

**TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 01/12/10

ARI Job: QF10  
Project: POS-Lora Lake Apts Interim Action  
POS-LLA

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-690-011210MB1	Method Blank	10.0 g	1.00 mL	-	01/12/10
10-690-011210LCS1	Lab Control	10.0 g	1.00 mL	-	01/12/10
10-690-QF10A	CB31A011110SED	7.98 g	1.00 mL	D	01/12/10
10-690-QF10AMS	CB31A011110SED	8.00 g	1.00 mL	D	01/12/10
10-690-QF10AMSD	CB31A011110SED	7.94 g	1.00 mL	D	01/12/10
10-691-QF10B	CB99011110SED	8.35 g	1.00 mL	D	01/12/10

Basis: D=Dry Weight W=As Received  
**Diesel Extraction Report**

TPHD Analysis  
Standard Raw Data

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.

6a  
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.  
Instrument: FID9.I  
Calibration Date: 22-DEC-2009

Client: FLOYD-SNIDER  
Project: POS-LLA  
SDG No.: QF10

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	15344	16898	16682	16808	16407	19171	16885	7.4
AK Diesel	17414	18959	18637	18698	18235	21362	18884	7.0
OR Diesel	17500	19050	18733	18818	18362	21538	19000	7.1
o-Terph	18979	20708	20582	20679	20468	25047	21077	9.7

<- Indicates %RSD outside limits  
Surrogate areas are not included in Diesel RF calculation.

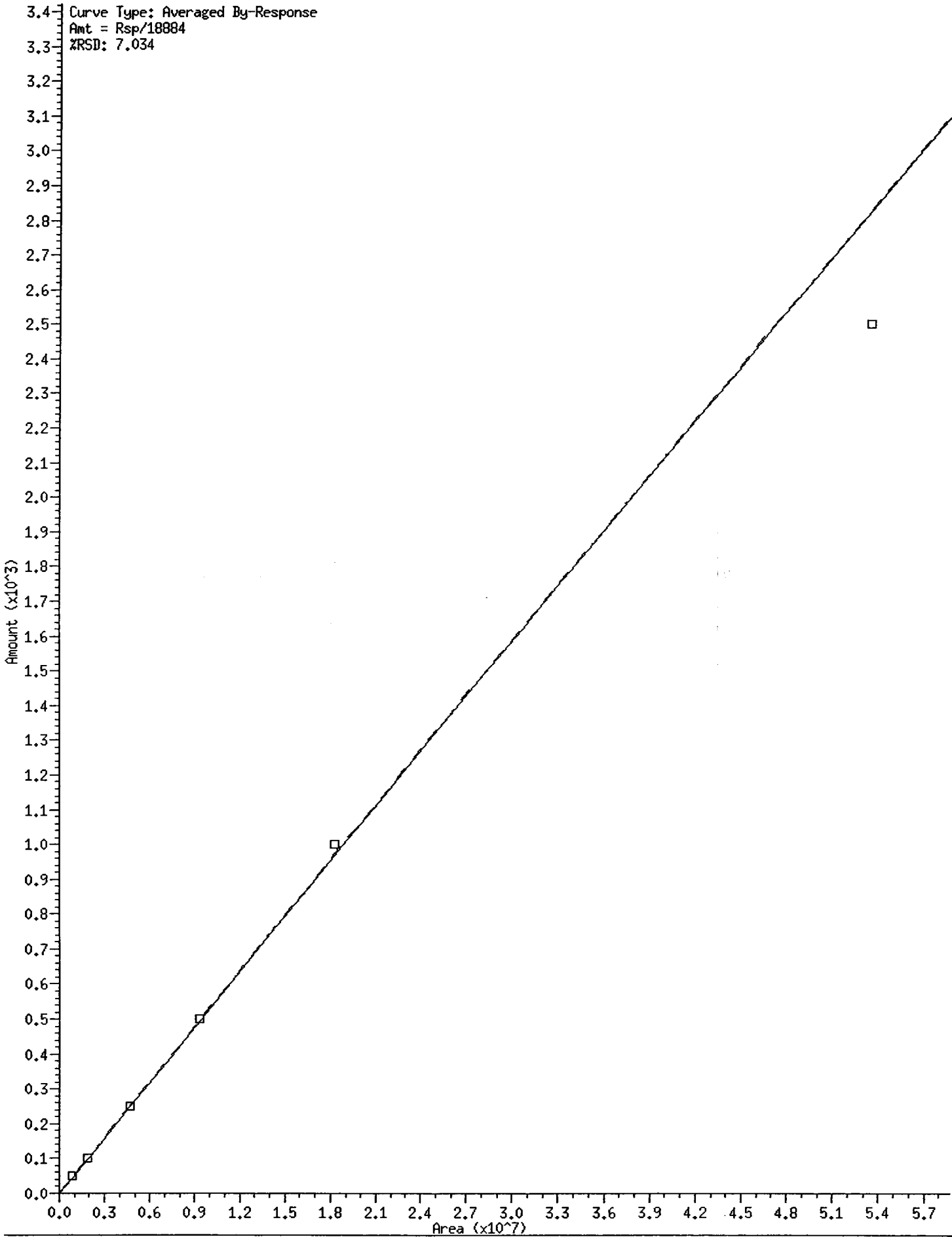
Quant Ranges :   WA Diesel   C12-C24 (3.204-6.097)  
                  AK Diesel   C10-C25 (2.611-6.284)  
                  OR Diesel   C10-C28 (2.611-6.773)

Calibration Files      Analysis Time

---

1222A022.D	22-DEC-2009 19:44
1222A023.D	22-DEC-2009 20:03
1222A024.D	22-DEC-2009 20:23
1222A025.D	22-DEC-2009 20:42
1222A026.D	22-DEC-2009 21:01
1222A027.D	22-DEC-2009 21:21

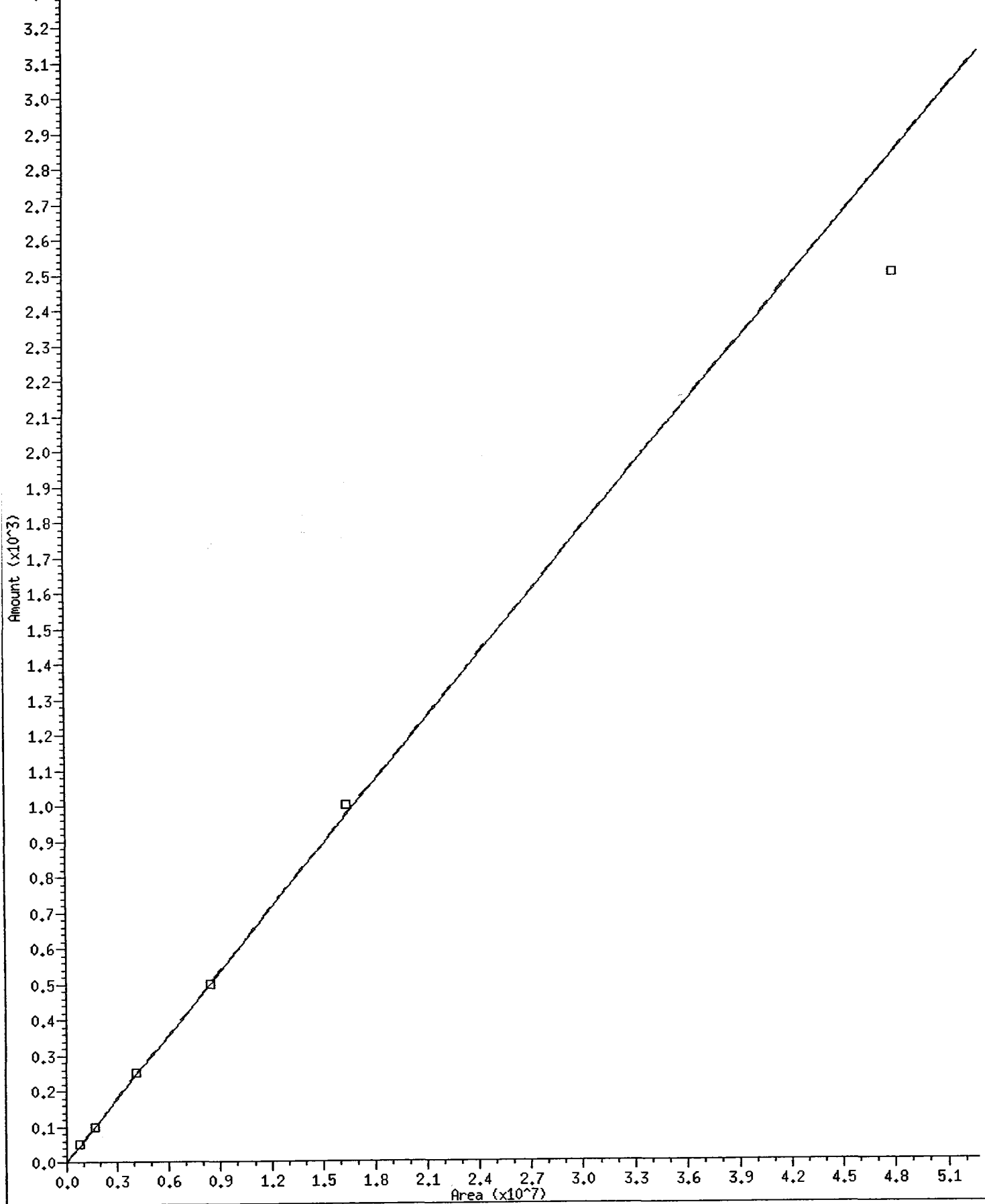
Curve Type: Averaged By-Response  
Amt = Rsp/18884  
%RSD: 7.034





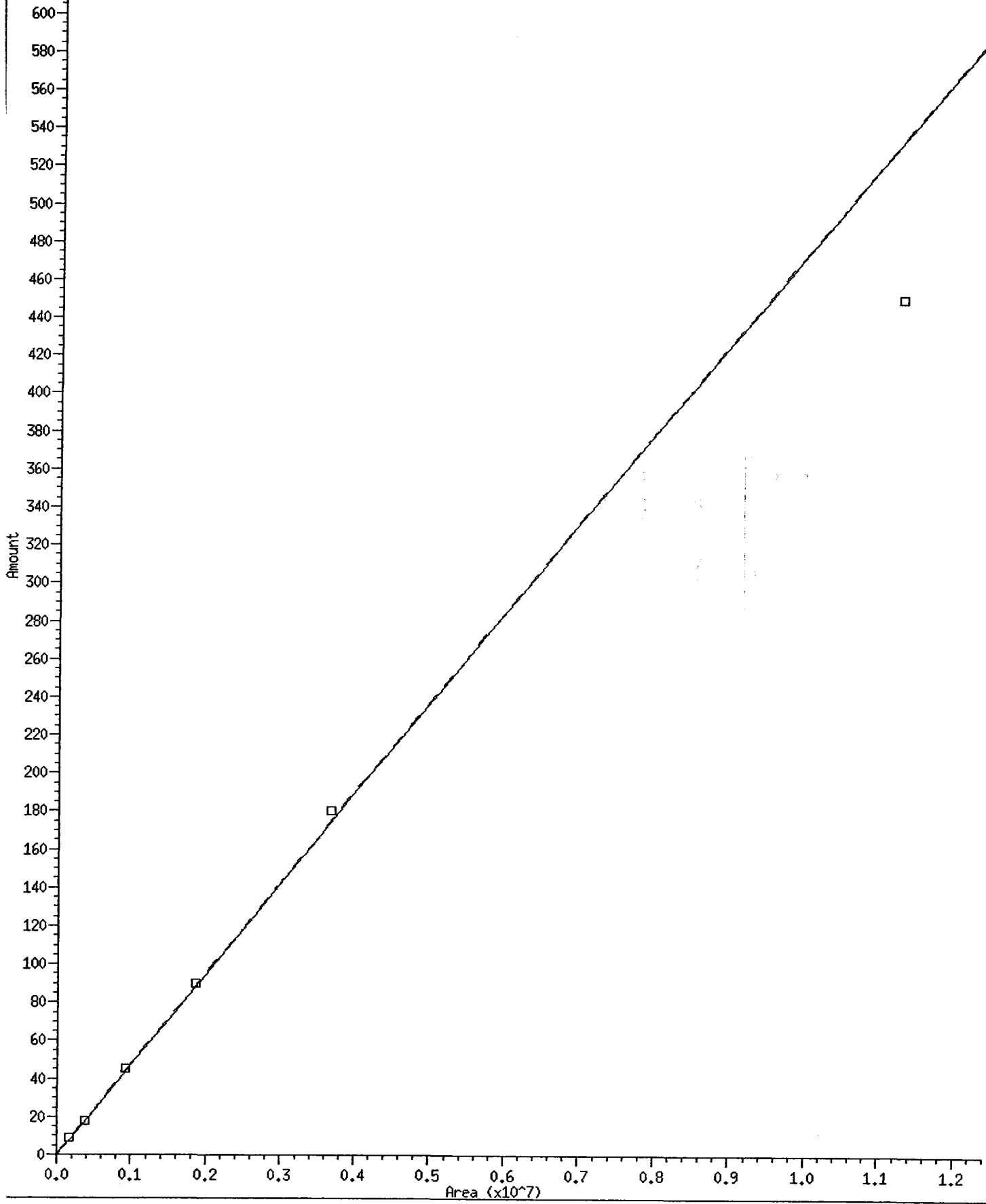
31 NW Diesel

Curve Type: Averaged By-Response  
Amt = Rsp/16885.19  
%RSD: 7.433



\* 8 o-terph

Curve Type: Averaged By-Response  
Amt = Rsp/21076.96  
%RSD: 9.741



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A020.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: RT  
Client ID: RT  
Injection: 22-DEC-2009 19:05  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.813	0.000	2350095	865819	GAS (Tol-C12)	666790116	51516
C8	1.995	0.000	453784	220065	DIESEL (C12-C24)	2361475	140
C10	2.611	0.000	746416	365853	M.OIL (C24-C38)	2700186	243
C12	3.204	0.000	669749	370843	AK-102 (C10-C25)	3151998	167
C14	3.731	0.000	678308	379562	AK-103 (C25-C36)	2464236	261
C16	4.204	0.000	752469	382759	OR.DIES (C10-C28)	4522337	302
C18	4.670	0.000	647117	387716	OR.MOIL (C28-C40)	1506129	217
C20	5.211	0.000	624183	381590			
C22	5.689	0.000	706175	396516			
C24	6.097	0.000	712030	393850			
C25	6.284	0.000	916350	552695			
C26	6.456	0.000	734807	395553			
C28	6.773	0.000	711098	404408			
C32	7.363	0.000	558809	386089			
C34	7.702	0.000	421880	344107	CREOSOT (C12-C22)	1962326	470
Filter Peak	9.142	0.000	1216	628			
C36	8.125	0.000	243932	263514			
C38	8.665	0.000	137790	196625			
C40	9.385	0.000	69588	134939			
o-terph	4.901	0.000	1660014	1265679	JET-A (C10-C18)	1960650	115
Triacon Surr	7.074	0.000	1668120	1391127			

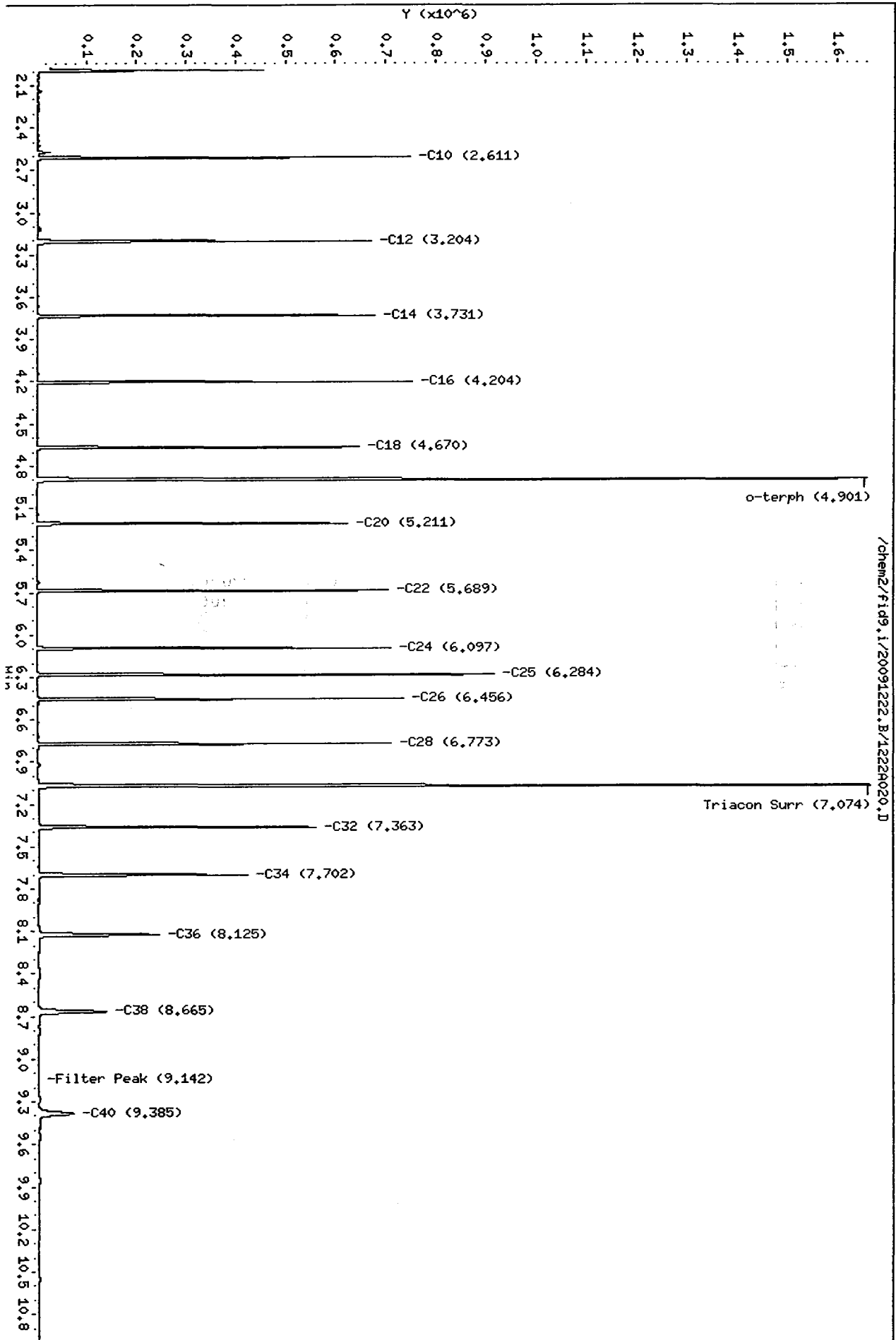
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1265679	60.1	133.4
Triacotane	1391127	59.8	133.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A020.D  
Date: 22-DEC-2009 19:05  
Client ID: RT  
Sample Info: RT  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A021.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i

ARI ID: IB  
Client ID: IB  
Injection: 22-DEC-2009 19:24

Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009

Dilution Factor: 1

Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.817	0.004	2080	744	GAS (Tol-C12)	88352	7
C8	2.005	0.010	1206	454	DIESEL (C12-C24)	34507	2
C10	2.621	0.009	948	206	M.OIL (C24-C38)	148132	13
C12	3.193	-0.011	1817	1867	AK-102 (C10-C25)	75372	4
C14	3.723	-0.008	329	342	AK-103 (C25-C36)	114244	12
C16	4.198	-0.006	351	246	OR.DIES (C10-C28)	94067	6
C18	4.667	-0.003	1133	756	OR.MOIL (C28-C40)	173093	25
C20	5.211	-0.001	1346	836			
C22	5.687	-0.002	1518	951			
C24	6.093	-0.004	1695	1041			
C25	6.277	-0.007	2284	1502			
C26	6.449	-0.007	1849	1369			
C28	6.764	-0.009	3133	2901			
C32	7.352	-0.011	5916	5767			
C34	7.690	-0.013	2202	3875	CREOSOT (C12-C22)	28559	7
Filter Peak	9.148	0.005	1125	624			
C36	8.139	0.014	1088	539			
C38	8.677	0.012	1052	854			
C40	9.369	-0.016	1202	1315			
o-terph	4.904	0.002	2077450	1743583	JET-A (C10-C18)	61352	4
Triacon Surr	7.070	-0.005	1828117	1471907			

Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1743583	82.7	183.8
Triacotane	1471907	63.3	140.7

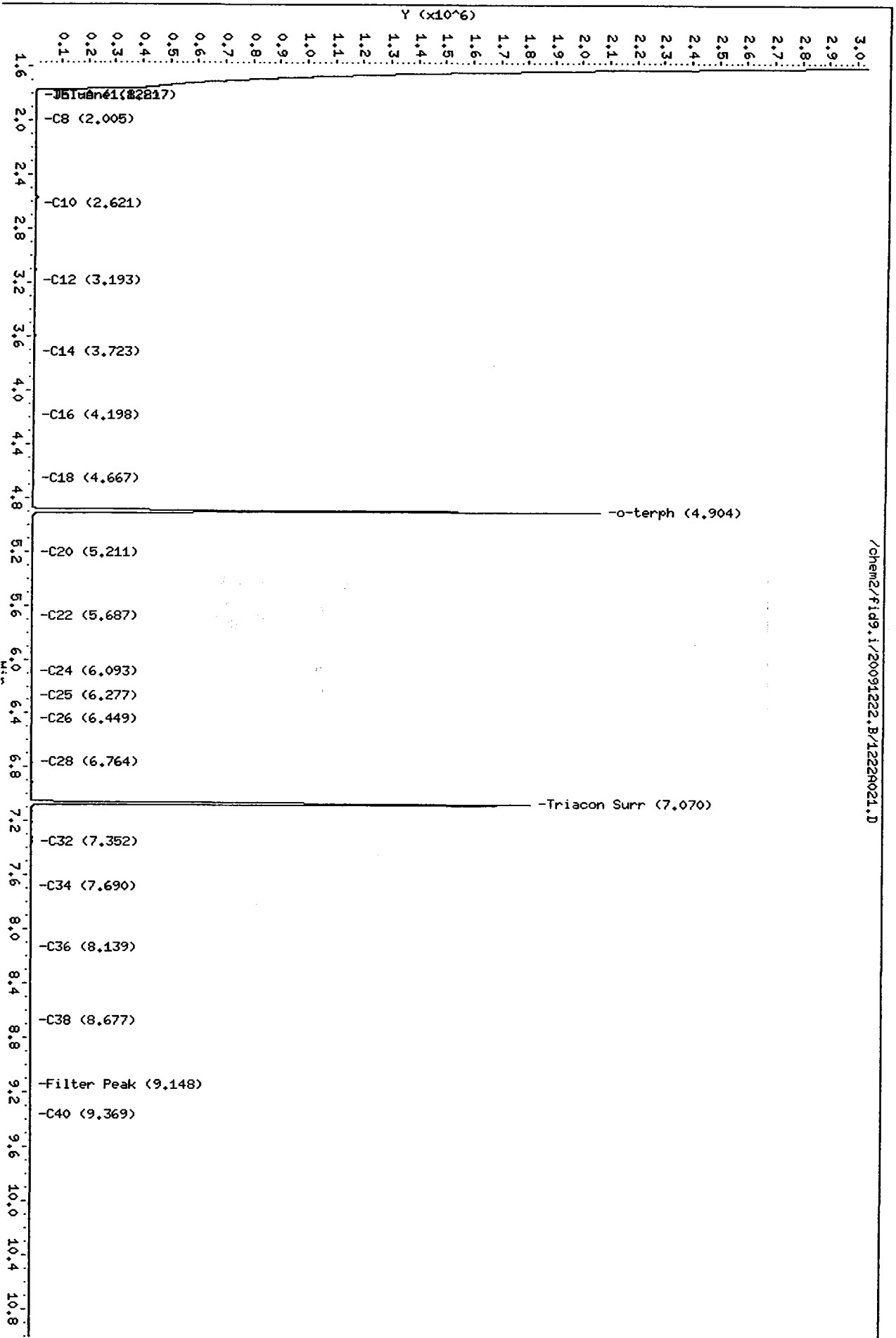
Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A021.D  
Date: 22-DEC-2009 19:24

Client ID: IB  
Sample Info: IB

Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



000000

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A022.D

ARI ID: DIESEL 50

Method: /chem2/fid9.i/20091222.B/ftphfid9a.m

Client ID: DIESEL 50

Instrument: fid9.i

Injection: 22-DEC-2009 19:44

Operator: MS

Report Date: 12/23/2009

Dilution Factor: 1

Macro: 22-DEC-2009

Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.818	0.005	1711	475	GAS (Tol-C12)	167179	13
C8	1.995	0.000	1301	1693	DIESEL (C12-C24)	767208	45
C10	2.630	0.018	2071	3337	M.OIL (C24-C38)	65088	6
C12	3.193	-0.012	8857	8133	AK-102 (C10-C25)	870678	46
C14	3.735	0.004	18047	11579	AK-103 (C25-C36)	43943	5
C16	4.206	0.003	37455	26289	OR.DIES (C10-C28)	875008	58
C18	4.669	0.000	26334	20061	OR.MOIL (C28-C40)	88531	13
C20	5.210	-0.001	16361	13729			
C22	5.688	-0.001	8592	6868			
C24	6.096	0.000	2732	1977			
C25	6.281	-0.003	1344	1171			
C26	6.453	-0.003	587	420			
C28	6.769	-0.004	258	221			
C32	7.353	-0.010	659	1105			
C34	7.706	0.004	701	452	CREOSOT (C12-C22)	742904	178
Filter Peak	9.146	0.003	691	518			
C36	8.129	0.004	631	212			
C38	8.670	0.005	691	432			
C40	9.386	0.001	741	467			
o-terph	4.896	-0.005	236693	170807	JET-A (C10-C18)	639217	38
Triacon Surr	7.061	-0.013	3039	2302			

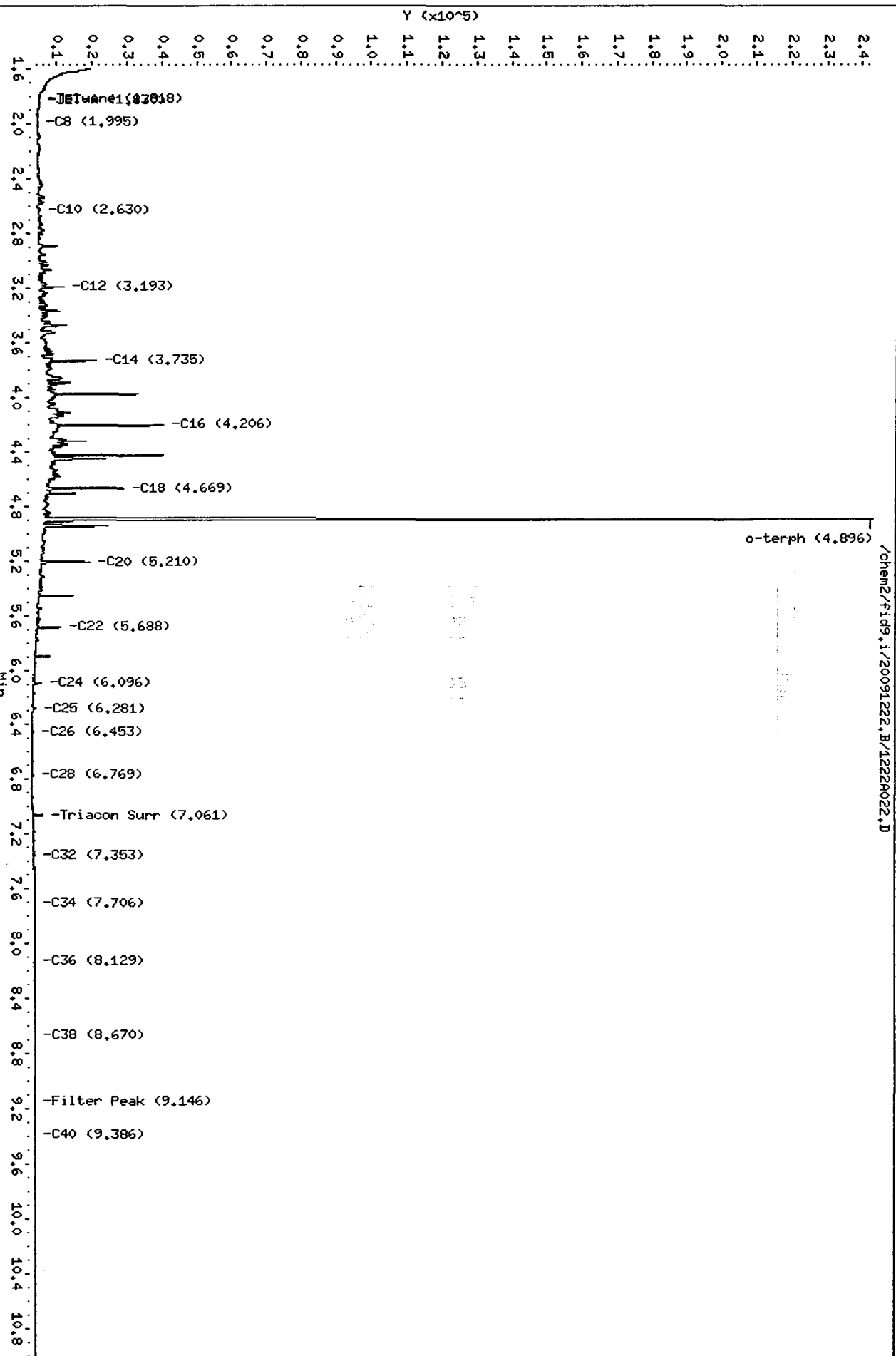
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	170807	8.1	18.0
Triacontane	2302	0.1	0.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A022.D  
Date : 22-DEC-2009 19:44  
Client ID: DIESEL 50  
Sample Info: DIESEL 50  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A023.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i

ARI ID: DIESEL 100  
Client ID: DIESEL 100  
Injection: 22-DEC-2009 20:03

Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009

Dilution Factor: 1

Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.807	-0.006	2030	2340	GAS (Tol-C12)	298714	23
C8	1.999	0.004	1705	1853	DIESEL (C12-C24)	1689799	100
C10	2.631	0.020	3952	6188	M.OIL (C24-C38)	64075	6
C12	3.194	-0.010	19230	16885	AK-102 (C10-C25)	1895907	100
C14	3.734	0.003	40131	25229	AK-103 (C25-C36)	42949	5
C16	4.205	0.002	81133	57598	OR.DIES (C10-C28)	1905017	127
C18	4.669	-0.001	60683	44127	OR.MOIL (C28-C40)	75321	11
C20	5.209	-0.002	36844	31207			
C22	5.686	-0.003	18803	15117			
C24	6.095	-0.002	6033	4425			
C25	6.281	-0.003	2604	2977			
C26	6.453	-0.003	1129	807			
C28	6.770	-0.003	192	139			
C32	7.352	-0.012	603	1174			
C34	7.705	0.003	558	219	CREOSOT (C12-C22)	1629196	391
Filter Peak	9.140	-0.002	589	610			
C36	8.126	0.001	559	285			
C38	8.664	-0.001	584	370			
C40	9.384	-0.001	614	399			
o-terph	4.897	-0.004	529328	372739	JET-A (C10-C18)	1369630	80
Triacon Surr	7.062	-0.012	1350	1114			

Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	372739	17.7	39.3
Triacotane	1114	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A023.D

Date: 22-DEC-2009 20:03

Client ID: DIESEL 100

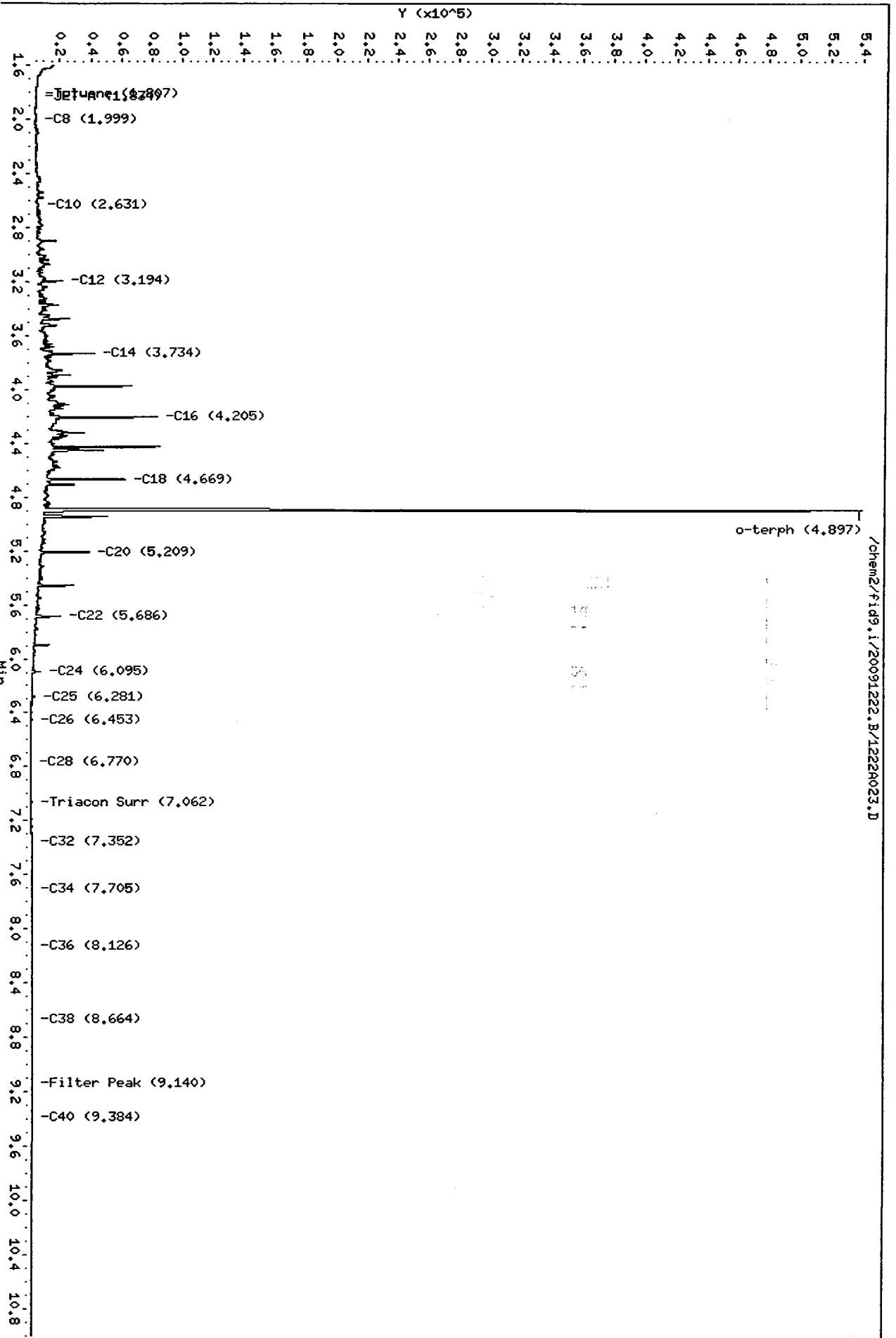
Sample Info: DIESEL 100

Column phase: RTX-1

Instrument: fid9.i

Operator: HS

Column diameter: 0.25



00:00:00 01:15

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A024.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 250  
Client ID: DIESEL 250  
Injection: 22-DEC-2009 20:23

Dilution Factor: 1

FID:9 RESULTS

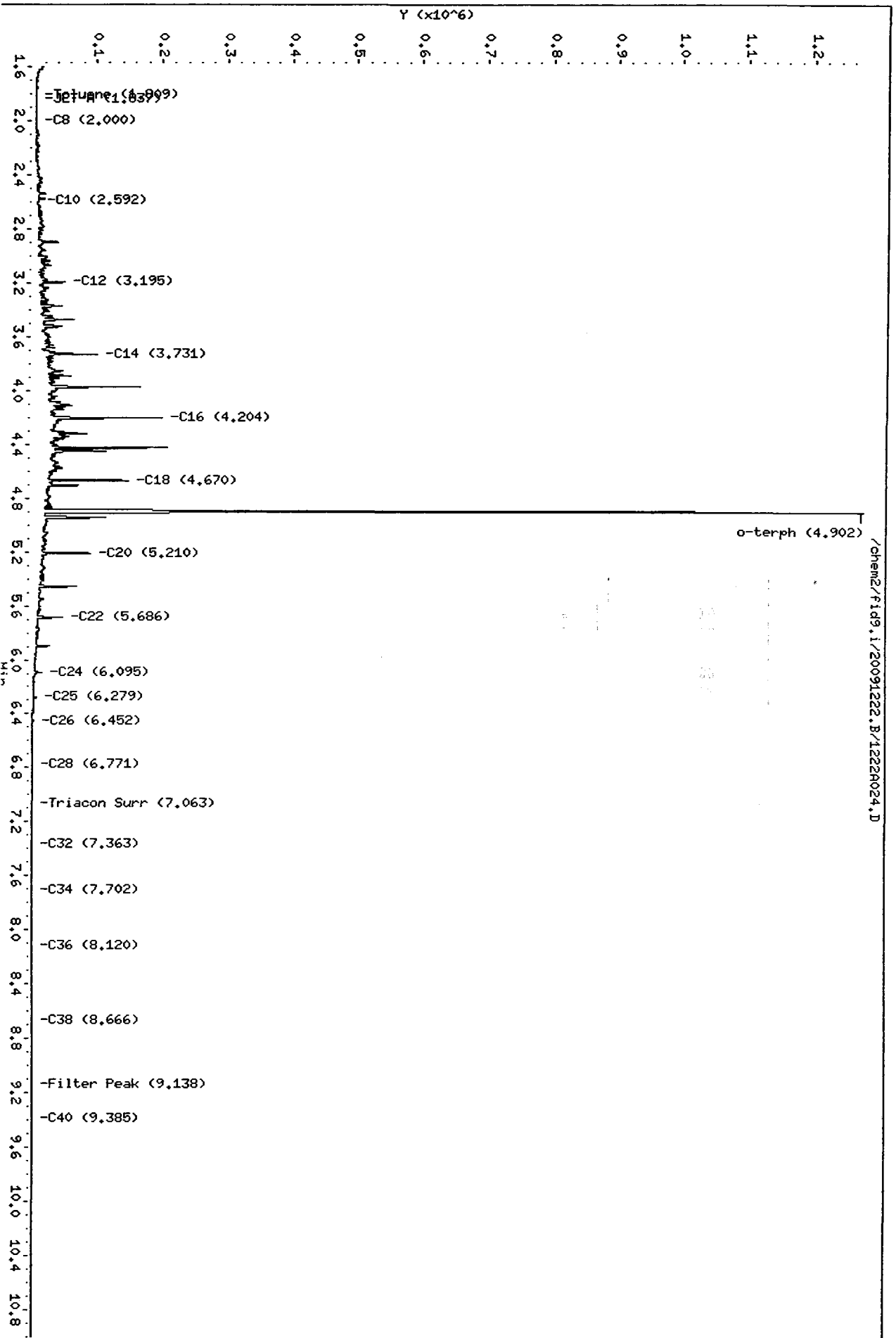
Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.809	-0.003	2723	3523	GAS (Tol-C12)	654885	51
C8	2.000	0.005	2856	3170	DIESEL (C12-C24)	4170568	247
C10	2.592	-0.020	5746	5878	M.OIL (C24-C38)	75327	7
C12	3.195	-0.009	47815	40303	AK-102 (C10-C25)	4659191	247
C14	3.731	0.000	98832	59583	AK-103 (C25-C36)	47737	5
C16	4.204	0.000	199167	140796	OR.DIES (C10-C28)	4683336	313
C18	4.670	0.000	147509	109223	OR.MOIL (C28-C40)	54384	8
C20	5.210	-0.001	89201	79756			
C22	5.686	-0.003	46407	37169			
C24	6.095	-0.002	15259	11433			
C25	6.279	-0.005	6735	6053			
C26	6.452	-0.004	2845	2358			
C28	6.771	-0.002	316	241			
C32	7.363	-0.001	401	69			
C34	7.702	0.000	425	355	CREOSOT (C12-C22)	4014808	962
Filter Peak	9.138	-0.004	449	414			
C36	8.120	-0.005	404	163			
C38	8.666	0.001	444	385			
C40	9.385	0.000	450	530			
o-terph	4.902	0.001	1253628	926205	JET-A (C10-C18)	3351621	197
Triacon Surr	7.063	-0.011	924	681			

Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	926205	43.9	97.7
Triacontane	681	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A024.D  
 Date : 22-DEC-2009 20:23  
 Client ID: DIESEL 250  
 Sample Info: DIESEL 250  
 Column phase: RTX-1  
 Instrument: fid9.i  
 Operator: HS  
 Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fig9.i/20091222.B/1222A025.D  
Method: /chem2/fig9.i/20091222.B/ftphfid9a.m  
Instrument: fig9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 500  
Client ID: DIESEL 500  
Injection: 22-DEC-2009 20:42  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.818	0.005	3756	7681	GAS (Tol-C12)	1244439	96
C8	2.006	0.011	4700	8722	DIESEL (C12-C24)	8404059	498
C10	2.596	-0.016	10928	9930	M.OIL (C24-C38)	116662	11
C12	3.196	-0.008	95120	78809	AK-102 (C10-C25)	9348799	495
C14	3.731	0.000	197511	119054	AK-103 (C25-C36)	76538	8
C16	4.205	0.001	404345	279536	OR.DIES (C10-C28)	9408797	628
C18	4.671	0.001	291147	220492	OR.MOIL (C28-C40)	34868	5
C20	5.212	0.001	182493	154754			
C22	5.688	-0.001	94881	77393			
C24	6.096	-0.001	32099	22048			
C25	6.280	-0.004	14045	18086			
C26	6.453	-0.003	5794	4712			
C28	6.768	-0.004	646	636			
C32	7.366	0.003	243	189			
C34	7.712	0.010	253	98	CREOSOT (C12-C22)	8096505	1941
Filter Peak	9.140	-0.002	267	51			
C36	8.120	-0.005	253	167			
C38	8.669	0.004	289	186			
C40	9.387	0.002	282	187			
o-terph	4.909	0.008	2133148	1861070	JET-A (C10-C18)	6659291	391
Triacon Surr	7.084	0.010	57	10			

Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1861070	88.3	196.2
Triacontane	10	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.1/20091222.B/1222A025.D

Date: 22-DEC-2009 20:42

Client ID: DIESEL 500

Sample Info: DIESEL 500

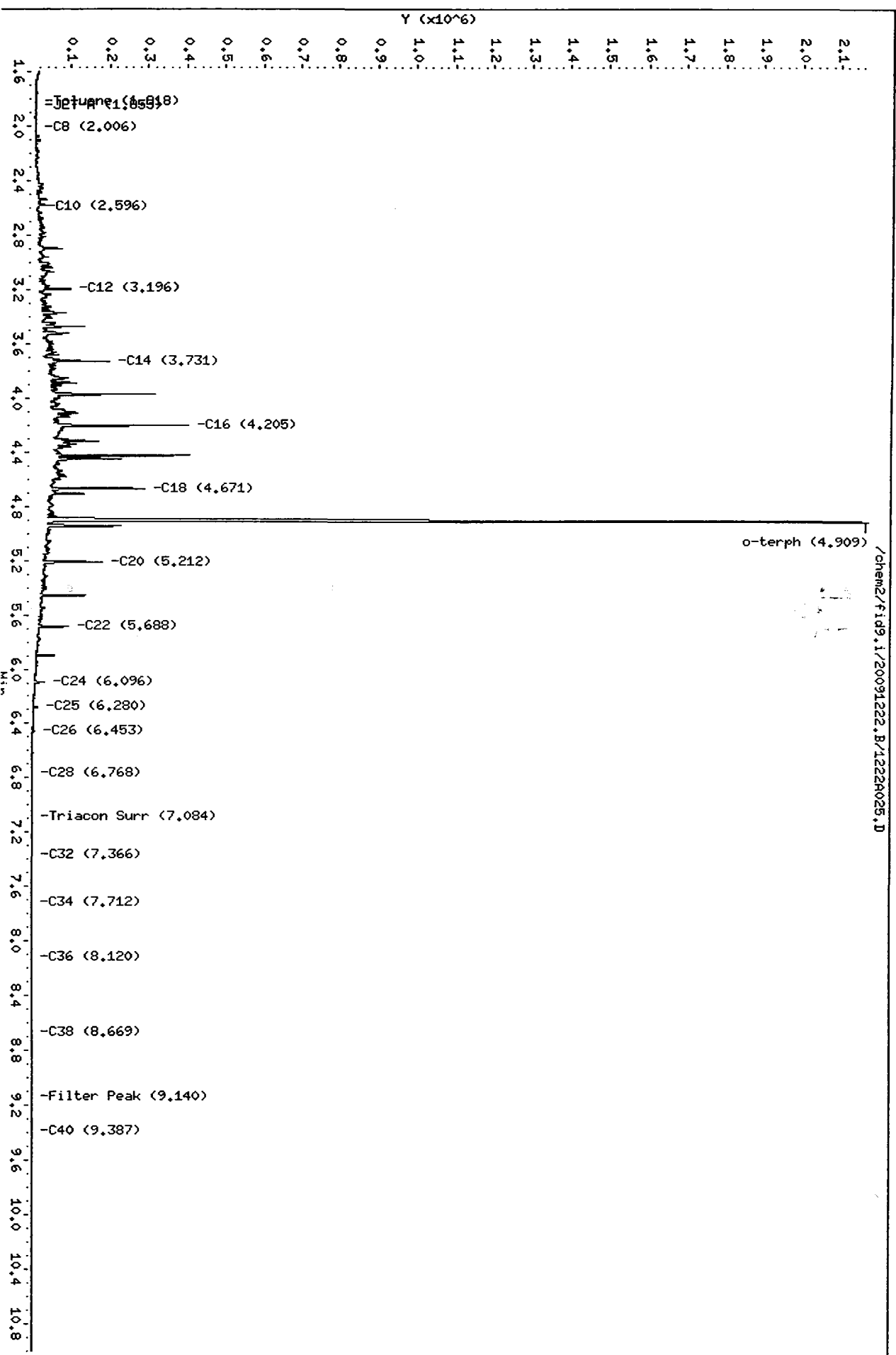
Page 1

Instrument: fid9.i

Operator: HS

Column diameter: 0.25

Column phase: RTX-1



20091222 10:00

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A026.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 1000  
Client ID: DIESEL 1000  
Injection: 22-DEC-2009 21:01  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.802	-0.010	4372	4241	GAS (Tol-C12)	2393211	185
C8	2.013	0.018	11214	15802	DIESEL (C12-C24)	16407228	972
C10	2.622	0.011	17247	13641	M.OIL (C24-C38)	201222	18
C12	3.198	-0.007	193458	155320	AK-102 (C10-C25)	18235441	966
C14	3.732	0.001	379665	232401	AK-103 (C25-C36)	136123	14
C16	4.207	0.003	768773	559487	OR.DIES (C10-C28)	18362277	1226
C18	4.676	0.007	558006	439291	OR.MOIL (C28-C40)	13386	2
C20	5.218	0.007	350239	302734			
C22	5.693	0.004	188915	146774			
C24	6.098	0.001	59609	47496			
C25	6.282	-0.003	28062	32795			
C26	6.453	-0.003	12206	11182			
C28	6.770	-0.003	1479	1570			
C32	7.372	0.009	93	53			
C34	7.708	0.006	115	86	CREOSOT (C12-C22)	15796511	3786
Filter Peak	9.147	0.005	63	12			
C36	8.121	-0.004	71	54			
C38	8.668	0.003	75	25			
C40	9.379	-0.006	76	54			
o-terph	4.921	0.020	3268280	3684180	JET-A (C10-C18)	13085663	768
Triacon Surr	7.079	0.005	36	19			

Range Times: NW Diesel (3.204 - 6.097) AK102 (2.61 - 6.28) Jet A (2.61 - 4.67)  
NW M.Oil (6.10 - 8.67) AK103 (6.28 - 8.13) OR Diesel (2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3684180	174.8	388.4
Triacontane	19	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A026.D

Date: 22-DEC-2009 21:01

Client ID: DIESEL 1000

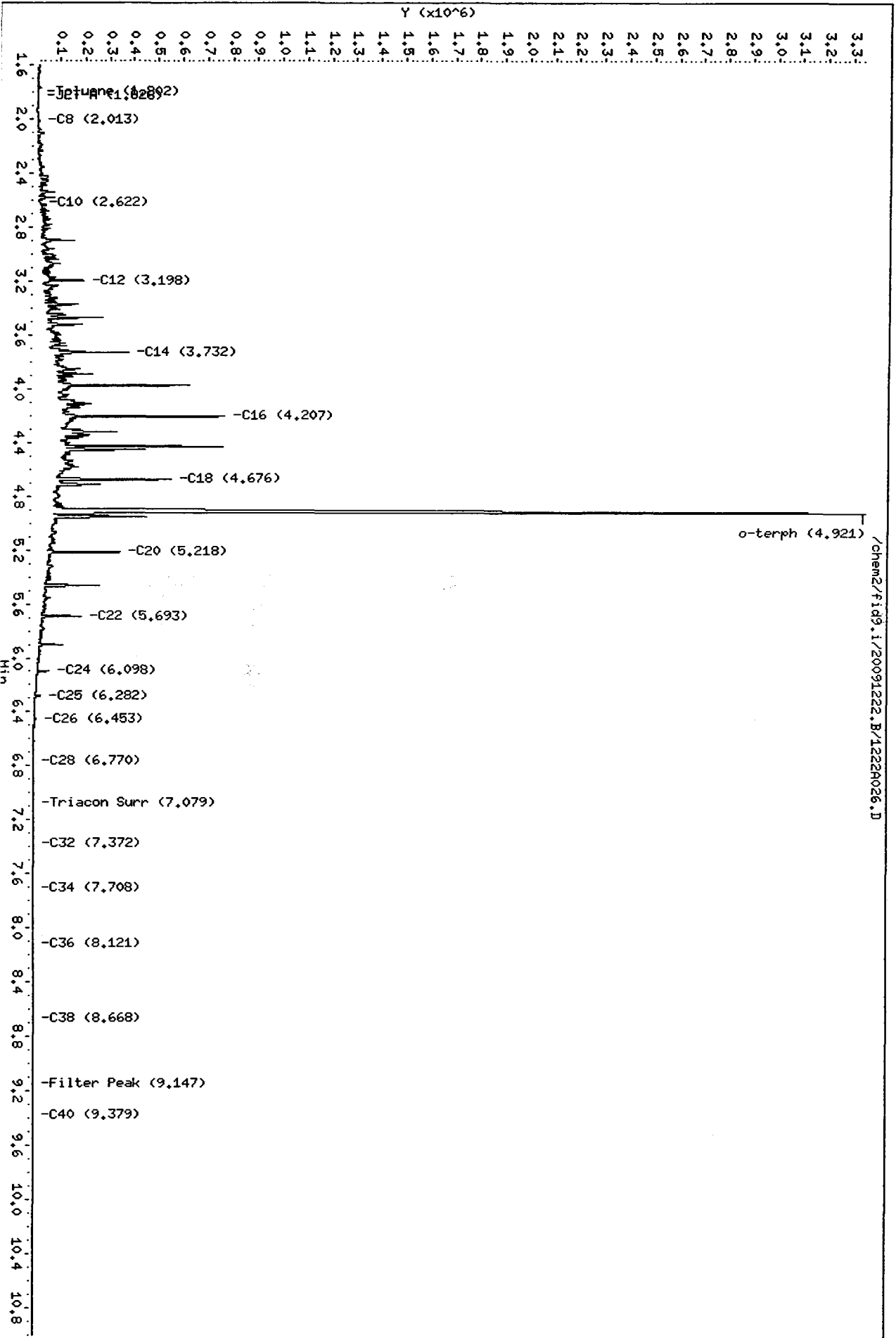
Sample Info: DIESEL 1000

Column phase: RTX-1

Instrument: fid9.i

Operator: HS

Column diameter: 0.25



20091222 21:01



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A027.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i

ARI ID: DIESEL 2500  
Client ID: DIESEL 2500  
Injection: 22-DEC-2009 21:21

Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009

Dilution Factor: 1

Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.813	0.000	13280	15722	GAS (Tol-C12)	7112141	549
C8	1.978	-0.017	8985	6105	DIESEL (C12-C24)	47928435	2838
C10	2.614	0.003	41997	22099	M.OIL (C24-C38)	672623	61
C12	3.200	-0.005	604772	451987	AK-102 (C10-C25)	53403913	2828
C14	3.733	0.002	1138506	703123	AK-103 (C25-C36)	481603	51
C16	4.197	-0.007	453490	321789	OR.DIES (C10-C28)	53844462	3594
C18	4.660	-0.010	294341	253851	OR.MOIL (C28-C40)	44851	6
C20	5.203	-0.008	218596	357400			
C22	5.686	-0.003	107694	29717			
C24	6.089	-0.008	49692	48067			
C25	6.287	0.002	80177	101812			
C26	6.456	0.000	36322	28881			
C28	6.770	-0.003	5485	7944			
C32	7.353	-0.011	683	878			
C34	7.694	-0.008	501	591	CREOSOT (C12-C22)	46086036	11047
Filter Peak	9.139	-0.003	41	25			
C36	8.116	-0.009	202	293			
C38	8.673	0.008	50	25			
C40	9.381	-0.004	42	37			
o-terph	4.960	0.059	4572253	11271121	JET-A (C10-C18)	37731892	2215
Triacon Surr	7.076	0.002	762	521			

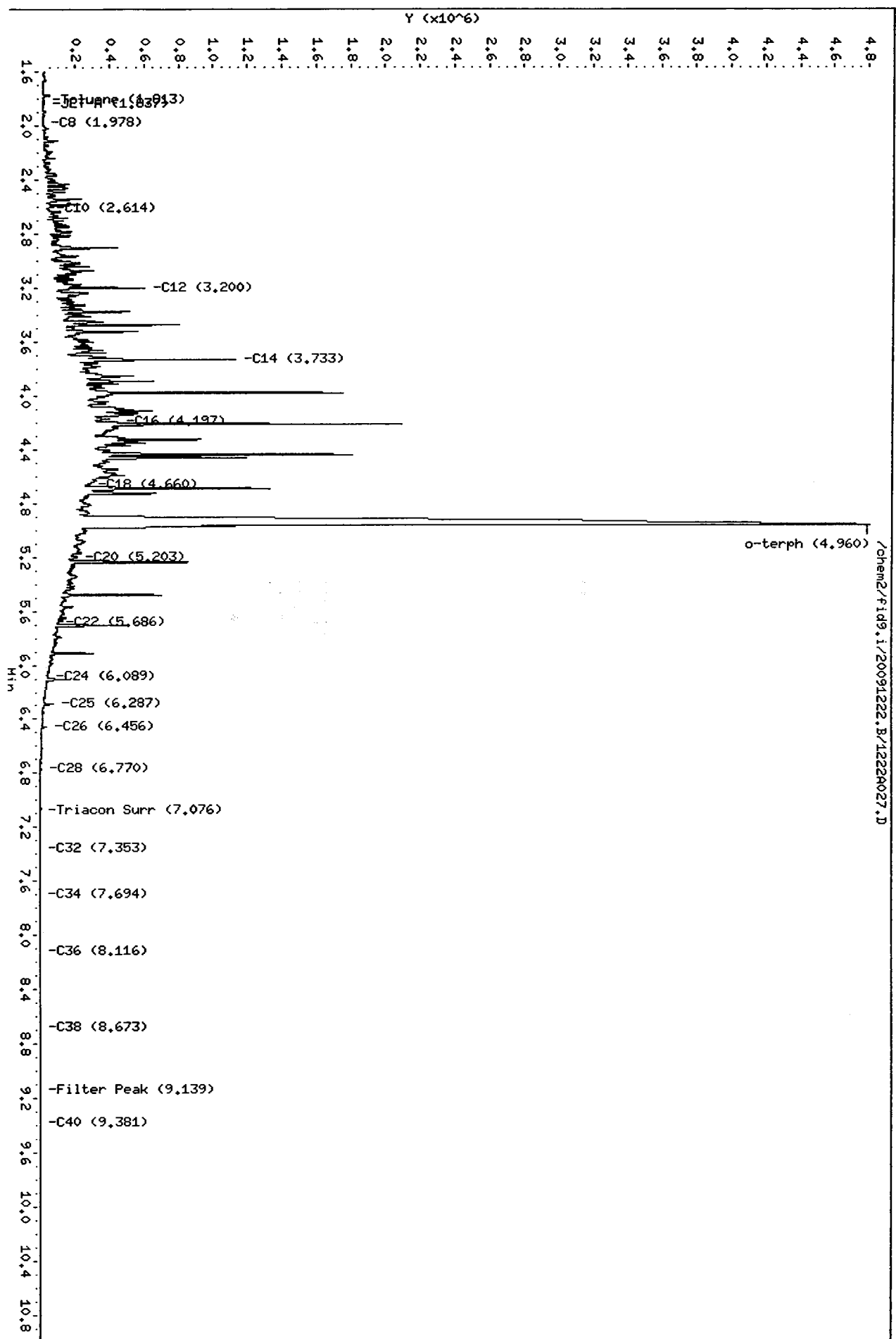
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	11271121	534.8	1188.4
Triacontane	521	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A027.D  
Date : 22-DEC-2009 21:21  
Client ID: DIESEL 2500  
Sample Info: DIESEL 2500  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A028.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL ICV  
Client ID: DIESEL ICV  
Injection: 22-DEC-2009 21:40  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.804	-0.009	4464	5506	GAS (Tol-C12)	844389	65
C8	1.996	0.001	4444	5381	DIESEL (C12-C24)	3727421	221
C10	2.633	0.022	12055	16410	M.OIL (C24-C38)	57437	5
C12	3.195	-0.009	69735	53594	AK-102 (C10-C25)	4332853	229
C14	3.732	0.001	115236	68083	AK-103 (C25-C36)	41687	4
C16	4.206	0.002	147631	111417	OR.DIES (C10-C28)	4357507	291
C18	4.670	0.000	93575	71972	OR.MOIL (C28-C40)	38692	6
C20	5.210	-0.001	60325	56413			
C22	5.687	-0.002	31052	25645			
C24	6.095	-0.001	11295	9721			
C25	6.281	-0.004	5509	5217			
C26	6.453	-0.003	2709	2289			
C28	6.769	-0.003	422	324			
C32	7.356	-0.007	276	407			
C34	7.705	0.003	348	230	CREOSOT (C12-C22)	3620778	868
Filter Peak	9.143	0.000	321	69			
C36	8.125	0.000	263	141			
C38	8.663	-0.002	312	164			
C40	9.387	0.002	342	153			
o-terph	4.902	0.001	1271858	932737	JET-A (C10-C18)	3297297	194
Triacon Surr	7.062	-0.012	1204	800			

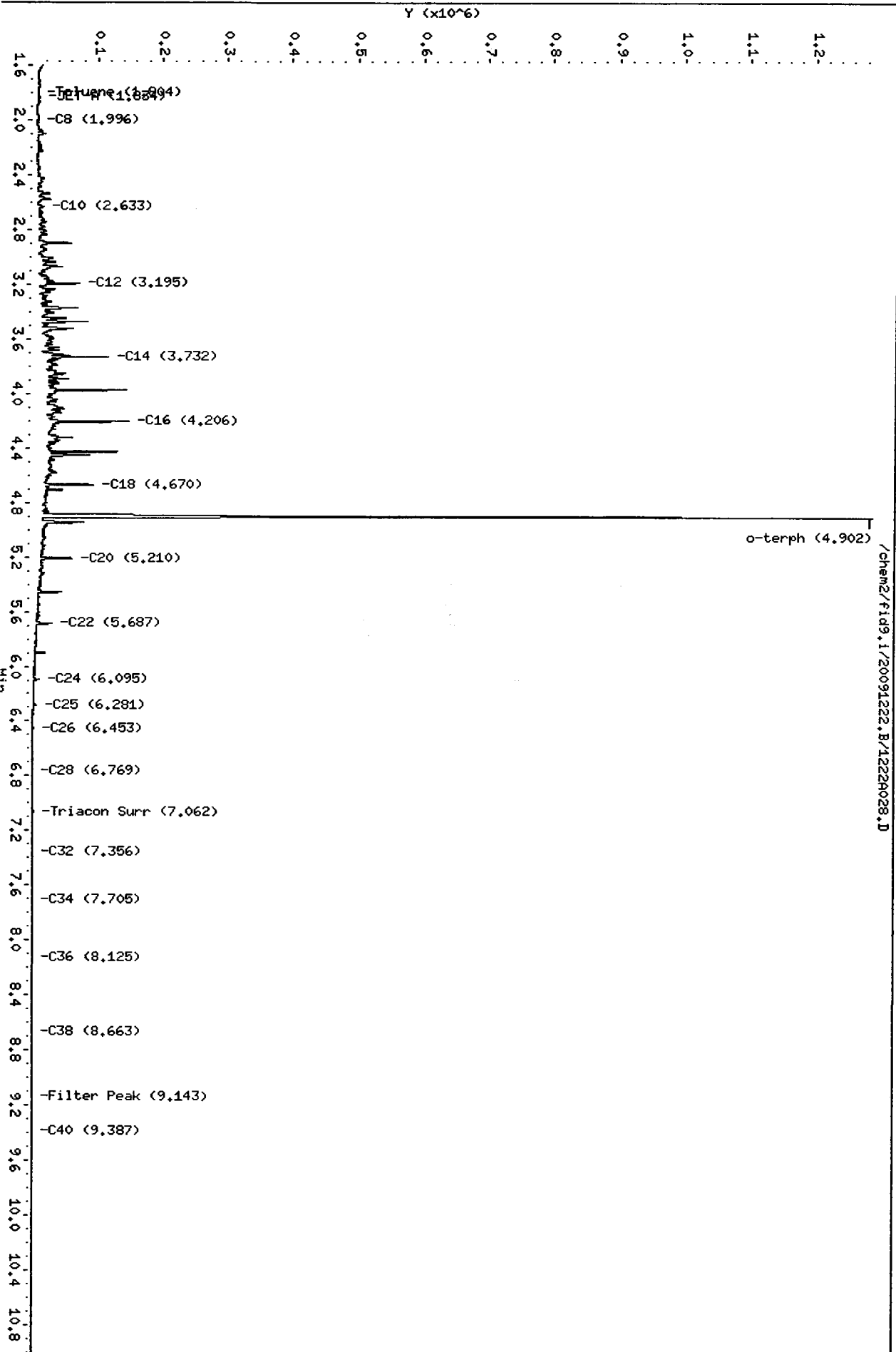
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	932737	44.3	98.3
Triacontane	800	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A028.J  
Date: 22-DEC-2009 21:40  
Client ID: DIESEL ICV  
Sample Info: DIESEL ICV  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



010000 0110 0000

6a  
NW MOTOR OIL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD-SNIDER

Instrument: FID9.I

Project: POS-LLA

Calibration Date: 05-JAN-2010

SDG No.: QF10

Motor Oil Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil	16362	14679	13357	13226	12747	12535	13818	10.5
AK M.Oil	13589	12392	11370	11349	10950	10930	11763	8.8
OR M.Oil	15145	12842	11466	11163	10724	10210	11925	15.2
Triac Surr	22397	22532	21421	21879	21231	22154	21936	2.4

<- Indicates %RSD outside limits  
Surrogate areas are not included in Motor Oil RF calculation.

Quant Ranges :   WA M.Oil       C24-C38  
                  AK M.Oil       C25-C36  
                  OR M.Oil       C28-C40

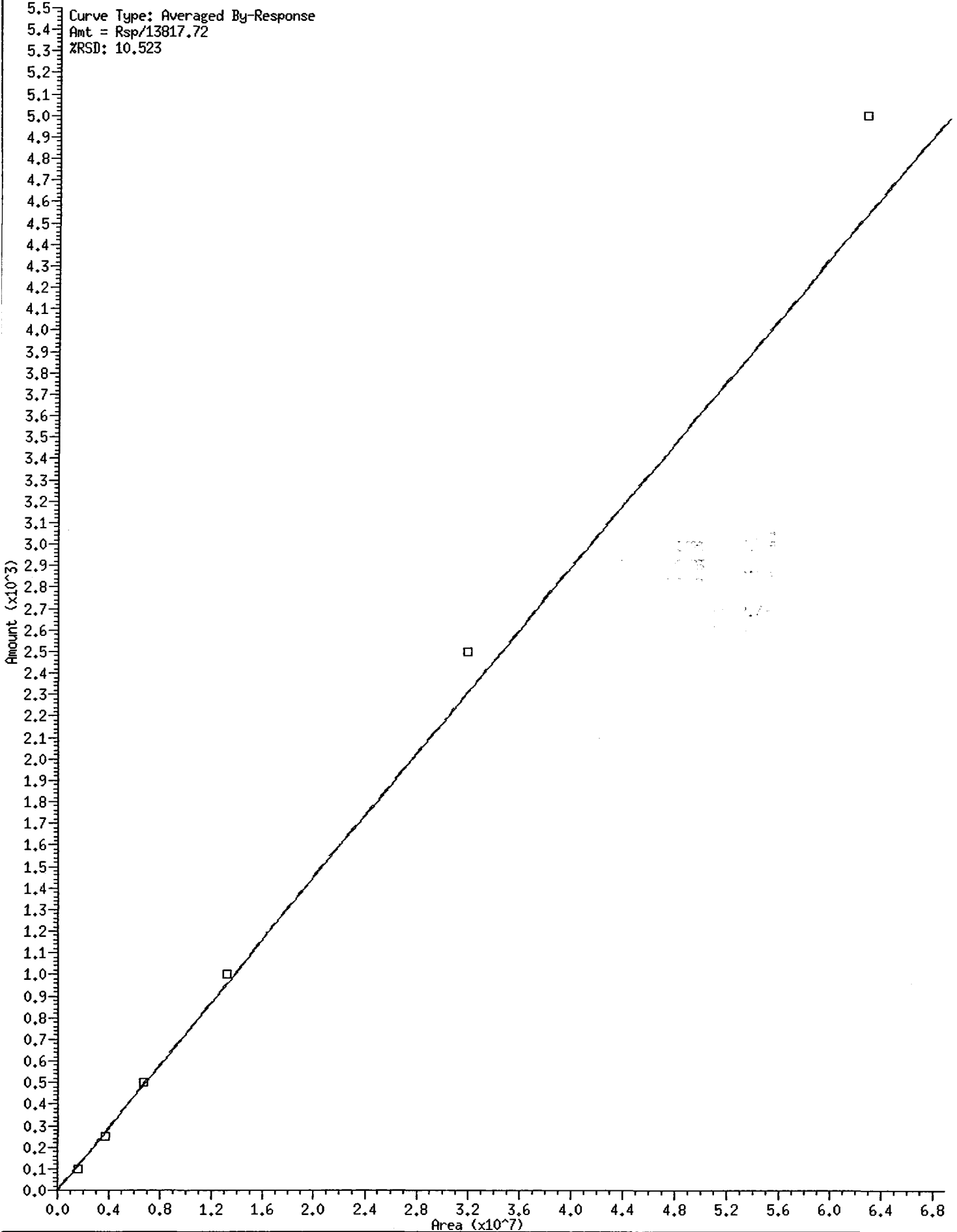
Calibration Files      Analysis Time

---

0105A020.D	05-JAN-2010 19:37
0105A021.D	05-JAN-2010 19:56
0105A022.D	05-JAN-2010 20:16
0105A023.D	05-JAN-2010 20:35
0105A024.D	05-JAN-2010 20:55
0105A025.D	05-JAN-2010 21:15

30 NW MO11

Curve Type: Averaged By-Response  
Amt = Rsp/13817.72  
%RSD: 10.523

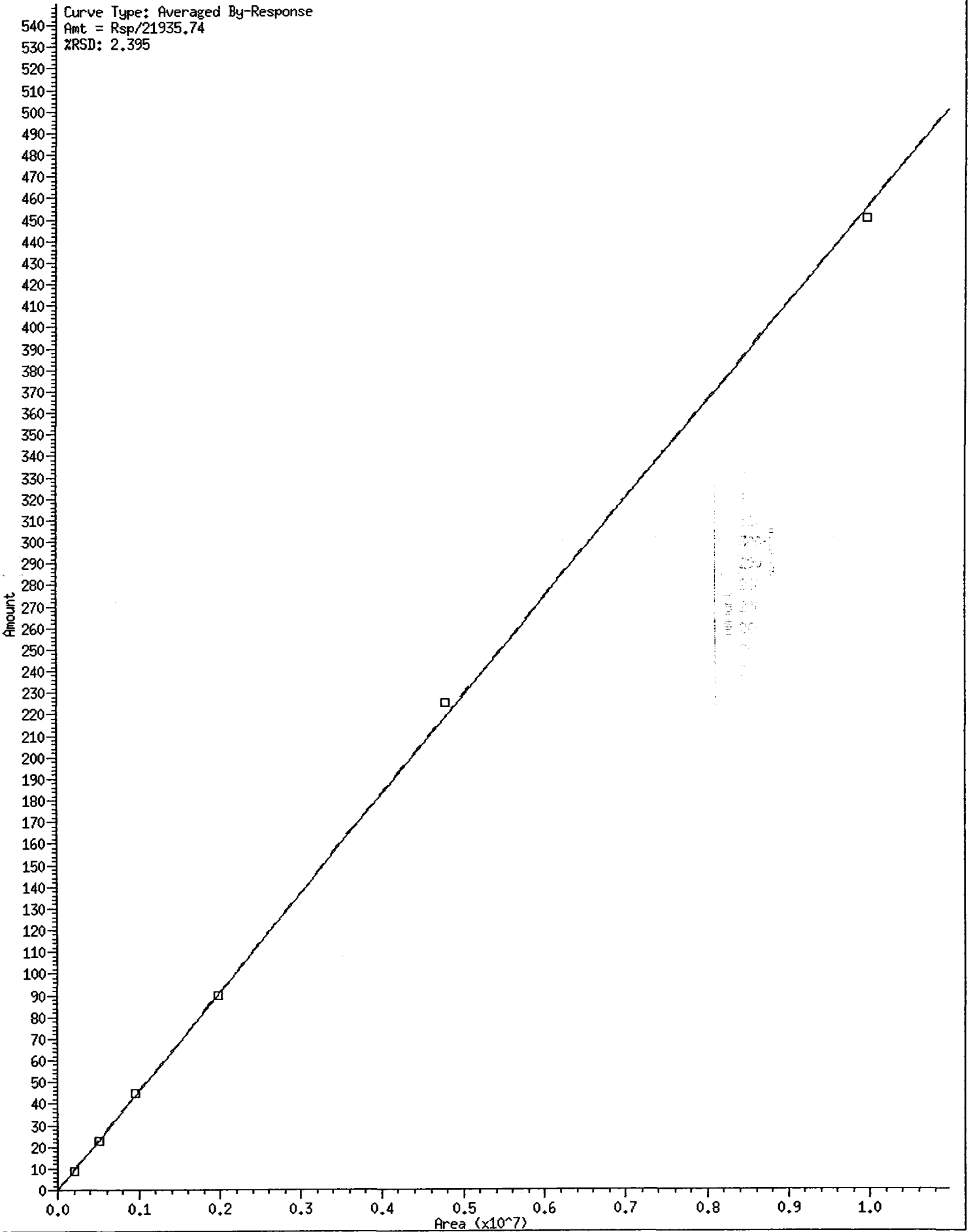


\* 15 Triacon Surr

Curve Type: Averaged By-Response

Amt = Rsp/21935.74

RSD: 2.395



GF10:00010

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A018.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: RT  
Client ID:  
Injection: 05-JAN-2010 18:57  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.799	0.000	2155778	767659	GAS (Tol-C12)	593211527	45832
C8	1.983	0.000	357860	184748	DIESEL (C12-C24)	1787159	106
C10	2.609	0.000	564311	276657	M.OIL (C24-C38)	2410363	174
C12	3.204	0.000	487416	278651	AK-102 (C10-C25)	2396184	127
C14	3.732	0.000	528302	280974	AK-103 (C25-C36)	2056036	217
C16	4.205	0.000	580490	286107			
C18	4.671	0.000	498111	292594			
C20	5.210	0.000	496063	289817			
C22	5.688	0.000	522800	302195			
C24	6.096	0.000	526488	297329			
C25	6.282	0.000	725230	415024			
C26	6.454	0.000	526604	293795			
C28	6.771	0.000	516632	294939			
C32	7.359	0.000	449678	299498			
C34	7.700	0.000	355097	313470	BUNKERC (C10-C38)	4804397	548
Filter Peak	9.142	0.000	3141	2252			
C36	8.125	0.000	251241	290374			
C38	8.671	0.000	191849	279627			
C40	9.391	0.000	120768	246072			
o-terph	4.900	0.000	1288434	958064			
Triacon Surr	7.071	0.000	1419063	1014780			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

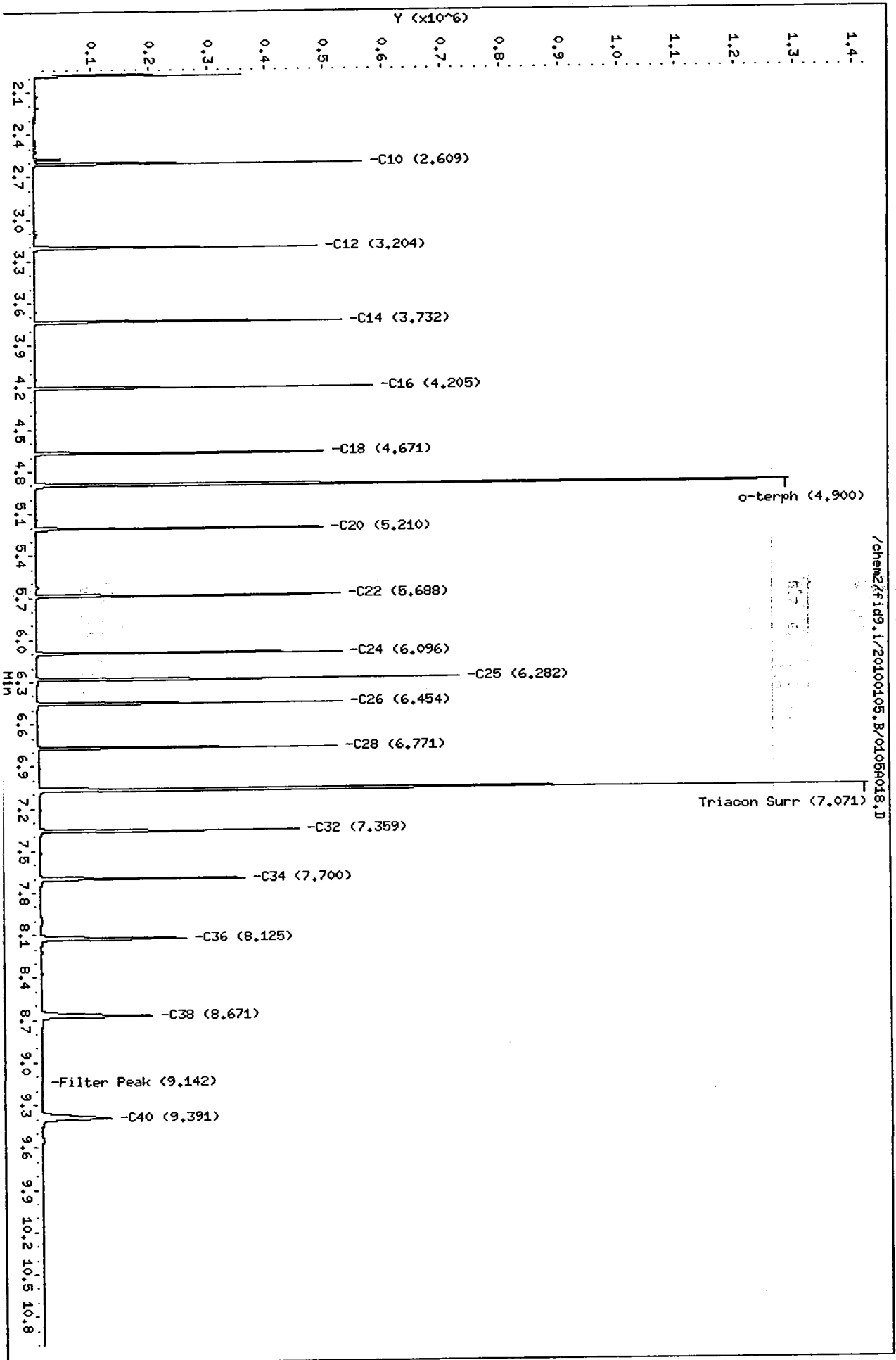
Surrogate	Area	Amount	%Rec
o-Terphenyl	958064	45.5	101.0
Triacontane	1014780	46.3	102.8

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Data File: /chem2/fid9.i/20100105.B/01050418.D  
Date: 05-JAN-2010 18:57  
Client ID:  
Sample Info: RT  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A019.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: IB  
Client ID:  
Injection: 05-JAN-2010 19:17  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.840	0.042	2334	832	GAS (Tol-C12)	87208	7
C8	1.982	-0.002	1689	1343	DIESEL (C12-C24)	33260	2
C10	2.617	0.009	1077	319	M.OIL (C24-C38)	290822	21
C12	3.195	-0.009	871	1291	AK-102 (C10-C25)	72597	4
C14	3.728	-0.005	354	170	AK-103 (C25-C36)	206137	22
C16	4.199	-0.006	240	237			
C18	4.672	0.001	349	274			
C20	5.213	0.003	457	389			
C22	5.691	0.002	582	473			
C24	6.098	0.001	783	646			
C25	6.281	-0.001	987	883			
C26	6.453	-0.001	1047	1047			
C28	6.769	-0.002	2075	3042			
C32	7.357	-0.002	5491	7882			
C34	7.696	-0.004	2794	5663	BUNKERC (C10-C38)	361851	41
Filter Peak	9.140	-0.002	2992	1073			
C36	8.117	-0.008	2830	7158			
C38	8.659	-0.012	3074	5150			
C40	9.397	0.006	2902	2067			
o-terph	4.905	0.005	1623076	1307314			
Triacon Surr	7.073	0.002	1494173	1048222			

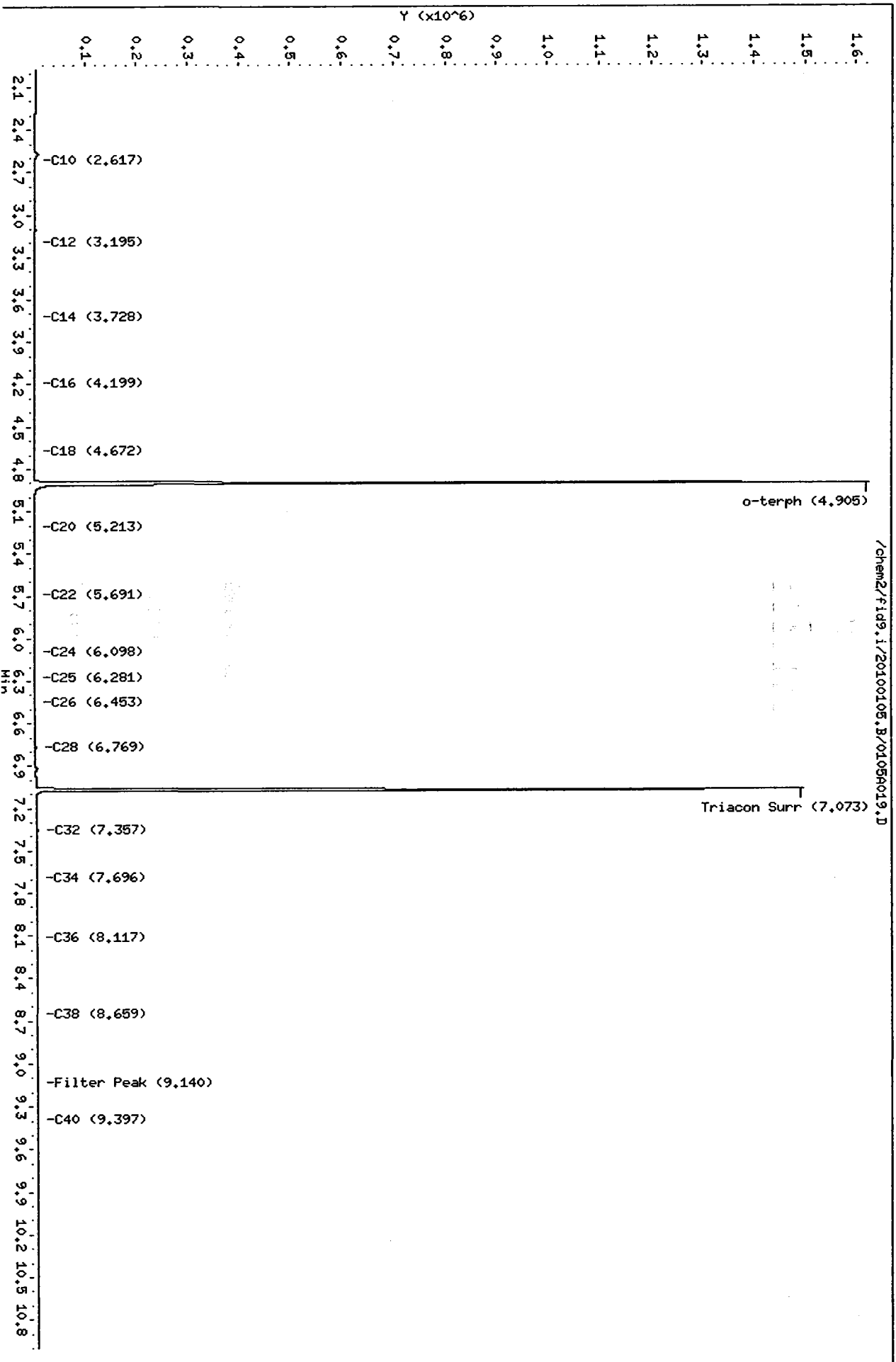
Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1307314	62.0	137.8
Triacotane	1048222	47.8	106.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/0105A019.D  
 Date : 05-JAN-2010 19:17  
 Client ID:  
 Sample Info: IB  
 Column phase: RTX-1

Instrument: fid9.i  
 Operator: HS  
 Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A020.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 100  
Client ID: MOIL 100  
Injection: 05-JAN-2010 19:37  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.806	0.007	2669	4182	GAS (Tol-C12)	89378	7
C8	1.982	-0.001	1768	1356	DIESEL (C12-C24)	174852	10
C10	2.622	0.014	975	365	M.OIL (C24-C38)	1641825	119
C12	3.194	-0.010	674	1212	AK-102 (C10-C25)	234435	12
C14	3.744	0.012	415	645	AK-103 (C25-C36)	1355152	143
C16	4.214	0.009	248	270			
C18	4.675	0.005	286	228			
C20	5.211	0.001	737	827			
C22	5.687	-0.001	2721	3825			
C24	6.096	0.000	5915	5204			
C25	6.278	-0.004	7557	3845			
C26	6.451	-0.003	9721	12692			
C28	6.773	0.002	12414	7057			
C32	7.360	0.001	14443	3451			
C34	7.700	0.000	12218	5562	BUNKERC (C10-C38)	1844756	210
Filter Peak	9.142	0.001	5560	4842			
C36	8.131	0.006	9681	11928			
C38	8.673	0.002	7158	4749			
C40	9.389	-0.002	4929	2244			
o-terph	4.904	0.004	1737	1485			
Triacon Surr	7.078	0.007	362245	201571			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1485	0.1	0.2
Triacontane	201571	9.2	20.4

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A021.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 250  
Client ID: MOIL 250  
Injection: 05-JAN-2010 19:56  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.806	0.008	2777	3718	GAS (Tol-C12)	85960	7
C8	1.982	-0.002	1737	1734	DIESEL (C12-C24)	389481	23
C10	2.607	-0.002	973	643	M.OIL (C24-C38)	3682199	266
C12	3.194	-0.010	701	1283	AK-102 (C10-C25)	505992	27
C14	3.730	-0.002	273	63	AK-103 (C25-C36)	3085514	326
C16	4.216	0.010	201	161			
C18	4.675	0.004	391	271			
C20	5.212	0.002	1502	1575			
C22	5.686	-0.002	6308	6843			
C24	6.095	-0.001	14082	9937			
C25	6.283	0.001	17753	2829			
C26	6.453	-0.001	23033	14735			
C28	6.771	0.000	29437	9328			
C32	7.366	0.007	33133	14361			
C34	7.703	0.003	27148	17202	BUNKERC (C10-C38)	4100099	467
Filter Peak	9.142	0.000	9770	6366			
C36	8.121	-0.004	20610	11357			
C38	8.668	-0.003	13435	10622			
C40	9.389	-0.003	8325	6042			
o-terph	4.905	0.004	1108	1035			
Triacon Surr	7.081	0.011	836498	506970			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

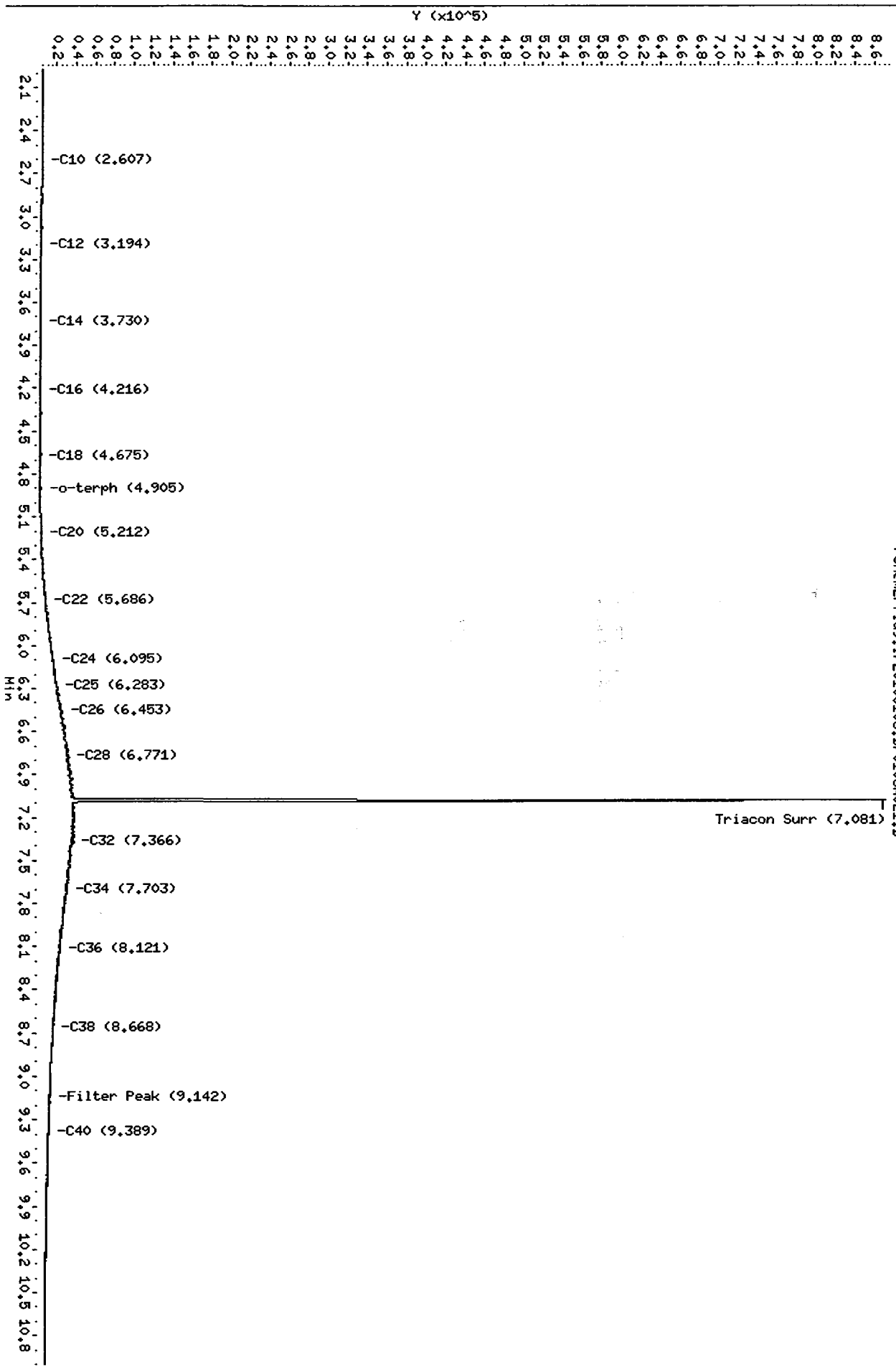
Surrogate	Area	Amount	%Rec
o-Terphenyl	1035	0.0	0.1
Triacontane	506970	23.1	51.4

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/01050021.D  
Date : 05-JAN-2010 19:56  
Client ID: HOIL 250  
Sample Info: HOIL 250  
Column phase: RTX-1

Instrument: fid9.1  
Operator: HS  
Column diameter: 0.25

/chem2/fid9.i/20100105.B/01050021.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A022.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 500  
Client ID: MOIL 500  
Injection: 05-JAN-2010 20:16  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.845	0.046	2796	1223	GAS (Tol-C12)	93809	7
C8	1.985	0.001	1831	2593	DIESEL (C12-C24)	732569	43
C10	2.597	-0.012	1101	1265	M.OIL (C24-C38)	6686315	484
C12	3.193	-0.011	826	1133	AK-102 (C10-C25)	896180	47
C14	3.742	0.010	570	708	AK-103 (C25-C36)	5675022	600
C16	4.213	0.008	206	141			
C18	4.657	-0.014	2955	2528			
C20	5.211	0.001	2728	2560			
C22	5.687	-0.001	11537	12921			
C24	6.096	0.000	26020	19151			
C25	6.283	0.001	33643	12568			
C26	6.455	0.000	42116	46982			
C28	6.771	0.000	54025	27640			
C32	7.359	0.000	60284	11952			
C34	7.699	-0.001	48717	13444	BUNKERC (C10-C38)	7448657	849
Filter Peak	9.145	0.003	15501	13190			
C36	8.123	-0.002	35684	21867			
C38	8.672	0.001	23373	23666			
C40	9.391	0.000	13290	10437			
o-terph	4.904	0.004	1053	1147			
Triacon Surr	7.087	0.016	1254542	963947			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

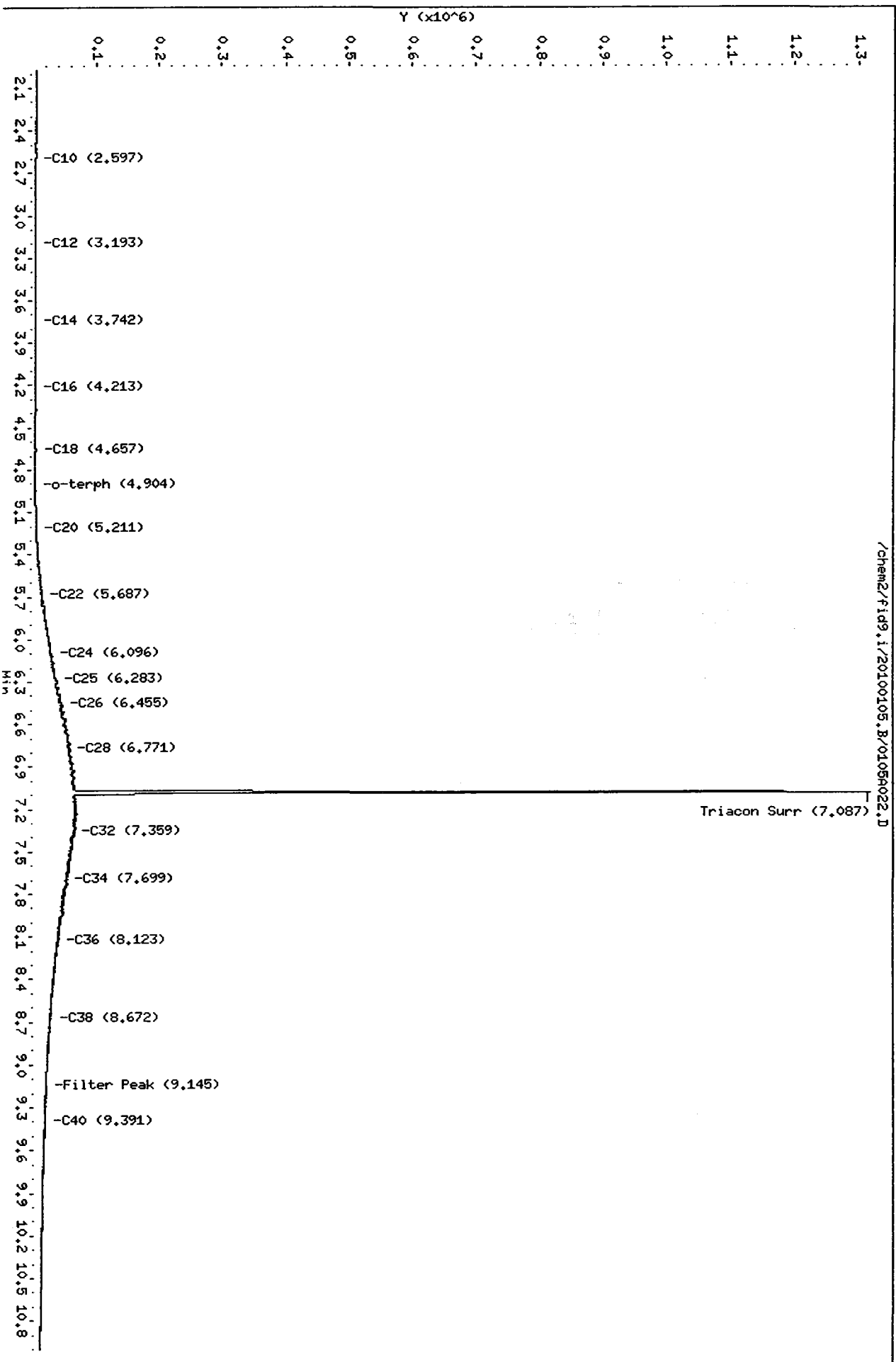
Surrogate	Area	Amount	%Rec
o-Terphenyl	1147	0.1	0.1
Triacontane	963947	43.9	97.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Data File: /chem2/fid9.i/20100105.B/0105022.D  
Date : 05-JAN-2010 20:16  
Client ID: HOIL 500  
Sample Info: HOIL 500  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



000000 : 000000

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A023.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 1000  
Client ID: MOIL 1000  
Injection: 05-JAN-2010 20:35  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.840	0.041	2969	1534	GAS (Tol-C12)	88164	7
C8	1.976	-0.008	1835	1317	DIESEL (C12-C24)	1440534	85
C10	2.630	0.021	1043	1640	M.OIL (C24-C38)	13244965	959
C12	3.194	-0.010	1127	1496	AK-102 (C10-C25)	1753361	93
C14	3.741	0.009	857	933	AK-103 (C25-C36)	11348773	1200
C16	4.213	0.007	342	221			
C18	4.654	-0.017	5804	4949			
C20	5.210	0.000	5510	5239			
C22	5.686	-0.002	23740	20908			
C24	6.096	-0.001	53448	40256			
C25	6.282	-0.001	67235	19998			
C26	6.454	0.000	86698	33669			
C28	6.772	0.001	112693	46668			
C32	7.361	0.002	120877	40778			
C34	7.699	-0.001	95240	41588	BUNKERC (C10-C38)	14716607	1678
Filter Peak	9.147	0.005	28729	24149			
C36	8.131	0.006	69780	42374			
C38	8.667	-0.004	42338	9216			
C40	9.389	-0.002	23374	9218			
o-terph	4.902	0.001	1733	2174			
Triacon Surr	7.091	0.021	2229233	1969148			

Range Times: NW Diesel (3.204 - 6.096) AK102 (2.61 - 6.28) Jet A (2.61 - 4.67)  
NW M.Oil (6.10 - 8.67) AK103 (6.28 - 8.13) OR Diesel (2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2174	0.1	0.2
Triacotane	1969148	89.8	199.5

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9,i/20100105,B/01059023.D

Date : 05-JAN-2010 20:35

Client ID: HOIL 1000

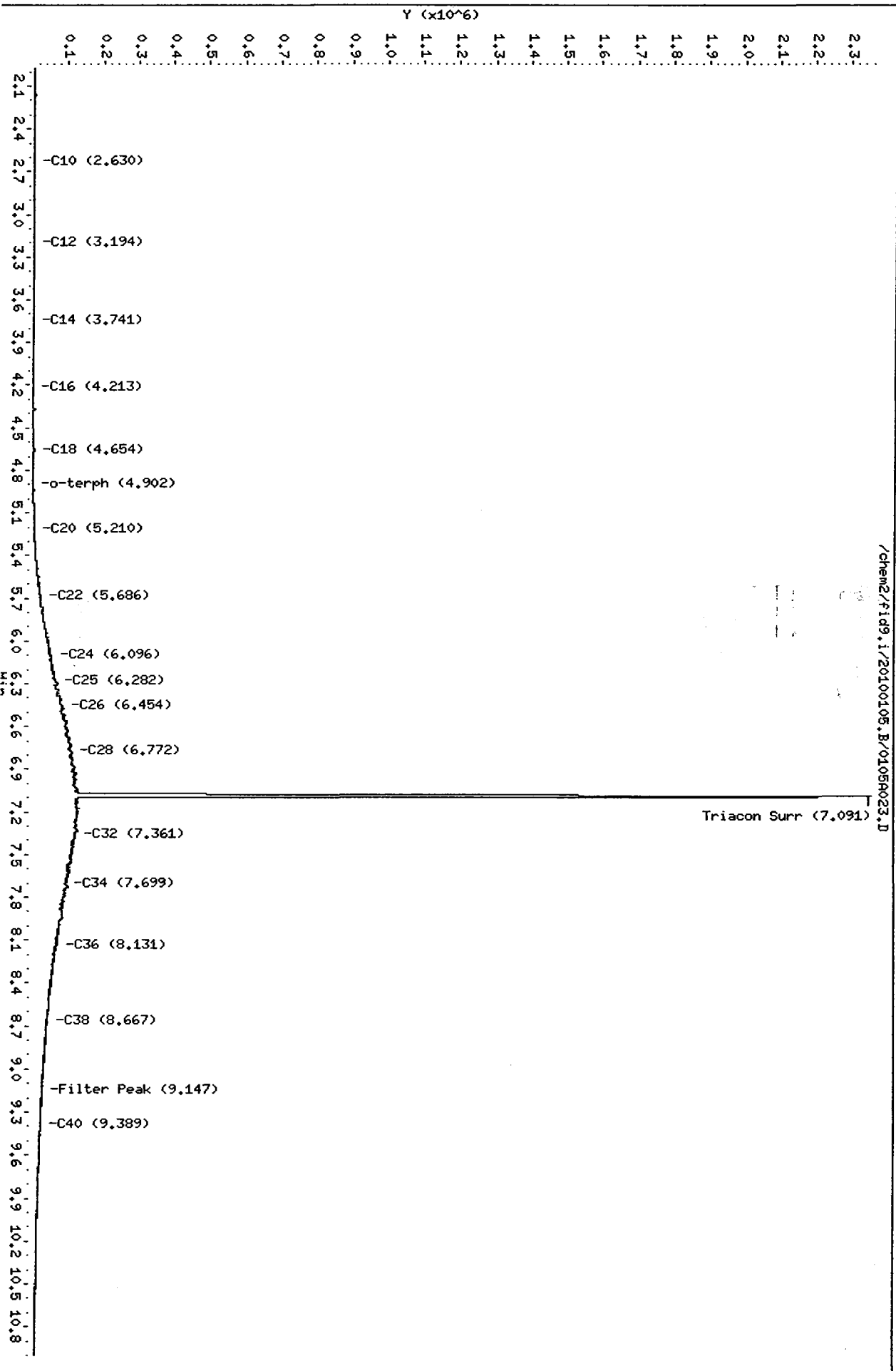
Sample Info: HOIL 1000

Column Phase: RTX-1

Instrument: fid9.i

Operator: MS

Column diameter: 0.25



01059023.D

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A024.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 2500  
Client ID: MOIL 2500  
Injection: 05-JAN-2010 20:55  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.858	0.059	2884	8420	GAS (Tol-C12)	72298	6
C8	2.004	0.021	1206	477	DIESEL (C12-C24)	3493517	207
C10	2.632	0.023	830	1537	M.OIL (C24-C38)	31929864	2311
C12	3.194	-0.010	1648	1656	AK-102 (C10-C25)	4178703	221
C14	3.739	0.007	1698	1231	AK-103 (C25-C36)	27374663	2895
C16	4.211	0.006	1094	745			
C18	4.654	-0.017	13040	11830			
C20	5.212	0.002	13135	12526			
C22	5.691	0.003	55238	73986			
C24	6.102	0.006	123982	90203			
C25	6.283	0.001	158245	47058			
C26	6.449	-0.006	191339	93975			
C28	6.765	-0.006	255500	219673			
C32	7.353	-0.006	305703	225226			
C34	7.700	0.000	228383	54228	BUNKERC (C10-C38)	35446828	4042
Filter Peak	9.137	-0.005	63504	36934			
C36	8.126	0.001	159813	82579			
C38	8.671	0.000	97810	46290			
C40	9.390	-0.001	49859	37181			
o-terph	4.902	0.002	3627	5301			
Triacon Surr	7.116	0.046	4301755	4777016			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	5301	0.3	0.6
Triacotane	4777016	217.8	483.9

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

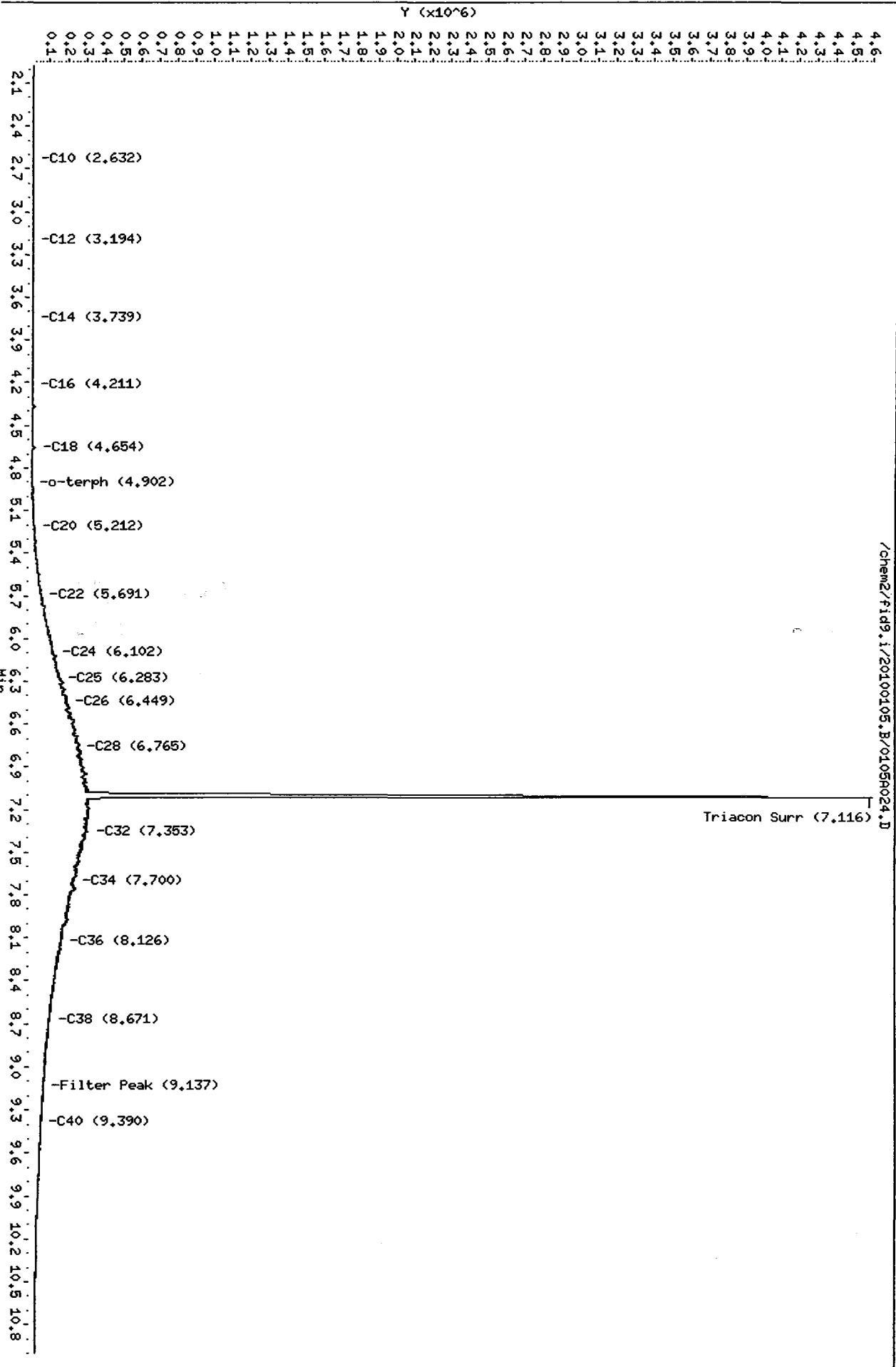
0000000000  
10:01:08 AM

Data File: /chem2/fid9.i/20100105.B/0105024.D  
 Date: 05-JAN-2010 20:55  
 Client ID: H0IL 2500  
 Sample Info: H0IL 2500

Instrument: fid9.i

Column phase: RTX-1

Operator: HS  
 Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A025.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 5000  
Client ID: MOIL 5000  
Injection: 05-JAN-2010 21:15  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----						
C8	1.963	-0.020	1641	3120	GAS (Tol-C12)	56374	4
C10	2.620	0.012	498	305	DIESEL (C12-C24)	6935061	411
C12	3.193	-0.011	2949	2076	M.OIL (C24-C38)	62747200	4541
C14	3.735	0.002	3755	2692	AK-102 (C10-C25)	8263752	438
C16	4.208	0.002	2537	1946	AK-103 (C25-C36)	54571019	5770
C18	4.669	-0.002	7123	5585			
C20	5.210	0.000	26982	42089			
C22	5.686	-0.002	105859	75804			
C24	6.095	-0.001	245334	82664			
C25	6.277	-0.005	309092	55292			
C26	6.452	-0.002	395043	341314			
C28	6.768	-0.003	538694	149295			
C32	7.356	-0.003	588317	371283			
C34	7.698	-0.002	469303	380732	BUNKERC (C10-C38)	69704564	7948
Filter Peak	9.136	-0.006	84660	79571			
C36	8.123	-0.002	301731	166876			
C38	8.664	-0.007	160075	170587			
C40	9.384	-0.007	63215	83673			
o-terph	4.900	0.000	7442	10737			
Triacon Surr	7.136	0.065	5022592	9969308			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	10737	0.5	1.1
Triacontane	9969308	454.5	1010.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/0105A025.D

Date: 05-JAN-2010 21:15

Client ID: HOIL 5000

Sample Info: HOIL 5000

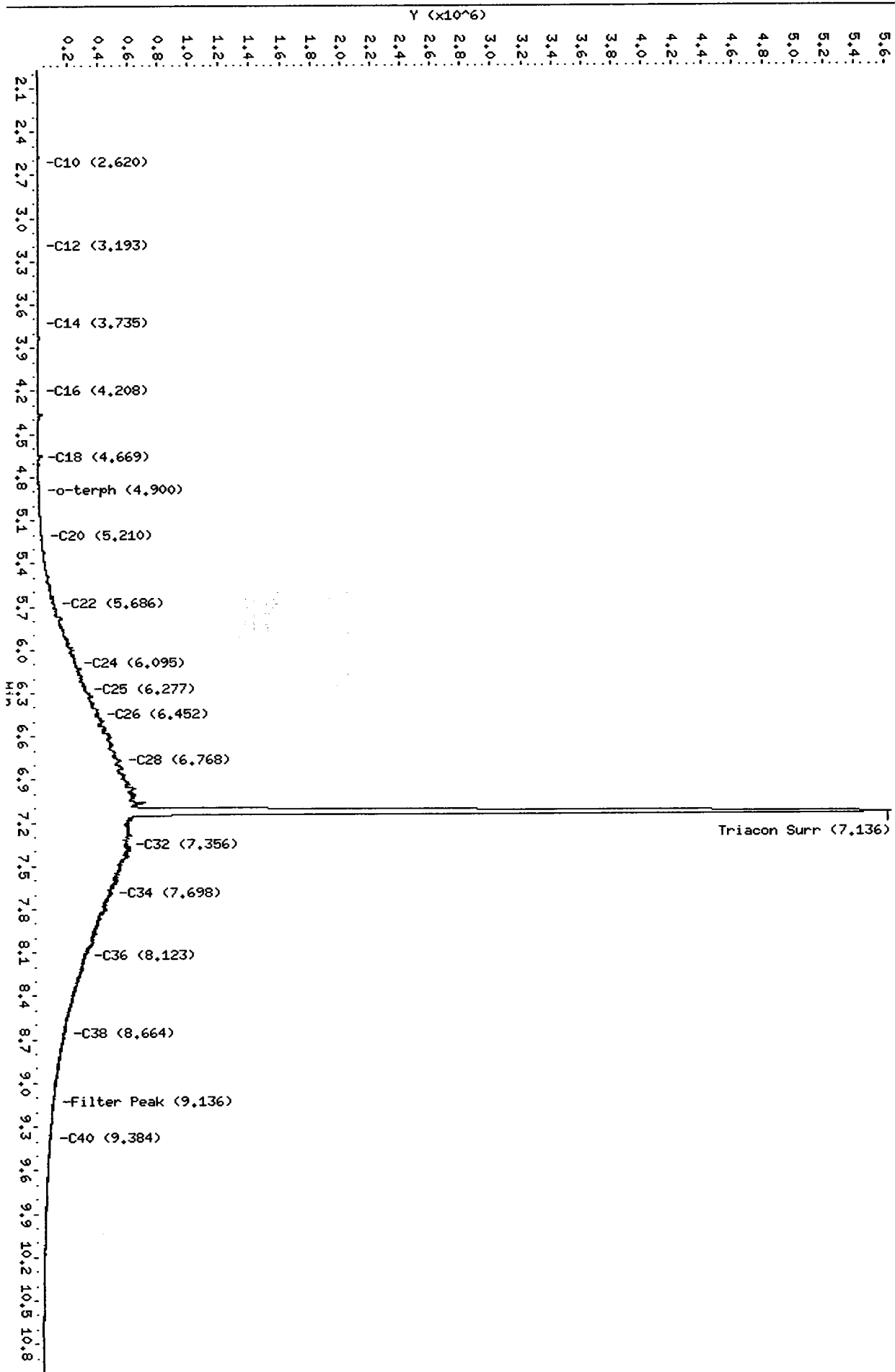
Column phase: RTX-1

Instrument: fid9.i

Operator: HS

Column diameter: 0.25

/chem2/fid9.i/20100105.B/0105A025.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A026.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL ICV  
Client ID:  
Injection: 05-JAN-2010 21:34  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.790	-0.009	2954	5494	GAS (Tol-C12)	94323	7
C8	1.979	-0.005	1793	1524	DIESEL (C12-C24)	644882	38
C10	2.615	0.007	916	253	M.OIL (C24-C38)	6764970	490
C12	3.195	-0.009	875	1198	AK-102 (C10-C25)	816536	43
C14	3.720	-0.012	290	398	AK-103 (C25-C36)	5535095	585
C16	4.216	0.011	192	132			
C18	4.657	-0.014	8824	6876			
C20	5.211	0.001	2670	2780			
C22	5.689	0.000	9831	10477			
C24	6.097	0.001	22693	15814			
C25	6.273	-0.010	28994	37542			
C26	6.454	0.000	37274	21866			
C28	6.769	-0.002	49795	37756			
C32	7.363	0.004	60470	28915			
C34	7.698	-0.002	52223	21806	BUNKERC (C10-C38)	7438469	848
Filter Peak	9.144	0.002	20880	11405			
C36	8.127	0.001	43040	32718			
C38	8.669	-0.002	29436	30197			
C40	9.387	-0.004	17228	7453			
o-terph	4.905	0.005	1252	1357			
Triacon Surr	7.080	0.009	1307486	990209			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1357	0.1	0.1
Triacontane	990209	45.1	100.3

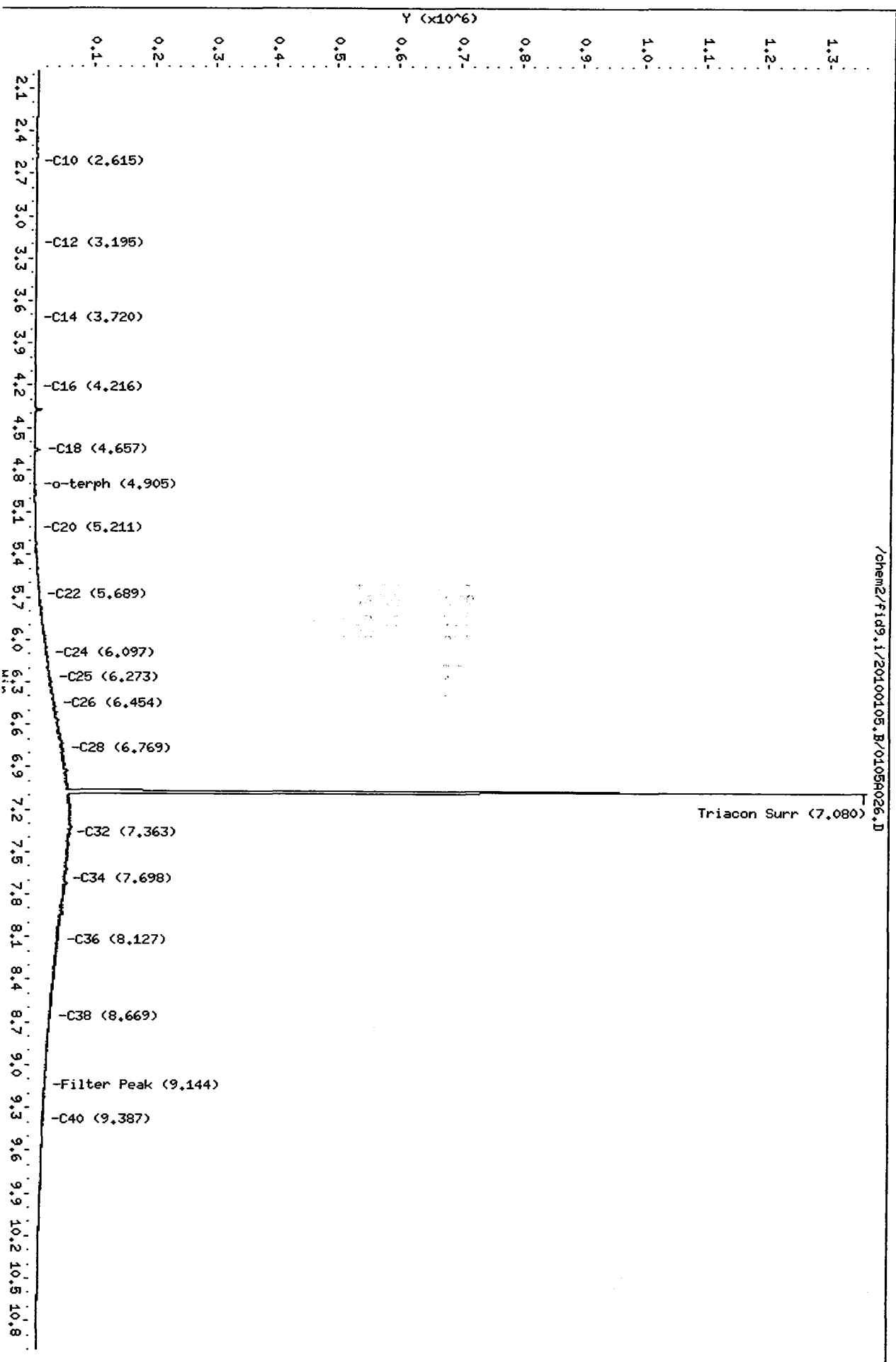
Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Data File: /chem2/fid9.1/20100105.B/0105A026.D  
Date : 05-JAN-2010 21:34  
Client ID:  
Sample Info: MOLL ICV  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25

/chem2/fid9.1/20100105.B/0105A026.D



Analytical Resources Inc.  
TPH Quantitation Report

*Jan 11/19/10*

Data file: /chem2/fid9.i/20100114.b/0114A003.D  
Method: /chem2/fid9.i/20100114.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/19/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: RT  
Client ID: RT  
Injection: 14-JAN-2010 12:50  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.814	0.000	2157956	797554	GAS (Tol-C12)	370955870	28660
C8	1.998	0.000	403624	205429	DIESEL (C12-C24)	2058130	122
C10	2.614	0.000	647550	324760	M.OIL (C24-C38)	2361299	171
C12	3.207	0.000	552716	320043	AK-102 (C10-C25)	2765446	146
C14	3.733	0.000	598706	324149	AK-103 (C25-C36)	2135114	226
C16	4.205	0.000	655462	330830			
C18	4.670	0.000	578983	338564			
C20	5.211	0.000	533336	335103			
C22	5.689	0.000	610138	349017			
C24	6.098	0.000	581334	342820			
C25	6.284	0.000	836058	481386			
C26	6.455	0.000	622203	343714			
C28	6.772	0.000	595781	343753			
C32	7.363	0.000	453154	335676			
C34	7.703	0.000	337732	296645	BUNKERC (C10-C38)	5124240	584
Filter Peak	9.134	0.000	1847	1141			
C36	8.127	0.000	203940	230235			
C38	8.669	0.000	111810	173669			
C40	9.385	0.000	58676	117048			
o-terph	4.902	0.000	1398818	1109753			
Triacon Surr	7.074	0.000	1580607	1182634			

Range Times: NW Diesel (3.207 - 6.098) AK102 (2.61 - 6.28) Jet A (2.61 - 4.67)  
NW M.Oil (6.10 - 8.67) AK103 (6.28 - 8.13) OR Diesel (2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1109753	52.7	117.0
Triacontane	1182634	53.9	119.8

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100114.b/0114A003.D  
Date: 14-JAN-2010 12:50

Client ID: RT

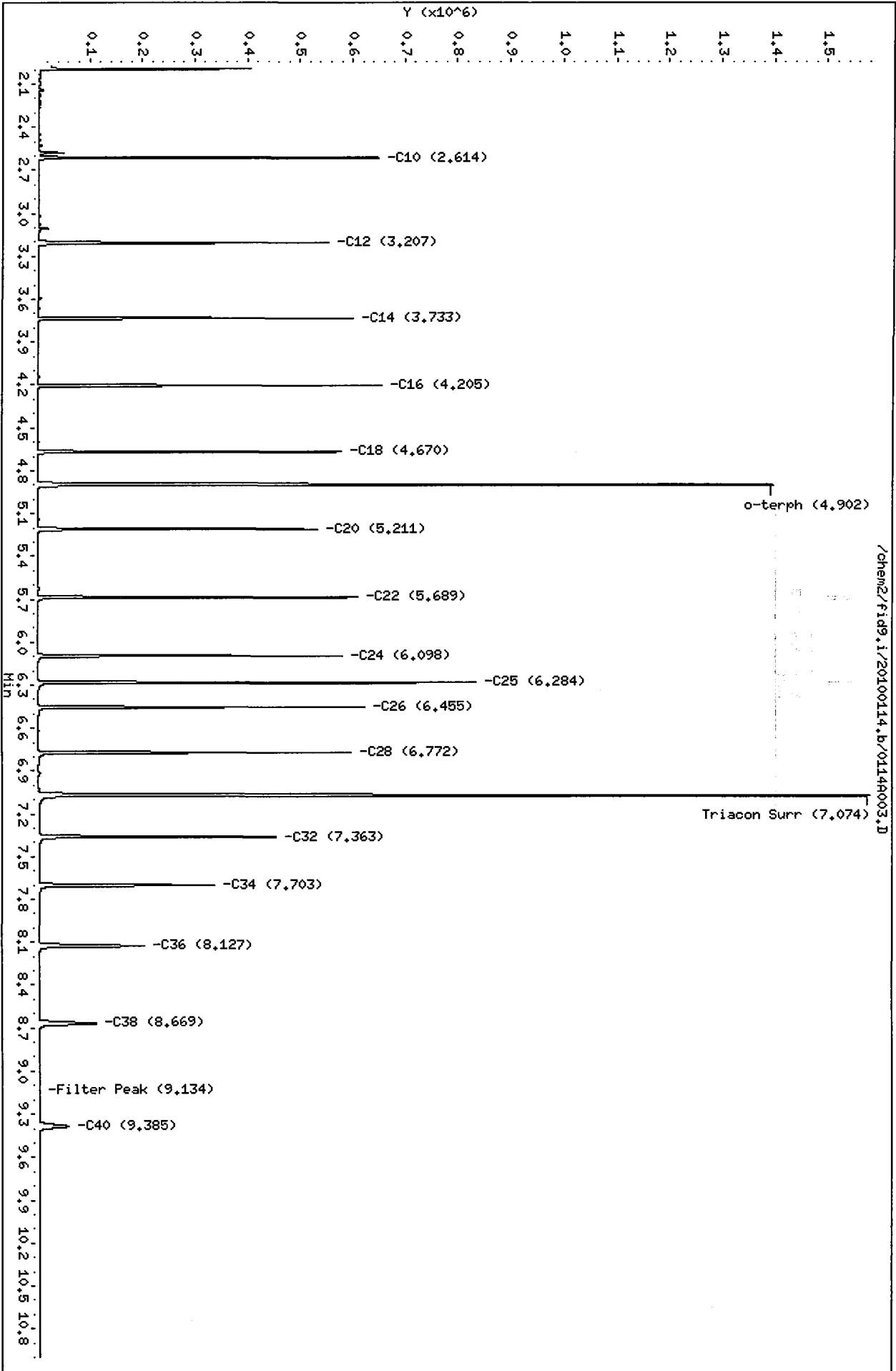
Sample Info: RT

Column phase: RTX-1

Instrument: fid9.i

Operator: HS

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

*11/19/10*

Data file: /chem2/fid9.i/20100114.b/0114A004.D  
Method: /chem2/fid9.i/20100114.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/19/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: IB  
Client ID: IB  
Injection: 14-JAN-2010 13:10  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.815	0.001	2124	4251	GAS (Tol-C12)	98046	8
C8	1.994	-0.003	1190	863	DIESEL (C12-C24)	32010	2
C10	2.651	0.037	788	156	M.OIL (C24-C38)	181195	13
C12	3.217	0.010	485	276	AK-102 (C10-C25)	84170	4
C14	3.732	-0.001	312	92	AK-103 (C25-C36)	129990	14
C16	4.200	-0.005	235	220			
C18	4.672	0.002	795	642			
C20	5.213	0.003	893	623			
C22	5.693	0.004	1003	694			
C24	6.098	0.000	1139	871			
C25	6.283	-0.001	1542	1203			
C26	6.454	-0.001	1273	1163			
C28	6.770	-0.002	2285	2546			
C32	7.359	-0.003	4932	6069			
C34	7.699	-0.004	1999	3812	BUNKERC (C10-C38)	264091	30
Filter Peak	9.136	0.003	1634	682			
C36	8.122	-0.005	2110	5477			
C38	8.666	-0.002	1840	5395			
C40	9.382	-0.003	1754	1604			
o-terph	4.906	0.004	1738841	1527192			
Triacon Surr	7.076	0.002	1585570	1211500			

Range Times: NW Diesel(3.207 - 6.098) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1527192	72.5	161.0
Triacotane	1211500	55.2	122.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100114.b/01144004.D  
Date : 14-JAN-2010 13:10

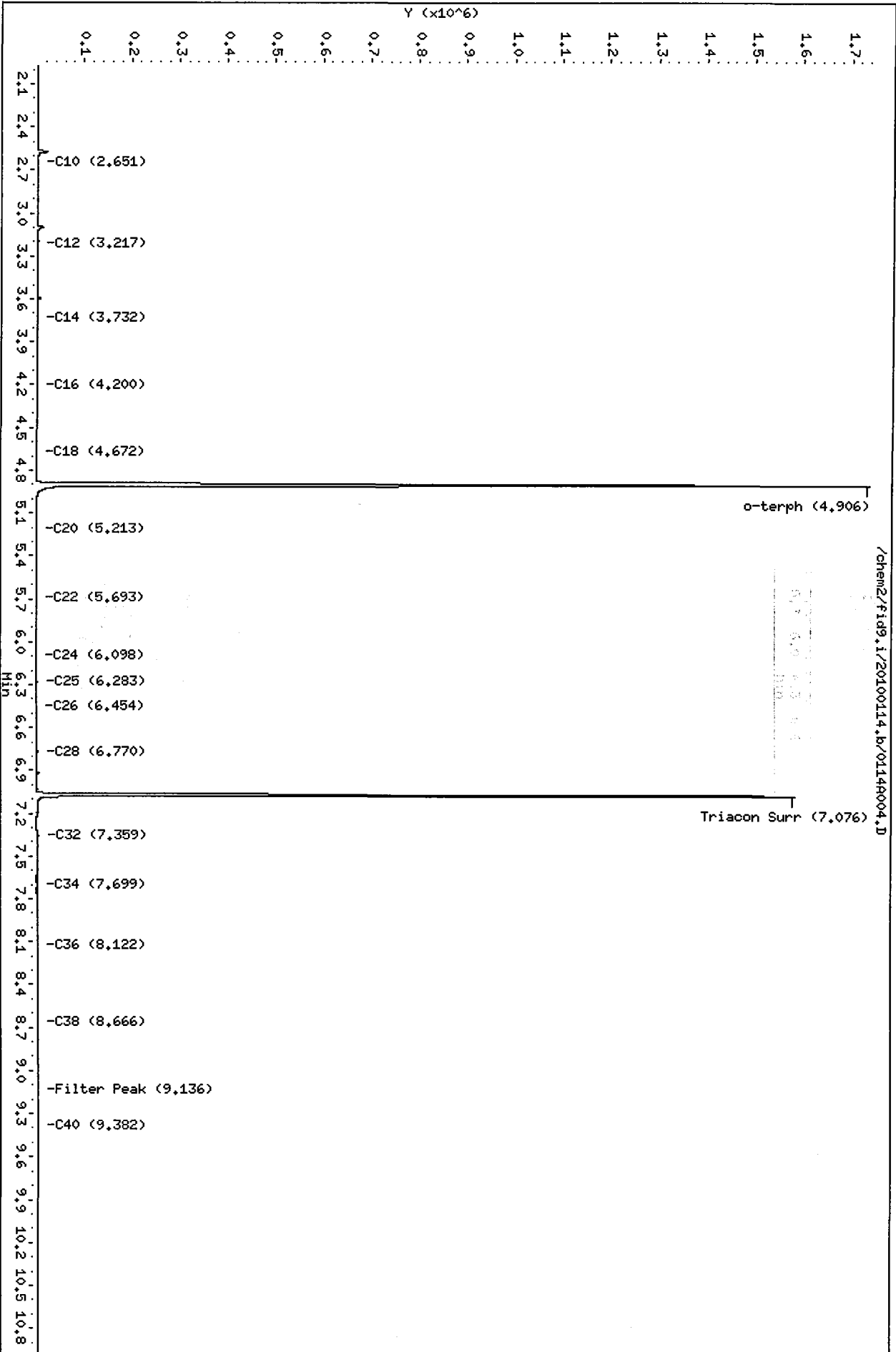
Client ID: IB  
Sample Info: IB

Column phase: RTX-1

Instrument: fid9.i

Operator: HS

Column diameter: 0.25



14 JAN 2010 13:10

7a  
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 22-DEC-2009                      Project: POS-LLA  
 CCal Date: 14-JAN-2010                      SDG No.: QF10  
 Analysis Time: 22:11                          Lab ID: DIESEL#3  
 Instrument: FID9.I                              Lab File Name: 0114A029.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies (C12-C24)	4213794	249.6	250	-0.2
AK102 (C10-C25)	4701085	248.9	250	-0.4
Terphenyl	941087	44.7	45	-0.8

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA Diesel    C12-C24  
                       AK Diesel    C10-C25

Analytical Resources Inc.  
TPH Quantitation Report

*Jan 11/11*

Data file: /chem2/fid9.i/20100114.b/0114A029.D  
Method: /chem2/fid9.i/20100114.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/19/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: DIESEL#3  
Client ID: POS-LLA  
Injection: 14-JAN-2010 22:11  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.820	0.006	2832	3868	GAS (Tol-C12)	659634	51
C8	1.997	0.000	2449	3491	DIESEL (C12-C24)	4213794	250
C10	2.634	0.019	8910	12411	M.OIL (C24-C38)	77480	6
C12	3.196	-0.011	47452	39596	AK-102 (C10-C25)	4701085	249
C14	3.732	-0.001	99141	59437	AK-103 (C25-C36)	50687	5
C16	4.205	0.000	202301	141681			
C18	4.671	0.001	146816	112007			
C20	5.211	0.000	91663	79983			
C22	5.687	-0.002	48326	36911			
C24	6.097	0.000	15404	11455			
C25	6.283	-0.001	6733	8845			
C26	6.456	0.001	2813	2802			
C28	6.775	0.003	335	292			
C32	7.362	-0.001	313	123			
C34	7.704	0.001	375	277	BUNKERC (C10-C38)	4765422	543
Filter Peak	9.137	0.003	466	259			
C36	8.124	-0.003	372	158			
C38	8.669	0.000	497	280			
C40	9.388	0.004	441	304			
o-terph	4.904	0.002	1229471	941087			
Triacon Surr	7.069	-0.004	2982	1892			

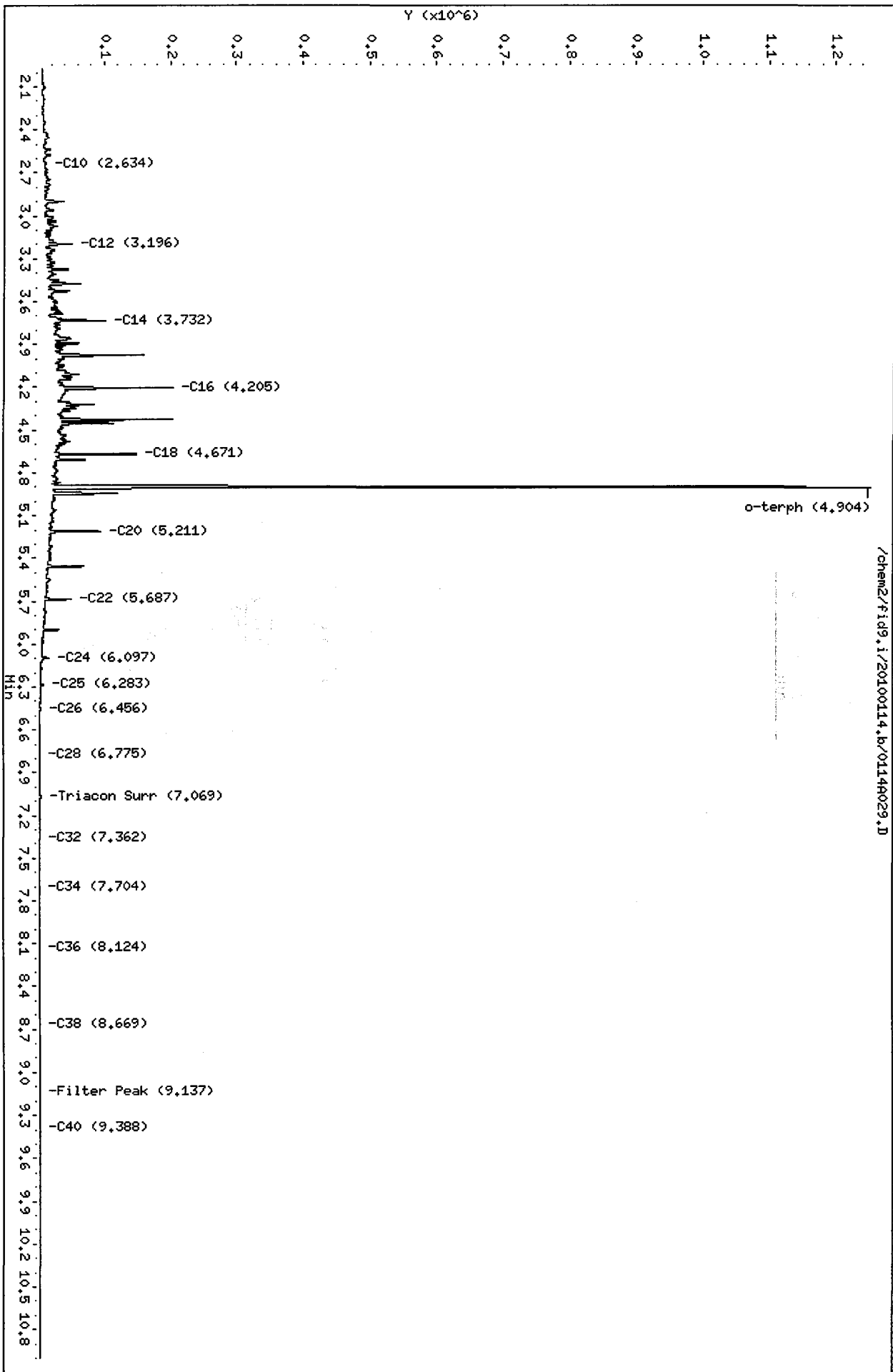
Range Times: NW Diesel(3.207 - 6.098) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	941087	44.7	99.2
Triacontane	1892	0.1	0.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100114.b/0114A029.D  
Date: 14-JAN-2010 22:11  
Client ID: POS-LLA  
Sample Info: DIESEL#3  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



/chem2/fid9.i/20100114.b/0114A029.D

14 JAN 2010 22:11



7a  
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 05-JAN-2010                      Project: POS-LLA  
 CCal Date: 14-JAN-2010                      SDG No.: QF10  
 Analysis Time: 22:31                          Lab ID: MOIL#3  
 Instrument: FID9.I                              Lab File Name: 0114A030.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil (C24-C38)	6355151	459.9	500	-8.0
AK103 (C25-C36)	5667684	599.3	500	19.9
n-Triacontane	1074802	49.0	45	8.9

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA M.Oil    C24-C38  
                       AK M.Oil    C25-C36

Analytical Resources Inc.  
TPH Quantitation Report

*Mr 11/5/10*

Data file: /chem2/fid9.i/20100114.b/0114A030.D  
Method: /chem2/fid9.i/20100114.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/19/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL#3  
Client ID: POS-LLA  
Injection: 14-JAN-2010 22:31  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.830	0.016	2119	1330	GAS (Tol-C12)	128985	10
C8	2.012	0.014	1033	1157	DIESEL (C12-C24)	788200	47
C10	2.648	0.033	569	328	M.OIL (C24-C38)	6355151	460
C12	3.196	-0.011	1121	984	AK-102 (C10-C25)	1050440	56
C14	3.725	-0.008	212	277	AK-103 (C25-C36)	5667684	599
C16	4.200	-0.005	146	62			
C18	4.677	0.006	1314	1096			
C20	5.210	-0.001	3356	5040			
C22	5.686	-0.003	12658	15774			
C24	6.097	-0.001	28976	21740			
C25	6.281	-0.003	37260	12469			
C26	6.454	-0.001	47704	63084			
C28	6.770	-0.002	61124	30100			
C32	7.365	0.003	63968	57795			
C34	7.698	-0.005	42997	20389	BUNKERC (C10-C38)	7231688	825
Filter Peak	9.133	-0.001	6963	4852			
C36	8.135	0.007	24001	12744			
C38	8.666	-0.003	11862	7710			
C40	9.384	0.000	5349	3828			
o-terph	4.903	0.001	4277	4065			
Triacon Surr	7.080	0.006	1420611	1074802			

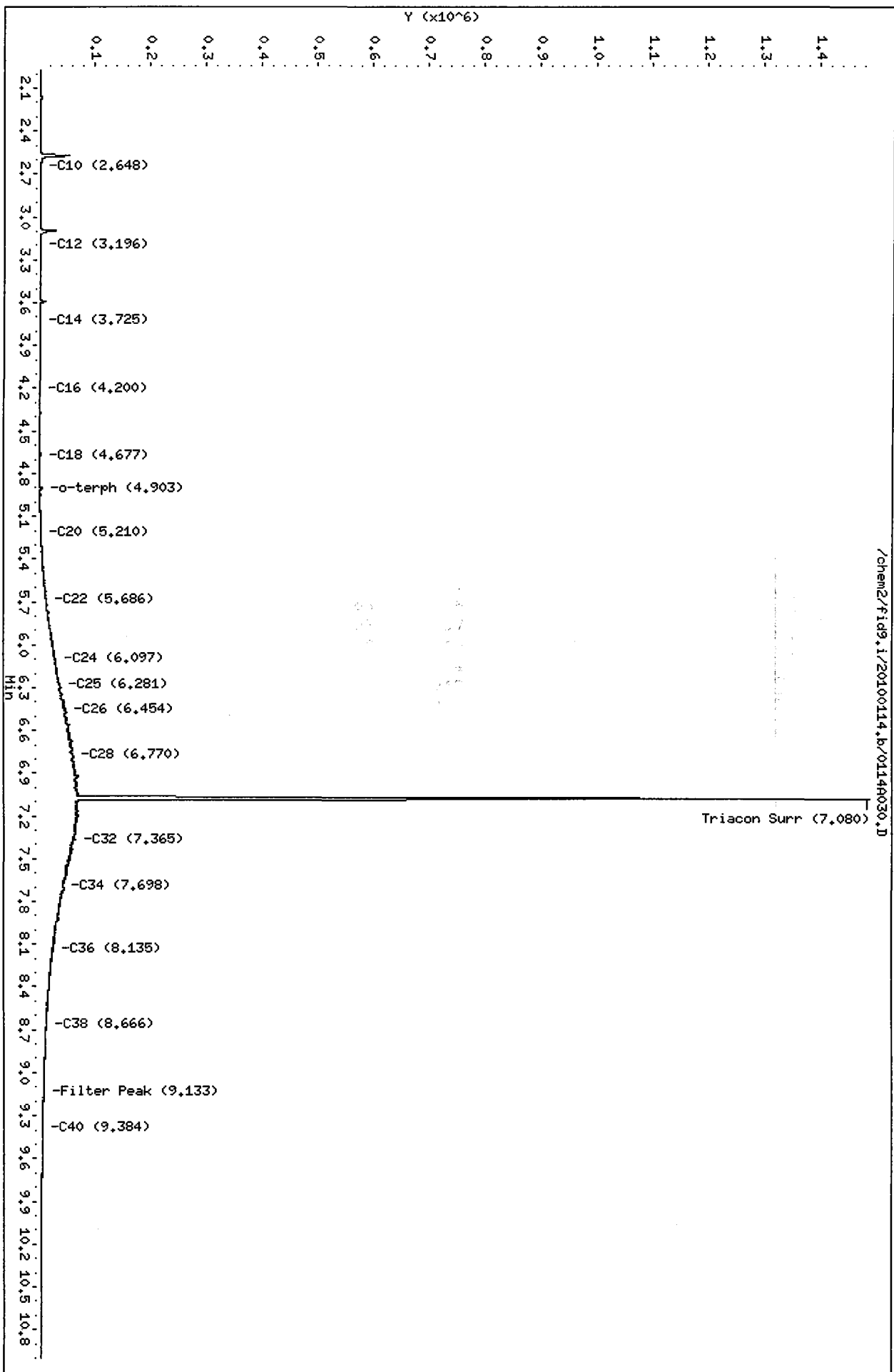
Range Times: NW Diesel (3.207 - 6.098) AK102 (2.61 - 6.28) Jet A (2.61 - 4.67)  
NW M.Oil (6.10 - 8.67) AK103 (6.28 - 8.13) OR Diesel (2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	4065	0.2	0.4
Triacotane	1074802	49.0	108.9

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100114.b/0114A030.D  
Date: 14-JAN-2010 22:31  
Client ID: POS-LLA  
Sample Info: M01L#3  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



7a  
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
ICal Date: 22-DEC-2009                      Project: POS-LLA  
CCal Date: 15-JAN-2010                      SDG No.: QF10  
Analysis Time: 00:48                         Lab ID: DIESEL#4  
Instrument: FID9.I                             Lab File Name: 0114A037.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies (C12-C24)	4102303	243.0	250	-2.8
AK102 (C10-C25)	4574794	242.3	250	-3.1
Terphenyl	959682	45.5	45	1.2

\* Surrogate areas are subtracted from range areas  
<- Indicates a %D outside QC limits

Quant Ranges :    WA Diesel    C12-C24  
                  AK Diesel    C10-C25

Analytical Resources Inc.  
TPH Quantitation Report

*Jan 11/9/10*

Data file: /chem2/ftid9.i/20100114.b/0114A037.D  
Method: /chem2/ftid9.i/20100114.b/ftphfid9a.m  
Instrument: ftid9.i  
Operator: MS  
Report Date: 01/19/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: DIESEL#4  
Client ID: POS-LLA  
Injection: 15-JAN-2010 00:48  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.821	0.007	1700	1947	GAS (Tol-C12)	590077	46
C8	1.990	-0.007	1398	3834	DIESEL (C12-C24)	4102303	243
C10	2.631	0.016	7825	11296	M.OIL (C24-C38)	172115	12
C12	3.195	-0.012	47767	38591	AK-102 (C10-C25)	4574794	242
C14	3.731	-0.002	101865	59343	AK-103 (C25-C36)	119710	13
C16	4.204	-0.001	204629	123071			
C18	4.670	0.000	152179	110982			
C20	5.211	0.000	90931	80513			
C22	5.687	-0.002	48469	36335			
C24	6.097	-0.001	15436	10423			
C25	6.282	-0.002	6353	6474			
C26	6.456	0.000	2259	1347			
C28	6.772	0.000	1023	1456			
C32	7.359	-0.003	1822	2222			
C34	----				BUNKERC (C10-C38)	4735434	540
Filter Peak	9.133	-0.001	1035	388			
C36	8.127	0.000	1169	2710			
C38	8.671	0.003	1277	1032			
C40	9.387	0.002	1213	453			
o-terph	4.903	0.001	1253511	959682			
Triacon Surr	7.065	-0.009	4390	3463			

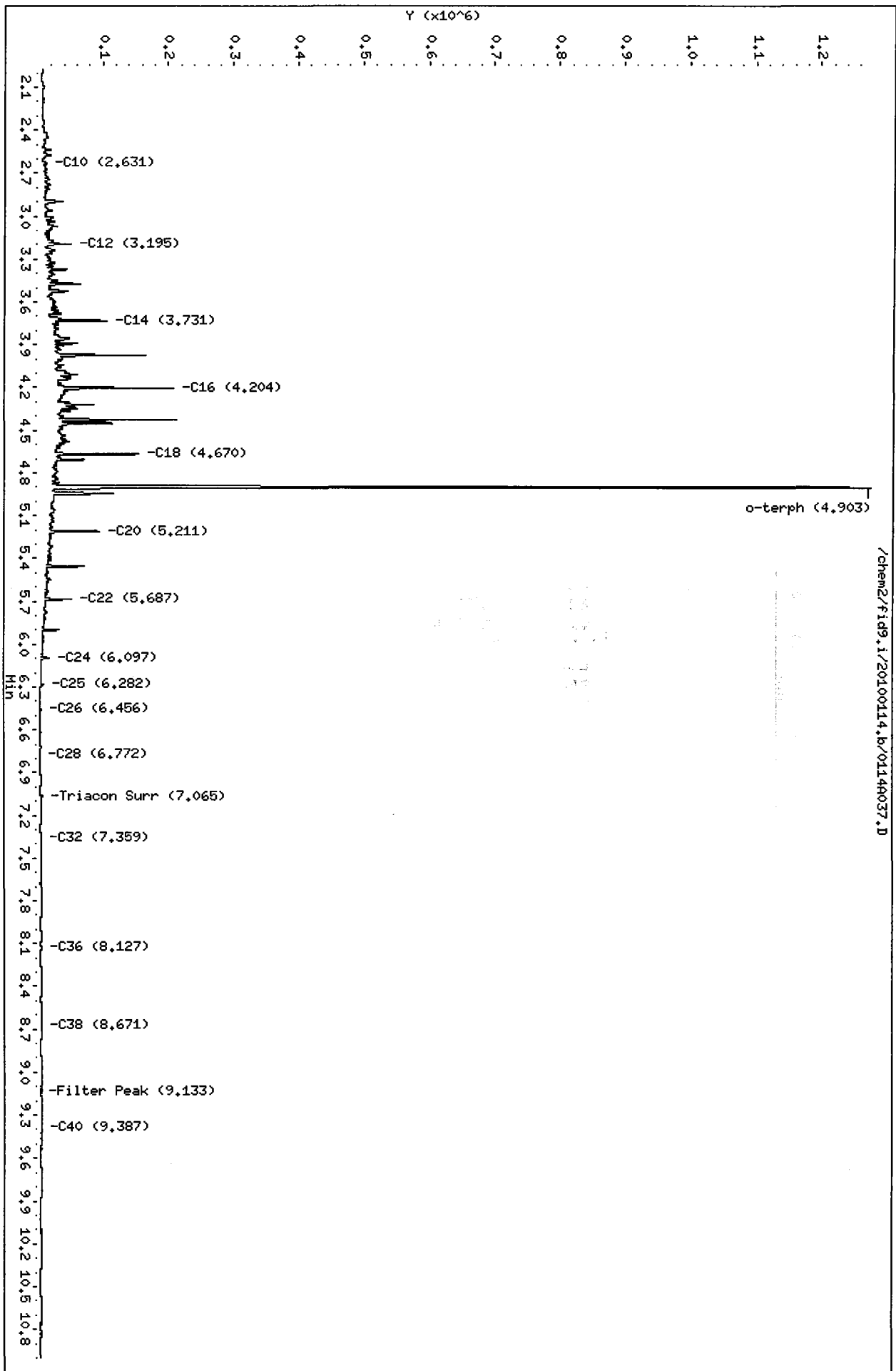
Range Times: NW Diesel(3.207 - 6.098) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	959682	45.5	101.2
Triacontane	3463	0.2	0.4

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100114.b/0114A037.D  
Date: 15-JAN-2010 00:48  
Client ID: POS-LLA  
Sample Info: DIESEL#4  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



/chem2/fid9.i/20100114.b/0114A037.D

7a  
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 05-JAN-2010                      Project: POS-LLA  
 CCal Date: 15-JAN-2010                      SDG No.: QF10  
 Analysis Time: 01:07                          Lab ID: MOIL#4  
 Instrument: FID9.I                              Lab File Name: 0114A038.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil (C24-C38)	6098847	441.4	500	-11.7
AK103 (C25-C36)	5474680	578.9	500	15.8
n-Triacontane	1073407	48.9	45	8.7

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA M.Oil    C24-C38  
                       AK M.Oil    C25-C36

Analytical Resources Inc.  
TPH Quantitation Report

*Mr 1/15/10*

Data file: /chem2/fid9.i/20100114.b/0114A038.D  
Method: /chem2/fid9.i/20100114.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/19/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL#4  
Client ID: POS-LLA  
Injection: 15-JAN-2010 01:07  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.827	0.013	1903	2713	GAS (Tol-C12)	121131	9
C8	1.983	-0.015	1065	842	DIESEL (C12-C24)	786957	47
C10	2.651	0.037	518	225	M.OIL (C24-C38)	6098847	441
C12	3.195	-0.012	1095	883	AK-102 (C10-C25)	1034082	55
C14	3.725	-0.008	188	190	AK-103 (C25-C36)	5474680	579
C16	4.215	0.010	937	792			
C18	4.676	0.006	1480	1220			
C20	5.212	0.002	3543	3768			
C22	5.690	0.001	12772	16041			
C24	6.097	-0.001	28674	23984			
C25	6.271	-0.013	36940	40468			
C26	6.453	-0.003	47756	44382			
C28	6.773	0.001	61445	47118			
C32	7.370	0.007	62153	52130			
C34	7.703	0.000	41324	19977	BUNKERC (C10-C38)	6974194	795
Filter Peak	9.139	0.005	6874	3777			
C36	8.122	-0.005	22720	17395			
C38	8.664	-0.005	10814	3859			
C40	9.381	-0.004	5255	1763			
o-terph	4.904	0.002	5196	4655			
Triacon Surr	7.083	0.009	1404190	1073407			

Range Times: NW Diesel(3.207 - 6.098) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

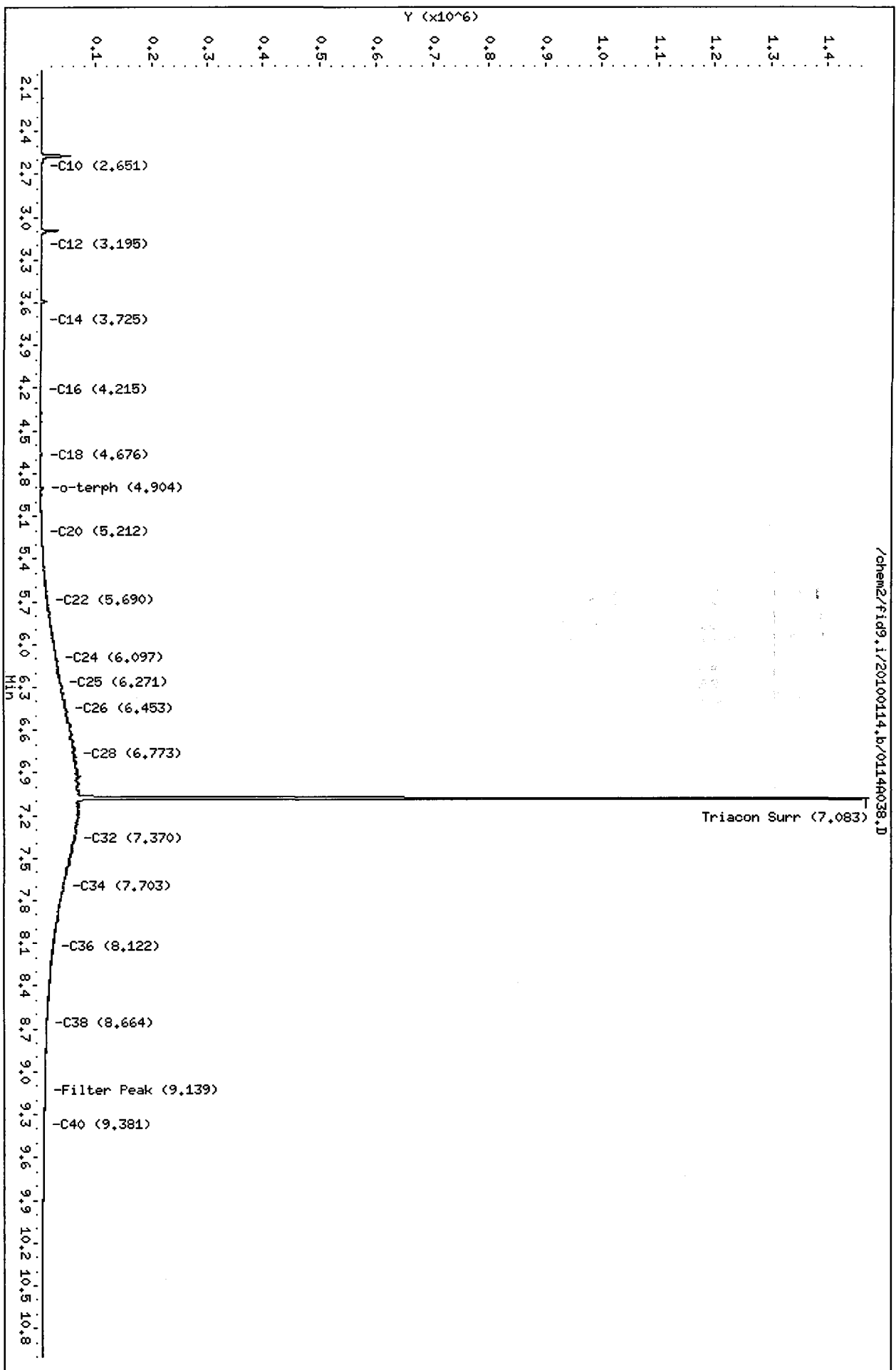
Surrogate	Area	Amount	%Rec
o-Terphenyl	4655	0.2	0.5
Triacontane	1073407	48.9	108.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Data File: /chem2/fid9.i/20100114.b/0114A038.D  
Date: 15-JAN-2010 01:07  
Client ID: POS-LLA  
Sample Info: M01L#4  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



TPHD Analysis  
QC Raw Data

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.

Analytical Resources Inc.  
TPH Quantitation Report

*M 1/18/10*

Data file: /chem2/fid9.i/20100114.b/0114A031.D

ARI ID: QF10MBS1

Method: /chem2/fid9.i/20100114.b/ftphfid9a.m

Client ID: QF10MBS1

Instrument: fid9.i

Injection: 14-JAN-2010 22:51

Operator: MS

Report Date: 01/18/2010

Dilution Factor: 1

Macro: 05-JAN-2010

Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.739	-0.075	102872	351218	GAS (Tol-C12)	161214	12
C8	1.991	-0.006	1939	3022	DIESEL (C12-C24)	109599	6
C10	2.617	0.003	1364	1502	M.OIL (C24-C38)	114365	8
C12	3.195	-0.012	2045	2460	AK-102 (C10-C25)	185931	10
C14	3.743	0.010	1911	1590	AK-103 (C25-C36)	88160	9
C16	4.213	0.008	3321	2868			
C18	4.671	0.001	908	599			
C20	5.213	0.003	695	504			
C22	5.690	0.001	667	443			
C24	6.098	0.001	736	510			
C25	6.284	0.000	576	535			
C26	6.455	0.000	679	448			
C28	6.772	-0.001	1736	1713			
C32	7.360	-0.003	3556	3799			
C34	7.698	-0.005	1174	2420	BUNKERC (C10-C38)	299252	34
Filter Peak	9.129	-0.005	822	711			
C36	8.124	-0.003	1745	3507			
C38	8.666	-0.003	1004	1271			
C40	9.387	0.003	794	362			
o-terph	4.900	-0.002	1107242	919613			
Triacon Surr	7.074	0.001	1399402	973579			

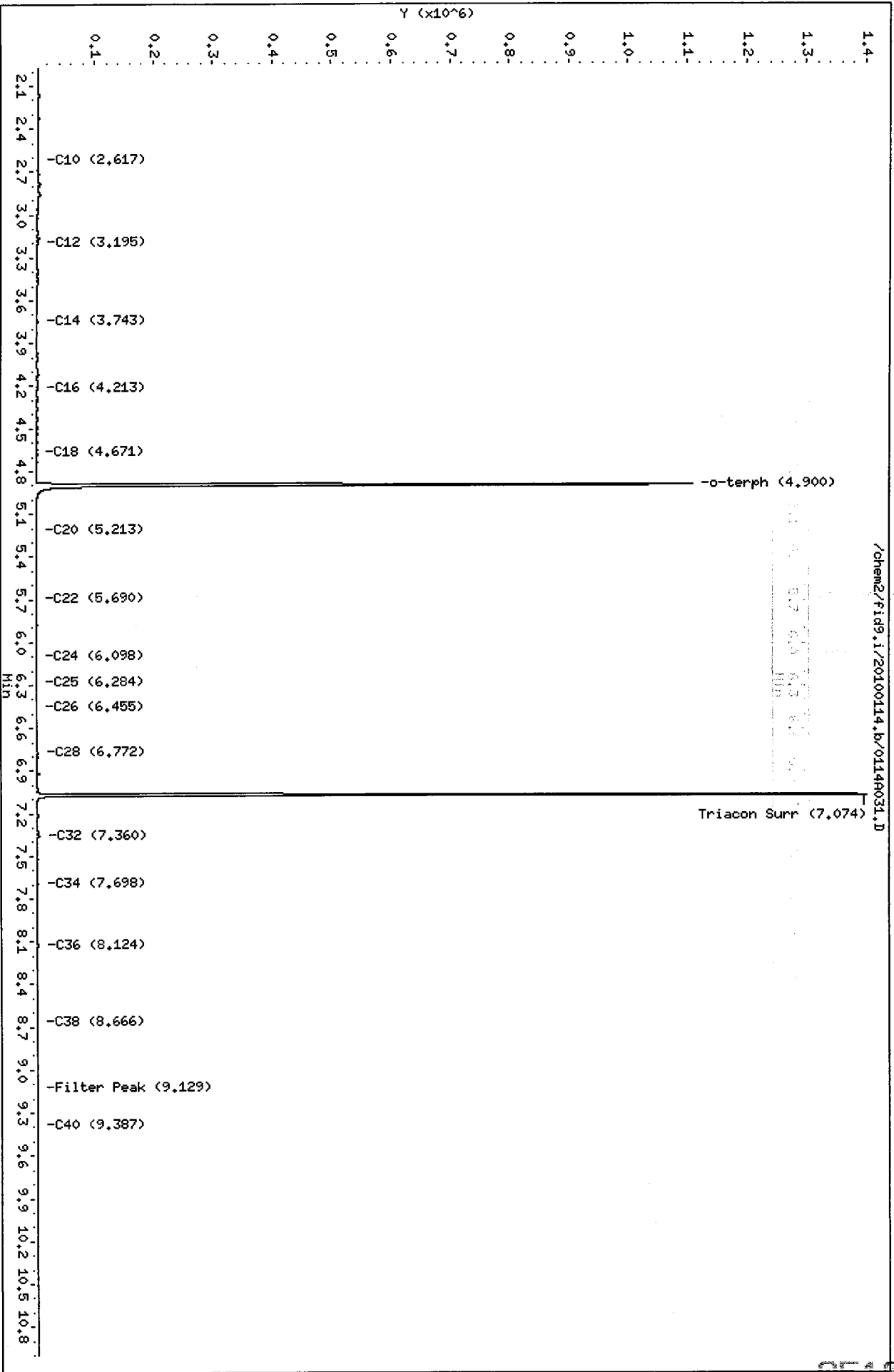
Range Times: NW Diesel(3.207 - 6.098) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
 NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	919613	43.6	97.0
Triacotane	973579	44.4	98.6

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.1/20100114.b/0114A031.D  
Date: 14-JAN-2010 22:51  
Client ID: QF10HBS1  
Sample Info: QF10HBS1  
Column phase: RTX-1

Instrument: fid9.1  
Operator: HS  
Column diameter: 0.25



000000 : 0110

Analytical Resources Inc.  
TPH Quantitation Report

*Jan 17/18/10*

Data file: /chem2/fid9.i/20100114.b/0114A034.D  
Method: /chem2/fid9.i/20100114.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/18/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QF10AMS  
Client ID: CB31A011110SED MS  
Injection: 14-JAN-2010 23:49

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.745	-0.069	187736	593593	GAS (Tol-C12)	2219427	171
C8	1.992	-0.005	4960	13904	DIESEL (C12-C24)	21335914	1264
C10	2.641	0.027	56811	81290	M.OIL (C24-C38)	23688686	1714
C12	3.198	-0.009	201670	168570	AK-102 (C10-C25)	23877109	1264
C14	3.732	-0.001	436724	400166	AK-103 (C25-C36)	21687708	2293
C16	4.207	0.002	883267	531580			
C18	4.678	0.007	687714	533177			
C20	5.204	-0.007	79582	22147			
C22	5.695	0.006	272841	278096			
C24	6.107	0.009	205102	228573			
C25	6.277	-0.007	163738	58422			
C26	6.458	0.003	209537	82193			
C28	6.772	-0.001	243771	43500			
C32	7.362	-0.001	186806	103771			
C34	7.700	-0.003	112131	45952	BUNKERC (C10-C38)	46802194	5336
Filter Peak	9.138	0.004	14789	8687			
C36	8.127	0.000	58533	22104			
C38	8.664	-0.004	28841	12962			
C40	9.391	0.006	10686	2982			
o-terph	4.905	0.003	1017392	748163			
Triacon Surr	7.097	0.023	1210318	772287			

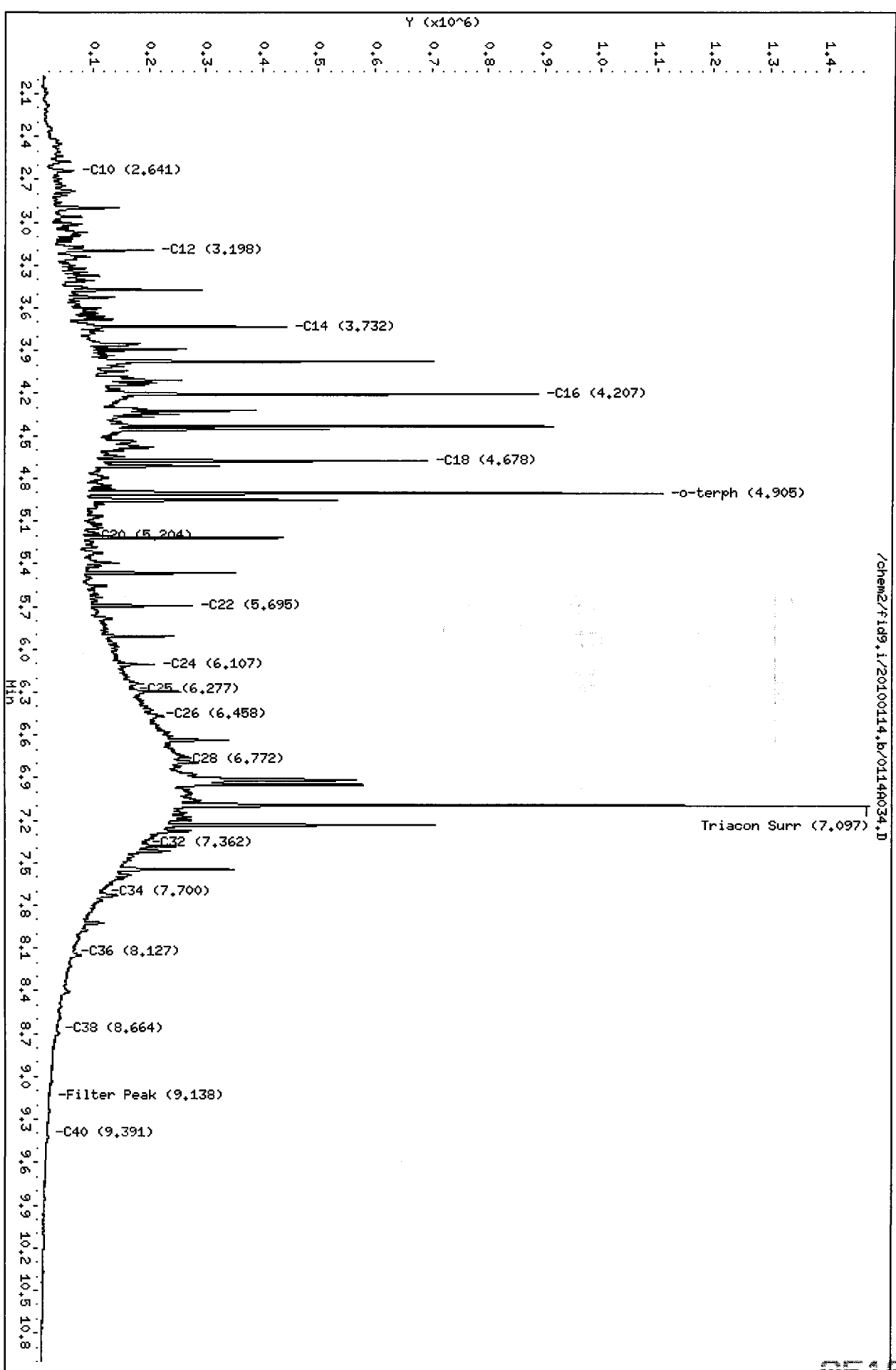
Range Times: NW Diesel(3.207 - 6.098) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	748163	35.5	78.9
Triacontane	772287	35.2	78.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100114.b/0114R034.D  
Date: 14-JAN-2010 23:49  
Client ID: CB31A011110SED HS  
Sample Info: QF10AHS  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

*ms1/1/10/10*

Data file: /chem2/fid9.i/20100114.b/0114A035.D  
Method: /chem2/fid9.i/20100114.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/18/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QF10AMSD  
Client ID: CB31A011110SED MSD  
Injection: 15-JAN-2010 00:09  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.818	0.004	7656	7972	GAS (Tol-C12)	2422254	187
C8	1.991	-0.007	6604	19794	DIESEL (C12-C24)	24761354	1466
C10	2.641	0.026	42294	71880	M.OIL (C24-C38)	36376954	2633
C12	3.197	-0.010	222326	184184	AK-102 (C10-C25)	27747819	1469
C14	3.731	-0.002	469524	288637	AK-103 (C25-C36)	33557682	3548
C16	4.207	0.002	991861	581085			
C18	4.678	0.007	747870	588627			
C20	5.218	0.007	478935	418966			
C22	5.696	0.007	320146	302441			
C24	6.090	-0.008	209206	209788			
C25	6.289	0.005	240963	103228			
C26	6.450	-0.005	290077	130901			
C28	6.766	-0.006	463066	682241			
C32	7.361	-0.002	309242	127153			
C34	7.698	-0.005	166742	146701	BUNKERC (C10-C38)	63020506	7185
Filter Peak	9.130	-0.004	20202	12361			
C36	8.122	-0.005	83325	62237			
C38	8.673	0.005	40116	30387			
C40	9.383	-0.001	14682	7963			
o-terph	4.905	0.003	1122389	821136			
Triacon Surr	7.108	0.034	1158308	741950			

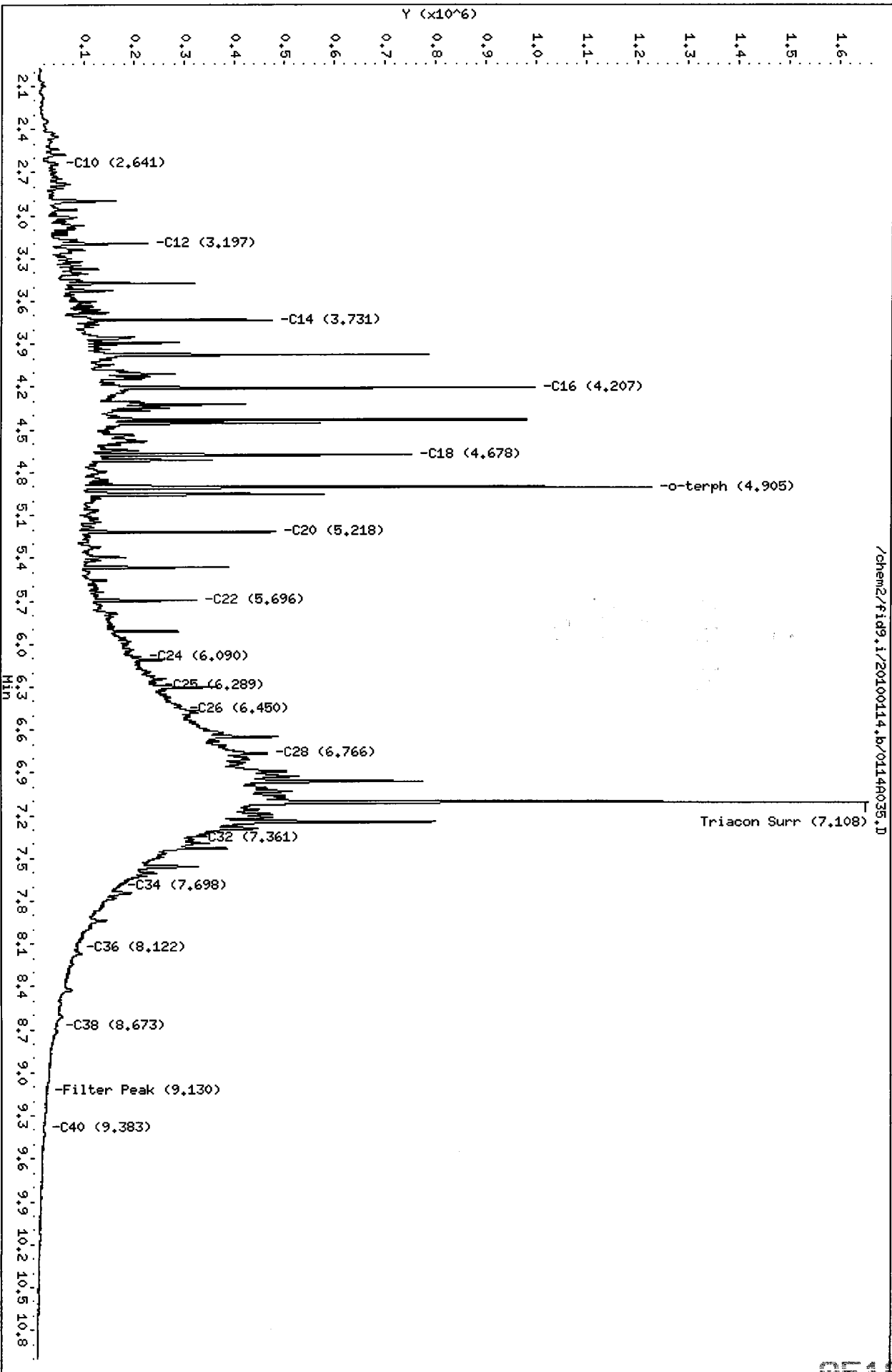
Range Times: NW Diesel(3.207 - 6.098) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	821136	39.0	86.6
Triacontane	741950	33.8	75.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100114.b/0114A035.D  
Date: 15-JAN-2010 00:09  
Client ID: CB31A01110SED HSD  
Sample Info: QF10AHSD  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

*ms 1/18/10*

Data file: /chem2/fid9.i/20100114.b/0114A032.D  
Method: /chem2/fid9.i/20100114.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/18/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QF10LCSS1  
Client ID: QF10LCSS1  
Injection: 14-JAN-2010 23:10

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.814	0.000	6306	7873	GAS (Tol-C12)	3236584	250
C8	1.991	-0.007	7385	23501	DIESEL (C12-C24)	22278310	1319
C10	2.632	0.018	43749	67517	M.OIL (C24-C38)	301231	22
C12	3.197	-0.009	255048	216939	AK-102 (C10-C25)	24827851	1315
C14	3.731	-0.002	525863	317312	AK-103 (C25-C36)	217519	23
C16	4.208	0.003	1068733	791516			
C18	4.678	0.008	782391	633767			
C20	5.218	0.007	498888	419518			
C22	5.691	0.002	266190	205597			
C24	6.096	-0.001	88462	61963			
C25	6.280	-0.004	39118	47534			
C26	6.452	-0.003	17313	13342			
C28	6.769	-0.003	3652	3675			
C32	7.358	-0.005	3045	2709			
C34	7.698	-0.005	666	983	BUNKERC (C10-C38)	25049348	2856
Filter Peak	9.137	0.003	123	29			
C36	8.122	-0.005	1126	1440			
C38	8.667	-0.002	317	250			
C40	9.385	0.000	137	122			
o-terph	4.908	0.006	1173385	905242			
Triacon Surr	7.073	-0.001	1341023	939697			

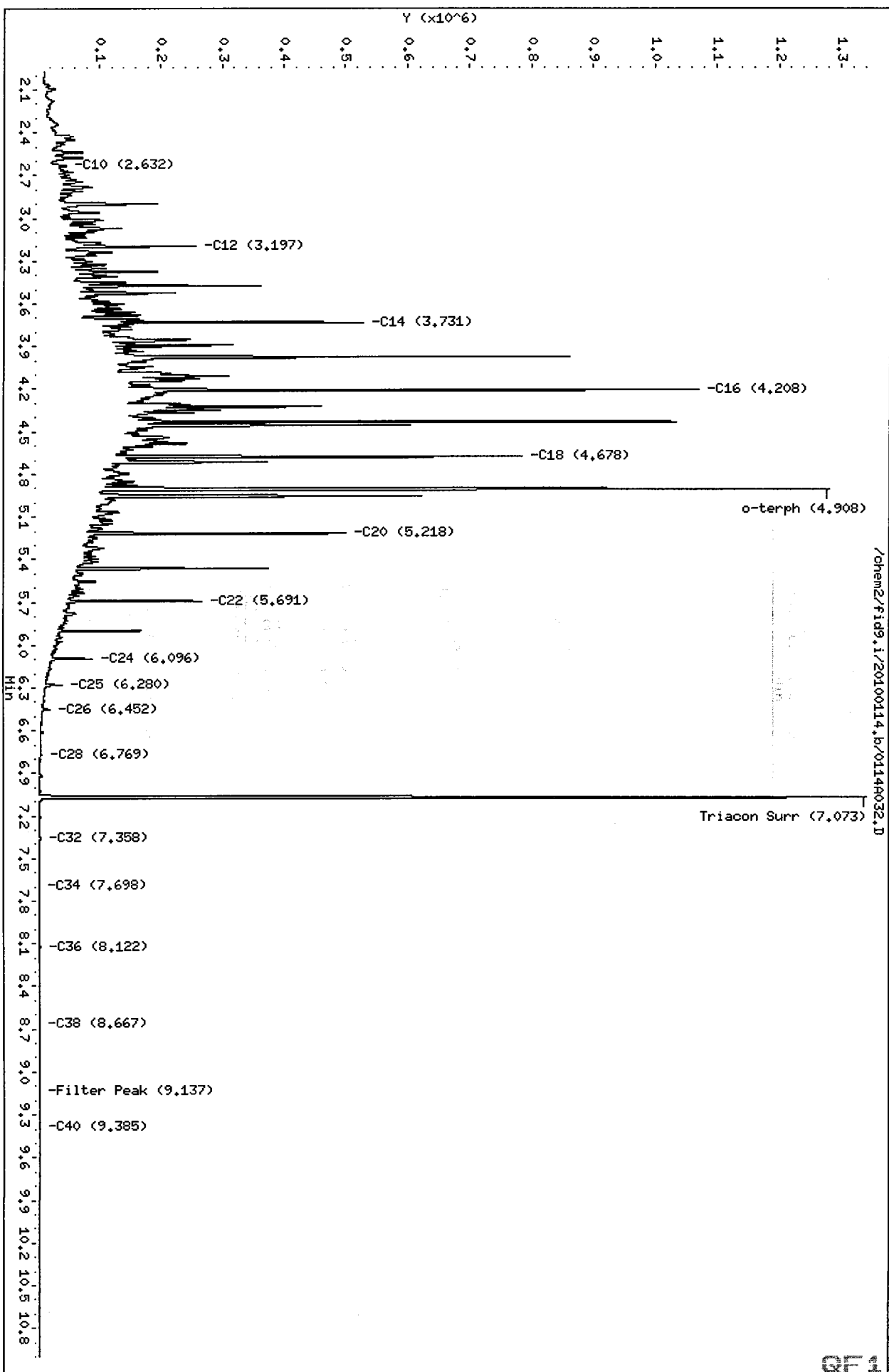
Range Times: NW Diesel(3.207 - 6.098) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	905242	42.9	95.4
Triacontane	939697	42.8	95.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100114.b/01144032.D  
Date: 14-JAN-2010 23:10  
Client ID: QF10LCSS1  
Sample Info: QF10LCSS1  
Column phase: RTX-1

Instrument: fid9.1  
Operator: NS  
Column diameter: 0.25



TPHD Analysis  
Extraction Bench Sheets/Run Logs

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.



Preparation Test TPHD # 3

ARI Job No(s) QF10

In-House

Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	Transfer to Turbo Tube	TurboVap 123	Acid/Silica Clean (1:1) Y/N	TurboVap 120	Final Effective Volume	Volume to Lab	Comments
	QF10 MBS	Date 1-12-10	10.00g	↓	↓	Y	↓	1mL	1mL	
	↓ SBS	↓	↓	↓	↓	↓	↓	↓	↓	
	— SBS Dup.		↓	↓	↓	↓	↓	↓	↓	
13	QF10 A	Ver. 10	10.18	↓	↓	↓	↓	↓	↓	
↓	↓ Ams	↓	10.21	↓	↓	↓	↓	↓	↓	
↓	↓ Amsd	↓	10.13	↓	↓	↓	↓	↓	↓	
7	↓ B	↓	10.19	↓	↓	↓	↓	↓	↓	

Analyst/Date:

AC 1-12-10  
WC 1/12/10

SP 1/13/10

SP 1/13/10

SP 1/13/10

SP 1/13/10

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	O <sub>2</sub>	100µL	7/02/10	AC	WW
Spike	11	100µL	7/07/10	AC	WW

Extraction Time: 19:00

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers-dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add 20mL DCM to the vessel (if needed-Add 5mL increments until solvent is 1" above soil layer). 4. Add surr/spike. 5. Mix samples thoroughly before microwaving. 6. Microwave on appropriate power setting determined by # of samples. 7. After microwave-let cool 10-15 min. 8. Collect into turbo tube with sm. funnel containing glasswool and 1" sodium sulfate. 9. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube. 10. TurboVap. 11. Acid/Silica Clean-up? = Y/N. 12. TurboVap (if Silica Clean). 13. Vial.

A. Need Total Solids Y (N)

B. Archive/Freeze Y (N)



# Organic Extractions Laboratory Analyst Notes

ARI Job No.: QF10

Client ID: Floyd-Suider

Parameter: TPHD w/AcSi

Client Project: Pos-Lara Lake Apts Interim Action

SOP Number(s): 3975

No Anomalies:

List problems, concerns, corrective actions and any other pertinent information

Analyst Initials:

Date:

# Analytical Resources Inc.: Organics Instrument Log

FID-9 Agilent 6850 - Serial No.: US10404004

Date: 12/22/09 Analysis: TPHd Analyst: MS

GC Program: TPH Column No: 802037 Column Type: RTX 1

Instrument Tune (.U or .CT.): NA EM Voltage: NA

Calibration File: 20091222.2.B Curve Date: 12/22/09

IS/SS	Ical/Ccal	LCS/ICV
	1686-3	1597-1
	1639-1	1605-2
	1687-3	
	1638-3	

Time	Filename	LABID	Clientid	DF	Time	Filename	LABID	Clientid	DF	Time	Filename	LABID	Clientid	DF
1 1232	1222A021.D	RINSE		1	23 2003	1222A023.D	DIESEL 100	DIESEL 100	1	46 0330	1222A046.D	DIESEL#2		1
2 1233	1222A022.D	IB		1	24 2043	1222A024.D	DIESEL 250	DIESEL 250	1	47 0349	1222A047.D	MOL#2		1
3 1234	1222A023.D	IS		1	25 2148	1222A025.D	DIESEL 500	DIESEL 500	1					
4 1235	1222A024.D	DIESEL#1		1	26 2100	1222A026.D	DIESEL 1000	DIESEL 1000	1					
5 1236	1222A025.D	MOL#1		1	27 2121	1222A027.D	DIESEL 1500	DIESEL 1500	1					
6 1237	1222A026.D	MOL#1		1	28 2100	1222A028.D	DIESEL 100	DIESEL 100	1					
7 1238	1222A027.D	OB86B#1		1	29 2209	1222A029.D	MOL 100	MOL 100	1					
8 1239	1222A028.D	OB86B#2		1	30 2247	1222A030.D	MOL 250	MOL 250	1					
9 1240	1222A029.D	OB86LCS#1		1	31 2411	1222A031.D	MOL 500	MOL 500	1					
10 1241	1222A030.D	OB86A		1	32 2258	1222A032.D	MOL 1000	MOL 1000	1					
11 1242	1222A031.D	OB86B		1	33 2328	1222A033.D	MOL 2500	MOL 2500	1					
12 1243	1222A032.D	OB86C		1	34 2347	1222A034.D	MOL 5000	MOL 5000	1					
13 1244	1222A033.D	OB86D		1	35 2357	1222A035.D	MOL 100	MOL 100	1					
14 1700	1222A034.D	DIESEL#2		1	36 0016	1222A036.D	IB		1					
15 1719	1222A035.D	MOL#2		1	37 0030	1222A037.D	DIESEL#1		1					
16 1739	1222A036.D	OB86B#1		1	38 0055	1222A038.D	MOL#1		1					
17 1802	1222A037.D	QC40C		1	39 0114	1222A039.D	OB86D		1					
18 1620	1222A038.D	RINSE		1	40 0134	1222A040.D	OB86C		1					
19 1640	1222A039.D	RINSE		1	41 0153	1222A041.D	OB86B		1					
20 1907	1222A040.D	IB	NT	1	42 0212	1222A042.D	OB86A		1					
21 1920	1222A041.D	IB	1b	1	43 0232	1222A043.D	OB86LCS#1		1					
22 1944	1222A042.D	DIESEL 50	DIESEL 50	1	44 0251	1222A044.D	OB86LCS#1		1					
					45 0310	1222A045.D	OB86B#1		1					

AR 12/31/09

## Maintenance / Comments

### Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.



**GC Analyst Notes / Corrective Action Log**

ARI Project ID: Diesel CURVE Client ID: ARI  
AK102, o-Terphenyl

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other

Parameter(s): Diesel, AK102, -o-Terphenyl

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 FID-9  
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/22/09 Analysis Start: 12/22/09

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO YES  
ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO  
CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery In Control? YES / NO  
Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

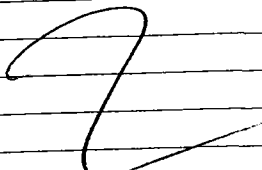
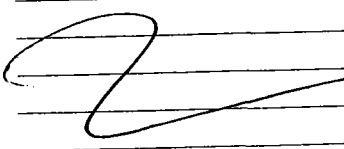
Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 12/23/09

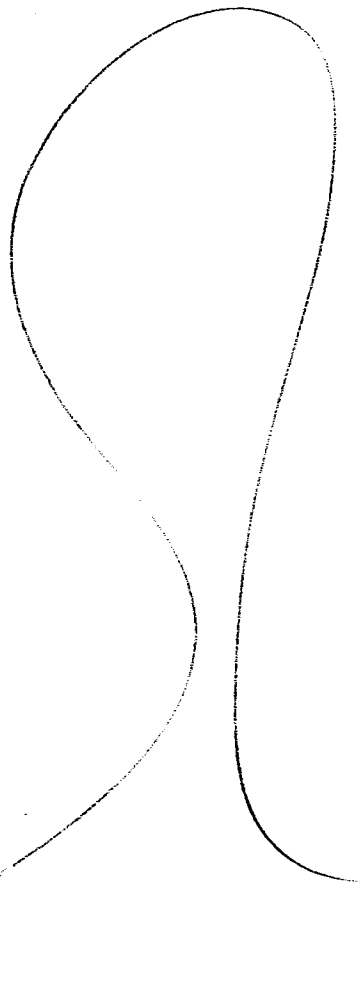
Reviewer's Signature: [Signature] Date: 12.23.1009

**Analytical Resources Inc.: Organics Instrument Log**  
**FID-9 Agilent 6850 - Serial No.: US10404004**

Date: 11/5/10 Analysis: TPHD Analyst: ms  
 GC Program: TPM Column No: 802037 Column Type: RXX1  
 Instrument Tune (.U or .CT.): \_\_\_\_\_ EM Voltage: \_\_\_\_\_  
 Calibration File: \_\_\_\_\_ Curve Date: Discal: 12/22/09 MOIL: 11/5/10

IS/SS	Ical/Ccal	LCS/ICV
	<u>1680-3</u> <u>1639-1</u> <u>1687-3</u> <u>1638-3</u>	

Time	Filename	LabID	ClientID	DF	Time	Filename	LabID	ClientID	DF	
1	1153	0105A001.D	RINSE	1	23	2035	0105A023.D	MOIL 1000	MOIL 1000	1
2	1213	0105A002.D	RINSE	1	24	2055	0105A024.D	MOIL 2500	MOIL 2500	1
3	1232	0105A003.D	RT	1	25	2115	0105A025.D	MOIL 5000	MOIL 5000	1
4	1252	0105A004.D	IB	1	26	2134	0105A026.D	MOIL ICV		1
5	1312	0105A005.D	DIESEL#1	1	27	2153	0105A027.D	RINSE		1
6	1331	0105A006.D	MOIL#1	1	28	2213	0105A028.D	RINSE		1
7	1351	0105A007.D	MOIL#1	1	29	2233	0105A029.D	RINSE		1
8	1411	0105A008.D	OC23C	5	30	2252	0105A030.D	BUNKER 50		1
9	1431	0105A009.D	QD74A	1	31	2312	0105A031.D	BUNKER 100		1
10	1450	0105A010.D	RINSE	1	32	2332	0105A032.D	BUNKER 250		1
11	1510	0105A011.D	RINSE	1	33	2351	0105A033.D	BUNKER 500		1
12	1530	0105A012.D	MOIL#1	1	34	0011	0105A034.D	BUNKER 1000		1
13	1549	0105A013.D	OC23C	5	35	0030	0105A035.D	BUNKER 2500		1
14	1609	0105A014.D	NEW MOIL CHECK		36	0050	0105A036.D	BUNKER 5000		1
15	1629	0105A015.D	DIESEL#2	1	37	0110	0105A037.D	RINSE		1
16	1818	0105A016.D	RINSE	1	38	0129	0105A038.D	DIESEL#1		1
17	1838	0105A017.D	RINSE	1	39	0149	0105A039.D	MOIL#1		1
18	1857	0105A018.D	RT	1	40	0208	0105A040.D	BUNKER#1		1
19	1917	0105A019.D	IB	1	41	0228	0105A041.D	RINSE		1
20	1937	0105A020.D	MOIL 100	MOIL 100	1					
21	1956	0105A021.D	MOIL 250	MOIL 250	1					
22	2016	0105A022.D	MOIL 500	MOIL 500	1					



**Maintenance / Comments** Curved MOIL and Bunkerc.

---



---



---

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):  
 Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

QF10:00698





**GC Analyst Notes / Corrective Action Log**

ARI Project ID: MOTOR OIL CORRECTION Client ID: ART

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other

Parameter(s): MOTOR OIL, n-TRIACONTANE

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 FID-9  
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 1/5/10 Analysis Start: 1/5/10

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO / NA

ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO / NA

CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst Signature: MA Date: 1/8/10

Reviewer's Signature: [Signature] Date: 1/8/10

# Analytical Resources Inc.: Organics Instrument Log

FID-9 Agilent 6850 - Serial No.: US10404004

Date: 1/14/10 Analysis: TPHD Analyst: MP  
 GC Program: TPH Column No: 802037 Column Type: RTX-1  
 Instrument Tune (.U or .CT.): \_\_\_\_\_ EM Voltage: \_\_\_\_\_  
 Calibration File: \_\_\_\_\_ Curve Date: 12/22/09, 1/1/10, 1/5/10

IS/SS	Ical/Ccal	LCS/ICV
<u>2</u>	<u>1686-3</u>	<u>2</u>
	<u>1639-1</u>	
	<u>1687-3</u>	
	<u>1638-3</u>	

Time	Filename	LabID	ClientID	DF	Time	Filename	LabID	ClientID	DF		
1	1211	0114A001.D	RINSE	1	23	2014	0114A023.D	QF33N	B11-5	1	
2	1231	0114A002.D	RINSE	1	24	2033	0114A024.D	QF33Q	B12-6.5	1	
3	1250	0114A003.D	RT	1	25	2053	0114A025.D	QF33R	B12-8	1	
4	1310	0114A004.D	IB	1	26	2113	0114A026.D	QF33S	B13-5.5	1	
5	1330	0114A005.D	DIESEL#1	1	27	2132	0114A027.D	QF33T	B13-8	1	
6	1349	0114A006.D	MOIL#1	1	28	2152	0114A028.D	QF33W	B14-9	1	
7	1500	0114A007.D	QF33H	B8-9	1	29	2211	0114A029.D	DIESEL#3	1	
8	1519	0114A008.D	QF33X	B8-4	1	30	2231	0114A030.D	MOIL#3	1	
9	1539	0114A009.D	QF33B	B5-9	1	31	2251	0114A031.D	QF10MBS1	QF10MBS1	1
10	1558	0114A010.D	QF33C	B5-15	1	32	2310	0114A032.D	QF10LCSS1	QF10LCSS1	1
11	1618	0114A011.D	QF33E	B6-8.5	1	33	2330	0114A033.D	QF10A	CB31A011110S	1
12	1638	0114A012.D	QF33F	B6-13.5	1	34	2349	0114A034.D	QF10AMS	CB31A011110S	1
13	1657	0114A013.D	QF33G	B7-9	1	35	0009	0114A035.D	QF10AMSD	CB31A011110S	1
14	1717	0114A014.D	QF33LCSS1	QF33LCSS1	1	36	0028	0114A036.D	QF10B	CB99011110SE	1
15	1737	0114A015.D	QF33LCSDS1	QF33LCSDS1	1	37	0048	0114A037.D	DIESEL#4	1	
16	1756	0114A016.D	QF33MBS1	QF33MBS1	1	38	0107	0114A038.D	MOIL#4	1	
17	1816	0114A017.D	DIESEL#2	1							
18	1836	0114A018.D	MOIL#2	1							
19	1855	0114A019.D	QF33J	B9-9	1						
20	1915	0114A020.D	QF33L	B10-6.5	1						
21	1935	0114A021.D	QF33M	B10-8	1						
22	1954	0114A022.D	QF33L	B10-6.5	10						

*ms*

**Maintenance / Comments**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):  
 Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.



**GC Analyst Notes / Corrective Action Log**

ARI Project ID: QF10 Client ID: POS-LLA

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other

Parameter(s): Diesel, Mobil, Steph.

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 FID-9  
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/22/09, 1/5/10 Analysis Start: 1/14/10

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Samplers A and B contain weathered diesel.

Additional Details on Reverse: Yes No

Analyst Signature: mo Date: 1/18/10

Reviewer's Signature: B Date: 1/19/10

Metals Analysis  
QC Summary Data

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.

# Cover Page

INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Floyd-Snider

PROJECT: POS-Lora Lake Apts I

SDG: QF10

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
CB31A011110SED	QF10A	10-690	
CB31A011110SEDD	QF10ADUP	10-690	
CB31A011110SEDS	QF10ASPK	10-690	
CB99011110SED	QF10B	10-691	
PBS	QF10MB1	10-691	
LCSS	QF10MB1SPK	10-691	

Were ICP interelement corrections applied ?                      Yes/No    YES  
Were ICP background corrections applied ?                      Yes/No    YES  
If yes - were raw data generated before  
application of background corrections ?                      Yes/No    NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: 

Name: Jay Kuhn

Date: 1/19/10

Title: Inorganics Director

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: CB31A011110SED

**MATRIX SPIKE**

Lab Sample ID: QF10A

LIMS ID: 10-690

Matrix: Soil

Data Release Authorized

Reported: 01/19/10

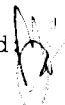
QC Report No: QF10-Floyd-Snider

Project: POS-Lora Lake Apts Interim Action

POS-LLA

Date Sampled: 01/11/10

Date Received: 01/12/10



**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	6 U	235	238	98.7%	
Lead	6010B	32	277	238	103%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

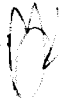
Page 1 of 1

Sample ID: CB31A011110SED  
DUPLICATE

Lab Sample ID: QF10A

LIMS ID: 10-690

Matrix: Soil

Data Release Authorized 

Reported: 01/19/10

QC Report No: QF10-Floyd-Snider

Project: POS-Lora Lake Apts Interim Action

POS-LLA

Date Sampled: 01/11/10

Date Received: 01/12/10

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	6 U	6 U	0.0%	+/- 6	L
Lead	6010B	32	54	51.2%	+/- 20%	*

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: QF10LCS

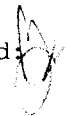
QC Report No: QF10-Floyd-Snider

LIMS ID: 10-691

Project: POS-Lora Lake Apts Interim Action

Matrix: Soil

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 01/19/10

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	195	200	97.5%	
Lead	6010B	196	200	98.0%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Sample ID: METHOD BLANK

Page 1 of 1

Lab Sample ID: QF10MB


QC Report No: QF10-Floyd-Snider

LIMS ID: 10-691

Project: POS-Lora Lake Apts Interim Action

Matrix: Soil

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 01/19/10

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	5	5	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	2	2	U

U-Analyte undetected at given RL

RL-Reporting Limit

# Calibration Verification

CLIENT: Floyd-Snyder

PROJECT: POS-Lora Lake Apts I

SDG: QF10



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP011872	2000.0	1996.81	99.8	2000.0	2015.38	100.8	2089.51	104.5	2163.89	108.2	1981.45	99.1	1974.52	98.7
Lead	PB	ICP	IP011872	2000.0	2055.21	102.8	2000.0	2072.36	103.6	2143.65	107.2	2219.52	111.0	2057.79	102.9	2045.94	102.3

Control Limits: Mercury 80-120; Other Metals 90-110

**Calibration Verification**

CLIENT: Floyd-Snyder

PROJECT: POS-Lora Lake Apts I

SDG: QF10

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6 %R	CCV7 %R	CCV8 %R	CCV9 %R	CCV10 %R	CCV11 %R
Arsenic	AS	ICP	IP011872	2000.0	2016.17	100.8				
Lead	PB	ICP	IP011872	2000.0	2099.41	105.0				

Control Limits: Mercury 80-120; Other Metals 90-110

# CRDL Standard

CLIENT: Floyd-Snyder

PROJECT: POS-Lora Lake Apts I

SDG: QF10



UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	ICP	IP011872	50.0		53.05	106.1										
Lead	PB	ICP	IP011872	20.0		21.30	106.5										

Control Limits: no control limits have been established by the EPA at this time.

# Calibration Blanks

CLIENT: Floyd-Snyder

PROJECT: POS-Lora Lake Apts I

SDG: QF10



UNITS:ug/L

ANALYTE	EL METH	RUN	CRDL	IDL	ICB	CCB1	CCB2	CCB3	CCB4	CCB5	C	C	C	C	C
Arsenic	AS ICP	IP011872	10.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	u	u	u	u	u
Lead	PB ICP	IP011872	3.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	u	u	u	u	u

# Calibration Blanks



CLIENT: Floyd-Snyder

PROJECT: POS-Lora Lake Apts I

UNITS: ug/L

SDG: QF10

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	CCB7	CCB8	CCB9	CCB10	CCB11	C
Arsenic	AS	ICP	IP011872	10.0	50.0	50.0						U
Lead	PB	ICP	IP011872	3.0	20.0	20.0						U

# ICP Interference Check Sample



CLIENT: Floyd-Snider  
 PROJECT: POS-Lora Lake Apts I  
 SDG: QF10  
 ICS SOURCE: I.V.  
 RUNID: IP011872  
 INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	199598.3	198767.8	99.4						
Antimony	1000	1000	18.2	1038.6	103.9						
Arsenic	1000	1000	15.3	1065.9	106.6						
Barium	1000	1000	0.6	1047.6	104.8						
Beryllium	1000	1000	0.0	1032.5	103.3						
Boron			-2.2	-1.0							
Cadmium	1000	1000	0.9	1090.4	109.0						
Calcium	100000	100000	101405.4	100944.3	100.9						
Chromium	1000	1000	-2.2	1048.6	104.9						
Cobalt	1000	1000	1.1	1024.2	102.4						
Copper	1000	1000	1.8	1142.5	114.3						
Iron	200000	200000	196915.9	195452.3	97.7						
Lead	1000	1000	-9.6	1028.8	102.9						
Magnesium	100000	100000	97592.9	97433.9	97.4						
Manganese	1000	1000	0.6	990.4	99.0						
Molybdenum			4.9	4.3							
Nickel	1000	1000	0.5	1008.4	100.8						
Potassium			-21.5	-171.1							
Selenium	1000	1000	51.1	1087.9	108.8						
Silicon			-9.5	-1.5							
Silver	1000	1000	-0.7	1110.5	111.1						
Sodium			0.5	-0.6							
Strontium			0.8	0.9							
Thallium	1000	1000	14.6	1001.3	100.1						
Tin			-8.9	-8.3							
Titanium			0.7	0.5							
Vanadium	1000	1000	5.9	1075.9	107.6						
Zinc	1000	1000	0.1	989.7	99.0						

01 10 : 00 10

# IDLs and ICP Linear Ranges



CLIENT: Floyd-Snider

PROJECT: POS-Lora Lake Apts I

SDG: QF10

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENGTH (nm)	GFA BACK- GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Arsenic	AS	ICP	OPTIMA ICP 2	197.20		10	50.0	4/1/2009	30000.0	10/6/2009
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2009	300000.0	10/6/2009



# ICP Interelement Correction Factors



CLIENT: Floyd-Snider

PROJECT: POS-Lora Lake Apts I

SDG: QF10

IEC DATE: 1/4/2010

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	10.5559000	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0526584	0.0000000	-0.9263050	1.0821600	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	-0.0066494	0.0000000	-0.1202530	0.0000000	0.0000000	0.1158300
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	3.4104000	0.0000000	0.0000000	0.0000000	0.0000000	0.1164400	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0113067	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.1501980	0.0000000	0.0000000	0.0000000	0.0000000	-0.0375286	0.0000000	0.0136504
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2749040	-0.0472870	0.0000000	-0.0843208
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.8624710	0.0000000	0.0000000
Lead	220.35	-0.1650580	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.9043700	1.2042600	0.0711368
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1406750	0.0000000	-1.5532800	-1.0676600	0.0000000	0.4997060
Manganese	257.61	0.0077388	0.0000000	0.0000000	0.0000000	0.0033455	0.0000000	0.0000000	0.0000000	0.0000000	-0.0099045
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0143774	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.8718000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0304254	0.0000000	2.2611500	0.3425620	0.0000000	-0.1477520
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0706070	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.8390900	0.0000000	0.1060090
Zinc	206.20	0.0453271	0.0000000	0.0000000	0.0000000	0.0565933	0.3042230	0.0000000	0.5170340	0.0000000	0.0000000

# ICP Interelement Correction Factors



CLIENT: Floyd-Snyder

PROJECT: POS-Lora Lake Apts I

SDG: QF10

IEC DATE: 1/4/2010

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TI	V	ZN
Aluminum	308.22	0.000000	1.7035100	9.9539600	0.0000000	0.0000000	0.0000000	1.4982200	0.0000000	19.5485000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3985360	0.0000000	0.0000000	-1.1464800	0.0000000	-3.0730000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	1.7477900	0.0000000	0.0000000	0.0000000	-21.3147000	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0633017	0.0000000	0.0000000	0.0000000	0.0000000	0.5444030	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0116703	0.0000000	0.5528390	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0698191	-0.5618170	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.1643740	-0.1533160	0.1572220	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2665480	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1888730	0.1685330	0.0000000	0.0000000	1.6986700	0.0000000	0.0897250	0.0000000
Copper	324.75	0.0239683	0.0000000	0.6453040	0.0000000	0.0000000	0.0691174	0.3628600	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.8018300	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-3.6133100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0065823	0.0000000	0.0000000	0.0000000	-0.2590290	0.0000000	0.0000000	0.0000000	-0.0276034	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7407090	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0539161	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.2132540	0.1386910	0.0000000	0.0000000	0.0000000	-0.0398067	0.0000000	-0.2460000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	-1.3086600	-2.7571600	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.6591750	-0.4466800	0.0000000	1.4924200	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.2023400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1565760	-0.5580890	0.0000000	0.0000000	0.0000000	0.5757670	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2945050	0.0000000	-0.0507580	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

# Preparation Log



CLIENT: Floyd-Snider

ANALYSIS METHOD: ICP

PROJECT: POS-Lora Lake Apts I

ARI PREP CODE: SWC

SDG: QF10

PREPDATE: 1/12/2010

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
CB31A011110SED	QF10A	1.058	0.0	50.0
CB31A011110SEDD	QF10ADUP	1.061	0.0	50.0
CB31A011110SEDS	QF10ASPK	1.063	0.0	50.0
CB99011110SED	QF10B	1.017	0.0	50.0
PBS	QF10MB1	1.000	0.0	50.0
LCSS	QF10MB1SPK	1.000	0.0	50.0





Metals Analysis  
Sample Data

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

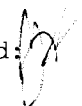
Sample ID: CB31A011110SED

SAMPLE

Lab Sample ID: QF10A

LIMS ID: 10-690

Matrix: Soil

Data Release Authorized: 

Reported: 01/19/10

QC Report No: QF10-Floyd-Snider

Project: POS-Lora Lake Apts Interim Action

POS-LLA

Date Sampled: 01/11/10

Date Received: 01/12/10

Percent Total Solids: 78.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	6	6	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	2	32	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: CB99011110SED  
SAMPLE

Lab Sample ID: QF10B

LIMS ID: 10-691

Matrix: Soil

Data Release Authorized 

Reported: 01/19/10

QC Report No: QF10-Floyd-Snider

Project: POS-Lora Lake Apts Interim Action

POS-LLA

Date Sampled: 01/11/10

Date Received: 01/12/10

Percent Total Solids: 78.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	6	6	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	3	31	

U-Analyte undetected at given RL

RL-Reporting Limit



Metals Analysis  
Instrument Raw Data and Logs

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.



IEC Date: \_\_\_\_\_

Analysis Date: 1-18-10

Analyst: AA

LR Date: \_\_\_\_\_

Page: 2 of 5

All corrections made by analyst unless otherwise noted.

At 1-18-10

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	QFOO H	<del>TWC</del>		rem
	✓	↓ Hspk	↓		Ca 100% ↓
		↓ MBZspl	↓		
		QF18 MB Hspk	WMM		0.05 ml ICP spl
		Cevr			
		CCCABZ			
		QFOO H Dup	TWC	✓	
		↓ H	↓		
		↓ Hspk	↓		✓ tea sr
		QRI			
		ICSA			
		ICSA B			
		CCV3			Pb high also ✓
		CCV3			
		STDO			2672-13
		↓ 2			2673-10
		↓ 3			↓ -11
		↓ 4			↓ -12
		↓ 5			↓ -13
		ICV			2664-6
		ICB			
		QRI			
		ICSA			
		ICSA B			



IEC Date: \_\_\_\_\_

Analysis Date: 1-18-10

Analyst: JA

LR Date: \_\_\_\_\_

Page: 3 of 5

All corrections made by analyst unless otherwise noted.

1-18-10

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		SPEX 21			
		CCr1			
		CCB1			
		QFOO MB1	wmw		
	✓	E	TWC		RVR Mg SE noisy
		G	↓		
		J	↓		
		A	wmw		
		B	↓		
		DDup			✓
		D	↓		
		↓ Dspl	↓		✓ 0.08 mL LCP SPL
		MAISPL	↓		✓ 0.08 mL LCP SPL
		CCVZ			
		CCWZ			
		QF15 MB1	TWC		
	✓	QFOO I	wmw		CWout
	✓	↓ C	↓		Se. R noisy ↓
<del>Label</del>		<del>QF15</del> <del>MAISPL</del> A	TWC		
Label	✓	QFOO E	↓		CWout
	↓	QF10 ADup	Succ	Z	Ab high RSD RR
		↓ A	↓		↓
	↓	↓ A spl	↓		↓
		↓ MBISPL	↓	↓	↓



IEC Date: \_\_\_\_\_ Analysis Date: 1-18-10 Analyst: HA

LR Date: \_\_\_\_\_ Page: 4 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		QF15 MB1spl	twc		✓
		CCV3			many high
		CCB3			
		STD 2			
		↓ 3			
		CCV4			Mn low
		CCB4			
		QES6 MB1	Suc	2	
		QF10 MB1			
		↓ B			
		QES6 C			
		D			
		BDep			-
		B			
		Bsplc			✓
		↓ MB1splc	↓	↓	✓
		CCV5			Si high
		CCB5			
		QF00 I	wmd		
		↓ C	b		
		↓ E	twc		
		QF10 ADup	Suc	2	Pb high RPD
		A			CAF
		↓ A splc	↓	↓	✓



**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 1-8-10

	Analyst	Peer	Comment
<b>OPT II</b>	<b>A-19</b>	<b>1-9-10</b>	
<b>Logbook:</b>			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
<b>Calibration:</b>			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
<b>Calibration Verification:</b>			
ICV/CCV	✓	✓	see log
ICB/CCB	✓	✓	
<b>Samples:</b>			
RSD's & SD's	✓	✓	see log
Internal Standards	✓	✓	
Carry-over	✓	✓	
<b>Method QC:</b>			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	✓	
<b>Matrix QC:</b>			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	QF10 CAF
Method Blanks	✓	✓	QF05 AU
<b>Data Distribution:</b>			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
<b>Necessary Analysts Notes and CAF's</b>	✓	✓	AU QF05 CAF QF10

=====  
Analysis Begun

Start Time: 1/18/2010 11:04:44 AM                      Plasma On Time: 1/18/2010 7:29:15 AM  
Logged In Analyst: metals                                      Technique: ICP Continuous  
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif  
Batch ID:  
Results Data Set: I2100118  
Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 1    Autosampler Location: 1  
Sample ID: Calib Blank 1                                      Date Collected: 1/18/2010 11:03:41 AM  
Data Type: Original

-----  
Nebulizer Parameters: Calib Blank 1

Analyte                      Back Pressure                      Flow  
All                                      196.0 kPa                                      0.75 L/min

-----  
Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	1889308.4	15116.07	0.80%	100.0	%
ScR 361.383	263740.6	1226.88	0.47%	100.00	%
Ag 328.068†	-198.1	19.83	10.01%	[0.00]	mg/L
Al 308.215†	96.2	10.05	10.45%	[0.00]	mg/L
As 188.979†	-7.1	3.22	45.23%	[0.00]	mg/L
B 249.677†	-2.6	5.89	224.58%	[0.00]	mg/L
Ba 233.527†	14.3	0.66	4.65%	[0.00]	mg/L
Be 313.042†	813.6	17.37	2.13%	[0.00]	mg/L
Ca 317.933†	343.9	33.89	9.86%	[0.00]	mg/L
Cd 228.802†	138.2	3.15	2.28%	[0.00]	mg/L
Co 228.616†	-35.2	2.12	6.02%	[0.00]	mg/L
Cr 267.716†	-82.5	2.64	3.20%	[0.00]	mg/L
Cu 324.752†	4457.9	19.51	0.44%	[0.00]	mg/L
Fe 273.955†	15.5	3.06	19.74%	[0.00]	mg/L
K 766.490†	9.2	10.75	117.30%	[0.00]	mg/L
Mg 279.077†	83.5	4.64	5.55%	[0.00]	mg/L
Mn 257.610†	135.5	3.82	2.82%	[0.00]	mg/L
Mo 202.031†	49.5	2.67	5.39%	[0.00]	mg/L
Na 589.592†	203.8	45.33	22.24%	[0.00]	mg/L
Na 330.237†	-237.9	8.60	3.62%	[0.00]	mg/L
Ni 231.604†	-23.1	3.03	13.08%	[0.00]	mg/L
Pb 220.353†	-36.8	3.74	10.17%	[0.00]	mg/L
Sb 206.836†	49.2	3.69	7.49%	[0.00]	mg/L
Se 196.026†	-37.0	2.90	7.85%	[0.00]	mg/L
Si 288.158†	90.1	9.76	10.84%	[0.00]	mg/L
Sn 189.927†	-4.4	3.93	89.73%	[0.00]	mg/L
Sr 421.552†	-71.8	29.32	40.83%	[0.00]	mg/L
Ti 334.903†	4.6	11.84	258.44%	[0.00]	mg/L
Tl 190.801†	-25.0	0.12	0.49%	[0.00]	mg/L
V 292.402†	157.7	20.58	13.06%	[0.00]	mg/L
Zn 206.200†	14.5	0.89	6.15%	[0.00]	mg/L

Sequence No.: 2  
Sample ID: STD2

Autosampler Location: 2  
Date Collected: 1/18/2010 11:06:47 AM  
Data Type: Original

## Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	196.0 kPa	0.75 L/min

## Mean Data: STD2

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	1930080.6	17707.21	0.92%	102.2	%
ScR 361.383	264683.6	4114.51	1.55%	100.4	%
Ba 233.527†	34577.8	533.16	1.54%	[10]	mg/L
Cd 228.802†	205920.3	2608.43	1.27%	[10]	mg/L
Co 228.616†	206272.9	2528.12	1.23%	[10]	mg/L
Cr 267.716†	45685.9	956.69	2.09%	[10]	mg/L
Cu 324.752†	2515762.0	18094.88	0.72%	[10]	mg/L
Mn 257.610†	313590.6	5250.62	1.67%	[10]	mg/L
V 292.402†	775218.7	8156.34	1.05%	[10]	mg/L



Sequence No.: 3  
Sample ID: STD3

Autosampler Location: 3  
Date Collected: 1/18/2010 11:08:29 AM  
Data Type: Original

## Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	196.0 kPa	0.75 L/min

## Mean Data: STD3

Analyte	Mean Corrected		RSD	Calib	
	Intensity	Std.Dev.		Conc.	Units
ScA 357.253	1883334.8	18172.04	0.96%	99.68	%
ScR 361.383	264927.1	2677.43	1.01%	100.4	%
Ag 328.068†	136488.8	1893.58	1.39%	[1.0]	mg/L
As 188.979†	10217.0	99.74	0.98%	[10]	mg/L
B 249.677†	47457.6	968.09	2.04%	[10]	mg/L
Be 313.042†	2642287.9	35304.96	1.34%	[5.0]	mg/L
Na 589.592†	556239.0	6097.22	1.10%	[50]	mg/L
Ni 231.604†	20898.6	285.22	1.36%	[10]	mg/L
Pb 220.353†	44596.0	445.72	1.00%	[10]	mg/L
Se 196.026†	7894.2	66.13	0.84%	[10]	mg/L
Sr 421.552†	2488480.8	45750.58	1.84%	[5]	mg/L
Tl 190.801†	13243.4	123.49	0.93%	[10]	mg/L
Zn 206.200†	10683.8	163.72	1.53%	[10]	mg/L

Sequence No.: 4  
Sample ID: STD4

Autosampler Location: 4  
Date Collected: 1/18/2010 11:11:12 AM  
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	196.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	1874013.7	45879.42	2.45%	99.19	%
ScR 361.383	266129.8	872.16	0.33%	100.9	%
Mo 202.031†	115462.3	3419.22	2.96%	[10]	mg/L
Sb 206.836†	19185.3	569.99	2.97%	[10]	mg/L
Si 288.158†	20285.5	55.43	0.27%	[10]	mg/L
Sn 189.927†	25165.1	741.61	2.95%	[10]	mg/L
Ti 334.903†	191113.8	1238.42	0.65%	[10]	mg/L

Sequence No.: 5  
Sample ID: STD5

Autosampler Location: 5  
Date Collected: 1/18/2010 11:13:01 AM  
Data Type: Original

## Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	196.0 kPa	0.75 L/min

## Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
ScA 357.253	1760707.8	13519.47	0.77%	93.19 %
ScR 361.383	261608.8	1907.16	0.73%	99.19 %
Al 308.215†	51199.6	788.08	1.54%	[30] mg/L
Ca 317.933†	449208.5	13441.86	2.99%	[30] mg/L
Fe 273.955†	122870.6	3212.17	2.61%	[100] mg/L
K 766.490†	121328.8	1918.86	1.58%	[100] mg/L
Mg 279.077†	37868.5	526.26	1.39%	[30] mg/L
Na 330.237†	2651.1	48.37	1.82%	[100] mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	136500	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1707	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1022	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	4746	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	3458	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	528500	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	14970	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	20590	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	20630	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	4569	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	251600	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1229	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1213	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1262	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	31360	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	11550	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	11120	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	26.51	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	2090	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	4460	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	1919	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	789.4	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2029	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	2517	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	497700	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	19110	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1324	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	77520	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	1068	0.00000	1.000000	

=====  
Analysis Begun

Start Time: 1/18/2010 11:16:50 AM

Plasma On Time: 1/18/2010 7:29:15 AM

Logged In Analyst: metals

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif

Batch ID:

Results Data Set: I2100118

Results Library: C:\pe\metals\Results\Results.mdb  
=====

Sequence No.: 1

Autosampler Location: 7

Sample ID: CV

Date Collected: 1/18/2010 11:16:51 AM

Analyst: ALA

Data Type: Original

Dilution: 1X  
-----

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	197.0 kPa	0.75 L/min

-----  
Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1892656.2	100.2	%	1.34			1.34%
ScR 361.383	272908.5	103.5	%	1.14			1.10%
Ag 328.068†	137109.5	1.005	mg/L	0.0109	1.005 mg/L	0.0109	1.09%
Al 308.215†	3342.8	1.926	mg/L	0.0300	1.926 mg/L	0.0300	1.56%
As 188.979†	2021.5	1.997	mg/L	0.0168	1.997 mg/L	0.0168	0.84%
B 249.677†	4670.2	0.9825	mg/L	0.00827	0.9825 mg/L	0.00827	0.84%
Ba 233.527†	3467.9	1.002	mg/L	0.0130	1.002 mg/L	0.0130	1.29%
Be 313.042†	509369.1	0.9633	mg/L	0.00997	0.9633 mg/L	0.00997	1.04%
Ca 317.933†	27856.4	1.860	mg/L	0.0207	1.860 mg/L	0.0207	1.11%
Cd 228.802†	21490.6	1.037	mg/L	0.0167	1.037 mg/L	0.0167	1.61%
Co 228.616†	20774.1	1.005	mg/L	0.0151	1.005 mg/L	0.0151	1.51%
Cr 267.716†	4571.1	1.000	mg/L	0.0107	1.000 mg/L	0.0107	1.07%
Cu 324.752†	262342.1	1.042	mg/L	0.0154	1.042 mg/L	0.0154	1.48%
Fe 273.955†	2347.3	1.904	mg/L	0.0255	1.904 mg/L	0.0255	1.34%
K 766.490†	22582.7	18.61	mg/L	0.253	18.61 mg/L	0.253	1.36%
Mg 279.077†	2455.1	1.950	mg/L	0.0276	1.950 mg/L	0.0276	1.41%
Mn 257.610†	29748.2	0.9492	mg/L	0.00791	0.9492 mg/L	0.00791	0.83%
Mo 202.031†	11168.5	0.9673	mg/L	0.01043	0.9673 mg/L	0.01043	1.08%
Na 589.592†	544653.6	48.96	mg/L	0.429	48.96 mg/L	0.429	0.88%
Na 330.237†	1325.6	50.02	mg/L	0.610	50.02 mg/L	0.610	1.22%
Ni 231.604†	2047.4	0.9811	mg/L	0.01222	0.9811 mg/L	0.01222	1.25%
Pb 220.353†	9160.6	2.055	mg/L	0.0268	2.055 mg/L	0.0268	1.30%
Sb 206.836†	3765.8	1.969	mg/L	0.0228	1.969 mg/L	0.0228	1.16%
Se 196.026†	1582.8	2.005	mg/L	0.0212	2.005 mg/L	0.0212	1.06%
Si 288.158†	4064.2	2.008	mg/L	0.0136	2.008 mg/L	0.0136	0.68%
Sn 189.927†	2415.8	0.9618	mg/L	0.01035	0.9618 mg/L	0.01035	1.08%
Sr 421.552†	493537.7	0.9916	mg/L	0.01104	0.9916 mg/L	0.01104	1.11%
Ti 334.903†	18128.6	0.9470	mg/L	0.00840	0.9470 mg/L	0.00840	0.89%
Tl 190.801†	2669.9	2.016	mg/L	0.0275	2.016 mg/L	0.0275	1.37%
V 292.402†	79753.8	1.033	mg/L	0.0185	1.033 mg/L	0.0185	1.79%
Zn 206.200†	1040.6	0.9727	mg/L	0.01156	0.9727 mg/L	0.01156	1.19%

Sequence No.: 2  
Sample ID: CB  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 1  
Date Collected: 1/18/2010 11:20:27 AM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 196.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1867207.5	98.83	%	2.009			2.03%
ScR 361.383	261356.6	99.10	%	0.380			0.38%
Ag 328.068†	33.7	0.00025	mg/L	0.000089	0.00025 mg/L	0.000089	36.23%
Al 308.215†	11.5	0.00672	mg/L	0.013945	0.00672 mg/L	0.013945	207.58%
As 188.979†	0.4	0.00038	mg/L	0.005129	0.00038 mg/L	0.005129	>999.9%
B 249.677†	28.2	0.00593	mg/L	0.000529	0.00593 mg/L	0.000529	8.92%
Ba 233.527†	1.2	0.00034	mg/L	0.000726	0.00034 mg/L	0.000726	212.09%
Be 313.042†	17.4	0.00003	mg/L	0.000017	0.00003 mg/L	0.000017	50.59%
Ca 317.933†	19.7	0.00132	mg/L	0.000206	0.00132 mg/L	0.000206	15.66%
Cd 228.802†	3.4	0.00016	mg/L	0.000287	0.00016 mg/L	0.000287	174.54%
Co 228.616†	3.8	0.00019	mg/L	0.000127	0.00019 mg/L	0.000127	68.86%
Cr 267.716†	1.1	0.00023	mg/L	0.001354	0.00023 mg/L	0.001354	578.43%
Cu 324.752†	-13.4	-0.00005	mg/L	0.000409	-0.00005 mg/L	0.000409	758.56%
Fe 273.955†	-0.4	-0.00035	mg/L	0.002215	-0.00035 mg/L	0.002215	641.52%
K 766.490†	-40.9	-0.03369	mg/L	0.017118	-0.03369 mg/L	0.017118	50.81%
Mg 279.077†	7.9	0.00625	mg/L	0.002963	0.00625 mg/L	0.002963	47.42%
Mn 257.610†	1.6	0.00005	mg/L	0.000141	0.00005 mg/L	0.000141	278.09%
Mo 202.031†	-0.3	-0.00003	mg/L	0.000363	-0.00003 mg/L	0.000363	>999.9%
Na 589.592†	-38.5	-0.00346	mg/L	0.002905	-0.00346 mg/L	0.002905	83.94%
Na 330.237†	17.4	0.6558	mg/L	0.22335	0.6558 mg/L	0.22335	34.06%
Ni 231.604†	0.0	0.00000	mg/L	0.002287	0.00000 mg/L	0.002287	>999.9%
Pb 220.353†	2.8	0.00062	mg/L	0.000772	0.00062 mg/L	0.000772	124.73%
Sb 206.836†	4.9	0.00254	mg/L	0.000267	0.00254 mg/L	0.000267	10.54%
Se 196.026†	1.9	0.00240	mg/L	0.004044	0.00240 mg/L	0.004044	168.30%
Si 288.158†	-4.8	-0.00236	mg/L	0.001462	-0.00236 mg/L	0.001462	62.08%
Sn 189.927†	1.4	0.00055	mg/L	0.000601	0.00055 mg/L	0.000601	109.66%
Sr 421.552†	5.4	0.00001	mg/L	0.000035	0.00001 mg/L	0.000035	321.74%
Ti 334.903†	7.2	0.00037	mg/L	0.000854	0.00037 mg/L	0.000854	227.91%
Tl 190.801†	-0.0	-0.00001	mg/L	0.000759	-0.00001 mg/L	0.000759	>999.9%
V 292.402†	-16.3	-0.00021	mg/L	0.000357	-0.00021 mg/L	0.000357	170.91%
Zn 206.200†	0.5	0.00043	mg/L	0.000922	0.00043 mg/L	0.000922	216.90%

Sequence No.: 3  
Sample ID: CRI  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 320  
Date Collected: 1/18/2010 11:24:08 AM  
Data Type: Original

Nebulizer Parameters: CRI

Analyte Back Pressure Flow  
All 196.0 kPa 0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1848246.5	97.83	%	0.500			0.51%
ScR 361.383	261244.0	99.05	%	0.932			0.94%
Ag 328.068†	394.4	0.00289	mg/L	0.000066	0.00289 mg/L	0.000066	2.27%
Al 308.215†	93.0	0.05438	mg/L	0.008277	0.05438 mg/L	0.008277	15.22%
As 188.979†	54.1	0.05305	mg/L	0.001140	0.05305 mg/L	0.001140	2.15%
B 249.677†	110.8	0.02335	mg/L	0.001022	0.02335 mg/L	0.001022	4.37%
Ba 233.527†	11.3	0.00327	mg/L	0.001039	0.00327 mg/L	0.001039	31.80%
Be 313.042†	542.8	0.00103	mg/L	0.000041	0.00103 mg/L	0.000041	3.95%
Ca 317.933†	772.3	0.05158	mg/L	0.001766	0.05158 mg/L	0.001766	3.42%
Cd 228.802†	51.4	0.00232	mg/L	0.000116	0.00232 mg/L	0.000116	5.00%
Co 228.616†	67.5	0.00326	mg/L	0.000211	0.00326 mg/L	0.000211	6.48%
Cr 267.716†	27.7	0.00605	mg/L	0.001424	0.00605 mg/L	0.001424	23.52%
Cu 324.752†	509.4	0.00202	mg/L	0.000033	0.00202 mg/L	0.000033	1.63%
Fe 273.955†	63.9	0.05201	mg/L	0.003070	0.05201 mg/L	0.003070	5.90%
K 766.490†	582.6	0.4802	mg/L	0.03240	0.4802 mg/L	0.03240	6.75%
Mg 279.077†	71.5	0.05664	mg/L	0.006077	0.05664 mg/L	0.006077	10.73%
Mn 257.610†	34.0	0.00109	mg/L	0.000130	0.00109 mg/L	0.000130	11.96%
Mo 202.031†	57.6	0.00499	mg/L	0.000200	0.00499 mg/L	0.000200	4.00%
Na 589.592†	5740.5	0.5160	mg/L	0.00457	0.5160 mg/L	0.00457	0.89%
Na 330.237†	17.8	0.6688	mg/L	0.27215	0.6688 mg/L	0.27215	40.69%
Ni 231.604†	20.3	0.00978	mg/L	0.001043	0.00978 mg/L	0.001043	10.67%
Pb 220.353†	94.9	0.02130	mg/L	0.001218	0.02130 mg/L	0.001218	5.72%
Sb 206.836†	99.4	0.05191	mg/L	0.002279	0.05191 mg/L	0.002279	4.39%
Se 196.026†	37.2	0.04707	mg/L	0.005080	0.04707 mg/L	0.005080	10.79%
Si 288.158†	133.0	0.06559	mg/L	0.004762	0.06559 mg/L	0.004762	7.26%
Sn 189.927†	25.7	0.01024	mg/L	0.000884	0.01024 mg/L	0.000884	8.63%
Sr 421.552†	500.7	0.00101	mg/L	0.000013	0.00101 mg/L	0.000013	1.29%
Ti 334.903†	88.0	0.00459	mg/L	0.000524	0.00459 mg/L	0.000524	11.42%
Tl 190.801†	70.7	0.05336	mg/L	0.001148	0.05336 mg/L	0.001148	2.15%
V 292.402†	223.7	0.00290	mg/L	0.000092	0.00290 mg/L	0.000092	3.16%
Zn 206.200†	10.5	0.00986	mg/L	0.001128	0.00986 mg/L	0.001128	11.44%

User canceled analysis.

=====  
Analysis Begun

Start Time: 1/18/2010 11:28:09 AM

Plasma On Time: 1/18/2010 7:29:15 AM

Logged In Analyst: metals

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif

Batch ID:

Results Data Set: I2100118

Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 4

Autosampler Location: 321

Sample ID: ICSA

Date Collected: 1/18/2010 11:28:10 AM

Analyst: ALA

Data Type: Original

Dilution: 1X

-----  
Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	197.0 kPa	0.75 L/min

-----  
Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
ScA 357.253	1811736.6	95.89	%	1.226			1.28%
ScR 361.383	263218.2	99.80	%	1.115			1.12%
Ag 328.068†	-98.7	-0.00072	mg/L	0.000349	-0.00072 mg/L	0.000349	48.59%
Al 308.215†	340646.1	199.6	mg/L	4.53	199.6 mg/L	4.53	2.27%
As 188.979†	20.9	0.01526	mg/L	0.007098	0.01526 mg/L	0.007098	46.52%
B 249.677†	-10.5	-0.00221	mg/L	0.003066	-0.00221 mg/L	0.003066	138.74%
Ba 233.527†	78.7	0.00062	mg/L	0.001433	0.00062 mg/L	0.001433	232.66%
Be 313.042†	22.2	0.00003	mg/L	0.000012	0.00003 mg/L	0.000012	43.77%
Ca 317.933†	1518406.0	101.4	mg/L	2.40	101.4 mg/L	2.40	2.37%
Cd 228.802†	19.3	0.00087	mg/L	0.000100	0.00087 mg/L	0.000100	11.58%
Co 228.616†	78.2	0.00109	mg/L	0.000276	0.00109 mg/L	0.000276	25.36%
Cr 267.716†	14.7	-0.00222	mg/L	0.002230	-0.00222 mg/L	0.002230	100.49%
Cu 324.752†	-3137.9	0.00178	mg/L	0.000921	0.00178 mg/L	0.000921	51.68%
Fe 273.955†	241951.8	196.9	mg/L	4.96	196.9 mg/L	4.96	2.52%
K 766.490†	-26.1	-0.02150	mg/L	0.028353	-0.02150 mg/L	0.028353	131.85%
Mg 279.077†	123332.0	97.59	mg/L	2.027	97.59 mg/L	2.027	2.08%
Mn 257.610†	39.2	0.00064	mg/L	0.000432	0.00064 mg/L	0.000432	67.22%
Mo 202.031†	73.0	0.00486	mg/L	0.000887	0.00486 mg/L	0.000887	18.25%
Na 589.592†	5.7	0.00051	mg/L	0.001819	0.00051 mg/L	0.001819	357.93%
Na 330.237†	16.3	0.6127	mg/L	0.15421	0.6127 mg/L	0.15421	25.17%
Ni 231.604†	1.1	0.00052	mg/L	0.001208	0.00052 mg/L	0.001208	233.83%
Pb 220.353†	-127.3	-0.00959	mg/L	0.001359	-0.00959 mg/L	0.001359	14.18%
Sb 206.836†	35.2	0.01824	mg/L	0.001546	0.01824 mg/L	0.001546	8.48%
Se 196.026†	44.5	0.05110	mg/L	0.007908	0.05110 mg/L	0.007908	15.47%
Si 288.158†	-19.2	-0.00945	mg/L	0.005153	-0.00945 mg/L	0.005153	54.52%
Sn 189.927†	-30.2	-0.00890	mg/L	0.002317	-0.00890 mg/L	0.002317	26.04%
Sr 421.552†	419.1	0.00084	mg/L	0.000024	0.00084 mg/L	0.000024	2.85%
Ti 334.903†	150.5	0.00070	mg/L	0.000217	0.00070 mg/L	0.000217	31.21%
Tl 190.801†	-19.1	0.01462	mg/L	0.002256	0.01462 mg/L	0.002256	15.43%
V 292.402†	2076.8	0.00593	mg/L	0.001123	0.00593 mg/L	0.001123	18.94%
Zn 206.200†	15.9	0.00013	mg/L	0.001265	0.00013 mg/L	0.001265	944.24%

Sequence No.: 5  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 322  
 Date Collected: 1/18/2010 11:32:05 AM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	197.0 kPa	0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1810185.6	95.81	%	0.048			0.05%
ScR 361.383	262245.7	99.43	%	0.905			0.91%
Ag 328.068†	151564.0	1.111	mg/L	0.0028	1.111	mg/L	0.0028 0.25%
Al 308.215†	339267.1	198.8	mg/L	2.65	198.8	mg/L	2.65 1.33%
As 188.979†	1094.5	1.066	mg/L	0.0019	1.066	mg/L	0.0019 0.18%
B 249.677†	6.6	-0.00102	mg/L	0.001165	-0.00102	mg/L	0.001165 114.27%
Ba 233.527†	3700.3	1.048	mg/L	0.0065	1.048	mg/L	0.0065 0.62%
Be 313.042†	545948.9	1.032	mg/L	0.0147	1.032	mg/L	0.0147 1.42%
Ca 317.933†	1511501.5	100.9	mg/L	1.39	100.9	mg/L	1.39 1.38%
Cd 228.802†	22519.6	1.090	mg/L	0.0012	1.090	mg/L	0.0012 0.11%
Co 228.616†	21189.5	1.024	mg/L	0.0005	1.024	mg/L	0.0005 0.05%
Cr 267.716†	4816.1	1.049	mg/L	0.0075	1.049	mg/L	0.0075 0.72%
Cu 324.752†	283812.1	1.143	mg/L	0.0051	1.143	mg/L	0.0051 0.44%
Fe 273.955†	240161.4	195.5	mg/L	2.36	195.5	mg/L	2.36 1.21%
K 766.490†	-207.7	-0.1711	mg/L	0.03334	-0.1711	mg/L	0.03334 19.48%
Mg 279.077†	123126.9	97.43	mg/L	1.050	97.43	mg/L	1.050 1.08%
Mn 257.610†	31068.6	0.9904	mg/L	0.01286	0.9904	mg/L	0.01286 1.30%
Mo 202.031†	65.9	0.00426	mg/L	0.000401	0.00426	mg/L	0.000401 9.43%
Na 589.592†	-6.8	-0.00061	mg/L	0.003334	-0.00061	mg/L	0.003334 547.89%
Na 330.237†	14.4	0.3004	mg/L	0.16570	0.3004	mg/L	0.16570 55.15%
Ni 231.604†	2105.8	1.008	mg/L	0.0032	1.008	mg/L	0.0032 0.31%
Pb 220.353†	4500.6	1.029	mg/L	0.0038	1.029	mg/L	0.0038 0.37%
Sb 206.836†	2007.0	1.039	mg/L	0.0042	1.039	mg/L	0.0042 0.40%
Se 196.026†	863.0	1.088	mg/L	0.0033	1.088	mg/L	0.0033 0.31%
Si 288.158†	-11.6	-0.00150	mg/L	0.001399	-0.00150	mg/L	0.001399 93.46%
Sn 189.927†	-30.2	-0.00825	mg/L	0.001592	-0.00825	mg/L	0.001592 19.29%
Sr 421.552†	450.4	0.00091	mg/L	0.000030	0.00091	mg/L	0.000030 3.26%
Ti 334.903†	152.2	0.00049	mg/L	0.000443	0.00049	mg/L	0.000443 90.74%
Tl 190.801†	1291.8	1.001	mg/L	0.0043	1.001	mg/L	0.0043 0.43%
V 292.402†	84686.5	1.076	mg/L	0.0059	1.076	mg/L	0.0059 0.54%
Zn 206.200†	1074.0	0.9897	mg/L	0.00971	0.9897	mg/L	0.00971 0.98%



Sequence No.: 6  
 Sample ID: SPEX 21  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 323  
 Date Collected: 1/18/2010 11:35:44 AM  
 Data Type: Original

## Nebulizer Parameters: SPEX 21

Analyte	Back Pressure	Flow
All	197.0 kPa	0.75 L/min

## Mean Data: SPEX 21

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1914364.6	101.3	%	0.83				0.82%
ScR 361.383	264709.6	100.4	%	1.46				1.46%
Ag 328.068†	51.5	0.00025	mg/L	0.000225	0.00025	mg/L	0.000225	90.56%
Al 308.215†	126.6	0.00937	mg/L	0.003384	0.00937	mg/L	0.003384	36.13%
As 188.979†	1987.5	1.985	mg/L	0.0196	1.985	mg/L	0.0196	0.99%
B 249.677†	21.5	0.00111	mg/L	0.000303	0.00111	mg/L	0.000303	27.24%
Ba 233.527†	5.7	0.00045	mg/L	0.001314	0.00045	mg/L	0.001314	289.82%
Be 313.042†	1072995.8	2.029	mg/L	0.0266	2.029	mg/L	0.0266	1.31%
Ca 317.933†	30277.5	2.022	mg/L	0.0193	2.022	mg/L	0.0193	0.95%
Cd 228.802†	43594.1	2.111	mg/L	0.0189	2.111	mg/L	0.0189	0.89%
Co 228.616†	42936.7	2.078	mg/L	0.0197	2.078	mg/L	0.0197	0.95%
Cr 267.716†	9291.9	2.033	mg/L	0.0273	2.033	mg/L	0.0273	1.34%
Cu 324.752†	514782.7	2.045	mg/L	0.0176	2.045	mg/L	0.0176	0.86%
Fe 273.955†	2510.4	2.031	mg/L	0.0325	2.031	mg/L	0.0325	1.60%
K 766.490†	-38.1	-0.03142	mg/L	0.018092	-0.03142	mg/L	0.018092	57.57%
Mg 279.077†	2560.5	2.039	mg/L	0.0363	2.039	mg/L	0.0363	1.78%
Mn 257.610†	64933.6	2.071	mg/L	0.0232	2.071	mg/L	0.0232	1.12%
Mo 202.031†	21931.7	1.899	mg/L	0.0245	1.899	mg/L	0.0245	1.29%
Na 589.592†	88.8	0.00798	mg/L	0.002800	0.00798	mg/L	0.002800	35.08%
Na 330.237†	-9.9	-0.3302	mg/L	0.13783	-0.3302	mg/L	0.13783	41.75%
Ni 231.604†	4357.5	2.087	mg/L	0.0283	2.087	mg/L	0.0283	1.36%
Pb 220.353†	9076.8	2.037	mg/L	0.0295	2.037	mg/L	0.0295	1.45%
Sb 206.836†	3829.5	1.984	mg/L	0.0210	1.984	mg/L	0.0210	1.06%
Se 196.026†	1585.9	2.009	mg/L	0.0203	2.009	mg/L	0.0203	1.01%
Si 288.158†	86.1	0.05065	mg/L	0.011660	0.05065	mg/L	0.011660	23.02%
Sn 189.927†	-9.8	-0.00159	mg/L	0.000504	-0.00159	mg/L	0.000504	31.70%
Sr 421.552†	1039467.3	2.089	mg/L	0.0116	2.089	mg/L	0.0116	0.56%
Ti 334.903†	38999.0	2.038	mg/L	0.0242	2.038	mg/L	0.0242	1.19%
Tl 190.801†	2751.9	2.078	mg/L	0.0239	2.078	mg/L	0.0239	1.15%
V 292.402†	155979.0	2.020	mg/L	0.0175	2.020	mg/L	0.0175	0.87%
Zn 206.200†	2193.3	2.051	mg/L	0.0290	2.051	mg/L	0.0290	1.41%

Sequence No.: 7  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 7  
 Date Collected: 1/18/2010 11:39:39 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	197.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
ScA 357.253	1892604.1	100.2	%	1.07				1.07%
ScR 361.383	264994.7	100.5	%	0.77				0.76%
Ag 328.068†	139914.3	1.025	mg/L	0.0125	1.025	mg/L	0.0125	1.22%
Al 308.215†	3486.0	2.009	mg/L	0.0130	2.009	mg/L	0.0130	0.65%
As 188.979†	2039.3	2.015	mg/L	0.0193	2.015	mg/L	0.0193	0.96%
B 249.677†	4842.6	1.019	mg/L	0.0059	1.019	mg/L	0.0059	0.58%
Ba 233.527†	3615.6	1.045	mg/L	0.0046	1.045	mg/L	0.0046	0.44%
Be 313.042†	529006.8	1.000	mg/L	0.0044	1.000	mg/L	0.0044	0.44%
Ca 317.933†	29650.1	1.980	mg/L	0.0059	1.980	mg/L	0.0059	0.30%
Cd 228.802†	21761.0	1.050	mg/L	0.0133	1.050	mg/L	0.0133	1.26%
Co 228.616†	21027.2	1.017	mg/L	0.0107	1.017	mg/L	0.0107	1.05%
Cr 267.716†	4745.8	1.038	mg/L	0.0073	1.038	mg/L	0.0073	0.70%
Cu 324.752†	266951.3	1.060	mg/L	0.0093	1.060	mg/L	0.0093	0.88%
Fe 273.955†	2438.8	1.979	mg/L	0.0131	1.979	mg/L	0.0131	0.66%
K 766.490†	24338.6	20.06	mg/L	0.092	20.06	mg/L	0.092	0.46%
Mg 279.077†	2550.6	2.026	mg/L	0.0141	2.026	mg/L	0.0141	0.69%
Mn 257.610†	31590.1	1.008	mg/L	0.0032	1.008	mg/L	0.0032	0.32%
Mo 202.031†	11234.8	0.9730	mg/L	0.01279	0.9730	mg/L	0.01279	1.31%
Na 589.592†	569751.8	51.21	mg/L	0.268	51.21	mg/L	0.268	0.52%
Na 330.237†	1362.1	51.40	mg/L	0.390	51.40	mg/L	0.390	0.76%
Ni 231.604†	2132.9	1.022	mg/L	0.0042	1.022	mg/L	0.0042	0.41%
Pb 220.353†	9236.8	2.072	mg/L	0.0267	2.072	mg/L	0.0267	1.29%
Sb 206.836†	3797.5	1.985	mg/L	0.0222	1.985	mg/L	0.0222	1.12%
Se 196.026†	1597.1	2.023	mg/L	0.0267	2.023	mg/L	0.0267	1.32%
Si 288.158†	4232.9	2.091	mg/L	0.0145	2.091	mg/L	0.0145	0.69%
Sn 189.927†	2440.6	0.9716	mg/L	0.01282	0.9716	mg/L	0.01282	1.32%
Sr 421.552†	521111.6	1.047	mg/L	0.0023	1.047	mg/L	0.0023	0.22%
Ti 334.903†	19211.9	1.004	mg/L	0.0012	1.004	mg/L	0.0012	0.12%
Tl 190.801†	2694.5	2.035	mg/L	0.0269	2.035	mg/L	0.0269	1.32%
V 292.402†	80480.6	1.042	mg/L	0.0102	1.042	mg/L	0.0102	0.98%
Zn 206.200†	1079.9	1.010	mg/L	0.0074	1.010	mg/L	0.0074	0.73%

Sequence No.: 8  
 Sample ID: CB |  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 11:43:34 AM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1872654.6	99.12	%	0.099				0.10%
ScR 361.383	261803.4	99.27	%	0.609				0.61%
Ag 328.068†	11.0	0.00008	mg/L	0.000220	0.00008	mg/L	0.000220	273.39%
Al 308.215†	15.2	0.00891	mg/L	0.009277	0.00891	mg/L	0.009277	104.14%
As 188.979†	2.3	0.00228	mg/L	0.002708	0.00228	mg/L	0.002708	118.79%
B 249.677†	17.2	0.00361	mg/L	0.000155	0.00361	mg/L	0.000155	4.30%
Ba 233.527†	1.2	0.00034	mg/L	0.000656	0.00034	mg/L	0.000656	192.48%
Be 313.042†	11.8	0.00002	mg/L	0.000028	0.00002	mg/L	0.000028	123.32%
Ca 317.933†	11.5	0.00077	mg/L	0.001832	0.00077	mg/L	0.001832	238.86%
Cd 228.802†	1.4	0.00006	mg/L	0.000218	0.00006	mg/L	0.000218	360.05%
Co 228.616†	6.0	0.00029	mg/L	0.000258	0.00029	mg/L	0.000258	87.97%
Cr 267.716†	1.9	0.00041	mg/L	0.000555	0.00041	mg/L	0.000555	136.43%
Cu 324.752†	28.9	0.00011	mg/L	0.000031	0.00011	mg/L	0.000031	27.44%
Fe 273.955†	2.2	0.00178	mg/L	0.000384	0.00178	mg/L	0.000384	21.63%
K 766.490†	-21.8	-0.01796	mg/L	0.014244	-0.01796	mg/L	0.014244	79.31%
Mg 279.077†	-1.0	-0.00082	mg/L	0.009224	-0.00082	mg/L	0.009224	>999.9%
Mn 257.610†	2.7	0.00009	mg/L	0.000099	0.00009	mg/L	0.000099	114.31%
Mo 202.031†	7.6	0.00066	mg/L	0.000481	0.00066	mg/L	0.000481	72.82%
Na 589.592†	-16.3	-0.00147	mg/L	0.004523	-0.00147	mg/L	0.004523	308.50%
Na 330.237†	8.6	0.3253	mg/L	0.47720	0.3253	mg/L	0.47720	146.70%
Ni 231.604†	1.3	0.00062	mg/L	0.002316	0.00062	mg/L	0.002316	374.46%
Pb 220.353†	7.7	0.00173	mg/L	0.001614	0.00173	mg/L	0.001614	93.36%
Sb 206.836†	3.7	0.00191	mg/L	0.000072	0.00191	mg/L	0.000072	3.80%
Se 196.026†	-0.1	-0.00007	mg/L	0.003656	-0.00007	mg/L	0.003656	>999.9%
Si 288.158†	-14.3	-0.00705	mg/L	0.005039	-0.00705	mg/L	0.005039	71.45%
Sn 189.927†	-2.2	-0.00086	mg/L	0.000520	-0.00086	mg/L	0.000520	60.68%
Sr 421.552†	-7.1	-0.00001	mg/L	0.000090	-0.00001	mg/L	0.000090	627.54%
Ti 334.903†	-14.5	-0.00076	mg/L	0.000490	-0.00076	mg/L	0.000490	64.68%
Tl 190.801†	5.6	0.00422	mg/L	0.000614	0.00422	mg/L	0.000614	14.55%
V 292.402†	2.8	0.00004	mg/L	0.000118	0.00004	mg/L	0.000118	308.89%
Zn 206.200†	-0.2	-0.00023	mg/L	0.001455	-0.00023	mg/L	0.001455	638.63%

Sequence No.: 9  
 Sample ID: QF00 MB1 WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 324  
 Date Collected: 1/18/2010 11:53:21 AM  
 Data Type: Original

## Nebulizer Parameters: QF00 MB1 WMN

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: QF00 MB1 WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1877145.0	99.36	%	2.549				2.57%
ScR 361.383	263651.7	99.97	%	0.339				0.34%
Ag 328.068†	-31.2	-0.00023	mg/L	0.000230	-0.00023	mg/L	0.000230	100.45%
Al 308.215†	9.0	0.00529	mg/L	0.004628	0.00529	mg/L	0.004628	87.51%
As 188.979†	3.5	0.00347	mg/L	0.002464	0.00347	mg/L	0.002464	71.07%
B 249.677†	3.6	0.00077	mg/L	0.000770	0.00077	mg/L	0.000770	100.63%
Ba 233.527†	-1.1	-0.00031	mg/L	0.001330	-0.00031	mg/L	0.001330	435.53%
Be 313.042†	7.4	0.00001	mg/L	0.000025	0.00001	mg/L	0.000025	178.41%
Ca 317.933†	-6.5	-0.00043	mg/L	0.001087	-0.00043	mg/L	0.001087	251.77%
Cd 228.802†	4.1	0.00019	mg/L	0.000276	0.00019	mg/L	0.000276	147.79%
Co 228.616†	7.6	0.00037	mg/L	0.000175	0.00037	mg/L	0.000175	47.56%
Cr 267.716†	5.5	0.00121	mg/L	0.000302	0.00121	mg/L	0.000302	25.04%
Cu 324.752†	-23.0	-0.00009	mg/L	0.000544	-0.00009	mg/L	0.000544	595.02%
Fe 273.955†	1.2	0.00100	mg/L	0.001639	0.00100	mg/L	0.001639	163.47%
K 766.490†	-20.4	-0.01685	mg/L	0.013551	-0.01685	mg/L	0.013551	80.42%
Mg 279.077†	8.4	0.00662	mg/L	0.005179	0.00662	mg/L	0.005179	78.17%
Mn 257.610†	-1.8	-0.00006	mg/L	0.000136	-0.00006	mg/L	0.000136	232.17%
Mo 202.031†	0.8	0.00007	mg/L	0.000305	0.00007	mg/L	0.000305	452.55%
Na 589.592†	12.8	0.00115	mg/L	0.003158	0.00115	mg/L	0.003158	275.38%
Na 330.237†	0.6	0.02300	mg/L	0.094016	0.02300	mg/L	0.094016	408.72%
Ni 231.604†	-1.1	-0.00053	mg/L	0.000951	-0.00053	mg/L	0.000951	178.68%
Pb 220.353†	2.5	0.00057	mg/L	0.000978	0.00057	mg/L	0.000978	171.78%
Sb 206.836†	-1.0	-0.00056	mg/L	0.003814	-0.00056	mg/L	0.003814	683.47%
Se 196.026†	2.9	0.00369	mg/L	0.003666	0.00369	mg/L	0.003666	99.39%
Si 288.158†	-8.4	-0.00413	mg/L	0.006677	-0.00413	mg/L	0.006677	161.61%
Sn 189.927†	-1.7	-0.00069	mg/L	0.001775	-0.00069	mg/L	0.001775	256.52%
Sr 421.552†	-3.7	-0.00001	mg/L	0.000041	-0.00001	mg/L	0.000041	552.11%
Ti 334.903†	4.4	0.00023	mg/L	0.001202	0.00023	mg/L	0.001202	526.29%
Tl 190.801†	4.5	0.00340	mg/L	0.001624	0.00340	mg/L	0.001624	47.77%
V 292.402†	-15.1	-0.00019	mg/L	0.000266	-0.00019	mg/L	0.000266	139.62%
Zn 206.200†	1.3	0.00118	mg/L	0.001444	0.00118	mg/L	0.001444	122.22%

Sequence No.: 10  
 Sample ID: QF00 E TWC  
 Analyst: ALA  
 Dilution: 1X

*Del*

Autosampler Location: 325  
 Date Collected: 1/18/2010 11:55:02 AM  
 Data Type: Original

## Nebulizer Parameters: QF00 E TWC

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: QF00 E TWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1896678.0	100.4	%	0.94				0.94%
ScR 361.383	269844.0	102.3	%	2.36				2.31%
Ag 328.068†	36.5	0.00024	mg/L	0.000144	0.00024	mg/L	0.000144	60.72%
Al 308.215†	33.8	0.01949	mg/L	0.004939	0.01949	mg/L	0.004939	25.34%
As 188.979†	24.0	0.02147	mg/L	0.002186	0.02147	mg/L	0.002186	10.18%
B 249.677†	125.8	0.02651	mg/L	0.000637	0.02651	mg/L	0.000637	2.40%
Ba 233.527†	87.4	0.02554	mg/L	0.001590	0.02554	mg/L	0.001590	6.22%
Be 313.042†	-12.3	-0.00002	mg/L	0.000080	-0.00002	mg/L	0.000080	341.66%
Ca 317.933†	594051.8	39.67	mg/L	1.036	39.67	mg/L	1.036	2.61%
Cd 228.802†	-5.4	-0.00034	mg/L	0.000106	-0.00034	mg/L	0.000106	30.88%
Co 228.616†	15.5	0.00074	mg/L	0.000247	0.00074	mg/L	0.000247	33.26%
Cr 267.716†	18.4	0.00061	mg/L	0.000857	0.00061	mg/L	0.000857	140.16%
Cu 324.752†	439.6	0.00131	mg/L	0.000240	0.00131	mg/L	0.000240	18.35%
Fe 273.955†	31.4	0.02557	mg/L	0.002673	0.02557	mg/L	0.002673	10.45%
K 766.490†	7316.4	6.030	mg/L	0.2078	6.030	mg/L	0.2078	3.45%
Mg 279.077†	22949.9	18.18	mg/L	0.642	18.18	mg/L	0.642	3.53%
Mn 257.610†	4418.8	0.1407	mg/L	0.00426	0.1407	mg/L	0.00426	3.03%
Mo 202.031†	54.6	0.00416	mg/L	0.000456	0.00416	mg/L	0.000456	10.97%
Na 589.592†	159878.5	14.37	mg/L	0.352	14.37	mg/L	0.352	2.45%
Na 330.237†	379.3	14.31	mg/L	0.405	14.31	mg/L	0.405	2.83%
Ni 231.604†	4.0	0.00191	mg/L	0.000518	0.00191	mg/L	0.000518	27.09%
Pb 220.353†	-14.3	-0.00320	mg/L	0.000380	-0.00320	mg/L	0.000380	11.87%
Sb 206.836†	0.7	0.00025	mg/L	0.001094	0.00025	mg/L	0.001094	437.56%
Se 196.026†	17.4	0.02111	mg/L	0.005457	0.02111	mg/L	0.005457	25.85%
Si 288.158†	31193.3	15.38	mg/L	0.933	15.38	mg/L	0.933	6.07%
Sn 189.927†	-17.9	-0.00591	mg/L	0.001546	-0.00591	mg/L	0.001546	26.16%
Sr 421.552†	101530.0	0.2040	mg/L	0.00526	0.2040	mg/L	0.00526	2.58%
Ti 334.903†	75.1	0.00112	mg/L	0.000477	0.00112	mg/L	0.000477	42.77%
Tl 190.801†	16.1	0.01237	mg/L	0.002127	0.01237	mg/L	0.002127	17.19%
V 292.402†	15.0	0.00023	mg/L	0.000127	0.00023	mg/L	0.000127	55.57%
Zn 206.200†	1.7	-0.00069	mg/L	0.002210	-0.00069	mg/L	0.002210	318.89%

Sequence No.: 11  
 Sample ID: QF00 G TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 326  
 Date Collected: 1/18/2010 11:56:47 AM  
 Data Type: Original

## Nebulizer Parameters: QF00 G TWC

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: QF00 G TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	1899315.6	100.5	%	0.55			0.55%
ScR 361.383	272092.2	103.2	%	1.73			1.68%
Ag 328.068†	137.3	0.00030	mg/L	0.000131	0.00030 mg/L	0.000131	43.31%
Al 308.215†	729.8	0.4219	mg/L	0.02059	0.4219 mg/L	0.02059	4.88%
As 188.979†	15.6	0.01285	mg/L	0.001107	0.01285 mg/L	0.001107	8.62%
B 249.677†	155.6	0.03279	mg/L	0.000686	0.03279 mg/L	0.000686	2.09%
Ba 233.527†	92.1	0.02674	mg/L	0.001179	0.02674 mg/L	0.001179	4.41%
Be 313.042†	-9.2	-0.00002	mg/L	0.000073	-0.00002 mg/L	0.000073	407.68%
Ca 317.933†	775235.2	51.77	mg/L	0.723	51.77 mg/L	0.723	1.40%
Cd 228.802†	-8.2	-0.00045	mg/L	0.000103	-0.00045 mg/L	0.000103	22.93%
Co 228.616†	30.0	0.00140	mg/L	0.000132	0.00140 mg/L	0.000132	9.40%
Cr 267.716†	16.6	0.00152	mg/L	0.000697	0.00152 mg/L	0.000697	45.75%
Cu 324.752†	1973.0	0.00768	mg/L	0.000022	0.00768 mg/L	0.000022	0.28%
Fe 273.955†	2363.5	1.924	mg/L	0.0202	1.924 mg/L	0.0202	1.05%
K 766.490†	4481.4	3.694	mg/L	0.0498	3.694 mg/L	0.0498	1.35%
Mg 279.077†	16517.5	13.08	mg/L	0.146	13.08 mg/L	0.146	1.11%
Mn 257.610†	103566.2	3.302	mg/L	0.0452	3.302 mg/L	0.0452	1.37%
Mo 202.031†	59.8	0.00444	mg/L	0.000130	0.00444 mg/L	0.000130	2.92%
Na 589.592†	120649.2	10.85	mg/L	0.126	10.85 mg/L	0.126	1.16%
Na 330.237†	295.1	11.13	mg/L	0.272	11.13 mg/L	0.272	2.45%
Ni 231.604†	7.4	0.00353	mg/L	0.001628	0.00353 mg/L	0.001628	46.16%
Pb 220.353†	-14.7	-0.00337	mg/L	0.001355	-0.00337 mg/L	0.001355	40.23%
Sb 206.836†	6.3	0.00317	mg/L	0.000849	0.00317 mg/L	0.000849	26.79%
Se 196.026†	21.3	0.02625	mg/L	0.002551	0.02625 mg/L	0.002551	9.72%
Si 288.158†	18518.0	9.129	mg/L	0.2762	9.129 mg/L	0.2762	3.03%
Sn 189.927†	-18.8	-0.00588	mg/L	0.001151	-0.00588 mg/L	0.001151	19.57%
Sr 421.552†	148107.6	0.2976	mg/L	0.00310	0.2976 mg/L	0.00310	1.04%
Ti 334.903†	302.0	0.01214	mg/L	0.000512	0.01214 mg/L	0.000512	4.22%
Tl 190.801†	12.5	0.01406	mg/L	0.000851	0.01406 mg/L	0.000851	6.05%
V 292.402†	66.6	0.00118	mg/L	0.000064	0.00118 mg/L	0.000064	5.43%
Zn 206.200†	5.9	0.00260	mg/L	0.001316	0.00260 mg/L	0.001316	50.53%

Sequence No.: 12  
Sample ID: QF00 J TWC  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 327  
Date Collected: 1/18/2010 11:59:37 AM  
Data Type: Original

Nebulizer Parameters: QF00 J TWC

Analyte Back Pressure Flow  
All 197.0 kPa 0.75 L/min

Mean Data: QF00 J TWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
ScA 357.253	1909552.5		101.1 %	0.42				0.41%
ScR 361.383	275196.0		104.3 %	1.52				1.46%
Ag 328.068†	15.4	0.00011	mg/L	0.000079	0.00011	mg/L	0.000079	70.33%
Al 308.215†	42.9	0.02509	mg/L	0.011074	0.02509	mg/L	0.011074	44.14%
As 188.979†	9.2	0.00715	mg/L	0.001783	0.00715	mg/L	0.001783	24.94%
B 249.677†	213.0	0.04489	mg/L	0.000809	0.04489	mg/L	0.000809	1.80%
Ba 233.527†	52.1	0.01530	mg/L	0.000390	0.01530	mg/L	0.000390	2.55%
Be 313.042†	-22.9	-0.00004	mg/L	0.000033	-0.00004	mg/L	0.000033	75.27%
Ca 317.933†	548283.1	36.62	mg/L	0.391	36.62	mg/L	0.391	1.07%
Cd 228.802†	-7.3	-0.00039	mg/L	0.000126	-0.00039	mg/L	0.000126	32.47%
Co 228.616†	19.3	0.00093	mg/L	0.000177	0.00093	mg/L	0.000177	19.10%
Cr 267.716†	20.6	0.00244	mg/L	0.000404	0.00244	mg/L	0.000404	16.53%
Cu 324.752†	450.9	0.00155	mg/L	0.000111	0.00155	mg/L	0.000111	7.16%
Fe 273.955†	20.9	0.01699	mg/L	0.001659	0.01699	mg/L	0.001659	9.76%
K 766.490†	2873.8	2.369	mg/L	0.0375	2.369	mg/L	0.0375	1.58%
Mg 279.077†	12692.1	10.05	mg/L	0.073	10.05	mg/L	0.073	0.72%
Mn 257.610†	56.5	0.00161	mg/L	0.000044	0.00161	mg/L	0.000044	2.72%
Mo 202.031†	47.5	0.00359	mg/L	0.000491	0.00359	mg/L	0.000491	13.68%
Na 589.592†	108241.2	9.730	mg/L	0.1073	9.730	mg/L	0.1073	1.10%
Na 330.237†	264.8	9.989	mg/L	0.0938	9.989	mg/L	0.0938	0.94%
Ni 231.604†	2.7	0.00130	mg/L	0.002422	0.00130	mg/L	0.002422	186.01%
Pb 220.353†	-16.7	-0.00373	mg/L	0.001308	-0.00373	mg/L	0.001308	35.08%
Sb 206.836†	-0.2	-0.00022	mg/L	0.002301	-0.00022	mg/L	0.002301	>999.9%
Se 196.026†	9.2	0.01114	mg/L	0.002452	0.01114	mg/L	0.002452	22.01%
Si 288.158†	10264.3	5.060	mg/L	0.0852	5.060	mg/L	0.0852	1.68%
Sn 189.927†	-14.3	-0.00459	mg/L	0.000784	-0.00459	mg/L	0.000784	17.09%
Sr 421.552†	124103.1	0.2494	mg/L	0.00188	0.2494	mg/L	0.00188	0.75%
Ti 334.903†	62.8	0.00069	mg/L	0.000490	0.00069	mg/L	0.000490	70.86%
Tl 190.801†	17.5	0.01326	mg/L	0.002780	0.01326	mg/L	0.002780	20.96%
V 292.402†	72.2	0.00095	mg/L	0.000114	0.00095	mg/L	0.000114	12.02%
Zn 206.200†	6.4	0.00393	mg/L	0.000330	0.00393	mg/L	0.000330	8.40%

Sequence No.: 13  
 Sample ID: QF00 A WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 328  
 Date Collected: 1/18/2010 12:02:28 PM  
 Data Type: Original

Nebulizer Parameters: QF00 A WMN

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

Mean Data: QF00 A WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1858086.2	98.35	%	0.854				0.87%
ScR 361.383	273273.4	103.6	%	1.53				1.47%
Ag 328.068†	-4.2	-0.00006	mg/L	0.000069	-0.00006	mg/L	0.000069	112.67%
Al 308.215†	-3.6	-0.00239	mg/L	0.007202	-0.00239	mg/L	0.007202	301.96%
As 188.979†	28.8	0.02603	mg/L	0.002289	0.02603	mg/L	0.002289	8.80%
B 249.677†	136.4	0.02875	mg/L	0.001475	0.02875	mg/L	0.001475	5.13%
Ba 233.527†	85.8	0.02510	mg/L	0.000291	0.02510	mg/L	0.000291	1.16%
Be 313.042†	-1.3	0.00000	mg/L	0.000037	0.00000	mg/L	0.000037	>999.9%
Ca 317.933†	628222.7	41.96	mg/L	0.367	41.96	mg/L	0.367	0.87%
Cd 228.802†	-6.0	-0.00039	mg/L	0.000051	-0.00039	mg/L	0.000051	13.17%
Co 228.616†	24.5	0.00118	mg/L	0.000094	0.00118	mg/L	0.000094	7.98%
Cr 267.716†	20.1	0.00077	mg/L	0.001230	0.00077	mg/L	0.001230	160.33%
Cu 324.752†	524.9	0.00162	mg/L	0.000423	0.00162	mg/L	0.000423	26.11%
Fe 273.955†	17.8	0.01452	mg/L	0.001700	0.01452	mg/L	0.001700	11.71%
K 766.490†	7774.8	6.408	mg/L	0.0605	6.408	mg/L	0.0605	0.94%
Mg 279.077†	24337.6	19.27	mg/L	0.215	19.27	mg/L	0.215	1.11%
Mn 257.610†	4433.1	0.1411	mg/L	0.00148	0.1411	mg/L	0.00148	1.05%
Mo 202.031†	59.6	0.00456	mg/L	0.000185	0.00456	mg/L	0.000185	4.05%
Na 589.592†	169218.3	15.21	mg/L	0.063	15.21	mg/L	0.063	0.42%
Na 330.237†	410.2	15.47	mg/L	0.418	15.47	mg/L	0.418	2.70%
Ni 231.604†	3.8	0.00183	mg/L	0.002312	0.00183	mg/L	0.002312	126.69%
Pb 220.353†	-12.1	-0.00270	mg/L	0.000423	-0.00270	mg/L	0.000423	15.66%
Sb 206.836†	-2.9	-0.00164	mg/L	0.001270	-0.00164	mg/L	0.001270	77.48%
Se 196.026†	20.1	0.02444	mg/L	0.000977	0.02444	mg/L	0.000977	4.00%
Si 288.158†	36904.6	18.19	mg/L	0.235	18.19	mg/L	0.235	1.29%
Sn 189.927†	-17.2	-0.00556	mg/L	0.001557	-0.00556	mg/L	0.001557	28.01%
Sr 421.552†	107110.7	0.2152	mg/L	0.00199	0.2152	mg/L	0.00199	0.93%
Ti 334.903†	65.1	0.00043	mg/L	0.000472	0.00043	mg/L	0.000472	108.55%
Tl 190.801†	17.3	0.01330	mg/L	0.001393	0.01330	mg/L	0.001393	10.48%
V 292.402†	10.4	0.00017	mg/L	0.000204	0.00017	mg/L	0.000204	118.32%
Zn 206.200†	0.7	-0.00175	mg/L	0.000895	-0.00175	mg/L	0.000895	51.13%



Sequence No.: 14  
 Sample ID: QF00 B WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 329  
 Date Collected: 1/18/2010 12:06:20 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 B WMN

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF00 B WMN

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
ScA 357.253	1933320.5	102.3	%	0.86			0.84%
SCR 361.383	279656.3	106.0	%	1.11			1.05%
Ag 328.068†	25.6	0.00014	mg/L	0.000135	0.00014	mg/L	0.000135 96.11%
Al 308.215†	31.6	0.01808	mg/L	0.006939	0.01808	mg/L	0.006939 38.39%
As 188.979†	17.5	0.01450	mg/L	0.003960	0.01450	mg/L	0.003960 27.31%
B 249.677†	96.9	0.02042	mg/L	0.000685	0.02042	mg/L	0.000685 3.35%
Ba 233.527†	52.2	0.01544	mg/L	0.000219	0.01544	mg/L	0.000219 1.42%
Be 313.042†	-7.2	-0.00001	mg/L	0.000043	-0.00001	mg/L	0.000043 303.56%
Ca 317.933†	760022.7	50.76	mg/L	0.524	50.76	mg/L	0.524 1.03%
Cd 228.802†	-8.3	-0.00046	mg/L	0.000131	-0.00046	mg/L	0.000131 28.48%
Co 228.616†	20.7	0.00100	mg/L	0.000305	0.00100	mg/L	0.000305 30.58%
Cr 267.716†	27.0	0.00143	mg/L	0.000522	0.00143	mg/L	0.000522 36.60%
Cu 324.752†	1038.4	0.00355	mg/L	0.000276	0.00355	mg/L	0.000276 7.79%
Fe 273.955†	24.7	0.02012	mg/L	0.000630	0.02012	mg/L	0.000630 3.13%
K 766.490†	3020.4	2.489	mg/L	0.0545	2.489	mg/L	0.0545 2.19%
Mg 279.077†	30241.7	23.95	mg/L	0.245	23.95	mg/L	0.245 1.02%
Mn 257.610†	6870.7	0.2188	mg/L	0.00234	0.2188	mg/L	0.00234 1.07%
Mo 202.031†	73.9	0.00567	mg/L	0.000423	0.00567	mg/L	0.000423 7.46%
Na 589.592†	81514.4	7.327	mg/L	0.1095	7.327	mg/L	0.1095 1.49%
Na 330.237†	207.3	7.822	mg/L	0.1854	7.822	mg/L	0.1854 2.37%
Ni 231.604†	15.2	0.00725	mg/L	0.000550	0.00725	mg/L	0.000550 7.58%
Pb 220.353†	-24.4	-0.00545	mg/L	0.001515	-0.00545	mg/L	0.001515 27.78%
Sb 206.836†	-6.3	-0.00340	mg/L	0.002388	-0.00340	mg/L	0.002388 70.30%
Se 196.026†	26.3	0.03206	mg/L	0.005709	0.03206	mg/L	0.005709 17.81%
Si 288.158†	26874.4	13.25	mg/L	0.099	13.25	mg/L	0.099 0.75%
Sn 189.927†	-12.7	-0.00351	mg/L	0.000577	-0.00351	mg/L	0.000577 16.42%
Sr 421.552†	115350.3	0.2318	mg/L	0.00287	0.2318	mg/L	0.00287 1.24%
Ti 334.903†	71.1	0.00012	mg/L	0.000243	0.00012	mg/L	0.000243 199.64%
Tl 190.801†	24.4	0.01869	mg/L	0.001124	0.01869	mg/L	0.001124 6.01%
V 292.402†	82.4	0.00112	mg/L	0.000069	0.00112	mg/L	0.000069 6.13%
Zn 206.200†	2.2	-0.00084	mg/L	0.001046	-0.00084	mg/L	0.001046 125.14%

Sequence No.: 15  
Sample ID: QF00 DDUP WMN  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 330  
Date Collected: 1/18/2010 12:10:17 PM  
Data Type: Original

Nebulizer Parameters: QF00 DDUP WMN

Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: QF00 DDUP WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	1917461.6	101.5	%	0.48			0.47%
ScR 361.383	281923.7	106.9	%	0.98			0.91%
Ag 328.068†	26.4	0.00019	mg/L	0.000214	0.00019 mg/L	0.000214	110.69%
Al 308.215†	6.2	0.00356	mg/L	0.007521	0.00356 mg/L	0.007521	211.29%
As 188.979†	12.6	0.01026	mg/L	0.000770	0.01026 mg/L	0.000770	7.51%
B 249.677†	233.7	0.04924	mg/L	0.000820	0.04924 mg/L	0.000820	1.66%
Ba 233.527†	57.0	0.01675	mg/L	0.000625	0.01675 mg/L	0.000625	3.73%
Be 313.042†	-25.0	-0.00005	mg/L	0.000037	-0.00005 mg/L	0.000037	76.92%
Ca 317.933†	621424.6	41.50	mg/L	0.507	41.50 mg/L	0.507	1.22%
Cd 228.802†	-6.2	-0.00034	mg/L	0.000093	-0.00034 mg/L	0.000093	27.24%
Co 228.616†	25.1	0.00121	mg/L	0.000202	0.00121 mg/L	0.000202	16.68%
Cr 267.716†	14.0	0.00073	mg/L	0.000557	0.00073 mg/L	0.000557	76.65%
Cu 324.752†	499.9	0.00171	mg/L	0.000233	0.00171 mg/L	0.000233	13.61%
Fe 273.955†	-1.6	-0.00133	mg/L	0.001013	-0.00133 mg/L	0.001013	76.29%
K 766.490†	3144.0	2.591	mg/L	0.0475	2.591 mg/L	0.0475	1.83%
Mg 279.077†	14347.7	11.36	mg/L	0.159	11.36 mg/L	0.159	1.40%
Mn 257.610†	20.1	0.00042	mg/L	0.000033	0.00042 mg/L	0.000033	7.81%
Mo 202.031†	49.1	0.00366	mg/L	0.000094	0.00366 mg/L	0.000094	2.56%
Na 589.592†	121661.7	10.94	mg/L	0.163	10.94 mg/L	0.163	1.49%
Na 330.237†	297.4	11.22	mg/L	0.723	11.22 mg/L	0.723	6.44%
Ni 231.604†	3.9	0.00189	mg/L	0.000672	0.00189 mg/L	0.000672	35.63%
Pb 220.353†	-15.1	-0.00338	mg/L	0.001474	-0.00338 mg/L	0.001474	43.54%
Sb 206.836†	0.6	0.00026	mg/L	0.001180	0.00026 mg/L	0.001180	458.48%
Se 196.026†	15.5	0.01898	mg/L	0.009032	0.01898 mg/L	0.009032	47.59%
Si 288.158†	12376.4	6.101	mg/L	0.0857	6.101 mg/L	0.0857	1.40%
Sn 189.927†	-11.2	-0.00317	mg/L	0.000530	-0.00317 mg/L	0.000530	16.71%
Sr 421.552†	138239.1	0.2778	mg/L	0.00246	0.2778 mg/L	0.00246	0.89%
Ti 334.903†	69.6	0.00070	mg/L	0.000864	0.00070 mg/L	0.000864	123.06%
Tl 190.801†	23.8	0.01797	mg/L	0.001146	0.01797 mg/L	0.001146	6.37%
V 292.402†	77.7	0.00101	mg/L	0.000195	0.00101 mg/L	0.000195	19.26%
Zn 206.200†	1.6	-0.00082	mg/L	0.001771	-0.00082 mg/L	0.001771	217.21%

Sequence No.: 16  
 Sample ID: QF00 D WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 331  
 Date Collected: 1/18/2010 12:14:10 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 D WMN

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF00 D WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1944806.8	102.9	%	1.28				1.24%
ScR 361.383	283999.4	107.7	%	0.79				0.74%
Ag 328.068†	23.2	0.00017	mg/L	0.000217	0.00017	mg/L	0.000217	127.70%
Al 308.215†	7.3	0.00420	mg/L	0.010034	0.00420	mg/L	0.010034	239.06%
As 188.979†	13.7	0.01131	mg/L	0.000927	0.01131	mg/L	0.000927	8.20%
B 249.677†	231.7	0.04882	mg/L	0.001131	0.04882	mg/L	0.001131	2.32%
Ba 233.527†	60.2	0.01769	mg/L	0.001675	0.01769	mg/L	0.001675	9.47%
Be 313.042†	-27.2	-0.00005	mg/L	0.000014	-0.00005	mg/L	0.000014	27.54%
Ca 317.933†	620360.8	41.43	mg/L	0.152	41.43	mg/L	0.152	0.37%
Cd 228.802†	-7.4	-0.00040	mg/L	0.000043	-0.00040	mg/L	0.000043	10.61%
Co 228.616†	19.9	0.00096	mg/L	0.000155	0.00096	mg/L	0.000155	16.17%
Cr 267.716†	15.9	0.00115	mg/L	0.000771	0.00115	mg/L	0.000771	66.91%
Cu 324.752†	474.3	0.00161	mg/L	0.000290	0.00161	mg/L	0.000290	18.01%
Fe 273.955†	1.6	0.00128	mg/L	0.001641	0.00128	mg/L	0.001641	127.72%
K 766.490†	3181.3	2.622	mg/L	0.0241	2.622	mg/L	0.0241	0.92%
Mg 279.077†	14301.2	11.32	mg/L	0.108	11.32	mg/L	0.108	0.95%
Mn 257.610†	18.9	0.00039	mg/L	0.000079	0.00039	mg/L	0.000079	20.39%
Mo 202.031†	50.0	0.00373	mg/L	0.000294	0.00373	mg/L	0.000294	7.88%
Na 589.592†	121116.6	10.89	mg/L	0.086	10.89	mg/L	0.086	0.79%
Na 330.237†	309.1	11.66	mg/L	0.230	11.66	mg/L	0.230	1.97%
Ni 231.604†	3.6	0.00170	mg/L	0.001603	0.00170	mg/L	0.001603	94.36%
Pb 220.353†	-14.7	-0.00329	mg/L	0.001121	-0.00329	mg/L	0.001121	34.02%
Sb 206.836†	-4.9	-0.00264	mg/L	0.001546	-0.00264	mg/L	0.001546	58.50%
Se 196.026†	16.6	0.02037	mg/L	0.008290	0.02037	mg/L	0.008290	40.71%
Si 288.158†	12338.7	6.082	mg/L	0.0447	6.082	mg/L	0.0447	0.73%
Sn 189.927†	-13.7	-0.00420	mg/L	0.000451	-0.00420	mg/L	0.000451	10.75%
Sr 421.552†	138048.5	0.2774	mg/L	0.00235	0.2774	mg/L	0.00235	0.85%
Ti 334.903†	49.0	-0.00037	mg/L	0.000529	-0.00037	mg/L	0.000529	142.98%
Tl 190.801†	21.1	0.01593	mg/L	0.002241	0.01593	mg/L	0.002241	14.07%
V 292.402†	79.9	0.00104	mg/L	0.000201	0.00104	mg/L	0.000201	19.21%
Zn 206.200†	1.5	-0.00094	mg/L	0.000596	-0.00094	mg/L	0.000596	63.18%

Sequence No.: 17  
 Sample ID: QF00 DSPK WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 332  
 Date Collected: 1/18/2010 12:18:03 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 DSPK WMN

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF00 DSPK WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
ScA 357.253	1914404.6	101.3	%	1.20			1.18%
ScR 361.383	280098.6	106.2	%	0.60			0.57%
Ag 328.068†	61880.4	0.4534	mg/L	0.01736	0.4534 mg/L	0.01736	3.83%
Al 308.215†	3646.5	2.125	mg/L	0.0113	2.125 mg/L	0.0113	0.53%
As 188.979†	2394.9	2.341	mg/L	0.0265	2.341 mg/L	0.0265	1.13%
B 249.677†	232.3	0.04763	mg/L	0.000415	0.04763 mg/L	0.000415	0.87%
Ba 233.527†	7727.4	2.235	mg/L	0.0099	2.235 mg/L	0.0099	0.44%
Be 313.042†	291695.5	0.5517	mg/L	0.00246	0.5517 mg/L	0.00246	0.45%
Ca 317.933†	772620.4	51.60	mg/L	0.189	51.60 mg/L	0.189	0.37%
Cd 228.802†	12213.1	0.5853	mg/L	0.00555	0.5853 mg/L	0.00555	0.95%
Co 228.616†	11647.5	0.5642	mg/L	0.00688	0.5642 mg/L	0.00688	1.22%
Cr 267.716†	2556.2	0.5555	mg/L	0.00175	0.5555 mg/L	0.00175	0.32%
Cu 324.752†	143041.8	0.5684	mg/L	0.00696	0.5684 mg/L	0.00696	1.22%
Fe 273.955†	2629.1	2.136	mg/L	0.0106	2.136 mg/L	0.0106	0.50%
K 766.490†	16087.7	13.26	mg/L	0.058	13.26 mg/L	0.058	0.44%
Mg 279.077†	26725.4	21.17	mg/L	0.150	21.17 mg/L	0.150	0.71%
Mn 257.610†	16806.1	0.5362	mg/L	0.00255	0.5362 mg/L	0.00255	0.47%
Mo 202.031†	65.0	0.00488	mg/L	0.000248	0.00488 mg/L	0.000248	5.08%
Na 589.592†	242358.1	21.79	mg/L	0.145	21.79 mg/L	0.145	0.67%
Na 330.237†	584.6	21.92	mg/L	0.183	21.92 mg/L	0.183	0.83%
Ni 231.604†	1133.4	0.5424	mg/L	0.00150	0.5424 mg/L	0.00150	0.28%
Pb 220.353†	10093.3	2.264	mg/L	0.0218	2.264 mg/L	0.0218	0.96%
Sb 206.836†	5.7	-0.00106	mg/L	0.000514	-0.00106 mg/L	0.000514	48.24%
Se 196.026†	2051.3	2.597	mg/L	0.0265	2.597 mg/L	0.0265	1.02%
Si 288.158†	12154.9	5.994	mg/L	0.0264	5.994 mg/L	0.0264	0.44%
Sn 189.927†	-14.6	-0.00422	mg/L	0.000823	-0.00422 mg/L	0.000823	19.53%
Sr 421.552†	407291.6	0.8184	mg/L	0.00209	0.8184 mg/L	0.00209	0.26%
Ti 334.903†	80.3	0.00037	mg/L	0.000211	0.00037 mg/L	0.000211	57.39%
Tl 190.801†	2973.7	2.244	mg/L	0.0273	2.244 mg/L	0.0273	1.22%
V 292.402†	42986.1	0.5565	mg/L	0.00618	0.5565 mg/L	0.00618	1.11%
Zn 206.200†	585.3	0.5445	mg/L	0.00418	0.5445 mg/L	0.00418	0.77%

Sequence No.: 18  
 Sample ID: QF00 MB1SPK WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 333  
 Date Collected: 1/18/2010 12:21:42 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 MB1SPK WMN

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF00 MB1SPK WMN

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1900451.2	100.6	%	1.36			1.35%
ScR 361.383	278722.0	105.7	%	0.74			0.70%
Ag 328.068†	79100.5	0.5796	mg/L	0.01424	0.5796	mg/L	0.01424 2.46%
Al 308.215†	3465.8	2.019	mg/L	0.0067	2.019	mg/L	0.0067 0.33%
As 188.979†	2265.7	2.217	mg/L	0.0366	2.217	mg/L	0.0366 1.65%
B 249.677†	0.6	-0.00114	mg/L	0.000736	-0.00114	mg/L	0.000736 64.77%
Ba 233.527†	7381.4	2.134	mg/L	0.0049	2.134	mg/L	0.0049 0.23%
Be 313.042†	276325.4	0.5226	mg/L	0.00228	0.5226	mg/L	0.00228 0.44%
Ca 317.933†	148342.9	9.907	mg/L	0.0281	9.907	mg/L	0.0281 0.28%
Cd 228.802†	11861.3	0.5687	mg/L	0.00721	0.5687	mg/L	0.00721 1.27%
Co 228.616†	11053.0	0.5354	mg/L	0.00845	0.5354	mg/L	0.00845 1.58%
Cr 267.716†	2438.2	0.5320	mg/L	0.00140	0.5320	mg/L	0.00140 0.26%
Cu 324.752†	138515.3	0.5507	mg/L	0.01019	0.5507	mg/L	0.01019 1.85%
Fe 273.955†	2528.4	2.055	mg/L	0.0035	2.055	mg/L	0.0035 0.17%
K 766.490†	12140.3	10.01	mg/L	0.034	10.01	mg/L	0.034 0.34%
Mg 279.077†	12323.4	9.762	mg/L	0.0112	9.762	mg/L	0.0112 0.11%
Mn 257.610†	16032.2	0.5117	mg/L	0.00159	0.5117	mg/L	0.00159 0.31%
Mo 202.031†	14.9	0.00115	mg/L	0.000527	0.00115	mg/L	0.000527 45.76%
Na 589.592†	115538.3	10.39	mg/L	0.025	10.39	mg/L	0.025 0.25%
Na 330.237†	284.1	10.59	mg/L	0.390	10.59	mg/L	0.390 3.68%
Ni 231.604†	1100.4	0.5265	mg/L	0.00195	0.5265	mg/L	0.00195 0.37%
Pb 220.353†	9614.0	2.156	mg/L	0.0365	2.156	mg/L	0.0365 1.69%
Sb 206.836†	1.9	-0.00278	mg/L	0.001285	-0.00278	mg/L	0.001285 46.25%
Se 196.026†	1909.3	2.418	mg/L	0.0409	2.418	mg/L	0.0409 1.69%
Si 288.158†	-7.1	-0.00126	mg/L	0.008993	-0.00126	mg/L	0.008993 711.80%
Sn 189.927†	-4.9	-0.00163	mg/L	0.000846	-0.00163	mg/L	0.000846 52.03%
Sr 421.552†	261069.6	0.5246	mg/L	0.00324	0.5246	mg/L	0.00324 0.62%
Ti 334.903†	9.3	-0.00039	mg/L	0.000618	-0.00039	mg/L	0.000618 159.38%
Tl 190.801†	2870.5	2.166	mg/L	0.0322	2.166	mg/L	0.0322 1.49%
V 292.402†	42125.4	0.5453	mg/L	0.00638	0.5453	mg/L	0.00638 1.17%
Zn 206.200†	559.0	0.5222	mg/L	0.00074	0.5222	mg/L	0.00074 0.14%

Sequence No.: 19  
 Sample ID: CV ✓  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 7  
 Date Collected: 1/18/2010 12:25:21 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1864649.7	98.69	%	1.020				1.03%
ScR 361.383	267652.3	101.5	%	0.51				0.50%
Ag 328.068†	147140.2	1.078	mg/L	0.0072	1.078	mg/L	0.0072	0.66%
Al 308.215†	3521.0	2.029	mg/L	0.0111	2.029	mg/L	0.0111	0.55%
As 188.979†	2114.9	2.090	mg/L	0.0252	2.090	mg/L	0.0252	1.20%
B 249.677†	4918.2	1.035	mg/L	0.0067	1.035	mg/L	0.0067	0.64%
Ba 233.527†	3712.0	1.073	mg/L	0.0040	1.073	mg/L	0.0040	0.37%
Be 313.042†	550334.7	1.041	mg/L	0.0114	1.041	mg/L	0.0114	1.10%
Ca 317.933†	29904.8	1.997	mg/L	0.0194	1.997	mg/L	0.0194	0.97%
Cd 228.802†	22165.4	1.070	mg/L	0.0166	1.070	mg/L	0.0166	1.55%
Co 228.616†	21544.3	1.043	mg/L	0.0126	1.043	mg/L	0.0126	1.21%
Cr 267.716†	4834.0	1.058	mg/L	0.0081	1.058	mg/L	0.0081	0.76%
Cu 324.752†	276979.1	1.100	mg/L	0.0117	1.100	mg/L	0.0117	1.06%
Fe 273.955†	2509.7	2.036	mg/L	0.0079	2.036	mg/L	0.0079	0.39%
K 766.490†	24198.3	19.94	mg/L	0.108	19.94	mg/L	0.108	0.54%
Mg 279.077†	2594.5	2.060	mg/L	0.0068	2.060	mg/L	0.0068	0.33%
Mn 257.610†	31956.4	1.020	mg/L	0.0133	1.020	mg/L	0.0133	1.30%
Mo 202.031†	11551.5	1.000	mg/L	0.0124	1.000	mg/L	0.0124	1.24%
Na 589.592†	575815.5	51.76	mg/L	0.526	51.76	mg/L	0.526	1.02%
Na 330.237†	1371.8	51.76	mg/L	0.043	51.76	mg/L	0.043	0.08%
Ni 231.604†	2198.9	1.054	mg/L	0.0065	1.054	mg/L	0.0065	0.62%
Pb 220.353†	9554.7	2.144	mg/L	0.0258	2.144	mg/L	0.0258	1.20%
Sb 206.836†	3904.9	2.042	mg/L	0.0259	2.042	mg/L	0.0259	1.27%
Se 196.026†	1665.2	2.109	mg/L	0.0304	2.109	mg/L	0.0304	1.44%
Si 288.158†	4322.6	2.135	mg/L	0.0162	2.135	mg/L	0.0162	0.76%
Sn 189.927†	2530.6	1.007	mg/L	0.0111	1.007	mg/L	0.0111	1.10%
Sr 421.552†	526033.3	1.057	mg/L	0.0126	1.057	mg/L	0.0126	1.19%
Ti 334.903†	19350.1	1.011	mg/L	0.0123	1.011	mg/L	0.0123	1.22%
Tl 190.801†	2785.6	2.103	mg/L	0.0315	2.103	mg/L	0.0315	1.50%
V 292.402†	82620.1	1.070	mg/L	0.0149	1.070	mg/L	0.0149	1.39%
Zn 206.200†	1110.0	1.038	mg/L	0.0065	1.038	mg/L	0.0065	0.63%

Sequence No.: 20  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 12:29:01 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1871379.0	99.05	%	0.479				0.48%
ScR 361.383	259540.0	98.41	%	0.620				0.63%
Ag 328.068†	12.5	0.00009	mg/L	0.000454	0.00009	mg/L	0.000454	497.34%
Al 308.215†	12.5	0.00729	mg/L	0.005566	0.00729	mg/L	0.005566	76.39%
As 188.979†	-0.3	-0.00034	mg/L	0.000828	-0.00034	mg/L	0.000828	246.12%
B 249.677†	9.2	0.00194	mg/L	0.001716	0.00194	mg/L	0.001716	88.37%
Ba 233.527†	-1.2	-0.00033	mg/L	0.001058	-0.00033	mg/L	0.001058	317.18%
Be 313.042†	6.6	0.00001	mg/L	0.000044	0.00001	mg/L	0.000044	351.01%
Ca 317.933†	22.6	0.00151	mg/L	0.001147	0.00151	mg/L	0.001147	75.99%
Cd 228.802†	-1.5	-0.00007	mg/L	0.000114	-0.00007	mg/L	0.000114	156.26%
Co 228.616†	5.2	0.00025	mg/L	0.000233	0.00025	mg/L	0.000233	92.60%
Cr 267.716†	-0.5	-0.00010	mg/L	0.001113	-0.00010	mg/L	0.001113	>999.9%
Cu 324.752†	93.0	0.00037	mg/L	0.000094	0.00037	mg/L	0.000094	25.51%
Fe 273.955†	1.2	0.00100	mg/L	0.001680	0.00100	mg/L	0.001680	167.47%
K 766.490†	-21.2	-0.01751	mg/L	0.035805	-0.01751	mg/L	0.035805	204.44%
Mg 279.077†	3.8	0.00302	mg/L	0.003882	0.00302	mg/L	0.003882	128.52%
Mn 257.610†	3.5	0.00011	mg/L	0.000043	0.00011	mg/L	0.000043	37.93%
Mo 202.031†	6.6	0.00058	mg/L	0.000146	0.00058	mg/L	0.000146	25.41%
Na 589.592†	-10.8	-0.00097	mg/L	0.005241	-0.00097	mg/L	0.005241	538.38%
Na 330.237†	-1.9	-0.07167	mg/L	0.344284	-0.07167	mg/L	0.344284	480.38%
Ni 231.604†	4.1	0.00194	mg/L	0.001667	0.00194	mg/L	0.001667	85.82%
Pb 220.353†	4.2	0.00095	mg/L	0.001131	0.00095	mg/L	0.001131	119.04%
Sb 206.836†	5.4	0.00285	mg/L	0.000526	0.00285	mg/L	0.000526	18.44%
Se 196.026†	-3.1	-0.00390	mg/L	0.001670	-0.00390	mg/L	0.001670	42.78%
Si 288.158†	4.7	0.00230	mg/L	0.006696	0.00230	mg/L	0.006696	291.59%
Sn 189.927†	2.3	0.00091	mg/L	0.001113	0.00091	mg/L	0.001113	121.94%
Sr 421.552†	-3.6	-0.00001	mg/L	0.000050	-0.00001	mg/L	0.000050	694.91%
Ti 334.903†	2.6	0.00013	mg/L	0.000733	0.00013	mg/L	0.000733	550.19%
Tl 190.801†	4.9	0.00370	mg/L	0.001545	0.00370	mg/L	0.001545	41.75%
V 292.402†	9.0	0.00012	mg/L	0.000178	0.00012	mg/L	0.000178	153.63%
Zn 206.200†	0.8	0.00075	mg/L	0.002651	0.00075	mg/L	0.002651	353.78%

Sequence No.: 21  
 Sample ID: QF15 MB1 TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 334  
 Date Collected: 1/18/2010 12:32:40 PM  
 Data Type: Original

## Nebulizer Parameters: QF15 MB1 TWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF15 MB1 TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	1860639.6	98.48	%	0.339			0.34%
ScR 361.383	262016.9	99.35	%	1.005			1.01%
Ag 328.068†	3.8	0.00003	mg/L	0.000191	0.00003	0.000191	685.18%
Al 308.215†	-6.8	-0.00399	mg/L	0.002320	-0.00399	0.002320	58.11%
As 188.979†	3.1	0.00299	mg/L	0.000729	0.00299	0.000729	24.35%
B 249.677†	4.6	0.00096	mg/L	0.002006	0.00096	0.002006	209.11%
Ba 233.527†	1.4	0.00041	mg/L	0.000748	0.00041	0.000748	181.74%
Be 313.042†	-1.2	0.00000	mg/L	0.000009	0.00000	0.000009	438.34%
Ca 317.933†	56.6	0.00378	mg/L	0.001325	0.00378	0.001325	35.04%
Cd 228.802†	1.6	0.00007	mg/L	0.000175	0.00007	0.000175	263.03%
Co 228.616†	6.4	0.00031	mg/L	0.000192	0.00031	0.000192	61.48%
Cr 267.716†	-3.4	-0.00074	mg/L	0.001340	-0.00074	0.001340	181.32%
Cu 324.752†	119.7	0.00048	mg/L	0.000077	0.00048	0.000077	16.20%
Fe 273.955†	5.3	0.00435	mg/L	0.001812	0.00435	0.001812	41.66%
K 766.490†	-27.5	-0.02268	mg/L	0.027382	-0.02268	0.027382	120.74%
Mg 279.077†	6.0	0.00474	mg/L	0.005997	0.00474	0.005997	126.40%
Mn 257.610†	3.5	0.00011	mg/L	0.000085	0.00011	0.000085	76.09%
Mo 202.031†	0.9	0.00008	mg/L	0.000366	0.00008	0.000366	479.25%
Na 589.592†	25.9	0.00233	mg/L	0.004665	0.00233	0.004665	200.23%
Na 330.237†	5.5	0.2060	mg/L	0.44725	0.2060	0.44725	217.07%
Ni 231.604†	1.9	0.00090	mg/L	0.002275	0.00090	0.002275	254.14%
Pb 220.353†	4.2	0.00095	mg/L	0.001233	0.00095	0.001233	130.23%
Sb 206.836†	0.6	0.00033	mg/L	0.001608	0.00033	0.001608	493.02%
Se 196.026†	-2.0	-0.00255	mg/L	0.007504	-0.00255	0.007504	294.85%
Si 288.158†	27.8	0.01369	mg/L	0.005715	0.01369	0.005715	41.74%
Sn 189.927†	0.3	0.00013	mg/L	0.000202	0.00013	0.000202	153.64%
Sr 421.552†	1.7	0.00000	mg/L	0.000031	0.00000	0.000031	919.45%
Ti 334.903†	-3.3	-0.00017	mg/L	0.000931	-0.00017	0.000931	543.41%
Tl 190.801†	1.2	0.00090	mg/L	0.001208	0.00090	0.001208	134.60%
V 292.402†	-15.4	-0.00020	mg/L	0.000298	-0.00020	0.000298	148.14%
Zn 206.200†	-0.8	-0.00078	mg/L	0.002472	-0.00078	0.002472	317.72%



Sequence No.: 22  
Sample ID: QF00 I WMN  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 335  
Date Collected: 1/18/2010 12:36:19 PM  
Data Type: Original

Nebulizer Parameters: QF00 I WMN  
Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: QF00 I WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1915252.9	101.4	%	1.19			1.17%
ScR 361.383	276588.3	104.9	%	1.48			1.41%
Ag 328.068†	17.9	0.00013	mg/L	0.000060	0.00013	mg/L	0.000060 45.96%
Al 308.215†	14.5	0.00840	mg/L	0.012916	0.00840	mg/L	0.012916 153.67%
As 188.979†	15.6	0.01307	mg/L	0.000671	0.01307	mg/L	0.000671 5.14%
B 249.677†	237.1	0.04997	mg/L	0.001766	0.04997	mg/L	0.001766 3.53%
Ba 233.527†	56.9	0.01674	mg/L	0.000475	0.01674	mg/L	0.000475 2.84%
Be 313.042†	-0.1	0.00000	mg/L	0.000040	0.00000	mg/L	0.000040 >999.9%
Ca 317.933†	633513.6	42.31	mg/L	0.566	42.31	mg/L	0.566 1.34%
Cd 228.802†	-5.5	-0.00032	mg/L	0.000241	-0.00032	mg/L	0.000241 75.65%
Co 228.616†	24.0	0.00116	mg/L	0.000136	0.00116	mg/L	0.000136 11.80%
Cr 267.716†	14.3	0.00076	mg/L	0.001148	0.00076	mg/L	0.001148 150.86%
Cu 324.752†	527.9	0.00182	mg/L	0.000265	0.00182	mg/L	0.000265 14.56%
Fe 273.955†	2.7	0.00220	mg/L	0.002964	0.00220	mg/L	0.002964 134.94%
K 766.490†	3220.0	2.654	mg/L	0.0174	2.654	mg/L	0.0174 0.66%
Mg 279.077†	14493.9	11.48	mg/L	0.064	11.48	mg/L	0.064 0.55%
Mn 257.610†	29.0	0.00070	mg/L	0.000179	0.00070	mg/L	0.000179 25.41%
Mo 202.031†	49.4	0.00367	mg/L	0.000252	0.00367	mg/L	0.000252 6.86%
Na 589.592†	124255.4	11.17	mg/L	0.092	11.17	mg/L	0.092 0.83%
Na 330.237†	304.9	11.50	mg/L	0.412	11.50	mg/L	0.412 3.58%
Ni 231.604†	2.3	0.00109	mg/L	0.000680	0.00109	mg/L	0.000680 62.58%
Pb 220.353†	-10.3	-0.00230	mg/L	0.002306	-0.00230	mg/L	0.002306 100.10%
Sb 206.836†	-4.9	-0.00265	mg/L	0.001041	-0.00265	mg/L	0.001041 39.25%
Se 196.026†	15.6	0.01913	mg/L	0.006878	0.01913	mg/L	0.006878 35.96%
Si 288.158†	12659.3	6.241	mg/L	0.0452	6.241	mg/L	0.0452 0.72%
Sn 189.927†	-10.7	-0.00298	mg/L	0.000914	-0.00298	mg/L	0.000914 30.62%
Sr 421.552†	139723.7	0.2807	mg/L	0.00366	0.2807	mg/L	0.00366 1.30%
Ti 334.903†	45.6	-0.00061	mg/L	0.000488	-0.00061	mg/L	0.000488 80.13%
Tl 190.801†	20.3	0.01531	mg/L	0.000826	0.01531	mg/L	0.000826 5.40%
V 292.402†	75.2	0.00098	mg/L	0.000134	0.00098	mg/L	0.000134 13.65%
Zn 206.200†	4.5	0.00177	mg/L	0.000721	0.00177	mg/L	0.000721 40.75%

Sequence No.: 23  
 Sample ID: QF00 C WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 336  
 Date Collected: 1/18/2010 12:40:12 PM  
 Data Type: Original

*Del*

## Nebulizer Parameters: QF00 C WMN

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF00 C WMN

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
ScA 357.253	1878702.5		99.44 %	0.838			0.84%
ScR 361.383	281605.7		106.8 %	3.82			3.57%
Ag 328.068†	122.7	0.00016	mg/L	0.000253	0.00016	mg/L	0.000253 159.23%
Al 308.215†	31.1	0.01226	mg/L	0.008228	0.01226	mg/L	0.008228 67.11%
As 188.979†	18.6	0.01539	mg/L	0.000982	0.01539	mg/L	0.000982 6.38%
B 249.677†	173.2	0.03650	mg/L	0.001355	0.03650	mg/L	0.001355 3.71%
Ba 233.527†	83.5	0.02448	mg/L	0.001984	0.02448	mg/L	0.001984 8.10%
Be 313.042†	-22.0	-0.00004	mg/L	0.000032	-0.00004	mg/L	0.000032 76.69%
Ca 317.933†	840101.4	56.11	mg/L	1.664	56.11	mg/L	1.664 2.97%
Cd 228.802†	-8.8	-0.00049	mg/L	0.000221	-0.00049	mg/L	0.000221 45.08%
Co 228.616†	30.3	0.00145	mg/L	0.000194	0.00145	mg/L	0.000194 13.35%
Cr 267.716†	17.8	0.00149	mg/L	0.001822	0.00149	mg/L	0.001822 121.89%
Cu 324.752†	1898.0	0.00723	mg/L	0.000214	0.00723	mg/L	0.000214 2.96%
Fe 273.955†	390.1	0.3175	mg/L	0.00877	0.3175	mg/L	0.00877 2.76%
K 766.490†	4701.2	3.875	mg/L	0.1458	3.875	mg/L	0.1458 3.76%
Mg 279.077†	17755.1	14.06	mg/L	0.383	14.06	mg/L	0.383 2.72%
Mn 257.610†	108786.6	3.469	mg/L	0.0936	3.469	mg/L	0.0936 2.70%
Mo 202.031†	66.2	0.00493	mg/L	0.000149	0.00493	mg/L	0.000149 3.02%
Na 589.592†	130089.4	11.69	mg/L	0.275	11.69	mg/L	0.275 2.35%
Na 330.237†	319.1	12.04	mg/L	0.531	12.04	mg/L	0.531 4.41%
Ni 231.604†	7.3	0.00348	mg/L	0.001866	0.00348	mg/L	0.001866 53.56%
Pb 220.353†	-21.1	-0.00476	mg/L	0.001286	-0.00476	mg/L	0.001286 27.02%
Sb 206.836†	3.7	0.00181	mg/L	0.001552	0.00181	mg/L	0.001552 85.57%
Se 196.026†	26.4	0.03272	mg/L	0.005259	0.03272	mg/L	0.005259 16.07%
Si 288.158†	19995.4	9.857	mg/L	0.3051	9.857	mg/L	0.3051 3.09%
Sn 189.927†	-14.5	-0.00403	mg/L	0.001289	-0.00403	mg/L	0.001289 31.98%
Sr 421.552†	158039.5	0.3175	mg/L	0.01131	0.3175	mg/L	0.01131 3.56%
Ti 334.903†	97.1	0.00111	mg/L	0.000805	0.00111	mg/L	0.000805 72.64%
Tl 190.801†	18.0	0.01817	mg/L	0.000712	0.01817	mg/L	0.000712 3.92%
V 292.402†	7.3	0.00062	mg/L	0.000145	0.00062	mg/L	0.000145 23.43%
Zn 206.200†	3.6	0.00016	mg/L	0.002512	0.00016	mg/L	0.002512 >999.9%

Sequence No.: 24  
 Sample ID: QF15 A TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 337  
 Date Collected: 1/18/2010 12:44:06 PM  
 Data Type: Original

Nebulizer Parameters: QF15 A TWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

Mean Data: QF15 A TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	1902686.0	100.7	%	0.15			0.15%
ScR 361.383	261901.4	99.30	%	1.301			1.31%
Ag 328.068†	16.6	0.00012	mg/L	0.000217	0.00012 mg/L	0.000217	179.81%
Al 308.215†	162.7	0.09530	mg/L	0.013751	0.09530 mg/L	0.013751	14.43%
As 188.979†	-1.0	-0.00090	mg/L	0.001810	-0.00090 mg/L	0.001810	201.51%
B 249.677†	8.4	0.00176	mg/L	0.001623	0.00176 mg/L	0.001623	92.08%
Ba 233.527†	6.8	0.00195	mg/L	0.000478	0.00195 mg/L	0.000478	24.50%
Be 313.042†	23.7	0.00004	mg/L	0.000027	0.00004 mg/L	0.000027	61.21%
Ca 317.933†	9284.8	0.6201	mg/L	0.01130	0.6201 mg/L	0.01130	1.82%
Cd 228.802†	2.1	0.00011	mg/L	0.000045	0.00011 mg/L	0.000045	42.13%
Co 228.616†	12.1	0.00058	mg/L	0.000163	0.00058 mg/L	0.000163	28.19%
Cr 267.716†	3.2	0.00069	mg/L	0.000087	0.00069 mg/L	0.000087	12.62%
Cu 324.752†	1249.3	0.00497	mg/L	0.000065	0.00497 mg/L	0.000065	1.31%
Fe 273.955†	169.2	0.1377	mg/L	0.00077	0.1377 mg/L	0.00077	0.56%
K 766.490†	104.3	0.08596	mg/L	0.025267	0.08596 mg/L	0.025267	29.39%
Mg 279.077†	119.3	0.09437	mg/L	0.003381	0.09437 mg/L	0.003381	3.58%
Mn 257.610†	145.3	0.00463	mg/L	0.000131	0.00463 mg/L	0.000131	2.83%
Mo 202.031†	6.0	0.00051	mg/L	0.000134	0.00051 mg/L	0.000134	26.44%
Na 589.592†	2553.3	0.2295	mg/L	0.00302	0.2295 mg/L	0.00302	1.32%
Na 330.237†	7.7	0.2837	mg/L	0.50885	0.2837 mg/L	0.50885	179.36%
Ni 231.604†	5.8	0.00279	mg/L	0.001526	0.00279 mg/L	0.001526	54.61%
Pb 220.353†	28.3	0.00636	mg/L	0.000895	0.00636 mg/L	0.000895	14.08%
Sb 206.836†	-3.3	-0.00171	mg/L	0.002102	-0.00171 mg/L	0.002102	122.95%
Se 196.026†	0.1	0.00009	mg/L	0.002423	0.00009 mg/L	0.002423	>999.9%
Si 288.158†	507.6	0.2502	mg/L	0.00443	0.2502 mg/L	0.00443	1.77%
Sn 189.927†	-0.8	-0.00029	mg/L	0.000829	-0.00029 mg/L	0.000829	288.19%
Sr 421.552†	1363.3	0.00274	mg/L	0.000032	0.00274 mg/L	0.000032	1.16%
Ti 334.903†	78.5	0.00406	mg/L	0.001222	0.00406 mg/L	0.001222	30.09%
Tl 190.801†	5.9	0.00450	mg/L	0.002615	0.00450 mg/L	0.002615	58.17%
V 292.402†	33.4	0.00042	mg/L	0.000036	0.00042 mg/L	0.000036	8.55%
Zn 206.200†	33.7	0.03148	mg/L	0.000772	0.03148 mg/L	0.000772	2.45%

Sequence No.: 25

Sample ID: ~~QF10-B-SWC~~ QF00 E

Analyst: ALA

Dilution: 2X 14 \* 118-10 Del

Autosampler Location: 338

Date Collected: 1/18/2010 12:47:44 PM

Data Type: Original

Nebulizer Parameters: ~~QF10-B-SWC~~

Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: ~~QF10-B-SWC~~

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
ScA 357.253	1864602.4	98.69	%	0.992			1.01%
ScR 361.383	271873.1	103.1	%	0.30			0.30%
Ag 328.068†	48.1	0.00032	mg/L	0.000036	0.00064	0.000072	11.19%
Al 308.215†	32.1	0.01850	mg/L	0.015533	0.03700	0.031066	83.97%
As 188.979†	22.8	0.02020	mg/L	0.000791	0.04040	0.001583	3.92%
B 249.677†	130.6	0.02753	mg/L	0.001306	0.05505	0.002611	4.74%
Ba 233.527†	85.2	0.02491	mg/L	0.000124	0.04982	0.000248	0.50%
Be 313.042†	-5.7	-0.00001	mg/L	0.000029	-0.00002	0.000058	264.46%
Ca 317.933†	604678.9	40.38	mg/L	0.142	80.77	0.285	0.35%
Cd 228.802†	-4.7	-0.00030	mg/L	0.000251	-0.00061	0.000502	82.70%
Co 228.616†	20.2	0.00097	mg/L	0.000243	0.00194	0.000486	25.06%
Cr 267.716†	22.2	0.00143	mg/L	0.000999	0.00287	0.001998	69.72%
Cu 324.752†	567.8	0.00182	mg/L	0.000357	0.00364	0.000714	19.63%
Fe 273.955†	31.6	0.02574	mg/L	0.001226	0.05147	0.002453	4.77%
K 766.490†	7460.6	6.149	mg/L	0.0686	12.30	0.137	1.12%
Mg 279.077†	23052.3	18.26	mg/L	0.218	36.51	0.437	1.20%
Mn 257.610†	4508.2	0.1435	mg/L	0.00187	0.2870	0.00373	1.30%
Mo 202.031†	54.8	0.00417	mg/L	0.000536	0.00833	0.001073	12.87%
Na 589.592†	161672.9	14.53	mg/L	0.097	29.07	0.194	0.67%
Na 330.237†	406.3	15.33	mg/L	0.170	30.65	0.341	1.11%
Ni 231.604†	5.1	0.00243	mg/L	0.000449	0.00485	0.000899	18.53%
Pb 220.353†	-19.6	-0.00439	mg/L	0.002664	-0.00878	0.005329	60.69%
Sb 206.836†	3.6	0.00172	mg/L	0.001678	0.00344	0.003355	97.41%
Se 196.026†	16.4	0.01982	mg/L	0.006013	0.03963	0.012026	30.34%
Si 288.158†	32485.3	16.01	mg/L	0.167	32.03	0.334	1.04%
Sn 189.927†	-17.2	-0.00562	mg/L	0.000518	-0.01124	0.001037	9.23%
Sr 421.552†	102893.7	0.2067	mg/L	0.00174	0.4135	0.00349	0.84%
Ti 334.903†	54.1	-0.00003	mg/L	0.000588	-0.00006	0.001176	>999.9%
Tl 190.801†	17.4	0.01337	mg/L	0.002033	0.02674	0.004066	15.21%
V 292.402†	11.8	0.00019	mg/L	0.000001	0.00038	0.000002	0.63%
Zn 206.200†	2.4	-0.00005	mg/L	0.000762	-0.00011	0.001523	>999.9%

Sequence No.: 26  
 Sample ID: QF10 ADUP SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 339  
 Date Collected: 1/18/2010 12:55:52 PM  
 Data Type: Original

-----  
 Nebulizer Parameters: QF10 ADUP SWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

-----  
 Mean Data: QF10 ADUP SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
ScA 357.253	1866034.7		98.77 %	0.941			0.95%
ScR 361.383	273997.9		103.9 %	0.41			0.40%
Ag 328.068†	-25.9	-0.00032	mg/L	0.000330	-0.00065	mg/L	0.000659 101.83%
Al 308.215†	191745.6		112.3 mg/L	0.70	224.7	mg/L	1.40 0.63%
As 188.979†	-147.9	0.02053	mg/L	0.002383	0.04106	mg/L	0.004766 11.61%
B 249.677†	78.1	0.01626	mg/L	0.001718	0.03251	mg/L	0.003437 10.57%
Ba 233.527†	2026.7	0.5655	mg/L	0.00599	1.131	mg/L	0.0120 1.06%
Be 313.042†	998.4	0.00155	mg/L	0.000035	0.00310	mg/L	0.000069 2.24%
Ca 317.933†	974938.5		65.11 mg/L	0.638	130.2	mg/L	1.28 0.98%
Cd 228.802†	49.5	0.00309	mg/L	0.000348	0.00617	mg/L	0.000695 11.26%
Co 228.616†	1851.4	0.07365	mg/L	0.001364	0.1473	mg/L	0.00273 1.85%
Cr 267.716†	2189.2	0.4778	mg/L	0.00304	0.9557	mg/L	0.00607 0.64%
Cu 324.752†	81500.7	0.3346	mg/L	0.00312	0.6692	mg/L	0.00624 0.93%
Fe 273.955†	220957.0		179.8 mg/L	1.40	359.7	mg/L	2.80 0.78%
K 766.490†	7758.3		6.394 mg/L	0.1009	12.79	mg/L	0.202 1.58%
Mg 279.077†	89478.7		70.79 mg/L	0.515	141.6	mg/L	1.03 0.73%
Mn 257.610†	82258.6		2.623 mg/L	0.0261	5.247	mg/L	0.0523 1.00%
Mo 202.031†	105.6	0.00821	mg/L	0.000532	0.01642	mg/L	0.001064 6.48%
Na 589.592†	44837.1		4.030 mg/L	0.0293	8.061	mg/L	0.0585 0.73%
Na 330.237†	64.8		4.230 mg/L	0.1747	8.460	mg/L	0.3493 4.13%
Ni 231.604†	749.1	0.3584	mg/L	0.00317	0.7169	mg/L	0.00634 0.88%
Pb 220.353†	2074.3	0.4714	mg/L	0.00580	0.9428	mg/L	0.01160 1.23%
Sb 206.836†	14.8	0.01324	mg/L	0.002474	0.02647	mg/L	0.004947 18.69%
Se 196.026†	34.6	0.03996	mg/L	0.005151	0.07992	mg/L	0.010302 12.89%
Si 288.158†	2409.8		1.188 mg/L	0.0164	2.376	mg/L	0.0328 1.38%
Sn 189.927†	-13.7	0.00007	mg/L	0.000356	0.00014	mg/L	0.000712 521.51%
Sr 421.552†	156702.7		0.3149 mg/L	0.00299	0.6297	mg/L	0.00597 0.95%
Ti 334.903†	151709.7		7.933 mg/L	0.0699	15.87	mg/L	0.140 0.88%
Tl 190.801†	-20.8	0.01331	mg/L	0.003261	0.02662	mg/L	0.006522 24.50%
V 292.402†	34843.4		0.4281 mg/L	0.00163	0.8562	mg/L	0.00326 0.38%
Zn 206.200†	1383.4		1.286 mg/L	0.0081	2.572	mg/L	0.0163 0.63%

Sequence No.: 27  
 Sample ID: QF10 A SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 340  
 Date Collected: 1/18/2010 12:59:58 PM  
 Data Type: Original

## Nebulizer Parameters: QF10 A SWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF10 A SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1886301.1	99.84 %	%	0.738			0.74%
ScR 361.383	273798.5	103.8 %	%	0.48			0.46%
Ag 328.068†	-61.3	-0.00054 mg/L	mg/L	0.000259	-0.00107 mg/L	0.000518	48.24%
Al 308.215†	178502.3	104.6 mg/L	mg/L	1.79	209.1 mg/L	3.58	1.71%
As 188.979†	-170.6	0.01052 mg/L	mg/L	0.002462	0.02105 mg/L	0.004924	23.40%
B 249.677†	149.0	0.03121 mg/L	mg/L	0.000845	0.06243 mg/L	0.001691	2.71%
Ba 233.527†	1698.8	0.4725 mg/L	mg/L	0.00077	0.9450 mg/L	0.00155	0.16%
Be 313.042†	1177.3	0.00190 mg/L	mg/L	0.000032	0.00380 mg/L	0.000064	1.69%
Ca 317.933†	1003404.4	67.01 mg/L	mg/L	1.039	134.0 mg/L	2.08	1.55%
Cd 228.802†	47.3	0.00301 mg/L	mg/L	0.000128	0.00603 mg/L	0.000256	4.24%
Co 228.616†	1708.4	0.06599 mg/L	mg/L	0.000343	0.1320 mg/L	0.00069	0.52%
Cr 267.716†	1640.5	0.3602 mg/L	mg/L	0.00128	0.7203 mg/L	0.00257	0.36%
Cu 324.752†	51832.5	0.2156 mg/L	mg/L	0.00192	0.4312 mg/L	0.00384	0.89%
Fe 273.955†	201593.4	164.1 mg/L	mg/L	2.85	328.1 mg/L	5.69	1.73%
K 766.490†	7961.2	6.562 mg/L	mg/L	0.1132	13.12 mg/L	0.226	1.72%
Mg 279.077†	63320.9	50.07 mg/L	mg/L	0.769	100.1 mg/L	1.54	1.54%
Mn 257.610†	77581.4	2.474 mg/L	mg/L	0.0364	4.949 mg/L	0.0728	1.47%
Mo 202.031†	111.1	0.00866 mg/L	mg/L	0.000394	0.01732 mg/L	0.000789	4.56%
Na 589.592†	43946.3	3.950 mg/L	mg/L	0.0539	7.901 mg/L	0.1078	1.36%
Na 330.237†	57.6	4.115 mg/L	mg/L	0.2813	8.230 mg/L	0.5626	6.84%
Ni 231.604†	595.0	0.2847 mg/L	mg/L	0.00181	0.5694 mg/L	0.00363	0.64%
Pb 220.353†	1235.6	0.2831 mg/L	mg/L	0.00305	0.5662 mg/L	0.00610	1.08%
Sb 206.836†	15.2	0.01520 mg/L	mg/L	0.002136	0.03039 mg/L	0.004272	14.06%
Se 196.026†	28.3	0.03310 mg/L	mg/L	0.010956	0.06620 mg/L	0.021912	33.10%
Si 288.158†	2886.4	1.423 mg/L	mg/L	0.0075	2.846 mg/L	0.0150	0.53%
Sn 189.927†	-16.7	-0.00081 mg/L	mg/L	0.001023	-0.00162 mg/L	0.002045	126.08%
Sr 421.552†	121573.7	0.2443 mg/L	mg/L	0.00286	0.4885 mg/L	0.00572	1.17%
Ti 334.903†	162566.6	8.501 mg/L	mg/L	0.1338	17.00 mg/L	0.268	1.57%
Tl 190.801†	-17.7	0.01319 mg/L	mg/L	0.004459	0.02638 mg/L	0.008919	33.81%
V 292.402†	32296.0	0.3961 mg/L	mg/L	0.00373	0.7922 mg/L	0.00746	0.94%
Zn 206.200†	1351.8	1.257 mg/L	mg/L	0.0035	2.513 mg/L	0.0069	0.28%

Sequence No.: 28  
Sample ID: QF10 ASPK SWC  
Analyst: ALA  
Dilution: 2X

*Del*

Autosampler Location: 341  
Date Collected: 1/18/2010 1:01:29 PM  
Data Type: Original

Nebulizer Parameters: QF10 ASPK SWC

Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: QF10 ASPK SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1797530.2	95.14	%	0.328				0.34%
ScR 361.383	270581.2	102.6	%	0.97				0.95%
Ag 328.068†	74567.2	0.5462	mg/L	0.00642	1.092	mg/L	0.0128	1.18%
Al 308.215†	207251.2	121.4	mg/L	1.45	242.8	mg/L	2.89	1.19%
As 188.979†	1977.5	2.097	mg/L	0.0122	4.194	mg/L	0.0244	0.58%
B 249.677†	79.9	0.01543	mg/L	0.001514	0.03085	mg/L	0.003028	9.81%
Ba 233.527†	9462.4	2.713	mg/L	0.0120	5.426	mg/L	0.0239	0.44%
Be 313.042†	283913.0	0.5366	mg/L	0.00559	1.073	mg/L	0.0112	1.04%
Ca 317.933†	1174683.0	78.45	mg/L	0.809	156.9	mg/L	1.62	1.03%
Cd 228.802†	11640.0	0.5590	mg/L	0.00457	1.118	mg/L	0.0091	0.82%
Co 228.616†	12366.2	0.5829	mg/L	0.00538	1.166	mg/L	0.0108	0.92%
Cr 267.716†	3605.1	0.7904	mg/L	0.00114	1.581	mg/L	0.0023	0.14%
Cu 324.752†	211167.2	0.8523	mg/L	0.00780	1.705	mg/L	0.0156	0.91%
Fe 273.955†	247836.6	201.7	mg/L	2.23	403.4	mg/L	4.47	1.11%
K 766.490†	19578.9	16.14	mg/L	0.115	32.27	mg/L	0.230	0.71%
Mg 279.077†	77334.4	61.16	mg/L	0.899	122.3	mg/L	1.80	1.47%
Mn 257.610†	93825.8	2.993	mg/L	0.0322	5.986	mg/L	0.0645	1.08%
Mo 202.031†	101.9	0.00770	mg/L	0.000222	0.01540	mg/L	0.000444	2.88%
Na 589.592†	185629.7	16.69	mg/L	0.185	33.37	mg/L	0.370	1.11%
Na 330.237†	392.6	16.42	mg/L	0.061	32.83	mg/L	0.122	0.37%
Ni 231.604†	1638.3	0.7839	mg/L	0.00362	1.568	mg/L	0.0072	0.46%
Pb 220.353†	11019.6	2.477	mg/L	0.0206	4.954	mg/L	0.0412	0.83%
Sb 206.836†	22.7	0.01637	mg/L	0.005705	0.03274	mg/L	0.011409	34.84%
Se 196.026†	1686.5	2.133	mg/L	0.0162	4.266	mg/L	0.0324	0.76%
Si 288.158†	1852.8	0.9155	mg/L	0.01098	1.831	mg/L	0.0220	1.20%
Sn 189.927†	134.1	0.05918	mg/L	0.001425	0.1184	mg/L	0.00285	2.41%
Sr 421.552†	435046.2	0.8741	mg/L	0.00814	1.748	mg/L	0.0163	0.93%
Ti 334.903†	148956.9	7.788	mg/L	0.0988	15.58	mg/L	0.198	1.27%
Tl 190.801†	2644.7	2.028	mg/L	0.0179	4.055	mg/L	0.0358	0.88%
V 292.402†	74577.1	0.9396	mg/L	0.00496	1.879	mg/L	0.0099	0.53%
Zn 206.200†	1997.6	1.859	mg/L	0.0059	3.719	mg/L	0.0119	0.32%

Sequence No.: 29  
Sample ID: QF10 MB1SPK SWC  
Analyst: ALA  
Dilution: 2X

Autosampler Location: 342  
Date Collected: 1/18/2010 1:03:50 PM  
Data Type: Original

Nebulizer Parameters: QF10 MB1SPK SWC  
Analyte Back Pressure Flow  
All 199.0 kPa 0.75 L/min

Mean Data: QF10 MB1SPK SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1802557.6	95.41	%	0.218				0.23%
ScR 361.383	262868.1	99.67	%	1.037				1.04%
Ag 328.068†	79678.2	0.5838	mg/L	0.00366	1.168	mg/L	0.0073	0.63%
Al 308.215†	3789.7	2.209	mg/L	0.0166	4.419	mg/L	0.0332	0.75%
As 188.979†	2168.8	2.122	mg/L	0.0098	4.245	mg/L	0.0197	0.46%
B 249.677†	2.2	-0.00076	mg/L	0.001045	-0.00152	mg/L	0.002091	137.84%
Ba 233.527†	7409.9	2.143	mg/L	0.0164	4.285	mg/L	0.0328	0.76%
Be 313.042†	279827.4	0.5292	mg/L	0.00446	1.058	mg/L	0.0089	0.84%
Ca 317.933†	152141.5	10.16	mg/L	0.070	20.32	mg/L	0.139	0.69%
Cd 228.802†	11325.1	0.5430	mg/L	0.00174	1.086	mg/L	0.0035	0.32%
Co 228.616†	10766.2	0.5214	mg/L	0.00162	1.043	mg/L	0.0032	0.31%
Cr 267.716†	2411.5	0.5262	mg/L	0.00455	1.052	mg/L	0.0091	0.87%
Cu 324.752†	142013.0	0.5646	mg/L	0.00327	1.129	mg/L	0.0065	0.58%
Fe 273.955†	2480.1	2.015	mg/L	0.0129	4.031	mg/L	0.0257	0.64%
K 766.490†	12077.0	9.954	mg/L	0.1547	19.91	mg/L	0.309	1.55%
Mg 279.077†	12145.7	9.621	mg/L	0.1134	19.24	mg/L	0.227	1.18%
Mn 257.610†	16057.1	0.5125	mg/L	0.00511	1.025	mg/L	0.0102	1.00%
Mo 202.031†	21.3	0.00170	mg/L	0.000198	0.00340	mg/L	0.000395	11.63%
Na 589.592†	117068.4	10.52	mg/L	0.095	21.05	mg/L	0.189	0.90%
Na 330.237†	283.9	10.58	mg/L	0.102	21.16	mg/L	0.203	0.96%
Ni 231.604†	1106.8	0.5296	mg/L	0.00282	1.059	mg/L	0.0056	0.53%
Pb 220.353†	9448.4	2.119	mg/L	0.0104	4.238	mg/L	0.0209	0.49%
Sb 206.836†	8.2	0.00052	mg/L	0.001250	0.00105	mg/L	0.002499	239.14%
Se 196.026†	1679.5	2.127	mg/L	0.0204	4.254	mg/L	0.0408	0.96%
Si 288.158†	37.2	0.02047	mg/L	0.005983	0.04095	mg/L	0.011967	29.23%
Sn 189.927†	-8.2	-0.00294	mg/L	0.001074	-0.00587	mg/L	0.002148	36.56%
Sr 421.552†	253853.5	0.5101	mg/L	0.00574	1.020	mg/L	0.0115	1.13%
Ti 334.903†	249.0	0.01214	mg/L	0.000051	0.02428	mg/L	0.000102	0.42%
Tl 190.801†	2782.6	2.100	mg/L	0.0091	4.200	mg/L	0.0182	0.43%
V 292.402†	41035.7	0.5312	mg/L	0.00287	1.062	mg/L	0.0057	0.54%
Zn 206.200†	567.6	0.5302	mg/L	0.00565	1.060	mg/L	0.0113	1.07%



Sequence No.: 30  
 Sample ID: QF15 MB1SPK TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 343  
 Date Collected: 1/18/2010 1:05:36 PM  
 Data Type: Original

-----  
 Nebulizer Parameters: QF15 MB1SPK TWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

-----  
 Mean Data: QF15 MB1SPK TWC

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
ScA 357.253	1793972.2	94.95 %	%	0.755			0.80%
ScR 361.383	256553.4	97.27 %	%	0.935			0.96%
Ag 328.068†	81666.7	0.5984	mg/L	0.00678	0.5984	mg/L	0.00678 1.13%
Al 308.215†	3580.7	2.086	mg/L	0.0062	2.086	mg/L	0.0062 0.30%
As 188.979†	2227.9	2.180	mg/L	0.0083	2.180	mg/L	0.0083 0.38%
B 249.677†	-2.5	-0.00178	mg/L	0.000049	-0.00178	mg/L	0.000049 2.75%
Ba 233.527†	7672.7	2.219	mg/L	0.0130	2.219	mg/L	0.0130 0.59%
Be 313.042†	290476.6	0.5494	mg/L	0.00508	0.5494	mg/L	0.00508 0.92%
Ca 317.933†	154566.6	10.32	mg/L	0.089	10.32	mg/L	0.089 0.86%
Cd 228.802†	11595.3	0.5559	mg/L	0.00444	0.5559	mg/L	0.00444 0.80%
Co 228.616†	10991.0	0.5324	mg/L	0.00437	0.5324	mg/L	0.00437 0.82%
Cr 267.716†	2505.4	0.5467	mg/L	0.00100	0.5467	mg/L	0.00100 0.18%
Cu 324.752†	145505.8	0.5785	mg/L	0.00549	0.5785	mg/L	0.00549 0.95%
Fe 273.955†	2629.1	2.136	mg/L	0.0111	2.136	mg/L	0.0111 0.52%
K 766.490†	12578.1	10.37	mg/L	0.066	10.37	mg/L	0.066 0.64%
Mg 279.077†	12531.7	9.927	mg/L	0.0751	9.927	mg/L	0.0751 0.76%
Mn 257.610†	16748.1	0.5346	mg/L	0.00298	0.5346	mg/L	0.00298 0.56%
Mo 202.031†	19.8	0.00157	mg/L	0.000084	0.00157	mg/L	0.000084 5.38%
Na 589.592†	120572.6	10.84	mg/L	0.072	10.84	mg/L	0.072 0.66%
Na 330.237†	284.1	10.59	mg/L	0.202	10.59	mg/L	0.202 1.91%
Ni 231.604†	1140.8	0.5459	mg/L	0.00230	0.5459	mg/L	0.00230 0.42%
Pb 220.353†	9631.6	2.160	mg/L	0.0195	2.160	mg/L	0.0195 0.90%
Sb 206.836†	5.4	-0.00113	mg/L	0.002564	-0.00113	mg/L	0.002564 227.28%
Se 196.026†	1716.7	2.174	mg/L	0.0171	2.174	mg/L	0.0171 0.79%
Si 288.158†	27.5	0.01572	mg/L	0.007117	0.01572	mg/L	0.007117 45.27%
Sn 189.927†	-9.9	-0.00364	mg/L	0.001203	-0.00364	mg/L	0.001203 33.09%
Sr 421.552†	264062.8	0.5306	mg/L	0.00497	0.5306	mg/L	0.00497 0.94%
Ti 334.903†	19.8	0.00013	mg/L	0.000699	0.00013	mg/L	0.000699 540.76%
Tl 190.801†	2910.5	2.196	mg/L	0.0131	2.196	mg/L	0.0131 0.60%
V 292.402†	42615.2	0.5517	mg/L	0.00668	0.5517	mg/L	0.00668 1.21%
Zn 206.200†	560.5	0.5236	mg/L	0.00384	0.5236	mg/L	0.00384 0.73%

Sequence No.: 31  
 Sample ID: CV 3  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 7  
 Date Collected: 1/18/2010 1:09:40 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1793071.9	94.91 %	0.710			0.75%
ScR 361.383	256089.4	97.10 %	0.374			0.38%
Ag 328.068†	152719.5	1.119 mg/L	0.0104	1.119 mg/L	0.0104	0.93%
Al 308.215†	3714.5	2.141 mg/L	0.0112	2.141 mg/L	0.0112	0.52%
As 188.979†	2189.2	2.164 mg/L ✓	0.0228	2.164 mg/L	0.0228	1.05%
B 249.677†	5175.5	1.089 mg/L	0.0019	1.089 mg/L	0.0019	0.18%
Ba 233.527†	3940.1	1.139 mg/L	0.0045	1.139 mg/L	0.0045	0.39%
Be 313.042†	581997.4	1.101 mg/L	0.0112	1.101 mg/L	0.0112	1.01%
Ca 317.933†	32496.7	2.170 mg/L ✓	0.0061	2.170 mg/L	0.0061	0.28%
Cd 228.802†	22817.4	1.101 mg/L	0.0131	1.101 mg/L	0.0131	1.19%
Co 228.616†	22050.4	1.067 mg/L	0.0137	1.067 mg/L	0.0137	1.29%
Cr 267.716†	5085.4	1.113 mg/L	0.0036	1.113 mg/L	0.0036	0.32%
Cu 324.752†	293081.7	1.164 mg/L	0.0138	1.164 mg/L	0.0138	1.19%
Fe 273.955†	2660.5	2.159 mg/L ✓	0.0059	2.159 mg/L	0.0059	0.27%
K 766.490†	25964.5	21.40 mg/L	0.087	21.40 mg/L	0.087	0.41%
Mg 279.077†	2727.1	2.166 mg/L ✓	0.0059	2.166 mg/L	0.0059	0.27%
Mn 257.610†	34787.2	1.110 mg/L	0.0040	1.110 mg/L	0.0040	0.36%
Mo 202.031†	11929.1	1.033 mg/L	0.0105	1.033 mg/L	0.0105	1.02%
Na 589.592†	616949.8	55.46 mg/L	0.434	55.46 mg/L	0.434	0.78%
Na 330.237†	1443.5	54.47 mg/L	0.223	54.47 mg/L	0.223	0.41%
Ni 231.604†	2336.6	1.120 mg/L	0.0016	1.120 mg/L	0.0016	0.15%
Pb 220.353†	9892.8	2.220 mg/L	0.0220	2.220 mg/L	0.0220	0.99%
Sb 206.836†	4035.1	2.110 mg/L	0.0212	2.110 mg/L	0.0212	1.01%
Se 196.026†	1721.9	2.181 mg/L	0.0282	2.181 mg/L	0.0282	1.29%
Si 288.158†	4566.2	2.255 mg/L	0.0094	2.255 mg/L	0.0094	0.42%
Sn 189.927†	2620.2	1.043 mg/L	0.0111	1.043 mg/L	0.0111	1.06%
Sr 421.552†	557324.5	1.120 mg/L	0.0147	1.120 mg/L	0.0147	1.31%
Ti 334.903†	20920.2	1.093 mg/L	0.0065	1.093 mg/L	0.0065	0.60%
Tl 190.801†	2897.9	2.188 mg/L	0.0201	2.188 mg/L	0.0201	0.92%
V 292.402†	85639.1	1.109 mg/L	0.0151	1.109 mg/L	0.0151	1.37%
Zn 206.200†	1163.7	1.088 mg/L	0.0069	1.088 mg/L	0.0069	0.64%

Sequence No.: 32  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 1:13:36 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1861288.9	98.52	%	0.639			0.65%
ScR 361.383	257826.2	97.76	%	0.844			0.86%
Ag 328.068†	-16.6	-0.00012	mg/L	0.000173	-0.00012 mg/L	0.000173	141.99%
Al 308.215†	-1.8	-0.00107	mg/L	0.007210	-0.00107 mg/L	0.007210	676.19%
As 188.979†	-2.9	-0.00284	mg/L	0.001610	-0.00284 mg/L	0.001610	56.70%
B 249.677†	6.6	0.00138	mg/L	0.001432	0.00138 mg/L	0.001432	103.57%
Ba 233.527†	2.0	0.00058	mg/L	0.000461	0.00058 mg/L	0.000461	79.49%
Be 313.042†	57.3	0.00011	mg/L	0.000079	0.00011 mg/L	0.000079	73.22%
Ca 317.933†	19.0	0.00127	mg/L	0.000479	0.00127 mg/L	0.000479	37.67%
Cd 228.802†	-0.3	0.00000	mg/L	0.000068	0.00000 mg/L	0.000068	>999.9%
Co 228.616†	8.4	0.00041	mg/L	0.000179	0.00041 mg/L	0.000179	43.84%
Cr 267.716†	-0.2	-0.00005	mg/L	0.000152	-0.00005 mg/L	0.000152	296.38%
Cu 324.752†	43.1	0.00017	mg/L	0.000173	0.00017 mg/L	0.000173	101.16%
Fe 273.955†	0.3	0.00022	mg/L	0.002418	0.00022 mg/L	0.002418	>999.9%
K 766.490†	-22.8	-0.01882	mg/L	0.033490	-0.01882 mg/L	0.033490	177.92%
Mg 279.077†	11.0	0.00874	mg/L	0.005246	0.00874 mg/L	0.005246	60.04%
Mn 257.610†	4.4	0.00014	mg/L	0.000180	0.00014 mg/L	0.000180	127.20%
Mo 202.031†	2.6	0.00023	mg/L	0.000150	0.00023 mg/L	0.000150	66.20%
Na 589.592†	32.3	0.00290	mg/L	0.002988	0.00290 mg/L	0.002988	102.98%
Na 330.237†	10.4	0.3914	mg/L	0.33456	0.3914 mg/L	0.33456	85.48%
Ni 231.604†	0.3	0.00014	mg/L	0.001669	0.00014 mg/L	0.001669	>999.9%
Pb 220.353†	5.8	0.00130	mg/L	0.001300	0.00130 mg/L	0.001300	100.19%
Sb 206.836†	6.1	0.00320	mg/L	0.002251	0.00320 mg/L	0.002251	70.46%
Se 196.026†	0.8	0.00106	mg/L	0.001447	0.00106 mg/L	0.001447	136.59%
Si 288.158†	4.5	0.00222	mg/L	0.004045	0.00222 mg/L	0.004045	182.52%
Sn 189.927†	2.1	0.00085	mg/L	0.001305	0.00085 mg/L	0.001305	153.72%
Sr 421.552†	-25.6	-0.00005	mg/L	0.000065	-0.00005 mg/L	0.000065	126.27%
Ti 334.903†	5.3	0.00028	mg/L	0.000488	0.00028 mg/L	0.000488	177.43%
Tl 190.801†	4.6	0.00344	mg/L	0.002080	0.00344 mg/L	0.002080	60.43%
V 292.402†	-8.8	-0.00011	mg/L	0.000324	-0.00011 mg/L	0.000324	284.19%
Zn 206.200†	0.7	0.00061	mg/L	0.002445	0.00061 mg/L	0.002445	397.80%

=====  
Analysis Begun

Start Time: 1/18/2010 1:18:50 PM                      Plasma On Time: 1/18/2010 7:29:15 AM  
Logged In Analyst: metals                              Technique: ICP Continuous  
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif

Batch ID:

Results Data Set: I2100118

Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 1

Sample ID: STD2

Date Collected: 1/18/2010 1:18:51 PM

Data Type: Original

-----  
Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	198.0 kPa	0.75 L/min

-----  
Mean Data: STD2

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	1847459.6	3331.76	0.18%	97.78	%
ScR 361.383	245945.1	1766.62	0.72%	93.25	%
Ba 233.527†	40113.5	572.27	1.43%	[10]	mg/L
Cd 228.802†	215522.5	1656.59	0.77%	[10]	mg/L
Co 228.616†	216858.7	1478.60	0.68%	[10]	mg/L
Cr 267.716†	51772.4	770.91	1.49%	[10]	mg/L
Cu 324.752†	2786127.8	13435.96	0.48%	[10]	mg/L
Mn 257.610†	369466.2	5564.55	1.51%	[10]	mg/L
V 292.402†	818176.6	9249.52	1.13%	[10]	mg/L

Sequence No.: 2  
Sample ID: STD3

Date Collected: 1/18/2010 1:20:38 PM  
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1819754.9	15405.79	0.85%	96.32	%
ScR 361.383	258051.6	2229.01	0.86%	97.84	%
Ag 328.068†	147447.0	1256.39	0.85%	[1.0]	mg/L
As 188.979†	10788.8	88.97	0.82%	[10]	mg/L
B 249.677†	50895.6	665.34	1.31%	[10]	mg/L
Be 313.042†	2994900.5	16233.99	0.54%	[5.0]	mg/L
Na 589.592†	605540.8	4305.77	0.71%	[50]	mg/L
Ni 231.604†	23099.5	252.11	1.09%	[10]	mg/L
Pb 220.353†	46709.1	399.93	0.86%	[10]	mg/L
Se 196.026†	8363.8	64.10	0.77%	[10]	mg/L
Sr 421.552†	2699531.9	19422.45	0.72%	[5]	mg/L
Tl 190.801†	14039.2	112.72	0.80%	[10]	mg/L
Zn 206.200†	11542.6	183.55	1.59%	[10]	mg/L

=====  
Analysis Begun

Start Time: 1/18/2010 1:26:03 PM

Plasma On Time: 1/18/2010 7:29:15 AM

Logged In Analyst: metals

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif

Batch ID:

Results Data Set: I2100118

Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 7

Sample ID: CV 4

Date Collected: 1/18/2010 1:26:04 PM

Analyst: ALA

Data Type: Original

Dilution: 1X

-----  
Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

-----  
Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1853107.7	98.08	%	1.664			1.70%
ScR 361.383	264491.0	100.3	%	1.76			1.76%
Ag 328.068†	148196.4	1.005	mg/L	0.0105	1.005 mg/L	0.0105	1.05%
Al 308.215†	3565.2	2.056	mg/L	0.0481	2.056 mg/L	0.0481	2.34%
As 188.979†	2115.9	1.981	mg/L	0.0242	1.981 mg/L	0.0242	1.22%
B 249.677†	5019.7	0.9847	mg/L	0.01755	0.9847 mg/L	0.01755	1.78%
Ba 233.527†	3789.3	0.9439	mg/L	0.02088	0.9439 mg/L	0.02088	2.21%
Be 313.042†	568807.1	0.9491	mg/L	0.01190	0.9491 mg/L	0.01190	1.25%
Ca 317.933†	30849.3	2.060	mg/L	0.0269	2.060 mg/L	0.0269	1.30%
Cd 228.802†	21933.7	1.011	mg/L	0.0132	1.011 mg/L	0.0132	1.31%
Co 228.616†	21270.2	0.9789	mg/L	0.01081	0.9789 mg/L	0.01081	1.10%
Cr 267.716†	4863.8	0.9389	mg/L	0.01930	0.9389 mg/L	0.01930	2.06%
Cu 324.752†	283291.3	1.016	mg/L	0.0102	1.016 mg/L	0.0102	1.00%
Fe 273.955†	2560.6	2.078	mg/L	0.0444	2.078 mg/L	0.0444	2.13%
K 766.490†	24578.9	20.26	mg/L	0.141	20.26 mg/L	0.141	0.69%
Mg 279.077†	2607.6	2.071	mg/L	0.0421	2.071 mg/L	0.0421	2.03%
Mn 257.610†	33080.7	0.8959	mg/L	0.00822	0.8959 mg/L	0.00822	0.92%
Mo 202.031†	11576.6	1.003	mg/L	0.0146	1.003 mg/L	0.0146	1.46%
Na 589.592†	592708.2	48.94	mg/L	0.566	48.94 mg/L	0.566	1.16%
Na 330.237†	1394.8	52.66	mg/L	0.968	52.66 mg/L	0.968	1.84%
Ni 231.604†	2254.6	0.9775	mg/L	0.02022	0.9775 mg/L	0.02022	2.07%
Pb 220.353†	9607.0	2.058	mg/L	0.0326	2.058 mg/L	0.0326	1.59%
Sb 206.836†	3897.5	2.039	mg/L	0.0297	2.039 mg/L	0.0297	1.46%
Se 196.026†	1668.5	1.995	mg/L	0.0266	1.995 mg/L	0.0266	1.33%
Si 288.158†	4364.4	2.155	mg/L	0.0374	2.155 mg/L	0.0374	1.74%
Sn 189.927†	2550.7	1.015	mg/L	0.0149	1.015 mg/L	0.0149	1.47%
Sr 421.552†	527376.5	0.9768	mg/L	0.00899	0.9768 mg/L	0.00899	0.92%
Ti 334.903†	19905.3	1.040	mg/L	0.0098	1.040 mg/L	0.0098	0.94%
Tl 190.801†	2813.9	2.005	mg/L	0.0313	2.005 mg/L	0.0313	1.56%
V 292.402†	81945.1	1.005	mg/L	0.0099	1.005 mg/L	0.0099	0.99%
Zn 206.200†	1116.2	0.9658	mg/L	0.02182	0.9658 mg/L	0.02182	2.26%

Sequence No.: 2  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 1:29:45 PM  
 Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1824601.4	96.58	%	0.494				0.51%
ScR 361.383	255635.9	96.93	%	0.316				0.33%
Ag 328.068†	0.2	0.00000	mg/L	0.000050	0.00000	mg/L	0.000050	>999.9%
Al 308.215†	-1.6	-0.00096	mg/L	0.001318	-0.00096	mg/L	0.001318	137.03%
As 188.979†	2.8	0.00256	mg/L	0.002429	0.00256	mg/L	0.002429	94.89%
B 249.677†	35.3	0.00693	mg/L	0.000880	0.00693	mg/L	0.000880	12.70%
Ba 233.527†	3.3	0.00081	mg/L	0.000371	0.00081	mg/L	0.000371	45.77%
Be 313.042†	45.4	0.00008	mg/L	0.000061	0.00008	mg/L	0.000061	80.12%
Ca 317.933†	22.5	0.00150	mg/L	0.000690	0.00150	mg/L	0.000690	45.86%
Cd 228.802†	-1.1	-0.00006	mg/L	0.000270	-0.00006	mg/L	0.000270	457.75%
Co 228.616†	7.5	0.00034	mg/L	0.000172	0.00034	mg/L	0.000172	49.84%
Cr 267.716†	-2.2	-0.00042	mg/L	0.001154	-0.00042	mg/L	0.001154	276.22%
Cu 324.752†	115.1	0.00041	mg/L	0.000093	0.00041	mg/L	0.000093	22.62%
Fe 273.955†	1.4	0.00110	mg/L	0.001146	0.00110	mg/L	0.001146	103.94%
K 766.490†	-47.2	-0.03891	mg/L	0.026787	-0.03891	mg/L	0.026787	68.84%
Mg 279.077†	6.6	0.00521	mg/L	0.003657	0.00521	mg/L	0.003657	70.20%
Mn 257.610†	2.5	0.00007	mg/L	0.000196	0.00007	mg/L	0.000196	288.43%
Mo 202.031†	8.0	0.00070	mg/L	0.000427	0.00070	mg/L	0.000427	61.29%
Na 589.592†	25.7	0.00212	mg/L	0.003182	0.00212	mg/L	0.003182	149.99%
Na 330.237†	-3.3	-0.1253	mg/L	0.27441	-0.1253	mg/L	0.27441	219.05%
Ni 231.604†	2.7	0.00116	mg/L	0.001036	0.00116	mg/L	0.001036	89.22%
Pb 220.353†	11.6	0.00248	mg/L	0.000952	0.00248	mg/L	0.000952	38.29%
Sb 206.836†	7.2	0.00376	mg/L	0.001244	0.00376	mg/L	0.001244	33.05%
Se 196.026†	-2.5	-0.00295	mg/L	0.001166	-0.00295	mg/L	0.001166	39.48%
Si 288.158†	-2.3	-0.00111	mg/L	0.002035	-0.00111	mg/L	0.002035	183.46%
Sn 189.927†	-1.0	-0.00039	mg/L	0.001026	-0.00039	mg/L	0.001026	264.25%
Sr 421.552†	-52.3	-0.00010	mg/L	0.000029	-0.00010	mg/L	0.000029	29.90%
Ti 334.903†	-6.5	-0.00034	mg/L	0.000159	-0.00034	mg/L	0.000159	46.49%
Tl 190.801†	5.3	0.00381	mg/L	0.000507	0.00381	mg/L	0.000507	13.31%
V 292.402†	-9.8	-0.00012	mg/L	0.000220	-0.00012	mg/L	0.000220	181.58%
Zn 206.200†	1.1	0.00099	mg/L	0.001637	0.00099	mg/L	0.001637	166.01%

Sequence No.: 3  
 Sample ID: QE56 MB1 SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 344  
 Date Collected: 1/18/2010 1:33:24 PM  
 Data Type: Original

## Nebulizer Parameters: QE56 MB1 SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QE56 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1837497.6	97.26 %	0.774			0.80%
ScR 361.383	257637.1	97.69 %	0.452			0.46%
Ag 328.068†	-1.6	-0.00001 mg/L	0.000111	-0.00002 mg/L	0.000222	>999.9%
Al 308.215†	494.1	0.2895 mg/L	0.00681	0.5789 mg/L	0.01362	2.35%
As 188.979†	1.0	0.00124 mg/L	0.002908	0.00249 mg/L	0.005816	233.69%
B 249.677†	21.2	0.00417 mg/L	0.000957	0.00833 mg/L	0.001914	22.97%
Ba 233.527†	3.3	0.00082 mg/L	0.000901	0.00164 mg/L	0.001802	109.58%
Be 313.042†	30.1	0.00005 mg/L	0.000011	0.00010 mg/L	0.000023	22.68%
Ca 317.933†	4345.6	0.2902 mg/L	0.00394	0.5804 mg/L	0.00788	1.36%
Cd 228.802†	-2.2	-0.00010 mg/L	0.000147	-0.00021 mg/L	0.000293	142.13%
Co 228.616†	7.4	0.00032 mg/L	0.000031	0.00064 mg/L	0.000061	9.62%
Cr 267.716†	-1.9	-0.00039 mg/L	0.000642	-0.00079 mg/L	0.001284	162.93%
Cu 324.752†	145.8	0.00052 mg/L	0.000195	0.00103 mg/L	0.000390	37.78%
Fe 273.955†	7.7	0.00630 mg/L	0.001288	0.01259 mg/L	0.002576	20.46%
K 766.490†	-27.1	-0.02232 mg/L	0.013155	-0.04464 mg/L	0.026311	58.94%
Mg 279.077†	117.4	0.09294 mg/L	0.006193	0.1859 mg/L	0.01239	6.66%
Mn 257.610†	12.5	0.00033 mg/L	0.000056	0.00067 mg/L	0.000111	16.63%
Mo 202.031†	7.5	0.00065 mg/L	0.000211	0.00129 mg/L	0.000423	32.66%
Na 589.592†	938.1	0.07746 mg/L	0.003337	0.1549 mg/L	0.00667	4.31%
Na 330.237†	2.1	0.07908 mg/L	1.022451	0.1582 mg/L	2.04490	>999.9%
Ni 231.604†	0.9	0.00037 mg/L	0.001624	0.00075 mg/L	0.003249	435.95%
Pb 220.353†	13.2	0.00288 mg/L	0.001335	0.00576 mg/L	0.002670	46.34%
Sb 206.836†	1.7	0.00091 mg/L	0.000156	0.00183 mg/L	0.000312	17.09%
Se 196.026†	-0.6	-0.00068 mg/L	0.004204	-0.00135 mg/L	0.008408	620.96%
Si 288.158†	34.8	0.01718 mg/L	0.001460	0.03436 mg/L	0.002921	8.50%
Sn 189.927†	0.5	0.00023 mg/L	0.000890	0.00046 mg/L	0.001780	383.43%
Sr 421.552†	131.3	0.00024 mg/L	0.000067	0.00049 mg/L	0.000133	27.34%
Ti 334.903†	274.0	0.01431 mg/L	0.000114	0.02863 mg/L	0.000228	0.80%
Tl 190.801†	2.3	0.00166 mg/L	0.002115	0.00333 mg/L	0.004229	127.06%
V 292.402†	-10.4	-0.00014 mg/L	0.000284	-0.00028 mg/L	0.000568	206.15%
Zn 206.200†	23.8	0.02060 mg/L	0.001245	0.04121 mg/L	0.002490	6.04%



Sequence No.: 4  
 Sample ID: QF10 MB1 SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 345  
 Date Collected: 1/18/2010 1:37:03 PM  
 Data Type: Original

## Nebulizer Parameters: QF10 MB1 SWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF10 MB1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1839101.0	97.34	%	0.502			0.52%
ScR 361.383	256977.8	97.44	%	0.378			0.39%
Ag 328.068†	15.7	0.00011	mg/L	0.000241	0.00021 mg/L	0.000482	224.58%
Al 308.215†	456.5	0.2675	mg/L	0.00665	0.5349 mg/L	0.01329	2.48%
As 188.979†	0.2	0.00046	mg/L	0.000669	0.00093 mg/L	0.001339	144.47%
B 249.677†	13.8	0.00271	mg/L	0.000965	0.00543 mg/L	0.001931	35.58%
Ba 233.527†	1.7	0.00044	mg/L	0.000612	0.00088 mg/L	0.001223	139.74%
Be 313.042†	-0.5	0.00000	mg/L	0.000046	0.00000 mg/L	0.000091	>999.9%
Ca 317.933†	4273.8	0.2854	mg/L	0.00367	0.5708 mg/L	0.00734	1.29%
Cd 228.802†	-0.6	-0.00003	mg/L	0.000122	-0.00006 mg/L	0.000244	437.42%
Co 228.616†	9.4	0.00041	mg/L	0.000179	0.00082 mg/L	0.000357	43.58%
Cr 267.716†	3.4	0.00064	mg/L	0.001249	0.00128 mg/L	0.002498	194.50%
Cu 324.752†	54.4	0.00019	mg/L	0.000124	0.00038 mg/L	0.000247	65.63%
Fe 273.955†	4.9	0.00403	mg/L	0.002104	0.00805 mg/L	0.004207	52.24%
K 766.490†	-19.1	-0.01577	mg/L	0.014425	-0.03154 mg/L	0.028850	91.46%
Mg 279.077†	115.8	0.09173	mg/L	0.004288	0.1835 mg/L	0.00858	4.67%
Mn 257.610†	9.0	0.00024	mg/L	0.000041	0.00048 mg/L	0.000082	17.01%
Mo 202.031†	2.7	0.00023	mg/L	0.000145	0.00045 mg/L	0.000290	64.07%
Na 589.592†	926.6	0.07651	mg/L	0.003160	0.1530 mg/L	0.00632	4.13%
Na 330.237†	4.9	0.1823	mg/L	0.07179	0.3646 mg/L	0.14359	39.38%
Ni 231.604†	2.1	0.00093	mg/L	0.002481	0.00186 mg/L	0.004962	267.10%
Pb 220.353†	5.9	0.00130	mg/L	0.000679	0.00260 mg/L	0.001358	52.18%
Sb 206.836†	-0.1	-0.00002	mg/L	0.000648	-0.00004 mg/L	0.001295	>999.9%
Se 196.026†	-4.3	-0.00511	mg/L	0.001976	-0.01022 mg/L	0.003952	38.66%
Si 288.158†	36.4	0.01793	mg/L	0.007255	0.03585 mg/L	0.014509	40.47%
Sn 189.927†	1.9	0.00078	mg/L	0.000915	0.00156 mg/L	0.001830	116.93%
Sr 421.552†	109.0	0.00020	mg/L	0.000022	0.00040 mg/L	0.000043	10.66%
Ti 334.903†	258.8	0.01352	mg/L	0.000798	0.02704 mg/L	0.001596	5.90%
Tl 190.801†	3.8	0.00268	mg/L	0.002389	0.00536 mg/L	0.004778	89.11%
V 292.402†	6.5	0.00007	mg/L	0.000115	0.00015 mg/L	0.000230	156.45%
Zn 206.200†	29.2	0.02526	mg/L	0.000858	0.05053 mg/L	0.001716	3.40%

Sequence No.: 5  
 Sample ID: QF10 B SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 346  
 Date Collected: 1/18/2010 1:40:41 PM  
 Data Type: Original

## Nebulizer Parameters: QF10 B SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QF10 B SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1841882.9	97.49	%	0.808				0.83%
ScR 361.383	271471.6	102.9	%	1.49				1.44%
Ag 328.068†	-90.3	-0.00070	mg/L	0.000178	-0.00140	mg/L	0.000357	25.41%
Al 308.215†	174701.9	102.3	mg/L	0.34	204.7	mg/L	0.69	0.34%
As 188.979†	-127.0	0.02948	mg/L	0.004141	0.05897	mg/L	0.008281	14.04%
B 249.677†	85.0	0.01652	mg/L	0.001933	0.03305	mg/L	0.003866	11.70%
Ba 233.527†	1652.6	0.3904	mg/L	0.00645	0.7809	mg/L	0.01291	1.65%
Be 313.042†	960.6	0.00131	mg/L	0.000054	0.00261	mg/L	0.000108	4.13%
Ca 317.933†	698629.3	46.66	mg/L	0.199	93.31	mg/L	0.399	0.43%
Cd 228.802†	49.3	0.00282	mg/L	0.000247	0.00564	mg/L	0.000494	8.76%
Co 228.616†	1682.8	0.06297	mg/L	0.000502	0.1259	mg/L	0.00100	0.80%
Cr 267.716†	1405.2	0.2718	mg/L	0.00430	0.5436	mg/L	0.00860	1.58%
Cu 324.752†	57107.9	0.2167	mg/L	0.00163	0.4333	mg/L	0.00326	0.75%
Fe 273.955†	229395.0	186.7	mg/L	0.88	373.4	mg/L	1.75	0.47%
K 766.490†	8017.5	6.608	mg/L	0.0574	13.22	mg/L	0.115	0.87%
Mg 279.077†	80472.0	63.65	mg/L	0.288	127.3	mg/L	0.58	0.45%
Mn 257.610†	80366.2	2.176	mg/L	0.0071	4.351	mg/L	0.0142	0.33%
Mo 202.031†	88.7	0.00701	mg/L	0.000763	0.01402	mg/L	0.001526	10.88%
Na 589.592†	42003.5	3.468	mg/L	0.0033	6.937	mg/L	0.0066	0.09%
Na 330.237†	56.4	3.724	mg/L	0.2664	7.448	mg/L	0.5328	7.15%
Ni 231.604†	589.1	0.2550	mg/L	0.00225	0.5100	mg/L	0.00450	0.88%
Pb 220.353†	1136.2	0.2471	mg/L	0.00137	0.4943	mg/L	0.00275	0.56%
Sb 206.836†	15.7	0.01461	mg/L	0.005635	0.02923	mg/L	0.011271	38.56%
Se 196.026†	22.6	0.02362	mg/L	0.007588	0.04724	mg/L	0.015177	32.12%
Si 288.158†	1765.3	0.8702	mg/L	0.01932	1.740	mg/L	0.0386	2.22%
Sn 189.927†	-12.5	-0.00040	mg/L	0.001785	-0.00079	mg/L	0.003569	451.37%
Sr 421.552†	112702.2	0.2087	mg/L	0.00086	0.4175	mg/L	0.00171	0.41%
Ti 334.903†	134431.2	7.031	mg/L	0.0299	14.06	mg/L	0.060	0.43%
Tl 190.801†	-24.7	0.01204	mg/L	0.003066	0.02408	mg/L	0.006133	25.47%
V 292.402†	31798.7	0.3662	mg/L	0.00365	0.7324	mg/L	0.00730	1.00%
Zn 206.200†	1255.6	1.080	mg/L	0.0185	2.161	mg/L	0.0369	1.71%

Sequence No.: 6  
 Sample ID: QE56 C SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 347  
 Date Collected: 1/18/2010 1:44:19 PM  
 Data Type: Original

## Nebulizer Parameters: QE56 C SWC

Analyte	Back Pressure	Flow
All	198.0 kPa	0.75 L/min

## Mean Data: QE56 C SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1858800.0	98.39	%	0.662				0.67%
ScR 361.383	259095.4	98.24	%	0.412				0.42%
Ag 328.068†	130.7	0.00088	mg/L	0.000142	0.00177	mg/L	0.000285	16.11%
Al 308.215†	52076.2	30.51	mg/L	0.225	61.02	mg/L	0.449	0.74%
As 188.979†	4.3	0.03839	mg/L	0.001773	0.07678	mg/L	0.003547	4.62%
B 249.677†	321.9	0.06321	mg/L	0.001299	0.1264	mg/L	0.00260	2.06%
Ba 233.527†	1445.3	0.3551	mg/L	0.00213	0.7102	mg/L	0.00426	0.60%
Be 313.042†	435.6	0.00064	mg/L	0.000009	0.00128	mg/L	0.000017	1.37%
Ca 317.933†	309655.8	20.68	mg/L	0.121	41.36	mg/L	0.243	0.59%
Cd 228.802†	81.5	0.00382	mg/L	0.000255	0.00763	mg/L	0.000510	6.68%
Co 228.616†	423.8	0.01601	mg/L	0.000216	0.03201	mg/L	0.000432	1.35%
Cr 267.716†	1048.4	0.2036	mg/L	0.00147	0.4072	mg/L	0.00294	0.72%
Cu 324.752†	126930.6	0.4586	mg/L	0.00554	0.9172	mg/L	0.01107	1.21%
Fe 273.955†	55666.4	45.30	mg/L	0.280	90.61	mg/L	0.559	0.62%
K 766.490†	3188.5	2.628	mg/L	0.0148	5.256	mg/L	0.0296	0.56%
Mg 279.077†	10807.2	8.536	mg/L	0.0598	17.07	mg/L	0.120	0.70%
Mn 257.610†	17083.1	0.4626	mg/L	0.00278	0.9252	mg/L	0.00556	0.60%
Mo 202.031†	143.6	0.01214	mg/L	0.000456	0.02428	mg/L	0.000911	3.75%
Na 589.592†	15680.0	1.295	mg/L	0.0088	2.589	mg/L	0.0177	0.68%
Na 330.237†	34.7	1.096	mg/L	0.1398	2.191	mg/L	0.2797	12.76%
Ni 231.604†	205.3	0.08890	mg/L	0.001062	0.1778	mg/L	0.00212	1.19%
Pb 220.353†	2533.4	0.5440	mg/L	0.00757	1.088	mg/L	0.0151	1.39%
Sb 206.836†	14.2	0.00772	mg/L	0.000553	0.01543	mg/L	0.001106	7.17%
Se 196.026†	7.5	0.00848	mg/L	0.001740	0.01697	mg/L	0.003480	20.51%
Si 288.158†	1965.2	0.9688	mg/L	0.00402	1.938	mg/L	0.0080	0.42%
Sn 189.927†	24.8	0.01124	mg/L	0.000563	0.02247	mg/L	0.001126	5.01%
Sr 421.552†	64881.2	0.1202	mg/L	0.00076	0.2403	mg/L	0.00152	0.63%
Ti 334.903†	32051.0	1.676	mg/L	0.0099	3.351	mg/L	0.0198	0.59%
Tl 190.801†	0.6	0.00745	mg/L	0.001314	0.01489	mg/L	0.002627	17.64%
V 292.402†	10086.3	0.1184	mg/L	0.00149	0.2367	mg/L	0.00298	1.26%
Zn 206.200†	3135.8	2.714	mg/L	0.0083	5.428	mg/L	0.0167	0.31%

Sequence No.: 7  
 Sample ID: QE56 D SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 348  
 Date Collected: 1/18/2010 1:53:24 PM  
 Data Type: Original

## Nebulizer Parameters: QE56 D SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QE56 D SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1849725.4	97.90	%	0.663			0.68%
ScR 361.383	259433.4	98.37	%	0.214			0.22%
Ag 328.068†	30.4	0.00022	mg/L	0.000157	0.00043 mg/L	0.000314	72.69%
Al 308.215†	49812.2	29.18	mg/L	0.174	58.36 mg/L	0.347	0.59%
As 188.979†	-3.9	0.03118	mg/L	0.002113	0.06235 mg/L	0.004225	6.78%
B 249.677†	124.0	0.02434	mg/L	0.000445	0.04868 mg/L	0.000890	1.83%
Ba 233.527†	1142.5	0.2806	mg/L	0.00157	0.5612 mg/L	0.00315	0.56%
Be 313.042†	400.7	0.00059	mg/L	0.000022	0.00117 mg/L	0.000044	3.77%
Ca 317.933†	277733.8	18.55	mg/L	0.193	37.10 mg/L	0.386	1.04%
Cd 228.802†	49.4	0.00234	mg/L	0.000262	0.00468 mg/L	0.000523	11.17%
Co 228.616†	361.2	0.01323	mg/L	0.000139	0.02645 mg/L	0.000277	1.05%
Cr 267.716†	1264.7	0.2449	mg/L	0.00126	0.4898 mg/L	0.00252	0.51%
Cu 324.752†	54489.4	0.1979	mg/L	0.00214	0.3958 mg/L	0.00428	1.08%
Fe 273.955†	45412.1	36.96	mg/L	0.204	73.92 mg/L	0.407	0.55%
K 766.490†	3311.8	2.730	mg/L	0.0268	5.459 mg/L	0.0536	0.98%
Mg 279.077†	10970.2	8.670	mg/L	0.0447	17.34 mg/L	0.089	0.52%
Mn 257.610†	14526.6	0.3934	mg/L	0.00351	0.7867 mg/L	0.00702	0.89%
Mo 202.031†	145.9	0.01237	mg/L	0.000631	0.02473 mg/L	0.001262	5.10%
Na 589.592†	13121.4	1.083	mg/L	0.0048	2.167 mg/L	0.0096	0.45%
Na 330.237†	20.2	0.9706	mg/L	0.22493	1.941 mg/L	0.4499	23.17%
Ni 231.604†	163.5	0.07079	mg/L	0.001962	0.1416 mg/L	0.00392	2.77%
Pb 220.353†	3161.2	0.6792	mg/L	0.00425	1.358 mg/L	0.0085	0.63%
Sb 206.836†	14.0	0.00710	mg/L	0.001310	0.01420 mg/L	0.002620	18.45%
Se 196.026†	7.7	0.00876	mg/L	0.002750	0.01751 mg/L	0.005500	31.40%
Si 288.158†	1918.7	0.9458	mg/L	0.01646	1.892 mg/L	0.0329	1.74%
Sn 189.927†	13.8	0.00681	mg/L	0.001100	0.01362 mg/L	0.002201	16.16%
Sr 421.552†	52683.6	0.09758	mg/L	0.000483	0.1952 mg/L	0.00097	0.49%
Ti 334.903†	32293.1	1.688	mg/L	0.0150	3.377 mg/L	0.0299	0.89%
Tl 190.801†	2.4	0.00743	mg/L	0.001451	0.01487 mg/L	0.002902	19.52%
V 292.402†	9187.1	0.1084	mg/L	0.00102	0.2168 mg/L	0.00205	0.94%
Zn 206.200†	1132.6	0.9788	mg/L	0.00479	1.958 mg/L	0.0096	0.49%

Sequence No.: 8  
 Sample ID: QE56 BDUP SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 349  
 Date Collected: 1/18/2010 1:55:59 PM  
 Data Type: Original

Nebulizer Parameters: QE56 BDUP SWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

Mean Data: QE56 BDUP SWC

Analyte	Mean Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1824988.1	96.60	%	0.726			0.75%
ScR 361.383	258216.1	97.91	%	0.603			0.62%
Ag 328.068†	147.0	0.00100	mg/L	0.000055	0.00199 mg/L	0.000111	5.55%
Al 308.215†	58553.3	34.30	mg/L	0.179	68.60 mg/L	0.358	0.52%
As 188.979†	-6.7	0.03312	mg/L	0.002765	0.06625 mg/L	0.005531	8.35%
B 249.677†	99.8	0.01958	mg/L	0.000464	0.03915 mg/L	0.000928	2.37%
Ba 233.527†	1377.8	0.3385	mg/L	0.00159	0.6770 mg/L	0.00317	0.47%
Be 313.042†	430.8	0.00062	mg/L	0.000033	0.00125 mg/L	0.000066	5.27%
Ca 317.933†	280438.5	18.73	mg/L	0.104	37.46 mg/L	0.209	0.56%
Cd 228.802†	130.4	0.00611	mg/L	0.000097	0.01223 mg/L	0.000194	1.59%
Co 228.616†	444.2	0.01660	mg/L	0.000359	0.03320 mg/L	0.000719	2.16%
Cr 267.716†	889.3	0.1727	mg/L	0.00167	0.3455 mg/L	0.00334	0.97%
Cu 324.752†	94495.0	0.3419	mg/L	0.00067	0.6838 mg/L	0.00134	0.20%
Fe 273.955†	53120.2	43.23	mg/L	0.236	86.46 mg/L	0.471	0.55%
K 766.490†	3727.0	3.072	mg/L	0.0233	6.144 mg/L	0.0465	0.76%
Mg 279.077†	11052.8	8.732	mg/L	0.0444	17.46 mg/L	0.089	0.51%
Mn 257.610†	18201.9	0.4928	mg/L	0.00257	0.9856 mg/L	0.00514	0.52%
Mo 202.031†	248.9	0.02129	mg/L	0.000184	0.04258 mg/L	0.000368	0.86%
Na 589.592†	19386.5	1.601	mg/L	0.0081	3.202 mg/L	0.0162	0.51%
Na 330.237†	51.1	1.393	mg/L	0.1060	2.785 mg/L	0.2120	7.61%
Ni 231.604†	194.1	0.08404	mg/L	0.000680	0.1681 mg/L	0.00136	0.81%
Pb 220.353†	2261.5	0.4867	mg/L	0.00451	0.9734 mg/L	0.00903	0.93%
Sb 206.836†	16.2	0.00939	mg/L	0.001199	0.01877 mg/L	0.002398	12.77%
Se 196.026†	6.2	0.00697	mg/L	0.002018	0.01394 mg/L	0.004036	28.94%
Si 288.158†	2047.1	1.009	mg/L	0.0081	2.018 mg/L	0.0163	0.81%
Sn 189.927†	27.3	0.01227	mg/L	0.000866	0.02455 mg/L	0.001731	7.05%
Sr 421.552†	56496.7	0.1046	mg/L	0.00079	0.2093 mg/L	0.00159	0.76%
Ti 334.903†	36307.4	1.898	mg/L	0.0122	3.797 mg/L	0.0243	0.64%
Tl 190.801†	1.5	0.00788	mg/L	0.002636	0.01577 mg/L	0.005271	33.43%
V 292.402†	10904.2	0.1283	mg/L	0.00058	0.2567 mg/L	0.00116	0.45%
Zn 206.200†	4936.0	4.274	mg/L	0.0398	8.547 mg/L	0.0796	0.93%

Sequence No.: 9  
 Sample ID: QE56 B SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 350  
 Date Collected: 1/18/2010 1:57:29 PM  
 Data Type: Original

## Nebulizer Parameters: QE56 B SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QE56 B SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1847973.5	97.81	%	0.748			0.76%
ScR 361.383	257490.8	97.63	%	0.109			0.11%
Ag 328.068†	124.4	0.00084	mg/L	0.000250	0.00168 mg/L	0.000500	29.73%
Al 308.215†	62467.3	36.60	mg/L	0.214	73.19 mg/L	0.428	0.58%
As 188.979†	-6.8	0.03583	mg/L	0.002517	0.07165 mg/L	0.005034	7.03%
B 249.677†	102.6	0.02011	mg/L	0.000322	0.04022 mg/L	0.000645	1.60%
Ba 233.527†	1494.4	0.3669	mg/L	0.00204	0.7339 mg/L	0.00407	0.55%
Be 313.042†	494.2	0.00072	mg/L	0.000024	0.00144 mg/L	0.000048	3.30%
Ca 317.933†	309410.7	20.66	mg/L	0.190	41.33 mg/L	0.381	0.92%
Cd 228.802†	139.3	0.00653	mg/L	0.000215	0.01306 mg/L	0.000431	3.30%
Co 228.616†	483.4	0.01809	mg/L	0.000152	0.03618 mg/L	0.000304	0.84%
Cr 267.716†	972.1	0.1889	mg/L	0.00191	0.3779 mg/L	0.00382	1.01%
Cu 324.752†	105140.0	0.3805	mg/L	0.00287	0.7610 mg/L	0.00574	0.75%
Fe 273.955†	60026.3	48.85	mg/L	0.414	97.70 mg/L	0.828	0.85%
K 766.490†	3509.3	2.892	mg/L	0.0455	5.785 mg/L	0.0909	1.57%
Mg 279.077†	12007.3	9.485	mg/L	0.0656	18.97 mg/L	0.131	0.69%
Mn 257.610†	20238.9	0.5480	mg/L	0.00362	1.096 mg/L	0.0072	0.66%
Mo 202.031†	201.1	0.01712	mg/L	0.000301	0.03423 mg/L	0.000602	1.76%
Na 589.592†	19517.4	1.612	mg/L	0.0083	3.223 mg/L	0.0165	0.51%
Na 330.237†	49.8	1.261	mg/L	0.0880	2.521 mg/L	0.1759	6.98%
Ni 231.604†	212.4	0.09195	mg/L	0.001693	0.1839 mg/L	0.00339	1.84%
Pb 220.353†	2459.9	0.5291	mg/L	0.00427	1.058 mg/L	0.0085	0.81%
Sb 206.836†	13.9	0.00824	mg/L	0.003388	0.01648 mg/L	0.006776	41.11%
Se 196.026†	5.9	0.00657	mg/L	0.001959	0.01313 mg/L	0.003918	29.84%
Si 288.158†	2696.9	1.330	mg/L	0.0058	2.659 mg/L	0.0116	0.44%
Sn 189.927†	28.9	0.01303	mg/L	0.000208	0.02605 mg/L	0.000416	1.60%
Sr 421.552†	61068.2	0.1131	mg/L	0.00098	0.2262 mg/L	0.00195	0.86%
Ti 334.903†	38971.1	2.038	mg/L	0.0160	4.075 mg/L	0.0320	0.79%
Tl 190.801†	-3.3	0.00529	mg/L	0.001885	0.01059 mg/L	0.003769	35.61%
V 292.402†	11707.9	0.1376	mg/L	0.00084	0.2751 mg/L	0.00169	0.61%
Zn 206.200†	5520.8	4.780	mg/L	0.0274	9.560 mg/L	0.0549	0.57%

Sequence No.: 10  
 Sample ID: QE56 BSPK SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 351  
 Date Collected: 1/18/2010 1:58:59 PM  
 Data Type: Original

## Nebulizer Parameters: QE56 BSPK SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QE56 BSPK SWC

Analyte	Mean Corrected			Std.Dev.	Sample			RSD
	Intensity	Conc.	Calib. Units		Conc.	Units	Std.Dev.	
ScA 357.253	1835084.3	97.13	%	0.473				0.49%
ScR 361.383	267476.9	101.4	%	0.49				0.48%
Ag 328.068†	73999.9	0.5019	mg/L	0.00229	1.004	mg/L	0.0046	0.46%
Al 308.215†	50956.8	29.84	mg/L	0.224	59.69	mg/L	0.449	0.75%
As 188.979†	1867.5	1.764	mg/L	0.0104	3.528	mg/L	0.0208	0.59%
B 249.677†	102.0	0.01902	mg/L	0.001289	0.03804	mg/L	0.002577	6.77%
Ba 233.527†	7323.8	1.821	mg/L	0.0145	3.642	mg/L	0.0289	0.79%
Be 313.042†	236308.2	0.3942	mg/L	0.00355	0.7884	mg/L	0.00710	0.90%
Ca 317.933†	361934.1	24.17	mg/L	0.216	48.34	mg/L	0.433	0.90%
Cd 228.802†	9945.9	0.4558	mg/L	0.00139	0.9116	mg/L	0.00279	0.31%
Co 228.616†	9443.1	0.4318	mg/L	0.00147	0.8635	mg/L	0.00293	0.34%
Cr 267.716†	2711.9	0.5232	mg/L	0.00508	1.046	mg/L	0.0102	0.97%
Cu 324.752†	204622.9	0.7369	mg/L	0.00114	1.474	mg/L	0.0023	0.15%
Fe 273.955†	47915.3	38.99	mg/L	0.310	77.99	mg/L	0.621	0.80%
K 766.490†	13521.1	11.14	mg/L	0.055	22.29	mg/L	0.110	0.49%
Mg 279.077†	20542.1	16.25	mg/L	0.157	32.50	mg/L	0.313	0.96%
Mn 257.610†	30330.3	0.8215	mg/L	0.00842	1.643	mg/L	0.0168	1.02%
Mo 202.031†	169.8	0.01436	mg/L	0.000393	0.02872	mg/L	0.000786	2.74%
Na 589.592†	120052.9	9.913	mg/L	0.0664	19.83	mg/L	0.133	0.67%
Na 330.237†	295.8	10.63	mg/L	0.461	21.26	mg/L	0.922	4.34%
Ni 231.604†	1082.7	0.4687	mg/L	0.00570	0.9375	mg/L	0.01141	1.22%
Pb 220.353†	10460.3	2.242	mg/L	0.0121	4.483	mg/L	0.0241	0.54%
Sb 206.836†	19.0	0.00815	mg/L	0.002091	0.01630	mg/L	0.004182	25.65%
Se 196.026†	1502.9	1.796	mg/L	0.0093	3.592	mg/L	0.0185	0.52%
Si 288.158†	1610.8	0.7958	mg/L	0.01059	1.592	mg/L	0.0212	1.33%
Sn 189.927†	16.5	0.00802	mg/L	0.002052	0.01604	mg/L	0.004103	25.58%
Sr 421.552†	264215.1	0.4894	mg/L	0.00433	0.9787	mg/L	0.00867	0.89%
Ti 334.903†	31104.5	1.626	mg/L	0.0127	3.251	mg/L	0.0253	0.78%
Tl 190.801†	2530.3	1.807	mg/L	0.0133	3.614	mg/L	0.0266	0.74%
V 292.402†	43457.8	0.5282	mg/L	0.00265	1.056	mg/L	0.0053	0.50%
Zn 206.200†	4574.1	3.960	mg/L	0.0487	7.920	mg/L	0.0973	1.23%

User canceled analysis.

