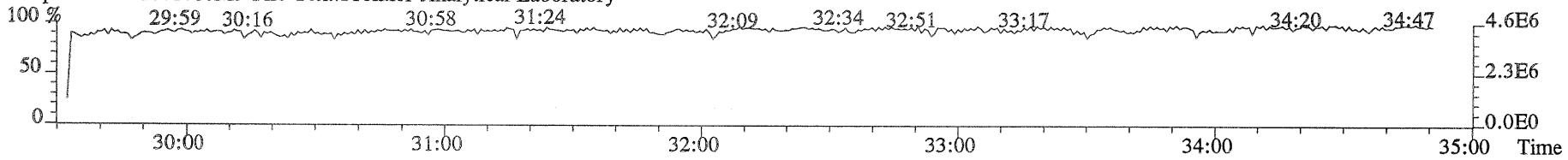
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



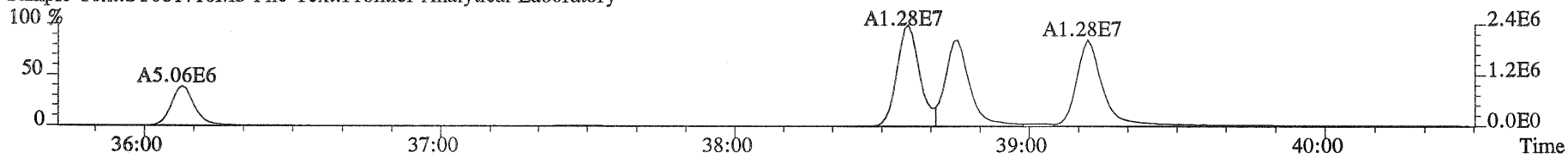
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



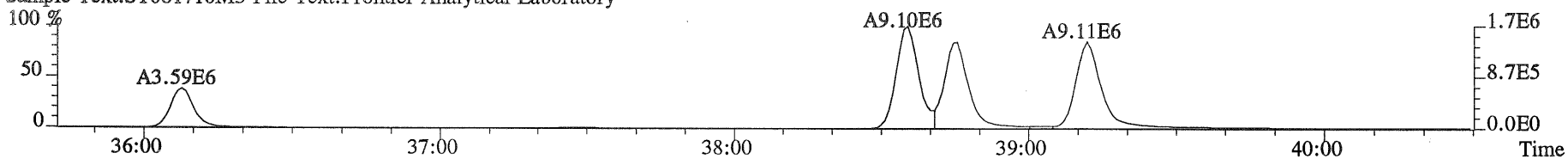
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:30 F:2 Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



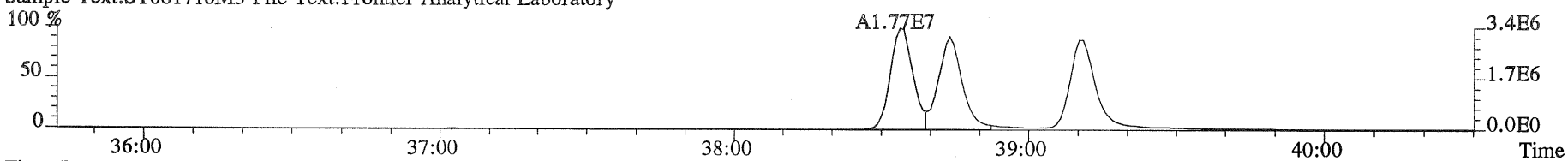
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



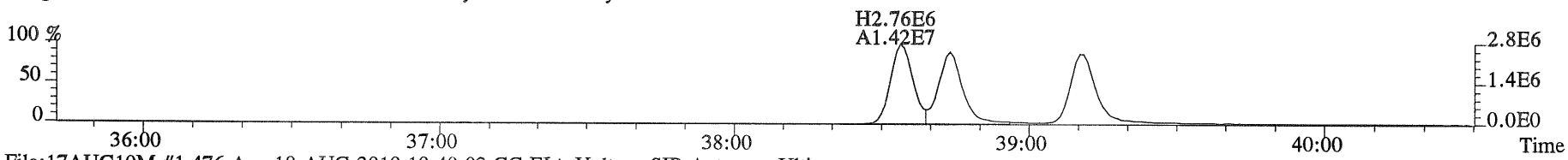
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



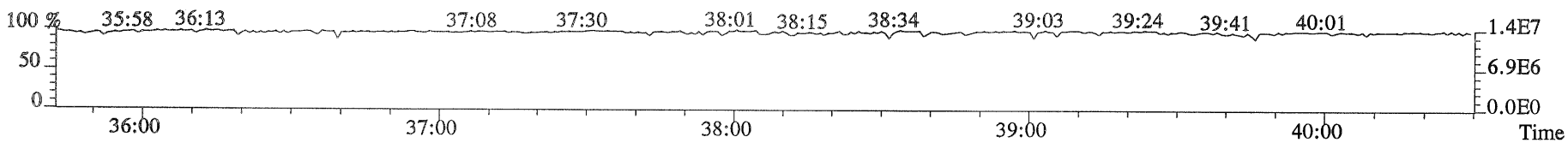
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



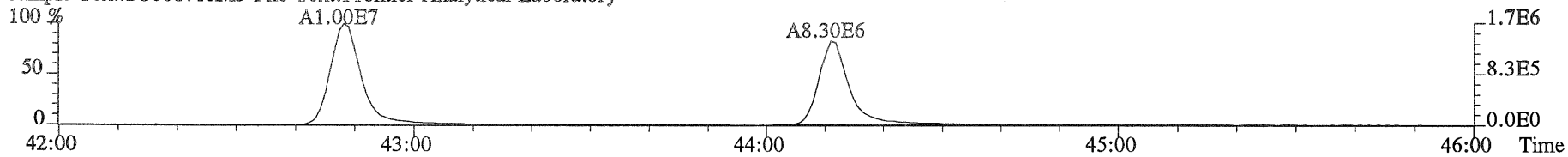
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



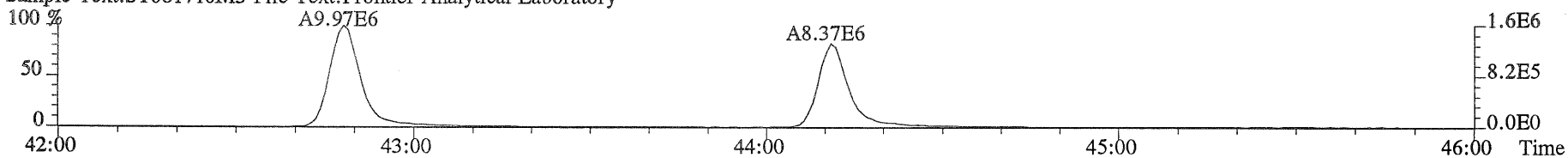
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:30 F:3 Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



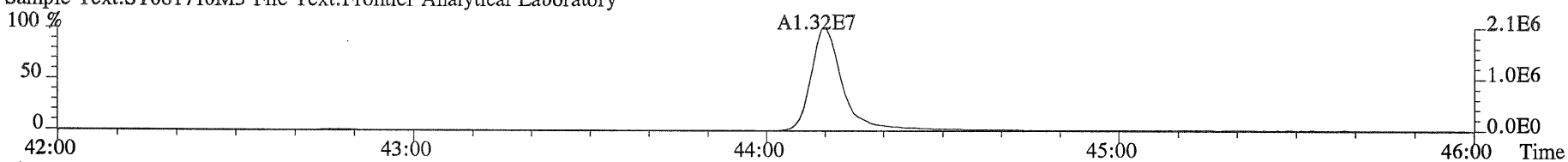
File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



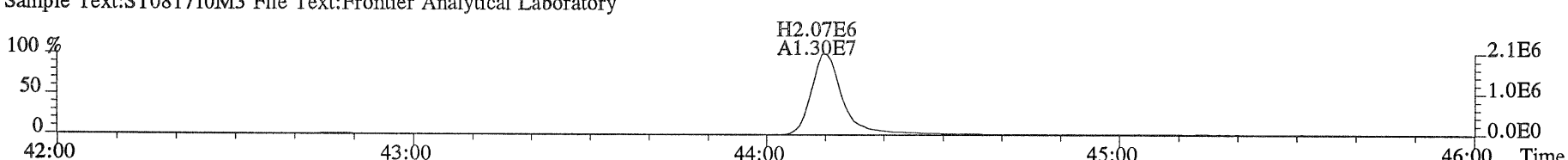
File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



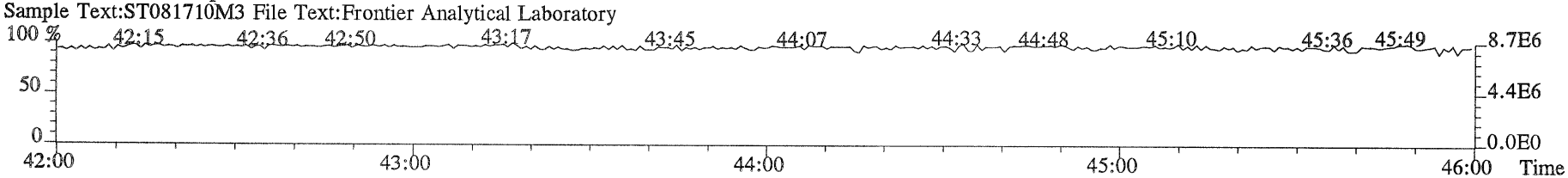
File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory

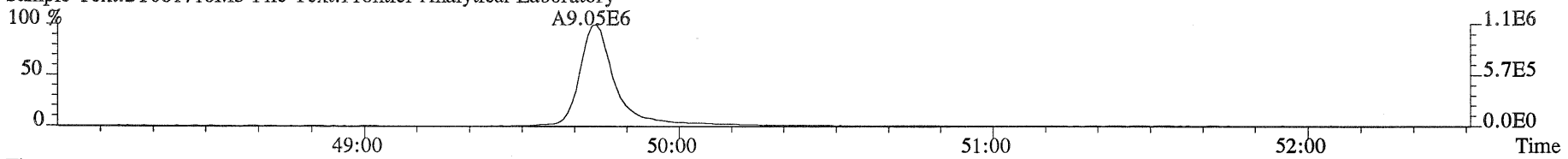


File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:30 F:4 Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



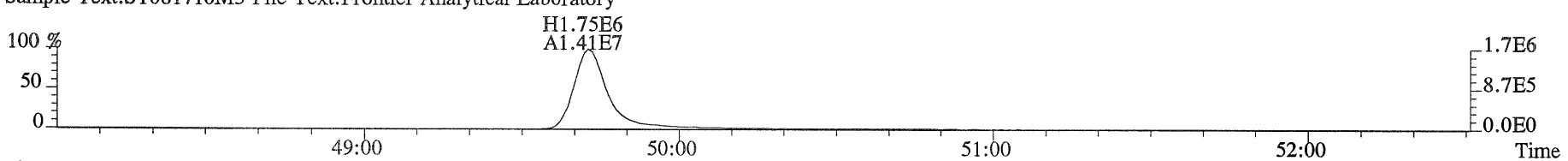
File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory

File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory

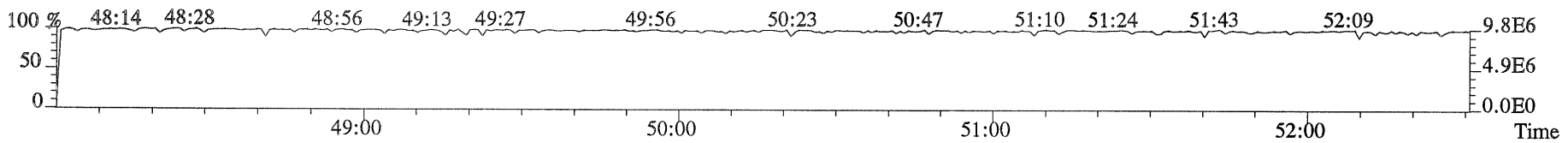


File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory

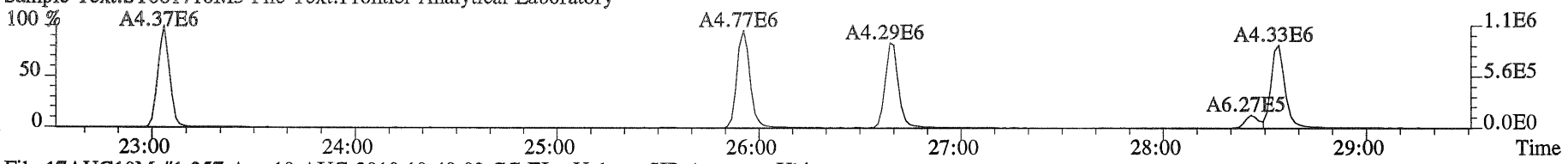
File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



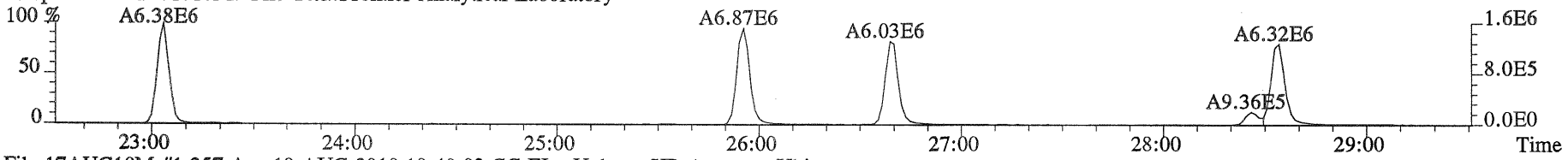
File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:30 F:5 Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



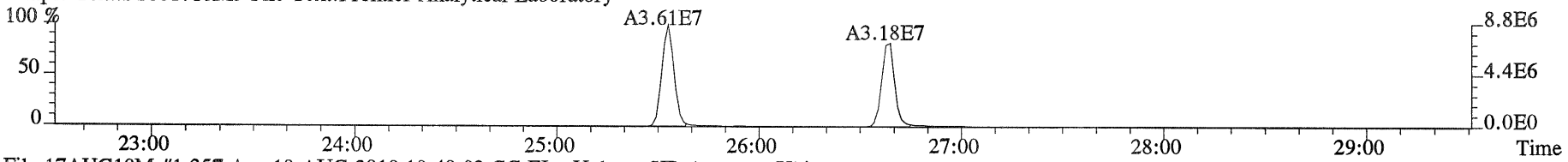
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



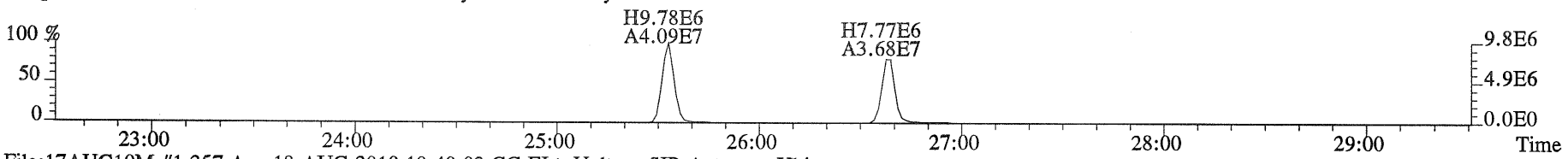
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



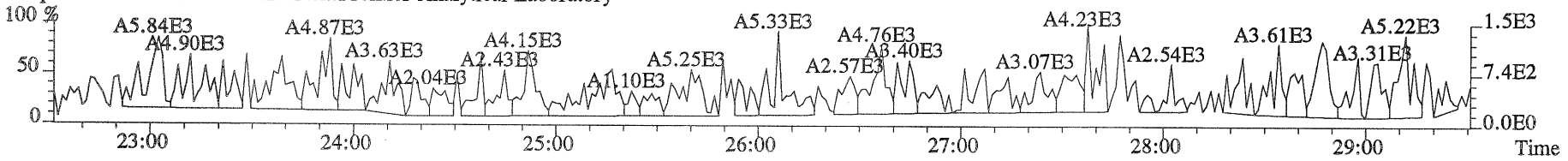
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



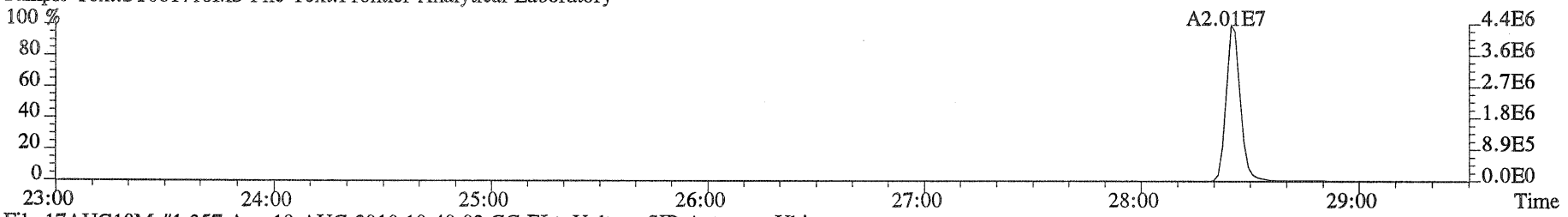
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



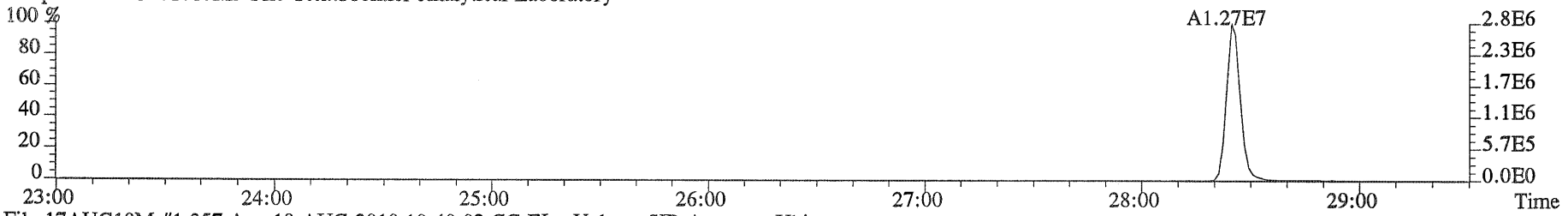
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



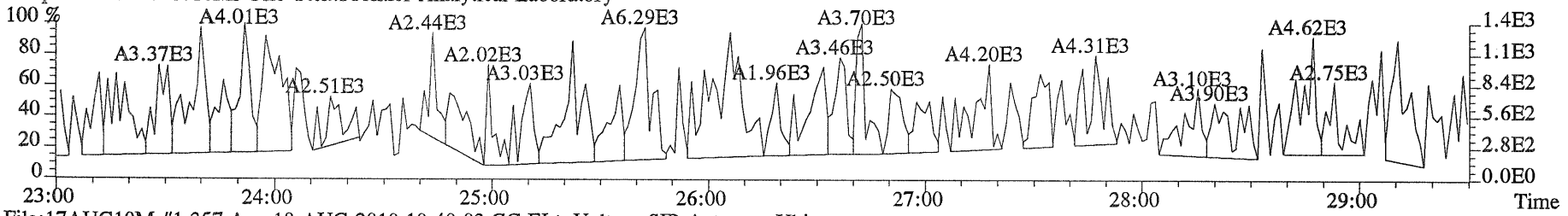
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



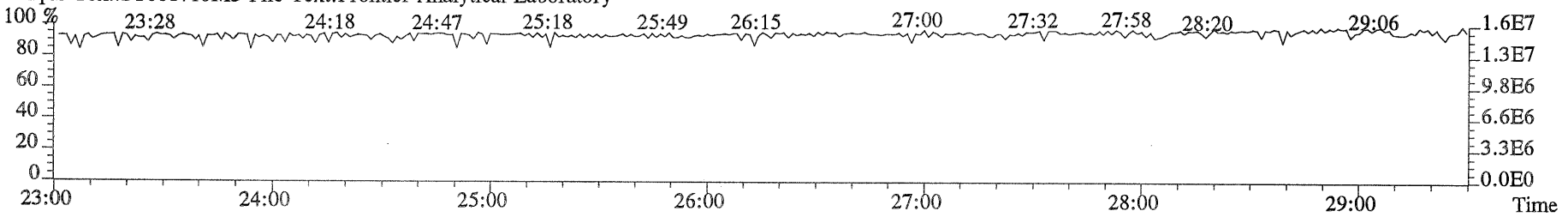
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



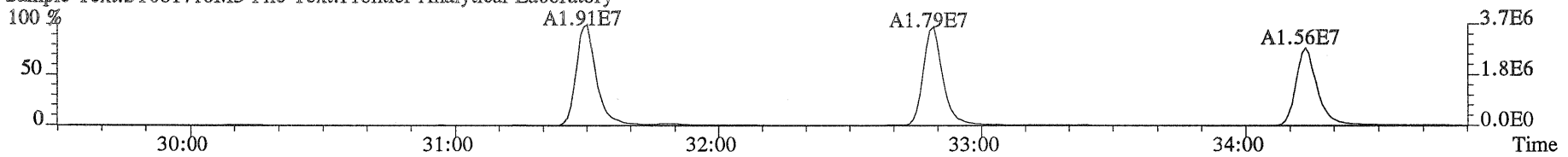
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:30 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



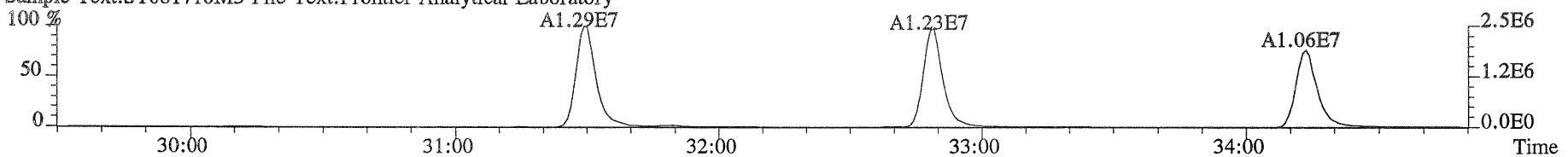
File:17AUG10M #1-357 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:30 Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



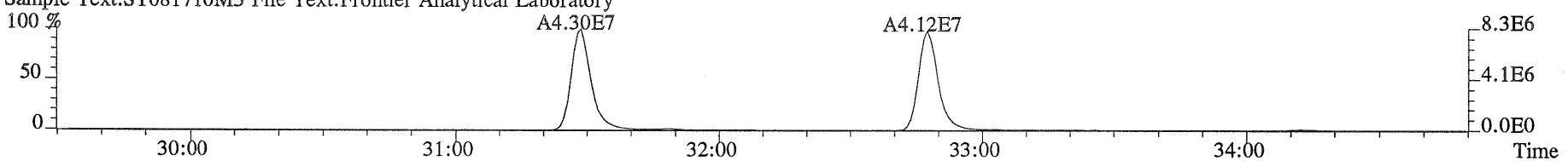
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



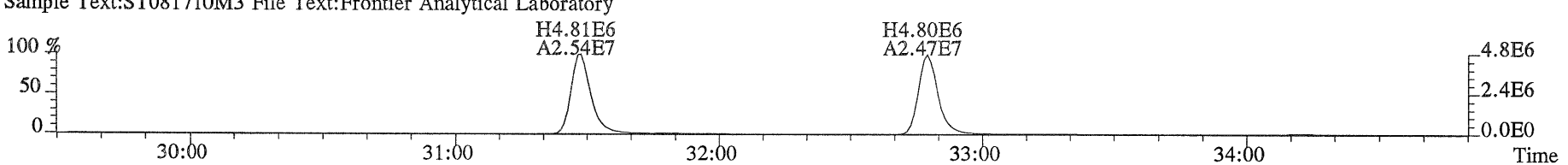
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



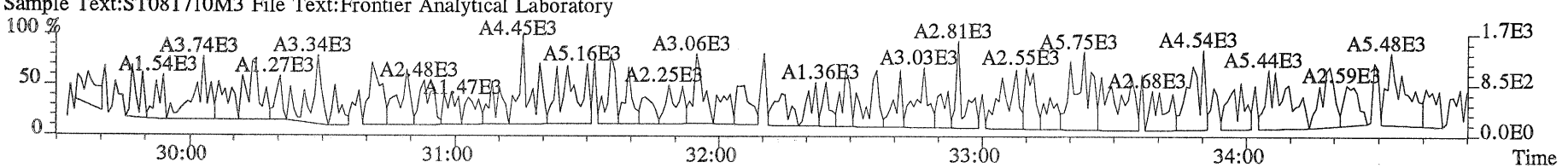
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



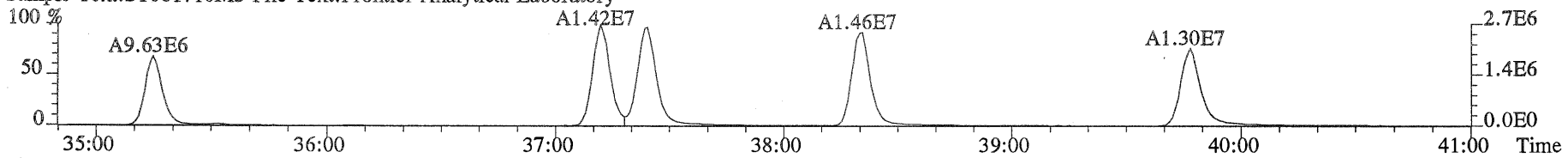
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



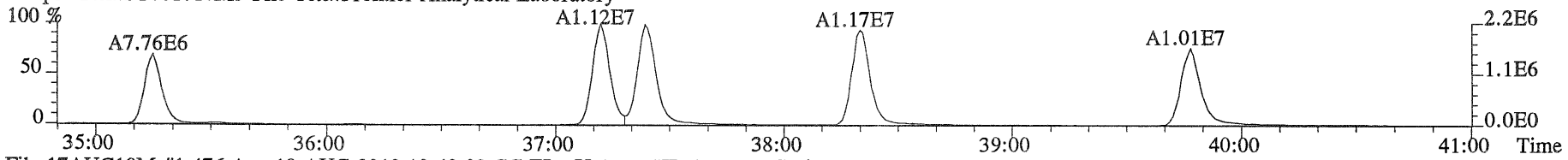
File:17AUG10M #1-412 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:30 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



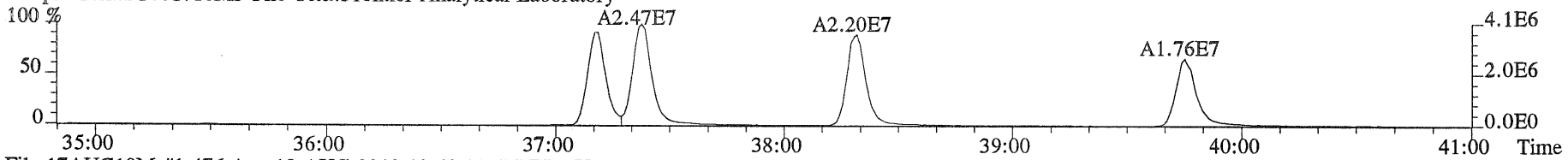
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



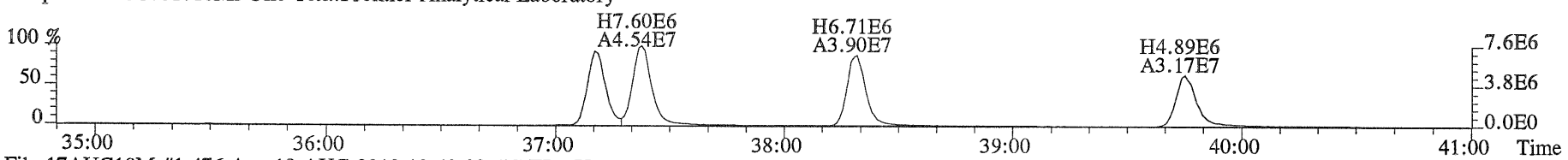
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



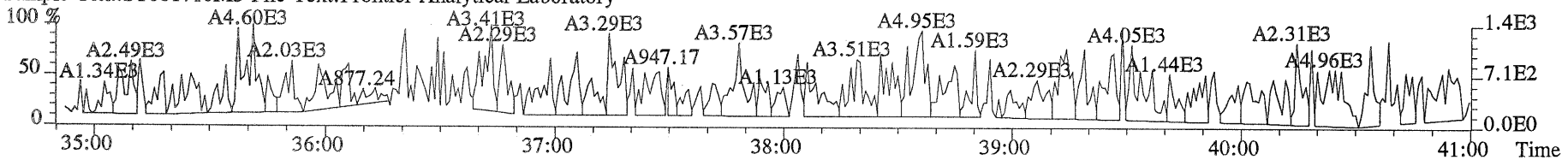
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



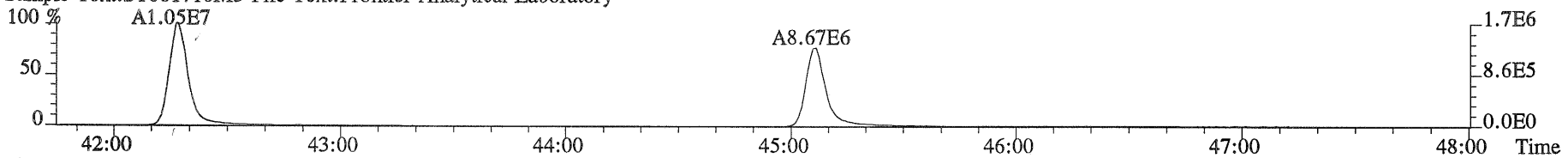
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



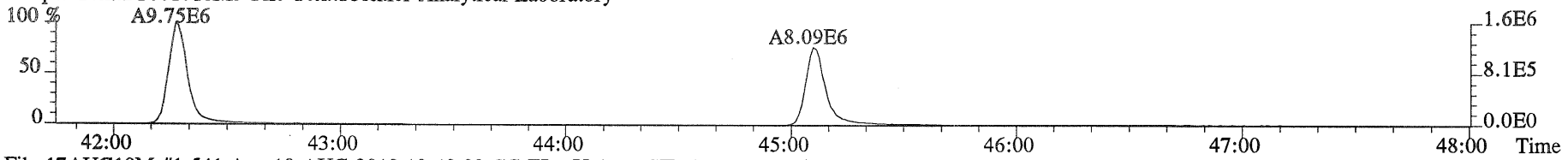
File:17AUG10M #1-476 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:30 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



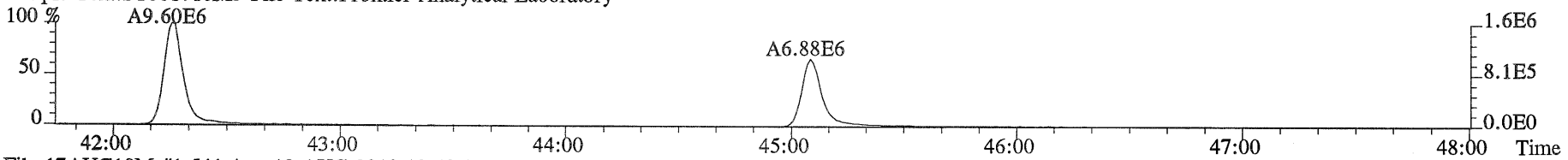
File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



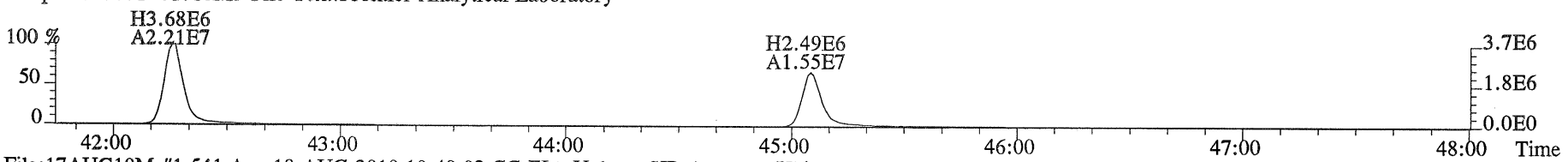
File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



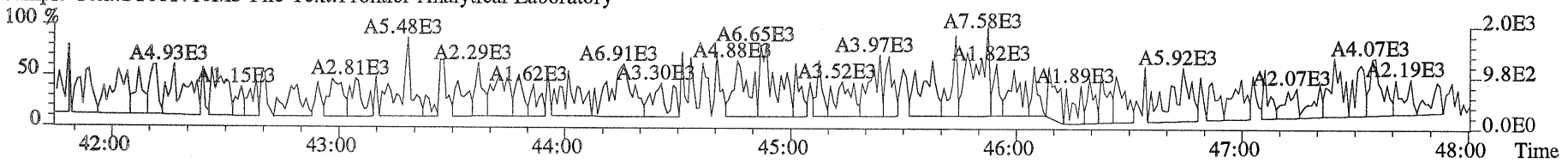
File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



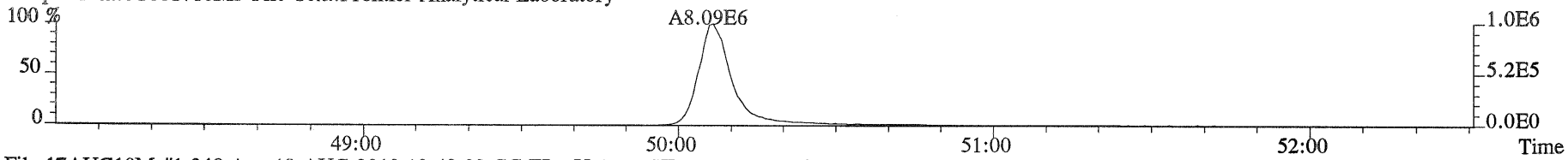
File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



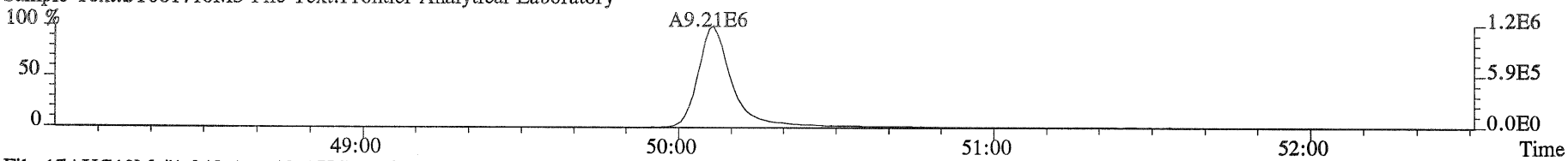
File:17AUG10M #1-541 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:30 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



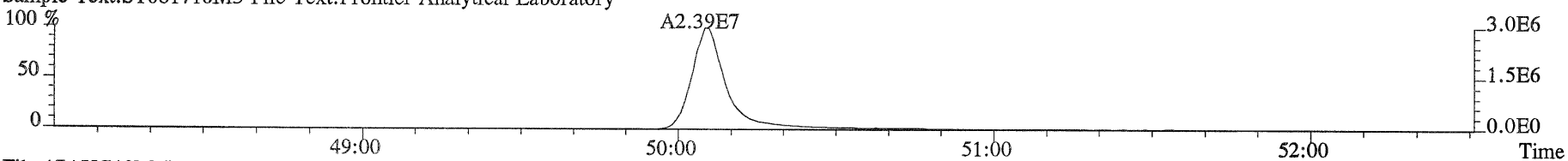
File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



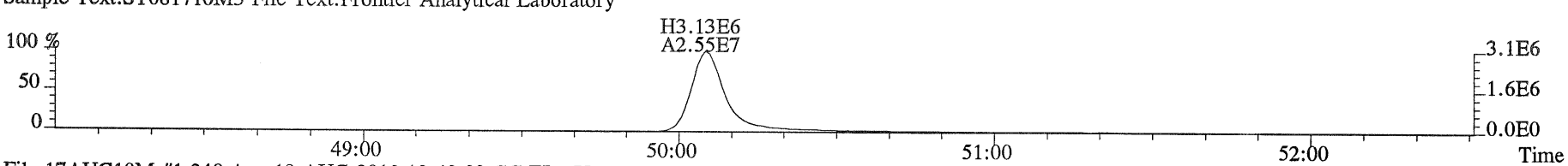
File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



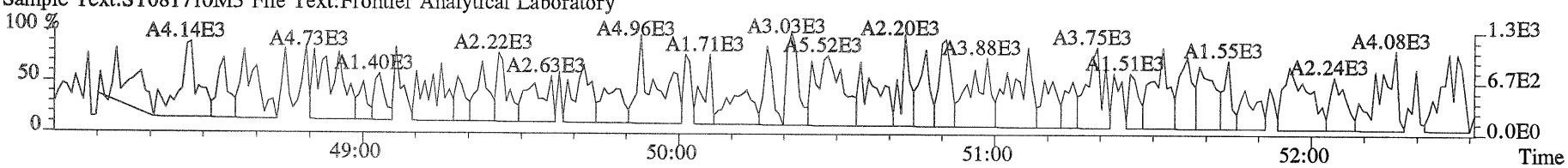
File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory



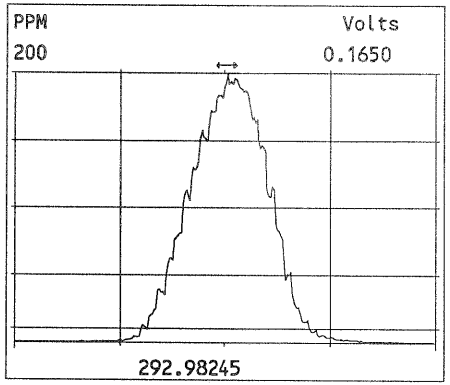
File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory

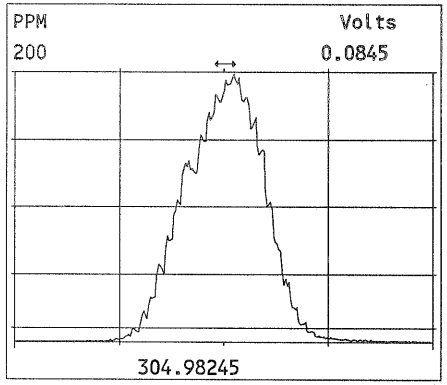


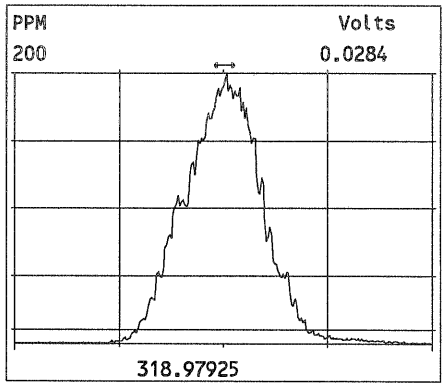
File:17AUG10M #1-348 Acq:18-AUG-2010 10:40:03 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:30 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST081710M3 File Text:Frontier Analytical Laboratory

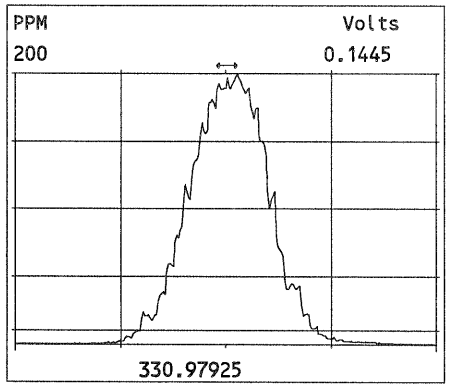


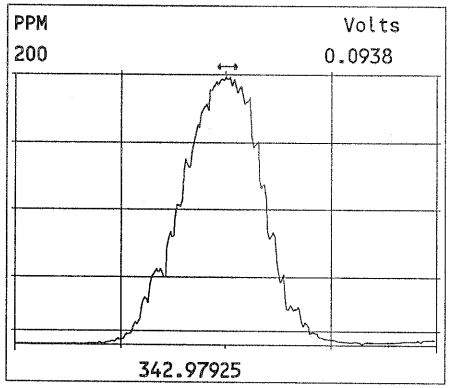
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:1 Reference:PFK

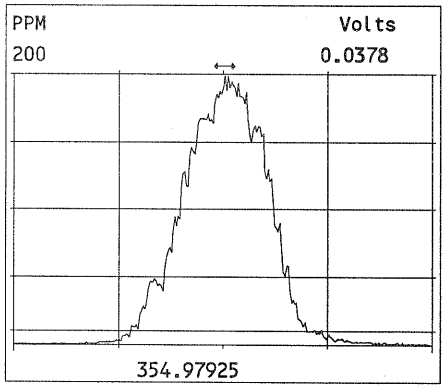


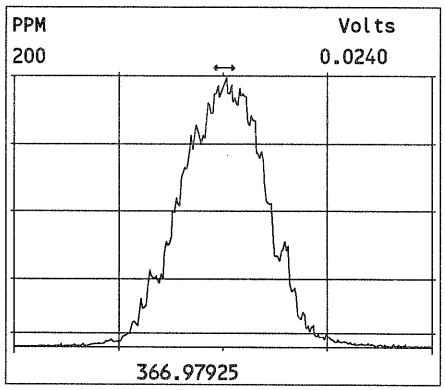


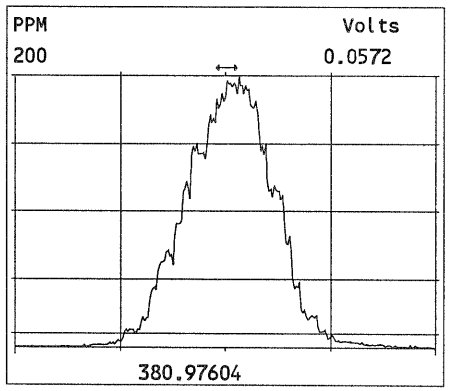


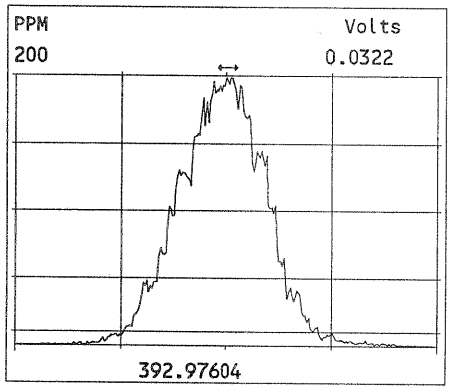


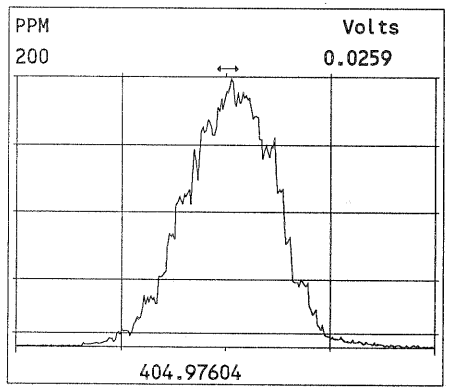


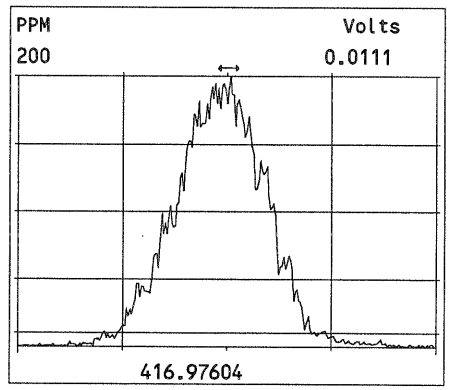




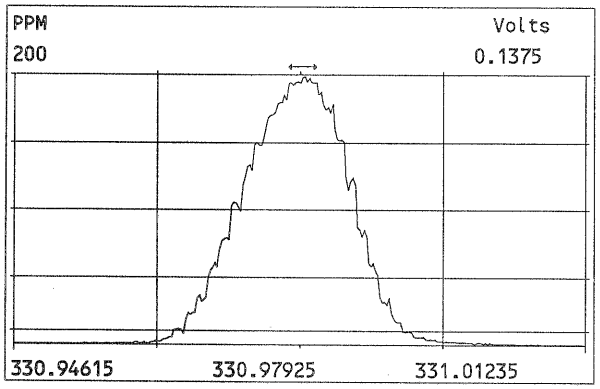


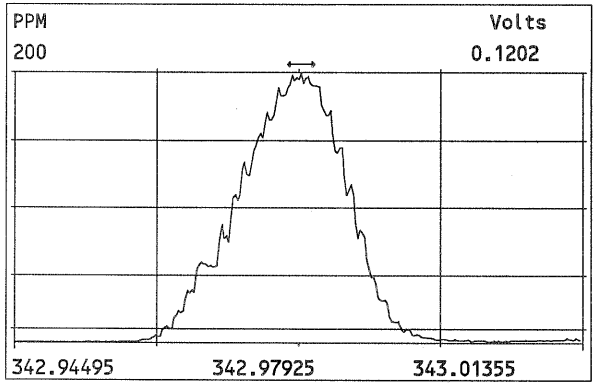


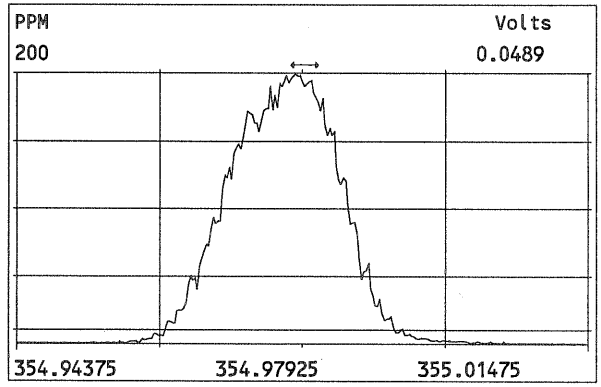


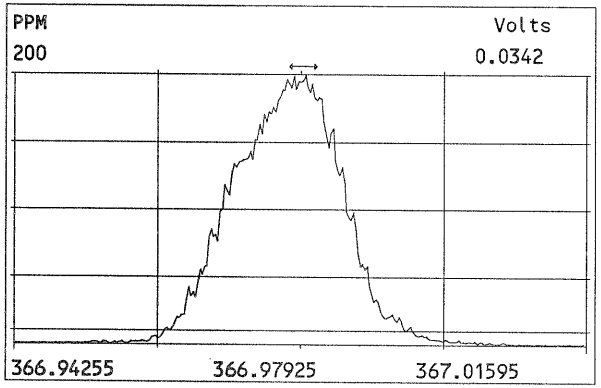


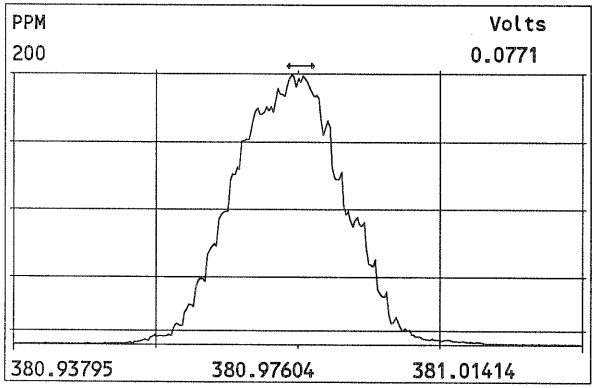
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:2 Reference:PFK

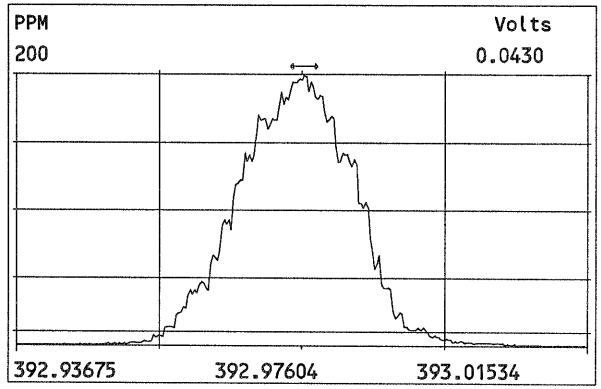


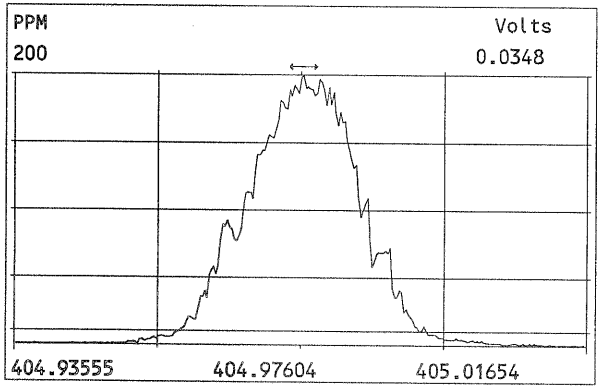


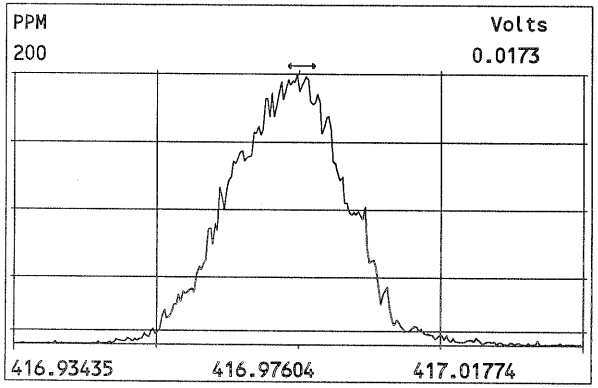






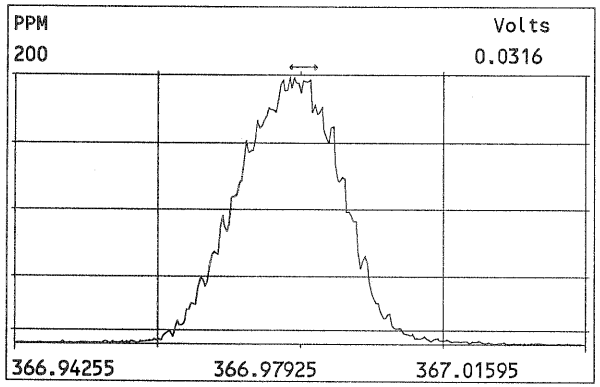


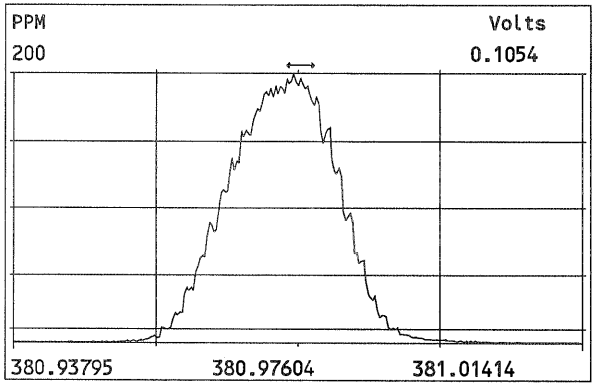


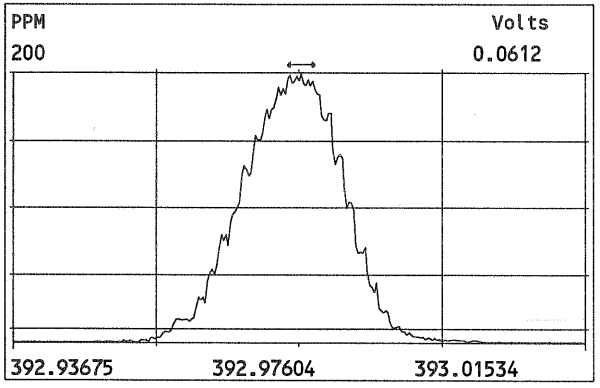


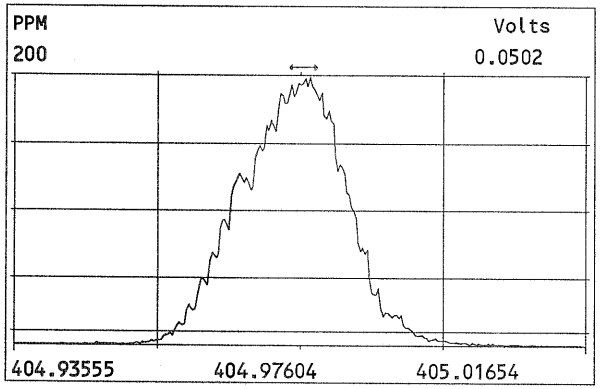
Peak Locate Examination:18-AUG-2010:12:32 File:17AUG10M_RES_CHECK

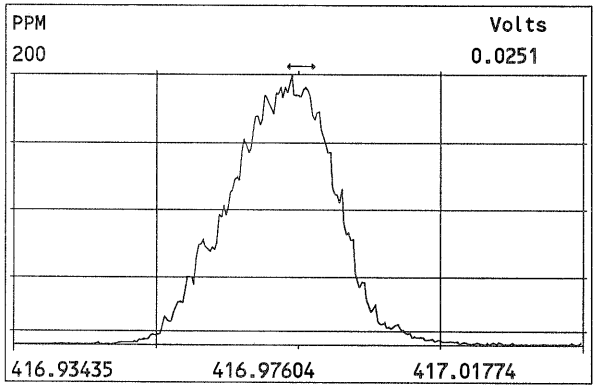
Experiment:PCDD Function:3 Reference:PFK

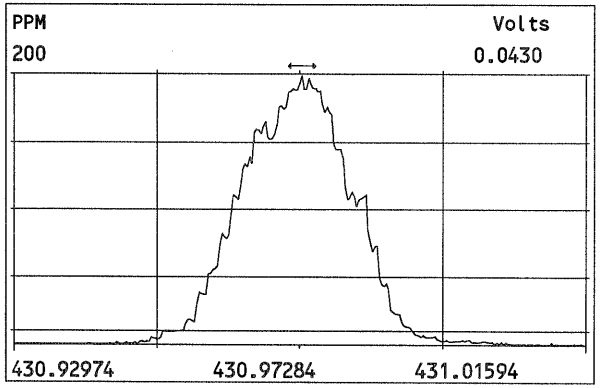


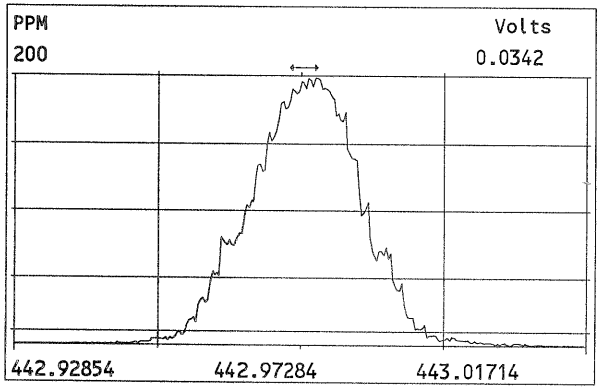


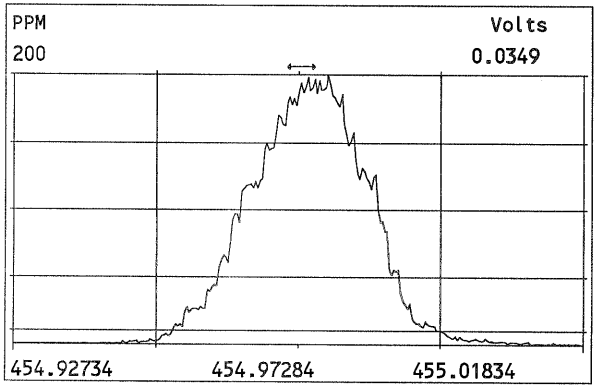




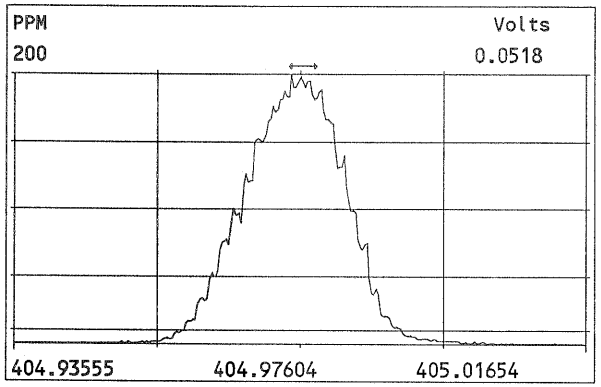


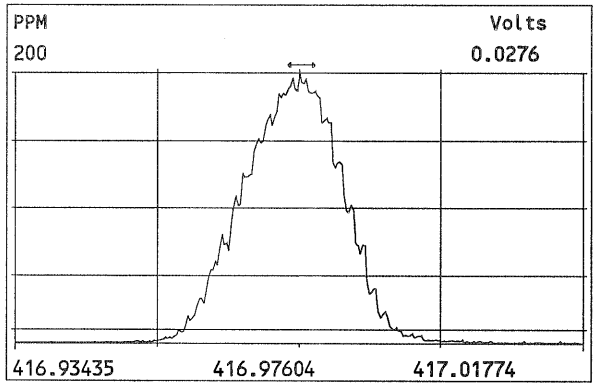


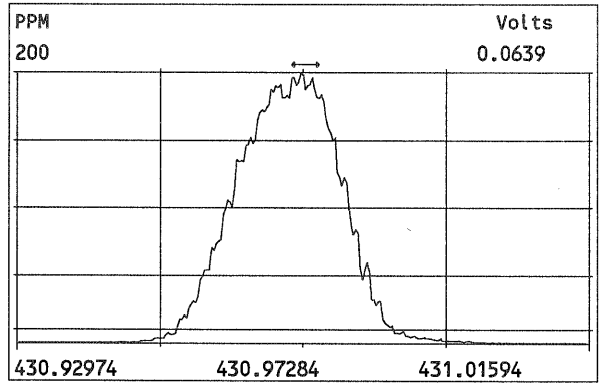


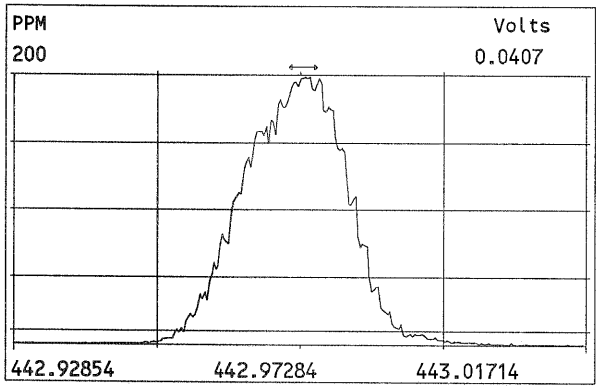


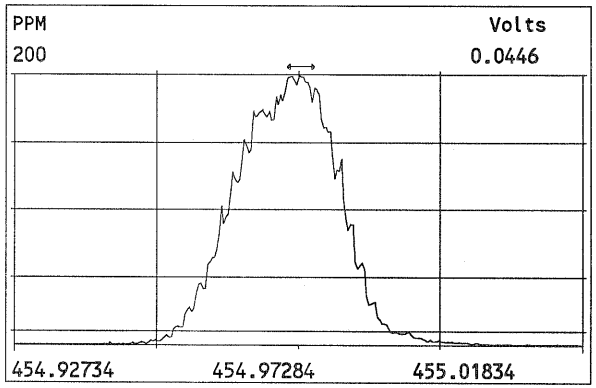
Peak Locate Examination:18-AUG-2010:12:33 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:4 Reference:PFK