=====  
Analysis Begun

Start Time: 1/18/2010 2:03:02 PM

Plasma On Time: 1/18/2010 7:29:15 AM

Logged In Analyst: metals

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif

Batch ID:

Results Data Set: I2100118

Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 12

Autosampler Location: 353

Sample ID: QE56 MB1SPK SWC

Date Collected: 1/18/2010 2:03:03 PM

Analyst: ALA

Data Type: Original

Dilution: 2X

=====  
Nebulizer Parameters: QE56 MB1SPK SWC

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

=====  
Mean Data: QE56 MB1SPK SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1856769.0	98.28	%	0.734				0.75%
ScR 361.383	271218.5	102.8	%	0.75				0.73%
Ag 328.068†	79138.0	0.5368	mg/L	0.00522	1.074	mg/L	0.0104	0.97%
Al 308.215†	3915.5	2.283	mg/L	0.0467	4.567	mg/L	0.0934	2.05%
As 188.979†	2193.2	2.033	mg/L	0.0146	4.065	mg/L	0.0291	0.72%
B 249.677†	10.5	0.00087	mg/L	0.001030	0.00175	mg/L	0.002060	118.02%
Ba 233.527†	7678.4	1.914	mg/L	0.0413	3.827	mg/L	0.0826	2.16%
Be 313.042†	291034.6	0.4856	mg/L	0.00687	0.9712	mg/L	0.01374	1.41%
Ca 317.933†	157358.6	10.51	mg/L	0.139	21.02	mg/L	0.277	1.32%
Cd 228.802†	11398.9	0.5222	mg/L	0.00624	1.044	mg/L	0.0125	1.19%
Co 228.616†	10986.3	0.5062	mg/L	0.00692	1.012	mg/L	0.0138	1.37%
Cr 267.716†	2519.5	0.4849	mg/L	0.01164	0.9699	mg/L	0.02329	2.40%
Cu 324.752†	139910.5	0.5023	mg/L	0.00180	1.005	mg/L	0.0036	0.36%
Fe 273.955†	2583.9	2.100	mg/L	0.0468	4.200	mg/L	0.0935	2.23%
K 766.490†	12421.9	10.24	mg/L	0.205	20.48	mg/L	0.411	2.01%
Mg 279.077†	12579.0	9.964	mg/L	0.1600	19.93	mg/L	0.320	1.61%
Mn 257.610†	16735.3	0.4534	mg/L	0.00716	0.9068	mg/L	0.01432	1.58%
Mo 202.031†	18.6	0.00146	mg/L	0.000454	0.00291	mg/L	0.000908	31.19%
Na 589.592†	119556.4	9.872	mg/L	0.1481	19.74	mg/L	0.296	1.50%
Na 330.237†	292.5	10.91	mg/L	0.101	21.83	mg/L	0.203	0.93%
Ni 231.604†	1152.3	0.4989	mg/L	0.01105	0.9977	mg/L	0.02209	2.21%
Pb 220.353†	9500.4	2.035	mg/L	0.0216	4.069	mg/L	0.0432	1.06%
Sb 206.836†	5.8	-0.00033	mg/L	0.001671	-0.00066	mg/L	0.003342	505.99%
Se 196.026†	1687.5	2.017	mg/L	0.0193	4.034	mg/L	0.0387	0.96%
Si 288.158†	24.7	0.01420	mg/L	0.004594	0.02841	mg/L	0.009188	32.34%
Sn 189.927†	-5.6	-0.00189	mg/L	0.000766	-0.00379	mg/L	0.001532	40.46%
Sr 421.552†	266395.7	0.4934	mg/L	0.00885	0.9868	mg/L	0.01770	1.79%
Ti 334.903†	245.8	0.01196	mg/L	0.000306	0.02391	mg/L	0.000612	2.56%
Tl 190.801†	2789.3	1.986	mg/L	0.0139	3.971	mg/L	0.0277	0.70%
V 292.402†	42034.0	0.5155	mg/L	0.00555	1.031	mg/L	0.0111	1.08%
Zn 206.200†	585.8	0.5065	mg/L	0.01310	1.013	mg/L	0.0262	2.59%



Sequence No.: 13  
Sample ID: CV5  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 7  
Date Collected: 1/18/2010 2:06:46 PM  
Data Type: Original

Nebulizer Parameters: CV

Analyte Back Pressure Flow  
All 199.0 kPa 0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1851322.5	97.99 %	0.455			0.46%
ScR 361.383	259910.5	98.55 %	0.140			0.14%
Ag 328.068†	147247.0	0.9986 mg/L	0.00645	0.9986 mg/L	0.00645	0.65%
Al 308.215†	3660.4	2.112 mg/L	0.0042	2.112 mg/L	0.0042	0.20%
As 188.979†	2107.7	1.975 mg/L	0.0126	1.975 mg/L	0.0126	0.64%
B 249.677†	5108.4	1.002 mg/L	0.0020	1.002 mg/L	0.0020	0.20%
Ba 233.527†	3885.4	0.9679 mg/L	0.00157	0.9679 mg/L	0.00157	0.16%
Be 313.042†	572600.4	0.9554 mg/L	0.00983	0.9554 mg/L	0.00983	1.03%
Ca 317.933†	32028.5	2.139 mg/L	0.0095	2.139 mg/L	0.0095	0.45%
Cd 228.802†	22173.8	1.023 mg/L	0.0053	1.023 mg/L	0.0053	0.52%
Co 228.616†	21483.3	0.9886 mg/L	0.00646	0.9886 mg/L	0.00646	0.65%
Cr 267.716†	5008.5	0.9669 mg/L	0.00271	0.9669 mg/L	0.00271	0.28%
Cu 324.752†	282440.7	1.013 mg/L	0.0060	1.013 mg/L	0.0060	0.59%
Fe 273.955†	2628.6	2.133 mg/L	0.0041	2.133 mg/L	0.0041	0.19%
K 766.490†	25726.4	21.20 mg/L	0.146	21.20 mg/L	0.146	0.69%
Mg 279.077†	2680.7	2.129 mg/L	0.0134	2.129 mg/L	0.0134	0.63%
Mn 257.610†	34211.5	0.9265 mg/L	0.00378	0.9265 mg/L	0.00378	0.41%
Mo 202.031†	11512.4	0.9970 mg/L	0.00347	0.9970 mg/L	0.00347	0.35%
Na 589.592†	604031.0	49.88 mg/L	0.430	49.88 mg/L	0.430	0.86%
Na 330.237†	1424.9	53.79 mg/L	0.423	53.79 mg/L	0.423	0.79%
Ni 231.604†	2311.1	1.002 mg/L	0.0017	1.002 mg/L	0.0017	0.17%
Pb 220.353†	9551.4	2.046 mg/L	0.0055	2.046 mg/L	0.0055	0.27%
Sb 206.836†	3888.2	2.034 mg/L	0.0069	2.034 mg/L	0.0069	0.34%
Se 196.026†	1651.8	1.975 mg/L	0.0052	1.975 mg/L	0.0052	0.26%
Si 288.158†	4491.6	2.218 mg/L	0.0063	2.218 mg/L	0.0063	0.29%
Sn 189.927†	2520.7	1.004 mg/L	0.0028	1.004 mg/L	0.0028	0.28%
Sr 421.552†	549841.4	1.018 mg/L	0.0152	1.018 mg/L	0.0152	1.49%
Ti 334.903†	20569.1	1.075 mg/L	0.0035	1.075 mg/L	0.0035	0.33%
Tl 190.801†	2789.3	1.987 mg/L	0.0079	1.987 mg/L	0.0079	0.40%
V 292.402†	82845.6	1.016 mg/L	0.0093	1.016 mg/L	0.0093	0.91%
Zn 206.200†	1149.1	0.9943 mg/L	0.00452	0.9943 mg/L	0.00452	0.45%

Sequence No.: 14  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 2:10:44 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1847491.3	97.79	%	0.441				0.45%
ScR 361.383	259077.8	98.23	%	0.395				0.40%
Ag 328.068†	12.4	0.00008	mg/L	0.000269	0.00008	mg/L	0.000269	321.47%
Al 308.215†	2.4	0.00142	mg/L	0.007938	0.00142	mg/L	0.007938	560.52%
As 188.979†	0.5	0.00042	mg/L	0.001324	0.00042	mg/L	0.001324	318.39%
B 249.677†	15.6	0.00306	mg/L	0.001693	0.00306	mg/L	0.001693	55.40%
Ba 233.527†	0.9	0.00022	mg/L	0.000679	0.00022	mg/L	0.000679	303.21%
Be 313.042†	11.0	0.00002	mg/L	0.000015	0.00002	mg/L	0.000015	81.51%
Ca 317.933†	32.3	0.00215	mg/L	0.001276	0.00215	mg/L	0.001276	59.26%
Cd 228.802†	3.4	0.00016	mg/L	0.000242	0.00016	mg/L	0.000242	154.76%
Co 228.616†	6.4	0.00029	mg/L	0.000201	0.00029	mg/L	0.000201	68.29%
Cr 267.716†	0.5	0.00010	mg/L	0.000109	0.00010	mg/L	0.000109	104.15%
Cu 324.752†	52.0	0.00019	mg/L	0.000135	0.00019	mg/L	0.000135	72.29%
Fe 273.955†	2.3	0.00187	mg/L	0.000800	0.00187	mg/L	0.000800	42.79%
K 766.490†	-34.5	-0.02844	mg/L	0.018258	-0.02844	mg/L	0.018258	64.20%
Mg 279.077†	2.9	0.00233	mg/L	0.004669	0.00233	mg/L	0.004669	200.59%
Mn 257.610†	6.0	0.00016	mg/L	0.000037	0.00016	mg/L	0.000037	22.68%
Mo 202.031†	4.6	0.00040	mg/L	0.000126	0.00040	mg/L	0.000126	31.30%
Na 589.592†	-40.7	-0.00336	mg/L	0.003399	-0.00336	mg/L	0.003399	101.06%
Na 330.237†	12.0	0.4545	mg/L	0.54108	0.4545	mg/L	0.54108	119.06%
Ni 231.604†	0.3	0.00013	mg/L	0.001733	0.00013	mg/L	0.001733	>999.9%
Pb 220.353†	11.3	0.00242	mg/L	0.000110	0.00242	mg/L	0.000110	4.54%
Sb 206.836†	5.0	0.00262	mg/L	0.001230	0.00262	mg/L	0.001230	46.99%
Se 196.026†	-2.7	-0.00323	mg/L	0.000988	-0.00323	mg/L	0.000988	30.65%
Si 288.158†	-7.2	-0.00354	mg/L	0.002731	-0.00354	mg/L	0.002731	77.12%
Sn 189.927†	-1.7	-0.00066	mg/L	0.000923	-0.00066	mg/L	0.000923	140.53%
Sr 421.552†	-9.2	-0.00002	mg/L	0.000020	-0.00002	mg/L	0.000020	119.93%
Ti 334.903†	-10.7	-0.00056	mg/L	0.000717	-0.00056	mg/L	0.000717	128.00%
Tl 190.801†	5.7	0.00406	mg/L	0.001434	0.00406	mg/L	0.001434	35.31%
V 292.402†	12.8	0.00016	mg/L	0.000020	0.00016	mg/L	0.000020	12.90%
Zn 206.200†	-1.3	-0.00110	mg/L	0.001282	-0.00110	mg/L	0.001282	116.94%

Sequence No.: 15  
 Sample ID: QF00 I WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 354  
 Date Collected: 1/18/2010 2:14:22 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 I WMN

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QF00 I WMN

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
ScA 357.253	1835830.6		97.17 %	0.452				0.47%
ScR 361.383	274778.1		104.2 %	1.78				1.70%
Ag 328.068†	16.7	0.00011	mg/L	0.000138	0.00011	mg/L	0.000138	121.78%
Al 308.215†	14.5	0.00845	mg/L	0.010404	0.00845	mg/L	0.010404	123.13%
As 188.979†	12.9	0.00971	mg/L	0.002220	0.00971	mg/L	0.002220	22.86%
B 249.677†	244.6	0.04806	mg/L	0.000954	0.04806	mg/L	0.000954	1.98%
Ba 233.527†	61.5	0.01561	mg/L	0.001074	0.01561	mg/L	0.001074	6.88%
Be 313.042†	3.2	0.00000	mg/L	0.000018	0.00000	mg/L	0.000018	375.40%
Ca 317.933†	648156.9	43.29	mg/L	0.492	43.29	mg/L	0.492	1.14%
Cd 228.802†	-8.5	-0.00044	mg/L	0.000118	-0.00044	mg/L	0.000118	27.20%
Co 228.616†	23.8	0.00109	mg/L	0.000272	0.00109	mg/L	0.000272	24.90%
Cr 267.716†	21.7	0.00177	mg/L	0.000346	0.00177	mg/L	0.000346	19.58%
Cu 324.752†	667.4	0.00211	mg/L	0.000078	0.00211	mg/L	0.000078	3.68%
Fe 273.955†	1.6	0.00127	mg/L	0.001720	0.00127	mg/L	0.001720	135.30%
K 766.490†	3339.1	2.752	mg/L	0.0735	2.752	mg/L	0.0735	2.67%
Mg 279.077†	14765.5	11.69	mg/L	0.194	11.69	mg/L	0.194	1.66%
Mn 257.610†	24.3	0.00043	mg/L	0.000123	0.00043	mg/L	0.000123	28.41%
Mo 202.031†	54.0	0.00406	mg/L	0.000597	0.00406	mg/L	0.000597	14.72%
Na 589.592†	126961.0	10.48	mg/L	0.077	10.48	mg/L	0.077	0.74%
Na 330.237†	316.2	11.93	mg/L	0.487	11.93	mg/L	0.487	4.08%
Ni 231.604†	2.0	0.00086	mg/L	0.000303	0.00086	mg/L	0.000303	35.35%
Pb 220.353†	-12.0	-0.00255	mg/L	0.001151	-0.00255	mg/L	0.001151	45.08%
Sb 206.836†	2.3	0.00112	mg/L	0.001656	0.00112	mg/L	0.001656	147.61%
Se 196.026†	19.9	0.02316	mg/L	0.003189	0.02316	mg/L	0.003189	13.77%
Si 288.158†	12996.0	6.407	mg/L	0.0939	6.407	mg/L	0.0939	1.47%
Sn 189.927†	-9.0	-0.00225	mg/L	0.000774	-0.00225	mg/L	0.000774	34.39%
Sr 421.552†	141913.8	0.2628	mg/L	0.00266	0.2628	mg/L	0.00266	1.01%
Ti 334.903†	57.1	-0.00008	mg/L	0.000999	-0.00008	mg/L	0.000999	>999.9%
Tl 190.801†	19.5	0.01389	mg/L	0.000965	0.01389	mg/L	0.000965	6.95%
V 292.402†	90.1	0.00112	mg/L	0.000073	0.00112	mg/L	0.000073	6.51%
Zn 206.200†	2.9	0.00007	mg/L	0.000985	0.00007	mg/L	0.000985	>999.9%

Sequence No.: 16  
 Sample ID: QF00 C WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 355  
 Date Collected: 1/18/2010 2:18:15 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 C WMN

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

## Mean Data: QF00 C WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1836386.5	97.20	%	0.538				0.55%
ScR 361.383	272364.6	103.3	%	3.35				3.24%
Ag 328.068†	87.9	-0.00007	mg/L	0.000036	-0.00007	mg/L	0.000036	52.07%
Al 308.215†	16.1	0.00407	mg/L	0.015940	0.00407	mg/L	0.015940	391.92%
As 188.979†	12.7	0.00875	mg/L	0.001682	0.00875	mg/L	0.001682	19.22%
B 249.677†	176.1	0.03459	mg/L	0.000831	0.03459	mg/L	0.000831	2.40%
Ba 233.527†	83.9	0.02126	mg/L	0.000508	0.02126	mg/L	0.000508	2.39%
Be 313.042†	1.9	0.00000	mg/L	0.000074	0.00000	mg/L	0.000074	>999.9%
Ca 317.933†	884065.6	59.04	mg/L	0.776	59.04	mg/L	0.776	1.31%
Cd 228.802†	-13.0	-0.00064	mg/L	0.000137	-0.00064	mg/L	0.000137	21.21%
Co 228.616†	28.0	0.00128	mg/L	0.000383	0.00128	mg/L	0.000383	29.97%
Cr 267.716†	19.7	0.00121	mg/L	0.001001	0.00121	mg/L	0.001001	82.53%
Cu 324.752†	1969.6	0.00674	mg/L	0.000289	0.00674	mg/L	0.000289	4.29%
Fe 273.955†	402.1	0.3273	mg/L	0.00894	0.3273	mg/L	0.00894	2.73%
K 766.490†	4912.1	4.049	mg/L	0.0648	4.049	mg/L	0.0648	1.60%
Mg 279.077†	18532.4	14.67	mg/L	0.330	14.67	mg/L	0.330	2.25%
Mn 257.610†	115024.6	3.113	mg/L	0.0430	3.113	mg/L	0.0430	1.38%
Mo 202.031†	70.3	0.00524	mg/L	0.000165	0.00524	mg/L	0.000165	3.15%
Na 589.592†	136608.9	11.28	mg/L	0.138	11.28	mg/L	0.138	1.23%
Na 330.237†	326.0	12.30	mg/L	0.622	12.30	mg/L	0.622	5.06%
Ni 231.604†	6.2	0.00270	mg/L	0.002182	0.00270	mg/L	0.002182	80.68%
Pb 220.353†	-14.8	-0.00319	mg/L	0.000737	-0.00319	mg/L	0.000737	23.09%
Sb 206.836†	-0.2	-0.00020	mg/L	0.002210	-0.00020	mg/L	0.002210	>999.9%
Se 196.026†	25.2	0.02928	mg/L	0.002913	0.02928	mg/L	0.002913	9.95%
Si 288.158†	20971.6	10.34	mg/L	0.236	10.34	mg/L	0.236	2.28%
Sn 189.927†	-14.6	-0.00401	mg/L	0.001149	-0.00401	mg/L	0.001149	28.67%
Sr 421.552†	165164.2	0.3059	mg/L	0.00405	0.3059	mg/L	0.00405	1.32%
Ti 334.903†	110.3	0.00159	mg/L	0.000268	0.00159	mg/L	0.000268	16.86%
Tl 190.801†	19.5	0.01801	mg/L	0.002201	0.01801	mg/L	0.002201	12.22%
V 292.402†	-12.0	0.00032	mg/L	0.000140	0.00032	mg/L	0.000140	43.66%
Zn 206.200†	4.6	0.00066	mg/L	0.000571	0.00066	mg/L	0.000571	86.29%

Sequence No.: 17  
 Sample ID: QF00 E TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 356  
 Date Collected: 1/18/2010 2:22:08 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 E TWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QF00 E TWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1813918.2	96.01	%	0.710				0.74%
ScR 361.383	262096.4	99.38	%	1.637				1.65%
Ag 328.068†	52.2	0.00033	mg/L	0.000234	0.00033	mg/L	0.000234	71.86%
Al 308.215†	13.5	0.00763	mg/L	0.002753	0.00763	mg/L	0.002753	36.08%
As 188.979†	24.3	0.02038	mg/L	0.002169	0.02038	mg/L	0.002169	10.64%
B 249.677†	134.3	0.02638	mg/L	0.000595	0.02638	mg/L	0.000595	2.26%
Ba 233.527†	94.6	0.02387	mg/L	0.000642	0.02387	mg/L	0.000642	2.69%
Be 313.042†	14.7	0.00002	mg/L	0.000012	0.00002	mg/L	0.000012	47.71%
Ca 317.933†	637726.1	42.59	mg/L	1.148	42.59	mg/L	1.148	2.69%
Cd 228.802†	-5.6	-0.00033	mg/L	0.000076	-0.00033	mg/L	0.000076	22.71%
Co 228.616†	21.5	0.00098	mg/L	0.000141	0.00098	mg/L	0.000141	14.32%
Cr 267.716†	20.1	0.00026	mg/L	0.000125	0.00026	mg/L	0.000125	47.46%
Cu 324.752†	650.0	0.00187	mg/L	0.000280	0.00187	mg/L	0.000280	14.98%
Fe 273.955†	33.9	0.02763	mg/L	0.002113	0.02763	mg/L	0.002113	7.65%
K 766.490†	7788.6	6.419	mg/L	0.1261	6.419	mg/L	0.1261	1.96%
Mg 279.077†	24293.0	19.24	mg/L	0.310	19.24	mg/L	0.310	1.61%
Mn 257.610†	4805.2	0.1298	mg/L	0.00227	0.1298	mg/L	0.00227	1.75%
Mo 202.031†	61.7	0.00473	mg/L	0.000460	0.00473	mg/L	0.000460	9.72%
Na 589.592†	170055.9	14.04	mg/L	0.355	14.04	mg/L	0.355	2.52%
Na 330.237†	400.4	15.10	mg/L	0.599	15.10	mg/L	0.599	3.97%
Ni 231.604†	4.1	0.00180	mg/L	0.001056	0.00180	mg/L	0.001056	58.72%
Pb 220.353†	-18.2	-0.00389	mg/L	0.000366	-0.00389	mg/L	0.000366	9.41%
Sb 206.836†	10.1	0.00515	mg/L	0.000923	0.00515	mg/L	0.000923	17.93%
Se 196.026†	13.0	0.01447	mg/L	0.002205	0.01447	mg/L	0.002205	15.24%
Si 288.158†	34155.3	16.84	mg/L	0.479	16.84	mg/L	0.479	2.85%
Sn 189.927†	-17.2	-0.00552	mg/L	0.001108	-0.00552	mg/L	0.001108	20.08%
Sr 421.552†	107184.5	0.1985	mg/L	0.00547	0.1985	mg/L	0.00547	2.75%
Ti 334.903†	66.8	0.00048	mg/L	0.000534	0.00048	mg/L	0.000534	112.21%
Tl 190.801†	16.7	0.01209	mg/L	0.002253	0.01209	mg/L	0.002253	18.64%
V 292.402†	13.9	0.00020	mg/L	0.000012	0.00020	mg/L	0.000012	5.72%
Zn 206.200†	3.3	0.00045	mg/L	0.000716	0.00045	mg/L	0.000716	159.38%

Sequence No.: 18  
 Sample ID: QF10 ADUP SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 357  
 Date Collected: 1/18/2010 2:26:01 PM  
 Data Type: Original

## Nebulizer Parameters: QF10 ADUP SWC

Analyte Back Pressure Flow  
 All 200.0 kPa 0.75 L/min

## Mean Data: QF10 ADUP SWC

Analyte	Mean Corrected			Std.Dev.	Sample			RSD
	Intensity	Conc.	Calib. Units		Conc.	Units	Std.Dev.	
ScA 357.253	1836001.4	97.18	%	0.601				0.62%
ScR 361.383	271757.6	103.0	%	1.93				1.88%
Ag 328.068†	-71.4	-0.00054	mg/L	0.000171	-0.00108	mg/L	0.000342	31.74%
Al 308.215†	193026.0	113.1	mg/L	3.43	226.2	mg/L	6.86	3.03%
As 188.979†	-146.2	0.03094	mg/L	0.005107	0.06189	mg/L	0.010214	16.51%
B 249.677†	72.9	0.01412	mg/L	0.002074	0.02824	mg/L	0.004148	14.69%
Ba 233.527†	2025.4	0.4841	mg/L	0.01030	0.9683	mg/L	0.02060	2.13%
Be 313.042†	1007.4	0.00135	mg/L	0.000060	0.00270	mg/L	0.000121	4.47%
Ca 317.933†	977757.1	65.30	mg/L	2.094	130.6	mg/L	4.19	3.21%
Cd 228.802†	45.4	0.00274	mg/L	0.000262	0.00548	mg/L	0.000524	9.56%
Co 228.616†	1863.4	0.06973	mg/L	0.001206	0.1395	mg/L	0.00241	1.73%
Cr 267.716†	2184.5	0.4206	mg/L	0.00847	0.8412	mg/L	0.01695	2.01%
Cu 324.752†	82246.9	0.3059	mg/L	0.00136	0.6118	mg/L	0.00272	0.44%
Fe 273.955†	222451.6	181.0	mg/L	5.64	362.1	mg/L	11.29	3.12%
K 766.490†	7717.0	6.360	mg/L	0.1977	12.72	mg/L	0.395	3.11%
Mg 279.077†	89433.0	70.75	mg/L	1.955	141.5	mg/L	3.91	2.76%
Mn 257.610†	82709.4	2.239	mg/L	0.0651	4.478	mg/L	0.1302	2.91%
Mo 202.031†	104.7	0.00813	mg/L	0.000539	0.01626	mg/L	0.001079	6.63%
Na 589.592†	45175.5	3.730	mg/L	0.1035	7.460	mg/L	0.2071	2.78%
Na 330.237†	55.7	3.925	mg/L	0.0588	7.850	mg/L	0.1177	1.50%
Ni 231.604†	749.0	0.3242	mg/L	0.00644	0.6485	mg/L	0.01288	1.99%
Pb 220.353†	2075.6	0.4506	mg/L	0.00371	0.9012	mg/L	0.00742	0.82%
Sb 206.836†	20.5	0.01675	mg/L	0.001518	0.03350	mg/L	0.003036	9.06%
Se 196.026†	26.0	0.02728	mg/L	0.007889	0.05456	mg/L	0.015778	28.92%
Si 288.158†	2635.2	1.299	mg/L	0.0195	2.598	mg/L	0.0390	1.50%
Sn 189.927†	-18.8	-0.00192	mg/L	0.002304	-0.00385	mg/L	0.004608	119.81%
Sr 421.552†	158416.9	0.2934	mg/L	0.00935	0.5868	mg/L	0.01869	3.19%
Ti 334.903†	152700.3	7.985	mg/L	0.2315	15.97	mg/L	0.463	2.90%
Tl 190.801†	-26.6	0.00976	mg/L	0.002390	0.01953	mg/L	0.004779	24.47%
V 292.402†	35047.7	0.4065	mg/L	0.00112	0.8131	mg/L	0.00224	0.28%
Zn 206.200†	1371.8	1.179	mg/L	0.0210	2.359	mg/L	0.0420	1.78%

Sequence No.: 19  
Sample ID: QF10 A SWC  
Analyst: ALA  
Dilution: 2X

Autosampler Location: 358  
Date Collected: 1/18/2010 2:29:40 PM  
Data Type: Original

Nebulizer Parameters: QF10 A SWC

Analyte Back Pressure Flow  
All 199.0 kPa 0.75 L/min

Mean Data: QF10 A SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1859577.4	98.43	%	0.234			0.24%
ScR 361.383	268791.3	101.9	%	1.09			1.07%
Ag 328.068†	-41.3	-0.00030	mg/L	0.000135	-0.00059 mg/L	0.000269	45.48%
Al 308.215†	180521.7	105.8	mg/L	0.27	211.5 mg/L	0.55	0.26%
As 188.979†	-166.6	0.02528	mg/L	0.002777	0.05055 mg/L	0.005553	10.99%
B 249.677†	150.9	0.02948	mg/L	0.001324	0.05895 mg/L	0.002647	4.49%
Ba 233.527†	1701.8	0.4052	mg/L	0.00683	0.8105 mg/L	0.01366	1.69%
Be 313.042†	1196.3	0.00168	mg/L	0.000040	0.00336 mg/L	0.000081	2.40%
Ca 317.933†	1011834.1	67.57	mg/L	0.318	135.1 mg/L	0.64	0.47%
Cd 228.802†	42.8	0.00265	mg/L	0.000057	0.00529 mg/L	0.000114	2.16%
Co 228.616†	1677.5	0.06033	mg/L	0.000509	0.1207 mg/L	0.00102	0.84%
Cr 267.716†	1635.2	0.3169	mg/L	0.00320	0.6339 mg/L	0.00639	1.01%
Cu 324.752†	51615.8	0.1950	mg/L	0.00253	0.3899 mg/L	0.00507	1.30%
Fe 273.955†	204113.4	166.1	mg/L	0.71	332.2 mg/L	1.42	0.43%
K 766.490†	7903.6	6.514	mg/L	0.0639	13.03 mg/L	0.128	0.98%
Mg 279.077†	63830.6	50.48	mg/L	0.245	101.0 mg/L	0.49	0.48%
Mn 257.610†	78595.0	2.128	mg/L	0.0107	4.255 mg/L	0.0214	0.50%
Mo 202.031†	110.2	0.00857	mg/L	0.000350	0.01714 mg/L	0.000700	4.08%
Na 589.592†	44420.1	3.668	mg/L	0.0206	7.336 mg/L	0.0413	0.56%
Na 330.237†	51.1	3.920	mg/L	0.2096	7.841 mg/L	0.4191	5.35%
Ni 231.604†	593.1	0.2567	mg/L	0.00320	0.5135 mg/L	0.00641	1.25%
Pb 220.353†	1211.9	0.2655	mg/L	0.00154	0.5310 mg/L	0.00308	0.58%
Sb 206.836†	10.6	0.01326	mg/L	0.005432	0.02652 mg/L	0.010863	40.97%
Se 196.026†	25.2	0.02741	mg/L	0.005256	0.05482 mg/L	0.010512	19.18%
Si 288.158†	3078.8	1.518	mg/L	0.0089	3.036 mg/L	0.0179	0.59%
Sn 189.927†	-17.5	-0.00104	mg/L	0.002118	-0.00208 mg/L	0.004236	203.20%
Sr 421.552†	123029.2	0.2279	mg/L	0.00085	0.4557 mg/L	0.00171	0.37%
Ti 334.903†	164566.4	8.606	mg/L	0.0388	17.21 mg/L	0.078	0.45%
Tl 190.801†	-19.2	0.01280	mg/L	0.004500	0.02560 mg/L	0.009001	35.16%
V 292.402†	31954.6	0.3695	mg/L	0.00395	0.7391 mg/L	0.00789	1.07%
Zn 206.200†	1346.2	1.158	mg/L	0.0180	2.315 mg/L	0.0361	1.56%

Sequence No.: 20  
 Sample ID: QF10 ASPK SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 359  
 Date Collected: 1/18/2010 2:33:19 PM  
 Data Type: Original

## Nebulizer Parameters: QF10 ASPK SWC

Analyte Back Pressure Flow  
 All 200.0 kPa 0.75 L/min

## Mean Data: QF10 ASPK SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
ScA 357.253	1826721.6		96.69 %	0.524				0.54%
ScR 361.383	269166.0		102.1 %	1.65				1.61%
Ag 328.068†	73523.3		0.4986 mg/L	0.00274	0.9973 mg/L	0.00547		0.55%
Al 308.215†	206343.4		120.9 mg/L	1.67	241.7 mg/L	3.34		1.38%
As 188.979†	1947.9		1.968 mg/L	0.0047	3.936 mg/L	0.0094		0.24%
B 249.677†	83.8		0.01514 mg/L	0.001753	0.03028 mg/L	0.003506		11.58%
Ba 233.527†	9522.4		2.351 mg/L	0.0424	4.701 mg/L	0.0848		1.80%
Be 313.042†	282198.5		0.4705 mg/L	0.00534	0.9411 mg/L	0.01069		1.14%
Ca 317.933†	1169555.9		78.11 mg/L	0.866	156.2 mg/L	1.73		1.11%
Cd 228.802†	11444.7		0.5252 mg/L	0.00278	1.050 mg/L	0.0056		0.53%
Co 228.616†	12204.4		0.5462 mg/L	0.00250	1.092 mg/L	0.0050		0.46%
Cr 267.716†	3602.2		0.6970 mg/L	0.00985	1.394 mg/L	0.0197		1.41%
Cu 324.752†	209066.9		0.7632 mg/L	0.00558	1.526 mg/L	0.0112		0.73%
Fe 273.955†	246422.6		200.5 mg/L	2.54	401.1 mg/L	5.08		1.27%
K 766.490†	19826.4		16.34 mg/L	0.298	32.68 mg/L	0.597		1.83%
Mg 279.077†	76902.2		60.81 mg/L	0.953	121.6 mg/L	1.91		1.57%
Mn 257.610†	93731.2		2.538 mg/L	0.0311	5.076 mg/L	0.0622		1.22%
Mo 202.031†	98.5		0.00741 mg/L	0.000052	0.01481 mg/L	0.000103		0.70%
Na 589.592†	186050.5		15.36 mg/L	0.202	30.72 mg/L	0.404		1.32%
Na 330.237†	395.7		16.58 mg/L	0.326	33.16 mg/L	0.652		1.97%
Ni 231.604†	1647.3		0.7131 mg/L	0.01222	1.426 mg/L	0.0244		1.71%
Pb 220.353†	10805.8		2.320 mg/L	0.0123	4.639 mg/L	0.0246		0.53%
Sb 206.836†	19.6		0.01555 mg/L	0.000822	0.03110 mg/L	0.001643		5.28%
Se 196.026†	1643.0		1.961 mg/L	0.0094	3.922 mg/L	0.0189		0.48%
Si 288.158†	2841.8		1.403 mg/L	0.0208	2.806 mg/L	0.0415		1.48%
Sn 189.927†	131.9		0.05830 mg/L	0.000816	0.1166 mg/L	0.00163		1.40%
Sr 421.552†	434589.9		0.8049 mg/L	0.01157	1.610 mg/L	0.0231		1.44%
Ti 334.903†	149651.7		7.825 mg/L	0.1063	15.65 mg/L	0.213		1.36%
Tl 190.801†	2576.3		1.865 mg/L	0.0096	3.730 mg/L	0.0192		0.52%
V 292.402†	73607.6		0.8770 mg/L	0.00966	1.754 mg/L	0.0193		1.10%
Zn 206.200†	1996.1		1.719 mg/L	0.0261	3.438 mg/L	0.0522		1.52%



Sequence No.: 21  
 Sample ID: QF10 MB1SPK SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 360  
 Date Collected: 1/18/2010 2:36:45 PM  
 Data Type: Original

## Nebulizer Parameters: QF10 MB1SPK SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QF10 MB1SPK SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
ScA 357.253	1828943.5		96.80 %	0.895				0.92%
ScR 361.383	266318.0		101.0 %	0.65				0.65%
Ag 328.068†	78204.4		0.5304 mg/L	0.00624	1.061 mg/L	0.0125		1.18%
Al 308.215†	3723.3		2.171 mg/L	0.0093	4.343 mg/L	0.0185		0.43%
As 188.979†	2108.2		1.954 mg/L	0.0256	3.908 mg/L	0.0511		1.31%
B 249.677†	2.2		-0.00070 mg/L	0.000084	-0.00140 mg/L	0.000168		11.95%
Ba 233.527†	7294.7		1.818 mg/L	0.0093	3.636 mg/L	0.0186		0.51%
Be 313.042†	273378.1		0.4561 mg/L	0.00254	0.9123 mg/L	0.00508		0.56%
Ca 317.933†	148472.2		9.916 mg/L	0.0456	19.83 mg/L	0.091		0.46%
Cd 228.802†	11083.4		0.5078 mg/L	0.00629	1.016 mg/L	0.0126		1.24%
Co 228.616†	10524.8		0.4849 mg/L	0.00523	0.9698 mg/L	0.01046		1.08%
Cr 267.716†	2364.1		0.4550 mg/L	0.00361	0.9101 mg/L	0.00723		0.79%
Cu 324.752†	139848.3		0.5020 mg/L	0.00597	1.004 mg/L	0.0119		1.19%
Fe 273.955†	2450.9		1.992 mg/L	0.0083	3.984 mg/L	0.0165		0.41%
K 766.490†	11816.6		9.739 mg/L	0.0231	19.48 mg/L	0.046		0.24%
Mg 279.077†	11929.4		9.449 mg/L	0.0512	18.90 mg/L	0.102		0.54%
Mn 257.610†	15845.7		0.4293 mg/L	0.00119	0.8586 mg/L	0.00237		0.28%
Mo 202.031†	22.4		0.00180 mg/L	0.000411	0.00360 mg/L	0.000822		22.82%
Na 589.592†	115403.3		9.529 mg/L	0.0388	19.06 mg/L	0.078		0.41%
Na 330.237†	283.1		10.57 mg/L	0.189	21.14 mg/L	0.378		1.79%
Ni 231.604†	1086.4		0.4703 mg/L	0.00398	0.9407 mg/L	0.00796		0.85%
Pb 220.353†	9172.7		1.964 mg/L	0.0231	3.929 mg/L	0.0462		1.18%
Sb 206.836†	1.2		-0.00252 mg/L	0.000885	-0.00504 mg/L	0.001770		35.12%
Se 196.026†	1633.2		1.952 mg/L	0.0186	3.904 mg/L	0.0372		0.95%
Si 288.158†	33.5		0.01849 mg/L	0.009525	0.03698 mg/L	0.019051		51.52%
Sn 189.927†	-5.4		-0.00186 mg/L	0.001628	-0.00371 mg/L	0.003256		87.67%
Sr 421.552†	254013.3		0.4705 mg/L	0.00164	0.9410 mg/L	0.00328		0.35%
Ti 334.903†	266.5		0.01309 mg/L	0.000228	0.02619 mg/L	0.000456		1.74%
Tl 190.801†	2709.4		1.929 mg/L	0.0197	3.858 mg/L	0.0395		1.02%
V 292.402†	40178.2		0.4927 mg/L	0.00387	0.9853 mg/L	0.00774		0.79%
Zn 206.200†	553.3		0.4784 mg/L	0.00351	0.9568 mg/L	0.00702		0.73%

Sequence No.: 22  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 7  
 Date Collected: 1/18/2010 2:40:24 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected			Std.Dev.	Sample		RSD
	Intensity	Conc.	Calib. Units		Conc.	Units	
ScA 357.253	1763066.4	93.32	%	1.049			1.12%
ScR 361.383	257459.4	97.62	%	0.336			0.34%
Ag 328.068†	153638.6	1.042	mg/L	0.0143	1.042	mg/L	0.0143
Al 308.215†	3674.8	2.119	mg/L	0.0129	2.119	mg/L	0.0129
As 188.979†	2152.9	2.016	mg/L	0.0186	2.016	mg/L	0.0186
B 249.677†	5112.8	1.003	mg/L	0.0054	1.003	mg/L	0.0054
Ba 233.527†	3893.7	0.9699	mg/L	0.00301	0.9699	mg/L	0.00301
Be 313.042†	580543.5	0.9686	mg/L	0.00228	0.9686	mg/L	0.00228
Ca 317.933†	31356.2	2.094	mg/L	0.0078	2.094	mg/L	0.0078
Cd 228.802†	22921.0	1.057	mg/L	0.0149	1.057	mg/L	0.0149
Co 228.616†	22102.4	1.017	mg/L	0.0141	1.017	mg/L	0.0141
Cr 267.716†	5010.5	0.9673	mg/L	0.00397	0.9673	mg/L	0.00397
Cu 324.752†	294533.9	1.056	mg/L	0.0129	1.056	mg/L	0.0129
Fe 273.955†	2634.3	2.138	mg/L	0.0125	2.138	mg/L	0.0125
K 766.490†	24990.5	20.60	mg/L	0.177	20.60	mg/L	0.177
Mg 279.077†	2683.4	2.131	mg/L	0.0045	2.131	mg/L	0.0045
Mn 257.610†	33807.6	0.9156	mg/L	0.00393	0.9156	mg/L	0.00393
Mo 202.031†	11792.3	1.021	mg/L	0.0107	1.021	mg/L	0.0107
Na 589.592†	605837.0	50.02	mg/L	0.156	50.02	mg/L	0.156
Na 330.237†	1428.0	53.90	mg/L	0.508	53.90	mg/L	0.508
Ni 231.604†	2313.0	1.003	mg/L	0.0040	1.003	mg/L	0.0040
Pb 220.353†	9801.3	2.099	mg/L	0.0196	2.099	mg/L	0.0196
Sb 206.836†	3987.9	2.086	mg/L	0.0190	2.086	mg/L	0.0190
Se 196.026†	1684.0	2.013	mg/L	0.0245	2.013	mg/L	0.0245
Si 288.158†	4503.7	2.224	mg/L	0.0287	2.224	mg/L	0.0287
Sn 189.927†	2579.7	1.027	mg/L	0.0066	1.027	mg/L	0.0066
Sr 421.552†	540368.5	1.001	mg/L	0.0035	1.001	mg/L	0.0035
Ti 334.903†	20366.6	1.064	mg/L	0.0034	1.064	mg/L	0.0034
Tl 190.801†	2864.4	2.040	mg/L	0.0166	2.040	mg/L	0.0166
V 292.402†	85657.4	1.051	mg/L	0.0127	1.051	mg/L	0.0127
Zn 206.200†	1148.9	0.9941	mg/L	0.00089	0.9941	mg/L	0.00089

Sequence No.: 23  
Sample ID: CB  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 1  
Date Collected: 1/18/2010 2:44:04 PM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 199.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1802221.3	95.39	%	1.465				1.54%
ScR 361.383	255557.9	96.90	%	0.228				0.23%
Ag 328.068†	-12.0	-0.00008	mg/L	0.000080	-0.00008	mg/L	0.000080	98.42%
Al 308.215†	10.6	0.00623	mg/L	0.009032	0.00623	mg/L	0.009032	144.87%
As 188.979†	-1.2	-0.00111	mg/L	0.001221	-0.00111	mg/L	0.001221	109.59%
B 249.677†	10.4	0.00205	mg/L	0.000362	0.00205	mg/L	0.000362	17.71%
Ba 233.527†	-0.1	-0.00002	mg/L	0.000346	-0.00002	mg/L	0.000346	>999.9%
Be 313.042†	58.4	0.00010	mg/L	0.000062	0.00010	mg/L	0.000062	63.68%
Ca 317.933†	29.1	0.00195	mg/L	0.001367	0.00195	mg/L	0.001367	70.28%
Cd 228.802†	-1.8	-0.00008	mg/L	0.000147	-0.00008	mg/L	0.000147	186.24%
Co 228.616†	7.0	0.00033	mg/L	0.000299	0.00033	mg/L	0.000299	91.91%
Cr 267.716†	-1.7	-0.00032	mg/L	0.001035	-0.00032	mg/L	0.001035	318.50%
Cu 324.752†	123.6	0.00044	mg/L	0.000279	0.00044	mg/L	0.000279	62.89%
Fe 273.955†	1.8	0.00147	mg/L	0.002748	0.00147	mg/L	0.002748	187.17%
K 766.490†	-37.1	-0.03060	mg/L	0.007719	-0.03060	mg/L	0.007719	25.22%
Mg 279.077†	7.8	0.00615	mg/L	0.003841	0.00615	mg/L	0.003841	62.48%
Mn 257.610†	4.1	0.00011	mg/L	0.000015	0.00011	mg/L	0.000015	13.02%
Mo 202.031†	5.8	0.00050	mg/L	0.000241	0.00050	mg/L	0.000241	47.79%
Na 589.592†	-13.3	-0.00110	mg/L	0.003949	-0.00110	mg/L	0.003949	358.79%
Na 330.237†	-6.8	-0.2556	mg/L	0.14682	-0.2556	mg/L	0.14682	57.44%
Ni 231.604†	1.4	0.00061	mg/L	0.001443	0.00061	mg/L	0.001443	238.45%
Pb 220.353†	6.0	0.00128	mg/L	0.000463	0.00128	mg/L	0.000463	36.26%
Sb 206.836†	7.2	0.00373	mg/L	0.001051	0.00373	mg/L	0.001051	28.14%
Se 196.026†	-2.8	-0.00337	mg/L	0.001309	-0.00337	mg/L	0.001309	38.82%
Si 288.158†	1.1	0.00053	mg/L	0.003612	0.00053	mg/L	0.003612	676.99%
Sn 189.927†	-0.6	-0.00023	mg/L	0.000761	-0.00023	mg/L	0.000761	335.67%
Sr 421.552†	-27.0	-0.00005	mg/L	0.000079	-0.00005	mg/L	0.000079	158.53%
Ti 334.903†	-8.5	-0.00045	mg/L	0.000713	-0.00045	mg/L	0.000713	159.61%
Tl 190.801†	2.7	0.00193	mg/L	0.003417	0.00193	mg/L	0.003417	177.23%
V 292.402†	-10.5	-0.00013	mg/L	0.000431	-0.00013	mg/L	0.000431	334.48%
Zn 206.200†	-0.4	-0.00036	mg/L	0.001657	-0.00036	mg/L	0.001657	460.57%

*end pkg*

Metals Analysis  
Prep Logs

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.

**SPIKING LOG**

Analyst: PM

Date: 01-12-10

Final Volume 50

Final Volume (Hg): \_\_\_\_\_

Sample ID QF10 ASPX, MB15PX

QES6 ASPX, MB15PX

Prepcode:	Spk	ICP	ICP	GFA
Spike Solution:	Routine	No	No	
Standard No.:	2024-11			
Vol Added (mL):	1.0			
Ag	50			2.0
Al	200	200		
As	200 ✓		10	
Ba	200	200		
Be	50	50		
Ca	1000	1000		
Cd	50		2.0	
Co	50	50		
Cr	50	50		
Cu	50	50		
Fe	200	200		
K	1000	1000		
Mg	1000	1000		
Mn	50	50		
Na	1000	1000		
Ni	50	50		
Pb	200 ✓		10	
Se	200		10	
Sr	50	50		
Tl	200		10	
V	50	50		
Zn	50	50		

ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25	
Al		500
As	25	
Ba	25	
Be	25	
Ca		500
Cd	25	
Co	25	
Cr	25	
Cu	25	
Fe		500
K		500
Mg		500
Mn	25	
Mo		25
Na		
Ni	25	
Pb	25	
Sb		25
Se	80	
Tl	25	
U	25	
V	25	
Zn	80	

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

QF 10 : 0070



# Digestion Log

Analyst: DM  
Matrix: Soil

Date: 1-12-10  
Block Temp: 90°C

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SNC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
QE75 A	1	-	1.037	50.0	1.054	50.0	
" MBI	-	-	-		-	50.0	
" MBSPK	-	-	-		-	50.0	
QE10 A	11	-	1.058				
" ADVP	11	-	1.061				
" ASPK	11	-	1.023				
" B	6	-	1.017				
" MBI	-	-	-				
" MBSPK	-	-	-				
QE56 B	5	-	1.045				
" BDVP	5	-	1.048				
" BSPK	5	-	1.046				
" C	5	-	1.032				
" D	5	-	1.022				
" MBI	-	-	-				
" MBSPK	-	-	-	50.0			
QE94 B	1	-			1.062	50.0	
" MB	-	-			-	50.0	
" MBSPK	-	-			-	50.0	

Chemical/Reagent ID:

HNO<sub>3</sub>: MP1812/IS271 HCl: I4949 H<sub>2</sub>O<sub>2</sub>: IS135 Tube Lot #: AP0945164



# Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07

Balance ID: 068755

Samples in Oven: Date: 1-12-10 Time: 2215 Temp: 103°C Analyst: DM

Removed from Oven: Date: 1-13-10 Time: 2130 Temp: 102°C Analyst: DM

Source of Total Solids Data If From A Different Lab: -

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs <sup>1</sup>
QE75 A	0.974	3.035	1.392	-	✓
QF10 A	0.966	10.131	8.198	-	✓
" B	0.967	10.572	8.504	-	✓
QES6 B	0.985	10.642	3.001	-	✓
" C	0.966	10.234	2.796	-	✓
" D	1.004	10.658	2.996	-	✓
QE94 B	1.016	10.459	9.619	-	✓
QE92 A	0.989	10.365	8.659	-	✓
" C	0.982	10.392	8.845	-	✓
" E	0.961	10.914	9.639	-	✓
" G	0.957	10.181	9.107	-	✓
" I	0.981	10.522	9.520	-	✓
" K	1.002	10.201	9.313	-	✓
" P	0.997	10.438	9.877	-	✓
" R	0.975	10.451	9.773	-	✓
1-12-10 DM					

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2<sup>nd</sup> bench sheet for additional weightings.



# CORRECTIVE ACTIONS - Inorganic Analyses

ARI Project No.: <u>QF10</u>	<b>Criteria Flagged</b> Client Name: <u>Floyd Snider</u>				
Date of Out-of-Control Event: <u>1-18-10</u>	Method/Element: <u>ICP</u>				
Unacceptable Blank Unacceptable Duplicate Unacceptable Spike Unacceptable Reference	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px; text-align: center;">✓</td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> </table>		✓		
✓					
	Prep Code: <u>SWC</u> Other: _____ _____				
<b>Details of Problem/Recommended Corrective Action:</b>					
<u>high RPD for Pb in A, A Day</u> <u>A 0.2655 ppm Pb</u> <u>A Day 0.450e ppm Pb 51% RPD</u> <u>run twice</u>					
<b>Samples Affected:</b> _____ _____ _____					
<b>Corrective Action Taken:</b> <u>SWC</u> _____ _____ _____ _____ _____ _____ _____					

Analyst: [Signature]  
 Date: 1-19-10

Supervisor: [Signature]  
 Date: 1.19.10



General Chemistry Analysis  
QC Summary Data

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.

MS/MSD RESULTS-CONVENTIONALS  
QF10-Floyd-Snider



Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 01/15/10

Project: POS-Lora Lake Apts Interim A  
Event: POS-LLA  
Date Sampled: 01/11/10  
Date Received: 01/12/10

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
---------	------	-------	--------	-------	-------------	----------

ARI ID: QF10A Client ID: CB31A011110SED

Total Organic Carbon	01/13/10	Percent	3.38	6.38	3.20	93.9%
----------------------	----------	---------	------	------	------	-------

REPLICATE RESULTS-CONVENTIONALS  
QF10-Floyd-Snider



Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 01/15/10

Project: POS-Lora Lake Apts Interim A  
Event: POS-LLA  
Date Sampled: 01/11/10  
Date Received: 01/12/10

Analyte	Date	Units	Sample	Replicate (s)	RPD/RSD
ARI ID: QF10A Client ID: CB31A011110SED					
Total Solids	01/12/10	Percent	83.20	84.30 84.00	0.7%
Total Organic Carbon	01/13/10	Percent	3.38	3.25 3.71	6.9%

LAB CONTROL RESULTS-CONVENTIONALS  
QF10-Floyd-Snider



Matrix: Soil  
Data Release Authorized:  
Reported: 01/15/10

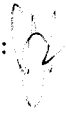
Project: POS-Lora Lake Apts Interim A  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb, 1981	ICVL	01/13/10	Percent	0.099	0.100	99.0%

METHOD BLANK RESULTS-CONVENTIONALS  
QF10-Floyd-Snider



Matrix: Soil  
Data Release Authorized:  
Reported: 01/15/10



Project: POS-Lora Lake Apts Interim A  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	01/12/10	Percent	< 0.01 U
Total Organic Carbon	01/13/10	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS  
QF10-Floyd-Snider



Matrix: Soil  
Data Release Authorized: [Signature]  
Reported: 01/15/10

Project: POS-Lora Lake Apts Interim A  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST #8704	01/13/10	Percent	3.50	3.35	104.5%

General Chemistry Analysis  
Sample Data

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.

QF10:00801

SAMPLE RESULTS-CONVENTIONALS  
QF10-Floyd-Snider



Matrix: Soil  
Data Release Authorized  
Reported: 01/15/10



Project: POS-Lora Lake Apts Interim A  
Event: POS-LLA  
Date Sampled: 01/11/10  
Date Received: 01/12/10

Client ID: CB31A011110SED  
ARI ID: 10-690 QF10A

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/12/10 011210#1	EPA 160.3	Percent	0.01	83.20
Total Organic Carbon	01/13/10 011310#1	Plumb, 1981	Percent	0.020	3.38

RL Analytical reporting limit  
U Undetected at reported detection limit



SAMPLE RESULTS-CONVENTIONALS  
QF10-Floyd-Snider



Matrix: Soil  
Data Release Authorized:  
Reported: 01/15/10

A handwritten signature in black ink, appearing to be 'Floyd Snider', written over the 'Data Release Authorized' text.

Project: POS-Lora Lake Apts Interim A  
Event: POS-LLA  
Date Sampled: 01/11/10  
Date Received: 01/12/10

Client ID: CB99011110SED  
ARI ID: 10-691 QF10B

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/12/10 011210#1	EPA 160.3	Percent	0.01	84.10
Total Organic Carbon	01/13/10 011310#1	Plumb,1981	Percent	0.020	3.63

RL Analytical reporting limit  
U Undetected at reported detection limit

General Chemistry Analysis  
Instrument Raw Data

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.

W  
1-13-10

TOC Solids Prep Log						DATE:	1/12/2010
<i>acid purging to remove IC and drying at 70°C for TOC analysis</i> <i>General notes regarding prep method and samples (identify the acid used)</i>						ANALYST:	CDE 17:14
<i>make no entry to shaded cells, they are calculated</i>							
Sample ID		IC Test + / -	Gravimetric Data (grams)			% Solids	Sample description & notes (homogeneity and exclusions)
ARI #	Client		Tare Wt.	Wet wt.	70°C dry wt		
Blank			12.7988	0.0000	12.7989	0.1 mg	
QF10 A10		-	12.8277	18.0653	17.2835	85.07%	
QF10 A10 DUP		-	12.8037	18.3392	17.5080	84.98%	
QF10 A10 TRIP		-	12.8185	18.0999	17.2405	83.73%	
QF10 B5		-	12.6989	19.0824	17.9616	82.44%	

27  
1-14-1

**TOC, Solids Data Analysis**

DATE: 1/13/2009

Instrument: Apollo 2

ANALYST: KE 10:32

Mode: NPOC Inlet: Boat

Spike Std = 2,500 ppm C

**Calibration Data**

Cal Curve ID: **CAL 123009**

Conc: 5,000 ppm

Calibration Curve Standard: **ARI # 0089-09**

Curve Date: **01/04/10**

CalFact: 2.464E+05 intercept: -186,465

r2: 0.99965

Curve Range (µgC): **8 to 100**

**Verification Standard**

Source: **ERA# 0506-09-01**

Conc: **5,000 ppm**

dilution: 10 mL to 50

**1,000 ppm**

**Standard Reference Material**

Source: **NIST 8704**

Conc: **33,510 ppm**

**Silica Blanks**

Replicate determinations					Mean	RSD	condition
69.0	73.0	62.0			68.0	8.2%	OK

**Sample Data**

"C corr" (with dilution) = ("C obs" - (Mean silica Blank \* %Silica)) \* Dilution Factor

Sample ID	Dilution Data				Spike (µL Std)	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor		Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
ICV				1.00		40.0	990	990	99.00%
Blank				1.00		40.0	20.64	21	Blank OK
NIST 8704				1.00		1.6	35015	35,015	104.49%
SB 1				1.00		20.9	68.88	69	Low, increase wt
SB 2				1.00		20.2	72.71	73	Low, increase wt
SB 3				1.00		20.4	62.29	62	Low, increase wt
QE79 A4	10.7	100.1	89.31%	9.36		2.1	12031	111,984	Range OK!
QE79 A4 dup	10.3	100.9	89.79%	9.80		2.0	11704	114,056	RPD=1.8%
QE79 A4 trp	10.1	100.1	89.91%	9.91		2.0	13617	134,351	RSD=10.3%
QE79 A4 ms	10.7	100.1	89.31%	9.36	10	1.9	26203	244,565	Range OK!
Spike = 0.025 mg C to 0.2 mg samp= 123,094 ppm 108%									
QE79 B4	10.1	100.7	89.97%	9.97		2.1	13759	136,571	Range OK!
QE79 C4	10.1	100.2	89.92%	9.92		2.1	12714	125,526	Range OK!
CCV				1.00		40.0	1047	1,047	104.70%
Blank				1.00		40.0	20.09	20	Blank OK
QE56 B6	10.5	100.5	89.55%	9.57		2.1	28157	268,920	Range OK!
QE56 B6 dup	10.5	100.6	89.56%	9.58		2.1	18749	179,050	RPD=40.1%
QE56 B6 dup	10.5	100.6	89.56%	9.58		2.1	28872	276,038	RPD=2.6%
QE56 B6 trp	10.0	100.4	90.04%	10.04		2.1	20637	206,581	RSD=15.3%
QE56 B6 ms	10.5	100.5	89.55%	9.57	20	1.8	51225	489,714	Range OK!
Spike = 0.05 mg C to 0.2 mg samp= 265,873 ppm 83%									
QE56 C6	10.6	100.7	89.47%	9.50		2.0	19084	180,720	Range OK!
QE56 D6	10.8	100.8	89.29%	9.33		2.3	17478	162,561	Range OK!
CCV				1.00		40.0	306	306	Low, increase wt
CCV				1.00		40.0	248	248	Low, increase wt
CCV				1.00		40.0	956	956	95.60%
Blank				1.00		40.0	25.67	26	Blank OK
QF10 A10				1.00		1.7	33060	33,060	Range OK!

<b>Sample Data</b>									
<i>"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor</i>									
Sample ID	Dilution Data				Spike ( $\mu$ L Std)	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor		Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
QF10 A10 dup				1.00		1.7	31803	31,803	RPD=3.9%
QF10 A10 trp				1.00		1.8	36300	36,300	RSD=6.9%
QF10 A10 ms				1.00	20	1.6	62388	62,388	Range OK!
Spike = 0.05		mg C to		1.6	mg samp=	31,250	ppm	94%	
QF10 B5				1.00		1.7	37021	37,021	Range OK!
NIST 8704				1.00		1.7	32617	32,617	97.34%
CCV				1.00		40.0	1041	1,041	104.10%
Blank				1.00		40.0	47.33	47	Blank OK

1-13-10

**TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET**

**SOLIDS** (dry at 104 (12-24 hr) then combust at 550 (30 min)) DATE: 1/12/2010 ANALYST: CDE 17:06

**Instrumentation** Drying Ovens: 12 Analytical Balance: 1123230597 Muffle Furnace: 62790918520

**Batch drying time**  
 record times as mm/dd/yy hh:mm  
 date/time in oven  
 date/time out  
 elapsed hrs = 0.0 < 12 hr

**TS (%) calculated as:**  
 Final dry wt (g) = (Dry Wt - Tare Wt)  
 TS = (Final Dry Wt) / (grams Sample-Tare)

**TVS (mg/kg dry wt) calculated as:**  
 Final ash wt (g) = (min ash wt - tare wt)  
 TVS (mg/kg) = ((Dry wt-Ash wt) / (dry weight)) \* 1,000,000  
 if ash wt > dry wt, "Chk for Err"  
 if dry wt-ash wt < 0.001 g, "< (1/dry wt) \* 1,000,000"

SAMPLE ID	DISH #	Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	DRY WT 104C (grams)		dry Wt (g)	TS (%)	ASH WT 550C (grams)		Ash Wt (g)	TVS (mg/kg) (%)
								TARE WT (grams)	1			2	1		
Blank		10.0000	1/12/10 16:43	1/12/10 15:31	1/13/10 10:16	10.0000	10.0000	1.1110	1.1109	0.00		1.1108	1.1109	0.00	
QF03 B1		6.0117		1.1505	5.3662					4.22	86.7%				
QF03 B1 dup		6.4660		1.1059	5.5111					4.41	82.2%				
RPD = 5.37%															
QF03 D1		6.2050		1.1158	4.9388					3.82	75.1%				
QF10 A10		6.3102		1.0938	5.4338					4.34	83.2%				
QF10 A10 dup		6.6065		1.1000	5.7428					4.64	84.3%				
RPD = 1.33%															
QF10 A10 trp		7.0600		1.1489	6.1127					4.96	84.0%				
RSD = 0.68%															
QF10 B5		6.8107		1.1300	5.9098					4.78	84.1%				
QF12 A1		7.2064		1.1380	5.5186					4.38	72.2%	5.3964	5.3934	4.26	28.581
QF12 A1 dup		7.8871		1.1135	5.7635					4.65	68.6%	5.4859	5.4838	4.37	60.151
RPD = 5.02%															
QF12 A1 trp		7.2234		1.1258	5.3758					4.25	69.7%	5.1981	5.1963	4.07	42.235
RSD = 2.59%															
RPD = 71.16%															
RSD = 36.27%															

Subcontracted Results  
Dioxin/Furans 1613(Sub) Analyzed by Frontier Analytical Laboratory

prepared  
for

Floyd-Snider

Project: POS-Lora Lake Apts Interim Action, POS-LLA

ARI JOB NO: QF10

prepared  
by

Analytical Resources, Inc.



January 26, 2010

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

Dear Ms. Dunnihoo,

Attached are the results for Frontier Analytical Laboratory project **5914**. This corresponds to your **POS-Lora Lake Apts Interim Action** project under ARI project number **QF10**. Two soil samples were received on 1/13/2010 in good condition. These samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The toxic equivalents (TEQ) for your samples were calculated using the 2005 World Health Organizations toxic equivalent factors. Analytical Resources Incorporated requested a level IV data package, an electronic disk deliverable (EDD) and a turnaround time of fifteen business days for project **5914**.

The following level IV report consists of an Analytical Data section, a Sample Receipt section, a Laboratory Raw Data section, and an Instrument Raw Data section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of 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. You also requested Electronic Data Deliverables (EDD) for this project. The EDD and Level I summary have been sent to you via email, per your request. A hardcopy of the Level IV data package and compact disk have been sent to you via OnTrac. 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 **5914**, please contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

A handwritten signature in black ink that reads "Daniel P. Vickers".

Daniel P. Vickers  
Vice President

**FRONTIER ANALYTICAL LABORATORY**  
5172 Hillside Circle • El Dorado Hills, CA 95762  
Tel (916) 934-0900 • Fax (916) 934-0999  
[www.frontieranalytical.com](http://www.frontieranalytical.com)

000001 of 000296

QF10:00010



## Frontier Analytical Laboratory

### Sample Tracking Log

FAL Project ID: **5914**

Received on: **01/13/2010**

Project Due: **02/04/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5914-001-SA	1	QF10	CB31A011110SED	EPA 1613 D/F	Soil	01/11/2010	10:00 am	01/11/2011
5914-002-SA	0	QF10	CB99011110SED	EPA 1613 D/F	Soil	01/11/2010	10:30 am	01/11/2011

EPA Method 1613  
PCDD/F



FAL ID: 5914-001-MB  
Client ID: Method Blank  
Matrix: Soil  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: NA  
Amount: 5.00 g

ICal: pcdffal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.155		-	0.0252				
1,2,3,7,8-PeCDD	ND	0.218		-	0.0457				
1,2,3,4,7,8-HxCDD	ND	0.274		-	0.0496				
1,2,3,6,7,8-HxCDD	ND	0.320		-	0.0680	Total TCDD	ND	0.256	
1,2,3,7,8,9-HxCDD	ND	0.294		-	0.0666	Total PeCDD	ND	0.218	
1,2,3,4,6,7,8-HpCDD	ND	0.386		-	0.0927	Total HxCDD	ND	0.320	
OCDD	ND	1.27		-	0.272	Total HpCDD	ND	0.386	
2,3,7,8-TCDF	ND	0.109		-	0.0252				
1,2,3,7,8-PeCDF	ND	0.184		-	0.0365				
2,3,4,7,8-PeCDF	ND	0.210		-	0.0486				
1,2,3,4,7,8-HxCDF	ND	0.174		-	0.0267				
1,2,3,6,7,8-HxCDF	ND	0.179		-	0.0289				
2,3,4,6,7,8-HxCDF	ND	0.190		-	0.0298	Total TCDF	ND	0.109	
1,2,3,7,8,9-HxCDF	ND	0.221		-	0.0493	Total PeCDF	ND	0.210	
1,2,3,4,6,7,8-HpCDF	ND	0.214		-	0.0404	Total HxCDF	ND	0.221	
1,2,3,4,7,8,9-HpCDF	ND	0.238		-	0.0469	Total HpCDF	ND	0.238	
OCDF	ND	0.507		-	0.177				

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	86.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	65.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	87.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	86.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	79.6	23.0 - 140	
13C-OCDD	68.7	17.0 - 157	
13C-2,3,7,8-TCDF	84.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	71.3	24.0 - 185	
13C-2,3,4,7,8-PeCDF	65.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	89.2	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	88.2	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	85.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	82.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	77.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	82.2	26.0 - 138	
13C-OCDF	68.6	17.0 - 157	

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  
 S Sample acceptance criteria not met  
 X Matrix interferences  
 \* Result taken from dilution or reinjection

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 90.5 35.0 - 197

Analyst: [Signature]  
Date: 1/26/10

Reviewed By: DN  
Date: 1/26/10

EPA Method 1613  
PCDD/F



FAL ID: 5914-001-OPR  
Client ID: OPR  
Matrix: Soil  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: NA  
Amount: 5.00 g

iCal: pcdffal3-11-18-09  
GC Column: DB5  
Units: ng/ml

Acquired: 01-22-2010  
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.83	6.70 - 15.8	
1,2,3,7,8-PeCDD	50.2	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.0	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	49.1	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	48.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	52.6	35.0 - 70.0	
OCDD	102	78.0 - 144	
2,3,7,8-TCDF	9.82	7.50 - 15.8	
1,2,3,7,8-PeCDF	49.7	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.5	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	49.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50.3	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	49.9	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	49.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.1	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	51.2	39.0 - 69.0	
OCDF	96.4	63.0 - 170	
Internal Standards			
13C-2,3,7,8-TCDD	88.4	20.0 - 175	
13C-1,2,3,7,8-PeCDD	70.8	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	91.2	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	87.9	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	79.7	26.0 - 166	
13C-OCDD	67.5	13.0 - 198	
13C-2,3,7,8-TCDF	89.3	22.0 - 152	
13C-1,2,3,7,8-PeCDF	76.6	21.0 - 192	
13C-2,3,4,7,8-PeCDF	71.8	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	91.2	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	87.3	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	86.1	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	85.8	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	76.9	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	84.4	20.0 - 186	
13C-OCDF	68.4	13.0 - 198	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	96.1	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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst: [Signature]

Date: 1/26/10

Reviewed By: DN

Date: 1/26/10

EPA Method 1613  
PCDD/F



FAL ID: 5914-001-SA  
Client ID: CB31A011110SED  
Matrix: Soil  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: 01-13-2010  
Amount: 5.03 g  
% Solids: 73.39

ICal: pcdffal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-25-2010  
2005 WHO TEQ: 36.0

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.632	-	J	0.632	0.0252				
1,2,3,7,8-PeCDD	3.96	-	J	3.96	0.0457				
1,2,3,4,7,8-HxCDD	9.13	-		0.913	0.0496				
1,2,3,6,7,8-HxCDD	32.3	-		3.23	0.0680	Total TCDD	2.23		-
1,2,3,7,8,9-HxCDD	17.6	-		1.76	0.0666	Total PeCDD	15.4		-
1,2,3,4,6,7,8-HpCDD	1210	-		12.1	0.0927	Total HxCDD	149		-
OCDD	11200	-		3.36	0.272	Total HpCDD	1960		-
2,3,7,8-TCDF	0.332	-	J	0.0332	0.0252				
1,2,3,7,8-PeCDF	1.00	-	J	0.0300	0.0365				
2,3,4,7,8-PeCDF	2.23	-	J	0.669	0.0486				
1,2,3,4,7,8-HxCDF	39.4	-		3.94	0.0267				
1,2,3,6,7,8-HxCDF	8.55	-		0.855	0.0289				
2,3,4,6,7,8-HxCDF	12.4	-		1.24	0.0298				
1,2,3,7,8,9-HxCDF	2.96	-	J	0.296	0.0493	Total TCDF	8.48		- D,M
1,2,3,4,6,7,8-HpCDF	246	-		2.46	0.0404	Total PeCDF	49.5		- D,M
1,2,3,4,7,8,9-HpCDF	22.6	-		0.226	0.0469	Total HxCDF	349		- D,M
OCDF	914	-		0.274	0.177	Total HpCDF	991		-

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	74.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	63.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	75.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	71.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	77.8	23.0 - 140	
13C-OCDD	77.7	17.0 - 157	
13C-2,3,7,8-TCDF	76.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	72.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	67.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	74.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	72.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	72.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	72.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	64.2	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	70.1	26.0 - 138	
13C-OCDF	66.5	17.0 - 157	

- 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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 80.9 35.0 - 197

Analyst: [Signature]

Date: 1/26/10

Reviewed By: DN

Date: 1/26/10

EPA Method 1613  
PCDD/F



FAL ID: 5914-002-SA  
Client ID: CB99011110SED  
Matrix: Soil  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: 01-13-2010  
Amount: 5.02 g  
% Solids: 72.90

ICal: pcdcfal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 35.0

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.636	-	J	0.636	0.0252				
1,2,3,7,8-PeCDD	3.99	-	J	3.99	0.0457				
1,2,3,4,7,8-HxCDD	8.27	-		0.827	0.0496				
1,2,3,6,7,8-HxCDD	28.3	-		2.83	0.0680	Total TCDD	1.26	-	
1,2,3,7,8,9-HxCDD	16.7	-		1.67	0.0666	Total PeCDD	13.0	-	
1,2,3,4,6,7,8-HpCDD	1070	-		10.7	0.0927	Total HxCDD	125	-	
OCDD	11500	-		3.45	0.272	Total HpCDD	1680	-	
2,3,7,8-TCDF	0.405	-	J	0.0405	0.0252				
1,2,3,7,8-PeCDF	0.989	-	J	0.0297	0.0365				
2,3,4,7,8-PeCDF	2.87	-	J	0.861	0.0486				
1,2,3,4,7,8-HxCDF	43.7	-		4.37	0.0267				
1,2,3,6,7,8-HxCDF	9.40	-		0.940	0.0289				
2,3,4,6,7,8-HxCDF	13.8	-		1.38	0.0298				
1,2,3,7,8,9-HxCDF	3.57	-	J	0.357	0.0493	Total TCDF	8.45	-	
1,2,3,4,6,7,8-HpCDF	237	-		2.37	0.0404	Total PeCDF	47.5	-	D,M
1,2,3,4,7,8,9-HpCDF	24.7	-		0.247	0.0469	Total HxCDF	340	-	D,M
OCDF	899	-		0.270	0.177	Total HpCDF	890	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	77.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	60.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	79.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	73.5	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	78.8	23.0 - 140	
13C-OCDD	77.3	17.0 - 157	
13C-2,3,7,8-TCDF	79.0	24.0 - 169	
13C-1,2,3,7,8-PeCDF	64.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	62.9	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	76.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	71.5	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	74.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	78.4	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	69.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	78.0	26.0 - 138	
13C-OCDF	67.4	17.0 - 157	

- 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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 78.6 35.0 - 197

Analyst: [Signature]  
Date: 1/26/10

Reviewed By: [Signature]  
Date: 1/26/10

**SUBCONTRACTOR ANALYSIS REQUEST**  
 CUSTODY TRANSFER 01/12/10



5914  
 OPC

ARI Project: QF10

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

ARI Client: Floyd-Snider  
 Project ID: POS-Lora Lake Apts Interim Action  
 ARI PM: Sue Dunning  
 Phone: 206-695-6207  
 Fax: 206-695-6201

Analytical Protocol: In-house  
 Special Instructions:

Requested Turn Around: 01/20/10  
 Fax Results (Y/N): **Email**

**Limits of Liability.** Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, 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, notwithstanding 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
10-690-QF10A	CB31A011110SED	01/11/10 10:00	Soil	2	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-691-QF10B	CB99011110SED	01/11/10 10:30	Soil	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					

Full Package and EDD

Carrier	UPS	Airbill	178326950145018212	Date	11/12/2010
Relinquished by	Nikka Kulumba	Company	ARI	Date	11/12/2010
Received by	[Signature]	Company	Frontier	Date	1-13-10
				Time	1425
				Time	10:50

## Frontier Analytical Laboratory

### Sample Login Form

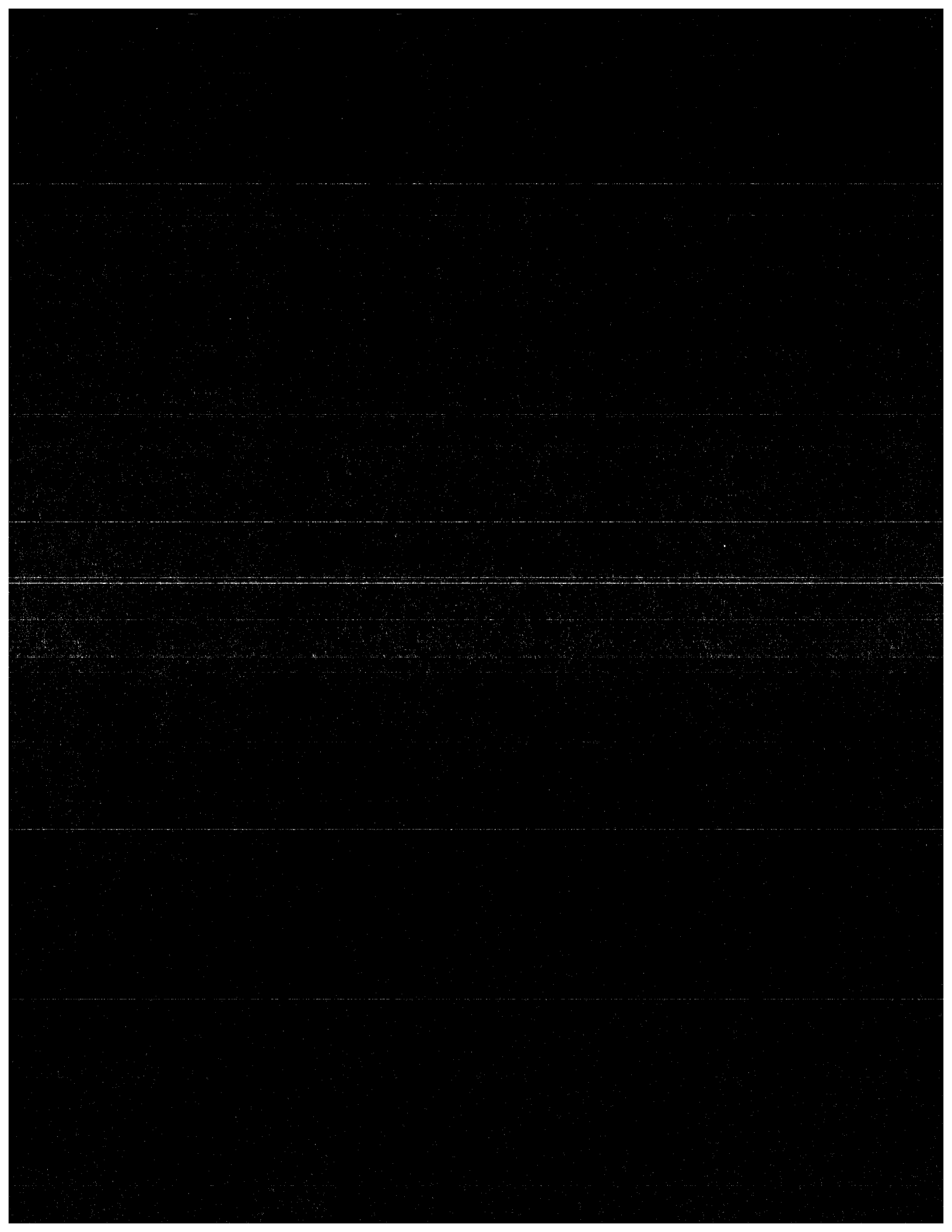
FAL Project ID: **5914**

Client:	Analytical Resources Inc. Sue Dunninghoo
Client Project ID:	QF10
Date Received:	01/13/2010
Time Received:	10:50 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	2
Duplicates:	1
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z83269501045018212
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	01/11/2011
Adequate Sample Volume	Yes
Anomalies or additional comments:	







**Frontier Analytical Laboratory**  
**PROJECT REQUEST SHEET**

Project #: 5914                      Sample #: 1-2                      Client Manager: BS  
Client: Analytical Resources Inc. Sue Dunning                      Hold Time: 01/11/2011  
Matrix: Soil                      Extraction Batch: 1926                      Due Date: 02/04/2010  
Method: EPA 1613 D/F                      Storage: R1  
SOP: SOPs: EP2A Rev.7 IP2A Rev.8

**COMMENTS/INSTRUCTIONS:**

Results: 5914-2, 5914

Instrument:  
DB5 FAL-3  
DB225 \_\_\_\_\_  
DB1 \_\_\_\_\_  
Other \_\_\_\_\_

Extract/s located in box: "Sick Puppies"

Standards: 5913, 5914

Frontier Analytical Laboratory  
Percent Solids

FAL Project: 5914

GN 1/18/10  
1.35 + .33

Sample ID	Chemist	Date	Wet Sample Weight (g)	Dry Sample Weight (g)	% Solids	10g Equiv
5914-001-0001-SA	GN	1/18/10	12.25981	7.20	73.39	13.63
5914-002-0001-SA	↓	↓	9.89	7.21	72.90	13.72

% 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

$\% \text{ solids} = \text{aliquot after drying} / \text{aliquot before drying} \times 100$

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

# EXTRACTION SHEET

Project #: 5914      Extraction Date: 2010-01-21      Extraction Chemist: GN

Method/Analysis: EPA 1613 D/F

Procedure: SOX/SDS

Solvent: Toluene

5913 }

Sample ID	Wet wt. (g/L)	Dry wt. (g/L)	IS		NS		CSS	
			Amt: 10.0uL	ID: 090918A	Amt: 10.0uL	ID: 090918B	Amt: 10.0uL	ID: 090918C
			Vial: 3	Chemist/Witness/Date	Vial: 3	Chemist/Witness/Date	Vial: 3	Chemist/Witness/Date
1926-001-0001-MB								
1926-001-0001-OPR								
5914-001-0001-SA	6.85	5.03	GN	✓ 1/21/10	NA	GN	PN	1/22/10
5914-002-0001-SA	6.89	5.02		↓				↓

AX-21 Charcoal Cleaned	083109	Acetone	49260	Acid Alumina	08623DJ	Hexane	49275
Hydrochloric Acid	B08505	Methanol	095121	Methylene Chloride (DCM)	49296	Silica Gel	TA1593034
Sodium Hydroxide	9145	Sodium Sulfate	48273845	Sulfuric Acid	093621	Tetradecane	081394
Toluene	49110	Water	49273	C-18 Empore Discs	320469	Cyclohexane	48149

Comments:

# CLEANUP SHEET

Project #: 5914

Method/Analysis: EPA 1613 D/F

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

5913 } }

Sample ID	Cleanup 1	Cleanup 2	Cleanup 3	RS	
	<i>ABP</i>	<i>MSG/AA</i>	<i>Charcoal</i>	Amt:	10.0uL
	Chemist/Date	Chemist/Date	Chemist/Date	ID:	090918D
				Vial:	3
				Chemist/Witness/Date	
1926-001-0001-MB					
1926-001-0001-OPR					
5914-001-0001-SA	<i>GN 1/22/10</i>	<i>GN 1/22/10</i>	<i>GN 1/22/10</i>	<i>GN</i>	<i>GN 1/22/10</i>
5914-002-0001-SA	↓	↓	↓	↓	

Comments:



# Sample Results

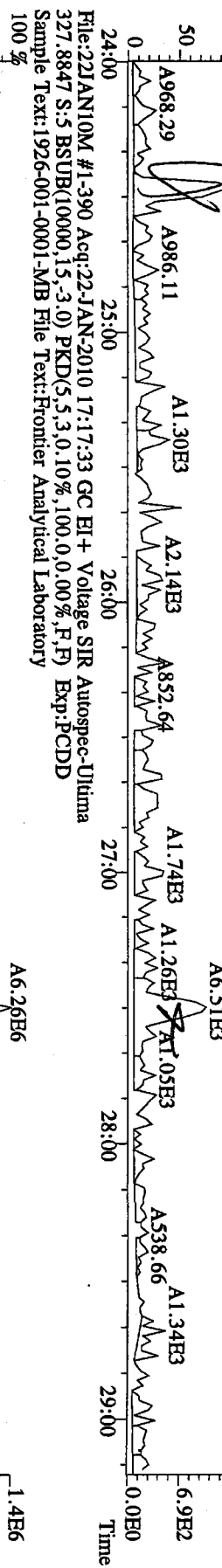
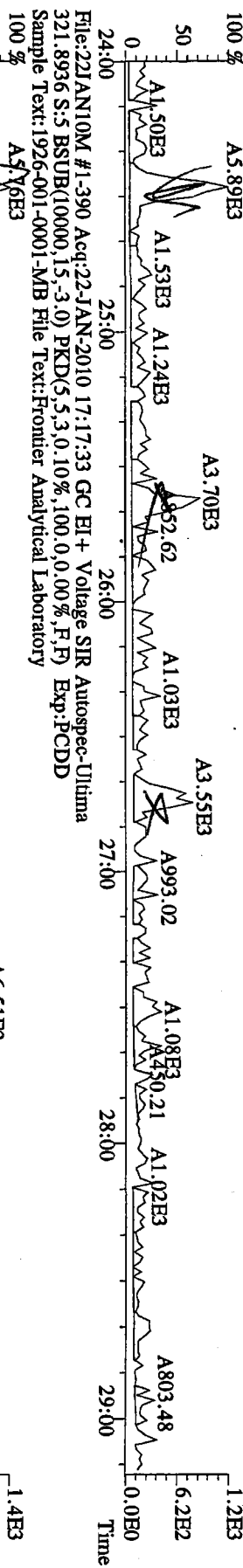
Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	#Hom	
2,3,7,8-TCDD	*	n	NotFnd	1.02	*		2.50	244	272	0.155	
1,2,3,7,8-PeCDD	*	n	NotFnd	0.96	*		2.50	300	180	0.218	
1,2,3,4,7,8-HxCDD	*	n	NotFnd	1.37	*		2.50	284	284	0.274	
1,2,3,6,7,8-HxCDD	*	n	NotFnd	1.34	*		2.50	284	284	0.320	
1,2,3,7,8,9-HxCDD	*	n	NotFnd	1.37	*		2.50	284	284	0.294	
1,2,3,4,6,7,8-HpCDD	*	n	NotFnd	1.17	*		2.50	261	230	0.386	
OCDD	*	n	NotFnd	1.21	*		2.50	449	427	1.27	
2,3,7,8-TCDF	*	n	NotFnd	1.29	*		2.50	240	476	0.109	
1,2,3,7,8-PeCDF	*	n	NotFnd	0.89	*		2.50	252	392	0.184	
2,3,4,7,8-PeCDF	*	n	NotFnd	0.91	*		2.50	252	392	0.210	
1,2,3,4,7,8-HxCDF	*	n	NotFnd	1.00	*		2.50	244	208	0.174	
1,2,3,6,7,8-HxCDF	*	n	NotFnd	0.92	*		2.50	244	208	0.179	
2,3,4,6,7,8-HxCDF	*	n	NotFnd	0.99	*		2.50	244	208	0.190	
1,2,3,7,8,9-HxCDF	*	n	NotFnd	1.09	*		2.50	244	208	0.221	
1,2,3,4,6,7,8-HpCDF	*	n	NotFnd	1.36	*		2.50	185	227	0.214	
1,2,3,4,7,8,9-HpCDF	*	n	NotFnd	1.61	*		2.50	185	227	0.238	
OCDF	*	n	NotFnd	0.84	*		2.50	202	218	0.507	
Rec											
13C-2,3,7,8-TCDD	1.44e+07	0.72	y	27:29	0.94	344				86.0	
13C-1,2,3,7,8-PeCDD	1.19e+07	1.70	y	33:20	1.02	263				65.9	
13C-1,2,3,4,7,8-HxCDD	7.90e+06	1.33	y	38:42	0.98	352				87.9	
13C-1,2,3,6,7,8-HxCDD	7.38e+06	1.24	y	38:52	0.94	345				86.3	
13C-1,2,3,4,6,7,8-HpCDD	6.53e+06	1.03	y	44:19	0.90	318				79.6	
13C-OCDD	8.36e+06	0.96	y	49:54	0.67	550				68.7	
13C-2,3,7,8-TCDF	2.36e+07	0.86	y	26:44	0.88	338				84.5	
13C-1,2,3,7,8-PeCDF	1.99e+07	1.68	y	31:36	0.88	285				71.3	
13C-2,3,4,7,8-PeCDF	1.77e+07	1.67	y	32:55	0.85	261				65.3	
13C-1,2,3,4,7,8-HxCDF	1.40e+07	0.49	y	37:19	1.72	357				89.2	
13C-1,2,3,6,7,8-HxCDF	1.61e+07	0.49	y	37:31	2.00	353				88.2	
13C-2,3,4,6,7,8-HxCDF	1.36e+07	0.49	y	38:27	1.74	344				85.9	
13C-1,2,3,7,8,9-HxCDF	1.14e+07	0.49	y	39:53	1.51	331				82.8	
13C-1,2,3,4,6,7,8-HpCDF	7.81e+06	0.46	y	42:25	1.10	311				77.9	
13C-1,2,3,4,7,8,9-HpCDF	6.35e+06	0.45	y	45:13	0.85	329				82.2	
13C-OCDF	1.47e+07	0.95	y	50:16	1.17	549				68.6	
37Cl-2,3,7,8-TCDD	6.26e+06			27:30	0.97	145				90.5	
13C-1,2,3,4-TCDD	1.78e+07	0.72	y	26:54	-	13.6					
13C-1,2,3,4-TCDF	3.19e+07	0.85	y	25:38	-	13.8					
13C-1,2,3,7,8,9-HxCDD	9.13e+06	1.29	y	39:19	-	8.90					
Total Tetra-Dioxins	*		NotFnd	1.02	*		2.50	391	458	0.256	0
Total Penta-Dioxins	*		NotFnd	0.96	*		2.50	300	180	0.218	0
Total Hexa-Dioxins	*		NotFnd	1.36	*		2.50	284	284	0.320	0
Total Hepta-Dioxins	*		NotFnd	1.17	*		2.50	261	230	0.386	0
Total Tetra-Furans	*		NotFnd	1.29	*		2.50	240	476	0.109	0
1st Fn. Tot Penta-Furans	*		NotFnd	0.90	*		2.50	252	392	0.210	PeCDF 0
Total Penta-Furans	*		NotFnd	0.90	*		2.50	252	392	0.210	0.00 0
Total Hexa-Furans	*		NotFnd	0.99	*		2.50	244	208	0.221	0
Total Hepta-Furans	*		NotFnd	1.47	*		2:50	185	227	0.238	0

Analyst: *d*

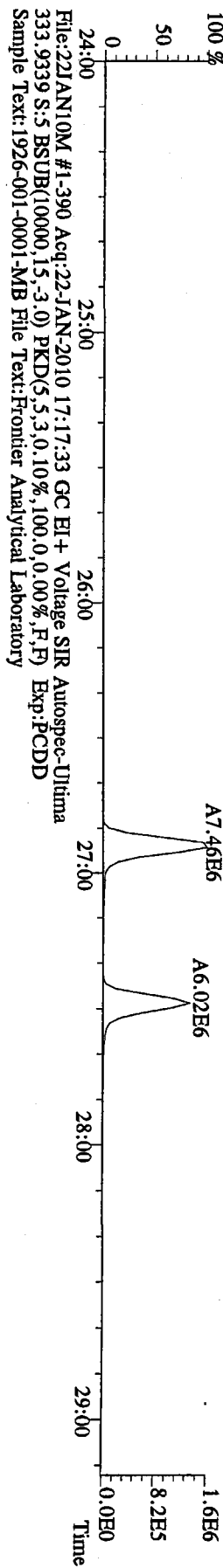
Date: *1/25/10*



File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory



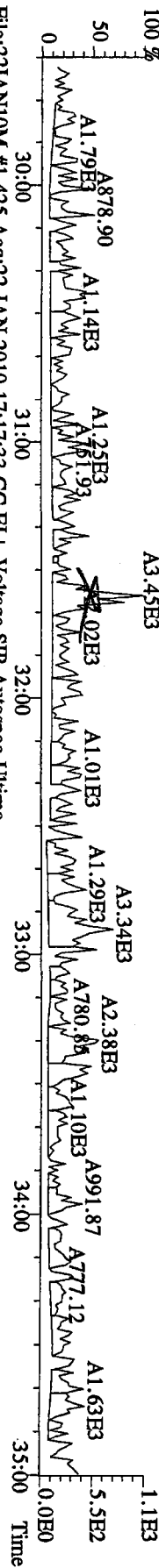
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
 331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



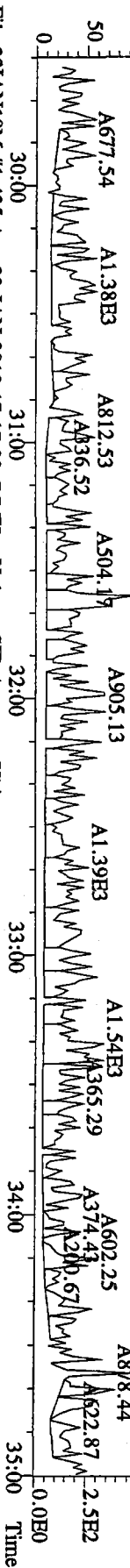
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
 333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



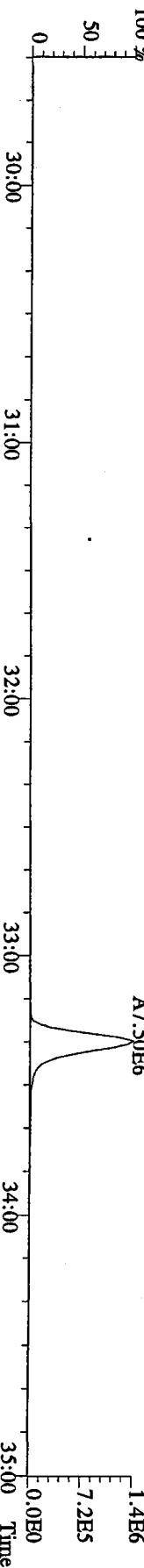
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



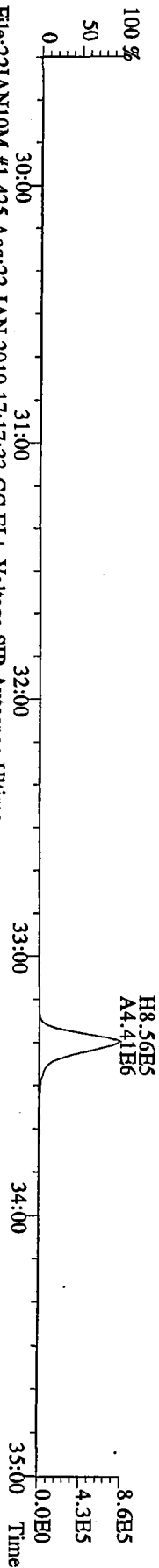
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 357.8517 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



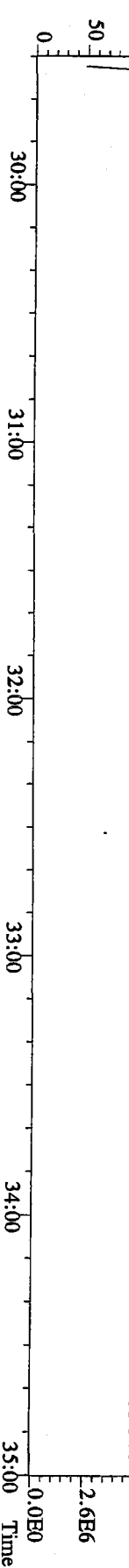
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



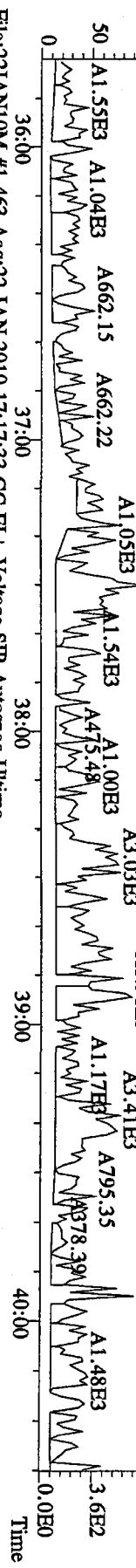
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 369.8919 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



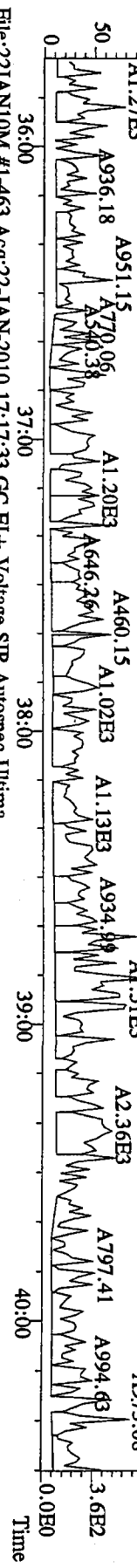
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 S:5 F:2 Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



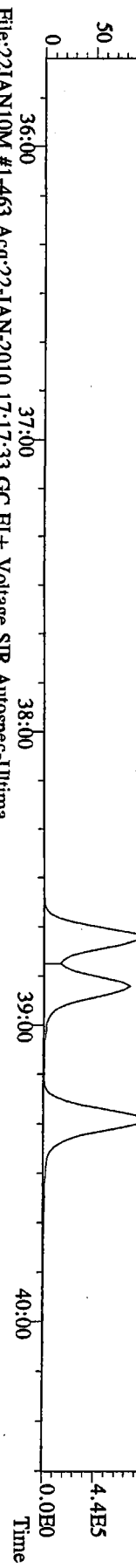
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



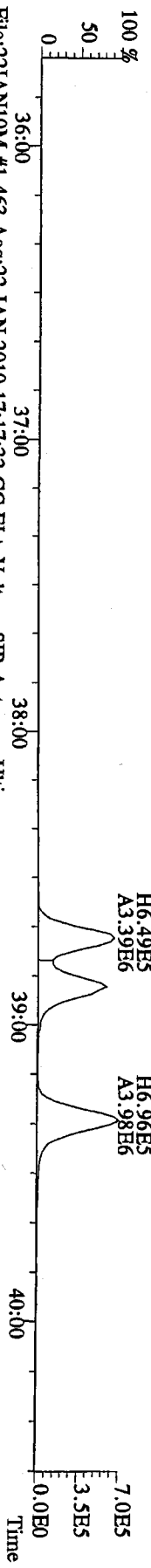
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



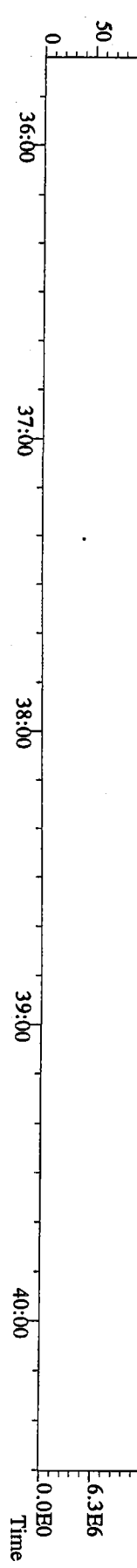
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



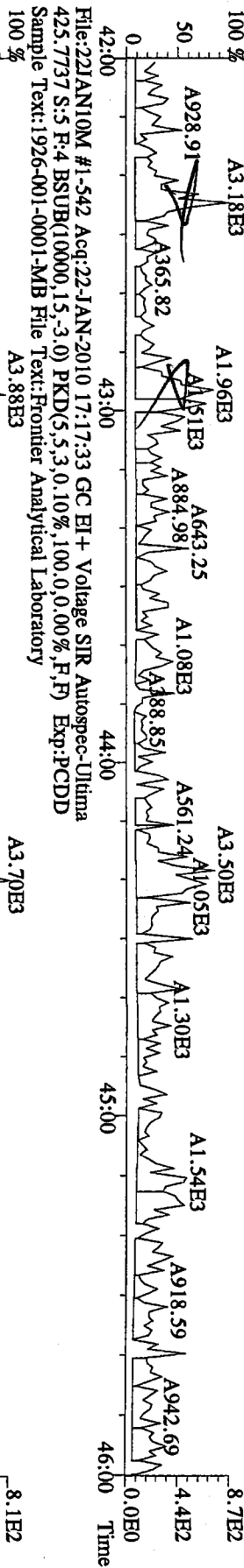
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



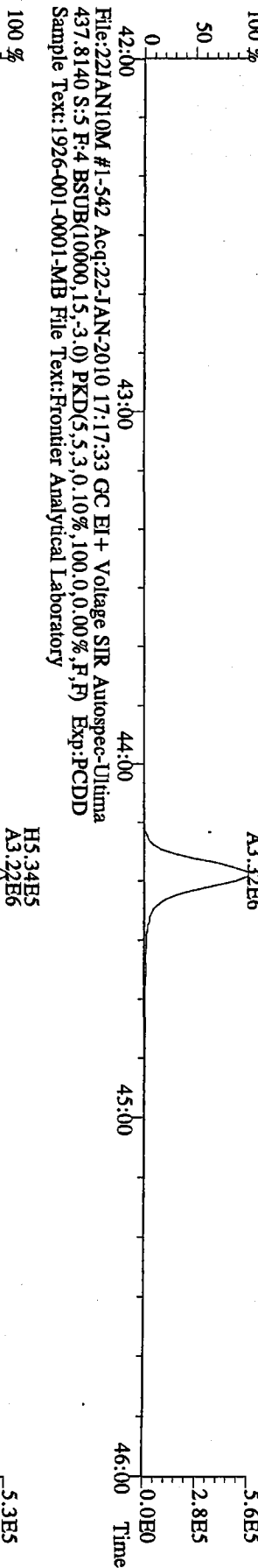
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:5 F:3 Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



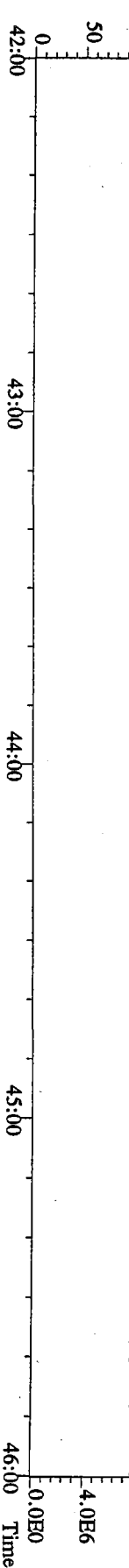
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKID(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKID(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory

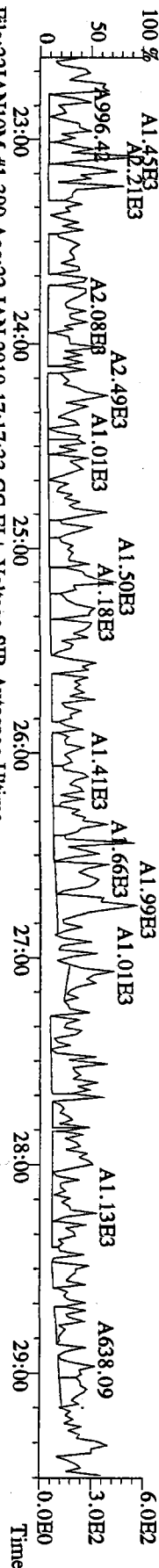


File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 430.9728 S:5 F:4 Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory

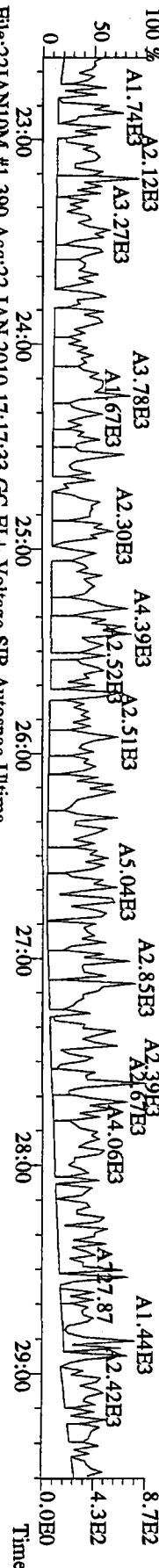




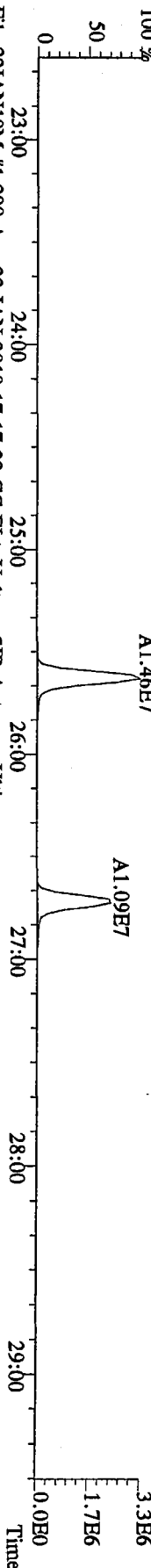
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 303.9016 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



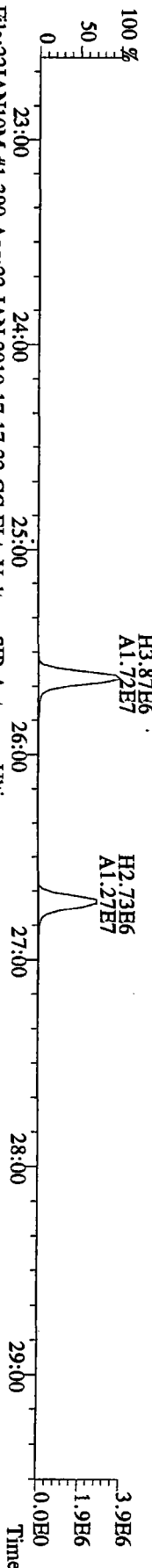
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 305.8987 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



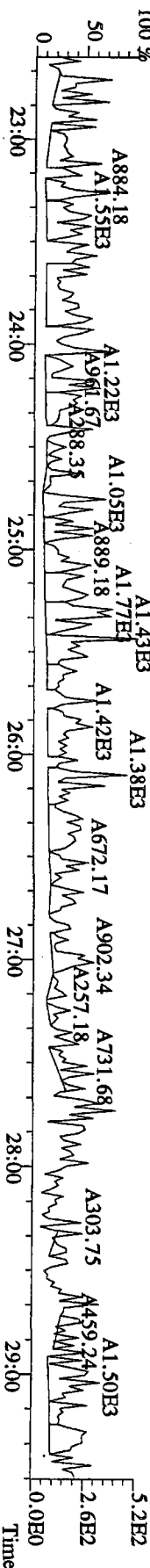
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 315.9419 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



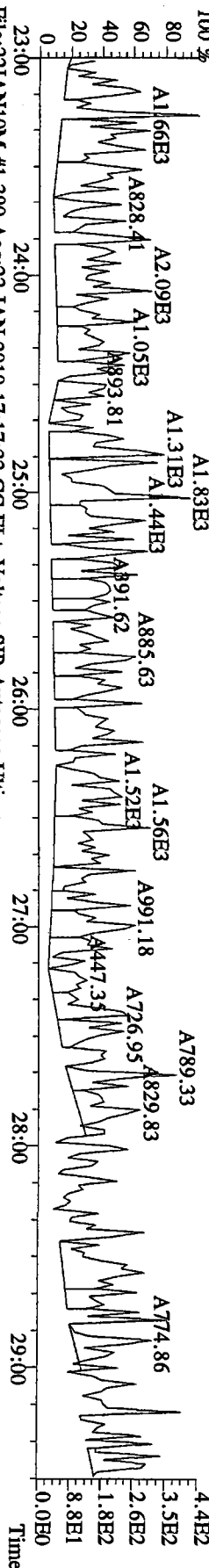
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 317.9389 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



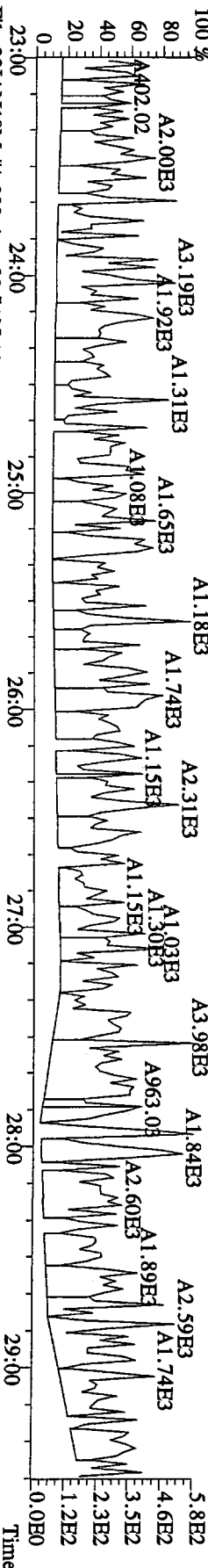
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 375.8364 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



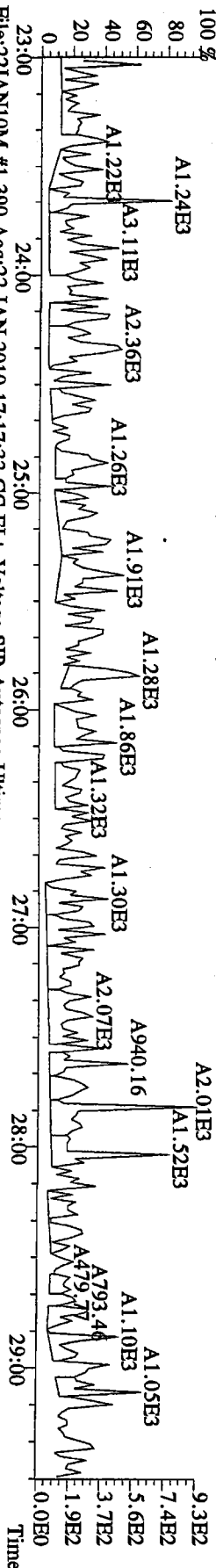
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



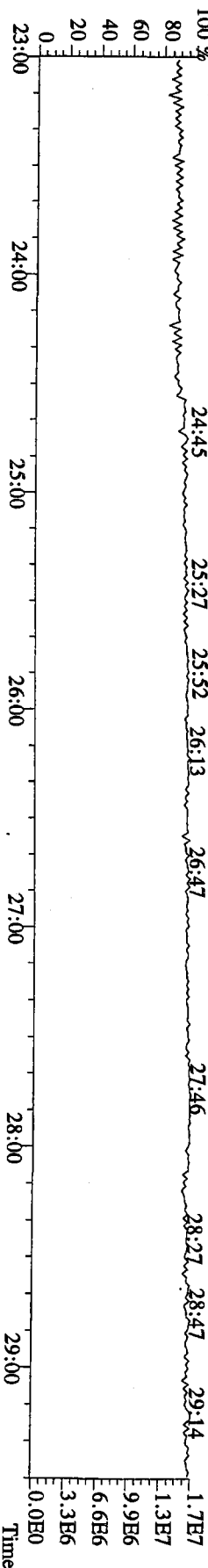
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
341.8568 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



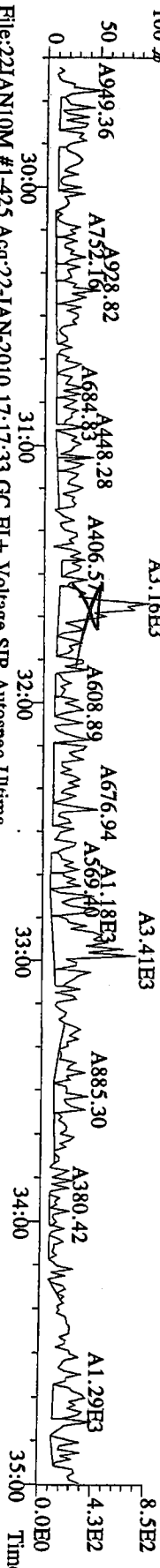
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
409.7974 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



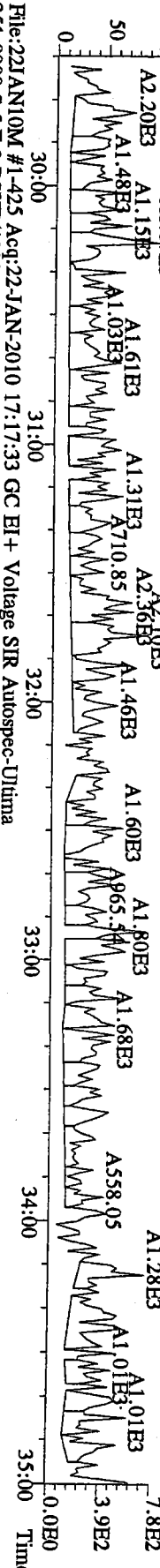
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
330.9792 S:5 Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



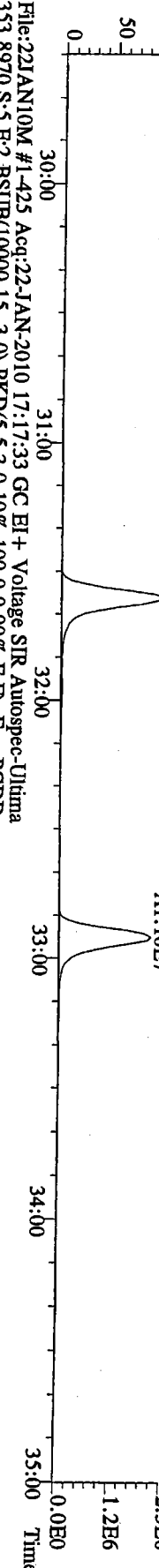
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
 100 %



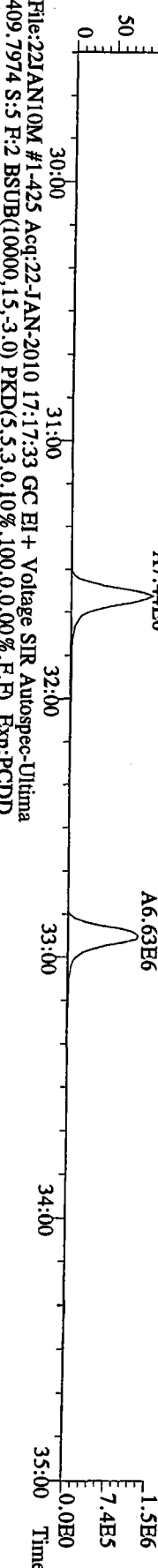
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
 100 %



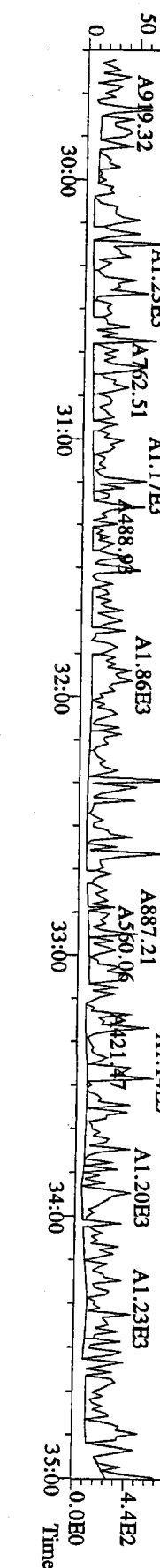
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
 100 %



File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
 100 %

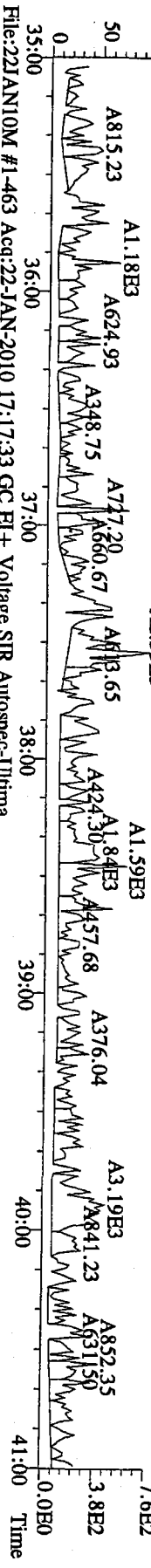


File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
 100 %

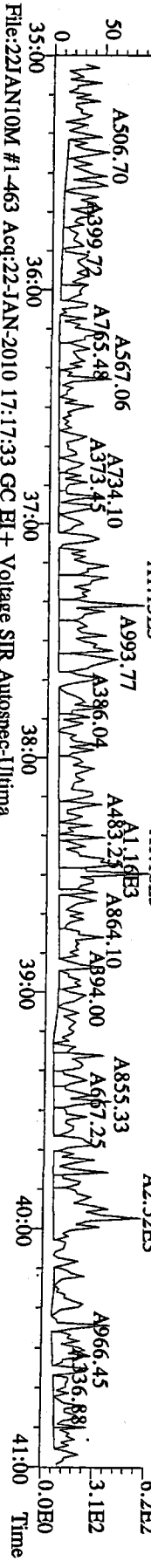




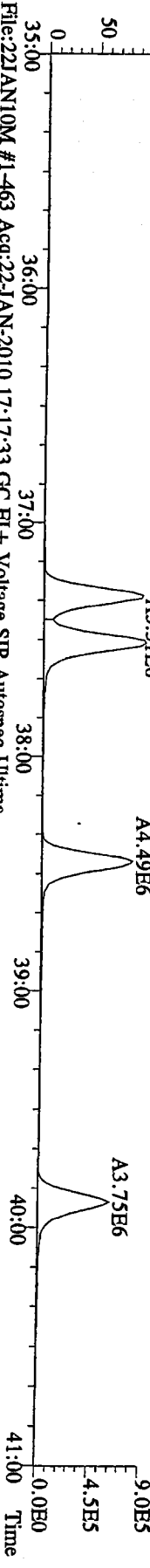
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 373.8207 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



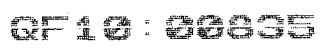
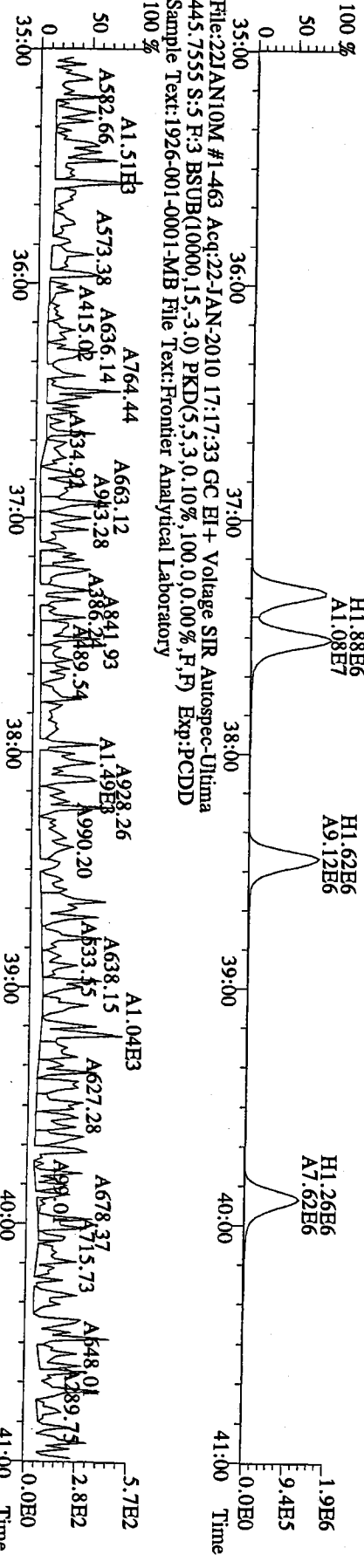
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 375.8178 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



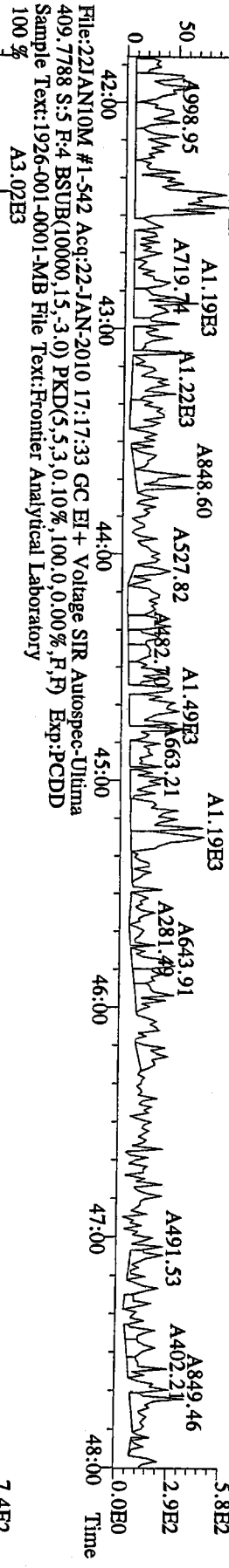
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 385.8610 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



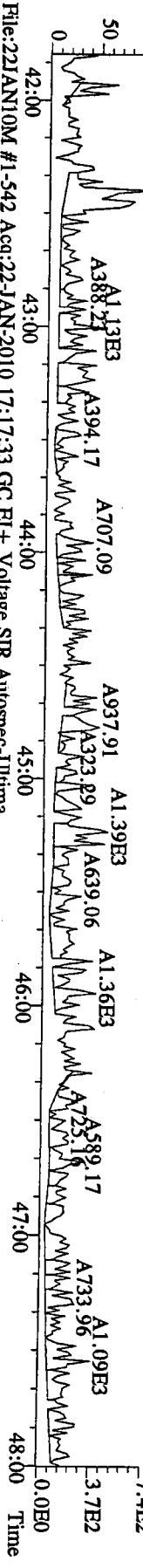
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 445.7555 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



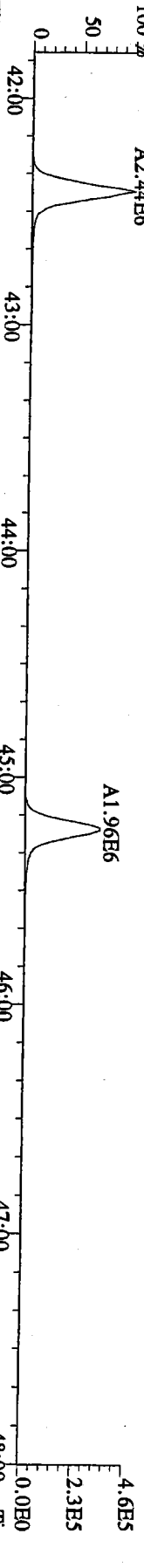
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



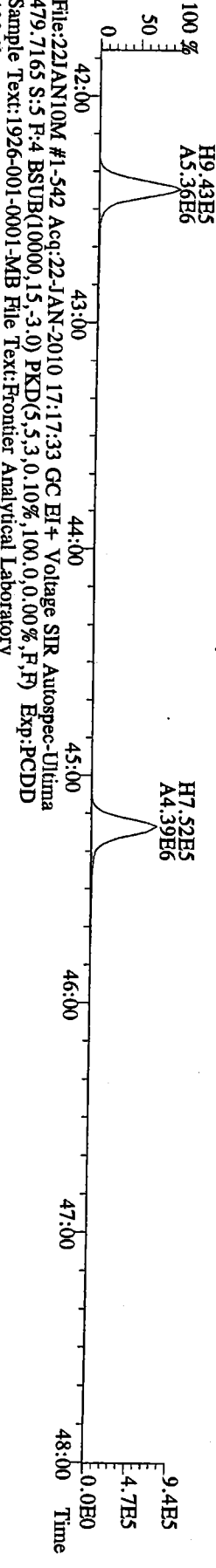
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



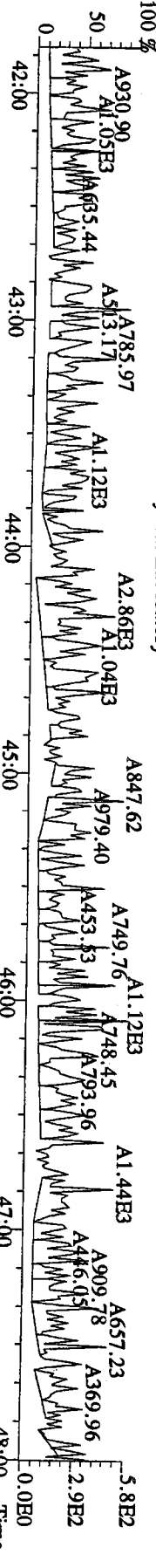
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



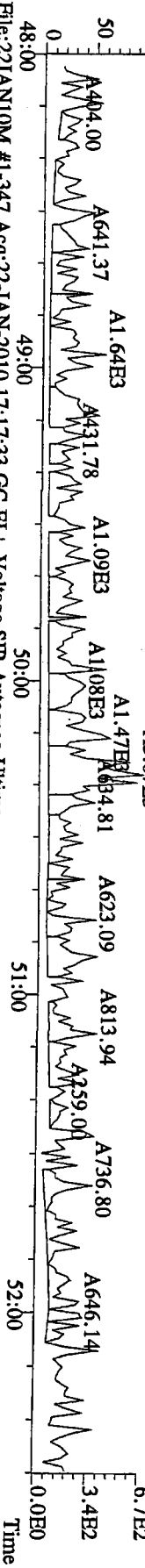
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



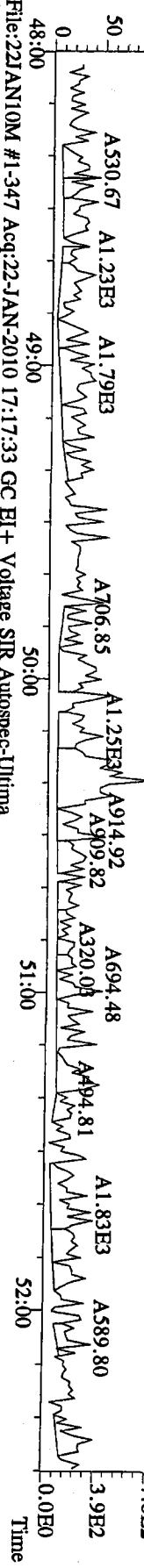
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



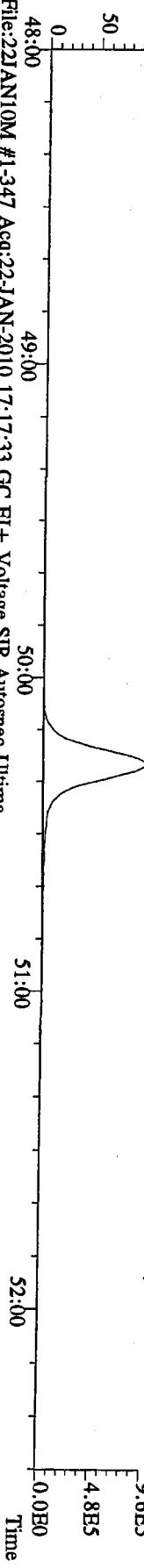
File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



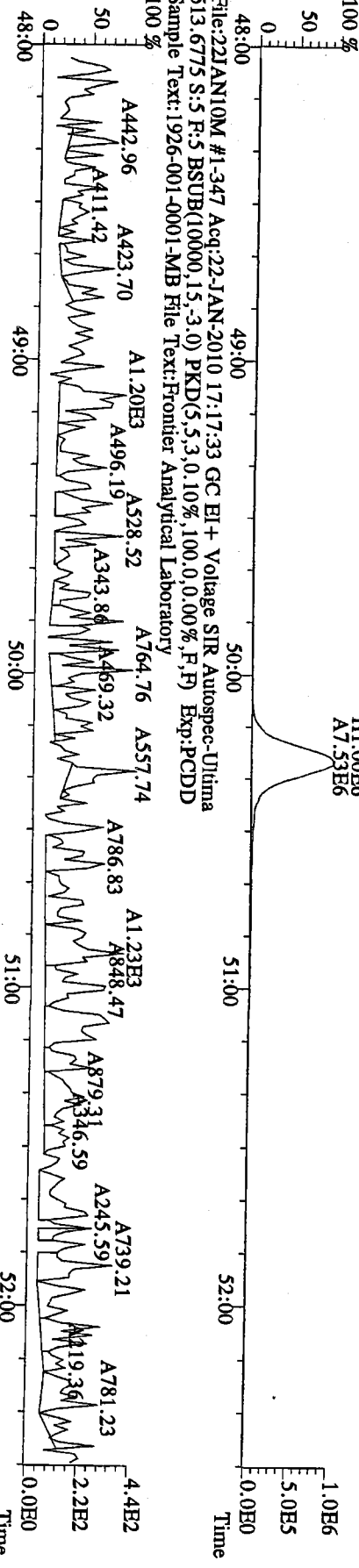
File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory



## USEPA - ITD

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

Lab Name: Frontier Analytical Laboratory      Episode No.:

Contract No.:      SAS No.:

Matrix (aqueous/solid/leachate): Solid      OPR Data Filename: 22JAN10M      Sam:4

Ext. Date: 1/21/10      Shift: Day      Analysis Date: 22-JAN-10      16:22:18

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	9.83	6.70 - 15.8
1,2,3,7,8-PeCDD	50	50.2	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	49.0	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	49.1	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	48.4	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	52.6	35.0 - 70.0
OCDD	100	102	78.0 - 144
2,3,7,8-TCDF	10	9.82	7.50 - 15.8
1,2,3,7,8-PeCDF	50	49.7	40.0 - 67.0
2,3,4,7,8-PeCDF	50	50.5	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	49.9	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	50.3	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	49.9	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	49.8	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	51.1	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	51.2	39.0 - 69.0
OCDF	100	96.4	63.0 - 170

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

Analyst: J

Date: 1/21/10

## 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): Solid      OPR Data Filename: 22JAN10M    Sam:4

Ext. Date: 1/21/10    Shift: Day      Analysis Date: 22-JAN-10    16:22:18

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
<b>LABELED COMPOUNDS</b>			
13C-2,3,7,8-TCDD	100	88.4	20.0 - 175
13C-1,2,3,7,8-PeCDD	100	70.8	21.0 - 227
13C-1,2,3,4,7,8-HxCDD	100	91.2	21.0 - 193
13C-1,2,3,6,7,8-HxCDD	100	87.9	25.0 - 163
13C-1,2,3,4,6,7,8-HpCDD	100	79.7	26.0 - 166
13C-OCDD	200	135	26.0 - 397
13C-2,3,7,8-TCDF	100	89.3	22.0 - 152
13C-1,2,3,7,8-PeCDF	100	76.6	21.0 - 192
13C-2,3,4,7,8-PeCDF	100	71.8	13.0 - 328
13C-1,2,3,4,7,8-HxCDF	100	91.2	19.0 - 202
13C-1,2,3,6,7,8-HxCDF	100	87.3	21.0 - 159
13C-2,3,4,6,7,8-HxCDF	100	86.1	22.0 - 176
13C-1,2,3,7,8,9-HxCDF	100	85.8	17.0 - 205
13C-1,2,3,4,6,7,8-HpCDF	100	76.9	21.0 - 158
13C-1,2,3,4,7,8,9-HpCDF	100	84.4	20.0 - 186
13C-OCDF	200	137	26.0 - 397
<b>CLEANUP STANDARD</b>			
37Cl-2,3,7,8-TCDD	40	38.4	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%.

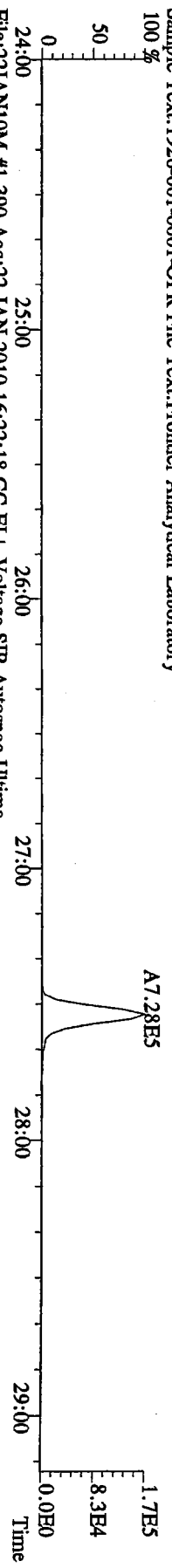
Analyst: 

Date: 1/25/10

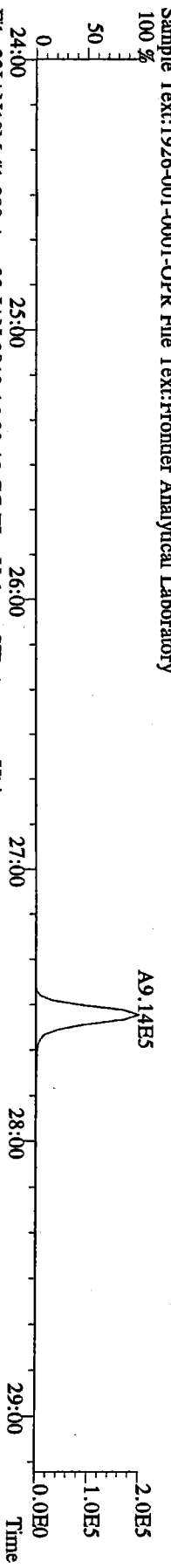
Name	Resp	RA	RT	RRF	WHO 1998 Tox:		WHO 2005 Tox:		114 DL	
					Conc	Qual	125 Fac Noise-1	Noise-2		
2,3,7,8-TCDD	1.64e+06	0.80 y	27:32	1.02	9.83		2.50	-	-	*
1,2,3,7,8-PeCDD	6.86e+06	1.60 y	33:22	0.96	50.2		2.50	-	-	*
1,2,3,4,7,8-HxCDD	6.75e+06	1.23 y	38:44	1.37	49.0		2.50	-	-	*
1,2,3,6,7,8-HxCDD	6.07e+06	1.33 y	38:54	1.34	49.1		2.50	-	-	*
1,2,3,7,8,9-HxCDD	6.36e+06	1.27 y	39:21	1.37	48.4		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	4.92e+06	0.97 y	44:21	1.17	52.6		2.50	-	-	*
OCDD	6.24e+06	0.93 y	49:57	1.21	102		2.50	-	-	*
2,3,7,8-TCDF	3.44e+06	0.71 y	26:47	1.29	9.82		2.50	-	-	*
1,2,3,7,8-PeCDF	1.03e+07	1.68 y	31:38	0.89	49.7		2.50	-	-	*
2,3,4,7,8-PeCDF	9.70e+06	1.67 y	32:57	0.91	50.5		2.50	-	-	*
1,2,3,4,7,8-HxCDF	8.71e+06	1.24 y	37:20	1.00	49.9		2.50	-	-	*
1,2,3,6,7,8-HxCDF	9.01e+06	1.24 y	37:33	0.92	50.3		2.50	-	-	*
2,3,4,6,7,8-HxCDF	8.21e+06	1.23 y	38:29	0.99	49.9		2.50	-	-	*
1,2,3,7,8,9-HxCDF	7.83e+06	1.25 y	39:55	1.09	49.8		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	6.57e+06	1.01 y	42:26	1.36	51.1		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	6.57e+06	1.00 y	45:16	1.61	51.2		2.50	-	-	*
OCDF	7.29e+06	0.89 y	50:19	0.84	96.4		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	1.64e+07	0.71 y	27:31	0.94	88.4					88.4
13C-1,2,3,7,8-PeCDD	1.42e+07	1.69 y	33:21	1.02	70.8					70.8
13C-1,2,3,4,7,8-HxCDD	1.00e+07	1.30 y	38:43	0.98	91.2					91.2
13C-1,2,3,6,7,8-HxCDD	9.20e+06	1.29 y	38:53	0.94	87.9					87.9
13C-1,2,3,4,6,7,8-HpCDD	8.02e+06	1.05 y	44:19	0.90	79.7					79.7
13C-OCDD	1.01e+07	0.96 y	49:55	0.67	135					67.5
13C-2,3,7,8-TCDF	2.73e+07	0.85 y	26:46	0.88	89.3					89.3
13C-1,2,3,7,8-PeCDF	2.34e+07	1.69 y	31:37	0.88	76.6					76.6
13C-2,3,4,7,8-PeCDF	2.12e+07	1.68 y	32:56	0.85	71.8					71.8
13C-1,2,3,4,7,8-HxCDF	1.75e+07	0.48 y	37:20	1.72	91.2					91.2
13C-1,2,3,6,7,8-HxCDF	1.96e+07	0.50 y	37:31	2.00	87.3					87.3
13C-2,3,4,6,7,8-HxCDF	1.67e+07	0.49 y	38:28	1.74	86.1					86.1
13C-1,2,3,7,8,9-HxCDF	1.44e+07	0.50 y	39:54	1.51	85.8					85.8
13C-1,2,3,4,6,7,8-HpCDF	9.45e+06	0.45 y	42:25	1.10	76.9					76.9
13C-1,2,3,4,7,8,9-HpCDF	7.99e+06	0.45 y	45:14	0.85	84.4					84.4
13C-OCDF	1.80e+07	0.95 y	50:17	1.17	137					68.4
37Cl-2,3,7,8-TCDD	7.39e+06		27:32	0.97	38.4					96.1
13C-1,2,3,4-TCDD	1.97e+07	0.73 y	26:57	-	75.5					
13C-1,2,3,4-TCDF	3.48e+07	0.86 y	25:40	-	75.3					
13C-1,2,3,7,8,9-HxCDD	1.12e+07	1.29 y	39:20	-	54.5					
	Fac Noise-1	Noise-2	DL	#Hom						
Total Tetra-Dioxins	1.70e+06		23:09	1.02	10.2	2.50	-	-	*	21
Total Penta-Dioxins	6.86e+06		33:22	0.96	50.2	2.50	-	-	*	1
Total Hexa-Dioxins	1.92e+07		38:44	1.36	147	2.50	-	-	*	8
Total Hepta-Dioxins	5.03e+06		42:57	1.17	53.7	2.50	-	-	*	14
Total Tetra-Furans	3.52e+06		24:19	1.29	10.0	2.50	-	-	*	4
1st Fn. Tot Penta-Furans	3.71e+04		22:59	0.90	0.186	2.50	-	-	*	PeCDF 22
Total Penta-Furans	2.03e+07		30:21	0.90	102	2.50	-	-	*	102 8
Total Hexa-Furans	3.39e+07		35:40	0.99	200	2.50	-	-	*	10
Total Hepta-Furans	1.32e+07		42:26	1.47	103	2.50	-	-	*	7

Analyst:       Date: 1/25/10

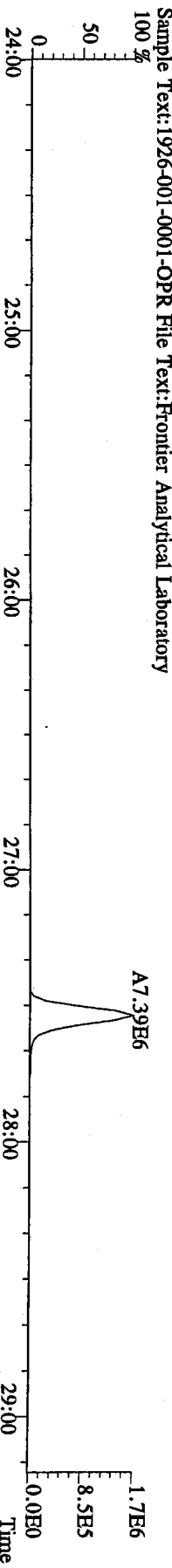
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



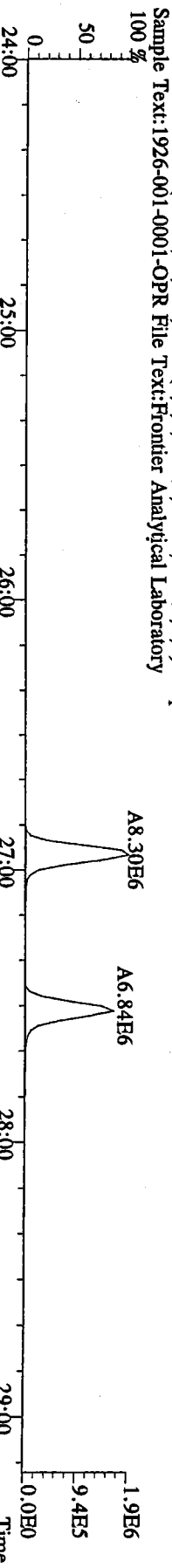
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



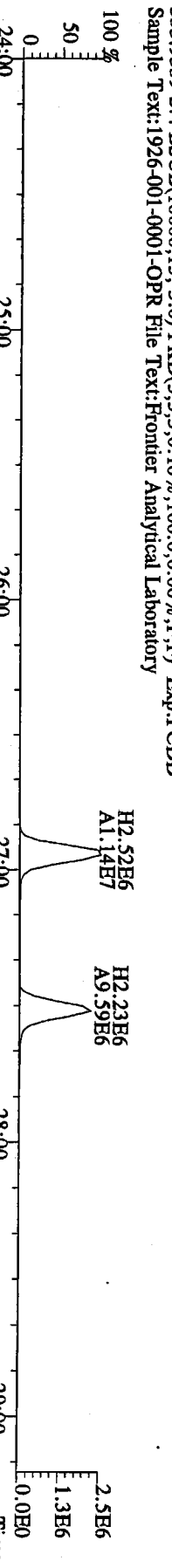
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



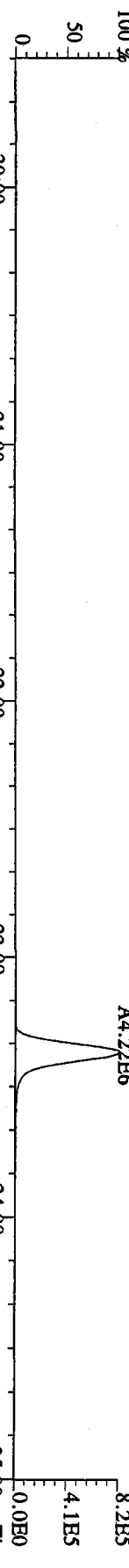
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



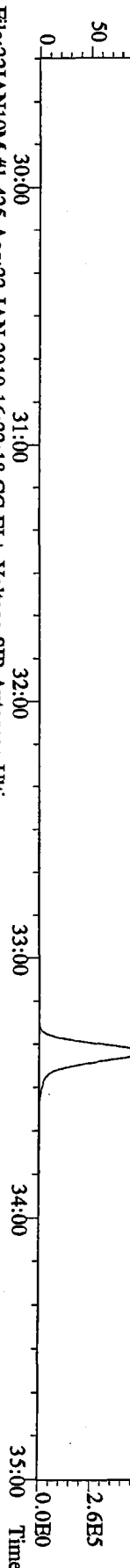
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



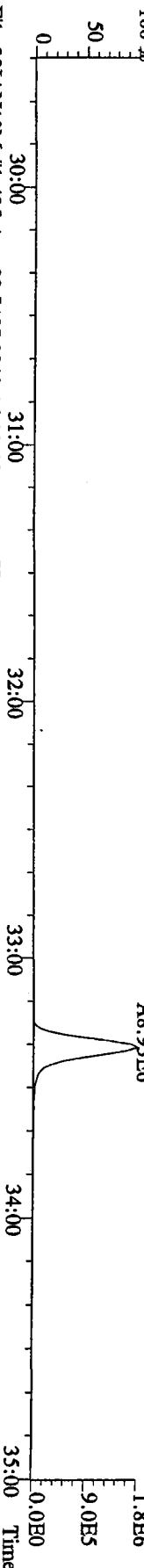
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



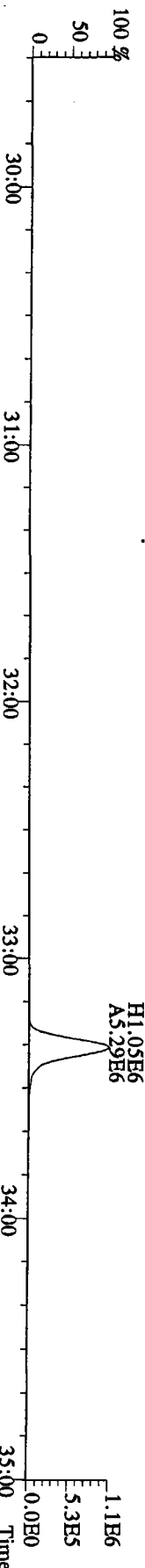
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
357.8517 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



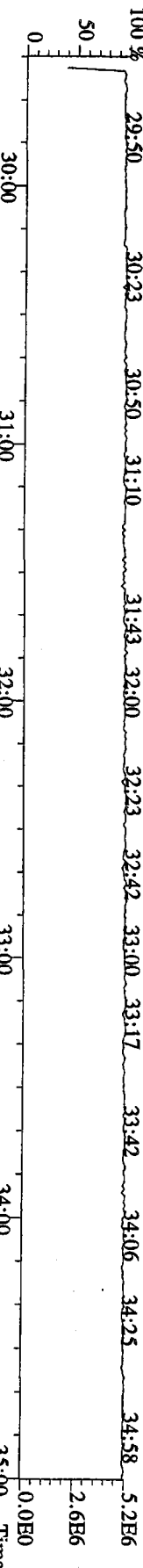
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 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:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

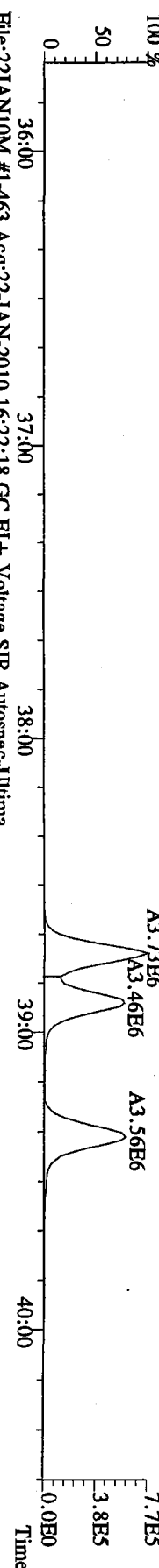


File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
366.9792 S:4 F:2 Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

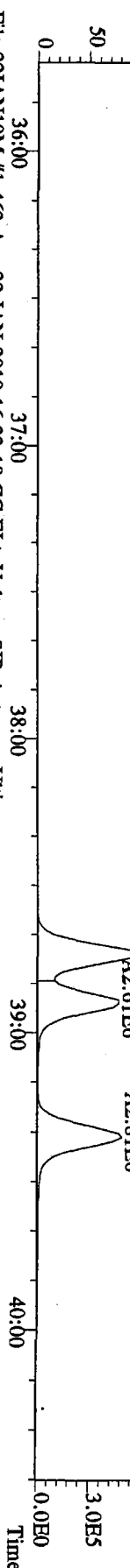




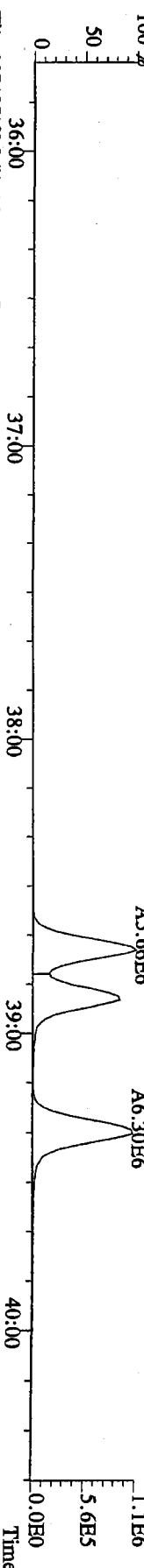
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



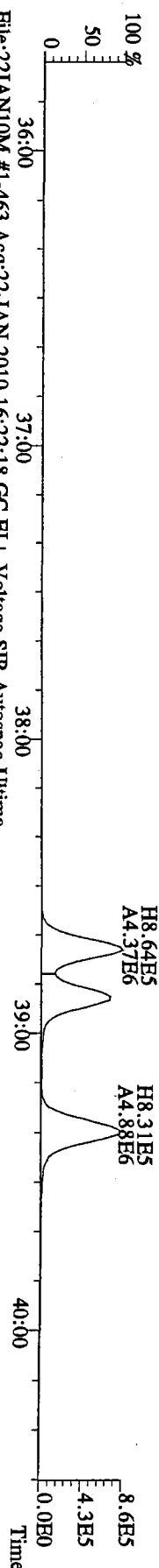
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



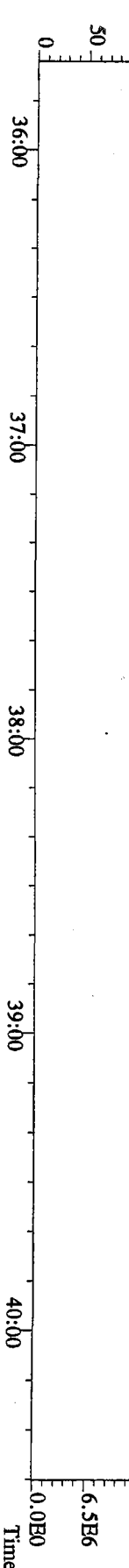
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



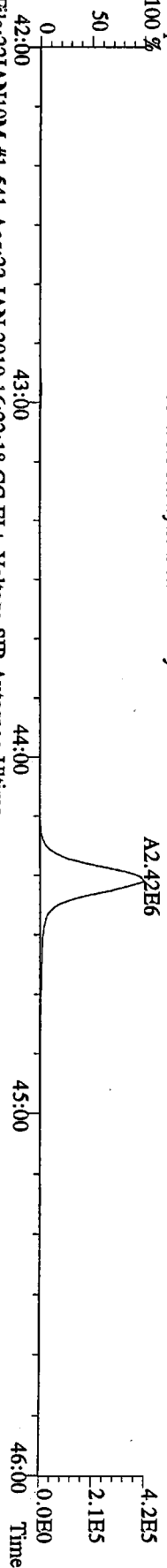
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



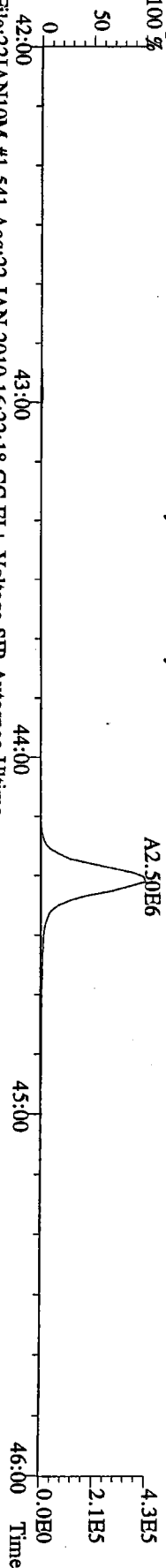
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:4 F:3 Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



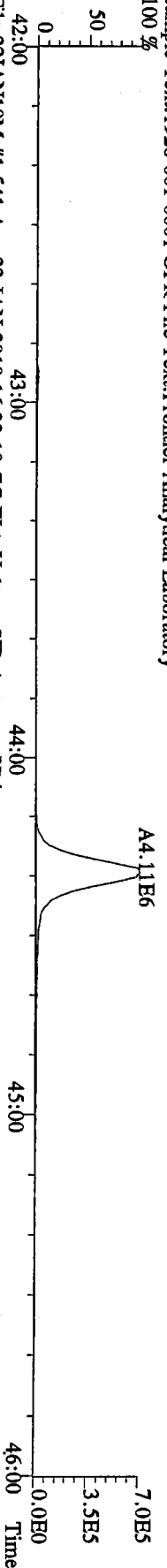
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



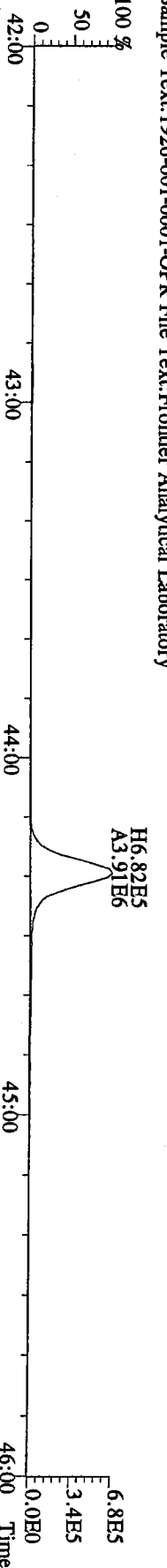
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



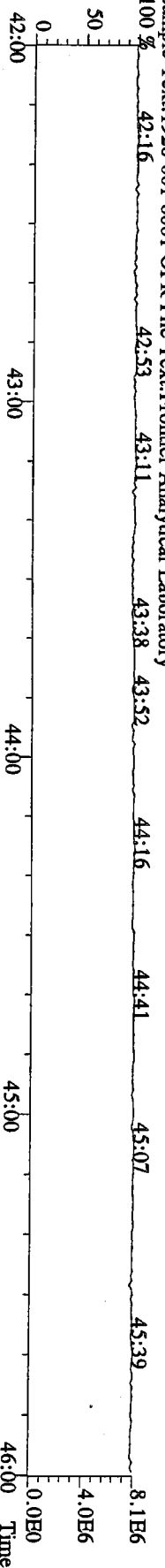
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



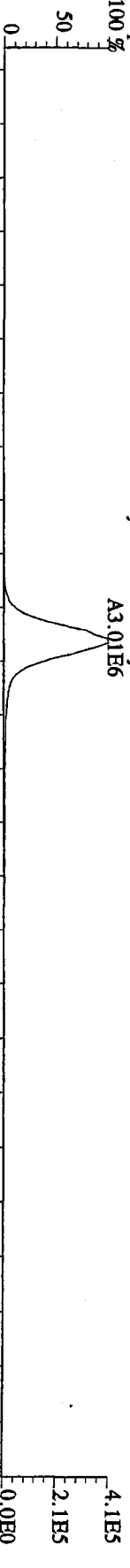
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
437.8140 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



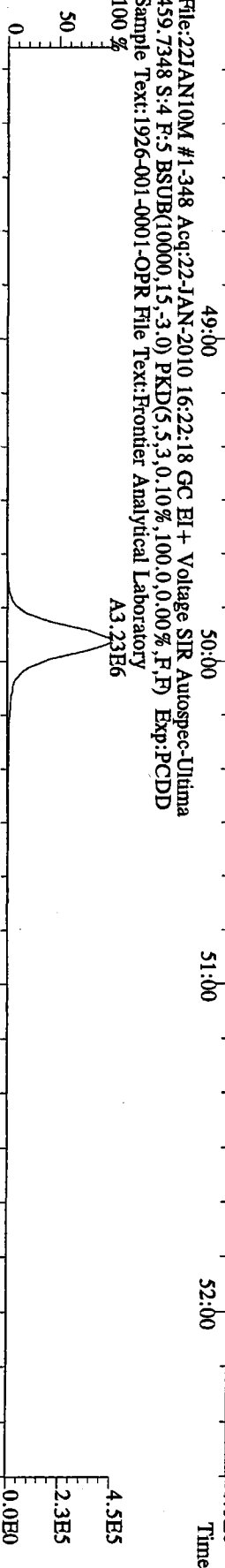
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 S:4 F:4 Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



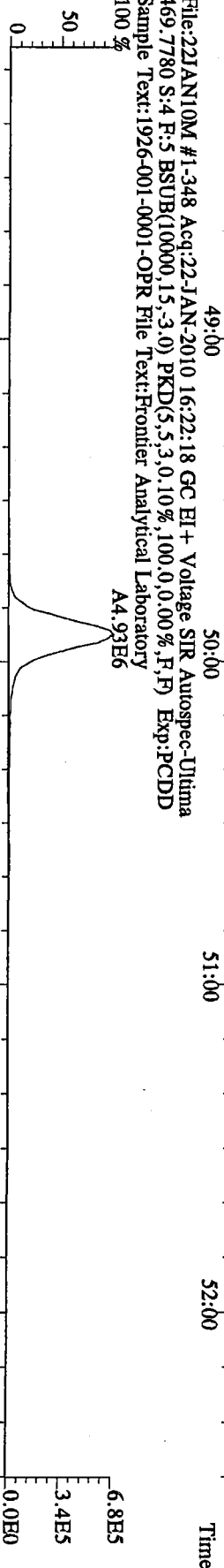
File:221AN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
457.7377 S:4 F:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



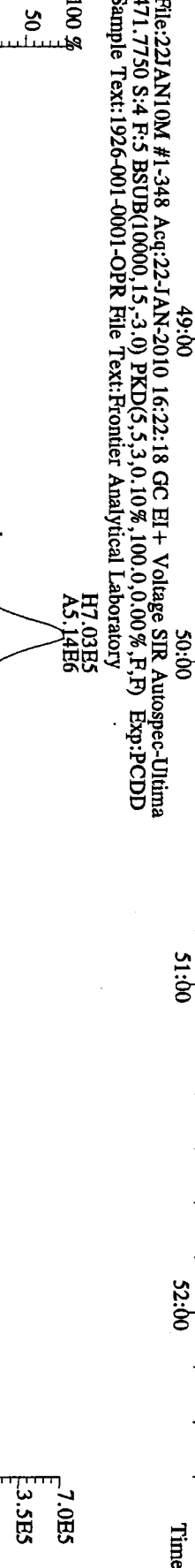
File:221AN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
459.7348 S:4 F:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



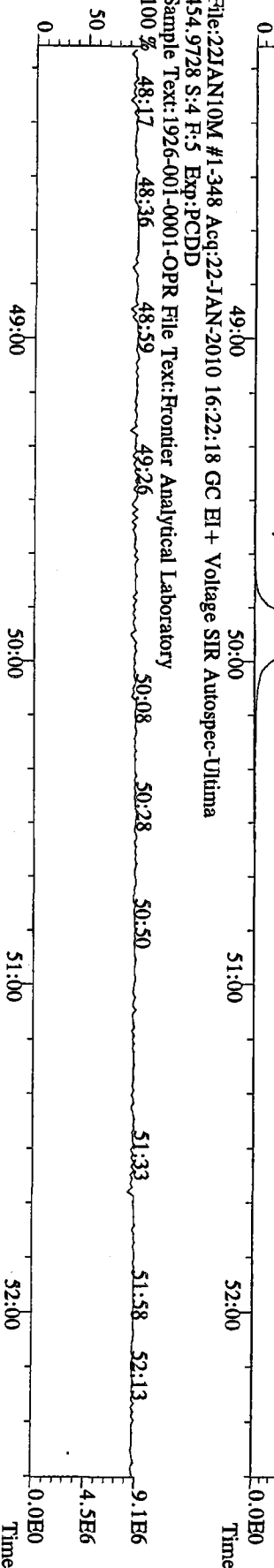
File:221AN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
469.7780 S:4 F:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



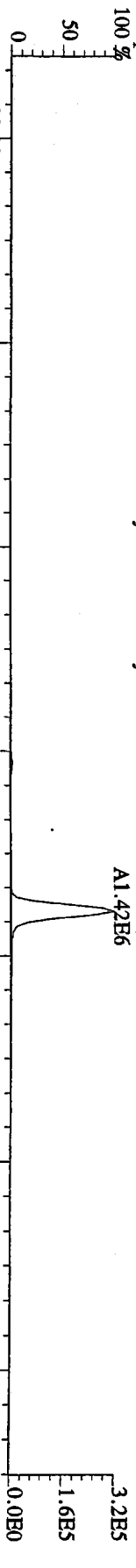
File:221AN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
471.7750 S:4 F:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



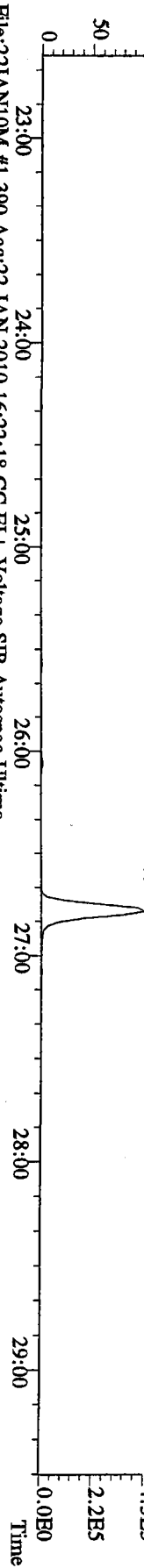
File:221AN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 S:4 F:5 Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



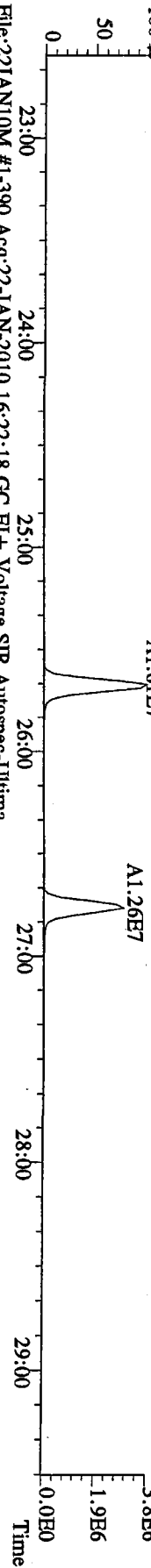
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
 303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



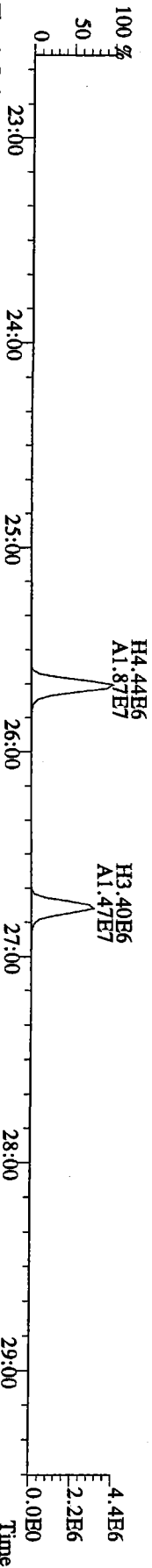
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
 305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



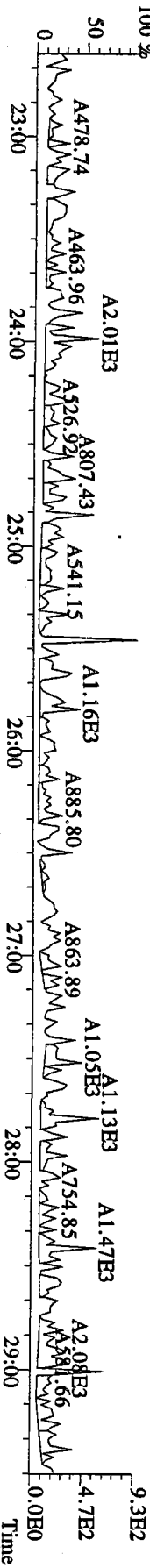
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
 315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
 317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

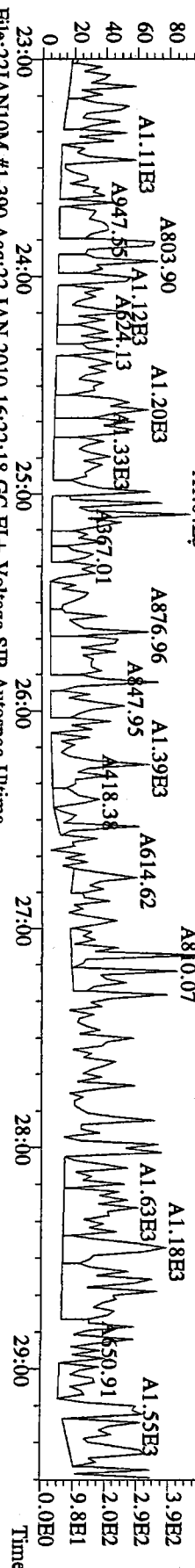


File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
 375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

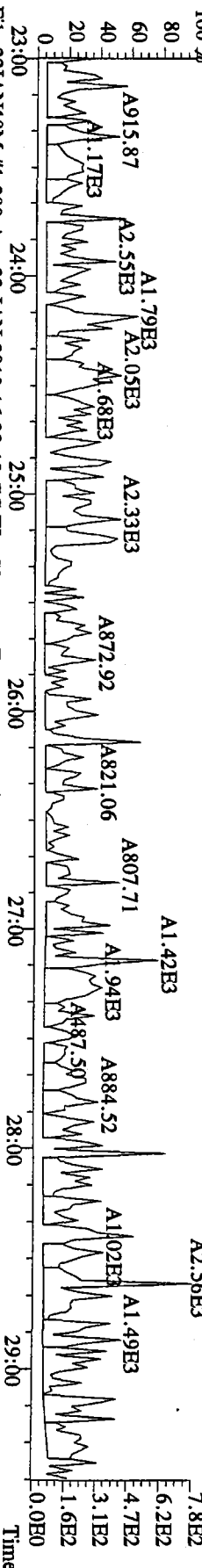


07 09 08 11 13

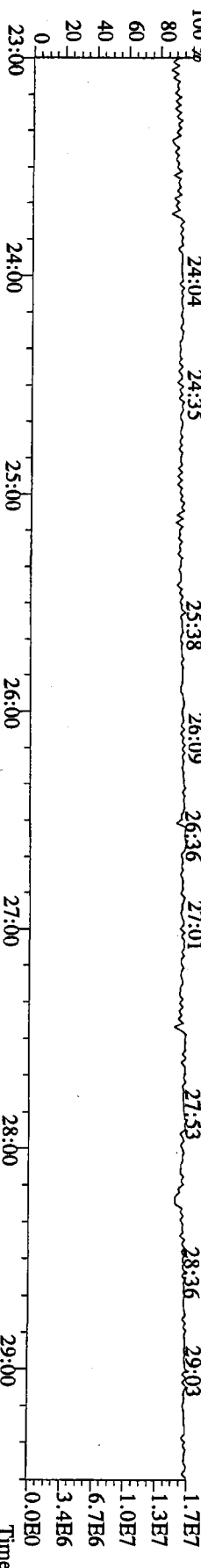
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



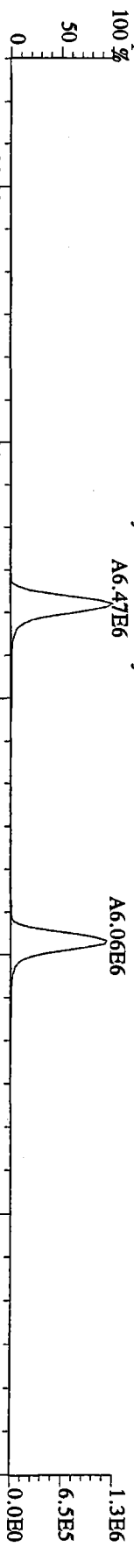
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



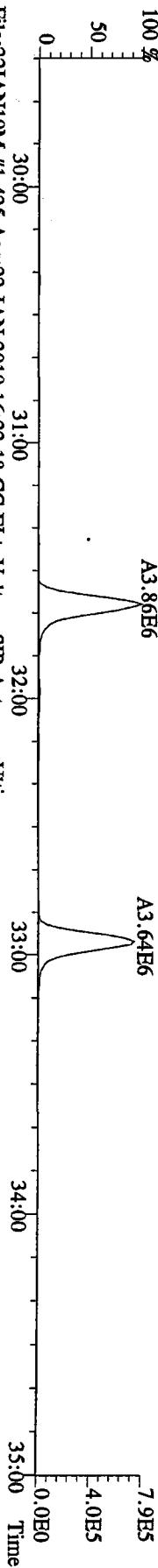
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 330.9792 S:4 Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



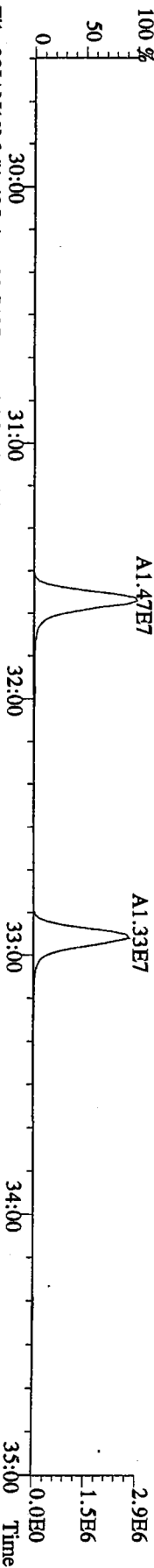
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



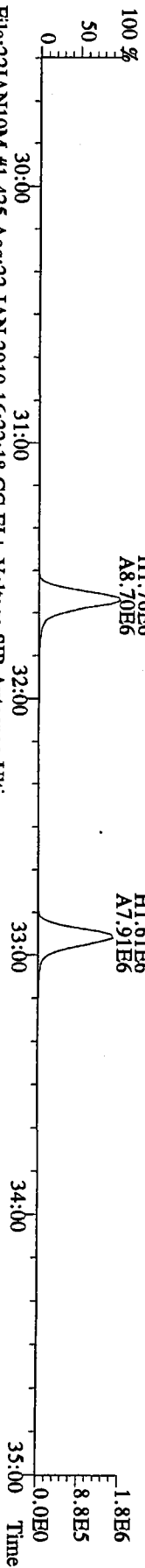
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



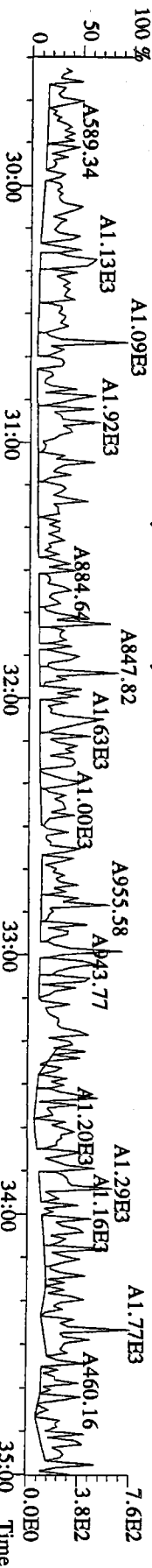
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



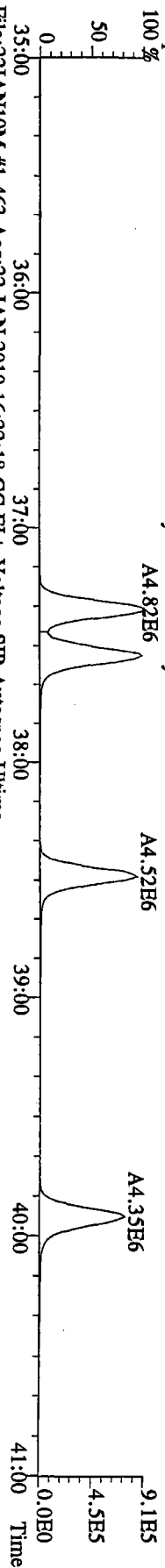
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



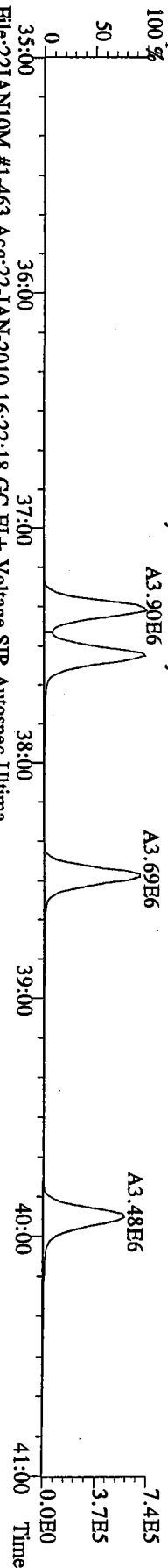
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



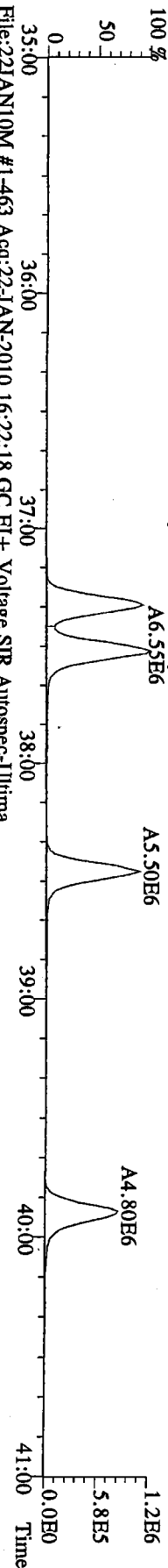
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



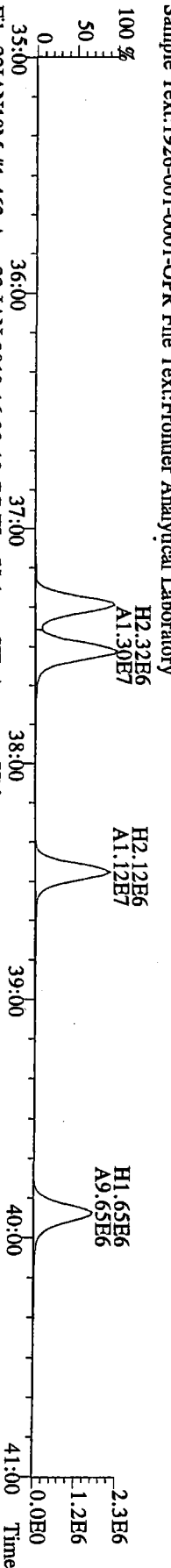
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
375.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



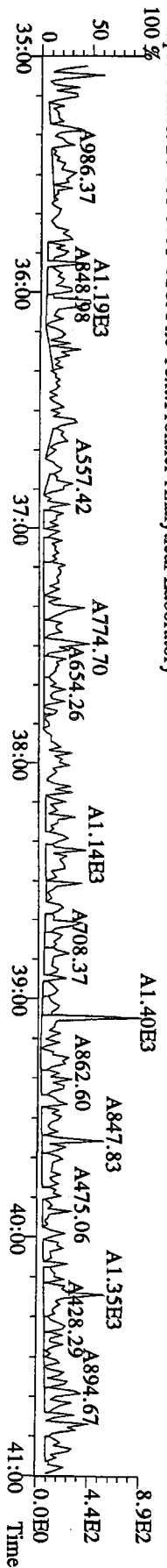
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



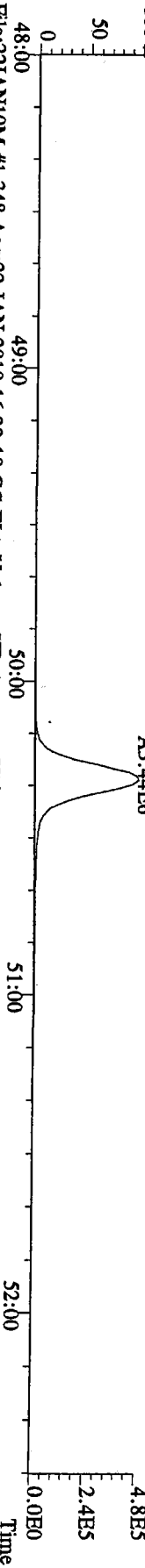
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
445.7555 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



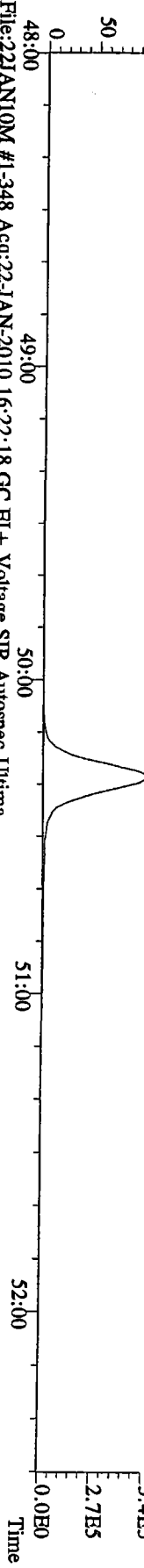




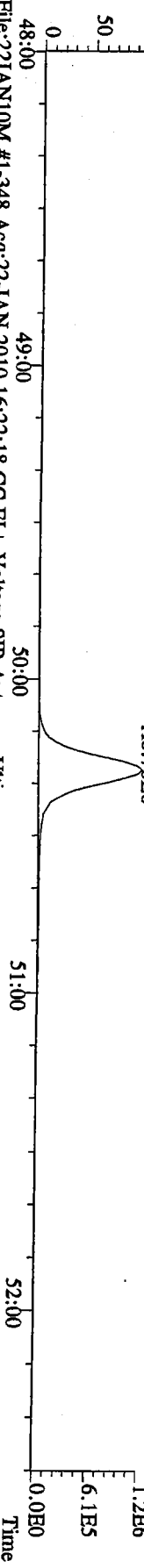
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



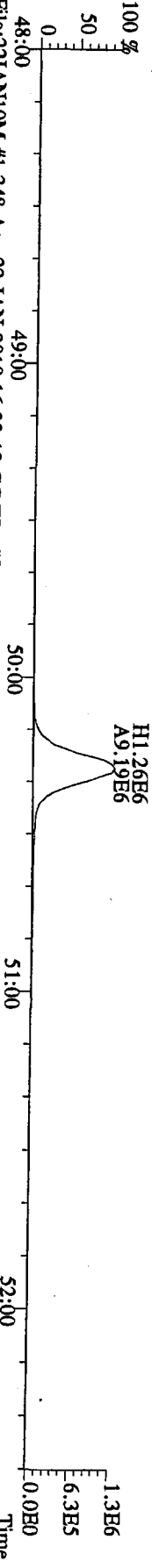
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



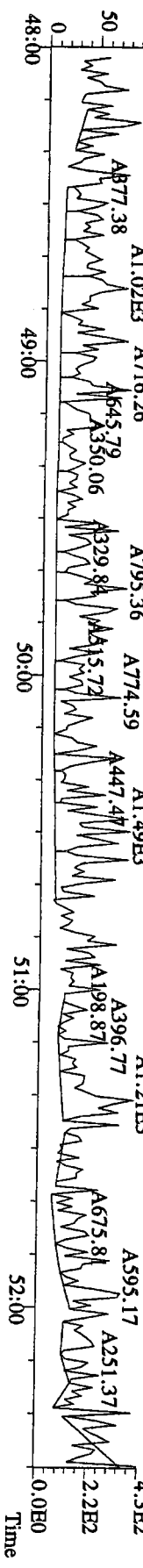
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 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:1926-001-0001-OPR File Text:Frontier Analytical Laboratory




File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 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:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



FAL ID: 5914-001-0001-SA      Filename: 25JAN10M      Sam:2      Acquired: 25-JAN-10 11:35:37      ICal: pccdfal3-11-18-09  
 Client ID: CB31A011110SED      ConCal: ST012510M1      EndCal: ST012510M2  
 Results: 5914      GC Column: DB5      Amount: 5.030      NATO 1989 Tox: 43.0      WHO 1998 Tox: 34.0      WHO 2005 Tox: 36.0

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	Rec	#Hom
2,3,7,8-TCDD	4.16e+04	0.70 y	27:29	1.02	0.632	J	2.50	-	-	*	
1,2,3,7,8-PeCDD	2.26e+05	1.47 y	33:20	0.96	3.96	J	2.50	-	-	*	
1,2,3,4,7,8-HxCDD	4.90e+05	1.17 y	38:42	1.37	9.13		2.50	-	-	*	
1,2,3,6,7,8-HxCDD	1.52e+06	1.26 y	38:51	1.34	32.3		2.50	-	-	*	
1,2,3,7,8,9-HxCDD	8.95e+05	1.25 y	39:18	1.37	17.6		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	5.23e+07	0.97 y	44:18	1.17	1210		2.50	-	-	*	
OCDD	3.74e+08	0.92 y	49:54	1.21	11200		2.50	-	-	*	
2,3,7,8-TCDF	4.32e+04	0.71 y	26:44	1.29	0.332	J	2.50	-	-	*	
1,2,3,7,8-PeCDF	8.53e+04	1.52 y	31:36	0.89	1.00	J	2.50	-	-	*	
2,3,4,7,8-PeCDF	1.75e+05	1.64 y	32:55	0.91	2.23	J	2.50	-	-	*	
1,2,3,4,7,8-HxCDF	2.67e+06	1.22 y	37:19	1.00	39.4		2.50	-	-	*	
1,2,3,6,7,8-HxCDF	6.03e+05	1.17 y	37:30	0.92	8.55		2.50	-	-	*	
2,3,4,6,7,8-HxCDF	8.19e+05	1.19 y	38:26	0.99	12.4		2.50	-	-	*	
1,2,3,7,8,9-HxCDF	1.87e+05	1.32 y	39:56	1.09	2.96	J	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	1.25e+07	1.04 y	42:24	1.36	246		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	1.14e+06	1.05 y	45:13	1.61	22.6		2.50	-	-	*	
OCDF	3.17e+07	0.90 y	50:17	0.84	914		2.50	-	-	*	
13C-2,3,7,8-TCDD	2.58e+07	0.71 y	27:28	0.94	297					74.7	
13C-1,2,3,7,8-PeCDD	2.36e+07	1.68 y	33:18	1.02	251					63.2	
13C-1,2,3,4,7,8-HxCDD	1.55e+07	1.25 y	38:40	0.98	299					75.2	
13C-1,2,3,6,7,8-HxCDD	1.40e+07	1.27 y	38:50	0.94	282					71.0	
13C-1,2,3,4,6,7,8-HpCDD	1.47e+07	1.05 y	44:17	0.90	309					77.8	
13C-OCDD	2.18e+07	0.99 y	49:53	0.67	618					77.7	
13C-2,3,7,8-TCDF	4.03e+07	0.86 y	26:43	0.88	303					76.2	
13C-1,2,3,7,8-PeCDF	3.81e+07	1.66 y	31:34	0.88	287					72.1	
13C-2,3,4,7,8-PeCDF	3.45e+07	1.65 y	32:53	0.85	268					67.3	
13C-1,2,3,4,7,8-HxCDF	2.70e+07	0.48 y	37:17	1.72	298					74.9	
13C-1,2,3,6,7,8-HxCDF	3.06e+07	0.48 y	37:29	2.00	289					72.7	
13C-2,3,4,6,7,8-HxCDF	2.65e+07	0.48 y	38:26	1.74	289					72.8	
13C-1,2,3,7,8,9-HxCDF	2.31e+07	0.48 y	39:52	1.51	290					72.9	
13C-1,2,3,4,6,7,8-HpCDF	1.48e+07	0.47 y	42:23	1.10	255					64.2	
13C-1,2,3,4,7,8,9-HpCDF	1.25e+07	0.47 y	45:12	0.85	279					70.1	
13C-OCDF	3.28e+07	0.96 y	50:15	1.17	529					66.5	
37Cl-2,3,7,8-TCDD	1.15e+07		27:29	0.97	129					80.9	
13C-1,2,3,4-TCDD	3.66e+07	0.72 y	26:54	-	27.8						
13C-1,2,3,4-TCDF	6.03e+07	0.86 y	25:37	-	25.9						
13C-1,2,3,7,8,9-HxCDD	2.10e+07	1.28 y	39:18	-	20.4						
Total Tetra-Dioxins	1.47e+05		24:29	1.02	2.23		2.50	-	-	*	5
Total Penta-Dioxins	8.80e+05		30:20	0.96	15.4		2.50	-	-	*	10
Total Hexa-Dioxins	7.45e+06		36:14	1.36	149		2.50	-	-	*	8
Total Hepta-Dioxins	8.45e+07		42:55	1.17	1960		2.50	-	-	*	2
Total Tetra-Furans	1.10e+06		23:29	1.29	8.48	D,M	2.50	-	-	*	14
1st Fn. Tot Penta-Furans	1.76e+06		28:33	0.90	21.4	D,M	2.50	-	-	*	PeCDF 1
Total Penta-Furans	2.30e+06		30:10	0.90	28.1	D,M	2.50	-	-	*	49.5 12
Total Hexa-Furans	2.34e+07		35:21	0.99	349	D,M	2.50	-	-	*	10
Total Hepta-Furans	5.00e+07		42:24	1.47	991		2.50	-	-	*	4

Analyst:       Date: 1/25/10

Totals class: Total Tetra-Dioxins

Entry #: 38

Run: 16

File: 25JAN10M

S: 2 I: 1 F: 1

Acquired: 25-JAN-10 11:35:37

Total Concentration: 2.23

Unnamed Concentration: 1.601

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
24:29	1.92e+04	2.35e+04	0.82 y	4.27e+04	0.648	
24:45	9.93e+03	1.19e+04	0.83 y	2.18e+04	0.331	
26:02	1.06e+04	1.48e+04	0.71 y	2.54e+04	0.385	
27:29	1.72e+04	2.45e+04	0.70 y	4.16e+04	0.632	2,3,7,8-TCDD
27:49	7.16e+03	8.41e+03	0.85 y	1.56e+04	0.236	

Totals class: Total Penta-Dioxins

Entry #: 39

Run: 16

File: 25JAN10M

S: 2 I: 1 F: 2

Acquired: 25-JAN-10 11:35:37

Total Concentration: 15.4

Unnamed Concentration: 11.486

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:20	9.80e+04	6.29e+04	1.56 y	1.61e+05	2.82	
30:56	1.76e+04	1.15e+04	1.53 y	2.92e+04	0.512	
31:35	4.57e+04	2.86e+04	1.60 y	7.43e+04	1.30	
31:48	9.92e+04	6.52e+04	1.52 y	1.64e+05	2.88	
31:57	4.73e+04	3.03e+04	1.56 y	7.76e+04	1.36	
32:15	4.44e+04	2.51e+04	1.77 y	6.96e+04	1.22	
32:43	8.20e+03	5.91e+03	1.39 y	1.41e+04	0.248	
33:20	1.35e+05	9.13e+04	1.47 y	2.26e+05	3.96	1,2,3,7,8-PeCDD
33:25	1.99e+04	1.41e+04	1.41 y	3.39e+04	0.596	
33:54	1.85e+04	1.21e+04	1.53 y	3.06e+04	0.537	

Totals class: Total Hexa-Dioxins

Entry #: 40

Run: 16 File: 25JAN10M  
Acquired: 25-JAN-10 11:35:37

S: 2 I: 1 F: 3

Total Concentration: 149

Unnamed Concentration: 89.967

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
36:14	6.61e+05	5.41e+05	1.22 y	1.20e+06	23.8	
37:10	1.77e+05	1.41e+05	1.25 y	3.18e+05	6.29	
37:36	1.57e+06	1.26e+06	1.25 y	2.83e+06	56.0	
37:46	4.53e+04	3.80e+04	1.19 y	8.33e+04	1.65	
38:42	2.64e+05	2.26e+05	1.17 y	4.90e+05	9.13	1,2,3,4,7,8-HxCDD
38:51	8.47e+05	6.75e+05	1.26 y	1.52e+06	32.3	1,2,3,6,7,8-HxCDD
39:09	6.61e+04	4.77e+04	1.38 y	1.14e+05	2.25	
39:18	4.97e+05	3.98e+05	1.25 y	8.95e+05	17.6	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 16

File: 25JAN10M

S: 2 I: 1 F: 4

Acquired: 25-JAN-10 11:35:37

Total Concentration: 1960

Unnamed Concentration: 746.587

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:55	1.57e+07	1.65e+07	0.96 y	3.22e+07	747	
44:18	2.57e+07	2.66e+07	0.97 y	5.23e+07	1210	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans

Entry #: 42

Run: 16 File: 25JAN10M  
Acquired: 25-JAN-10 11:35:37

S: 2 I: 1 F: 1

Total Concentration: 8.48

Unnamed Concentration: 8.145

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
23:29	1.30e+04	1.50e+04	0.87 y	2.79e+04	0.214	
23:53	8.76e+04	1.29e+05	0.68 y	2.17e+05	1.67	
24:16	3.17e+04	3.98e+04	0.80 y	7.15e+04	0.548	
24:31	4.28e+04	5.11e+04	0.84 y	9.39e+04	0.721	
24:48	5.63e+04	7.72e+04	0.73 y	1.33e+05	1.02	
25:24	1.45e+04	1.65e+04	0.88 y	3.10e+04	0.238	
25:31	4.15e+04	6.19e+04	0.67 y	1.03e+05	0.794	
25:38	4.80e+04	7.00e+04	0.69 y	1.18e+05	0.906	
25:59	2.11e+04	2.60e+04	0.81 y	4.71e+04	0.362	
26:44	1.79e+04	2.53e+04	0.71 y	4.32e+04	0.332	2,3,7,8-TCDF
27:03	1.81e+04	2.12e+04	0.85 y	3.93e+04	0.302	
27:57	3.31e+04	4.35e+04	0.76 y	7.66e+04	0.588	
28:10	1.38e+04	1.61e+04	0.86 y	2.99e+04	0.229	
28:34	3.09e+04	4.11e+04	0.75 y	7.20e+04	0.553	

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

Run: 16 File: 25JAN10M S: 2 I: 1 F: 1  
Acquired: 25-JAN-10 11:35:37

Total Concentration: 21.4 Unnamed Concentration: 21.432

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:33	1.07e+06	6.90e+05	1.54 y	1.76e+06	21.4	



Totals class: Total Penta-Furans

Entry #: 44

Run: 16 File: 25JAN10M  
Acquired: 25-JAN-10 11:35:37

S: 2 I: 1 F: 2

Total Concentration: 28.1

Unnamed Concentration: 24.880

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:10	4.33e+04	2.55e+04	1.69 y	6.88e+04	0.840	
30:20	7.83e+05	4.70e+05	1.67 y	1.25e+06	15.3	
31:02	1.14e+05	7.41e+04	1.54 y	1.88e+05	2.29	
31:20	1.91e+04	1.09e+04	1.74 y	3.00e+04	0.366	
31:36	5.14e+04	3.39e+04	1.52 y	8.53e+04	1.00	1,2,3,7,8-PeCDF
31:52	7.53e+04	4.46e+04	1.69 y	1.20e+05	1.46	
31:57	6.99e+04	4.10e+04	1.71 y	1.11e+05	1.35	
32:10	3.05e+04	2.21e+04	1.38 y	5.26e+04	0.642	
32:45	1.31e+04	8.50e+03	1.54 y	2.15e+04	0.263	
32:55	1.09e+05	6.63e+04	1.64 y	1.75e+05	2.23	2,3,4,7,8-PeCDF
32:57	9.10e+04	5.22e+04	1.74 y	1.43e+05	1.75	
34:13	3.06e+04	1.94e+04	1.58 y	5.00e+04	0.610	

Totals class: Total Hexa-Furans

Entry #: 45

Run: 16

File: 25JAN10M

S: 2 I: 1 F: 3

Acquired: 25-JAN-10 11:35:37

Total Concentration: 349

Unnamed Concentration: 285.842

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:21	7.25e+05	6.03e+05	1.20 y	1.33e+06	19.9	
35:37	3.23e+06	2.72e+06	1.19 y	5.95e+06	89.0	
36:13	7.12e+04	5.95e+04	1.20 y	1.31e+05	1.96	
36:32	6.19e+06	5.00e+06	1.24 y	1.12e+07	167	
37:07	5.51e+04	3.87e+04	1.42 y	9.38e+04	1.40	
37:19	1.47e+06	1.20e+06	1.22 y	2.67e+06	39.4	1,2,3,4,7,8-HxCDF
37:30	3.25e+05	2.77e+05	1.17 y	6.03e+05	8.55	1,2,3,6,7,8-HxCDF
38:12	2.17e+05	1.91e+05	1.14 y	4.07e+05	6.09	
38:26	4.45e+05	3.74e+05	1.19 y	8.19e+05	12.4	2,3,4,6,7,8-HxCDF
39:56	1.07e+05	8.05e+04	1.32 y	1.87e+05	2.96	1,2,3,7,8,9-HxCDF

Totals class: Total Hepta-Furans

Entry #: 46

Run: 16

File: 25JAN10M

S: 2 I: 1 F: 4

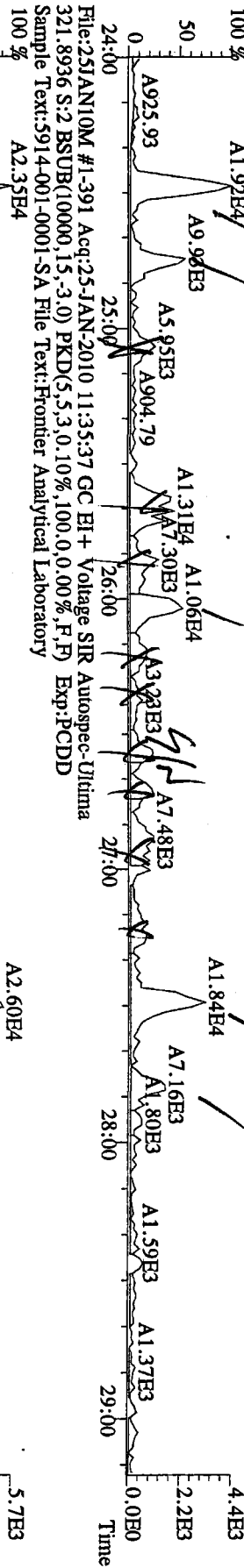
Acquired: 25-JAN-10 11:35:37

Total Concentration: 991

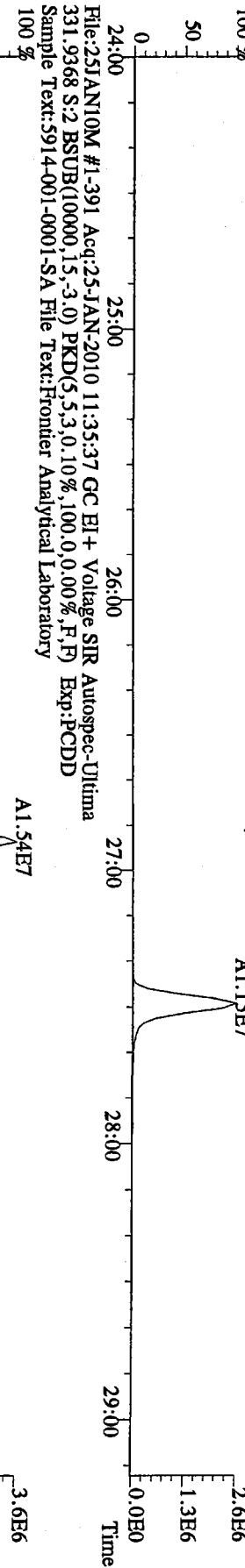
Unnamed Concentration: 722.766

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:24	6.36e+06	6.10e+06	1.04 y	1.25e+07	246	1,2,3,4,6,7,8-HpCDF
42:56	1.34e+05	1.16e+05	1.15 y	2.50e+05	4.97	
43:13	1.84e+07	1.77e+07	1.04 y	3.61e+07	718	
45:13	5.83e+05	5.57e+05	1.05 y	1.14e+06	22.6	1,2,3,4,7,8,9-HpCDF

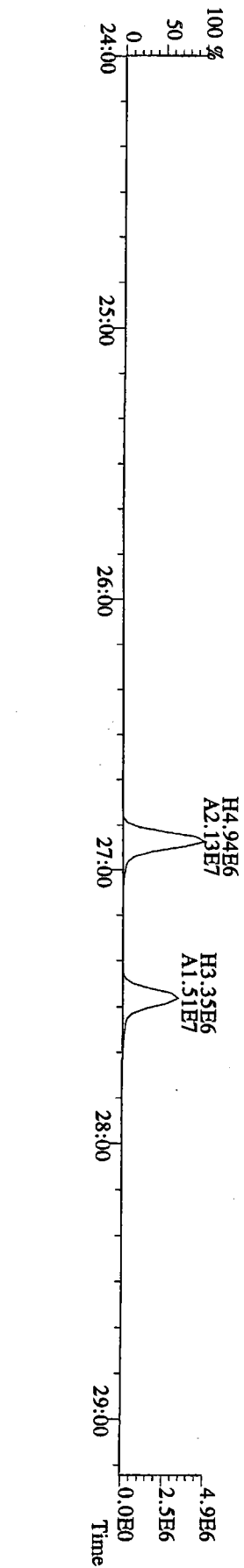
File:251AN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S.2:BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



File:251AN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S.2:BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory

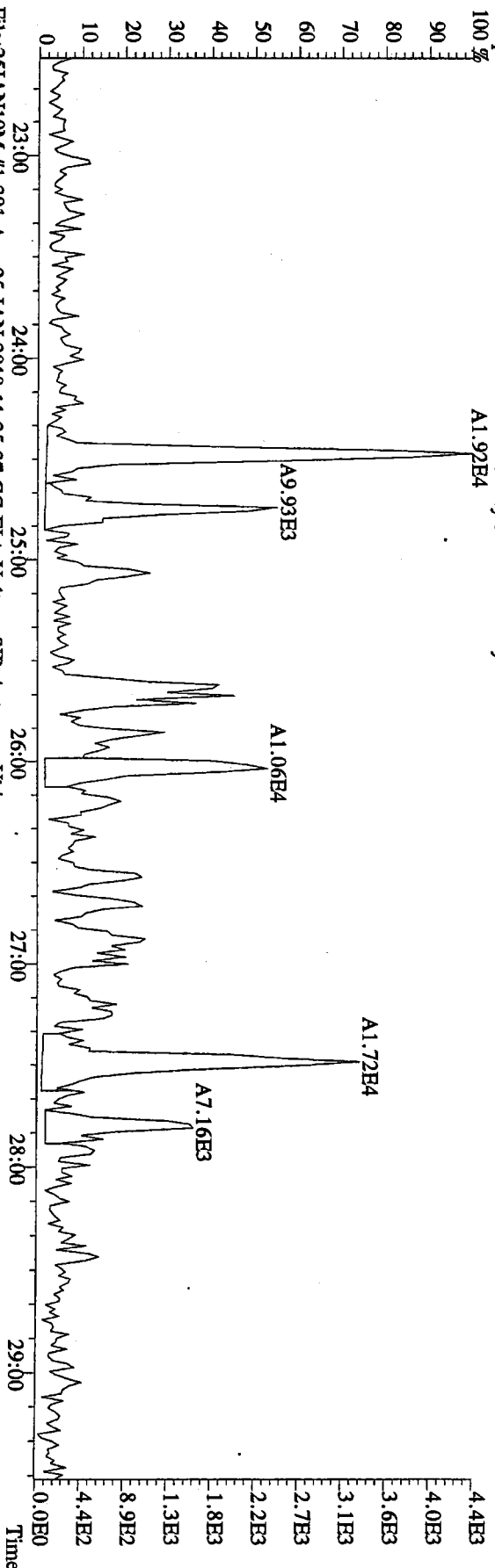


File:251AN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S.2:BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory

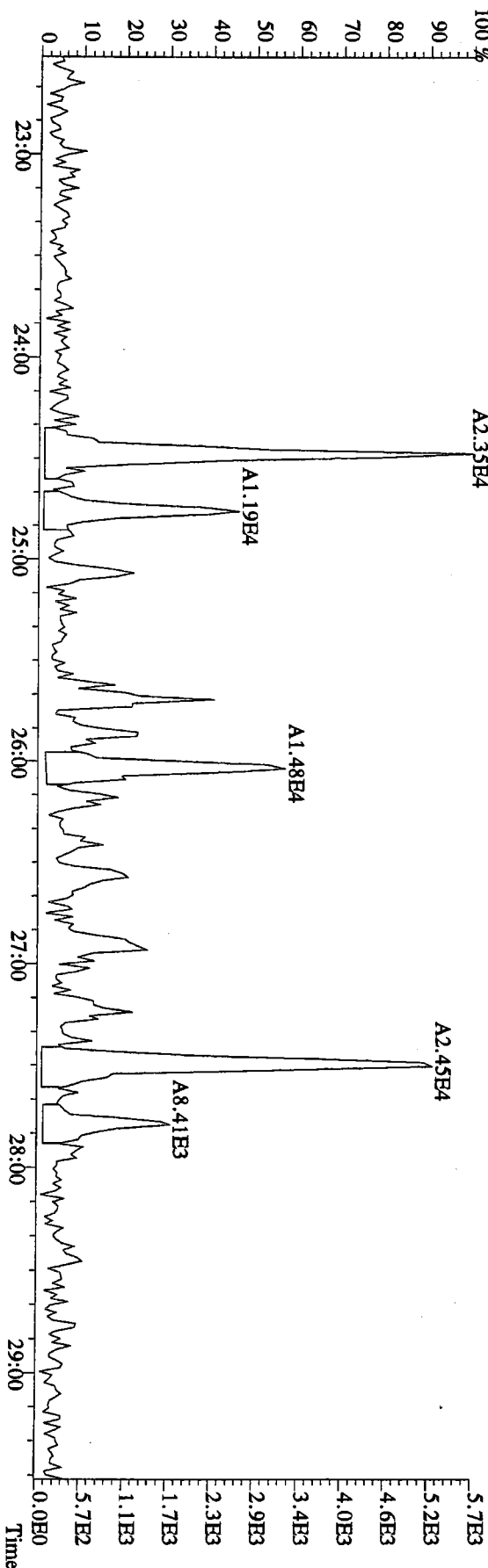


20090909 09:01:03

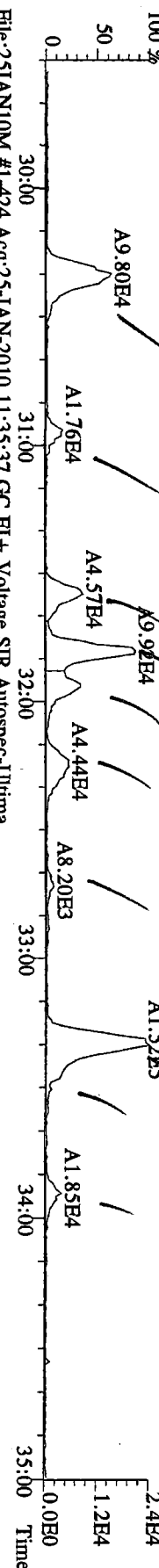
File:25JAN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



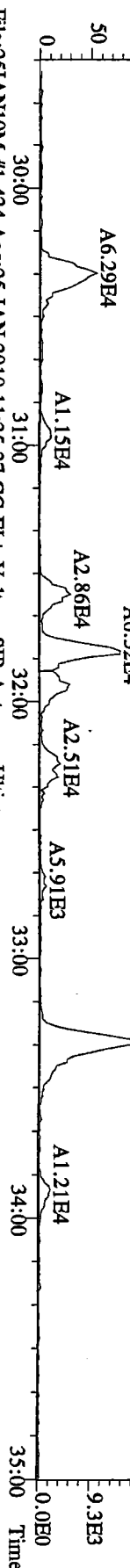
File:25JAN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



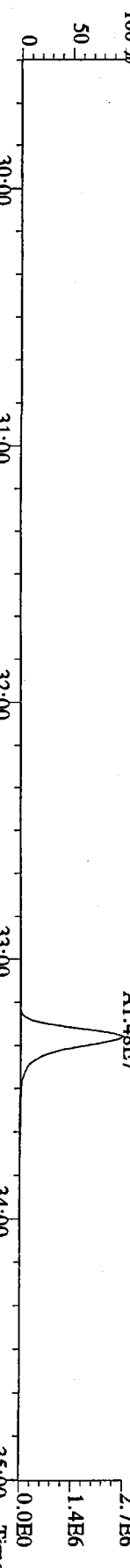
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



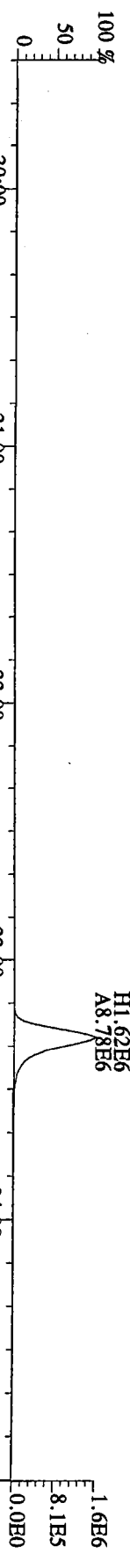
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 357.8517 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



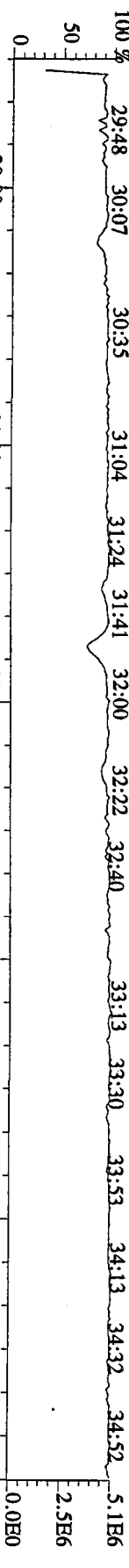
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 369.8919 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



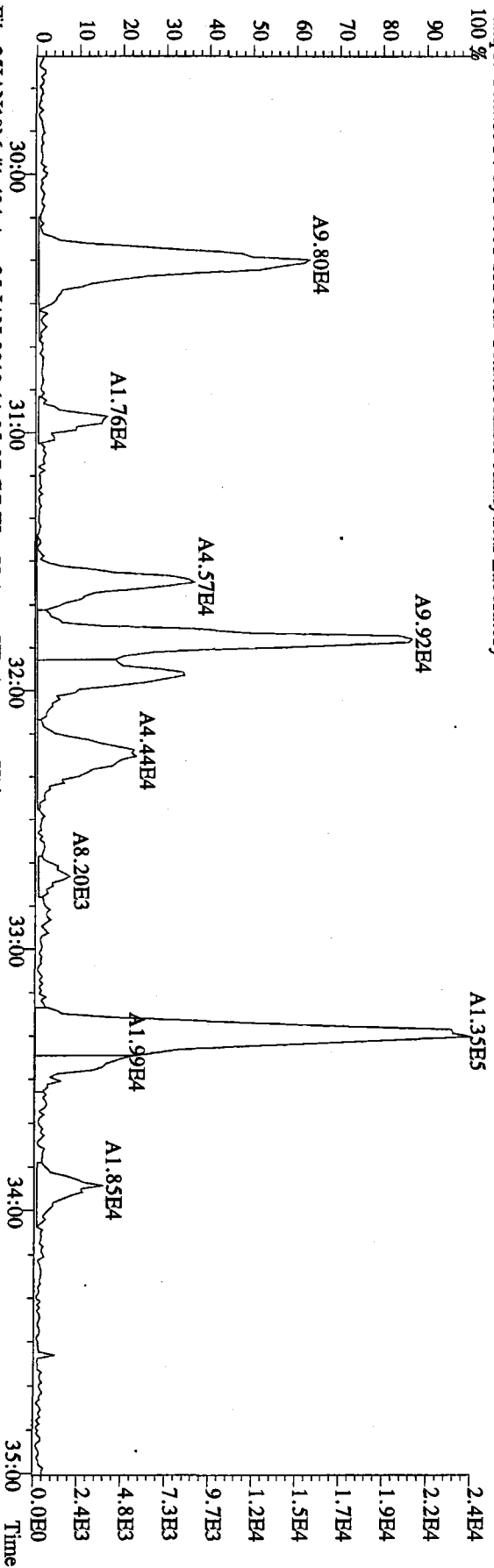
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 S:2 F:2 Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



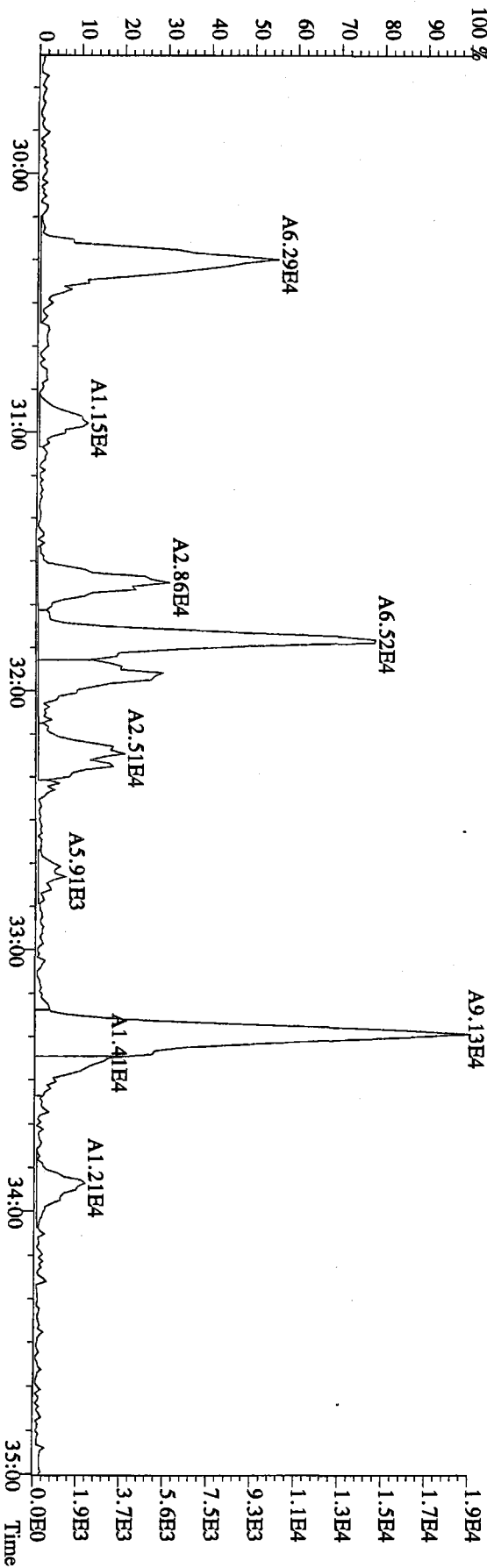
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 S:2 F:2 Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



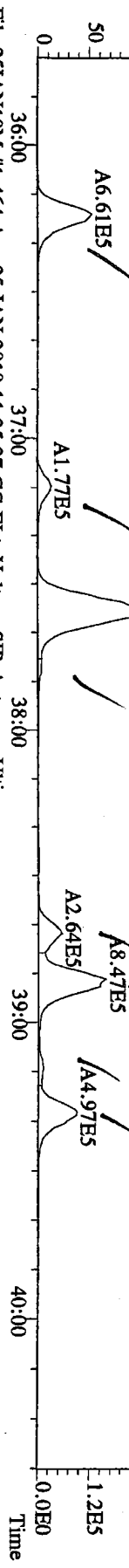
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



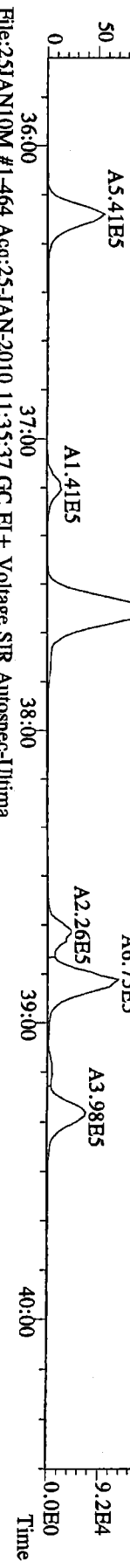
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 357.8517 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



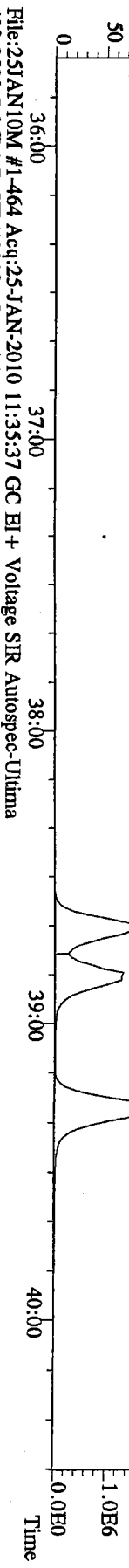
File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



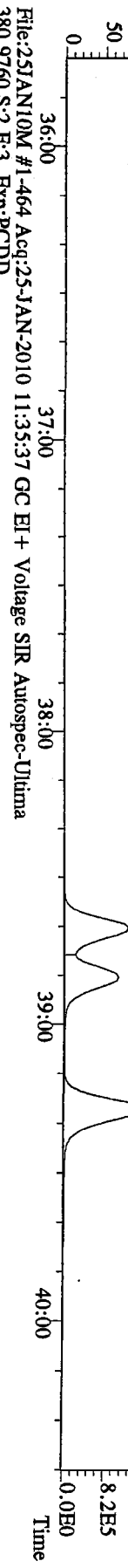
File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



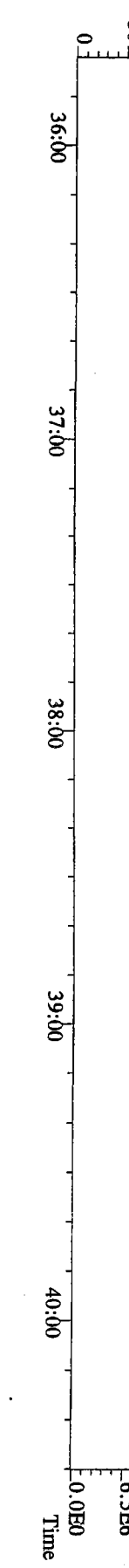
File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 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:5914-001-0001-SA File Text:Frontier Analytical Laboratory

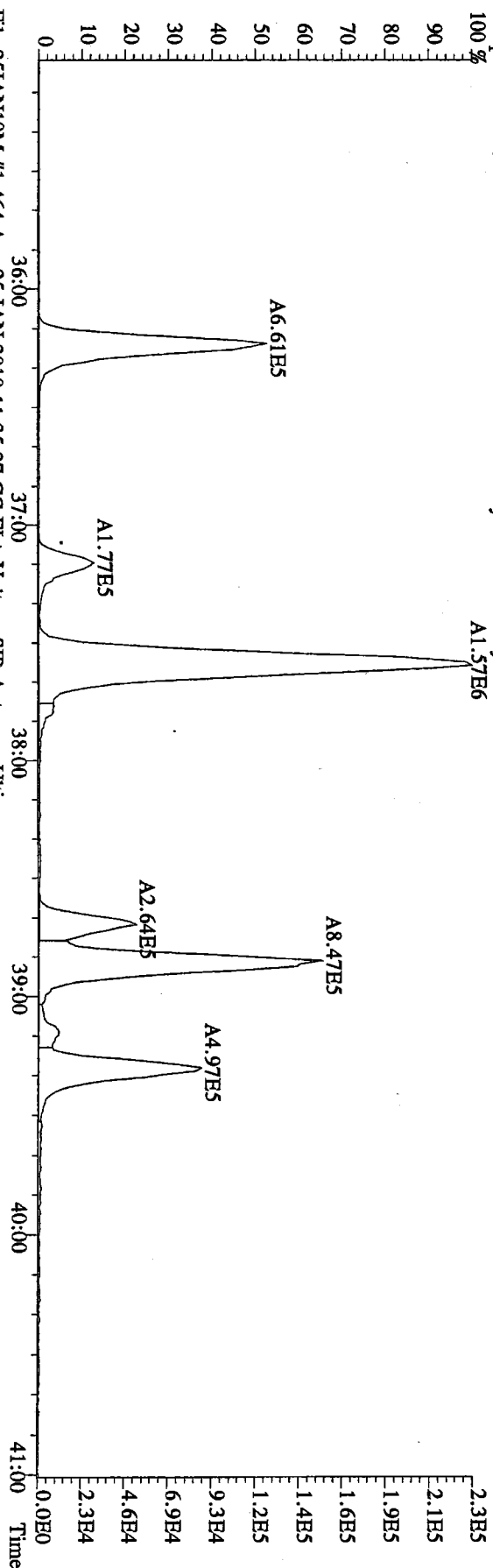


File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:2 F:3 Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory

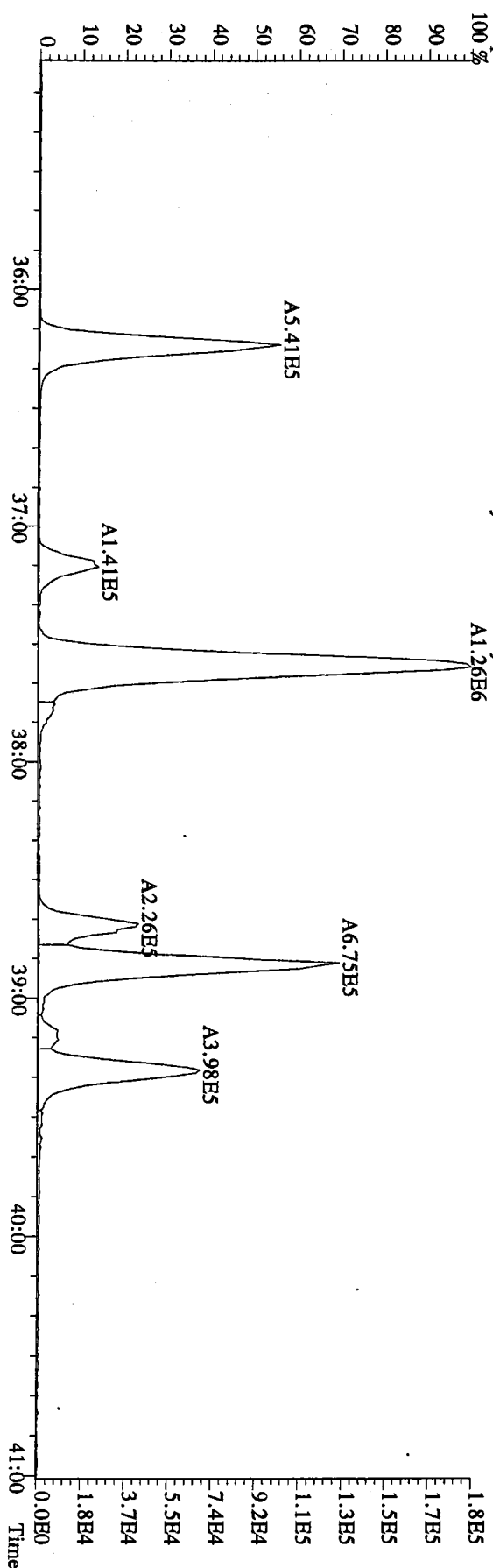




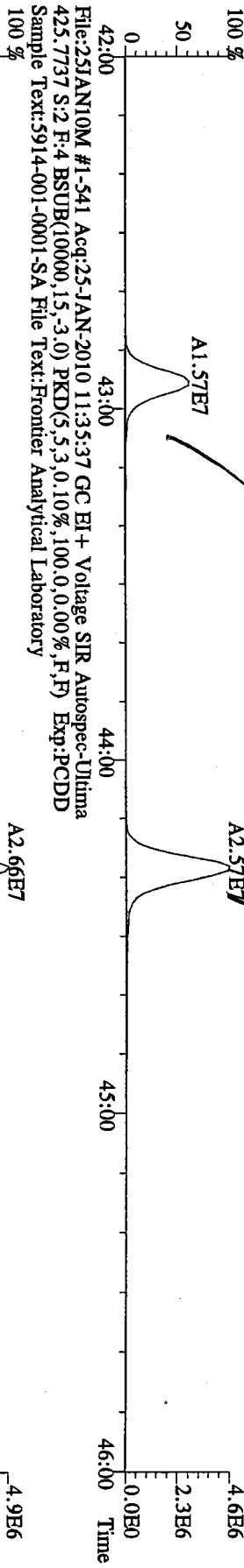
File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
 389.8156 S:2 F:3 BSUB(10000,15,3.0) PKD(5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



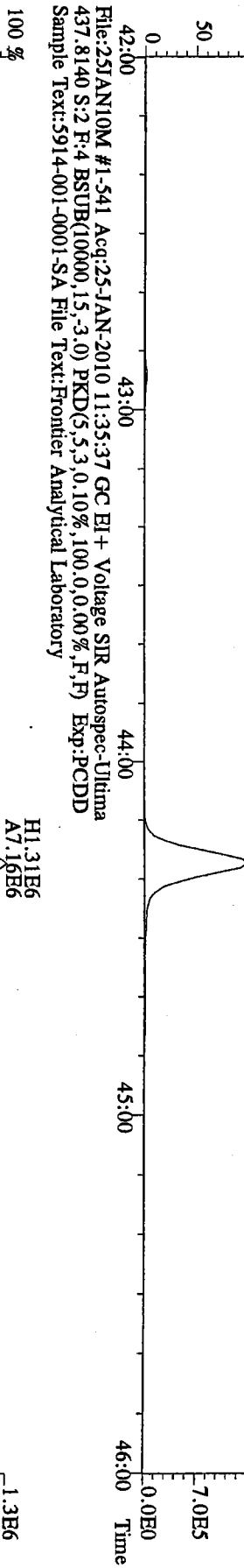
File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
 391.8127 S:2 F:3 BSUB(10000,15,3.0) PKD(5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



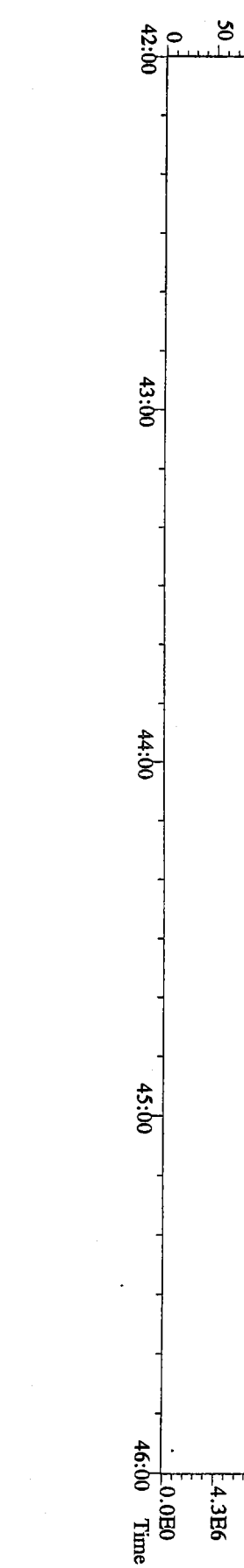
File:25JAN10M #1-541 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



File:25JAN10M #1-541 Acq:25-JAN-2010 11:35:37 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:5914-001-0001-SA File Text:Frontier Analytical Laboratory



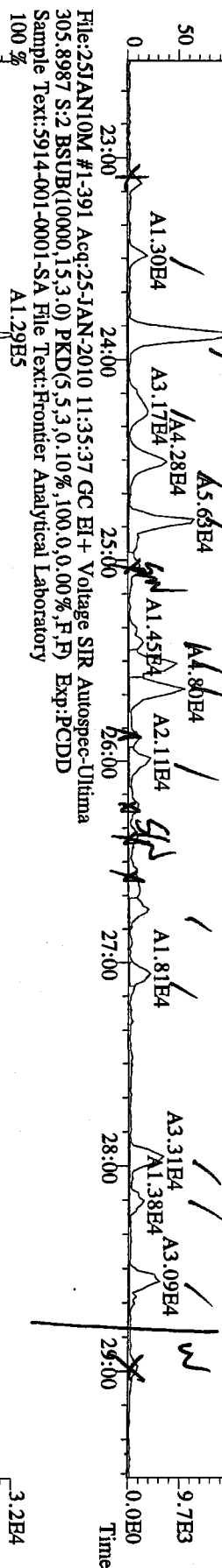
File:25JAN10M #1-541 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
437.8140 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



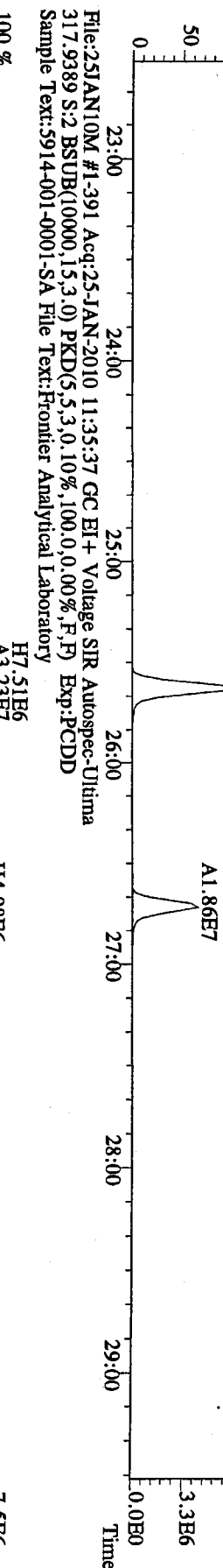
00 00 00 : 00 00 00



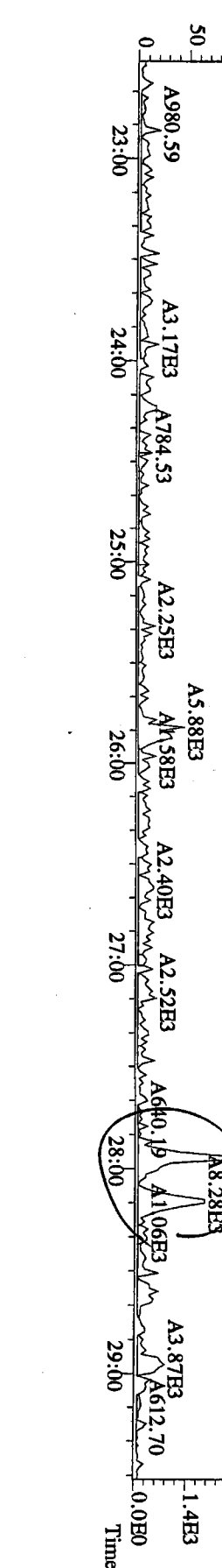
File:25JAN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



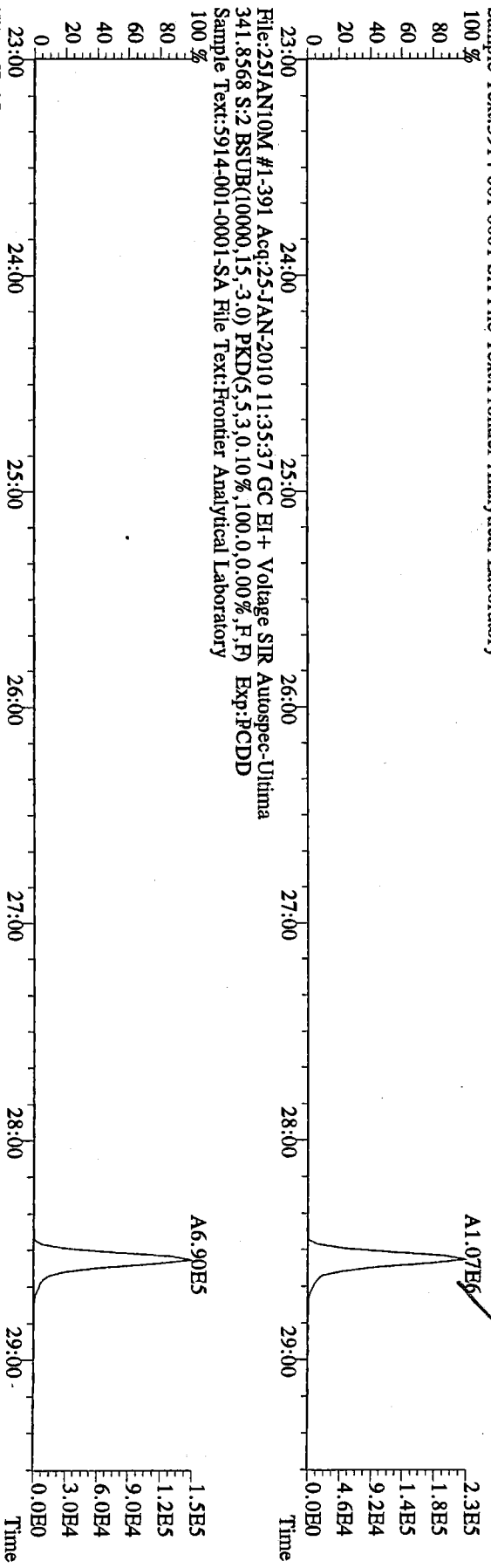
File:25JAN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 315.9419 S:2 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



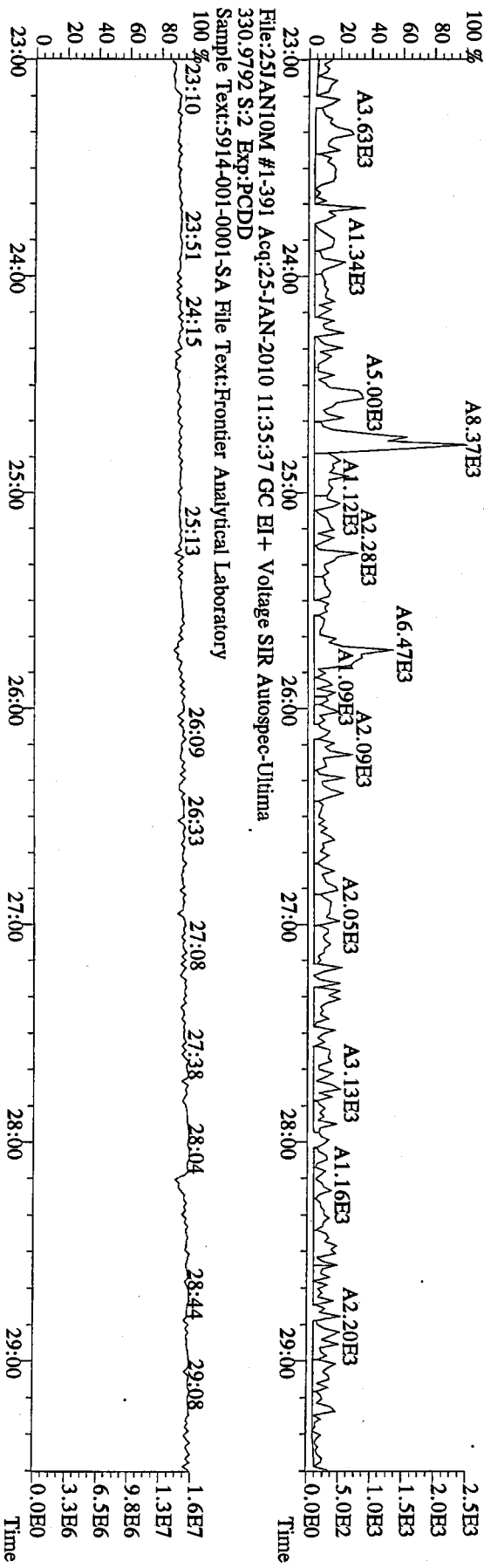
File:25JAN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



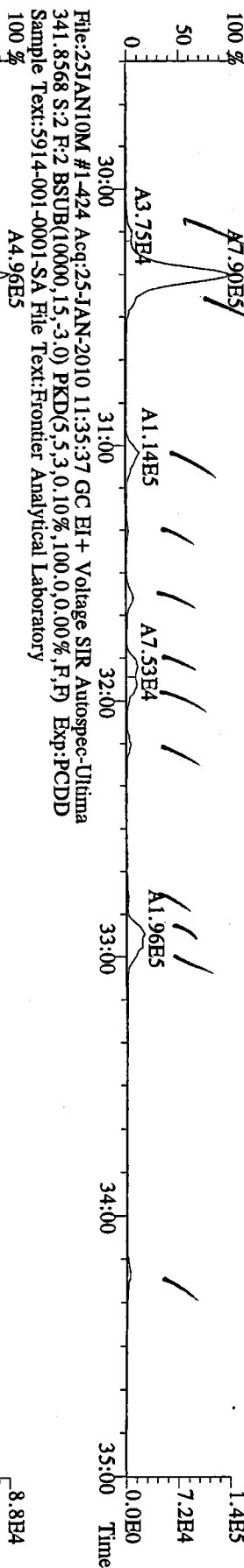
File:25JAN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S.2:BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



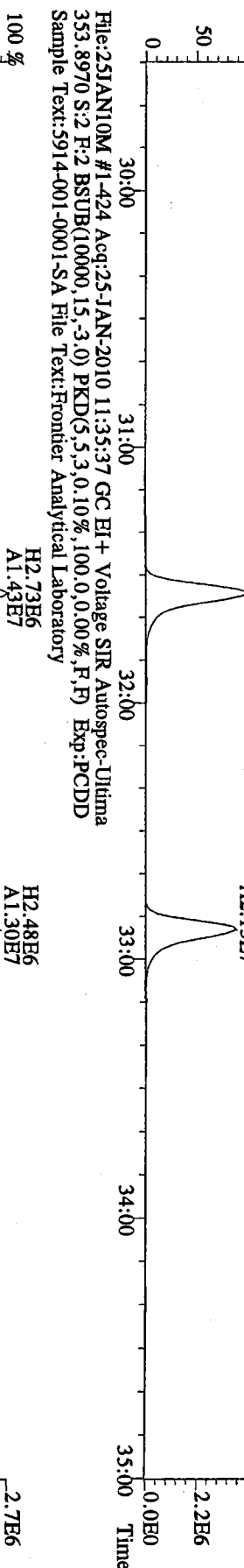
File:25JAN10M #1-391 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S.2:BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



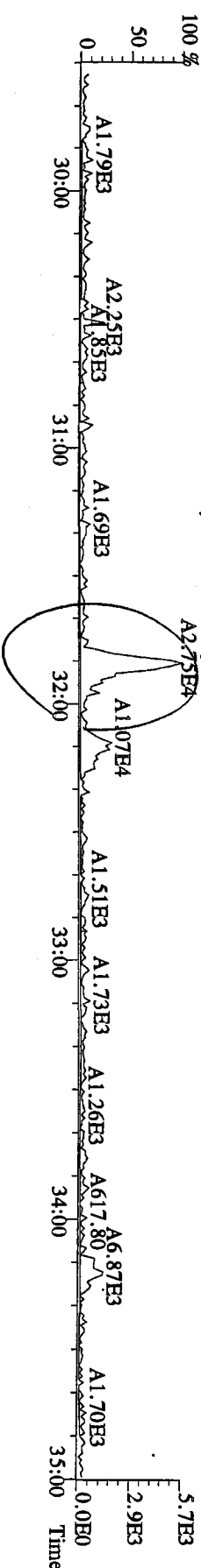
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



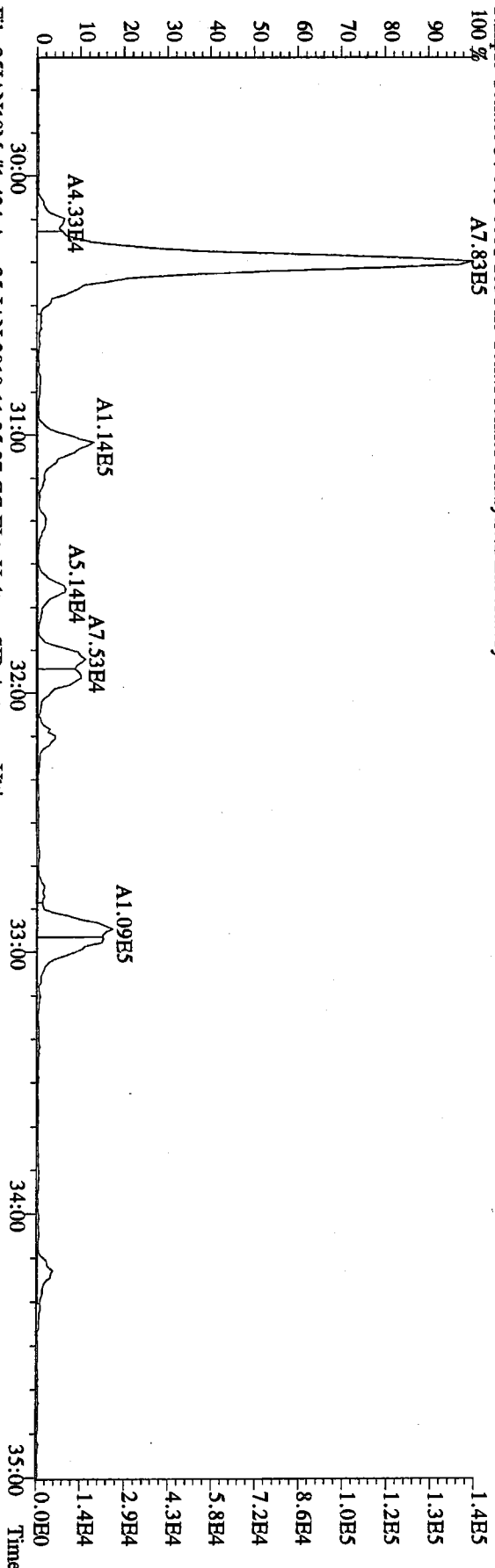
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



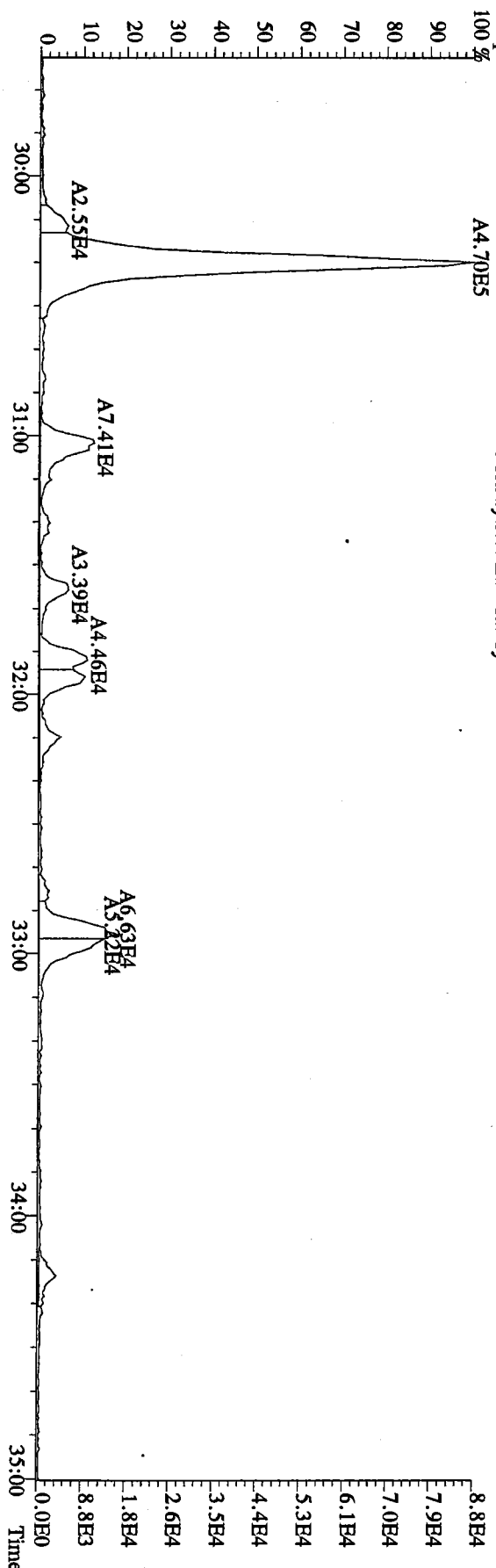
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



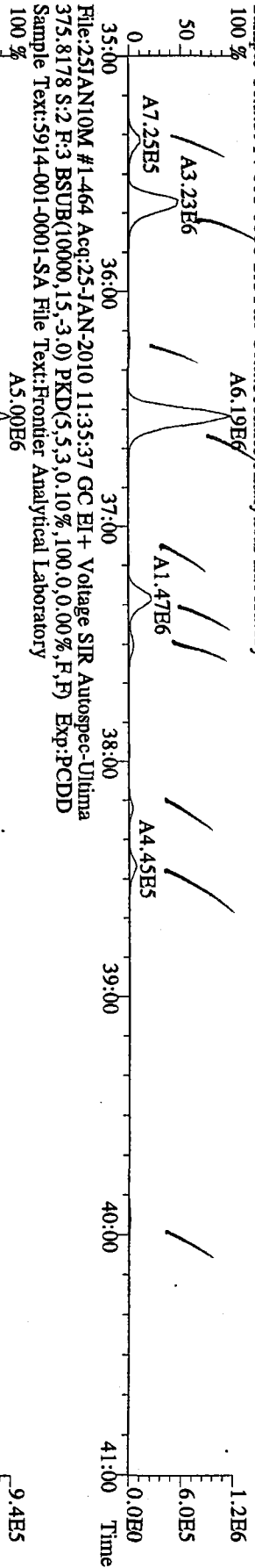
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



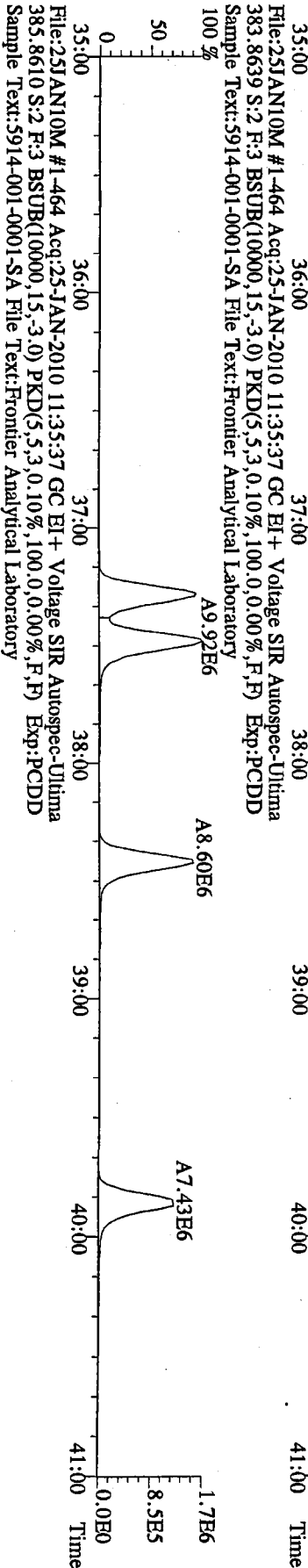
File:25JAN10M #1-424 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Utima  
341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



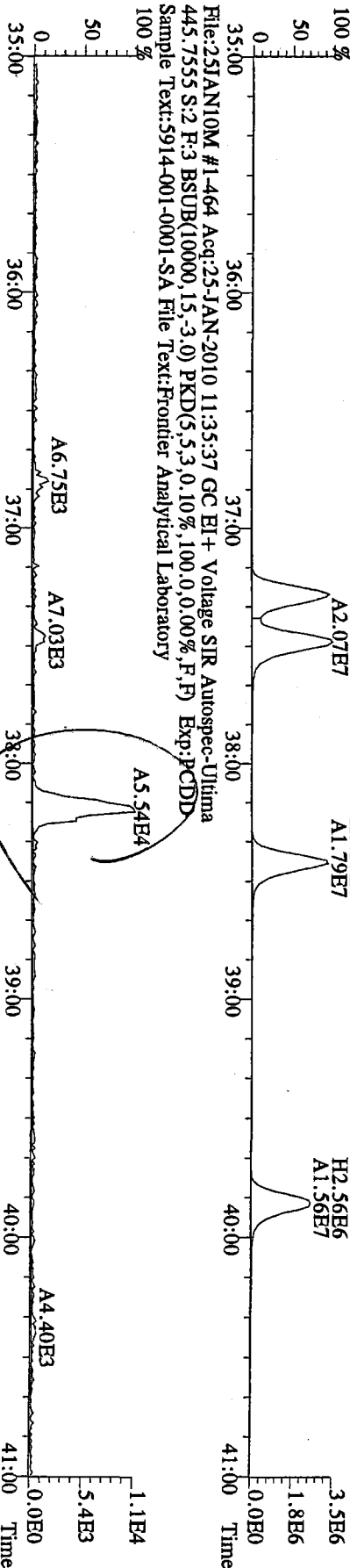
File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 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:5914-001-0001-SA File Text:Frontier Analytical Laboratory

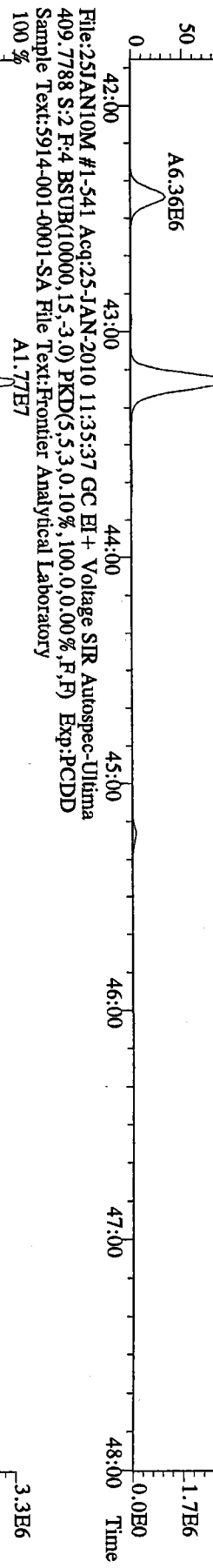


File:25JAN10M #1-464 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory

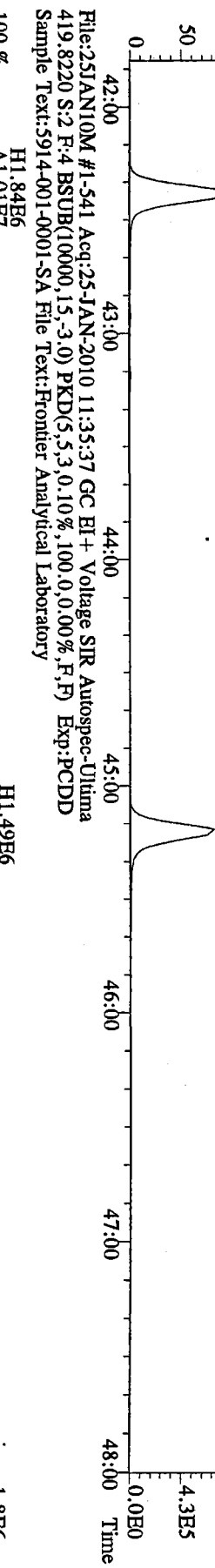




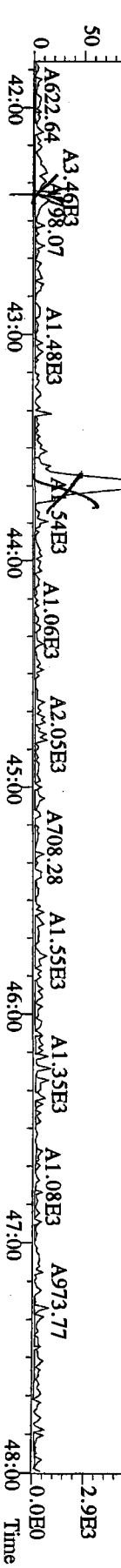
File:25JAN10M #1-541 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



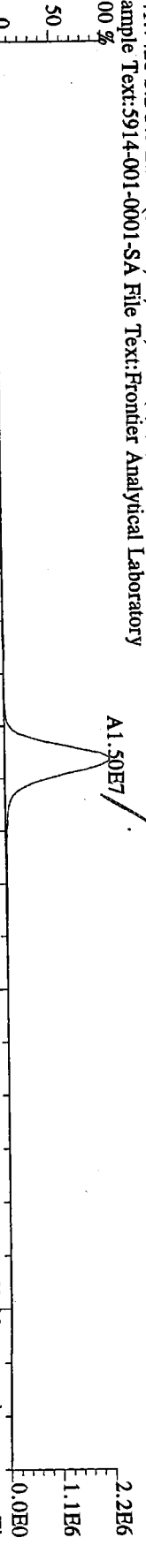
File:25JAN10M #1-541 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



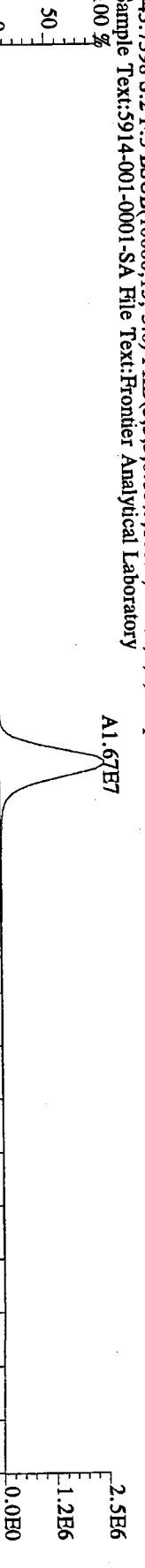
File:25JAN10M #1-541 Acq:25-JAN-2010 11:35:37 GC EI+ Voltage SIR Autospec-Ultima  
 479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



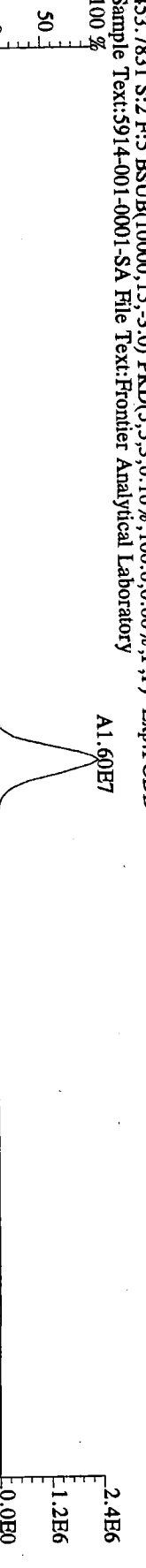
File:25JAN10M #1-347 Acq:25-JAN-2010 11:35:37 GC EI + Voltage SIR Autospec-Ultima  
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



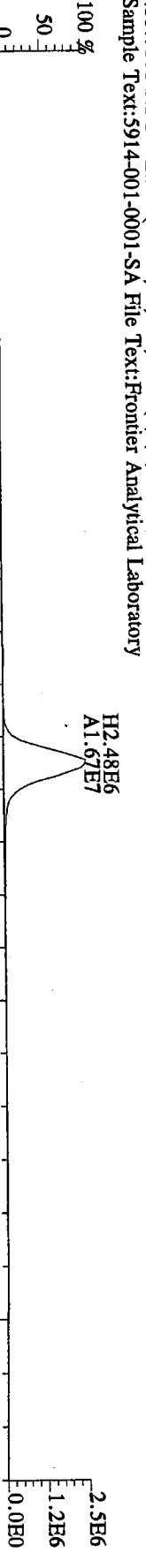
File:25JAN10M #1-347 Acq:25-JAN-2010 11:35:37 GC EI + Voltage SIR Autospec-Ultima  
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



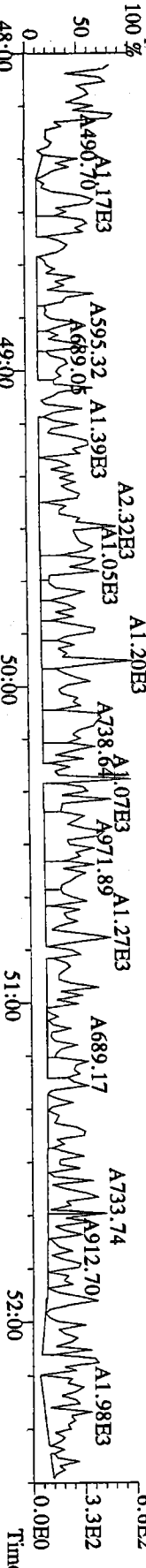
File:25JAN10M #1-347 Acq:25-JAN-2010 11:35:37 GC EI + Voltage SIR Autospec-Ultima  
453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-001-0001-SA File Text:Frontier Analytical Laboratory



File:25JAN10M #1-347 Acq:25-JAN-2010 11:35:37 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:5914-001-0001-SA File Text:Frontier Analytical Laboratory



File:25JAN10M #1-347 Acq:25-JAN-2010 11:35:37 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:5914-001-0001-SA File Text:Frontier Analytical Laboratory



0180880170



Totals class: Total Tetra-Dioxins

Entry #: 38

Run: 14

File: 22JAN10M

S: 10 I: 1 F: 1

Acquired: 22-JAN-10 21:54:15

Total Concentration: 1.26

Unnamed Concentration: 0.625

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
24:28	8.39e+03	1.27e+04	0.66 y	2.11e+04	0.625	
27:30	8.53e+03	1.29e+04	0.66 y	2.14e+04	0.636	2,3,7,8-TCDD

Totals class: Total Penta-Dioxins

Entry #: 39

Run: 14 File: 22JAN10M  
Acquired: 22-JAN-10 21:54:15

S: 10 I: 1 F: 2

Total Concentration: 13.0

Unnamed Concentration: 8.973

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:20	4.36e+04	2.63e+04	1.66 y	6.98e+04	2.58	
31:37	2.32e+04	1.31e+04	1.77 y	3.62e+04	1.34	
31:48	4.17e+04	2.70e+04	1.54 y	6.87e+04	2.54	
31:57	2.25e+04	1.28e+04	1.76 y	3.53e+04	1.30	
32:15	1.99e+04	1.28e+04	1.55 y	3.27e+04	1.21	
33:21	6.58e+04	4.21e+04	1.56 y	1.08e+05	3.99	1,2,3,7,8-PeCDD

Totals class: Total Hexa-Dioxins

Entry #: 40

Run: 14

File: 22JAN10M

S: 10 I: 1 F: 3

Acquired: 22-JAN-10 21:54:15

Total Concentration: 125

Unnamed Concentration: 71.749

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
36:16	2.77e+05	2.16e+05	1.28 y	4.93e+05	19.7	
37:10	6.96e+04	5.43e+04	1.28 y	1.24e+05	4.96	
37:37	6.04e+05	4.98e+05	1.21 y	1.10e+06	44.1	
37:48	1.90e+04	1.34e+04	1.42 y	3.24e+04	1.30	
38:43	1.24e+05	9.70e+04	1.28 y	2.21e+05	8.27	1,2,3,4,7,8-HxCDD
38:53	3.68e+05	2.88e+05	1.28 y	6.56e+05	28.3	1,2,3,6,7,8-HxCDD
39:11	2.35e+04	1.80e+04	1.30 y	4.15e+04	1.66	
39:20	2.31e+05	1.89e+05	1.22 y	4.19e+05	16.7	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 14

File: 22JAN10M

S: 10 I: 1 F: 4

Acquired: 22-JAN-10 21:54:15

Total Concentration: 1680

Unnamed Concentration: 612.777

RT	ml Resp	m2 Resp RA	Resp	Concentration	Name
42:57	6.20e+06	6.48e+06 0.96 y	1.27e+07	613	
44:20	1.09e+07	1.13e+07 0.96 y	2.21e+07	1070	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans

Entry #: 42

Run: 14 File: 22JAN10M  
Acquired: 22-JAN-10 21:54:15

S: 10 I: 1 F: 1

Total Concentration: 8.45

Unnamed Concentration: 8.043

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
23:29	8.47e+03	1.02e+04	0.83 y	1.86e+04	0.267	
23:53	4.87e+04	6.29e+04	0.77 y	1.12e+05	1.60	
24:17	1.81e+04	2.76e+04	0.66 y	4.58e+04	0.655	
24:31	2.11e+04	2.57e+04	0.82 y	4.68e+04	0.669	
24:48	2.57e+04	3.51e+04	0.73 y	6.08e+04	0.870	
25:31	2.09e+04	3.17e+04	0.66 y	5.25e+04	0.751	
25:38	2.77e+04	3.89e+04	0.71 y	6.66e+04	0.952	
26:01	1.11e+04	1.63e+04	0.68 y	2.74e+04	0.392	
26:45	1.17e+04	1.66e+04	0.70 y	2.83e+04	0.405	2,3,7,8-TCDF
27:05	1.13e+04	1.62e+04	0.70 y	2.75e+04	0.393	
27:58	1.91e+04	2.81e+04	0.68 y	4.72e+04	0.675	
28:11	1.14e+04	1.39e+04	0.82 y	2.52e+04	0.361	
28:34	1.34e+04	1.87e+04	0.71 y	3.21e+04	0.459	



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

Run: 14 File: 22JAN10M S: 10 I: 1 F: 1  
Acquired: 22-JAN-10 21:54:15

Total Concentration: 18.4 Unnamed Concentration: 18.386

RT	ml Resp	m2 Resp RA	Resp	Concentration	Name
28:33	4.27e+05	2.87e+05	1.49 y	7.14e+05	18.4

Totals class: Total Penta-Furans

Entry #: 44

Run: 14

File: 22JAN10M

S: 10 I: 1 F: 2

Acquired: 22-JAN-10 21:54:15

Total Concentration: 29.1

Unnamed Concentration: 25.285

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:11	2.29e+04	1.47e+04	1.56 y	3.76e+04	0.968	
30:21	3.88e+05	2.23e+05	1.74 y	6.11e+05	15.7	
31:02	4.68e+04	3.16e+04	1.48 y	7.85e+04	2.02	
31:37	2.49e+04	1.44e+04	1.73 y	3.93e+04	0.989	1,2,3,7,8-PeCDF
31:52	9.38e+04	5.85e+04	1.60 y	1.52e+05	3.92	
32:11	1.12e+04	8.13e+03	1.38 y	1.94e+04	0.499	
32:57	6.97e+04	3.92e+04	1.78 y	1.09e+05	2.87	2,3,4,7,8-PeCDF
32:59	3.18e+04	2.30e+04	1.38 y	5.48e+04	1.41	
34:14	1.66e+04	1.19e+04	1.39 y	2.86e+04	0.736	

Totals class: Total Hexa-Furans

Entry #: 45

Run: 14

File: 22JAN10M

S: 10 I: 1 F: 3

Acquired: 22-JAN-10 21:54:15

Total Concentration: 340

Unnamed Concentration: 269.399

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:22	3.23e+05	2.64e+05	1.22 y	5.87e+05	18.1	
35:38	1.62e+06	1.31e+06	1.23 y	2.93e+06	90.5	
36:14	2.63e+04	2.25e+04	1.17 y	4.88e+04	1.51	
36:33	2.67e+06	2.21e+06	1.21 y	4.88e+06	151	
37:10	3.30e+04	2.68e+04	1.23 y	5.98e+04	1.85	
37:20	7.80e+05	6.51e+05	1.20 y	1.43e+06	43.7	1,2,3,4,7,8-HxCDF
37:32	1.68e+05	1.41e+05	1.19 y	3.08e+05	9.40	1,2,3,6,7,8-HxCDF
38:14	1.13e+05	9.28e+04	1.22 y	2.06e+05	6.36	
38:29	2.42e+05	1.98e+05	1.22 y	4.40e+05	13.8	2,3,4,6,7,8-HxCDF
39:58	6.50e+04	5.01e+04	1.30 y	1.15e+05	3.57	1,2,3,7,8,9-HxCDF

Totals class: Total Hepta-Furans

Entry #: 46

Run: 14

File: 22JAN10M

S: 10 I: 1 F: 4

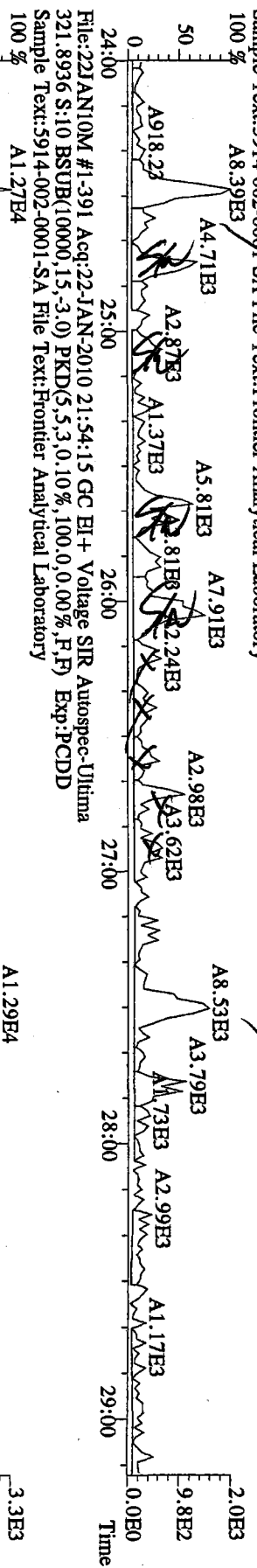
Acquired: 22-JAN-10 21:54:15

Total Concentration: 890

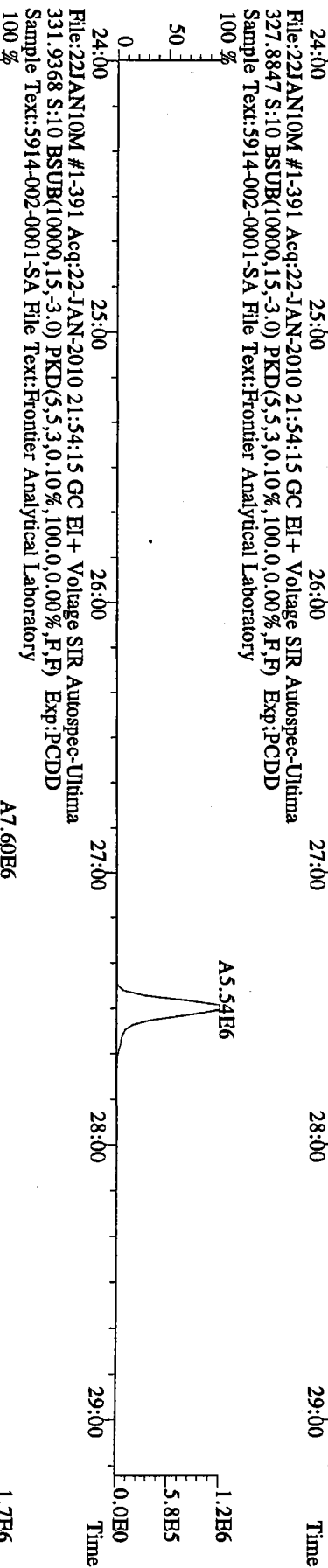
Unnamed Concentration: 627.756

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:26	3.12e+06	3.10e+06	1.01 y	6.21e+06	237	1,2,3,4,6,7,8-HpCDF
42:58	4.98e+04	4.97e+04	1.00 y	9.95e+04	3.79	
43:15	8.26e+06	8.11e+06	1.02 y	1.64e+07	624	
45:15	3.34e+05	3.23e+05	1.03 y	6.57e+05	24.7	1,2,3,4,7,8,9-HpCDF

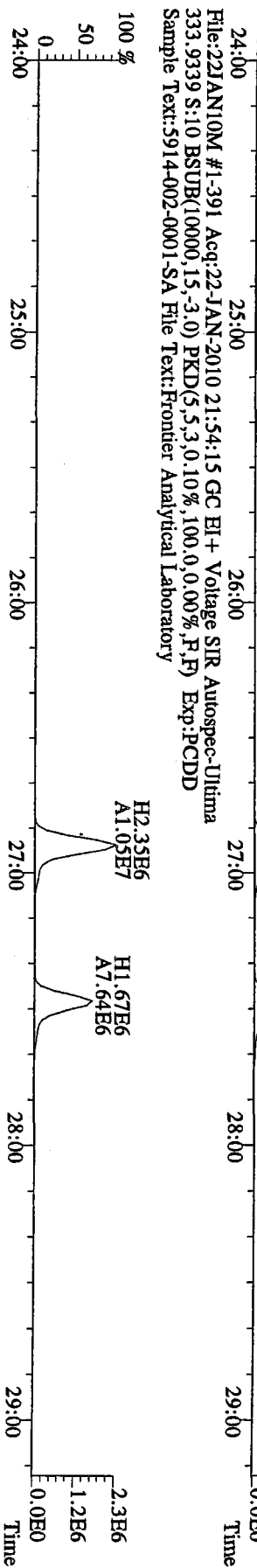
File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



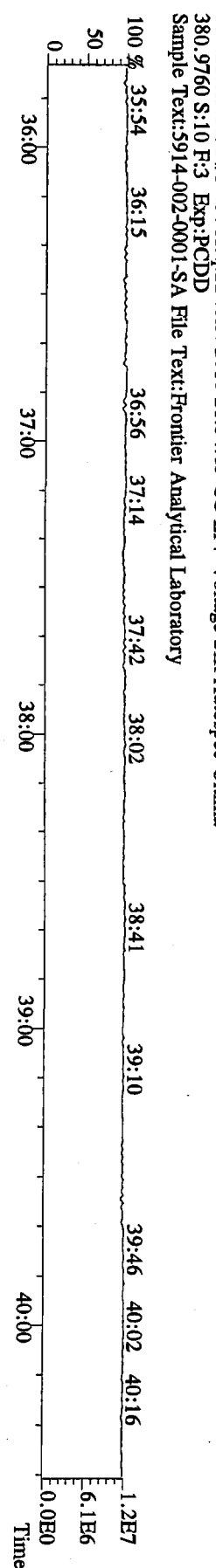
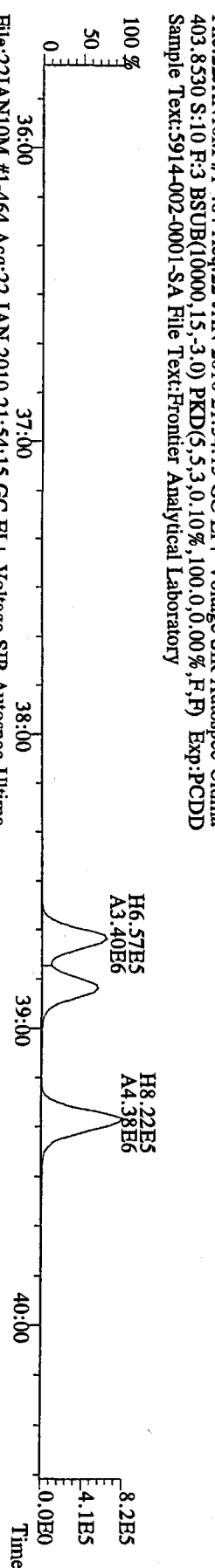
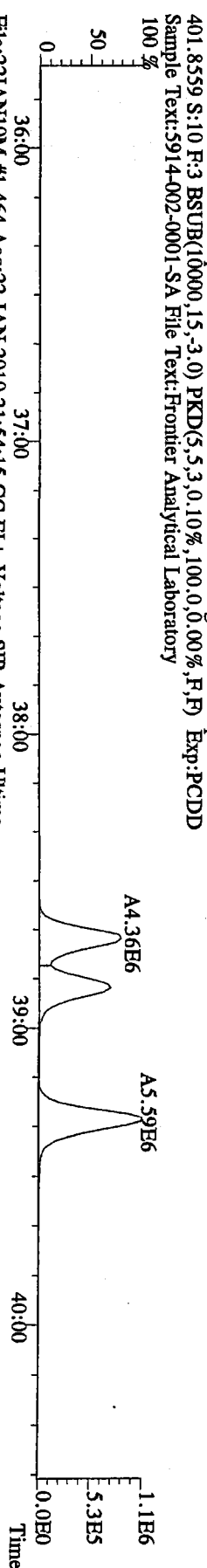
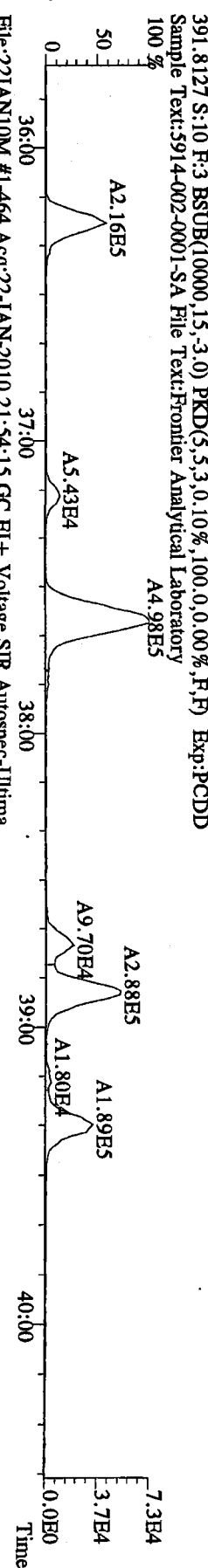
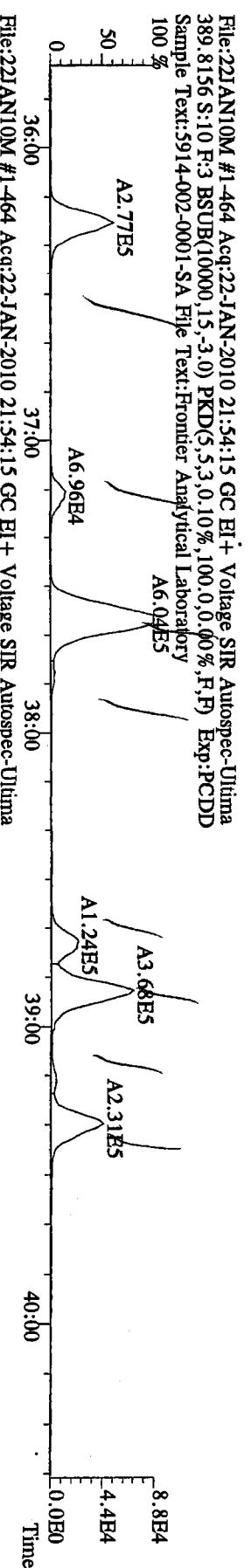
File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



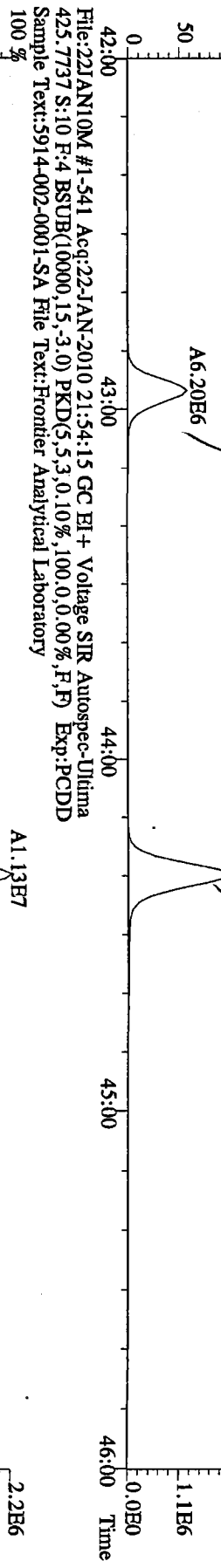
File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



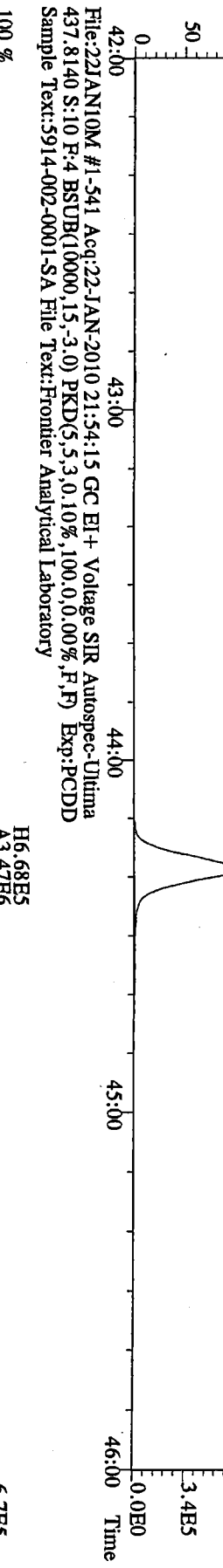




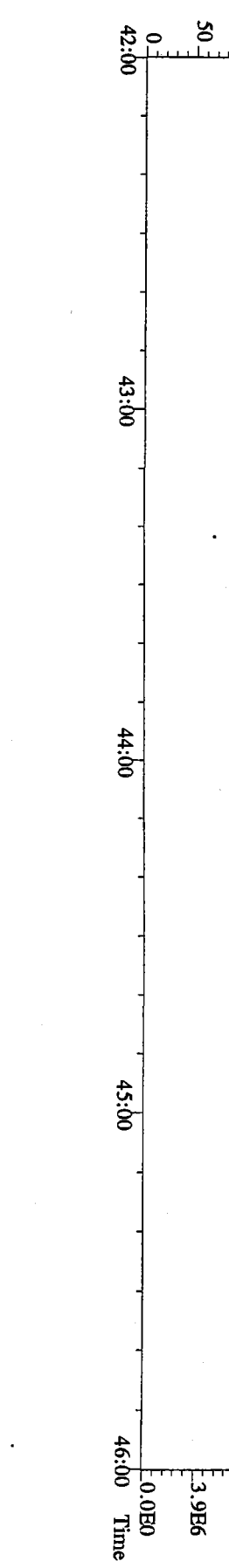
File:22JAN10M #1-541 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



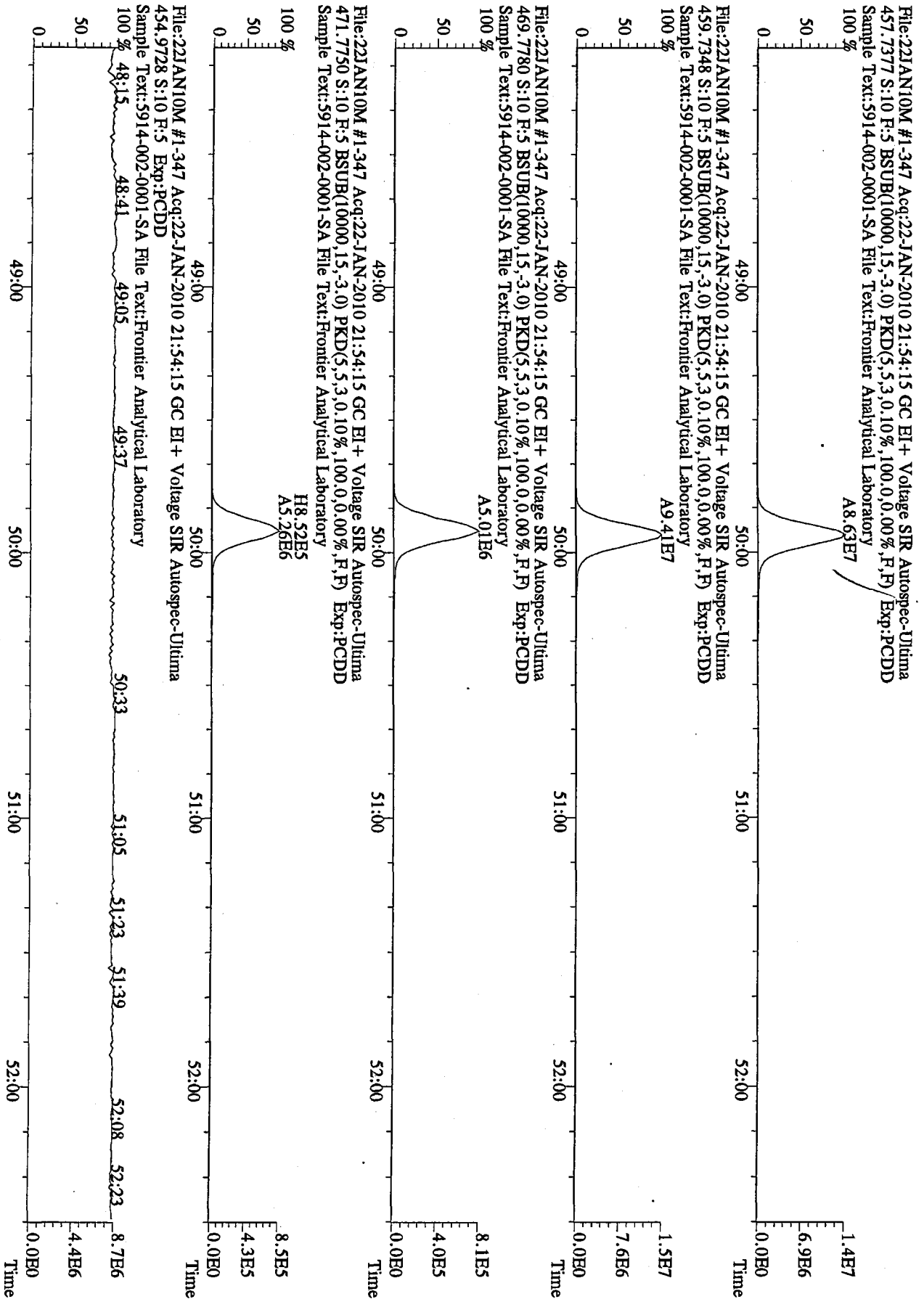
File:22JAN10M #1-541 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
435.8169 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



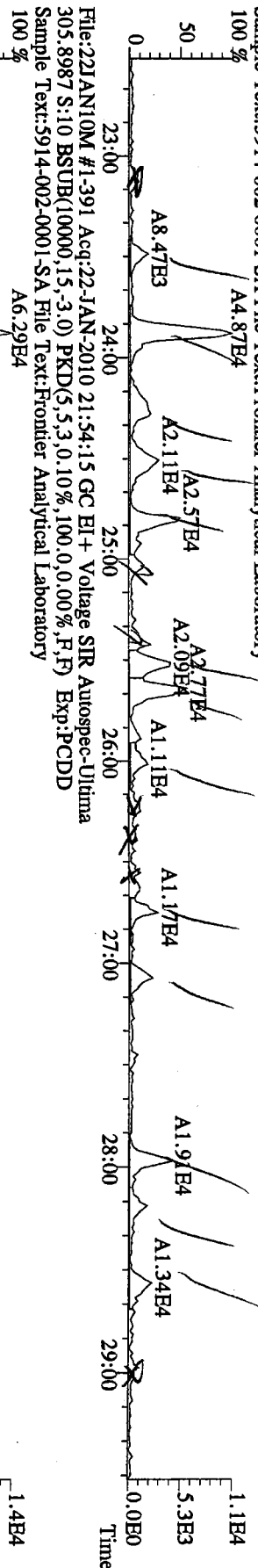
File:22JAN10M #1-541 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 S:10 F:4 Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



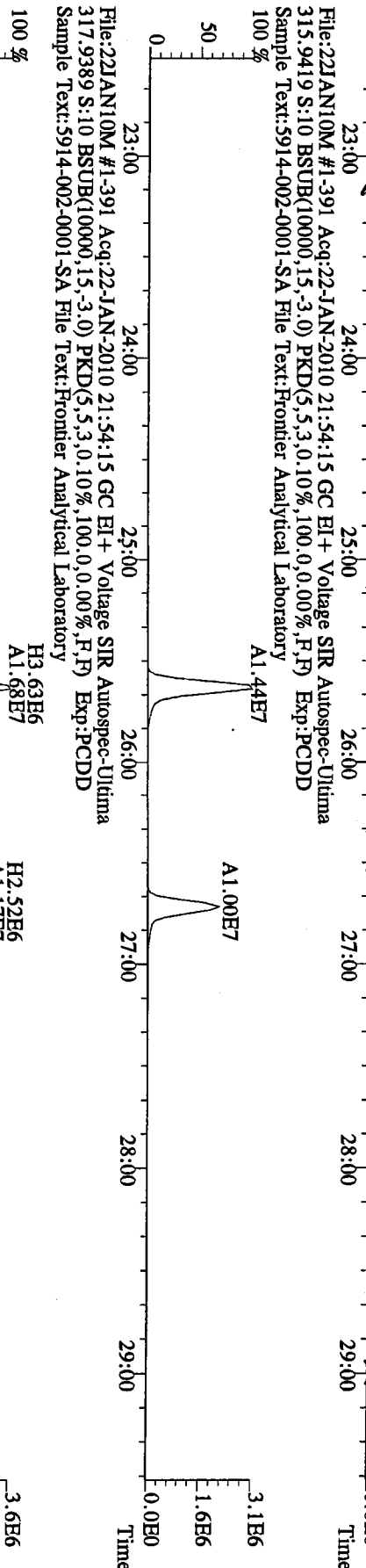




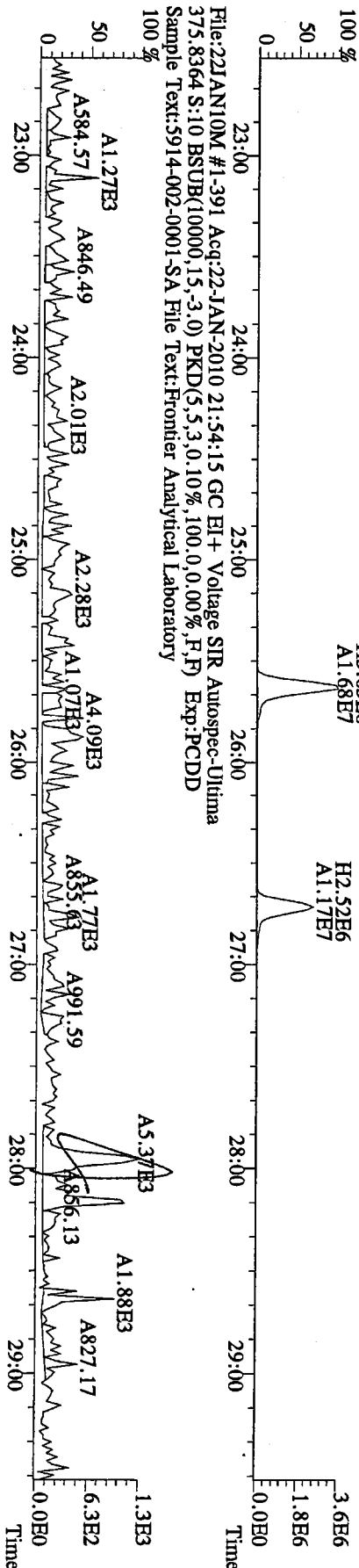
File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
 303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory

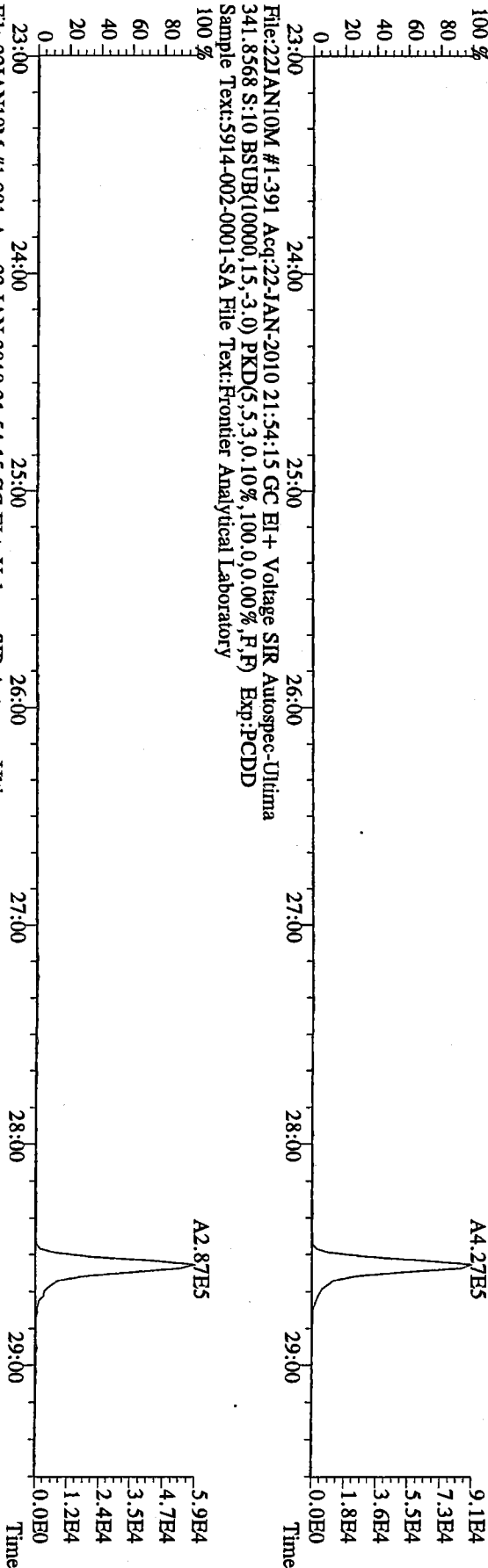


File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
 317.9389 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory

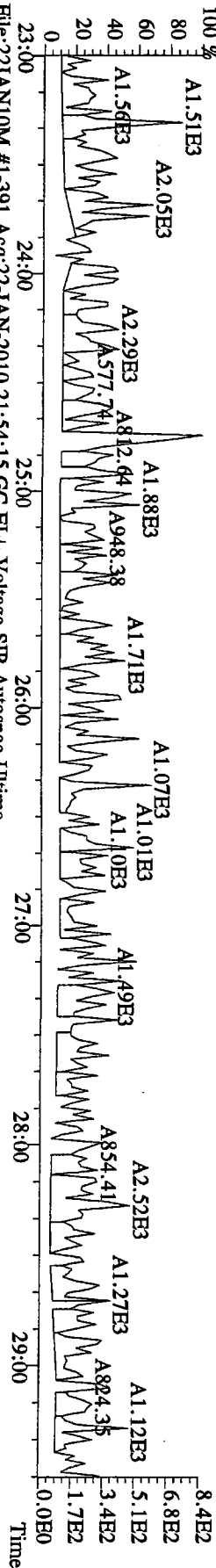


20080909 10:11:29

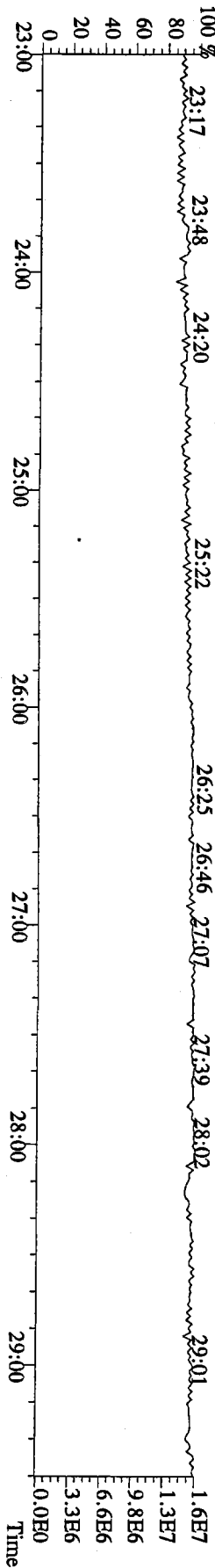
File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:10 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



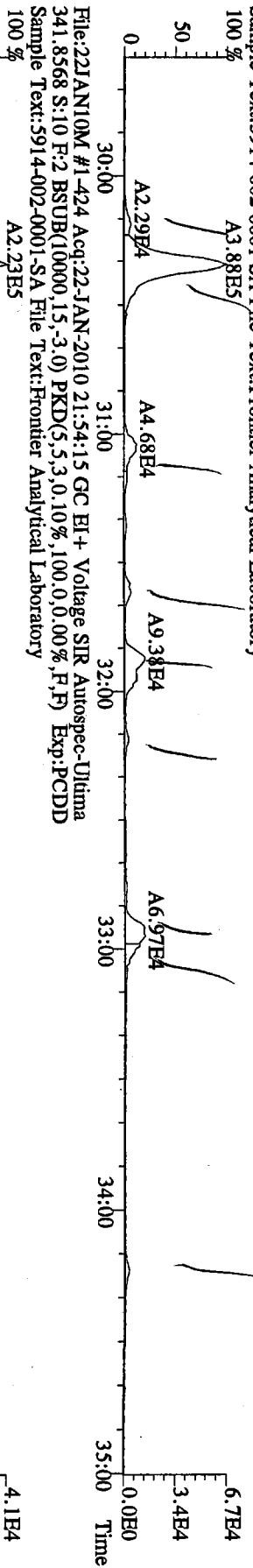
File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:10 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



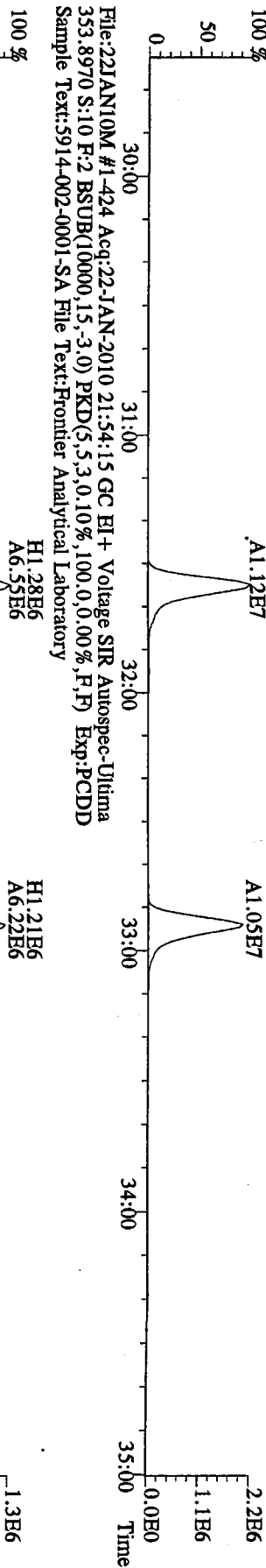
File:22JAN10M #1-391 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 S:10 Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



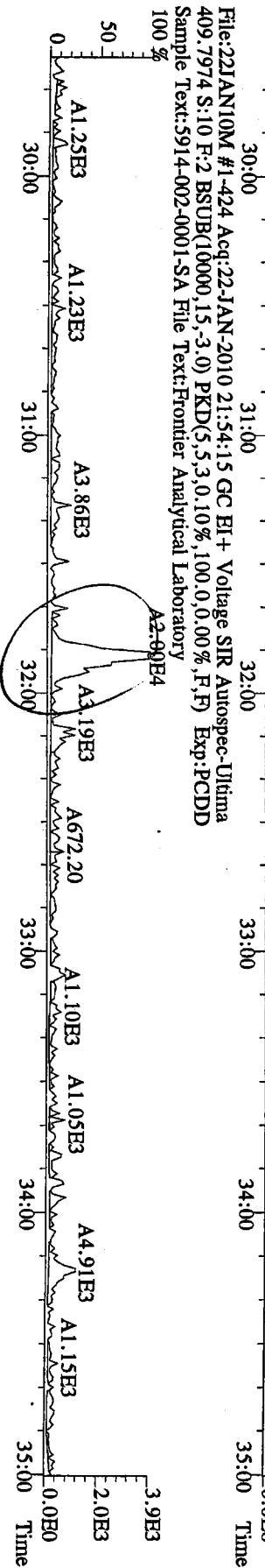
File:22JAN10M #1-424 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



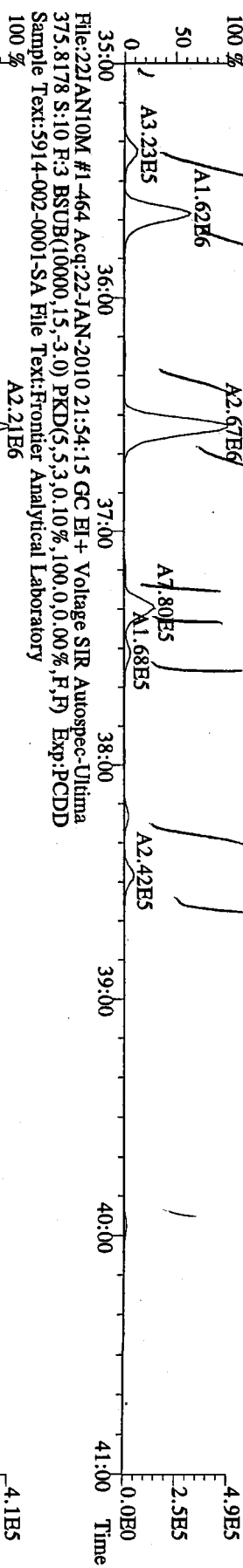
File:22JAN10M #1-424 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
 351.9000 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



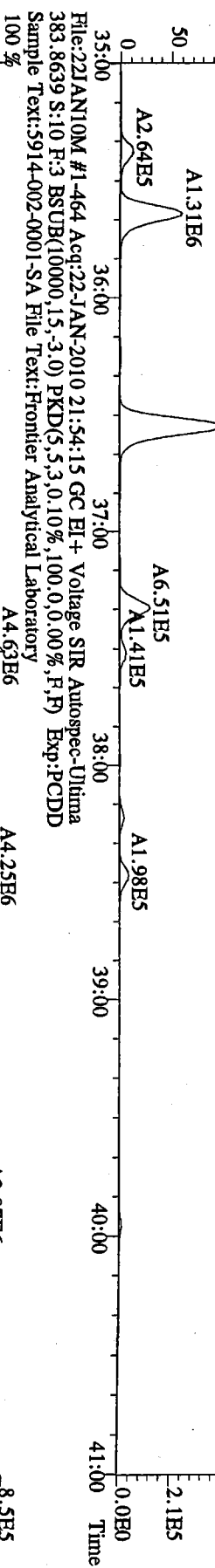
File:22JAN10M #1-424 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



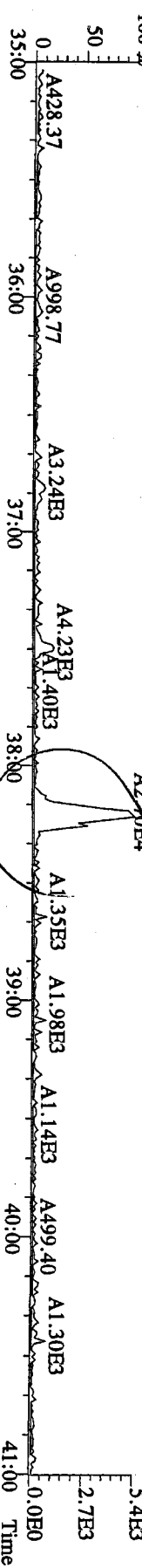
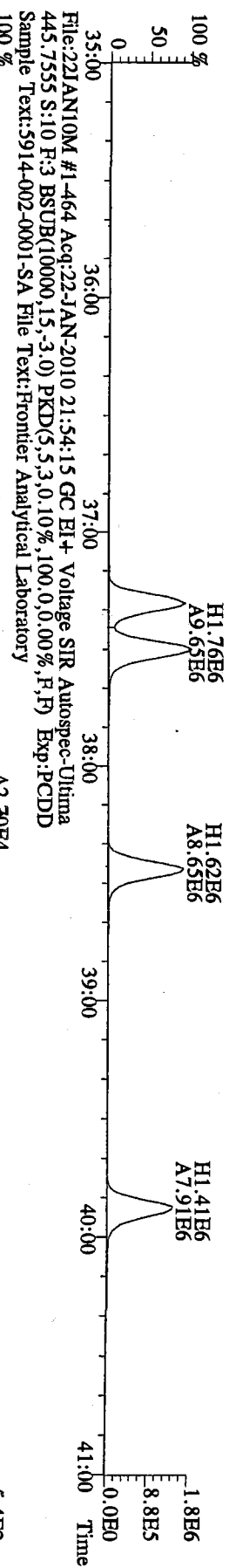
File:22JAN10M #1-464 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
 373.8207 S:10 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-464 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
 375.8178 S:10 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory

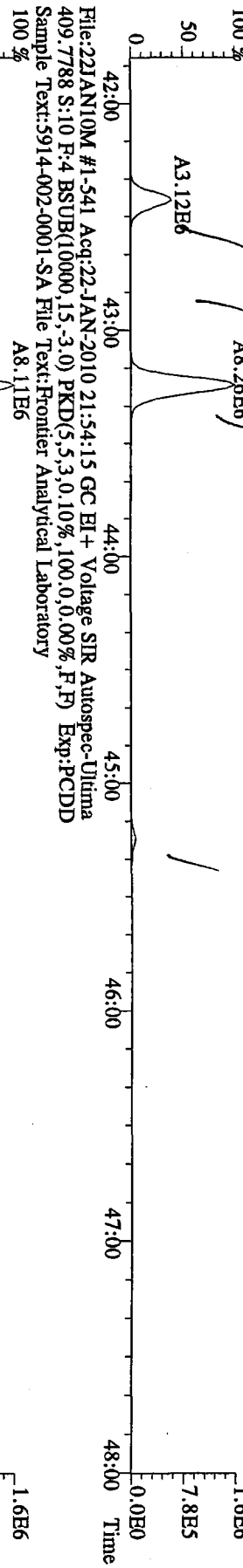


File:22JAN10M #1-464 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
 385.8610 S:10 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory

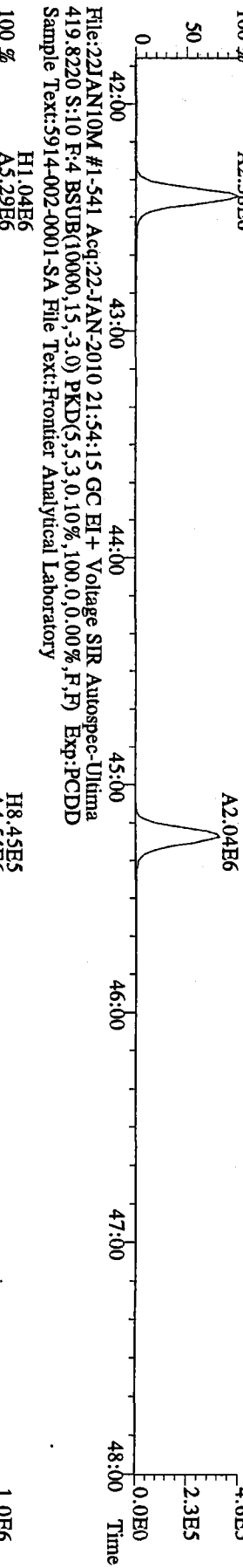


000000000000

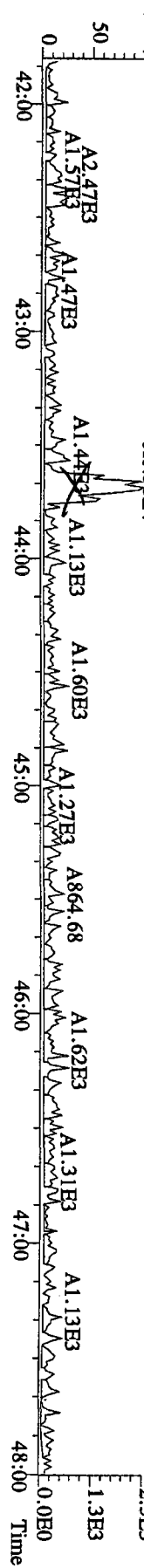
File:22JAN10M #1-541 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



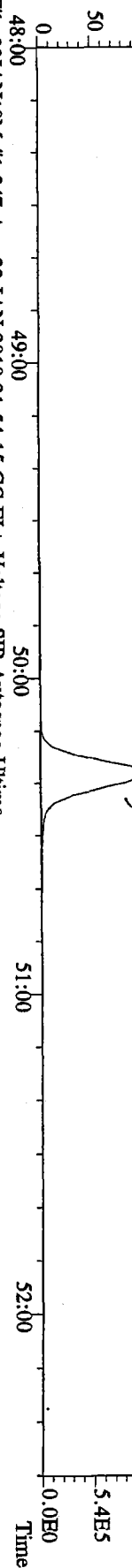
File:22JAN10M #1-541 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
417.8253 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



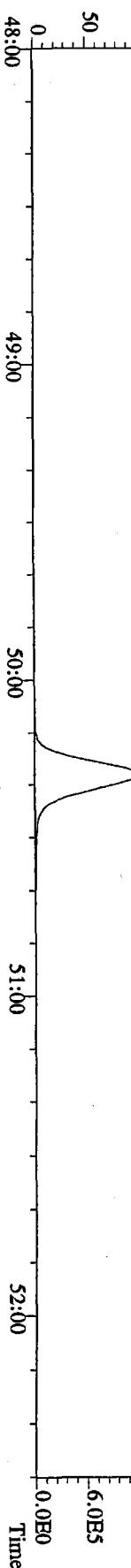
File:22JAN10M #1-541 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
479.7165 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



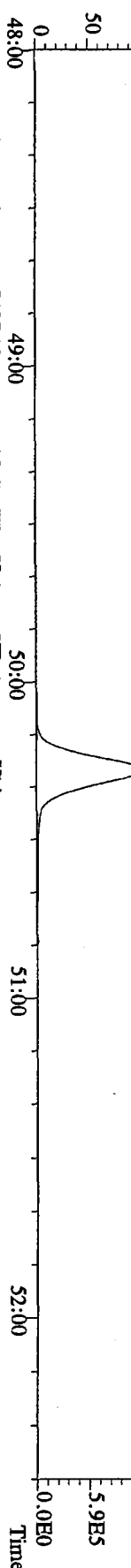
File:22JAN10M #1-347 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory  
100 %



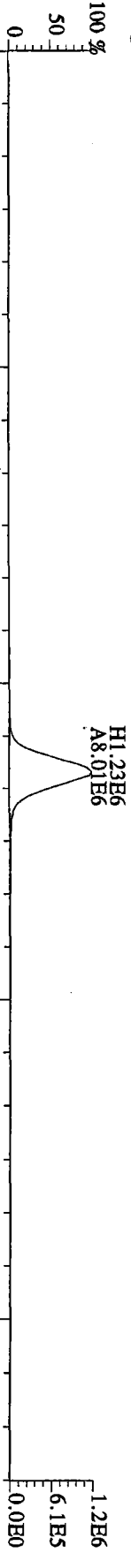
File:22JAN10M #1-347 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory  
100 %



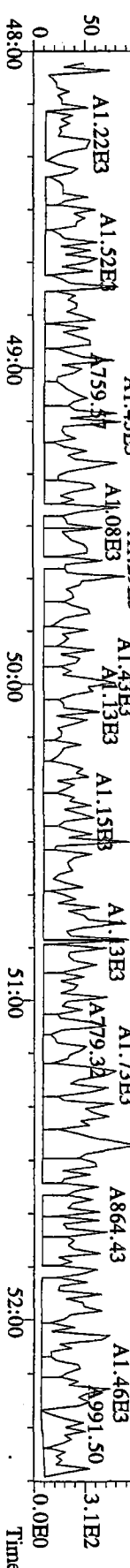
File:22JAN10M #1-347 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-347 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
455.7801 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:22-JAN-2010 21:54:15 GC EI+ Voltage SIR Autospec-Ultima  
513.6775 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:5914-002-0001-SA File Text:Frontier Analytical Laboratory



PCDD

# **Initial Calibration Results**



## Frontier Analytical Laboratory

Data Filename: 18NOV09M

Analyte: PCDDFAL3-11-18-09

Cal: PCDDFAL3-11-18-09

Name	RRF	S. D.	%RSD	S2 RRF#1	S3 RRF#2	S4 RRF#3	S1 RRF#4	S5 RRF#5	S6 RRF#6
2,3,7,8-TCDD	1.02	0.0735	7.22 %	1.00	0.93	0.95	1.04	1.07	1.12
1,2,3,7,8-PeCDD	0.96	0.0778	8.09 %	0.88	0.88	0.93	0.99	1.02	1.07
1,2,3,4,7,8-HxCDD	1.37	0.110	8.00 %	1.26	1.27	1.31	1.41	1.48	1.52
1,2,3,6,7,8-HxCDD	1.34	0.0611	4.55 %	1.26	1.33	1.30	1.35	1.40	1.42
1,2,3,7,8,9-HxCDD	1.37	0.0751	5.49 %	1.32	1.27	1.32	1.40	1.43	1.47
1,2,3,4,6,7,8-HpCDD	1.17	0.0712	6.10 %	1.12	1.09	1.12	1.16	1.25	1.26
OCDD	1.21	0.113	9.27 %	1.09	1.11	1.17	1.23	1.34	1.35
2,3,7,8-TCDF	1.29	0.0564	4.39 %	1.22	1.28	1.25	1.26	1.31	1.38
1,2,3,7,8-PeCDF	0.89	0.0808	9.08 %	0.79	0.81	0.85	0.94	0.96	0.98
2,3,4,7,8-PeCDF	0.91	0.0710	7.85 %	0.83	0.84	0.87	0.92	0.98	1.00
1,2,3,4,7,8-HxCDF	1.00	0.0925	9.26 %	0.89	0.91	0.97	1.03	1.08	1.11
1,2,3,6,7,8-HxCDF	0.92	0.0747	8.16 %	0.82	0.86	0.88	0.93	0.99	1.01
2,3,4,6,7,8-HxCDF	0.99	0.0785	7.97 %	0.91	0.90	0.95	1.00	1.06	1.09
1,2,3,7,8,9-HxCDF	1.09	0.0901	8.28 %	0.98	1.01	1.06	1.11	1.17	1.20
1,2,3,4,6,7,8-HpCDF	1.36	0.131	9.61 %	1.22	1.22	1.31	1.39	1.50	1.51
1,2,3,4,7,8,9-HpCDF	1.61	0.159	9.90 %	1.49	1.44	1.50	1.62	1.77	1.82
OCDF	0.84	0.0791	9.39 %	0.75	0.76	0.81	0.86	0.93	0.93
13C-2,3,7,8-TCDD	0.94	0.0249	2.65 %	0.92	0.91	0.93	0.96	0.95	0.98
13C-1,2,3,7,8-PeCDD	1.02	0.0718	7.06 %	0.99	0.93	1.00	1.00	1.02	1.15
13C-1,2,3,4,7,8-HxCDD	0.98	0.0126	1.28 %	0.99	0.97	1.00	0.99	0.98	0.97
13C-1,2,3,6,7,8-HxCDD	0.94	0.0188	2.01 %	0.93	0.93	0.96	0.94	0.95	0.91
13C-1,2,3,4,6,7,8-HpCDD	0.90	0.0218	2.42 %	0.92	0.89	0.87	0.91	0.89	0.92
13C-OCDD	0.67	0.0306	4.59 %	0.69	0.66	0.62	0.69	0.64	0.70
13C-2,3,7,8-TCDF	0.88	0.0307	3.49 %	0.85	0.85	0.86	0.88	0.92	0.91
13C-1,2,3,7,8-PeCDF	0.88	0.0612	6.98 %	0.83	0.79	0.87	0.88	0.92	0.96
13C-2,3,4,7,8-PeCDF	0.85	0.0560	6.60 %	0.83	0.76	0.85	0.85	0.88	0.93
13C-1,2,3,4,7,8-HxCDF	1.72	0.0550	3.20 %	1.74	1.75	1.75	1.71	1.75	1.61
13C-1,2,3,6,7,8-HxCDF	2.00	0.0743	3.71 %	2.01	2.02	2.06	2.01	2.05	1.86
13C-2,3,4,6,7,8-HxCDF	1.74	0.0562	3.24 %	1.74	1.73	1.79	1.77	1.75	1.63
13C-1,2,3,7,8,9-HxCDF	1.51	0.0258	1.71 %	1.51	1.47	1.48	1.54	1.53	1.51
13C-1,2,3,4,6,7,8-HpCDF	1.10	0.0153	1.39 %	1.12	1.10	1.08	1.10	1.08	1.11
13C-1,2,3,4,7,8,9-HpCDF	0.85	0.0310	3.67 %	0.82	0.84	0.81	0.87	0.84	0.89
13C-OCDF	1.17	0.0555	4.73 %	1.18	1.15	1.10	1.21	1.14	1.26
37Cl-2,3,7,8-TCDD	0.97	0.0838	8.61 %	0.90	0.93	0.90	0.98	1.03	1.11
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-	-
13C-1,2,3,4-TCDF	-	-	- %	-	-	-	-	-	-
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-	-
Total Tetra-Dioxins	1.02	0.0735	7.22 %	1.00	0.93	0.95	1.04	1.07	1.12
Total Penta-Dioxins	0.96	0.0778	8.09 %	0.88	0.88	0.93	0.99	1.02	1.07
Total Hexa-Dioxins	1.36	0.0803	5.89 %	1.28	1.29	1.31	1.38	1.44	1.47
Total Hepta-Dioxins	1.17	0.0712	6.10 %	1.12	1.09	1.12	1.16	1.25	1.26
Total Tetra-Furans	1.29	0.0564	4.39 %	1.22	1.28	1.25	1.26	1.31	1.38
1st Fn. Tot Penta-Furans	0.90	0.0756	8.43 %	0.81	0.82	0.86	0.93	0.97	0.99
Total Penta-Furans	0.90	0.0756	8.43 %	0.81	0.82	0.86	0.93	0.97	0.99
Total Hexa-Furans	0.99	0.0838	8.45 %	0.89	0.91	0.96	1.01	1.07	1.10
Total Hepta-Furans	1.47	0.144	9.82 %	1.33	1.32	1.39	1.49	1.62	1.65

Analyst: 

Date: 11/19/05

000086 of 000296

OF 10: 000000

Run #1 Filename 18NOV09M  
 Client ID: ST111809M0

S: 2 Acquired: 18-NOV-09 14:40:53 Cal: PCDDFAL3-11-18-09  
 Analyte: FAL ID: 1613 CS0 090918G

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.25	6.29e+04	0.72 y	27:25	- 0.999 y
2	Unk	1,2,3,7,8-PeCDD	1.25	2.97e+05	1.58 y	33:14	- 0.878 y
3	Unk	1,2,3,4,7,8-HxCDD	1.25	3.17e+05	1.22 y	38:36	- 1.26 y
4	Unk	1,2,3,6,7,8-HxCDD	1.25	2.97e+05	1.25 y	38:46	- 1.26 y
5	Unk	1,2,3,7,8,9-HxCDD	1.25	3.23e+05	1.29 y	39:13	- 1.32 y
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	2.62e+05	0.93 y	44:14	- 1.12 y
7	Unk	OCDD	2.50	3.81e+05	0.92 y	49:49	- 1.09 y
8	Unk	2,3,7,8-TCDF	0.25	1.27e+05	0.69 y	26:39	- 1.22 y
9	Unk	1,2,3,7,8-PeCDF	1.25	4.03e+05	1.75 y	31:30	- 0.794 y
10	Unk	2,3,4,7,8-PeCDF	1.25	4.20e+05	1.65 y	32:49	- 0.830 y
11	Unk	1,2,3,4,7,8-HxCDF	1.25	3.91e+05	1.24 y	37:13	- 0.887 y
12	Unk	1,2,3,6,7,8-HxCDF	1.25	4.20e+05	1.21 y	37:26	- 0.822 y
13	Unk	2,3,4,6,7,8-HxCDF	1.25	4.00e+05	1.29 y	38:21	- 0.906 y
14	Unk	1,2,3,7,8,9-HxCDF	1.25	3.77e+05	1.28 y	39:47	- 0.981 y
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	3.46e+05	1.00 y	42:19	- 1.22 y
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	3.09e+05	1.00 y	45:08	- 1.49 y
17	Unk	OCDF	2.50	4.50e+05	0.88 y	50:10	- 0.754 y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.52e+07	0.73 y	27:23	- 0.925 y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.71e+07	1.63 y	33:13	- 0.994 y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.02e+07	1.31 y	38:35	- 0.994 y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.89e+07	1.33 y	38:45	- 0.930 y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.87e+07	1.06 y	44:12	- 0.922 y
23	IS	13C-OCDD	200.00	2.79e+07	1.01 y	49:47	- 0.689 y
24	IS	13C-2,3,7,8-TCDF	100.00	4.15e+07	0.81 y	26:38	- 0.852 y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	4.06e+07	1.67 y	31:28	- 0.835 y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	4.04e+07	1.68 y	32:48	- 0.831 y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.52e+07	0.48 y	37:12	- 1.74 y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.09e+07	0.48 y	37:24	- 2.01 y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.53e+07	0.49 y	38:20	- 1.74 y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	3.07e+07	0.49 y	39:47	- 1.51 y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.27e+07	0.46 y	42:18	- 1.12 y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.66e+07	0.46 y	45:07	- 0.821 y
33	IS	13C-OCDF	200.00	4.77e+07	0.92 y	50:10	- 1.18 y
34	C/Up	37Cl-2,3,7,8-TCDD	0.25	6.12e+04		27:25	- 0.900 y
35	RS	13C-1,2,3,4-TCDD	100.00	2.72e+07	0.74 y	26:49	2.72e+05 - n
36	RS	13C-1,2,3,4-TCDF	100.00	4.87e+07	0.81 y	25:33	4.87e+05 - n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.03e+07	1.33 y	39:12	2.03e+05 - n
38	Tot	Total Tetra-Dioxins	0.00	-	- n	-	- 0.999 y
39	Tot	Total Penta-Dioxins	0.00	-	- n	-	- 0.878 y
40	Tot	Total Hexa-Dioxins	0.00	-	- n	-	- 1.28 y
41	Tot	Total Hepta-Dioxins	0.00	-	- n	-	- 1.12 y
42	Tot	Total Tetra-Furans	0.00	-	- n	-	- 1.22 y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	- 0.812 y
44	Tot	Total Penta-Furans	0.00	-	- n	-	- 0.812 y
45	Tot	Total Hexa-Furans	0.00	-	- n	-	- 0.893 y
46	Tot	Total Hepta-Furans	0.00	-	- n	-	- 1.33 y

Analyst:         8        

Date: 11/19/09

Run #2      Filename 18NOV09M  
Client ID: ST111809M1

S: 3      Acquired: 18-NOV-09 15:36:11      Cal: PCDDFAL3-11-18-09  
Analyte:      FAL ID: 1613 CS1 090918H

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	0.50	1.11e+05	0.75 y	27:24	-	0.929	y
2	Unk	1,2,3,7,8-PeCDD	2.50	5.36e+05	1.55 y	33:13	-	0.880	y
3	Unk	1,2,3,4,7,8-HxCDD	2.50	5.91e+05	1.24 y	38:36	-	1.27	y
4	Unk	1,2,3,6,7,8-HxCDD	2.50	5.90e+05	1.34 y	38:46	-	1.33	y
5	Unk	1,2,3,7,8,9-HxCDD	2.50	5.76e+05	1.27 y	39:13	-	1.27	y
6	Unk	1,2,3,4,6,7,8-HpCDD	2.50	4.64e+05	0.91 y	44:14	-	1.09	y
7	Unk	OCDD	5.00	7.02e+05	0.93 y	49:48	-	1.11	y
8	Unk	2,3,7,8-TCDF	0.50	2.57e+05	0.66 y	26:38	-	1.28	y
9	Unk	1,2,3,7,8-PeCDF	2.50	7.54e+05	1.68 y	31:29	-	0.811	y
10	Unk	2,3,4,7,8-PeCDF	2.50	7.51e+05	1.69 y	32:48	-	0.839	y
11	Unk	1,2,3,4,7,8-HxCDF	2.50	7.60e+05	1.28 y	37:12	-	0.906	y
12	Unk	1,2,3,6,7,8-HxCDF	2.50	8.29e+05	1.28 y	37:25	-	0.857	y
13	Unk	2,3,4,6,7,8-HxCDF	2.50	7.51e+05	1.20 y	38:21	-	0.905	y
14	Unk	1,2,3,7,8,9-HxCDF	2.50	7.09e+05	1.26 y	39:47	-	1.01	y
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	6.45e+05	1.00 y	42:19	-	1.22	y
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	5.81e+05	0.96 y	45:08	-	1.44	y
17	Unk	OCDF	5.00	8.42e+05	0.93 y	50:11	-	0.763	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.38e+07	0.73 y	27:22	-	0.913	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.44e+07	1.69 y	33:12	-	0.934	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.86e+07	1.36 y	38:35	-	0.969	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.78e+07	1.31 y	38:44	-	0.928	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.70e+07	1.07 y	44:12	-	0.886	y
23	IS	13C-OCDD	200.00	2.54e+07	1.00 y	49:47	-	0.662	y
24	IS	13C-2,3,7,8-TCDF	100.00	4.01e+07	0.81 y	26:37	-	0.850	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	3.72e+07	1.68 y	31:28	-	0.790	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	3.58e+07	1.71 y	32:47	-	0.759	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.36e+07	0.48 y	37:11	-	1.75	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	3.87e+07	0.48 y	37:23	-	2.02	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.32e+07	0.49 y	38:20	-	1.73	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.82e+07	0.49 y	39:46	-	1.47	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.11e+07	0.45 y	42:17	-	1.10	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.61e+07	0.45 y	45:07	-	0.842	y
33	IS	13C-OCDF	200.00	4.41e+07	0.92 y	50:09	-	1.15	y
34	C/Up	37Cl-2,3,7,8-TCDD	0.50	1.21e+05		27:24	-	0.926	y
35	RS	13C-1,2,3,4-TCDD	100.00	2.61e+07	0.73 y	26:48	2.61e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	4.71e+07	0.81 y	25:32	4.71e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.92e+07	1.31 y	39:11	1.92e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	0.929	y
39	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	0.880	y
40	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.29	y
41	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.09	y
42	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.28	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.824	y
44	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.824	y
45	Tot	Total Hexa-Furans	0.00	-	- n	-	-	0.913	y
46	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.32	y

Analyst: 

Date: 11/19/09



Run #4 Filename 18NOV09M  
Client ID: ST111809M3

S: 1 Acquired: 18-NOV-09 13:45:10 Cal: PCDDFAL3-11-18-09  
Analyte: FAL ID: 1613 CS3 090918J

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	10.00	2.56e+06	0.76 y	27:24	-	1.04 y
2	Unk 1,2,3,7,8-PeCDD	50.00	1.28e+07	1.56 y	33:14	-	0.993 y
3	Unk 1,2,3,4,7,8-HxCDD	50.00	1.38e+07	1.29 y	38:36	-	1.41 y
4	Unk 1,2,3,6,7,8-HxCDD	50.00	1.26e+07	1.28 y	38:47	-	1.35 y
5	Unk 1,2,3,7,8,9-HxCDD	50.00	1.34e+07	1.27 y	39:14	-	1.40 y
6	Unk 1,2,3,4,6,7,8-HpCDD	50.00	1.05e+07	0.95 y	44:14	-	1.16 y
7	Unk OCDD	100.00	1.68e+07	0.91 y	49:49	-	1.23 y
8	Unk 2,3,7,8-TCDF	10.00	5.06e+06	0.66 y	26:38	-	1.26 y
9	Unk 1,2,3,7,8-PeCDF	50.00	1.89e+07	1.72 y	31:30	-	0.936 y
10	Unk 2,3,4,7,8-PeCDF	50.00	1.80e+07	1.72 y	32:49	-	0.923 y
11	Unk 1,2,3,4,7,8-HxCDF	50.00	1.75e+07	1.25 y	37:13	-	1.03 y
12	Unk 1,2,3,6,7,8-HxCDF	50.00	1.87e+07	1.25 y	37:25	-	0.930 y
13	Unk 2,3,4,6,7,8-HxCDF	50.00	1.77e+07	1.26 y	38:21	-	1.00 y
14	Unk 1,2,3,7,8,9-HxCDF	50.00	1.70e+07	1.24 y	39:48	-	1.11 y
15	Unk 1,2,3,4,6,7,8-HpCDF	50.00	1.53e+07	1.01 y	42:19	-	1.39 y
16	Unk 1,2,3,4,7,8,9-HpCDF	50.00	1.40e+07	0.99 y	45:09	-	1.62 y
17	Unk OCDF	100.00	2.08e+07	0.92 y	50:11	-	0.863 y
18	IS/RT 13C-2,3,7,8-TCDD	100.00	2.46e+07	0.74 y	27:22	-	0.959 y
19	IS 13C-1,2,3,7,8-PeCDD	100.00	2.58e+07	1.60 y	33:13	-	1.00 y
20	IS 13C-1,2,3,4,7,8-HxCDD	100.00	1.96e+07	1.34 y	38:36	-	0.985 y
21	IS 13C-1,2,3,6,7,8-HxCDD	100.00	1.88e+07	1.34 y	38:45	-	0.943 y
22	IS 13C-1,2,3,4,6,7,8-HpCDD	100.00	1.81e+07	1.09 y	44:13	-	0.909 y
23	IS 13C-OCDD	200.00	2.74e+07	1.02 y	49:48	-	0.689 y
24	IS 13C-2,3,7,8-TCDF	100.00	4.03e+07	0.82 y	26:37	-	0.883 y
25	IS 13C-1,2,3,7,8-PeCDF	100.00	4.03e+07	1.68 y	31:28	-	0.884 y
26	IS 13C-2,3,4,7,8-PeCDF	100.00	3.90e+07	1.69 y	32:47	-	0.854 y
27	IS 13C-1,2,3,4,7,8-HxCDF	100.00	3.40e+07	0.49 y	37:11	-	1.71 y
28	IS 13C-1,2,3,6,7,8-HxCDF	100.00	4.01e+07	0.49 y	37:24	-	2.01 y
29	IS 13C-2,3,4,6,7,8-HxCDF	100.00	3.52e+07	0.49 y	38:20	-	1.77 y
30	IS 13C-1,2,3,7,8,9-HxCDF	100.00	3.06e+07	0.49 y	39:46	-	1.54 y
31	IS 13C-1,2,3,4,6,7,8-HpCDF	100.00	2.19e+07	0.46 y	42:18	-	1.10 y
32	IS 13C-1,2,3,4,7,8,9-HpCDF	100.00	1.74e+07	0.44 y	45:08	-	0.872 y
33	IS 13C-OCDF	200.00	4.82e+07	0.94 y	50:10	-	1.21 y
34	C/Up 37Cl-2,3,7,8-TCDD	10.00	2.51e+06		27:24	-	0.978 y
35	RS 13C-1,2,3,4-TCDD	100.00	2.57e+07	0.74 y	26:48	2.57e+05	- n
36	RS 13C-1,2,3,4-TCDF	100.00	4.56e+07	0.81 y	25:32	4.56e+05	- n
37	RS/RT 13C-1,2,3,7,8,9-HxCDD	100.00	1.99e+07	1.34 y	39:12	1.99e+05	- n
38	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	1.04 y
39	Tot Total Penta-Dioxins	0.00	-	- n	-	-	0.993 y
40	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.38 y
41	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	1.16 y
42	Tot Total Tetra-Furans	0.00	-	- n	-	-	1.26 y
43	Tot 1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.930 y
44	Tot Total Penta-Furans	0.00	-	- n	-	-	0.930 y
45	Tot Total Hexa-Furans	0.00	-	- n	-	-	1.01 y
46	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.49 y

Analyst: J

Date: 11/19/09

Run #5 Filename 18NOV09M  
Client ID: ST111809M4

S: 5 Acquired: 18-NOV-09 17:26:40 Cal: PCDDFAL3-11-18-09  
Analyte: FAL ID: 1613 CS4 090918K

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	40.00	1.15e+07	0.78 y	27:23	-	1.07 y
2	Unk 1,2,3,7,8-PeCDD	200.00	5.92e+07	1.60 y	33:13	-	1.02 y
3	Unk 1,2,3,4,7,8-HxCDD	200.00	6.29e+07	1.27 y	38:35	-	1.48 y
4	Unk 1,2,3,6,7,8-HxCDD	200.00	5.74e+07	1.28 y	38:46	-	1.40 y
5	Unk 1,2,3,7,8,9-HxCDD	200.00	5.95e+07	1.26 y	39:13	-	1.43 y
6	Unk 1,2,3,4,6,7,8-HpCDD	200.00	4.77e+07	0.95 y	44:13	-	1.25 y
7	Unk OCDD	400.00	7.39e+07	0.92 y	49:48	-	1.34 y
8	Unk 2,3,7,8-TCDF	40.00	2.33e+07	0.66 y	26:37	-	1.31 y
9	Unk 1,2,3,7,8-PeCDF	200.00	8.59e+07	1.69 y	31:29	-	0.964 y
10	Unk 2,3,4,7,8-PeCDF	200.00	8.30e+07	1.71 y	32:48	-	0.978 y
11	Unk 1,2,3,4,7,8-HxCDF	200.00	8.21e+07	1.25 y	37:12	-	1.08 y
12	Unk 1,2,3,6,7,8-HxCDF	200.00	8.80e+07	1.25 y	37:24	-	0.991 y
13	Unk 2,3,4,6,7,8-HxCDF	200.00	8.00e+07	1.23 y	38:21	-	1.06 y
14	Unk 1,2,3,7,8,9-HxCDF	200.00	7.74e+07	1.25 y	39:47	-	1.17 y
15	Unk 1,2,3,4,6,7,8-HpCDF	200.00	7.01e+07	1.02 y	42:18	-	1.50 y
16	Unk 1,2,3,4,7,8,9-HpCDF	200.00	6.47e+07	1.02 y	45:08	-	1.77 y
17	Unk OCDF	400.00	9.18e+07	0.92 y	50:11	-	0.930 y
18	IS/RT 13C-2,3,7,8-TCDD	100.00	2.70e+07	0.73 y	27:22	-	0.950 y
19	IS 13C-1,2,3,7,8-PeCDD	100.00	2.91e+07	1.73 y	33:12	-	1.02 y
20	IS 13C-1,2,3,4,7,8-HxCDD	100.00	2.13e+07	1.33 y	38:35	-	0.983 y
21	IS 13C-1,2,3,6,7,8-HxCDD	100.00	2.05e+07	1.33 y	38:44	-	0.946 y
22	IS 13C-1,2,3,4,6,7,8-HpCDD	100.00	1.91e+07	1.06 y	44:12	-	0.885 y
23	IS 13C-OCDD	200.00	2.76e+07	0.99 y	49:47	-	0.638 y
24	IS 13C-2,3,7,8-TCDF	100.00	4.44e+07	0.82 y	26:36	-	0.918 y
25	IS 13C-1,2,3,7,8-PeCDF	100.00	4.45e+07	1.70 y	31:27	-	0.921 y
26	IS 13C-2,3,4,7,8-PeCDF	100.00	4.24e+07	1.70 y	32:47	-	0.877 y
27	IS 13C-1,2,3,4,7,8-HxCDF	100.00	3.79e+07	0.50 y	37:11	-	1.75 y
28	IS 13C-1,2,3,6,7,8-HxCDF	100.00	4.44e+07	0.49 y	37:23	-	2.05 y
29	IS 13C-2,3,4,6,7,8-HxCDF	100.00	3.79e+07	0.49 y	38:19	-	1.75 y
30	IS 13C-1,2,3,7,8,9-HxCDF	100.00	3.30e+07	0.48 y	39:46	-	1.53 y
31	IS 13C-1,2,3,4,6,7,8-HpCDF	100.00	2.33e+07	0.47 y	42:17	-	1.08 y
32	IS 13C-1,2,3,4,7,8,9-HpCDF	100.00	1.82e+07	0.46 y	45:07	-	0.843 y
33	IS 13C-OCDF	200.00	4.94e+07	0.92 y	50:09	-	1.14 y
34	C/Up 37Cl-2,3,7,8-TCDD	40.00	1.17e+07		27:23	-	1.03 y
35	RS 13C-1,2,3,4-TCDD	100.00	2.85e+07	0.74 y	26:47	2.85e+05	- n
36	RS 13C-1,2,3,4-TCDF	100.00	4.84e+07	0.82 y	25:32	4.84e+05	- n
37	RS/RT 13C-1,2,3,7,8,9-HxCDD	100.00	2.16e+07	1.31 y	39:12	2.16e+05	- n
38	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	1.07 y
39	Tot Total Penta-Dioxins	0.00	-	- n	-	-	1.02 y
40	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.44 y
41	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	1.25 y
42	Tot Total Tetra-Furans	0.00	-	- n	-	-	1.31 y
43	Tot 1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.971 y
44	Tot Total Penta-Furans	0.00	-	- n	-	-	0.971 y
45	Tot Total Hexa-Furans	0.00	-	- n	-	-	1.07 y
46	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.62 y

Analyst: J

Date: 11/19/09

Run #6 Filename 18NOV09M  
Client ID: ST111809M5

S: 6

Acquired: 18-NOV-09 18:21:58

Cal: PCDDFAL3-11-18-09

Analyte: PCDDFAL3-11-18-09

FAL ID: 1613 CS5 090918L

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	200.00	4.98e+07	0.78 y	27:23	- 1.12 y
2	Unk	1,2,3,7,8-PeCDD	1000.00	2.79e+08	1.55 y	33:13	- 1.07 y
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	3.29e+08	1.27 y	38:36	- 1.52 y
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	2.88e+08	1.27 y	38:46	- 1.42 y
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	3.07e+08	1.25 y	39:13	- 1.47 y
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	2.60e+08	0.97 y	44:13	- 1.26 y
7	Unk	OCDD	2000.00	4.20e+08	0.91 y	49:49	- 1.35 y
8	Unk	2,3,7,8-TCDF	200.00	1.00e+08	0.68 y	26:38	- 1.38 y
9	Unk	1,2,3,7,8-PeCDF	1000.00	3.75e+08	1.67 y	31:29	- 0.979 y
10	Unk	2,3,4,7,8-PeCDF	1000.00	3.68e+08	1.68 y	32:48	- 0.995 y
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	3.99e+08	1.26 y	37:12	- 1.11 y
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	4.18e+08	1.25 y	37:24	- 1.01 y
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	3.97e+08	1.25 y	38:20	- 1.09 y
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	4.04e+08	1.24 y	39:47	- 1.20 y
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	3.72e+08	1.01 y	42:18	- 1.51 y
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	3.62e+08	1.01 y	45:08	- 1.82 y
17	Unk	OCDF	2000.00	5.23e+08	0.93 y	50:12	- 0.933 y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.22e+07	0.74 y	27:22	- 0.980 y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.61e+07	1.65 y	33:12	- 1.15 y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.17e+07	1.33 y	38:35	- 0.972 y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.02e+07	1.33 y	38:44	- 0.909 y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	2.06e+07	1.07 y	44:12	- 0.923 y
23	IS	13C-OCDD	200.00	3.11e+07	1.02 y	49:48	- 0.698 y
24	IS	13C-2,3,7,8-TCDF	100.00	3.62e+07	0.83 y	26:37	- 0.911 y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	3.83e+07	1.66 y	31:27	- 0.963 y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	3.70e+07	1.70 y	32:46	- 0.930 y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.59e+07	0.49 y	37:11	- 1.61 y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.14e+07	0.50 y	37:23	- 1.86 y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.63e+07	0.49 y	38:20	- 1.63 y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	3.35e+07	0.48 y	39:46	- 1.51 y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.47e+07	0.46 y	42:17	- 1.11 y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.99e+07	0.47 y	45:06	- 0.892 y
33	IS	13C-OCDF	200.00	5.61e+07	0.94 y	50:10	- 1.26 y
34	C/Up	37Cl-2,3,7,8-TCDD	200.00	5.04e+07		27:23	- 1.11 y
35	RS	13C-1,2,3,4-TCDD	100.00	2.27e+07	0.74 y	26:47	2.27e+05 - n
36	RS	13C-1,2,3,4-TCDF	100.00	3.98e+07	0.82 y	25:31	3.98e+05 - n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.23e+07	1.31 y	39:11	2.23e+05 - n
38	Tot	Total Tetra-Dioxins	0.00	-	- n	-	- 1.12 y
39	Tot	Total Penta-Dioxins	0.00	-	- n	-	- 1.07 y
40	Tot	Total Hexa-Dioxins	0.00	-	- n	-	- 1.47 y
41	Tot	Total Hepta-Dioxins	0.00	-	- n	-	- 1.26 y
42	Tot	Total Tetra-Furans	0.00	-	- n	-	- 1.38 y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	- 0.987 y
44	Tot	Total Penta-Furans	0.00	-	- n	-	- 0.987 y
45	Tot	Total Hexa-Furans	0.00	-	- n	-	- 1.10 y
46	Tot	Total Hepta-Furans	0.00	-	- n	-	- 1.65 y

Analyst: J

Date: 11/19/09

## USEPA - ITD

## FORM 3A

## PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS3 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
NATIVE ANALYTES								
2,3,7,8-TCDD	1.00	0.93	0.95	1.04	1.07	1.12	1.02	7.22
1,2,3,7,8-PeCDD	0.88	0.88	0.93	0.99	1.02	1.07	0.96	8.09
1,2,3,4,7,8-HxCDD	1.26	1.27	1.31	1.41	1.48	1.52	1.37	8.00
1,2,3,6,7,8-HxCDD	1.26	1.33	1.30	1.35	1.40	1.42	1.34	4.55
1,2,3,7,8,9-HxCDD	1.32	1.27	1.32	1.40	1.43	1.47	1.37	5.49
1,2,3,4,6,7,8-HpCDD	1.12	1.09	1.12	1.16	1.25	1.26	1.17	6.10
OCDD	1.09	1.11	1.17	1.23	1.34	1.35	1.21	9.27
2,3,7,8-TCDF	1.22	1.28	1.25	1.26	1.31	1.38	1.29	4.39
1,2,3,7,8-PeCDF	0.79	0.81	0.85	0.94	0.96	0.98	0.89	9.08
2,3,4,7,8-PeCDF	0.83	0.84	0.87	0.92	0.98	1.00	0.91	7.85
1,2,3,4,7,8-HxCDF	0.89	0.91	0.97	1.03	1.08	1.11	1.00	9.26
1,2,3,6,7,8-HxCDF	0.82	0.86	0.88	0.93	0.99	1.01	0.92	8.16
2,3,4,6,7,8-HxCDF	0.91	0.90	0.95	1.00	1.06	1.09	0.99	7.97
1,2,3,7,8,9-HxCDF	0.98	1.01	1.06	1.11	1.17	1.20	1.09	8.28
1,2,3,4,6,7,8-HpCDF	1.22	1.22	1.31	1.39	1.50	1.51	1.36	9.61
1,2,3,4,7,8,9-HpCDF	1.49	1.44	1.50	1.62	1.77	1.82	1.61	9.90
OCDF	0.75	0.76	0.81	0.86	0.93	0.93	0.84	9.39

Analyst: 

Date: 11/19/09



## USEPA - ITD

## FORM 3B

## PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS4 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

Labeled Compounds	RELATIVE RESPONSE (RR)						MEAN RR	CV (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
13C-2,3,7,8-TCDD	0.92	0.91	0.93	0.96	0.95	0.98	0.94	2.65
13C-1,2,3,7,8-PeCDD	0.99	0.93	1.00	1.00	1.02	1.15	1.02	7.06
13C-1,2,3,4,7,8-HxCDD	0.99	0.97	1.00	0.99	0.98	0.97	0.98	1.28
13C-1,2,3,6,7,8-HxCDD	0.93	0.93	0.96	0.94	0.95	0.91	0.94	2.01
13C-1,2,3,4,6,7,8-HpCDD	0.92	0.89	0.87	0.91	0.89	0.92	0.90	2.42
13C-OCDD	0.69	0.66	0.62	0.69	0.64	0.70	0.67	4.59
13C-2,3,7,8-TCDF	0.85	0.85	0.86	0.88	0.92	0.91	0.88	3.49
13C-1,2,3,7,8-PeCDF	0.83	0.79	0.87	0.88	0.92	0.96	0.88	6.98
13C-2,3,4,7,8-PeCDF	0.83	0.76	0.85	0.85	0.88	0.93	0.85	6.60
13C-1,2,3,4,7,8-HxCDF	1.74	1.75	1.75	1.71	1.75	1.61	1.72	3.20
13C-1,2,3,6,7,8-HxCDF	2.01	2.02	2.06	2.01	2.05	1.86	2.00	3.71
13C-2,3,4,6,7,8-HxCDF	1.74	1.73	1.79	1.77	1.75	1.63	1.74	3.24
13C-1,2,3,7,8,9-HxCDF	1.51	1.47	1.48	1.54	1.53	1.51	1.51	1.71
13C-1,2,3,4,6,7,8-HpCDF	1.12	1.10	1.08	1.10	1.08	1.11	1.10	1.39
13C-1,2,3,4,7,8,9-HpCDF	0.82	0.84	0.81	0.87	0.84	0.89	0.85	3.67
13C-OCDF	1.18	1.15	1.10	1.21	1.14	1.26	1.17	4.73
CLEANUP STANDARD								
37Cl-2,3,7,8-TCDD	0.90	0.93	0.90	0.98	1.03	1.11	0.97	8.61

Analyst: 

Date: 11/19/09

## USEPA - ITD

FORM 3C  
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS3 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUNDANCE RATIOS						QC LIMITS
		CS1	CS2	CS3	CS4	CS5	CS6	
2,3,7,8-TCDD	M/M+2	0.72	0.75	0.80	0.76	0.78	0.78	0.65-0.89
1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.55	1.55	1.56	1.60	1.55	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.24	1.24	1.29	1.27	1.27	1.05-1.43
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.34	1.24	1.28	1.28	1.27	1.05-1.43
1,2,3,7,8,9-HxCDD	M+2/M+4	1.29	1.27	1.27	1.27	1.26	1.25	1.05-1.43
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.93	0.91	0.91	0.95	0.95	0.97	0.88-1.20
OCDD	M+2/M+4	0.92	0.93	0.92	0.91	0.92	0.91	0.76-1.02
2,3,7,8-TCDF	M/M+2	0.69	0.66	0.66	0.66	0.66	0.68	0.65-0.89
1,2,3,7,8-PeCDF	M+2/M+4	1.75	1.68	1.71	1.72	1.69	1.67	1.32-1.78
2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.69	1.69	1.72	1.71	1.68	1.32-1.78
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.28	1.23	1.25	1.25	1.26	1.05-1.43
1,2,3,6,7,8-HxCDF	M+2/M+4	1.21	1.28	1.22	1.25	1.25	1.25	1.05-1.43
2,3,4,6,7,8-HxCDF	M+2/M+4	1.29	1.20	1.24	1.26	1.23	1.25	1.05-1.43
1,2,3,7,8,9-HxCDF	M+2/M+4	1.28	1.26	1.21	1.24	1.25	1.24	1.05-1.43
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.00	1.00	1.00	1.01	1.02	1.01	0.88-1.20
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.00	0.96	1.01	0.99	1.02	1.01	0.88-1.20
OCDF	M+2/M+4	0.88	0.93	0.91	0.92	0.92	0.93	0.76-1.02

Analyst: 6Date: 11/19/09

## USEPA - ITD

FORM 3D  
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS3 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

Labeled Compounds	M/Z'S FORMING RATIO	ION ABUNDANCE RATIOS						QC LIMITS
		CS1	CS2	CS3	CS4	CS5	CS6	
13C-2,3,7,8-TCDD	M/M+2	0.73	0.73	0.73	0.74	0.73	0.74	0.65-0.89
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.63	1.69	1.66	1.60	1.73	1.65	1.32-1.78
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.31	1.36	1.32	1.34	1.33	1.33	1.05-1.43
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.33	1.31	1.31	1.34	1.33	1.33	1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	1.07	1.06	1.09	1.06	1.07	0.88-1.20
13C-OCDD	M+2/M+4	1.01	1.00	0.98	1.02	0.99	1.02	0.76-1.02
13C-2,3,7,8-TCDF	M/M+2	0.81	0.81	0.82	0.82	0.82	0.83	0.65-0.89
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.67	1.68	1.68	1.68	1.70	1.66	1.32-1.78
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.68	1.71	1.66	1.69	1.70	1.70	1.32-1.78
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.48	0.49	0.49	0.50	0.49	0.43-0.59
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.48	0.48	0.50	0.49	0.49	0.50	0.43-0.59
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.49	0.50	0.49	0.49	0.49	0.43-0.59
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.49	0.49	0.49	0.48	0.48	0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.45	0.46	0.46	0.47	0.46	0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.45	0.46	0.44	0.46	0.47	0.37-0.51
13C-OCDF	M+2/M+4	0.92	0.92	0.93	0.94	0.92	0.94	0.76-1.02

Analyst: 8Date: 11/19/09

## USEPA - ITD

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 18NOV09M Sam:1

Analysis Date: 18-NOV-09 13:45:10

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
NATIVE ANALYTES						
2,3,7,8-TCDD	M/M+2	0.76	0.65-0.89	y	10.2	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.32-1.78	y	51.6	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	51.2	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	50.1	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.27	1.05-1.43	y	51.1	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.95	0.88-1.20	y	49.5	43.0 - 58.0
OCDD	M+2/M+4	0.91	0.76-1.02	y	101	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.66	0.65-0.89	y	9.77	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.72	1.32-1.78	y	52.6	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.72	1.32-1.78	y	50.9	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	51.5	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	50.8	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	y	50.9	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	y	51.1	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	51.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.99	0.88-1.20	y	50.3	43.0 - 58.0
OCDF	M+2/M+4	0.92	0.76-1.02	y	102	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: 11/19/09





## USEPA - ITD

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory      Episode No.:

Contract No.:      SAS No.:      Init. Cal. Date: 11/18/09

Instrument ID: FAL3      GC Column ID: DB5

Analysis Date: 18-NOV-09 13:45:10      CS3 or VER Data Filename: 18NOV09M      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	1.001	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		1.021	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		1.224	0.923-1.303

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

Analyst: \_\_\_\_\_

Date: \_\_\_\_\_

## USEPA - ITD

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 18-NOV-09 13:45:10 CS3 or VER Data Filename: 18NOV09M 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	1.000	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	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	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		1.014	0.977-1.047
13C-1,2,3,4,6,7,8-HpCDD		1.128	1.086-1.130
13C-1,2,3,4,6,7,8-HpCDF		1.079	1.043-1.085
13C-1,2,3,4,7,8,9-HpCDF		1.151	1.057-1.154
13C-OCDD		1.270	1.032-1.311
13C-OCDF		1.280	1.000-1.311

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

Analyst: 

Date: 11/19/09



FAL ID: ST111809M3      Filename: 18NOV09M      Sam:1      Acquired: 18-NOV-09 13:45:10      ICal: PCDDFAL3-11-18-09  
 Client ID: 1613 CS3 090918J      ConCal: ST111809M3      EndCal: ST111809M6

Results:      GC Column: DB5      Amount: 1.000      NATO 1989 Tox: 103      WHO 1998 Tox: 128      WHO 2005 Tox: 117

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	#Hom	
2,3,7,8-TCDD	2.56e+06	0.76 y	27:24	1.02	10.2		2.50	-	-	*	20
1,2,3,7,8-PeCDD	1.28e+07	1.56 y	33:14	0.96	51.6		2.50	-	-	*	13
1,2,3,4,7,8-HxCDD	1.38e+07	1.29 y	38:36	1.37	51.2		2.50	-	-	*	14
1,2,3,6,7,8-HxCDD	1.26e+07	1.28 y	38:47	1.34	50.1		2.50	-	-	*	10
1,2,3,7,8,9-HxCDD	1.34e+07	1.27 y	39:14	1.37	51.1		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	1.05e+07	0.95 y	44:14	1.17	49.5		2.50	-	-	*	
OCDD	1.68e+07	0.91 y	49:49	1.21	101		2.50	-	-	*	
2,3,7,8-TCDF	5.06e+06	0.66 y	26:38	1.29	9.77		2.50	-	-	*	
1,2,3,7,8-PeCDF	1.89e+07	1.72 y	31:30	0.89	52.6		2.50	-	-	*	
2,3,4,7,8-PeCDF	1.80e+07	1.72 y	32:49	0.91	50.9		2.50	-	-	*	
1,2,3,4,7,8-HxCDF	1.75e+07	1.25 y	37:13	1.00	51.5		2.50	-	-	*	
1,2,3,6,7,8-HxCDF	1.87e+07	1.25 y	37:25	0.92	50.8		2.50	-	-	*	
2,3,4,6,7,8-HxCDF	1.77e+07	1.26 y	38:21	0.99	50.9		2.50	-	-	*	
1,2,3,7,8,9-HxCDF	1.70e+07	1.24 y	39:48	1.09	51.1		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	1.53e+07	1.01 y	42:19	1.36	51.3		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	1.40e+07	0.99 y	45:09	1.61	50.3		2.50	-	-	*	
OCDF	2.08e+07	0.92 y	50:11	0.84	102		2.50	-	-	*	
										Rec	
13C-2,3,7,8-TCDD	2.46e+07	0.74 y	27:22	0.94	102					102	
13C-1,2,3,7,8-PeCDD	2.58e+07	1.60 y	33:13	1.02	98.5					98.5	
13C-1,2,3,4,7,8-HxCDD	1.96e+07	1.34 y	38:36	0.98	100					100	
13C-1,2,3,6,7,8-HxCDD	1.88e+07	1.34 y	38:45	0.94	101					101	
13C-1,2,3,4,6,7,8-HpCDD	1.81e+07	1.09 y	44:13	0.90	101					101	
13C-OCDD	2.74e+07	1.02 y	49:48	0.67	207					103	
13C-2,3,7,8-TCDF	4.03e+07	0.82 y	26:37	0.88	100					100	
13C-1,2,3,7,8-PeCDF	4.03e+07	1.68 y	31:28	0.88	101					101	
13C-2,3,4,7,8-PeCDF	3.90e+07	1.69 y	32:47	0.85	101					101	
13C-1,2,3,4,7,8-HxCDF	3.40e+07	0.49 y	37:11	1.72	99.5					99.5	
13C-1,2,3,6,7,8-HxCDF	4.01e+07	0.49 y	37:24	2.00	101					101	
13C-2,3,4,6,7,8-HxCDF	3.52e+07	0.49 y	38:20	1.74	102					102	
13C-1,2,3,7,8,9-HxCDF	3.06e+07	0.49 y	39:46	1.51	102					102	
13C-1,2,3,4,6,7,8-HpCDF	2.19e+07	0.46 y	42:18	1.10	100					100	
13C-1,2,3,4,7,8,9-HpCDF	1.74e+07	0.44 y	45:08	0.85	103					103	
13C-OCDF	4.82e+07	0.94 y	50:10	1.17	206					103	
37Cl-2,3,7,8-TCDD	2.51e+06		27:24	0.97	10.0					100	
13C-1,2,3,4-TCDD	2.57e+07	0.74 y	26:48	-	98.3						
13C-1,2,3,4-TCDF	4.56e+07	0.81 y	25:32	-	98.8						
13C-1,2,3,7,8,9-HxCDD	1.99e+07	1.34 y	39:12	-	97.0						
Total Tetra-Dioxins	1.39e+07		24:23	1.02	55.3		2.50	-	-	*	
Total Penta-Dioxins	2.72e+07		30:15	0.96	110		2.50	-	-	*	
Total Hexa-Dioxins	4.52e+07		36:09	1.36	173		2.50	-	-	*	
Total Hepta-Dioxins	2.21e+07		42:51	1.17	105		2.50	-	-	*	
Total Tetra-Furans	2.16e+07		23:02	1.29	41.7		2.50	-	-	*	18
1st Fn. Tot Penta-Furans	1.85e+07		28:26	0.90	51.9		2.50	-	-	*	PeCDF 1
Total Penta-Furans	5.36e+07		30:11	0.90	151		2.50	-	-	*	203 9
Total Hexa-Furans	8.22e+07		35:16	0.99	237		2.50	-	-	*	15
Total Hepta-Furans	2.95e+07		42:19	1.47	102		2.50	-	-	*	4

Analyst: 

Date: 11/19/09

Frontier Analytical Laboratory - Acquisition Log

Run Name: 18NOV09M

Instrument: FAL3

GC: DB5

Experiment: PCDD

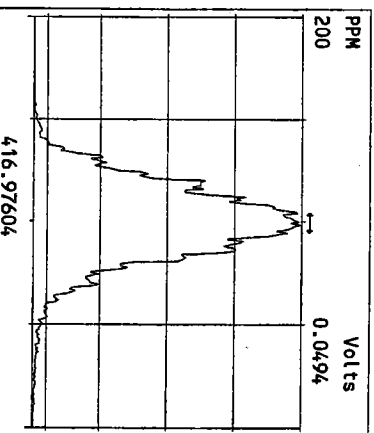
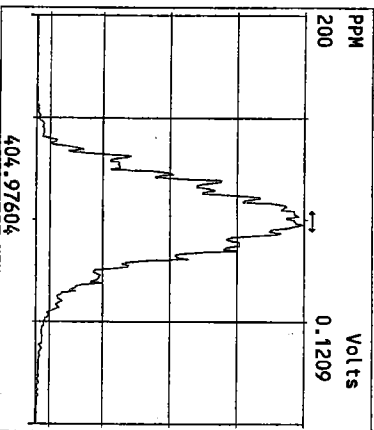
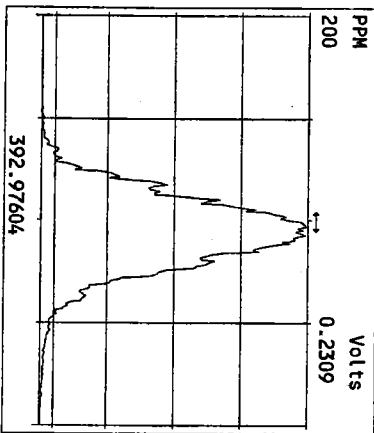
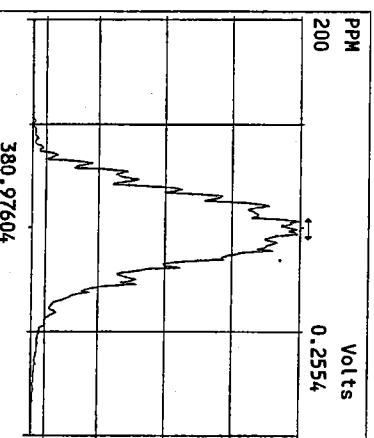
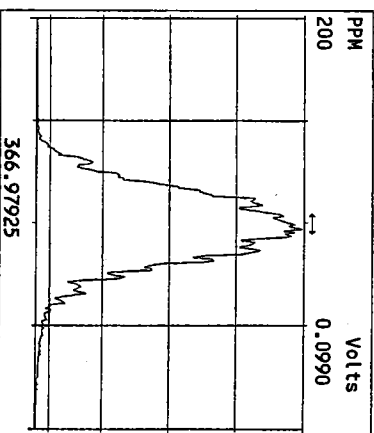
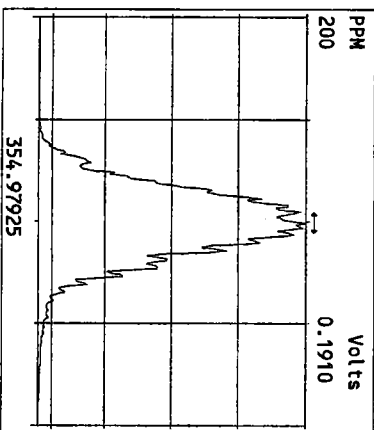
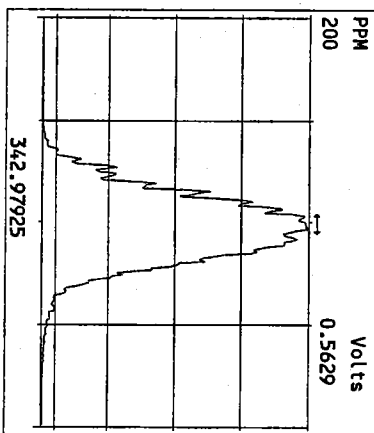
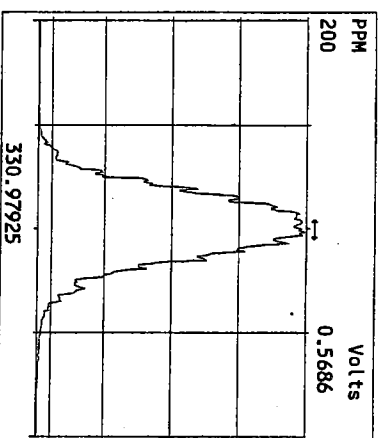
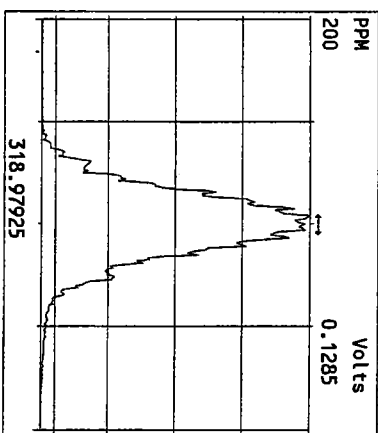
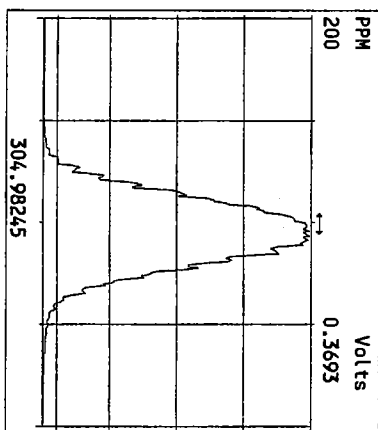
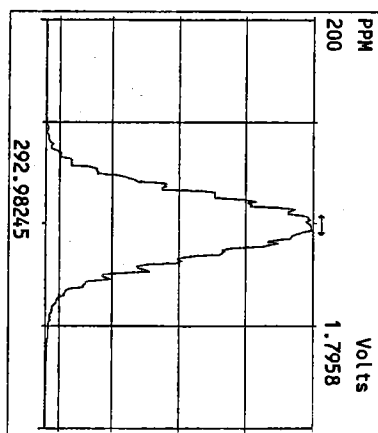
Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
18NOV09M	1	ST111809M3	1613 CS3 090918J	18-NOV-09 13:45:10	ST111809M3	ST111809M6	BS
18NOV09M	2	ST111809M0	1613 CS0 090918G	18-NOV-09 14:40:53	ST111809M3	ST111809M6	BS
18NOV09M	3	ST111809M1	1613 CS1 090918H	18-NOV-09 15:36:11	ST111809M3	ST111809M6	BS
18NOV09M	4	ST111809M2	1613 CS2 090918I	18-NOV-09 16:31:26	ST111809M3	ST111809M6	BS
18NOV09M	5	ST111809M4	1613 CS4 090918K	18-NOV-09 17:26:40	ST111809M3	ST111809M6	BS
18NOV09M	6	ST111809M5	1613 CS5 090918L	18-NOV-09 18:21:58	ST111809M3	ST111809M6	BS
18NOV09M	7	SB111809M1	Solvent Blank	18-NOV-09 19:17:18	ST111809M3	ST111809M6	BS
18NOV09M	8	1882-001-0001-OPR	OPR	18-NOV-09 20:12:37	ST111809M3	ST111809M6	BS
18NOV09M	9	1882-001-0001-MB	Method Blank	18-NOV-09 21:07:56	ST111809M3	ST111809M6	BS
18NOV09M	10	5820-009-0001-SA	EDS-114-106+69-C1-0.7	18-NOV-09 22:03:10	ST111809M3	ST111809M6	BS
18NOV09M	11	5820-014-0001-SA	EDS-116-105+86-W2-7.1	18-NOV-09 22:58:30	ST111809M3	ST111809M6	BS
18NOV09M	12	5820-002-0001-SA	EDS-119-106+09-W3-5.2	18-NOV-09 23:53:48	ST111809M3	ST111809M6	BS
18NOV09M	13	5820-011-0001-SA	EDS-105-106+69-W2-6.0	19-NOV-09 00:49:06	ST111809M3	ST111809M6	BS
18NOV09M	14	SB111809M2	Solvent Blank	19-NOV-09 01:44:25	ST111809M3	ST111809M6	BS
18NOV09M	15	SB111809M3	Solvent Blank	19-NOV-09 02:39:43	ST111809M3	ST111809M6	BS
18NOV09M	16	ST111809M6	1613 CS3 090918J	19-NOV-09 03:35:00	ST111809M6	ST111809M7	BS
18NOV09M	17	5820-003-0001-SA	EDS-117-105+86-W3-4.9	19-NOV-09 04:30:11	ST111809M6	ST111809M7	BS
18NOV09M	18	5820-006-0001-SA	EDS-118-106+09-W2-5.7	19-NOV-09 05:25:26	ST111809M6	ST111809M7	BS
18NOV09M	19	5820-010-0001-SA	EDS-104-106+69-W1-5.5	19-NOV-09 06:20:41	ST111809M6	ST111809M7	BS
18NOV09M	20	5820-008-0001-SA	EDS-120-106+09-W4-6.4	19-NOV-09 07:16:00	ST111809M6	ST111809M7	BS
18NOV09M	21	5820-007-0001-SA	EDS-113-106+44-W8-7.6	19-NOV-09 08:11:14	ST111809M6	ST111809M7	BS
18NOV09M	22	5820-004-0001-SA	EDS-107-106+69-W4-7.5	19-NOV-09 09:06:32	ST111809M6	ST111809M7	BS
18NOV09M	23	5820-001-0001-SA	EDS-115-105+86-W1-5.8	19-NOV-09 10:01:51	ST111809M6	ST111809M7	BS
18NOV09M	24	5820-005-0001-SA	EDS-106-106+69-W3-7.0	19-NOV-09 10:57:09	ST111809M6	ST111809M7	BS
18NOV09M	25	SB111809M4	Solvent Blank	19-NOV-09 11:52:24	ST111809M6	ST111809M7	BS
18NOV09M	26	SB111809M5	Solvent Blank	19-NOV-09 12:47:43	ST111809M6	ST111809M7	BS
18NOV09M	27	ST111809M7	1613 CS3 090918J	19-NOV-09 13:43:06	ST111809M6	ST111809M7	BS