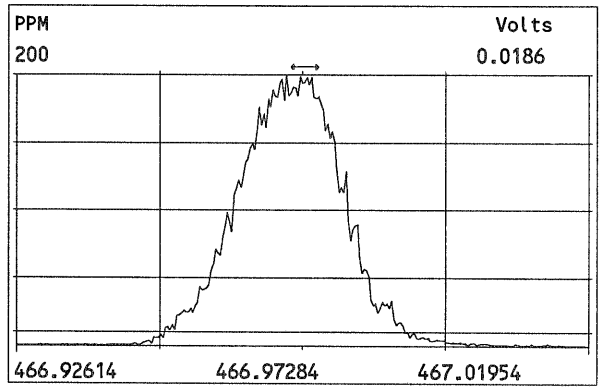


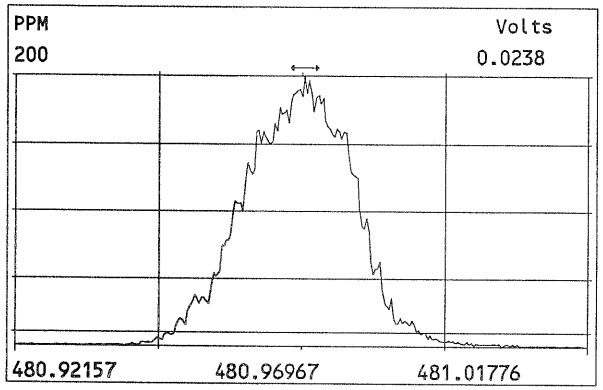




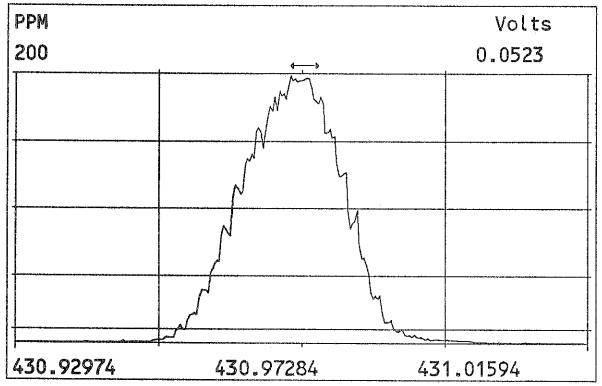


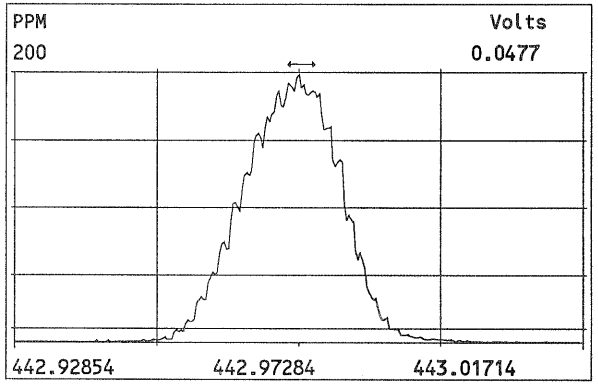


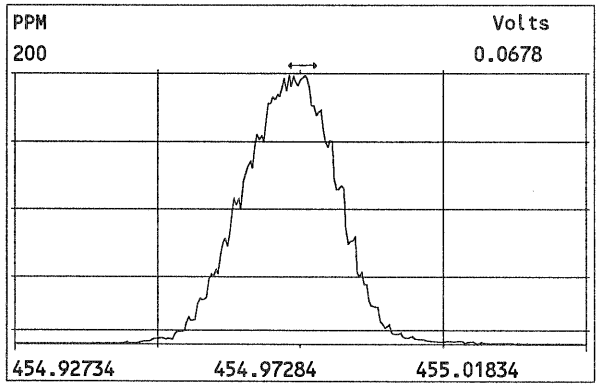


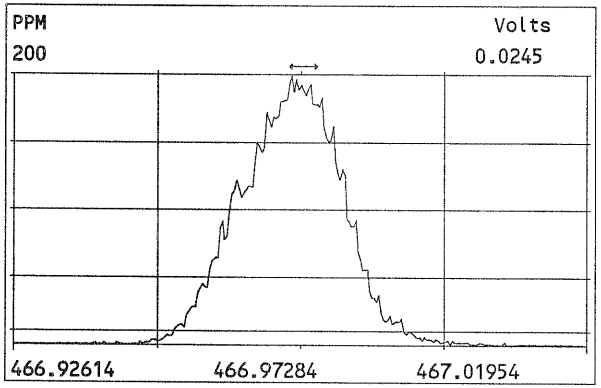


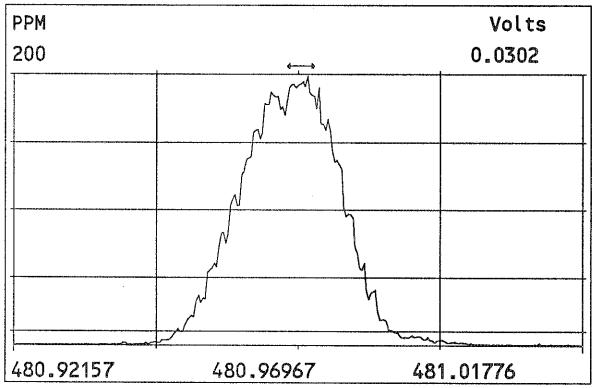
Peak Locate Examination:18-AUG-2010:12:33 File:17AUG10M_RES_CHECK
Experiment:PCDD Function:5 Reference:PFK

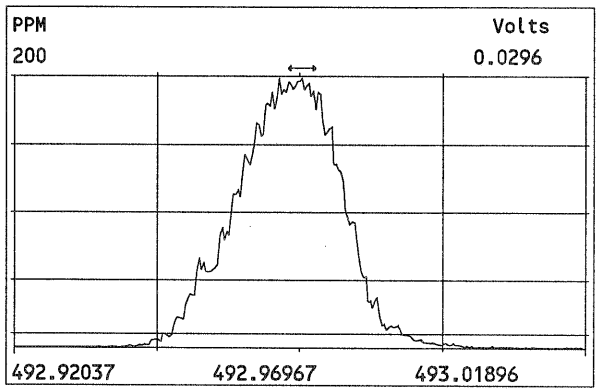


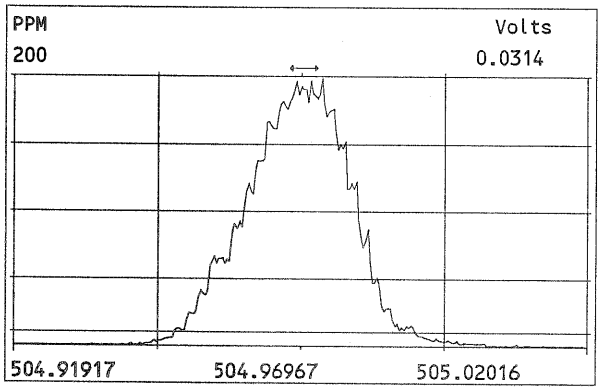


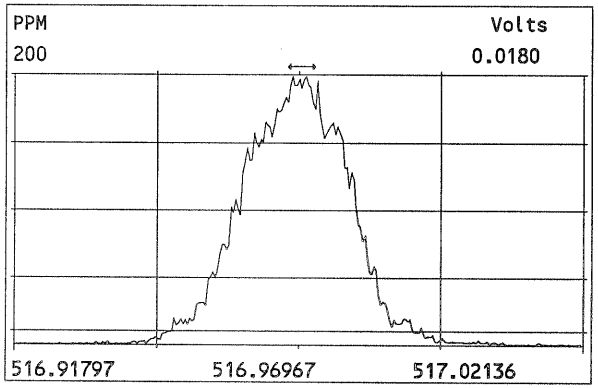












FRONTIER
ANALYTICAL LABORATORY

September 20, 2010

FAL Project: 6330

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 **6330**. This corresponds to your **Lora Lake Apts RI** project under ARI project number **RK84**. Six soil samples were received on 8/31/2010 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 were used to calculate the toxic equivalency (TEQs) on your report. Analytical Resources Incorporated requested a Level IV report and a turnaround time of fifteen business days for project **6330**.

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 original chain of custody, our sample login form and a 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. The Level I summary and the Electronic Data Deliverables (EDDs) have been sent to you via email. A hardcopy of the Level IV data package has been sent to you via OnTrac overnight delivery. The enclosed 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 **6330**, please 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
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
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Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **6330**

Received on: **08/31/2010** Project Due: **09/23/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
6330-001-SA	0	RK84	PSB21-0-0.5-082510	EPA 1613 D/F	Soil	08/25/2010	09:00 am	08/25/2011
6330-002-SA	0	RK84	PSB21-1.5-2-082510	EPA 1613 D/F	Soil	08/25/2010	09:40 am	08/25/2011
6330-003-SA	0	RK84	PSB21-2-4-082510	EPA 1613 D/F	Soil	08/25/2010	09:35 am	08/25/2011
6330-004-SA	0	RK84	PSB19-0-1-082510	EPA 1613 D/F	Soil	08/25/2010	02:12 pm	08/25/2011
6330-005-SA	0	RK84	PSB19-1-2-082510	EPA 1613 D/F	Soil	08/25/2010	02:10 pm	08/25/2011
6330-006-SA	0	RK84	PSB19-2-4-082510	EPA 1613 D/F	Soil	08/25/2010	02:20 pm	08/25/2011

FAL Sample ID	Notes
6330-001-SA	Sample ID incorrect on bottle label and COC. Sue provided correct ID to Kathy 9/2/10.
6330-002-SA	Sample ID incorrect on bottle label and COC. Sue provided correct ID to Kathy 9/2/10.
6330-003-SA	Using sample ID from bottle label per Sue to Kathy 9/2/10.

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6330-001-MB
Client ID: Method Blank
Matrix: Soil
Batch No: X2107

Date Extracted: 09-14-2010
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-8-23-10
GC Column: DB5
Units: pg/g

Acquired: 09-15-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.186		-	0.0262				
1,2,3,7,8-PeCDD	ND	0.315		-	0.0442				
1,2,3,4,7,8-HxCDD	ND	0.386		-	0.0486				
1,2,3,6,7,8-HxCDD	ND	0.509		-	0.0586	Total TCDD	ND	0.186	
1,2,3,7,8,9-HxCDD	ND	0.450		-	0.0529	Total PeCDD	ND	0.315	
1,2,3,4,6,7,8-HpCDD	ND	0.626		-	0.0954	Total HxCDD	ND	0.509	
OCDD	ND	1.74		-	0.154	Total HpCDD	ND	0.626	
2,3,7,8-TCDF	ND	0.130		-	0.0205				
1,2,3,7,8-PeCDF	ND	0.255		-	0.0298				
2,3,4,7,8-PeCDF	ND	0.266		-	0.0313				
1,2,3,4,7,8-HxCDF	ND	0.295		-	0.0308				
1,2,3,6,7,8-HxCDF	ND	0.302		-	0.0317				
2,3,4,6,7,8-HxCDF	ND	0.334		-	0.0341				
1,2,3,7,8,9-HxCDF	ND	0.331		-	0.0387	Total TCDF	ND	0.130	
1,2,3,4,6,7,8-HpCDF	ND	0.467		-	0.0418	Total PeCDF	ND	0.266	
1,2,3,4,7,8,9-HpCDF	ND	0.565		-	0.0429	Total HxCDF	ND	0.334	
OCDF	ND	1.01		-	0.105	Total HpCDF	ND	0.565	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	80.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	94.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	79.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	80.1	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	77.3	23.0 - 140	
13C-OCDD	69.4	17.0 - 157	
13C-2,3,7,8-TCDF	79.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	87.8	24.0 - 185	
13C-2,3,4,7,8-PeCDF	83.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	81.2	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	77.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	73.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	78.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	67.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	77.5	26.0 - 138	
13C-OCDF	75.4	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	82.2	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: JC
Date: 9/16/16

Reviewed By: DN
Date: 9/20/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6330-001-OPR
Client ID: OPR
Matrix: Soil
Batch No: X2107

Date Extracted: 09-14-2010
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-8-23-10
GC Column: DB5
Units: ng/ml

Acquired: 09-15-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.86	6.70 - 15.8	
1,2,3,7,8-PeCDD	51.7	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.5	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	50.7	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	51.2	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	49.9	35.0 - 70.0	
OCDD	102	78.0 - 144	
2,3,7,8-TCDF	8.82	7.50 - 15.8	
1,2,3,7,8-PeCDF	45.9	40.0 - 67.0	
2,3,4,7,8-PeCDF	46.8	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	44.6	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	45.2	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	44.6	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	45.2	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	47.9	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	48.6	39.0 - 69.0	
OCDF	89.9	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	74.8	20.0 - 175	
13C-1,2,3,7,8-PeCDD	89.5	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	78.4	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	76.8	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	74.0	26.0 - 166	
13C-OCDD	64.7	13.0 - 198	
13C-2,3,7,8-TCDF	79.4	22.0 - 152	
13C-1,2,3,7,8-PeCDF	84.2	21.0 - 192	
13C-2,3,4,7,8-PeCDF	83.5	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	76.4	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	72.7	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	70.8	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	75.9	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	60.8	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	76.8	20.0 - 186	
13C-OCDF	69.1	13.0 - 198	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	77.3	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: 9/16/10

Reviewed By: DN
Date: 9/20/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6330-001-SA
Client ID: PSB21-0-0.5-082510
Matrix: Soil
Batch No: X2107

Date Extracted: 09-14-2010
Date Received: 08-31-2010
Amount: 4.97 g
% Solids: 94.76

ICal: PCDDFAL3-8-23-10
GC Column: DB5
Units: pg/g

Acquired: 09-15-2010
2005 WHO TEQ: 18.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	1.46	-		1.46	0.0262				
1,2,3,7,8-PeCDD	3.26	-	J	3.26	0.0442				
1,2,3,4,7,8-HxCDD	6.25	-		0.625	0.0486				
1,2,3,6,7,8-HxCDD	19.3	-		1.93	0.0586	Total TCDD	27.3	-	
1,2,3,7,8,9-HxCDD	12.9	-		1.29	0.0529	Total PeCDD	47.4	-	
1,2,3,4,6,7,8-HpCDD	573	-		5.73	0.0954	Total HxCDD	188	-	*
OCDD	4550	-		1.36	0.154	Total HpCDD	1110	-	
2,3,7,8-TCDF	1.26	-		0.126	0.0205				
1,2,3,7,8-PeCDF	1.03	-	J	0.0309	0.0298				
2,3,4,7,8-PeCDF	1.47	-	J	0.441	0.0313				
1,2,3,4,7,8-HxCDF	4.29	-	J	0.429	0.0308				
1,2,3,6,7,8-HxCDF	3.02	-	J	0.302	0.0317				
2,3,4,6,7,8-HxCDF	3.91	-	J	0.391	0.0341				
1,2,3,7,8,9-HxCDF	0.762	-	J	0.0762	0.0387	Total TCDF	36.5	-	D,M
1,2,3,4,6,7,8-HpCDF	94.9	-		0.949	0.0418	Total PeCDF	49.2	-	D,M
1,2,3,4,7,8,9-HpCDF	4.12	-	J	0.0412	0.0429	Total HxCDF	83.5	-	D,M
OCDF	325	-		0.0975	0.105	Total HpCDF	301	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	81.5	25.0 - 164	
13C-1,2,3,7,8-PeCDD	98.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	83.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	83.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	86.3	23.0 - 140	
13C-OCDD	95.4	17.0 - 157	
13C-2,3,7,8-TCDF	81.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	93.8	24.0 - 185	
13C-2,3,4,7,8-PeCDF	93.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	83.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	83.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	77.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	81.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	70.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.5	26.0 - 138	
13C-OCDF	89.6	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	73.2	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: 9/16/10

Reviewed By: DN
Date: 9/20/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6330-002-SA
Client ID: PSB21-1.5-2-082510
Matrix: Soil
Batch No: X2107

Date Extracted: 09-14-2010
Date Received: 08-31-2010
Amount: 5.03 g
% Solids: 96.26

ICal: PCDDFAL3-8-23-10
GC Column: DB5
Units: pg/g

Acquired: 09-15-2010
2005 WHO TEQ: 7.78

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.415	-	J	0.415	0.0262				
1,2,3,7,8-PeCDD	1.08	-	J	1.08	0.0442				
1,2,3,4,7,8-HxCDD	2.20	-	J	0.220	0.0486				
1,2,3,6,7,8-HxCDD	8.44	-		0.844	0.0586	Total TCDD	7.68	-	
1,2,3,7,8,9-HxCDD	4.59	-	J	0.459	0.0529	Total PeCDD	13.1	-	
1,2,3,4,6,7,8-HpCDD	226	-		2.26	0.0954	Total HxCDD	56.7	-	
OCDD	2040	-		0.612	0.154	Total HpCDD	422	-	
2,3,7,8-TCDF	0.660	-	J	0.0660	0.0205				
1,2,3,7,8-PeCDF	0.651	-	J	0.0195	0.0298				
2,3,4,7,8-PeCDF	1.32	-	J	0.396	0.0313				
1,2,3,4,7,8-HxCDF	2.60	-	J	0.260	0.0308				
1,2,3,6,7,8-HxCDF	1.95	-	J	0.195	0.0317				
2,3,4,6,7,8-HxCDF	2.72	-	J	0.272	0.0341				
1,2,3,7,8,9-HxCDF	0.313	-	J	0.0313	0.0387	Total TCDF	20.2	-	D,M
1,2,3,4,6,7,8-HpCDF	58.3	-		0.583	0.0418	Total PeCDF	33.5	-	
1,2,3,4,7,8,9-HpCDF	2.67	-	J	0.0267	0.0429	Total HxCDF	52.8	-	
OCDF	150	-		0.0450	0.105	Total HpCDF	156	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	115	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	92.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	85.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.3	23.0 - 140	
13C-OCDD	102	17.0 - 157	
13C-2,3,7,8-TCDF	87.9	24.0 - 169	
13C-1,2,3,7,8-PeCDF	113	24.0 - 185	
13C-2,3,4,7,8-PeCDF	108	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	86.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	78.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	80.2	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	73.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	86.8	26.0 - 138	
13C-OCDF	98.8	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	85.5	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: 9/16/10

Reviewed By: DN
Date: 9/20/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6330-003-SA
Client ID: PSB21-2-4-082510
Matrix: Soil
Batch No: X2107

Date Extracted: 09-14-2010
Date Received: 08-31-2010
Amount: 5.01 g
% Solids: 91.63

ICal: PCDDFAL3-8-23-10
GC Column: DB5
Units: pg/g

Acquired: 09-16-2010
2005 WHO TEQ: 11.2

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.623	-	J	0.623	0.0262				
1,2,3,7,8-PeCDD	1.66	-	J	1.66	0.0442				
1,2,3,4,7,8-HxCDD	3.13	-	J	0.313	0.0486				
1,2,3,6,7,8-HxCDD	11.0	-		1.10	0.0586	Total TCDD	11.9	-	
1,2,3,7,8,9-HxCDD	7.30	-		0.730	0.0529	Total PeCDD	20.6	-	
1,2,3,4,6,7,8-HpCDD	311	-		3.11	0.0954	Total HxCDD	92.9	-	
OCDD	2940	-		0.882	0.154	Total HpCDD	635	-	
2,3,7,8-TCDF	0.874	-	J	0.0874	0.0205				
1,2,3,7,8-PeCDF	0.630	-	J	0.0189	0.0298				
2,3,4,7,8-PeCDF	1.64	-	J	0.492	0.0313				
1,2,3,4,7,8-HxCDF	3.45	-	J	0.345	0.0308				
1,2,3,6,7,8-HxCDF	2.96	-	J	0.296	0.0317				
2,3,4,6,7,8-HxCDF	4.17	-	J	0.417	0.0341				
1,2,3,7,8,9-HxCDF	0.476	-	J	0.0476	0.0387	Total TCDF	35.8	-	D,M
1,2,3,4,6,7,8-HpCDF	92.5	-		0.925	0.0418	Total PeCDF	58.6	-	D,M
1,2,3,4,7,8,9-HpCDF	3.96	-	J	0.0396	0.0429	Total HxCDF	90.2	-	D,M
OCDF	225	-		0.0675	0.105	Total HpCDF	246	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	81.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	100	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	82.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	78.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	81.2	23.0 - 140	
13C-OCDD	87.0	17.0 - 157	
13C-2,3,7,8-TCDF	83.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	99.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	95.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	79.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	74.5	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	69.7	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	76.7	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	66.4	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	79.6	26.0 - 138	
13C-OCDF	86.6	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	84.6	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: 9/16/10

Reviewed By: DN
Date: 9/20/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6330-004-SA
Client ID: PSB19-0-1-082510
Matrix: Soil
Batch No: X2107

Date Extracted: 09-14-2010
Date Received: 08-31-2010
Amount: 5.03 g
% Solids: 97.35

ICal: PCDDFAL3-8-23-10
GC Column: DB5
Units: pg/g

Acquired: 09-16-2010
2005 WHO TEQ: 135

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	4.74	-		4.74	0.0262				
1,2,3,7,8-PeCDD	22.0	-		22.0	0.0442				
1,2,3,4,7,8-HxCDD	27.6	-		2.76	0.0486				
1,2,3,6,7,8-HxCDD	135	-		13.5	0.0586	Total TCDD	93.9	-	
1,2,3,7,8,9-HxCDD	81.0	-		8.10	0.0529	Total PeCDD	220	-	
1,2,3,4,6,7,8-HpCDD	4720	-		47.2	0.0954	Total HxCDD	1090	-	
OCDD	48300	-		14.5	0.154	Total HpCDD	9490	-	
2,3,7,8-TCDF	1.08	-		0.108	0.0205				
1,2,3,7,8-PeCDF	2.25	-	J	0.0675	0.0298				
2,3,4,7,8-PeCDF	3.81	-	J	1.14	0.0313				
1,2,3,4,7,8-HxCDF	22.2	-		2.22	0.0308				
1,2,3,6,7,8-HxCDF	16.6	-		1.66	0.0317				
2,3,4,6,7,8-HxCDF	23.5	-		2.35	0.0341				
1,2,3,7,8,9-HxCDF	2.78	-	J	0.278	0.0387	Total TCDF	53.3	-	D,M
1,2,3,4,6,7,8-HpCDF	1240	-		12.4	0.0418	Total PeCDF	164	-	D,M
1,2,3,4,7,8,9-HpCDF	39.4	-		0.394	0.0429	Total HxCDF	750	-	
OCDF	4550	-		1.36	0.105	Total HpCDF	4140	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	87.3	25.0 - 164	
13C-1,2,3,7,8-PeCDD	112	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	97.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	88.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	108	23.0 - 140	
13C-OCDD	137	17.0 - 157	
13C-2,3,7,8-TCDF	93.6	24.0 - 169	
13C-1,2,3,7,8-PeCDF	108	24.0 - 185	
13C-2,3,4,7,8-PeCDF	106	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	91.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	86.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	85.6	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	88.7	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	80.6	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	92.9	26.0 - 138	
13C-OCDF	116	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	90.1	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: 9/16/10

Reviewed By: BRJ
Date: 9/20/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6330-005-SA
Client ID: PSB19-1-2-082510
Matrix: Soil
Batch No: X2107

Date Extracted: 09-14-2010
Date Received: 08-31-2010
Amount: 5.02 g
% Solids: 96.95

ICal: PCDDFAL3-8-23-10
GC Column: DB5
Units: pg/g

Acquired: 09-16-2010
2005 WHO TEQ: 16.1

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.427	-	J	0.427	0.0262				
1,2,3,7,8-PeCDD	2.62	-	J	2.62	0.0442				
1,2,3,4,7,8-HxCDD	4.72	-	J	0.472	0.0486				
1,2,3,6,7,8-HxCDD	17.3	-		1.73	0.0586	Total TCDD	7.29	-	
1,2,3,7,8,9-HxCDD	12.6	-		1.26	0.0529	Total PeCDD	22.5	-	
1,2,3,4,6,7,8-HpCDD	469	-		4.69	0.0954	Total HxCDD	144	-	
OCDD	3960	-		1.19	0.154	Total HpCDD	949	-	
2,3,7,8-TCDF	0.469	-	J	0.0469	0.0205				
1,2,3,7,8-PeCDF	ND	0.502		-	0.0298				
2,3,4,7,8-PeCDF	1.27	-	J	0.381	0.0313				
1,2,3,4,7,8-HxCDF	4.01	-	J	0.401	0.0308				
1,2,3,6,7,8-HxCDF	4.28	-	J	0.428	0.0317				
2,3,4,6,7,8-HxCDF	6.06	-		0.606	0.0341				
1,2,3,7,8,9-HxCDF	0.557	-	J	0.0557	0.0387	Total TCDF	18.4	-	D,M
1,2,3,4,6,7,8-HpCDF	161	-		1.61	0.0418	Total PeCDF	51.4	-	D,M
1,2,3,4,7,8,9-HpCDF	4.90	-	J	0.0490	0.0429	Total HxCDF	128	-	D,M
OCDF	345	-		0.104	0.105	Total HpCDF	382	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	79.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	100	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	84.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	77.5	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	86.7	23.0 - 140	
13C-OCDD	93.7	17.0 - 157	
13C-2,3,7,8-TCDF	79.6	24.0 - 169	
13C-1,2,3,7,8-PeCDF	94.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	92.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	82.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	77.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	74.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	79.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	70.4	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	82.6	26.0 - 138	
13C-OCDF	89.0	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	85.3	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: 9/16/10

Reviewed By: BN
Date: 9/20/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6330-006-SA
Client ID: PSB19-2-4-082510
Matrix: Soil
Batch No: X2107

Date Extracted: 09-14-2010
Date Received: 08-31-2010
Amount: 4.98 g
% Solids: 95.18

ICal: PCDDFAL3-8-23-10
GC Column: DB5
Units: pg/g

Acquired: 09-16-2010
2005 WHO TEQ: 2.07

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.205		-	0.0262				
1,2,3,7,8-PeCDD	0.395	-	J	0.395	0.0442				
1,2,3,4,7,8-HxCDD	0.579	-	J	0.0579	0.0486				
1,2,3,6,7,8-HxCDD	2.08	-	J	0.208	0.0586	Total TCDD	1.03	-	
1,2,3,7,8,9-HxCDD	1.63	-	J	0.163	0.0529	Total PeCDD	3.77	-	J
1,2,3,4,6,7,8-HpCDD	59.5	-		0.595	0.0954	Total HxCDD	19.2	-	
OCDD	506	-		0.152	0.154	Total HpCDD	122	-	
2,3,7,8-TCDF	ND	0.131		-	0.0205				
1,2,3,7,8-PeCDF	ND	0.171		-	0.0298				
2,3,4,7,8-PeCDF	0.253	-	J	0.0759	0.0313				
1,2,3,4,7,8-HxCDF	0.759	-	J	0.0759	0.0308				
1,2,3,6,7,8-HxCDF	0.591	-	J	0.0591	0.0317				
2,3,4,6,7,8-HxCDF	0.702	-	J	0.0702	0.0341				
1,2,3,7,8,9-HxCDF	ND	0.298		-	0.0387	Total TCDF	1.92	-	
1,2,3,4,6,7,8-HpCDF	19.1	-		0.191	0.0418	Total PeCDF	7.01	-	
1,2,3,4,7,8,9-HpCDF	0.885	-	J	0.00885	0.0429	Total HxCDF	14.6	-	
OCDF	48.3	-		0.0145	0.105	Total HpCDF	49.0	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	81.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	101	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	84.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	83.8	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	84.4	23.0 - 140	
13C-OCDD	80.2	17.0 - 157	
13C-2,3,7,8-TCDF	82.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	90.7	24.0 - 185	
13C-2,3,4,7,8-PeCDF	89.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	84.0	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	77.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	82.4	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	68.2	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	79.7	26.0 - 138	
13C-OCDF	81.7	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	82.1	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: 9/16/10

Reviewed By: DPJ
Date: 9/20/10

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SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 08/27/10

ANALYTICAL RESOURCES INCORPORATED

ARI Project: RK84

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

6330
0°C

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

L4 + EDD

Analytical Protocol: In-house
Special Instructions:

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

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
10-21706-RK84A	PSB21-0-0.5-082570	08/25/10 09:00	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-21707-RK84B	PSB21-1.5-2-082570	08/25/10 09:40	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-21708-RK84C	PSB21-2-4-082570	08/25/10 09:35	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-21713-RK84H	PSB19-0-1-082510	08/25/10 14:12	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-21714-RK84I	PSB19-1-2-082510	08/25/10 14:10	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-21715-RK84J	PSB19-2-4-082510	08/25/10 14:20	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					

Carrier	UPS	Airbill	1Z8332W54915094 6	Date	8/30/10
Relinquished by		Company	ARI	Date	8/30/10	Time	1425
Received by		Company	Frontier Analytical	Date	8/31/10	Time	951

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **6330**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	RK84
Date Received:	08/31/2010
Time Received:	09:51 am
Received By:	KZ
Logged In By:	MP
# of Samples Received:	6
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950149150946
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	No
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	08/25/2011
Adequate Sample Volume	Yes

Anomalies or additional comments:

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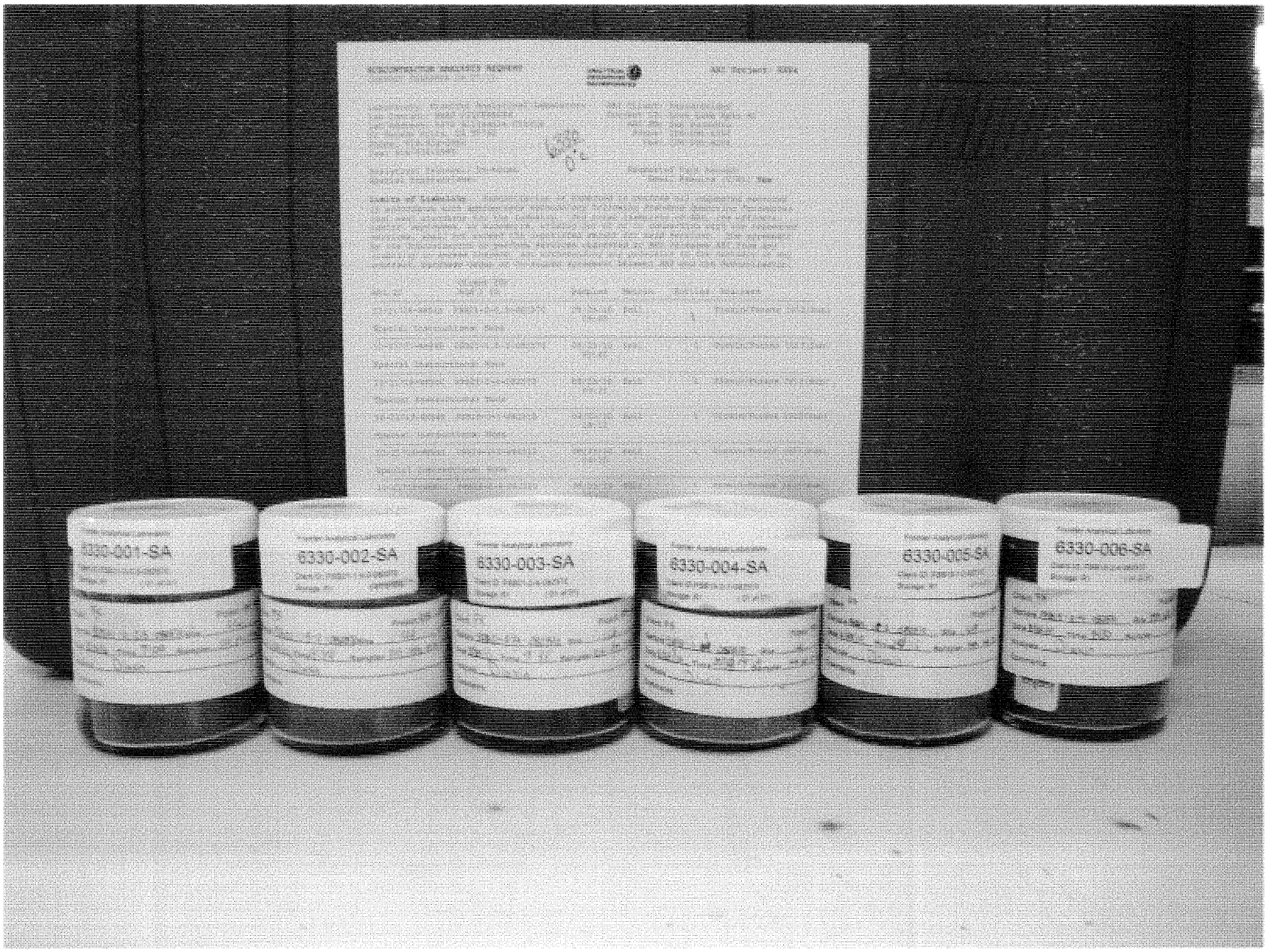

6330-001-SA
6330-002-SA
6330-003-SA
6330-004-SA
6330-005-SA
6330-006-SA

Frontier Analytical Laboratory

PROJECT REQUEST SHEET

Project #:	6330	Sample #:	1 - 6	Client Manager:	BS
Client:	Analytical Resources Inc. Sue Dunnihoo			Hold Time:	08/25/2011
Matrix:	Soil	Extraction Batch:	2107	Due Date:	09/23/2010
Method:	EPA 1613 D/F			Storage:	R1
SOP:	SOPs: EP2A Rev.7 IP2A Rev.8				

COMMENTS/INSTRUCTIONS:

Results: 6330

Extract/s located in box: "NINE"

Standards: 6332 6330
DJ
9/20/10

Instrument:
DB5 Falk
DB225 ____
DB1 ____
Other ____

Frontier Analytical Laboratory
Percent Solids

FAL Project: 6330

	Sample ID	Chemist	Date	Wet Sample Weight (g)	Dry Sample Weight (g)	% Solids	10g Equiv
1.34	6330-001-0001-SA	MP	9.2.10	7.63	7.23	94.76	10.55
1.29	6330-002-0001-SA	↓	↓	12.58	12.11	96.26	10.39
1.29	6330-003-0001-SA			10.87	9.96	91.63	10.91
1.29	6330-004-0001-SA			8.30	8.08	97.35	10.27
1.29	6330-005-0001-SA			9.82	9.52	96.95	10.32
1.29	6330-006-0001-SA			7.26	6.91	95.18	10.51

% 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

EXTRACTION SHEET

Project #: 6330 Extraction Date: 2010-09-14 Extraction Chemist: BS

Method/Analysis: EPA 1613 D/F

Procedure: SOX/SDS Solvent: Toluene

Sample ID	Wet wt. (g/L)	Dry wt. (g/L)	IS Amt: 10.0uL ID: 100511A Vial: 2 Chemist/Witness/Date	NS Amt: 10.0uL ID: 100511B Vial: 2 Chemist/Witness/Date	CSS Amt: 10.0uL ID: 100511C Vial: 2 Chemist/Witness/Date
6332					
2107-001-0001-MB					
2107-001-0001-OPR					
6330-001-0001-SA	5.24g	4.97g	MP 9.14.10	N/A	MP GN 9.15.10
6330-002-0001-SA	5.23g	5.03g			
6330-003-0001-SA	5.47g	5.01g			
6330-004-0001-SA	5.17g	5.08g			
6330-005-0001-SA	5.18g	5.02g			
6330-006-0001-SA	5.23g	4.98g			

AX-21 Charcoal Cleaned	031210	Acetone	50180	Acid Alumina	08623DJ	Hexane	50143
Hydrochloric Acid	B08505	Methanol	101438	Methylene Chloride (DCM)	50132	Silica Gel	TA1593034
Sodium Hydroxide	9265	Sodium Sulfate	49009905	Sulfuric Acid	101570	Tetradecane	081394
Toluene	101346	Water	50193	C-18 Empore Discs	320505	Cyclohexane	48151

Comments:

CLEANUP SHEET

Project #: 6330

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 Charcoal Chemist/Date	Cleanup 3 NA Chemist/Date	RS Amt: 10.0uL ID: 100511D Vial: 2 Chemist/Witness/Date
2107-001-0001-MB	GN 9/15/10	GN 9/15/10	NA	GN MP 9/15/10
2107-001-0001-OPR	↓	↓	↓	↓
6330-001-0001-SA	↓	↓	↓	↓
6330-002-0001-SA	↓	↓	↓	↓
6330-003-0001-SA	↓	↓	↓	↓
6330-004-0001-SA	↓	↓	↓	↓
6330-005-0001-SA	↓	↓	↓	↓
6330-006-0001-SA	↓	↓	↓	↓

Comments:

FAL ID: 2107-001-0001-MB Filename: 15SEP10N Sam:3 Acquired: 15-SEP-10 21:50:19 ICal: PCDDFAL3-8-23-10
Client ID: Method Blank ConCal: ST091510N1 EndCal: ST091510N2
Results: 2107 GC Column: DB5 Amount: 5.000 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	1.11	*		2.50	425	407	0.186
1,2,3,7,8-PeCDD	*	*	n	NotFnd	1.10	*		2.50	569	492	0.315
1,2,3,4,7,8-HxCDD	*	*	n	NotFnd	1.37	*		2.50	819	596	0.386
1,2,3,6,7,8-HxCDD	*	*	n	NotFnd	1.37	*		2.50	819	596	0.509
1,2,3,7,8,9-HxCDD	*	*	n	NotFnd	1.36	*		2.50	819	596	0.450
1,2,3,4,6,7,8-HpCDD	*	*	n	NotFnd	1.45	*		2.50	706	689	0.626
OCDD	*	*	n	NotFnd	1.43	*		2.50	846	885	1.74
2,3,7,8-TCDF	*	*	n	NotFnd	1.50	*		2.50	481	796	0.130
1,2,3,7,8-PeCDF	*	*	n	NotFnd	0.94	*		2.50	535	573	0.255
2,3,4,7,8-PeCDF	*	*	n	NotFnd	0.94	*		2.50	535	573	0.266
1,2,3,4,7,8-HxCDF	*	*	n	NotFnd	0.93	*		2.50	684	542	0.295
1,2,3,6,7,8-HxCDF	*	*	n	NotFnd	0.82	*		2.50	684	542	0.302
2,3,4,6,7,8-HxCDF	*	*	n	NotFnd	0.92	*		2.50	684	542	0.334
1,2,3,7,8,9-HxCDF	*	*	n	NotFnd	1.00	*		2.50	684	542	0.331
1,2,3,4,6,7,8-HpCDF	*	*	n	NotFnd	1.39	*		2.50	528	689	0.467
1,2,3,4,7,8,9-HpCDF	*	*	n	NotFnd	1.36	*		2.50	528	689	0.565
OCDF	*	*	n	NotFnd	0.79	*		2.50	576	585	1.01

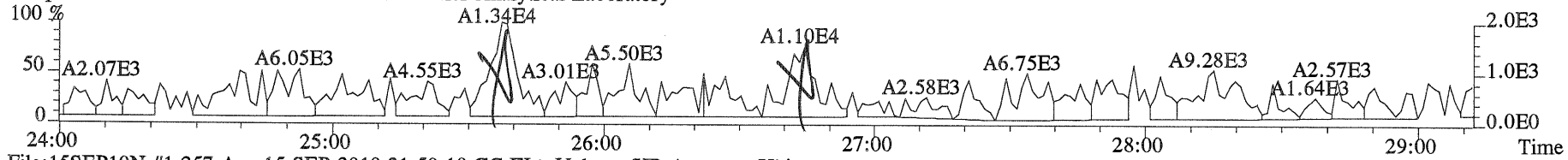
					Rec
13C-2,3,7,8-TCDD	1.83e+07	0.84	y	27:29	80.9
13C-1,2,3,7,8-PeCDD	1.76e+07	1.73	y	33:19	94.8
13C-1,2,3,4,7,8-HxCDD	1.45e+07	1.28	y	38:41	79.3
13C-1,2,3,6,7,8-HxCDD	1.38e+07	1.27	y	38:52	80.1
13C-1,2,3,4,6,7,8-HpCDD	1.12e+07	0.95	y	44:18	77.3
13C-OCDD	1.29e+07	0.98	y	49:53	69.4
13C-2,3,7,8-TCDF	2.90e+07	0.84	y	26:44	79.3
13C-1,2,3,7,8-PeCDF	2.71e+07	1.69	y	31:35	87.8
13C-2,3,4,7,8-PeCDF	2.50e+07	1.73	y	32:54	83.5
13C-1,2,3,4,7,8-HxCDF	2.56e+07	0.46	y	37:18	81.2
13C-1,2,3,6,7,8-HxCDF	3.32e+07	0.46	y	37:29	77.0
13C-2,3,4,6,7,8-HxCDF	2.50e+07	0.46	y	38:26	73.1
13C-1,2,3,7,8,9-HxCDF	2.69e+07	0.47	y	39:53	78.0
13C-1,2,3,4,6,7,8-HpCDF	1.27e+07	0.45	y	42:23	67.1
13C-1,2,3,4,7,8,9-HpCDF	1.06e+07	0.47	y	45:13	77.5
13C-OCDF	2.77e+07	0.93	y	50:16	75.4
37Cl-2,3,7,8-TCDD	4.98e+06			27:30	82.2

13C-1,2,3,4-TCDD	2.21e+07	0.85	y	26:54	-
13C-1,2,3,4-TCDF	3.68e+07	0.86	y	25:39	-
13C-1,2,3,7,8,9-HxCDD	1.70e+07	1.24	y	39:18	-

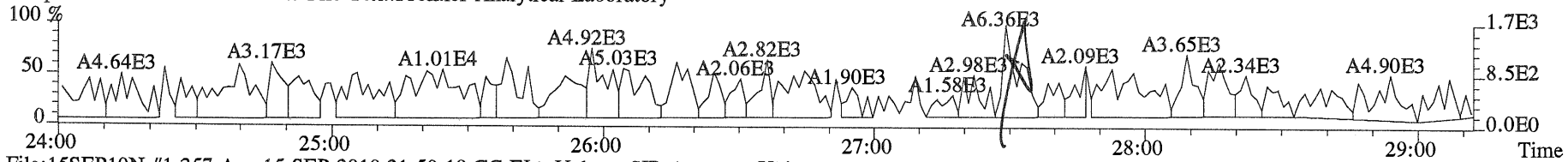
													#Hom
Total Tetra-Dioxins	*			NotFnd	1.11	*		2.50	425	407	0.186		0
Total Penta-Dioxins	*			NotFnd	1.10	*		2.50	569	492	0.315		0
Total Hexa-Dioxins	*			NotFnd	1.37	*		2.50	819	596	0.509		0
Total Hepta-Dioxins	*			NotFnd	1.45	*		2.50	706	689	0.626		0
Total Tetra-Furans	*			NotFnd	1.50	*		2.50	481	796	0.130		0
1st Fn. Tot Penta-Furans	*			NotFnd	0.94	*		2.50	535	573	0.266	PeCDF	0
Total Penta-Furans	*			NotFnd	0.94	*		2.50	535	573	0.266	*	0
Total Hexa-Furans	*			NotFnd	0.91	*		2.50	684	542	0.334		0
Total Hepta-Furans	*			NotFnd	1.38	*		2.50	528	689	0.565		0

Analyst: _____ Date: 9/16/10

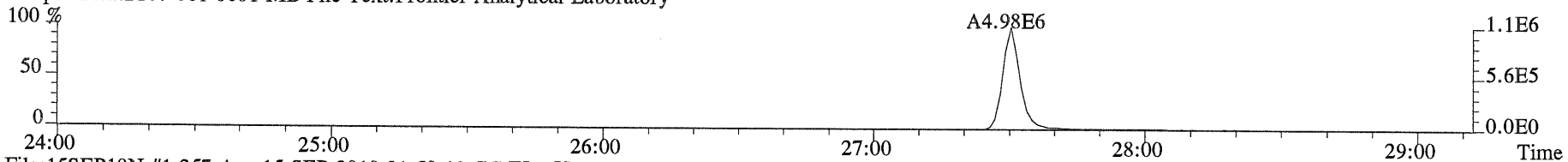
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



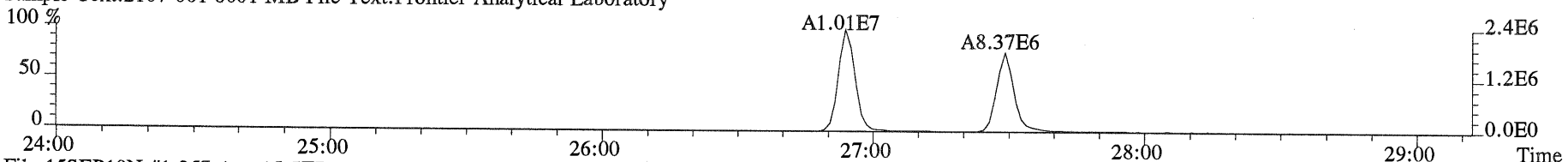
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



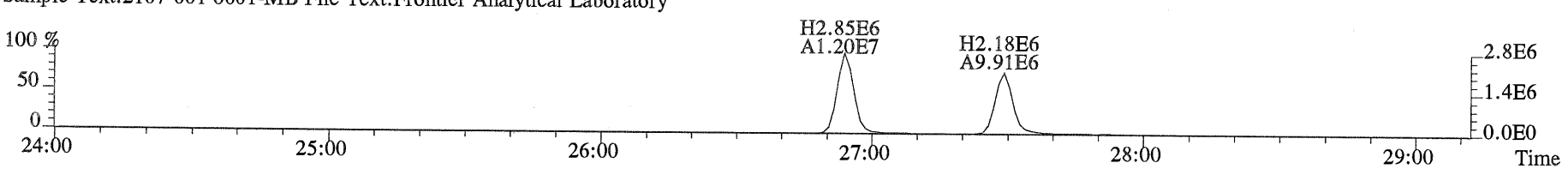
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



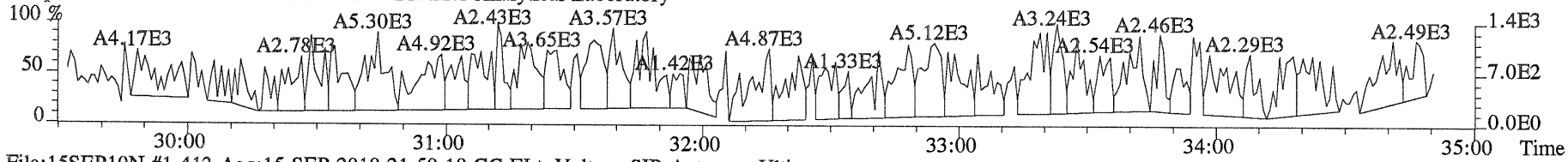
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



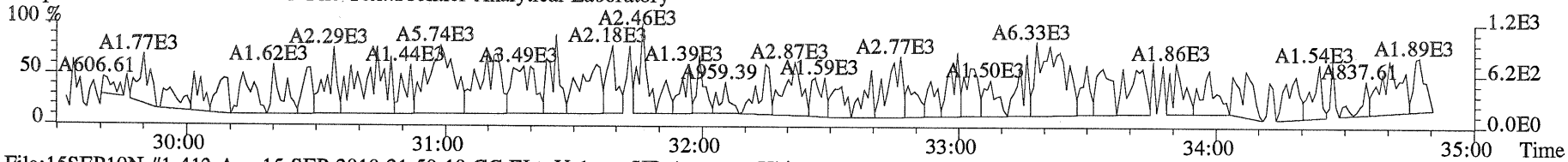
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



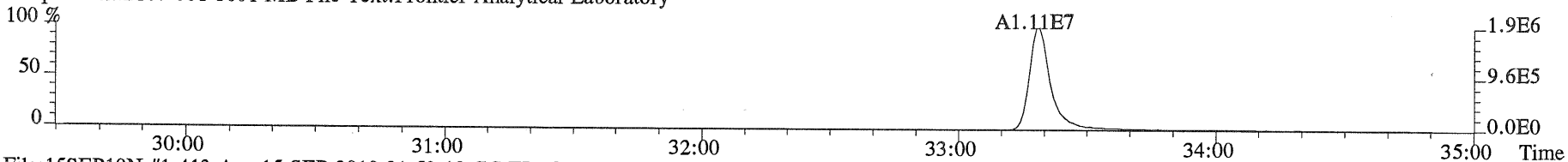
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



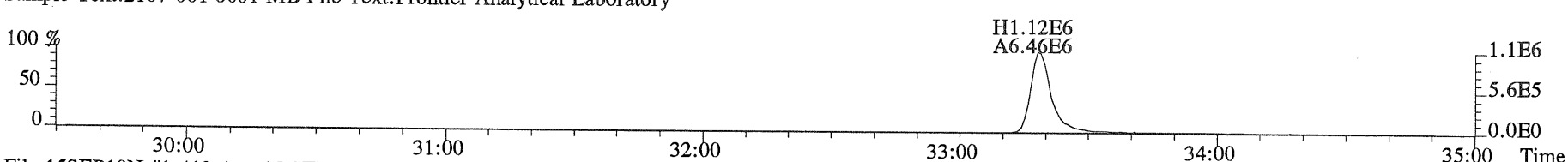
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



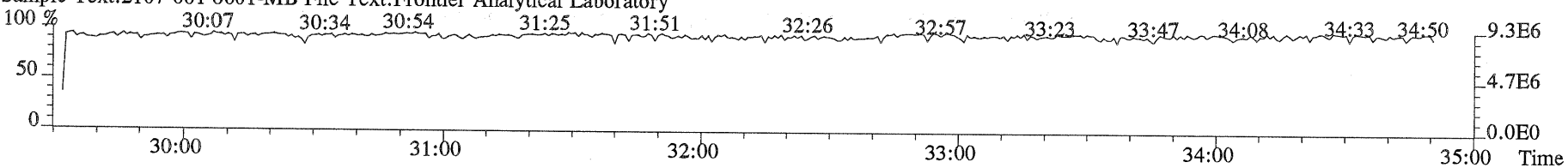
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



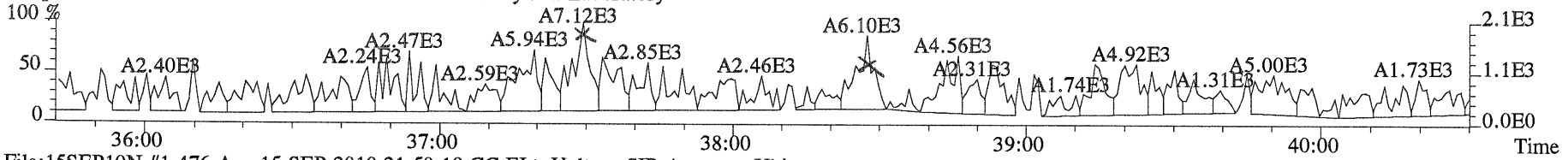
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



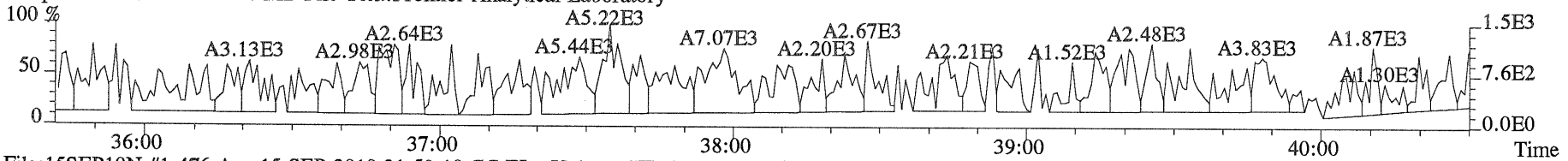
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:3 F:2 Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



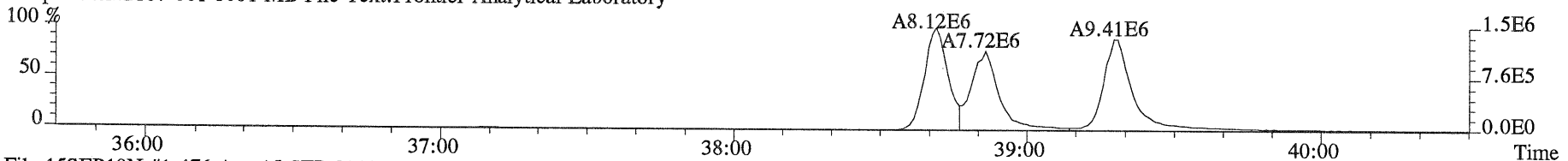
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



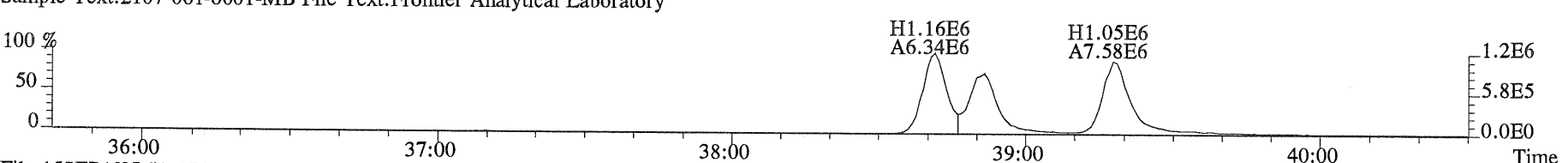
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



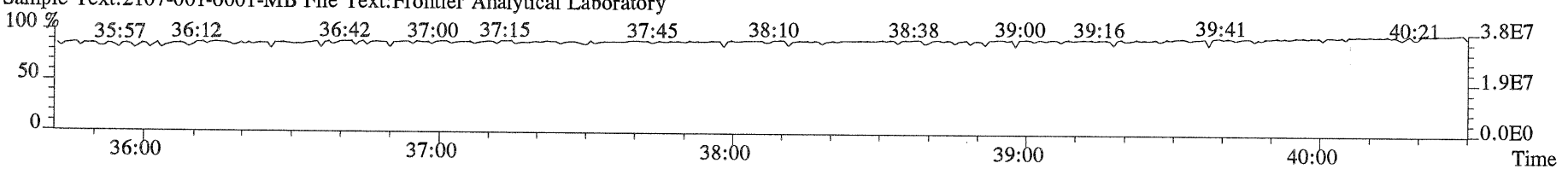
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



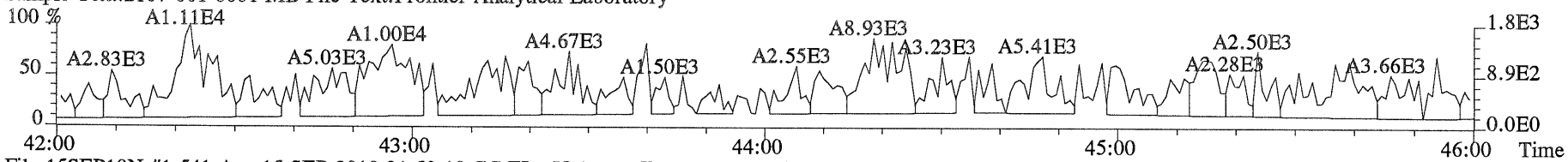
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



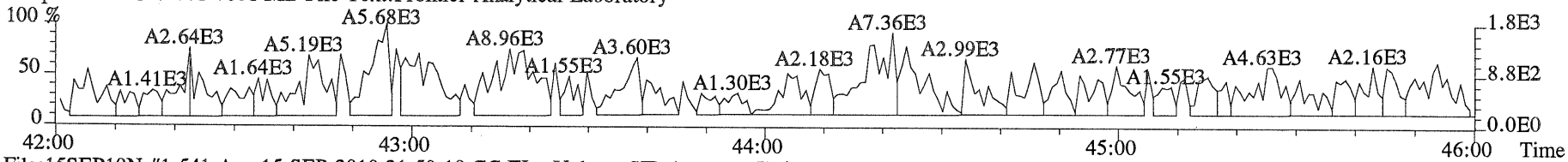
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:3 F:3 Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



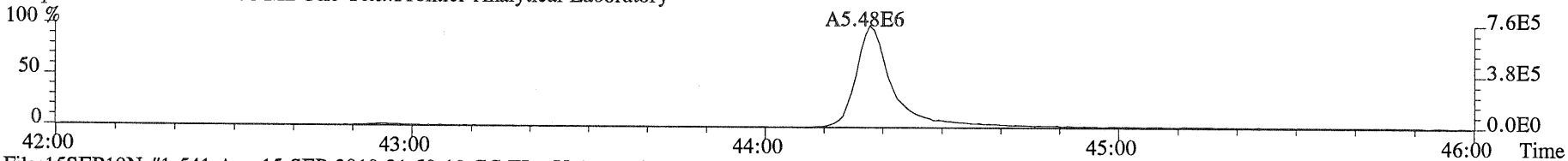
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



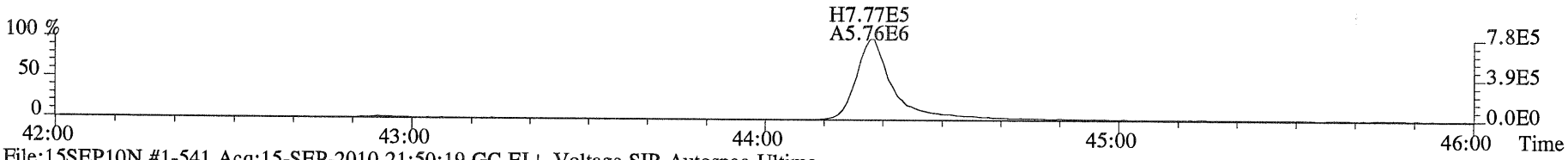
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



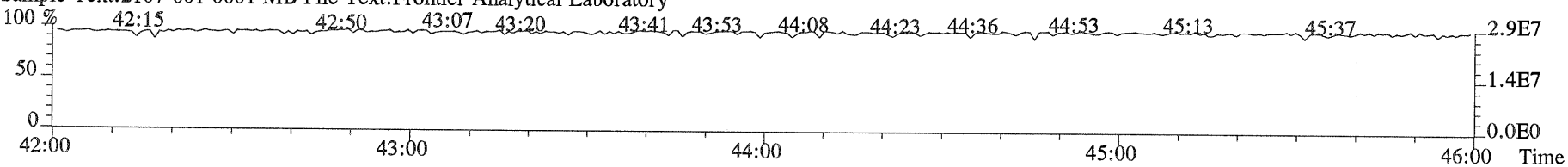
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



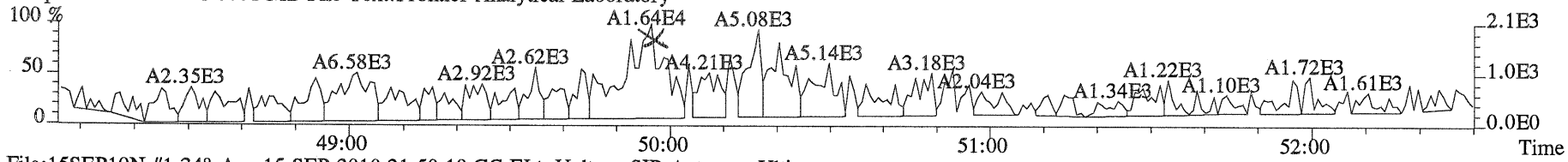
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



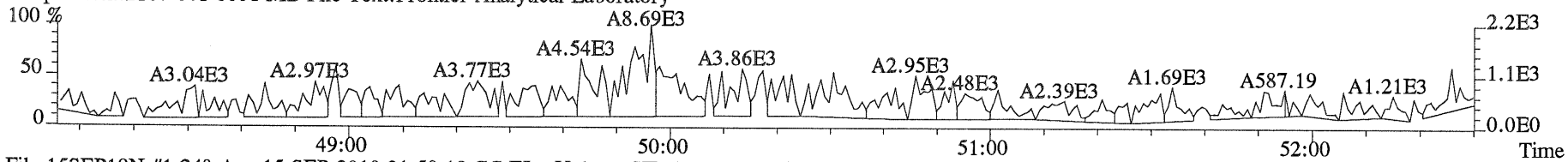
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:3 F:4 Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



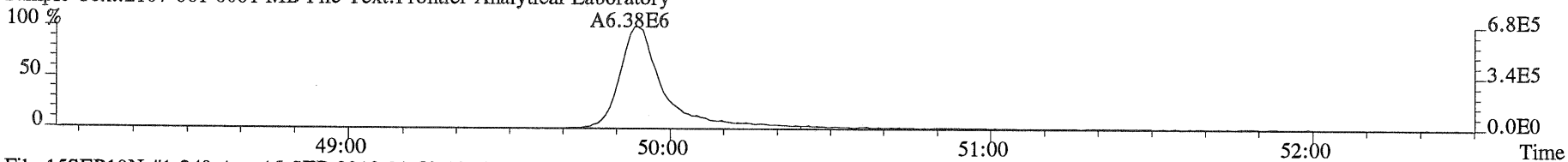
File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



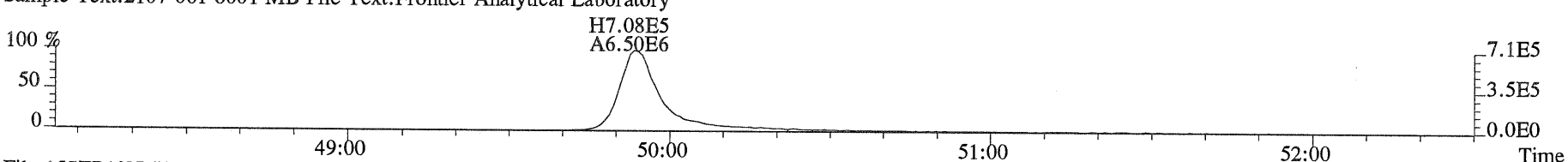
File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



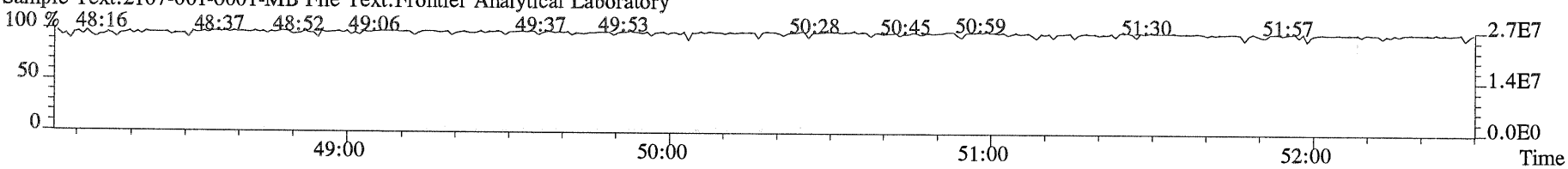
File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



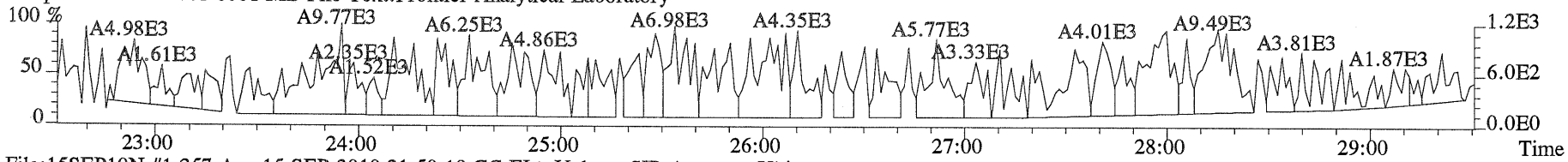
File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



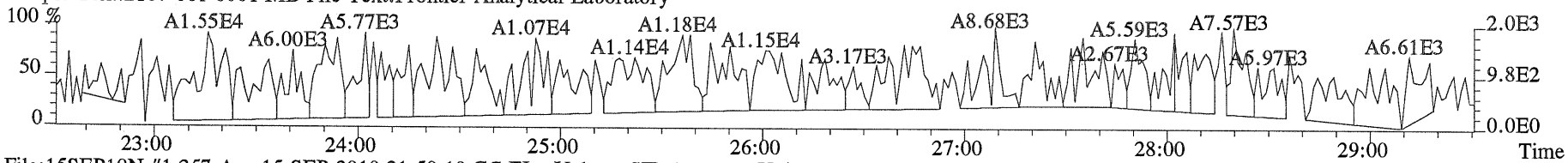
File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:3 F:5 Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



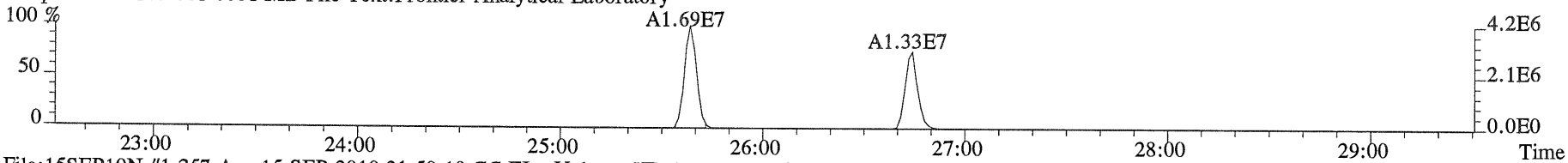
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



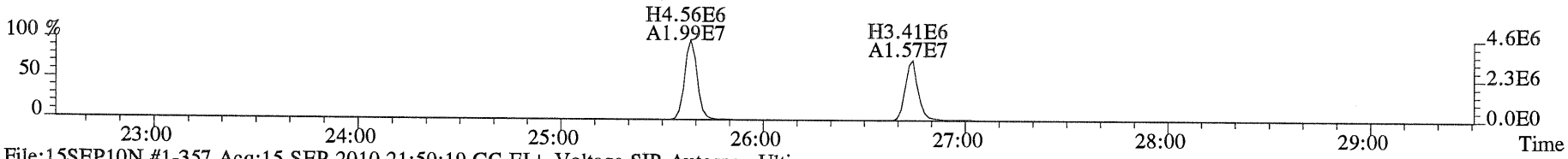
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



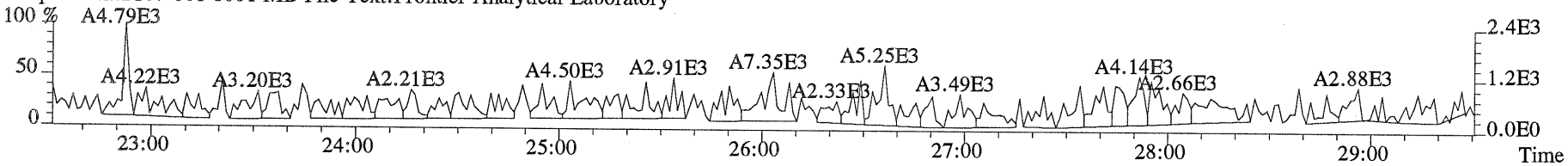
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:3 BSUB(10000,15,200.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



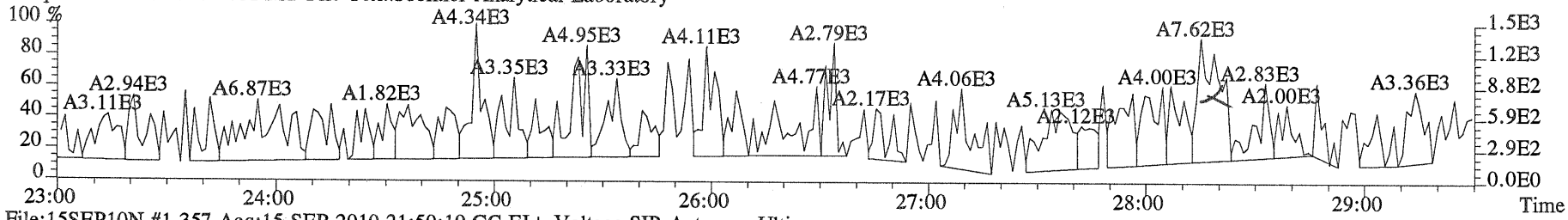
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



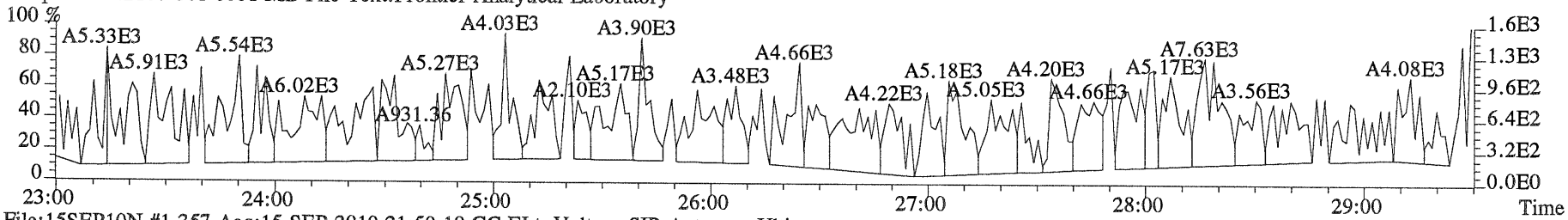
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:3 BSUB(10000,15,-3.0) BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



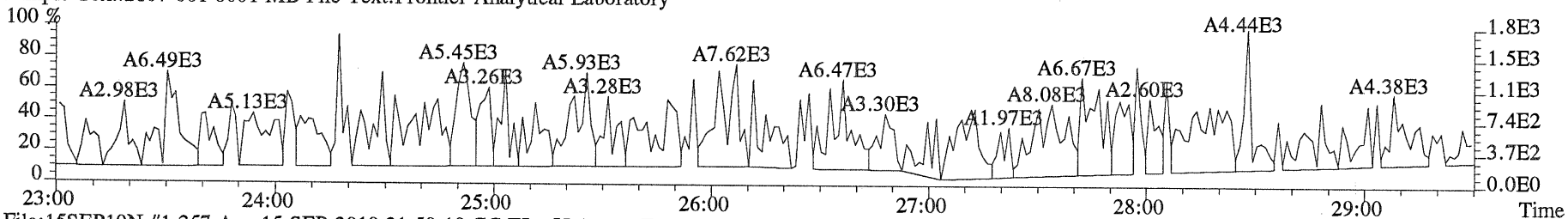
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



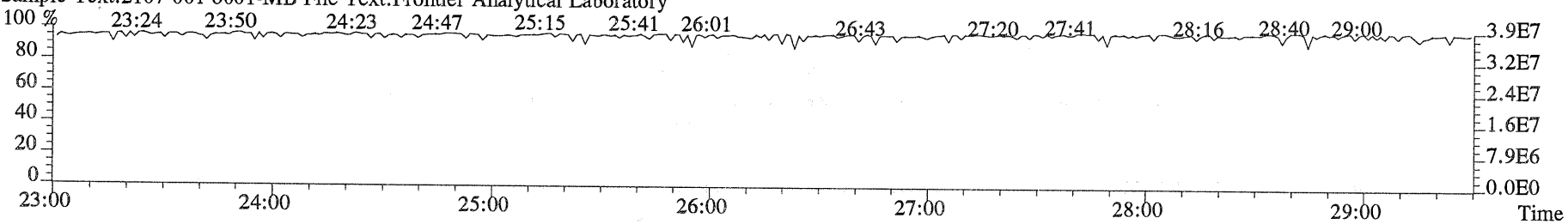
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



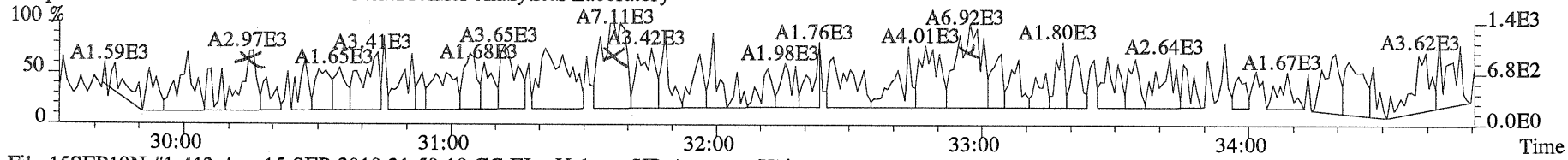
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



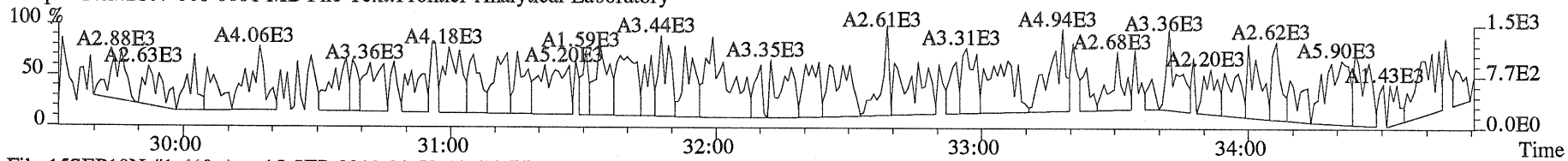
File:15SEP10N #1-357 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:3 Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



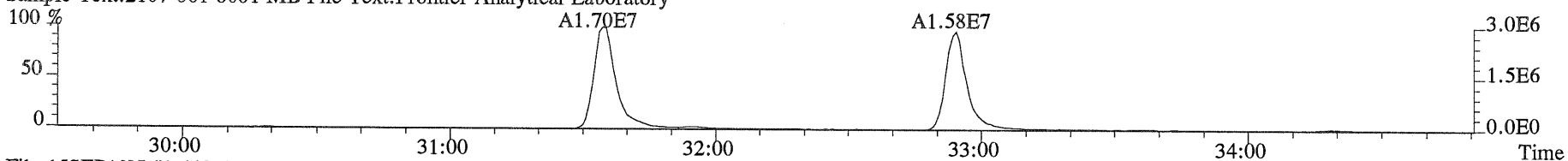
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



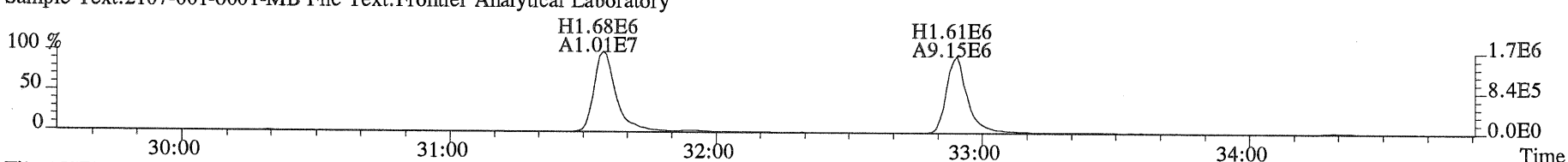
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



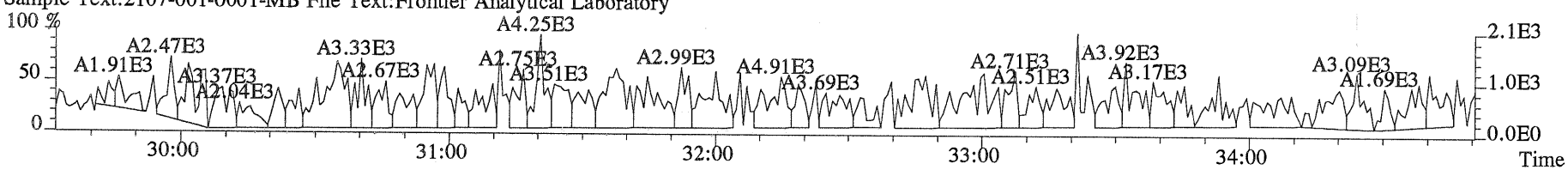
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



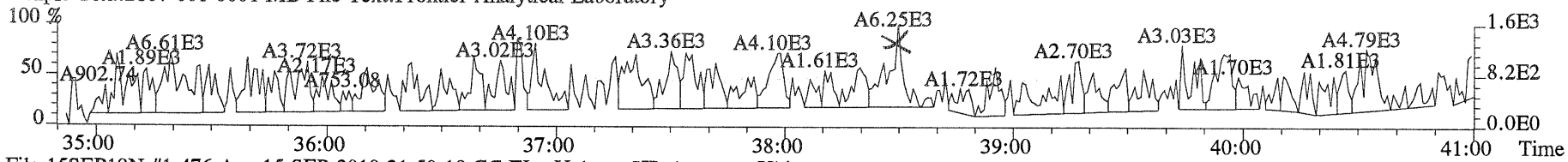
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



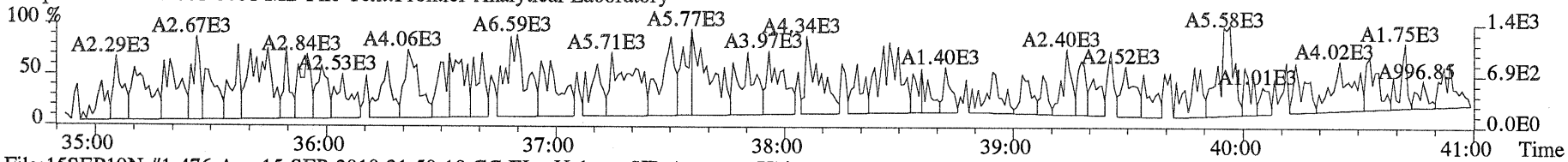
File:15SEP10N #1-412 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



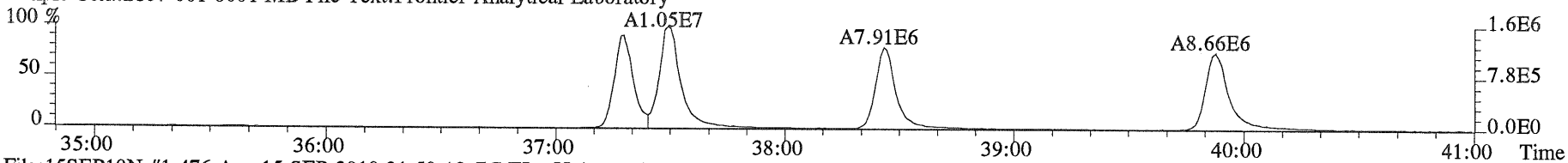
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



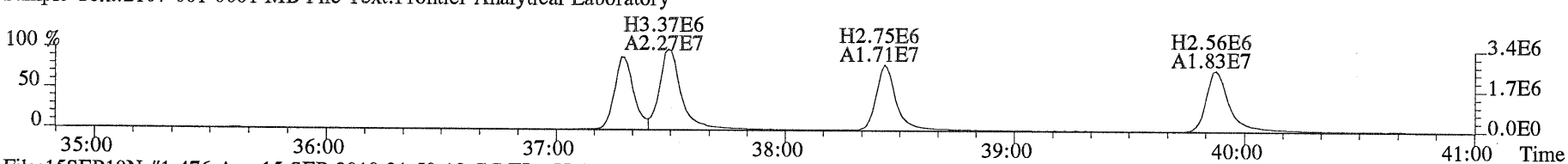
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



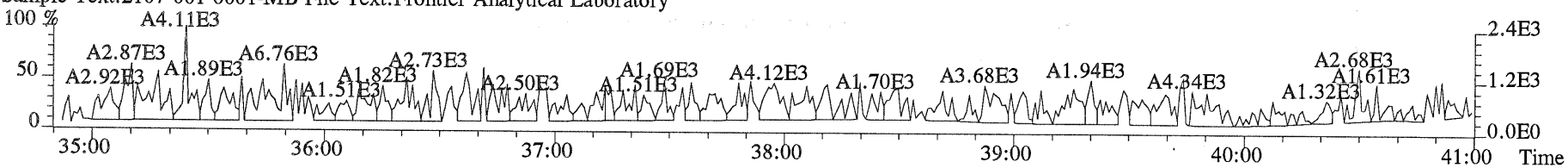
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



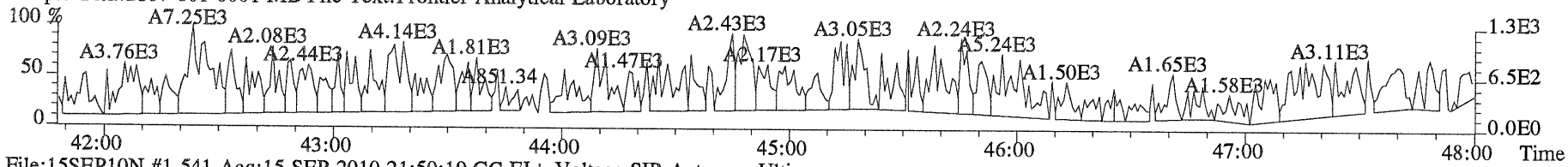
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



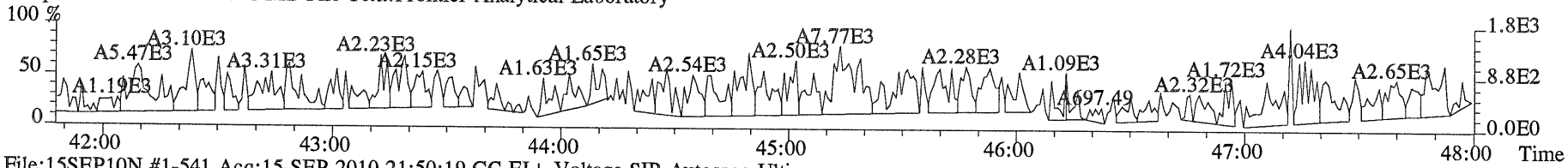
File:15SEP10N #1-476 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



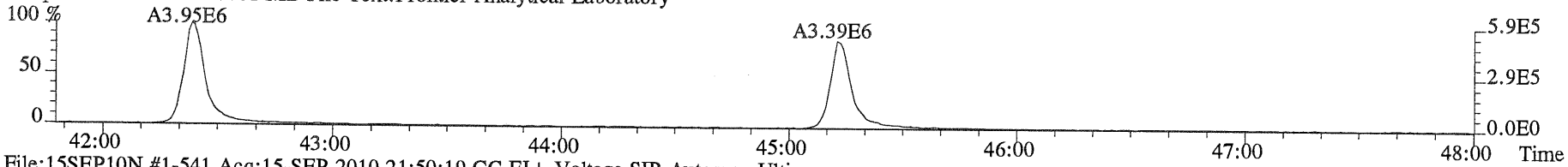
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



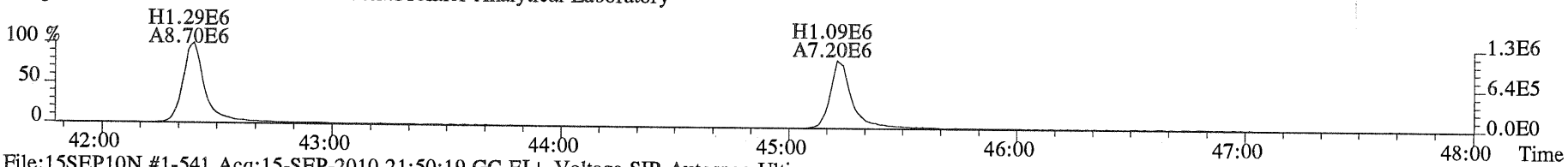
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



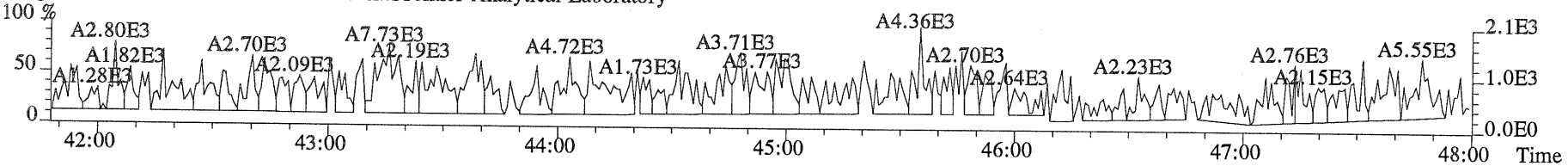
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



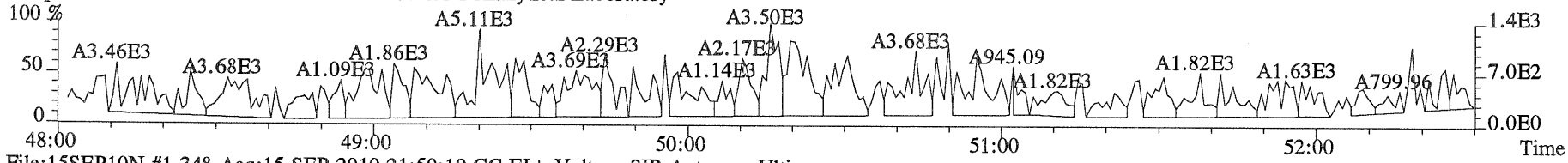
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



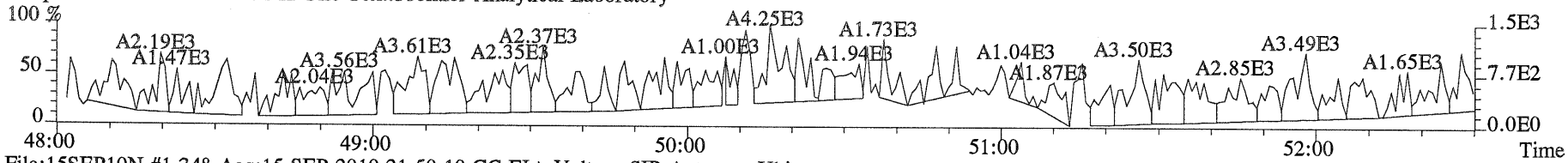
File:15SEP10N #1-541 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



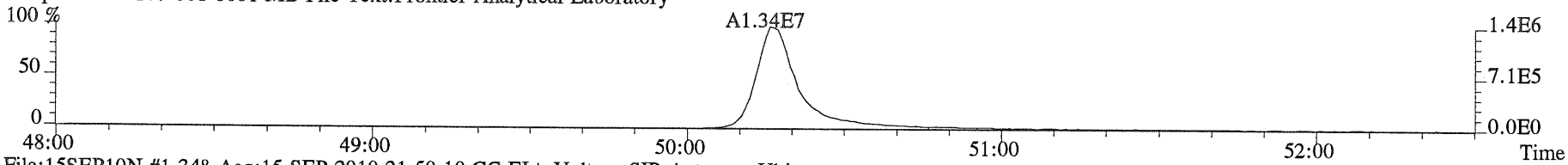
File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



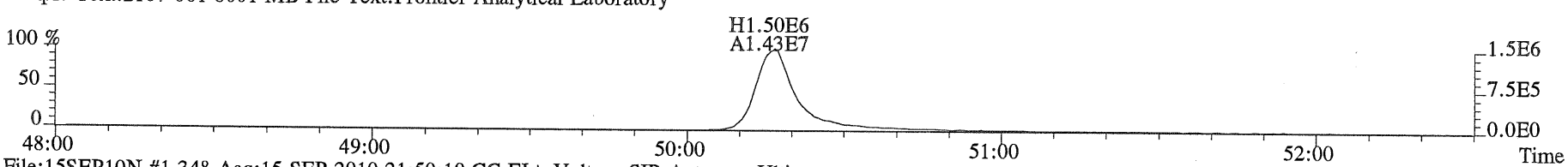
File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



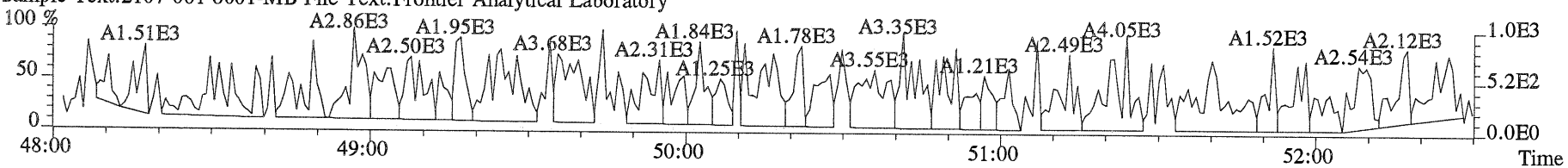
File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



File:15SEP10N #1-348 Acq:15-SEP-2010 21:50:19 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-MB File Text:Frontier Analytical Laboratory



2107.001.0001.01R

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): Soil OPR Data Filename: 15SEP10N Sam:2

Ext. Date: 9/14/10 Shift: Day Analysis Date: 15-SEP-10 20:55:00

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	9.86	6.70 - 15.8
1,2,3,7,8-PeCDD	50	51.7	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	49.5	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	50.7	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	51.2	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	49.9	35.0 - 70.0
OCDD	100	102	78.0 - 144
2,3,7,8-TCDF	10	8.82	7.50 - 15.8
1,2,3,7,8-PeCDF	50	45.9	40.0 - 67.0
2,3,4,7,8-PeCDF	50	46.8	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	44.6	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	45.2	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	44.6	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	45.2	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	47.9	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	48.6	39.0 - 69.0
OCDF	100	89.9	63.0 - 170

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

Analyst: _____ Date: 9/16/10

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): Soil OPR Data Filename: 15SEP10N Sam:2

Ext. Date: 9/14/10 Shift: Day Analysis Date: 15-SEP-10 20:55:00

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	74.8	20.0 - 175
13C-1,2,3,7,8-PeCDD	100	89.5	21.0 - 227
13C-1,2,3,4,7,8-HxCDD	100	78.4	21.0 - 193
13C-1,2,3,6,7,8-HxCDD	100	76.8	25.0 - 163
13C-1,2,3,4,6,7,8-HpCDD	100	74.0	26.0 - 166
13C-OCDD	200	129	26.0 - 397
13C-2,3,7,8-TCDF	100	79.4	22.0 - 152
13C-1,2,3,7,8-PeCDF	100	84.2	21.0 - 192
13C-2,3,4,7,8-PeCDF	100	83.5	13.0 - 328
13C-1,2,3,4,7,8-HxCDF	100	76.4	19.0 - 202
13C-1,2,3,6,7,8-HxCDF	100	72.7	21.0 - 159
13C-2,3,4,6,7,8-HxCDF	100	70.8	22.0 - 176
13C-1,2,3,7,8,9-HxCDF	100	75.9	17.0 - 205
13C-1,2,3,4,6,7,8-HpCDF	100	60.8	21.0 - 158
13C-1,2,3,4,7,8,9-HpCDF	100	76.8	20.0 - 186
13C-OCDF	200	138	26.0 - 397
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	30.9	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: 9/16/10

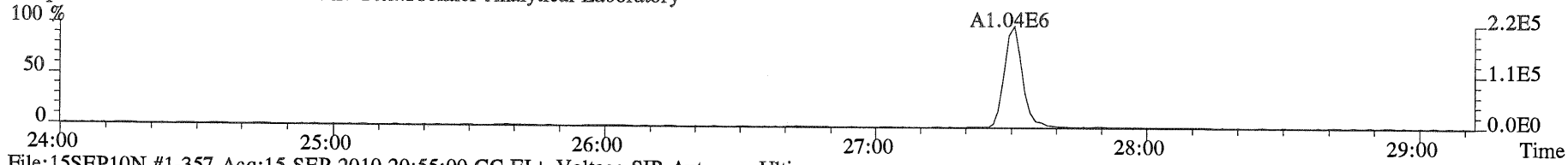
FAL ID: 2107-001-0001-OPR Filename: 15SEP10N Sam:2 Acquired: 15-SEP-10 20:55:00 ICal: PCDDFAL3-8-23-10
Client ID: OPR ConCal: ST091510N1 EndCal: ST091510N2
Results: 2107 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 97.1
WHO 1998 Tox: 123 WHO 2005 Tox: 112

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.32e+06	0.81 y	27:31	1.11	9.86		2.50	-	-	*
1,2,3,7,8-PeCDD	1.19e+07	1.45 y	33:19	1.10	51.7		2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.22e+07	1.40 y	38:42	1.37	49.5		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.15e+07	1.42 y	38:52	1.37	50.7		2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.20e+07	1.36 y	39:18	1.36	51.2		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	9.79e+06	0.94 y	44:20	1.45	49.9		2.50	-	-	*
OCDD	1.11e+07	0.98 y	49:55	1.43	102		2.50	-	-	*
2,3,7,8-TCDF	4.57e+06	0.66 y	26:45	1.50	8.82		2.50	-	-	*
1,2,3,7,8-PeCDF	1.33e+07	1.55 y	31:36	0.94	45.9		2.50	-	-	*
2,3,4,7,8-PeCDF	1.30e+07	1.53 y	32:55	0.94	46.8		2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.25e+07	1.23 y	37:19	0.93	44.6		2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.46e+07	1.23 y	37:31	0.82	45.2		2.50	-	-	*
2,3,4,6,7,8-HxCDF	1.24e+07	1.22 y	38:27	0.92	44.6		2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.48e+07	1.21 y	39:54	1.00	45.2		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	9.56e+06	1.05 y	42:24	1.39	47.9		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	8.67e+06	1.05 y	45:15	1.36	48.6		2.50	-	-	*
OCDF	1.12e+07	0.89 y	50:18	0.79	89.9		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	2.12e+07	0.84 y	27:30	1.02	74.8					74.8
13C-1,2,3,7,8-PeCDD	2.08e+07	1.72 y	33:19	0.84	89.5					89.5
13C-1,2,3,4,7,8-HxCDD	1.79e+07	1.24 y	38:41	1.07	78.4					78.4
13C-1,2,3,6,7,8-HxCDD	1.66e+07	1.33 y	38:51	1.01	76.8					76.8
13C-1,2,3,4,6,7,8-HpCDD	1.35e+07	0.96 y	44:18	0.86	74.0					74.0
13C-OCDD	1.51e+07	1.00 y	49:54	0.55	129					64.7
13C-2,3,7,8-TCDF	3.45e+07	0.88 y	26:44	0.99	79.4					79.4
13C-1,2,3,7,8-PeCDF	3.08e+07	1.69 y	31:34	0.84	84.2					84.2
13C-2,3,4,7,8-PeCDF	2.96e+07	1.70 y	32:54	0.81	83.5					83.5
13C-1,2,3,4,7,8-HxCDF	3.01e+07	0.47 y	37:17	1.85	76.4					76.4
13C-1,2,3,6,7,8-HxCDF	3.92e+07	0.48 y	37:29	2.54	72.7					72.7
13C-2,3,4,6,7,8-HxCDF	3.04e+07	0.47 y	38:26	2.01	70.8					70.8
13C-1,2,3,7,8,9-HxCDF	3.29e+07	0.47 y	39:52	2.03	75.9					75.9
13C-1,2,3,4,6,7,8-HpCDF	1.44e+07	0.46 y	42:24	1.11	60.8					60.8
13C-1,2,3,4,7,8,9-HpCDF	1.32e+07	0.45 y	45:13	0.80	76.8					76.8
13C-OCDF	3.19e+07	0.96 y	50:16	1.08	138					69.1
37Cl-2,3,7,8-TCDD	5.87e+06		27:31	0.69	30.9					77.3
13C-1,2,3,4-TCDD	2.77e+07	0.85 y	26:54	-	61.6					
13C-1,2,3,4-TCDF	4.37e+07	0.86 y	25:39	-	60.4					
13C-1,2,3,7,8,9-HxCDD	2.13e+07	1.28 y	39:17	-	77.3					

						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	2.52e+06		23:27	1.11	10.7	2.50	-	-	*		26
Total Penta-Dioxins	1.19e+07		33:19	1.10	52.0	2.50	-	-	*		4
Total Hexa-Dioxins	3.58e+07		38:42	1.37	152	2.50	-	-	*		4
Total Hepta-Dioxins	1.02e+07		42:24	1.45	51.9	2.50	-	-	*		20
Total Tetra-Furans	4.74e+06		23:07	1.50	9.15	2.50	-	-	*		14
1st Fn. Tot Penta-Furans	1.49e+05		22:58	0.94	0.524	2.50	-	-	*	PeCDF	24
Total Penta-Furans	2.71e+07		30:20	0.94	95.6	2.50	-	-	*	96.2	14
Total Hexa-Furans	5.46e+07		35:25	0.91	181	2.50	-	-	*		17
Total Hepta-Furans	1.89e+07		42:24	1.38	100	2.50	-	-	*		24

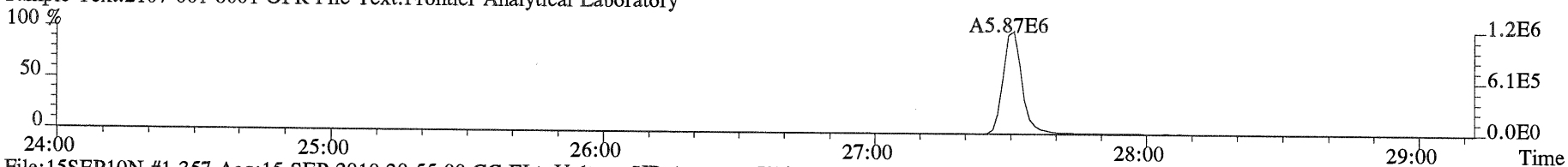
Analyst: _____ Date: 9/16/10

File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory

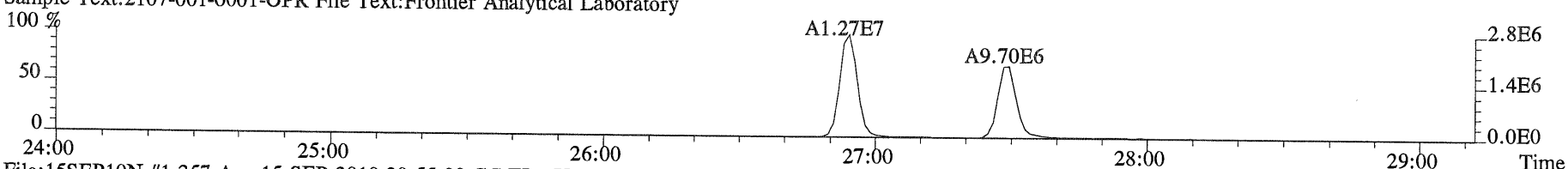


File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory

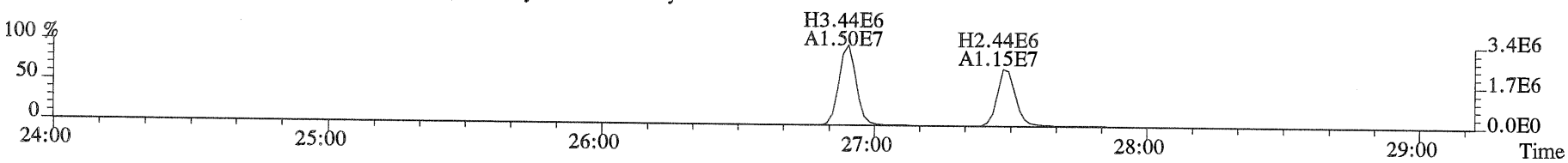
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



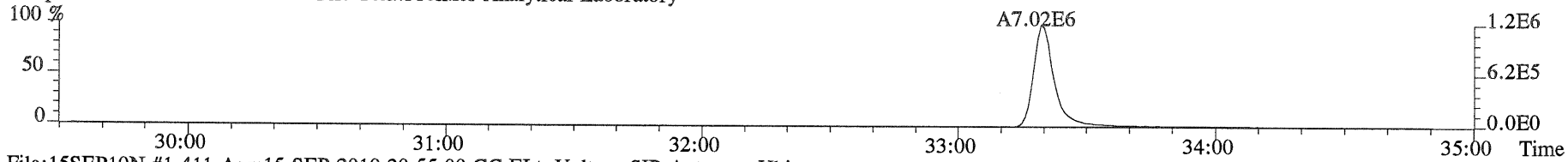
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



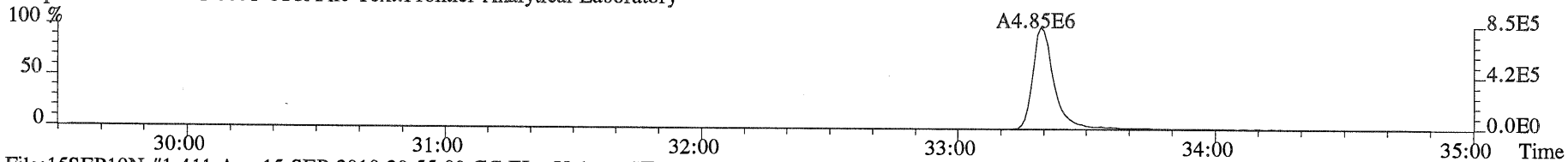
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



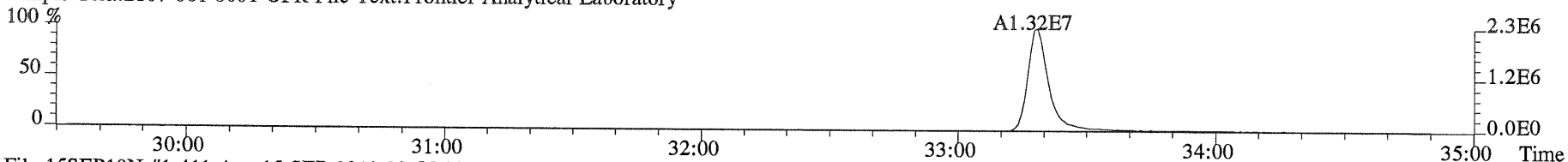
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



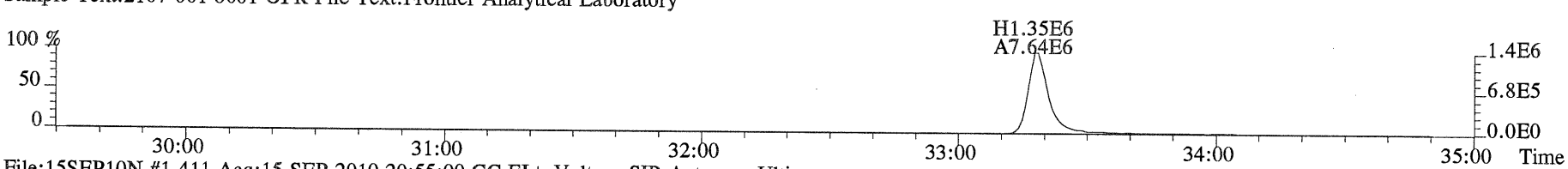
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



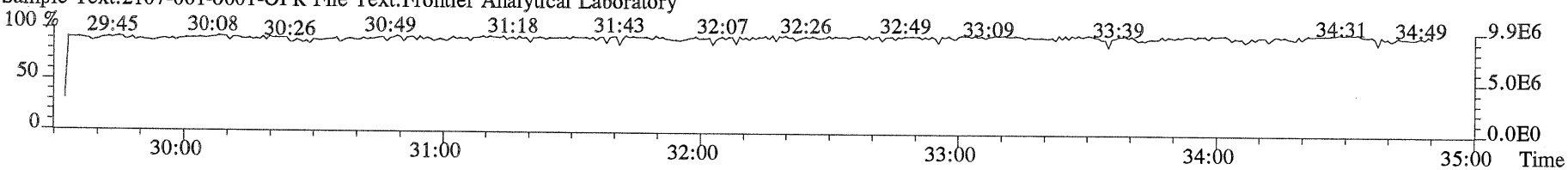
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



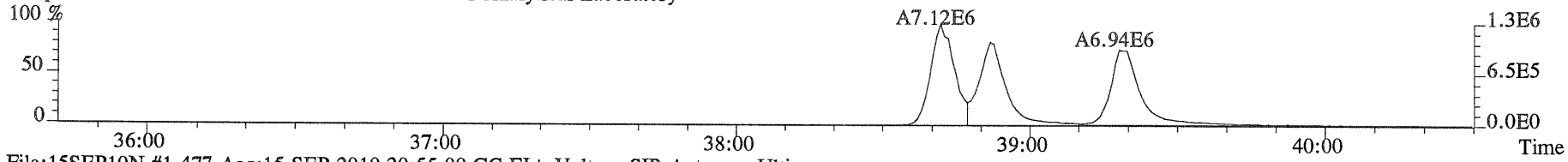
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



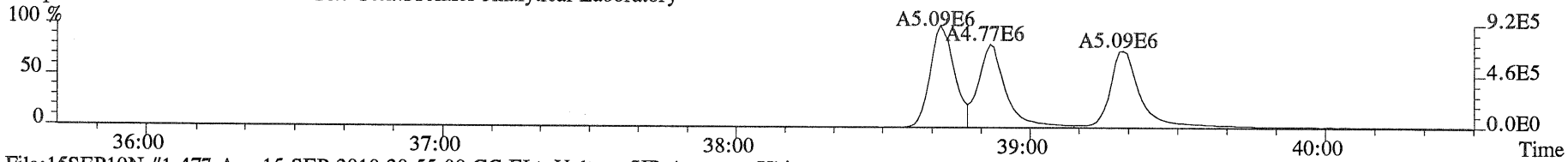
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:2 F:2 Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



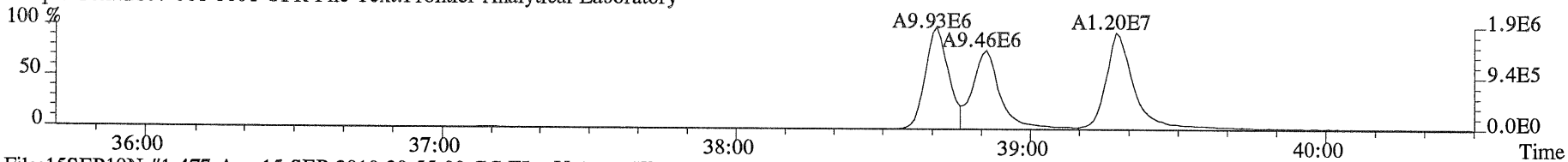
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



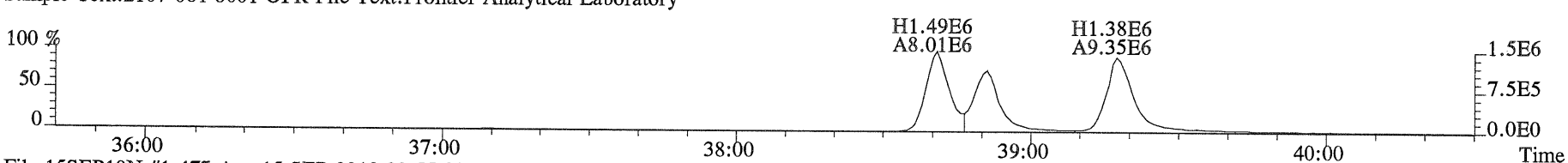
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



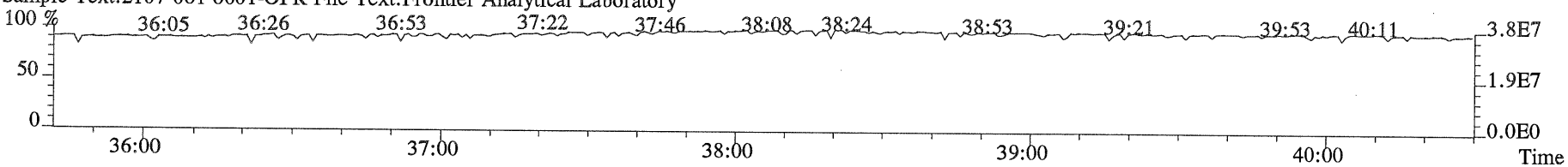
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



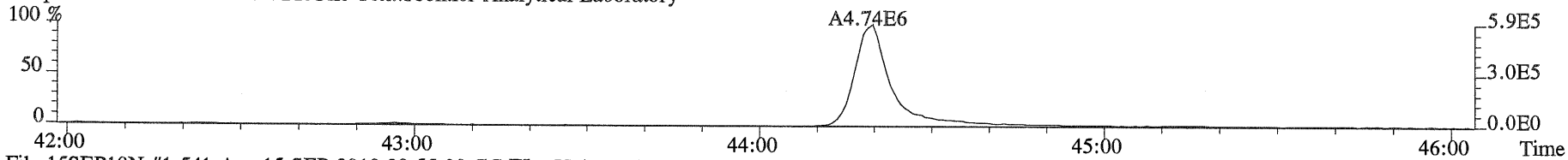
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



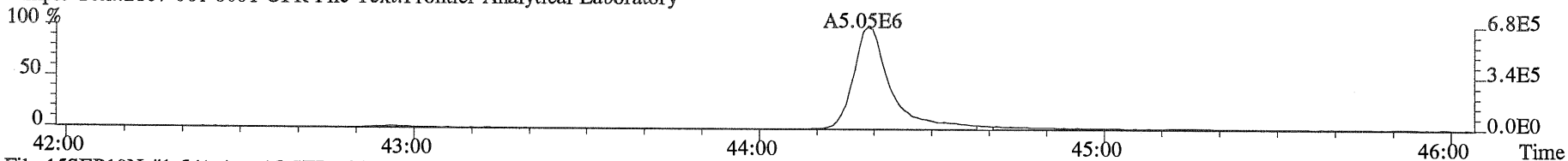
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:2 F:3 Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



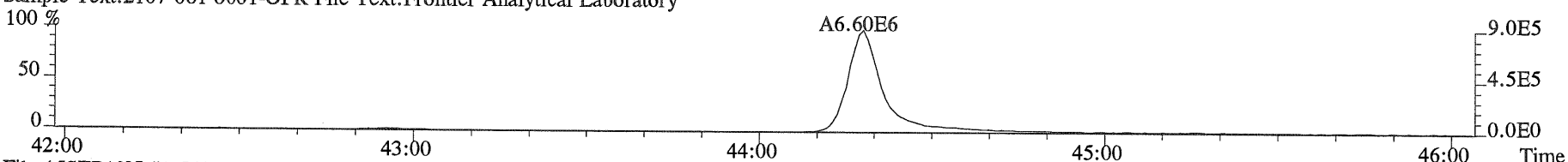
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



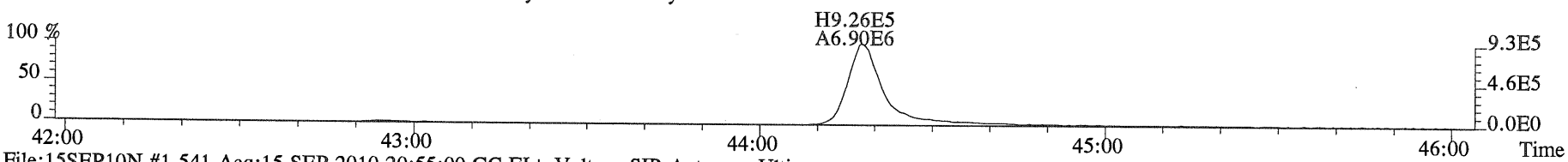
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



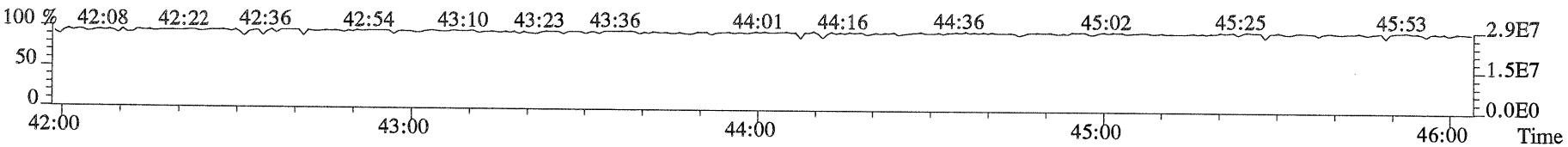
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



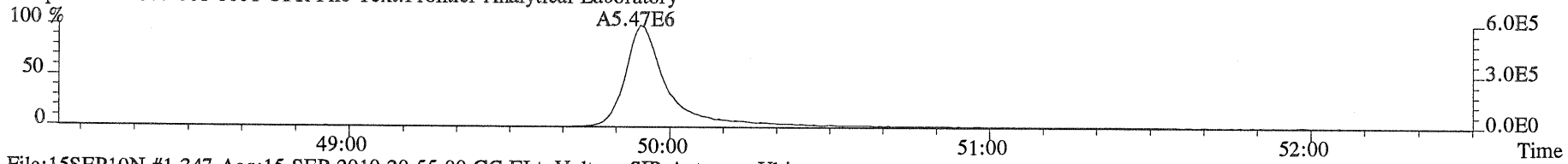
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



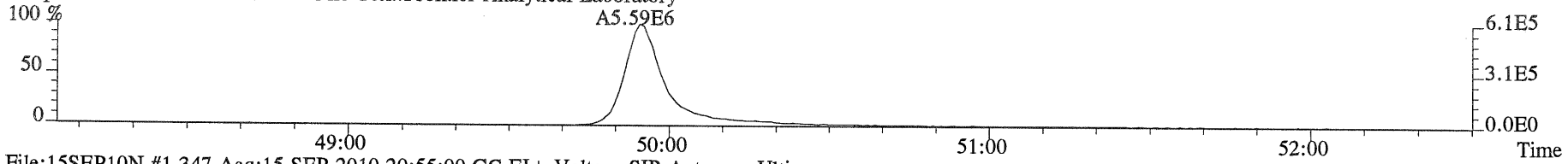
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:2 F:4 Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