DN 11/19/09

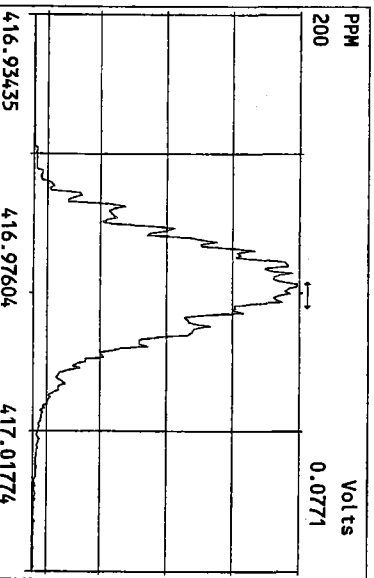
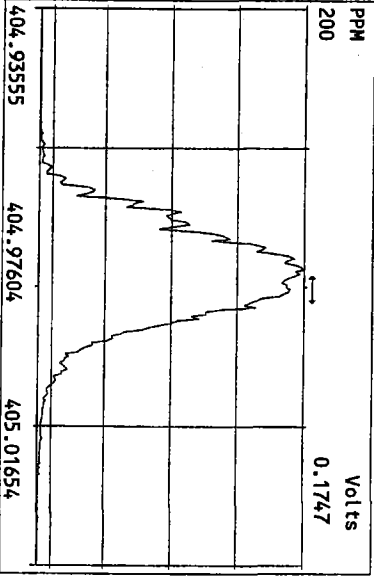
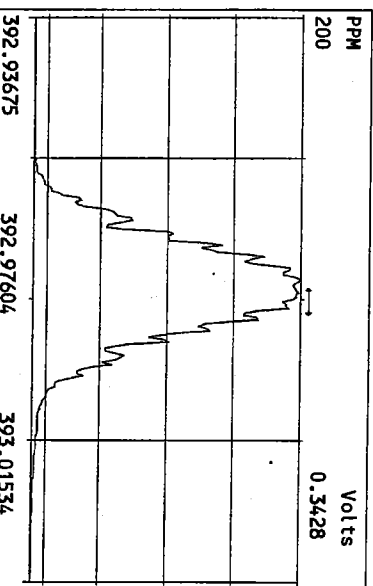
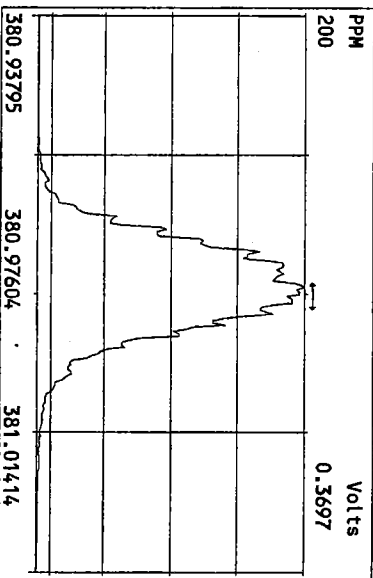
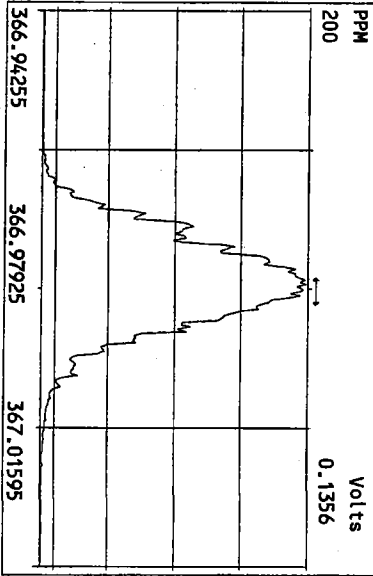
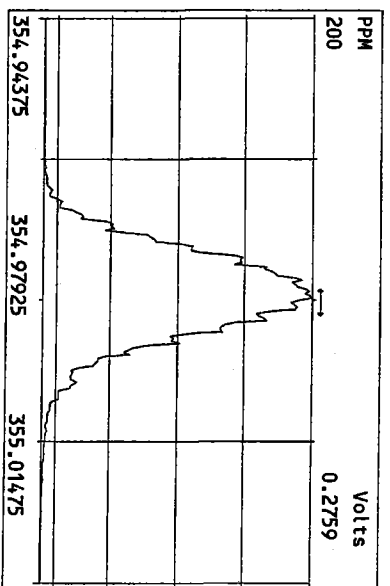
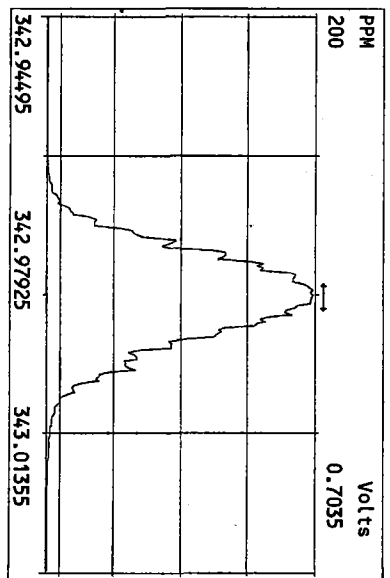
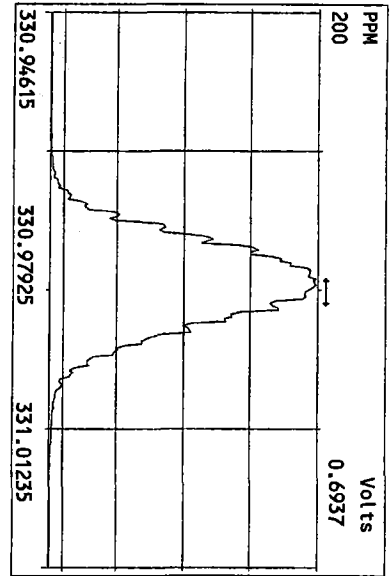
Data Backed Up: \_\_\_\_\_

Date: \_\_\_\_\_

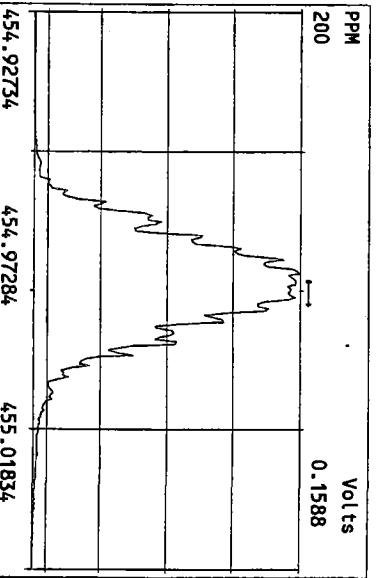
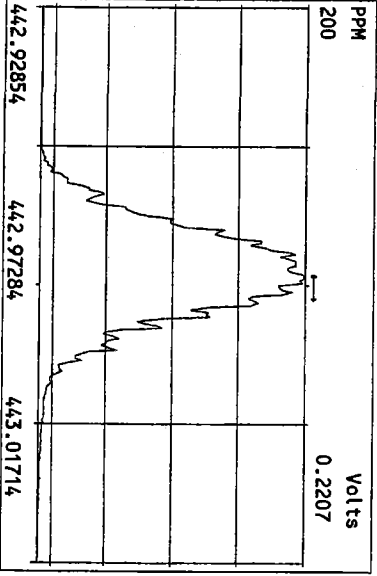
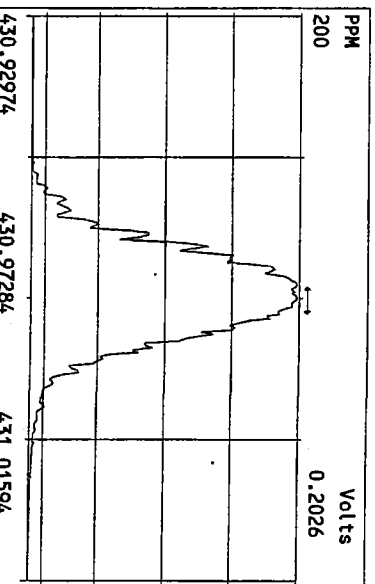
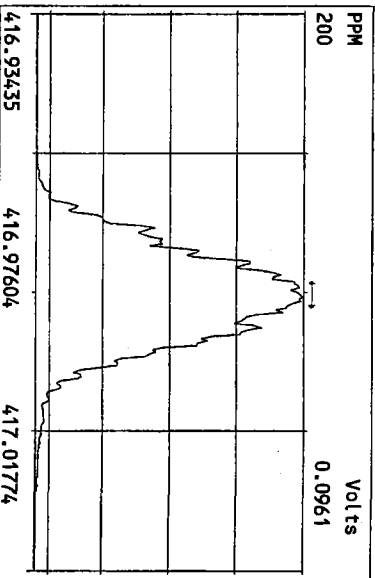
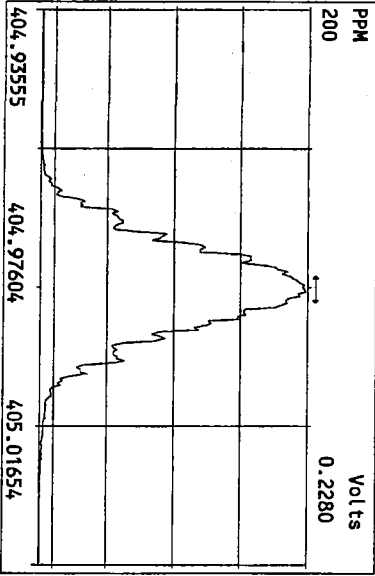
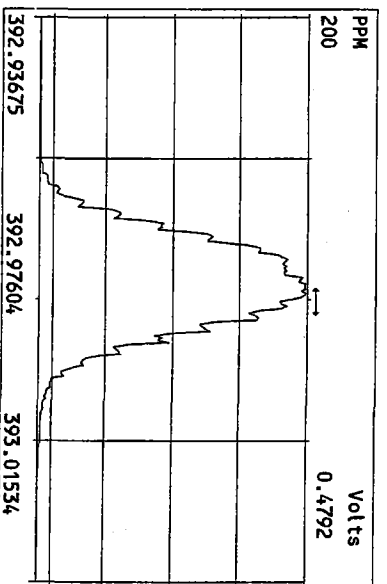
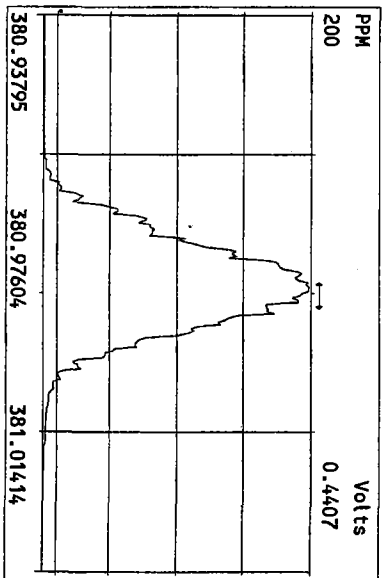
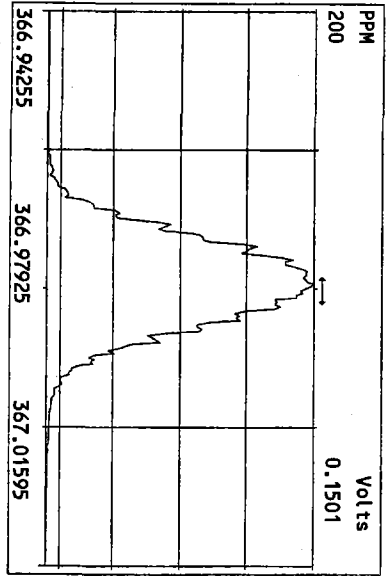
Peak Locate Examination:18-NOV-2009:13:42 File:18NOV09M  
Experiment:PCDD Function:1 Reference:PK

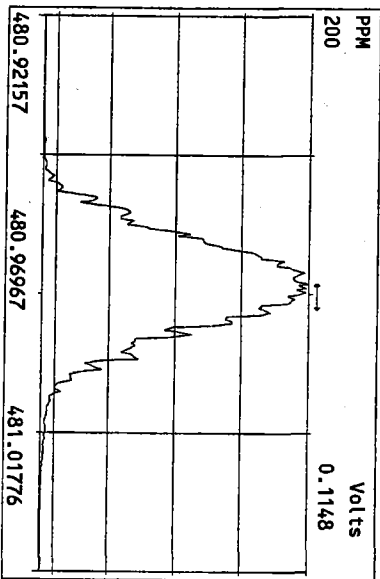
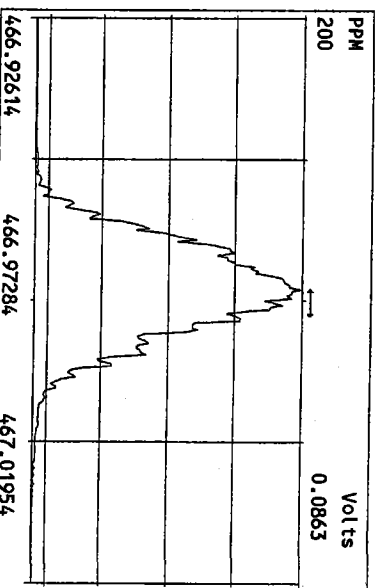
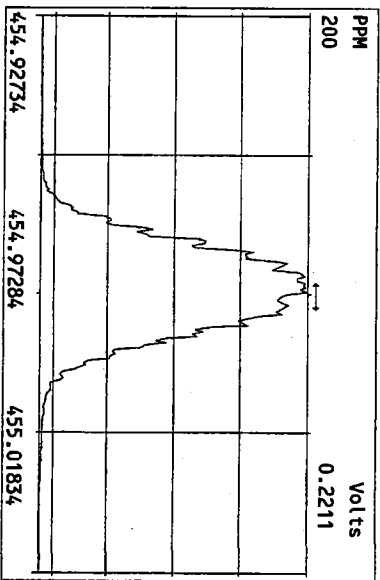
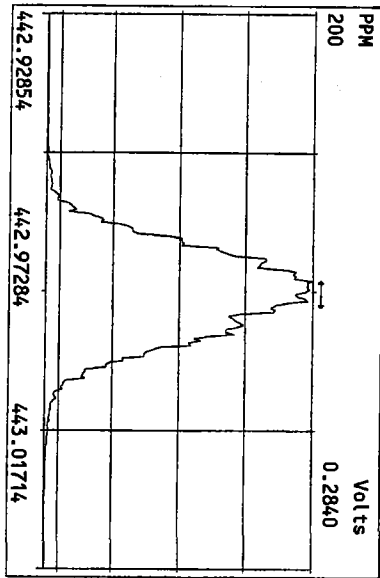
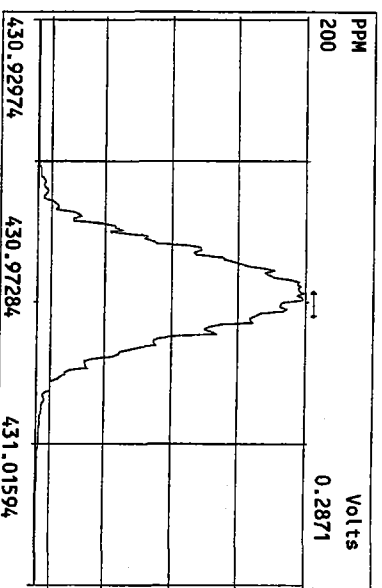
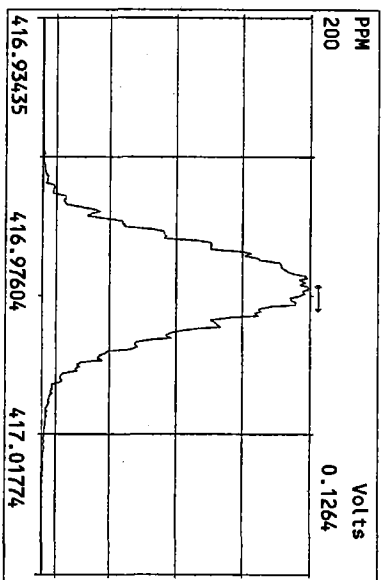
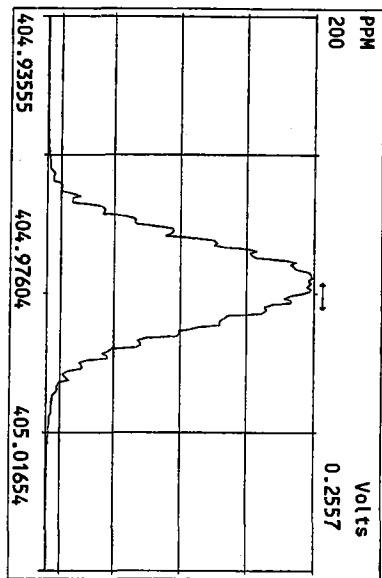


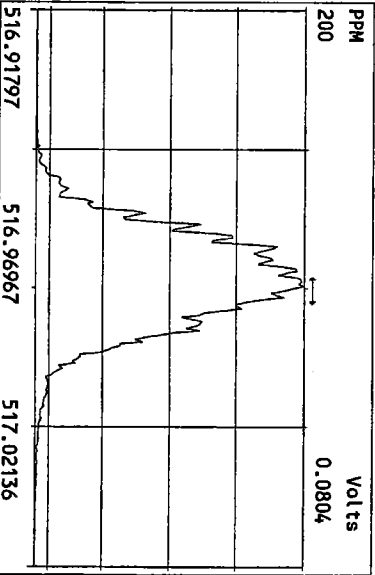
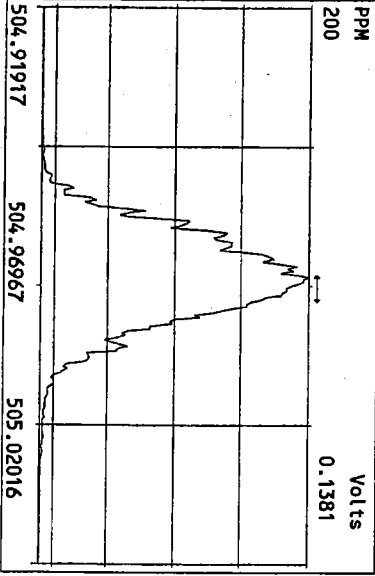
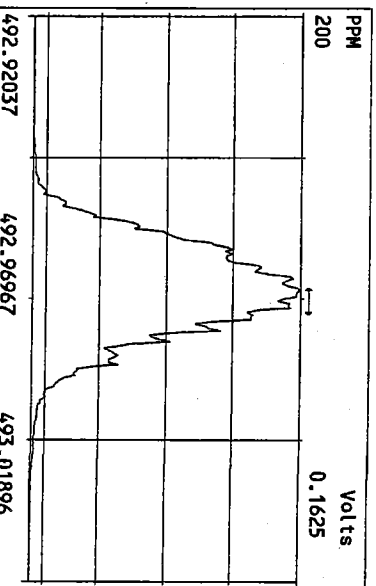
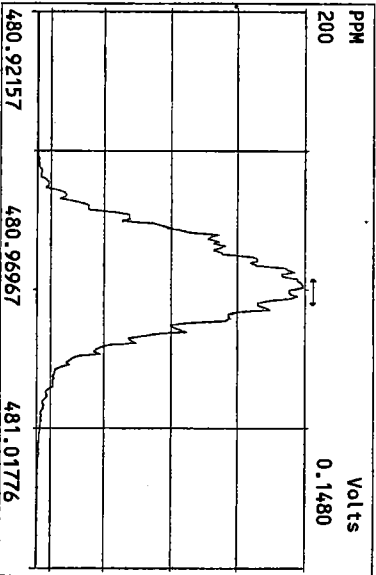
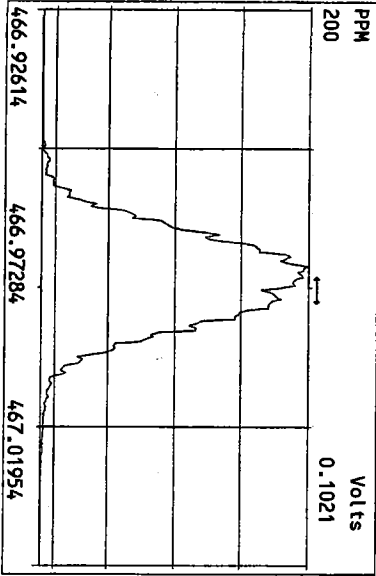
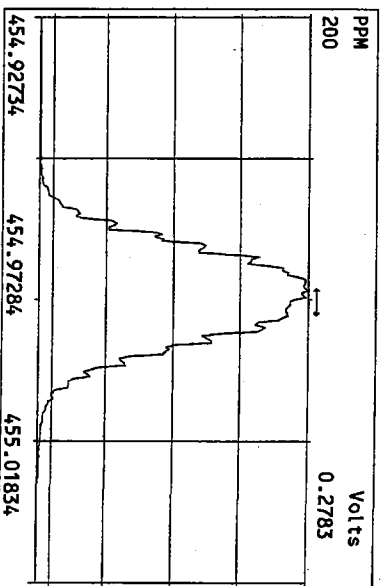
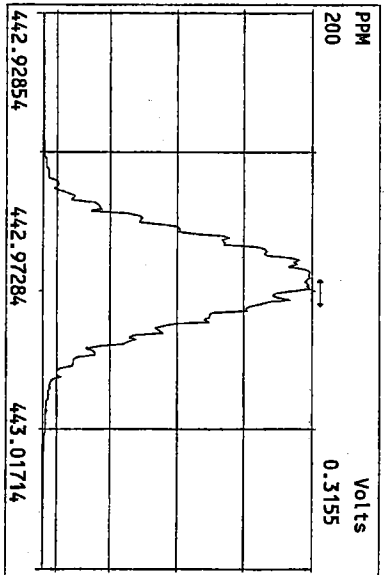
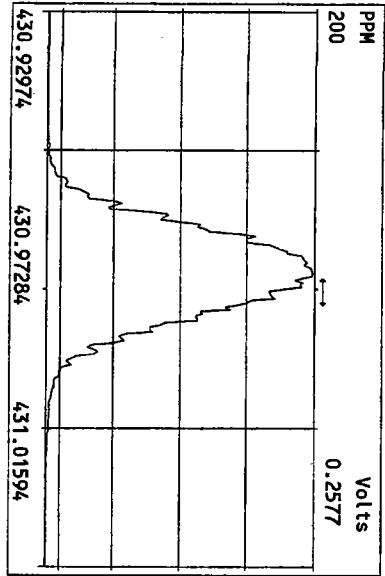
Peak Locate Examination: 18-NOV-2009:13:43 file:18NOV09M  
Experiment:PCDD Function:2 Reference:PFK



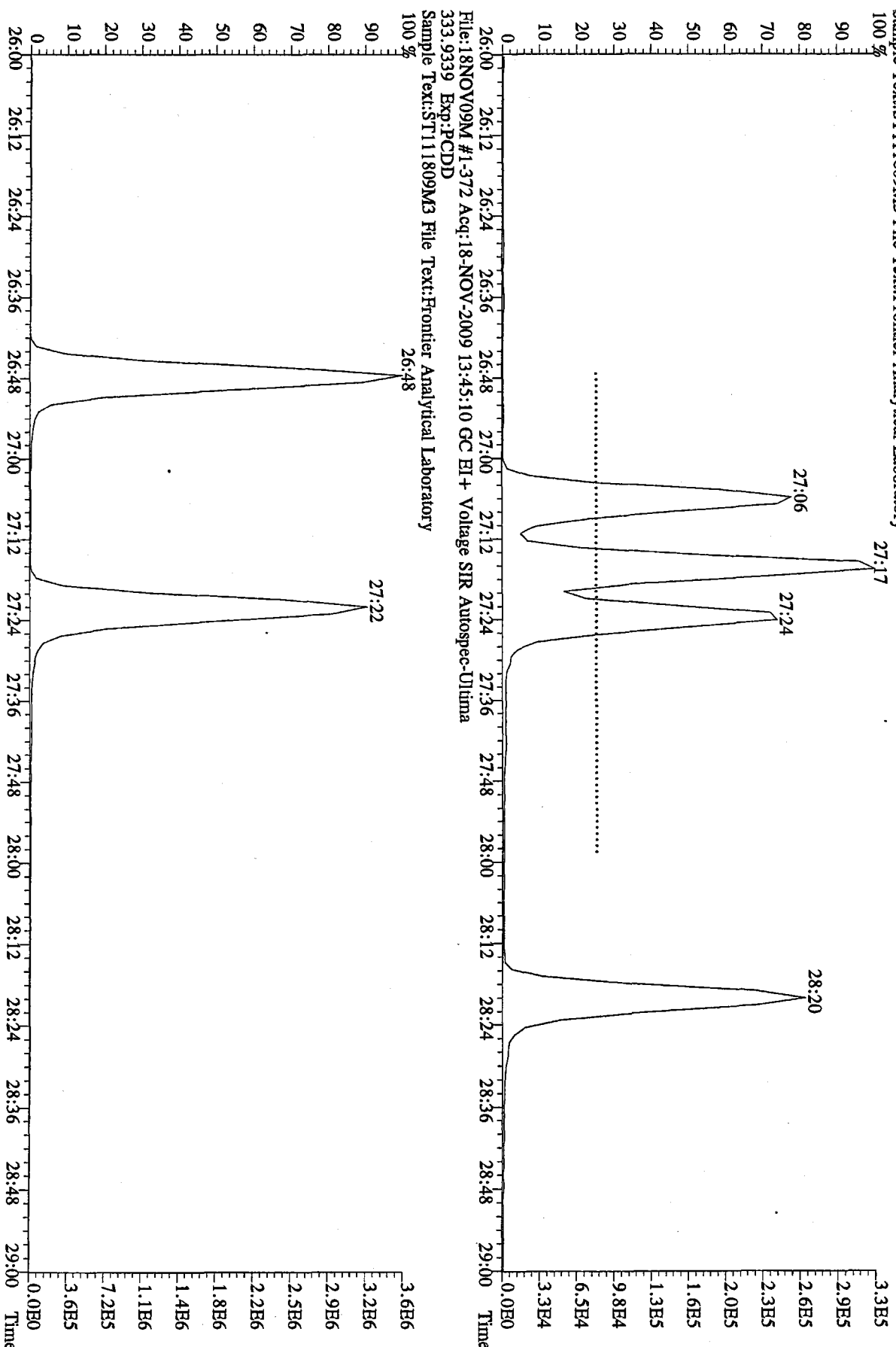
Peak Locate Examination:18-NOV-2009:13:43 File:18NOV09M  
Experiment:PCDD Function:3 Reference:PFK



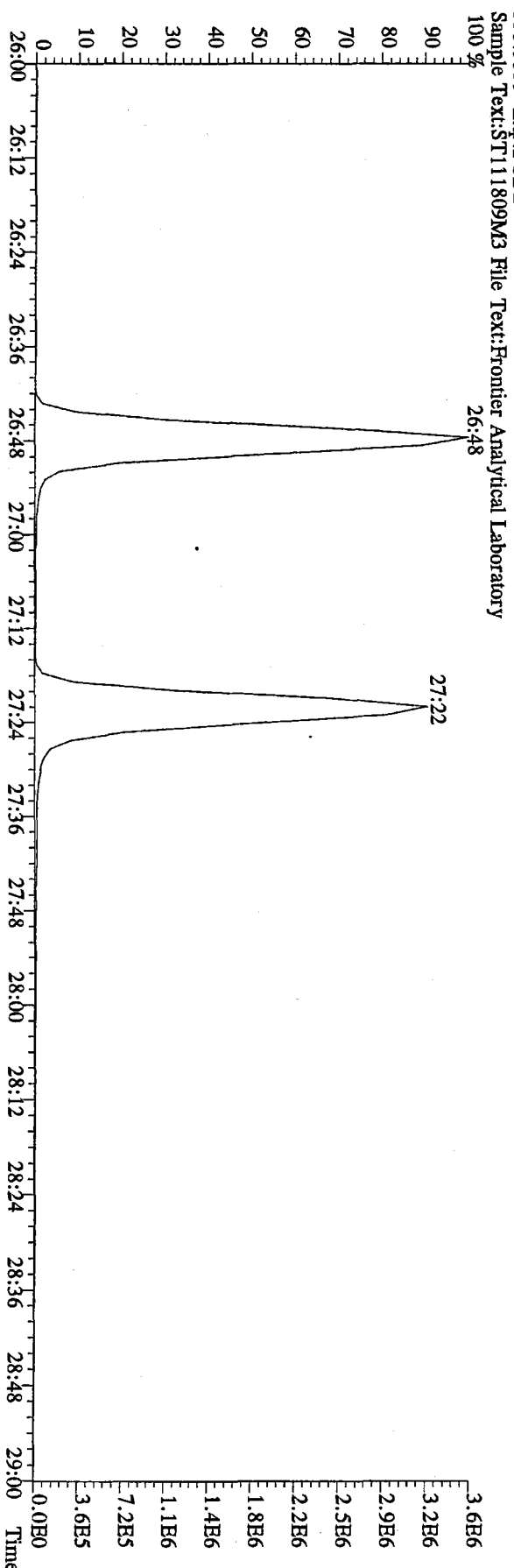




File:18NOV09M #1-372 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
319.8965 Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

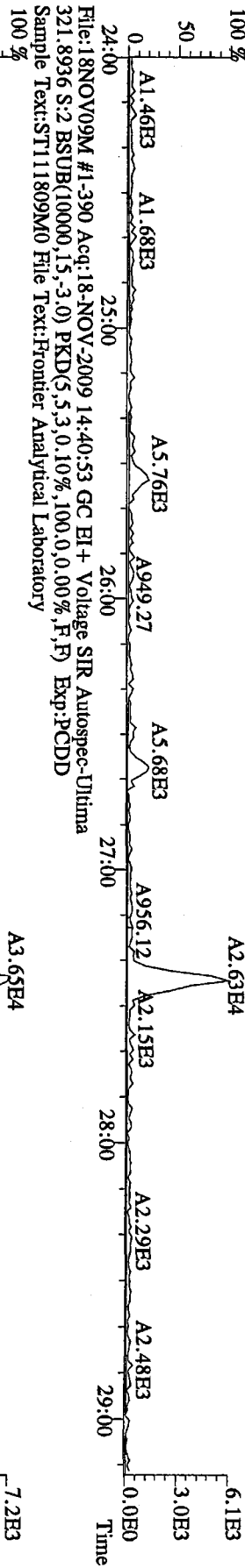


File:18NOV09M #1-372 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
333.9339 Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

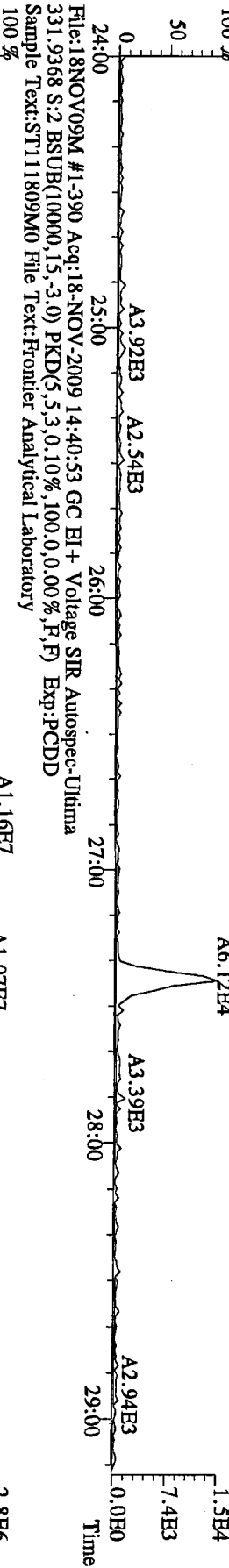




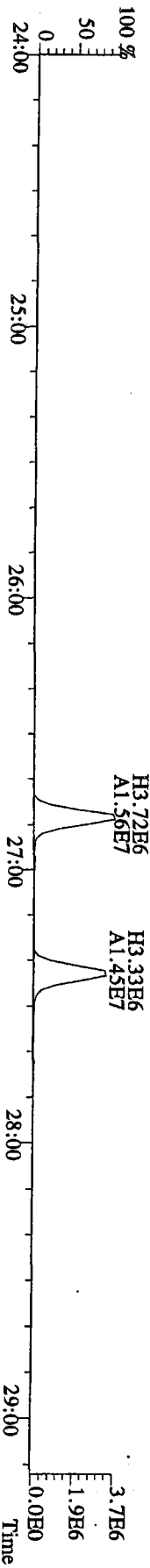
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S.2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



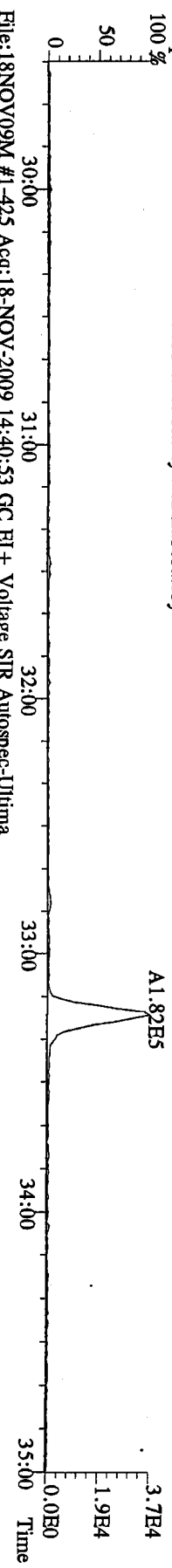
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S.2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



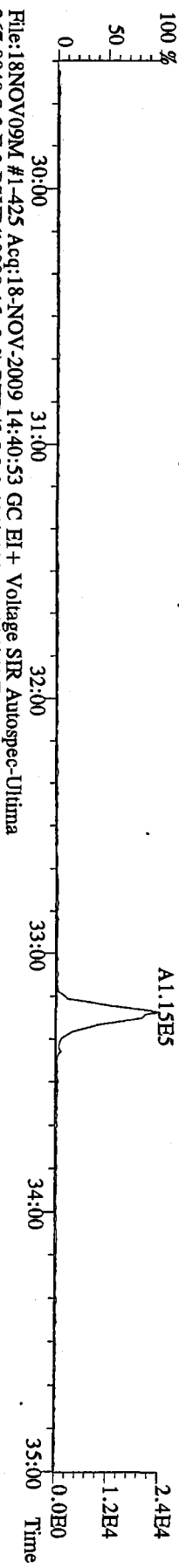
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S.2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



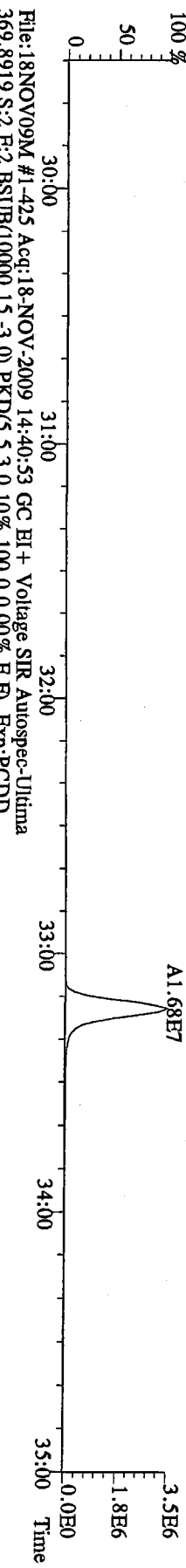
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI + Voltage SIR Autospec-Ultima  
 355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



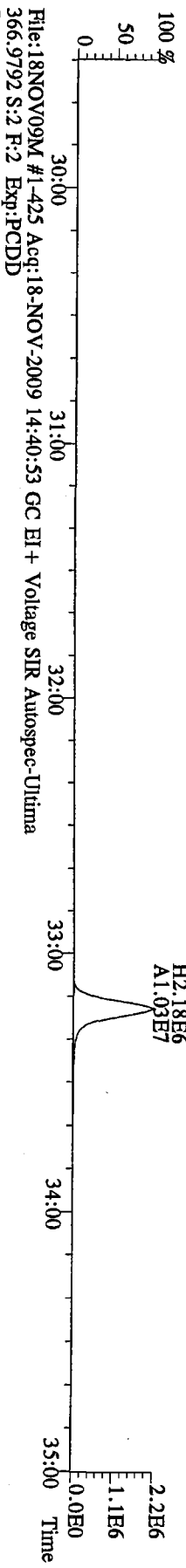
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI + Voltage SIR Autospec-Ultima  
 357.8517 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



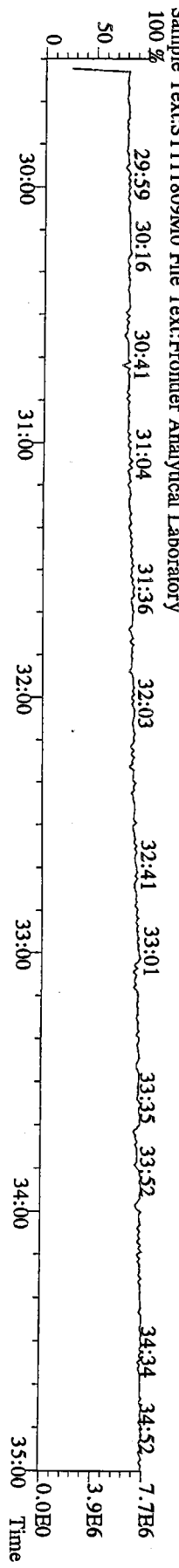
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI + Voltage SIR Autospec-Ultima  
 367.8949 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



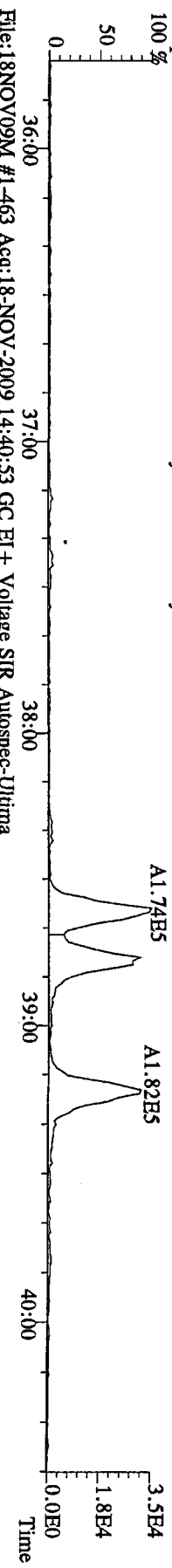
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI + Voltage SIR Autospec-Ultima  
 369.8919 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



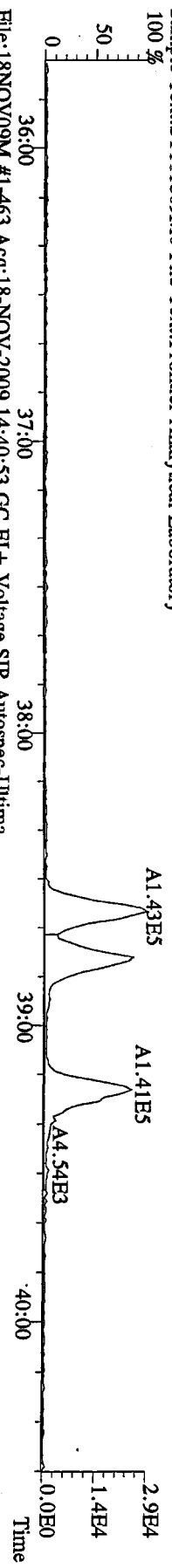
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI + Voltage SIR Autospec-Ultima  
 366.9792 S:2 F:2 Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



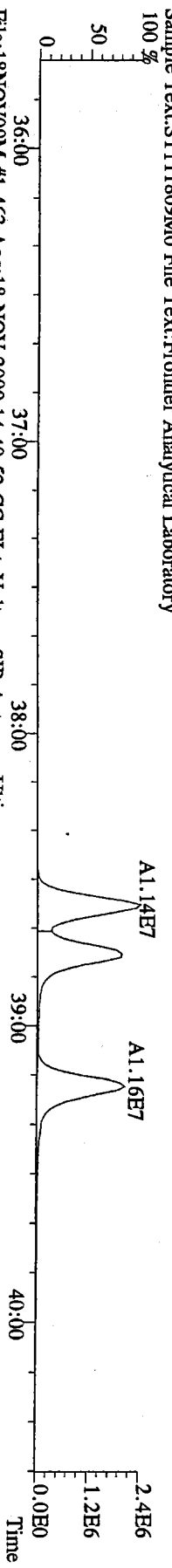
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



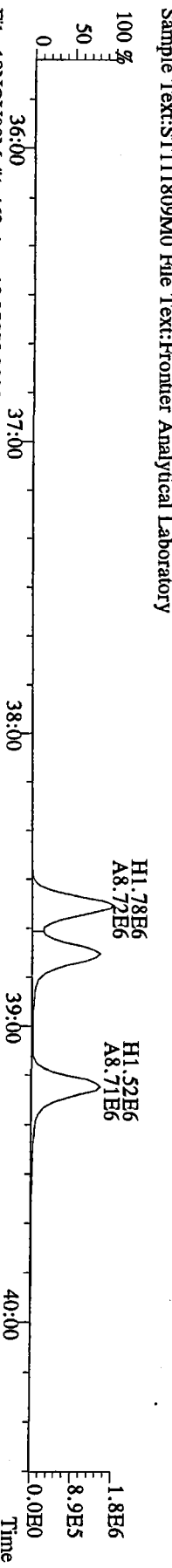
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



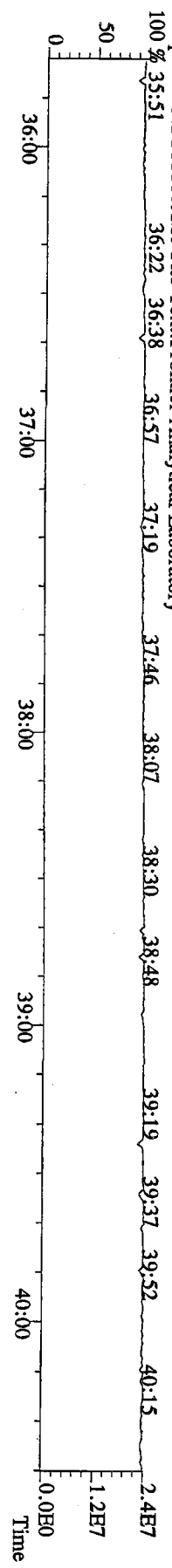
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



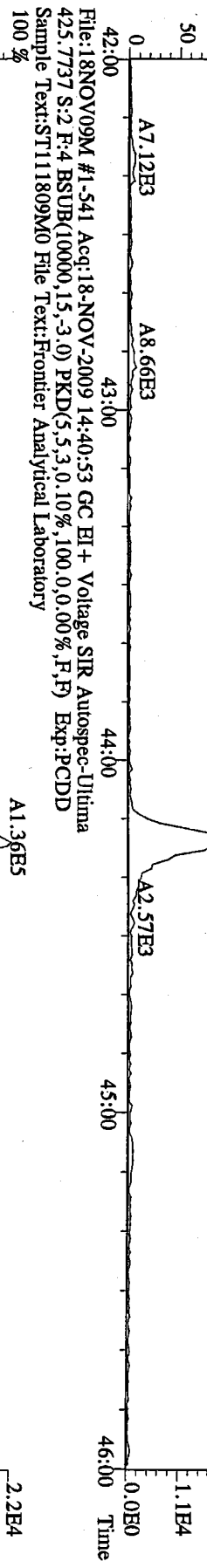
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



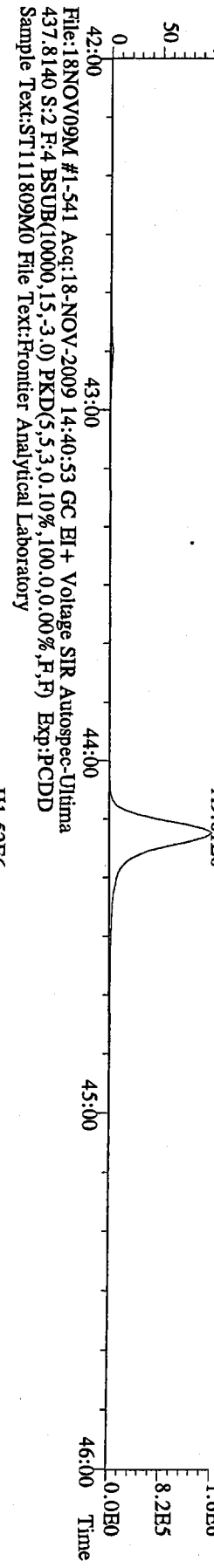
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:2 F:3 Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



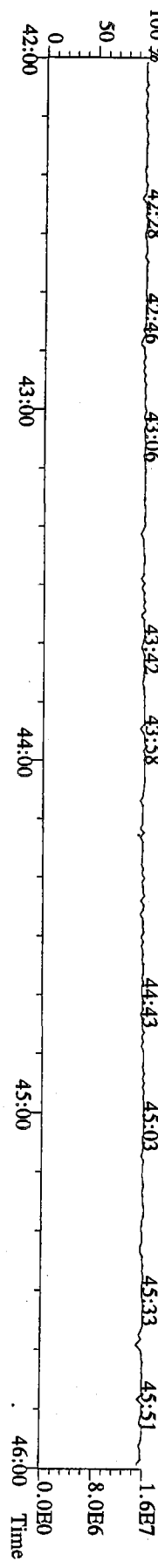
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5.5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



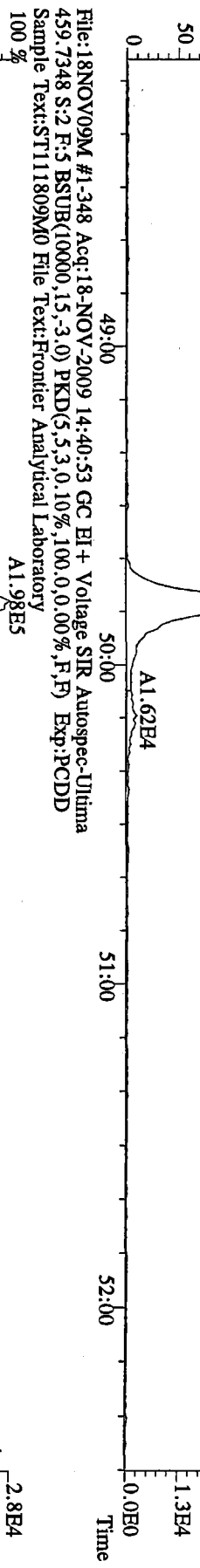
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5.5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



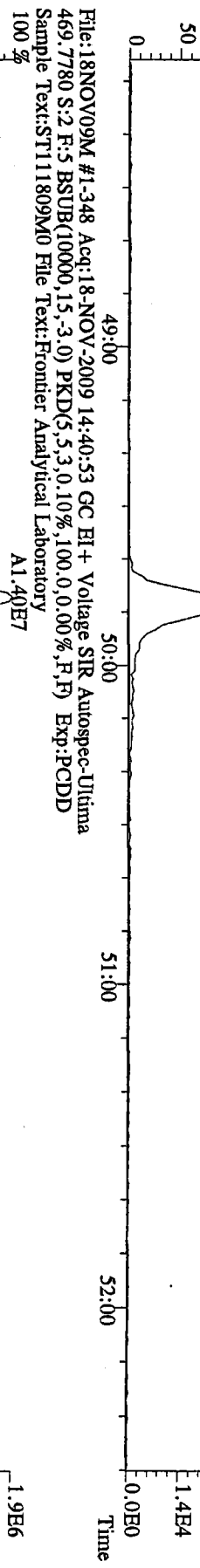
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
430.9728 S:2 F:4 Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



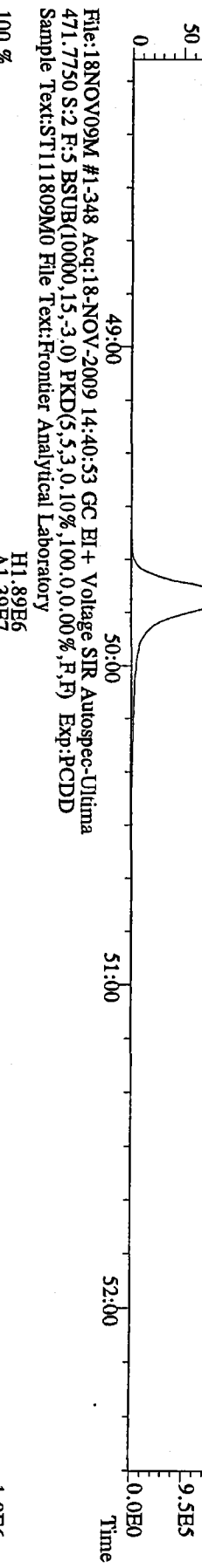
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %



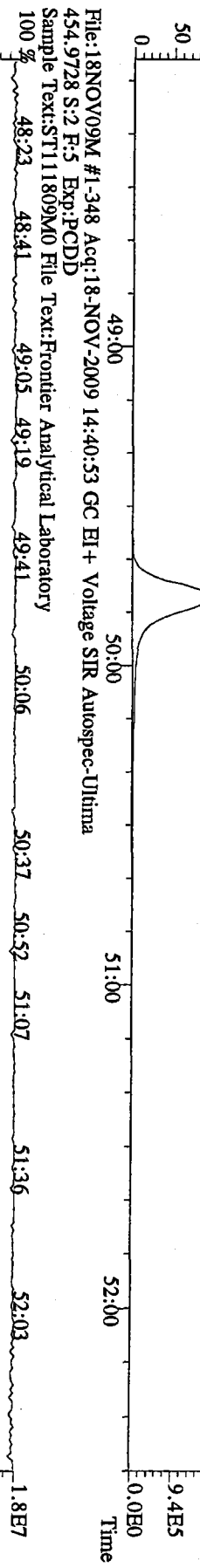
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 459.7348 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %

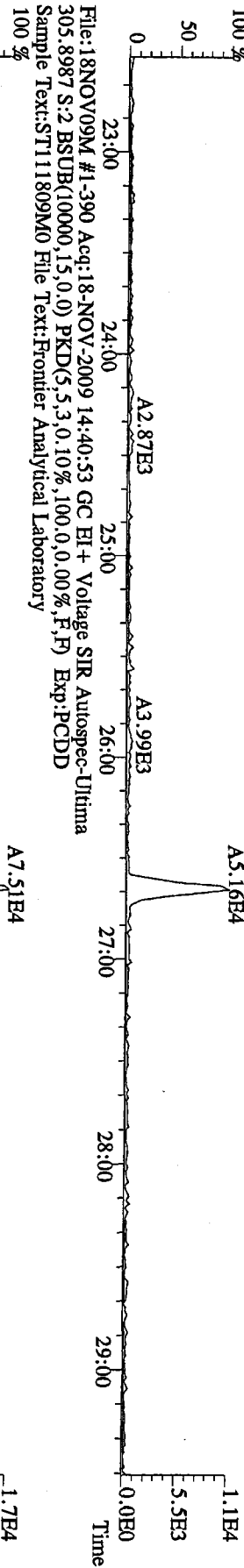


File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 454.9728 S:2 F:5 Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %

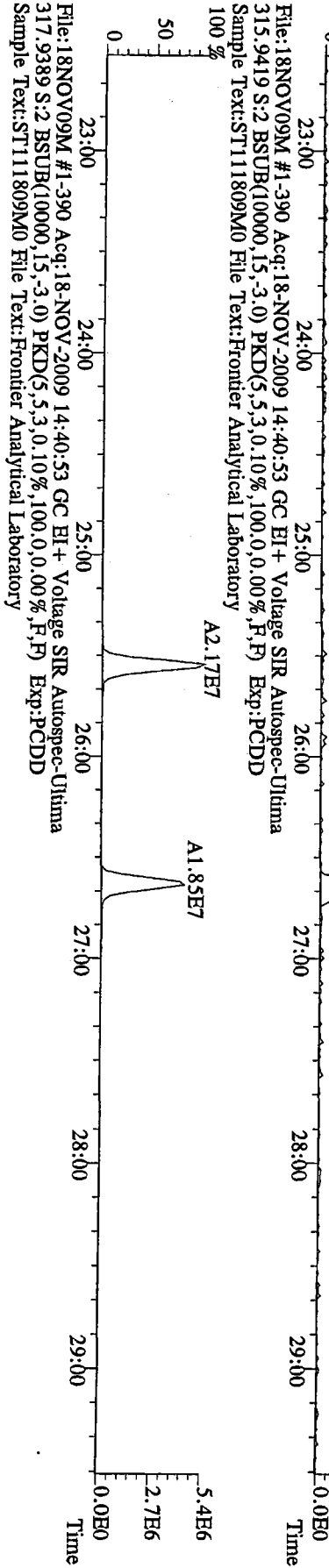


File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 454.9728 S:2 F:5 Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %

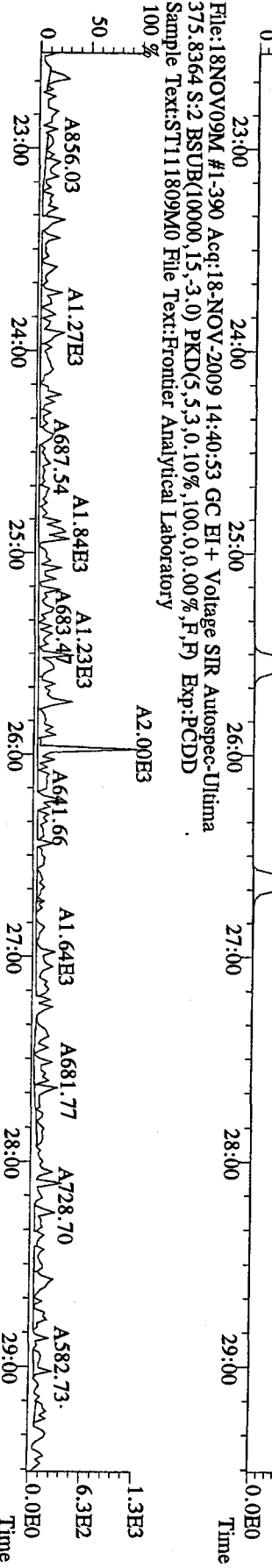
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



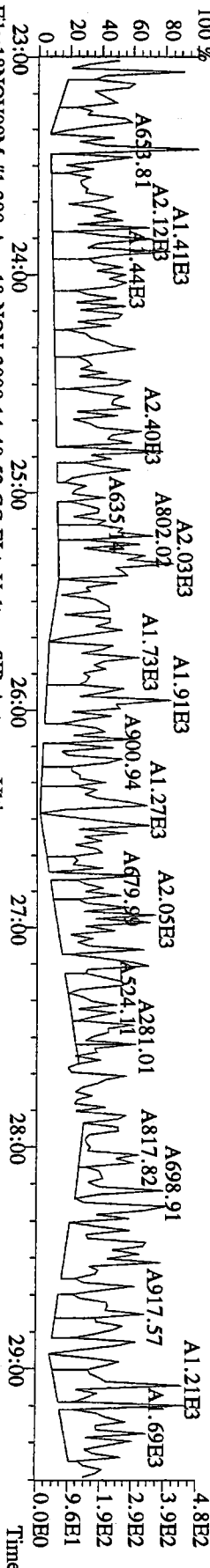
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



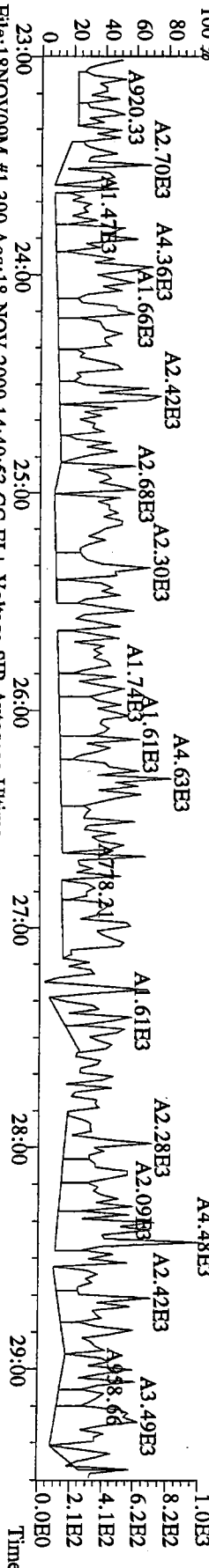
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



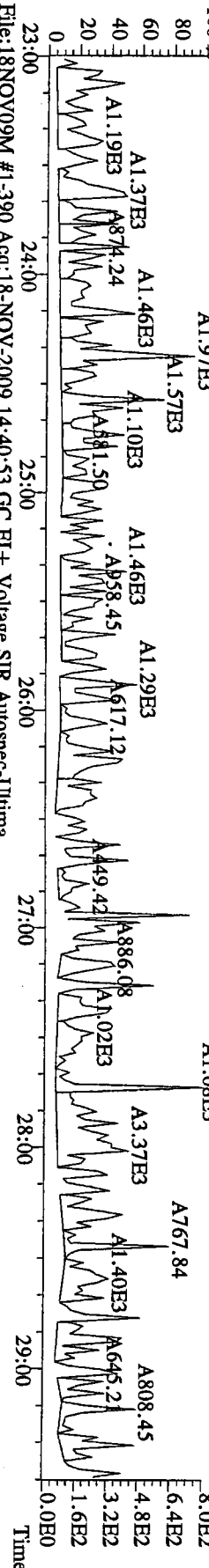
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S.2: BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



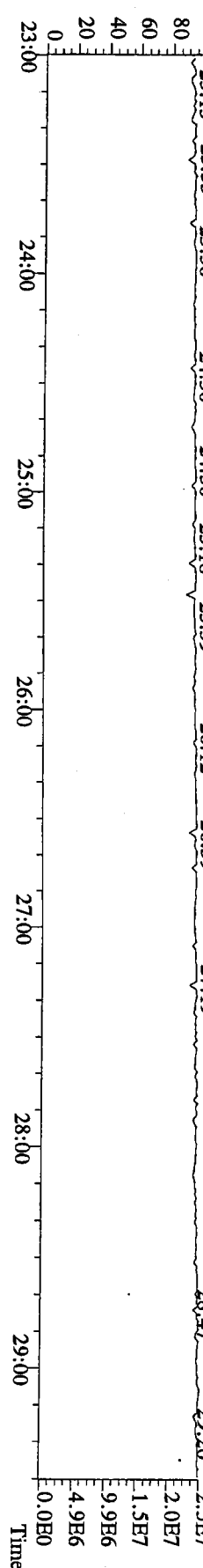
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 341.8568 S.2: BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



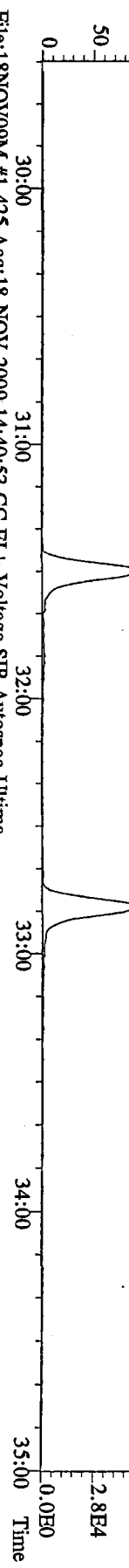
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S.2: BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



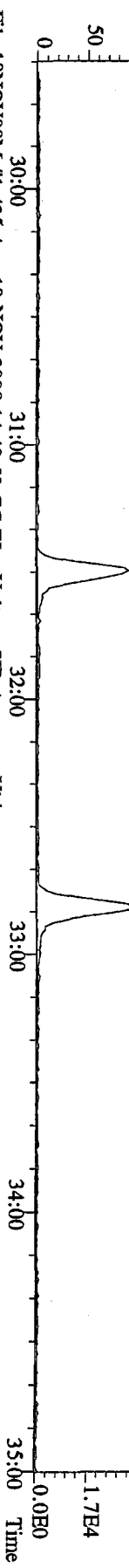
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 330.9792 S.2: Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



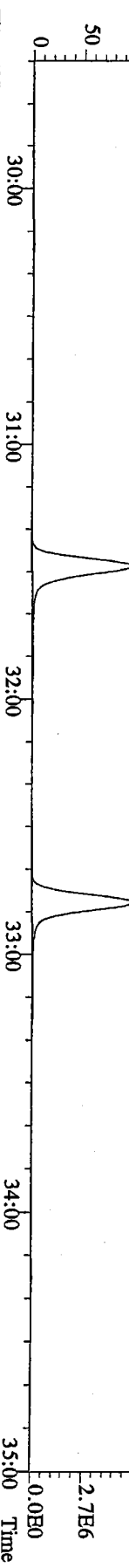
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



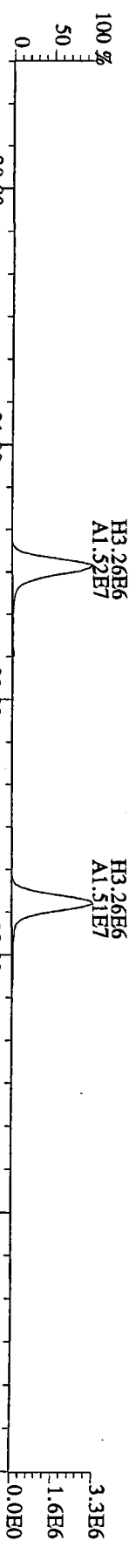
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



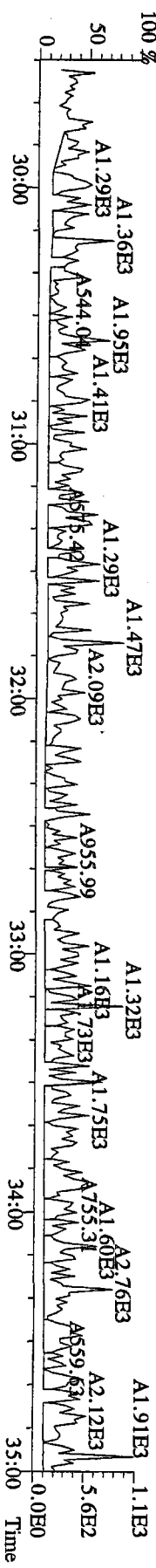
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 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:ST111809M0 File Text:Frontier Analytical Laboratory

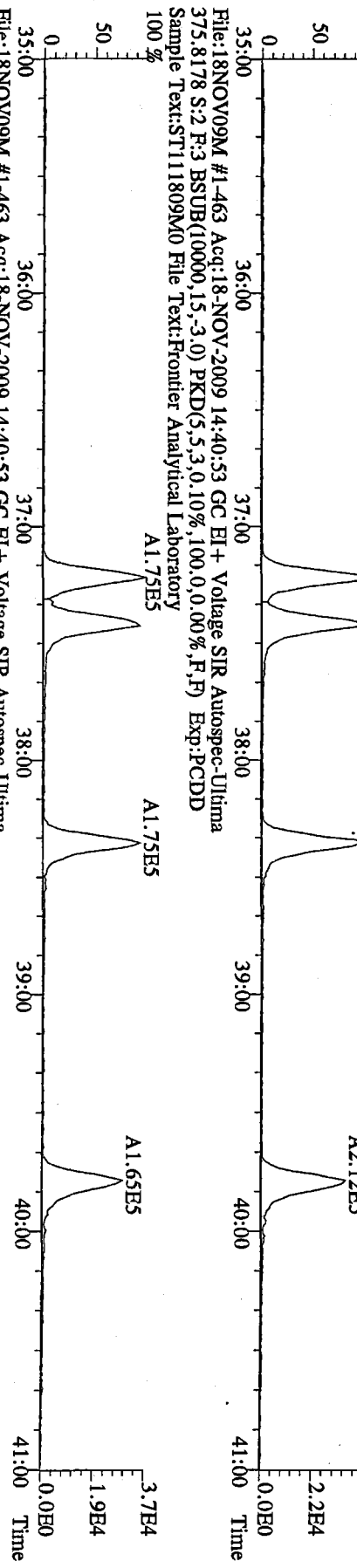


File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

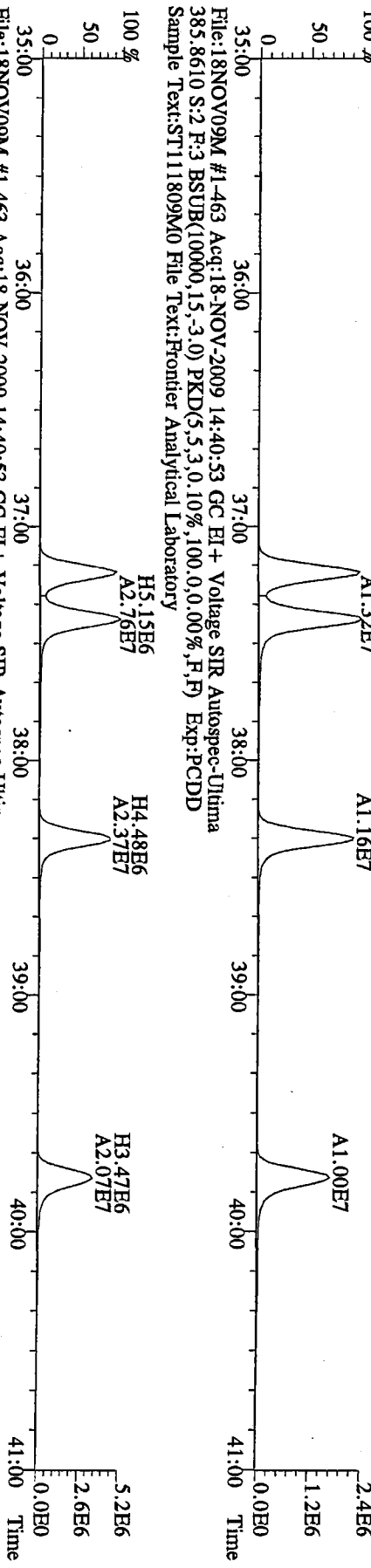




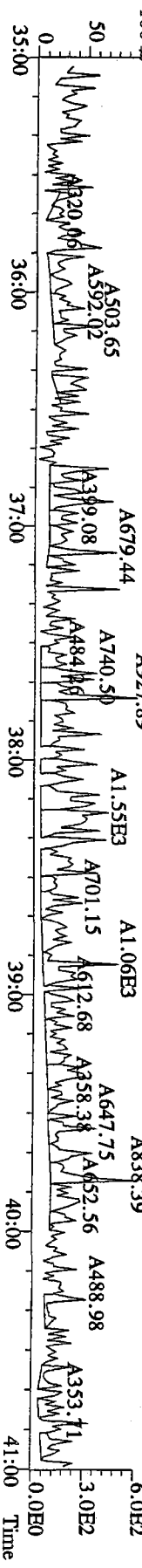
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

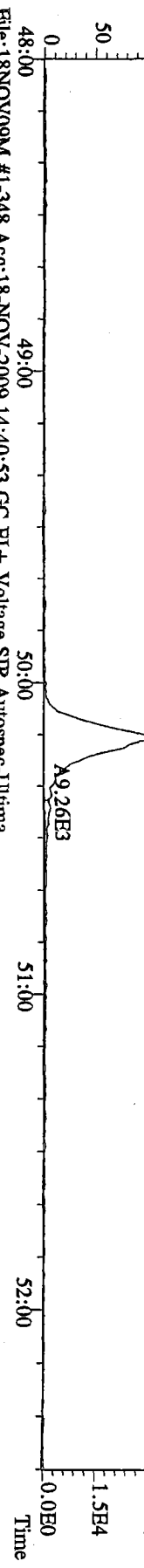


File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

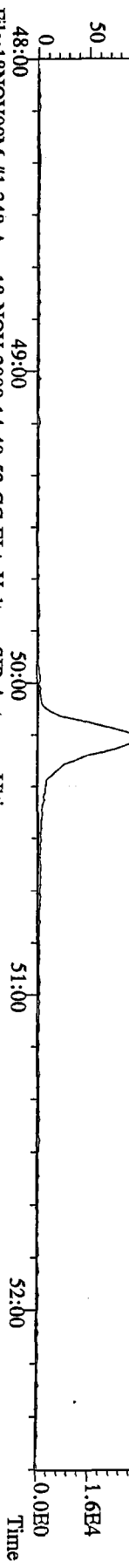




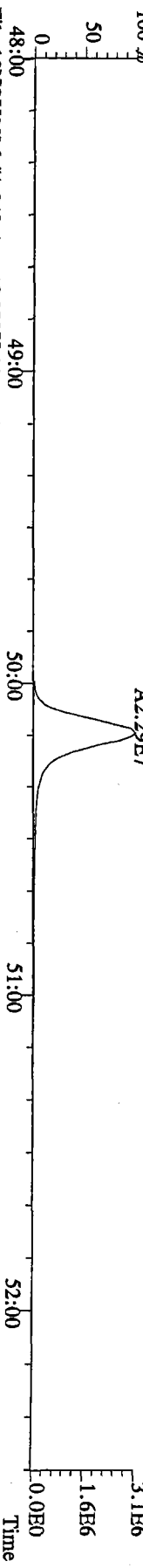
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



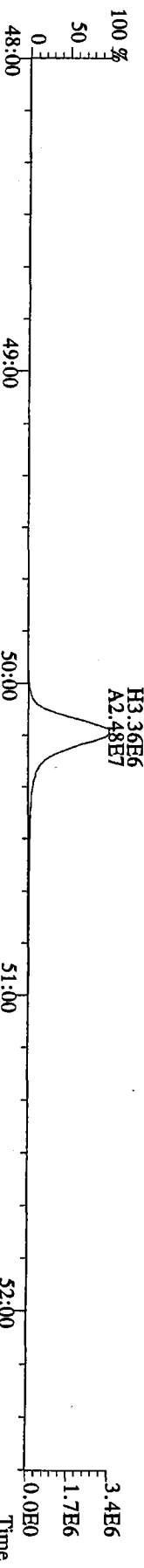
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



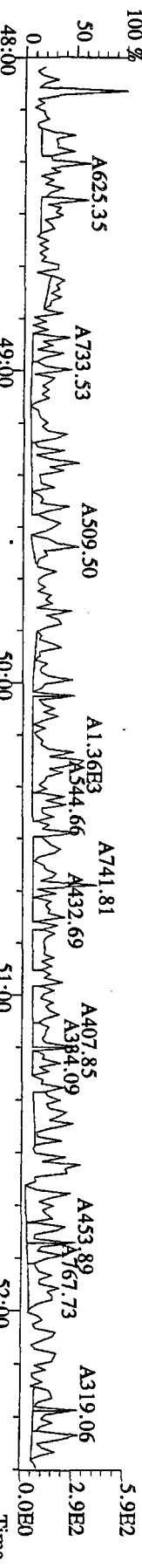
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



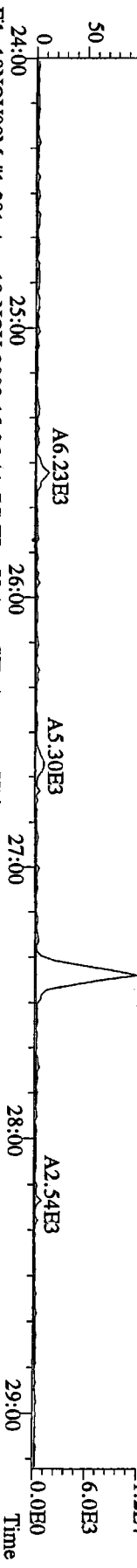
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
455.7801 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M0 File Text:Frontier Analytical Laboratory



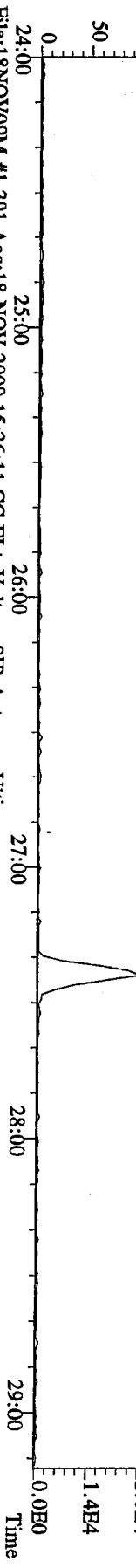
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M1 File Text:Frontier Analytical Laboratory



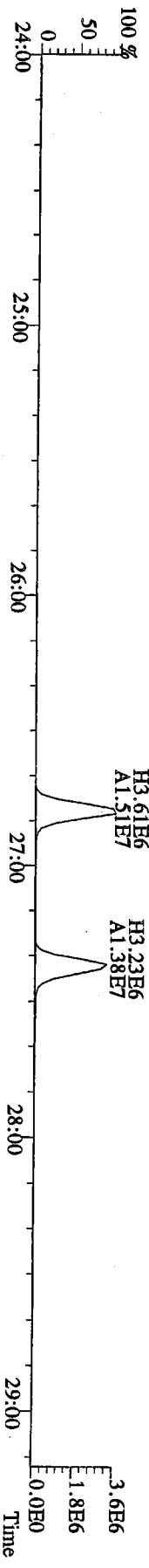
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



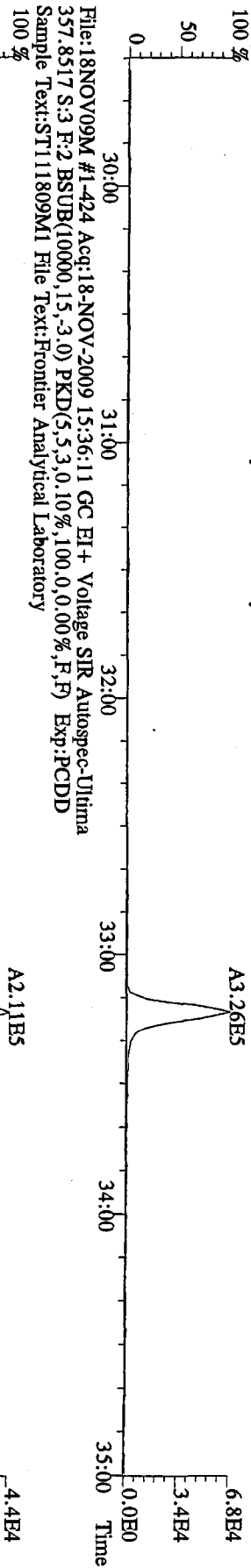
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
331.9368 S:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



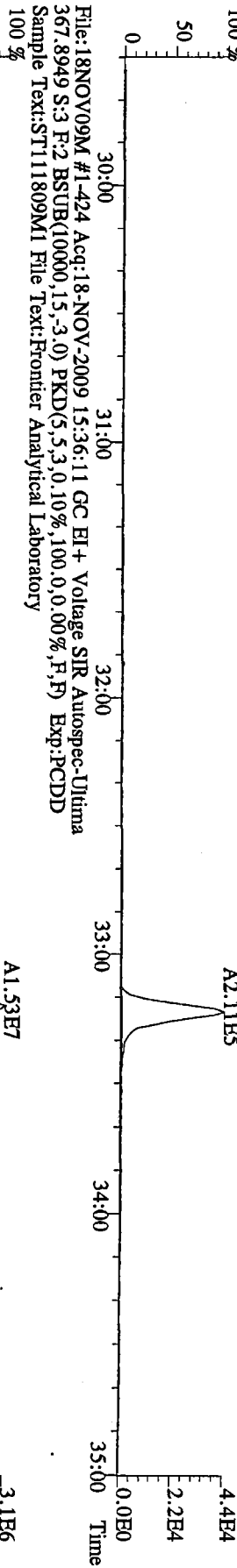
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



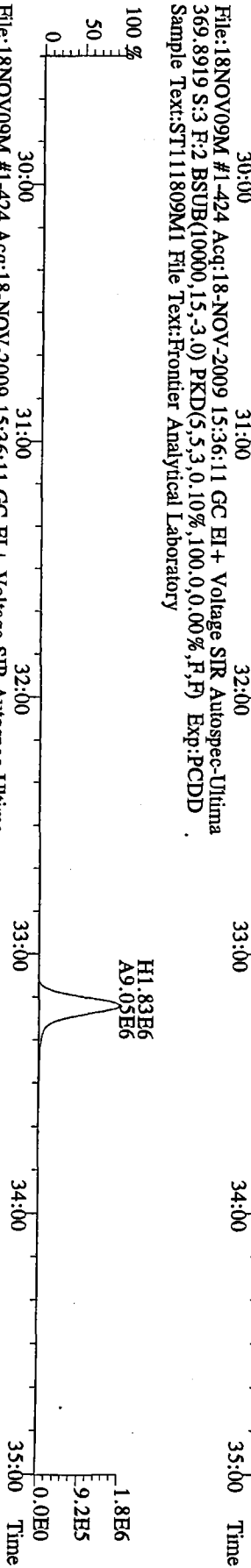
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



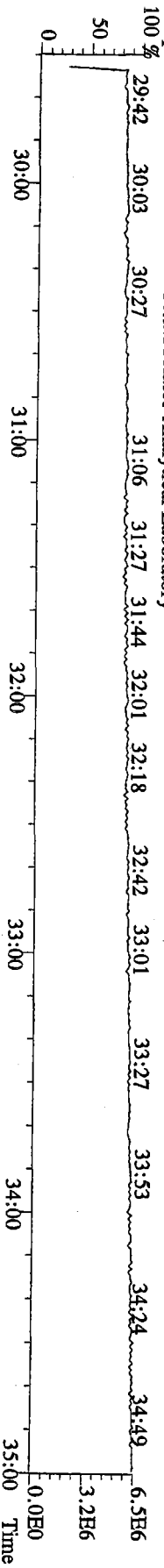
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
357.8517 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



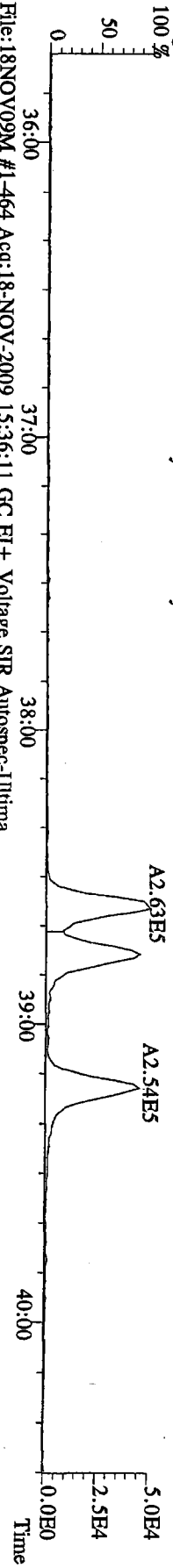
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
366.9792 S:3 F:2 Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 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:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 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:ST111809M1 File Text:Frontier Analytical Laboratory



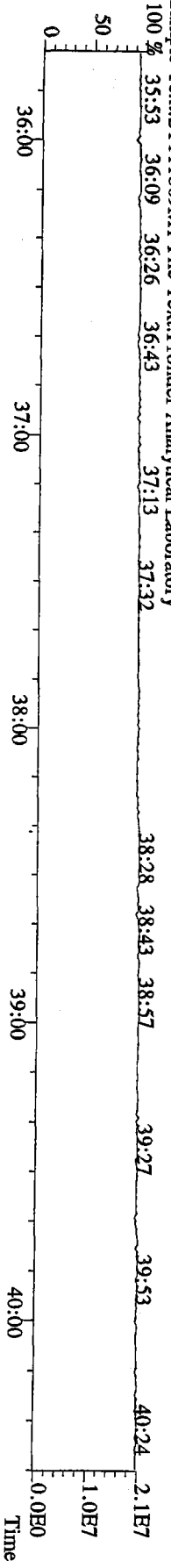
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:3 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



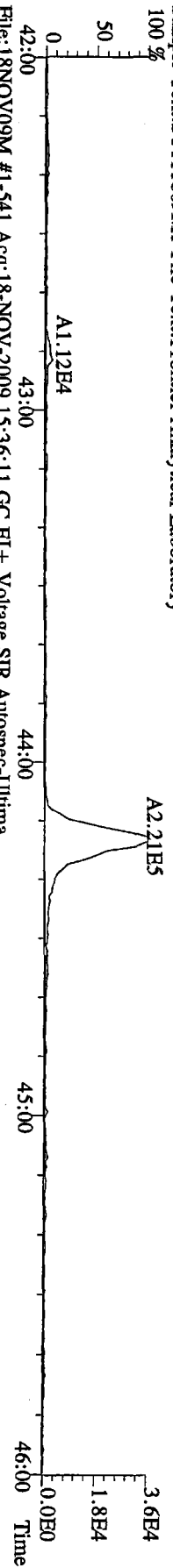
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 S:3 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



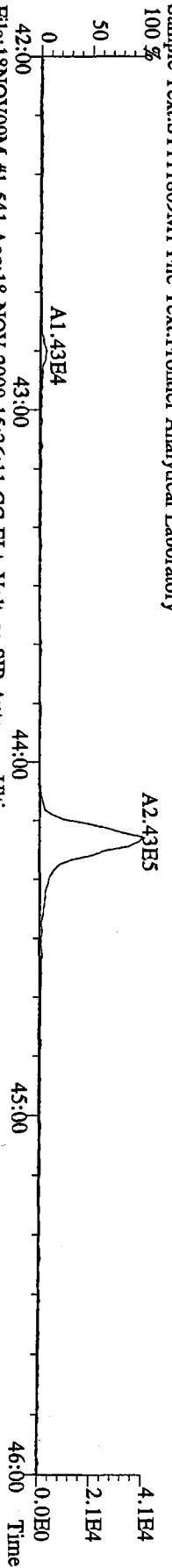
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:3 F:3 Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



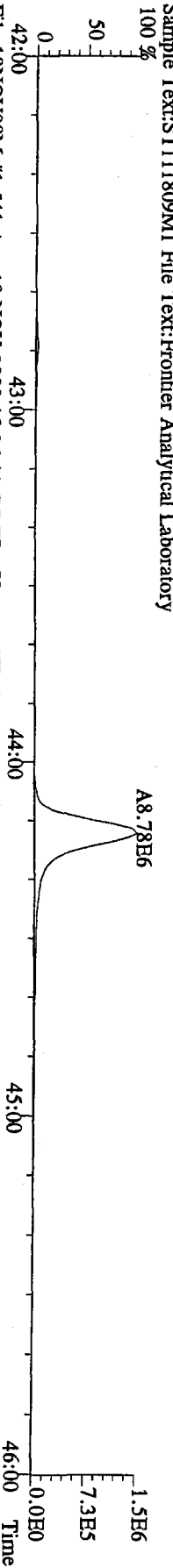
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



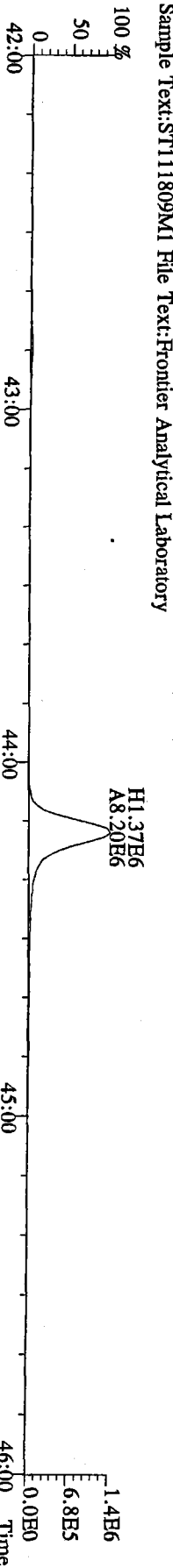
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



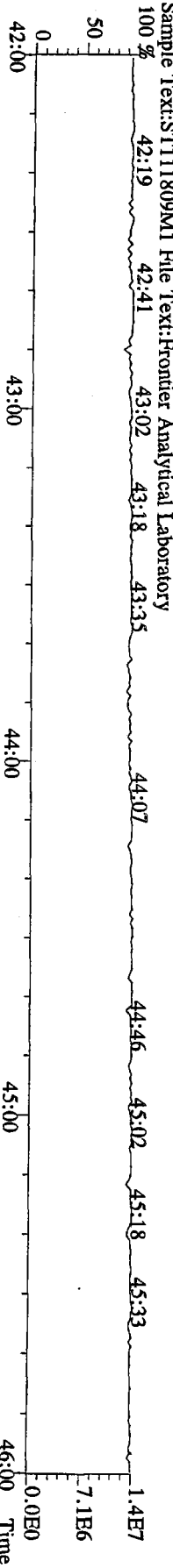
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



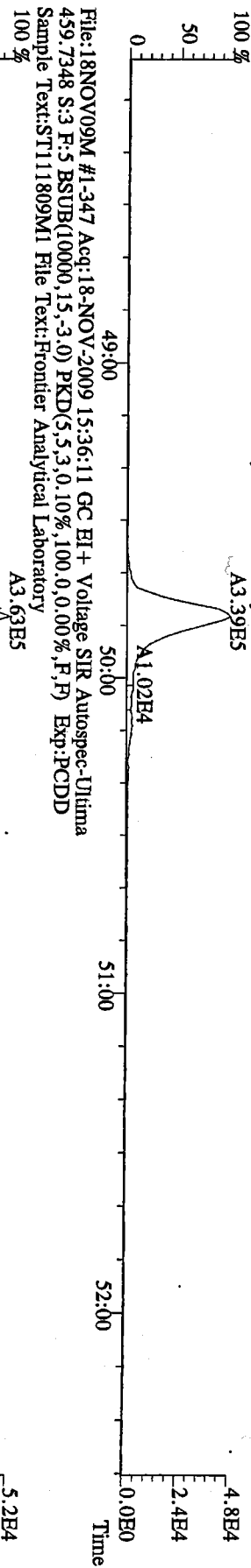
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



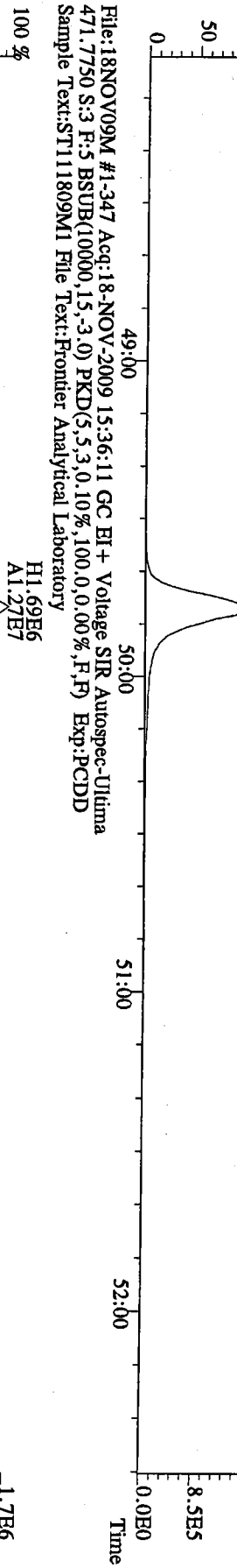
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
430.9728 S:3 F:4 Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



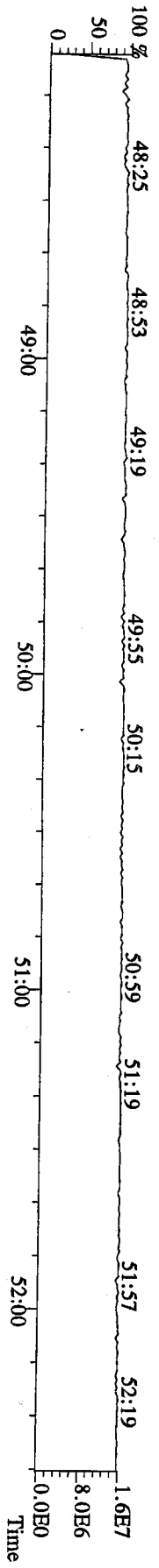
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 459.7780 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:ST111809M1 File Text:Frontier Analytical Laboratory

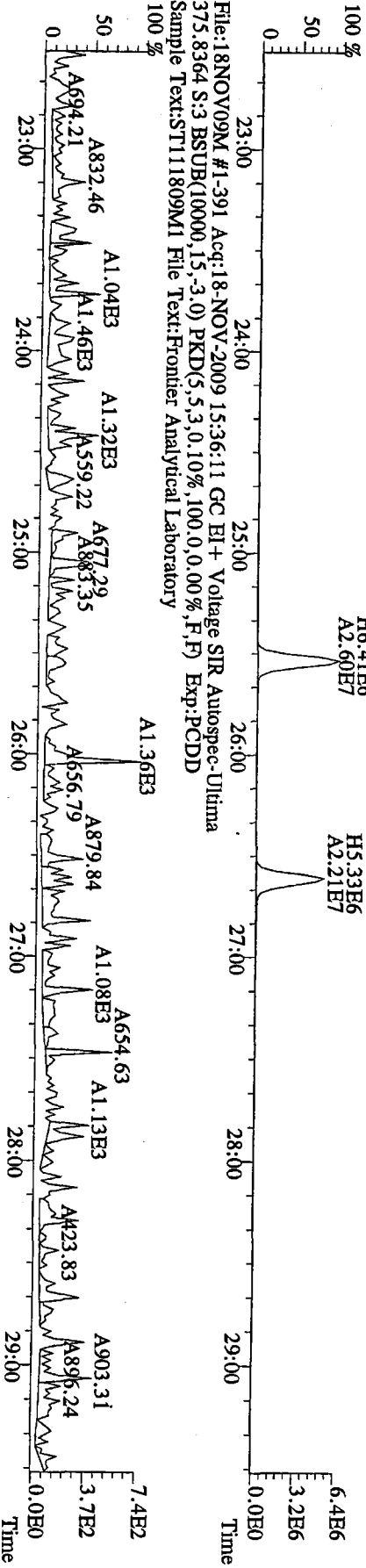
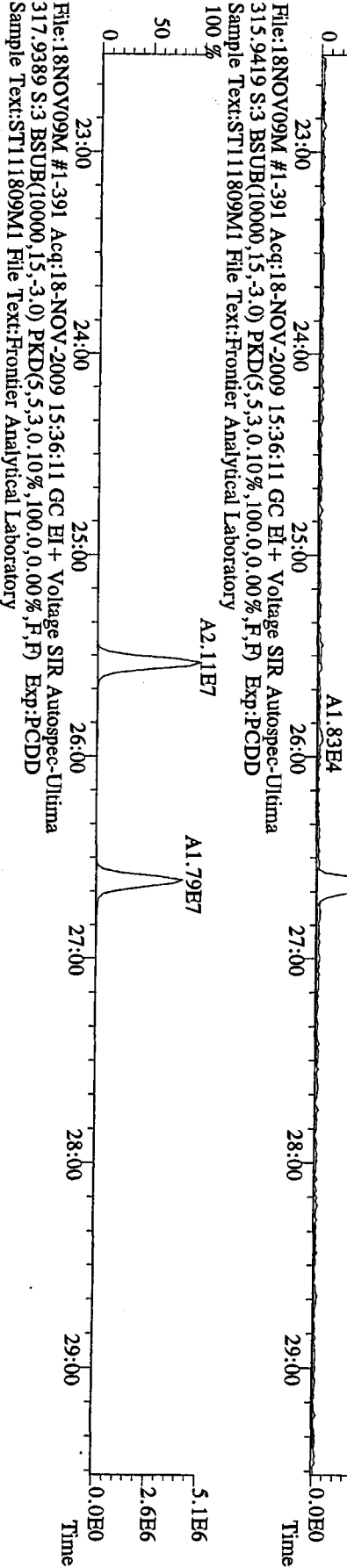
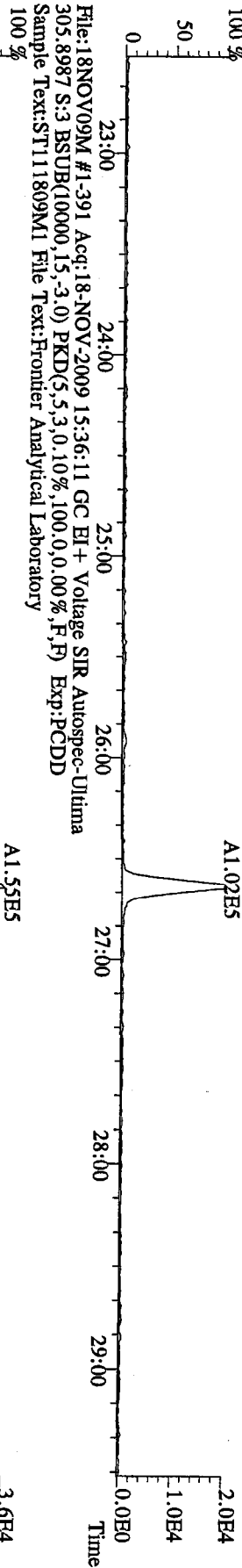


File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 471.7750 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

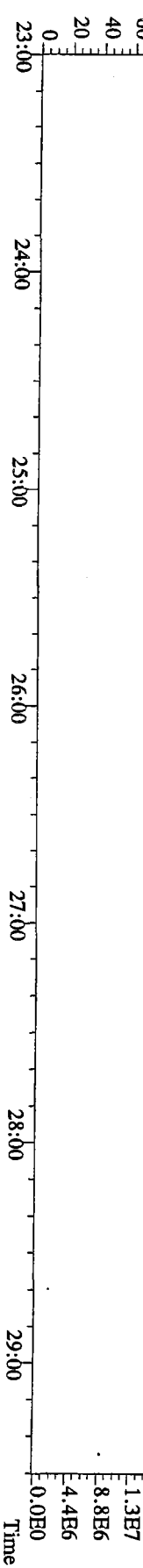
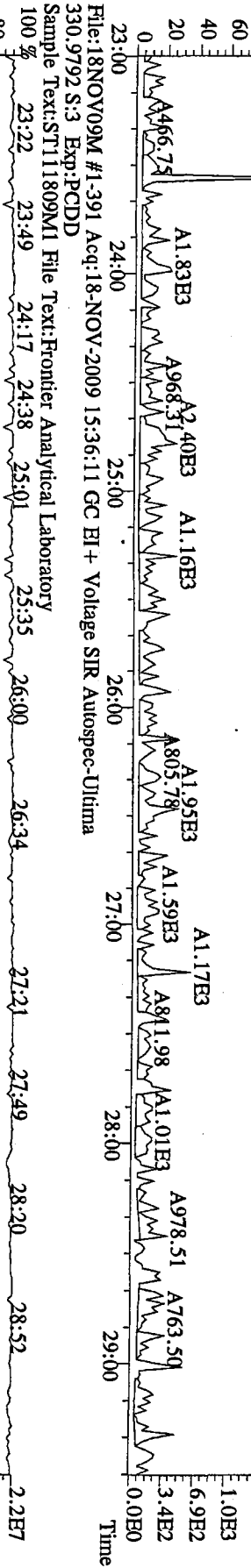
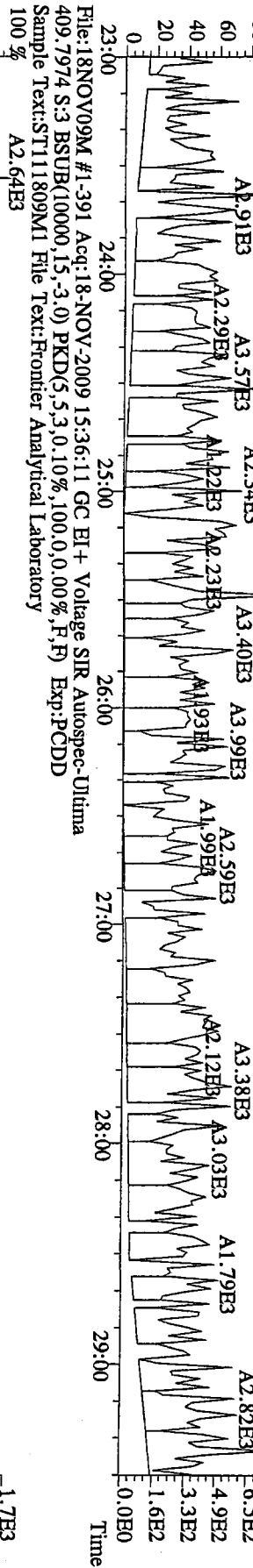
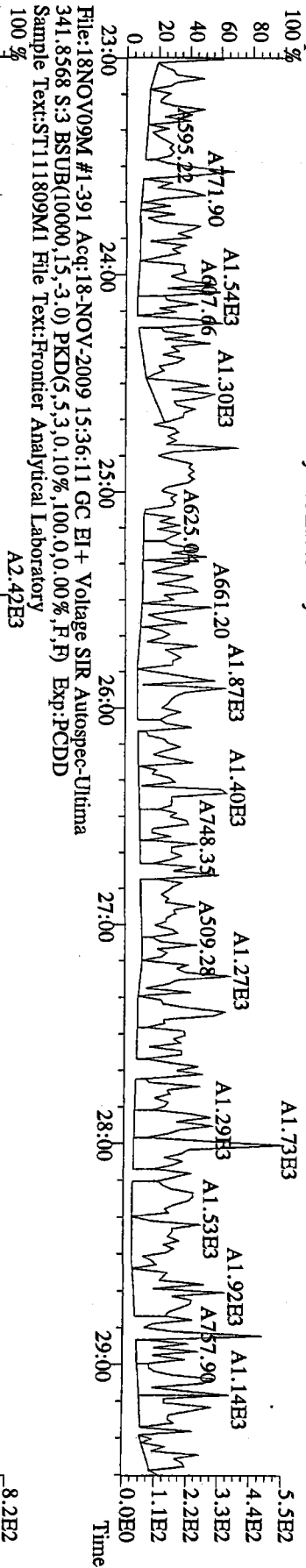




File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3.0,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

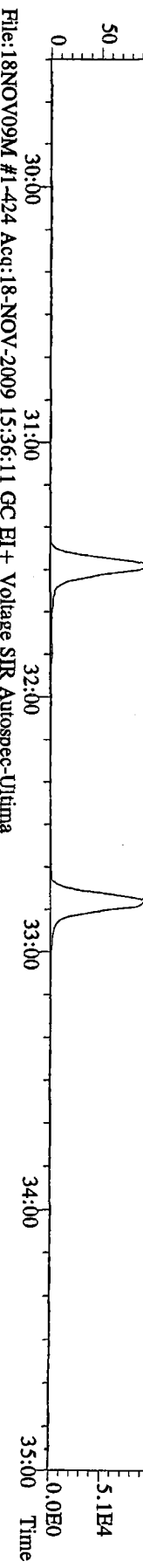


File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S.3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

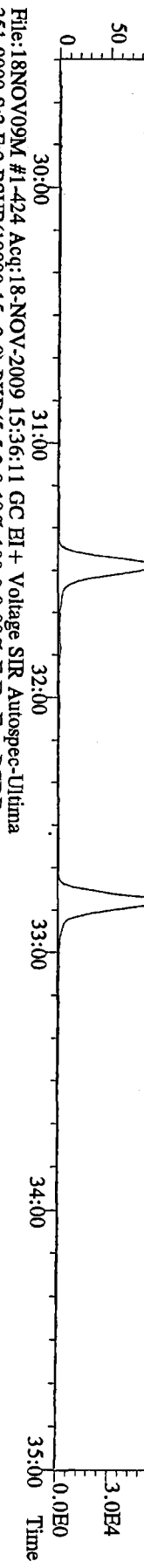


07099 : 01115

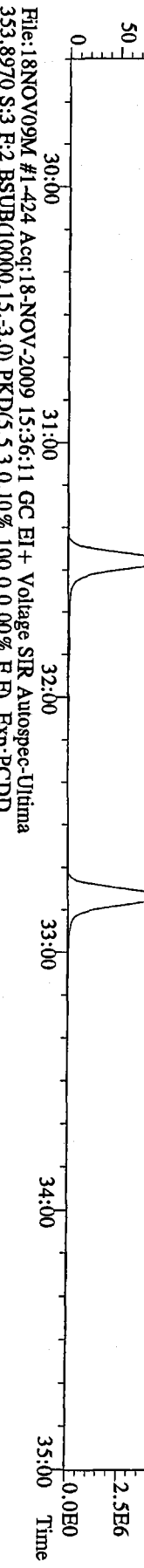
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



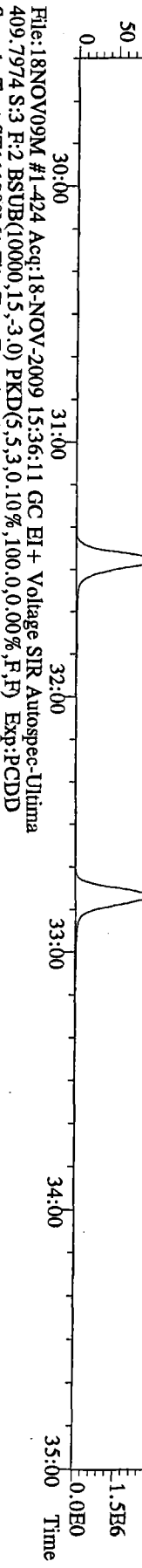
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



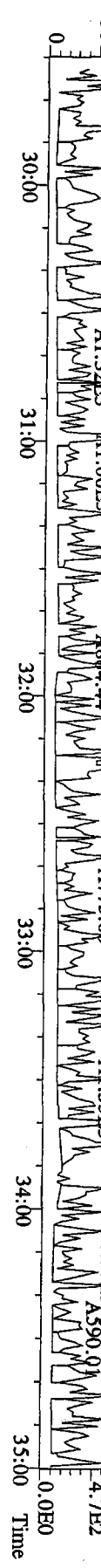
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



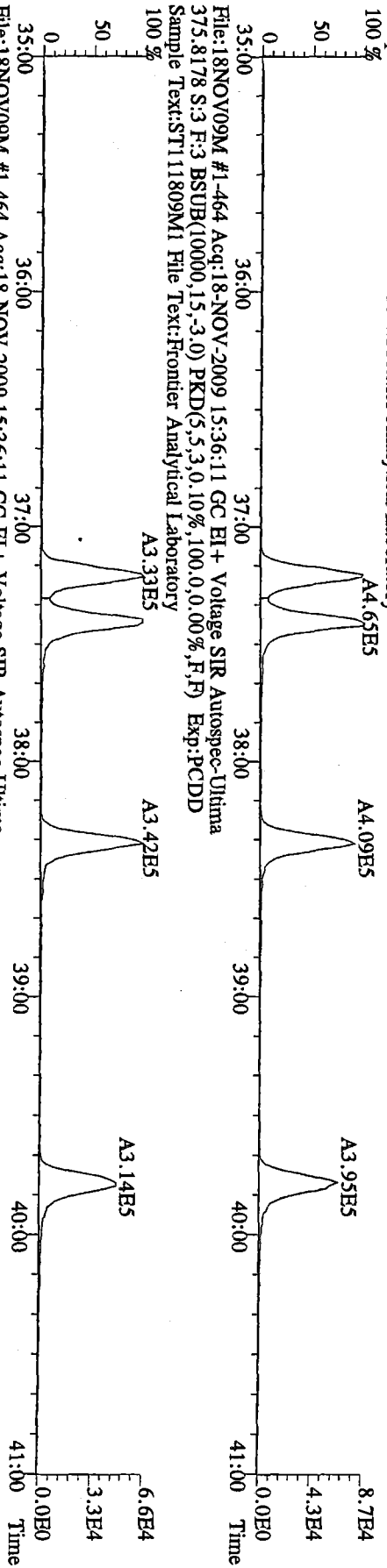
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



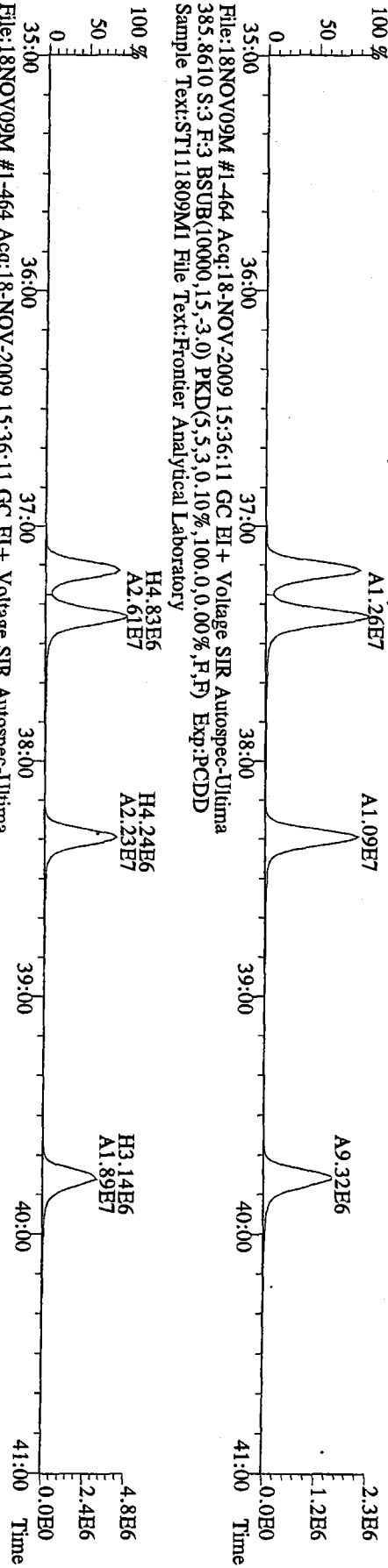
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



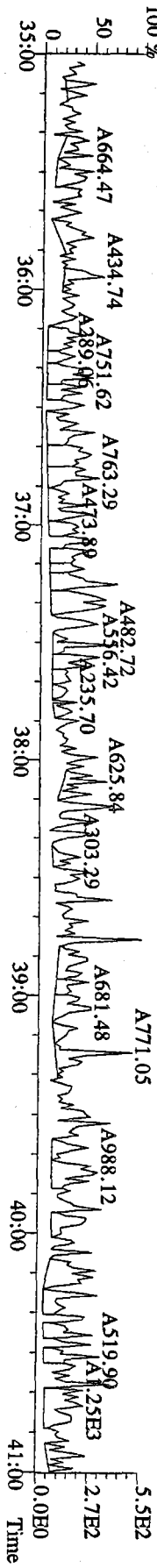
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



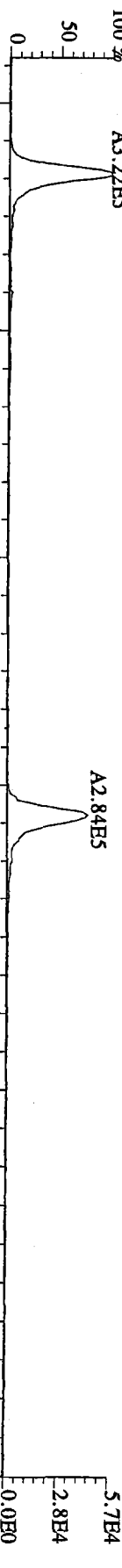
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



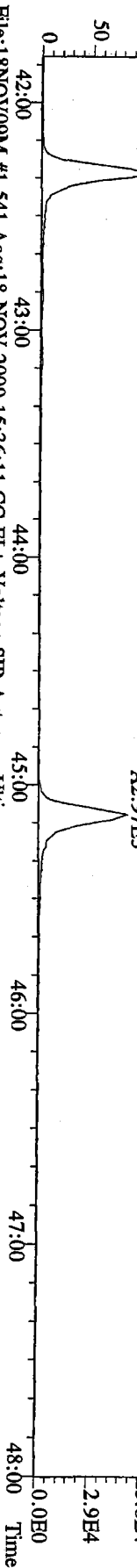
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



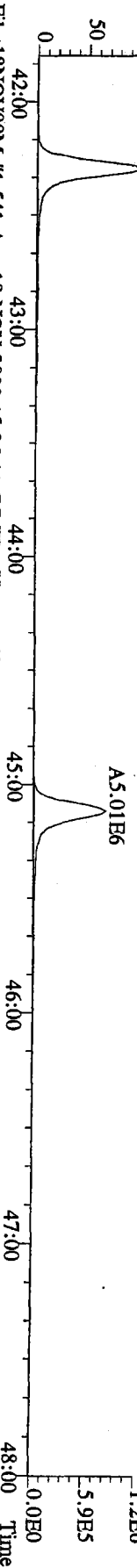
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



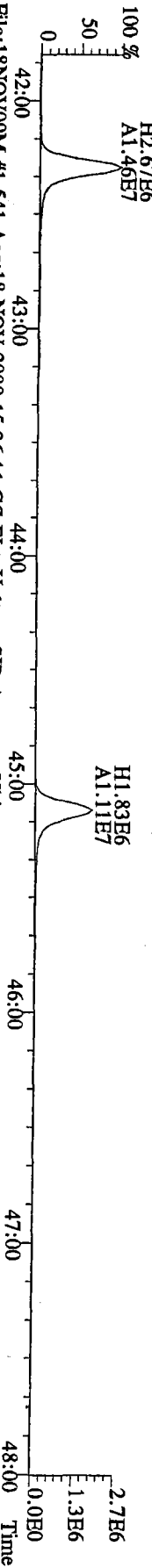
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



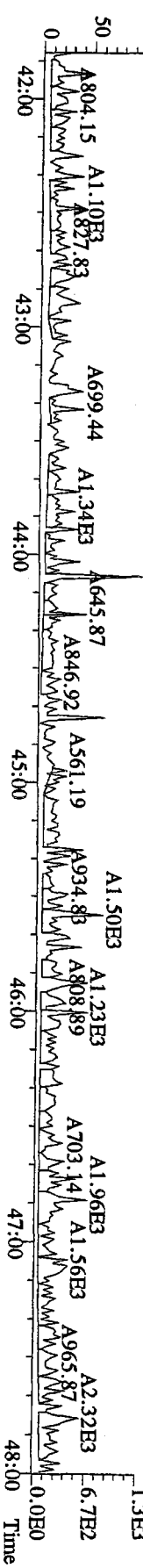
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



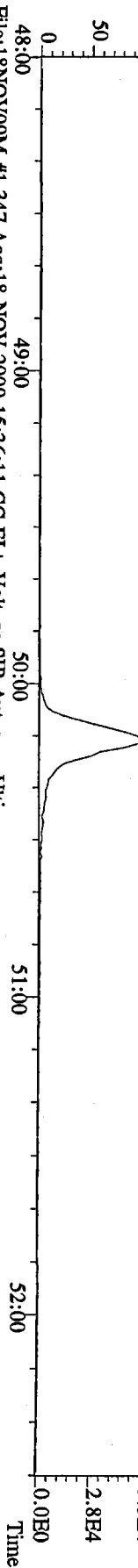
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



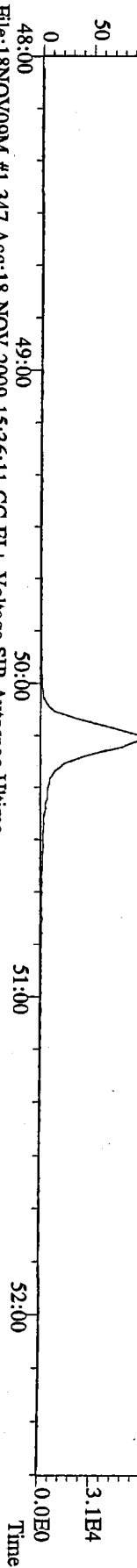
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



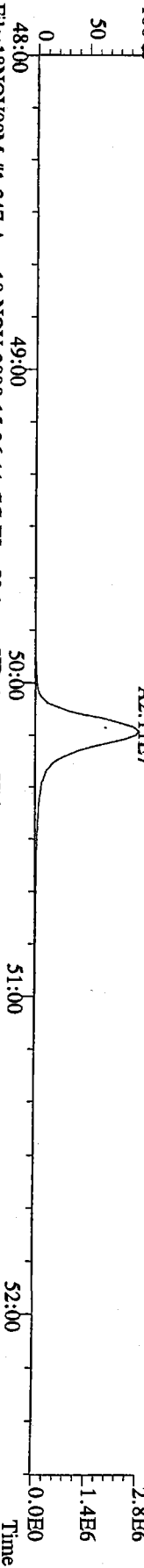
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



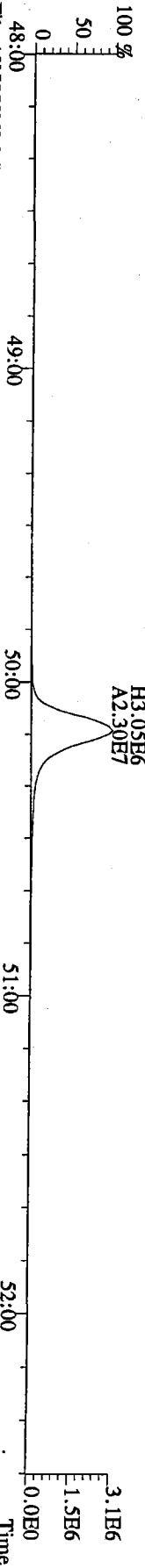
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



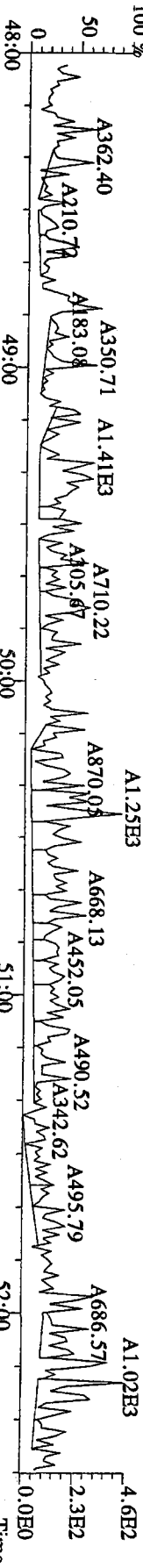
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



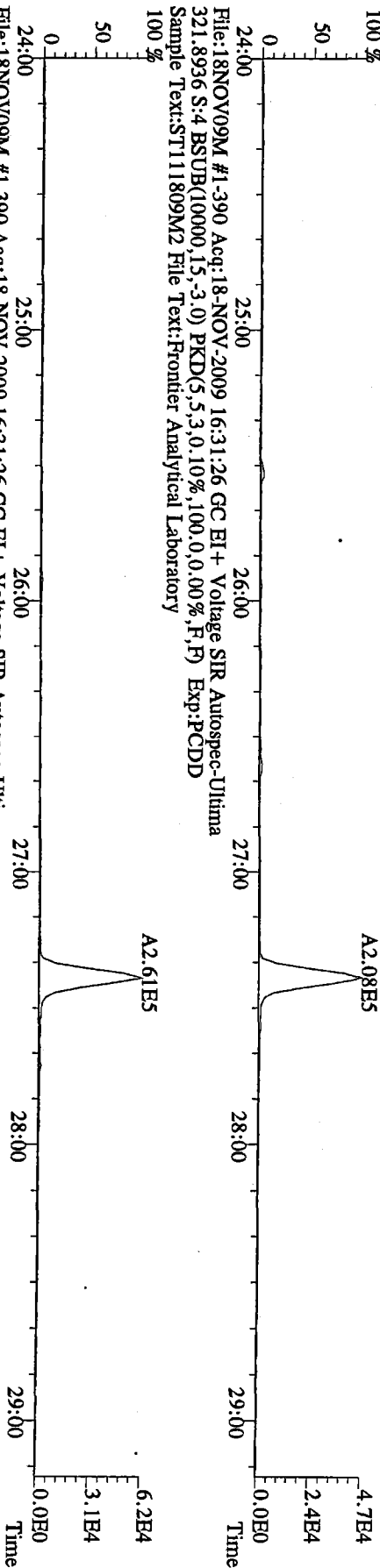
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
455.7801 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



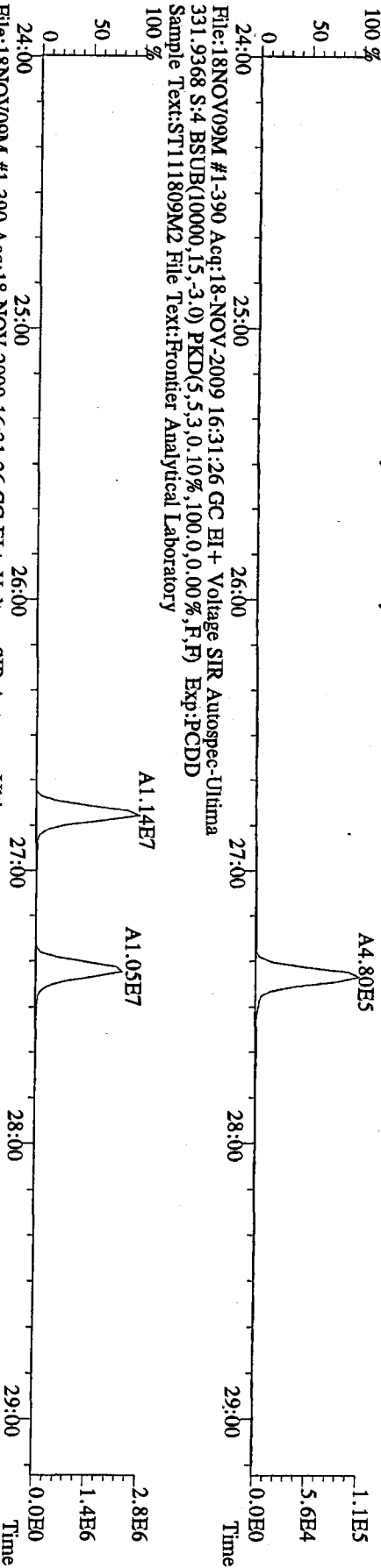
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
513.6775 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



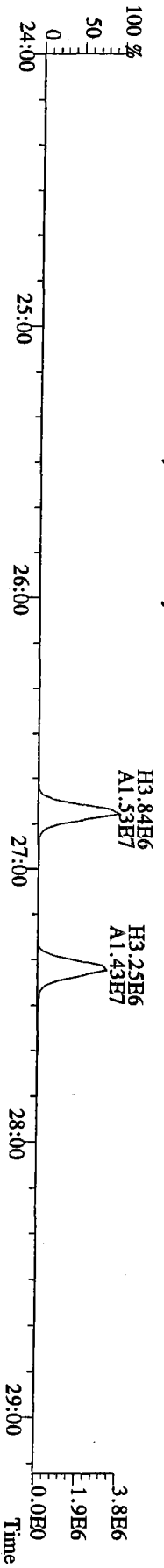
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



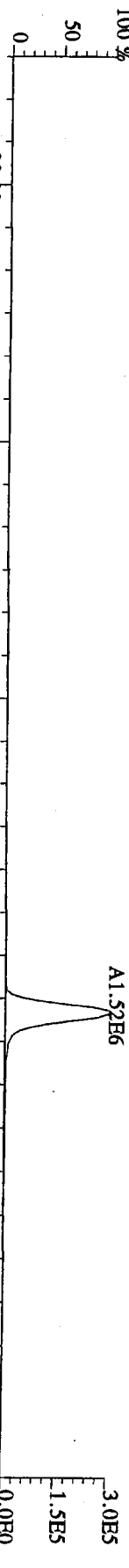
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



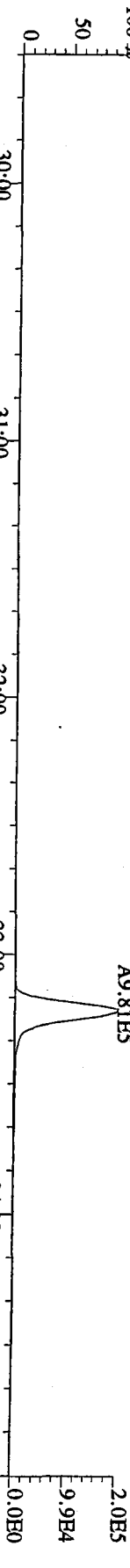
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



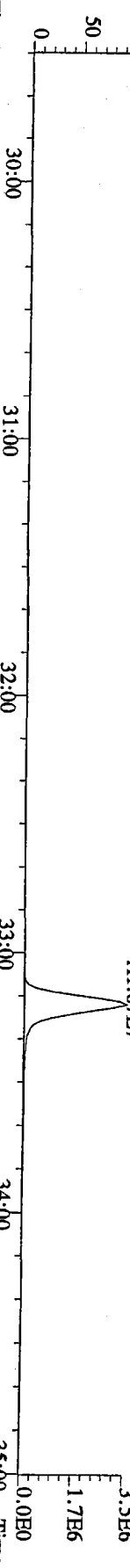
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



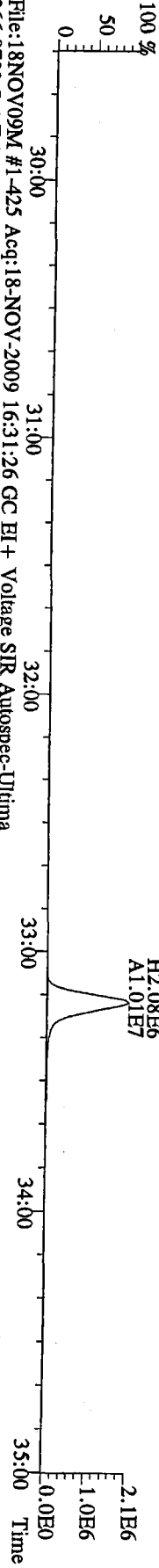
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
357.8517 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



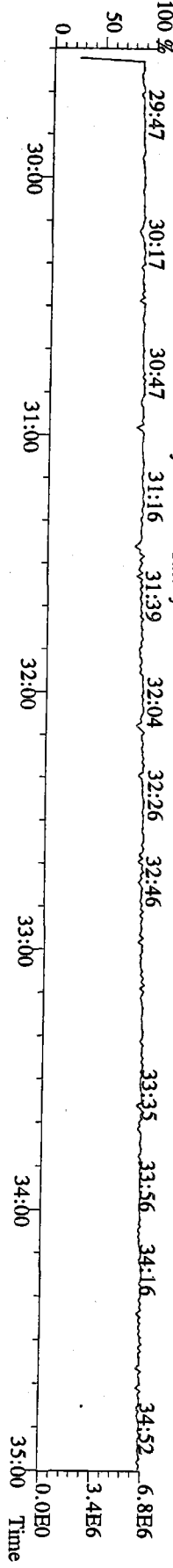
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
369.8919 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



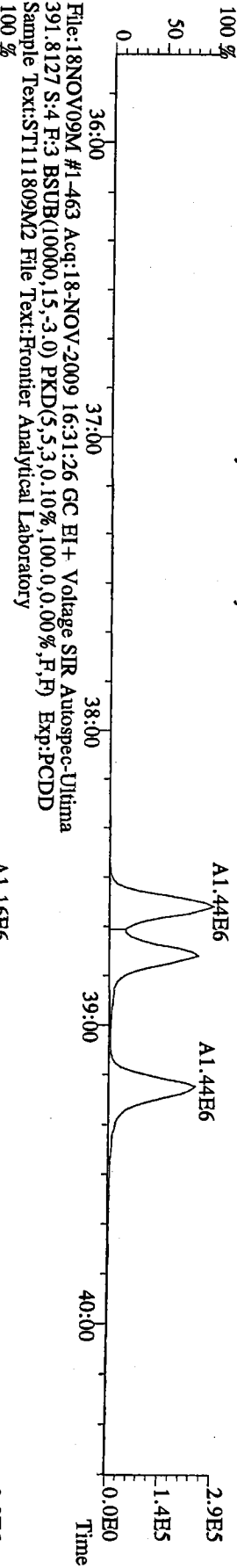
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
366.9792 S:4 F:2 Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



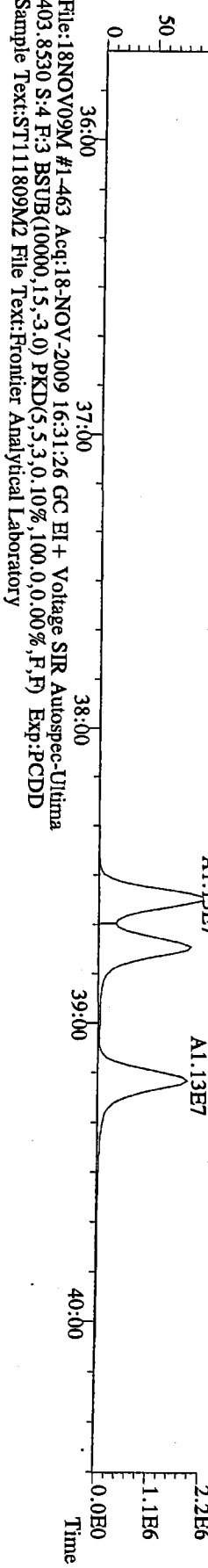
CD-CD-CD-CD-CD-CD-CD-CD-CD-CD



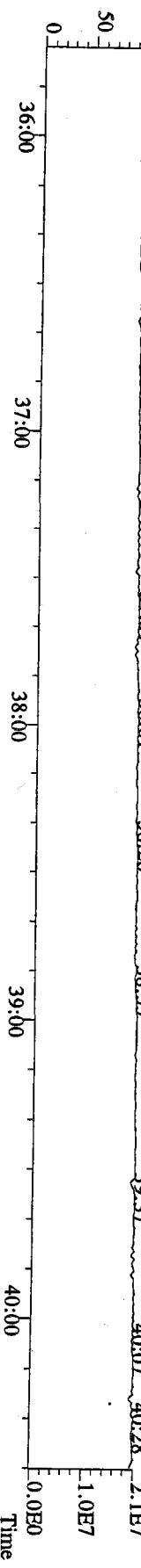
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
389.8156 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



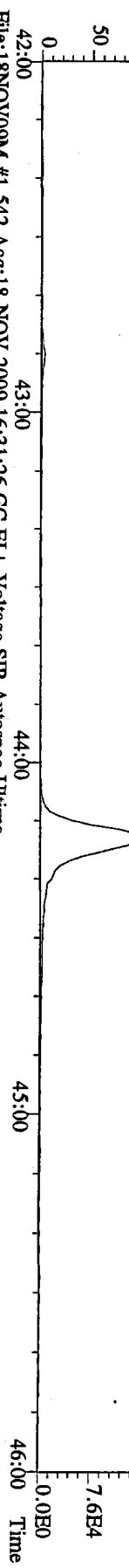
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
401.8559 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



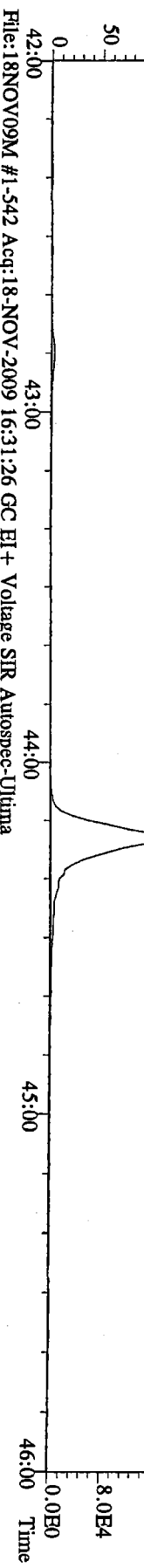
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
380.9760 S:4 F:3 Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



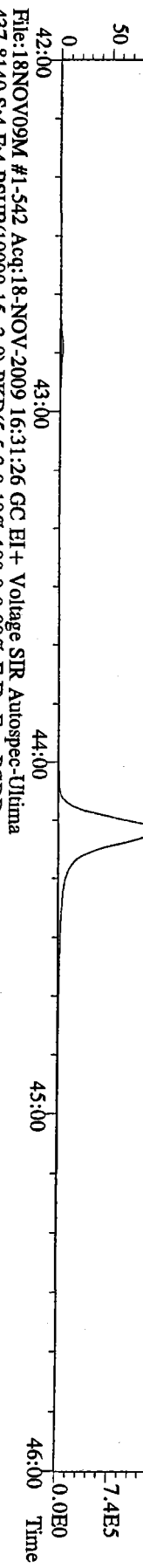
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utlima  
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



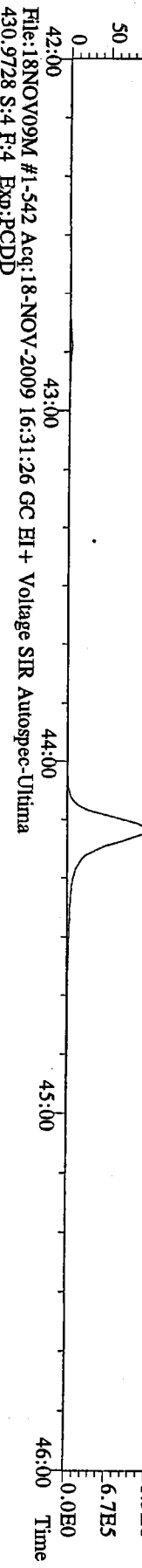
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utlima  
425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



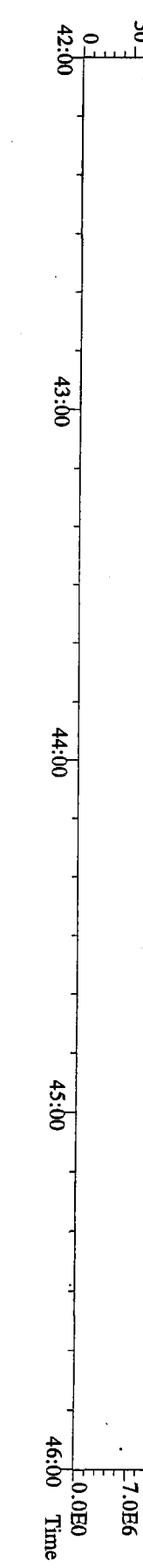
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utlima  
435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



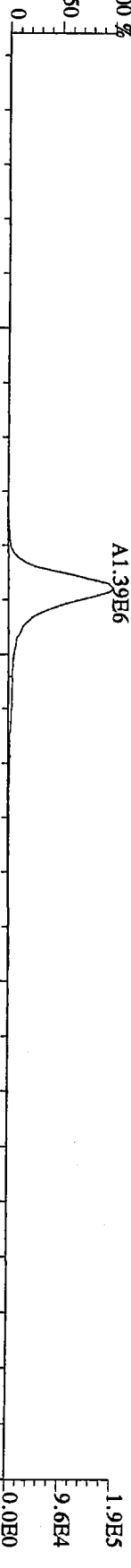
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utlima  
437.8140 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



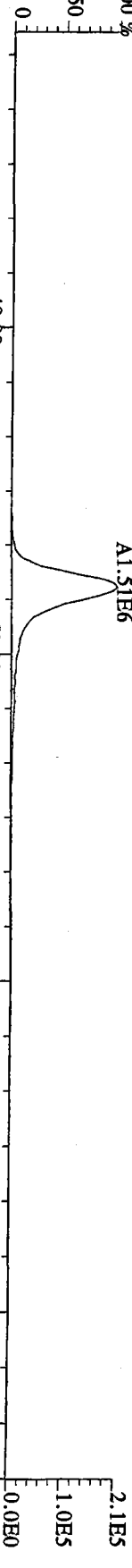
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utlima  
430.9728 S:4 F:4 Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



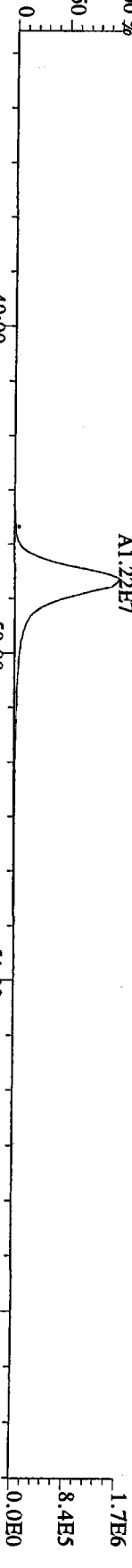
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



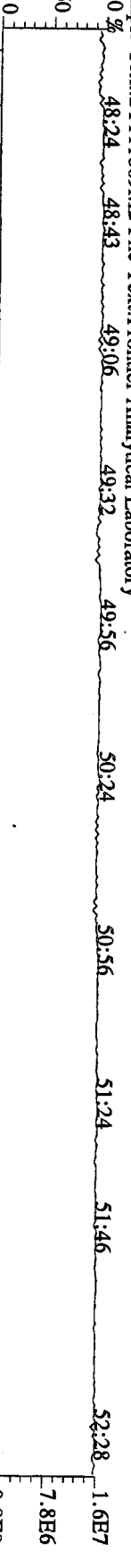
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
469.7780 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



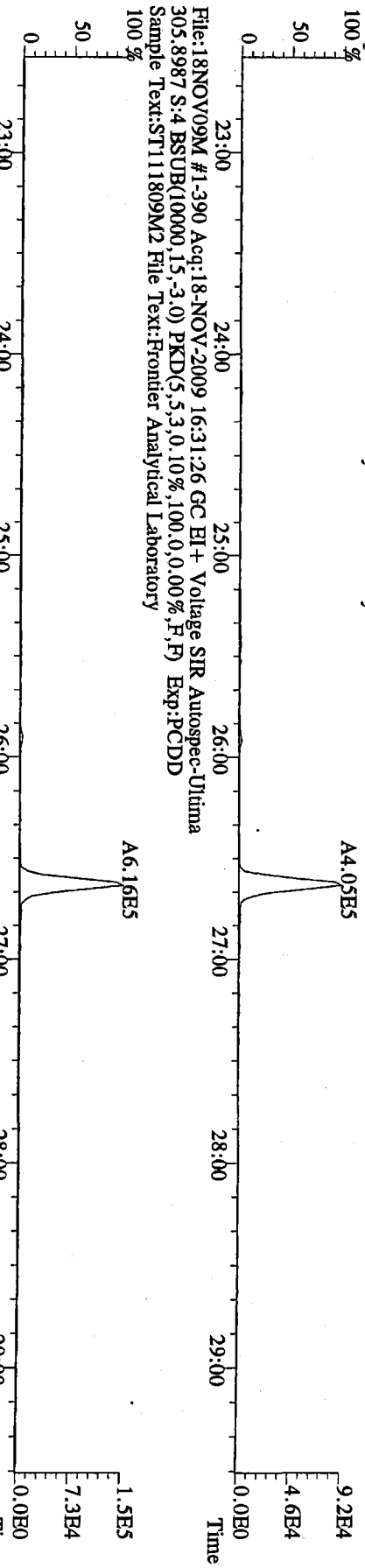
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
471.7750 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



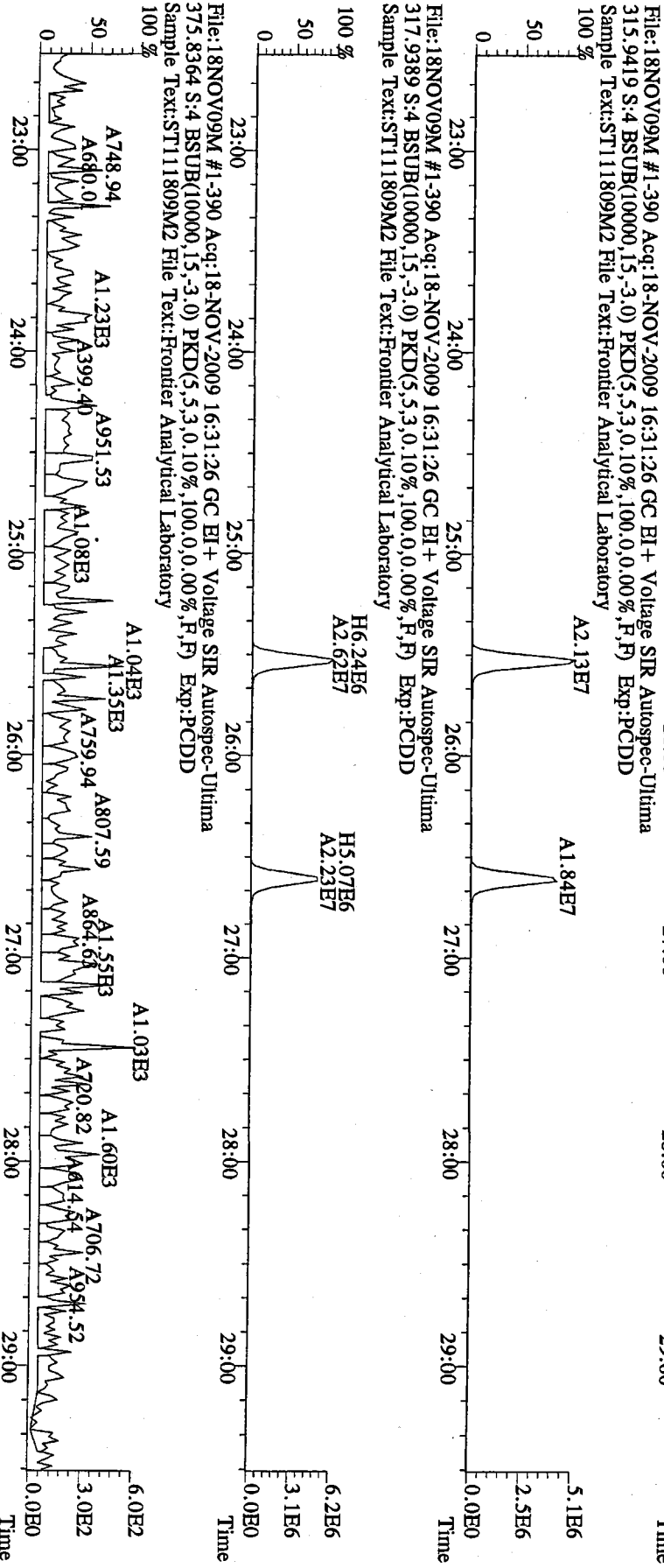
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
454.9728 S:4 F:5 Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



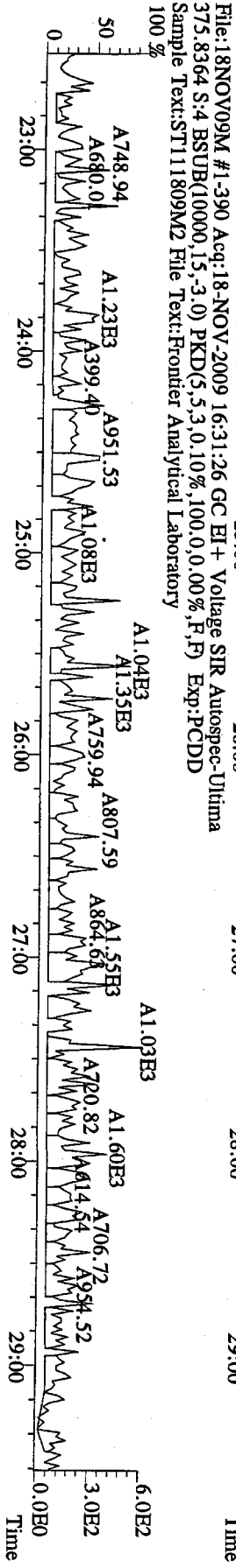
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI + Voltage SIR Autospec-Ultima  
 303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



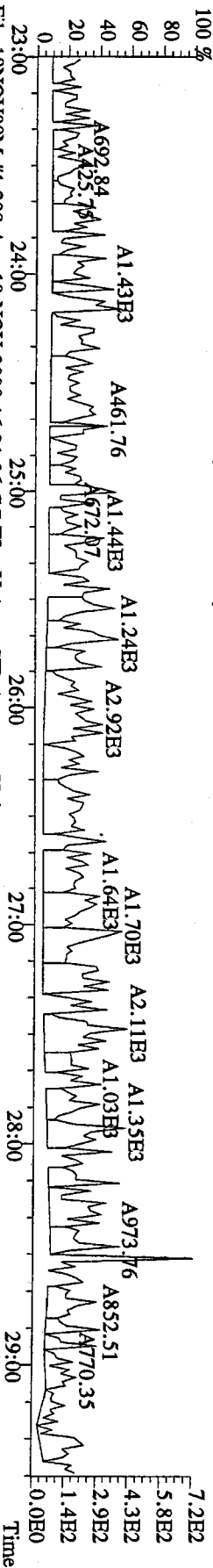
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI + Voltage SIR Autospec-Ultima  
 315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



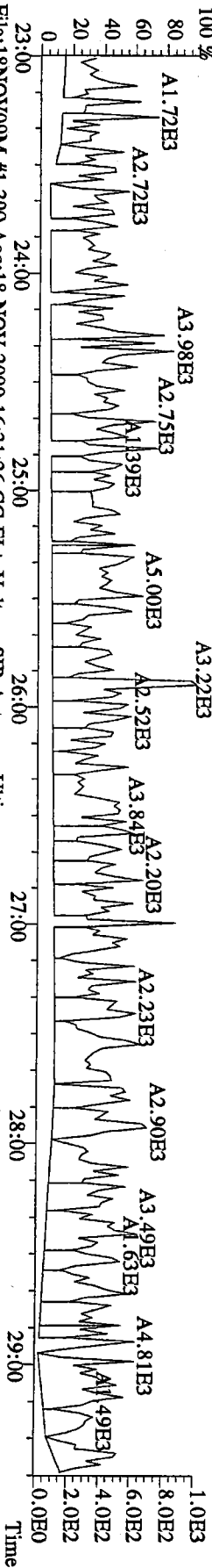
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI + Voltage SIR Autospec-Ultima  
 375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



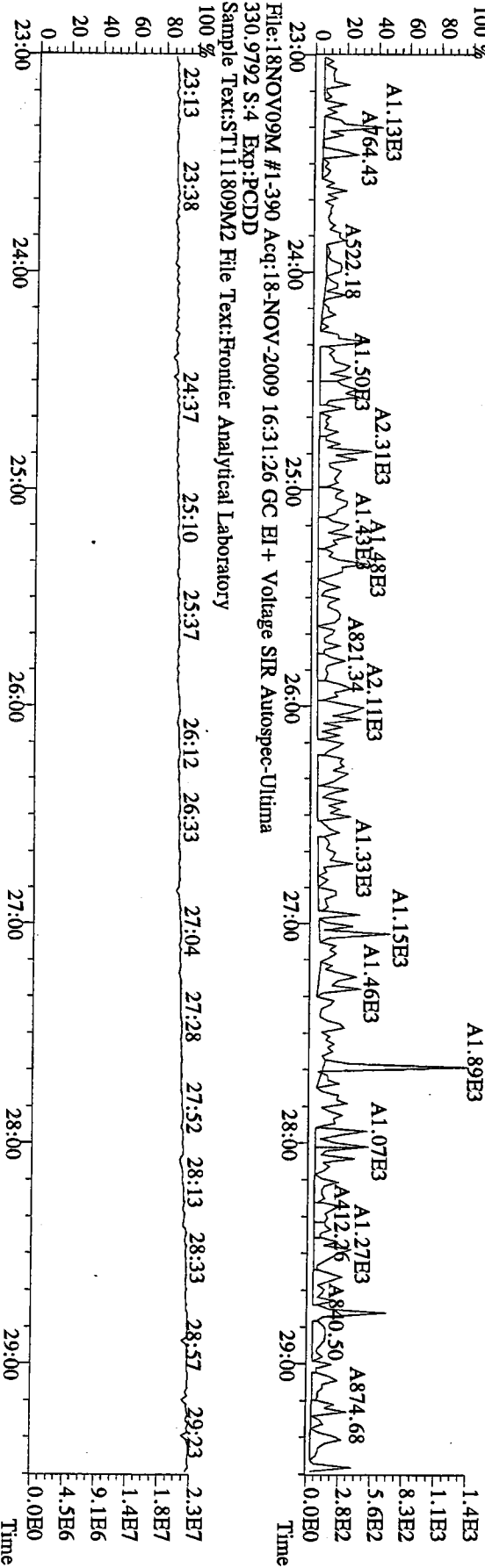
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



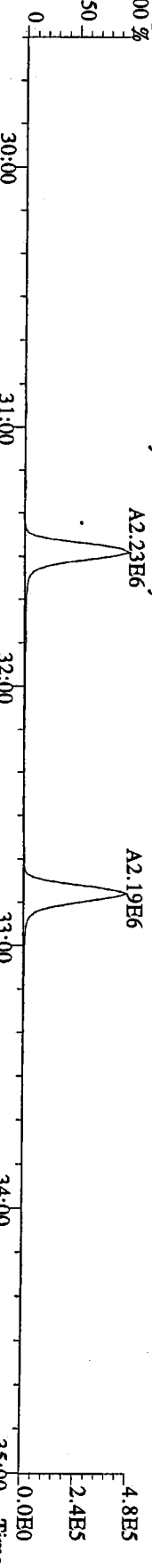
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
341.8568 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



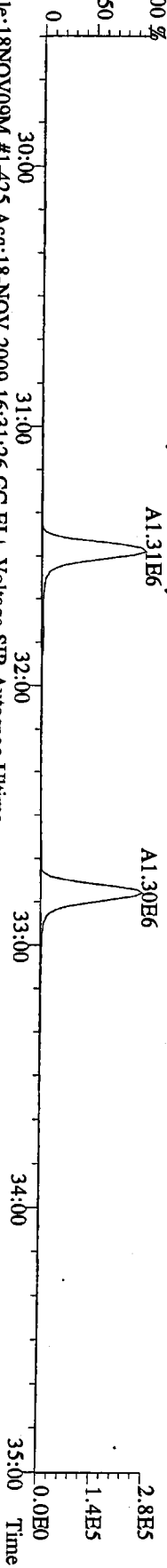
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
409.7974 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



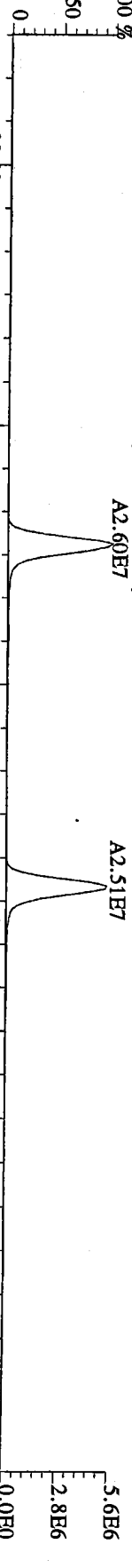
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



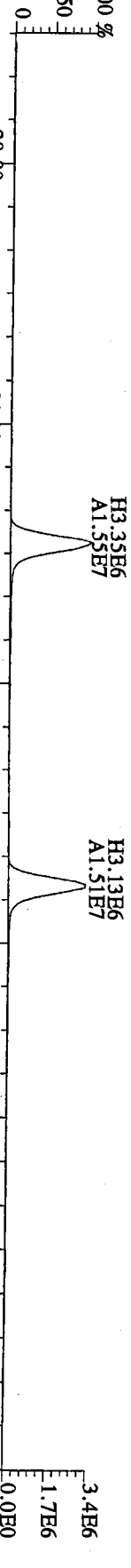
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



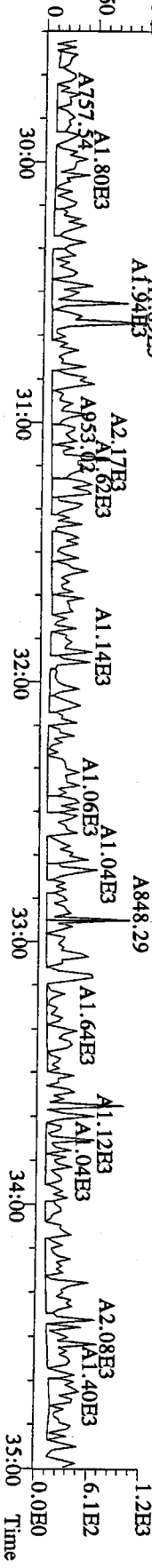
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



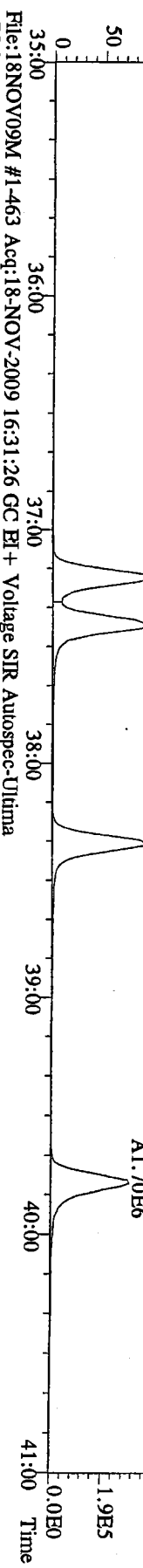
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



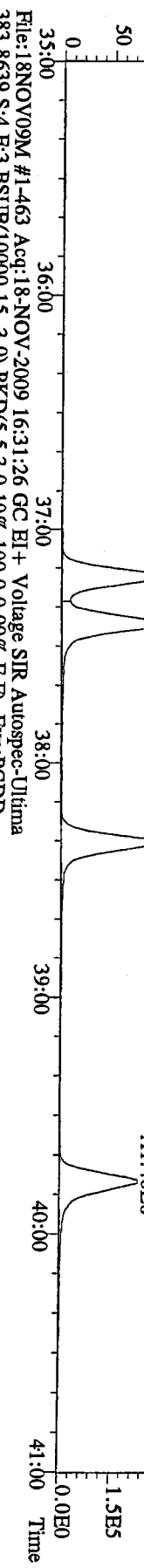
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



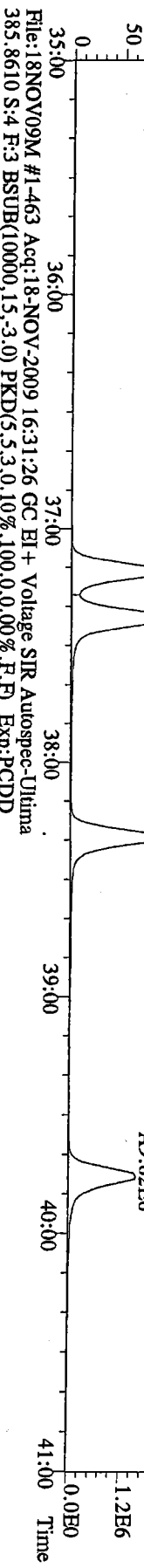
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC BI + Voltage SIR Autospec-Utima  
 373.8207 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



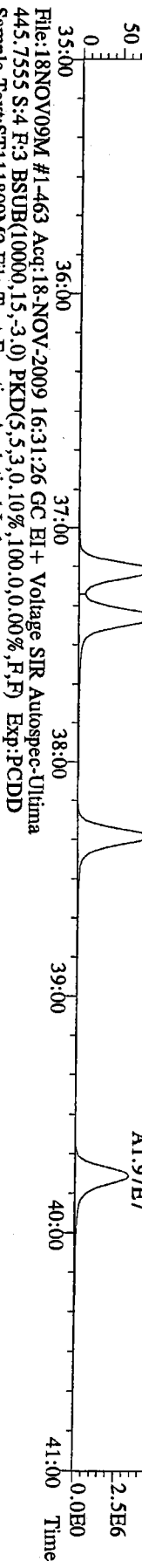
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC BI + Voltage SIR Autospec-Utima  
 375.8178 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



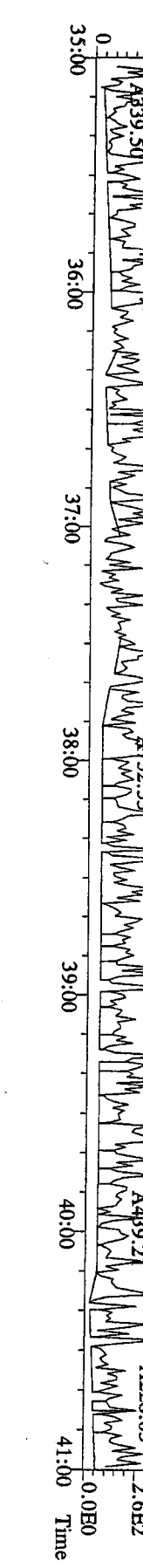
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC BI + Voltage SIR Autospec-Utima  
 383.8639 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



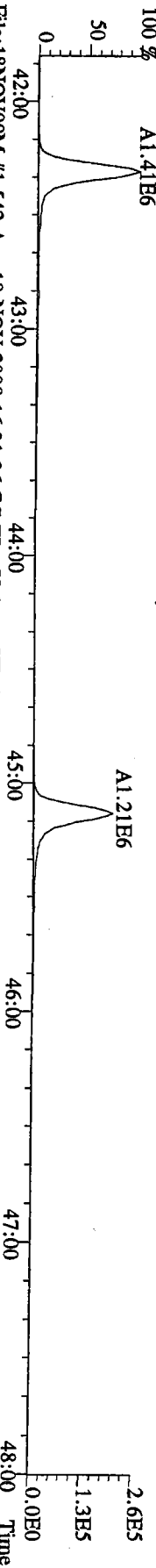
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC BI + Voltage SIR Autospec-Utima  
 385.8610 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



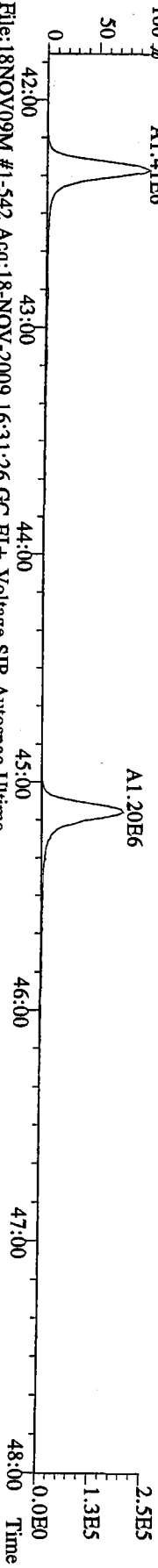
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC BI + Voltage SIR Autospec-Utima  
 445.7555 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



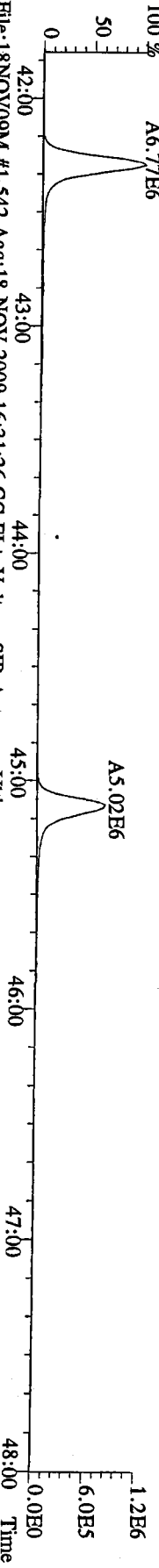
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



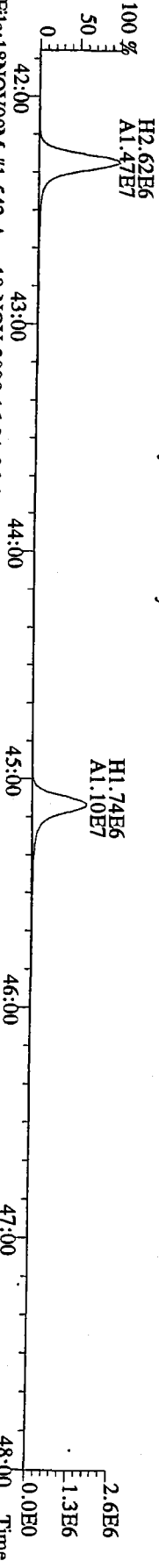
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



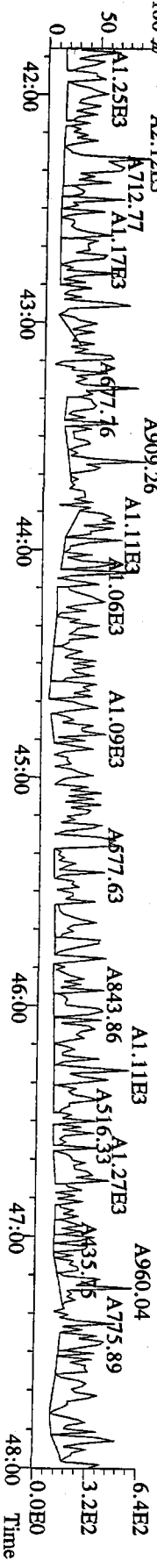
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

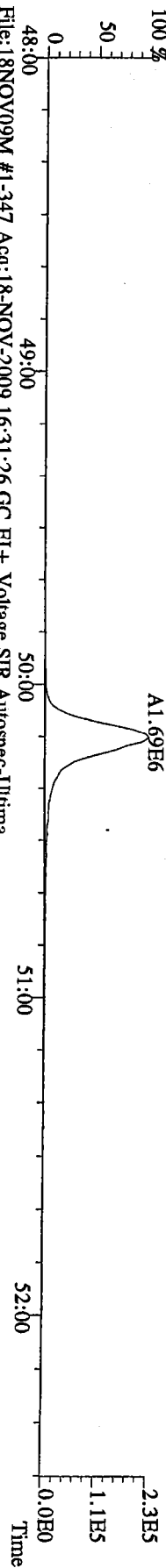


File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

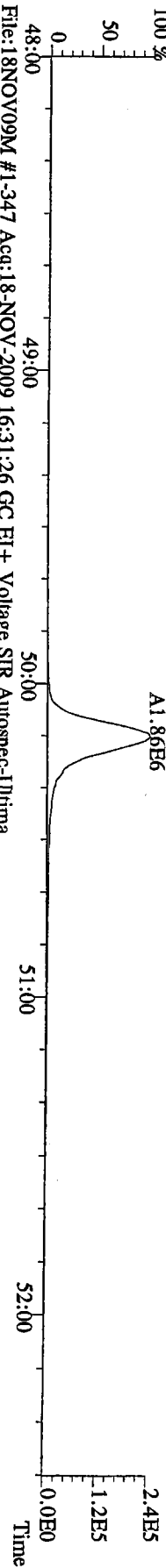




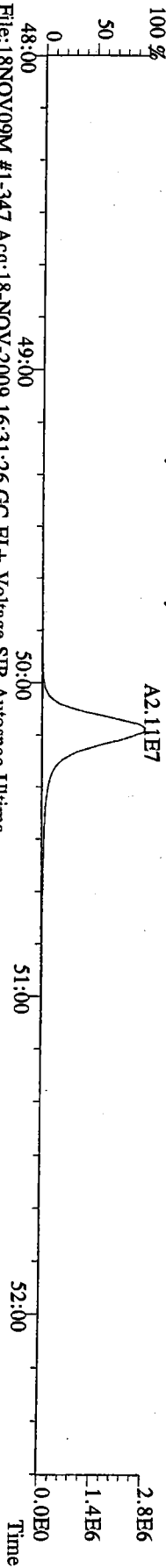
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



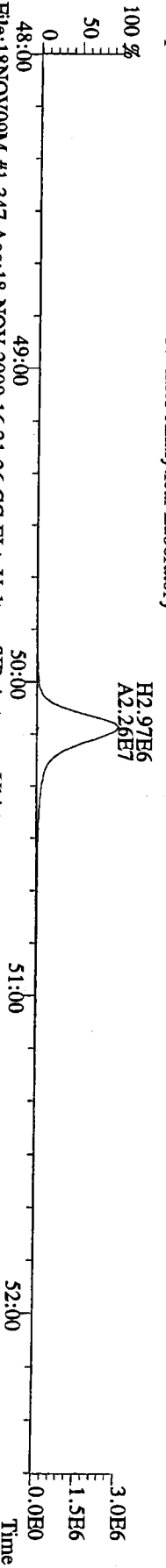
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



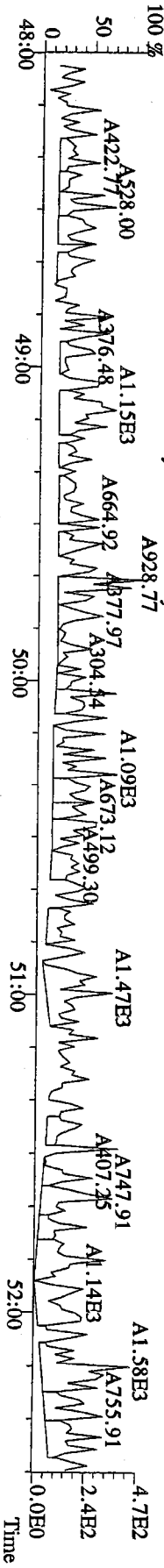
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 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:ST111809M2 File Text:Frontier Analytical Laboratory

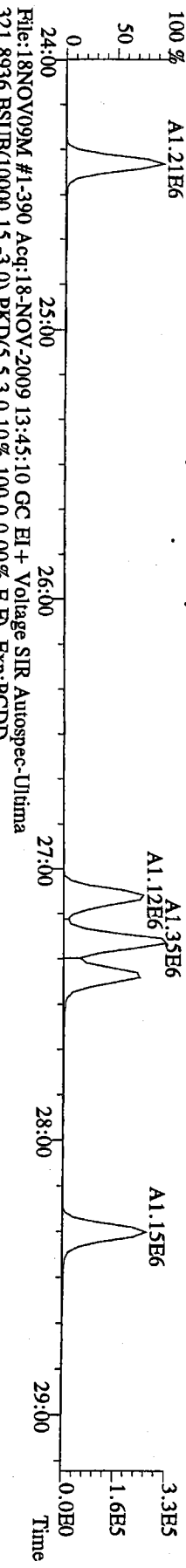


File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

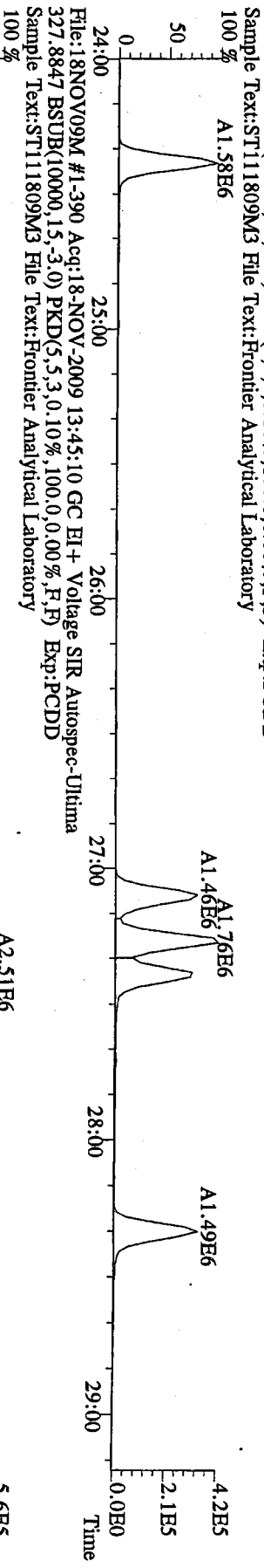


11 09 09 11 09 09

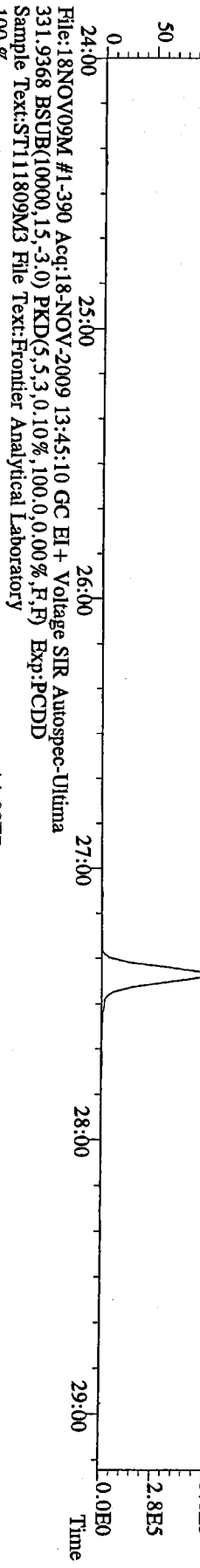
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 % A1.21E6



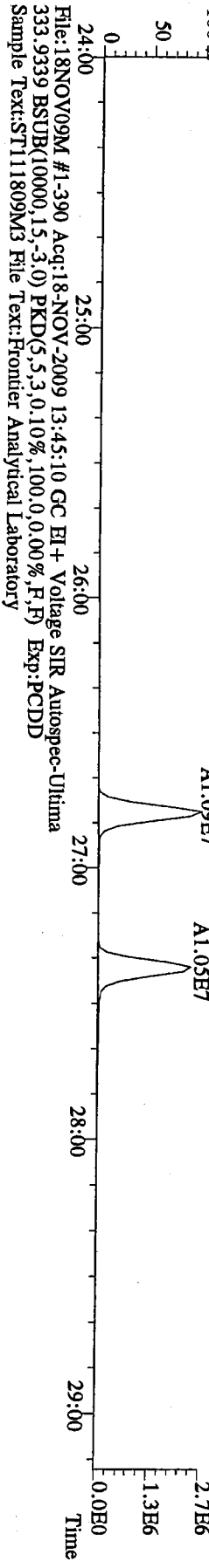
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 % A1.58E6



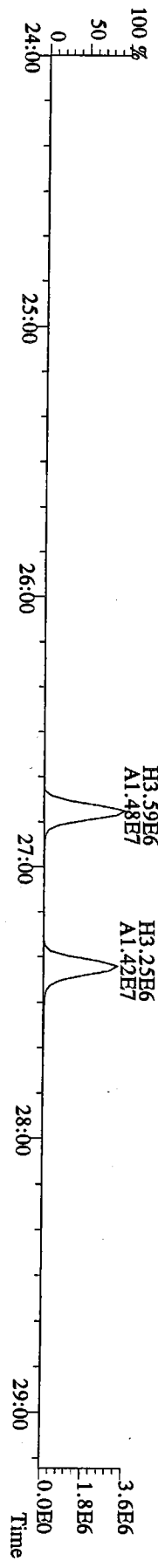
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 % A2.51E6



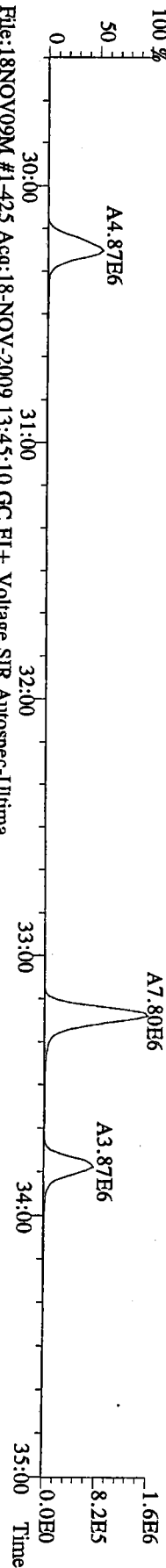
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 % H3.59E6 A1.48E7



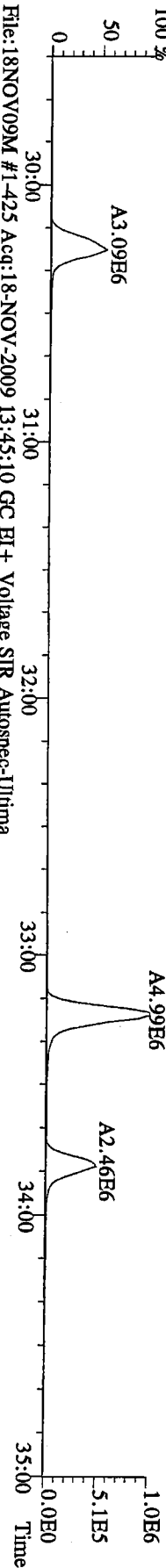
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 % H3.25E6 A1.42E7



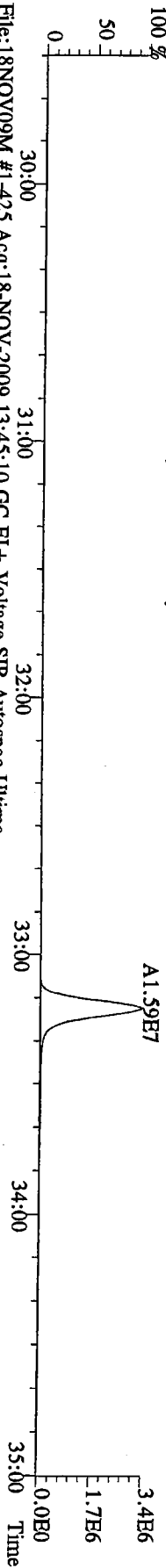
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 %



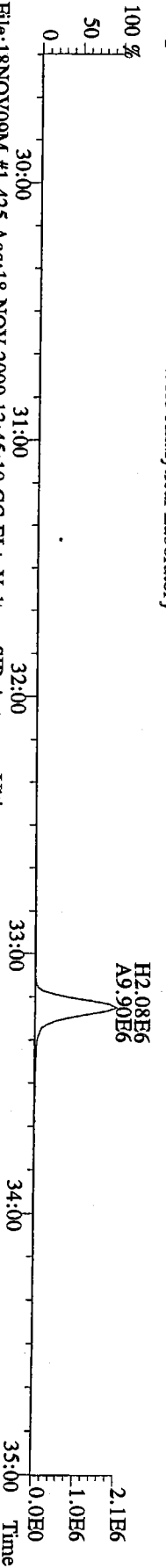
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
357.8517 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 %



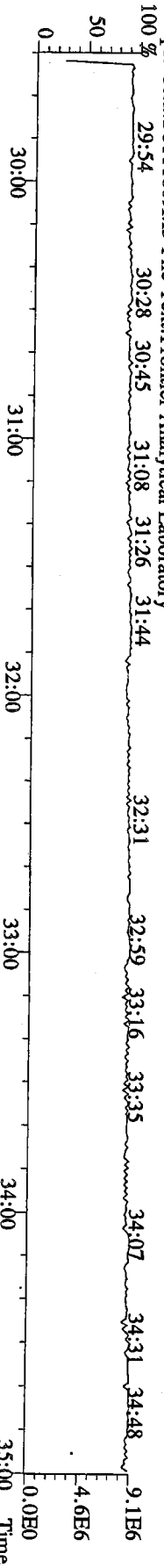
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
367.8949 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 %



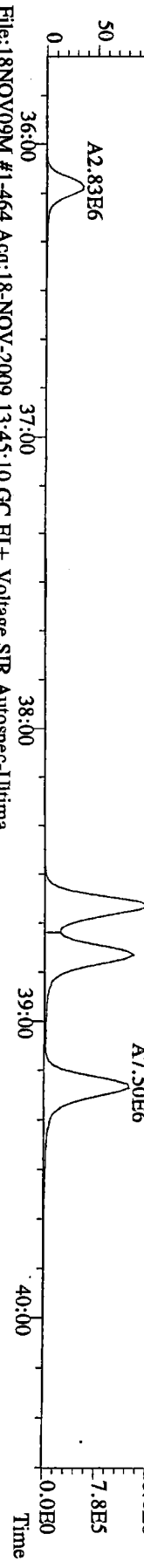
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
369.8919 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



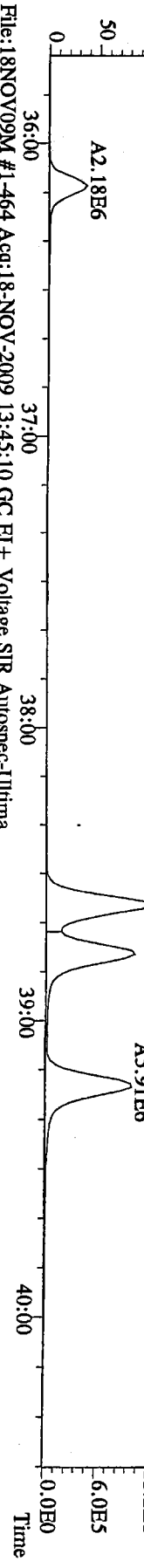
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
366.9792 F:2 Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



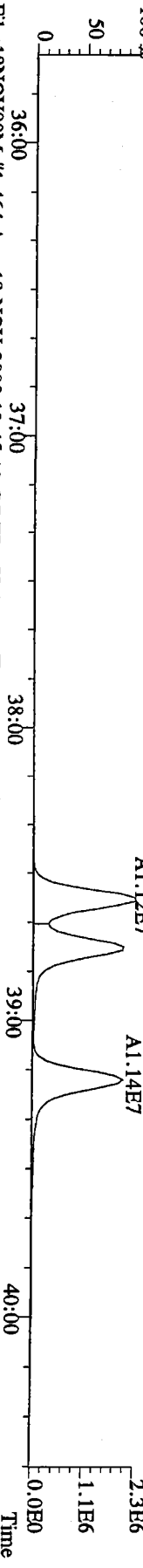
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



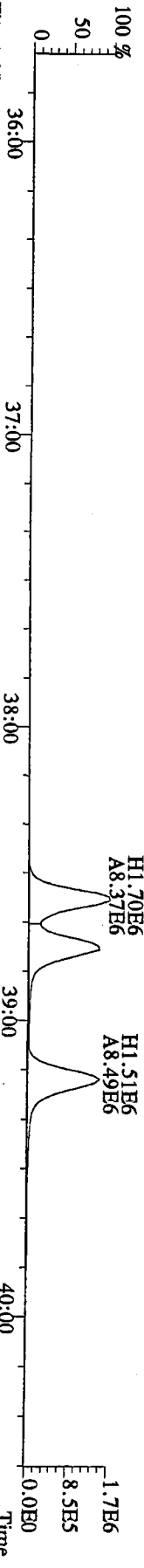
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



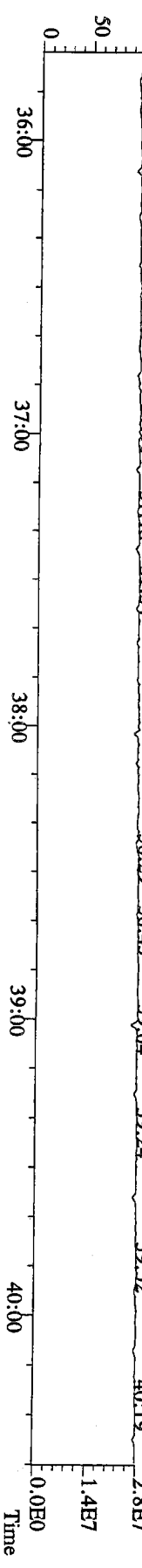
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



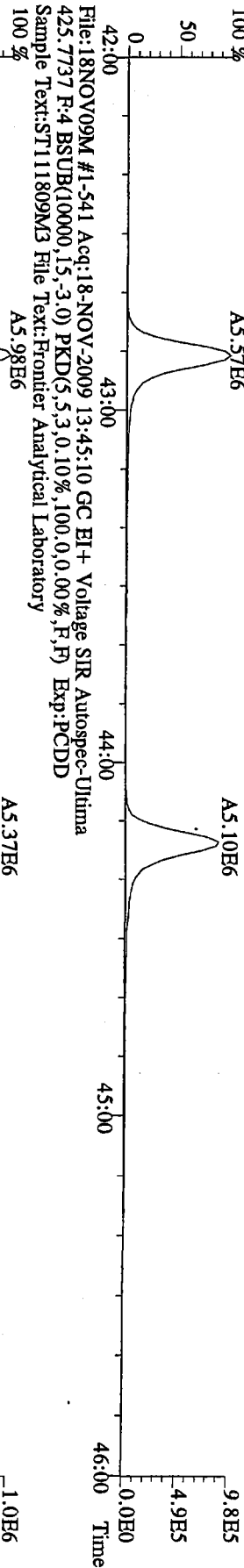
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



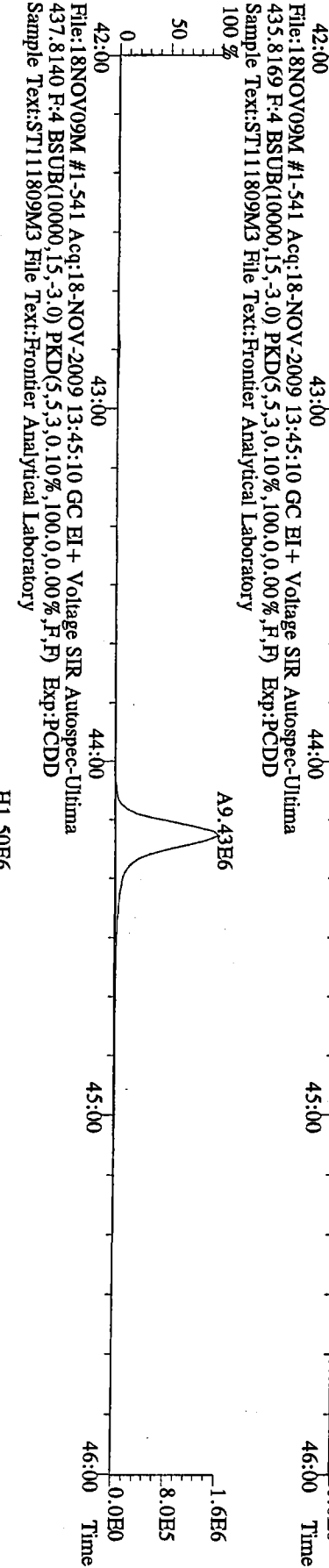
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 F:3 Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



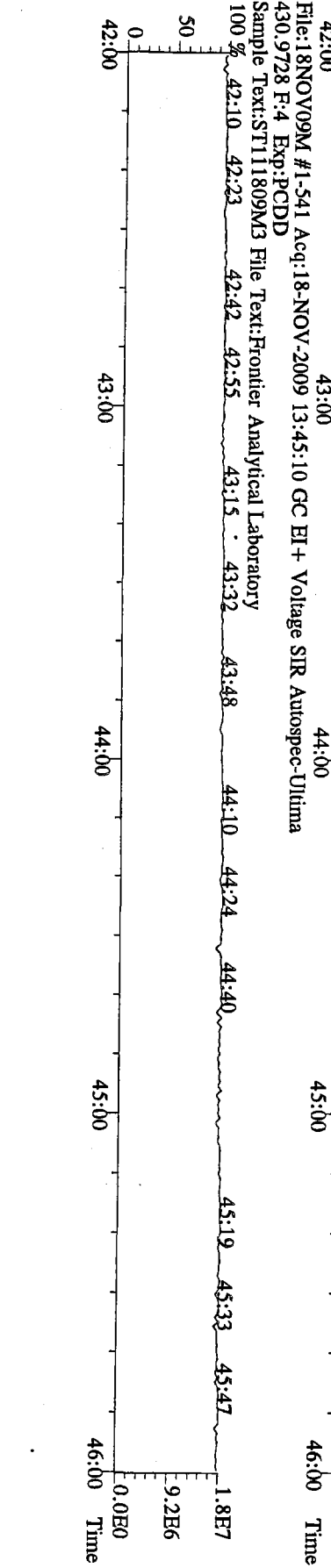
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 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:ST111809M3 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 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:ST111809M3 File Text:Frontier Analytical Laboratory  
100 %

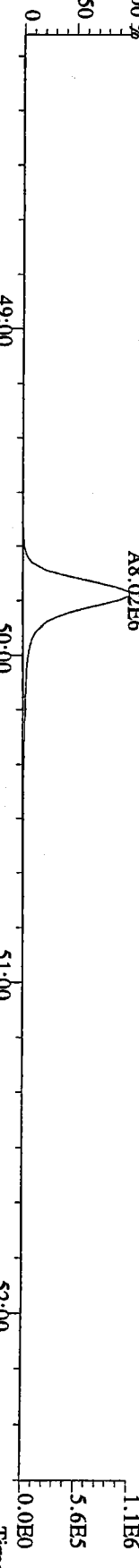


File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 F:4 Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
100 %

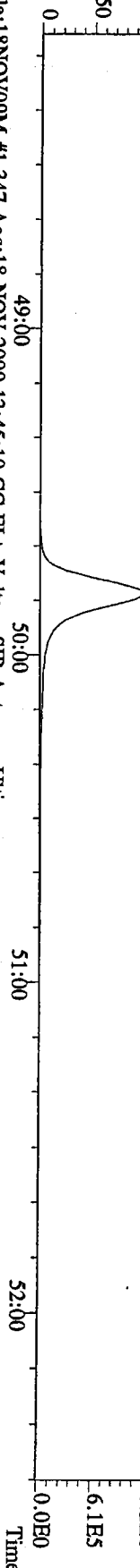


00100909 : 09 : 11 : 22

File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
 457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



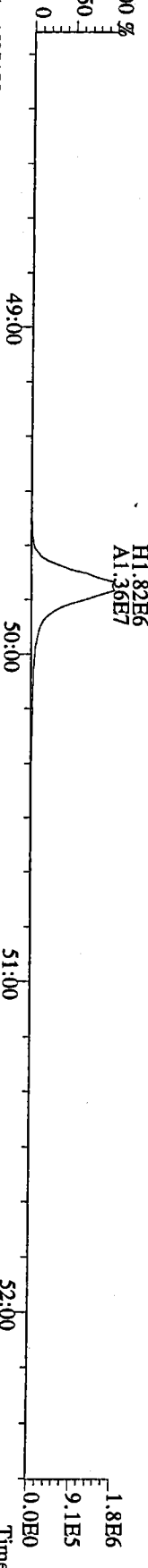
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
 459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



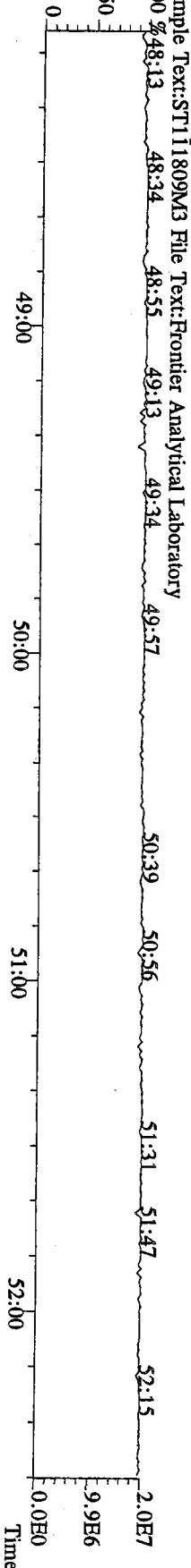
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
 469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
 471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

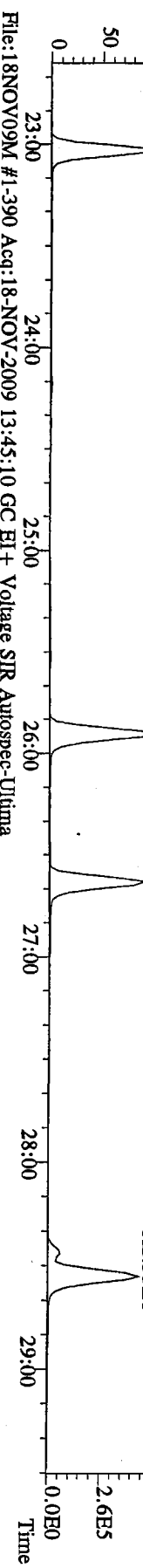


File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
 454.9728 F:5 Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



20091109 00:00:00

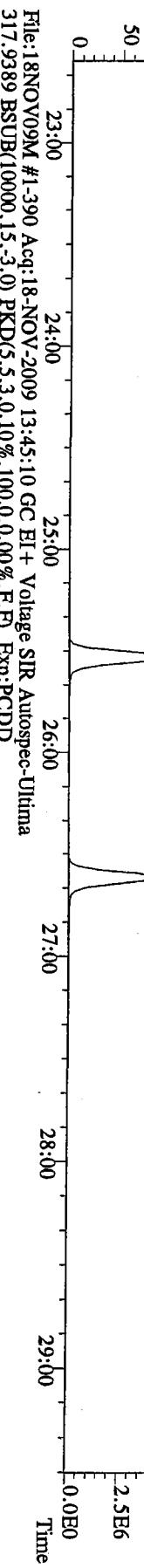
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



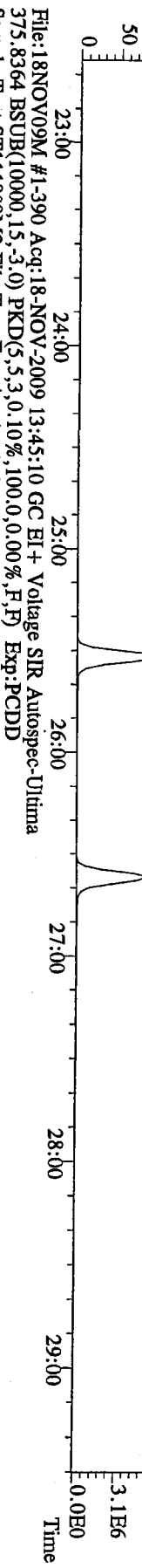
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



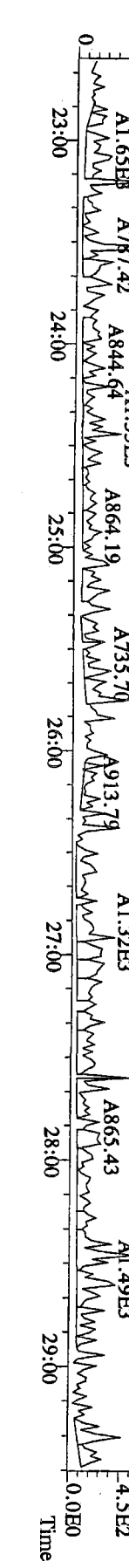
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



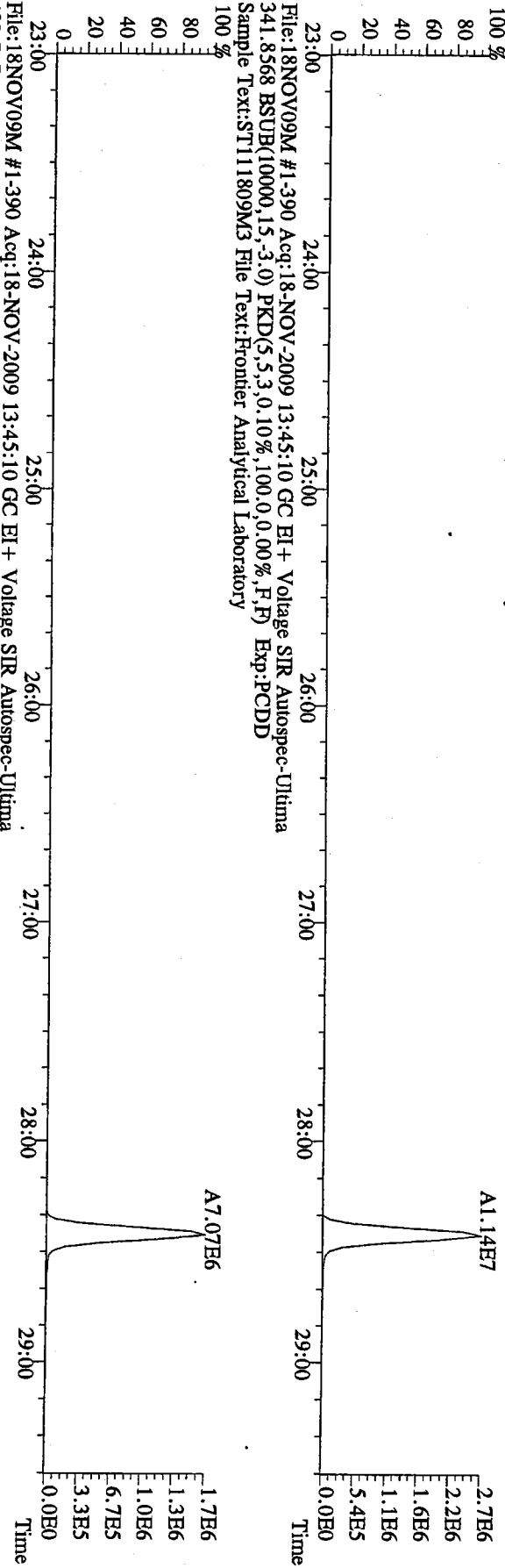
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



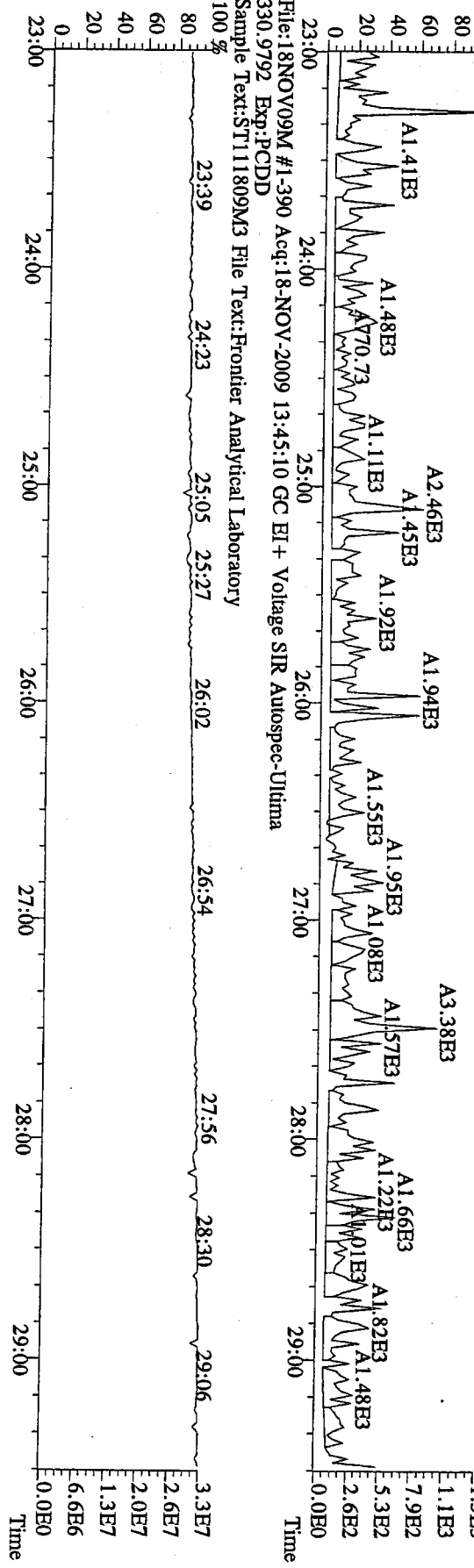
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



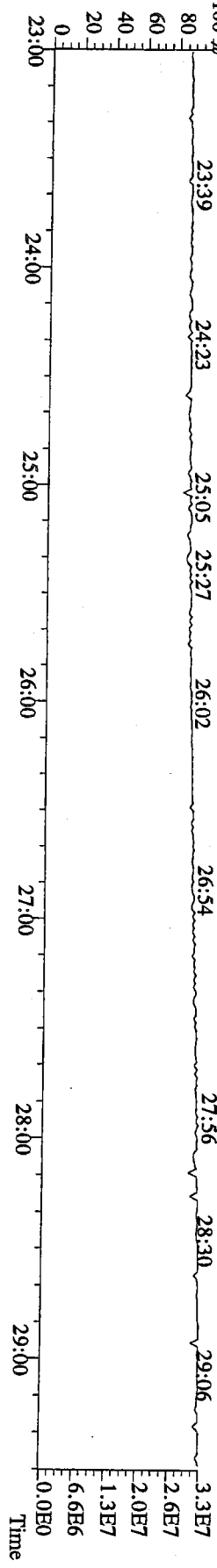
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



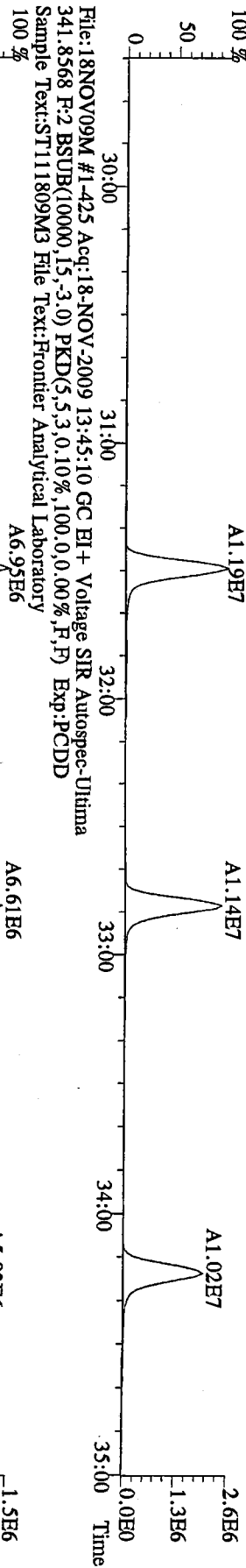
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



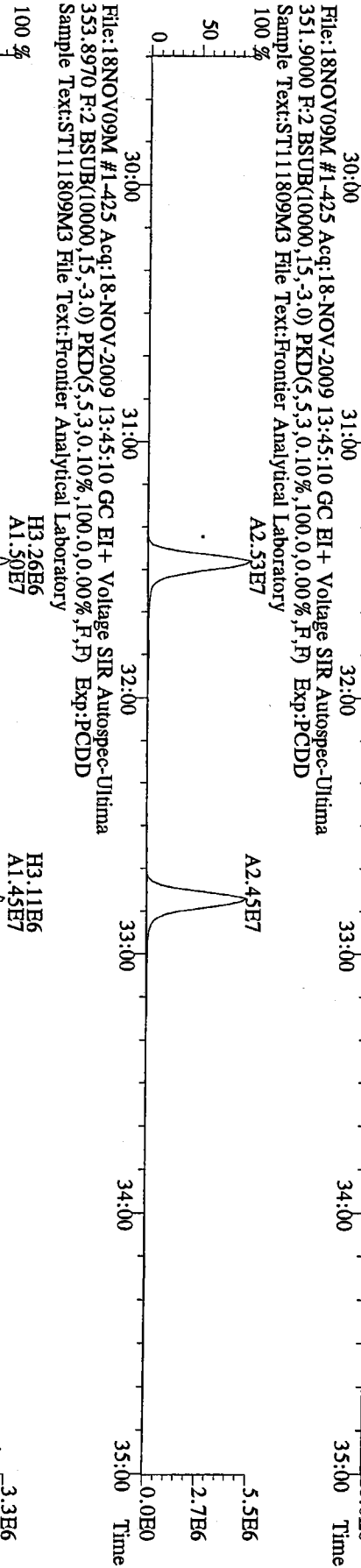
NOV 18 2009 13:45:10



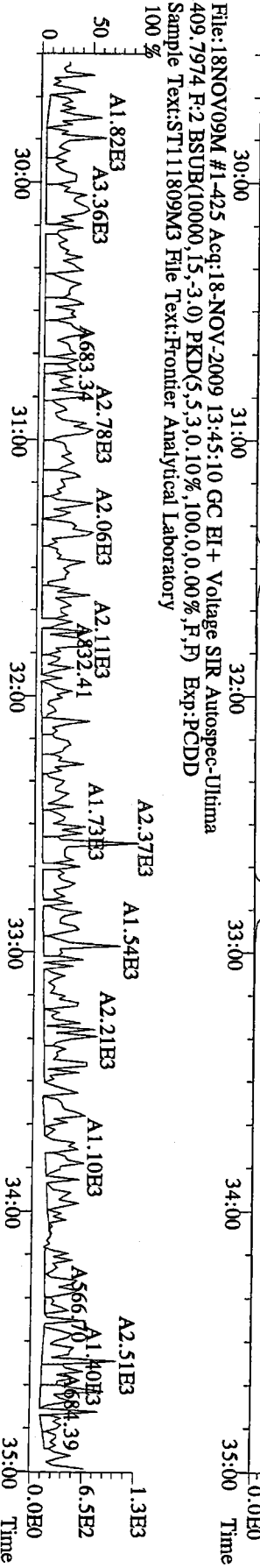
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



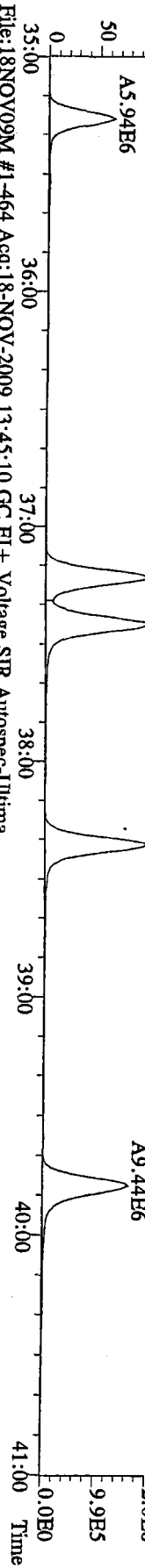
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



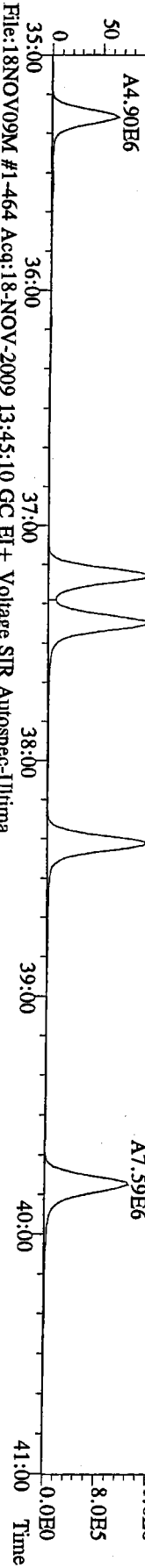
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



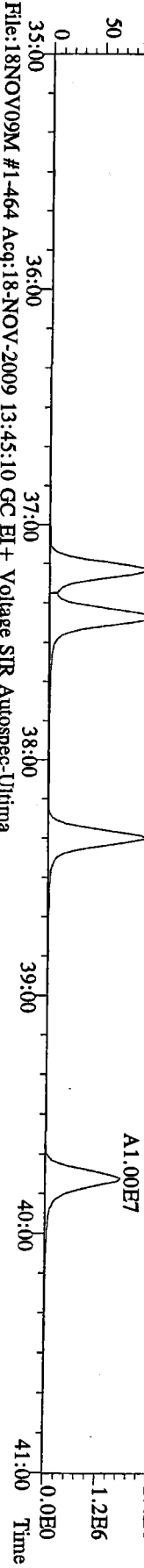
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI + Voltage SIR Autospec-Ultima  
 373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



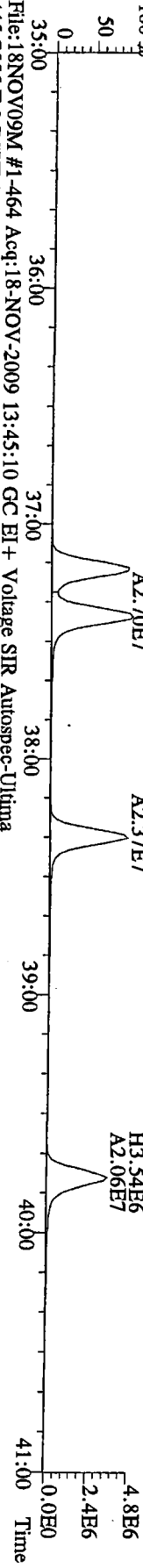
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI + Voltage SIR Autospec-Ultima  
 375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



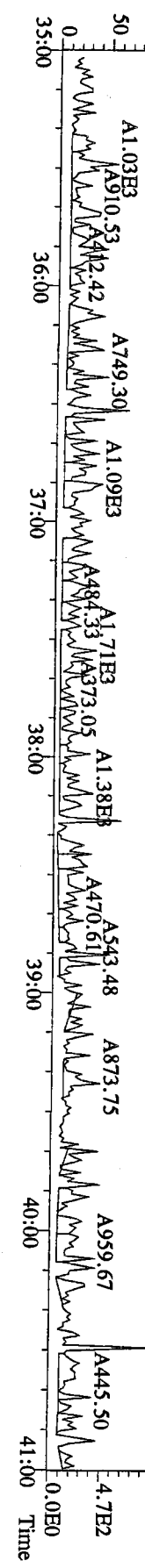
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI + Voltage SIR Autospec-Ultima  
 383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 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:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 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:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
407.7818 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

A7.67E6

A6.99E6

File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
409.7788 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

A7.61E6

A7.05E6

File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
417.8253 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

A6.89E6

A5.34E6

File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

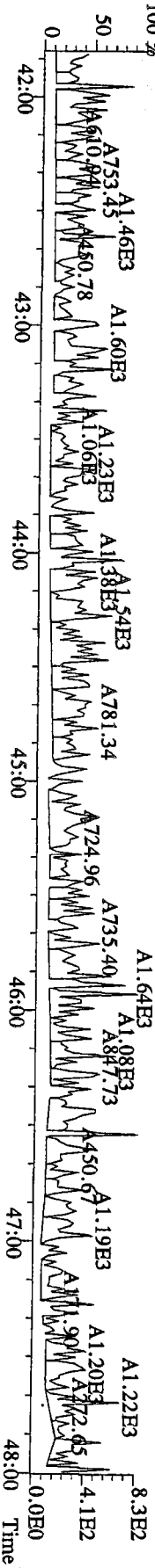
H2.72E6

A1.30E7

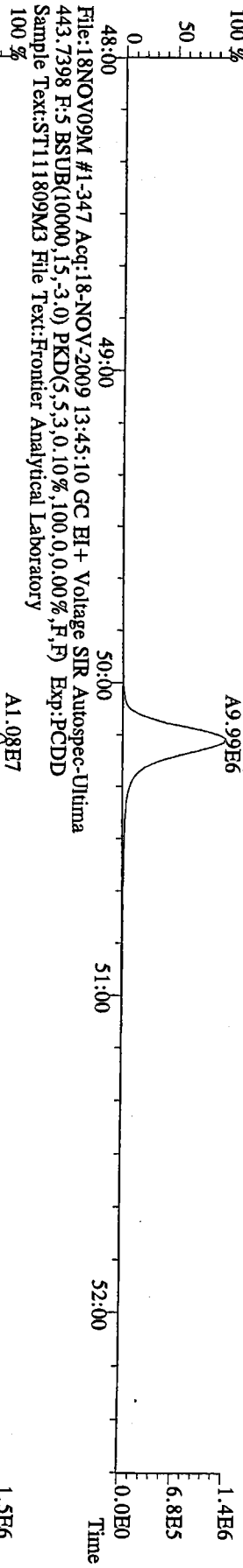
H1.98E6

A1.20E7

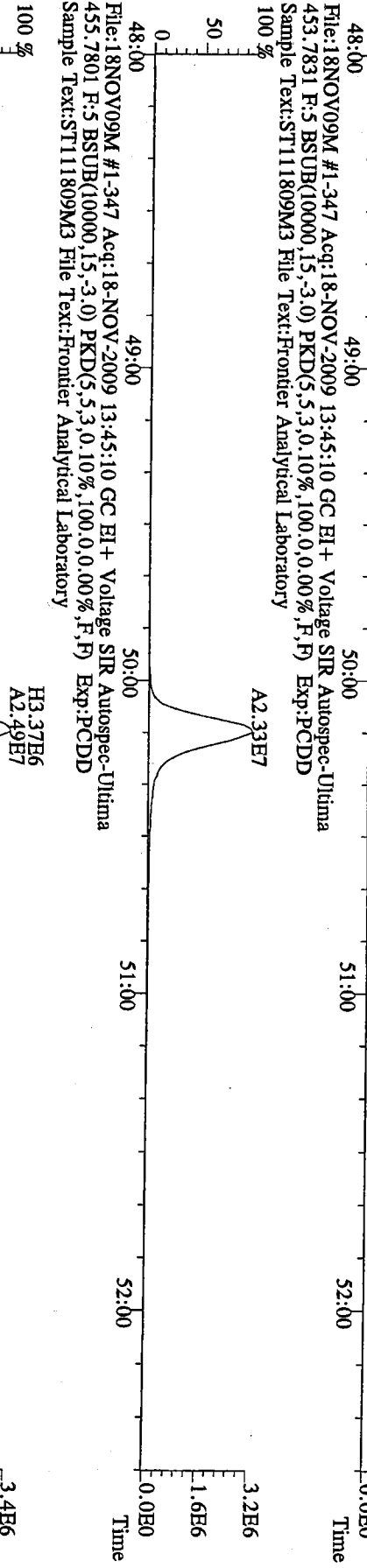
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
479.7165 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



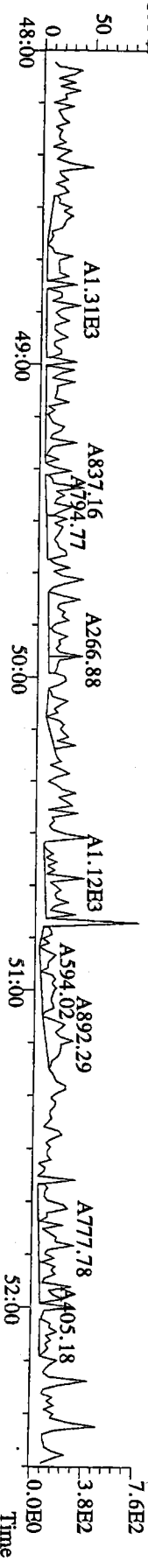
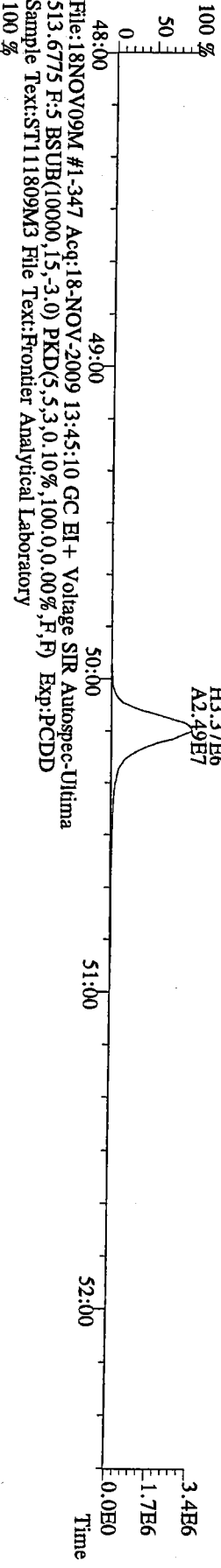
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



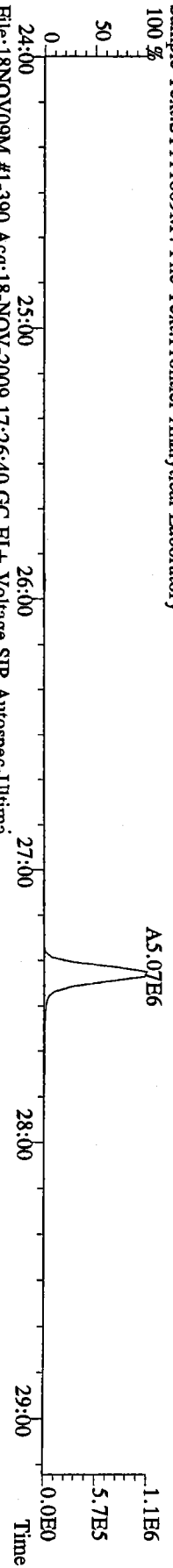
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



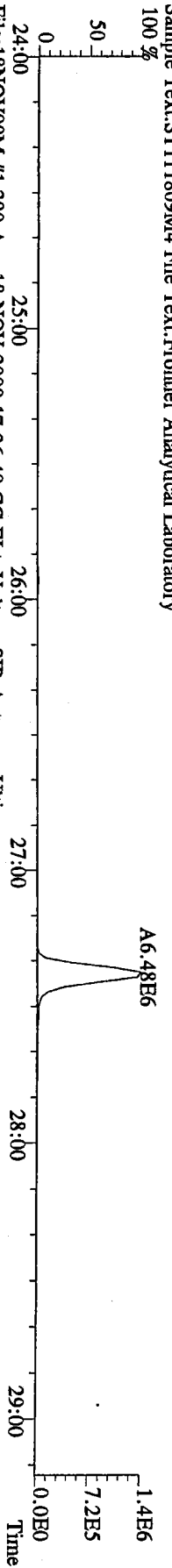
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



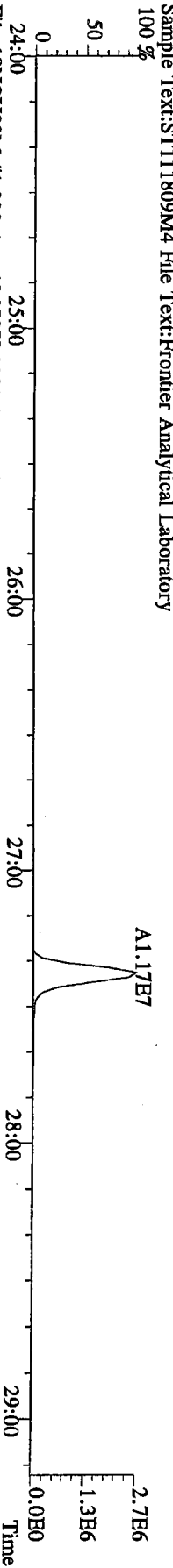
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S.5 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M4 File Text:Frontier Analytical Laboratory



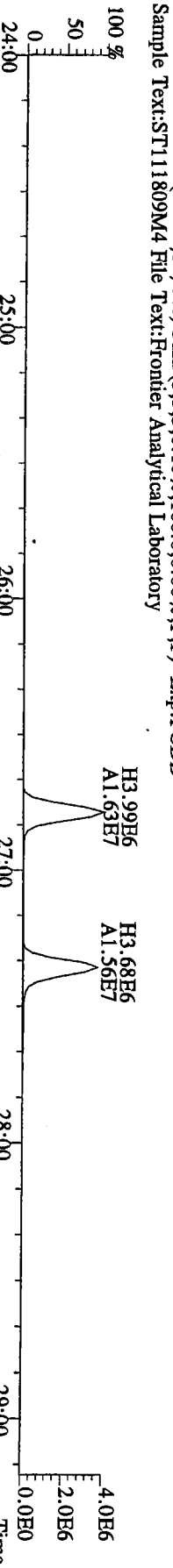
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S.5 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



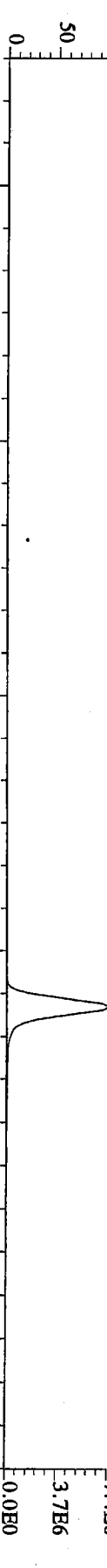
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
331.9368 S.5 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



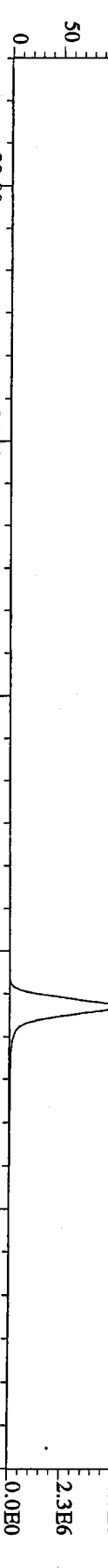
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S.5 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



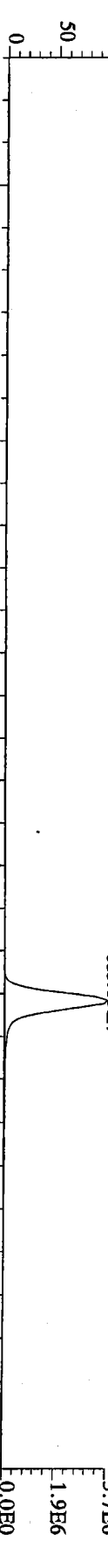
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 357.8517 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



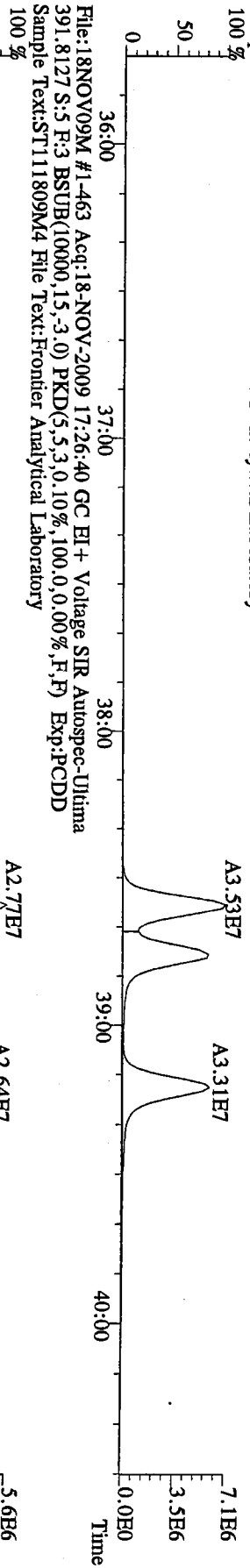
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 369.8919 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



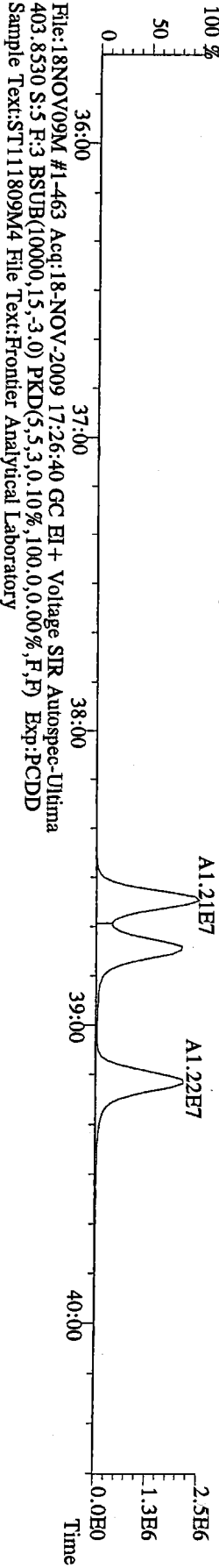
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 366.9792 S:5 F:2 Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



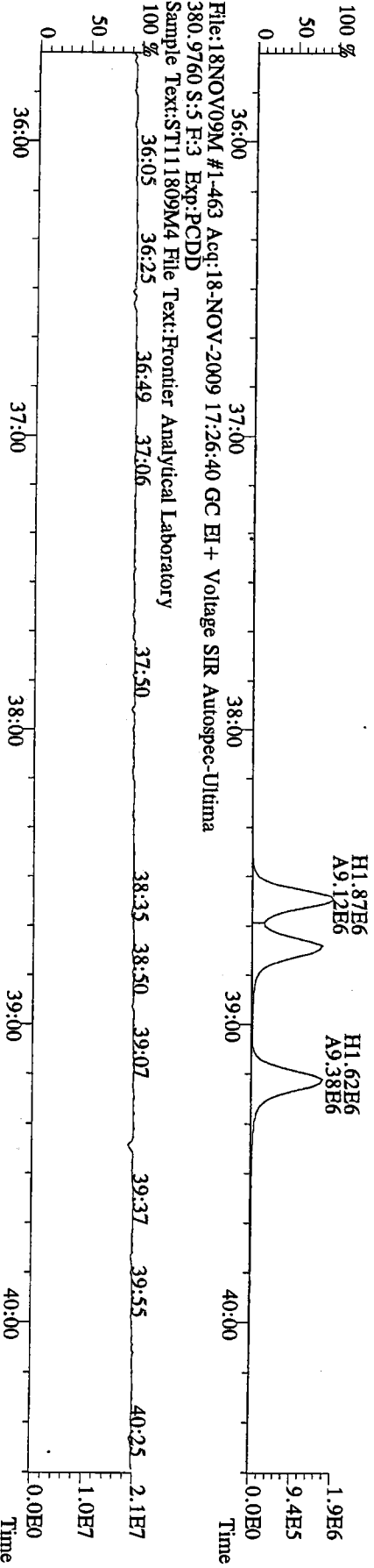
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



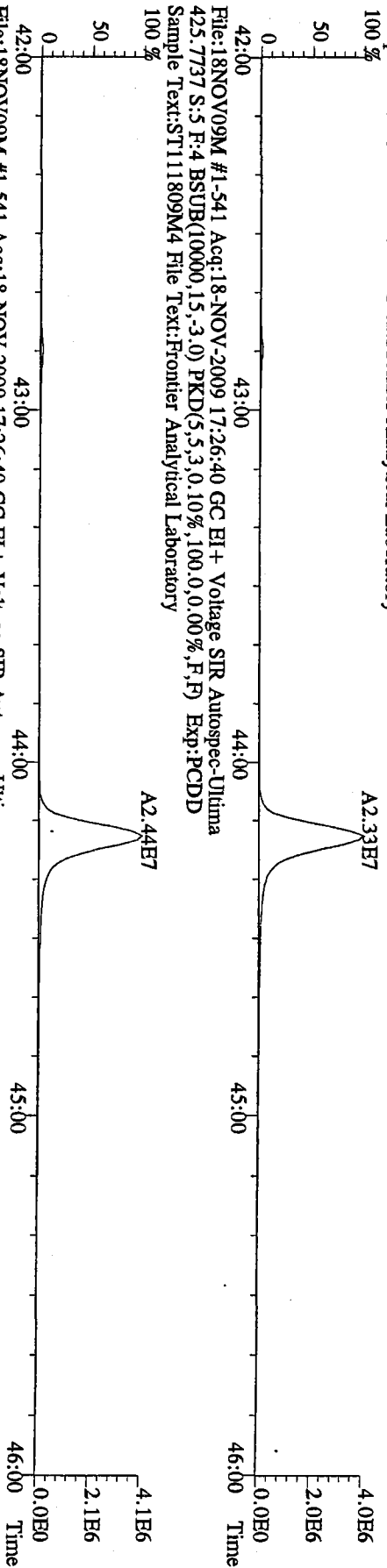
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



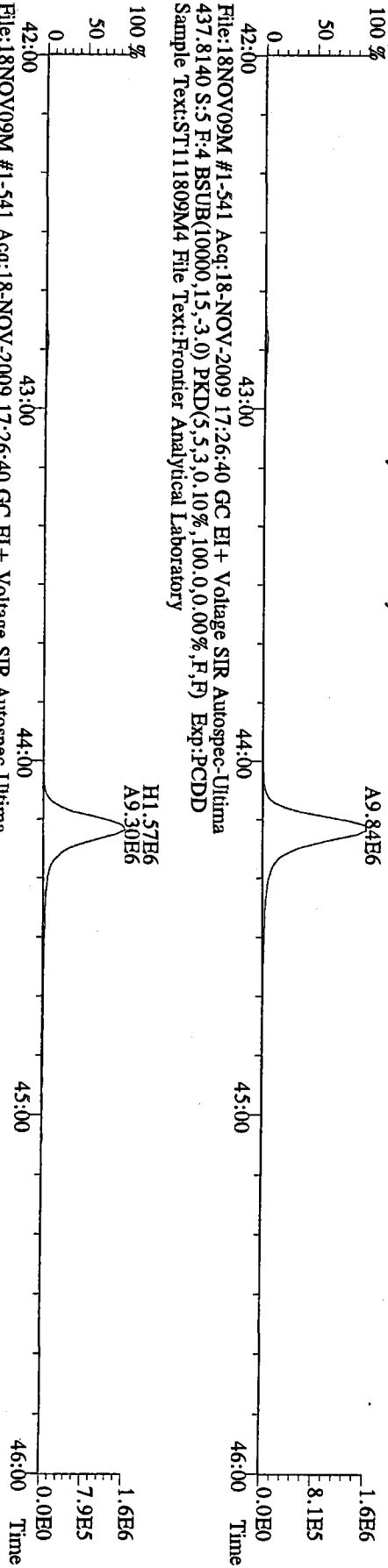
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
380.9760 S:5 F:3 Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



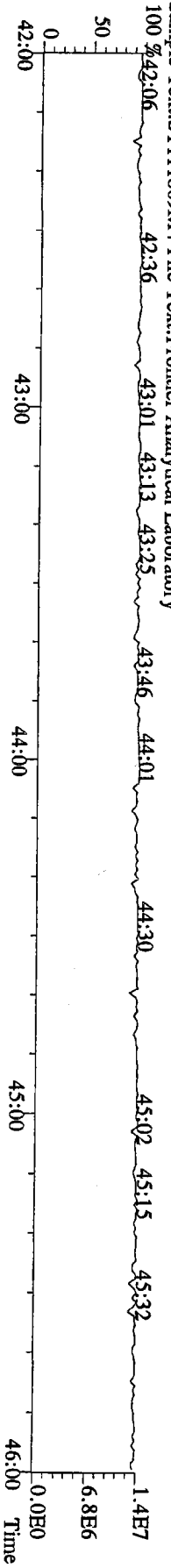
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage S1R Autospec-Ultima  
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage S1R 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:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage S1R Autospec-Ultima  
430.9728 S:5 F:4 Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %

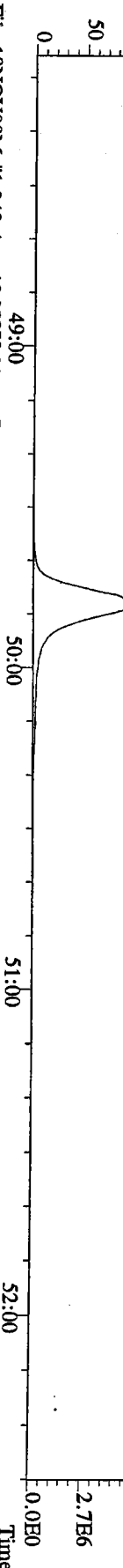




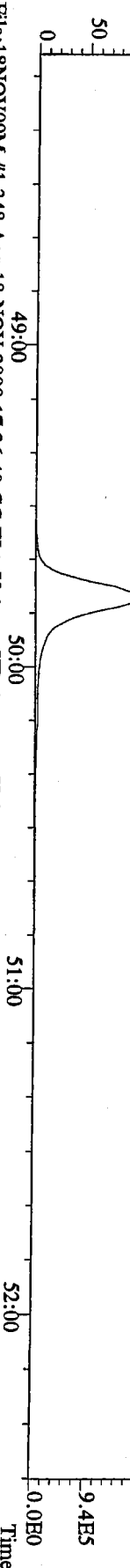
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



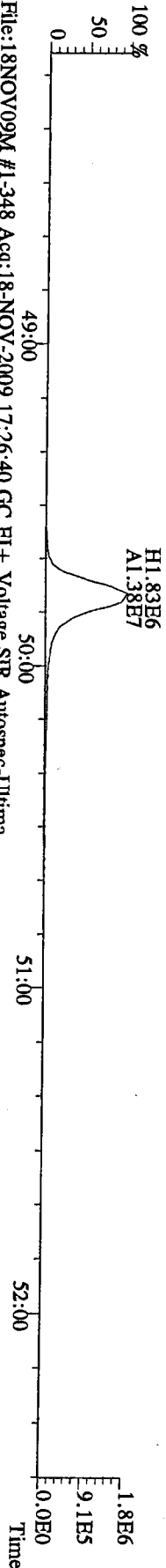
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



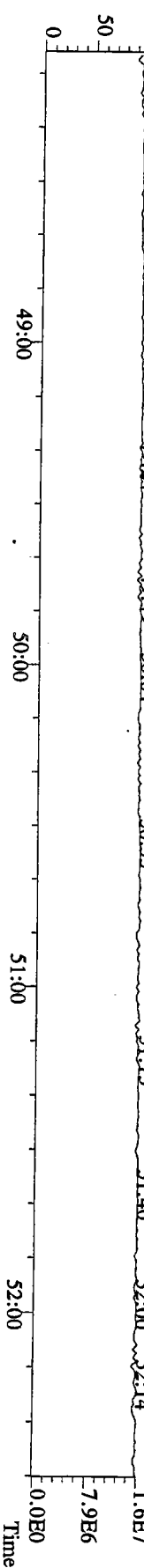
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



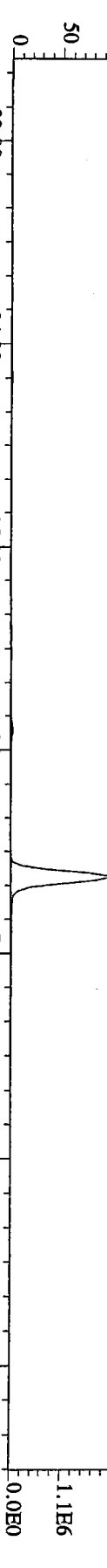
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



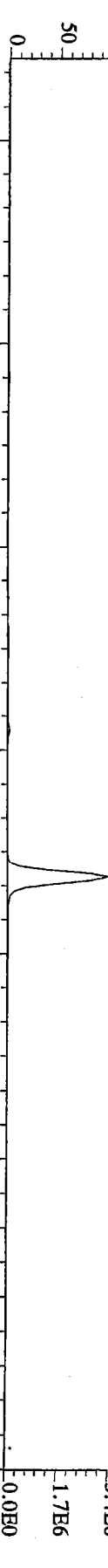
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 S:5 F:5 Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M4 File Text:Frontier Analytical Laboratory



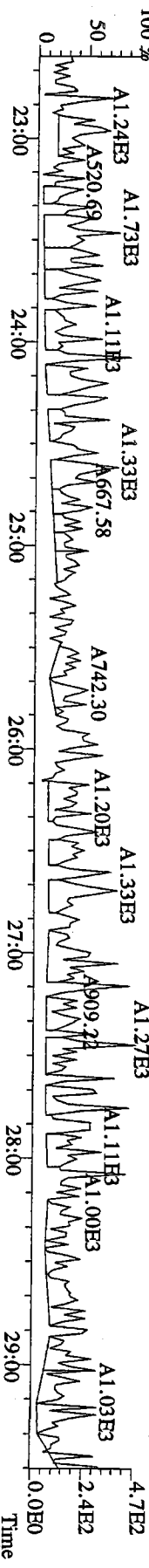
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



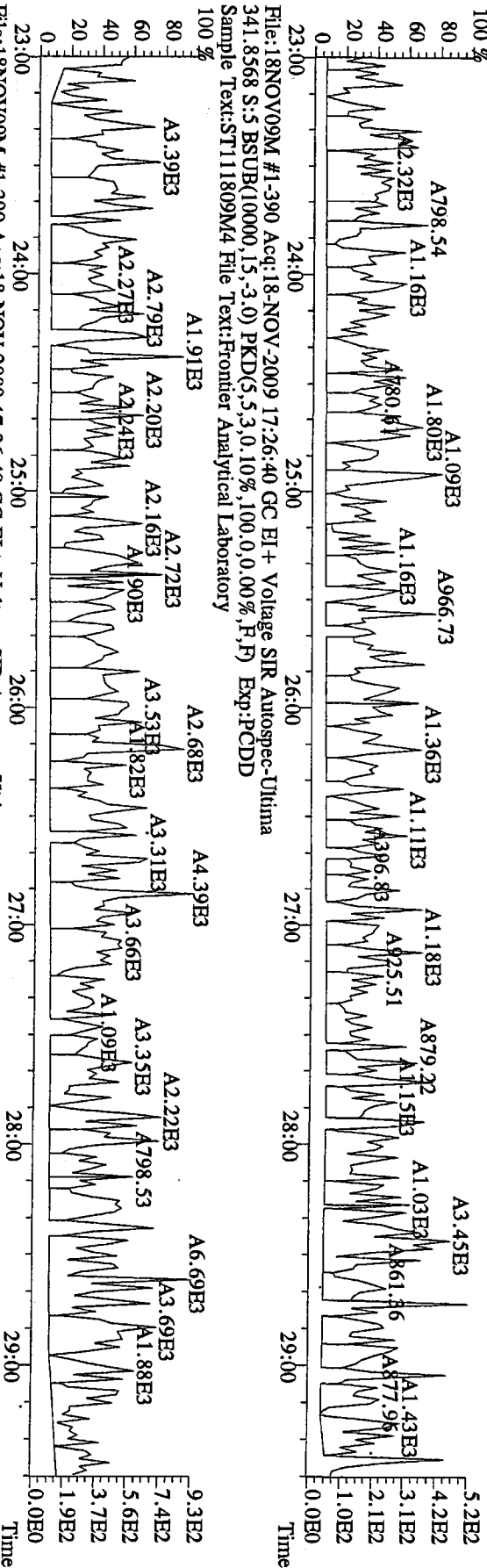
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



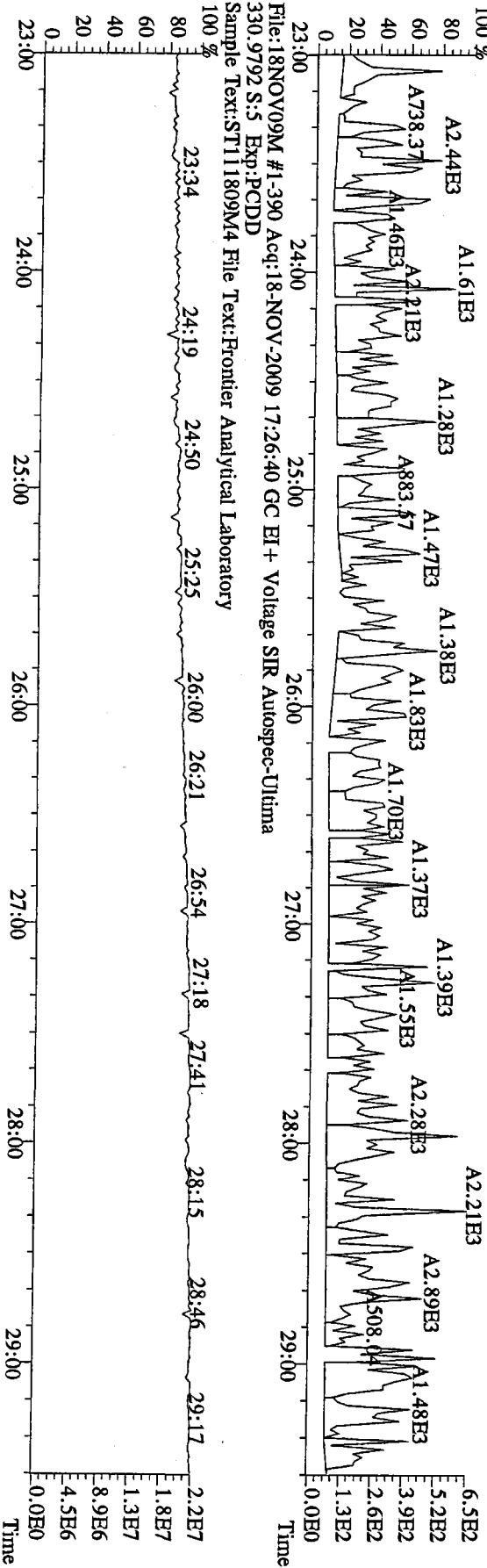
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



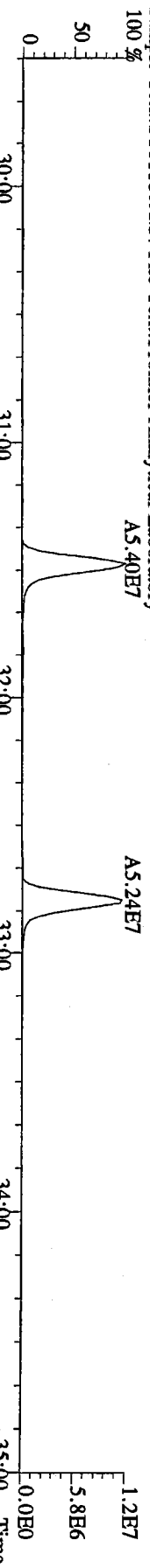
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utlima  
339.8597 S.5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



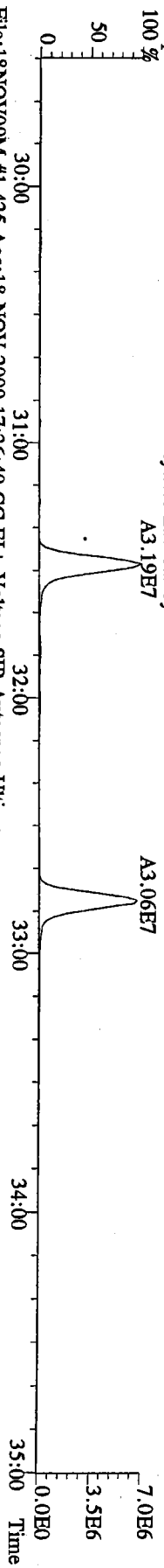
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utlima  
409.7974 S.5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



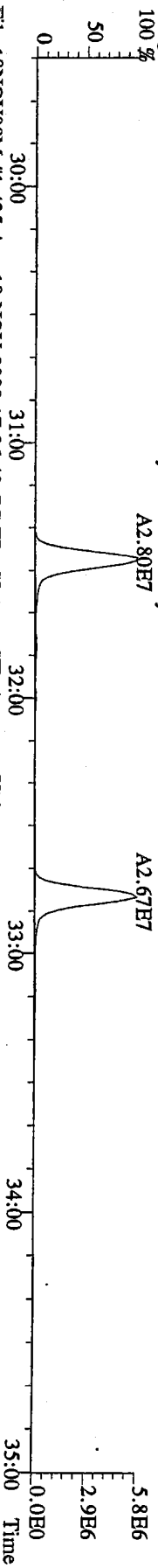
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
339.8397 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



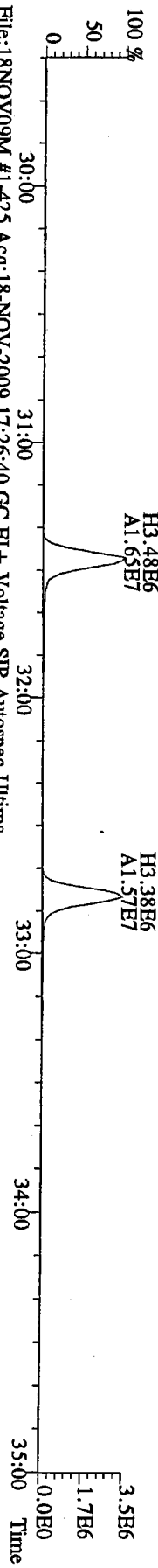
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
341.8368 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



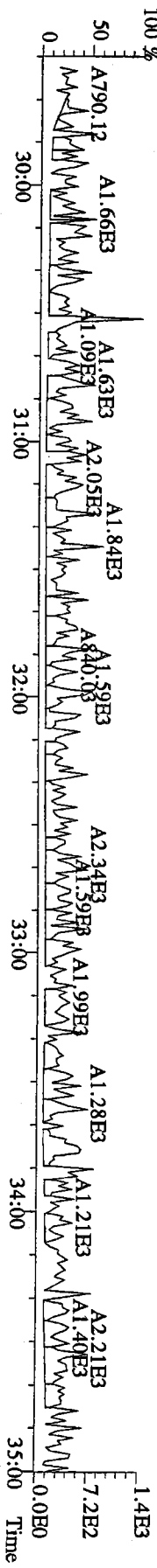
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
351.9000 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



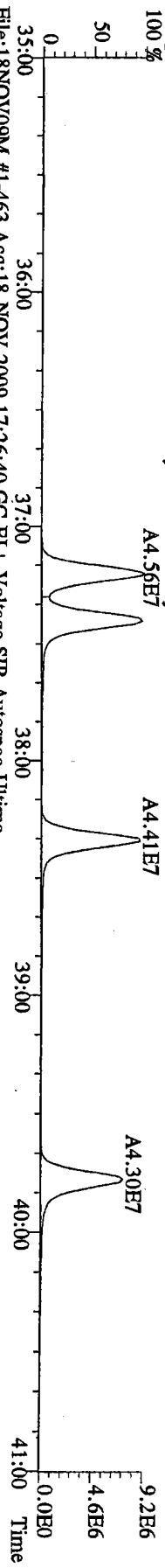
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
353.8970 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



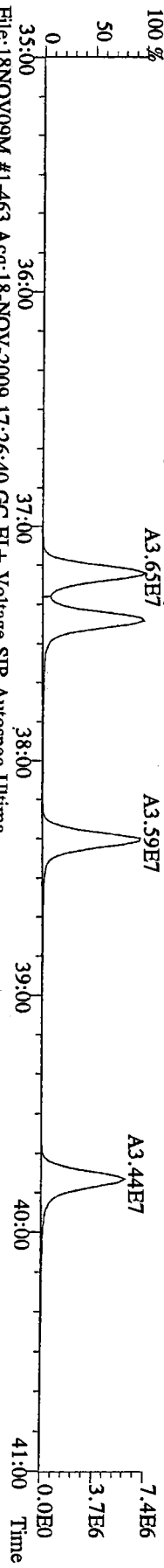
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
409.7974 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



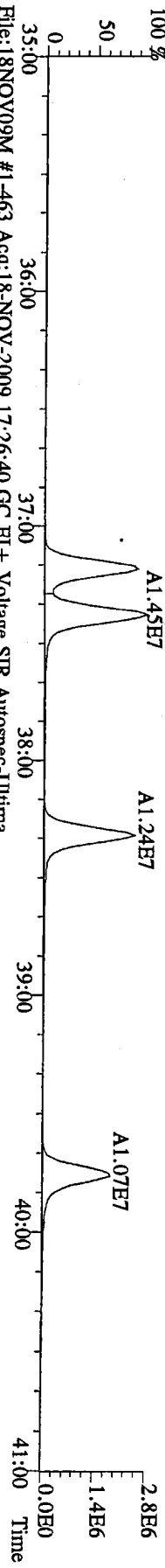
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



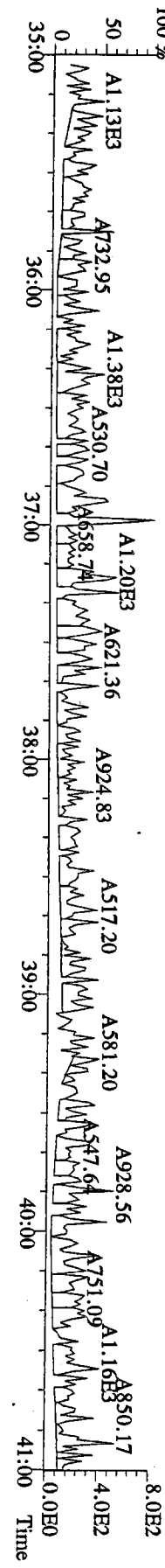
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



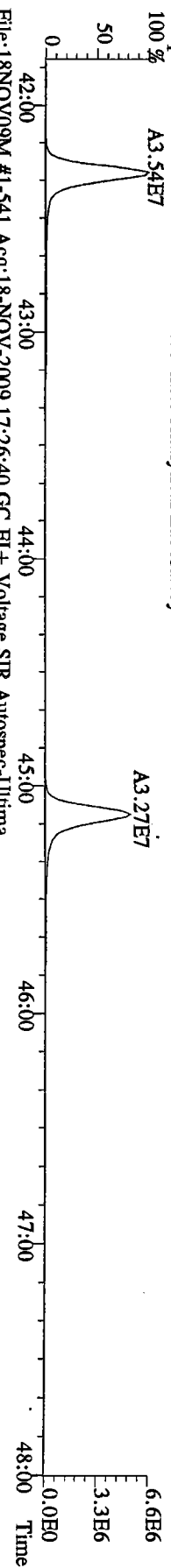
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



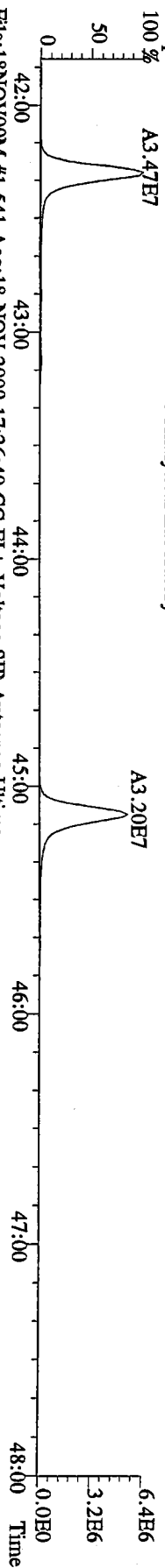
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



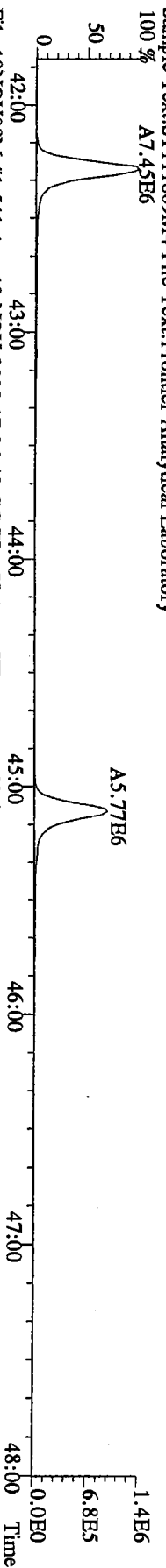
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



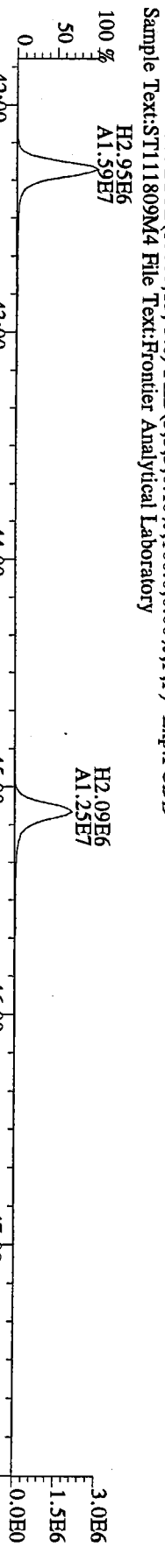
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



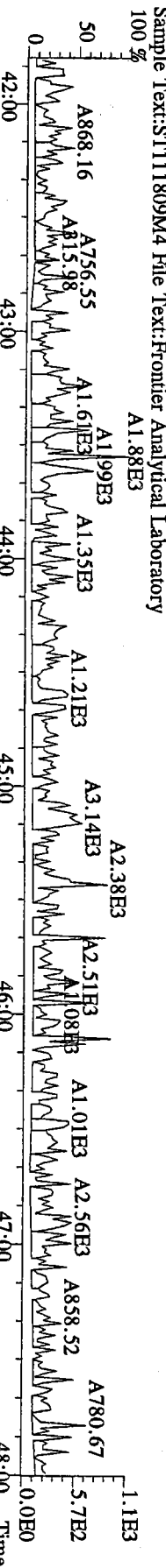
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



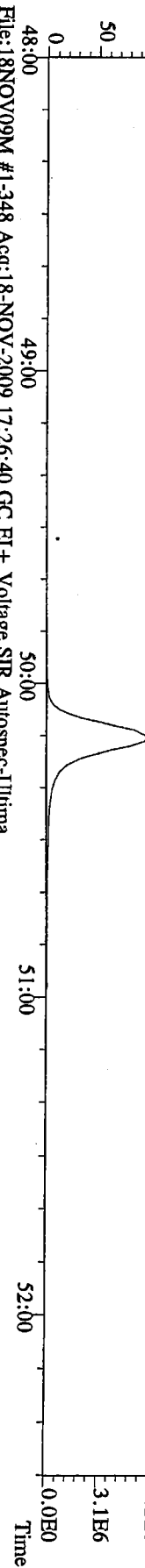
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



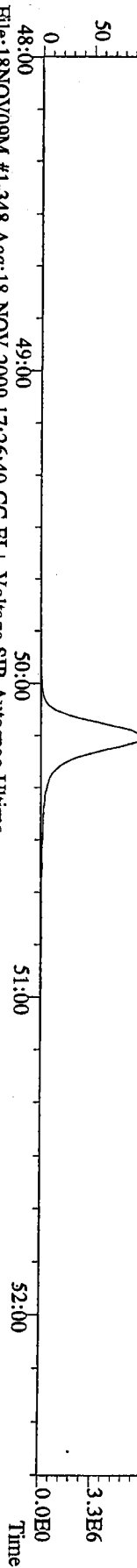
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



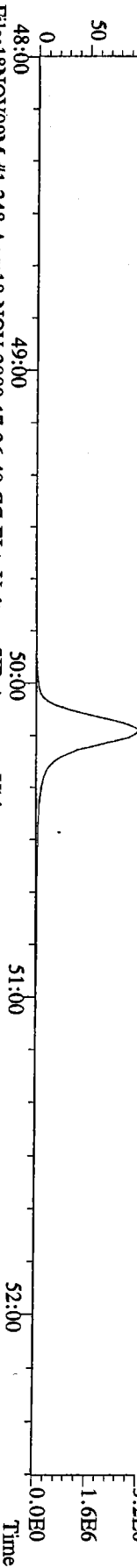
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



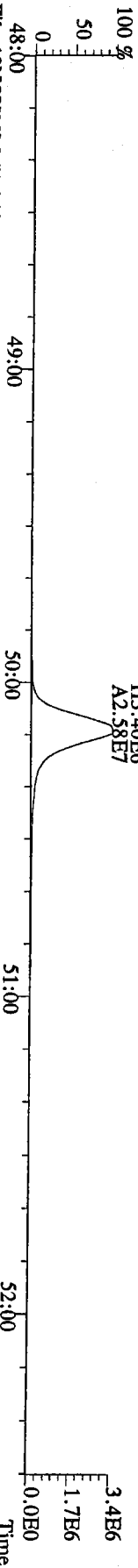
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



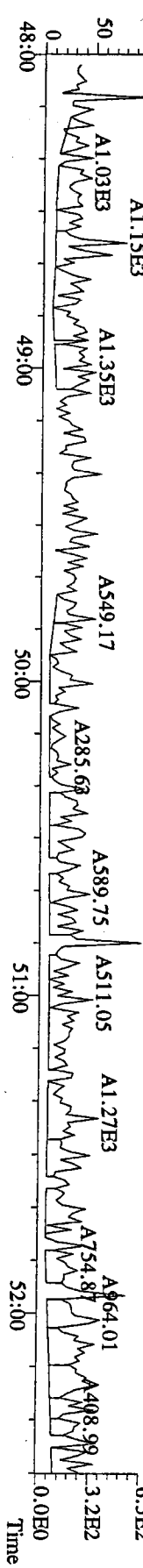
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



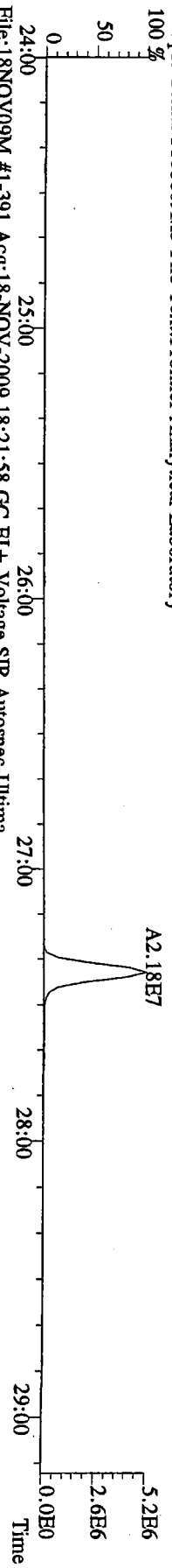
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 455.7801 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



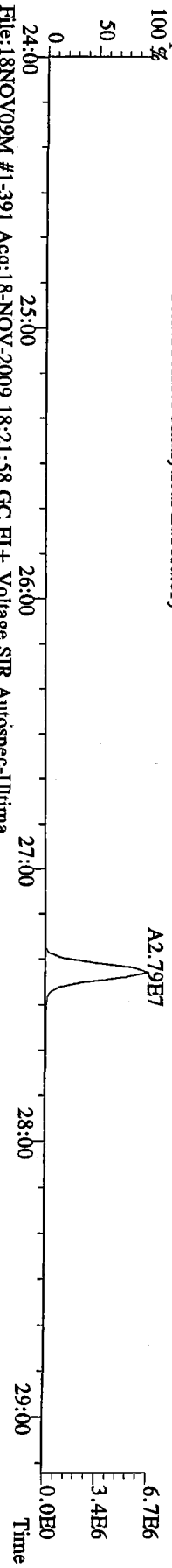
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
 513.6775 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



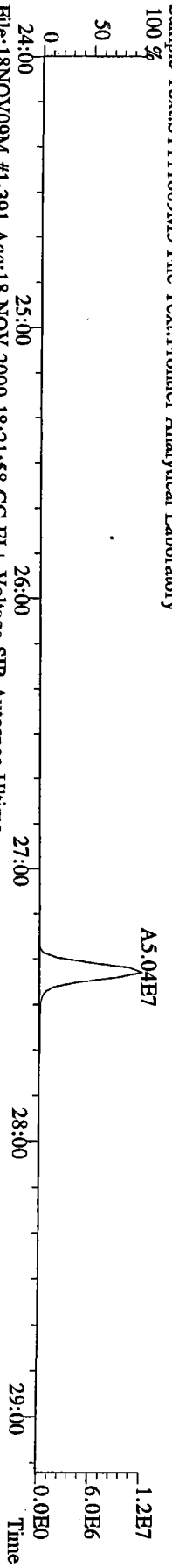
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



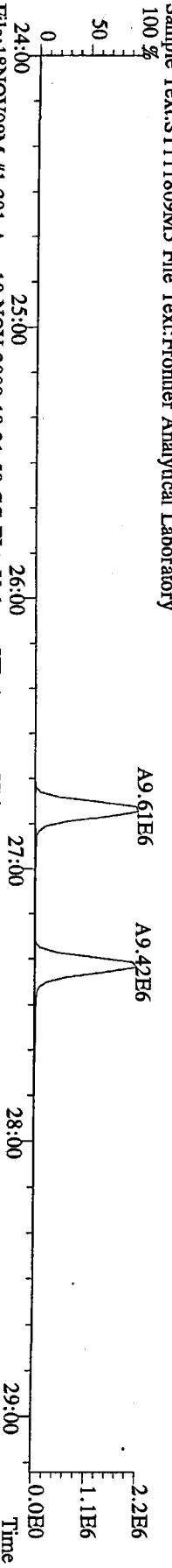
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



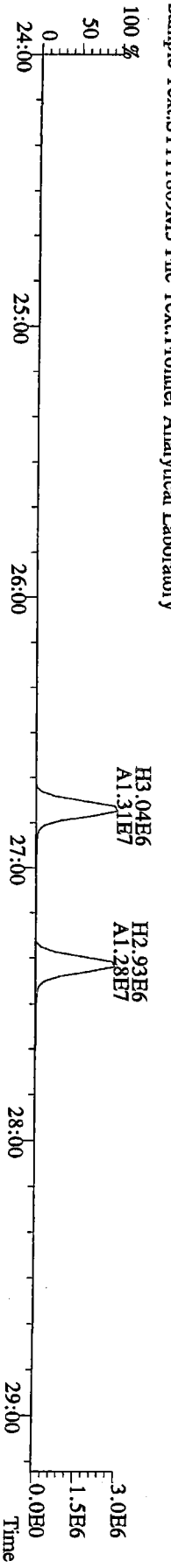
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

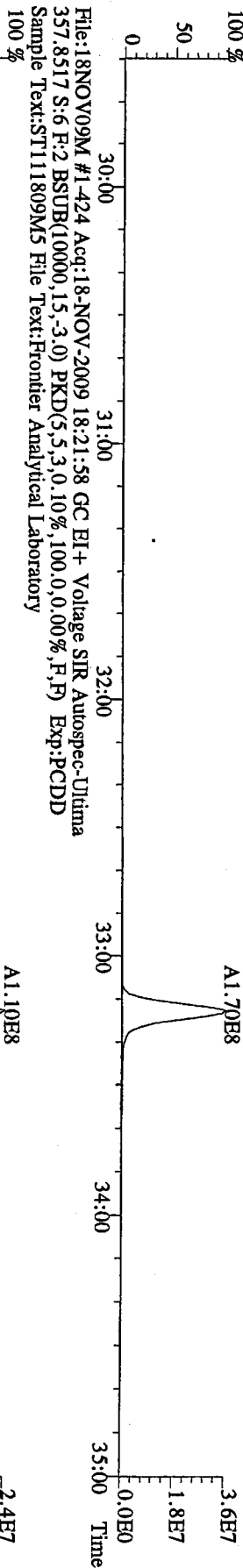


File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

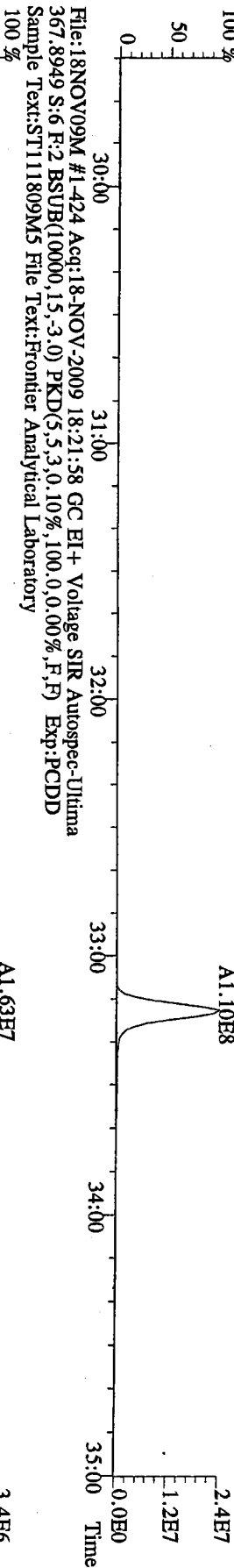




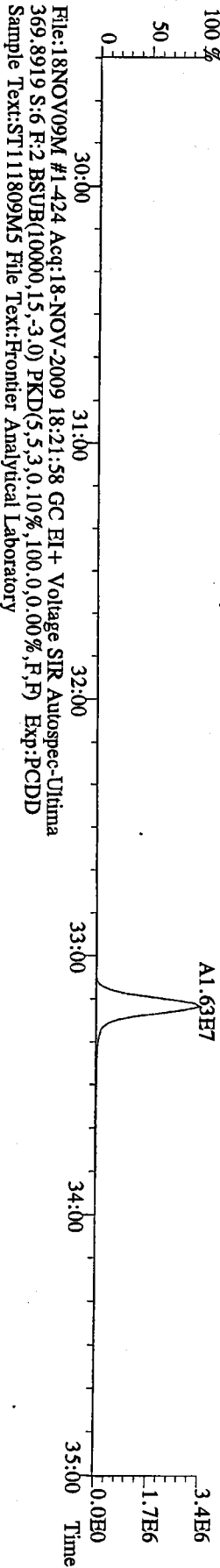
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



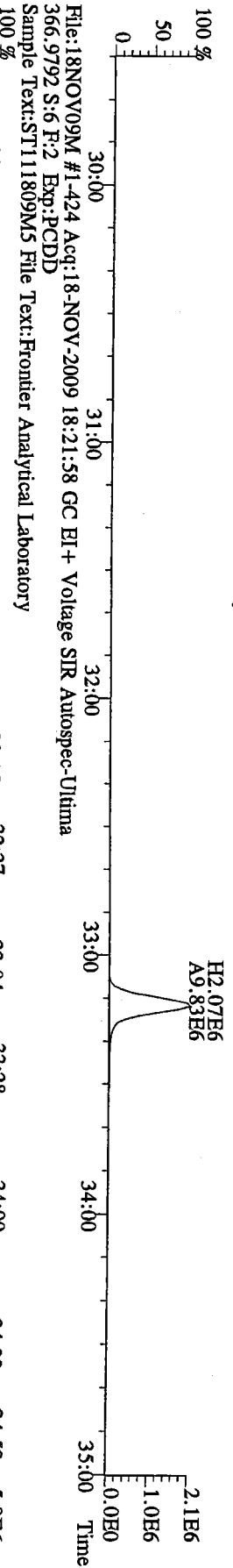
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 357.8517 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



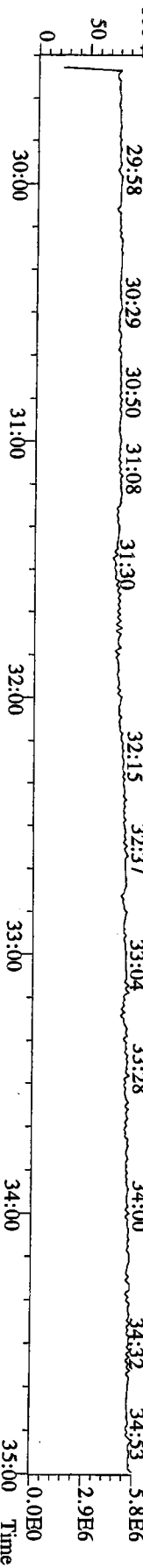
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



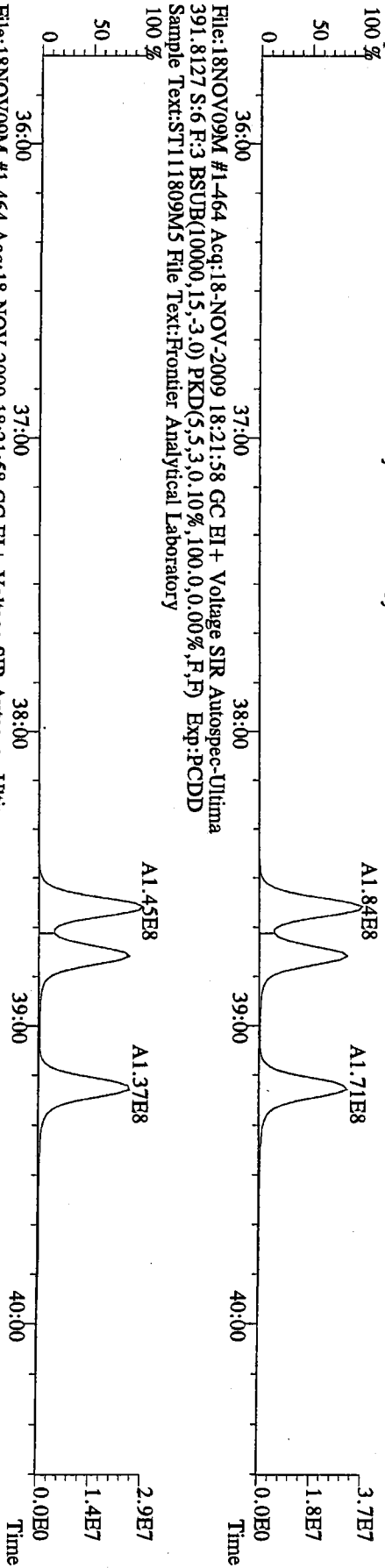
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 369.8919 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



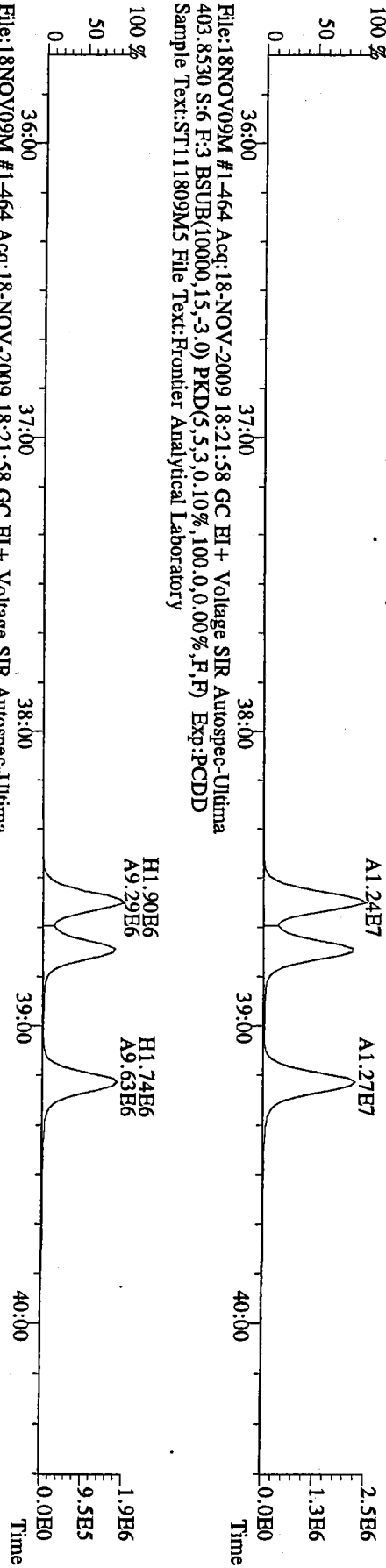
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 S:6 F:2 Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



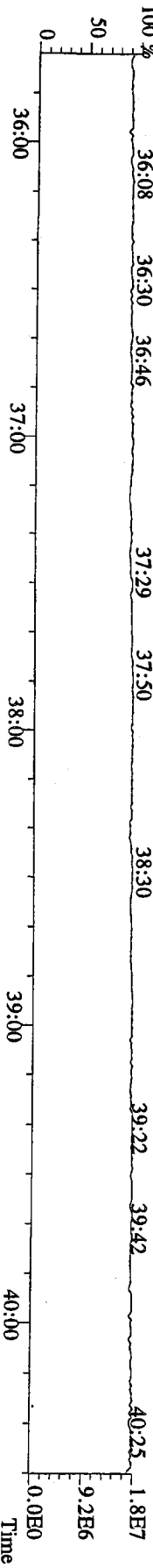
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



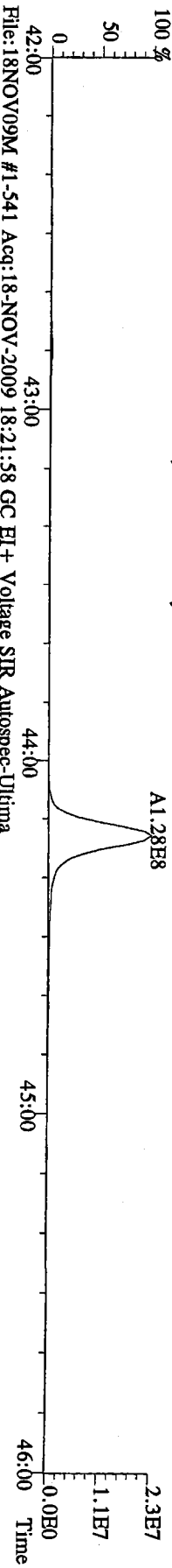
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



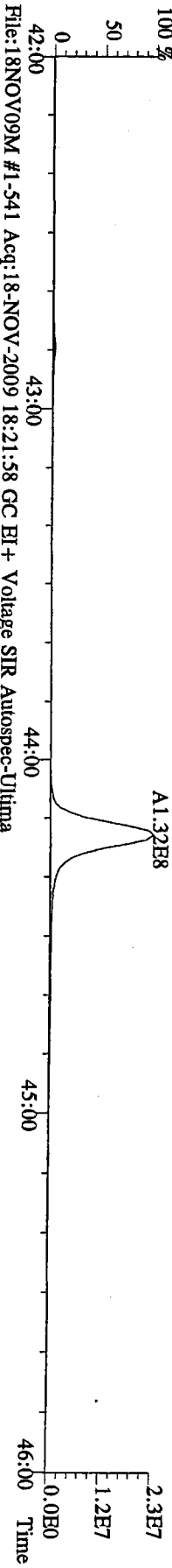
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
380.9760 S:6 F:3 Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



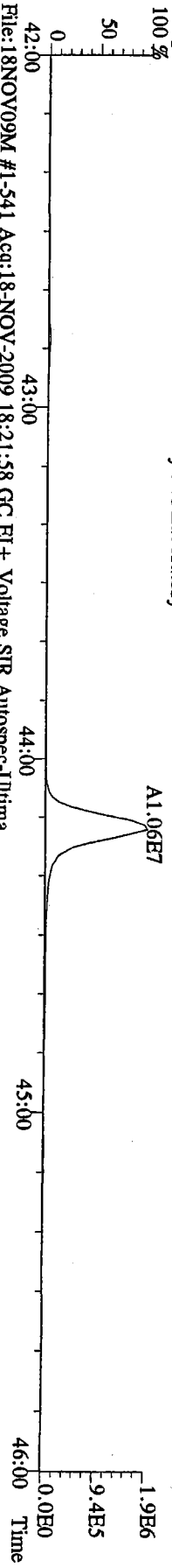
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 423.7767 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



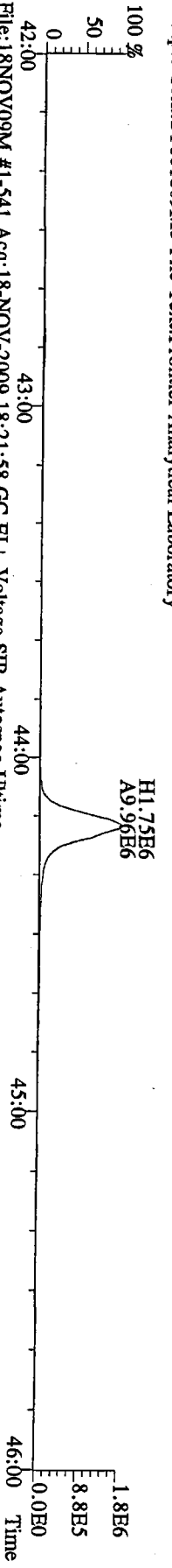
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 425.7737 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



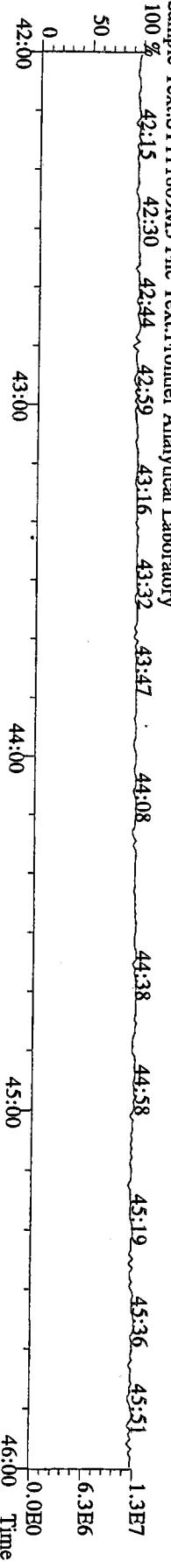
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 435.8169 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



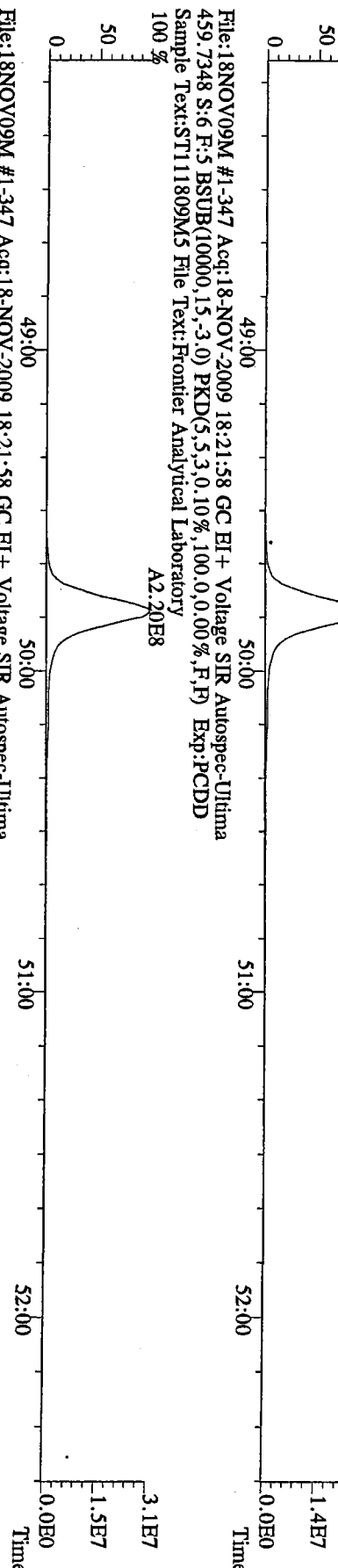
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 437.8140 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



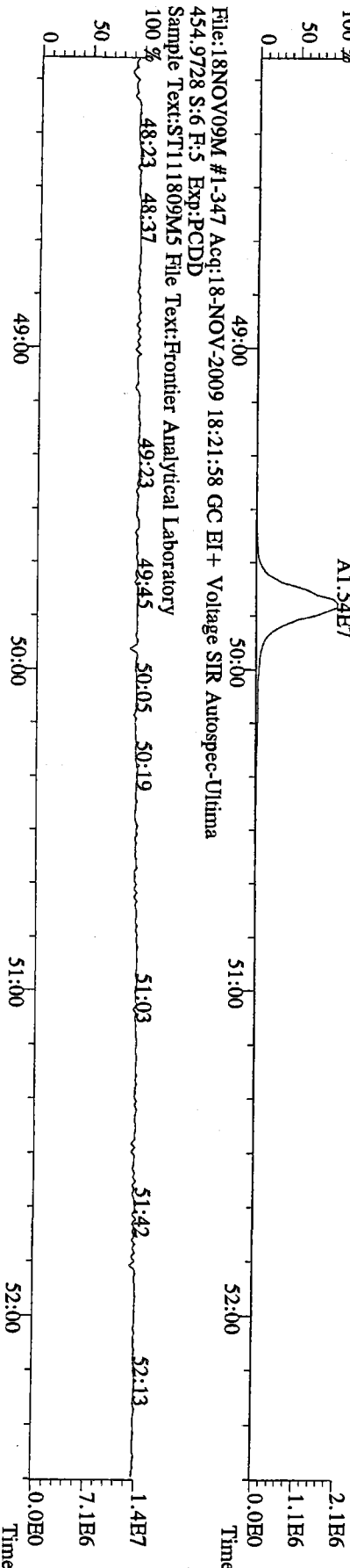
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 430.9728 S:6 F:4 Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



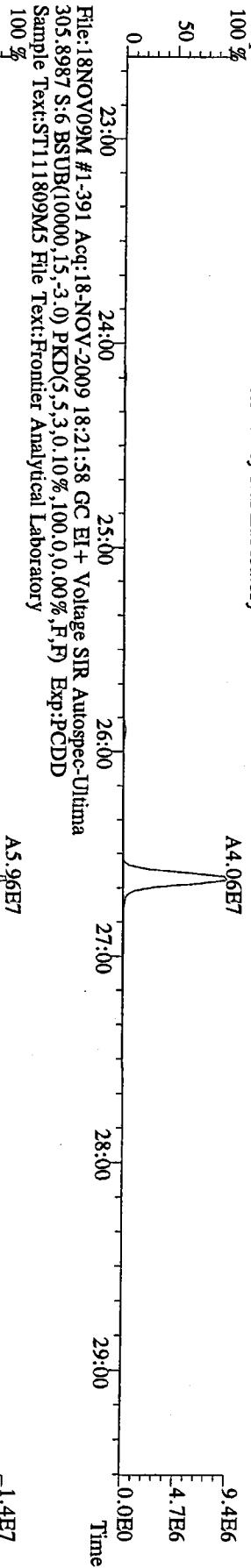
File: 18NOV09M #1-347 Acq: 18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text: ST111809M5 File Text: Frontier Analytical Laboratory  
100 %



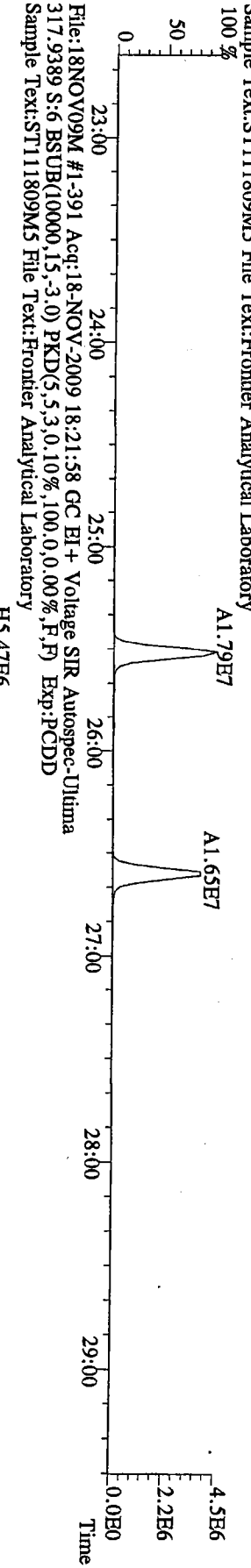
File: 18NOV09M #1-347 Acq: 18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text: ST111809M5 File Text: Frontier Analytical Laboratory  
100 %



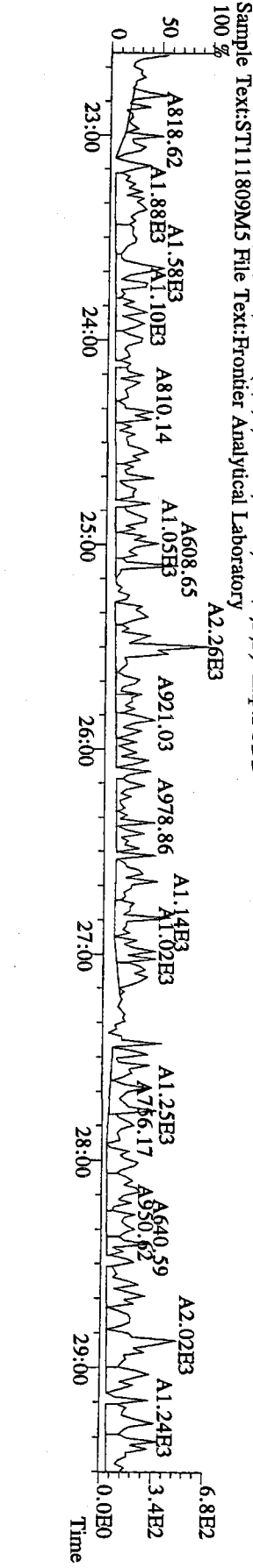
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



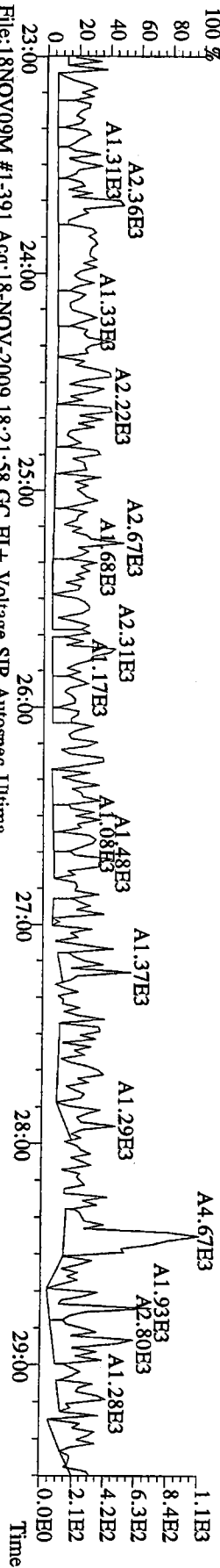
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
315.9419 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



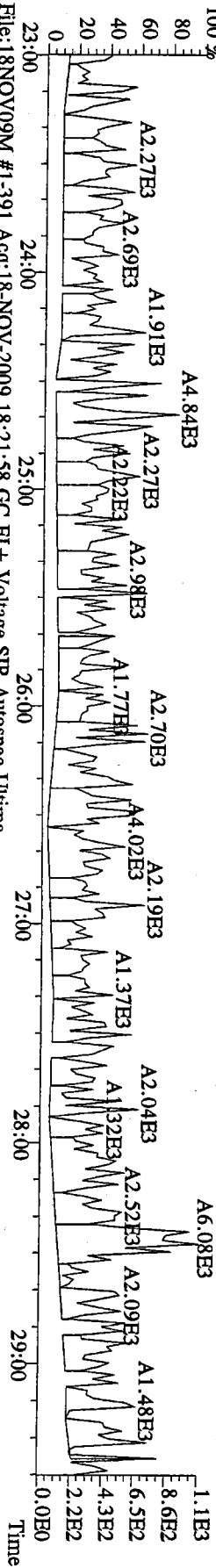
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



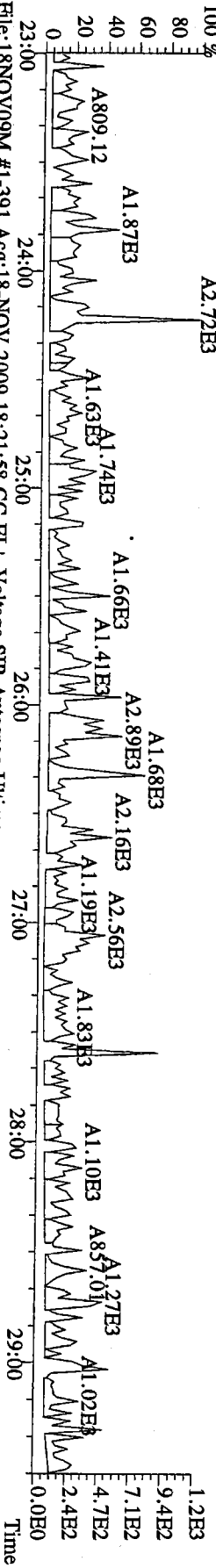
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



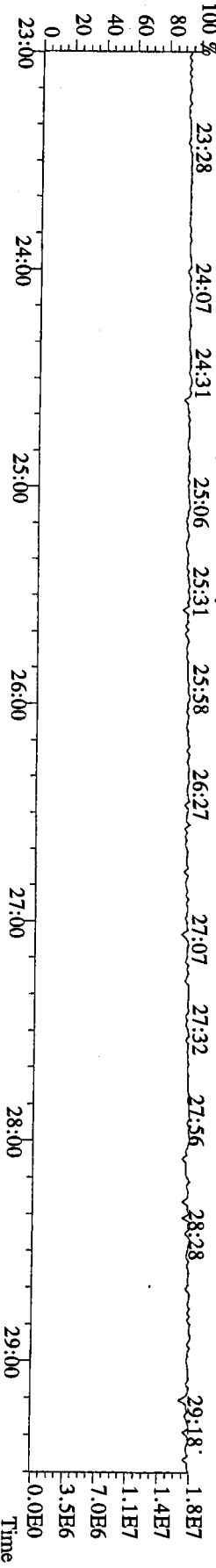
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



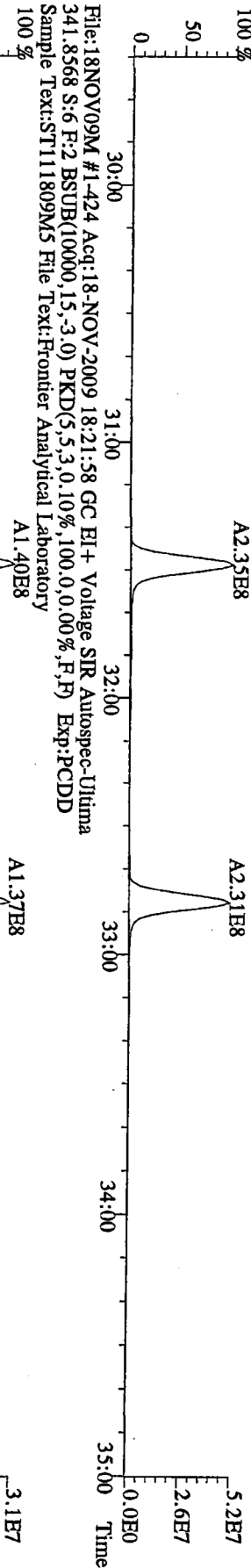
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



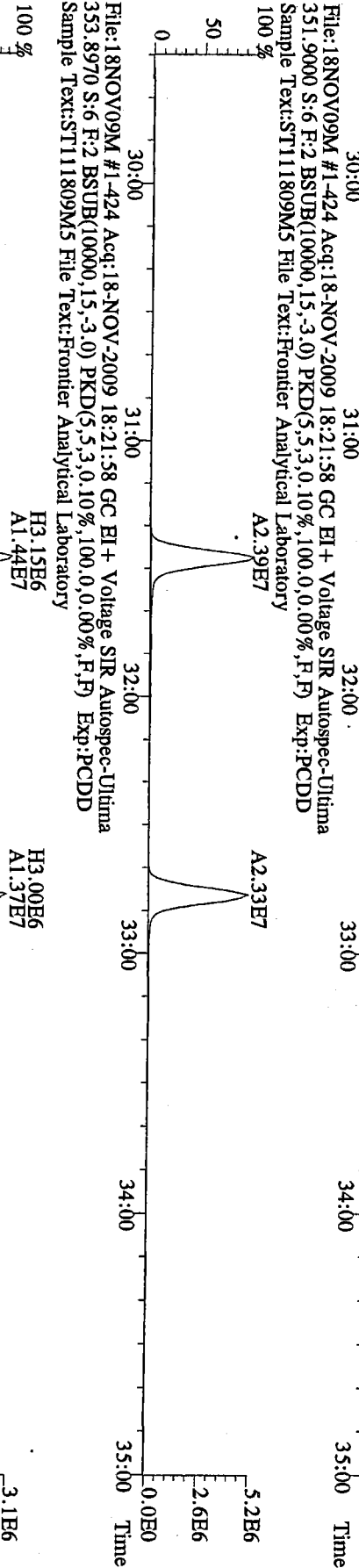
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 S:6 Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



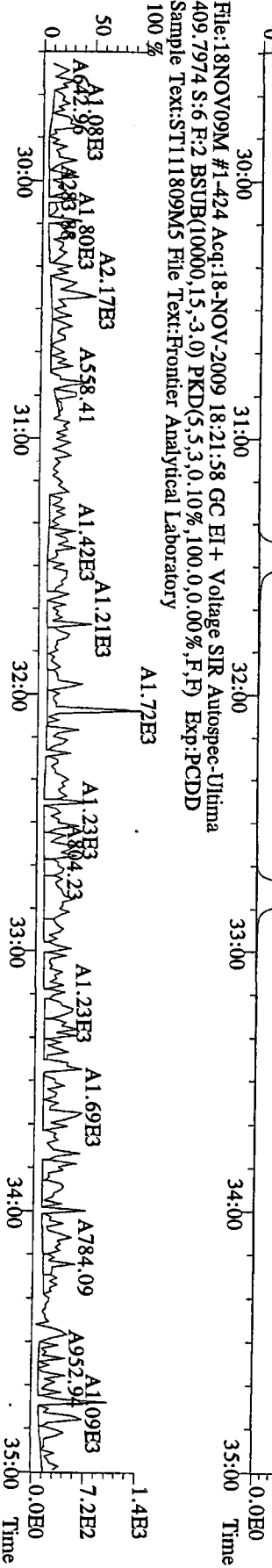
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



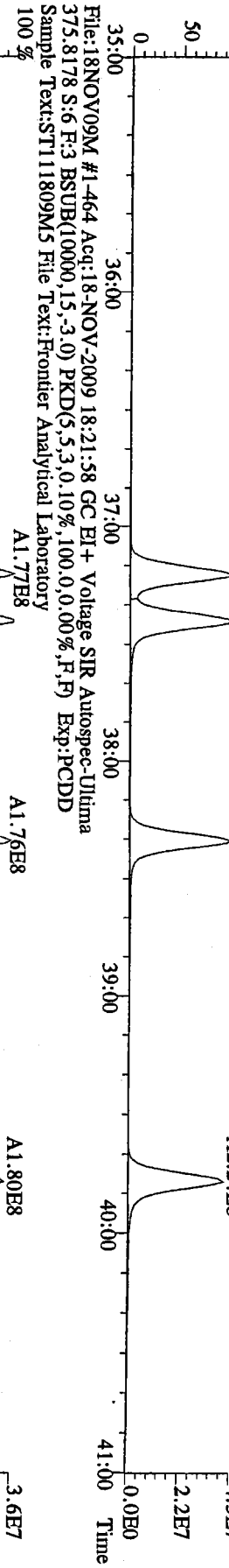
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



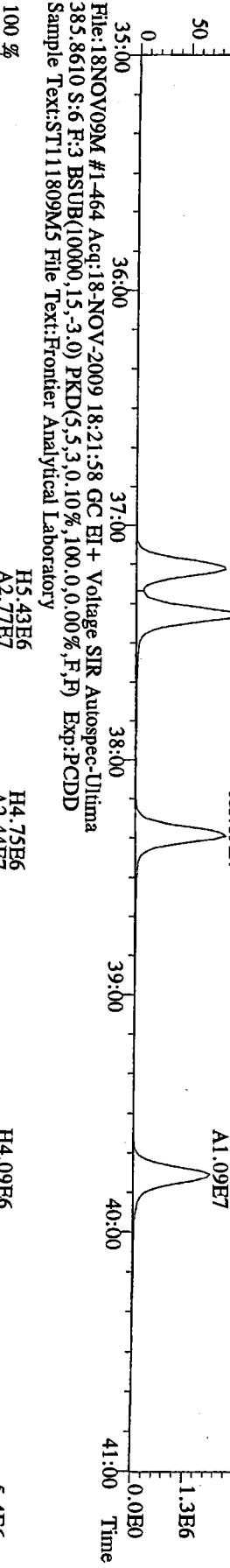
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



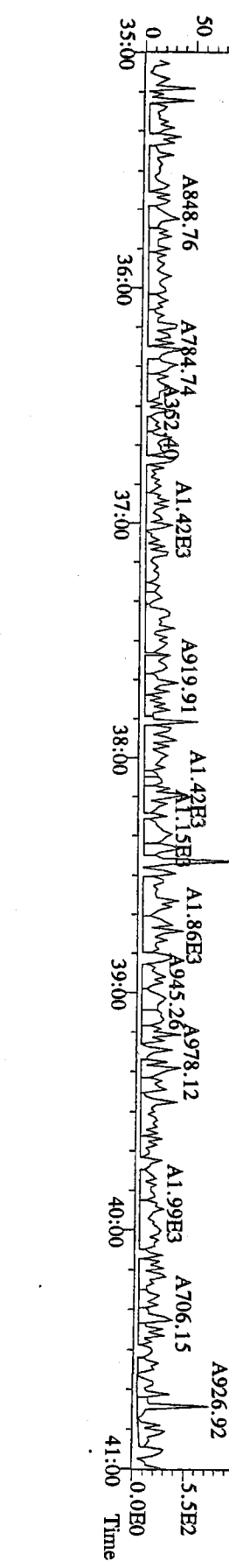
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI + Voltage SIR Autospec-Ultima  
 373.8207 S:6 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI + Voltage SIR Autospec-Ultima  
 383.8639 S:6 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



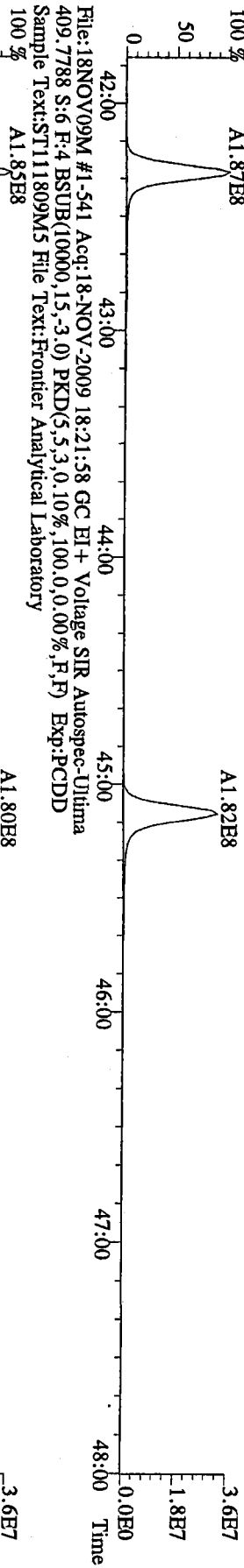
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI + Voltage SIR Autospec-Ultima  
 445.7555 S:6 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



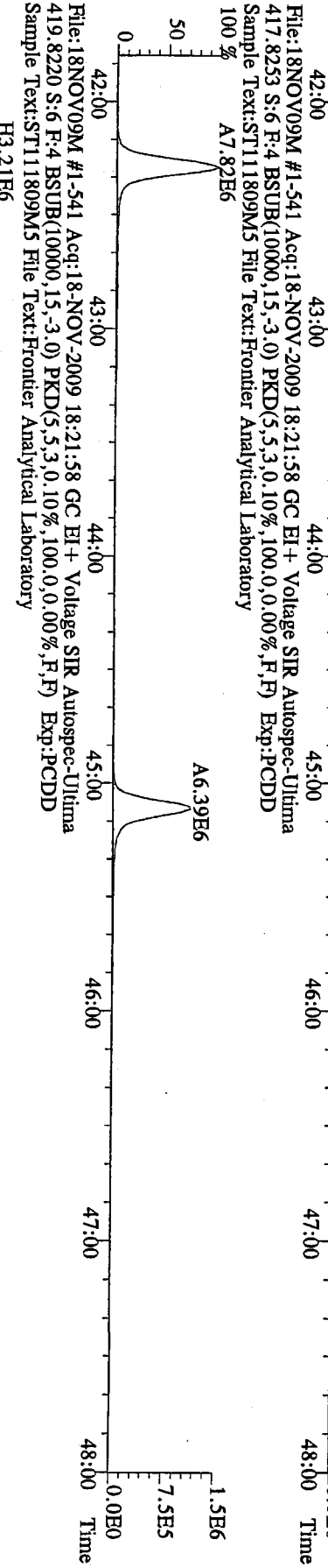
0000000000000000



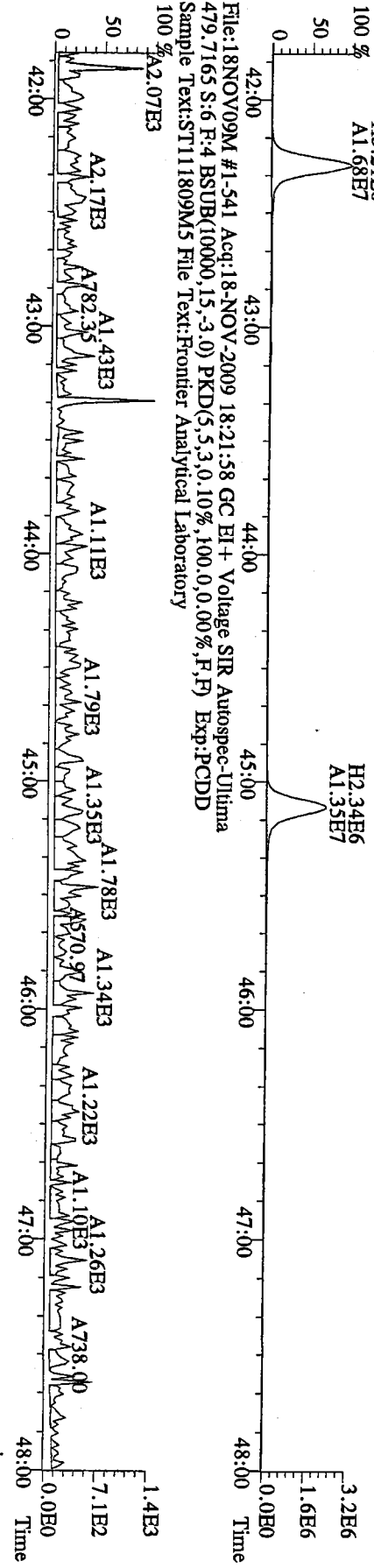
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
100 % A1.87E8



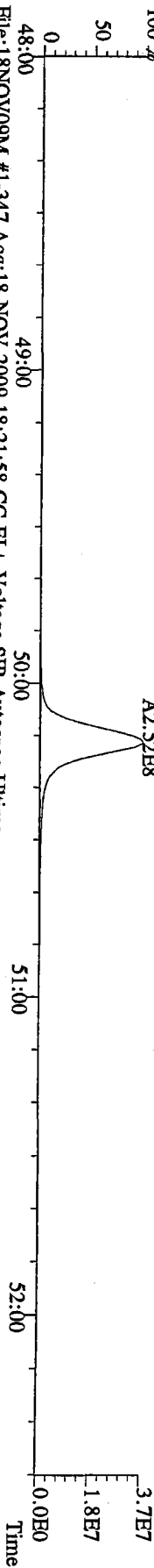
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
417.8253 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
100 % A7.82E6



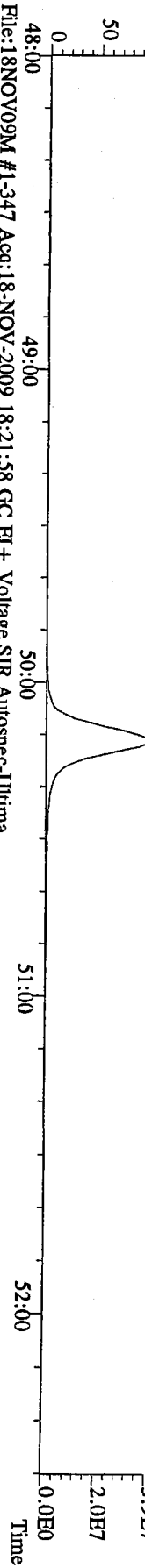
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
419.8220 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
100 % A2.07E3



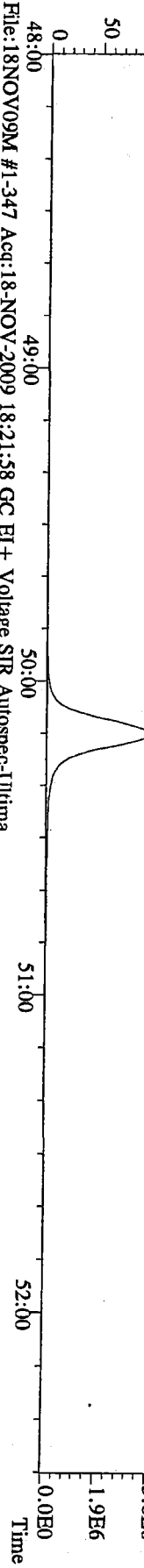
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



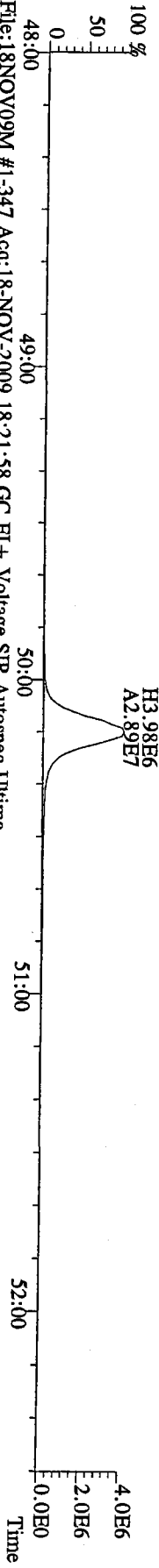
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



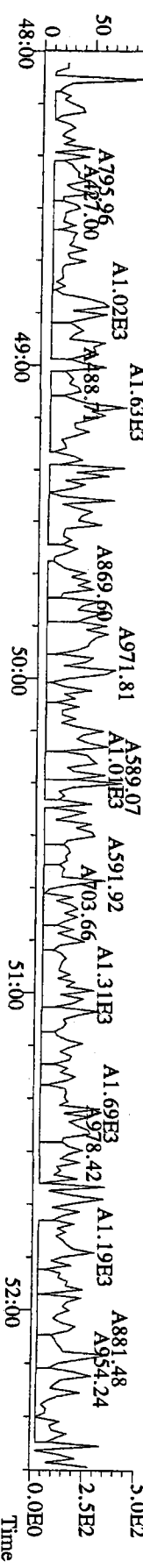
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



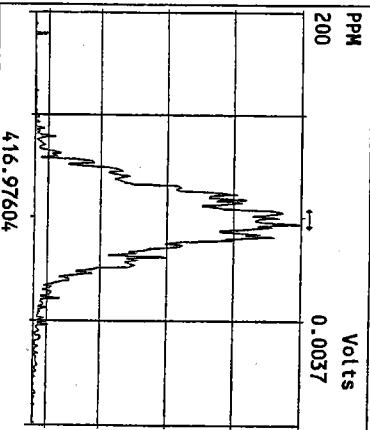
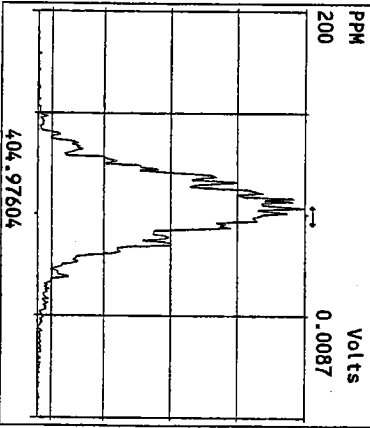
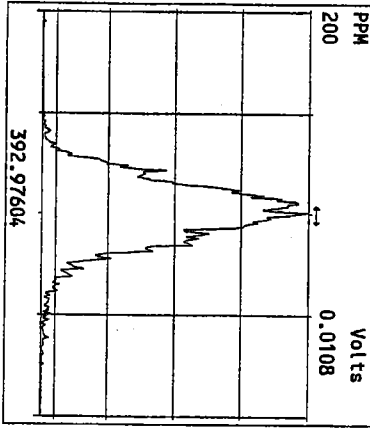
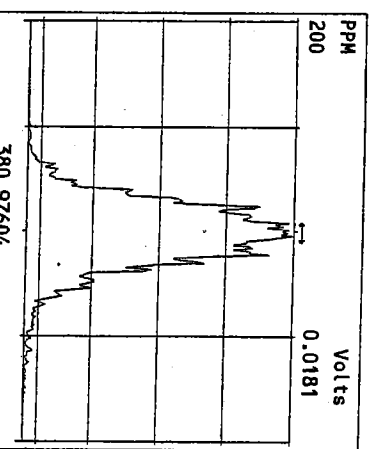
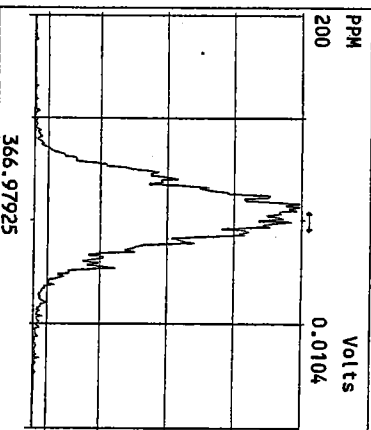
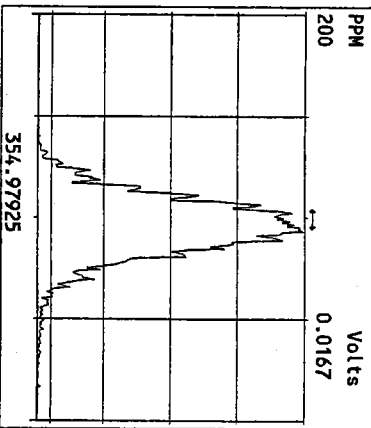
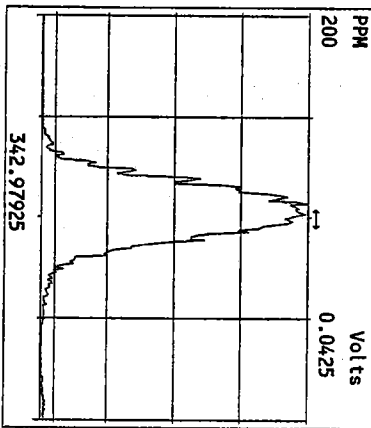
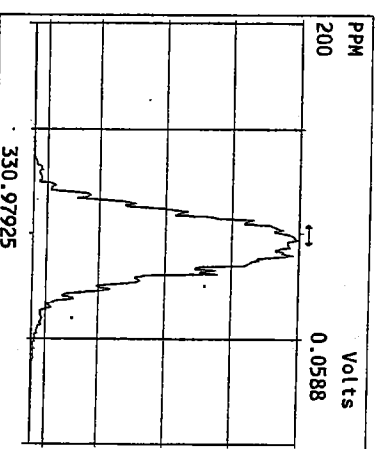
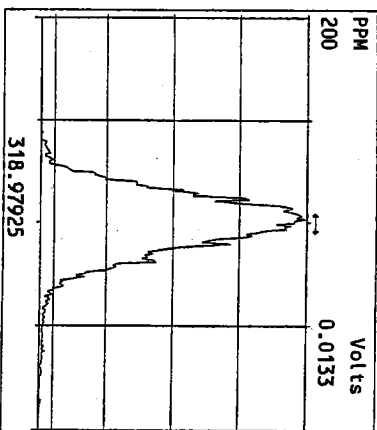
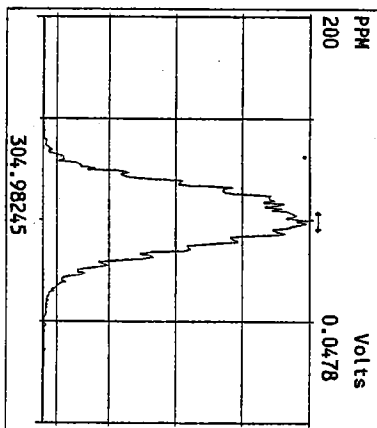
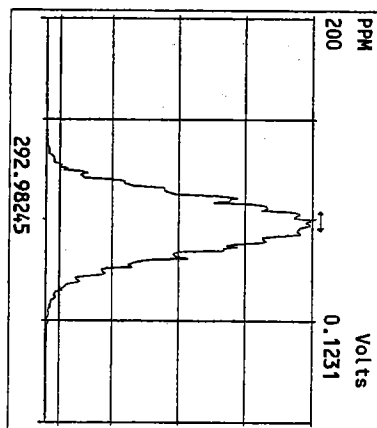
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

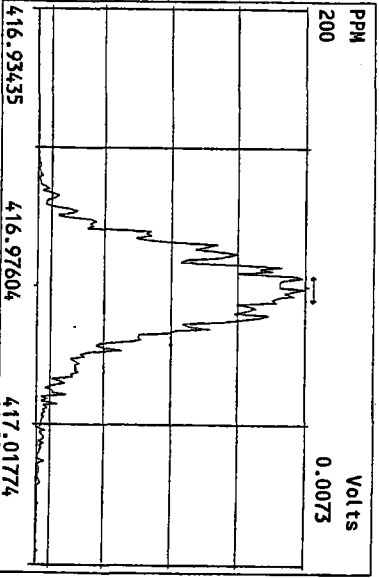
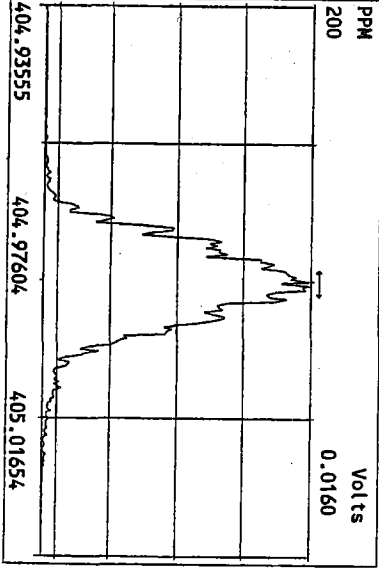
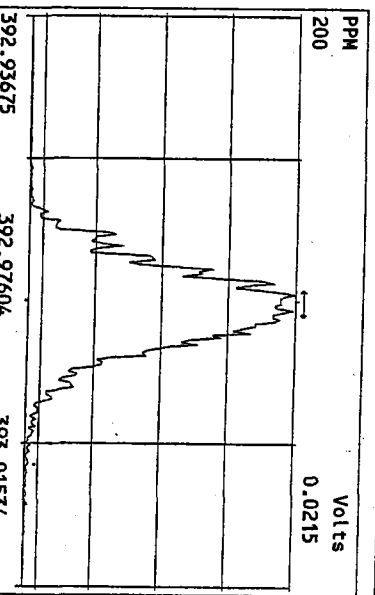
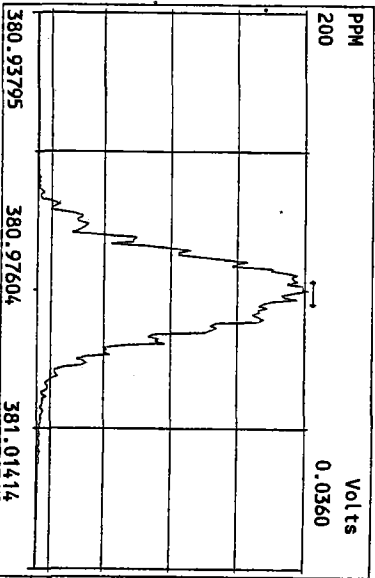
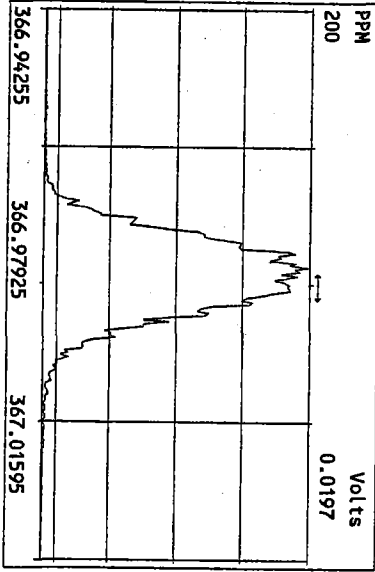
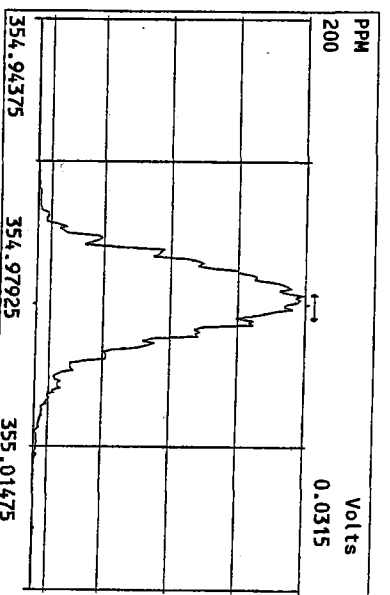
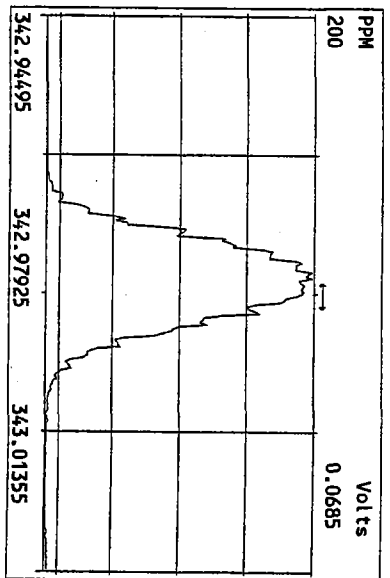
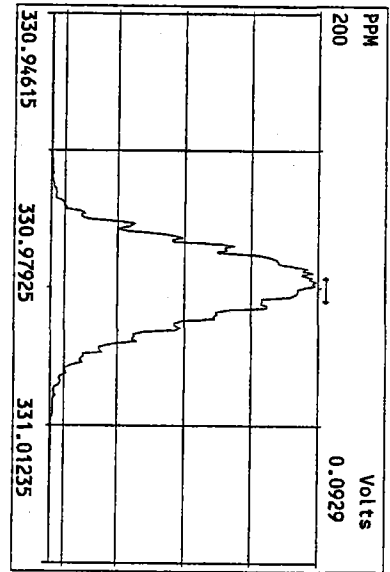


File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

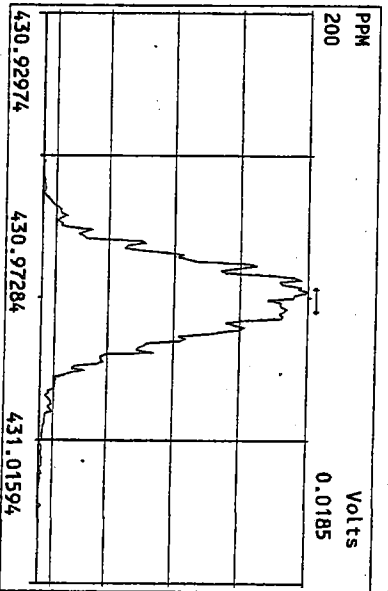
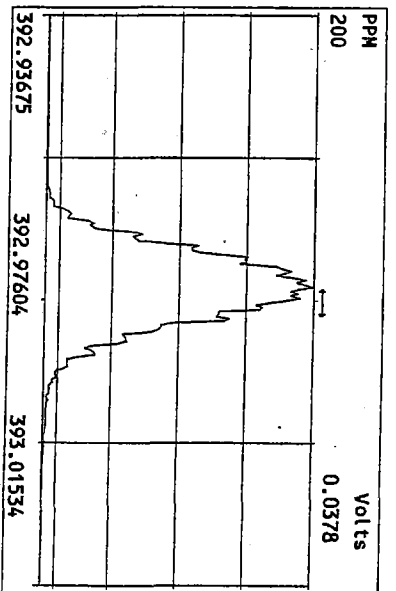
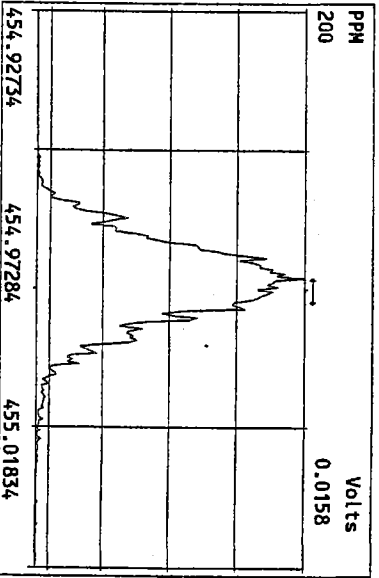
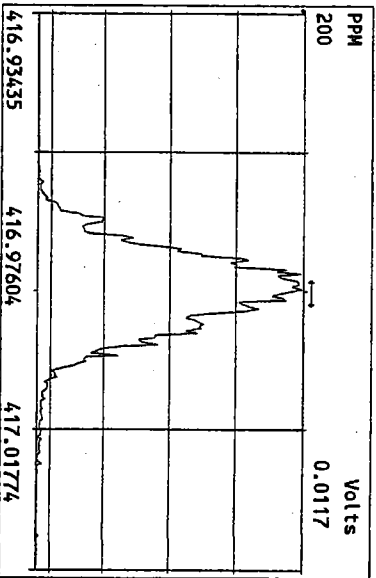
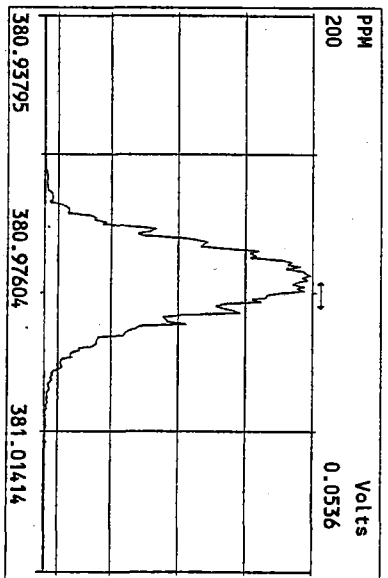
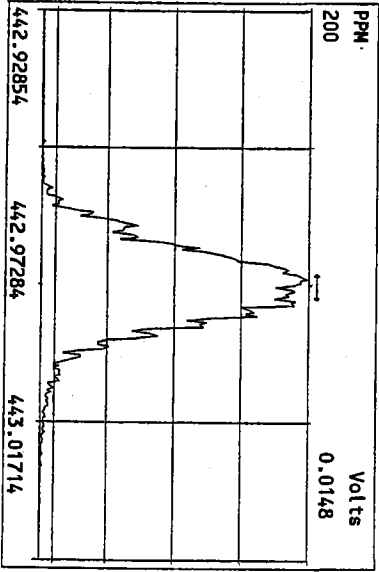
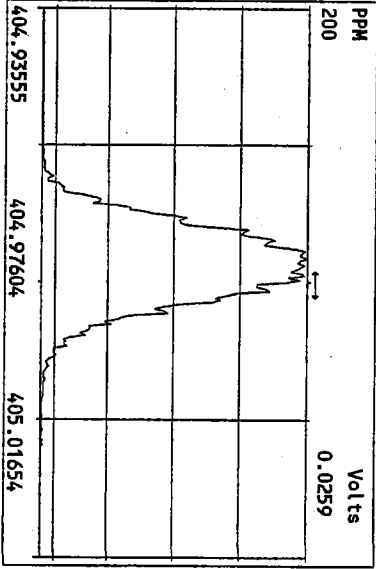
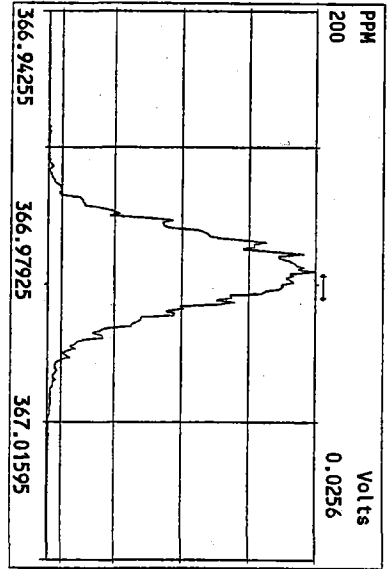


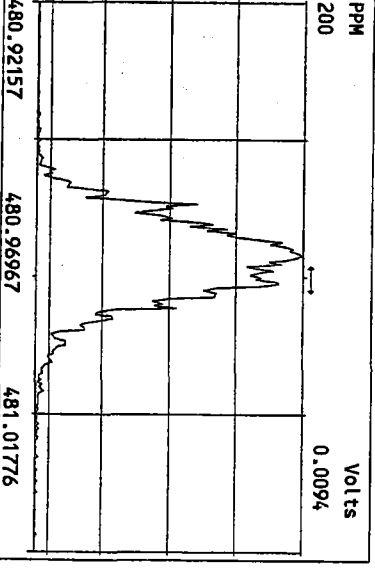
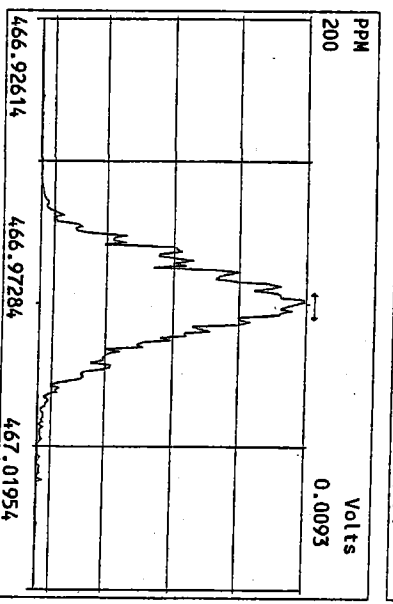
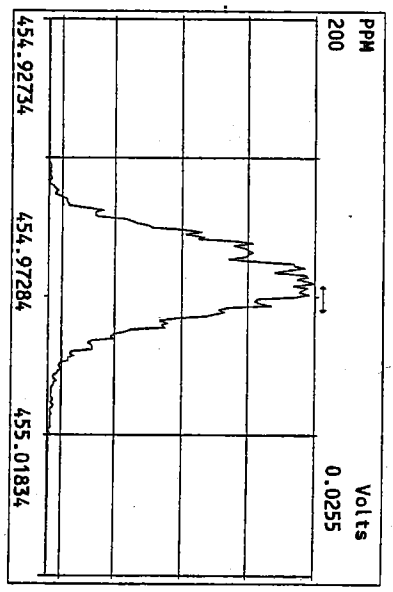
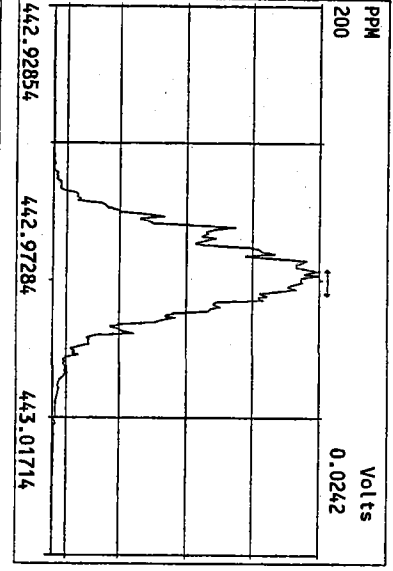
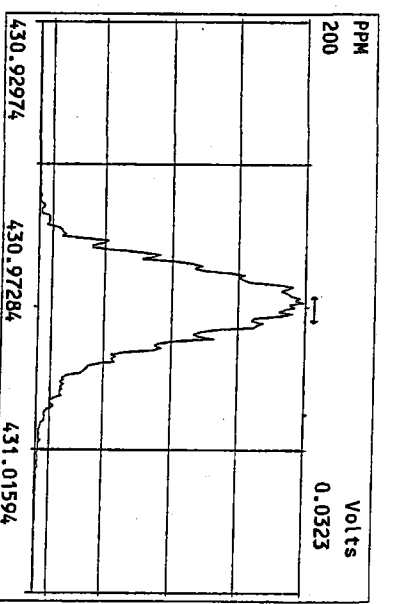
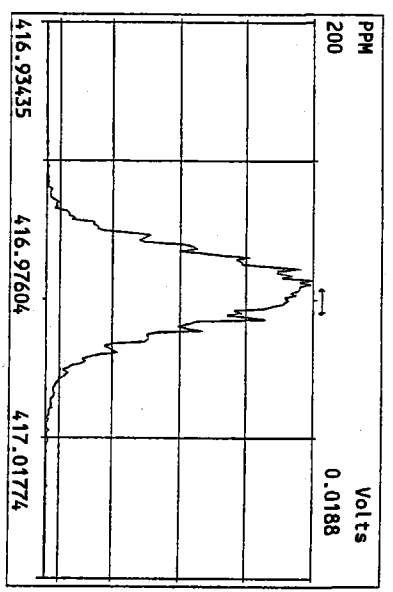
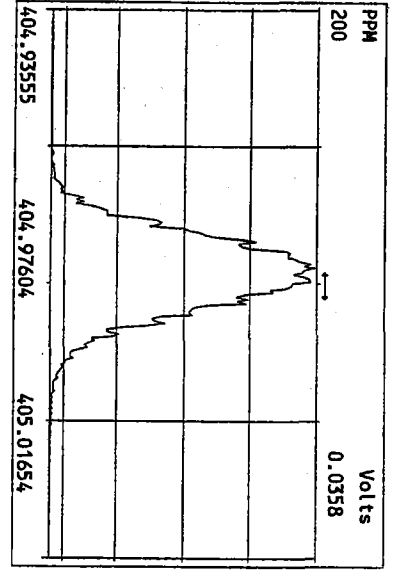
Peak Locate Examination:19-NOV-2009:14:42 File:18NOV09M\_RES\_CHECK  
Experiment:PCDD Function:1 Reference:PFK



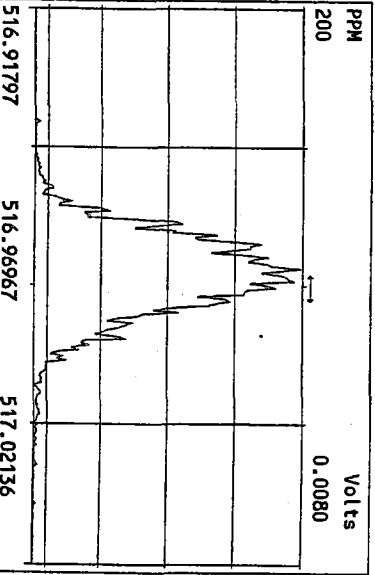
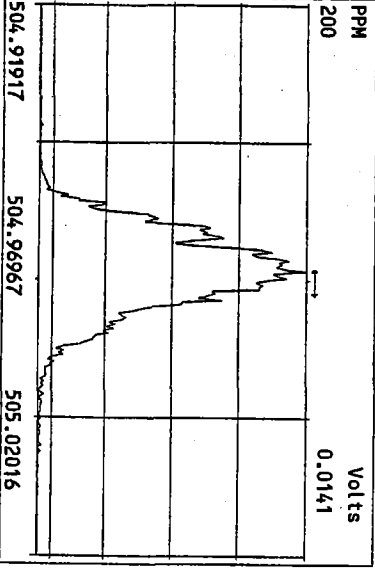
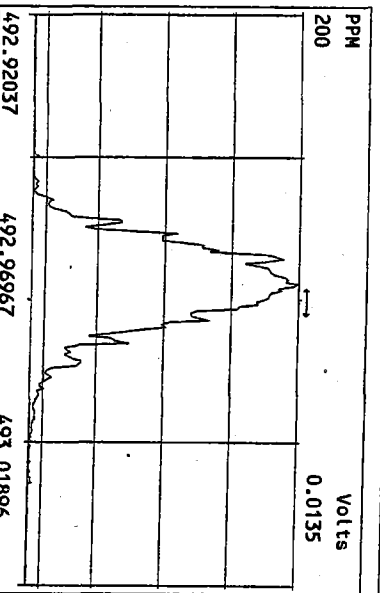
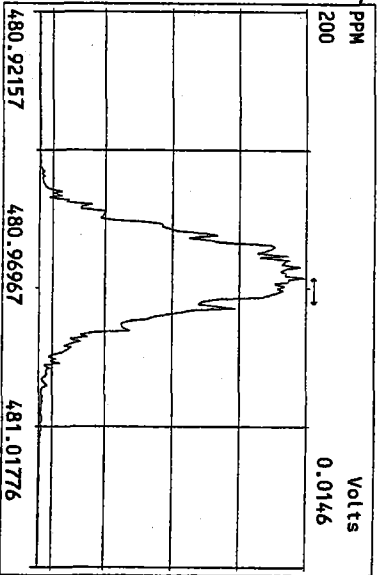
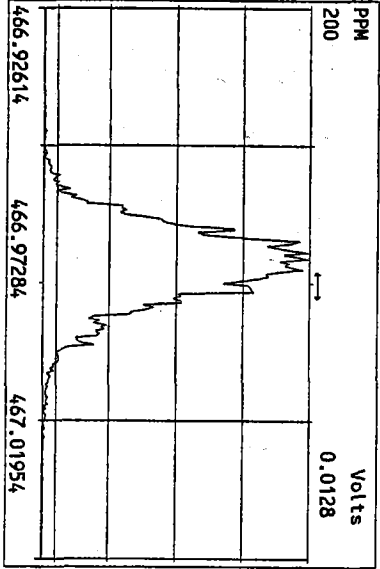
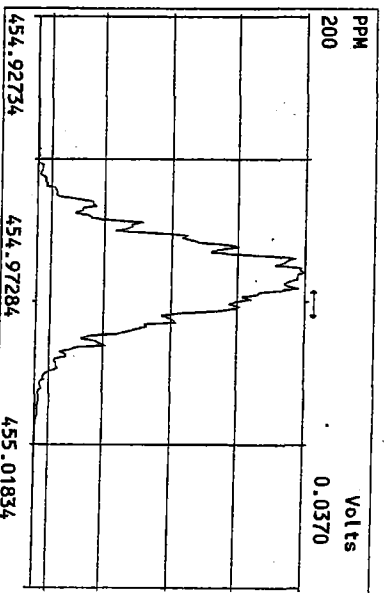
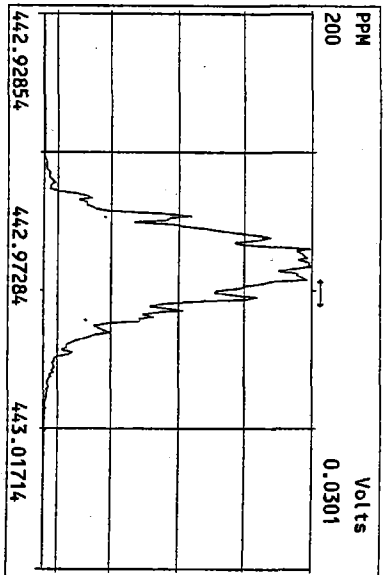
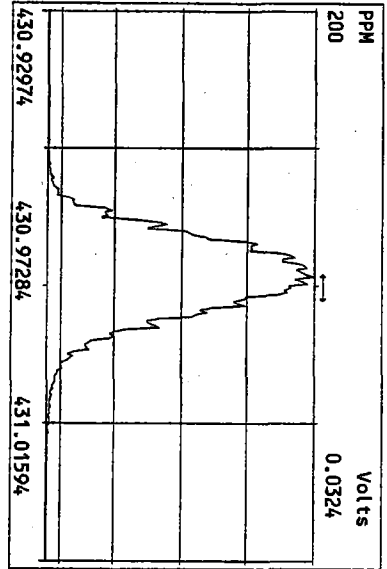


Peak Locate Examination:19-NOV-2009:14:42 File:18NOV09M\_RES\_CHECK  
 Experiment:PCDD Function:3 Reference:PFK





Peak Locate Examination: 19-NOV-2009:14:43 File: 18NOV09M\_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: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 22JAN10M Sam:13 Analysis Date: 23-JAN-10 00:40:14

NATIVE ANALYTES	M/Z'S	ION	QC	ACCEPT	CONC.	CONC.
	FORMING RATIO (1)	ABUND. RATIO	LIMITS (2)		FOUND	RANGE (ng/mL) (3)
2,3,7,8-TCDD	M/M+2	0.81	0.65-0.89	y	9.72	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.61	1.32-1.78	y	48.7	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	47.3	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	47.1	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	47.8	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.93	0.88-1.20	y	50.2	43.0 - 58.0
OCDD	M+2/M+4	0.92	0.76-1.02	y	98.6	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.69	0.65-0.89	y	9.70	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	51.2	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.68	1.32-1.78	y	49.3	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	49.0	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.20	1.05-1.43	y	48.3	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.3	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.21	1.05-1.43	y	49.0	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.02	0.88-1.20	y	50.2	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.01	0.88-1.20	y	50.0	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	97.7	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: 1/25/10



## USEPA - ITD

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 22JAN10M Sam:13

Analysis Date: 23-JAN-10 00:40:14

LABELLED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
13C-2,3,7,8-TCDD	M/M+2	0.72	0.65-0.89	y	98.6	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.67	1.32-1.78	y	80.1	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	105	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	96.6	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	y	85.7	72.0 - 138
13C-OCDD	M+2/M+4	0.96	0.76-1.02	y	166	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.84	0.65-0.89	y	98.2	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.70	1.32-1.78	y	84.1	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	81.8	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	104	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	97.9	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	99.2	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.48	0.43-0.59	y	94.8	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.37-0.51	y	83.8	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	y	82.3	77.0 - 129
13C-OCDF	M+2/M+4	0.96	0.76-1.02	y	152	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.94	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: 8Date: 1/25/10



## FORM 6A

## PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 23-JAN-10 00:40:14

CS3 or VER Data Filename: 22JAN10M

Sam:13

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		1.173	0.923-1.203
13C-2,3,4,7,8-PeCDF		1.222	0.923-1.303

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

Analyst:           8          Date:           1/25/10

## USEPA - ITD

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 23-JAN-10 00:40:14

CS3 or VER Data Filename: 22JAN10M

Sam:13

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		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	1.000	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	1.001	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	1.001	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	0.984	0.977-1.000
13C-1,2,3,6,7,8-HxCDD		0.989	0.981-1.003
13C-1,2,3,4,7,8-HxCDF		0.949	0.944-0.970
13C-1,2,3,6,7,8-HxCDF		0.954	0.949-0.975
13C-2,3,4,6,7,8-HxCDF		0.978	0.959-1.021
13C-1,2,3,7,8,9-HxCDF		1.014	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: 1/25/10

FAL ID: ST012210M2      Filename: 22JAN10M      Sam:13      Acquired: 23-JAN-10 00:40:14      ICal: pccdfal3-11-18-09  
 Client ID: 1613 CS3 (90918J)      ConCal: ST012210M1      EndCal: ST012210M2  
 Results: 5913      GC Column: DB5      Amount: 1.000      NATO 1989 Tox: 97.6

Name	Resp	RA	RT	RRF	Conc	Qual	WHO 1998 Tox:		WHO 2005 Tox:		DL	#Hom
							122	Fac Noise-1	Noise-2	Noise-1		
2,3,7,8-TCDD	2.09e+06	0.81 y	27:31	1.02	9.72	2.50	-	-	-	-	*	
1,2,3,7,8-PeCDD	8.69e+06	1.61 y	33:20	0.96	48.7	2.50	-	-	-	-	*	
1,2,3,4,7,8-HxCDD	8.63e+06	1.30 y	38:42	1.37	47.3	2.50	-	-	-	-	*	
1,2,3,6,7,8-HxCDD	7.38e+06	1.23 y	38:52	1.34	47.1	2.50	-	-	-	-	*	
1,2,3,7,8,9-HxCDD	8.15e+06	1.24 y	39:18	1.37	47.8	2.50	-	-	-	-	*	
1,2,3,4,6,7,8-HpCDD	5.83e+06	0.93 y	44:19	1.17	50.2	2.50	-	-	-	-	*	
OCDD	8.54e+06	0.92 y	49:54	1.21	98.6	2.50	-	-	-	-	*	
2,3,7,8-TCDF	4.22e+06	0.69 y	26:45	1.29	9.70	2.50	-	-	-	-	*	
1,2,3,7,8-PeCDF	1.32e+07	1.69 y	31:36	0.89	51.2	2.50	-	-	-	-	*	
2,3,4,7,8-PeCDF	1.22e+07	1.68 y	32:55	0.91	49.3	2.50	-	-	-	-	*	
1,2,3,4,7,8-HxCDF	1.13e+07	1.23 y	37:18	1.00	49.0	2.50	-	-	-	-	*	
1,2,3,6,7,8-HxCDF	1.12e+07	1.20 y	37:30	0.92	48.3	2.50	-	-	-	-	*	
2,3,4,6,7,8-HxCDF	1.06e+07	1.21 y	38:27	0.99	48.3	2.50	-	-	-	-	*	
1,2,3,7,8,9-HxCDF	9.82e+06	1.21 y	39:53	1.09	49.0	2.50	-	-	-	-	*	
1,2,3,4,6,7,8-HpCDF	8.12e+06	1.02 y	42:24	1.36	50.2	2.50	-	-	-	-	*	
1,2,3,4,7,8,9-HpCDF	7.23e+06	1.01 y	45:14	1.61	50.0	2.50	-	-	-	-	*	
OCDF	9.45e+06	0.90 y	50:16	0.84	97.7	2.50	-	-	-	-	*	
												Rec
13C-2,3,7,8-TCDD	2.11e+07	0.72 y	27:30	0.94	98.6							98.6
13C-1,2,3,7,8-PeCDD	1.85e+07	1.67 y	33:19	1.02	80.1							80.1
13C-1,2,3,4,7,8-HxCDD	1.33e+07	1.29 y	38:40	0.98	105							105
13C-1,2,3,6,7,8-HxCDD	1.17e+07	1.30 y	38:50	0.94	96.6							96.6
13C-1,2,3,4,6,7,8-HpCDD	9.95e+06	1.04 y	44:17	0.90	85.7							85.7
13C-OCDD	1.43e+07	0.96 y	49:52	0.67	166							82.9
13C-2,3,7,8-TCDF	3.38e+07	0.84 y	26:44	0.88	98.2							98.2
13C-1,2,3,7,8-PeCDF	2.89e+07	1.70 y	31:35	0.88	84.1							84.1
13C-2,3,4,7,8-PeCDF	2.72e+07	1.69 y	32:53	0.85	81.8							81.8
13C-1,2,3,4,7,8-HxCDF	2.30e+07	0.49 y	37:17	1.72	104							104
13C-1,2,3,6,7,8-HxCDF	2.53e+07	0.48 y	37:29	2.00	97.9							97.9
13C-2,3,4,6,7,8-HxCDF	2.22e+07	0.48 y	38:26	1.74	99.2							99.2
13C-1,2,3,7,8,9-HxCDF	1.84e+07	0.48 y	39:52	1.51	94.8							94.8
13C-1,2,3,4,6,7,8-HpCDF	1.19e+07	0.46 y	42:23	1.10	83.8							83.8
13C-1,2,3,4,7,8,9-HpCDF	8.99e+06	0.46 y	45:12	0.85	82.3							82.3
13C-OCDF	2.30e+07	0.96 y	50:15	1.17	152							75.9
37Cl-2,3,7,8-TCDD	2.20e+06		27:31	0.97	9.94							99.4
13C-1,2,3,4-TCDD	2.27e+07	0.72 y	26:55	-	86.9							
13C-1,2,3,4-TCDF	3.92e+07	0.85 y	25:39	-	84.9							
13C-1,2,3,7,8,9-HxCDD	1.29e+07	1.27 y	39:17	-	62.9							
Total Tetra-Dioxins	1.16e+07		24:06	1.02	53.8	2.50	-	-	*			19
Total Penta-Dioxins	1.86e+07		30:21	0.96	104	2.50	-	-	*			8
Total Hexa-Dioxins	2.76e+07		36:15	1.36	162	2.50	-	-	*			11
Total Hepta-Dioxins	1.23e+07		42:55	1.17	106	2.50	-	-	*			9
Total Tetra-Furans	1.82e+07		23:09	1.29	41.9	2.50	-	-	*			14
1st Fn. Tot Penta-Furans	1.46e+07		28:32	0.90	57.8	2.50	-	-	*	PeCDF		2
Total Penta-Furans	3.59e+07		30:21	0.90	142	2.50	-	-	*	200		9
Total Hexa-Furans	4.97e+07		35:21	0.99	226	2.50	-	-	*			17
Total Hepta-Furans	1.55e+07		42:24	1.47	101	2.50	-	-	*			8

Analyst: J

Date: 1/25/10

Frontier Analytical Laboratory - Acquisition Log

Run Name: 22JAN10M

Instrument: FAL3

GC: DB5

Experiment: PCDD

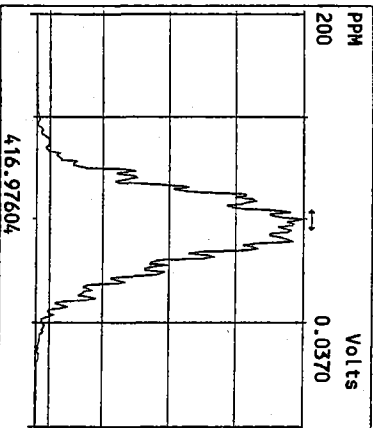
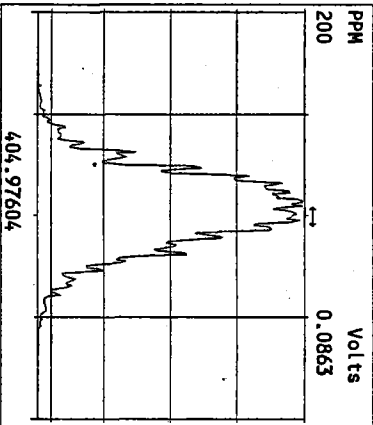
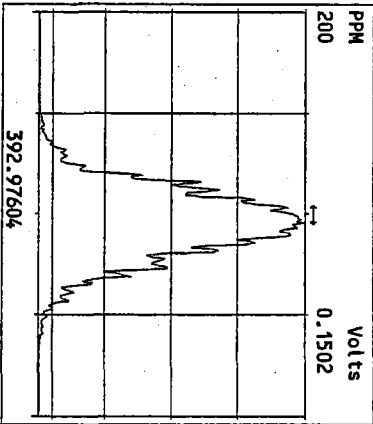
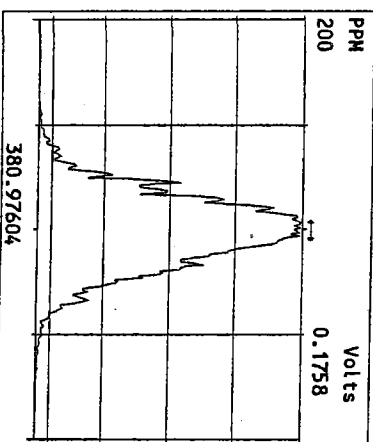
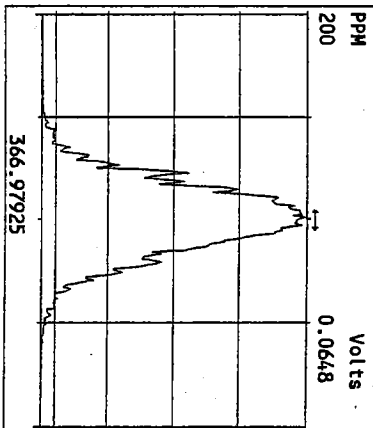
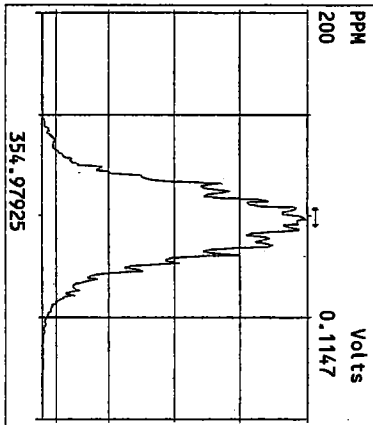
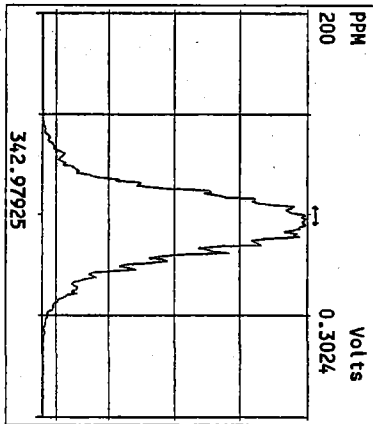
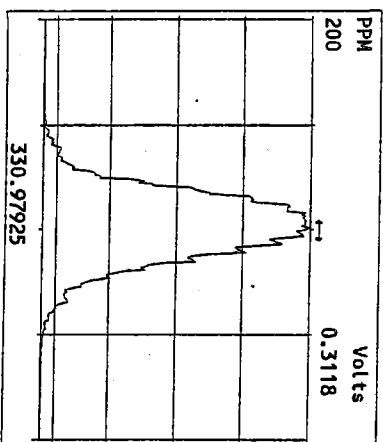
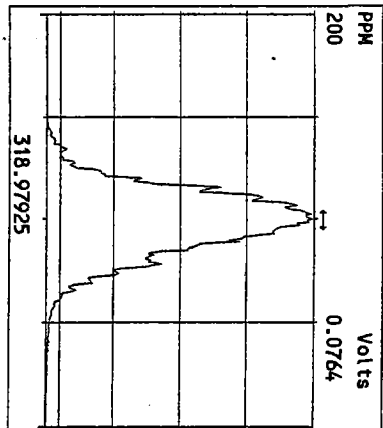
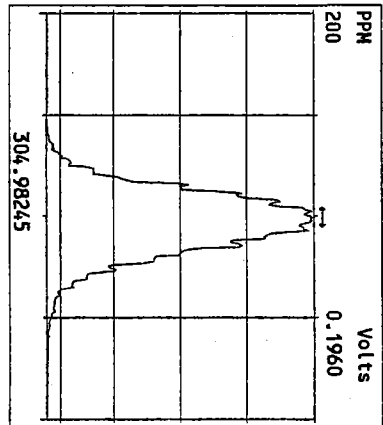
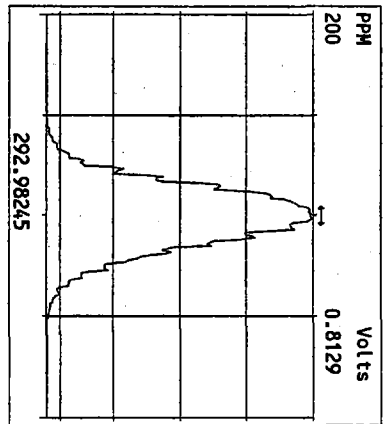
Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
22JAN10M 1	ST012210M1	1613 CS3 (90918J)	22-JAN-10 13:36:22	ST012210M1	ST012210M2	TC
22JAN10M 2	SB012210M1	Solvent Blank	22-JAN-10 14:31:41	ST012210M1	ST012210M2	TC
22JAN10M 3	SB012210M2	Solvent Blank	22-JAN-10 15:27:00	ST012210M1	ST012210M2	TC
22JAN10M 4	1926-001-0001-OPR	OPR	22-JAN-10 16:22:18	ST012210M1	ST012210M2	TC
22JAN10M 5	1926-001-0001-MB	Method Blank	22-JAN-10 17:17:33	ST012210M1	ST012210M2	TC
22JAN10M 6	5913-001-0001-SA	CB19010710SED	22-JAN-10 18:12:51	ST012210M1	ST012210M2	TC
22JAN10M 7	5913-002-0001-SA	CB12010710SED	22-JAN-10 19:08:10	ST012210M1	ST012210M2	TC
22JAN10M 8	5913-003-0001-SA	CB2010710SED	22-JAN-10 20:03:29	ST012210M1	ST012210M2	TC
22JAN10M 9	5914-001-0001-SA*	<del>CB31A011110SED</del>	22-JAN-10 20:58:52	ST012210M1	ST012210M2	TC
22JAN10M 10	5914-002-0001-SA	CB99011110SED	22-JAN-10 21:54:15	ST012210M1	ST012210M2	TC
22JAN10M 11	SB012210M3	Solvent Blank	22-JAN-10 22:49:37	ST012210M1	ST012210M2	TC
22JAN10M 12	SB012210M4	Solvent Blank	22-JAN-10 23:44:56	ST012210M1	ST012210M2	TC
22JAN10M 13	ST012210M2	1613 CS3 (90918J)	23-JAN-10 00:40:14	ST012210M1	ST012210M2	TC

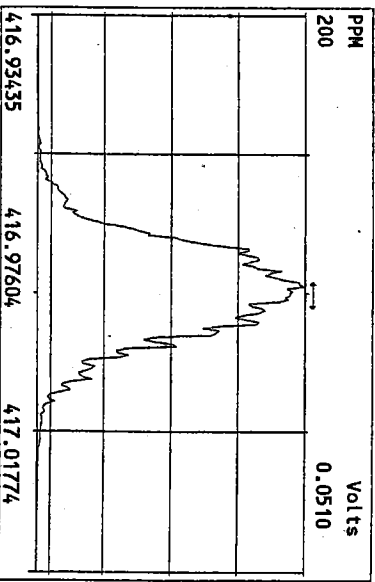
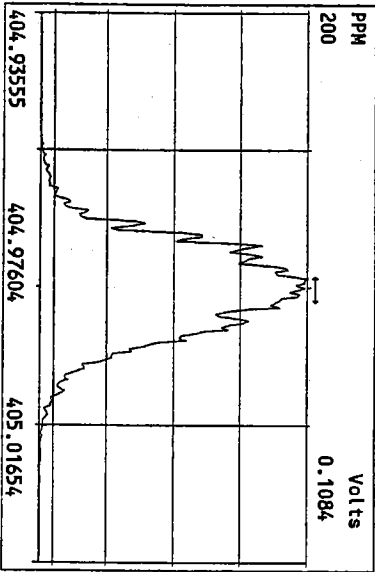
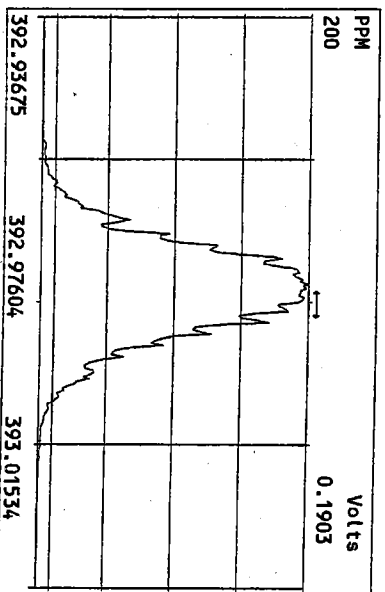
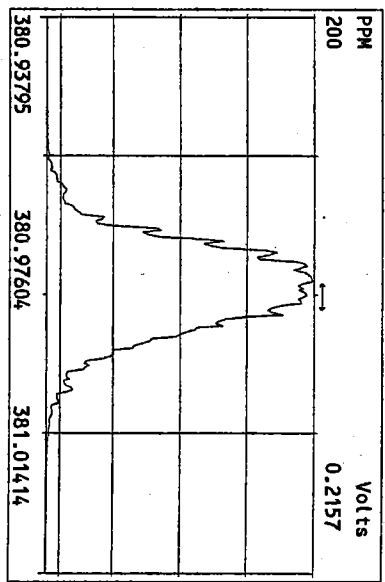
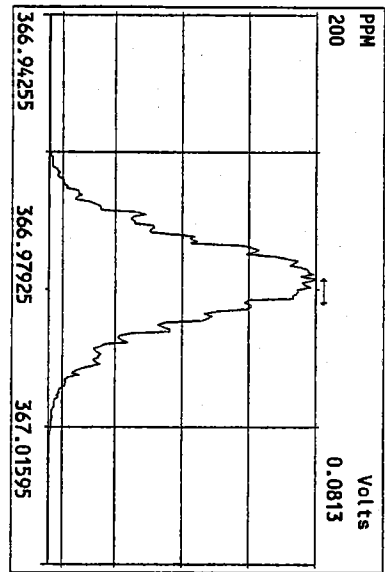
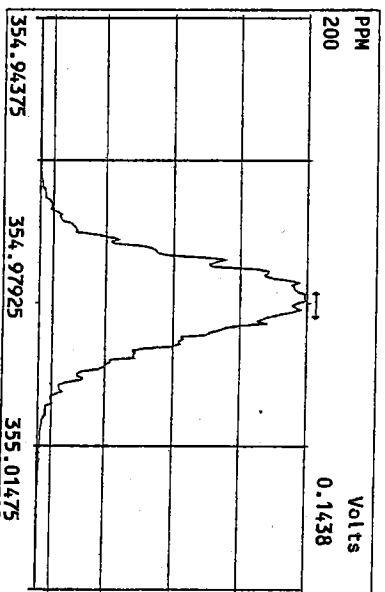
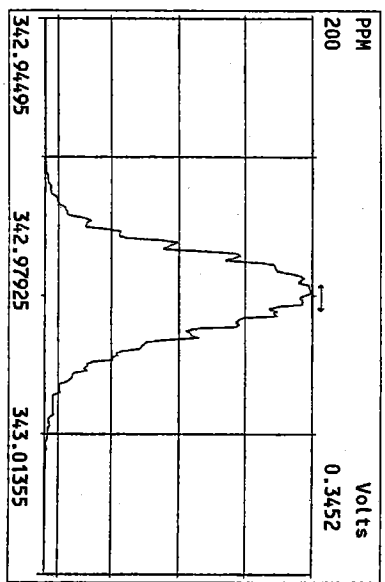
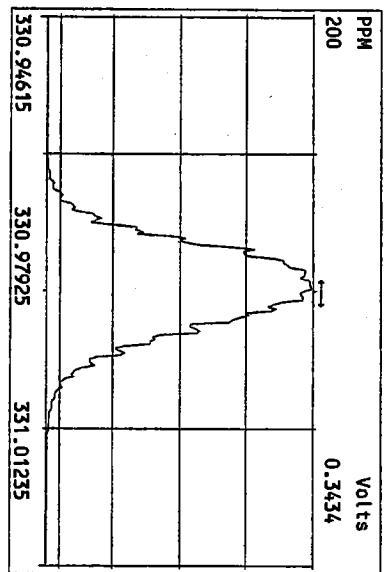
\* 5914-001-0001-SA did not inject. Syringe missed vial insert. Will run on 25 JAN 10M  
*B 1/25/10*

Data Backed Up: \_\_\_\_\_

Date: \_\_\_\_\_

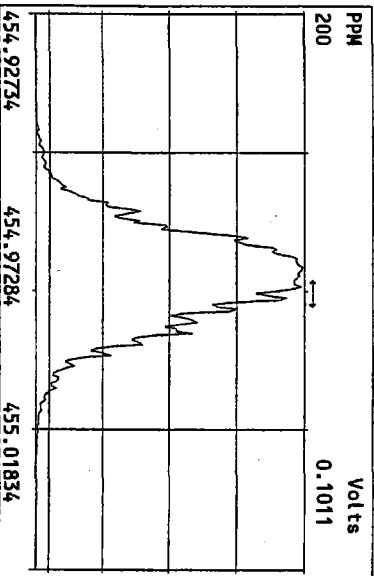
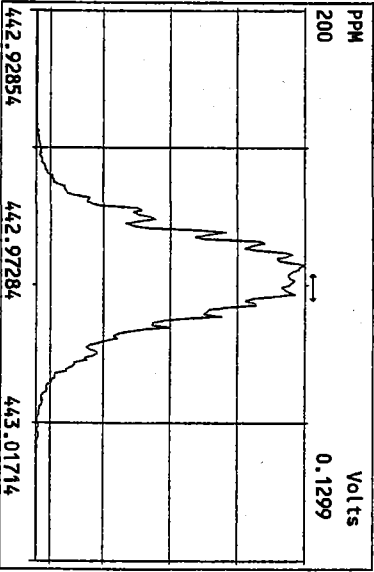
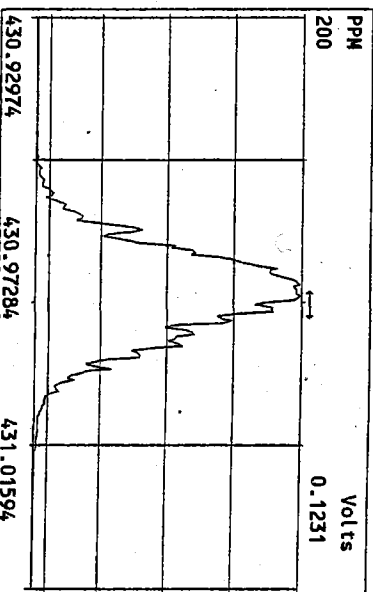
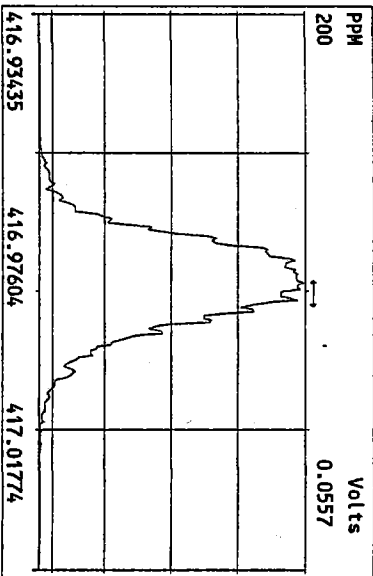
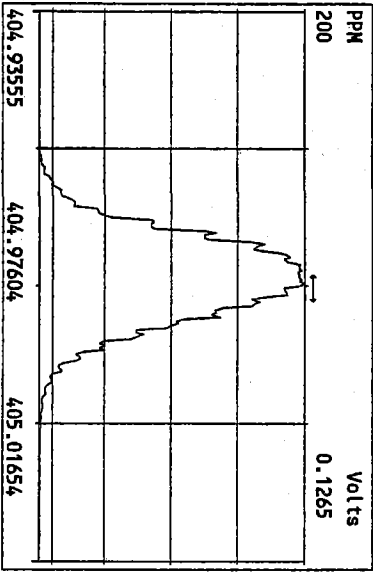
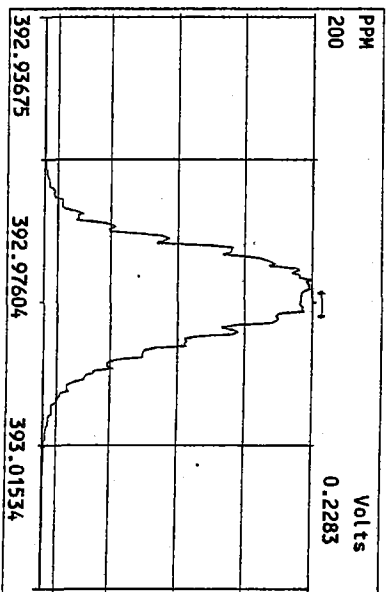
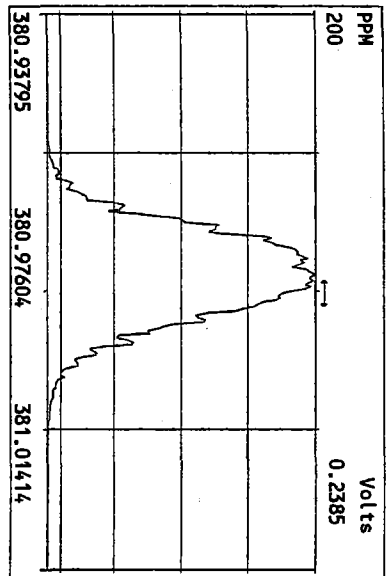
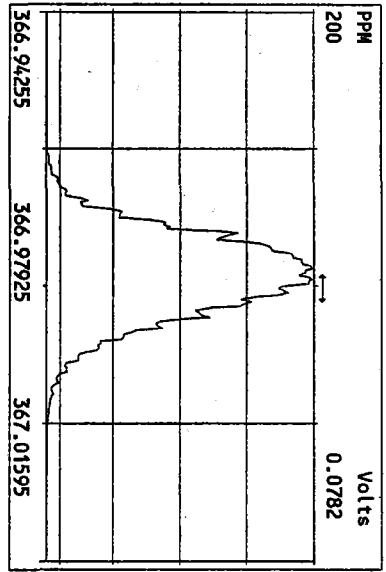
Peak Locate Examination:22-JAN-2010:13:34 File:22JAN10M  
Experiment:PCDD Function:1 Reference:PFK



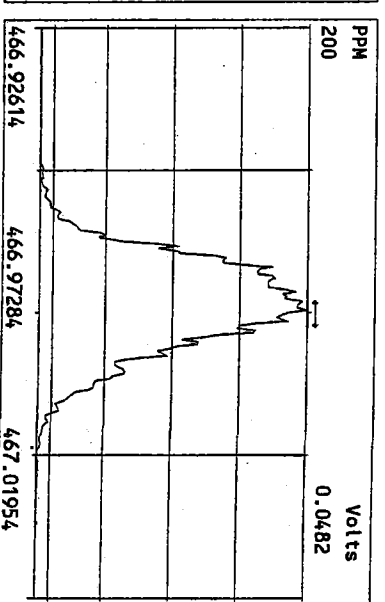
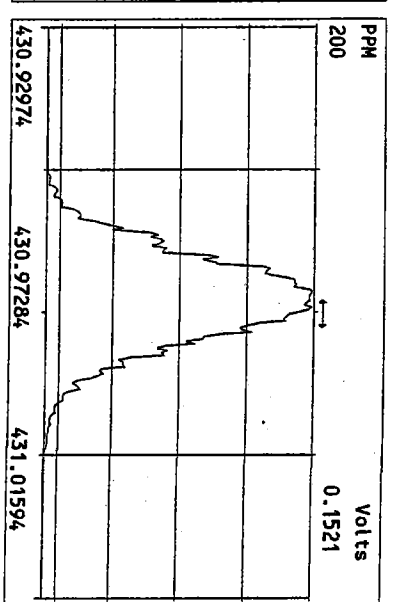
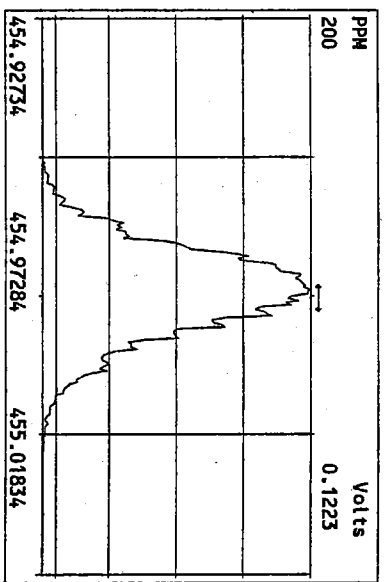
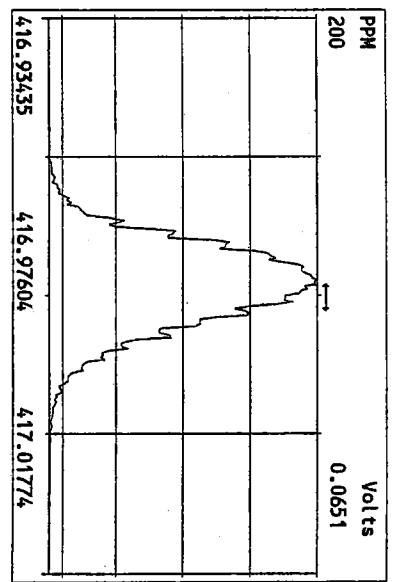
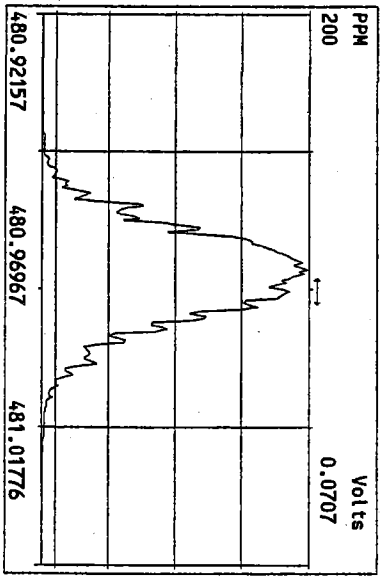
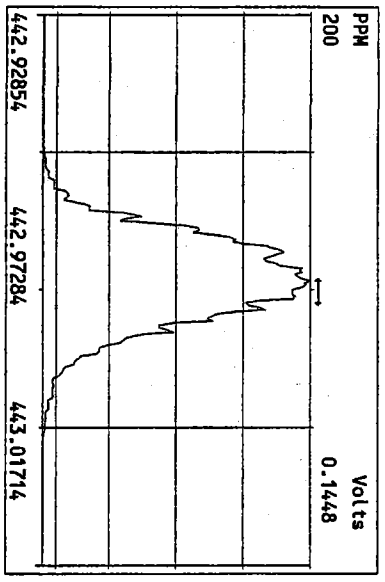
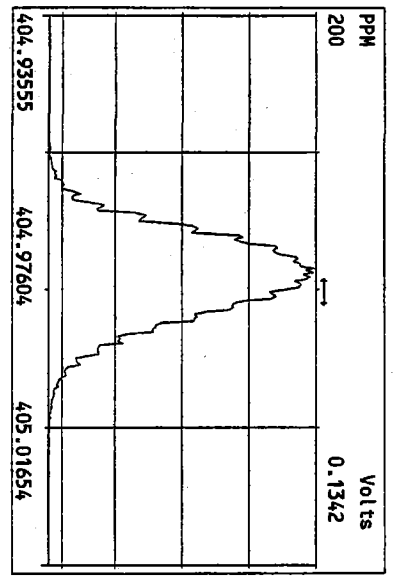