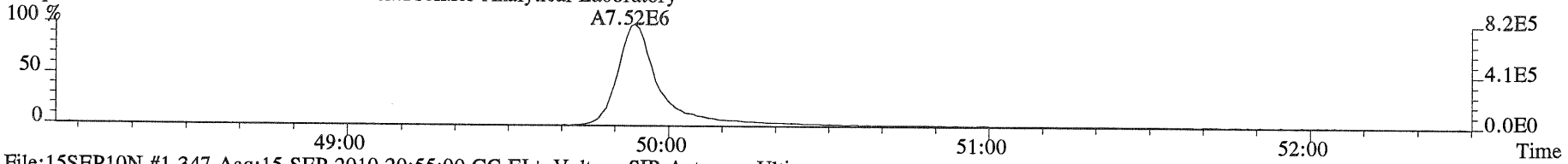
File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



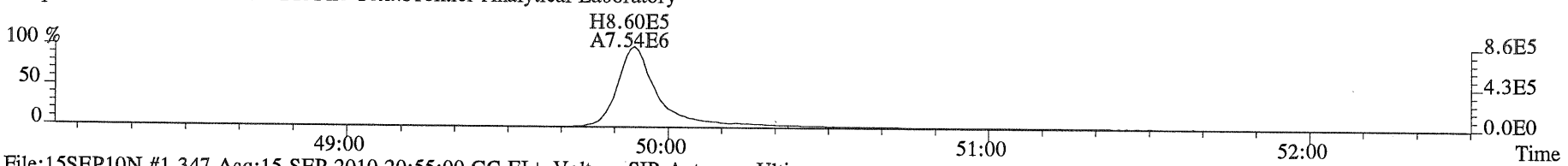
File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



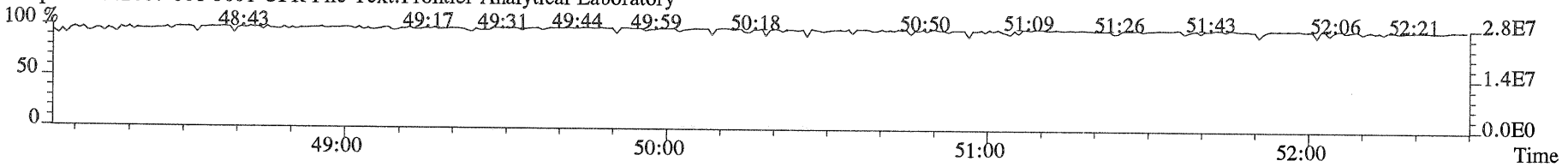
File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



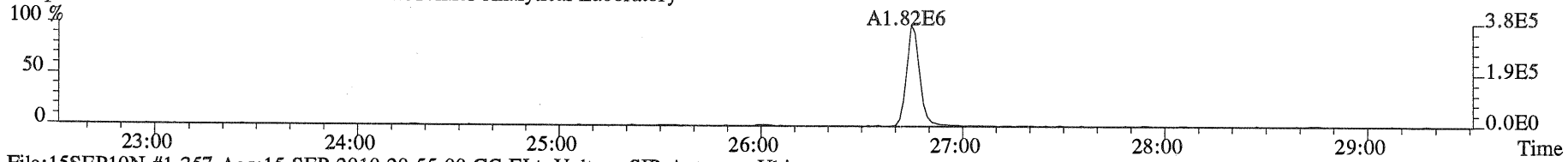
File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



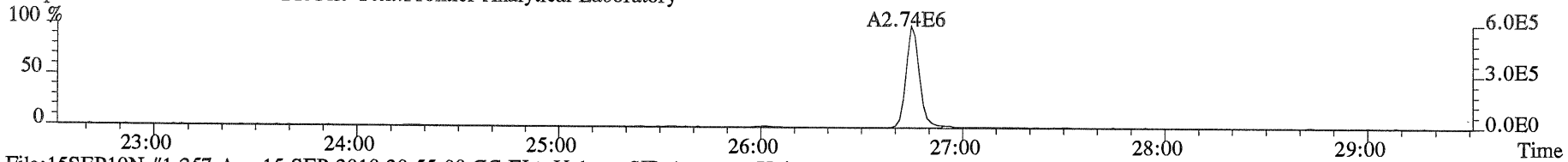
File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:2 F:5 Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



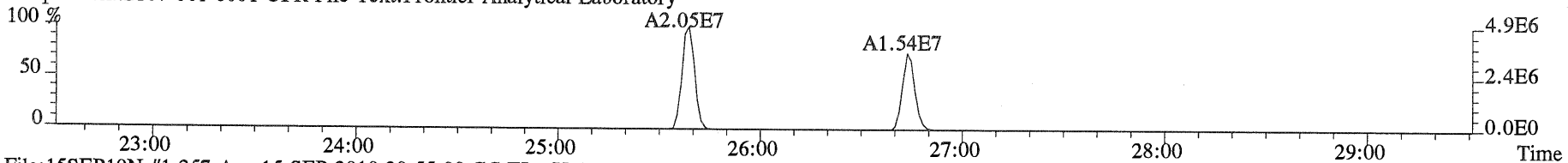
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



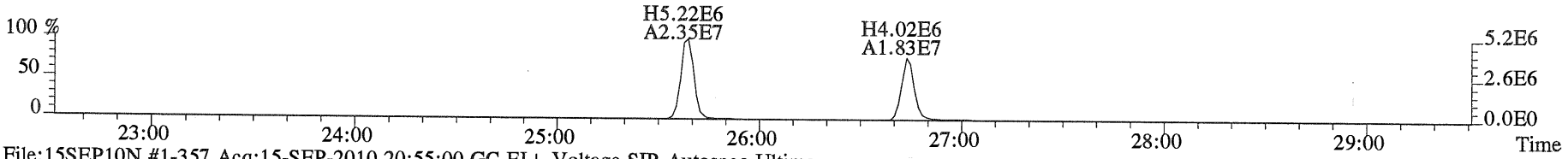
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



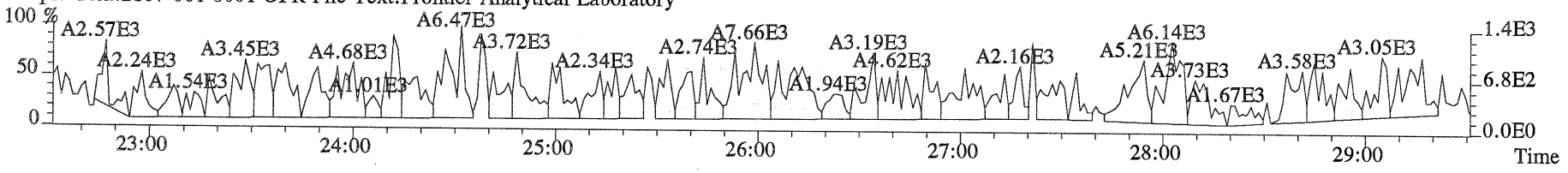
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:2 BSUB(10000,15,200.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



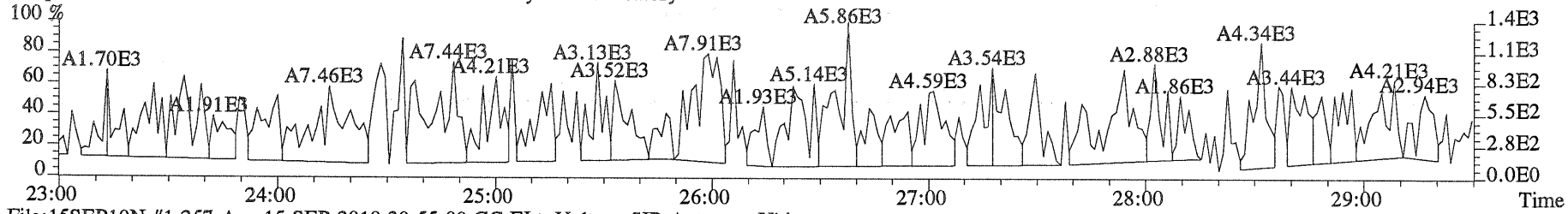
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



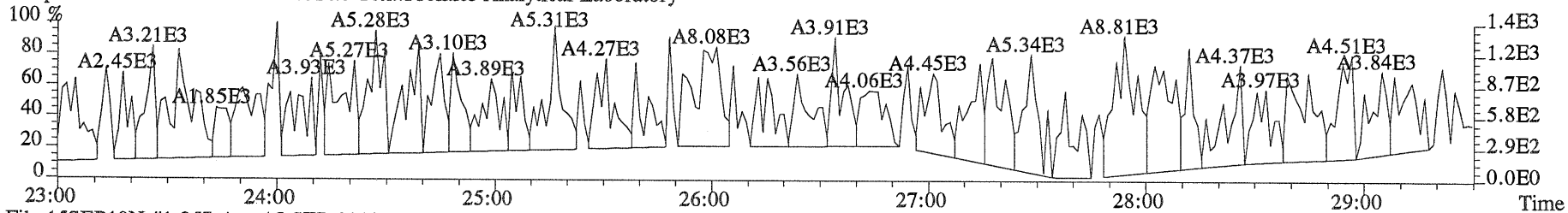
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



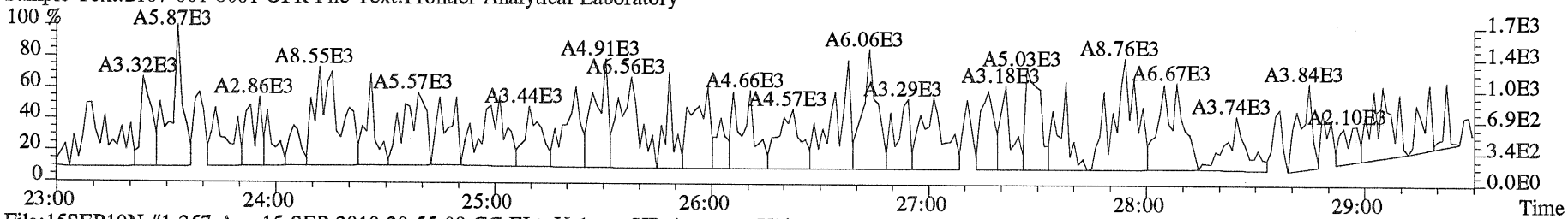
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



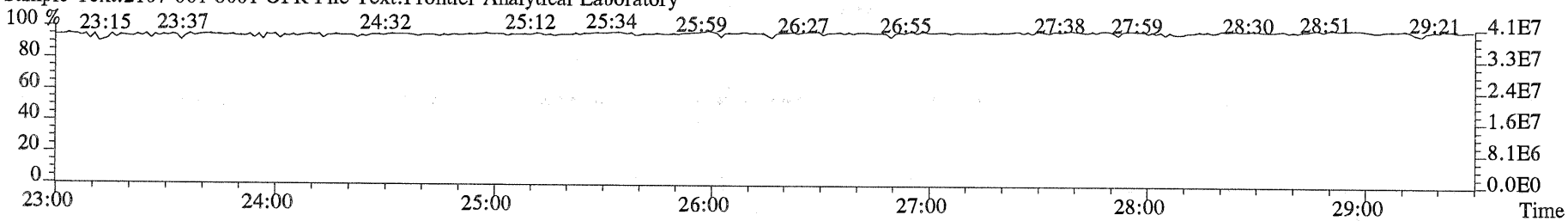
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



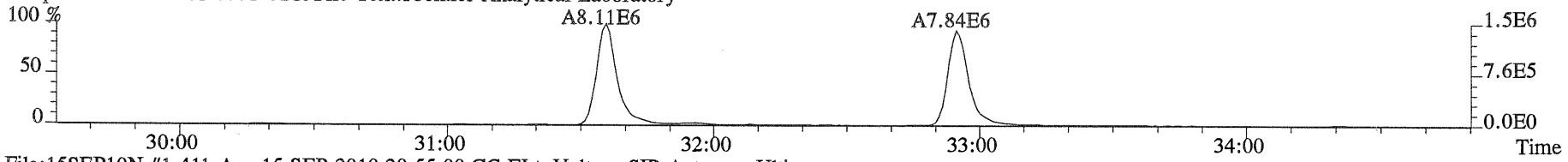
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



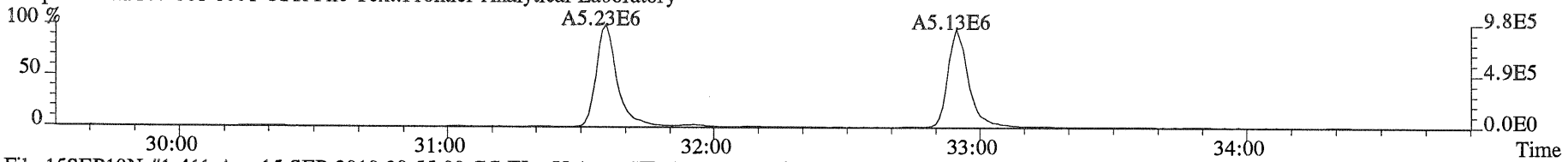
File:15SEP10N #1-357 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:2 Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



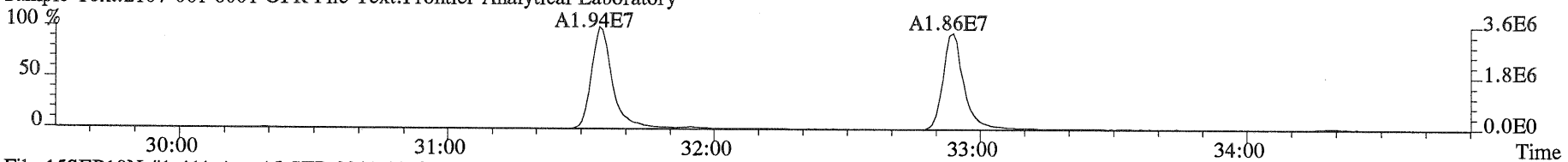
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



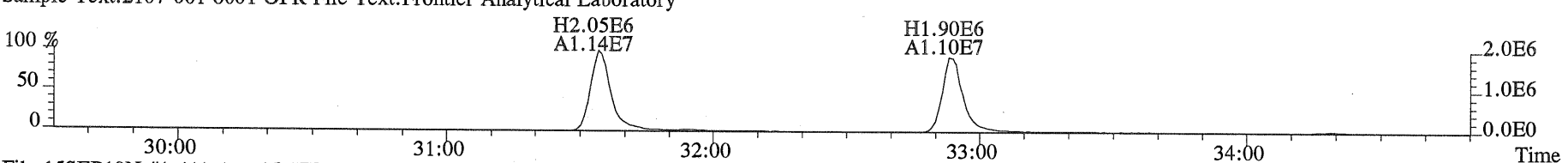
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



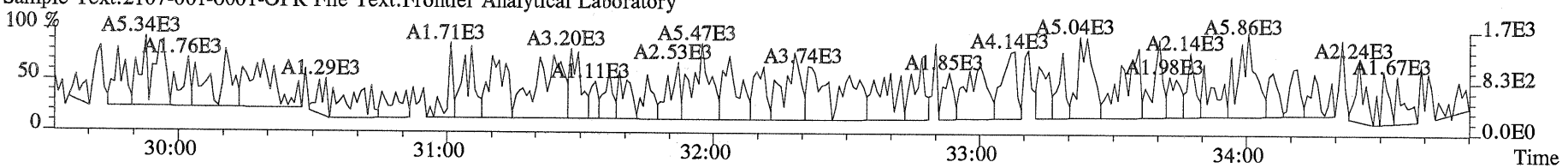
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



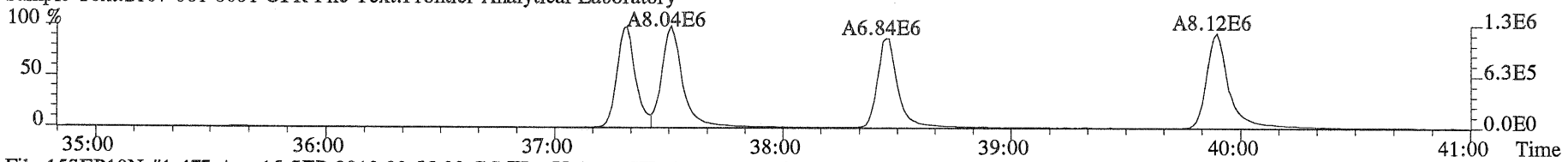
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



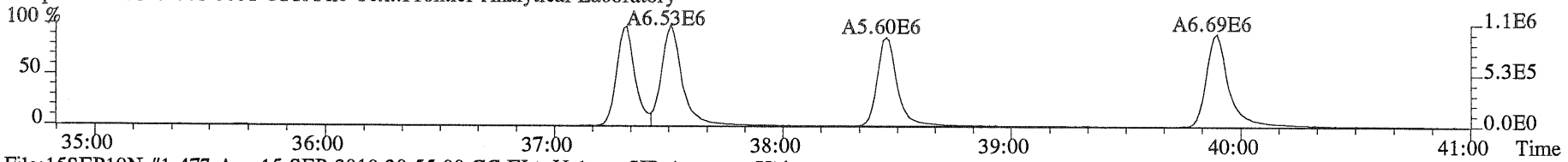
File:15SEP10N #1-411 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



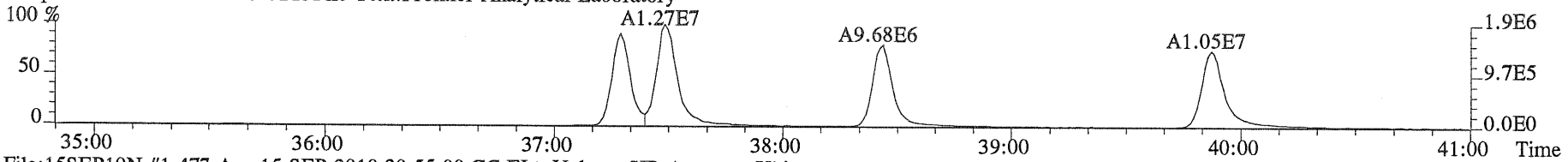
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



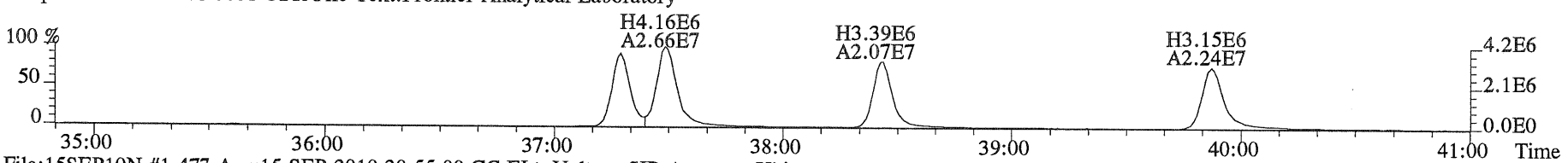
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



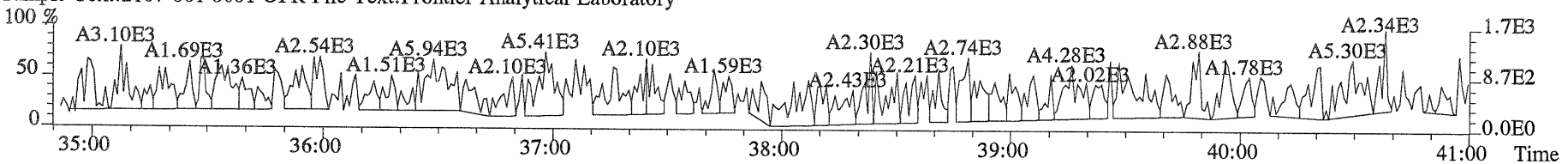
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



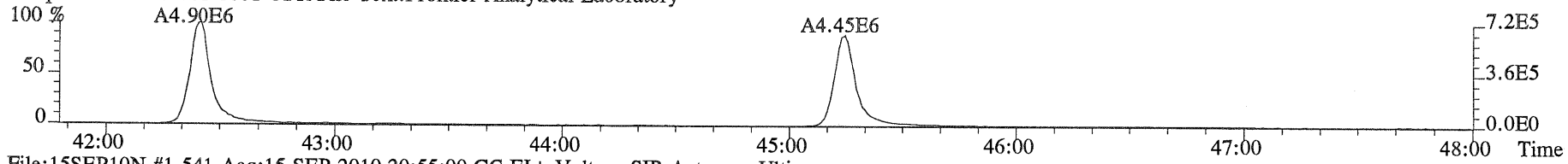
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



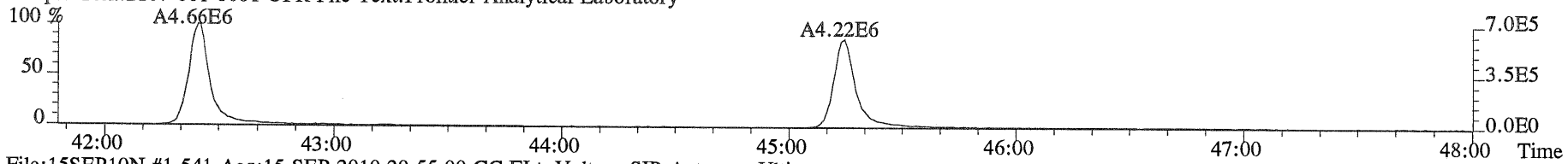
File:15SEP10N #1-477 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



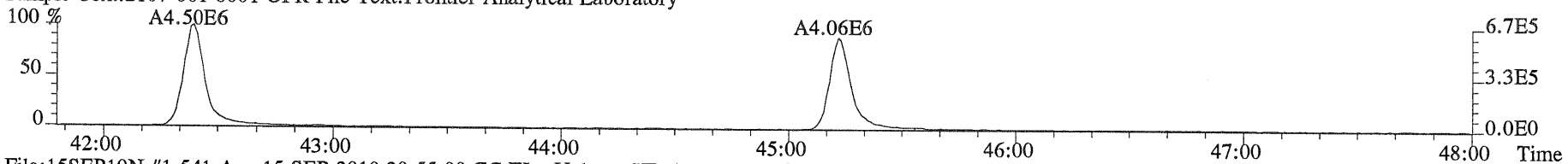
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



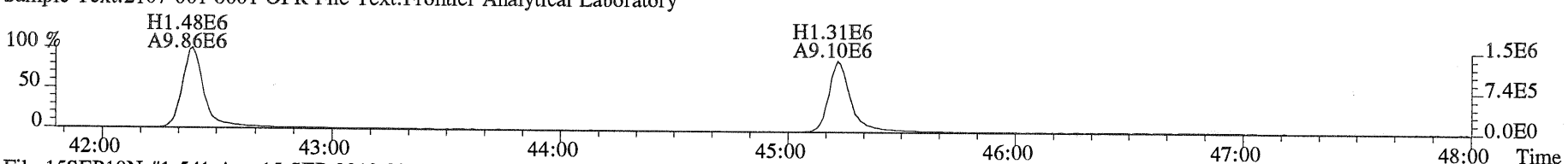
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



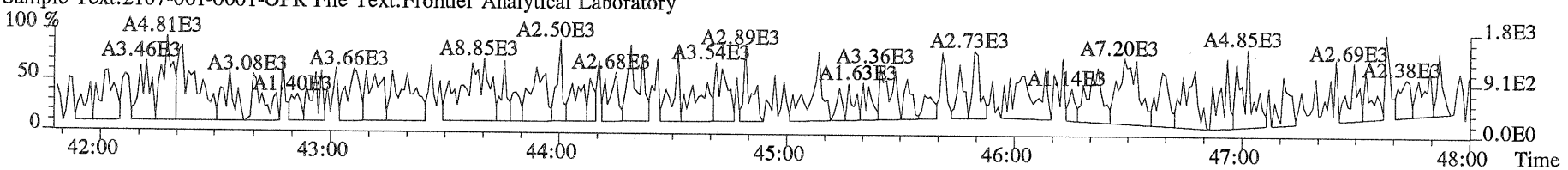
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



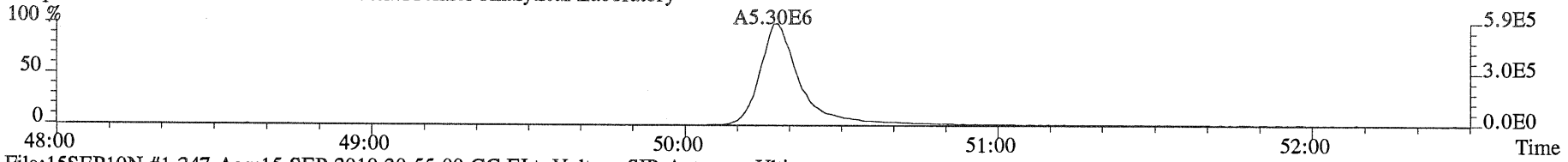
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



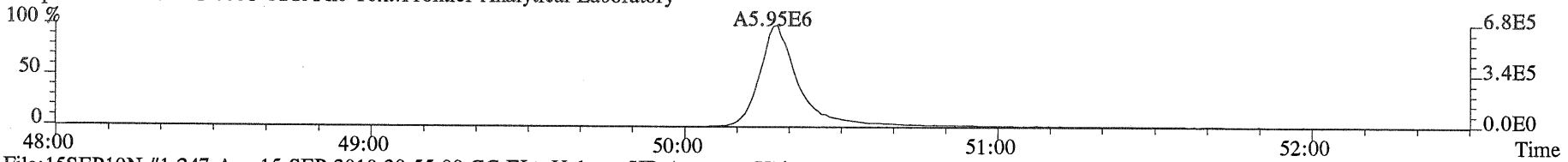
File:15SEP10N #1-541 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



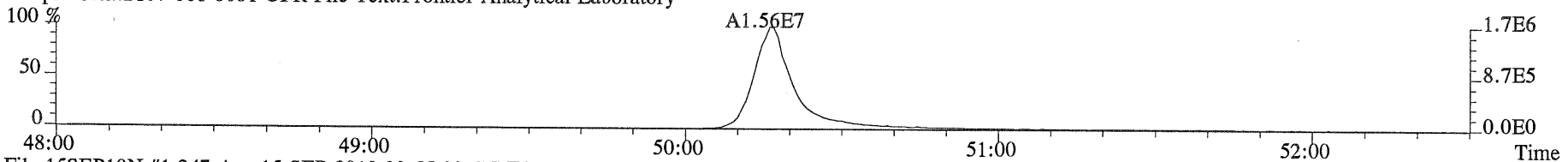
File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



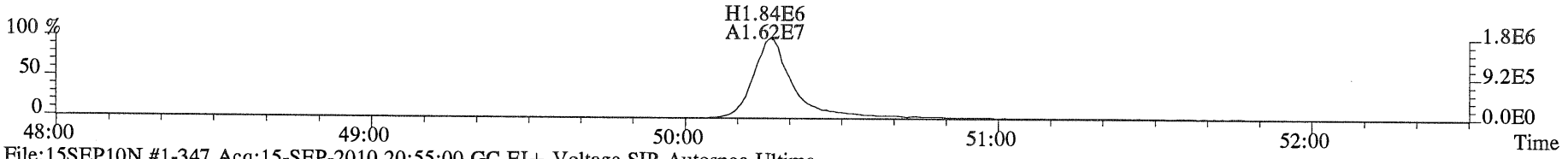
File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



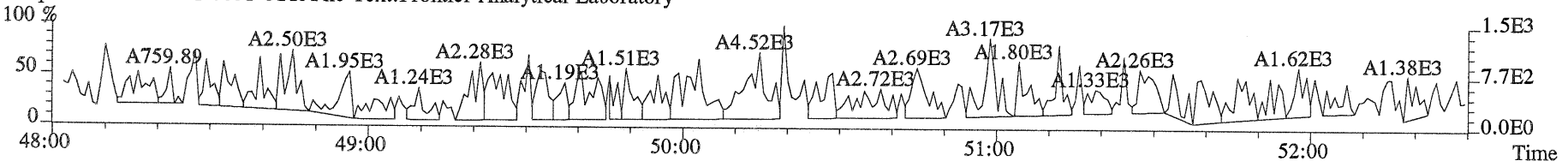
File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



File:15SEP10N #1-347 Acq:15-SEP-2010 20:55:00 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:2107-001-0001-OPR File Text:Frontier Analytical Laboratory



FAL ID: 6330-001-0001-SA Filename: 15SEP10N Sam:4 Acquired: 15-SEP-10 22:45:34 ICal: PCDDFAL3-8-23-10
Client ID: PSB21-0-0.5-082510 ConCal: ST091510N1 EndCal: ST091510N2
Results: 6330 GC Column: DB5 Amount: 4.970 NATO 1989 Tox: 20.6
WHO 1998 Tox: 17.9 WHO 2005 Tox: 18.5

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	8.24e+04	0.81 y	27:30	1.11	1.46		2.50	-	-	*
1,2,3,7,8-PeCDD	1.81e+05	1.33 y	33:21	1.10	3.26	J	2.50	-	-	*
1,2,3,4,7,8-HxCDD	3.69e+05	1.43 y	38:43	1.37	6.25		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.07e+06	1.41 y	38:52	1.37	19.3		2.50	-	-	*
1,2,3,7,8,9-HxCDD	7.33e+05	1.35 y	39:20	1.36	12.9		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	2.94e+07	0.89 y	44:19	1.45	573		2.50	-	-	*
OCDD	1.63e+08	0.94 y	49:55	1.43	4550		2.50	-	-	*
2,3,7,8-TCDF	1.44e+05	0.84 y	26:46	1.50	1.26		2.50	-	-	*
1,2,3,7,8-PeCDF	7.17e+04	1.51 y	31:36	0.94	1.03	J	2.50	-	-	*
2,3,4,7,8-PeCDF	9.81e+04	1.39 y	32:56	0.94	1.47	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	2.93e+05	1.25 y	37:19	0.93	4.29	J	2.50	-	-	*
1,2,3,6,7,8-HxCDF	2.52e+05	1.17 y	37:30	0.82	3.02	J	2.50	-	-	*
2,3,4,6,7,8-HxCDF	2.69e+05	1.17 y	38:27	0.92	3.91	J	2.50	-	-	*
1,2,3,7,8,9-HxCDF	6.04e+04	1.14 y	39:57	1.00	0.762	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	4.92e+06	1.06 y	42:25	1.39	94.9		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.81e+05	1.11 y	45:14	1.36	4.12	J	2.50	-	-	*
OCDF	1.19e+07	0.88 y	50:17	0.79	325		2.50	-	-	*

						Rec
13C-2,3,7,8-TCDD	2.05e+07	0.84 y	27:29	1.02	328	81.5
13C-1,2,3,7,8-PeCDD	2.03e+07	1.75 y	33:18	0.84	395	98.1
13C-1,2,3,4,7,8-HxCDD	1.73e+07	1.29 y	38:41	1.07	336	83.5
13C-1,2,3,6,7,8-HxCDD	1.62e+07	1.29 y	38:51	1.01	334	83.0
13C-1,2,3,4,6,7,8-HpCDD	1.42e+07	0.94 y	44:18	0.86	347	86.3
13C-OCDD	2.01e+07	0.98 y	49:54	0.55	768	95.4
13C-2,3,7,8-TCDF	3.05e+07	0.87 y	26:44	0.99	326	81.1
13C-1,2,3,7,8-PeCDF	2.98e+07	1.69 y	31:34	0.84	377	93.8
13C-2,3,4,7,8-PeCDF	2.87e+07	1.73 y	32:54	0.81	375	93.2
13C-1,2,3,4,7,8-HxCDF	2.96e+07	0.47 y	37:18	1.85	334	83.1
13C-1,2,3,6,7,8-HxCDF	4.10e+07	0.47 y	37:29	2.54	338	83.9
13C-2,3,4,6,7,8-HxCDF	3.01e+07	0.46 y	38:26	2.01	312	77.5
13C-1,2,3,7,8,9-HxCDF	3.20e+07	0.46 y	39:53	2.03	329	81.8
13C-1,2,3,4,6,7,8-HpCDF	1.50e+07	0.46 y	42:24	1.11	283	70.3
13C-1,2,3,4,7,8,9-HpCDF	1.31e+07	0.45 y	45:14	0.80	340	84.5
13C-OCDF	3.74e+07	0.98 y	50:17	1.08	722	89.6
37Cl-2,3,7,8-TCDD	4.93e+06		27:30	0.69	118	73.2
13C-1,2,3,4-TCDD	2.46e+07	0.85 y	26:54	-	11.0	
13C-1,2,3,4-TCDF	3.79e+07	0.88 y	25:39	-	10.5	
13C-1,2,3,7,8,9-HxCDD	1.93e+07	1.26 y	39:18	-	14.1	

							Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	1.54e+06		24:29	1.11	27.3		2.50	-	-	*		16
Total Penta-Dioxins	2.63e+06		30:21	1.10	47.4		2.50	-	-	*		10
Total Hexa-Dioxins	1.07e+07		36:15	1.37	188		2.50	-	-	*		8
Total Hepta-Dioxins	5.72e+07		42:56	1.45	1110		2.50	-	-	*		2
Total Tetra-Furans	4.17e+06		23:09	1.50	36.5	D,M	2.50	-	-	*		20
1st Fn. Tot Penta-Furans	1.24e+06		28:33	0.94	18.2	D,M	2.50	-	-	*	PeCDF	1
Total Penta-Furans	2.11e+06		30:12	0.94	31.0	D,M	2.50	-	-	*	49.2	13
Total Hexa-Furans	6.25e+06		35:21	0.91	83.5	D,M	2.50	-	-	*		11
Total Hepta-Furans	1.48e+07		42:25	1.38	301		2.50	-	-	*		4

Analyst: _____ Date: 9/16/10

Totals class: Total Tetra-Dioxins Entry #: 38

Run: 11 File: 15SEP10N S: 4 I: 1 F: 1
Acquired: 15-SEP-10 22:45:34

Total Concentration: 27.3 Unnamed Concentration: 25.809

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
24:29	1.33e+05	1.67e+05	0.80	y	3.00e+05	5.30	
24:47	8.59e+04	1.10e+05	0.78	y	1.96e+05	3.46	
25:06	3.43e+04	4.64e+04	0.74	y	8.07e+04	1.43	
25:42	4.18e+04	4.82e+04	0.87	y	9.00e+04	1.59	
25:54	6.52e+04	7.99e+04	0.82	y	1.45e+05	2.56	
26:03	4.13e+04	4.81e+04	0.86	y	8.94e+04	1.58	
26:11	1.83e+04	2.39e+04	0.77	y	4.22e+04	0.745	
26:26	1.66e+04	1.91e+04	0.87	y	3.57e+04	0.630	
26:35	3.48e+04	3.98e+04	0.87	y	7.46e+04	1.32	
26:53	6.90e+04	8.28e+04	0.83	y	1.52e+05	2.68	
27:15	3.53e+04	4.67e+04	0.76	y	8.20e+04	1.45	
27:23	1.78e+04	2.23e+04	0.80	y	4.01e+04	0.709	
27:30	3.69e+04	4.55e+04	0.81	y	8.24e+04	1.46	2,3,7,8-TCDD
27:48	2.71e+04	3.12e+04	0.87	y	5.82e+04	1.03	
27:55	8.62e+03	1.19e+04	0.72	y	2.06e+04	0.363	
28:27	2.41e+04	3.05e+04	0.79	y	5.47e+04	0.966	

Totals class: Total Penta-Dioxins Entry #: 39

Run: 11 File: 15SEP10N S: 4 I: 1 F: 2
Acquired: 15-SEP-10 22:45:34

Total Concentration: 47.4 Unnamed Concentration: 44.169

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:21	3.14e+05	2.26e+05	1.39	y	5.39e+05	9.71	
30:57	1.82e+05	1.32e+05	1.38	y	3.14e+05	5.65	
31:34	1.46e+05	9.92e+04	1.47	y	2.45e+05	4.42	
31:48	1.25e+05	9.12e+04	1.37	y	2.16e+05	3.90	
31:56	1.57e+05	1.12e+05	1.40	y	2.68e+05	4.83	
32:14	2.64e+05	1.93e+05	1.37	y	4.57e+05	8.22	
32:43	1.00e+05	7.26e+04	1.38	y	1.73e+05	3.11	
33:21	1.03e+05	7.77e+04	1.33	y	1.81e+05	3.26	1,2,3,7,8-PeCDD
33:26	5.46e+04	3.79e+04	1.44	y	9.25e+04	1.67	
33:55	8.73e+04	6.06e+04	1.44	y	1.48e+05	2.66	

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 11 File: 15SEP10N S: 4 I: 1 F: 3
Acquired: 15-SEP-10 22:45:34

Total Concentration: 188 Unnamed Concentration: 149.406

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
36:15	1.32e+06	9.25e+05	1.43	y	2.24e+06	39.4	
37:10	7.13e+05	5.06e+05	1.41	y	1.22e+06	21.4	
37:36	2.23e+06	1.57e+06	1.42	y	3.80e+06	66.8	
37:47	4.76e+05	3.56e+05	1.34	y	8.32e+05	14.6	
38:43	2.17e+05	1.52e+05	1.43	y	3.69e+05	6.25	1,2,3,4,7,8-HxCDD
38:52	6.25e+05	4.43e+05	1.41	y	1.07e+06	19.3	1,2,3,6,7,8-HxCDD
39:10	2.39e+05	1.69e+05	1.41	y	4.08e+05	7.17	
39:20	4.21e+05	3.13e+05	1.35	y	7.33e+05	12.9	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 11 File: 15SEP10N S: 4 I: 1 F: 4
Acquired: 15-SEP-10 22:45:34

Total Concentration: 1110 Unnamed Concentration: 539.378

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:56	1.31e+07	1.46e+07	0.90 y	2.77e+07	539	
44:19	1.39e+07	1.56e+07	0.89 y	2.94e+07	573	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans Entry #: 42

Run: 11 File: 15SEP10N S: 4 I: 1 F: 1
Acquired: 15-SEP-10 22:45:34

Total Concentration: 36.5 Unnamed Concentration: 35.270

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
23:09	3.60e+04	4.09e+04	0.88	y	7.69e+04	0.674	
23:30	4.44e+04	6.02e+04	0.74	y	1.05e+05	0.917	
23:54	2.43e+05	3.67e+05	0.66	y	6.09e+05	5.34	
24:16	1.49e+05	2.16e+05	0.69	y	3.65e+05	3.20	
24:31	1.24e+05	1.88e+05	0.66	y	3.13e+05	2.74	
24:49	1.50e+05	2.29e+05	0.66	y	3.79e+05	3.33	
25:02	3.95e+04	5.42e+04	0.73	y	9.37e+04	0.821	
25:26	7.03e+04	1.00e+05	0.70	y	1.70e+05	1.50	
25:31	1.46e+05	2.19e+05	0.67	y	3.65e+05	3.20	
25:40	1.78e+05	2.68e+05	0.66	y	4.46e+05	3.91	
25:54	1.31e+04	1.62e+04	0.80	y	2.93e+04	0.257	
26:01	6.08e+04	9.04e+04	0.67	y	1.51e+05	1.33	
26:15	3.53e+04	5.19e+04	0.68	y	8.72e+04	0.764	
26:23	2.82e+04	3.69e+04	0.76	y	6.50e+04	0.570	
26:39	6.34e+04	9.18e+04	0.69	y	1.55e+05	1.36	
26:46	6.53e+04	7.82e+04	0.84	y	1.44e+05	1.26	2,3,7,8-TCDF
27:04	9.01e+04	1.35e+05	0.67	y	2.25e+05	1.97	
27:57	7.69e+04	1.08e+05	0.71	y	1.85e+05	1.62	
28:10	7.28e+04	1.01e+05	0.72	y	1.74e+05	1.52	
28:34	1.19e+04	1.62e+04	0.73	y	2.82e+04	0.247	

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

Run: 11 File: 15SEP10N S: 4 I: 1 F: 1
Acquired: 15-SEP-10 22:45:34

Total Concentration: 18.2 Unnamed Concentration: 18.237

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:33	7.64e+05	4.80e+05	1.59 y	1.24e+06	18.2	

Totals class: Total Penta-Furans Entry #: 44

Run: 11 File: 15SEP10N S: 4 I: 1 F: 2
Acquired: 15-SEP-10 22:45:34

Total Concentration: 31.0 Unnamed Concentration: 28.491

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:12	9.36e+04	6.61e+04	1.42	y	1.60e+05	2.34	
30:21	5.11e+05	3.06e+05	1.67	y	8.17e+05	12.0	
31:02	2.00e+05	1.30e+05	1.54	y	3.31e+05	4.85	
31:21	2.92e+04	1.82e+04	1.61	y	4.75e+04	0.696	
31:36	4.32e+04	2.85e+04	1.51	y	7.17e+04	1.03	1,2,3,7,8-PeCDF
31:51	5.85e+04	3.84e+04	1.52	y	9.68e+04	1.42	
31:56	8.66e+04	5.80e+04	1.49	y	1.45e+05	2.12	
32:09	1.61e+04	1.10e+04	1.46	y	2.72e+04	0.399	
32:46	3.92e+04	2.39e+04	1.64	y	6.30e+04	0.925	
32:56	5.70e+04	4.11e+04	1.39	y	9.81e+04	1.47	2,3,4,7,8-PeCDF
32:59	1.03e+05	7.03e+04	1.46	y	1.73e+05	2.53	
34:02	1.81e+04	1.22e+04	1.48	y	3.03e+04	0.444	
34:12	3.13e+04	2.24e+04	1.40	y	5.37e+04	0.788	

Totals class: Total Hexa-Furans Entry #: 45

Run: 11 File: 15SEP10N S: 4 I: 1 F: 3
Acquired: 15-SEP-10 22:45:34

Total Concentration: 83.5 Unnamed Concentration: 71.566

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:21	3.10e+05	2.53e+05	1.22 y	5.63e+05	7.50	
35:37	1.10e+06	9.09e+05	1.21 y	2.01e+06	26.8	
36:13	5.32e+04	4.94e+04	1.08 y	1.03e+05	1.37	
36:33	1.33e+06	1.06e+06	1.25 y	2.39e+06	31.8	
37:10	5.97e+04	4.83e+04	1.24 y	1.08e+05	1.44	
37:19	1.63e+05	1.30e+05	1.25 y	2.93e+05	4.29	1,2,3,4,7,8-HxCDF
37:30	1.36e+05	1.16e+05	1.17 y	2.52e+05	3.02	1,2,3,6,7,8-HxCDF
37:58	1.94e+04	1.67e+04	1.16 y	3.60e+04	0.480	
38:12	8.63e+04	7.24e+04	1.19 y	1.59e+05	2.11	
38:27	1.45e+05	1.24e+05	1.17 y	2.69e+05	3.91	2,3,4,6,7,8-HxCDF
39:57	3.22e+04	2.82e+04	1.14 y	6.04e+04	0.762	1,2,3,7,8,9-HxCDF

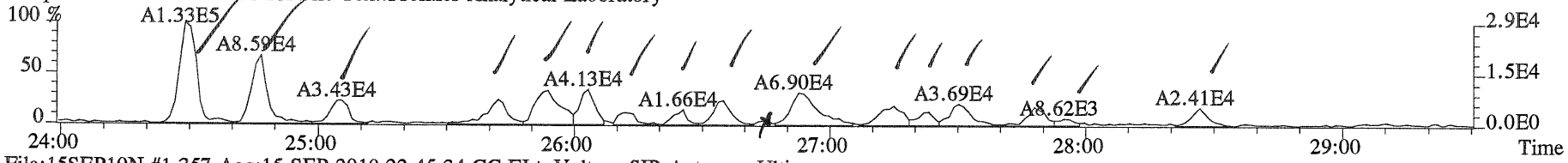
Totals class: Total Hepta-Furans Entry #: 46

Run: 11 File: 15SEP10N S: 4 I: 1 F: 4
Acquired: 15-SEP-10 22:45:34

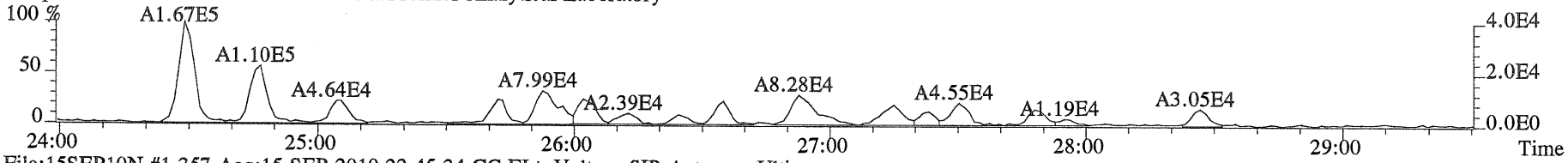
Total Concentration: 301 Unnamed Concentration: 201.818

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:25	2.54e+06	2.38e+06	1.06 y	4.92e+06	94.9	1,2,3,4,6,7,8-HpCDF
42:56	9.88e+04	9.00e+04	1.10 y	1.89e+05	3.93	
43:14	4.88e+06	4.63e+06	1.05 y	9.51e+06	198	
45:14	9.54e+04	8.60e+04	1.11 y	1.81e+05	4.12	1,2,3,4,7,8,9-HpCDF

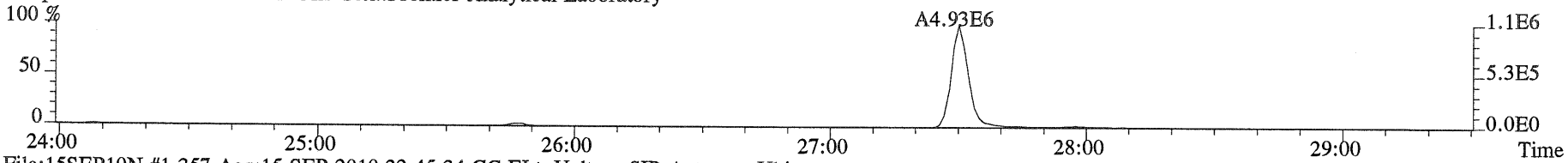
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



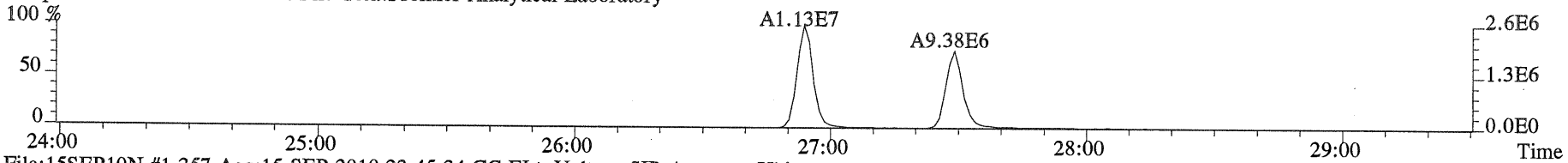
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



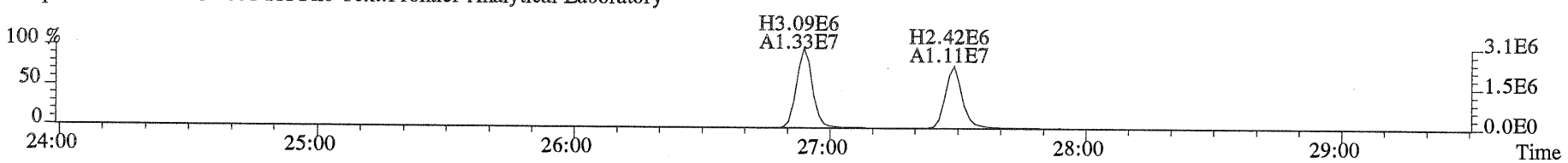
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



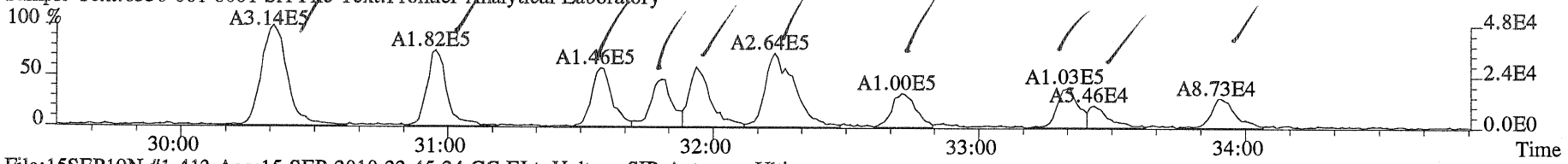
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



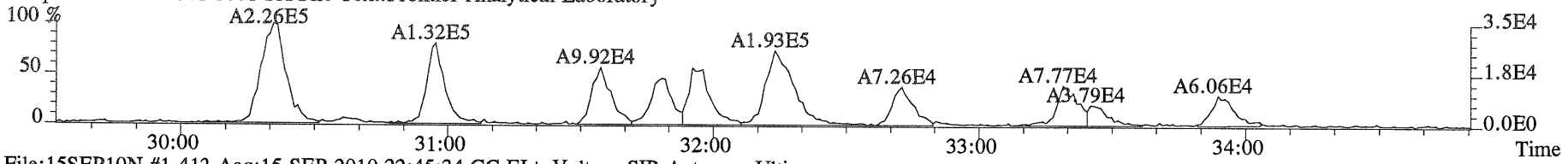
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



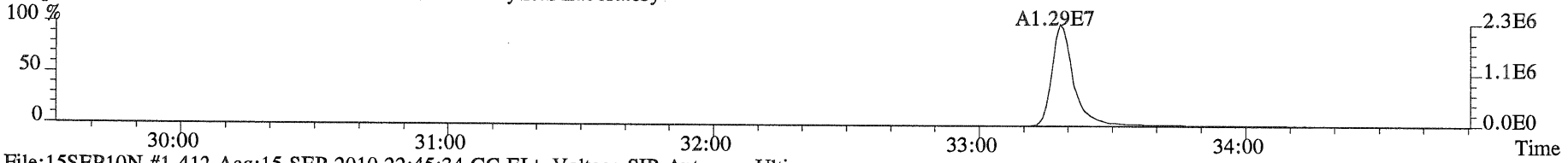
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



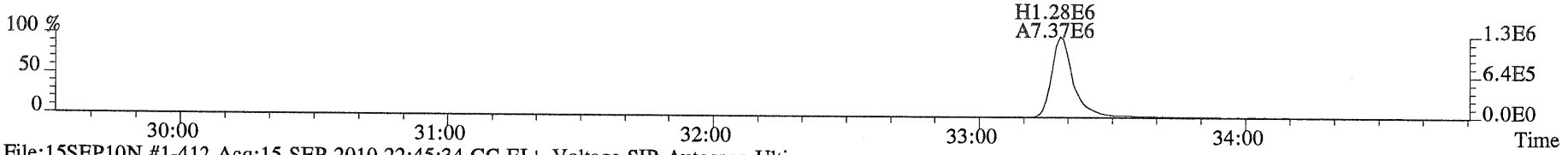
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



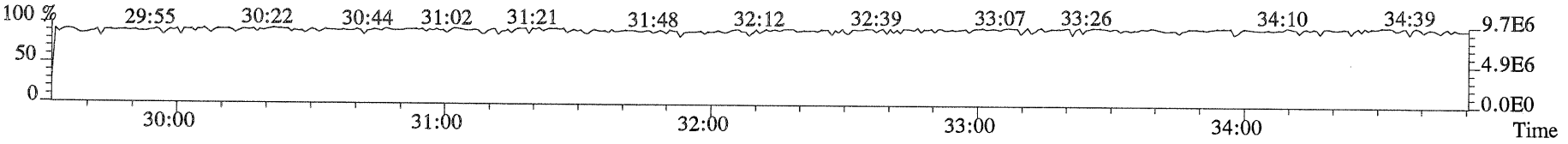
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



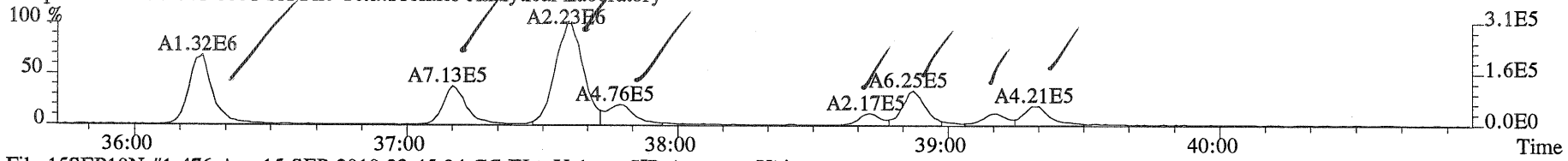
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



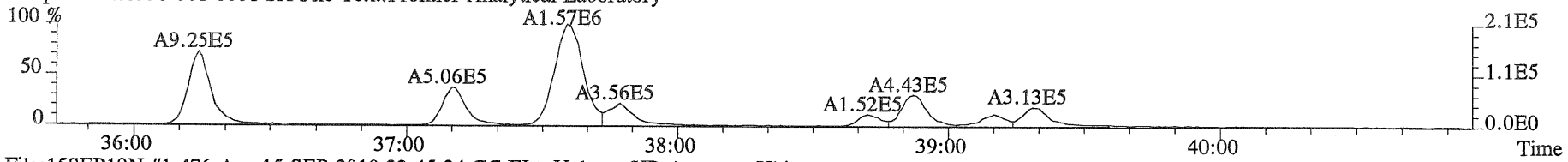
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:4 F:2 Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



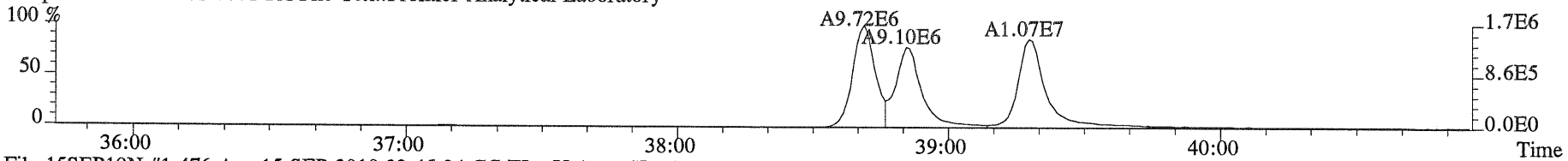
File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



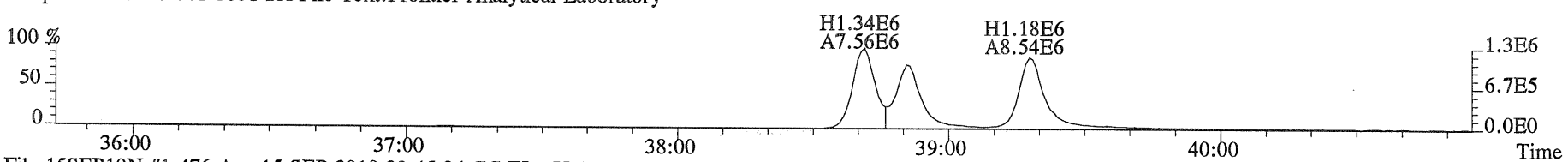
File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



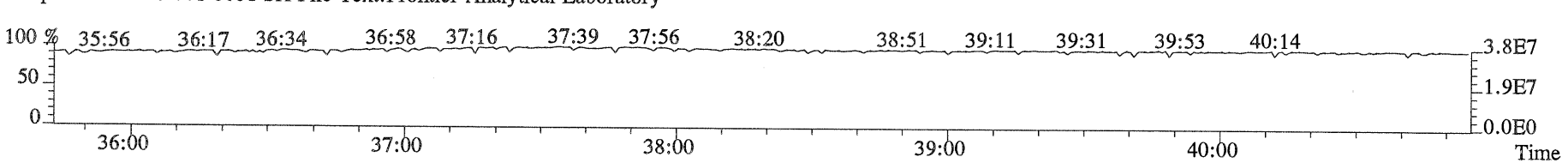
File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



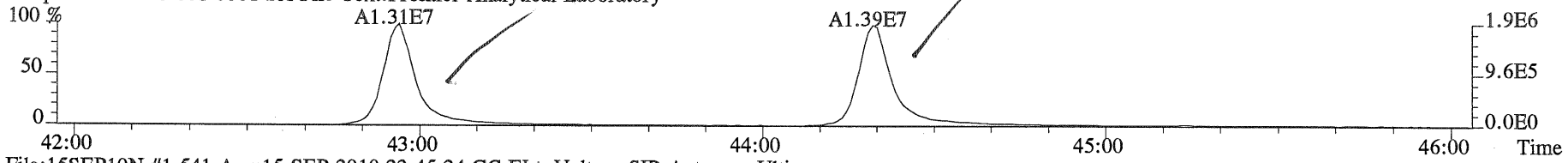
File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



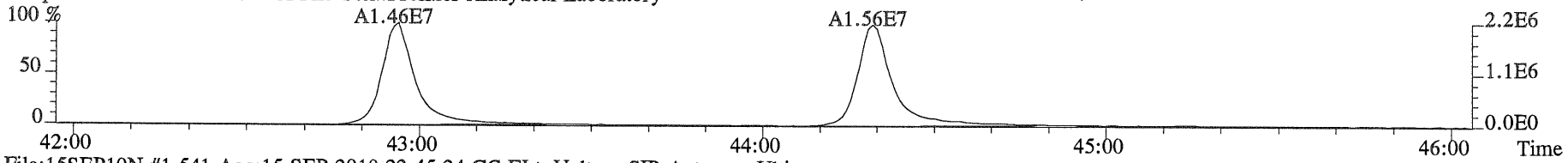
File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:4 F:3 Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



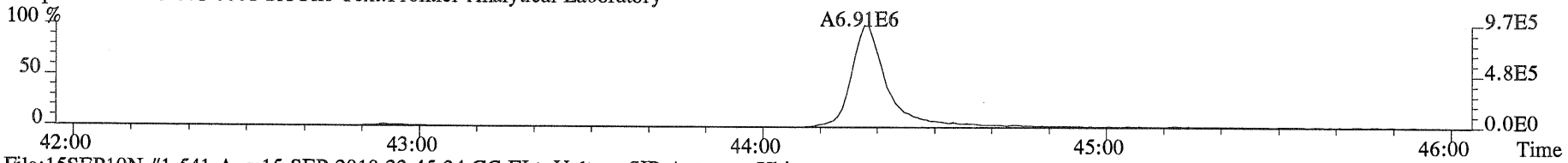
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



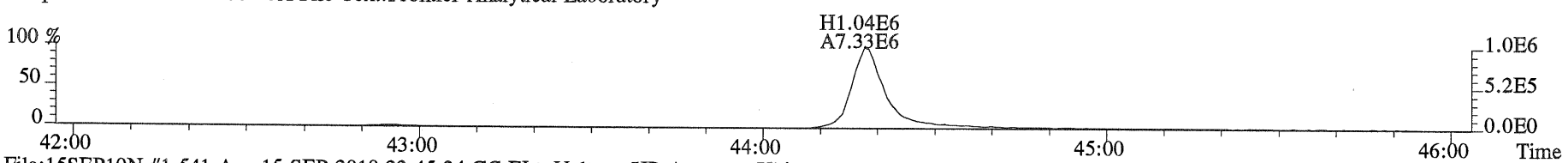
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



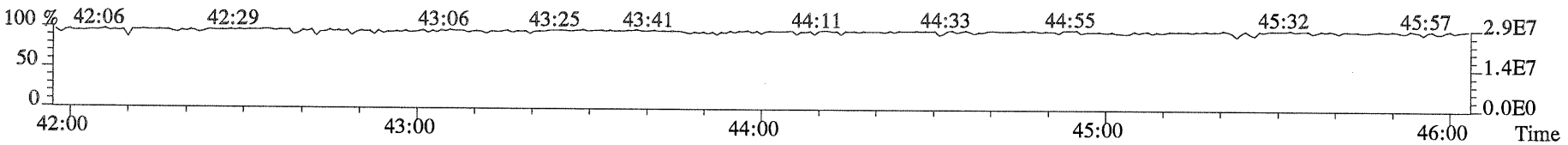
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



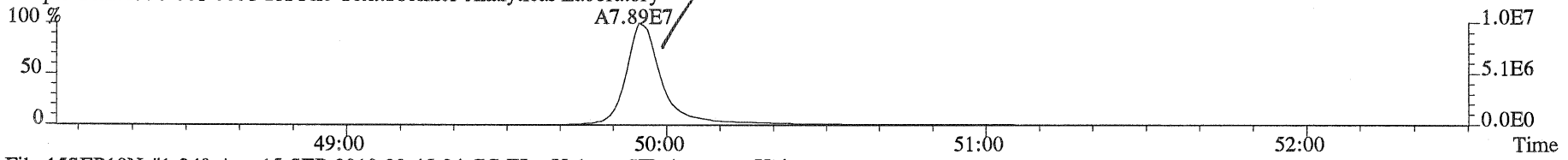
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



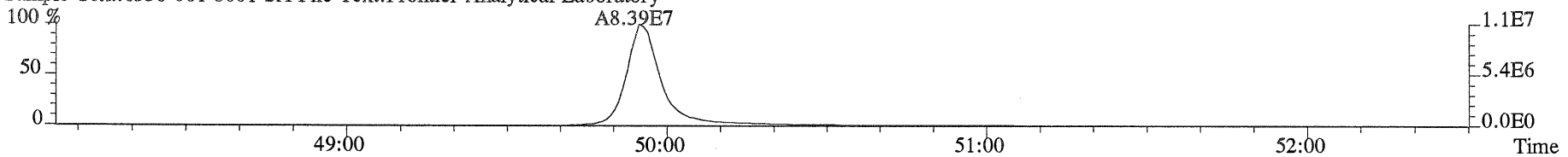
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:4 F:4 Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



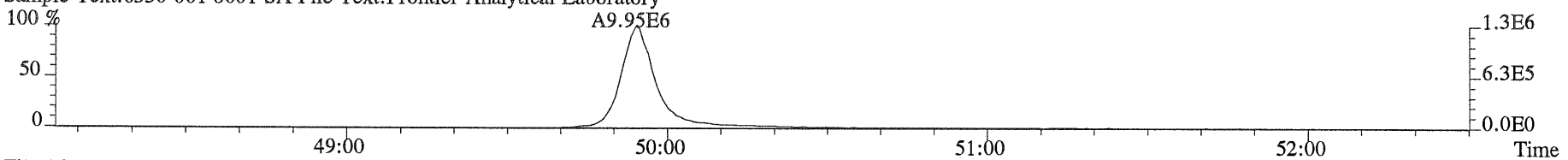
File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



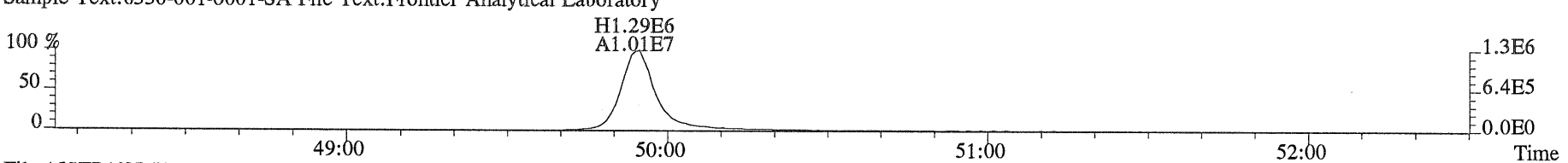
File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



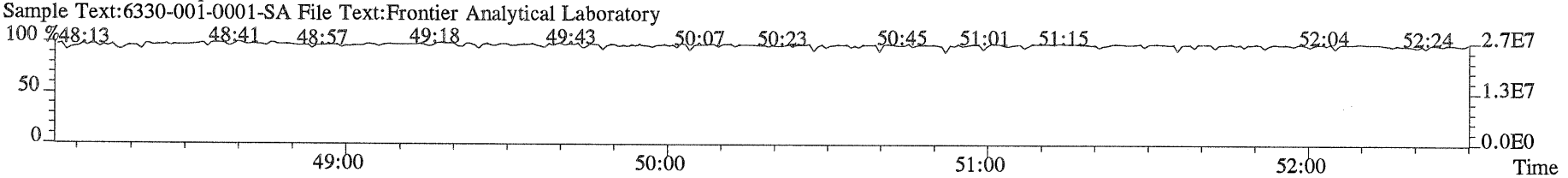
File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



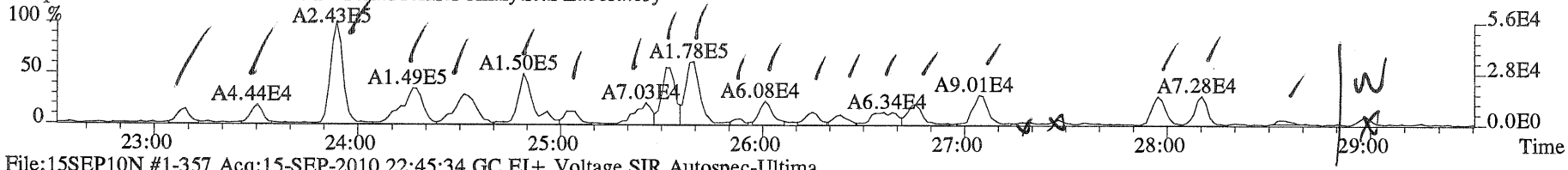
File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



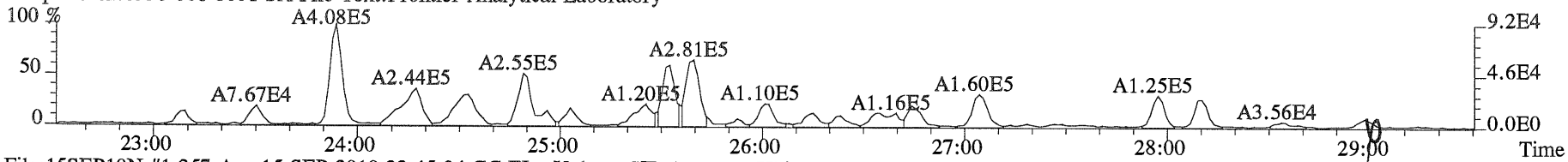
File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:4 F:5 Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



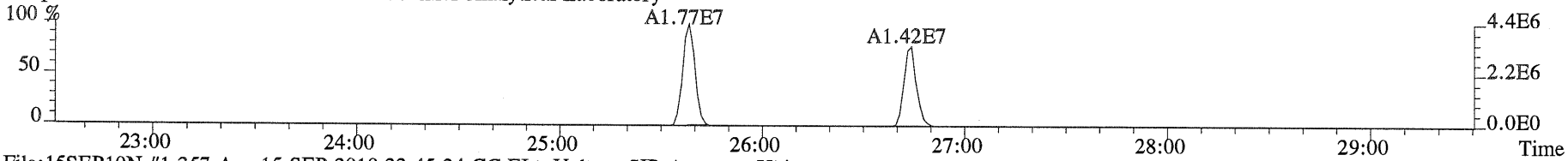
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:4 BSUB(10000,15,-3.0) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



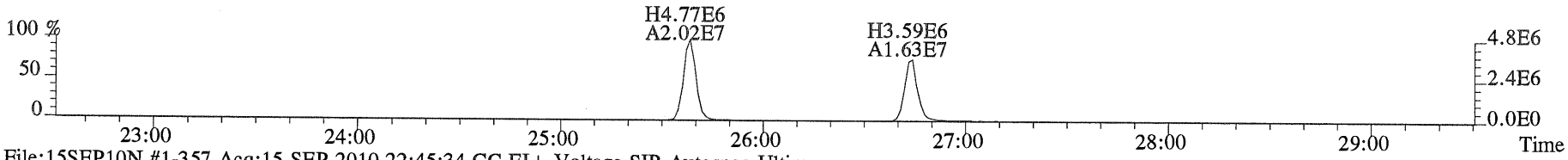
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:4 BSUB(10000,15,-3.0) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



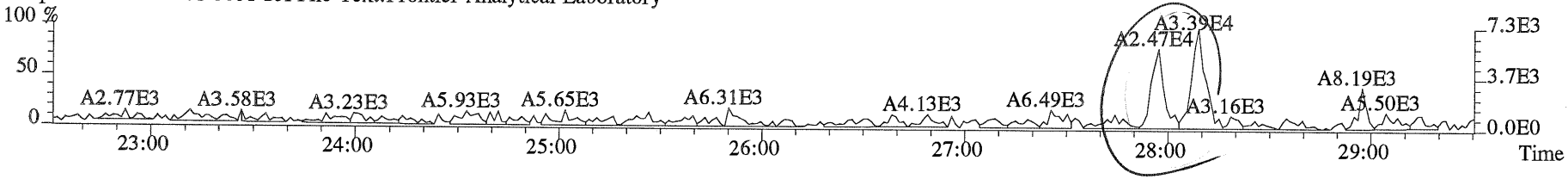
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:4 BSUB(10000,15,225.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



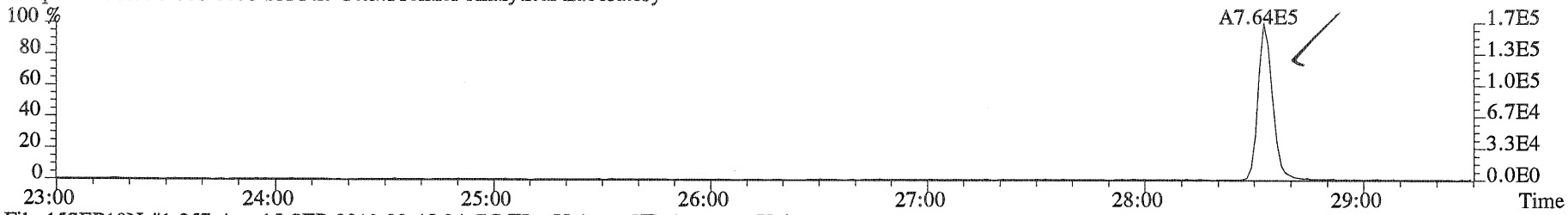
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



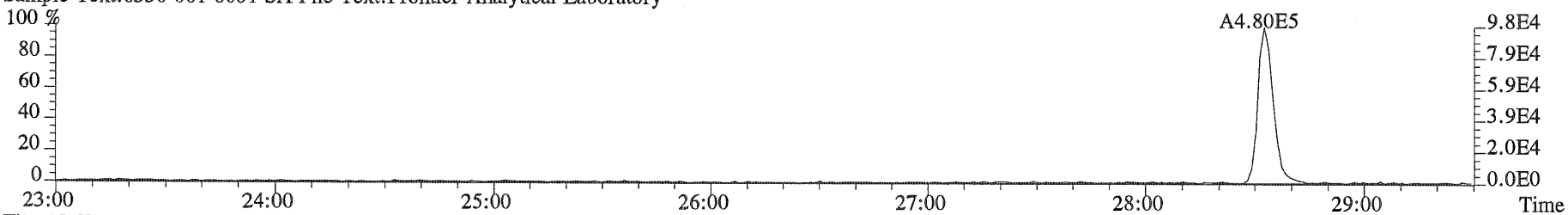
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



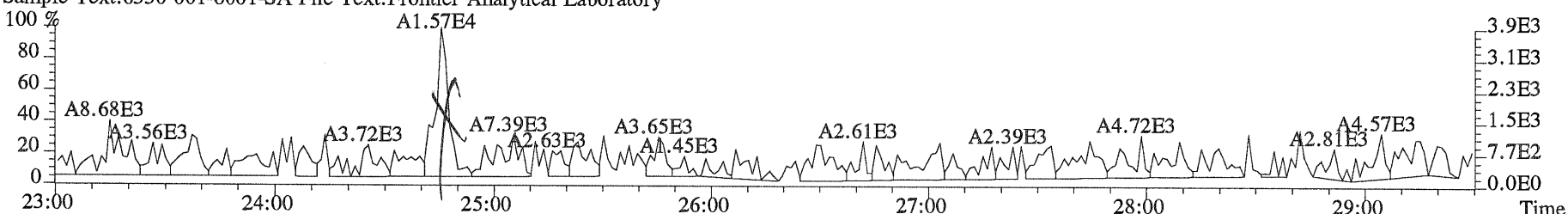
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



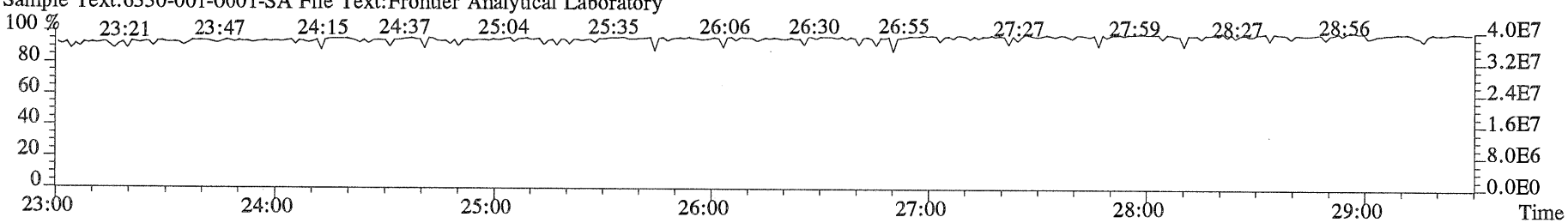
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



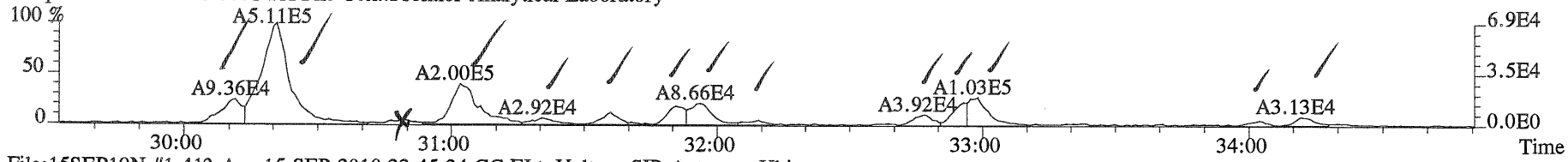
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



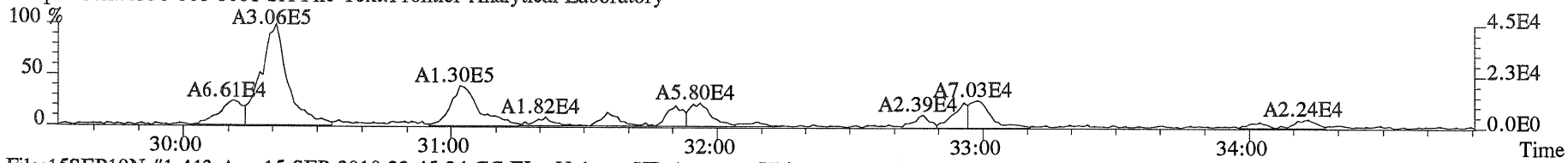
File:15SEP10N #1-357 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:4 Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



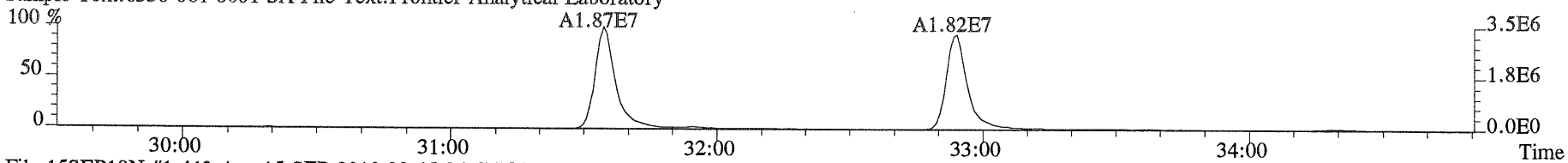
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



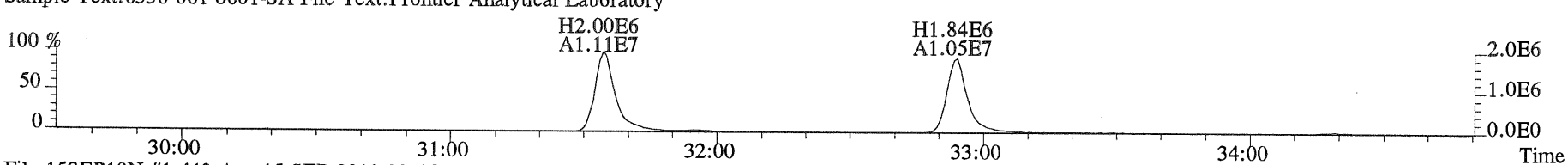
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



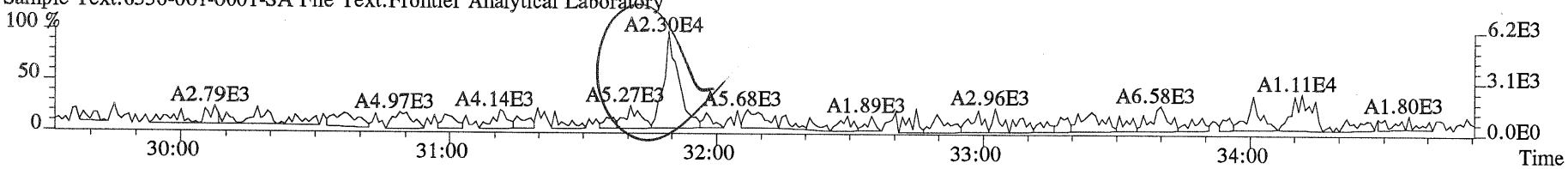
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



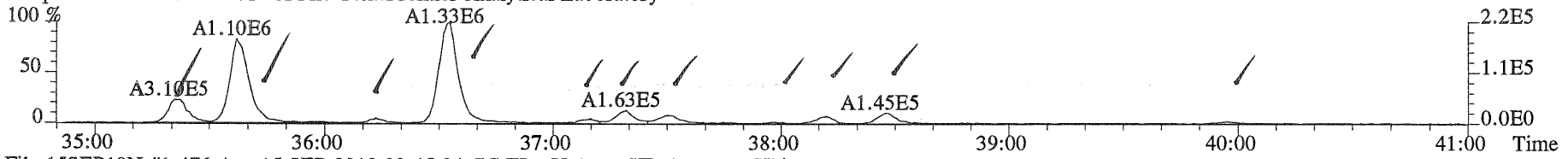
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



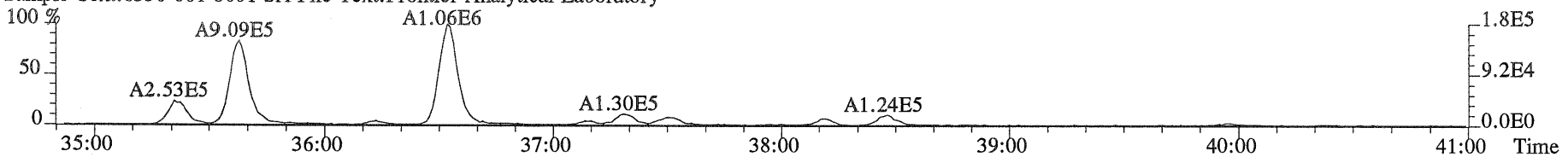
File:15SEP10N #1-412 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



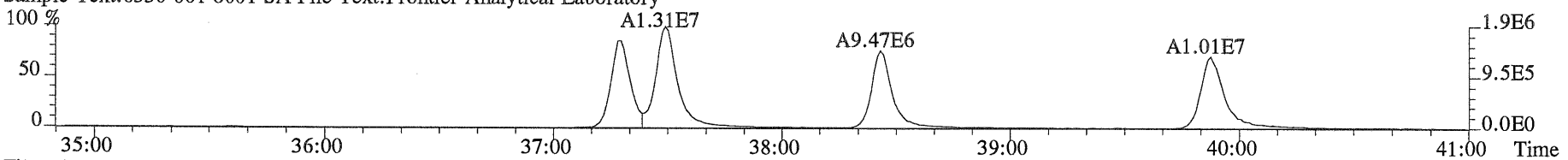
File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
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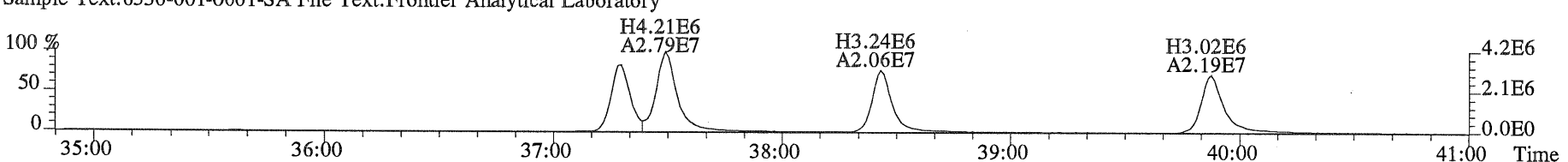
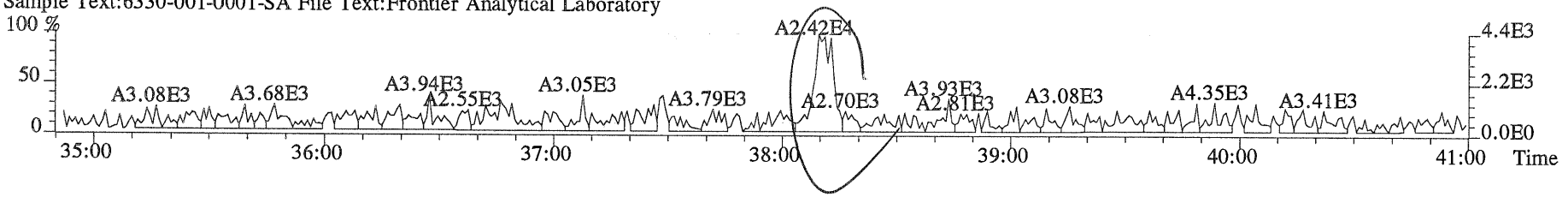
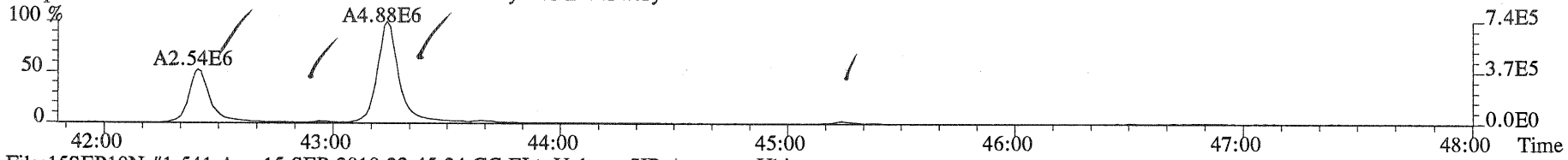


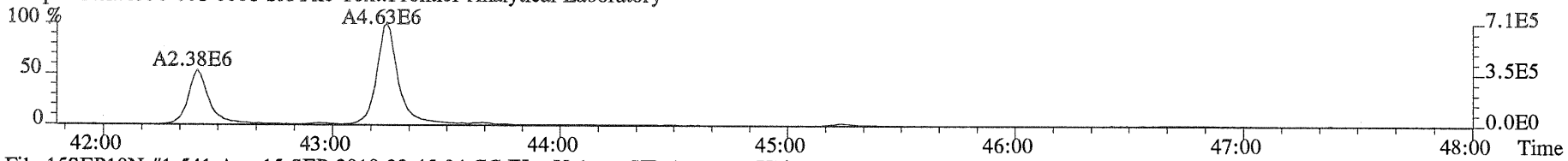
File:15SEP10N #1-476 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



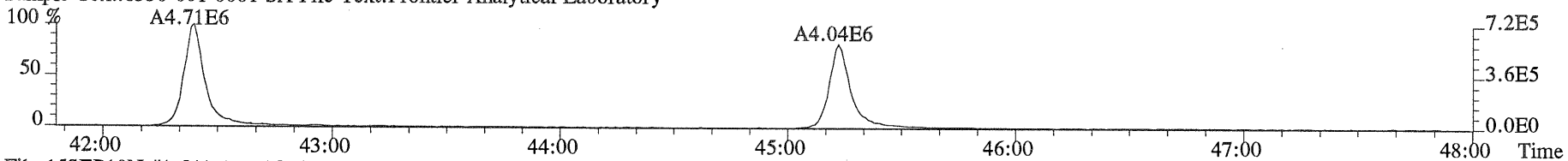
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



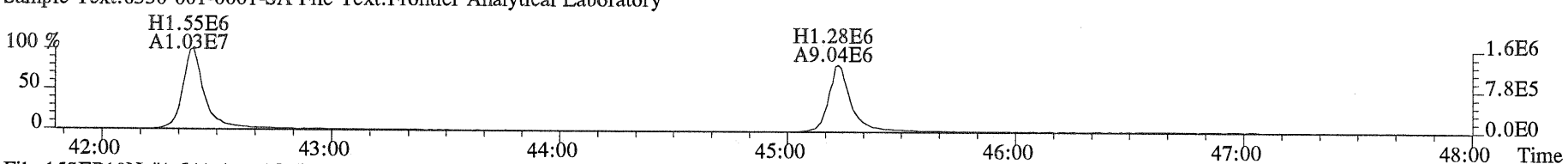
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



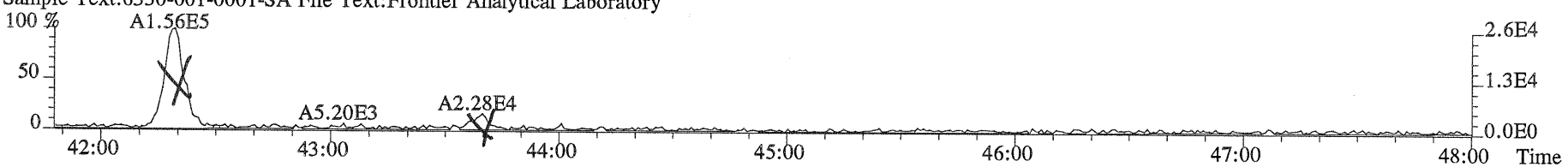
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



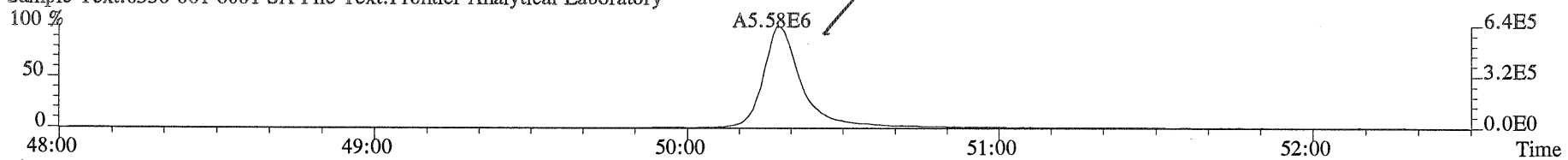
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



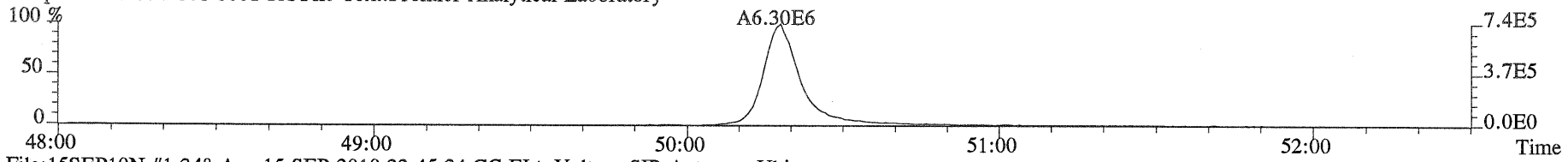
File:15SEP10N #1-541 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



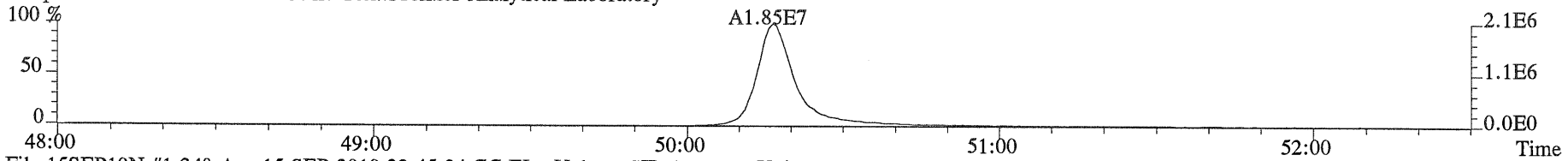
File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



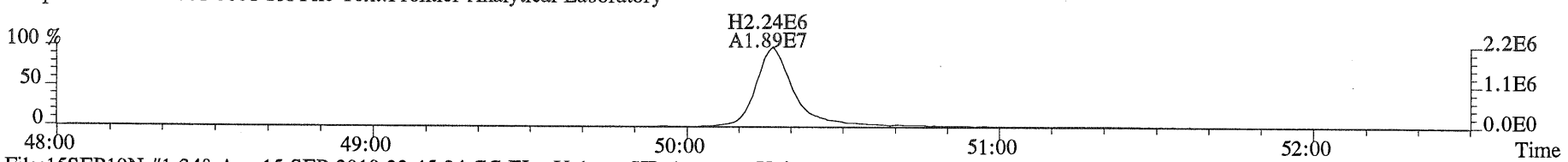
File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



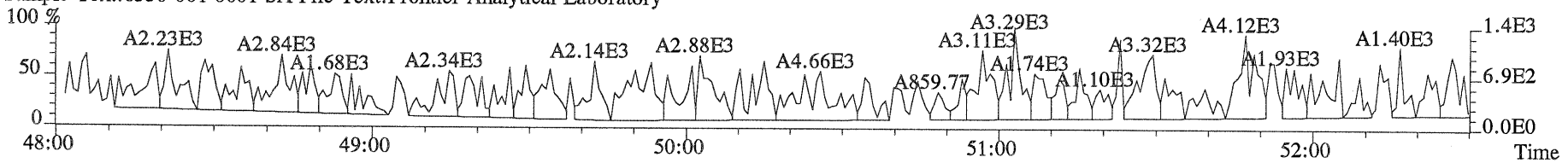
File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-348 Acq:15-SEP-2010 22:45:34 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-001-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 6330-002-0001-SA Filename: 15SEP10N Sam:5 Acquired: 15-SEP-10 23:40:52 ICal: PCDDFAL3-8-23-10
Client ID: PSB21-1.5-2-082510 ConCal: ST091510N1 EndCal: ST091510N2
Results: 6330 GC Column: DB5 Amount: 5.030 / NATO 1989 Tox: 9.06 7.78 I-TOPN 9/20 JD
WHO 1998 Tox: 7.62 WHO 2005 Tox:

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.50e+04	0.87 y	27:31	1.11	0.415	J	2.50	-	-	*
1,2,3,7,8-PeCDD	6.91e+04	1.35 y	33:20	1.10	1.08	J	2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.52e+05	1.29 y	38:42	1.37	2.20	J	2.50	-	-	*
1,2,3,6,7,8-HxCDD	5.13e+05	1.43 y	38:52	1.37	8.44		2.50	-	-	*
1,2,3,7,8,9-HxCDD	2.95e+05	1.34 y	39:19	1.36	4.59	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	1.33e+07	0.90 y	44:19	1.45	226		2.50	-	-	*
OCDD	8.32e+07	0.96 y	49:56	1.43	2040		2.50	-	-	*
2,3,7,8-TCDF	8.31e+04	0.70 y	26:45	1.50	0.660	J	2.50	-	-	*
1,2,3,7,8-PeCDF	5.55e+04	1.45 y	31:36	0.94	0.651	J	2.50	-	-	*
2,3,4,7,8-PeCDF	1.04e+05	1.55 y	32:57	0.94	1.32	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.96e+05	1.24 y	37:18	0.93	2.60	J	2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.63e+05	1.17 y	37:31	0.82	1.95	J	2.50	-	-	*
2,3,4,6,7,8-HxCDF	2.05e+05	1.21 y	38:27	0.92	2.72	J	2.50	-	-	*
1,2,3,7,8,9-HxCDF	2.86e+04	1.35 y	39:58	1.00	0.313	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	3.36e+06	1.05 y	42:25	1.39	58.3		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.28e+05	1.06 y	45:15	1.36	2.67	J	2.50	-	-	*
OCDF	6.41e+06	0.88 y	50:19	0.79	150		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	2.16e+07	0.85 y	27:29	1.02	352					88.6
13C-1,2,3,7,8-PeCDD	2.31e+07	1.76 y	33:19	0.84	459					115
13C-1,2,3,4,7,8-HxCDD	2.00e+07	1.33 y	38:41	1.07	366					92.1
13C-1,2,3,6,7,8-HxCDD	1.76e+07	1.24 y	38:51	1.01	342					85.9
13C-1,2,3,4,6,7,8-HpCDD	1.62e+07	0.95 y	44:18	0.86	371					93.3
13C-OCDD	2.26e+07	0.98 y	49:55	0.55	813					102
13C-2,3,7,8-TCDF	3.33e+07	0.85 y	26:44	0.99	349					87.9
13C-1,2,3,7,8-PeCDF	3.60e+07	1.71 y	31:34	0.84	447					113
13C-2,3,4,7,8-PeCDF	3.34e+07	1.69 y	32:54	0.81	428					108
13C-1,2,3,4,7,8-HxCDF	3.22e+07	0.46 y	37:18	1.85	342					86.1
13C-1,2,3,6,7,8-HxCDF	4.04e+07	0.46 y	37:29	2.54	313					78.8
13C-2,3,4,6,7,8-HxCDF	3.27e+07	0.47 y	38:26	2.01	319					80.2
13C-1,2,3,7,8,9-HxCDF	3.63e+07	0.47 y	39:53	2.03	352					88.5
13C-1,2,3,4,6,7,8-HpCDF	1.65e+07	0.47 y	42:23	1.11	292					73.5
13C-1,2,3,4,7,8,9-HpCDF	1.41e+07	0.46 y	45:13	0.80	345					86.8
13C-OCDF	4.33e+07	0.95 y	50:17	1.08	786					98.8
37Cl-2,3,7,8-TCDD	5.57e+06		27:30	0.69	136					85.5
13C-1,2,3,4-TCDD	2.38e+07	0.84 y	26:54	-	10.5					
13C-1,2,3,4-TCDF	3.82e+07	0.86 y	25:38	-	10.5					
13C-1,2,3,7,8,9-HxCDD	2.02e+07	1.29 y	39:18	-	14.6					

							Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	4.63e+05		24:30	1.11	7.68		2.50	-	-	*		8
Total Penta-Dioxins	8.40e+05		30:21	1.10	13.1		2.50	-	-	*		8
Total Hexa-Dioxins	3.64e+06		36:14	1.37	56.7		2.50	-	-	*		7
Total Hepta-Dioxins	2.49e+07		42:56	1.45	422		2.50	-	-	*		2
Total Tetra-Furans	2.55e+06		23:09	1.50	20.2	D,M	2.50	-	-	*		19
1st Fn. Tot Penta-Furans	1.20e+06		28:33	0.94	14.7		2.50	-	-	*	PeCDF	1 9/20 JD
Total Penta-Furans	1.53e+06		30:12	0.94	18.8		2.50	-	-	*	38.4	8
Total Hexa-Furans	4.26e+06		35:22	0.91	52.8		2.50	-	-	*	33.5	10
Total Hepta-Furans	8.49e+06		42:25	1.38	156		2.50	-	-	*		4

Analyst: _____ Date: 9/16/10

Totals class: Total Tetra-Dioxins Entry #: 38

Run: 12 File: 15SEP10N S: 5 I: 1 F: 1
Acquired: 15-SEP-10 23:40:52

Total Concentration: 7.68 Unnamed Concentration: 7.264

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
24:30	6.74e+04	9.22e+04	0.73	y	1.60e+05	2.65	
24:46	4.52e+04	5.38e+04	0.84	y	9.90e+04	1.64	
25:43	1.96e+04	2.23e+04	0.88	y	4.20e+04	0.697	
25:53	1.33e+04	1.69e+04	0.79	y	3.02e+04	0.502	
26:03	1.92e+04	2.27e+04	0.85	y	4.19e+04	0.696	
26:54	1.38e+04	2.08e+04	0.66	y	3.46e+04	0.574	
27:14	1.36e+04	1.68e+04	0.81	y	3.03e+04	0.503	
27:31	1.16e+04	1.34e+04	0.87	y	2.50e+04	0.415	2,3,7,8-TCDD

Totals class: Total Penta-Dioxins Entry #: 39

Run: 12 File: 15SEP10N S: 5 I: 1 F: 2
Acquired: 15-SEP-10 23:40:52

Total Concentration: 13.1 Unnamed Concentration: 12.062

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:21	1.29e+05	9.54e+04	1.35	y	2.24e+05	3.51	
30:56	3.25e+04	2.25e+04	1.44	y	5.49e+04	0.859	
31:34	8.51e+04	5.71e+04	1.49	y	1.42e+05	2.22	
31:48	6.35e+04	3.88e+04	1.63	y	1.02e+05	1.60	
31:57	7.08e+04	5.13e+04	1.38	y	1.22e+05	1.91	
32:14	4.19e+04	3.04e+04	1.38	y	7.23e+04	1.13	
32:43	3.29e+04	1.99e+04	1.65	y	5.28e+04	0.825	
33:20	3.97e+04	2.94e+04	1.35	y	6.91e+04	1.08	1,2,3,7,8-PeCDD

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 12 File: 15SEP10N S: 5 I: 1 F: 3
Acquired: 15-SEP-10 23:40:52

Total Concentration: 56.7 Unnamed Concentration: 41.492

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
36:14	4.94e+05	3.59e+05	1.38	y	8.54e+05	13.2	
37:11	1.80e+05	1.28e+05	1.41	y	3.08e+05	4.76	
37:36	8.47e+05	6.03e+05	1.40	y	1.45e+06	22.4	
38:42	8.54e+04	6.63e+04	1.29	y	1.52e+05	2.20	1,2,3,4,7,8-HxCDD
38:52	3.01e+05	2.11e+05	1.43	y	5.13e+05	8.44	1,2,3,6,7,8-HxCDD
39:11	4.04e+04	3.32e+04	1.22	y	7.35e+04	1.14	
39:19	1.69e+05	1.26e+05	1.34	y	2.95e+05	4.59	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 12 File: 15SEP10N S: 5 I: 1 F: 4
Acquired: 15-SEP-10 23:40:52

Total Concentration: 422 Unnamed Concentration: 195.906

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:56	5.42e+06	6.13e+06	0.88 y	1.16e+07	196	
44:19	6.32e+06	7.02e+06	0.90 y	1.33e+07	226	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans Entry #: 42

Run: 12 File: 15SEP10N S: 5 I: 1 F: 1
Acquired: 15-SEP-10 23:40:52

Total Concentration: 20.2 Unnamed Concentration: 19.565

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
23:09	1.62e+04	2.07e+04	0.78	y	3.69e+04	0.293	
23:30	3.74e+04	5.14e+04	0.73	y	8.88e+04	0.705	
23:53	2.24e+05	3.39e+05	0.66	y	5.64e+05	4.48	
24:17	7.08e+04	1.01e+05	0.70	y	1.72e+05	1.36	
24:32	7.78e+04	1.13e+05	0.69	y	1.91e+05	1.52	
24:50	1.22e+05	1.81e+05	0.67	y	3.03e+05	2.41	
25:03	2.23e+04	2.70e+04	0.83	y	4.93e+04	0.392	
25:26	3.42e+04	3.95e+04	0.87	y	7.37e+04	0.586	
25:32	1.24e+05	1.89e+05	0.66	y	3.13e+05	2.48	
25:39	2.56e+04	3.86e+04	0.66	y	6.42e+04	0.510	
26:02	3.25e+04	4.52e+04	0.72	y	7.77e+04	0.617	
26:14	1.86e+04	2.57e+04	0.72	y	4.43e+04	0.352	
26:23	1.80e+04	2.18e+04	0.83	y	3.97e+04	0.315	
26:38	2.95e+04	4.35e+04	0.68	y	7.30e+04	0.580	
26:45	3.42e+04	4.89e+04	0.70	y	8.31e+04	0.660	2,3,7,8-TCDF
27:05	4.68e+04	7.03e+04	0.67	y	1.17e+05	0.930	
27:58	4.14e+04	5.81e+04	0.71	y	9.94e+04	0.790	
28:10	4.75e+04	6.21e+04	0.76	y	1.10e+05	0.870	
28:35	2.01e+04	2.72e+04	0.74	y	4.73e+04	0.375	

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

Run: 12 File: 15SEP10N S: 5 I: 1 F: 1
Acquired: 15-SEP-10 23:40:52

Total Concentration: 14.7 Unnamed Concentration: 14.688

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:33	7.35e+05	4.68e+05	1.57 y	1.20e+06	14.7	

Totals class: Total Penta-Furans Entry #: 44

Run: 12 File: 15SEP10N S: 5 I: 1 F: 2
Acquired: 15-SEP-10 23:40:52

Total Concentration: 18.8 Unnamed Concentration: 16.786

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:12	5.74e+04	3.85e+04	1.49	y	9.59e+04	1.17	
30:21	4.40e+05	2.70e+05	1.63	y	7.10e+05	8.68	
31:03	1.53e+05	9.64e+04	1.59	y	2.49e+05	3.05	
31:36	3.28e+04	2.26e+04	1.45	y	5.55e+04	0.651	1,2,3,7,8-PeCDF
31:55	9.22e+04	6.29e+04	1.47	y	1.55e+05	1.89	
32:46	2.27e+04	1.55e+04	1.46	y	3.82e+04	0.467	
32:57	6.31e+04	4.08e+04	1.55	y	1.04e+05	1.32	2,3,4,7,8-PeCDF
32:59	7.56e+04	5.00e+04	1.51	y	1.26e+05	1.53	

Totals class: Total Hexa-Furans Entry #: 45

Run: 12 File: 15SEP10N S: 5 I: 1 F: 3
Acquired: 15-SEP-10 23:40:52

Total Concentration: 52.8 Unnamed Concentration: 45.215

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:22	2.56e+05	2.11e+05	1.21 y	4.67e+05	5.75	
35:38	9.32e+05	7.68e+05	1.21 y	1.70e+06	21.0	
36:14	2.79e+04	2.03e+04	1.37 y	4.81e+04	0.594	
36:33	7.43e+05	6.12e+05	1.21 y	1.35e+06	16.7	
37:08	2.24e+04	1.83e+04	1.22 y	4.07e+04	0.502	
37:18	1.08e+05	8.77e+04	1.24 y	1.96e+05	2.60	1,2,3,4,7,8-HxCDF
37:31	8.78e+04	7.48e+04	1.17 y	1.63e+05	1.95	1,2,3,6,7,8-HxCDF
38:10	2.96e+04	2.70e+04	1.10 y	5.65e+04	0.697	
38:27	1.12e+05	9.26e+04	1.21 y	2.05e+05	2.72	2,3,4,6,7,8-HxCDF
39:58	1.64e+04	1.22e+04	1.35 y	2.86e+04	0.313	1,2,3,7,8,9-HxCDF

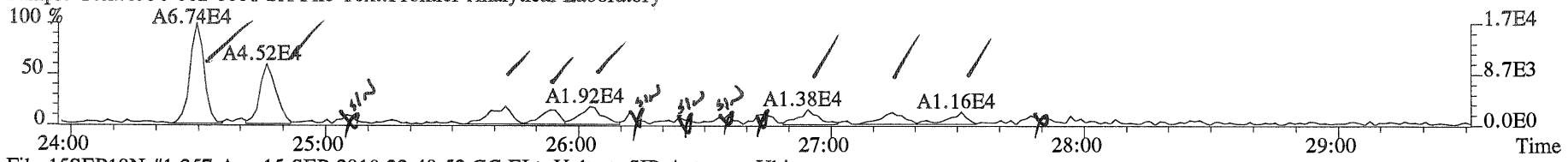
Totals class: Total Hepta-Furans Entry #: 46

Run: 12 File: 15SEP10N S: 5 I: 1 F: 4
Acquired: 15-SEP-10 23:40:52

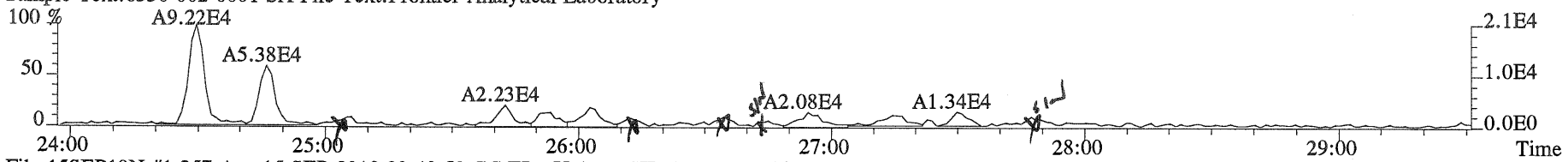
Total Concentration: 156 Unnamed Concentration: 94.594

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
42:25	1.72e+06	1.64e+06	1.05	y	3.36e+06	58.3	1,2,3,4,6,7,8-HpCDF
42:57	4.18e+04	3.51e+04	1.19	y	7.69e+04	1.45	
43:14	2.55e+06	2.38e+06	1.07	y	4.93e+06	93.1	
45:15	6.62e+04	6.23e+04	1.06	y	1.28e+05	2.67	1,2,3,4,7,8,9-HpCDF

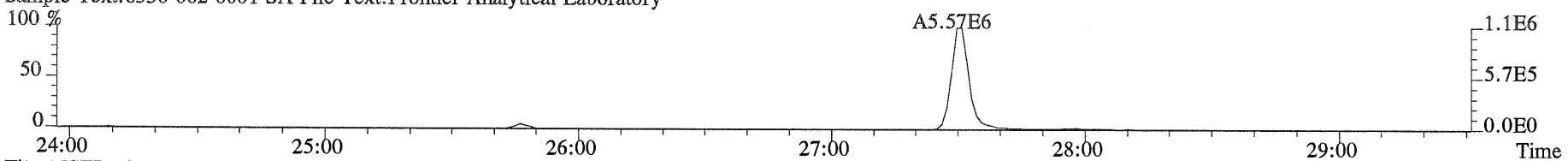
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



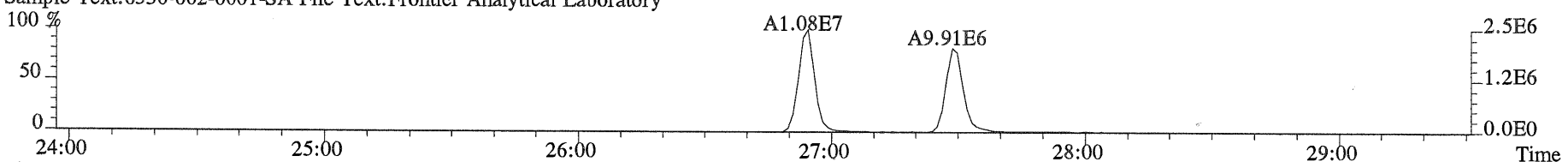
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



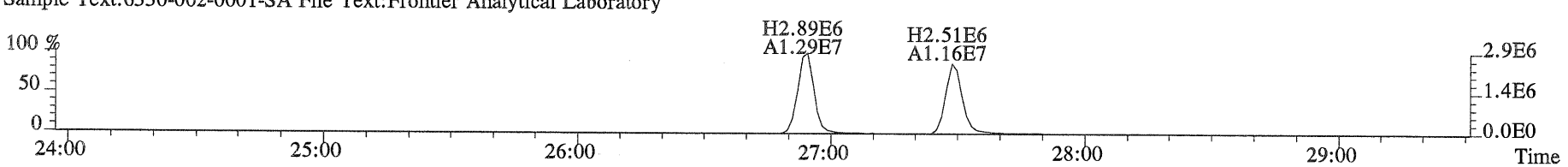
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



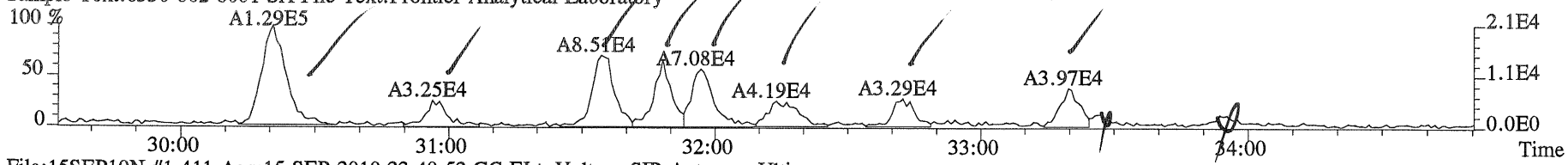
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



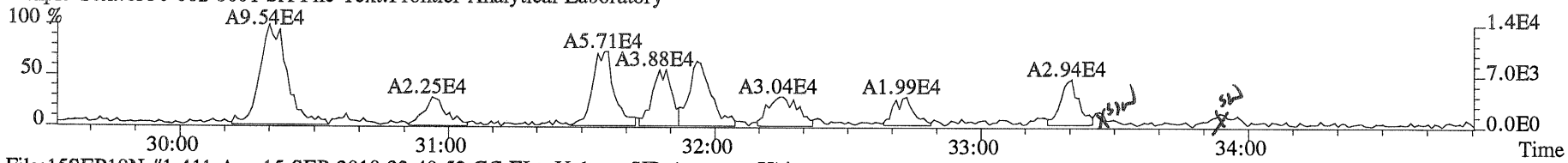
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



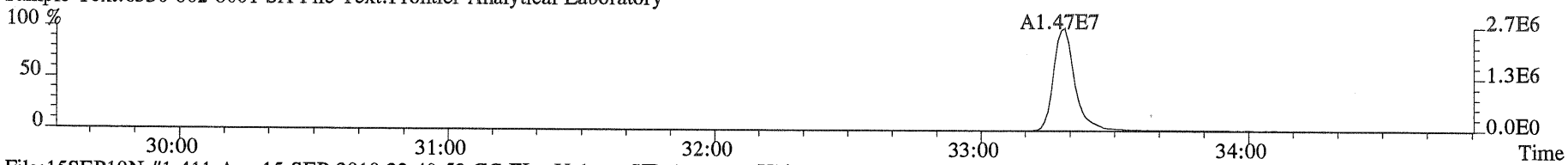
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:5 F:2 BSUB(10000,15,-3.0) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



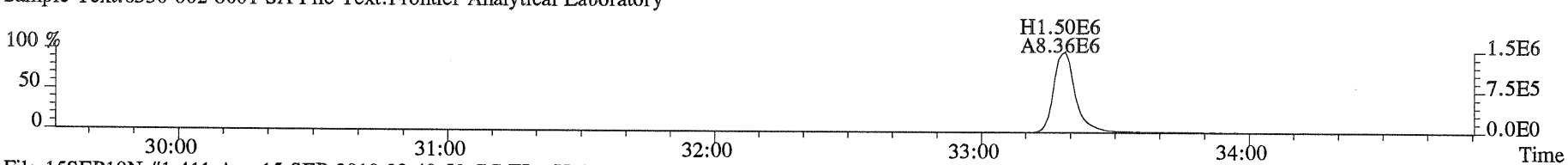
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:5 F:2 BSUB(10000,15,-3.0) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



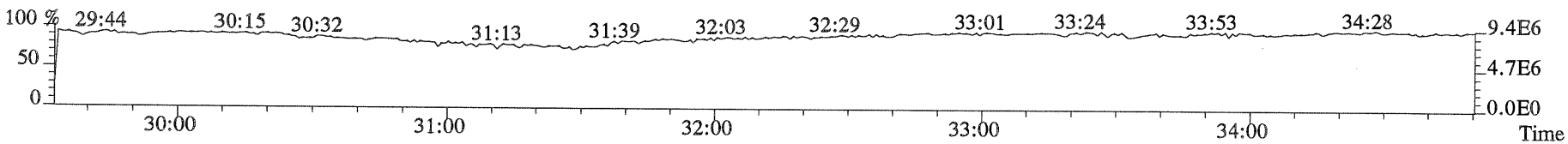
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



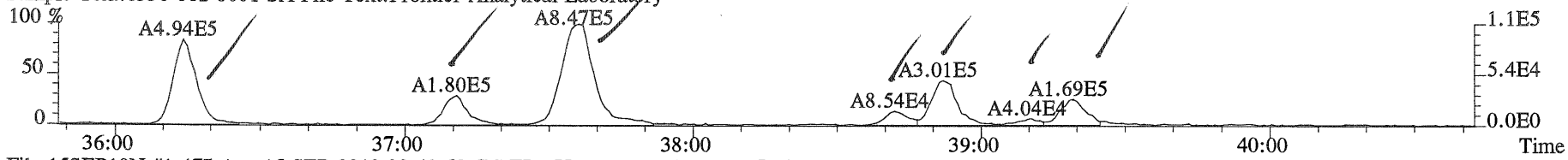
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



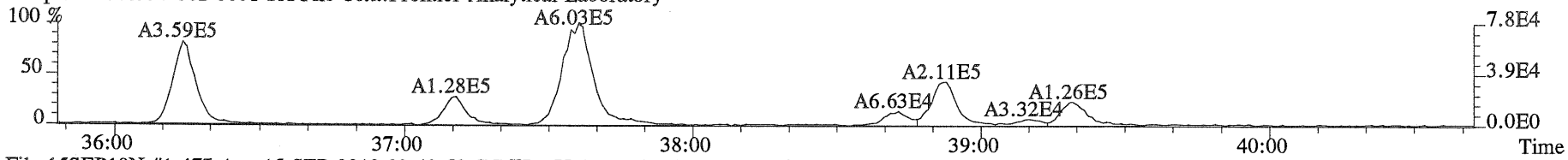
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:5 F:2 Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



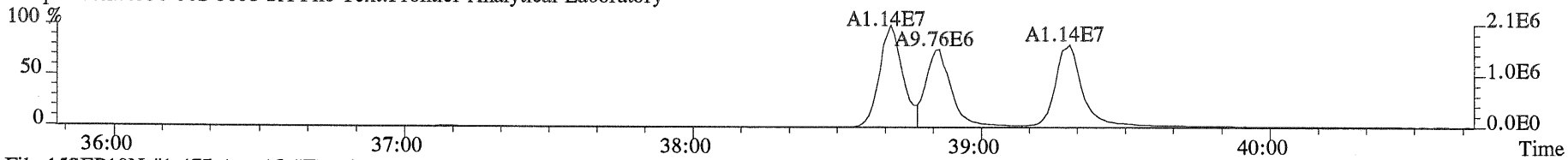
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:5 F:3 BSUB(10000,15,-3.0) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