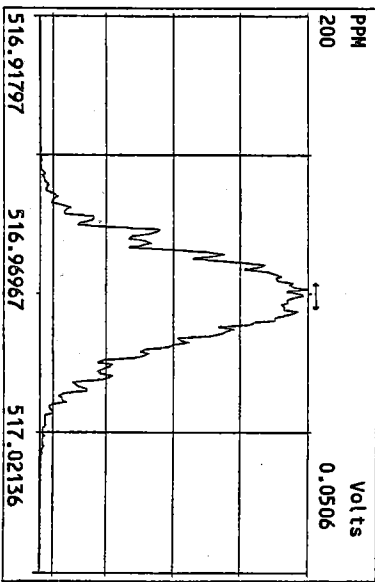
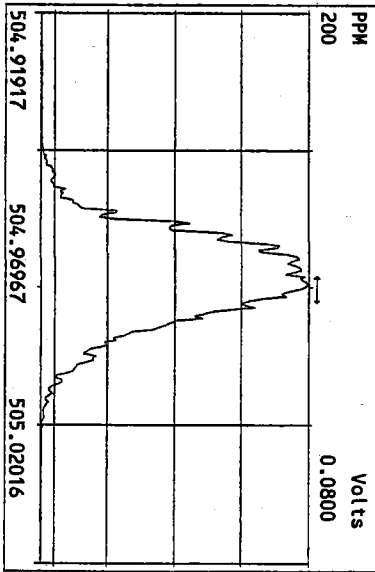
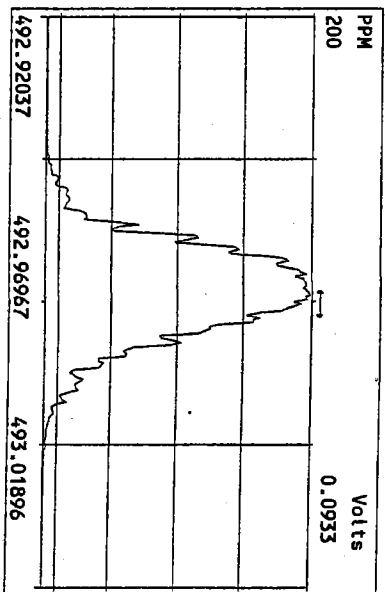
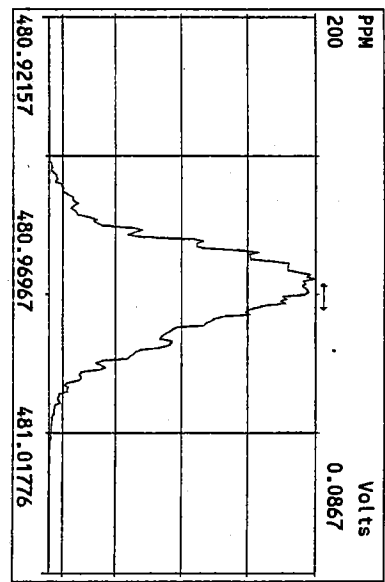
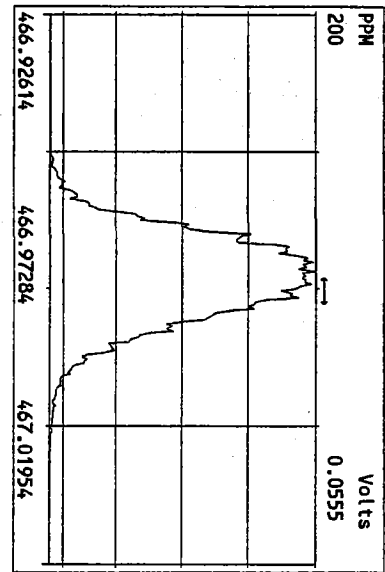
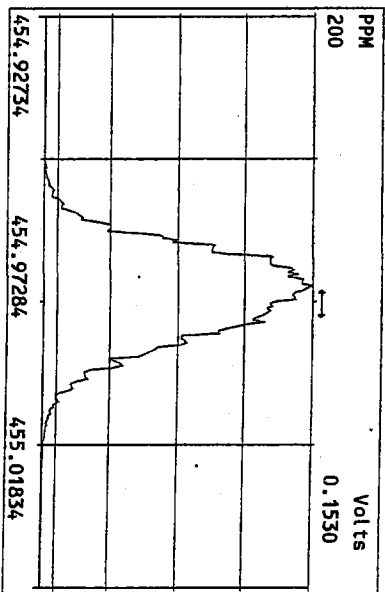
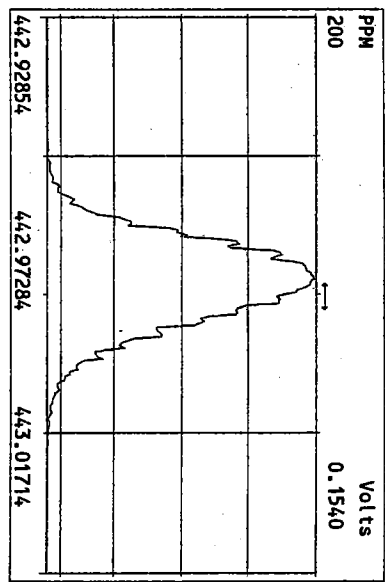
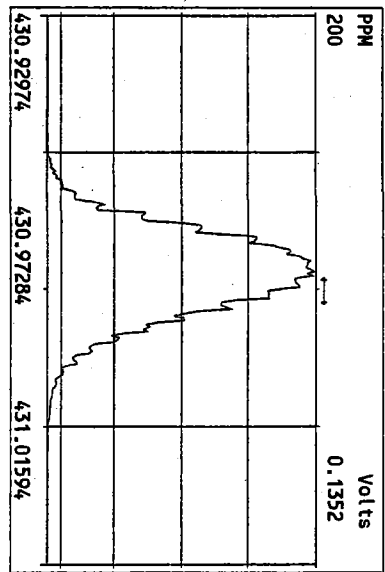
Peak Locate Examination: 22-JAN-2010:13:35 File: 22JAN10M  
 Experiment: PCDD Function: 3 Reference: PFK



Peak Locate Examination:22-JAN-2010:13:35 File:22JAN10M  
 Experiment:PCDD Function:4 Reference:PFK

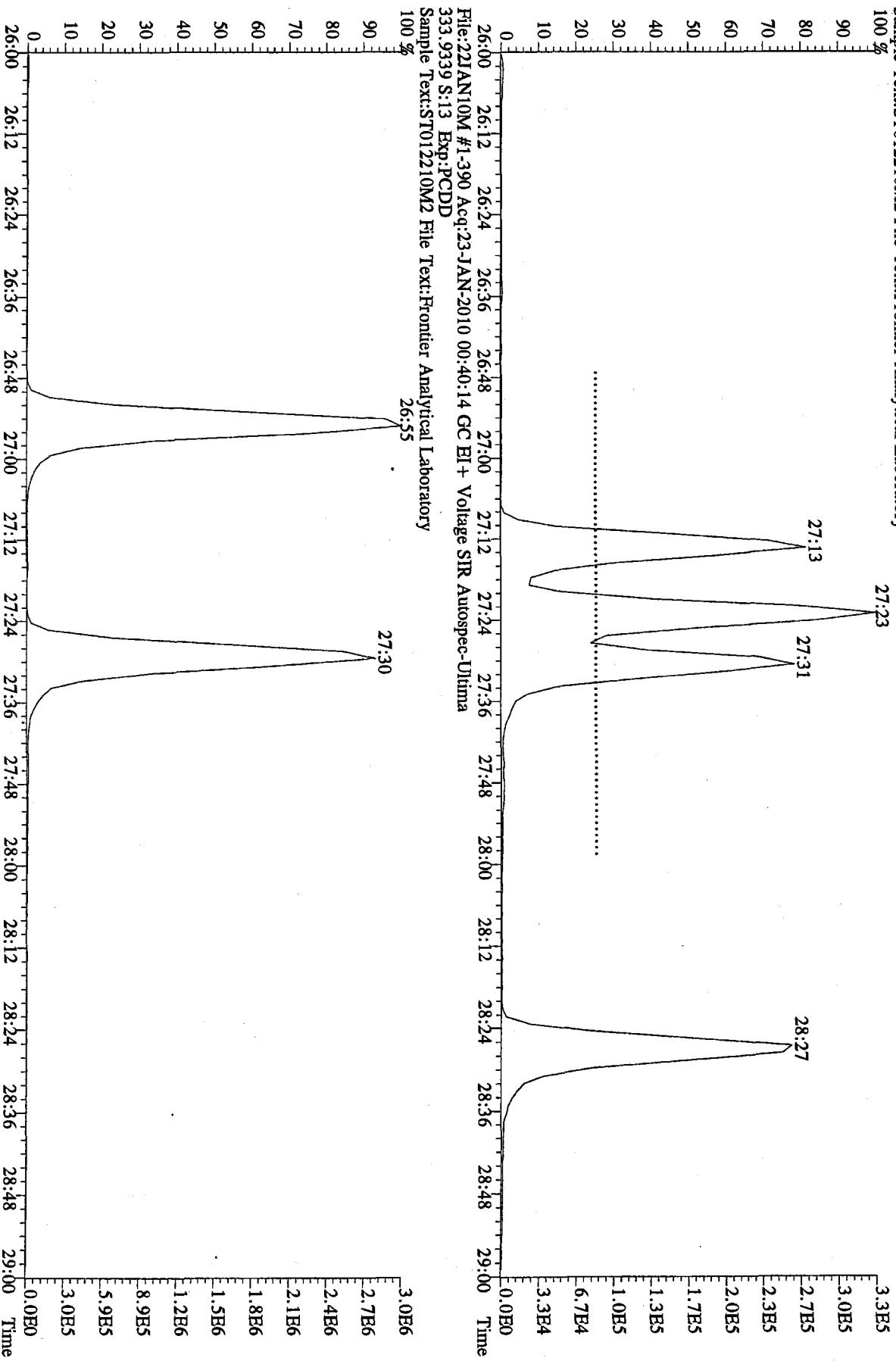


Peak Locate Examination: 22-JAN-2010:13:36 File: 22JAN10M  
 Experiment: PDD Function: 5 Reference: PFK

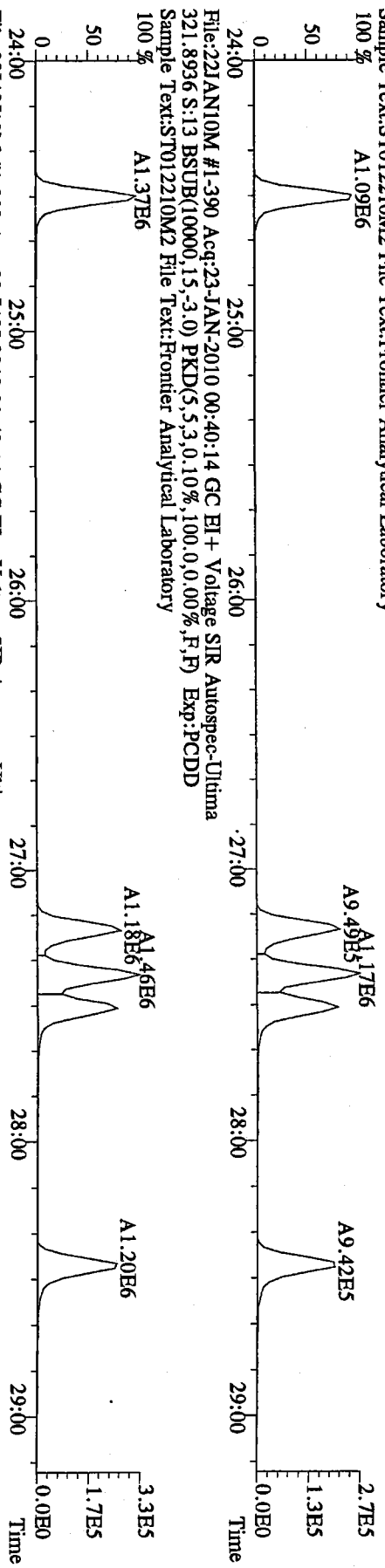


2010 JAN 22 13:36

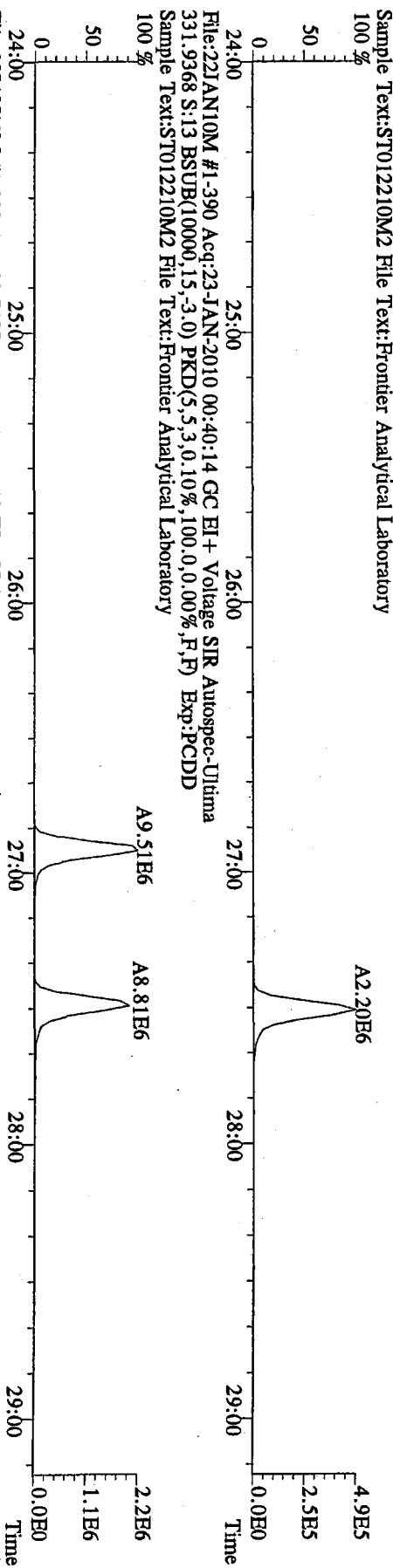
File:221JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Utima  
321.8936 S:13 Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory  
100 %



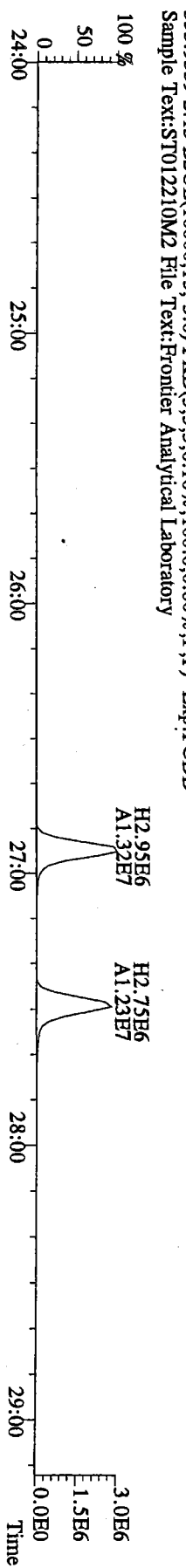
File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Utima  
 319.8965 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Utima  
 321.8965 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

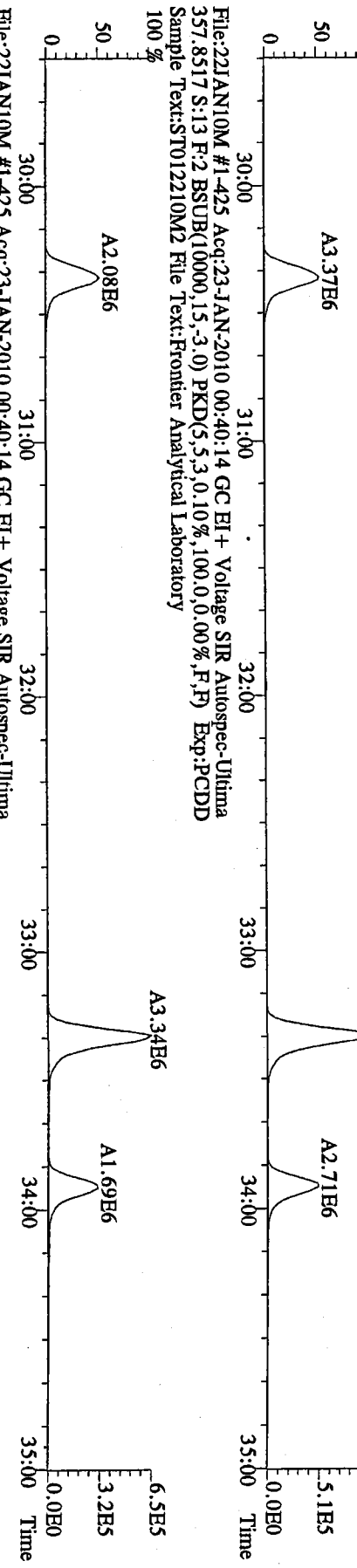


File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Utima  
 333.9368 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

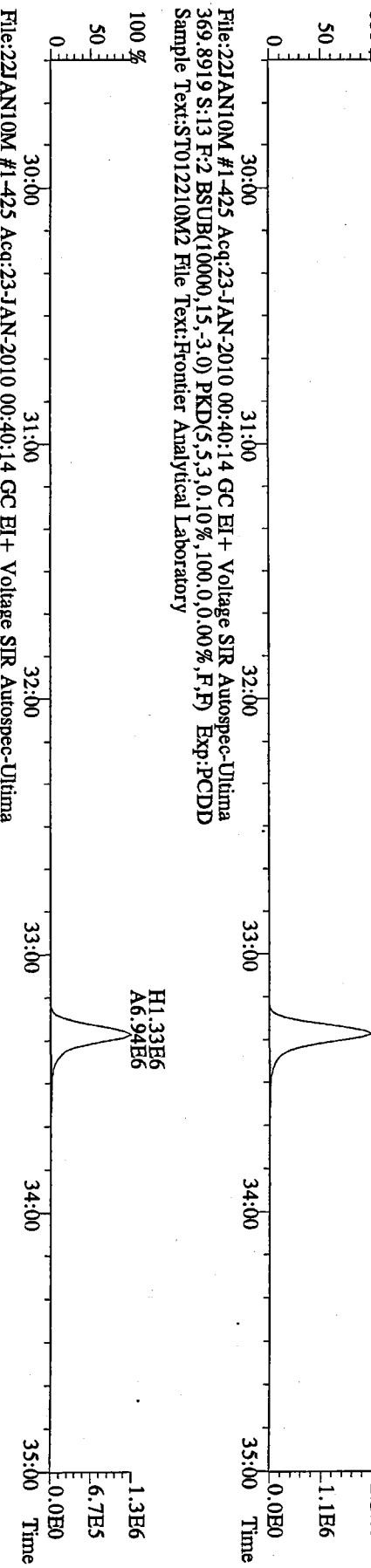


199910:0115

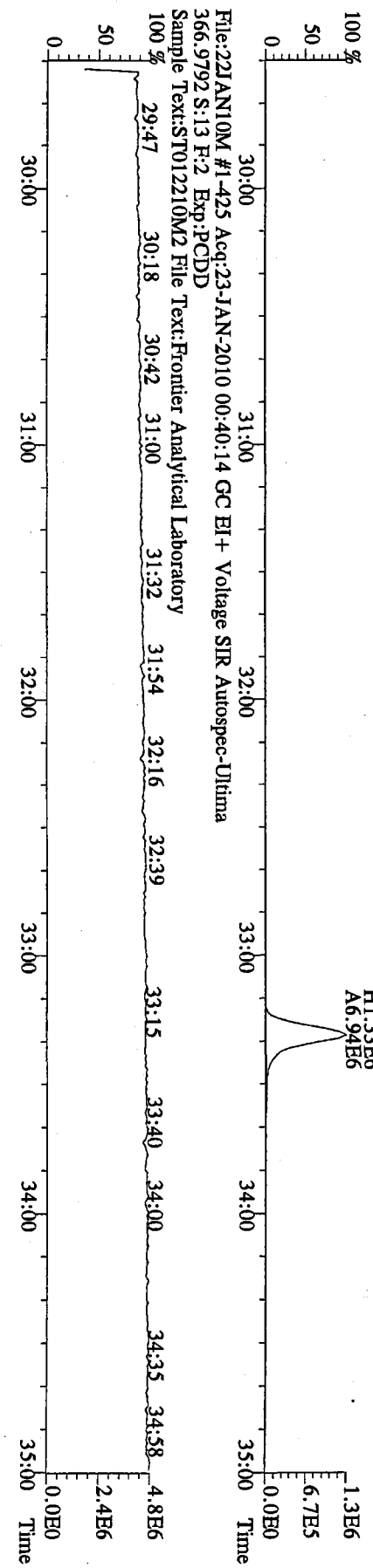
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
367.8949 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

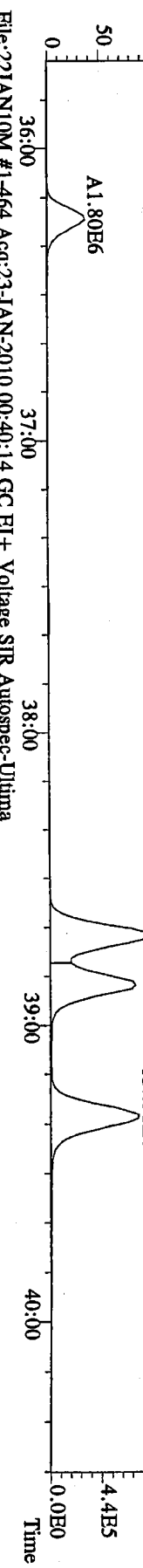


File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
369.8919 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

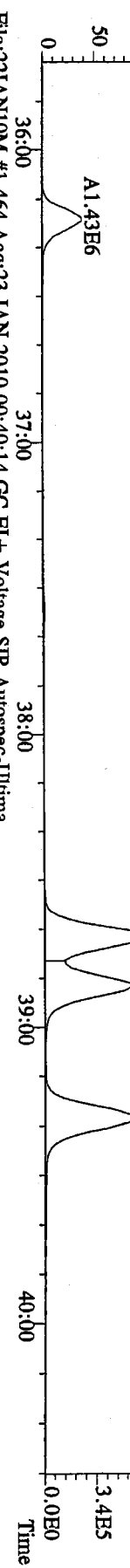


File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
366.9792 S:13 F:2 Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

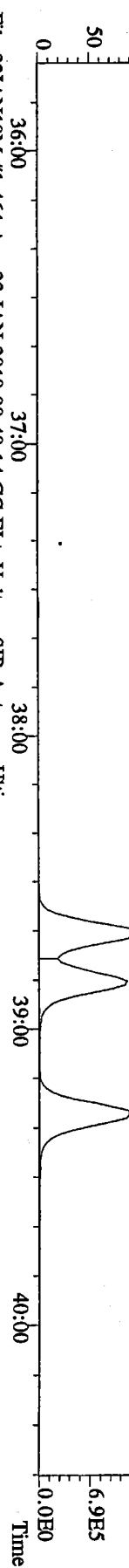
File:221JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



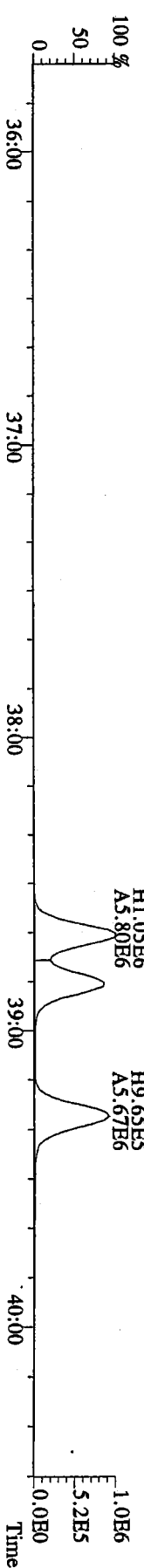
File:221JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



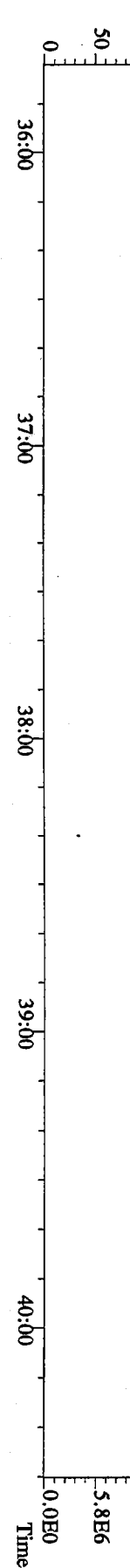
File:221JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



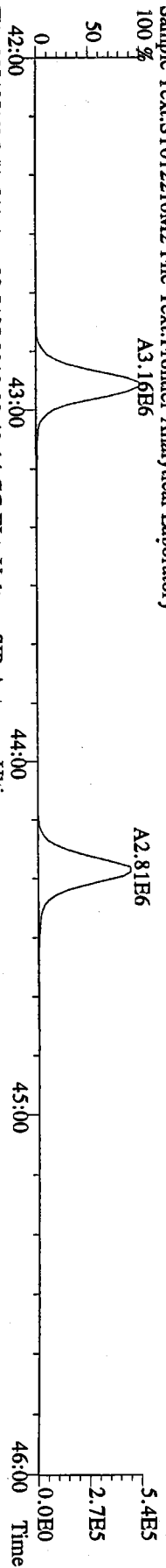
File:221JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



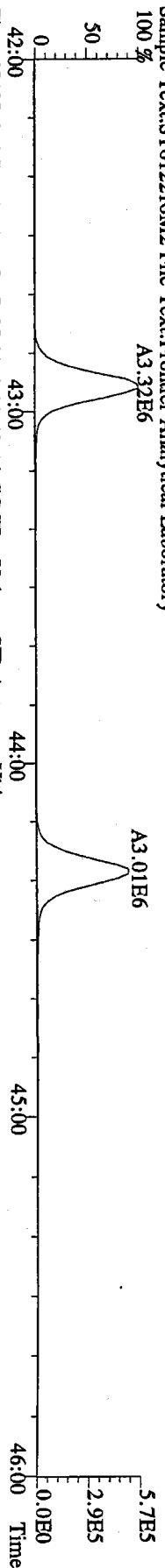
File:221JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:13 F:3 Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



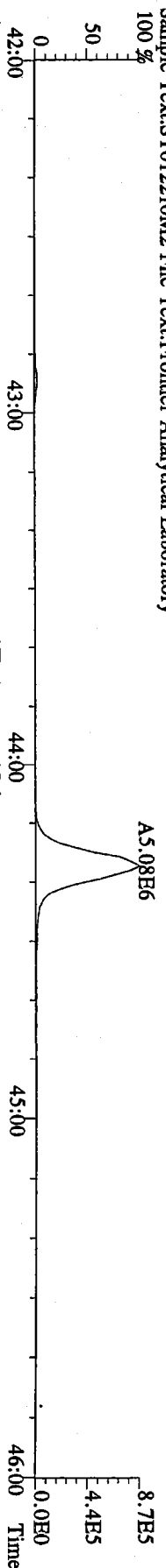
File:221AN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



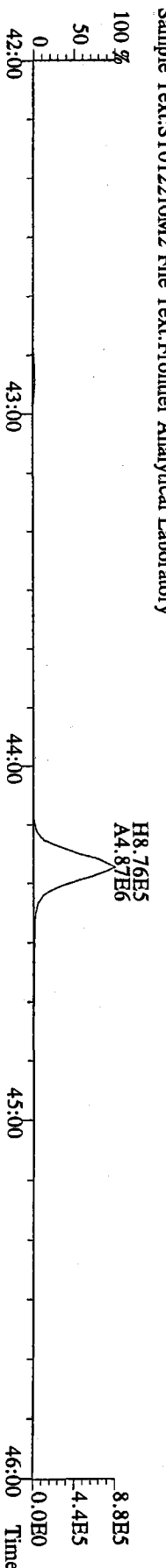
File:221AN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
425.7737 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



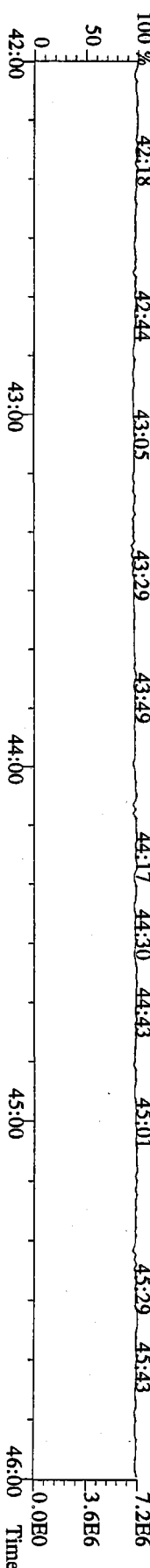
File:221AN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
435.8169 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:221AN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
437.8140 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

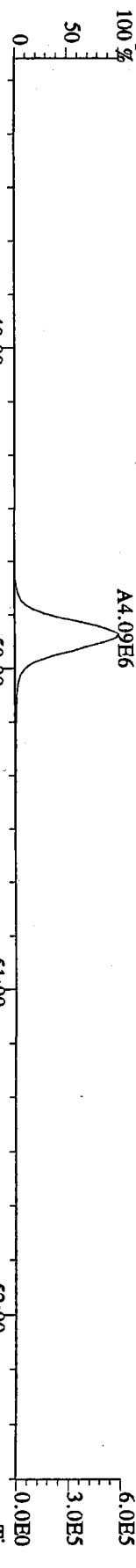


File:221AN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 S:13 F:4 Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

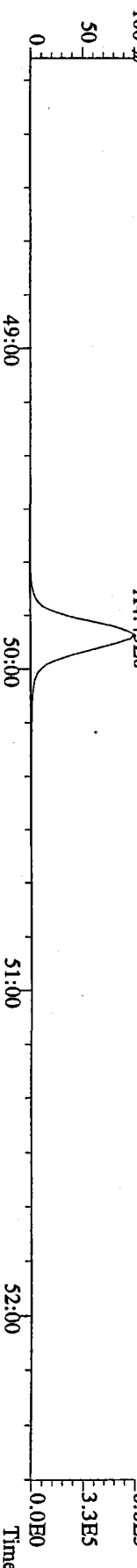




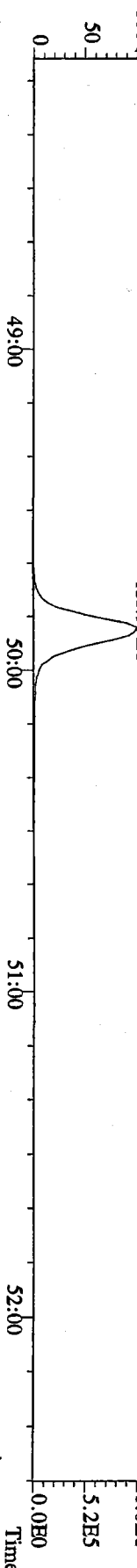
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 457.7377 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



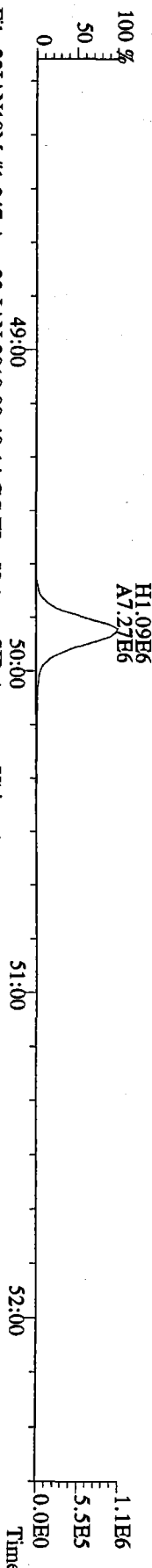
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 459.7348 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



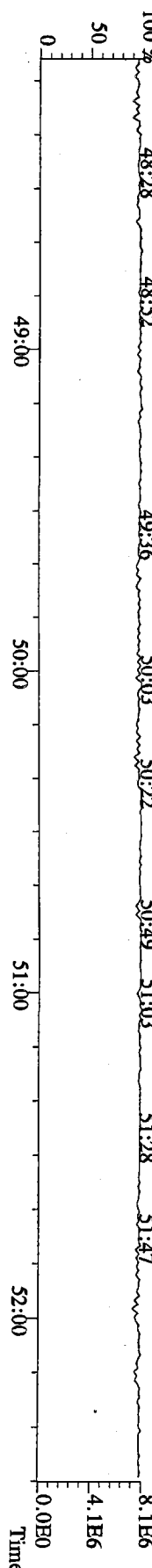
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 469.7780 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 471.7750 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

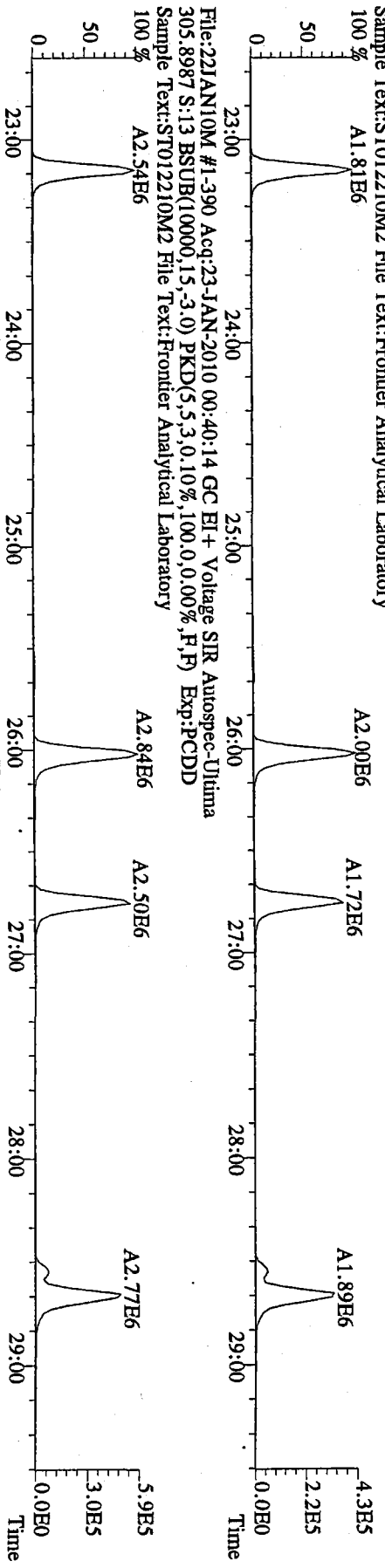


File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 454.9728 S:13 F:5 Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

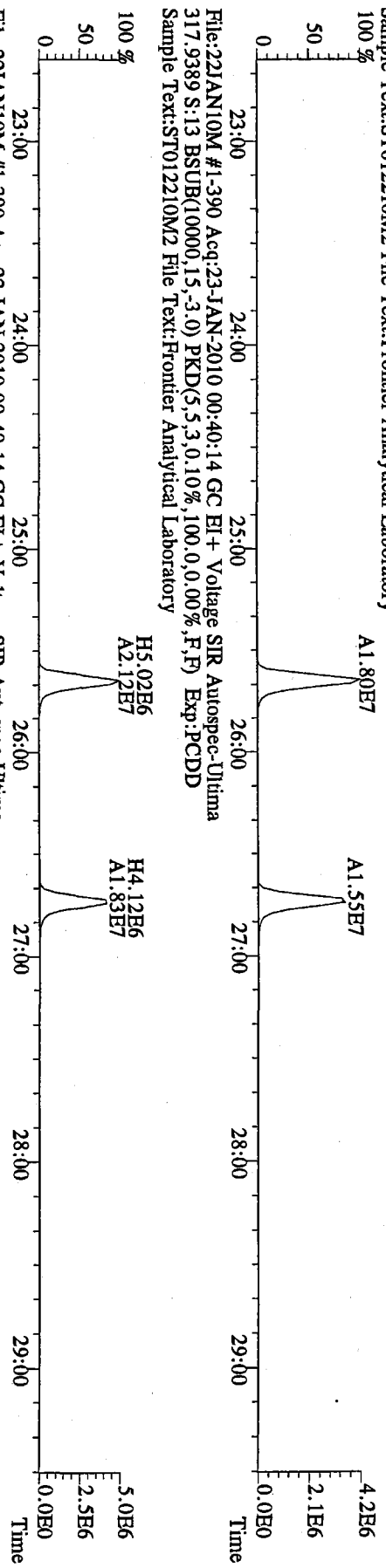


4480101100

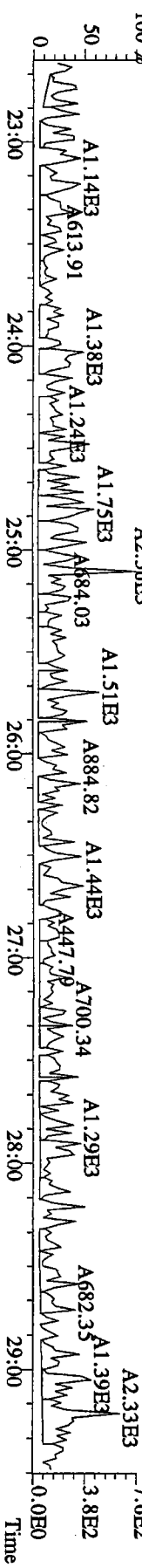
File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
315.9419 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

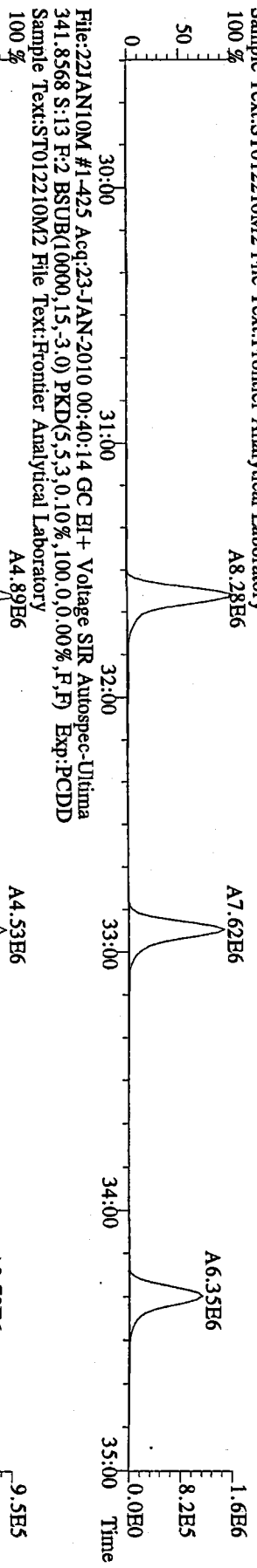


File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
317.9389 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

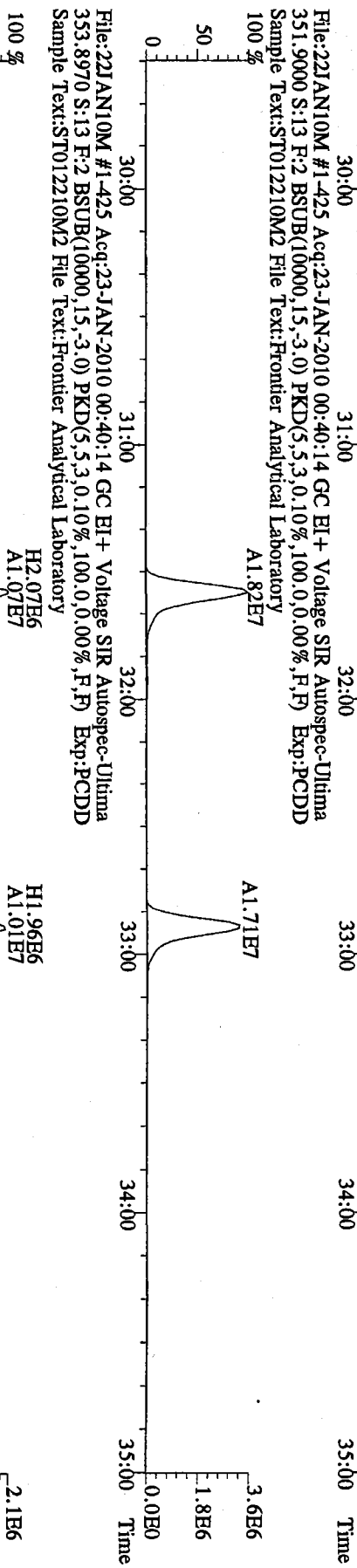




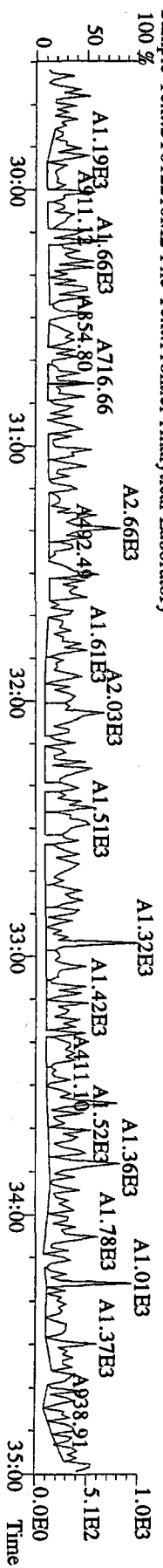
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



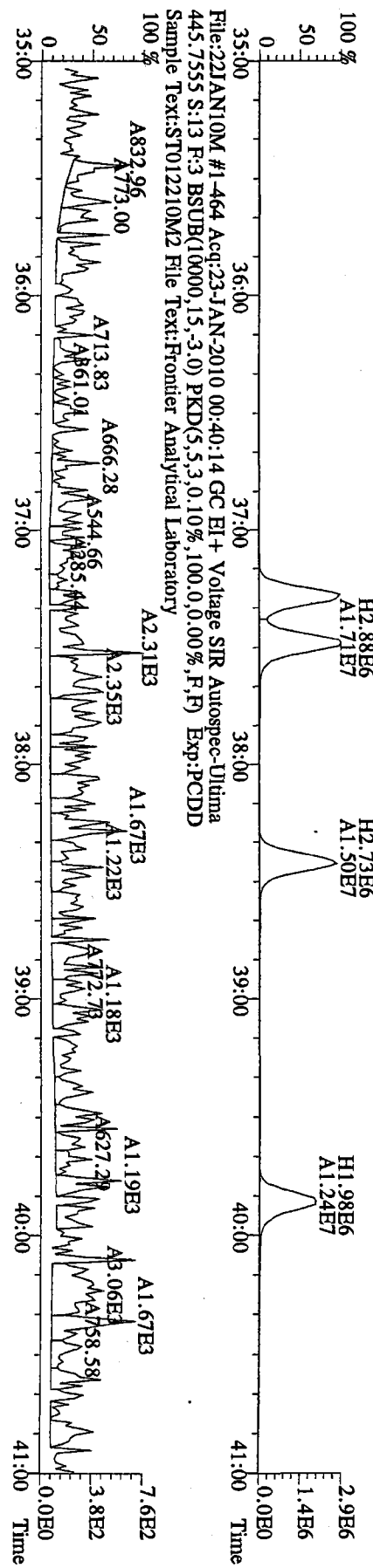
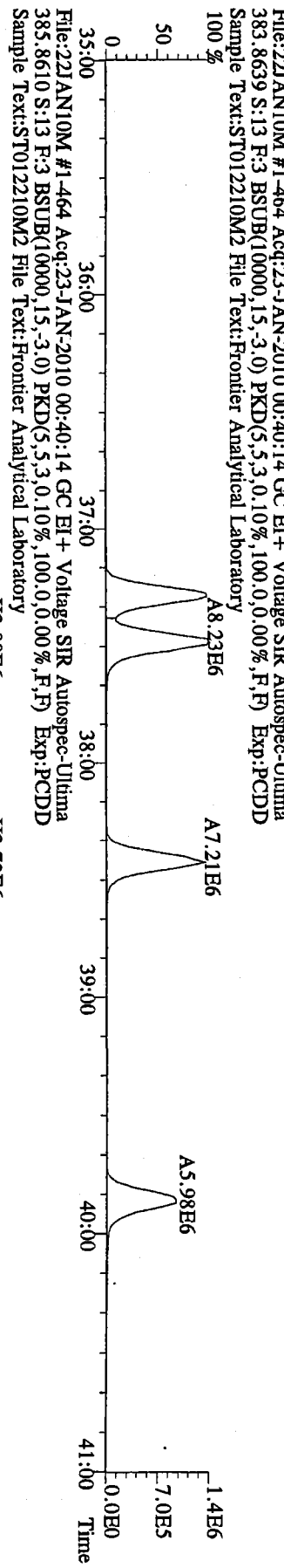
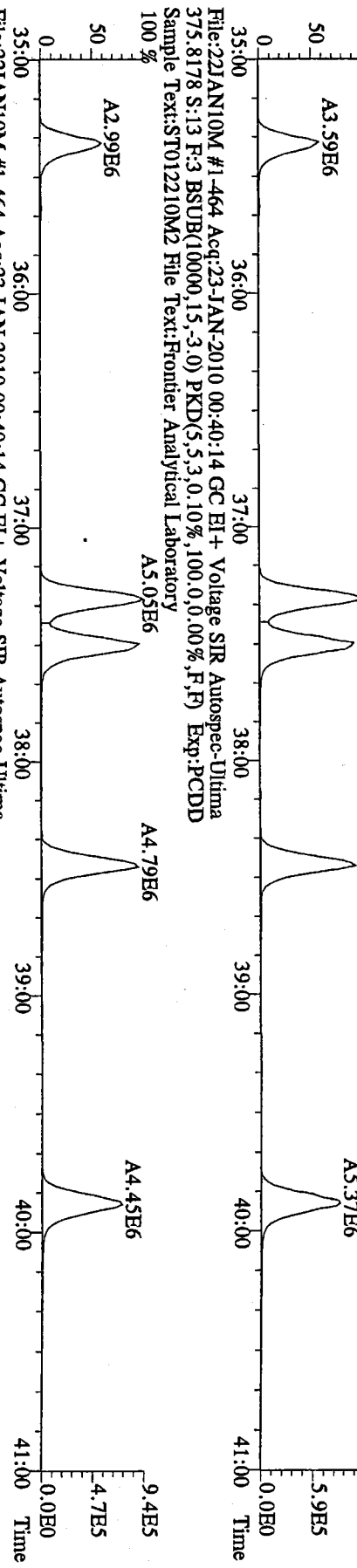
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



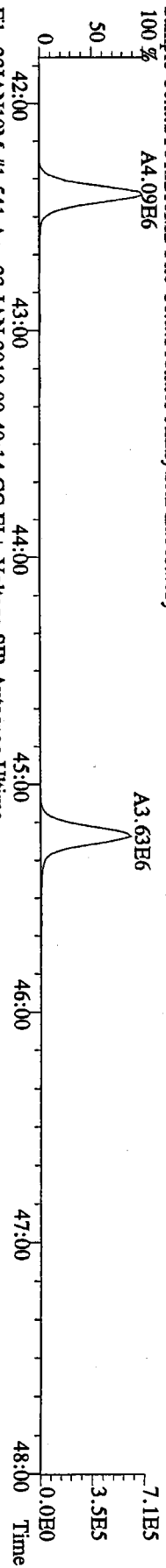
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



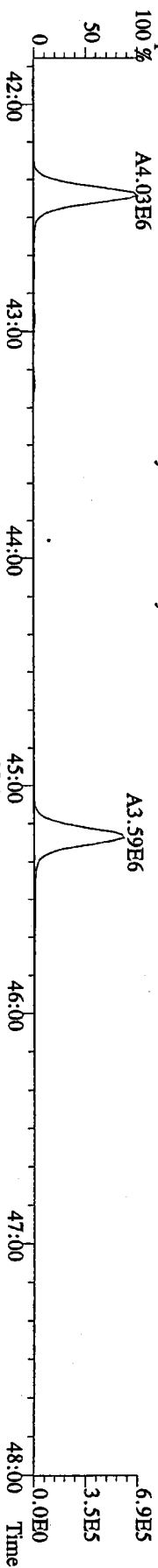
File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



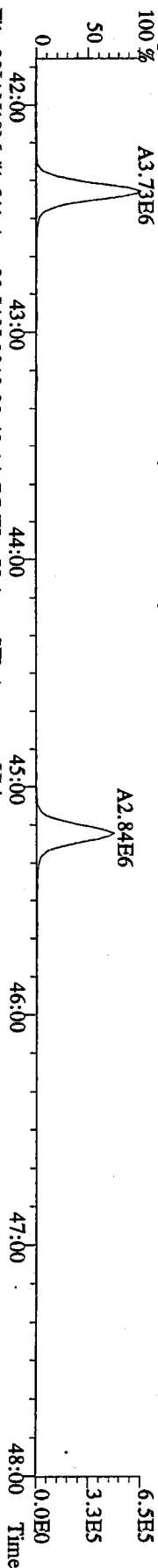
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
407.7818 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



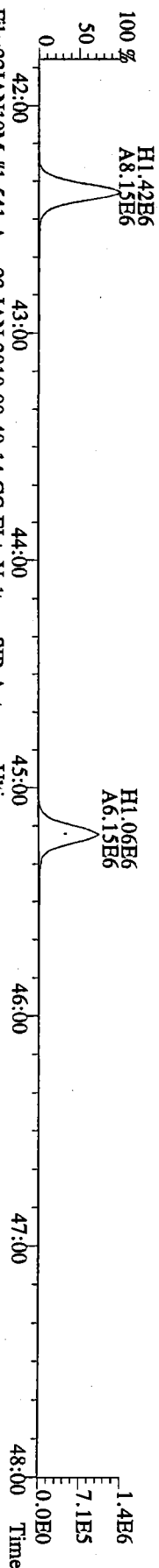
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
409.7788 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



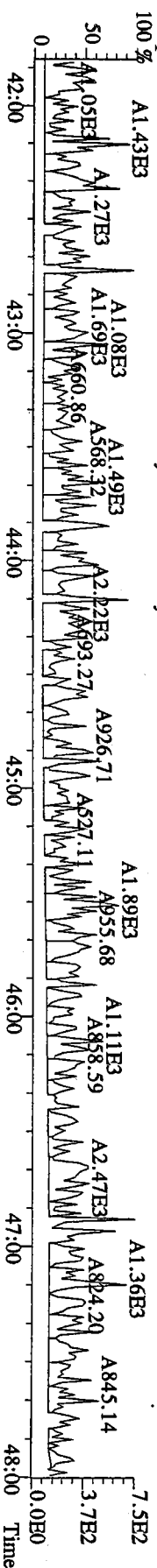
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
417.8253 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



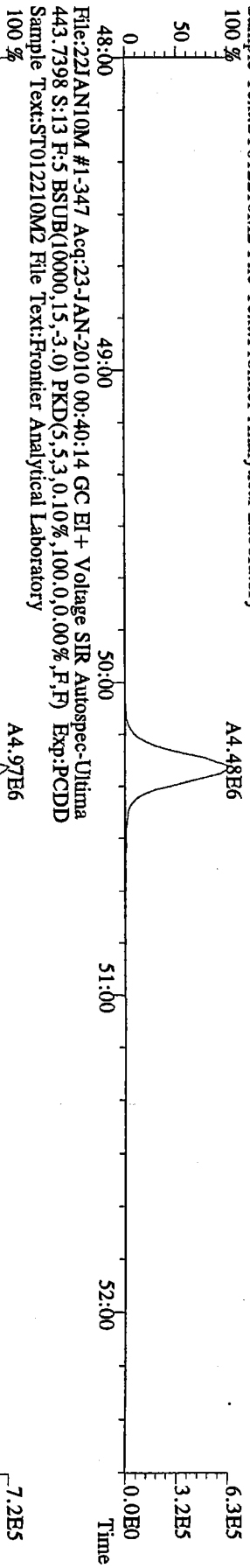
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



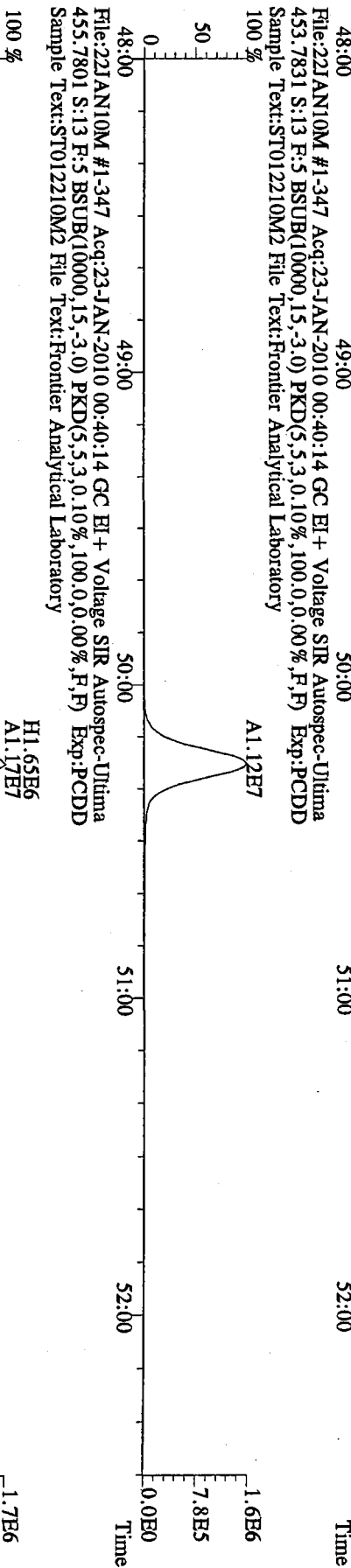
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
479.7165 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



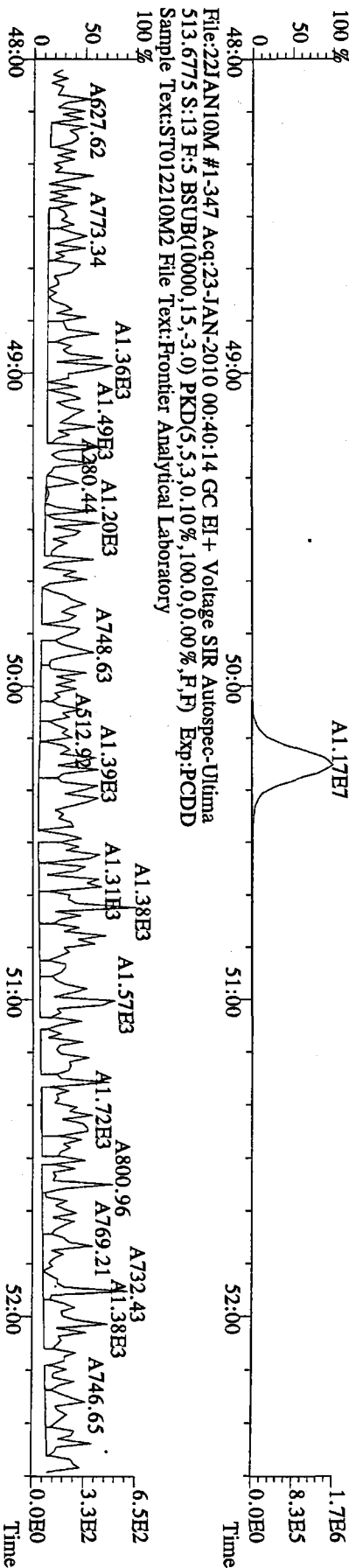
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



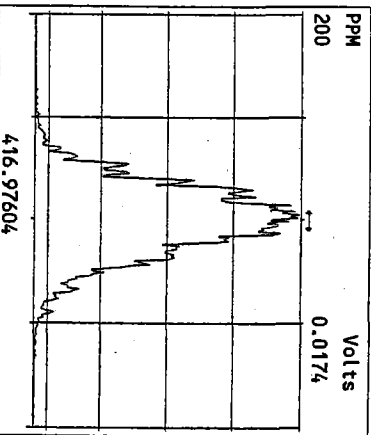
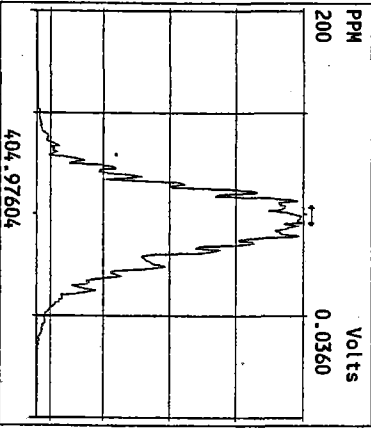
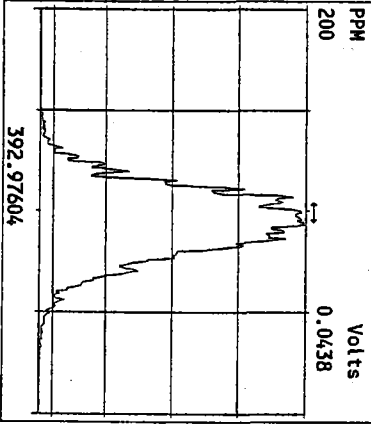
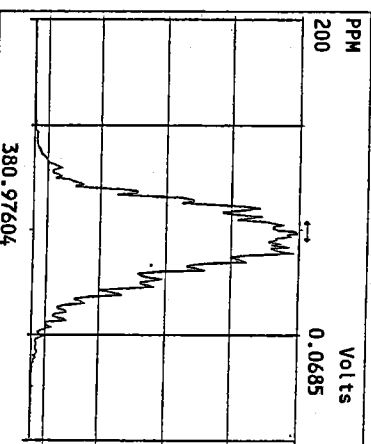
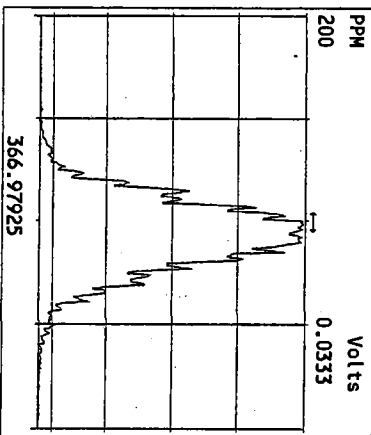
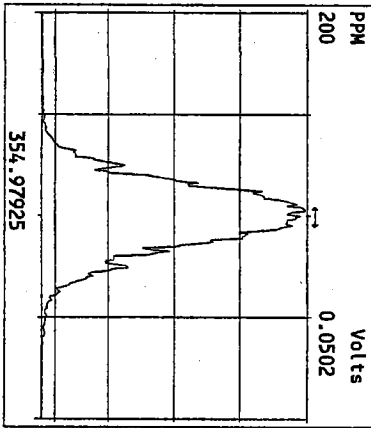
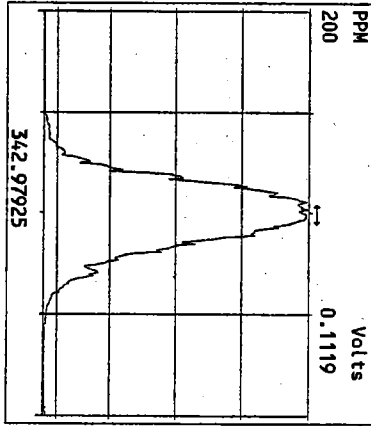
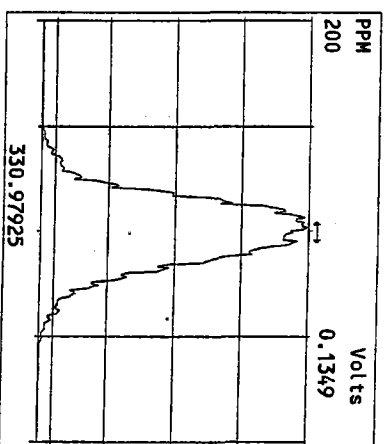
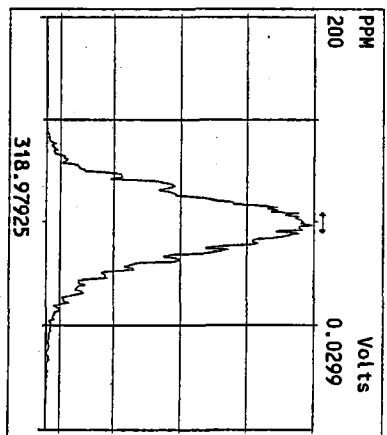
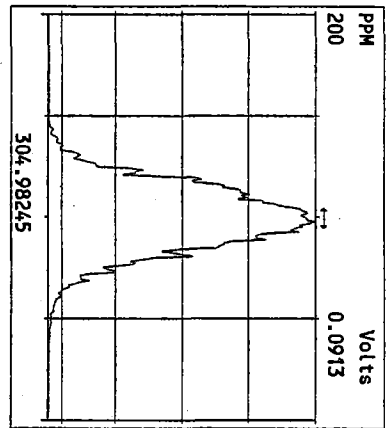
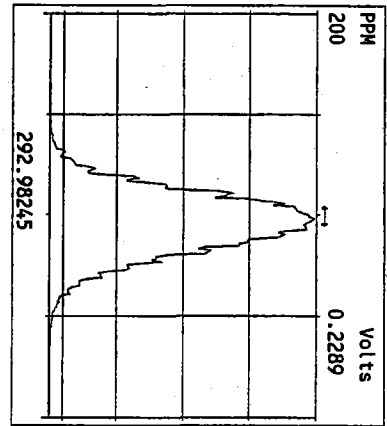
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
513.6775 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



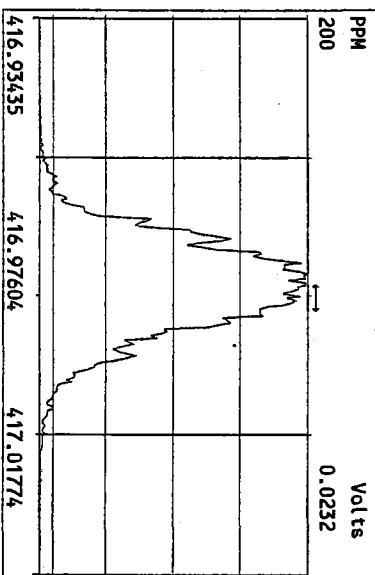
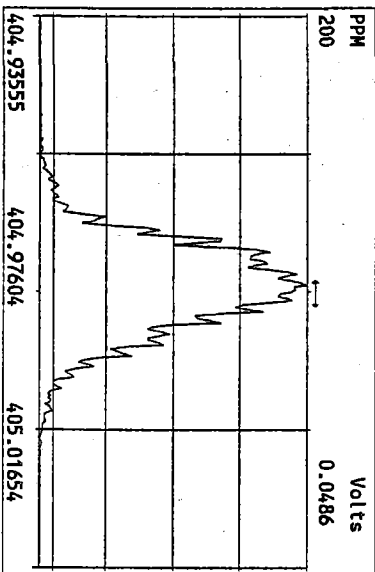
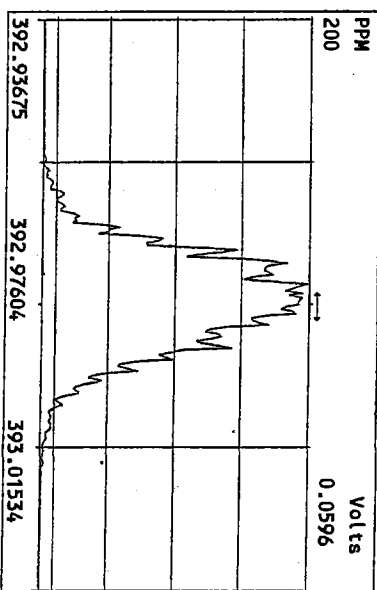
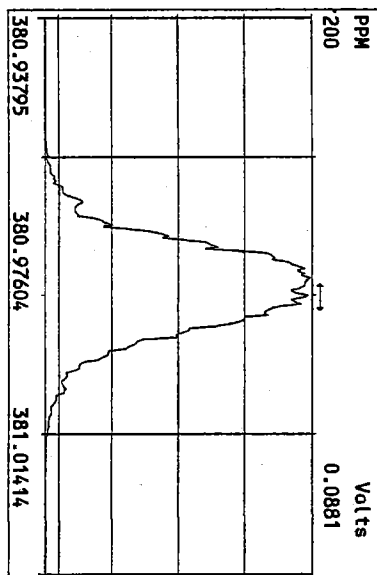
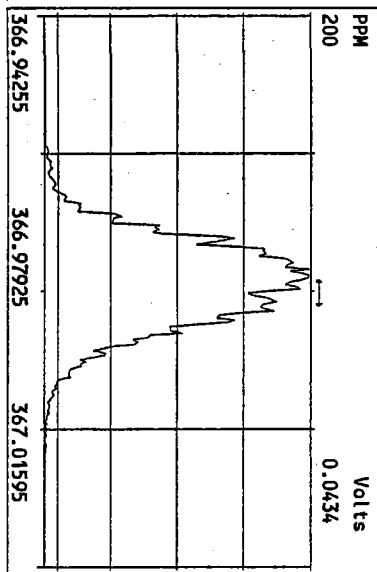
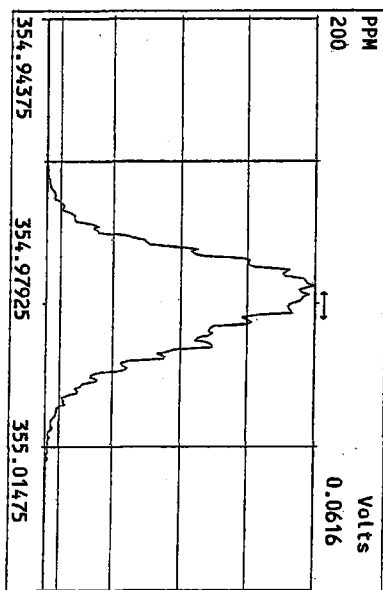
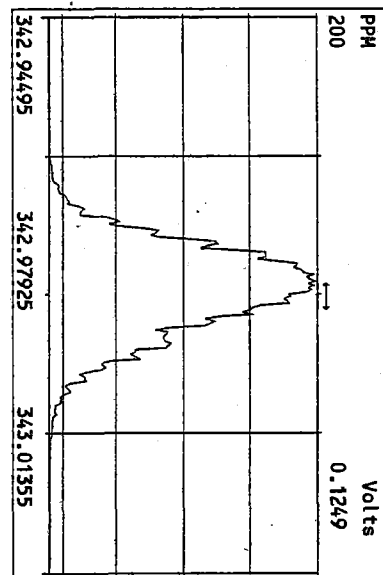
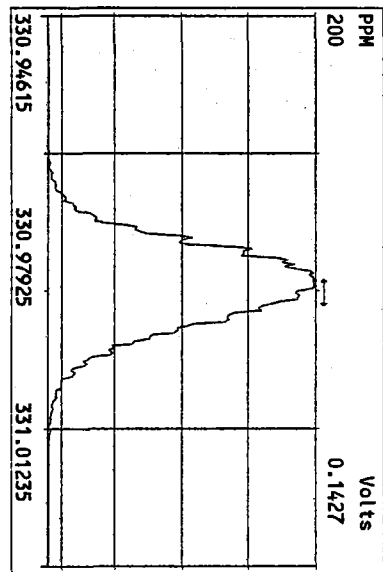
Peak Locate Examination:23-JAN-2010:01:38 File:22JAN10M\_RES\_CHECK  
Experiment:PCDD Function:1 Reference:PEK



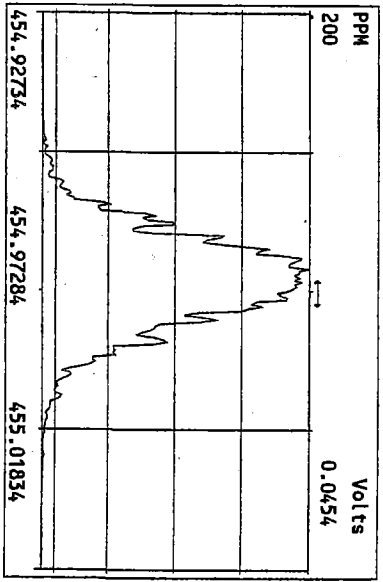
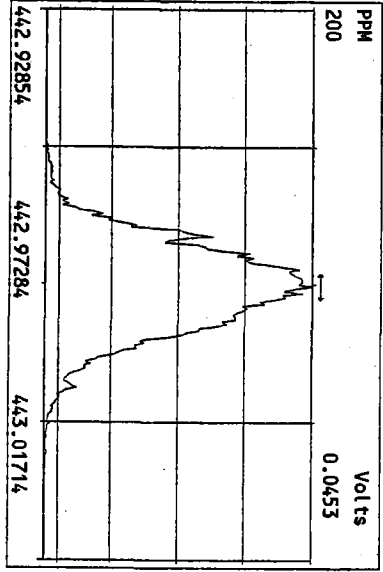
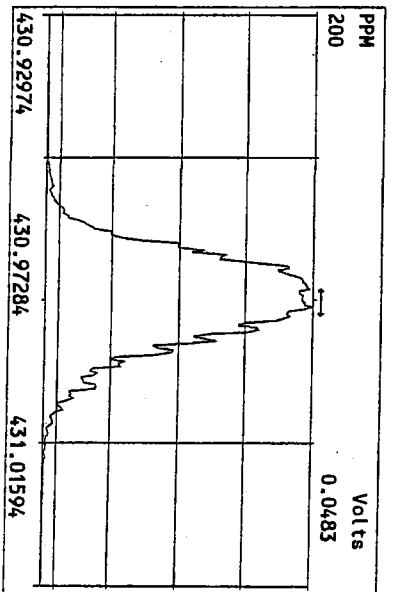
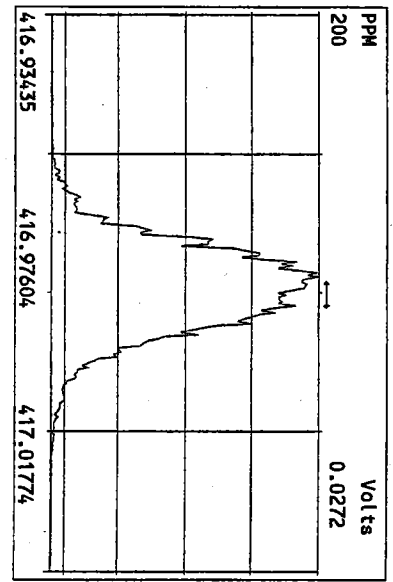
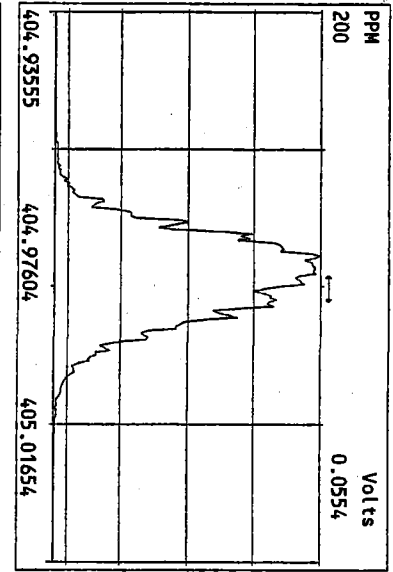
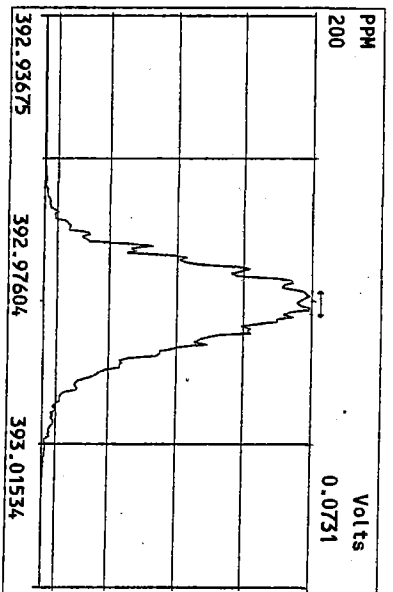
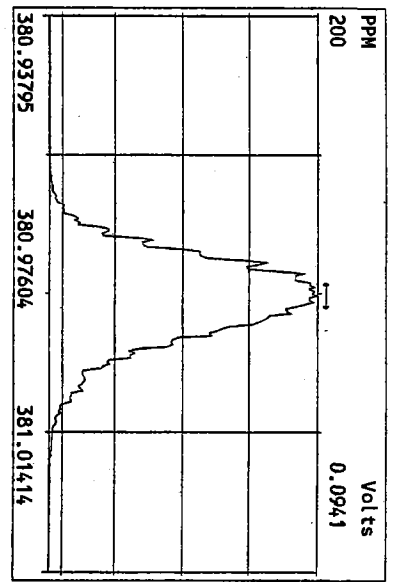
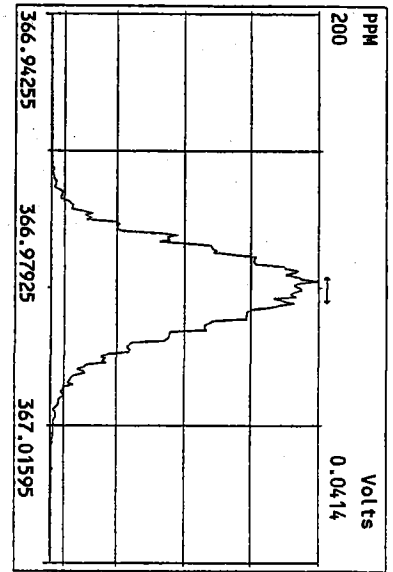
01 01 01 01 01 01

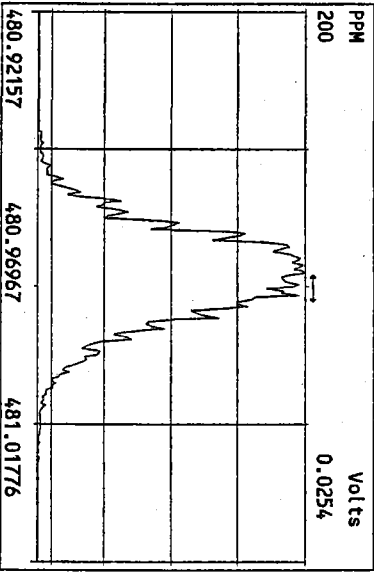
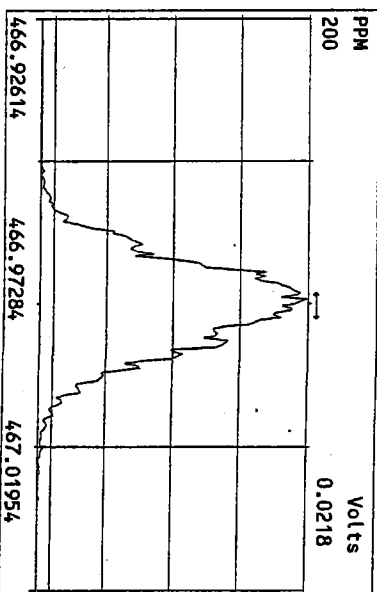
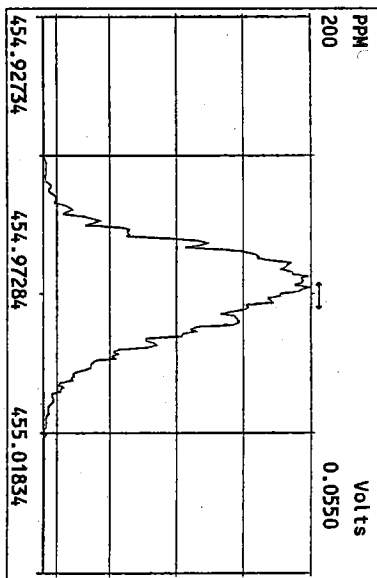
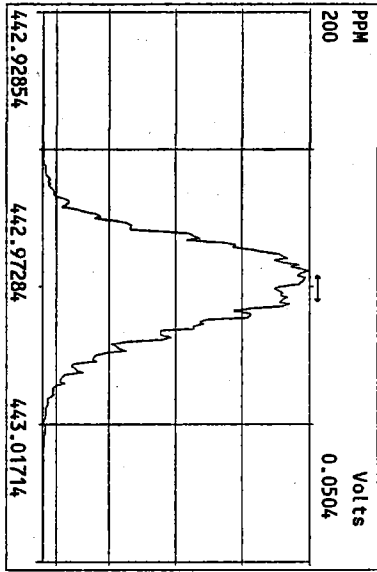
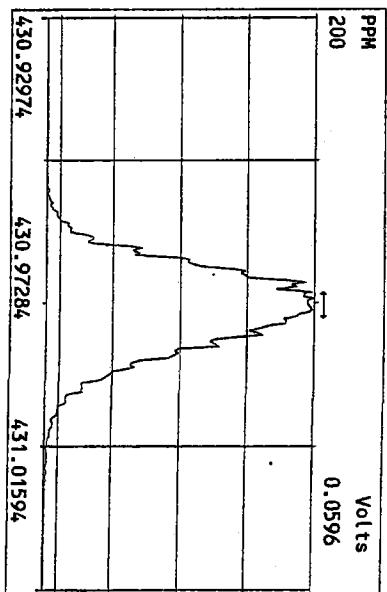
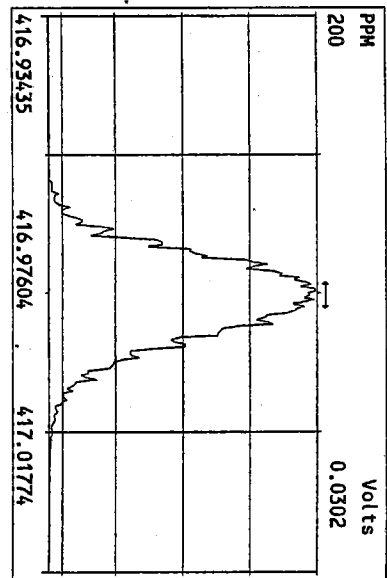
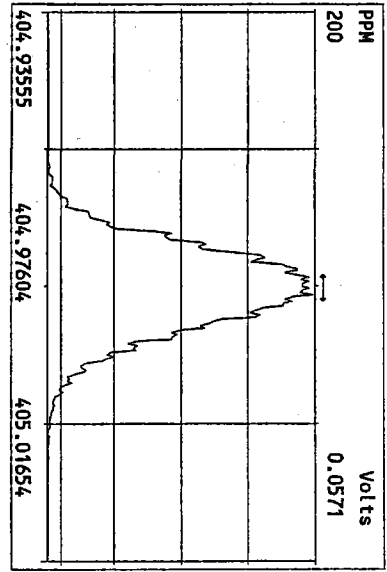


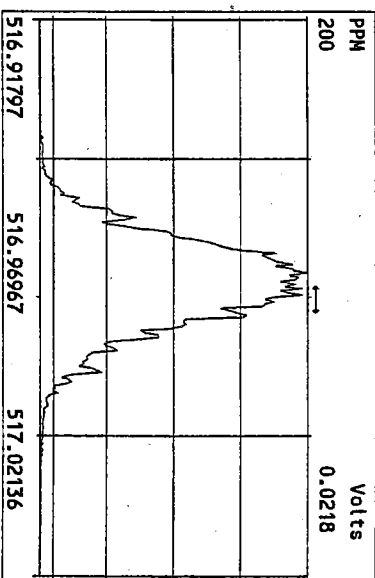
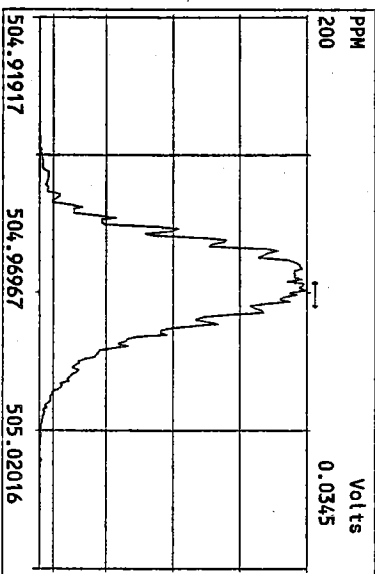
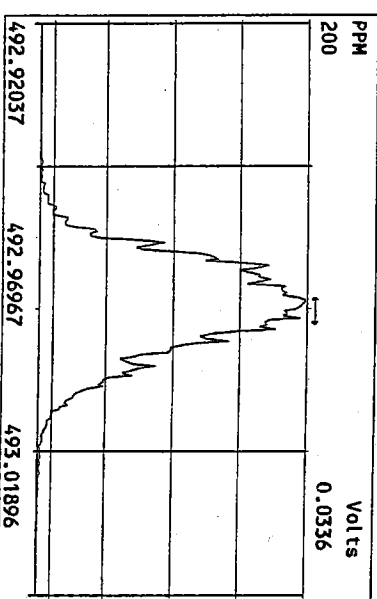
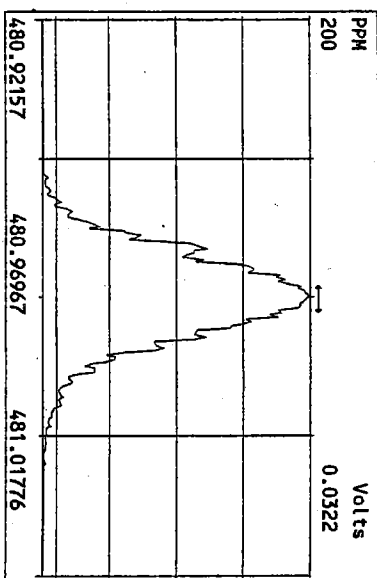
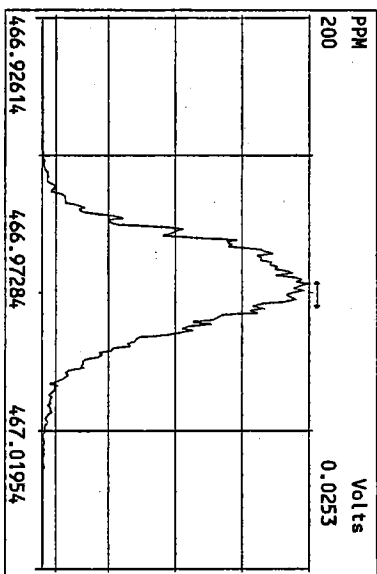
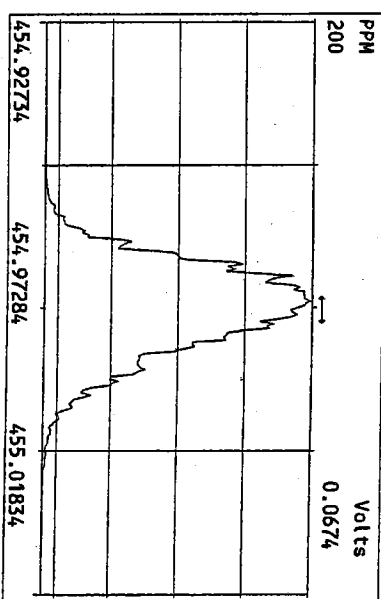
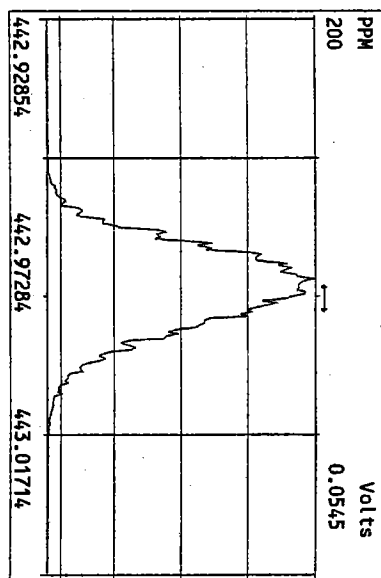
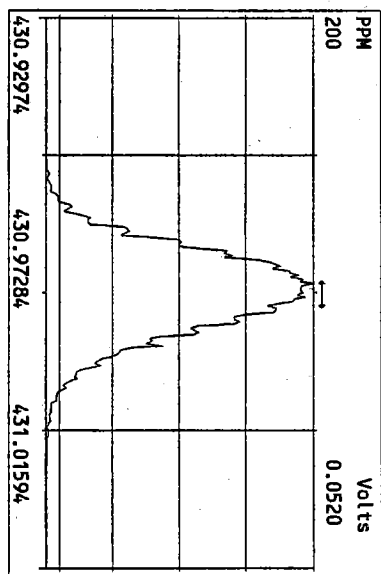
Peak Locate Examination:23-JAN-2010:01:40 File:22JAN10M\_RES\_CHECK  
 Experiment:PCDD Function:2 Reference:PK



01 01 01 01 01 01







## USEPA - ITD

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 22JAN10M Sam:1

Analysis Date: 22-JAN-10 13:36:22

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
NATIVE ANALYTES						
2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	10.1	7.80 - 12.9 ✓
1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	y	48.8	39.0 - 65.0 ✓
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	47.1	39.0 - 64.0 ✓
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	45.8	39.0 - 64.0 ✓
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	46.6	41.0 - 61.0 ✓
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.98	0.88-1.20	y	50.6	43.0 - 58.0 ✓
OCDD	M+2/M+4	0.92	0.76-1.02	y	99.0	79.0 - 126 ✓
2,3,7,8-TCDF	M/M+2	0.74	0.65-0.89	y	9.70	8.40 - 12.0 ✓
1,2,3,7,8-PeCDF	M+2/M+4	1.66	1.32-1.78	y	51.7	41.0 - 60.0 ✓
2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	49.7	41.0 - 60.0 ✓
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.6	45.0 - 56.0 ✓
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	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	48.8	44.0 - 57.0 ✓
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.1	45.0 - 56.0 ✓
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	50.5	45.0 - 55.0 ✓
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.01	0.88-1.20	y	50.9	43.0 - 58.0 ✓
OCDF	M+2/M+4	0.90	0.76-1.02	y	96.9	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: DNDate: 1/22/10

## USEPA - ITD

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 22JAN10M Sam:1

Analysis Date: 22-JAN-10 13:36:22

Labeled Compounds	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
13C-2,3,7,8-TCDD	M/M+2	0.72	0.65-0.89	y	102	82.0 - 121 ✓
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.71	1.32-1.78	y	85.4	62.0 - 160 ✓
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	103	85.0 - 117 ✓
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	101	85.0 - 118 ✓
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	94.6	72.0 - 138 ✓
13C-OCDD	M+2/M+4	0.96	0.76-1.02	y	192	96.0 - 415 ✓
13C-2,3,7,8-TCDF	M/M+2	0.86	0.65-0.89	y	98.5	71.0 - 140 ✓
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	82.7	76.0 - 130 ✓
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	82.2	77.0 - 130 ✓
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	101	76.0 - 131 ✓
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	98.9	70.0 - 143 ✓
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	98.1	73.0 - 137 ✓
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.43-0.59	y	94.3	74.0 - 135 ✓
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.37-0.51	y	92.2	78.0 - 129 ✓
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	88.7	77.0 - 129 ✓
13C-OCDF	M+2/M+4	0.96	0.76-1.02	y	180	96.0 - 415 ✓
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					10.0	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: DNDate: 1/22/10

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: 11/18/09  
 RT Window Data Filename: 22JAN10M Sam:1 Analysis Date: 22-JAN-10 Time: 13:36:22  
 DB-5 IS Data Filename: 22JAN10M Sam:1 Analysis Date: 22-JAN-10 Time: 13:36:22  
 DB-225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	24:33 ✓	1,3,6,8-TCDF (F)	23:11 ✓
1,2,8,9-TCDD (L)	28:29 ✓	1,2,8,9-TCDF (L)	28:42 ✓
1,2,4,7,9-PeCDD (F)	30:24 ✓	1,3,4,6,8-PeCDF (F)	28:35 ✓
1,2,3,8,9-PeCDD (L)	33:57 ✓	1,2,3,8,9-PeCDF (L)	34:23 ✓
1,2,4,6,7,9-HxCDD (F)	36:17 ✓	1,2,3,4,6,8-HxCDF (F)	35:24 ✓
1,2,3,7,8,9-HxCDD (L)	39:21 ✓	1,2,3,7,8,9-HxCDF (L)	39:55 ✓
1,2,3,4,6,7,9-HpCDD (F)	42:58 ✓	1,2,3,4,6,7,8-HpCDF (F)	42:26 ✓
1,2,3,4,6,7,8-HpCDD (L)	44:20 ✓	1,2,3,4,7,8,9-HpCDF (L)	45:15 ✓

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

=====

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT  
BETWEEN  
COMPARED PEAKS (1)

<25%

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

Analyst: DN

Date: 1/22/10

## USEPA - ITD

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory                      Episode No.:

Contract No.:                      SAS No.:                      Init. Cal. Date: 11/18/09

Instrument ID: FAL3                      GC Column ID: DB5

Analysis Date: 22-JAN-10 13:36:22    CS3 or VER Data Filename: 22JAN10M    Sam:1

NATIVE ANALYTES	RETENTION TIME		RRT	QC LIMITS (1)
	REFERENCE			
2,3,7,8-TCDD	13C-2,3,7,8-TCDD		1.001	0.999-1.002 ✓
2,3,7,8-TCDF	13C-2,3,7,8-TCDF		1.001	0.999-1.003 ✓
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD		1.001	0.999-1.002 ✓
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF		1.001	0.999-1.002 ✓
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF		1.001	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			1.173	0.923-1.203 ✓
13C-2,3,4,7,8-PeCDF			1.222	0.923-1.303 ✓

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

Analyst: DN

Date: 1/22/10



## USEPA - ITD

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory                      Episode No.:

Contract No.:                      SAS No.:                      Init. Cal. Date: 11/18/09

Instrument ID: FAL3                      GC Column ID: DB5

Analysis Date: 22-JAN-10 13:36:22      CS3 or VER Data Filename: 22JAN10M      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	1.000	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	1.000	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	1.000	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	1.000	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	0.984	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		1.014	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		1.078	1.043-1.085 ✓
13C-1,2,3,4,7,8,9-HpCDF		1.150	1.057-1.154 ✓
13C-OCDD		1.269	1.032-1.311 ✓
13C-OCDF		1.278	1.000-1.311 ✓

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

Analyst: PN                      Date: 1/22/10

FAL ID: ST012210M1      Filename: 22JAN10M      Sam:1      Acquired: 22-JAN-10 13:36:22      ICal: pccdfal3-11-18-09  
 Client ID: 1613 CS3 (90918J)      ConCal: ST012210M1      EndCal: ST012210M2  
 Results:      GC Column: DB5      Amount: 1.000      NATO 1989 Tox: 98.0

Name	Resp	RA	RT	RRF	WHO 1998 Tox:		WHO 2005 Tox:		DL	111	
					Conc	Qual	Fac Noise-1	Noise-2			
2,3,7,8-TCDD	2.62e+06	0.80 y	27:33	1.02	10.1		2.50	-	-	*	
1,2,3,7,8-PeCDD	1.08e+07	1.60 y	33:22	0.96	48.8		2.50	-	-	*	
1,2,3,4,7,8-HxCDD	1.03e+07	1.25 y	38:44	1.37	47.1		2.50	-	-	*	
1,2,3,6,7,8-HxCDD	9.21e+06	1.24 y	38:54	1.34	45.8		2.50	-	-	*	
1,2,3,7,8,9-HxCDD	9.85e+06	1.23 y	39:21	1.37	46.6		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	7.92e+06	0.98 y	44:20	1.17	50.6		2.50	-	-	*	
OCDD	1.21e+07	0.92 y	49:57	1.21	99.0		2.50	-	-	*	
2,3,7,8-TCDF	5.08e+06	0.74 y	26:47	1.29	9.70		2.50	-	-	*	
1,2,3,7,8-PeCDF	1.57e+07	1.66 y	31:39	0.89	51.7		2.50	-	-	*	
2,3,4,7,8-PeCDF	1.48e+07	1.65 y	32:58	0.91	49.7		2.50	-	-	*	
1,2,3,4,7,8-HxCDF	1.33e+07	1.21 y	37:21	1.00	48.6		2.50	-	-	*	
1,2,3,6,7,8-HxCDF	1.39e+07	1.22 y	37:33	0.92	48.7		2.50	-	-	*	
2,3,4,6,7,8-HxCDF	1.29e+07	1.24 y	38:29	0.99	48.8		2.50	-	-	*	
1,2,3,7,8,9-HxCDF	1.17e+07	1.23 y	39:55	1.09	48.1		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	1.10e+07	1.03 y	42:26	1.36	50.5		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	9.67e+06	1.01 y	45:15	1.61	50.9		2.50	-	-	*	
OCDF	1.36e+07	0.90 y	50:19	0.84	96.9		2.50	-	-	*	
										Rec	
13C-2,3,7,8-TCDD	2.55e+07	0.72 y	27:31	0.94	102					102	
13C-1,2,3,7,8-PeCDD	2.30e+07	1.71 y	33:21	1.02	85.4					85.4	
13C-1,2,3,4,7,8-HxCDD	1.59e+07	1.28 y	38:43	0.98	103					103	
13C-1,2,3,6,7,8-HxCDD	1.50e+07	1.27 y	38:53	0.94	101					101	
13C-1,2,3,4,6,7,8-HpCDD	1.34e+07	1.03 y	44:20	0.90	94.6					94.6	
13C-OCDD	2.02e+07	0.96 y	49:56	0.67	192					96.1	
13C-2,3,7,8-TCDF	4.07e+07	0.86 y	26:46	0.88	98.5					98.5	
13C-1,2,3,7,8-PeCDF	3.42e+07	1.69 y	31:37	0.88	82.7					82.7	
13C-2,3,4,7,8-PeCDF	3.29e+07	1.69 y	32:56	0.85	82.2					82.2	
13C-1,2,3,4,7,8-HxCDF	2.74e+07	0.49 y	37:20	1.72	101					101	
13C-1,2,3,6,7,8-HxCDF	3.12e+07	0.49 y	37:31	2.00	98.9					98.9	
13C-2,3,4,6,7,8-HxCDF	2.68e+07	0.49 y	38:28	1.74	98.1					98.1	
13C-1,2,3,7,8,9-HxCDF	2.24e+07	0.49 y	39:54	1.51	94.3					94.3	
13C-1,2,3,4,6,7,8-HpCDF	1.60e+07	0.46 y	42:26	1.10	92.2					92.2	
13C-1,2,3,4,7,8,9-HpCDF	1.18e+07	0.45 y	45:15	0.85	88.7					88.7	
13C-OCDF	3.33e+07	0.96 y	50:17	1.17	180					90.0	
37Cl-2,3,7,8-TCDD	2.59e+06		27:32	0.97	10.0					100	
13C-1,2,3,4-TCDD	2.65e+07	0.72 y	26:57	-	101						
13C-1,2,3,4-TCDF	4.71e+07	0.86 y	25:41	-	102						
13C-1,2,3,7,8,9-HxCDD	1.57e+07	1.28 y	39:20	-	76.8						
							Fac Noise-1	Noise-2	DL	#Hom	
Total Tetra-Dioxins	1.37e+07		24:33	1.02	53.0		2.50	-	-	*	20
Total Penta-Dioxins	2.32e+07		30:24	0.96	105		2.50	-	-	*	9
Total Hexa-Dioxins	3.34e+07		36:17	1.36	159		2.50	-	-	*	18
Total Hepta-Dioxins	1.70e+07		42:58	1.17	108		2.50	-	-	*	15
Total Tetra-Furans	2.10e+07		23:11	1.29	40.1		2.50	-	-	*	19
1st Fn. Tot Penta-Furans	1.82e+07		28:35	0.90	60.6		2.50	-	-	*	PeCDF 1
Total Penta-Furans	4.34e+07		30:21	0.90	144		2.50	-	-	*	205 10
Total Hexa-Furans	6.04e+07		35:24	0.99	226		2.50	-	-	*	12
Total Hepta-Furans	2.08e+07		42:26	1.47	102		2.50	-	-	*	7

Analyst: DN

Date: 1/22/10

Frontier Analytical Laboratory - Acquisition Log

Run Name: 22JAN10M

Instrument: FAL3

GC: DB5

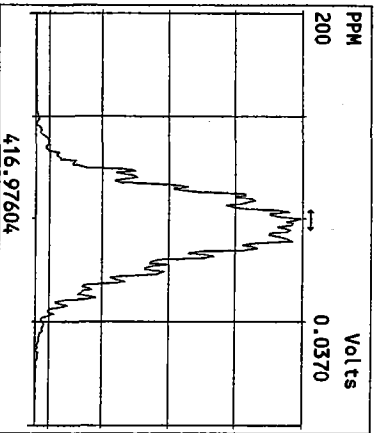
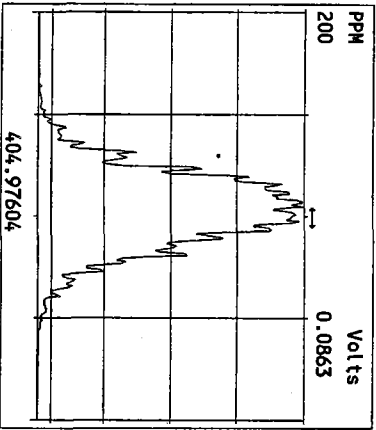
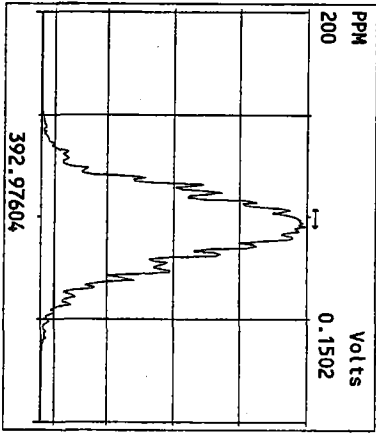
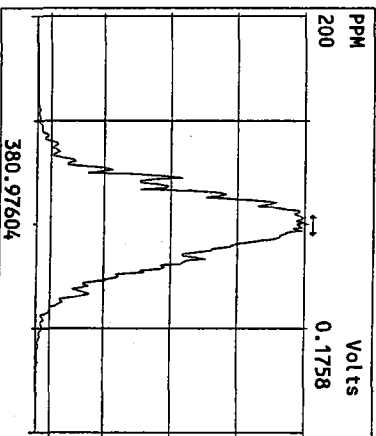
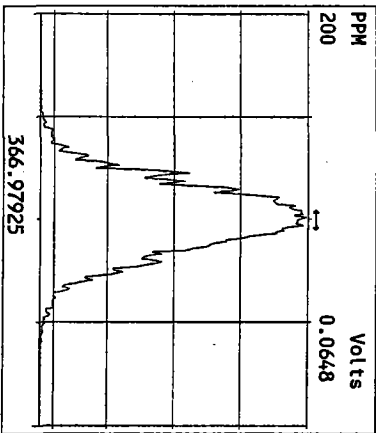
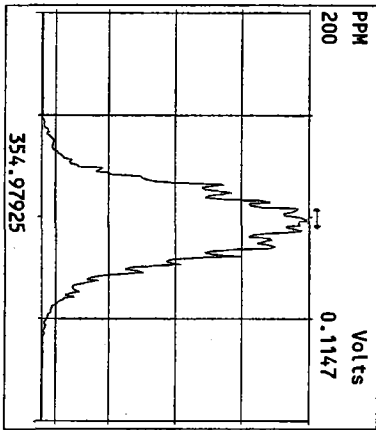
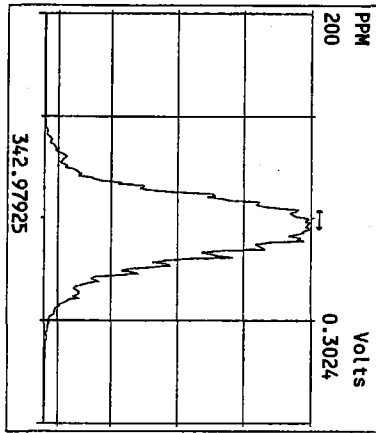
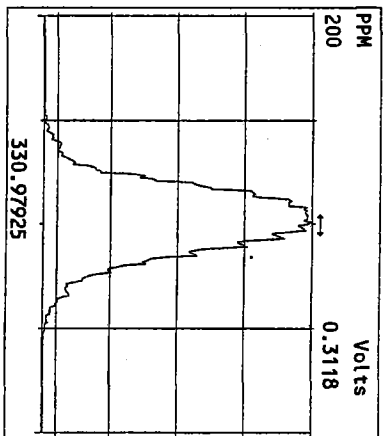
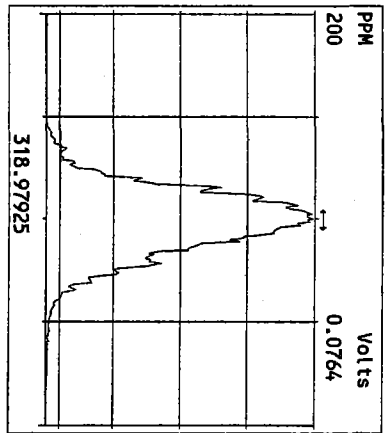
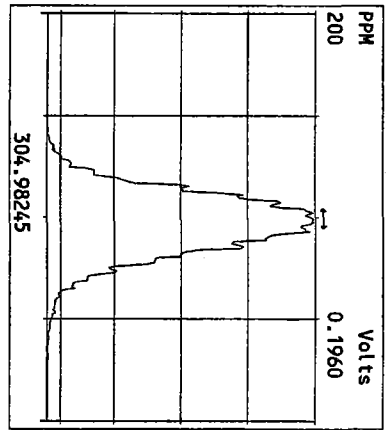
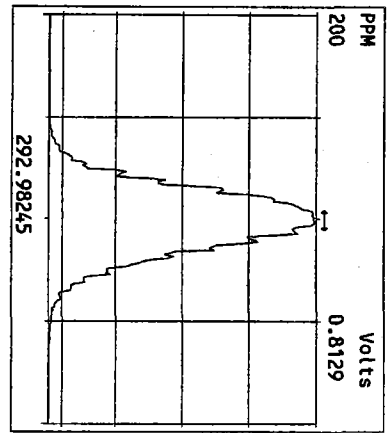
Experiment: PCDD

Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
22JAN10M 1	ST012210M1	1613 CS3 (90918J)	22-JAN-10 13:36:22	ST012210M1	ST012210M2	TC
22JAN10M 2	SB012210M1	Solvent Blank	22-JAN-10 14:31:41	ST012210M1	ST012210M2	TC
22JAN10M 3	SB012210M2	Solvent Blank	22-JAN-10 15:27:00	ST012210M1	ST012210M2	TC
22JAN10M 4	1926-001-0001-OPR	OPR	22-JAN-10 16:22:18	ST012210M1	ST012210M2	TC
22JAN10M 5	1926-001-0001-MB	Method Blank	22-JAN-10 17:17:33	ST012210M1	ST012210M2	TC
22JAN10M 6	5913-001-0001-SA	CB19010710SED	22-JAN-10 18:12:51	ST012210M1	ST012210M2	TC
22JAN10M 7	5913-002-0001-SA	CB12010710SED	22-JAN-10 19:08:10	ST012210M1	ST012210M2	TC
22JAN10M 8	5913-003-0001-SA	CB2010710SED	22-JAN-10 20:03:29	ST012210M1	ST012210M2	TC
22JAN10M 9	<del>5914-001-0001-SA*</del>	<del>CB34A011110SED</del>	22-JAN-10 20:58:52	ST012210M1	ST012210M2	TC
22JAN10M 10	5914-002-0001-SA	CB99011110SED	22-JAN-10 21:54:15	ST012210M1	ST012210M2	TC
22JAN10M 11	SB012210M3	Solvent Blank	22-JAN-10 22:49:37	ST012210M1	ST012210M2	TC
22JAN10M 12	SB012210M4	Solvent Blank	22-JAN-10 23:44:56	ST012210M1	ST012210M2	TC
22JAN10M 13	ST012210M2	1613 CS3 (90918J)	23-JAN-10 00:40:14	ST012210M1	ST012210M2	TC

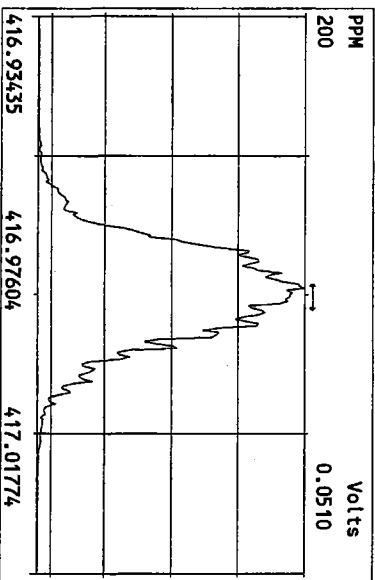
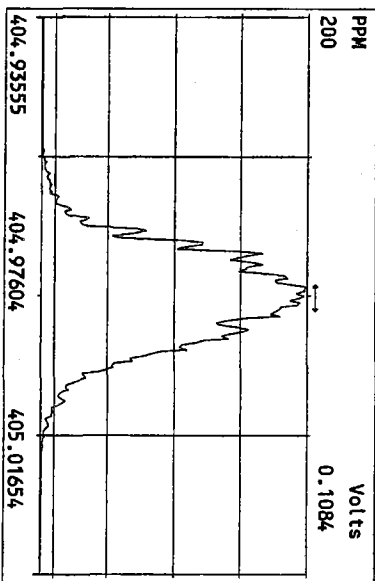
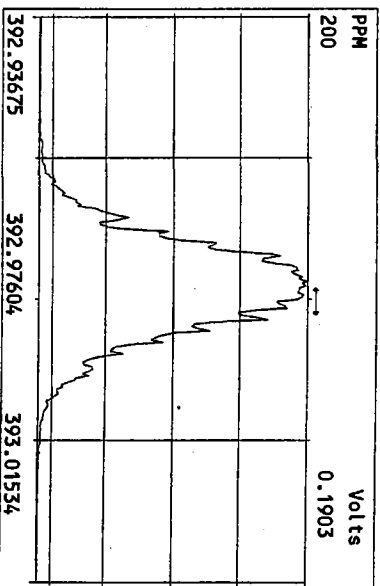
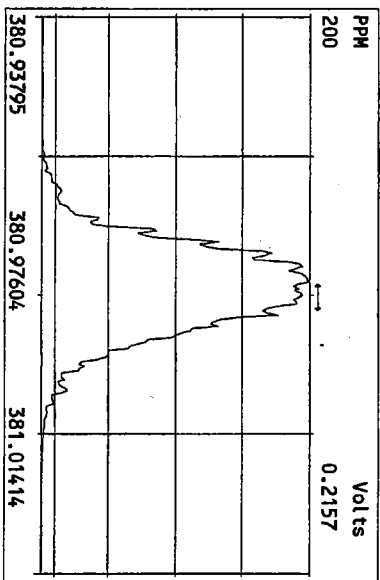
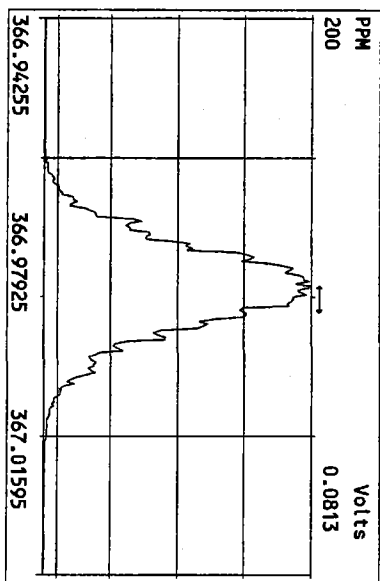
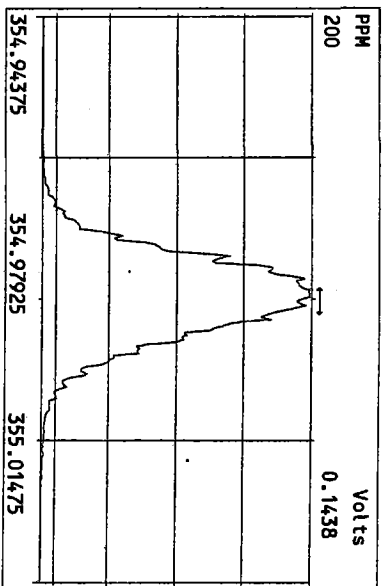
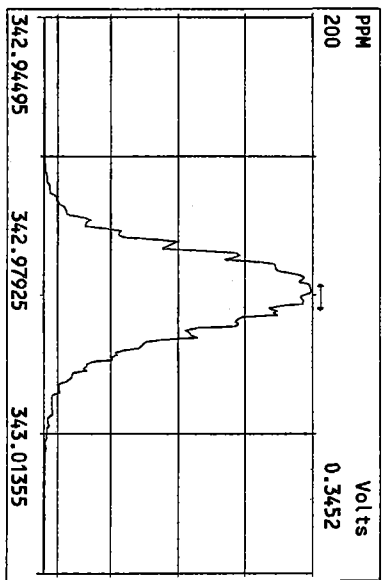
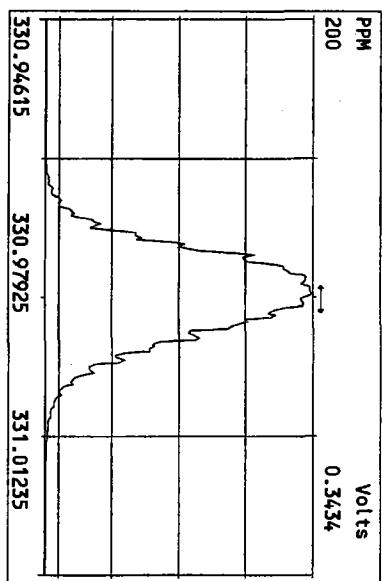
\* 5914-001-0001-SA did not inject. Syringe missed vial insert. will run on 25 JANUARY  
 B 1/25/10

Data Backed Up: \_\_\_\_\_

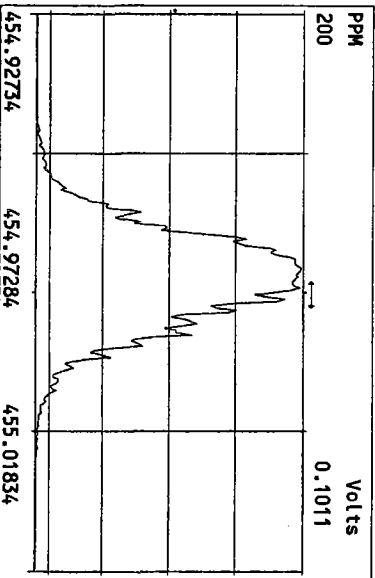
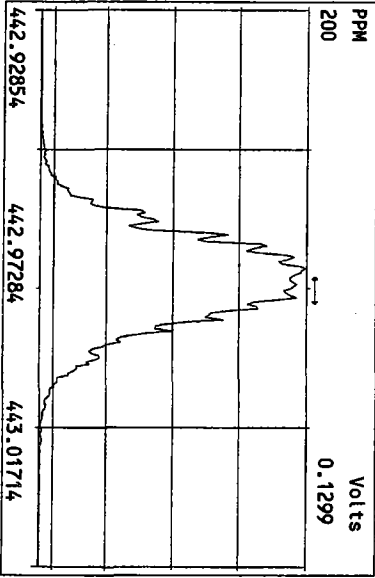
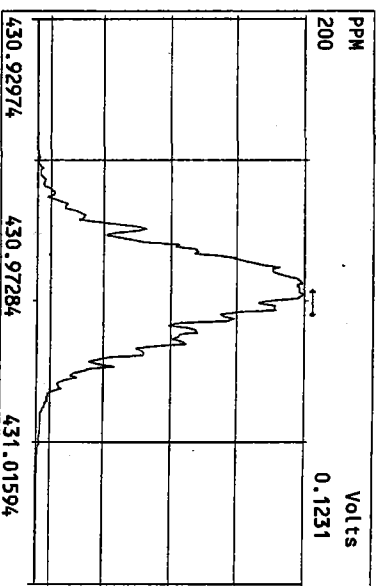
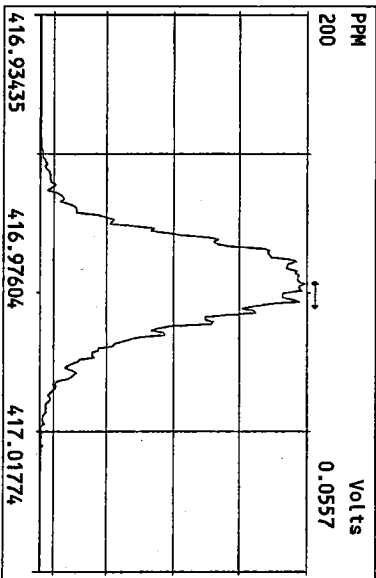
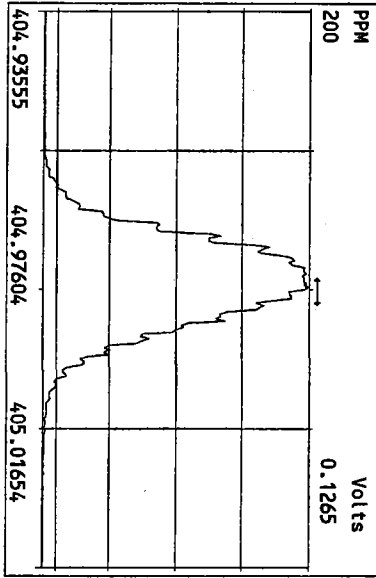
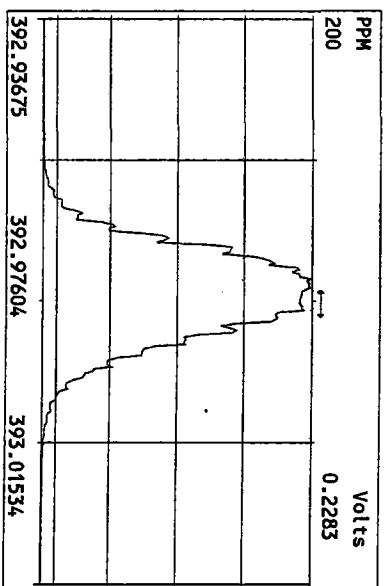
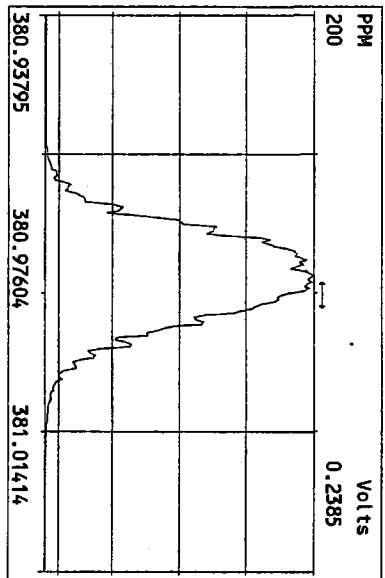
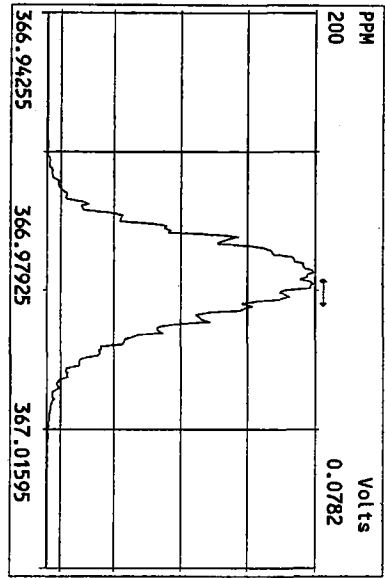
Date: \_\_\_\_\_



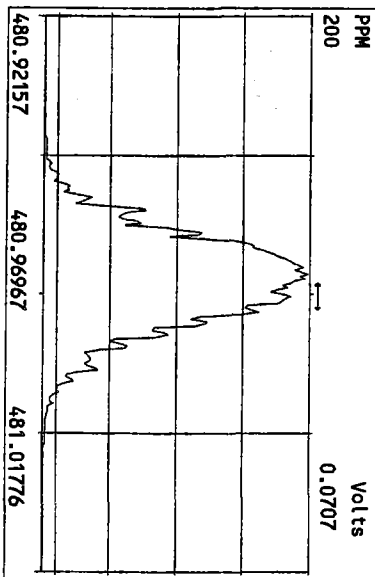
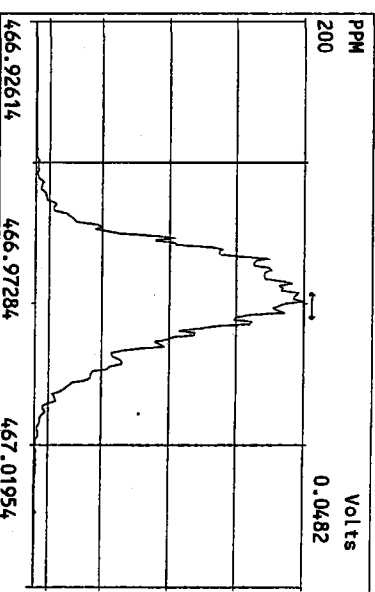
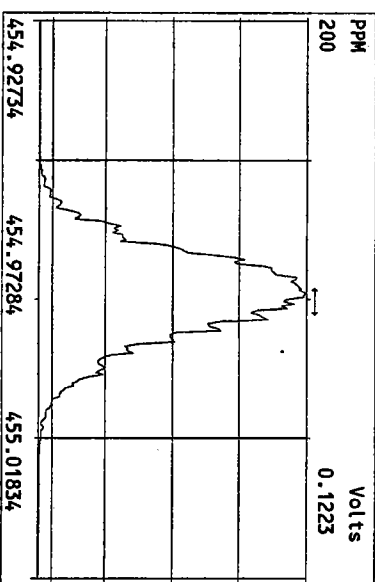
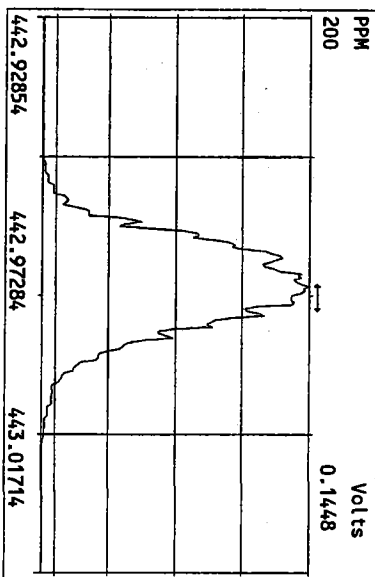
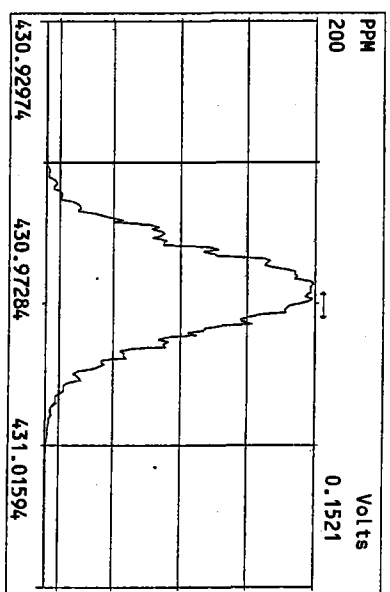
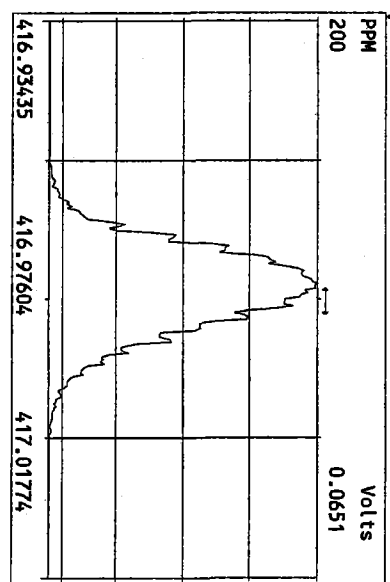
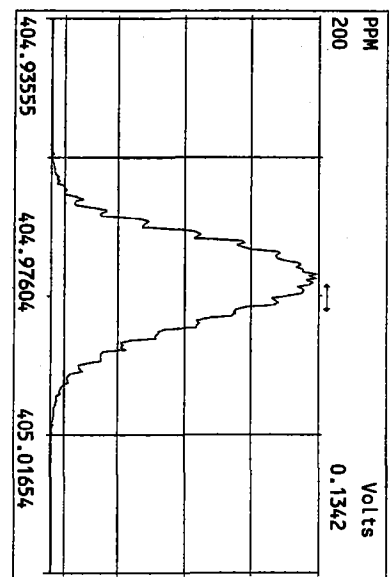
Peak Locate Examination:22-JAN-2010:13:35 File:22JAN10M  
 Experiment:PCDD Function:2 Reference:PFK



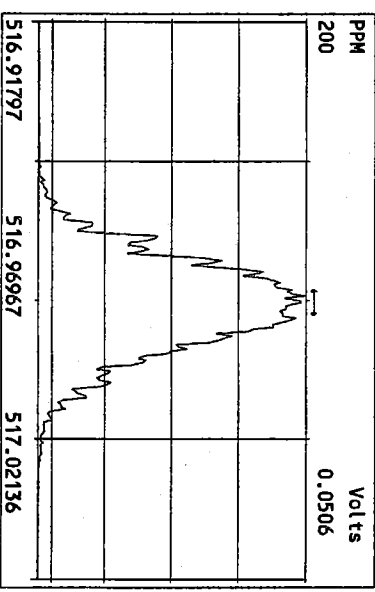
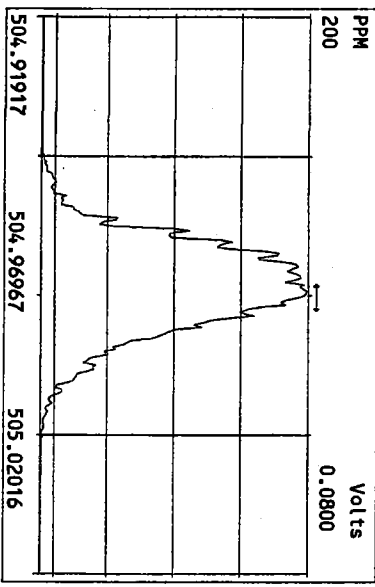
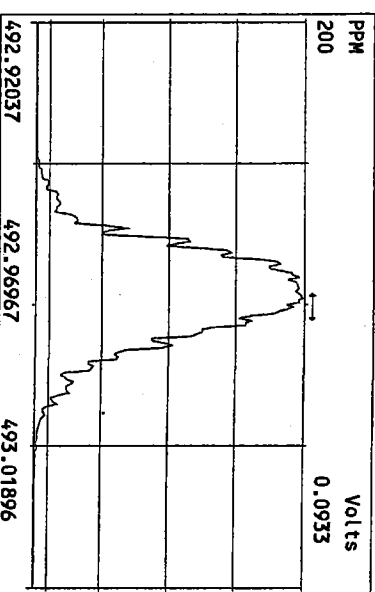
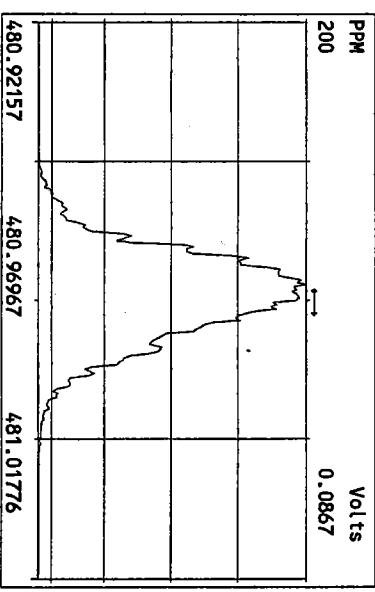
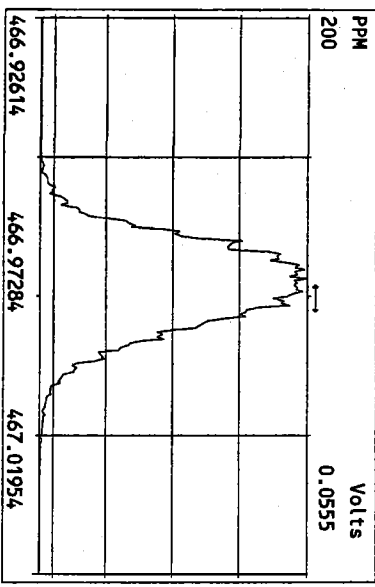
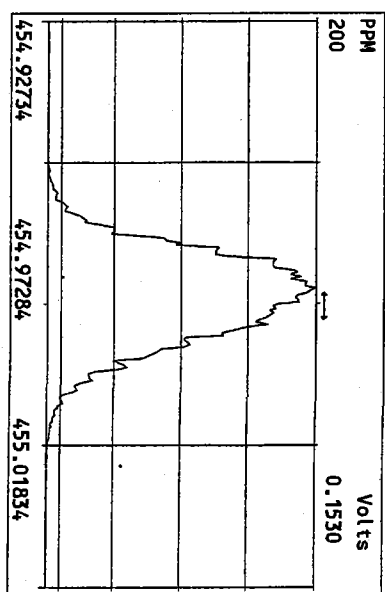
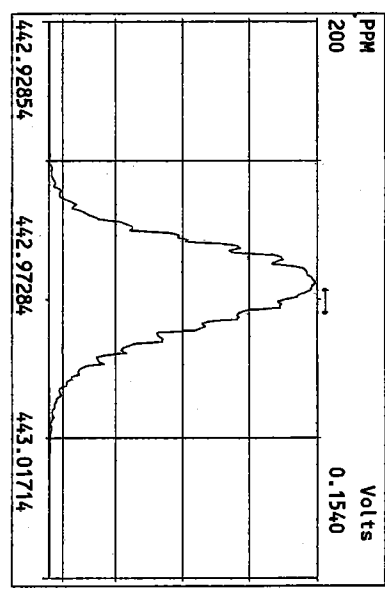
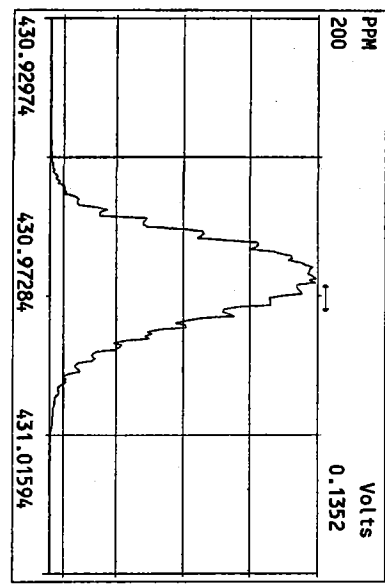
Peak Locate Examination:22-JAN-2010:13:35 File:22JAN10M  
Experiment::PCDD Function:3 Reference:PK



Peak Locate Examination: 22-JAN-2010:13:35 File: 22JAN10M  
 Experiment: PDD Function: 4 Reference: PFK



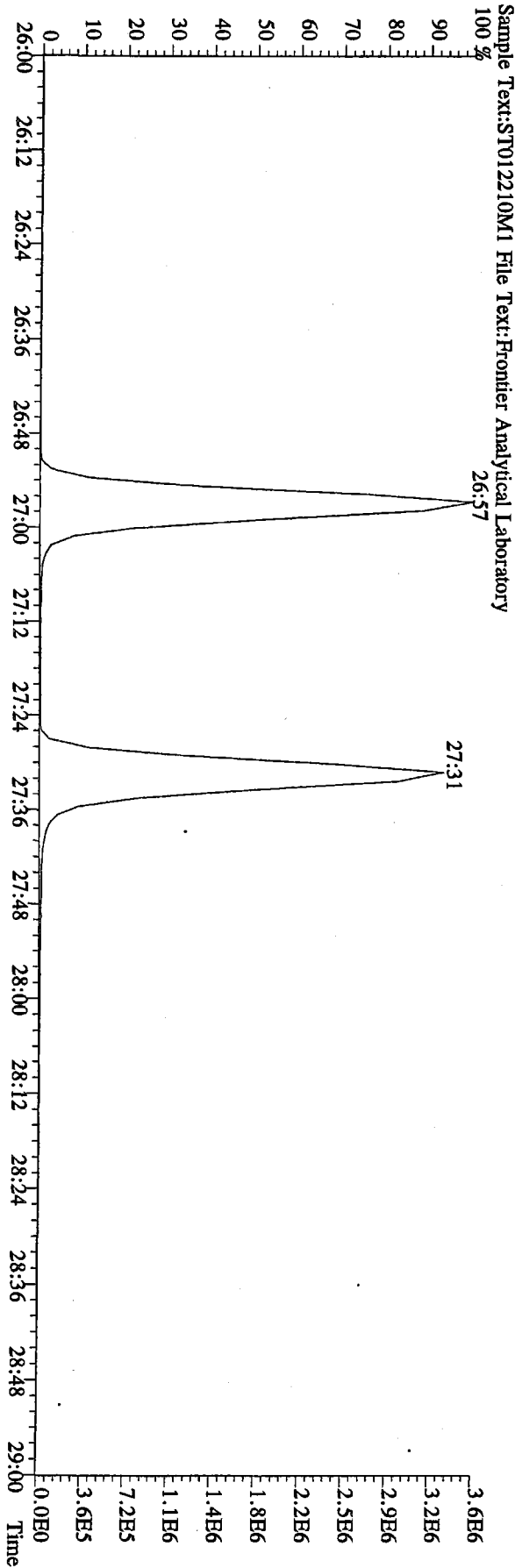
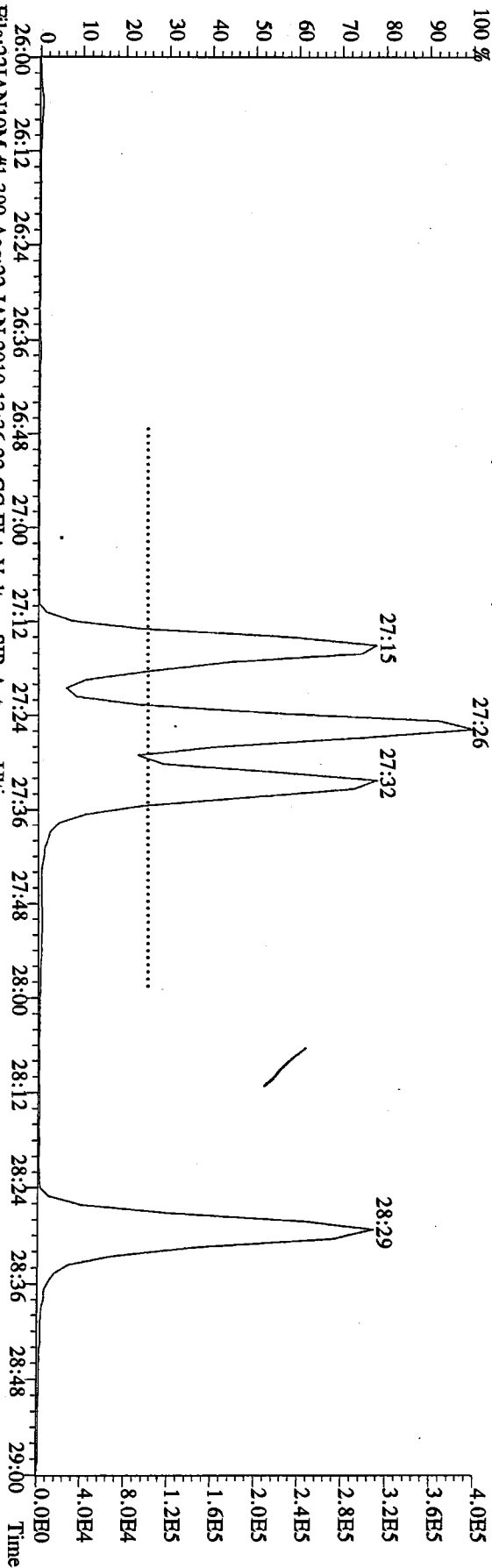
Peak Locate Examination:22-JAN-2010:13:36 File:22JAN10M  
 Experiment:PCDD Function:5 Reference:PFK



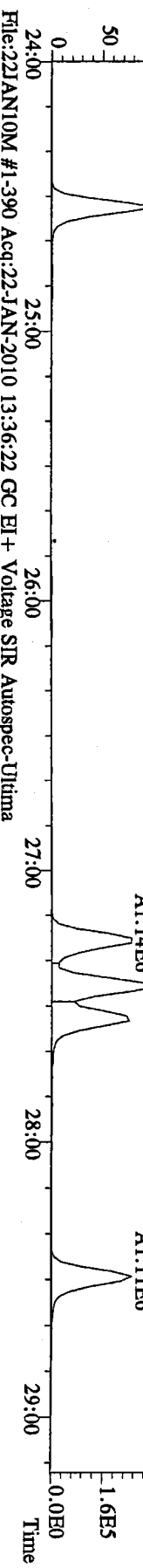
2010 01 22 13:36



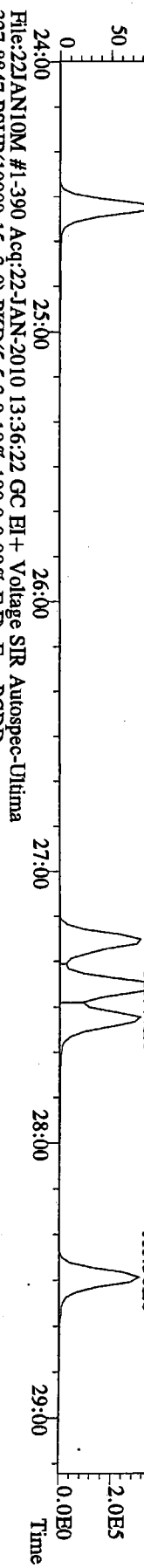
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 321.8936 Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



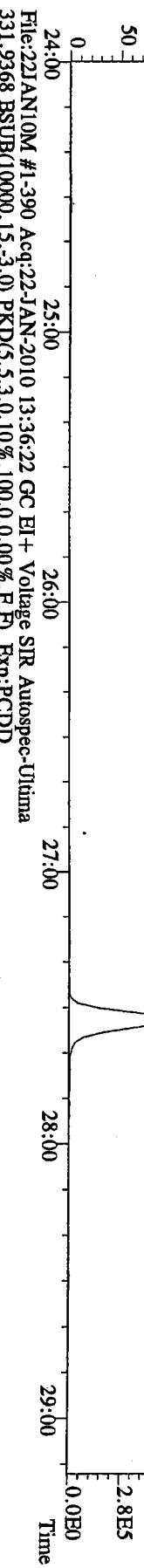
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



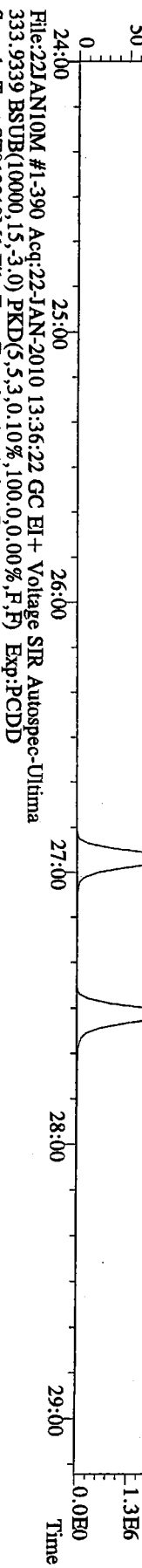
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 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:ST012210M1 File Text:Frontier Analytical Laboratory



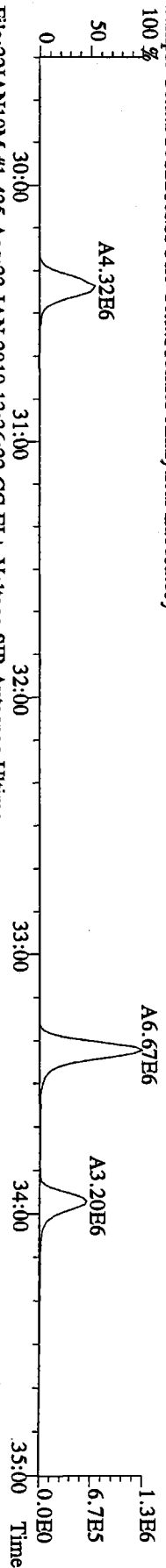
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



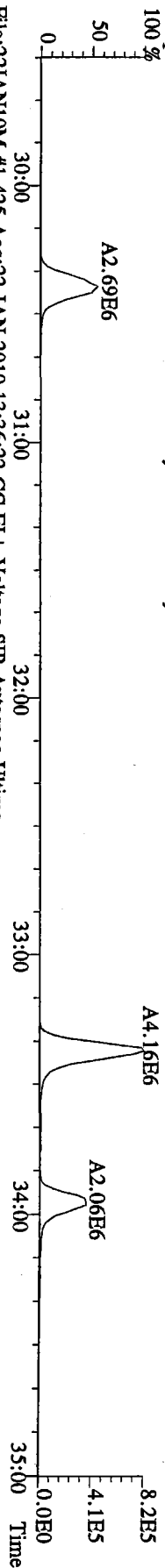
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



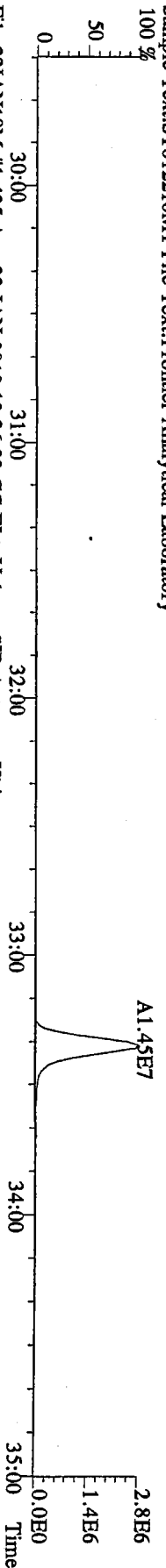
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



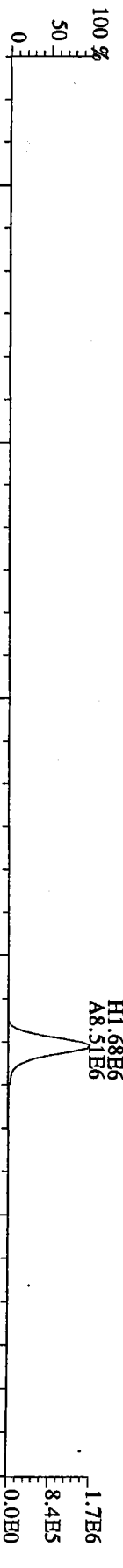
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 357.8949 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



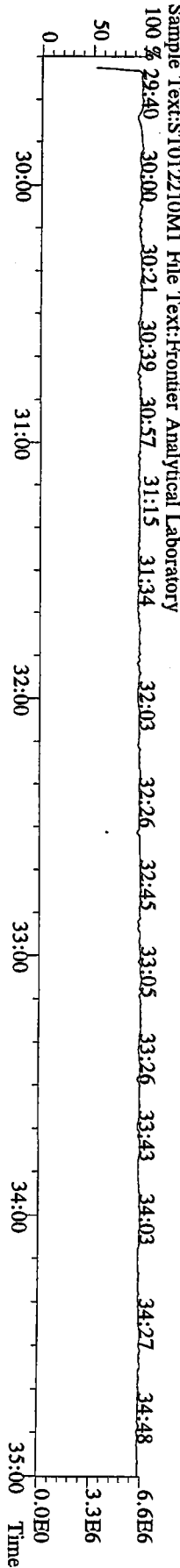
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 367.8919 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



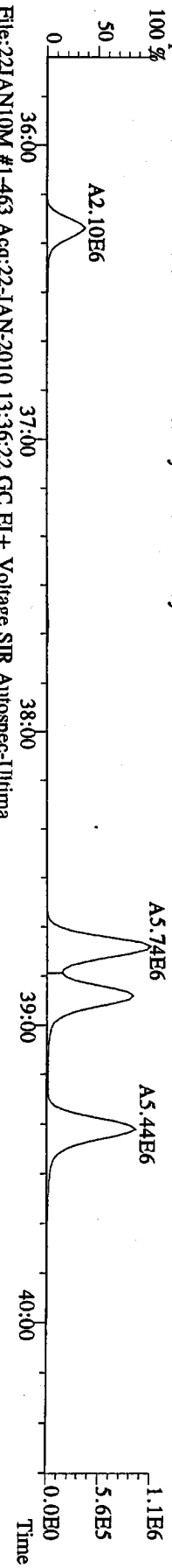
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 369.8919 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



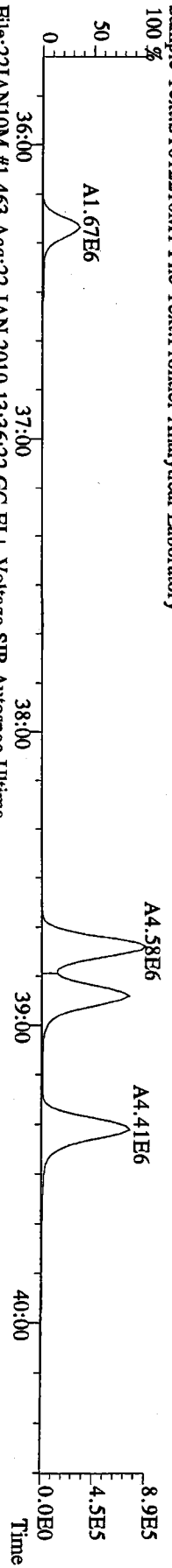
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 F:2 Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



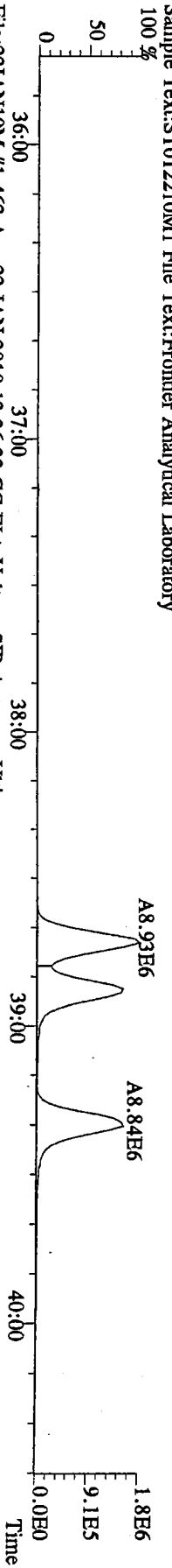
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
389.8156 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



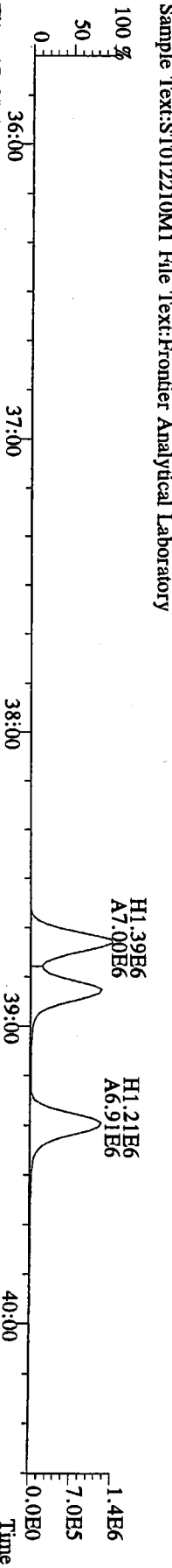
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
391.8127 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



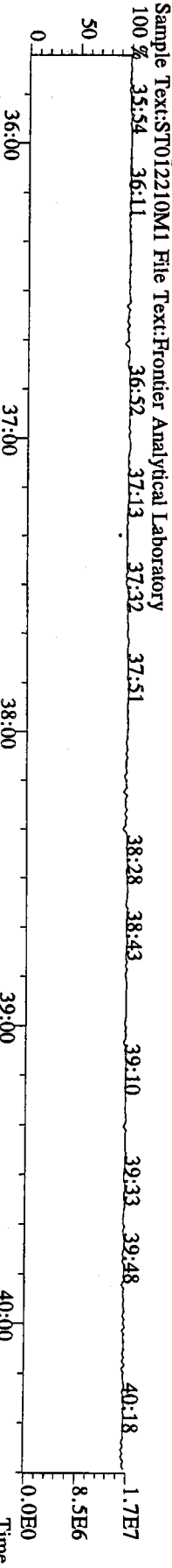
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
401.8559 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



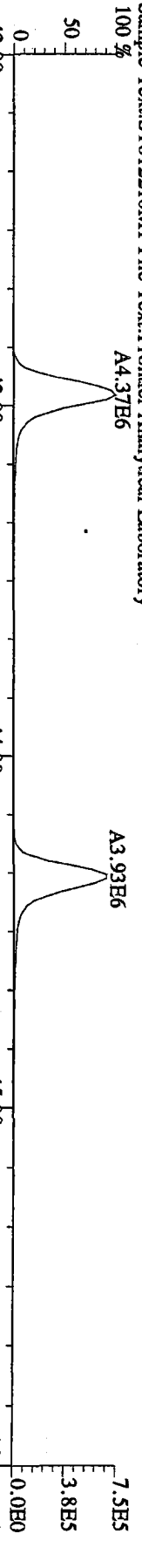
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
403.8530 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



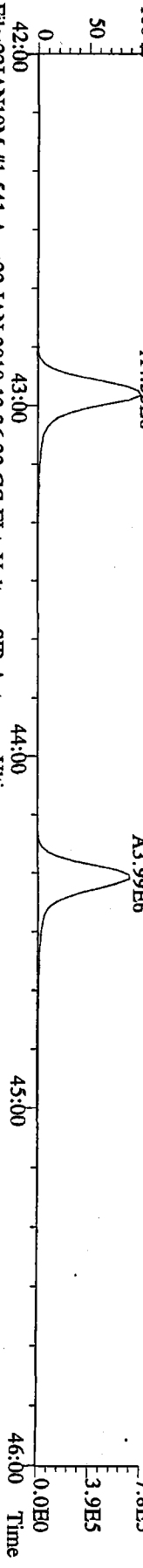
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
380.9760 F:3 Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



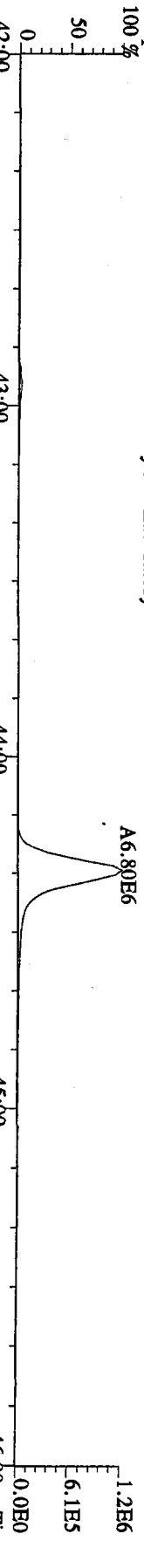
File:221JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



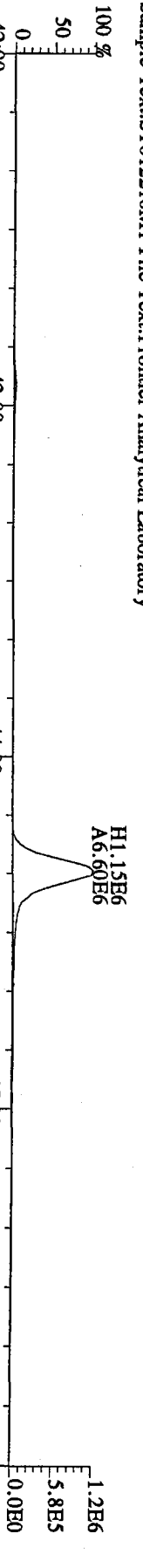
File:221JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



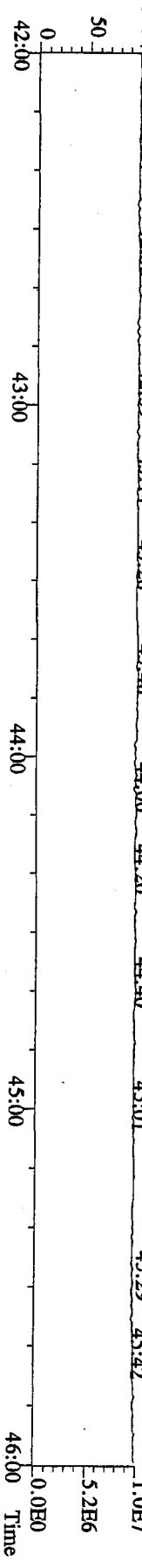
File:221JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



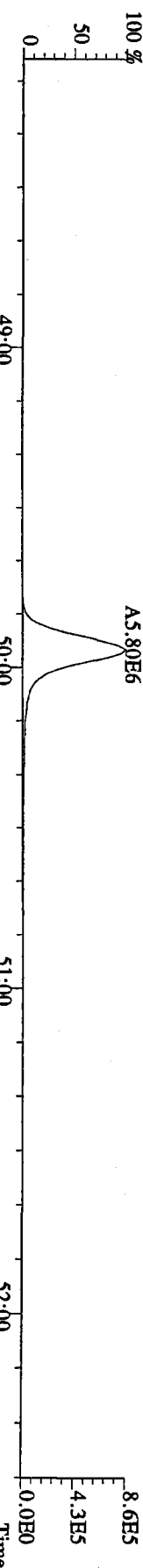
File:221JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 F:4 Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



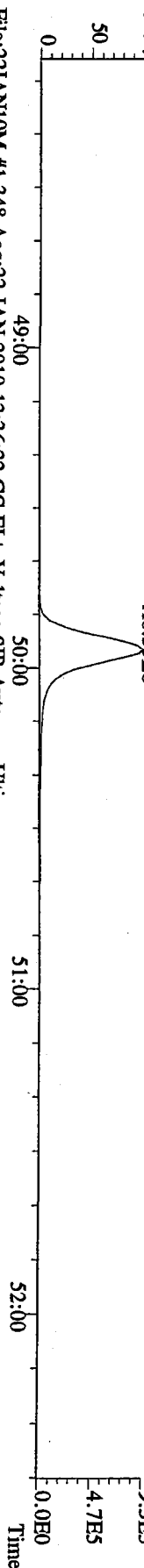
File:221JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 F:4 Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



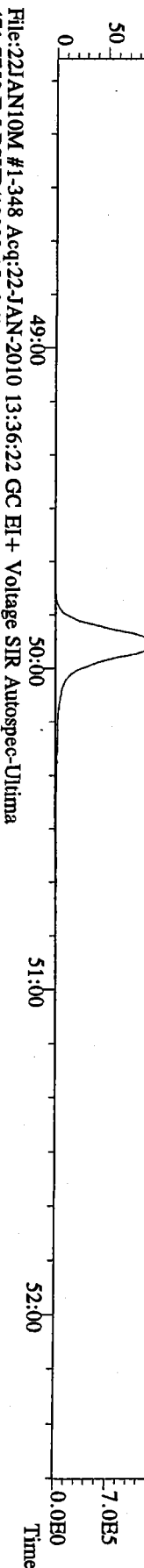
File:221JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



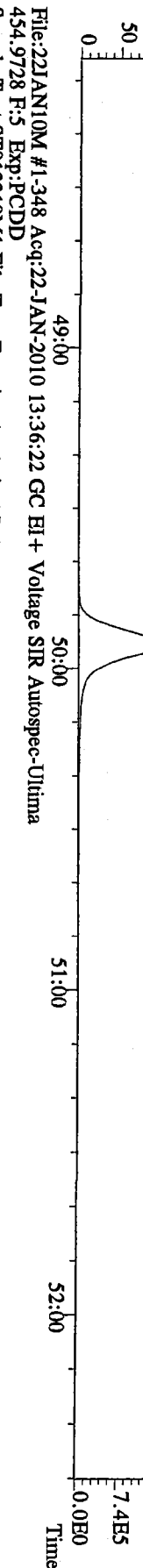
File:221JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



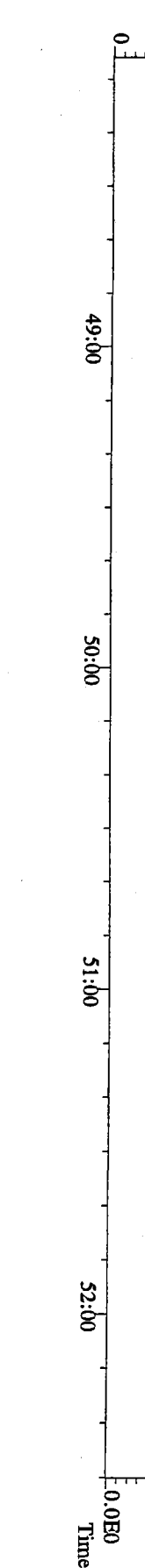
File:221JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



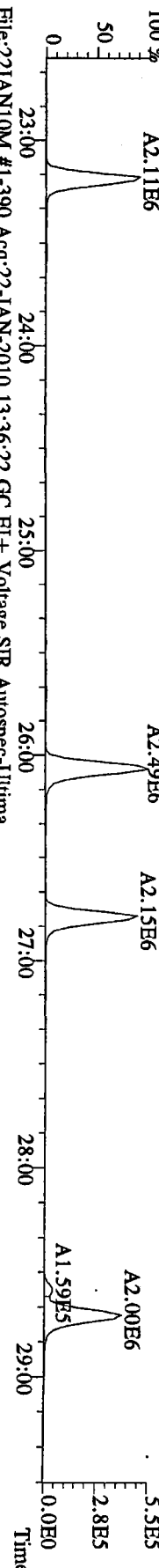
File:221JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



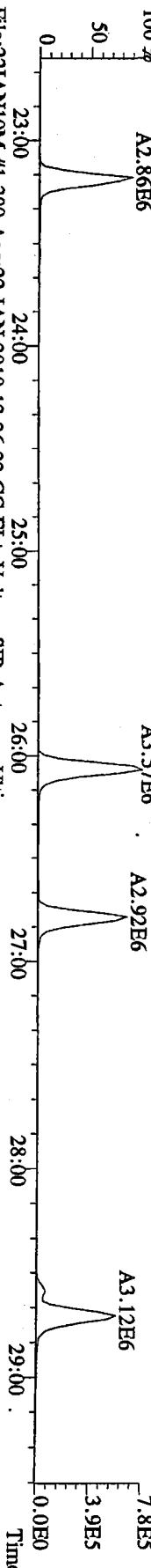
File:221JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 454.9728 F:5 Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



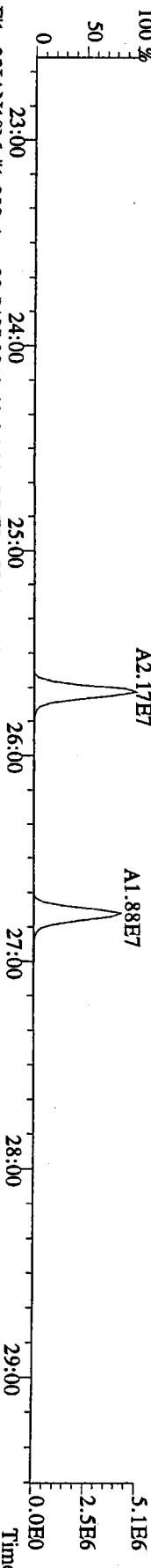
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



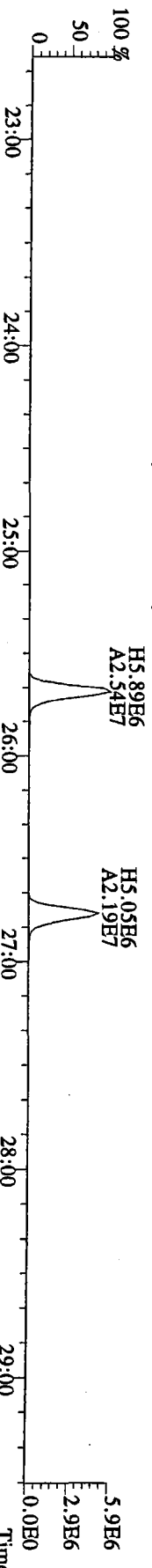
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



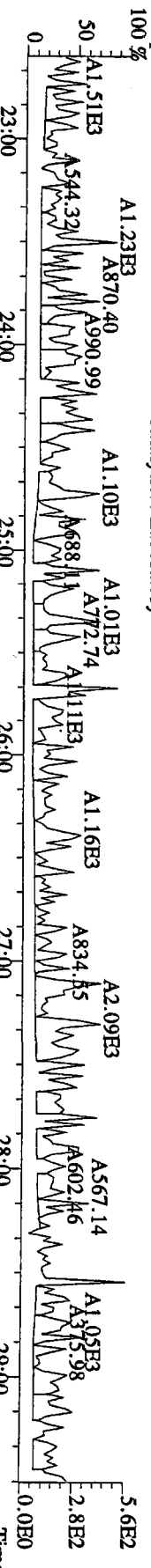
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



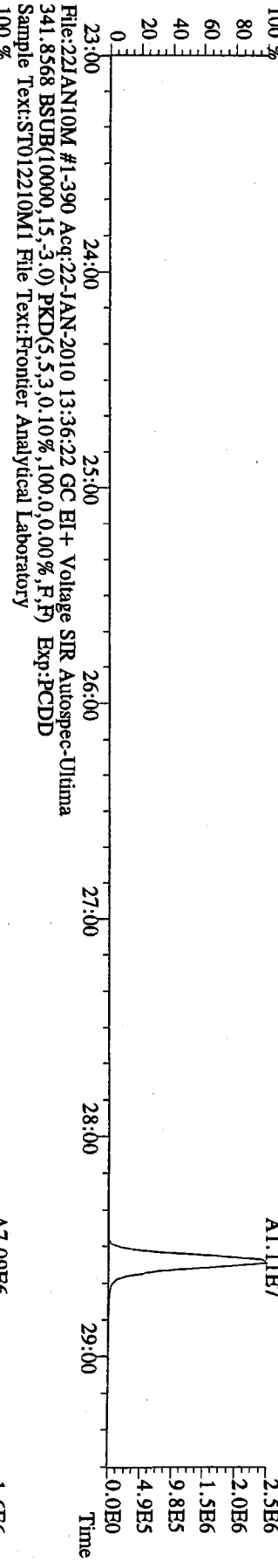
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



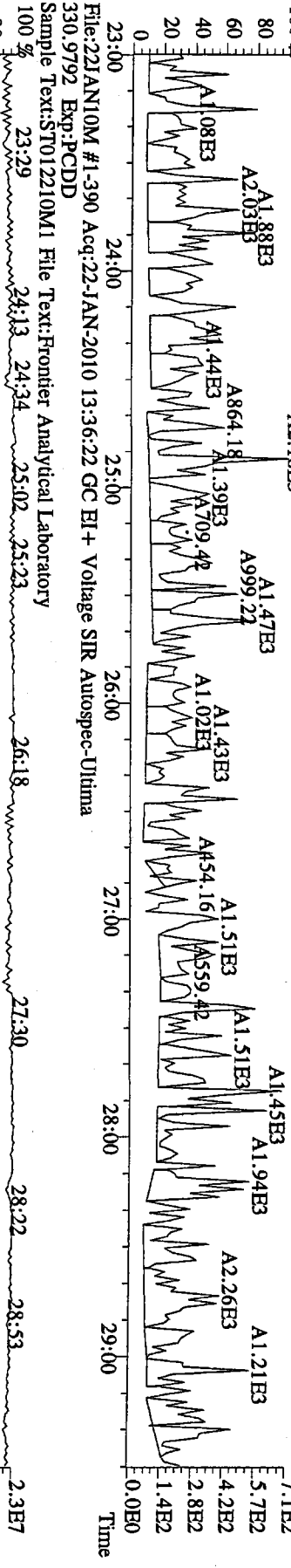
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



File:221AN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 339.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



File:221AN10M #1-390 Acq:22-JAN-2010 13:36:22 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:ST012210M1 File Text:Frontier Analytical Laboratory

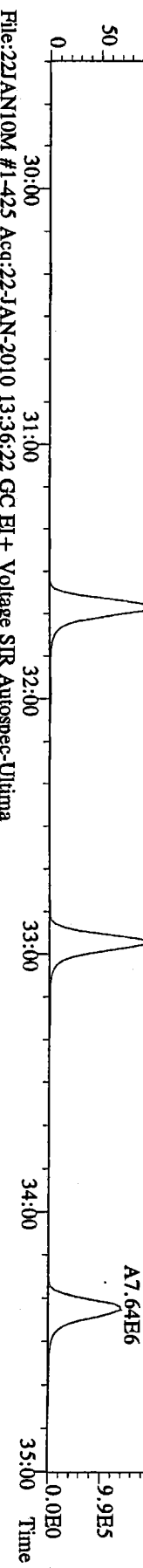


File:221AN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory

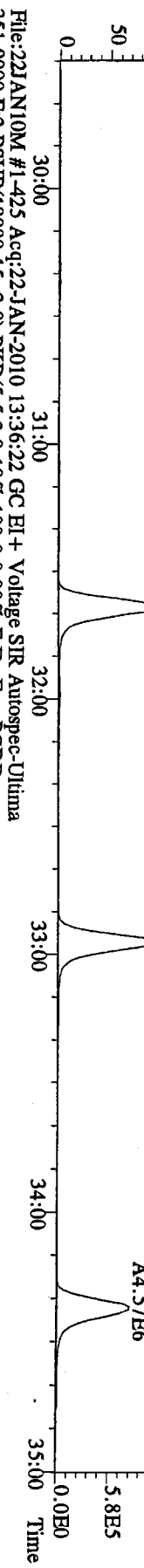




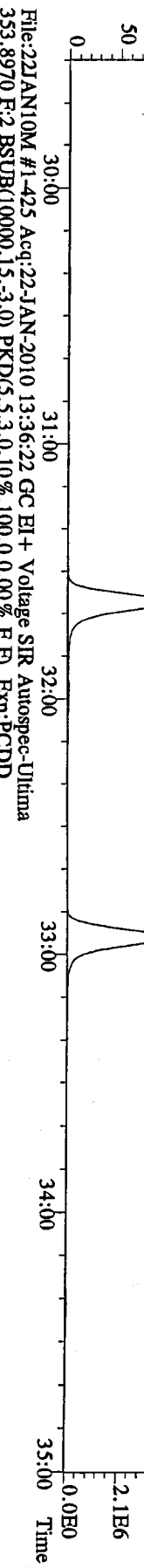
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



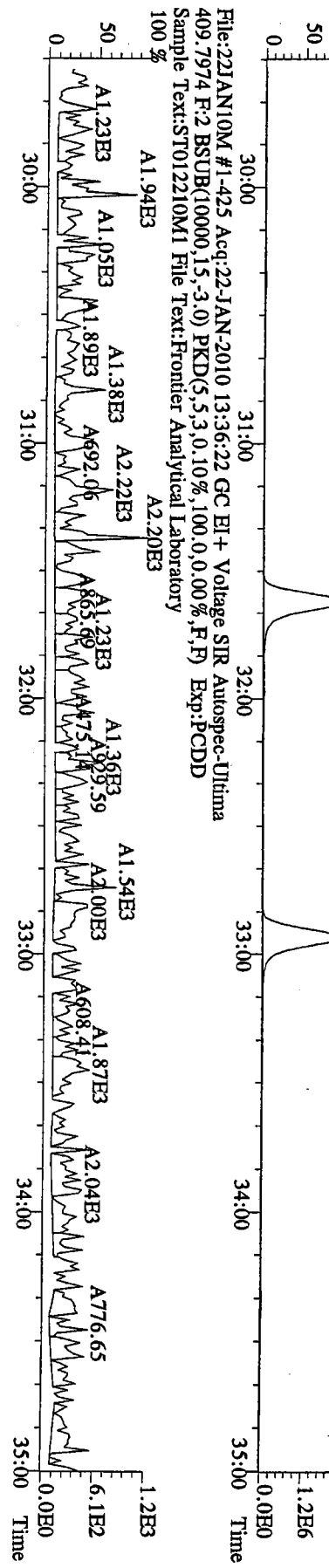
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



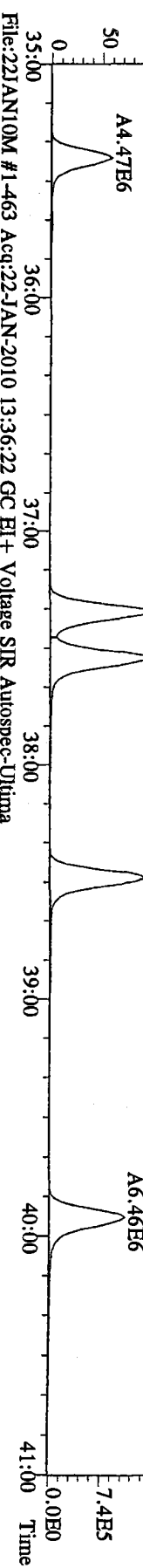
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



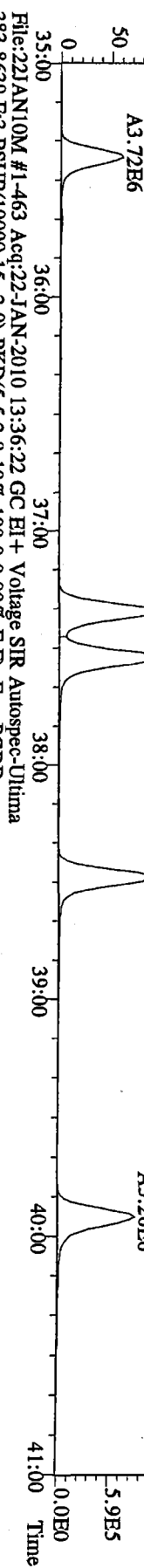
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



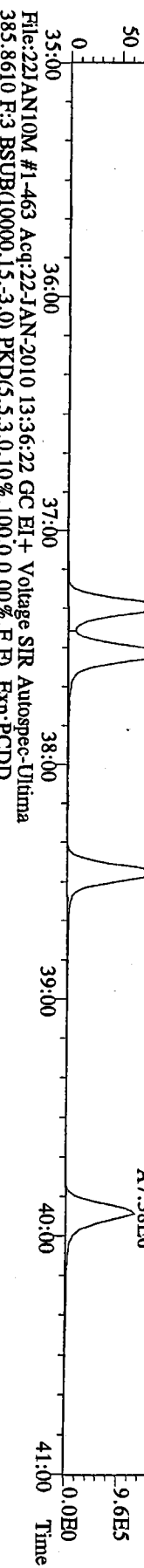
File:221JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



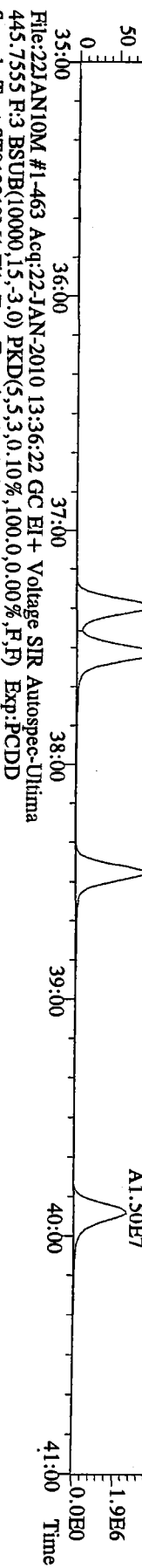
File:221JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



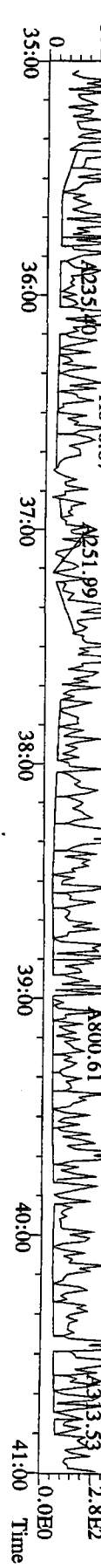
File:221JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



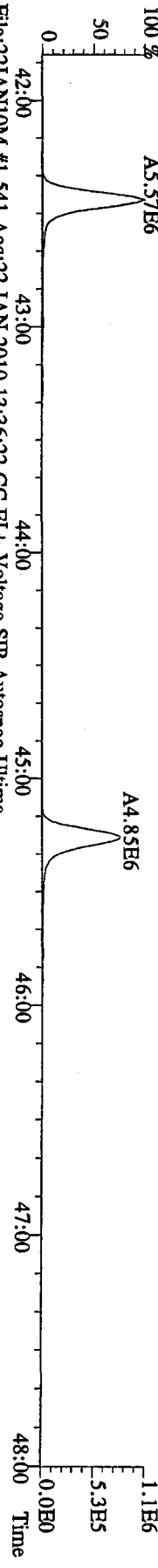
File:221JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



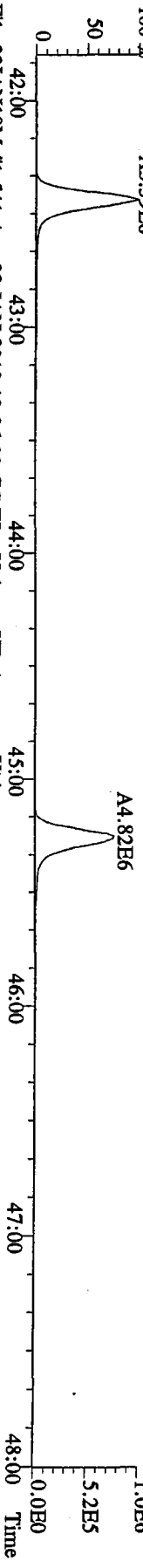
File:221JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



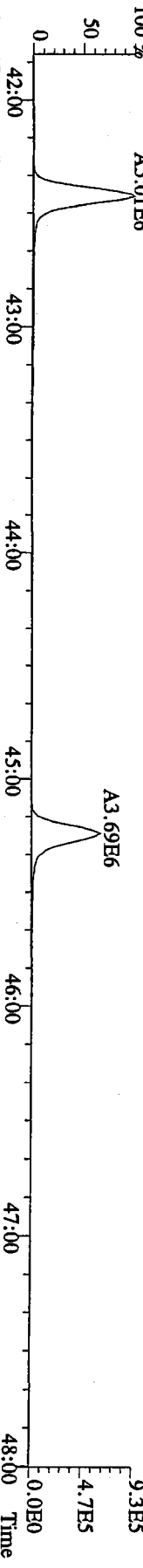
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



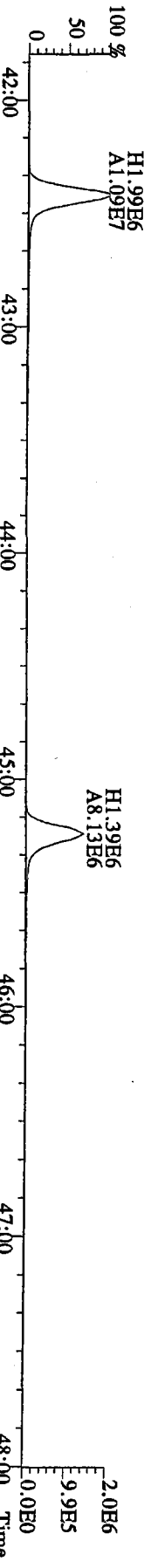
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



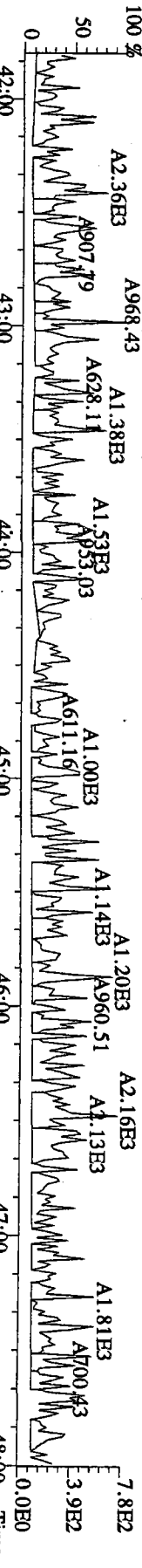
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



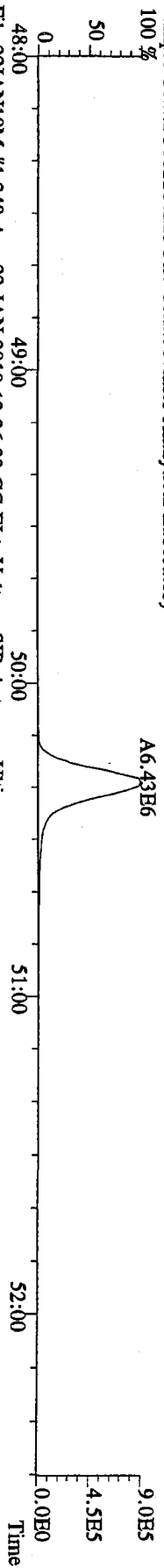
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



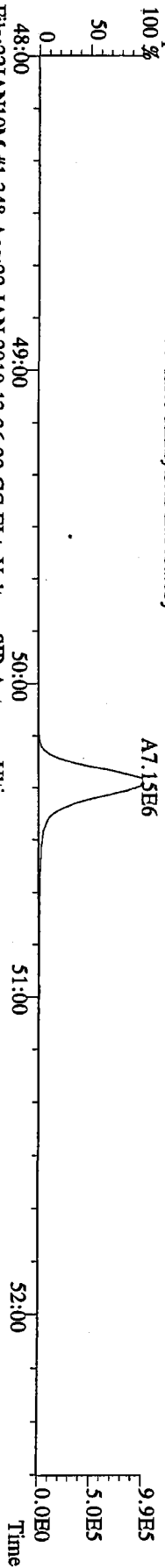
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



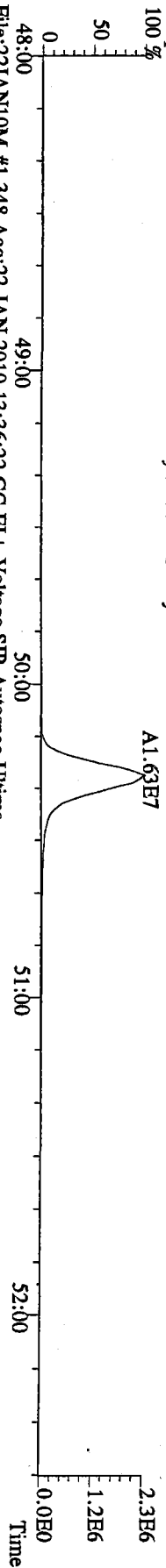
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



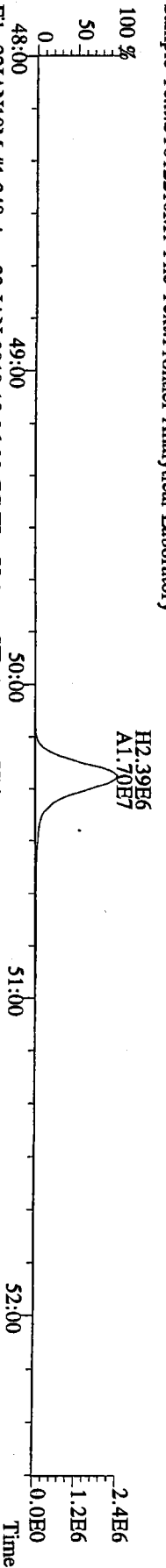
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



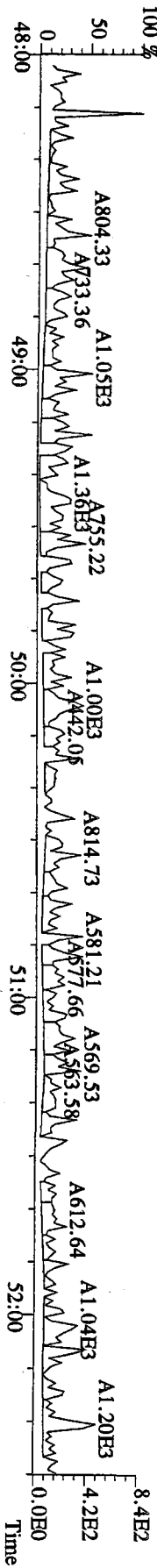
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory

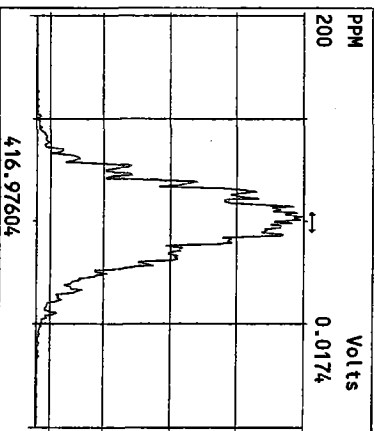
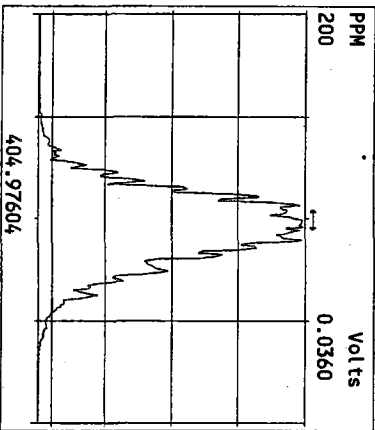
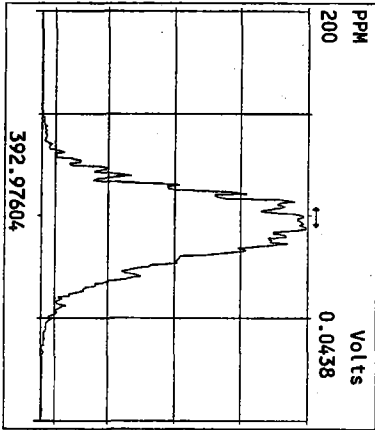
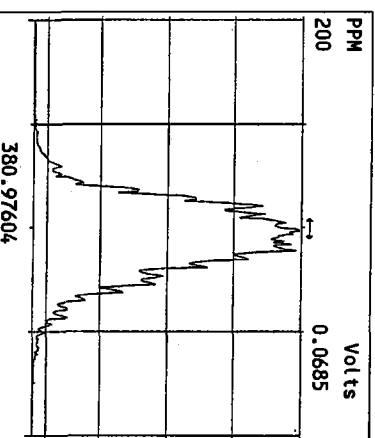
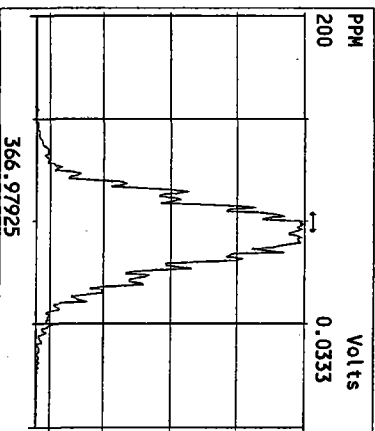
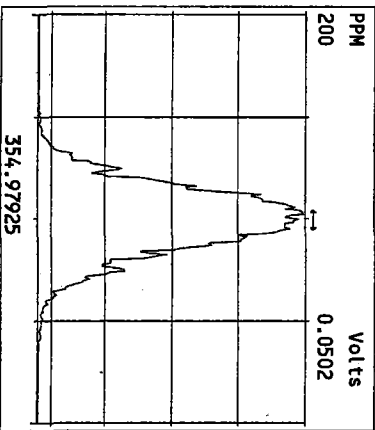
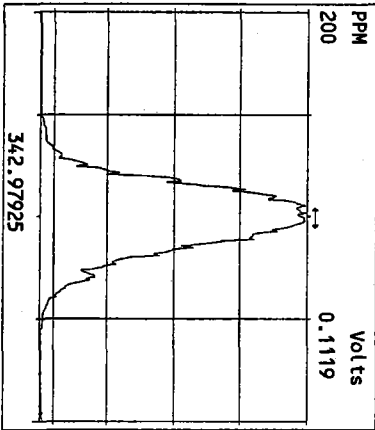
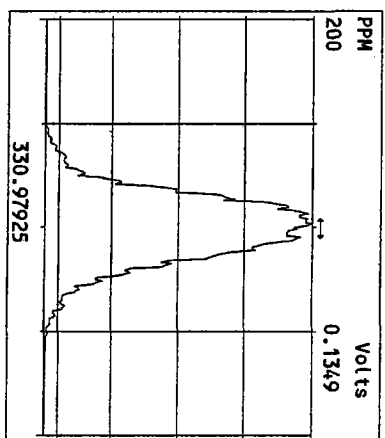
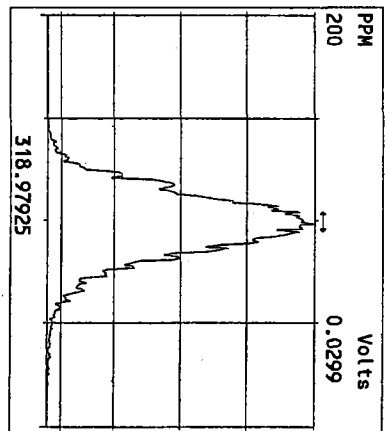
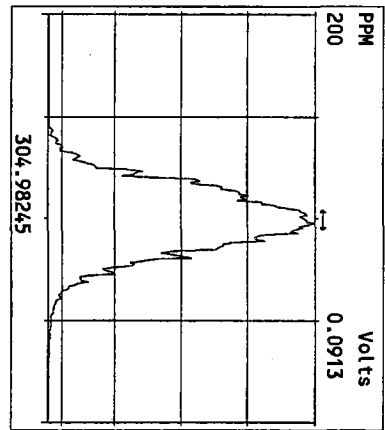
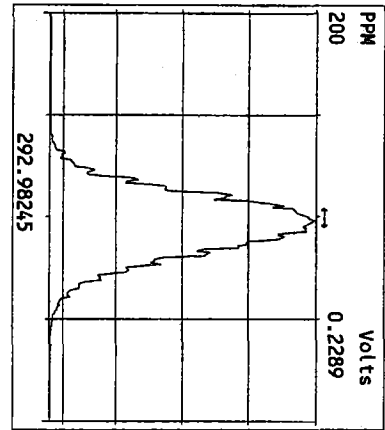


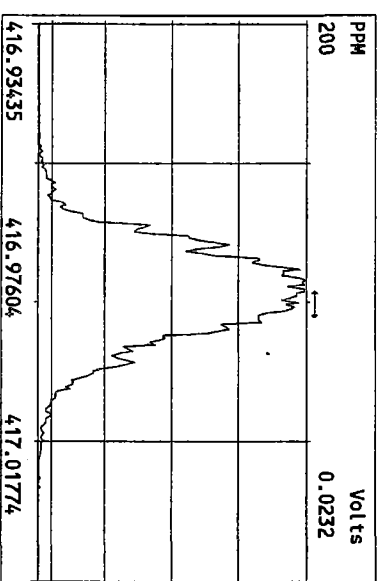
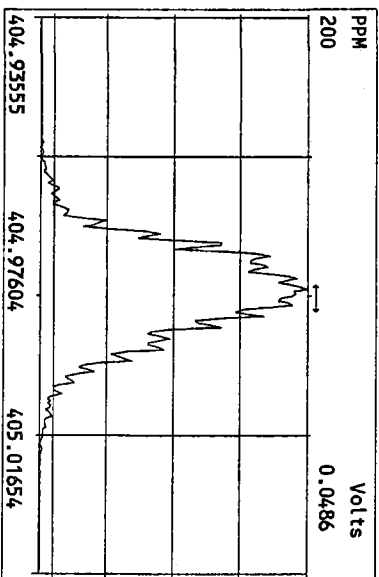
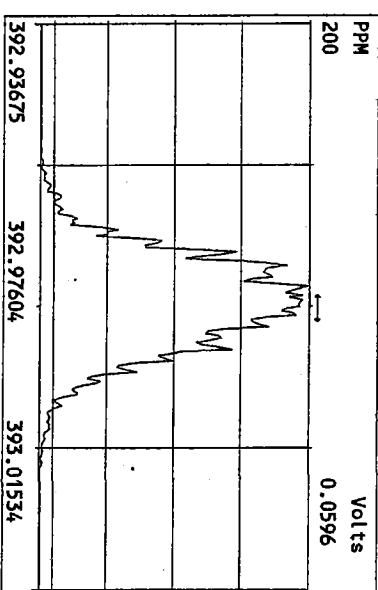
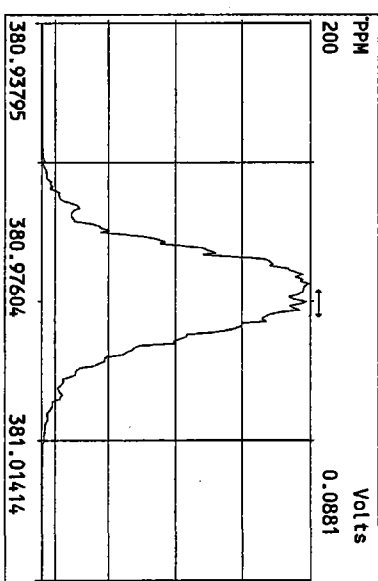
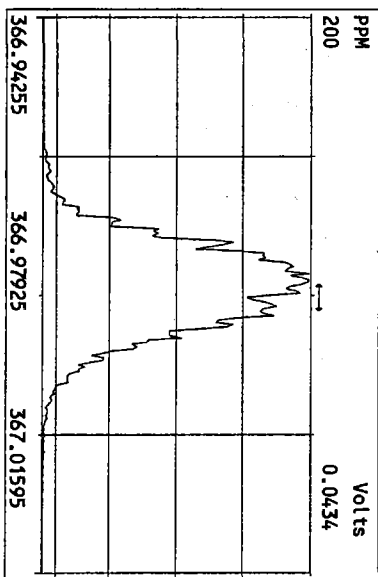
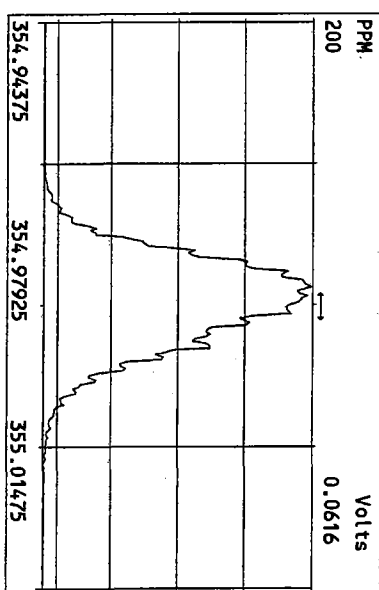
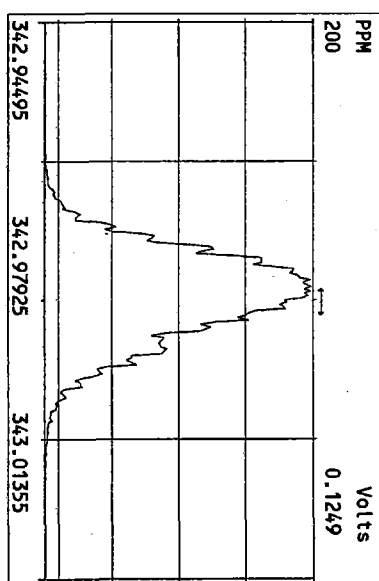
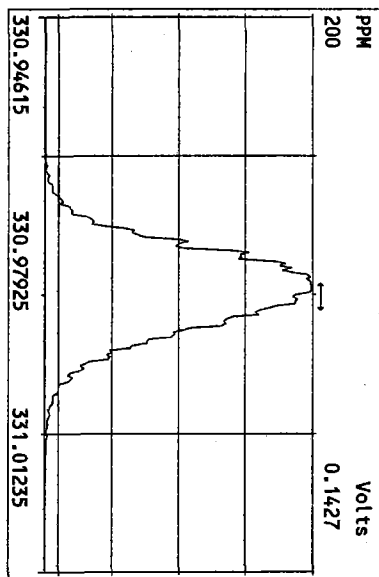
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



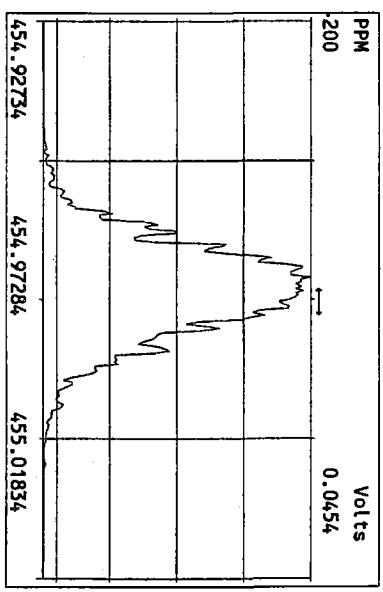
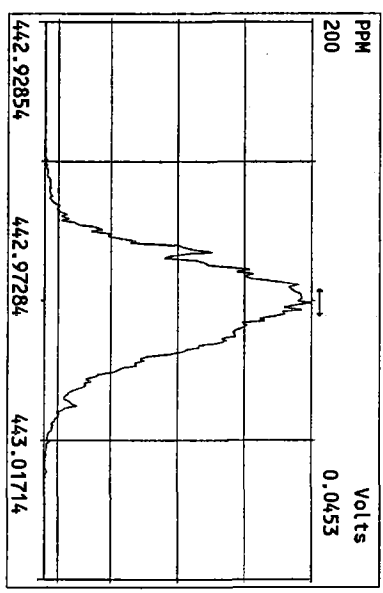
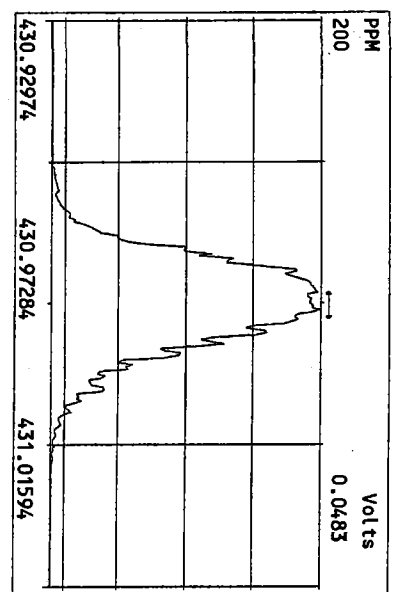
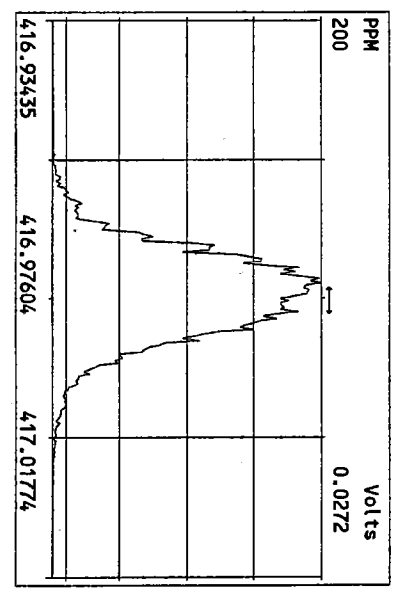
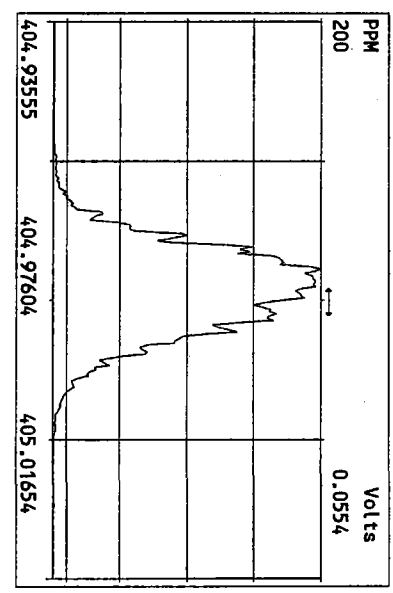
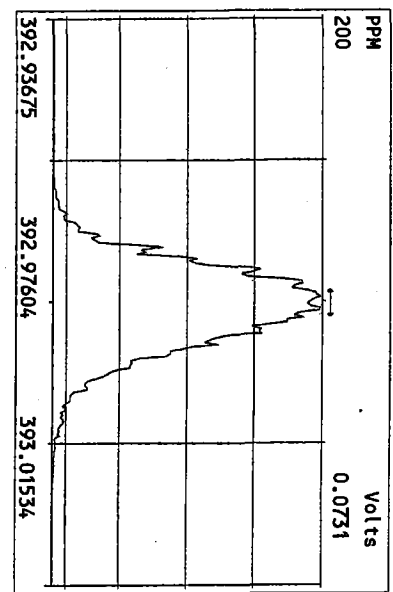
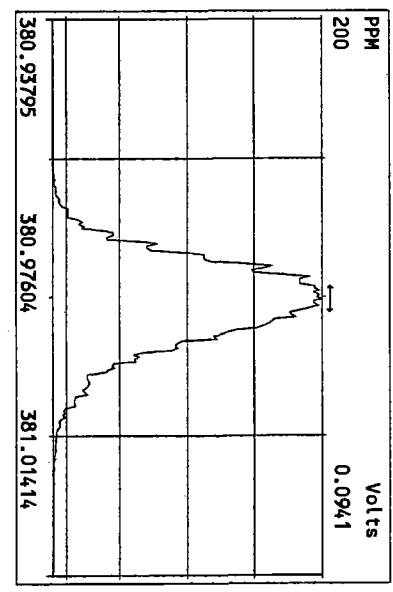
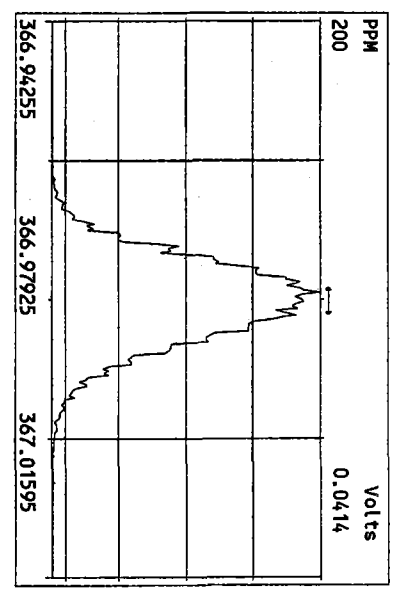
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



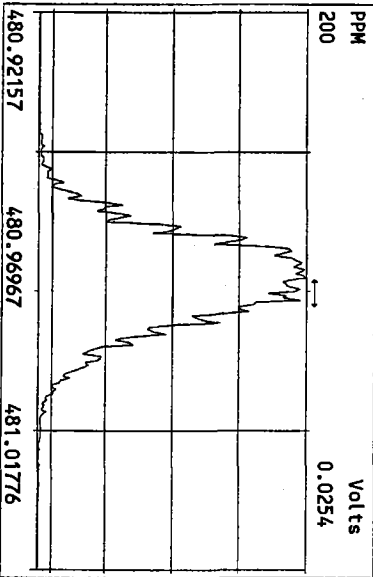
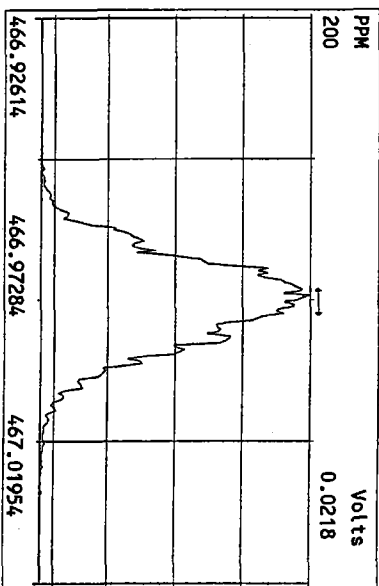
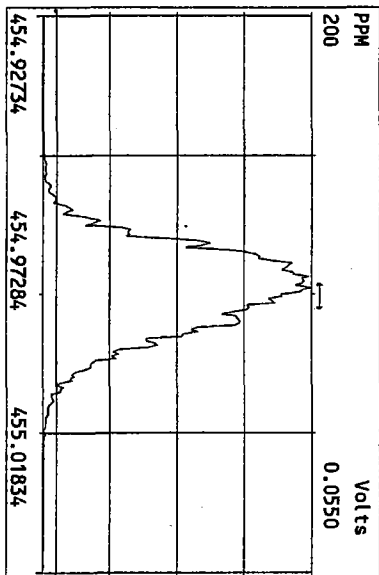
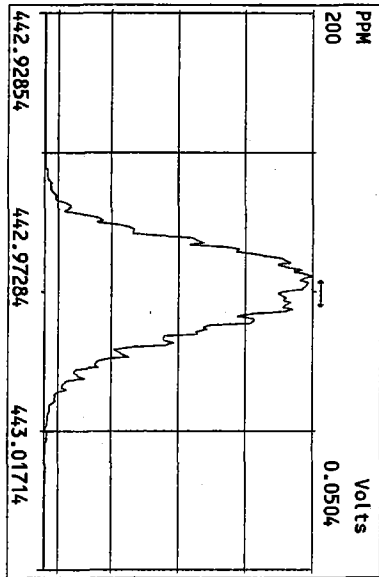
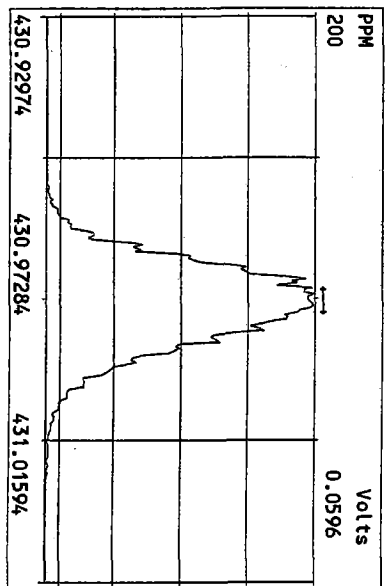
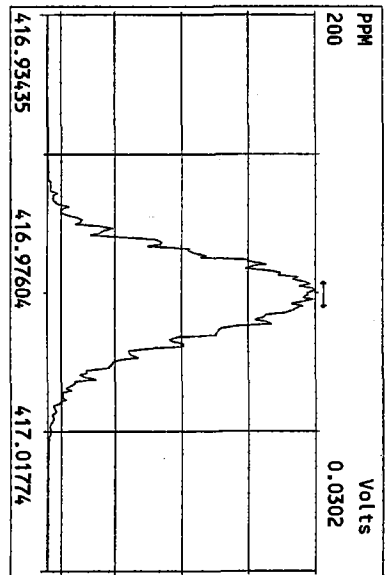
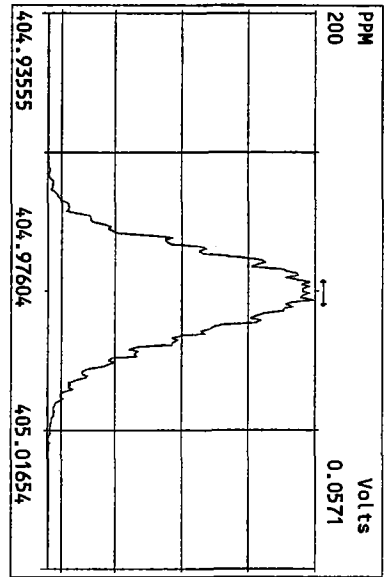




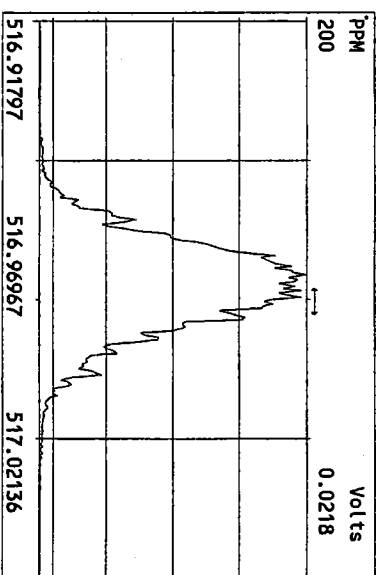
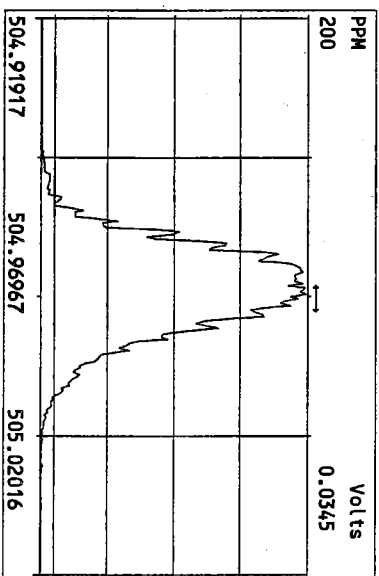
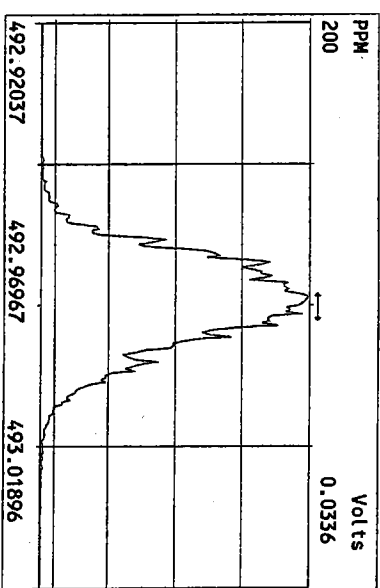
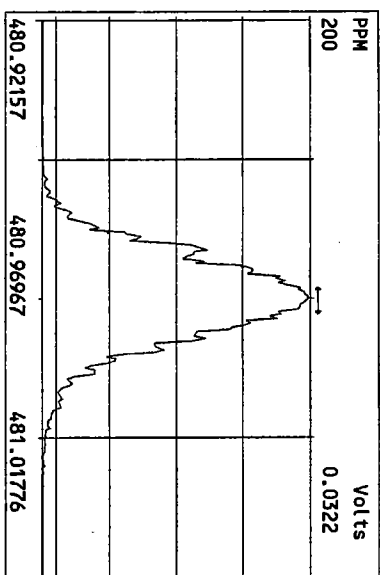
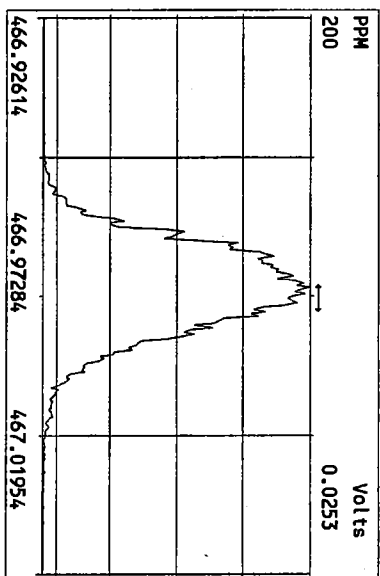
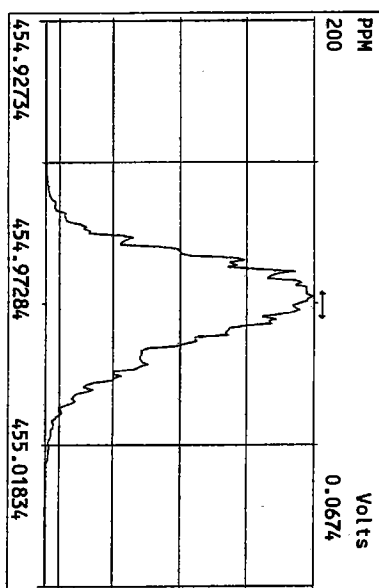
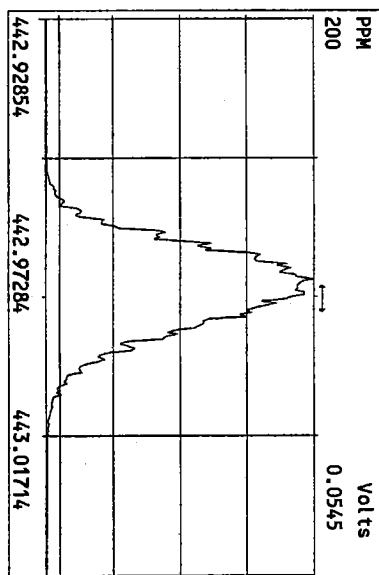
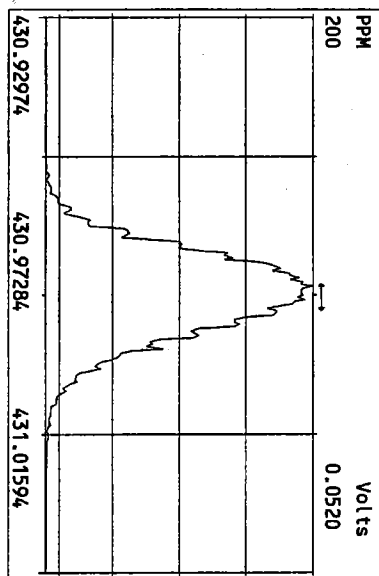
Peak Locate Examination: 23 - JAN-2010:01:42 File: 22JAN10M\_RES\_CHECK  
 Experiment: PCDD Function: 3 Reference: PRK



01010 : 01010







1001010101

## USEPA - ITD

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 25JAN10M Sam:1

Analysis Date: 25-JAN-10 10:40:18

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	0.80	0.65-0.89	y	10.0	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.59	1.32-1.78	y	49.1	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	46.4	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.19	1.05-1.43	y	46.4	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	47.3	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.96	0.88-1.20	y	48.8	43.0 - 58.0
OCDD	M+2/M+4	0.93	0.76-1.02	y	96.4	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.66	0.65-0.89	y	9.82	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.67	1.32-1.78	y	50.6	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.66	1.32-1.78	y	49.5	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	49.1	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	49.2	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	49.2	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.22	1.05-1.43	y	48.8	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	y	49.8	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.07	0.88-1.20	y	50.1	43.0 - 58.0
OCDF	M+2/M+4	0.92	0.76-1.02	y	98.4	63.0 - 159

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

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

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

Analyst: 

Date: 1/25/10

## USEPA - ITD

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 25JAN10M Sam:1

Analysis Date: 25-JAN-10 10:40:18

LABELLED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
13C-2,3,7,8-TCDD	M/M+2	0.72	0.65-0.89	y	101	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.68	1.32-1.78	y	81.1	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	103	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	94.6	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	96.8	72.0 - 138
13C-OCDD	M+2/M+4	0.99	0.76-1.02	y	167	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.86	0.65-0.89	y	99.8	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	87.9	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.70	1.32-1.78	y	82.5	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	101	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	97.2	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	97.5	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.48	0.43-0.59	y	93.6	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.47	0.37-0.51	y	82.7	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	y	83.9	77.0 - 129
13C-OCDF	M+2/M+4	0.96	0.76-1.02	y	150	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					10.0	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: 1/25/10

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: 11/18/09  
RT Window Data Filename: 25JAN10M Sam:1 Analysis Date: 25-JAN-10 Time: 10:40:18  
DB-5 IS Data Filename: 25JAN10M Sam:1 Analysis Date: 25-JAN-10 Time: 10:40:18  
DB-225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	24:29	1,3,6,8-TCDF (F)	23:07
1,2,8,9-TCDD (L)	28:26	1,2,8,9-TCDF (L)	28:39
1,2,4,7,9-PeCDD (F)	30:21	1,3,4,6,8-PeCDF (F)	28:31
1,2,3,8,9-PeCDD (L)	33:54	1,2,3,8,9-PeCDF (L)	34:19
1,2,4,6,7,9-HxCDD (F)	36:14	1,2,3,4,6,8-HxCDF (F)	35:21
1,2,3,7,8,9-HxCDD (L)	39:18	1,2,3,7,8,9-HxCDF (L)	39:52
1,2,3,4,6,7,9-HpCDD (F)	42:55	1,2,3,4,6,7,8-HpCDF (F)	42:24
1,2,3,4,6,7,8-HpCDD (L)	44:18	1,2,3,4,7,8,9-HpCDF (L)	45:13

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

=====

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT  
BETWEEN  
COMPARED PEAKS (1)

<25%

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

Analyst: *JE* Date: *1/25/10*

## USEPA - ITD

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 25-JAN-10 10:40:18 CS3 or VER Data Filename: 25JAN10M 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	1.001	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	1.022	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		1.237	1.000-1.567
13C-1,2,3,7,8-PeCDF		1.173	0.923-1.203
13C-2,3,4,7,8-PeCDF		1.222	0.923-1.303

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

Analyst: Date: 1/25/10

## USEPA - ITD

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 25-JAN-10 10:40:18 CS3 or VER Data Filename: 25JAN10M 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	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.012	1.000-1.019
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	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	1.001	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		0.989	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		1.014	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		1.150	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: 1/25/10

FAL ID: ST012510M1      Filename: 25JAN10M      Sam:1      Acquired: 25-JAN-10 10:40:18      ICal: pccdfal3-11-18-09  
 Client ID: 1613 CS3 (90918J)      ConCal: ST012510M1      EndCal: ST012510M2  
 Results: 5914-2      GC Column: DB5      Amount: 1.000      NATO 1989 Tox: 98.1

Name	Resp	RA	RT	RRF	Conc	Qual	WHO 1998 Tox:		WHO 2005 Tox:		DL	112
							Fac Noise-1	Noise-2	Fac Noise-1	Noise-2		
2,3,7,8-TCDD	4.19e+06	0.80 y	27:29	1.02	10.0	2.50	-	-	-	-	*	
1,2,3,7,8-PeCDD	1.69e+07	1.59 y	33:19	0.96	49.1	2.50	-	-	-	-	*	
1,2,3,4,7,8-HxCDD	1.49e+07	1.28 y	38:41	1.37	46.4	2.50	-	-	-	-	*	
1,2,3,6,7,8-HxCDD	1.27e+07	1.19 y	38:51	1.34	46.4	2.50	-	-	-	-	*	
1,2,3,7,8,9-HxCDD	1.42e+07	1.23 y	39:18	1.37	47.3	2.50	-	-	-	-	*	
1,2,3,4,6,7,8-HpCDD	1.15e+07	0.96 y	44:18	1.17	48.8	2.50	-	-	-	-	*	
OCDD	1.50e+07	0.93 y	49:52	1.21	96.4	2.50	-	-	-	-	*	
2,3,7,8-TCDF	8.01e+06	0.66 y	26:43	1.29	9.82	2.50	-	-	-	-	*	
1,2,3,7,8-PeCDF	2.52e+07	1.67 y	31:35	0.89	50.6	2.50	-	-	-	-	*	
2,3,4,7,8-PeCDF	2.27e+07	1.66 y	32:54	0.91	49.5	2.50	-	-	-	-	*	
1,2,3,4,7,8-HxCDF	1.96e+07	1.22 y	37:18	1.00	49.1	2.50	-	-	-	-	*	
1,2,3,6,7,8-HxCDF	2.03e+07	1.23 y	37:29	0.92	49.2	2.50	-	-	-	-	*	
2,3,4,6,7,8-HxCDF	1.90e+07	1.23 y	38:26	0.99	49.2	2.50	-	-	-	-	*	
1,2,3,7,8,9-HxCDF	1.73e+07	1.22 y	39:52	1.09	48.8	2.50	-	-	-	-	*	
1,2,3,4,6,7,8-HpCDF	1.42e+07	1.06 y	42:24	1.36	49.8	2.50	-	-	-	-	*	
1,2,3,4,7,8,9-HpCDF	1.32e+07	1.07 y	45:13	1.61	50.1	2.50	-	-	-	-	*	
OCDF	1.69e+07	0.92 y	50:15	0.84	98.4	2.50	-	-	-	-	*	
												Rec
13C-2,3,7,8-TCDD	4.11e+07	0.72 y	27:28	0.94	101							101
13C-1,2,3,7,8-PeCDD	3.57e+07	1.68 y	33:17	1.02	81.1							81.1
13C-1,2,3,4,7,8-HxCDD	2.34e+07	1.26 y	38:40	0.98	103							103
13C-1,2,3,6,7,8-HxCDD	2.05e+07	1.25 y	38:50	0.94	94.6							94.6
13C-1,2,3,4,6,7,8-HpCDD	2.01e+07	1.05 y	44:17	0.90	96.8							96.8
13C-OCDD	2.57e+07	0.99 y	49:51	0.67	167							83.4
13C-2,3,7,8-TCDF	6.34e+07	0.86 y	26:42	0.88	99.8							99.8
13C-1,2,3,7,8-PeCDF	5.59e+07	1.69 y	31:34	0.88	87.9							87.9
13C-2,3,4,7,8-PeCDF	5.07e+07	1.70 y	32:53	0.85	82.5							82.5
13C-1,2,3,4,7,8-HxCDF	4.00e+07	0.48 y	37:16	1.72	101							101
13C-1,2,3,6,7,8-HxCDF	4.50e+07	0.48 y	37:28	2.00	97.2							97.2
13C-2,3,4,6,7,8-HxCDF	3.91e+07	0.48 y	38:24	1.74	97.5							97.5
13C-1,2,3,7,8,9-HxCDF	3.26e+07	0.48 y	39:51	1.51	93.6							93.6
13C-1,2,3,4,6,7,8-HpCDF	2.10e+07	0.47 y	42:22	1.10	82.7							82.7
13C-1,2,3,4,7,8,9-HpCDF	1.64e+07	0.46 y	45:11	0.85	83.9							83.9
13C-OCDF	4.07e+07	0.96 y	50:14	1.17	150							75.1
37Cl-2,3,7,8-TCDD	4.21e+06		27:30	0.97	10.0							100
13C-1,2,3,4-TCDD	4.33e+07	0.72 y	26:54	-	165							
13C-1,2,3,4-TCDF	7.24e+07	0.87 y	25:38	-	157							
13C-1,2,3,7,8,9-HxCDD	2.31e+07	1.25 y	39:17	-	113							
							Fac Noise-1	Noise-2	DL	#Hom		
Total Tetra-Dioxins	2.14e+07		24:29	1.02	51.3	2.50	-	-	*	13		
Total Penta-Dioxins	3.66e+07		30:21	0.96	106	2.50	-	-	*	6		
Total Hexa-Dioxins	4.77e+07		36:14	1.36	160	2.50	-	-	*	8		
Total Hepta-Dioxins	2.41e+07		42:55	1.17	103	2.50	-	-	*	8		
Total Tetra-Furans	3.38e+07		23:07	1.29	41.4	2.50	-	-	*	16		
1st Fn. Tot Penta-Furans	2.92e+07		28:31	0.90	61.1	2.50	-	-	*	PeCDF	1	
Total Penta-Furans	6.83e+07		30:20	0.90	143	2.50	-	-	*	204	9	
Total Hexa-Furans	8.88e+07		35:21	0.99	229	2.50	-	-	*		15	
Total Hepta-Furans	2.80e+07		42:24	1.47	102	2.50	-	-	*		6	

Analyst: [Signature]      Date: 1/25/10

Frontier Analytical Laboratory - Acquisition Log

Run Name:25JAN10M

Instrument: FAL3

GC: DB5

Experiment:PCDD

Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
25JAN10M	1	ST012510M1	1613 CS3 (090918J)	25-JAN-10 10:40:18	ST012510M1	ST012510M2	BS
25JAN10M	2	5914-001-0001-SA	CB31A011110SED	25-JAN-10 11:35:37	ST012510M1	ST012510M2	BS
25JAN10M	3	ST012510M2	1613 CS3 (090918J)	25-JAN-10 12:30:56	ST012510M1	ST012510M2	BS

*C*

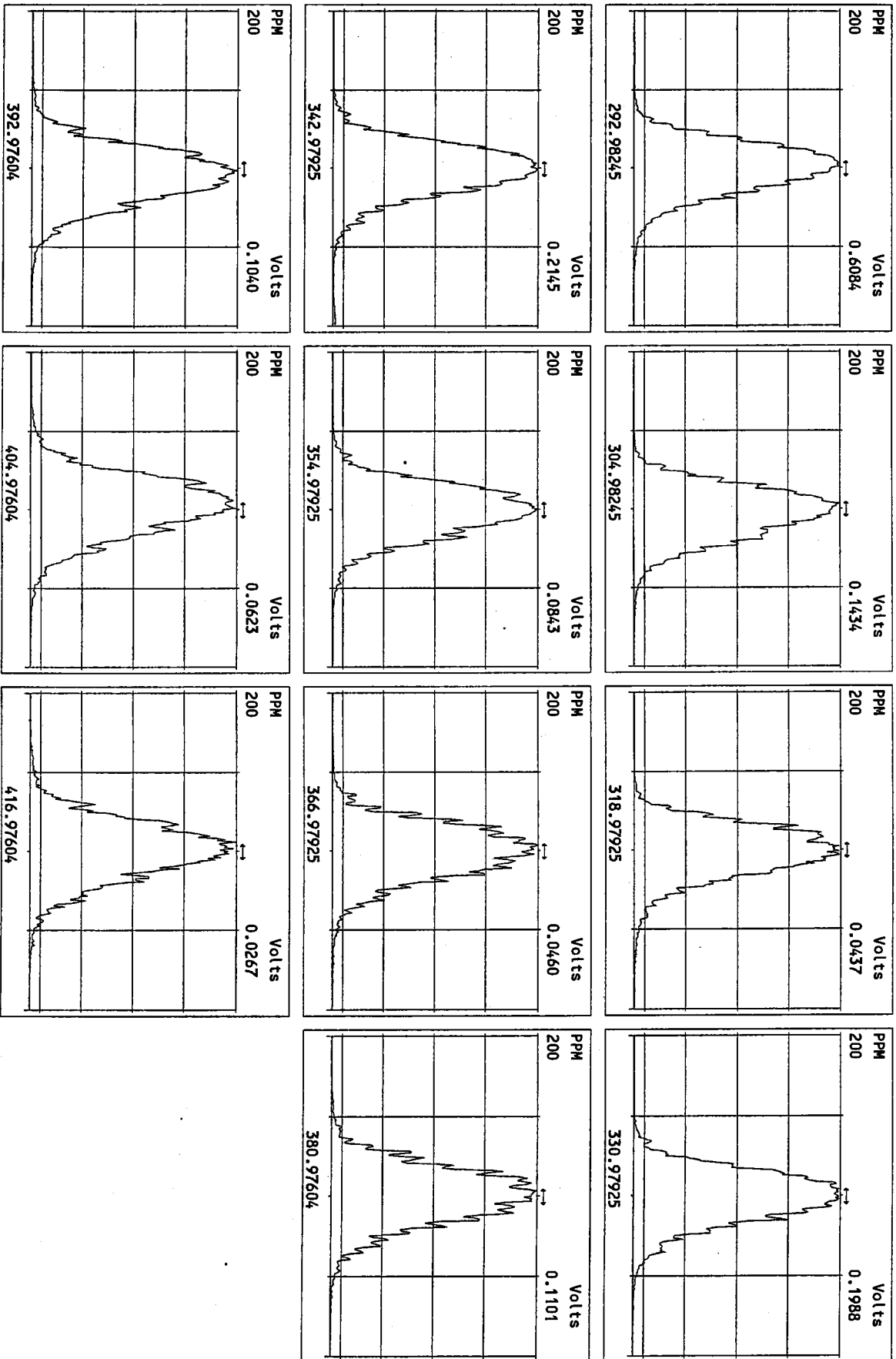
*1/25/10*

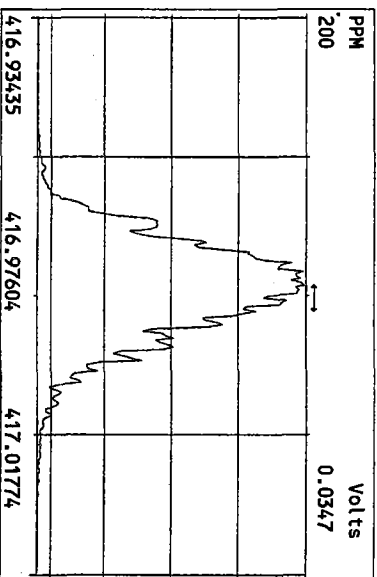
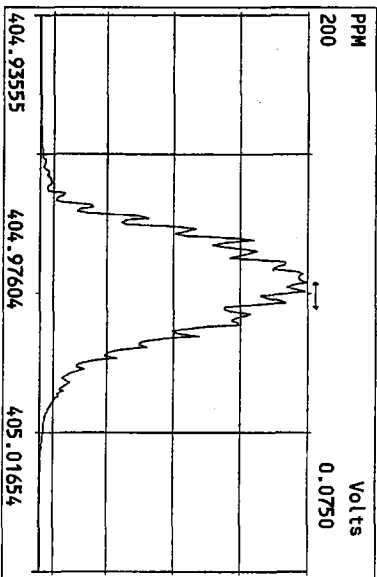
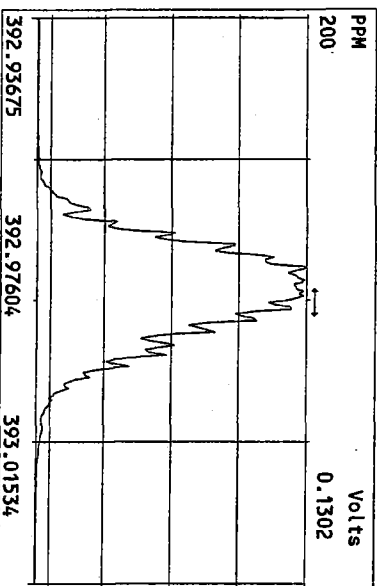
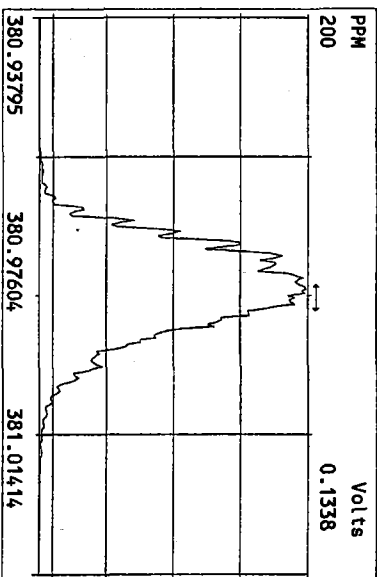
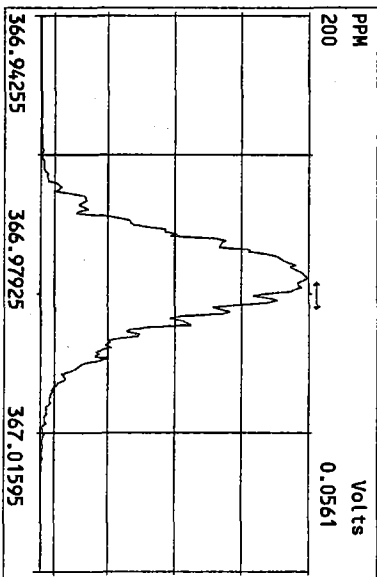
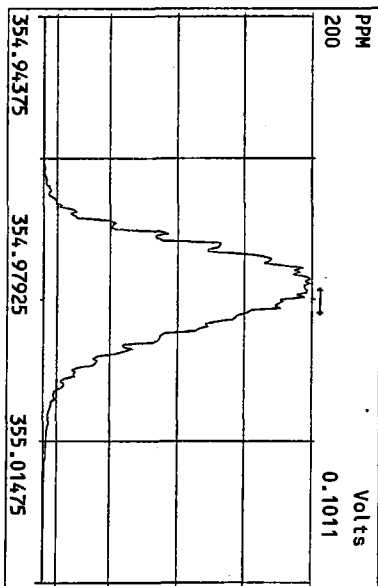
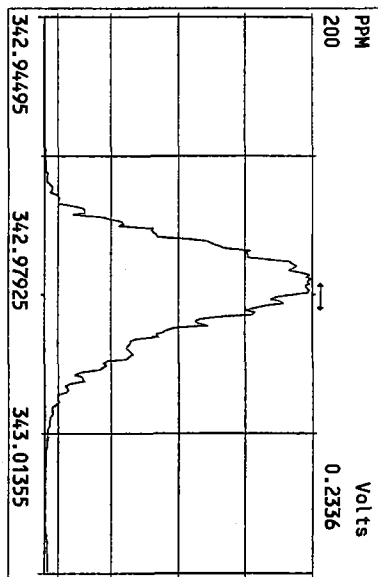
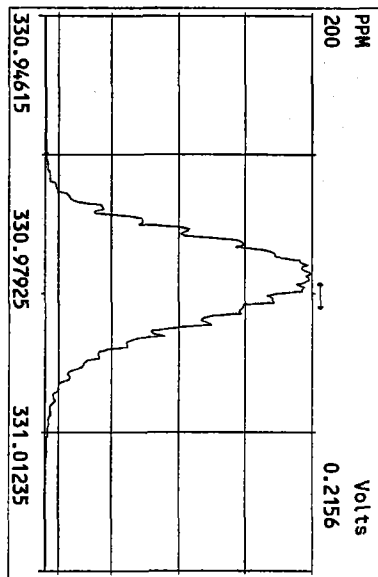
Data Backed Up: \_\_\_\_\_

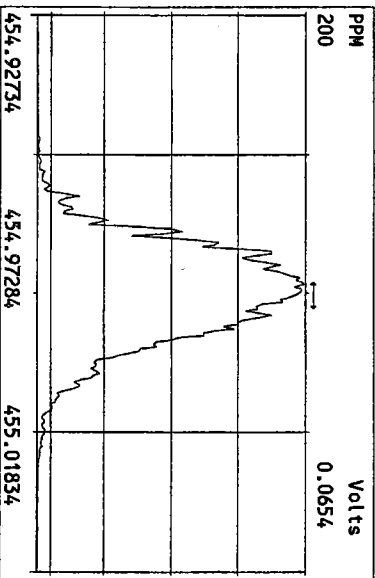
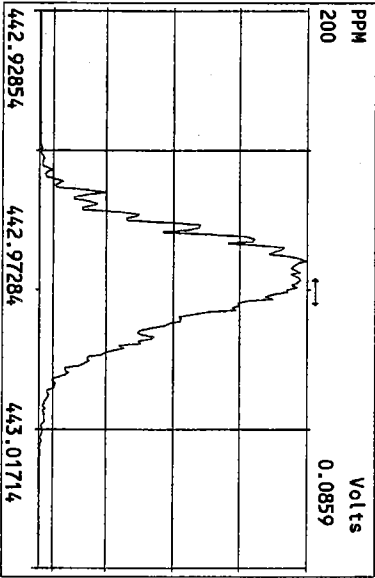
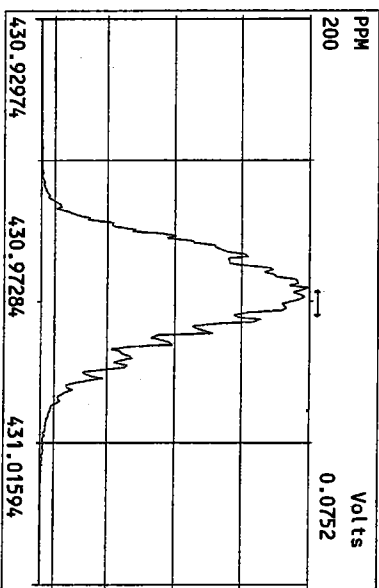
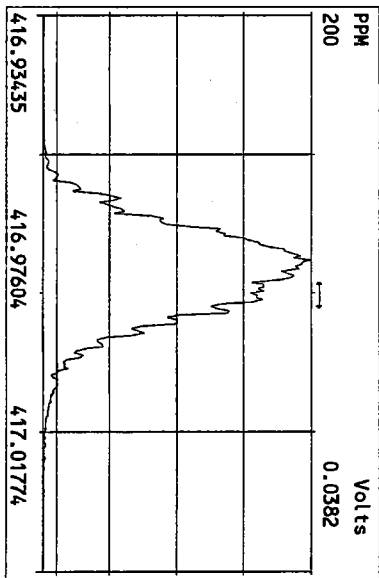
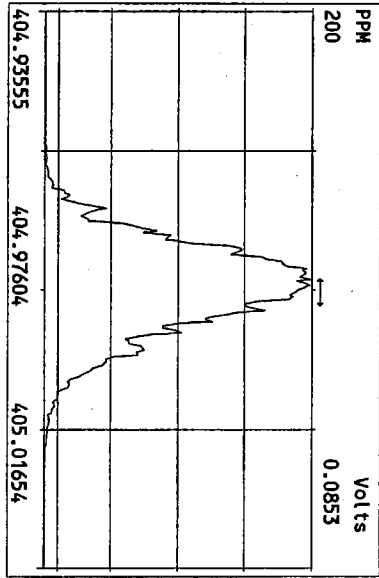
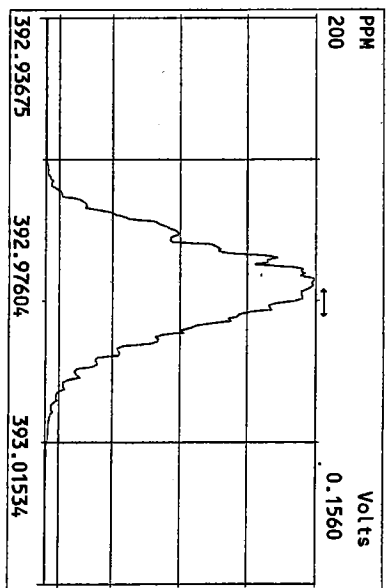
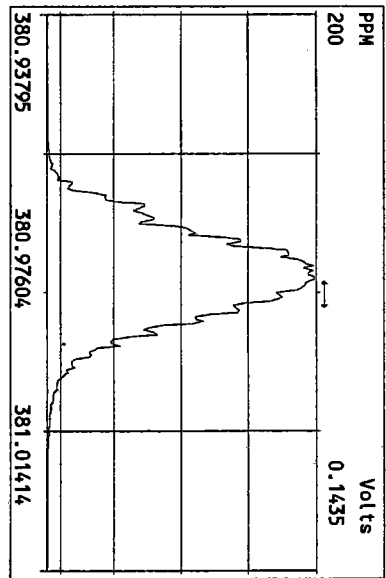
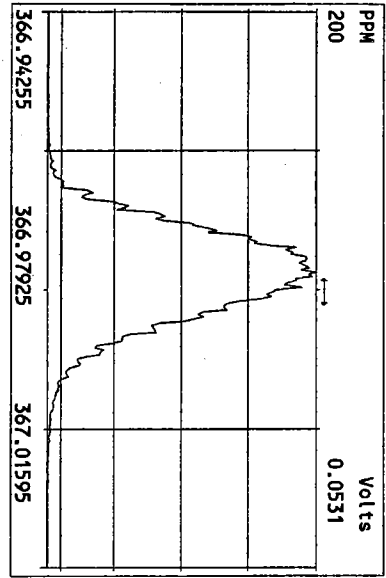
Date: \_\_\_\_\_

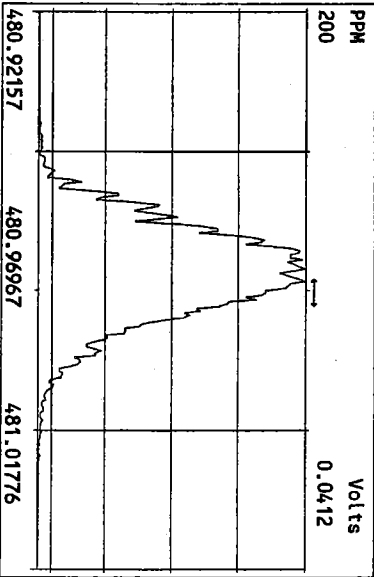
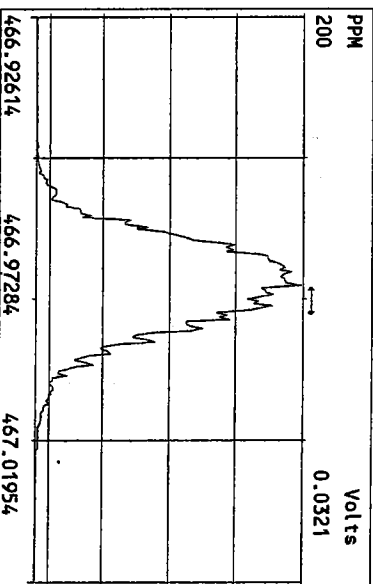
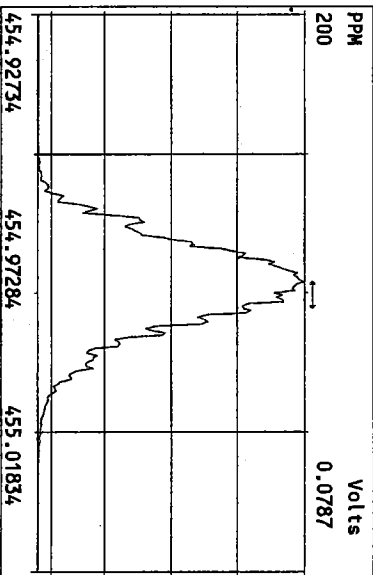
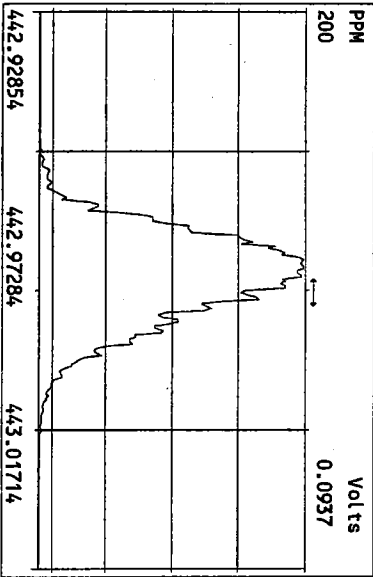
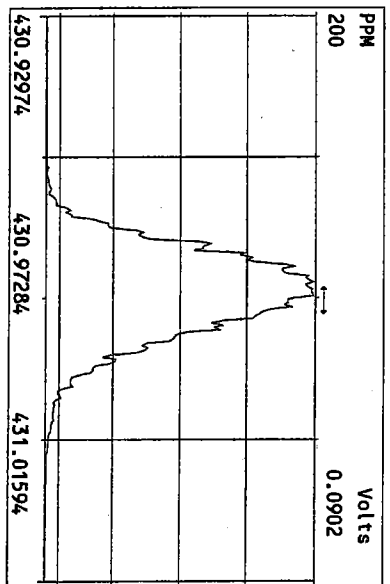
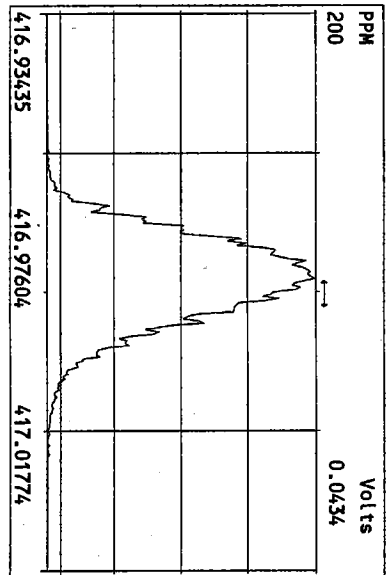
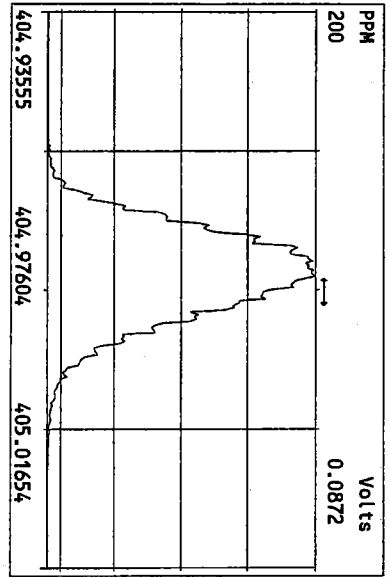


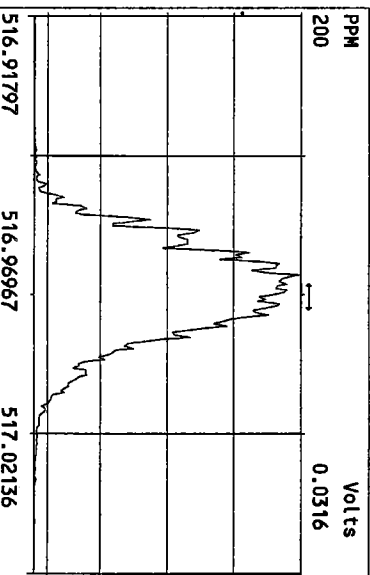
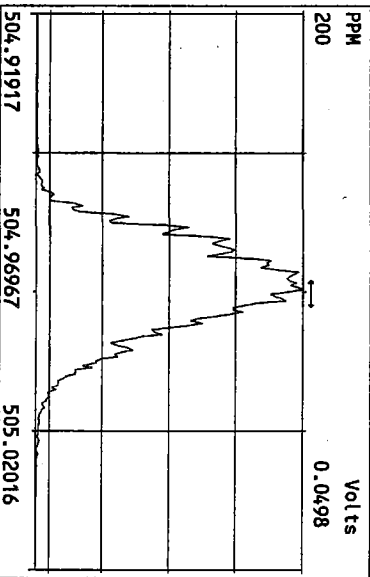
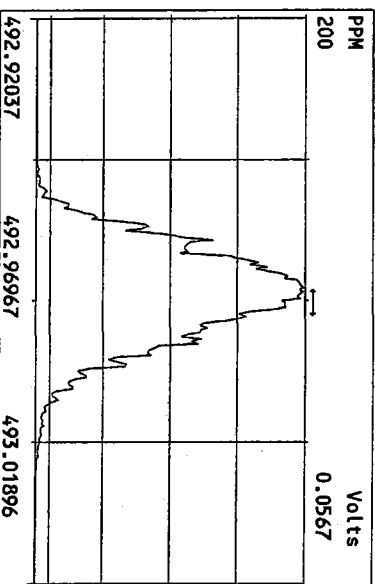
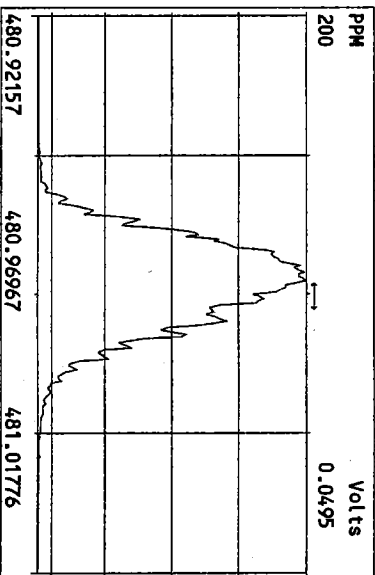
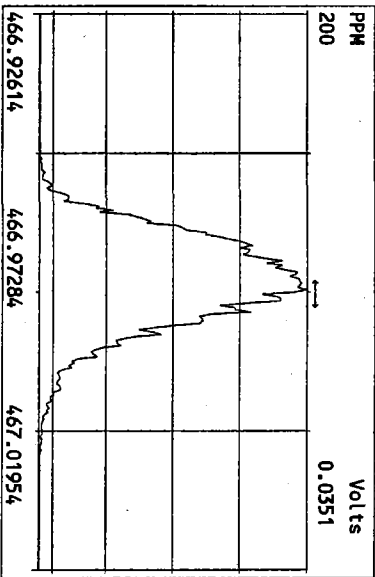
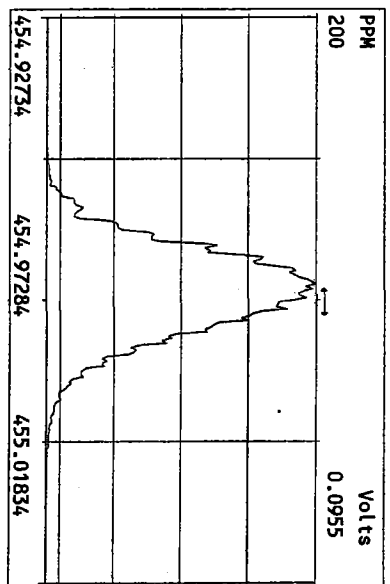
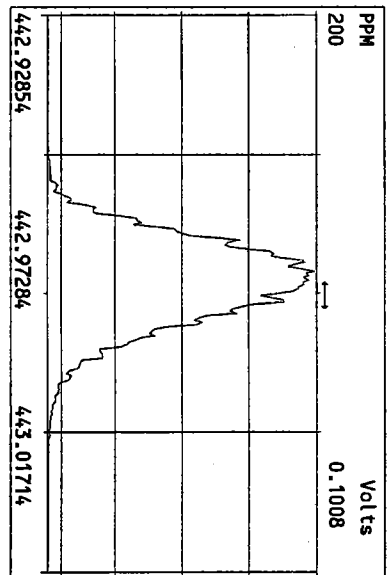
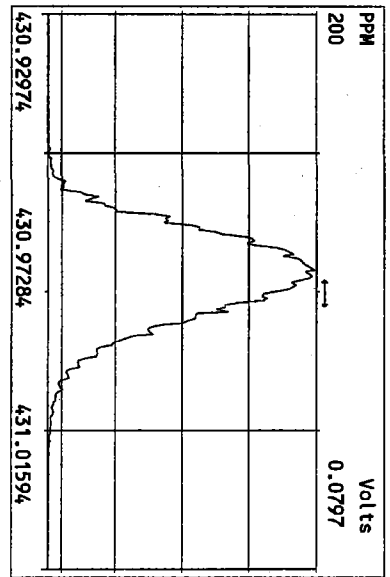
Peak Locate Examination:25-JAN-2010:10:38 File:25JAN10M  
Experiment:PCDD Function:1 Reference:PFK



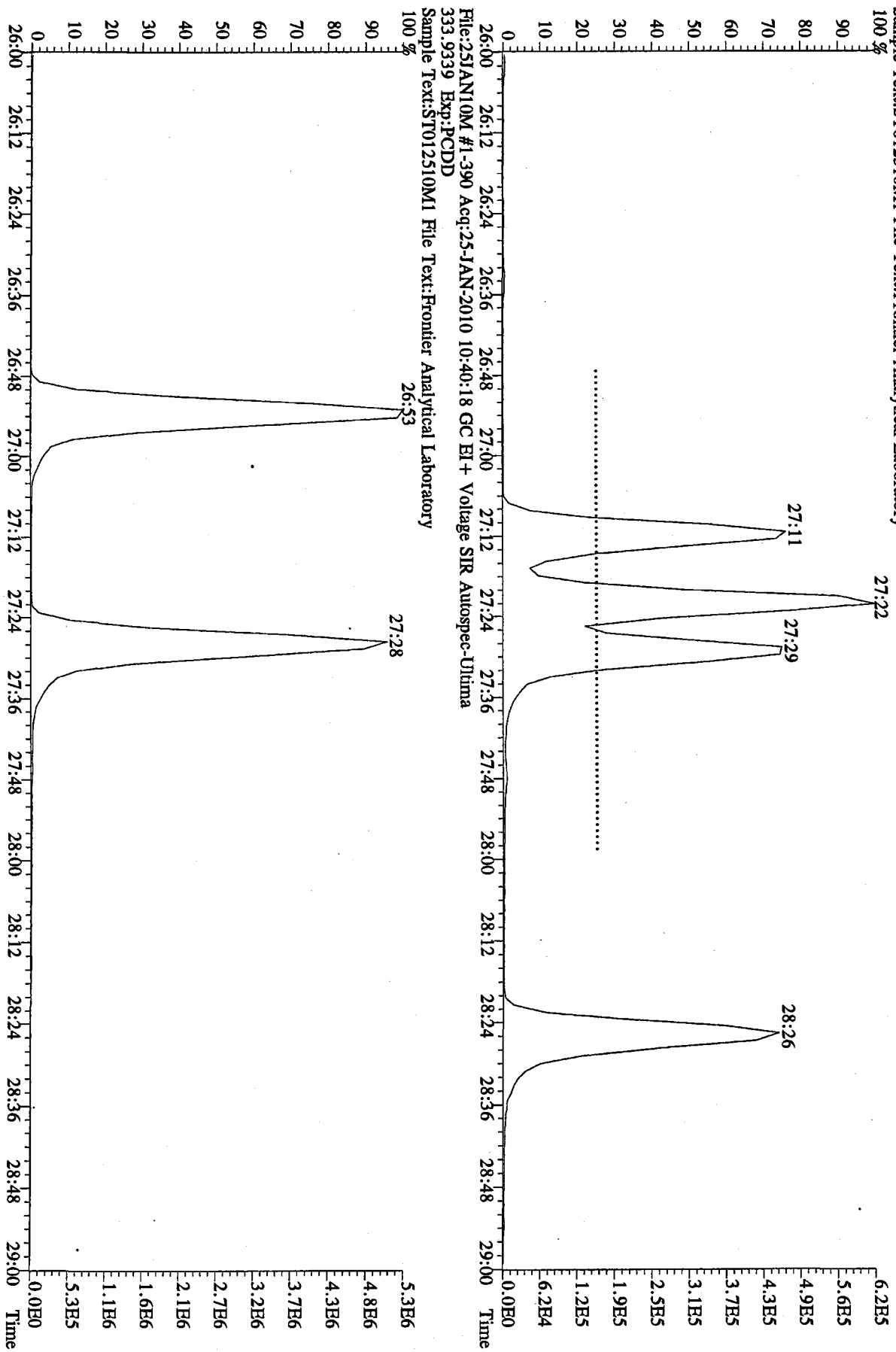




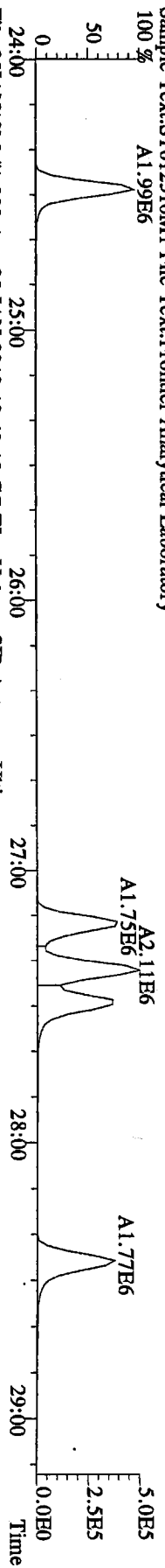




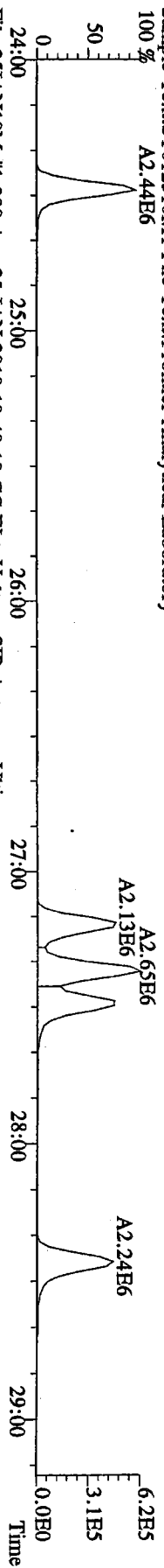
File:25JAN10M1 #1-390 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
321.8936 Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



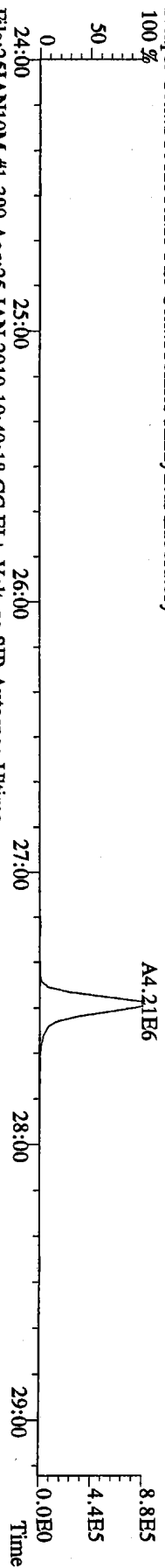
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



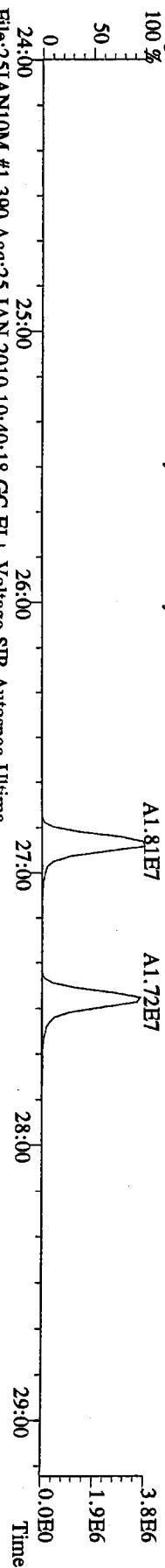
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



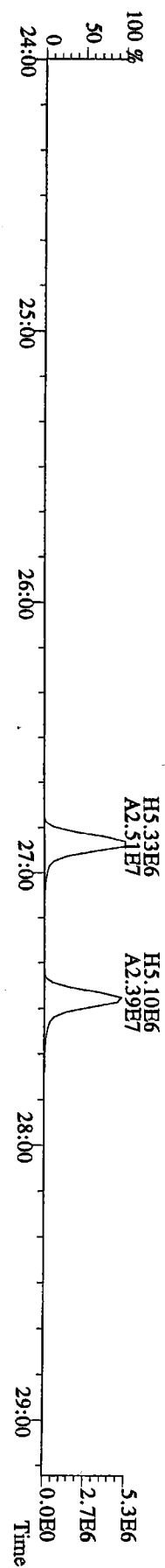
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



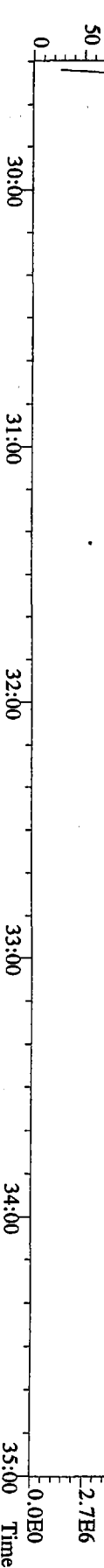
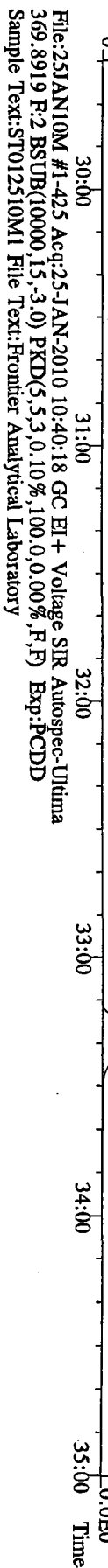
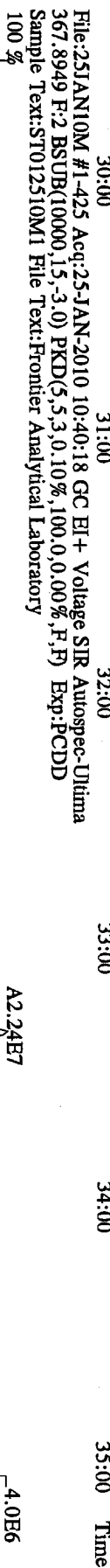
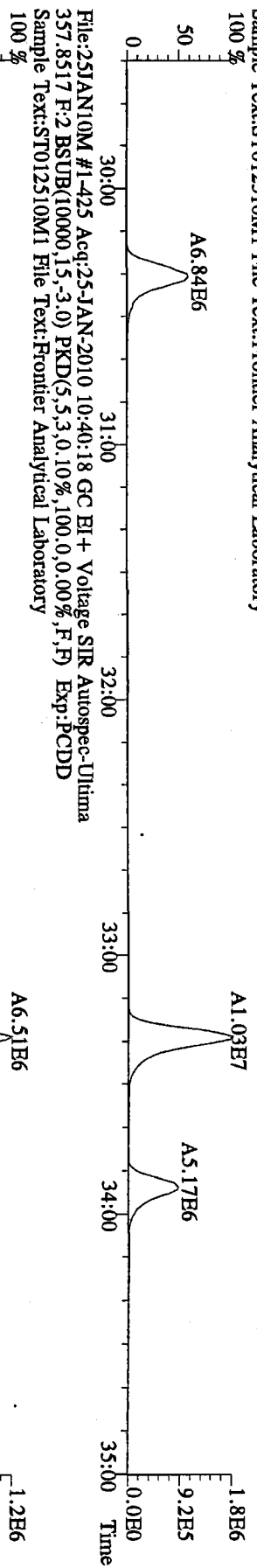
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 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:ST012510M1 File Text:Frontier Analytical Laboratory



File:25JAN10M #1-425 Acq:25-JAN-2010 10:40:18 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:ST012510M1 File Text:Frontier Analytical Laboratory

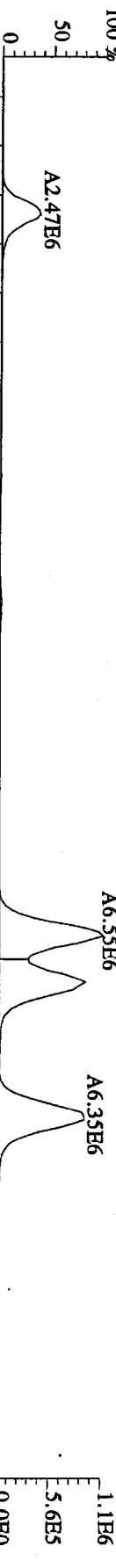




File:25JAN10M #1-464 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



File:25JAN10M #1-464 Acq:25-JAN-2010 10:40:18 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:ST012510M1 File Text:Frontier Analytical Laboratory



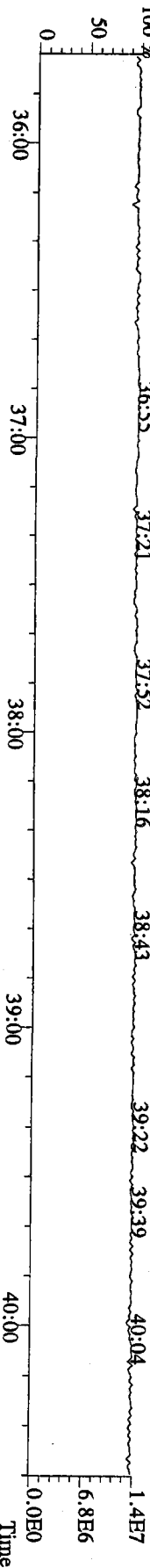
File:25JAN10M #1-464 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



File:25JAN10M #1-464 Acq:25-JAN-2010 10:40:18 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:ST012510M1 File Text:Frontier Analytical Laboratory



File:25JAN10M #1-464 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 F:3 Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



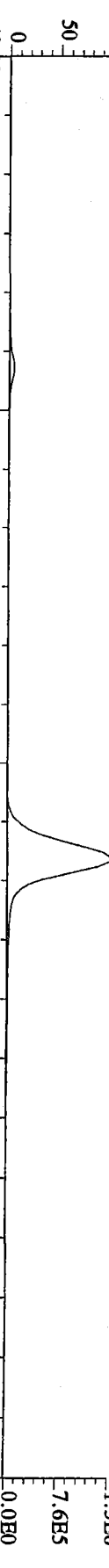
File:251AN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
423.7767 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



File:251AN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
425.7737 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



File:251AN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
435.8169 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



File:251AN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
437.8140 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory

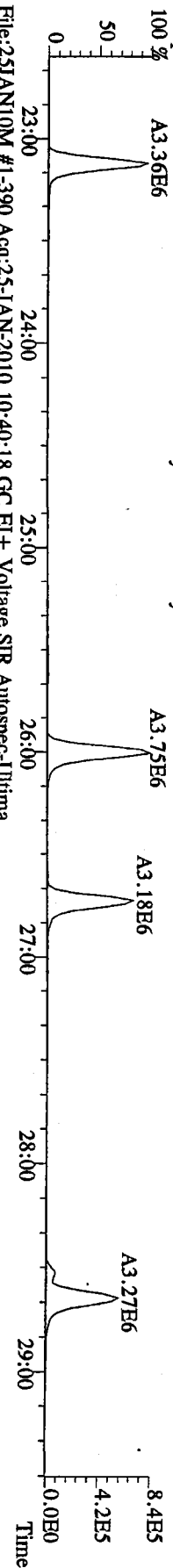


File:251AN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
430.9728 F:4 Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory

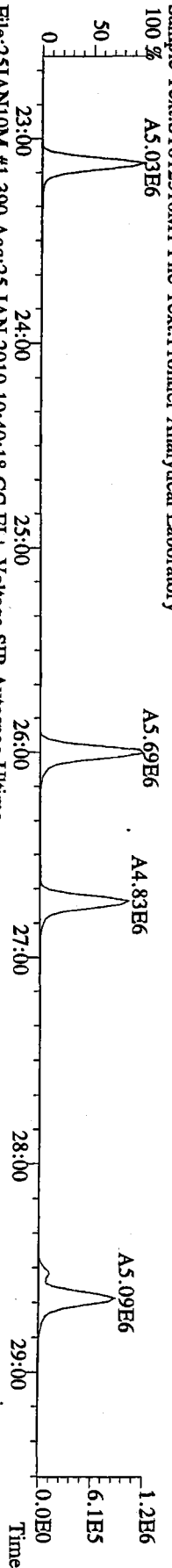




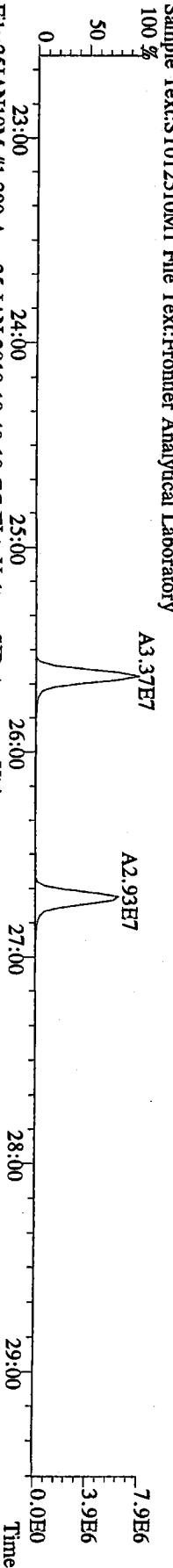
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI + Voltage SIR Autospec-Ultima  
 303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



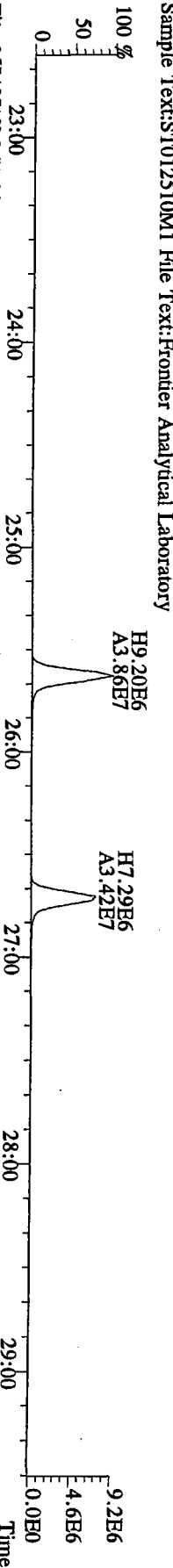
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI + Voltage SIR Autospec-Ultima  
 305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



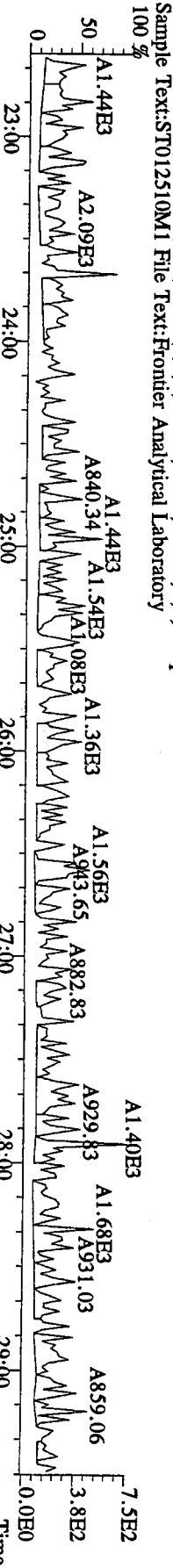
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI + Voltage SIR Autospec-Ultima  
 315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



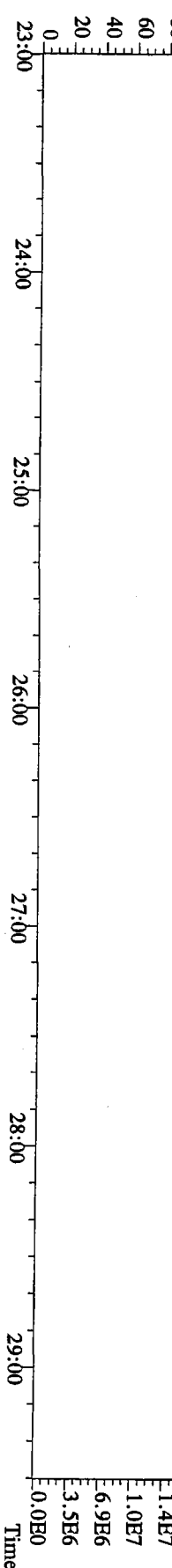
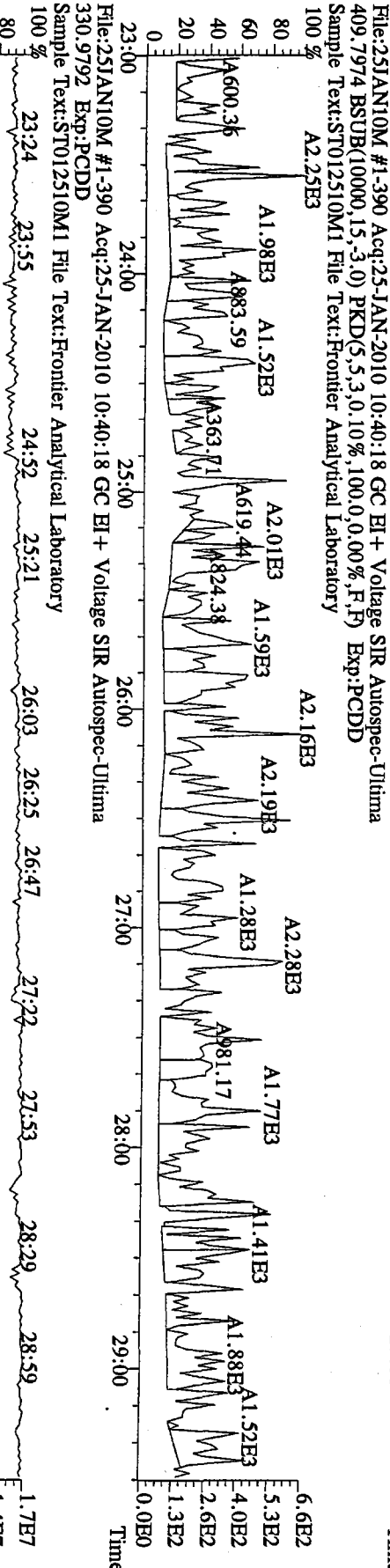
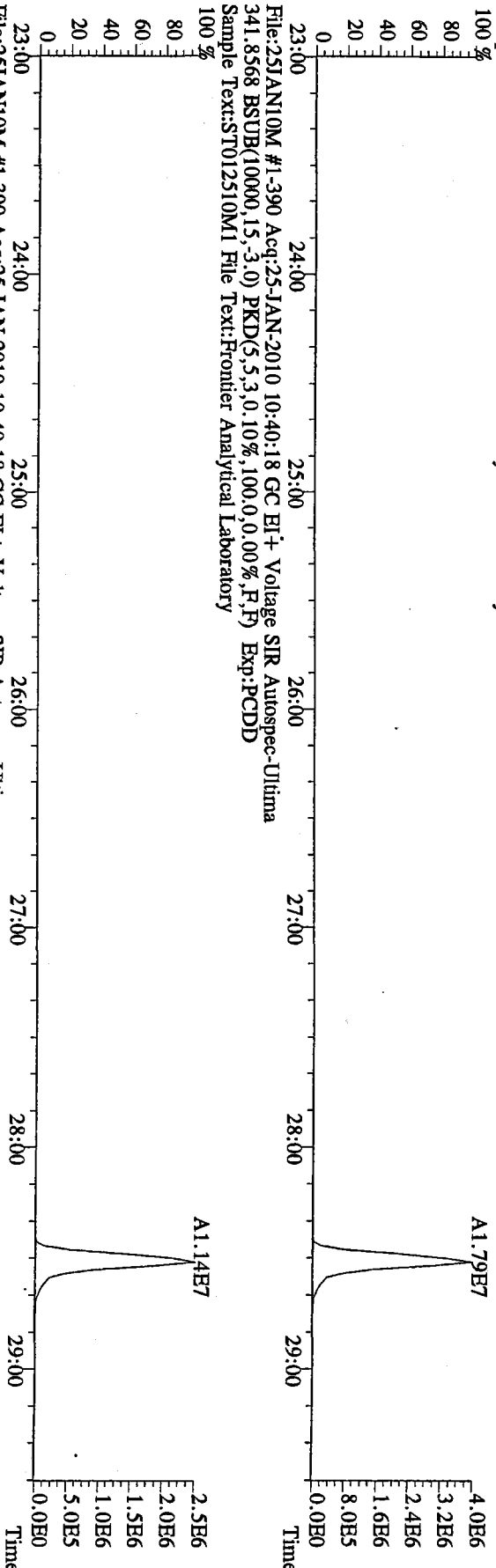
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI + Voltage SIR Autospec-Ultima  
 317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



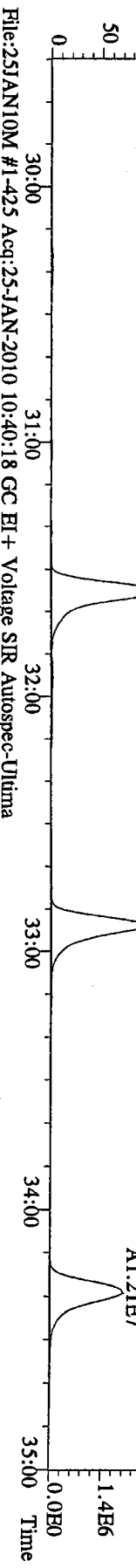
File:25JAN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI + Voltage SIR Autospec-Ultima  
 375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



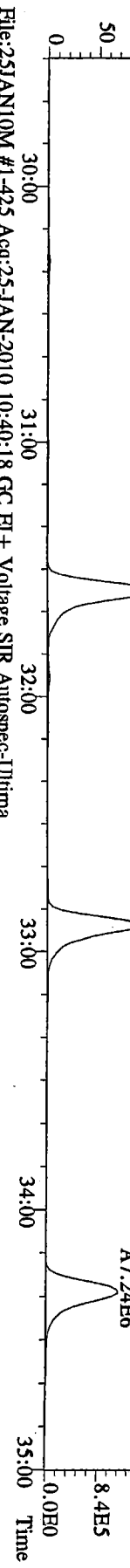
File:251AN10M #1-390 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



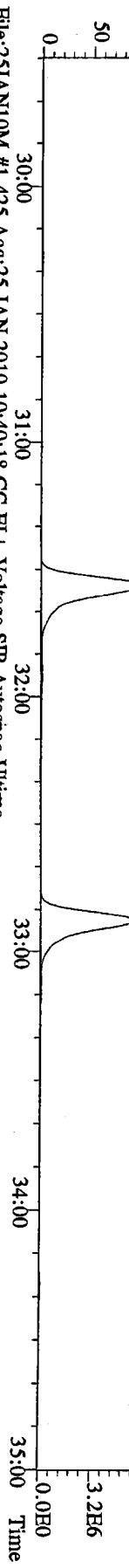
File:25JAN10M #1-425 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



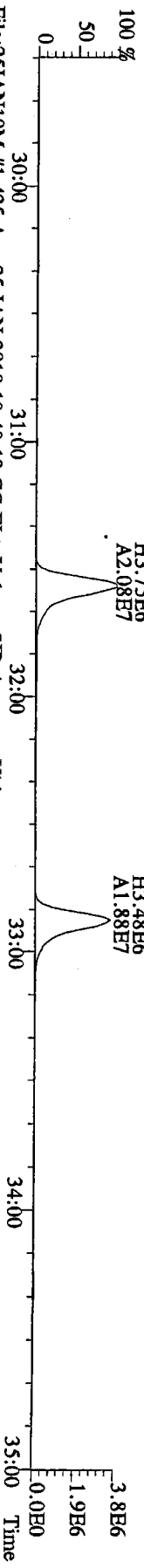
File:25JAN10M #1-425 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
 341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



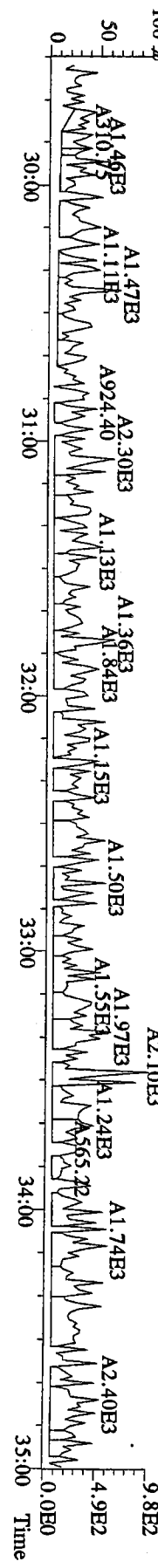
File:25JAN10M #1-425 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
 351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



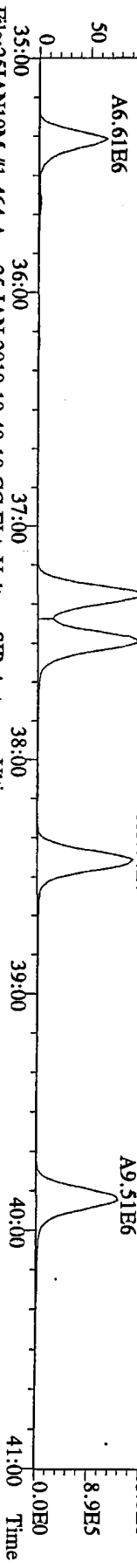
File:25JAN10M #1-425 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
 353.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



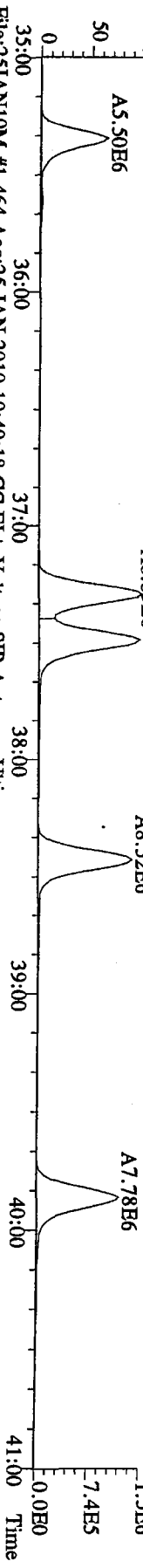
File:25JAN10M #1-425 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



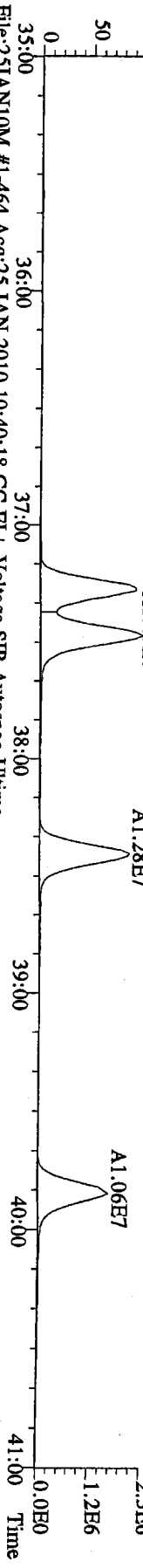
File:251JAN10M #1-464 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
373.8207 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



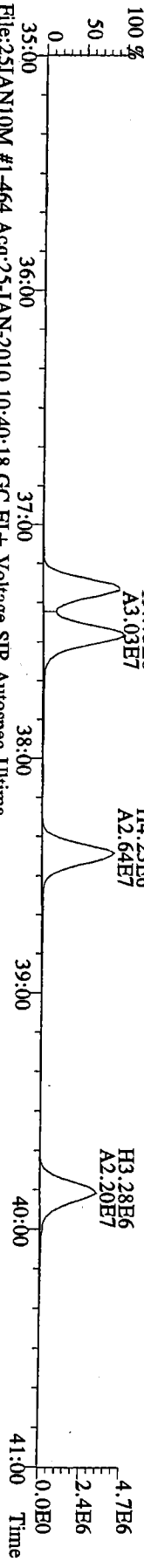
File:251JAN10M #1-464 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
375.8178 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



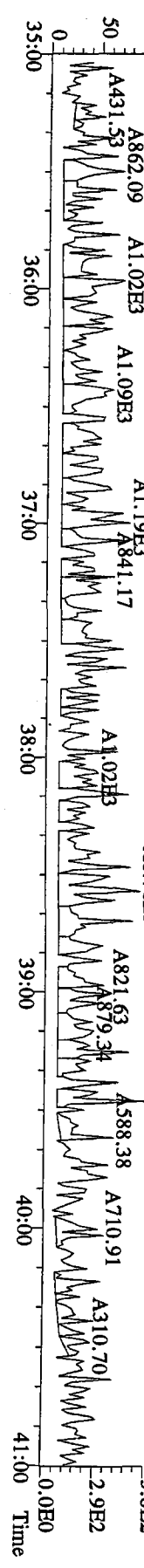
File:251JAN10M #1-464 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
383.8639 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



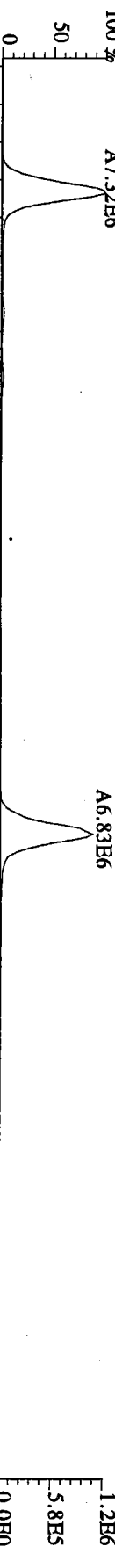
File:251JAN10M #1-464 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
385.8610 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



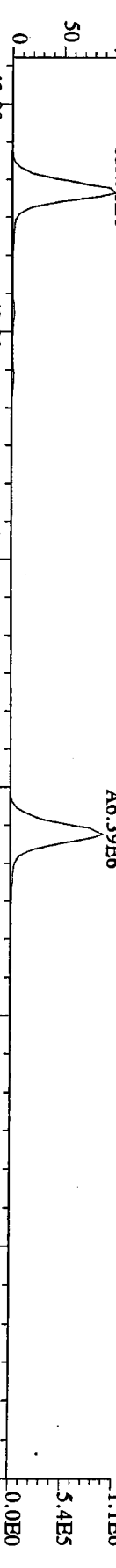
File:251JAN10M #1-464 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
445.7555 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,0,0,0) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



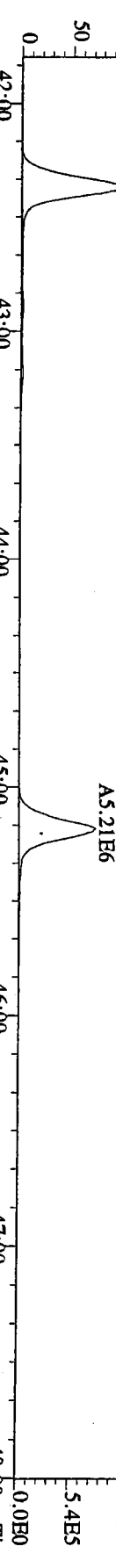
File:25JAN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
407.7818 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



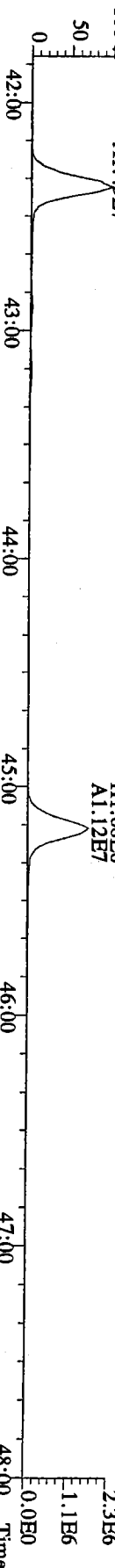
File:25JAN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
409.7788 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



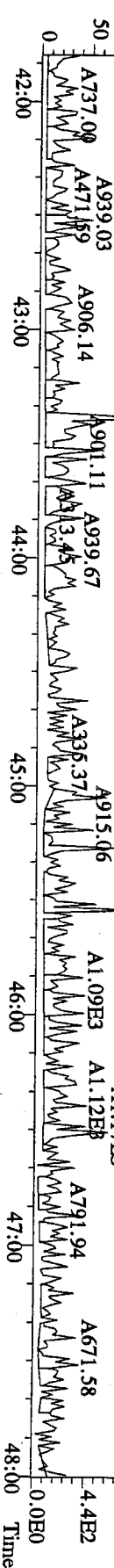
File:25JAN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
417.8253 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



File:25JAN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
419.8220 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory

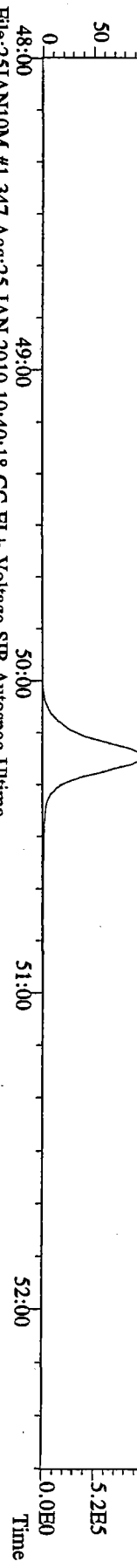


File:25JAN10M #1-541 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Utima  
479.7165 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory

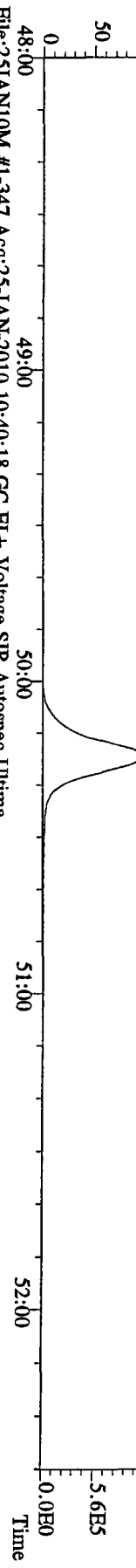




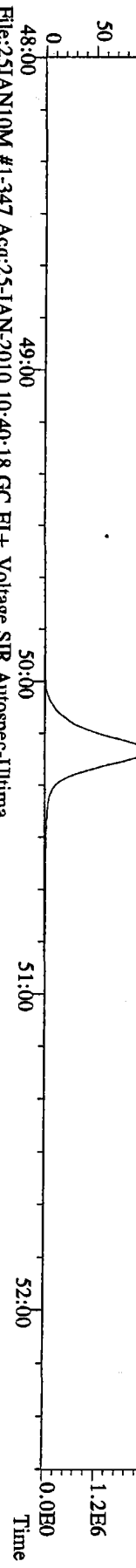
File:25JAN10M #1-347 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



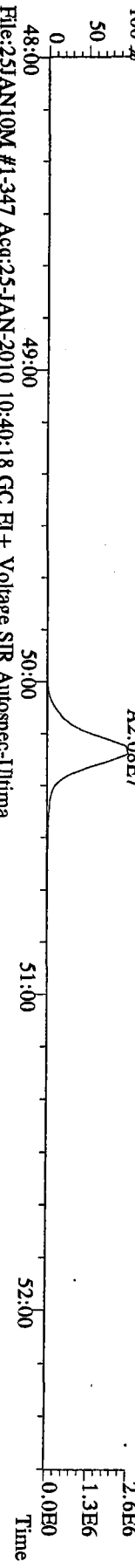
File:25JAN10M #1-347 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory



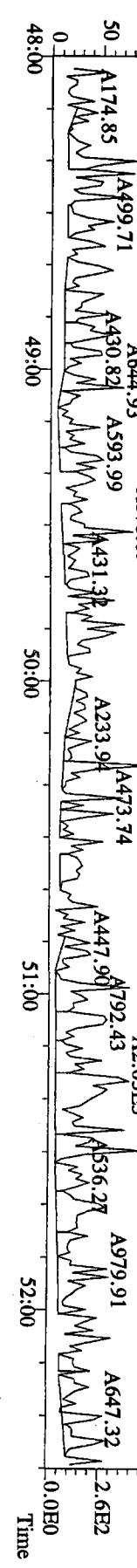
File:25JAN10M #1-347 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory

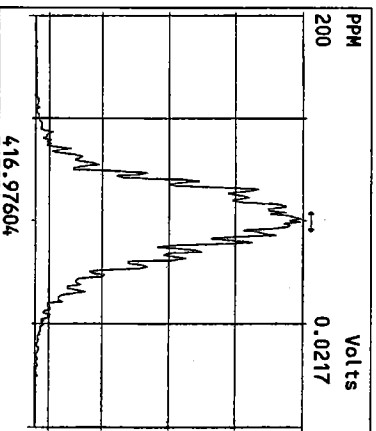
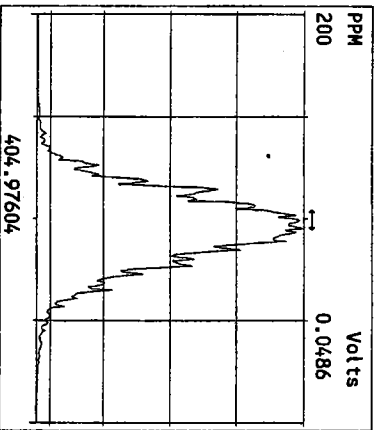
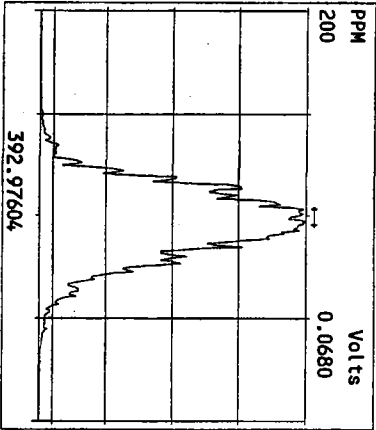
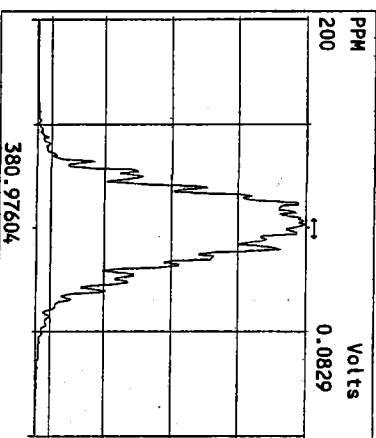
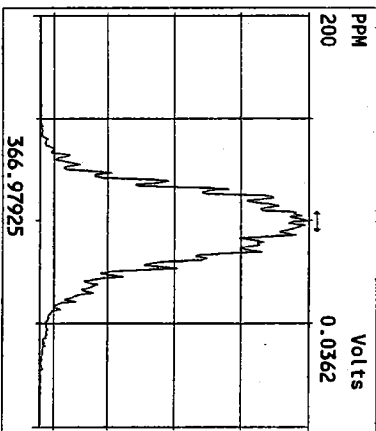
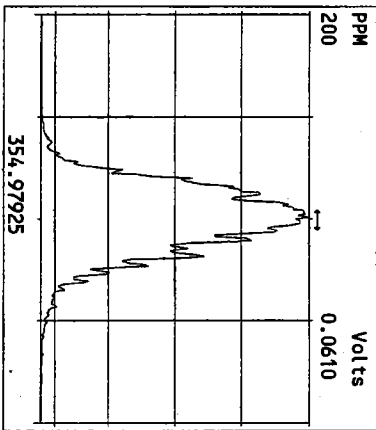
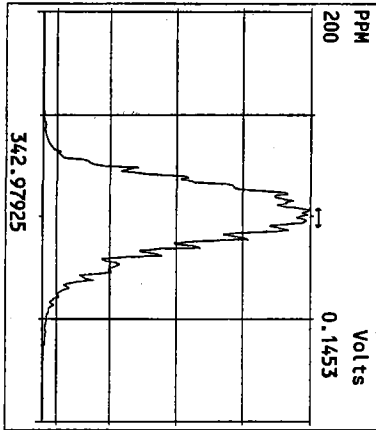
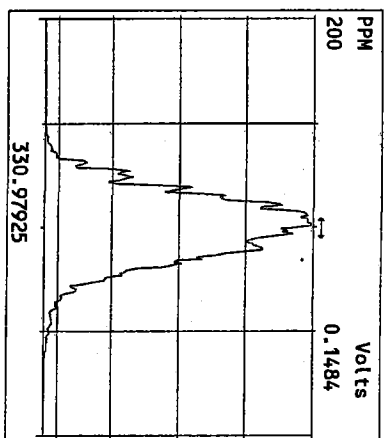
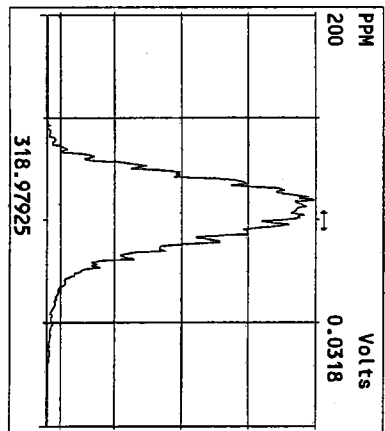
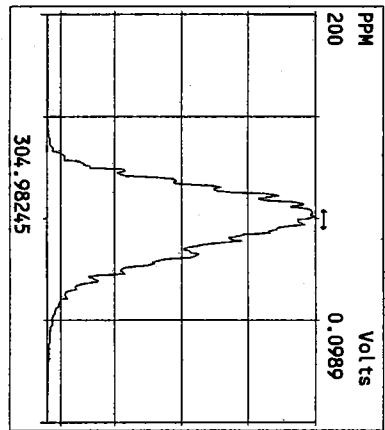
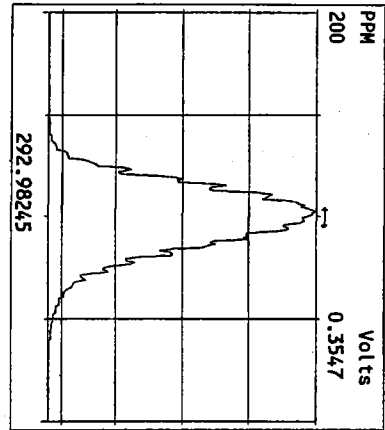


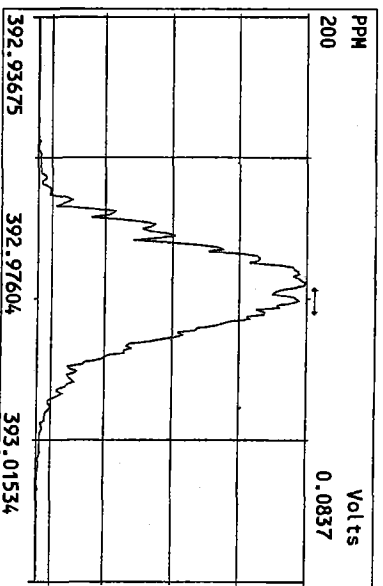
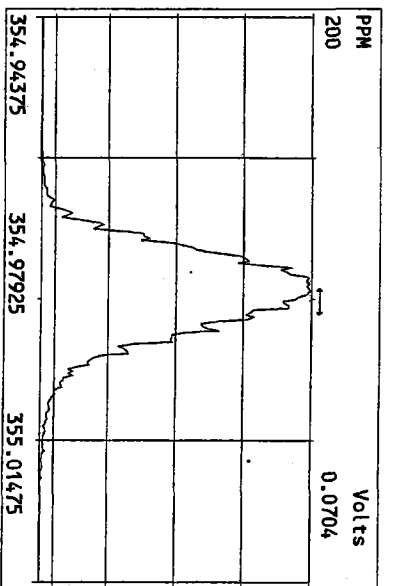
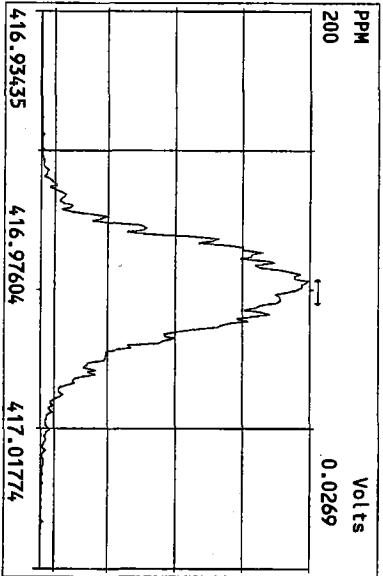
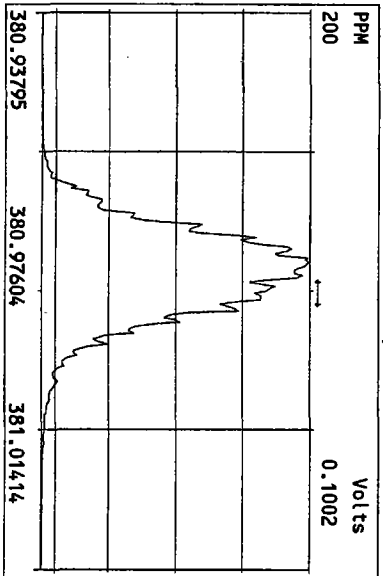
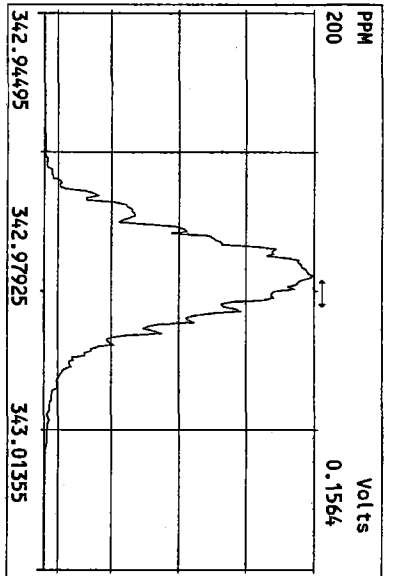
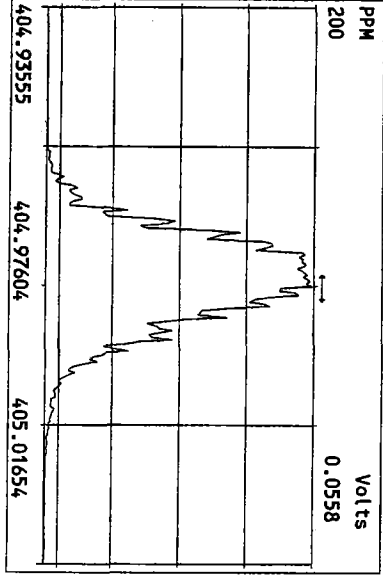
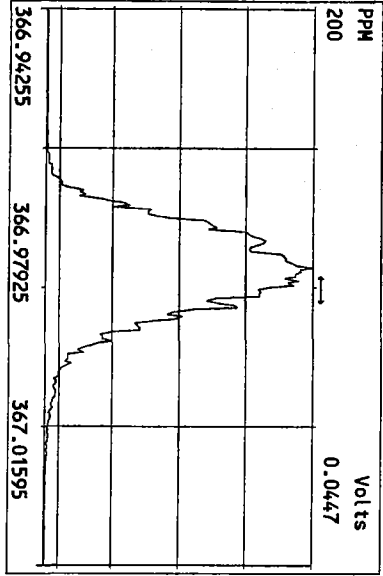
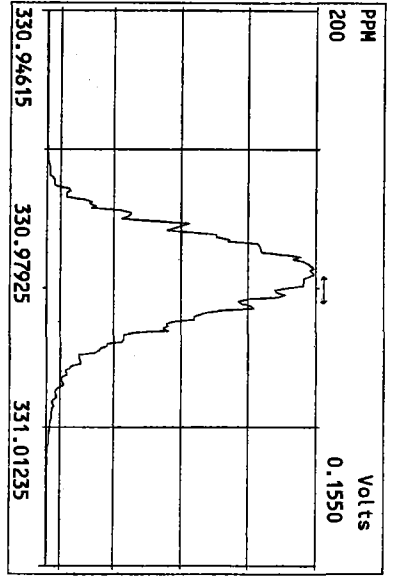
File:25JAN10M #1-347 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory

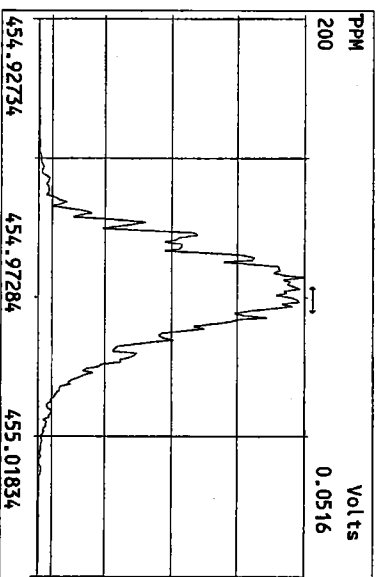
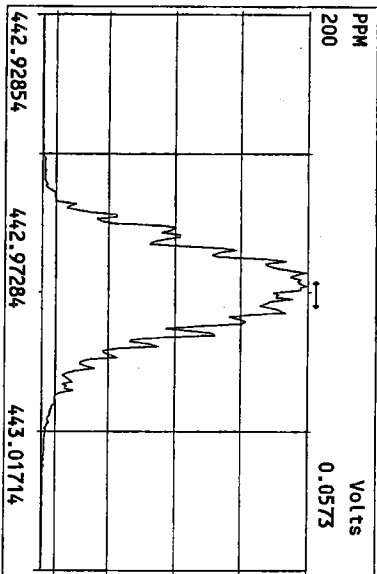
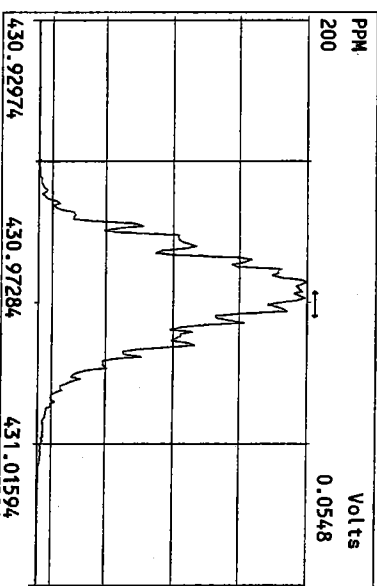
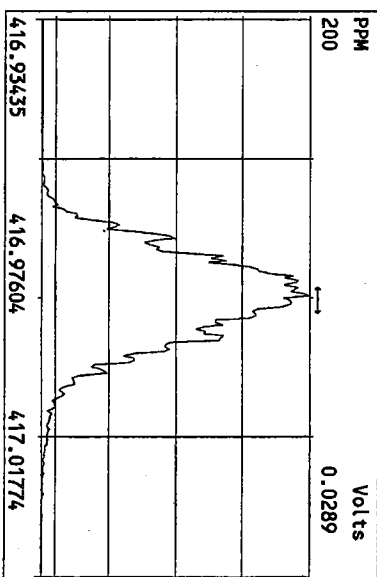
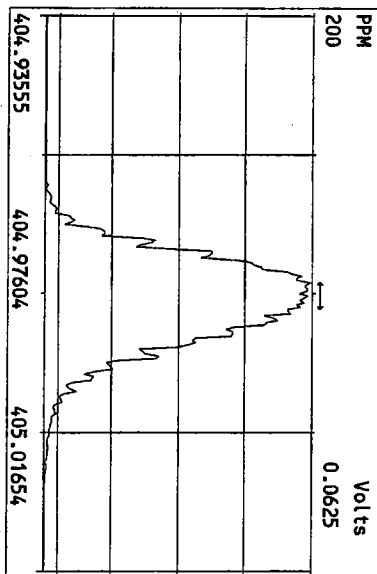
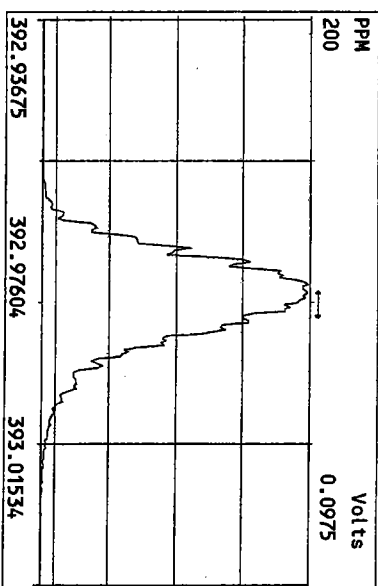
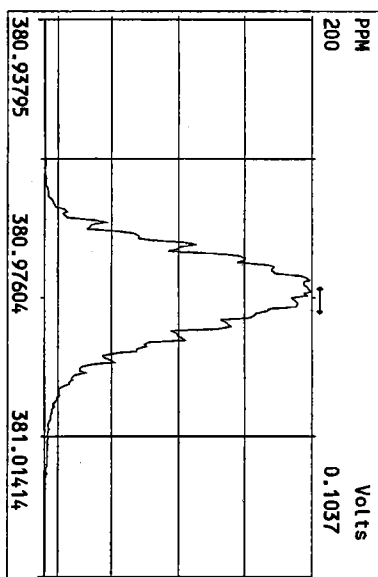
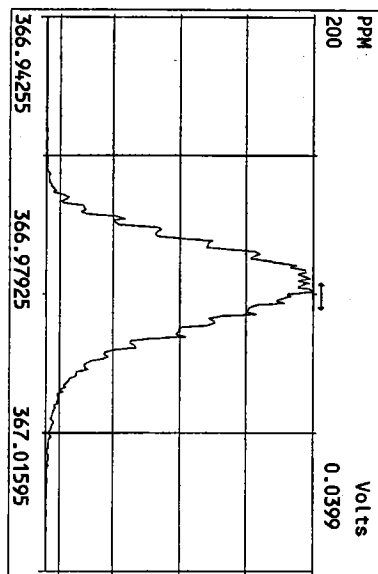


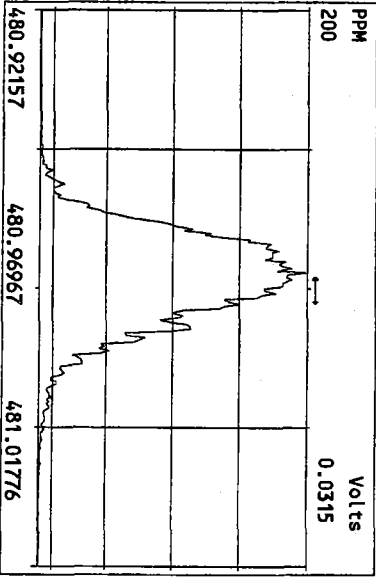
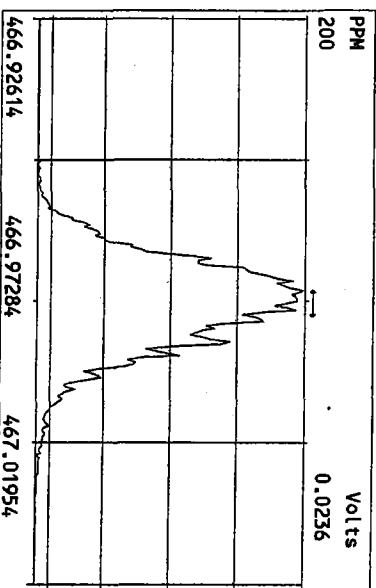
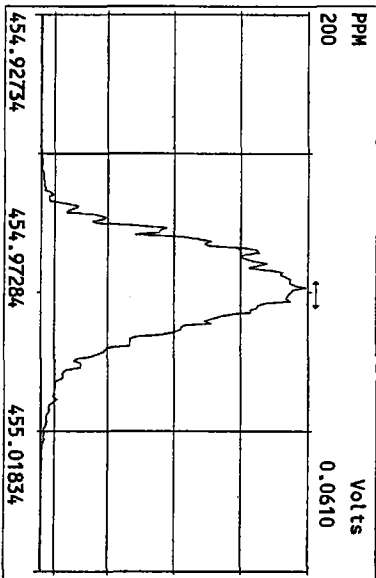
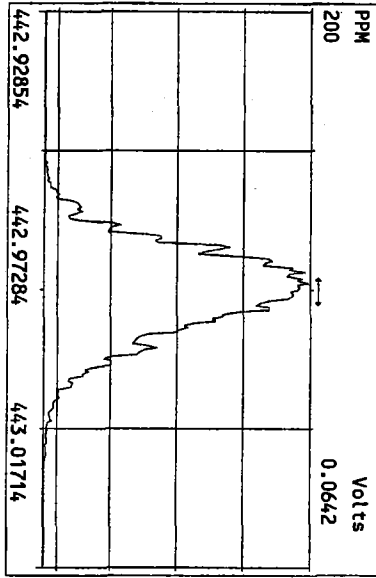
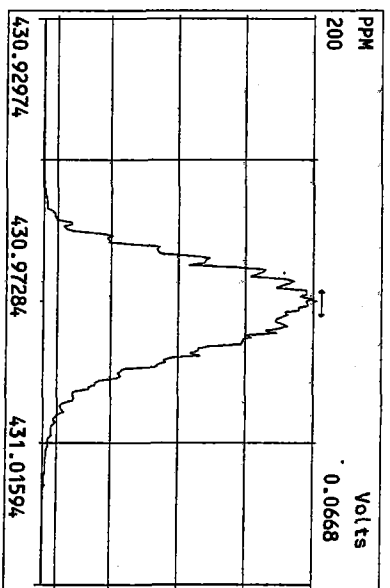
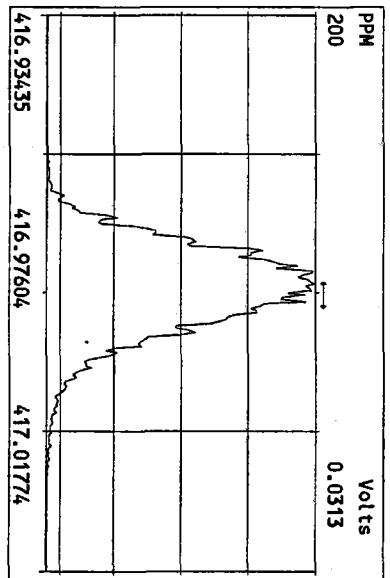
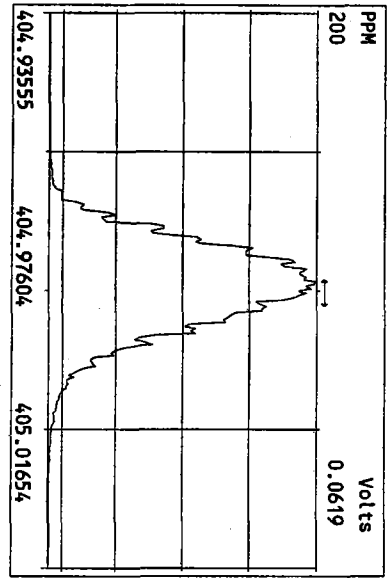
File:25JAN10M #1-347 Acq:25-JAN-2010 10:40:18 GC EI+ Voltage SIR Autospec-Ultima  
 513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M1 File Text:Frontier Analytical Laboratory

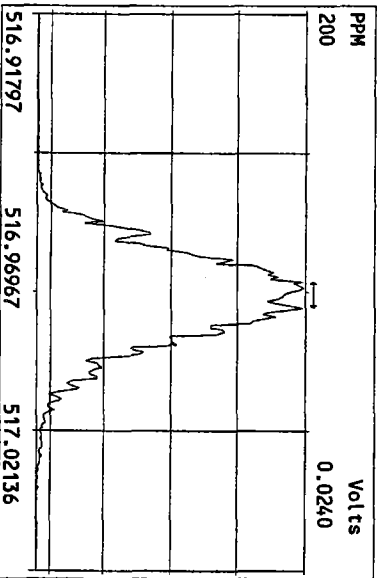
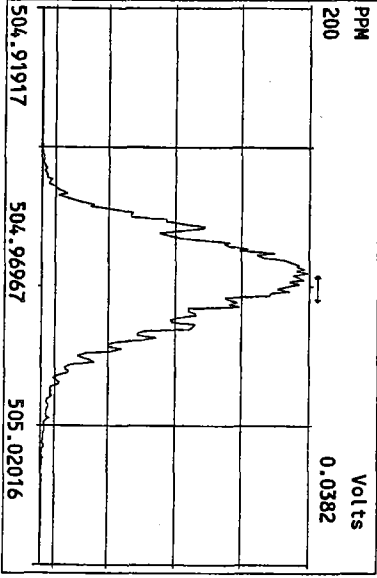
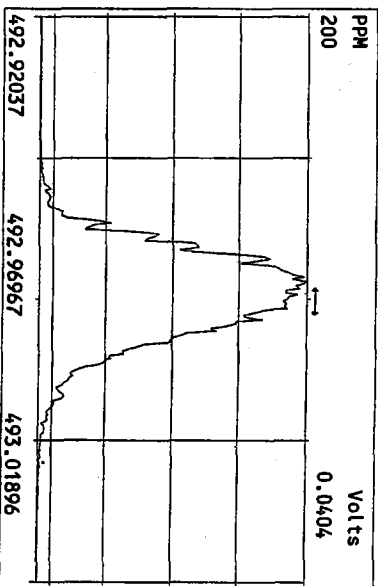
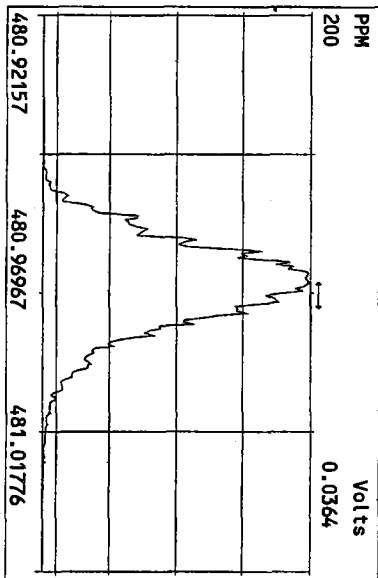
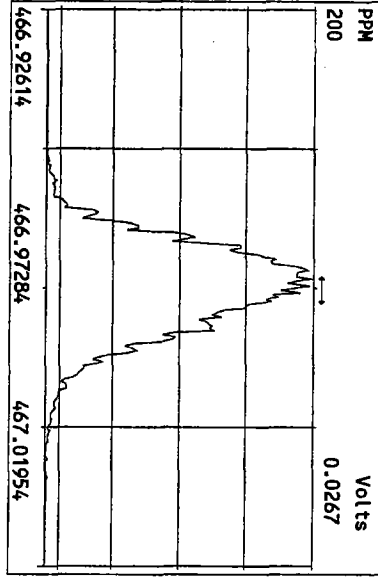
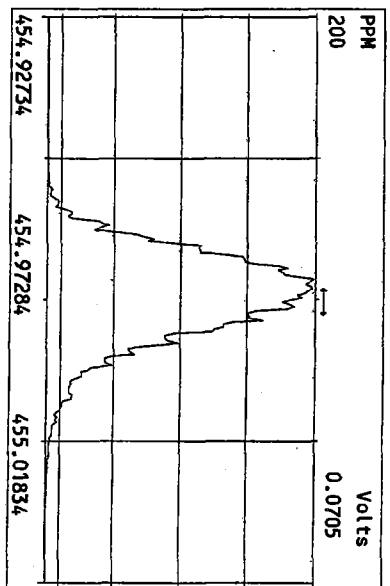
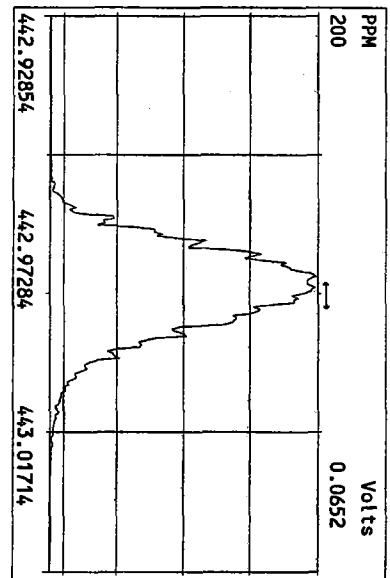
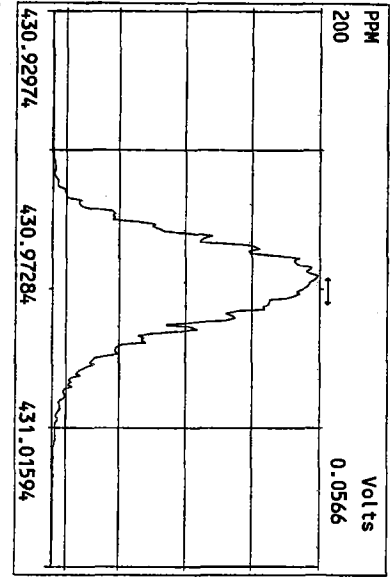












FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 25JAN10M Sam:3

Analysis Date: 25-JAN-10 12:30:56

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	0.80	0.65-0.89	y	9.41	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.57	1.32-1.78	y	49.5	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	47.5	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	45.4	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	46.6	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.96	0.88-1.20	y	48.8	43.0 - 58.0
OCDD	M+2/M+4	0.92	0.76-1.02	y	96.2	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.66	0.65-0.89	y	9.60	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.66	1.32-1.78	y	50.3	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.64	1.32-1.78	y	48.6	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	49.4	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	49.1	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	49.2	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	y	49.1	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88-1.20	y	49.7	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.05	0.88-1.20	y	49.5	43.0 - 58.0
OCDF	M+2/M+4	0.92	0.76-1.02	y	98.4	63.0 - 159

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

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

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

Analyst: Date: 1/25/10

## USEPA - ITD

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 25JAN10M Sam:3

Analysis Date: 25-JAN-10 12:30:56

LABELLED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
13C-2,3,7,8-TCDD	M/M+2	0.72	0.65-0.89	y	99.5	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.68	1.32-1.78	y	82.7	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	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	97.9	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	y	95.4	72.0 - 138
13C-OCDD	M+2/M+4	0.99	0.76-1.02	y	179	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.84	0.65-0.89	y	100.0	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.67	1.32-1.78	y	88.6	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	85.5	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	99.7	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	97.2	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	97.4	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.48	0.43-0.59	y	96.3	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.47	0.37-0.51	y	86.3	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.47	0.37-0.51	y	86.8	77.0 - 129
13C-OCDF	M+2/M+4	0.96	0.76-1.02	y	158	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.80	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: 1/25/10





## USEPA - ITD

## FORM 6A

## PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 25-JAN-10 12:30:56

CS3 or VER Data Filename: 25JAN10M

Sam:3

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
LABELED COMPOUNDS			
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989-1.052
13C-2,3,7,8-TCDD		1.021	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		1.173	0.923-1.203
13C-2,3,4,7,8-PeCDF		1.222	0.923-1.303

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

Analyst: Date: 1/25/10

## USEPA - ITD

FORM 6B

## PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 25-JAN-10 12:30:56

CS3 or VER Data Filename: 25JAN10M

Sam:3

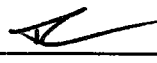
NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.012	1.000-1.019
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	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	1.000	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		1.270	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: 1/25/10

FAL ID: ST012510M2      Filename: 25JAN10M    Sam:3    Acquired: 25-JAN-10 12:30:56    ICal: pccddfal3-11-18-09  
 Client ID: 1613 CS3 (90918J)      ConCal: ST012510M1      EndCal: ST012510M2  
 Results: 5914-2      GC Column: DB5      Amount: 1.000      NATO 1989 Tox: 97.3

Name	Resp	RA	RT	RRF	WHO 1998 Tox: Conc	WHO 1998 Tox: Qual	WHO 2005 Tox: Fac Noise-1	WHO 2005 Tox: Noise-2	111 DL	Rec	#Hom
2,3,7,8-TCDD	3.82e+06	0.80 y	27:30	1.02	9.41		2.50	-	-	*	
1,2,3,7,8-PeCDD	1.71e+07	1.57 y	33:20	0.96	49.5		2.50	-	-	*	
1,2,3,4,7,8-HxCDD	1.51e+07	1.25 y	38:42	1.37	47.5		2.50	-	-	*	
1,2,3,6,7,8-HxCDD	1.27e+07	1.25 y	38:51	1.34	45.4		2.50	-	-	*	
1,2,3,7,8,9-HxCDD	1.40e+07	1.24 y	39:19	1.37	46.6		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	1.11e+07	0.96 y	44:19	1.17	48.8		2.50	-	-	*	
OCDD	1.59e+07	0.92 y	49:54	1.21	96.2		2.50	-	-	*	
2,3,7,8-TCDF	7.82e+06	0.66 y	26:45	1.29	9.60		2.50	-	-	*	
1,2,3,7,8-PeCDF	2.51e+07	1.66 y	31:37	0.89	50.3		2.50	-	-	*	
2,3,4,7,8-PeCDF	2.31e+07	1.64 y	32:55	0.91	48.6		2.50	-	-	*	
1,2,3,4,7,8-HxCDF	1.92e+07	1.21 y	37:19	1.00	49.4		2.50	-	-	*	
1,2,3,6,7,8-HxCDF	2.00e+07	1.23 y	37:31	0.92	49.1		2.50	-	-	*	
2,3,4,6,7,8-HxCDF	1.87e+07	1.21 y	38:27	0.99	49.2		2.50	-	-	*	
1,2,3,7,8,9-HxCDF	1.77e+07	1.23 y	39:53	1.09	49.1		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	1.46e+07	1.04 y	42:24	1.36	49.7		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	1.33e+07	1.05 y	45:13	1.61	49.5		2.50	-	-	*	
OCDF	1.76e+07	0.92 y	50:16	0.84	98.4		2.50	-	-	*	
13C-2,3,7,8-TCDD	3.99e+07	0.72 y	27:29	0.94	99.5					99.5	
13C-1,2,3,7,8-PeCDD	3.58e+07	1.68 y	33:19	1.02	82.7					82.7	
13C-1,2,3,4,7,8-HxCDD	2.31e+07	1.26 y	38:41	0.98	103					103	
13C-1,2,3,6,7,8-HxCDD	2.09e+07	1.24 y	38:51	0.94	97.9					97.9	
13C-1,2,3,4,6,7,8-HpCDD	1.96e+07	1.04 y	44:17	0.90	95.4					95.4	
13C-OCDD	2.72e+07	0.99 y	49:53	0.67	179					89.4	
13C-2,3,7,8-TCDF	6.33e+07	0.84 y	26:43	0.88	100.0					100.0	
13C-1,2,3,7,8-PeCDF	5.61e+07	1.67 y	31:35	0.88	88.6					88.6	
13C-2,3,4,7,8-PeCDF	5.24e+07	1.65 y	32:54	0.85	85.5					85.5	
13C-1,2,3,4,7,8-HxCDF	3.90e+07	0.48 y	37:17	1.72	99.7					99.7	
13C-1,2,3,6,7,8-HxCDF	4.44e+07	0.48 y	37:29	2.00	97.2					97.2	
13C-2,3,4,6,7,8-HxCDF	3.85e+07	0.48 y	38:26	1.74	97.4					97.4	
13C-1,2,3,7,8,9-HxCDF	3.30e+07	0.48 y	39:52	1.51	96.3					96.3	
13C-1,2,3,4,6,7,8-HpCDF	2.16e+07	0.47 y	42:24	1.10	86.3					86.3	
13C-1,2,3,4,7,8,9-HpCDF	1.67e+07	0.47 y	45:12	0.85	86.8					86.8	
13C-OCDF	4.24e+07	0.96 y	50:15	1.17	158					79.2	
37Cl-2,3,7,8-TCDD	4.06e+06		27:30	0.97	9.80					98.0	
13C-1,2,3,4-TCDD	4.26e+07	0.72 y	26:55	-	163						
13C-1,2,3,4-TCDF	7.21e+07	0.86 y	25:38	-	156						
13C-1,2,3,7,8,9-HxCDD	2.28e+07	1.25 y	39:18	-	111						
Total Tetra-Dioxins	2.11e+07		24:30	1.02	52.1		2.50	-	-	*	18
Total Penta-Dioxins	3.71e+07		30:22	0.96	108		2.50	-	-	*	6
Total Hexa-Dioxins	4.77e+07		36:14	1.36	159		2.50	-	-	*	6
Total Hepta-Dioxins	2.36e+07		42:56	1.17	103		2.50	-	-	*	21
Total Tetra-Furans	3.19e+07		23:08	1.29	39.2		2.50	-	-	*	10
1st Fn. Tot Penta-Furans	2.92e+07		28:32	0.90	60.0		2.50	-	-	*	PeCDF 1
Total Penta-Furans	6.84e+07		30:18	0.90	141		2.50	-	-	*	201 10
Total Hexa-Furans	8.81e+07		35:22	0.99	229		2.50	-	-	*	12
Total Hepta-Furans	2.83e+07		42:24	1.47	101		2.50	-	-	*	6

Analyst:  Date: 1/25/10

Frontier Analytical Laboratory - Acquisition Log


Run Name: 25JAN10M

Instrument: FAL3

GC: DB5

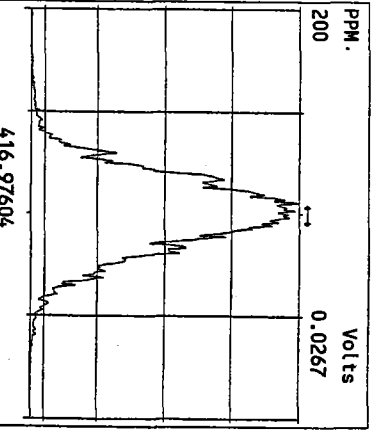
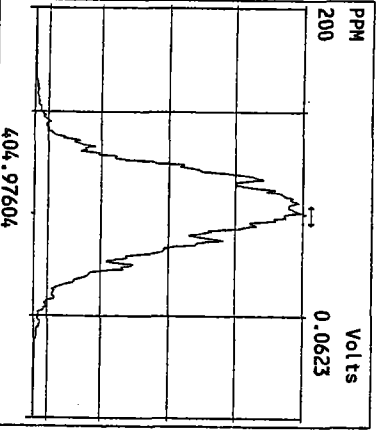
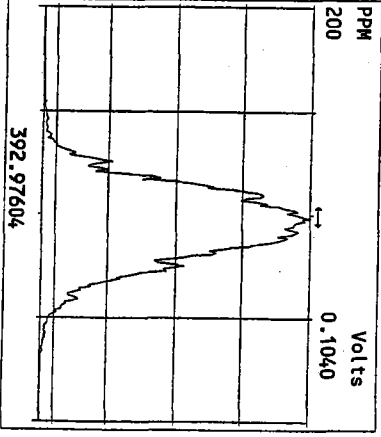
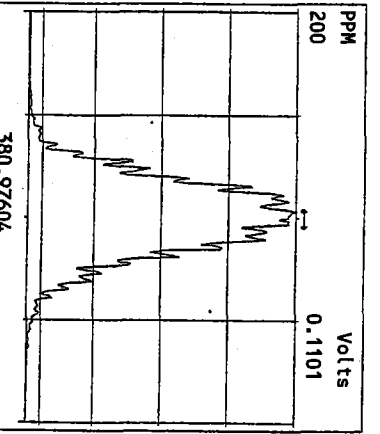
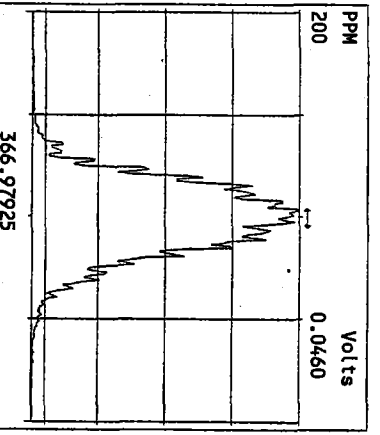
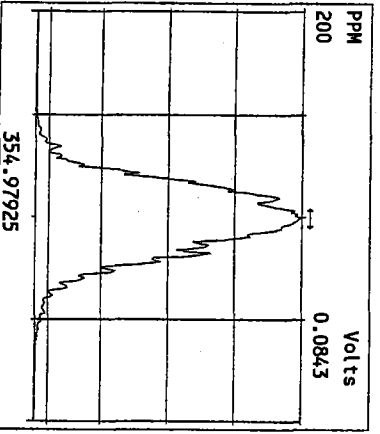
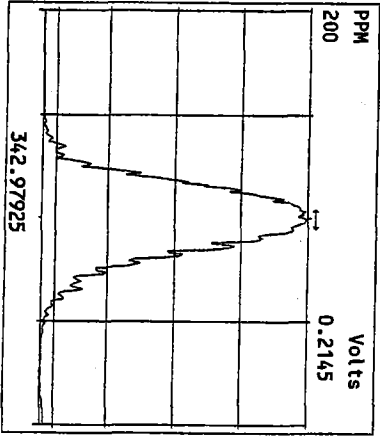
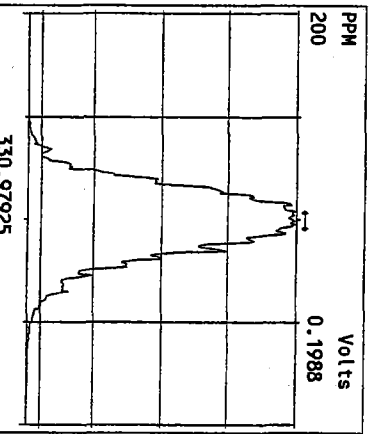
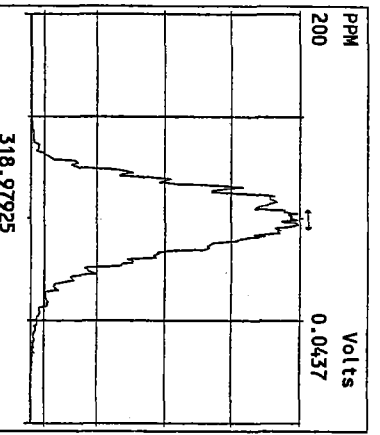
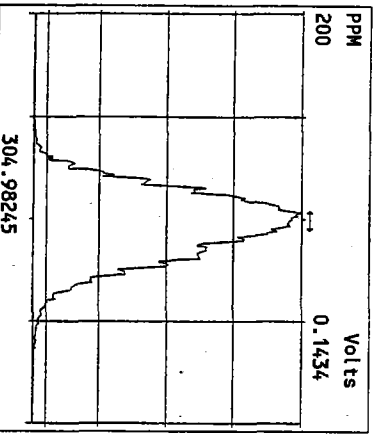
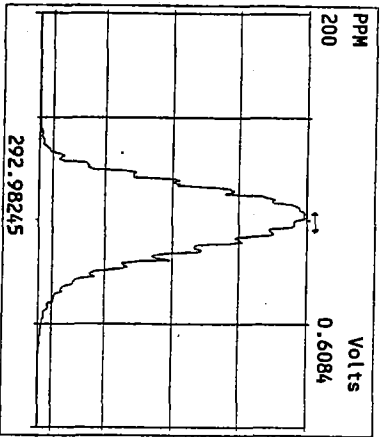
Experiment: PCDD

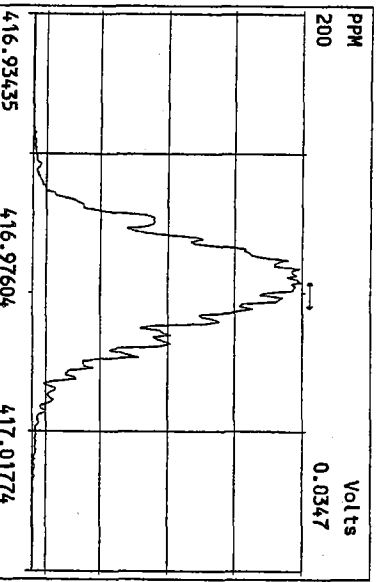
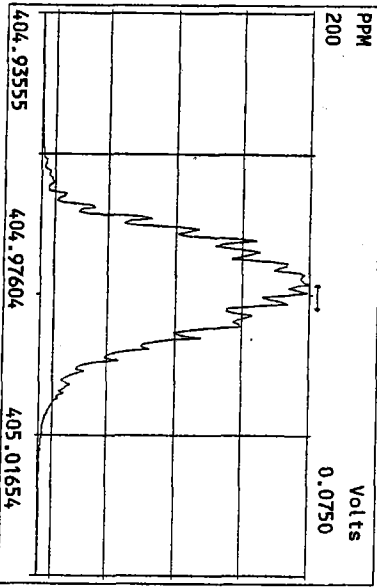
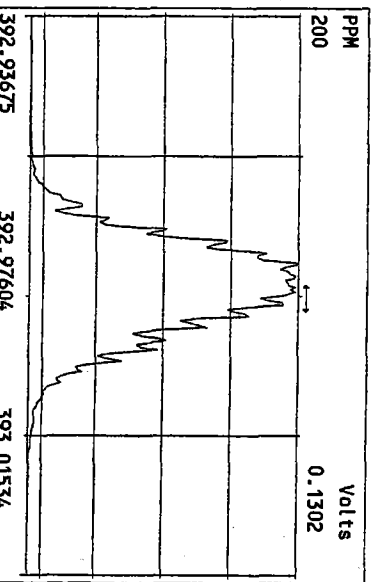
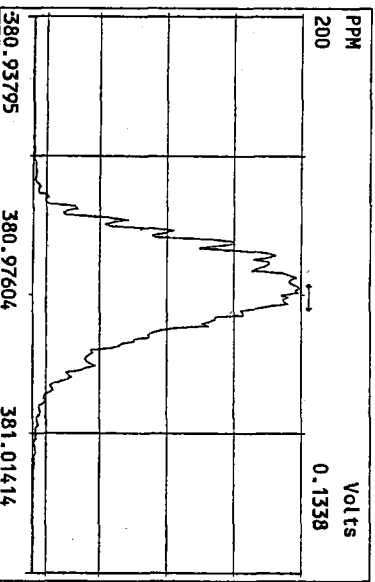
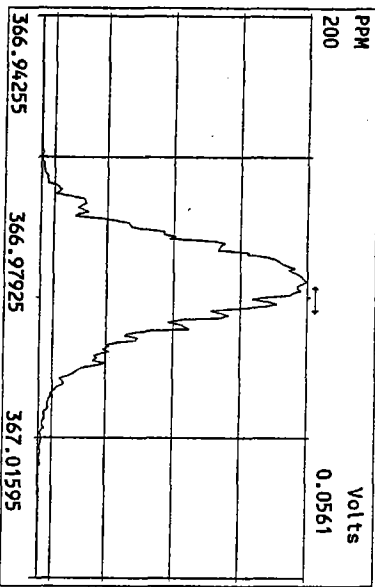
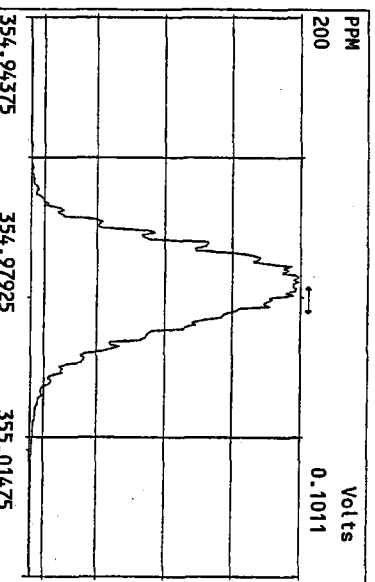
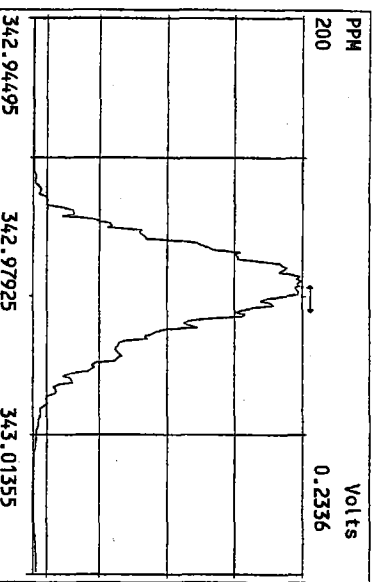
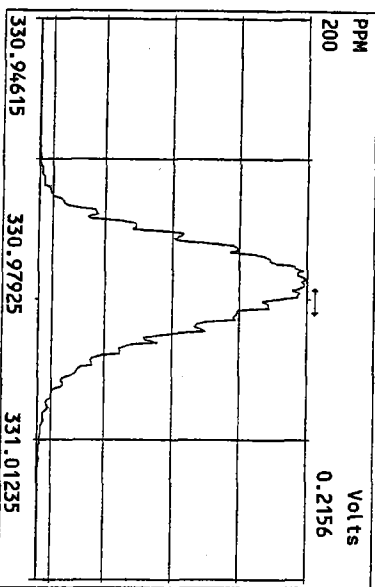
Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
25JAN10M 1	ST012510M1	1613 CS3 (090918J)	25-JAN-10 10:40:18	ST012510M1	ST012510M2	BS
25JAN10M 2	5914-001-0001-SA	CB31A011110SED	25-JAN-10 11:35:37	ST012510M1	ST012510M2	BS
25JAN10M 3	ST012510M2	1613 CS3 (090918J)	25-JAN-10 12:30:56	ST012510M1	ST012510M2	BS

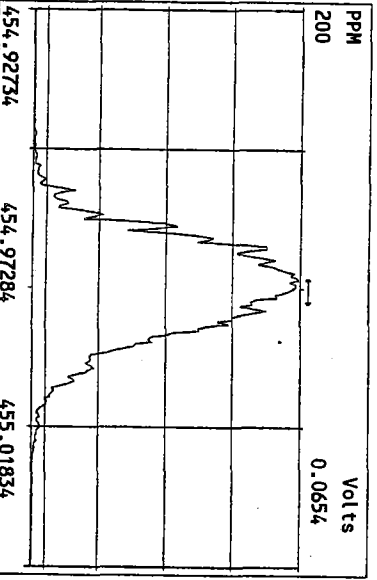
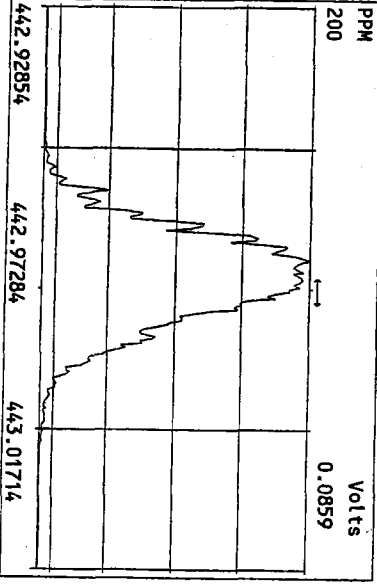
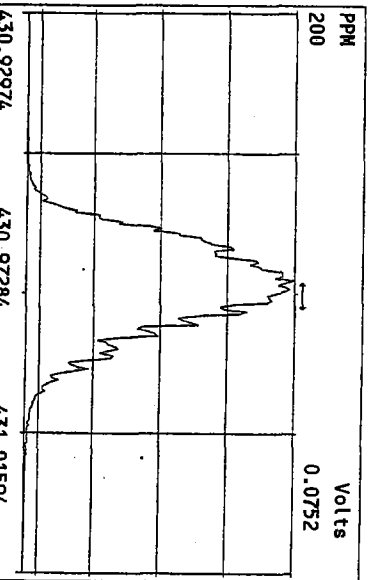
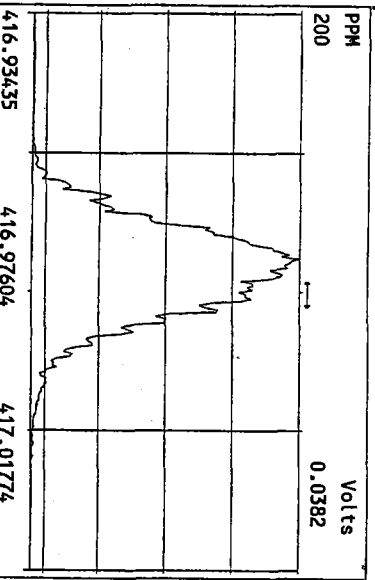
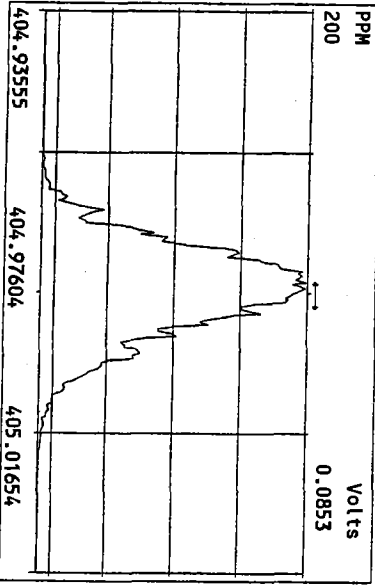
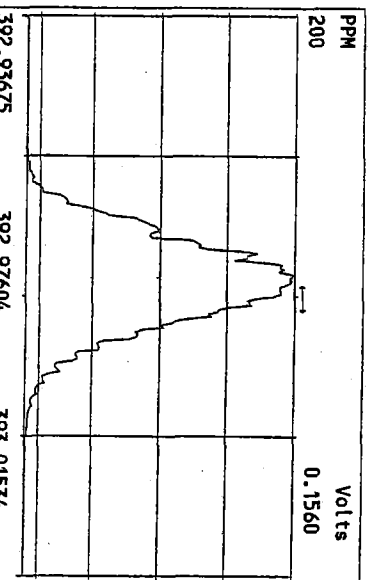
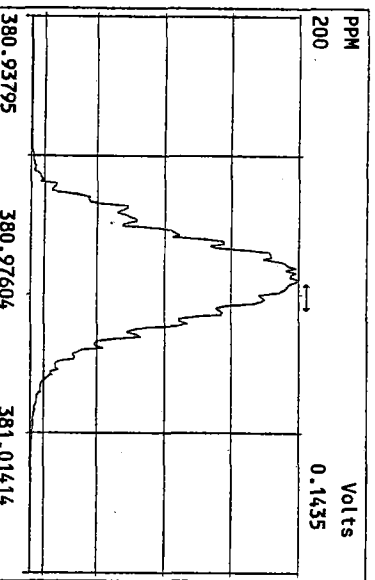
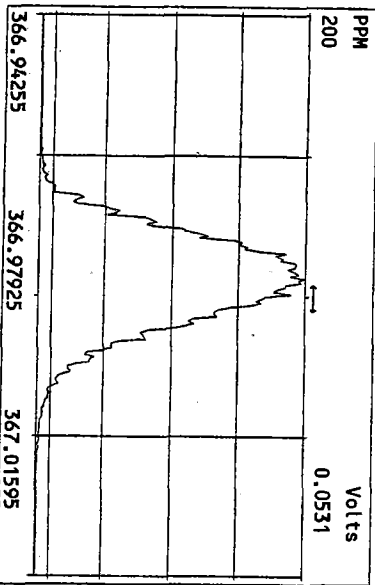
 1/25/10

Data Backed Up: \_\_\_\_\_

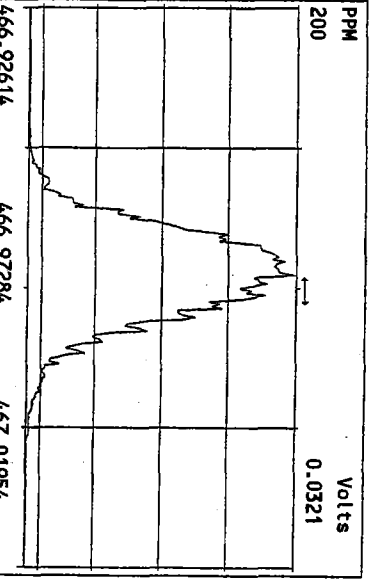
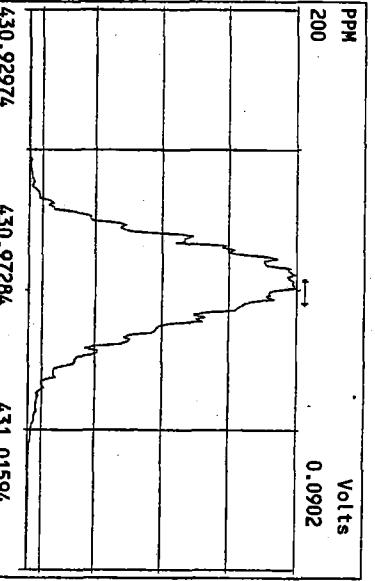
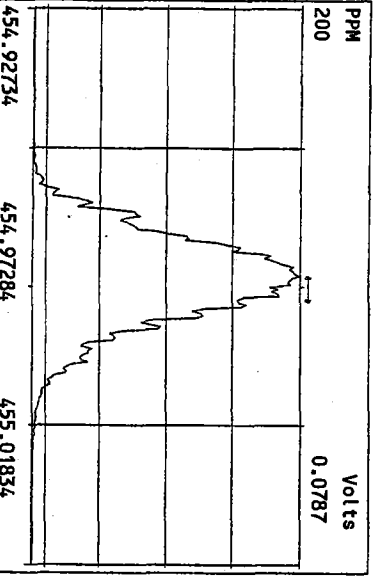
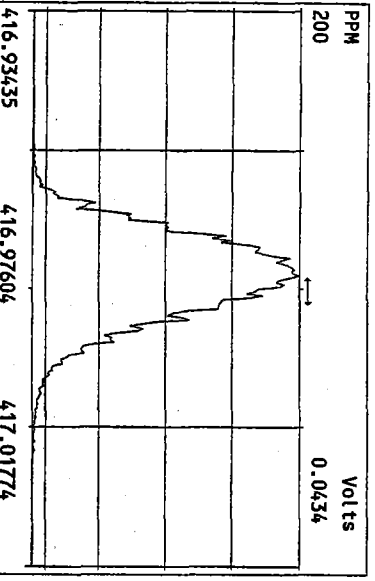
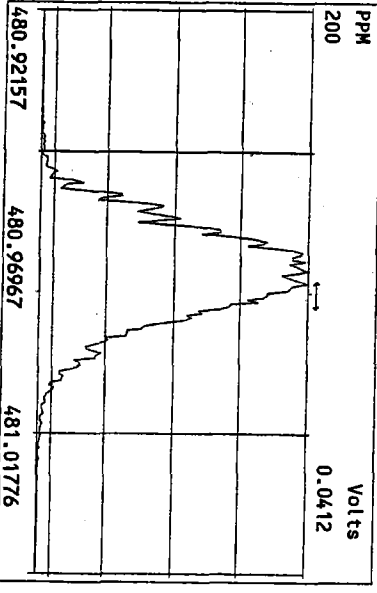
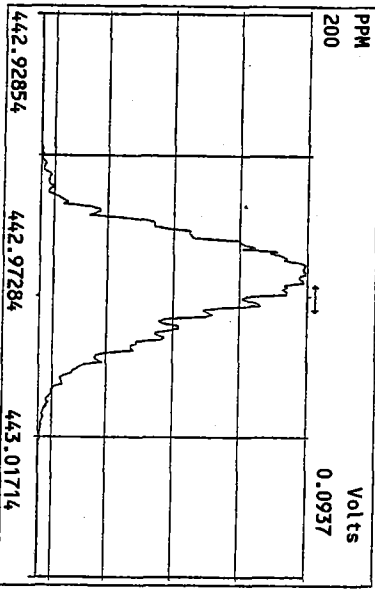
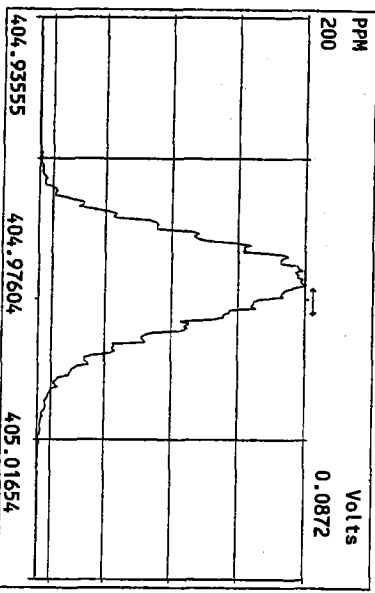
Date: \_\_\_\_\_

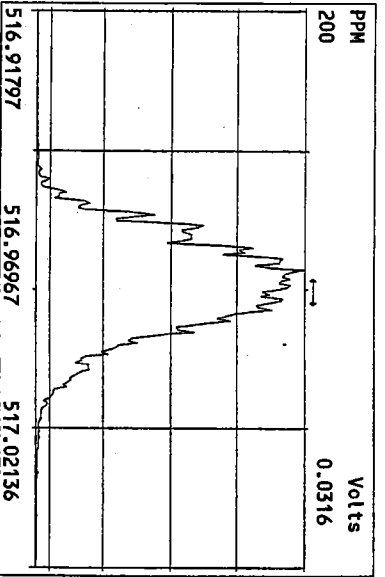
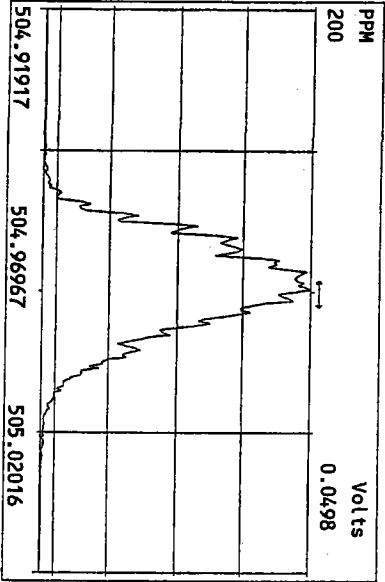
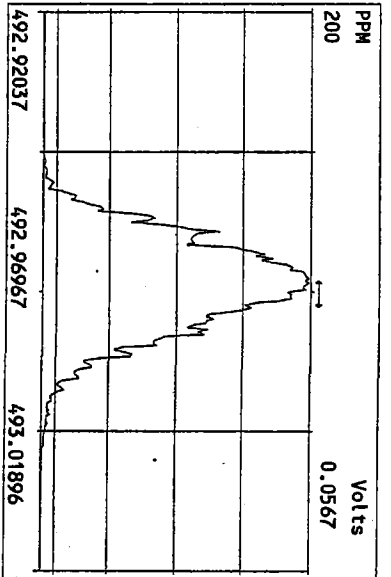
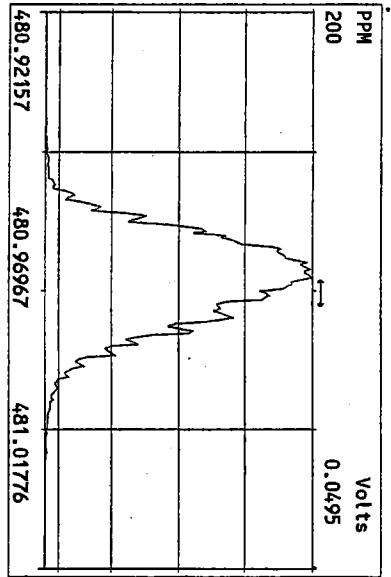
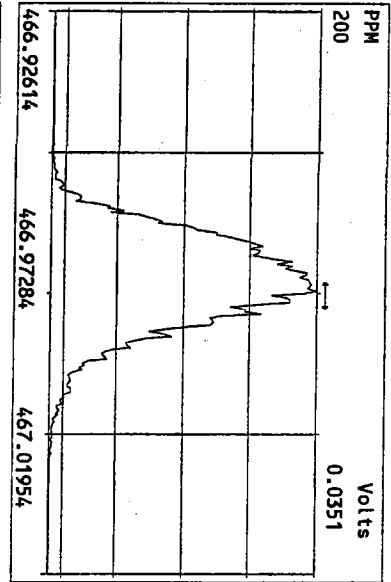
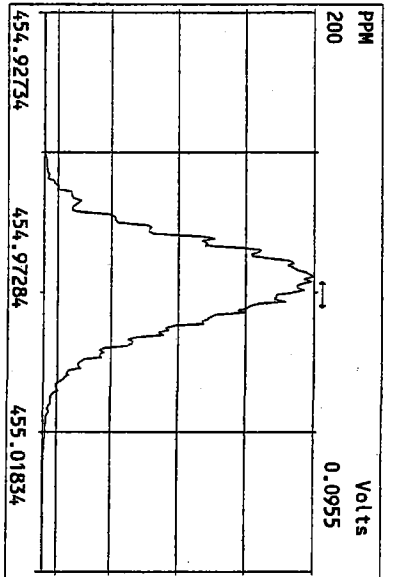
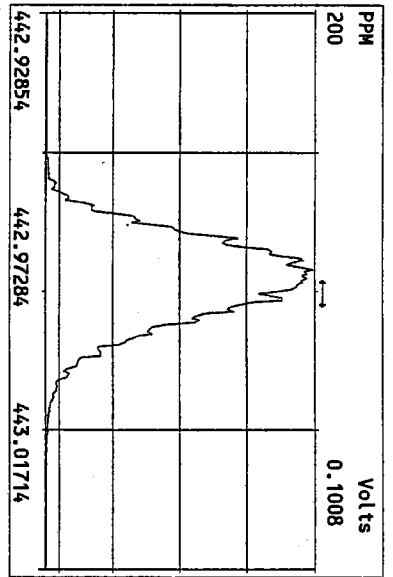
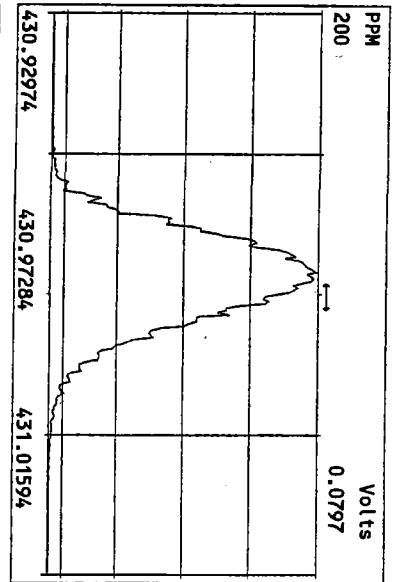






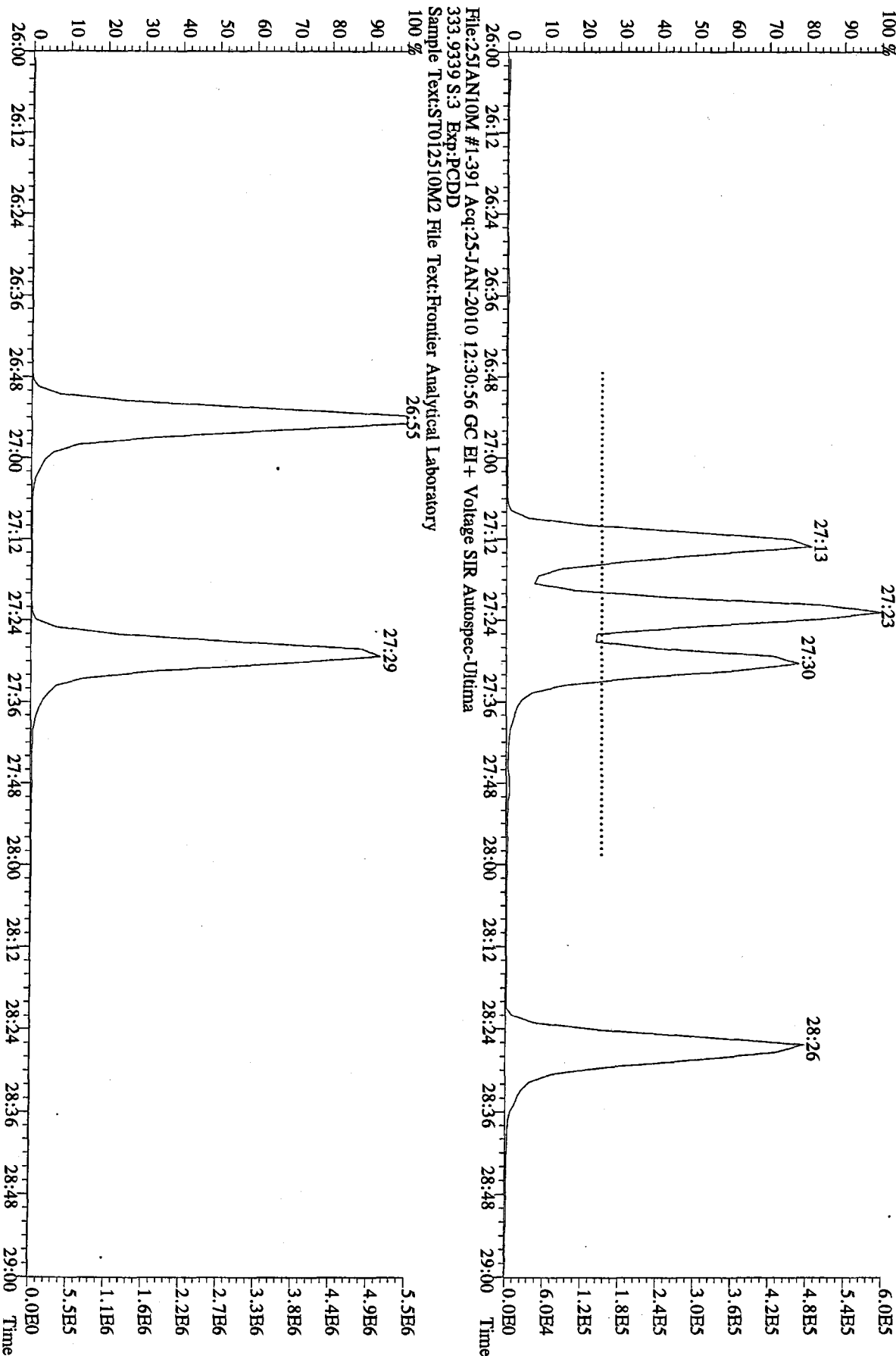




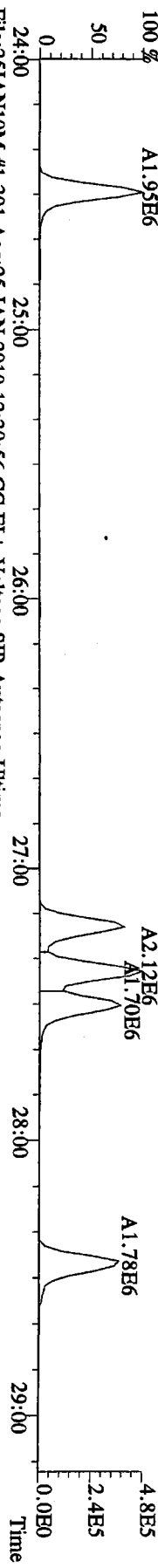


200910:01158

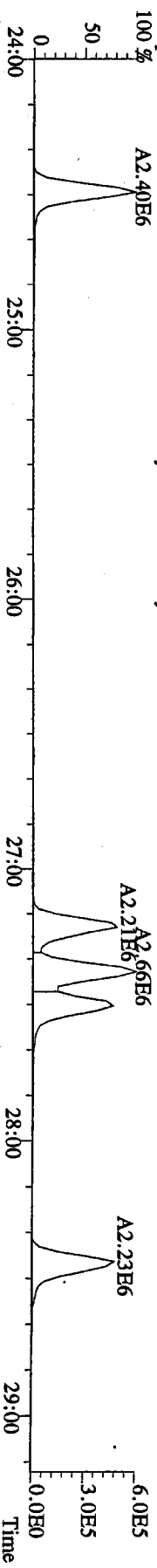
File:25JAN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
321.8936 S:3 Exp:PCDD  
Sample Text:STO12510M2 File Text:Frontier Analytical Laboratory  
100 %



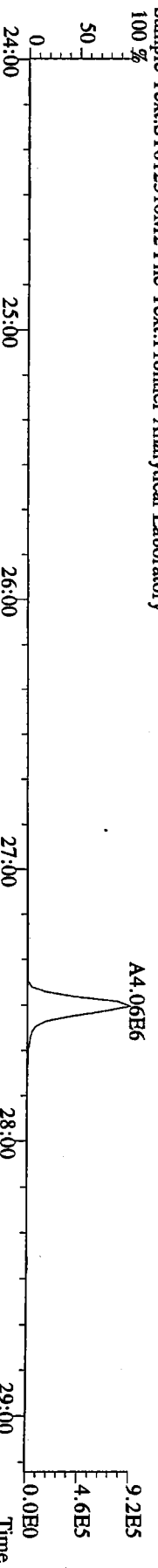
File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
319.8965 S.3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
100 % A1.95E6



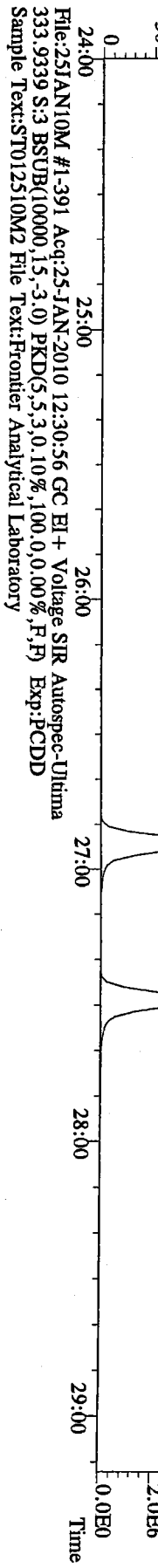
File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
321.8936 S.3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
100 % A2.40E6



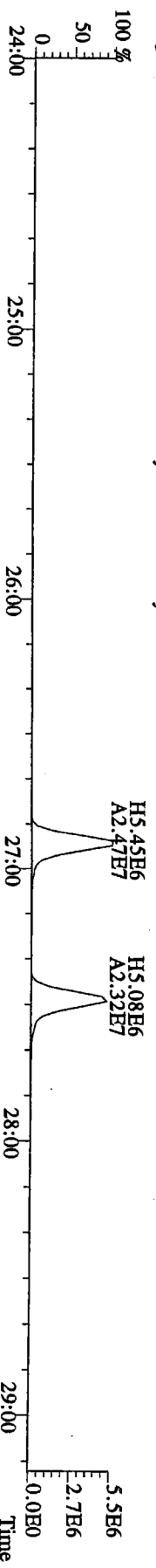
File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
327.8847 S.3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
100 % A4.06E6



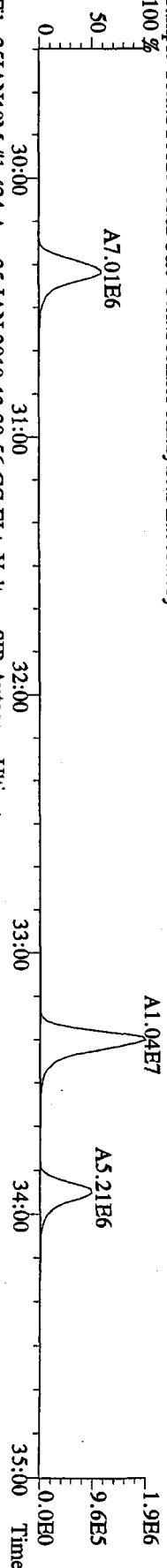
File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
331.9368 S.3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
100 % H5.45E6  
A2.47E7



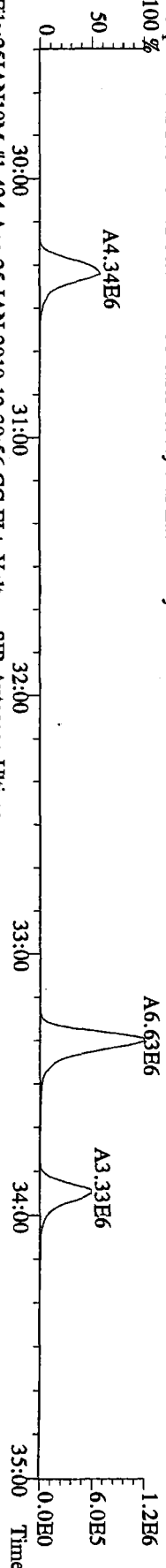
File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
333.9339 S.3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
100 % H5.08E6  
A2.32E7



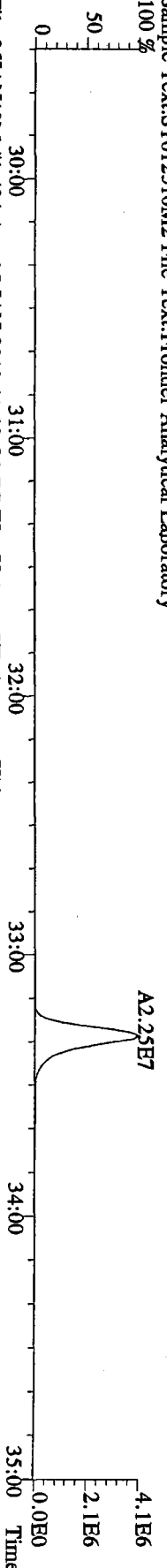
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 S:3 F:2 BSUB(10000,15,3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



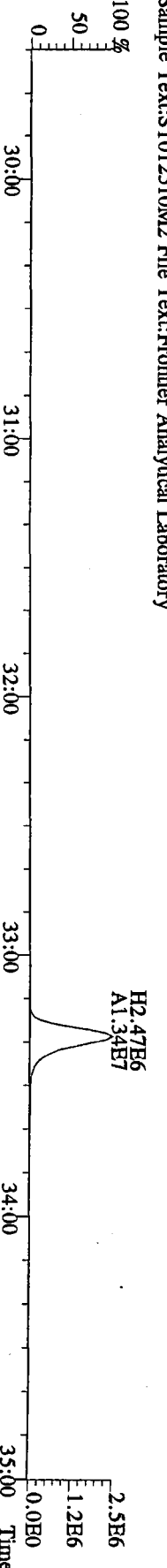
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 357.8517 S:3 F:2 BSUB(10000,15,3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



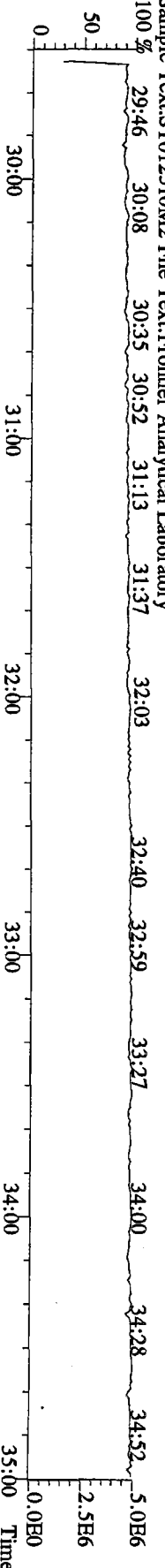
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 367.8949 S:3 F:2 BSUB(10000,15,3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



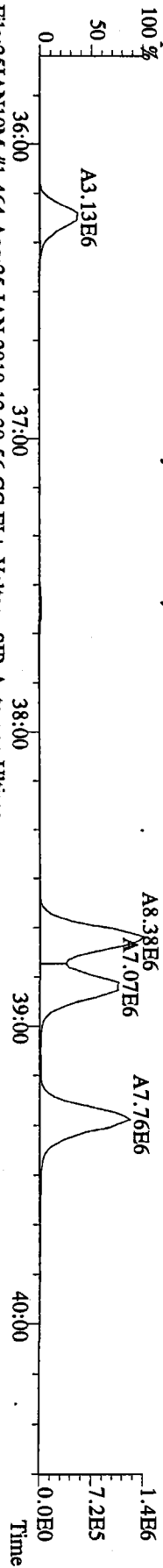
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 369.8919 S:3 F:2 BSUB(10000,15,3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



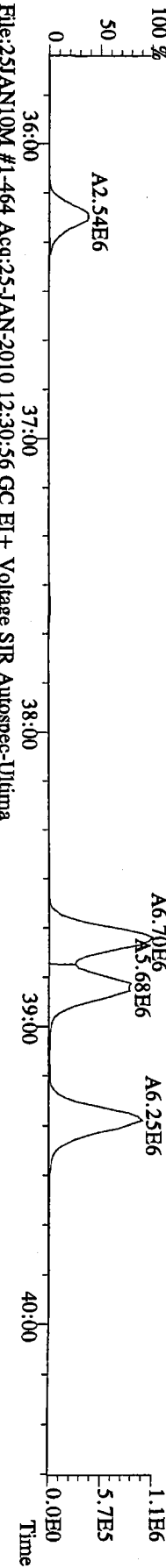
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 S:3 F:2 Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



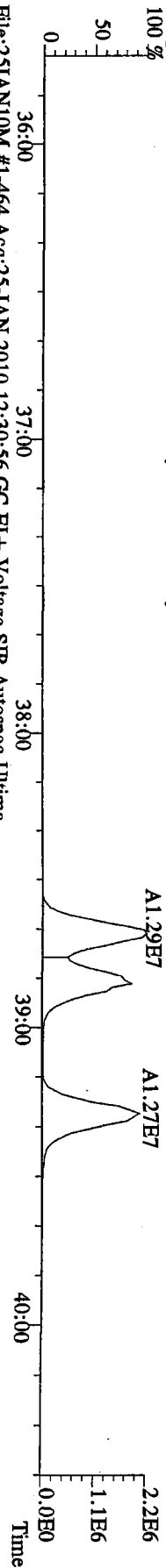
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