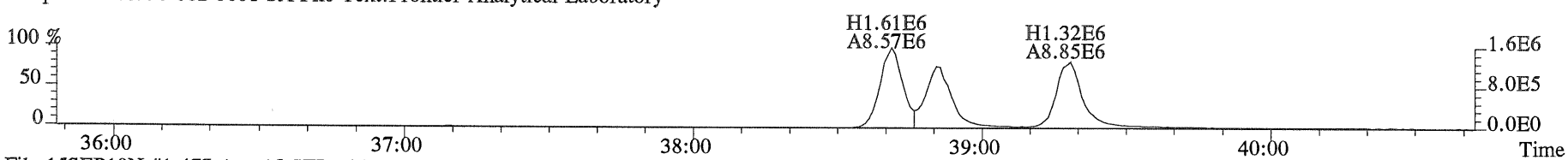
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



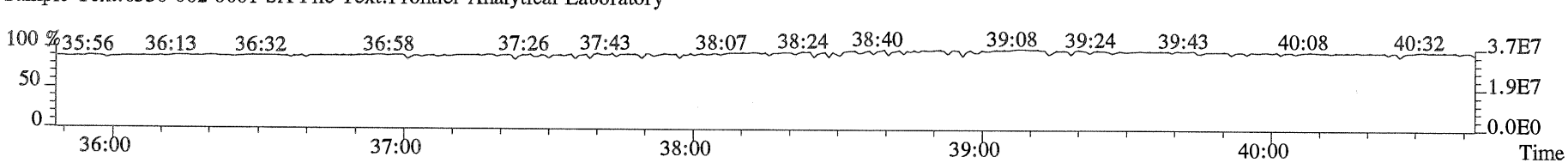
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



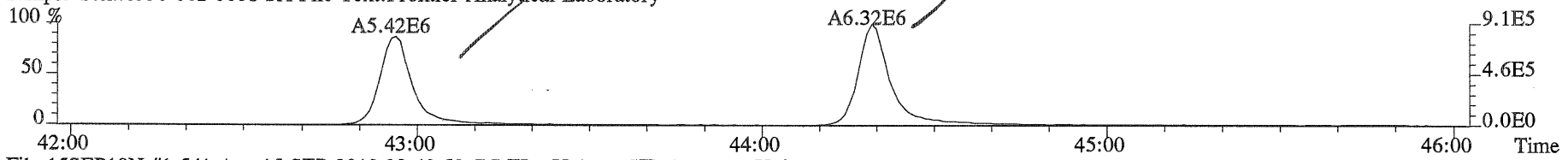
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



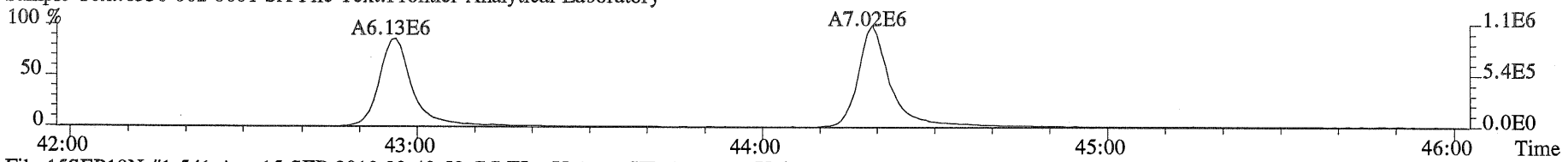
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:5 F:3 Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



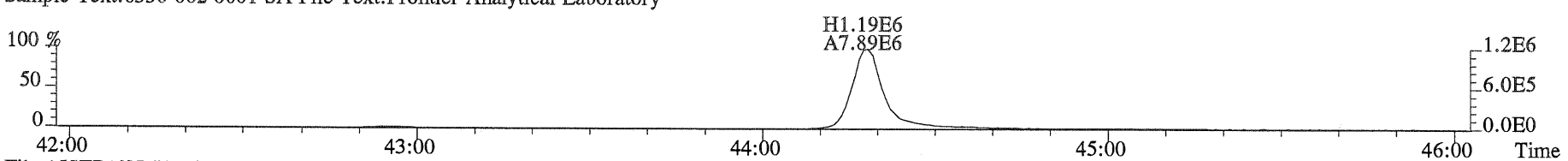
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



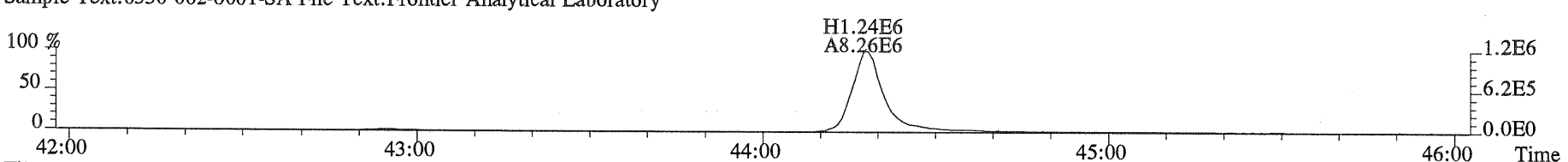
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



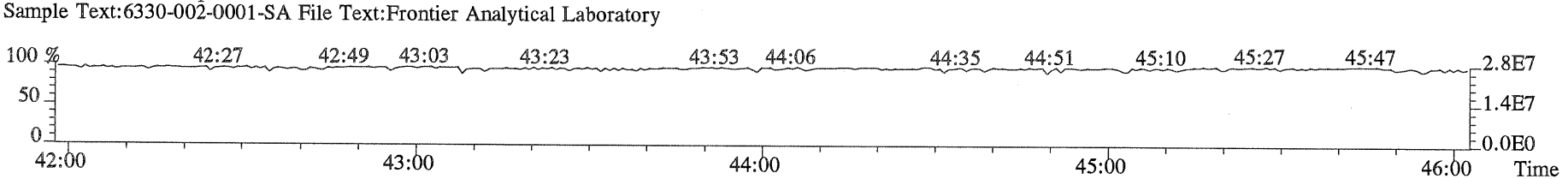
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



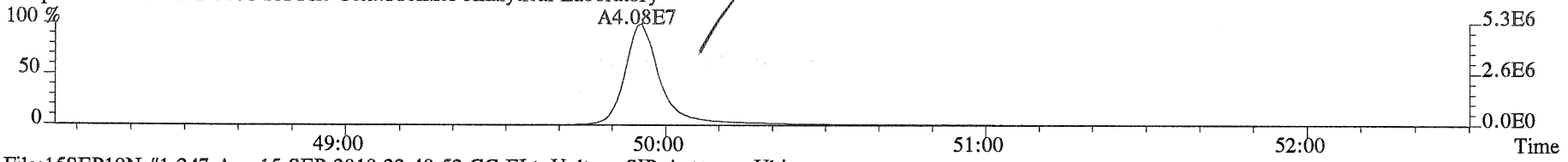
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



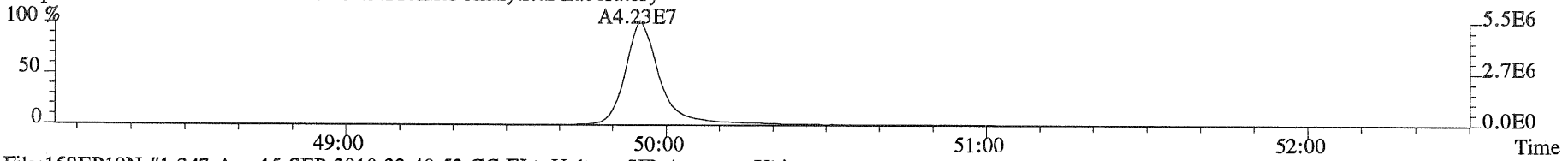
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:5 F:4 Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



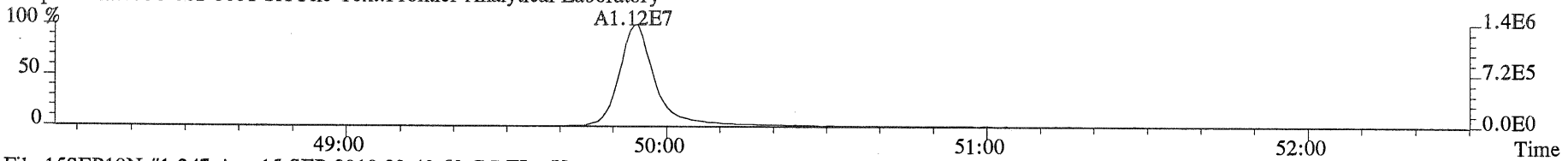
File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



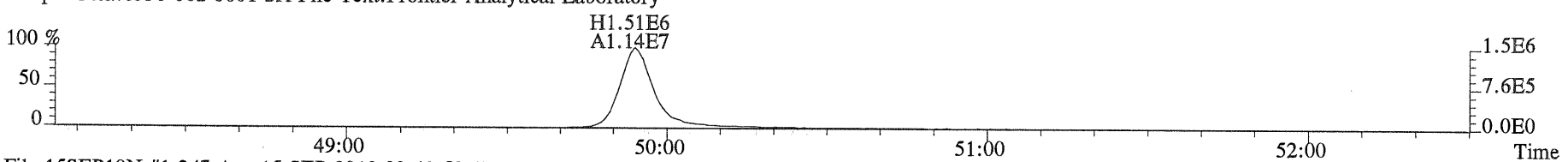
File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



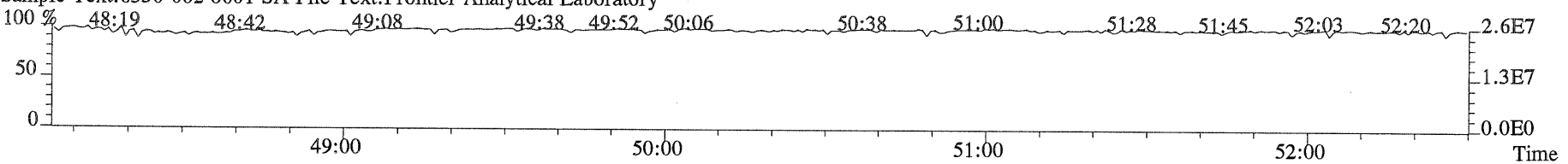
File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



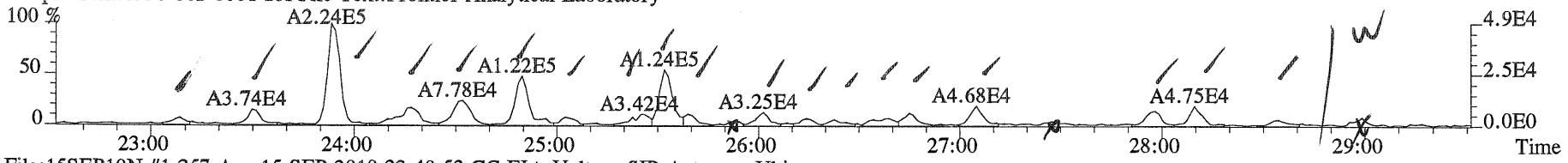
File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



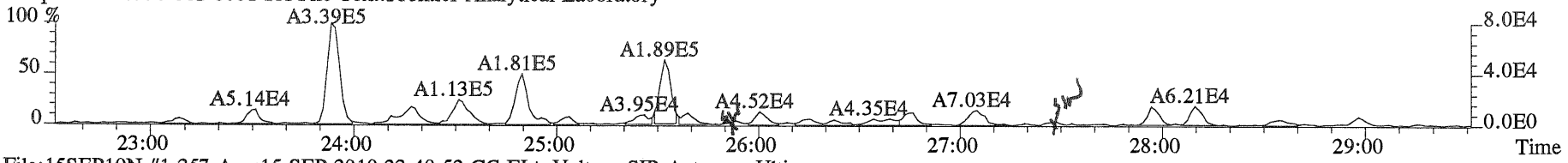
File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:5 F:5 Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



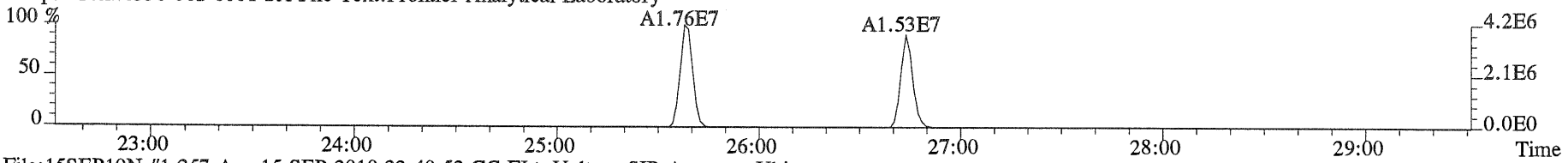
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



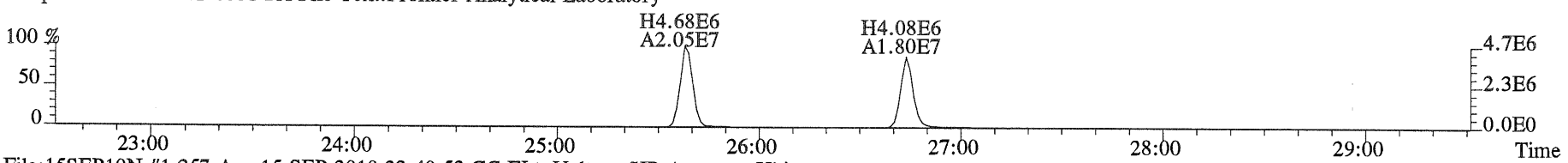
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



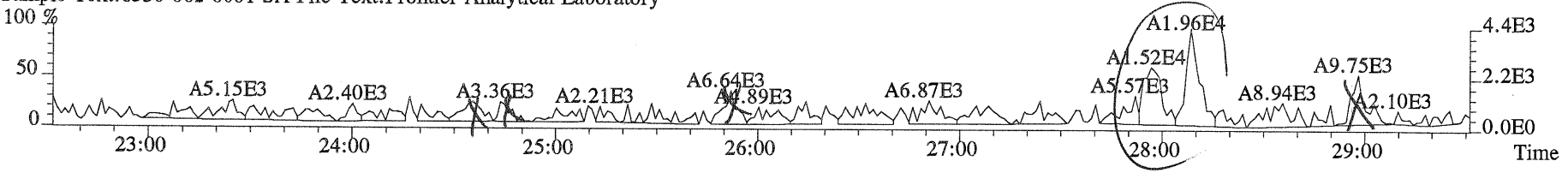
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:5 BSUB(10000,15,200.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



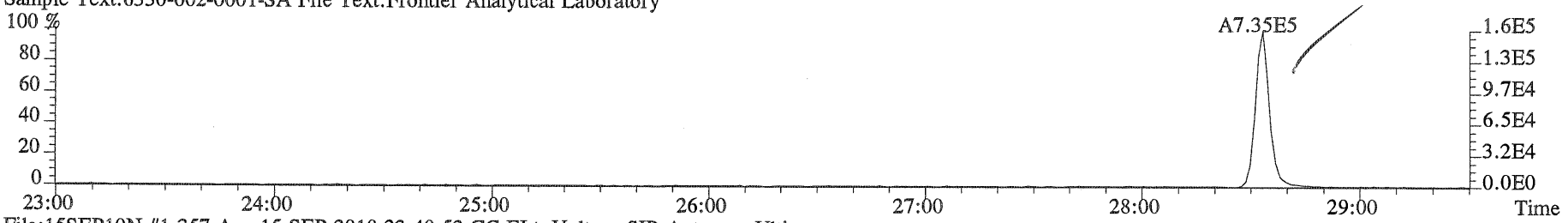
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



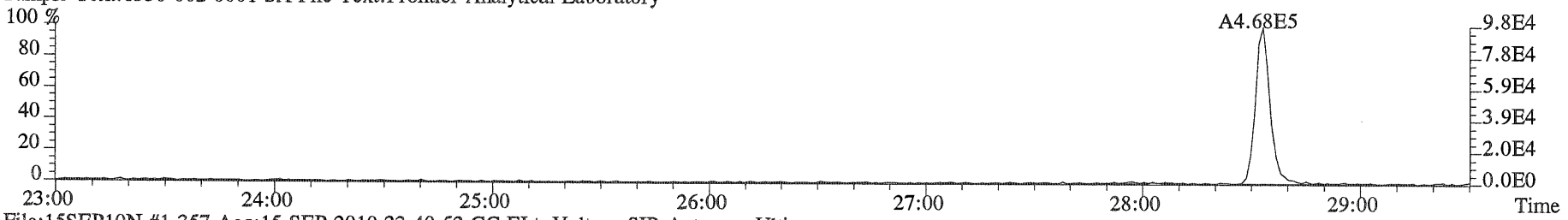
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



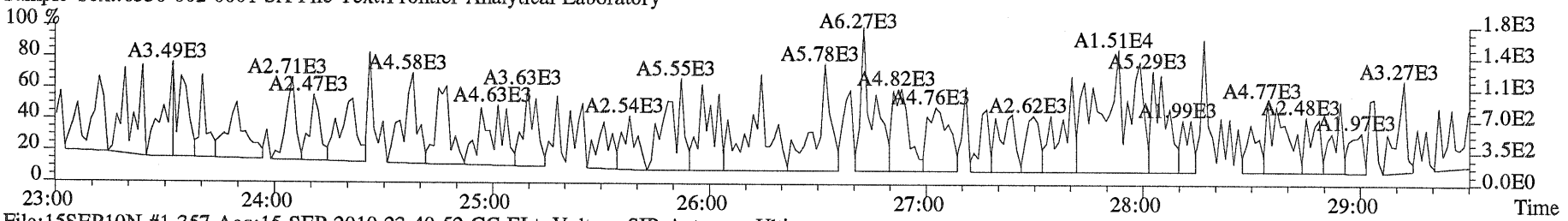
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



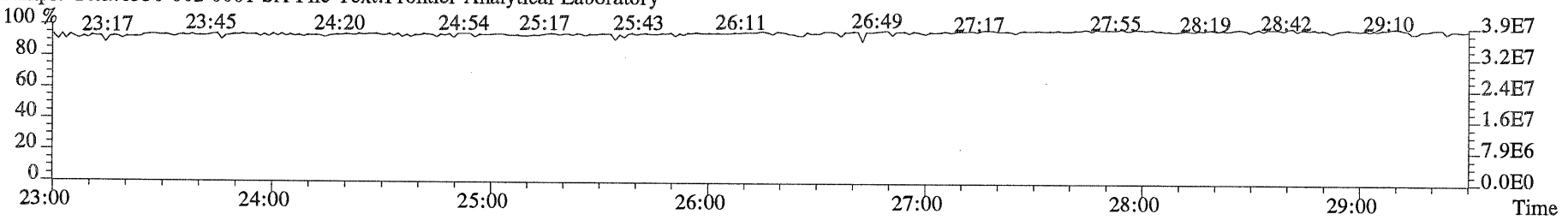
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



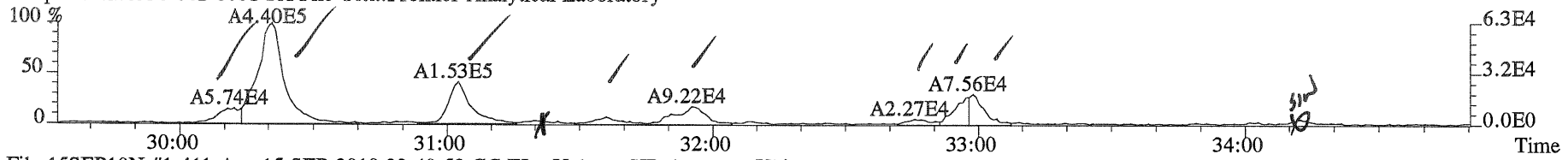
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



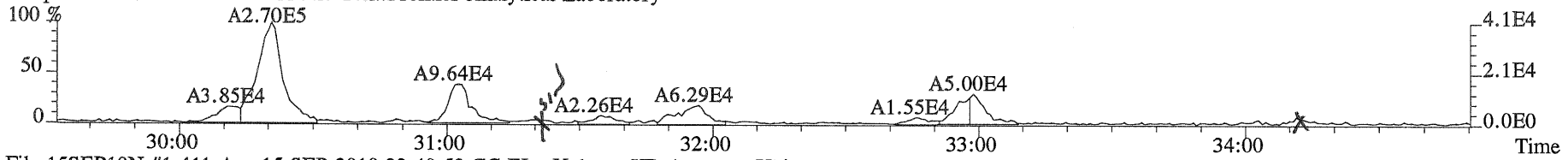
File:15SEP10N #1-357 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:5 Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



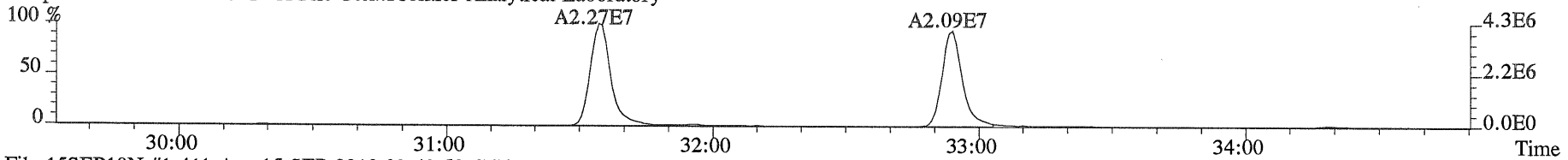
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



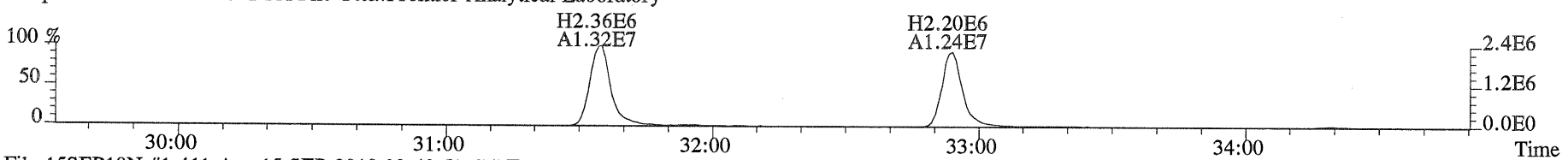
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



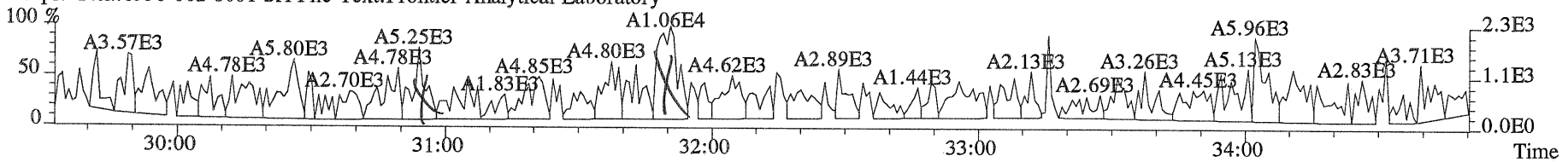
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



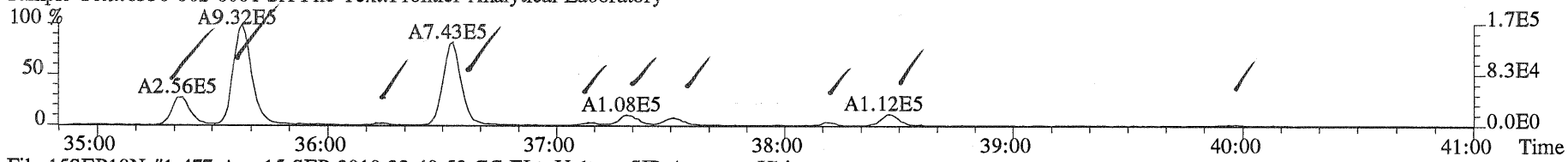
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



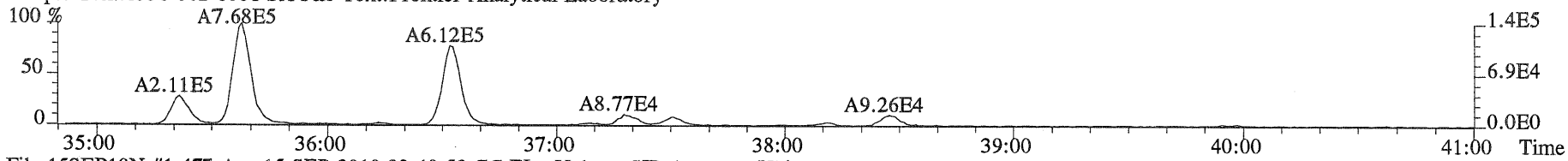
File:15SEP10N #1-411 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



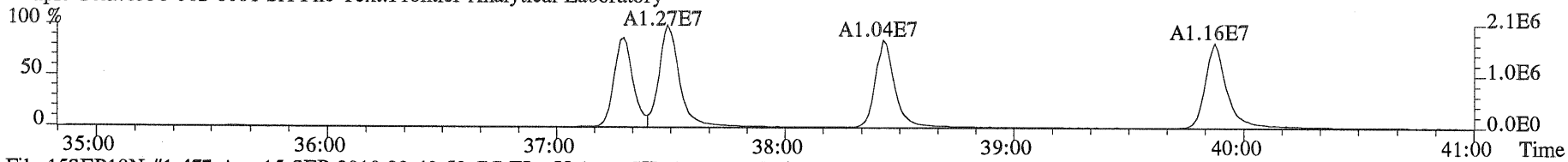
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



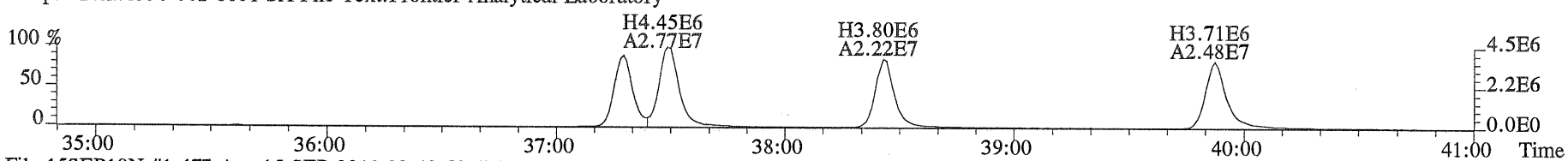
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



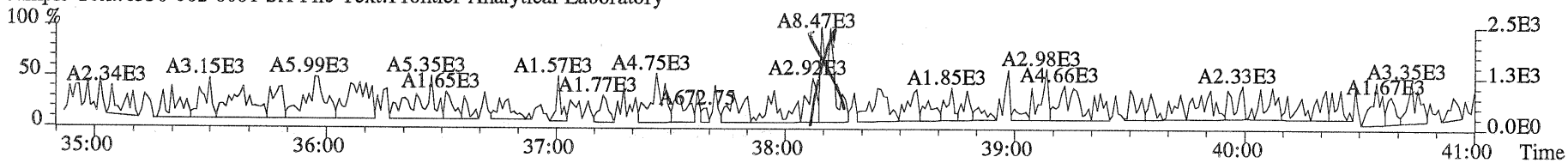
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



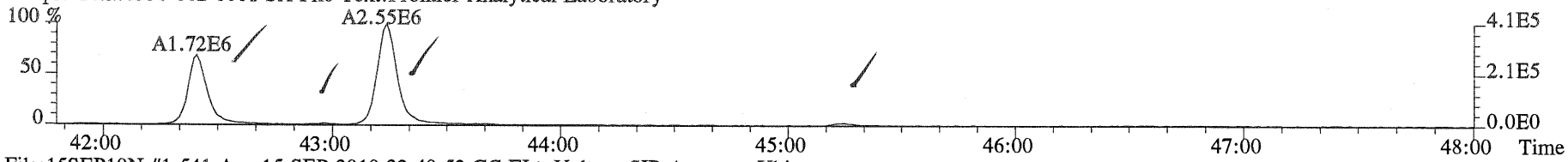
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



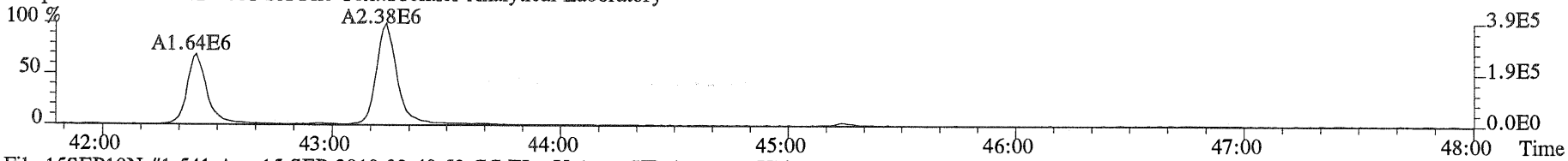
File:15SEP10N #1-477 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



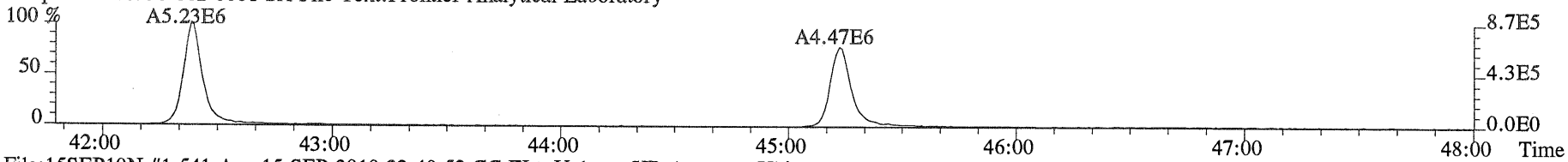
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



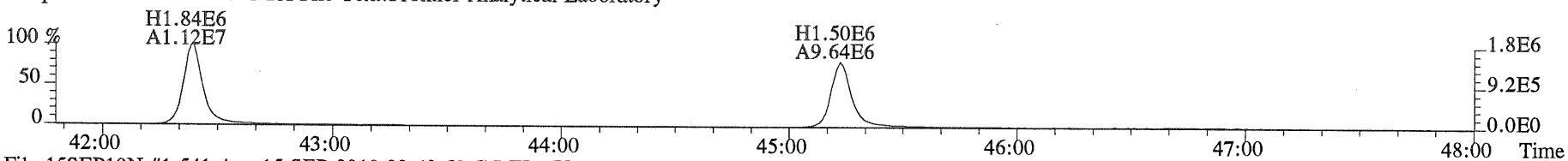
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



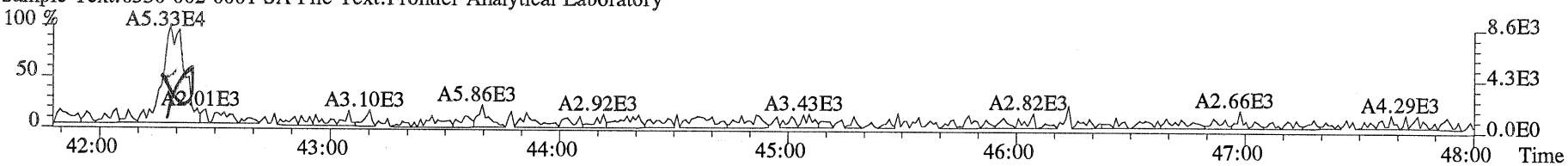
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



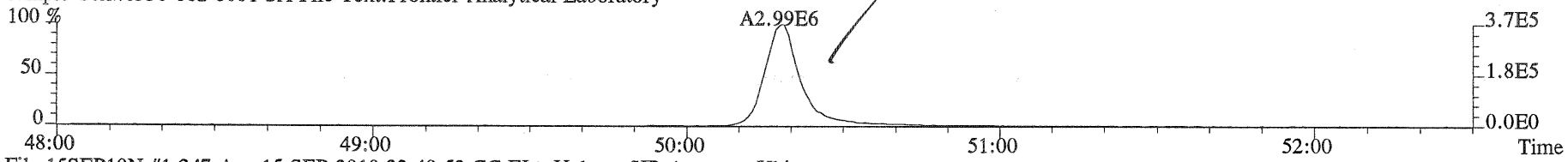
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



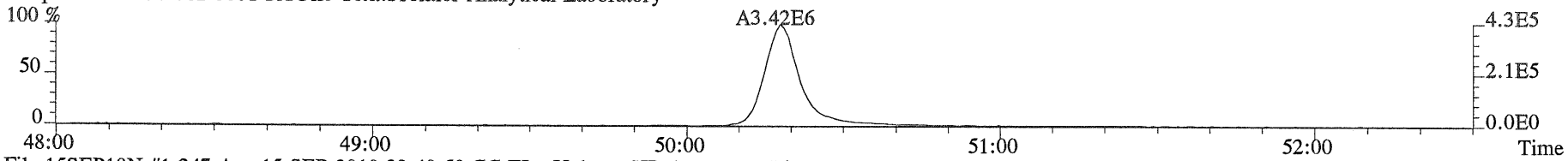
File:15SEP10N #1-541 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



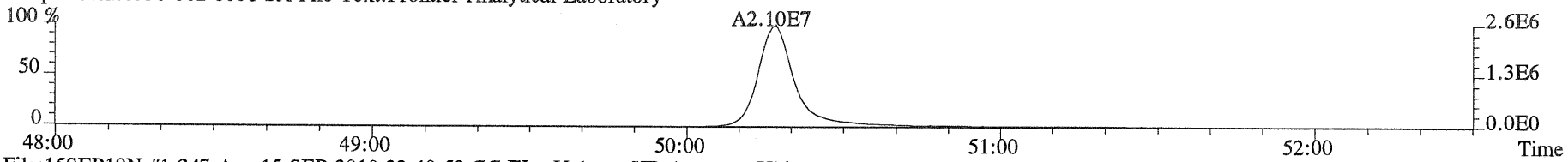
File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



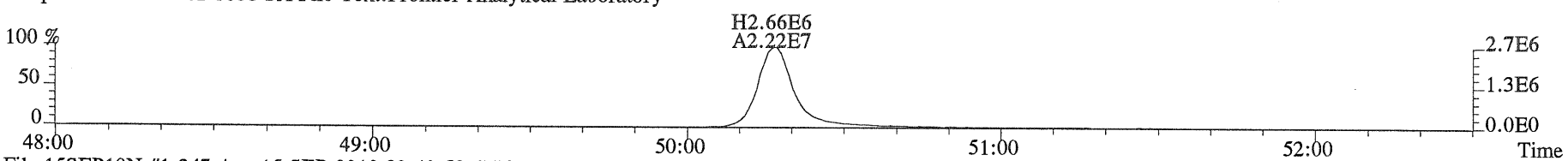
File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



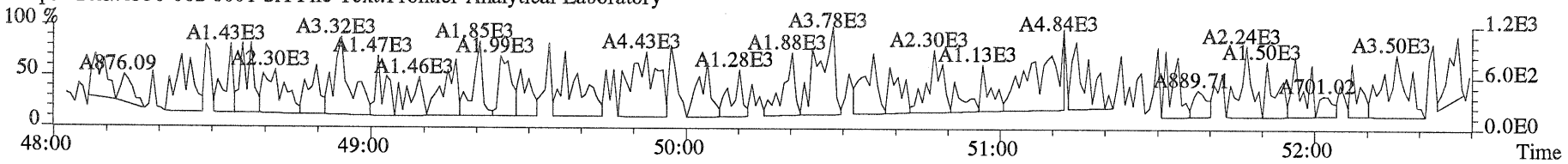
File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 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:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-347 Acq:15-SEP-2010 23:40:52 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:PCDD
Sample Text:6330-002-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 6330-003-0001-SA Filename: 15SEP10N Sam:6 Acquired: 16-SEP-10 00:36:15 ICal: PCDDFAL3-8-23-10
Client ID: PSB21-2-4-082510 ConCal: ST091510N1 EndCal: ST091510N2
Results: 6330 GC Column: DB5 Amount: 5.010 ✓ NATO 1989 Tox: 12.9
WHO 1998 Tox: 10.9 WHO 2005 Tox: 11.2 ✓

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	
2,3,7,8-TCDD	3.13e+04	0.77 y	27:31	1.11	0.623	J	2.50	-	-	*	
1,2,3,7,8-PeCDD	8.34e+04	1.47 y	33:20	1.10	1.66	J	2.50	-	-	*	
1,2,3,4,7,8-HxCDD	1.62e+05	1.35 y	38:43	1.37	3.13	J	2.50	-	-	*	
1,2,3,6,7,8-HxCDD	5.12e+05	1.36 y	38:52	1.37	11.0		2.50	-	-	*	
1,2,3,7,8,9-HxCDD	3.56e+05	1.43 y	39:18	1.36	7.30		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	1.34e+07	0.91 y	44:19	1.45	311		2.50	-	-	*	
OCDD	8.56e+07	0.93 y	49:55	1.43	2940		2.50	-	-	*	
2,3,7,8-TCDF	9.06e+04	0.73 y	26:45	1.50	0.874	J	2.50	-	-	*	
1,2,3,7,8-PeCDF	4.14e+04	1.43 y	31:36	0.94	0.630	J	2.50	-	-	*	
2,3,4,7,8-PeCDF	9.89e+04	1.34 y	32:56	0.94	1.64	J	2.50	-	-	*	
1,2,3,4,7,8-HxCDF	2.02e+05	1.25 y	37:18	0.93	3.45	J	2.50	-	-	*	
1,2,3,6,7,8-HxCDF	1.97e+05	1.18 y	37:31	0.82	2.96	J	2.50	-	-	*	
2,3,4,6,7,8-HxCDF	2.30e+05	1.28 y	38:28	0.92	4.17	J	2.50	-	-	*	
1,2,3,7,8,9-HxCDF	3.16e+04	1.33 y	39:58	1.00	0.476	J	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	4.05e+06	1.04 y	42:25	1.39	92.5		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	1.47e+05	1.16 y	45:14	1.36	3.96	J	2.50	-	-	*	
OCDF	7.07e+06	0.88 y	50:18	0.79	225		2.50	-	-	*	
										Rec	
13C-2,3,7,8-TCDD	1.81e+07	0.83 y	27:29	1.02	326					81.7	
13C-1,2,3,7,8-PeCDD	1.82e+07	1.76 y	33:19	0.84	401					100	
13C-1,2,3,4,7,8-HxCDD	1.51e+07	1.24 y	38:41	1.07	328					82.2	
13C-1,2,3,6,7,8-HxCDD	1.35e+07	1.31 y	38:51	1.01	313					78.3	
13C-1,2,3,4,6,7,8-HpCDD	1.19e+07	0.96 y	44:18	0.86	324					81.2	
13C-OCDD	1.62e+07	0.97 y	49:54	0.55	694					87.0	
13C-2,3,7,8-TCDF	2.75e+07	0.82 y	26:44	0.99	333					83.3	
13C-1,2,3,7,8-PeCDF	2.78e+07	1.72 y	31:34	0.84	399					99.9	
13C-2,3,4,7,8-PeCDF	2.57e+07	1.76 y	32:53	0.81	380					95.1	
13C-1,2,3,4,7,8-HxCDF	2.52e+07	0.47 y	37:18	1.85	318					79.7	
13C-1,2,3,6,7,8-HxCDF	3.22e+07	0.47 y	37:29	2.54	297					74.5	
13C-2,3,4,6,7,8-HxCDF	2.39e+07	0.47 y	38:27	2.01	278					69.7	
13C-1,2,3,7,8,9-HxCDF	2.66e+07	0.46 y	39:53	2.03	306					76.7	
13C-1,2,3,4,6,7,8-HpCDF	1.26e+07	0.46 y	42:24	1.11	265					66.4	
13C-1,2,3,4,7,8,9-HpCDF	1.09e+07	0.46 y	45:13	0.80	318					79.6	
13C-OCDF	3.20e+07	0.94 y	50:16	1.08	692					86.6	
37Cl-2,3,7,8-TCDD	5.01e+06		27:30	0.69	135					84.6	
13C-1,2,3,4-TCDD	2.16e+07	0.85 y	26:54	-	9.59						
13C-1,2,3,4-TCDF	3.32e+07	0.85 y	25:39	-	9.18						
13C-1,2,3,7,8,9-HxCDD	1.71e+07	1.32 y	39:18	-	12.4						

							Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	5.97e+05		24:30	1.11	11.9		2.50	-	-	*		12
Total Penta-Dioxins	1.04e+06		30:22	1.10	20.6		2.50	-	-	*		10
Total Hexa-Dioxins	4.54e+06		36:15	1.37	92.9		2.50	-	-	*		8
Total Hepta-Dioxins	2.74e+07		42:56	1.45	635		2.50	-	-	*		2
Total Tetra-Furans	3.71e+06		23:08	1.50	35.8	D,M	2.50	-	-	*		19
1st Fn. Tot Penta-Furans	1.61e+06		28:33	0.94	25.5	D,M	2.50	-	-	*	PeCDF	1
Total Penta-Furans	2.08e+06		30:11	0.94	33.1	D,M	2.50	-	-	*	58.6	12
Total Hexa-Furans	5.53e+06		35:22	0.91	90.2	D,M	2.50	-	-	*		10
Total Hepta-Furans	1.03e+07		42:25	1.38	246		2.50	-	-	*		4

Analyst: _____ Date: 9/16/10

Totals class: Total Tetra-Dioxins Entry #: 38

Run: 13 File: 15SEP10N S: 6 I: 1 F: 1
Acquired: 16-SEP-10 00:36:15

Total Concentration: 11.9 Unnamed Concentration: 11.256

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
24:30	7.84e+04	9.60e+04	0.82	y	1.74e+05	3.47	
24:46	5.45e+04	6.43e+04	0.85	y	1.19e+05	2.36	
25:05	1.16e+04	1.57e+04	0.74	y	2.72e+04	0.542	
25:41	1.22e+04	1.63e+04	0.75	y	2.85e+04	0.566	
25:53	1.87e+04	2.44e+04	0.77	y	4.31e+04	0.857	
26:04	1.79e+04	2.70e+04	0.66	y	4.49e+04	0.894	
26:13	7.62e+03	1.06e+04	0.72	y	1.82e+04	0.363	
26:36	9.99e+03	1.15e+04	0.87	y	2.15e+04	0.427	
26:56	1.64e+04	2.17e+04	0.75	y	3.81e+04	0.758	
27:14	1.39e+04	1.80e+04	0.77	y	3.19e+04	0.635	
27:31	1.36e+04	1.77e+04	0.77	y	3.13e+04	0.623	2,3,7,8-TCDD
27:49	7.97e+03	1.14e+04	0.70	y	1.93e+04	0.384	

Totals class: Total Penta-Dioxins Entry #: 39

Run: 13 File: 15SEP10N S: 6 I: 1 F: 2
Acquired: 16-SEP-10 00:36:15

Total Concentration: 20.6 Unnamed Concentration: 18.952

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:22	1.81e+05	1.34e+05	1.35	y	3.15e+05	6.26	
30:58	3.66e+04	2.48e+04	1.47	y	6.14e+04	1.22	
31:34	7.51e+04	5.56e+04	1.35	y	1.31e+05	2.60	
31:48	6.72e+04	4.77e+04	1.41	y	1.15e+05	2.28	
31:58	7.39e+04	5.13e+04	1.44	y	1.25e+05	2.49	
32:14	5.60e+04	4.25e+04	1.32	y	9.85e+04	1.96	
32:42	2.63e+04	1.89e+04	1.40	y	4.52e+04	0.898	
33:20	4.96e+04	3.38e+04	1.47	y	8.34e+04	1.66	1,2,3,7,8-PeCDD
33:27	1.93e+04	1.18e+04	1.64	y	3.11e+04	0.618	
33:54	1.83e+04	1.36e+04	1.34	y	3.19e+04	0.633	

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 13 File: 15SEP10N S: 6 I: 1 F: 3
Acquired: 16-SEP-10 00:36:15

Total Concentration: 92.9 Unnamed Concentration: 71.488

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
36:15	7.02e+05	4.98e+05	1.41	y	1.20e+06	24.5	
37:10	2.29e+05	1.65e+05	1.39	y	3.95e+05	8.05	
37:35	1.01e+06	7.15e+05	1.41	y	1.73e+06	35.2	
37:47	5.76e+04	4.38e+04	1.32	y	1.01e+05	2.07	
38:43	9.31e+04	6.92e+04	1.35	y	1.62e+05	3.13	1,2,3,4,7,8-HxCDD
38:52	2.95e+05	2.17e+05	1.36	y	5.12e+05	11.0	1,2,3,6,7,8-HxCDD
39:10	4.45e+04	3.67e+04	1.21	y	8.11e+04	1.65	
39:18	2.09e+05	1.47e+05	1.43	y	3.56e+05	7.30	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 13 File: 15SEP10N S: 6 I: 1 F: 4
Acquired: 16-SEP-10 00:36:15

Total Concentration: 635 Unnamed Concentration: 323.809

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:56	6.61e+06	7.36e+06	0.90 y	1.40e+07	324	
44:19	6.39e+06	7.04e+06	0.91 y	1.34e+07	311	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans Entry #: 42

Run: 13 File: 15SEP10N S: 6 I: 1 F: 1
Acquired: 16-SEP-10 00:36:15

Total Concentration: 35.8 Unnamed Concentration: 34.910

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
23:08	2.42e+04	2.79e+04	0.87	y	5.21e+04	0.503	
23:31	4.13e+04	5.77e+04	0.72	y	9.89e+04	0.955	
23:54	2.96e+05	4.46e+05	0.66	y	7.42e+05	7.16	
24:17	8.24e+04	1.10e+05	0.75	y	1.92e+05	1.85	
24:32	1.10e+05	1.48e+05	0.74	y	2.58e+05	2.49	
24:50	1.45e+05	2.18e+05	0.67	y	3.63e+05	3.50	
25:04	2.26e+04	3.26e+04	0.70	y	5.52e+04	0.533	
25:26	3.62e+04	5.38e+04	0.67	y	9.00e+04	0.869	
25:32	1.42e+05	2.16e+05	0.66	y	3.58e+05	3.46	
25:38	3.44e+04	4.31e+04	0.80	y	7.75e+04	0.748	
25:53	3.90e+04	5.42e+04	0.72	y	9.32e+04	0.899	
26:01	3.92e+04	5.60e+04	0.70	y	9.52e+04	0.919	
26:14	2.02e+04	2.53e+04	0.80	y	4.55e+04	0.439	
26:45	3.83e+04	5.23e+04	0.73	y	9.06e+04	0.874	2,3,7,8-TCDF
27:05	4.78e+04	7.09e+04	0.67	y	1.19e+05	1.15	
27:27	3.37e+04	4.70e+04	0.72	y	8.06e+04	0.778	
27:58	1.57e+05	2.40e+05	0.66	y	3.96e+05	3.83	
28:10	1.71e+05	2.59e+05	0.66	y	4.31e+05	4.16	
28:33	3.27e+04	3.75e+04	0.87	y	7.02e+04	0.677	

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

Run: 13 File: 15SEP10N S: 6 I: 1 F: 1
Acquired: 16-SEP-10 00:36:15

Total Concentration: 25.5 Unnamed Concentration: 25.519

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:33	9.78e+05	6.28e+05	1.56 y	1.61e+06	25.5	

Totals class: Total Penta-Furans Entry #: 44

Run: 13 File: 15SEP10N S: 6 I: 1 F: 2
Acquired: 16-SEP-10 00:36:15

Total Concentration: 33.1 Unnamed Concentration: 30.830

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:11	6.41e+04	4.82e+04	1.33	y	1.12e+05	1.78	
30:20	5.40e+05	3.25e+05	1.66	y	8.64e+05	13.7	
31:03	1.82e+05	1.25e+05	1.46	y	3.07e+05	4.87	
31:36	2.44e+04	1.70e+04	1.43	y	4.14e+04	0.630	1,2,3,7,8-PeCDF
31:51	1.25e+05	7.74e+04	1.62	y	2.03e+05	3.22	
31:56	6.09e+04	4.19e+04	1.45	y	1.03e+05	1.63	
32:08	2.54e+04	1.73e+04	1.47	y	4.27e+04	0.679	
32:46	1.98e+04	1.36e+04	1.46	y	3.35e+04	0.532	
32:56	5.67e+04	4.22e+04	1.34	y	9.89e+04	1.64	2,3,4,7,8-PeCDF
32:58	1.01e+05	6.48e+04	1.56	y	1.66e+05	2.63	
34:02	1.96e+04	1.39e+04	1.41	y	3.35e+04	0.532	
34:12	4.49e+04	3.12e+04	1.44	y	7.61e+04	1.21	

Totals class: Total Hexa-Furans Entry #: 45

Run: 13 File: 15SEP10N S: 6 I: 1 F: 3
Acquired: 16-SEP-10 00:36:15

Total Concentration: 90.2 Unnamed Concentration: 79.095

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
35:22	3.63e+05	2.96e+05	1.23	y	6.59e+05	10.7	
35:37	1.28e+06	1.06e+06	1.21	y	2.35e+06	38.1	
36:13	2.93e+04	2.10e+04	1.39	y	5.04e+04	0.818	
36:32	8.89e+05	7.14e+05	1.25	y	1.60e+06	26.1	
37:10	2.99e+04	2.29e+04	1.31	y	5.28e+04	0.858	
37:18	1.12e+05	8.99e+04	1.25	y	2.02e+05	3.45	1,2,3,4,7,8-HxCDF
37:31	1.06e+05	9.02e+04	1.18	y	1.97e+05	2.96	1,2,3,6,7,8-HxCDF
38:11	8.72e+04	6.90e+04	1.26	y	1.56e+05	2.54	
38:28	1.29e+05	1.01e+05	1.28	y	2.30e+05	4.17	2,3,4,6,7,8-HxCDF
39:58	1.80e+04	1.36e+04	1.33	y	3.16e+04	0.476	1,2,3,7,8,9-HxCDF

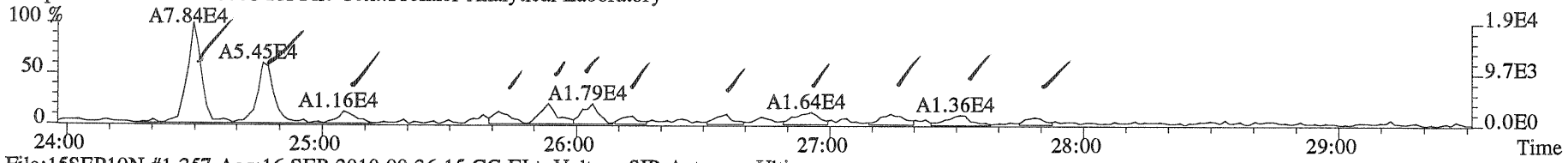
Totals class: Total Hepta-Furans Entry #: 46

Run: 13 File: 15SEP10N S: 6 I: 1 F: 4
Acquired: 16-SEP-10 00:36:15

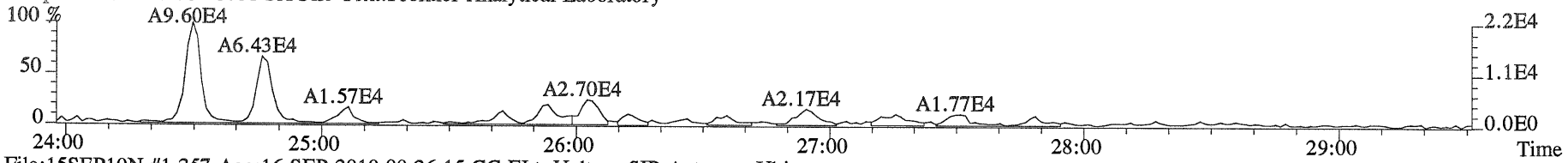
Total Concentration: 246 Unnamed Concentration: 149.788

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:25	2.07e+06	1.98e+06	1.04 y	4.05e+06	92.5	1,2,3,4,6,7,8-HpCDF
42:57	5.40e+04	5.30e+04	1.02 y	1.07e+05	2.64	
43:14	3.06e+06	2.89e+06	1.06 y	5.96e+06	147	
45:14	7.87e+04	6.78e+04	1.16 y	1.47e+05	3.96	1,2,3,4,7,8,9-HpCDF

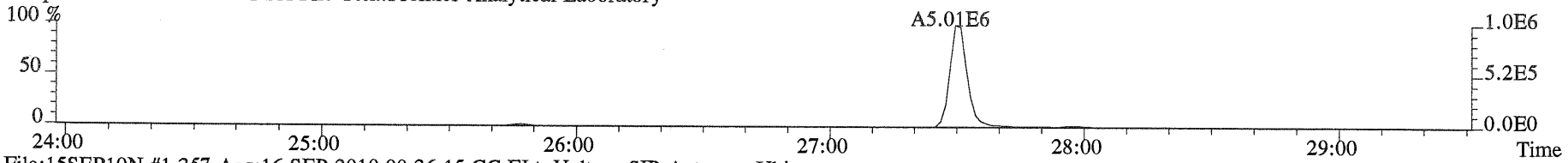
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



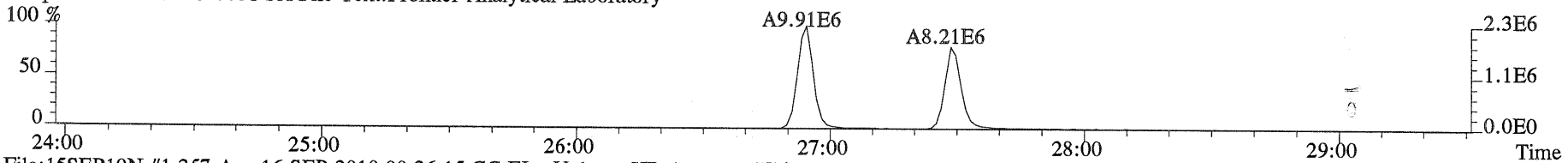
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



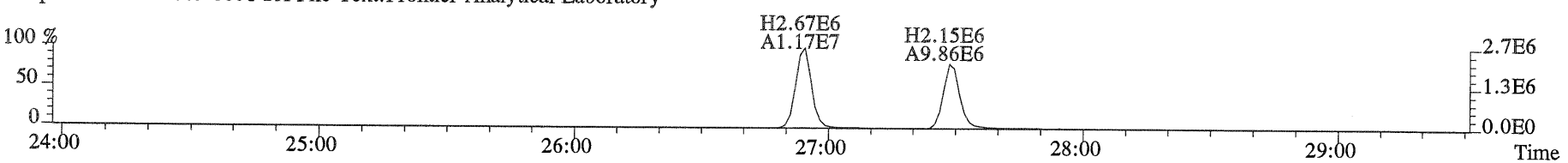
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



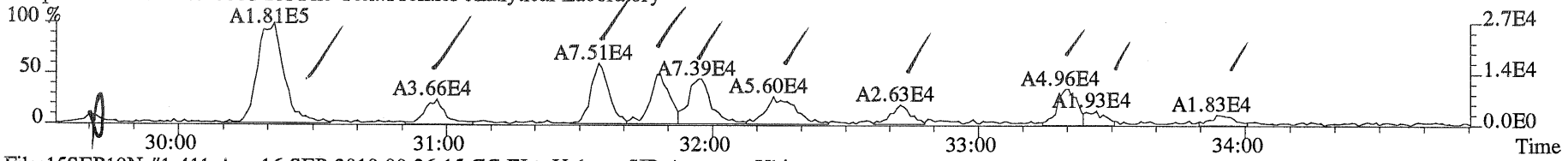
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



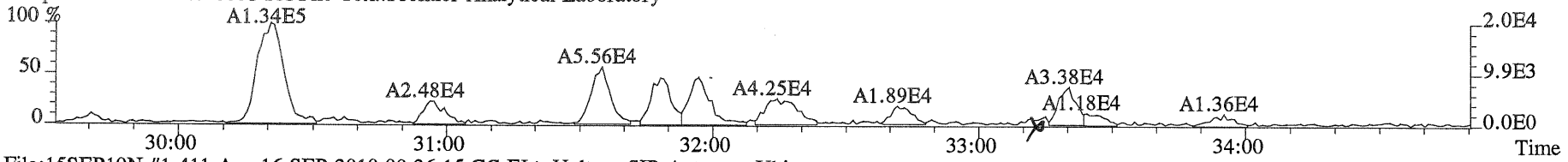
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



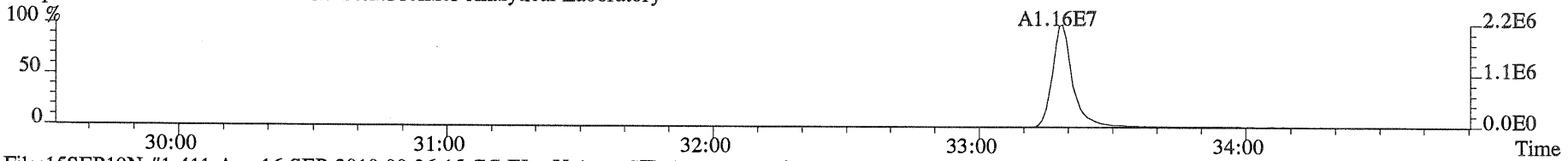
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



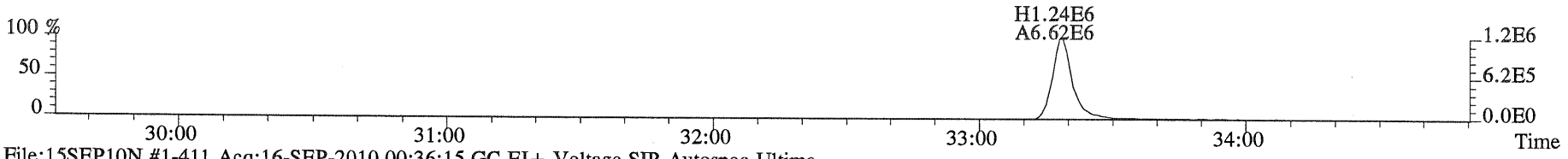
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