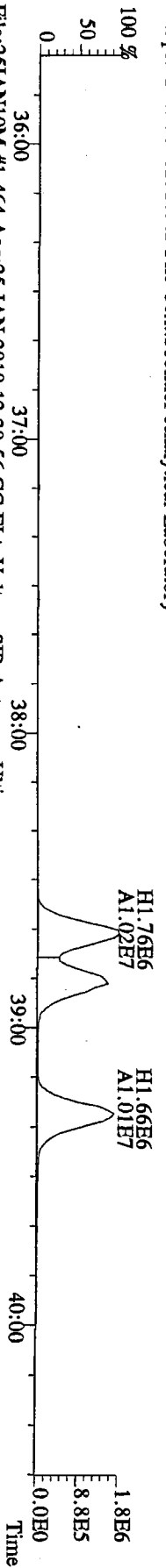
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



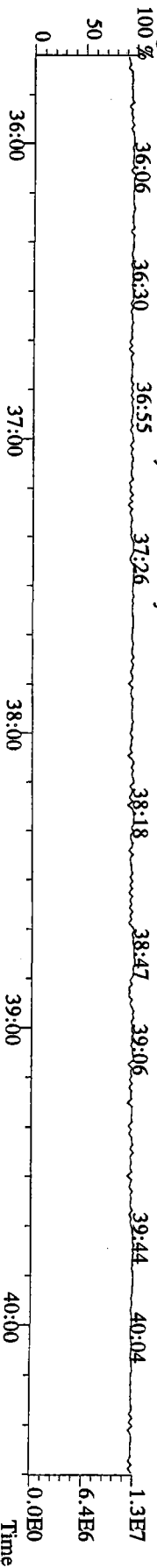
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



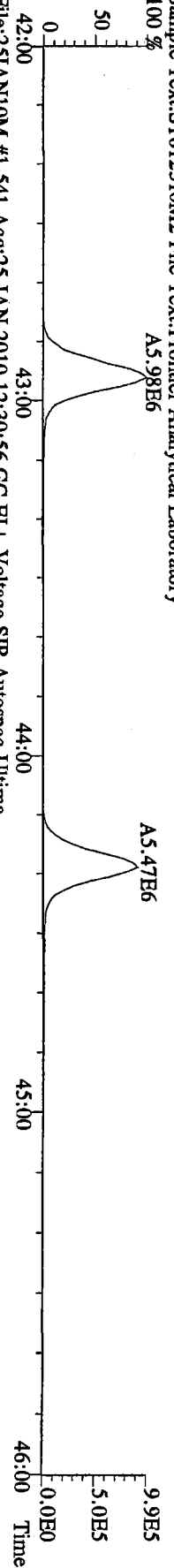
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



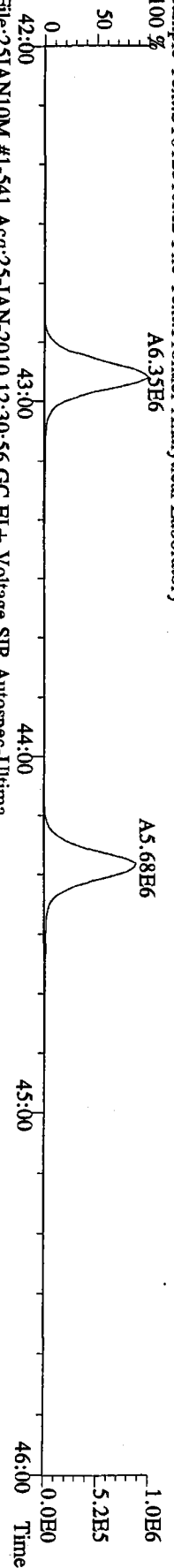
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:3 F:3 Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



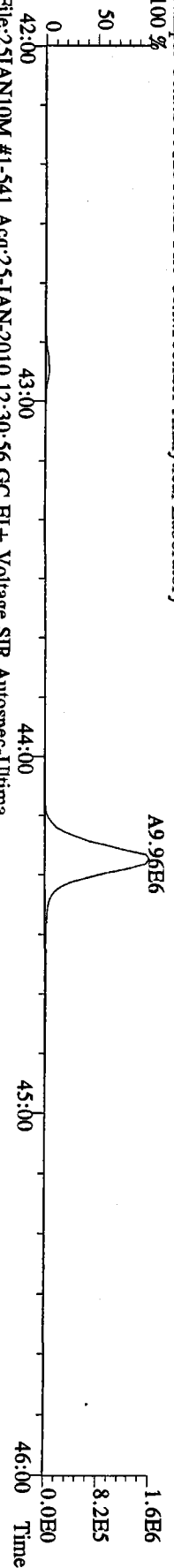
File:251AN10M #1-541 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:STO12510M2 File Text:Frontier Analytical Laboratory



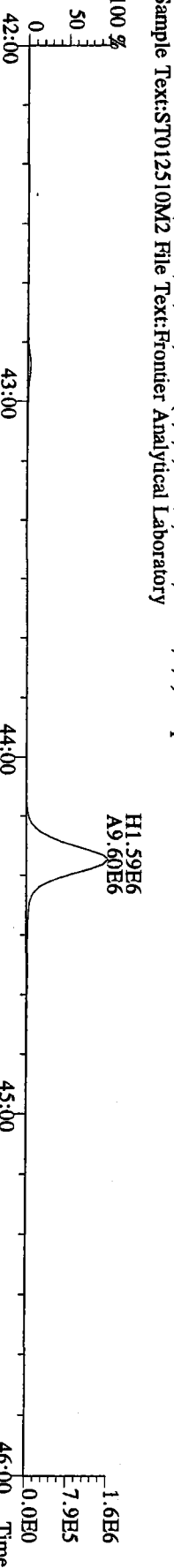
File:251AN10M #1-541 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:STO12510M2 File Text:Frontier Analytical Laboratory



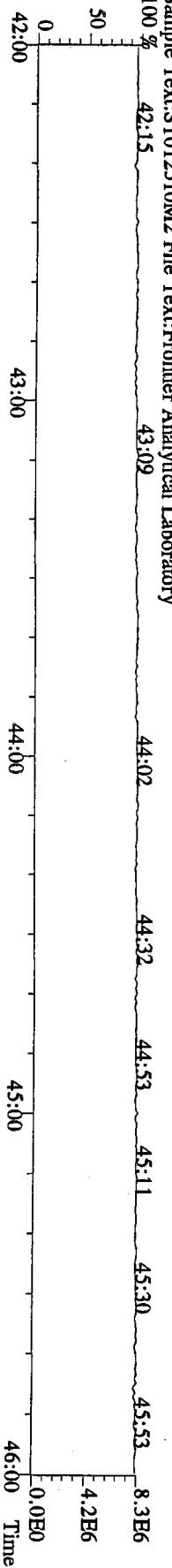
File:251AN10M #1-541 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:STO12510M2 File Text:Frontier Analytical Laboratory



File:251AN10M #1-541 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:STO12510M2 File Text:Frontier Analytical Laboratory

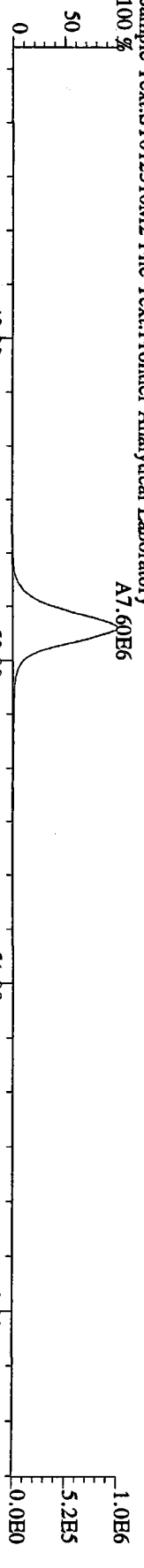


File:251AN10M #1-541 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 430.9728 S:3 F:4 Exp:PCDD  
 Sample Text:STO12510M2 File Text:Frontier Analytical Laboratory

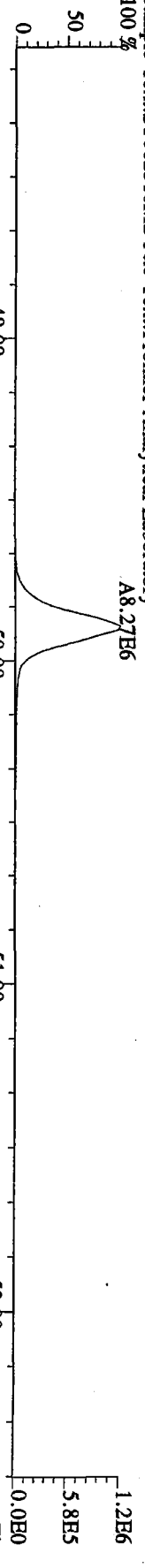


120918 : 01 LB

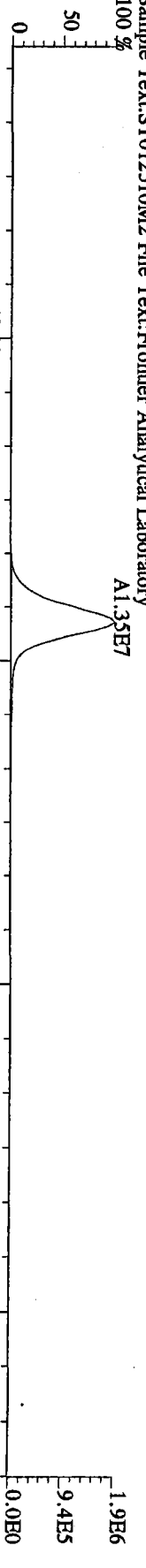
File:251AN10M #1-347 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



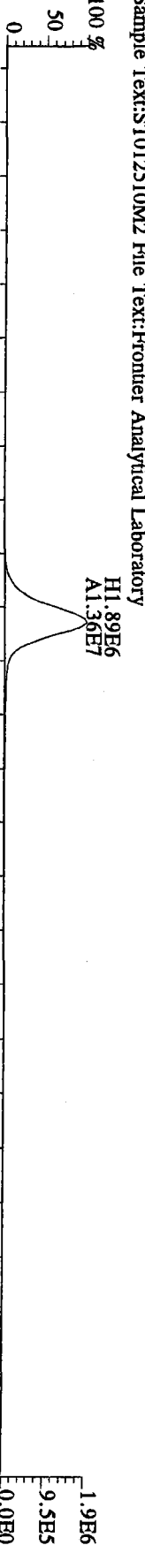
File:251AN10M #1-347 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



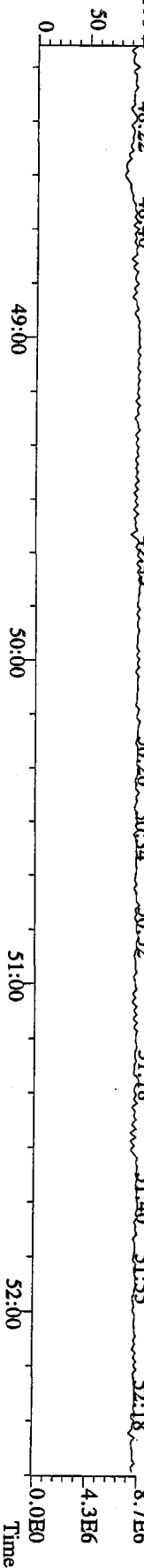
File:251AN10M #1-347 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 469.7780 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



File:251AN10M #1-347 Acq:25-JAN-2010 12:30:56 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:ST012510M2 File Text:Frontier Analytical Laboratory

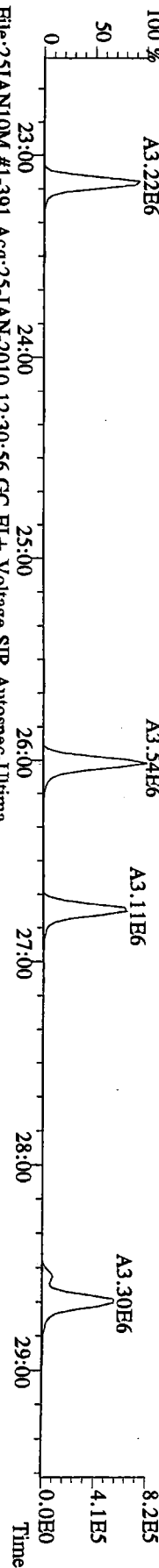


File:251AN10M #1-347 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 454.9728 S:3 F:5 Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory

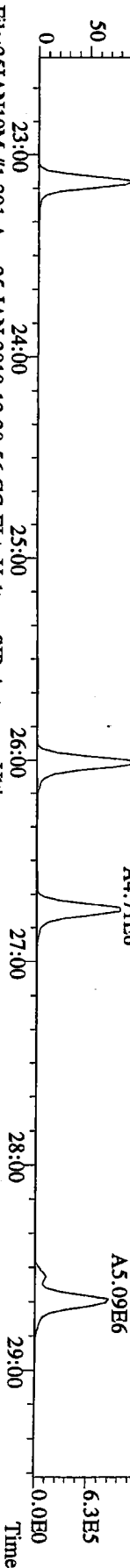




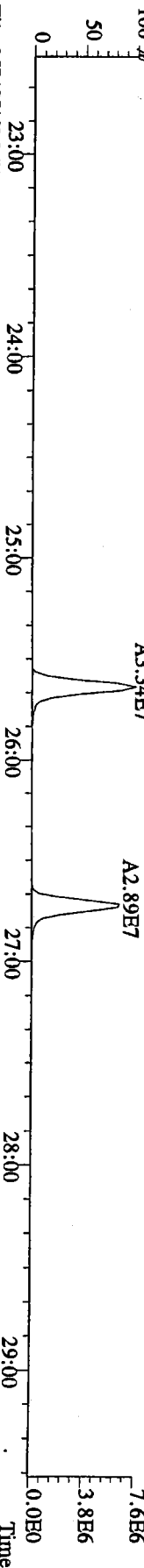
File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 303.9016 S:3 BSUB(10000,15,-3.0) Exp:PCDD  
 Sample Text:SB012510M1 File Text:Frontier Analytical Laboratory



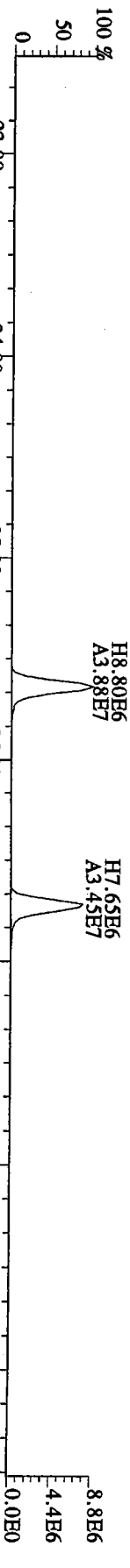
File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:SB012510M1 File Text:Frontier Analytical Laboratory



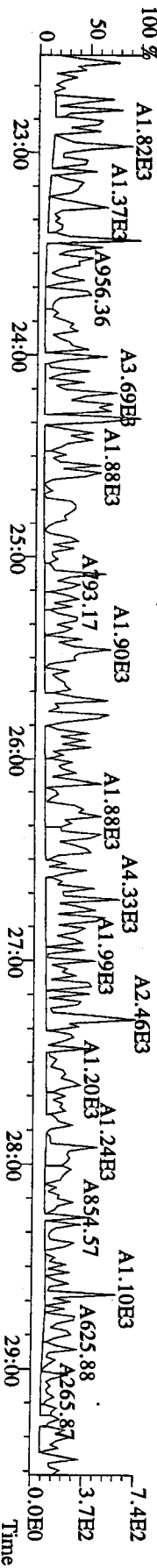
File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 315.9419 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:SB012510M1 File Text:Frontier Analytical Laboratory



File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 317.9389 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:SB012510M1 File Text:Frontier Analytical Laboratory

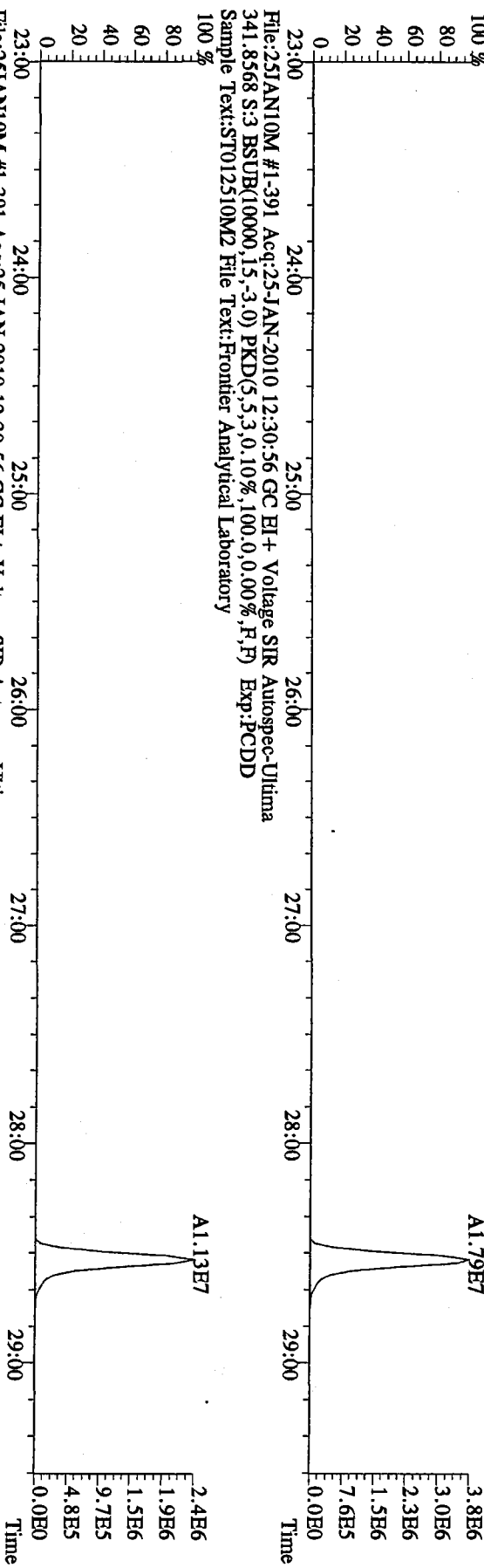


File:251AN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 375.8364 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:SB012510M1 File Text:Frontier Analytical Laboratory

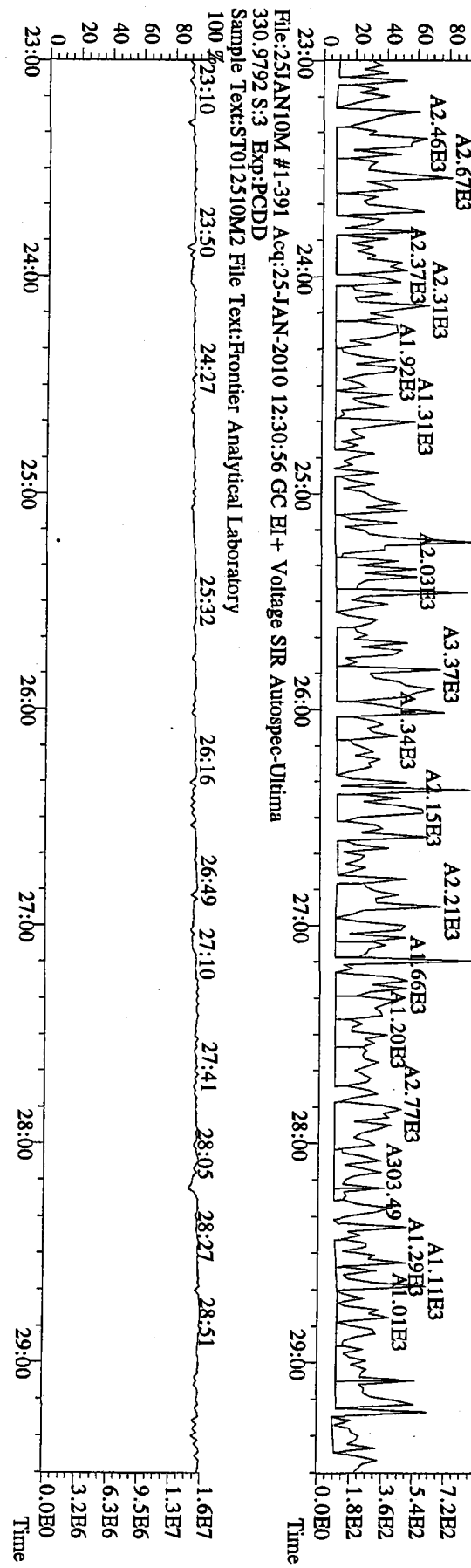


000010 : 09 14 09

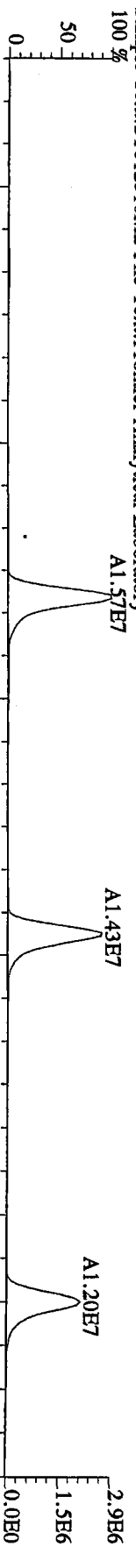
File:25JAN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



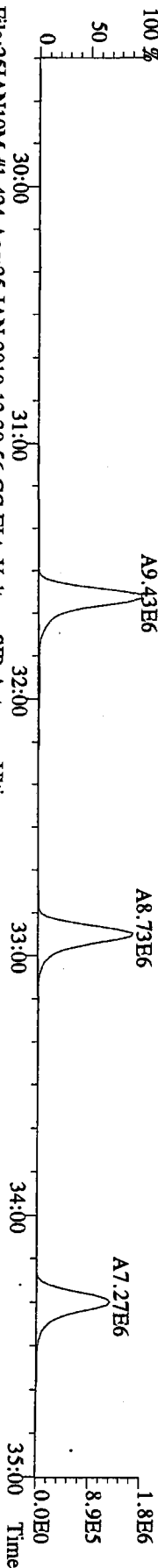
File:25JAN10M #1-391 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



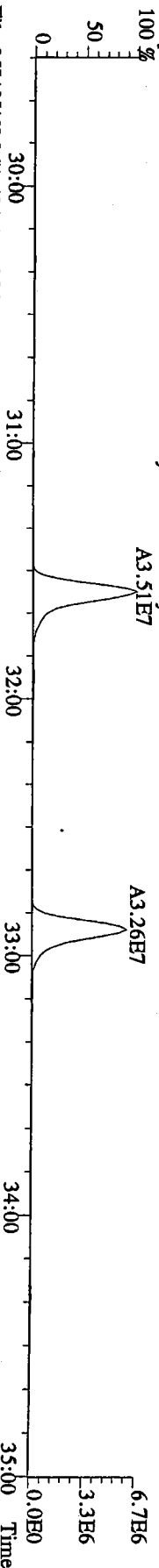
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



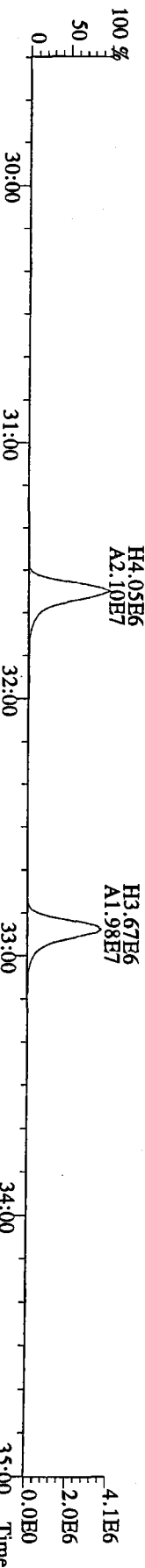
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



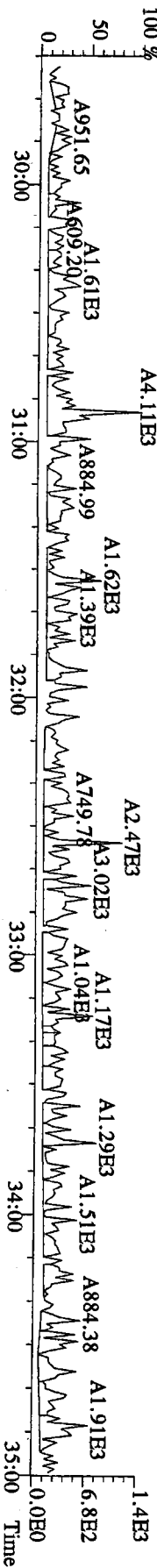
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



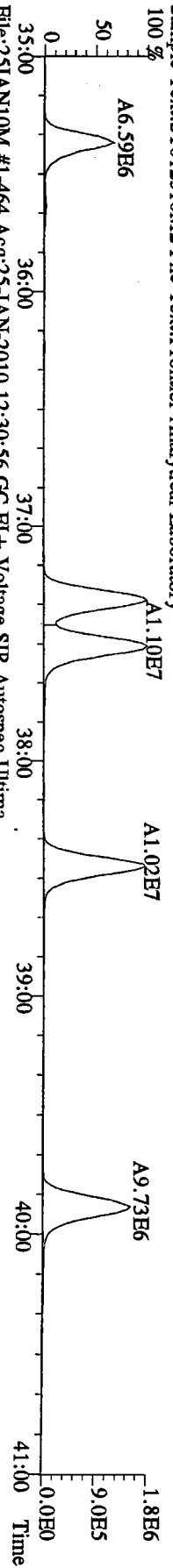
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



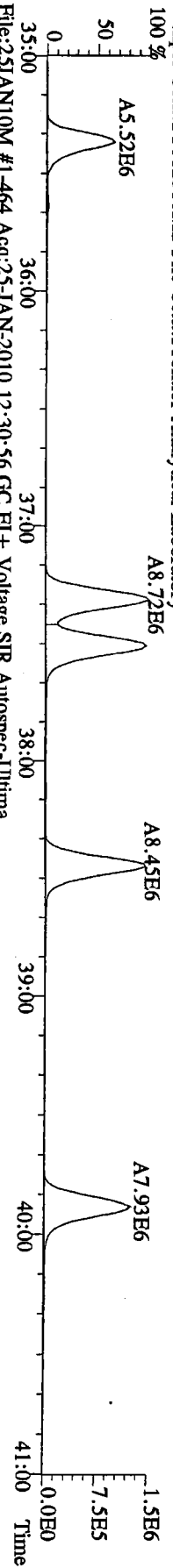
File:25JAN10M #1-424 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



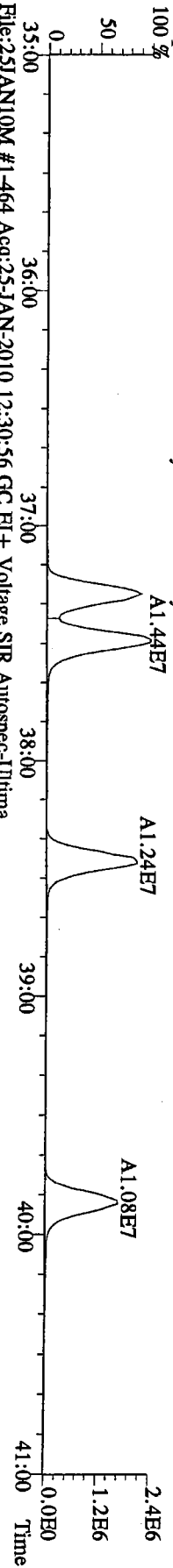
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



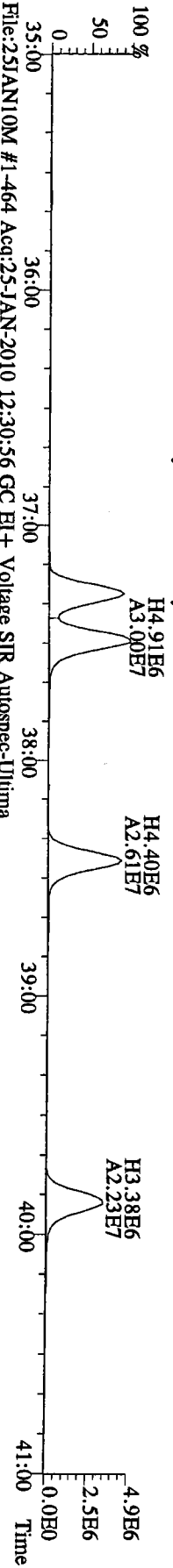
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



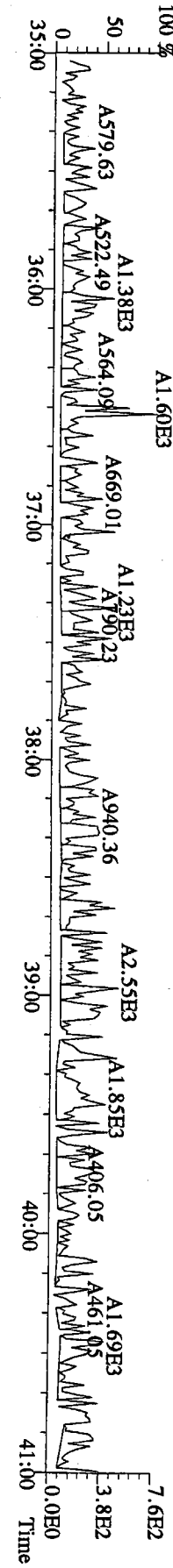
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



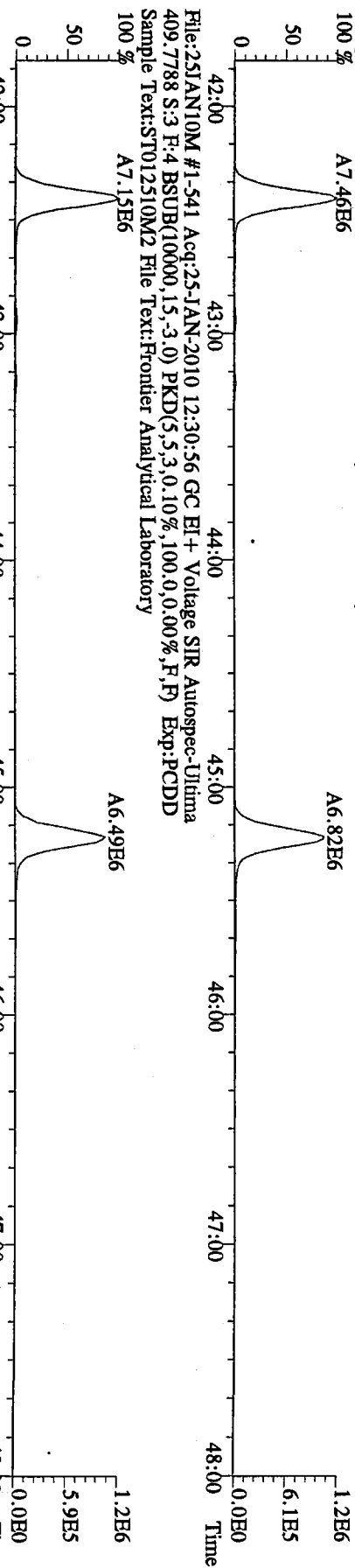
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
385.8610 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



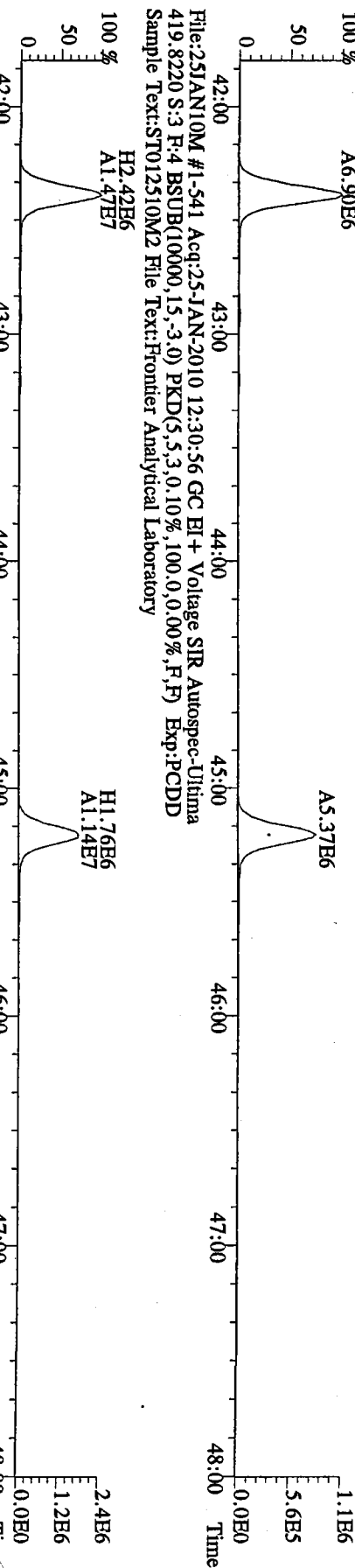
File:25JAN10M #1-464 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



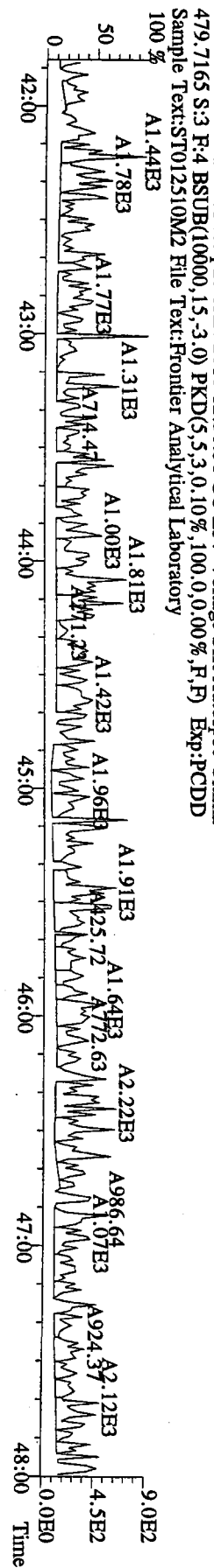
File:25JAN10M #1-541 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



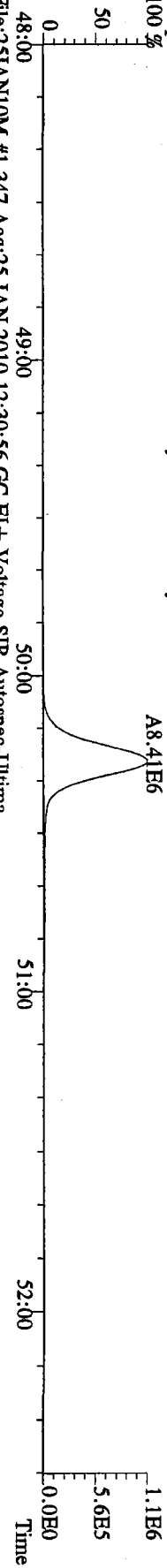
File:25JAN10M #1-541 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



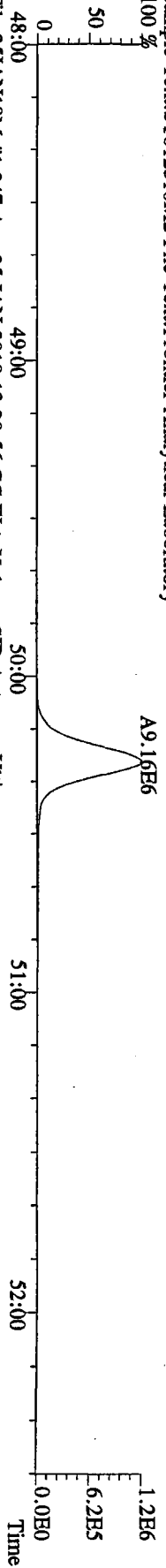
File:25JAN10M #1-541 Acq:25-JAN-2010 12:30:56 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory



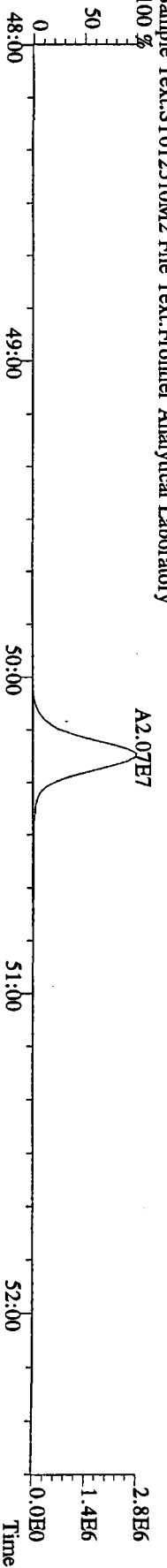
File:251JAN10M #1-347 Acq:25-JAN-2010 12:30:56 GC EI + Voltage SIR Autospec-Ultima  
 441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
 100 %



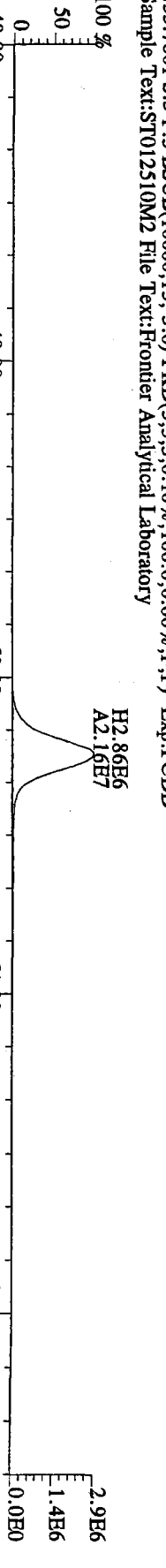
File:251JAN10M #1-347 Acq:25-JAN-2010 12:30:56 GC EI + Voltage SIR Autospec-Ultima  
 443.7398 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
 100 %



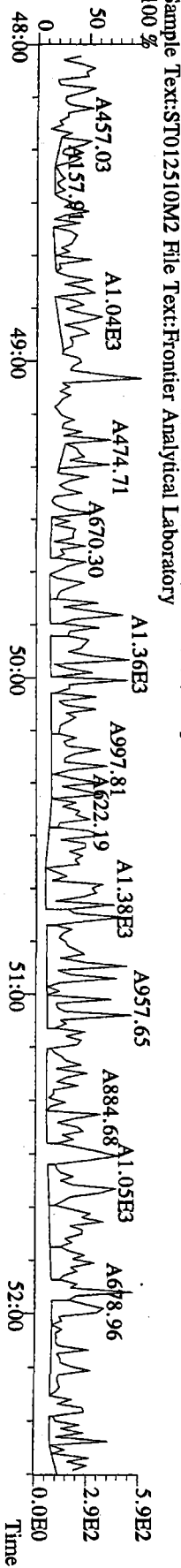
File:251JAN10M #1-347 Acq:25-JAN-2010 12:30:56 GC EI + Voltage SIR Autospec-Ultima  
 453.7831 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
 100 %



File:251JAN10M #1-347 Acq:25-JAN-2010 12:30:56 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:ST012510M2 File Text:Frontier Analytical Laboratory

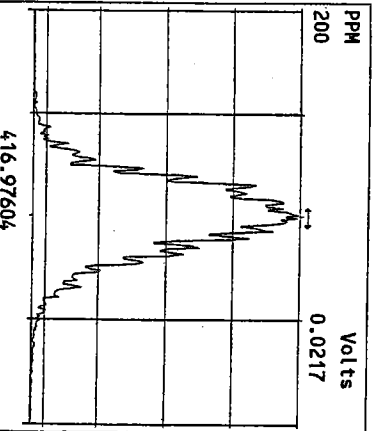
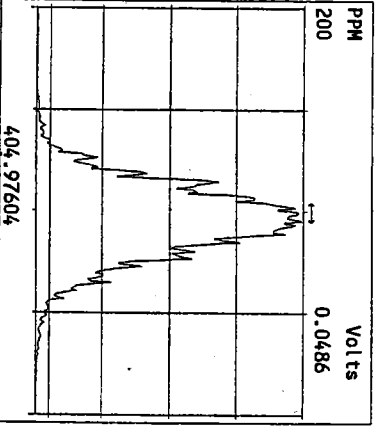
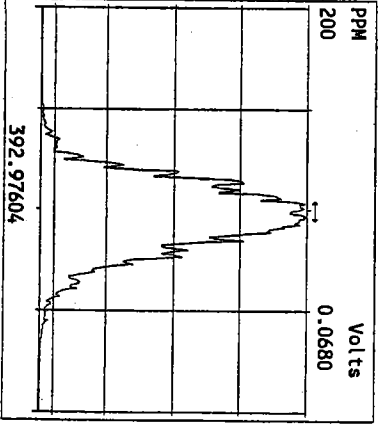
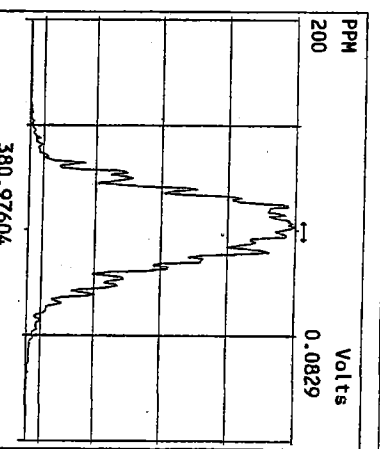
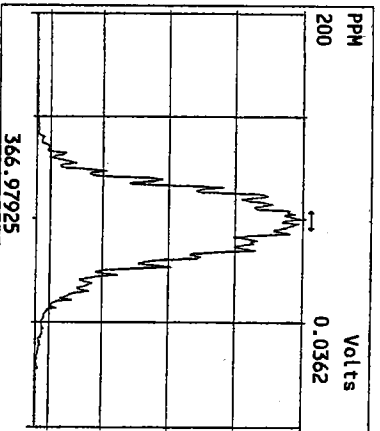
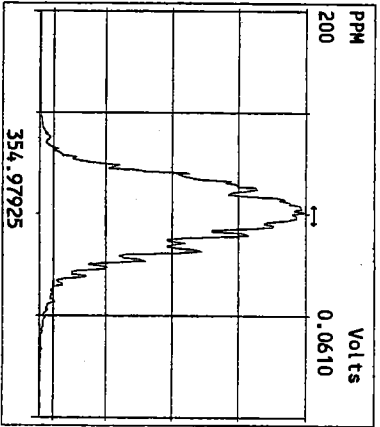
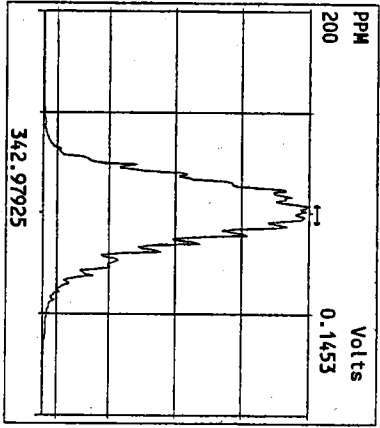
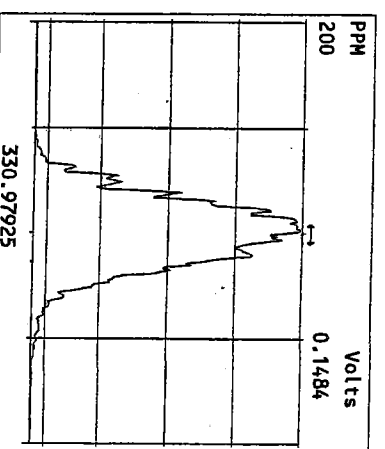
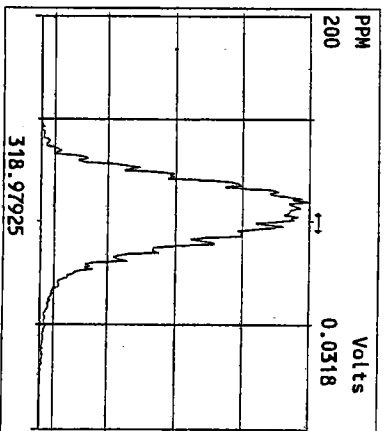
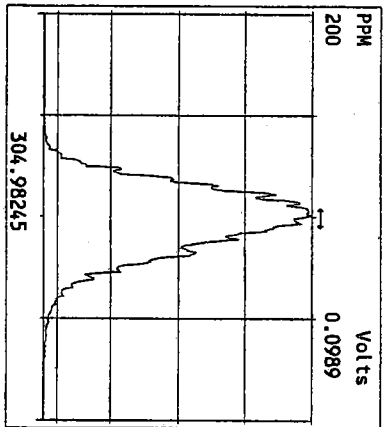
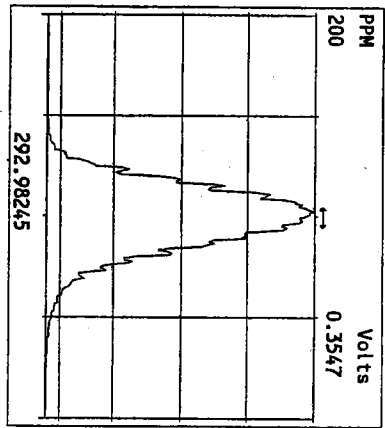


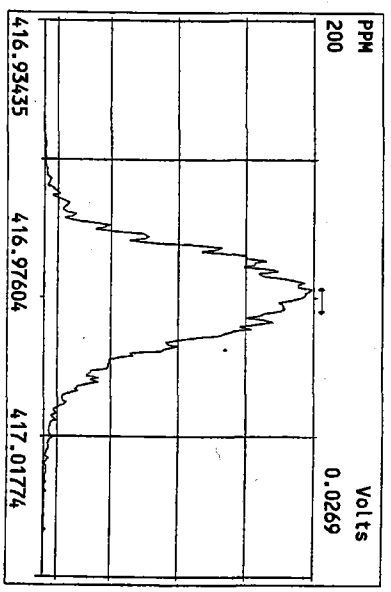
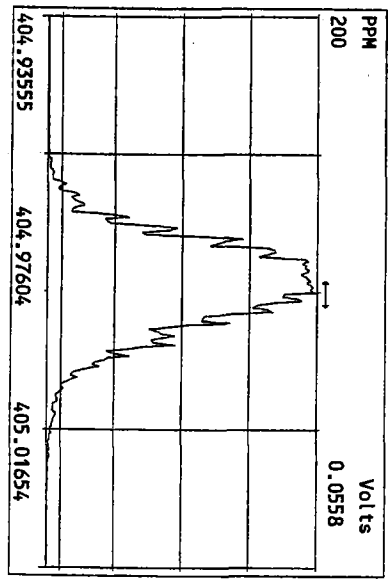
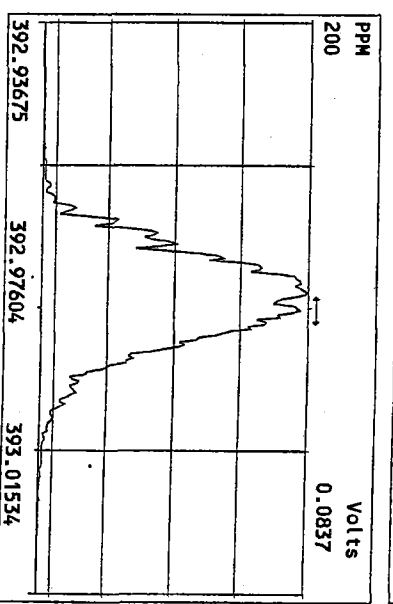
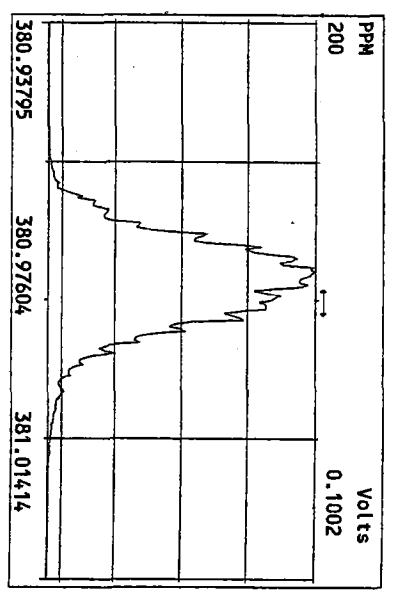
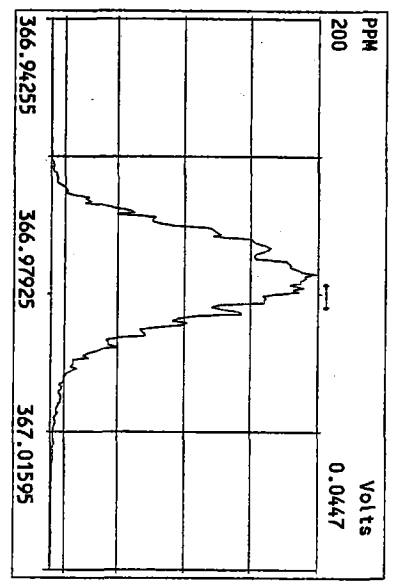
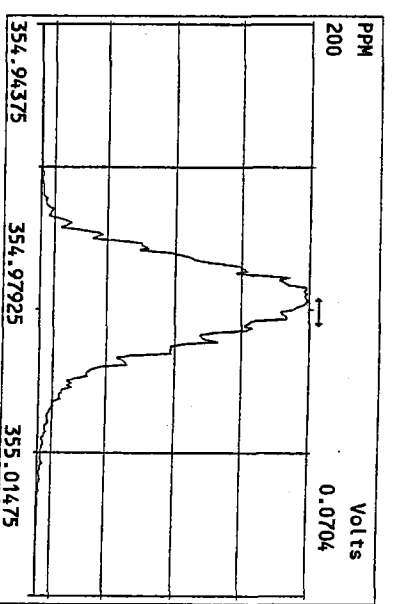
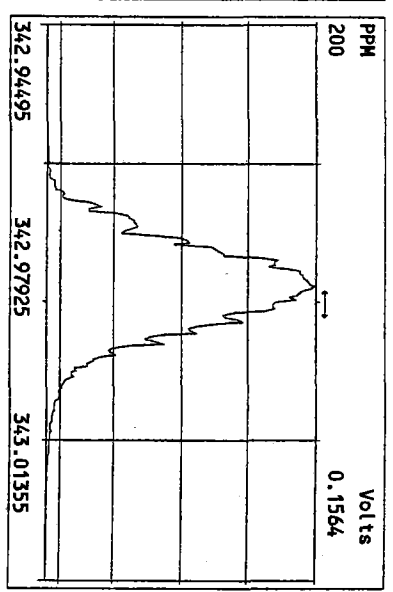
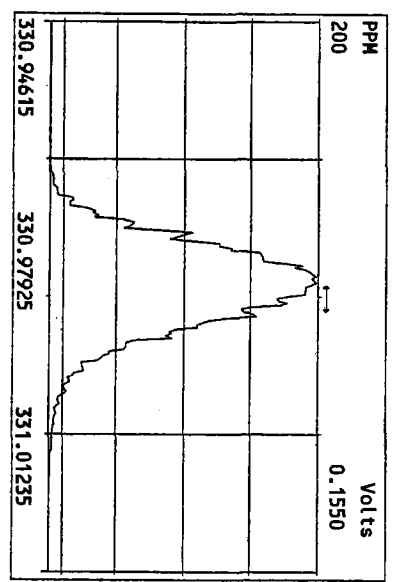
File:251JAN10M #1-347 Acq:25-JAN-2010 12:30:56 GC EI + Voltage SIR Autospec-Ultima  
 513.6775 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012510M2 File Text:Frontier Analytical Laboratory  
 100 %



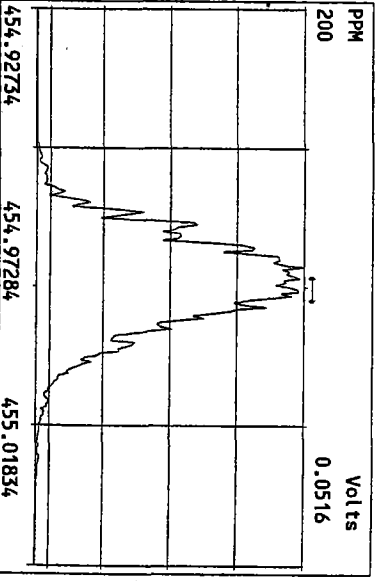
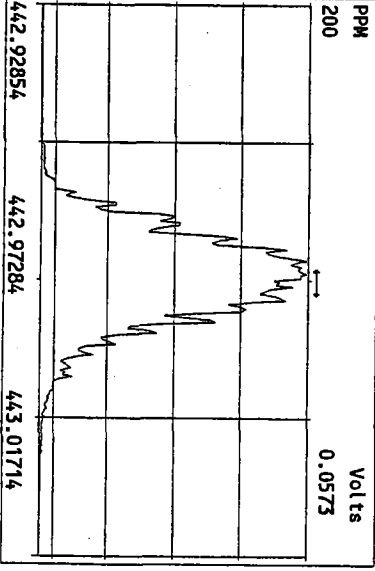
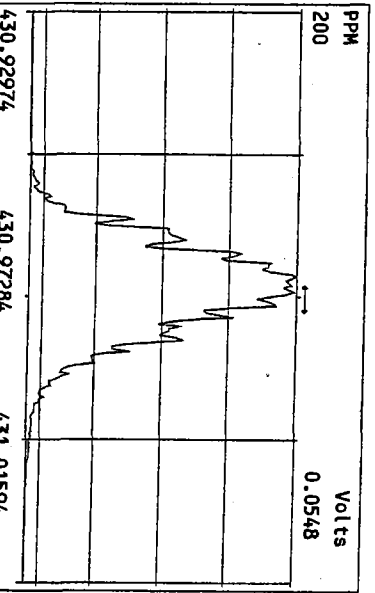
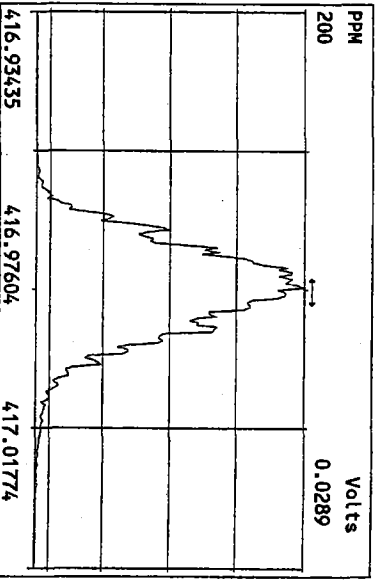
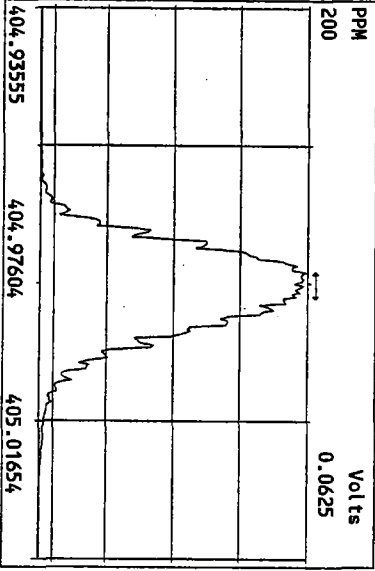
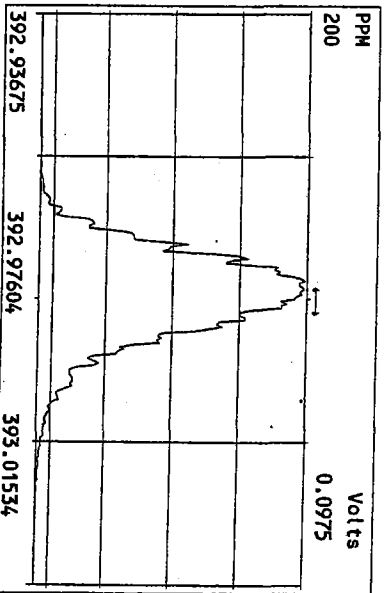
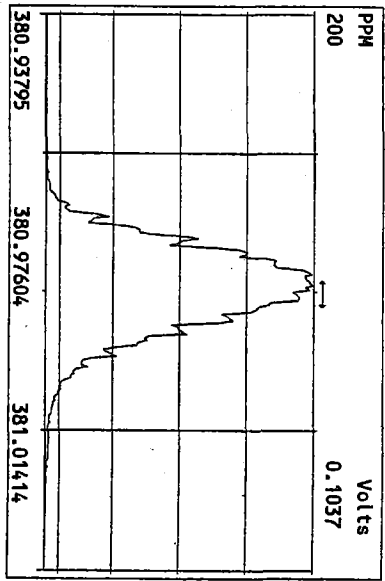
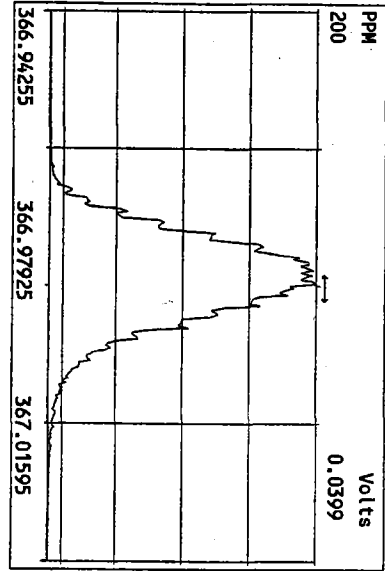
ST012510M2

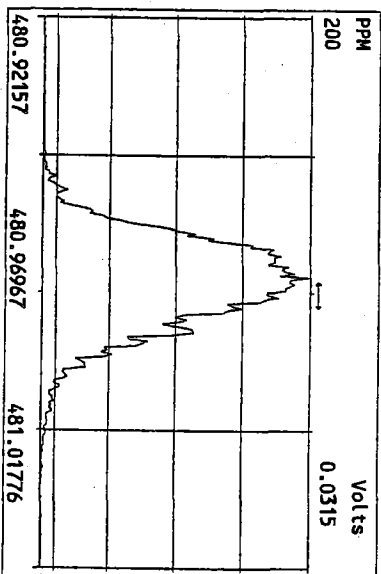
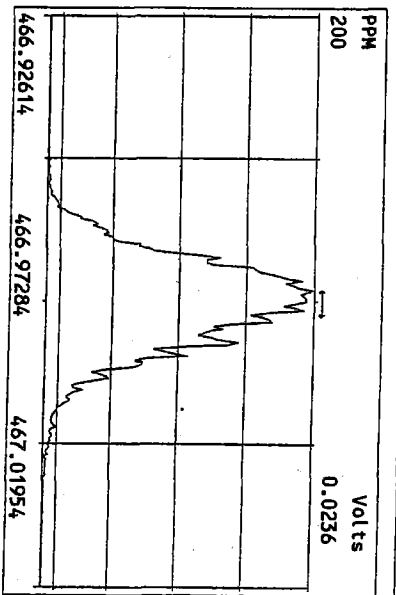
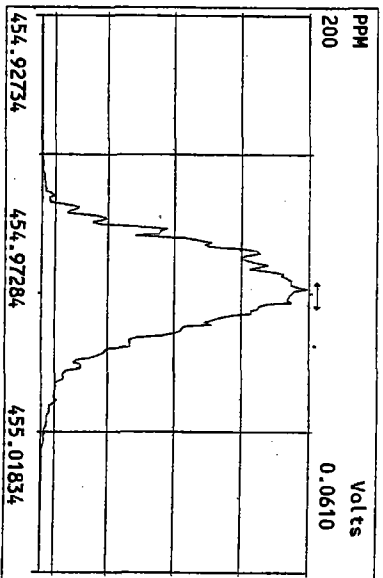
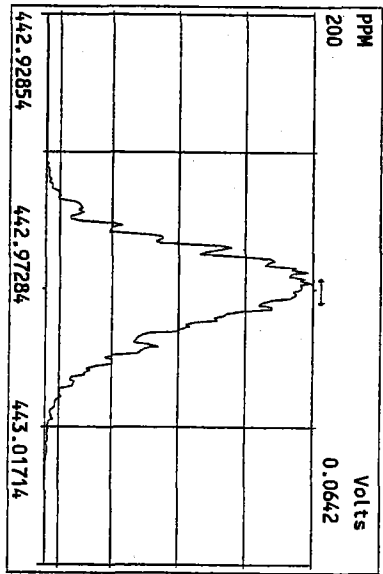
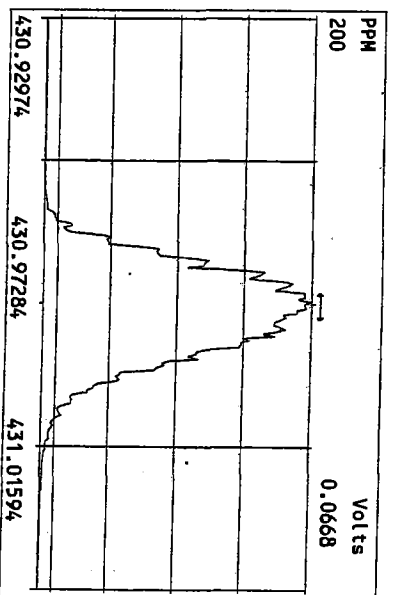
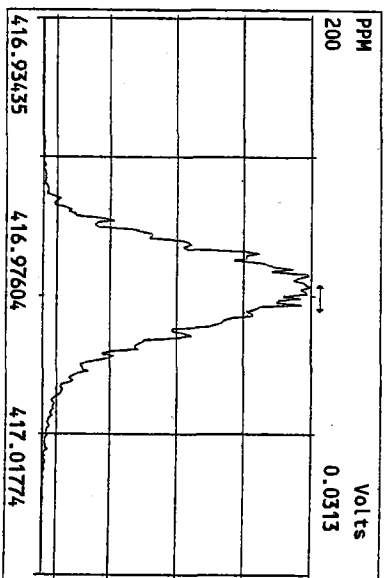
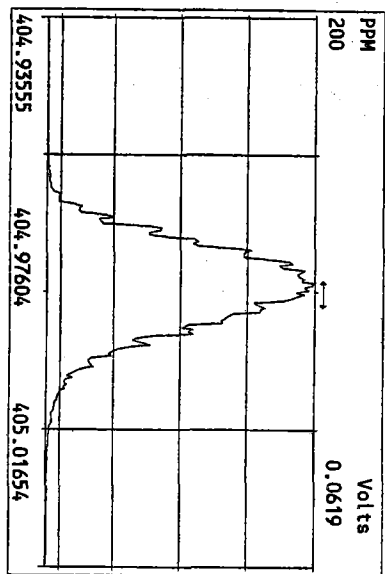
Peak Locate Examination:25-JAN-2010:13:32 File:25JAN10M\_RES\_CHECK  
Experiment:PCDD Function:1 Reference:PFK



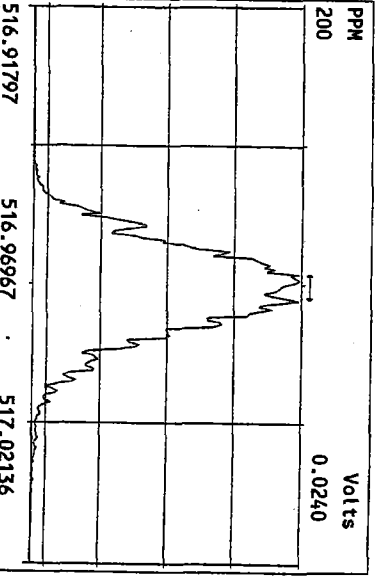
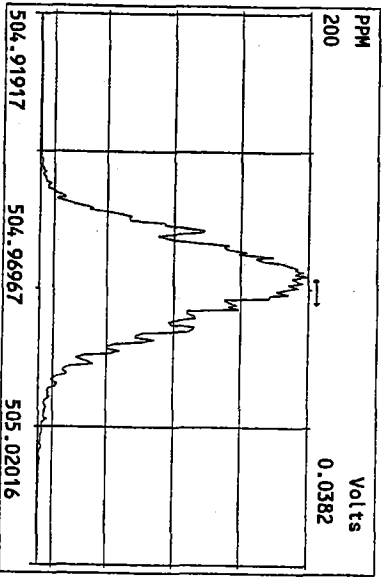
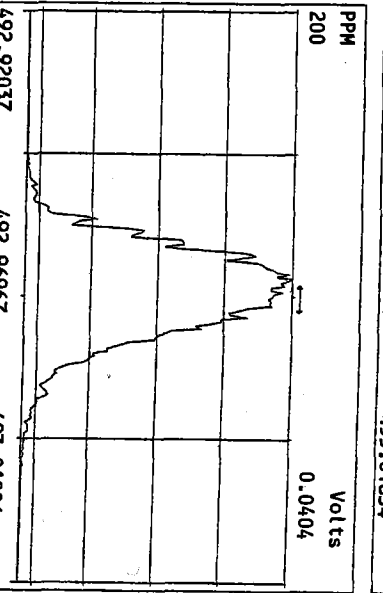
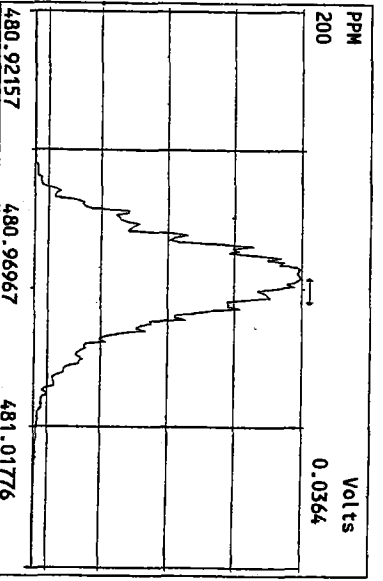
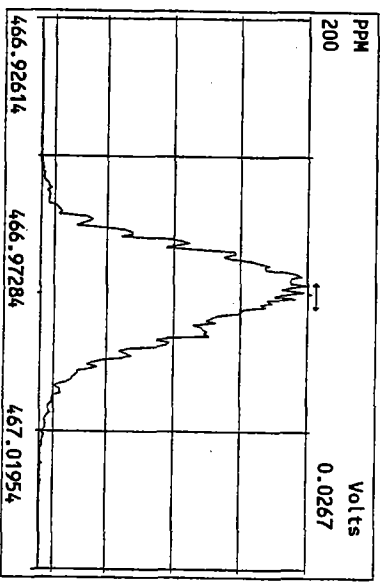
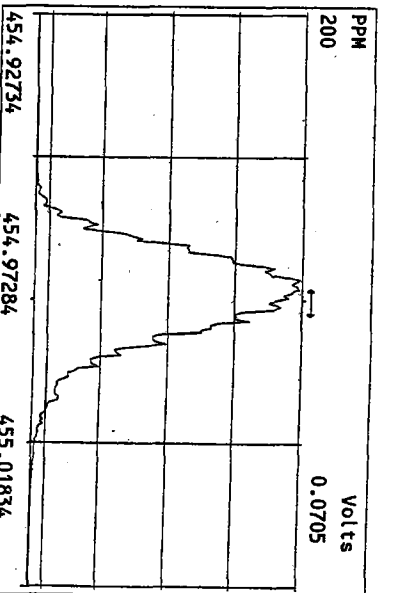
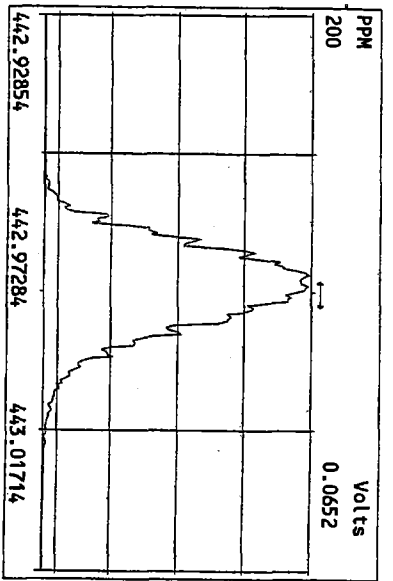
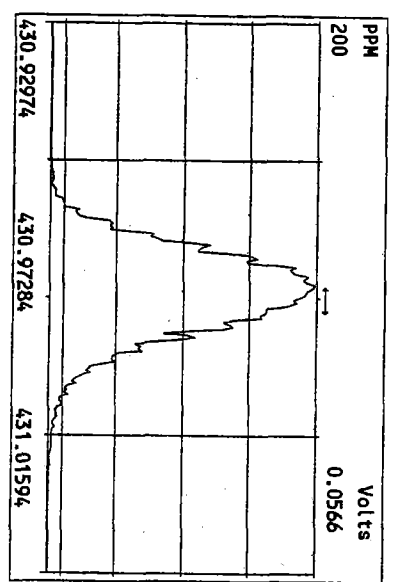








Peak Locate Examination: 25-JAN-2010:13:35 File: 25JAN10M\_RES\_CHECK  
Experiment: P/CDD Function: 5 Reference: PFK





**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

January 29, 2010

Jessi Massingale  
Floyd-Snider Inc.  
601 Union Street, Suite 600  
Seattle, WA 98101-2341

**RE: Client Project: Lora Lake Apartments, POS-LLA**  
**ARI Job No: QE56**

Dear Ms. Massingale:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and detail of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro  
Project Manager  
-For-  
Susan D. Dunnihoo  
Director, Client Services  
sue@arilabs.com  
206-695-6207

Enclosures

cc: eFile QE56

Chain of Custody  
Documentation

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

# Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: QESU Turn-around Requested: Standard  
 ARI Client Company: Floyd/Snyder Phone: (206) 292-2078  
 Client Contact: Math Waltman / Jessi Messingale  
 Client Project Name: POS-LLA (Lora Lake Apt.5)  
 Client Project #: POS-LLA Samplers: D. Metello, P. Heltzel

Page: 1 of 1  
 Date: 1-7-2010 Ice Present? Yes  
 No. of Coolers: 1 Cooler Temps: 6.0

Analytical Resources, Incorporated  
 Analytical Chemists and Consultants  
 4611 South 134th Place, Suite 100  
 Tukwila, WA 98168  
 206-695-6200 206-695-6201 (fax)



Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested						Notes/Comments	
					PAH 82700	PCP 8041	TPH-D	As+Pb 6010	Dioxin/Furans 1613	VOC 8260		Total Solids 5M2540B
CB31A010710SED	1-7-10	1030	Sed	9	X	X	X	X	X	X	X	
CB19010710SED	1-7-10	1150	Sed	9	X	X	X	X	X	X	X	
CB12010710SED	1-7-10	1330	Sed	9	X	X	X	X	X	X	X	
CB2010710SED	1-7-10	1430	Sed	9	X	X	X	X	X	X	X	
TB010710SED <sup>dm</sup>	1-7-10	0900	Water Sed-DX	3								

Comments/Special Instructions: 1) tetrachloroethene, trichloroethane, 1,2-Dichloroethane,

Relinquished by: (Signature) <u>Pete Heltzel</u>	Received by: (Signature) <u>John Walsh</u>
Printed Name: <u>Pete Heltzel</u>	Printed Name: <u>Jonathan Walker</u>
Company: <u>TAI</u>	Company: <u>ARI</u>
Date & Time: <u>1/7/10 4:34pm</u>	Date & Time: <u>1/7/10 1634</u>

**Limits of Liability:** ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release 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 Client.

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



# Cooler Receipt Form

ARI Client: Floyd Snider

Project Name: POS-LLA (Lora Lake Apt. 5)

COC No(s): \_\_\_\_\_ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: \_\_\_\_\_

Assigned ARI Job No: QESG

Tracking No: \_\_\_\_\_ (NA)

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 6.0

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952

Cooler Accepted by: JW Date: 1/7/10 Time: 1634

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? NA YES NO

Were all bottles sealed in individual plastic bags? YES NO

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI..... NA 12/11/09 / 12/7/09

Samples Logged by: JP Date: 1/7/10 Time: 1710

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

All 3 Trip Blanks have "Pb".

By: JP Date: 1/7/10

<p>Small Air Bubbles</p>	<p>Peabubbles</p>	<p>Large Air Bubbles</p>
--------------------------	-------------------	--------------------------

Small → "sm"  
Peabubbles → "pb"  
Large → "lg"  
Headspace → "hs"

Case Narrative

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.





## Case Narrative

**Client: Floyd Snider**  
**Project: Lora Lake Apartments, POS-LLA**  
**Matrix: Sediment**  
**ARI Job No.: QE56**

### Sample receipt

Analytical Resources, Inc. (ARI) accepted four sediment samples and a trip blank on January 7, 2010 under ARI job QE56. The cooler temperature measured by IR thermometer following ARI SOP was 6.0°C. Select sample containers were archived upon receipt. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

Dioxin/Furan analyses were subcontracted to Frontier Analytical Laboratory in El Dorado Hills, CA. The Frontier report is included here in its entirety.

### Volatiles by SW8260C

The samples and associated laboratory QC were analyzed within the method recommended holding times.

Initial and continuing calibrations were within limits. Internal standards were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS and LCSD percent recoveries were within control limits.

All matrix spike and matrix spike duplicate percent recoveries fell outside the advisory control limits for sample **CB19010710Sed**. No corrective action is required for matrix QC.

Water sample preservation was confirmed within limits after analysis.

### Semivolatiles by SW8270D

The samples were initially screened to determine if a response was present that would require modification of the extraction process. Based on the screen, the initial extraction weights were reduced for all samples. The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within limits.



The internal standard areas of Perylene-d12 were outside the control limits low for all samples. All samples were re-analyzed and all internal standard areas were within control limits. Both sets of data have been included in this package for review. No further corrective action was required.

The surrogate percent recoveries of d14-p-Terphenyl were outside the control limits high for all samples. The samples were re-analyzed and all surrogate percent recoveries were within control limits. No further corrective action was required.

The surrogate percent recoveries of d14-p-Terphenyl were outside the control limits high for the matrix spike and matrix spike duplicates for sample **CB12010710Sed**. No corrective action is required for matrix QC.

The method blank was clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries of Pyrene were outside the advisory control limits high for sample **CB12010710Sed**. No corrective action is required for matrix QC.

#### **Pentachlorophenol by SW8041**

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial calibrations were within limits. Internal standards were within limits.

The closing continuing calibration fell outside the control limits low for the straight analysis of Pentachlorophenol. The samples were analyzed at dilutions and all continuing calibrations were within control limits. No corrective action was required.

The surrogate percent recovery of 2,4,6-Tribromophenol fell outside the control limits low for **MB-011210**. All other surrogate percent recoveries were within control limits. No corrective action is required.

The method blank was clean at the reporting limit. The LCS percent recovery was within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

#### **NW-TPHDx with Acid Silica cleanups**

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.



Initial and continuing calibrations were within limits.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike duplicate percent recovery of Diesel fell outside the advisory control limits low for sample **CB2010710Sed**. No corrective action is required for matrix QC.

### **Total Arsenic and Lead by SW6010B**

The samples were digested and analyzed within the method recommended holding time.

The third CCV was outside the control limits high for Lead. No sample results were associated with this CCV. No corrective action was required.

The method blank was clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

### **General Chemistry (TOC/TS)**

The samples were prepared and analyzed within the method recommended holding time.

The method blanks were clean at the reporting limits. The LCS percent recovery was within control limits.

The SRM percent recovery was within limits.

The matrix spike percent recovery and replicate RPD were within control limits.

No corrective action is required for matrix replicate RSDs.



## Data Reporting Qualifiers

Effective 7/10/2009

### Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but  $\geq$  the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is  $\leq 5$  times the Reporting Limit and the replicate control limit defaults to  $\pm 1$  RL instead of the normal 20% RPD

### Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ( $< 20\%$  RSD,  $< 20\%$  Drift or minimum RRF).
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte



## Data Reporting Qualifiers

Effective 7/10/2009

- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by  $\geq 40\%$  RPD with no obvious chromatographic interference

## Geotechnical Data

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting

# LCS SOLUTIONS

1/5/2010

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1686-1	PCB 1660	20	ACETONE	09/01/10
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1620-4	PEST	02/04/20	ACETONE	06/26/10
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1655-3	PCP	12.5/125	ACETONE	09/24/10
7	1677-3	ABN	100	ACETONE	07/01/10
8	1681-4	TBT	2.5	MECL2	12/01/10
9	1682-2	PORE TBT	.125/.25	MECL2	12/01/10
10	1621-4	ABN ACID	100/200	MEOH	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1622-2	ABN BASE	200	ACETONE	02/05/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15*	1591-3	SIM PNA	15/75	MEOH	08/28/10
16	1602-3	DIOXANE	100	MEOH	03/20/10
17	1644-1	1248 PCB	10	ACETONE	09/10/10
18*	1591-4	LOW SIM PNA	1.5	ACETONE	08/28/10
19	1685-3	AK103	7500	ACETONE	09/03/10
20	1682-4	PNA	100	ACETONE	12/04/10
21	1593-3	SKY/BHT	100	MEOH	03/31/10
22	1675-1	HERB	12.5/12500	MEOH	02/19/10
23*	1505-1	LW ABN BASE	20	MEOH	03/20/10
24	1613-2	LOW ABN	10	ACETONE	02/28/10
25#	1481-1	DIPHENYL	100	MEOH	NA
26*	1545-2	OP-PEST	25	MEOH	02/16/10
27	1668-3	STEROLS	200	MEOH	10/30/10
28#	1684-1	ADD. PEST	4	ACETONE	03/25/10
29#	1496-3	DECANES	100	MEOH	NA
30	1620-1	EDB/DBCP	0.2	MEOH	06/22/10
31	1596-1	TERPINEOL	100	MEOH	04/03/10

# LCS SOLUTIONS

1/5/2010

32	1619-3	GUAIACOL	50-200	ACETONE	04/30/10
33	1639-3	RETENE	100	MEOH	09/03/10
34	1633-1	CONGENERS	2.5	ACETONE	08/11/10
35	1674-3	ALKYL PNA A	10	MEOH	10/28/10
36	1601-3	ALKYL PNA B	10	MEOH	05/13/10
50	1617-1	FULL RESIN	250	ACETONE	06/17/10
51	1611-3	DDTS	2.5	ACETONE	06/04/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
		*=REVERIFIED SOLUTION			
		#=PROJECT SPECIFIC SOLUTION			

# SURR SOLUTIONS

1/5/2010

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1662-3	ABN	100/150	MEOH	10/08/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C*	1559-1	SIM ABN	25/37.5	MEOH	03/13/10
D	1689-2	LOW PCB	0.2	ACETONE	12/29/10
E	1661-2	HERB	62.5	MEOH	10/02/10
F	1683-3	PCP	12.5	ACETONE	12/09/10
G*	1534-1	1,4DIOXANE	100	MEOH	02/20/10
H	1594-1	OP-PEST	25	MEOH	04/01/10
I	1634-1	LOW S. PNA	1.5	MEOH	08/12/10
J	1681-2	TBT-PORE	0.125	MECL2	12/01/10
K	1689-1	MED PCB	20	ACETONE	12/29/10
L	1681-1	TBT	2.5	MECL2	12/01/10
M	1682-1	EPH	1500	MECL2	09/17/10
N	1689-3	PCB	2	ACETONE	12/29/10
O	1647-2	TPH	450	MECL2	07/02/10
P	1666-3	HCID	2250	MECL2	05/06/10
Q	1620-2	EDB	1	MEOH	06/22/10
R	1615-1	RESIN ACID	250	ACETONE	06/17/10
S#	1568-5	PBDE	.25	MEOH	NA
T	1674-2	ALKYL PNA	10	MEOH	07/30/10
U	1633-1	CONGENER	2.5	ACETONE	08/11/10
V					
		*reverified solution			
		#project specific			
Y					
Z					





**Spike Recovery Control Limits for Analysis of Solid Samples  
Volatile Organic Compounds (VOA) EPA SW-846 Methods 8260C  
5 mL Purge Volume <sup>(7)</sup>  
Effective:5/18/09**

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

	Low Level <sup>(1)</sup>	Low Level ME Limits <sup>(3)</sup>	Medium Level <sup>(2)</sup>	Medium Level ME Limits <sup>(3)</sup>
<b>LCS Spike Recovery <sup>(8)</sup></b>				
Dichlorodifluoromethane	53 - 148	37 - 164	25 - 128	<b>10 - 145</b>
Chloromethane	64 - 125	54 - 135	55 - 121	44 - 132
Vinyl Chloride	63 - 137	51 - 149	66 - 123	57 - 133
Bromomethane	57 - 136	44 - 149	40 - 154	21 - 173
Chloroethane	64 - 131	53 - 142	72 - 128	63 - 137
Trichlorofluoromethane	69 - 132	59 - 143	69 - 135	58 - 146
Acrolein	54 - 137	40 - 151	39 - 135	23 - 151
1,1,2-Trichloro-1,2,2-trifluoroethane	74 - 130	65 - 139	65 - 139	53 - 151
Acetone	60 - 131	48 - 143	55 - 130	43 - 143
1,1-Dichloroethene	75 - 126	67 - 135	73 - 133	63 - 143
Bromoethane	76 - 126	68 - 134	74 - 133	64 - 143
Methyl Iodide	65 - 139	53 - 151	47 - 155	29 - 173
Methylene Chloride	70 - 123	61 - 132	<b>80 - 120</b>	75 - 122
Acrylonitrile	67 - 125	57 - 135	62 - 129	51 - 140
Methyl tert-Butyl Ether	70 - 120	62 - 128	69 - 128	59 - 138
Carbon Disulfide	71 - 129	61 - 139	64 - 135	52 - 147
trans-1,2-Dichloroethene	80 - <b>120</b>	74 - 126	78 - 125	70 - 133
Vinyl Acetate	60 - 136	47 - 149	66 - 132	55 - 143
1,1-Dichloroethane	<b>80 - 120</b>	75 - 124	77 - 124	69 - 132
2-Butanone	70 - <b>120</b>	62 - 127	65 - 126	55 - 136
2,2-Dichloropropane	74 - 123	66 - 131	75 - 127	66 - 136
cis-1,2-Dichloroethene	<b>80 - 120</b>	76 - 123	<b>80 - 125</b>	74 - 132
Chloroform	80 - <b>120</b>	74 - 123	<b>80 - 124</b>	73 - 131
Bromodichloromethane	77 - 121	70 - 128	78 - 130	69 - 139
1,1,1-Trichloroethane	77 - 121	70 - 128	76 - 130	67 - 139
1,1-Dichloropropene	<b>80 - 120</b>	77 - 123	77 - 131	68 - 140
Carbon Tetrachloride	77 - 122	70 - 130	74 - 129	65 - 138
1,2-Dichloroethane	76 - <b>120</b>	69 - 123	73 - 123	65 - 131
Benzene	<b>80 - 120</b>	80 - 126	<b>80 - 120</b>	75 - 130
Trichloroethene	<b>80 - 120</b>	77 - 123	<b>80 - 125</b>	75 - 132
1,2-Dichloropropane	<b>80 - 120</b>	76 - 120	<b>80 - 122</b>	74 - 129
Bromochloromethane	80 - 120	73 - 127	<b>80 - 127</b>	73 - 135
Dibromomethane	80 - <b>120</b>	74 - 121	<b>80 - 121</b>	76 - 128
2-Chloroethylvinylether	<b>10 - 191</b>	<b>10 - 222</b>	61 - 128	50 - 139



**Spike Recovery Control Limits for Analysis of Solid Samples  
Volatile Organic Compounds (VOA) EPA SW-846 Methods 8260C  
5 mL Purge Volume <sup>(7)</sup>**

Effective: 5/18/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

	Low Level <sup>(1)</sup>	Low Level ME Limits <sup>(3)</sup>	Medium Level <sup>(2)</sup>	Medium Level ME Limits <sup>(3)</sup>
4-Methyl-2-Pentanone	67 - 120	59 - 125	80 - 123	73 - 130
cis-1,3-Dichloropropene	74 - 120	67 - 125	80 - 122	73 - 129
Toluene	80 - 120	79 - 120	80 - 122	80 - 127
trans-1,3-Dichloropropene	65 - 120	57 - 125	80 - 123	79 - 129
2-Hexanone	65 - 130	54 - 141	58 - 129	46 - 141
1,1,2-Trichloroethane	80 - 120	75 - 122	80 - 120	77 - 126
1,3-Dichloropropane	80 - 120	74 - 122	80 - 120	76 - 126
Tetrachloroethene	80 - 121	79 - 127	80 - 130	73 - 138
Dibromochloromethane	64 - 120	55 - 128	77 - 120	70 - 127
Ethylene Dibromide	75 - 120	68 - 124	80 - 120	80 - 120
Chlorobenzene	80 - 120	82 - 120	80 - 121	80 - 127
Ethylbenzene	80 - 127	80 - 134	80 - 126	80 - 132
1,1,2,2-Tetrachloroethane	74 - 120	66 - 128	79 - 120	73 - 123
m,p-Xylene	80 - 125	80 - 131	80 - 130	80 - 137
o-Xylene	78 - 120	71 - 126	80 - 124	80 - 130
Styrene	80 - 123	78 - 130	80 - 132	77 - 140
Isopropylbenzene	80 - 127	84 - 133	80 - 130	80 - 137
Bromoform	60 - 120	50 - 128	68 - 129	58 - 139
1,1,1,2-Tetrachloroethane	69 - 121	60 - 130	80 - 126	76 - 133
1,2,3-Trichloropropane	72 - 121	64 - 129	77 - 120	71 - 121
trans-1,4-Dichloro-2-butene	65 - 126	55 - 136	66 - 127	56 - 137
n-Propylbenzene	80 - 132	80 - 139	80 - 132	77 - 140
Bromobenzene	80 - 120	78 - 122	80 - 121	80 - 127
1,3,5-Trimethylbenzene	80 - 125	80 - 131	78 - 137	68 - 147
2-Chlorotoluene	80 - 125	77 - 132	80 - 123	80 - 129
4-Chlorotoluene	80 - 127	77 - 134	80 - 130	74 - 138
tert-Butylbenzene	87 - 122	80 - 128	80 - 133	78 - 141
1,2,4-Trimethylbenzene	80 - 126	80 - 132	80 - 131	79 - 139
sec-Butylbenzene	80 - 134	80 - 142	80 - 136	76 - 146
4-Isopropyltoluene	80 - 131	80 - 138	80 - 141	71 - 151
1,3-Dichlorobenzene	80 - 120	80 - 126	80 - 126	77 - 133
1,4-Dichlorobenzene	80 - 120	79 - 126	80 - 121	77 - 127
n-Butylbenzene	80 - 138	80 - 146	80 - 138	77 - 147
1,2-Dichlorobenzene	80 - 120	78 - 122	80 - 120	80 - 121
1,2-Dibromo-3-chloropropane	59 - 120	49 - 130	67 - 121	58 - 130
1,2,4-Trichlorobenzene	78 - 130	69 - 139	80 - 133	72 - 142



**Spike Recovery Control Limits for Analysis of Solid Samples  
Volatile Organic Compounds (VOA) EPA SW-846 Methods 8260C  
5 mL Purge Volume <sup>(7)</sup>**

Effective:5/18/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

	Low Level <sup>(1)</sup>	Low Level ME Limits <sup>(3)</sup>	Medium Level <sup>(2)</sup>	Medium Level ME Limits <sup>(3)</sup>
Hexachloro-1,3-butadiene	76 - 129	67 - 138	62 - 148	48 - 162
Naphthalene	66 - <b>120</b>	58 - 126	74 - 133	64 - 143
1,2,3-Trichlorobenzene	73 - 123	65 - 131	80 - 126	72 - 134
<b>MB/LCS Surrogate Recovery</b>				
Dibromofluoromethane	<b>80 - 120</b>	(4)	<b>80 - 120</b>	(4)
d4-1,2-Dichloroethane	79 - 121	(4)	76 - <b>120</b>	(4)
d8-Toluene	<b>80 - 120</b>	(4)	<b>80 - 120</b>	(4)
4-Bromofluorobenzene	<b>80 - 120</b>	(4)	<b>80 - 120</b>	(4)
d4-1,2-Dichlorobenzene	<b>80 - 120</b>	(4)	<b>80 - 120</b>	(4)
<b>Sample Surrogate Recovery</b>				
Dibromofluoromethane	30 - 160 <sup>(6)</sup>	(4)	30 - 160 <sup>(6)</sup>	(4)
d4-1,2-Dichloroethane	75 - 152	(4)	69 - <b>120</b>	(4)
d8-Toluene	82 - 115	(4)	<b>80 - 120</b>	(4)
4-Bromofluorobenzene	64 - <b>120</b>	(4)	76 - 128	(4)
d4-1,2-Dichlorobenzene	<b>80 - 120</b>	(4)	<b>80 - 120</b>	(4)

(1) Control Limits calculated using all data generated 1/1/08 through 12/31/08.

(2) Control Limits calculated using all data generated 3/1/07 through 11/15/07.

(3) **ME = A marginal exceedance** defined in the NELAC Standard<sup>(5)</sup> as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of four marginal exceedances are acceptable. Five or more marginal exceedances require corrective action.

(4) Marginal Exceedances not allowed for surrogate standards

(5) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.

(6) 30 - 160 are default, advisory control limits used when there is insufficient data to calculate historic control limits. **DO NOT** use these limits as the sole reason to reject the data from a batch of analyses

(7) Highlighted control limits (**bold font**) are adjusted from the calculated values as follows:

a) ARI does not use control limits < 10

b) Control limits for analytes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.

(8) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analytes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.



**Spike Recovery Control Limits for Analysis of Soil & Sediment  
Semi-Volatile Organic Compounds (SVOA)  
EPA SW-846 Method 8270D with Ultrasonic Extraction <sup>(1,8)</sup>  
Effective: 5/1/09**

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

<b>Extraction / Analytical Method:</b>	<b>8270D</b>	<b>8270D ME<sup>(2)</sup></b>	<b>PSEP <sup>(3)</sup></b>	<b>PSEP ME<sup>(2,3)</sup></b>
<b>Sample Weight / Final Volume:</b>	7.5 g to 0.5 mL	7.5 g to 0.5 mL	50 to 1 mL	50 to 1 mL
<b>LCS Spike Recovery <sup>(9)</sup></b>				
Phenol	48 - <b>100</b>	41 - <b>100</b>	31 - 102	19 - 114
Bis-(2-chloroethyl) ether	32 - <b>100</b>	22 - 104	30 - <b>100</b>	20 - <b>100</b>
2-Chlorophenol	44 - <b>100</b>	37 - <b>100</b>	36 - <b>100</b>	28 - <b>100</b>
1,3-Dichlorobenzene	39 - <b>100</b>	33 - <b>100</b>	32 - <b>100</b>	24 - <b>100</b>
1,4-Dichlorobenzene	40 - <b>100</b>	34 - <b>100</b>	33 - <b>100</b>	26 - <b>100</b>
Benzyl Alcohol	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>
1,2-Dichlorobenzene	42 - <b>100</b>	36 - <b>100</b>	34 - <b>100</b>	26 - <b>100</b>
2-Methylphenol	44 - <b>100</b>	37 - <b>100</b>	34 - <b>100</b>	24 - 102
2,2'-oxybis(1-chloropropane)	21 - <b>100</b>	<b>10</b> - 107	29 - <b>100</b>	19 - <b>100</b>
4-Methylphenol	45 - <b>100</b>	37 - 100	39 - <b>100</b>	30 - 101
N-Nitroso-di-n-propylamine	36 - <b>100</b>	27 - 101	32 - <b>100</b>	23 - <b>100</b>
Hexachloroethane	35 - <b>100</b>	28 - <b>100</b>	29 - <b>100</b>	21 - <b>100</b>
Nitrobenzene	27 - 102	15 - 115	28 - <b>100</b>	17 - 105
Isophorone	47 - <b>100</b>	39 - 105	46 - <b>100</b>	38 - 103
2-Nitrophenol	46 - <b>100</b>	40 - <b>100</b>	37 - <b>100</b>	28 - <b>100</b>
2,4-Dimethylphenol	41 - <b>100</b>	34 - <b>100</b>	19 - <b>100</b>	<b>10</b> - 103
Bis-(2-chloroethoxy) methane	40 - <b>100</b>	32 - <b>100</b>	38 - <b>100</b>	30 - <b>100</b>
Benzoic Acid <sup>(4)</sup>	<b>10</b> - 138	<b>10</b> - 159	21 - 123	<b>10</b> - 140
2,4-Dichlorophenol	48 - <b>100</b>	41 - <b>100</b>	39 - <b>100</b>	30 - 102
1,2,4-Trichlorobenzene	43 - <b>100</b>	35 - <b>100</b>	36 - <b>100</b>	28 - <b>100</b>
Naphthalene	44 - <b>100</b>	38 - <b>100</b>	37 - <b>100</b>	29 - <b>100</b>
4-Chloroaniline <sup>(4)</sup>	16 - <b>100</b>	<b>10</b> - 113	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>
2-Chloronaphthalene	48 - <b>100</b>	42 - <b>100</b>	36 - <b>100</b>	27 - 101
Hexachlorobutadiene	40 - <b>100</b>	33 - <b>100</b>	33 - <b>100</b>	24 - <b>100</b>
4-Chloro-3-methylphenol	50 - <b>100</b>	42 - 104	42 - 102	32 - 112
2-Methylnaphthalene	48 - <b>100</b>	42 - <b>100</b>	41 - <b>100</b>	33 - <b>100</b>
Hexachlorocyclopentadiene	20 - 114	<b>10</b> - 130	15 - 104	<b>10</b> - 119
2,4,6-Trichlorophenol	51 - <b>100</b>	44 - 100	42 - <b>100</b>	33 - 105
2,4,5-Trichlorophenol	50 - <b>100</b>	43 - 103	43 - <b>100</b>	34 - 107
2-Nitroaniline	45 - <b>100</b>	36 - 106	41 - <b>100</b>	32 - 108
Dimethylphthalate	53 - <b>100</b>	46 - 103	48 - <b>100</b>	40 - 106
Acenaphthylene	50 - <b>100</b>	43 - 100	42 - <b>100</b>	33 - 104
2,6-Dinitrotoluene	54 - 100	46 - 108	44 - 106	34 - 116
3-Nitroaniline <sup>(4)</sup>	22 - 117	<b>10</b> - 133	15 - 108	<b>10</b> - 124
Acenaphthene	48 - <b>100</b>	41 - <b>100</b>	38 - <b>100</b>	29 - 102



**Spike Recovery Control Limits for Analysis of Soil & Sediment  
Semi-Volatile Organic Compounds (SVOA)  
EPA SW-846 Method 8270D with Ultrasonic Extraction <sup>(1,8)</sup>  
Effective: 5/1/09**

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

<b>Extraction / Analytical Method:</b>	<b>8270D</b>	<b>8270D ME<sup>(2)</sup></b>	<b>PSEP<sup>(3)</sup></b>	<b>PSEP ME<sup>(2,3)</sup></b>
<b>Sample Weight / Final Volume:</b>	7.5 g to 0.5 mL	7.5 g to 0.5 mL	50 to 1 mL	50 to 1 mL
2,4-Dinitrophenol	12 - 147	<b>10</b> - 170	20 - 140	<b>10</b> - 160
Dibenzofuran	53 - <b>100</b>	47 - <b>100</b>	45 - <b>100</b>	37 - 101
4-Nitrophenol	18 - 107	<b>10</b> - 122	21 - 108	<b>10</b> - 123
2,4-Dinitrotoluene	57 - 106	49 - 114	48 - 111	38 - 122
Fluorene	54 - <b>100</b>	48 - 100	45 - <b>100</b>	36 - 106
Diethylphthalate	52 - 100	44 - 108	48 - 102	39 - 111
4-Chlorophenyl-phenyl ether	54 - <b>100</b>	48 - <b>100</b>	45 - <b>100</b>	36 - 106
4-Nitroaniline	27 - 110	13 - 124	25 - <b>100</b>	13 - 110
4,6-Dinitro-2-Methylphenol	21 - 122	<b>10</b> - 139	23 - 115	<b>10</b> - 130
N-Nitrosodiphenylamine	44 - 145	27 - 162	50 - 128	37 - 141
4-Bromophenyl-phenyl ether	52 - <b>100</b>	45 - 101	45 - <b>100</b>	36 - 107
Hexachlorobenzene	50 - <b>100</b>	42 - 104	44 - 101	35 - 111
Pentachlorophenol	45 - <b>100</b>	36 - 108	35 - 105	23 - 117
Phenanthrene	53 - <b>100</b>	46 - 101	45 - 100	36 - 109
Anthracene	49 - <b>100</b>	41 - 105	43 - <b>100</b>	34 - 107
Carbazole	45 - 111	34 - 122	51 - 106	42 - 115
Di-n-butylphthalate	55 - 106	47 - 115	51 - 109	41 - 119
Fluoranthene	54 - 105	46 - 114	52 - 107	43 - 116
Pyrene	48 - 106	38 - 116	41 - 113	29 - 125
Butylbenzylphthalate	46 - 111	35 - 122	40 - 118	27 - 131
Benzo(a)Anthracene	51 - 101	43 - 109	44 - 106	34 - 116
3,3'-Dichlorbenzidine <sup>(4)</sup>	<b>10</b> - 112	<b>10</b> - 129	<b>10</b> - <b>100</b>	<b>10</b> - 112
Chrysene	56 - <b>100</b>	50 - 102	48 - 102	39 - 111
Bis(2-Ethylhexyl) phthalate	57 - 114	48 - 124	38 - 125	24 - 140
Di-n-octylphthalate	56 - 100	49 - 107	29 - 116	15 - 131
Benzo(b)Fluoranthene	43 - 122	30 - 135	49 - 112	39 - 123
Benzo(k)Fluoranthene	44 - 122	31 - 135	48 - 116	37 - 127
Benzo(a)Pyrene	51 - <b>100</b>	43 - 105	41 - <b>100</b>	32 - 104
Indeno(1,2,3-cd)Pyrene	38 - 104	27 - 115	29 - 117	14 - 132
Dibenz(a,h)anthracene	41 - 107	30 - 118	34 - 117	20 - 131
Benzo(g,h,i)Perylene	36 - 107	24 - 119	24 - 122	<b>10</b> - 138
Aniline <sup>(4)</sup>	<b>10</b> - <b>100</b>	<b>10</b> - 103	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>
1,2-Diphenylhydrazine (Azobenzene)	48 - 101	39 - 110	44 - 101	35 - 111
N-Nitrosodimethylamine	31 - <b>100</b>	21 - 101	25 - <b>100</b>	15 - <b>100</b>
1-Methylnaphthalene	48 - <b>100</b>	41 - <b>100</b>	40 - <b>100</b>	31 - 103
Pyridine	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>



**Spike Recovery Control Limits for Analysis of Soil & Sediment  
Semi-Volatile Organic Compounds (SVOA)  
EPA SW-846 Method 8270D with Ultrasonic Extraction <sup>(1,8)</sup>  
Effective: 5/1/09**

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

<b>Extraction / Analytical Method:</b>	<b>8270D</b>	<b>8270D ME<sup>(2)</sup></b>	<b>PSEP <sup>(3)</sup></b>	<b>PSEP ME<sup>(2,3)</sup></b>
<b>Sample Weight / Final Volume:</b>	7.5 g to 0.5 mL	7.5 g to 0.5 mL	50 to 1 mL	50 to 1 mL
<b>MB/LCS Surrogate Recovery</b>				
d4-2-Chlorophenol	43 - <b>100</b>	(5)	39 - <b>100</b>	(5)
d4-1,2-Dichlorobenzene	34 - <b>100</b>	(5)	32 - <b>100</b>	(5)
2,4,6-Tribromophenol	47 - 109	(5)	43 - 108	(5)
2-Fluorophenol	14 - 100	(5)	26 - <b>100</b>	(5)
d5-Phenol <sup>(4)</sup>	39 - <b>100</b>	<b>10</b> - 133	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>
d5-Nitrobenzene	39 - <b>100</b>	(5)	34 - <b>100</b>	(5)
2-Fluorobiphenyl	44 - <b>100</b>	(5)	39 <b>100</b>	(5)
d14-p-Terphenyl	55 - 106	(5)	49 - 112	(5)
<b>Sample Surrogate Recovery</b>				
d4-2-Chlorophenol	33 - <b>100</b>	(5)	30 - <b>100</b>	(5)
d4-1,2-Dichlorobenzene	30 - <b>100</b>	(5)	24 - <b>100</b>	(5)
2,4,6-Tribromophenol	28 - 116	(5)	33 - 118	(5)
2-Fluorophenol	<b>10</b> - <b>100</b>	(5)	21 - <b>100</b>	(5)
d5-Phenol <sup>(4)</sup>	31 - <b>100</b>	21 - 101	<b>10</b> - <b>100</b>	<b>10</b> - <b>100</b>
d5-Nitrobenzene	32 - <b>100</b>	(5)	26 - <b>100</b>	(5)
2-Fluorobiphenyl	36 - <b>100</b>	(5)	32 - <b>100</b>	(5)
d14-p-Terphenyl	35 - 113	(5)	25 - 116	(5)

(1) Control Limits calculated using all data generated 1/1/08 through 12/1/08.

(2) **ME = A marginal exceedance** defined in the NELAC Standard <sup>(6)</sup> as beyond the CL but still within the ME limits. ARI defines ME limits as 4 standard deviations around the mean with upper limit  $\geq 100\%$ . A maximum of 4 marginal exceedances are acceptable. ( $\geq 5$  marginal exceedances in an analysis require corrective action).

(3). Preparation includes Gel Permeation Chromatography (GPC) clean-up.

(4) These are "**poor performers**" defined in the DoD QSM <sup>(7)</sup> as compounds that "produce low mean recoveries and high standard deviations, resulting in wide LCS control limits with particularly low lower control limits (sometimes-negative values). ARI does not control batch acceptance based on these compounds since there is a high level of uncertainty in their recovery."

(5) Marginal Exceedances not allowed for surrogate unless it is a "poor performer".

(6) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.

(7) Page 182 of: **Department of Defense Quality Systems Manual for Environmental Laboratories, Version 3 Final, March 2005** Prepared By Environmental Data Quality Workgroup, Department of Navy, Lead Service (Based NELAC Chapter 5 (Quality Systems) NELAC Voted Version - 5 June 2003

(8) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits  $< 10$  for the lower limit or  $< 100$  for the upper limit.

(9) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.



**Spike Recovery Control Limits for Chlorinated Phenols**  
**EPA Method SW-846-8041<sup>(1,2)</sup>**  
Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

	ARI's Calculated Control Limits	
Sample Matrix:	Water	Soil / Sediment
Sample Amount / Final Volume:	500 / 50 mL	10 g / 25 mL
<b>LCS Spike Recovery<sup>(3)</sup></b>		
Pentachlorophenol	27 - 115	<b>10</b> - 162
<b>Method Blank/LCS Surrogate Recovery</b>		
2,4,6-Tribromophenol	40 - 130	50 - 115
<b>Sample Surrogate Recovery</b>		
2,4,6-Tribromophenol	11 - 156	<b>10</b> - 146

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 through 12/1/08.

(2) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10.

(3) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.



<b>Spike Recovery Control Limits Hydrocarbon Identification (NWTPH-HCID) and Diesel Range Petroleum Hydrocarbons (NWTPH-D &amp; AK-102) <sup>(1)</sup></b> Effective 5/1/09				
Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <a href="http://www.arilabs.com/portal/downloads/ARI-CLs.zip">http://www.arilabs.com/portal/downloads/ARI-CLs.zip</a>				
<b>Method:</b>	NWTPH-HCID <sup>(2)</sup>	NWTPH-D		AK102 <sup>(2)</sup>
<b>Sample Matrix:</b>	Water& Soil	Water	Soil	Water & Soil
<b>Preparation:</b>	500 to 1 mL	500 to 1 mL	10g to 1 mL	500 to 1 mL or 10g to 1 mL
<b>LCS Spike Recovery <sup>(3)</sup></b>				
Diesel	-- - --	56 - 103	55 - 104	75 - 125
Diesel with Acid & Silica Clean-up	-- - --	43 - 100	54 - 96	(4)
Diesel with Silica Clean-up	-- --	43 - 100	54 - 96	75 - 125
<b>Method Blank/LCS Surrogate Recovery</b>				
o-Terphenyl	-- - --	57 - 120	58 - 121	60 - 120
o-Terphenyl with Acid & Silica Clean-up	-- - --	51 - 120	63 - 115	(4)
o-Terphenyl Silica Clean-up		51 - 120	63 - 115	60 - 120
<b>Sample Surrogate Recovery</b>				
o-Terphenyl	50 - 150	35 - 131	53 - 118	50 - 150
o-Terphenyl with Acid & Silica Clean-up	-- - --	41 - 121	49 - 120	(4)
o-Terphenyl with Silica Clean-up		41 - 121	49 - 120	50 - 150

1. Control Limits calculated using all data generated 1/1/08 through 12/31/08
2. Method specified, non-prescriptive limits. The NWTPH-HCID Method does not include LCS or MS analyses.
3. Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
4. Alaska State UST Methods do not allow acid cleanup of sample extracts.





### Summary of Laboratory Control Limits Metals Analyses (All Methods & Sample Matrices)

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

Element	Matrix Spike Recovery	LCS Recovery	Replicate RPD
Aluminum	75 - 125	80 - 120	≤ 20%
Antimony	75 - 125	80 - 120	≤ 20%
Arsenic	75 - 125	80 - 120	≤ 20%
Barium	75 - 125	80 - 120	≤ 20%
Beryllium	75 - 125	80 - 120	≤ 20%
Boron	75 - 125	80 - 120	≤ 20%
Cadmium	75 - 125	80 - 120	≤ 20%
Calcium	75 - 125	80 - 120	≤ 20%
Chromium	75 - 125	80 - 120	≤ 20%
Cobalt	75 - 125	80 - 120	≤ 20%
Copper	75 - 125	80 - 120	≤ 20%
Iron	75 - 125	80 - 120	≤ 20%
Lead	75 - 125	80 - 120	≤ 20%
Magnesium	75 - 125	80 - 120	≤ 20%
Manganese	75 - 125	80 - 120	≤ 20%
Mercury	75 - 125	80 - 120	≤ 20%
Nickel	75 - 125	80 - 120	≤ 20%
Potassium	75 - 125	80 - 120	≤ 20%
Selenium	75 - 125	80 - 120	≤ 20%
Silica	75 - 125	80 - 120	≤ 20%
Silver	75 - 125	80 - 120	≤ 20%
Sodium	75 - 125	80 - 120	≤ 20%
Strontium	75 - 125	80 - 120	≤ 20%
Thallium	75 - 125	80 - 120	≤ 20%
Vanadium	75 - 125	80 - 120	≤ 20%
Zinc	75 - 125	80 - 120	≤ 20%



<b>Spike Recovery Control Limits for Conventional Wet Chemistry</b>		
Effective 5/1/09		
Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <a href="http://www.arilabs.com/portal/downloads/ARI-CLs.zip">http://www.arilabs.com/portal/downloads/ARI-CLs.zip</a>		
Sample Matrix:	ARI's Control Limits	
	Water	Soil / Sediment
<b>Matrix Spike Recoveries</b>	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 - 125	75 - 125
Chloride	75 - 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
<b>Duplicate RPDs</b>		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

Data Summary Package

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

# VOLATILE ANALYSIS

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: CB19010710Sed

Page 1 of 1

**SAMPLE**

Lab Sample ID: QE56B


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-433

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: 01/07/10

Reported: 01/15/10

Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB

Sample Amount: 0.995 g-dry-wt

Date Analyzed: 01/11/10 18:40

Purge Volume: 5.0 mL

Moisture: 76.3%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	5.0	< 5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	< 5.0	U
107-06-2	1,2-Dichloroethane	5.0	< 5.0	U
79-01-6	Trichloroethene	5.0	< 5.0	U
127-18-4	Tetrachloroethene	5.0	< 5.0	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	131%
d8-Toluene	103%
Bromofluorobenzene	97.6%
d4-1,2-Dichlorobenzene	95.3%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB12010710Sed  
SAMPLE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 19:07

Sample Amount: 0.868 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 75.2%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	5.8	< 5.8	U
156-59-2	cis-1,2-Dichloroethene	5.8	< 5.8	U
107-06-2	1,2-Dichloroethane	5.8	< 5.8	U
79-01-6	Trichloroethene	5.8	< 5.8	U
127-18-4	Tetrachloroethene	5.8	< 5.8	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	125%
d8-Toluene	101%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	95.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB2010710Sed  
SAMPLE

Lab Sample ID: QE56D

LIMS ID: 10-435

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 01/15/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB

Date Analyzed: 01/11/10 19:34

Sample Amount: 2.21 g-dry-wt

Purge Volume: 5.0 mL

Moisture: 67.7%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	2.3	< 2.3	U
156-59-2	cis-1,2-Dichloroethene	2.3	< 2.3	U
107-06-2	1,2-Dichloroethane	2.3	< 2.3	U
79-01-6	Trichloroethene	2.3	< 2.3	U
127-18-4	Tetrachloroethene	2.3	< 2.3	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	126%
d8-Toluene	100%
Bromofluorobenzene	97.7%
d4-1,2-Dichlorobenzene	92.3%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: Trip Blank

Page 1 of 1

**SAMPLE**

Lab Sample ID: QE56E


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-436

Project: POS-LLA (Lora Lake Apts.)

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: 01/07/10

Reported: 01/15/10

Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 mL

Date Analyzed: 01/11/10 20:01

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	116%
d8-Toluene	104%
Bromofluorobenzene	99.0%
d4-1,2-Dichlorobenzene	99.1%



**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-011110	Method Blank	Low	111%	101%	98.1%	101%	0
LCS-011110	Lab Control	Low	98.8%	99.4%	104%	102%	0
LCSD-011110	Lab Control Dup	Low	102%	104%	102%	99.5%	0
QE56B	CB19010710Sed	Low	131%	103%	97.6%	95.3%	0
QE56BMS	CB19010710Sed	Low	115%	102%	96.0%	93.9%	0
QE56BMSD	CB19010710Sed	Low	108%	102%	92.7%	93.5%	0
QE56C	CB12010710Sed	Low	125%	101%	102%	95.9%	0
QE56D	CB2010710Sed	Low	126%	100%	97.7%	92.3%	0

SW8260C	LCS/MB LIMITS		QC LIMITS	
	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	79-121	76-120	75-152	69-120
(TOL) = d8-Toluene	80-120	80-120	82-115	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	64-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 10-433 to 10-435

**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
QE56E	Trip Blank	5	116%	104%	99.0%	99.1%	0

**LCS/MB LIMITS**

**QC LIMITS**

**SW8260C**

(DCE) = d4-1,2-Dichloroethane	83-122	80-125
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B  
Log Number Range: 10-436 to 10-436

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: CB19010710Sed

Page 1 of 1

**MATRIX SPIKE**

Lab Sample ID: QE56B


QC Report No: QE56-Floyd-Snyder

LIMS ID: 10-433

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: 01/07/10

Reported: 01/15/10

Date Received: 01/07/10

Instrument/Analyst MS: FINN5/PAB

Sample Amount MS: 1.20 g-dry-wt

MSD: FINN5/PAB

MSD: 1.24 g-dry-wt

Date Analyzed MS: 01/11/10 20:28

Purge Volume MS: 5.0 mL

MSD: 01/11/10 20:55

MSD: 5.0 mL

Moisture: 76.3%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
trans-1,2-Dichloroethene	< 5.0 U	82.7	208	39.8%	82.5	202	40.8%	0.2%
cis-1,2-Dichloroethene	< 5.0 U	88.6	208	42.6%	90.6	202	44.9%	2.2%
1,2-Dichloroethane	< 5.0 U	104	208	50.0%	102	202	50.5%	1.9%
Trichloroethene	< 5.0 U	43.6	208	21.0%	43.8	202	21.7%	0.5%
Tetrachloroethene	< 5.0 U	20.8	208	10.0%	21.0	202	10.4%	1.0%

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *B*  
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 20:28

Sample Amount: 1.20 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 76.3%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	4.2	---	
156-59-2	cis-1,2-Dichloroethene	4.2	---	
107-06-2	1,2-Dichloroethane	4.2	---	
79-01-6	Trichloroethene	4.2	---	
127-18-4	Tetrachloroethene	4.2	---	

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	115%
d8-Toluene	102%
Bromofluorobenzene	96.0%
d4-1,2-Dichlorobenzene	93.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE DUP

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *B*  
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 20:55

Sample Amount: 1.24 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 76.3%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	4.0	---	
156-59-2	cis-1,2-Dichloroethene	4.0	---	
107-06-2	1,2-Dichloroethane	4.0	---	
79-01-6	Trichloroethene	4.0	---	
127-18-4	Tetrachloroethene	4.0	---	

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	102%
Bromofluorobenzene	92.7%
d4-1,2-Dichlorobenzene	93.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-011110

Page 1 of 1

LAB CONTROL SAMPLE

Lab Sample ID: LCS-011110


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-433

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 01/15/10

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCS: FINN5/PAB

LCS: 5.00 g-dry-wt

Date Analyzed LCS: 01/11/10 10:34

Purge Volume LCS: 5.0 mL

LCS: 01/11/10 12:53

LCS: 5.0 mL

Moisture: NA

Analyte	LCS		LCS		LCS		RPD
	LCS	Spike Added-LCS	Recovery	LCS	LCS	Spike Added-LCS	
trans-1,2-Dichloroethene	47.6	50.0	95.2%	47.6	50.0	95.2%	0.0%
cis-1,2-Dichloroethene	48.1	50.0	96.2%	49.4	50.0	98.8%	2.7%
1,2-Dichloroethane	49.0	50.0	98.0%	48.4	50.0	96.8%	1.2%
Trichloroethene	47.4	50.0	94.8%	49.5	50.0	99.0%	4.3%
Tetrachloroethene	46.6	50.0	93.2%	49.6	50.0	99.2%	6.2%

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCS
d4-1,2-Dichloroethane	98.8%	102%
d8-Toluene	99.4%	104%
Bromofluorobenzene	104%	102%
d4-1,2-Dichlorobenzene	102%	99.5%

4A  
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0111

Lab Name: ANALYTICAL RESOURCES, INC  
 ARI Job No: QE56  
 Lab File ID: MB0111  
 Date Analyzed: 01/11/10  
 Instrument ID: FINN5

Client: FLOYD-SNIDER  
 Project: LORA LAKE  
 Lab Sample ID: MB0111  
 Time Analyzed: 1136  
 Heated Purge: (Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LCS0111	LCS0111	LCS0111	1034
02	LCS0111	LCS0111	LCS0111B	1253
03	CB19010710SE	QE56B	QE56B	1840
04	CB12010710SE	QE56C	QE56C	1907
05	CB2010710SED	QE56D	QE56D	1934
06	TRIP BLANK	QE56E	QE56E	2001
07	CB19010710SE	QE56BMS	QE56BMS	2028
08	CB19010710SE	QE56BMSD	QE56BMSD	2055
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

---

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-011110

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-011110


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-433

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 01/15/10

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 01/11/10 11:36

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	111%
d8-Toluene	101%
Bromofluorobenzene	98.1%
d4-1,2-Dichlorobenzene	101%



## SEMIVOLATILE PAH ANALYSIS

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB19010710Sed  
SAMPLE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 16:31  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 0.96 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	520	< 520 U
91-57-6	2-Methylnaphthalene	520	550
90-12-0	1-Methylnaphthalene	520	< 520 U
208-96-8	Acenaphthylene	520	< 520 U
83-32-9	Acenaphthene	520	< 520 U
86-73-7	Fluorene	520	< 520 U
85-01-8	Phenanthrene	520	1,000
120-12-7	Anthracene	520	< 520 U
206-44-0	Fluoranthene	520	2,200
129-00-0	Pyrene	520	3,200
56-55-3	Benzo (a) anthracene	520	590
218-01-9	Chrysene	520	1,900
205-99-2	Benzo (b) fluoranthene	520	1,400
207-08-9	Benzo (k) fluoranthene	520	1,400
50-32-8	Benzo (a) pyrene	520	1,100
193-39-5	Indeno (1,2,3-cd) pyrene	520	< 520 U
53-70-3	Dibenz (a,h) anthracene	520	< 520 U
191-24-2	Benzo (g,h,i) perylene	520	850
132-64-9	Dibenzofuran	520	< 520 U


Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	130%
2-Fluorobiphenyl	88.8%

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB19010710Sed  
DILUTION

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 14:50  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 0.96 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 3.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	1,600	< 1,600 U
91-57-6	2-Methylnaphthalene	1,600	< 1,600 U
90-12-0	1-Methylnaphthalene	1,600	< 1,600 U
208-96-8	Acenaphthylene	1,600	< 1,600 U
83-32-9	Acenaphthene	1,600	< 1,600 U
86-73-7	Fluorene	1,600	< 1,600 U
85-01-8	Phenanthrene	1,600	1,200 J
120-12-7	Anthracene	1,600	< 1,600 U
206-44-0	Fluoranthene	1,600	2,200
129-00-0	Pyrene	1,600	2,200
56-55-3	Benzo (a) anthracene	1,600	730 J
218-01-9	Chrysene	1,600	1,900
205-99-2	Benzo (b) fluoranthene	1,600	1,300 J
207-08-9	Benzo (k) fluoranthene	1,600	1,300 J
50-32-8	Benzo (a) pyrene	1,600	1,000 J
193-39-5	Indeno (1,2,3-cd) pyrene	1,600	< 1,600 U
53-70-3	Dibenz (a,h) anthracene	1,600	< 1,600 U
191-24-2	Benzo (g,h,i) perylene	1,600	980 J
132-64-9	Dibenzofuran	1,600	< 1,600 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	88.2%
2-Fluorobiphenyl	96.8%

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAS by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
SAMPLE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *AS*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 17:04  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.23 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	220	< 220 U
91-57-6	2-Methylnaphthalene	220	< 220 U
90-12-0	1-Methylnaphthalene	220	< 220 U
208-96-8	Acenaphthylene	220	< 220 U
83-32-9	Acenaphthene	220	< 220 U
86-73-7	Fluorene	220	< 220 U
85-01-8	Phenanthrene	220	460
120-12-7	Anthracene	220	< 220 U
206-44-0	Fluoranthene	220	970
129-00-0	Pyrene	220	1,700
56-55-3	Benzo (a) anthracene	220	250
218-01-9	Chrysene	220	980
205-99-2	Benzo (b) fluoranthene	220	560
207-08-9	Benzo (k) fluoranthene	220	560
50-32-8	Benzo (a) pyrene	220	390
193-39-5	Indeno (1,2,3-cd) pyrene	220	220 J
53-70-3	Dibenz (a,h) anthracene	220	< 220 U
191-24-2	Benzo (g,h,i) perylene	220	360
132-64-9	Dibenzofuran	220	< 220 U

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	150%
2-Fluorobiphenyl	78.8%

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
DILUTION

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *RS*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 15:24  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.23 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 3.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	670	< 670 U
91-57-6	2-Methylnaphthalene	670	< 670 U
90-12-0	1-Methylnaphthalene	670	< 670 U
208-96-8	Acenaphthylene	670	< 670 U
83-32-9	Acenaphthene	670	< 670 U
86-73-7	Fluorene	670	< 670 U
85-01-8	Phenanthrene	670	500 J
120-12-7	Anthracene	670	< 670 U
206-44-0	Fluoranthene	670	1,100
129-00-0	Pyrene	670	1,000
56-55-3	Benzo (a) anthracene	670	300 J
218-01-9	Chrysene	670	990
205-99-2	Benzo (b) fluoranthene	670	580 J
207-08-9	Benzo (k) fluoranthene	670	580 J
50-32-8	Benzo (a) pyrene	670	400 J
193-39-5	Indeno (1,2,3-cd) pyrene	670	< 670 U
53-70-3	Dibenz (a,h) anthracene	670	< 670 U
191-24-2	Benzo (g,h,i) perylene	670	< 670 U
132-64-9	Dibenzofuran	670	< 670 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	84.0%
2-Fluorobiphenyl	87.6%

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB2010710Sed  
SAMPLE

Lab Sample ID: QE56D  
LIMS ID: 10-435  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 17:37  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.61 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 67.7%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	190	< 190 U
91-57-6	2-Methylnaphthalene	190	< 190 U
90-12-0	1-Methylnaphthalene	190	< 190 U
208-96-8	Acenaphthylene	190	< 190 U
83-32-9	Acenaphthene	190	< 190 U
86-73-7	Fluorene	190	< 190 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>190</b>	<b>340</b>
120-12-7	Anthracene	190	< 190 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>190</b>	<b>780</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>190</b>	<b>1,500</b>
56-55-3	Benzo (a) anthracene	190	220
218-01-9	Chrysene	190	630
205-99-2	Benzo (b) fluoranthene	190	370
207-08-9	Benzo (k) fluoranthene	190	370
50-32-8	Benzo (a) pyrene	190	300
193-39-5	Indeno (1,2,3-cd) pyrene	190	< 190 U
53-70-3	Dibenz (a, h) anthracene	190	< 190 U
<b>191-24-2</b>	<b>Benzo (g, h, i) perylene</b>	<b>190</b>	<b>280</b>
132-64-9	Dibenzofuran	190	< 190 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	180%
2-Fluorobiphenyl	79.6%

Lab Sample ID: QE56D  
 LIMS ID: 10-435  
 Matrix: Sediment  
 Data Release Authorized: *[Signature]*  
 Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
 Project: POS-LLA (Lora Lake Apts.)  
 POS-LLA  
 Date Sampled: 01/07/10  
 Date Received: 01/07/10

Date Extracted: 01/13/10  
 Date Analyzed: 01/14/10 15:57  
 Instrument/Analyst: NT4/JZ  
 GPC Cleanup: No  
 Alumina: No  
 Silica Gel: Yes

Sample Amount: 2.61 g-dry-wt  
 Final Extract Volume: 0.5 mL  
 Dilution Factor: 3.00  
 Percent Moisture: 67.7%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	580	< 580 U
91-57-6	2-Methylnaphthalene	580	< 580 U
90-12-0	1-Methylnaphthalene	580	< 580 U
208-96-8	Acenaphthylene	580	< 580 U
83-32-9	Acenaphthene	580	< 580 U
86-73-7	Fluorene	580	< 580 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>580</b>	<b>360 J</b>
120-12-7	Anthracene	580	< 580 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>580</b>	<b>900</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>580</b>	<b>790</b>
56-55-3	Benzo (a) anthracene	580	250 J
218-01-9	Chrysene	580	700
205-99-2	Benzo (b) fluoranthene	580	450 J
207-08-9	Benzo (k) fluoranthene	580	450 J
50-32-8	Benzo (a) pyrene	580	260 J
193-39-5	Indeno (1,2,3-cd) pyrene	580	< 580 U
53-70-3	Dibenz (a,h) anthracene	580	< 580 U
191-24-2	Benzo (g,h,i) perylene	580	< 580 U
132-64-9	Dibenzofuran	580	< 580 U

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

---

d14-p-Terphenyl	91.8%
2-Fluorobiphenyl	91.1%

**SW8270 PNA SURROGATE RECOVERY SUMMARY**

Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

<u>Client ID</u>	<u>TER</u>	<u>FBP</u>	<u>TOT OUT</u>
CB19010710Sed	130%*	88.8%	1
CB19010710Sed DL	88.2%	96.8%	0
MB-011310	105%	80.0%	0
LCS-011310	104%	74.4%	0
CB12010710Sed	150%*	78.8%	1
CB12010710Sed DL	84.0%	87.6%	0
CB12010710Sed MS	238%*	82.0%	1
CB12010710Sed MSD	257%*	83.2%	1
CB2010710Sed	180%*	79.6%	1
CB2010710Sed DL	91.8%	91.1%	0

**LCS/MB LIMITS      QC LIMITS**

(TER) = d14-p-Terphenyl  
(FBP) = 2-Fluorobiphenyl

(47-112)      (35-112)  
(40-100)      (34-100)

Prep Method: SW3550B  
Log Number Range: 10-433 to 10-435



ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by SW8270D GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
MS/MSD

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted MS/MSD: 01/13/10

Sample Amount MS: 2.24 g-dry-wt  
MSD: 2.23 g-dry-wt

Date Analyzed MS: 01/14/10 18:11  
MSD: 01/14/10 18:44

Final Extract Volume MS: 0.5 mL  
MSD: 0.5 mL

Instrument/Analyst MS: NT4/JZ  
MSD: NT4/JZ

Dilution Factor MS: 1.00  
MSD: 1.00

GPC Cleanup: No  
Silica Gel Cleanup: Yes


Alumina Cleanup: No

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	< 224	3950	5580	70.8%	4020	5610	71.7%	1.8%
2-Methylnaphthalene	< 224	4220	5580	75.6%	4270	5610	76.1%	1.2%
1-Methylnaphthalene	< 224	4340	5580	77.8%	4430	5610	79.0%	2.1%
Acenaphthylene	< 224	4300	5580	77.1%	4380	5610	78.1%	1.8%
Acenaphthene	< 224	4070	5580	72.9%	4150	5610	74.0%	1.9%
Fluorene	< 224	4470	5580	80.1%	4480	5610	79.9%	0.2%
Phenanthrene	464	4410	5580	70.7%	4440	5610	70.9%	0.7%
Anthracene	< 224	4460	5580	79.9%	4510	5610	80.4%	1.1%
Fluoranthene	966	5310	5580	77.8%	5240	5610	76.2%	1.3%
Pyrene	1700	11600	5580	177%	13000	5610	201%	11.4%
Benzo(a)anthracene	247	3990	5580	67.1%	4220	5610	70.8%	5.6%
Chrysene	982	5110	5580	74.0%	5040	5610	72.3%	1.4%
Benzo(b)fluoranthene	558	5450	5580	87.7%	5470	5610	87.6%	0.4%
Benzo(k)fluoranthene	558	4510	5580	70.8%	5410	5610	86.5%	18.1%
Benzo(a)pyrene	386	3850	5580	62.1%	4120	5610	66.6%	6.8%
Indeno(1,2,3-cd)pyrene	222	2690	5580	44.2%	2970	5610	49.0%	9.9%
Dibenz(a,h)anthracene	< 224	2480	5580	44.4%	2690	5610	48.0%	8.1%
Benzo(g,h,i)perylene	357	2580	5580	39.8%	3010	5610	47.3%	15.4%
Dibenzofuran	< 224	4310	5580	77.2%	4410	5610	78.6%	2.3%

Results reported in  $\mu\text{g}/\text{kg}$   
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 18:11  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.24 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	220	---
91-57-6	2-Methylnaphthalene	220	---
90-12-0	1-Methylnaphthalene	220	---
208-96-8	Acenaphthylene	220	---
83-32-9	Acenaphthene	220	---
86-73-7	Fluorene	220	---
85-01-8	Phenanthrene	220	---
120-12-7	Anthracene	220	---
206-44-0	Fluoranthene	220	---
129-00-0	Pyrene	220	---
56-55-3	Benzo(a)anthracene	220	---
218-01-9	Chrysene	220	---
205-99-2	Benzo(b)fluoranthene	220	---
207-08-9	Benzo(k)fluoranthene	220	---
50-32-8	Benzo(a)pyrene	220	---
193-39-5	Indeno(1,2,3-cd)pyrene	220	---
53-70-3	Dibenz(a,h)anthracene	220	---
191-24-2	Benzo(g,h,i)perylene	220	---
132-64-9	Dibenzofuran	220	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	238%
2-Fluorobiphenyl	82.0%

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
MATRIX SPIKE DUPLICATE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *AS*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 18:44  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.23 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	220	---
91-57-6	2-Methylnaphthalene	220	---
90-12-0	1-Methylnaphthalene	220	---
208-96-8	Acenaphthylene	220	---
83-32-9	Acenaphthene	220	---
86-73-7	Fluorene	220	---
85-01-8	Phenanthrene	220	---
120-12-7	Anthracene	220	---
206-44-0	Fluoranthene	220	---
129-00-0	Pyrene	220	---
56-55-3	Benzo(a)anthracene	220	---
218-01-9	Chrysene	220	---
205-99-2	Benzo(b)fluoranthene	220	---
207-08-9	Benzo(k)fluoranthene	220	---
50-32-8	Benzo(a)pyrene	220	---
193-39-5	Indeno(1,2,3-cd)pyrene	220	---
53-70-3	Dibenz(a,h)anthracene	220	---
191-24-2	Benzo(g,h,i)perylene	220	---
132-64-9	Dibenzofuran	220	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	257%
2-Fluorobiphenyl	83.2%

**ORGANICS ANALYSIS DATA SHEET**  
**PSDDA PNAs by SW8270D GC/MS**  
 Page 1 of 1

Sample ID: LCS-011310  
 LAB CONTROL

Lab Sample ID: LCS-011310  
 LIMS ID: 10-434  
 Matrix: Sediment  
 Data Release Authorized: *AB*  
 Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
 Project: POS-LLA (Lora Lake Apts.)  
 POS-LLA  
 Date Sampled: NA  
 Date Received: 01/07/10

Date Extracted: 01/13/10  
 Date Analyzed: 01/14/10 14:17  
 Instrument/Analyst: NT4/JZ  
 GPC Cleanup: No  
 Silica Gel Cleanup: Yes

Sample Amount: 25.0 g  
 Final Extract Volume: 0.50 mL  
 Dilution Factor: 1.00  
 Alumina Cleanup: No

Analyte	Lab Control	Spike Added	Recovery
Naphthalene	313	500	62.6%
2-Methylnaphthalene	313	500	62.6%
1-Methylnaphthalene	330	500	66.0%
Acenaphthylene	331	500	66.2%
Acenaphthene	325	500	65.0%
Fluorene	353	500	70.6%
Phenanthrene	374	500	74.8%
Anthracene	378	500	75.6%
Fluoranthene	398	500	79.6%
Pyrene	406	500	81.2%
Benzo(a)anthracene	390	500	78.0%
Chrysene	398	500	79.6%
Benzo(b)fluoranthene	396	500	79.2%
Benzo(k)fluoranthene	384	500	76.8%
Benzo(a)pyrene	345	500	69.0%
Indeno(1,2,3-cd)pyrene	408	500	81.6%
Dibenz(a,h)anthracene	391	500	78.2%
Benzo(g,h,i)perylene	400	500	80.0%
Dibenzofuran	347	500	69.4%

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	104%
2-Fluorobiphenyl	74.4%

Results reported in µg/kg

4B  
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QE56MBS1
----------

Lab Name: ANALYTICAL RESOURCES, INC  
 ARI Job No: QE56  
 Lab File ID: 01141004  
 Instrument ID: NT4  
 Matrix: SOLID

Client: FLOYD-SNIDER  
 Project: POS-LLA (LORA LAKE A  
 Date Extracted: 01/13/10  
 Date Analyzed: 01/14/10  
 Time Analyzed: 1344

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:


	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	QE56LCSS1	QE56LCSS1	01141005	01/14/10
02	CB19010710SED	QE56B	01141006	01/14/10
03	CB12010710SED	QE56C	01141007	01/14/10
04	CB2010710SED	QE56D	01141008	01/14/10
05	CB19010710SED	QE56B	01141009	01/14/10
06	CB12010710SED	QE56C	01141010	01/14/10
07	CB2010710SED	QE56D	01141011	01/14/10
08	CB12010710SED MS	QE56CMS	01141012	01/14/10
09	CB12010710SED MS	QE56CMSD	01141013	01/14/10
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

---

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAS by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: MB-011310  
METHOD BLANK

Lab Sample ID: MB-011310  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: NA  
Date Received: NA

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 13:44  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 25.0 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	20	< 20 U
91-57-6	2-Methylnaphthalene	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
83-32-9	Acenaphthene	20	< 20 U
86-73-7	Fluorene	20	< 20 U
85-01-8	Phenanthrene	20	< 20 U
120-12-7	Anthracene	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
56-55-3	Benzo(a)anthracene	20	< 20 U
218-01-9	Chrysene	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
132-64-9	Dibenzofuran	20	< 20 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)


**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	105%
2-Fluorobiphenyl	80.0%

# PCP/CHLOROPHENOLS ANALYSIS

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB19010710Sed  
SAMPLE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 18:08  
Instrument/Analyst: ECD1/AAR

Sample Amount: 2.37 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	26	< 26 U
Reported in $\mu\text{g}/\text{kg}$ (ppb)			
<b>Chlorophenol Surrogate Recovery</b>			
	2,4,6-Tribromophenol	46.8%	



**ORGANICS ANALYSIS DATA SHEET**  
**PCP by GC/ECD Method SW8041**  
 Page 1 of 1

**Sample ID: CB19010710Sed**  
**DILUTION**

Lab Sample ID: QE56B  
 LIMS ID: 10-433  
 Matrix: Sediment  
 Data Release Authorized: *AS*  
 Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
 Project: POS-LLA (Lora Lake Apts.)  
 POS-LLA  
 Date Sampled: 01/07/10  
 Date Received: 01/07/10

Date Extracted: 01/12/10  
 Date Analyzed: 01/15/10 15:29  
 Instrument/Analyst: ECD1/AAR

Sample Amount: 2.37 g-dry-wt  
 Final Extract Volume: 25 mL  
 Dilution Factor: 10.0  
 Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	260	< 260 U
Reported in $\mu\text{g}/\text{kg}$ (ppb)			
<b>Chlorophenol Surrogate Recovery</b>			
	2,4,6-Tribromophenol	79.6%	

**ORGANICS ANALYSIS DATA SHEET**

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB12010710Sed

SAMPLE

Lab Sample ID: QE56C


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-434

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: 01/07/10

Reported: 01/19/10

Date Received: 01/07/10

Date Extracted: 01/12/10

Sample Amount: 2.50 g-dry-wt

Date Analyzed: 01/15/10 19:08

Final Extract Volume: 25 mL

Instrument/Analyst: ECD1/AAR

Dilution Factor: 1.00

Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	25	< 25 U


Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	84.4%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB12010710Sed  
DILUTION

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 16:29  
Instrument/Analyst: ECD1/AAR

Sample Amount: 2.50 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 10.0  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	250	< 250 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	69.6%
----------------------	-------

**ORGANICS ANALYSIS DATA SHEET**

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: CB2010710Sed

**SAMPLE**

Lab Sample ID: QE56D

LIMS ID: 10-435

Matrix: Sediment

Data Release Authorized: 

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Date Extracted: 01/12/10

Date Analyzed: 01/15/10 19:28

Instrument/Analyst: ECD1/AAR

Sample Amount: 3.24 g-dry-wt

Final Extract Volume: 25 mL

Dilution Factor: 1.00

Percent Moisture: 67.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	19	< 19 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	44.8%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB2010710Sed  
DILUTION

Lab Sample ID: QE56D  
LIMS ID: 10-435  
Matrix: Sediment  
Data Release Authorized: *MB*  
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 16:49  
Instrument/Analyst: ECD1/AAR

Sample Amount: 3.24 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 10.0  
Percent Moisture: 67.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	190	< 190 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	55.2%
----------------------	-------

**SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY**

Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
MB-011210	47.2%*	1
LCS-011210	67.6%	0
CB19010710Sed	46.8%	0
CB19010710Sed DL	79.6%	0
CB19010710Sed MS	41.2%	0
CB19010710Sed MSD	145%	0
CB12010710Sed	84.4%	0
CB12010710Sed DL	69.6%	0
CB2010710Sed	44.8%	0
CB2010710Sed DL	55.2%	0

**LCS/MB LIMITS      QC LIMITS**

(TBP) = 2,4,6-Tribromophenol


(50-115)

(10-146)

Prep Method: SW3550B  
Log Number Range: 10-433 to 10-435

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB19010710Sed  
MS/MSD

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted MS/MSD: 01/12/10  
Date Analyzed MS: 01/15/10 18:28  
MSD: 01/15/10 18:48  
Instrument/Analyst MS: ECD1/AAR  
MSD: ECD1/AAR  
Percent Moisture: 76.3%

Sample Amount MS: 2.37 g-dry-wt  
MSD: 2.38 g-dry-wt  
Final Extract Volume MS: 25 mL  
MSD: 25 mL  
Dilution Factor MS: 1.00  
MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Pentachlorophenol	< 26.4	124	264	47.0%	138	263	52.5%	10.7%

Results reported in  $\mu\text{g}/\text{kg}$   
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *AS*  
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 18:28  
Instrument/Analyst: ECD1/AAR


Sample Amount: 2.37 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	26	---
Reported in $\mu\text{g}/\text{kg}$ (ppb)			
<b>Chlorophenol Surrogate Recovery</b>			
2,4,6-Tribromophenol		41.2%	



**ORGANICS ANALYSIS DATA SHEET**  
**PCP by GC/ECD Method SW8041**  
 Page 1 of 1

**Sample ID: CB19010710Sed**  
**MATRIX SPIKE DUP**

Lab Sample ID: QE56B  
 LIMS ID: 10-433  
 Matrix: Sediment  
 Data Release Authorized:   
 Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
 Project: POS-LLA (Lora Lake Apts.)  
 POS-LLA  
 Date Sampled: 01/07/10  
 Date Received: 01/07/10

Date Extracted: 01/12/10  
 Date Analyzed: 01/15/10 18:48  
 Instrument/Analyst: ECD1/AAR

Sample Amount: 2.38 g-dry-wt  
 Final Extract Volume: 25 mL  
 Dilution Factor: 1.00  
 Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	26	---


Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	145%
----------------------	------

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: LCS-011210  
LAB CONTROL

Lab Sample ID: LCS-011210  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 14:50  
Instrument/Analyst: ECD1/AAR

Sample Amount: 10.0 g  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	57.1	62.5	91.4%

**Chlorophenols Surrogate Recovery**

2,4,6-Tribromophenol 67.6%

Results reported in  $\mu\text{g}/\text{kg}$

4  
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QE56MBS1
----------

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

Lab Sample ID: QE56MBS1

Lab File ID: 0115A015

Matrix (soil/water) SOLID

Extraction: (SepF/Cont/Sonc) SW3550B

Sulfur Cleanup (Y/N) Y

Date Extracted: 01/12/10

Date Analyzed (1): 01/15/10

Date Analyzed (2): 01/15/10

Time Analyzed (1): 1430

Time Analyzed (2): 1430

Instrument ID (1): ECD1

Instrument ID (2): ECD1

GC Column (1): ZB5 ID: 0.53 (mm)

GC Column (2): ZB35 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
=====				
01	QE56LCSS1	QE56LCSS1	01/15/10	01/15/10
02	CB19010710SE	QE56B	01/15/10	01/15/10
03	CB12010710SE	QE56C	01/15/10	01/15/10
04	CB2010710SED	QE56D	01/15/10	01/15/10
05	CB19010710SE	QE56B	01/15/10	01/15/10
06	CB19010710SE	QE56BMS	01/15/10	01/15/10
07	CB19010710SE	QE56BMSD	01/15/10	01/15/10
08	CB12010710SE	QE56C	01/15/10	01/15/10
09	CB2010710SED	QE56D	01/15/10	01/15/10

**ORGANICS ANALYSIS DATA SHEET**  
**PCP by GC/ECD Method SW8041**  
 Page 1 of 1

**Sample ID: MB-011210**  
**METHOD BLANK**

Lab Sample ID: MB-011210  
 LIMS ID: 10-433  
 Matrix: Sediment  
 Data Release Authorized: *AB*  
 Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
 Project: POS-LLA (Lora Lake Apts.)  
 POS-LLA  
 Date Sampled: NA  
 Date Received: NA

Date Extracted: 01/12/10  
 Date Analyzed: 01/15/10 14:30  
 Instrument/Analyst: ECD1/AAR

Sample Amount: 10.0 g  
 Final Extract Volume: 25 mL  
 Dilution Factor: 1.00  
 Percent Moisture: NA

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.2	< 6.2 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	47.2%
----------------------	-------

# TPHD ANALYSIS

**ORGANICS ANALYSIS DATA SHEET**

**TOTAL DIESEL RANGE HYDROCARBONS**

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Matrix: Sediment

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Data Release Authorized: *VTS*

Reported: 01/15/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-011110 10-433	Method Blank HC ID: ---	01/11/10	01/12/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 92.4%
QE56B 10-433	CB19010710Sed HC ID: <b>DRO/MOTOR OIL</b>	01/11/10	01/12/10 FID9	1.00 10	<b>Diesel</b> <b>Motor Oil</b> o-Terphenyl	<b>210</b> <b>420</b>	<b>4200</b> <b>18000</b> 78.9%
QE56C 10-434	CB12010710Sed HC ID: <b>DRO/MOTOR OIL</b>	01/11/10	01/12/10 FID9	1.00 10	<b>Diesel</b> <b>Motor Oil</b> o-Terphenyl	<b>200</b> <b>390</b>	<b>1300</b> <b>6600</b> 76.2%
MB-011210 10-435	Method Blank HC ID: ---	01/12/10	01/13/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 86.5%
QE56D 10-435	CB2010710Sed HC ID: <b>DRO/MOTOR OIL</b>	01/12/10	01/13/10 FID9	1.00 10	<b>Diesel</b> <b>Motor Oil</b> o-Terphenyl	<b>150</b> <b>310</b>	<b>1200</b> <b>6100</b> 62.4%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.

DL-Dilution of extract prior to analysis.

RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.

Motor Oil quantitation on total peaks in the range from C24 to C38.

HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

**CLEANED TPHD SURROGATE RECOVERY SUMMARY**

Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-011110	92.4%	0
LCS-011110	93.1%	0
CB19010710Sed	78.9%	0
CB12010710Sed	76.2%	0
MB-011210	86.5%	0
LCS-011210	92.0%	0
CB2010710Sed	62.4%	0
CB2010710Sed MS	68.0%	0
CB2010710Sed MSD	60.0%	0

**LCS/MB LIMITS**

**QC LIMITS**

(OTER) = o-Terphenyl

(63-115)

(49-120)

Prep Method: SW3546  
Log Number Range: 10-433 to 10-435

**ORGANICS ANALYSIS DATA SHEET**  
**NWTPHD by GC/FID-Silica and Acid Cleaned**  
 Page 1 of 1

**Sample ID: CB2010710Sed  
 MS/MSD**

Lab Sample ID: QE56D  
 LIMS ID: 10-435  
 Matrix: Sediment  
 Data Release Authorized: **VTS**  
 Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
 Project: POS-LLA (Lora Lake Apts.)  
 POS-LLA  
 Date Sampled: 01/07/10  
 Date Received: 01/07/10

Date Extracted MS/MSD: 01/12/10  
 Date Analyzed MS: 01/13/10 15:00  
 MSD: 01/13/10 15:19  
 Instrument/Analyst MS: FID/MS  
 MSD: FID/MS

Sample Amount MS: 3.38 g-dry-wt  
 MSD: 3.36 g-dry-wt  
 Final Extract Volume MS: 1.0 mL  
 MSD: 1.0 mL  
 Dilution Factor MS: 10.0  
 MSD: 10.0  
 Percent Moisture: 67.7%

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	1240	1510	444	60.8%	1410	446	38.1%	6.8%

**TPHD Surrogate Recovery**

	MS	MSD
o-Terphenyl	68.0%	60.0%

Results reported in mg/kg  
 RPD calculated using sample concentrations per SW846.



**ORGANICS ANALYSIS DATA SHEET**  
**NWTPHD by GC/FID-Silica and Acid Cleaned**  
 Page 1 of 1

**Sample ID: LCS-011110**  
**LAB CONTROL**

Lab Sample ID: LCS-011110  
 LIMS ID: 10-433  
 Matrix: Sediment  
 Data Release Authorized: *VTS*  
 Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
 Project: POS-LLA (Lora Lake Apts.)  
 POS-LLA  
 Date Sampled: 01/07/10  
 Date Received: 01/07/10

Date Extracted: 01/11/10  
 Date Analyzed: 01/12/10 14:53  
 Instrument/Analyst: FID/MS

Sample Amount: 10.0 g  
 Final Extract Volume: 1.0 mL  
 Dilution Factor: 1.0

Range	Lab Control	Spike Added	Recovery
Diesel	138	150	92.0%

**TPHD Surrogate Recovery**

o-Terphenyl	93.1%
-------------	-------

Results reported in mg/kg

**ORGANICS ANALYSIS DATA SHEET**  
**NWTPHD by GC/FID-Silica and Acid Cleaned**  
 Page 1 of 1

Sample ID: LCS-011210  
**LAB CONTROL**

Lab Sample ID: LCS-011210  
 LIMS ID: 10-435  
 Matrix: Sediment  
 Data Release Authorized: *VRS*  
 Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
 Project: POS-LLA (Lora Lake Apts.)  
 POS-LLA  
 Date Sampled: 01/07/10  
 Date Received: 01/07/10

Date Extracted: 01/12/10  
 Date Analyzed: 01/13/10 15:39  
 Instrument/Analyst: FID/MS

Sample Amount: 10.0 g  
 Final Extract Volume: 1.0 mL  
 Dilution Factor: 1.0

Range	Lab Control	Spike Added	Recovery
Diesel	131	150	87.3%

**TPHD Surrogate Recovery**

o-Terphenyl	92.0%
-------------	-------

Results reported in mg/kg

4  
TPH METHOD BLANK SUMMARY

BLANK NO.

QE56MBS1
----------

Lab Name: ANALYTICAL RESOURCES, INC	Client: FLOYD-SNIDER
SDG No.: QE56	Project No.: POS-LLA
Date Extracted: 01/11/10	Matrix: SOLID
Date Analyzed : 01/12/10	Instrument ID : FID9
Time Analyzed : 1513	

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	CB19010710SE	QE56B	01/12/10
02	CB12010710SE	QE56C	01/12/10
03	QE56LCSS1	QE56LCSS1	01/12/10

4  
TPH METHOD BLANK SUMMARY

BLANK NO.

QE56MBS1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

SDG No.: QE56

Project No.: POS-LLA

Date Extracted: 01/11/10

Matrix: SOLID

Date Analyzed : 01/13/10

Instrument ID : FID9

Time Analyzed : 1559

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
	=====	=====	=====
01	QE56LCSS1	QE56LCSS1	01/13/10
02	CB2010710SED	QE56D	01/13/10
03	CB2010710SED	QE56DMS	01/13/10
04	CB2010710SED	QE56DMSD	01/13/10

# METALS ANALYSIS

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: CB19010710Sed  
SAMPLE

Lab Sample ID: QE56B


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-433

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: 01/07/10

Reported: 01/19/10

Date Received: 01/07/10

Percent Total Solids: 20.9%


Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	20	20	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	9	243	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**  
**TOTAL METALS**  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	20 U	810	916	88.4%	
Lead	6010B	243	1,030	916	85.9%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: CB19010710Sed  
DUPLICATE

Lab Sample ID: QE56B

LIMS ID: 10-433

Matrix: Sediment

Data Release Authorized: 

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	20 U	20 U	0.0%	+/- 20	L
Lead	6010B	243	222	9.0%	+/- 20%	

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: CB12010710Sed  
SAMPLE

Lab Sample ID: QE56C

LIMS ID: 10-434

Matrix: Sediment

Data Release Authorized 

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Percent Total Solids: 19.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	20	20	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	10	270	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1


Sample ID: CB2010710Sed

**SAMPLE**

Lab Sample ID: QE56D

LIMS ID: 10-435

Matrix: Sediment

Data Release Authorized: 

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Percent Total Solids: 20.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	20	20	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	9	322	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QE56LCS

LIMS ID: 10-434

Matrix: Sediment

Data Release Authorized: 

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	203	200	102%	
Lead	6010B	203	200	102%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: QE56MB

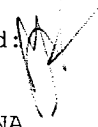
QC Report No: QE56-Floyd-Snider

LIMS ID: 10-434

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 01/19/10

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	5	5	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	2	2	U

U-Analyte undetected at given RL

RL-Reporting Limit

# GENERAL CHEMISTRY ANALYSIS

SAMPLE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized  
Reported: 01/15/10

A handwritten signature in black ink, appearing to be 'Floyd Snider', written over the 'Data Release Authorized' text.

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Client ID: CB19010710Sed  
ARI ID: 10-433 QE56B

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/11/10 011110#1	EPA 160.3	Percent	0.01	23.50
Total Organic Carbon	01/13/10 011310#1	Plumb,1981	Percent	0.192	40.7

RL Analytical reporting limit  
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Client ID: CB12010710Sed  
ARI ID: 10-434 QE56C

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/11/10 011110#1	EPA 160.3	Percent	0.01	20.60
Total Organic Carbon	01/13/10 011310#1	Plumb, 1981	Percent	0.190	44.6

RL Analytical reporting limit  
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized:  
Reported: 01/15/10

A handwritten signature in black ink, appearing to be 'Floyd Snider', written over the 'Data Release Authorized' text.

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Client ID: CB2010710Sed  
ARI ID: 10-435 QE56D


Analyte	Date	Method	Units	RL	Sample
Total Solids	01/11/10 011110#1	EPA 160.3	Percent	0.01	27.30
Total Organic Carbon	01/13/10 011310#1	Plumb, 1981	Percent	0.186	28.3

RL Analytical reporting limit  
U Undetected at reported detection limit



LAB CONTROL RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb, 1981	ICVL	01/13/10	Percent	0.099	0.100	99.0%

METHOD BLANK RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized  
Reported: 01/15/10


A handwritten signature in black ink, appearing to be 'F. Snider', written over the 'Data Release Authorized' line.

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	01/11/10	Percent	< 0.01 U
Total Organic Carbon	01/13/10	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS  
QE56-Floyd-Snyder




Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST #8704	01/13/10	Percent	3.50	3.35	104.5%

REPLICATE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider




Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Analyte	Date	Units	Sample	Replicate (s)	RPD/RSD
ARI ID: QE56B Client ID: CB19010710Sed					
Total Solids	01/11/10	Percent	23.50	19.90 20.20	9.4%
Total Organic Carbon	01/13/10	Percent	40.7	41.7 31.2	15.3%

MS/MSD RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: QE56B Client ID: CB19010710Sed						
Total Organic Carbon	01/13/10	Percent	40.7	74.1	40.3	82.8%

# SUBCONTRACTED ANALYSIS

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: 5913

Received on: 01/13/2010

Project Due: 02/04/2010 Storage: R1

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5913-001-SA	0	QE56	CB19010710SED	EPA 1613 D/F	Sediment	01/07/2010	11:50 am	01/07/2011
5913-002-SA	0	QE56	CB12010710SED	EPA 1613 D/F	Sediment	01/07/2010	01:30 pm	01/07/2011
5913-003-SA	0	QE56	CB2010710SED	EPA 1613 D/F	Sediment	01/07/2010	02:30 pm	01/07/2011

EPA Method 1613  
PCDD/F



FAL ID: 5913-001-MB  
Client ID: Method Blank  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: NA  
Amount: 5.00 g

ICal: pccdfal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.155	-	-	0.0252				
1,2,3,7,8-PeCDD	ND	0.218	-	-	0.0457				
1,2,3,4,7,8-HxCDD	ND	0.274	-	-	0.0496				
1,2,3,6,7,8-HxCDD	ND	0.320	-	-	0.0680	Total TCDD	ND	0.256	
1,2,3,7,8,9-HxCDD	ND	0.294	-	-	0.0666	Total PeCDD	ND	0.218	
1,2,3,4,6,7,8-HpCDD	ND	0.386	-	-	0.0927	Total HxCDD	ND	0.320	
OCDD	ND	1.27	-	-	0.272	Total HpCDD	ND	0.386	
2,3,7,8-TCDF	ND	0.109	-	-	0.0252				
1,2,3,7,8-PeCDF	ND	0.184	-	-	0.0365				
2,3,4,7,8-PeCDF	ND	0.210	-	-	0.0486				
1,2,3,4,7,8-HxCDF	ND	0.174	-	-	0.0267				
1,2,3,6,7,8-HxCDF	ND	0.179	-	-	0.0289				
2,3,4,6,7,8-HxCDF	ND	0.190	-	-	0.0298				
1,2,3,7,8,9-HxCDF	ND	0.221	-	-	0.0493	Total TCDF	ND	0.109	
1,2,3,4,6,7,8-HpCDF	ND	0.214	-	-	0.0404	Total PeCDF	ND	0.210	
1,2,3,4,7,8,9-HpCDF	ND	0.238	-	-	0.0469	Total HxCDF	ND	0.221	
OCDF	ND	0.507	-	-	0.177	Total HpCDF	ND	0.238	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	86.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	65.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	87.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	86.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	79.6	23.0 - 140	
13C-OCDD	68.7	17.0 - 157	
13C-2,3,7,8-TCDF	84.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	71.3	24.0 - 185	
13C-2,3,4,7,8-PeCDF	65.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	89.2	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	88.2	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	85.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	82.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	77.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	82.2	26.0 - 138	
13C-OCDF	68.6	17.0 - 157	

- 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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	90.5	35.0 - 197
-------------------	------	------------

Analyst: [Signature]  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/25/10



EPA Method 1613  
PCDD/F



FAL ID: 5913-001-OPR  
Client ID: OPR  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: NA  
Amount: 5.00 g

ICal: pccdfal3-11-18-09  
GC Column: DB5  
Units: ng/ml

Acquired: 01-22-2010  
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.83	6.70 - 15.8	
1,2,3,7,8-PeCDD	50.2	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.0	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	49.1	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	48.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	52.6	35.0 - 70.0	
OCDD	102	78.0 - 144	
2,3,7,8-TCDF	9.82	7.50 - 15.8	
1,2,3,7,8-PeCDF	49.7	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.5	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	49.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50.3	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	49.9	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	49.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.1	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	51.2	39.0 - 69.0	
OCDF	96.4	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.4	20.0 - 175	
13C-1,2,3,7,8-PeCDD	70.8	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	91.2	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	87.9	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	79.7	26.0 - 166	
13C-OCDD	67.5	13.0 - 198	
13C-2,3,7,8-TCDF	89.3	22.0 - 152	
13C-1,2,3,7,8-PeCDF	76.6	21.0 - 192	
13C-2,3,4,7,8-PeCDF	71.8	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	91.2	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	87.3	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	86.1	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	85.8	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	76.9	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	84.4	20.0 - 186	
13C-OCDF	68.4	13.0 - 198	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	96.1	31.0 - 191	
-------------------	------	------------	--

Analyst: 6  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/25/10

- |    |   |
|----|---|
| 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  |
| S  | Sample acceptance criteria not met  |
| X  | Matrix interferences  |
| *  | Result taken from dilution or reinjection                                     |

EPA Method 1613  
PCDD/F



FAL ID: 5913-001-SA  
Client ID: CB19010710SED  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: 01-13-2010  
Amount: 2.04 g  
% Solids: 18.78

ICal: pcddfal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 89.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	4.56	-	-	4.56	0.0252				
1,2,3,7,8-PeCDD	19.1	-	-	19.1	0.0457				
1,2,3,4,7,8-HxCDD	29.6	-	-	2.96	0.0496				
1,2,3,6,7,8-HxCDD	79.8	-	-	7.98	0.0680	Total TCDD	77.8	-	-
1,2,3,7,8,9-HxCDD	69.8	-	-	6.98	0.0666	Total PeCDD	192	-	-
1,2,3,4,6,7,8-HpCDD	2370	-	-	23.7	0.0927	Total HxCDD	754	-	-
OCDD	23300	-	-	6.99	0.272	Total HpCDD	4680	-	-
2,3,7,8-TCDF	5.83	-	F	0.583	0.0252				
1,2,3,7,8-PeCDF	6.06	-	J	0.182	0.0365				
2,3,4,7,8-PeCDF	10.7	-	J	3.21	0.0486				
1,2,3,4,7,8-HxCDF	28.9	-	-	2.89	0.0267				
1,2,3,6,7,8-HxCDF	19.2	-	-	1.92	0.0289				
2,3,4,6,7,8-HxCDF	25.3	-	-	2.53	0.0298				
1,2,3,7,8,9-HxCDF	4.65	-	J	0.465	0.0493	Total TCDF	141	-	-
1,2,3,4,6,7,8-HpCDF	481	-	-	4.81	0.0404	Total PeCDF	198	-	-
1,2,3,4,7,8,9-HpCDF	22.3	-	-	0.223	0.0469	Total HxCDF	513	-	D,M
OCDF	1340	-	-	0.402	0.177	Total HpCDF	1360	-	-

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	85.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	88.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	81.5	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	77.1	23.0 - 140	
13C-OCDD	62.5	17.0 - 157	
13C-2,3,7,8-TCDF	89.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	76.7	24.0 - 185	
13C-2,3,4,7,8-PeCDF	73.6	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	80.2	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	74.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	78.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	80.7	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	68.6	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	74.2	26.0 - 138	
13C-OCDF	54.5	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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst: [Signature]  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/26/10

EPA Method 1613  
PCDD/F



FAL ID: 5913-002-SA  
Client ID: CB12010710SED  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: 01-13-2010  
Amount: 2.03 g  
% Solids: 13.82

ICal: pcdffal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 143

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	6.33	-	-	6.33	0.0252				
1,2,3,7,8-PeCDD	27.3	-	-	27.3	0.0457				
1,2,3,4,7,8-HxCDD	34.9	-	-	3.49	0.0496				
1,2,3,6,7,8-HxCDD	130	-	-	13.0	0.0680	Total TCDD	92.6	-	-
1,2,3,7,8,9-HxCDD	95.8	-	-	9.58	0.0666	Total PeCDD	241	-	-
1,2,3,4,6,7,8-HpCDD	4510	-	-	45.1	0.0927	Total HxCDD	1180	-	-
OCDD	46200	-	-	13.9	0.272	Total HpCDD	9220	-	-
2,3,7,8-TCDF	5.13	-	F	0.513	0.0252				
1,2,3,7,8-PeCDF	5.09	-	J	0.153	0.0365				
2,3,4,7,8-PeCDF	10.1	-	J	3.03	0.0486				
1,2,3,4,7,8-HxCDF	29.4	-	-	2.94	0.0267				
1,2,3,6,7,8-HxCDF	22.4	-	-	2.24	0.0289				
2,3,4,6,7,8-HxCDF	30.2	-	-	3.02	0.0298				
1,2,3,7,8,9-HxCDF	4.79	-	J	0.479	0.0493	Total TCDF	136	-	D,M
1,2,3,4,6,7,8-HpCDF	1060	-	-	10.6	0.0404	Total PeCDF	223	-	-
1,2,3,4,7,8,9-HpCDF	31.8	-	-	0.318	0.0469	Total HxCDF	785	-	D,M
OCDF	3750	-	-	1.12	0.177	Total HpCDF	3220	-	-

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	79.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	69.5	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	81.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	75.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	76.9	23.0 - 140	
13C-OCDD	69.8	17.0 - 157	
13C-2,3,7,8-TCDF	83.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	72.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	73.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	74.8	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	69.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	72.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	76.1	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	66.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	72.3	26.0 - 138	
13C-OCDF	59.8	17.0 - 157	

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  
 S Sample acceptance criteria not met  
 X Matrix interferences  
 \* Result taken from dilution or reinjection

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 86.3 35.0 - 197

Analyst: [Signature]  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/26/10

EPA Method 1613  
PCDD/F



FAL ID: 5913-003-SA  
Client ID: CB2010710SED  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: 01-13-2010  
Amount: 2.53 g  
% Solids: 21.35

ICal: pcdffal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 44.9

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	2.84	-		2.84	0.0252				
1,2,3,7,8-PeCDD	10.6	-		10.6	0.0457				
1,2,3,4,7,8-HxCDD	14.8	-		1.48	0.0496				
1,2,3,6,7,8-HxCDD	37.6	-		3.76	0.0680	Total TCDD	36.8		-
1,2,3,7,8,9-HxCDD	37.3	-		3.73	0.0666	Total PeCDD	89.0		-
1,2,3,4,6,7,8-HpCDD	1110	-		11.1	0.0927	Total HxCDD	366		-
OCDD	13300	-		3.99	0.272	Total HpCDD	2160		-
2,3,7,8-TCDF	2.34	-		0.234	0.0252				
1,2,3,7,8-PeCDF	2.38	-	J	0.0714	0.0365				
2,3,4,7,8-PeCDF	3.44	-	J	1.03	0.0486				
1,2,3,4,7,8-HxCDF	14.9	-		1.49	0.0267				
1,2,3,6,7,8-HxCDF	8.67	-	J	0.867	0.0289				
2,3,4,6,7,8-HxCDF	10.7	-		1.07	0.0298				
1,2,3,7,8,9-HxCDF	2.27	-	J	0.227	0.0493	Total TCDF	57.1		-
1,2,3,4,6,7,8-HpCDF	209	-		2.09	0.0404	Total PeCDF	77.1		-
1,2,3,4,7,8,9-HpCDF	10.6	-		0.106	0.0469	Total HxCDF	228		-
OCDF	569	-		0.171	0.177	Total HpCDF	594		-

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	80.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	69.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	72.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	70.7	23.0 - 140	
13C-OCDD	57.0	17.0 - 157	
13C-2,3,7,8-TCDF	81.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	72.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	71.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	71.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	66.2	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	68.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	72.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	62.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	66.9	26.0 - 138	
13C-OCDF	50.3	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 76.3 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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst: [Signature]  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/25/10

# TOTAL SOLIDS

Volatiles Total Solids-voats  
Data By: Pat Basilio  
Created: 1/14/10

Worklist: 9361  
Analyst: PAB  
Comments:

ARI ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids
1. QE56B 10-433	_____	_____	_____	\$ 23.70
2. QE56C 10-434	_____	_____	_____	\$ 24.80
3. QE56D 10-435	_____	_____	_____	\$ 32.30

Worklist ID: 9361 Page: 1  
\* - VOA TS Copied From BETX TS  
% - VOA TS Copied From Metals TS  
\$ - VOA TS Copied From Extraction TS

QE56 : 00000

Extractions Total Solids-exttts  
Data By: Woo suk Chang  
Created: 1/11/10

Worklist: 8562  
Analyst: RVR  
Comments:

Oven ID: \_\_\_\_\_

Balance ID: \_\_\_\_\_

Samples In:            Date: \_\_\_\_\_ Time: \_\_\_\_\_ Temp: \_\_\_\_\_ Analyst: \_\_\_\_\_

Samples Out:          Date: \_\_\_\_\_ Time: \_\_\_\_\_ Temp: \_\_\_\_\_ Analyst: \_\_\_\_\_

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	QE56B 10-433 CB19010710Sed	1.13	7.68	2.68	23.7	NR
2.	QE56C 10-434 CB12010710Sed	1.15	8.24	2.91	24.8	NR
3.	QE56D 10-435 CB2010710Sed	1.15	6.97	3.03	32.3	NR

Extractions Total Solids-exttts  
Data By: Woo suk Chang  
Created: 1/11/10

Worklist: 8562  
Analyst: WC  
Comments:

Oven ID: 06

Balance ID: MX612

Samples In: Date: 1/11/10 Time: 18:20 Temp: 98°C Analyst: WC

Samples Out: Date: 1/12/10 Time: 6:00 Temp: 10 Analyst: RR

ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1. QE56B 10-433 CB19010710Sed	<u>1.13g</u>	<u>7.68g</u>	<u>2.68</u>		NR
2. QE56C 10-434 CB12010710Sed	<u>1.15g</u>	<u>8.24g</u>	<u>2.91</u>		NR
3. QE56D 10-435 CB2010710Sed	<u>1.15g</u>	<u>6.97g</u>	<u>3.03</u>		NR



Solids Data Entry Report  
Date: 01/13/10

Checked by: MH Date: 1/14/10  
Data Analyst: DM

Solids Determination performed on 01/12/10 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
QE56	B	CB19010710Sed	0.985	10.642	3.001	20.88
QE56	C	CB12010710Sed	0.966	10.234	2.796	19.75
QE56	D	CB2010710Sed	1.004	10.658	2.996	20.63



# Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07

Balance ID: 068755

Samples in Oven: Date: 1-12-10 Time: 2215 Temp: 103°C Analyst: DM

Removed from Oven: Date: 1-13-10 Time: 2130 Temp: 102°C Analyst: DM

Source of Total Solids Data If From A Different Lab: —

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs <sup>1</sup>
QE75 A	0.974	3.035	1.392	—	✓
QF10 A	0.966	10.131	8.198	—	✓
" B	0.967	10.572	8.504	—	✓
QES6 B	0.985	10.642	3.001	—	✓
" C	0.966	10.234	2.796	—	✓
" D	1.004	10.658	2.996	—	✓
QE94 B	1.016	10.459	9.619	—	✓
QE92 A	0.989	10.365	8.659	—	✓
" C	0.982	10.392	8.845	—	✓
" E	0.961	10.914	9.639	—	✓
" G	0.957	10.181	9.107	—	✓
" I	0.981	10.522	9.520	—	✓
" K	1.002	10.201	9.313	—	✓
" P	0.997	10.438	9.877	—	✓
" R	0.975	10.451	9.773	—	✓
1-12-10 DM					
<del> </del>					
<del> </del>					
<del> </del>					
<del> </del>					
<del> </del>					
<del> </del>					
<del> </del>					
<del> </del>					

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2<sup>nd</sup> bench sheet for additional weightings.

Laboratory Data Package

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

Volatile Analysis  
QC Summary Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-011110	Method Blank	Low	111%	101%	98.1%	101%	0
LCS-011110	Lab Control	Low	98.8%	99.4%	104%	102%	0
LCSD-011110	Lab Control Dup	Low	102%	104%	102%	99.5%	0
QE56B	CB19010710Sed	Low	131%	103%	97.6%	95.3%	0
QE56BMS	CB19010710Sed	Low	115%	102%	96.0%	93.9%	0
QE56BMSD	CB19010710Sed	Low	108%	102%	92.7%	93.5%	0
QE56C	CB12010710Sed	Low	125%	101%	102%	95.9%	0
QE56D	CB2010710Sed	Low	126%	100%	97.7%	92.3%	0

SW8260C	LCS/MB LIMITS		QC LIMITS	
	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	79-121	76-120	75-152	69-120
(TOL) = d8-Toluene	80-120	80-120	82-115	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	64-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 10-433 to 10-435

**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
QE56E	Trip Blank	5	116%	104%	99.0%	99.1%	0

**LCS/MB LIMITS**

**QC LIMITS**

**SW8260C**

(DCE) = d4-1,2-Dichloroethane  
(TOL) = d8-Toluene  
(BFB) = Bromofluorobenzene  
(DCB) = d4-1,2-Dichlorobenzene

83-122  
80-120  
80-120  
80-120


80-125  
80-120  
80-120  
80-120

Prep Method: SW5030B  
Log Number Range: 10-436 to 10-436

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

QC Report No: QE56-Floyd-Snyder  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst MS: FINN5/PAB  
MSD: FINN5/PAB  
Date Analyzed MS: 01/11/10 20:28  
MSD: 01/11/10 20:55

Sample Amount MS: 1.20 g-dry-wt  
MSD: 1.24 g-dry-wt  
Purge Volume MS: 5.0 mL  
MSD: 5.0 mL  
Moisture: 76.3%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
trans-1,2-Dichloroethene	< 5.0 U	82.7	208	39.8%	82.5	202	40.8%	0.2%
cis-1,2-Dichloroethene	< 5.0 U	88.6	208	42.6%	90.6	202	44.9%	2.2%
1,2-Dichloroethane	< 5.0 U	104	208	50.0%	102	202	50.5%	1.9%
Trichloroethene	< 5.0 U	43.6	208	21.0%	43.8	202	21.7%	0.5%
Tetrachloroethene	< 5.0 U	20.8	208	10.0%	21.0	202	10.4%	1.0%


Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LCS-011110  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-011110  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst LCS: FINN5/PAB  
LCSD: FINN5/PAB  
Date Analyzed LCS: 01/11/10 10:34  
LCSD: 01/11/10 12:53

Sample Amount LCS: 5.00 g-dry-wt  
LCSD: 5.00 g-dry-wt  
Purge Volume LCS: 5.0 mL  
LCSD: 5.0 mL  
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
trans-1,2-Dichloroethene	47.6	50.0	95.2%	47.6	50.0	95.2%	0.0%
cis-1,2-Dichloroethene	48.1	50.0	96.2%	49.4	50.0	98.8%	2.7%
1,2-Dichloroethane	49.0	50.0	98.0%	48.4	50.0	96.8%	1.2%
Trichloroethene	47.4	50.0	94.8%	49.5	50.0	99.0%	4.3%
Tetrachloroethene	46.6	50.0	93.2%	49.6	50.0	99.2%	6.2%

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	98.8%	102%
d8-Toluene	99.4%	104%
Bromofluorobenzene	104%	102%
d4-1,2-Dichlorobenzene	102%	99.5%



4A  
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0111

Lab Name: ANALYTICAL RESOURCES, INC  
ARI Job No: QE56  
Lab File ID: MB0111  
Date Analyzed: 01/11/10  
Instrument ID: FINN5

Client: FLOYD-SNIDER  
Project: LORA LAKE  
Lab Sample ID: MB0111  
Time Analyzed: 1136  
Heated Purge: (Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LCS0111	LCS0111	LCS0111	1034
02	LCS0111	LCS0111	LCS0111B	1253
03	CB19010710SE	QE56B	QE56B	1840
04	CB12010710SE	QE56C	QE56C	1907
05	CB2010710SED	QE56D	QE56D	1934
06	TRIP BLANK	QE56E	QE56E	2001
07	CB19010710SE	QE56BMS	QE56BMS	2028
08	CB19010710SE	QE56BMSD	QE56BMSD	2055
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

---

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD-SNIDER

Lab Code: ARI Case No.: LORA LAKE SDG No.: QE56

Lab File ID: BFB0106 BFB Injection Date: 01/06/10

Instrument ID: FINN5 BFB Injection Time: 0928

GC Column: RTX502.2 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	27.7
75	30.0 - 66.0% of mass 95	52.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.2 ( 0.3)1
174	50.0 - 101.0% of mass 95	83.6
175	4.0 - 9.0% of mass 174	6.1 ( 7.3)1
176	93.0 - 101.0% of mass 174	81.6 ( 97.6)1
177	5.0 - 9.0% of mass 176	5.9 ( 7.2)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD5	IC0106	0050106	01/06/10	1134
02	VSTD10	IC0106	0100106	01/06/10	1201
03	VSTD50	IC0106	0500106	01/06/10	1228
04	VSTD100	IC0106	1000106	01/06/10	1254
05	VSTD150	IC0106	1500106	01/06/10	1321
06	VSTD200	IC0106	2000106	01/06/10	1353
07	VSTD1	IC0106	0010106	01/06/10	1456
08	VSTD2	IC0106	0020106	01/06/10	1531
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD-SNIDER

Lab Code: ARI Case No.: LORA LAKE SDG No.: QE56

Lab File ID: BFB0111 BFB Injection Date: 01/11/10

Instrument ID: FINN5 BFB Injection Time: 0906

GC Column: RTX502.2 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	30.0
75	30.0 - 66.0% of mass 95	54.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 101.0% of mass 95	75.9
175	4.0 - 9.0% of mass 174	5.1 ( 6.7)1
176	93.0 - 101.0% of mass 174	73.2 ( 96.4)1
177	5.0 - 9.0% of mass 176	4.9 ( 6.7)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	CC0111	0500111	01/11/10	0939
02	LCS0111	LCS0111	LCS0111	01/11/10	1034
03	MB0111	MB0111	MB0111	01/11/10	1136
04	LCS0111	LCS0111	LCS0111B	01/11/10	1253
05	CB19010710SED	QE56B	QE56B	01/11/10	1840
06	CB12010710SED	QE56C	QE56C	01/11/10	1907
07	CB2010710SED	QE56D	QE56D	01/11/10	1934
08	TRIP BLANK	QE56E	QE56E	01/11/10	2001
09	CB19010710SED MS	QE56BMS	QE56BMS	01/11/10	2028
10	CB19010710SED MS	QE56BMSD	QE56BMSD	01/11/10	2055
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Ical Midpoint ID: 0500106

Ical Date: 01/06/10

Instrument ID: FINN5

Project Run Date: 01/11/10

	IS1 (PFB) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CLB) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	113395	6.61	160565	7.62	148719	10.76
UPPER LIMIT	226790	7.11	321130	8.12	297438	11.26
LOWER LIMIT	56698	6.11	80282	7.12	74360	10.26
=====	=====	=====	=====	=====	=====	=====
Sample ID						
=====	=====	=====	=====	=====	=====	=====
01 LCS0111	99259	6.62	140322	7.63	126617	10.78
02 MB0111	95829	6.64	135154	7.65	125445	10.80
03 LCS0111	103083	6.63	149256	7.64	133526	10.78
04 CB19010710SE	83219	6.63	125713	7.64	114998	10.79
05 CB12010710SE	93088	6.63	139103	7.64	130718	10.78
06 CB2010710SED	93829	6.63	139684	7.64	124500	10.78
07 TRIP BLANK	88416	6.64	130783	7.65	124055	10.79
08 CB19010710SE	95068	6.64	142944	7.65	128296	10.79
09 CB19010710SE	103003	6.64	147634	7.65	129203	10.79
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (PFB) = Pentafluorobenzene  
 IS2 (DFB) = 1,4-Difluorobenzene  
 IS3 (CLB) = d5-Chlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint  
 AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

\* Values outside of QC limits.

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Ical Midpoint ID: 0500106

Ical Date: 01/06/10

Instrument ID: FINN5

Project Run Date: 01/11/10

	IS4 (DCB)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	84322	13.45				
UPPER LIMIT	168644	13.95				
LOWER LIMIT	42161	12.95				
=====	=====	=====	=====	=====	=====	=====
Sample ID						
=====	=====	=====	=====	=====	=====	=====
01 LCS0111	73383	13.46				
02 MB0111	67070	13.48				
03 LCS0111	73685	13.47				
04 CB19010710SE	51134	13.47				
05 CB12010710SE	67990	13.47				
06 CB2010710SED	50320	13.47				
07 TRIP BLANK	66679	13.48				
08 CB19010710SE	57322	13.48				
09 CB19010710SE	54525	13.48				
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (DCB) = d4-1,4-Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint  
 AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

\* Values outside of QC limits.

Volatile Analysis  
Sample Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by


Analytical Resources, Inc.

**QE56:00115**

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB19010710Sed  
SAMPLE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 18:40

Sample Amount: 0.995 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 76.3%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	5.0	< 5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	< 5.0	U
107-06-2	1,2-Dichloroethane	5.0	< 5.0	U
79-01-6	Trichloroethene	5.0	< 5.0	U
127-18-4	Tetrachloroethene	5.0	< 5.0	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	131%
d8-Toluene	103%
Bromofluorobenzene	97.6%
d4-1,2-Dichlorobenzene	95.3%

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/11JAN10.b/QE56B.d  
 Lab Smp Id: QE56B Client Smp ID: CB19010710Sed  
 Inj Date : 11-JAN-2010 18:40  
 Operator : PB Inst ID: finn5.i  
 Smp Info : QE56B,5,4.195,0  
 Misc Info : 10-433  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 15-Jan-2010 15:02 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

*Handwritten signature*

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	4.19500	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85						
2 Chloromethane	50						
3 Vinyl Chloride	62						
4 Bromomethane	94						
5 Chloroethane	64						
6 Trichlorofluoromethane	101						
7 Acrolein	56						
8 112Trichloro122Trifluoroethane	101						
9 Acetone	43	4.693	4.693	(0.708)	75981	198.470	236.56
10 1,1-Dichloroethene	96						
11 Bromoethane	108						
12 Iodomethane	142						
13 Methylene Chloride	84	5.296	5.286	(0.798)	1106	1.10258	1.314
14 Acrylonitrile	53						

*Handwritten annotations: checkmarks and 'mg' next to Acetone and Methylene Chloride rows.*



Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/Kg)	FINAL (ug/Kg)	
=====	=====	==	=====	=====	=====	=====	=====	
16 Methyl tert-Butyl Ether	73							
15 Carbon Disulfide	76	5.397	5.387	(0.814)	5150	1.90921	2.276	only
17 Trans-1,2-Dichloroethene	96							
18 Vinyl Acetate	43							
19 1,1-Dichloroethane	63							
20 2-Butanone	43	6.291	6.281	(0.948)	17269	35.4393	42.240	only
21 2,2-Dichloropropane	77							
22 Cis-1,2-Dichloroethene	96							
* 23 Pentafluorobenzene	168	6.633	6.633	(1.000)	83219	50.0000		
24 Chloroform	83							
26 Bromochloromethane	128							
\$ 25 Dibromofluoromethane	111	6.854	6.844	(1.033)	55325	57.6660	68.732	
27 1,1,1-Trichloroethane	97							
29 1,1-Dichloropropene	75							
30 Carbon Tetrachloride	117							
\$ 31 d4-1,2-Dichloroethane	65	7.316	7.306	(1.103)	83473	65.5001	78.069	
32 1,2-Dichloroethane	62							
33 Benzene	78							
* 34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	125713	50.0000		
35 Trichloroethene	95							
36 1,2-Dichloropropane	63							
37 Bromodichloromethane	83							
39 Dibromomethane	93							
40 2-Chloroethyl Vinyl Ether	63							
41 4-Methyl-2-Pentanone	58	8.663	8.653	(1.134)	1003	2.94717	3.513 (Q)	only
42 Cis 1,3-dichloropropene	75							
\$ 43 d8-Toluene	98	9.186	9.186	(1.203)	152797	51.2919	61.134	
44 Toluene	92	9.276	9.266	(1.214)	1989	0.85527	1.019	only
45 Trans 1,3-Dichloropropene	75							
46 2-Hexanone	43							
47 1,1,2-Trichloroethane	97							
48 1,3-Dichloropropane	76							
49 Tetrachloroethene	166							
50 Chlorodibromomethane	129							
51 1,2-Dibromoethane	107							
* 52 d5-Chlorobenzene	117	10.794	10.784	(1.000)	114998	50.0000		
53 Chlorobenzene	112							
54 Ethyl Benzene	91							
55 1,1,1,2-Tetrachloroethane	131							
56 m,p-xylene	106	10.944	10.944	(1.014)	1091	0.65742	0.7836	only
57 o-Xylene	106	11.437	11.437	(1.060)	1177	0.69393	0.8271	
58 Styrene	104							
59 Isopropyl Benzene	105	11.809	11.809	(0.877)	2317	0.68862	0.8208	
60 Bromoform	173							
61 1,1,2,2-Tetrachloroethane	83							
\$ 62 4-Bromofluorobenzene	95	12.110	12.110	(1.122)	63980	48.8141	58.181	
63 1,2,3-Trichloropropane	110							

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53							
66 N-Propyl Benzene	91							
67 Bromobenzene	156							
68 1,3,5-Trimethyl Benzene	105		12.442	12.442	(0.924)	2298	0.86370	1.029
69 2-Chloro Toluene	91							
70 4-Chloro Toluene	91							
71 T-Butyl Benzene	119							
72 1,2,4-Trimethylbenzene	105		12.894	12.894	(0.957)	6478	2.46282	2.935
73 S-Butyl Benzene	105							
74 4-Isopropyl Toluene	119		13.246	13.236	(0.984)	1824	0.68223	0.8131(Q)
75 1,3-Dichlorobenzene	146							
* 76 d4-1,4-Dichlorobenzene	152		13.467	13.467	(1.000)	51134	50.0000	
77 1,4-Dichlorobenzene	146							
78 N-Butyl Benzene	91							
\$ 79 d4-1,2-Dichlorobenzene	152		13.919	13.909	(1.034)	44658	47.6539	56.798
80 1,2-Dichlorobenzene	146							
81 1,2-Dibromo 3-Chloropropane	75							
82 1,2,4-Trichlorobenzene	180							
83 Hexachloro 1,3-Butadiene	225							
84 Naphthalene	128							
85 1,2,3-Trichlorobenzene	180							

*u lg*  
 ↓

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: QE56B.d  
 Lab Smp Id: QE56B  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-433

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: CB19010710Sed  
 Level: LOW  
 Sample Type: Sediment

Test Mode:  
 Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	83219	-26.61
34 1,4-Difluorobenze	160565	80282	321130	125713	-21.71
52 d5-Chlorobenzene	148719	74360	297438	114998	-22.67
76 d4-1,4-Dichlorobe	84322	42161	168644	51134	-39.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.63	0.00
34 1,4-Difluorobenze	7.64	7.14	8.14	7.64	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.79	0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

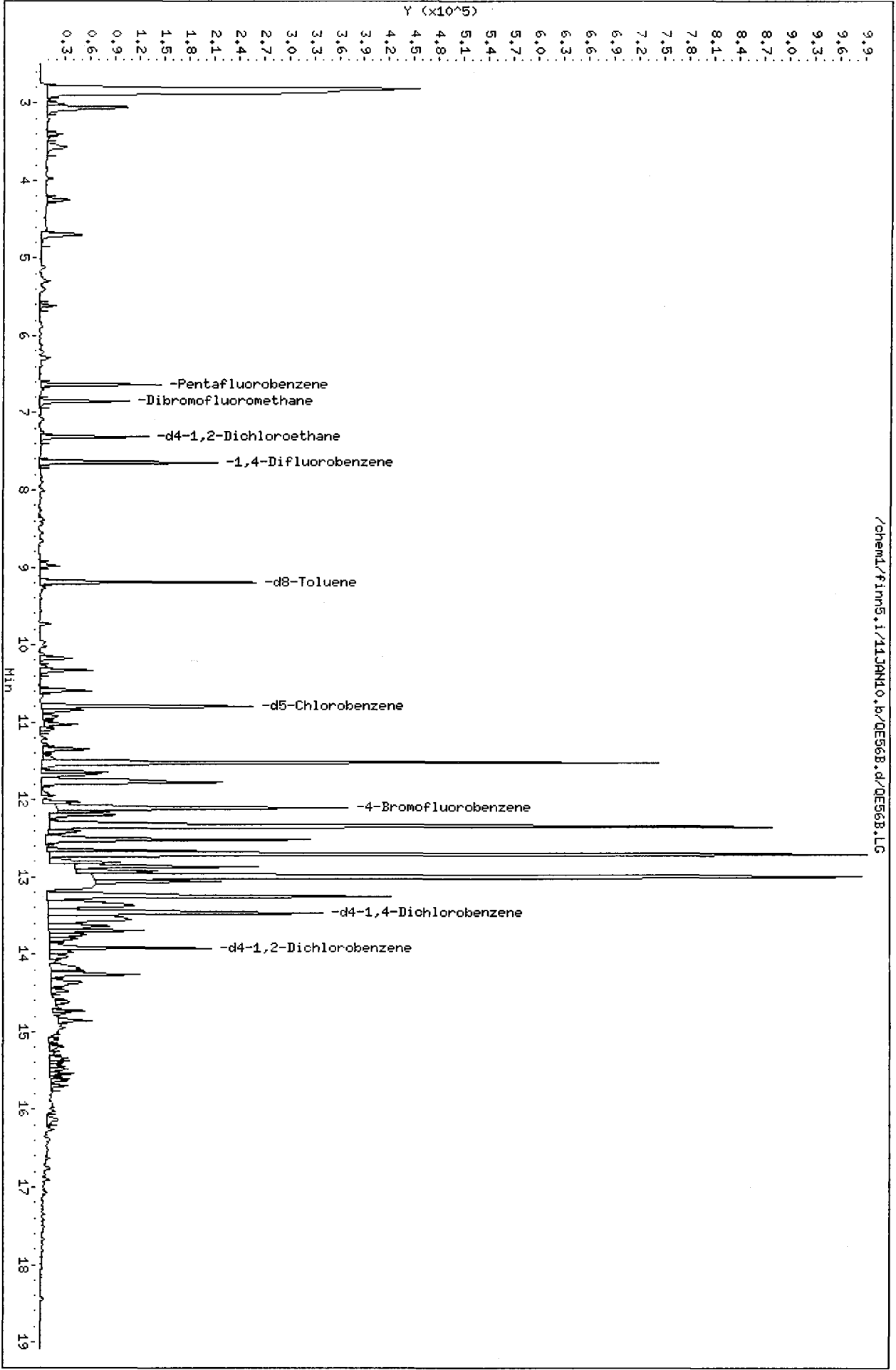
Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56B  
Level: LOW  
Data Type: MS DATA  
SpikeList File: all.spk  
Sublist File: voa.sub  
Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
Misc Info: 10-433

Client SDG: QE56  
Fraction: VOA  
Client Smp ID: CB19010710Sed  
Operator: PB  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	57.666	115.33	30-160
\$ 31 d4-1,2-Dichloroeth	50.000	65.500	131.00	75-152
\$ 43 d8-Toluene	50.000	51.292	102.58	82-115
\$ 62 4-Bromofluorobenze	50.000	48.814	97.63	64-120
\$ 79 d4-1,2-Dichloroben	50.000	47.654	95.31	80-120

Data File: /chem1/finns.i/11JAN10.b/QE56B.d  
Date : 11-JAN-2010 18:40  
Client ID: CB19010710Sed  
Sample Info: QE56B,5,4,195,0  
Column phase: Rtx502.2

Instrument: finns.i  
Operator: PB  
Column diameter: 0.18



**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB12010710Sed  
SAMPLE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 19:07

Sample Amount: 0.868 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 75.2%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	5.8	< 5.8	U
156-59-2	cis-1,2-Dichloroethene	5.8	< 5.8	U
107-06-2	1,2-Dichloroethane	5.8	< 5.8	U
79-01-6	Trichloroethene	5.8	< 5.8	U
127-18-4	Tetrachloroethene	5.8	< 5.8	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	125%
d8-Toluene	101%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	95.9%

Analytical Resources, Inc.

8260C  
 Data file : /chem1/finn5.i/11JAN10.b/QE56C.d  
 Lab Smp Id: QE56C Client Smp ID: CB12010710Sed  
 Inj Date : 11-JAN-2010 19:07  
 Operator : PB Inst ID: finn5.i  
 Smp Info : QE56C,5,3.505,0  
 Misc Info : 10-434  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 15-Jan-2010 15:02 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

*W/15th*

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	3.50500	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85							
2 Chloromethane	50							
3 Vinyl Chloride	62							
4 Bromomethane	94							
5 Chloroethane	64							
6 Trichlorofluoromethane	101							
7 Acrolein	56							
8 112Trichloro122Trifluoroethane	101							
9 Acetone	43		4.693	4.693	(0.708)	46671	108.985	155.47 <i>nlq</i>
10 1,1-Dichloroethene	96							
11 Bromoethane	108							
12 Iodomethane	142							
13 Methylene Chloride	84		5.286	5.286	(0.797)	955	0.85111	1.214 <i>nlq</i>
14 Acrylonitrile	53							

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/Kg)	FINAL (ug/Kg)	
16 Methyl tert-Butyl Ether	73							
15 Carbon Disulfide	76	5.397	5.387	(0.814)	5821	1.92918	2.752	nly
17 Trans-1,2-Dichloroethene	96							
18 Vinyl Acetate	43							
19 1,1-Dichloroethane	63							
20 2-Butanone	43	6.291	6.281	(0.948)	7763	14.2422	20.317	nly
21 2,2-Dichloropropane	77							
22 Cis-1,2-Dichloroethene	96							
* 23 Pentafluorobenzene	168	6.633	6.633	(1.000)	93088	50.0000		
24 Chloroform	83							
26 Bromochloromethane	128							
\$ 25 Dibromofluoromethane	111	6.854	6.844	(1.033)	59937	55.8498	79.672	
27 1,1,1-Trichloroethane	97							
29 1,1-Dichloropropene	75							
30 Carbon Tetrachloride	117							
\$ 31 d4-1,2-Dichloroethane	65	7.316	7.306	(1.103)	89251	62.6092	89.314	
32 1,2-Dichloroethane	62							
33 Benzene	78	7.447	7.447	(0.975)	1693	0.41839	0.5968	nly
* 34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	139103	50.0000		
35 Trichloroethene	95							
36 1,2-Dichloropropane	63							
37 Bromodichloromethane	83							
39 Dibromomethane	93							
40 2-Chloroethyl Vinyl Ether	63							
41 4-Methyl-2-Pentanone	58							
42 Cis 1,3-dichloropropene	75							
\$ 43 d8-Toluene	98	9.186	9.186	(1.203)	166740	50.5845	72.160	
44 Toluene	92	9.276	9.266	(1.214)	38113	14.8110	21.128	nly
45 Trans 1,3-Dichloropropene	75							
46 2-Hexanone	43							
47 1,1,2-Trichloroethane	97							
48 1,3-Dichloropropane	76							
49 Tetrachloroethene	166							
50 Chlorodibromomethane	129							
51 1,2-Dibromoethane	107							
* 52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	130718	50.0000		
53 Chlorobenzene	112							
54 Ethyl Benzene	91	10.864	10.864	(1.007)	6731	1.46454	2.089	nly
55 1,1,1,2-Tetrachloroethane	131							
56 m,p-xylene	106	10.944	10.944	(1.015)	1443	0.76496	1.091	
57 o-Xylene	106							
58 Styrene	104							
59 Isopropyl Benzene	105							
60 Bromoform	173							
61 1,1,2,2-Tetrachloroethane	83							
\$ 62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	76278	51.1982	73.036	
63 1,2,3-Trichloropropane	110							



Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53						
66 N-Propyl Benzene	91						
67 Bromobenzene	156						
68 1,3,5-Trimethyl Benzene	105						
69 2-Chloro Toluene	91						
70 4-Chloro Toluene	91						
71 T-Butyl Benzene	119						
72 1,2,4-Trimethylbenzene	105	12.894	12.894	(0.957)	1982	0.56671	0.8084
73 S-Butyl Benzene	105						
74 4-Isopropyl Toluene	119	13.236	13.236	(0.983)	50271	14.1413	20.173
75 1,3-Dichlorobenzene	146						
* 76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	67990	50.0000	
77 1,4-Dichlorobenzene	146						
78 N-Butyl Benzene	91						
\$ 79 d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.033)	59722	47.9290	68.372
80 1,2-Dichlorobenzene	146						
81 1,2-Dibromo 3-Chloropropane	75						
82 1,2,4-Trichlorobenzene	180						
83 Hexachloro 1,3-Butadiene	225						
84 Naphthalene	128						
85 1,2,3-Trichlorobenzene	180						

mlg  
↓

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: QE56C.d  
 Lab Smp Id: QE56C  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-434

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: CB12010710Sed  
 Level: LOW  
 Sample Type: Sediment

Test Mode:  
 Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	93088	-17.91
34 1,4-Difluorobenze	160565	80282	321130	139103	-13.37
52 d5-Chlorobenzene	148719	74360	297438	130718	-12.10
76 d4-1,4-Dichlorobe	84322	42161	168644	67990	-19.37

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.63	0.00
34 1,4-Difluorobenze	7.64	7.14	8.14	7.64	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56C  
Level: LOW  
Data Type: MS DATA  
SpikeList File: all.spk  
Sublist File: voa.sub  
Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
Misc Info: 10-434

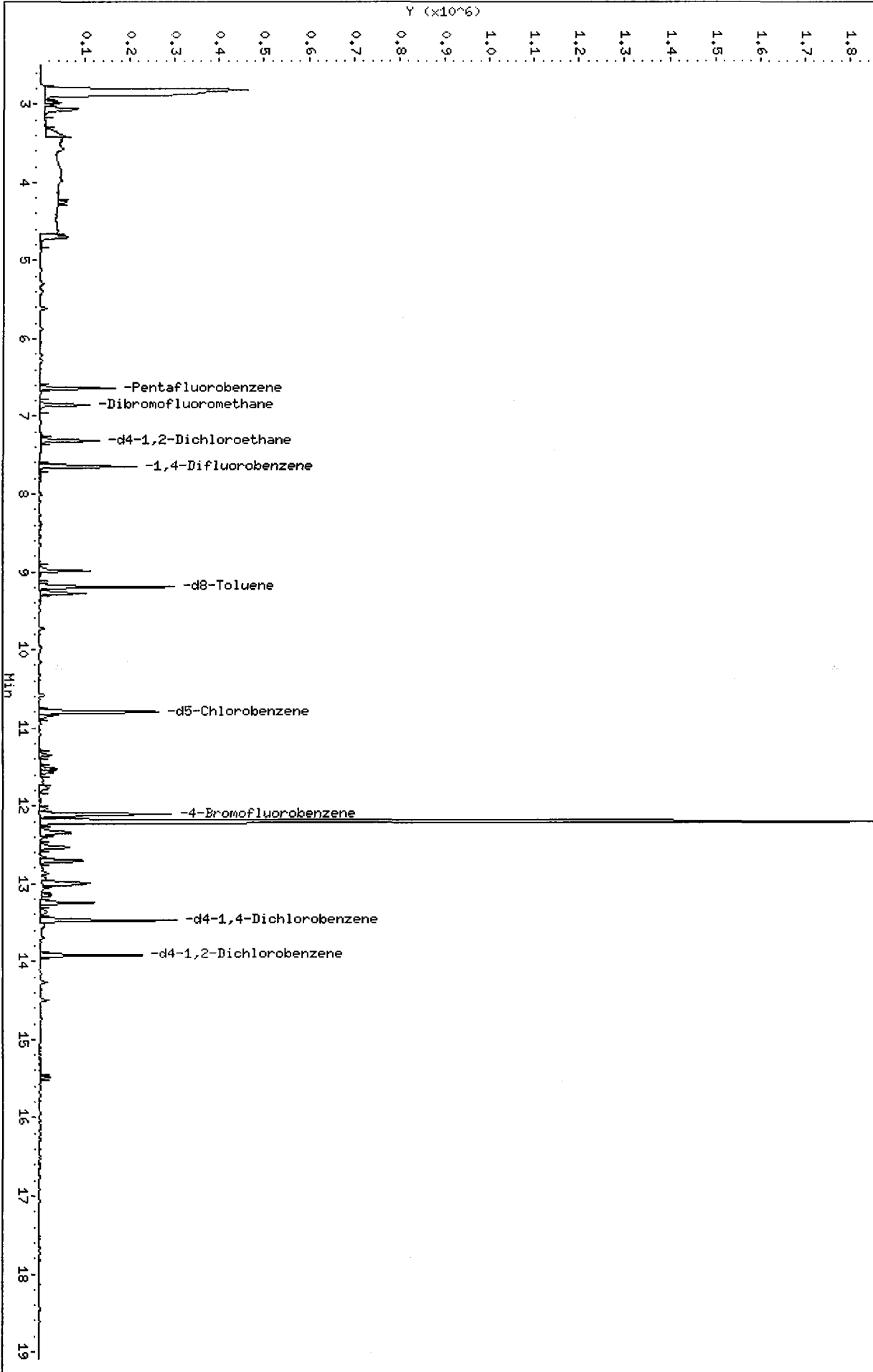
Client SDG: QE56  
Fraction: VOA  
Client Smp ID: CB12010710Sed  
Operator: PB  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	55.850	111.70	30-160
\$ 31 d4-1,2-Dichloroeth	50.000	62.609	125.22	75-152
\$ 43 d8-Toluene	50.000	50.584	101.17	82-115
\$ 62 4-Bromofluorobenze	50.000	51.198	102.40	64-120
\$ 79 d4-1,2-Dichloroben	50.000	47.929	95.86	80-120

Data File: /chem1/finns.1/11JAN10.b/QE56C.d  
Date : 11-JAN-2010 19:07  
Client ID: CB12010710Sed  
Sample Info: QE56C,5,3,505,0  
Column phase: Rtx502.2

Instrument: finns.1  
Operator: PB  
Column diameter: 0.18

/chem1/finns.1/11JAN10.b/QE56C.d/QE56C.LG




02:00:00 : 02:00:00

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB2010710Sed  
SAMPLE

Lab Sample ID: QE56D  
LIMS ID: 10-435  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 19:34

Sample Amount: 2.21 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 67.7%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	2.3	< 2.3	U
156-59-2	cis-1,2-Dichloroethene	2.3	< 2.3	U
107-06-2	1,2-Dichloroethane	2.3	< 2.3	U
79-01-6	Trichloroethene	2.3	< 2.3	U
127-18-4	Tetrachloroethene	2.3	< 2.3	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	126%
d8-Toluene	100%
Bromofluorobenzene	97.7%
d4-1,2-Dichlorobenzene	92.3%

Analytical Resources, Inc.

8260C  
 Data file : /chem1/finn5.i/11JAN10.b/QE56D.d  
 Lab Smp Id: QE56D Client Smp ID: CB2010710Sed  
 Inj Date : 11-JAN-2010 19:34  
 Operator : PB Inst ID: finn5.i  
 Smp Info : QE56D,5,6.832,0  
 Misc Info : 10-435  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 15-Jan-2010 15:02 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	6.83200	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85						
2 Chloromethane	50						
3 Vinyl Chloride	62						
4 Bromomethane	94						
5 Chloroethane	64						
6 Trichlorofluoromethane	101						
7 Acrolein	56						
8 112Trichloro122Trifluoroethane	101						
9 Acetone	43	4.693	4.693	(0.708)	47000	108.886	79.688
10 1,1-Dichloroethene	96						
11 Bromoethane	108						
12 Iodomethane	142						
13 Methylene Chloride	84	5.286	5.286	(0.797)	765	0.67640	0.4950(Q)
14 Acrylonitrile	53						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/Kg)	FINAL (ug/Kg)	
16 Methyl tert-Butyl Ether	73							
15 Carbon Disulfide	76	5.387	5.387	(0.812)	5973	1.96392	1.437	nlq
17 Trans-1,2-Dichloroethene	96							
18 Vinyl Acetate	43							
19 1,1-Dichloroethane	63							
20 2-Butanone	43	6.281	6.281	(0.947)	7691	13.9987	10.245	nlq
21 2,2-Dichloropropane	77							
22 Cis-1,2-Dichloroethene	96							
* 23 Pentafluorobenzene	168	6.633	6.633	(1.000)	93829	50.0000		
24 Chloroform	83							
26 Bromochloromethane	128							
\$ 25 Dibromofluoromethane	111	6.844	6.844	(1.032)	61498	56.8518	41.607	
27 1,1,1-Trichloroethane	97							
29 1,1-Dichloropropene	75							
30 Carbon Tetrachloride	117							
\$ 31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.101)	90749	63.1573	46.222	
32 1,2-Dichloroethane	62							
33 Benzene	78	7.447	7.447	(0.975)	2126	0.52321	0.3829	nlq
* 34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	139684	50.0000		
35 Trichloroethene	95							
36 1,2-Dichloropropane	63							
37 Bromodichloromethane	83							
39 Dibromomethane	93							
40 2-Chloroethyl Vinyl Ether	63							
41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.133)	600	1.58668	1.161	nlq
42 Cis 1,3-dichloropropene	75							
\$ 43 d8-Toluene	98	9.186	9.186	(1.203)	165819	50.0959	36.663	nlq
44 Toluene	92	9.266	9.266	(1.213)	14740	5.70425	4.175	nlq
45 Trans 1,3-Dichloropropene	75							
46 2-Hexanone	43							
47 1,1,2-Trichloroethane	97							
48 1,3-Dichloropropane	76							
49 Tetrachloroethene	166							
50 Chlorodibromomethane	129							
51 1,2-Dibromoethane	107							
* 52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	124500	50.0000		
53 Chlorobenzene	112							
54 Ethyl Benzene	91	10.864	10.864	(1.007)	14863	3.39542	2.485	nlq
55 1,1,1,2-Tetrachloroethane	131							
56 m,p-xylene	106	10.944	10.944	(1.015)	3596	2.00151	1.465	
57 o-Xylene	106							
58 Styrene	104							
59 Isopropyl Benzene	105	11.809	11.809	(0.877)	2766	0.83536	0.6114	
60 Bromoform	173							
61 1,1,2,2-Tetrachloroethane	83							
\$ 62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	69293	48.8327	35.738	
63 1,2,3-Trichloropropane	110							

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
=====	====		==	=====	=====	=====	=====	=====
65 Trans-1,4-Dichloro 2-Butene	53					Compound Not Detected.		
66 N-Propyl Benzene	91		12.261	12.261	(0.910)	8911	2.30064	1.684
67 Bromobenzene	156					Compound Not Detected.		
68 1,3,5-Trimethyl Benzene	105		12.432	12.442	(0.923)	2083	0.79555	0.5822
69 2-Chloro Toluene	91					Compound Not Detected.		
70 4-Chloro Toluene	91					Compound Not Detected.		
71 T-Butyl Benzene	119					Compound Not Detected.		
72 1,2,4-Trimethylbenzene	105		12.894	12.894	(0.957)	3816	1.47424	1.079
73 S-Butyl Benzene	105					Compound Not Detected.		
74 4-Isopropyl Toluene	119		13.236	13.236	(0.983)	22344	8.49252	6.215
75 1,3-Dichlorobenzene	146					Compound Not Detected.		
* 76 d4-1,4-Dichlorobenzene	152		13.467	13.467	(1.000)	50320	50.0000	
77 1,4-Dichlorobenzene	146					Compound Not Detected.		
78 N-Butyl Benzene	91					Compound Not Detected.		
\$ 79 d4-1,2-Dichlorobenzene	152		13.909	13.909	(1.033)	42581	46.1726	33.791
80 1,2-Dichlorobenzene	146					Compound Not Detected.		
81 1,2-Dibromo 3-Chloropropane	75					Compound Not Detected.		
82 1,2,4-Trichlorobenzene	180					Compound Not Detected.		
83 Hexachloro 1,3-Butadiene	225					Compound Not Detected.		
84 Naphthalene	128					Compound Not Detected.		
85 1,2,3-Trichlorobenzene	180					Compound Not Detected.		

QC Flag Legend

Q - Qualifier signal failed the ratio test.



Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: QE56D.d  
 Lab Smp Id: QE56D  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-435

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: CB2010710Sed  
 Level: LOW  
 Sample Type: Sediment

Test Mode:  
 Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	93829	-17.25
34 1,4-Difluorobenze	160565	80282	321130	139684	-13.00
52 d5-Chlorobenzene	148719	74360	297438	124500	-16.29
76 d4-1,4-Dichlorobe	84322	42161	168644	50320	-40.32

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.63	0.00
34 1,4-Difluorobenze	7.64	7.14	8.14	7.64	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56D  
Level: LOW  
Data Type: MS DATA  
SpikeList File: all.spk  
Sublist File: voa.sub  
Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
Misc Info: 10-435

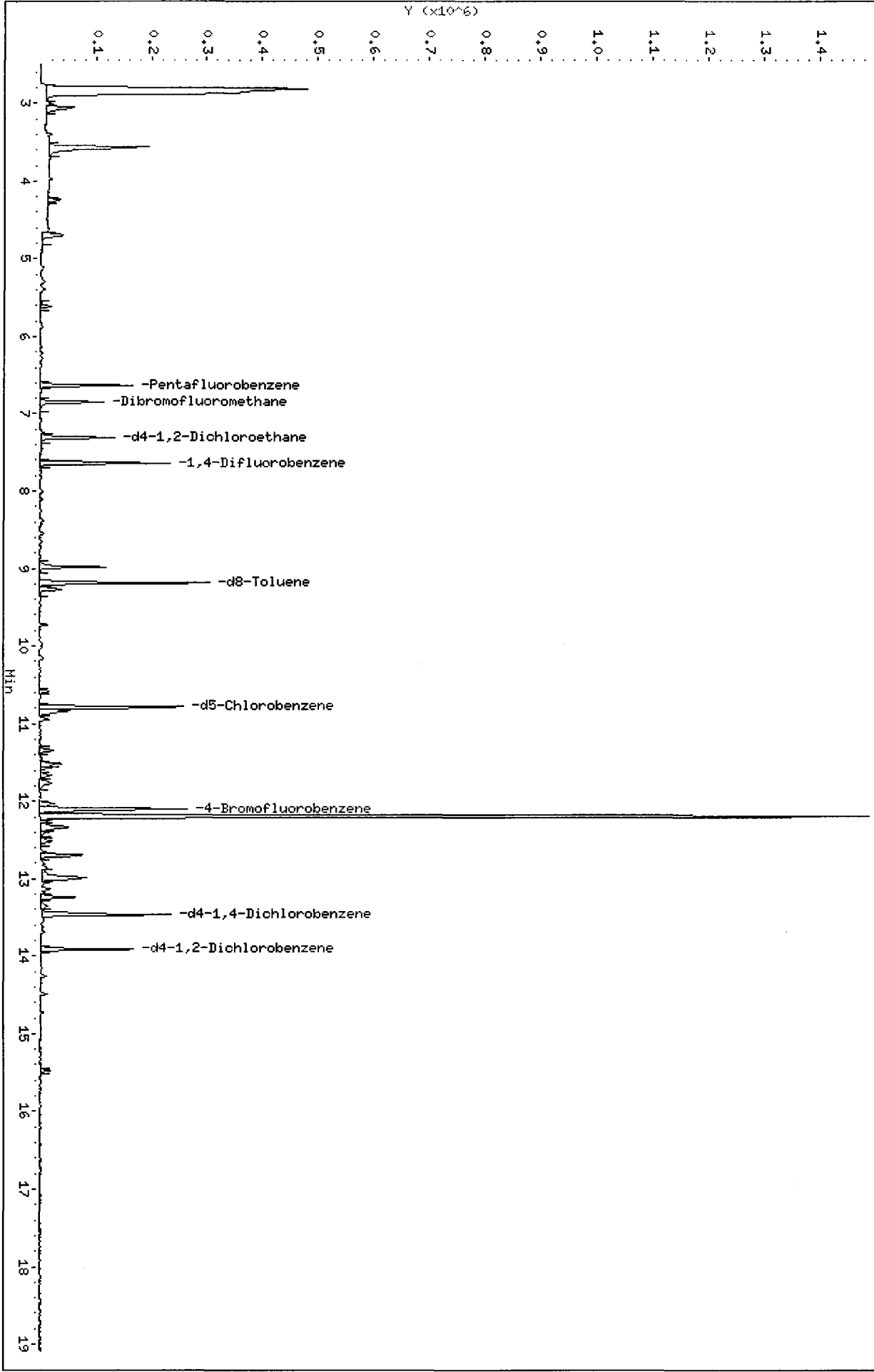
Client SDG: QE56  
Fraction: VOA  
Client Smp ID: CB2010710Sed  
Operator: PB  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	56.852	113.70	30-160
\$ 31 d4-1,2-Dichloroeth	50.000	63.157	126.31	75-152
\$ 43 d8-Toluene	50.000	50.096	100.19	82-115
\$ 62 4-Bromofluorobenze	50.000	48.833	97.67	64-120
\$ 79 d4-1,2-Dichloroben	50.000	46.173	92.35	80-120

Data File: /chem1/finn5.i/11JAN10.b/QE56D.d  
Date: 11-JAN-2010 19:34  
Client ID: CB20107105ed  
Sample Info: QE56D,5,6,832,0  
Column phase: Rtx502.2

Instrument: finn5.i  
Operator: PB  
Column diameter: 0.18

/chem1/finn5.i/11JAN10.b/QE56D.d/QE56D.LG



00:00:00 : 05:23

**ORGANICS ANALYSIS DATA SHEET**


Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: Trip Blank  
SAMPLE

Lab Sample ID: QE56E

LIMS ID: 10-436

Matrix: Water

Data Release Authorized: 

Reported: 01/15/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB

Date Analyzed: 01/11/10 20:01

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	116%
d8-Toluene	104%
Bromofluorobenzene	99.0%
d4-1,2-Dichlorobenzene	99.1%

Analytical Resources, Inc.

8260C  
Data file : /chem1/finn5.i/11JAN10.b/QE56E.d  
Lab Smp Id: QE56E Client Smp ID: Trip Blank  
Inj Date : 11-JAN-2010 20:01  
Operator : PB Inst ID: finn5.i  
Smp Info : QE56E,5,5,0  
Misc Info : 10-436  
Comment :  
Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
Meth Date : 15-Jan-2010 15:02 patrickb Quant Type: ISTD  
Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: voa.sub  
Target Version: 3.50  
Processing Host: cserv3

*W/ISTD*

Concentration Formula: Amt \* DF \* Pv / Sa \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	PurgeVolume (mL)
Sa	0.00000	SampleAmount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/Kg)	FINAL (ug/L)
1 Dichlorodifluoromethane	85						
2 Chloromethane	50						
3 Vinyl Chloride	62						
4 Bromomethane	94						
5 Chloroethane	64						
6 Trichlorofluoromethane	101						
7 Acrolein	56						
8 1,1,1-Trichloro-2,2,2-Trifluoroethane	101						
9 Acetone	43	4.703	4.693	(0.708)	2552	6.27427	6.274 <i>nlq</i>
10 1,1-Dichloroethene	96						
11 Bromoethane	108						
12 Iodomethane	142						
13 Methylene Chloride	84						
14 Acrylonitrile	53						
16 Methyl tert-Butyl Ether	73						

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/Kg)	FINAL ( ug/L)
=====	=====	==	=====	=====	=====	=====	=====
15 Carbon Disulfide	76						
17 Trans-1,2-Dichloroethene	96						
18 Vinyl Acetate	43						
19 1,1-Dichloroethane	63						
20 2-Butanone	43						
21 2,2-Dichloropropane	77						
22 Cis-1,2-Dichloroethene	96						
* 23 Pentafluorobenzene	168	6.643	6.633	(1.000)	88416	50.0000	
24 Chloroform	83						
26 Bromochloromethane	128						
\$ 25 Dibromofluoromethane	111	6.864	6.844	(1.033)	54915	53.8742	53.874
27 1,1,1-Trichloroethane	97						
29 1,1-Dichloropropene	75						
30 Carbon Tetrachloride	117						
\$ 31 d4-1,2-Dichloroethane	65	7.326	7.306	(1.103)	78223	57.7726	57.773
32 1,2-Dichloroethane	62						
33 Benzene	78						
* 34 1,4-Difluorobenzene	114	7.648	7.638	(1.000)	130783	50.0000	
35 Trichloroethene	95						
36 1,2-Dichloropropane	63						
37 Bromodichloromethane	83						
39 Dibromomethane	93						
40 2-Chloroethyl Vinyl Ether	63						
41 4-Methyl-2-Pentanone	58						
42 Cis 1,3-dichloropropene	75						
\$ 43 d8-Toluene	98	9.196	9.186	(1.202)	161590	52.1408	52.141
44 Toluene	92						
45 Trans 1,3-Dichloropropene	75						
46 2-Hexanone	43						
47 1,1,2-Trichloroethane	97						
48 1,3-Dichloropropane	76						
49 Tetrachloroethene	166						
50 Chlorodibromomethane	129						
51 1,2-Dibromoethane	107						
* 52 d5-Chlorobenzene	117	10.794	10.784	(1.000)	124055	50.0000	
53 Chlorobenzene	112						
54 Ethyl Benzene	91						
55 1,1,1,2-Tetrachloroethane	131						
56 m,p-xylene	106						
57 o-Xylene	106						
58 Styrene	104						
59 Isopropyl Benzene	105						
60 Bromoform	173						
61 1,1,2,2-Tetrachloroethane	83						
\$ 62 4-Bromofluorobenzene	95	12.120	12.110	(1.123)	69955	49.4761	49.476
63 1,2,3-Trichloropropane	110						
65 Trans-1,4-Dichloro 2-Butene	53						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/Kg)	FINAL ( ug/L)
=====	=====	==	=====	=====	=====	=====	=====
66 N-Propyl Benzene	91		Compound	Not	Detected.		
67 Bromobenzene	156		Compound	Not	Detected.		
68 1,3,5-Trimethyl Benzene	105		Compound	Not	Detected.		
69 2-Chloro Toluene	91		Compound	Not	Detected.		
70 4-Chloro Toluene	91		Compound	Not	Detected.		
71 T-Butyl Benzene	119		Compound	Not	Detected.		
72 1,2,4-Trimethylbenzene	105		Compound	Not	Detected.		
73 S-Butyl Benzene	105		Compound	Not	Detected.		
74 4-Isopropyl Toluene	119		Compound	Not	Detected.		
75 1,3-Dichlorobenzene	146		Compound	Not	Detected.		
* 76 d4-1,4-Dichlorobenzene	152	13.477	13.467	(1.000)	66679	50.0000	
77 1,4-Dichlorobenzene	146		Compound	Not	Detected.		
78 N-Butyl Benzene	91		Compound	Not	Detected.		
\$ 79 d4-1,2-Dichlorobenzene	152	13.919	13.909	(1.033)	60546	49.5457	49.546
80 1,2-Dichlorobenzene	146		Compound	Not	Detected.		
81 1,2-Dibromo 3-Chloropropane	75		Compound	Not	Detected.		
82 1,2,4-Trichlorobenzene	180		Compound	Not	Detected.		
83 Hexachloro 1,3-Butadiene	225		Compound	Not	Detected.		
84 Naphthalene	128		Compound	Not	Detected.		
85 1,2,3-Trichlorobenzene	180		Compound	Not	Detected.		

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: QE56E.d  
 Lab Smp Id: QE56E  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-436

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: Trip Blank  
 Level: LOW  
 Sample Type: Water

Test Mode:  
 Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	88416	-22.03
34 1,4-Difluorobenze	160565	80282	321130	130783	-18.55
52 d5-Chlorobenzene	148719	74360	297438	124055	-16.58
76 d4-1,4-Dichlorobe	84322	42161	168644	66679	-20.92

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.64	0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.65	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.79	0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.48	0.07

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Analytical Resources, Inc.

RECOVERY REPORT

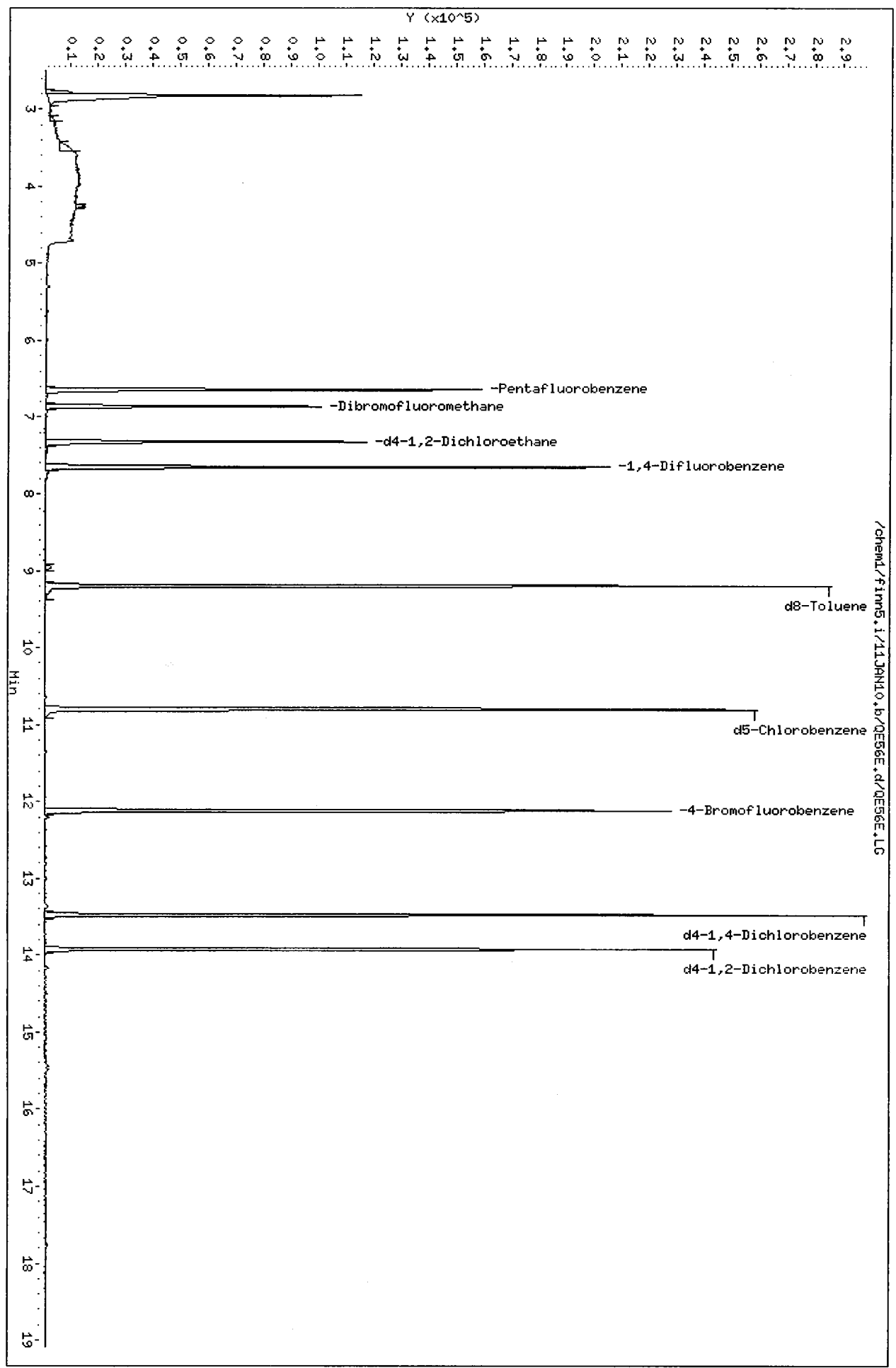
Client Name: Floyd-Snider  
Sample Matrix: LIQUID  
Lab Smp Id: QE56E  
Level: LOW  
Data Type: MS DATA  
SpikeList File: all.spk  
Sublist File: voa.sub  
Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
Misc Info: 10-436

Client SDG: QE56  
Fraction: VOA  
Client Smp ID: Trip Blank  
Operator: PB  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	53.874	107.75	30-160
\$ 31 d4-1,2-Dichloroeth	50.000	57.773	115.55	75-152
\$ 43 d8-Toluene	50.000	52.141	104.28	82-115
\$ 62 4-Bromofluorobenze	50.000	49.476	98.95	71-120
\$ 79 d4-1,2-Dichloroben	50.000	49.546	99.09	80-121

Data File: /chem1/finms.1/11JAN10.b/QE56E.d  
Date : 11-JAN-2010 20:01  
Client ID: Trip Blank  
Sample Info: QE56E.5,5,0  
Column phase: Rtx502.2

Instrument: finms.1  
Operator: PB  
Column diameter: 0.18



Volatile Analysis  
Standard Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

LAB FILE ID: RF1: 0010106

RF2: 0020106

RF5: 0050106

RF10: 0100106

RF50: 0500106

COMPOUND	RF1	RF2	RF5	RF10	RF50
Chloromethane	1.515	1.067	1.241	1.220	1.264
Vinyl Chloride	1.143	1.014	1.260	1.209	1.367
Bromomethane	0.524	0.349	0.429	0.463	0.552
Chloroethane	0.762	0.583	0.459	0.714	0.758
Trichlorofluoromethane	1.284	1.087	1.240	1.235	1.209
Acrolein		0.124	0.117	0.109	0.107
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.917	0.722	0.782	0.808	0.758
Acetone	0.279	0.260	0.230	0.224	0.235
1,1-Dichloroethene	0.658	0.577	0.608	0.602	0.589
Bromoethane	0.272	0.253	0.298	0.282	0.350
Iodomethane	0.381	0.345	0.266	0.299	0.371
Methylene Chloride	0.737	0.614	0.884	1.018	0.706
Acrylonitrile		0.169	0.181	0.187	0.186
Carbon Disulfide	1.723	1.454	1.428	1.370	1.463
Trans-1,2-Dichloroethene	0.687	0.539	0.587	0.628	0.607
Vinyl Acetate	1.430	1.246	1.322	1.374	1.396
1,1-Dichloroethane	1.321	1.173	1.270	1.279	1.269
2-Butanone	0.322	0.289	0.290	0.303	0.304
2,2-Dichloropropane	1.101	0.959	1.018	1.085	1.080
Cis-1,2-Dichloroethene	0.682	0.547	0.606	0.625	0.622
Chloroform	1.278	1.051	1.146	1.199	1.183
Bromochloromethane	0.279	0.252	0.266	0.283	0.304
1,1,1-Trichloroethane	1.088	0.917	1.038	1.103	1.099
1,1-Dichloropropene	0.679	0.605	0.646	0.665	0.666
Carbon Tetrachloride	0.736	0.609	0.675	0.710	0.698
1,2-Dichloroethane	0.762	0.653	0.707	0.728	0.694
Benzene	1.711	1.506	1.572	1.646	1.538
Trichloroethene	0.520	0.420	0.466	0.493	0.485
1,2-Dichloropropane	0.513	0.438	0.464	0.495	0.466
Bromodichloromethane	0.634	0.530	0.570	0.595	0.588
Dibromomethane	0.300	0.246	0.279	0.282	0.270
2-Chloroethyl Vinyl Ether		0.145	0.144	0.157	0.159
4-Methyl-2-Pentanone	0.155	0.112	0.131	0.136	0.139
Cis 1,3-dichloropropene	0.643	0.569	0.616	0.672	0.673
Toluene	1.022	0.892	0.949	1.004	0.947
Trans 1,3-Dichloropropene	0.524	0.470	0.541	0.590	0.595
2-Hexanone	0.594	0.360	0.346	0.355	0.359

FORM VI VOA

QE56:00145

FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

LAB FILE ID: RF1: 0010106

RF2: 0020106

RF5: 0050106

RF10: 0100106

RF50: 0500106

COMPOUND	RF1	RF2	RF5	RF10	RF50
1,1,2-Trichloroethane	0.326	0.274	0.300	0.322	0.309
1,3-Dichloropropane	0.635	0.593	0.656	0.674	0.647
Tetrachloroethene	0.599	0.495	0.541	0.541	0.531
Chlorodibromomethane	0.403	0.339	0.397	0.434	0.470
1,2-Dibromoethane	0.346	0.291	0.323	0.346	0.360
Chlorobenzene	1.212	1.045	1.100	1.152	1.088
Ethyl Benzene	2.067	1.816	1.969	2.006	1.929
1,1,1,2-Tetrachloroethane	0.377	0.358	0.406	0.418	0.411
m,p-xylene	0.803	0.707	0.744	0.787	0.769
o-Xylene	0.785	0.673	0.720	0.756	0.753
Styrene	1.265	1.036	1.117	1.194	1.195
Bromoform	0.504	0.405	0.480	0.494	0.521
1,1,2,2-Tetrachloroethane	0.870	0.708	0.768	0.824	0.814
1,2,3-Trichloropropane		0.171	0.187	0.209	0.195
Trans-1,4-Dichloro 2-Butene			0.258	0.292	0.289
N-Propyl Benzene	4.740	3.850	4.133	4.325	4.029
Bromobenzene	1.070	0.896	0.943	1.001	0.938
Isopropyl Benzene	3.790	3.204	3.415	3.633	3.480
2-Chloro Toluene	3.227	2.605	2.649	2.852	2.676
4-Chloro Toluene	3.205	2.604	2.730	2.860	2.599
T-Butyl Benzene	2.755	2.322	2.486	2.647	2.573
1,3,5-Trimethyl Benzene	3.307	2.460	2.751	2.907	2.804
1,2,4-Trimethylbenzene	3.242	2.530	2.752	2.893	2.764
S-Butyl Benzene	4.185	3.414	3.633	3.812	3.693
4-Isopropyl Toluene	3.177	2.642	2.739	2.950	2.843
1,3-Dichlorobenzene	2.081	1.623	1.649	1.734	1.641
1,4-Dichlorobenzene	2.001	1.602	1.612	1.666	1.593
N-Butyl Benzene	3.366	2.666	2.684	2.873	2.858
1,2-Dichlorobenzene	1.889	1.450	1.523	1.572	1.488
1,2-Dibromo 3-Chloropropane			0.140	0.147	0.155
1,2,4-Trichlorobenzene		1.091	1.011	1.042	1.052
Hexachloro 1,3-Butadiene		0.657	0.690	0.679	0.665
Naphthalene		2.095	1.655	1.704	1.812
1,2,3-Trichlorobenzene		1.074	0.880	0.925	0.928
Dichlorodifluoromethane	0.596	0.377	0.638	0.593	0.738
Methyl tert-Butyl Ether	1.604	1.367	1.457	1.530	1.453

FORM VI VOA

FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

LAB FILE ID: RF1: 0010106

RF2: 0020106

RF5: 0050106

RF10: 0100106

RF50: 0500106

COMPOUND	RF1	RF2	RF5	RF10	RF50
d4-1,2-Dichloroethane	0.789	0.788	0.774	0.762	0.754
d8-Toluene	1.204	1.208	1.210	1.194	1.192
4-Bromofluorobenzene	0.559	0.557	0.564	0.562	0.570
d4-1,2-Dichlorobenzene	0.909	0.918	0.920	0.905	0.927
Dibromofluoromethane	0.582	0.585	0.574	0.574	0.586

FORM VI VOA

QE56:00147

FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

LAB FILE ID: RF100: 1000106

RF150: 1500106

RF200: 2000106

COMPOUND	RF100	RF150	RF200
Chloromethane	1.152	1.103	1.080
Vinyl Chloride	1.177	1.049	0.991
Bromomethane	0.600		
Chloroethane	0.723	0.685	0.659
Trichlorofluoromethane	1.042	0.935	0.962
Acrolein	0.104	0.102	0.105
1,1,2-Trichloro-2,2,2-Trifluoroethane	0.701	0.662	0.693
Acetone	0.209	0.201	0.202
1,1-Dichloroethene	0.560	0.534	0.517
Bromoethane	0.340	0.342	0.349
Iodomethane	0.385	0.410	0.430
Methylene Chloride	0.645	0.600	0.583
Acrylonitrile	0.182	0.178	0.185
Carbon Disulfide	1.783	1.889	1.856
Trans-1,2-Dichloroethene	0.590	0.573	0.565
Vinyl Acetate	1.378	1.270	1.133
1,1-Dichloroethane	1.224	1.173	1.077
2-Butanone	0.293	0.280	0.261
2,2-Dichloropropane	1.018	0.973	0.949
Cis-1,2-Dichloroethene	0.602	0.592	0.587
Chloroform	1.123	1.094	1.014
Bromochloromethane	0.295	0.296	0.289
1,1,1-Trichloroethane	1.039	0.995	0.959
1,1-Dichloropropene	0.628	0.605	0.596
Carbon Tetrachloride	0.681	0.642	0.633
1,2-Dichloroethane	0.659	0.634	0.614
Benzene	1.446	1.199	1.020
Trichloroethene	0.458	0.443	0.433
1,2-Dichloropropane	0.457	0.443	0.437
Bromodichloromethane	0.573	0.562	0.544
Dibromomethane	0.262	0.260	0.256
2-Chloroethyl Vinyl Ether	0.165	0.168	0.177
4-Methyl-2-Pentanone	0.137	0.136	0.137
Cis 1,3-dichloropropene	0.665	0.658	0.625
Toluene	0.913	0.881	0.792
Trans 1,3-Dichloropropene	0.595	0.589	0.572
2-Hexanone	0.329		

FORM VI VOA

QE56:00140

FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

LAB FILE ID: RF100: 1000106

RF150: 1500106

RF200: 2000106

COMPOUND	RF100	RF150	RF200
1,1,2-Trichloroethane	0.307	0.303	0.306
1,3-Dichloropropane	0.638	0.625	0.619
Tetrachloroethene	0.518	0.507	0.504
Chlorodibromomethane	0.473	0.474	0.476
1,2-Dibromoethane	0.361	0.352	0.358
Chlorobenzene	1.063	0.977	0.866
Ethyl Benzene	1.739	1.366	1.171
1,1,1,2-Tetrachloroethane	0.414	0.417	0.425
m,p-xylene	0.770	0.640	0.552
o-Xylene	0.752	0.740	0.720
Styrene	1.183	1.075	0.960
Bromoform	0.560	0.564	0.564
1,1,2,2-Tetrachloroethane	0.826	0.809	0.796
1,2,3-Trichloropropane	0.193	0.187	0.185
Trans-1,4-Dichloro 2-Butene	0.290	0.286	0.285
N-Propyl Benzene	3.357	2.505	
Bromobenzene	0.937	0.916	0.891
Isopropyl Benzene	3.117	2.392	
2-Chloro Toluene	2.436	2.122	1.866
4-Chloro Toluene	2.677	2.060	1.609
T-Butyl Benzene	2.450	2.127	1.732
1,3,5-Trimethyl Benzene	2.691	2.136	1.757
1,2,4-Trimethylbenzene	2.609	2.101	1.685
S-Butyl Benzene	3.209	2.470	
4-Isopropyl Toluene	2.676	2.138	1.748
1,3-Dichlorobenzene	1.602	1.535	1.356
1,4-Dichlorobenzene	1.570	1.478	1.297
N-Butyl Benzene	2.660	2.150	1.704
1,2-Dichlorobenzene	1.472	1.400	1.272
1,2-Dibromo 3-Chloropropane	0.159	0.156	0.157
1,2,4-Trichlorobenzene	1.001	0.939	0.881
Hexachloro 1,3-Butadiene	0.635	0.644	0.614
Naphthalene	1.779	1.568	1.375
1,2,3-Trichlorobenzene	0.893	0.833	0.807
Dichlorodifluoromethane	0.670	0.619	0.622
Methyl tert-Butyl Ether	1.377	1.336	1.255

FORM VI VOA



FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

LAB FILE ID: RF100: 1000106 RF150: 1500106 RF200: 2000106

COMPOUND	RF100	RF150	RF200
d4-1,2-Dichloroethane	0.727		
d8-Toluene	1.161	1.163	1.146
4-Bromofluorobenzene	0.571	0.578	0.597
d4-1,2-Dichlorobenzene	0.918	0.924	0.910
Dibromofluoromethane	0.575	0.568	0.568

FORM VI VOA

QE56: 00150

FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R <sup>2</sup>
Chloromethane	AVRG	1.205	12.1
Vinyl Chloride	AVRG	1.151	11.2
Bromomethane	AVRG	0.486	18.7
Chloroethane	AVRG	0.668	15.3
Trichlorofluoromethane	AVRG	1.124	12.0
Acrolein	AVRG	0.110	7.5
1,1,2-Trichloro-2,2-Trifluoroethane	AVRG	0.755	10.8
Acetone	AVRG	0.230	12.1
1,1-Dichloroethene	AVRG	0.581	7.7
Bromoethane	AVRG	0.311	12.5
Iodomethane	AVRG	0.361	15.4
Methylene Chloride	LINR		0.9947
Acrylonitrile	AVRG	0.181	3.4
Carbon Disulfide	AVRG	1.621	13.1
Trans-1,2-Dichloroethene	AVRG	0.597	7.6
Vinyl Acetate	AVRG	1.318	7.4
1,1-Dichloroethane	AVRG	1.223	6.4
2-Butanone	AVRG	0.293	6.2
2,2-Dichloropropane	AVRG	1.023	5.9
Cis-1,2-Dichloroethene	AVRG	0.608	6.4
Chloroform	AVRG	1.136	7.5
Bromochloromethane	AVRG	0.283	6.0
1,1,1-Trichloroethane	AVRG	1.030	6.6
1,1-Dichloropropene	AVRG	0.636	5.0
Carbon Tetrachloride	AVRG	0.673	6.3
1,2-Dichloroethane	AVRG	0.681	7.4
Benzene	AVRG	1.454	16.0
Trichloroethene	AVRG	0.465	7.2
1,2-Dichloropropane	AVRG	0.464	5.9
Bromodichloromethane	AVRG	0.575	5.6
Dibromomethane	AVRG	0.269	6.4
2-Chloroethyl Vinyl Ether	AVRG	0.159	7.4
4-Methyl-2-Pentanone	AVRG	0.135	8.7
Cis 1,3-dichloropropene	AVRG	0.640	5.6
Toluene	AVRG	0.925	7.9
Trans 1,3-Dichloropropene	AVRG	0.560	8.0
2-Hexanone	LINR		0.9978

<- Indicates value outside QC limits:  
(%RSD < 20% or R<sup>2</sup> > 0.990)

FORM VI VOA

QE56:00151

FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R <sup>2</sup>
1,1,2-Trichloroethane	AVRG	0.306	5.1
1,3-Dichloropropane	AVRG	0.636	3.8
Tetrachloroethene	AVRG	0.530	6.2
Chlorodibromomethane	AVRG	0.433	11.5
1,2-Dibromoethane	AVRG	0.342	7.0
Chlorobenzene	AVRG	1.063	10.0
Ethyl Benzene	AVRG	1.758	18.4
1,1,1,2-Tetrachloroethane	AVRG	0.403	5.7
m,p-xylene	AVRG	0.722	11.9
o-Xylene	AVRG	0.737	4.5
Styrene	AVRG	1.128	8.9
Bromoform	AVRG	0.512	10.6
1,1,2,2-Tetrachloroethane	AVRG	0.802	5.9
1,2,3-Trichloropropane	AVRG	0.190	6.1
Trans-1,4-Dichloro 2-Butene	AVRG	0.284	4.4
N-Propyl Benzene	AVRG	3.849	18.9
Bromobenzene	AVRG	0.949	6.3
Isopropyl Benzene	AVRG	3.290	13.9
2-Chloro Toluene	AVRG	2.554	16.5
4-Chloro Toluene	AVRG	2.543	19.4
T-Butyl Benzene	AVRG	2.386	13.7
1,3,5-Trimethyl Benzene	AVRG	2.602	18.4
1,2,4-Trimethylbenzene	AVRG	2.572	18.8
S-Butyl Benzene	AVRG	3.488	15.6
4-Isopropyl Toluene	AVRG	2.614	17.6
1,3-Dichlorobenzene	AVRG	1.653	12.4
1,4-Dichlorobenzene	AVRG	1.603	12.3
N-Butyl Benzene	AVRG	2.620	19.0
1,2-Dichlorobenzene	AVRG	1.508	11.8
1,2-Dibromo 3-Chloropropane	AVRG	0.152	4.7
1,2,4-Trichlorobenzene	AVRG	1.002	7.1
Hexachloro 1,3-Butadiene	AVRG	0.655	4.0
Naphthalene	AVRG	1.713	13.0
1,2,3-Trichlorobenzene	AVRG	0.906	9.5
Dichlorodifluoromethane	AVRG	0.606	17.1
Methyl tert-Butyl Ether	AVRG	1.422	7.8

<- Indicates value outside QC limits:  
(%RSD < 20% or R<sup>2</sup> > 0.990)

FORM VI VOA

QE56:00152

FORM 6  
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Calibration Date: 01/06/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R <sup>2</sup>
d4-1,2-Dichloroethane	AVRG	0.766	3.0
d8-Toluene	AVRG	1.185	2.0
4-Bromofluorobenzene	AVRG	0.570	2.2
d4-1,2-Dichlorobenzene	AVRG	0.916	0.8
Dibromofluoromethane	AVRG	0.576	1.2

<- Indicates value outside QC limits:  
(%RSD < 20% or R<sup>2</sup> > 0.990)

FORM VI VOA

QE56:00153

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Calibration File Names:

- Level 1: /chem1/finn5.i/06JAN10.b/0010106.d
- Level 2: /chem1/finn5.i/06JAN10.b/0020106.d
- Level 3: /chem1/finn5.i/06JAN10.b/0050106.d
- Level 4: /chem1/finn5.i/06JAN10.b/0100106.d
- Level 5: /chem1/finn5.i/06JAN10.b/0500106.d
- Level 6: /chem1/finn5.i/06JAN10.b/1000106.d
- Level 7: /chem1/finn5.i/06JAN10.b/1500106.d
- Level 8: /chem1/finn5.i/06JAN10.b/2000106.d

Compound	1	2	5	10	50	100	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	b	m1	m2	
1 Dichlorodifluoromethane	0.59575	0.37723	0.63793	0.59281	0.73777	0.67003		0.60656		17.12399
	0.61884	0.62216								
2 Chloromethane	1.51473	1.06679	1.24108	1.21955	1.26382	1.15239		1.20526		12.09015
	1.10349	1.08027								
3 Vinyl Chloride	1.14345	1.01363	1.26041	1.20872	1.36672	1.17689		1.15120		11.25492
	1.04908	0.99071								

99 00 00 00 00 00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1		2		5		10		50		100		Curve	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 1	Level 2	b	m1		m2		
4 Bromomethane	0.52436 ++++	0.34888 ++++	0.42865	0.46300	0.55212	0.60042			AVRG	0.48624						18.74950
181 Ethyl Ether	++++	++++	++++	++++	++++	++++			AVRG	0.000e+00						0.000e+00
5 Chloroethane	0.76230 0.68468	0.58301 0.65869	0.45948	0.71408	0.75831	0.72286			AVRG	0.66793						15.31535
6 Trichlorofluoromethane	1.28397 0.93499	1.08673 0.96205	1.24009	1.23491	1.20893	1.04242			AVRG	1.12426						12.05507
7 Acrolein	++++ 0.10152	0.12436 0.10523	0.11739	0.10890	0.10717	0.10364			AVRG	0.10974						7.48282
8 112Trichloro122Trifluoroethan	0.91674 0.66225	0.72190 0.69289	0.78258	0.80768	0.75753	0.70081			AVRG	0.75530						10.75522
9 Acetone	0.27879 0.20072	0.26054 0.20200	0.23054	0.22361	0.23461	0.20931			AVRG	0.23002						12.12567

000001 000155

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1		2		5		10		50		100		Curve	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10	Level 11	Level 12		b	m1	
10 1,1-Dichloroethene	0.65815	0.57703	0.60809	0.60218	0.58914	0.55996							AVRG	0.58065		7.70282
	0.53391	0.51675														
11 Bromoethane	0.27206	0.25296	0.29793	0.28193	0.34967	0.33999							AVRG	0.31067		12.54582
	0.34167	0.34919														
12 Iodomethane	0.38070	0.34467	0.26557	0.29913	0.37134	0.38529							AVRG	0.36088		15.35122
	0.41027	0.43006														
13 Methylene Chloride	1641	2773	9833	23147	80035	158843							LINR	0.000e+00	0.60269	0.99474
	24324	326945														
14 Acrylonitrile	++++	0.16923	0.18079	0.18737	0.18652	0.18165							AVRG	0.18124		3.42425
	0.17833	0.18479														
16 Methyl tert-Butyl Ether	1.60407	1.36671	1.45684	1.53056	1.45279	1.37738							AVRG	1.42248		7.85218
	1.33642	1.25507														
15 Carbon Disulfide	1.72349	1.45355	1.42825	1.37017	1.46320	1.78263							AVRG	1.62069		13.11622
	1.88861	1.85565														

091500 091500

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
17 Trans-1,2-Dichloroethene	0.68688 0.57305	0.53915 0.56466	0.58678	0.62837	0.60705	0.59058	AVRG		0.59707		7.56333
18 Vinyl Acetate	1.42988 1.26982	1.24599 1.13307	1.32199	1.37405	1.39605	1.37753	AVRG		1.31855		7.42057
19 1,1-Dichloroethane	1.32124 1.17334	1.17311 1.07737	1.26985	1.27948	1.26947	1.22368	AVRG		1.22344		6.43259
179 Hexane	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00 <-
20 2-Butanone	0.32198 0.27974	0.28880 0.26115	0.29027	0.30327	0.30420	0.29275	AVRG		0.29277		6.17189
21 2,2-Dichloropropane	1.10125 0.97333	0.95914 0.94945	1.01803	1.08477	1.07991	1.01837	AVRG		1.02303		5.86241
22 Cis-1,2-Dichloroethene	0.68239 0.59202	0.54691 0.58676	0.60638	0.62542	0.62248	0.60158	AVRG		0.60799		6.37911

20100109 09:51:01



Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
End Cal Date : 06-JAN-2010 15:31  
Quant Method : ISTD  
Origin : Force  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
Cal Date : 12-Jan-2010 12:21 patrickb

Compound	Level								Curve	Coefficients		%RSD or R <sup>2</sup>
	1	2	5	10	50	100	m1	m2				
24 Chloroform	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	1.27769	1.05106	1.14632	1.19944	1.18273	1.12303						
26 Bromochloromethane	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	1.09382	1.01384	0.26638	0.28329	0.30395	0.29500			1.13599		7.47507	
27 1,1,1-Trichloroethane	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	1.08824	0.91749	1.03844	1.10312	1.09867	1.03946			0.28303		6.05935	
182 1-Butanol	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	0.99506	0.95876	0.64630	0.66499	0.66573	0.62811			1.02991		6.62291	
29 1,1-Dichloropropene	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	0.67862	0.60510	0.64630	0.66499	0.66573	0.62811			0.000e+00		0.000e+00 <-	
30 Carbon Tetrachloride	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	0.60540	0.59595	0.64630	0.66499	0.66573	0.62811			0.63628		5.04169	
32 1,2-Dichloroethane	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	0.73574	0.60908	0.67461	0.70974	0.69838	0.68069			0.67294		6.30918	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	0.64233	0.63299	0.70698	0.72805	0.69368	0.65878			0.68122		7.35333	

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	150	200									
	Level 7	Level 8									
33 Benzene	1.71076	1.50552	1.57188	1.64579	1.53755	1.44574	AVRG		1.45449		16.01798
	1.19894	1.01972									
180 Isooctane	++++	++++	++++	++++	++++	++++			0.000e+00		0.000e+00 <-
	++++	++++									
35 Trichloroethene	0.51974	0.41952	0.46655	0.49270	0.48542	0.45772	AVRG				
	0.44322	0.43265							0.46469		7.19462
36 1,2-Dichloropropane	0.51272	0.43812	0.46380	0.49485	0.46617	0.45718	AVRG		0.46416		5.86892
	0.44336	0.43712									
38 1,4-Dioxane	++++	++++	++++	++++	++++	++++					
	++++	++++							0.000e+00		0.000e+00 <-
37 Bromodichloromethane	0.63460	0.53036	0.57052	0.59496	0.58781	0.57313	AVRG				
	0.56160	0.54449							0.57468		5.59620
39 Dibromomethane	0.29991	0.24586	0.27901	0.28171	0.26960	0.26242	AVRG		0.26933		6.35027
	0.26056	0.25556									

000000 000000 000000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
----- 150 Level 7		200 Level 8									
40 2-Chloroethyl Vinyl Ether	++++ 0.16773	0.14519 0.17672	0.14431	0.15715	0.15896	0.16540	AVRG		0.15935		7.42612
41 4-Methyl-2-Pentanone	0.15500 0.13562	0.11196 0.13733	0.13069	0.13608	0.13921	0.13699	AVRG		0.13536		8.72854
42 Cis 1,3-dichloropropene	0.64321 0.65788	0.56948 0.62478	0.61596	0.67171	0.67340	0.66548	AVRG		0.64024		5.56384
28 Cyclohexane	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
44 Toluene	1.02161 0.88102	0.89151 0.79193	0.94938	1.00378	0.94699	0.91346	AVRG		0.92496		7.91432
45 Trans 1,3-Dichloropropene	0.52452 0.58888	0.46993 0.57205	0.54063	0.58976	0.59532	0.59531	AVRG		0.55955		8.02225
46 2-Hexanone	8654 ++++	10483 ++++	24368	52252	266907	521093	LINR	0.000e+00	0.33558		0.99785

01 00 00 00 00 00

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1	2	5	10	50	100	Curve	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	
47 1,1,2-Trichloroethane	0.32607 0.30325	0.27448 0.30582	0.30053	0.32240	0.30883	0.30719	AVRG	0.30607		5.10990
48 1,3-Dichloropropane	0.63537 0.62529	0.59306 0.61933	0.65594	0.67383	0.64725	0.63786	AVRG	0.63599		3.84952
49 Tetrachloroethene	0.59933 0.50733	0.49539 0.50428	0.54096	0.54068	0.53081	0.51759	AVRG	0.52955		6.20882
50 Chlorodibromomethane	0.40333 0.47364	0.33943 0.47595	0.39698	0.43428	0.46961	0.47282	AVRG	0.43325		11.49305
51 1,2-Dibromoethane	0.34649 0.35172	0.29086 0.35783	0.32348	0.34630	0.35964	0.36086	AVRG	0.34215		6.99422
53 Chlorobenzene	1.21170 0.97746	1.04529 0.86608	1.10048	1.15179	1.08805	1.06273	AVRG	1.06295		9.95870
55 1,1,1,2-Tetrachloroethane	0.37724 0.41698	0.35835 0.42528	0.40558	0.41822	0.41061	0.41373	AVRG	0.40325		5.74766

060908

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
End Cal Date : 06-JAN-2010 15:31  
Quant Method : ISTD  
Origin : Force  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
150	Level 7	200 Level 8									
54 Ethyl Benzene	2.06710	1.81615	1.96874	2.00633	1.92934	1.73912	AVRG		1.75798		18.40448
	1.36565	1.17138									
56 m,p-xylene	0.80305	0.70724	0.74379	0.78689	0.76889	0.77003	AVRG		0.72154		11.88625
	0.64027	0.55220									
57 o-Xylene	0.78503	0.67285	0.71979	0.75621	0.75296	0.75233	AVRG		0.73747		4.54871
	0.74056	0.72002									
58 Styrene	1.26525	1.03601	1.11712	1.19452	1.19527	1.18335	AVRG		1.12843		8.87685
	1.07535	0.96057									
59 Isopropyl Benzene	3.78955	3.20384	3.41476	3.63342	3.47954	3.11701	AVRG		3.29008		13.93925
	2.39243	++++									
60 Bromoform	0.50451	0.40465	0.47980	0.49397	0.52096	0.56037	AVRG		0.51152		10.64666
	0.56397	0.56396									
61 1,1,2,2-Tetrachloroethane	0.87057	0.70829	0.76821	0.82361	0.81361	0.82630	AVRG		0.80152		5.94245
	0.80868	0.79610									

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1		2		5		10		50		100		Coefficients		%RSD or R <sup>2</sup>	
	Level 1	Level 2	Level 2	Level 2	Level 3	Level 3	Level 4	Level 4	Level 5	Level 5	Level 6	Level 6	b	m1		m2
63 1,2,3-Trichloropropane	150 Level 7	200 Level 8	++++ 0.18719	0.17090 0.18521	0.18683 0.20909	0.19536 0.19342	AVRG	0.18972	6.12448							
65 Trans-1,4-Dichloro 2-Butene	++++ 0.28654	++++ 0.28541	0.25838 0.29154	4.02933 4.32477	0.28926 0.29014	AVRG	0.28354	4.42186								
66 N-Propyl Benzene	4.74041 2.50525	3.85025 ++++	4.13335 ++++	4.02933 3.35716	AVRG	3.84865	18.92171									
67 Bromobenzene	1.06972 0.91656	0.89651 0.89125	0.94315 1.00088	0.93762 0.93691	AVRG	0.94908	6.26111									
68 1,3,5-Trimethyl Benzene	3.30716 2.13554	2.46059 1.75666	2.75126 2.80382	2.90745 2.69073	AVRG	2.60165	18.45444									
69 2-Chloro Toluene	3.22687 2.12216	2.60488 1.86596	2.64942 2.85165	2.67641 2.43592	AVRG	2.55416	16.49063									
70 4-Chloro Toluene	3.20537 2.06000	2.60360 1.60889	2.72998 2.86006	2.67704 2.67704	AVRG	2.54297	19.40664									

000000 000000 000000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1		2		5		10		50		100		Curve	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 2	Level 2	Level 3	Level 3	Level 4	Level 4	Level 5	Level 5	Level 6	Level 6		b	m1	
71 T-Butyl Benzene	2.75523 2.12692	2.32208 1.73151	2.48583	2.64667	2.57348	2.45007	2.64667	2.57348	2.57348	2.57348	2.45007	2.45007	AVRG	2.38647		13.74391
72 1,2,4-Trimethylbenzene	3.24204 2.10094	2.53049 1.68465	2.75178	2.89281	2.76407	2.60913	2.89281	2.76407	2.76407	2.76407	2.60913	2.60913	AVRG	2.57199		18.78191
73 S-Butyl Benzene	4.18469 2.46991	3.41354 ++++	3.63318	3.81219	3.69267	3.20868	3.81219	3.69267	3.69267	3.69267	3.20868	3.20868	AVRG	3.48784		15.58778
74 4-Isopropyl Toluene	3.17692 2.13814	2.64240 1.74780	2.73938	2.95010	2.84318	2.67639	2.95010	2.84318	2.84318	2.84318	2.67639	2.67639	AVRG			17.58562
75 1,3-Dichlorobenzene	2.08065 1.53526	1.62308 1.35596	1.64922	1.73371	1.64077	1.60219	1.73371	1.64077	1.64077	1.64077	1.60219	1.60219	AVRG	1.65260		12.42474
64 Cyclohexanone	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	AVRG	0.000e+00		0.000e+00 <-
77 1,4-Dichlorobenzene	2.00099 1.47848	1.60224 1.29739	1.61253	1.66596	1.59320	1.57031	1.66596	1.59320	1.59320	1.59320	1.57031	1.57031	AVRG	1.60264		12.31156

99100 : 99104

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
178 1,2,3-Trimethylbenzene	++++ Level 7	++++ Level 8	++++	++++	++++	++++	AVRG	0.000e+00	0.000e+00		0.000e+00
78 N-Butyl Benzene	3.36596 2.15029	2.66580 1.70351	2.68454	2.87320	2.85814	2.65992	AVRG	2.62017			19.05933
80 1,2-Dichlorobenzene	1.88908 1.39973	1.45058 1.27165	1.52349	1.57206	1.48856	1.47166	AVRG	1.50835			11.81057
81 1,2-Dibromo 3-Chloropropane	++++ 0.15550	++++ 0.15678	0.14022	0.14708	0.15476	0.15935	AVRG	0.15228			4.72903
82 1,2,4-Trichlorobenzene	++++ 0.93927	1.09082 0.88111	1.01144	1.04173	1.05239	1.00122	AVRG	1.00257			7.12824
83 Hexachloro 1,3-Butadiene	++++ 0.64350	0.65667 0.61357	0.69000	0.67884	0.66484	0.63512	AVRG	0.65465			4.01056
84 Naphthalene	++++ 1.56830	2.09538 1.37510	1.65522	1.70407	1.81246	1.77919	AVRG	1.71282			13.03364



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

Compound	Coefficients								m2	%RSD or R <sup>2</sup>	
	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	b			m1
150 Level 7	200 Level 8										
85 1,2,3-Trichlorobenzene	++++ 0.83330	1.07350 0.80724	0.88023	0.92510	0.92761	0.89342	AVRG		0.90577		9.53464
\$ 25 Dibromofluoromethane	0.58218 0.56757	0.58494 0.56854	0.57384	0.57380	0.58555	0.57505	AVRG		0.57643		1.21787
\$ 31 d4-1,2-Dichloroethane	0.78873 ++++	0.78797 ++++	0.77359	0.76251	0.75420	0.72713	AVRG		0.76569		3.04534
\$ 43 d8-Toluene	1.20372 1.16308	1.20786 1.14648	1.20994	1.19396	1.19212	1.16149	AVRG		1.18483		2.05322
\$ 62 4-Bromofluorobenzene	0.55919 0.57818	0.55746 0.59699	0.56458	0.56218	0.56962	0.57078	AVRG		0.56987		2.25963
\$ 79 d4-1,2-Dichlorobenzene	0.90876 0.92446	0.91833 0.91028	0.91978	0.90463	0.92660	0.91795	AVRG		0.91635		0.84627

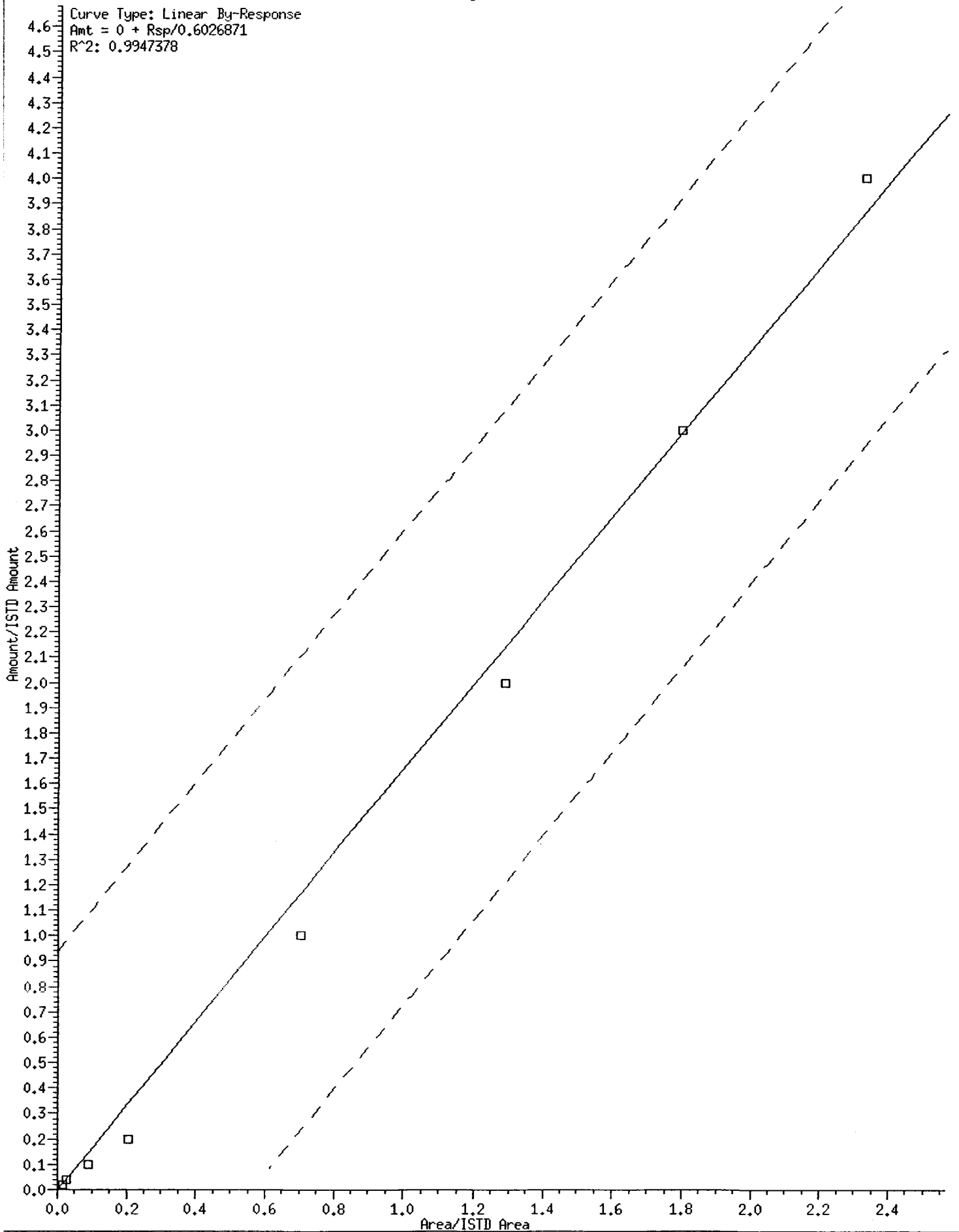
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb

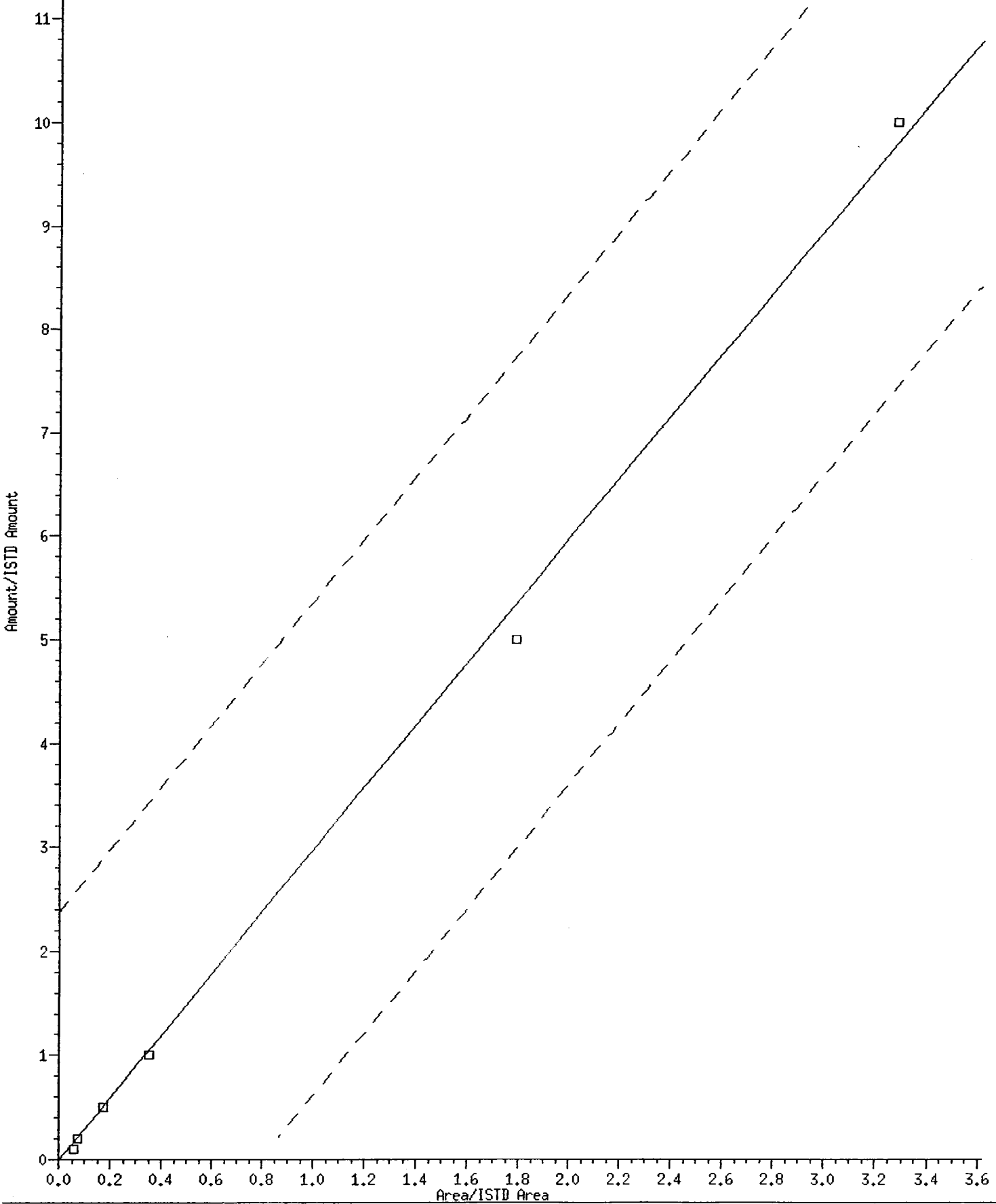
Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

13 Methylene Chloride



46 2-Hexanone

Curve Type: Linear By-Response  
Amt = 0 + Rsp/0.3355838  
R<sup>2</sup>: 0.9978523



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Calibration File Names:

- Level 1: /chem1/finn5.i/06JAN10.b/0010106.d
- Level 2: /chem1/finn5.i/06JAN10.b/0020106.d
- Level 3: /chem1/finn5.i/06JAN10.b/0050106.d
- Level 4: /chem1/finn5.i/06JAN10.b/0100106.d
- Level 5: /chem1/finn5.i/06JAN10.b/0500106.d
- Level 6: /chem1/finn5.i/06JAN10.b/1000106.d
- Level 7: /chem1/finn5.i/06JAN10.b/1500106.d
- Level 8: /chem1/finn5.i/06JAN10.b/2000106.d

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
1 Dichlorodifluoromethane	0.59575 0.61884	0.37723 0.62216	0.63793	0.59281	0.73777	0.67003	0.60656	17.124
2 Chloromethane	1.51473 1.10349	1.06679 1.08027	1.24108	1.21955	1.26382	1.15239	1.20526	12.090
3 Vinyl Chloride	1.14345 1.04908	1.01363 0.99071	1.26041	1.20872	1.36672	1.17689	1.15120	11.255
4 Bromomethane	0.52436 ++++	0.34888 ++++	0.42865	0.46300	0.55212	0.60042	0.48624	18.749
181 Ethyl Ether	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
5 Chloroethane	0.76230 0.68468	0.58301 0.65869	0.45948	0.71408	0.75831	0.72286	0.66793	15.315

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
6 Trichlorofluoromethane	1.28397 0.93499	1.08673 0.96205	1.24009	1.23491	1.20893	1.04242	1.12426	12.055
7 Acrolein	+++++ 0.10152	0.12436 0.10523	0.11739	0.10890	0.10717	0.10364	0.10974	7.483
8 112Trichloro122Trifluoroethan	0.91674 0.66225	0.72190 0.69289	0.78258	0.80768	0.75753	0.70081	0.75530	10.755
9 Acetone	0.27879 0.20072	0.26054 0.20200	0.23054	0.22361	0.23461	0.20931	0.23002	12.126
10 1,1-Dichloroethene	0.65815 0.53391	0.57703 0.51675	0.60809	0.60218	0.58914	0.55996	0.58065	7.703
11 Bromoethane	0.27206 0.34167	0.25296 0.34919	0.29793	0.28193	0.34967	0.33999	0.31067	12.546
12 Iodomethane	0.38070 0.41027	0.34467 0.43006	0.26557	0.29913	0.37134	0.38529	0.36088	15.351
13 Methylene Chloride	0.73671 0.59990	0.61425 0.58280	0.88399	1.01854	0.70581	0.64467	0.72333	21.323 <-
14 Acrylonitrile	+++++ 0.17833	0.16923 0.18479	0.18079	0.18737	0.18652	0.18165	0.18124	3.424

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
16 Methyl tert-Butyl Ether	1.60407 1.33642	1.36671 1.25507	1.45684	1.53056	1.45279	1.37738	1.42248	7.852
15 Carbon Disulfide	1.72349 1.88861	1.45355 1.85565	1.42825	1.37017	1.46320	1.78263	1.62069	13.116
17 Trans-1,2-Dichloroethene	0.68688 0.57305	0.53915 0.56466	0.58678	0.62837	0.60705	0.59058	0.59707	7.563
18 Vinyl Acetate	1.42988 1.26982	1.24599 1.13307	1.32199	1.37405	1.39605	1.37753	1.31855	7.421
19 1,1-Dichloroethane	1.32124 1.17334	1.17311 1.07737	1.26985	1.27948	1.26947	1.22368	1.22344	6.433
179 Hexane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++ <-
20 2-Butanone	0.32198 0.27974	0.28880 0.26115	0.29027	0.30327	0.30420	0.29275	0.29277	6.172
21 2,2-Dichloropropane	1.10125 0.97333	0.95914 0.94945	1.01803	1.08477	1.07991	1.01837	1.02303	5.862
22 Cis-1,2-Dichloroethene	0.68239 0.59202	0.54691 0.58676	0.60638	0.62542	0.62248	0.60158	0.60799	6.379

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
24 Chloroform	1.27769 1.09382	1.05106 1.01384	1.14632	1.19944	1.18273	1.12303	1.13599	7.475
26 Bromochloromethane	0.27924 0.29598	0.25163 0.28877	0.26638	0.28329	0.30395	0.29500	0.28303	6.059
27 1,1,1-Trichloroethane	1.08824 0.99506	0.91749 0.95876	1.03844	1.10312	1.09867	1.03946	1.02991	6.623
182 1-Butanol	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++ <-
29 1,1-Dichloropropene	0.67862 0.60540	0.60510 0.59595	0.64630	0.66499	0.66573	0.62811	0.63628	5.042
30 Carbon Tetrachloride	0.73574 0.64233	0.60908 0.63299	0.67461	0.70974	0.69838	0.68069	0.67294	6.309
32 1,2-Dichloroethane	0.76158 0.63365	0.65329 0.61378	0.70698	0.72805	0.69368	0.65878	0.68122	7.353
33 Benzene	1.71076 1.19894	1.50552 1.01972	1.57188	1.64579	1.53755	1.44574	1.45449	16.018
180 Isooctane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++ <-



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
35 Trichloroethene	0.51974 0.44322	0.41952 0.43265	0.46655	0.49270	0.48542	0.45772	0.46469	7.195
36 1,2-Dichloropropane	0.51272 0.44336	0.43812 0.43712	0.46380	0.49485	0.46617	0.45718	0.46416	5.869
38 1,4-Dioxane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++ <-
37 Bromodichloromethane	0.63460 0.56160	0.53036 0.54449	0.57052	0.59496	0.58781	0.57313	0.57468	5.596
39 Dibromomethane	0.29991 0.26056	0.24586 0.25556	0.27901	0.28171	0.26960	0.26242	0.26933	6.350
40 2-Chloroethyl Vinyl Ether	++++ 0.16773	0.14519 0.17672	0.14431	0.15715	0.15896	0.16540	0.15935	7.426
41 4-Methyl-2-Pentanone	0.15500 0.13562	0.11196 0.13733	0.13069	0.13608	0.13921	0.13699	0.13536	8.729
42 Cis 1,3-dichloropropene	0.64321 0.65788	0.56948 0.62478	0.61596	0.67171	0.67340	0.66548	0.64024	5.564
28 Cyclohexane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++ <-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
44 Toluene	1.02161	0.89151	0.94938	1.00378	0.94699	0.91346		
	0.88102	0.79193					0.92496	7.914
45 Trans 1,3-Dichloropropene	0.52452	0.46993	0.54063	0.58976	0.59532	0.59531		
	0.58888	0.57205					0.55955	8.022
46 2-Hexanone	0.59411	0.36051	0.34654	0.35470	0.35894	0.32892		
	+++++	+++++					0.39062	25.692 <-
47 1,1,2-Trichloroethane	0.32607	0.27448	0.30053	0.32240	0.30883	0.30719		
	0.30325	0.30582					0.30607	5.110
48 1,3-Dichloropropane	0.63537	0.59306	0.65594	0.67383	0.64725	0.63786		
	0.62529	0.61933					0.63599	3.850
49 Tetrachloroethene	0.59933	0.49539	0.54096	0.54068	0.53081	0.51759		
	0.50733	0.50428					0.52955	6.209
50 Chlorodibromomethane	0.40333	0.33943	0.39698	0.43428	0.46961	0.47282		
	0.47364	0.47595					0.43325	11.493
51 1,2-Dibromoethane	0.34649	0.29086	0.32348	0.34630	0.35964	0.36086		
	0.35172	0.35783					0.34215	6.994
53 Chlorobenzene	1.21170	1.04529	1.10048	1.15179	1.08805	1.06273		
	0.97746	0.86608					1.06295	9.959

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
55 1,1,1,2-Tetrachloroethane	0.37724 0.41698	0.35835 0.42528	0.40558	0.41822	0.41061	0.41373	0.40325	5.748
54 Ethyl Benzene	2.06710 1.36565	1.81615 1.17138	1.96874	2.00633	1.92934	1.73912	1.75798	18.404
56 m,p-xylene	0.80305 0.64027	0.70724 0.55220	0.74379	0.78689	0.76889	0.77003	0.72154	11.886
57 o-Xylene	0.78503 0.74056	0.67285 0.72002	0.71979	0.75621	0.75296	0.75233	0.73747	4.549
58 Styrene	1.26525 1.07535	1.03601 0.96057	1.11712	1.19452	1.19527	1.18335	1.12843	8.877
59 Isopropyl Benzene	3.78955 2.39243	3.20384 ++++	3.41476	3.63342	3.47954	3.11701	3.29008	13.939
60 Bromoform	0.50451 0.56397	0.40465 0.56396	0.47980	0.49397	0.52096	0.56037	0.51152	10.647
61 1,1,2,2-Tetrachloroethane	0.87057 0.80868	0.70829 0.79610	0.76821	0.82361	0.81361	0.82630	0.80192	5.942
63 1,2,3-Trichloropropane	++++ 0.18719	0.17090 0.18521	0.18683	0.20909	0.19536	0.19342	0.18972	6.124

## Analytical Resources, Inc.

## INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
65 Trans-1,4-Dichloro 2-Butene	++++ 0.28654	++++ 0.28541	0.25838	0.29154	0.28926	0.29014	0.28354	4.422
66 N-Propyl Benzene	4.74041 2.50525	3.85025 ++++	4.13335	4.32477	4.02933	3.35716	3.84865	18.922
67 Bromobenzene	1.06972 0.91656	0.89651 0.89125	0.94315	1.00088	0.93762	0.93691	0.94908	6.261
68 1,3,5-Trimethyl Benzene	3.30716 2.13554	2.46059 1.75666	2.75126	2.90745	2.80382	2.69073	2.60165	18.454
69 2-Chloro Toluene	3.22687 2.12216	2.60488 1.86596	2.64942	2.85165	2.67641	2.43592	2.55416	16.491
70 4-Chloro Toluene	3.20537 2.06000	2.60360 1.60889	2.72998	2.86006	2.59882	2.67704	2.54297	19.407
71 T-Butyl Benzene	2.75523 2.12692	2.32208 1.73151	2.48583	2.64667	2.57348	2.45007	2.38647	13.744
72 1,2,4-Trimethylbenzene	3.24204 2.10094	2.53049 1.68465	2.75178	2.89281	2.76407	2.60913	2.57199	18.782
73 S-Butyl Benzene	4.18469 2.46991	3.41354 ++++	3.63318	3.81219	3.69267	3.20868	3.48784	15.588

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
74 4-Isopropyl Toluene	3.17692 2.13814	2.64240 1.74780	2.73938	2.95010	2.84318	2.67639	2.61429	17.586
75 1,3-Dichlorobenzene	2.08065 1.53526	1.62308 1.35596	1.64922	1.73371	1.64077	1.60219	1.65260	12.425
64 Cyclohexanone	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
77 1,4-Dichlorobenzene	2.00099 1.47848	1.60224 1.29739	1.61253	1.66596	1.59320	1.57031	1.60264	12.312
178 1,2,3-Trimethylbenzene	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
78 N-Butyl Benzene	3.36596 2.15029	2.66580 1.70351	2.68454	2.87320	2.85814	2.65992	2.62017	19.059
80 1,2-Dichlorobenzene	1.88908 1.39973	1.45058 1.27165	1.52349	1.57206	1.48856	1.47166	1.50835	11.811
81 1,2-Dibromo 3-Chloropropane	++++ 0.15550	++++ 0.15678	0.14022	0.14708	0.15476	0.15935	0.15228	4.729
82 1,2,4-Trichlorobenzene	++++ 0.93927	1.09082 0.88111	1.01144	1.04173	1.05239	1.00122	1.00257	7.128

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 09:59  
 End Cal Date : 06-JAN-2010 15:31  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem1/finn5.i/06JAN10.b/SampleInfo/s8260b.m  
 Cal Date : 12-Jan-2010 12:21 patrickb  
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
83 Hexachloro 1,3-Butadiene	+++++	0.65667	0.69000	0.67884	0.66484	0.63512		
	0.64350	0.61357					0.65465	4.011
84 Naphthalene	+++++	2.09538	1.65522	1.70407	1.81246	1.77919		
	1.56830	1.37510					1.71282	13.034
85 1,2,3-Trichlorobenzene	+++++	1.07350	0.88023	0.92510	0.92761	0.89342		
	0.83330	0.80724					0.90577	9.535
\$ 25 Dibromofluoromethane	0.58218	0.58494	0.57384	0.57380	0.58555	0.57505		
	0.56757	0.56854					0.57643	1.218
\$ 31 d4-1,2-Dichloroethane	0.78873	0.78797	0.77359	0.76251	0.75420	0.72713		
	+++++	+++++					0.76569	3.045
\$ 43 d8-Toluene	1.20372	1.20786	1.20994	1.19396	1.19212	1.16149		
	1.16308	1.14648					1.18483	2.053
\$ 62 4-Bromofluorobenzene	0.55919	0.55746	0.56458	0.56218	0.56962	0.57078		
	0.57818	0.59699					0.56987	2.260
\$ 79 d4-1,2-Dichlorobenzene	0.90876	0.91833	0.91978	0.90463	0.92660	0.91795		
	0.92446	0.91028					0.91635	0.846

Report Date : 13-Jan-2010 09:56

Analytical Resources, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
Batch File: /chem1/finn5.i/06JAN10.b  
Inst ID: finn5.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07 RT08 RT07 RT08 RT08  
FILENAME: 0050106 0100106 0500106 1000106 1500106 2000106 0010106 0020106  
INJ.DATE: 06-JAN-2010 06-JAN-2010 06-JAN-2010 06-JAN-2010 06-JAN-2010 06-JAN-2010 06-JAN-2010 06-JAN-2010  
INJ.TIME: 11:34 12:01 12:28 12:54 13:21 13:53 14:56 15:31

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Dichlorodifluoromethan	3.035	3.025	3.015	3.035	3.025	3.015	3.035	3.025	3.035	2.770-3.299	3.026	0.008
2 Chloromethane	3.327	3.327	3.316	3.327	3.316	3.306	3.327	3.316	3.327	3.062-3.591	3.320	0.007
3 Vinyl Chloride	3.437	3.437	3.427	3.437	3.427	3.417	3.457	3.437	3.437	3.173-3.702	3.435	0.012
4 Bromomethane	3.919	3.919	3.909	3.919	3.909	3.889	3.930	3.919	3.919	3.655-4.184	3.914	0.012
181 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.500	4.220-4.780	+++++	+++++
5 Chloroethane	3.990	3.990	3.980	3.990	3.980	3.960	4.000	3.990	3.990	3.725-4.254	3.985	0.012
6 Trichlorofluoromethane	4.251	4.251	4.241	4.251	4.241	4.221	4.261	4.241	4.251	3.987-4.516	4.245	0.012
7 Acrolein	4.633	4.633	4.623	4.643	4.633	4.623	4.633	4.623	4.633	4.368-4.898	4.631	0.007
8 1,1,2-Trichloro-1,2,2-trifluoroethane	4.653	4.643	4.633	4.653	4.643	4.623	4.663	4.643	4.653	4.389-4.918	4.644	0.013
9 Acetone	4.683	4.693	4.673	4.693	4.673	4.673	4.693	4.673	4.683	4.419-4.948	4.685	0.010
10 1,1-Dichloroethene	4.844	4.844	4.834	4.844	4.834	4.824	4.854	4.834	4.844	4.580-5.109	4.839	0.009
11 Bromoethane	5.065	5.065	5.055	5.065	5.055	5.045	5.075	5.055	5.065	4.801-5.330	5.060	0.009
12 Iodomethane	5.166	5.156	5.146	5.166	5.156	5.136	5.176	5.156	5.166	4.901-5.430	5.157	0.013
13 Methylene Chloride	5.276	5.276	5.266	5.276	5.276	5.256	5.286	5.266	5.276	5.012-5.541	5.272	0.009
14 Acrylonitrile	5.367	5.357	5.347	5.367	5.357	5.347	5.367	5.347	5.367	5.102-5.631	5.357	0.009
16 Methyl tert-Butyl Ether	5.397	5.397	5.387	5.407	5.397	5.387	5.407	5.387	5.397	5.132-5.661	5.396	0.008
15 Carbon Disulfide	5.377	5.377	5.367	5.387	5.377	5.357	5.387	5.367	5.377	5.112-5.641	5.374	0.010

Reviewer 1  
Reviewer 2

Date:  
Date:

Analytical Resources, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
Batch File: /chem1/finn5.i/06JAN10.b  
Inst ID: finn5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 Trans-1,2-Dichloroethane	5.558	5.558	5.548	5.558	5.558	5.538	5.568	5.548	5.558	5.293-5.822	5.554	0.009
18 Vinyl Acetate	5.879	5.879	5.869	5.879	5.879	5.859	5.889	5.869	5.879	5.615-6.144	5.875	0.009
19 1,1-Dichloroethane	5.940	5.940	5.929	5.940	5.929	5.919	5.950	5.929	5.940	5.675-6.204	5.935	0.009
179 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.990	5.710-6.270	+++++	+++++
20 2-Butanone	6.281	6.281	6.261	6.281	6.281	6.261	6.281	6.271	6.281	6.017-6.546	6.275	0.009
21 2,2-Dichloropropane	6.462	6.462	6.442	6.462	6.452	6.442	6.462	6.452	6.462	6.198-6.727	6.455	0.009
22 Cis-1,2-Dichloroethane	6.492	6.492	6.482	6.502	6.492	6.472	6.502	6.482	6.492	6.228-6.757	6.490	0.010
* 23 Pentafluorobenzene	6.623	6.623	6.613	6.623	6.613	6.603	6.633	6.613	6.623	6.358-6.888	6.618	0.009
24 Chloroform	6.643	6.643	6.623	6.643	6.633	6.623	6.643	6.633	6.643	6.378-6.908	6.635	0.009
26 Bromochloromethane	6.804	6.804	6.794	6.804	6.804	6.784	6.814	6.794	6.804	6.539-7.069	6.800	0.009
\$ 25 Dibromofluoromethane	6.844	6.844	6.824	6.844	6.834	6.824	6.844	6.834	6.844	6.579-7.109	6.836	0.009
27 1,1,1-Trichloroethane	7.035	7.025	7.015	7.035	7.025	7.015	7.035	7.025	7.035	6.770-7.300	7.026	0.008
182 1-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.030	7.750-8.310	+++++	+++++
29 1,1-Dichloropropene	7.176	7.176	7.156	7.176	7.166	7.156	7.176	7.166	7.176	6.871-7.480	7.168	0.009
\$ 31 d4-1,2-Dichloroethane	7.306	7.306	7.286	7.306	7.296	7.286	7.306	7.296	7.306	7.041-7.571	7.299	0.009
30 Carbon Tetrachloride	7.286	7.286	7.276	7.286	7.286	7.266	7.296	7.276	7.286	6.981-7.591	7.282	0.009
32 1,2-Dichloroethane	7.387	7.387	7.377	7.397	7.387	7.377	7.397	7.377	7.387	7.082-7.691	7.385	0.008
33 Benzene	7.437	7.437	7.427	7.437	7.437	7.417	7.447	7.427	7.437	7.132-7.742	7.433	0.009
180 Isooctane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.687	6.407-6.967	+++++	+++++
* 34 1,4-Difluorobenzene	7.628	7.628	7.618	7.638	7.628	7.608	7.638	7.618	7.628	7.323-7.933	7.625	0.010
35 Trichloroethene	8.000	8.000	7.990	8.010	8.000	7.980	8.010	7.990	8.000	7.695-8.305	7.997	0.010
36 1,2-Dichloropropane	8.171	8.161	8.151	8.171	8.161	8.151	8.171	8.151	8.171	7.865-8.476	8.161	0.009

0000 0000



Analytical Resources, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
Batch File: /chem1/finn5.i/06JAN10.b  
Inst ID: finn5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
38 1,4-Dioxane	8.402	8.402	8.382	8.402	8.392	8.382	8.402	8.392	8.887	8.607-9.167	8.394	0.009
37 Bromodichloromethane	8.472	8.462	8.452	8.472	8.462	8.452	8.472	8.452	8.472	8.167-8.777	8.462	0.009
39 Dibromomethane	8.613	8.613	8.603	8.623	8.613	8.603	8.623	8.603	8.613	8.308-8.918	8.612	0.008
40 2-Chloroethyl Vinyl Et	8.653	8.653	8.633	8.653	8.643	8.633	8.653	8.633	8.653	8.348-8.958	8.644	0.010
41 4-Methyl-2-Pentanone	8.904	8.904	8.884	8.904	8.894	8.884	8.904	8.894	8.904	8.599-9.209	8.897	0.009
42 Cis 1,3-dichloropropen	9.176	9.176	9.166	9.186	9.176	9.166	9.186	9.166	9.176	7.057-7.617	9.174	0.008
28 Cyclohexane	9.266	9.266	9.246	9.266	9.256	9.246	9.266	9.256	9.266	8.961-9.571	9.260	0.011
43 d8-Toluene	9.397	9.397	9.377	9.397	9.387	9.377	9.397	9.387	9.397	9.092-9.702	9.389	0.009
44 Toluene	9.527	9.527	9.517	9.527	9.527	9.517	9.527	9.517	9.527	9.096-9.958	9.525	0.007
45 Trans 1,3-Dichloroprop	9.578	9.578	9.558	9.578	9.568	9.558	9.578	9.568	9.578	9.273-9.883	9.571	0.011
46 2-Hexanone	9.839	9.839	9.819	9.839	9.829	9.819	9.839	9.819	9.839	9.408-10.270	9.830	0.010
47 1,1,2-Trichloroethane	9.949	9.949	9.939	9.949	9.949	9.939	9.949	9.939	9.949	9.518-10.380	9.948	0.008
48 1,3-Dichloropropane	10.161	10.161	10.150	10.161	10.161	10.140	10.171	10.150	10.161	9.729-10.591	10.157	0.009
49 Tetrachloroethene	10.382	10.382	10.372	10.382	10.382	10.372	10.382	10.372	10.382	10.076-10.687	10.380	0.008
50 Chlorodibromomethane	10.784	10.784	10.764	10.784	10.774	10.764	10.794	10.774	10.784	10.352-11.215	10.777	0.011
51 1,2-Dibromoethane	10.824	10.824	10.814	10.824	10.824	10.804	10.834	10.814	10.824	10.392-11.255	10.820	0.009
* 52 d5-Chlorobenzene	10.854	10.854	10.834	10.854	10.844	10.834	10.864	10.834	10.854	10.423-11.285	10.845	0.011
53 Chlorobenzene	10.854	10.854	10.844	10.854	10.854	10.844	10.864	10.844	10.854	10.423-11.285	10.851	0.007
55 1,1,1,2-Tetrachloroeth	10.934	10.934	10.924	10.934	10.934	10.924	10.944	10.924	10.934	10.503-11.366	10.932	0.007
54 Ethyl Benzene	11.427	11.427	11.407	11.427	11.427	11.407	11.437	11.417	11.427	10.995-11.858	11.422	0.011
56 m,p-xylene	11.457	11.457	11.437	11.457	11.447	11.437	11.467	11.447	11.457	11.026-11.888	11.451	0.011
57 o-Xylene	11.809	11.809	11.789	11.809	11.799	11.789	11.819	11.799	11.809	11.271-12.346	11.802	0.011
58 Styrene												
59 Isopropyl Benzene												

Analytical Resources, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
Batch File: /chem1/finn5.i/06JAN10.b  
Inst ID: finn5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
60 Bromoform	11.869	11.869	11.849	11.869	11.859	11.849	11.869	11.859	11.869	11.331-12.407	11.861	0.009
61 1,1,2,2-Tetrachloroeth	11.990	11.980	11.970	11.990	11.980	11.970	11.990	11.970	11.990	11.452-12.527	11.980	0.009
\$ 62 4-Bromofluorobenzene	12.100	12.100	12.090	12.100	12.100	12.080	12.110	12.090	12.100	11.669-12.531	12.096	0.009
63 1,2,3-Trichloropropane	12.150	12.150	12.140	12.160	12.150	12.140	12.160	12.140	12.150	11.613-12.688	12.149	0.008
65 Trans-1,4-Dichloro 2-B	12.201	12.201	12.191	12.211	12.201	12.191	12.211	12.201	12.201	11.663-12.738	12.199	0.008
66 N-Propyl Benzene	12.261	12.261	12.251	12.261	12.261	12.241	12.271	12.251	12.261	11.723-12.799	12.257	0.009
67 Bromobenzene	12.351	12.351	12.331	12.351	12.341	12.331	12.361	12.341	12.351	11.814-12.889	12.345	0.011
68 1,3,5-Trimethyl Benzen	12.432	12.432	12.422	12.432	12.432	12.412	12.442	12.422	12.432	11.894-12.970	12.428	0.009
69 2-Chloro Toluene	12.492	12.492	12.482	12.492	12.492	12.472	12.502	12.482	12.492	11.954-13.030	12.488	0.009
70 4-Chloro Toluene	12.532	12.532	12.522	12.542	12.532	12.522	12.542	12.522	12.532	11.994-13.070	12.531	0.008
71 T-Butyl Benzene	12.844	12.844	12.834	12.844	12.834	12.824	12.854	12.834	12.844	12.306-13.382	12.839	0.009
72 1,2,4-Trimethylbenzene	12.894	12.894	12.874	12.894	12.884	12.874	12.904	12.884	12.894	12.356-13.432	12.888	0.011
73 S-Butyl Benzene	13.085	13.085	13.075	13.095	13.085	13.075	13.095	13.075	13.085	12.547-13.623	13.084	0.008
74 4-Isopropyl Toluene	13.236	13.236	13.226	13.236	13.236	13.216	13.246	13.226	13.236	12.698-13.774	13.232	0.009
75 1,3-Dichlorobenzene	13.387	13.387	13.366	13.387	13.377	13.366	13.397	13.377	13.387	12.848-13.924	13.380	0.011
64 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.320-14.215	+++++	+++++
* 76 d4-1,4-Dichlorobenzene	13.457	13.457	13.447	13.467	13.457	13.447	13.467	13.447	13.457	12.919-13.995	13.456	0.008
77 1,4-Dichlorobenzene	13.497	13.497	13.487	13.507	13.497	13.487	13.507	13.487	13.497	12.959-14.035	13.496	0.008
178 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.545-14.654	+++++	+++++
78 N-Butyl Benzene	13.708	13.708	13.698	13.718	13.708	13.698	13.718	13.698	13.708	13.170-14.246	13.707	0.008
\$ 79 d4-1,2-Dichlorobenzene	13.909	13.909	13.899	13.909	13.899	13.889	13.919	13.899	13.909	13.371-14.447	13.904	0.009
80 1,2-Dichlorobenzene	13.939	13.939	13.929	13.939	13.939	13.929	13.949	13.929	13.939	13.401-14.477	13.937	0.007
81 1,2-Dibromo 3-Chloropr	14.844	14.844	14.834	14.844	14.844	14.824	14.854	14.834	14.844	14.305-15.382	14.840	0.009

Analytical Resources, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
Batch File: /chem1/finn5.i/06JAN10.b  
Inst ID: finn5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
82 1,2,4-Trichlorobenzene	15.889	15.889	15.879	15.889	15.889	15.869	15.899	15.879	15.889	15.351-16.427	15.885	0.009
83 Hexachloro 1,3-Butadie	16.040	16.050	16.030	16.050	16.040	16.030	16.050	16.030	16.040	15.501-16.578	16.040	0.009
84 Naphthalene	16.211	16.211	16.201	16.221	16.211	16.201	16.221	16.201	16.211	15.672-16.749	16.209	0.008
85 1,2,3-Trichlorobenzene	16.502	16.502	16.492	16.502	16.502	16.482	16.512	16.492	16.502	15.964-17.040	16.498	0.009

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/0010106.d  
 Lab Smp Id: IC0106 Client Smp ID: VSTD1  
 Inj Date : 06-JAN-2010 14:56  
 Operator : PB Inst ID: finn5.i  
 Smp Info : IC0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 09:56 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 14:56 Cal File: 0010106.d  
 Als bottle: 1 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula: Amt \* DF \* Pv \* 1 / (Sa \* ((100 - M) / 100)) \* CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.035	3.035	(0.458)	1327	1.00000	0.9822
2 Chloromethane	50	3.327	3.327	(0.501)	3374	1.00000	1.257
3 Vinyl Chloride	62	3.457	3.457	(0.521)	2547	1.00000	0.9933
4 Bromomethane	94	3.930	3.930	(0.592)	1168	1.00000	1.078
5 Chloroethane	64	4.000	4.000	(0.603)	1698	1.00000	1.141
6 Trichlorofluoromethane	101	4.261	4.261	(0.642)	2860	1.00000	1.142
7 Acrolein	56	4.633	4.633	(0.698)	1634	5.00000	6.684
8 1,1,1-Trichloro-2,2,2-Trifluoroethane	101	4.663	4.663	(0.703)	2042	1.00000	1.214
9 Acetone	43	4.693	4.693	(0.708)	3105	5.00000	6.060 (M)
10 1,1-Dichloroethene	96	4.854	4.854	(0.732)	1466	1.00000	1.133
11 Bromoethane	108	5.075	5.075	(0.765)	606	1.00000	0.8757
12 Iodomethane	142	5.176	5.176	(0.780)	848	1.00000	1.055 (M)
13 Methylene Chloride	84	5.286	5.286	(0.797)	1641	1.00000	1.222
14 Acrylonitrile	53	5.367	5.367	(0.809)	294	1.00000	0.7282

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.407	5.407	(0.815)	3573	1.00000	1.128
15 Carbon Disulfide	76	5.387	5.387	(0.812)	3839	1.00000	1.063
17 Trans-1,2-Dichloroethene	96	5.568	5.568	(0.839)	1530	1.00000	1.150
18 Vinyl Acetate	43	5.889	5.889	(0.888)	3185	1.00000	1.084
19 1,1-Dichloroethane	63	5.950	5.950	(0.897)	2943	1.00000	1.080
20 2-Butanone	43	6.281	6.281	(0.947)	3586	5.00000	5.499
21 2,2-Dichloropropane	77	6.462	6.462	(0.974)	2453	1.00000	1.076
22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.980)	1520	1.00000	1.122
* 23 Pentafluorobenzene	168	6.633	6.633	(1.000)	111373	50.0000	
24 Chloroform	83	6.643	6.643	(1.002)	2846	1.00000	1.125
26 Bromochloromethane	128	6.814	6.814	(1.027)	622	1.00000	0.9866
\$ 25 Dibromofluoromethane	111	6.844	6.844	(1.032)	64839	50.0000	50.498
27 1,1,1-Trichloroethane	97	7.035	7.035	(1.061)	2424	1.00000	1.057
29 1,1-Dichloropropane	75	7.176	7.176	(0.939)	2127	1.00000	1.066
30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	2306	1.00000	1.093
\$ 31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.101)	87843	50.0000	51.504
32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	2387	1.00000	1.118
33 Benzene	78	7.447	7.447	(0.975)	5362	1.00000	1.176
* 34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	156714	50.0000	
35 Trichloroethene	95	8.010	8.010	(1.049)	1629	1.00000	1.118
36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	1607	1.00000	1.105
37 Bromodichloromethane	83	8.402	8.402	(1.100)	1989	1.00000	1.104
39 Dibromomethane	93	8.472	8.472	(1.109)	940	1.00000	1.114
40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	411	1.00000	0.8229
41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.133)	2429	5.00000	5.725
42 Cis 1,3-dichloropropene	75	8.904	8.904	(1.166)	2016	1.00000	1.005
\$ 43 d8-Toluene	98	9.186	9.186	(1.203)	188640	50.0000	50.797
44 Toluene	92	9.276	9.276	(1.214)	3202	1.00000	1.104
45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.230)	1644	1.00000	0.9374
46 2-Hexanone	43	9.537	9.537	(0.884)	8654	5.00000	8.852 (M)
47 1,1,2-Trichloroethane	97	9.588	9.588	(1.255)	1022	1.00000	1.065
48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	1851	1.00000	0.9990
49 Tetrachloroethene	166	9.960	9.960	(0.923)	1746	1.00000	1.132
50 Chlorodibromomethane	129	10.171	10.171	(0.942)	1175	1.00000	0.9309
51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	1086	1.00000	1.013 (T)
52 d5-Chlorobenzene	117	10.794	10.794	(1.000)	145663	50.0000	
53 Chlorobenzene	112	10.834	10.834	(1.004)	3530	1.00000	1.140
54 Ethyl Benzene	91	10.864	10.864	(1.007)	6022	1.00000	1.176
55 1,1,1,2-Tetrachloroethane	131	10.864	10.864	(1.007)	1099	1.00000	0.9355
56 m,p-xylene	106	10.944	10.944	(1.014)	4679	2.00000	2.226
57 o-Xylene	106	11.437	11.437	(1.060)	2287	1.00000	1.064
58 Styrene	104	11.467	11.467	(1.062)	3686	1.00000	1.121
59 Isopropyl Benzene	105	11.819	11.819	(0.878)	5994	1.00000	1.152
60 Bromoform	173	11.869	11.869	(0.881)	798	1.00000	0.9863
61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	1377	1.00000	1.086
62 4-Bromofluorobenzene	95	12.110	12.110	(1.122)	81454	50.0000	49.063
63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	337	1.00000	1.123 (M)

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	608	1.00000	1.356 (M)
66 N-Propyl Benzene	91	12.271	12.271	(0.911)	7498	1.00000	1.232
67 Bromobenzene	156	12.361	12.361	(0.918)	1692	1.00000	1.127
68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.924)	5231	1.00000	1.271
69 2-Chloro Toluene	91	12.502	12.502	(0.928)	5104	1.00000	1.263
70 4-Chloro Toluene	91	12.542	12.542	(0.931)	5070	1.00000	1.260
71 T-Butyl Benzene	119	12.854	12.854	(0.954)	4358	1.00000	1.154
72 1,2,4-Trimethylbenzene	105	12.904	12.904	(0.958)	5128	1.00000	1.260
73 S-Butyl Benzene	105	13.095	13.095	(0.972)	6619	1.00000	1.200
74 4-Isopropyl Toluene	119	13.246	13.246	(0.984)	5025	1.00000	1.215
75 1,3-Dichlorobenzene	146	13.397	13.397	(0.995)	3291	1.00000	1.259
* 76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	79086	50.0000	
77 1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	3165	1.00000	1.248
78 N-Butyl Benzene	91	13.718	13.718	(1.019)	5324	1.00000	1.285
; 79 d4-1,2-Dichlorobenzene	152	13.919	13.919	(1.034)	71870	50.0000	49.586
80 1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	2988	1.00000	1.252
81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.103)	297	1.00000	1.233
82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	2940	1.00000	1.854
83 Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	1614	1.00000	1.559
84 Naphthalene	128	16.221	16.221	(1.204)	6575	1.00000	2.427
85 1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	3114	1.00000	2.174

QC Flag Legend

! - Target compound detected outside RT window.  
 M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: 0010106.d  
 Lab Smp Id: IC0106  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

Calibration Date: 06-JAN-2010  
 Calibration Time: 12:28  
 Client Smp ID: VSTD1  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

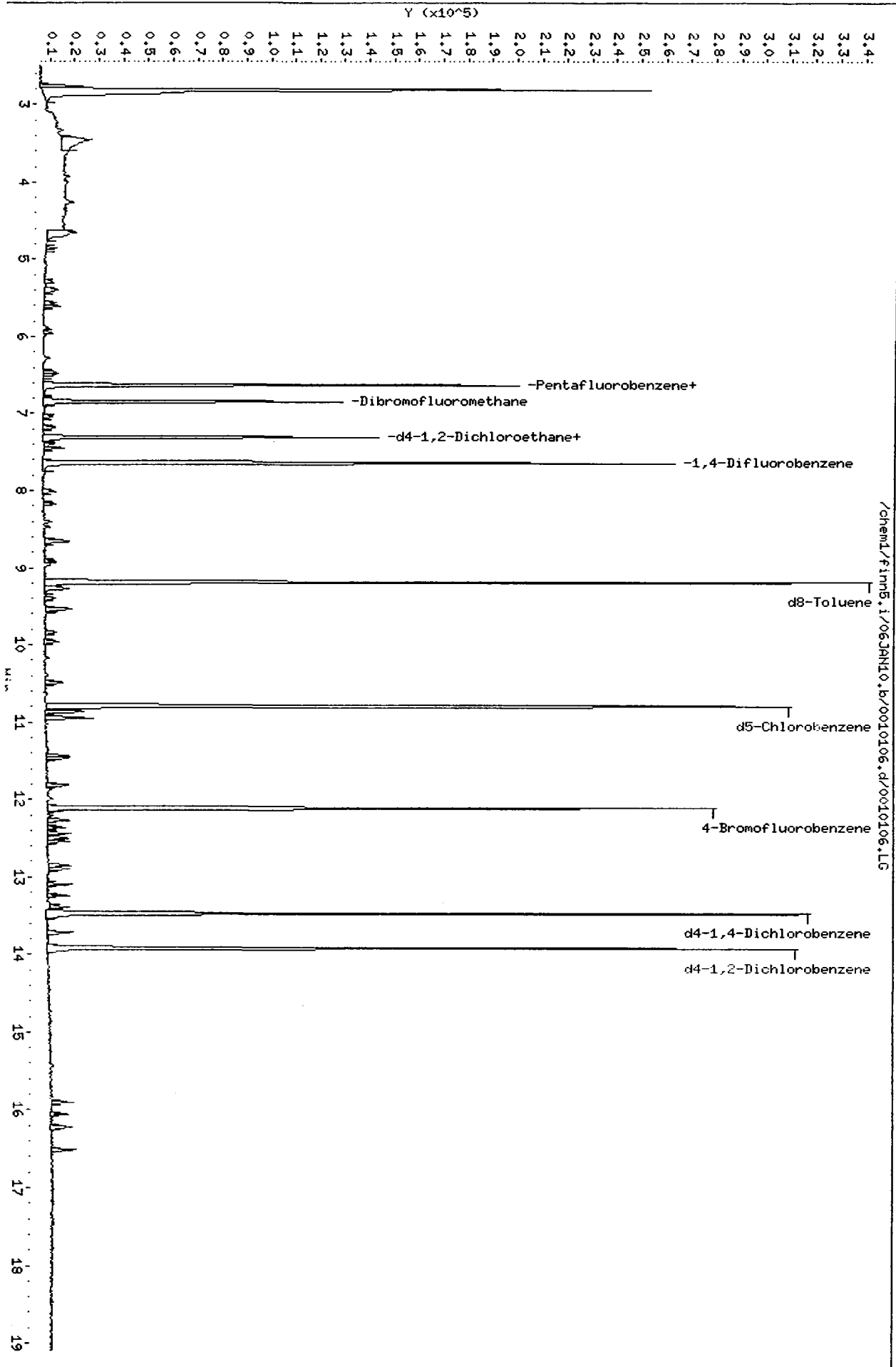
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	111373	-1.78
34 1,4-Difluorobenze	160565	80282	321130	156714	-2.40
52 d5-Chlorobenzene	148719	74360	297438	145663	-2.05
76 d4-1,4-Dichlorobe	84322	42161	168644	79086	-6.21

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.63	0.30
34 1,4-Difluorobenze	7.62	7.12	8.12	7.64	0.26
52 d5-Chlorobenzene	10.76	10.26	11.26	10.79	0.28
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.47	0.15

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

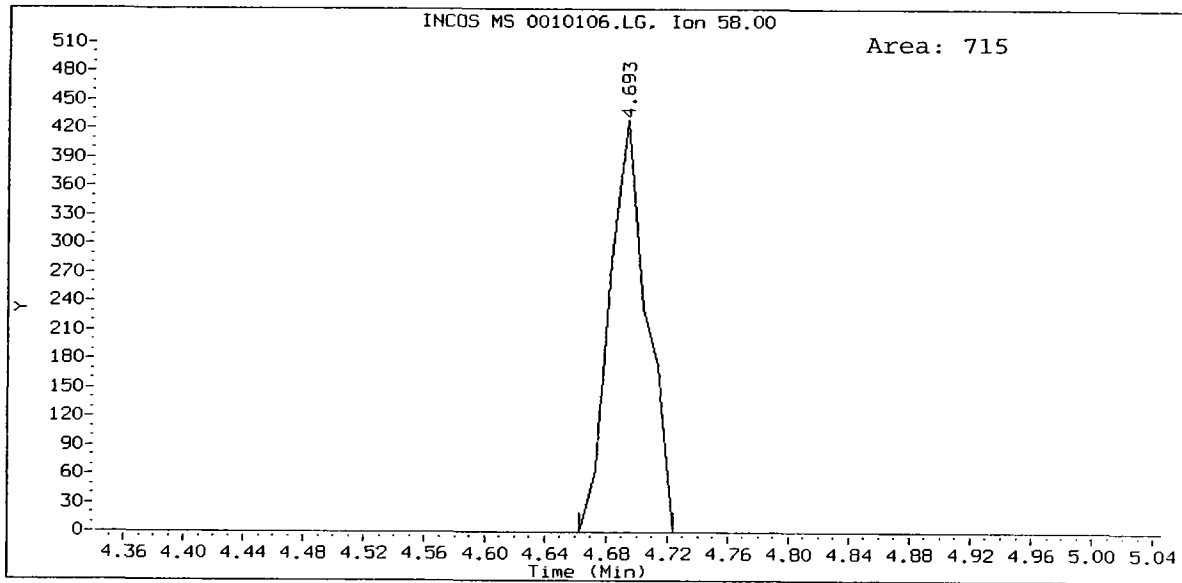
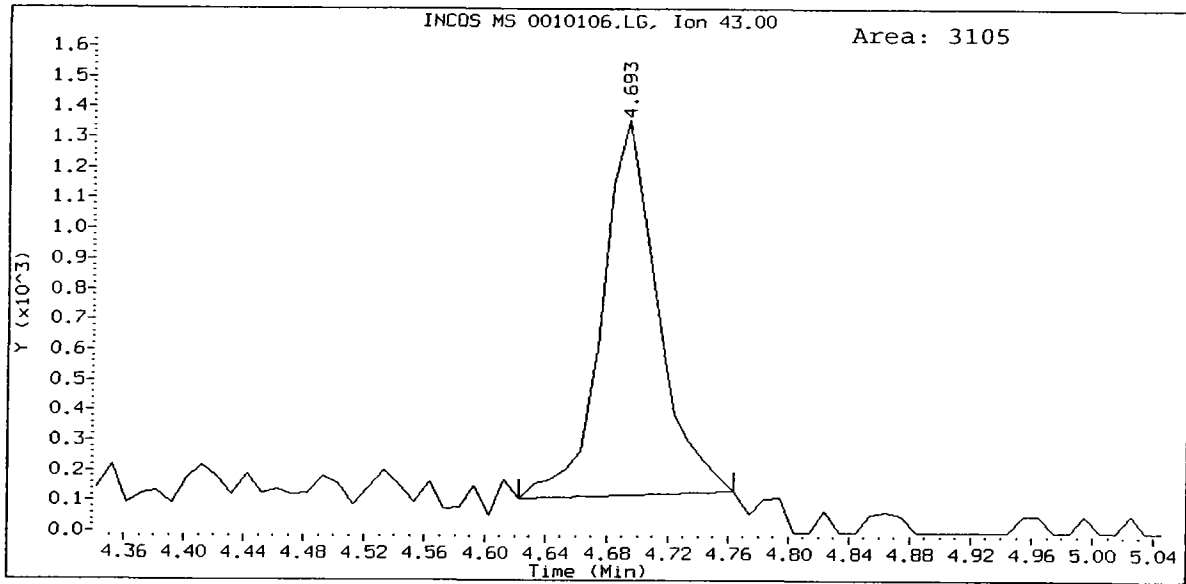
Data File: /chem1/film5.i/06JAN10.b/0010106.d  
Date : 06-JAN-2010 14:56  
Client ID: VSTD1  
Sample Info: IC0106.5,5,0  
Column phase: RTX502.2

Operator: PB  
Instrument: film5.i  
Column diameter: 0.18

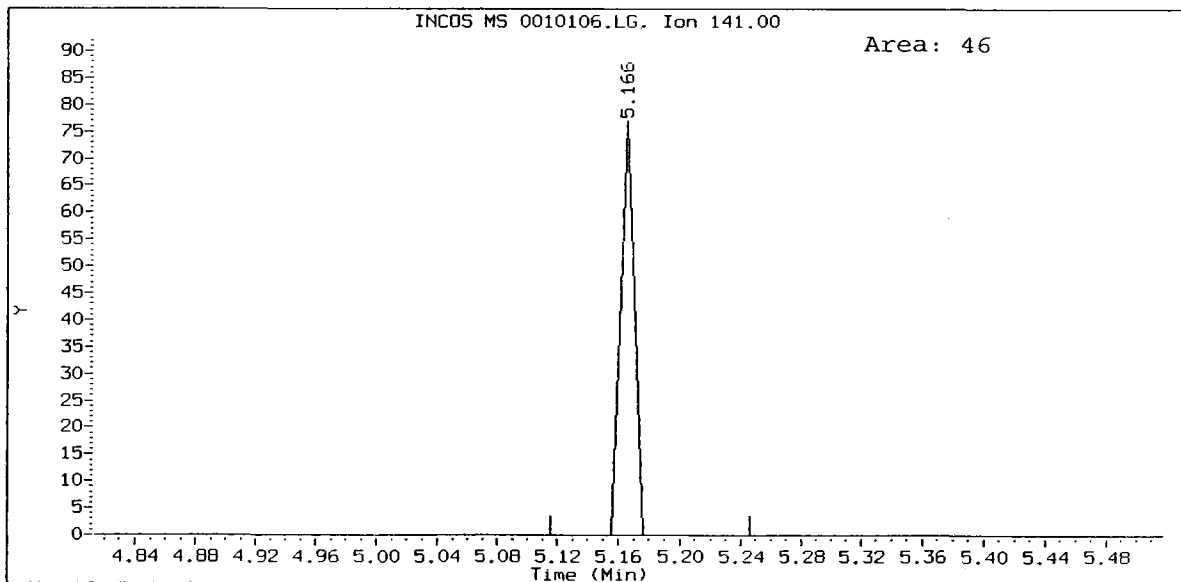
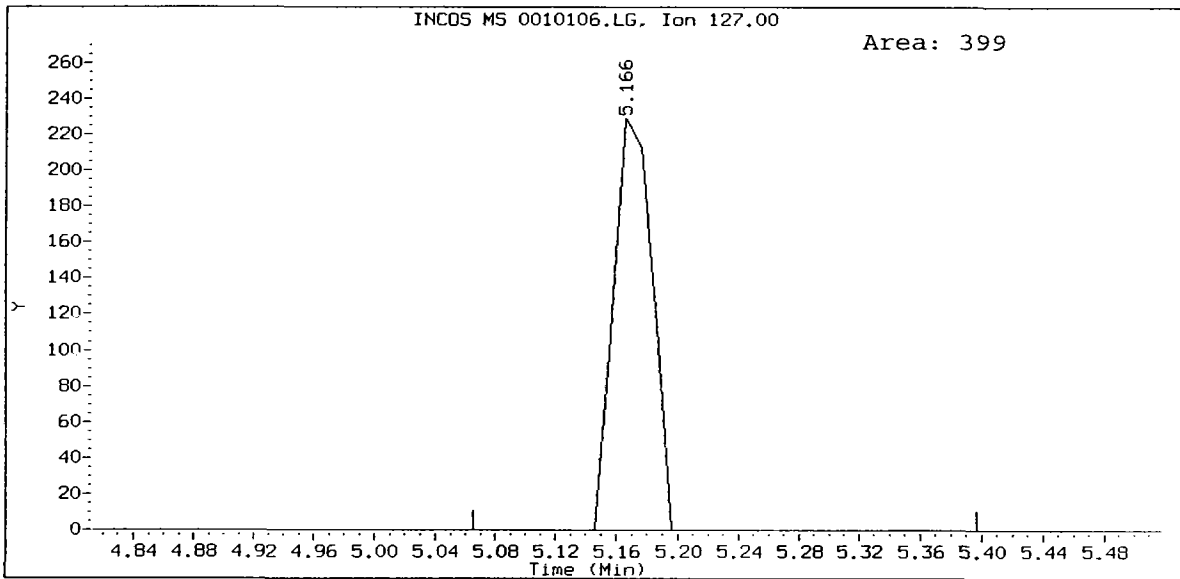
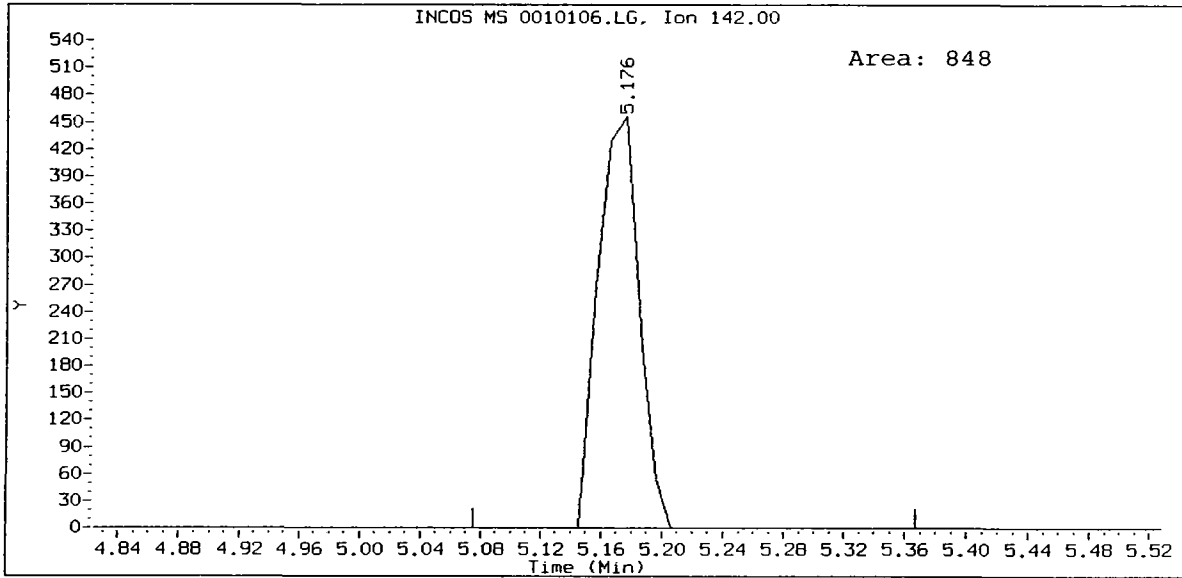


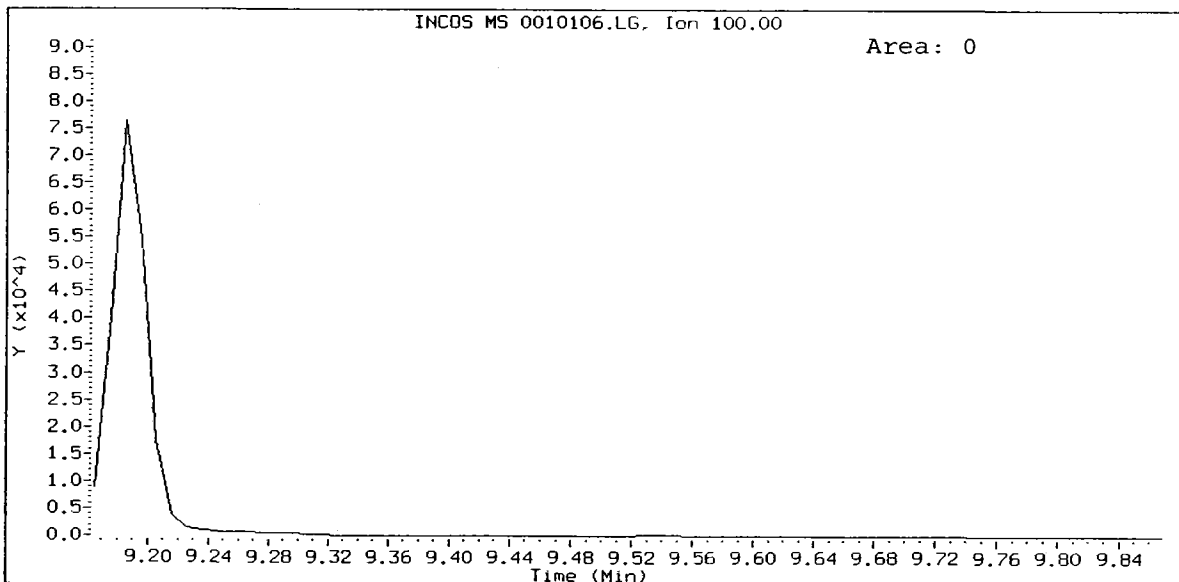
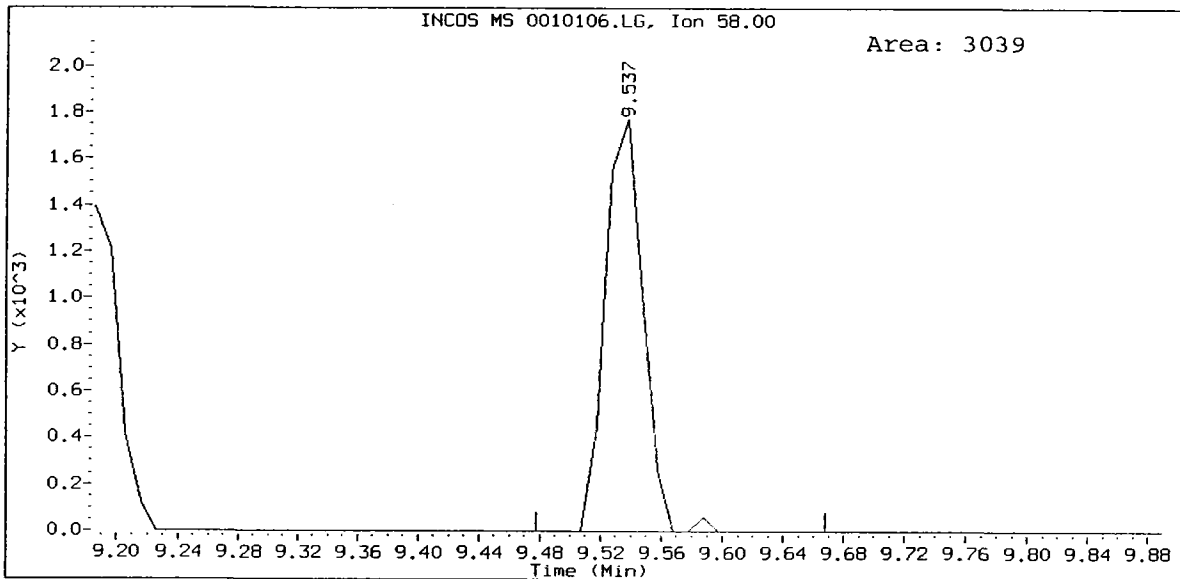
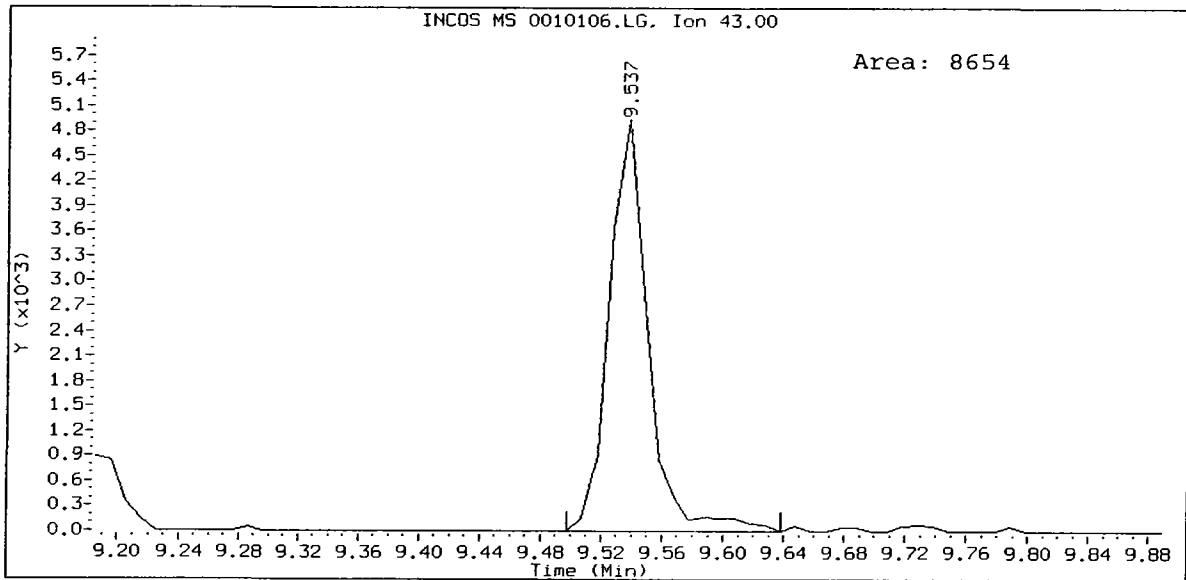
001000 : 051000



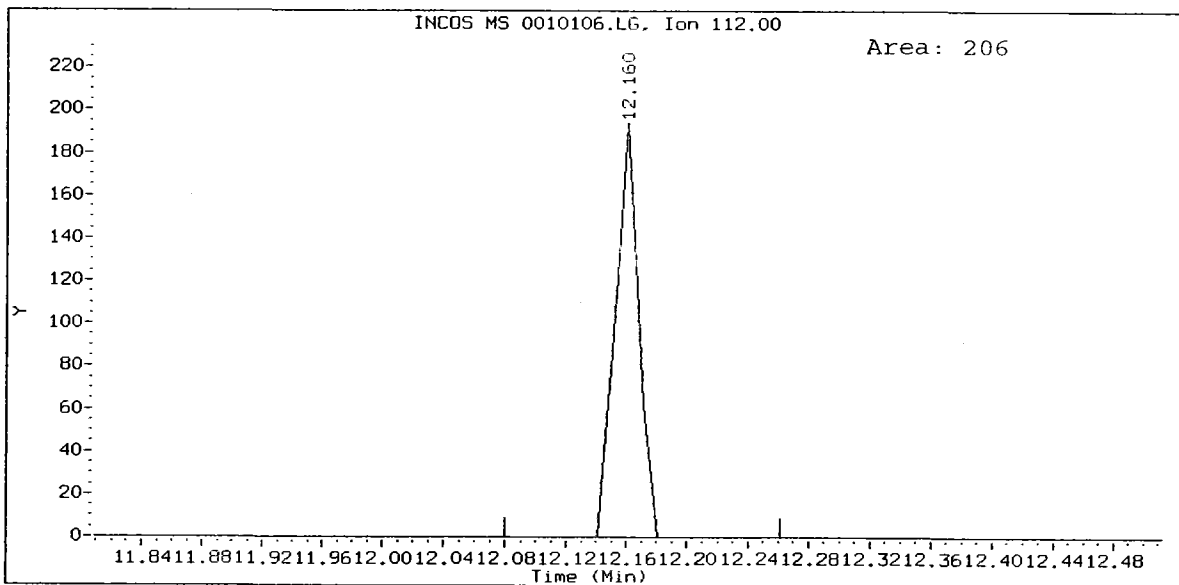
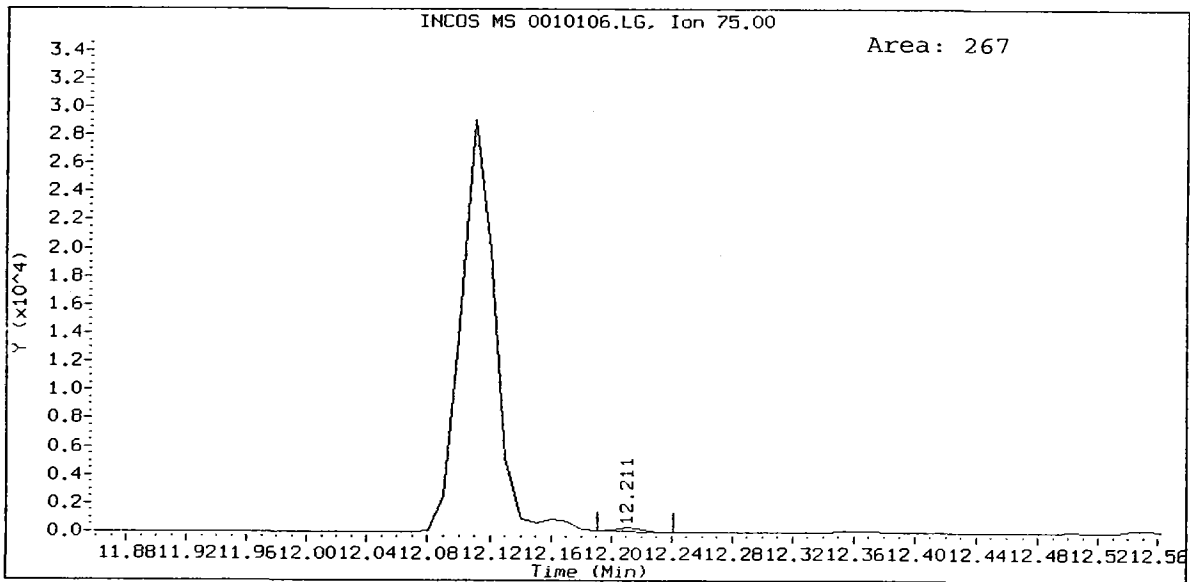
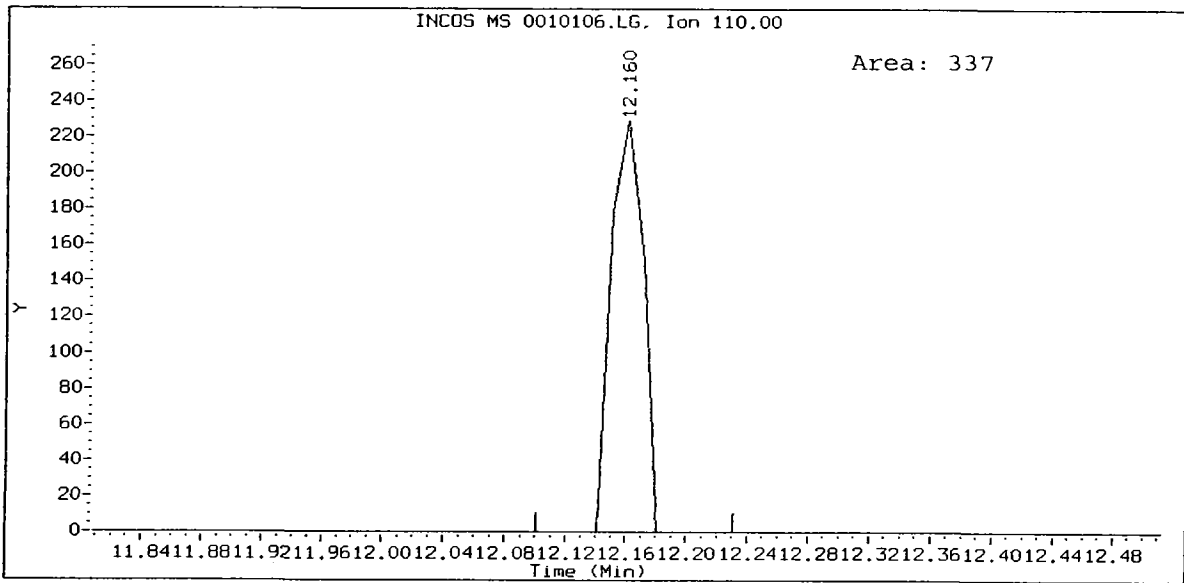


IC0106, /chem1/finn5.i/06JAN10.b/0010106.d  
Iodomethane Amount: 1.05

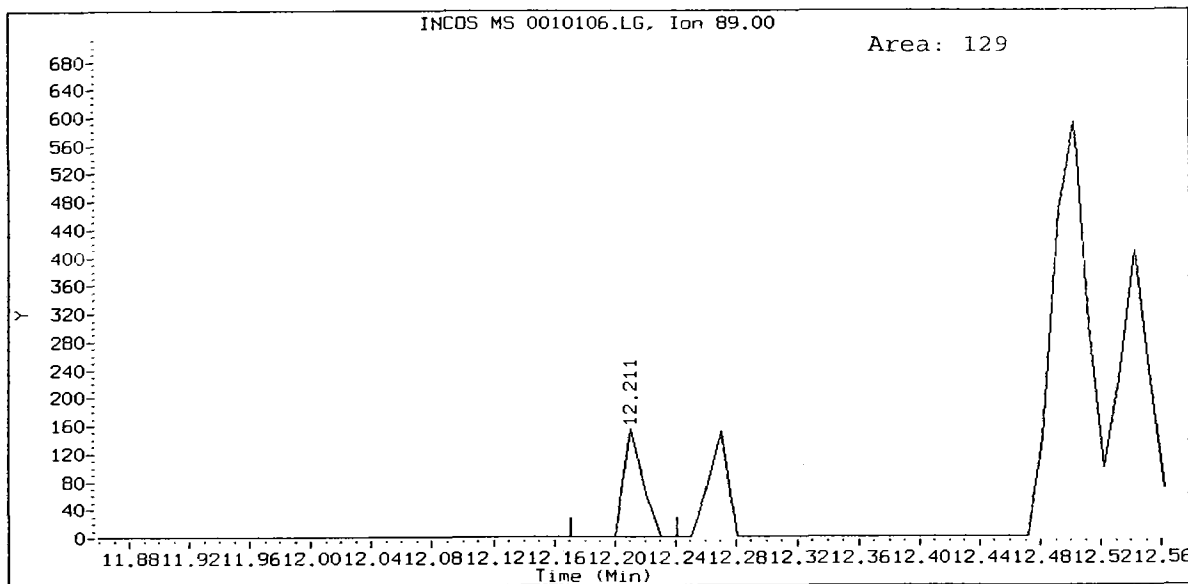
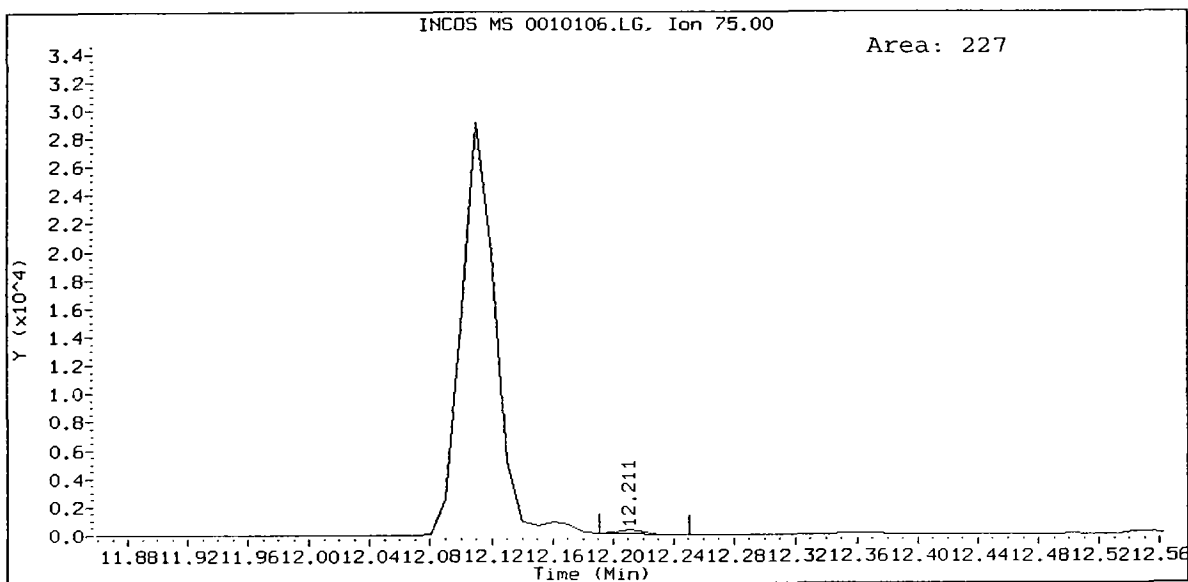
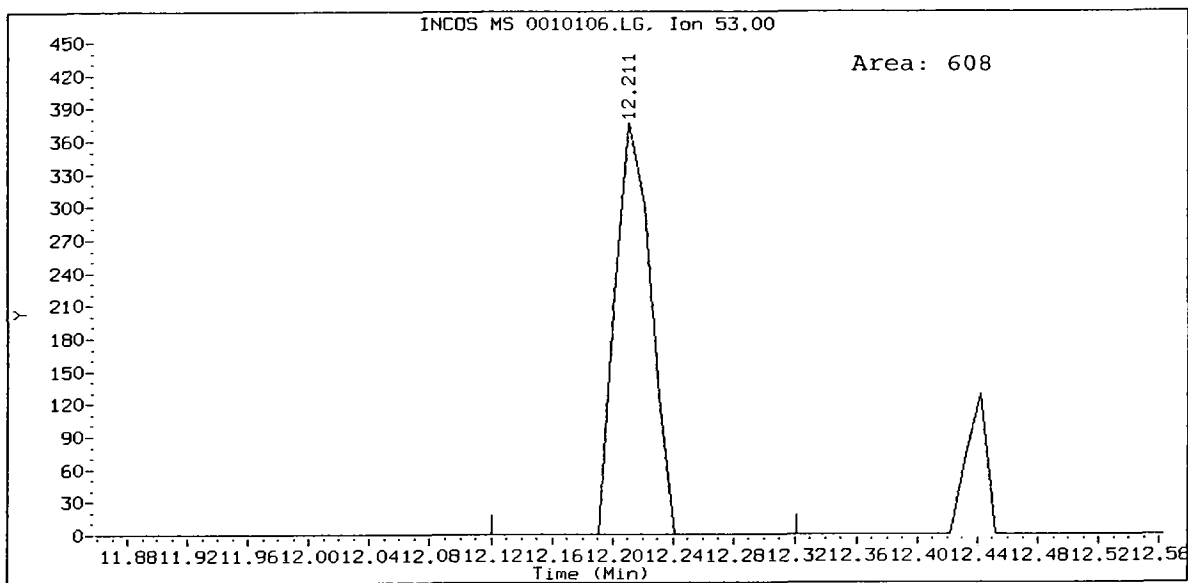




IC0106, /chem1/finn5.i/06JAN10.b/0010106.d  
1,2,3-Trichloropropane Amount: 1.12



IC0106, /chem1/finn5.i/06JAN10.b/0010106.d  
Trans-1,4-Dichloro 2-Butene Amount: 1.36



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/0020106.d  
 Lab Smp Id: IC0106 Client Smp ID: VSTD2  
 Inj Date : 06-JAN-2010 15:31  
 Operator : PB Inst ID: finn5.i  
 Smp Info : IC0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 09:56 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 15:31 Cal File: 0020106.d  
 Als bottle: 1 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.025	3.025	(0.457)	1703	2.00000	1.244
2 Chloromethane	50	3.316	3.316	(0.502)	4816	2.00000	1.770
3 Vinyl Chloride	62	3.437	3.437	(0.520)	4576	2.00000	1.761
4 Bromomethane	94	3.919	3.919	(0.593)	1575	2.00000	1.435
5 Chloroethane	64	3.990	3.990	(0.603)	2632	2.00000	1.746
6 Trichlorofluoromethane	101	4.241	4.241	(0.641)	4906	2.00000	1.933
7 Acrolein	56	4.623	4.623	(0.699)	2807	10.0000	11.331
8 112Trichloro122Trifluoroethane	101	4.643	4.643	(0.702)	3259	2.00000	1.912
9 Acetone	43	4.673	4.673	(0.707)	5881	10.0000	11.327
10 1,1-Dichloroethene	96	4.834	4.834	(0.731)	2605	2.00000	1.988
11 Bromoethane	108	5.055	5.055	(0.764)	1142	2.00000	1.628
12 Iodomethane	142	5.156	5.156	(0.780)	1556	2.00000	1.910
13 Methylene Chloride	84	5.266	5.266	(0.796)	2773	2.00000	2.038
14 Acrylonitrile	53	5.347	5.347	(0.808)	764	2.00000	1.867

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.387	5.387 (0.815)	6170	2.00000	1.922
15 Carbon Disulfide	76	5.367	5.367 (0.812)	6562	2.00000	1.794
17 Trans-1,2-Dichloroethene	96	5.548	5.548 (0.839)	2434	2.00000	1.806
18 Vinyl Acetate	43	5.869	5.869 (0.888)	5625	2.00000	1.890
19 1,1-Dichloroethane	63	5.929	5.929 (0.897)	5296	2.00000	1.918
20 2-Butanone	43	6.271	6.271 (0.948)	6519	10.00000	9.864
21 2,2-Dichloropropane	77	6.452	6.452 (0.976)	4330	2.00000	1.875
22 Cis-1,2-Dichloroethene	96	6.482	6.482 (0.980)	2469	2.00000	1.799
* 23 Pentafluorobenzene	168	6.613	6.613 (1.000)	112862	50.00000	
24 Chloroform	83	6.633	6.633 (1.003)	4745	2.00000	1.850
26 Bromochloromethane	128	6.794	6.794 (1.027)	1136	2.00000	1.778
‡ 25 Dibromofluoromethane	111	6.834	6.834 (1.033)	66018	50.00000	50.738
27 1,1,1-Trichloroethane	97	7.025	7.025 (1.062)	4142	2.00000	1.782
29 1,1-Dichloropropene	75	7.166	7.166 (0.941)	3805	2.00000	1.902
30 Carbon Tetrachloride	117	7.276	7.276 (0.955)	3830	2.00000	1.810
‡ 31 d4-1,2-Dichloroethane	65	7.296	7.296 (1.103)	88932	50.00000	51.455
32 1,2-Dichloroethane	62	7.377	7.377 (0.968)	4108	2.00000	1.918
33 Benzene	78	7.427	7.427 (0.975)	9467	2.00000	2.070
‡ 34 1,4-Difluorobenzene	114	7.618	7.618 (1.000)	157205	50.00000	
35 Trichloroethene	95	7.990	7.990 (1.049)	2638	2.00000	1.806
36 1,2-Dichloropropane	63	8.151	8.151 (1.070)	2755	2.00000	1.888
37 Bromodichloromethane	83	8.392	8.392 (1.102)	3335	2.00000	1.846
39 Dibromomethane	93	8.452	8.452 (1.109)	1546	2.00000	1.826
40 2-Chloroethyl Vinyl Ether	63	8.603	8.603 (1.129)	913	2.00000	1.822
41 4-Methyl-2-Pentanone	58	8.633	8.633 (1.133)	3520	10.00000	8.271
42 Cis 1,3-dichloropropene	75	8.894	8.894 (1.168)	3581	2.00000	1.779
43 d8-Toluene	98	9.166	9.166 (1.203)	189881	50.00000	50.972
44 Toluene	92	9.256	9.256 (1.215)	5606	2.00000	1.928
45 Trans 1,3-Dichloropropene	75	9.387	9.387 (1.232)	2955	2.00000	1.680
46 2-Hexanone	43	9.517	9.517 (0.883)	10483	10.00000	10.743 (M)
47 1,1,2-Trichloroethane	97	9.568	9.568 (1.256)	1726	2.00000	1.794
48 1,3-Dichloropropane	76	9.819	9.819 (0.911)	3449	2.00000	1.865
49 Tetrachloroethene	166	9.939	9.939 (0.923)	2881	2.00000	1.871
50 Chlorodibromomethane	129	10.150	10.150 (0.942)	1974	2.00000	1.567
51 1,2-Dibromoethane	107	10.372	10.372 (1.361)	1829	2.00000	1.700 (T)
52 d5-Chlorobenzene	117	10.774	10.774 (1.000)	145390	50.00000	
53 Chlorobenzene	112	10.814	10.814 (1.004)	6079	2.00000	1.967
54 Ethyl Benzene	91	10.844	10.844 (1.007)	10562	2.00000	2.066
55 1,1,1,2-Tetrachloroethane	131	10.834	10.834 (1.006)	2084	2.00000	1.777
56 m,p-xylene	106	10.924	10.924 (1.014)	8226	4.00000	3.921
57 o-Xylene	106	11.417	11.417 (1.060)	3913	2.00000	1.825
58 Styrene	104	11.447	11.447 (1.062)	6025	2.00000	1.836
59 Isopropyl Benzene	105	11.799	11.799 (0.877)	9992	2.00000	1.948
60 Bromoform	173	11.859	11.859 (0.882)	1262	2.00000	1.582
61 1,1,2,2-Tetrachloroethane	83	11.970	11.970 (0.890)	2209	2.00000	1.766
62 4-Bromofluorobenzene	95	12.090	12.090 (1.122)	81049	50.00000	48.911
63 1,2,3-Trichloropropane	110	12.140	12.140 (0.903)	533	2.00000	1.802 (M)

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53	12.191	12.191	(0.907)	686	2.00000	1.551 (M)
66 N-Propyl Benzene	91	12.251	12.251	(0.911)	12008	2.00000	2.001
67 Bromobenzene	156	12.341	12.341	(0.918)	2796	2.00000	1.889
68 1,3,5-Trimethyl Benzene	105	12.422	12.422	(0.924)	7674	2.00000	1.892
69 2-Chloro Toluene	91	12.482	12.482	(0.928)	8124	2.00000	2.040
70 4-Chloro Toluene	91	12.522	12.522	(0.931)	8120	2.00000	2.048
71 T-Butyl Benzene	119	12.834	12.834	(0.954)	7242	2.00000	1.946
72 1,2,4-Trimethylbenzene	105	12.884	12.884	(0.958)	7892	2.00000	1.968
73 S-Butyl Benzene	105	13.075	13.075	(0.972)	10646	2.00000	1.957
74 4-Isopropyl Toluene	119	13.226	13.226	(0.984)	8241	2.00000	2.022
75 1,3-Dichlorobenzene	146	13.377	13.377	(0.995)	5062	2.00000	1.964
* 76 d4-1,4-Dichlorobenzene	152	13.447	13.447	(1.000)	77969	50.0000	
77 1,4-Dichlorobenzene	146	13.487	13.487	(1.003)	4997	2.00000	2.000
78 N-Butyl Benzene	91	13.698	13.698	(1.019)	8314	2.00000	2.035
§ 79 d4-1,2-Dichlorobenzene	152	13.899	13.899	(1.034)	71601	50.0000	50.108
80 1,2-Dichlorobenzene	146	13.929	13.929	(1.036)	4524	2.00000	1.923
81 1,2-Dibromo 3-Chloropropane	75	14.834	14.834	(1.103)	341	2.00000	1.436
82 1,2,4-Trichlorobenzene	180	15.879	15.879	(1.181)	3402	2.00000	2.176
83 Hexachloro 1,3-Butadiene	225	16.030	16.030	(1.192)	2048	2.00000	2.006
84 Naphthalene	128	16.201	16.201	(1.205)	6535	2.00000	2.447
85 1,2,3-Trichlorobenzene	180	16.492	16.492	(1.226)	3348	2.00000	2.370



⌋C Flag Legend

- Γ - Target compound detected outside RT window.
- ⌋ - Compound response manually integrated.



Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: 0020106.d  
 Lab Smp Id: IC0106  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

Calibration Date: 06-JAN-2010  
 Calibration Time: 12:28  
 Client Smp ID: VSTD2  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

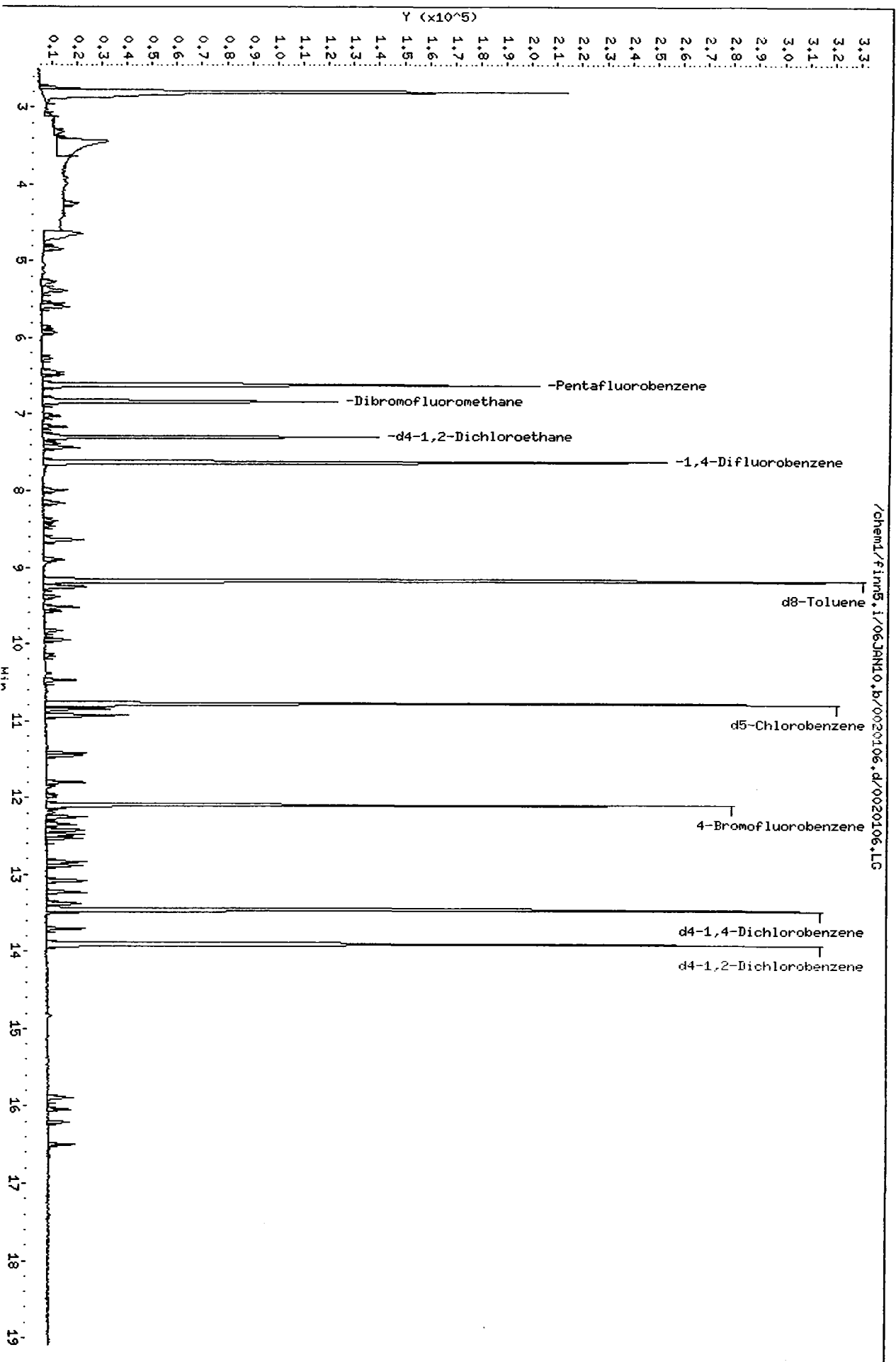
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	112862	-0.47
34 1,4-Difluorobenze	160565	80282	321130	157205	-2.09
52 d5-Chlorobenzene	148719	74360	297438	145390	-2.24
76 d4-1,4-Dichlorobe	84322	42161	168644	77969	-7.53

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.61	0.00
34 1,4-Difluorobenze	7.62	7.12	8.12	7.62	0.00
52 d5-Chlorobenzene	10.76	10.26	11.26	10.77	0.09
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.45	0.00

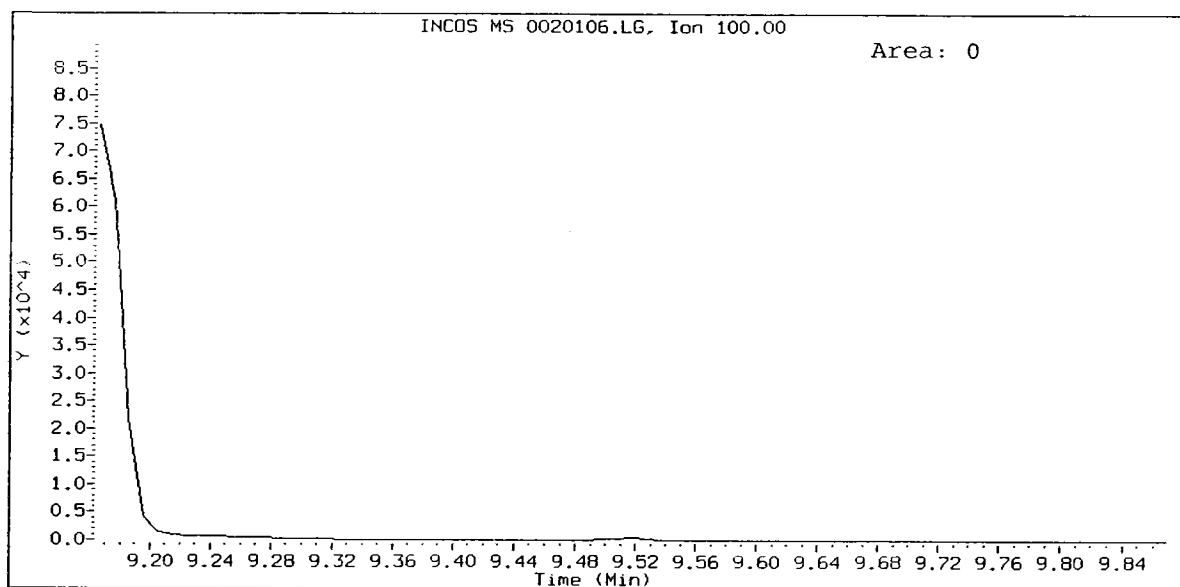
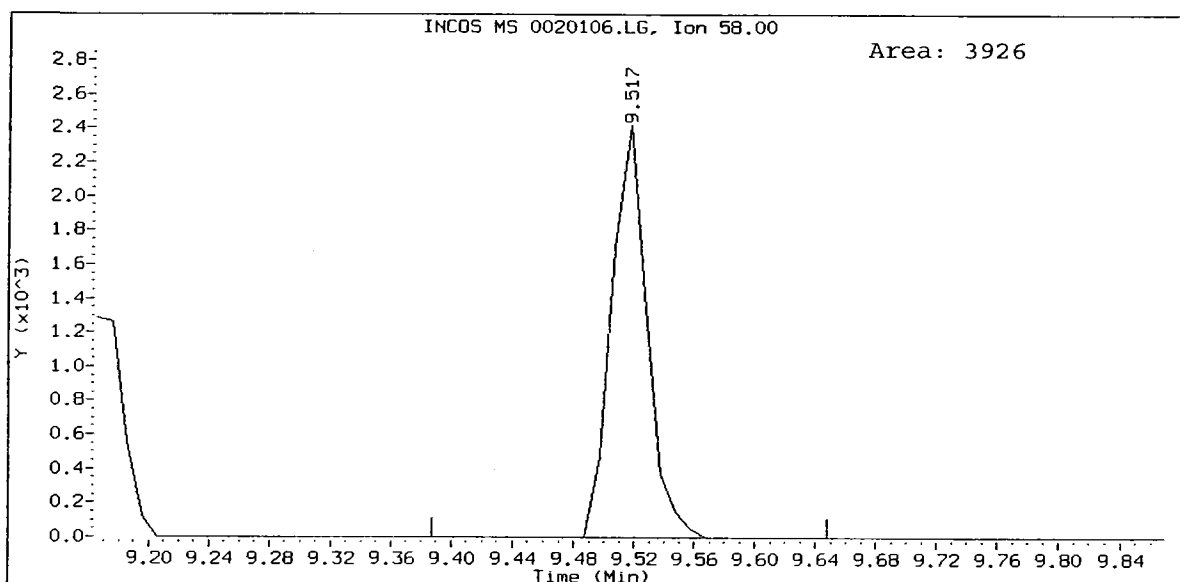
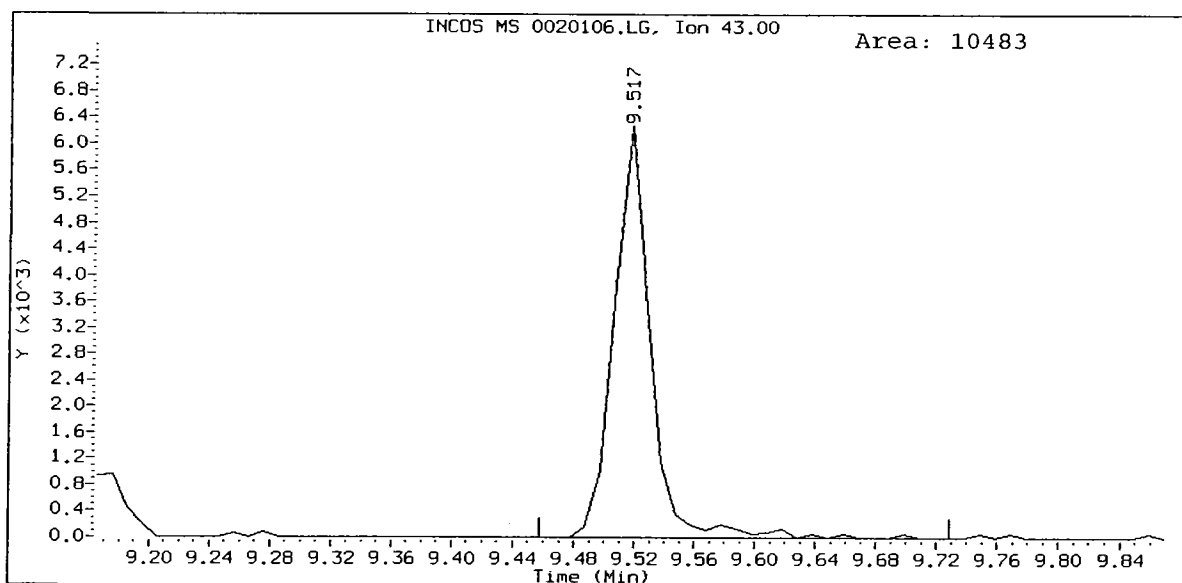
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/06JAN10.b/0020106.d  
Date : 06-JAN-2010 15:31  
Client ID: VSTD2  
Sample Info: IC0106,5,5,0  
Column phase: RTX502.2

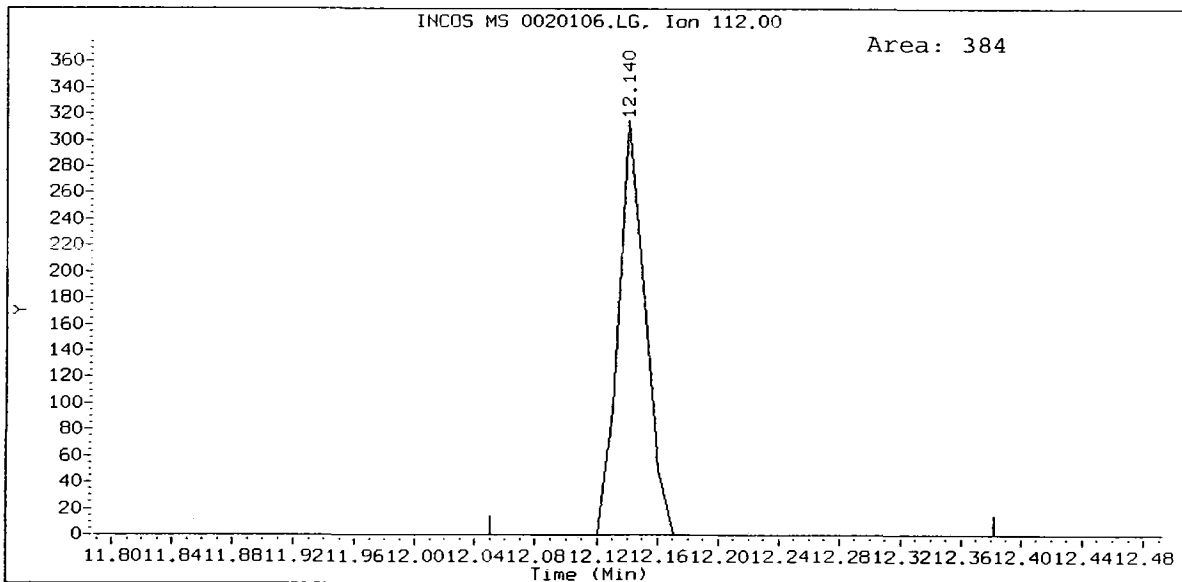
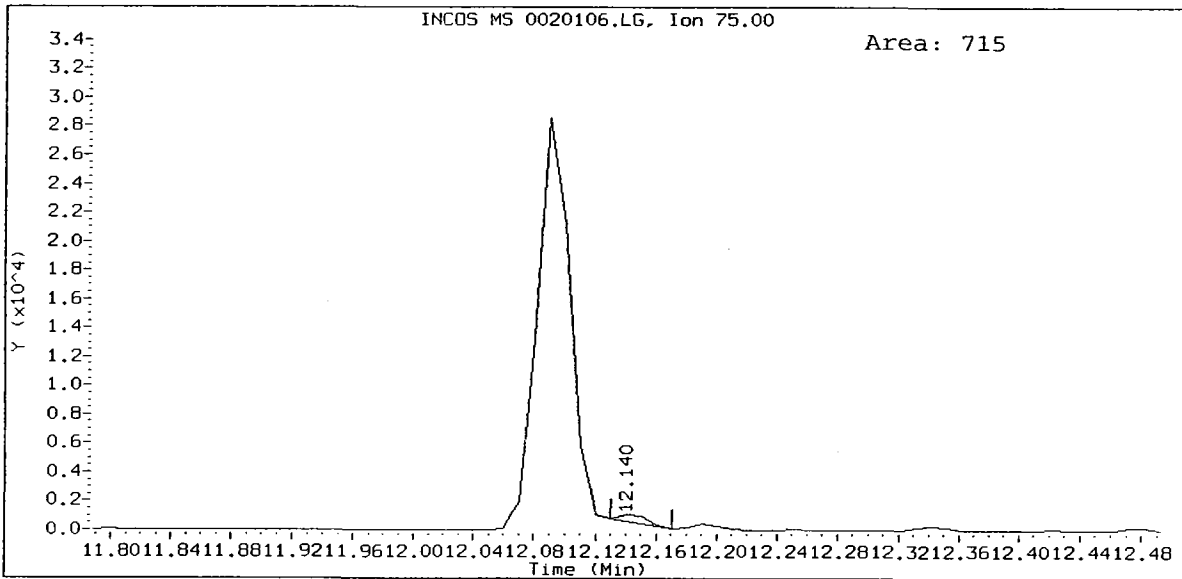
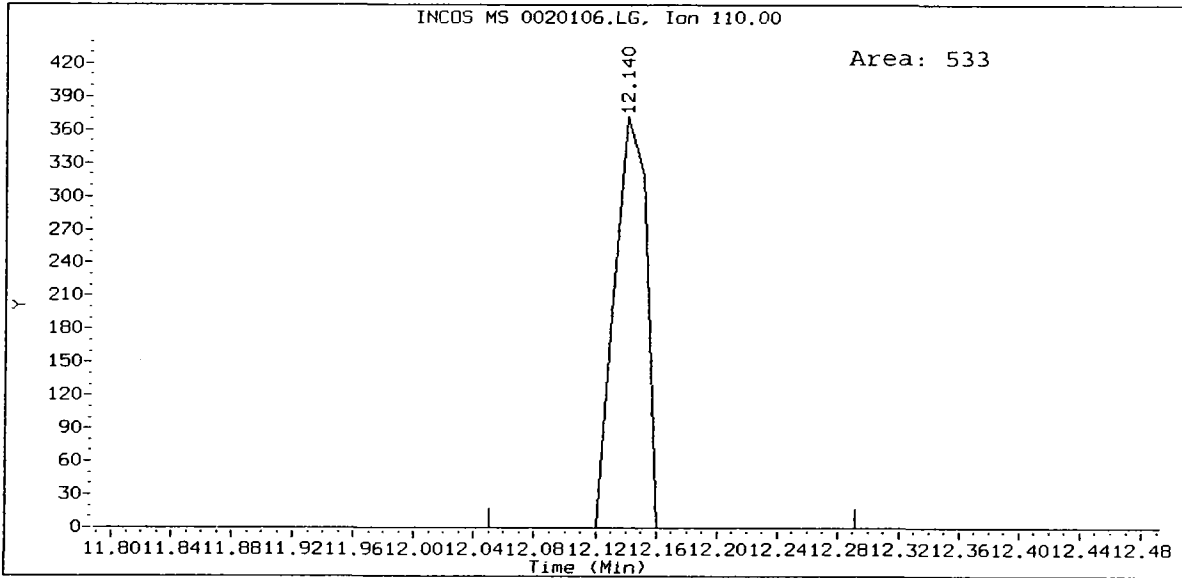
Instrument: finn5.i  
Operator: PB  
Column diameter: 0.18



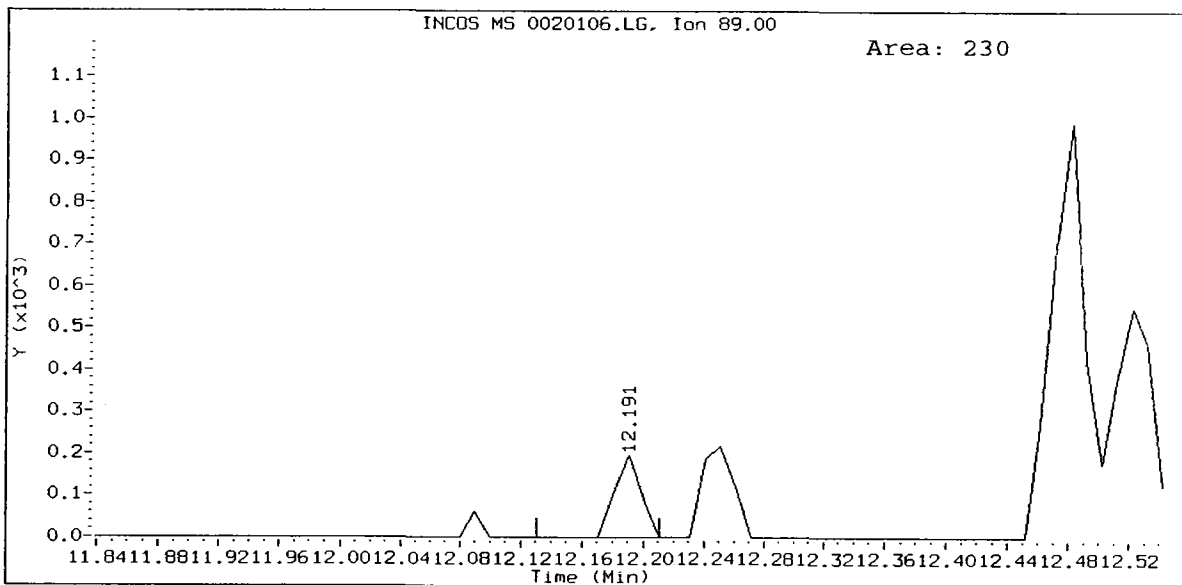
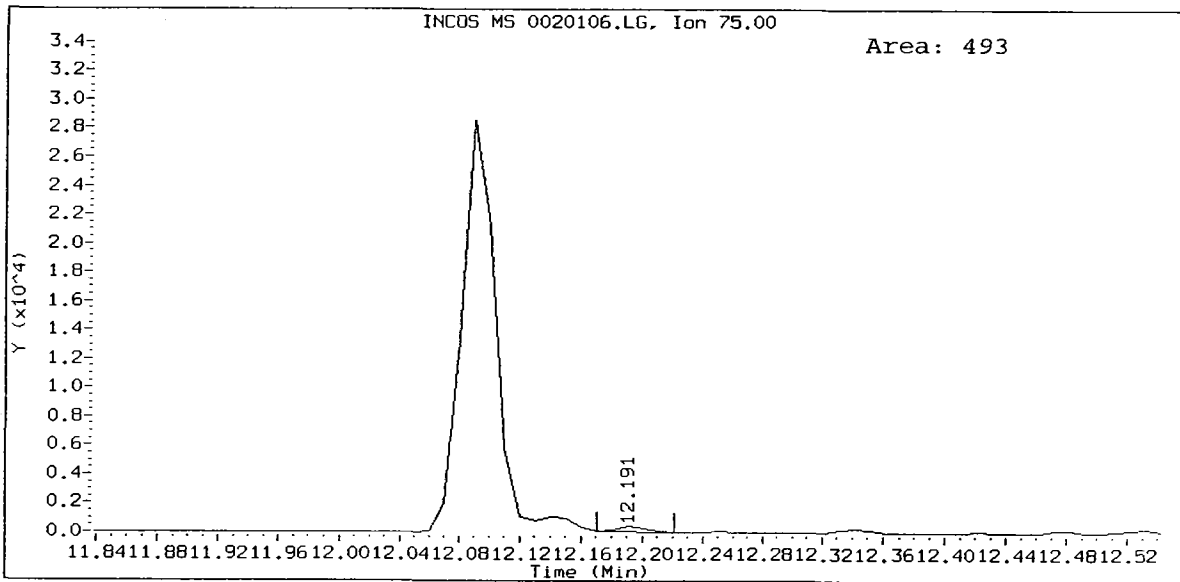
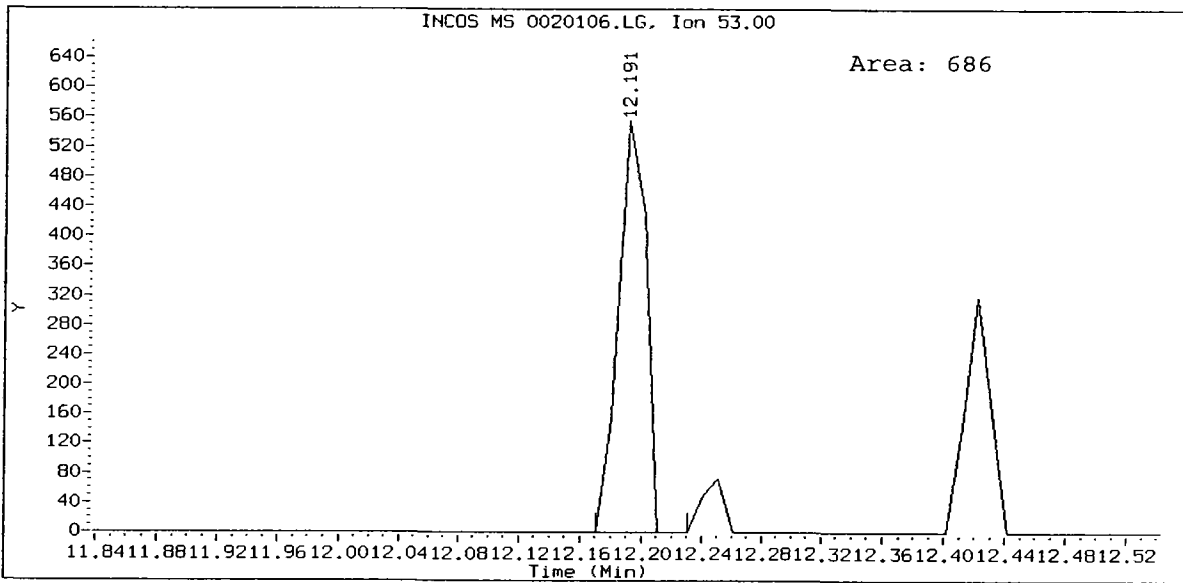
00:00:00 : 00:00:00



IC0106, /chem1/finn5.i/06JAN10.b/0020106.d  
1,2,3-Trichloropropane Amount: 1.80



IC0106, /chem1/finn5.i/06JAN10.b/0020106.d  
Trans-1,4-Dichloro 2-Butene Amount: 1.55



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/0050106.d  
 Lab Smp Id: IC0106 Client Smp ID: VSTD5  
 Inj Date : 06-JAN-2010 11:34  
 Operator : PB Inst ID: finn5.i  
 Smp Info : IC0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 09:56 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 11:34 Cal File: 0050106.d  
 Als bottle: 1 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.035	3.035	(0.458)	7096	5.00000	5.258
2 Chloromethane	50	3.327	3.327	(0.502)	13805	5.00000	5.148
3 Vinyl Chloride	62	3.437	3.437	(0.519)	14020	5.00000	5.474
4 Bromomethane	94	3.919	3.919	(0.592)	4768	5.00000	4.408
5 Chloroethane	64	3.990	3.990	(0.602)	5111	5.00000	3.440
6 Trichlorofluoromethane	101	4.251	4.251	(0.642)	13794	5.00000	5.515
7 Acrolein	56	4.633	4.633	(0.700)	6529	25.0000	26.742
8 112Trichloro122Trifluoroethane	101	4.653	4.653	(0.703)	8705	5.00000	5.181
9 Acetone	43	4.683	4.683	(0.707)	12822	25.0000	25.057
10 1,1-Dichloroethene	96	4.844	4.844	(0.731)	6764	5.00000	5.236
11 Bromoethane	108	5.065	5.065	(0.765)	3314	5.00000	4.795
12 Iodomethane	142	5.166	5.166	(0.780)	2954	5.00000	3.679
13 Methylene Chloride	84	5.276	5.276	(0.797)	9833	5.00000	7.334
14 Acrylonitrile	53	5.367	5.367	(0.810)	2011	5.00000	4.988

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	=====	==	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.397	5.397 (0.815)	16205	5.00000	5.121
15 Carbon Disulfide	76	5.377	5.377 (0.812)	15887	5.00000	4.406
17 Trans-1,2-Dichloroethene	96	5.558	5.558 (0.839)	6527	5.00000	4.914
18 Vinyl Acetate	43	5.879	5.879 (0.888)	14705	5.00000	5.013
19 1,1-Dichloroethane	63	5.940	5.940 (0.897)	14125	5.00000	5.190
20 2-Butanone	43	6.281	6.281 (0.948)	16144	25.00000	24.786
21 2,2-Dichloropropane	77	6.462	6.462 (0.976)	11324	5.00000	4.976
22 Cis-1,2-Dichloroethene	96	6.492	6.492 (0.980)	6745	5.00000	4.987
* 23 Pentafluorobenzene	168	6.623	6.623 (1.000)	111234	50.00000	
24 Chloroform	83	6.643	6.643 (1.003)	12751	5.00000	5.045
26 Bromochloromethane	128	6.804	6.804 (1.027)	2963	5.00000	4.706
§ 25 Dibromofluoromethane	111	6.844	6.844 (1.033)	63831	50.00000	49.775
27 1,1,1-Trichloroethane	97	7.035	7.035 (1.062)	11551	5.00000	5.041
29 1,1-Dichloropropene	75	7.176	7.176 (0.941)	9884	5.00000	5.079
30 Carbon Tetrachloride	117	7.286	7.286 (0.955)	10317	5.00000	5.012
§ 31 d4-1,2-Dichloroethane	65	7.306	7.306 (1.103)	86049	50.00000	50.516
32 1,2-Dichloroethane	62	7.387	7.387 (0.968)	10812	5.00000	5.189
33 Benzene	78	7.437	7.437 (0.975)	24039	5.00000	5.404
* 34 1,4-Difluorobenzene	114	7.628	7.628 (1.000)	152932	50.00000	
35 Trichloroethene	95	8.000	8.000 (1.049)	7135	5.00000	5.020
36 1,2-Dichloropropane	63	8.171	8.171 (1.071)	7093	5.00000	4.996
37 Bromodichloromethane	83	8.402	8.402 (1.101)	8725	5.00000	4.964
39 Dibromomethane	93	8.472	8.472 (1.111)	4267	5.00000	5.180
40 2-Chloroethyl Vinyl Ether	63	8.613	8.613 (1.129)	2207	5.00000	4.528
41 4-Methyl-2-Pentanone	58	8.653	8.653 (1.134)	9993	25.00000	24.137
42 Cis 1,3-dichloropropene	75	8.904	8.904 (1.167)	9420	5.00000	4.810
§ 43 d8-Toluene	98	9.176	9.176 (1.203)	185038	50.00000	51.060
44 Toluene	92	9.266	9.266 (1.215)	14519	5.00000	5.132
45 Trans 1,3-Dichloropropene	75	9.397	9.397 (1.232)	8268	5.00000	4.831
46 2-Hexanone	43	9.527	9.527 (0.884)	24368	25.00000	25.816 (M)
47 1,1,2-Trichloroethane	97	9.578	9.578 (1.256)	4596	5.00000	4.909
48 1,3-Dichloropropane	76	9.839	9.839 (0.912)	9225	5.00000	5.157
49 Tetrachloroethene	166	9.949	9.949 (0.923)	7608	5.00000	5.108
50 Chlorodibromomethane	129	10.161	10.161 (0.942)	5583	5.00000	4.581
51 1,2-Dibromoethane	107	10.382	10.382 (1.361)	4947	5.00000	4.727
* 52 d5-Chlorobenzene	117	10.784	10.784 (1.000)	140638	50.00000	
53 Chlorobenzene	112	10.824	10.824 (1.004)	15477	5.00000	5.176
54 Ethyl Benzene	91	10.854	10.854 (1.007)	27688	5.00000	5.599
55 1,1,1,2-Tetrachloroethane	131	10.854	10.854 (1.007)	5704	5.00000	5.029
56 m,p-xylene	106	10.934	10.934 (1.014)	20921	10.00000	10.308
57 o-Xylene	106	11.427	11.427 (1.060)	10123	5.00000	4.880
58 Styrene	104	11.457	11.457 (1.062)	15711	5.00000	4.950
59 Isopropyl Benzene	105	11.809	11.809 (0.878)	26155	5.00000	5.189
60 Bromoform	173	11.869	11.869 (0.882)	3675	5.00000	4.690
61 1,1,2,2-Tetrachloroethane	83	11.990	11.990 (0.891)	5884	5.00000	4.790
* 62 4-Bromofluorobenzene	95	12.100	12.100 (1.122)	79402	50.00000	49.536
63 1,2,3-Trichloropropane	110	12.150	12.150 (0.903)	1431	5.00000	4.924

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	
65 Trans-1,4-Dichloro 2-Butene	53	12.201	12.201	(0.907)	1979	5.00000	4.556 (M)
66 N-Propyl Benzene	91	12.261	12.261	(0.911)	31659	5.00000	5.370
67 Bromobenzene	156	12.351	12.351	(0.918)	7224	5.00000	4.969
68 1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.924)	21073	5.00000	5.288
69 2-Chloro Toluene	91	12.492	12.492	(0.928)	20293	5.00000	5.186
70 4-Chloro Toluene	91	12.532	12.532	(0.931)	20910	5.00000	5.368
71 T-Butyl Benzene	119	12.844	12.844	(0.954)	19040	5.00000	5.208
72 1,2,4-Trimethylbenzene	105	12.894	12.894	(0.958)	21077	5.00000	5.350
73 S-Butyl Benzene	105	13.085	13.085	(0.972)	27828	5.00000	5.208
74 4-Isopropyl Toluene	119	13.236	13.236	(0.984)	20982	5.00000	5.239
75 1,3-Dichlorobenzene	146	13.387	13.387	(0.995)	12632	5.00000	4.990
76 d4-1,4-Dichlorobenzene	152	13.457	13.457	(1.000)	76594	50.00000	
77 1,4-Dichlorobenzene	146	13.497	13.497	(1.003)	12351	5.00000	5.031
78 N-Butyl Benzene	91	13.708	13.708	(1.019)	20562	5.00000	5.123
79 d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.034)	70450	50.00000	50.187
80 1,2-Dichlorobenzene	146	13.939	13.939	(1.036)	11669	5.00000	5.050
81 1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.103)	1074	5.00000	4.604
82 1,2,4-Trichlorobenzene	180	15.889	15.889	(1.181)	7747	5.00000	5.044
83 Hexachloro 1,3-Butadiene	225	16.040	16.040	(1.192)	5285	5.00000	5.270
84 Naphthalene	128	16.211	16.211	(1.205)	12678	5.00000	4.832
85 1,2,3-Trichlorobenzene	180	16.502	16.502	(1.226)	6742	5.00000	4.859

QC Flag Legend

M - Compound response manually integrated.



Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: 0050106.d  
 Lab Smp Id: IC0106  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

Calibration Date: 06-JAN-2010  
 Calibration Time: 12:28  
 Client Smp ID: VSTD5  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

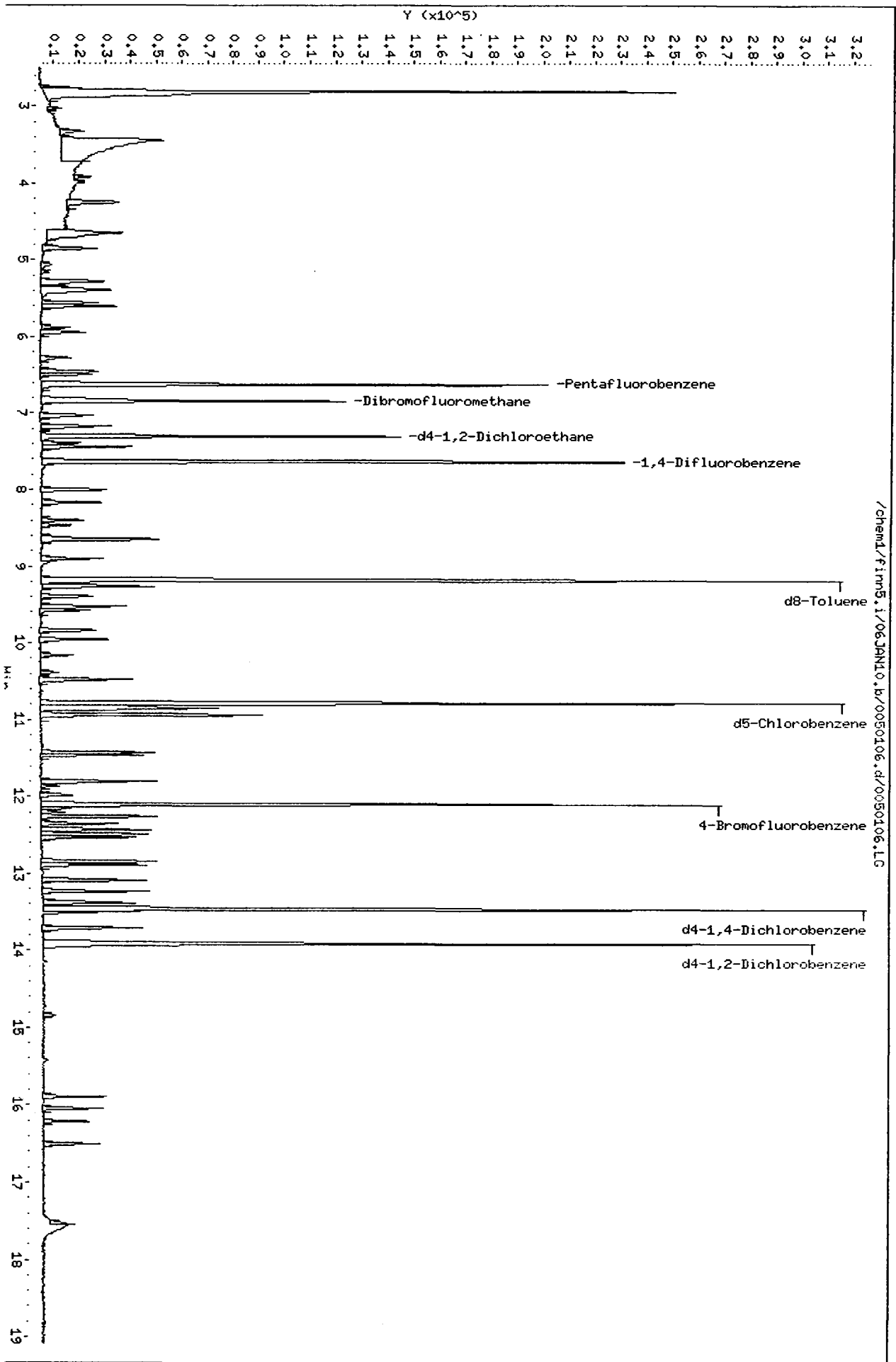
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	111234	-1.91
34 1,4-Difluorobenze	160565	80282	321130	152932	-4.75
52 d5-Chlorobenzene	148719	74360	297438	140638	-5.43
76 d4-1,4-Dichlorobe	84322	42161	168644	76594	-9.16

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.62	0.15
34 1,4-Difluorobenze	7.62	7.12	8.12	7.63	0.13
52 d5-Chlorobenzene	10.76	10.26	11.26	10.78	0.19
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.46	0.07

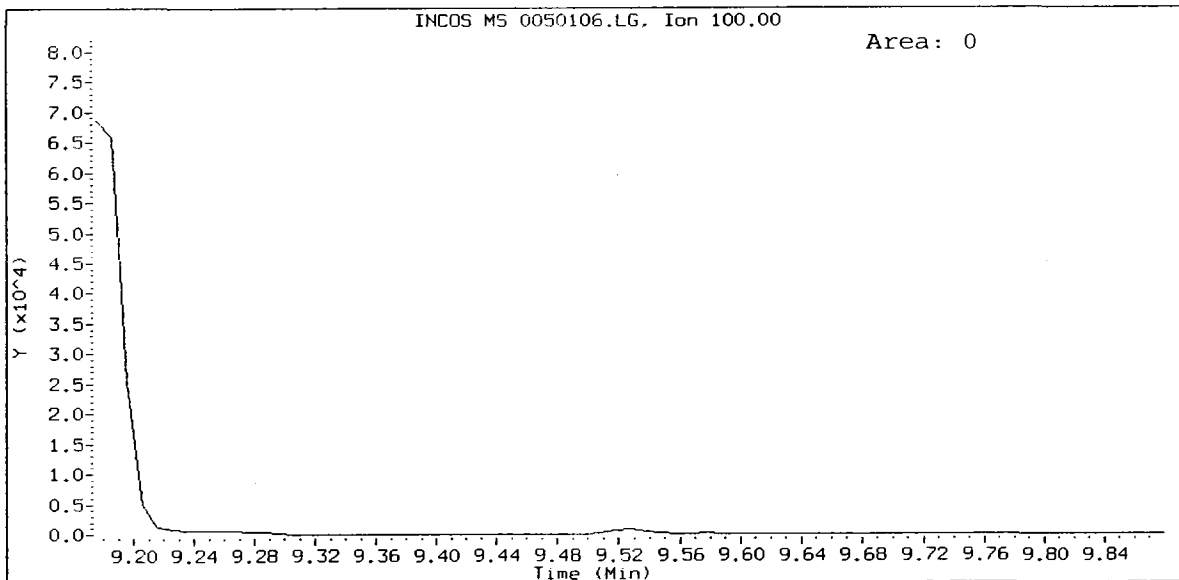
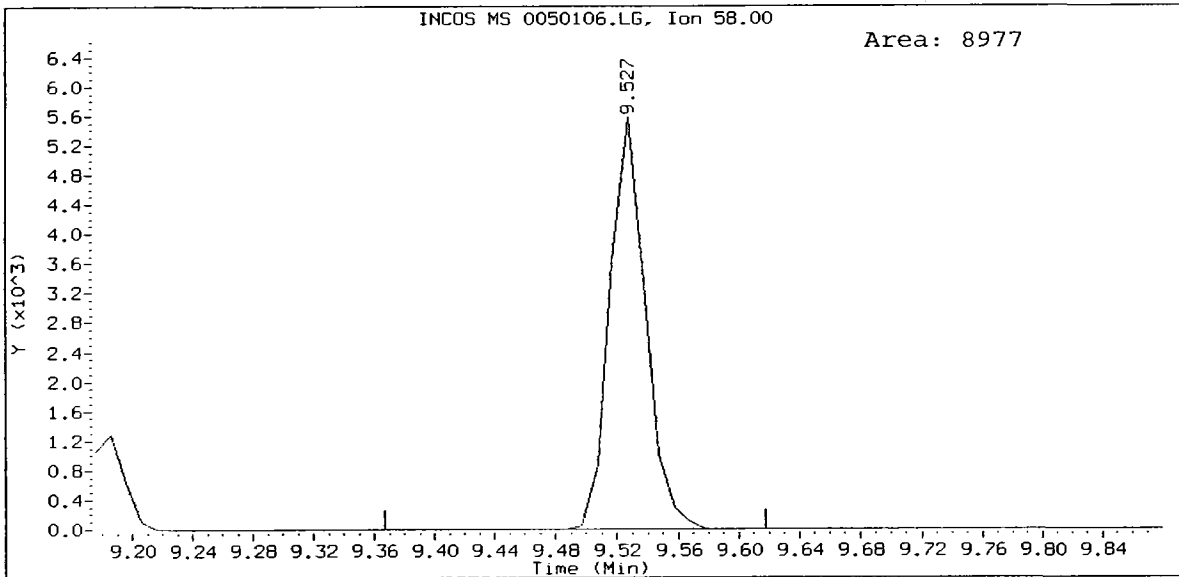
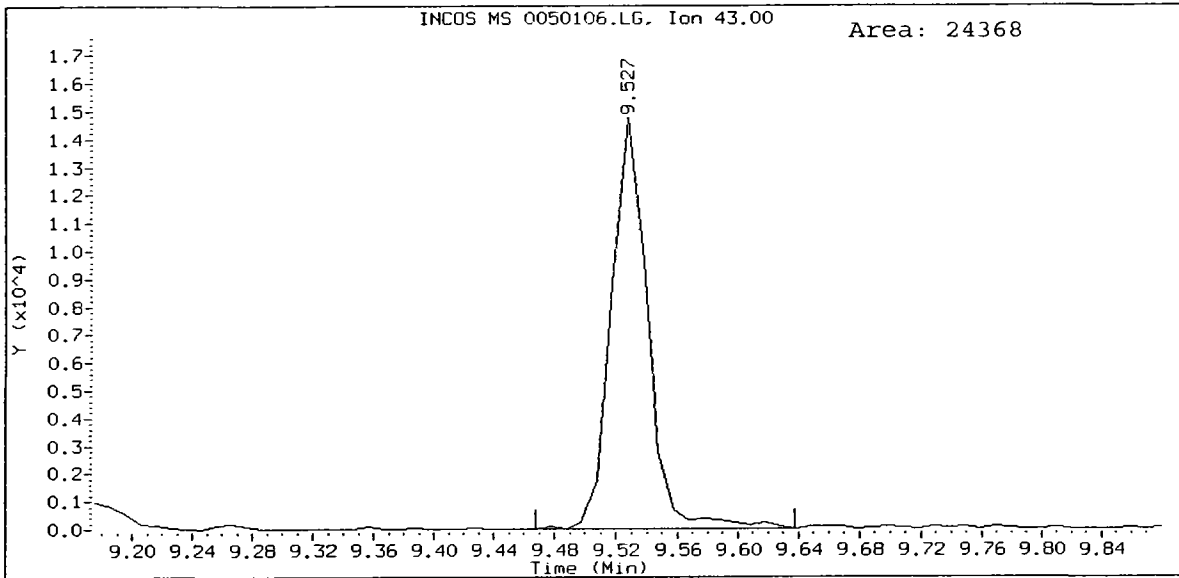
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

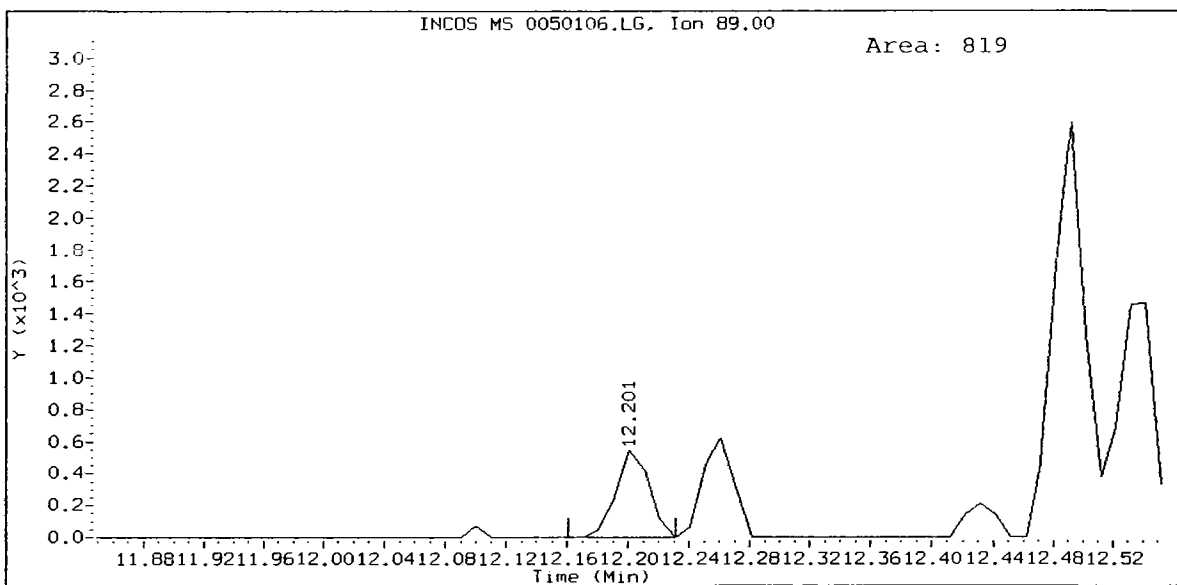
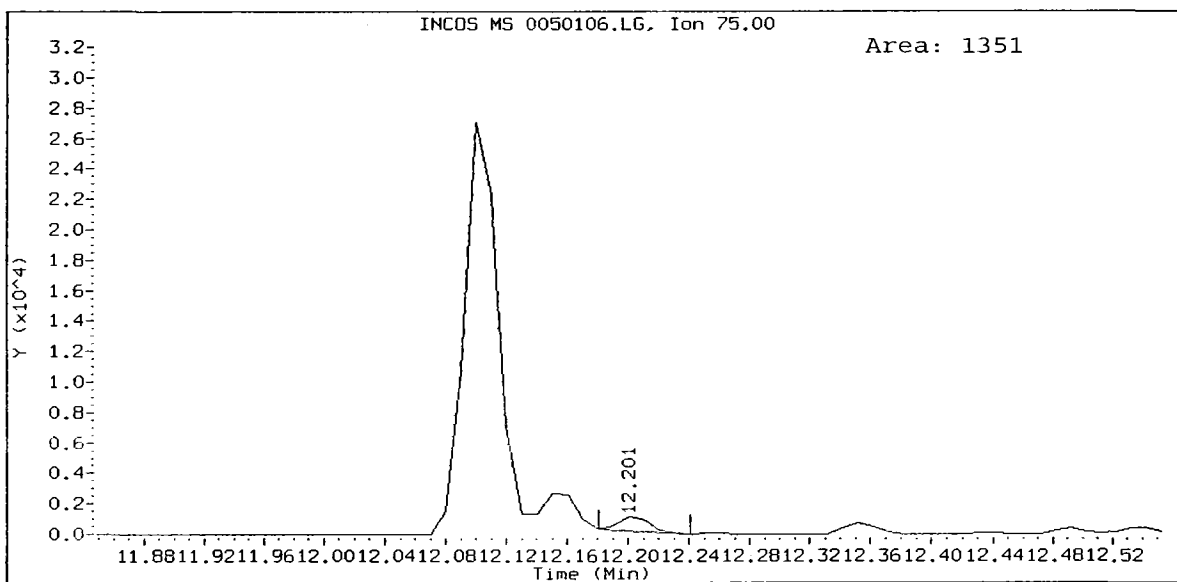
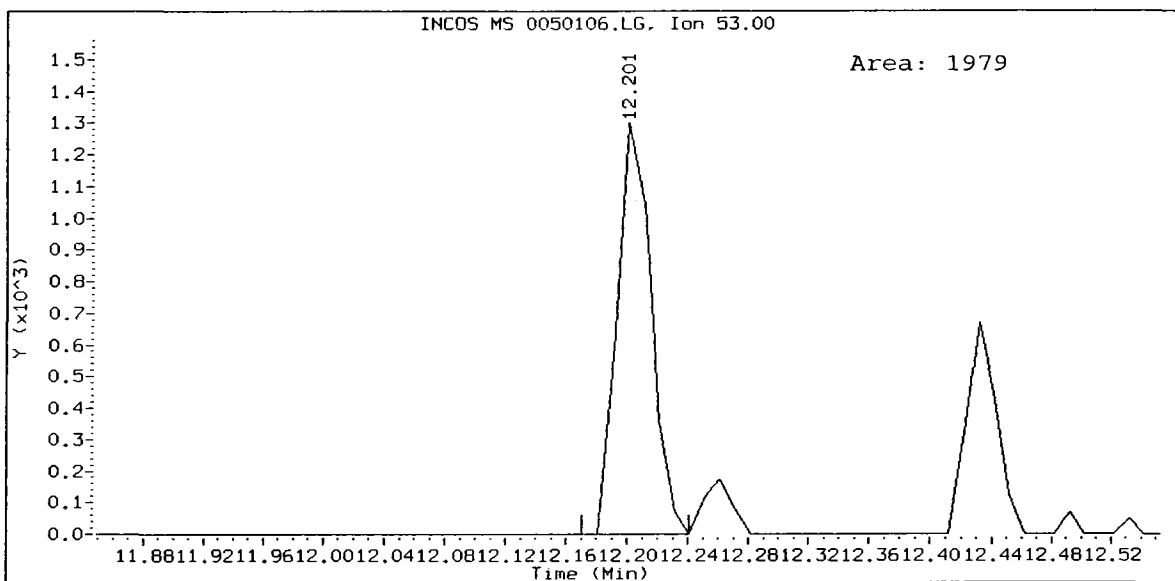
Data File: /chem1/fin5.i/06JAN10.b/0050106.d  
Date : 06-JAN-2010 11:34  
Client ID: VSTDS  
Sample Info: IC0106,5,5,0  
Column phase: Rbx502.2

Instrument: fin5.i  
Operator: PB  
Column diameter: 0.18



0050106 : 0050106





Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/0100106.d  
 Lab Smp Id: IC0106 Client Smp ID: VSTD10  
 Inj Date : 06-JAN-2010 12:01  
 Operator : PB Inst ID: finn5.i  
 Smp Info : IC0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 09:56 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 12:01 Cal File: 0100106.d  
 Als bottle: 1 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.025	3.025	(0.457)	13472	10.0000	9.773
2 Chloromethane	50	3.327	3.327	(0.502)	27715	10.0000	10.118
3 Vinyl Chloride	62	3.437	3.437	(0.519)	27469	10.0000	10.500
4 Bromomethane	94	3.919	3.919	(0.592)	10522	10.0000	9.522
5 Chloroethane	64	3.990	3.990	(0.602)	16228	10.0000	10.691
6 Trichlorofluoromethane	101	4.251	4.251	(0.642)	28064	10.0000	10.984
7 Acrolein	56	4.633	4.633	(0.700)	12374	50.0000	49.615
8 1,1,1-Trichloro-2,2,2-Trifluoroethane	101	4.643	4.643	(0.701)	18355	10.0000	10.694
9 Acetone	43	4.693	4.693	(0.709)	25408	50.0000	48.607
10 1,1-Dichloroethene	96	4.844	4.844	(0.731)	13685	10.0000	10.371
11 Bromoethane	108	5.065	5.065	(0.765)	6407	10.0000	9.075
12 Iodomethane	142	5.156	5.156	(0.778)	6798	10.0000	8.289
13 Methylene Chloride	84	5.276	5.276	(0.797)	23147	10.0000	16.900
14 Acrylonitrile	53	5.357	5.357	(0.809)	4258	10.0000	10.338

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.815)	34783	10.0000	10.760
15 Carbon Disulfide	76	5.377	5.377	(0.812)	31138	10.0000	8.454
17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.839)	14280	10.0000	10.524
18 Vinyl Acetate	43	5.879	5.879	(0.888)	31226	10.0000	10.421
19 1,1-Dichloroethane	63	5.940	5.940	(0.897)	29077	10.0000	10.458
20 2-Butanone	43	6.281	6.281	(0.948)	34460	50.0000	51.793
21 2,2-Dichloropropane	77	6.462	6.462	(0.976)	24652	10.0000	10.603
22 Cis-1,2-Dichloroethene	96	6.492	6.492	(0.980)	14213	10.0000	10.287
23 Pentafluorobenzene	168	6.623	6.623	(1.000)	113628	50.0000	
24 Chloroform	83	6.643	6.643	(1.003)	27258	10.0000	10.558
26 Bromochloromethane	128	6.804	6.804	(1.027)	6438	10.0000	10.009
25 Dibromofluoromethane	111	6.844	6.844	(1.033)	65200	50.0000	49.772
27 1,1,1-Trichloroethane	97	7.025	7.025	(1.061)	25069	10.0000	10.711
29 1,1-Dichloropropene	75	7.176	7.176	(0.941)	20985	10.0000	10.451
30 Carbon Tetrachloride	117	7.286	7.286	(0.955)	22397	10.0000	10.547
31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	86643	50.0000	49.793
32 1,2-Dichloroethane	62	7.387	7.387	(0.968)	22975	10.0000	10.687
33 Benzene	78	7.437	7.437	(0.975)	51936	10.0000	11.315
34 1,4-Difluorobenzene	114	7.628	7.628	(1.000)	157784	50.0000	
35 Trichloroethene	95	8.000	8.000	(1.049)	15548	10.0000	10.603
36 1,2-Dichloropropane	63	8.161	8.161	(1.070)	15616	10.0000	10.661
37 Bromodichloromethane	83	8.402	8.402	(1.101)	18775	10.0000	10.353
39 Dibromomethane	93	8.462	8.462	(1.109)	8890	10.0000	10.460
40 2-Chloroethyl Vinyl Ether	63	8.613	8.613	(1.129)	4959	10.0000	9.862
41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.134)	21472	50.0000	50.268
42 Cis 1,3-dichloropropene	75	8.904	8.904	(1.167)	21197	10.0000	10.492
43 d8-Toluene	98	9.176	9.176	(1.203)	188387	50.0000	50.385
44 Toluene	92	9.266	9.266	(1.215)	31676	10.0000	10.852
45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.232)	18611	10.0000	10.540
46 2-Hexanone	43	9.527	9.527	(0.834)	52252	50.0000	52.840
47 1,1,2-Trichloroethane	97	9.578	9.578	(1.256)	10174	10.0000	10.534
48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	19853	10.0000	10.595
49 Tetrachloroethene	166	9.949	9.949	(0.923)	15930	10.0000	10.210
50 Chlorodibromomethane	129	10.161	10.161	(0.942)	12795	10.0000	10.024
51 1,2-Dibromoethane	107	10.382	10.382	(1.361)	10928	10.0000	10.121
52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	147314	50.0000	
53 Chlorobenzene	112	10.824	10.824	(1.004)	33935	10.0000	10.836
54 Ethyl Benzene	91	10.854	10.854	(1.007)	59112	10.0000	11.413
55 1,1,1,2-Tetrachloroethane	131	10.844	10.844	(1.006)	12322	10.0000	10.371
56 m,p-xylene	106	10.934	10.934	(1.014)	46368	20.0000	21.811
57 o-Xylene	106	11.427	11.427	(1.060)	22280	10.0000	10.254
58 Styrene	104	11.457	11.457	(1.062)	35194	10.0000	10.586
59 Isopropyl Benzene	105	11.809	11.809	(0.878)	58352	10.0000	11.044
60 Bromoform	173	11.869	11.869	(0.882)	7933	10.0000	9.657
61 1,1,2,2-Tetrachloroethane	83	11.980	11.980	(0.890)	13227	10.0000	10.270
62 4-Bromofluorobenzene	95	12.100	12.100	(1.122)	82817	50.0000	49.325
63 1,2,3-Trichloropropane	110	12.150	12.150	(0.903)	3358	10.0000	11.021

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
-----	----	==	=====	=====	=====	=====	=====
65 Trans-1,4-Dichloro 2-Butene	53	12.201	12.201	(0.907)	4682	10.0000	10.282
66 N-Propyl Benzene	91	12.261	12.261	(0.911)	69455	10.0000	11.237
67 Bromobenzene	156	12.351	12.351	(0.918)	16074	10.0000	10.546
68 1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.924)	46693	10.0000	11.175
69 2-Chloro Toluene	91	12.492	12.492	(0.928)	45797	10.0000	11.165
70 4-Chloro Toluene	91	12.532	12.532	(0.931)	45932	10.0000	11.247
71 T-Butyl Benzene	119	12.844	12.844	(0.954)	42505	10.0000	11.090
72 1,2,4-Trimethylbenzene	105	12.894	12.894	(0.958)	46458	10.0000	11.247
73 S-Butyl Benzene	105	13.085	13.085	(0.972)	61223	10.0000	10.930
74 4-Isopropyl Toluene	119	13.236	13.236	(0.984)	47378	10.0000	11.284
75 1,3-Dichlorobenzene	146	13.387	13.387	(0.995)	27843	10.0000	10.491
76 d4-1,4-Dichlorobenzene	152	13.457	13.457	(1.000)	80299	50.0000	
77 1,4-Dichlorobenzene	146	13.497	13.497	(1.003)	26755	10.0000	10.395
78 N-Butyl Benzene	91	13.708	13.708	(1.019)	46143	10.0000	10.966
79 d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.034)	72641	50.0000	49.361
80 1,2-Dichlorobenzene	146	13.939	13.939	(1.036)	25247	10.0000	10.422
81 1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.103)	2362	10.0000	9.658
82 1,2,4-Trichlorobenzene	180	15.889	15.889	(1.181)	16730	10.0000	10.391
83 Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.193)	10902	10.0000	10.369
84 Naphthalene	128	16.211	16.211	(1.205)	27367	10.0000	9.949
85 1,2,3-Trichlorobenzene	180	16.502	16.502	(1.226)	14857	10.0000	10.213

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: 0100106.d  
 Lab Smp Id: IC0106  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

Calibration Date: 06-JAN-2010  
 Calibration Time: 12:28  
 Client Smp ID: VSTD10  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	113628	0.21
34 1,4-Difluorobenze	160565	80282	321130	157784	-1.73
52 d5-Chlorobenzene	148719	74360	297438	147314	-0.94
76 d4-1,4-Dichlorobe	84322	42161	168644	80299	-4.77

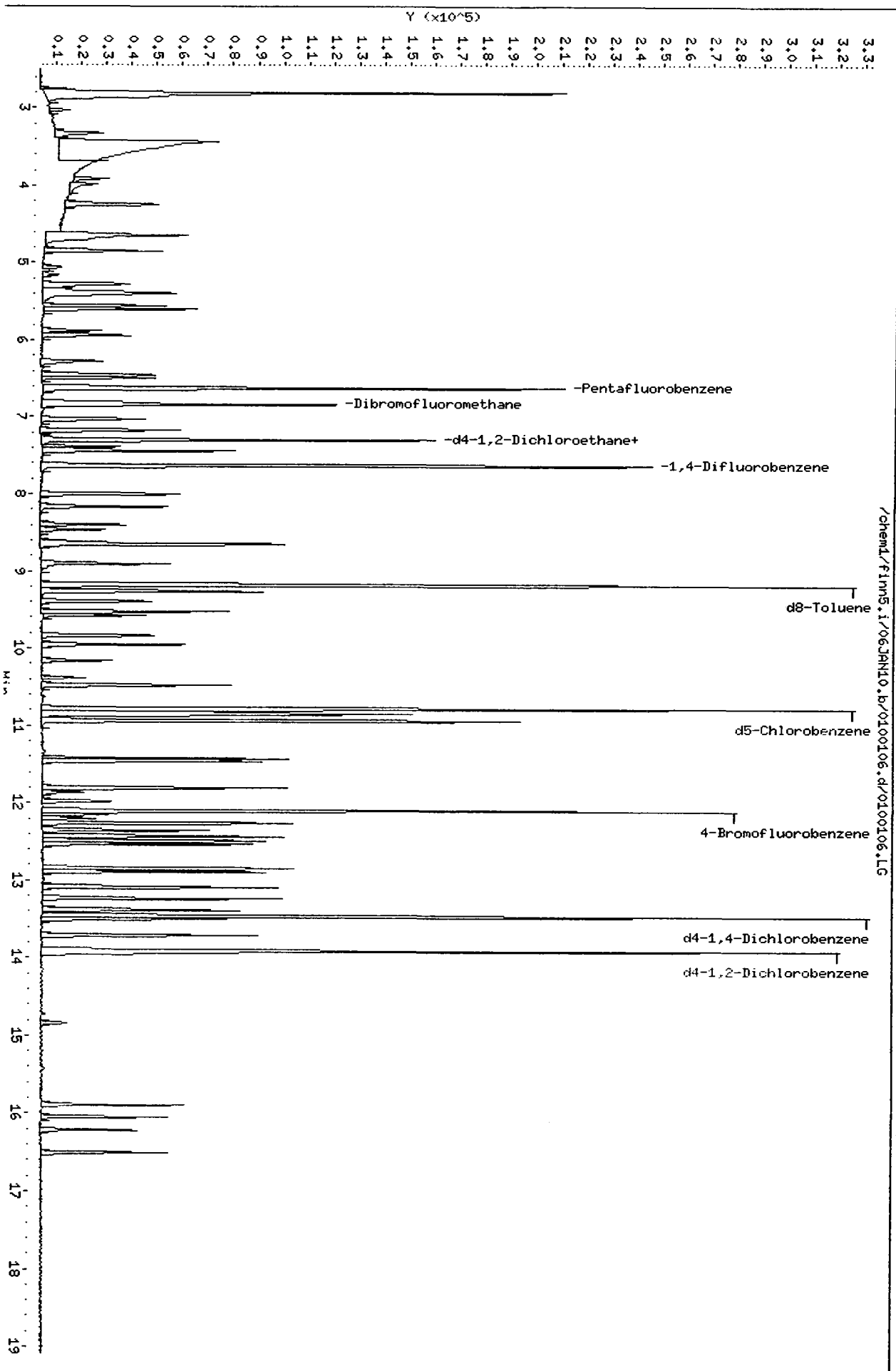
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.62	0.15
34 1,4-Difluorobenze	7.62	7.12	8.12	7.63	0.13
52 d5-Chlorobenzene	10.76	10.26	11.26	10.78	0.19
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.46	0.07

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: /chem1/finn5.i/06JAN10.b/0100106.d  
 Date : 06-JAN-2010 12:01  
 Client ID: VSTD10  
 Sample Info: IC0106,5,5,0  
 Column phase: RTX502.2

Operator: PB  
 Column diameter: 0.18



0650 : 0927

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/0500106.d  
 Lab Smp Id: IC0106 Client Smp ID: VSTD50  
 Inj Date : 06-JAN-2010 12:28  
 Operator : PB Inst ID: finn5.i  
 Smp Info : IC0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 09:56 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 12:28 Cal File: 0500106.d  
 Als bottle: 1 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.015	3.015	(0.456)	83659	50.0000	60.815
2 Chloromethane	50	3.316	3.316	(0.502)	143311	50.0000	52.429
3 Vinyl Chloride	62	3.427	3.427	(0.518)	154979	50.0000	59.360
4 Bromomethane	94	3.909	3.909	(0.591)	62608	50.0000	56.775
5 Chloroethane	64	3.980	3.980	(0.602)	85989	50.0000	56.766
6 Trichlorofluoromethane	101	4.241	4.241	(0.641)	137087	50.0000	53.766
7 Acrolein	56	4.623	4.623	(0.699)	60763	250.000	244.14
8 112Trichloro122Trifluoroethane	101	4.633	4.633	(0.701)	85900	50.0000	50.148
9 Acetone	43	4.673	4.673	(0.707)	133020	250.000	255.00
10 1,1-Dichloroethene	96	4.834	4.834	(0.731)	66805	50.0000	50.730
11 Bromoethane	108	5.055	5.055	(0.764)	39651	50.0000	56.276
12 Iodomethane	142	5.146	5.146	(0.778)	42108	50.0000	51.449
13 Methylene Chloride	84	5.266	5.266	(0.796)	80035	50.0000	58.555
14 Acrylonitrile	53	5.347	5.347	(0.808)	21151	50.0000	51.458

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.387	5.387	(0.815)	164739	50.0000	51.065
15 Carbon Disulfide	76	5.367	5.367	(0.812)	165920	50.0000	45.141
17 Trans-1,2-Dichloroethene	96	5.548	5.548	(0.839)	68837	50.0000	50.836
18 Vinyl Acetate	43	5.869	5.869	(0.888)	158305	50.0000	52.939
19 1,1-Dichloroethane	63	5.929	5.929	(0.897)	143951	50.0000	51.881
20 2-Butanone	43	6.261	6.261	(0.947)	172473	250.0000	259.76
21 2,2-Dichloropropane	77	6.442	6.442	(0.974)	122456	50.0000	52.780
22 Cis-1,2-Dichloroethene	96	6.482	6.482	(0.980)	70586	50.0000	51.191
* 23 Pentafluorobenzene	168	6.613	6.613	(1.000)	113395	50.0000	
24 Chloroform	83	6.623	6.623	(1.002)	134116	50.0000	52.057
26 Bromochloromethane	128	6.794	6.794	(1.027)	34466	50.0000	53.695
‡ 25 Dibromofluoromethane	111	6.824	6.824	(1.032)	66398	50.0000	50.790
27 1,1,1-Trichloroethane	97	7.015	7.015	(1.061)	124584	50.0000	53.338
29 1,1-Dichloropropane	75	7.156	7.156	(0.939)	106893	50.0000	52.314
30 Carbon Tetrachloride	117	7.276	7.276	(0.955)	112135	50.0000	51.890
‡ 31 d4-1,2-Dichloroethane	65	7.286	7.286	(1.102)	85522	50.0000	49.250
32 1,2-Dichloroethane	62	7.377	7.377	(0.968)	111380	50.0000	50.914
33 Benzene	78	7.427	7.427	(0.975)	246877	50.0000	52.855
* 34 1,4-Difluorobenzene	114	7.618	7.618	(1.000)	160565	50.0000	
35 Trichloroethene	95	7.990	7.990	(1.049)	77941	50.0000	52.230
36 1,2-Dichloropropane	63	8.151	8.151	(1.070)	74850	50.0000	50.216
37 Bromodichloromethane	83	8.382	8.382	(1.100)	94381	50.0000	51.142
39 Dibromomethane	93	8.452	8.452	(1.109)	43288	50.0000	50.050
40 2-Chloroethyl Vinyl Ether	63	8.603	8.603	(1.129)	25523	50.0000	49.876
41 4-Methyl-2-Pentanone	58	8.633	8.633	(1.133)	111762	250.0000	257.11
42 Cis 1,3-dichloropropene	75	8.884	8.884	(1.166)	108124	50.0000	52.590
‡ 43 d8-Toluene	98	9.166	9.166	(1.203)	191413	50.0000	50.308
44 Toluene	92	9.246	9.246	(1.214)	152053	50.0000	51.191
45 Trans 1,3-Dichloropropene	75	9.377	9.377	(1.231)	95588	50.0000	53.196
46 2-Hexanone	43	9.517	9.517	(0.884)	266907	250.0000	267.40
47 1,1,2-Trichloroethane	97	9.558	9.558	(1.255)	49588	50.0000	50.451
48 1,3-Dichloropropane	76	9.819	9.819	(0.912)	96259	50.0000	50.885
49 Tetrachloroethene	166	9.939	9.939	(0.923)	78941	50.0000	50.119
50 Chlorodibromomethane	129	10.150	10.150	(0.943)	69840	50.0000	54.196
51 1,2-Dibromoethane	107	10.372	10.372	(1.361)	57746	50.0000	52.556
* 52 d5-Chlorobenzene	117	10.764	10.764	(1.000)	148719	50.0000	
53 Chlorobenzene	112	10.814	10.814	(1.005)	161814	50.0000	51.181
54 Ethyl Benzene	91	10.844	10.844	(1.007)	286930	50.0000	54.874
55 1,1,1,2-Tetrachloroethane	131	10.834	10.834	(1.007)	61065	50.0000	50.912
56 m,p-xylene	106	10.924	10.924	(1.015)	228698	100.0000	106.56
57 o-Xylene	106	11.407	11.407	(1.060)	111980	50.0000	51.050
58 Styrene	104	11.437	11.437	(1.063)	177759	50.0000	52.962
59 Isopropyl Benzene	105	11.789	11.789	(0.877)	293402	50.0000	52.879
60 Bromoform	173	11.849	11.849	(0.881)	43928	50.0000	50.922
61 1,1,2,2-Tetrachloroethane	83	11.970	11.970	(0.890)	68605	50.0000	50.729
‡ 62 4-Bromofluorobenzene	95	12.090	12.090	(1.123)	84713	50.0000	49.978
63 1,2,3-Trichloropropane	110	12.140	12.140	(0.903)	16473	50.0000	51.487

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	====		==	=====	=====	=====	=====	=====
65 Trans-1,4-Dichloro 2-Butene	53		12.191	12.191	(0.907)	24391	50.0000	51.008
66 N-Propyl Benzene	91		12.251	12.251	(0.911)	339761	50.0000	52.347
67 Bromobenzene	156		12.331	12.331	(0.917)	79062	50.0000	49.396
68 1,3,5-Trimethyl Benzene	105		12.422	12.422	(0.924)	236424	50.0000	53.885
69 2-Chloro Toluene	91		12.482	12.482	(0.928)	225680	50.0000	52.393
70 4-Chloro Toluene	91		12.522	12.522	(0.931)	219138	50.0000	51.098
71 T-Butyl Benzene	119		12.834	12.834	(0.954)	217001	50.0000	53.918
72 1,2,4-Trimethylbenzene	105		12.874	12.874	(0.957)	233072	50.0000	53.734
73 S-Butyl Benzene	105		13.075	13.075	(0.972)	311373	50.0000	52.936
74 4-Isopropyl Toluene	119		13.226	13.226	(0.984)	239743	50.0000	54.378
75 1,3-Dichlorobenzene	146		13.366	13.366	(0.994)	138353	50.0000	49.642
76 d4-1,4-Dichlorobenzene	152		13.447	13.447	(1.000)	84322	50.0000	
77 1,4-Dichlorobenzene	146		13.487	13.487	(1.003)	134342	50.0000	49.706
78 N-Butyl Benzene	91		13.698	13.698	(1.019)	241004	50.0000	54.541
79 d4-1,2-Dichlorobenzene	152		13.899	13.899	(1.034)	78133	50.0000	50.560
80 1,2-Dichlorobenzene	146		13.929	13.929	(1.036)	125518	50.0000	49.344
81 1,2-Dibromo 3-Chloropropane	75		14.834	14.834	(1.103)	13050	50.0000	50.815
82 1,2,4-Trichlorobenzene	180		15.879	15.879	(1.181)	88740	50.0000	52.485
83 Hexachloro 1,3-Butadiene	225		16.030	16.030	(1.192)	56061	50.0000	50.779
84 Naphthalene	128		16.201	16.201	(1.205)	152830	50.0000	52.909
85 1,2,3-Trichlorobenzene	180		16.492	16.492	(1.226)	78218	50.0000	51.206

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: finn5.i  
Lab File ID: 0500106.d  
Lab Smp Id: IC0106  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: PB  
Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
Misc Info: 09-

Calibration Date: 06-JAN-2010  
Calibration Time: 12:28  
Client Smp ID: VSTD50  
Level: LOW  
Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	113395	0.00
34 1,4-Difluorobenze	160565	80282	321130	160565	0.00
52 d5-Chlorobenzene	148719	74360	297438	148719	0.00
76 d4-1,4-Dichlorobe	84322	42161	168644	84322	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.61	0.00
34 1,4-Difluorobenze	7.62	7.12	8.12	7.62	0.00
52 d5-Chlorobenzene	10.76	10.26	11.26	10.76	0.00
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.45	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
AREA LOWER LIMIT = - 50% of internal standard area.  
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finm5.i/06JAN10.b/0500106.d

Date : 06-JAN-2010 12:28

Client ID: VSTD50

Sample Info: IC0106,5,5,0

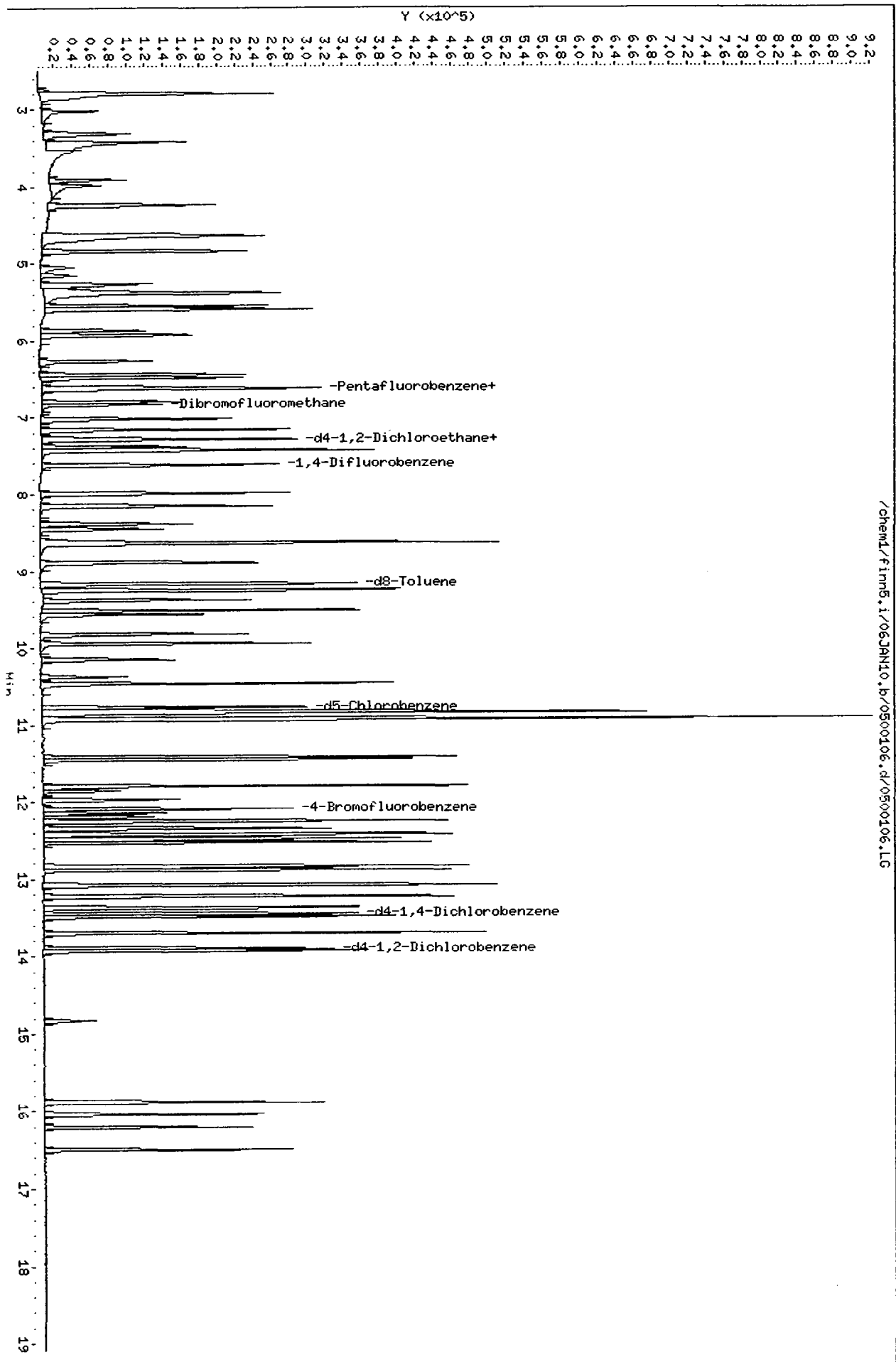
Column phase: RtX502.2

Instrument: finm5.i

Operator: PB

Column diameter: 0.18

Page 5



/chem1/finm5.i/06JAN10.b/0500106.d/0500106.LG

0500106 : 00210

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/1000106.d  
 Lab Smp Id: IC0106 Client Smp ID: VSTD100  
 Inj Date : 06-JAN-2010 12:54  
 Operator : PB Inst ID: finn5.i  
 Smp Info : IC0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 09:56 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 12:54 Cal File: 1000106.d  
 Als bottle: 1 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.035	3.035	(0.458)	165093	100.000	110.46
2 Chloromethane	50	3.327	3.327	(0.502)	283944	100.000	95.613
3 Vinyl Chloride	62	3.437	3.437	(0.519)	289980	100.000	102.23
4 Bromomethane	94	3.919	3.919	(0.592)	147942	100.000	123.48
5 Chloroethane	64	3.990	3.990	(0.602)	178110	100.000	108.22
6 Trichlorofluoromethane	101	4.251	4.251	(0.642)	256847	100.000	92.720
7 Acrolein	56	4.643	4.643	(0.701)	127681	500.000	472.18
8 1,1,1-Trichloro-2,2,2-Trifluoroethane	101	4.653	4.653	(0.703)	172678	100.000	92.786
9 Acetone	43	4.693	4.693	(0.709)	257869	500.000	455.00
10 1,1-Dichloroethene	96	4.844	4.844	(0.731)	137971	100.000	96.436
11 Bromoethane	108	5.065	5.065	(0.765)	83771	100.000	109.43
12 Iodomethane	142	5.166	5.166	(0.780)	94935	100.000	106.76
13 Methylene Chloride	84	5.276	5.276	(0.797)	158843	100.000	106.96
14 Acrylonitrile	53	5.367	5.367	(0.810)	44759	100.000	100.23

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
16 Methyl tert-Butyl Ether	73	5.407	5.407 (0.816)	339380	100.000	96.829
15 Carbon Disulfide	76	5.387	5.387 (0.813)	439234	100.000	109.99
17 Trans-1,2-Dichloroethene	96	5.558	5.558 (0.839)	145516	100.000	98.913
18 Vinyl Acetate	43	5.879	5.879 (0.888)	339419	100.000	104.47
19 1,1-Dichloroethane	63	5.940	5.940 (0.897)	301511	100.000	100.02
20 2-Butanone	43	6.281	6.281 (0.948)	360665	500.000	499.97
21 2,2-Dichloropropane	77	6.462	6.462 (0.976)	250922	100.000	99.544
22 Cis-1,2-Dichloroethene	96	6.502	6.502 (0.982)	148227	100.000	98.945
23 Pentafluorobenzene	168	6.623	6.623 (1.000)	123198	50.0000	
24 Chloroform	83	6.643	6.643 (1.003)	276711	100.000	98.859
26 Bromochloromethane	128	6.804	6.804 (1.027)	72687	100.000	104.23
25 Dibromofluoromethane	111	6.844	6.844 (1.033)	70845	50.0000	49.880
27 1,1,1-Trichloroethane	97	7.035	7.035 (1.062)	256120	100.000	100.93
29 1,1-Dichloropropane	75	7.176	7.176 (0.939)	219082	100.000	98.717
30 Carbon Tetrachloride	117	7.286	7.286 (0.954)	237419	100.000	101.15
31 d4-1,2-Dichloroethane	65	7.306	7.306 (1.103)	89581	50.0000	47.482
32 1,2-Dichloroethane	62	7.397	7.397 (0.968)	229777	100.000	96.705
33 Benzene	78	7.437	7.437 (0.974)	504267	100.000	99.399
34 1,4-Difluorobenzene	114	7.638	7.638 (1.000)	174397	50.0000	
35 Trichloroethene	95	8.010	8.010 (1.049)	159650	100.000	98.500
36 1,2-Dichloropropane	63	8.171	8.171 (1.070)	159461	100.000	98.495
37 Bromodichloromethane	83	8.402	8.402 (1.100)	199904	100.000	99.730
39 Dibromomethane	93	8.472	8.472 (1.109)	91529	100.000	97.433
40 2-Chloroethyl Vinyl Ether	63	8.623	8.623 (1.129)	57691	100.000	103.80
41 4-Methyl-2-Pentanone	58	8.653	8.653 (1.133)	238914	500.000	506.04
42 Cis 1,3-dichloropropene	75	8.904	8.904 (1.166)	232116	100.000	103.94
43 d8-Toluene	98	9.186	9.186 (1.203)	202560	50.0000	49.015
44 Toluene	92	9.266	9.266 (1.213)	318610	100.000	98.757
45 Trans 1,3-Dichloropropene	75	9.397	9.397 (1.230)	207640	100.000	106.39
46 2-Hexanone	43	9.527	9.527 (0.884)	521093	500.000	490.07
47 1,1,2-Trichloroethane	97	9.578	9.578 (1.254)	107147	100.000	100.37
48 1,3-Dichloropropane	76	9.839	9.839 (0.912)	202106	100.000	100.29
49 Tetrachloroethene	166	9.960	9.960 (0.924)	163999	100.000	97.742
50 Chlorodibromomethane	129	10.161	10.161 (0.942)	149815	100.000	109.13
51 1,2-Dibromoethane	107	10.392	10.392 (1.361)	125865	100.000	105.47
52 d5-Chlorobenzene	117	10.784	10.784 (1.000)	158426	50.0000	
53 Chlorobenzene	112	10.824	10.824 (1.004)	336729	100.000	99.980
54 Ethyl Benzene	91	10.854	10.854 (1.007)	551044	100.000	98.927
55 1,1,1,2-Tetrachloroethane	131	10.854	10.854 (1.007)	131090	100.000	102.60
56 m,p-xylene	106	10.934	10.934 (1.014)	487969	200.000	213.44
57 o-Xylene	106	11.427	11.427 (1.060)	238377	100.000	102.02
58 Styrene	104	11.457	11.457 (1.062)	374946	100.000	104.87
59 Isopropyl Benzene	105	11.809	11.809 (0.877)	567688	100.000	94.740
60 Bromoform	173	11.869	11.869 (0.881)	102058	100.000	109.55
61 1,1,2,2-Tetrachloroethane	83	11.990	11.990 (0.890)	150490	100.000	103.04
62 4-Bromofluorobenzene	95	12.100	12.100 (1.122)	90427	50.0000	50.080
63 1,2,3-Trichloropropane	110	12.160	12.160 (0.903)	35227	100.000	101.95



Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	52842	100.000	102.32
66 N-Propyl Benzene	91	12.261	12.261	(0.910)	611427	100.000	87.230
67 Bromobenzene	156	12.351	12.351	(0.917)	170636	100.000	98.718
68 1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.923)	490052	100.000	103.42
69 2-Chloro Toluene	91	12.492	12.492	(0.928)	443645	100.000	95.371
70 4-Chloro Toluene	91	12.542	12.542	(0.931)	487558	100.000	105.27
71 T-Butyl Benzene	119	12.844	12.844	(0.954)	446221	100.000	102.66
72 1,2,4-Trimethylbenzene	105	12.894	12.894	(0.957)	475190	100.000	101.44
73 S-Butyl Benzene	105	13.095	13.095	(0.972)	584384	100.000	91.996
74 4-Isopropyl Toluene	119	13.236	13.236	(0.983)	487440	100.000	102.38
75 1,3-Dichlorobenzene	146	13.387	13.387	(0.994)	291800	100.000	96.949
* 76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	91063	50.0000	
77 1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	285995	100.000	97.983
78 N-Butyl Benzene	91	13.718	13.718	(1.019)	484441	100.000	101.52
79 d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.033)	83591	50.0000	50.087
80 1,2-Dichlorobenzene	146	13.939	13.939	(1.035)	268027	100.000	97.567
81 1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.102)	29021	100.000	104.64
82 1,2,4-Trichlorobenzene	180	15.889	15.889	(1.180)	182349	100.000	99.866
83 Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	115672	100.000	97.017
84 Naphthalene	128	16.221	16.221	(1.204)	324036	100.000	103.87
85 1,2,3-Trichlorobenzene	180	16.502	16.502	(1.225)	162715	100.000	98.636

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: 1000106.d  
 Lab Smp Id: IC0106  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

Calibration Date: 06-JAN-2010  
 Calibration Time: 12:28  
 Client Smp ID: VSTD100  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

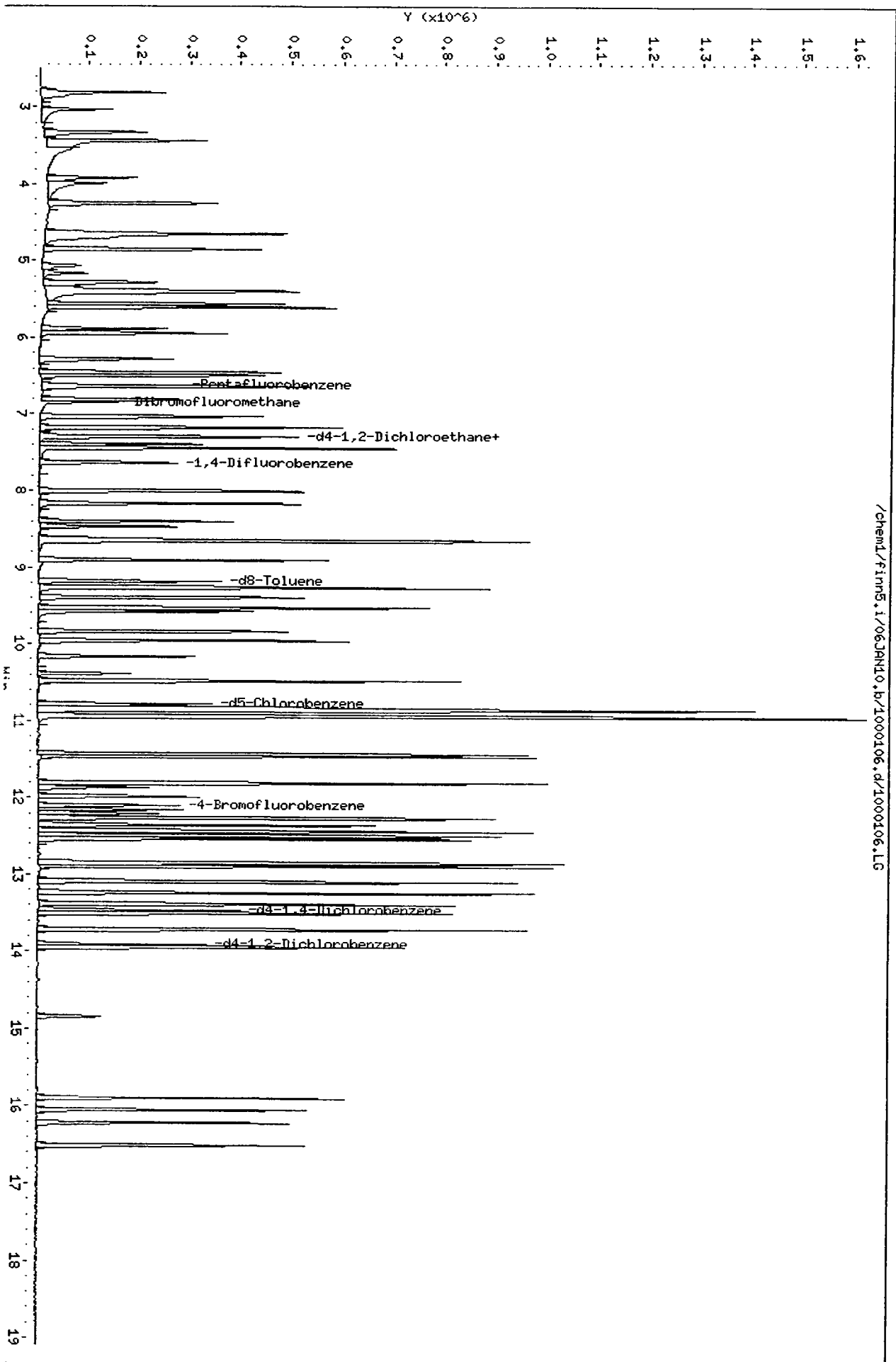
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	123198	8.65
34 1,4-Difluorobenze	160565	80282	321130	174397	8.61
52 d5-Chlorobenzene	148719	74360	297438	158426	6.53
76 d4-1,4-Dichlorobe	84322	42161	168644	91063	7.99

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.62	0.15
34 1,4-Difluorobenze	7.62	7.12	8.12	7.64	0.26
52 d5-Chlorobenzene	10.76	10.26	11.26	10.78	0.19
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.47	0.15

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/06JAN10.b/1000106.d  
Date: 06-JAN-2010 12:54  
Client ID: VSTDL00  
Sample Info: IC0106,5,5,0  
Column phase: Rtx502.2

Instrument: finn5.i  
Operator: PB  
Column diameter: 0.18



/chem1/finn5.i/06JAN10.b/1000106.d/1000106.L6

11 00 00 : 05 53 08

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/1500106.d  
 Lab Smp Id: IC0106 Client Smp ID: VSTD150  
 Inj Date : 06-JAN-2010 13:21  
 Operator : PB Inst ID: finn5.i  
 Smp Info : IC0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 09:56 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:21 Cal File: 1500106.d  
 Vial bottle: 1 Calibration Sample, Level: 7  
 Dil Factor: 1.00000 Compound Sublist: voa.sub  
 Integrator: HP RTE  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Compound Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85		3.025	3.025	(0.457)	251626	150.000	153.04
2 Chloromethane	50		3.316	3.316	(0.502)	448689	150.000	137.33
3 Vinyl Chloride	62		3.427	3.427	(0.518)	426566	150.000	136.69
4 Bromomethane	94		3.909	3.909	(0.591)	264874	150.000	200.96
5 Chloroethane	64		3.980	3.980	(0.602)	278395	150.000	153.76
6 Trichlorofluoromethane	101		4.241	4.241	(0.641)	380173	150.000	124.75
7 Acrolein	56		4.633	4.633	(0.701)	206390	750.000	693.78
8 1,1,1-Trichloro-2,2,2-Trifluoroethane	101		4.643	4.643	(0.702)	269276	150.000	131.52
9 Acetone	43		4.693	4.693	(0.710)	408075	750.000	654.48
10 1,1-Dichloroethene	96		4.834	4.834	(0.731)	217093	150.000	137.92
11 Bromoethane	108		5.055	5.055	(0.764)	138926	150.000	164.96
12 Iodomethane	142		5.156	5.156	(0.780)	166819	150.000	170.53
13 Methylene Chloride	84		5.276	5.276	(0.798)	243924	150.000	149.31
14 Acrylonitrile	53		5.357	5.357	(0.810)	72510	150.000	147.59

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.816)	543401	150.000	140.92
15 Carbon Disulfide	76	5.377	5.377	(0.813)	767925	150.000	174.80
17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.840)	233008	150.000	143.97
18 Vinyl Acetate	43	5.879	5.879	(0.889)	516321	150.000	144.46
19 1,1-Dichloroethane	63	5.929	5.929	(0.897)	477089	150.000	143.86
20 2-Butanone	43	6.281	6.281	(0.950)	568732	750.000	716.63
21 2,2-Dichloropropane	77	6.452	6.452	(0.976)	395764	150.000	142.71
22 Cis-1,2-Dichloroethene	96	6.492	6.492	(0.982)	240722	150.000	146.06
23 Pentafluorobenzene	168	6.613	6.613	(1.000)	135536	50.0000	
24 Chloroform	83	6.633	6.633	(1.003)	444757	150.000	144.43
26 Bromochloromethane	128	6.804	6.804	(1.029)	120347	150.000	156.86
25 Dibromofluoromethane	111	6.834	6.834	(1.033)	76926	50.0000	49.231
27 1,1,1-Trichloroethane	97	7.025	7.025	(1.062)	404601	150.000	144.92
29 1,1-Dichloropropene	75	7.166	7.166	(0.939)	347348	150.000	142.72
30 Carbon Tetrachloride	117	7.286	7.286	(0.955)	368536	150.000	143.18
31 d4-1,2-Dichloroethane	65	7.296	7.296	(1.103)	94821	50.0000	45.684
32 1,2-Dichloroethane	62	7.387	7.387	(0.968)	363555	150.000	139.52
33 Benzene	78	7.437	7.437	(0.975)	687890	150.000	123.64
34 1,4-Difluorobenzene	114	7.628	7.628	(1.000)	191249	50.0000	
35 Trichloroethene	95	8.000	8.000	(1.049)	254298	150.000	143.07
36 1,2-Dichloropropane	63	8.161	8.161	(1.070)	254379	150.000	143.28
37 Bromodichloromethane	83	8.392	8.392	(1.100)	322214	150.000	146.58
39 Dibromomethane	93	8.462	8.462	(1.109)	149495	150.000	145.12
40 2-Chloroethyl Vinyl Ether	63	8.613	8.613	(1.129)	96235	150.000	157.89
41 4-Methyl-2-Pentanone	58	8.643	8.643	(1.133)	389044	750.000	751.42
42 Cis 1,3-dichloropropene	75	8.894	8.894	(1.166)	377458	150.000	154.13
43 d8-Toluene	98	9.176	9.176	(1.203)	222437	50.0000	49.082
44 Toluene	92	9.256	9.256	(1.213)	505481	150.000	142.87
45 Trans 1,3-Dichloropropene	75	9.387	9.387	(1.231)	337871	150.000	157.86
46 2-Hexanone	43	9.527	9.527	(0.884)	666049	750.000	570.38
47 1,1,2-Trichloroethane	97	9.568	9.568	(1.254)	173989	150.000	148.62
48 1,3-Dichloropropane	76	9.829	9.829	(0.912)	326372	150.000	147.48
49 Tetrachloroethene	166	9.949	9.949	(0.924)	264803	150.000	143.71
50 Chlorodibromomethane	129	10.161	10.161	(0.943)	247215	150.000	163.98
51 1,2-Dibromoethane	107	10.382	10.382	(1.361)	201800	150.000	154.20
52 d5-Chlorobenzene	117	10.774	10.774	(1.000)	173984	50.0000	
53 Chlorobenzene	112	10.824	10.824	(1.005)	510186	150.000	137.94
54 Ethyl Benzene	91	10.854	10.854	(1.007)	712803	150.000	116.52
55 1,1,1,2-Tetrachloroethane	131	10.844	10.844	(1.007)	217644	150.000	155.11
56 m,p-xylene	106	10.934	10.934	(1.015)	668382	300.000	266.21
57 o-Xylene	106	11.427	11.427	(1.061)	386538	150.000	150.63
58 Styrene	104	11.447	11.447	(1.062)	561280	150.000	142.94
59 Isopropyl Benzene	105	11.799	11.799	(0.877)	734166	150.000	109.07
60 Bromoform	173	11.859	11.859	(0.881)	173065	150.000	165.38
61 1,1,2,2-Tetrachloroethane	83	11.980	11.980	(0.890)	248159	150.000	151.26
62 4-Bromofluorobenzene	95	12.100	12.100	(1.123)	100594	50.0000	50.729
63 1,2,3-Trichloropropane	110	12.150	12.150	(0.903)	57444	150.000	148.00

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
65 Trans-1,4-Dichloro 2-Butene	53	12.201	12.201	(0.907)	87932	150.000	151.59
66 N-Propyl Benzene	91	12.261	12.261	(0.911)	768786	150.000	97.641
67 Bromobenzene	156	12.341	12.341	(0.917)	281266	150.000	144.86
68 1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.924)	655333	150.000	123.12
69 2-Chloro Toluene	91	12.492	12.492	(0.928)	651227	150.000	124.63
70 4-Chloro Toluene	91	12.532	12.532	(0.931)	632153	150.000	121.51
71 T-Butyl Benzene	119	12.834	12.834	(0.954)	652687	150.000	133.68
72 1,2,4-Trimethylbenzene	105	12.884	12.884	(0.957)	644714	150.000	122.53
73 S-Butyl Benzene	105	13.085	13.085	(0.972)	757942	150.000	106.22
74 4-Isopropyl Toluene	119	13.236	13.236	(0.984)	656132	150.000	122.68
75 1,3-Dichlorobenzene	146	13.377	13.377	(0.994)	471125	150.000	139.35
76 d4-1,4-Dichlorobenzene	152	13.457	13.457	(1.000)	102290	50.0000	
77 1,4-Dichlorobenzene	146	13.497	13.497	(1.003)	453700	150.000	138.38
78 N-Butyl Benzene	91	13.708	13.708	(1.019)	659861	150.000	123.10
79 d4-1,2-Dichlorobenzene	152	13.899	13.899	(1.033)	94563	50.0000	50.442
80 1,2-Dichlorobenzene	146	13.939	13.939	(1.036)	429534	150.000	139.20
81 1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.103)	47719	150.000	153.17
82 1,2,4-Trichlorobenzene	180	15.889	15.889	(1.181)	288234	150.000	140.53
83 Hexachloro 1,3-Butadiene	225	16.040	16.040	(1.192)	197472	150.000	147.45
84 Naphthalene	128	16.211	16.211	(1.205)	481263	150.000	137.34
85 1,2,3-Trichlorobenzene	180	16.502	16.502	(1.226)	255716	150.000	138.00

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: 1500106.d  
 Lab Smp Id: IC0106  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

Calibration Date: 06-JAN-2010  
 Calibration Time: 12:28  
 Client Smp ID: VSTD150  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzene	113395	56698	226790	135536	19.53
34 1,4-Difluorobenzene	160565	80282	321130	191249	19.11
52 d5-Chlorobenzene	148719	74360	297438	173984	16.99
76 d4-1,4-Dichlorobenzene	84322	42161	168644	102290	21.31

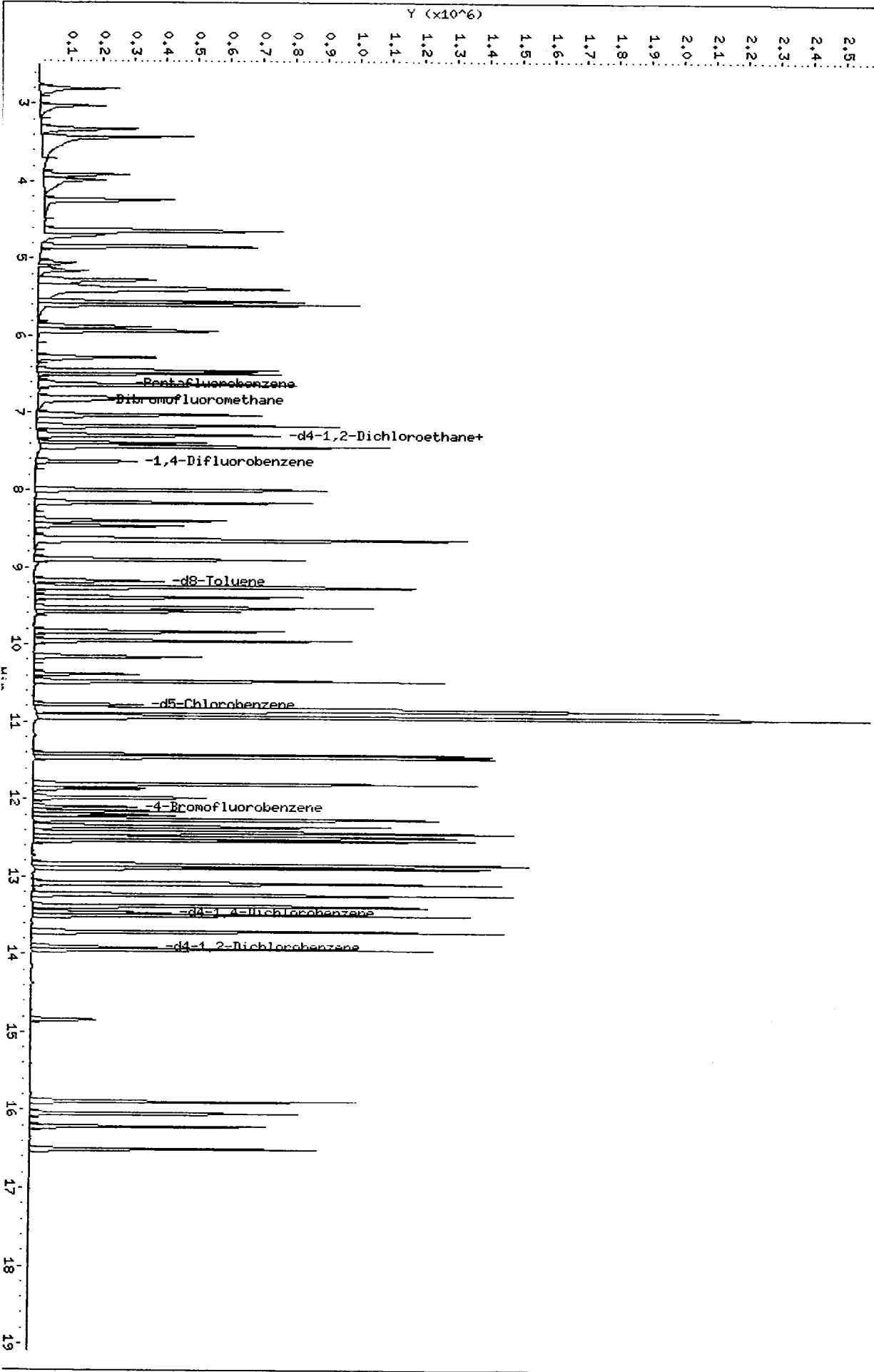
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzene	6.61	6.11	7.11	6.61	0.00
34 1,4-Difluorobenzene	7.62	7.12	8.12	7.63	0.13
52 d5-Chlorobenzene	10.76	10.26	11.26	10.77	0.09
76 d4-1,4-Dichlorobenzene	13.45	12.95	13.95	13.46	0.07

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finm5.i/06JAN10.b/1500106.d  
Date : 06-JAN-2010 13:21  
Client ID: WSTD150  
Sample Info: IC0106,5,5,0  
Column phase: RTX502.2

Instrument: finm5.i  
Operator: PB  
Column diameter: 0.18

/chem1/finm5.i/06JAN10.b/1500106.d/1500106.LC





Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/2000106.d  
 Lab Smp Id: IC0106 Client Smp ID: VSTD200  
 Inj Date : 06-JAN-2010 13:53  
 Operator : PB Inst ID: finn5.i  
 Smp Info : IC0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 09:56 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1 Calibration Sample, Level: 8  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.015	3.015	(0.457)	349024	200.000	205.14
2 Chloromethane	50	3.306	3.306	(0.501)	606022	200.000	179.26
3 Vinyl Chloride	62	3.417	3.417	(0.518)	555782	200.000	172.12
4 Bromomethane	94	3.889	3.889	(0.589)	356608	200.000	261.46
5 Chloroethane	64	3.960	3.960	(0.600)	369519	200.000	197.23
6 Trichlorofluoromethane	101	4.221	4.221	(0.639)	539705	200.000	171.14
7 Acrolein	56	4.623	4.623	(0.700)	295174	1000.00	958.90
8 1,1,1-Trichloro-2,2,2-Trifluoroethane	101	4.623	4.623	(0.700)	388708	200.000	183.48
9 Acetone	43	4.673	4.673	(0.708)	566588	1000.00	878.18
10 1,1-Dichloroethene	96	4.824	4.824	(0.731)	289894	200.000	177.99
11 Bromoethane	108	5.045	5.045	(0.764)	195891	200.000	224.79
12 Iodomethane	142	5.136	5.136	(0.778)	241260	200.000	238.34
13 Methylene Chloride	84	5.256	5.256	(0.796)	326945	200.000	193.40
14 Acrylonitrile	53	5.347	5.347	(0.810)	103668	200.000	203.92

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.387	5.387	(0.816)	704085	200.000	176.46
15 Carbon Disulfide	76	5.357	5.357	(0.811)	1041005	200.000	228.99
17 Trans-1,2-Dichloroethene	96	5.538	5.538	(0.839)	316769	200.000	189.14
18 Vinyl Acetate	43	5.859	5.859	(0.887)	635642	200.000	171.87
19 1,1-Dichloroethane	63	5.919	5.919	(0.896)	604398	200.000	176.12
20 2-Butanone	43	6.261	6.261	(0.948)	732518	1000.00	892.00
21 2,2-Dichloropropane	77	6.442	6.442	(0.976)	532635	200.000	185.62
22 Cis-1,2-Dichloroethene	96	6.472	6.472	(0.980)	329168	200.000	193.02
23 Pentafluorobenzene	168	6.603	6.603	(1.000)	140248	50.0000	
24 Chloroform	83	6.623	6.623	(1.003)	568756	200.000	178.49
26 Bromochloromethane	128	6.784	6.784	(1.027)	161995	200.000	204.05
27 1,1,1-Trichloroethane	111	6.824	6.824	(1.033)	79736	50.0000	49.315
29 1,1-Dichloropropene	97	7.015	7.015	(1.062)	537856	200.000	186.18
30 Carbon Tetrachloride	75	7.156	7.156	(0.941)	471164	200.000	187.32
31 d4-1,2-Dichloroethane	117	7.266	7.266	(0.955)	500445	200.000	188.12
32 1,2-Dichloroethane	65	7.286	7.286	(1.103)	100577	50.0000	46.830
33 Benzene	62	7.377	7.377	(0.970)	485255	200.000	180.20
34 1,4-Difluorobenzene	78	7.417	7.417	(0.975)	806197	200.000	140.22
35 Trichloroethene	114	7.608	7.608	(1.000)	197651	50.0000	
36 1,2-Dichloropropane	95	7.980	7.980	(1.049)	342057	200.000	186.21
37 Bromodichloromethane	63	8.151	8.151	(1.071)	345585	200.000	188.34
39 Dibromomethane	83	8.382	8.382	(1.102)	430478	200.000	189.49
40 2-Chloroethyl Vinyl Ether	93	8.452	8.452	(1.111)	202047	200.000	189.78
41 4-Methyl-2-Pentanone	63	8.603	8.603	(1.131)	139717	200.000	221.80
42 Cis 1,3-dichloropropene	58	8.633	8.633	(1.135)	542857	1000.00	1014.5
43 d8-Toluene	75	8.884	8.884	(1.168)	493957	200.000	195.17
44 Toluene	98	9.166	9.166	(1.205)	226603	50.0000	48.382
45 Trans 1,3-Dichloropropene	92	9.246	9.246	(1.215)	626106	200.000	171.24
46 2-Hexanone	75	9.377	9.377	(1.232)	452268	200.000	204.47
47 1,1,2-Trichloroethane	43	9.517	9.517	(0.884)	800716	1000.00	665.55
48 1,3-Dichloropropane	97	9.558	9.558	(1.256)	241779	200.000	199.83
49 Tetrachloroethene	76	9.819	9.819	(0.912)	444067	200.000	194.76
50 Chlorodibromomethane	166	9.939	9.939	(0.923)	361573	200.000	190.46
51 1,2-Dibromoethane	129	10.140	10.140	(0.942)	341260	200.000	219.71
52 d5-Chlorobenzene	107	10.372	10.372	(1.363)	282904	200.000	209.17
53 Chlorobenzene	117	10.764	10.764	(1.000)	179253	50.0000	
54 Ethyl Benzene	112	10.804	10.804	(1.004)	620988	200.000	162.96
55 1,1,1,2-Tetrachloroethane	91	10.844	10.844	(1.007)	839896	200.000	133.26
56 m,p-xylene	131	10.834	10.834	(1.007)	304934	200.000	210.93
57 o-Xylene	106	10.924	10.924	(1.015)	791866	400.000	306.12
58 Styrene	106	11.407	11.407	(1.060)	516262	200.000	195.27
59 Isopropyl Benzene	104	11.437	11.437	(1.063)	688738	200.000	170.25
60 Bromoform	105	11.789	11.789	(0.877)	831715	200.000	112.57
61 1,1,2,2-Tetrachloroethane	173	11.849	11.849	(0.881)	253294	200.000	220.50
62 4-Bromofluorobenzene	83	11.849	11.849	(0.881)	253294	200.000	220.50
63 1,2,3-Trichloropropane	83	11.970	11.970	(0.890)	357554	200.000	198.55
	95	12.080	12.080	(1.122)	107013	50.0000	52.379
	110	12.140	12.140	(0.903)	83185	200.000	195.25

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53	12.191	12.191	(0.907)	128188	200.000	201.32
66 N-Propyl Benzene	91	12.241	12.241	(0.910)	866158	200.000	100.22
67 Bromobenzene	156	12.331	12.331	(0.917)	400290	200.000	187.81
68 1,3,5-Trimethyl Benzene	105	12.412	12.412	(0.923)	788973	200.000	135.04
69 2-Chloro Toluene	91	12.472	12.472	(0.928)	838064	200.000	146.11
70 4-Chloro Toluene	91	12.522	12.522	(0.931)	722603	200.000	126.54
71 T-Butyl Benzene	119	12.824	12.824	(0.954)	777677	200.000	145.11
72 1,2,4-Trimethylbenzene	105	12.874	12.874	(0.957)	756629	200.000	131.00
73 S-Butyl Benzene	105	13.075	13.075	(0.972)	899549	200.000	114.85
74 4-Isopropyl Toluene	119	13.216	13.216	(0.983)	784995	200.000	133.71
75 1,3-Dichlorobenzene	146	13.366	13.366	(0.994)	609007	200.000	164.10
76 d4-1,4-Dichlorobenzene	152	13.447	13.447	(1.000)	112283	50.0000	
77 1,4-Dichlorobenzene	146	13.487	13.487	(1.003)	582698	200.000	161.91
78 N-Butyl Benzene	91	13.698	13.698	(1.019)	765099	200.000	130.03
79 d4-1,2-Dichlorobenzene	152	13.889	13.889	(1.033)	102209	50.0000	49.669
80 1,2-Dichlorobenzene	146	13.929	13.929	(1.036)	571138	200.000	168.61
81 1,2-Dibromo 3-Chloropropane	75	14.824	14.824	(1.102)	70417	200.000	205.91
82 1,2,4-Trichlorobenzene	180	15.869	15.869	(1.180)	395734	200.000	175.77
83 Hexachloro 1,3-Butadiene	225	16.030	16.030	(1.192)	275574	200.000	187.45
84 Naphthalene	128	16.201	16.201	(1.205)	617602	200.000	160.57
85 1,2,3-Trichlorobenzene	180	16.482	16.482	(1.226)	362556	200.000	178.24

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: 2000106.d  
 Lab Smp Id: IC0106  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

Calibration Date: 06-JAN-2010  
 Calibration Time: 12:28  
 Client Smp ID: VSTD200  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	140248	23.68
34 1,4-Difluorobenze	160565	80282	321130	197651	23.10
52 d5-Chlorobenzene	148719	74360	297438	179253	20.53
76 d4-1,4-Dichlorobe	84322	42161	168644	112283	33.16

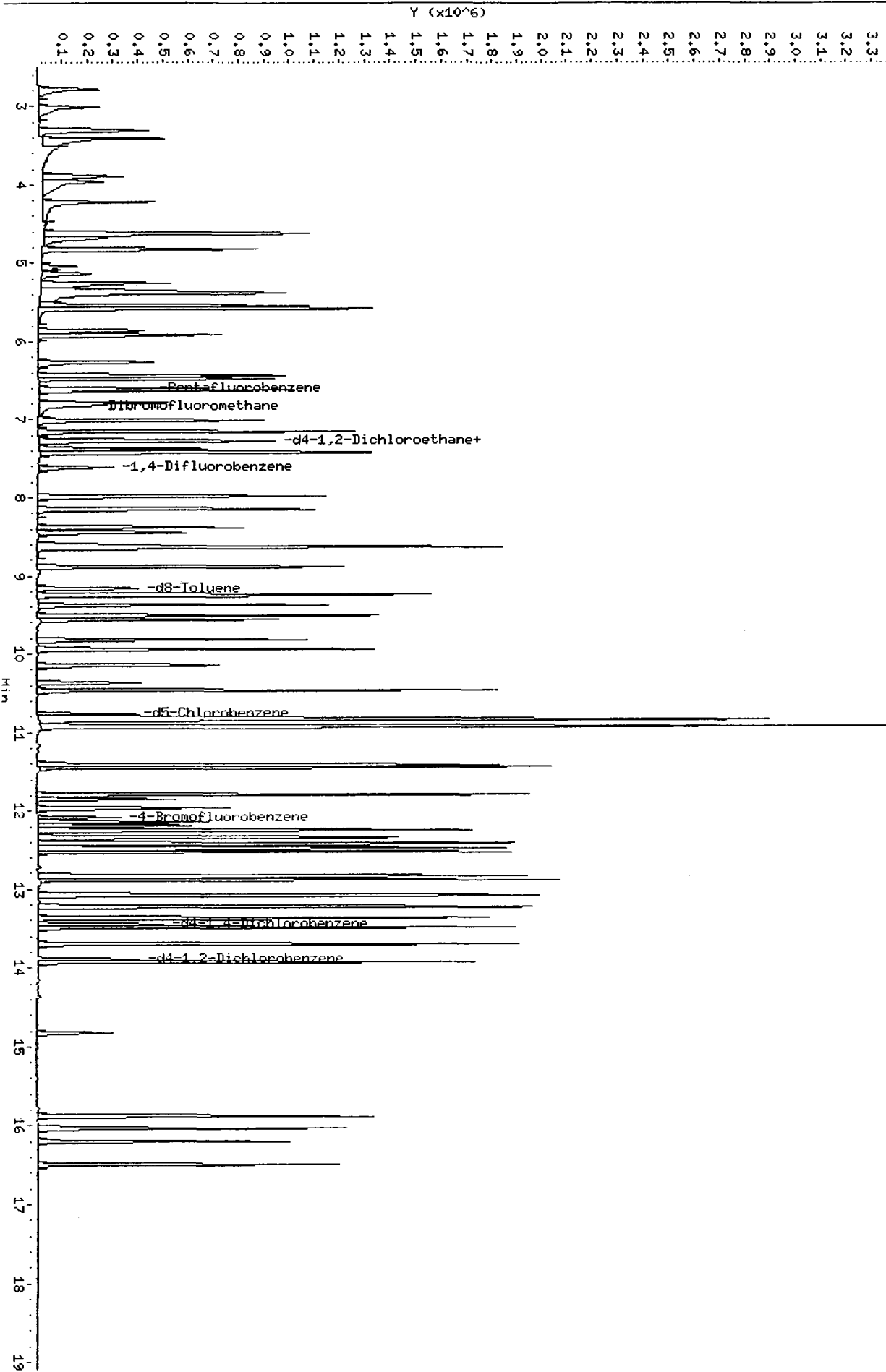
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.60	-0.15
34 1,4-Difluorobenze	7.62	7.12	8.12	7.61	-0.13
52 d5-Chlorobenzene	10.76	10.26	11.26	10.76	0.00
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.45	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/firm5.i/06JAN10.b/2000106.d  
 Date : 06-JAN-2010 13:53  
 Client ID: VSTD200  
 Sample Info: IC0106,5,5,0  
 Column phase: Rtx502.2

Instrument: firm5.i  
 Operator: PB  
 Column diameter: 0.18

/chem1/firm5.i/06JAN10.b/2000106.d/2000106.LG



10:00:00 : 000000

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/06JAN10.b/ICV0106.d  
 Lab Smp Id: ICV0106 Client Smp ID: ICV0106  
 Inj Date : 06-JAN-2010 16:18  
 Operator : PB Inst ID: finn5.i  
 Smp Info : ICV0106,5,5,0  
 Misc Info : 09-  
 Comment :  
 Method : /chem1/finn5.i/06JAN10.b/s8260b.m  
 Meth Date : 13-Jan-2010 10:08 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Compound Variable

Local Compound Variable

Compounds	QUANT	SIG	CONCENTRATIONS					
			ON-COLUMN	FINAL				
	MASS		RT	EXP RT	REL RT	RESPONSE	(ug/Kg)	(ug/Kg)
1 Dichlorodifluoromethane	85		3.015	3.015	(0.456)	88039	65.0722	65.072
2 Chloromethane	50		3.306	3.306	(0.500)	143438	53.3550	53.355
3 Vinyl Chloride	62		3.427	3.417	(0.518)	163340	63.6114	63.611
4 Bromomethane	94		3.909	3.889	(0.591)	68810	63.4453	63.445
5 Chloroethane	64		3.980	3.960	(0.602)	90675	60.8631	60.863
6 Trichlorofluoromethane	101		4.241	4.221	(0.644)	139774	55.7383	55.738
7 Acrolein	56		4.623	4.623	(0.699)	66575	271.974	271.97
8 1,1,2-Trichloro-1,2,2-Trifluoroethane	101		4.633	4.623	(0.701)	88050	52.2642	52.264
9 Acetone	43		4.673	4.673	(0.707)	128844	251.132	251.13
10 1,1-Dichloroethene	96		4.834	4.824	(0.731)	66935	51.6814	51.681
11 Bromoethane	108		5.045	5.045	(0.763)	39869	57.5349	57.535
12 Iodomethane	142		5.146	5.136	(0.778)	49450	61.4335	61.433
13 Methylene Chloride	84		5.266	5.256	(0.796)	84833	63.1055	63.105 (R)
14 Acrylonitrile	53		5.347	5.347	(0.808)	21946	54.2868	54.287 (Q)

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
16 Methyl tert-Butyl Ether	73	5.387	5.387	(0.815)	160533	50.5957	50.596 (Q)
15 Carbon Disulfide	76	5.367	5.357	(0.812)	208758	57.7480	57.748
17 Trans-1,2-Dichloroethene	96	5.548	5.538	(0.839)	68991	51.8041	51.804
18 Vinyl Acetate	43	5.869	5.859	(0.888)	155161	52.7572	52.757
19 1,1-Dichloroethane	63	5.929	5.919	(0.897)	145958	53.4859	53.486
20 2-Butanone	43	6.261	6.261	(0.947)	165103	252.826	252.83
21 2,2-Dichloropropane	77	6.442	6.442	(0.974)	117630	51.5497	51.550
22 Cis-1,2-Dichloroethene	96	6.482	6.472	(0.980)	66903	49.3337	49.334
23 Pentafluorobenzene	168	6.613	6.603	(1.000)	111526	50.0000	
24 Chloroform	83	6.623	6.623	(1.002)	131842	52.0323	52.032
26 Bromochloromethane	128	6.794	6.784	(1.027)	34000	53.8571	53.857
25 Dibromofluoromethane	111	6.824	6.824	(1.032)	65061	50.6019	50.602 (Q)
27 1,1,1-Trichloroethane	97	7.015	7.015	(1.061)	121455	52.8703	52.870
29 1,1-Dichloropropene	75	7.156	7.156	(0.939)	103014	50.7258	50.726
30 Carbon Tetrachloride	117	7.276	7.266	(0.955)	108365	50.4530	50.453
31 d4-1,2-Dichloroethane	65	7.286	7.286	(1.102)	83343	48.7991	48.799
32 1,2-Dichloroethane	62	7.377	7.377	(0.968)	108635	49.9644	49.964
33 Benzene	78	7.427	7.417	(0.975)	242606	52.2599	52.260
34 1,4-Difluorobenzene	114	7.618	7.608	(1.000)	159585	50.0000	
35 Trichloroethene	95	7.990	7.980	(1.049)	73944	49.8559	49.856
36 1,2-Dichloropropane	63	8.151	8.151	(1.070)	74337	50.1776	50.178
37 Bromodichloromethane	83	8.382	8.382	(1.100)	92114	50.2202	50.220
39 Dibromomethane	93	8.452	8.452	(1.109)	42727	49.7046	49.705
40 2-Chloroethyl Vinyl Ether	63	8.603	8.603	(1.129)	27299	53.6755	53.675 (Q)
41 4-Methyl-2-Pentanone	58	8.633	8.633	(1.133)	102671	237.651	237.65
42 Cis 1,3-dichloropropene	75	8.894	8.884	(1.168)	103774	50.7838	50.784
43 d8-Toluene	98	9.166	9.166	(1.203)	187636	49.6177	49.618
44 Toluene	92	9.246	9.246	(1.214)	147075	49.8190	49.819
45 Trans 1,3-Dichloropropene	75	9.377	9.377	(1.231)	89798	50.2812	50.281
46 2-Hexanone	43	9.517	9.517	(0.884)	247857	251.111	251.11
47 1,1,2-Trichloroethane	97	9.568	9.558	(1.256)	48694	49.8464	49.846
48 1,3-Dichloropropane	76	9.819	9.819	(0.912)	96079	51.3624	51.362
49 Tetrachloroethene	166	9.939	9.939	(0.923)	74241	47.6659	47.666
50 Chlorodibromomethane	129	10.150	10.140	(0.943)	67039	52.6085	52.608
51 1,2-Dibromoethane	107	10.372	10.372	(1.361)	55922	51.2090	51.209
52 d5-Chlorobenzene	117	10.764	10.764	(1.000)	147063	50.0000	
53 Chlorobenzene	112	10.814	10.804	(1.005)	155069	49.5999	49.600
54 Ethyl Benzene	91	10.844	10.844	(1.007)	277191	53.6084	53.608
55 1,1,1,2-Tetrachloroethane	131	10.834	10.834	(1.007)	59116	49.8426	49.842
56 m,p-xylene	106	10.924	10.924	(1.015)	215223	101.413	101.41
57 o-Xylene	106	11.417	11.407	(1.061)	107355	49.4931	49.493
58 Styrene	104	11.447	11.437	(1.063)	168241	50.6902	50.690
59 Isopropyl Benzene	105	11.789	11.789	(0.877)	283787	52.2436	52.244
60 Bromoform	173	11.859	11.849	(0.882)	42329	50.1213	50.121
61 1,1,2,2-Tetrachloroethane	83	11.970	11.970	(0.890)	66988	50.5959	50.596
62 4-Bromofluorobenzene	95	12.090	12.080	(1.123)	82936	49.4800	49.480
63 1,2,3-Trichloropropane	110	12.140	12.140	(0.903)	16179	51.6532	51.653

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53	12.191	12.191	(0.907)	22782	48.6661	48.666
66 N-Propyl Benzene	91	12.251	12.241	(0.911)	323677	50.9391	50.939
67 Bromobenzene	156	12.341	12.331	(0.918)	74838	47.7608	47.761
68 1,3,5-Trimethyl Benzene	105	12.422	12.412	(0.924)	223863	52.1170	52.117
69 2-Chloro Toluene	91	12.482	12.472	(0.928)	209809	49.7534	49.753
70 4-Chloro Toluene	91	12.522	12.522	(0.931)	201468	47.9857	47.986
71 T-Butyl Benzene	119	12.834	12.824	(0.954)	211695	53.7281	53.728
72 1,2,4-Trimethylbenzene	105	12.874	12.874	(0.957)	213866	50.3638	50.364
73 S-Butyl Benzene	105	13.075	13.075	(0.972)	303934	52.7800	52.780
74 4-Isopropyl Toluene	119	13.226	13.216	(0.984)	221215	51.2516	51.252
75 1,3-Dichlorobenzene	146	13.377	13.366	(0.995)	122736	44.9832	44.983
76 d4-1,4-Dichlorobenzene	152	13.447	13.447	(1.000)	82551	50.0000	
77 1,4-Dichlorobenzene	146	13.487	13.487	(1.003)	117674	44.4726	44.472
78 N-Butyl Benzene	91	13.698	13.698	(1.019)	211724	48.9427	48.943
79 d4-1,2-Dichlorobenzene	152	13.899	13.889	(1.034)	76405	50.5022	50.502
80 1,2-Dichlorobenzene	146	13.929	13.929	(1.036)	115442	46.3564	46.356
81 1,2-Dibromo 3-Chloropropane	75	14.834	14.824	(1.103)	12084	48.0656	48.066
82 1,2,4-Trichlorobenzene	180	15.879	15.869	(1.181)	64392	38.9016	38.902 (R)
83 Hexachloro 1,3-Butadiene	225	16.030	16.030	(1.192)	48830	45.1780	45.178
84 Naphthalene	128	16.201	16.201	(1.205)	132517	46.8607	46.861
85 1,2,3-Trichlorobenzene	180	16.492	16.482	(1.226)	60858	40.6960	40.696

QC Flag Legend

- } - Qualifier signal failed the ratio test.
- { - Spike/Surrogate failed recovery limits.



Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: ICV0106.d  
 Lab Smp Id: ICV0106  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

Calibration Date: 06-JAN-2010  
 Calibration Time: 12:28  
 Client Smp ID: ICV0106  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	111526	-1.65
34 1,4-Difluorobenze	160565	80282	321130	159585	-0.61
52 d5-Chlorobenzene	148719	74360	297438	147063	-1.11
76 d4-1,4-Dichlorobe	84322	42161	168644	82551	-2.10

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.61	0.00
34 1,4-Difluorobenze	7.62	7.12	8.12	7.62	0.00
52 d5-Chlorobenzene	10.76	10.26	11.26	10.76	0.00
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.45	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 06JAN10  
 Sample Matrix: SOLID Fraction: VOA  
 Lab Smp Id: ICV0106 Client Smp ID: ICV0106  
 Level: LOW Operator: PB  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: all.spk Quant Type: ISTD  
 Sublist File: voa.sub  
 Method File: /chem1/finn5.i/06JAN10.b/s8260b.m  
 Misc Info: 09-

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Dichlorodifluorome	50.000	65.072	130.14	53-148
2 Chloromethane	50.000	53.355	106.71	64-125
3 Vinyl Chloride	50.000	63.611	127.22	63-137
4 Bromomethane	50.000	63.445	126.89	57-136
5 Chloroethane	50.000	60.863	121.73	64-131
6 Trichlorofluoromet	50.000	55.738	111.48	69-132
7 Acrolein	250.00	271.97	108.79	54-137
8 1,1,2-Trichloro-1,2,2-Tri	50.000	52.264	104.53	74-130
9 Acetone	250.00	251.13	100.45	60-131
10 1,1-Dichloroethene	50.000	51.681	103.36	75-126
11 Bromoethane	50.000	57.535	115.07	76-126
12 Iodomethane	50.000	61.433	122.87	65-139
13 Methylene Chloride	50.000	63.105	126.21*	70-123
15 Carbon Disulfide	50.000	57.748	115.50	71-129
14 Acrylonitrile	50.000	54.287	108.57	67-125
16 Methyl tert-Butyl	50.000	50.596	101.19	70-120
17 Trans-1,2-Dichloro	50.000	51.804	103.61	80-120
18 Vinyl Acetate	50.000	52.757	105.51	60-136
19 1,1-Dichloroethane	50.000	53.486	106.97	80-120
20 2-Butanone	250.00	252.83	101.13	70-120
21 2,2-Dichloropropan	50.000	51.550	103.10	74-123
22 Cis-1,2-Dichloroet	50.000	49.334	98.67	80-120
24 Chloroform	50.000	52.032	104.06	80-120
26 Bromochloromethane	50.000	53.857	107.71	80-120
27 1,1,1-Trichloroeth	50.000	52.870	105.74	77-121
29 1,1-Dichloropropen	50.000	50.726	101.45	80-120
30 Carbon Tetrachlori	50.000	50.453	100.91	77-122
32 1,2-Dichloroethane	50.000	49.964	99.93	76-120
33 Benzene	50.000	52.260	104.52	80-120
35 Trichloroethene	50.000	49.856	99.71	80-120
36 1,2-Dichloropropan	50.000	50.178	100.36	80-120
37 Bromodichlorometha	50.000	50.220	100.44	77-121
39 Dibromomethane	50.000	49.705	99.41	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	53.675	107.35	10-191
41 4-Methyl-2-Pentano	250.00	237.65	95.06	67-120
42 Cis 1,3-dichloropr	50.000	50.784	101.57	74-120
44 Toluene	50.000	49.819	99.64	80-120
45 Trans 1,3-Dichloro	50.000	50.281	100.56	65-120
46 2-Hexanone	250.00	251.11	100.44	65-130
47 1,1,2-Trichloroeth	50.000	49.846	99.69	80-120
48 1,3-Dichloropropan	50.000	51.362	102.72	80-120
49 Tetrachloroethene	50.000	47.666	95.33	80-121
50 Chlorodibromometha	50.000	52.608	105.22	64-120
51 1,2-Dibromoethane	50.000	51.209	102.42	75-120
53 Chlorobenzene	50.000	49.600	99.20	80-120
55 1,1,1,2-Tetrachlor	50.000	49.842	99.69	69-121
54 Ethyl Benzene	50.000	53.608	107.22	80-127
56 m,p-xylene	100.00	101.41	101.41	80-125
57 o-Xylene	50.000	49.493	98.99	78-120
58 Styrene	50.000	50.690	101.38	80-123
59 Isopropyl Benzene	50.000	52.244	104.49	80-127
60 Bromoform	50.000	50.121	100.24	60-120
61 1,1,2,2-Tetrachlor	50.000	50.596	101.19	74-120
63 1,2,3-Trichloropro	50.000	51.653	103.31	72-121
65 Trans-1,4-Dichloro	50.000	48.666	97.33	65-126
66 N-Propyl Benzene	50.000	50.939	101.88	80-132
67 Bromobenzene	50.000	47.761	95.52	80-120
68 1,3,5-Trimethyl Be	50.000	52.117	104.23	80-125
69 2-Chloro Toluene	50.000	49.753	99.51	80-125
70 4-Chloro Toluene	50.000	47.986	95.97	80-127
71 T-Butyl Benzene	50.000	53.728	107.46	87-122
72 1,2,4-Trimethylben	50.000	50.364	100.73	80-126
73 S-Butyl Benzene	50.000	52.780	105.56	80-134
74 4-Isopropyl Toluen	50.000	51.252	102.50	80-131
75 1,3-Dichlorobenzen	50.000	44.983	89.97	80-120
77 1,4-Dichlorobenzen	50.000	44.472	88.95	80-120
78 N-Butyl Benzene	50.000	48.943	97.89	80-138
80 1,2-Dichlorobenzen	50.000	46.356	92.71	80-120
81 1,2-Dibromo 3-Chlo	50.000	48.066	96.13	59-120
82 1,2,4-Trichloroben	50.000	38.902	77.80*	78-130
83 Hexachloro 1,3-But	50.000	45.178	90.36	76-129
84 Naphthalene	50.000	46.861	93.72	66-120
85 1,2,3-Trichloroben	50.000	40.696	81.39	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	50.602	101.20	30-160

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 31 d4-1,2-Dichloroeth	50.000	48.799	97.60	75-152
\$ 43 d8-Toluene	50.000	49.618	99.24	82-115
\$ 62 4-Bromofluorobenze	50.000	49.480	98.96	64-120
\$ 79 d4-1,2-Dichloroben	50.000	50.502	101.00	80-120

Data File: /chem1/finn5.i/06JAN10.b/ICV0106.d

Date: 06-JAN-2010 16:18

Client ID: ICV0106

Sample Info: ICV0106,5,5,0

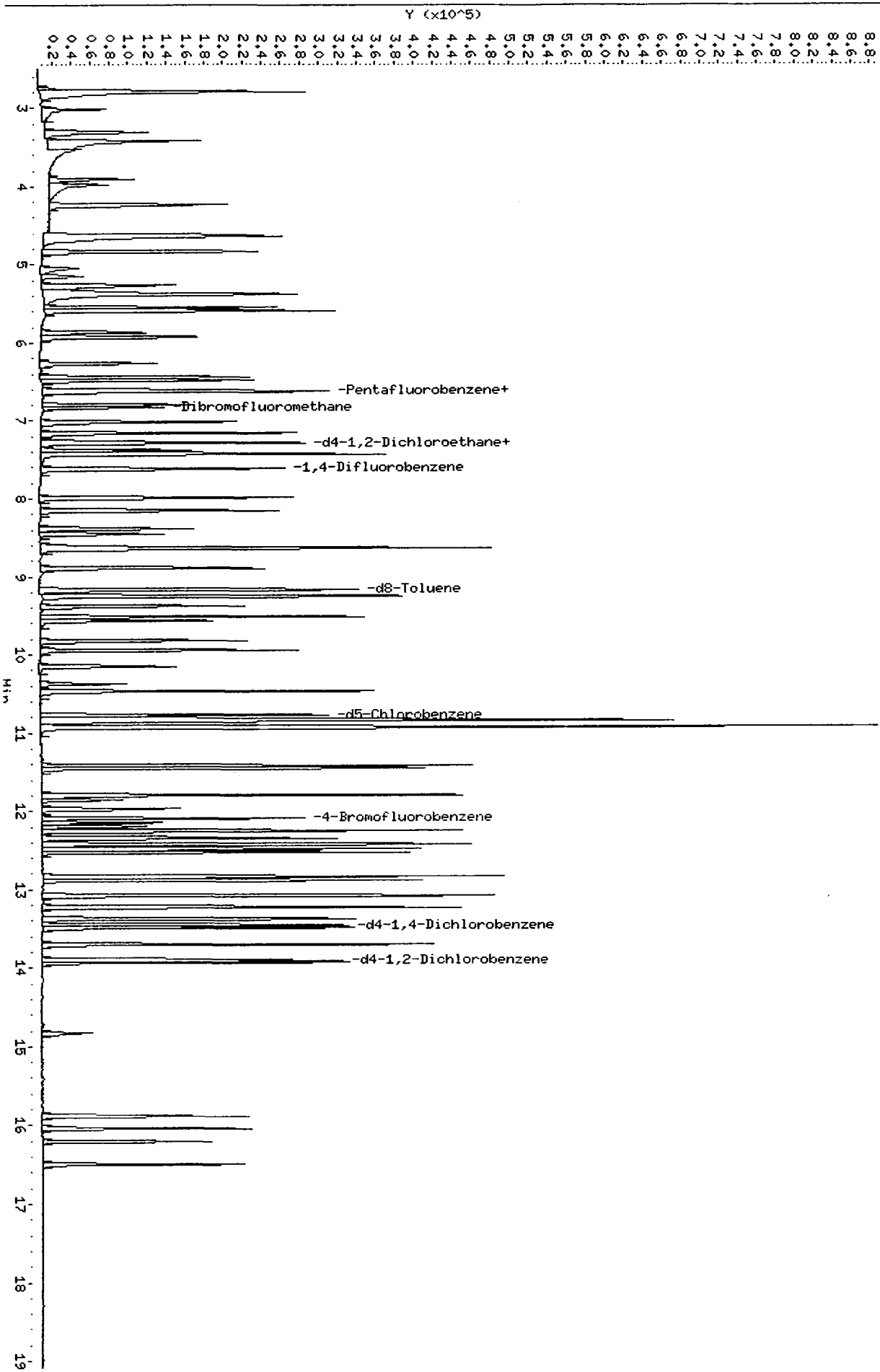
Column phase: Rtx502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18

/chem1/finn5.i/06JAN10.b/ICV0106.d/ICV0106.LG



0656 : 00242

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Cont. Calib. Date: 01/11/10

Init. Calib. Date: 01/06/10

Cont. Calib. Time: 0939

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Chloromethane	1.205	1.124	0.100	AVRG	-6.7
Vinyl Chloride	1.151	1.286	0.010	AVRG	11.7
Bromomethane	0.486	0.470	0.010	AVRG	-3.3
Chloroethane	0.668	0.751	0.010	AVRG	12.4
Trichlorofluoromethane	1.124	1.222	0.010	AVRG	8.7
Acrolein	0.110	0.106	0.010	AVRG	-3.6
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.755	0.752	0.010	AVRG	-0.4
Acetone	0.230	0.231	0.010	AVRG	0.4
1,1-Dichloroethene	0.581	0.579	0.010	AVRG	-0.3
Bromoethane	0.311	0.348	0.010	AVRG	11.9
Iodomethane	0.361	0.320	0.010	AVRG	-11.4
Methylene Chloride	50.000	53.151	0.010	LINR	6.3
Acrylonitrile	0.181	0.185	0.010	AVRG	2.2
Carbon Disulfide	1.621	1.964	0.010	AVRG	21.2
Trans-1,2-Dichloroethene	0.597	0.592	0.010	AVRG	-0.8
Vinyl Acetate	1.319	1.384	0.010	AVRG	4.9
1,1-Dichloroethane	1.223	1.258	0.100	AVRG	2.9
2-Butanone	0.293	0.299	0.010	AVRG	2.0
2,2-Dichloropropane	1.023	1.070	0.010	AVRG	4.6
Cis-1,2-Dichloroethene	0.608	0.591	0.010	AVRG	-2.8
Chloroform	1.136	1.160	0.010	AVRG	2.1
Bromochloromethane	0.283	0.298	0.010	AVRG	5.3
1,1,1-Trichloroethane	1.030	1.050	0.010	AVRG	1.9
1,1-Dichloropropene	0.636	0.643	0.010	AVRG	1.1
Carbon Tetrachloride	0.673	0.685	0.010	AVRG	1.8
1,2-Dichloroethane	0.681	0.703	0.010	AVRG	3.2
Benzene	1.455	1.529	0.010	AVRG	5.1
Trichloroethene	0.465	0.466	0.010	AVRG	0.2
1,2-Dichloropropane	0.464	0.457	0.010	AVRG	-1.5
Bromodichloromethane	0.574	0.576	0.010	AVRG	0.3
Dibromomethane	0.269	0.272	0.010	AVRG	1.1
2-Chloroethyl Vinyl Ether	0.159	0.174	0.010	AVRG	9.4
4-Methyl-2-Pentanone	0.135	0.134	0.010	AVRG	-0.7
Cis 1,3-dichloropropene	0.640	0.673	0.010	AVRG	5.2
Toluene	0.925	0.943	0.010	AVRG	1.9
Trans 1,3-Dichloropropene	0.560	0.598	0.010	AVRG	6.8
2-Hexanone	250.00	263.92	0.010	LINR	5.6

&lt;- Exceeds QC limit of 20% D

\* RF less than minimum RF

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC  
ARI Job No: QE56  
Instrument ID: FINN5  
Init. Calib. Date: 01/06/10

Client: FLOYD-SNIDER  
Project: LORA LAKE  
Cont. Calib. Date: 01/11/10  
Cont. Calib. Time: 0939

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
1,1,2-Trichloroethane	0.306	0.307	0.010	AVRG	0.3
1,3-Dichloropropane	0.636	0.639	0.010	AVRG	0.5
Tetrachloroethene	0.530	0.515	0.010	AVRG	-2.8
Chlorodibromomethane	0.433	0.452	0.010	AVRG	4.4
1,2-Dibromoethane	0.342	0.352	0.010	AVRG	2.9
Chlorobenzene	1.063	1.078	0.300	AVRG	1.4
Ethyl Benzene	1.758	1.910	0.010	AVRG	8.6
1,1,1,2-Tetrachloroethane	0.403	0.411	0.010	AVRG	2.0
m,p-xylene	0.722	0.741	0.010	AVRG	2.6
o-Xylene	0.737	0.748	0.010	AVRG	1.5
Styrene	1.128	1.188	0.010	AVRG	5.3
Bromoform	0.512	0.512	0.100	AVRG	0.0
1,1,2,2-Tetrachloroethane	0.802	0.807	0.300	AVRG	0.6
1,2,3-Trichloropropane	0.190	0.194	0.010	AVRG	2.1
Trans-1,4-Dichloro 2-Butene	0.283	0.292	0.010	AVRG	3.2
N-Propyl Benzene	3.848	4.018	0.010	AVRG	4.4
Bromobenzene	0.949	0.913	0.010	AVRG	-3.8
Isopropyl Benzene	3.290	3.341	0.010	AVRG	1.6
2-Chloro Toluene	2.554	2.661	0.010	AVRG	4.2
4-Chloro Toluene	2.543	2.594	0.010	AVRG	2.0
T-Butyl Benzene	2.386	2.502	0.010	AVRG	4.9
1,3,5-Trimethyl Benzene	2.602	2.752	0.010	AVRG	5.8
1,2,4-Trimethylbenzene	2.572	2.746	0.010	AVRG	6.8
S-Butyl Benzene	3.488	3.611	0.010	AVRG	3.5
4-Isopropyl Toluene	2.614	2.845	0.010	AVRG	8.8
1,3-Dichlorobenzene	1.653	1.625	0.010	AVRG	-1.7
1,4-Dichlorobenzene	1.602	1.599	0.010	AVRG	-0.2
N-Butyl Benzene	2.620	2.936	0.010	AVRG	12.1
1,2-Dichlorobenzene	1.508	1.462	0.010	AVRG	-3.0
1,2-Dibromo 3-Chloropropane	0.152	0.161	0.010	AVRG	5.9
1,2,4-Trichlorobenzene	1.002	1.060	0.010	AVRG	5.8
Hexachloro 1,3-Butadiene	0.655	0.663	0.010	AVRG	1.2
Naphthalene	1.712	1.804	0.010	AVRG	5.4
1,2,3-Trichlorobenzene	0.906	0.918	0.010	AVRG	1.3
Dichlorodifluoromethane	0.607	0.712	0.010	AVRG	17.3
Methyl tert-Butyl Ether	1.422	1.440	0.010	AVRG	1.3

<- Exceeds QC limit of 20% D  
\* RF less than minimum RF

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: LORA LAKE

Instrument ID: FINN5

Cont. Calib. Date: 01/11/10

Init. Calib. Date: 01/06/10

Cont. Calib. Time: 0939

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
d4-1,2-Dichloroethane	0.766	0.785	0.010	AVRG	2.5
d8-Toluene	1.185	1.213	0.010	AVRG	2.4
4-Bromofluorobenzene	0.570	0.590	0.010	AVRG	3.5
d4-1,2-Dichlorobenzene	0.916	0.918	0.010	AVRG	0.2
Dibromofluoromethane	0.576	0.588	0.010	AVRG	2.1

<- Exceeds QC limit of 20% D  
\* RF less than minimum RF



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/11JAN10.b/0500111.d  
 Lab Smp Id: CC0111 Client Smp ID: VSTD050  
 Inj Date : 11-JAN-2010 09:39  
 Operator : PB Inst ID: finn5.i  
 Smp Info : CC0111,5,5,0  
 Misc Info : 10-  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 11-Jan-2010 10:54 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.035	3.035	(0.458)	72835	50.0000	58.699
2 Chloromethane	50	3.327	3.327	(0.501)	114999	50.0000	46.642
3 Vinyl Chloride	62	3.447	3.447	(0.520)	131511	50.0000	55.844
4 Bromomethane	94	3.930	3.930	(0.592)	48049	50.0000	48.306
5 Chloroethane	64	4.000	4.000	(0.603)	76839	50.0000	56.236
6 Trichlorofluoromethane	101	4.261	4.261	(0.642)	124996	50.0000	54.350
7 Acrolein	56	4.643	4.643	(0.700)	54194	250.000	241.40
8 1,1,2-Trichloro-1,2,2-Trifluoroethane	101	4.653	4.653	(0.702)	76875	50.0000	49.755
9 Acetone	43	4.693	4.693	(0.708)	117959	250.000	250.69
10 1,1-Dichloroethene	96	4.854	4.854	(0.732)	59233	50.0000	49.868
11 Bromoethane	108	5.075	5.075	(0.765)	35622	50.0000	56.052
12 Iodomethane	142	5.166	5.166	(0.779)	32748	50.0000	44.361
13 Methylene Chloride	84	5.286	5.286	(0.797)	65529	50.0000	53.151
14 Acrylonitrile	53	5.367	5.367	(0.809)	18888	50.0000	50.947

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.407	5.407	(0.815)	147269	50.0000	50.609
15 Carbon Disulfide	76	5.387	5.387	(0.812)	200917	50.0000	60.601
17 Trans-1,2-Dichloroethene	96	5.568	5.568	(0.839)	60547	50.0000	49.573
18 Vinyl Acetate	43	5.889	5.889	(0.888)	141553	50.0000	52.479
19 1,1-Dichloroethane	63	5.950	5.950	(0.897)	128727	50.0000	51.434
20 2-Butanone	43	6.281	6.281	(0.947)	153087	250.000	255.61
21 2,2-Dichloropropane	77	6.462	6.462	(0.974)	109502	50.0000	52.324
22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.980)	60436	50.0000	48.592
* 23 Pentafluorobenzene	168	6.633	6.633	(1.000)	102283	50.0000	
24 Chloroform	83	6.653	6.653	(1.003)	118701	50.0000	51.079
26 Bromochloromethane	128	6.814	6.814	(1.027)	30459	50.0000	52.608
\$ 25 Dibromofluoromethane	111	6.844	6.844	(1.032)	60146	50.0000	51.006
27 1,1,1-Trichloroethane	97	7.035	7.035	(1.061)	107457	50.0000	51.004
29 1,1-Dichloropropene	75	7.176	7.176	(0.939)	91750	50.0000	50.503
30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	97768	50.0000	50.883
\$ 31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.101)	80280	50.0000	51.253
32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	100385	50.0000	51.610
33 Benzene	78	7.447	7.447	(0.975)	218333	50.0000	52.573
* 34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	142762	50.0000	
35 Trichloroethene	95	8.010	8.010	(1.049)	66585	50.0000	50.184
36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	65247	50.0000	49.232
37 Bromodichloromethane	83	8.402	8.402	(1.100)	82219	50.0000	50.107
39 Dibromomethane	93	8.472	8.472	(1.109)	38898	50.0000	50.583
40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	24915	50.0000	54.760
41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.133)	95443	250.000	246.95
42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.167)	96062	50.0000	52.549
\$ 43 d8-Toluene	98	9.186	9.186	(1.203)	173173	50.0000	51.190
44 Toluene	92	9.266	9.266	(1.213)	134649	50.0000	50.984
45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.230)	85397	50.0000	53.452
46 2-Hexanone	43	9.537	9.537	(0.884)	234928	250.000	263.92
47 1,1,2-Trichloroethane	97	9.578	9.578	(1.254)	43874	50.0000	50.204
48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	84709	50.0000	50.213
49 Tetrachloroethene	166	9.960	9.960	(0.924)	68269	50.0000	48.603
50 Chlorodibromomethane	129	10.171	10.171	(0.943)	59914	50.0000	52.134
51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	50205	50.0000	51.392
* 52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	132627	50.0000	
53 Chlorobenzene	112	10.834	10.834	(1.005)	142961	50.0000	50.704
54 Ethyl Benzene	91	10.864	10.864	(1.007)	253345	50.0000	54.330
55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.007)	54515	50.0000	50.966
56 m,p-xylene	106	10.944	10.944	(1.015)	196579	100.000	102.71
57 o-Xylene	106	11.437	11.437	(1.061)	99146	50.0000	50.684
58 Styrene	104	11.457	11.457	(1.062)	157522	50.0000	52.627
59 Isopropyl Benzene	105	11.809	11.809	(0.877)	257059	50.0000	50.774
60 Bromoform	173	11.869	11.869	(0.881)	39427	50.0000	50.089
61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	62111	50.0000	50.333
\$ 62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	78259	50.0000	51.772
63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	14908	50.0000	51.068

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	22432	50.0000	51.414
66 N-Propyl Benzene	91	12.261	12.261	(0.910)	309157	50.0000	52.202
67 Bromobenzene	156	12.351	12.351	(0.917)	70263	50.0000	48.111
68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.924)	211742	50.0000	52.890
69 2-Chloro Toluene	91	12.502	12.502	(0.928)	204714	50.0000	52.085
70 4-Chloro Toluene	91	12.542	12.542	(0.931)	199615	50.0000	51.012
71 T-Butyl Benzene	119	12.844	12.844	(0.954)	192478	50.0000	52.413
72 1,2,4-Trimethylbenzene	105	12.894	12.894	(0.957)	211316	50.0000	53.392
73 S-Butyl Benzene	105	13.095	13.095	(0.972)	277858	50.0000	51.771
74 4-Isopropyl Toluene	119	13.236	13.236	(0.983)	218896	50.0000	54.413
75 1,3-Dichlorobenzene	146	13.387	13.387	(0.994)	125059	50.0000	49.177
* 76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	76940	50.0000	
77 1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	123042	50.0000	49.893
78 N-Butyl Benzene	91	13.718	13.718	(1.019)	225881	50.0000	56.023
\$ 79 d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.033)	70674	50.0000	50.120
80 1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	112532	50.0000	48.483
81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.103)	12400	50.0000	52.919
82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	81593	50.0000	52.888
83 Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	51033	50.0000	50.659
84 Naphthalene	128	16.221	16.221	(1.204)	138842	50.0000	52.678
85 1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	70623	50.0000	50.669

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: 0500111.d  
 Lab Smp Id: CC0111  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: VSTD050  
 Level: LOW  
 Sample Type: SOIL

Test Mode:  
 Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	102283	-9.80
34 1,4-Difluorobenze	160565	80282	321130	142762	-11.09
52 d5-Chlorobenzene	148719	74360	297438	132627	-10.82
76 d4-1,4-Dichlorobe	84322	42161	168644	76940	-8.75

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.61	6.11	7.11	6.63	0.30
34 1,4-Difluorobenze	7.62	7.12	8.12	7.64	0.26
52 d5-Chlorobenzene	10.76	10.26	11.26	10.78	0.19
76 d4-1,4-Dichlorobe	13.45	12.95	13.95	13.47	0.15

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn5.i                      Injection Date: 11-JAN-2010 09:39  
 Lab File ID: 0500111.d                    Init. Cal. Date(s): 06-JAN-2010 06-JAN-2010  
 Analysis Type: SOIL                        Init. Cal. Times: 09:59 15:31  
 Lab Sample ID: CC0111                    Quant Type: ISTD  
 Method: /chem1/finn5.i/11JAN10.b/s8260b.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Dichlorodifluoromethane	0.60656	0.71210	0.71210	0.010	17.39863	20.00000	Averaged
2 Chloromethane	1.20526	1.12432	1.12432	0.100	-6.71576	20.00000	Averaged
3 Vinyl Chloride	1.15120	1.28576	1.28576	0.010	11.68863	20.00000	Averaged
4 Bromomethane	0.48624	0.46977	0.46977	0.010	-3.38742	20.00000	Averaged
5 Chloroethane	0.66793	0.75124	0.75124	0.010	12.47294	20.00000	Averaged
6 Trichlorofluoromethane	1.12426	1.22206	1.22206	0.010	8.69916	20.00000	Averaged
7 Acrolein	0.10974	0.10597	0.10597	0.010	-3.44015	20.00000	Averaged
8 112Trichloro122Trifluoroeth	0.75530	0.75160	0.75160	0.010	-0.49002	20.00000	Averaged
9 Acetone	0.23002	0.23065	0.23065	0.010	0.27699	20.00000	Averaged
10 1,1-Dichloroethene	0.58065	0.57912	0.57912	0.010	-0.26435	20.00000	Averaged
11 Bromoethane	0.31067	0.34828	0.34828	0.010	12.10325	20.00000	Averaged
12 Iodomethane	0.36088	0.32018	0.32018	0.010	-11.27817	20.00000	Averaged
13 Methylene Chloride	53.15113	50.00000	0.64067	0.010	6.30225	20.00000	Linear
14 Acrylonitrile	0.18124	0.18467	0.18467	0.010	1.89331	20.00000	Averaged
16 Methyl tert-Butyl Ether	1.42248	1.43982	1.43982	0.010	1.21892	20.00000	Averaged
15 Carbon Disulfide	1.62069	1.96433	1.96433	0.010	21.20278	20.00000	Averaged
17 Trans-1,2-Dichloroethene	0.59707	0.59196	0.59196	0.010	-0.85479	20.00000	Averaged
18 Vinyl Acetate	1.31855	1.38393	1.38393	0.010	4.95879	20.00000	Averaged
19 1,1-Dichloroethane	1.22344	1.25854	1.25854	0.100	2.86895	20.00000	Averaged
20 2-Butanone	0.29277	0.29934	0.29934	0.010	2.24383	20.00000	Averaged
21 2,2-Dichloropropane	1.02303	1.07058	1.07058	0.010	4.64779	20.00000	Averaged
22 Cis-1,2-Dichloroethene	0.60799	0.59088	0.59088	0.010	-2.81502	20.00000	Averaged
24 Chloroform	1.13599	1.16051	1.16051	0.010	2.15856	20.00000	Averaged
26 Bromochloromethane	0.28303	0.29779	0.29779	0.010	5.21662	20.00000	Averaged
\$ 25 Dibromofluoromethane	0.57643	0.58804	0.58804	0.010	2.01274	20.00000	Averaged
27 1,1,1-Trichloroethane	1.02991	1.05058	1.05058	0.010	2.00763	20.00000	Averaged
29 1,1-Dichloropropene	0.63628	0.64268	0.64268	0.010	1.00623	20.00000	Averaged
30 Carbon Tetrachloride	0.67294	0.68483	0.68483	0.010	1.76682	20.00000	Averaged
\$ 31 d4-1,2-Dichloroethane	0.76569	0.78488	0.78488	0.010	2.50697	20.00000	Averaged
32 1,2-Dichloroethane	0.68122	0.70316	0.70316	0.010	3.22039	20.00000	Averaged
33 Benzene	1.45449	1.52935	1.52935	0.010	5.14670	20.00000	Averaged
35 Trichloroethene	0.46469	0.46640	0.46640	0.010	0.36906	20.00000	Averaged
36 1,2-Dichloropropane	0.46416	0.45703	0.45703	0.010	-1.53683	20.00000	Averaged
37 Bromodichloromethane	0.57468	0.57591	0.57591	0.010	0.21453	20.00000	Averaged
39 Dibromomethane	0.26933	0.27247	0.27247	0.010	1.16590	20.00000	Averaged

*mlg*

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn5.i Injection Date: 11-JAN-2010 09:39  
 Lab File ID: 0500111.d Init. Cal. Date(s): 06-JAN-2010 06-JAN-2010  
 Analysis Type: SOIL Init. Cal. Times: 09:59 15:31  
 Lab Sample ID: CC0111 Quant Type: ISTD  
 Method: /chem1/finn5.i/11JAN10.b/s8260b.m

COMPOUND	RF50		CCAL	MIN	MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT	%D / %DRIFT	
40 2-Chloroethyl Vinyl Ether	0.15935	0.17452	0.17452	0.001	9.52061	20.00000	Averaged
41 4-Methyl-2-Pentanone	0.13536	0.13371	0.13371	0.010	-1.21855	20.00000	Averaged
42 Cis 1,3-dichloropropene	0.64024	0.67288	0.67288	0.010	5.09839	20.00000	Averaged
\$ 43 d8-Toluene	1.18483	1.21302	1.21302	0.010	2.37919	20.00000	Averaged
44 Toluene	0.92496	0.94317	0.94317	0.010	1.96874	20.00000	Averaged
45 Trans 1,3-Dichloropropene	0.55955	0.59818	0.59818	0.010	6.90303	20.00000	Averaged
46 2-Hexanone	264	250	0.35427	0.010	5.56789	20.00000	Linear
47 1,1,2-Trichloroethane	0.30607	0.30732	0.30732	0.010	0.40881	20.00000	Averaged
48 1,3-Dichloropropane	0.63599	0.63870	0.63870	0.010	0.42617	20.00000	Averaged
49 Tetrachloroethene	0.52955	0.51475	0.51475	0.010	-2.79431	20.00000	Averaged
50 Chlorodibromomethane	0.43325	0.45175	0.45175	0.010	4.26852	20.00000	Averaged
51 1,2-Dibromoethane	0.34215	0.35167	0.35167	0.010	2.78395	20.00000	Averaged
53 Chlorobenzene	1.06295	1.07791	1.07791	0.300	1.40796	20.00000	Averaged
54 Ethyl Benzene	1.75798	1.91020	1.91020	0.010	8.65916	20.00000	Averaged
55 1,1,1,2-Tetrachloroethane	0.40325	0.41104	0.41104	0.010	1.93264	20.00000	Averaged
56 m,p-xylene	0.72154	0.74110	0.74110	0.010	2.70959	20.00000	Averaged
57 o-Xylene	0.73747	0.74756	0.74756	0.010	1.36786	20.00000	Averaged
58 Styrene	1.12843	1.18771	1.18771	0.010	5.25338	20.00000	Averaged
59 Isopropyl Benzene	3.29008	3.34102	3.34102	0.010	1.54841	20.00000	Averaged
60 Bromoform	0.51152	0.51244	0.51244	0.100	0.17871	20.00000	Averaged
61 1,1,2,2-Tetrachloroethane	0.80192	0.80727	0.80727	0.300	0.66669	20.00000	Averaged
\$ 62 4-Bromofluorobenzene	0.56987	0.59007	0.59007	0.010	3.54427	20.00000	Averaged
63 1,2,3-Trichloropropane	0.18972	0.19377	0.19377	0.010	2.13593	20.00000	Averaged
65 Trans-1,4-Dichloro 2-Butene	0.28354	0.29156	0.29156	0.010	2.82712	20.00000	Averaged
66 N-Propyl Benzene	3.84865	4.01814	4.01814	0.010	4.40406	20.00000	Averaged
67 Bromobenzene	0.94908	0.91323	0.91323	0.010	-3.77749	20.00000	Averaged
68 1,3,5-Trimethyl Benzene	2.60165	2.75203	2.75203	0.010	5.78010	20.00000	Averaged
69 2-Chloro Toluene	2.55416	2.66069	2.66069	0.010	4.17072	20.00000	Averaged
70 4-Chloro Toluene	2.54297	2.59442	2.59442	0.010	2.02334	20.00000	Averaged
71 T-Butyl Benzene	2.38647	2.50166	2.50166	0.010	4.82671	20.00000	Averaged
72 1,2,4-Trimethylbenzene	2.57199	2.74650	2.74650	0.010	6.78495	20.00000	Averaged
73 S-Butyl Benzene	3.48784	3.61135	3.61135	0.010	3.54132	20.00000	Averaged
74 4-Isopropyl Toluene	2.61429	2.84502	2.84502	0.010	8.82569	20.00000	Averaged
75 1,3-Dichlorobenzene	1.65260	1.62541	1.62541	0.010	-1.64543	20.00000	Averaged
77 1,4-Dichlorobenzene	1.60264	1.59920	1.59920	0.010	-0.21470	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

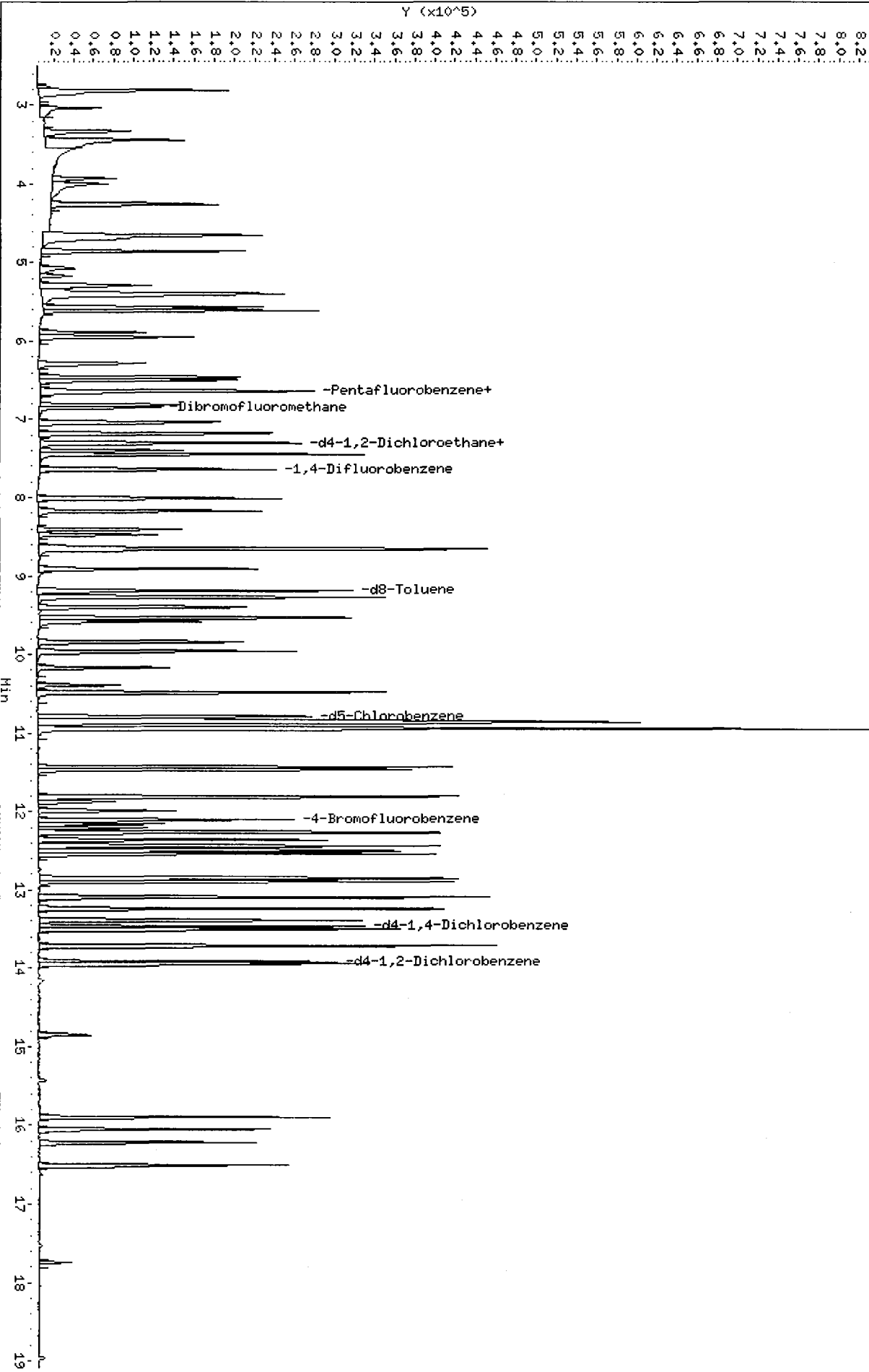
Instrument ID: finn5.i                    Injection Date: 11-JAN-2010 09:39  
Lab File ID: 0500111.d                Init. Cal. Date(s): 06-JAN-2010 06-JAN-2010  
Analysis Type: SOIL                    Init. Cal. Times: 09:59                    15:31  
Lab Sample ID: CC0111                 Quant Type: ISTD  
Method: /chem1/finn5.i/11JAN10.b/s8260b.m

COMPOUND	CCAL		MIN	MAX		CURVE TYPE	
	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT		
78 N-Butyl Benzene	2.62017	2.93580	2.93580	0.010	12.04604	20.00000	Averaged
\$ 79 d4-1,2-Dichlorobenzene	0.91635	0.91856	0.91856	0.010	0.24081	20.00000	Averaged
80 1,2-Dichlorobenzene	1.50835	1.46259	1.46259	0.010	-3.03356	20.00000	Averaged
81 1,2-Dibromo 3-Chloropropane	0.15228	0.16117	0.16117	0.010	5.83838	20.00000	Averaged
82 1,2,4-Trichlorobenzene	1.00257	1.06048	1.06048	0.010	5.77623	20.00000	Averaged
83 Hexachloro 1,3-Butadiene	0.65465	0.66328	0.66328	0.010	1.31841	20.00000	Averaged
84 Naphthalene	1.71282	1.80455	1.80455	0.010	5.35556	20.00000	Averaged
85 1,2,3-Trichlorobenzene	0.90577	0.91790	0.91790	0.010	1.33862	20.00000	Averaged

Data File: /chem1/firm5.i/11JAN10.b/0500111.d  
Date : 11-JAN-2010 09:39  
Client ID: VSTD050  
Sample Info: CC0111,5,5,0  
Column phase: RTX502.2

Instrument: firm5.i  
Operator: PB  
Column diameter: 0.18

/chem1/firm5.i/11JAN10.b/0500111.d/0500111.LG



0500111.LG



Volatile Analysis  
QC Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

Date : 06-JAN-2010 09:28

Client ID: BFB0106

Instrument: finn5.i

Sample Info: BFB0106,BFB0106,,1.06JAN10,,

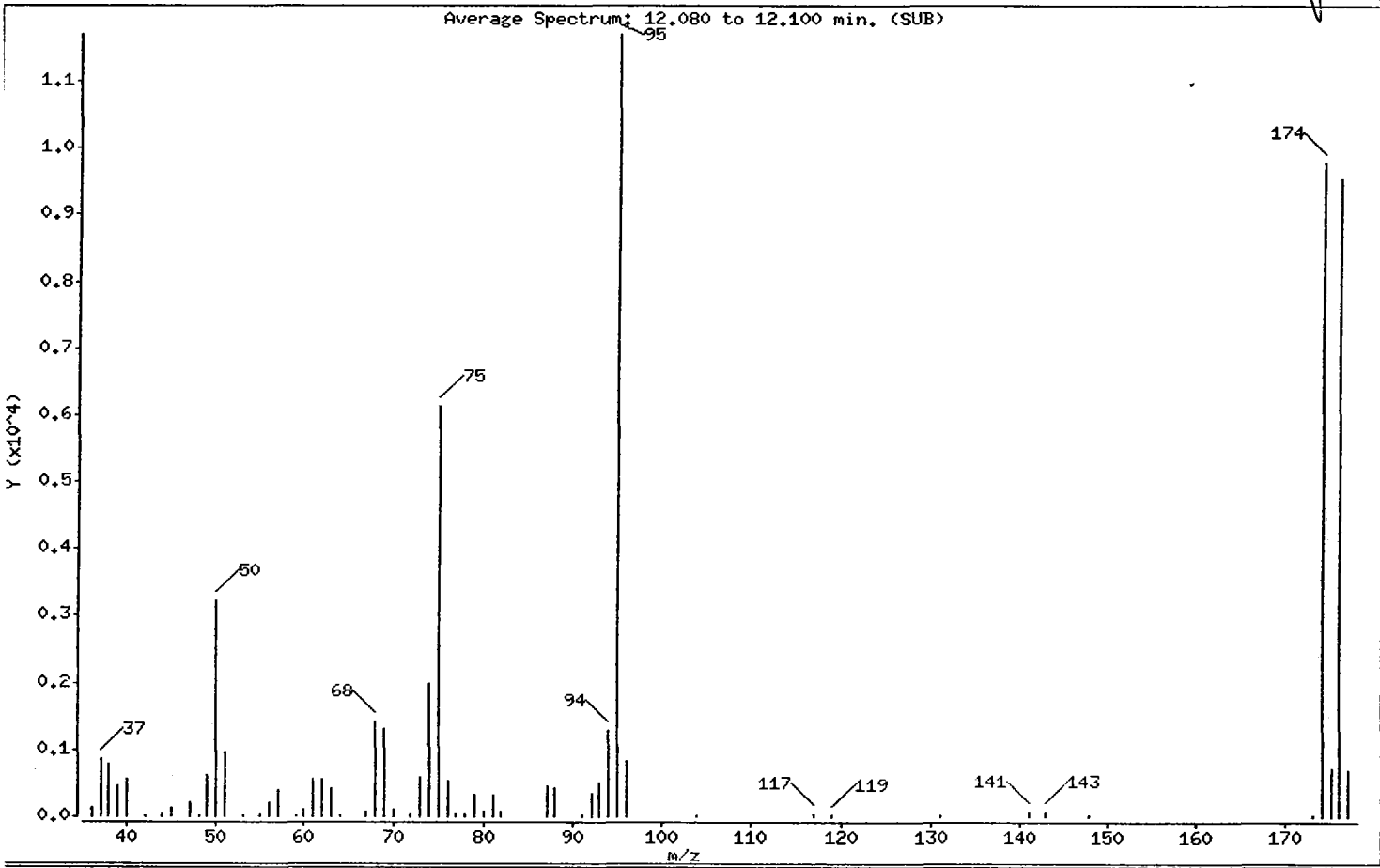
Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

1 Bromofluorobenzene

13/60



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	27.66
75	30.00 - 66.00% of mass 95	52.46
96	5.00 - 9.00% of mass 95	7.15
173	Less than 2.00% of mass 174	0.24 ( 0.29)
174	50.00 - 101.00% of mass 95	83.62
175	4.00 - 9.00% of mass 174	6.14 ( 7.34)
176	93.00 - 101.00% of mass 174	81.58 ( 97.57)
177	5.00 - 9.00% of mass 176	5.90 ( 7.23)

Date : 06-JAN-2010 09:28

Client ID: BFB0106

Instrument: finn5.i

Sample Info: BFB0106,BFB0106,,1,06JAN10,,

Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

Data File: BFB0106.d

Spectrum: Average Spectrum: 12.080 to 12.100 min. (SUB)

Location of Maximum: 95.00

Number of points: 58

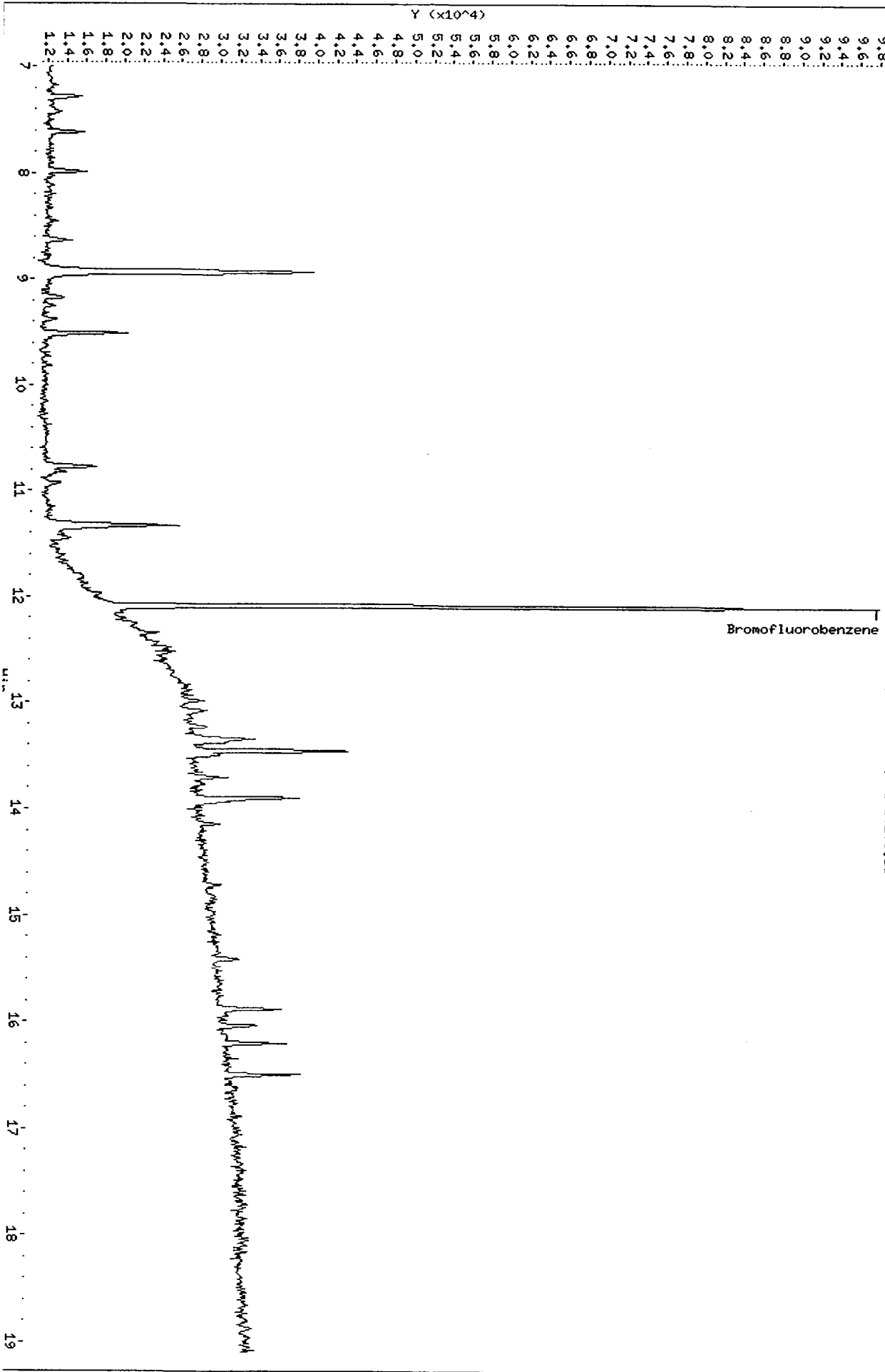
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	142	56.00	205	75.00	6138	96.00	837
37.00	866	57.00	410	76.00	531	104.00	17
38.00	769	59.00	40	77.00	61	117.00	43
39.00	445	60.00	118	78.00	53	119.00	21
40.00	570	61.00	576	79.00	311	131.00	25
42.00	25	62.00	571	80.00	83	141.00	87
44.00	59	63.00	432	81.00	320	143.00	82
45.00	134	64.00	28	82.00	80	148.00	17
47.00	214	67.00	90	87.00	447	173.00	28
48.00	40	68.00	1433	88.00	435	174.00	9784
49.00	606	69.00	1330	91.00	21	175.00	718
50.00	3236	70.00	114	92.00	338	176.00	9546
51.00	963	72.00	43	93.00	522	177.00	690
53.00	32	73.00	579	94.00	1284		
55.00	59	74.00	1996	95.00	11701		

Data File: /chem1/film5.1/06JAN10.b/BFB0106.d  
Date : 06-JAN-2010 09:28  
Client ID: BFB0106  
Sample Info: BFB0106,BFB0106,,1,06JAN10,,

Column phase: RTX502.2

Operator: PG  
Column diameter: 0.18

/chem1/film5.1/06JAN10.b/BFB0106.d/BFB0106.LG



Date : 11-JAN-2010 09:06

Client ID: BFB0111

Instrument: finn5.i

Sample Info: BFB0111,BFB0111,,1,11JAN10,,

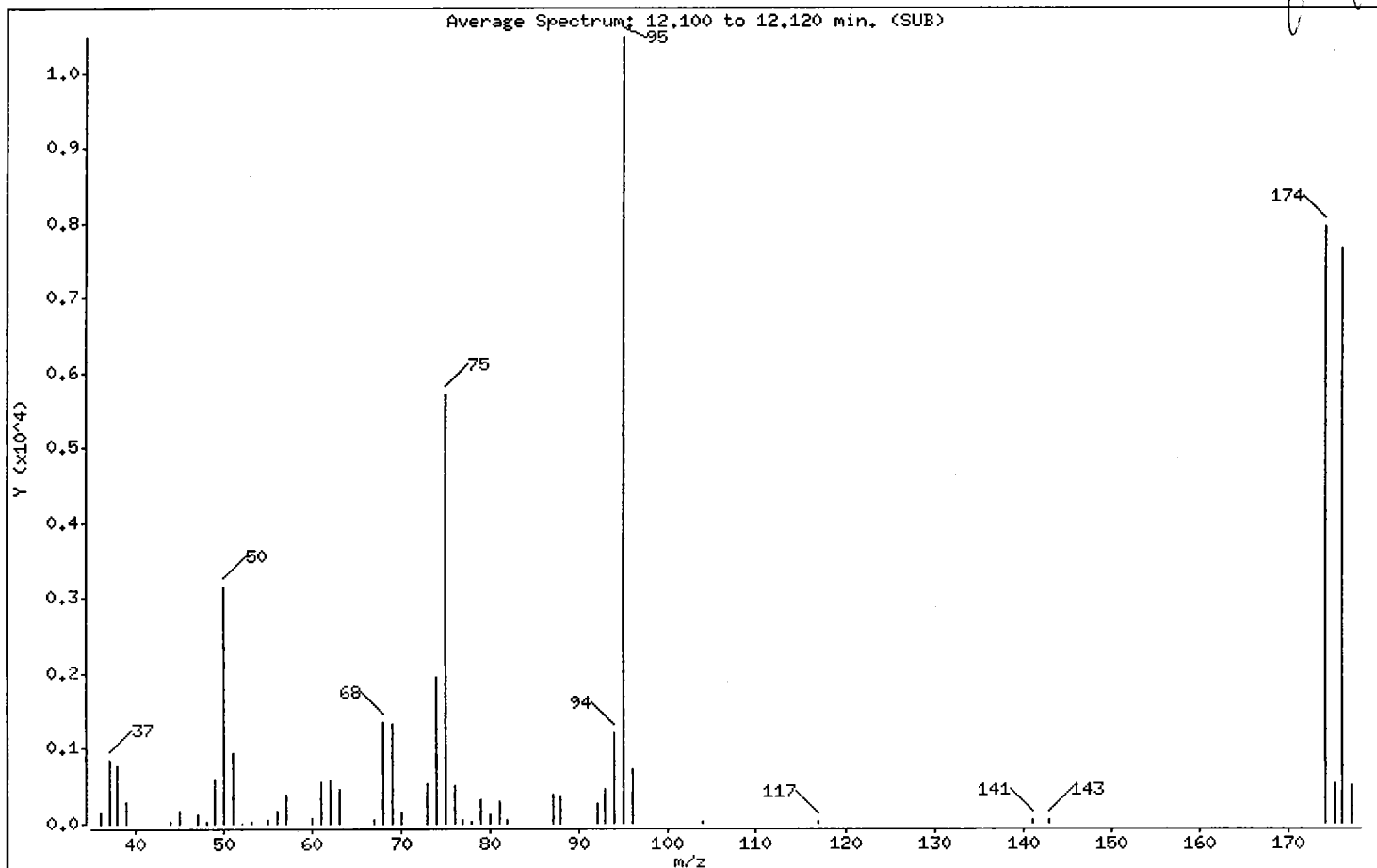
Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

1 Bromofluorobenzene

*Handwritten:* 11/15/10



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	30.05
75	30.00 - 66.00% of mass 95	54.45
96	5.00 - 9.00% of mass 95	7.00
173	Less than 2.00% of mass 174	0.00 ( 0.00)
174	50.00 - 101.00% of mass 95	75.90
175	4.00 - 9.00% of mass 174	5.06 ( 6.66)
176	93.00 - 101.00% of mass 174	73.16 ( 96.39)
177	5.00 - 9.00% of mass 176	4.89 ( 6.68)

Date : 11-JAN-2010 09:06

Client ID: BFB0111

Instrument: finn5.i

Sample Info: BFB0111,BFB0111,,1,11JAN10,,

Operator: PB

Column phase: RTX502,2

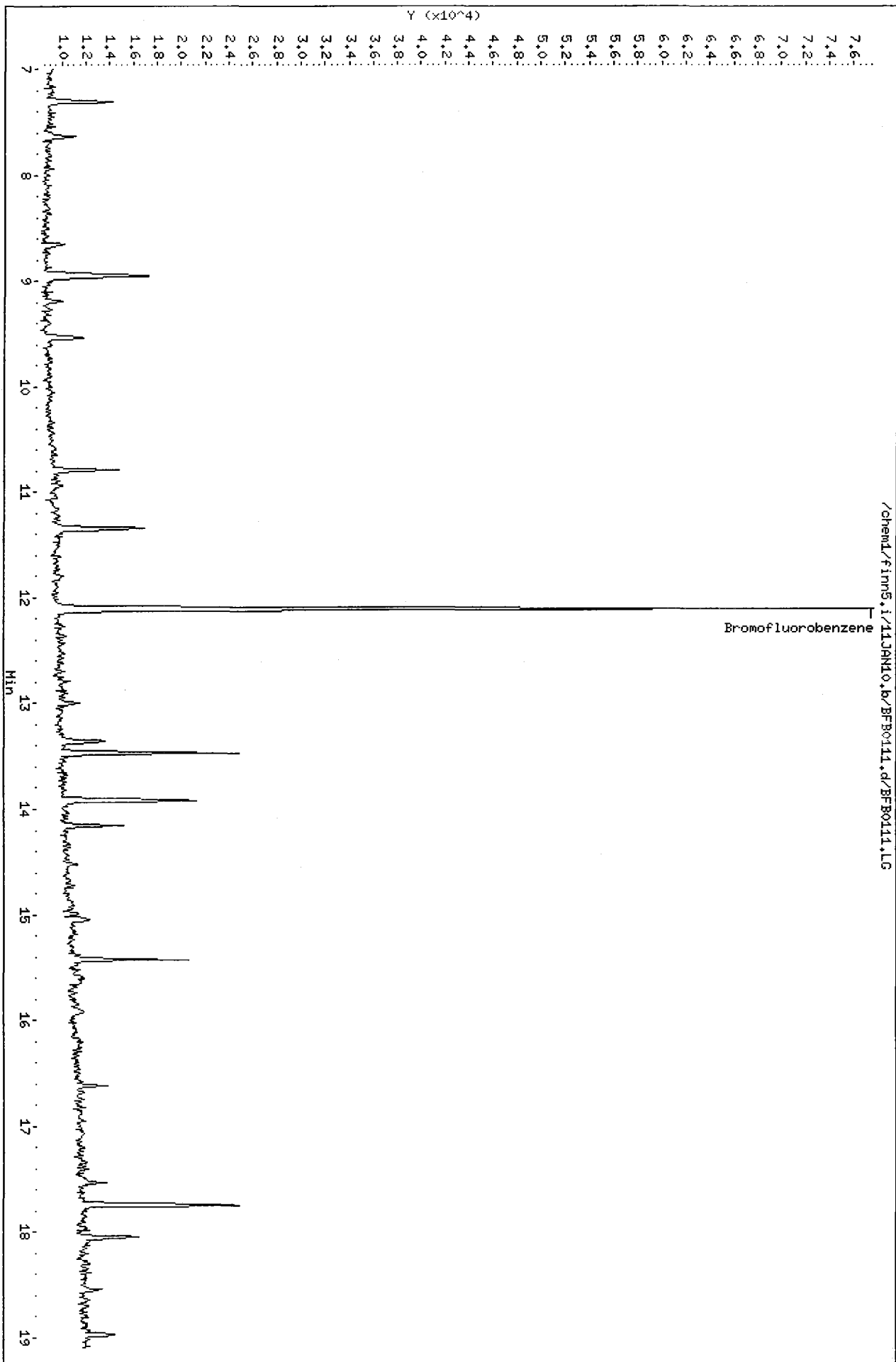
Column diameter: 0.18

Data File: BFB0111.d  
Spectrum: Average Spectrum: 12.100 to 12.120 min. (SUB)  
Location of Maximum: 95.00  
Number of points: 49

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	135	55.00	51	75.00	5705	95.00	10477
37.00	839	56.00	158	76.00	516	96.00	733
38.00	768	57.00	380	77.00	51	104.00	29
39.00	282	60.00	77	78.00	17	117.00	29
44.00	31	61.00	543	79.00	312	141.00	60
45.00	170	62.00	581	80.00	116	143.00	56
47.00	127	63.00	463	81.00	290	174.00	7952
48.00	28	67.00	54	82.00	49	175.00	530
49.00	603	68.00	1360	87.00	380	176.00	7665
50.00	3148	69.00	1315	88.00	356	177.00	512
51.00	942	70.00	138	92.00	259		
52.00	5	73.00	532	93.00	453		
53.00	24	74.00	1960	94.00	1209		

Data File: /chem1/finn5.i/11JAN10.b/BFB0111.d  
Date: 11-JAN-2010 09:06  
Client ID: BFB0111  
Sample Info: BFB0111,BFB0111,,1,11JAN10,,  
Column phase: RTX502.2


Instrument: finn5.i  
Operator: PB  
Column diameter: 0.18



**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: MB-011110  
METHOD BLANK

Lab Sample ID: MB-011110  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 11:36

Sample Amount: 5.00 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: NA

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	111%
d8-Toluene	101%
Bromofluorobenzene	98.1%
d4-1,2-Dichlorobenzene	101%



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/11JAN10.b/MB0111.d  
 Lab Smp Id: MB0111 Client Smp ID: MB0111  
 Inj Date : 11-JAN-2010 11:36  
 Operator : PB Inst ID: finn5.i  
 Smp Info : MB0111,5,5,0  
 Misc Info : 10-285  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 15-Jan-2010 15:01 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85							
2 Chloromethane	50							
3 Vinyl Chloride	62							
4 Bromomethane	94							
5 Chloroethane	64							
6 Trichlorofluoromethane	101							
7 Acrolein	56							
8 112Trichloro122Trifluoroethane	101							
9 Acetone	43		4.703	4.693	(0.708)	1896	4.30085	4.301
10 1,1-Dichloroethene	96							
11 Bromoethane	108							
12 Iodomethane	142							
13 Methylene Chloride	84							
14 Acrylonitrile	53							

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
16 Methyl tert-Butyl Ether	73						
15 Carbon Disulfide	76						
17 Trans-1,2-Dichloroethene	96						
18 Vinyl Acetate	43						
19 1,1-Dichloroethane	63						
20 2-Butanone	43	6.301	6.281	(0.949)	1129	2.01205	2.012
21 2,2-Dichloropropane	77						
22 Cis-1,2-Dichloroethene	96						
* 23 Pentafluorobenzene	168	6.643	6.633	(1.000)	95829	50.0000	
24 Chloroform	83						
26 Bromochloromethane	128						
\$ 25 Dibromofluoromethane	111	6.864	6.844	(1.033)	56027	50.7132	50.713
27 1,1,1-Trichloroethane	97						
29 1,1-Dichloropropene	75						
30 Carbon Tetrachloride	117						
\$ 31 d4-1,2-Dichloroethane	65	7.326	7.306	(1.103)	81133	55.2865	55.286
32 1,2-Dichloroethane	62						
33 Benzene	78						
* 34 1,4-Difluorobenzene	114	7.648	7.638	(1.000)	135154	50.0000	
35 Trichloroethene	95						
36 1,2-Dichloropropane	63						
37 Bromodichloromethane	83						
39 Dibromomethane	93						
40 2-Chloroethyl Vinyl Ether	63						
41 4-Methyl-2-Pentanone	58						
42 Cis 1,3-dichloropropene	75						
\$ 43 d8-Toluene	98	9.196	9.186	(1.202)	162451	50.7233	50.723
44 Toluene	92						
45 Trans 1,3-Dichloropropene	75						
46 2-Hexanone	43						
47 1,1,2-Trichloroethane	97						
48 1,3-Dichloropropane	76						
49 Tetrachloroethene	166						
50 Chlorodibromomethane	129						
51 1,2-Dibromoethane	107						
* 52 d5-Chlorobenzene	117	10.804	10.784	(1.000)	125445	50.0000	
53 Chlorobenzene	112						
54 Ethyl Benzene	91						
55 1,1,1,2-Tetrachloroethane	131						
56 m,p-xylene	106						
57 o-Xylene	106						
58 Styrene	104						
59 Isopropyl Benzene	105						
60 Bromoform	173						
61 1,1,2,2-Tetrachloroethane	83						
\$ 62 4-Bromofluorobenzene	95	12.120	12.110	(1.122)	70128	49.0489	49.049
63 1,2,3-Trichloropropane	110						

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53				Compound Not Detected.		
66 N-Propyl Benzene	91				Compound Not Detected.		
67 Bromobenzene	156				Compound Not Detected.		
68 1,3,5-Trimethyl Benzene	105				Compound Not Detected.		
69 2-Chloro Toluene	91				Compound Not Detected.		
70 4-Chloro Toluene	91				Compound Not Detected.		
71 T-Butyl Benzene	119				Compound Not Detected.		
72 1,2,4-Trimethylbenzene	105				Compound Not Detected.		
73 S-Butyl Benzene	105				Compound Not Detected.		
74 4-Isopropyl Toluene	119				Compound Not Detected.		
75 1,3-Dichlorobenzene	146				Compound Not Detected.		
* 76 d4-1,4-Dichlorobenzene	152	13.477	13.467	(1.000)	67070	50.0000	
77 1,4-Dichlorobenzene	146				Compound Not Detected.		
78 N-Butyl Benzene	91				Compound Not Detected.		
\$ 79 d4-1,2-Dichlorobenzene	152	13.919	13.909	(1.033)	61963	50.4096	50.410
80 1,2-Dichlorobenzene	146				Compound Not Detected.		
81 1,2-Dibromo 3-Chloropropane	75				Compound Not Detected.		
82 1,2,4-Trichlorobenzene	180				Compound Not Detected.		
83 Hexachloro 1,3-Butadiene	225				Compound Not Detected.		
84 Naphthalene	128				Compound Not Detected.		
85 1,2,3-Trichlorobenzene	180				Compound Not Detected.		

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: MB0111.d  
 Lab Smp Id: MB0111  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-285

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: MB0111  
 Level: LOW  
 Sample Type: SOIL

Test Mode:  
 Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	95829	-15.49
34 1,4-Difluorobenze	160565	80282	321130	135154	-15.83
52 d5-Chlorobenzene	148719	74360	297438	125445	-15.65
76 d4-1,4-Dichlorobe	84322	42161	168644	67070	-20.46

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.64	0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.65	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.80	0.19
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.48	0.07

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

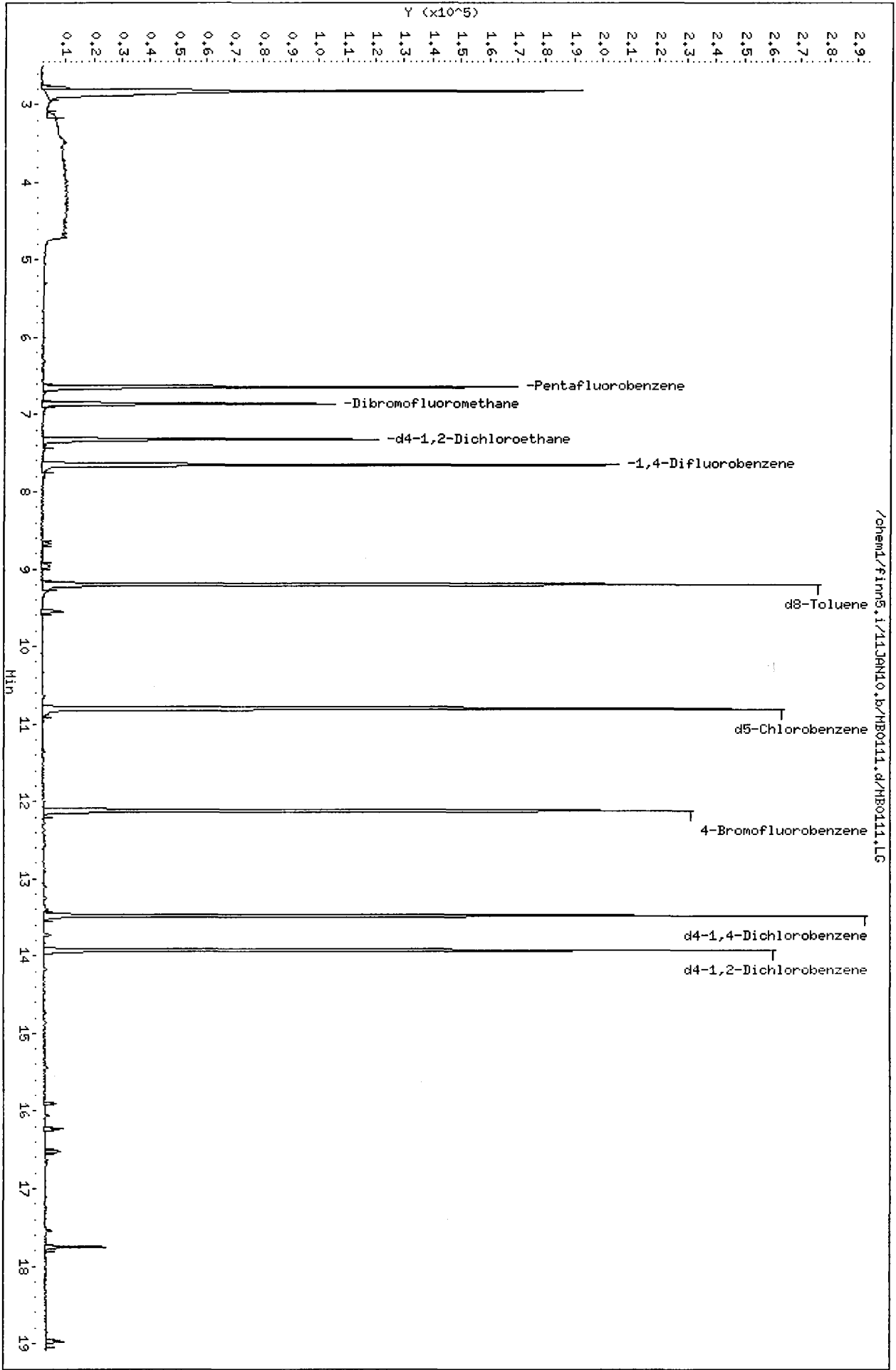
RECOVERY REPORT

Client Name: Client SDG: 11JAN10  
Sample Matrix: SOLID Fraction: VOA  
Lab Smp Id: MB0111 Client Smp ID: MB0111  
Level: LOW Operator: PB  
Data Type: MS DATA SampleType: BLANK  
SpikeList File: all.spk Quant Type: ISTD  
Sublist File: voa.sub  
Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
Misc Info: 10-285

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	50.713	101.43	30-160
\$ 31 d4-1,2-Dichloroeth	50.000	55.286	110.57	75-152
\$ 43 d8-Toluene	50.000	50.723	101.45	82-115
\$ 62 4-Bromofluorobenze	50.000	49.049	98.10	64-120
\$ 79 d4-1,2-Dichloroben	50.000	50.410	100.82	80-120

Data File: /chem1/finn5.i/11JAN10.b/HB0111.d  
Date: 11-JAN-2010 11:36  
Client ID: HB0111  
Sample Info: HB0111,5,5,0  
Column phase: RtX502.2

Instrument: finn5.i  
Operator: PB  
Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/11JAN10.b/LCS0111.d  
 Lab Smp Id: LCS0111 Client Smp ID: LCS0111  
 Inj Date : 11-JAN-2010 10:34  
 Operator : PB Inst ID: finn5.i  
 Smp Info : LCS0111,5,5,0  
 Misc Info : 10-285  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 15-Jan-2010 15:01 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

*j / k h w*

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85		3.035	3.035	(0.458)	66424	55.1630	55.163
2 Chloromethane	50		3.327	3.327	(0.502)	108025	45.1484	45.148
3 Vinyl Chloride	62		3.437	3.447	(0.519)	130901	57.2785	57.278
4 Bromomethane	94		3.930	3.930	(0.593)	45246	46.8738	46.874
5 Chloroethane	64		4.000	4.000	(0.604)	74765	56.3857	56.386
6 Trichlorofluoromethane	101		4.251	4.261	(0.642)	116950	52.4003	52.400
7 Acrolein	56		4.633	4.643	(0.700)	56031	257.187	257.19
8 112Trichloro122Trifluoroethane	101		4.653	4.653	(0.703)	74010	49.3596	49.360
9 Acetone	43		4.693	4.693	(0.709)	116560	255.266	255.26
10 1,1-Dichloroethene	96		4.844	4.854	(0.731)	55184	47.8738	47.874
11 Bromoethane	108		5.065	5.075	(0.765)	32458	52.6279	52.628
12 Iodomethane	142		5.166	5.166	(0.780)	32101	44.8081	44.808
13 Methylene Chloride	84		5.276	5.286	(0.797)	62157	51.9515	51.952
14 Acrylonitrile	53		5.357	5.367	(0.809)	18706	51.9904	51.990

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
16 Methyl tert-Butyl Ether	73	5.397	5.407	(0.815)	137652	48.7457	48.746
15 Carbon Disulfide	76	5.387	5.387	(0.813)	179037	55.6470	55.647
17 Trans-1,2-Dichloroethene	96	5.558	5.568	(0.839)	56400	47.5836	47.584
18 Vinyl Acetate	43	5.879	5.889	(0.888)	135063	51.5989	51.599
19 1,1-Dichloroethane	63	5.940	5.950	(0.897)	120810	49.7416	49.742
20 2-Butanone	43	6.281	6.281	(0.948)	146350	251.805	251.80
21 2,2-Dichloropropane	77	6.462	6.462	(0.976)	100644	49.5563	49.556
22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.982)	58009	48.0615	48.061
* 23 Pentafluorobenzene	168	6.623	6.633	(1.000)	99259	50.0000	
24 Chloroform	83	6.643	6.653	(1.003)	109451	48.5338	48.534
26 Bromochloromethane	128	6.804	6.814	(1.027)	28085	49.9854	49.985
\$ 25 Dibromofluoromethane	111	6.844	6.844	(1.033)	57228	50.0103	50.010
27 1,1,1-Trichloroethane	97	7.035	7.035	(1.062)	100295	49.0548	49.055
29 1,1-Dichloropropene	75	7.176	7.176	(0.941)	84834	47.5081	47.508
30 Carbon Tetrachloride	117	7.286	7.296	(0.955)	91475	48.4360	48.436
\$ 31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	75066	49.3846	49.385
32 1,2-Dichloroethane	62	7.397	7.397	(0.970)	93757	49.0410	49.041
33 Benzene	78	7.437	7.447	(0.975)	198704	48.6789	48.679
* 34 1,4-Difluorobenzene	114	7.628	7.638	(1.000)	140322	50.0000	
35 Trichloroethene	95	8.010	8.010	(1.050)	61766	47.3621	47.362
36 1,2-Dichloropropane	63	8.171	8.171	(1.071)	61279	47.0418	47.042
37 Bromodichloromethane	83	8.402	8.402	(1.101)	76296	47.3063	47.306
39 Dibromomethane	93	8.472	8.472	(1.111)	36653	48.4922	48.492
40 2-Chloroethyl Vinyl Ether	63	8.613	8.623	(1.129)	22970	51.3628	51.363 (Q)
41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.134)	93585	246.357	246.36
42 Cis 1,3-dichloropropene	75	8.904	8.914	(1.167)	87387	48.6351	48.635
\$ 43 d8-Toluene	98	9.186	9.186	(1.204)	165203	49.6828	49.683
44 Toluene	92	9.266	9.266	(1.215)	123395	47.5356	47.536
45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.232)	78219	49.8100	49.810
46 2-Hexanone	43	9.527	9.537	(0.884)	230958	271.775	271.78
47 1,1,2-Trichloroethane	97	9.578	9.578	(1.256)	40747	47.4369	47.437
48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	79462	49.3385	49.338
49 Tetrachloroethene	166	9.949	9.960	(0.923)	62517	46.6200	46.620
50 Chlorodibromomethane	129	10.161	10.171	(0.942)	55691	50.7599	50.760
51 1,2-Dibromoethane	107	10.382	10.392	(1.361)	46974	48.9202	48.920
* 52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	126617	50.0000	
53 Chlorobenzene	112	10.824	10.834	(1.004)	131259	48.7635	48.763
54 Ethyl Benzene	91	10.854	10.864	(1.007)	233923	52.5458	52.546
55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.007)	49141	48.1226	48.123
56 m,p-xylene	106	10.934	10.944	(1.014)	187453	102.591	102.59
57 o-Xylene	106	11.427	11.437	(1.060)	93101	49.8527	49.853
58 Styrene	104	11.457	11.457	(1.062)	145663	50.9745	50.974
59 Isopropyl Benzene	105	11.809	11.809	(0.878)	242017	50.1204	50.120
60 Bromoform	173	11.869	11.869	(0.882)	35997	47.9485	47.948
61 1,1,2,2-Tetrachloroethane	83	11.980	11.990	(0.890)	58033	49.3081	49.308
\$ 62 4-Bromofluorobenzene	95	12.100	12.110	(1.122)	74879	51.8871	51.887
63 1,2,3-Trichloropropane	110	12.150	12.160	(0.903)	14309	51.3902	51.390



Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
65 Trans-1,4-Dichloro 2-Butene	53	12.201	12.211	(0.907)	20860	50.1265	50.126
66 N-Propyl Benzene	91	12.261	12.261	(0.911)	286561	50.7322	50.732
67 Bromobenzene	156	12.351	12.351	(0.918)	64811	46.5288	46.529
68 1,3,5-Trimethyl Benzene	105	12.432	12.442	(0.924)	200140	52.4154	52.415
69 2-Chloro Toluene	91	12.492	12.502	(0.928)	184425	49.1979	49.198
70 4-Chloro Toluene	91	12.532	12.542	(0.931)	189945	50.8934	50.893
71 T-Butyl Benzene	119	12.844	12.844	(0.954)	179760	51.3229	51.323
72 1,2,4-Trimethylbenzene	105	12.894	12.894	(0.958)	198569	52.6038	52.604
73 S-Butyl Benzene	105	13.085	13.095	(0.972)	267792	52.3138	52.314
74 4-Isopropyl Toluene	119	13.236	13.236	(0.984)	205143	53.4660	53.466
75 1,3-Dichlorobenzene	146	13.387	13.387	(0.995)	116398	47.9901	47.990
* 76 d4-1,4-Dichlorobenzene	152	13.457	13.467	(1.000)	73383	50.0000	
77 1,4-Dichlorobenzene	146	13.497	13.507	(1.003)	113586	48.2908	48.291
78 N-Butyl Benzene	91	13.708	13.718	(1.019)	208843	54.3081	54.308
§ 79 d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.034)	68284	50.7730	50.773
80 1,2-Dichlorobenzene	146	13.939	13.949	(1.036)	106672	48.1862	48.186
81 1,2-Dibromo 3-Chloropropane	75	14.844	14.854	(1.103)	11605	51.9244	51.924
82 1,2,4-Trichlorobenzene	180	15.889	15.899	(1.181)	77103	52.4000	52.400
83 Hexachloro 1,3-Butadiene	225	16.040	16.050	(1.192)	49284	51.2946	51.294
84 Naphthalene	128	16.211	16.221	(1.205)	134236	53.3990	53.399
85 1,2,3-Trichlorobenzene	180	16.502	16.512	(1.226)	68655	51.6449	51.645

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: LCS0111.d  
 Lab Smp Id: LCS0111  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-285

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: LCS0111  
 Level: LOW  
 Sample Type: SOIL

Test Mode:  
 Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	99259	-12.47
34 1,4-Difluorobenze	160565	80282	321130	140322	-12.61
52 d5-Chlorobenzene	148719	74360	297438	126617	-14.86
76 d4-1,4-Dichlorobe	84322	42161	168644	73383	-12.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.62	-0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.63	-0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.46	-0.07

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 11JAN10  
 Sample Matrix: SOLID Fraction: VOA  
 Lab Smp Id: LCS0111 Client Smp ID: LCS0111  
 Level: LOW Operator: PB  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: all.spk Quant Type: ISTD  
 Sublist File: voa.sub  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-285

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Dichlorodifluorome	50.000	55.163	110.33	53-148
2 Chloromethane	50.000	45.148	90.30	64-125
3 Vinyl Chloride	50.000	57.278	114.56	63-137
4 Bromomethane	50.000	46.874	93.75	57-136
5 Chloroethane	50.000	56.386	112.77	64-131
6 Trichlorofluoromet	50.000	52.400	104.80	69-132
7 Acrolein	250.00	257.19	102.87	54-137
8 1,1,2-Trichloroethane	50.000	49.360	98.72	74-130
9 Acetone	250.00	255.26	102.11	60-131
10 1,1-Dichloroethene	50.000	47.874	95.75	75-126
11 Bromoethane	50.000	52.628	105.26	76-126
12 Iodomethane	50.000	44.808	89.62	65-139
13 Methylene Chloride	50.000	51.952	103.90	70-123
15 Carbon Disulfide	50.000	55.647	111.29	71-129
14 Acrylonitrile	50.000	51.990	103.98	67-125
16 Methyl tert-Butyl	50.000	48.746	97.49	70-120
17 Trans-1,2-Dichloro	50.000	47.584	95.17	80-120
18 Vinyl Acetate	50.000	51.599	103.20	60-136
19 1,1-Dichloroethane	50.000	49.742	99.48	80-120
20 2-Butanone	250.00	251.80	100.72	70-120
21 2,2-Dichloropropan	50.000	49.556	99.11	74-123
22 Cis-1,2-Dichloroet	50.000	48.061	96.12	80-120
24 Chloroform	50.000	48.534	97.07	80-120
26 Bromochloromethane	50.000	49.985	99.97	80-120
27 1,1,1-Trichloroeth	50.000	49.055	98.11	77-121
29 1,1-Dichloropropen	50.000	47.508	95.02	80-120
30 Carbon Tetrachlori	50.000	48.436	96.87	77-122
32 1,2-Dichloroethane	50.000	49.041	98.08	76-120
33 Benzene	50.000	48.679	97.36	80-120
35 Trichloroethene	50.000	47.362	94.72	80-120
36 1,2-Dichloropropan	50.000	47.042	94.08	80-120
37 Bromodichlorometha	50.000	47.306	94.61	77-121
39 Dibromomethane	50.000	48.492	96.98	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	51.363	102.73	10-191
41 4-Methyl-2-Pentano	250.00	246.36	98.54	67-120
42 Cis 1,3-dichloropr	50.000	48.635	97.27	74-120
44 Toluene	50.000	47.536	95.07	80-120
45 Trans 1,3-Dichloro	50.000	49.810	99.62	65-120
46 2-Hexanone	250.00	271.78	108.71	65-130
47 1,1,2-Trichloroeth	50.000	47.437	94.87	80-120
48 1,3-Dichloropropan	50.000	49.338	98.68	80-120
49 Tetrachloroethene	50.000	46.620	93.24	80-121
50 Chlorodibromometha	50.000	50.760	101.52	64-120
51 1,2-Dibromoethane	50.000	48.920	97.84	75-120
53 Chlorobenzene	50.000	48.763	97.53	80-120
55 1,1,1,2-Tetrachlor	50.000	48.123	96.25	69-121
54 Ethyl Benzene	50.000	52.546	105.09	80-127
56 m,p-xylene	100.00	102.59	102.59	80-125
57 o-Xylene	50.000	49.853	99.71	78-120
58 Styrene	50.000	50.974	101.95	80-123
59 Isopropyl Benzene	50.000	50.120	100.24	80-127
60 Bromoform	50.000	47.948	95.90	60-120
61 1,1,2,2-Tetrachlor	50.000	49.308	98.62	74-120
63 1,2,3-Trichloropro	50.000	51.390	102.78	72-121
65 Trans-1,4-Dichloro	50.000	50.126	100.25	65-126
66 N-Propyl Benzene	50.000	50.732	101.46	80-132
67 Bromobenzene	50.000	46.529	93.06	80-120
68 1,3,5-Trimethyl Be	50.000	52.415	104.83	80-125
69 2-Chloro Toluene	50.000	49.198	98.40	80-125
70 4-Chloro Toluene	50.000	50.893	101.79	80-127
71 T-Butyl Benzene	50.000	51.323	102.65	87-122
72 1,2,4-Trimethylben	50.000	52.604	105.21	80-126
73 S-Butyl Benzene	50.000	52.314	104.63	80-134
74 4-Isopropyl Toluen	50.000	53.466	106.93	80-131
75 1,3-Dichlorobenzen	50.000	47.990	95.98	80-120
77 1,4-Dichlorobenzen	50.000	48.291	96.58	80-120
78 N-Butyl Benzene	50.000	54.308	108.62	80-138
80 1,2-Dichlorobenzen	50.000	48.186	96.37	80-120
81 1,2-Dibromo 3-Chlo	50.000	51.924	103.85	59-120
82 1,2,4-Trichloroben	50.000	52.400	104.80	78-130
83 Hexachloro 1,3-But	50.000	51.294	102.59	76-129
84 Naphthalene	50.000	53.399	106.80	66-120
85 1,2,3-Trichloroben	50.000	51.645	103.29	73-123

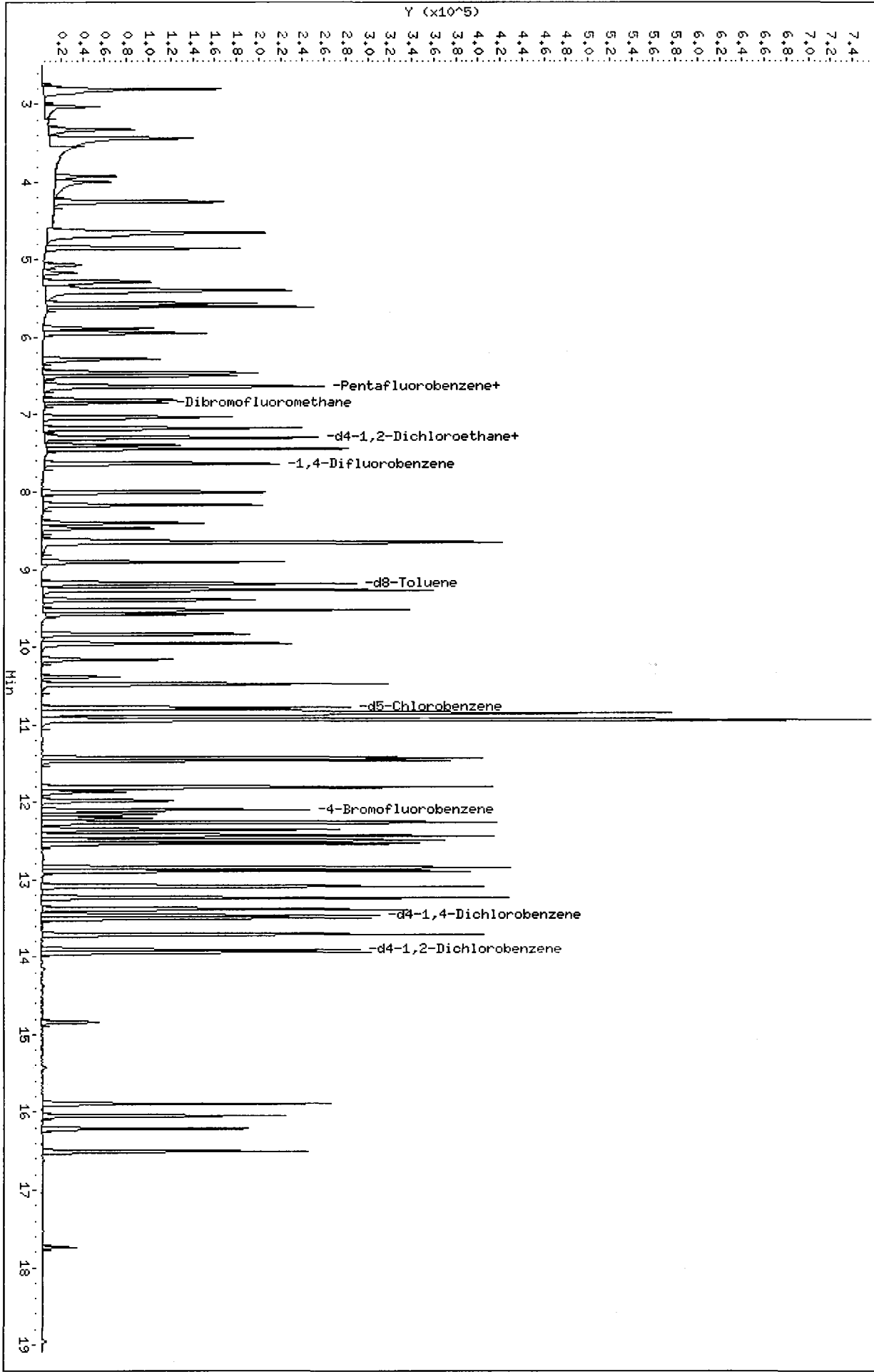
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	50.010	100.02	30-160

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 31 d4-1,2-Dichloroeth	50.000	49.385	98.77	75-152
\$ 43 d8-Toluene	50.000	49.683	99.37	82-115
\$ 62 4-Bromofluorobenze	50.000	51.887	103.77	64-120
\$ 79 d4-1,2-Dichloroben	50.000	50.773	101.55	80-120

Data File: /chem1/finn5.i/11JAN10.b/LCS0111.d  
Date : 11-JAN-2010 10:34  
Client ID: LCS0111  
Sample Info: LCS0111,5,5,0  
Column phase: Rtx502.2

Instrument: finn5.i  
Operator: PB  
Column diameter: 0.18

/chem1/finn5.i/11JAN10.b/LCS0111.d/LCS0111.LG



11/24/2010 10:55:00

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/11JAN10.b/LCS0111B.d  
 Lab Smp Id: LCS0111 Client Smp ID: LCS0111  
 Inj Date : 11-JAN-2010 12:53  
 Operator : PB Inst ID: finn5.i  
 Smp Info : LCS0111,5,5,0  
 Misc Info : 10-285  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 15-Jan-2010 15:01 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

*f. lshw*

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	3.035	3.035	(0.458)	70320	56.2322	56.232	
2 Chloromethane	50	3.327	3.327	(0.501)	114251	45.9791	45.979	
3 Vinyl Chloride	62	3.447	3.447	(0.520)	137078	57.7563	57.756	
4 Bromomethane	94	3.930	3.930	(0.592)	48794	48.6742	48.674	
5 Chloroethane	64	4.000	4.000	(0.603)	75342	54.7130	54.713	
6 Trichlorofluoromethane	101	4.261	4.261	(0.642)	122816	52.9872	52.987	
7 Acrolein	56	4.643	4.643	(0.700)	56021	247.602	247.60	
8 112Trichloro122Trifluoroethane	101	4.663	4.653	(0.703)	77010	49.4551	49.455	
9 Acetone	43	4.693	4.693	(0.708)	116079	244.782	244.78	
10 1,1-Dichloroethene	96	4.854	4.854	(0.732)	57027	47.6374	47.637	
11 Bromoethane	108	5.075	5.075	(0.765)	34629	54.0651	54.065	
12 Iodomethane	142	5.166	5.166	(0.779)	35619	47.8743	47.874	
13 Methylene Chloride	84	5.286	5.286	(0.797)	63690	51.2581	51.258	
14 Acrylonitrile	53	5.367	5.367	(0.809)	18693	50.0269	50.027	

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
	====	==	=====	=====	=====	(ug/Kg)	(ug/Kg)
16 Methyl tert-Butyl Ether	73	5.407	5.407	(0.815)	141445	48.2308	48.231
15 Carbon Disulfide	76	5.387	5.387	(0.812)	176721	52.8896	52.890
17 Trans-1,2-Dichloroethene	96	5.568	5.568	(0.839)	58544	47.5601	47.560
18 Vinyl Acetate	43	5.889	5.889	(0.888)	140461	51.6705	51.670
19 1,1-Dichloroethane	63	5.950	5.950	(0.897)	126473	50.1415	50.141
20 2-Butanone	43	6.281	6.281	(0.947)	155674	257.911	257.91
21 2,2-Dichloropropane	77	6.462	6.462	(0.974)	104963	49.7657	49.766
22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.980)	61884	49.3700	49.370
* 23 Pentafluorobenzene	168	6.633	6.633	(1.000)	103083	50.0000	
24 Chloroform	83	6.653	6.653	(1.003)	115973	49.5181	49.518
26 Bromochloromethane	128	6.814	6.814	(1.027)	30633	52.4978	52.498
\$ 25 Dibromofluoromethane	111	6.844	6.844	(1.032)	62932	52.9548	52.955
27 1,1,1-Trichloroethane	97	7.035	7.035	(1.061)	104889	49.3987	49.399
29 1,1-Dichloropropene	75	7.186	7.176	(0.941)	92294	48.5921	48.592
30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	96752	48.1637	48.164
\$ 31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.101)	80678	51.1077	51.108
32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	98484	48.4301	48.430
33 Benzene	78	7.447	7.447	(0.975)	212299	48.8963	48.896
* 34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	149256	50.0000	
35 Trichloroethene	95	8.010	8.010	(1.049)	68676	49.5086	49.509
36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	68667	49.5580	49.558
37 Bromodichloromethane	83	8.412	8.402	(1.101)	81913	47.7490	47.749
39 Dibromomethane	93	8.472	8.472	(1.109)	38488	47.8720	47.872
40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	25032	52.6232	52.623 (Q)
41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.133)	95686	236.810	236.81
42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.167)	93859	49.1103	49.110
\$ 43 d8-Toluene	98	9.186	9.186	(1.203)	183049	51.7547	51.755
44 Toluene	92	9.276	9.266	(1.214)	129224	46.8014	46.801
45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.230)	83248	49.8393	49.839
46 2-Hexanone	43	9.537	9.537	(0.884)	239660	267.423	267.42
47 1,1,2-Trichloroethane	97	9.588	9.578	(1.255)	44217	48.3954	48.395
48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	82631	48.6514	48.651
49 Tetrachloroethene	166	9.960	9.960	(0.924)	70090	49.5629	49.563
50 Chlorodibromomethane	129	10.171	10.171	(0.943)	58932	50.9346	50.935
51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	50025	48.9792	48.979
* 52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	133526	50.0000	
53 Chlorobenzene	112	10.834	10.834	(1.005)	139460	49.1294	49.129
54 Ethyl Benzene	91	10.864	10.864	(1.007)	250932	53.4499	53.450
55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.007)	51051	47.4063	47.406
56 m,p-xylene	106	10.944	10.944	(1.015)	197092	102.285	102.28
57 o-Xylene	106	11.437	11.437	(1.061)	97233	49.3713	49.371
58 Styrene	104	11.467	11.457	(1.063)	152795	50.7036	50.704
59 Isopropyl Benzene	105	11.809	11.809	(0.877)	251677	51.9073	51.907
60 Bromoform	173	11.869	11.869	(0.881)	36779	48.7894	48.789
61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	60432	51.1360	51.136
\$ 62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	77552	50.9587	50.959
63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	13253	47.4026	47.402 (Q)



Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	22036	52.7354	52.735
66 N-Propyl Benzene	91	12.261	12.261	(0.910)	304131	53.6221	53.622
67 Bromobenzene	156	12.351	12.351	(0.917)	67486	48.2506	48.251
68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.924)	212712	55.4797	55.480
69 2-Chloro Toluene	91	12.492	12.502	(0.928)	198957	52.8569	52.857
70 4-Chloro Toluene	91	12.542	12.542	(0.931)	197035	52.5767	52.577
71 T-Butyl Benzene	119	12.844	12.844	(0.954)	186459	53.0173	53.017
72 1,2,4-Trimethylbenzene	105	12.894	12.894	(0.957)	211095	55.6929	55.693
73 S-Butyl Benzene	105	13.095	13.095	(0.972)	275608	53.6200	53.620
74 4-Isopropyl Toluene	119	13.236	13.236	(0.983)	212704	55.2094	55.209
75 1,3-Dichlorobenzene	146	13.387	13.387	(0.994)	120521	49.4863	49.486
* 76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	73685	50.0000	
77 1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	119492	50.5935	50.593
78 N-Butyl Benzene	91	13.718	13.718	(1.019)	227803	58.9958	58.996
\$ 79 d4-1,2-Dichlorobenzene	152	13.919	13.909	(1.034)	67197	49.7600	49.760
80 1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	108728	48.9137	48.914
81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.103)	11400	50.7981	50.798
82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	81771	55.3447	55.345
83 Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	48552	50.3256	50.326
84 Naphthalene	128	16.221	16.221	(1.204)	129145	51.1632	51.163
85 1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	67815	50.8040	50.804

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: LCS0111B.d  
 Lab Smp Id: LCS0111  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-285

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: LCS0111  
 Level: LOW  
 Sample Type: SOIL

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	103083	-9.09
34 1,4-Difluorobenze	160565	80282	321130	149256	-7.04
52 d5-Chlorobenzene	148719	74360	297438	133526	-10.22
76 d4-1,4-Dichlorobe	84322	42161	168644	73685	-12.61

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.63	0.00
34 1,4-Difluorobenze	7.64	7.14	8.14	7.64	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 11JAN10  
 Sample Matrix: SOLID Fraction: VOA  
 Lab Smp Id: LCS0111 Client Smp ID: LCS0111  
 Level: LOW Operator: PB  
 Data Type: MS DATA SampleType: LCSD  
 SpikeList File: all.spk Quant Type: ISTD  
 Sublist File: voa.sub  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-285

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Dichlorodifluorome	50.000	56.232	112.46	53-148
2 Chloromethane	50.000	45.979	91.96	64-125
3 Vinyl Chloride	50.000	57.756	115.51	63-137
4 Bromomethane	50.000	48.674	97.35	57-136
5 Chloroethane	50.000	54.713	109.43	64-131
6 Trichlorofluoromet	50.000	52.987	105.97	69-132
7 Acrolein	250.00	247.60	99.04	54-137
8 112Trichloro122Tri	50.000	49.455	98.91	74-130
9 Acetone	250.00	244.78	97.91	60-131
10 1,1-Dichloroethene	50.000	47.637	95.27	75-126
11 Bromoethane	50.000	54.065	108.13	76-126
12 Iodomethane	50.000	47.874	95.75	65-139
13 Methylene Chloride	50.000	51.258	102.52	70-123
15 Carbon Disulfide	50.000	52.890	105.78	71-129
14 Acrylonitrile	50.000	50.027	100.05	67-125
16 Methyl tert-Butyl	50.000	48.231	96.46	70-120
17 Trans-1,2-Dichloro	50.000	47.560	95.12	80-120
18 Vinyl Acetate	50.000	51.670	103.34	60-136
19 1,1-Dichloroethane	50.000	50.141	100.28	80-120
20 2-Butanone	250.00	257.91	103.16	70-120
21 2,2-Dichloropropan	50.000	49.766	99.53	74-123
22 Cis-1,2-Dichloroet	50.000	49.370	98.74	80-120
24 Chloroform	50.000	49.518	99.04	80-120
26 Bromochloromethane	50.000	52.498	105.00	80-120
27 1,1,1-Trichloroeth	50.000	49.399	98.80	77-121
29 1,1-Dichloropropen	50.000	48.592	97.18	80-120
30 Carbon Tetrachlori	50.000	48.164	96.33	77-122
32 1,2-Dichloroethane	50.000	48.430	96.86	76-120
33 Benzene	50.000	48.896	97.79	80-120
35 Trichloroethene	50.000	49.509	99.02	80-120
36 1,2-Dichloropropan	50.000	49.558	99.12	80-120
37 Bromodichlorometha	50.000	47.749	95.50	77-121
39 Dibromomethane	50.000	47.872	95.74	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	52.623	105.25	10-191
41 4-Methyl-2-Pentano	250.00	236.81	94.72	67-120
42 Cis 1,3-dichloropr	50.000	49.110	98.22	74-120
44 Toluene	50.000	46.801	93.60	80-120
45 Trans 1,3-Dichloro	50.000	49.839	99.68	65-120
46 2-Hexanone	250.00	267.42	106.97	65-130
47 1,1,2-Trichloroeth	50.000	48.395	96.79	80-120
48 1,3-Dichloropropan	50.000	48.651	97.30	80-120
49 Tetrachloroethene	50.000	49.563	99.13	80-121
50 Chlorodibromometha	50.000	50.935	101.87	64-120
51 1,2-Dibromoethane	50.000	48.979	97.96	75-120
53 Chlorobenzene	50.000	49.129	98.26	80-120
55 1,1,1,2-Tetrachlor	50.000	47.406	94.81	69-121
54 Ethyl Benzene	50.000	53.450	106.90	80-127
56 m,p-xylene	100.00	102.28	102.28	80-125
57 o-Xylene	50.000	49.371	98.74	78-120
58 Styrene	50.000	50.704	101.41	80-123
59 Isopropyl Benzene	50.000	51.907	103.81	80-127
60 Bromoform	50.000	48.789	97.58	60-120
61 1,1,2,2-Tetrachlor	50.000	51.136	102.27	74-120
63 1,2,3-Trichloropro	50.000	47.402	94.81	72-121
65 Trans-1,4-Dichloro	50.000	52.735	105.47	65-126
66 N-Propyl Benzene	50.000	53.622	107.24	80-132
67 Bromobenzene	50.000	48.251	96.50	80-120
68 1,3,5-Trimethyl Be	50.000	55.480	110.96	80-125
69 2-Chloro Toluene	50.000	52.857	105.71	80-125
70 4-Chloro Toluene	50.000	52.577	105.15	80-127
71 T-Butyl Benzene	50.000	53.017	106.03	87-122
72 1,2,4-Trimethylben	50.000	55.693	111.39	80-126
73 S-Butyl Benzene	50.000	53.620	107.24	80-134
74 4-Isopropyl Toluen	50.000	55.209	110.42	80-131
75 1,3-Dichlorobenzen	50.000	49.486	98.97	80-120
77 1,4-Dichlorobenzen	50.000	50.593	101.19	80-120
78 N-Butyl Benzene	50.000	58.996	117.99	80-138
80 1,2-Dichlorobenzen	50.000	48.914	97.83	80-120
81 1,2-Dibromo 3-Chlo	50.000	50.798	101.60	59-120
82 1,2,4-Trichloroben	50.000	55.345	110.69	78-130
83 Hexachloro 1,3-But	50.000	50.326	100.65	76-129
84 Naphthalene	50.000	51.163	102.33	66-120
85 1,2,3-Trichloroben	50.000	50.804	101.61	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	52.955	105.91	30-160

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 31 d4-1,2-Dichloroeth	50.000	51.108	102.22	75-152
\$ 43 d8-Toluene	50.000	51.755	103.51	82-115
\$ 62 4-Bromofluorobenze	50.000	50.959	101.92	64-120
\$ 79 d4-1,2-Dichloroben	50.000	49.760	99.52	80-120

Data File: /chem1/firm5.i/11JAN10.b/LCS0111B.d

Date : 11-JAN-2010 12:53

Client ID: LCS0111

Sample Infor: LCS0111,5,5,0

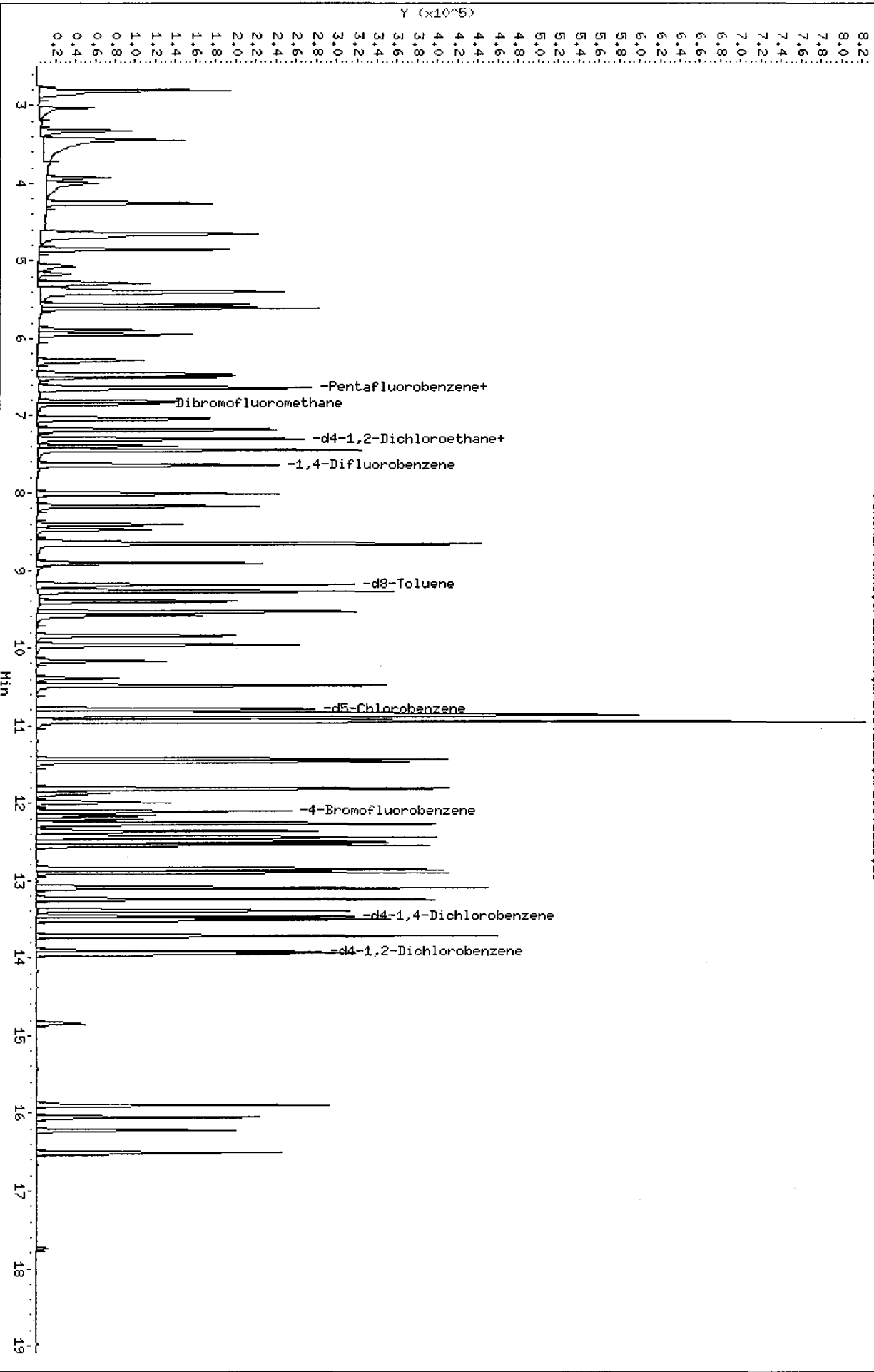
Column phase: Rtx502.2

Instrument: firm5.i

Operator: PB

Column diameter: 0.18

/chem1/firm5.i/11JAN10.b/LCS0111B.d/LCS0111B.LG



00 00 00 : 00 00 00

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 20:28

Sample Amount: 1.20 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 76.3%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	4.2	---	
156-59-2	cis-1,2-Dichloroethene	4.2	---	
107-06-2	1,2-Dichloroethane	4.2	---	
79-01-6	Trichloroethene	4.2	---	
127-18-4	Tetrachloroethene	4.2	---	

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	115%
d8-Toluene	102%
Bromofluorobenzene	96.0%
d4-1,2-Dichlorobenzene	93.9%

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/11JAN10.b/QE56BMS.d  
 Lab Smp Id: QE56BMS Client Smp ID: CB19010710Sed MS  
 Inj Date : 11-JAN-2010 20:28  
 Operator : PB Inst ID: finn5.i  
 Smp Info : QE56BMS,5,5.07,0,TS  
 Misc Info : 10-433  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 15-Jan-2010 15:01 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

*Handwritten signature*

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.07000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85		3.045	3.035	(0.458)	38307	33.2152	32.756
2 Chloromethane	50		3.337	3.327	(0.502)	87856	38.3376	37.808
3 Vinyl Chloride	62		3.457	3.447	(0.520)	93755	42.8330	42.242
4 Bromomethane	94		3.940	3.930	(0.593)	23242	25.1396	24.792(R)
5 Chloroethane	64		4.010	4.000	(0.604)	49954	39.3348	38.792
6 Trichlorofluoromethane	101		4.271	4.261	(0.643)	40880	19.1240	18.860(R)
7 Acrolein	56		4.653	4.643	(0.700)	651	3.11987	3.077(QR)
8 112Trichloro122Trifluoroethane	101		4.673	4.653	(0.703)	14997	10.4429	10.299(R)
9 Acetone	43		4.703	4.693	(0.708)	88914	203.305	200.50
10 1,1-Dichloroethene	96		4.864	4.854	(0.732)	21452	19.4307	19.162(R)
11 Bromoethane	108		5.085	5.075	(0.766)	17693	29.9524	29.539(R)
12 Iodomethane	142		5.186	5.166	(0.781)	11733	17.0995	16.863(R)
13 Methylene Chloride	84		5.296	5.286	(0.797)	37578	32.7927	32.340(R)
14 Acrylonitrile	53		5.377	5.367	(0.809)	9919	28.7836	28.386(R)



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
	====	==	=====	=====	=====	(ug/Kg)	(ug/Kg)
16 Methyl tert-Butyl Ether	73	5.417	5.407	(0.815)	83632	30.9216	30.495 (R)
15 Carbon Disulfide	76	5.397	5.387	(0.812)	50383	16.3500	16.124 (R)
17 Trans-1,2-Dichloroethene	96	5.578	5.568	(0.840)	22567	19.8787	19.604 (R)
18 Vinyl Acetate	43	5.899	5.889	(0.888)	1447	0.57718	0.5692 (QR)
19 1,1-Dichloroethane	63	5.960	5.950	(0.897)	57850	24.8688	24.525 (R)
20 2-Butanone	43	6.291	6.281	(0.947)	83899	150.717	148.64 (R)
21 2,2-Dichloropropane	77	6.472	6.462	(0.974)	31217	16.0486	15.827 (R)
22 Cis-1,2-Dichloroethene	96	6.512	6.502	(0.980)	24610	21.2887	20.995 (R)
* 23 Pentafluorobenzene	168	6.643	6.633	(1.000)	95068	50.0000	
24 Chloroform	83	6.663	6.653	(1.003)	47526	22.0035	21.700 (R)
26 Bromochloromethane	128	6.824	6.814	(1.027)	13840	25.7182	25.363 (R)
\$ 25 Dibromofluoromethane	111	6.854	6.844	(1.032)	60526	55.2240	54.462
27 1,1,1-Trichloroethane	97	7.045	7.035	(1.060)	25403	12.9725	12.793 (R)
29 1,1-Dichloropropene	75	7.186	7.176	(0.940)	17749	9.75734	9.623 (R)
30 Carbon Tetrachloride	117	7.306	7.296	(0.955)	14674	7.62736	7.522 (R)
\$ 31 d4-1,2-Dichloroethane	65	7.316	7.306	(1.101)	83766	57.5376	56.743
32 1,2-Dichloroethane	62	7.407	7.397	(0.968)	48503	24.9048	24.561 (R)
33 Benzene	78	7.457	7.447	(0.975)	69657	16.7517	16.520 (R)
* 34 1,4-Difluorobenzene	114	7.648	7.638	(1.000)	142944	50.0000	
35 Trichloroethene	95	8.020	8.010	(1.049)	13913	10.4728	10.328 (R)
36 1,2-Dichloropropane	63	8.181	8.171	(1.070)	22697	17.1041	16.868 (R)
37 Bromodichloromethane	83	8.412	8.402	(1.100)	22424	13.6487	13.460 (R)
39 Dibromomethane	93	8.482	8.472	(1.109)	15998	20.7772	20.490 (R)
40 2-Chloroethyl Vinyl Ether	63	8.633	8.623	(1.129)	3630	7.96809	7.858 (Q)
41 4-Methyl-2-Pentanone	58	8.663	8.653	(1.133)	45944	118.726	117.09 (R)
42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.166)	23415	12.7925	12.616 (R)
\$ 43 d8-Toluene	98	9.196	9.186	(1.202)	172300	50.8667	50.164
44 Toluene	92	9.276	9.266	(1.213)	25031	9.46586	9.335 (R)
45 Trans 1,3-Dichloropropene	75	9.407	9.397	(1.230)	19426	12.1436	11.976 (R)
46 2-Hexanone	43	9.537	9.537	(0.884)	107292	124.601	122.88 (R)
47 1,1,2-Trichloroethane	97	9.588	9.578	(1.254)	14478	16.5459	16.317 (R)
48 1,3-Dichloropropane	76	9.849	9.839	(0.912)	28649	17.5556	17.313 (R)
49 Tetrachloroethene	166	9.970	9.960	(0.924)	6795	5.00083	4.932 (R)
50 Chlorodibromomethane	129	10.171	10.171	(0.942)	11473	10.3203	10.178 (R)
51 1,2-Dibromoethane	107	10.402	10.392	(1.360)	14151	14.4670	14.267 (R)
* 52 d5-Chlorobenzene	117	10.794	10.784	(1.000)	128296	50.0000	
53 Chlorobenzene	112	10.834	10.834	(1.004)	20199	7.40584	7.304 (R)
54 Ethyl Benzene	91	10.864	10.864	(1.007)	28172	6.24542	6.159 (R)
55 1,1,1,2-Tetrachloroethane	131	10.864	10.854	(1.007)	7893	7.62827	7.523 (R)
56 m,p-xylene	106	10.944	10.944	(1.014)	21633	11.6845	11.523 (R)
57 o-Xylene	106	11.437	11.437	(1.060)	11580	6.11958	6.035 (R)
58 Styrene	104	11.467	11.457	(1.062)	12989	4.48599	4.424 (R)
59 Isopropyl Benzene	105	11.819	11.809	(0.877)	21920	5.81143	5.731 (R)
60 Bromoform	173	11.879	11.869	(0.881)	4960	8.45794	8.341 (R)
61 1,1,2,2-Tetrachloroethane	83	12.000	11.990	(0.890)	10845	11.7963	11.633 (QR)
\$ 62 4-Bromofluorobenzene	95	12.110	12.110	(1.122)	70216	48.0191	47.356
63 1,2,3-Trichloropropane	110	12.171	12.160	(0.903)	3533	16.2439	16.020 (QR)

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.906)	5844	17.9778	17.730 (QR)
66 N-Propyl Benzene	91	12.271	12.261	(0.910)	21885	4.96006	4.892 (R)
67 Bromobenzene	156	12.361	12.351	(0.917)	7346	6.75146	6.658 (R)
68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.923)	15270	5.11963	5.049 (R)
69 2-Chloro Toluene	91	12.502	12.502	(0.928)	15012	5.12671	5.056 (R)
70 4-Chloro Toluene	91	12.542	12.542	(0.931)	16590	5.69054	5.612 (R)
71 T-Butyl Benzene	119	12.854	12.844	(0.954)	10632	3.88604	3.832 (R)
72 1,2,4-Trimethylbenzene	105	12.904	12.894	(0.957)	19758	6.70074	6.608 (R)
73 S-Butyl Benzene	105	13.105	13.095	(0.972)	14520	3.63128	3.581 (R)
74 4-Isopropyl Toluene	119	13.246	13.236	(0.983)	11496	3.83567	3.783 (R)
75 1,3-Dichlorobenzene	146	13.397	13.387	(0.994)	7533	3.97601	3.921 (R)
* 76 d4-1,4-Dichlorobenzene	152	13.477	13.467	(1.000)	57322	50.0000	
77 1,4-Dichlorobenzene	146	13.507	13.507	(1.002)	7804	4.24747	4.189 (R)
78 N-Butyl Benzene	91	13.718	13.718	(1.018)	11613	3.86601	3.813 (R)
§ 79 d4-1,2-Dichlorobenzene	152	13.919	13.909	(1.033)	49318	46.9454	46.297
80 1,2-Dichlorobenzene	146	13.949	13.949	(1.035)	6666	3.85489	3.802 (QR)
81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.102)	1172	6.71317	6.620 (R)
82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.180)	1975	1.71831	1.694 (R)
83 Hexachloro 1,3-Butadiene	225	16.060	16.050	(1.192)	892	1.18851	1.172 (R)
84 Naphthalene	128	16.221	16.221	(1.204)	6149	3.13143	3.088 (R)
85 1,2,3-Trichlorobenzene	180	16.512	16.512	(1.225)	1294	1.24613	1.229 (R)

QC Flag Legend

Q - Qualifier signal failed the ratio test.  
 R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: QE56BMS.d  
 Lab Smp Id: QE56BMS  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-433

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: CB19010710Sed MS  
 Level: LOW  
 Sample Type: Sediment

Test Mode:

Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	95068	-16.16
34 1,4-Difluorobenze	160565	80282	321130	142944	-10.97
52 d5-Chlorobenzene	148719	74360	297438	128296	-13.73
76 d4-1,4-Dichlorobe	84322	42161	168644	57322	-32.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.64	0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.65	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.79	0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.48	0.07

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snyder  
 Sample Matrix: SOLID  
 Lab Smp Id: QE56BMS  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: all.spk  
 Sublist File: voa.sub  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-433

Client SDG: QE56  
 Fraction: VOA  
 Client Smp ID: CB19010710Sed MS  
 Operator: PB  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Dichlorodifluorome	49.310	32.756	66.43	53-148
2 Chloromethane	49.310	37.808	76.68	64-125
3 Vinyl Chloride	49.310	42.242	85.67	63-137
4 Bromomethane	49.310	24.792	50.28*	57-136
5 Chloroethane	49.310	38.792	78.67	64-131
6 Trichlorofluoromet	49.310	18.860	38.25*	69-132
7 Acrolein	246.55	3.077	1.25*	54-137
8 112Trichloro122Tri	49.310	10.299	20.89*	74-130
9 Acetone	246.55	200.50	81.32	60-131
10 1,1-Dichloroethene	49.310	19.162	38.86*	75-126
11 Bromoethane	49.310	29.539	59.90*	76-126
12 Iodomethane	49.310	16.863	34.20*	65-139
13 Methylene Chloride	49.310	32.340	65.59*	70-123
15 Carbon Disulfide	49.310	16.124	32.70*	71-129
14 Acrylonitrile	49.310	28.386	57.57*	67-125
16 Methyl tert-Butyl	49.310	30.495	61.84*	70-120
17 Trans-1,2-Dichloro	49.310	19.604	39.76*	80-120
18 Vinyl Acetate	49.310	0.5692	1.15*	60-136
19 1,1-Dichloroethane	49.310	24.525	49.74*	80-120
20 2-Butanone	246.55	148.64	60.29*	70-120
21 2,2-Dichloropropan	49.310	15.827	32.10*	74-123
22 Cis-1,2-Dichloroet	49.310	20.995	42.58*	80-120
24 Chloroform	49.310	21.700	44.01*	80-120
26 Bromochloromethane	49.310	25.363	51.44*	80-120
27 1,1,1-Trichloroeth	49.310	12.793	25.94*	77-121
29 1,1-Dichloropropen	49.310	9.623	19.51*	80-120
30 Carbon Tetrachlori	49.310	7.522	15.25*	77-122
32 1,2-Dichloroethane	49.310	24.561	49.81*	76-120
33 Benzene	49.310	16.520	33.50*	80-120
35 Trichloroethene	49.310	10.328	20.95*	80-120
36 1,2-Dichloropropan	49.310	16.868	34.21*	80-120
37 Bromodichlorometha	49.310	13.460	27.30*	77-121
39 Dibromomethane	49.310	20.490	41.55*	80-120

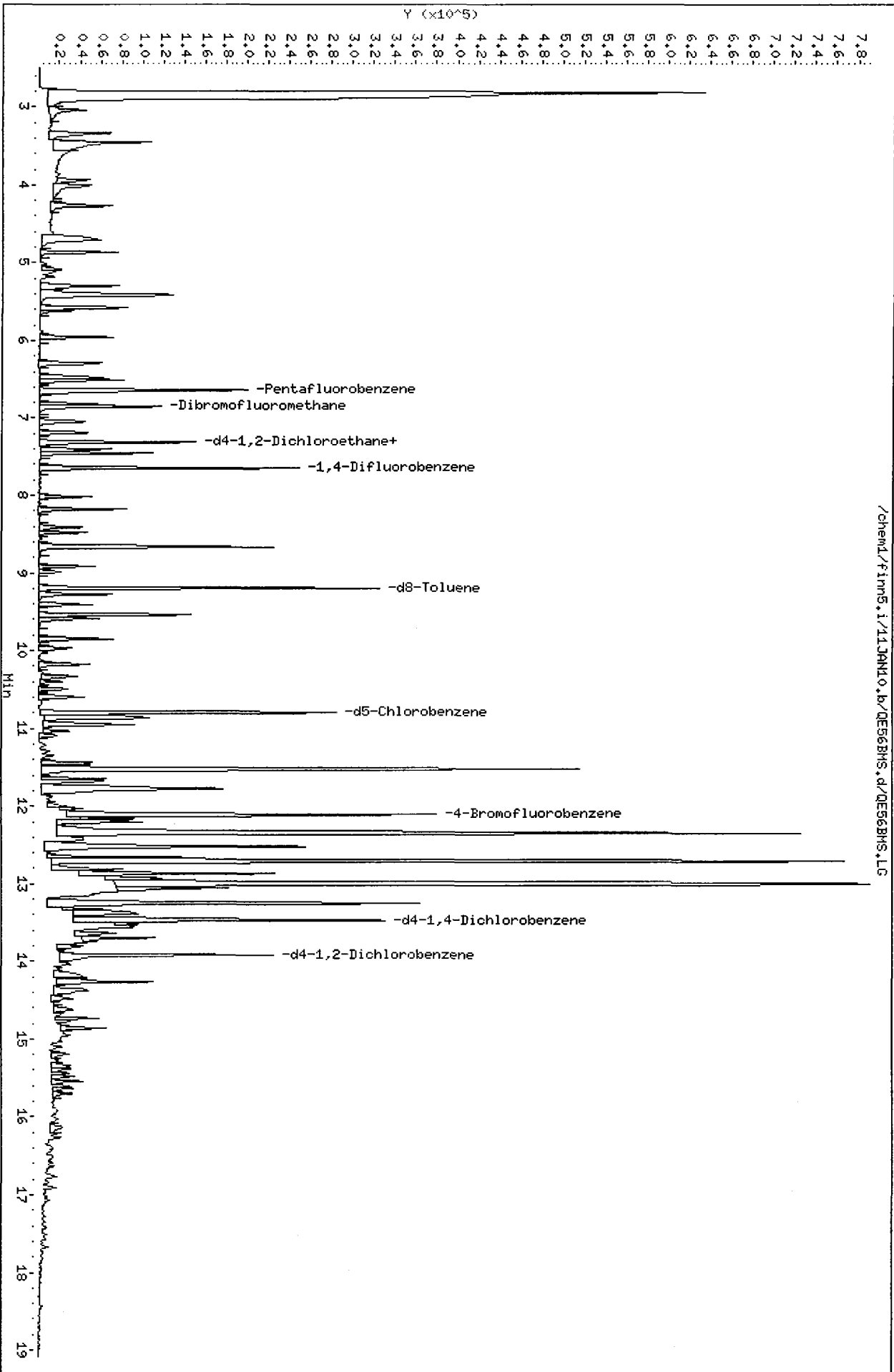
SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	49.310	7.858	15.94	10-191
41 4-Methyl-2-Pentano	246.55	117.09	47.49*	67-120
42 Cis 1,3-dichloropr	49.310	12.616	25.59*	74-120
44 Toluene	49.310	9.335	18.93*	80-120
45 Trans 1,3-Dichloro	49.310	11.976	24.29*	65-120
46 2-Hexanone	246.55	122.88	49.84*	65-130
47 1,1,2-Trichloroeth	49.310	16.317	33.09*	80-120
48 1,3-Dichloropropan	49.310	17.313	35.11*	80-120
49 Tetrachloroethene	49.310	4.932	10.00*	80-121
50 Chlorodibromometha	49.310	10.178	20.64*	64-120
51 1,2-Dibromoethane	49.310	14.267	28.93*	75-120
53 Chlorobenzene	49.310	7.304	14.81*	80-120
55 1,1,1,2-Tetrachlor	49.310	7.523	15.26*	69-121
54 Ethyl Benzene	49.310	6.159	12.49*	80-127
56 m,p-xylene	98.619	11.523	11.68*	80-125
57 o-Xylene	49.310	6.035	12.24*	78-120
58 Styrene	49.310	4.424	8.97*	80-123
59 Isopropyl Benzene	49.310	5.731	11.62*	80-127
60 Bromoform	49.310	8.341	16.92*	60-120
61 1,1,2,2-Tetrachlor	49.310	11.633	23.59*	74-120
63 1,2,3-Trichloropro	49.310	16.020	32.49*	72-121
65 Trans-1,4-Dichloro	49.310	17.730	35.96*	65-126
66 N-Propyl Benzene	49.310	4.892	9.92*	80-132
67 Bromobenzene	49.310	6.658	13.50*	80-120
68 1,3,5-Trimethyl Be	49.310	5.049	10.24*	80-125
69 2-Chloro Toluene	49.310	5.056	10.25*	80-125
70 4-Chloro Toluene	49.310	5.612	11.38*	80-127
71 T-Butyl Benzene	49.310	3.832	7.77*	87-122
72 1,2,4-Trimethylben	49.310	6.608	13.40*	80-126
73 S-Butyl Benzene	49.310	3.581	7.26*	80-134
74 4-Isopropyl Toluen	49.310	3.783	7.67*	80-131
75 1,3-Dichlorobenzen	49.310	3.921	7.95*	80-120
77 1,4-Dichlorobenzen	49.310	4.189	8.49*	80-120
78 N-Butyl Benzene	49.310	3.813	7.73*	80-138
80 1,2-Dichlorobenzen	49.310	3.802	7.71*	80-120
81 1,2-Dibromo 3-Chlo	49.310	6.620	13.43*	59-120
82 1,2,4-Trichloroben	49.310	1.694	3.44*	78-130
83 Hexachloro 1,3-But	49.310	1.172	2.38*	76-129
84 Naphthalene	49.310	3.088	6.26*	66-120
85 1,2,3-Trichloroben	49.310	1.229	2.49*	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	55.224	110.45	30-160

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 31 d4-1,2-Dichloroeth	50.000	57.538	115.08	75-152
\$ 43 d8-Toluene	50.000	50.867	101.73	82-115
\$ 62 4-Bromofluorobenze	50.000	48.019	96.04	64-120
\$ 79 d4-1,2-Dichloroben	50.000	46.945	93.89	80-120

Data File: /chem1/finm5.i/11JAN10.b/QE56BMS.d  
 Date: 11-JAN-2010 20:28  
 Client ID: CB19010710Sed HS  
 Sample Info: QE56BMS,5,5.07,0,1S  
 Column phase: Rtx502.2

Instrument: finm5.i  
 Operator: PB  
 Column diameter: 0.18




20090908

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE DUP

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 01/11/10 20:55

Sample Amount: 1.24 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 76.3%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	4.0	---	
156-59-2	cis-1,2-Dichloroethene	4.0	---	
107-06-2	1,2-Dichloroethane	4.0	---	
79-01-6	Trichloroethene	4.0	---	
127-18-4	Tetrachloroethene	4.0	---	

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	102%
Bromofluorobenzene	92.7%
d4-1,2-Dichlorobenzene	93.5%



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/11JAN10.b/QE56BMSD.d  
 Lab Smp Id: QE56BMSD Client Smp ID: CB19010710Sed MSD  
 Inj Date : 11-JAN-2010 20:55  
 Operator : PB Inst ID: finn5.i  
 Smp Info : QE56BMSD,5,5.25,0,TS  
 Misc Info : 10-433  
 Comment :  
 Method : /chem1/finn5.i/11JAN10.b/s8260b.m  
 Meth Date : 15-Jan-2010 15:01 patrickb Quant Type: ISTD  
 Cal Date : 06-JAN-2010 13:53 Cal File: 2000106.d  
 Als bottle: 1 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: voa.sub  
 Target Version: 3.50  
 Processing Host: cserv3

*Handwritten signature*

Concentration Formula:  $Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria$

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.25000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85		3.045	3.035	(0.458)	45308	36.2592	34.532
2 Chloromethane	50		3.337	3.327	(0.502)	97765	39.3750	37.500
3 Vinyl Chloride	62		3.457	3.447	(0.520)	99002	41.7458	39.758
4 Bromomethane	94		3.940	3.930	(0.593)	26838	26.7929	25.517 (R)
5 Chloroethane	64		4.010	4.000	(0.604)	42451	30.8517	29.382 (R)
6 Trichlorofluoromethane	101		4.271	4.261	(0.643)	46175	19.9370	18.988 (R)
7 Acrolein	56		4.653	4.643	(0.700)	1363	6.02887	5.742 (R)
8 112Trichloro122Trifluoroethane	101		4.673	4.653	(0.703)	18459	11.8634	11.298 (R)
9 Acetone	43		4.703	4.693	(0.708)	93207	196.703	187.34
10 1,1-Dichloroethene	96		4.864	4.854	(0.732)	25092	20.9768	19.978 (R)
11 Bromoethane	108		5.085	5.075	(0.766)	20190	31.5465	30.044 (R)
12 Iodomethane	142		5.186	5.166	(0.781)	14511	19.5189	18.589 (R)
13 Methylene Chloride	84		5.296	5.286	(0.797)	40672	32.7585	31.198 (R)
14 Acrylonitrile	53		5.377	5.367	(0.809)	10857	29.0785	27.694 (R)

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
16 Methyl tert-Butyl Ether	73	5.417	5.407	(0.815)	90989	31.0501	29.571 (R)
15 Carbon Disulfide	76	5.397	5.387	(0.812)	53097	15.9034	15.146 (R)
17 Trans-1,2-Dichloroethene	96	5.578	5.568	(0.840)	25235	20.5164	19.539 (R)
18 Vinyl Acetate	43	5.899	5.889	(0.888)	3794	1.39676	1.330 (QR)
19 1,1-Dichloroethane	63	5.960	5.950	(0.897)	65020	25.7979	24.569 (R)
20 2-Butanone	43	6.291	6.281	(0.947)	92280	153.003	145.72 (R)
21 2,2-Dichloropropane	77	6.482	6.462	(0.976)	34531	16.3848	15.604 (R)
22 Cis-1,2-Dichloroethene	96	6.512	6.502	(0.980)	28247	22.5525	21.478 (R)
* 23 Pentafluorobenzene	168	6.643	6.633	(1.000)	103003	50.0000	
24 Chloroform	83	6.663	6.653	(1.003)	52135	22.2779	21.217 (R)
26 Bromochloromethane	128	6.824	6.814	(1.027)	15804	27.1054	25.815 (R)
\$ 25 Dibromofluoromethane	111	6.854	6.844	(1.032)	62578	52.6978	50.188
27 1,1,1-Trichloroethane	97	7.045	7.035	(1.060)	28076	13.2330	12.603 (R)
29 1,1-Dichloropropene	75	7.186	7.176	(0.940)	19927	10.6067	10.102 (R)
30 Carbon Tetrachloride	117	7.306	7.296	(0.955)	16582	8.34530	7.948 (R)
\$ 31 d4-1,2-Dichloroethane	65	7.316	7.306	(1.101)	84926	53.8405	51.277
32 1,2-Dichloroethane	62	7.407	7.397	(0.968)	50966	25.3382	24.132 (R)
33 Benzene	78	7.457	7.447	(0.975)	78636	18.3103	17.438 (R)
* 34 1,4-Difluorobenzene	114	7.648	7.638	(1.000)	147634	50.0000	
35 Trichloroethene	95	8.020	8.010	(1.049)	14970	10.9105	10.391 (R)
36 1,2-Dichloropropane	63	8.181	8.171	(1.070)	25263	18.4330	17.555 (R)
37 Bromodichloromethane	83	8.412	8.402	(1.100)	24088	14.1957	13.520 (R)
39 Dibromomethane	93	8.482	8.472	(1.109)	17043	21.4313	20.411 (R)
40 2-Chloroethyl Vinyl Ether	63	8.633	8.623	(1.129)	4467	9.49386	9.042 (Q)
41 4-Methyl-2-Pentanone	58	8.663	8.653	(1.133)	49423	123.659	117.77 (R)
42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.166)	26046	13.7779	13.122 (R)
\$ 43 d8-Toluene	98	9.196	9.186	(1.202)	179242	51.2351	48.795
44 Toluene	92	9.276	9.266	(1.213)	26617	9.74586	9.282 (R)
45 Trans 1,3-Dichloropropene	75	9.407	9.397	(1.230)	20251	12.2572	11.673 (R)
46 2-Hexanone	43	9.537	9.537	(0.884)	114975	132.587	126.27 (R)
47 1,1,2-Trichloroethane	97	9.588	9.578	(1.254)	15116	16.7262	15.930 (R)
48 1,3-Dichloropropane	76	9.849	9.839	(0.912)	29910	18.1996	17.333 (R)
49 Tetrachloroethene	166	9.970	9.960	(0.924)	7156	5.22954	4.980 (R)
50 Chlorodibromomethane	129	10.181	10.171	(0.943)	11665	10.4193	9.923 (R)
51 1,2-Dibromoethane	107	10.402	10.392	(1.360)	14799	14.6488	13.951 (R)
* 52 d5-Chlorobenzene	117	10.794	10.784	(1.000)	129203	50.0000	
53 Chlorobenzene	112	10.834	10.834	(1.004)	19768	7.19694	6.854 (R)
54 Ethyl Benzene	91	10.874	10.864	(1.007)	28556	6.28610	5.987 (R)
55 1,1,1,2-Tetrachloroethane	131	10.864	10.854	(1.007)	8103	7.77626	7.406 (R)
56 m,p-xylene	106	10.944	10.944	(1.014)	21659	11.6164	11.063 (R)
57 o-Xylene	106	11.437	11.437	(1.060)	11110	5.82999	5.552 (R)
58 Styrene	104	11.467	11.457	(1.062)	12229	4.19386	3.994 (R)
59 Isopropyl Benzene	105	11.819	11.809	(0.877)	20711	5.77257	5.498 (R)
60 Bromoform	173	11.879	11.869	(0.881)	4928	8.83445	8.414 (R)
61 1,1,2,2-Tetrachloroethane	83	12.000	11.990	(0.890)	11335	12.9618	12.344 (R)
\$ 62 4-Bromofluorobenzene	95	12.120	12.110	(1.123)	68228	46.3320	44.126
63 1,2,3-Trichloropropane	110	12.171	12.160	(0.903)	3605	17.4251	16.595 (QR)

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.906)	5455	17.6420	16.802 (QR)
66 N-Propyl Benzene	91	12.271	12.261	(0.910)	21537	5.13158	4.887 (R)
67 Bromobenzene	156	12.361	12.351	(0.917)	6938	6.70358	6.384 (R)
68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.923)	14227	5.01463	4.776 (R)
69 2-Chloro Toluene	91	12.502	12.502	(0.928)	13876	4.98185	4.745 (R)
70 4-Chloro Toluene	91	12.552	12.542	(0.931)	15024	5.41775	5.160 (R)
71 T-Butyl Benzene	119	12.854	12.844	(0.954)	9670	3.71573	3.539 (R)
72 1,2,4-Trimethylbenzene	105	12.904	12.894	(0.957)	18807	6.70540	6.386 (R)
73 S-Butyl Benzene	105	13.105	13.095	(0.972)	14148	3.71975	3.543 (R)
74 4-Isopropyl Toluene	119	13.246	13.236	(0.983)	10422	3.65571	3.482 (R)
75 1,3-Dichlorobenzene	146	13.397	13.387	(0.994)	6559	3.63951	3.466 (R)
* 76 d4-1,4-Dichlorobenzene	152	13.477	13.467	(1.000)	54525	50.0000	
77 1,4-Dichlorobenzene	146	13.517	13.507	(1.003)	7029	4.02191	3.830 (R)
78 N-Butyl Benzene	91	13.728	13.718	(1.019)	10598	3.70910	3.532 (R)
§ 79 d4-1,2-Dichlorobenzene	152	13.919	13.909	(1.033)	46704	46.7377	44.512
80 1,2-Dichlorobenzene	146	13.949	13.949	(1.035)	5854	3.55898	3.390 (QR)
81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.102)	1028	6.19040	5.896 (R)
82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.180)	1660	1.51834	1.446 (R)
83 Hexachloro 1,3-Butadiene	225	16.060	16.050	(1.192)	829	1.16123	1.106 (R)
84 Naphthalene	128	16.231	16.221	(1.204)	5670	3.03561	2.891 (R)
85 1,2,3-Trichlorobenzene	180	16.512	16.512	(1.225)	1204	1.21894	1.161 (R)

QC Flag Legend

Q - Qualifier signal failed the ratio test.  
 R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: finn5.i  
 Lab File ID: QE56BMSD.d  
 Lab Smp Id: QE56BMSD  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: PB  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-433

Calibration Date: 11-JAN-2010  
 Calibration Time: 09:39  
 Client Smp ID: CB19010710Sed MSD  
 Level: LOW  
 Sample Type: Sediment

Test Mode:  
 Use Initial Calibration Level 5.  
 If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	113395	56698	226790	103003	-9.16
34 1,4-Difluorobenze	160565	80282	321130	147634	-8.05
52 d5-Chlorobenzene	148719	74360	297438	129203	-13.12
76 d4-1,4-Dichlorobe	84322	42161	168644	54525	-35.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
23 Pentafluorobenzen	6.63	6.13	7.13	6.64	0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.65	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.79	0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.48	0.07

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
 Sample Matrix: SOLID  
 Lab Smp Id: QE56BMSD  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: all.spk  
 Sublist File: voa.sub  
 Method File: /chem1/finn5.i/11JAN10.b/s8260b.m  
 Misc Info: 10-433

Client SDG: QE56  
 Fraction: VOA  
 Client Smp ID: CB19010710Sed MSD  
 Operator: PB  
 SampleType: MSD  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Dichlorodifluorome	47.619	34.532	72.52	53-148
2 Chloromethane	47.619	37.500	78.75	64-125
3 Vinyl Chloride	47.619	39.758	83.49	63-137
4 Bromomethane	47.619	25.517	53.59*	57-136
5 Chloroethane	47.619	29.382	61.70*	64-131
6 Trichlorofluoromet	47.619	18.988	39.87*	69-132
7 Acrolein	238.10	5.742	2.41*	54-137
8 112Trichloro122Tri	47.619	11.298	23.73*	74-130
9 Acetone	238.10	187.34	78.68	60-131
10 1,1-Dichloroethene	47.619	19.978	41.95*	75-126
11 Bromoethane	47.619	30.044	63.09*	76-126
12 Iodomethane	47.619	18.589	39.04*	65-139
13 Methylene Chloride	47.619	31.198	65.52*	70-123
15 Carbon Disulfide	47.619	15.146	31.81*	71-129
14 Acrylonitrile	47.619	27.694	58.16*	67-125
16 Methyl tert-Butyl	47.619	29.571	62.10*	70-120
17 Trans-1,2-Dichloro	47.619	19.539	41.03*	80-120
18 Vinyl Acetate	47.619	1.330	2.79*	60-136
19 1,1-Dichloroethane	47.619	24.569	51.60*	80-120
20 2-Butanone	238.10	145.72	61.20*	70-120
21 2,2-Dichloropropan	47.619	15.604	32.77*	74-123
22 Cis-1,2-Dichloroet	47.619	21.478	45.10*	80-120
24 Chloroform	47.619	21.217	44.56*	80-120
26 Bromochloromethane	47.619	25.815	54.21*	80-120
27 1,1,1-Trichloroeth	47.619	12.603	26.47*	77-121
29 1,1-Dichloropropen	47.619	10.102	21.21*	80-120
30 Carbon Tetrachlori	47.619	7.948	16.69*	77-122
32 1,2-Dichloroethane	47.619	24.132	50.68*	76-120
33 Benzene	47.619	17.438	36.62*	80-120
35 Trichloroethene	47.619	10.391	21.82*	80-120
36 1,2-Dichloropropan	47.619	17.555	36.87*	80-120
37 Bromodichlorometha	47.619	13.520	28.39*	77-121
39 Dibromomethane	47.619	20.411	42.86*	80-120

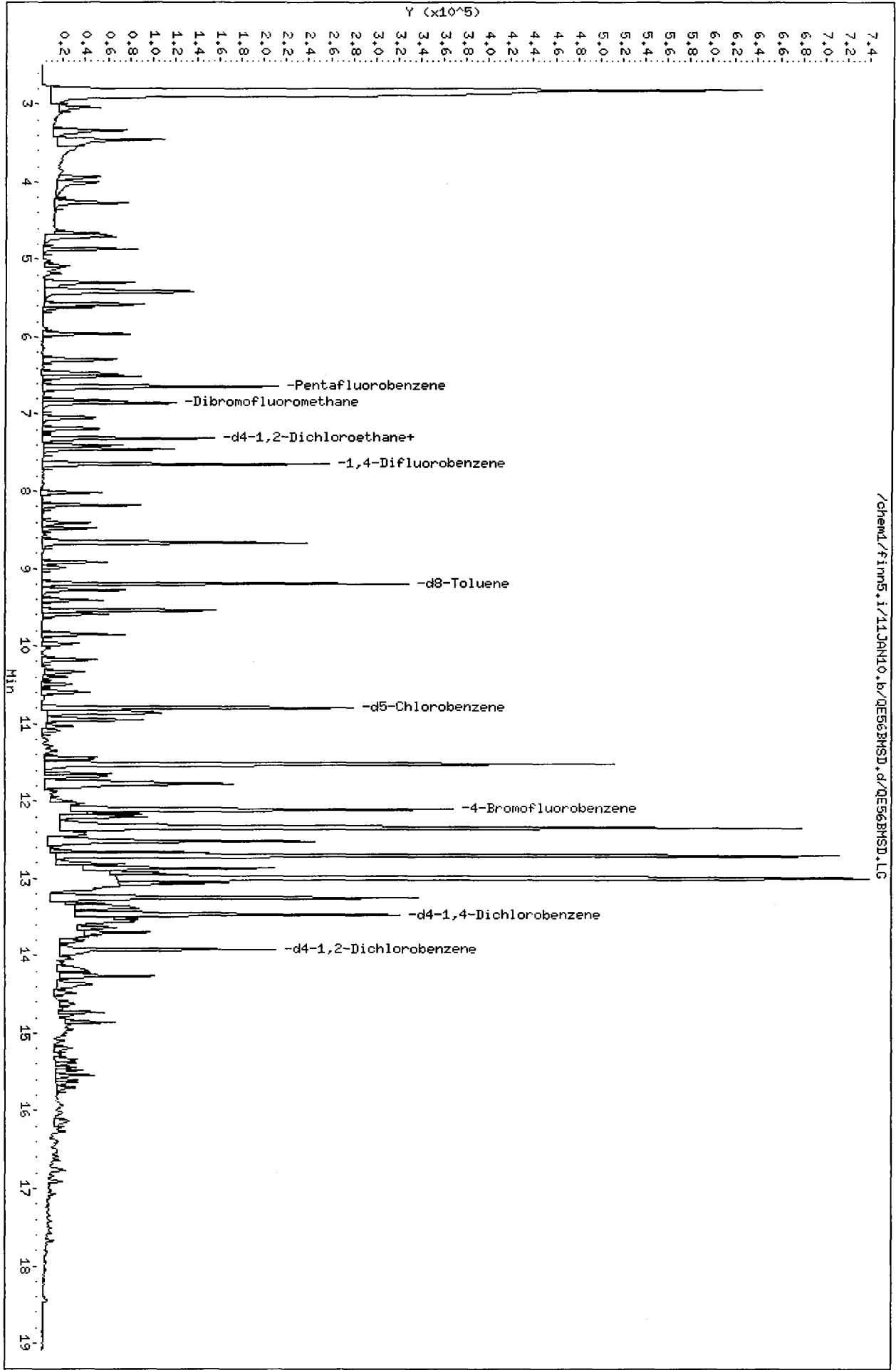
SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	47.619	9.042	18.99	10-191
41 4-Methyl-2-Pentano	238.10	117.77	49.46*	67-120
42 Cis 1,3-dichloropr	47.619	13.122	27.56*	74-120
44 Toluene	47.619	9.282	19.49*	80-120
45 Trans 1,3-Dichloro	47.619	11.673	24.51*	65-120
46 2-Hexanone	238.10	126.27	53.03*	65-130
47 1,1,2-Trichloroeth	47.619	15.930	33.45*	80-120
48 1,3-Dichloropropan	47.619	17.333	36.40*	80-120
49 Tetrachloroethene	47.619	4.980	10.46*	80-121
50 Chlorodibromometha	47.619	9.923	20.84*	64-120
51 1,2-Dibromoethane	47.619	13.951	29.30*	75-120
53 Chlorobenzene	47.619	6.854	14.39*	80-120
55 1,1,1,2-Tetrachlor	47.619	7.406	15.55*	69-121
54 Ethyl Benzene	47.619	5.987	12.57*	80-127
56 m,p-xylene	95.238	11.063	11.62*	80-125
57 o-Xylene	47.619	5.552	11.66*	78-120
58 Styrene	47.619	3.994	8.39*	80-123
59 Isopropyl Benzene	47.619	5.498	11.55*	80-127
60 Bromoform	47.619	8.414	17.67*	60-120
61 1,1,2,2-Tetrachlor	47.619	12.344	25.92*	74-120
63 1,2,3-Trichloropro	47.619	16.595	34.85*	72-121
65 Trans-1,4-Dichloro	47.619	16.802	35.28*	65-126
66 N-Propyl Benzene	47.619	4.887	10.26*	80-132
67 Bromobenzene	47.619	6.384	13.41*	80-120
68 1,3,5-Trimethyl Be	47.619	4.776	10.03*	80-125
69 2-Chloro Toluene	47.619	4.745	9.96*	80-125
70 4-Chloro Toluene	47.619	5.160	10.84*	80-127
71 T-Butyl Benzene	47.619	3.539	7.43*	87-122
72 1,2,4-Trimethylben	47.619	6.386	13.41*	80-126
73 S-Butyl Benzene	47.619	3.543	7.44*	80-134
74 4-Isopropyl Toluen	47.619	3.482	7.31*	80-131
75 1,3-Dichlorobenzen	47.619	3.466	7.28*	80-120
77 1,4-Dichlorobenzen	47.619	3.830	8.04*	80-120
78 N-Butyl Benzene	47.619	3.532	7.42*	80-138
80 1,2-Dichlorobenzen	47.619	3.390	7.12*	80-120
81 1,2-Dibromo 3-Chlo	47.619	5.896	12.38*	59-120
82 1,2,4-Trichloroben	47.619	1.446	3.04*	78-130
83 Hexachloro 1,3-But	47.619	1.106	2.32*	76-129
84 Naphthalene	47.619	2.891	6.07*	66-120
85 1,2,3-Trichloroben	47.619	1.161	2.44*	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 25 Dibromofluorometha	50.000	52.698	105.40	30-160

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 31 d4-1,2-Dichloroeth	50.000	53.840	107.68	75-152
\$ 43 d8-Toluene	50.000	51.235	102.47	82-115
\$ 62 4-Bromofluorobenze	50.000	46.332	92.66	64-120
\$ 79 d4-1,2-Dichloroben	50.000	46.738	93.48	80-120

Data File: /chem1/finn5.i/11JAN10.b/QE56BMSD.d  
Date : 11-JAN-2010 20:55  
Client ID: CB19010710Sed HSD  
Sample Info: QE56BMSD,5,5,25,0,TS  
Column phase: Rtx502.2

Instrument: finn5.i  
Operator: PB  
Column diameter: 0.18





Volatile Analysis  
Run Logs

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Volatile Organics Extraction Bench Sheet

(8260B, 8260B-SIM, 8021, NWTPH-Gx, AK-101, TPH-G, VPH, TCLP-ZHE)

ARI Project No. QEDg Client ID/Project \_\_\_\_\_ Extraction Date \_\_\_\_\_ MeOH Lot No. \_\_\_\_\_  
 1<sup>st</sup> Extraction: \_\_\_\_\_ Analyst Mc/uk  
 2<sup>nd</sup> Extraction: \_\_\_\_\_

Lab ID	Vial No.	Preservative		Method 5035 Sample Weight				MeOH Spilt Volume	Comments
		NaHSO <sub>3</sub>	CH <sub>3</sub> OH	Vial Weight	Tare (from vial)	Sample Weight	Extract Volume		
1	2	-	-	34.82	30.625	4.195			
2	2	-	-	34.10	30.375	3.505			
3	2	-	-	37.23	30.444	6.832			
4	1					5.07			TS
5	2					5.25			↓
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
Balance ID:									

Surrogate: \_\_\_\_\_ Solution ID \_\_\_\_\_ Concentration \_\_\_\_\_ Amount Spiked \_\_\_\_\_ Analyst \_\_\_\_\_ Witness \_\_\_\_\_  
 Spike: \_\_\_\_\_

# Analytical Resources Inc.: Organics Instrument Log

FINN5 Serial No.: 5500-000421A

Date: 9/11/10 Analysis: base Analyst: JP  
 GC Program: FS Column No: 82172 Column Type: 19X502L  
 Instrument Tune (.U or .CT.): DFB011 EM Voltage: 1303  
 Calibration File: 050011 Curve Date: 7/6/10

IS/SS	Ical/Ccal	LCS/ICV
<u>w/ 615-2</u>	<u>w/ 612-3</u>	<u>w/ 612-3</u>
	<u>w/ 615-1</u>	<u>w/ 615-1</u>
	<u>w/ 614-3</u>	<u>w/ 614-3</u>
	<u>w/ 611-3</u>	<u>w/ 611-3</u>
	<u>w/ 610-3</u>	<u>w/ 610-3</u>

## INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/finn5.i/11JAN10.b

Time	Filename	LabID	ClientID	WT
1	0906	BFB0111.d	BFB0111	0.00
2	0919	0500111.d	CC0111	VSTD050
3	1034	LCS0111.d	LCS0111	LCS0111
4	1109	LCS0111A.d	LCS0111	LCS0111
5	1136	MB0111.d	MB0111	MB0111
6	1253	LCS0111B.d	LCS0111	LCS0111
7	1318	QE20B.d	QE20B	SB-10-7.5-8.0
8	1345	QE20C.d	QE20C	SB-10-12.5-13.5
9	1412	QE20D.d	QE20D	SB-10-15-15.5
10	1439	QE20E.d	QE20E	SB-11-7.5-8.5
11	1506	QE20F.d	QE20F	SB-11-10.0-10.8
12	1533	QE20G.d	QE20G	SB-11-12.5-13.0
13	1559	QE20I.d	QE20I	SB-12-7.5-8.0
14	1626	QE20J.d	QE20J	SB-12-12.5-13.0
15	1653	QE20L.d	QE20L	SB-13-58-60
16	1720	QE20M.d	QE20M	SB-13-9-11
17	1747	QE20O.d	QE20O	SB-12-10.0-11.0
18	1813	QE20Q.d	QE20Q	Trip Blank   <u>L2</u>   1   6.63
19	1840	QE56B.d	QE56B	CB19010710Sed
20	1907	QE56C.d	QE56C	CB12010710Sed
21	1934	QE56D.d	QE56D	CB2010710Sed
22	2001	QE56E.d	QE56E	Trip Blank   <u>L2</u>   1   6.64
23	2028	QE56BMS.d	QE56BMS	CB19010710Sed MS
24	2055	QE56BMSD.d	QE56BMSD	CB19010710Sed MSD

Mainten

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):  
 Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.



**VOA Analyst Notes / Corrective Action Log**

ARI Project ID: F5ical Client ID: \_\_\_\_\_

ARI SOP: 404S(Gas) 410S(BTEX) 430S(VPH) 703S(SIM) 706S(524.2) 708S(8260C) 710S(MME)

Parameter(s): \_\_\_\_\_

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 5 Curve Date: 1/6/10 Analysis Start Date: 1/6/10

pH ≤ 2.0 YES / NO / NA Method Blank In Control? YES / NO

BFB Tune Meets Criteria? YES / NO / NA LCS / LCSD Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA Surrogate Recovery In Control? YES / NO

Special Analysis Criteria Met? YES / NO / NA

ICal acceptable? YES / NO; Q flag applied? YES / NO / NA

CCal acceptable? YES / NO; Q flag applied? YES / NO / NA

Bubbles/Headspace: None SM (≤ 2mm ●) PB (2-4mm) LG (> 4mm ●) Head Space

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

linear  
DCM  
2 hexanone

Additional Details on Reverse: Yes / No

Analyst Signature: \_\_\_\_\_ Date: 1/13/10

Reviewer's Signature: \_\_\_\_\_ Date: 1/13/10



**VOA Analyst Notes / Corrective Action Log**

ARI Project ID: QESG Client ID: Floyd Sander

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **703S**(SIM) **706S**(524.2) **708S**(8260C) **710S**(MME)

Parameter(s): \_\_\_\_\_

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 **FINN-5**

Purge Volume (mL) 5 Curve Date: 1/6/10 Analysis Start Date: 1/11/10

pH ≤ 2.0  YES / NO / NA  YES / NO  
 BFB Tune Meets Criteria?  YES / NO / NA  YES / NO  
 Internal Standard Meets Criteria?  YES / NO / NA  YES / NO  
 Special Analysis Criteria Met? YES / NO /  NA

ICal acceptable?  YES / NO; Q flag applied? YES / NO / NA

CCal acceptable?  YES / NO; Q flag applied? YES /  NO / NA

Bubbles/Headspace: None SM (≤ 2mm •)  PB (2-4mm) LG (> 4mm ●) Head Space

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

QC on (B) (TS jar) - sediment w/ some organic matter (e.g. leaves)  
 - low % solids (23.7%)

M5/M5D appears - poor purge efficiency (matrix effect)  
 low % for a heavy gas.

Additional Details on Reverse: Yes /  No

Analyst Signature: \_\_\_\_\_ Date: 1/15/10

Reviewer's Signature: AB Date: 1/15/10

Semivolatile PAH Analysis  
QC Summary Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

**SW8270 PNA SURROGATE RECOVERY SUMMARY**

Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

<u>Client ID</u>	<u>TER</u>	<u>FBP</u>	<u>TOT OUT</u>
CB19010710Sed	130%*	88.8%	1
CB19010710Sed DL	88.2%	96.8%	0
MB-011310	105%	80.0%	0
LCS-011310	104%	74.4%	0
CB12010710Sed	150%*	78.8%	1
CB12010710Sed DL	84.0%	87.6%	0
CB12010710Sed MS	238%*	82.0%	1
CB12010710Sed MSD	257%*	83.2%	1
CB2010710Sed	180%*	79.6%	1
CB2010710Sed DL	91.8%	91.1%	0

**LCS/MB LIMITS      QC LIMITS**

(TER) = d14-p-Terphenyl	(47-112)	(35-112)
(FBP) = 2-Fluorobiphenyl	(40-100)	(34-100)

Prep Method: SW3550B  
Log Number Range: 10-433 to 10-435

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by SW8270D GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
MS/MSD

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted MS/MSD: 01/13/10  
Date Analyzed MS: 01/14/10 18:11  
MSD: 01/14/10 18:44  
Instrument/Analyst MS: NT4/JZ  
MSD: NT4/JZ  
GPC Cleanup: No  
Silica Gel Cleanup: Yes

Sample Amount MS: 2.24 g-dry-wt  
MSD: 2.23 g-dry-wt  
Final Extract Volume MS: 0.5 mL  
MSD: 0.5 mL  
Dilution Factor MS: 1.00  
MSD: 1.00  
Alumina Cleanup: No

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	< 224	3950	5580	70.8%	4020	5610	71.7%	1.8%
2-Methylnaphthalene	< 224	4220	5580	75.6%	4270	5610	76.1%	1.2%
1-Methylnaphthalene	< 224	4340	5580	77.8%	4430	5610	79.0%	2.1%
Acenaphthylene	< 224	4300	5580	77.1%	4380	5610	78.1%	1.8%
Acenaphthene	< 224	4070	5580	72.9%	4150	5610	74.0%	1.9%
Fluorene	< 224	4470	5580	80.1%	4480	5610	79.9%	0.2%
Phenanthrene	464	4410	5580	70.7%	4440	5610	70.9%	0.7%
Anthracene	< 224	4460	5580	79.9%	4510	5610	80.4%	1.1%
Fluoranthene	966	5310	5580	77.8%	5240	5610	76.2%	1.3%
Pyrene	1700	11600	5580	177%	13000	5610	201%	11.4%
Benzo(a)anthracene	247	3990	5580	67.1%	4220	5610	70.8%	5.6%
Chrysene	982	5110	5580	74.0%	5040	5610	72.3%	1.4%
Benzo(b)fluoranthene	558	5450	5580	87.7%	5470	5610	87.6%	0.4%
Benzo(k)fluoranthene	558	4510	5580	70.8%	5410	5610	86.5%	18.1%
Benzo(a)pyrene	386	3850	5580	62.1%	4120	5610	66.6%	6.8%
Indeno(1,2,3-cd)pyrene	222	2690	5580	44.2%	2970	5610	49.0%	9.9%
Dibenz(a,h)anthracene	< 224	2480	5580	44.4%	2690	5610	48.0%	8.1%
Benzo(g,h,i)perylene	357	2580	5580	39.8%	3010	5610	47.3%	15.4%
Dibenzofuran	< 224	4310	5580	77.2%	4410	5610	78.6%	2.3%

Results reported in µg/kg  
RPD calculated using sample concentrations per SW846.



**ORGANICS ANALYSIS DATA SHEET**

PSDDA PNAs by SW8270D GC/MS

Page 1 of 1

Sample ID: LCS-011310

LAB CONTROL

Lab Sample ID: LCS-011310

LIMS ID: 10-434

Matrix: Sediment

Data Release Authorized: *AB*

Reported: 01/18/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: NA

Date Received: 01/07/10

Date Extracted: 01/13/10

Date Analyzed: 01/14/10 14:17

Instrument/Analyst: NT4/JZ

GPC Cleanup: No

Silica Gel Cleanup: Yes

Sample Amount: 25.0 g

Final Extract Volume: 0.50 mL

Dilution Factor: 1.00

Alumina Cleanup: No

Analyte	Lab Control	Spike Added	Recovery
Naphthalene	313	500	62.6%
2-Methylnaphthalene	313	500	62.6%
1-Methylnaphthalene	330	500	66.0%
Acenaphthylene	331	500	66.2%
Acenaphthene	325	500	65.0%
Fluorene	353	500	70.6%
Phenanthrene	374	500	74.8%
Anthracene	378	500	75.6%
Fluoranthene	398	500	79.6%
Pyrene	406	500	81.2%
Benzo(a)anthracene	390	500	78.0%
Chrysene	398	500	79.6%
Benzo(b)fluoranthene	396	500	79.2%
Benzo(k)fluoranthene	384	500	76.8%
Benzo(a)pyrene	345	500	69.0%
Indeno(1,2,3-cd)pyrene	408	500	81.6%
Dibenz(a,h)anthracene	391	500	78.2%
Benzo(g,h,i)perylene	400	500	80.0%
Dibenzofuran	347	500	69.4%

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	104%
2-Fluorobiphenyl	74.4%

Results reported in µg/kg

4B  
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QE56MBS1

Lab Name: ANALYTICAL RESOURCES, INC  
ARI Job No: QE56  
Lab File ID: 01141004  
Instrument ID: NT4  
Matrix: SOLID

Client: FLOYD-SNIDER  
Project: POS-LLA (LORA LAKE A  
Date Extracted: 01/13/10  
Date Analyzed: 01/14/10  
Time Analyzed: 1344

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	QE56LCSS1	QE56LCSS1	01141005	01/14/10
02	CB19010710SED	QE56B	01141006	01/14/10
03	CB12010710SED	QE56C	01141007	01/14/10
04	CB2010710SED	QE56D	01141008	01/14/10
05	CB19010710SED	QE56B	01141009	01/14/10
06	CB12010710SED	QE56C	01141010	01/14/10
07	CB2010710SED	QE56D	01141011	01/14/10
08	CB12010710SED MS	QE56CMS	01141012	01/14/10
09	CB12010710SED MS	QE56CMSD	01141013	01/14/10
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

---



---

5B  
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

Instrument ID: NT4

Project: POS-LLA(LORA LAKE APTS)

DFTPP Injection Date: 01/07/10

DFTPP Injection Time: 1218

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	39.1
68	Less than 2.0% of mass 69	0.1 ( 0.3)1
69	Mass 69 relative abundance	42.7
70	Less than 2.0% of mass 69	0.4 ( 0.9)1
127	25.0 - 75.0% of mass 198	61.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	23.5
365	Greater than 0.75% of mass 198	2.71
441	Present, but less than mass 443	12.2
442	40.0 - 110.0% of mass 198	81.5
443	15.0 - 24.0% of mass 442	16.1 ( 19.7)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	IC010107	IC010107	01071002	01/07/10	1314
02	IC050107	IC050107	01071003	01/07/10	1415
03	IC100107	IC100107	01071004	01/07/10	1449
04	IC250107	IC250107	01071005	01/07/10	1522
05	IC400107	IC400107	01071006	01/07/10	1555
06	IC600107	IC600107	01071007	01/07/10	1629
07	IC800107	IC800107	01071008	01/07/10	1702
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B  
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

Instrument ID: NT4

Project: POS-LLA(LORA LAKE APTS)

DFTPP Injection Date: 01/14/10

DFTPP Injection Time: 1130

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	42.6
68	Less than 2.0% of mass 69	0.2 ( 0.4)1
69	Mass 69 relative abundance	45.1
70	Less than 2.0% of mass 69	0.3 ( 0.6)1
127	25.0 - 75.0% of mass 198	60.9
197	Less than 1.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.7
365	Greater than 0.75% of mass 198	2.80
441	Present, but less than mass 443	10.6
442	40.0 - 110.0% of mass 198	82.4
443	15.0 - 24.0% of mass 442	16.3 ( 19.8)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CC0114	CC0114	01141001	01/14/10	1130
02	QE56MBS1	QE56MBS1	01141004	01/14/10	1344
03	QE56LCSS1	QE56LCSS1	01141005	01/14/10	1417
04	CB19010710SED	QE56B	01141006	01/14/10	1450
05	CB12010710SED	QE56C	01141007	01/14/10	1524
06	CB2010710SED	QE56D	01141008	01/14/10	1557
07	CB19010710SED	QE56B	01141009	01/14/10	1631
08	CB12010710SED	QE56C	01141010	01/14/10	1704
09	CB2010710SED	QE56D	01141011	01/14/10	1737
10	CB12010710SED MS	QE56CMS	01141012	01/14/10	1811
11	CB12010710SED MS	QE56CMSD	01141013	01/14/10	1844
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8B  
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: POS-LLA(LORA LAKE APTS)

Ical Midpoint ID: 01071005

Ical Date: 01/07/10

Instrument ID: NT4

Cont. Cal Date: 01/14/10

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	286117	8.66	1035557	10.71	594267	13.60
UPPER LIMIT	572234		2071114		1188534	
LOWER LIMIT	143058		517778		297134	
=====	=====	=====	=====	=====	=====	=====
CCAL	227895	8.66	825141	10.71	450015	13.59
UPPER LIMIT		9.16		11.21		14.09
LOWER LIMIT		8.16		10.21		13.09
01 QE56MBS1			1097484	10.70	622975	13.59
02 QE56LCSS1			1223940	10.70	695093	13.59
03 CB19010710SE			1227493	10.70	675024	13.59
04 CB12010710SE			1177685	10.71	642819	13.59
05 CB2010710SED			1148912	10.71	632162	13.59
06 CB19010710SE			1245274	10.71	717353	13.60
07 CB12010710SE			1116269	10.71	646796	13.60
08 CB2010710SED			1291134	10.71	752209	13.60
09 CB12010710SE			1272002	10.71	773569	13.60
10 CB12010710SE			1260356	10.71	756955	13.60
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

IS1 = 1,4-Dichlorobenzene-d4  
IS2 = Naphthalene-d8  
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint  
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint  
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal  
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

\* Values outside of QC limits.

8B  
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: POS-LLA (LORA LAKE APTS)

Ical Midpoint ID: 01071005

Ical Date: 01/07/10

Instrument ID: NT4

Cont. Cal Date: 01/14/10

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	951721	16.01	794862	20.36	826094	22.56
UPPER LIMIT	1903442		1589724		1652188	
LOWER LIMIT	475860		397431		413047	
=====	=====	=====	=====	=====	=====	=====
CCAL	687514	16.00	578500	20.35	636941	22.55
UPPER LIMIT		16.50		20.85		23.05
LOWER LIMIT		15.50		19.85		22.05
01 QE56MBS1	978268	15.99	811550	20.35	833499	22.55
02 QE56LCSS1	1038615	15.99	823675	20.35	917417	22.55
03 CB19010710SE	1014150	16.00	1145107	20.37	1192835	22.59
04 CB12010710SE	1022615	15.99	1169246	20.38	748606	22.60
05 CB2010710SED	1030652	16.00	1158528	20.38	638400	22.59
06 CB19010710SE	1227401	16.00	976681	20.41	402961*	22.63
07 CB12010710SE	1157168	16.00	671151	20.42	309320*	22.63
08 CB2010710SED	1311880	16.01	680339	20.41	293215*	22.62
09 CB12010710SE	1390134	16.01	479704	20.43	242686*	22.63
10 CB12010710SE	1345414	16.01	413203	20.43	188749*	22.62
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

IS4 = Phenanthrene-d10  
IS5 = Chrysene-d12  
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint  
 AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

\* Values outside of QC limits.

8B  
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: POS-LLA(LORA LAKE APTS)

Ical Midpoint ID: 01071005

Ical Date: 01/07/10

Instrument ID: NT4

Cont. Cal Date: 01/14/10

	IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	1280700	21.42				
UPPER LIMIT	2561400					
LOWER LIMIT	640350					
=====	=====	=====	=====	=====	=====	=====
CCAL	965986	21.42				
UPPER LIMIT		21.92				
LOWER LIMIT		20.92				
01 QE56MBS1						
02 QE56LCSS1						
03 CB19010710SE						
04 CB12010710SE						
05 CB2010710SED						
06 CB19010710SE						
07 CB12010710SE						
08 CB2010710SED						
09 CB12010710SE						
10 CB12010710SE						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint  
 AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

\* Values outside of QC limits.

Semivolatile PAH Analysis  
Sample Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.



ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB19010710Sed  
SAMPLE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 16:31  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 0.96 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	520	< 520 U
<b>91-57-6</b>	<b>2-Methylnaphthalene</b>	<b>520</b>	<b>550</b>
90-12-0	1-Methylnaphthalene	520	< 520 U
208-96-8	Acenaphthylene	520	< 520 U
83-32-9	Acenaphthene	520	< 520 U
86-73-7	Fluorene	520	< 520 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>520</b>	<b>1,000</b>
120-12-7	Anthracene	520	< 520 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>520</b>	<b>2,200</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>520</b>	<b>3,200</b>
56-55-3	Benzo (a) anthracene	520	590
218-01-9	Chrysene	520	1,900
205-99-2	Benzo (b) fluoranthene	520	1,400
207-08-9	Benzo (k) fluoranthene	520	1,400
50-32-8	Benzo (a) pyrene	520	1,100
193-39-5	Indeno (1,2,3-cd) pyrene	520	< 520 U
53-70-3	Dibenz (a,h) anthracene	520	< 520 U
<b>191-24-2</b>	<b>Benzo (g,h,i) perylene</b>	<b>520</b>	<b>850</b>
132-64-9	Dibenzofuran	520	< 520 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	130%
2-Fluorobiphenyl	88.8%

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141009.d  
 Lab Smp Id: QE56B Client Smp ID: CB19010710Sed  
 Inj Date : 14-JAN-2010 16:31 Inst ID: nt4.i  
 Operator : JZ  
 Smp Info : QE56B  
 Misc Info : 10-433  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 17:47 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pna.sub  
 Target Version: 3.50

*Handwritten:* R 01/15/10

Concentration Formula:  $Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable$

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	4.10000	Weight of sample extracted (g)
M	76.30000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/kg)	
* 27 Naphthalene-d8	136	10.707	10.708	(1.000)	1245274	20.0000		
28 Naphthalene	128	Compound Not Detected.						
32 2-Methylnaphthalene	141	11.864	11.866	(1.108)	35454	1.06071	545.8	
105 1-methylnaphthalene	141	12.040	12.042	(1.125)	27088	0.82014	422.0	
\$ 36 2-Fluorobiphenyl	172	12.498	12.500	(0.919)	920982	22.2392	11440	
40 Acenaphthylene	152	Compound Not Detected.						
* 42 Acenaphthene-d10	164	13.597	13.593	(1.000)	717353	20.0000		
44 Acenaphthene	153	Compound Not Detected.						
46 Dibenzofuran	168	Compound Not Detected.						
49 Fluorene	166	Compound Not Detected.						
* 59 Phenanthrene-d10	188	15.999	15.995	(1.000)	1227401	20.0000		
60 Phenanthrene	178	16.041	16.036	(1.003)	127635	1.99976	1029	
61 Anthracene	178	Compound Not Detected.						
64 Fluoranthene	202	18.014	17.993	(1.126)	264068	4.21016	2166	
65 Pyrene	202	18.384	18.357	(0.901)	381278	6.13013	3154	

Compounds	QUANT SIG			CONCENTRATIONS			
	MASS	RT	EXP RT REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)	
\$ 66 Terphenyl-d14	244	18.666	18.639 (0.915)	1177506	32.5097	16730 (R)	
68 Benzo(a)anthracene	228	20.382	20.331 (0.999)	65125	1.13025	581.6	
* 69 Chrysene-d12	240	20.411	20.354 (1.000)	976681	20.0000		
71 Chrysene	228	20.446	20.395 (1.002)	196655	3.59361	1849	
74 Benzo(b)fluoranthene	252	22.085	21.999 (0.976)	136857	5.51663	2839 (M)	2.77
75 Benzo(k)fluoranthene	252	22.085	22.034 (0.976)	136857	5.55341	2858 (M)	2.77
76 Benzo(a)pyrene	252	22.544	22.469 (0.996)	46001	2.05191	1056	
* 77 Perylene-d12	264	22.626	22.551 (1.000)	402961	20.0000		
78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80 Benzo(g,h,i)perylene	276	24.976	24.924 (1.104)	37695	1.63878	843.3 (M)	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.  
 M - Compound response manually integrated.

*Handwritten:* 01/15/10

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01141009.d  
 Lab Smp Id: QE56B  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
 Misc Info: 10-433

Calibration Date: 14-JAN-2010  
 Calibration Time: 11:30  
 Client Smp ID: CB19010710Sed  
 Level: LOW  
 Sample Type: Sediment

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1245274	20.25
42 Acenaphthene-d10	594267	297134	1188534	717353	20.71
59 Phenanthrene-d10	951721	475860	1903442	1227401	28.97
69 Chrysene-d12	794862	397431	1589724	976681	22.87
77 Perylene-d12	826094	413047	1652188	402961	-51.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.71	-0.02
42 Acenaphthene-d10	13.59	13.09	14.09	13.60	0.03
59 Phenanthrene-d10	16.00	15.50	16.50	16.00	0.03
69 Chrysene-d12	20.35	19.85	20.85	20.41	0.28
77 Perylene-d12	22.55	22.05	23.05	22.63	0.33

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

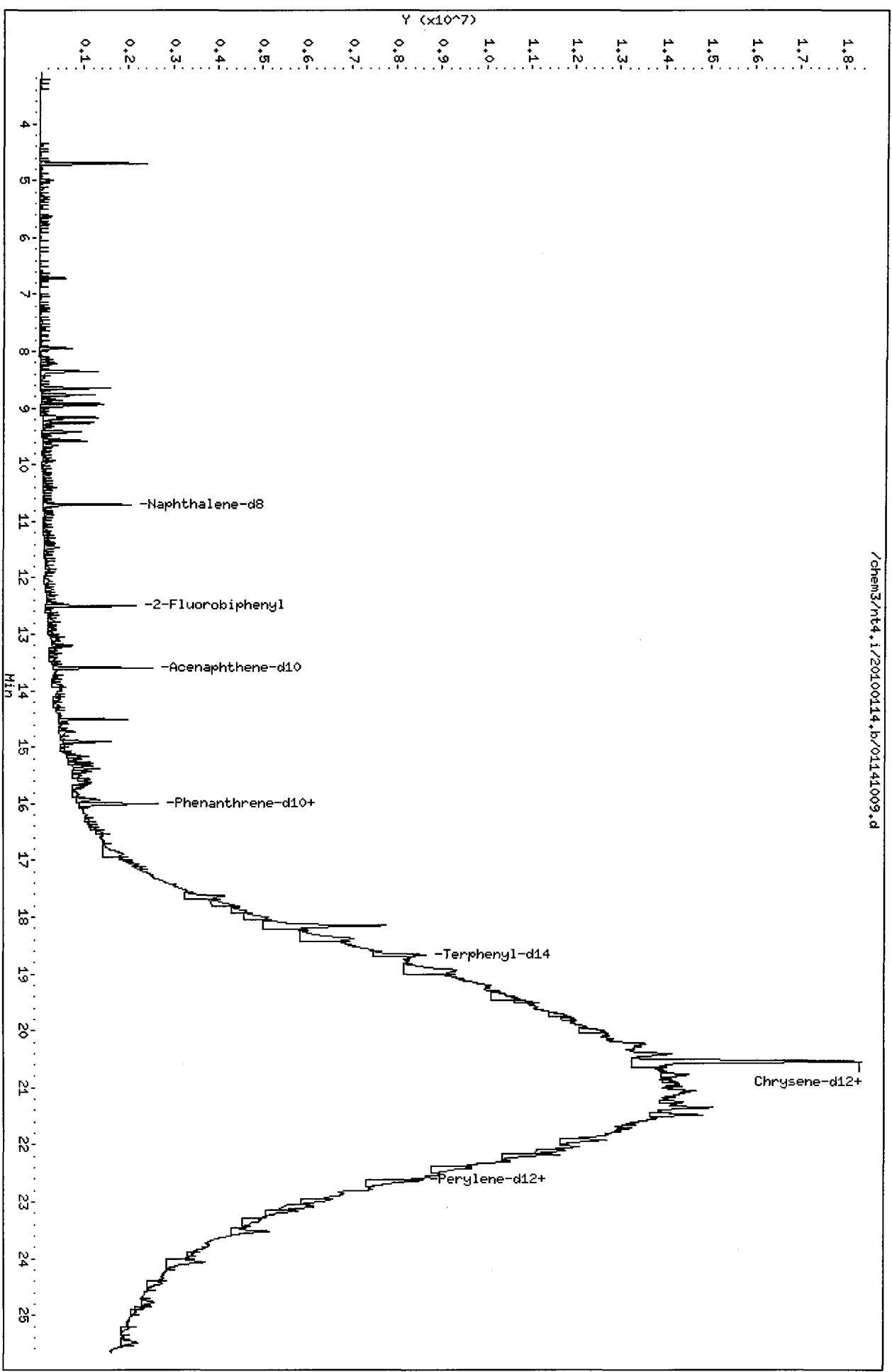
Client Name: Floyd-Snyder  
Sample Matrix: SOLID  
Lab Smp Id: QE56B  
Level: LOW  
Data Type: MS DATA  
SpikeList File: pnalcs.w.spk  
Sublist File: pna.sub  
Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
Misc Info: 10-433

Client SDG: QE56  
Fraction: SV  
Client Smp ID: CB19010710Sed  
Operator: JZ  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	12860	11440	88.96	34-100
\$ 66 Terphenyl-d14	12860	16730	130.04*	35-112

Data File: /chem3/nt4.i/20100114.b/01141009.d  
Date: 14-JAN-2010 16:31  
Client ID: CR19010710Sed  
Sample Info: QE56B  
Volume Injected (uL): 1.0  
Column phase: ZB-Smsi

Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32



020000 : 000000

Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

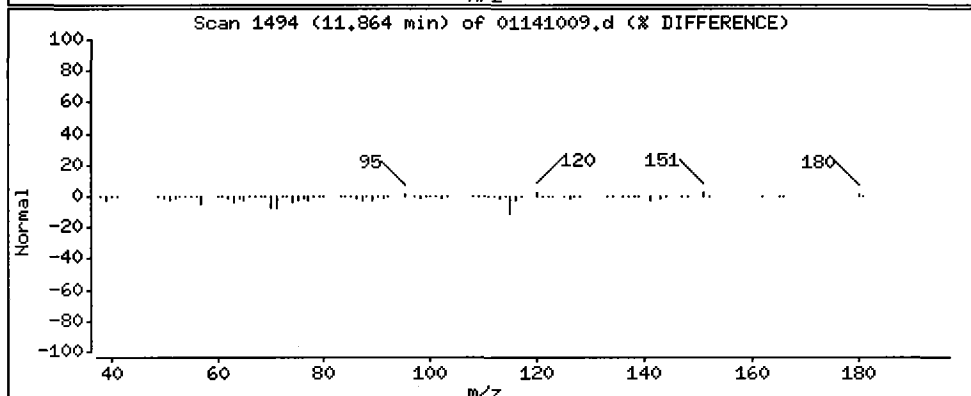
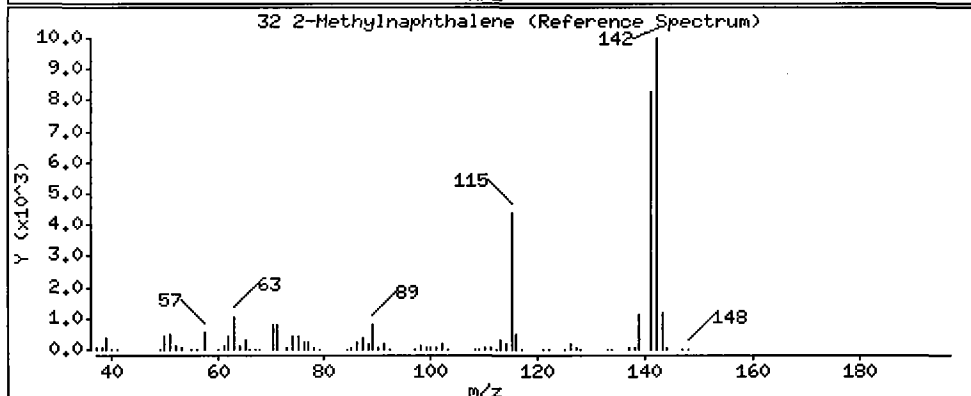
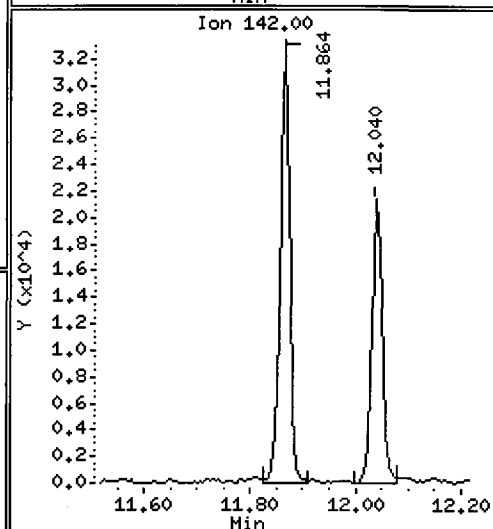
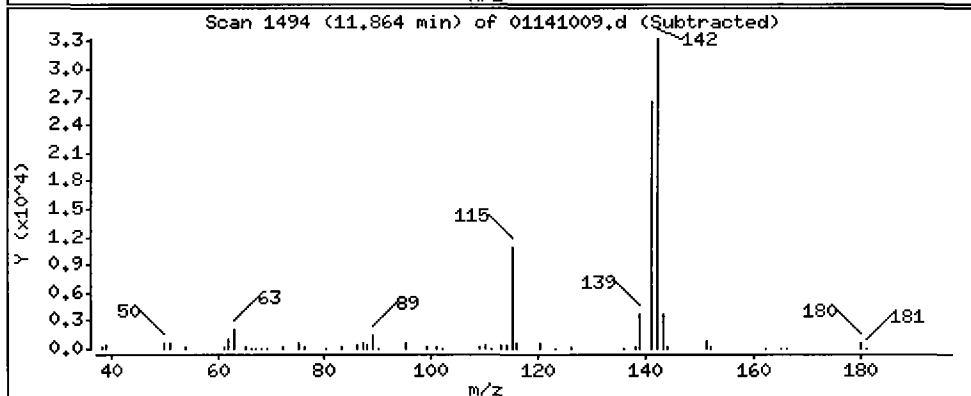
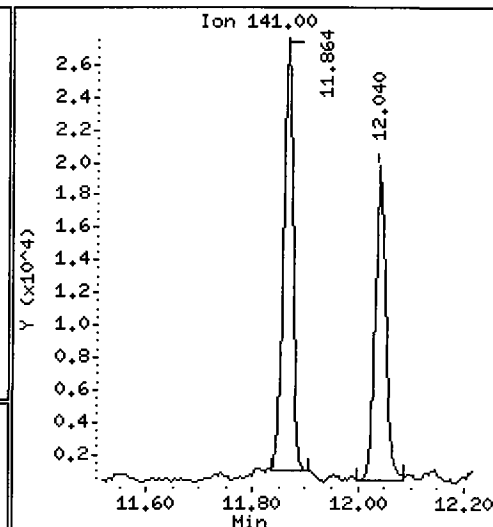
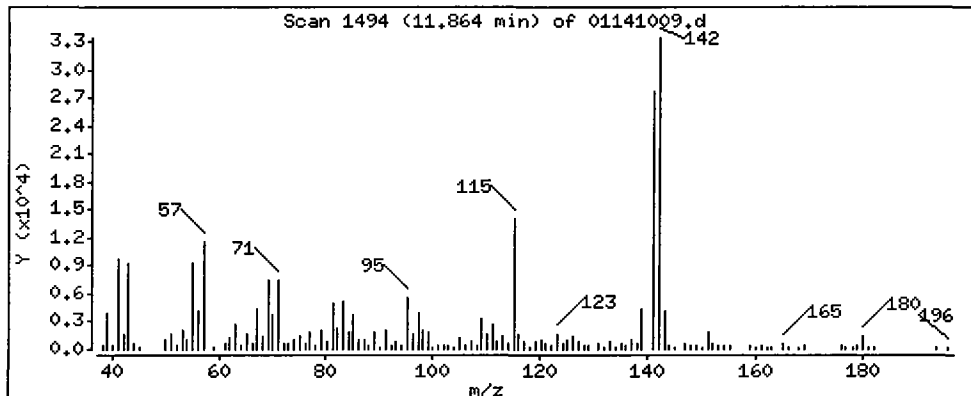
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

32 2-Methylnaphthalene

Concentration: 545.8 ug/kg



Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

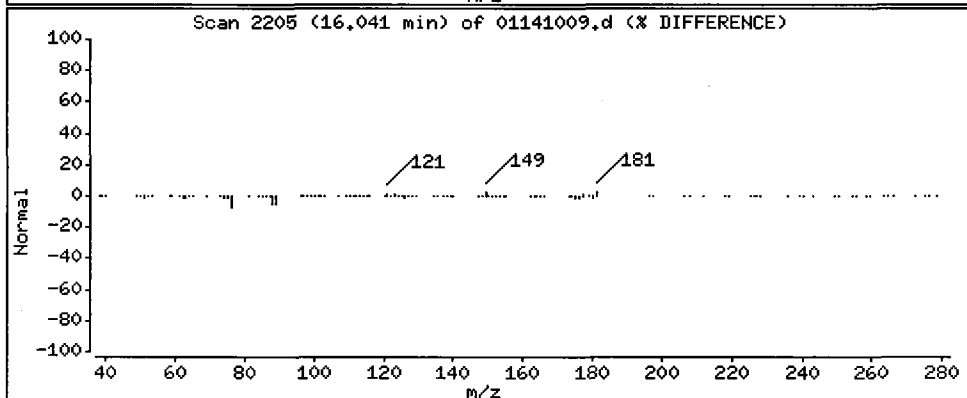
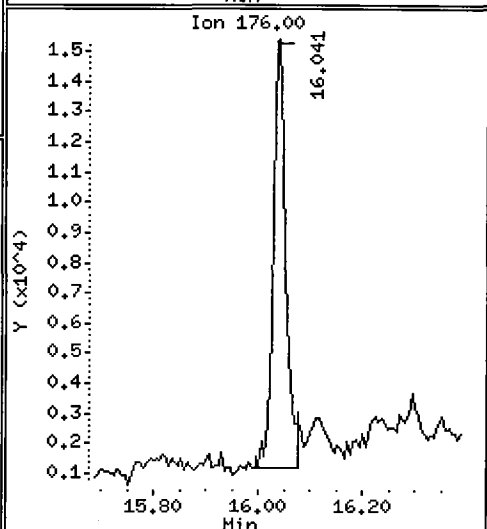
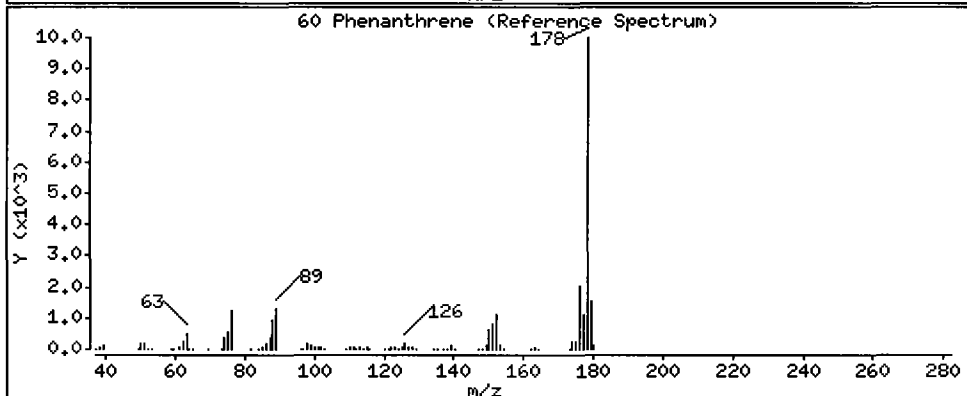
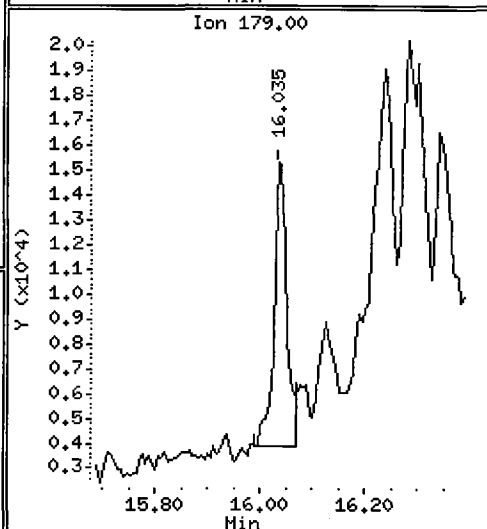
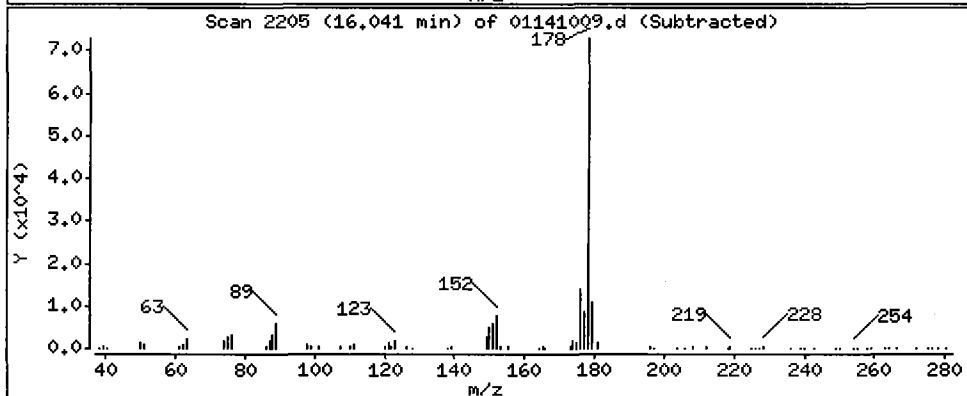
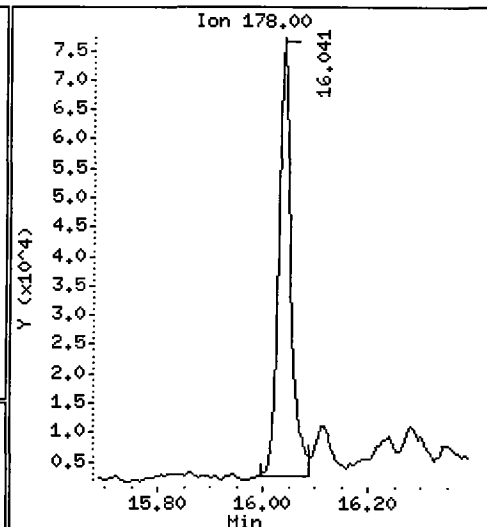
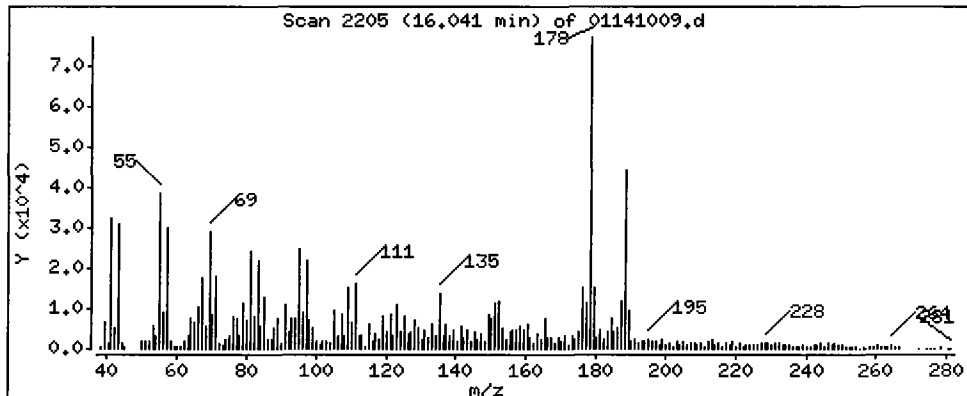
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

60 Phenanthrene

Concentration: 1029 ug/kg





Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

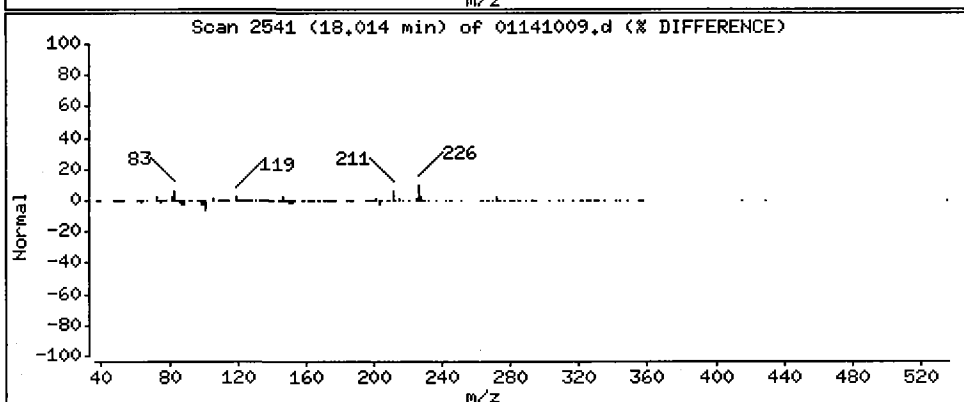
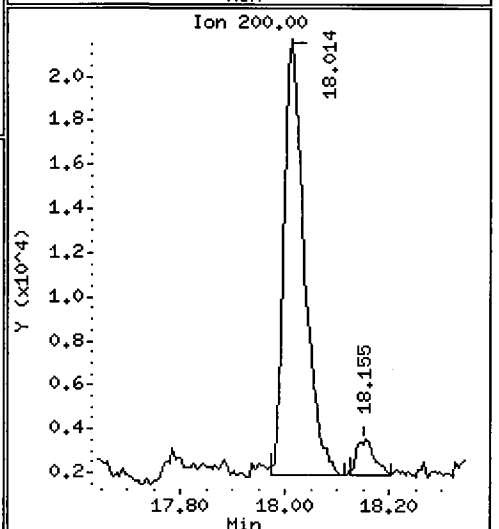
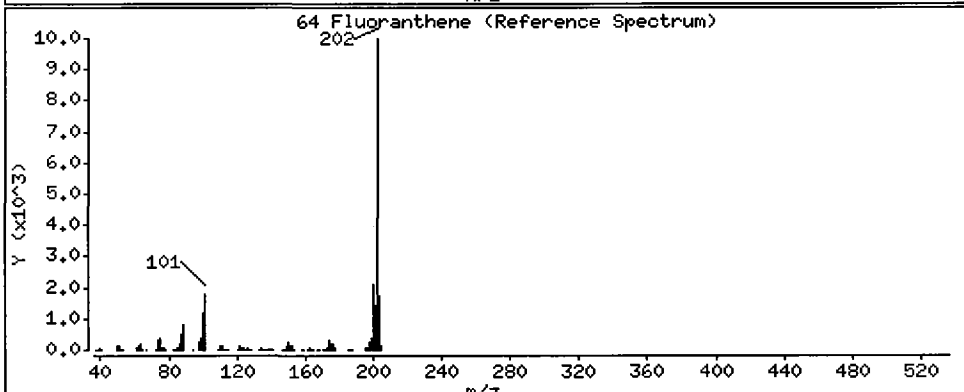
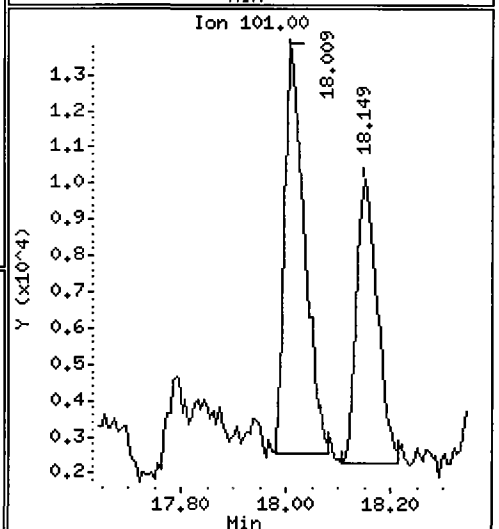
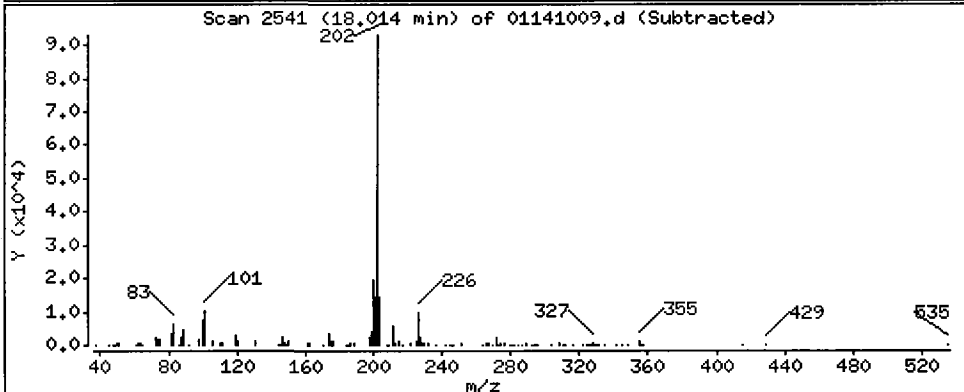
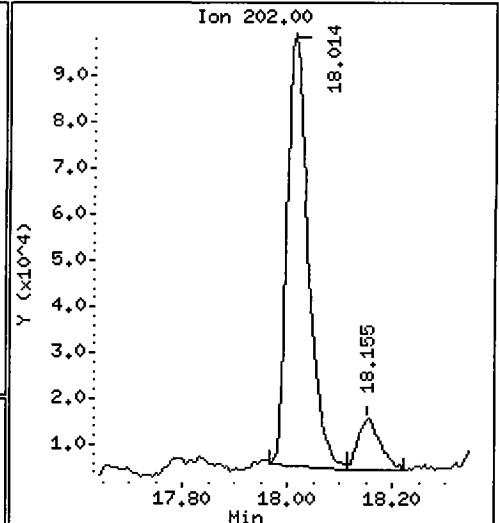
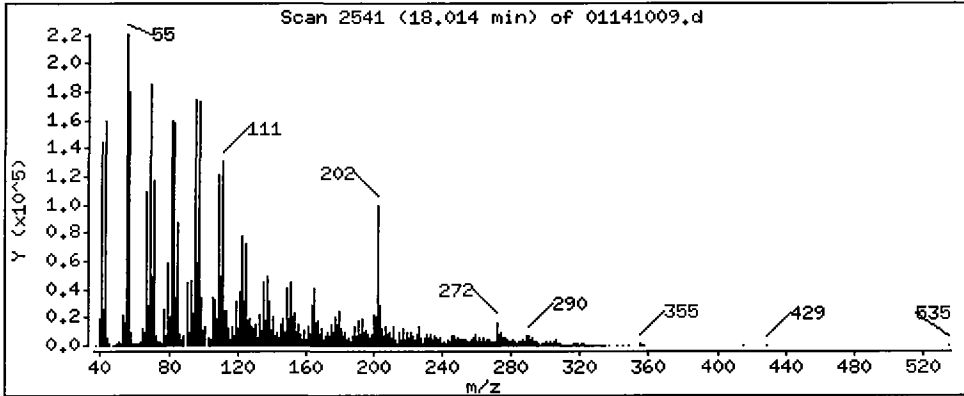
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

64 Fluoranthene

Concentration: 2166 ug/kg



Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

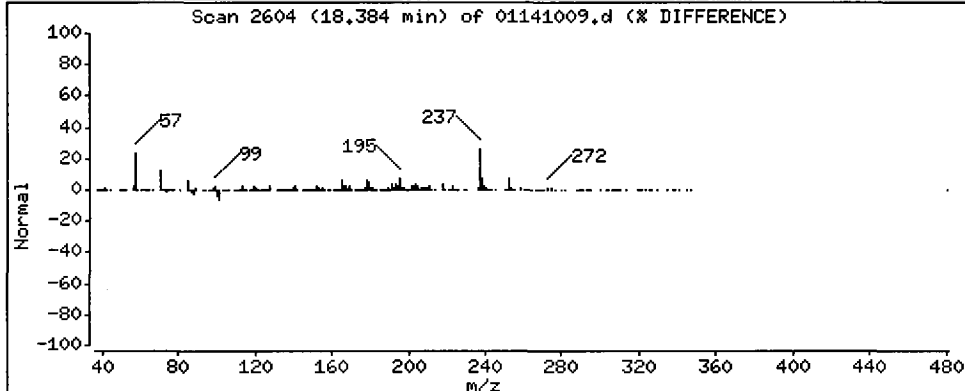
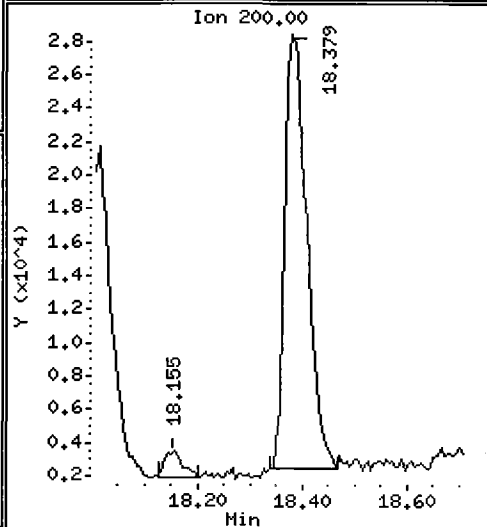
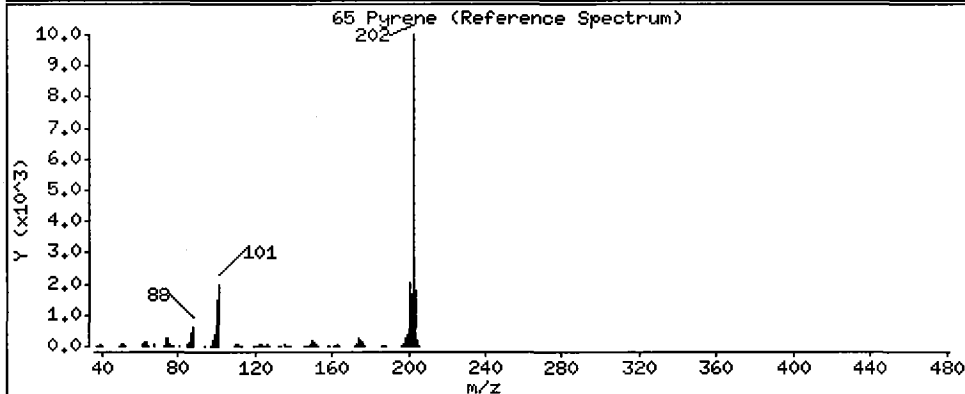
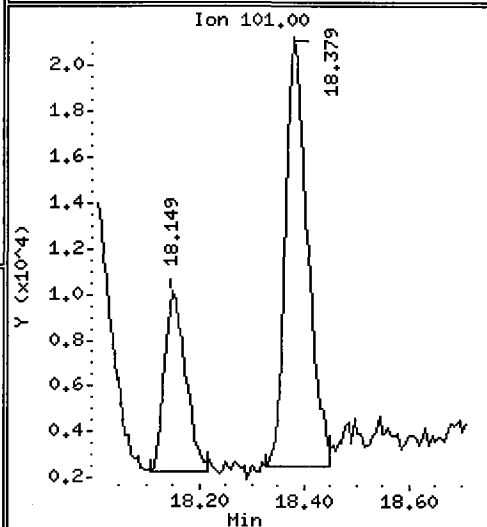
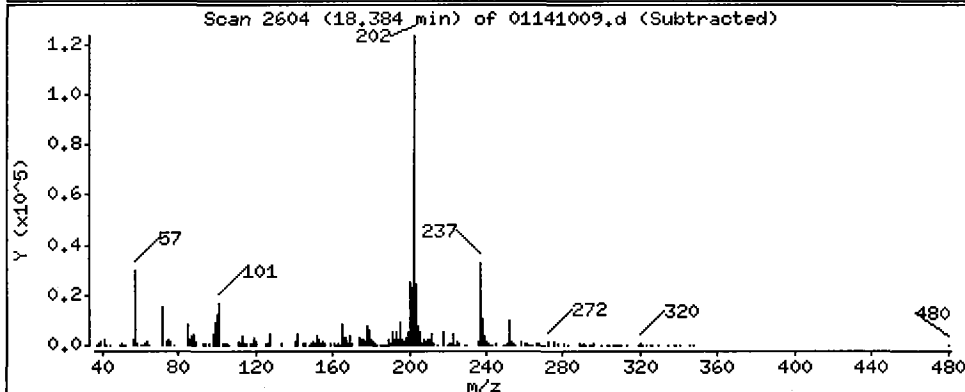
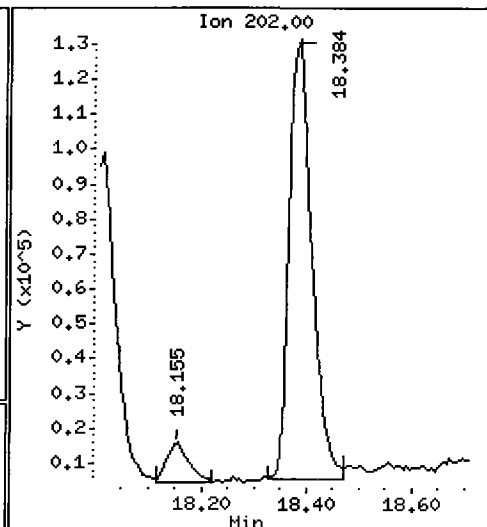
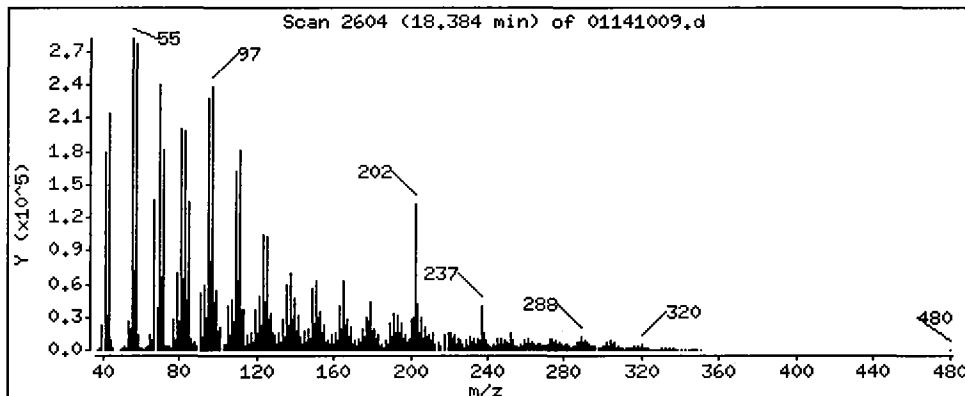
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

65 Pyrene

Concentration: 3154 ug/kg



Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

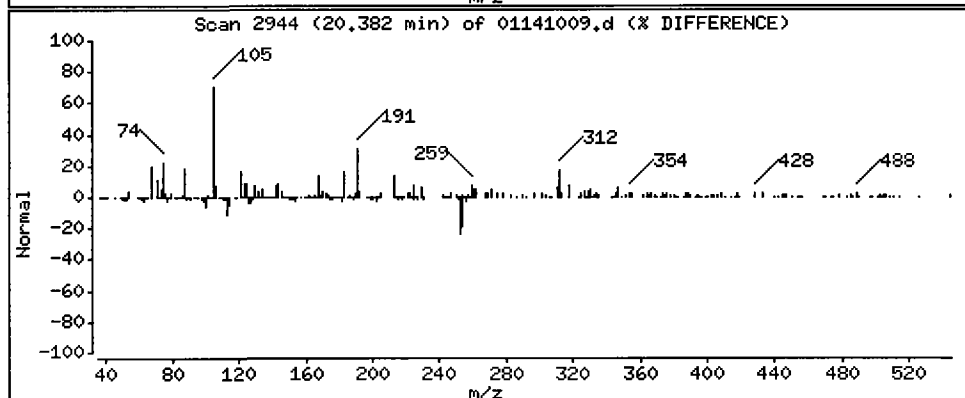
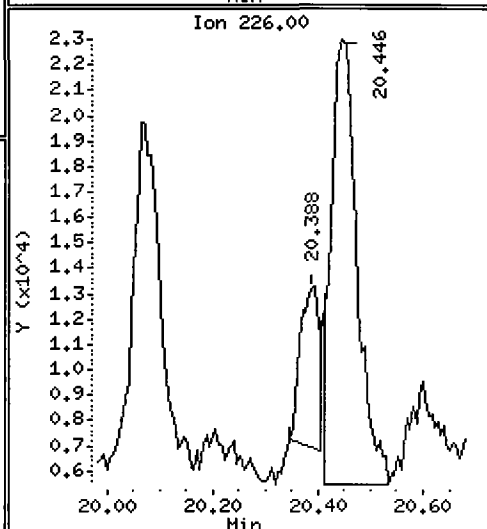
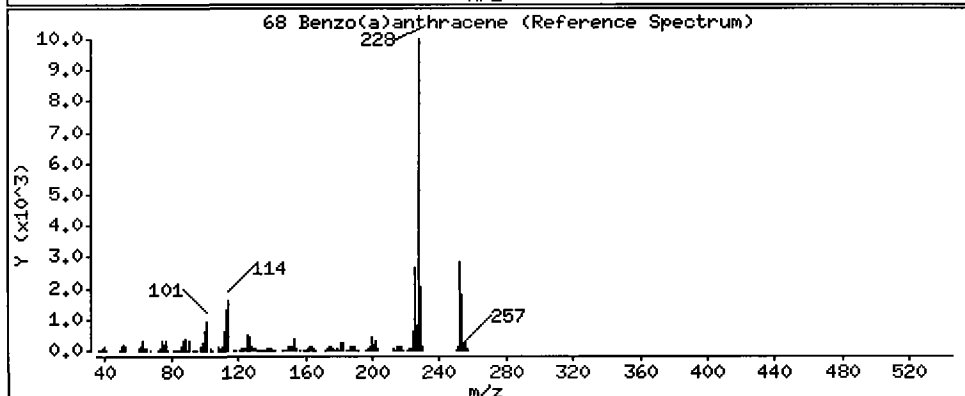
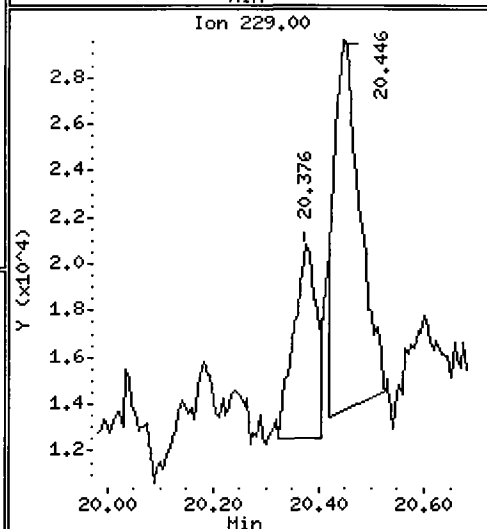
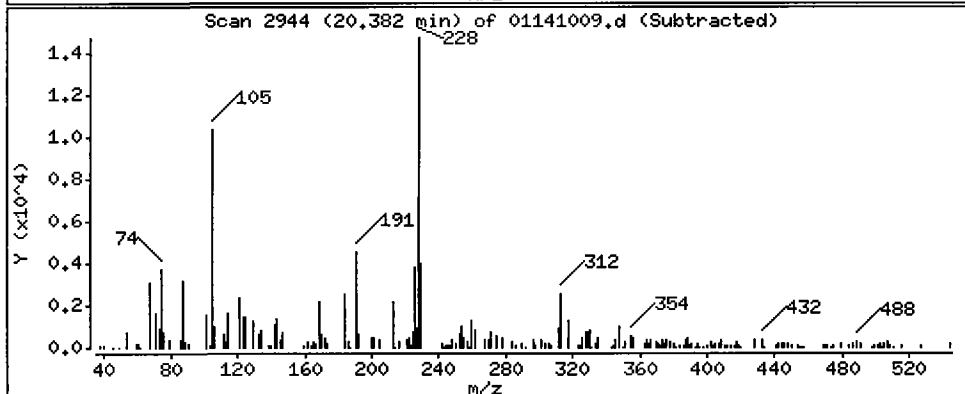
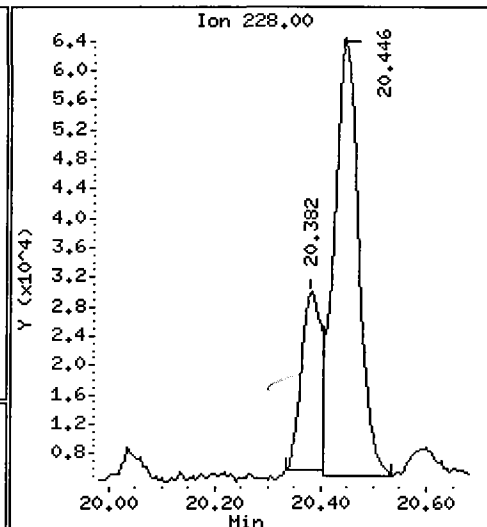
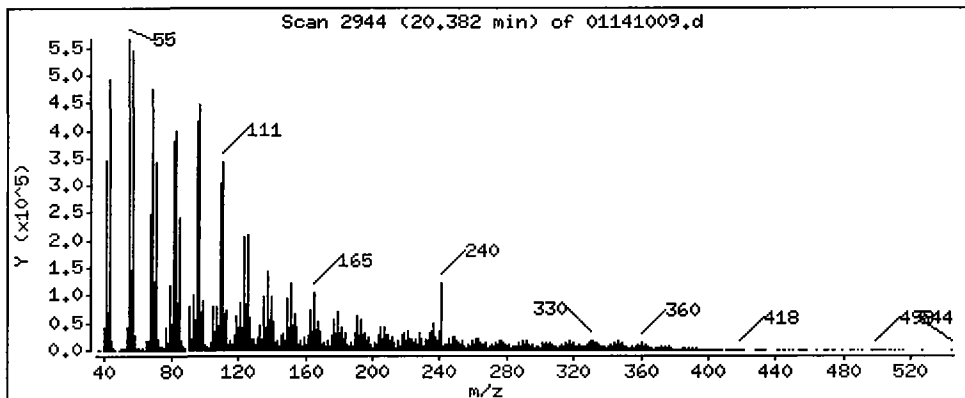
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

68 Benzo(a)anthracene

Concentration: 581.6 ug/kg



Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

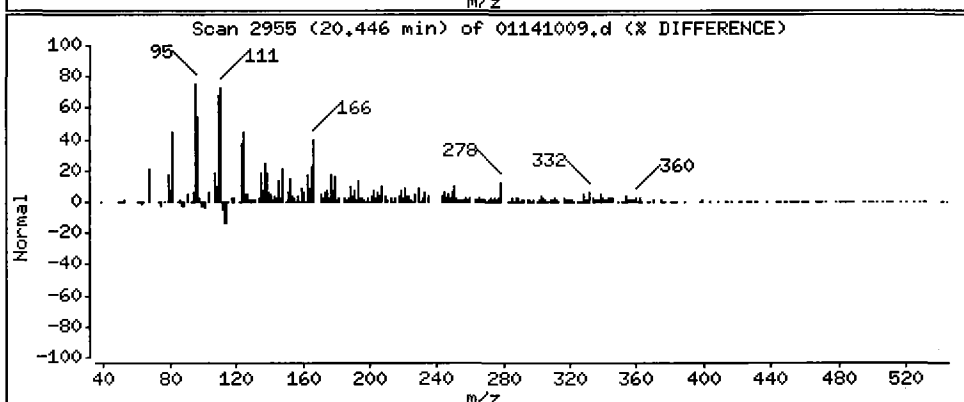
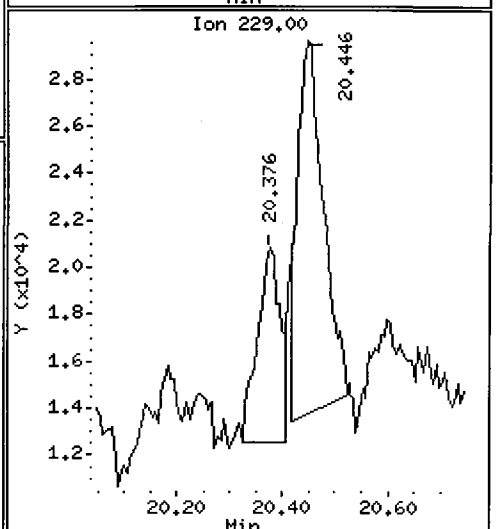
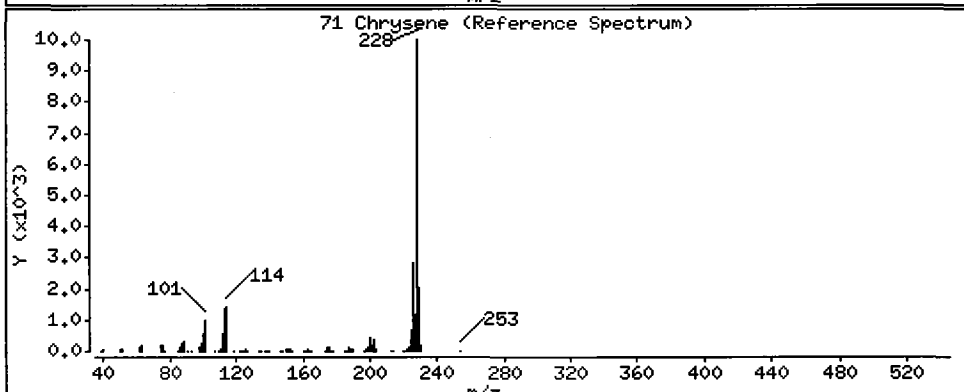
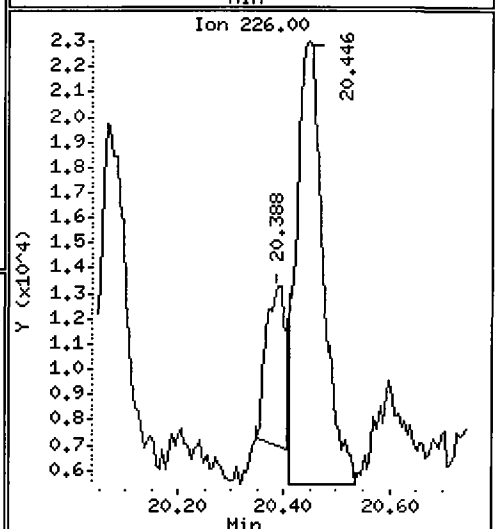
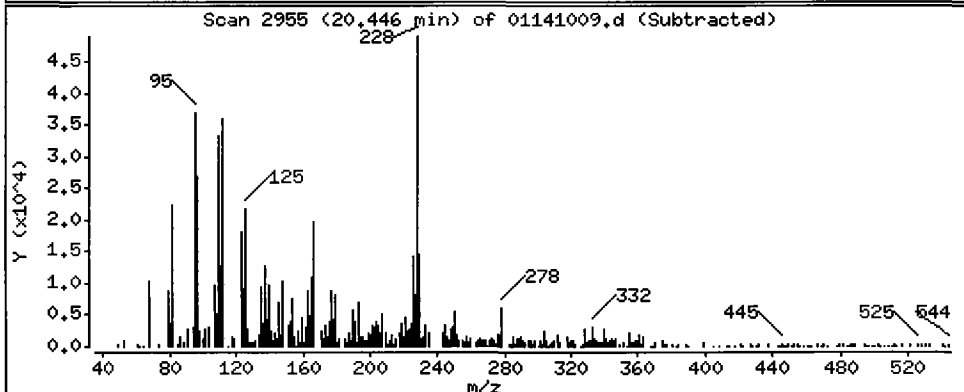
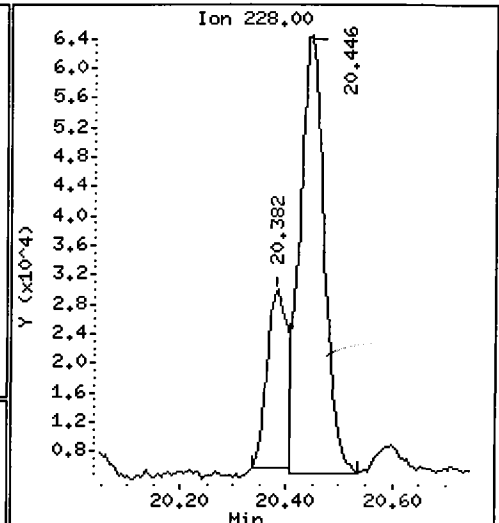
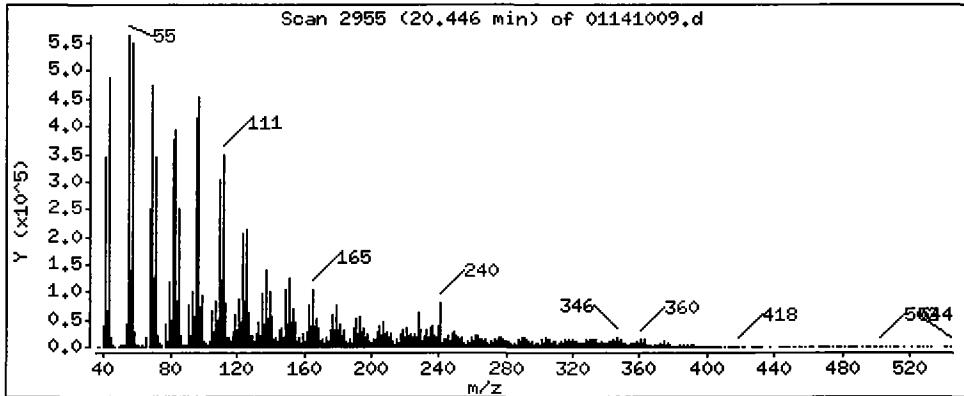
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

71 Chrysene

Concentration: 1849 ug/kg



Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

Operator: JZ

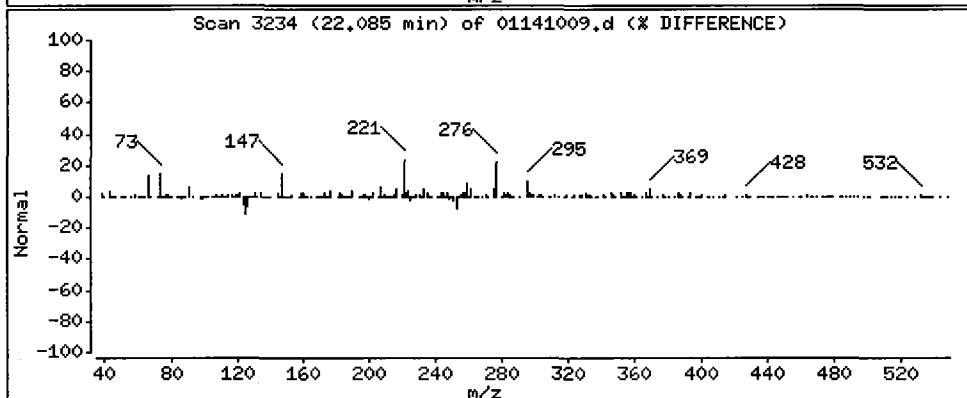
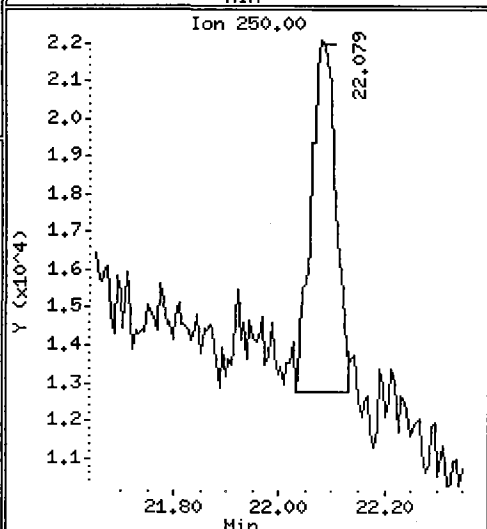
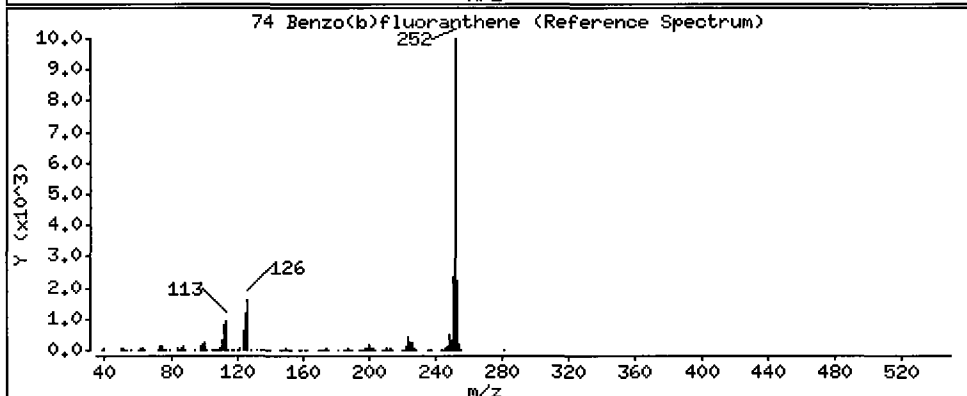
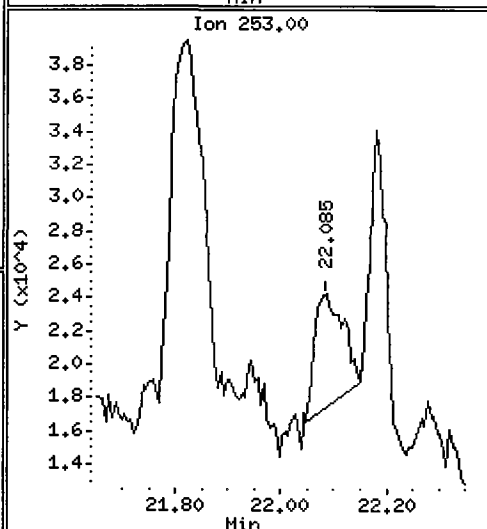
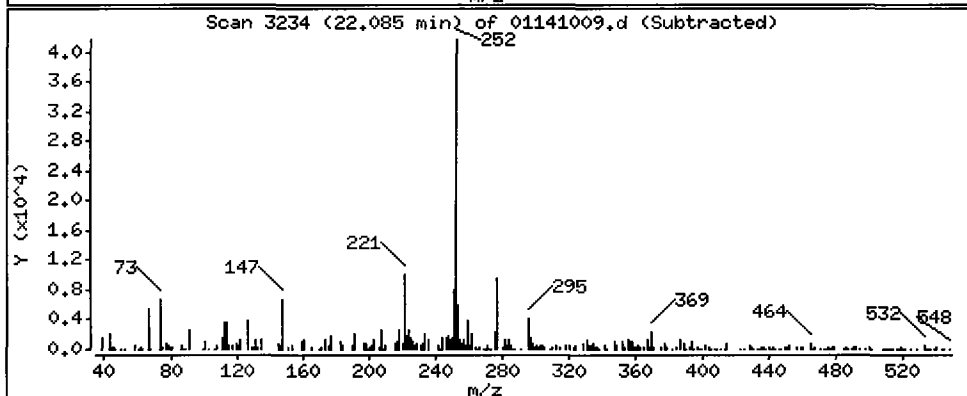
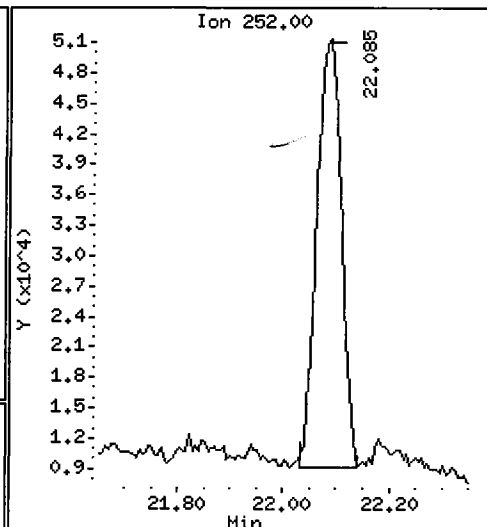
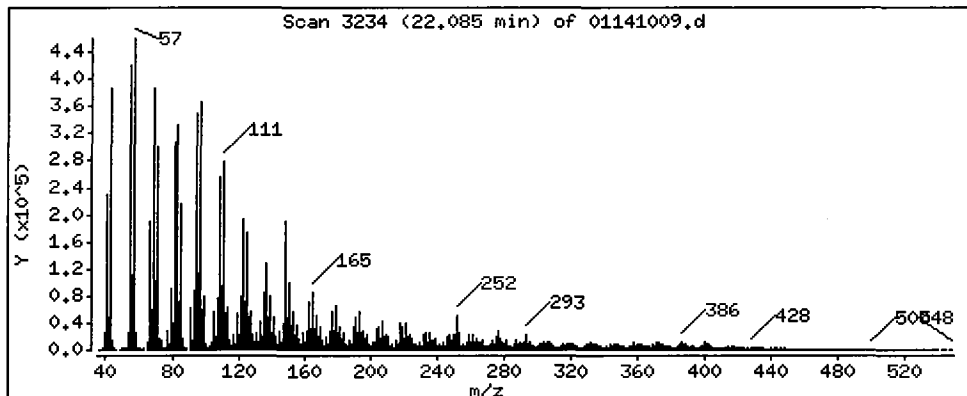
Column phase: ZB-5msi

Column diameter: 0.32

112

74 Benzo(b)fluoranthene

Concentration: 2839 ug/kg



Date: 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

Operator: JZ

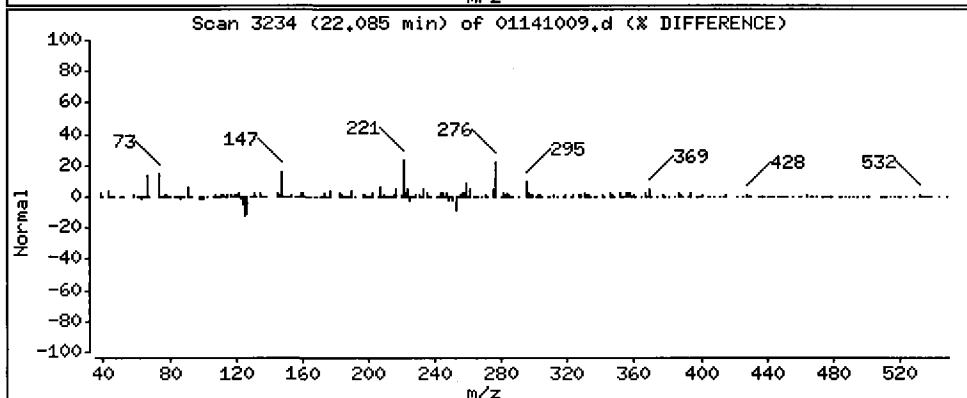
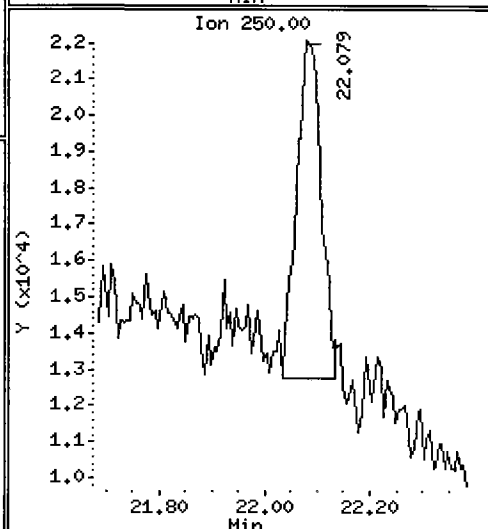
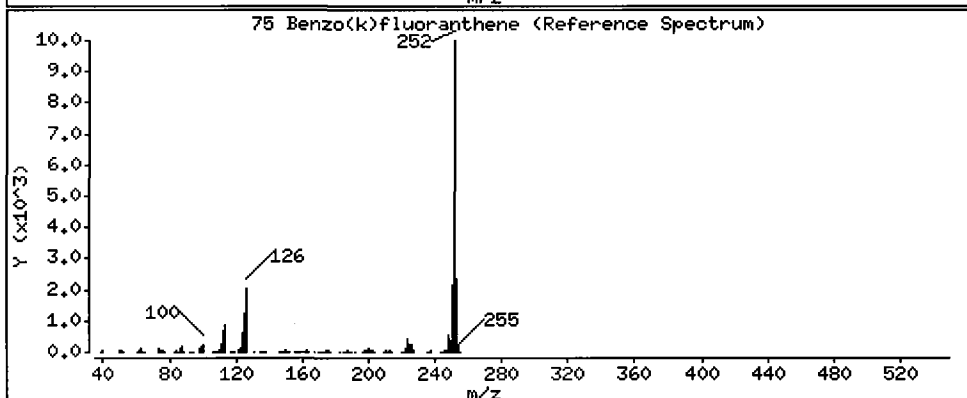
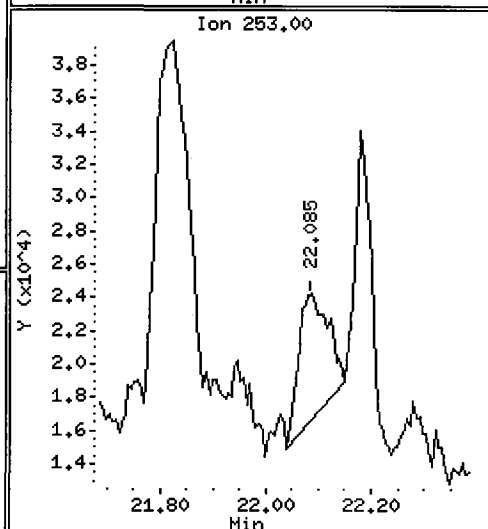
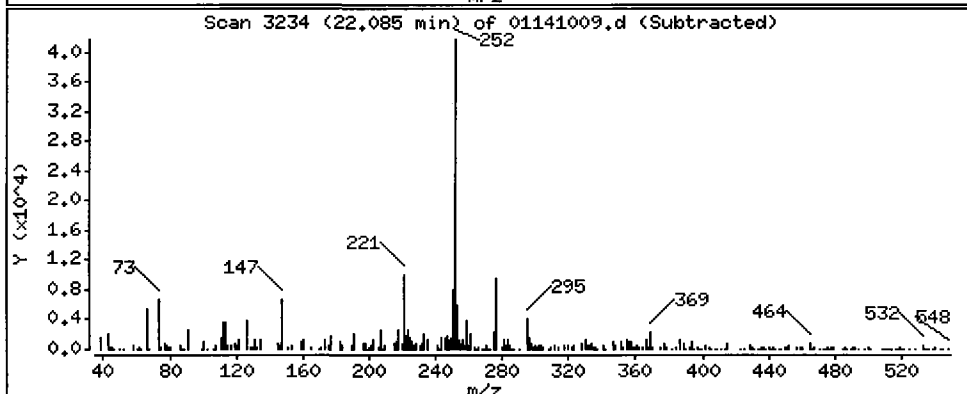
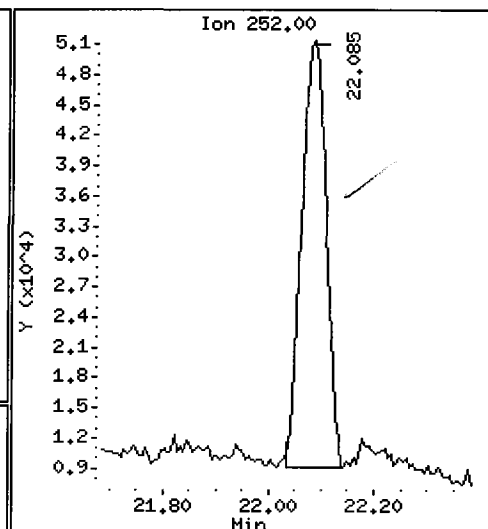
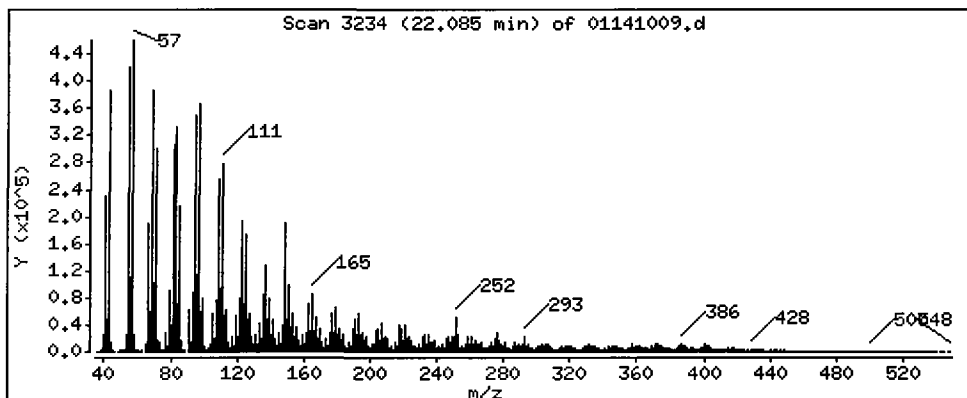
Column phase: ZB-5msi

Column diameter: 0.32

112

75 Benzo(k)fluoranthene

Concentration: 2858 ug/kg



Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

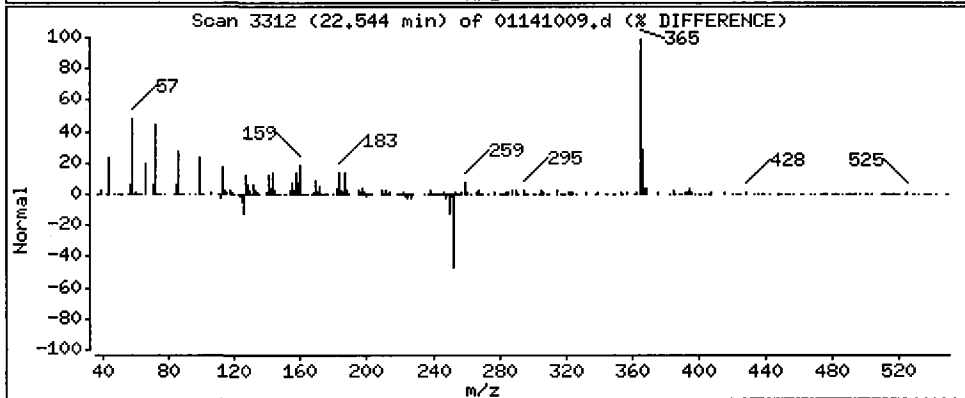
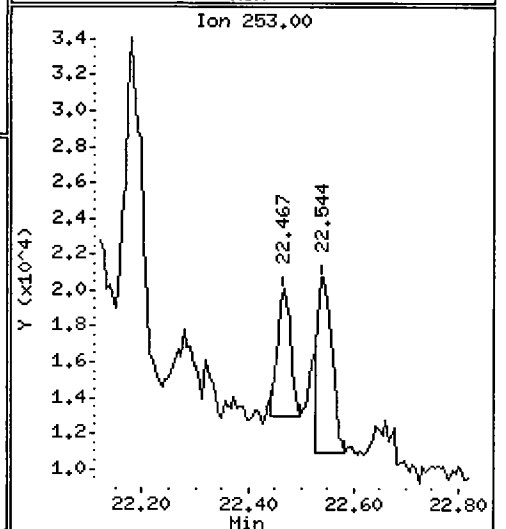
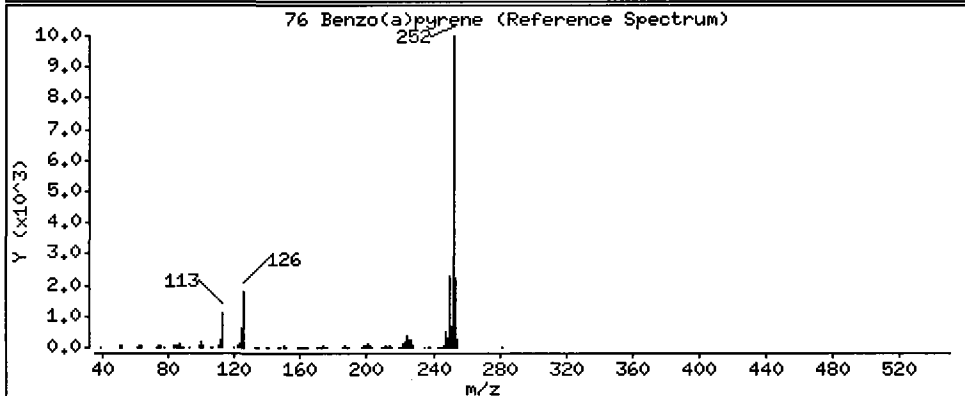
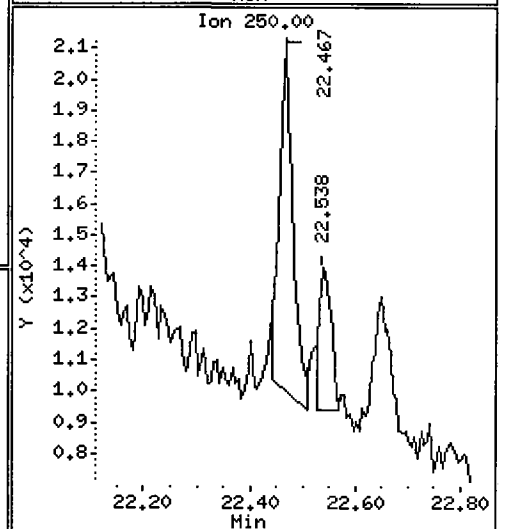
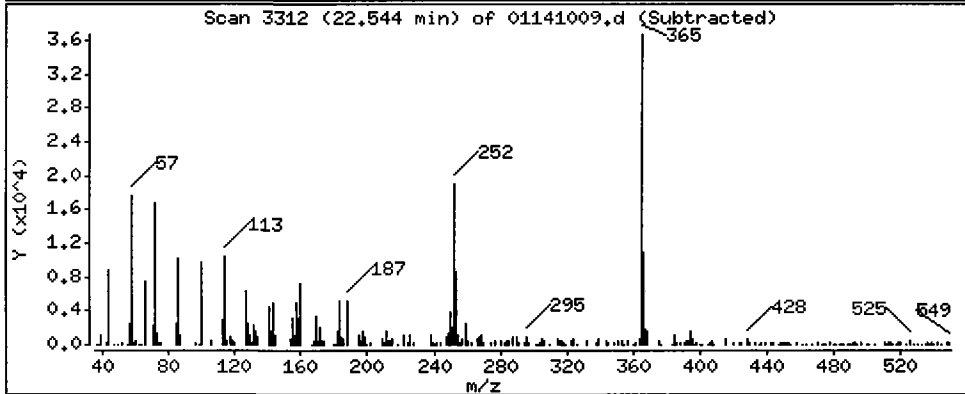
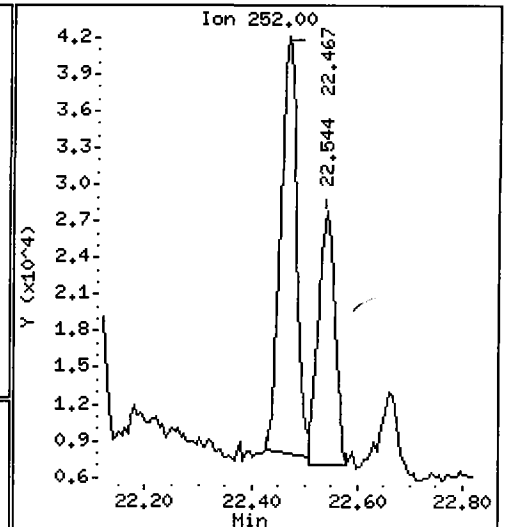
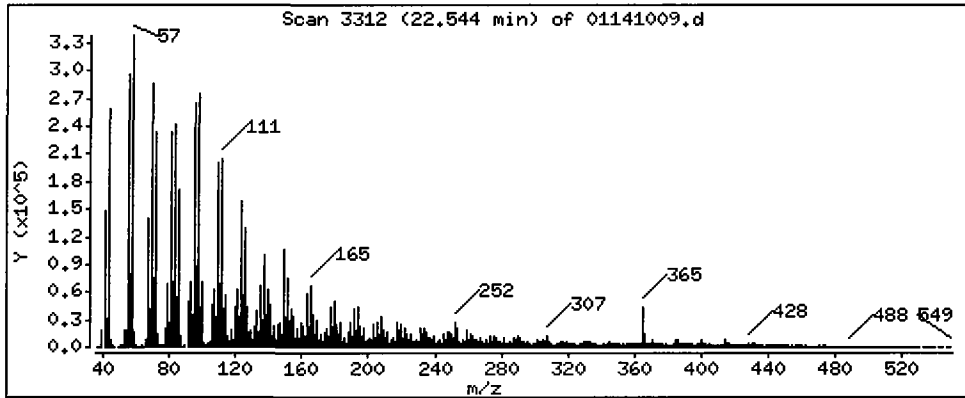
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

76 Benzo(a)pyrene

Concentration: 1056 ug/kg



Date : 14-JAN-2010 16:31

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B

Volume Injected (uL): 1.0

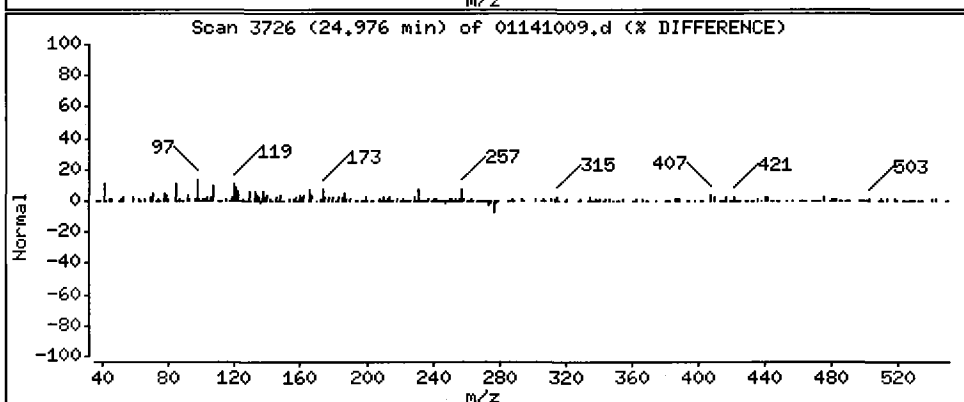
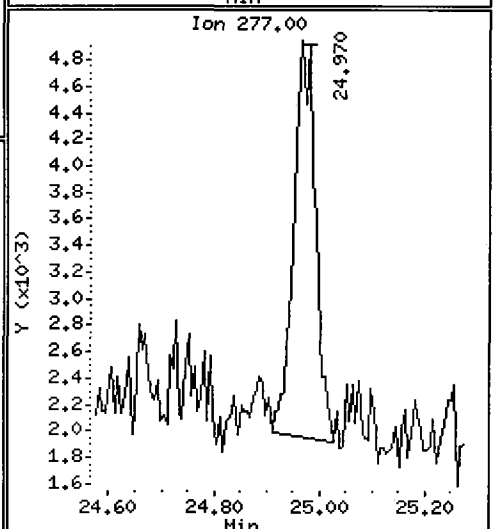
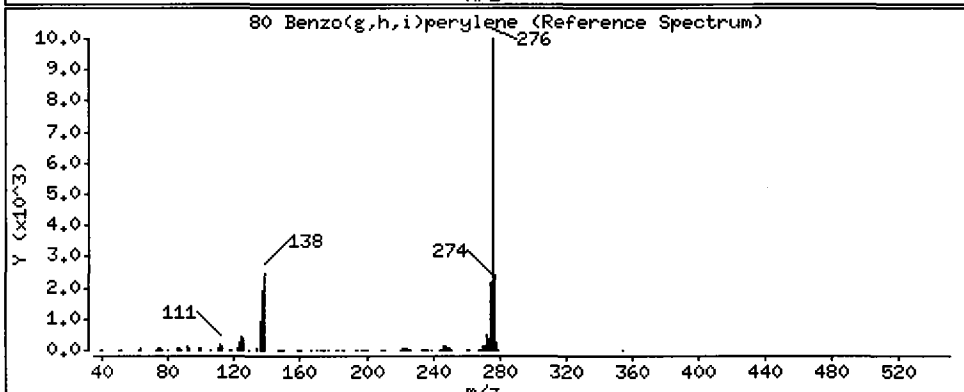
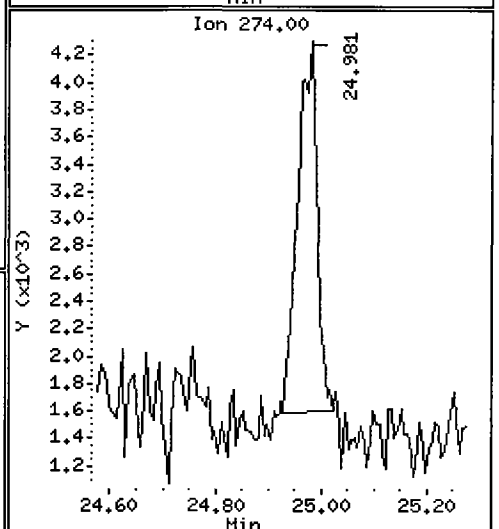
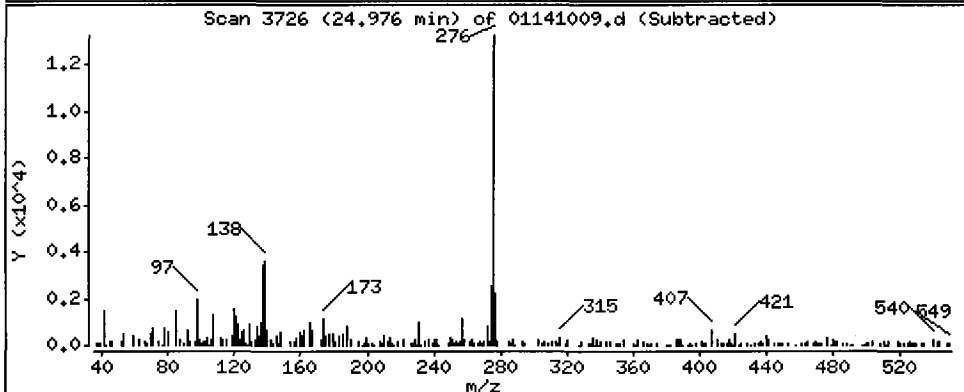
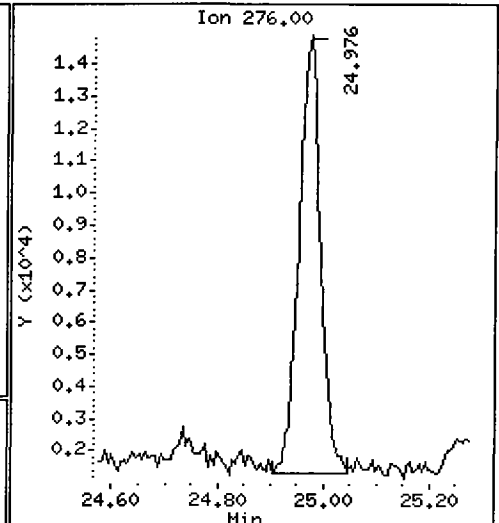
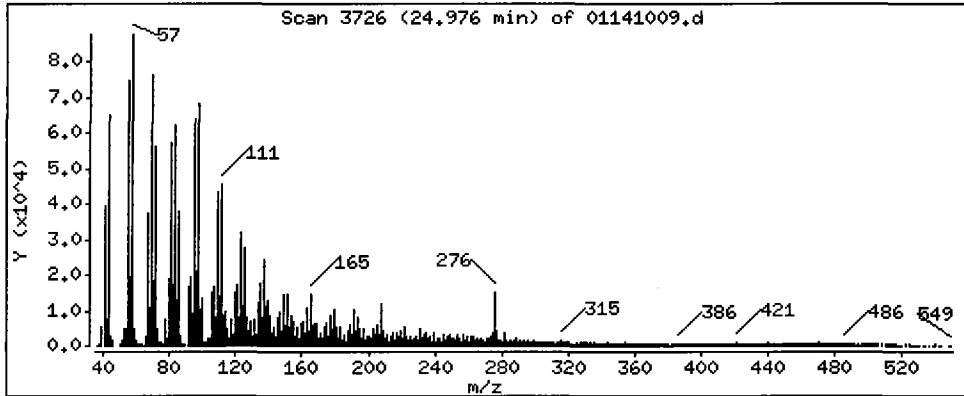
Operator: JZ

Column phase: ZB-5msi

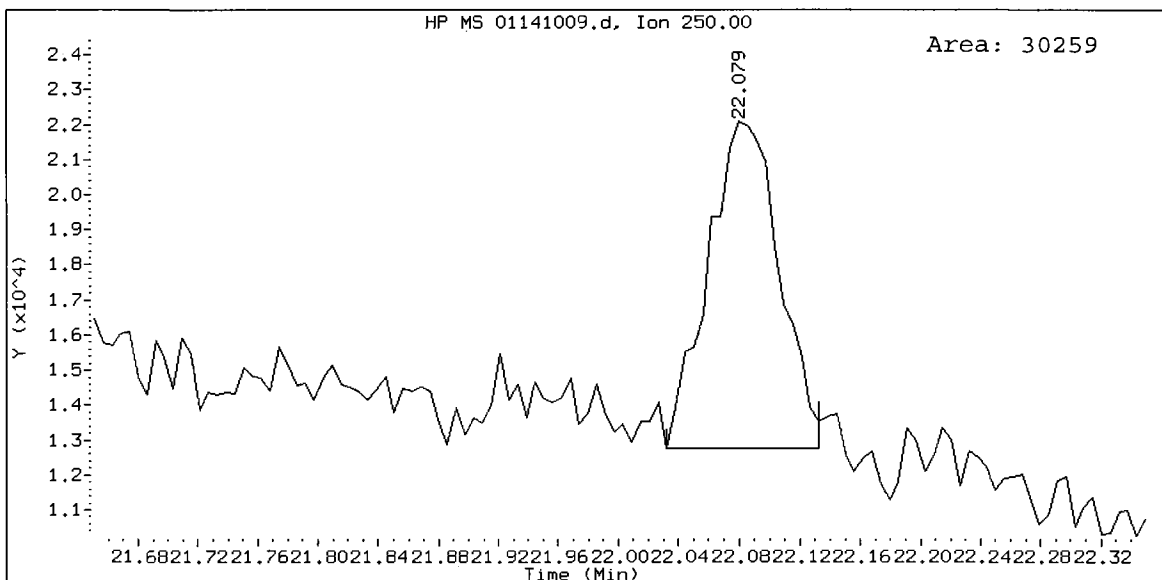
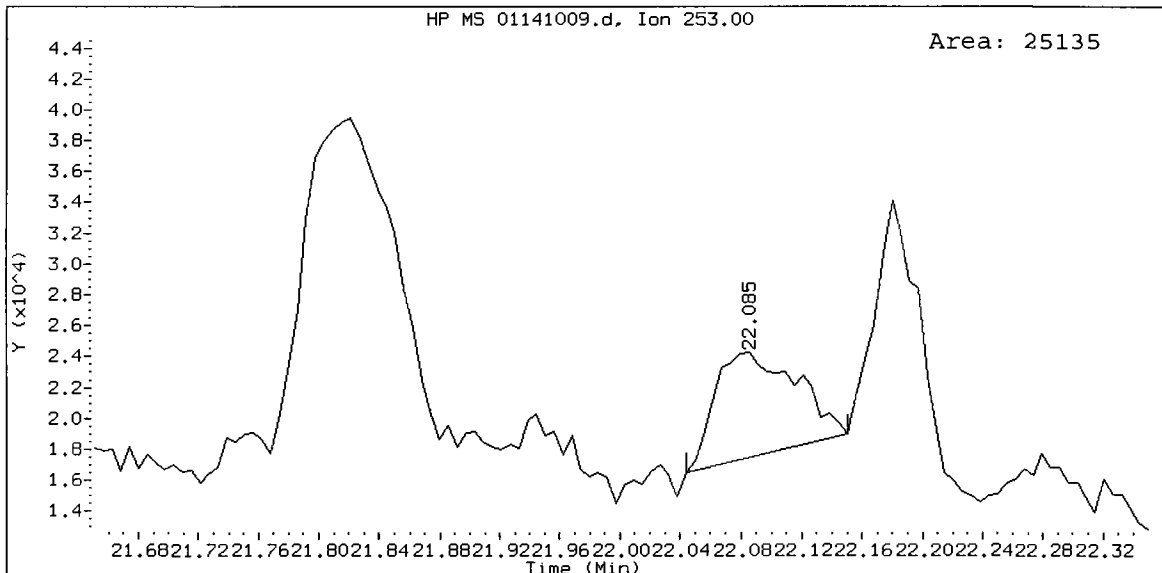
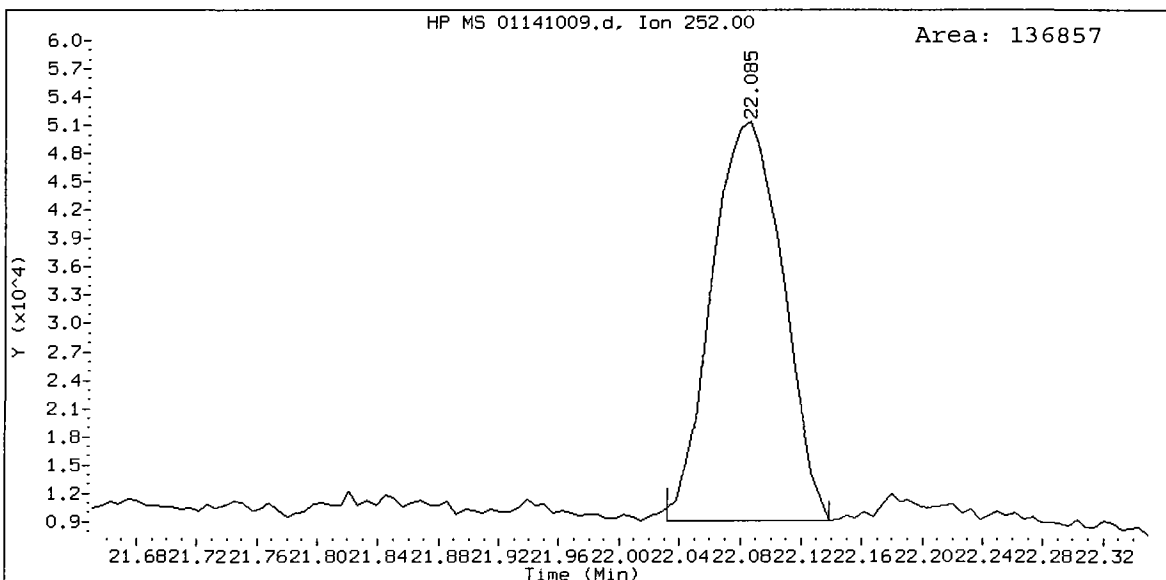
Column diameter: 0.32

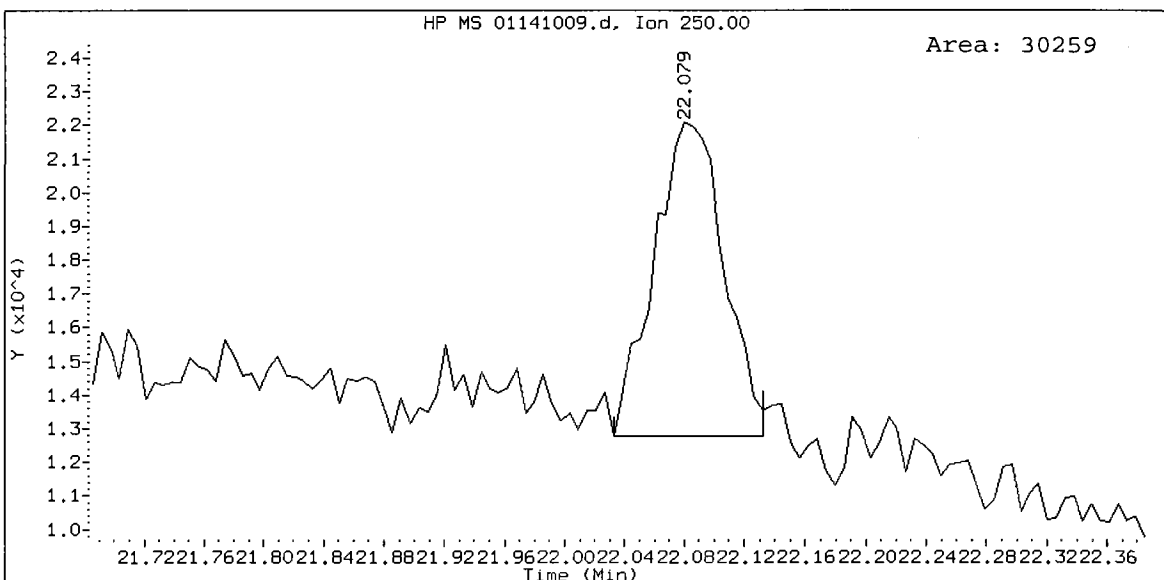
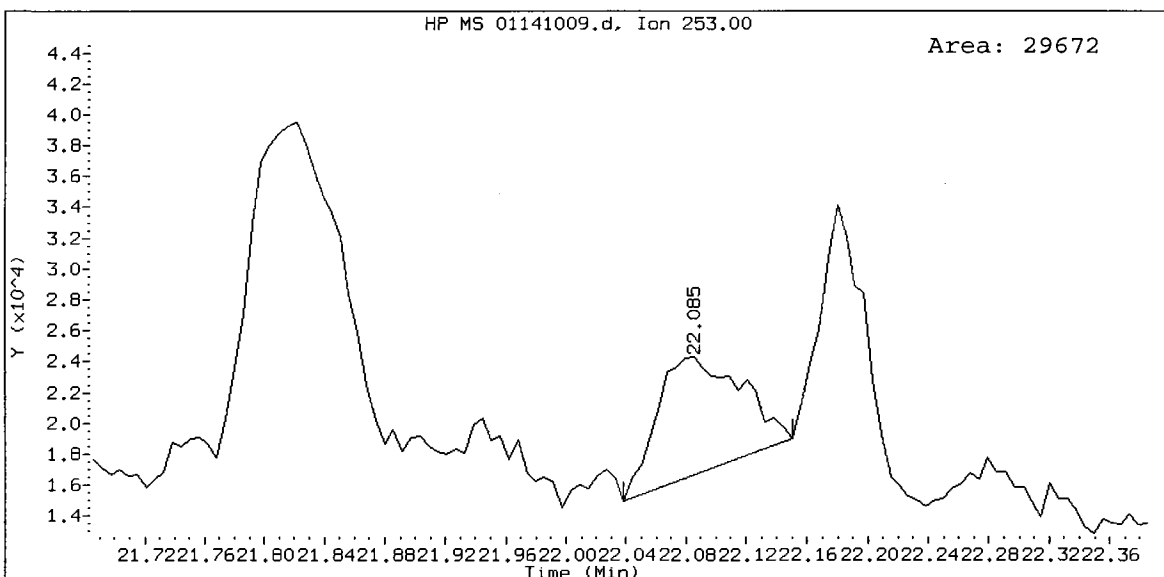
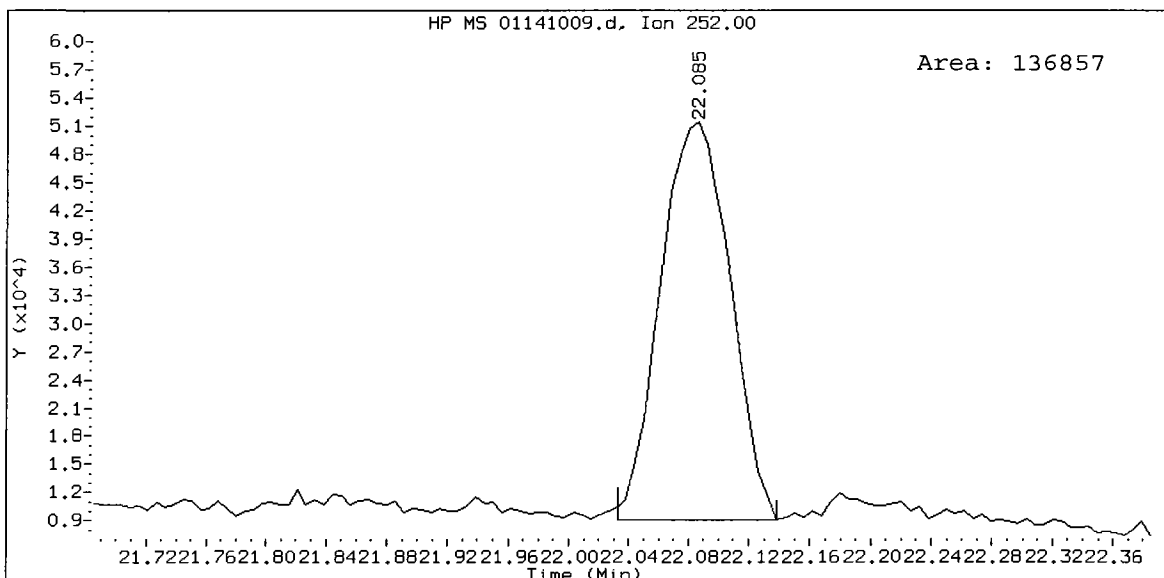
80 Benzo(g,h,i)perylene

Concentration: 843.3 ug/kg

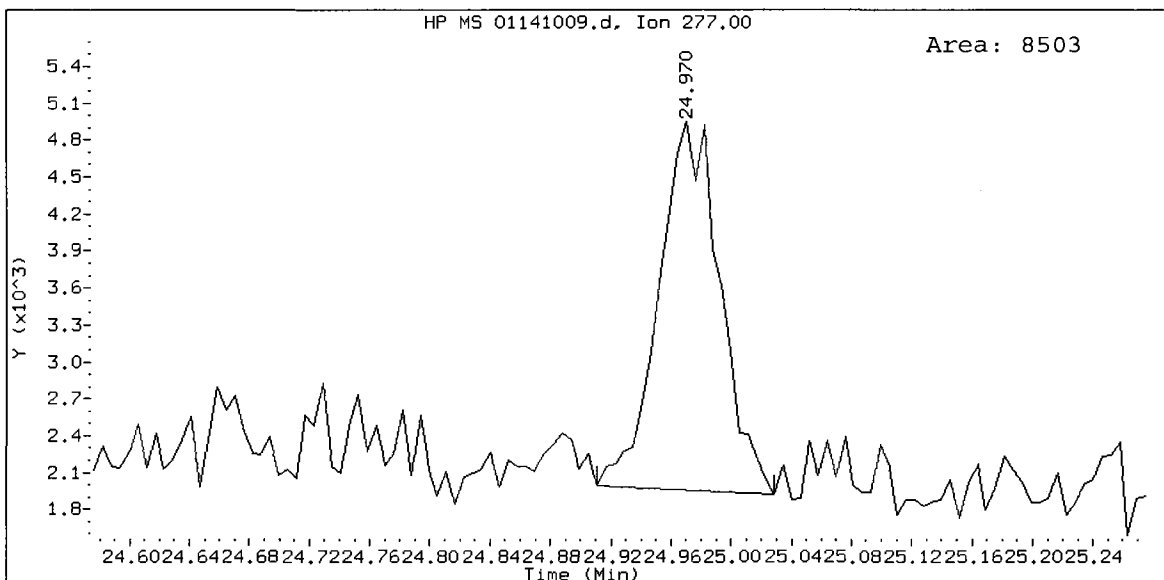
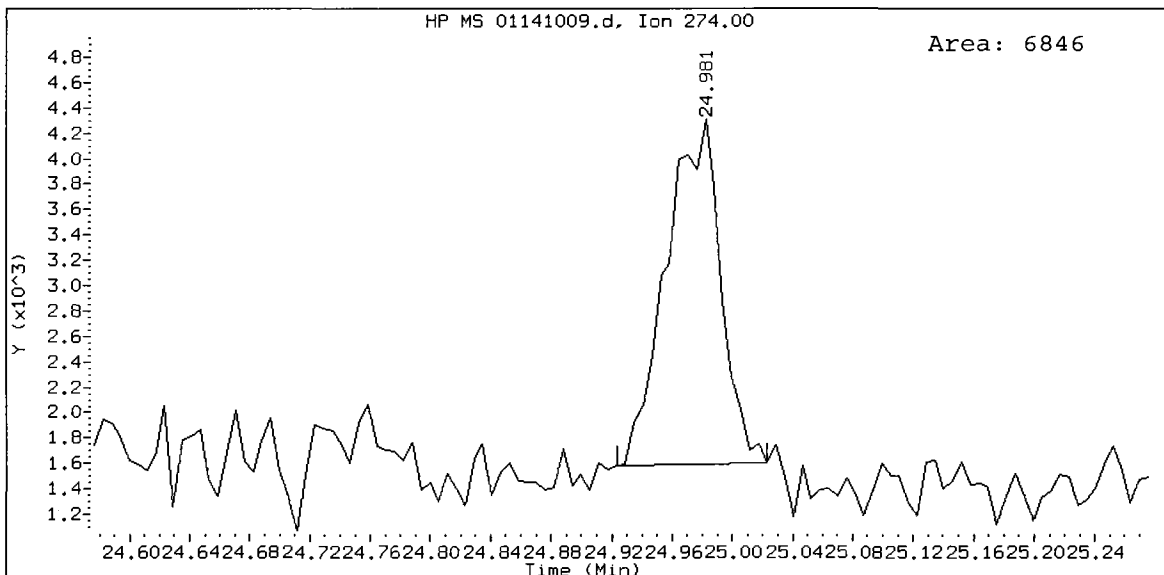
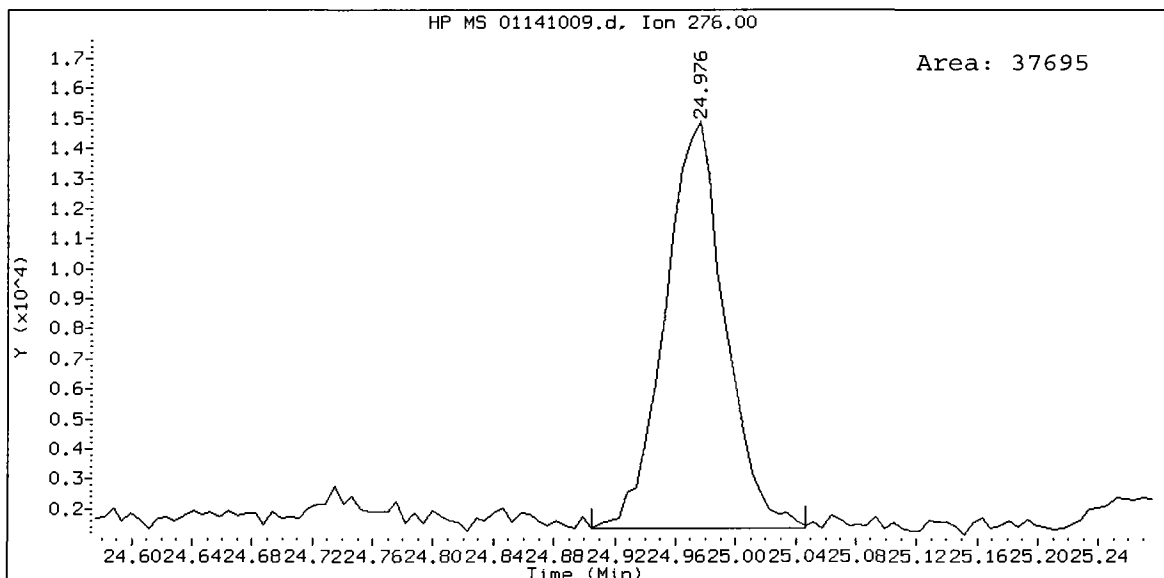









QE56B, /chem3/nt4.i/20100114.b/01141009.d  
Benzo(g,h,i)perylene Amount: 1.64



ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB19010710Sed  
DILUTION

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 14:50  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 0.96 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 3.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	1,600	< 1,600 U
91-57-6	2-Methylnaphthalene	1,600	< 1,600 U
90-12-0	1-Methylnaphthalene	1,600	< 1,600 U
208-96-8	Acenaphthylene	1,600	< 1,600 U
83-32-9	Acenaphthene	1,600	< 1,600 U
86-73-7	Fluorene	1,600	< 1,600 U
85-01-8	Phenanthrene	1,600	1,200 J
120-12-7	Anthracene	1,600	< 1,600 U
206-44-0	Fluoranthene	1,600	2,200
129-00-0	Pyrene	1,600	2,200
56-55-3	Benzo (a) anthracene	1,600	730 J
218-01-9	Chrysene	1,600	1,900
205-99-2	Benzo (b) fluoranthene	1,600	1,300 J
207-08-9	Benzo (k) fluoranthene	1,600	1,300 J
50-32-8	Benzo (a) pyrene	1,600	1,000 J
193-39-5	Indeno (1,2,3-cd) pyrene	1,600	< 1,600 U
53-70-3	Dibenz (a,h) anthracene	1,600	< 1,600 U
191-24-2	Benzo (g,h,i) perylene	1,600	980 J
132-64-9	Dibenzofuran	1,600	< 1,600 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	88.2%
2-Fluorobiphenyl	96.8%

Analytical Resources, Inc.