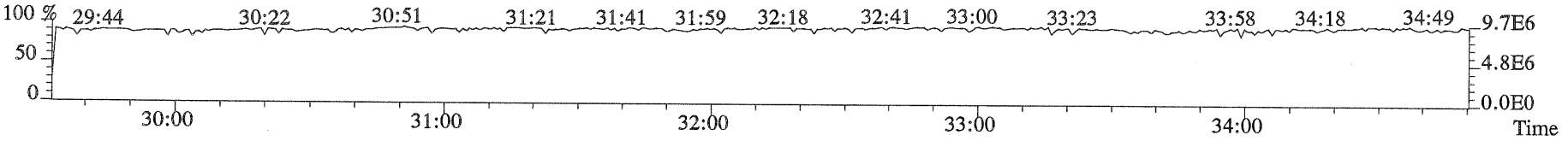
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



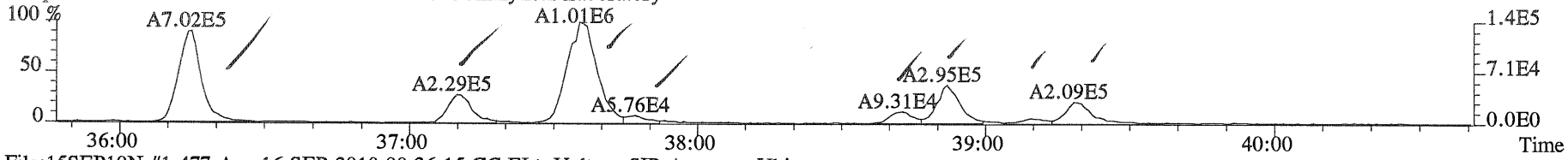
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



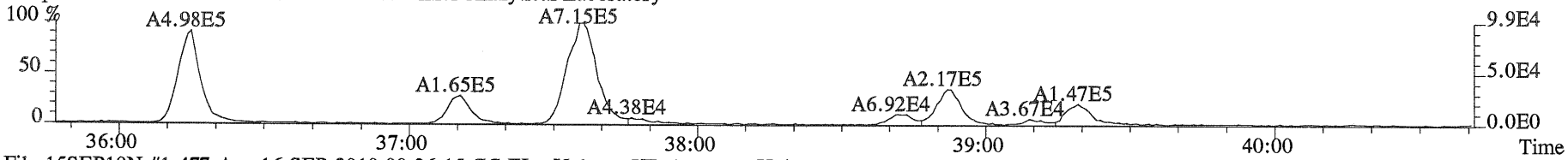
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:6 F:2 Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



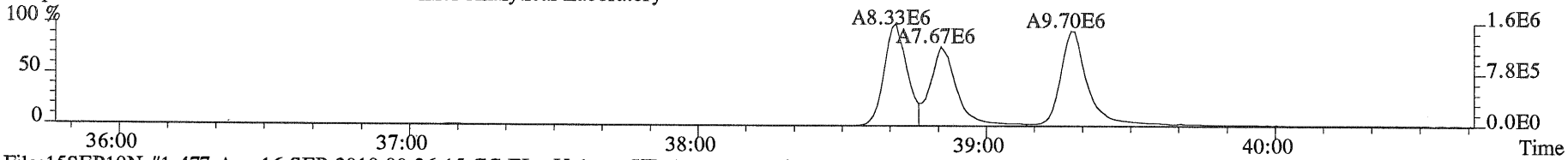
File:15SEP10N #1-477 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



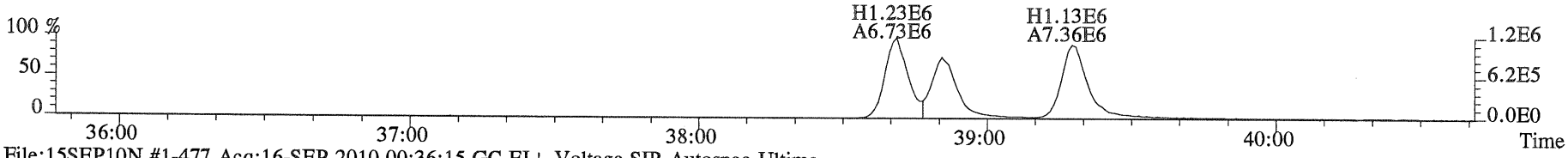
File:15SEP10N #1-477 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



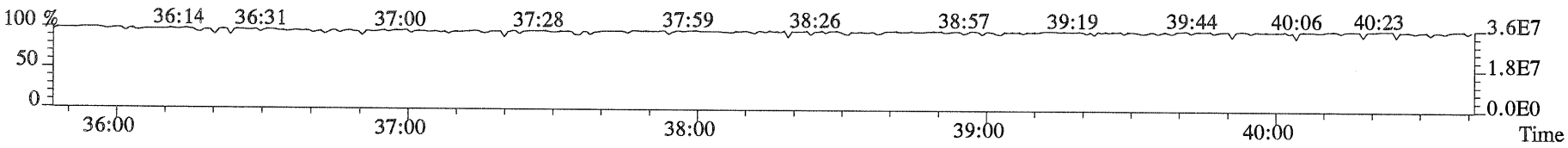
File:15SEP10N #1-477 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



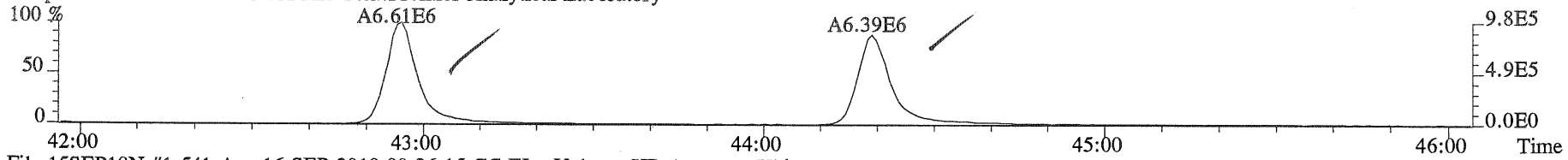
File:15SEP10N #1-477 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



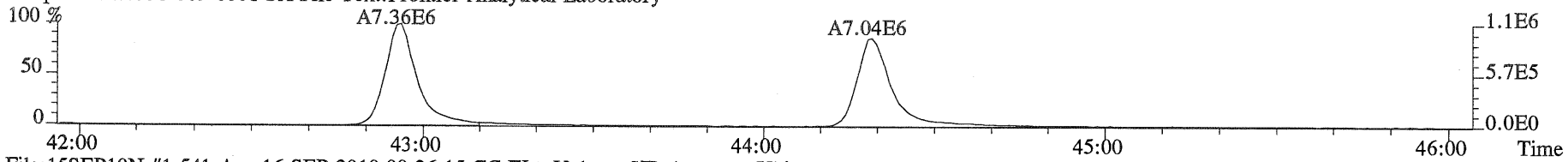
File:15SEP10N #1-477 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:6 F:3 Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



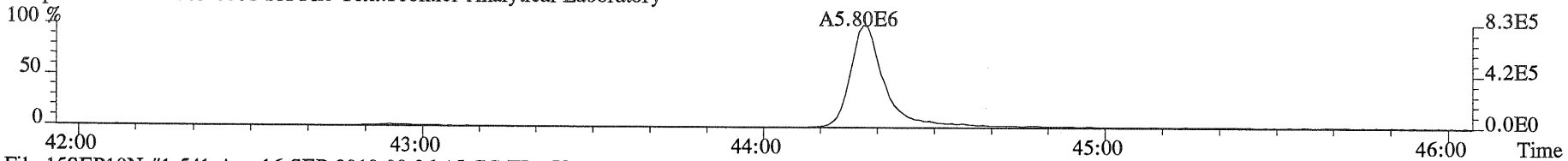
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



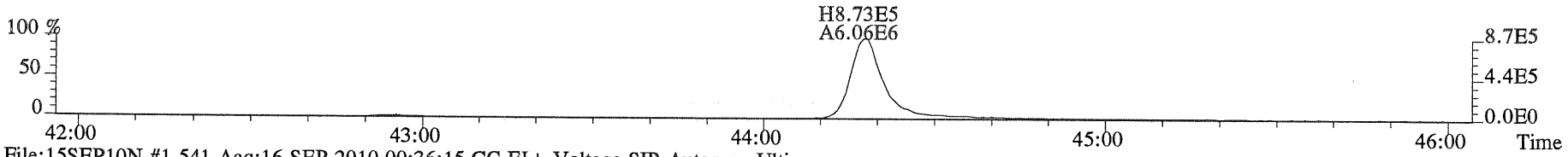
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



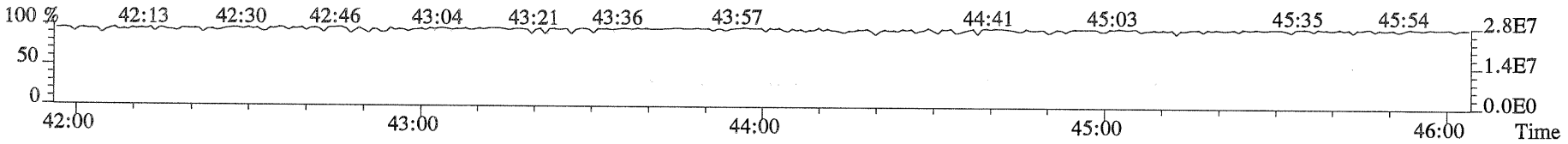
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



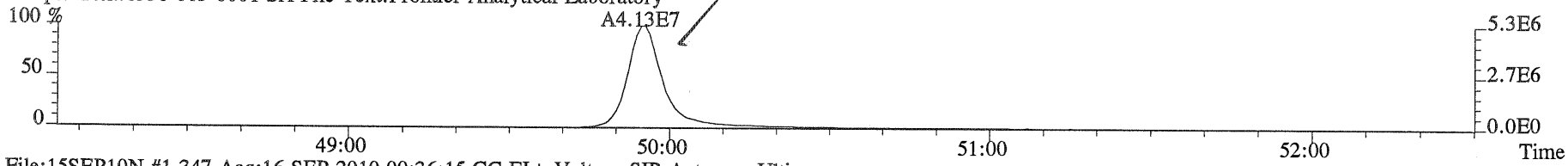
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



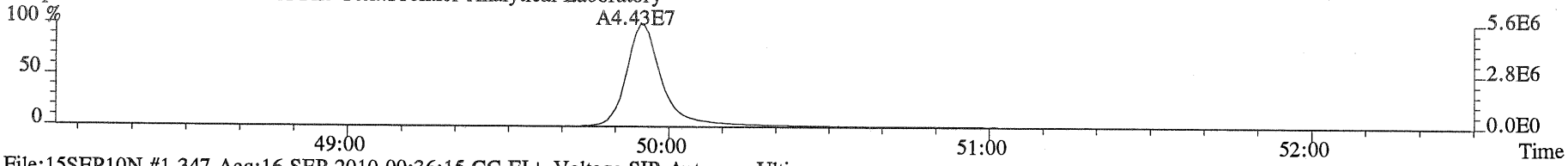
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
LOCK_MASS_CHECK S:6 F:4 Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



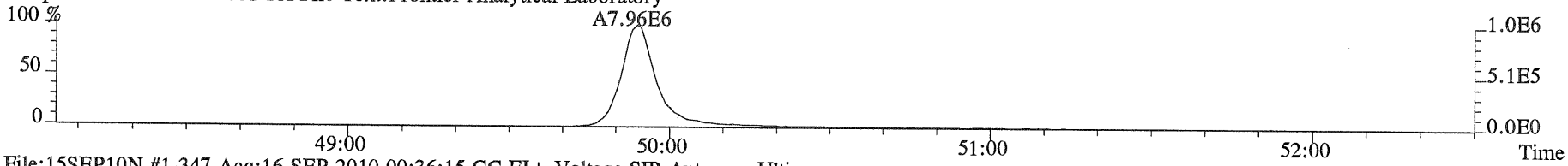
File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



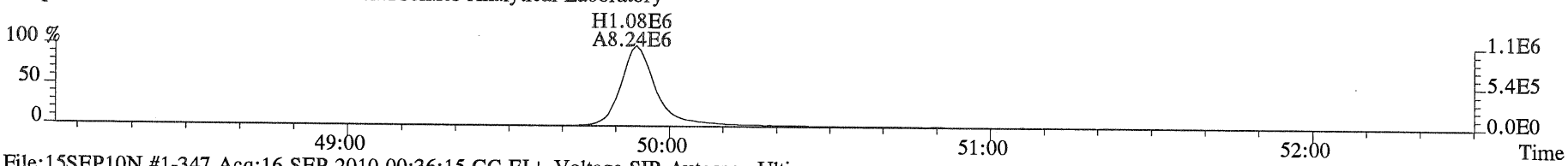
File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



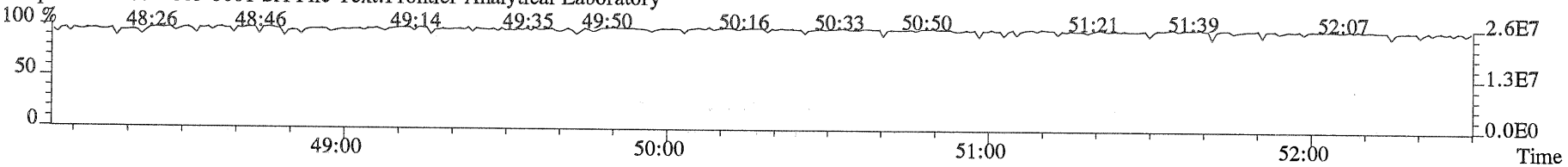
File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



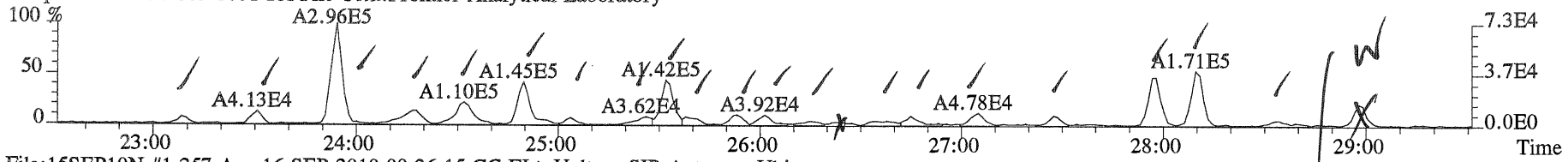
File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



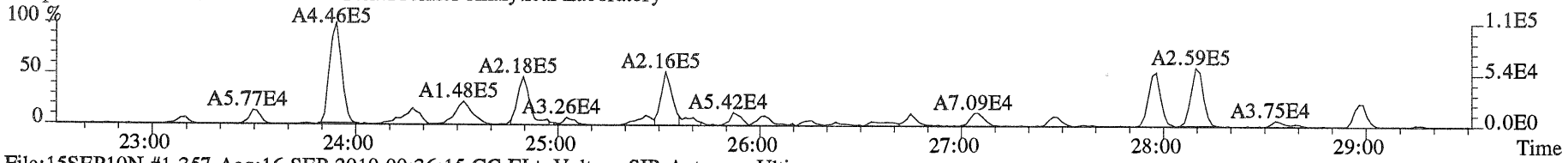
File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:6 F:5 Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



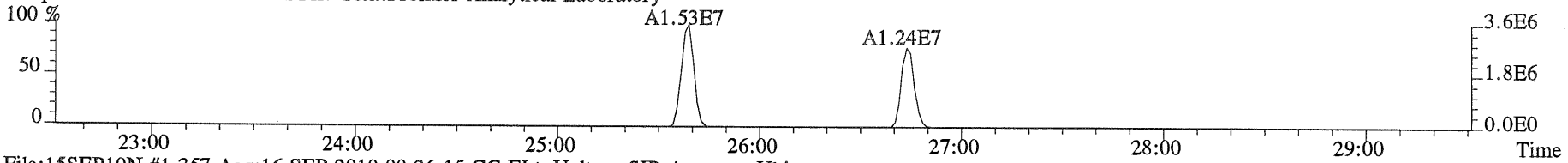
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



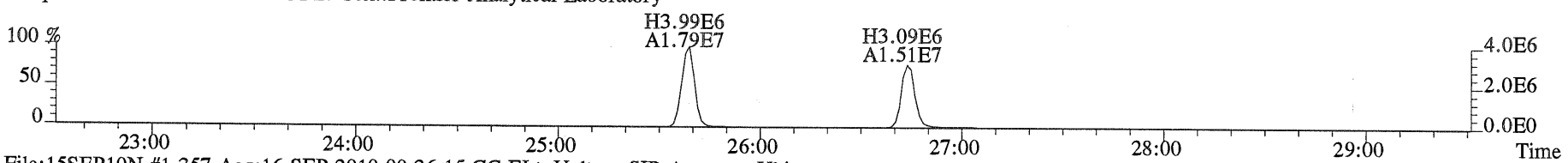
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:6 BSUB(10000,15,0.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



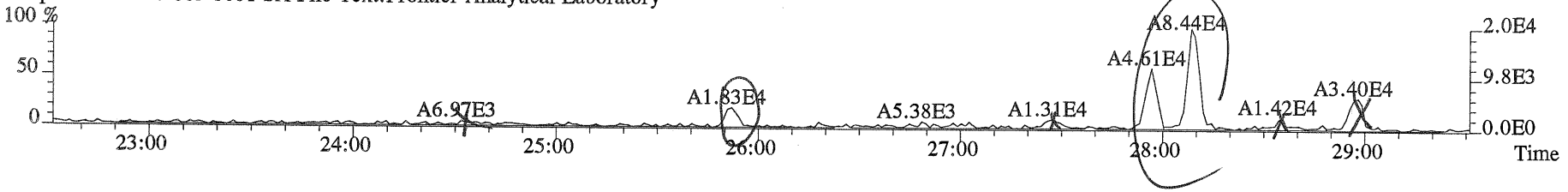
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:6 BSUB(10000,15,200.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



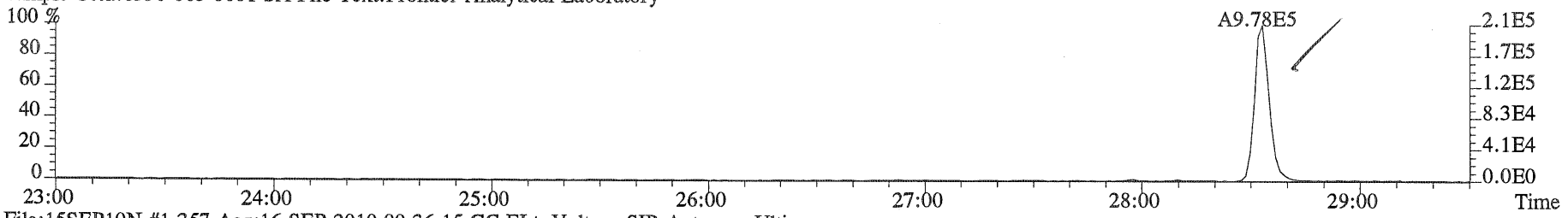
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



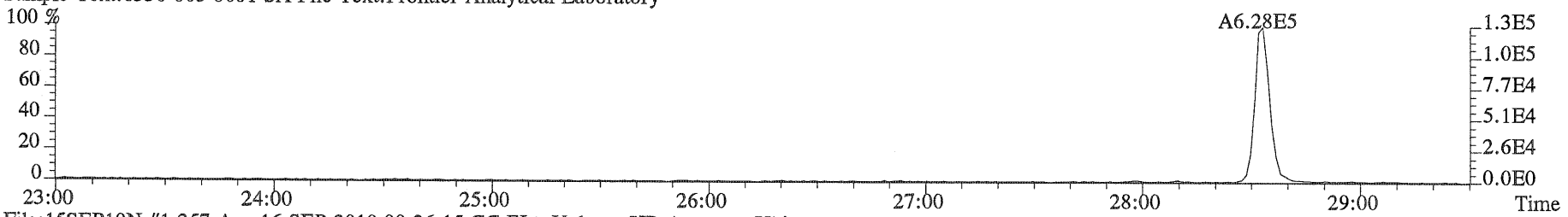
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



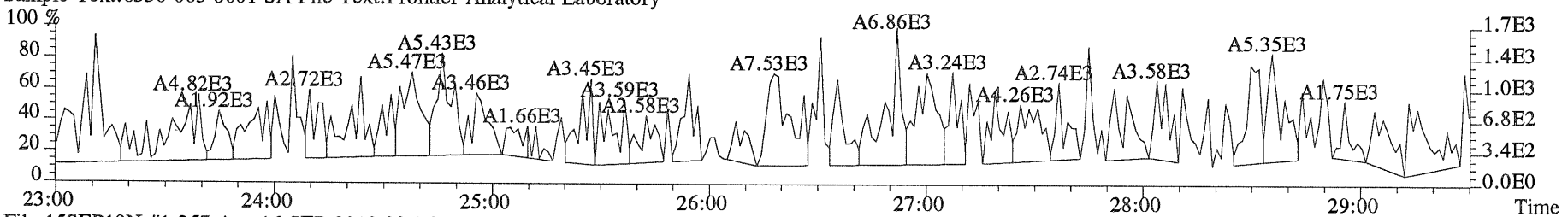
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



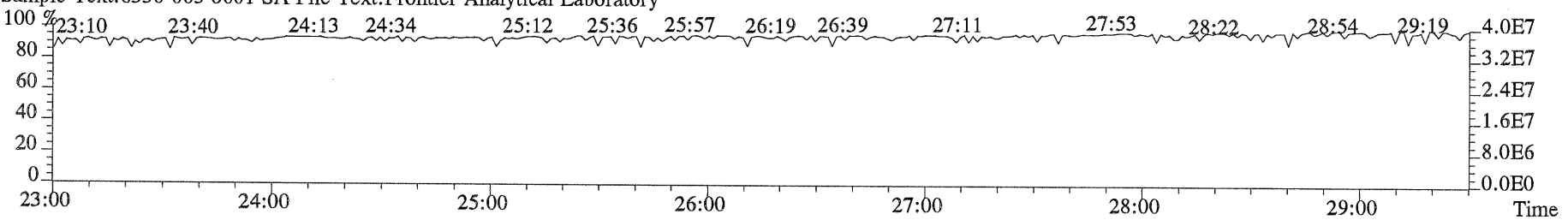
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



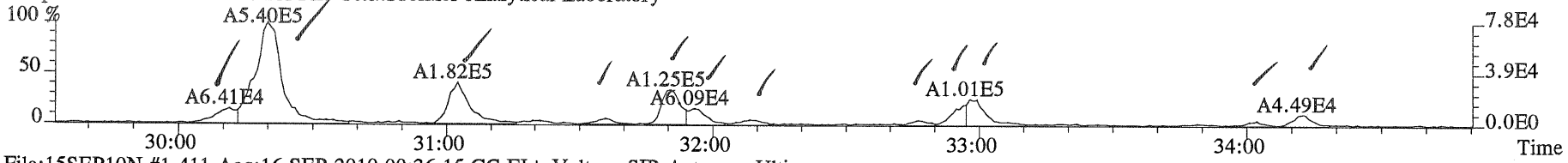
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



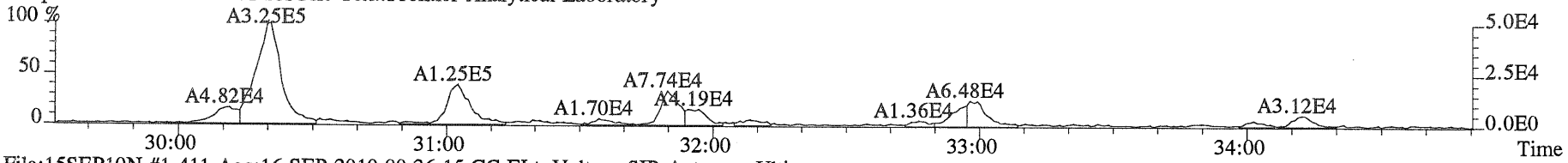
File:15SEP10N #1-357 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:6 Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



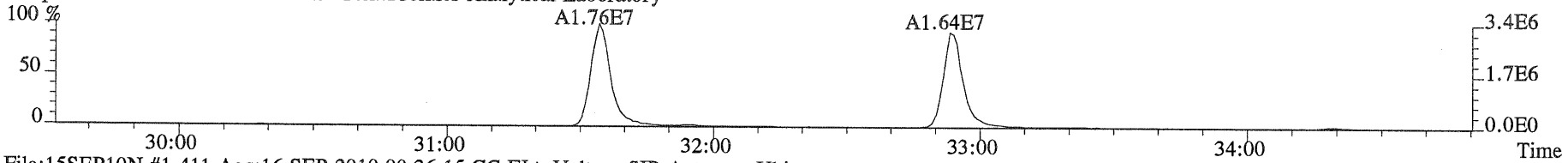
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:6 F:2 BSUB(10000,15,-3.0) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



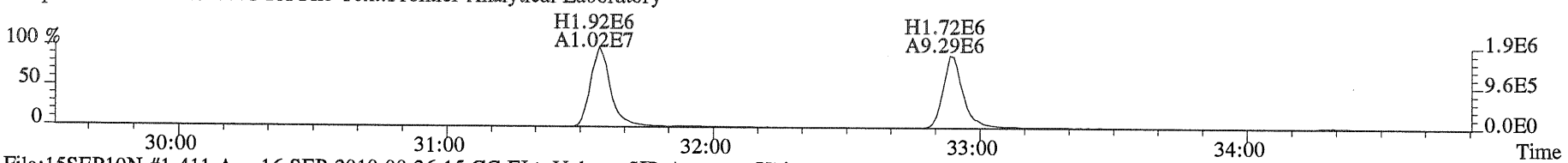
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:6 F:2 BSUB(10000,15,-3.0) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



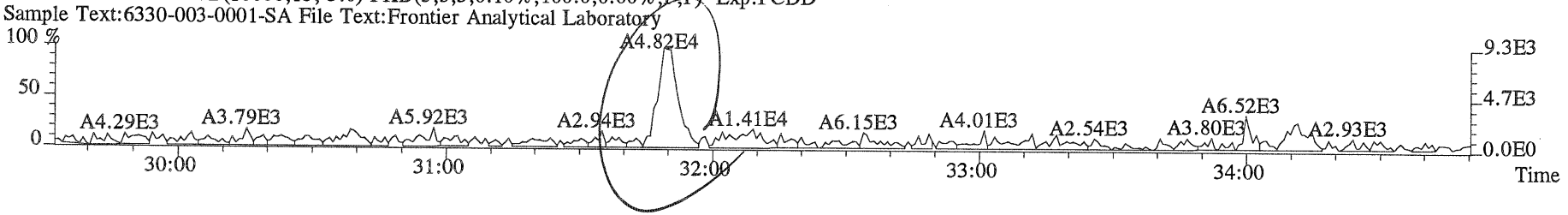
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



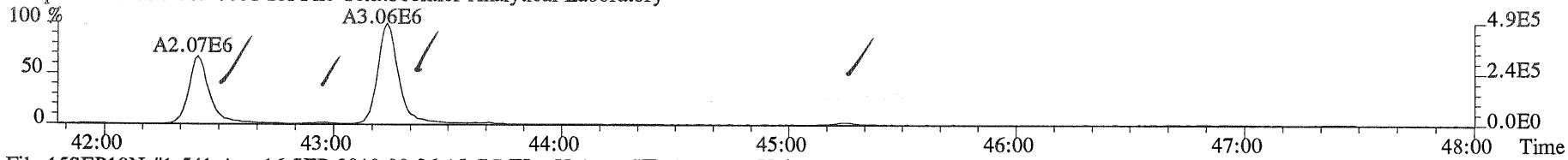
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



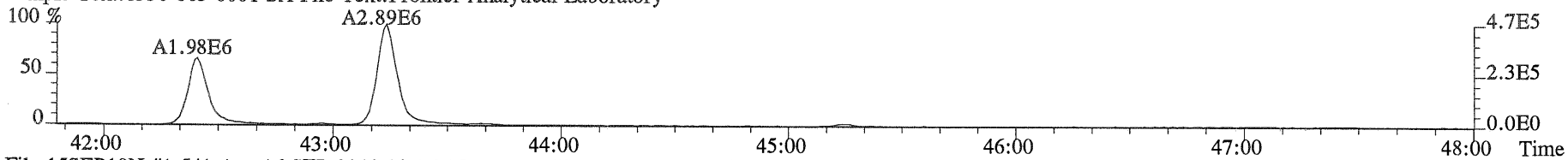
File:15SEP10N #1-411 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



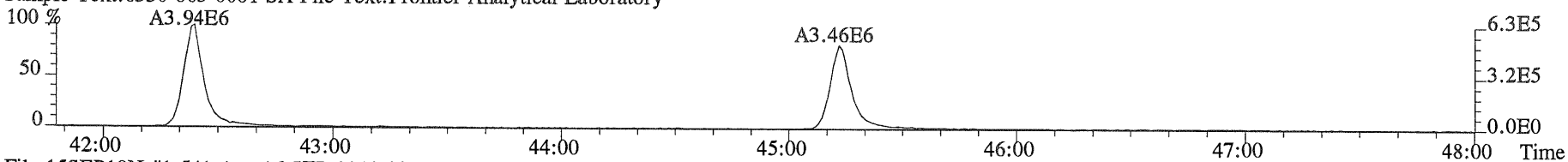
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



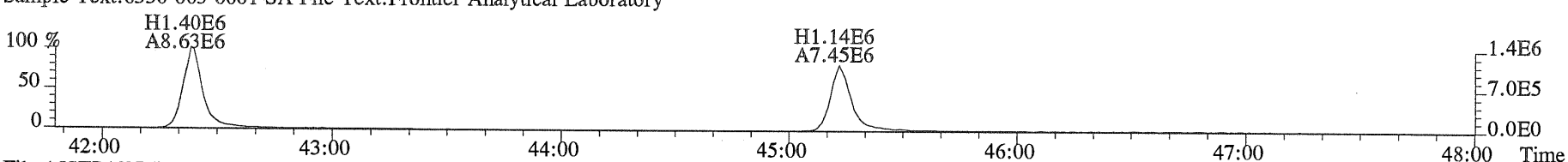
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



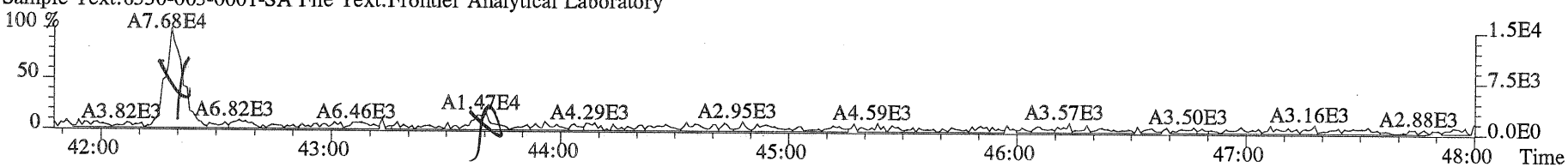
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



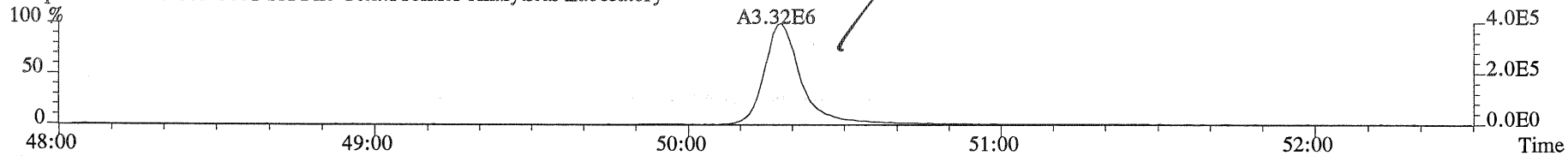
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



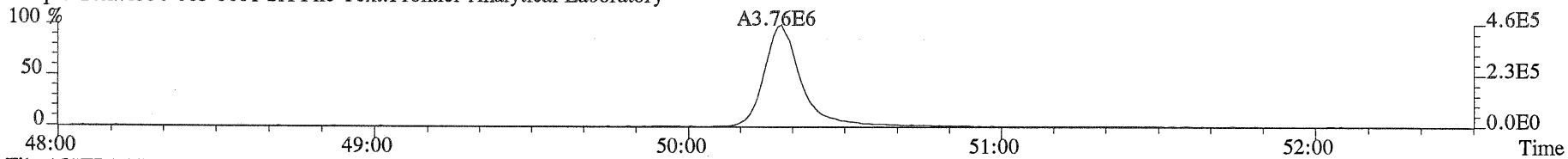
File:15SEP10N #1-541 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



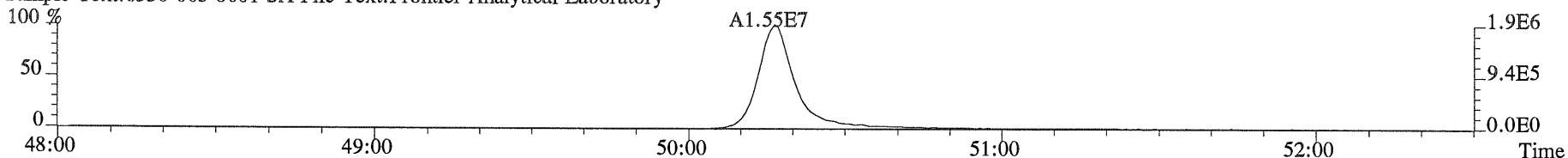
File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



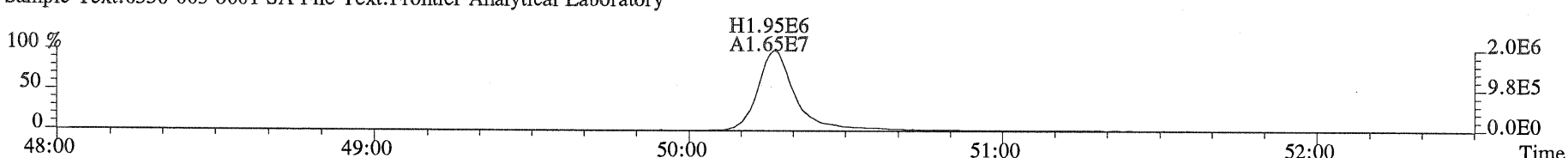
File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



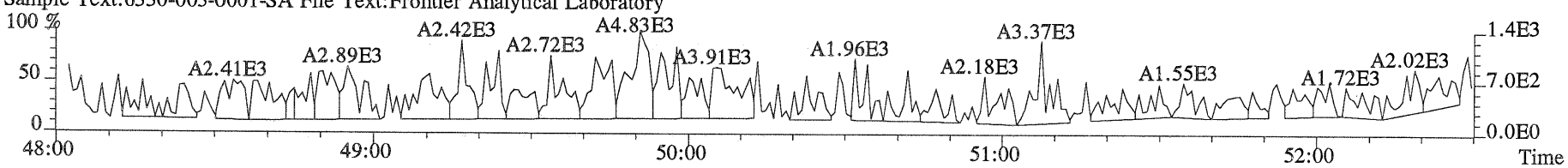
File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 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:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-347 Acq:16-SEP-2010 00:36:15 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:PCDD
Sample Text:6330-003-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 6330-004-0001-SA Filename: 15SEP10N Sam:7 Acquired: 16-SEP-10 01:31:38 ICal: PCDDFAL3-8-23-10
Client ID: PSB19-0-1-082510 ConCal: ST091510N1 EndCal: ST091510N2
Results: 6330 GC Column: DB5 Amount: 5.030 ✓ NATO 1989 Tox: 162
WHO 1998 Tox: 125 WHO 2005 Tox: 135 ✓

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.85e+05	0.80 y	27:30	1.11	4.74		2.50	-	-	*
1,2,3,7,8-PeCDD	1.39e+06	1.38 y	33:20	1.10	22.0		2.50	-	-	*
1,2,3,4,7,8-HxCDD	2.00e+06	1.40 y	38:42	1.37	27.6		2.50	-	-	*
1,2,3,6,7,8-HxCDD	8.40e+06	1.41 y	38:52	1.37	135		2.50	-	-	*
1,2,3,7,8,9-HxCDD	5.41e+06	1.37 y	39:19	1.36	81.0		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	3.21e+08	0.92 y	44:19	1.45	4720		2.50	-	-	*
OCDD	2.64e+09	0.97 y	49:59	1.43	48300		2.50	-	-	*
2,3,7,8-TCDF	1.41e+05	0.72 y	26:45	1.50	1.08		2.50	-	-	*
1,2,3,7,8-PeCDF	1.79e+05	1.60 y	31:36	0.94	2.25	J	2.50	-	-	*
2,3,4,7,8-PeCDF	2.87e+05	1.50 y	32:56	0.94	3.81	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.77e+06	1.23 y	37:18	0.93	22.2		2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.51e+06	1.20 y	37:31	0.82	16.6		2.50	-	-	*
2,3,4,6,7,8-HxCDF	1.89e+06	1.27 y	38:27	0.92	23.5		2.50	-	-	*
1,2,3,7,8,9-HxCDF	2.53e+05	1.28 y	39:56	1.00	2.78	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	7.79e+07	1.07 y	42:25	1.39	1240		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	2.02e+06	1.08 y	45:14	1.36	39.4		2.50	-	-	*
OCDF	2.28e+08	0.86 y	50:20	0.79	4550		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	2.15e+07	0.84 y	27:29	1.02	347					87.3
13C-1,2,3,7,8-PeCDD	2.27e+07	1.76 y	33:18	0.84	445					112
13C-1,2,3,4,7,8-HxCDD	2.10e+07	1.29 y	38:41	1.07	386					97.1
13C-1,2,3,6,7,8-HxCDD	1.80e+07	1.29 y	38:51	1.01	351					88.3
13C-1,2,3,4,6,7,8-HpCDD	1.86e+07	0.96 y	44:18	0.86	429					108
13C-OCDD	3.02e+07	0.99 y	49:59	0.55	1090					137
13C-2,3,7,8-TCDF	3.46e+07	0.85 y	26:44	0.99	372					93.6
13C-1,2,3,7,8-PeCDF	3.36e+07	1.71 y	31:34	0.84	430					108
13C-2,3,4,7,8-PeCDF	3.20e+07	1.69 y	32:53	0.81	422					106
13C-1,2,3,4,7,8-HxCDF	3.41e+07	0.46 y	37:18	1.85	364					91.4
13C-1,2,3,6,7,8-HxCDF	4.40e+07	0.46 y	37:30	2.54	343					86.3
13C-2,3,4,6,7,8-HxCDF	3.47e+07	0.47 y	38:26	2.01	340					85.6
13C-1,2,3,7,8,9-HxCDF	3.63e+07	0.47 y	39:53	2.03	353					88.7
13C-1,2,3,4,6,7,8-HpCDF	1.80e+07	0.46 y	42:24	1.11	321					80.6
13C-1,2,3,4,7,8,9-HpCDF	1.50e+07	0.47 y	45:13	0.80	369					92.9
13C-OCDF	5.07e+07	0.93 y	50:19	1.08	925					116
37Cl-2,3,7,8-TCDD	5.96e+06		27:30	0.69	143					90.1
13C-1,2,3,4-TCDD	2.41e+07	0.83 y	26:53	-	10.7					
13C-1,2,3,4-TCDF	3.71e+07	0.85 y	25:38	-	10.2					
13C-1,2,3,7,8,9-HxCDD	2.01e+07	1.27 y	39:18	-	14.5					

							Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	5.65e+06		24:30	1.11	93.9		2.50	-	-	*		16
Total Penta-Dioxins	1.39e+07		30:21	1.10	220		2.50	-	-	*		10
Total Hexa-Dioxins	7.27e+07		36:14	1.37	1090		2.50	-	-	*		8
Total Hepta-Dioxins	6.46e+08		42:56	1.45	9490		2.50	-	-	*		2
Total Tetra-Furans	6.96e+06		23:09	1.50	53.3	D,M	2.50	-	-	*		21
1st Fn. Tot Penta-Furans	5.75e+06		28:33	0.94	74.2	D,M	2.50	-	-	*	PeCDF	1
Total Penta-Furans	6.99e+06		30:12	0.94	90.2	D,M	2.50	-	-	*	164 ✓	14
Total Hexa-Furans	6.39e+07		35:22	0.91	750		2.50	-	-	*		11
Total Hepta-Furans	2.44e+08		42:25	1.38	4140		2.50	-	-	*		4

Analyst: _____ Date: 9/16/10

Totals class: Total Tetra-Dioxins Entry #: 38

Run: 14 File: 15SEP10N S: 7 I: 1 F: 1
Acquired: 16-SEP-10 01:31:38

Total Concentration: 93.9 Unnamed Concentration: 89.167

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
24:30	1.10e+05	1.34e+05	0.82	y	2.44e+05	4.05	
24:46	1.15e+05	1.35e+05	0.85	y	2.50e+05	4.16	
25:05	2.05e+05	2.48e+05	0.82	y	4.53e+05	7.52	
25:43	1.88e+05	2.39e+05	0.79	y	4.27e+05	7.09	
25:53	3.17e+05	4.08e+05	0.78	y	7.24e+05	12.0	
26:03	2.22e+05	2.87e+05	0.77	y	5.09e+05	8.46	
26:12	9.13e+04	1.15e+05	0.79	y	2.06e+05	3.42	
26:24	9.40e+04	1.18e+05	0.80	y	2.12e+05	3.52	
26:35	1.87e+05	2.20e+05	0.85	y	4.07e+05	6.76	
26:52	2.94e+05	3.65e+05	0.81	y	6.58e+05	10.9	
27:15	1.14e+05	1.50e+05	0.76	y	2.63e+05	4.38	
27:23	9.76e+04	1.25e+05	0.78	y	2.23e+05	3.70	
27:30	1.27e+05	1.59e+05	0.80	y	2.85e+05	4.74	2,3,7,8-TCDD
27:49	1.65e+05	2.08e+05	0.79	y	3.72e+05	6.18	
27:56	4.68e+04	5.49e+04	0.85	y	1.02e+05	1.69	
28:26	1.43e+05	1.73e+05	0.83	y	3.16e+05	5.25	

Totals class: Total Penta-Dioxins Entry #: 39

Run: 14 File: 15SEP10N S: 7 I: 1 F: 2
Acquired: 16-SEP-10 01:31:38

Total Concentration: 220 Unnamed Concentration: 198.318

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:21	1.51e+06	1.06e+06	1.42 y	2.58e+06	41.0	
30:57	1.04e+06	7.47e+05	1.39 y	1.79e+06	28.4	
31:35	4.55e+05	3.10e+05	1.46 y	7.65e+05	12.2	
31:48	9.78e+05	6.99e+05	1.40 y	1.68e+06	26.6	
31:57	6.48e+05	4.77e+05	1.36 y	1.12e+06	17.9	
32:15	1.46e+06	1.04e+06	1.40 y	2.50e+06	39.8	
32:43	3.08e+05	2.11e+05	1.46 y	5.20e+05	8.26	
33:20	8.05e+05	5.81e+05	1.38 y	1.39e+06	22.0	1,2,3,7,8-PeCDD
33:27	3.38e+05	2.28e+05	1.48 y	5.65e+05	8.98	
33:55	5.63e+05	3.95e+05	1.43 y	9.58e+05	15.2	

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 14 File: 15SEP10N S: 7 I: 1 F: 3
Acquired: 16-SEP-10 01:31:38

Total Concentration: 1090 Unnamed Concentration: 848.126

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
36:14	1.13e+07	7.97e+06	1.42	y	1.93e+07	287	
37:11	1.99e+06	1.44e+06	1.39	y	3.43e+06	51.1	
37:36	1.77e+07	1.24e+07	1.42	y	3.01e+07	448	
37:47	1.32e+06	1.01e+06	1.31	y	2.33e+06	34.7	
38:42	1.17e+06	8.33e+05	1.40	y	2.00e+06	27.6	1,2,3,4,7,8-HxCDD
38:52	4.91e+06	3.49e+06	1.41	y	8.40e+06	135	1,2,3,6,7,8-HxCDD
39:10	1.07e+06	7.63e+05	1.40	y	1.83e+06	27.3	
39:19	3.13e+06	2.28e+06	1.37	y	5.41e+06	81.0	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 14 File: 15SEP10N S: 7 I: 1 F: 4
Acquired: 16-SEP-10 01:31:38

Total Concentration: 9490 Unnamed Concentration: 4767.635

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:56	1.54e+08	1.71e+08	0.90 y	3.24e+08	4770	
44:19	1.54e+08	1.68e+08	0.92 y	3.21e+08	4720	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans Entry #: 42

Run: 14 File: 15SEP10N S: 7 I: 1 F: 1
Acquired: 16-SEP-10 01:31:38

Total Concentration: 53.3 Unnamed Concentration: 52.203

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
23:09	3.60e+04	4.15e+04	0.87	y	7.75e+04	0.593	
23:30	1.33e+05	1.95e+05	0.68	y	3.27e+05	2.50	
23:53	5.00e+05	7.63e+05	0.66	y	1.26e+06	9.66	
24:13	2.03e+05	2.95e+05	0.69	y	4.98e+05	3.81	
24:31	1.85e+05	2.73e+05	0.68	y	4.58e+05	3.51	
24:50	2.92e+05	4.31e+05	0.68	y	7.24e+05	5.54	
25:03	5.32e+04	6.03e+04	0.88	y	1.14e+05	0.869	
25:25	7.62e+04	1.07e+05	0.71	y	1.83e+05	1.40	
25:32	2.39e+05	3.62e+05	0.66	y	6.01e+05	4.60	
25:39	1.24e+05	1.78e+05	0.70	y	3.02e+05	2.31	
25:52	3.71e+04	4.54e+04	0.82	y	8.24e+04	0.631	
26:02	8.18e+04	1.14e+05	0.72	y	1.95e+05	1.50	
26:15	4.11e+04	4.93e+04	0.83	y	9.04e+04	0.692	
26:24	4.18e+04	5.07e+04	0.82	y	9.24e+04	0.708	
26:39	8.20e+04	1.17e+05	0.70	y	1.99e+05	1.52	
26:45	5.93e+04	8.20e+04	0.72	y	1.41e+05	1.08	2,3,7,8-TCDF
27:05	7.39e+04	9.29e+04	0.80	y	1.67e+05	1.28	
27:28	4.94e+04	6.19e+04	0.80	y	1.11e+05	0.852	
27:57	2.28e+05	3.47e+05	0.66	y	5.75e+05	4.40	
28:10	2.26e+05	3.43e+05	0.66	y	5.70e+05	4.36	
28:33	8.38e+04	1.06e+05	0.79	y	1.90e+05	1.46	

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

Run: 14 File: 15SEP10N S: 7 I: 1 F: 1
Acquired: 16-SEP-10 01:31:38

Total Concentration: 74.2 Unnamed Concentration: 74.151

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:33	3.53e+06	2.21e+06	1.60 y	5.75e+06	74.2	

Totals class: Total Penta-Furans Entry #: 44

Run: 14 File: 15SEP10N S: 7 I: 1 F: 2
Acquired: 16-SEP-10 01:31:38

Total Concentration: 90.2 Unnamed Concentration: 84.192

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:12	2.42e+05	1.59e+05	1.52	y	4.01e+05	5.17	
30:21	1.83e+06	1.19e+06	1.53	y	3.02e+06	39.0	
30:49	5.58e+04	3.53e+04	1.58	y	9.11e+04	1.17	
31:03	7.22e+05	4.73e+05	1.53	y	1.20e+06	15.4	
31:21	6.94e+04	4.33e+04	1.60	y	1.13e+05	1.45	
31:36	1.10e+05	6.88e+04	1.60	y	1.79e+05	2.25	1,2,3,7,8-PeCDF
31:51	2.00e+05	1.34e+05	1.49	y	3.34e+05	4.30	
31:55	2.51e+05	1.64e+05	1.53	y	4.15e+05	5.35	
32:09	4.95e+04	3.41e+04	1.45	y	8.36e+04	1.08	
32:46	6.24e+04	4.28e+04	1.46	y	1.05e+05	1.36	
32:56	1.72e+05	1.15e+05	1.50	y	2.87e+05	3.81	2,3,4,7,8-PeCDF
32:58	3.10e+05	1.98e+05	1.56	y	5.09e+05	6.57	
34:02	2.86e+04	1.84e+04	1.55	y	4.70e+04	0.606	
34:12	1.32e+05	8.07e+04	1.63	y	2.13e+05	2.74	

Totals class: Total Hexa-Furans Entry #: 45

Run: 14 File: 15SEP10N S: 7 I: 1 F: 3
Acquired: 16-SEP-10 01:31:38

Total Concentration: 750 Unnamed Concentration: 684.439

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
35:22	2.80e+06	2.28e+06	1.23	y	5.08e+06	59.5	
35:38	1.09e+07	8.78e+06	1.25	y	1.97e+07	231	
36:14	3.77e+05	3.10e+05	1.22	y	6.87e+05	8.05	
36:32	1.75e+07	1.41e+07	1.24	y	3.16e+07	370	
37:09	2.00e+05	1.57e+05	1.27	y	3.57e+05	4.18	
37:18	9.76e+05	7.93e+05	1.23	y	1.77e+06	22.2	1,2,3,4,7,8-HxCDF
37:31	8.21e+05	6.86e+05	1.20	y	1.51e+06	16.6	1,2,3,6,7,8-HxCDF
37:58	6.96e+04	6.09e+04	1.14	y	1.30e+05	1.53	
38:11	4.84e+05	4.01e+05	1.21	y	8.85e+05	10.4	
38:27	1.06e+06	8.34e+05	1.27	y	1.89e+06	23.5	2,3,4,6,7,8-HxCDF
39:56	1.42e+05	1.11e+05	1.28	y	2.53e+05	2.78	1,2,3,7,8,9-HxCDF

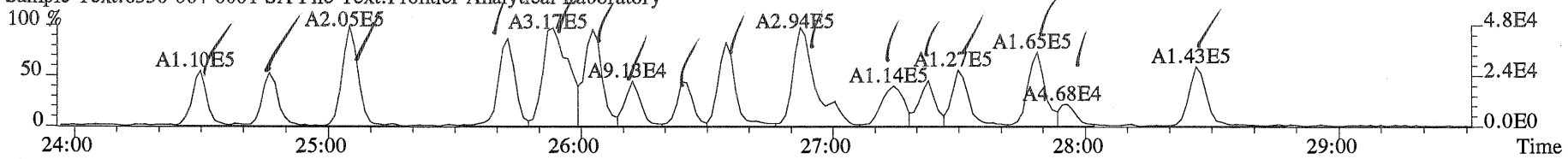
Totals class: Total Hepta-Furans Entry #: 46

Run: 14 File: 15SEP10N S: 7 I: 1 F: 4
Acquired: 16-SEP-10 01:31:38

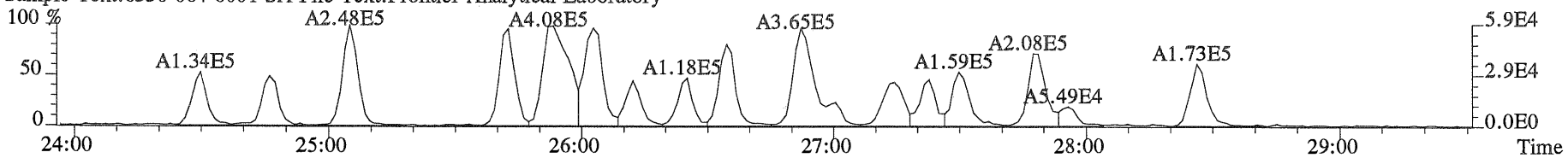
Total Concentration: 4140 Unnamed Concentration: 2861.689

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:25	4.03e+07	3.77e+07	1.07 y	7.79e+07	1240	1,2,3,4,6,7,8-HpCDF
42:57	6.10e+05	5.65e+05	1.08 y	1.18e+06	20.5	
43:14	8.37e+07	7.88e+07	1.06 y	1.63e+08	2840	
45:14	1.05e+06	9.73e+05	1.08 y	2.02e+06	39.4	1,2,3,4,7,8,9-HpCDF

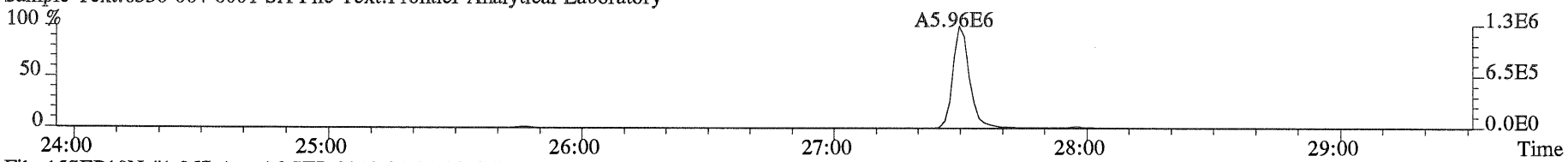
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



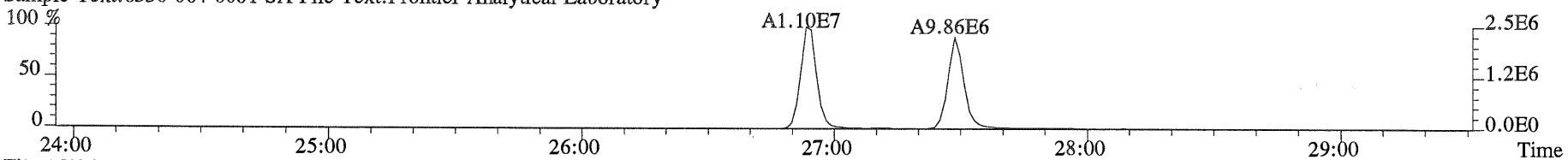
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



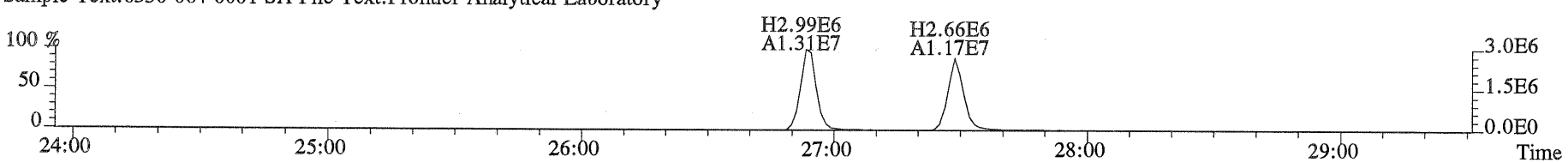
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



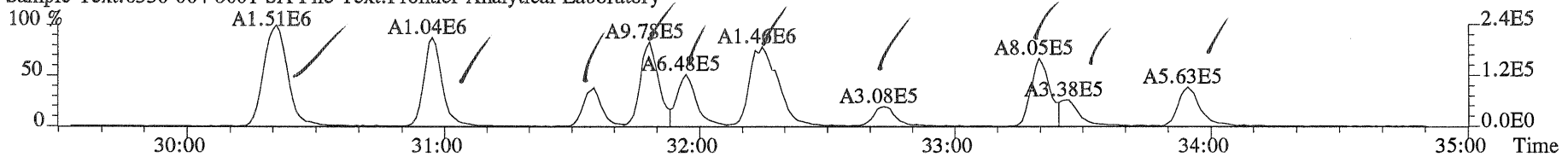
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



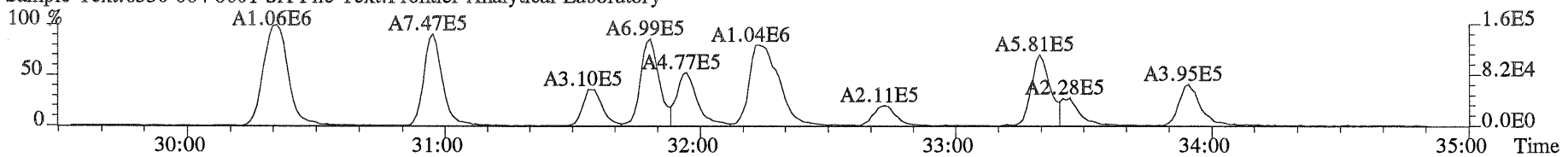
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



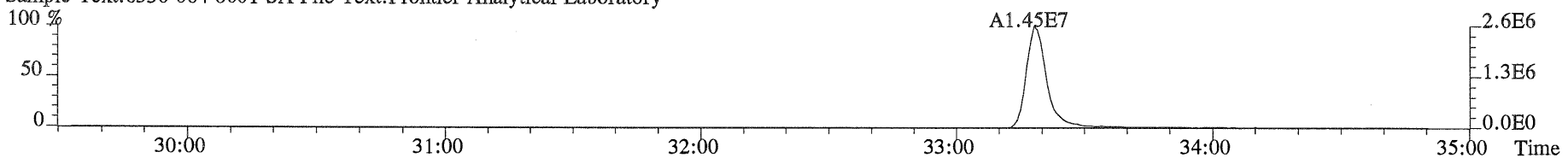
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



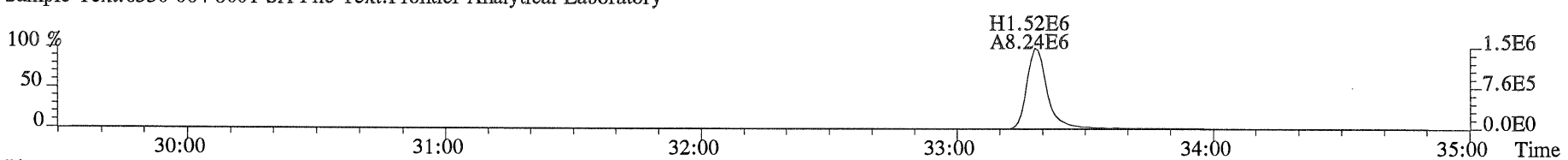
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