Semivolatiles Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141006.d  
 Lab Smp Id: QE56B Client Smp ID: CB19010710Sed  
 Inj Date : 14-JAN-2010 14:50  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : QE56B,3,  
 Misc Info : 10-433  
 Comment : lul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 18:46 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 6  
 Dil Factor: 3.00000  
 Integrator: HP RTE Compound Sublist: pna.sub  
 Target Version: 3.50

*JZ 01/15/10*

Concentration Formula: Amt \* DF \* Vt / (Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	4.10000	Weight of sample extracted (g)
M	76.30000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.702	10.708	(1.000)	1227493	20.0000	
28 Naphthalene	128				Compound Not Detected.		
32 2-Methylnaphthalene	141				Compound Not Detected.		
105 1-methylnaphthalene	141				Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172	12.494	12.500	(0.919)	314411	8.06827	12450
40 Acenaphthylene	152				Compound Not Detected.		
* 42 Acenaphthene-d10	164	13.593	13.593	(1.000)	675024	20.0000	
44 Acenaphthene	153				Compound Not Detected.		
46 Dibenzofuran	168				Compound Not Detected.		
49 Fluorene	166				Compound Not Detected.		
* 59 Phenanthrene-d10	188	15.995	15.995	(1.000)	1014150	20.0000	
60 Phenanthrene	178	16.030	16.036	(1.002)	39394	0.74700	1153
61 Anthracene	178				Compound Not Detected.		
64 Fluoranthene	202	17.993	17.993	(1.125)	73400	1.41633	2186
65 Pyrene	202	18.357	18.357	(0.901)	103726	1.42240	2196

Compounds	QUANT SIG			CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)	
-----	----	==	=====	=====	-----	-----	-----	
\$ 66 Terphenyl-d14	244	18.645	18.639	(0.915)	312084	7.34900	11340	
* 69 Chrysene-d12	240	20.372	20.354	(1.000)	1145107	20.0000		
71 Chrysene	228	20.407	20.395	(1.002)	79380	1.23721	1910	
74 Benzo(b)fluoranthene	252	22.028	21.999	(0.975)	117945	1.60609	2479(M)	
75 Benzo(k)fluoranthene	252	22.028	22.034	(0.975)	117945	1.61679	2496(M)	
76 Benzo(a)pyrene	252	22.504	22.469	(0.996)	44019	0.66331	1024	
* 77 Perylene-d12	264	22.592	22.551	(1.000)	1192835	20.0000		
78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
79 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
80 Benzo(g,h,i)perylene	276	24.960	24.924	(1.105)	43115	0.63321	977.5	

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01141006.d  
 Lab Smp Id: QE56B  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
 Misc Info: 10-433

Calibration Date: 14-JAN-2010  
 Calibration Time: 11:30  
 Client Smp ID: CB19010710Sed  
 Level: LOW  
 Sample Type: Sediment

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1227493	18.53
42 Acenaphthene-d10	594267	297134	1188534	675024	13.59
59 Phenanthrene-d10	951721	475860	1903442	1014150	6.56
69 Chrysene-d12	794862	397431	1589724	1145107	44.06
77 Perylene-d12	826094	413047	1652188	1192835	44.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.70	-0.06
42 Acenaphthene-d10	13.59	13.09	14.09	13.59	0.00
59 Phenanthrene-d10	16.00	15.50	16.50	16.00	0.00
69 Chrysene-d12	20.35	19.85	20.85	20.37	0.09
77 Perylene-d12	22.55	22.05	23.05	22.59	0.18

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56B  
Level: LOW  
Data Type: MS DATA  
SpikeList File: pnalcs.w.spk  
Sublist File: pna.sub  
Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
Misc Info: 10-433

Client SDG: QE56  
Fraction: SV  
Client Smp ID: CB19010710Sed  
Operator: JZ  
SampleType: SAMPLE  
Quant Type: ISTD

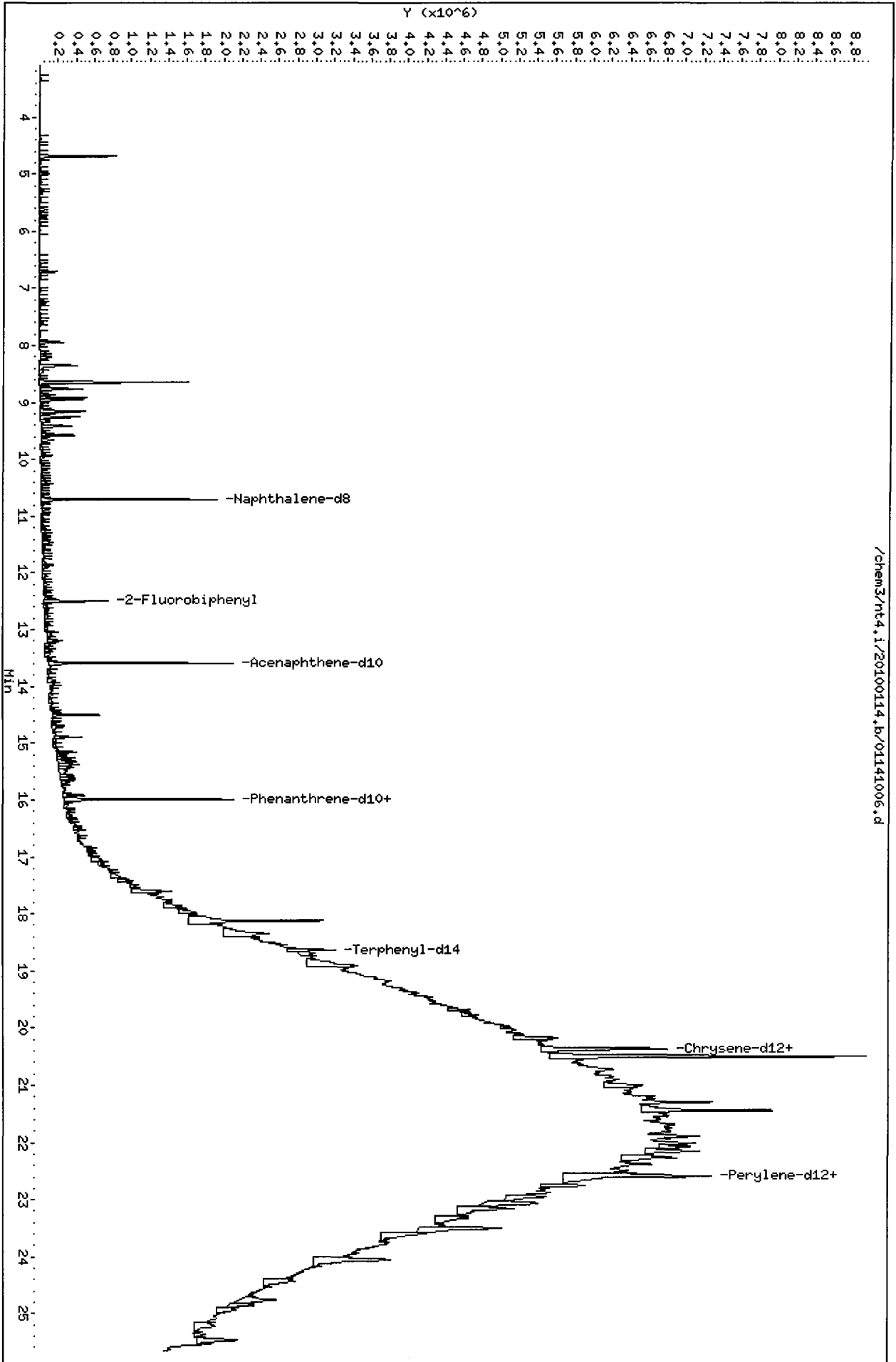
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	12860	12450	96.82	34-100
\$ 66 Terphenyl-d14	12860	11340	88.19	35-112



Data File: /chem3/nt4.i/20100114.b/01141006.d  
 Date: 14-JAN-2010 14:50  
 Client ID: C819010710Sed  
 Sample Info: QE56B,3,  
 Volume Injected (uL): 1.0  
 Column phase: ZB-5msi

Instrument: nt4.i  
 Operator: JZ  
 Column diameter: 0.32

/chem3/nt4.i/20100114.b/01141006.d



Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

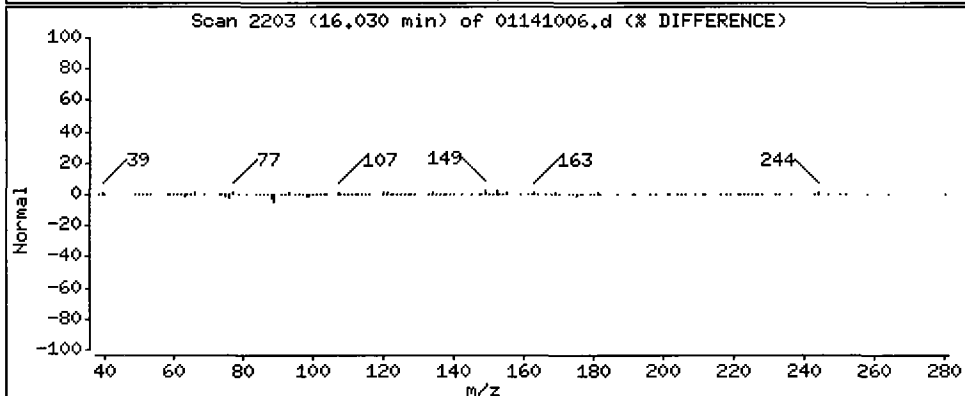
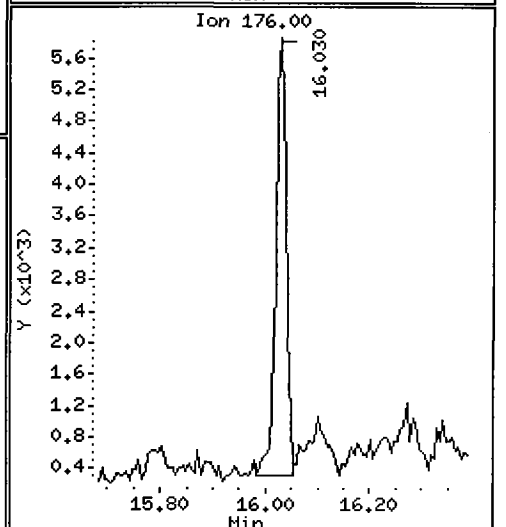
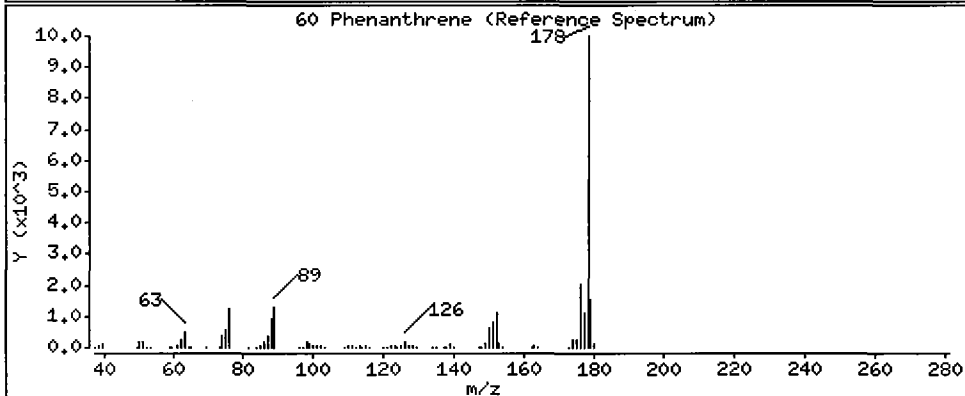
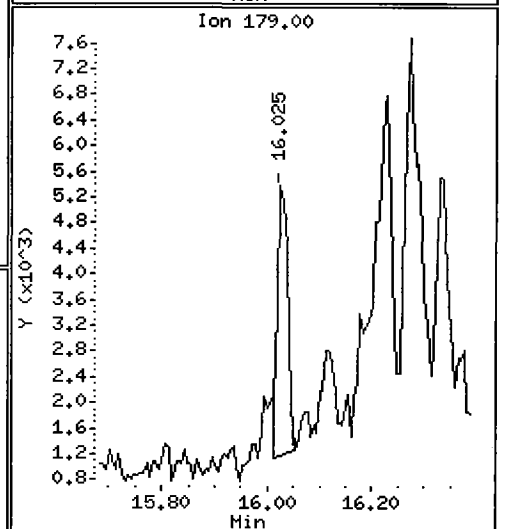
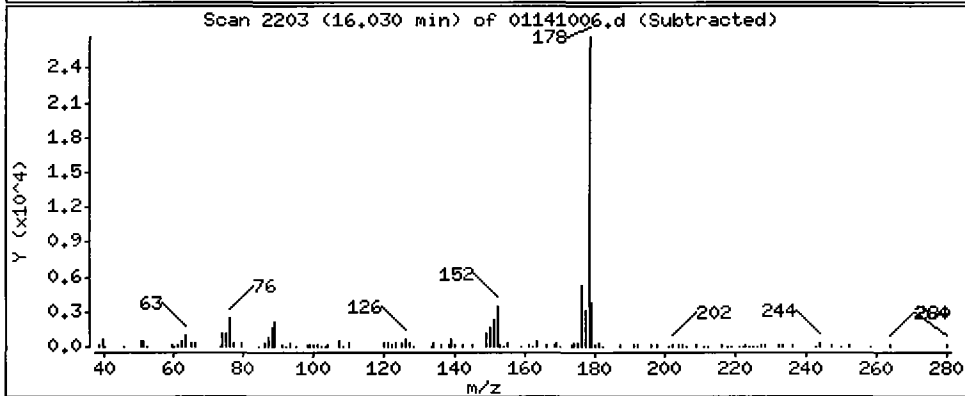
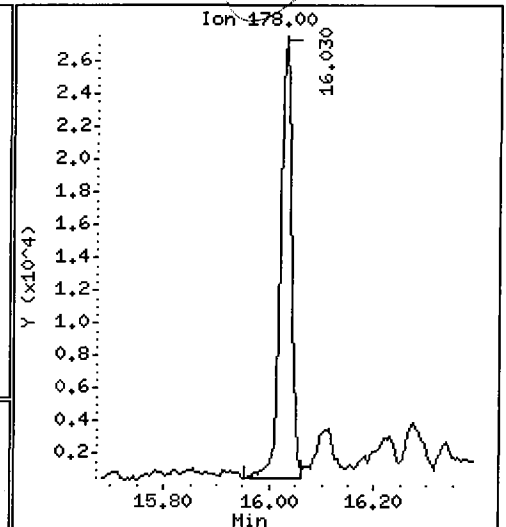
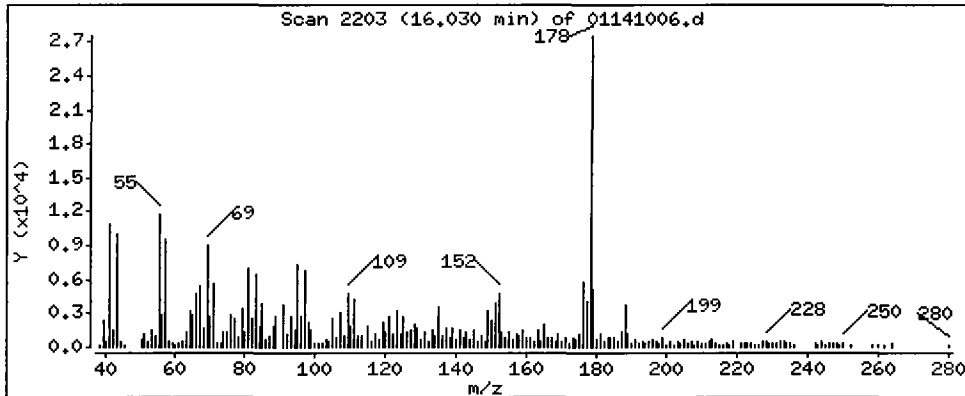
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

60 Phenanthrene

Concentration: 1153 ug/kg



Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

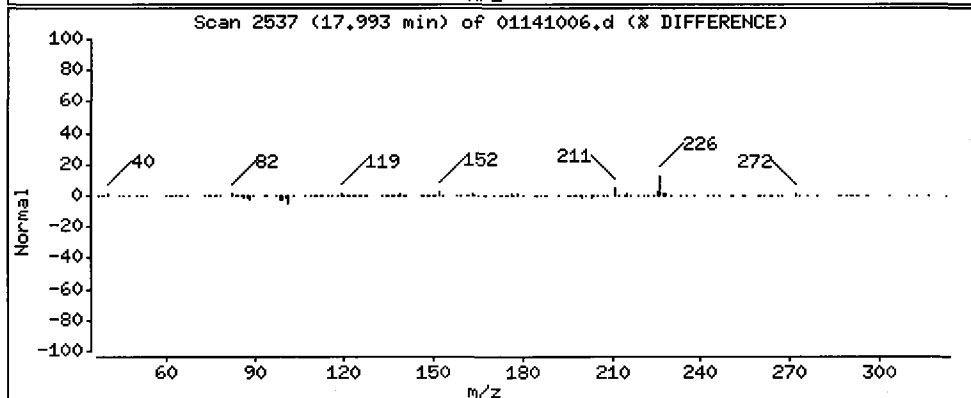
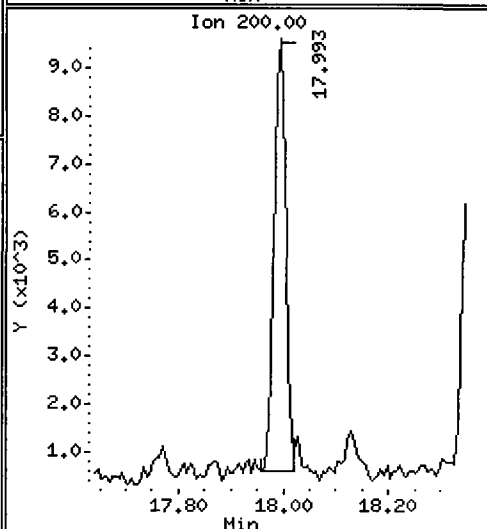
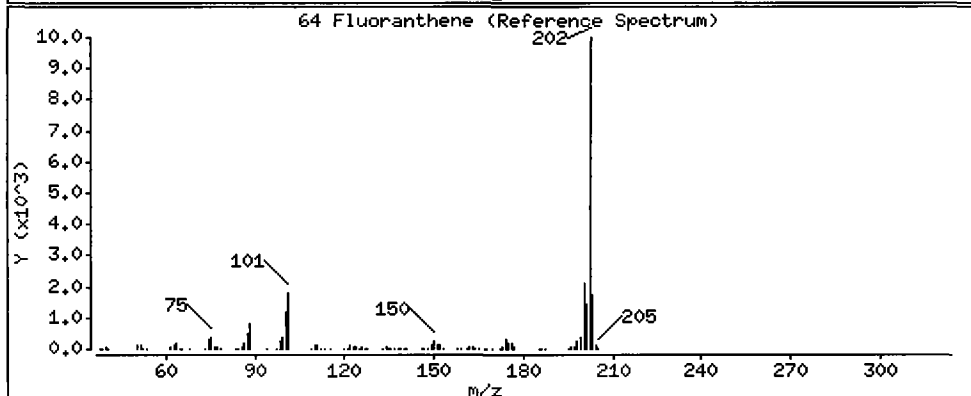
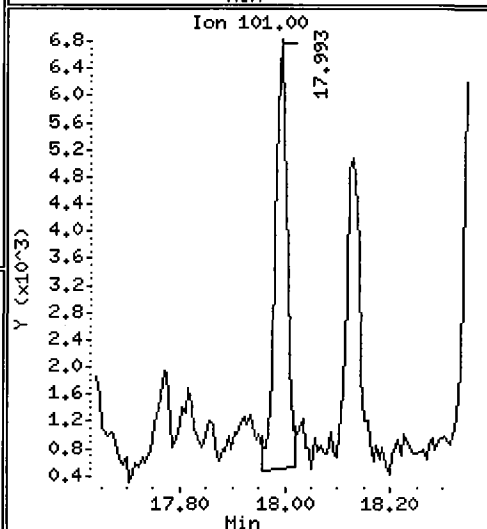
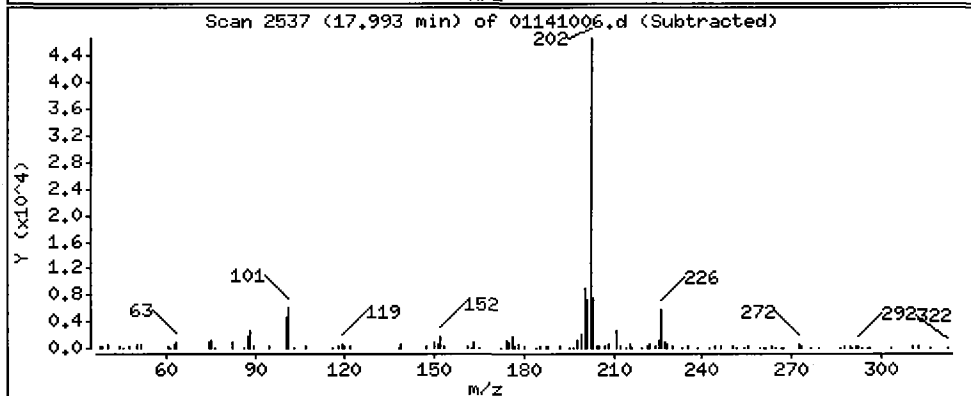
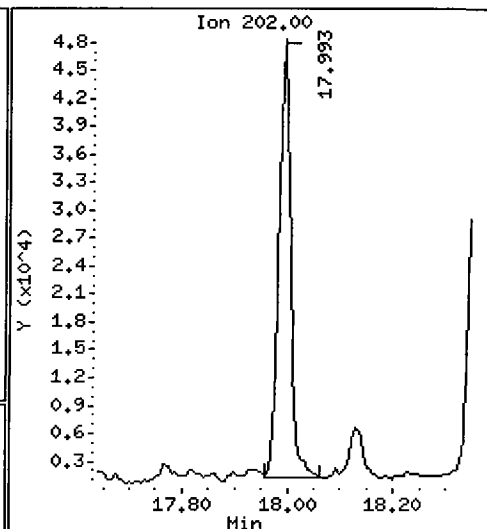
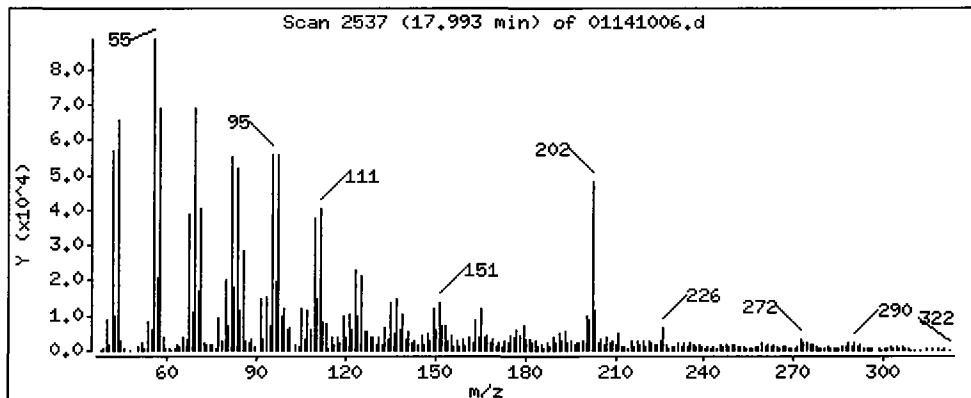
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

64 Fluoranthene

Concentration: 2186 ug/kg



Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

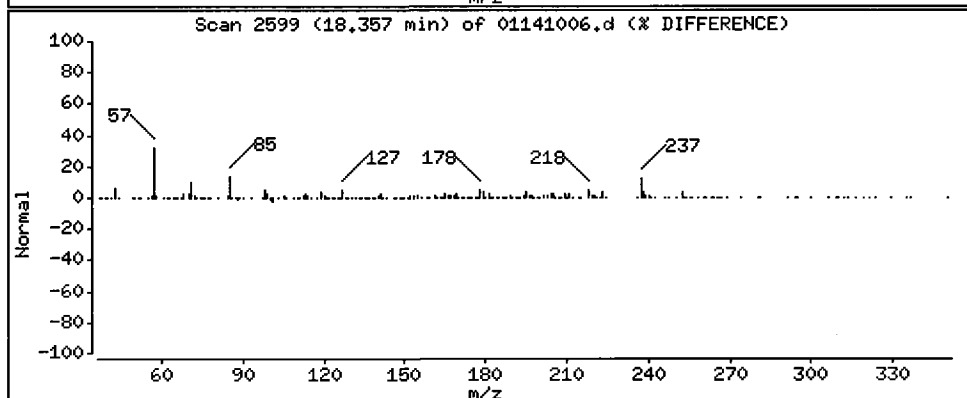
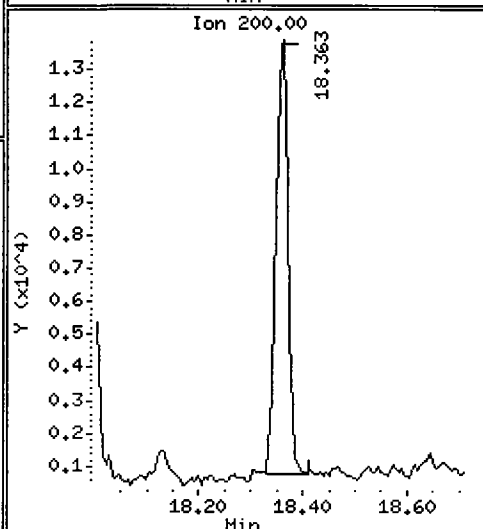
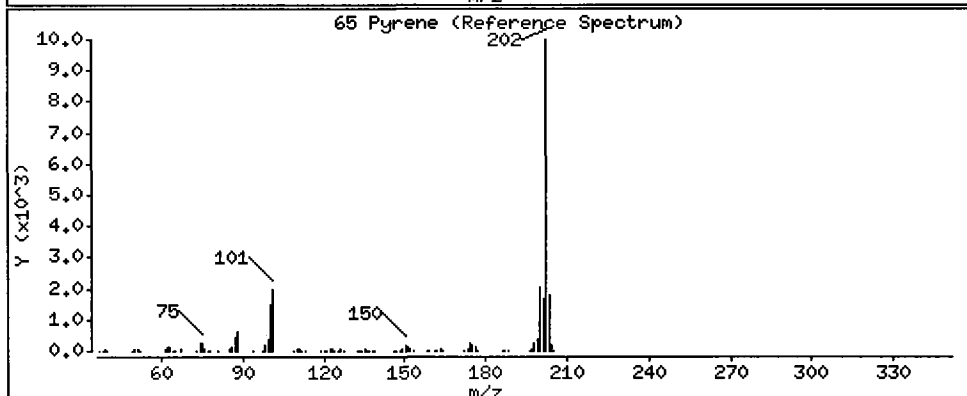
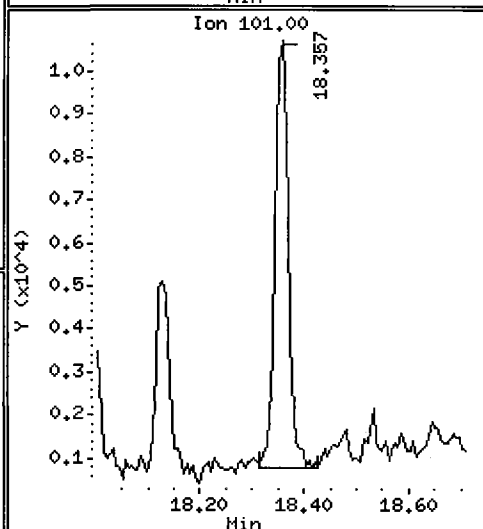
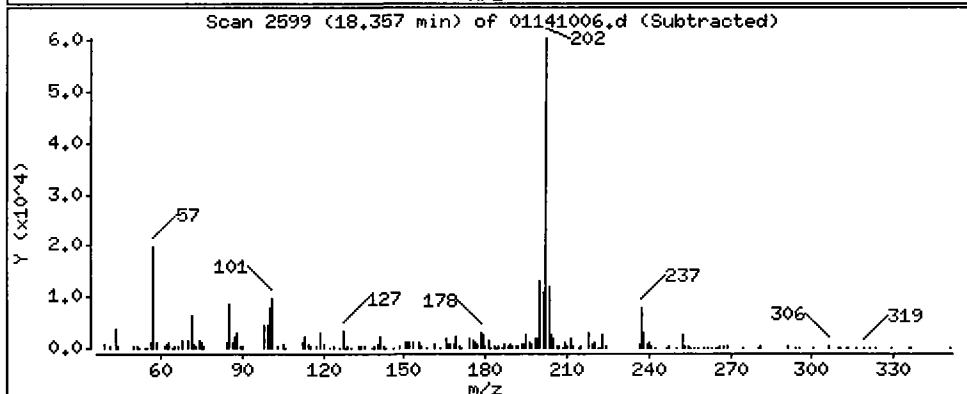
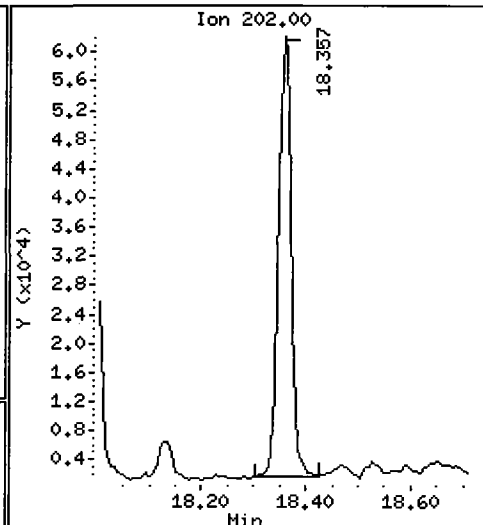
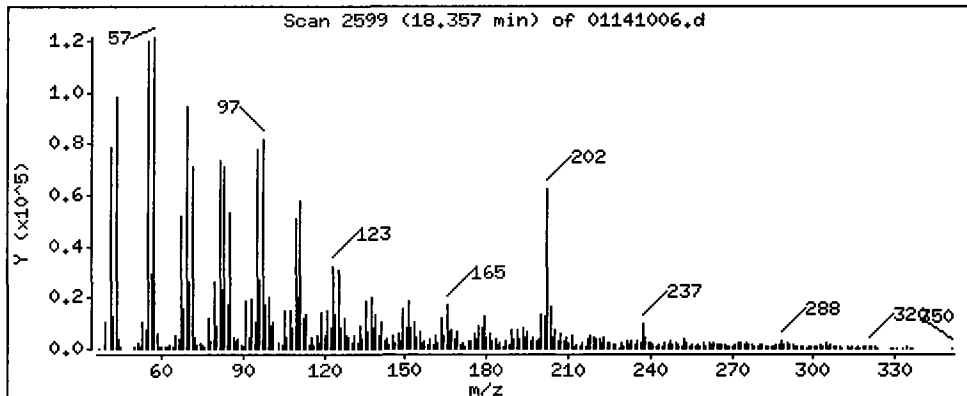
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

65 Pyrene

Concentration: 2196 ug/kg



Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

Operator: JZ

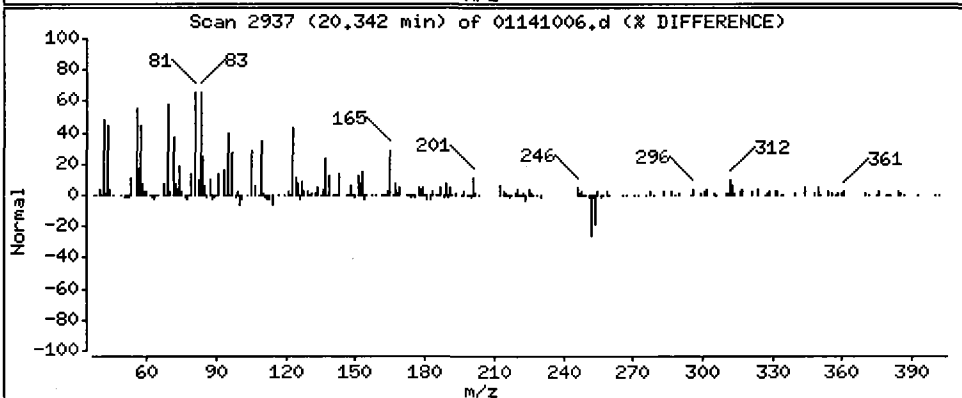
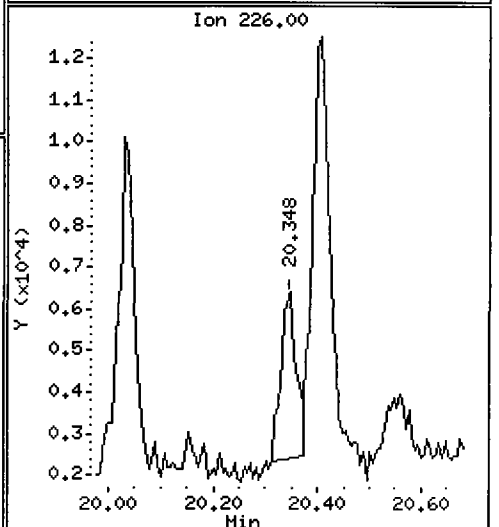
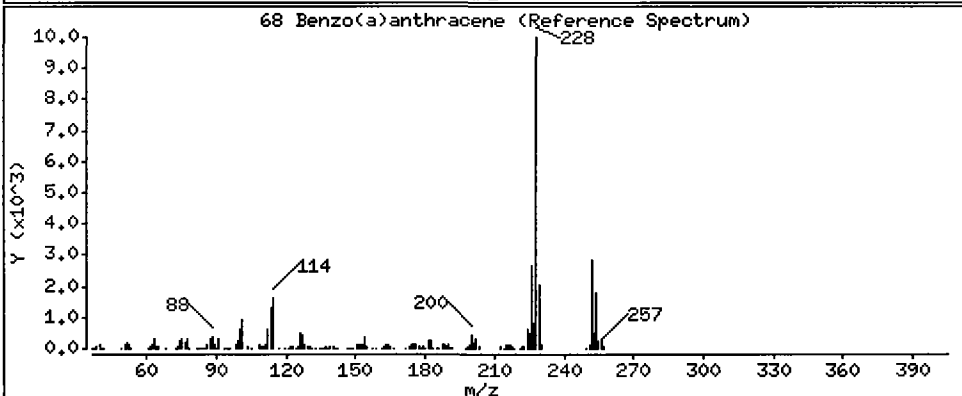
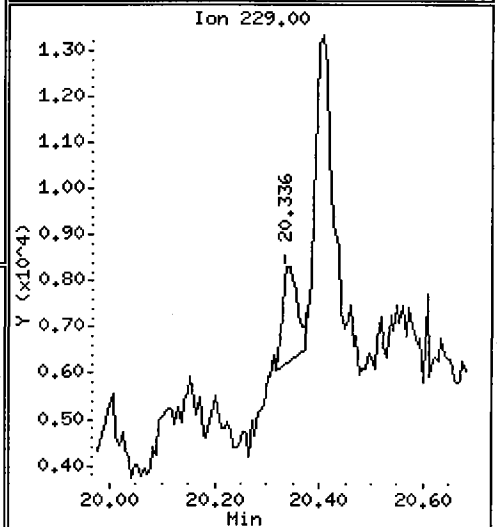
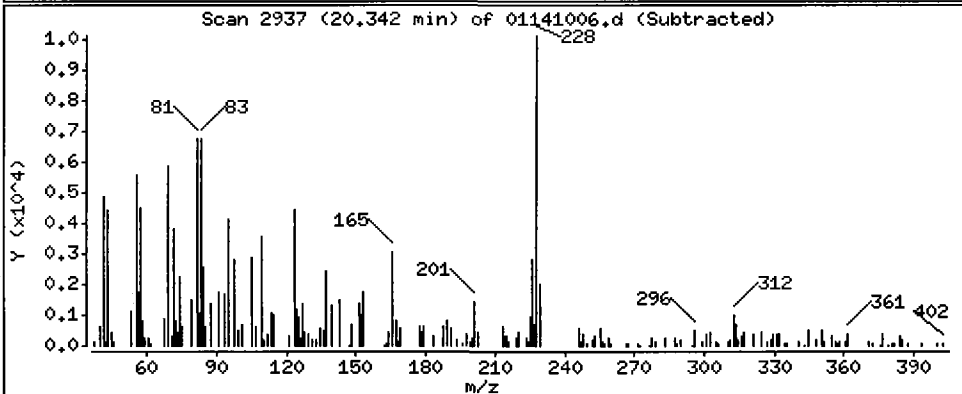
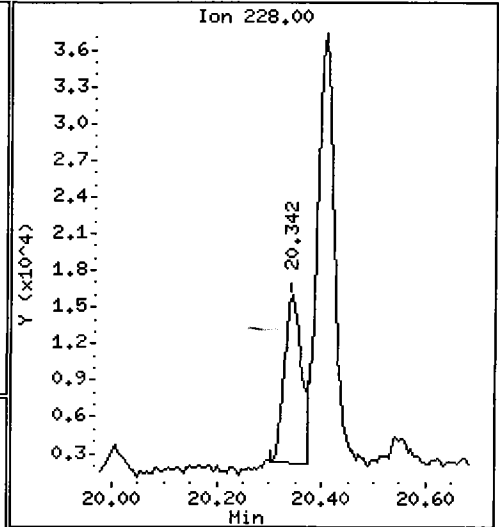
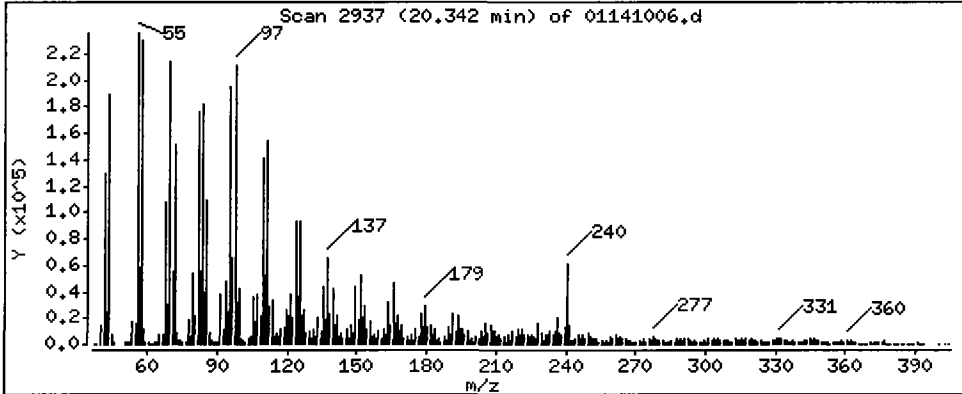
Column phase: ZB-5msi

Column diameter: 0.32

68 Benzo(a)anthracene

Concentration: 721.6 ug/kg

*Handwritten signature*



Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

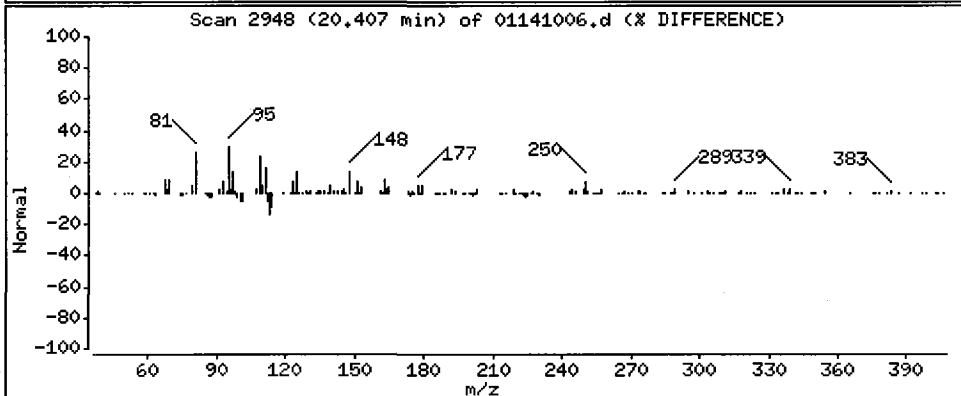
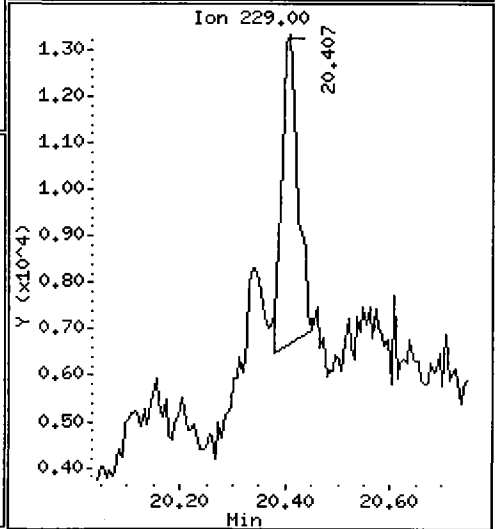
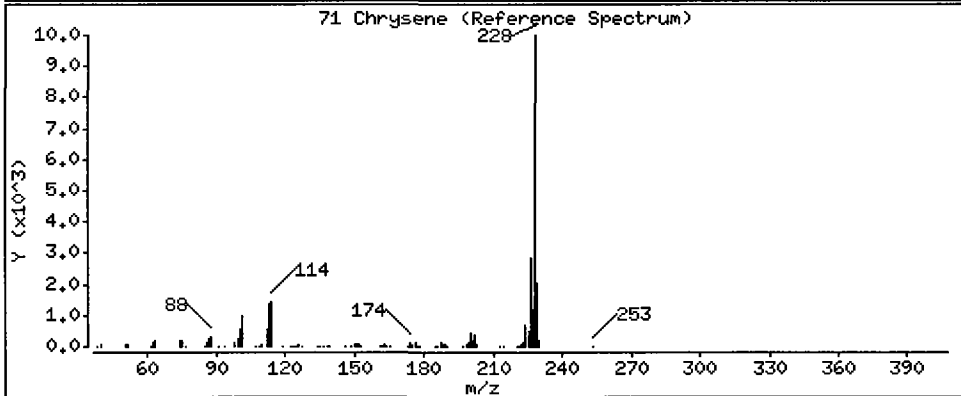
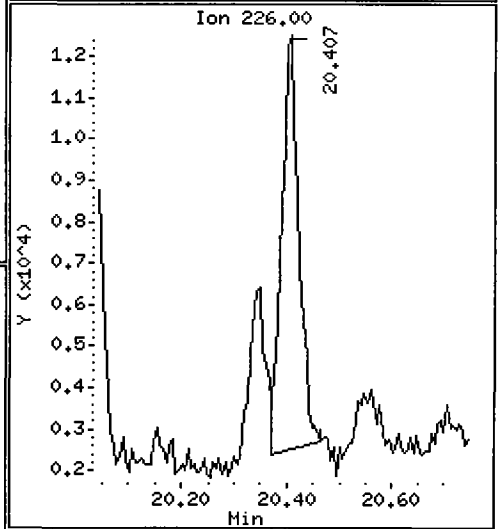
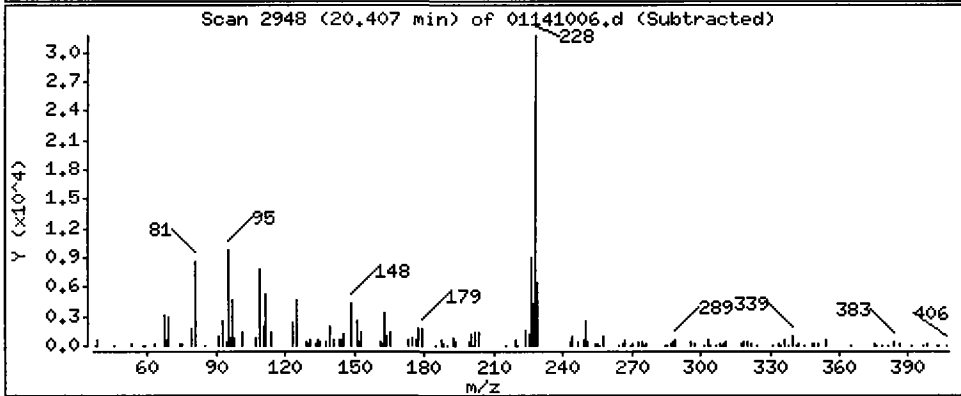
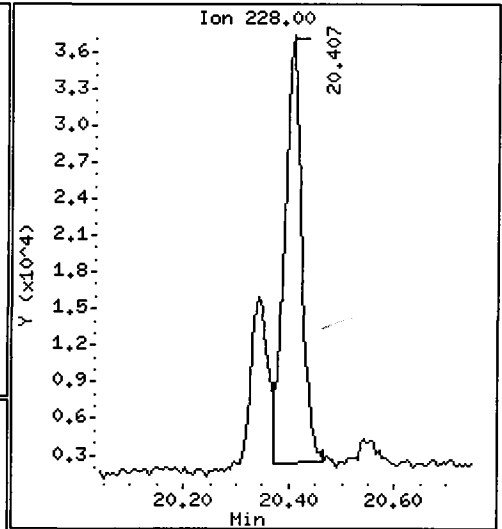
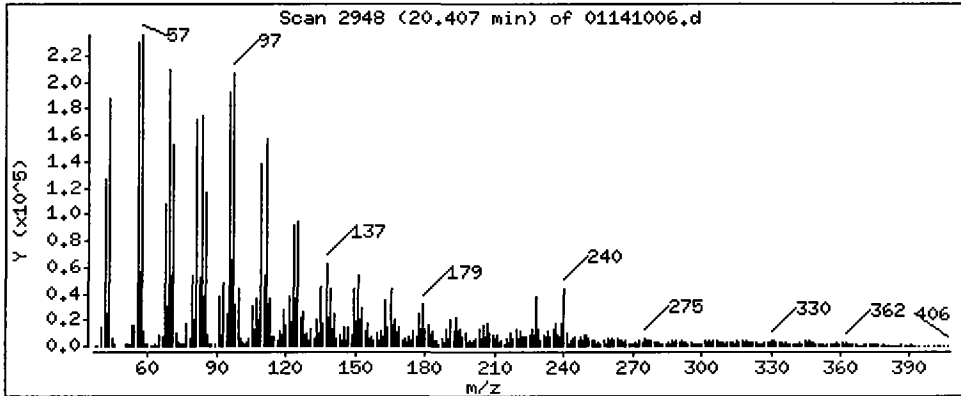
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

71 Chrysene

Concentration: 1910 ug/kg



Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

Operator: JZ

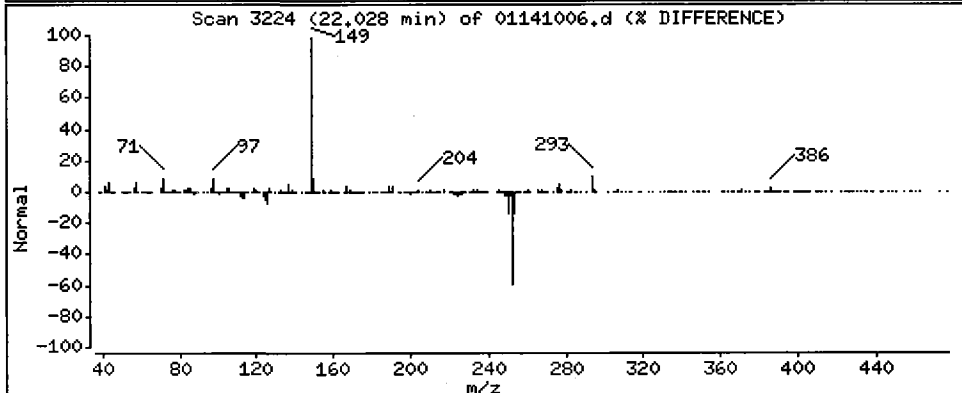
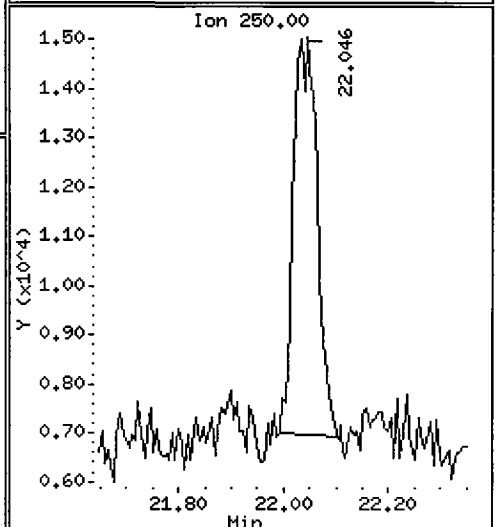
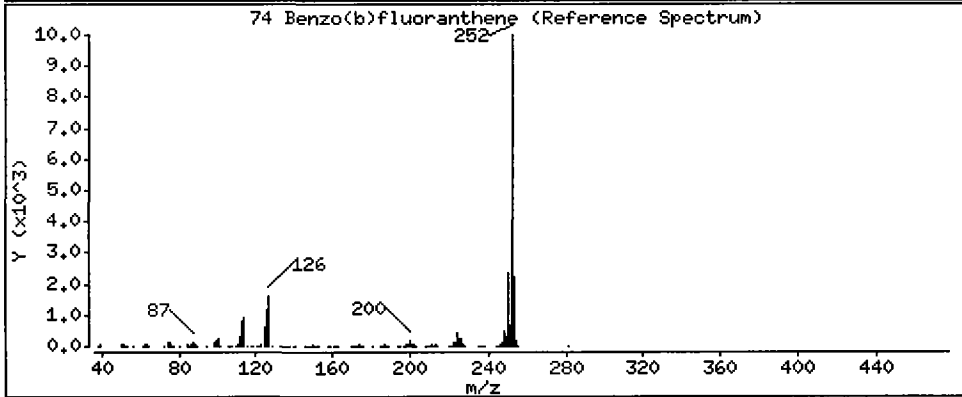
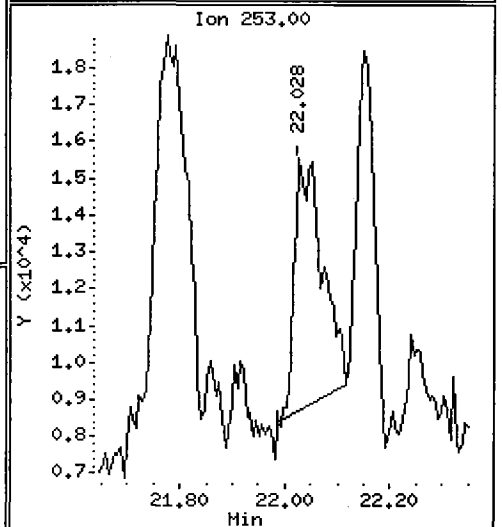
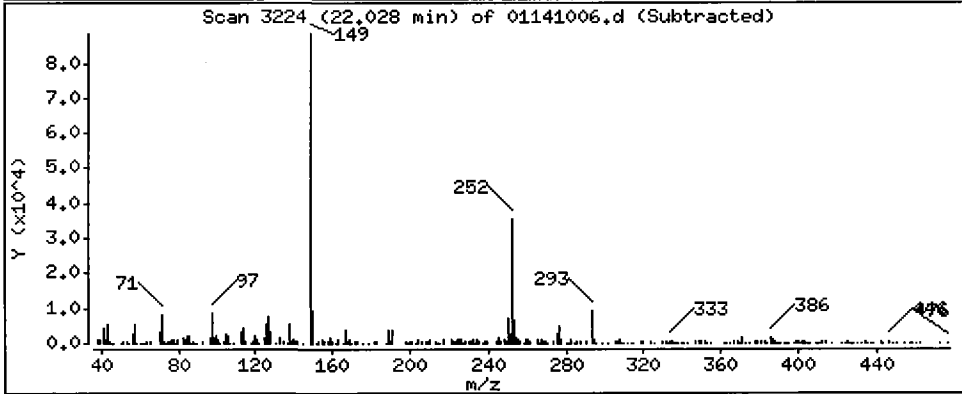
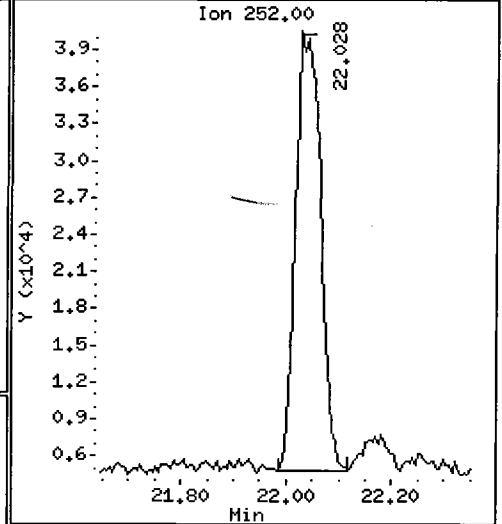
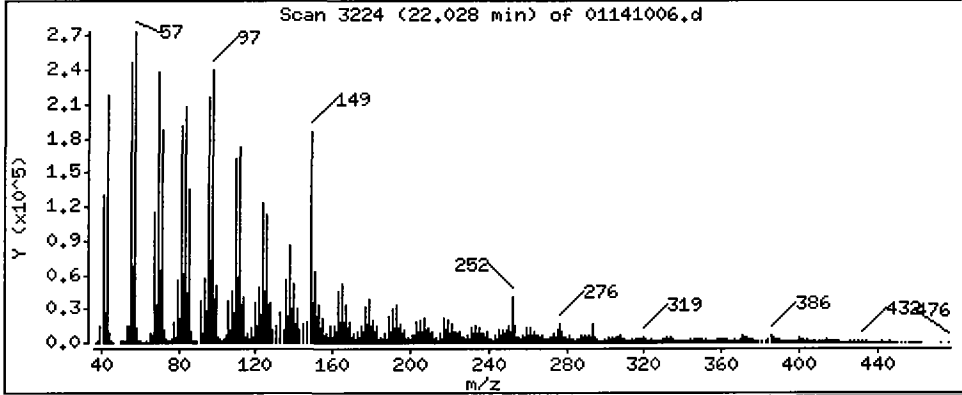
Column phase: ZB-5msi

Column diameter: 0.32

1/2  
JZ

74 Benzo(b)fluoranthene

Concentration: 2479 ug/kg



Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

Operator: JZ

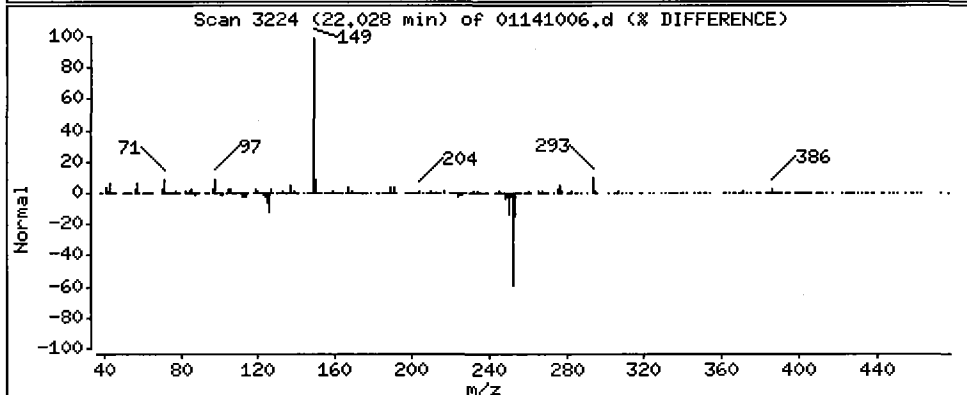
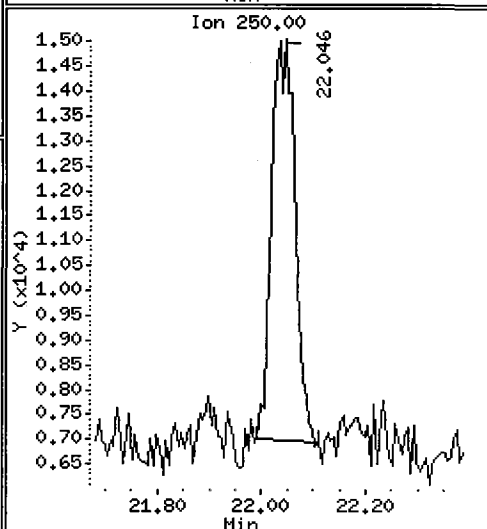
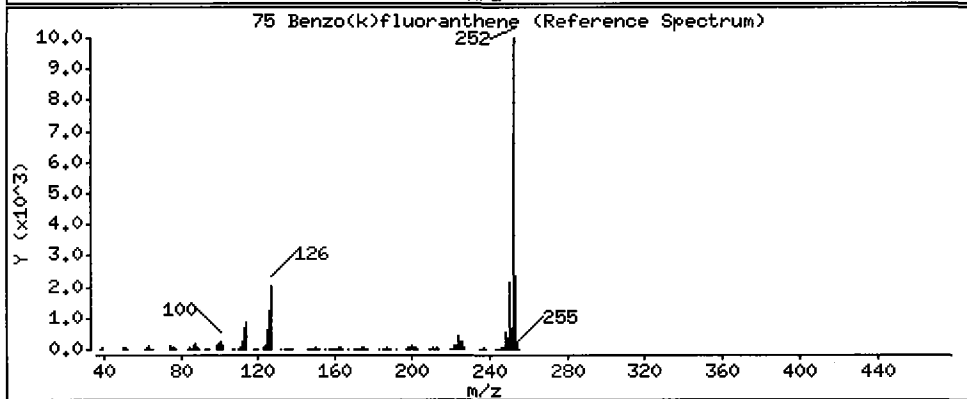
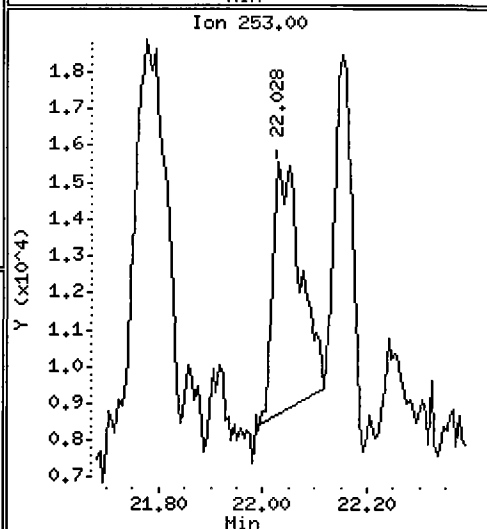
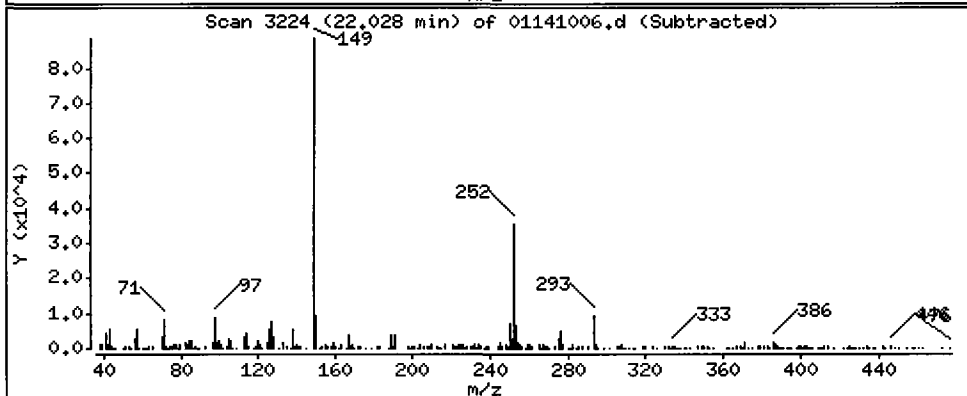
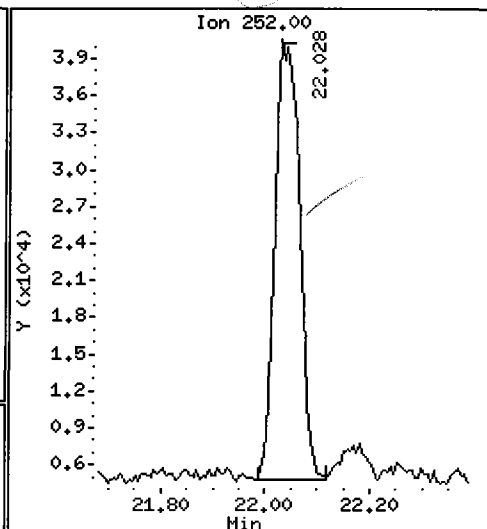
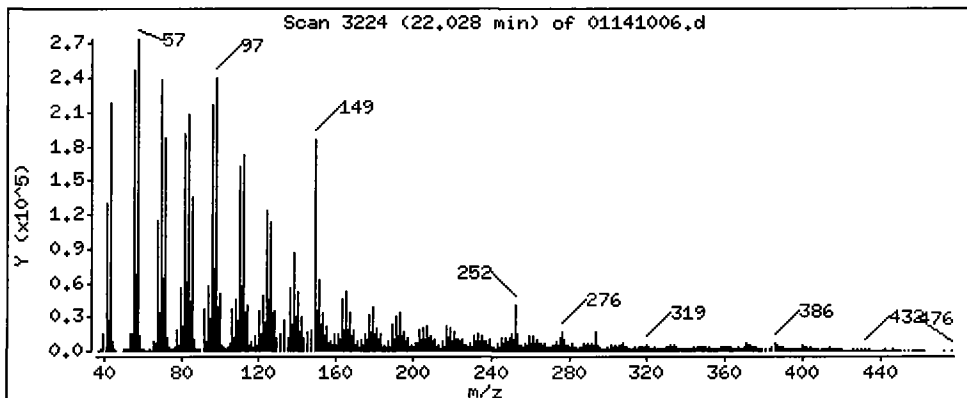
Column phase: ZB-5msi

Column diameter: 0.32

*Handwritten notes:*  
112  
56

75 Benzo(k)fluoranthene

Concentration: 2496 ug/kg





Data File: /chem3/nt4.i/20100114.b/01141006.d

Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

Operator: JZ

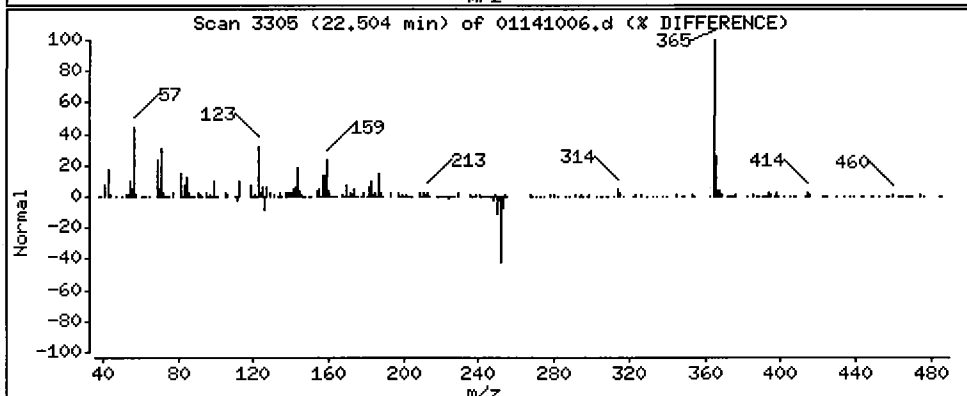
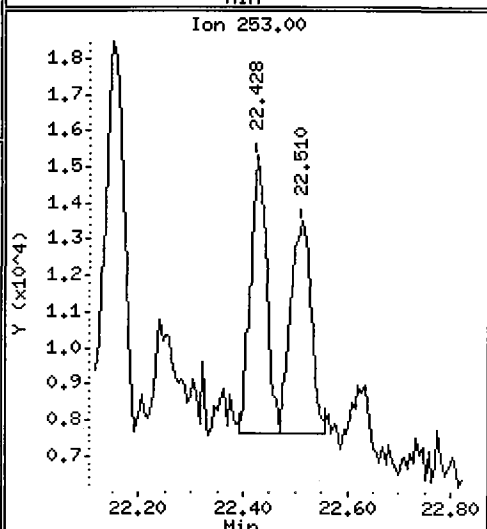
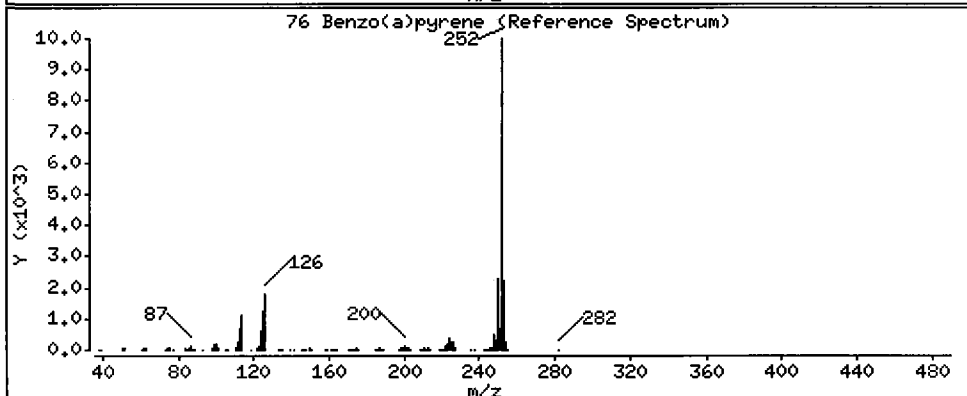
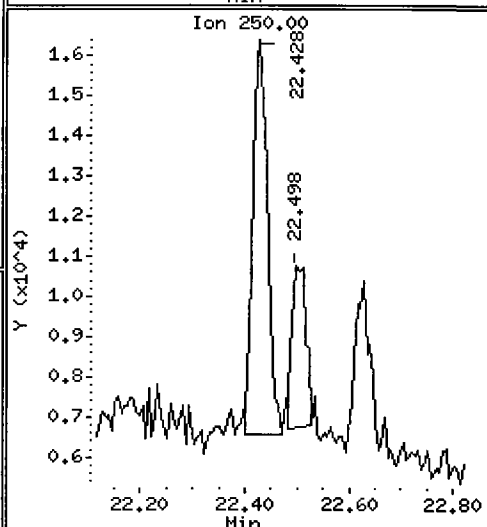
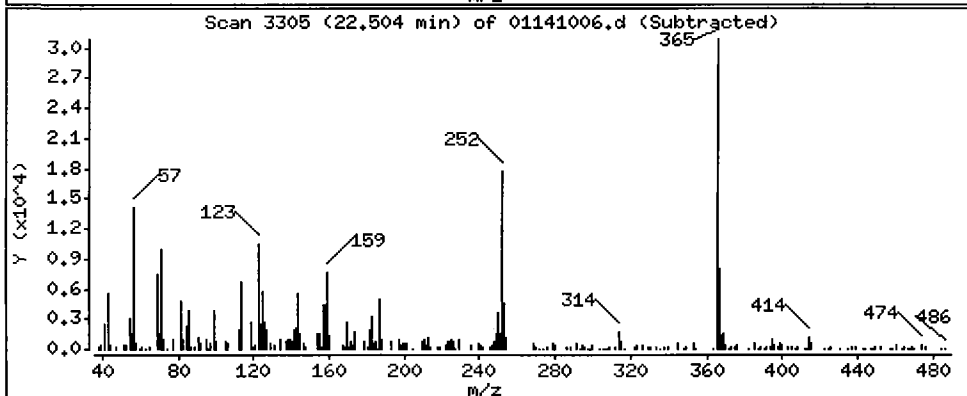
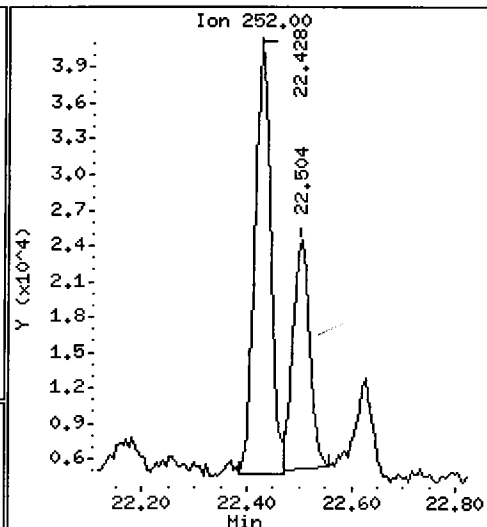
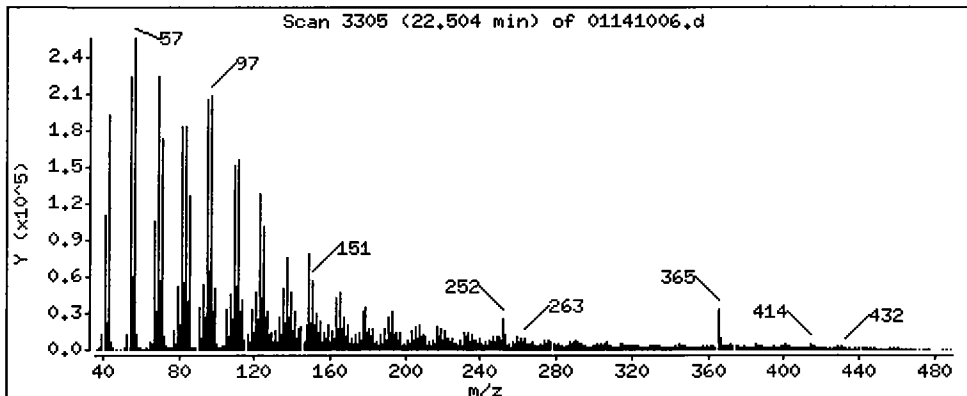
Column phase: ZB-5msi

Column diameter: 0.32

JZ

76 Benzo(a)pyrene

Concentration: 1024 ug/kg



Date : 14-JAN-2010 14:50

Client ID: CB19010710Sed

Instrument: nt4.i

Sample Info: QE56B,3,

Volume Injected (uL): 1.0

Operator: JZ

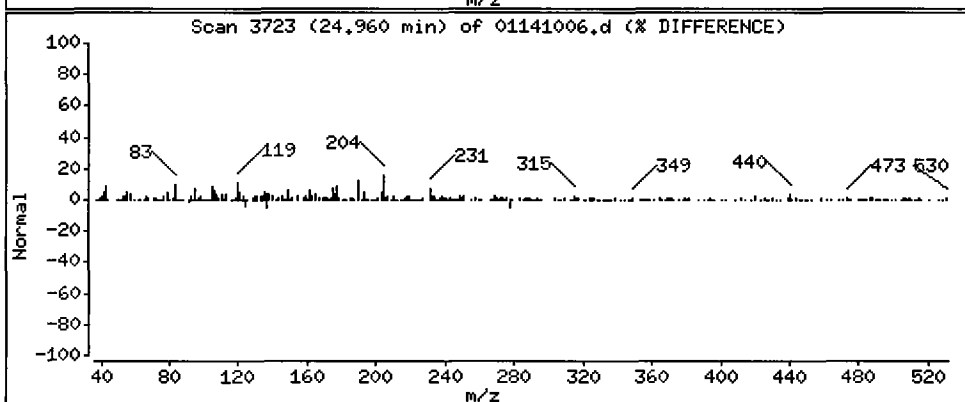
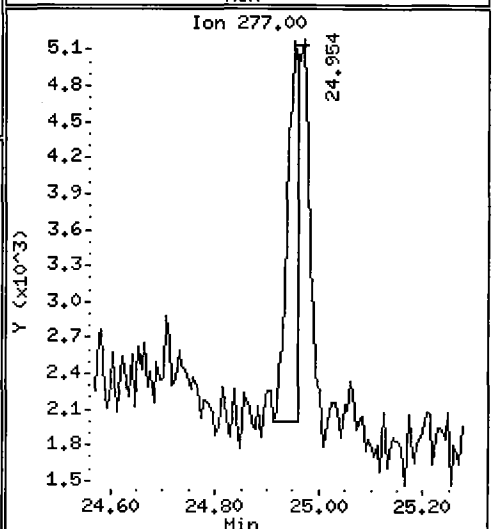
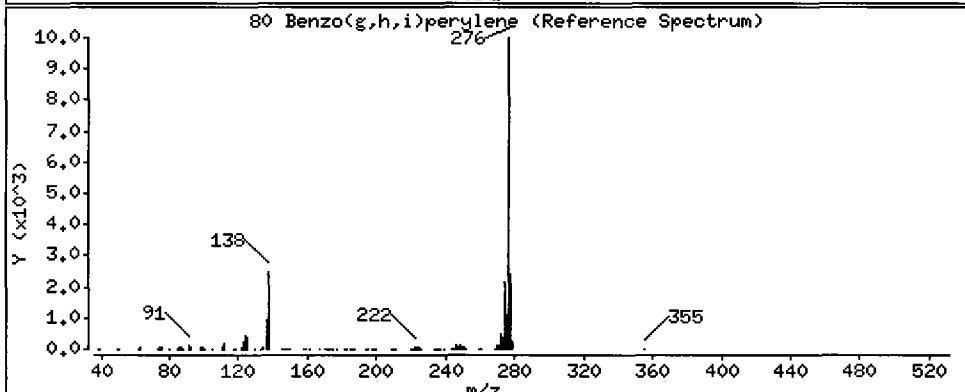
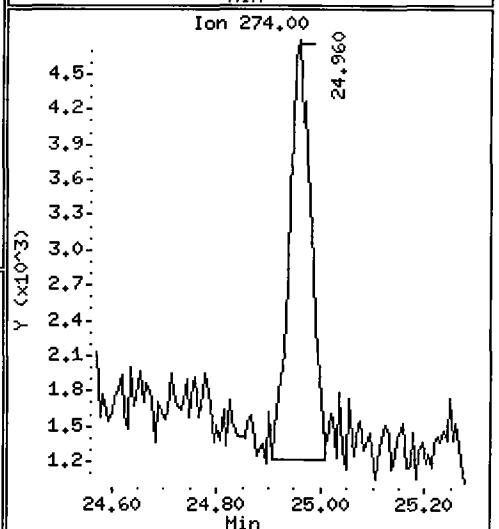
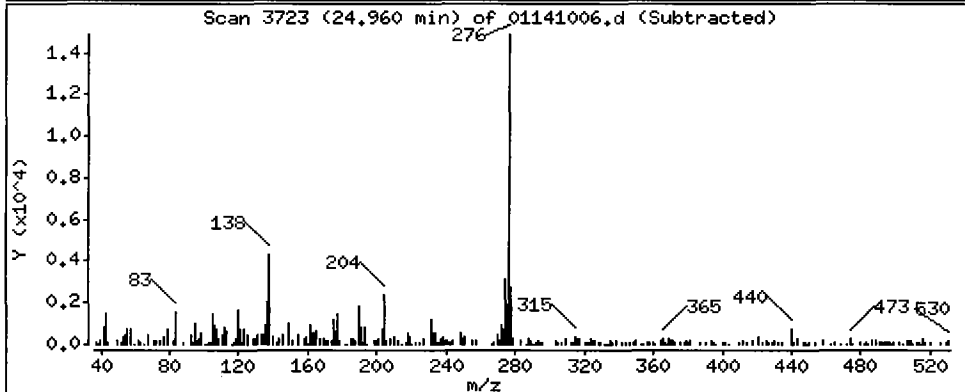
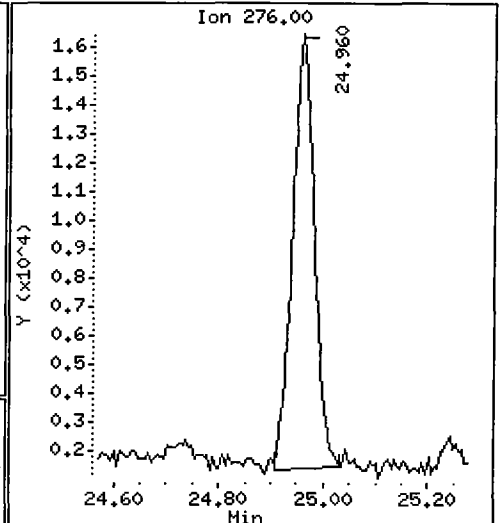
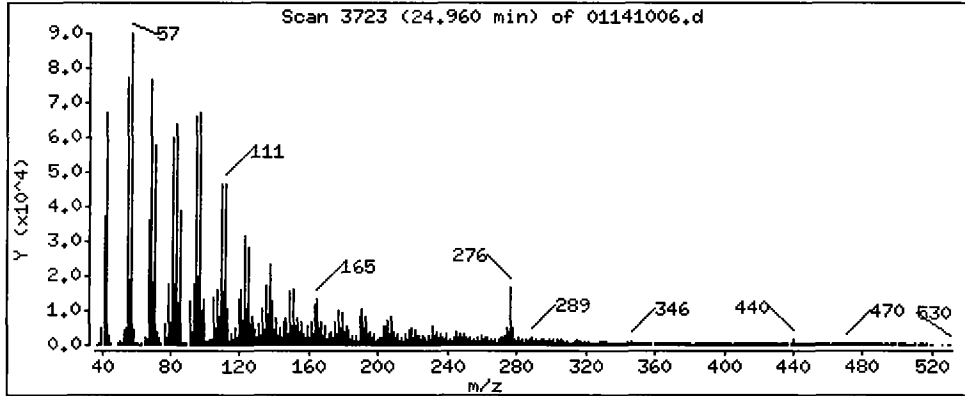
Column phase: ZB-5msi

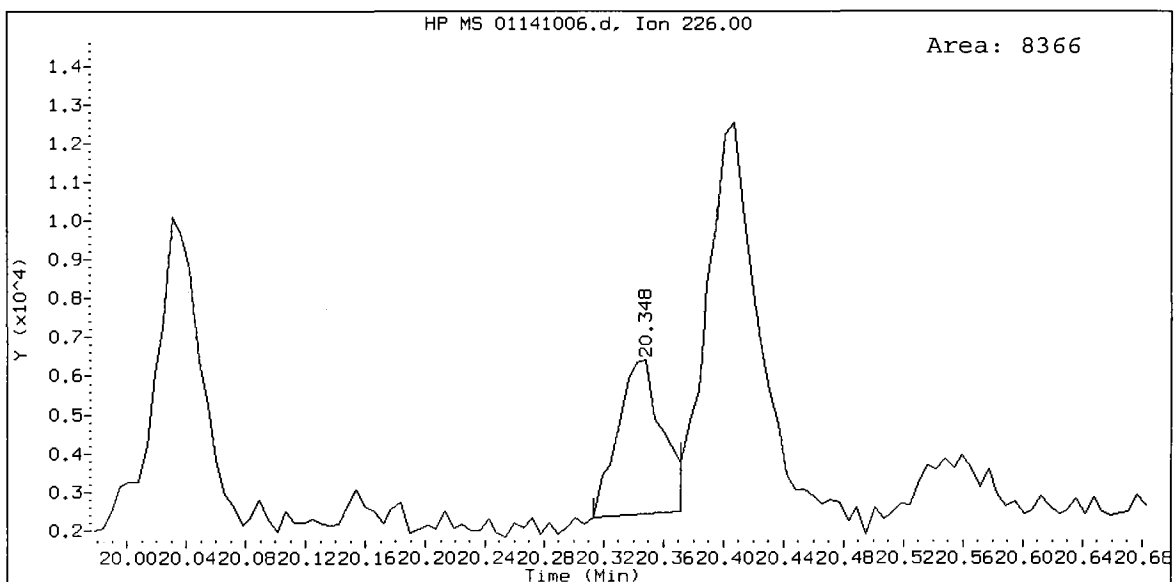
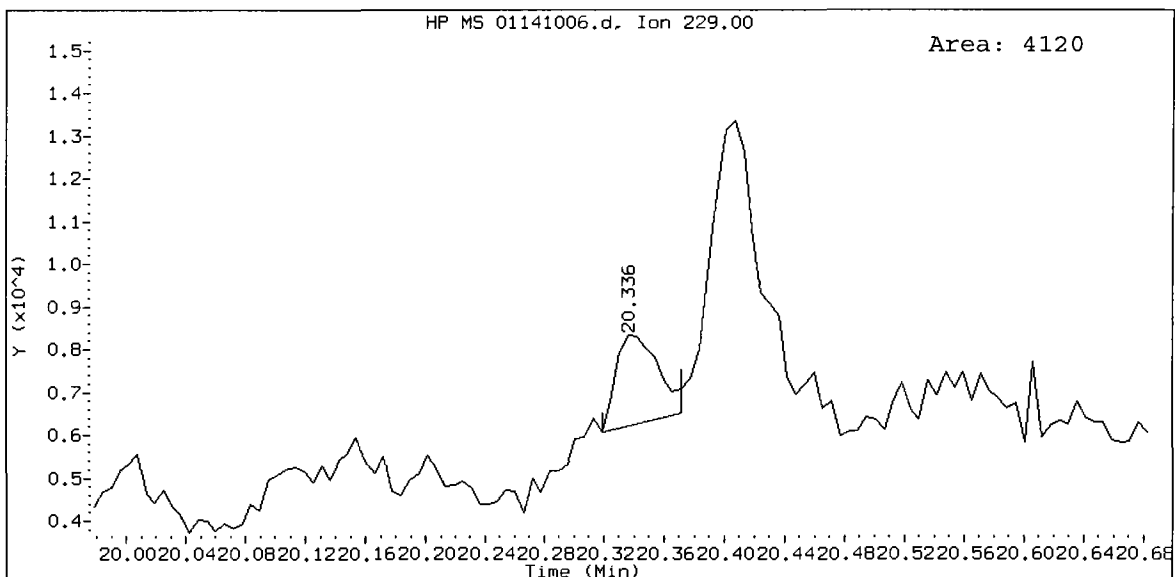
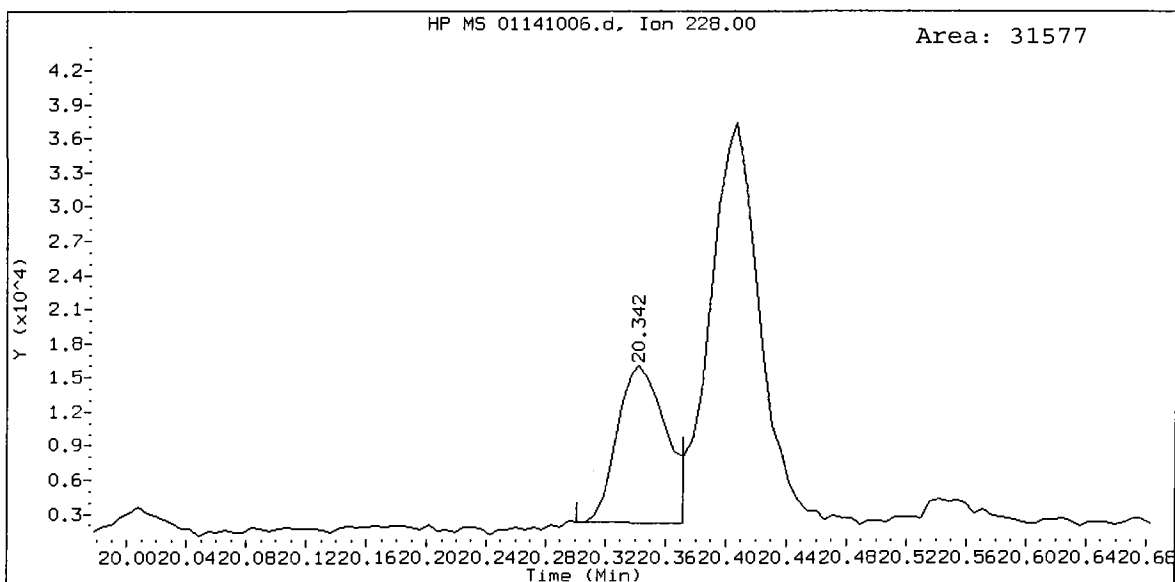
Column diameter: 0.32

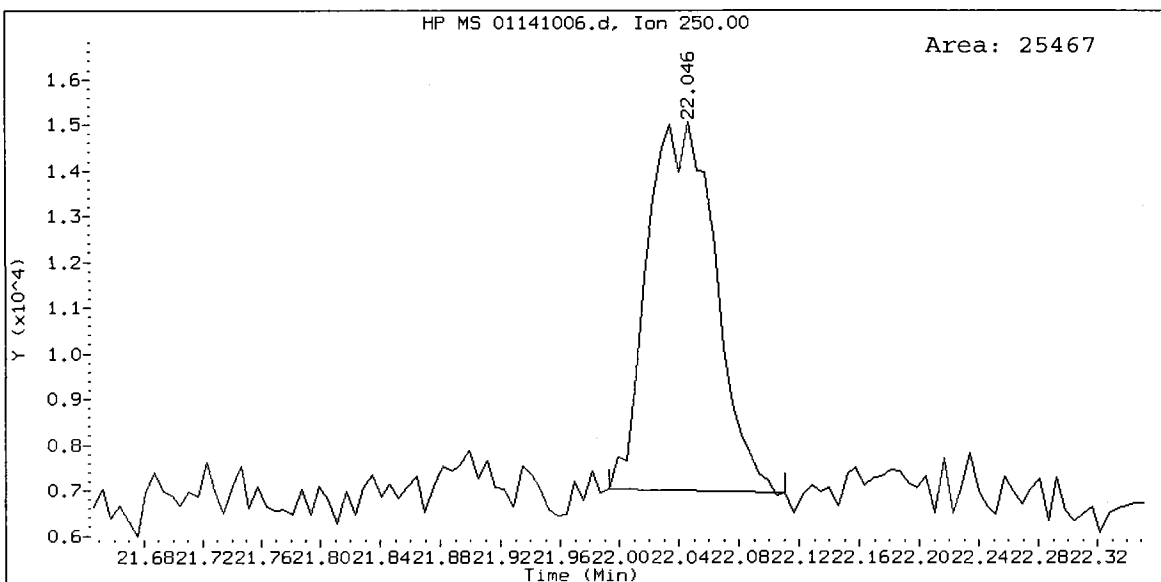
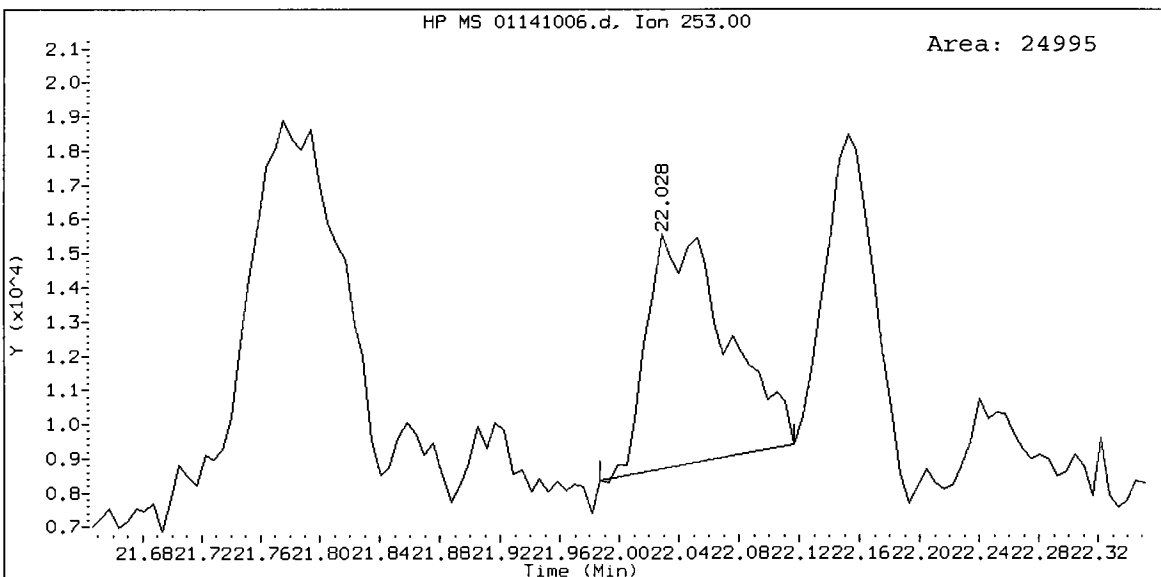
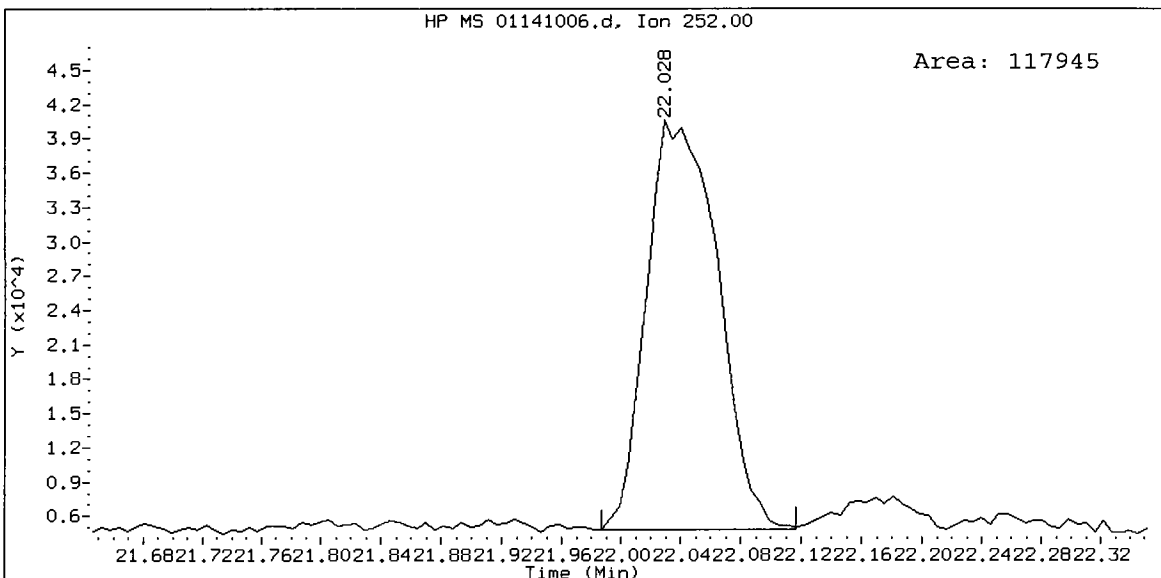
JZ

80 Benzo(g,h,i)perylene

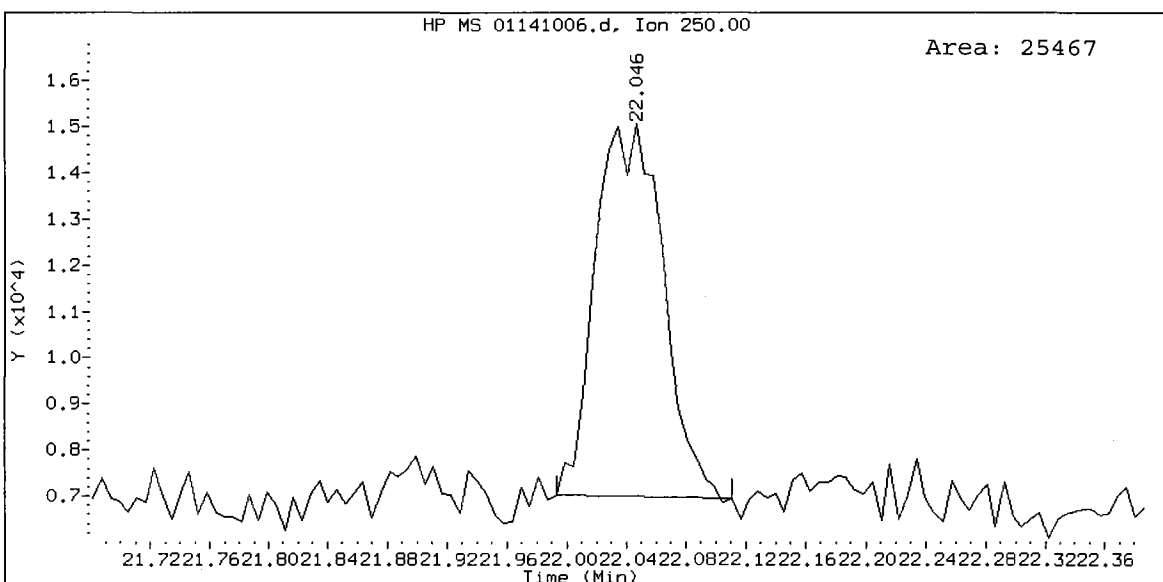
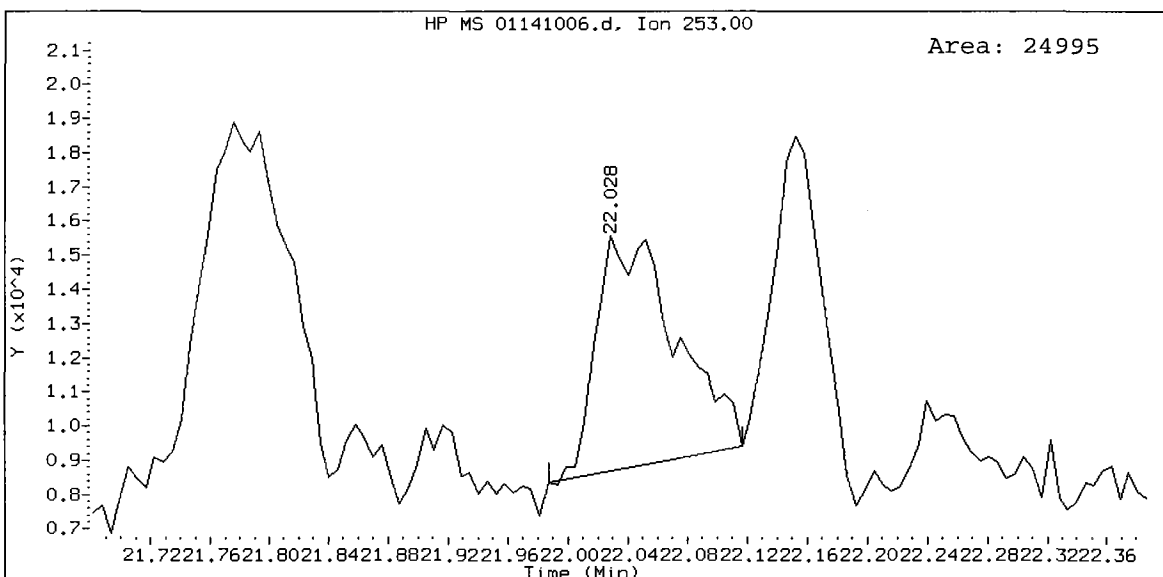
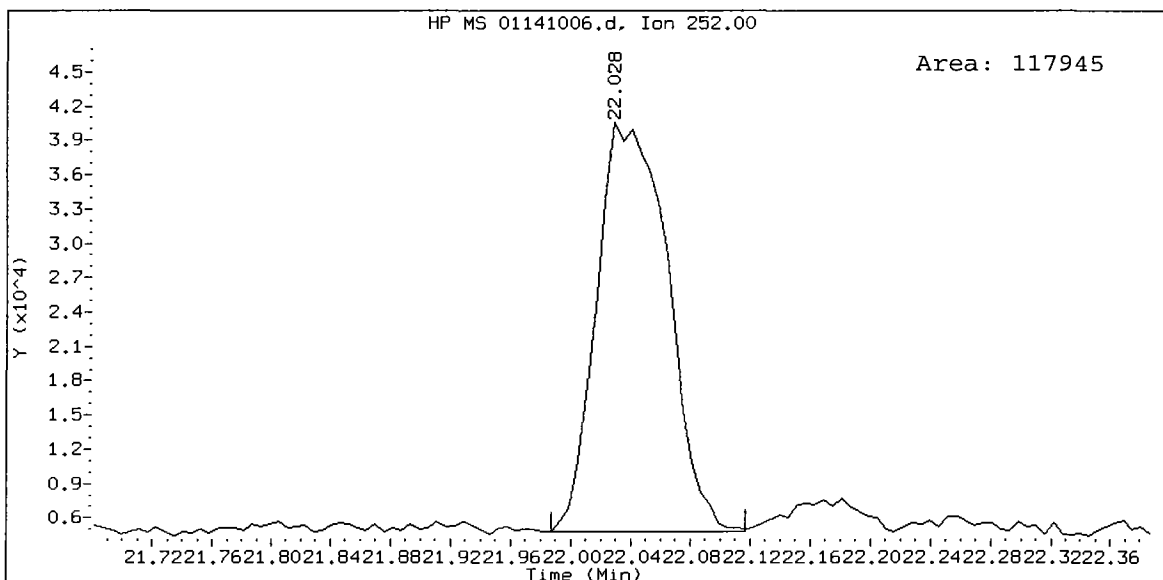
Concentration: 977.5 ug/kg







QE56B, /chem3/nt4.i/20100114.b/01141006.d  
Benzo(k)fluoranthene Amount: 1.62



ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
SAMPLE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *AS*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 17:04  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.23 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	220	< 220 U
91-57-6	2-Methylnaphthalene	220	< 220 U
90-12-0	1-Methylnaphthalene	220	< 220 U
208-96-8	Acenaphthylene	220	< 220 U
83-32-9	Acenaphthene	220	< 220 U
86-73-7	Fluorene	220	< 220 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>220</b>	<b>460</b>
120-12-7	Anthracene	220	< 220 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>220</b>	<b>970</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>220</b>	<b>1,700</b>
56-55-3	Benzo (a) anthracene	220	250
218-01-9	Chrysene	220	980
205-99-2	Benzo (b) fluoranthene	220	560
207-08-9	Benzo (k) fluoranthene	220	560
50-32-8	Benzo (a) pyrene	220	390
193-39-5	Indeno (1,2,3-cd) pyrene	220	220 J
53-70-3	Dibenz (a,h) anthracene	220	< 220 U
<b>191-24-2</b>	<b>Benzo (g,h,i) perylene</b>	<b>220</b>	<b>360</b>
132-64-9	Dibenzofuran	220	< 220 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	150%
2-Fluorobiphenyl	78.8%

Analytical Resources, Inc.

Semivolatiles Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141010.d  
 Lab Smp Id: QE56C Client Smp ID: CB12010710Sed  
 Inj Date : 14-JAN-2010 17:04  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : QE56C  
 Misc Info : 10-434  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 17:47 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 10  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pna.sub  
 Target Version: 3.50

*12 01/15/10*

Concentration Formula: Amt \* DF \* Vt / (Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	9.00000	Weight of sample extracted (g)
M	75.20000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.710	10.708	(1.000)	1116269	20.0000	
28 Naphthalene	128				Compound Not Detected.		
32 2-Methylnaphthalene	141				Compound Not Detected.		
105 1-methylnaphthalene	141				Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172	12.502	12.500	(0.919)	735891	19.7082	4415
40 Acenaphthylene	152				Compound Not Detected.		
* 42 Acenaphthene-d10	164	13.600	13.593	(1.000)	646796	20.0000	
44 Acenaphthene	153				Compound Not Detected.		
46 Dibenzofuran	168				Compound Not Detected.		
49 Fluorene	166				Compound Not Detected.		
* 59 Phenanthrene-d10	188	16.003	15.995	(1.000)	1157168	20.0000	
60 Phenanthrene	178	16.038	16.036	(1.002)	124405	2.06745	463.1
61 Anthracene	178				Compound Not Detected.		
64 Fluoranthene	202	18.024	17.993	(1.126)	254642	4.30629	964.7
65 Pyrene	202	18.400	18.357	(0.901)	324379	7.58950	1700

Compounds	QUANT SIG			CONCENTRATIONS			
	MASS	RT	EXP RT REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)	
\$ 66 Terphenyl-d14	244	18.676	18.639 (0.915)	932899	37.4815	8396 (R)	
68 Benzo(a)anthracene	228	20.391	20.331 (0.999)	43576	1.10054	246.5 (M)	
* 69 Chrysene-d12	240	20.421	20.354 (1.000)	671151	20.0000		
71 Chrysene	228	20.456	20.395 (1.002)	164614	4.37749	980.6 (M)	
74 Benzo(b)fluoranthene	252	22.077	21.999 (0.976)	94379	3.95606	1110 (M)	2.49
75 Benzo(k)fluoranthene	252	22.077	22.034 (0.976)	94379	3.98911	1118 (M)	2.49
76 Benzo(a)pyrene	252	22.541	22.469 (0.996)	29619	1.72115	385.6 (MH)	
* 77 Perylene-d12	264	22.629	22.551 (1.000)	309320	20.0000		
78 Indeno(1,2,3-cd)pyrene	276	24.462	24.390 (1.081)	19559	0.98922	221.6 (M)	
79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80 Benzo(g,h,i)perylene	276	24.991	24.924 (1.104)	28095	1.59118	356.4	

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

*D 01/15/10*



Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 14-JAN-2010
Lab File ID: 01141010.d	Calibration Time: 11:30
Lab Smp Id: QE56C	Client Smp ID: CB12010710Sed
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Sediment
Operator: JZ	
Method File: /chem3/nt4.i/20100114.b/SW846100107.m	
Misc Info: 10-434	

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1116269	7.79
42 Acenaphthene-d10	594267	297134	1188534	646796	8.84
59 Phenanthrene-d10	951721	475860	1903442	1157168	21.59
69 Chrysene-d12	794862	397431	1589724	671151	-15.56
77 Perylene-d12	826094	413047	1652188	309320	-62.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.02
42 Acenaphthene-d10	13.59	13.09	14.09	13.60	0.06
59 Phenanthrene-d10	16.00	15.50	16.50	16.00	0.05
69 Chrysene-d12	20.35	19.85	20.85	20.42	0.33
77 Perylene-d12	22.55	22.05	23.05	22.63	0.35

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56C  
Level: LOW  
Data Type: MS DATA  
SpikeList File: pnalcs.w.spk  
Sublist File: pna.sub  
Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
Misc Info: 10-434

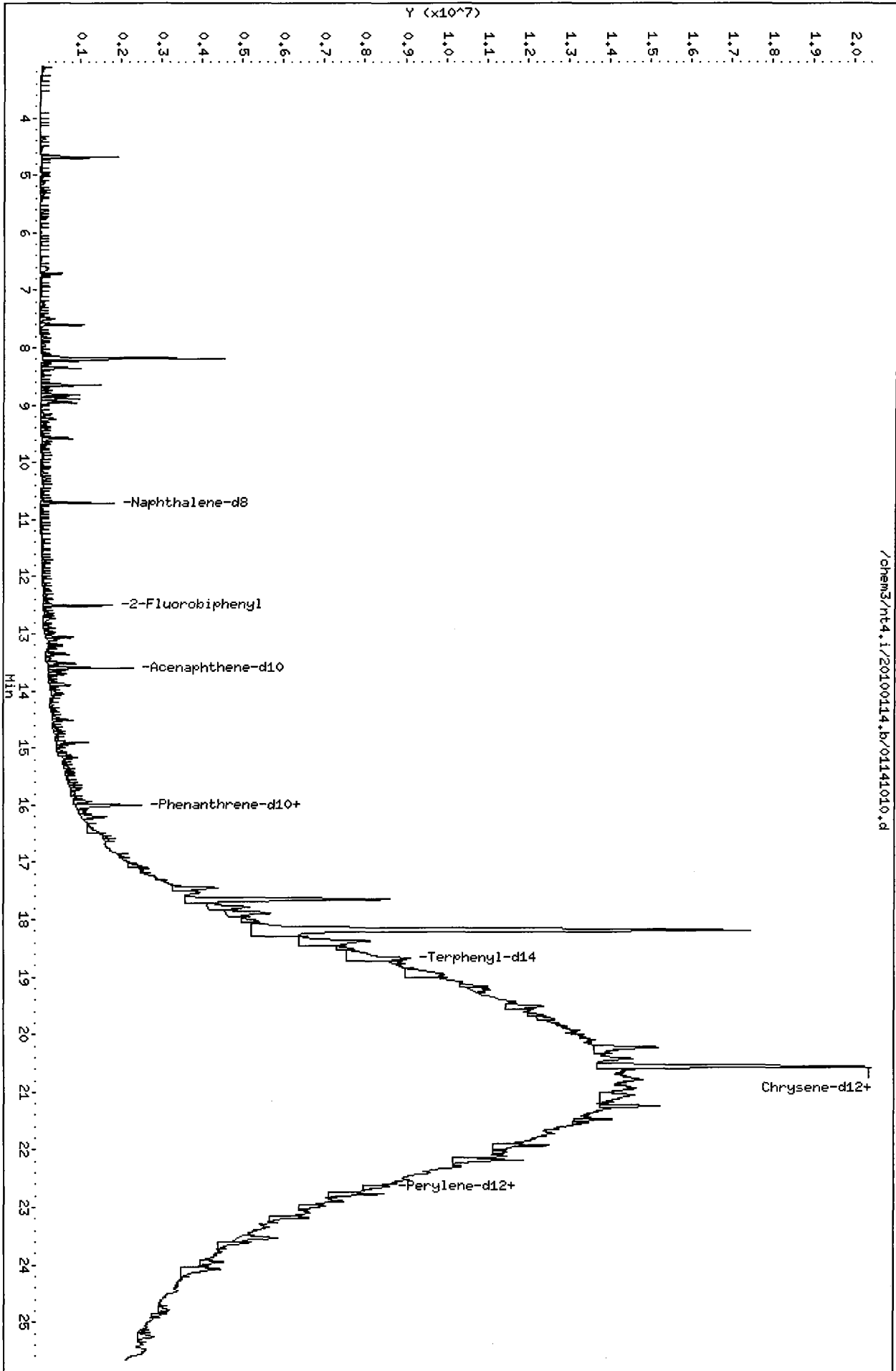
Client SDG: QE56  
Fraction: SV  
Client Smp ID: CB12010710Sed  
Operator: JZ  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	5600	4415	78.83	34-100
\$ 66 Terphenyl-d14	5600	8396	149.93*	35-112

Data File: /chem3/nt4.i/20100114.b/01141010.d  
Date: 14-JAN-2010 17:04  
Client ID: CB12010710SED  
Sample Info: QE56C  
Volume Injected (uL): 1.0  
Column phase: ZB-5msi

Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32

/chem3/nt4.i/20100114.b/01141010.d



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

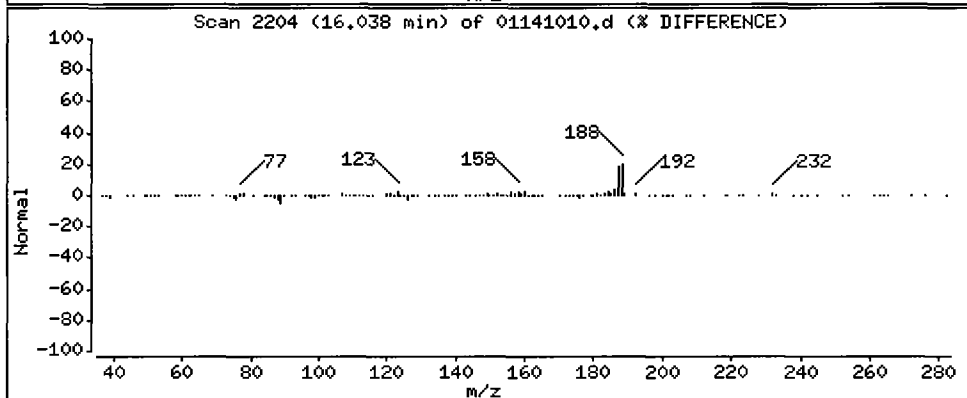
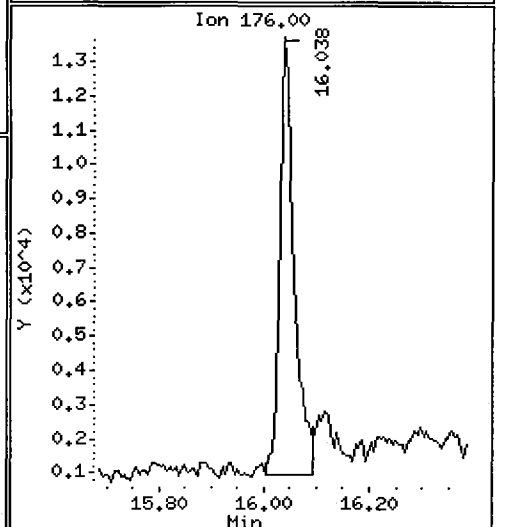
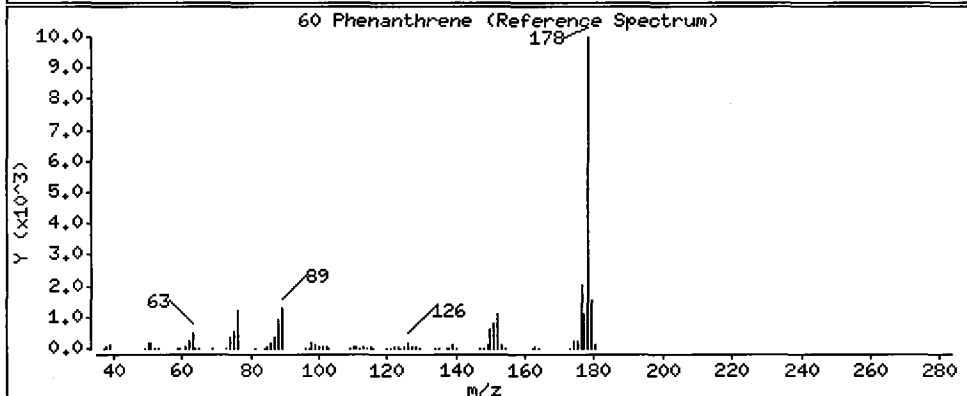
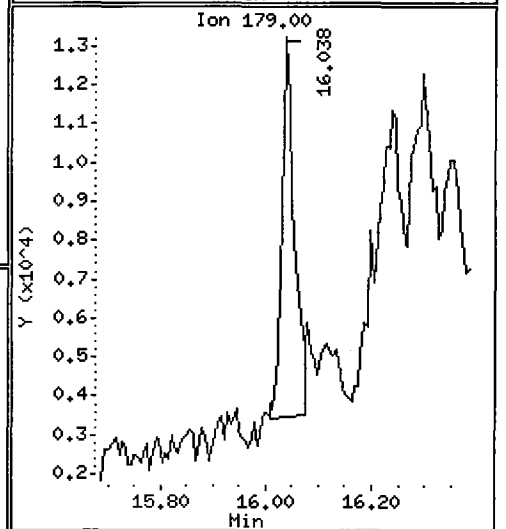
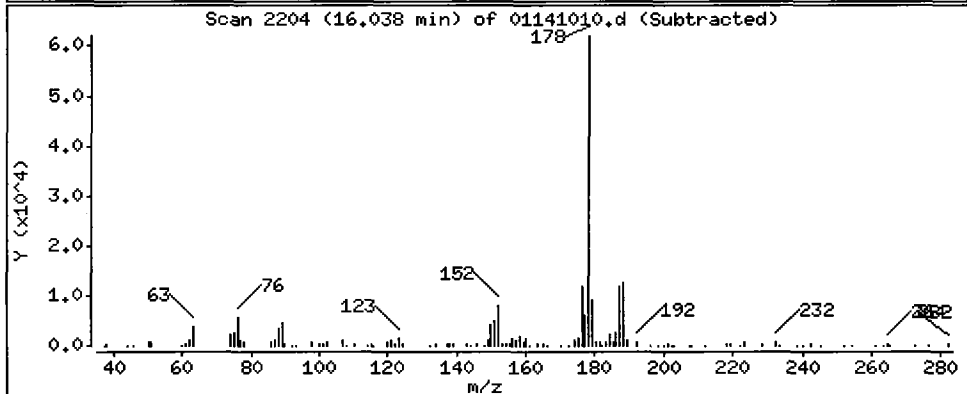
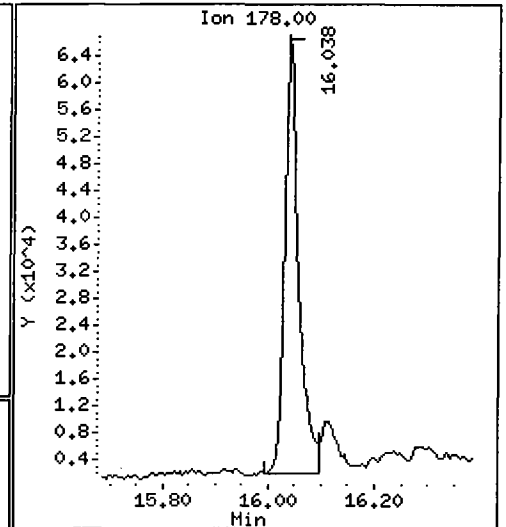
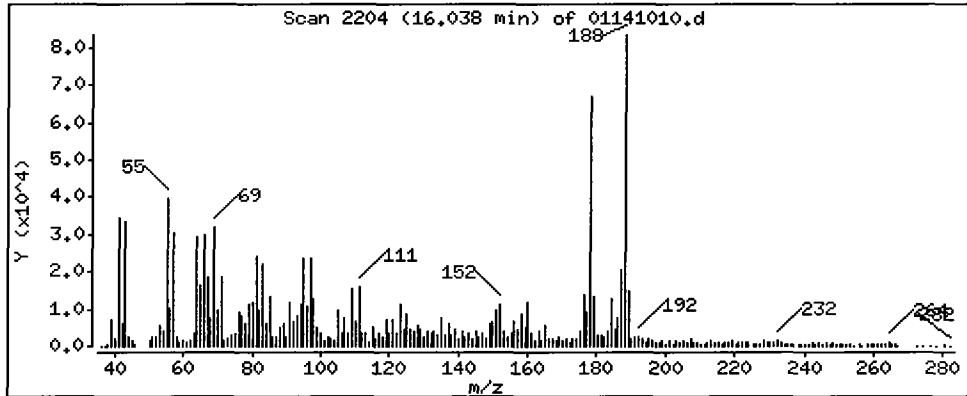
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

60 Phenanthrene

Concentration: 463.1 ug/kg



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

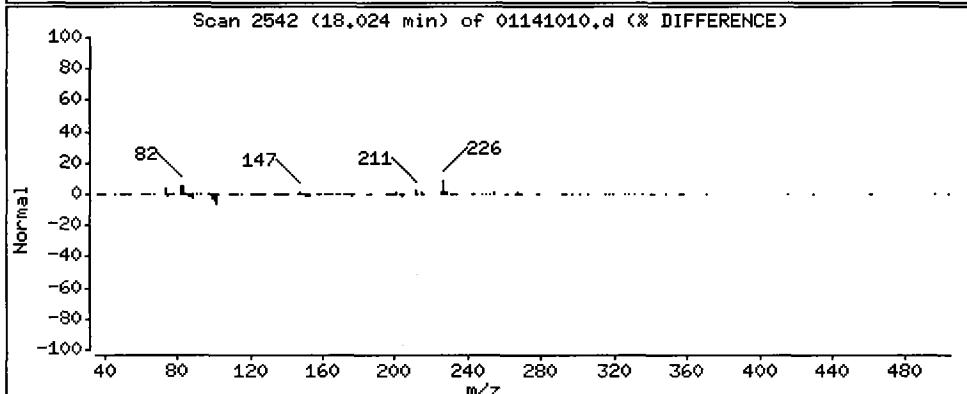
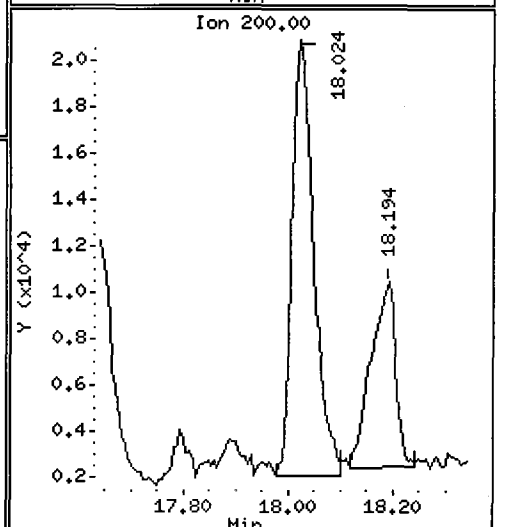
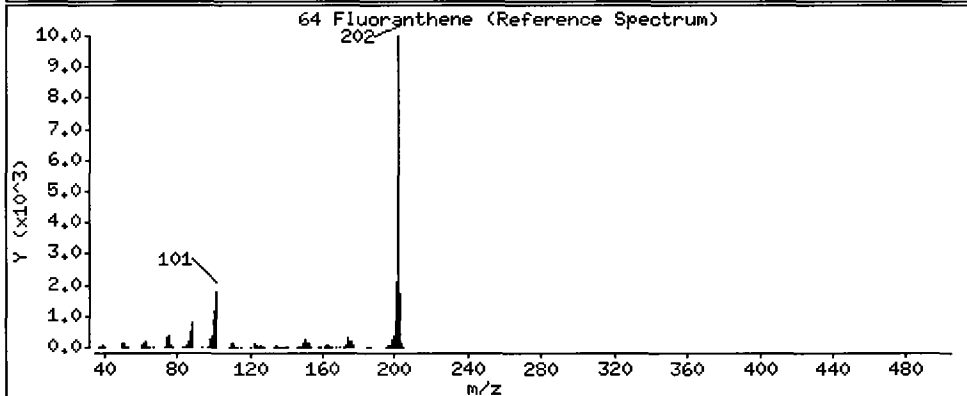
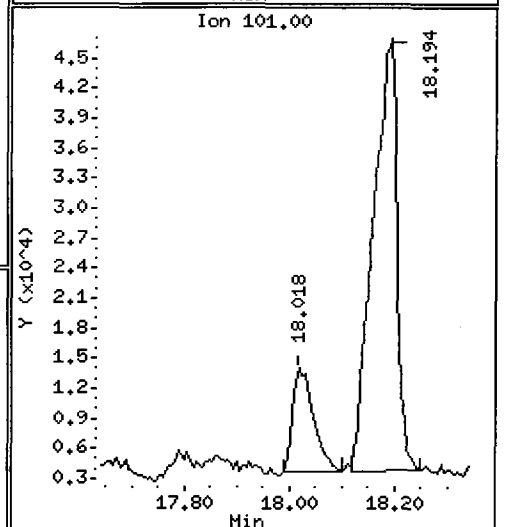
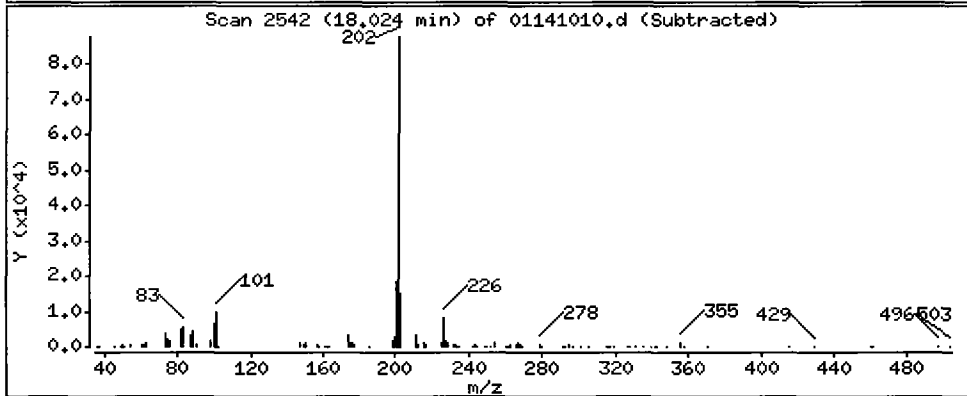
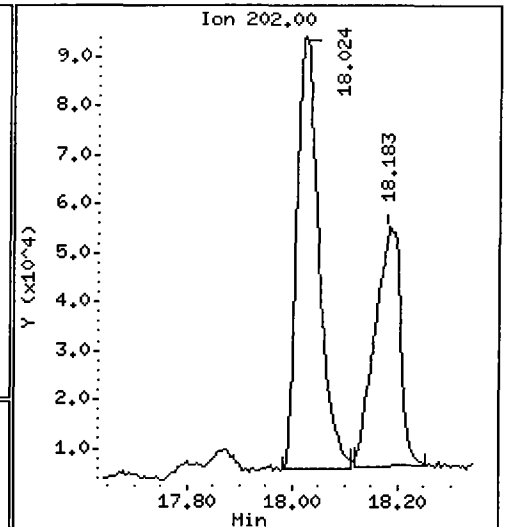
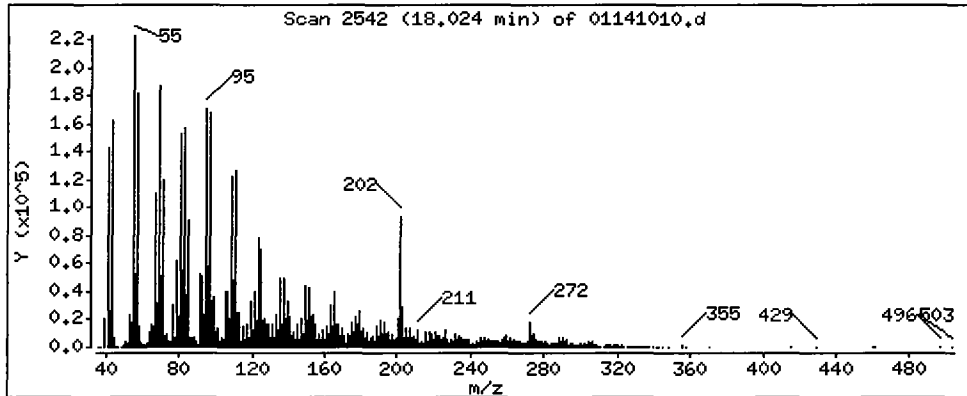
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

64 Fluoranthene

Concentration: 964.7 ug/kg



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

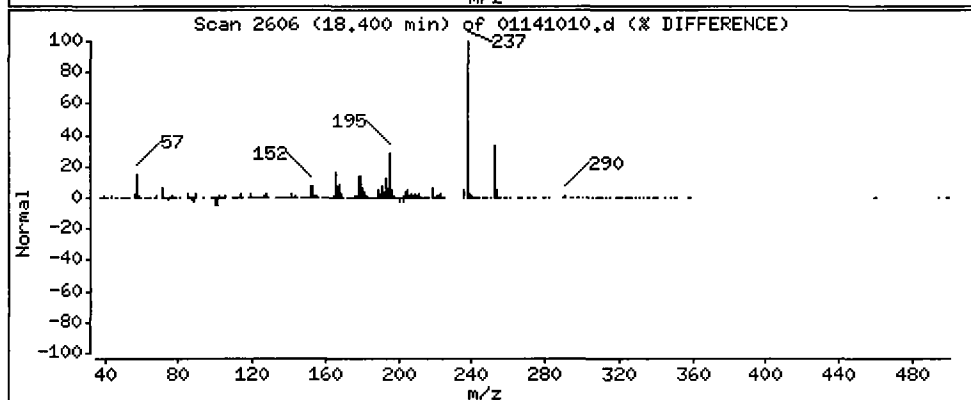
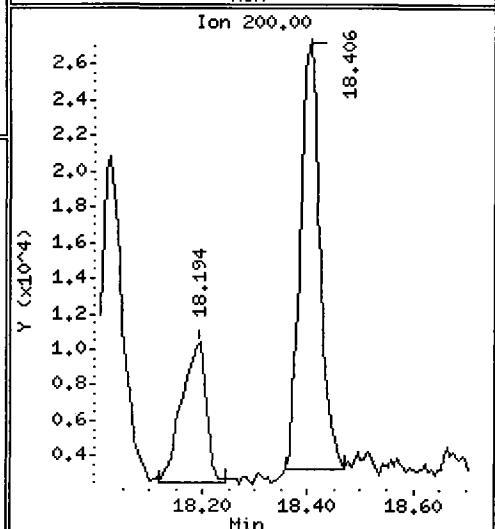
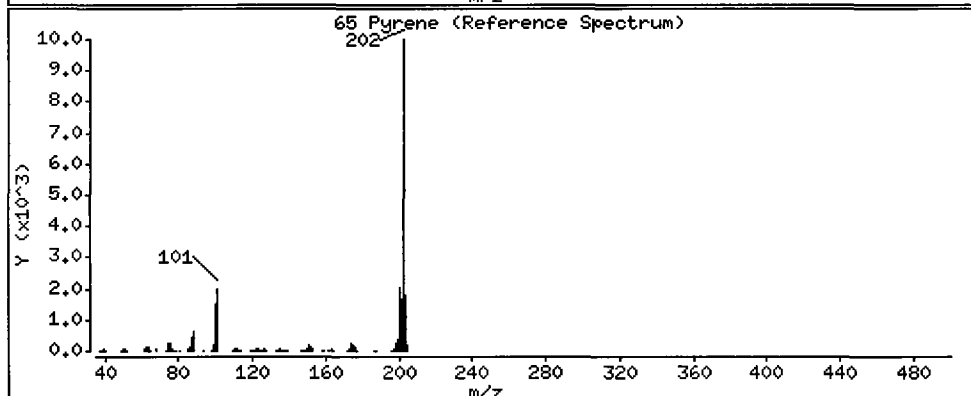
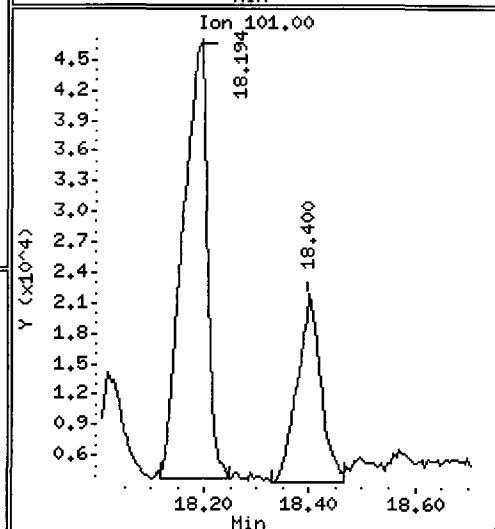
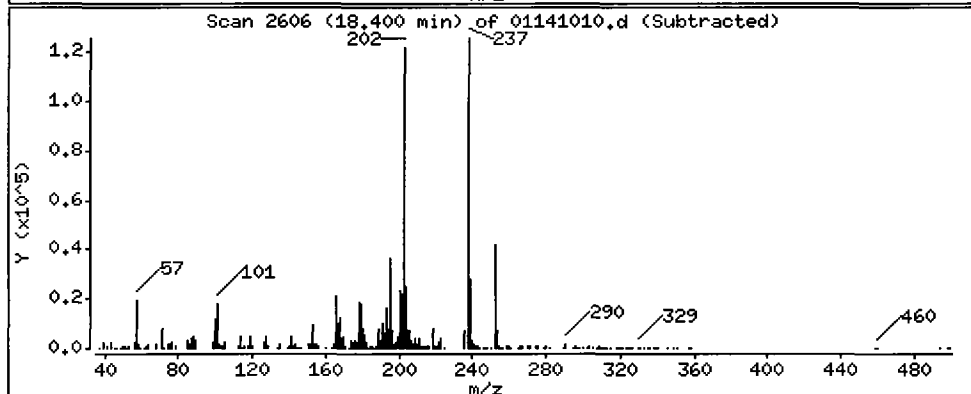
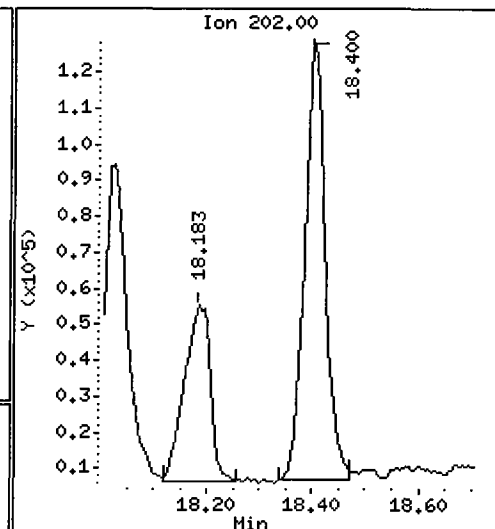
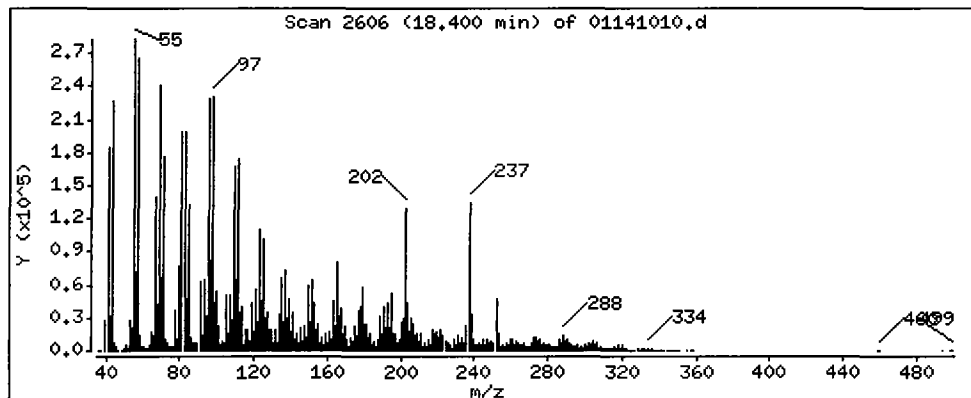
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

65 Pyrene

Concentration: 1700 ug/kg



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

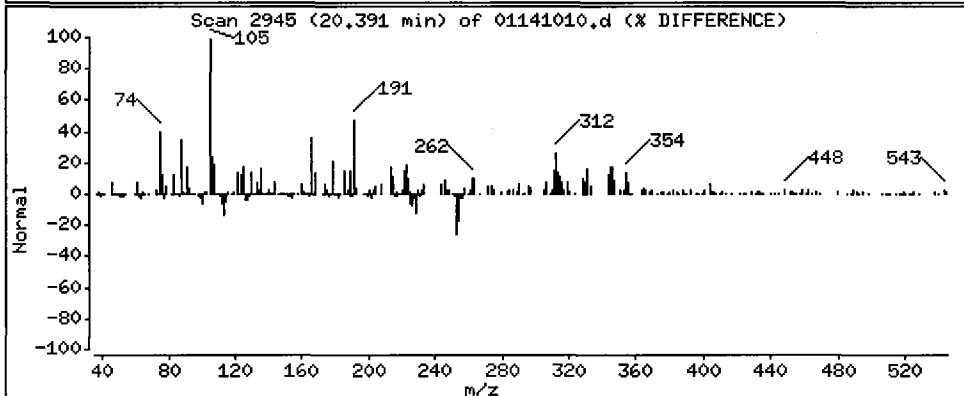
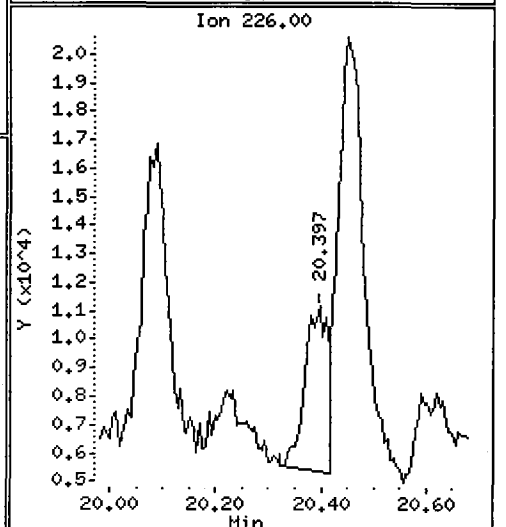
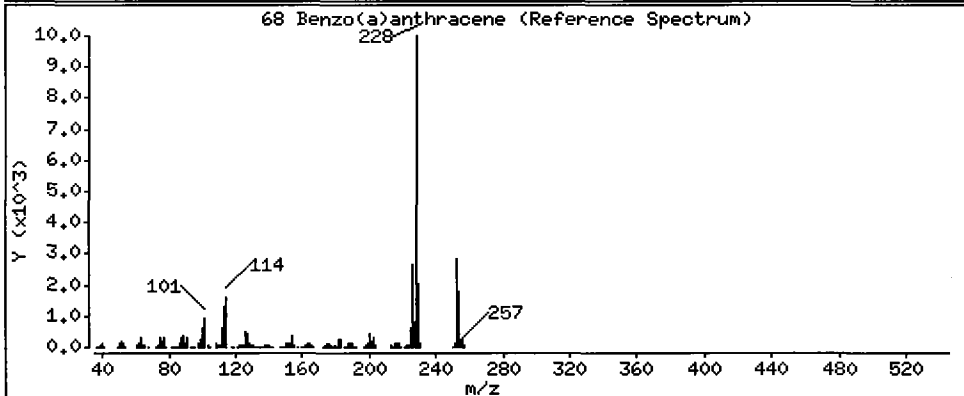
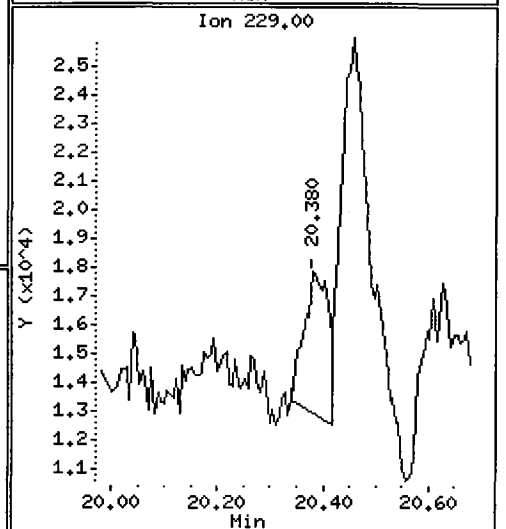
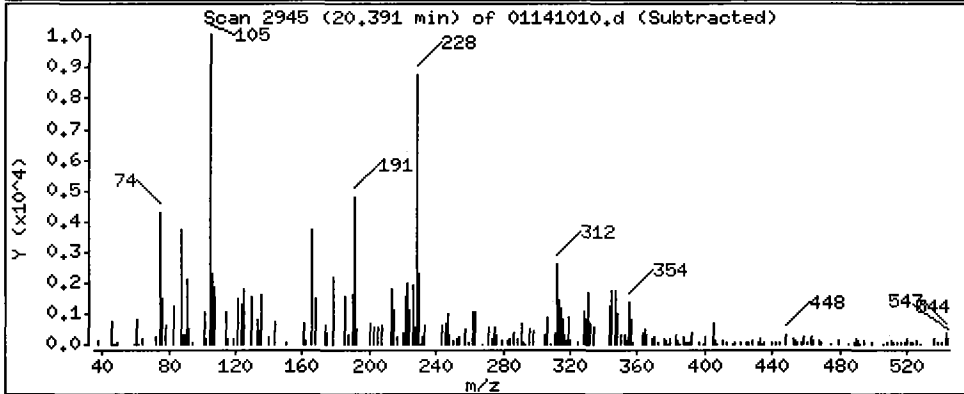
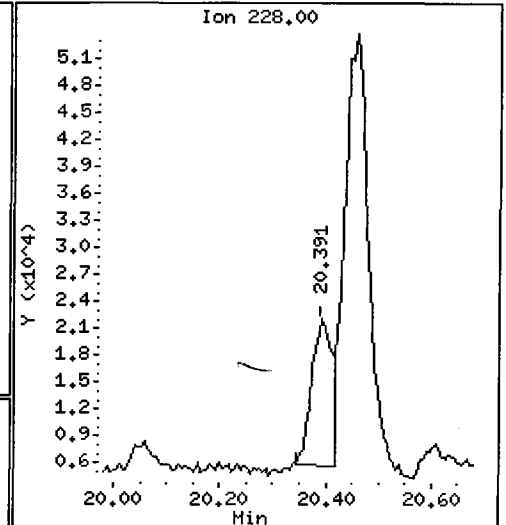
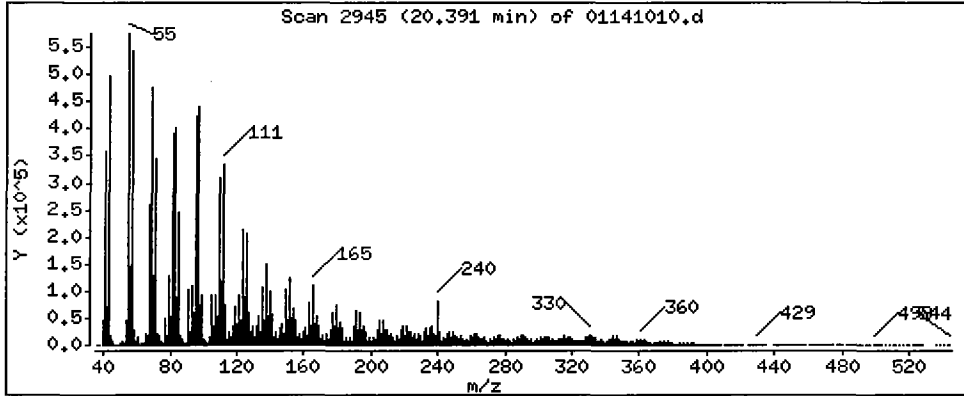
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

68 Benzo(a)anthracene

Concentration: 246.5 ug/kg



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

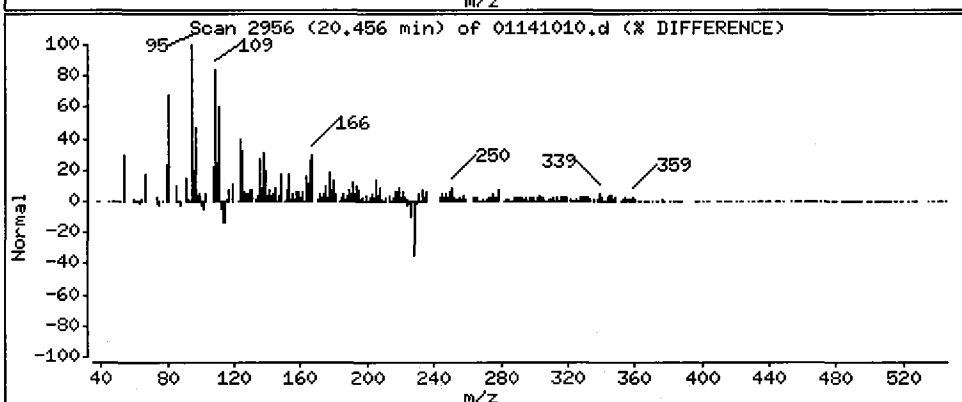
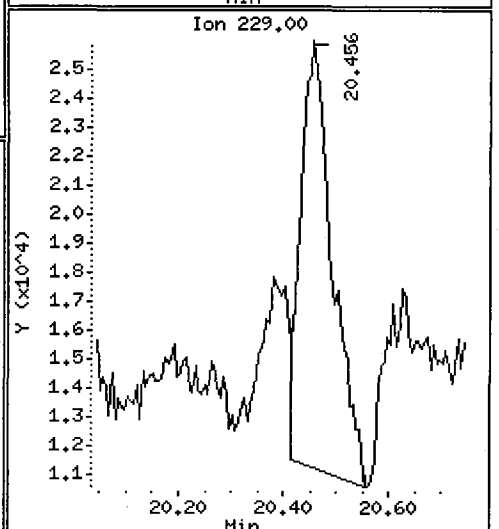
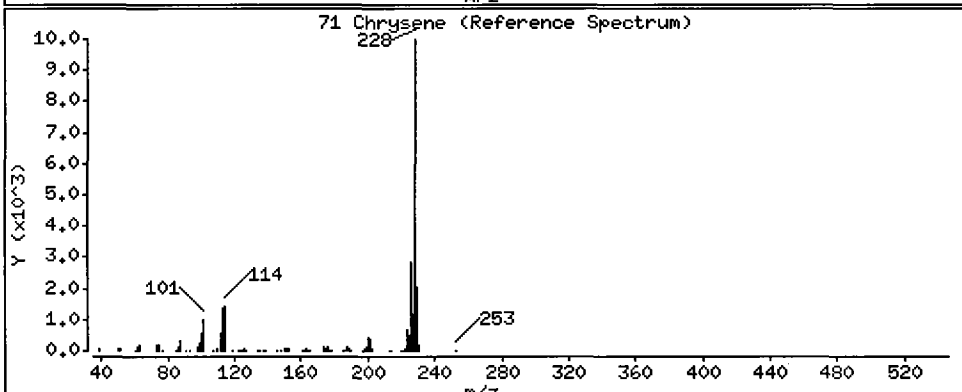
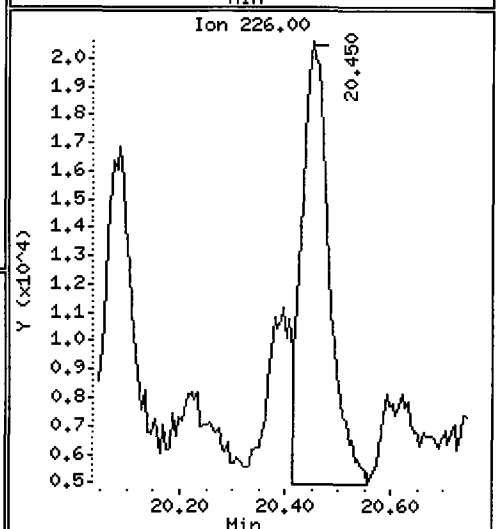
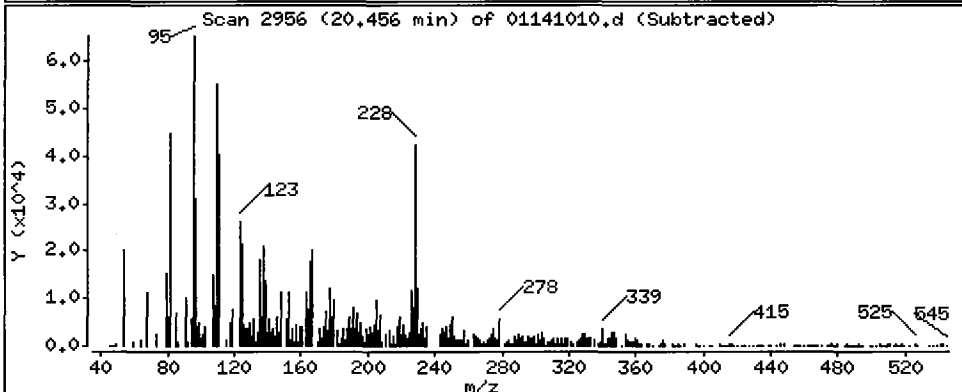
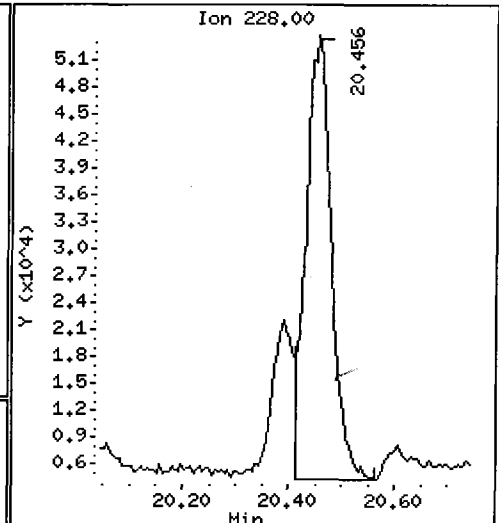
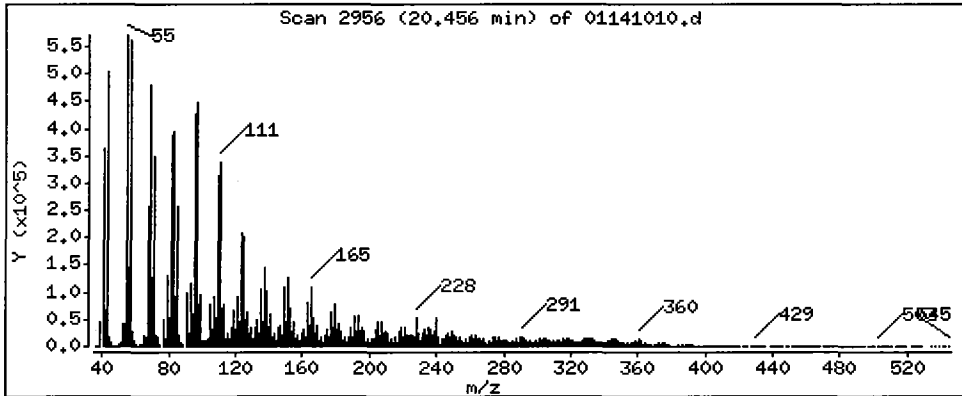
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

71 Chrysene

Concentration: 980.6 ug/kg





Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

Operator: JZ

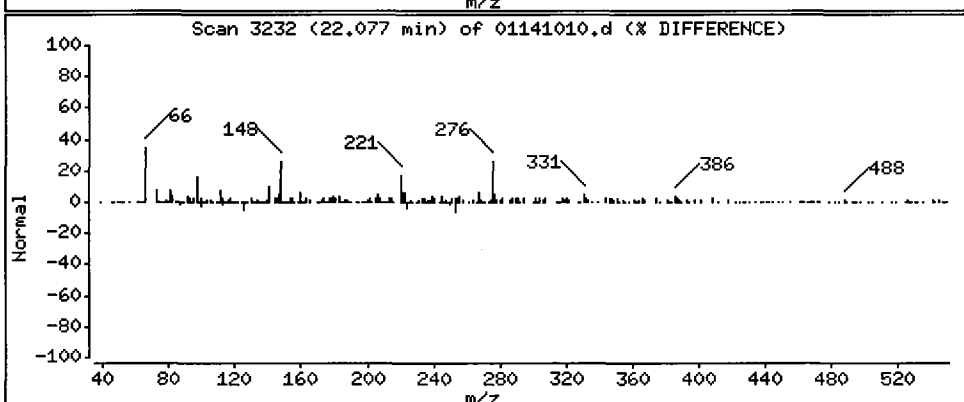
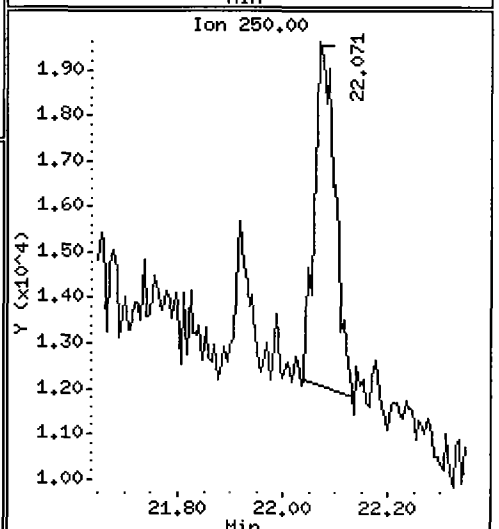
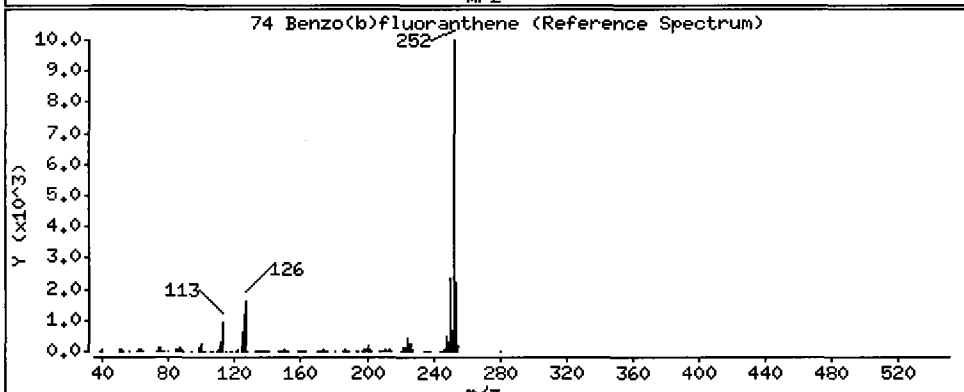
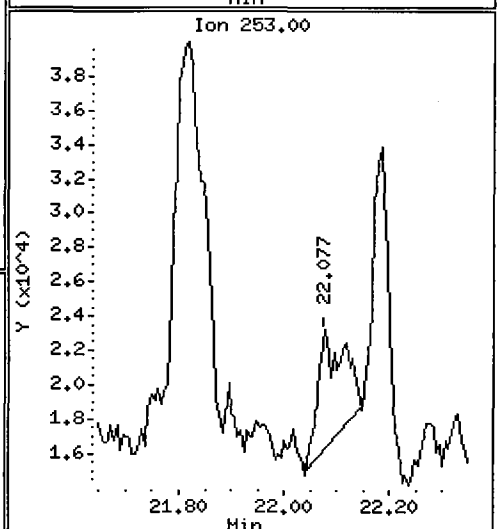
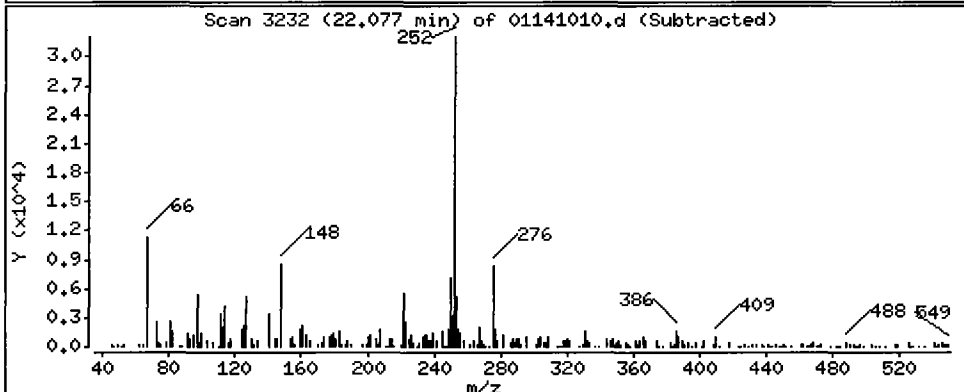
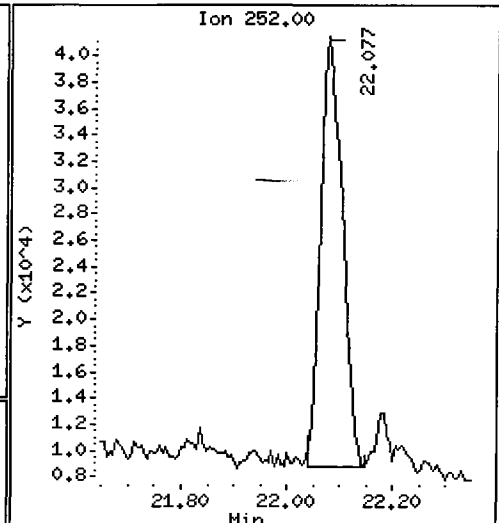
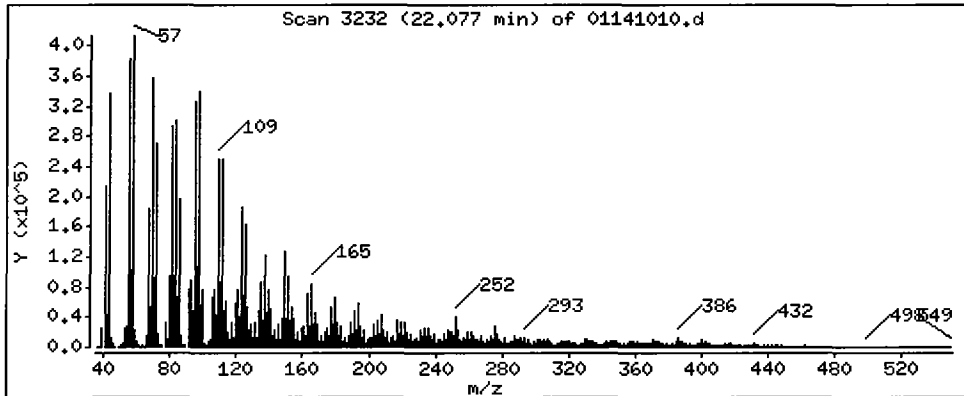
Column phase: ZB-5msi

Column diameter: 0.32

74 Benzo(b)fluoranthene

Concentration: 1110 ug/kg

112



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

Operator: JZ

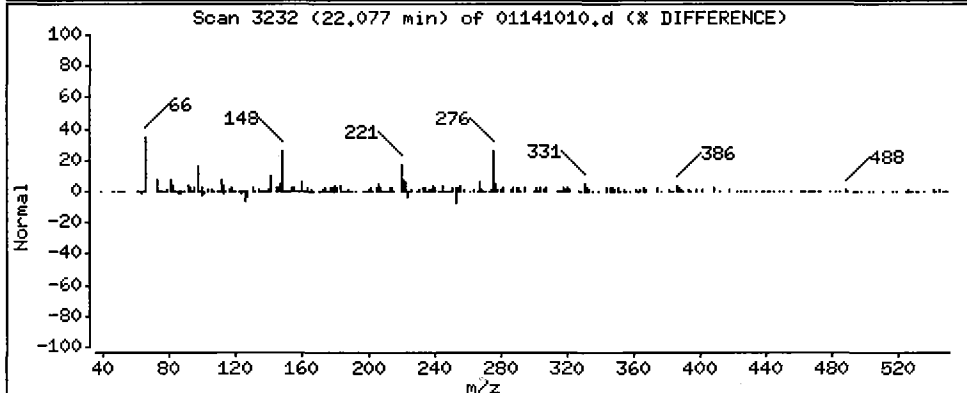
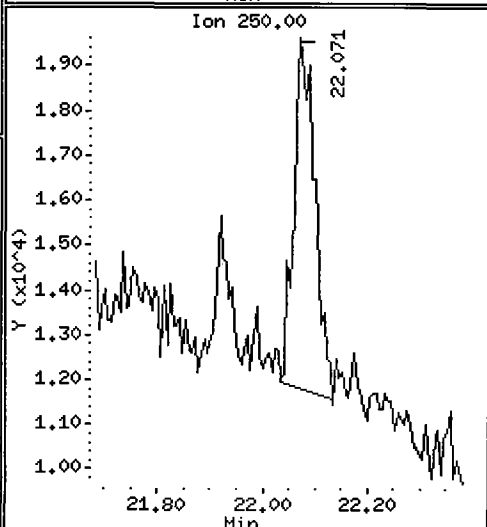
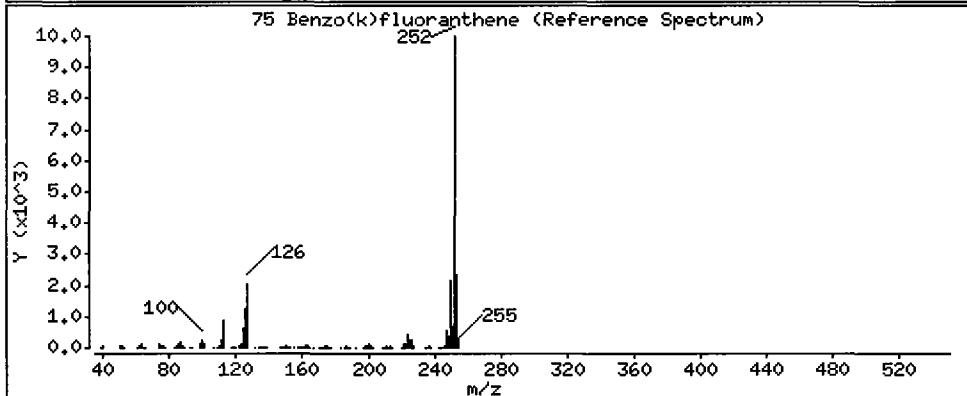
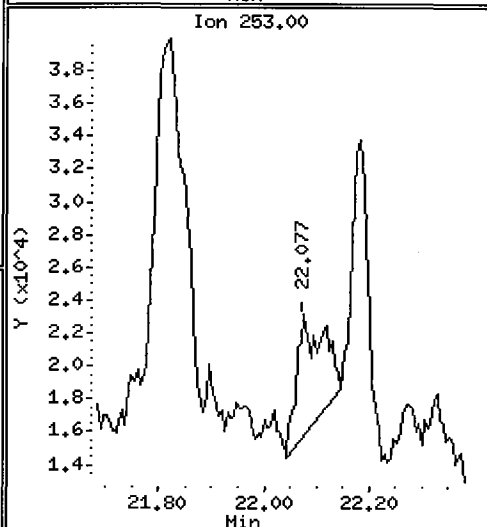
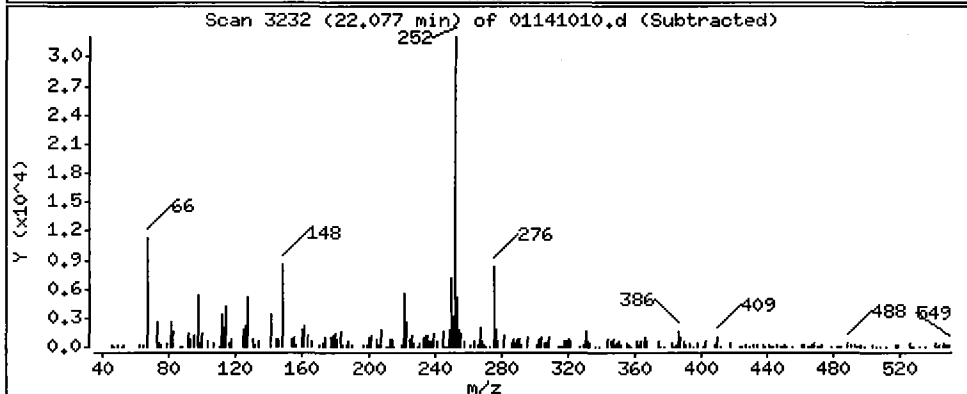
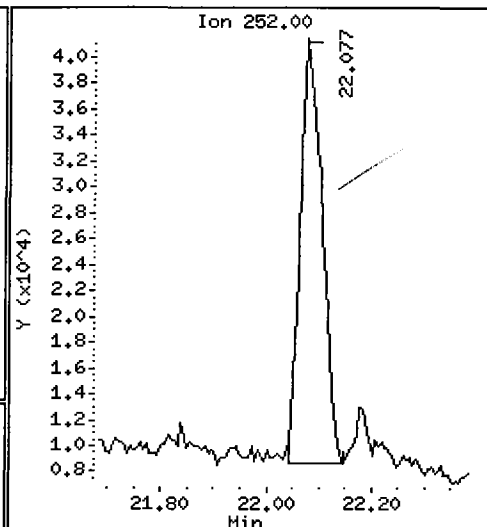
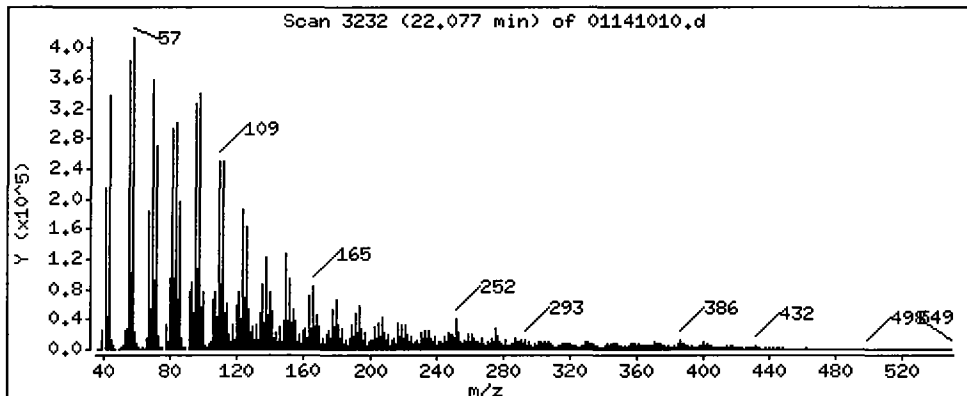
Column phase: ZB-5msi

Column diameter: 0.32

112

75 Benzo(k)fluoranthene

Concentration: 1118 ug/kg



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

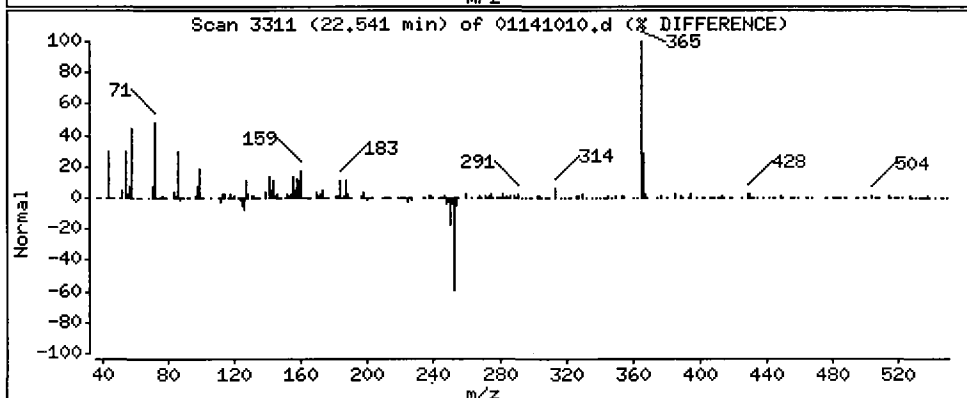
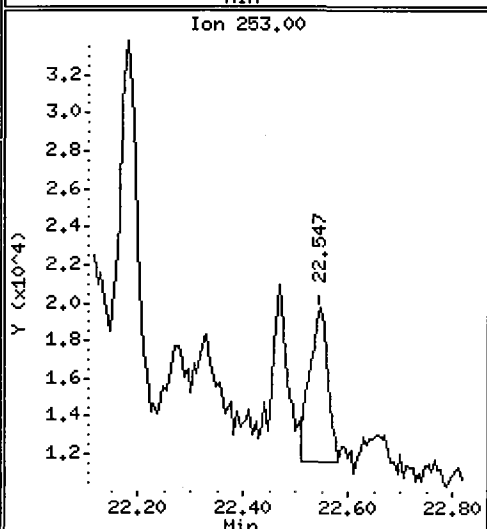
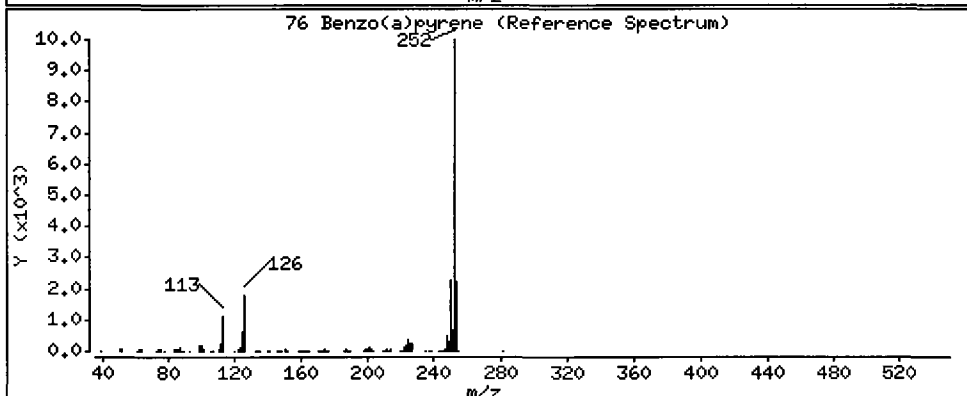
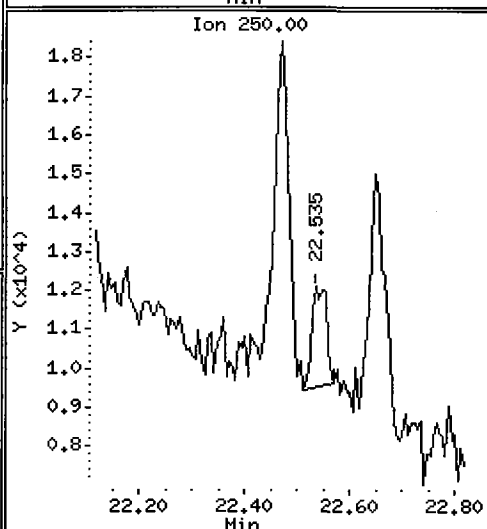
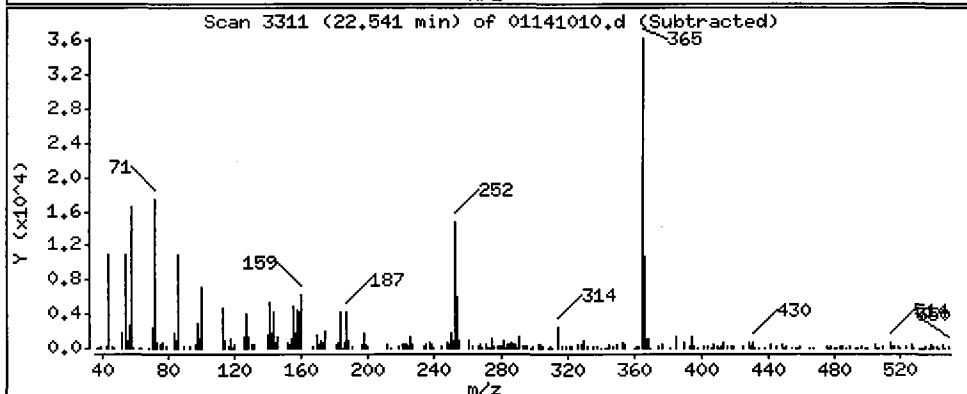
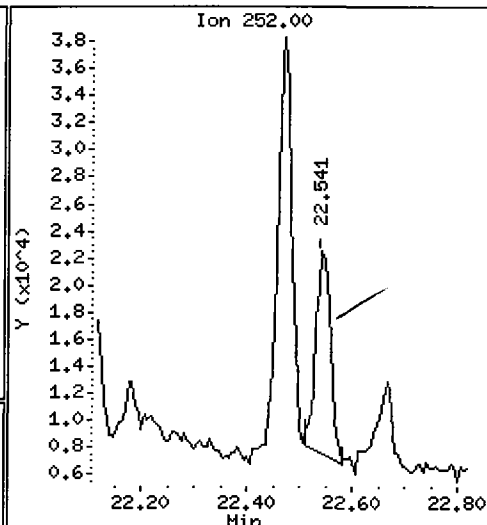
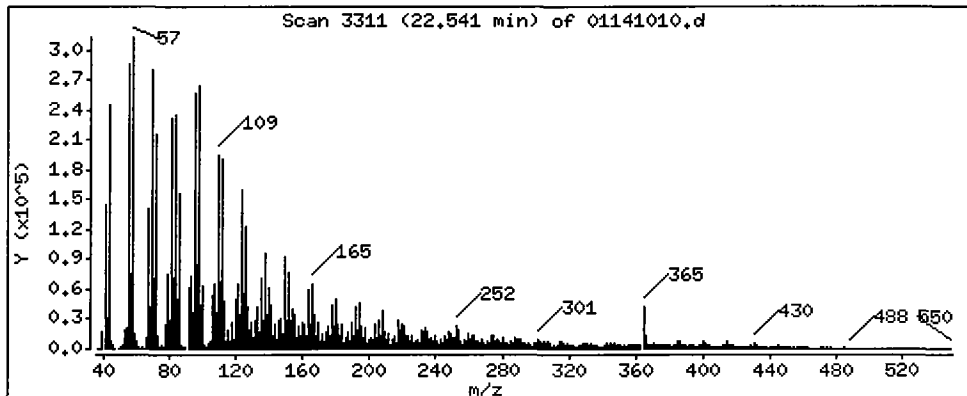
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

76 Benzo(a)pyrene

Concentration: 385.6 ug/kg



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

Operator: JZ

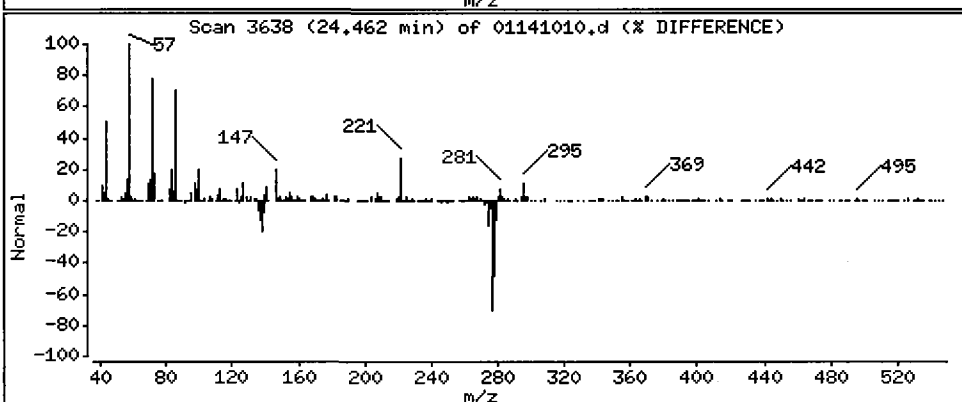
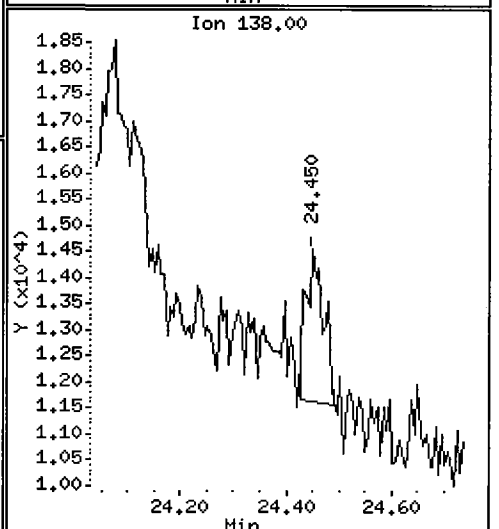
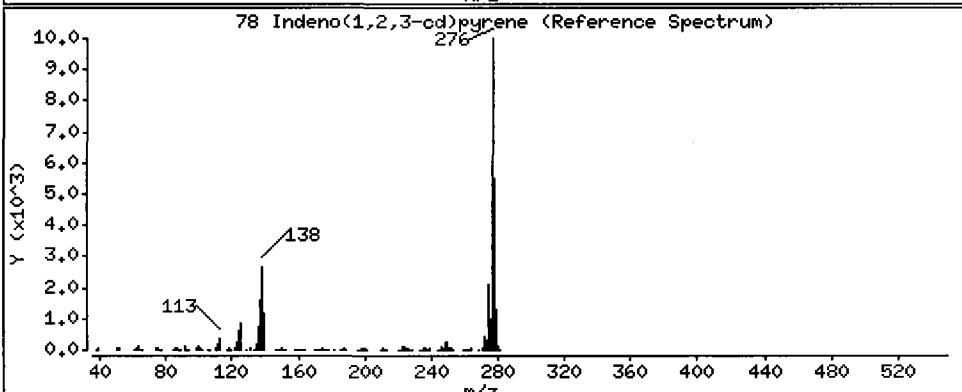
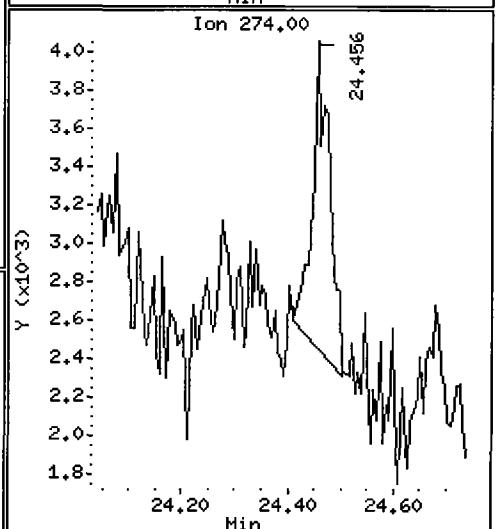
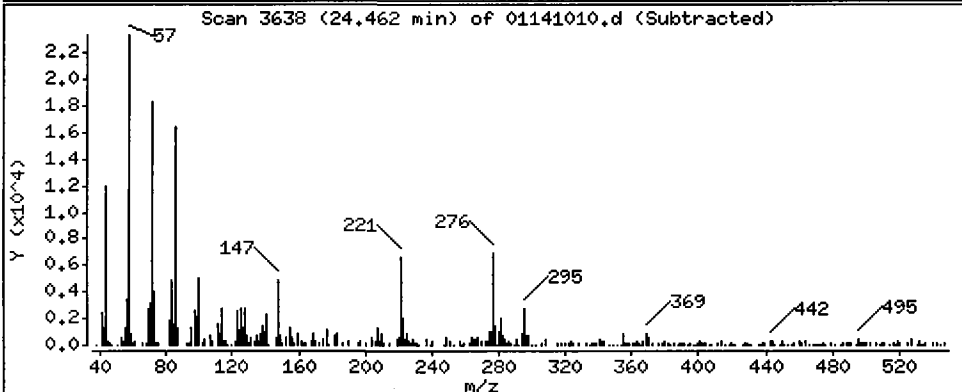
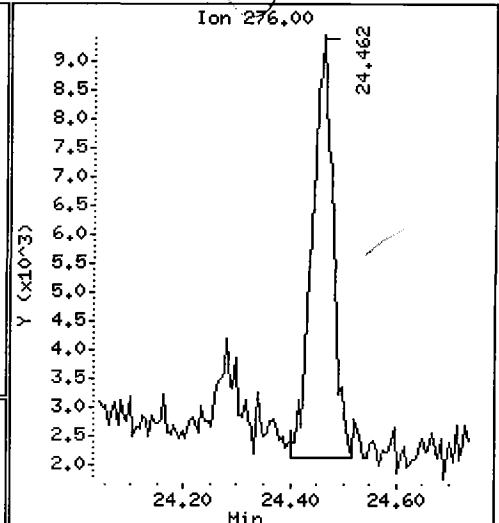
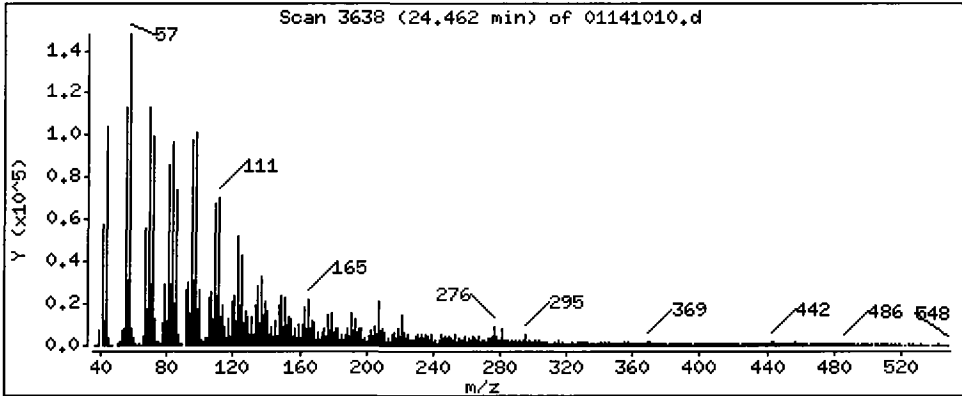
Column phase: ZB-5msi

Column diameter: 0.32

78 Indeno(1,2,3-cd)pyrene

Concentration: 221.6 ug/kg

*JZ*



Date : 14-JAN-2010 17:04

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C

Volume Injected (uL): 1.0

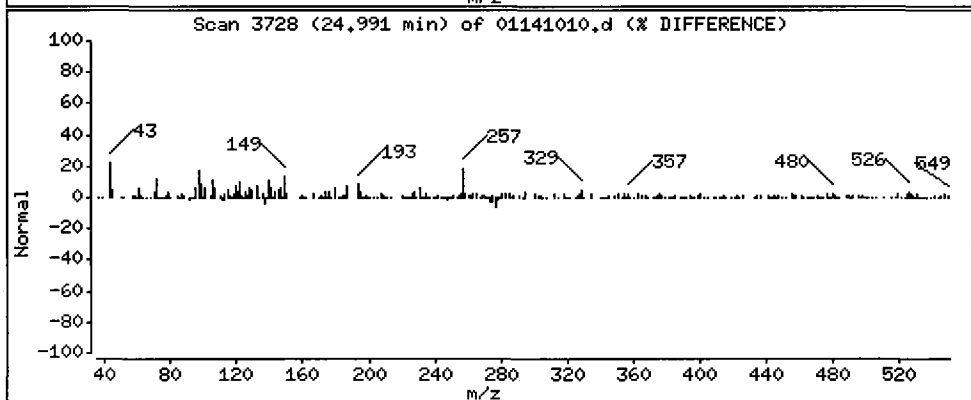
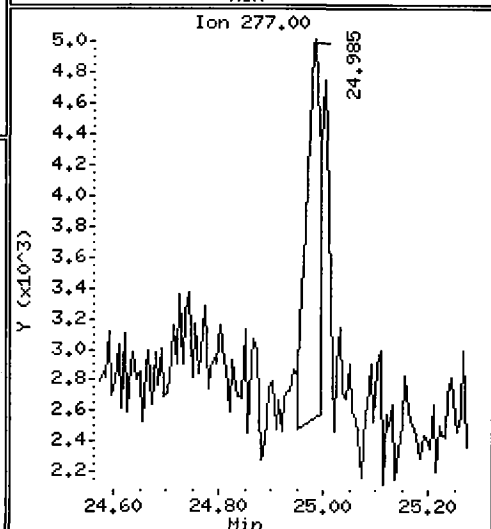
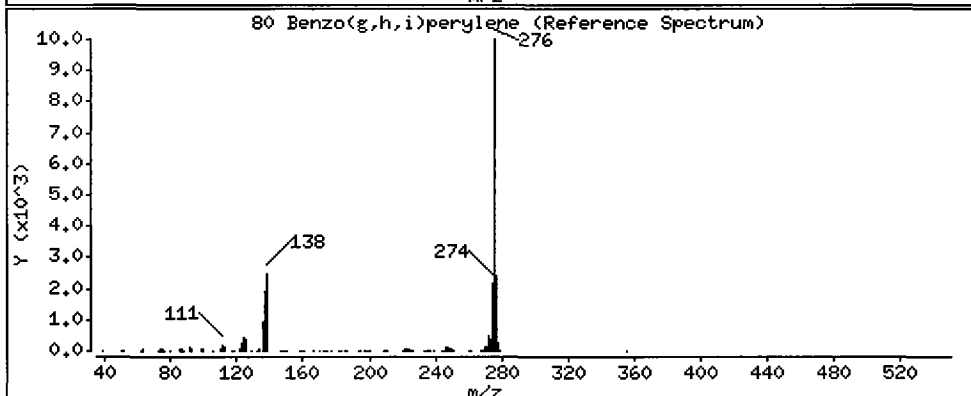
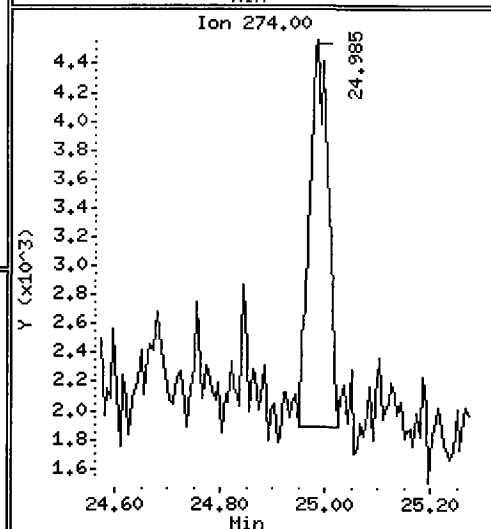
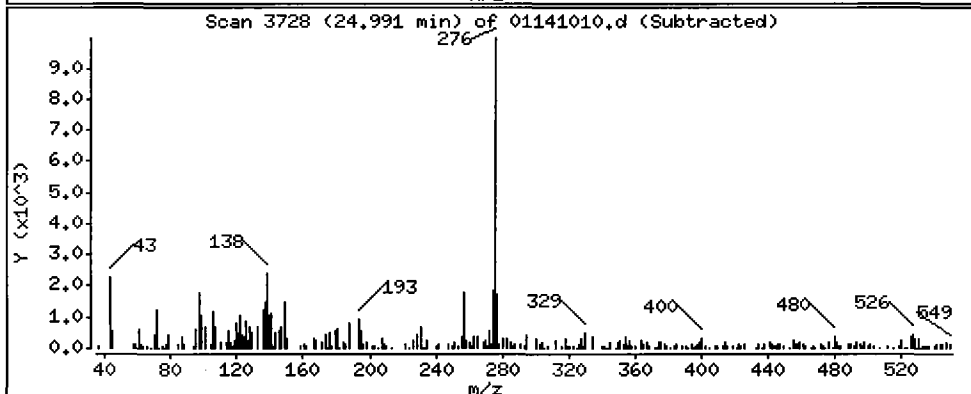
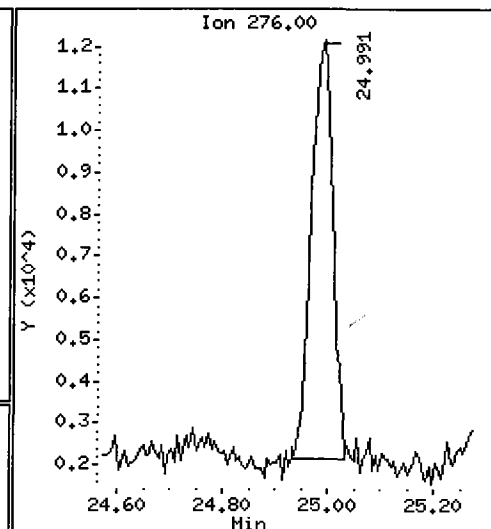
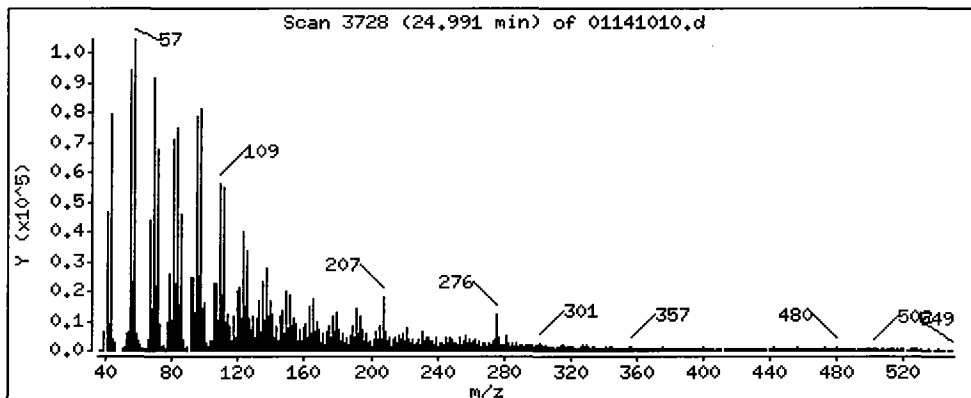
Operator: JZ

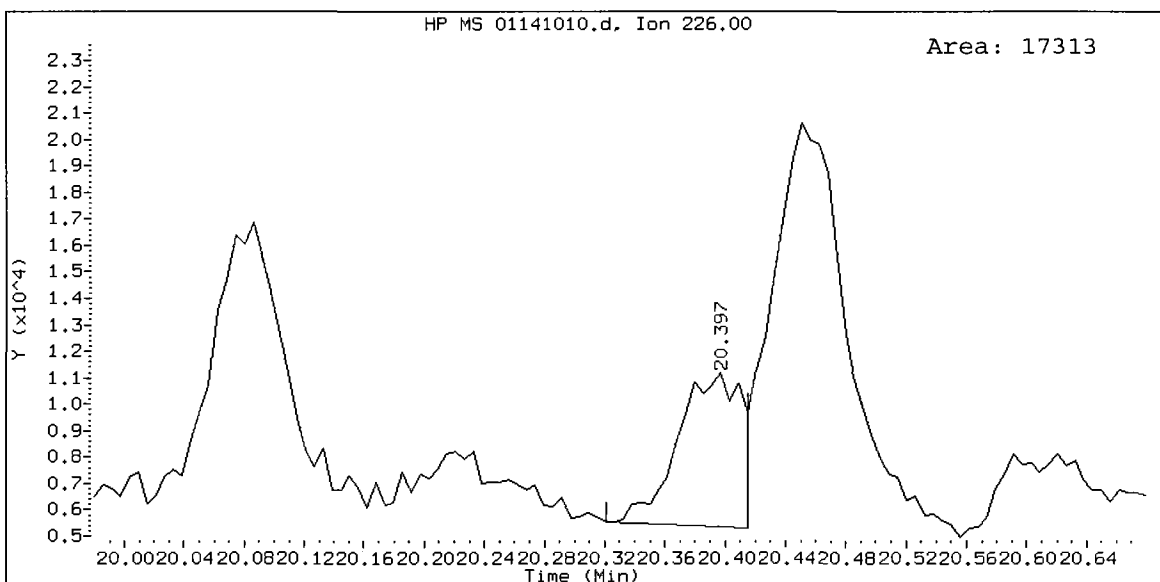
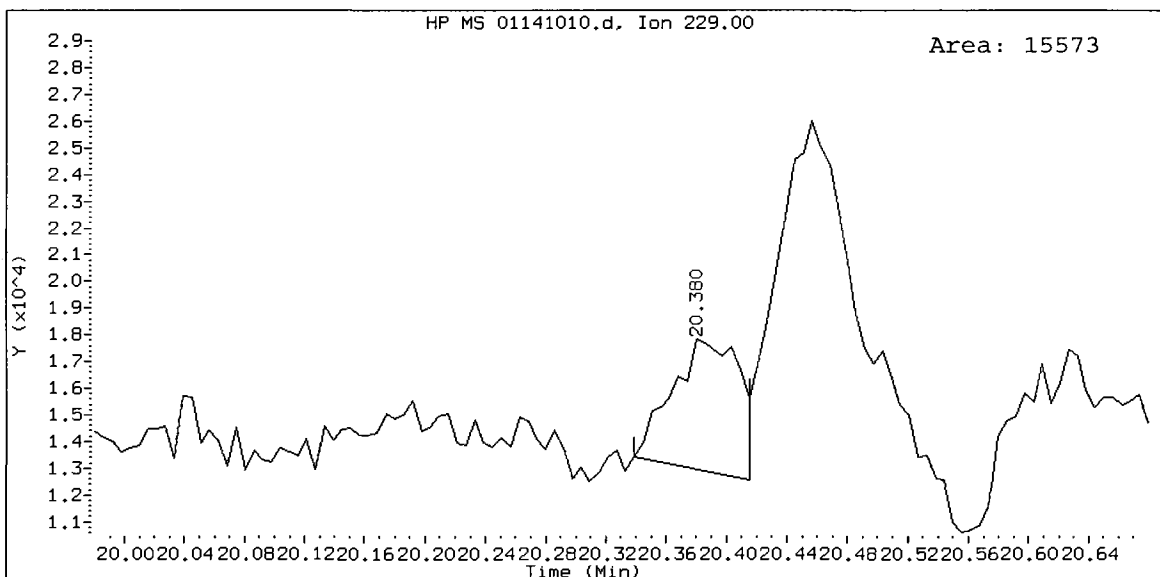
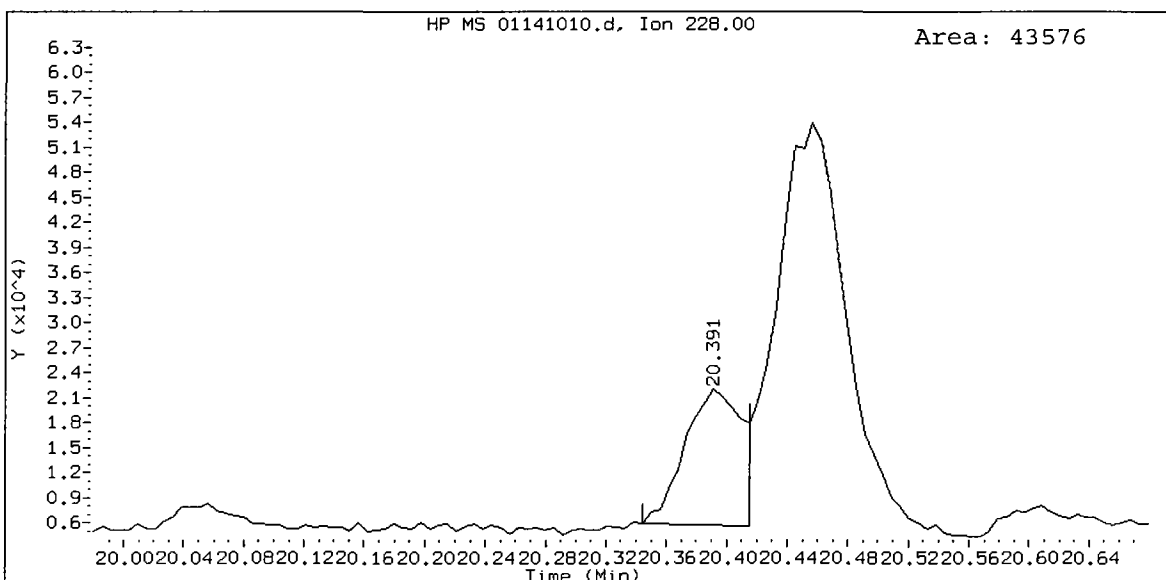
Column phase: ZB-5msi

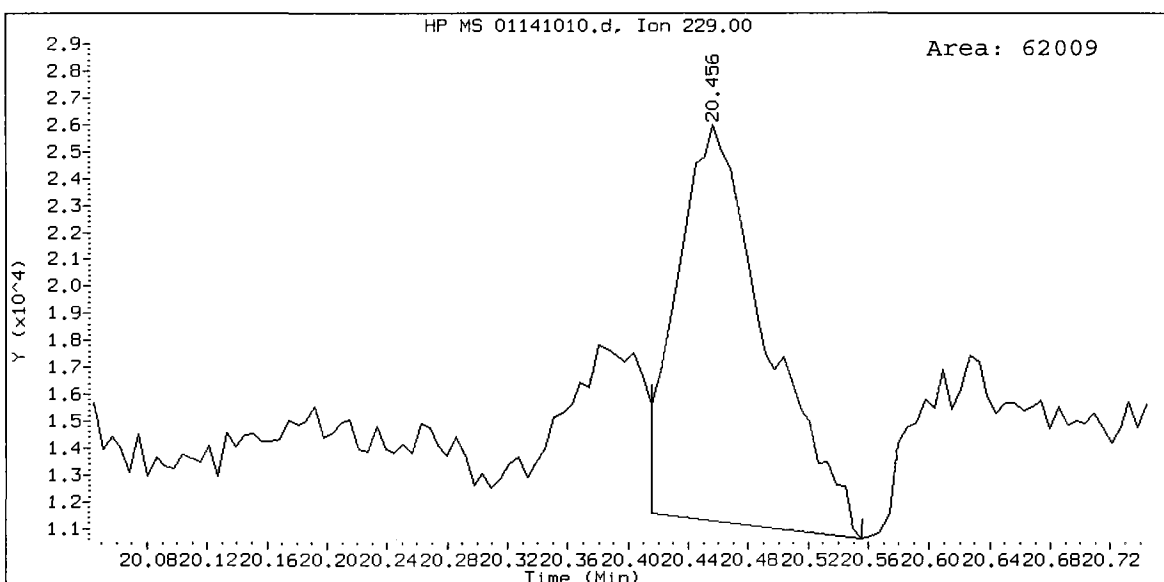
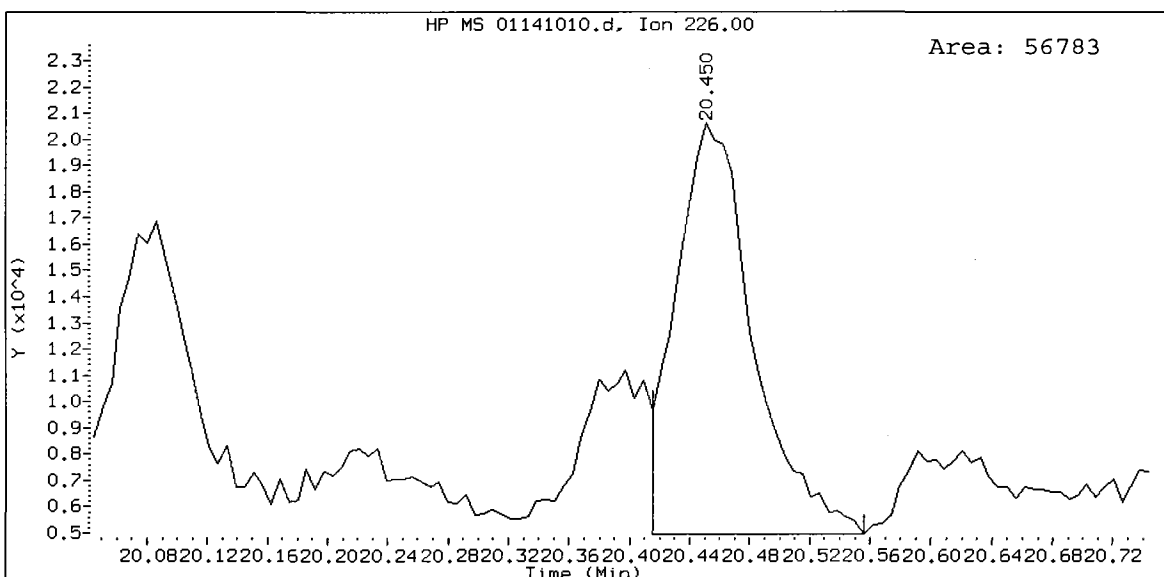
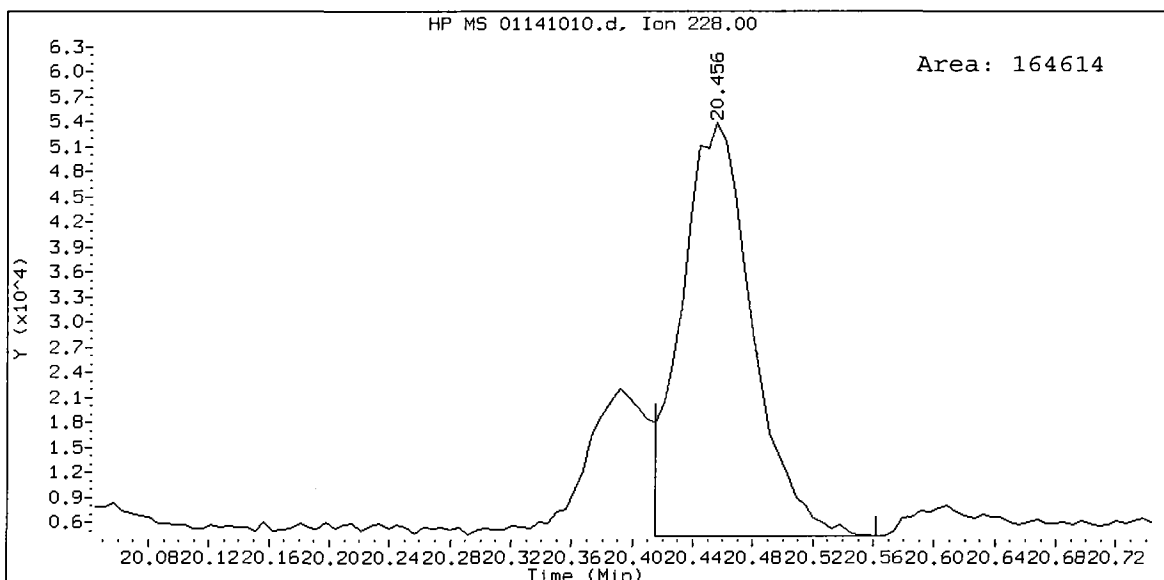
Column diameter: 0.32

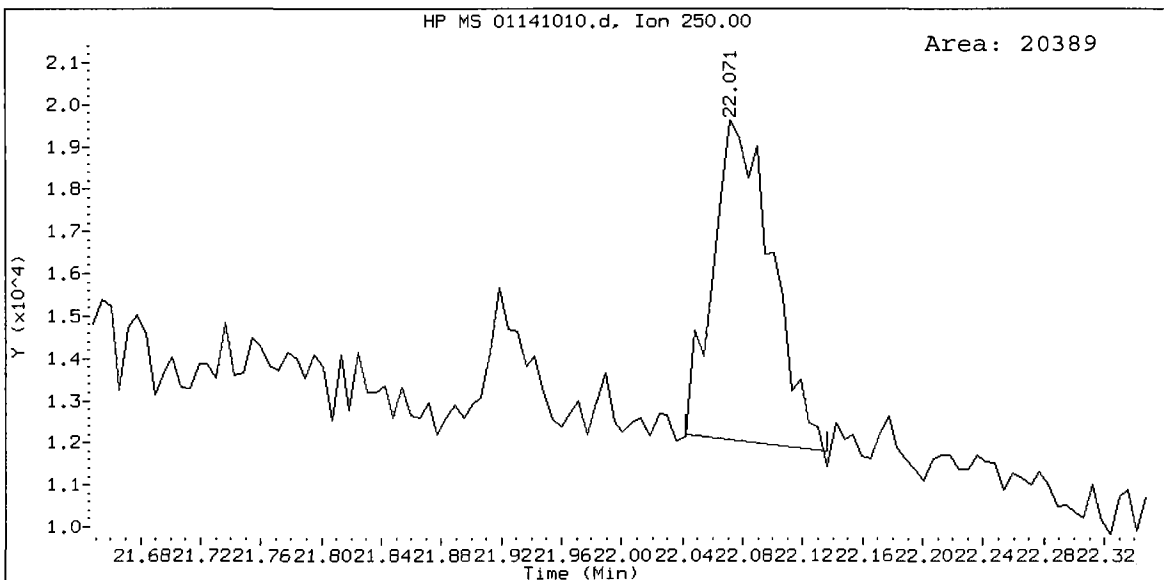
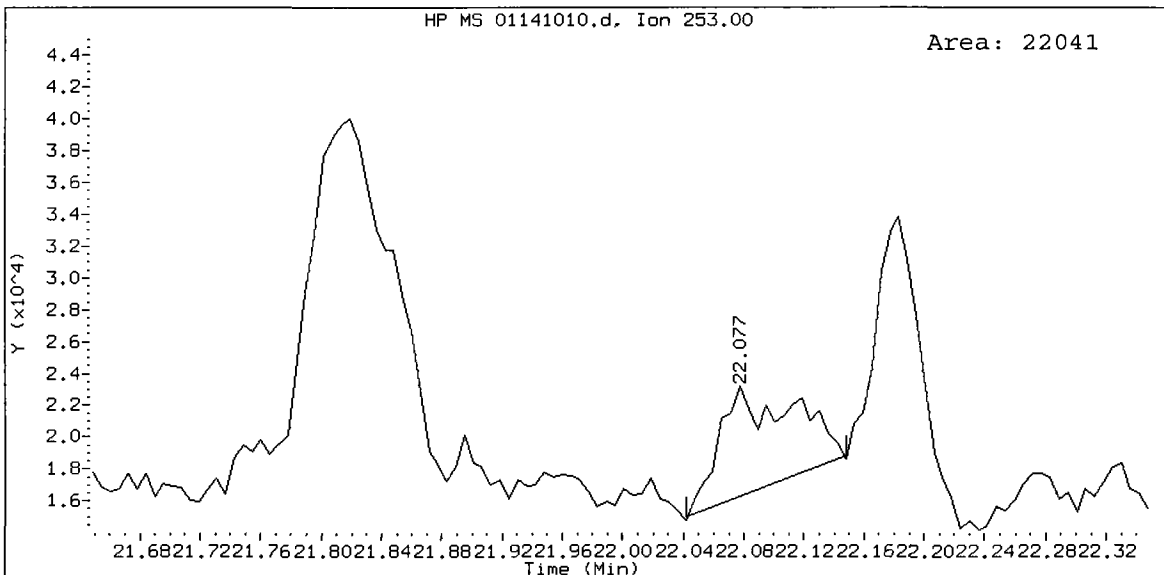
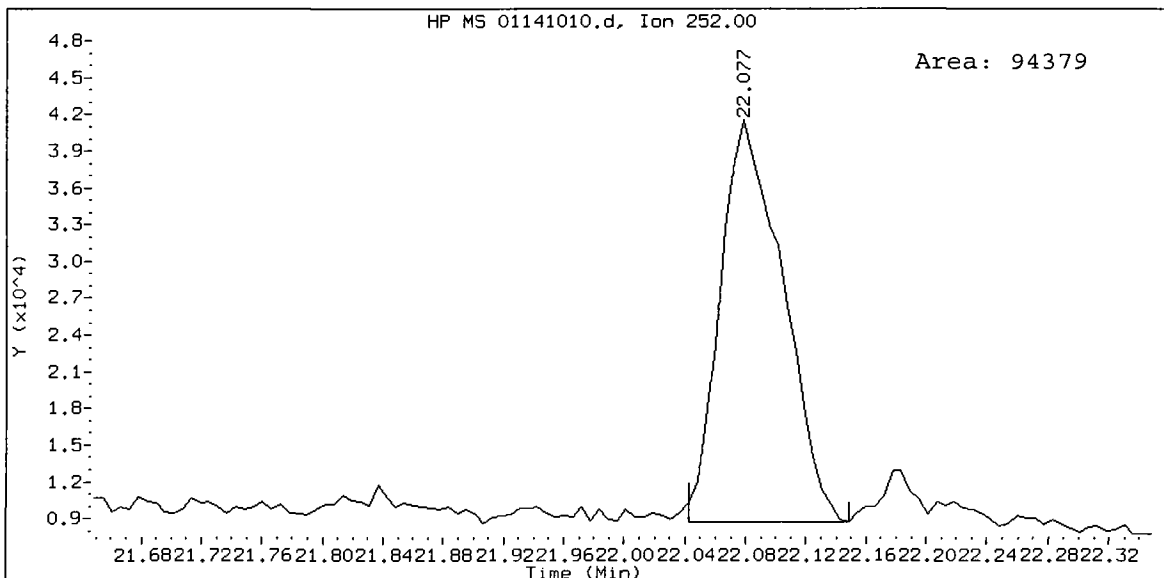
80 Benzo(g,h,i)perylene

Concentration: 356.4 ug/kg



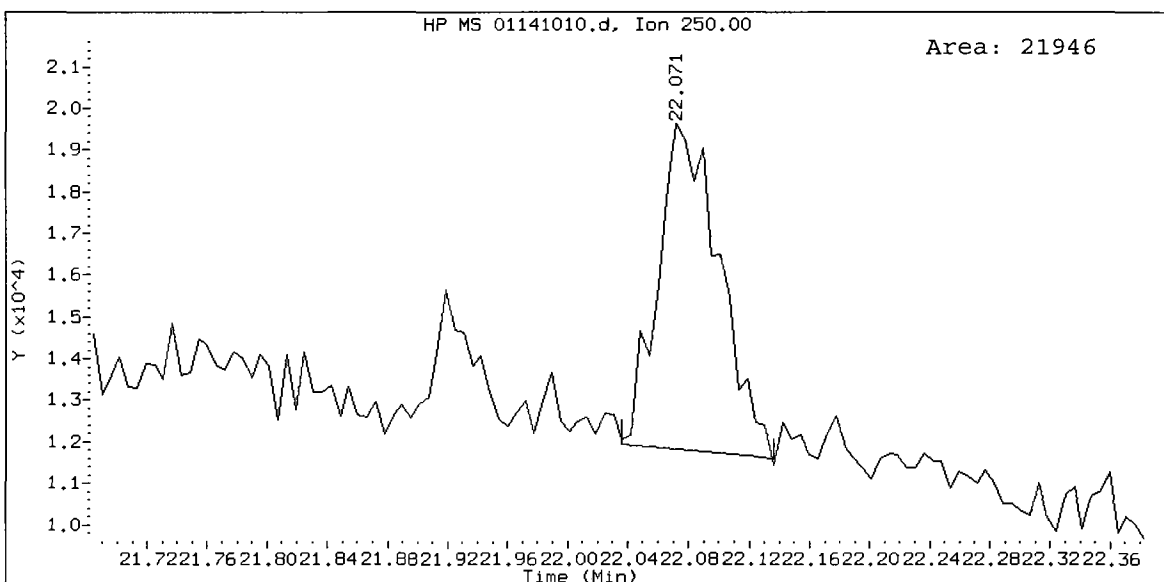
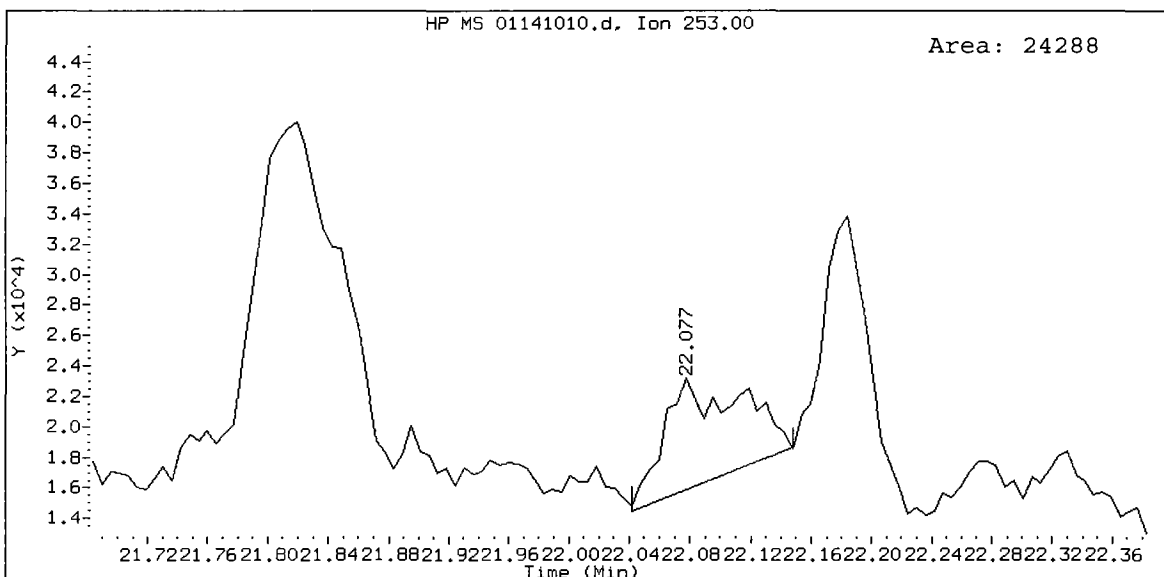
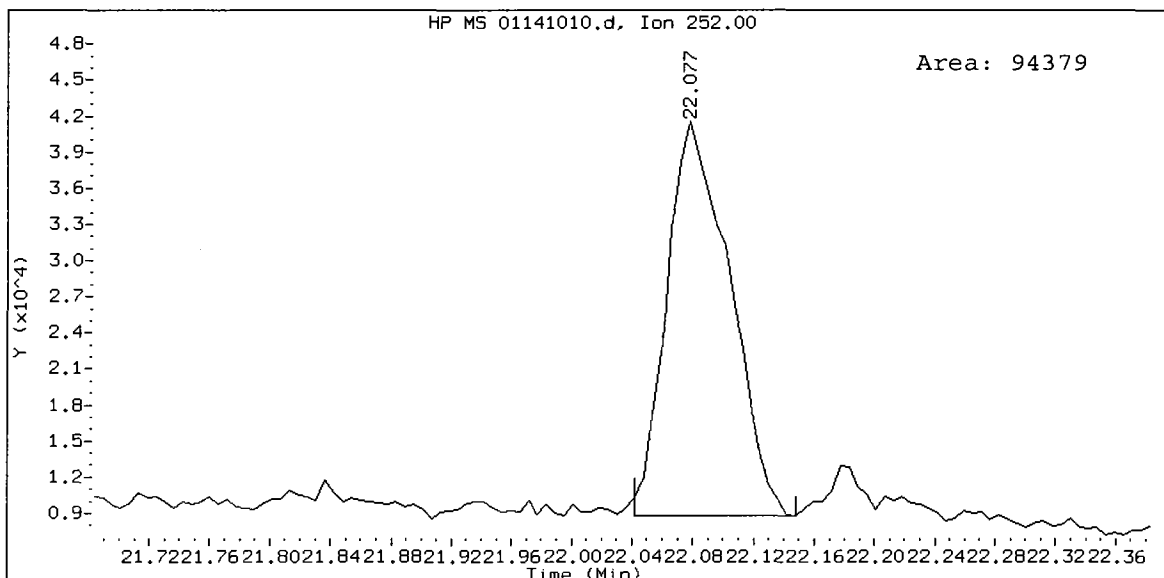


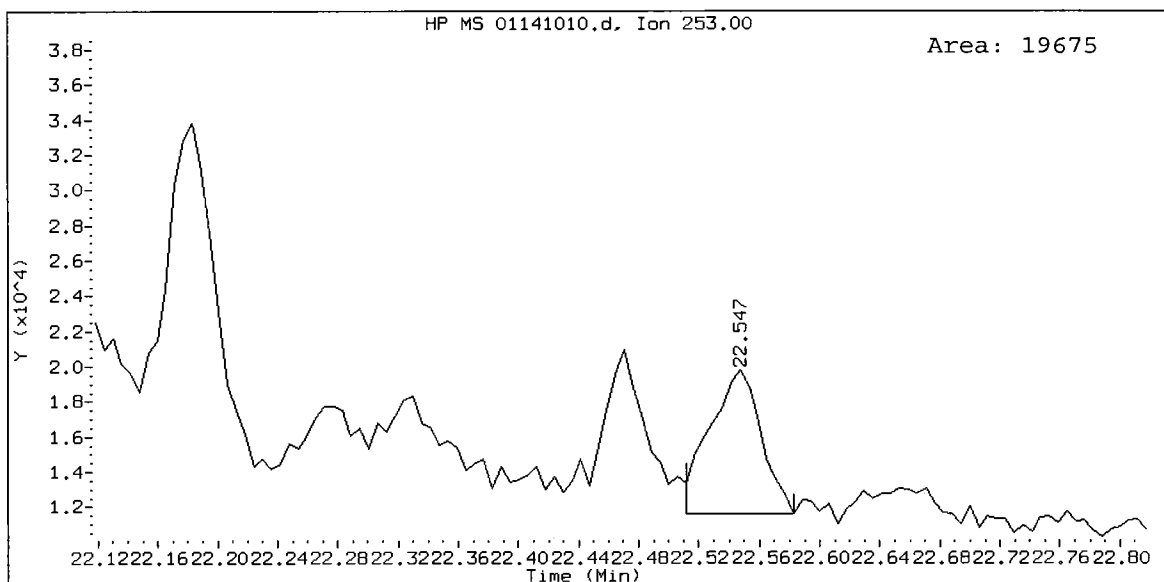
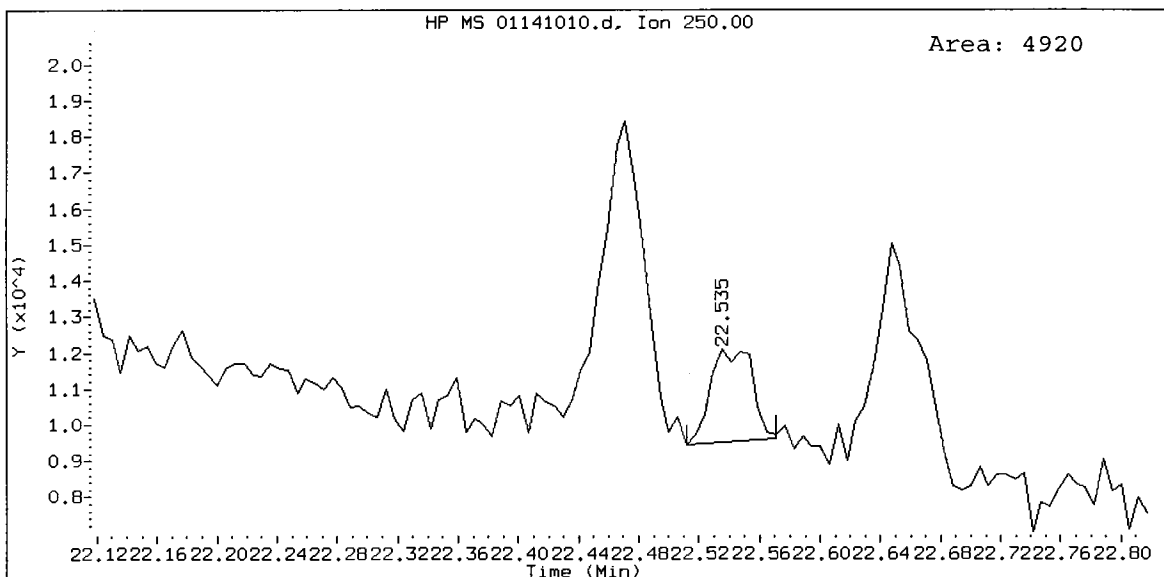
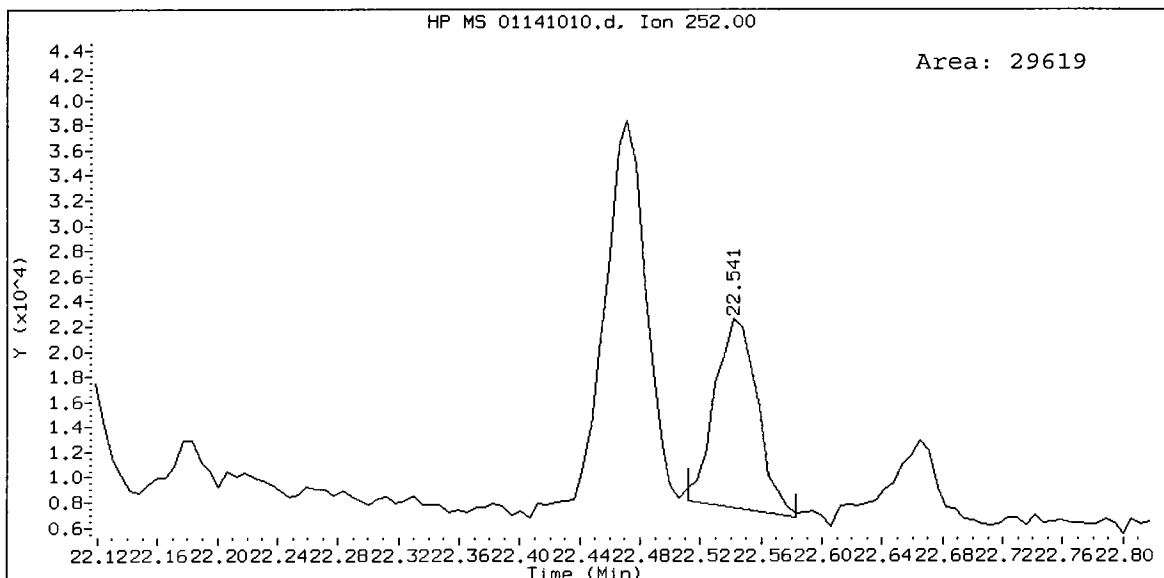




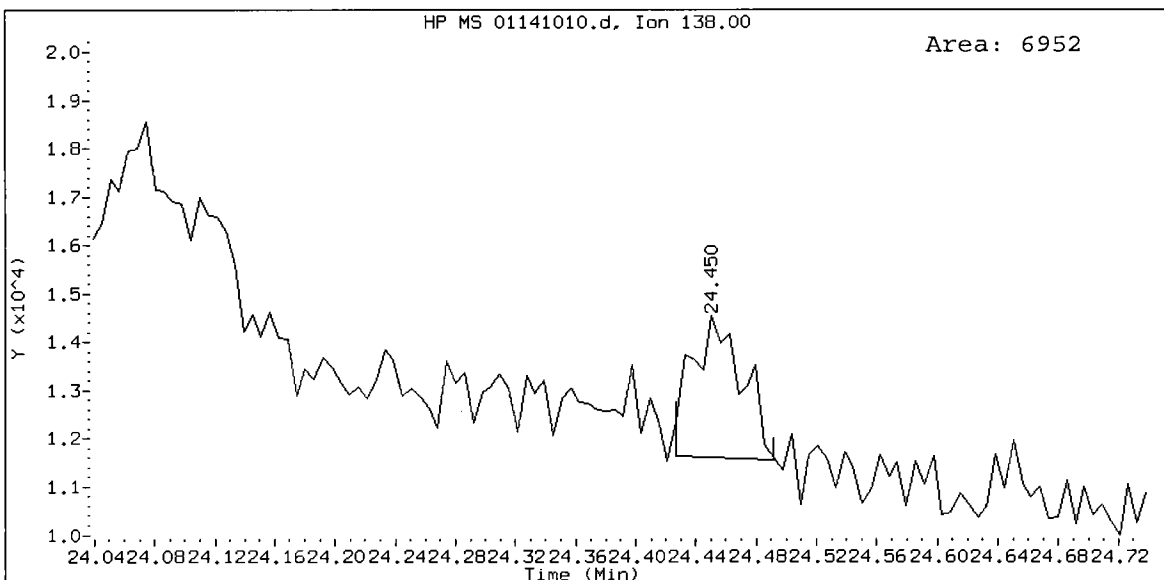
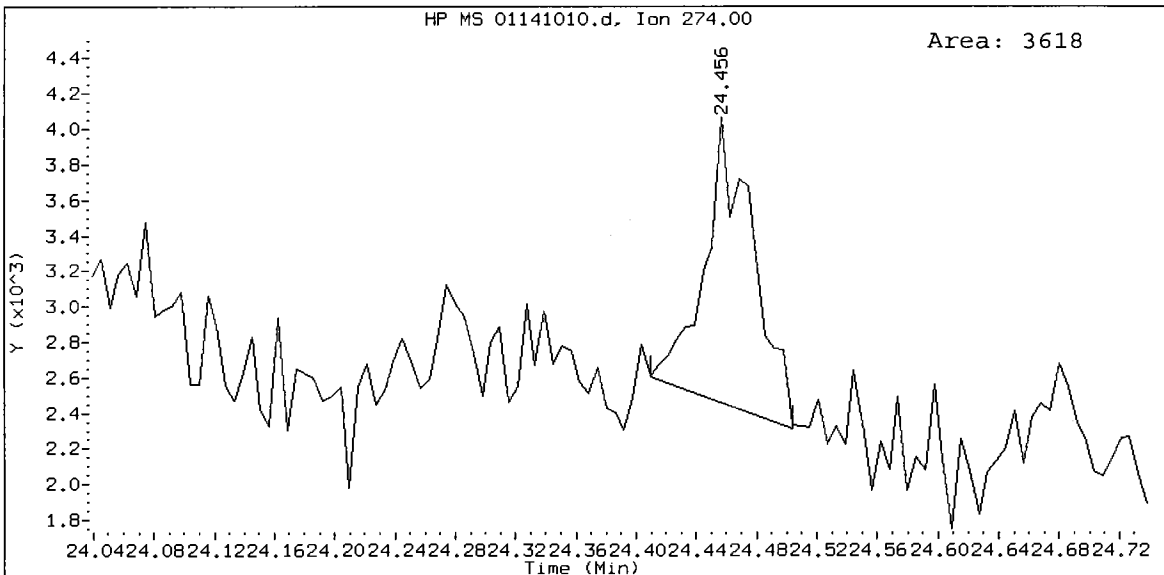
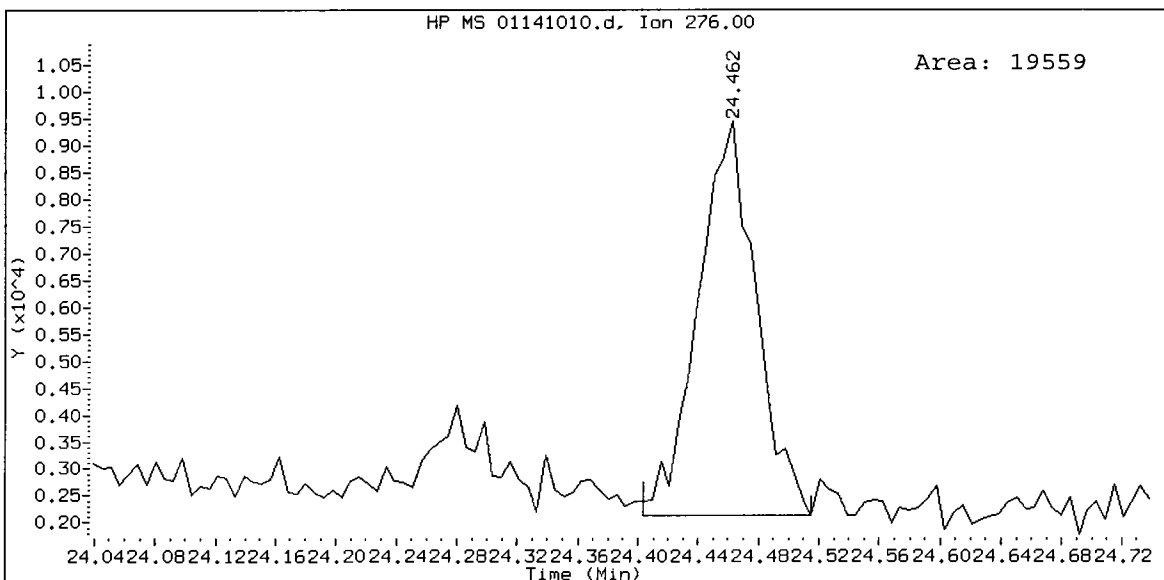


QE56C, /chem3/nt4.i/20100114.b/01141010.d  
Benzo(k)fluoranthene Amount: 4.99





QE56C, /chem3/nt4.i/20100114.b/01141010.d  
Indeno(1,2,3-cd)pyrene Amount: 0.99



ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
DILUTION

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *AS*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 15:24  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.23 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 3.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	670	< 670 U
91-57-6	2-Methylnaphthalene	670	< 670 U
90-12-0	1-Methylnaphthalene	670	< 670 U
208-96-8	Acenaphthylene	670	< 670 U
83-32-9	Acenaphthene	670	< 670 U
86-73-7	Fluorene	670	< 670 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>670</b>	<b>500 J</b>
120-12-7	Anthracene	670	< 670 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>670</b>	<b>1,100</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>670</b>	<b>1,000</b>
56-55-3	Benzo (a) anthracene	670	300 J
218-01-9	Chrysene	670	990
205-99-2	Benzo (b) fluoranthene	670	580 J
207-08-9	Benzo (k) fluoranthene	670	580 J
50-32-8	Benzo (a) pyrene	670	400 J
193-39-5	Indeno (1,2,3-cd) pyrene	670	< 670 U
53-70-3	Dibenz (a,h) anthracene	670	< 670 U
191-24-2	Benzo (g,h,i) perylene	670	< 670 U
132-64-9	Dibenzofuran	670	< 670 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatiles Surrogate Recovery**

d14-p-Terphenyl	84.0%
2-Fluorobiphenyl	87.6%

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D  
 Data file : /chem3/nt4.i/20100114.b/01141007.d  
 Lab Smp Id: QE56C Client Smp ID: CB12010710Sed  
 Inj Date : 14-JAN-2010 15:24  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : QE56C,3,  
 Misc Info : 10-434  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 18:46 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 7  
 Dil Factor: 3.00000  
 Integrator: HP RTE Compound Sublist: pna.sub  
 Target Version: 3.50

*B 01/15/10*

Concentration Formula: Amt \* DF \* Vt / (Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	9.00000	Weight of sample extracted (g)
M	75.20000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/kg)	
* 27 Naphthalene-d8	136	10.708	10.708	(1.000)	1177685	20.0000		
28 Naphthalene	128	Compound Not Detected.						
32 2-Methylnaphthalene	141	Compound Not Detected.						
105 1-methylnaphthalene	141	Compound Not Detected.						
\$ 36 2-Fluorobiphenyl	172	12.494	12.500	(0.919)	270870	7.29918	4905	
40 Acenaphthylene	152	Compound Not Detected.						
* 42 Acenaphthene-d10	164	13.592	13.593	(1.000)	642819	20.0000		
44 Acenaphthene	153	Compound Not Detected.						
46 Dibenzofuran	168	Compound Not Detected.						
49 Fluorene	166	Compound Not Detected.						
* 59 Phenanthrene-d10	188	15.995	15.995	(1.000)	1022615	20.0000		
60 Phenanthrene	178	16.030	16.036	(1.002)	39396	0.74086	497.9	
61 Anthracene	178	Compound Not Detected.						
64 Fluoranthene	202	17.998	17.993	(1.125)	84114	1.60963	1082	
65 Pyrene	202	18.368	18.357	(0.901)	111531	1.49786	1007	

Compounds	QUANT SIG			CONCENTRATIONS			
	MASS	RT	EXP RT REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)	
=====	====	==	=====	=====	=====	=====	
\$ 66 Terphenyl-d14	244	18.650	18.639 (0.915)	303600	7.00162	4705	
* 69 Chrysene-d12	240	20.377	20.354 (1.000)	1169246	20.0000		
71 Chrysene	228	20.412	20.395 (1.002)	96487	1.47279	989.8	
74 Benzo(b)fluoranthene	252	22.045	21.999 (0.975)	79180	1.71803	1155 (M)	
75 Benzo(k)fluoranthene	252	22.045	22.034 (0.975)	79180	1.72949	1162 (M)	
76 Benzo(a)pyrene	252	22.515	22.469 (0.996)	24751	0.59428	399.4 (H)	
* 77 Perylene-d12	264	22.603	22.551 (1.000)	748606	20.0000		
78 Indeno(1,2,3-cd)pyrene	276						Compound Not Detected.
79 Dibenzo(a,h)anthracene	278						Compound Not Detected.
80 Benzo(g,h,i)perylene	276						Compound Not Detected.

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01141007.d  
 Lab Smp Id: QE56C  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
 Misc Info: 10-434

Calibration Date: 14-JAN-2010  
 Calibration Time: 11:30  
 Client Smp ID: CB12010710Sed  
 Level: LOW  
 Sample Type: Sediment

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1177685	13.72
42 Acenaphthene-d10	594267	297134	1188534	642819	8.17
59 Phenanthrene-d10	951721	475860	1903442	1022615	7.45
69 Chrysene-d12	794862	397431	1589724	1169246	47.10
77 Perylene-d12	826094	413047	1652188	748606	-9.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.71	-0.01
42 Acenaphthene-d10	13.59	13.09	14.09	13.59	0.00
59 Phenanthrene-d10	16.00	15.50	16.50	15.99	0.00
69 Chrysene-d12	20.35	19.85	20.85	20.38	0.11
77 Perylene-d12	22.55	22.05	23.05	22.60	0.23

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56C  
Level: LOW  
Data Type: MS DATA  
SpikeList File: pnalcs.w.spk  
Sublist File: pna.sub  
Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
Misc Info: 10-434

Client SDG: QE56  
Fraction: SV  
Client Smp ID: CB12010710Sed  
Operator: JZ  
SampleType: SAMPLE  
Quant Type: ISTD

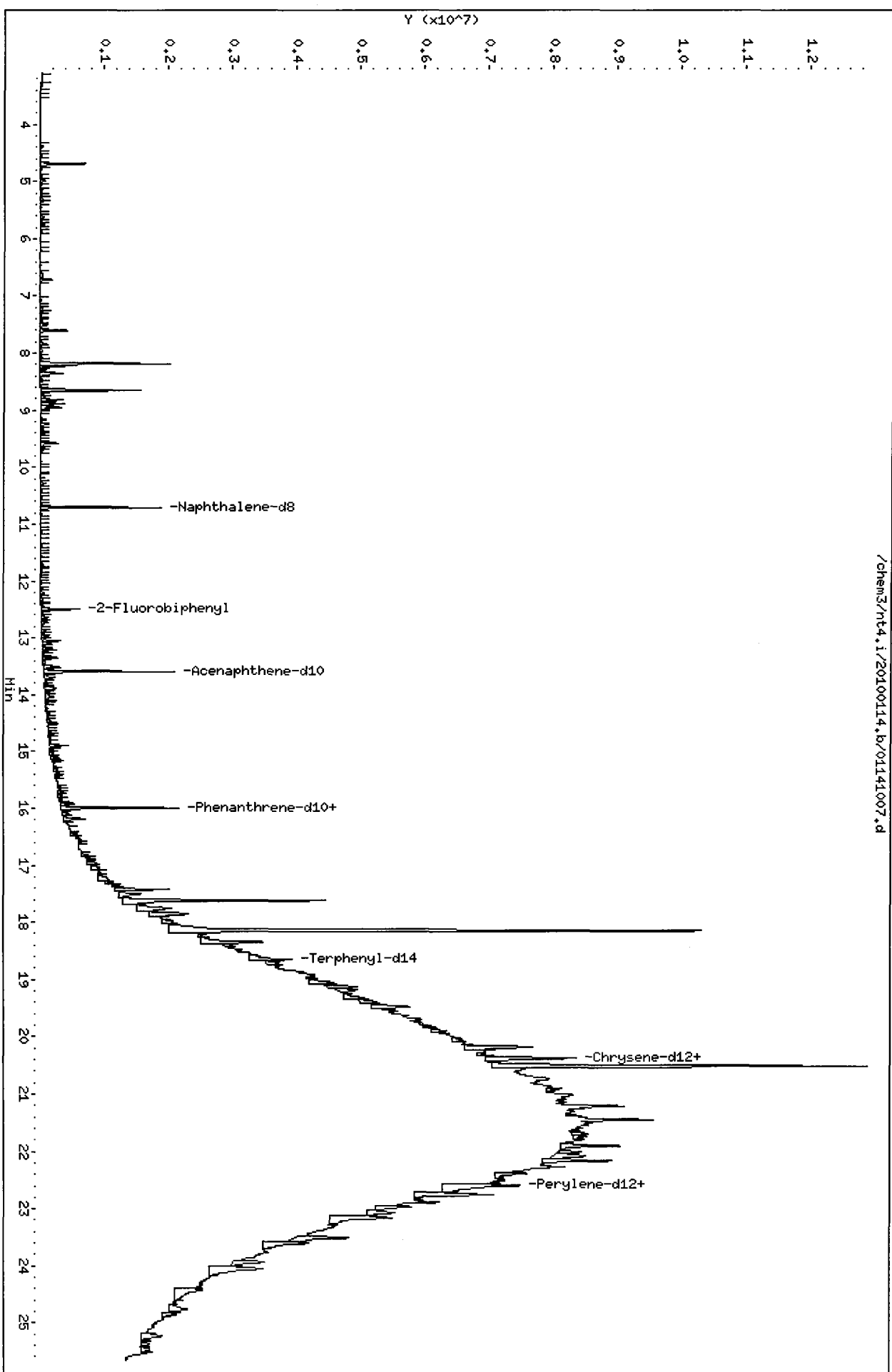
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	5600	4905	87.59	34-100
\$ 66 Terphenyl-d14	5600	4705	84.02	35-112



Data File: /chem3/nt4.i/20100114.b/01141007.d  
Date: 14-JAN-2010 15:24  
Client ID: CB12010710Seed  
Sample Info: QE56C.3,  
Volume Injected (uL): 1.0  
Column phase: ZB-5msi

Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32

/chem3/nt4.i/20100114.b/01141007.d



QE56 : 000002

Date : 14-JAN-2010 15:24

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C,3,

Volume Injected (uL): 1.0

Operator: JZ

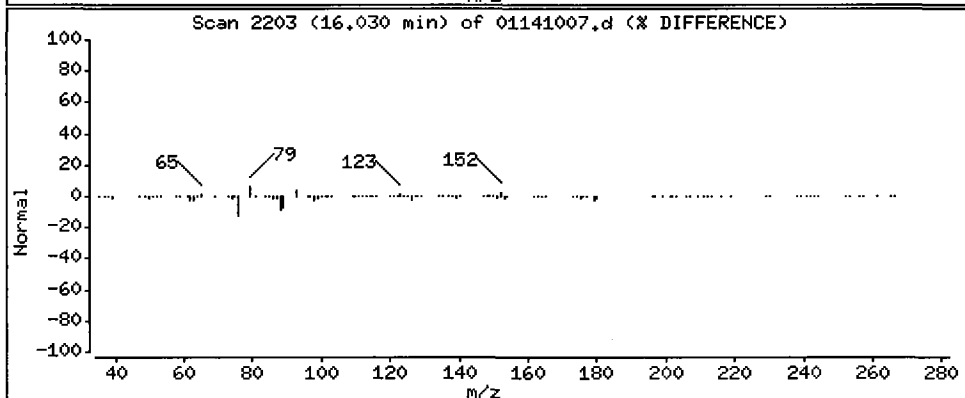
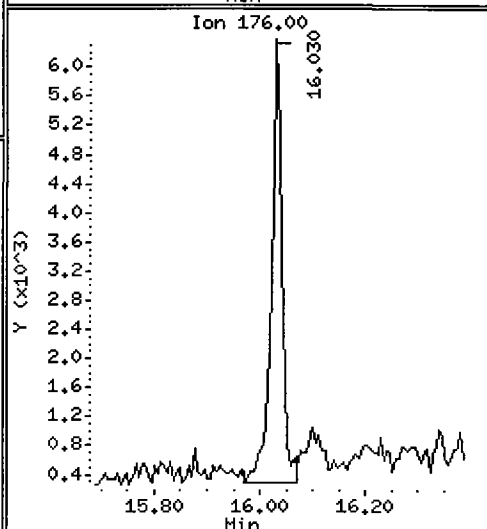
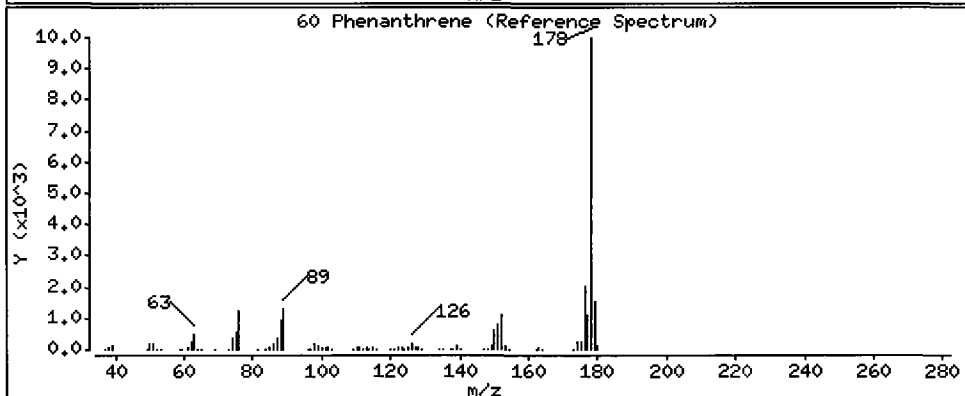
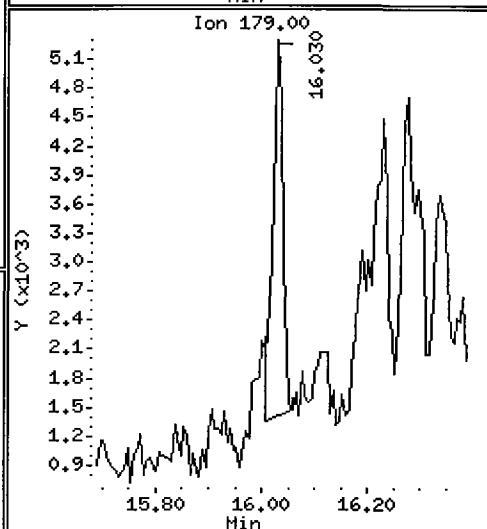
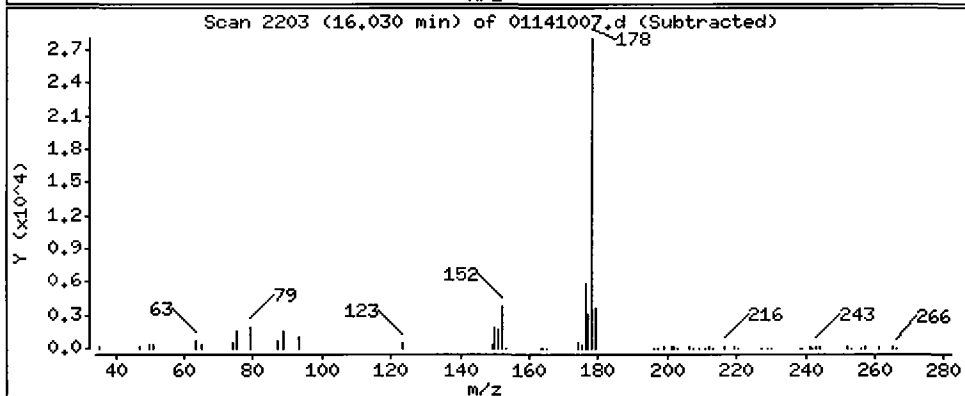
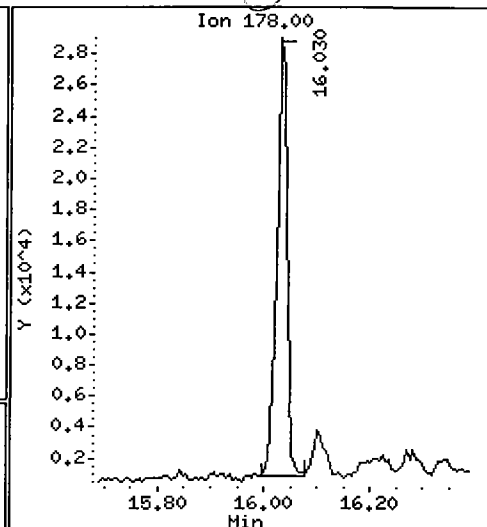
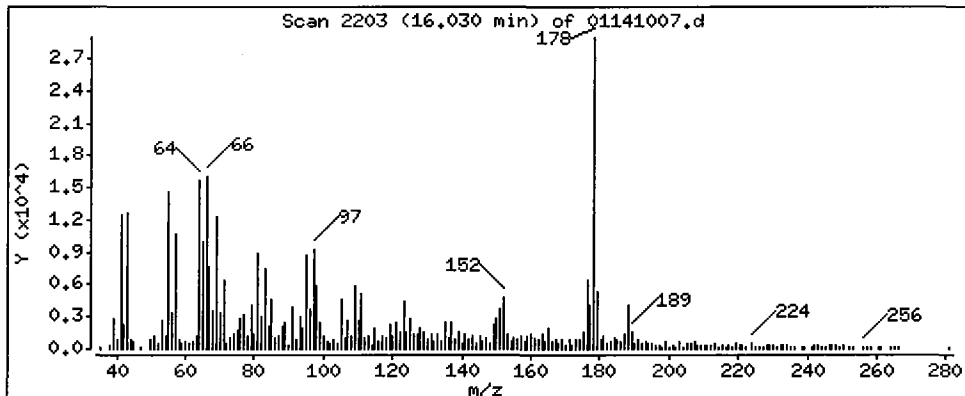
Column phase: ZB-5msi

Column diameter: 0.32

*OLM*

60 Phenanthrene

Concentration: 497.9 ug/kg



Date : 14-JAN-2010 15:24

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C,3,

Volume Injected (uL): 1.0

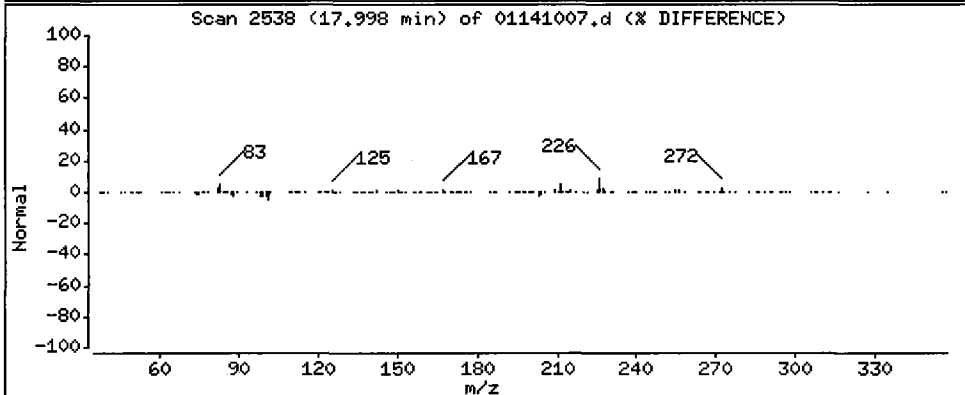
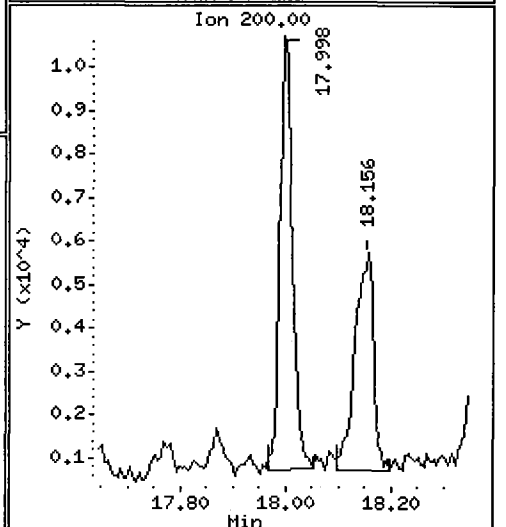
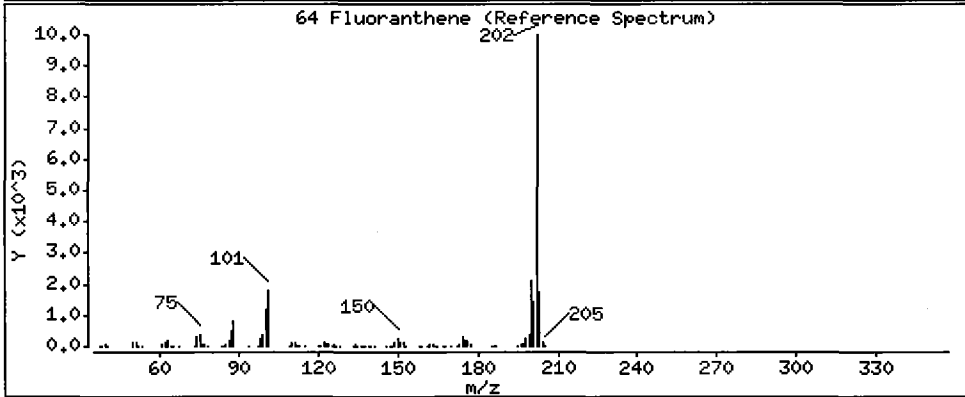
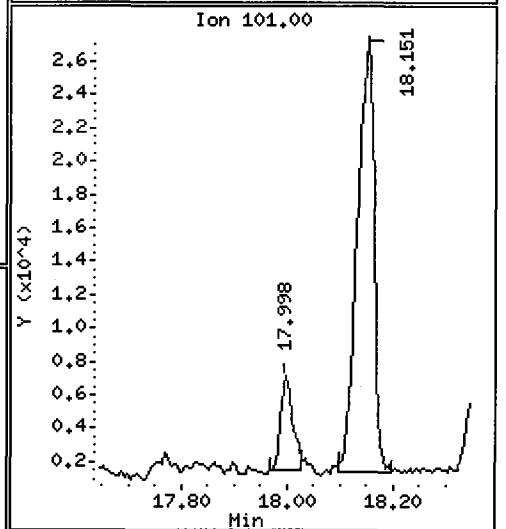
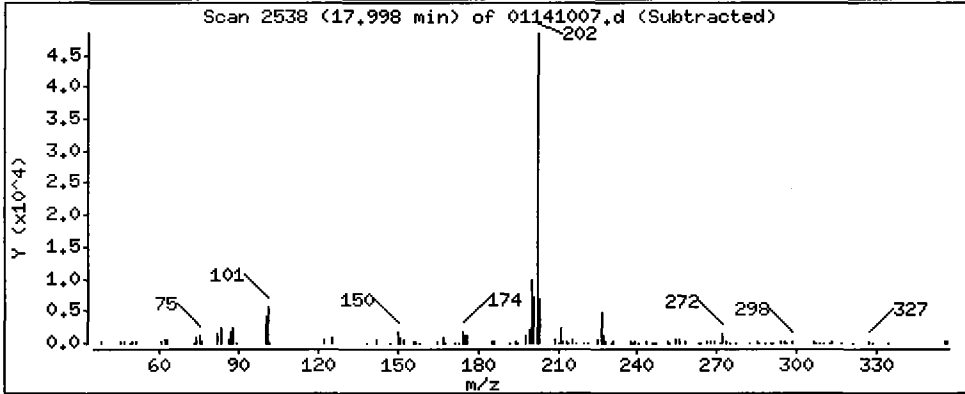
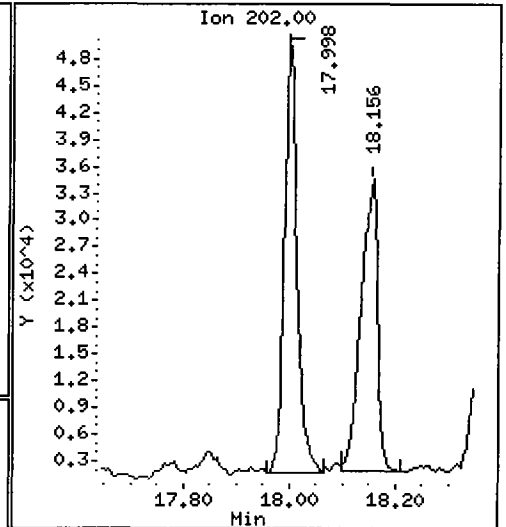
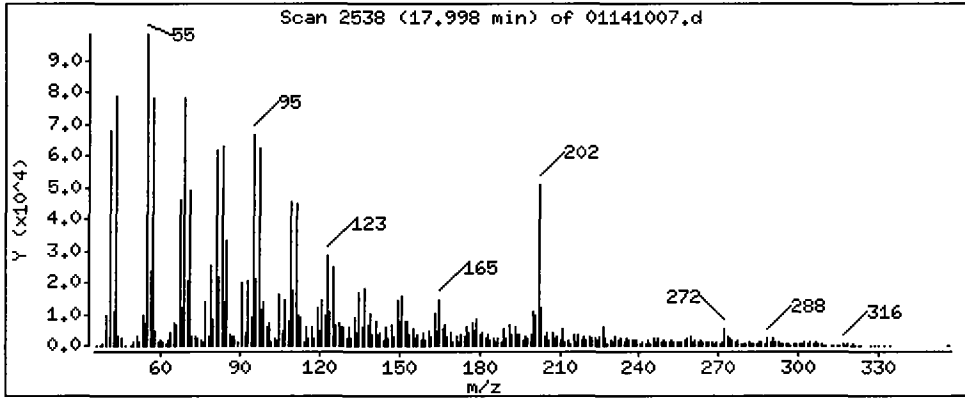
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

64 Fluoranthene

Concentration: 1082 ug/kg



Date : 14-JAN-2010 15:24

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C.3,

Volume Injected (uL): 1.0

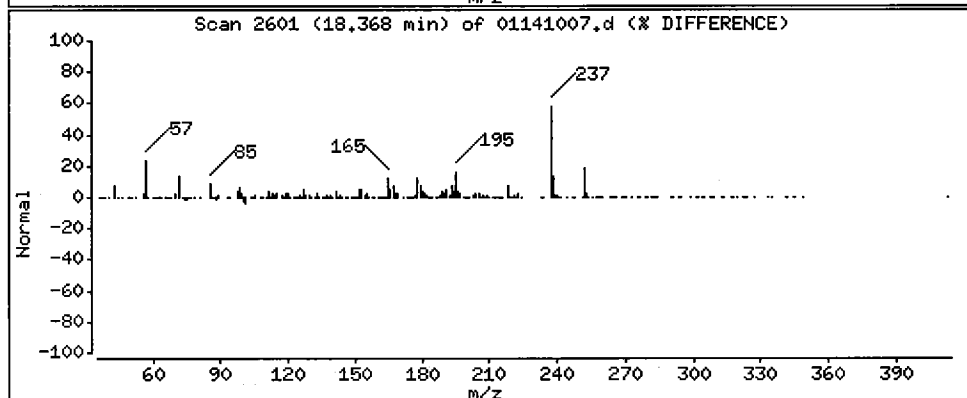
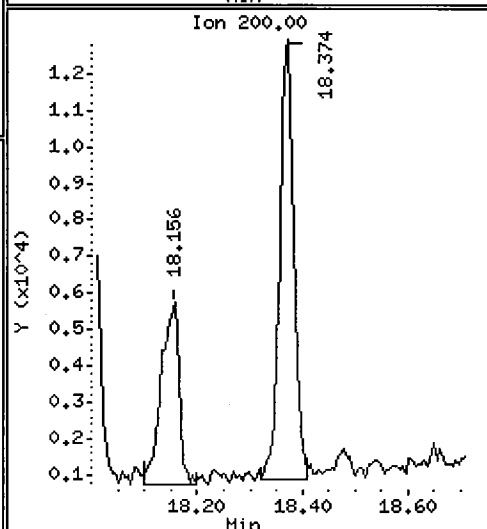
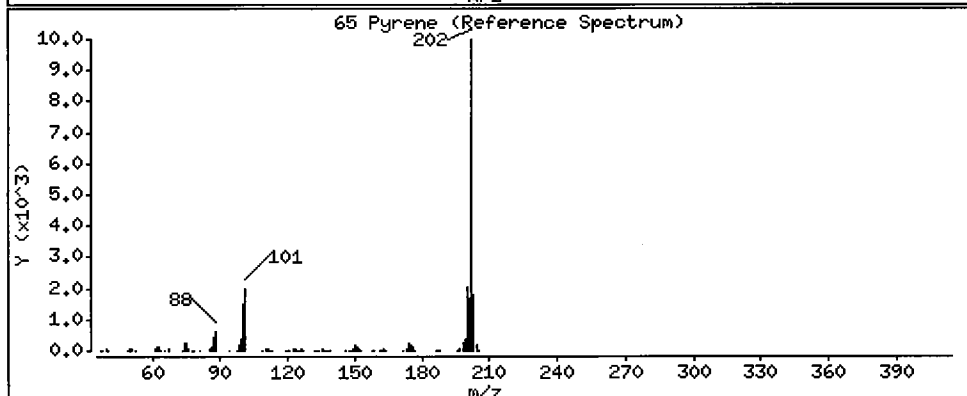
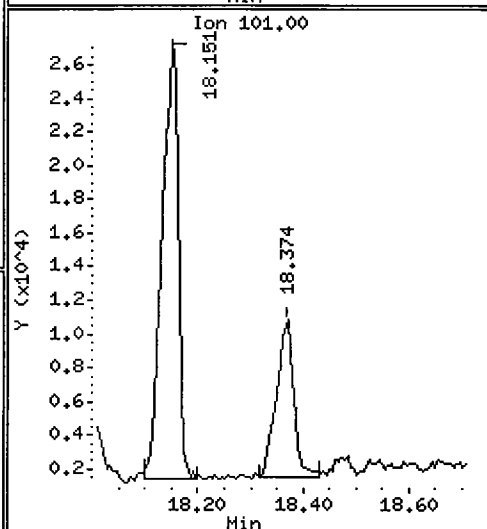
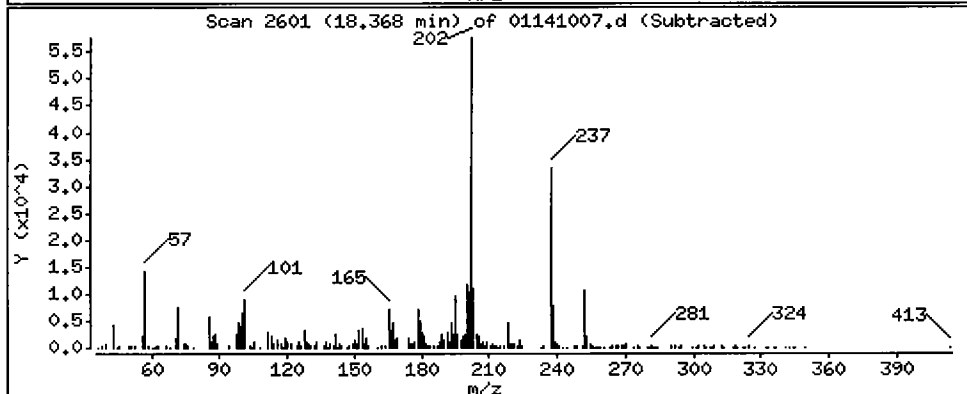
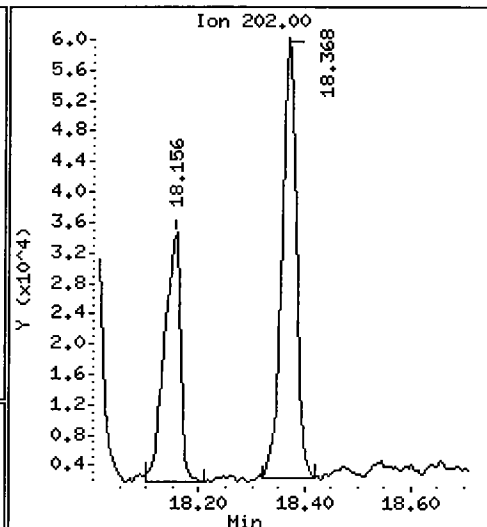
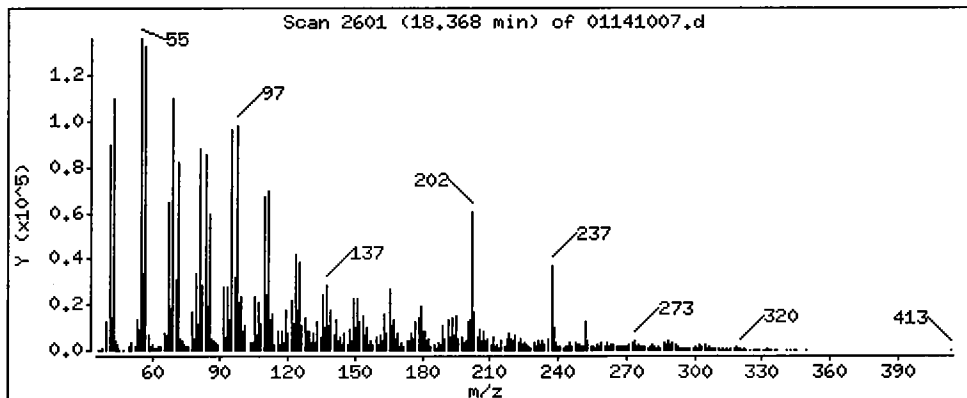
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

65 Pyrene

Concentration: 1007 ug/kg



Date : 14-JAN-2010 15:24

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C,3,

Volume Injected (uL): 1.0

Operator: JZ

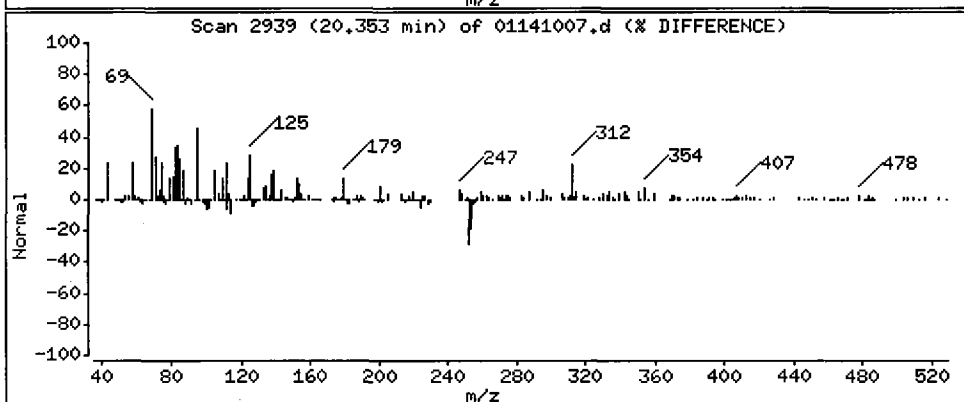
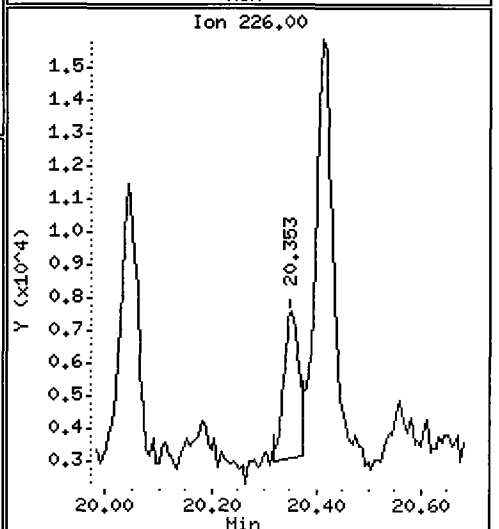
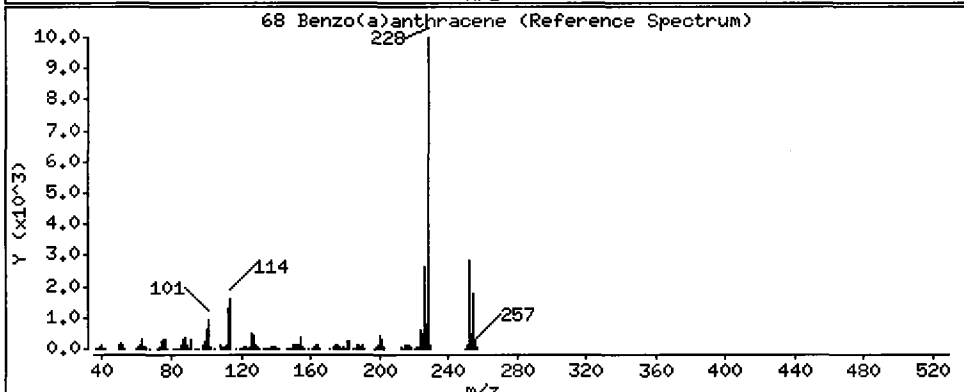
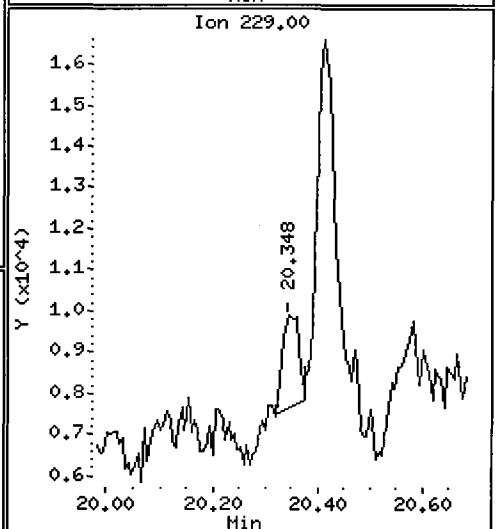
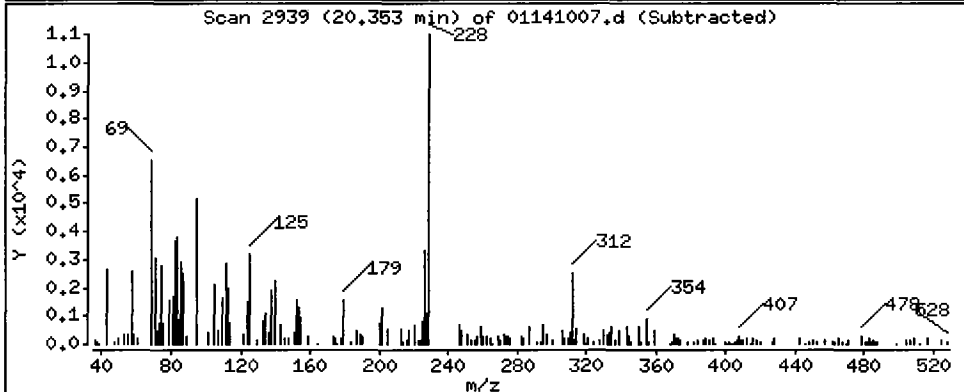
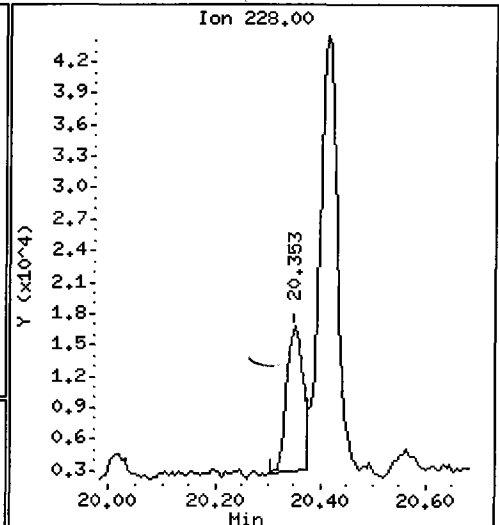
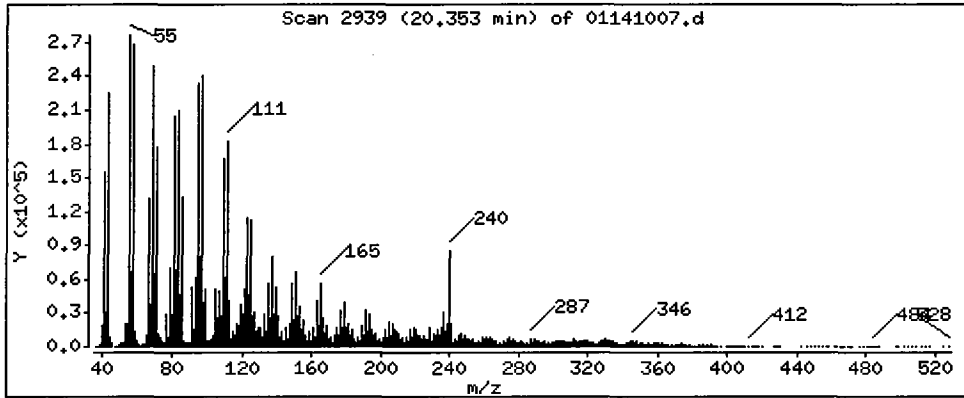
Column phase: ZB-5msi

Column diameter: 0.32

*JZ*

68 Benzo(a)anthracene

Concentration: 300.7 ug/kg



Date : 14-JAN-2010 15:24

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C,3,

Volume Injected (uL): 1.0

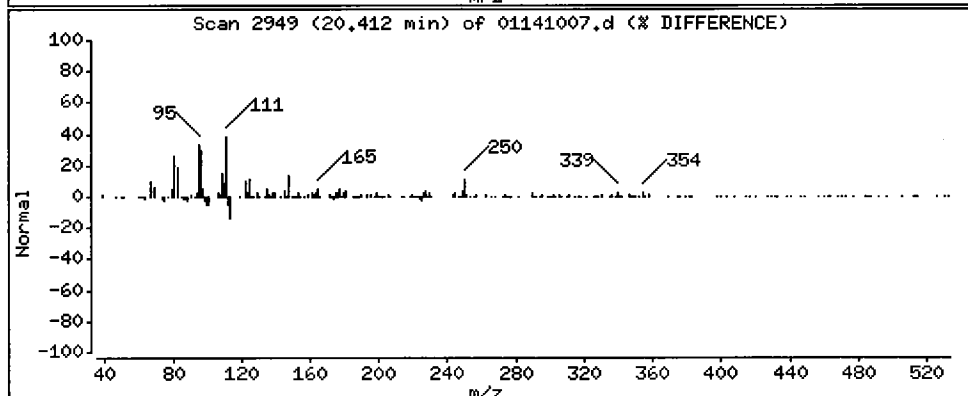
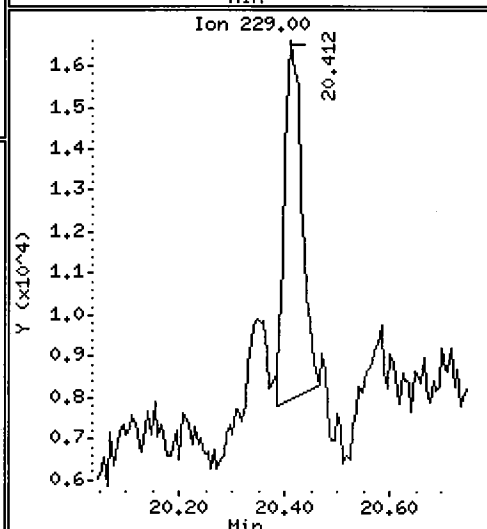
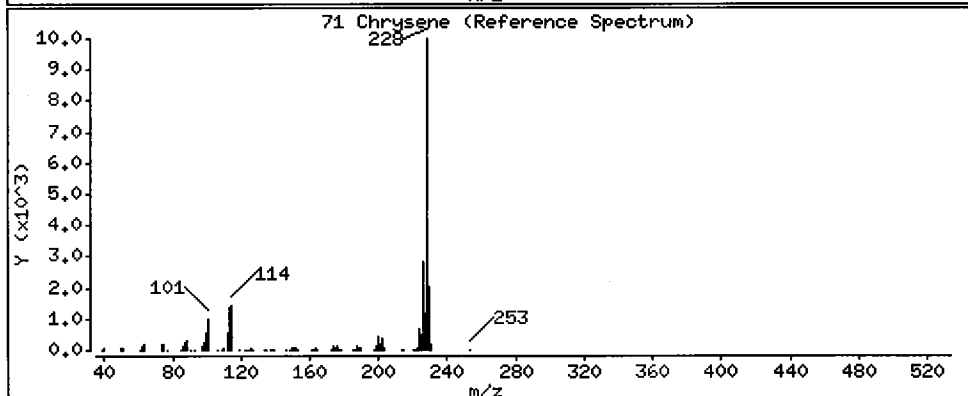
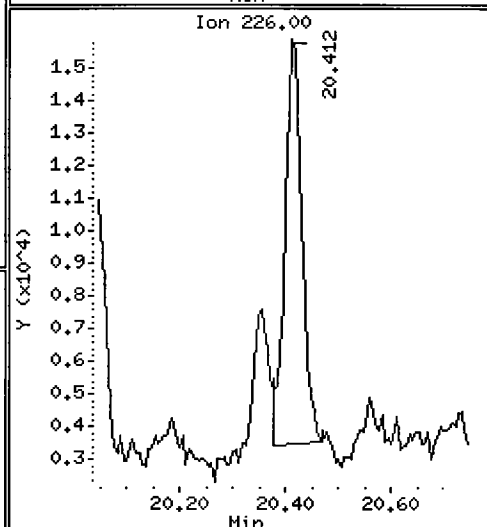
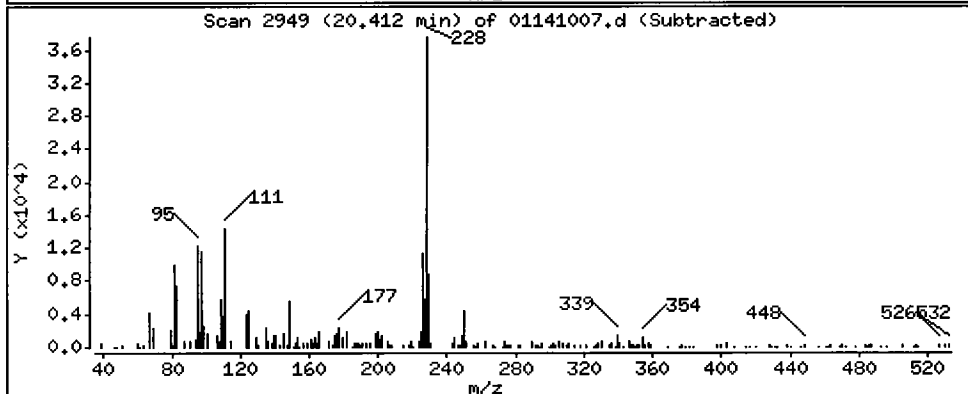
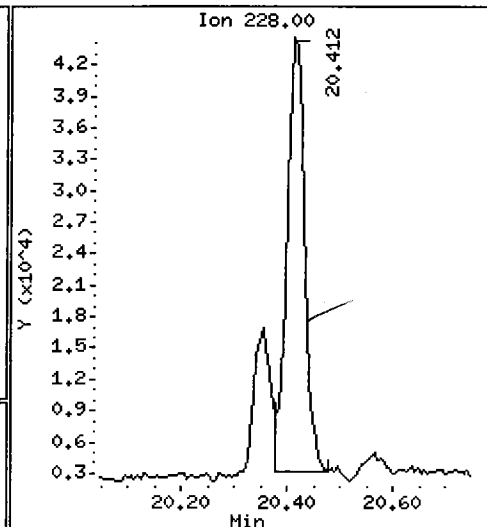
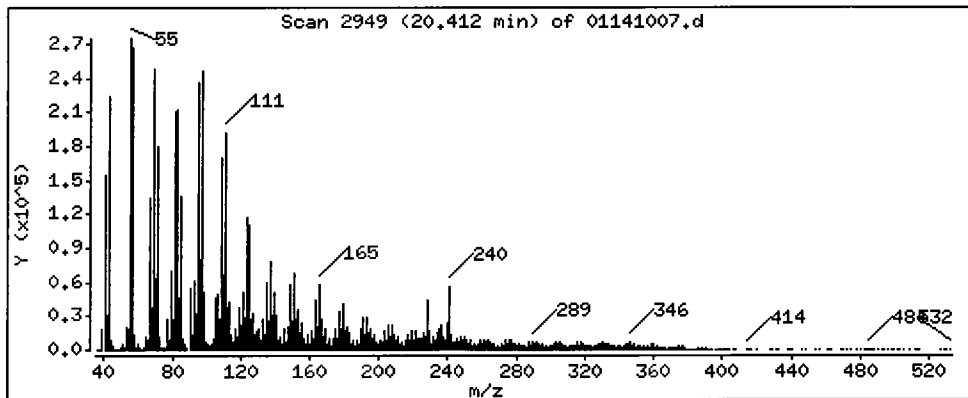
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

71 Chrysene

Concentration: 989.8 ug/kg



Date : 14-JAN-2010 15:24

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C,3,

Volume Injected (uL): 1.0

Operator: JZ

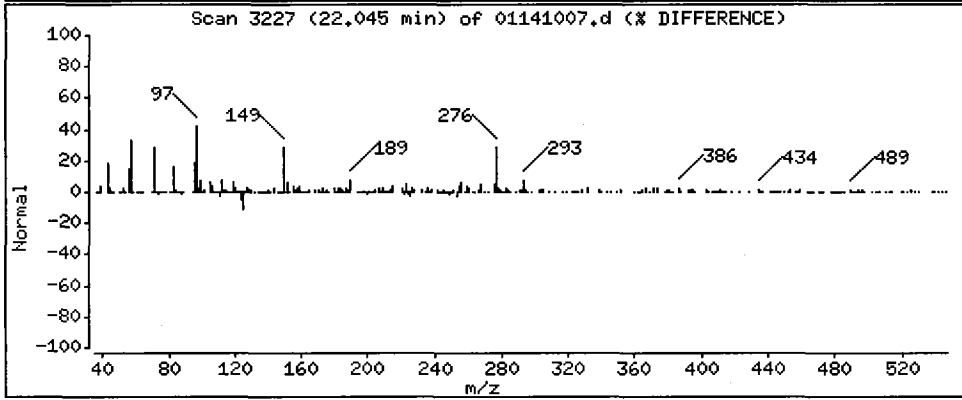
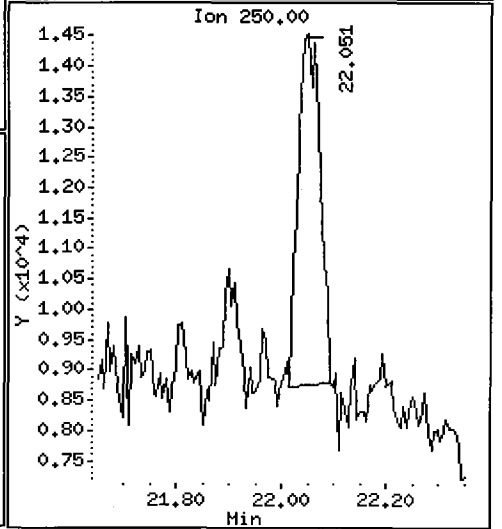
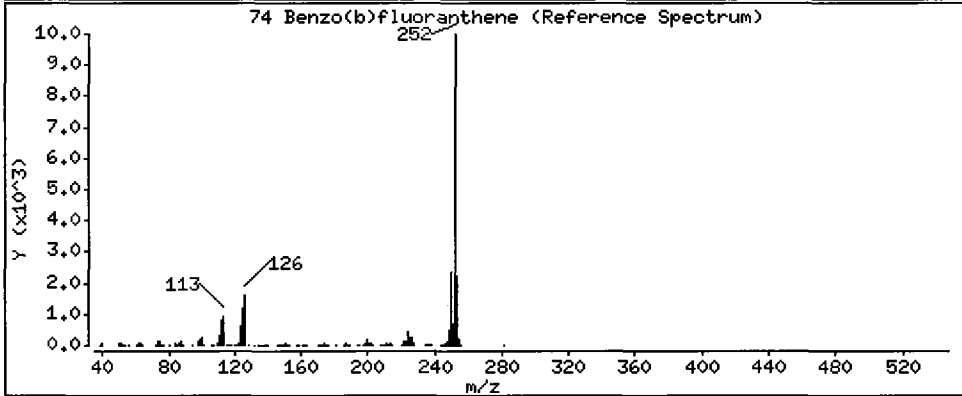
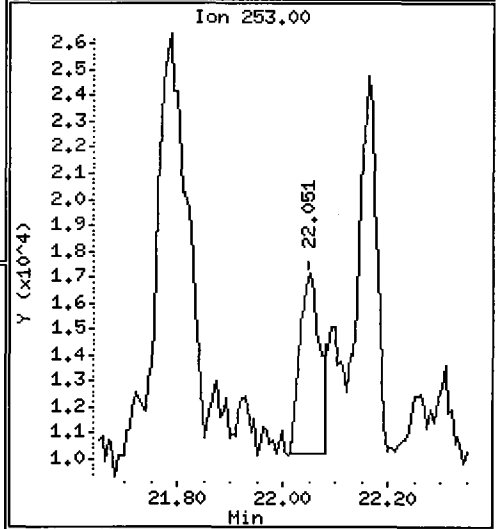
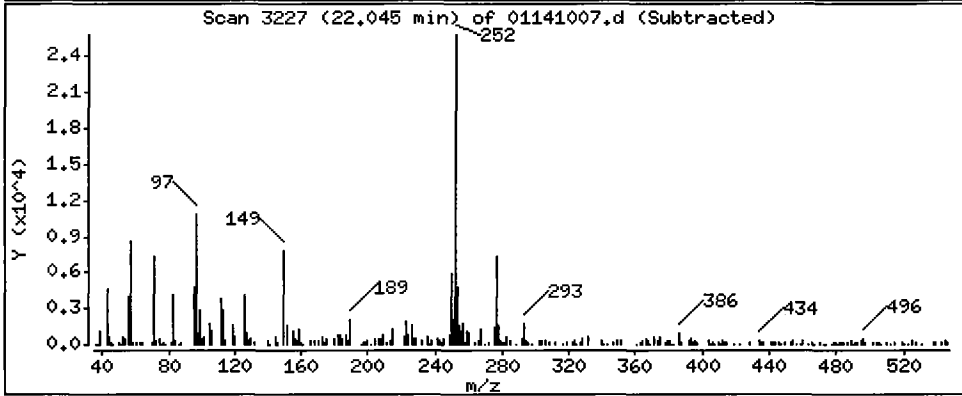
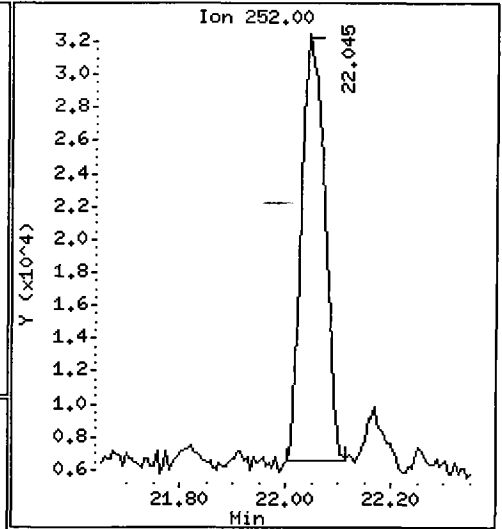
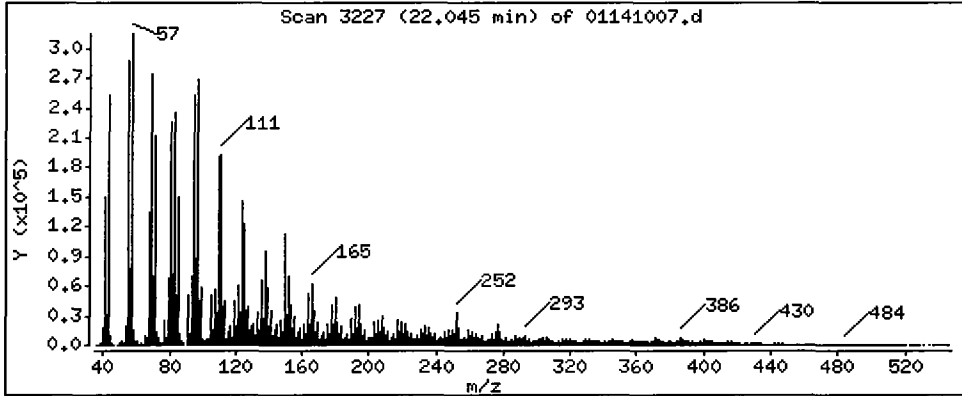
Column phase: ZB-5msi

Column diameter: 0.32

74 Benzo(b)fluoranthene

Concentration: 1155 ug/kg

*Handwritten signature*



Date : 14-JAN-2010 15:24

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C,3,

Volume Injected (uL): 1.0

Operator: JZ

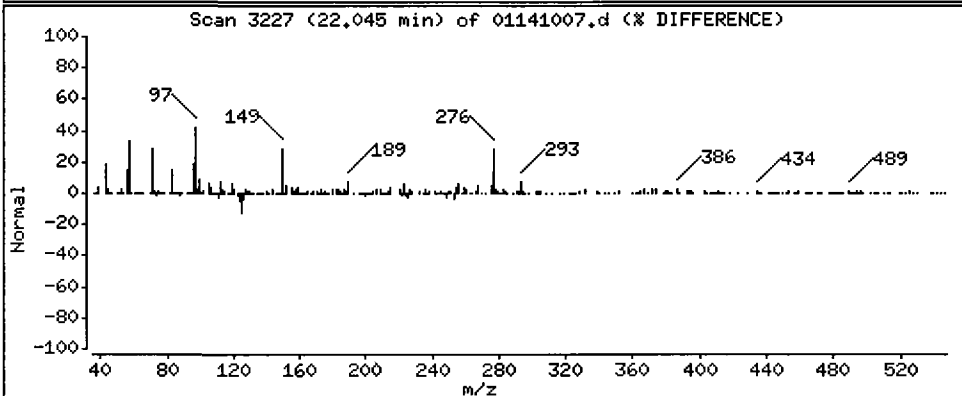
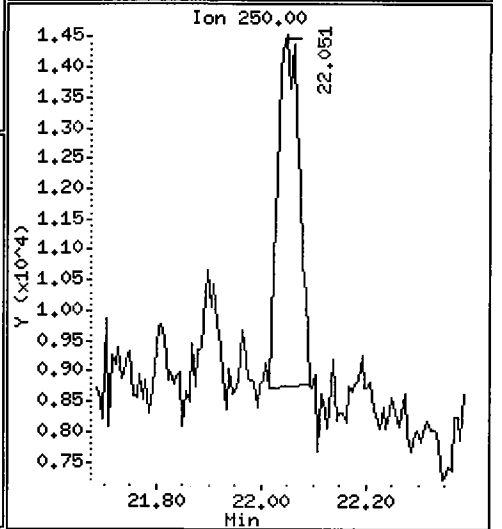
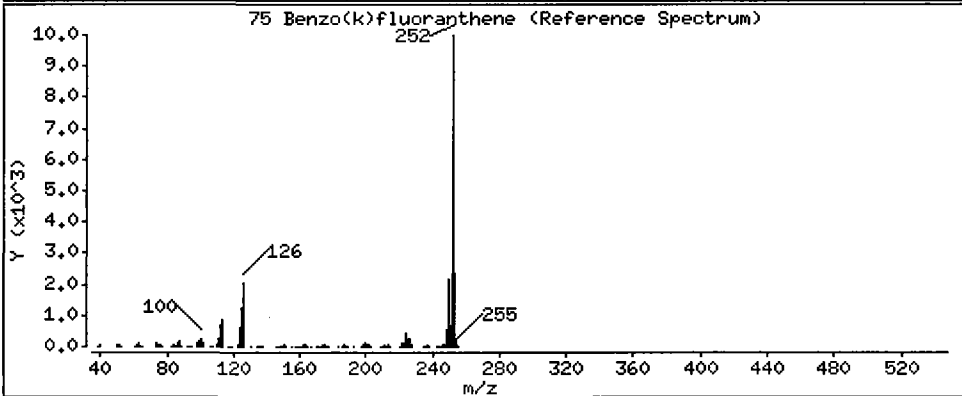
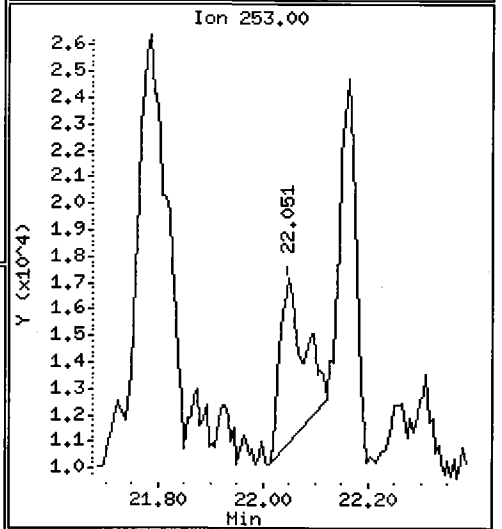
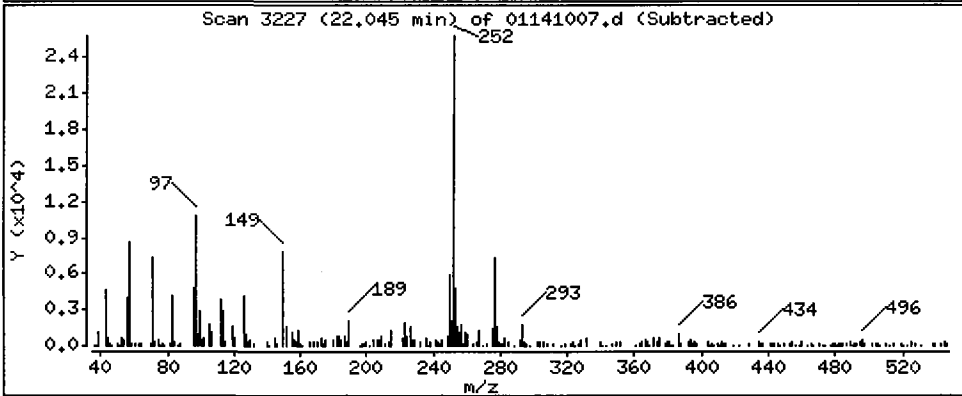
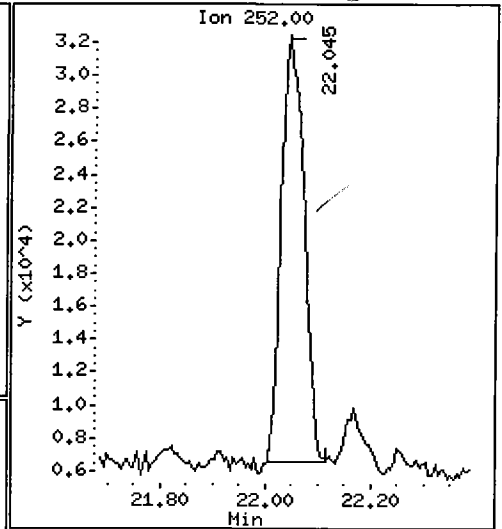
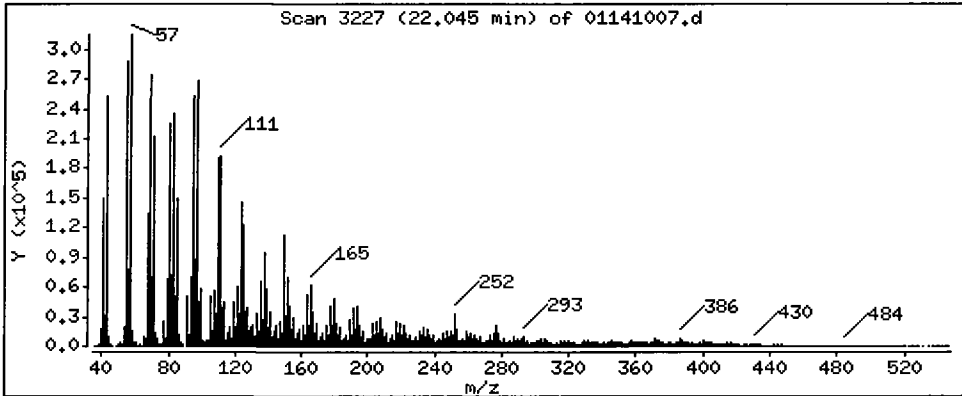
Column phase: ZB-5msi

Column diameter: 0.32

75 Benzo(k)fluoranthene

Concentration: 1162 ug/kg

*Handwritten signature*





Date : 14-JAN-2010 15:24

Client ID: CB12010710Sed

Instrument: nt4.i

Sample Info: QE56C,3,

Volume Injected (uL): 1.0

Operator: JZ

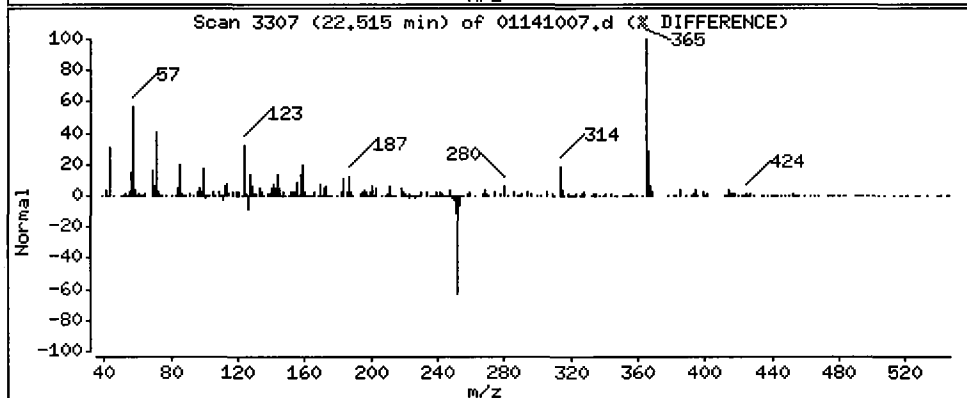
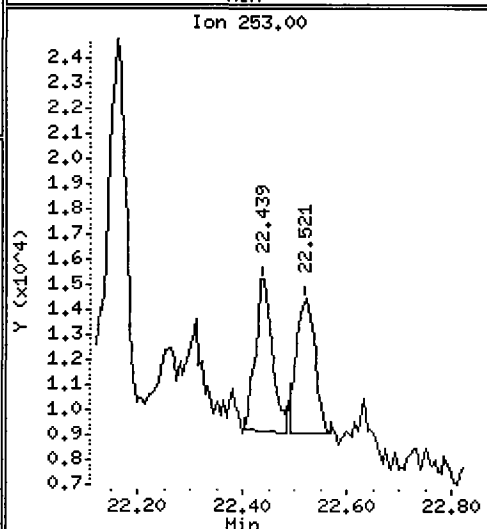
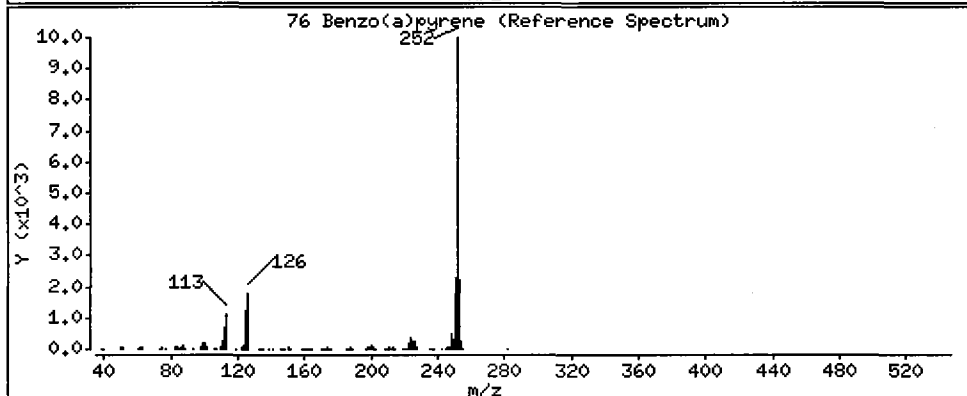
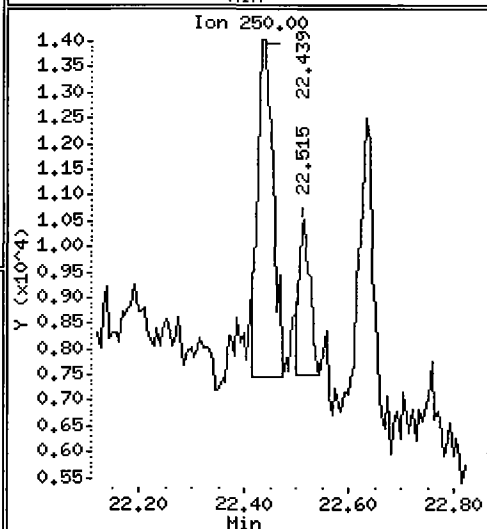
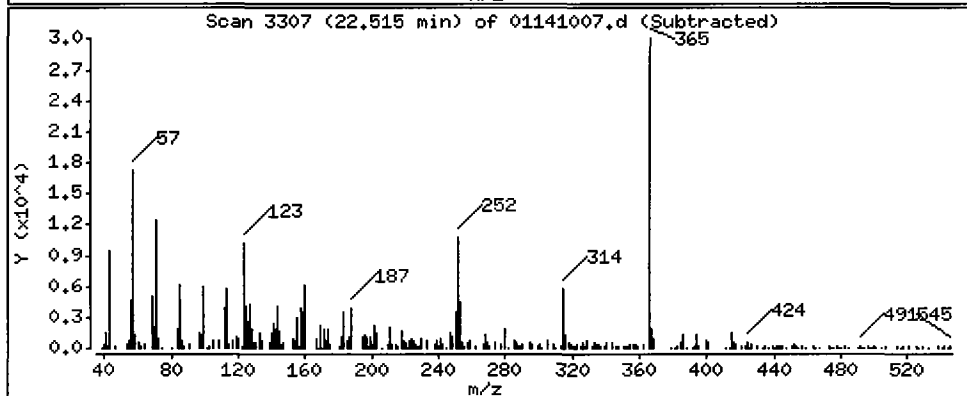
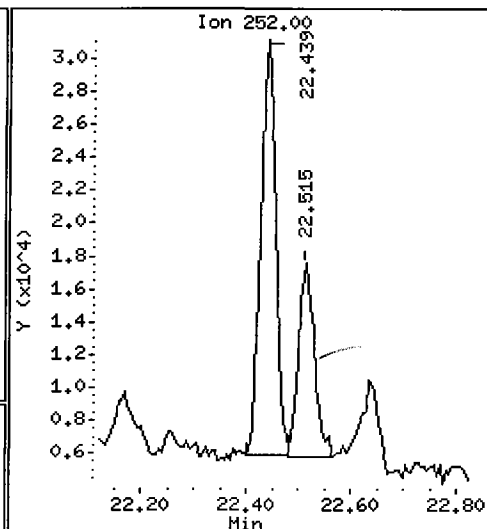
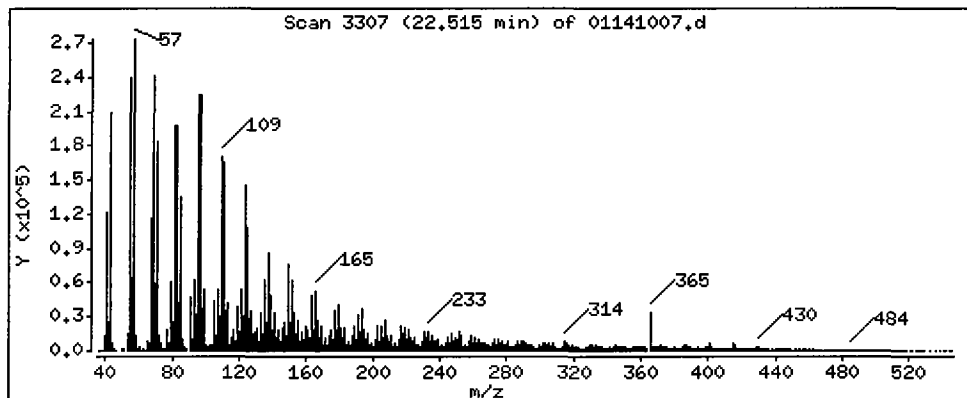
Column phase: ZB-5msi

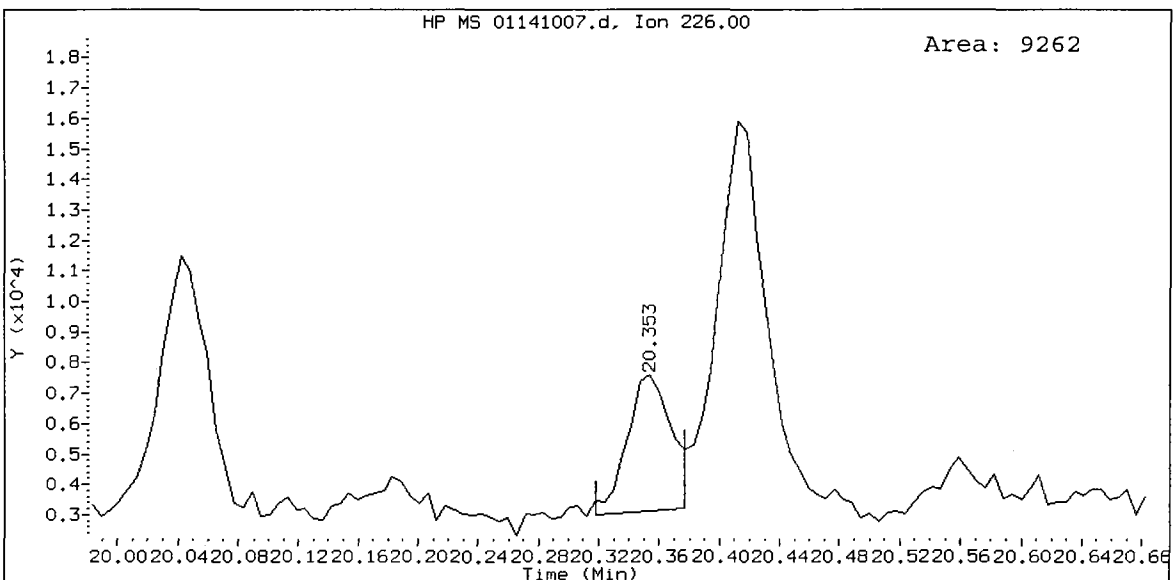
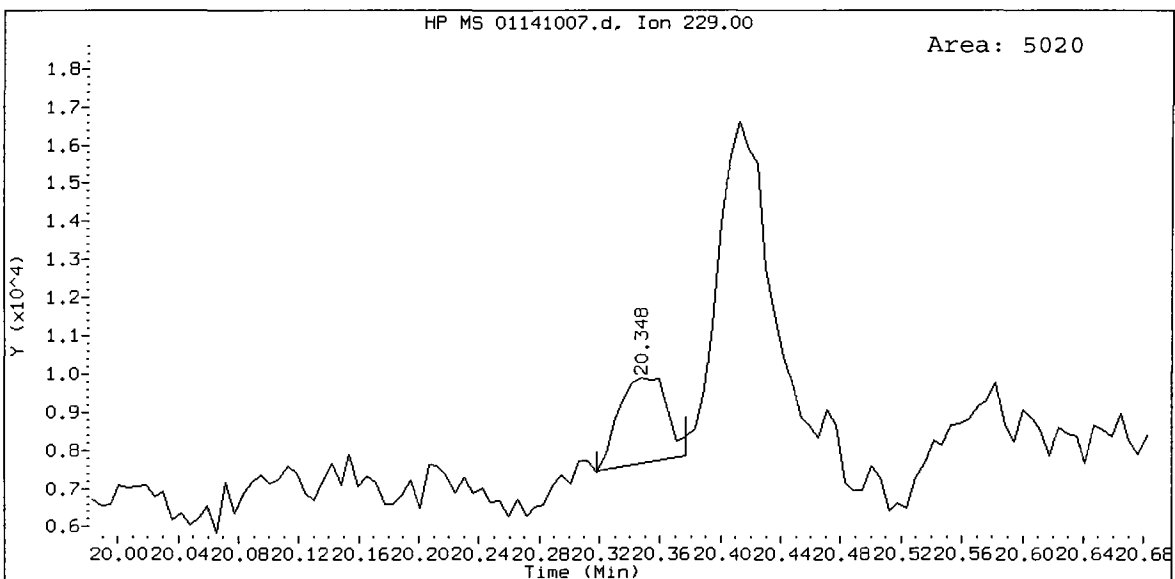
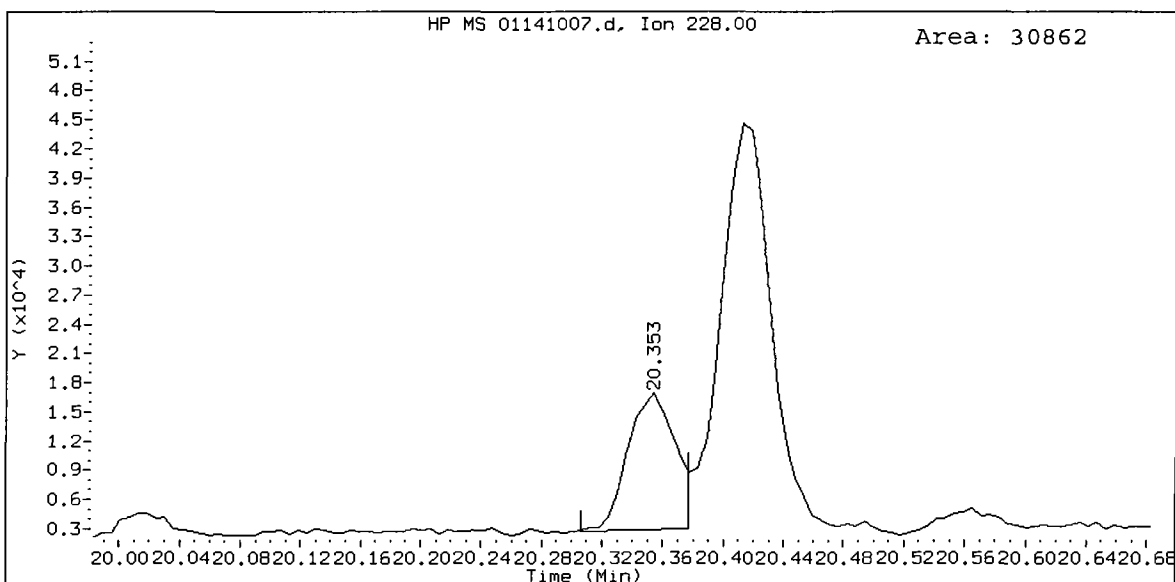
Column diameter: 0.32

JCAL

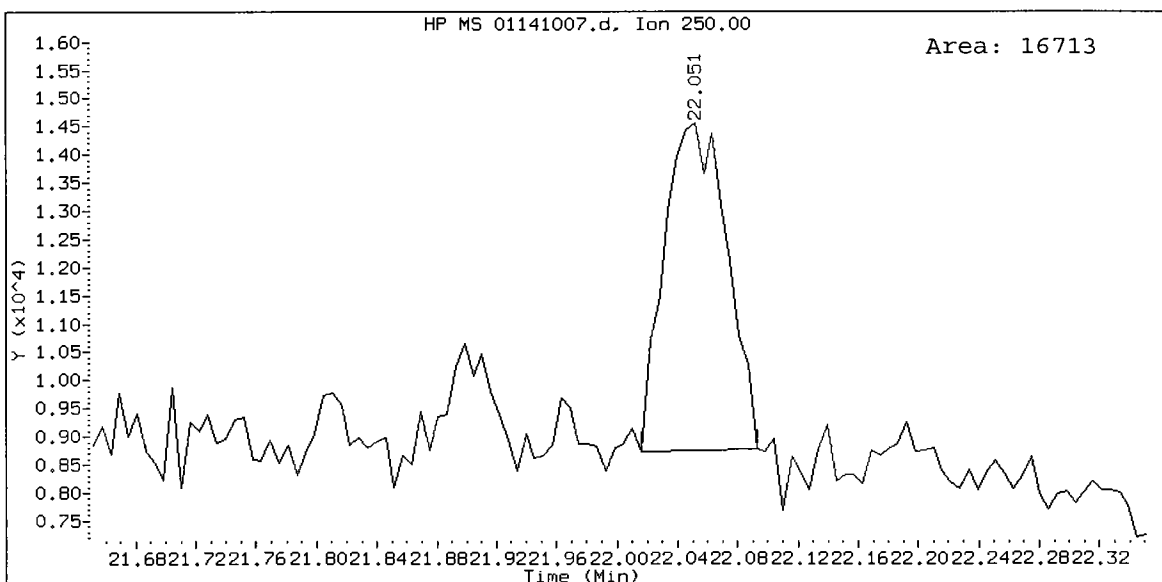
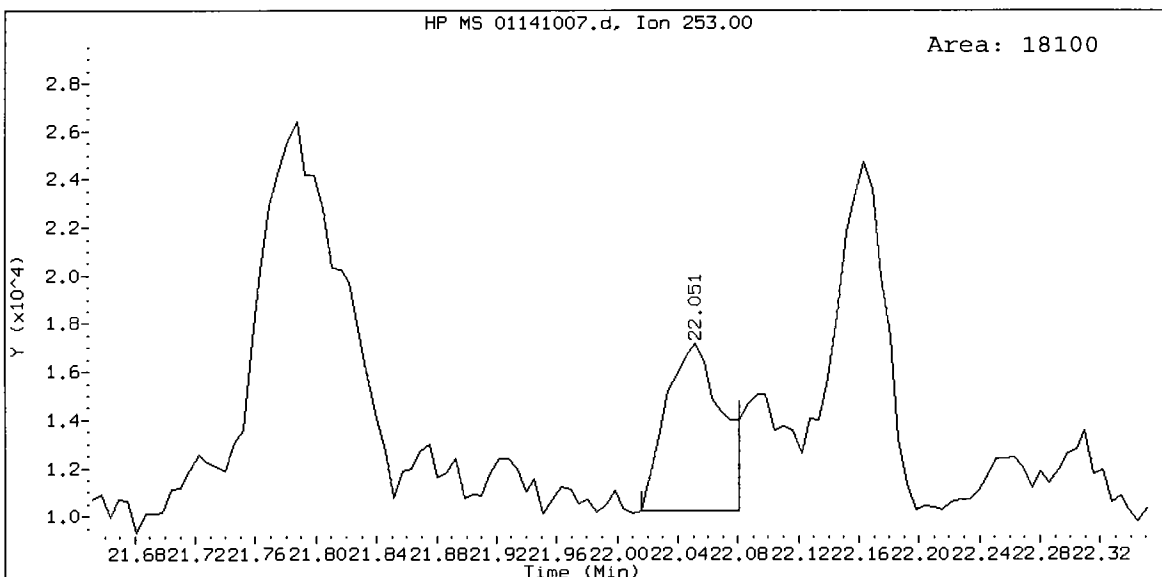
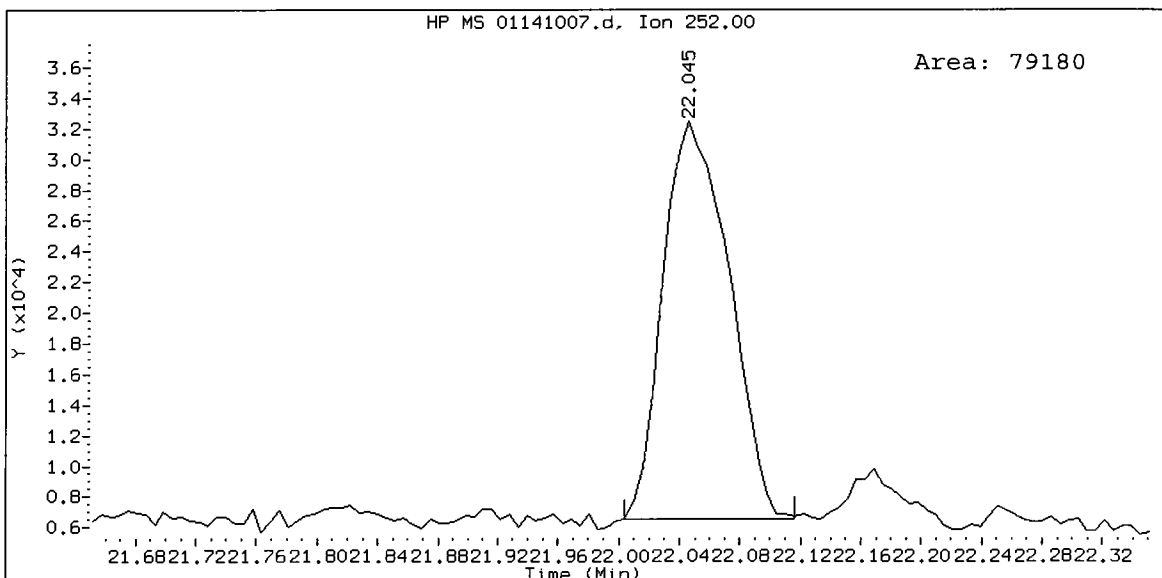
76 Benzo(a)pyrene

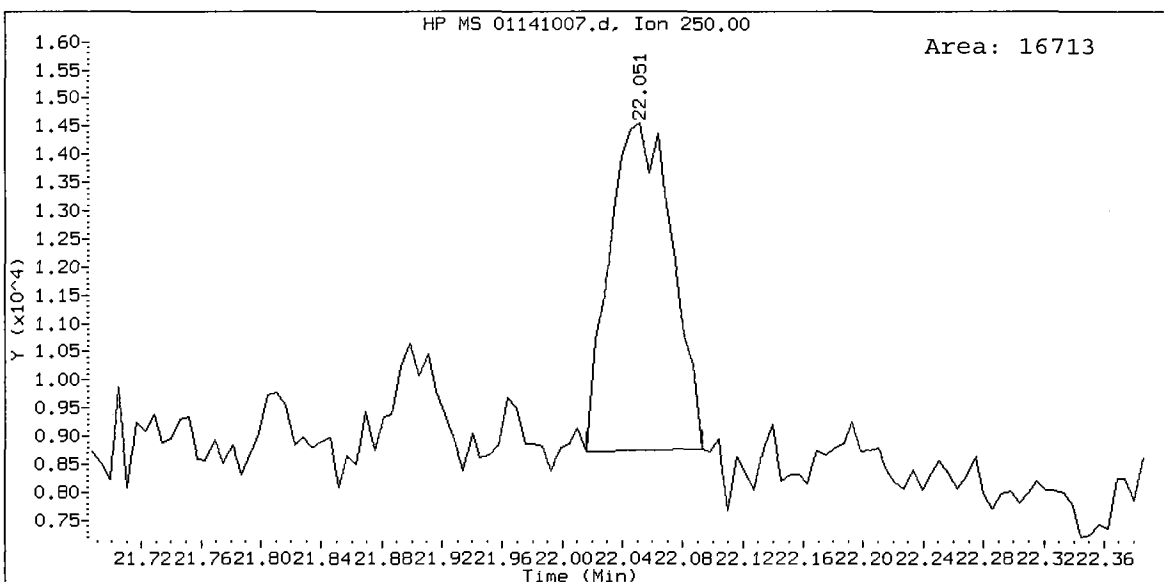
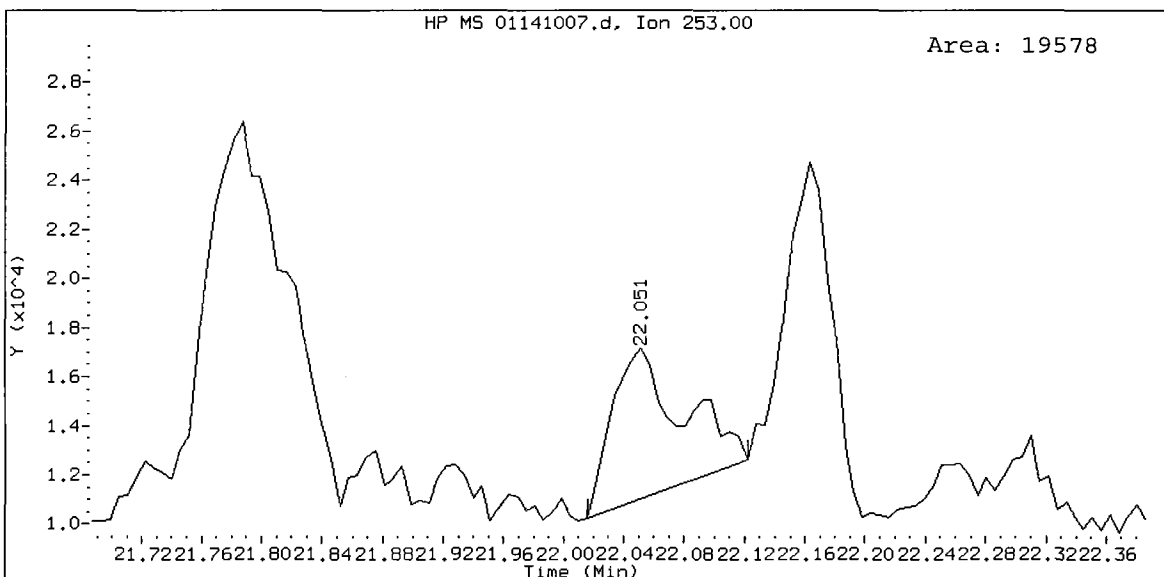
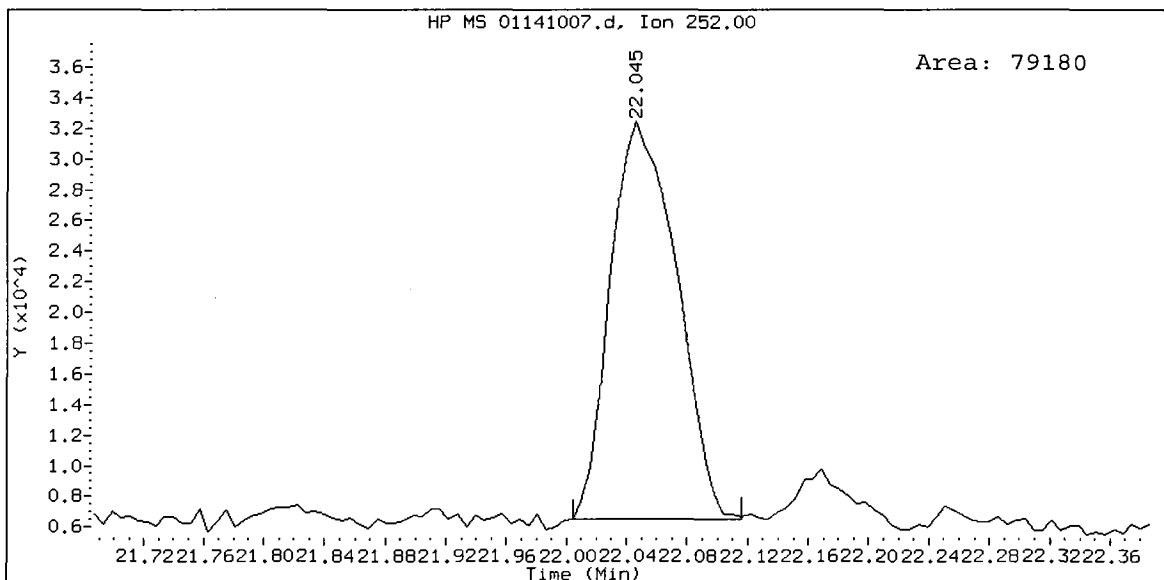
Concentration: 399.4 ug/kg

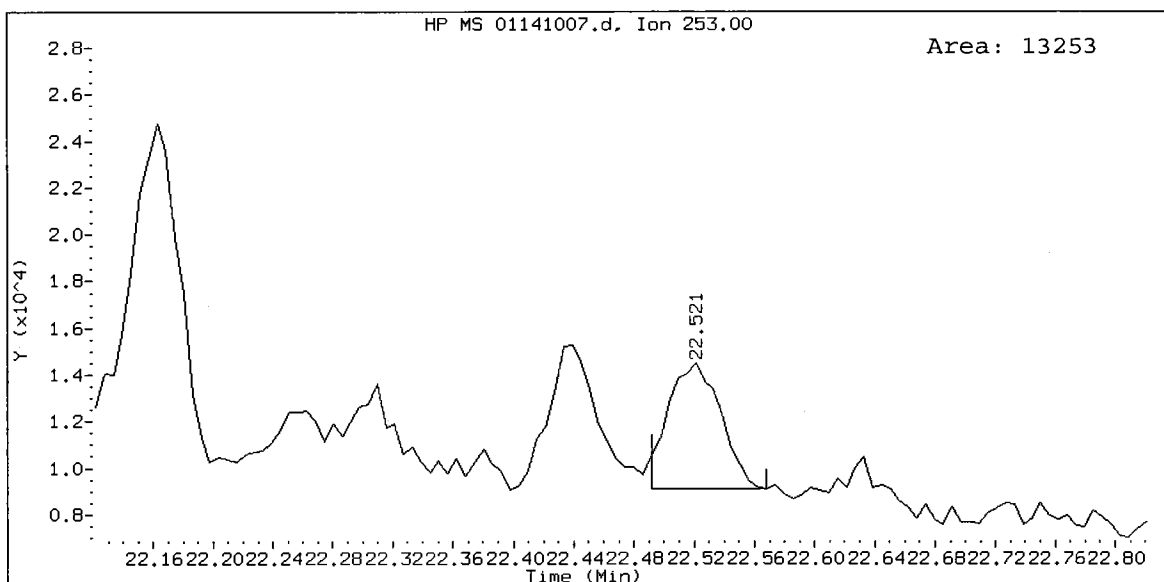
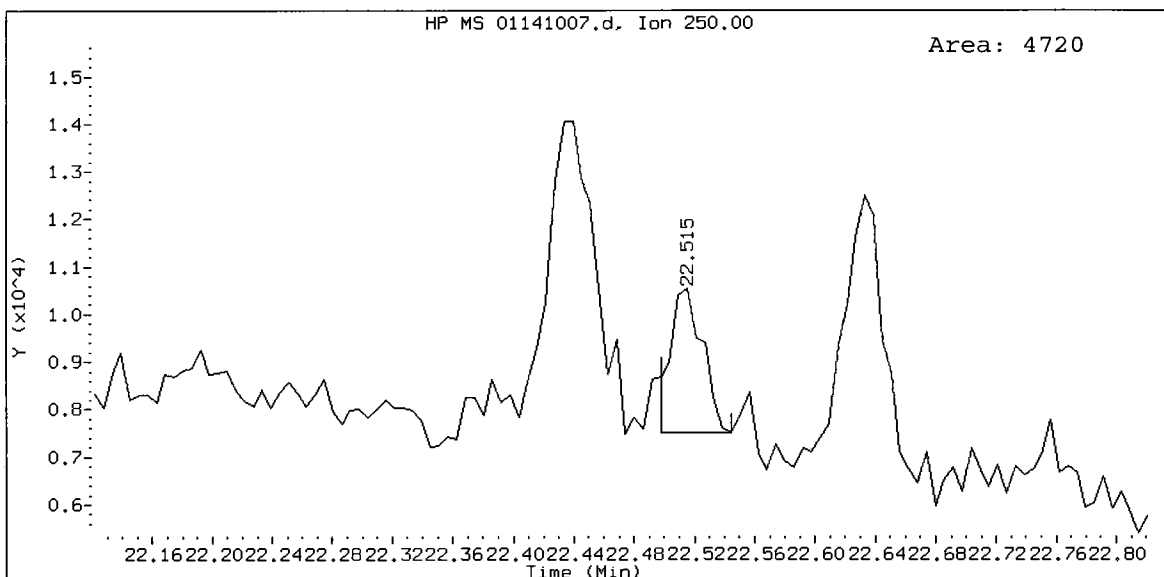
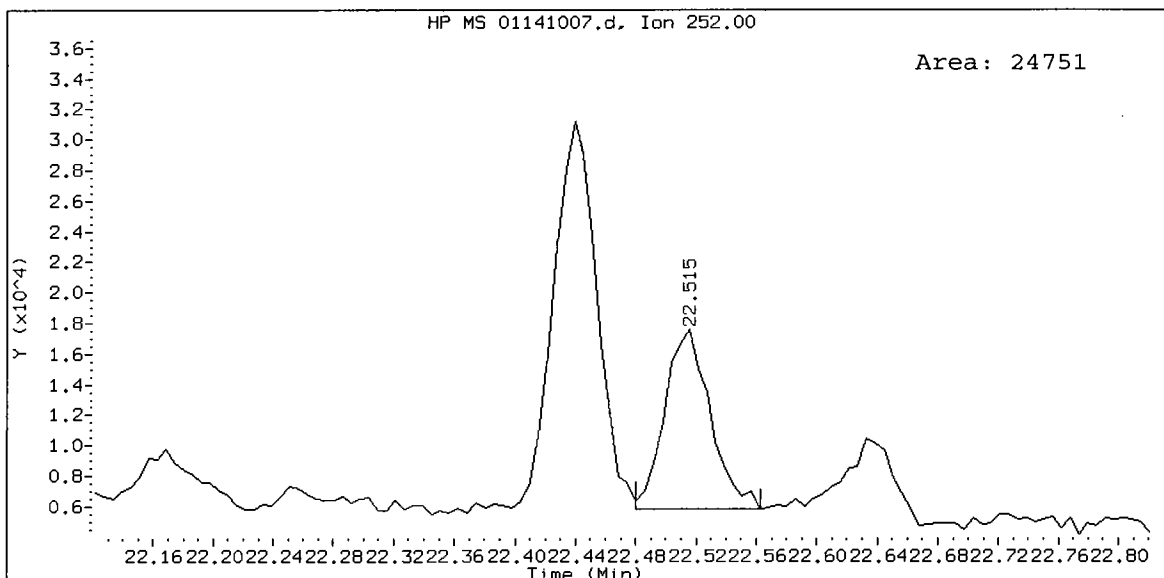




QE56C, /chem3/nt4.i/20100114.b/01141007.d  
Benzo(b)fluoranthene Amount: 1.72







ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAS by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB2010710Sed  
SAMPLE

Lab Sample ID: QE56D  
LIMS ID: 10-435  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 17:37  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.61 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 67.7%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	190	< 190 U
91-57-6	2-Methylnaphthalene	190	< 190 U
90-12-0	1-Methylnaphthalene	190	< 190 U
208-96-8	Acenaphthylene	190	< 190 U
83-32-9	Acenaphthene	190	< 190 U
86-73-7	Fluorene	190	< 190 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>190</b>	<b>340</b>
120-12-7	Anthracene	190	< 190 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>190</b>	<b>780</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>190</b>	<b>1,500</b>
56-55-3	Benzo (a) anthracene	190	220
218-01-9	Chrysene	190	630
205-99-2	Benzo (b) fluoranthene	190	370
207-08-9	Benzo (k) fluoranthene	190	370
50-32-8	Benzo (a) pyrene	190	300
193-39-5	Indeno (1,2,3-cd) pyrene	190	< 190 U
53-70-3	Dibenz (a,h) anthracene	190	< 190 U
<b>191-24-2</b>	<b>Benzo (g,h,i) perylene</b>	<b>190</b>	<b>280</b>
132-64-9	Dibenzofuran	190	< 190 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	180%
2-Fluorobiphenyl	79.6%

Analytical Resources, Inc.