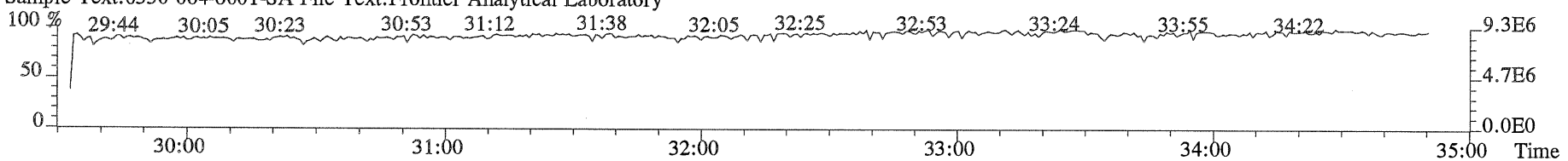
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



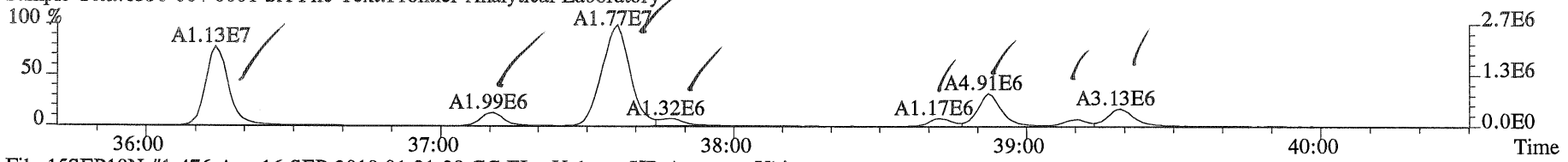
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



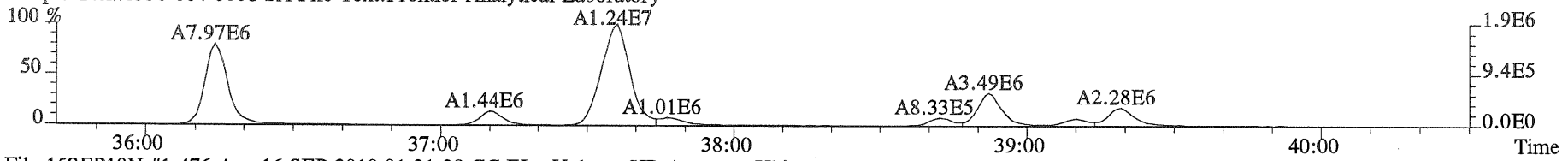
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:7 F:2 Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



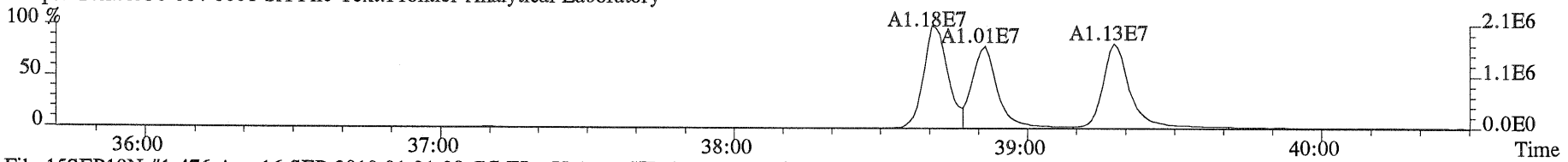
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



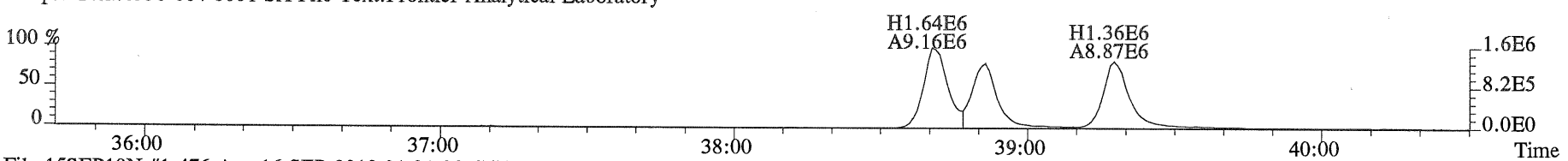
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



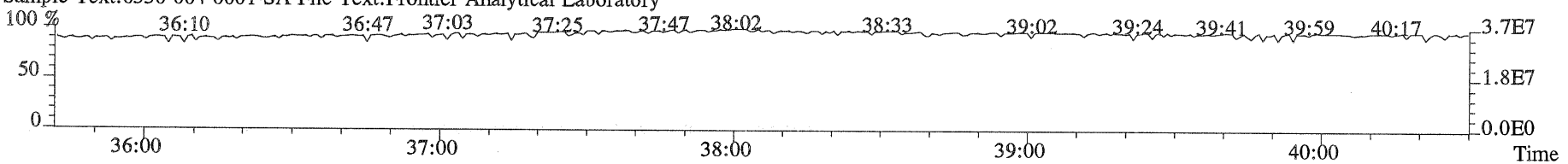
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



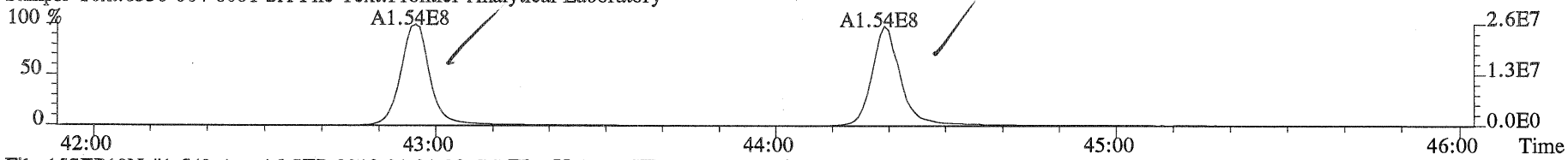
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



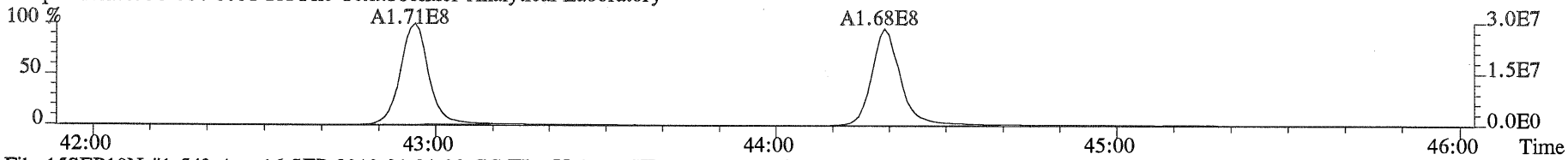
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:7 F:3 Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



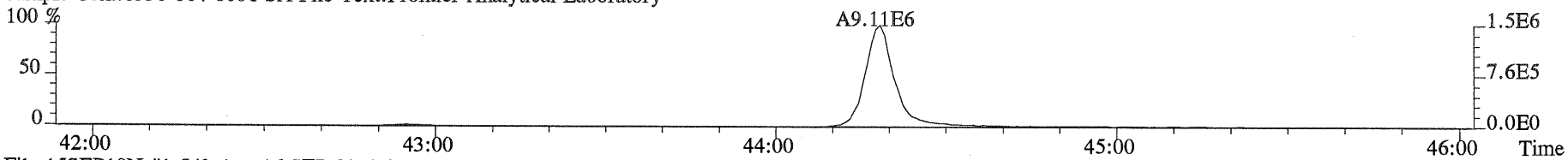
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



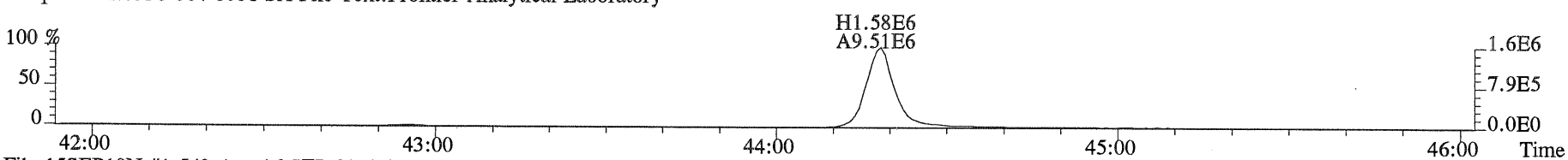
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



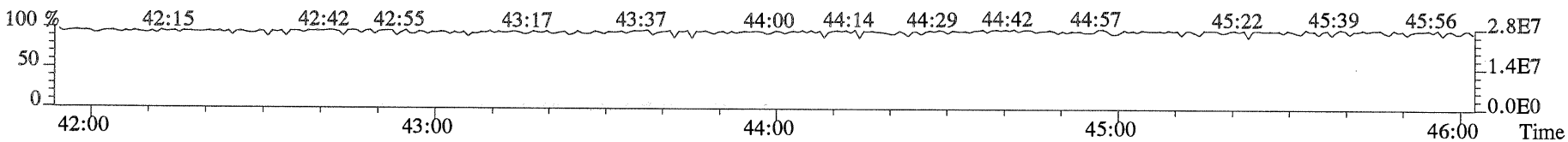
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



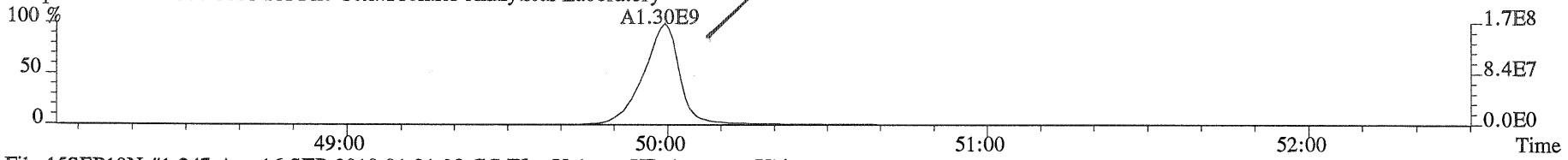
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



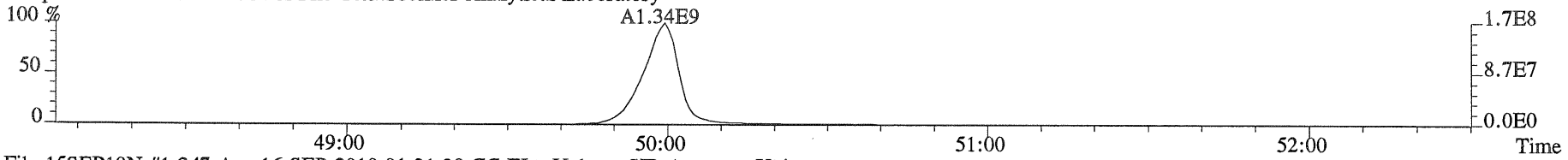
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:7 F:4 Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



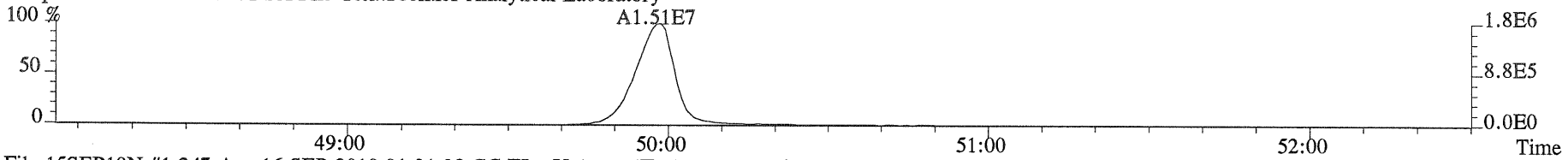
File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



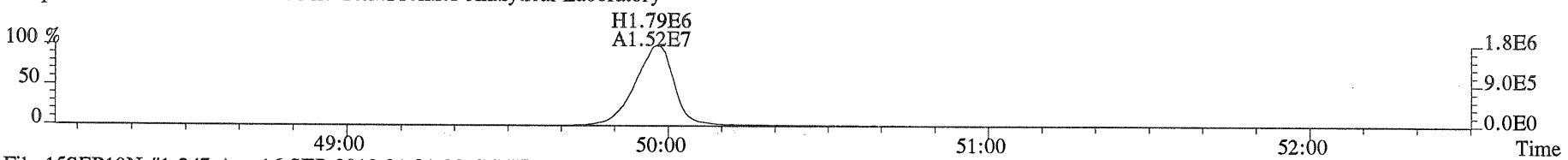
File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



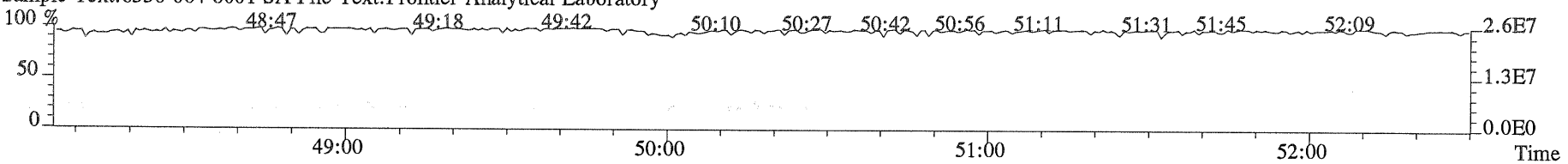
File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



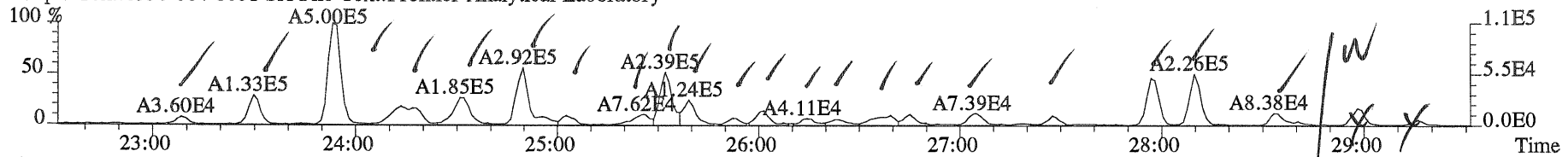
File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



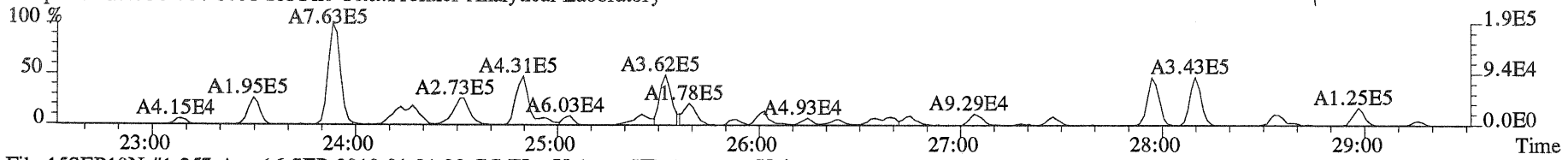
File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:7 F:5 Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



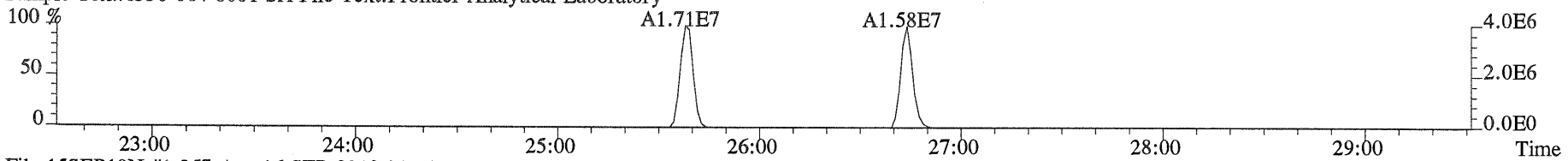
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



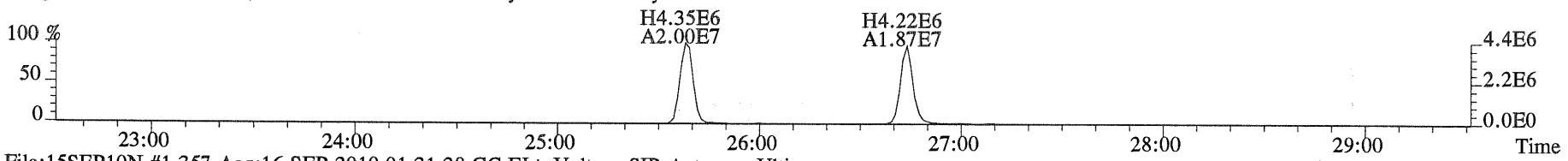
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:7 BSUB(10000,15,1.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



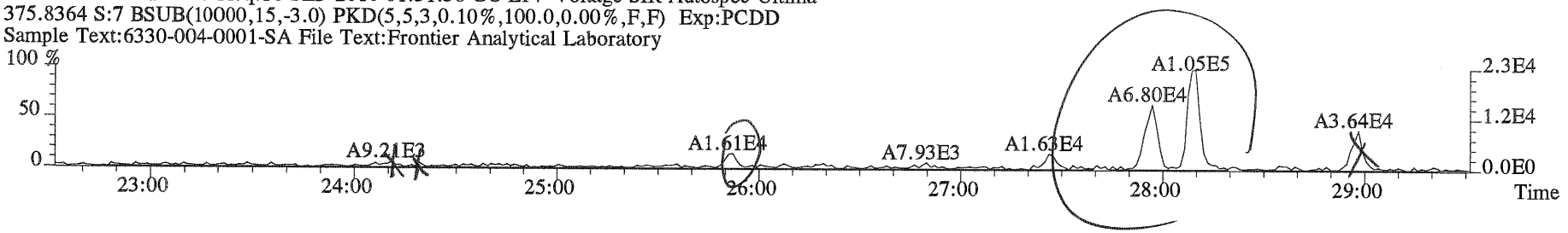
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:7 BSUB(10000,15,200.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



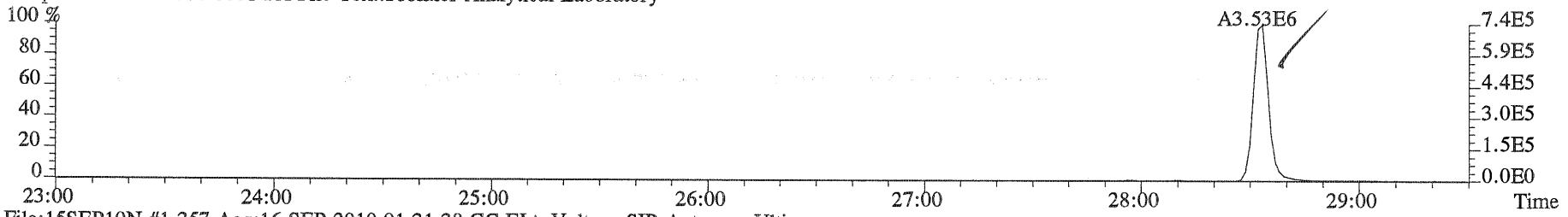
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



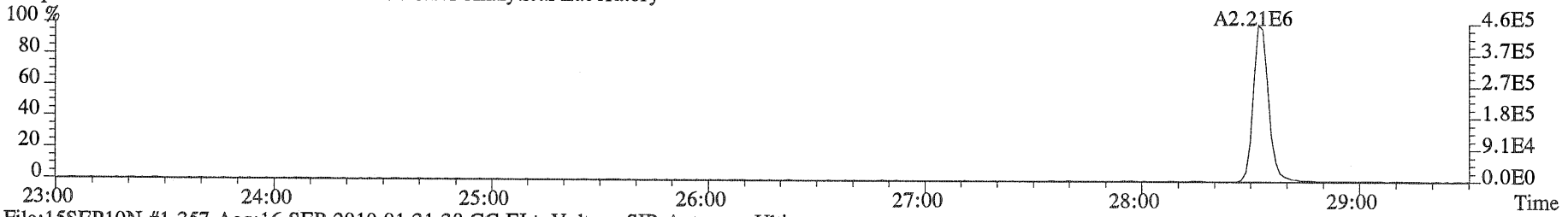
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



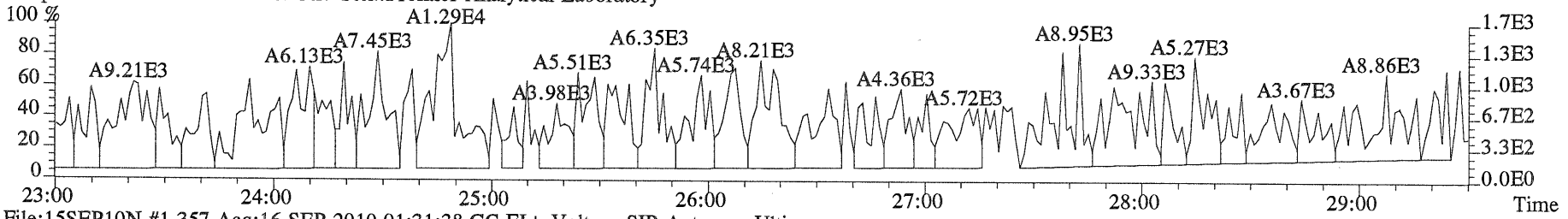
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



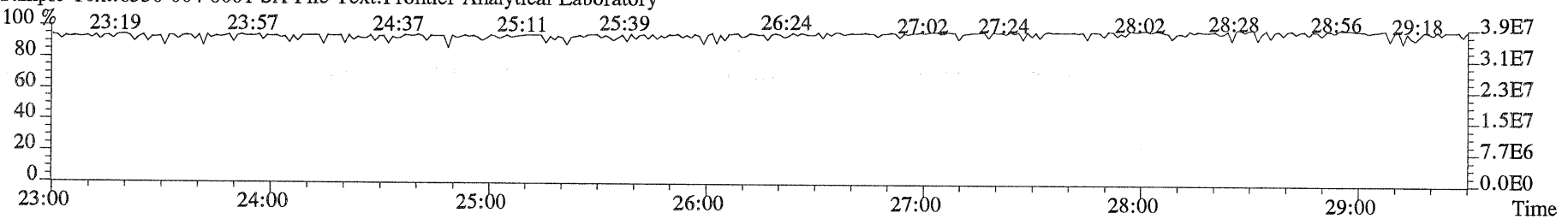
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



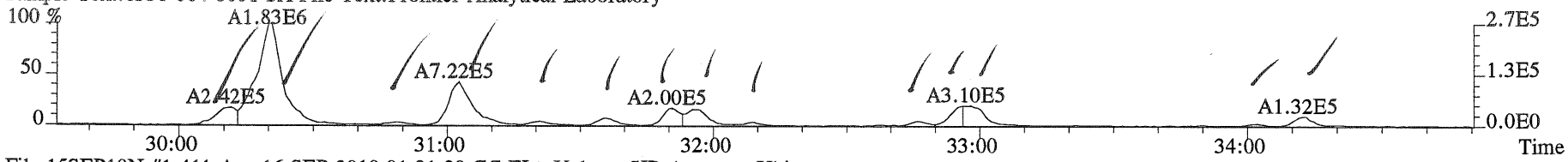
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



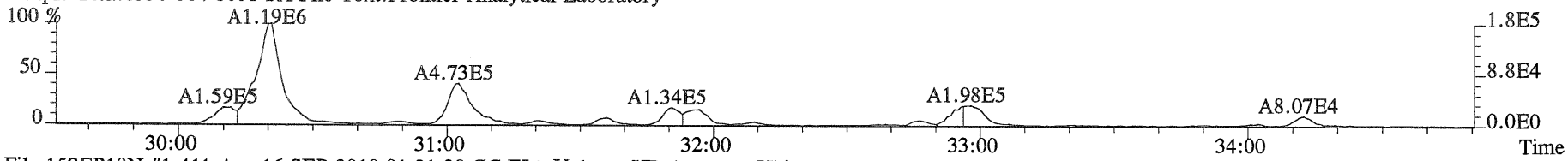
File:15SEP10N #1-357 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:7 Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



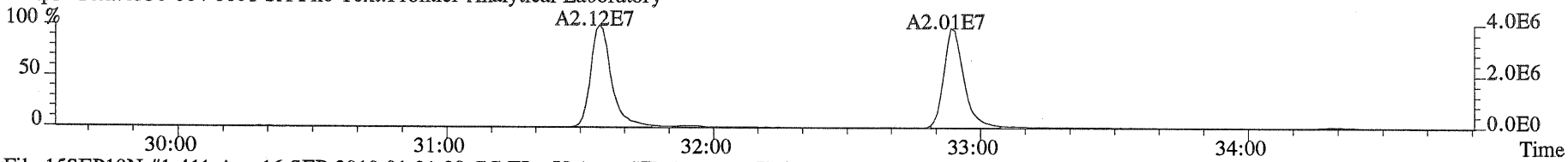
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



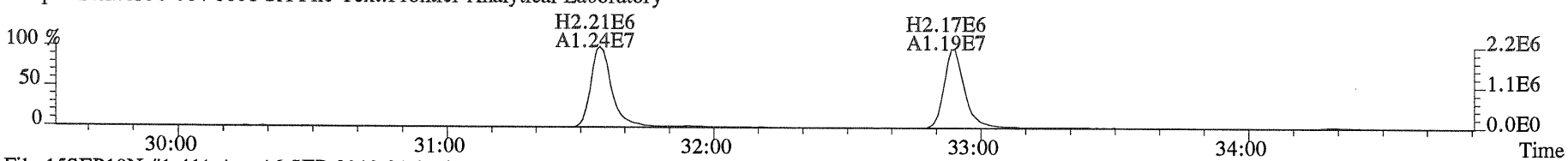
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



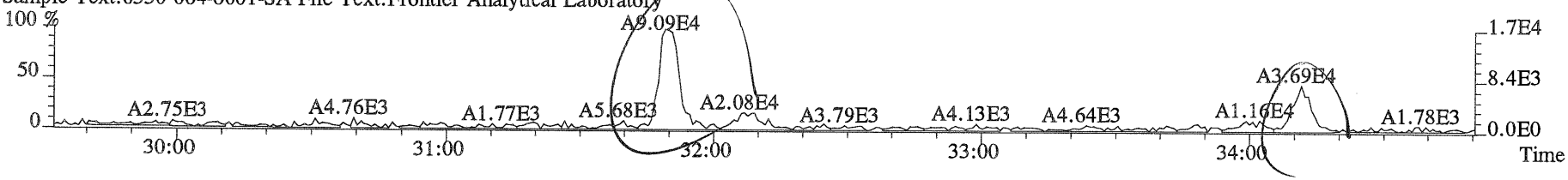
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



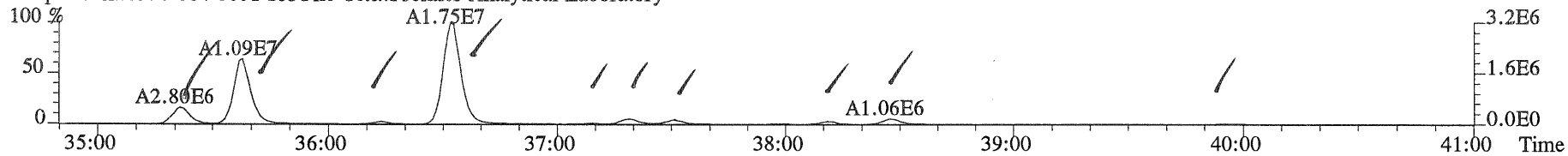
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



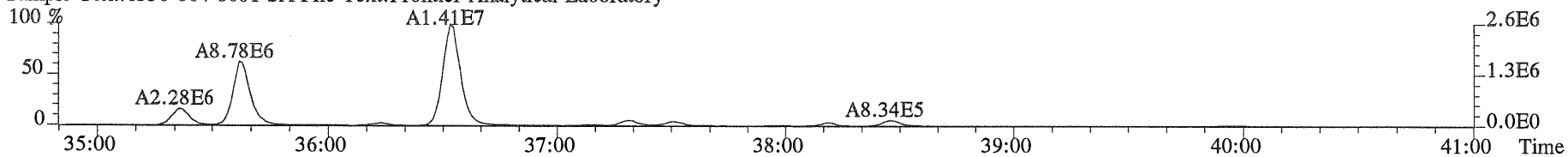
File:15SEP10N #1-411 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



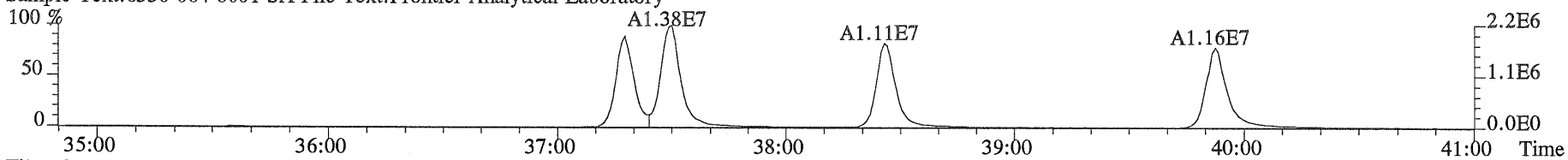
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



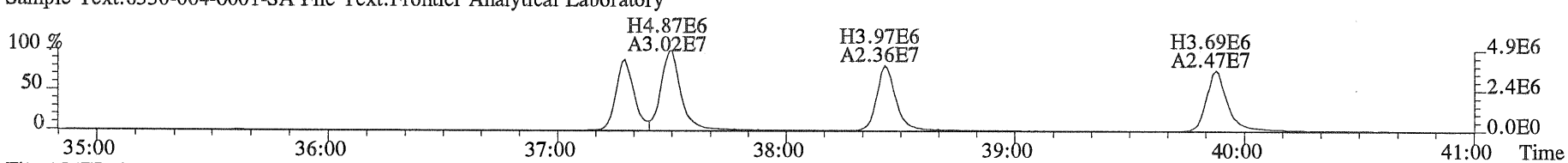
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



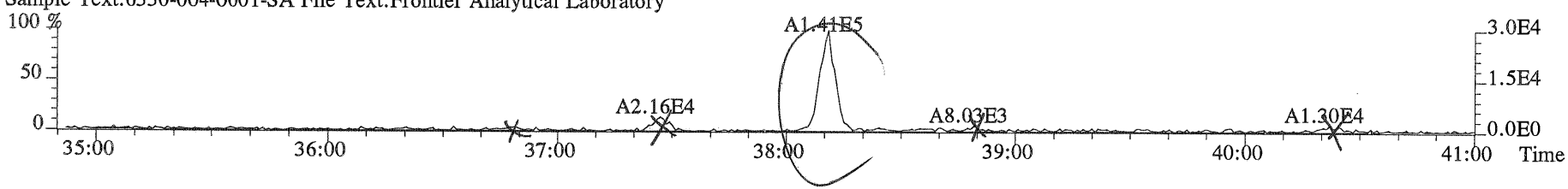
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



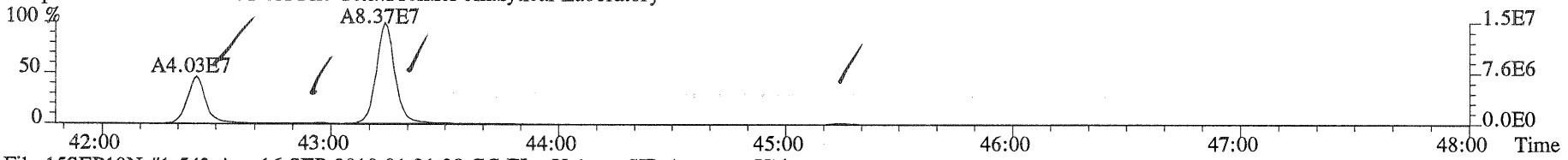
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



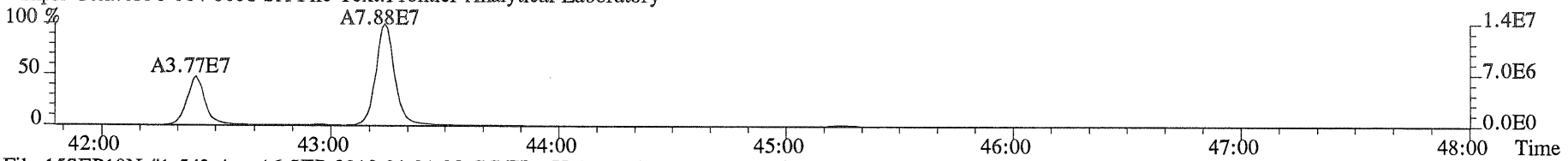
File:15SEP10N #1-476 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



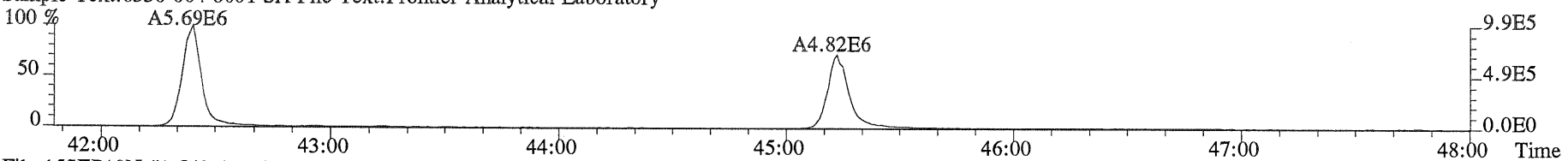
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



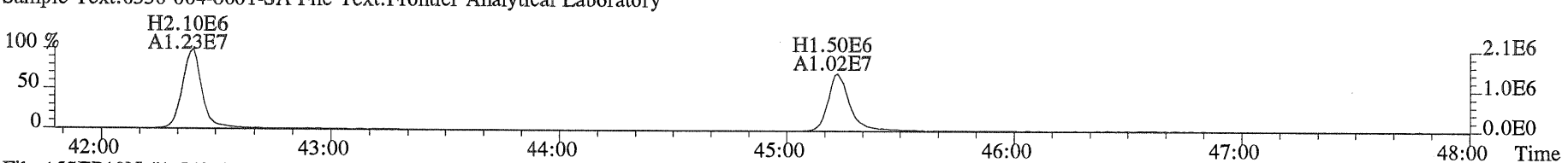
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



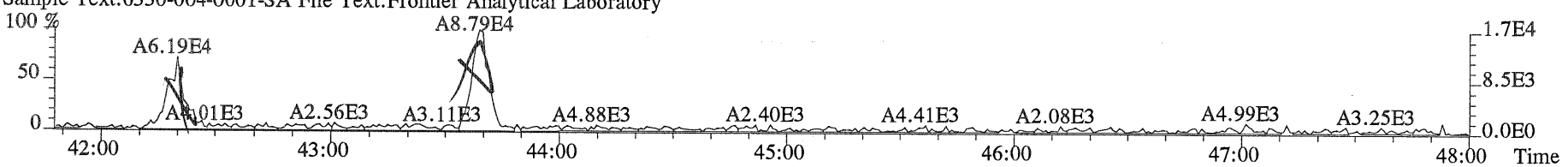
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



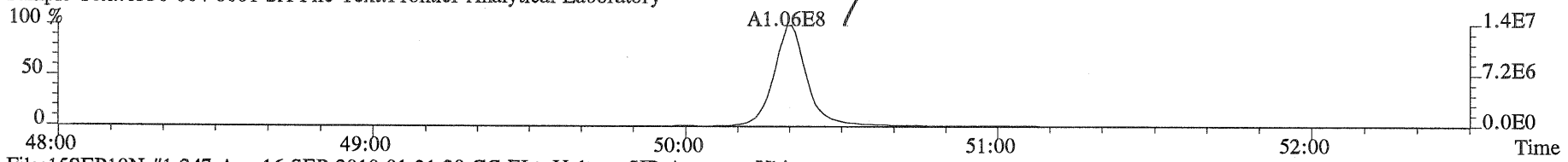
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



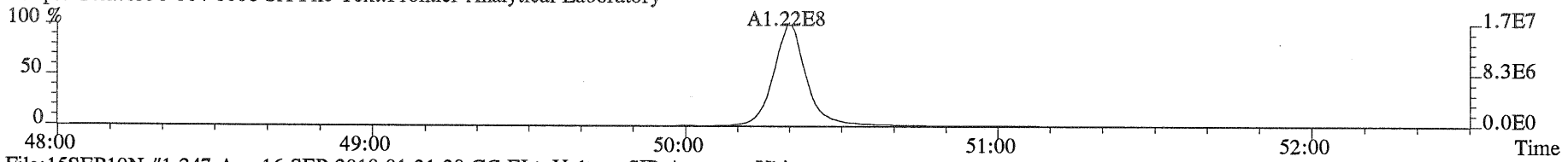
File:15SEP10N #1-542 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



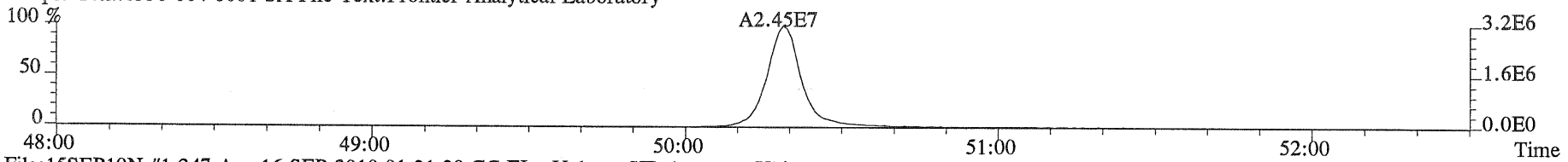
File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



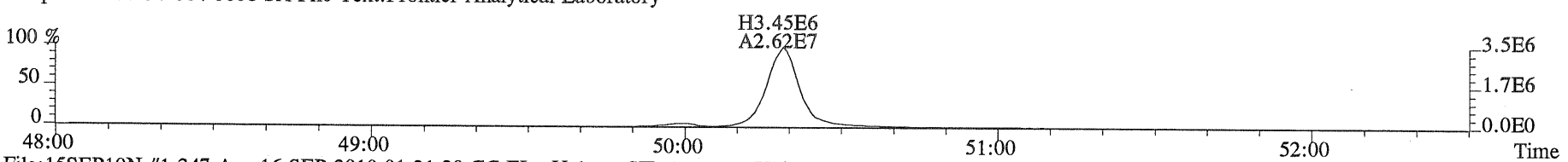
File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



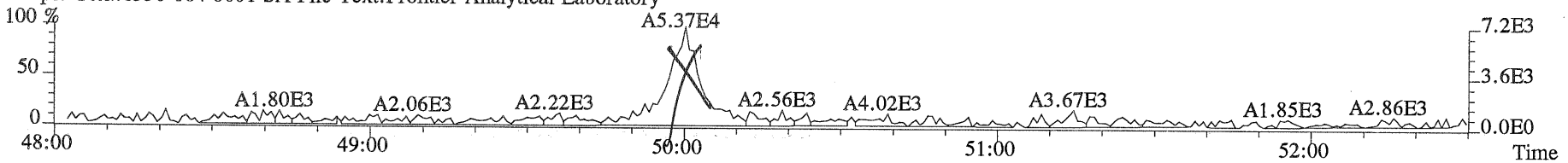
File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 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:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-347 Acq:16-SEP-2010 01:31:38 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:PCDD
Sample Text:6330-004-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 6330-005-0001-SA Filename: 15SEP10N Sam:8 Acquired: 16-SEP-10 02:26:57 ICal: PCDDFAL3-8-23-10
Client ID: PSB19-1-2-082510 ConCal: ST091510N1 EndCal: ST091510N2
Results: 6330 GC Column: DB5 Amount: 5.020 NATO 1989 Tox: 18.0
WHO 1998 Tox: 15.5 WHO 2005 Tox: 16.1

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.27e+04	0.81 y	27:31	1.11	0.427	J	2.50	-	-	*
1,2,3,7,8-PeCDD	1.43e+05	1.33 y	33:20	1.10	2.62	J	2.50	-	-	*
1,2,3,4,7,8-HxCDD	2.81e+05	1.37 y	38:43	1.37	4.72	J	2.50	-	-	*
1,2,3,6,7,8-HxCDD	8.90e+05	1.42 y	38:52	1.37	17.3		2.50	-	-	*
1,2,3,7,8,9-HxCDD	6.95e+05	1.40 y	39:19	1.36	12.6		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	2.41e+07	0.91 y	44:19	1.45	469		2.50	-	-	*
OCDD	1.39e+08	0.97 y	49:56	1.43	3960		2.50	-	-	*
2,3,7,8-TCDF	5.21e+04	0.73 y	26:45	1.50	0.469	J	2.50	-	-	*
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.94	*		2.50	1510	1140	0.502
2,3,4,7,8-PeCDF	8.33e+04	1.44 y	32:56	0.94	1.27	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	2.72e+05	1.29 y	37:18	0.93	4.01	J	2.50	-	-	*
1,2,3,6,7,8-HxCDF	3.30e+05	1.26 y	37:31	0.82	4.28	J	2.50	-	-	*
2,3,4,6,7,8-HxCDF	3.99e+05	1.21 y	38:27	0.92	6.06		2.50	-	-	*
1,2,3,7,8,9-HxCDF	4.27e+04	1.17 y	39:56	1.00	0.557	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	8.34e+06	1.06 y	42:25	1.39	161		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	2.10e+05	1.12 y	45:15	1.36	4.90	J	2.50	-	-	*
OCDF	1.24e+07	0.87 y	50:17	0.79	345		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	1.90e+07	0.85 y	27:29	1.02	317					79.4
13C-1,2,3,7,8-PeCDD	1.97e+07	1.72 y	33:19	0.84	399					100
13C-1,2,3,4,7,8-HxCDD	1.73e+07	1.28 y	38:41	1.07	338					84.9
13C-1,2,3,6,7,8-HxCDD	1.49e+07	1.28 y	38:51	1.01	309					77.5
13C-1,2,3,4,6,7,8-HpCDD	1.41e+07	0.95 y	44:18	0.86	346					86.7
13C-OCDD	1.94e+07	0.98 y	49:54	0.55	746					93.7
13C-2,3,7,8-TCDF	2.95e+07	0.82 y	26:44	0.99	317					79.6
13C-1,2,3,7,8-PeCDF	2.94e+07	1.70 y	31:34	0.84	375					94.2
13C-2,3,4,7,8-PeCDF	2.79e+07	1.67 y	32:54	0.81	367					92.2
13C-1,2,3,4,7,8-HxCDF	2.91e+07	0.46 y	37:18	1.85	330					82.9
13C-1,2,3,6,7,8-HxCDF	3.74e+07	0.48 y	37:29	2.54	310					77.7
13C-2,3,4,6,7,8-HxCDF	2.86e+07	0.48 y	38:26	2.01	298					74.8
13C-1,2,3,7,8,9-HxCDF	3.06e+07	0.46 y	39:53	2.03	317					79.5
13C-1,2,3,4,6,7,8-HpCDF	1.48e+07	0.46 y	42:24	1.11	280					70.4
13C-1,2,3,4,7,8,9-HpCDF	1.26e+07	0.46 y	45:13	0.80	329					82.6
13C-OCDF	3.66e+07	0.97 y	50:16	1.08	710					89.0
37Cl-2,3,7,8-TCDD	5.47e+06		27:31	0.69	136					85.3
13C-1,2,3,4-TCDD	2.34e+07	0.83 y	26:54	-	10.4					
13C-1,2,3,4-TCDF	3.73e+07	0.85 y	25:38	-	10.3					
13C-1,2,3,7,8,9-HxCDD	1.90e+07	1.26 y	39:18	-	13.7					

							Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	3.87e+05		24:30	1.11	7.29		2.50	-	-	*		11
Total Penta-Dioxins	1.22e+06		30:22	1.10	22.5		2.50	-	-	*		9
Total Hexa-Dioxins	7.93e+06		36:15	1.37	144		2.50	-	-	*		8
Total Hepta-Dioxins	4.87e+07		42:56	1.45	949		2.50	-	-	*		2
Total Tetra-Furans	2.05e+06		23:07	1.50	18.4	D,M	2.50	-	-	*		19
1st Fn. Tot Penta-Furans	1.79e+06		28:33	0.94	26.4	D,M	2.50	-	-	*	PeCDF	1
Total Penta-Furans	1.69e+06		30:21	0.94	25.0	D,M	2.50	-	-	*	51.4	6
Total Hexa-Furans	9.18e+06		35:21	0.91	128	D,M	2.50	-	-	*		10
Total Hepta-Furans	1.88e+07		42:25	1.38	382		2.50	-	-	*		4

Analyst: _____ Date: 9/16/10

Totals class: Total Tetra-Dioxins Entry #: 38

Run: 15 File: 15SEP10N S: 8 I: 1 F: 1
Acquired: 16-SEP-10 02:26:57

Total Concentration: 7.29 Unnamed Concentration: 6.860

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
24:30	2.14e+04	2.47e+04	0.86	y	4.61e+04	0.868	
24:46	1.27e+04	1.54e+04	0.82	y	2.81e+04	0.529	
25:05	1.31e+04	1.75e+04	0.75	y	3.05e+04	0.575	
25:42	2.94e+04	3.43e+04	0.86	y	6.37e+04	1.20	
25:53	1.98e+04	2.27e+04	0.87	y	4.25e+04	0.801	
26:04	2.14e+04	2.73e+04	0.79	y	4.87e+04	0.917	
26:12	6.98e+03	1.02e+04	0.69	y	1.71e+04	0.323	
26:34	1.13e+04	1.48e+04	0.76	y	2.61e+04	0.492	
26:52	1.64e+04	2.22e+04	0.74	y	3.87e+04	0.728	
27:31	1.01e+04	1.26e+04	0.81	y	2.27e+04	0.427	2,3,7,8-TCDD
27:49	9.20e+03	1.35e+04	0.68	y	2.27e+04	0.428	

Totals class: Total Penta-Dioxins Entry #: 39

Run: 15 File: 15SEP10N S: 8 I: 1 F: 2
Acquired: 16-SEP-10 02:26:57

Total Concentration: 22.5 Unnamed Concentration: 19.847

RT	m1 Resp	m2 Resp	RA		Resp	Concentration	Name
30:22	1.60e+05	1.12e+05	1.43	y	2.72e+05	4.99	
30:57	8.05e+04	5.59e+04	1.44	y	1.36e+05	2.50	
31:34	5.90e+04	3.90e+04	1.52	y	9.80e+04	1.80	
31:48	1.06e+05	7.43e+04	1.43	y	1.80e+05	3.31	
31:57	6.51e+04	4.58e+04	1.42	y	1.11e+05	2.03	
32:15	9.74e+04	6.45e+04	1.51	y	1.62e+05	2.97	
33:20	8.16e+04	6.13e+04	1.33	y	1.43e+05	2.62	1,2,3,7,8-PeCDD
33:24	3.60e+04	2.73e+04	1.32	y	6.33e+04	1.16	
33:54	3.42e+04	2.45e+04	1.39	y	5.88e+04	1.08	

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 15 File: 15SEP10N S: 8 I: 1 F: 3
Acquired: 16-SEP-10 02:26:57

Total Concentration: 144 Unnamed Concentration: 109.551

RT	m1 Resp	m2 Resp	RA		Resp	Concentration	Name
36:15	1.24e+06	8.81e+05	1.41	y	2.13e+06	38.4	
37:11	2.01e+05	1.46e+05	1.38	y	3.47e+05	6.27	
37:37	1.90e+06	1.34e+06	1.41	y	3.24e+06	58.5	
37:46	1.31e+05	9.29e+04	1.41	y	2.24e+05	4.05	
38:43	1.63e+05	1.19e+05	1.37	y	2.81e+05	4.72	1,2,3,4,7,8-HxCDD
38:52	5.23e+05	3.67e+05	1.42	y	8.90e+05	17.3	1,2,3,6,7,8-HxCDD
39:11	6.96e+04	5.71e+04	1.22	y	1.27e+05	2.29	
39:19	4.05e+05	2.90e+05	1.40	y	6.95e+05	12.6	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 15 File: 15SEP10N S: 8 I: 1 F: 4
Acquired: 16-SEP-10 02:26:57

Total Concentration: 949 Unnamed Concentration: 480.014

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:56	1.17e+07	1.29e+07	0.91 y	2.47e+07	480	
44:19	1.15e+07	1.26e+07	0.91 y	2.41e+07	469	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans Entry #: 42

Run: 15 File: 15SEP10N S: 8 I: 1 F: 1
Acquired: 16-SEP-10 02:26:57

Total Concentration: 18.4 Unnamed Concentration: 17.947

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
23:07	1.70e+04	1.98e+04	0.86	y	3.68e+04	0.331	
23:30	3.84e+04	5.23e+04	0.73	y	9.06e+04	0.816	
23:53	2.37e+05	3.54e+05	0.67	y	5.90e+05	5.31	
24:18	4.31e+04	6.53e+04	0.66	y	1.08e+05	0.976	
24:32	5.21e+04	7.34e+04	0.71	y	1.26e+05	1.13	
24:50	9.36e+04	1.42e+05	0.66	y	2.35e+05	2.12	
25:03	1.05e+04	1.31e+04	0.80	y	2.36e+04	0.212	
25:25	1.89e+04	2.55e+04	0.74	y	4.44e+04	0.399	
25:32	8.81e+04	1.30e+05	0.68	y	2.18e+05	1.96	
25:40	1.87e+04	2.68e+04	0.70	y	4.55e+04	0.409	
25:53	1.18e+04	1.67e+04	0.71	y	2.85e+04	0.257	
26:00	2.00e+04	2.80e+04	0.71	y	4.79e+04	0.431	
26:14	1.38e+04	1.59e+04	0.87	y	2.97e+04	0.267	
26:34	2.03e+04	2.55e+04	0.80	y	4.58e+04	0.412	
26:45	2.19e+04	3.02e+04	0.73	y	5.21e+04	0.469	2,3,7,8-TCDF
27:04	2.32e+04	3.38e+04	0.69	y	5.71e+04	0.513	
27:57	4.38e+04	6.69e+04	0.66	y	1.11e+05	0.996	
28:10	3.79e+04	5.10e+04	0.74	y	8.89e+04	0.800	
28:33	3.13e+04	3.62e+04	0.87	y	6.75e+04	0.607	

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

Run: 15 File: 15SEP10N S: 8 I: 1 F: 1
Acquired: 16-SEP-10 02:26:57

Total Concentration: 26.4 Unnamed Concentration: 26.429

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:33	1.10e+06	6.88e+05	1.60 y	1.79e+06	26.4	

Totals class: Total Penta-Furans Entry #: 44

Run: 15 File: 15SEP10N S: 8 I: 1 F: 2
Acquired: 16-SEP-10 02:26:57

Total Concentration: 25.0 Unnamed Concentration: 23.743

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:21	5.67e+05	3.82e+05	1.48	y	9.49e+05	14.1	
31:03	2.10e+05	1.41e+05	1.49	y	3.51e+05	5.20	
31:52	3.88e+04	2.29e+04	1.70	y	6.16e+04	0.912	
31:57	5.52e+04	3.96e+04	1.39	y	9.48e+04	1.40	
32:56	4.92e+04	3.41e+04	1.44	y	8.33e+04	1.27	2,3,4,7,8-PeCDF
32:58	8.68e+04	6.05e+04	1.43	y	1.47e+05	2.18	

Totals class: Total Hexa-Furans Entry #: 45

Run: 15 File: 15SEP10N S: 8 I: 1 F: 3
Acquired: 16-SEP-10 02:26:57

Total Concentration: 128 Unnamed Concentration: 113.279

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
35:21	6.11e+05	5.05e+05	1.21	y	1.12e+06	15.5	
35:38	2.34e+06	1.89e+06	1.24	y	4.24e+06	59.0	
36:14	5.89e+04	5.12e+04	1.15	y	1.10e+05	1.53	
36:33	1.38e+06	1.11e+06	1.24	y	2.48e+06	34.6	
37:09	4.00e+04	3.56e+04	1.12	y	7.56e+04	1.05	
37:18	1.53e+05	1.19e+05	1.29	y	2.72e+05	4.01	1,2,3,4,7,8-HxCDF
37:31	1.84e+05	1.46e+05	1.26	y	3.30e+05	4.28	1,2,3,6,7,8-HxCDF
38:12	6.66e+04	4.97e+04	1.34	y	1.16e+05	1.62	
38:27	2.19e+05	1.80e+05	1.21	y	3.99e+05	6.06	2,3,4,6,7,8-HxCDF
39:56	2.30e+04	1.97e+04	1.17	y	4.27e+04	0.557	1,2,3,7,8,9-HxCDF

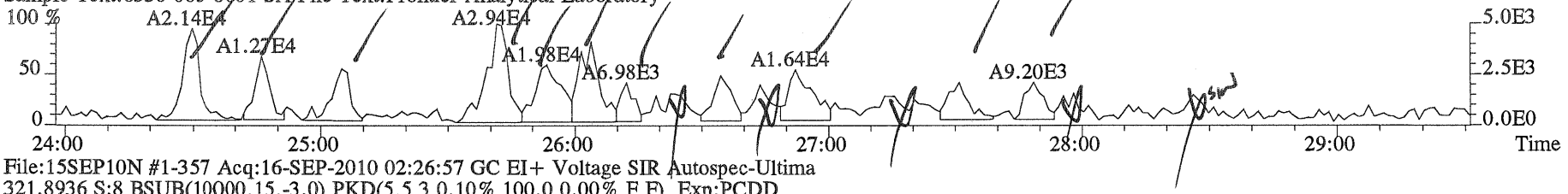
Totals class: Total Hepta-Furans Entry #: 46

Run: 15 File: 15SEP10N S: 8 I: 1 F: 4
Acquired: 16-SEP-10 02:26:57

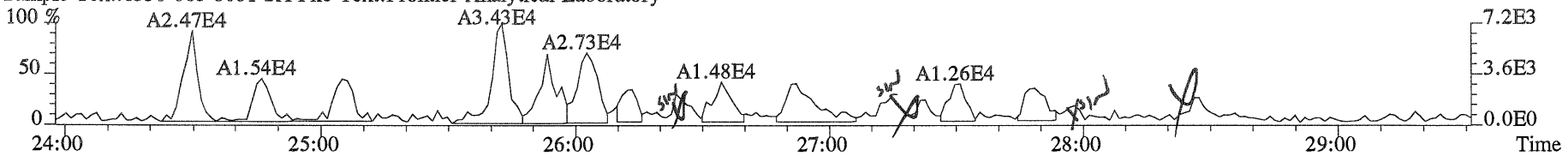
Total Concentration: 382 Unnamed Concentration: 216.269

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:25	4.29e+06	4.05e+06	1.06 y	8.34e+06	161	1,2,3,4,6,7,8-HpCDF
42:57	8.92e+04	9.96e+04	0.90 y	1.89e+05	3.99	
43:14	5.19e+06	4.86e+06	1.07 y	1.00e+07	212	
45:15	1.11e+05	9.92e+04	1.12 y	2.10e+05	4.90	1,2,3,4,7,8,9-HpCDF

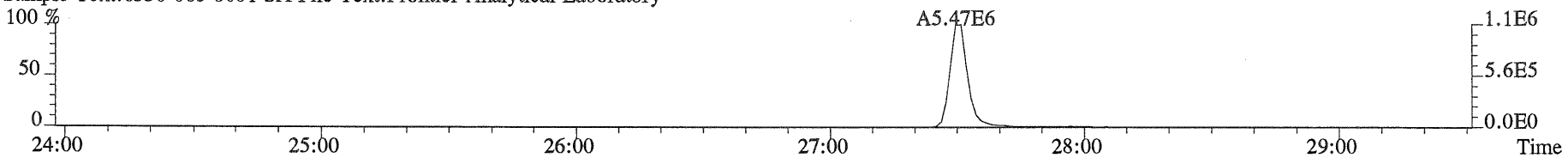
File:15SEP10N #1-357 Acq:16-SEP-2010 02:26:57 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-005-0001-SA File Text:Frontier Analytical Laboratory



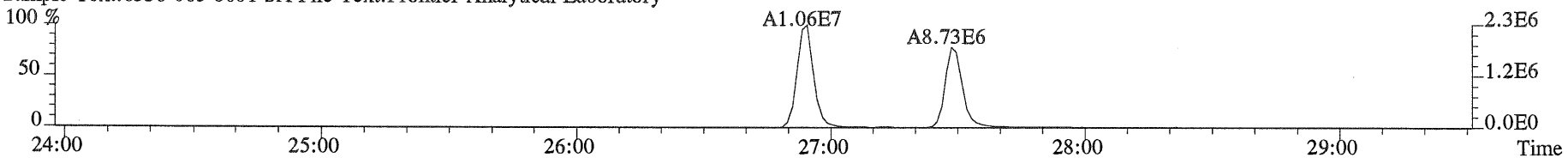
File:15SEP10N #1-357 Acq:16-SEP-2010 02:26:57 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6330-005-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-357 Acq:16-SEP-2010 02:26:57 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:PCDD
Sample Text:6330-005-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-357 Acq:16-SEP-2010 02:26:57 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:PCDD
Sample Text:6330-005-0001-SA File Text:Frontier Analytical Laboratory



File:15SEP10N #1-357 Acq:16-SEP-2010 02:26:57 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:PCDD
Sample Text:6330-005-0001-SA File Text:Frontier Analytical Laboratory