Semivolatiles Report SW846 Method 8270D  
 Data file : /chem3/nt4.i/20100114.b/01141011.d  
 Lab Smp Id: QE56D Client Smp ID: CB2010710Sed  
 Inj Date : 14-JAN-2010 17:37 Inst ID: nt4.i  
 Operator : JZ  
 Smp Info : QE56D  
 Misc Info : 10-435  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 17:47 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 11  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 3.50

Compound Sublist: pna.sub

*12 01/15/10*

Concentration Formula: Amt \* DF \* Vt / (Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	8.08000	Weight of sample extracted (g)
M	67.70000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.714	10.708	(1.000)	1291134	20.0000	
28 Naphthalene	128				Compound Not Detected.		
32 2-Methylnaphthalene	141				Compound Not Detected.		
105 1-methylnaphthalene	141				Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172	12.505	12.500	(0.920)	865995	19.9424	3821
40 Acenaphthylene	152				Compound Not Detected.		
* 42 Acenaphthene-d10	164	13.598	13.593	(1.000)	752209	20.0000	
44 Acenaphthene	153				Compound Not Detected.		
46 Dibenzofuran	168				Compound Not Detected.		
49 Fluorene	166				Compound Not Detected.		
* 59 Phenanthrene-d10	188	16.006	15.995	(1.000)	1311880	20.0000	
60 Phenanthrene	178	16.042	16.036	(1.002)	121347	1.77881	340.8
61 Anthracene	178				Compound Not Detected.		
64 Fluoranthene	202	18.015	17.993	(1.125)	273230	4.07571	780.8
65 Pyrene	202	18.391	18.357	(0.901)	332900	7.68368	1472

Compounds	QUANT SIG				CONCENTRATIONS			
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)	
-----	----	--	-----	-----	-----	-----	-----	
\$ 66 Terphenyl-d14	244	18.673	18.639	(0.915)	1136707	45.0532	8631 (R)	
68 Benzo(a)anthracene	228	20.383	20.331	(0.999)	45129	1.12439	215.4 (M)	
* 69 Chrysene-d12	240	20.412	20.354	(1.000)	680339	20.0000		
71 Chrysene	228	20.447	20.395	(1.002)	124738	3.27229	626.9	
74 Benzo(b)fluoranthene	252	22.069	21.999	(0.976)	67561	3.74266	717.0 (M)	
75 Benzo(k)fluoranthene	252	22.069	22.034	(0.976)	69697	1.88677	744.6 (M)	
76 Benzo(a)pyrene	252	22.533	22.469	(0.996)	25537	1.56545	299.9 (H)	
* 77 Perylene-d12	264	22.621	22.551	(1.000)	293215	20.0000		
78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
79 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
80 Benzo(g,h,i)perylene	276	24.977	24.924	(1.104)	24893	1.48727	284.9	

1.91  
1.91

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

01/15/10



Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 14-JAN-2010
Lab File ID: 01141011.d	Calibration Time: 11:30
Lab Smp Id: QE56D	Client Smp ID: CB2010710Sed
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Sediment
Operator: JZ	
Method File: /chem3/nt4.i/20100114.b/SW846100107.m	
Misc Info: 10-435	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1291134	24.68
42 Acenaphthene-d10	594267	297134	1188534	752209	26.58
59 Phenanthrene-d10	951721	475860	1903442	1311880	37.84
69 Chrysene-d12	794862	397431	1589724	680339	-14.41
77 Perylene-d12	826094	413047	1652188	293215	-64.51

<-

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.05
42 Acenaphthene-d10	13.59	13.09	14.09	13.60	0.04
59 Phenanthrene-d10	16.00	15.50	16.50	16.01	0.07
69 Chrysene-d12	20.35	19.85	20.85	20.41	0.29
77 Perylene-d12	22.55	22.05	23.05	22.62	0.31

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56D  
Level: LOW  
Data Type: MS DATA  
SpikeList File: pnalcs.w.spk  
Sublist File: pna.sub  
Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
Misc Info: 10-435

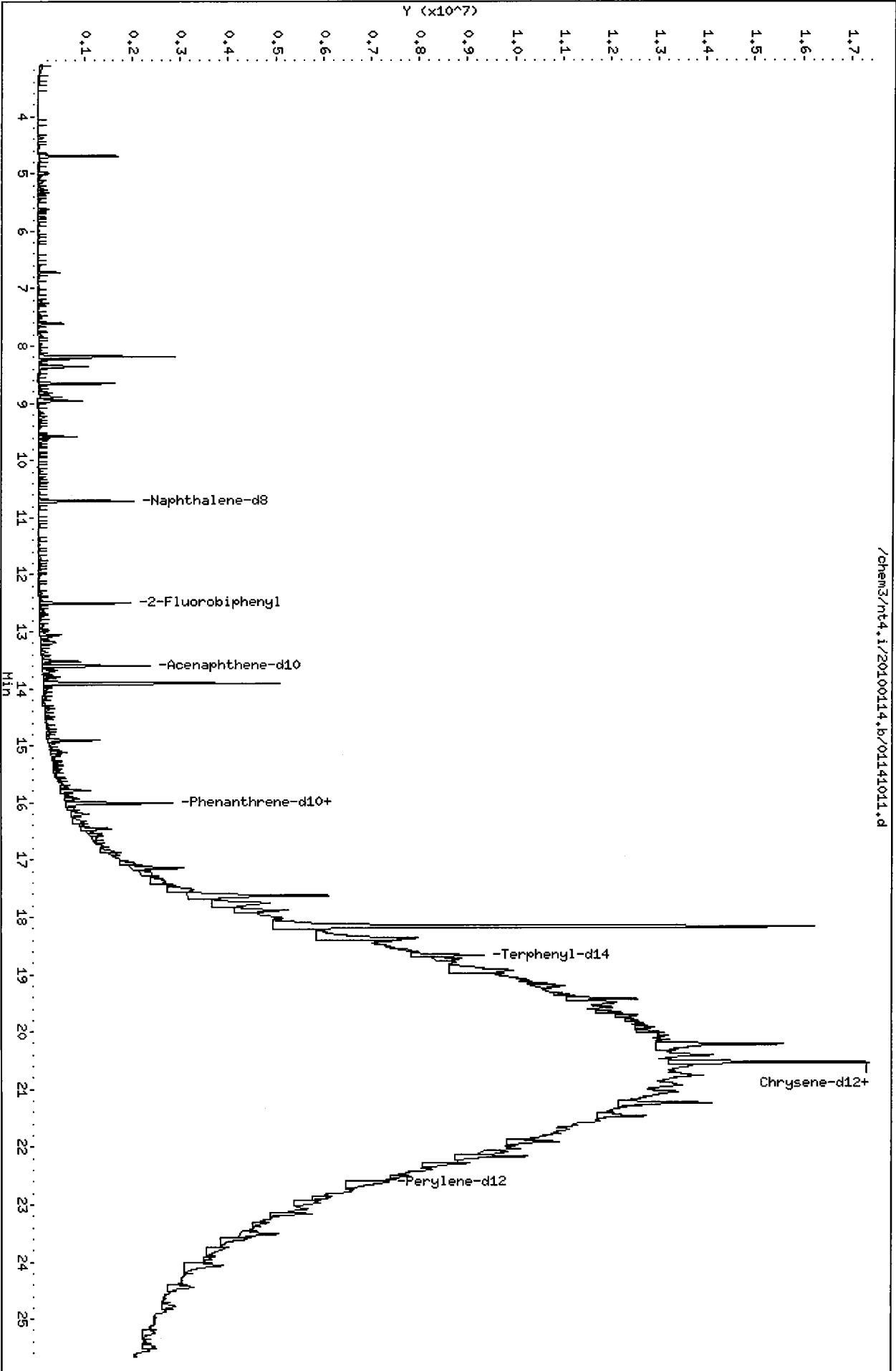
Client SDG: QE56  
Fraction: SV  
Client Smp ID: CB2010710Sed  
Operator: JZ  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	4790	3821	79.77	34-100
\$ 66 Terphenyl-d14	4790	8631	180.21*	35-112

Data File: /chem3/nt4.i/20100114.b/01141011.d  
Date: 14-JAN-2010 17:37  
Client ID: CB2010710Sed  
Sample Info: QE56D  
Volume Injected (uL): 1.0  
Column phase: ZB-Smsi

Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32

/chem3/nt4.i/20100114.b/01141011.d



Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

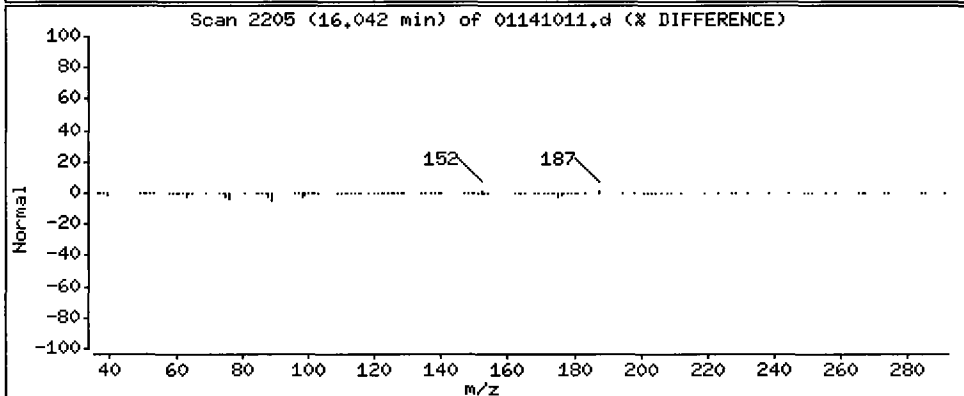
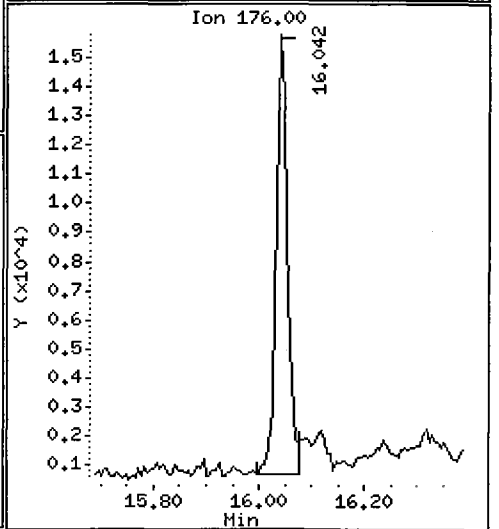
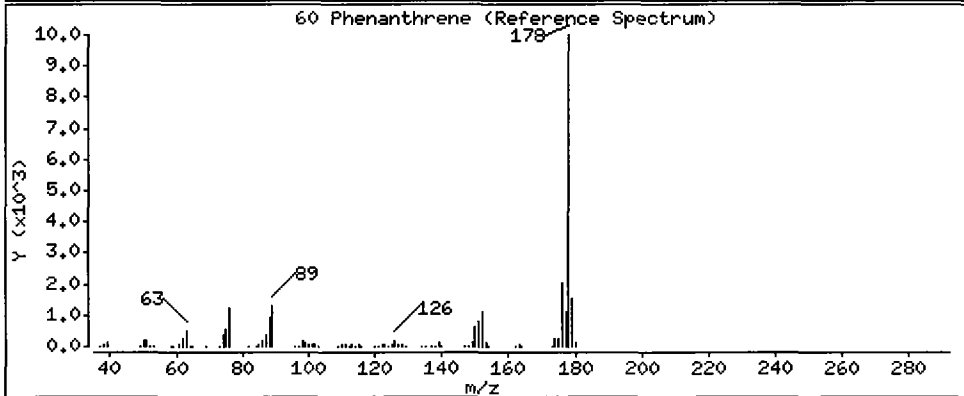
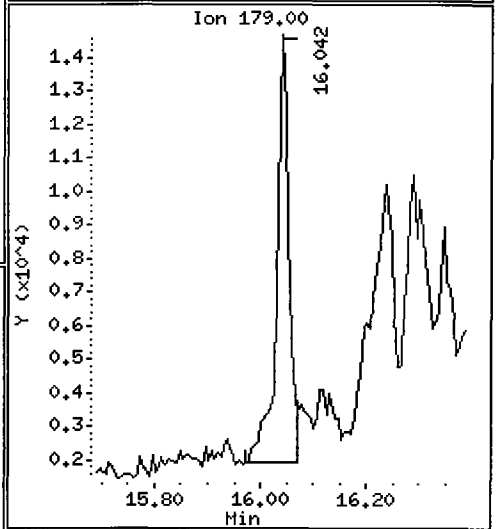
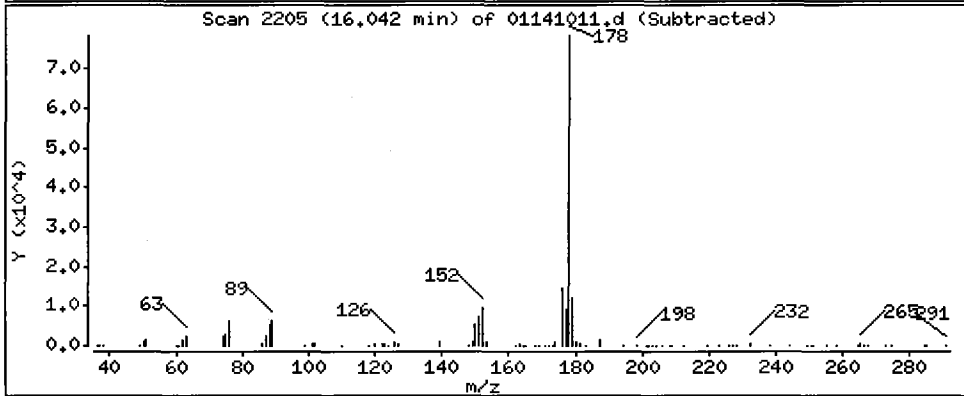
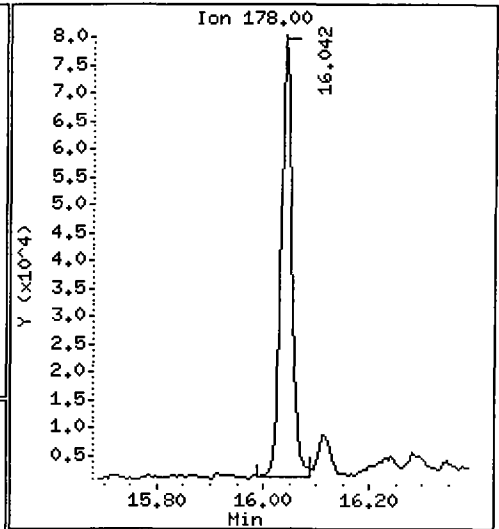
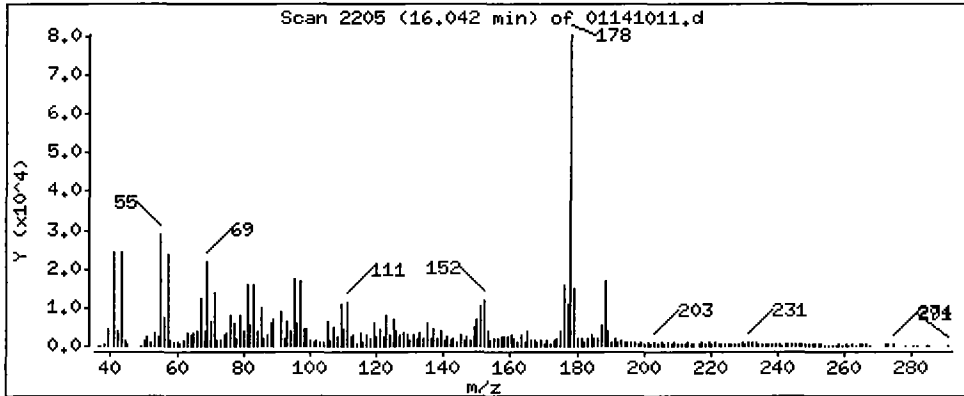
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

60 Phenanthrene

Concentration: 340.8 ug/kg



Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

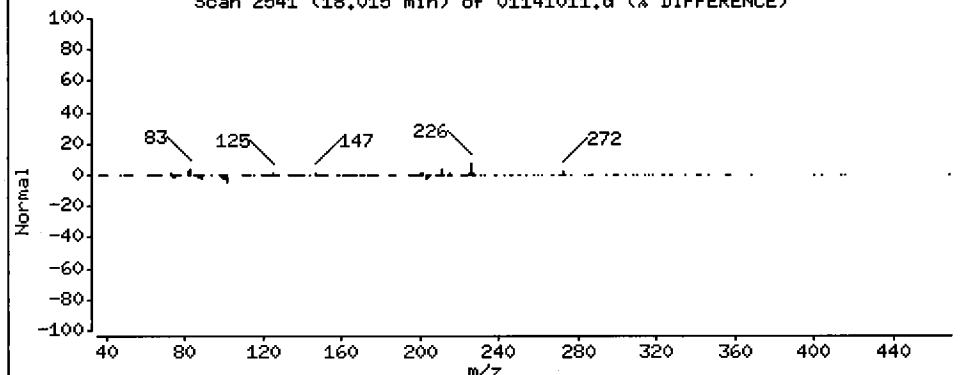
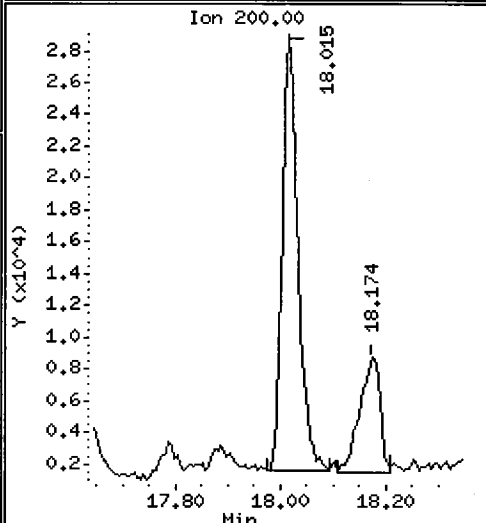
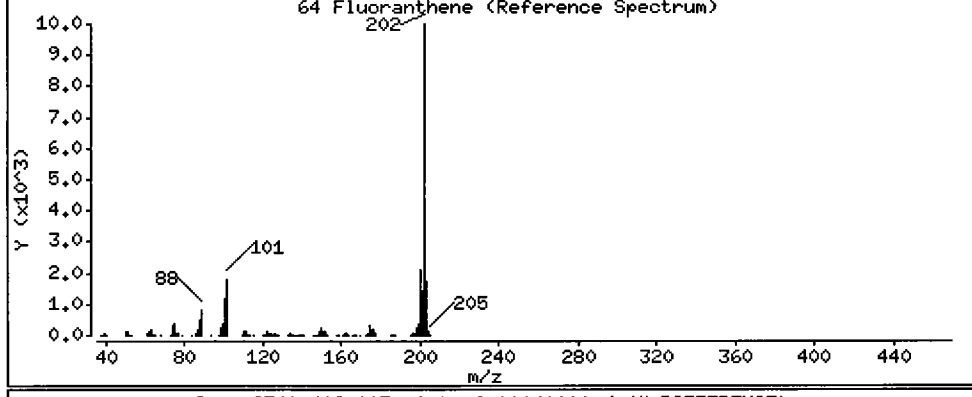
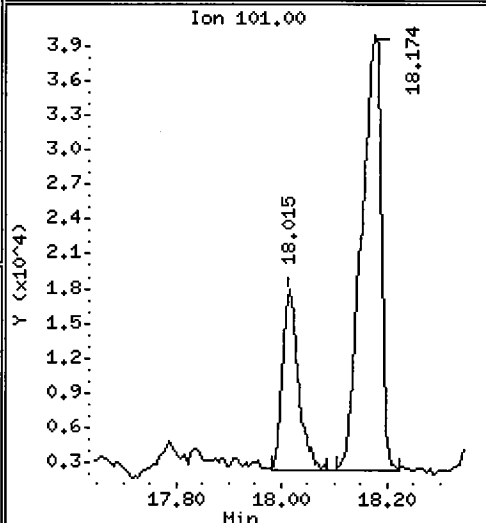
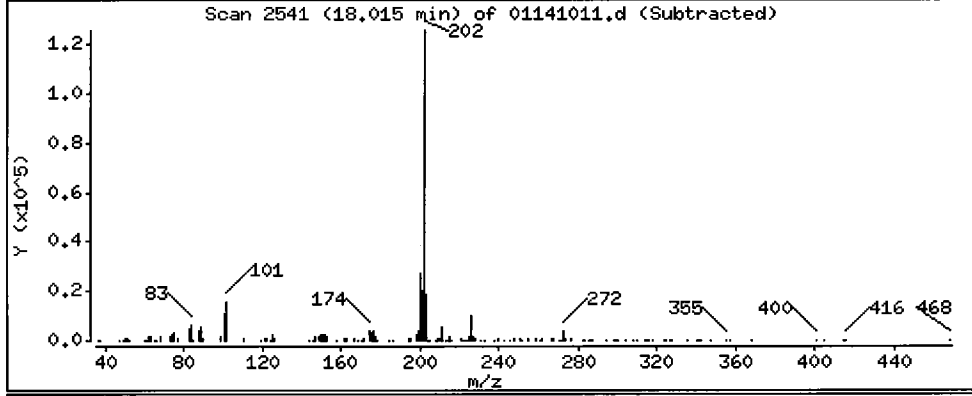
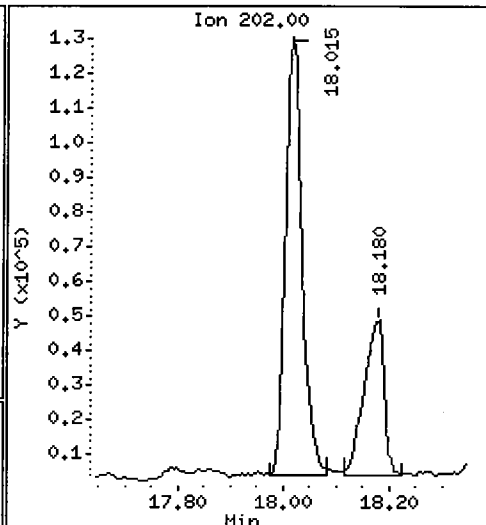
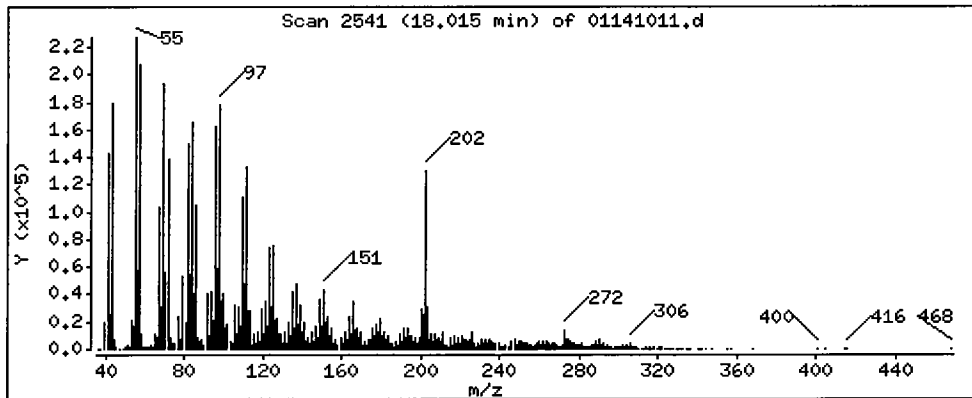
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

64 Fluoranthene

Concentration: 780.8 ug/kg



Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

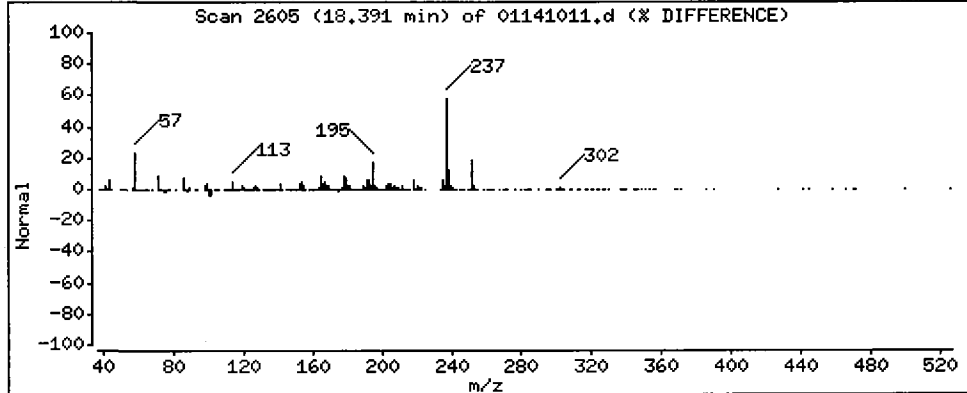
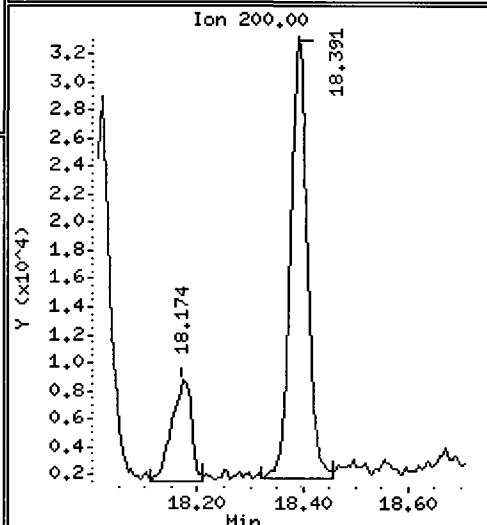
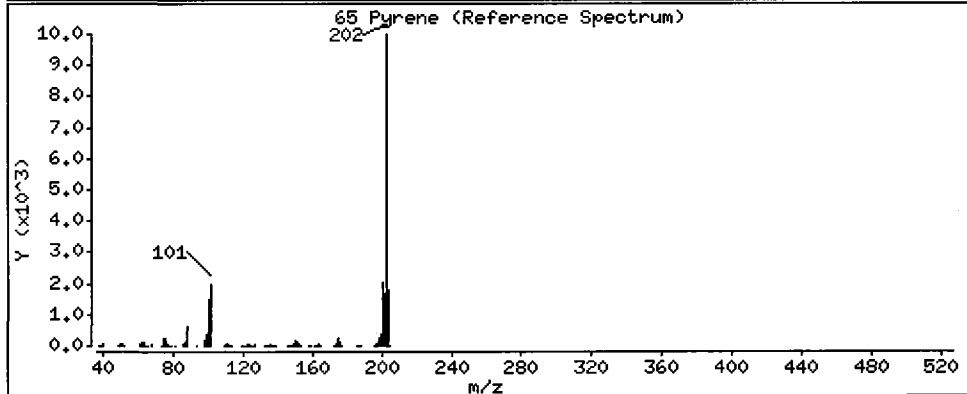
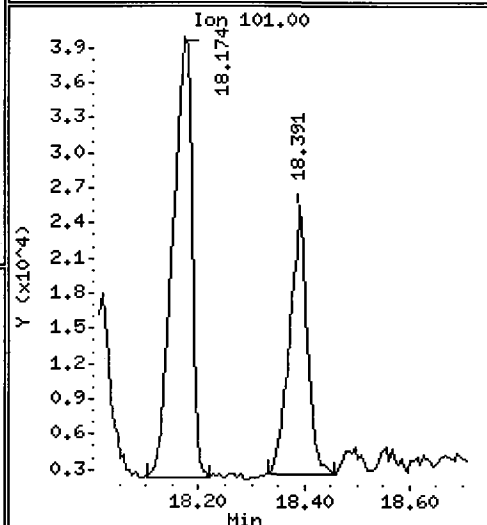
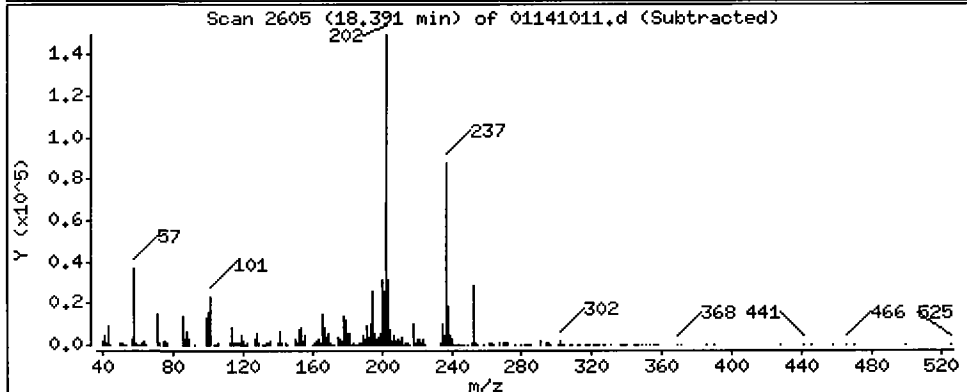
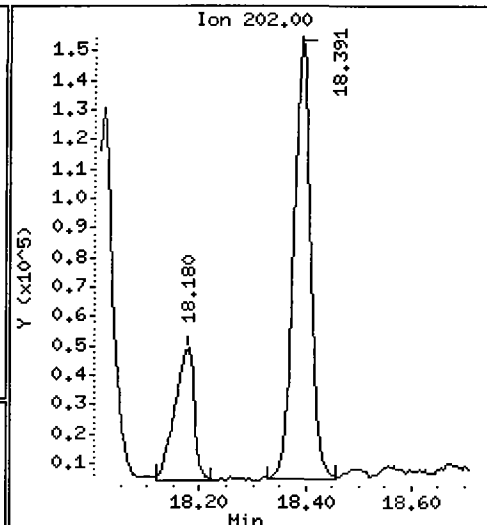
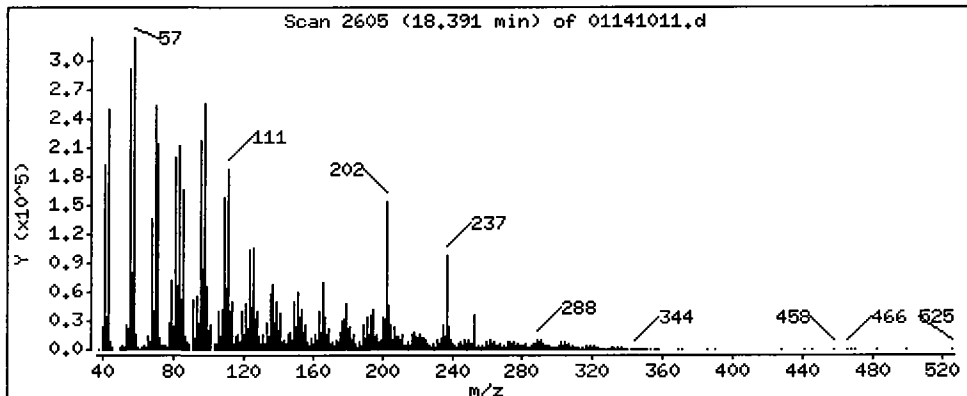
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

65 Pyrene

Concentration: 1472 ug/kg



Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

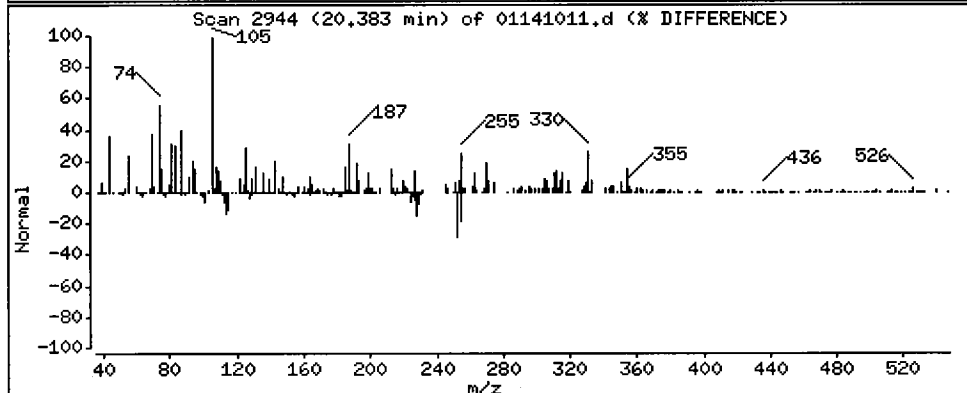
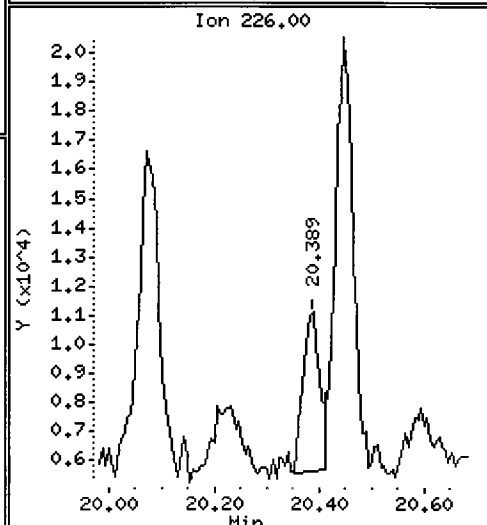
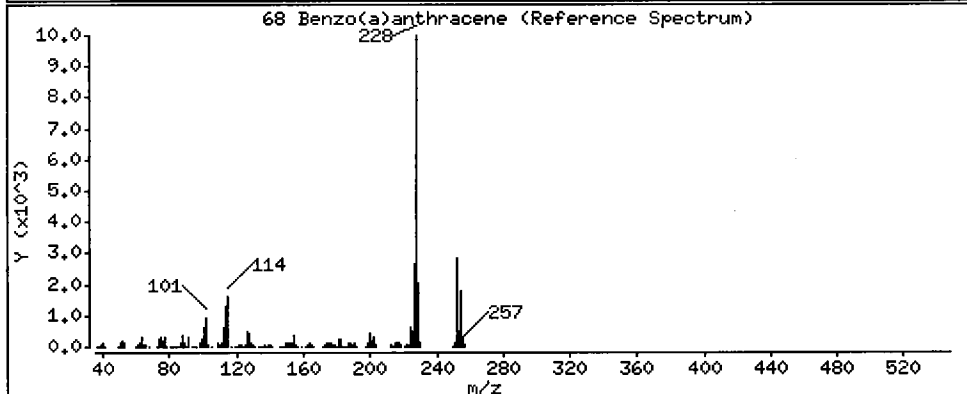
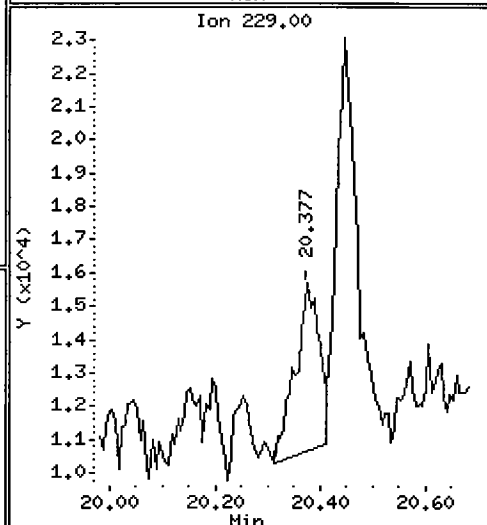
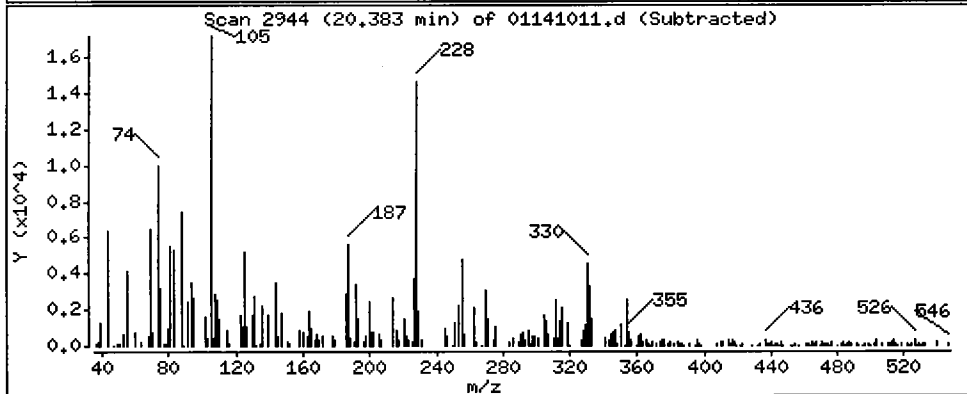
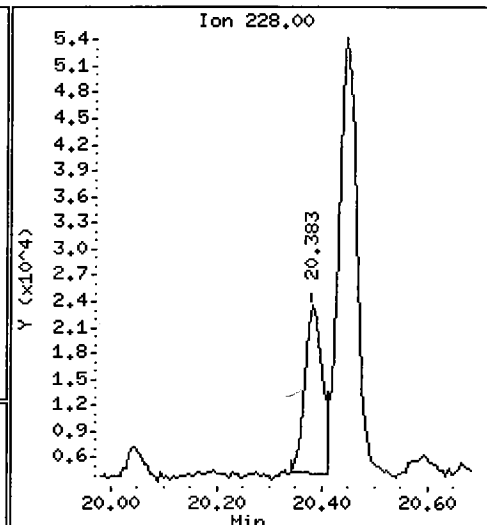
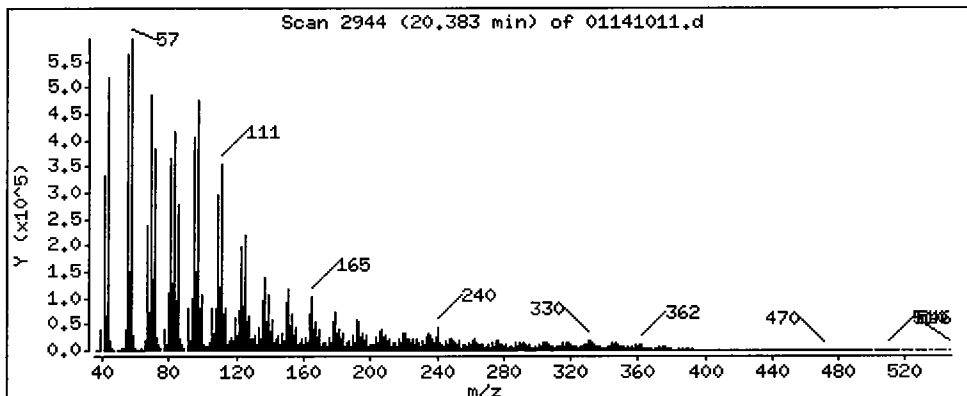
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

68 Benzo(a)anthracene

Concentration: 215.4 ug/kg



Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

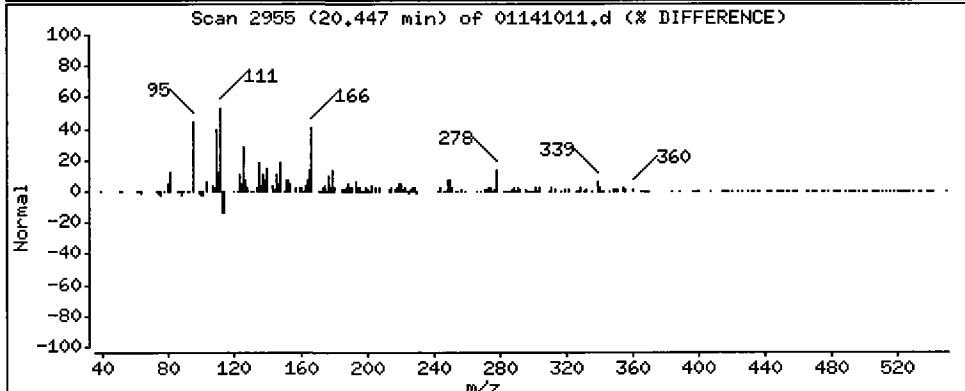
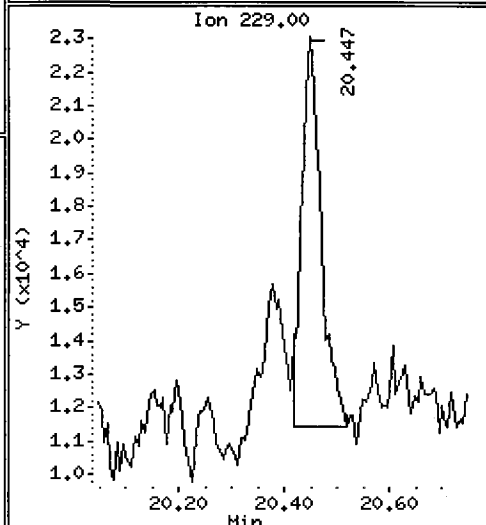
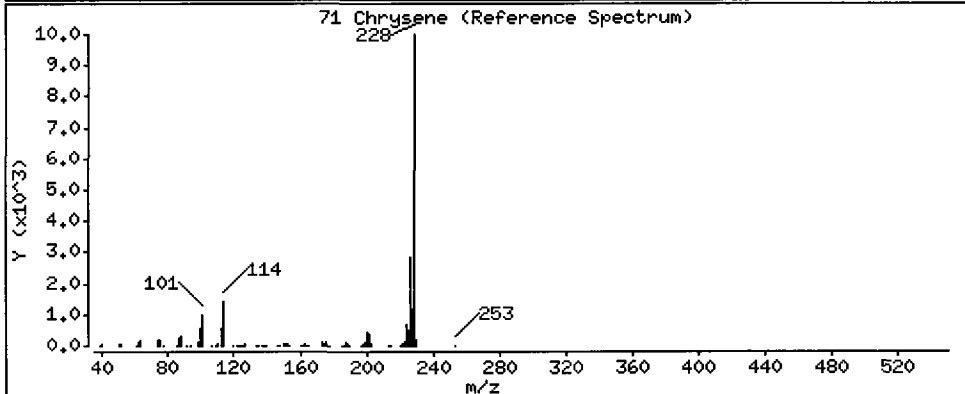
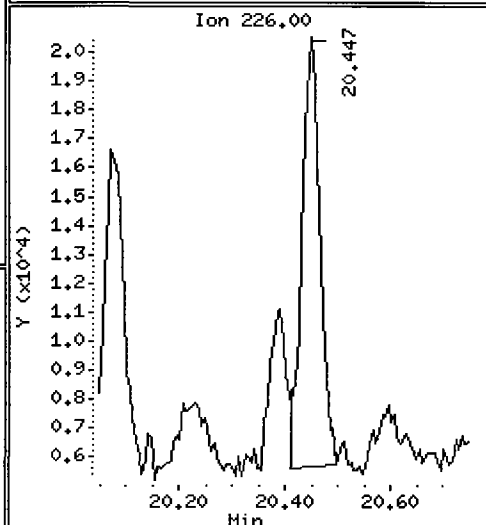
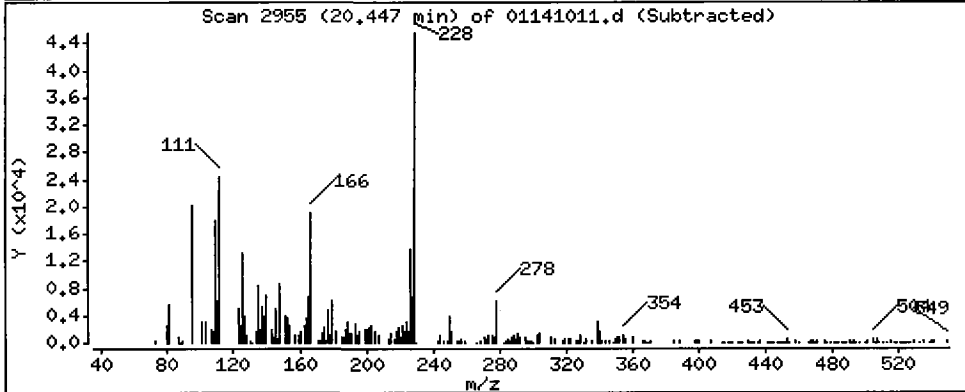
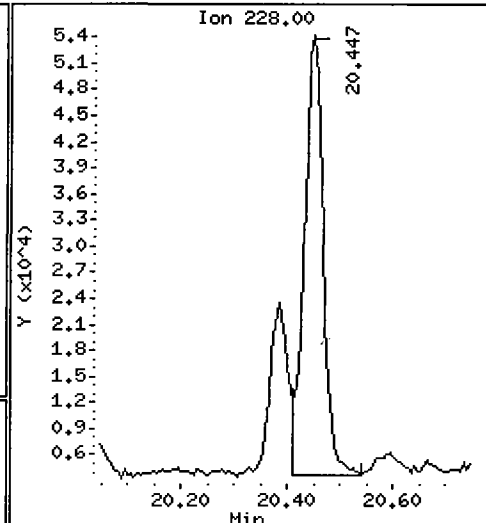
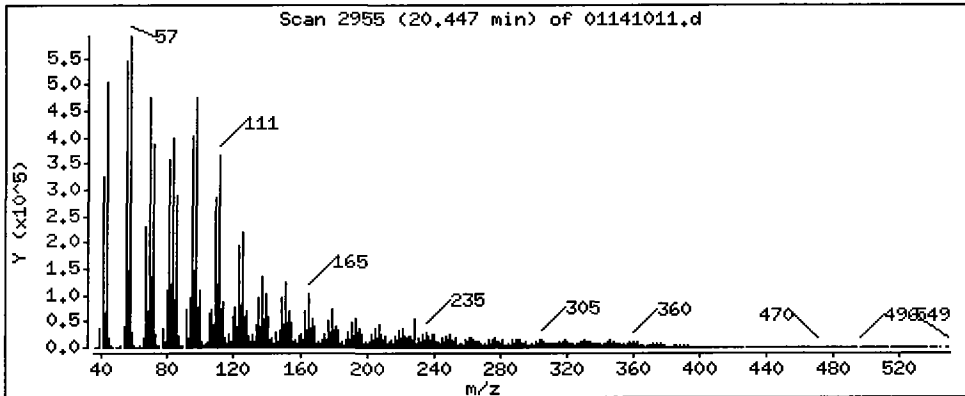
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

71 Chrysene

Concentration: 626.9 ug/kg





Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

Operator: JZ

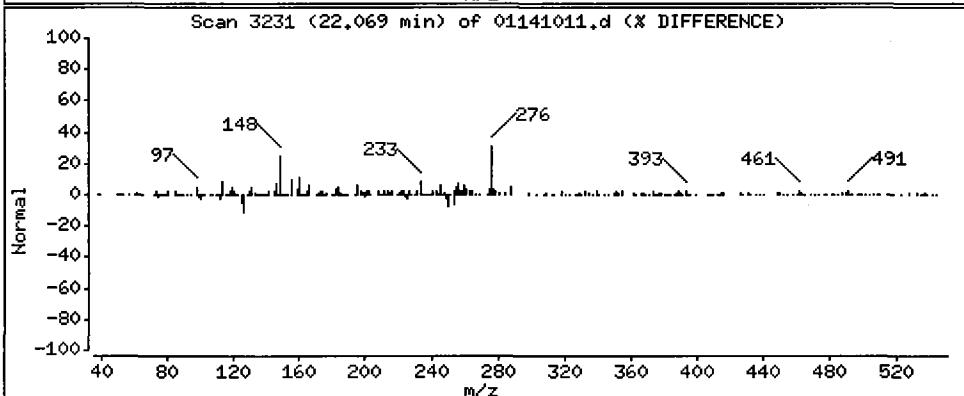
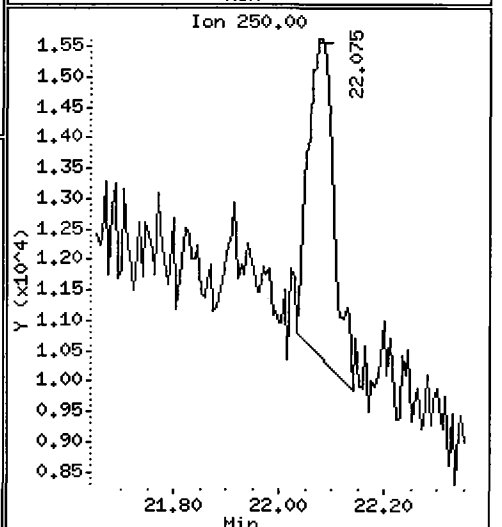
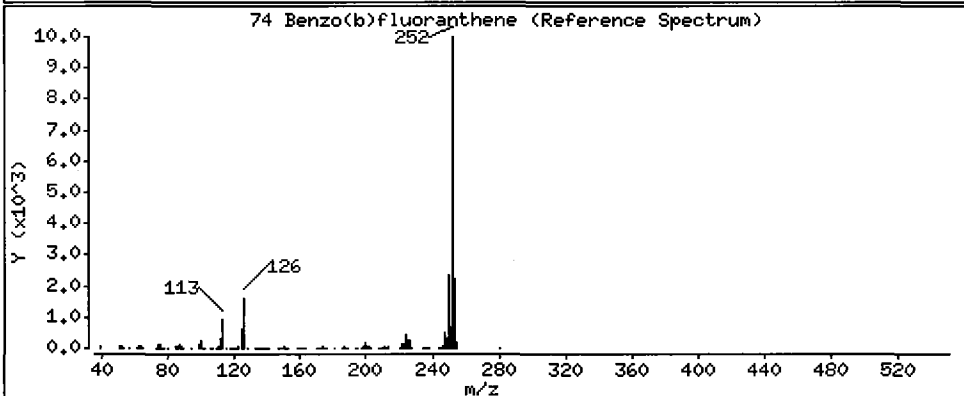
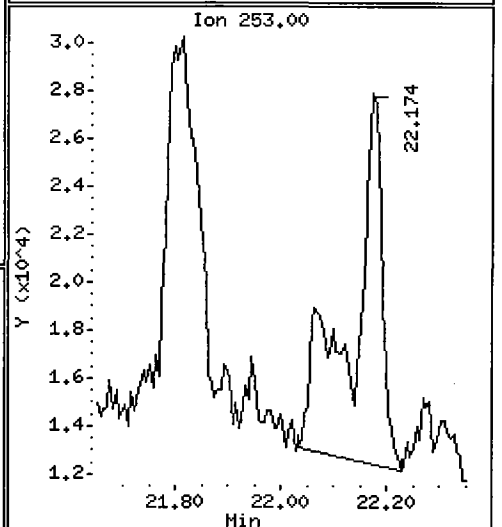
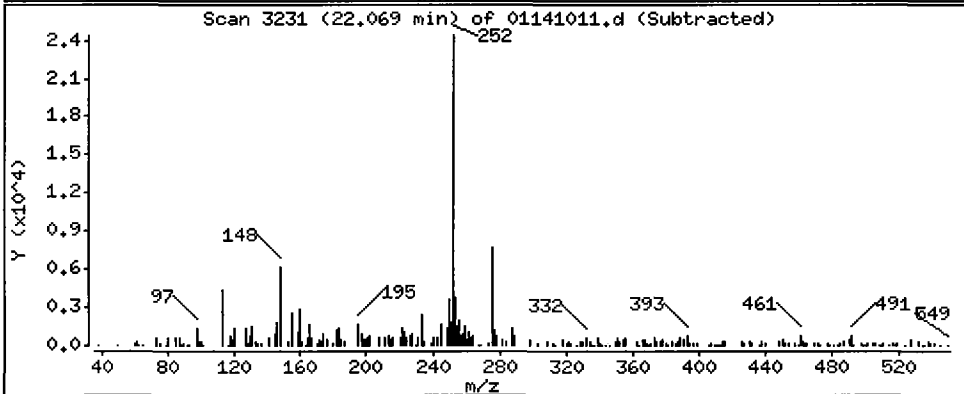
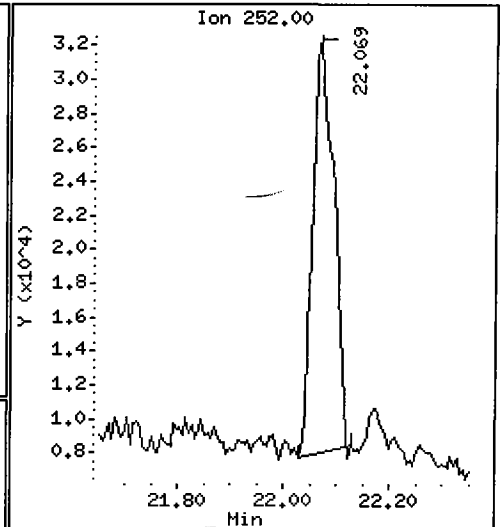
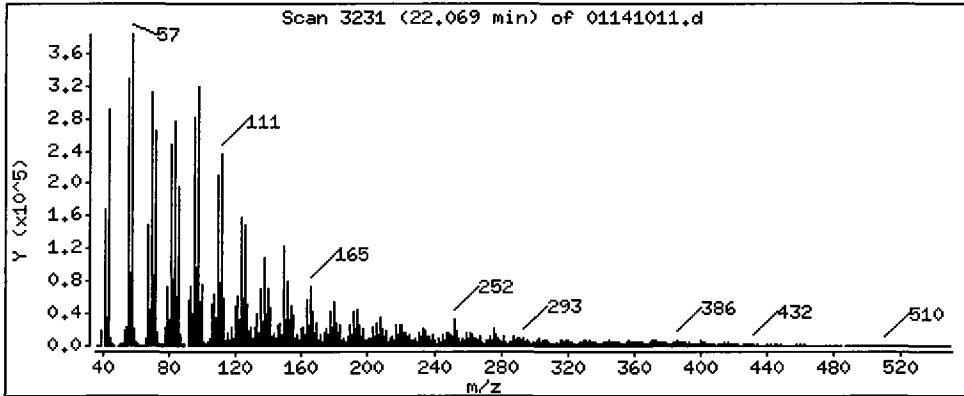
Column phase: ZB-5msi

Column diameter: 0.32

74 Benzo(b)fluoranthene

Concentration: 717.0 ug/kg

112



Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

Operator: JZ

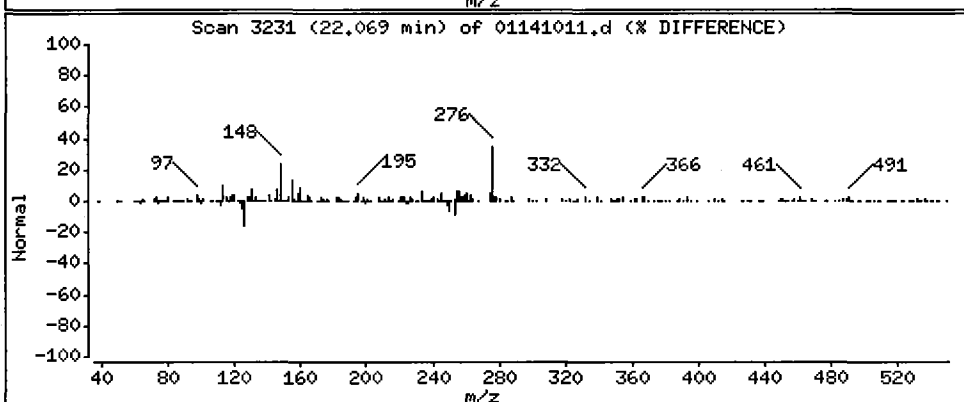
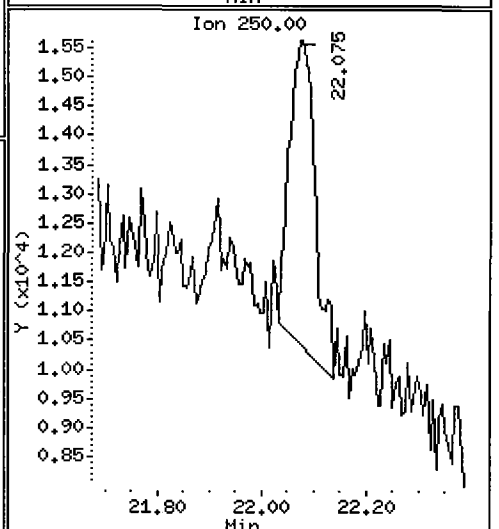
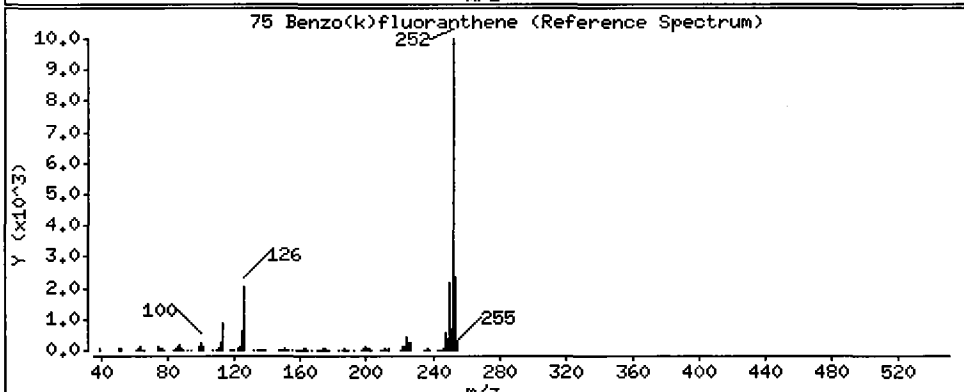
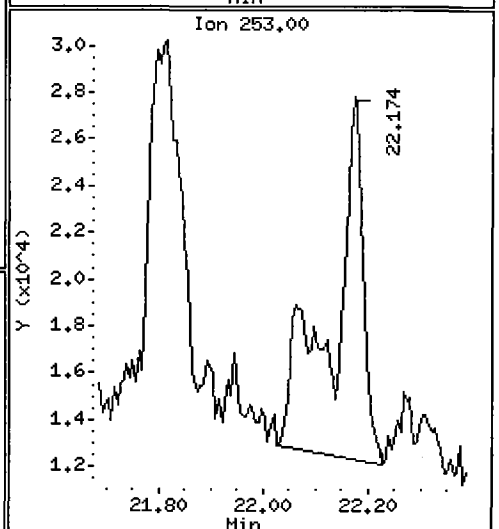
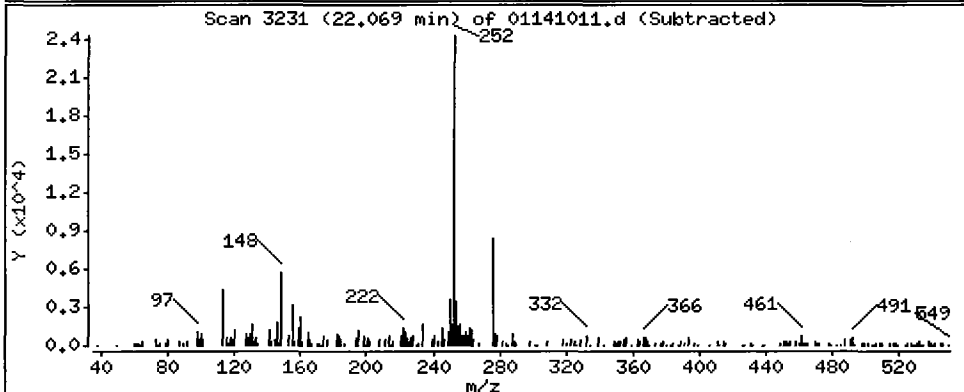
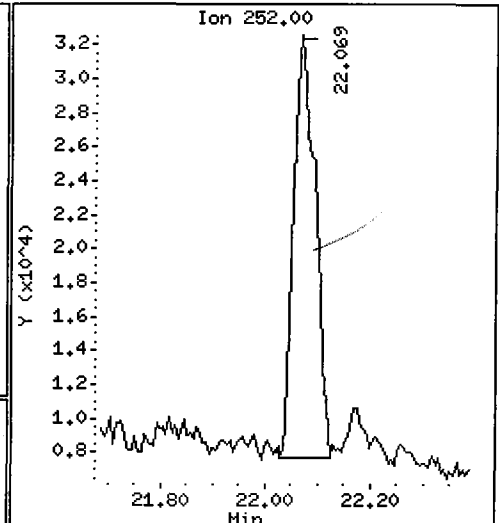
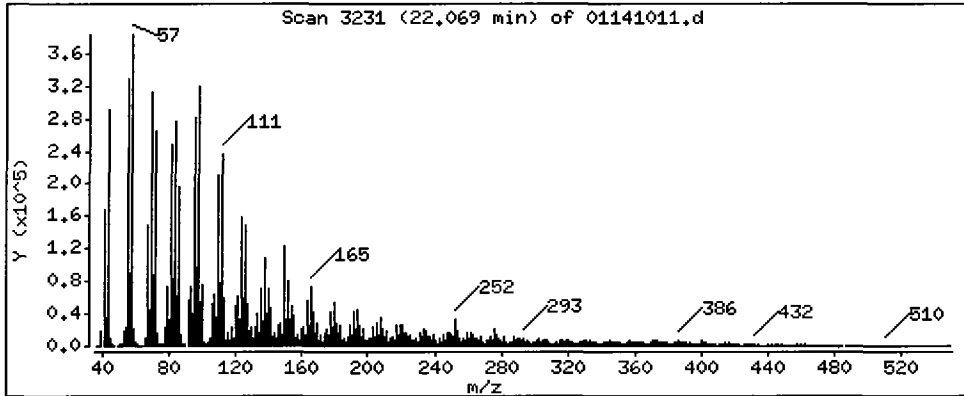
Column phase: ZB-5msi

Column diameter: 0.32

1/2

75 Benzo(k)fluoranthene

Concentration: 744.6 ug/kg



Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

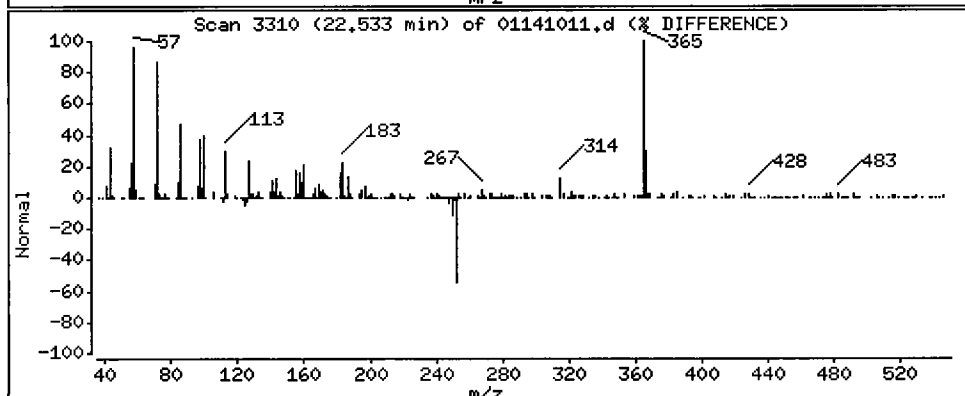
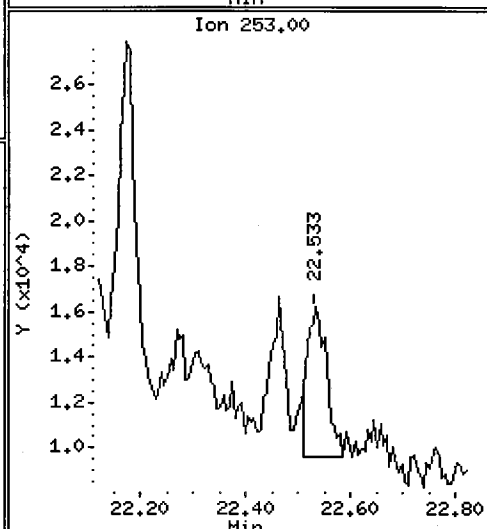
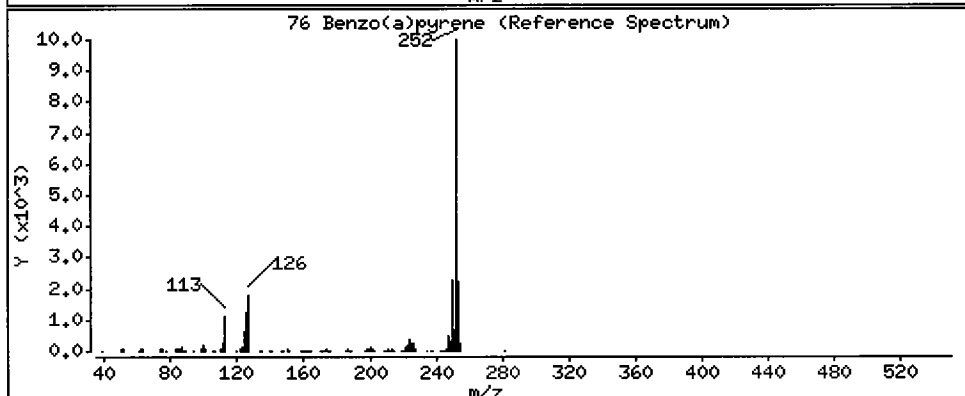
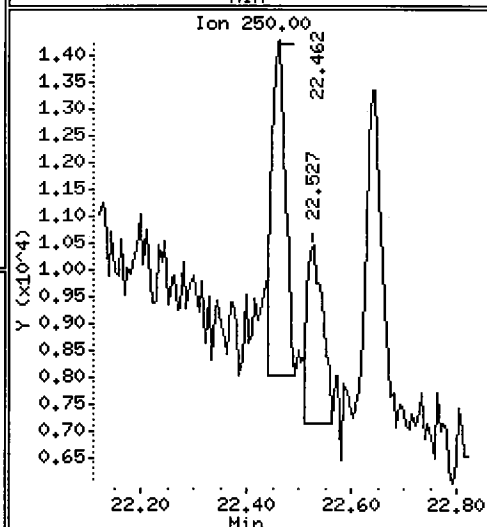
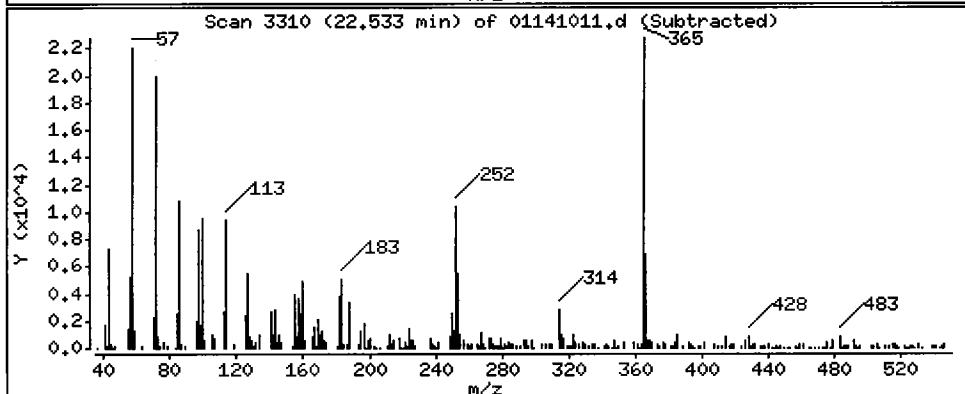
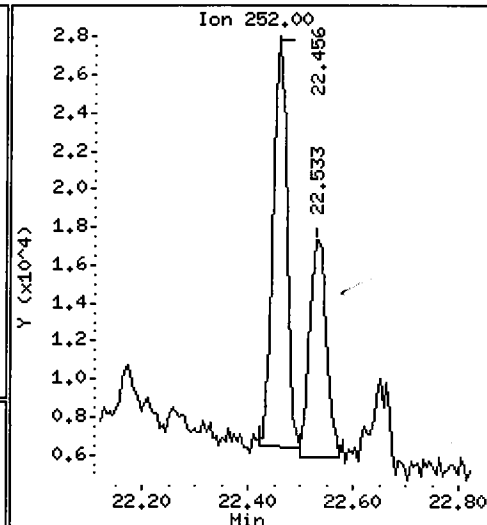
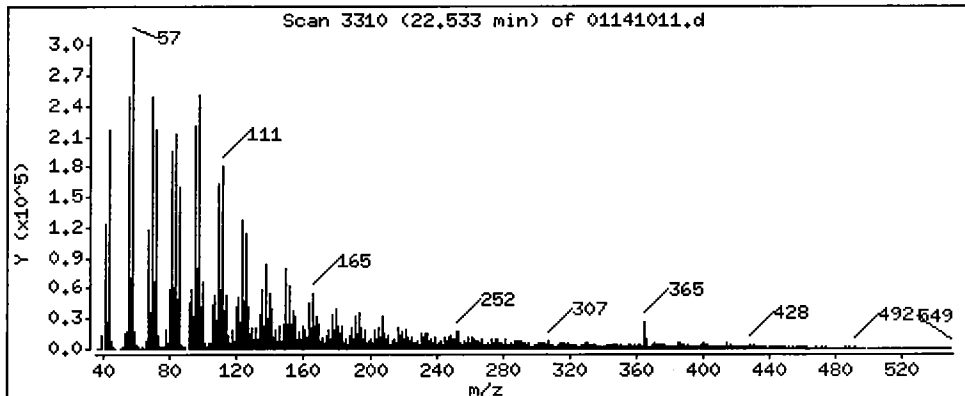
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

76 Benzo(a)pyrene

Concentration: 299.9 ug/kg



Date : 14-JAN-2010 17:37

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D

Volume Injected (uL): 1.0

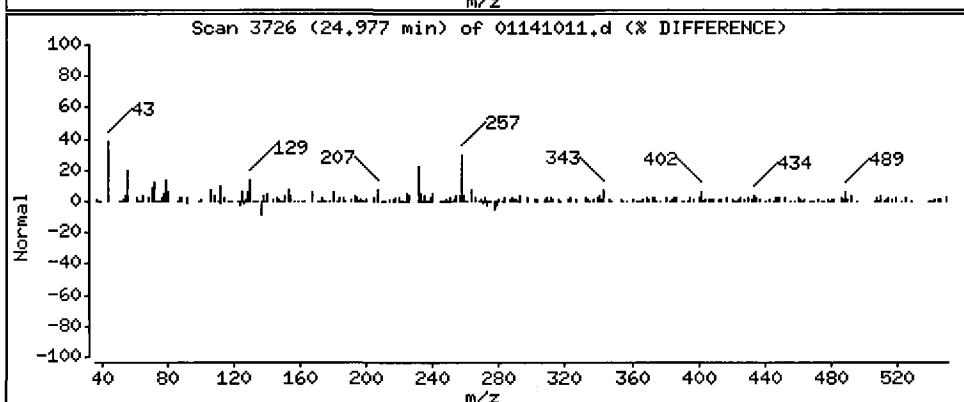
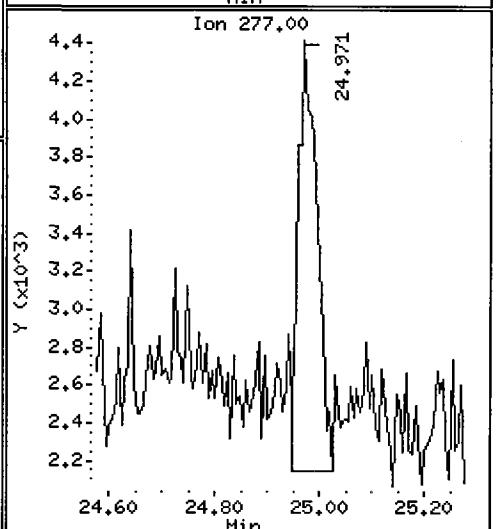
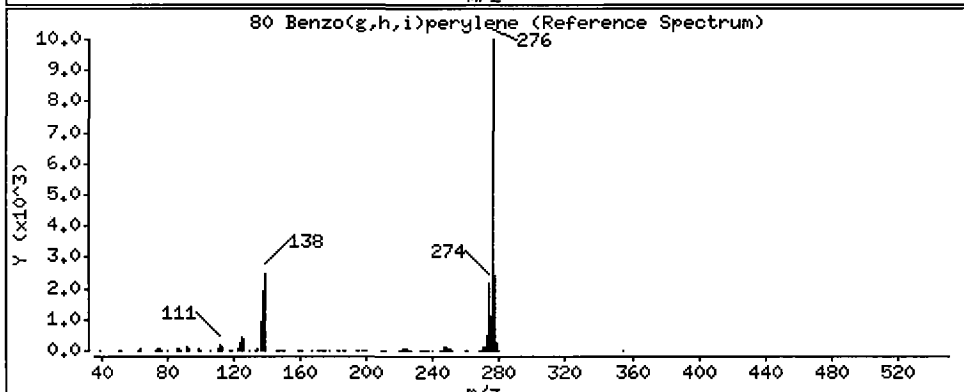
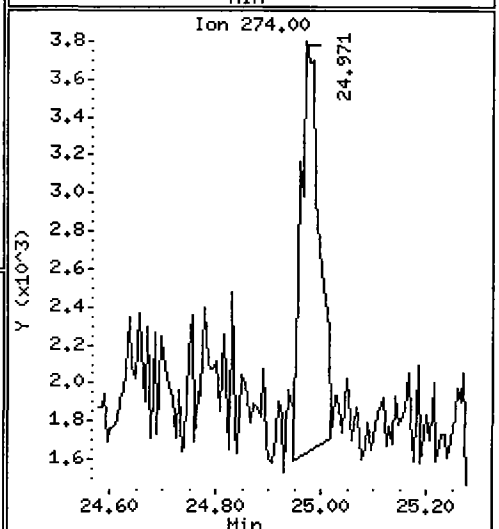
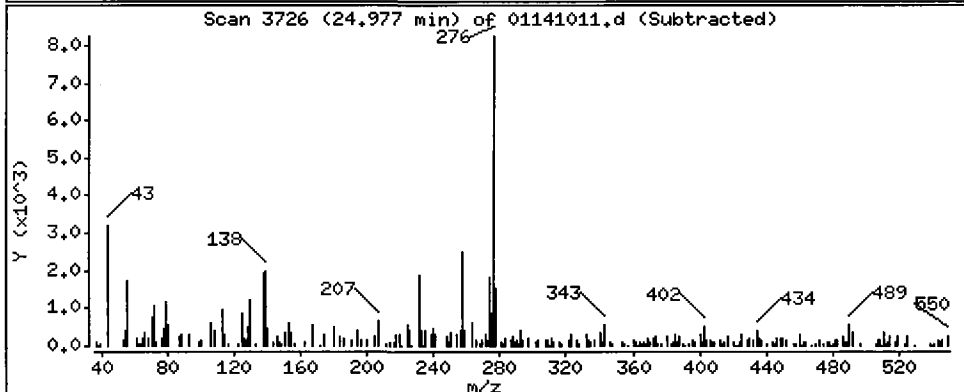
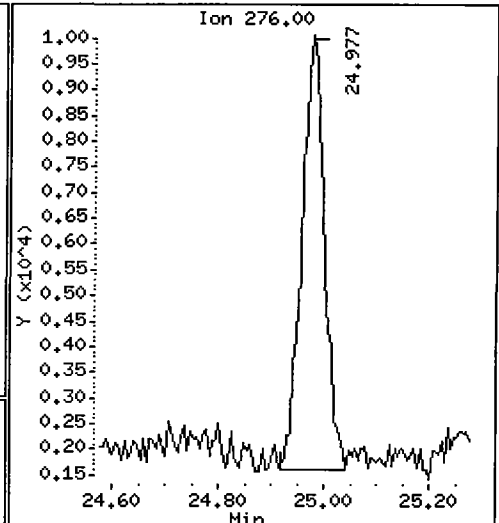
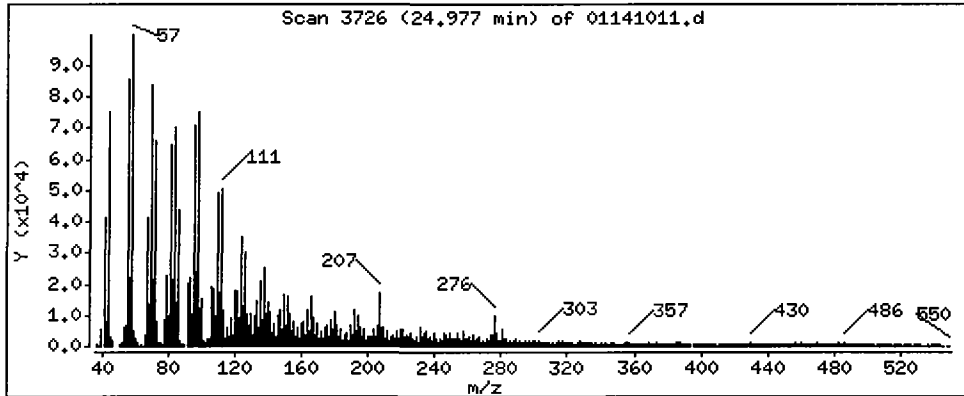
Operator: JZ

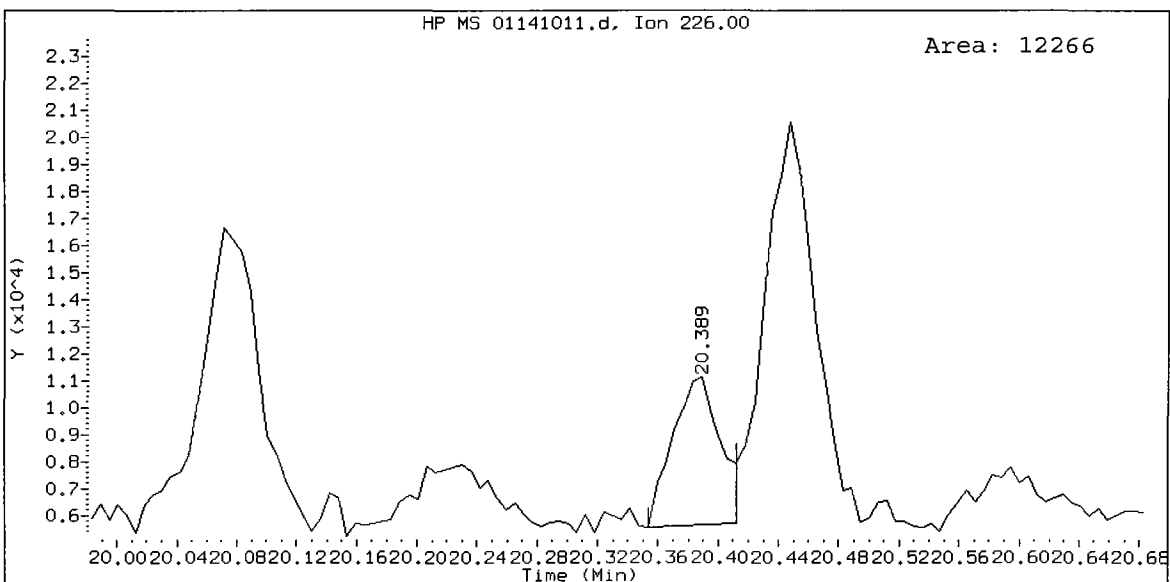
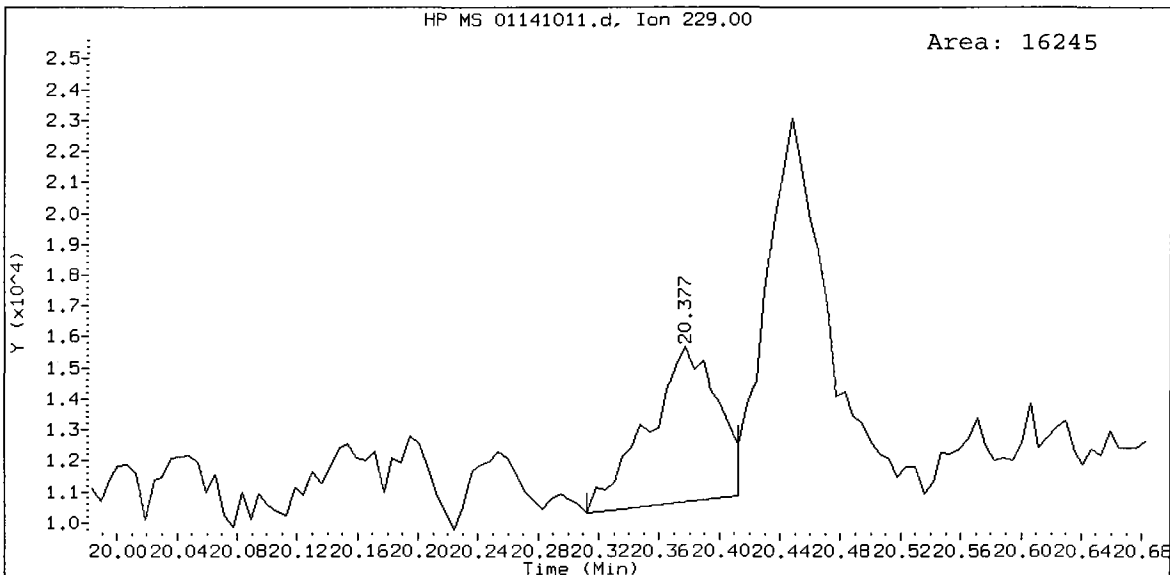
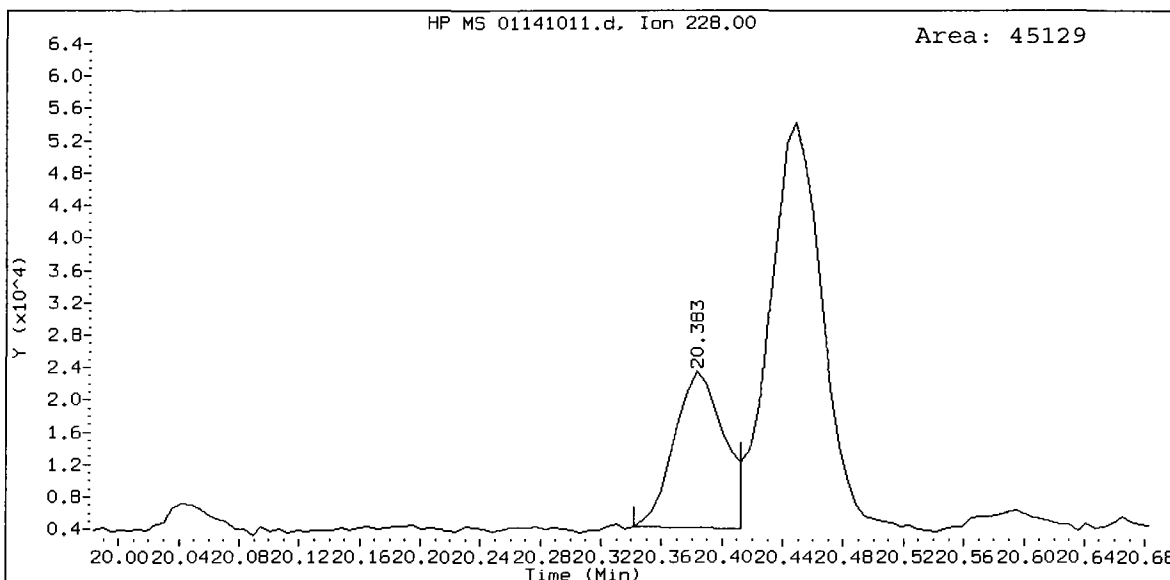
Column phase: ZB-5msi

Column diameter: 0.32

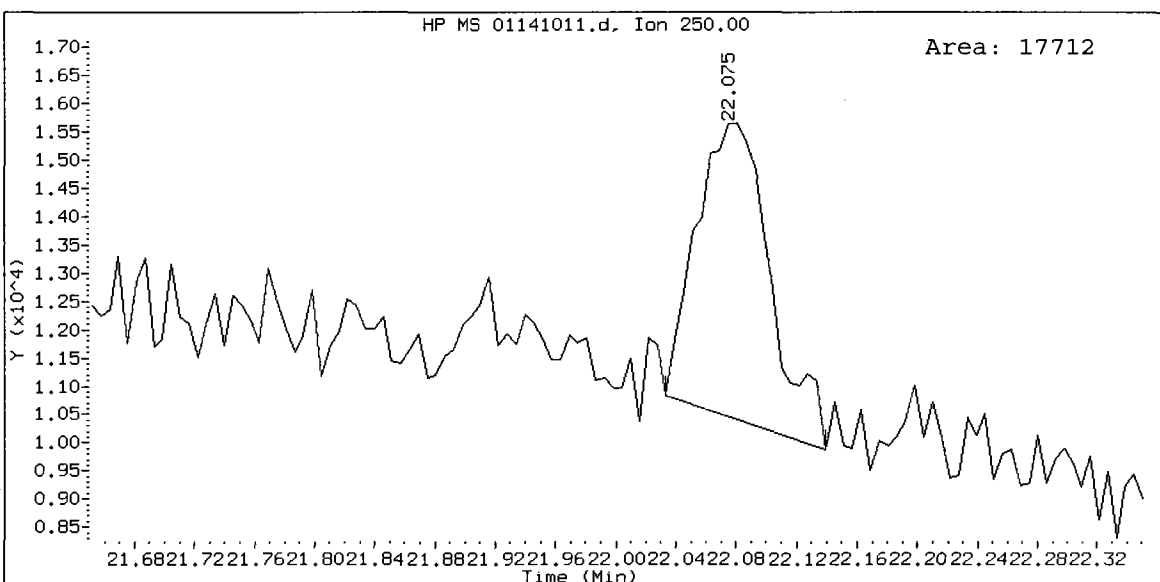
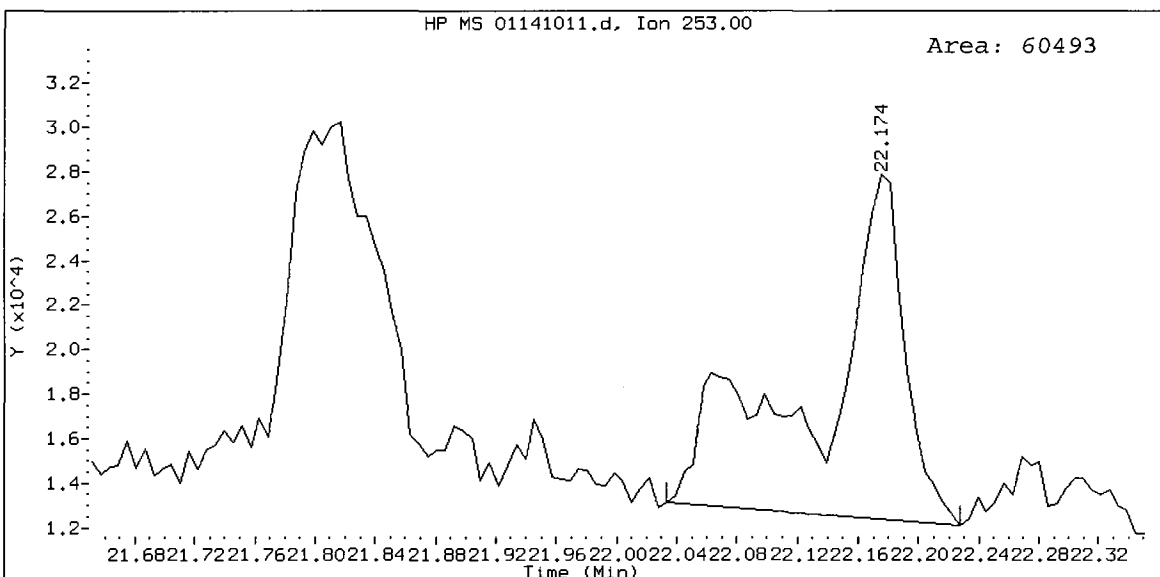
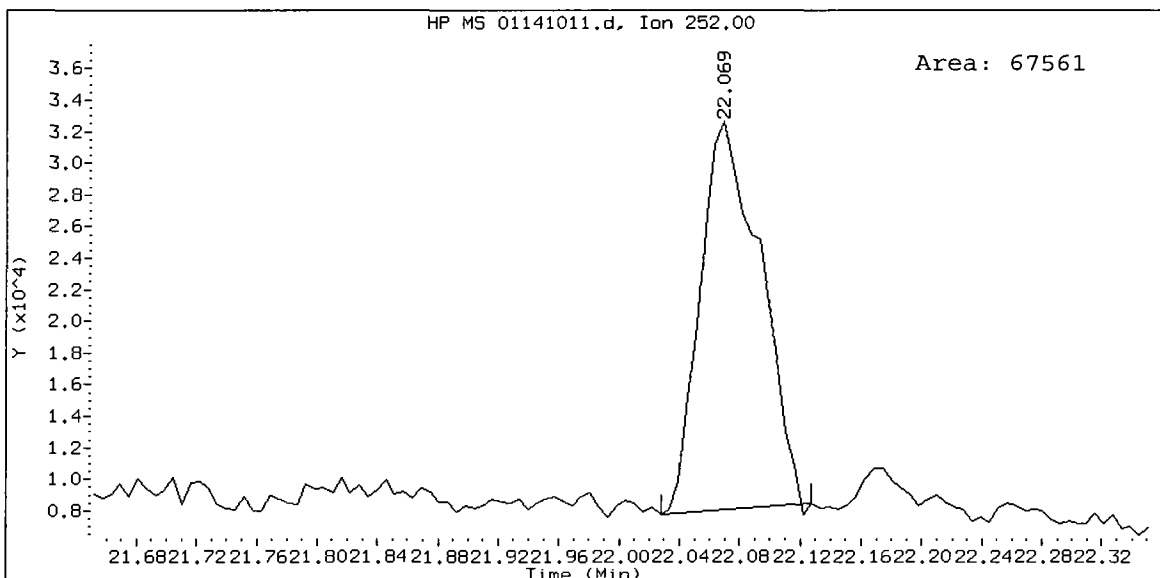
80 Benzo(g,h,i)perylene

Concentration: 284.9 ug/kg

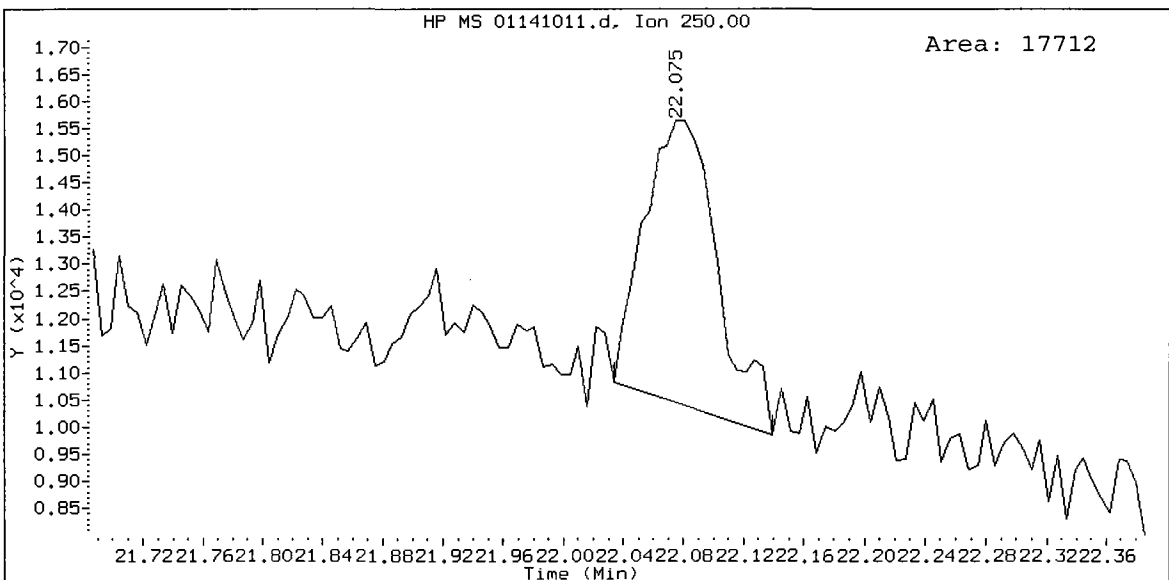
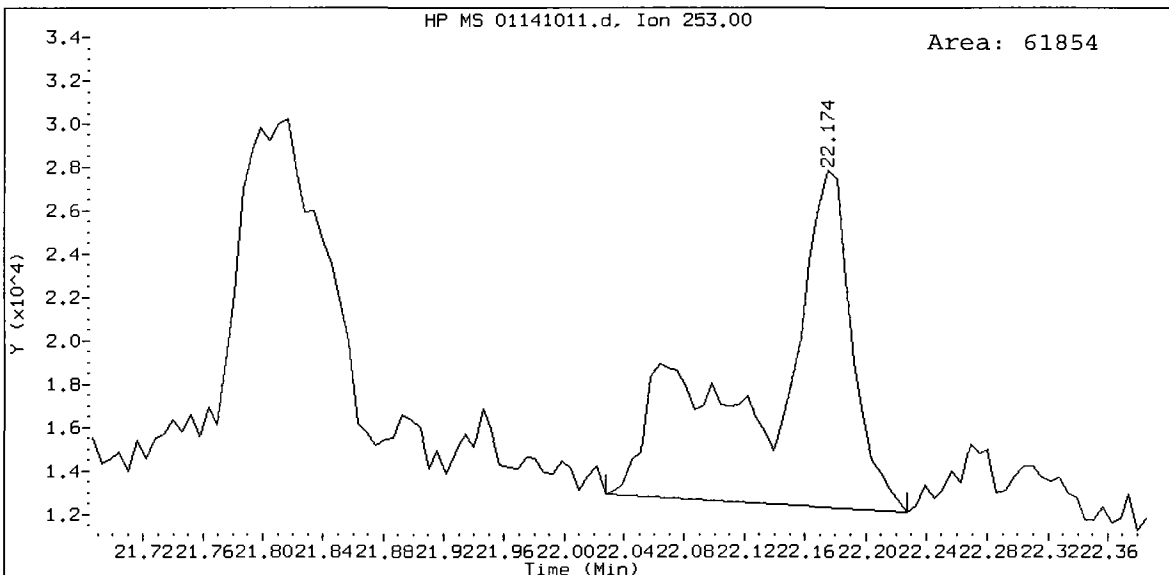
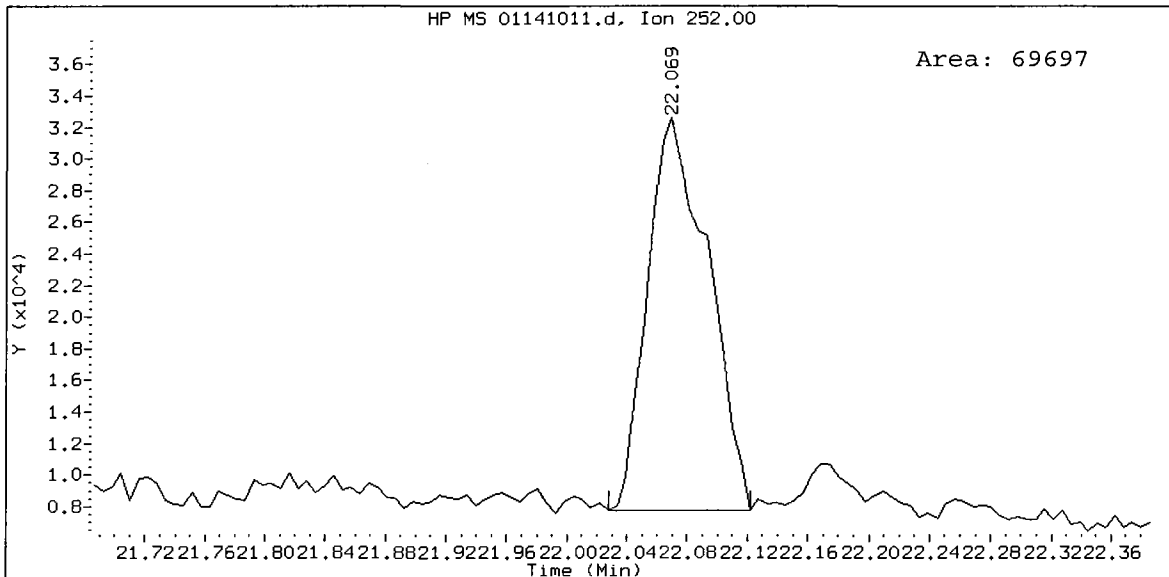


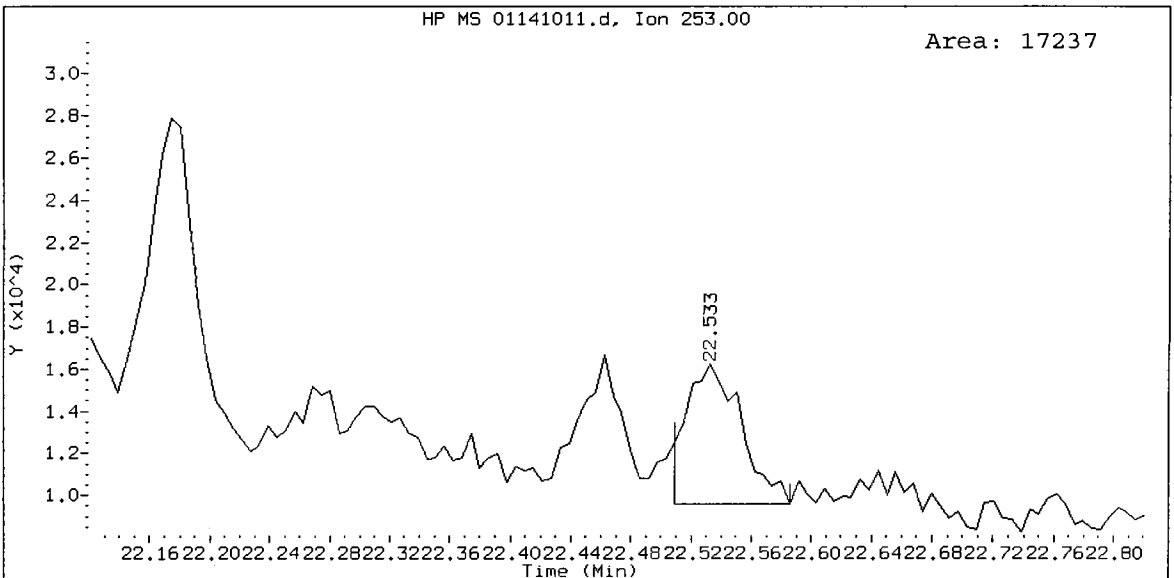
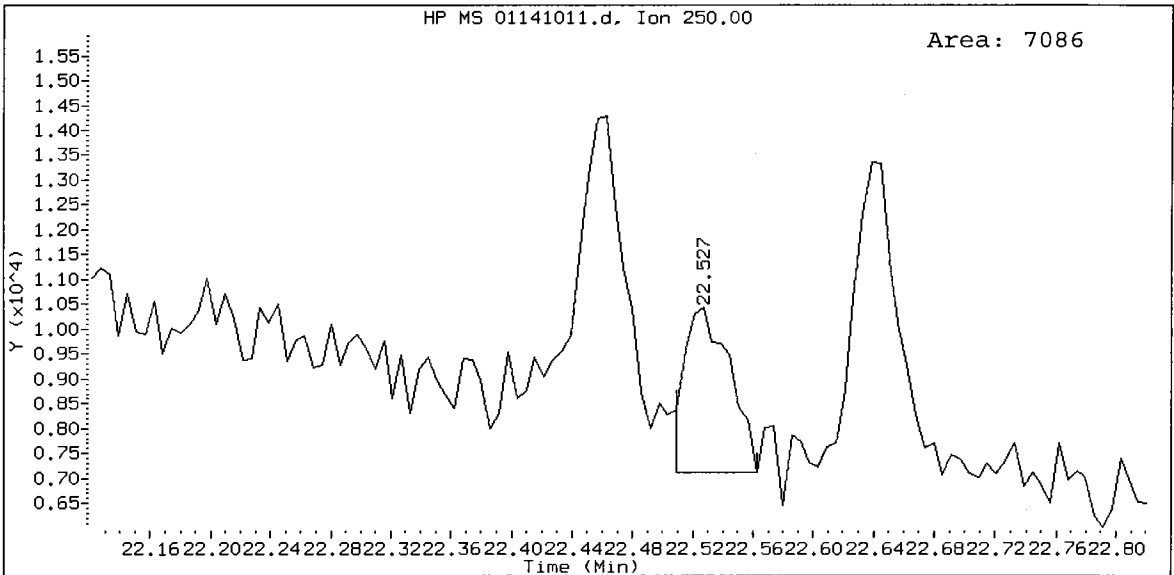
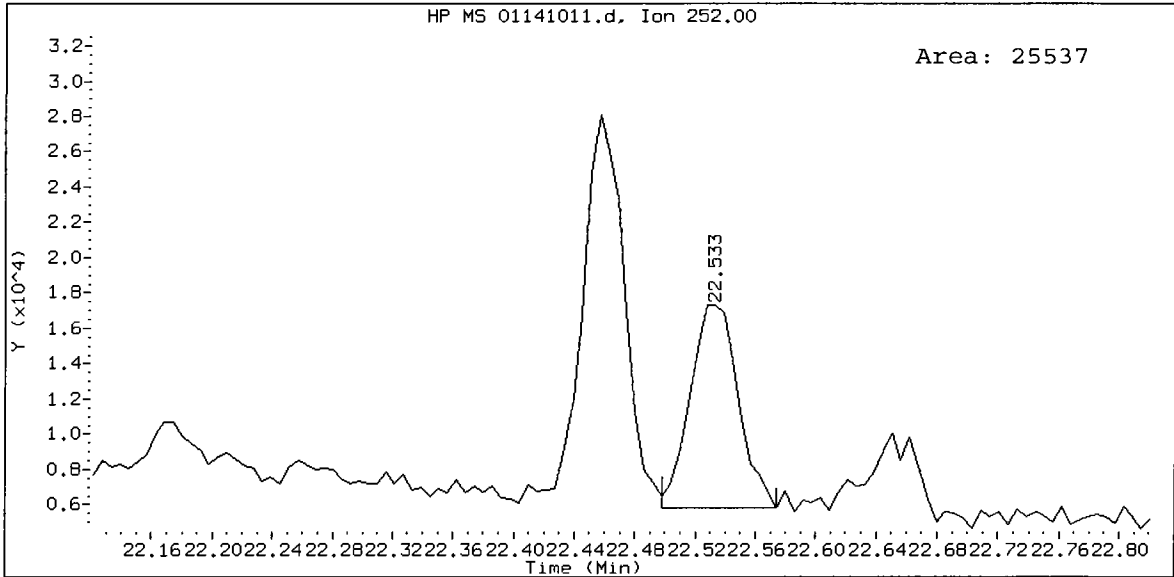


QE56D, /chem3/nt4.i/20100114.b/01141011.d  
Benzo(b)fluoranthene Amount: 3.74



QE56D, /chem3/nt4.i/20100114.b/01141011.d  
Benzo(k)fluoranthene Amount: 3.89







ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB2010710Sed  
DILUTION

Lab Sample ID: QE56D  
LIMS ID: 10-435  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 15:57  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.61 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 3.00  
Percent Moisture: 67.7%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	580	< 580 U
91-57-6	2-Methylnaphthalene	580	< 580 U
90-12-0	1-Methylnaphthalene	580	< 580 U
208-96-8	Acenaphthylene	580	< 580 U
83-32-9	Acenaphthene	580	< 580 U
86-73-7	Fluorene	580	< 580 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>580</b>	<b>360 J</b>
120-12-7	Anthracene	580	< 580 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>580</b>	<b>900</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>580</b>	<b>790</b>
<b>56-55-3</b>	<b>Benzo (a) anthracene</b>	<b>580</b>	<b>250 J</b>
<b>218-01-9</b>	<b>Chrysene</b>	<b>580</b>	<b>700</b>
<b>205-99-2</b>	<b>Benzo (b) fluoranthene</b>	<b>580</b>	<b>450 J</b>
<b>207-08-9</b>	<b>Benzo (k) fluoranthene</b>	<b>580</b>	<b>450 J</b>
<b>50-32-8</b>	<b>Benzo (a) pyrene</b>	<b>580</b>	<b>260 J</b>
193-39-5	Indeno (1,2,3-cd) pyrene	580	< 580 U
53-70-3	Dibenz (a,h) anthracene	580	< 580 U
191-24-2	Benzo (g,h,i) perylene	580	< 580 U
132-64-9	Dibenzofuran	580	< 580 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	91.8%
2-Fluorobiphenyl	91.1%

Analytical Resources, Inc.

Semivolatiles Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141008.d  
 Lab Smp Id: QE56D Client Smp ID: CB2010710Sed  
 Inj Date : 14-JAN-2010 15:57  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : QE56D,3,  
 Misc Info : 10-435  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 18:46 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 8  
 Dil Factor: 3.00000  
 Integrator: HP RTE Compound Sublist: pna.sub  
 Target Version: 3.50

*RB 01/15/10*

Concentration Formula:  $Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable$

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	8.08000	Weight of sample extracted (g)
M	67.70000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.707	10.708	(1.000)	1148912	20.0000	
28 Naphthalene	128				Compound Not Detected.		
32 2-Methylnaphthalene	141				Compound Not Detected.		
105 1-methylnaphthalene	141				Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172	12.499	12.500	(0.920)	276892	7.58724	4361
40 Acenaphthylene	152				Compound Not Detected.		
* 42 Acenaphthene-d10	164	13.592	13.593	(1.000)	632162	20.0000	
44 Acenaphthene	153				Compound Not Detected.		
46 Dibenzofuran	168				Compound Not Detected.		
49 Fluorene	166				Compound Not Detected.		
* 59 Phenanthrene-d10	188	16.000	15.995	(1.000)	1030652	20.0000	
60 Phenanthrene	178	16.036	16.036	(1.002)	33930	0.63309	363.9
61 Anthracene	178				Compound Not Detected.		
64 Fluoranthene	202	17.998	17.993	(1.125)	82115	1.55912	896.1
65 Pyrene	202	18.368	18.357	(0.901)	101425	1.37474	790.1

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)
-----	----	--	-----	-----	-----	-----	-----
\$ 66 Terphenyl-d14	244	18.650	18.639	(0.915)	328740	7.65154	4398
* 69 Chrysene-d12	240	20.377	20.354	(1.000)	1158528	20.0000	
71 Chrysene	228	20.412	20.395	(1.002)	79015	1.21725	699.6
74 Benzo(b)fluoranthene	252	22.033	21.999	(0.975)	61912	1.57526	905.4 (M)
75 Benzo(k)fluoranthene	252	22.033	22.034	(0.975)	61912	1.58576	911.4 (M)
* 77 Perylene-d12	264	22.591	22.551	(1.000)	638400	20.0000	
78 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.				
79 Dibenzo(a,h)anthracene	278		Compound Not Detected.				
80 Benzo(g,h,i)perylene	276		Compound Not Detected.				

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01141008.d  
 Lab Smp Id: QE56D  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
 Misc Info: 10-435

Calibration Date: 14-JAN-2010  
 Calibration Time: 11:30  
 Client Smp ID: CB2010710Sed  
 Level: LOW  
 Sample Type: Sediment

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1148912	10.95
42 Acenaphthene-d10	594267	297134	1188534	632162	6.38
59 Phenanthrene-d10	951721	475860	1903442	1030652	8.29
69 Chrysene-d12	794862	397431	1589724	1158528	45.75
77 Perylene-d12	826094	413047	1652188	638400	-22.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.71	-0.01
42 Acenaphthene-d10	13.59	13.09	14.09	13.59	-0.01
59 Phenanthrene-d10	16.00	15.50	16.50	16.00	0.03
69 Chrysene-d12	20.35	19.85	20.85	20.38	0.11
77 Perylene-d12	22.55	22.05	23.05	22.59	0.18

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56D  
Level: LOW  
Data Type: MS DATA  
SpikeList File: pnalcs.w.spk  
Sublist File: pna.sub  
Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
Misc Info: 10-435

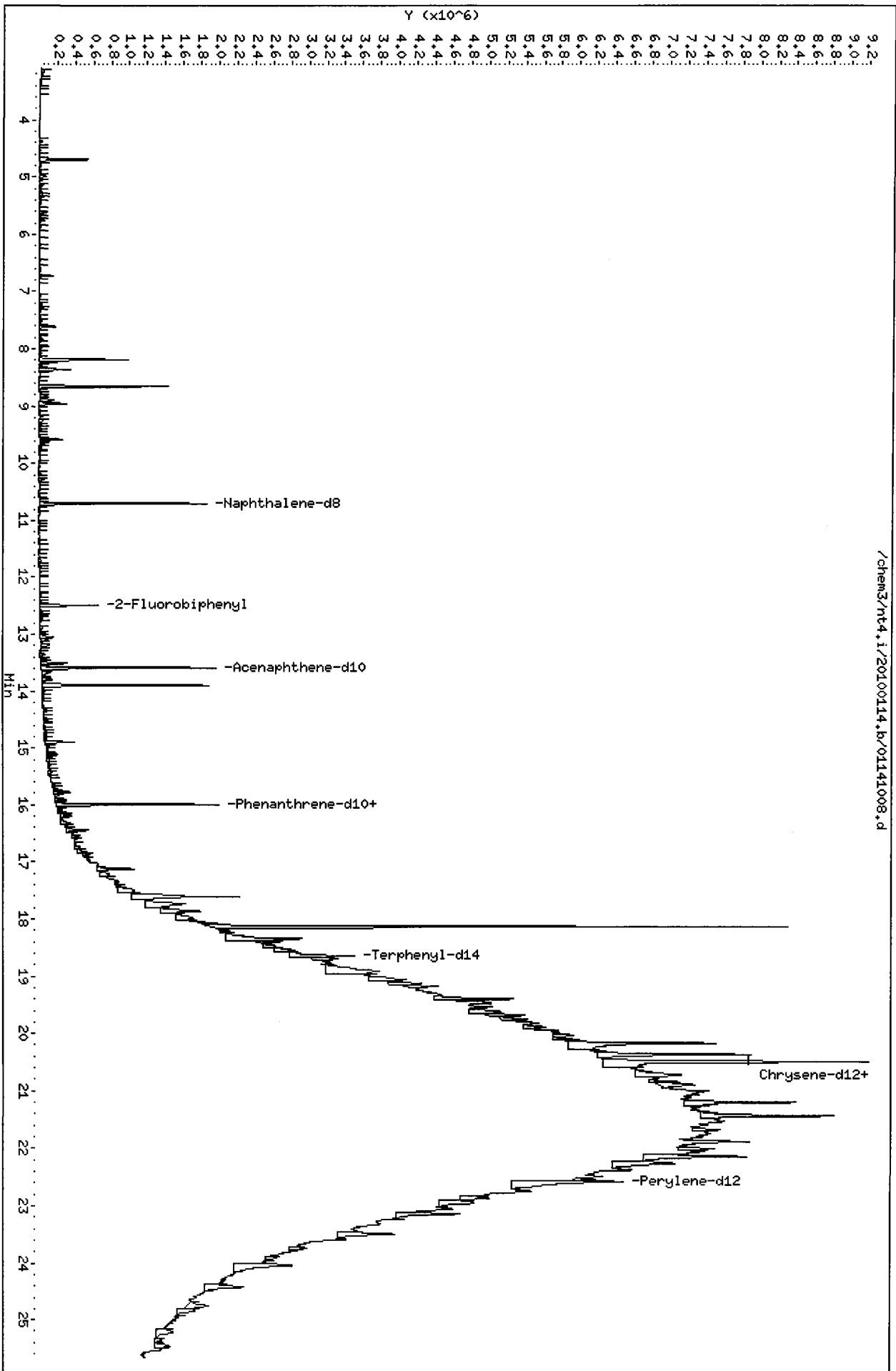
Client SDG: QE56  
Fraction: SV  
Client Smp ID: CB2010710Sed  
Operator: JZ  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	4790	4361	91.05	34-100
\$ 66 Terphenyl-d14	4790	4398	91.82	35-112

Data File: /chem3/nt4.i/20100114.b/01141008.d  
 Date : 14-JAN-2010 15:57  
 Client ID: CB2010710Sed  
 Sample Info: QES6D,3,  
 Volume Injected (uL): 1.0  
 Column phase: ZB-Sms1

Instrument: nt4.i  
 Operator: JZ  
 Column diameter: 0.32

/chem3/nt4.i/20100114.b/01141008.d



Date : 14-JAN-2010 15:57

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D,3,

Volume Injected (uL): 1.0

Operator: JZ

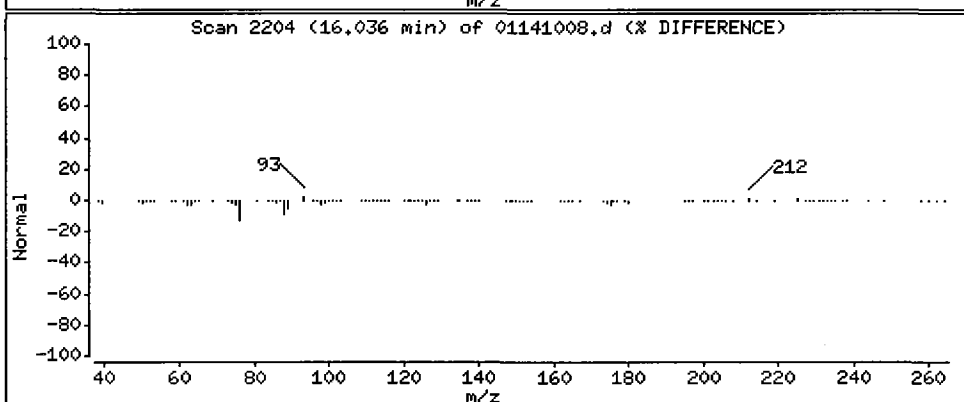
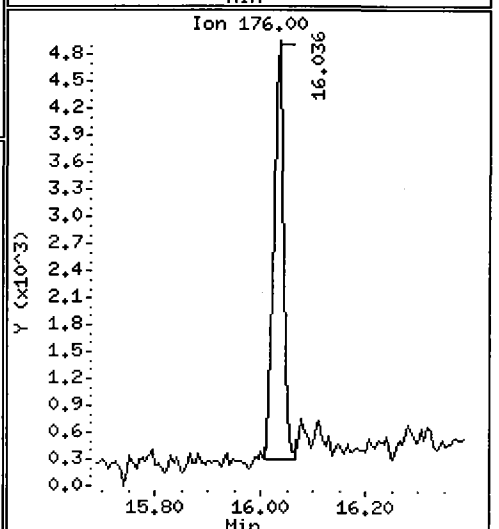
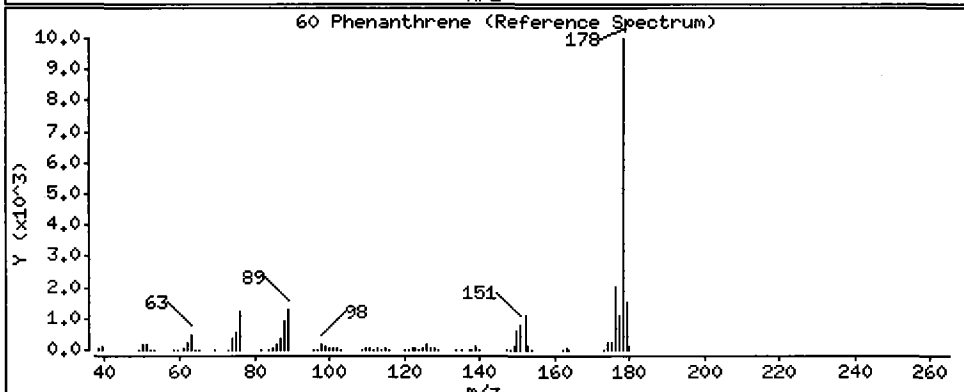
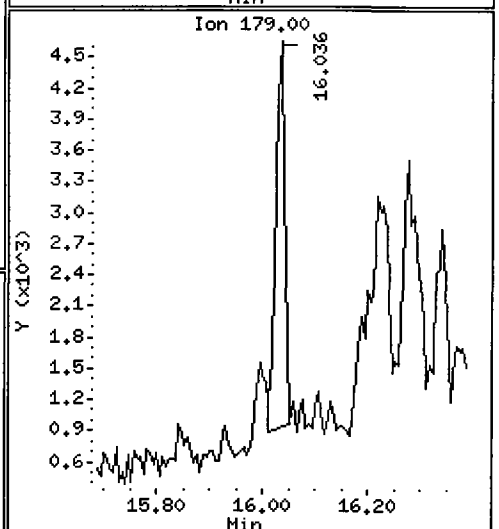
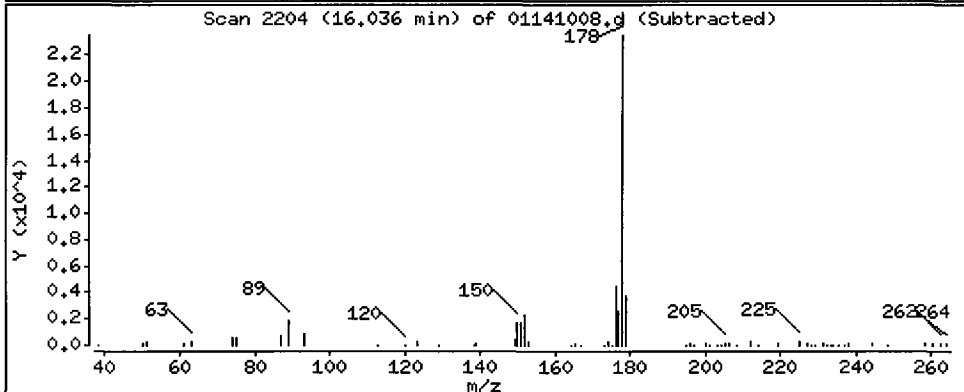
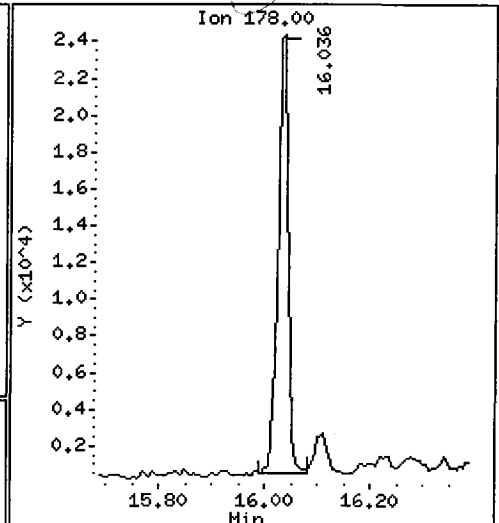
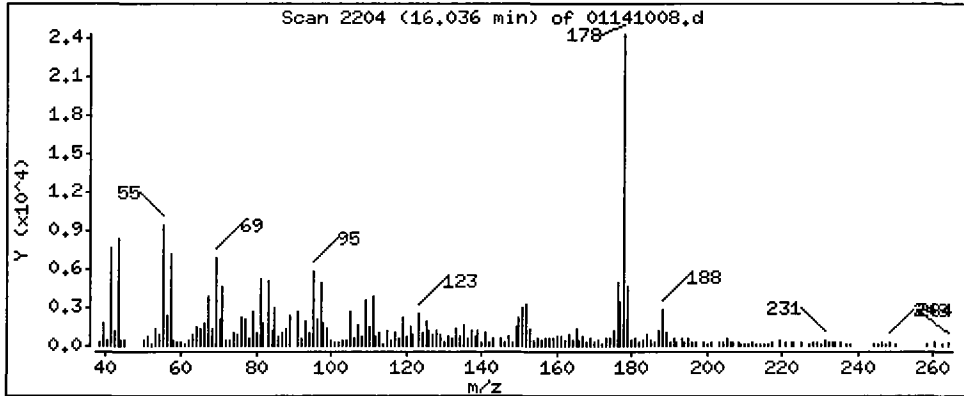
Column phase: ZB-5msi

Column diameter: 0.32

60 Phenanthrene

Concentration: 363.9 ug/kg

*JCR*



Date : 14-JAN-2010 15:57

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D,3,

Volume Injected (uL): 1.0

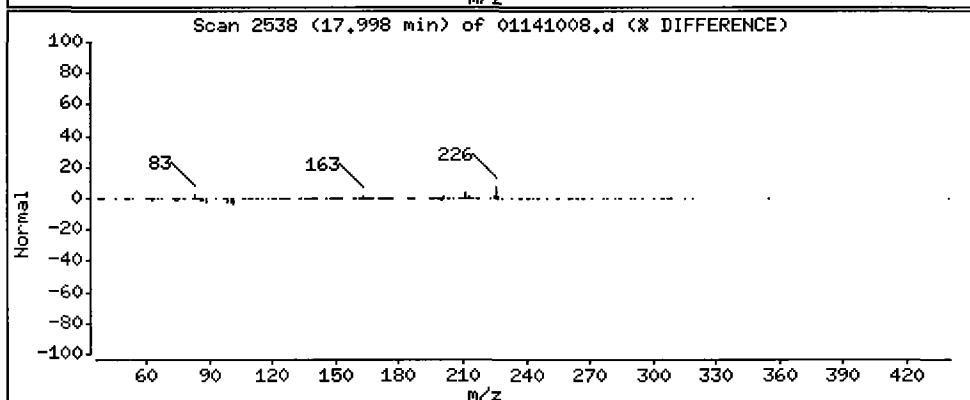
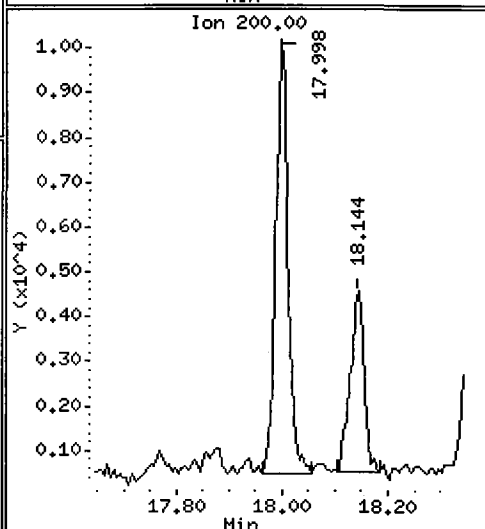
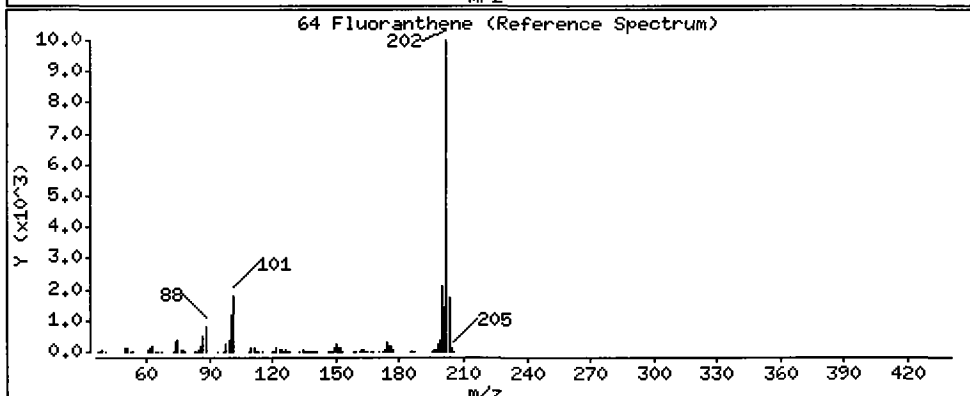
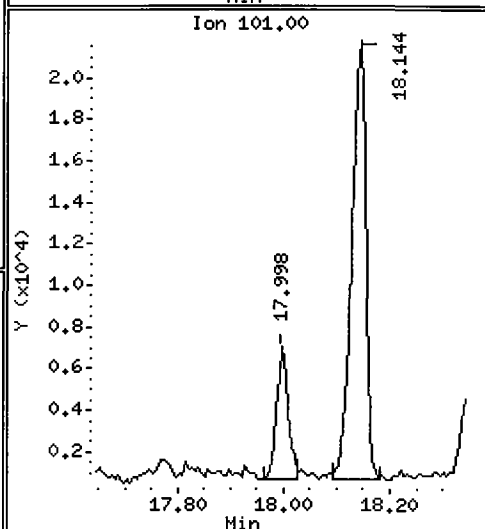
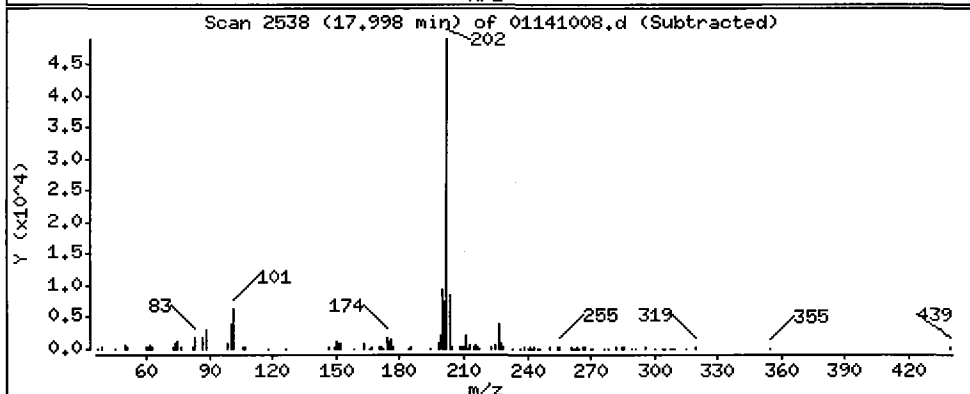
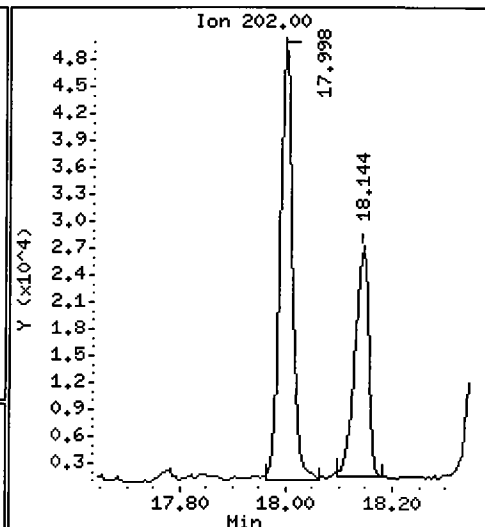
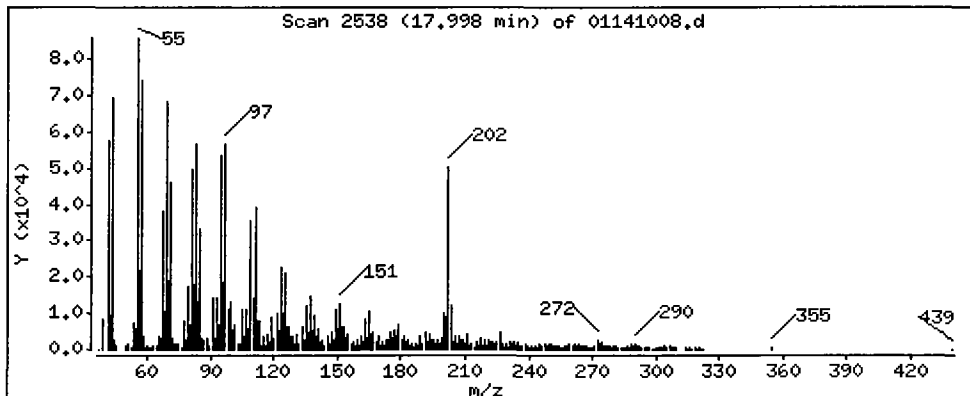
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

64 Fluoranthene

Concentration: 896.1 ug/kg





Date : 14-JAN-2010 15:57

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D,3,

Volume Injected (uL): 1.0

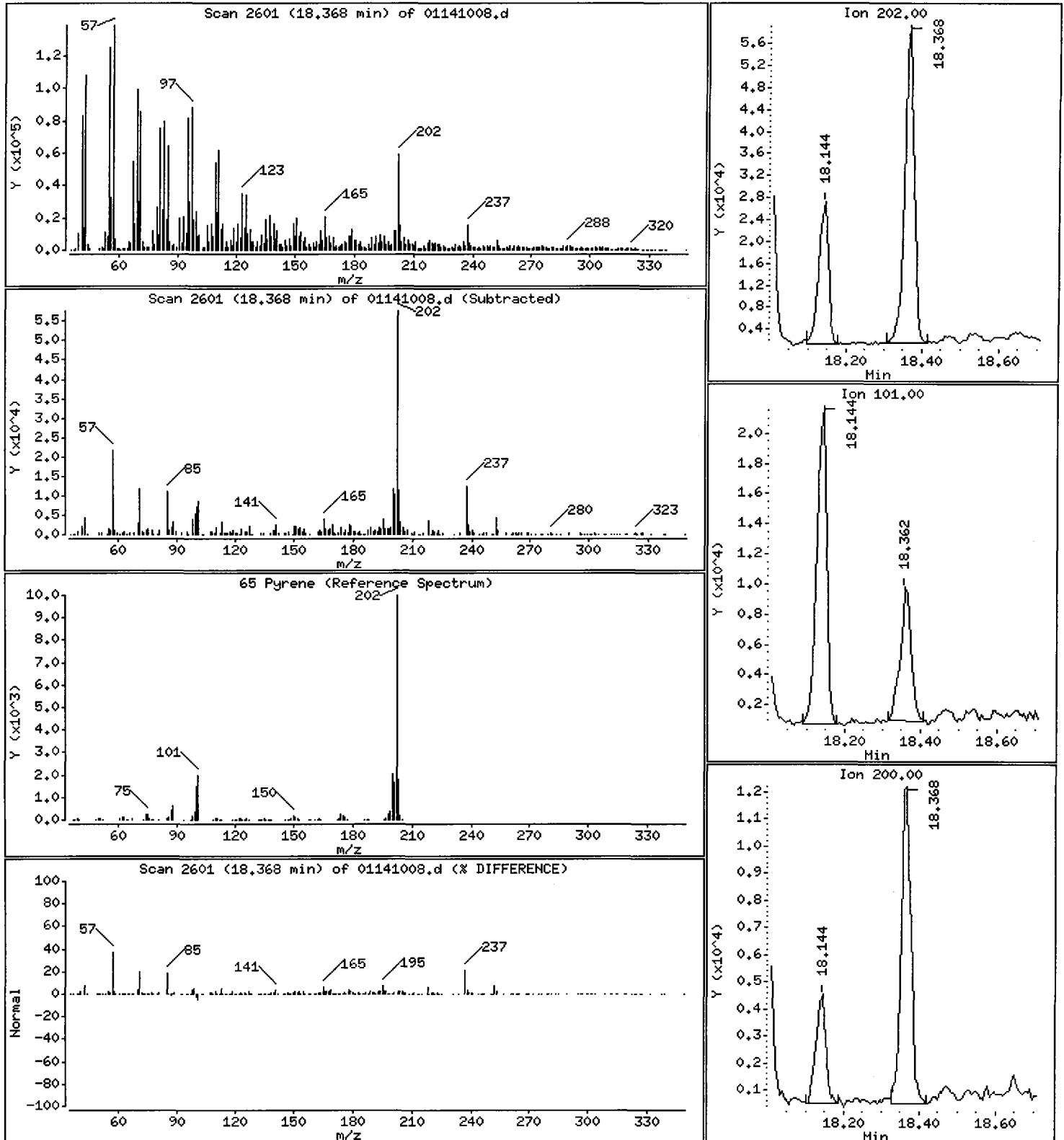
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

65 Pyrene

Concentration: 790.1 ug/kg



Date : 14-JAN-2010 15:57

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D,3,

Volume Injected (uL): 1.0

Operator: JZ

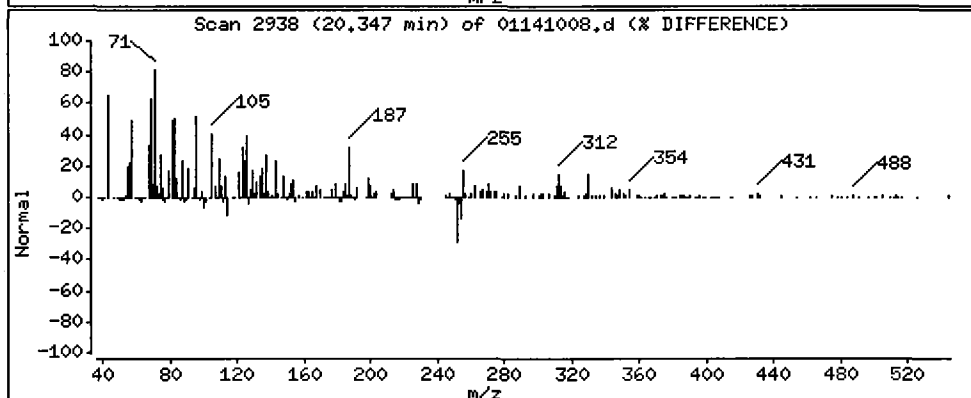
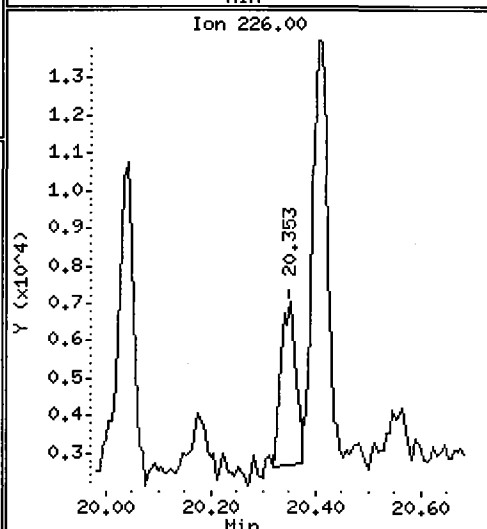
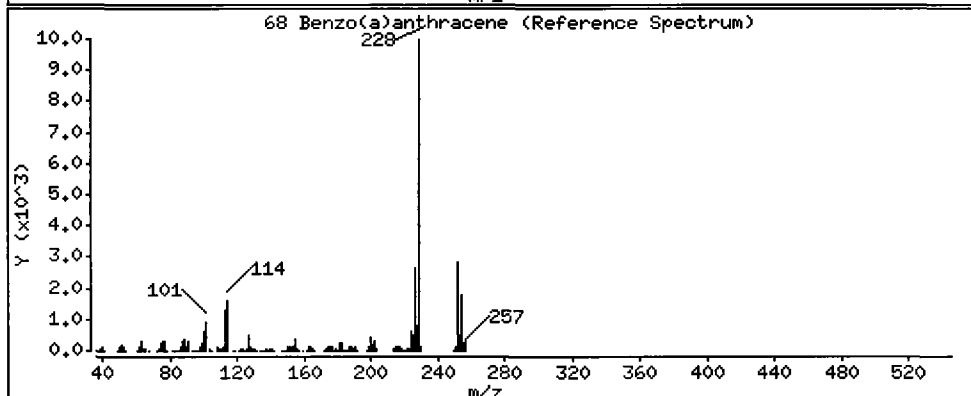
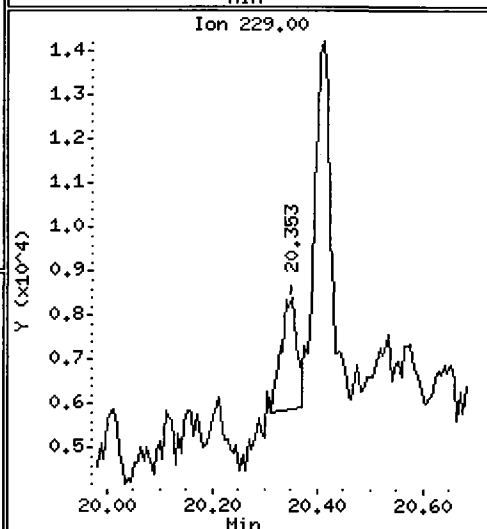
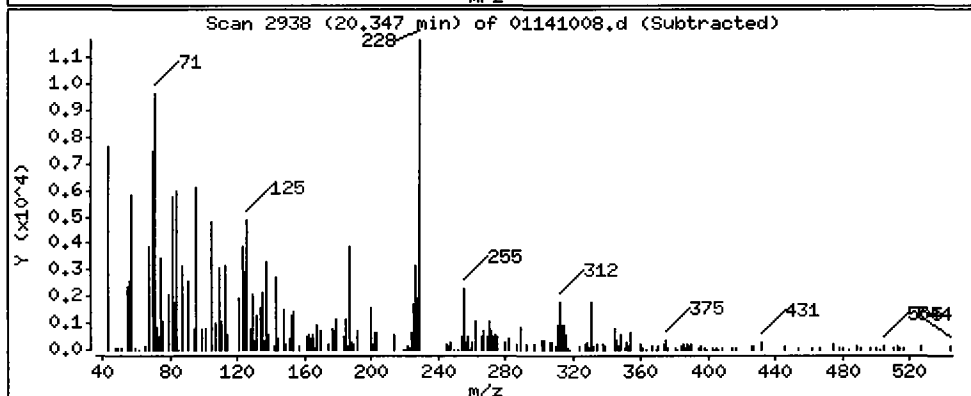
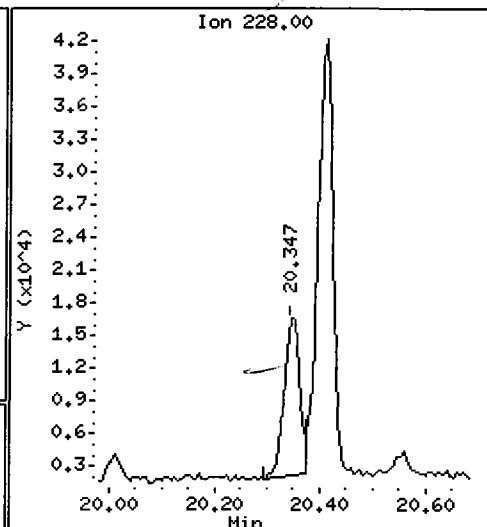
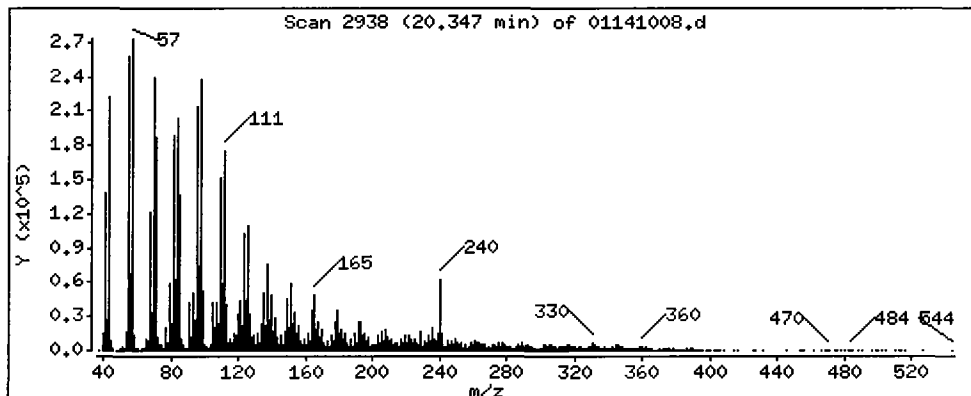
Column phase: ZB-5msi

Column diameter: 0.32

*JZL*

68 Benzo(a)anthracene

Concentration: 254.0 ug/kg



Date : 14-JAN-2010 15:57

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D,3,

Volume Injected (uL): 1.0

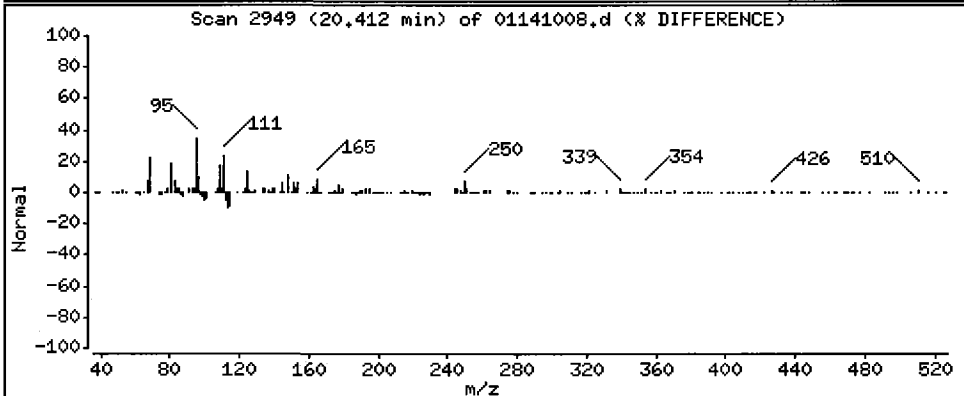
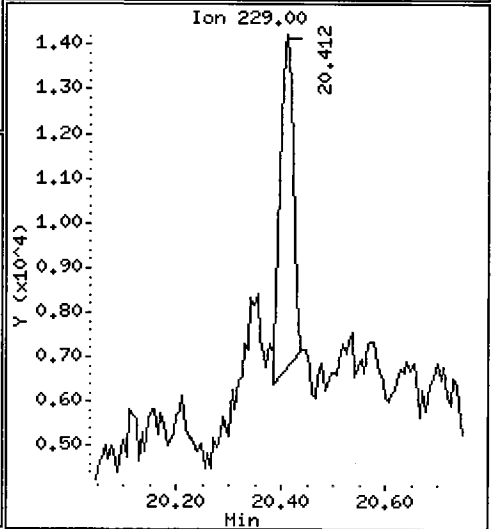
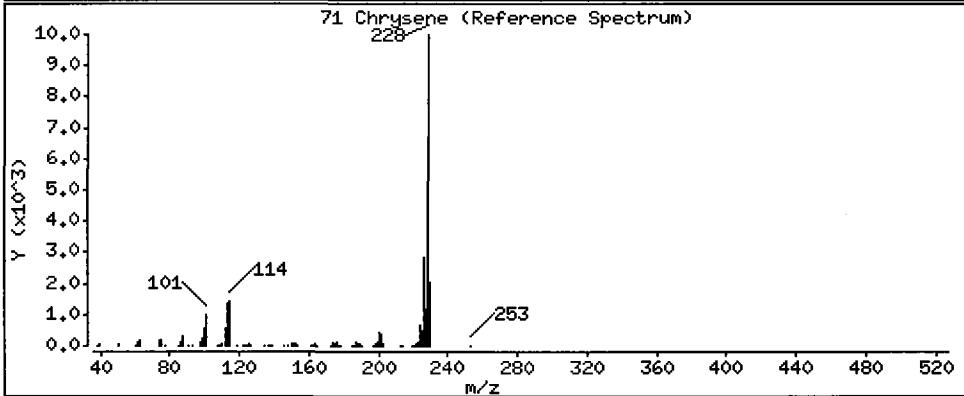
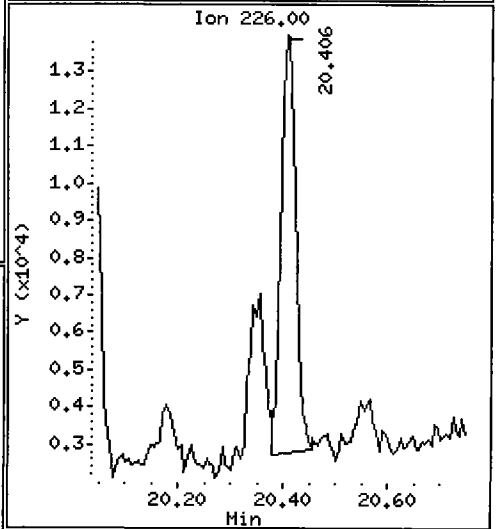
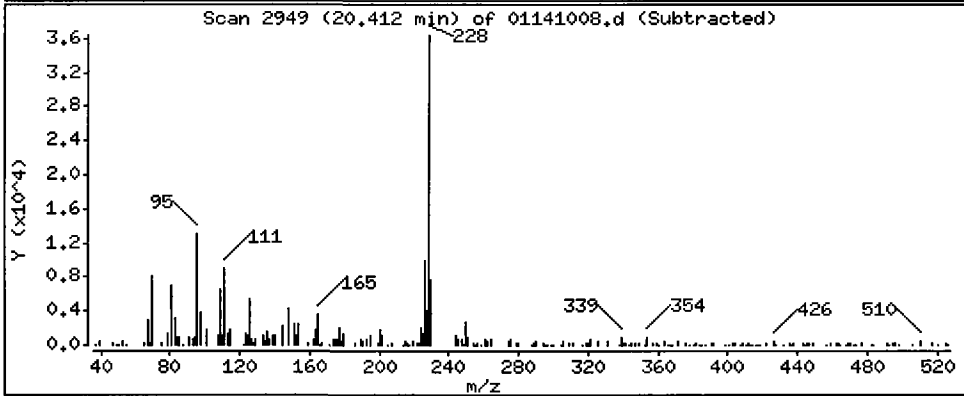
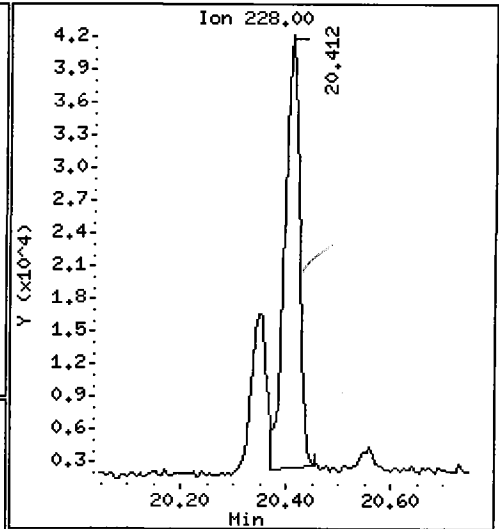
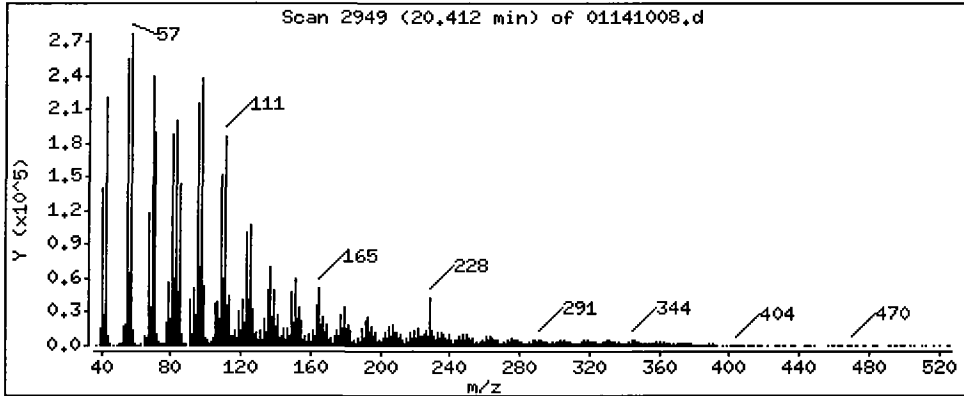
Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

71 Chrysene

Concentration: 699.6 ug/kg



Date : 14-JAN-2010 15:57

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D,3,

Volume Injected (uL): 1.0

Operator: JZ

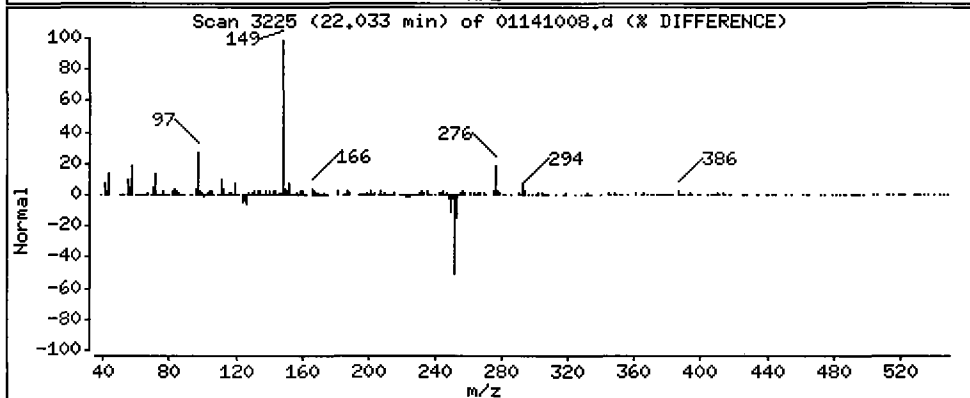
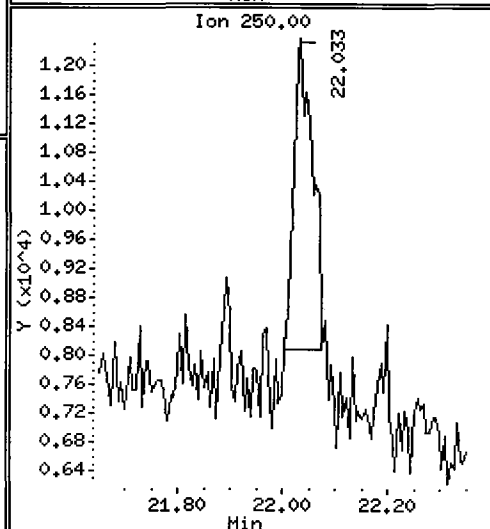
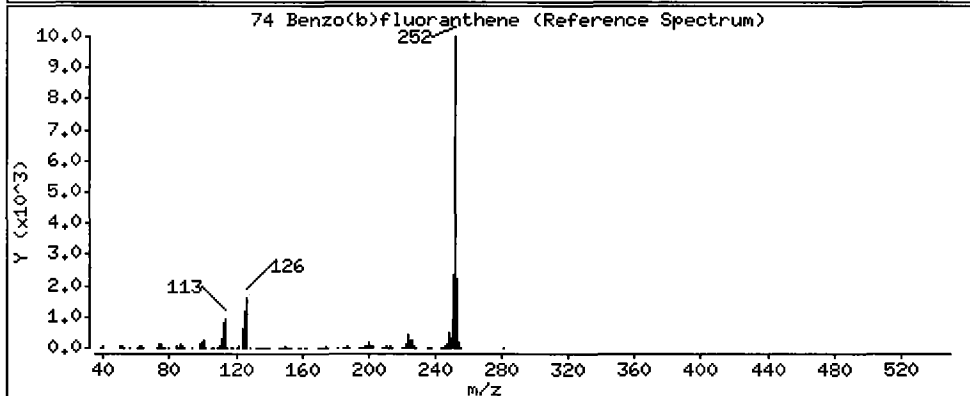
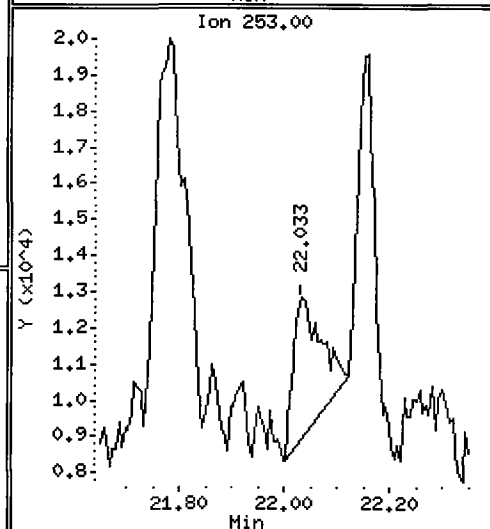
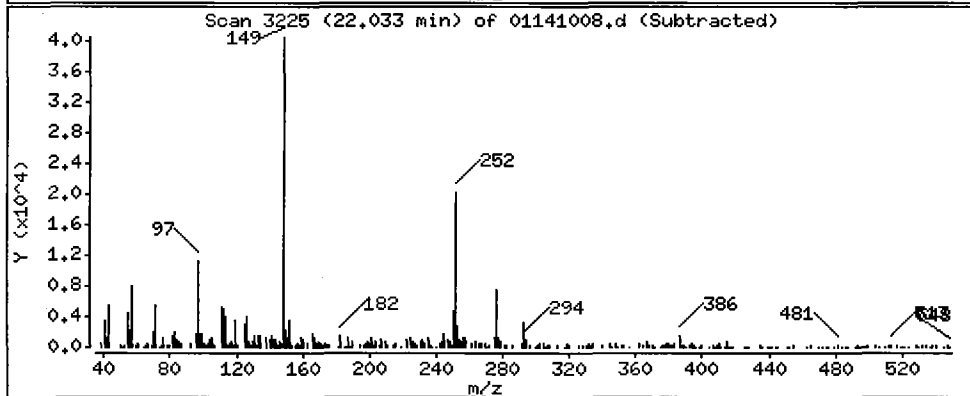
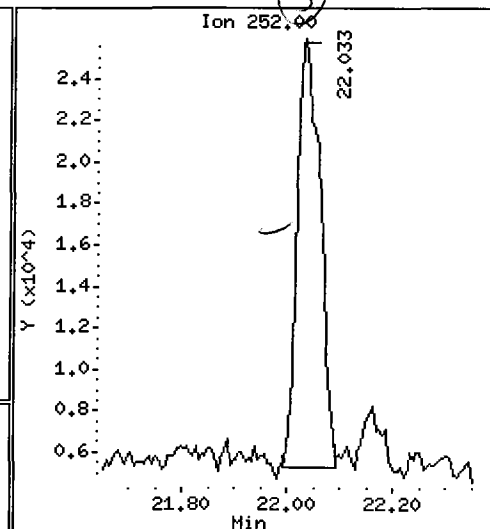
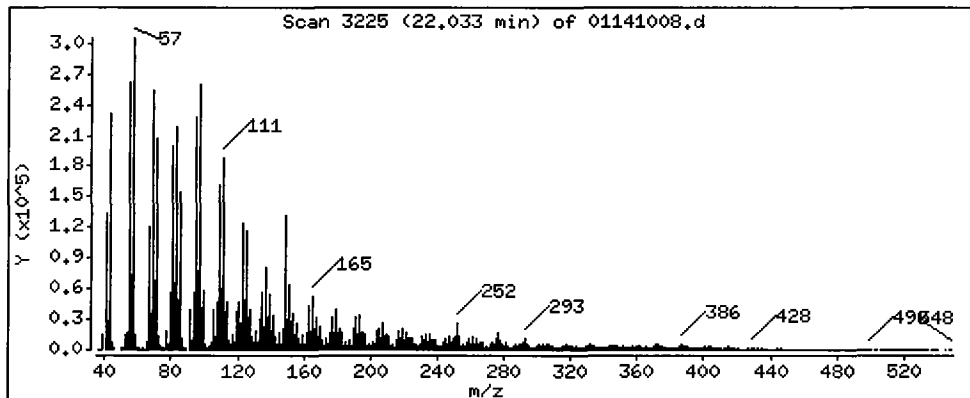
Column phase: ZB-5msi

Column diameter: 0.32

74 Benzo(b)fluoranthene

Concentration: 905.4 ug/kg

1/2  
①  
ZPC



Date : 14-JAN-2010 15:57

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D,3,

Volume Injected (uL): 1.0

Operator: JZ

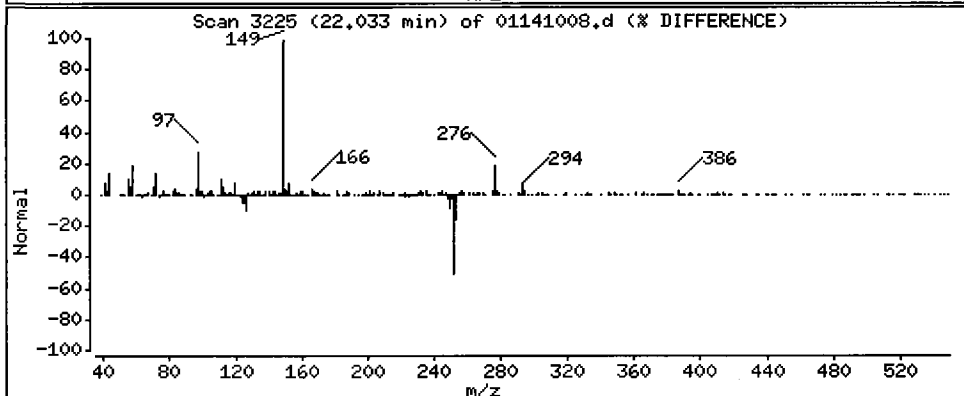
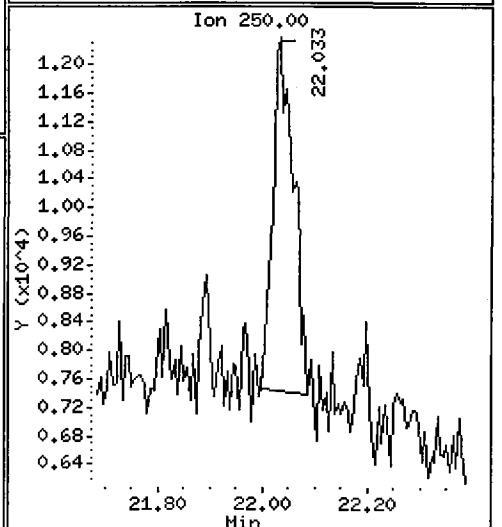
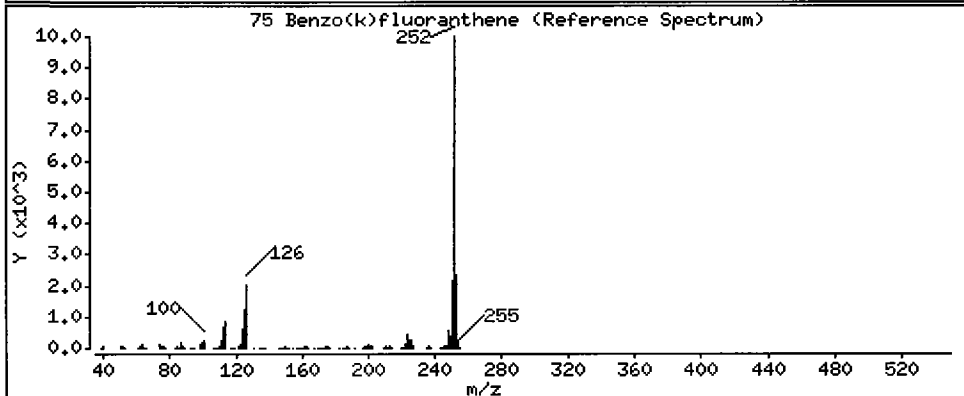
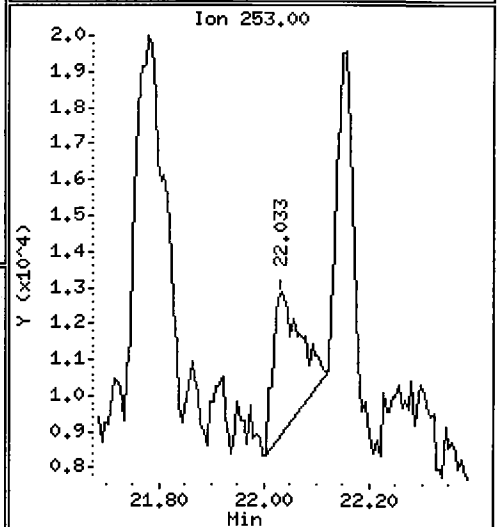
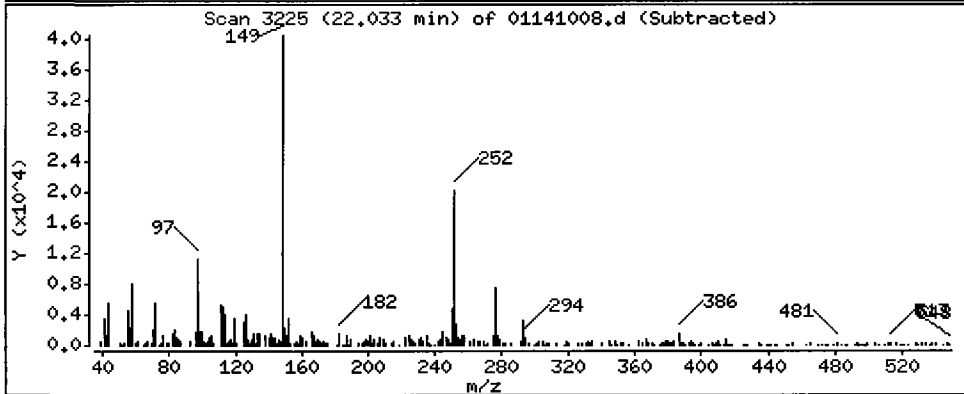
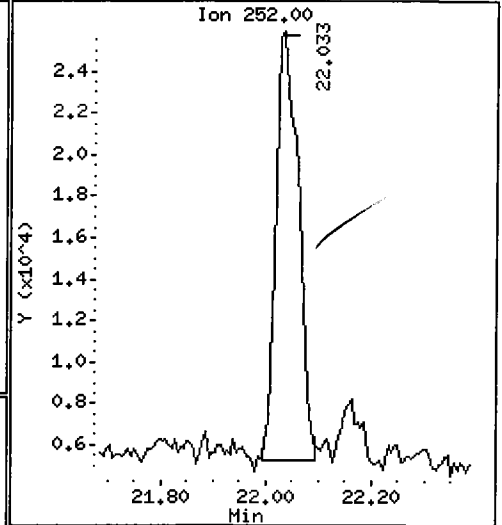
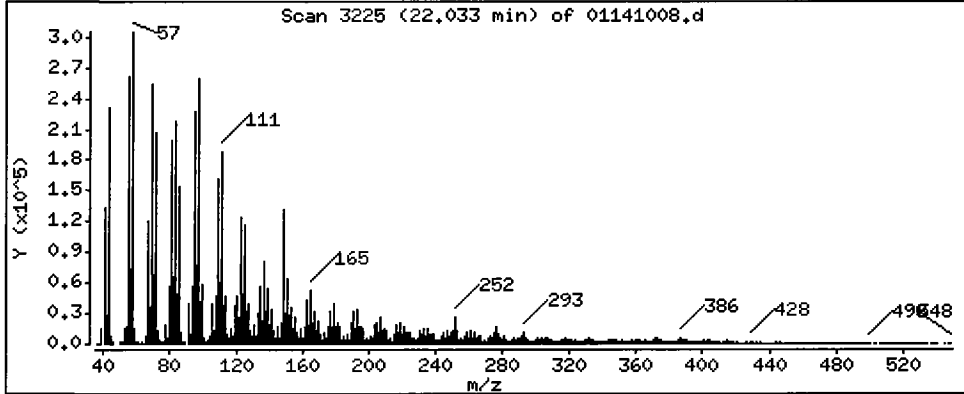
Column phase: ZB-5msi

Column diameter: 0.32

1/2  
JZ

75 Benzo(k)fluoranthene

Concentration: 911.4 ug/kg



Date : 14-JAN-2010 15:57

Client ID: CB2010710Sed

Instrument: nt4.i

Sample Info: QE56D,3,

Volume Injected (uL): 1.0

Operator: JZ

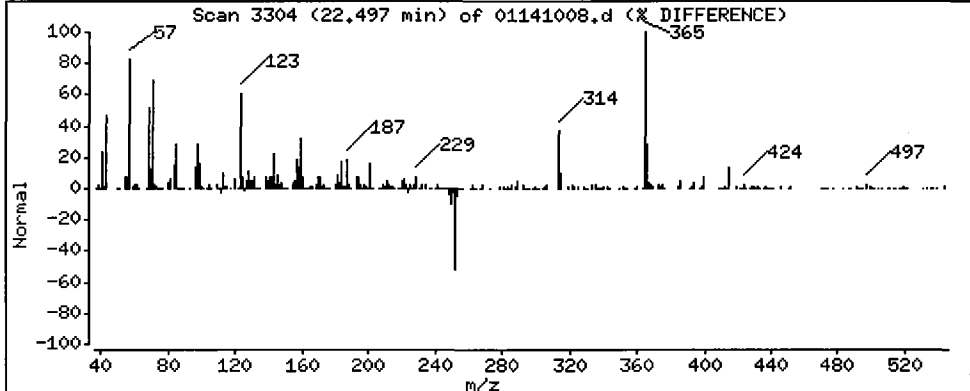
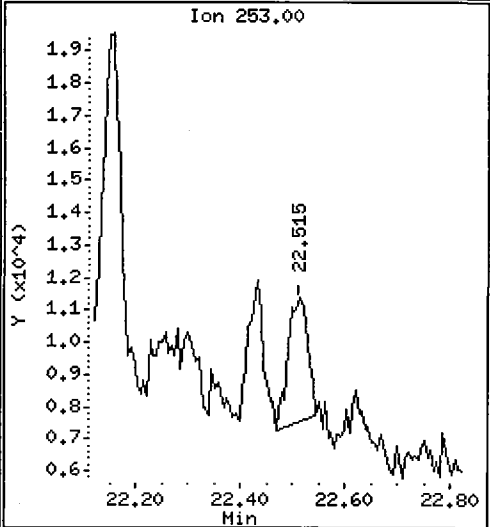
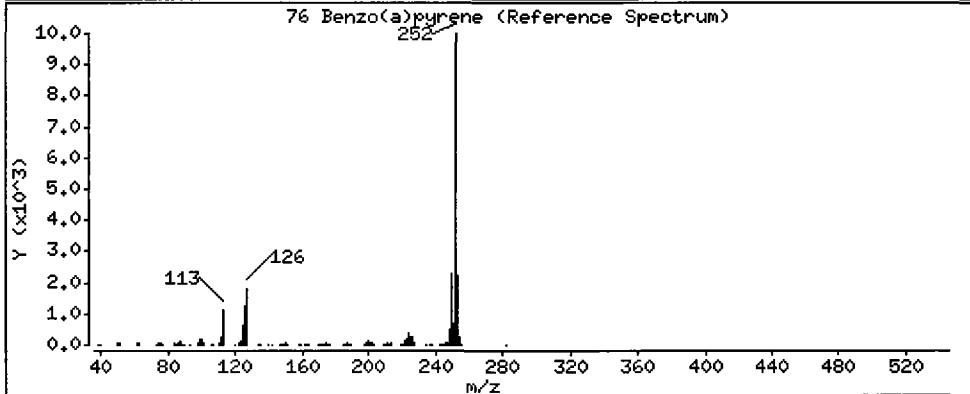
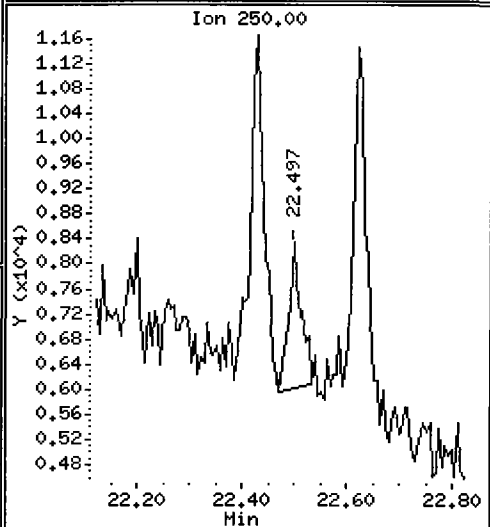
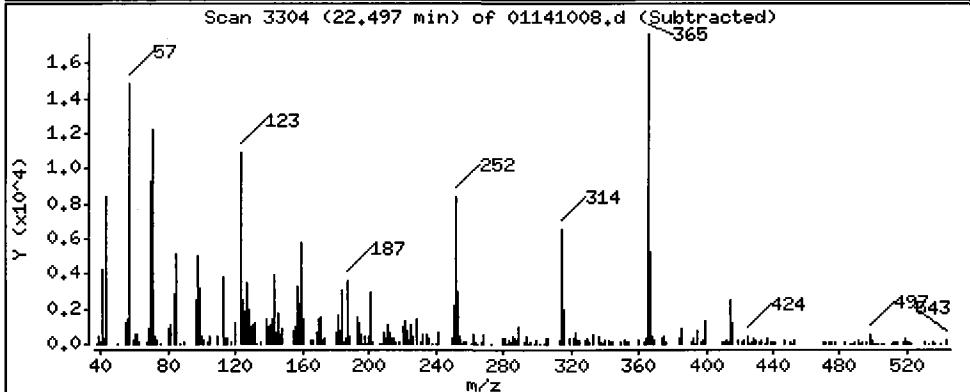
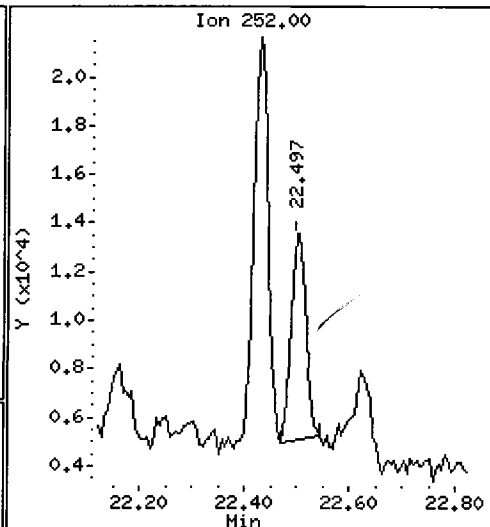
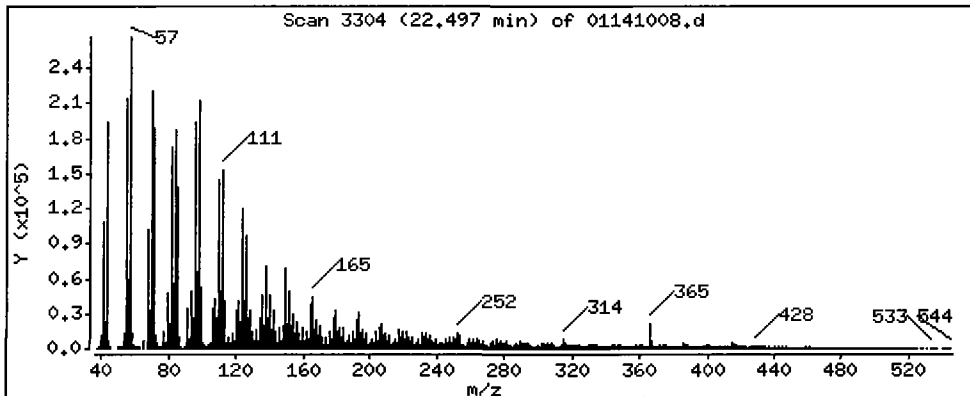
Column phase: ZB-5msi

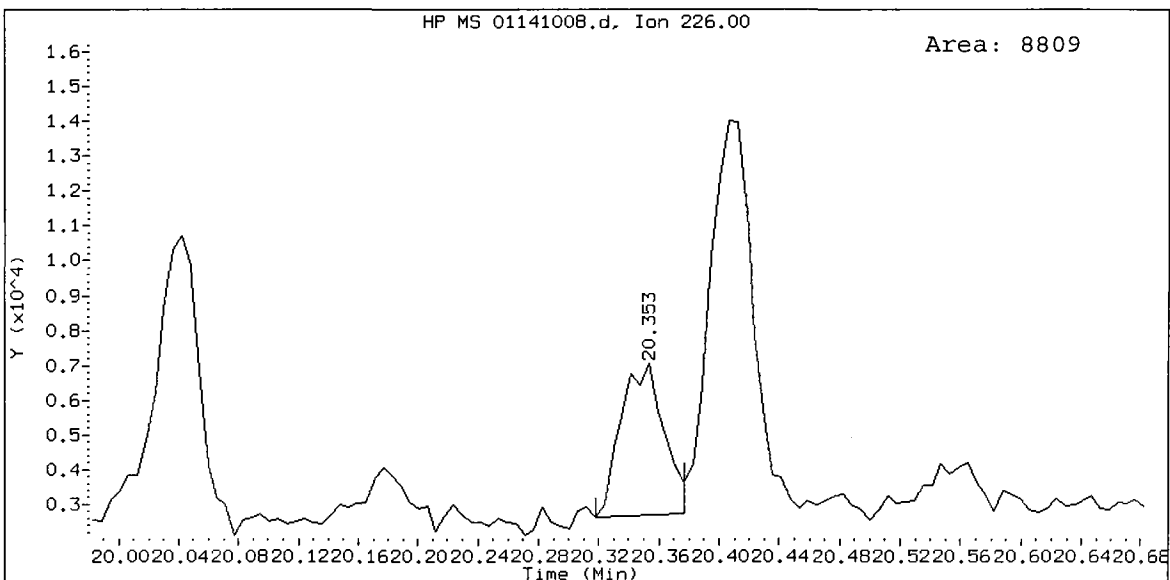
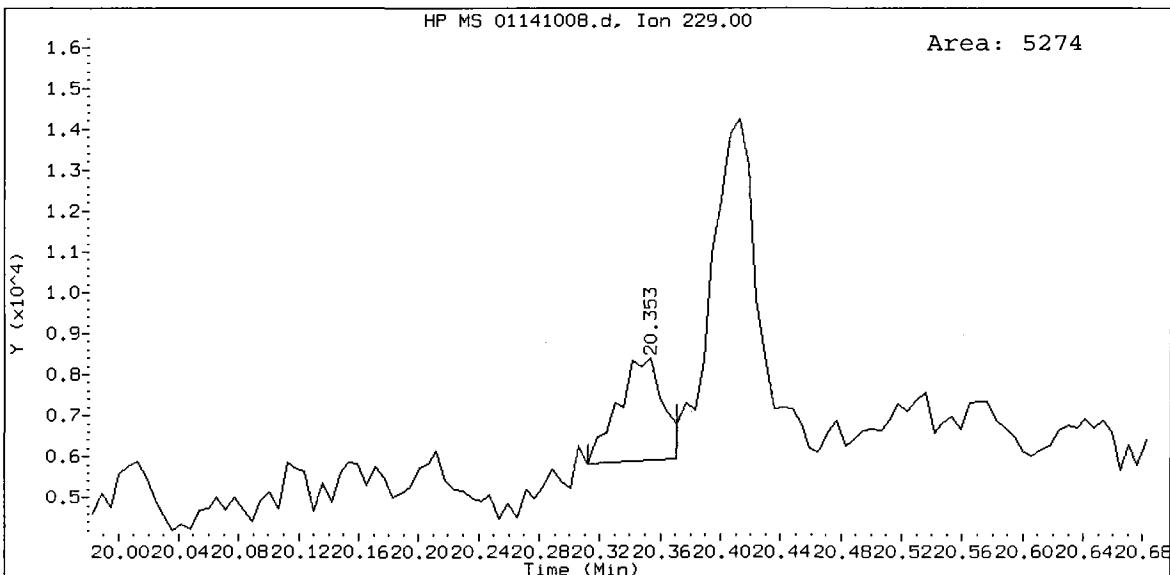
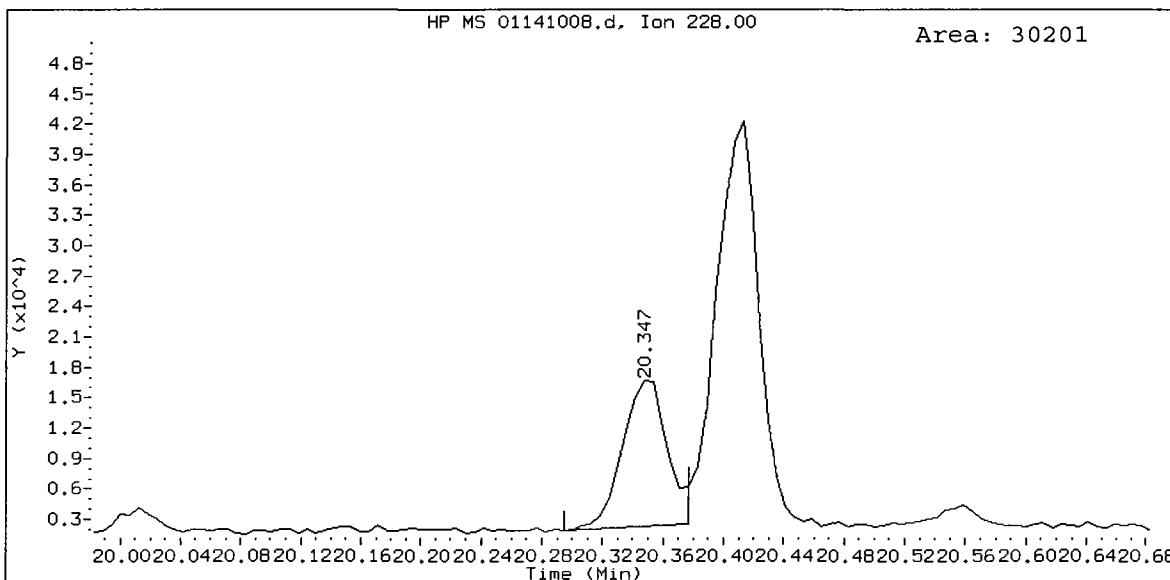
Column diameter: 0.32

*JUA*

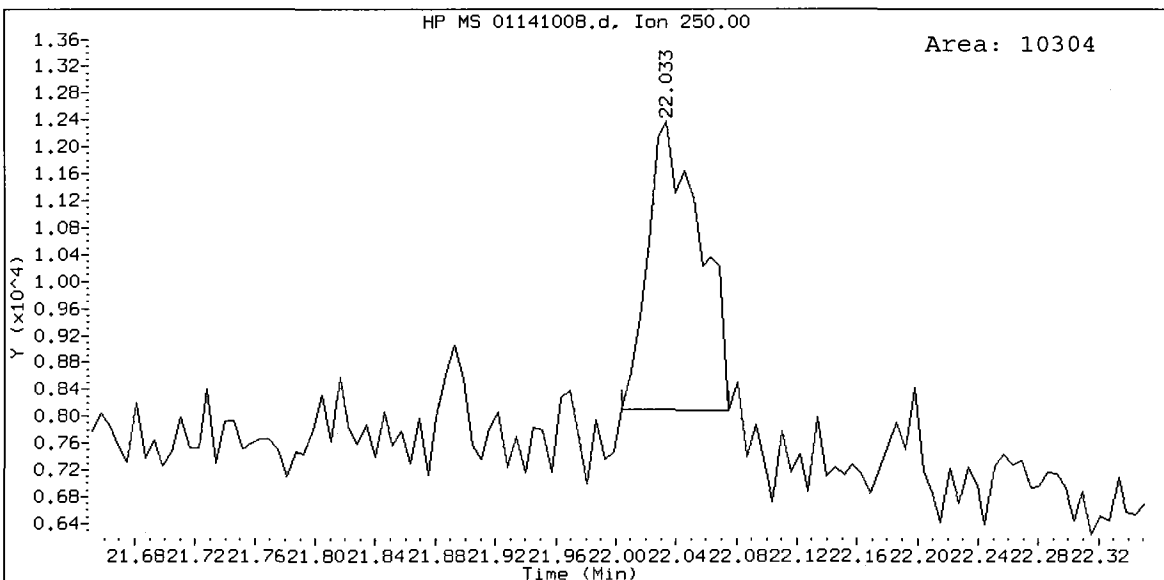
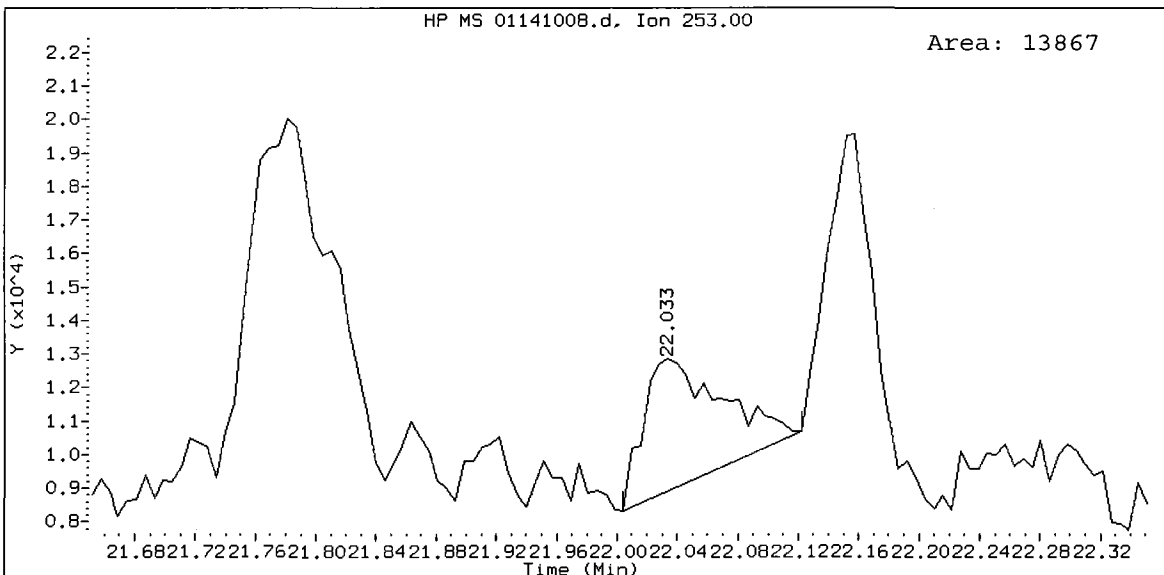
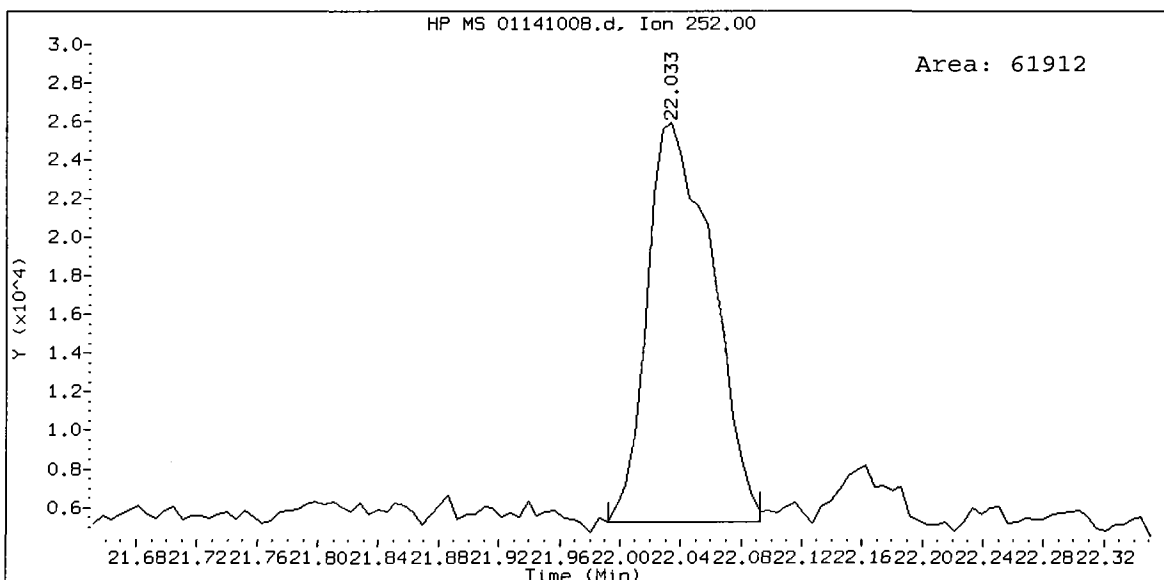
76 Benzo(a)pyrene

Concentration: 266.4 ug/kg

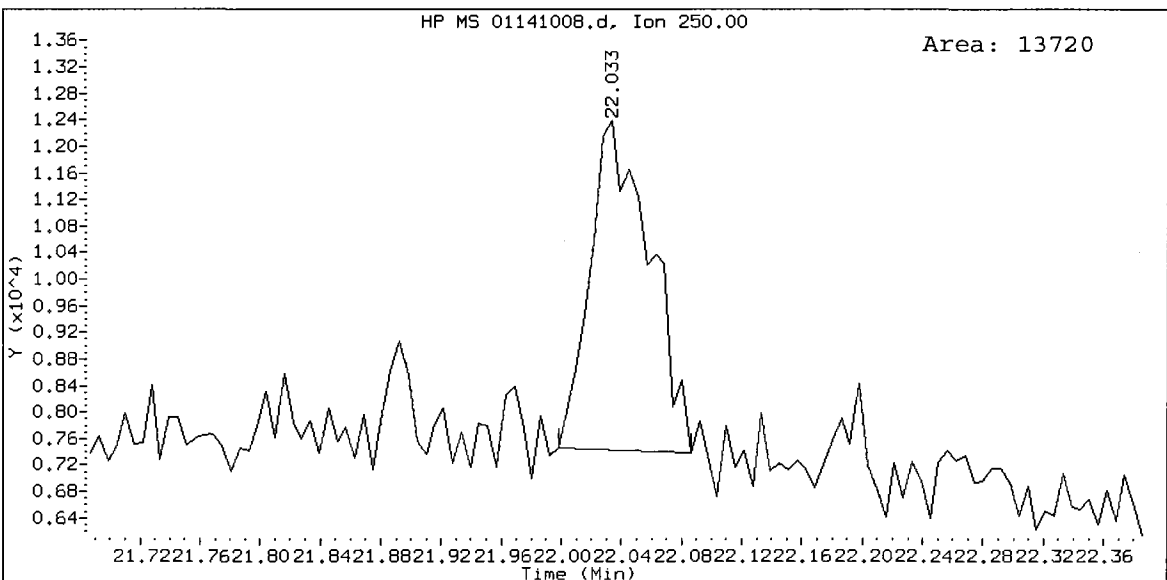
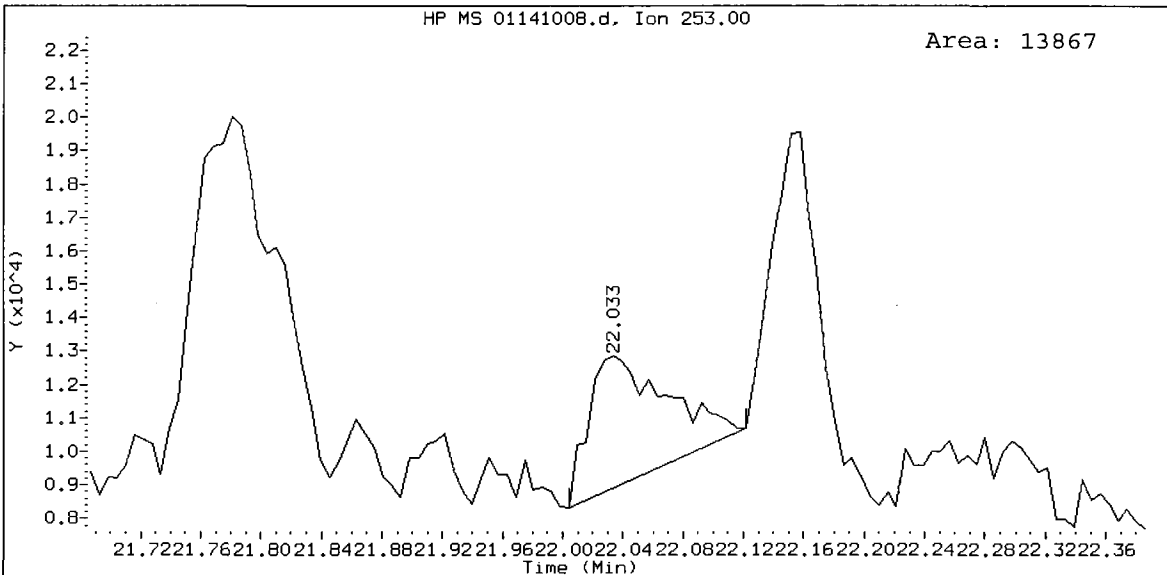
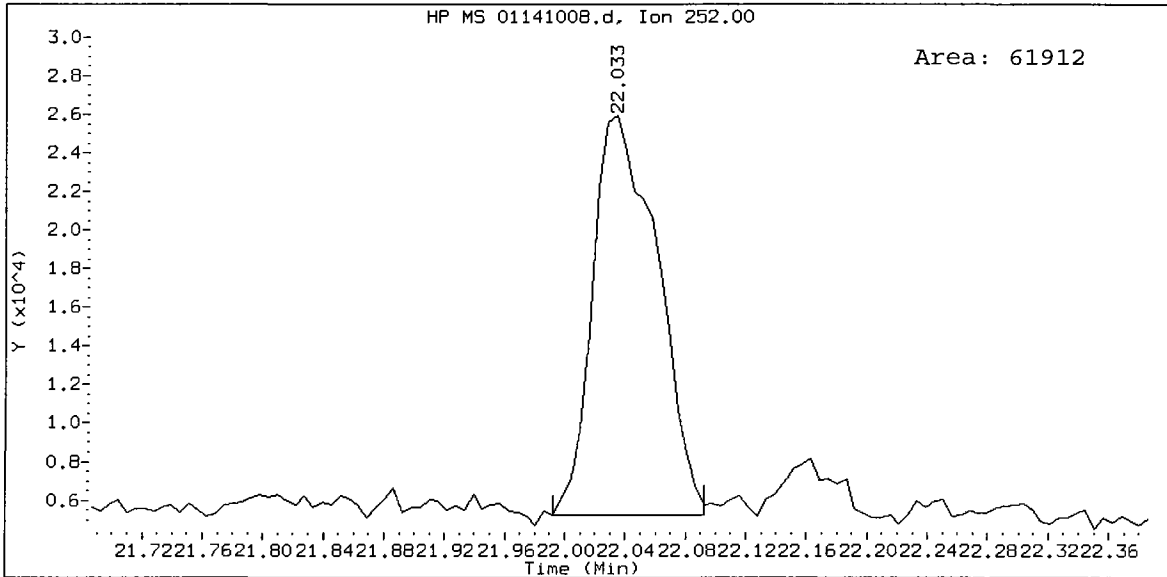




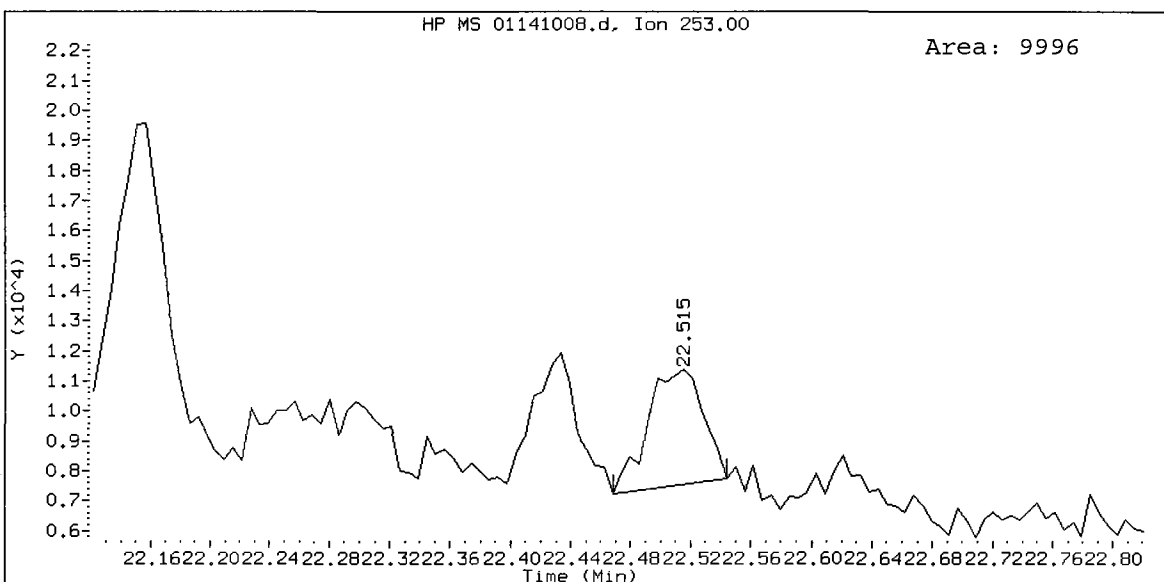
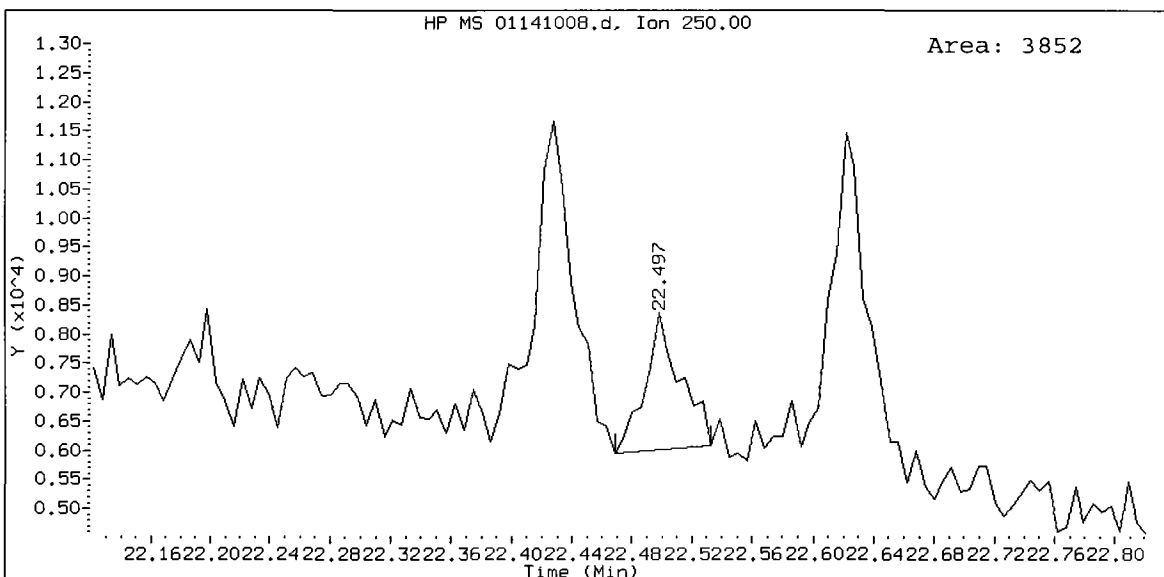
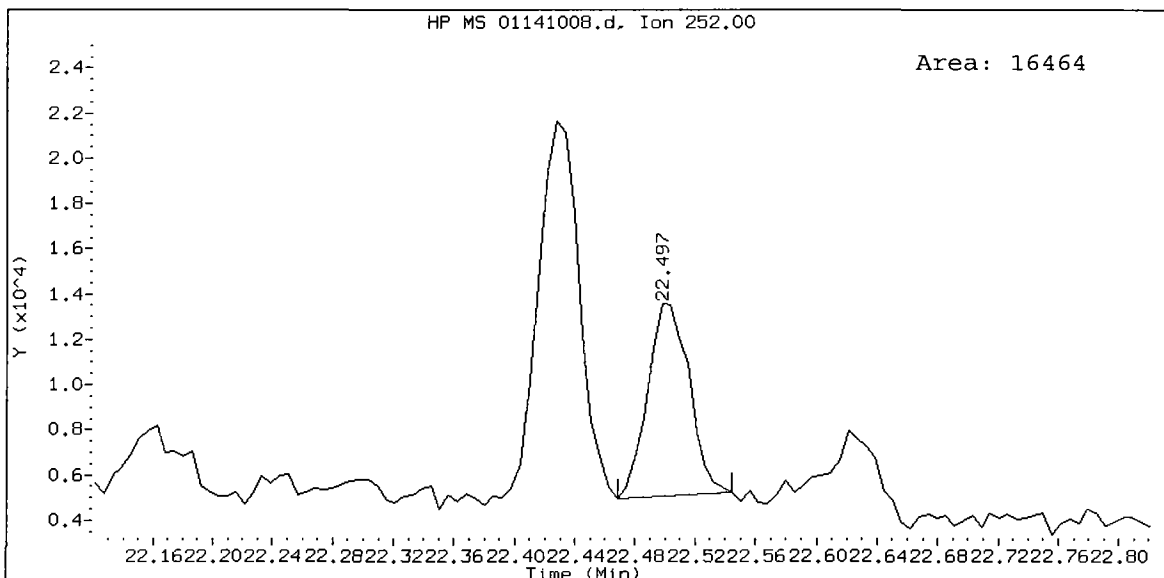
QE56D, /chem3/nt4.i/20100114.b/01141008.d  
Benzo(b)fluoranthene Amount: 1.58







QE56D, /chem3/nt4.i/20100114.b/01141008.d  
Benzo(a)pyrene Amount: 0.46



Semivolatile PAH Analysis  
Standard Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.





Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Calibration File Names:

Level 1: /chem3/nt4.i/20100107.b/01071002.d  
 Level 2: /chem3/nt4.i/20100107.b/01071003.d  
 Level 3: /chem3/nt4.i/20100107.b/01071004.d  
 Level 4: /chem3/nt4.i/20100107.b/01071005.d  
 Level 5: /chem3/nt4.i/20100107.b/01071006.d  
 Level 6: /chem3/nt4.i/20100107.b/01071007.d  
 Level 7: /chem3/nt4.i/20100107.b/01071008.d

AB 01/07/10

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	b	Coefficients m1	m2	RRSD or R^2
186 Carbaryl	++++ Level 7	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
179 n-Decane	1.34032 0.90508	1.22550	1.12165	1.13557	1.04225	0.95216	AVRG		1.10322		13.76433
180 n-Octadecane	++++ 0.32179	0.48448	0.44749	0.41867	0.38200	0.33215	AVRG		0.39776		16.19746
169 4-tert-Butylphenol	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
177 p-Benzquinone	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
168 Pentachlorobenzene	0.43309 0.34927	0.41631	0.36037	0.39552	0.38554	0.37673	AVRG		0.38812		7.64848
145 4,4'-DDE	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
146 4,4'-DDD	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
147 4,4'-DDT	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
148 Dieldrin	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
149 TCMX	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
136 2,3,4,5-tetrachlorophenol	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
133 Butylatedhydroxytoluene	1.16747 0.76282	0.99626	0.95184	1.01684	0.96904	0.85273	AVRG		0.95957		13.32689
132 3,6-Dimethylphenanthrene	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
131 1-Methylphenanthrene	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
130 Dibenzothiophene	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
129 1-Methylfluorene	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
128 N-Hexadecane	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00

20100107 09:10



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
80	Level 7										
127 2-Isopropylnaphthalene	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
126 N-Tetradecane	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
144 alpha-Terpineol	0.18344 0.11137	0.15450	0.14469	0.14634	0.13466	0.11649	AVRG		0.14164		17.15318
125 Safrrole	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
124 3,4-Dimethylphenol	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
123 Acetophenone	0.75335 0.55419	0.70134	0.62177	0.66273	0.62470	0.58016	AVRG		0.64261		10.74231
122 Furfuraldehyde	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00

07 00 00 00 00 00



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangjing

Compound	1		5		10		25		40		60		Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10	m1	m2					
116 Dibutyl Phenyl Phosphate	0.77860	0.67988	0.67684	0.72733	0.70554	0.64023							AVRG		0.69239		7.19000
115 Tributyl Phosphate	1.16971	0.98125	0.93778	0.94242	0.88213	0.77167							AVRG		0.91559		15.98889
114 Beta-Pinene	++++	++++	++++	++++	++++	++++							AVRG		0.000e+00		0.000e+00
113 Diphenyl Oxide	0.82713	0.72625	0.68090	0.73435	0.71527	0.67163							AVRG		0.71663		7.85814
112 Biphenyl	1.53958	1.32608	1.25007	1.29076	1.21961	1.09008							AVRG		1.24279		14.26364
111 Azobenzene (1,2-DP-Hydrazine)	1.40289	1.29180	1.08769	1.06448	0.94836	0.88675							AVRG		1.11366		17.83684
110 Tetrachloroguaiacol	++++	++++	++++	++++	++++	++++							AVRG		0.000e+00		0.000e+00

00  
01  
02  
03  
04  
05  
06  
07  
08  
09  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
106 Guaiacol	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
105 1-methylnaphthalene	0.61018 0.45790	0.58857	0.50129	0.54628	0.52043	0.48860	AVRG		0.53046		10.31124
151 1,2,4,5-Tetrachlorobenzene	0.64139 0.45888	0.45876	0.46173	0.62001	0.49005	0.47223	AVRG		0.51472		15.58319
152 Benzo(e)pyrene	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
153 Chlorpyrifos	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
154 Diazinon	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
155 Kelthane	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00

920000  
920000  
920000



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
80 Level 7											
163 1,2,3,5,8-Pentachloronaphthal	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
3 Phenol	1.76426 1.34854	1.51616	1.41630	1.56620	1.48310	1.42937	AVRG		0.000e+00		0.000e+00
4 Bis(2-Chloroethyl)ether	1.31174 1.05244	1.25071	1.06167	1.18675	1.12489	1.09341	AVRG		1.50342		8.99051
							AVRG		1.15452		8.56477

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1		5		10		25		40		60		Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10	Level 11	Level 12			m1	m2	
6 2-Chlorophenol	1.40641 1.20414	1.25265	1.19124	1.34234	1.27646	1.26936							AVRG		1.27752		5.92113
7 1,3-Dichlorobenzene	1.54315 1.28012	1.47610	1.28230	1.41792	1.36562	1.34175							AVRG		1.38671		7.10045
9 1,4-Dichlorobenzene	1.58801 1.28344	1.50673	1.29651	1.44947	1.39756	1.35470							AVRG		1.41092		7.90869
11 Benzyl alcohol	0.54057 0.74500	0.66806	0.73945	0.81540	0.79105	0.75983							AVRG		0.72276		12.82818
12 1,2-Dichlorobenzene	1.46692 1.20032	1.40998	1.22585	1.35668	1.31094	1.27121							AVRG		1.32027		7.36151
13 2-Methylphenol	1.27981 0.96823	1.08253	0.99644	1.11602	1.04730	1.02087							AVRG		1.07303		9.69467
14 2,2'-oxybis(1-Chloropropane)	1.61196 ++++	1.53755	1.30522	1.29207	1.14090	1.01542							AVRG		1.31719		17.25778

2010 JAN 18 18:43

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
15 4-Methylphenol	1.33457 1.00685	1.10911	1.03332	1.16515	1.10003	1.07496	AVRG		1.11772		9.72601
16 N-Nitroso-di-n-propylamine	0.99373 0.71826	0.91891	0.78540	0.82936	0.78692	0.74900	AVRG		0.82594		11.85129
17 Hexachloroethane	0.62917 0.54010	0.61817	0.53731	0.60694	0.58277	0.56653	AVRG		0.58300		6.31819
19 Nitrobenzene	0.42263 0.29922	0.38904	0.33255	0.35857	0.33817	0.31805	AVRG		0.35117		12.14061
20 Isophorone	0.61662 0.48860	0.58982	0.50985	0.55361	0.52895	0.50670	AVRG		0.54202		8.68303
21 2-Nitrophenol	0.20356 0.18512	0.18755	0.17701	0.20345	0.19399	0.19274	AVRG		0.19192		5.03874
22 2,4-Dimethylphenol	0.41132 0.31475	0.35947	0.33348	0.36798	0.34643	0.33383	AVRG		0.35247		8.91119



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1		5		10		25		40		60		Curve	b	Coefficients ml	m2	RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10	Level 11	Level 12					
23 Bis(2-Chloroethoxy)methane	0.43624	0.41350	0.35963	0.38551	0.36886	0.34949							AVRG		0.37788		9.70311
24 Benzoic acid	++++ 1432942	34281	98690	434403	762615	1184783							QUAD	0.000e+00	5.48033	-0.07647	0.99243
25 2,4-Dichlorophenol	0.31070	0.26954	0.26170	0.29765	0.27829	0.27204							AVRG		0.27855		6.79709
26 1,2,4-Trichlorobenzene	0.33202	0.31819	0.27673	0.30215	0.29212	0.28322							AVRG		0.29649		7.54454
28 Naphthalene	1.16905	1.09590	0.93521	0.98181	0.90208	0.81456							AVRG		0.94823		15.85670
29 4-Chloroaniline	0.43890	0.41294	0.38349	0.42519	0.42237	0.39578							AVRG		0.40861		5.40210
30 Hexachlorobutadiene	0.18856	0.17918	0.15663	0.16953	0.16400	0.15769							AVRG		0.16660		8.09145

07 01 10 18 43





Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jianqing

Compound	Level							60 Level 6	Curve	Coefficients		RSD or R <sup>2</sup>
	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	b			m1	m2	
47 4-Nitrophenol	0.17717	0.17423	0.15506	0.19634	0.18540	0.17973	AVRG	0.17382			9.58126	
48 2,4-Dinitrotoluene	0.36959	0.38271	0.34894	0.39565	0.39068	0.38339	AVRG	0.37681			4.27456	
49 Fluorene	1.40968	1.32813	1.13899	1.22540	1.15111	1.05090	AVRG	1.17669			13.74957	
50 Diethylphthalate	1.48785	1.38198	1.21869	1.31661	1.27129	1.21095	AVRG	1.29000			9.04706	
51 4-Chlorophenyl-phenylether	0.63766	0.58137	0.50490	0.54971	0.52812	0.49445	AVRG	0.53395			11.90539	
52 4-Nitroaniline	0.32492	0.30155	0.28344	0.32181	0.32034	0.30997	AVRG	0.30883			4.84063	
53 4,6-Dinitro-2-methylphenol	0.14444	0.09884	0.10741	0.13946	0.14081	0.14442	AVRG	0.12923			15.85962	

07 00 00 00 00 00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1		5		10		25		40		60		Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10	m1	m2					
54 N-Nitrosodiphenylamine	0.51334 0.43039	0.47724	0.41317	0.45455	0.44048	0.43476							AVRG		0.45199		7.45449
56 4-Bromophenyl-phenylether	0.22296 0.18133	0.20682	0.18167	0.19751	0.19420	0.18833							AVRG		0.19612		7.58719
57 Hexachlorobenzene	0.22357 0.18819	0.20465	0.17727	0.19483	0.19222	0.18530							AVRG		0.19515		7.74839
58 Pentachlorophenol	++++ 281630	4411	8985	66319	125973	219823							QUAD	0.000e+00	16.62642	-14.44636	0.99227
60 Phenanthrene	1.26063 0.88145	1.15513	0.99023	1.05006	1.00666	0.93589							AVRG		1.04001		12.51218
61 Anthracene	1.22848 0.85723	1.14091	0.99909	1.04058	0.98956	0.91398							AVRG		1.02426		12.44435
62 Carbazole	0.84554 0.52302	0.60111	0.53143	0.68106	0.56734	0.54025							AVRG		0.61282		18.95682

07 JAN 2010 18:49

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jianqing

Compound	1		5		10		25		40		60		Coefficients		%RSD or R <sup>2</sup>	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10	Level 11	Level 12	b	m1		m2
63 Di-n-butylphthalate	1.48836 1.01281	1.39564	1.23732	1.25828	1.18392	1.06448										
64 Fluoranthene	1.17830 0.87883	1.12949	1.00597	1.03609	0.98955	0.93592								1.23440		13.69982
65 Pyrene	1.56354 1.04651	1.43532	1.21727	1.29172	1.24337	1.11779								1.02202		10.21535
67 Butylbenzylphthalate	0.79181 0.58950	0.75034	0.65701	0.69751	0.66545	0.62343										13.98958
68 Benzo(a)anthracene	1.43180 1.01280	1.28405	1.10985	1.18651	1.15593	1.07849								0.68215		10.34089
70 3,3'-Dichlorobenzidine	0.43085 0.40051	0.42550	0.41241	0.42232	0.42901	0.41000								1.17992		11.88705
71 Chrysene	1.35143 0.96561	1.22959	1.06732	1.12822	1.08253	1.01952								0.41866		2.68730
														1.12060		11.73440

20100107

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1		5		10		25		40		60		Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10	Level 11	Level 12			m1	m2	
72 bis(2-Ethylhexyl)phthalate	0.65413	0.60238	0.53834	0.59668	0.58474	0.55761							AVRG		0.57975		7.59313
73 Di-n-octylphthalate	1.18078	1.07207	0.93152	0.99606	0.93548	0.85426							AVRG		0.96321		14.08056
74 Benzo(b)fluoranthene	1.38335	1.25709	1.13293	1.23089	1.19216	1.16225							AVRG		1.23129		6.68133
75 Benzo(k)fluoranthene	1.53363	1.41623	1.17472	1.24252	1.18081	1.12154							AVRG		1.22313		16.94873
76 Benzo(a)pyrene	1.28829	1.19092	1.04494	1.12874	1.08626	1.05185							AVRG		1.11269		8.94115
78 Indeno(1,2,3-cd)pyrene	1.49419	1.43872	1.20051	1.32635	1.31103	1.29796							AVRG		1.27842		15.66552
79 Dibenzo(a,h)anthracene	1.22041	1.16531	0.97408	1.05522	1.04028	1.02887							AVRG		1.06934		8.40136

20100107

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jianqing

Compound	Level							Curve	Coefficients		RSD or R <sup>2</sup>
	1	5	10	25	40	60	b		m1	m2	
80 Benzo(g,h,i)perylene	Level 1 1.28409 1.05926	Level 2 1.23721	Level 3 1.04586	Level 4 1.14055	Level 5 1.12327	Level 6 1.10127	AVRG	1.14165		7.78178	
90 N-Nitrosodimethylamine	0.73709 0.63784	0.73026	0.62635	0.70937	0.68120	0.66832	AVRG	0.68435		6.34425	
91 Aniline	1.84018 1.52616	1.71939	1.66704	1.73027	1.67017	1.56451	AVRG	1.67396		6.30099	
92 1,2-Diphenylhydrazine	++++ ++++	++++	++++	++++	++++	++++	AVRG	0.000e+00		0.000e+00	
93 Benzidine	++++ 1326001	15731	108254	326938	638124	982581	QUAD	0.000e+00	2.74771	-0.26178	0.99540
96 p-Cymene	++++ ++++	++++	++++	++++	++++	++++	AVRG	0.000e+00		0.000e+00	
97 Caffeine	++++ ++++	++++	++++	++++	++++	++++	AVRG	0.000e+00		0.000e+00	

20100107



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jianqing

Compound	Level							Curve	Coefficients		%RSD or R <sup>2</sup>
	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	b		m1	m2	
80	Level 7										
98 Retene	0.68626	0.58515	0.55496	0.60491	0.59582	0.53050	AVRG		0.58145		9.88095
99 Perylene	++++	++++	++++	++++	++++	++++	AVRG				
100 3-beta-Coprostanol	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
101 Cholesterol	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
102 beta-Sitosterol	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
103 Pyridine	1.31390	1.20817	1.14215	1.30115	1.26933	1.20462	AVRG		0.000e+00		0.000e+00
	0.83053						AVRG		1.18141		14.05950
1 2-Fluorephenol	1.18139	1.06000	1.04658	1.16162	1.11059	1.06842	AVRG		1.09483		5.27298
	1.03519										

071007  
 071007  
 071007  
 071007  
 071007



Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Compound	1		5		10		25		40		60		Curve	b	Coefficients ml	m2	RSD or R^2
	Level 1	Level 7	Level 1	Level 7	Level 3	Level 4	Level 5	Level 6	Level 5	Level 6	Level 6	Level 6					
\$ 66 Terphenyl-d14	0.89534	0.64795	0.74546	0.73547	0.75445	0.73872	0.67449	AVRG	0.74170	10.60709							
\$ 85 p-CresoI-d4	++++	++++	++++	++++	++++	++++	++++	AVRG	0.000e+00	0.000e+00							
\$ 86 Anthracene-d10	++++	++++	++++	++++	++++	++++	++++	AVRG	0.000e+00	0.000e+00							
\$ 87 Fluoranthene-d10	++++	++++	++++	++++	++++	++++	++++	AVRG	0.000e+00	0.000e+00							
\$ 88 Dibenz(a,h)anthracene-d14	++++	++++	++++	++++	++++	++++	++++	AVRG	0.000e+00	0.000e+00							
89 Diphenyl-d10	++++	++++	++++	++++	++++	++++	++++	AVRG	0.000e+00	0.000e+00							
95 D10-1-methylnaphthalene	++++	++++	++++	++++	++++	++++	++++	AVRG	0.000e+00	0.000e+00							

07 JAN 2010 18:43

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

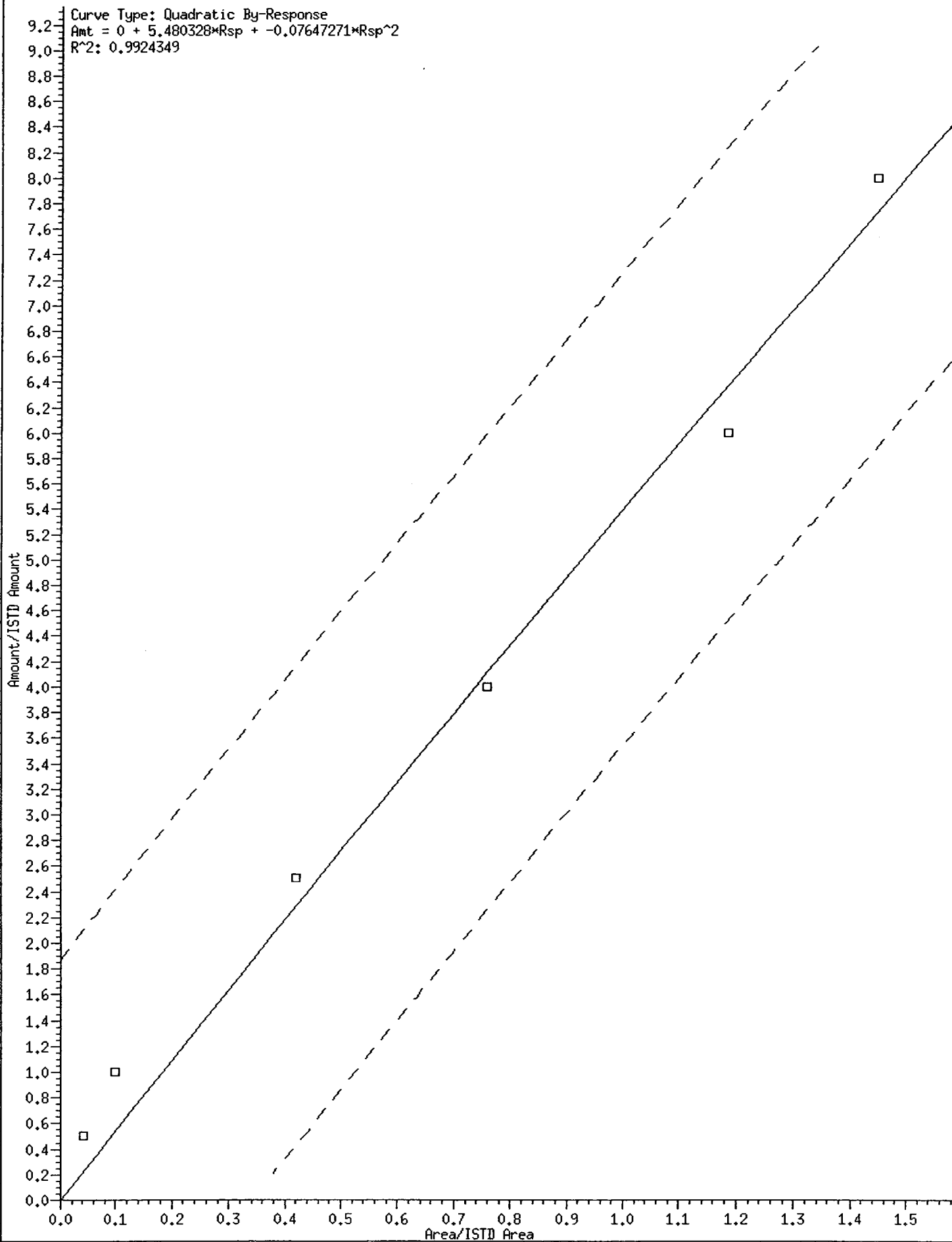
Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:43 jiangqing

Curve	Formula	Units
Averaged	Amt = Resp/ml	Response
Quad	Amt = b + m1*Resp + m2*Resp^2	Response

07 00 : 00:00

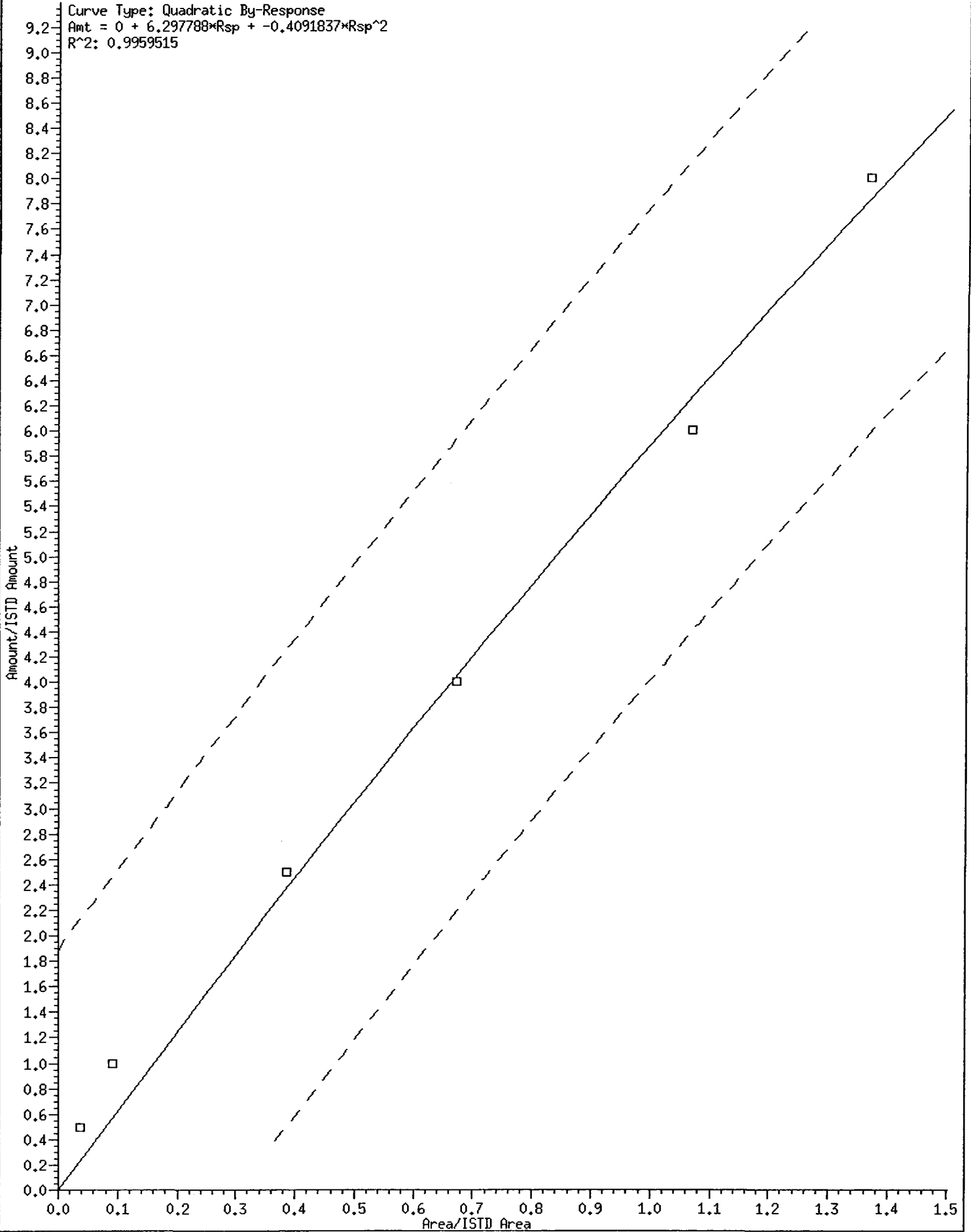
24 Benzoic acid

Curve Type: Quadratic By-Response  
Amt = 0 + 5.480328\*Rsp + -0.07647271\*Rsp^2  
R^2: 0.9924349



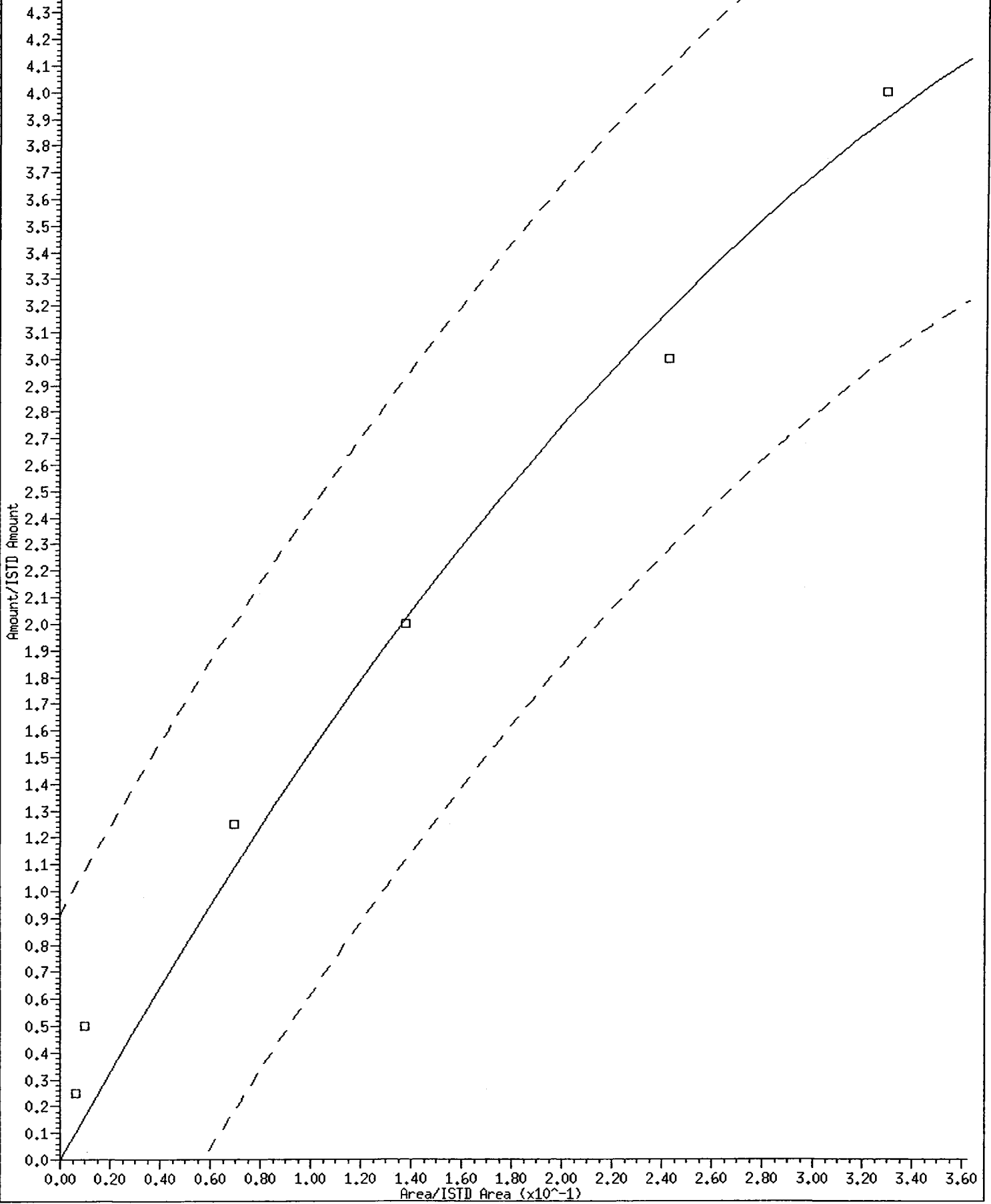
45 2,4-Dinitrophenol

Curve Type: Quadratic By-Response  
Amt = 0 + 6.297788\*Rsp + -0.4091837\*Rsp^2  
R^2: 0.9959515



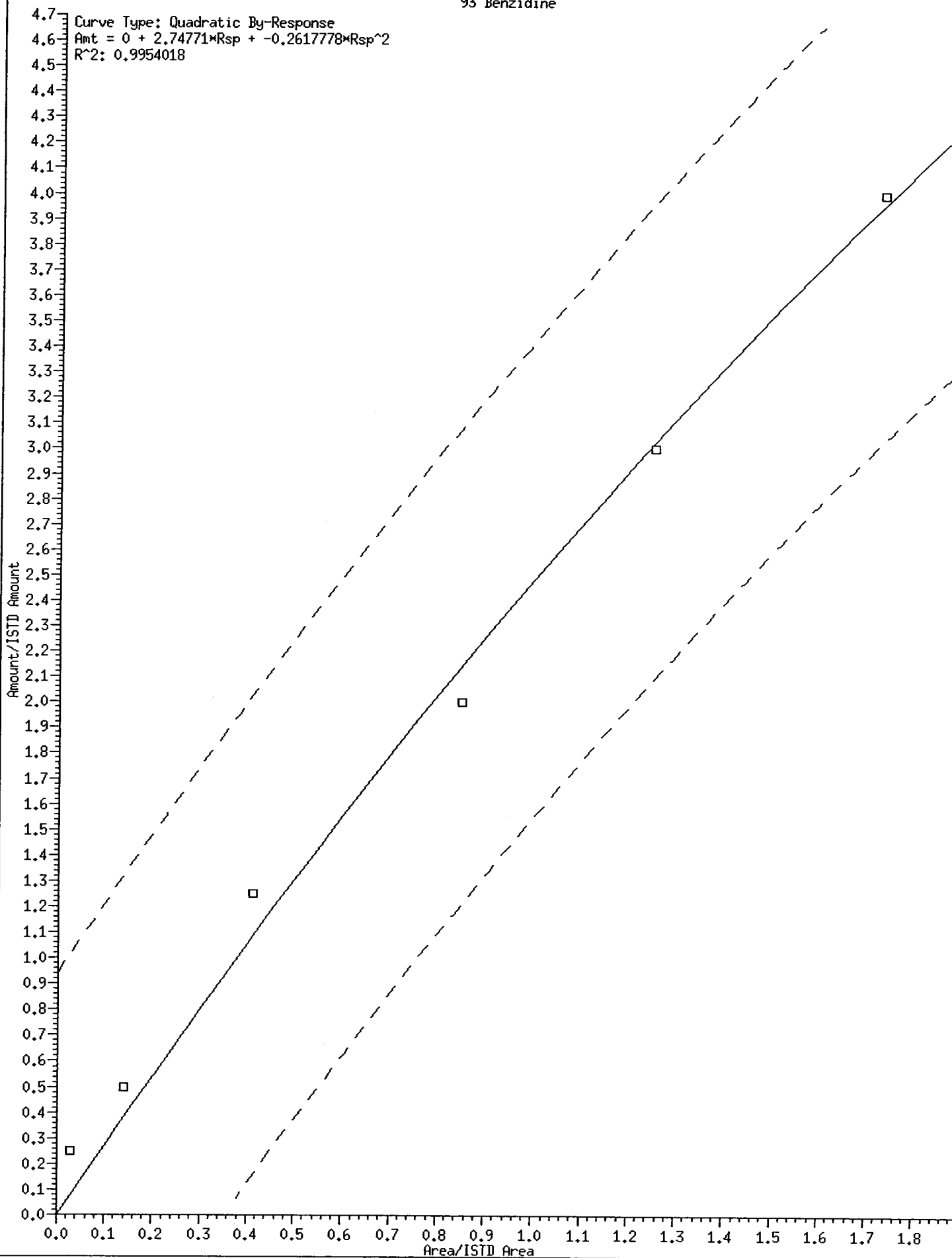
58 Pentachlorophenol

Curve Type: Quadratic By-Response  
Amt = 0 + 16.62642\*Rsp + -14.44636\*Rsp^2  
R^2: 0.9922703



93 Benzidine

Curve Type: Quadratic By-Response  
Amt = 0 + 2.74771\*Resp + -0.2617778\*Resp^2  
R^2: 0.9954018





Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Calibration File Names:

- Level 1: /chem3/nt4.i/20100107.b/01071002.d
- Level 2: /chem3/nt4.i/20100107.b/01071003.d
- Level 3: /chem3/nt4.i/20100107.b/01071004.d
- Level 4: /chem3/nt4.i/20100107.b/01071005.d
- Level 5: /chem3/nt4.i/20100107.b/01071006.d
- Level 6: /chem3/nt4.i/20100107.b/01071007.d
- Level 7: /chem3/nt4.i/20100107.b/01071008.d

*AB 01/07/10*

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 n-Decane	1.34032 0.90508	1.22550	1.12165	1.13557	1.04225	0.95216	1.10322	13.764
180 n-Octadecane	+++++ 0.32179	0.48448	0.44749	0.41867	0.38200	0.33215	0.39776	16.197
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Pentachlorobenzene	0.43309 0.34927	0.41631	0.36037	0.39552	0.38554	0.37673	0.38812	7.648
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++						+++++	+++++
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++						+++++	+++++
133 Butylatedhydroxytoluene	1.16747	0.99626	0.95184	1.01684	0.96904	0.85273		
	0.76282						0.95957	13.327
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++						+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++						+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++						+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++						+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++						+++++	+++++
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 alpha-Terpineol	0.18344 0.11137	0.15450	0.14469	0.14634	0.13466	0.11649	0.14164	17.153
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 Acetophenone	0.75335 0.55419	0.70134	0.62177	0.66273	0.62470	0.58016	0.64261	10.742
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 1,4-Dioxane	0.50026 0.42614	0.47099	0.40309	0.45806	0.44708	0.44306	0.44981	6.946
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2,3,4,6-Tetrachlorophenol	0.24901 0.25366	0.18487	0.19103	0.30942	0.25753	0.25595	0.24307	17.630

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Triphenyl Phosphate	0.22708 0.20161	0.19483	0.19155	0.20738	0.20665	0.19418	0.20332	5.987
117 Butyl Diphenyl Phosphate	0.33870 0.21774	0.27774	0.26854	0.28553	0.27341	0.23156	0.27046	14.511
116 Dibutyl Phenyl Phosphate	0.77860 0.63830	0.67988	0.67684	0.72733	0.70554	0.64023	0.69239	7.190
115 Tributyl Phosphate	1.16971 0.72415	0.98125	0.93778	0.94242	0.88213	0.77167	0.91559	15.989
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Diphenyl Oxide	0.82713 0.66090	0.72625	0.68090	0.73435	0.71527	0.67163	0.71663	7.858
112 Biphenyl	1.53958 0.98336	1.32608	1.25007	1.29076	1.21961	1.09008	1.24279	14.264

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
111 Azobenzene (1,2-DP-Hydrazine)	1.40289	1.29180	1.08769	1.06448	0.94836	0.88675	1.11366	17.837
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 3,4,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
105 1-methylnaphthalene	0.61018 0.45790	0.58857	0.50129	0.54628	0.52043	0.48860	0.53046	10.311
151 1,2,4,5-Tetrachlorobenzene	0.64139 0.45888	0.45876	0.46173	0.62001	0.49005	0.47223	0.51472	15.583
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

## Analytical Resources, Inc.

## INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Phenol	1.76426 1.34854	1.51616	1.41630	1.56620	1.48310	1.42937	1.50342	8.991
4 Bis(2-Chloroethyl)ether	1.31174 1.05244	1.25071	1.06167	1.18675	1.12489	1.09341	1.15452	8.565
6 2-Chlorophenol	1.40641 1.20414	1.25265	1.19124	1.34234	1.27646	1.26936	1.27752	5.921
7 1,3-Dichlorobenzene	1.54315 1.28012	1.47610	1.28230	1.41792	1.36562	1.34175	1.38671	7.100
9 1,4-Dichlorobenzene	1.58801 1.28344	1.50673	1.29651	1.44947	1.39756	1.35470	1.41092	7.909
11 Benzyl alcohol	0.54057 0.74500	0.66806	0.73945	0.81540	0.79105	0.75983	0.72276	12.828
12 1,2-Dichlorobenzene	1.46692 1.20032	1.40998	1.22585	1.35668	1.31094	1.27121	1.32027	7.362
13 2-Methylphenol	1.27981 0.96823	1.08253	0.99644	1.11602	1.04730	1.02087	1.07303	9.695



## Analytical Resources, Inc.

## INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000 Level 7							
14 2,2'-oxybis(1-Chloropropane)	1.61196 +++++	1.53755	1.30522	1.29207	1.14090	1.01542	1.31719	17.258
15 4-Methylphenol	1.33457 1.00685	1.10911	1.03332	1.16515	1.10003	1.07496	1.11772	9.726
16 N-Nitroso-di-n-propylamine	0.99373 0.71826	0.91891	0.78540	0.82936	0.78692	0.74900	0.82594	11.851
17 Hexachloroethane	0.62917 0.54010	0.61817	0.53731	0.60694	0.58277	0.56653	0.58300	6.318
19 Nitrobenzene	0.42263 0.29922	0.38904	0.33255	0.35857	0.33817	0.31805	0.35117	12.141
20 Isophorone	0.61662 0.48860	0.58982	0.50985	0.55361	0.52895	0.50670	0.54202	8.683
21 2-Nitrophenol	0.20356 0.18512	0.18755	0.17701	0.20345	0.19399	0.19274	0.19192	5.039
22 2,4-Dimethylphenol	0.41132 0.31475	0.35947	0.33348	0.36798	0.34643	0.33383	0.35247	8.911
23 Bis(2-Chloroethoxy)methane	0.43624 0.33191	0.41350	0.35963	0.38551	0.36886	0.34949	0.37788	9.703

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
24 Benzoic acid	+++++ 0.18012	0.08392	0.09876	0.16779	0.18921	0.19717	0.15283	31.961
25 2,4-Dichlorophenol	0.31070 0.25998	0.26954	0.26170	0.29765	0.27829	0.27204	0.27855	6.797
26 1,2,4-Trichlorobenzene	0.33202 0.27098	0.31819	0.27673	0.30215	0.29212	0.28322	0.29649	7.545
28 Naphthalene	1.16905 0.73899	1.09590	0.93521	0.98181	0.90208	0.81456	0.94823	15.857
29 4-Chloroaniline	0.43890 0.38164	0.41294	0.38349	0.42519	0.42237	0.39578	0.40861	5.402
30 Hexachlorobutadiene	0.18856 0.15061	0.17918	0.15663	0.16953	0.16400	0.15769	0.16660	8.091
31 4-Chloro-3-methylphenol	0.34789 0.27114	0.29939	0.27016	0.31167	0.29694	0.28687	0.29772	8.991
32 2-Methylnaphthalene	0.62822 0.46961	0.55493	0.52860	0.55940	0.52973	0.48729	0.53682	9.703
33 Hexachlorocyclopentadiene	0.26290 0.30465	0.30139	0.26261	0.32354	0.32126	0.31487	0.29875	8.659

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000 Level 7							
34 2,4,6-Trichlorophenol	0.36901 0.34560	0.32697	0.30137	0.35386	0.34615	0.34886	0.34169	6.349
35 2,4,5-Trichlorophenol	0.36525 0.34509	0.32888	0.30535	0.35851	0.36236	0.36093	0.34662	6.409
37 2-Chloronaphthalene	1.21819 0.89746	1.14115	0.98797	1.07321	1.01727	0.95523	1.04150	10.648
38 2-Nitroaniline	0.36486 0.28165	0.32735	0.31232	0.33865	0.32372	0.30193	0.32150	8.296
39 Dimethylphthalate	1.41380 1.04924	1.31605	1.13387	1.23710	1.19613	1.14477	1.21299	10.071
40 Acenaphthylene	1.88663 1.32812	1.79977	1.56064	1.65004	1.55030	1.41918	1.59924	12.380
41 2,6-Dinitrotoluene	0.29752 0.25554	0.29186	0.25686	0.29100	0.28224	0.27022	0.27789	6.184
43 3-Nitroaniline	0.40712 0.37057	0.38415	0.37120	0.41352	0.40853	0.38698	0.39172	4.594
44 Acenaphthene	1.22976 0.92146	1.14179	0.99650	1.08451	1.03422	0.98227	1.05579	9.927

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
45 2,4-Dinitrophenol	+++++ 0.17080	0.07429	0.09152	0.15506	0.16844	0.17790	0.13967	32.161 <-
46 Dibenzofuran	1.72079 1.21332	1.49944	1.41467	1.47702	1.42137	1.31795	1.43780	11.033
47 4-Nitrophenol	0.17717 0.14883	0.17423	0.15506	0.19634	0.18540	0.17973	0.17382	9.581
48 2,4-Dinitrotoluene	0.36959 0.36668	0.38271	0.34894	0.39565	0.39068	0.38339	0.37681	4.275
49 Fluorene	1.40968 0.93263	1.32813	1.13899	1.22540	1.15111	1.05090	1.17669	13.750
50 Diethylphthalate	1.48785 1.14261	1.38198	1.21869	1.31661	1.27129	1.21095	1.29000	9.047
51 4-Chlorophenyl-phenylether	0.63766 0.44145	0.58137	0.50490	0.54971	0.52812	0.49445	0.53395	11.905
52 4-Nitroaniline	0.32492 0.29978	0.30155	0.28344	0.32181	0.32034	0.30997	0.30883	4.841
53 4,6-Dinitro-2-methylphenol	+++++ 0.14444	0.09884	0.10741	0.13946	0.14081	0.14442	0.12923	15.860

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
54 N-Nitrosodiphenylamine	0.51334 0.43039	0.47724	0.41317	0.45455	0.44048	0.43476	0.45199	7.454
56 4-Bromophenyl-phenylether	0.22296 0.18133	0.20682	0.18167	0.19751	0.19420	0.18833	0.19612	7.587
57 Hexachlorobenzene	0.22357 0.18819	0.20465	0.17727	0.19483	0.19222	0.18530	0.19515	7.748
58 Pentachlorophenol	++++ 0.08225	0.02425	0.01980	0.05575	0.06895	0.08078	0.05530	49.763 <-
60 Phenanthrene	1.26063 0.88145	1.15513	0.99023	1.05006	1.00666	0.93589	1.04001	12.512
61 Anthracene	1.22848 0.85723	1.14091	0.99909	1.04058	0.98956	0.91398	1.02426	12.444
62 Carbazole	0.84554 0.52302	0.60111	0.53143	0.68106	0.56734	0.54025	0.61282	18.957
63 Di-n-butylphthalate	1.48836 1.01281	1.39564	1.23732	1.25828	1.18392	1.06448	1.23440	13.700
64 Fluoranthene	1.17830 0.87883	1.12949	1.00597	1.03609	0.98955	0.93592	1.02202	10.215

## Analytical Resources, Inc.

## INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
65 Pyrene	1.56354 1.04651	1.43532	1.21727	1.29172	1.24337	1.11779	1.27365	13.990
67 Butylbenzylphthalate	0.79181 0.58950	0.75034	0.65701	0.69751	0.66545	0.62343	0.68215	10.341
68 Benzo(a)anthracene	1.43180 1.01280	1.28405	1.10985	1.18651	1.15593	1.07849	1.17992	11.887
70 3,3'-Dichlorobenzidine	0.43085 0.40051	0.42550	0.41241	0.42232	0.42901	0.41000	0.41866	2.687
71 Chrysene	1.35143 0.96561	1.22959	1.06732	1.12822	1.08253	1.01952	1.12060	11.734
72 bis(2-Ethylhexyl)phthalate	0.65413 0.52438	0.60238	0.53834	0.59668	0.58474	0.55761	0.57975	7.593
73 Di-n-octylphthalate	1.18078 0.77228	1.07207	0.93152	0.99606	0.93548	0.85426	0.96321	14.081
74 Benzo(b)fluoranthene	1.38335 1.26037	1.25709	1.13293	1.23089	1.19216	1.16225	1.23129	6.681
75 Benzo(k)fluoranthene	1.53363 0.89248	1.41623	1.17472	1.24252	1.18081	1.12154	1.22313	16.949

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
76 Benzo(a)pyrene	1.28829 0.99786	1.19092	1.04494	1.12874	1.08626	1.05185	1.11269	8.941
78 Indeno(1,2,3-cd)pyrene	1.49419 0.88019	1.43872	1.20051	1.32635	1.31103	1.29796	1.27842	15.666
79 Dibenzo(a,h)anthracene	1.22041 1.00123	1.16531	0.97408	1.05522	1.04028	1.02887	1.06934	8.401
80 Benzo(g,h,i)perylene	1.28409 1.05926	1.23721	1.04586	1.14055	1.12327	1.10127	1.14165	7.782
90 N-Nitrosodimethylamine	0.73709 0.63784	0.73026	0.62635	0.70937	0.68120	0.66832	0.68435	6.344
91 Aniline	1.84018 1.52616	1.71939	1.66704	1.73027	1.67017	1.56451	1.67396	6.301
92 1,2-Diphenylhydrazine	++++ ++++	++++	++++	++++	++++	++++	++++	++++
93 Benzidine	++++ 0.43143	0.10714	0.28089	0.32905	0.42507	0.41636	0.33166	37.863 <-
96 p-Cymene	++++ ++++	++++	++++	++++	++++	++++	++++	++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 Retene	0.68626 0.51252	0.58515	0.55496	0.60491	0.59582	0.53050	0.58145	9.881
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Pyridine	1.31390 0.83053	1.20817	1.14215	1.30115	1.26933	1.20462	1.18141	14.059
\$ 1 2-Fluorophenol	1.18139 1.03519	1.06000	1.04658	1.16162	1.11059	1.06842	1.09483	5.273
\$ 137 d8-1,4-Dioxane	0.52740 0.42716	0.47945	0.40771	0.46070	0.44396	0.44298	0.45562	8.569



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-JAN-2010 13:14  
 End Cal Date : 07-JAN-2010 17:02  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem3/nt4.i/20100107.b/SW846100107.m  
 Cal Date : 07-Jan-2010 18:41 jianqing  
 Curve Type : Average

Compound	1.000	5.000	10.000	25.000	40.000	60.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	80.000							
	Level 7							
\$ 2 Phenol-d5	1.24796 1.02078	1.11720	1.10182	1.17504	1.11654	1.05993	1.11990	6.643
\$ 5 2-Chlorophenol-d4	1.24733 1.04848	1.05723	1.04552	1.16114	1.11988	1.07379	1.10762	6.753
\$ 10 1,2-Dichlorobenzene-d4	0.86058 0.73262	0.76857	0.76113	0.82766	0.79605	0.76048	0.78674	5.644
\$ 18 Nitrobenzene-d5	0.39496 0.30739	0.34385	0.34189	0.36487	0.34271	0.32106	0.34525	8.272
\$ 36 2-Fluorobiphenyl	1.33249 1.01888	1.16160	1.14197	1.21507	1.14273	1.06940	1.15459	8.757
\$ 55 2,4,6-Tribromophenol	0.12093 0.11512	0.11217	0.11081	0.12613	0.12476	0.12250	0.11892	5.191
\$ 66 Terphenyl-d14	0.89534 0.64795	0.74546	0.73547	0.75445	0.73872	0.67449	0.74170	10.607
\$ 85 p-Cresol-d4	++++ ++++	++++	++++	++++	++++	++++	++++	++++
\$ 86 Anthracene-d10	++++ ++++	++++	++++	++++	++++	++++	++++	++++

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100107.b/01071002.d  
Lab Smp Id: IC010107 Client Smp ID: IC010107  
Inj Date : 07-JAN-2010 13:14  
Operator : JZ Inst ID: nt4.i  
Smp Info : IC010107  
Misc Info : 10-  
Comment : 1ul Injection  
Method : /chem3/nt4.i/20100107.b/SW846100107.m  
Meth Date : 07-Jan-2010 18:43 jianqing Quant Type: ISTD  
Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
Als bottle: 2 Calibration Sample, Level: 1  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: ICAL.sub  
Target Version: 3.50

*Handwritten:* 01/07/10

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112	6.723	6.723	(0.777)	14800	1.00000	1.079
\$ 2 Phenol-d5	99	8.209	8.209	(0.948)	15634	1.00000	1.114
3 Phenol	94	8.227	8.227	(0.950)	22102	1.00000	1.174
\$ 5 2-Chlorophenol-d4	132	8.362	8.362	(0.966)	15626	1.00000	1.126
4 Bis(2-Chloroethyl)ether	93	8.303	8.303	(0.959)	16433	1.00000	1.136
6 2-Chlorophenol	128	8.386	8.386	(0.969)	17619	1.00000	1.101
7 1,3-Dichlorobenzene	146	8.597	8.597	(0.993)	19332	1.00000	1.113
* 8 1,4-Dichlorobenzene-d4	152	8.656	8.656	(1.000)	250552	20.0000	
9 1,4-Dichlorobenzene	146	8.685	8.685	(1.003)	19894	1.00000	1.126
\$ 10 1,2-Dichlorobenzene-d4	152	8.955	8.955	(1.035)	10781	1.00000	1.094 (M)
12 1,2-Dichlorobenzene	146	8.979	8.979	(1.037)	18377	1.00000	1.111
11 Benzyl alcohol	108	8.926	8.926	(1.031)	6772	1.00000	0.7479
14 2,2'-oxybis(1-Chloropropane)	45	9.173	9.173	(1.060)	20194	1.00000	1.278 (M)
13 2-Methylphenol	108	9.155	9.155	(1.058)	16033	1.00000	1.193
17 Hexachloroethane	117	9.467	9.467	(1.094)	7882	1.00000	1.079
16 N-Nitroso-di-n-propylamine	70	9.378	9.378	(1.083)	12449	1.00000	1.203
15 4-Methylphenol	108	9.384	9.384	(1.084)	16719	1.00000	1.194
\$ 18 Nitrobenzene-d5	82	9.578	9.578	(0.894)	17672	1.00000	1.144
19 Nitrobenzene	77	9.608	9.608	(0.897)	18910	1.00000	1.203
20 Isophorone	82	9.978	9.978	(0.931)	27590	1.00000	1.138
21 2-Nitrophenol	139	10.130	10.130	(0.946)	9108	1.00000	1.061
22 2,4-Dimethylphenol	107	10.224	10.224	(0.954)	18404	1.00000	1.167
23 Bis(2-Chloroethoxy)methane	93	10.359	10.359	(0.967)	19519	1.00000	1.154
24 Benzoic acid	105	10.342	10.342	(0.965)	5639	2.00000	0.9002 (M)
25 2,4-Dichlorophenol	162	10.518	10.518	(0.982)	13902	1.00000	1.115
26 1,2,4-Trichlorobenzene	180	10.647	10.647	(0.994)	14856	1.00000	1.120
* 27 Naphthalene-d8	136	10.712	10.712	(1.000)	894883	20.0000	

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====	==	=====	=====	=====	=====	=====
28 Naphthalene	128	10.741	10.741	(1.003)	52308	1.00000	1.233
29 4-Chloroaniline	127	10.871	10.871	(1.015)	19638	1.00000	1.074
30 Hexachlorobutadiene	225	11.047	11.047	(1.031)	8437	1.00000	1.132
31 4-Chloro-3-methylphenol	107	11.687	11.687	(1.091)	15566	1.00000	1.169
32 2-Methylnaphthalene	141	11.869	11.869	(1.108)	28109	1.00000	1.170
33 Hexachlorocyclopentadiene	237	12.239	12.239	(0.900)	6774	1.00000	0.8800
34 2,4,6-Trichlorophenol	196	12.386	12.386	(0.911)	9508	1.00000	1.080
35 2,4,5-Trichlorophenol	196	12.451	12.451	(0.916)	9411	1.00000	1.054
\$ 36 2-Fluorobiphenyl	172	12.504	12.504	(0.920)	34333	1.00000	1.154
37 2-Chloronaphthalene	162	12.656	12.656	(0.931)	31388	1.00000	1.170
38 2-Nitroaniline	65	12.880	12.880	(0.947)	9401	1.00000	1.135
39 Dimethylphthalate	163	13.226	13.226	(0.973)	36428	1.00000	1.166
40 Acenaphthylene	152	13.344	13.344	(0.981)	48611	1.00000	1.180
41 2,6-Dinitrotoluene	165	13.332	13.332	(0.981)	7666	1.00000	1.071
* 42 Acenaphthene-d10	164	13.596	13.596	(1.000)	515321	20.0000	
43 3-Nitroaniline	138	12.880	12.880	(0.947)	10490	1.00000	1.039
44 Acenaphthene	153	13.649	13.649	(1.004)	31686	1.00000	1.165
45 2,4-Dinitrophenol	184	13.725	13.725	(1.010)	1866	2.00000	0.5799(M)
46 Dibenzofuran	168	13.908	13.908	(1.023)	44338	1.00000	1.197
47 4-Nitrophenol	109	13.866	13.866	(1.020)	4565	1.00000	1.019
48 2,4-Dinitrotoluene	165	13.972	13.972	(1.028)	9523	1.00000	0.9809
50 Diethylphthalate	149	14.383	14.383	(1.058)	38336	1.00000	1.153
49 Fluorene	166	14.472	14.472	(1.064)	36322	1.00000	1.198
51 4-Chlorophenyl-phenylether	204	14.477	14.477	(1.065)	16430	1.00000	1.194
52 4-Nitroaniline	138	14.560	14.560	(1.071)	8372	1.00000	1.052
53 4,6-Dinitro-2-methylphenol	198	14.630	14.630	(0.914)	5949	2.00000	1.201
54 N-Nitrosodiphenylamine	169	14.683	14.683	(0.917)	20982	1.00000	1.136
\$ 55 2,4,6-Tribromophenol	330	14.900	14.900	(1.096)	3116	1.00000	1.017
56 4-Bromophenyl-phenylether	248	15.270	15.270	(0.954)	9113	1.00000	1.137
57 Hexachlorobenzene	284	15.511	15.511	(0.969)	9138	1.00000	1.146
58 Pentachlorophenol	266	15.811	15.811	(0.988)	721	1.00000	0.3534
* 59 Phenanthrene-d10	188	16.005	16.005	(1.000)	817465	20.0000	
60 Phenanthrene	178	16.034	16.034	(1.002)	51526	1.00000	1.212
61 Anthracene	178	16.110	16.110	(1.007)	50212	1.00000	1.199
62 Carbazole	167	16.387	16.387	(1.024)	34560	1.00000	1.380
63 Di-n-butylphthalate	149	17.056	17.056	(1.066)	60834	1.00000	1.206
64 Fluoranthene	202	17.996	17.996	(1.124)	48161	1.00000	1.153
65 Pyrene	202	18.360	18.360	(0.902)	50987	1.00000	1.228
\$ 66 Terphenyl-d14	244	18.642	18.642	(0.916)	29197	1.00000	1.207
67 Butylbenzylphthalate	149	19.500	19.500	(0.958)	25821	1.00000	1.161
68 Benzo(a)anthracene	228	20.328	20.328	(0.999)	46691	1.00000	1.213
* 69 Chrysene-d12	240	20.358	20.358	(1.000)	652198	20.0000	
70 3,3'-Dichlorobenzidine	252	20.317	20.317	(0.998)	14050	1.00000	1.029
71 Chrysene	228	20.399	20.399	(1.002)	44070	1.00000	1.206
72 bis(2-Ethylhexyl)phthalate	149	20.487	20.487	(0.956)	36134	1.00000	1.128
* 134 Di-n-octylphthalate-d4	153	21.421	21.421	(1.000)	1104794	20.0000	
73 Di-n-octylphthalate	149	21.433	21.433	(1.001)	65226	1.00000	1.226

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====	==	=====	=====	=====	=====	=====
74 Benzo(b)fluoranthene	252	21.997	21.997	(0.975)	47526	1.00000	1.123
75 Benzo(k)fluoranthene	252	22.032	22.032	(0.977)	52689	1.00000	1.254
76 Benzo(a)pyrene	252	22.467	22.467	(0.996)	44260	1.00000	1.158
* 77 Perylene-d12	264	22.561	22.561	(1.000)	687115	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.388	24.388	(1.081)	51334	1.00000	1.169
79 Dibenzo(a,h)anthracene	278	24.411	24.411	(1.082)	41928	1.00000	1.141
80 Benzo(g,h,i)perylene	276	24.916	24.916	(1.104)	44116	1.00000	1.125
90 N-Nitrosodimethylamine	74	4.215	4.215	(0.487)	9234	1.00000	1.077
103 Pyridine	79	4.209	4.209	(0.486)	16460	1.00000	1.112
91 Aniline	93	8.209	8.209	(0.948)	23053	1.00000	1.099
105 1-methylnaphthalene	141	12.045	12.045	(1.124)	27302	1.00000	1.150
93 Benzidine	184	18.225	18.225	(0.895)	1151	1.00000	0.1220 (M)
111 Azobenzene (1,2-DP-Hydrazine)	77	14.736	14.736	(1.084)	36147	1.00000	1.314
143 1,4-Dioxane	88	3.445	3.445	(0.398)	6267	1.00000	1.112
\$ 137 d8-1,4-Dioxane	96	3.381	3.381	(0.391)	6607	1.00000	1.158
151 1,2,4,5-Tetrachlorobenzene	216	12.210	12.210	(0.898)	16526	1.00000	1.246
120 2,3,4,6-Tetrachlorophenol	232	14.195	14.195	(1.044)	6416	1.00000	1.024
144 alpha-Terpineol	59	10.747	10.747	(1.003)	8208	1.00000	1.295
98 Retene	219	18.901	18.901	(0.928)	22379	1.00000	1.180
133 Butylatedhydroxytoluene	205	13.731	13.731	(1.010)	30081	1.00000	1.217
115 Tributyl Phosphate	99	14.730	14.730	(0.920)	47810	1.00000	1.278
116 Dibutyl Phenyl Phosphate	175	16.492	16.492	(1.030)	31824	1.00000	1.125
117 Butyl Diphenyl Phosphate	94	18.202	18.202	(0.894)	11045	1.00000	1.252
118 Triphenyl Phosphate	326	19.823	19.823	(0.974)	7405	1.00000	1.117
123 Acetophenone	105	9.337	9.337	(0.872)	33708	1.00000	1.172
179 n-Decane	57	8.456	8.456	(0.977)	16791	1.00000	1.215
180 n-Octadecane	57	15.846	15.846	(0.990)	22929	1.00000	1.332
168 Pentachlorobenzene	250	13.949	13.949	(1.026)	11159	1.00000	1.116
113 Diphenyl Oxide	170	12.833	12.833	(0.944)	21312	1.00000	1.154
112 Biphenyl	154	12.645	12.645	(0.930)	39669	1.00000	1.239

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01071002.d  
 Lab Smp Id: IC010107  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
 Misc Info: 10-

Calibration Date: 07-JAN-2010  
 Calibration Time: 15:22  
 Client Smp ID: IC010107  
 Level:  
 Sample Type:

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	250552	-12.43
27 Naphthalene-d8	1035557	517778	2071114	894883	-13.58
42 Acenaphthene-d10	594267	297134	1188534	515321	-13.28
59 Phenanthrene-d10	951721	475860	1903442	817465	-14.11
69 Chrysene-d12	794862	397431	1589724	652198	-17.95
134 Di-n-octylphthala	1280700	640350	2561400	1104794	-13.74
77 Perylene-d12	826094	413047	1652188	687115	-16.82

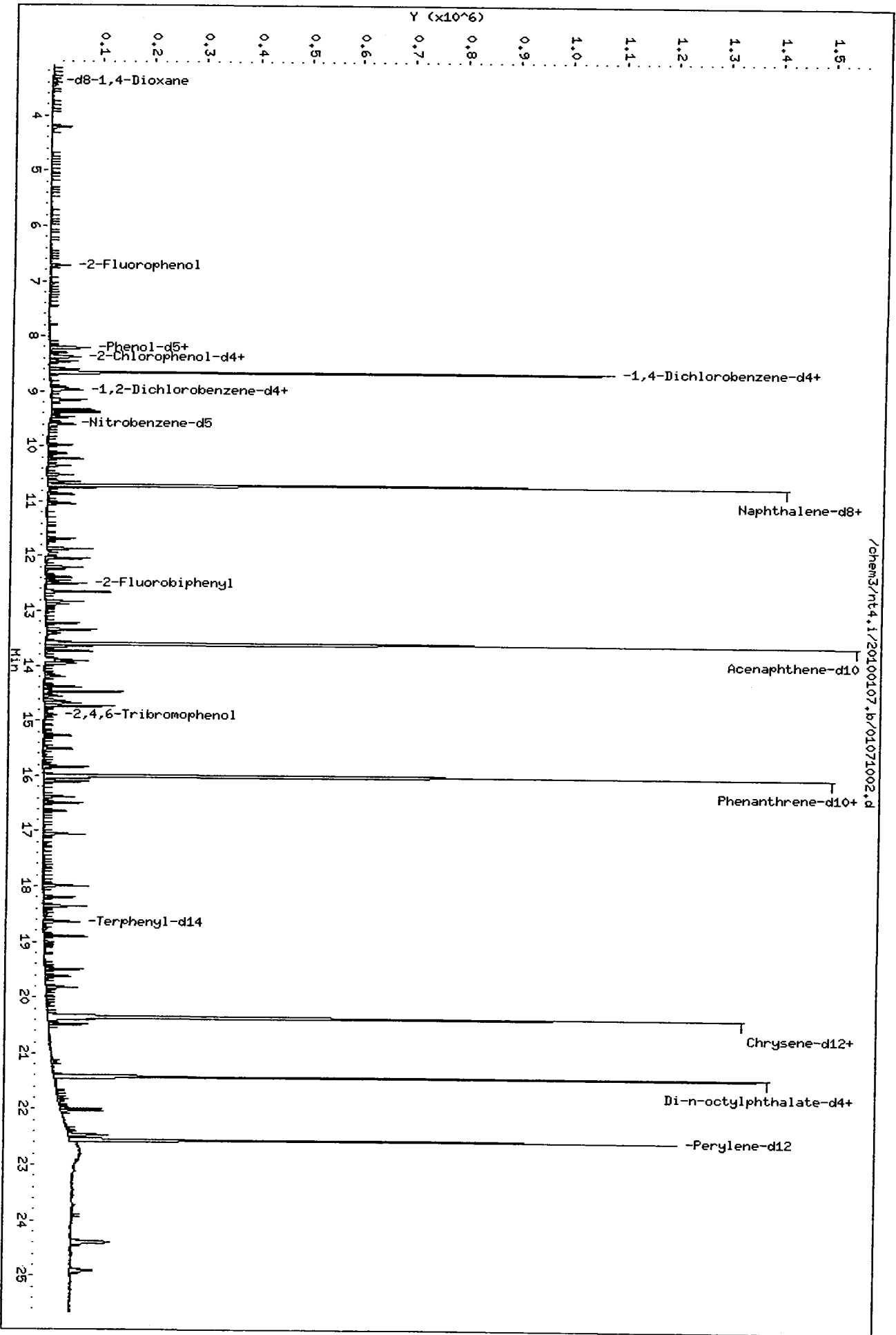
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.66	-0.08
27 Naphthalene-d8	10.71	10.21	11.21	10.71	-0.01
42 Acenaphthene-d10	13.60	13.10	14.10	13.60	-0.01
59 Phenanthrene-d10	16.01	15.51	16.51	16.00	-0.01
69 Chrysene-d12	20.36	19.86	20.86	20.36	-0.03
134 Di-n-octylphthala	21.42	20.92	21.92	21.42	0.00
77 Perylene-d12	22.56	22.06	23.06	22.56	0.00

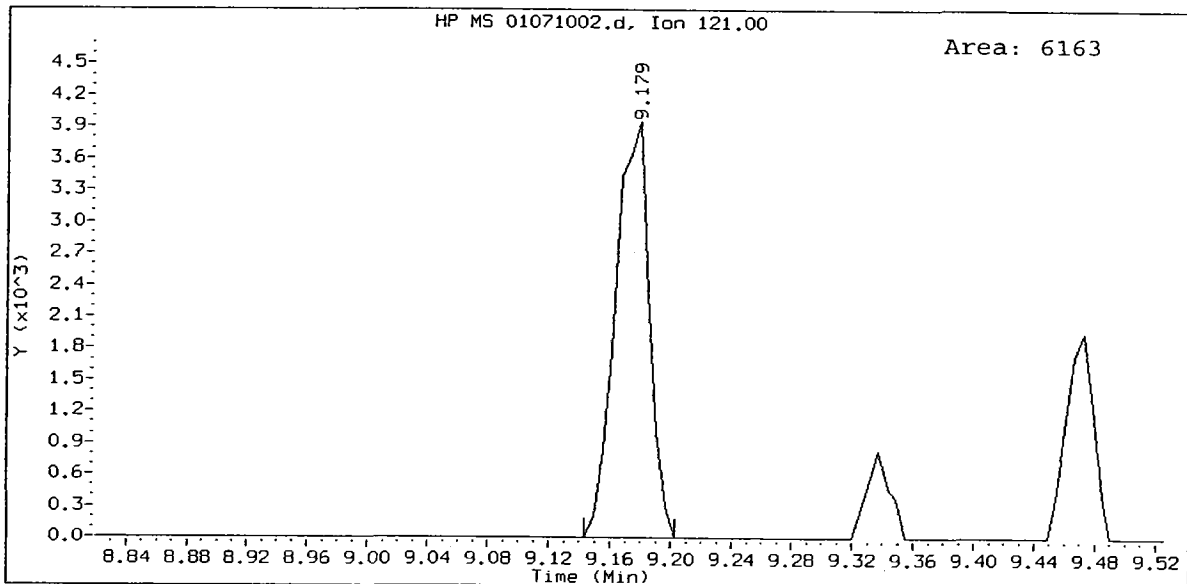
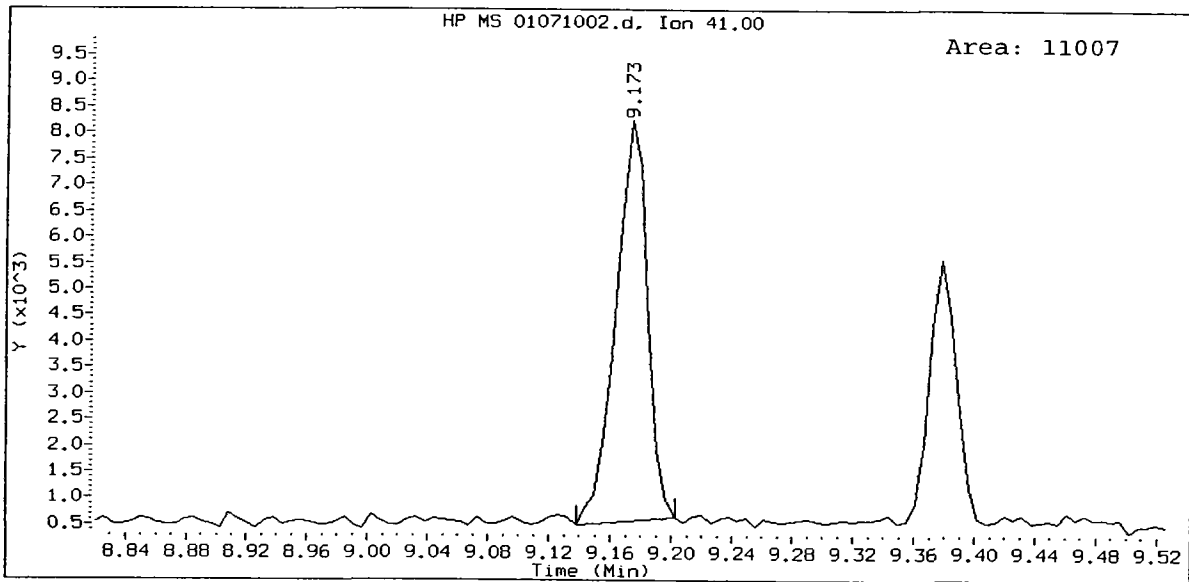
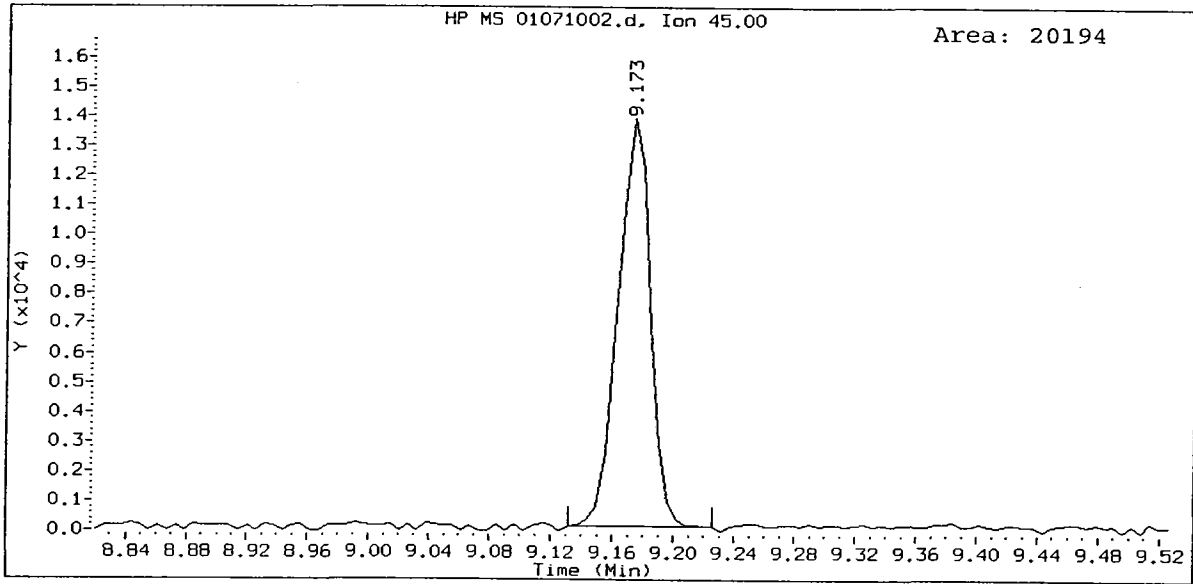
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Column phase: ZB-5msi

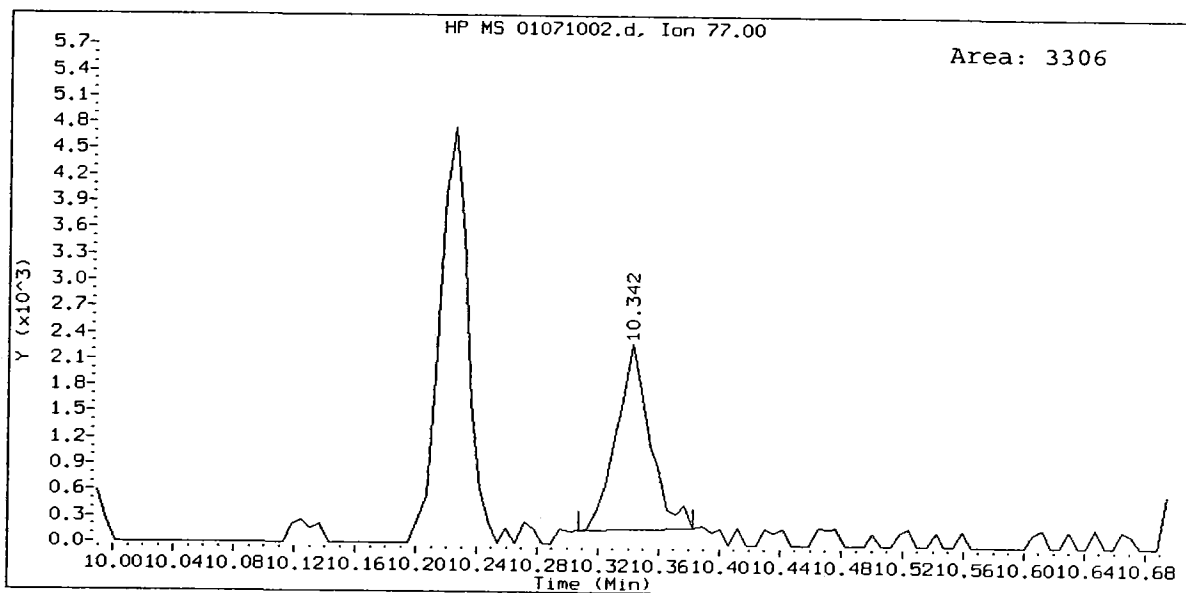
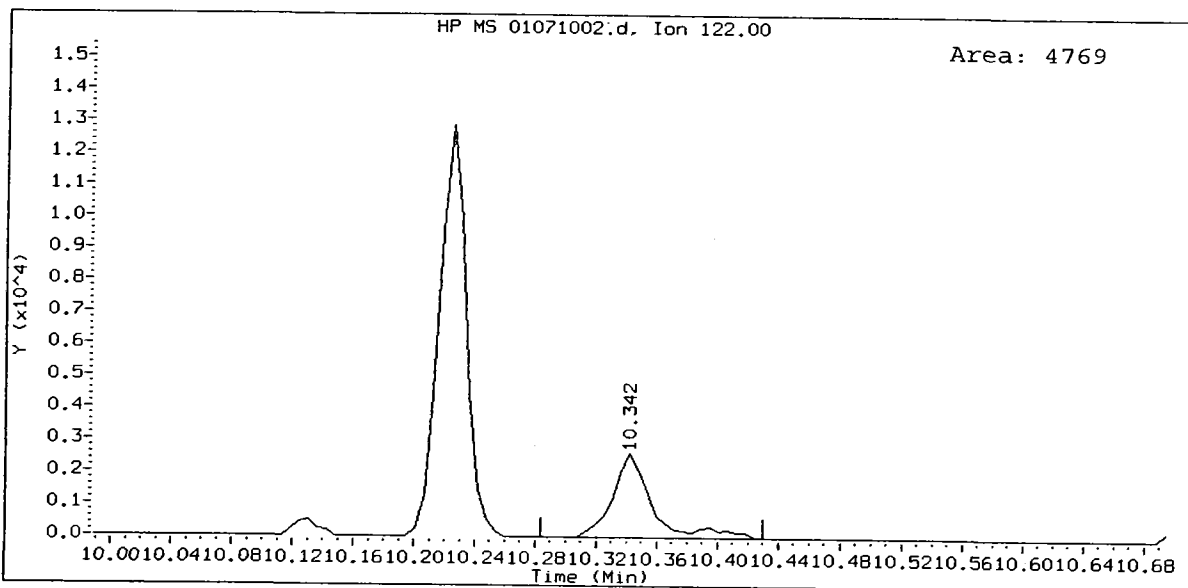
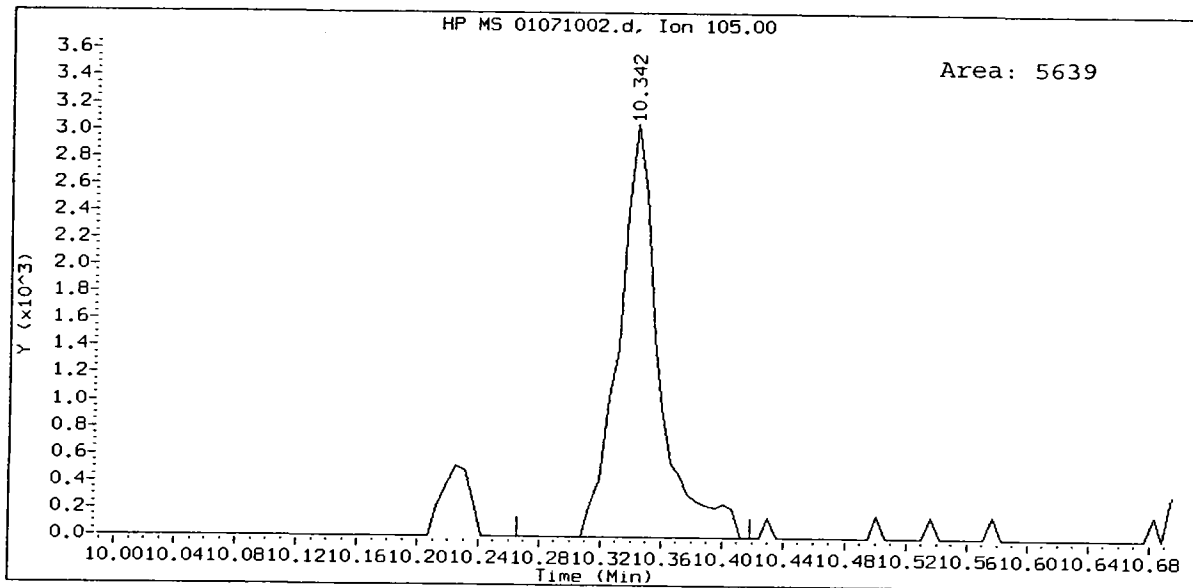
Instrument: nt4.i

Operator: JZ  
Column diameter: 0.32

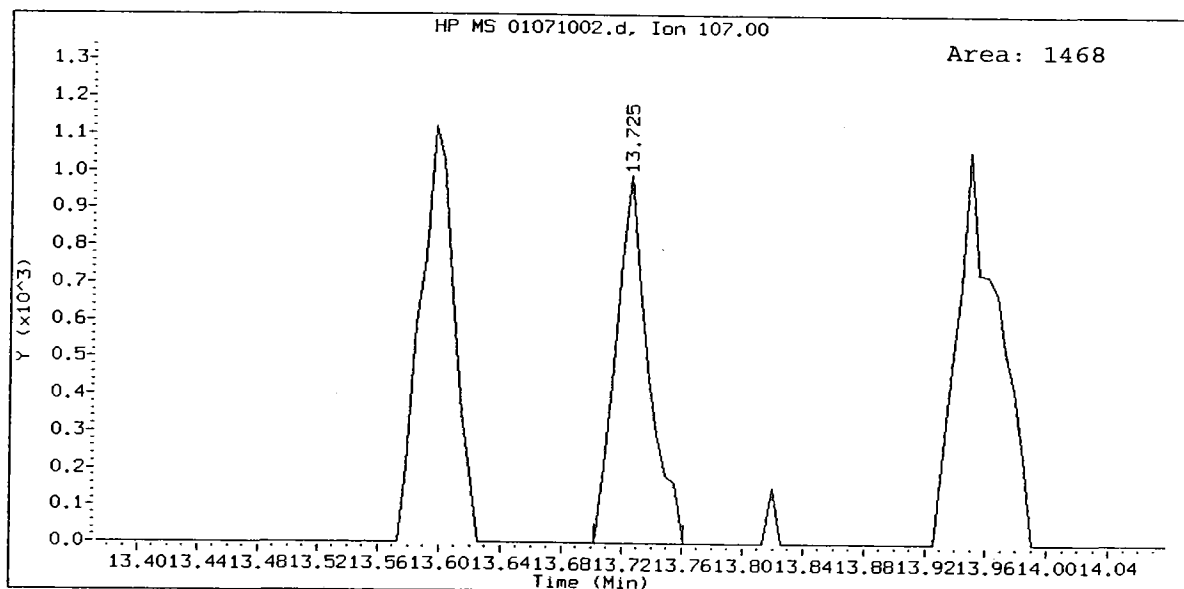
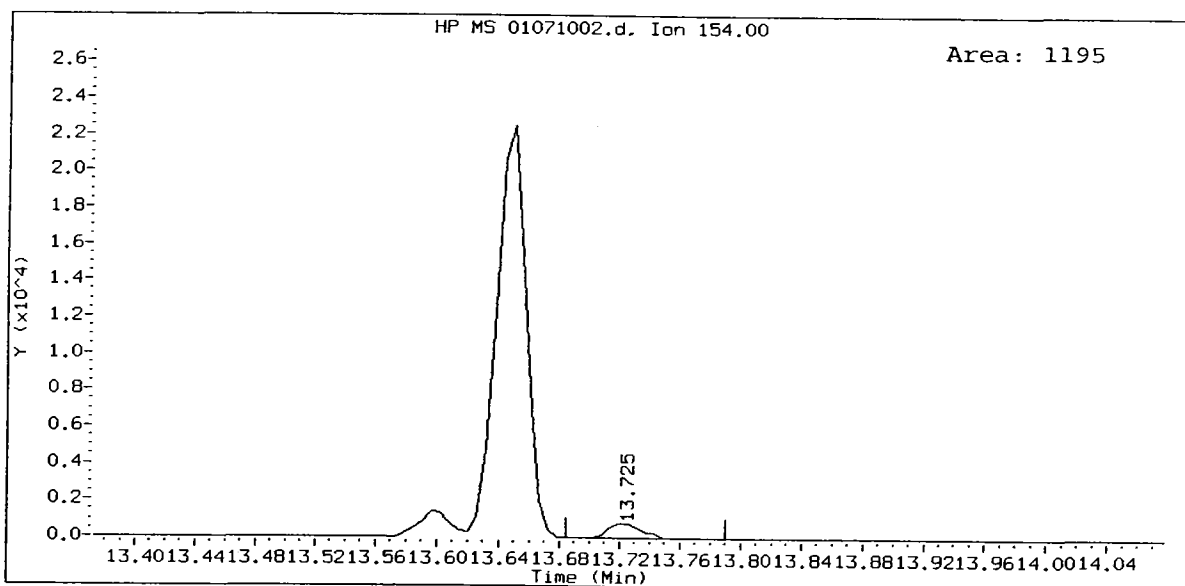
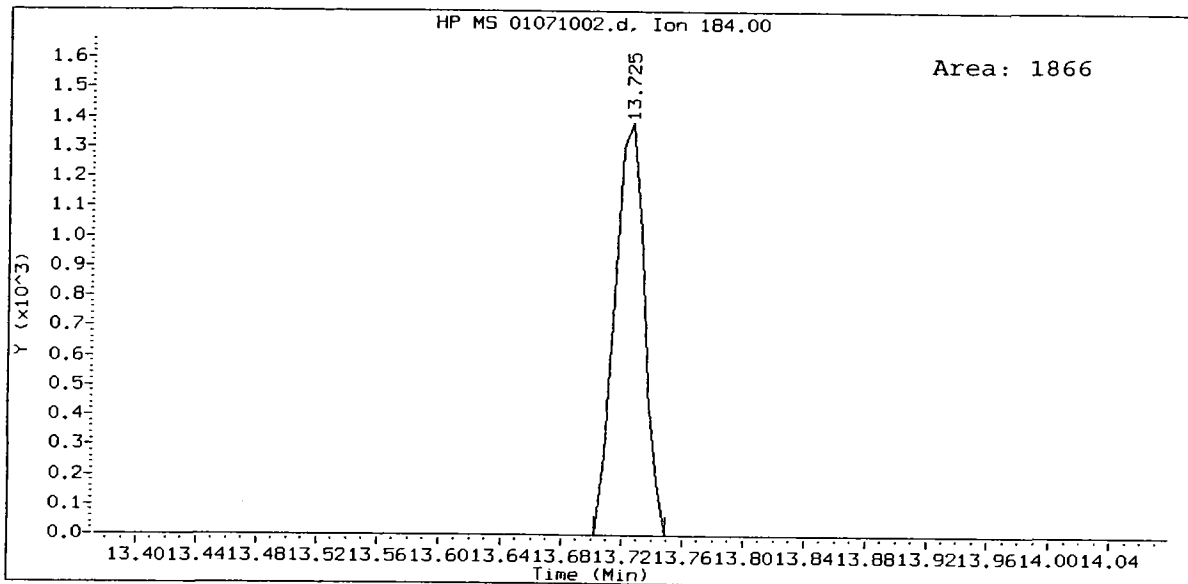




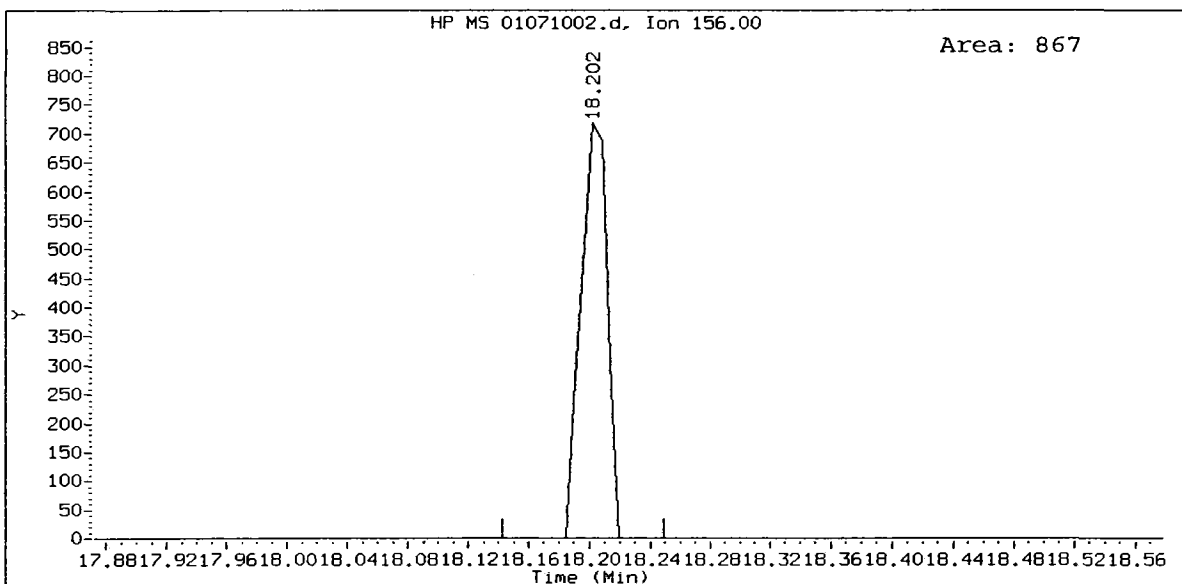
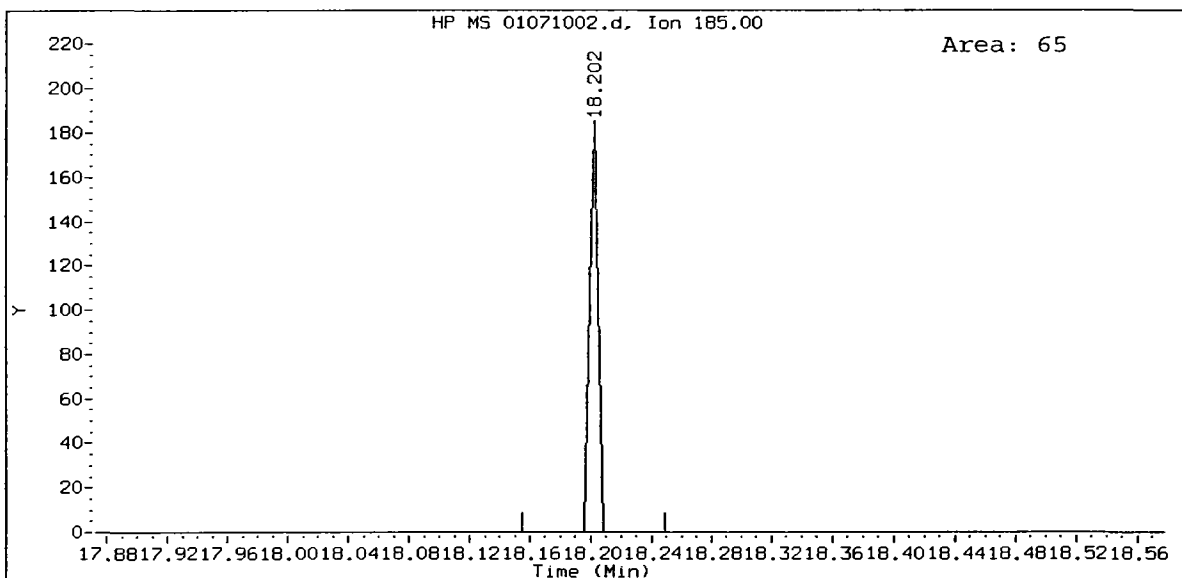
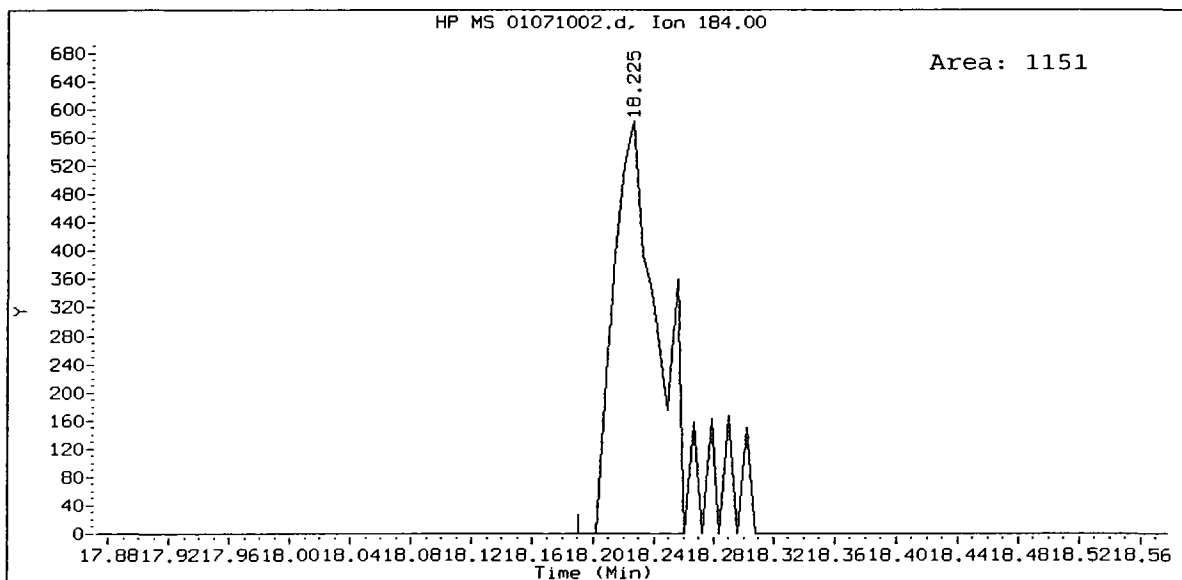
IC010107, /chem3/nt4.i/20100107.b/01071002.d  
Benzoic acid Amount: 0.90



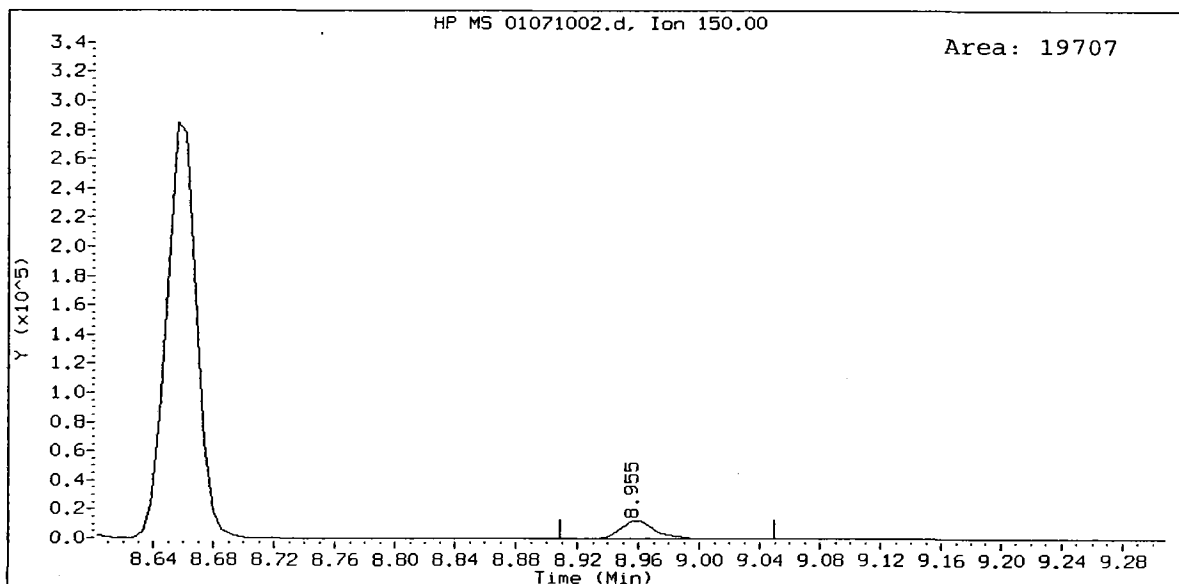
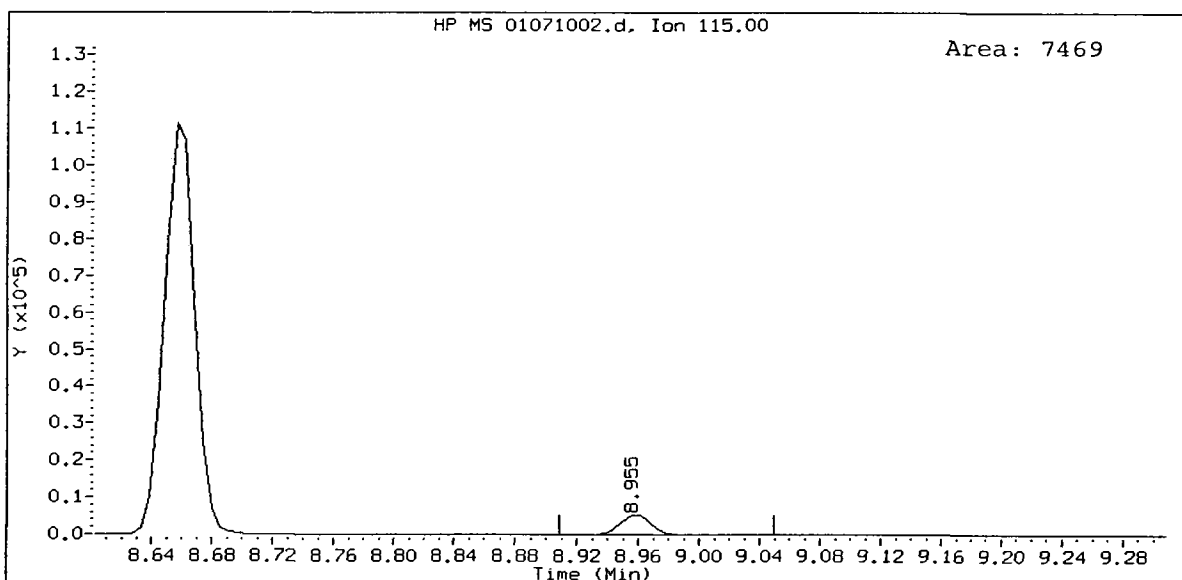
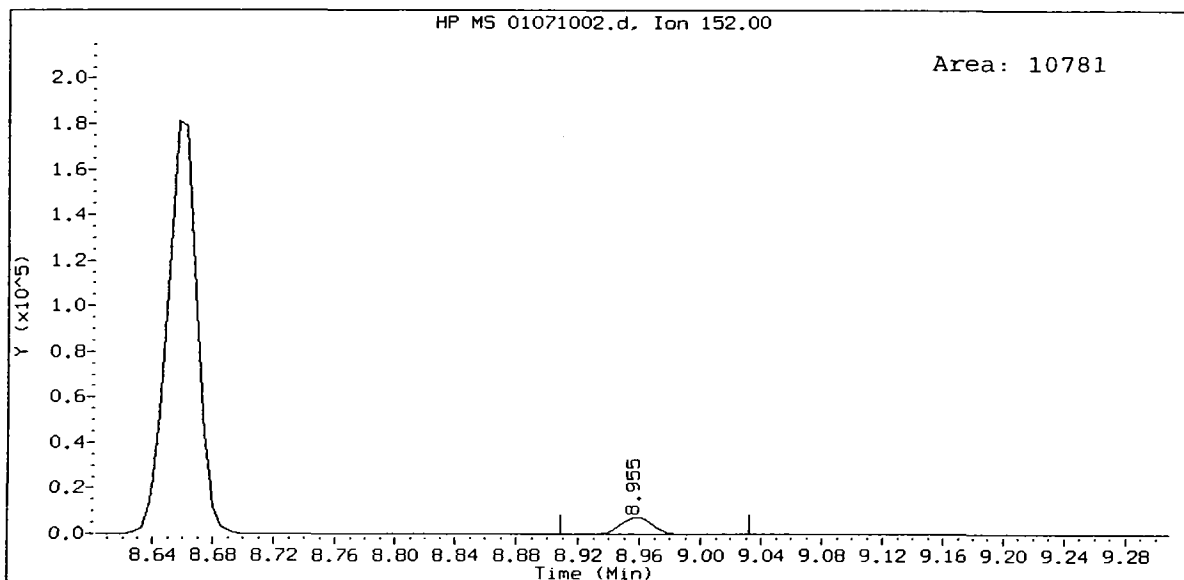




IC010107, /chem3/nt4.i/20100107.b/01071002.d  
Benzidine Amount: 0.12



IC010107, /chem3/nt4.i/20100107.b/01071002.d  
1,2-Dichlorobenzene-d4 Amount: 1.09



Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100107.b/01071003.d  
 Lab Smp Id: IC050107 Client Smp ID: IC050107  
 Inj Date : 07-JAN-2010 14:15  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : IC050107  
 Misc Info : 10-  
 Comment : lul Injection  
 Method : /chem3/nt4.i/20100107.b/SW846100107.m  
 Meth Date : 07-Jan-2010 18:43 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 14:15 Cal File: 01071003.d  
 Als bottle: 3 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 3.50 Compound Sublist: ICAL.sub

*DB 01/07/10*

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.719	6.723	(0.776)	61124	5.00000	4.841
\$ 2 Phenol-d5	99		8.211	8.209	(0.948)	64422	5.00000	4.988
3 Phenol	94		8.229	8.227	(0.950)	87428	5.00000	5.042
\$ 5 2-Chlorophenol-d4	132		8.364	8.362	(0.966)	60964	5.00000	4.773
4 Bis(2-Chloroethyl)ether	93		8.300	8.303	(0.959)	72121	5.00000	5.417
6 2-Chlorophenol	128		8.388	8.386	(0.969)	72233	5.00000	4.903
7 1,3-Dichlorobenzene	146		8.599	8.597	(0.993)	85118	5.00000	5.322
* 8 1,4-Dichlorobenzene-d4	152		8.658	8.656	(1.000)	230656	20.0000	
9 1,4-Dichlorobenzene	146		8.681	8.685	(1.003)	86884	5.00000	5.340
\$ 10 1,2-Dichlorobenzene-d4	152		8.957	8.955	(1.035)	44319	5.00000	1.091
12 1,2-Dichlorobenzene	146		8.981	8.979	(1.037)	81305	5.00000	5.340
11 Benzyl alcohol	108		8.922	8.926	(1.031)	38523	5.00000	4.622
14 2,2'-oxybis(1-Chloropropane)	45		9.175	9.173	(1.060)	88661	5.00000	6.094
13 2-Methylphenol	108		9.157	9.155	(1.058)	62423	5.00000	5.044
17 Hexachloroethane	117		9.469	9.467	(1.094)	35646	5.00000	5.302
16 N-Nitroso-di-n-propylamine	70		9.380	9.378	(1.083)	52988	5.00000	5.563
15 4-Methylphenol	108		9.380	9.384	(1.083)	63956	5.00000	4.962
\$ 18 Nitrobenzene-d5	82		9.580	9.578	(0.894)	70229	5.00000	4.980
19 Nitrobenzene	77		9.610	9.608	(0.897)	79459	5.00000	5.539
20 Isophorone	82		9.980	9.978	(0.931)	120467	5.00000	5.441
21 2-Nitrophenol	139		10.127	10.130	(0.945)	38306	5.00000	4.886
22 2,4-Dimethylphenol	107		10.226	10.224	(0.954)	73420	5.00000	5.099
23 Bis(2-Chloroethoxy)methane	93		10.361	10.359	(0.967)	84456	5.00000	5.471
24 Benzoic acid	105		10.373	10.342	(0.968)	34281	10.0000	5.994
25 2,4-Dichlorophenol	162		10.520	10.518	(0.982)	55051	5.00000	4.838
26 1,2,4-Trichlorobenzene	180		10.649	10.647	(0.994)	64989	5.00000	5.366
* 27 Naphthalene-d8	136		10.714	10.712	(1.000)	816977	20.0000	

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
28 Naphthalene	128	10.743	10.741	(1.003)	223832	5.00000	5.779
29 4-Chloroaniline	127	10.873	10.871	(1.015)	84340	5.00000	5.053
30 Hexachlorobutadiene	225	11.043	11.047	(1.031)	36597	5.00000	5.378
31 4-Chloro-3-methylphenol	107	11.683	11.687	(1.090)	61148	5.00000	5.028
32 2-Methylnaphthalene	141	11.865	11.869	(1.107)	113342	5.00000	5.169
33 Hexachlorocyclopentadiene	237	12.241	12.239	(0.900)	34939	5.00000	5.044
34 2,4,6-Trichlorophenol	196	12.388	12.386	(0.911)	37905	5.00000	4.785
35 2,4,5-Trichlorophenol	196	12.453	12.451	(0.916)	38126	5.00000	4.744
\$ 36 2-Fluorobiphenyl	172	12.500	12.504	(0.919)	134661	5.00000	5.030
37 2-Chloronaphthalene	162	12.658	12.656	(0.931)	132290	5.00000	5.478
38 2-Nitroaniline	65	12.882	12.880	(0.947)	37949	5.00000	5.091
39 Dimethylphthalate	163	13.228	13.226	(0.973)	152566	5.00000	5.425
40 Acenaphthylene	152	13.346	13.344	(0.981)	208642	5.00000	5.627
41 2,6-Dinitrotoluene	165	13.334	13.332	(0.981)	33835	5.00000	5.251
* 42 Acenaphthene-d10	164	13.598	13.596	(1.000)	463708	20.0000	
43 3-Nitroaniline	138	12.882	12.880	(0.947)	44533	5.00000	4.903
44 Acenaphthene	153	13.645	13.649	(1.003)	132364	5.00000	5.407
45 2,4-Dinitrophenol	184	13.722	13.725	(1.009)	17224	10.0000	5.948
46 Dibenzofuran	168	13.910	13.908	(1.023)	173826	5.00000	5.214
47 4-Nitrophenol	109	13.874	13.866	(1.020)	20198	5.00000	5.012
48 2,4-Dinitrotoluene	165	13.974	13.972	(1.028)	44366	5.00000	5.078
50 Diethylphthalate	149	14.385	14.383	(1.058)	160209	5.00000	5.357
49 Fluorene	166	14.474	14.472	(1.064)	153966	5.00000	5.643
51 4-Chlorophenyl-phenylether	204	14.479	14.477	(1.065)	67396	5.00000	5.444
52 4-Nitroaniline	138	14.562	14.560	(1.071)	34958	5.00000	4.882
53 4,6-Dinitro-2-methylphenol	198	14.632	14.630	(0.914)	35954	10.0000	8.158
54 N-Nitrosodiphenylamine	169	14.685	14.683	(0.918)	86797	5.00000	5.279
\$ 55 2,4,6-Tribromophenol	330	14.902	14.900	(1.096)	13004	5.00000	4.716
56 4-Bromophenyl-phenylether	248	15.272	15.270	(0.954)	37615	5.00000	5.273
57 Hexachlorobenzene	284	15.507	15.511	(0.969)	37221	5.00000	5.244
58 Pentachlorophenol	266	15.807	15.811	(0.988)	4411	5.00000	2.429
* 59 Phenanthrene-d10	188	16.001	16.005	(1.000)	727498	20.0000	
60 Phenanthrene	178	16.036	16.034	(1.002)	210088	5.00000	5.553
61 Anthracene	178	16.113	16.110	(1.007)	207503	5.00000	5.569
62 Carbazole	167	16.389	16.387	(1.024)	109326	5.00000	4.904
63 Di-n-butylphthalate	149	17.058	17.056	(1.066)	253831	5.00000	5.653
64 Fluoranthene	202	17.998	17.996	(1.125)	205426	5.00000	5.526
65 Pyrene	202	18.362	18.360	(0.902)	210739	5.00000	5.635
\$ 66 Terphenyl-d14	244	18.644	18.642	(0.916)	109451	5.00000	5.025
67 Butylbenzylphthalate	149	19.502	19.500	(0.958)	110168	5.00000	5.500
68 Benzo(a)anthracene	228	20.330	20.328	(0.999)	188528	5.00000	5.441
* 69 Chrysene-d12	240	20.360	20.358	(1.000)	587293	20.0000	
70 3,3'-Dichlorobenzidine	252	20.313	20.317	(0.998)	62474	5.00000	5.082
71 Chrysene	228	20.395	20.399	(1.002)	180533	5.00000	5.486
72 bis(2-Ethylhexyl)phthalate	149	20.483	20.487	(0.956)	152215	5.00000	5.195
* 134 Di-n-octylphthalate-d4	153	21.423	21.421	(1.000)	1010753	20.0000	
73 Di-n-octylphthalate	149	21.435	21.433	(1.001)	270899	5.00000	5.565

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/mL)	ON-COL (ug/mL)
74 Benzo(b)fluoranthene	252	22.005	21.997	(0.975)	198869	5.00000	5.105
75 Benzo(k)fluoranthene	252	22.034	22.032	(0.977)	224045	5.00000	5.789
76 Benzo(a)pyrene	252	22.469	22.467	(0.996)	188402	5.00000	5.352
* 77 Perylene-d12	264	22.563	22.561	(1.000)	632794	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.395	24.388	(1.081)	227604	5.00000	5.627
79 Dibenzo(a,h)anthracene	278	24.413	24.411	(1.082)	184350	5.00000	5.449
80 Benzo(g,h,i)perylene	276	24.918	24.916	(1.104)	195725	5.00000	5.419
90 N-Nitrosodimethylamine	74	4.205	4.215	(0.486)	42110	5.00000	5.335
103 Pyridine	79	4.187	4.209	(0.484)	69668	5.00000	5.113
91 Aniline	93	8.206	8.209	(0.948)	99147	5.00000	5.136
105 1-methylnaphthalene	141	12.042	12.045	(1.124)	120212	5.00000	5.548
93 Benzidine	184	18.221	18.225	(0.895)	15731	5.00000	1.852 (M)
111 Azobenzene (1,2-DP-Hydrazine)	77	14.738	14.736	(1.084)	149755	5.00000	6.049
143 1,4-Dioxane	88	3.430	3.445	(0.396)	27159	5.00000	5.235
\$ 137 d8-1,4-Dioxane	96	3.365	3.381	(0.389)	27647	5.00000	5.261
151 1,2,4,5-Tetrachlorobenzene	216	12.206	12.210	(0.898)	53183	5.00000	4.456
120 2,3,4,6-Tetrachlorophenol	232	14.197	14.195	(1.044)	21432	5.00000	3.803
144 alpha-Terpineol	59	10.743	10.747	(1.003)	31555	5.00000	5.454
98 Retene	219	18.903	18.901	(0.928)	85914	5.00000	5.032
133 Butylatedhydroxytoluene	205	13.733	13.731	(1.010)	115493	5.00000	5.191
115 Tributyl Phosphate	99	14.732	14.730	(0.921)	178464	5.00000	5.359
116 Dibutyl Phenyl Phosphate	175	16.494	16.492	(1.031)	123653	5.00000	4.910
117 Butyl Diphenyl Phosphate	94	18.204	18.202	(0.894)	40779	5.00000	5.135
118 Triphenyl Phosphate	326	19.825	19.823	(0.974)	28605	5.00000	4.791
123 Acetophenone	105	9.339	9.337	(0.872)	143245	5.00000	5.457
179 n-Decane	57	8.458	8.456	(0.977)	70667	5.00000	5.554
180 n-Octadecane	57	15.848	15.846	(0.990)	88114	5.00000	5.753
168 Pentachlorobenzene	250	13.951	13.949	(1.026)	48261	5.00000	5.363
113 Diphenyl Oxide	170	12.829	12.833	(0.943)	84192	5.00000	5.067
112 Biphenyl	154	12.647	12.645	(0.930)	153728	5.00000	5.335

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01071003.d  
 Lab Smp Id: IC050107  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
 Misc Info: 10-

Calibration Date: 07-JAN-2010  
 Calibration Time: 15:22  
 Client Smp ID: IC050107  
 Level:  
 Sample Type:

Test Mode:  
 Use Initial Calibration Level 4.

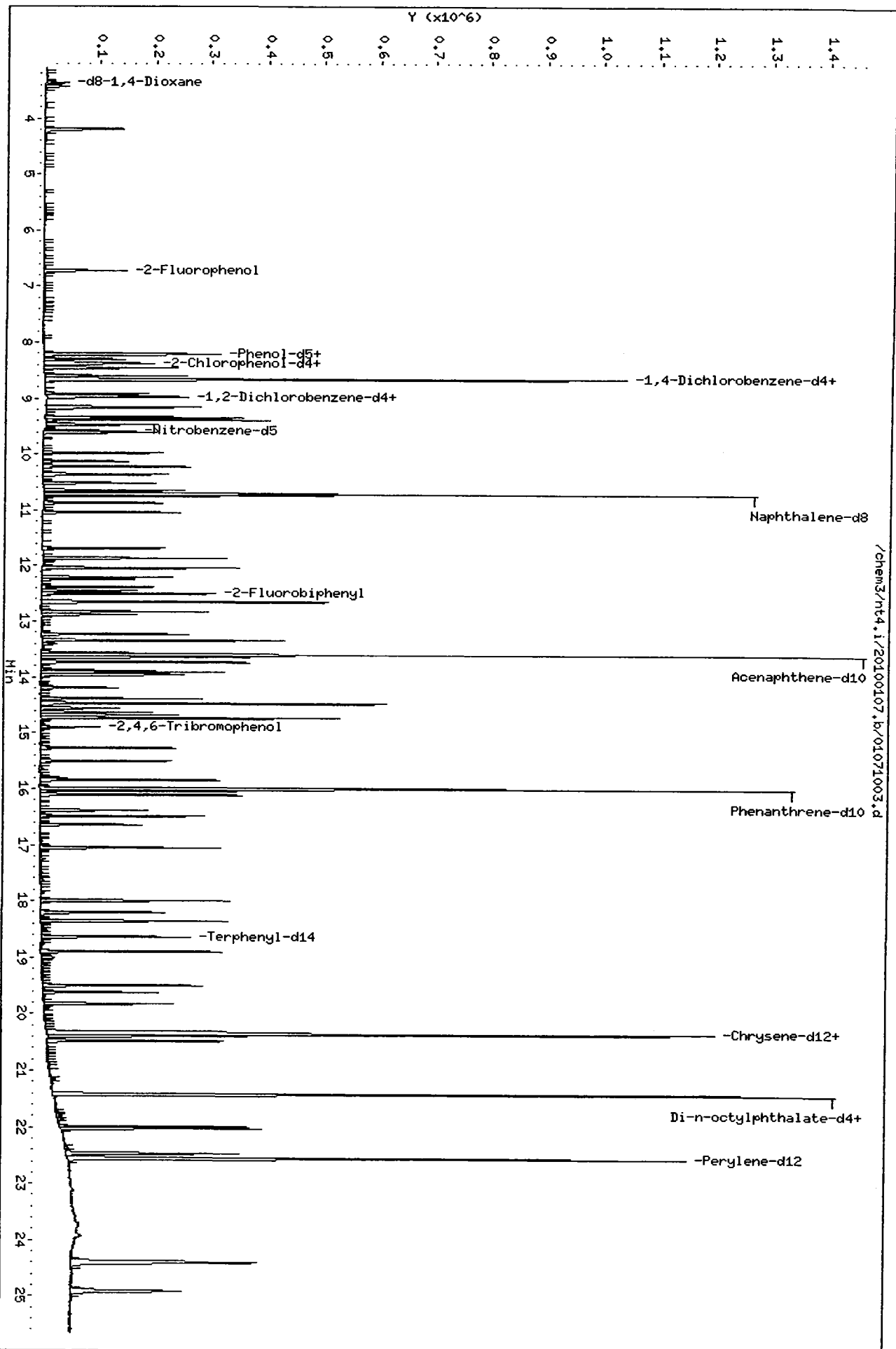
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	230656	-19.38
27 Naphthalene-d8	1035557	517778	2071114	816977	-21.11
42 Acenaphthene-d10	594267	297134	1188534	463708	-21.97
59 Phenanthrene-d10	951721	475860	1903442	727498	-23.56
69 Chrysene-d12	794862	397431	1589724	587293	-26.11
134 Di-n-octylphthala	1280700	640350	2561400	1010753	-21.08
77 Perylene-d12	826094	413047	1652188	632794	-23.40

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.66	-0.05
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.01
42 Acenaphthene-d10	13.60	13.10	14.10	13.60	0.01
59 Phenanthrene-d10	16.01	15.51	16.51	16.00	-0.03
69 Chrysene-d12	20.36	19.86	20.86	20.36	-0.02
134 Di-n-octylphthala	21.42	20.92	21.92	21.42	0.01
77 Perylene-d12	22.56	22.06	23.06	22.56	0.01

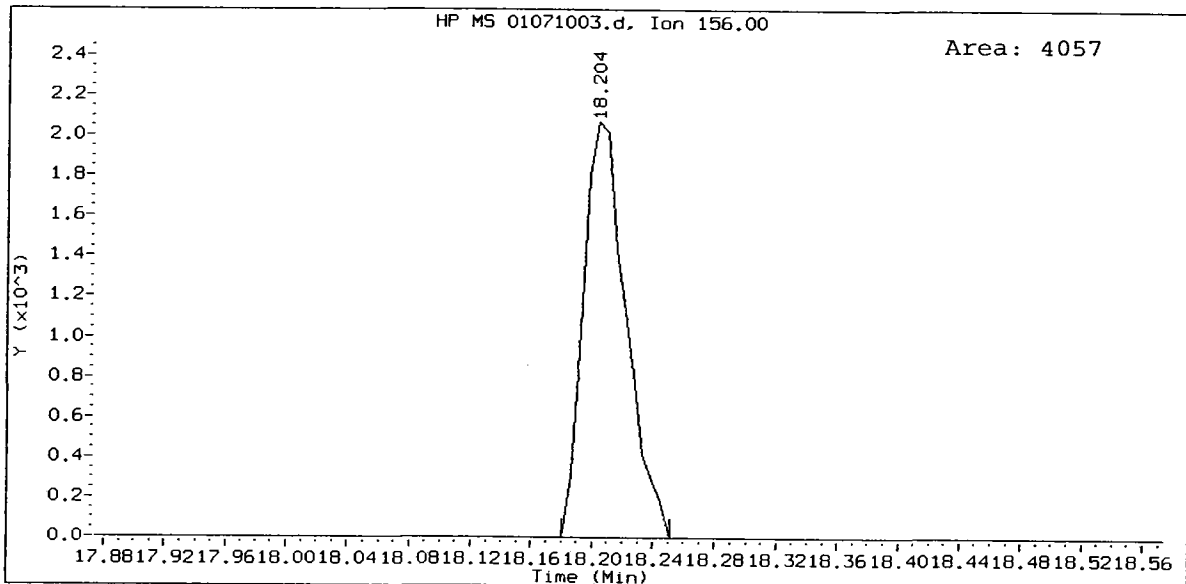
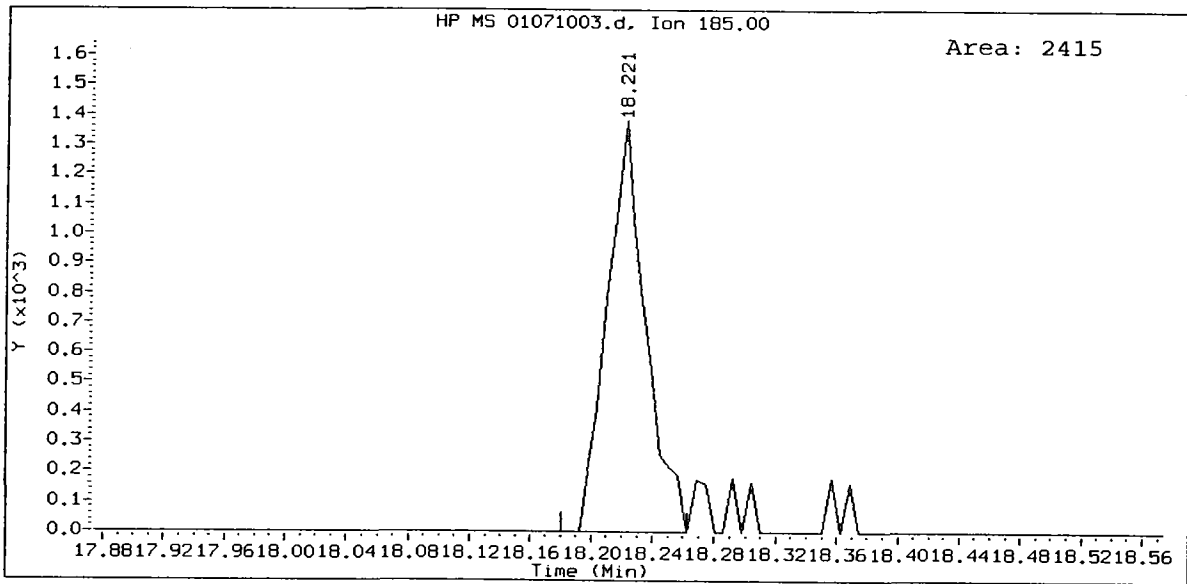
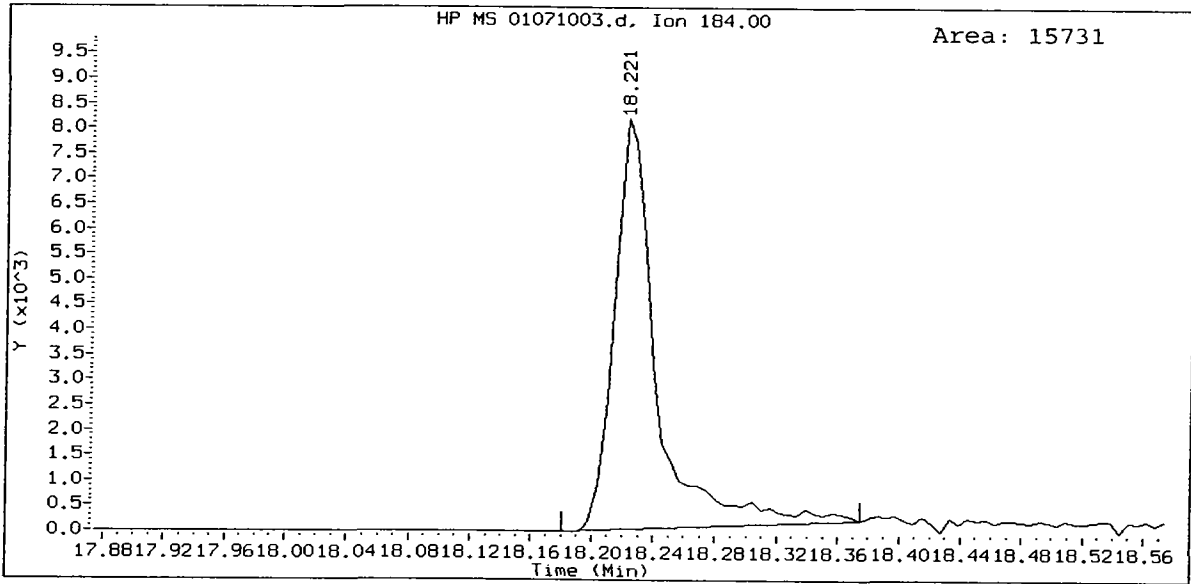
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Column phase: ZB-5msi

Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32







Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100107.b/01071004.d  
 Lab Smp Id: IC100107 Client Smp ID: IC100107  
 Inj Date : 07-JAN-2010 14:49  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : IC100107  
 Misc Info : 10-  
 Comment : lul Injection  
 Method : /chem3/nt4.i/20100107.b/SW846100107.m  
 Meth Date : 07-Jan-2010 18:43 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 14:49 Cal File: 01071004.d  
 Als bottle: 4 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: ICAL.sub  
 Target Version: 3.50

*Ad 07/10/*

AMOUNTS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====
\$ 1 2-Fluorophenol	112		6.727	6.723	(0.777)	147263	10.0000	9.549
\$ 2 Phenol-d5	99		8.213	8.209	(0.948)	155036	10.0000	9.534
3 Phenol	94		8.231	8.227	(0.950)	199286	10.0000	9.047
\$ 5 2-Chlorophenol-d4	132		8.366	8.362	(0.966)	147114	10.0000	9.363
4 Bis(2-Chloroethyl)ether	93		8.302	8.303	(0.959)	149386	10.0000	8.788
6 2-Chlorophenol	128		8.390	8.386	(0.969)	167617	10.0000	9.282
7 1,3-Dichlorobenzene	146		8.601	8.597	(0.993)	180430	10.0000	8.943
* 8 1,4-Dichlorobenzene-d4	152		8.660	8.656	(1.000)	281417	20.0000	
9 1,4-Dichlorobenzene	146		8.683	8.685	(1.003)	182430	10.0000	8.857
\$ 10 1,2-Dichlorobenzene-d4	152		8.959	8.955	(1.035)	107098	10.0000	1.061
12 1,2-Dichlorobenzene	146		8.977	8.979	(1.037)	172487	10.0000	8.964
11 Benzyl alcohol	108		8.924	8.926	(1.031)	104047	10.0000	11.39
14 2,2'-oxybis(1-Chloropropane)	45		9.177	9.173	(1.060)	183656	10.0000	8.642
13 2-Methylphenol	108		9.153	9.155	(1.057)	140207	10.0000	8.900
17 Hexachloroethane	117		9.471	9.467	(1.094)	75604	10.0000	9.032
16 N-Nitroso-di-n-propylamine	70		9.382	9.378	(1.083)	110512	10.0000	8.733
15 4-Methylphenol	108		9.382	9.384	(1.083)	145397	10.0000	8.916
\$ 18 Nitrobenzene-d5	82		9.582	9.578	(0.895)	170817	10.0000	9.491
19 Nitrobenzene	77		9.612	9.608	(0.897)	166147	10.0000	8.719
20 Isophorone	82		9.982	9.978	(0.932)	254733	10.0000	8.912
21 2-Nitrophenol	139		10.128	10.130	(0.946)	88437	10.0000	9.347
22 2,4-Dimethylphenol	107		10.222	10.224	(0.954)	166616	10.0000	9.060
23 Bis(2-Chloroethoxy)methane	93		10.358	10.359	(0.967)	179677	10.0000	8.921
24 Benzoic acid	105		10.410	10.342	(0.972)	98690	20.0000	24.30
25 2,4-Dichlorophenol	162		10.522	10.518	(0.982)	130750	10.0000	9.325
26 1,2,4-Trichlorobenzene	180		10.645	10.647	(0.994)	138260	10.0000	8.956
* 27 Naphthalene-d8	136		10.710	10.712	(1.000)	999242	20.0000	

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== =====	====	==	====	=====	=====	=====	=====
28 Naphthalene	128	10.739	10.741	(1.003)	467250	10.0000	8.767
29 4-Chloroaniline	127	10.869	10.871	(1.015)	191598	10.0000	9.313
30 Hexachlorobutadiene	225	11.045	11.047	(1.031)	78258	10.0000	8.961
31 4-Chloro-3-methylphenol	107	11.685	11.687	(1.091)	134976	10.0000	8.834
32 2-Methylnaphthalene	141	11.867	11.869	(1.108)	264101	10.0000	9.264
33 Hexachlorocyclopentadiene	237	12.237	12.239	(0.900)	75375	10.0000	9.527
34 2,4,6-Trichlorophenol	196	12.384	12.386	(0.911)	86501	10.0000	9.065
35 2,4,5-Trichlorophenol	196	12.449	12.451	(0.916)	87643	10.0000	9.165
§ 36 2-Fluorobiphenyl	172	12.502	12.504	(0.920)	327777	10.0000	9.422
37 2-Chloronaphthalene	162	12.654	12.656	(0.931)	283575	10.0000	8.855
38 2-Nitroaniline	65	12.878	12.880	(0.947)	89643	10.0000	9.327
39 Dimethylphthalate	163	13.230	13.226	(0.973)	325451	10.0000	8.804
40 Acenaphthylene	152	13.342	13.344	(0.981)	447946	10.0000	8.923
41 2,6-Dinitrotoluene	165	13.336	13.332	(0.981)	73727	10.0000	9.106
* 42 Acenaphthene-d10	164	13.594	13.596	(1.000)	574053	20.0000	
43 3-Nitroaniline	138	12.878	12.880	(0.947)	106543	10.0000	9.580
44 Acenaphthene	153	13.647	13.649	(1.004)	286023	10.0000	8.876
45 2,4-Dinitrophenol	184	13.724	13.725	(1.010)	52539	20.0000	27.18
46 Dibenzofuran	168	13.906	13.908	(1.023)	406047	10.0000	9.157
47 4-Nitrophenol	109	13.876	13.866	(1.021)	44505	10.0000	9.185
48 2,4-Dinitrotoluene	165	13.970	13.972	(1.028)	100156	10.0000	9.506
50 Diethylphthalate	149	14.387	14.383	(1.058)	349795	10.0000	8.942
49 Fluorene	166	14.470	14.472	(1.064)	326919	10.0000	8.814
51 4-Chlorophenyl-phenylether	204	14.476	14.477	(1.065)	144921	10.0000	8.786
52 4-Nitroaniline	138	14.564	14.560	(1.071)	81354	10.0000	9.345
53 4,6-Dinitro-2-methylphenol	198	14.634	14.630	(0.914)	97471	20.0000	23.10
54 N-Nitrosodiphenylamine	169	14.681	14.683	(0.917)	187471	10.0000	8.830
§ 55 2,4,6-Tribromophenol	330	14.899	14.900	(1.096)	31804	10.0000	9.666
56 4-Bromophenyl-phenylether	248	15.269	15.270	(0.954)	82431	10.0000	8.913
57 Hexachlorobenzene	284	15.509	15.511	(0.969)	80434	10.0000	8.783
58 Pentachlorophenol	266	15.809	15.811	(0.988)	8985	10.0000	9.629
* 59 Phenanthrene-d10	188	16.003	16.005	(1.000)	907483	20.0000	
60 Phenanthrene	178	16.038	16.034	(1.002)	449309	10.0000	8.722
61 Anthracene	178	16.109	16.110	(1.007)	453327	10.0000	8.898
62 Carbazole	167	16.385	16.387	(1.024)	241133	10.0000	8.060
63 Di-n-butylphthalate	149	17.054	17.056	(1.066)	561425	10.0000	9.007
64 Fluoranthene	202	17.994	17.996	(1.124)	456452	10.0000	9.107
65 Pyrene	202	18.359	18.360	(0.902)	469131	10.0000	8.662
§ 66 Terphenyl-d14	244	18.640	18.642	(0.915)	283446	10.0000	9.285
67 Butylbenzylphthalate	149	19.504	19.500	(0.958)	253208	10.0000	8.963
68 Benzo(a)anthracene	228	20.332	20.328	(0.999)	427730	10.0000	8.703
* 69 Chrysene-d12	240	20.362	20.358	(1.000)	770789	20.0000	
70 3,3'-Dichlorobenzidine	252	20.315	20.317	(0.998)	158939	10.0000	9.751
71 Chrysene	228	20.397	20.399	(1.002)	411339	10.0000	8.776
72 bis(2-Ethylhexyl)phthalate	149	20.485	20.487	(0.956)	350290	10.0000	8.998
* 134 Di-n-octylphthalate-d4	153	21.425	21.421	(1.000)	1301379	20.0000	
73 Di-n-octylphthalate	149	21.431	21.433	(1.000)	606131	10.0000	8.776

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====	==	=====	=====	=====	=====	=====
74 Benzo(b)fluoranthene	252	22.001	21.997	(0.975)	462540	10.0000	9.007
75 Benzo(k)fluoranthene	252	22.036	22.032	(0.977)	479603	10.0000	8.544
76 Benzo(a)pyrene	252	22.471	22.467	(0.996)	426617	10.0000	8.895
* 77 Perylene-d12	264	22.559	22.561	(1.000)	816539	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.397	24.388	(1.081)	490132	10.0000	8.713
79 Dibenzo(a,h)anthracene	278	24.409	24.411	(1.082)	397688	10.0000	8.698
80 Benzo(g,h,i)perylene	276	24.920	24.916	(1.105)	426991	10.0000	8.796
90 N-Nitrosodimethylamine	74	4.225	4.215	(0.488)	88133	10.0000	8.975
103 Pyridine	79	4.201	4.209	(0.485)	160710	10.0000	9.351
91 Aniline	93	8.208	8.209	(0.948)	234567	10.0000	9.569
105 1-methylnaphthalene	141	12.044	12.045	(1.125)	250456	10.0000	8.846
93 Benzidine	184	18.223	18.225	(0.895)	108254	10.0000	14.57
111 Azobenzene (1,2-DP-Hydrazine)	77	14.734	14.736	(1.084)	312197	10.0000	8.627
143 1,4-Dioxane	88	3.455	3.445	(0.399)	56718	10.0000	8.799
\$ 137 d8-1,4-Dioxane	96	3.391	3.381	(0.392)	57368	10.0000	8.647
151 1,2,4,5-Tetrachlorobenzene	216	12.208	12.210	(0.898)	132529	10.0000	8.869
120 2,3,4,6-Tetrachlorophenol	232	14.194	14.195	(1.044)	54831	10.0000	9.171
144 alpha-Terpineol	59	10.745	10.747	(1.003)	72289	10.0000	8.994
98 Retene	219	18.899	18.901	(0.928)	213880	10.0000	9.116
133 Butylatedhydroxytoluene	205	13.729	13.731	(1.010)	273202	10.0000	9.165
115 Tributyl Phosphate	99	14.734	14.730	(0.921)	425508	10.0000	9.108
116 Dibutyl Phenyl Phosphate	175	16.490	16.492	(1.030)	307109	10.0000	9.509
117 Butyl Diphenyl Phosphate	94	18.200	18.202	(0.894)	103493	10.0000	9.103
118 Triphenyl Phosphate	326	19.827	19.823	(0.974)	73822	10.0000	9.367
123 Acetophenone	105	9.341	9.337	(0.872)	310650	10.0000	8.983
179 n-Decane	57	8.460	8.456	(0.977)	157825	10.0000	9.125
180 n-Octadecane	57	15.844	15.846	(0.990)	203043	10.0000	8.992
168 Pentachlorobenzene	250	13.947	13.949	(1.026)	103436	10.0000	8.937
113 Diphenyl Oxide	170	12.831	12.833	(0.944)	195436	10.0000	9.143
112 Biphenyl	154	12.643	12.645	(0.930)	358803	10.0000	9.112

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01071004.d  
 Lab Smp Id: IC100107  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
 Misc Info: 10-

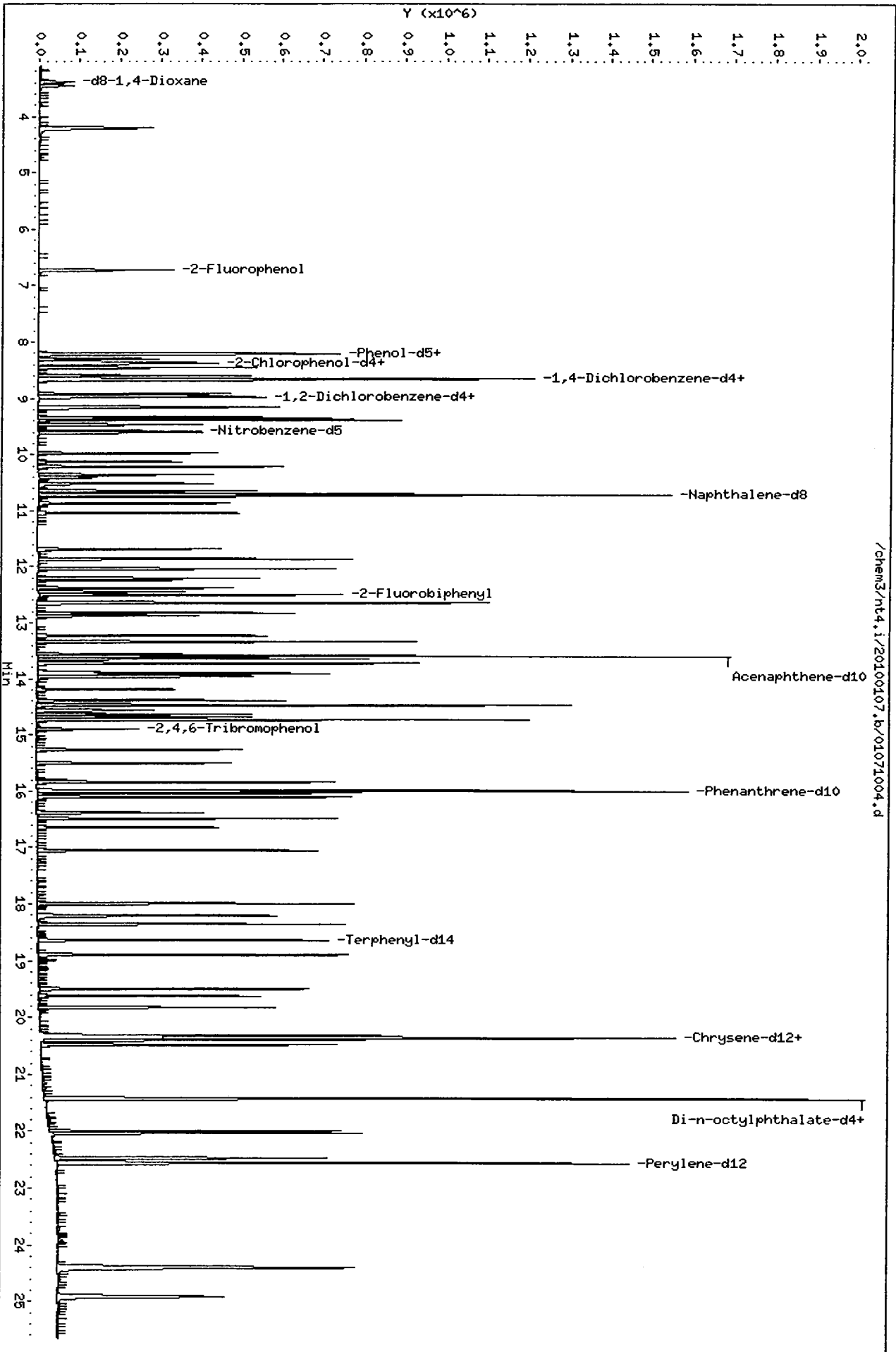
Calibration Date: 07-JAN-2010  
 Calibration Time: 15:22  
 Client Smp ID: IC100107  
 Level:  
 Sample Type:

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	281417	-1.64
27 Naphthalene-d8	1035557	517778	2071114	999242	-3.51
42 Acenaphthene-d10	594267	297134	1188534	574053	-3.40
59 Phenanthrene-d10	951721	475860	1903442	907483	-4.65
69 Chrysene-d12	794862	397431	1589724	770789	-3.03
134 Di-n-octylphthala	1280700	640350	2561400	1301379	1.61
77 Perylene-d12	826094	413047	1652188	816539	-1.16

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.66	-0.03
27 Naphthalene-d8	10.71	10.21	11.21	10.71	-0.03
42 Acenaphthene-d10	13.60	13.10	14.10	13.59	-0.02
59 Phenanthrene-d10	16.01	15.51	16.51	16.00	-0.02
69 Chrysene-d12	20.36	19.86	20.86	20.36	-0.01
134 Di-n-octylphthala	21.42	20.92	21.92	21.42	0.01
77 Perylene-d12	22.56	22.06	23.06	22.56	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100107.b/01071005.d  
 Lab Smp Id: IC250107 Client Smp ID: IC250107  
 Inj Date : 07-JAN-2010 15:22  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : IC250107  
 Misc Info : 10-  
 Comment : lul Injection  
 Method : /chem3/nt4.i/20100107.b/SW846100107.m  
 Meth Date : 07-Jan-2010 18:43 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 15:22 Cal File: 01071005.d  
 Als bottle: 5 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: ICAL.sub  
 Target Version: 3.50

*18 01/07/10*

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

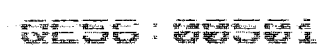
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)
\$ 1 2-Fluorophenol	112		6.730	6.723	(0.777)	415448	25.0000	26.53
\$ 2 Phenol-d5	99		8.216	8.209	(0.948)	420247	25.0000	26.23
3 Phenol	94		8.240	8.227	(0.951)	560147	25.0000	26.04
\$ 5 2-Chlorophenol-d4	132		8.369	8.362	(0.966)	415279	25.0000	26.21
4 Bis(2-Chloroethyl)ether	93		8.310	8.303	(0.959)	424438	25.0000	25.70
6 2-Chlorophenol	128		8.392	8.386	(0.969)	480083	25.0000	26.27
7 1,3-Dichlorobenzene	146		8.604	8.597	(0.993)	507113	25.0000	25.56
* 8 1,4-Dichlorobenzene-d4	152		8.663	8.656	(1.000)	286117	20.0000	
9 1,4-Dichlorobenzene	146		8.686	8.685	(1.003)	518397	25.0000	25.68
\$ 10 1,2-Dichlorobenzene-d4	152		8.962	8.955	(1.035)	296009	25.0000	5.877
12 1,2-Dichlorobenzene	146		8.980	8.979	(1.037)	485210	25.0000	25.69
11 Benzyl alcohol	108		8.933	8.926	(1.031)	291624	25.0000	28.20
14 2,2'-oxybis(1-Chloropropane)	45		9.180	9.173	(1.060)	462104	25.0000	25.60
13 2-Methylphenol	108		9.162	9.155	(1.058)	399139	25.0000	26.00
17 Hexachloroethane	117		9.467	9.467	(1.093)	217071	25.0000	26.03
16 N-Nitroso-di-n-propylamine	70		9.397	9.378	(1.085)	296616	25.0000	25.10

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====	
15 4-Methylphenol	108		9.391	9.384	(1.084)	416713	25.0000	26.06	
\$ 18 Nitrobenzene-d5	82		9.585	9.578	(0.895)	472307	25.0000	26.42	
19 Nitrobenzene	77		9.614	9.608	(0.897)	464146	25.0000	25.53	
20 Isophorone	82		9.990	9.978	(0.933)	716618	25.0000	25.53	
21 2-Nitrophenol	139		10.131	10.130	(0.946)	263361	25.0000	26.50	
22 2,4-Dimethylphenol	107		10.231	10.224	(0.955)	476331	25.0000	26.10	
23 Bis(2-Chloroethoxy)methane	93		10.366	10.359	(0.968)	499028	25.0000	25.51	
24 Benzoic acid	105		10.484	10.342	(0.979)	434403	50.0000	59.93 (M)	
25 2,4-Dichlorophenol	162		10.525	10.518	(0.982)	385286	25.0000	26.71	
26 1,2,4-Trichlorobenzene	180		10.648	10.647	(0.994)	391123	25.0000	25.48	
* 27 Naphthalene-d8	136		10.713	10.712	(1.000)	1035557	20.0000		
28 Naphthalene	128		10.748	10.741	(1.003)	1270895	25.0000	25.89	
29 4-Chloroaniline	127		10.877	10.871	(1.015)	550389	25.0000	26.01	
30 Hexachlorobutadiene	225		11.048	11.047	(1.031)	219448	25.0000	25.44	
31 4-Chloro-3-methylphenol	107		11.688	11.687	(1.091)	403436	25.0000	26.17	
32 2-Methylnaphthalene	141		11.870	11.869	(1.108)	724107	25.0000	26.05	
33 Hexachlorocyclopentadiene	237		12.240	12.239	(0.900)	240339	25.0000	27.08	
34 2,4,6-Trichlorophenol	196		12.387	12.386	(0.911)	262860	25.0000	25.89	
35 2,4,5-Trichlorophenol	196		12.452	12.451	(0.916)	266317	25.0000	25.86	
\$ 36 2-Fluorobiphenyl	172		12.504	12.504	(0.920)	902592	25.0000	26.31	
37 2-Chloronaphthalene	162		12.663	12.656	(0.931)	797220	25.0000	25.76	
38 2-Nitroaniline	65		12.886	12.880	(0.948)	251558	25.0000	26.33	
39 Dimethylphthalate	163		13.239	13.226	(0.974)	918963	25.0000	25.50	
40 Acenaphthylene	152		13.350	13.344	(0.982)	1225707	25.0000	25.79	
41 2,6-Dinitrotoluene	165		13.339	13.332	(0.981)	216167	25.0000	26.18	
* 42 Acenaphthene-d10	164		13.597	13.596	(1.000)	594267	20.0000		
43 3-Nitroaniline	138		12.886	12.880	(0.948)	307173	25.0000	26.39	
44 Acenaphthene	153		13.650	13.649	(1.004)	805614	25.0000	25.68	
45 2,4-Dinitrophenol	184		13.732	13.725	(1.010)	230371	50.0000	62.08	
46 Dibenzofuran	168		13.914	13.908	(1.023)	1097183	25.0000	25.68	
47 4-Nitrophenol	109		13.879	13.866	(1.021)	145851	25.0000	28.56 (M)	
48 2,4-Dinitrotoluene	165		13.979	13.972	(1.028)	293899	25.0000	26.25	
50 Diethylphthalate	149		14.396	14.383	(1.059)	978026	25.0000	25.52	
49 Fluorene	166		14.478	14.472	(1.065)	910267	25.0000	26.03	
51 4-Chlorophenyl-phenylether	204		14.478	14.477	(1.065)	408343	25.0000	25.74	
52 4-Nitroaniline	138		14.578	14.560	(1.072)	239051	25.0000	26.05	
53 4,6-Dinitro-2-methylphenol	198		14.649	14.630	(0.915)	331807	50.0000	57.86	
54 N-Nitrosodiphenylamine	169		14.690	14.683	(0.918)	540751	25.0000	25.14	
\$ 55 2,4,6-Tribromophenol	330		14.907	14.900	(1.096)	93690	25.0000	26.52	
56 4-Bromophenyl-phenylether	248		15.271	15.270	(0.954)	234971	25.0000	25.18	
57 Hexachlorobenzene	284		15.512	15.511	(0.969)	231780	25.0000	24.96	
58 Pentachlorophenol	266		15.812	15.811	(0.988)	66319	25.0000	27.92	
* 59 Phenanthrene-d10	188		16.006	16.005	(1.000)	951721	20.0000		
60 Phenanthrene	178		16.041	16.034	(1.002)	1249202	25.0000	25.24	
61 Anthracene	178		16.117	16.110	(1.007)	1237929	25.0000	25.40	
62 Carbazole	167		16.387	16.387	(1.024)	810225	25.0000	27.78	
63 Di-n-butylphthalate	149		17.057	17.056	(1.066)	1496916	25.0000	25.48	





Compounds	QUANT		SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT	CAL-AMT (ug/mL)		ON-COL (ug/mL)	
=====	=====	==	=====	=====	=====	=====	=====	
64 Fluoranthene	202	18.003	17.996	(1.125)	1232586	25.0000	25.34	
65 Pyrene	202	18.367	18.360	(0.902)	1283427	25.0000	25.35	
\$ 66 Terphenyl-d14	244	18.643	18.642	(0.915)	749609	25.0000	25.43	
67 Butylbenzylphthalate	149	19.507	19.500	(0.958)	693030	25.0000	25.56	
68 Benzo(a)anthracene	228	20.335	20.328	(0.999)	1178886	25.0000	25.14	
* 69 Chrysene-d12	240	20.364	20.358	(1.000)	794862	20.0000		
70 3,3'-Dichlorobenzidine	252	20.317	20.317	(0.998)	419604	25.0000	25.22	
71 Chrysene	228	20.406	20.399	(1.002)	1120971	25.0000	25.17	
72 bis(2-Ethylhexyl)phthalate	149	20.482	20.487	(0.956)	955217	25.0000	25.73	
* 134 Di-n-octylphthalate-d4	153	21.422	21.421	(1.000)	1280700	20.0000		
73 Di-n-octylphthalate	149	21.434	21.433	(1.001)	1594562	25.0000	25.85	
74 Benzo(b)fluoranthene	252	22.009	21.997	(0.976)	1271042	25.0000	24.99	
75 Benzo(k)fluoranthene	252	22.044	22.032	(0.977)	1283051	25.0000	24.35	
76 Benzo(a)pyrene	252	22.479	22.467	(0.996)	1165555	25.0000	25.36	
* 77 Perylene-d12	264	22.561	22.561	(1.000)	826094	20.0000		
78 Indeno(1,2,3-cd)pyrene	276	24.412	24.388	(1.082)	1369614	25.0000	25.94	
79 Dibenzo(a,h)anthracene	278	24.430	24.411	(1.083)	1089643	25.0000	24.67	
80 Benzo(g,h,i)perylene	276	24.946	24.916	(1.106)	1177750	25.0000	24.98	
90 N-Nitrosodimethylamine	74	4.233	4.215	(0.489)	253704	25.0000	25.91	
103 Pyridine	79	4.204	4.209	(0.485)	465353	25.0000	27.53	
91 Aniline	93	8.210	8.209	(0.948)	618825	25.0000	25.84	
105 1-methylnaphthalene	141	12.046	12.045	(1.124)	707128	25.0000	25.75	
93 Benzidine	184	18.226	18.225	(0.895)	326938	25.0000	24.83	
111 Azobenzene (1,2-DP-Hydrazine)	77	14.743	14.736	(1.084)	790735	25.0000	24.92	
143 1,4-Dioxane	88	3.464	3.445	(0.400)	163822	25.0000	25.46	
\$ 137 d8-1,4-Dioxane	96	3.393	3.381	(0.392)	164769	25.0000	25.28	
151 1,2,4,5-Tetrachlorobenzene	216	12.211	12.210	(0.898)	460566	25.0000	30.11	
120 2,3,4,6-Tetrachlorophenol	232	14.196	14.195	(1.044)	229844	25.0000	31.82	
144 alpha-Terpineol	59	10.748	10.747	(1.003)	189429	25.0000	25.83	
98 Retene	219	18.908	18.901	(0.928)	601027	25.0000	26.01	
133 Butylatedhydroxytoluene	205	13.732	13.731	(1.010)	755346	25.0000	26.49	
115 Tributyl Phosphate	99	14.743	14.730	(0.921)	1121147	25.0000	25.73	
116 Dibutyl Phenyl Phosphate	175	16.493	16.492	(1.030)	865266	25.0000	26.26	
117 Butyl Diphenyl Phosphate	94	18.203	18.202	(0.894)	283696	25.0000	26.39	
118 Triphenyl Phosphate	326	19.830	19.823	(0.974)	206044	25.0000	25.50	
123 Acetophenone	105	9.350	9.337	(0.873)	857869	25.0000	25.78	
179 n-Decane	57	8.463	8.456	(0.977)	406134	25.0000	25.73	
180 n-Octadecane	57	15.847	15.846	(0.990)	498077	25.0000	24.86	
168 Pentachlorobenzene	250	13.955	13.949	(1.026)	293808	25.0000	25.48	
113 Diphenyl Oxide	170	12.833	12.833	(0.944)	545499	25.0000	25.62	
112 Biphenyl	154	12.645	12.645	(0.930)	958819	25.0000	25.96	

QC Flag Legend

M - Compound response manually integrated.



Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01071005.d  
 Lab Smp Id: IC250107  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
 Misc Info: 10-

Calibration Date: 07-JAN-2010  
 Calibration Time: 15:22  
 Client Smp ID: IC250107  
 Level: LOW  
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

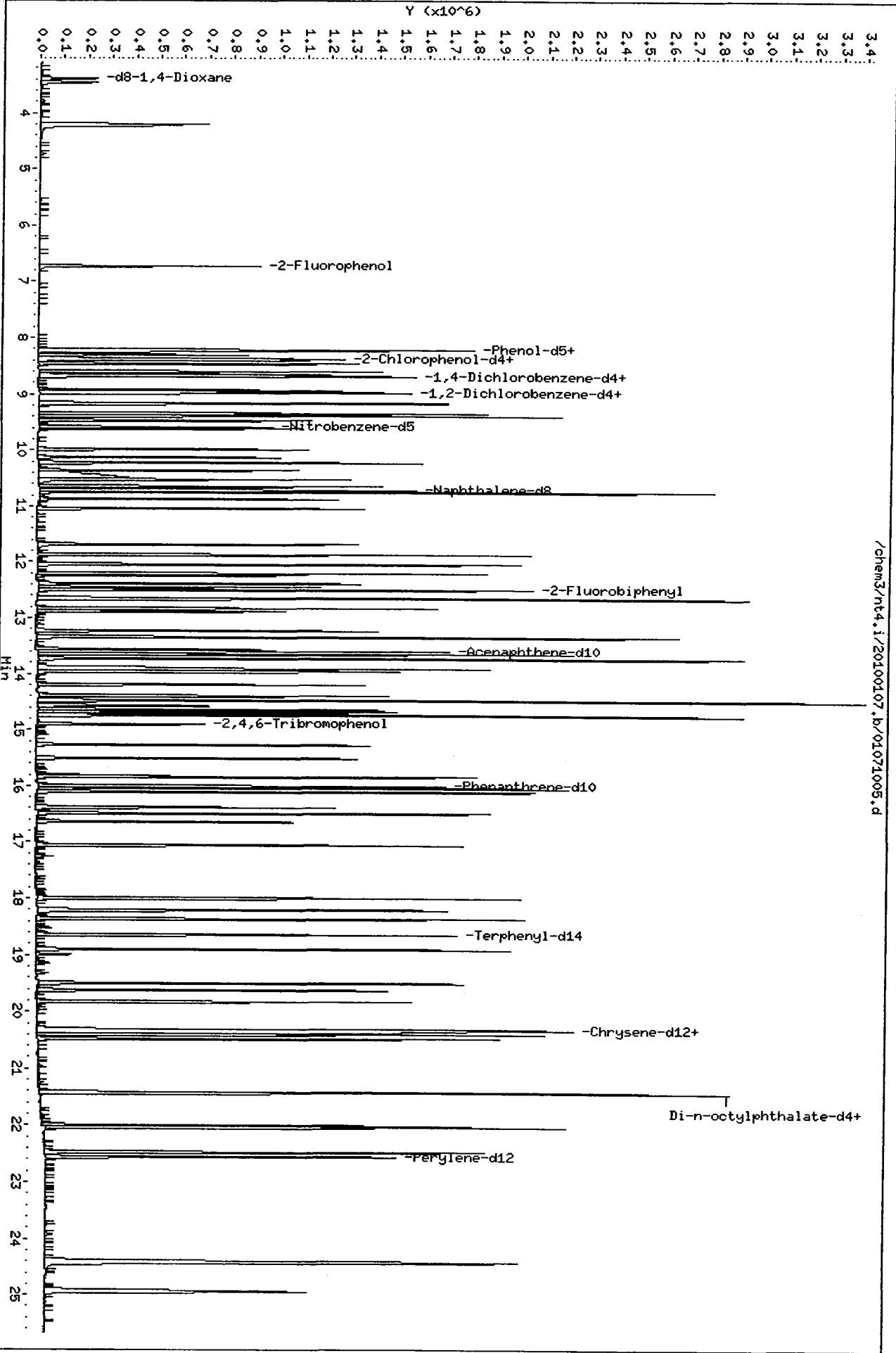
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	286117	0.00
27 Naphthalene-d8	1035557	517778	2071114	1035557	0.00
42 Acenaphthene-d10	594267	297134	1188534	594267	0.00
59 Phenanthrene-d10	951721	475860	1903442	951721	0.00
69 Chrysene-d12	794862	397431	1589724	794862	0.00
134 Di-n-octylphthala	1280700	640350	2561400	1280700	0.00
77 Perylene-d12	826094	413047	1652188	826094	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.66	0.00
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.00
42 Acenaphthene-d10	13.60	13.10	14.10	13.60	0.00
59 Phenanthrene-d10	16.01	15.51	16.51	16.01	0.00
69 Chrysene-d12	20.36	19.86	20.86	20.36	0.00
134 Di-n-octylphthala	21.42	20.92	21.92	21.42	0.00
77 Perylene-d12	22.56	22.06	23.06	22.56	0.00

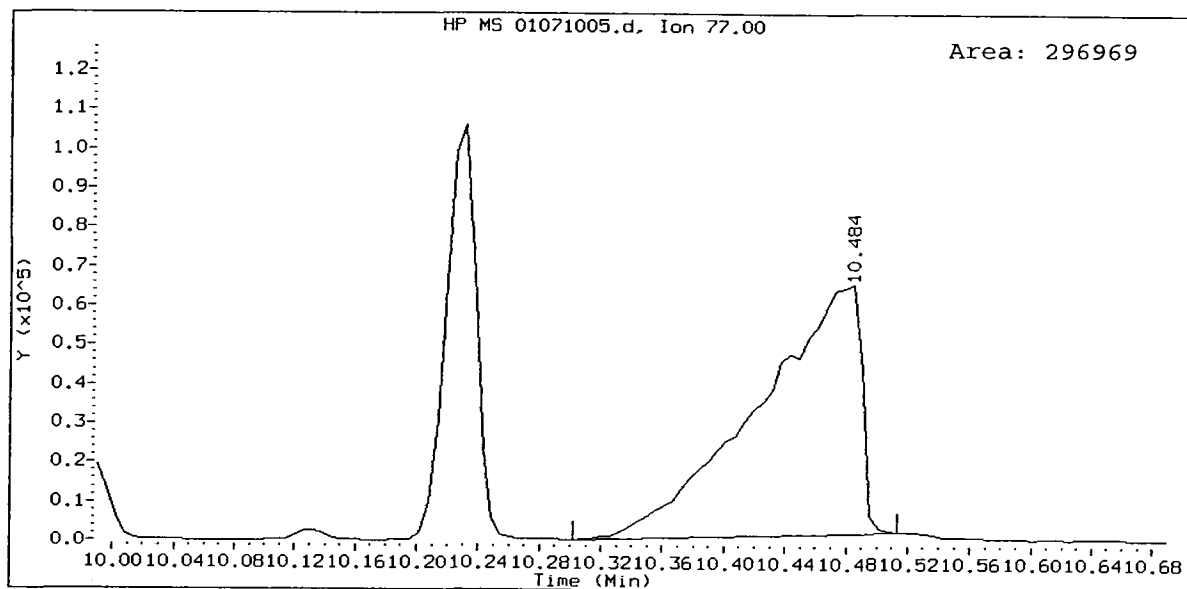
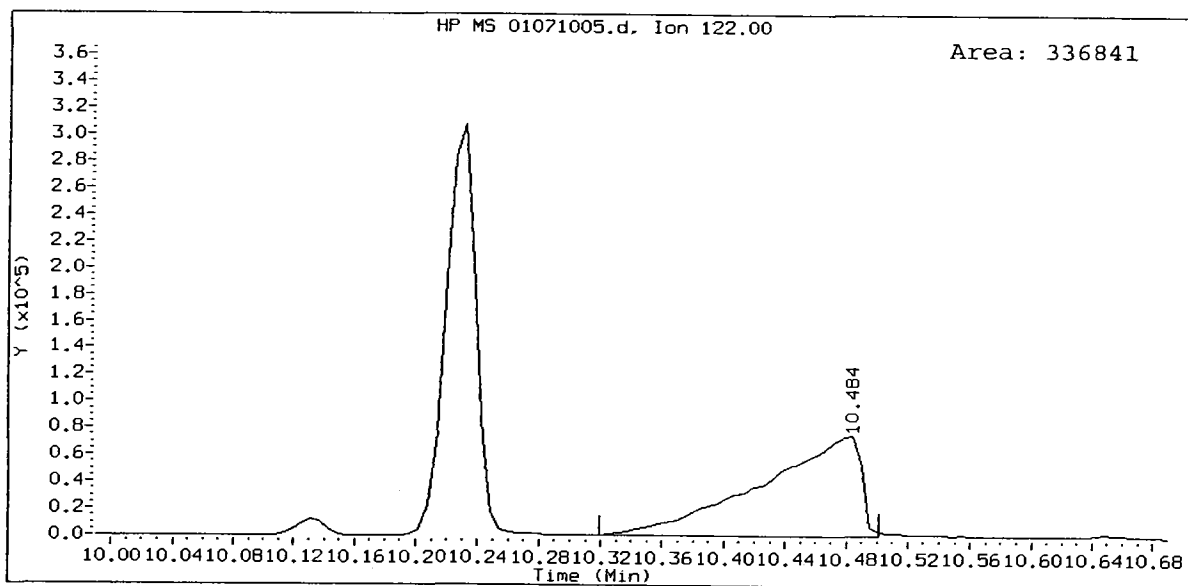
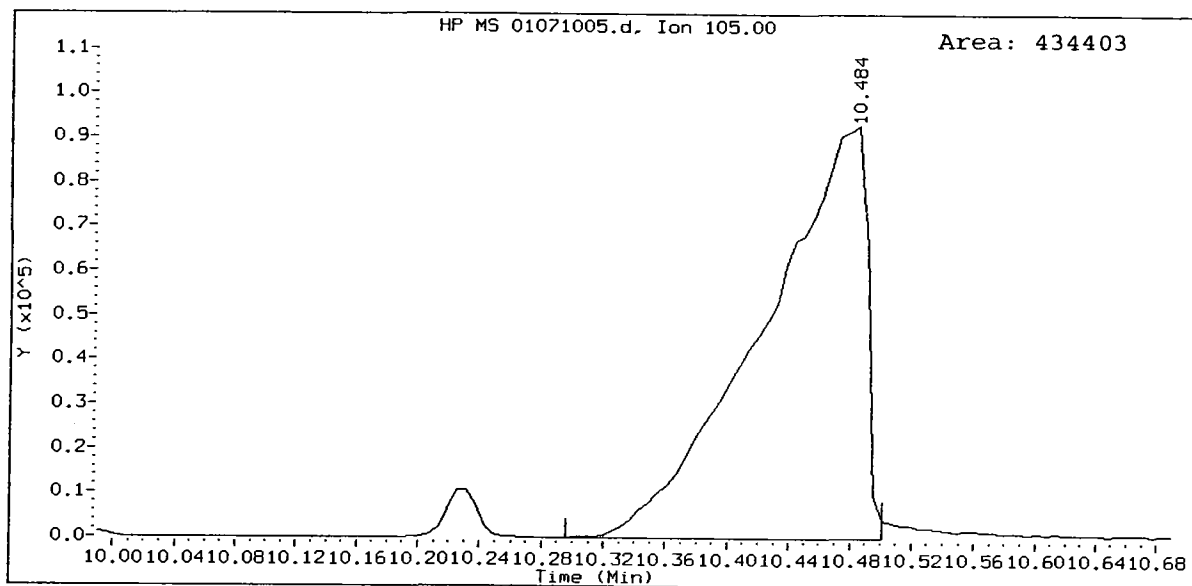
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Client ID: IC250107  
Sample Info: IC250107  
Volume Injected (uL): 1.0  
Column phase: ZB-5msi

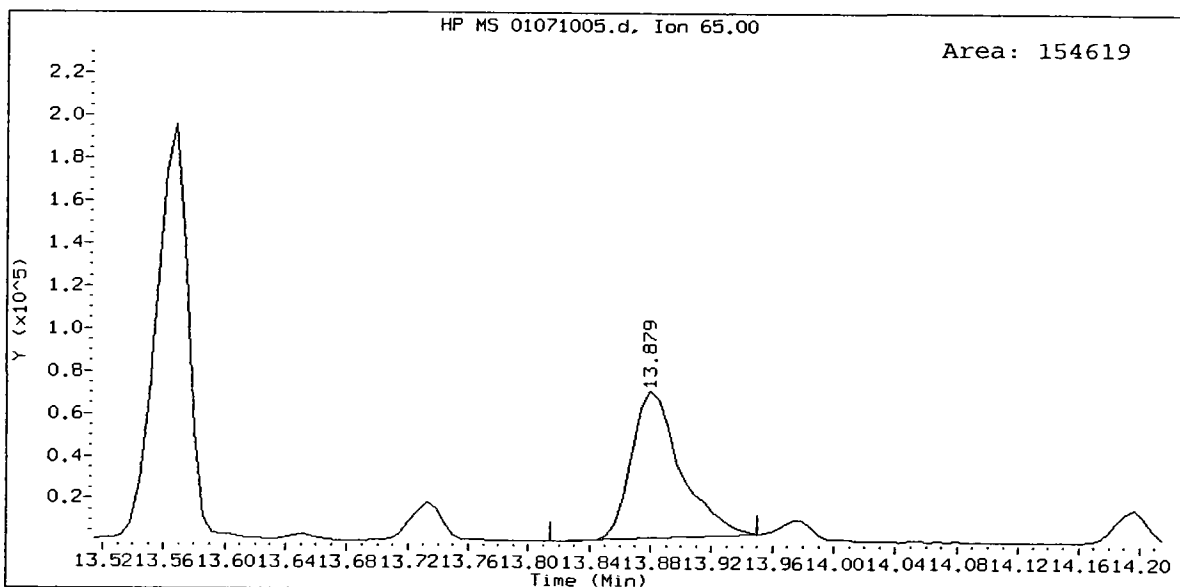
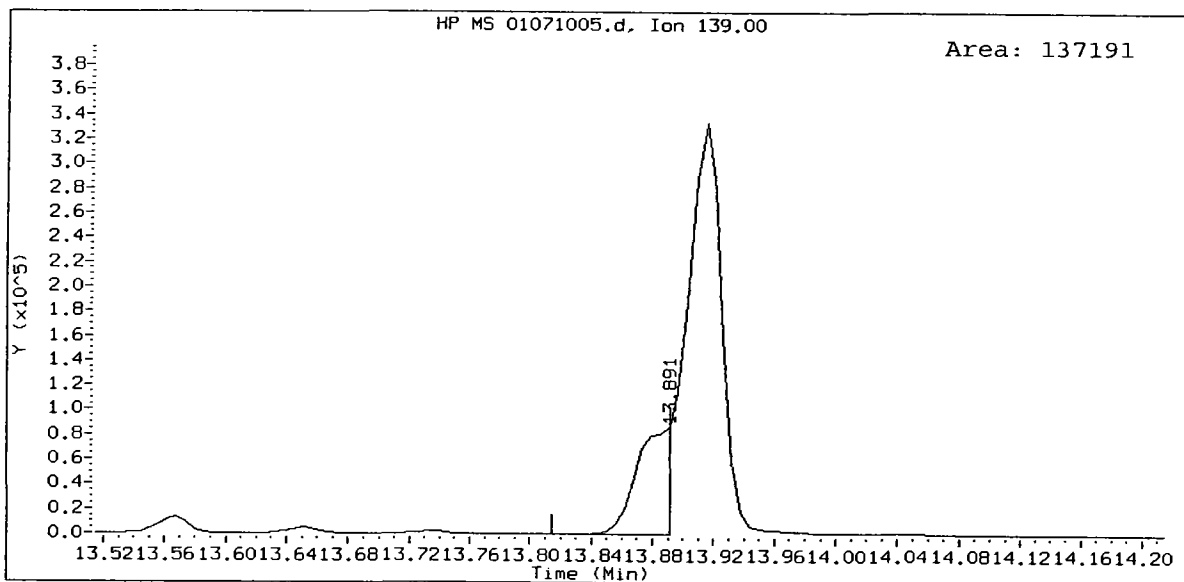
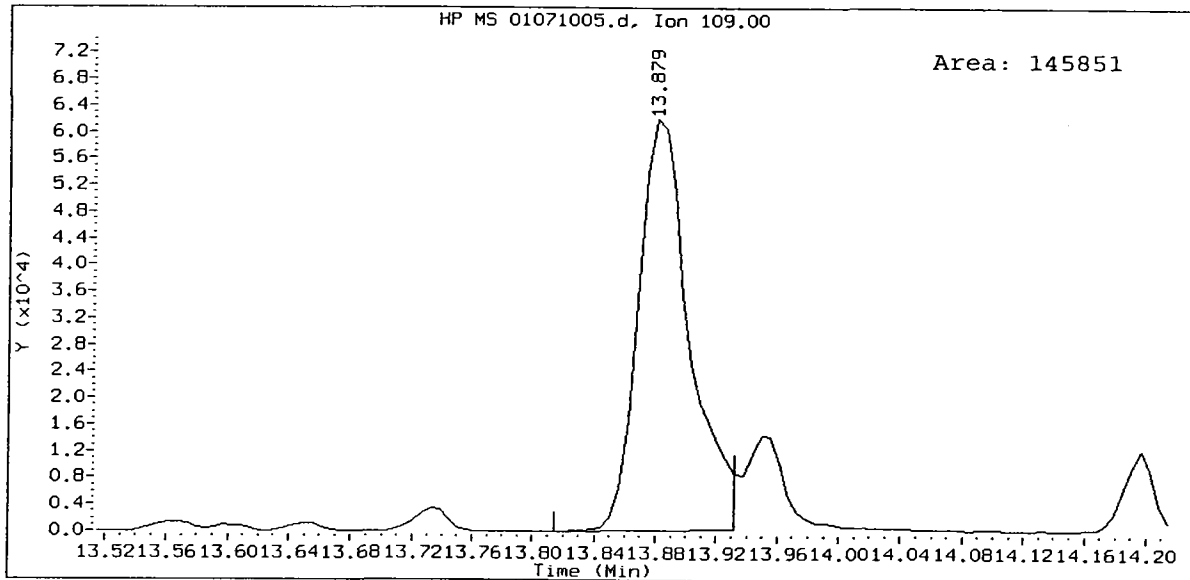
Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32



/chem3/nt4.i/20100107.b/01071005.d



IC250107, /chem3/nt4.i/20100107.b/01071005.d  
4-Nitrophenol Amount: 28.56



Analytical Resources, Inc.

Semivolatiles Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100107.b/01071006.d  
 Lab Smp Id: IC400107 Client Smp ID: IC400107  
 Inj Date : 07-JAN-2010 15:55  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : IC400107  
 Misc Info : 10-  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100107.b/SW846100107.m  
 Meth Date : 07-Jan-2010 18:43 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 15:55 Cal File: 01071006.d  
 Als bottle: 6 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 3.50 Compound Sublist: ICAL.sub

*Handwritten:* 01/10/07

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112	6.731	6.723	(0.777)	612839	40.0000	40.58
\$ 2 Phenol-d5	99	8.223	8.209	(0.949)	616126	40.0000	39.88
3 Phenol	94	8.246	8.227	(0.952)	818399	40.0000	39.46
\$ 5 2-Chlorophenol-d4	132	8.369	8.362	(0.966)	617965	40.0000	40.44
4 Bis(2-Chloroethyl)ether	93	8.317	8.303	(0.960)	620732	40.0000	38.97
6 2-Chlorophenol	128	8.393	8.386	(0.969)	704371	40.0000	39.97
7 1,3-Dichlorobenzene	146	8.604	8.597	(0.993)	753571	40.0000	39.39
* 8 1,4-Dichlorobenzene-d4	152	8.663	8.656	(1.000)	275908	20.0000	
9 1,4-Dichlorobenzene	146	8.687	8.685	(1.003)	771198	40.0000	39.62
\$ 10 1,2-Dichlorobenzene-d4	152	8.963	8.955	(1.035)	439274	40.0000	9.044
12 1,2-Dichlorobenzene	146	8.986	8.979	(1.037)	723400	40.0000	39.72
11 Benzyl alcohol	108	8.939	8.926	(1.032)	436514	40.0000	43.78
14 2,2'-oxybis(1-Chloropropane)	45	9.180	9.173	(1.060)	629566	40.0000	36.17
13 2-Methylphenol	108	9.168	9.155	(1.058)	577917	40.0000	39.04
17 Hexachloroethane	117	9.474	9.467	(1.094)	321583	40.0000	39.98
16 N-Nitroso-di-n-propylamine	70	9.403	9.378	(1.085)	434234	40.0000	38.11
15 4-Methylphenol	108	9.392	9.384	(1.084)	607016	40.0000	39.37
\$ 18 Nitrobenzene-d5	82	9.591	9.578	(0.895)	690644	40.0000	39.71
19 Nitrobenzene	77	9.621	9.608	(0.898)	681495	40.0000	38.52
20 Isophorone	82	9.997	9.978	(0.933)	1065949	40.0000	39.04
21 2-Nitrophenol	139	10.138	10.130	(0.946)	390940	40.0000	40.43
22 2,4-Dimethylphenol	107	10.232	10.224	(0.955)	698126	40.0000	39.31
23 Bis(2-Chloroethoxy)methane	93	10.367	10.359	(0.968)	743334	40.0000	39.05
24 Benzoic acid	105	10.514	10.342	(0.981)	762615	80.0000	108.1
25 2,4-Dichlorophenol	162	10.525	10.518	(0.982)	560814	40.0000	39.96
26 1,2,4-Trichlorobenzene	180	10.655	10.647	(0.995)	588690	40.0000	39.41
* 27 Naphthalene-d8	136	10.713	10.712	(1.000)	1007609	20.0000	

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====	==	=====	=====	=====	=====	=====
28 Naphthalene	128	10.749	10.741	(1.003)	1817896	40.0000	38.05
29 4-Chloroaniline	127	10.878	10.871	(1.015)	851168	40.0000	41.35
30 Hexachlorobutadiene	225	11.048	11.047	(1.031)	330492	40.0000	39.38
31 4-Chloro-3-methylphenol	107	11.689	11.687	(1.091)	598393	40.0000	39.89
32 2-Methylnaphthalene	141	11.871	11.869	(1.108)	1067525	40.0000	39.47
33 Hexachlorocyclopentadiene	237	12.241	12.239	(0.900)	368908	40.0000	43.01
34 2,4,6-Trichlorophenol	196	12.388	12.386	(0.911)	397487	40.0000	40.52
35 2,4,5-Trichlorophenol	196	12.452	12.451	(0.916)	416095	40.0000	41.82
\$ 36 2-Fluorobiphenyl	172	12.505	12.504	(0.920)	1312199	40.0000	39.59
37 2-Chloronaphthalene	162	12.664	12.656	(0.931)	1168135	40.0000	39.07
38 2-Nitroaniline	65	12.887	12.880	(0.948)	371733	40.0000	40.28
39 Dimethylphthalate	163	13.239	13.226	(0.974)	1373513	40.0000	39.44
40 Acenaphthylene	152	13.351	13.344	(0.982)	1780212	40.0000	38.78
41 2,6-Dinitrotoluene	165	13.345	13.332	(0.981)	324101	40.0000	40.63
* 42 Acenaphthene-d10	164	13.598	13.596	(1.000)	574151	20.0000	
43 3-Nitroaniline	138	12.887	12.880	(0.948)	469117	40.0000	41.72
44 Acenaphthene	153	13.656	13.649	(1.004)	1187600	40.0000	39.18
45 2,4-Dinitrophenol	184	13.739	13.725	(1.010)	386838	80.0000	107.9
46 Dibenzofuran	168	13.921	13.908	(1.024)	1632159	40.0000	39.54
47 4-Nitrophenol	109	13.886	13.866	(1.021)	212896	40.0000	42.66 (M)
48 2,4-Dinitrotoluene	165	13.985	13.972	(1.028)	448623	40.0000	41.47
50 Diethylphthalate	149	14.402	14.383	(1.059)	1459826	40.0000	39.42
49 Fluorene	166	14.485	14.472	(1.065)	1321820	40.0000	39.13
51 4-Chlorophenyl-phenylether	204	14.485	14.477	(1.065)	606436	40.0000	39.56
52 4-Nitroaniline	138	14.590	14.560	(1.073)	367846	40.0000	41.49
53 4,6-Dinitro-2-methylphenol	198	14.655	14.630	(0.916)	514486	80.0000	93.47
54 N-Nitrosodiphenylamine	169	14.696	14.683	(0.918)	804711	40.0000	38.98
\$ 55 2,4,6-Tribromophenol	330	14.908	14.900	(1.096)	143259	40.0000	41.96
56 4-Bromophenyl-phenylether	248	15.272	15.270	(0.954)	354788	40.0000	39.61
57 Hexachlorobenzene	284	15.513	15.511	(0.969)	351166	40.0000	39.40
58 Pentachlorophenol	266	15.818	15.811	(0.988)	125973	40.0000	55.25
* 59 Phenanthrene-d10	188	16.006	16.005	(1.000)	913448	20.0000	
60 Phenanthrene	178	16.047	16.034	(1.003)	1839057	40.0000	38.72
61 Anthracene	178	16.118	16.110	(1.007)	1807831	40.0000	38.64
62 Carbazole	167	16.394	16.387	(1.024)	1036478	40.0000	37.03
63 Di-n-butylphthalate	149	17.058	17.056	(1.066)	2162901	40.0000	38.36
64 Fluoranthene	202	18.003	17.996	(1.125)	1807802	40.0000	38.73
65 Pyrene	202	18.368	18.360	(0.902)	1866593	40.0000	39.05
\$ 66 Terphenyl-d14	244	18.650	18.642	(0.916)	1108996	40.0000	39.84
67 Butylbenzylphthalate	149	19.507	19.500	(0.958)	999001	40.0000	39.02
68 Benzo(a)anthracene	228	20.342	20.328	(0.999)	1735323	40.0000	39.19
* 69 Chrysene-d12	240	20.365	20.358	(1.000)	750618	20.0000	
70 3,3'-Dichlorobenzidine	252	20.324	20.317	(0.998)	644044	40.0000	40.99
71 Chrysene	228	20.412	20.399	(1.002)	1625132	40.0000	38.64
72 bis(2-Ethylhexyl)phthalate	149	20.488	20.487	(0.956)	1392955	40.0000	40.34
* 134 Di-n-octylphthalate-d4	153	21.428	21.421	(1.000)	1191095	20.0000	
73 Di-n-octylphthalate	149	21.440	21.433	(1.001)	2228485	40.0000	38.85

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/mL)	ON-COL (ug/mL)
74 Benzo(b)fluoranthene	252	22.016	21.997	(0.976)	1873823	40.0000	38.73
75 Benzo(k)fluoranthene	252	22.051	22.032	(0.977)	1855997	40.0000	37.03
76 Benzo(a)pyrene	252	22.486	22.467	(0.997)	1707376	40.0000	39.05
* 77 Perylene-d12	264	22.562	22.561	(1.000)	785897	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.424	24.388	(1.083)	2060662	40.0000	41.02
79 Dibenzo(a,h)anthracene	278	24.448	24.411	(1.084)	1635103	40.0000	38.91
80 Benzo(g,h,i)perylene	276	24.959	24.916	(1.106)	1765554	40.0000	39.36
90 N-Nitrosodimethylamine	74	4.240	4.215	(0.489)	375895	40.0000	39.82
103 Pyridine	79	4.205	4.209	(0.485)	700435	40.0000	42.98
91 Aniline	93	8.217	8.209	(0.948)	921624	40.0000	39.91
105 1-methylnaphthalene	141	12.047	12.045	(1.124)	1048772	40.0000	39.24
93 Benzidine	184	18.227	18.225	(0.895)	638124	40.0000	51.33
111 Azobenzene (1,2-DP-Hydrazine)	77	14.743	14.736	(1.084)	1089009	40.0000	35.53
143 1,4-Dioxane	88	3.458	3.445	(0.399)	246708	40.0000	39.76
§ 137 d8-1,4-Dioxane	96	3.394	3.381	(0.392)	244986	40.0000	38.98
151 1,2,4,5-Tetrachlorobenzene	216	12.211	12.210	(0.898)	562720	40.0000	38.08
120 2,3,4,6-Tetrachlorophenol	232	14.197	14.195	(1.044)	295720	40.0000	42.38
144 alpha-Terpineol	59	10.754	10.747	(1.004)	271378	40.0000	38.03
98 Retene	219	18.908	18.901	(0.928)	894473	40.0000	40.99
133 Butylatedhydroxytoluene	205	13.739	13.731	(1.010)	1112749	40.0000	40.39
115 Tributyl Phosphate	99	14.755	14.730	(0.922)	1611554	40.0000	38.54
116 Dibutyl Phenyl Phosphate	175	16.500	16.492	(1.031)	1288952	40.0000	40.76
117 Butyl Diphenyl Phosphate	94	18.209	18.202	(0.894)	410459	40.0000	40.44
118 Triphenyl Phosphate	326	19.836	19.823	(0.974)	310229	40.0000	40.65
123 Acetophenone	105	9.351	9.337	(0.873)	1258908	40.0000	38.89
179 n-Decane	57	8.463	8.456	(0.977)	575129	40.0000	37.79
180 n-Octadecane	57	15.848	15.846	(0.990)	697866	40.0000	36.29
168 Pentachlorobenzene	250	13.956	13.949	(1.026)	442716	40.0000	39.73
113 Diphenyl Oxide	170	12.834	12.833	(0.944)	821343	40.0000	39.92
112 Biphenyl	154	12.646	12.645	(0.930)	1400482	40.0000	39.25

QC Flag Legend

M - Compound response manually integrated.





Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01071006.d  
 Lab Smp Id: IC400107  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
 Misc Info: 10-

Calibration Date: 07-JAN-2010  
 Calibration Time: 15:22  
 Client Smp ID: IC400107  
 Level:  
 Sample Type:

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	275908	-3.57
27 Naphthalene-d8	1035557	517778	2071114	1007609	-2.70
42 Acenaphthene-d10	594267	297134	1188534	574151	-3.39
59 Phenanthrene-d10	951721	475860	1903442	913448	-4.02
69 Chrysene-d12	794862	397431	1589724	750618	-5.57
134 Di-n-octylphthala	1280700	640350	2561400	1191095	-7.00
77 Perylene-d12	826094	413047	1652188	785897	-4.87

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.66	0.01
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.01
42 Acenaphthene-d10	13.60	13.10	14.10	13.60	0.00
59 Phenanthrene-d10	16.01	15.51	16.51	16.01	0.00
69 Chrysene-d12	20.36	19.86	20.86	20.37	0.00
134 Di-n-octylphthala	21.42	20.92	21.92	21.43	0.03
77 Perylene-d12	22.56	22.06	23.06	22.56	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt4.i/20100107.b/01071006.d  
Date: 07-JAN-2010 15:55

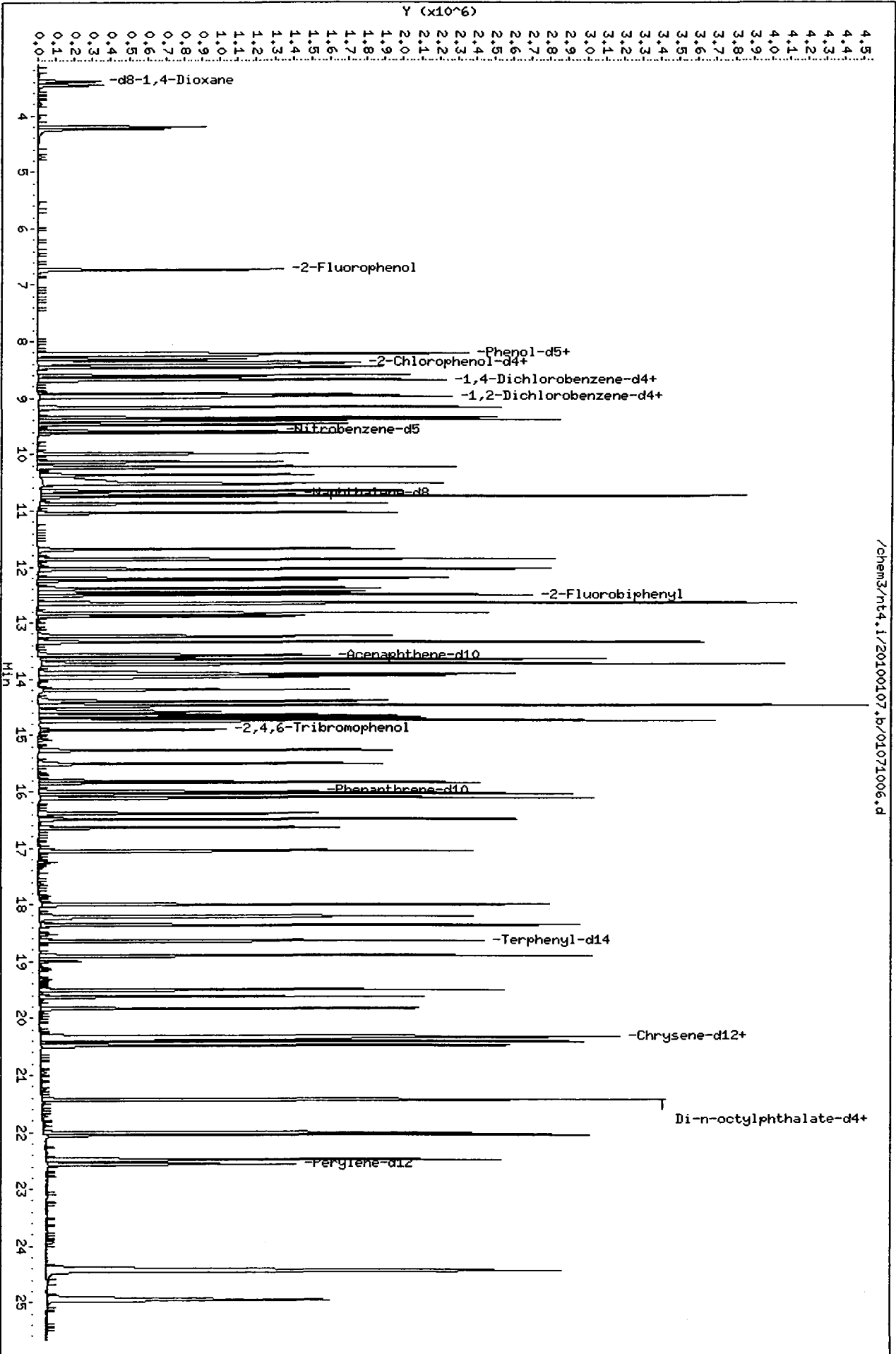
Client ID: IC400107

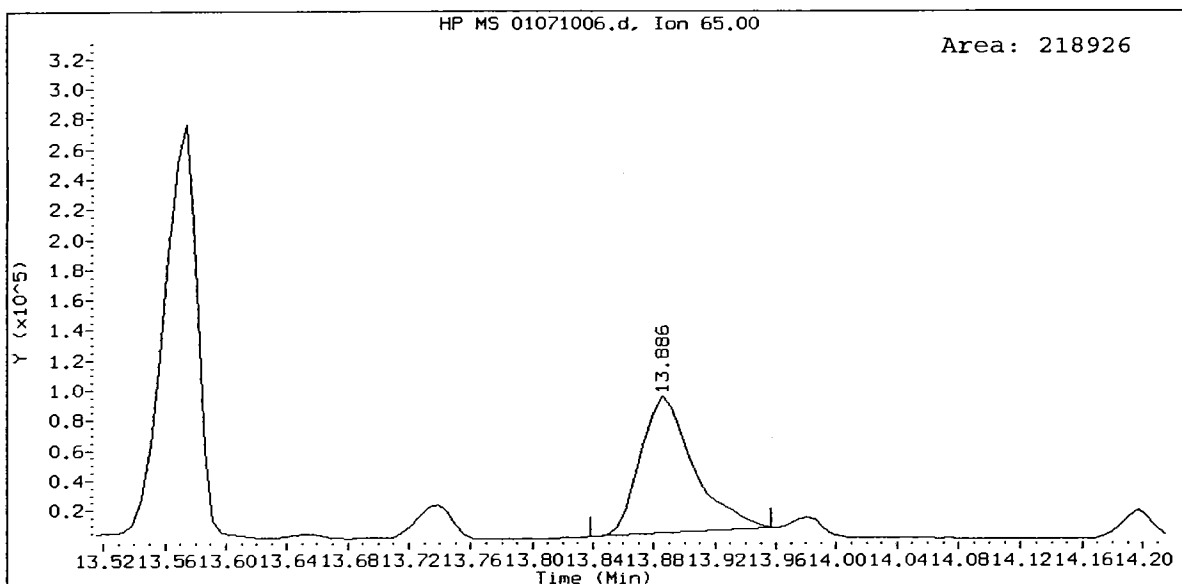
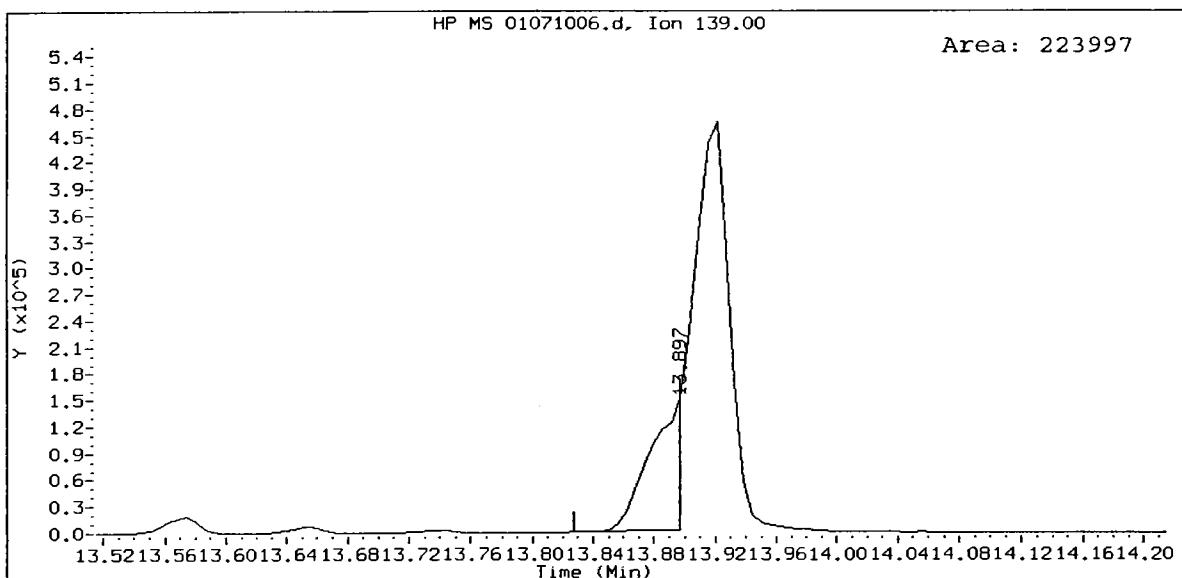
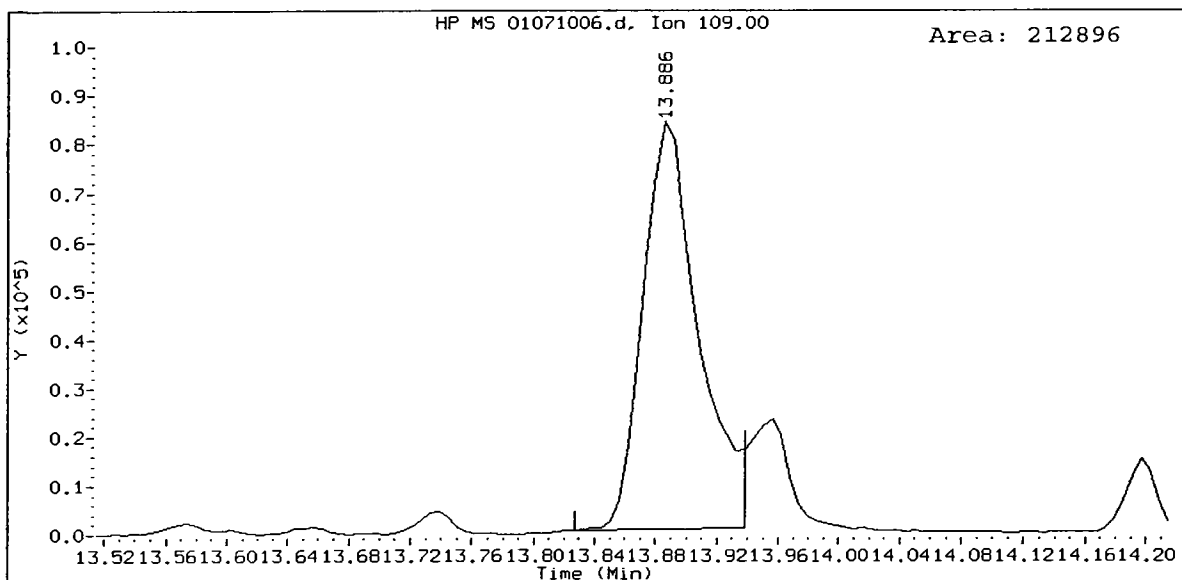
Sample Info: IC400107

Column phase: ZB-5msi

Instrument: nt4.i

Operator: JZ  
Column diameter: 0.32





Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100107.b/01071007.d  
Lab Smp Id: IC600107 Client Smp ID: IC600107  
Inj Date : 07-JAN-2010 16:29  
Operator : JZ Inst ID: nt4.i  
Smp Info : IC600107  
Misc Info : 10-  
Comment : lul Injection  
Method : /chem3/nt4.i/20100107.b/SW846100107.m  
Meth Date : 07-Jan-2010 18:43 jianqing Quant Type: ISTD  
Cal Date : 07-JAN-2010 16:29 Cal File: 01071007.d  
Als bottle: 7 Calibration Sample, Level: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: ICAL.sub  
Target Version: 3.50

*JB* 01/07/10  
AMOUNTS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.732	6.723	(0.777)	865856	60.0000	58.55
\$ 2 Phenol-d5	99		8.230	8.209	(0.950)	858971	60.0000	56.79
3 Phenol	94		8.248	8.227	(0.952)	1158365	60.0000	57.04
\$ 5 2-Chlorophenol-d4	132		8.377	8.362	(0.967)	870206	60.0000	58.17
4 Bis(2-Chloroethyl) ether	93		8.319	8.303	(0.960)	886103	60.0000	56.82
6 2-Chlorophenol	128		8.401	8.386	(0.969)	1028699	60.0000	59.62
7 1,3-Dichlorobenzene	146		8.606	8.597	(0.993)	1087360	60.0000	58.05
* 8 1,4-Dichlorobenzene-d4	152		8.665	8.656	(1.000)	270135	20.0000	
9 1,4-Dichlorobenzene	146		8.694	8.685	(1.003)	1097857	60.0000	57.61
\$ 10 1,2-Dichlorobenzene-d4	152		8.965	8.955	(1.035)	616295	60.0000	12.96
12 1,2-Dichlorobenzene	146		8.988	8.979	(1.037)	1030195	60.0000	57.77
11 Benzyl alcohol	108		8.941	8.926	(1.032)	615771	60.0000	63.08
14 2,2'-oxybis(1-Chloropropane)	45		9.182	9.173	(1.060)	822900	60.0000	48.29
13 2-Methylphenol	108		9.176	9.155	(1.059)	827319	60.0000	57.08
17 Hexachloroethane	117		9.476	9.467	(1.094)	459122	60.0000	58.31
16 N-Nitroso-di-n-propylamine	70		9.417	9.378	(1.087)	606994	60.0000	54.41
15 4-Methylphenol	108		9.399	9.384	(1.085)	871155	60.0000	57.70
\$ 18 Nitrobenzene-d5	82		9.599	9.578	(0.896)	964608	60.0000	55.80
19 Nitrobenzene	77		9.629	9.608	(0.899)	955566	60.0000	54.34
20 Isophorone	82		10.004	9.978	(0.934)	1522368	60.0000	56.09
21 2-Nitrophenol	139		10.140	10.130	(0.946)	579071	60.0000	60.26
22 2,4-Dimethylphenol	107		10.239	10.224	(0.956)	1002995	60.0000	56.83
23 Bis(2-Chloroethoxy)methane	93		10.375	10.359	(0.968)	1050036	60.0000	55.49
24 Benzoic acid	105		10.563	10.342	(0.986)	1184783	120.0000	184.2 (M)
25 2,4-Dichlorophenol	162		10.533	10.518	(0.983)	817324	60.0000	58.60
26 1,2,4-Trichlorobenzene	180		10.657	10.647	(0.995)	850916	60.0000	57.31
* 27 Naphthalene-d8	136		10.715	10.712	(1.000)	1001488	20.0000	

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
28 Naphthalene	128	10.751	10.741	(1.003)	2447312	60.0000	51.54
29 4-Chloroaniline	127	10.886	10.871	(1.016)	1189117	60.0000	58.12
30 Hexachlorobutadiene	225	11.044	11.047	(1.031)	473769	60.0000	56.79
31 4-Chloro-3-methylphenol	107	11.696	11.687	(1.092)	861891	60.0000	57.81
32 2-Methylnaphthalene	141	11.873	11.869	(1.108)	1464033	60.0000	54.46
33 Hexachlorocyclopentadiene	237	12.243	12.239	(0.900)	534129	60.0000	63.24
34 2,4,6-Trichlorophenol	196	12.395	12.386	(0.911)	591785	60.0000	61.26
35 2,4,5-Trichlorophenol	196	12.460	12.451	(0.916)	612248	60.0000	62.48
§ 36 2-Fluorobiphenyl	172	12.513	12.504	(0.920)	1814053	60.0000	55.57
37 2-Chloronaphthalene	162	12.671	12.656	(0.931)	1620384	60.0000	55.03
38 2-Nitroaniline	65	12.895	12.880	(0.948)	512173	60.0000	56.35
39 Dimethylphthalate	163	13.247	13.226	(0.974)	1941904	60.0000	56.63
40 Acenaphthylene	152	13.353	13.344	(0.981)	2407393	60.0000	53.24
41 2,6-Dinitrotoluene	165	13.353	13.332	(0.981)	458375	60.0000	58.34
* 42 Acenaphthene-d10	164	13.605	13.596	(1.000)	565443	20.0000	
43 3-Nitroaniline	138	12.895	12.880	(0.948)	656444	60.0000	59.27
44 Acenaphthene	153	13.658	13.649	(1.004)	1666255	60.0000	55.82
45 2,4-Dinitrophenol	184	13.752	13.725	(1.011)	603568	120.0000	171.3
46 Dibenzofuran	168	13.923	13.908	(1.023)	2235685	60.0000	55.00
47 4-Nitrophenol	109	13.899	13.866	(1.022)	304873	60.0000	64.57
48 2,4-Dinitrotoluene	165	13.987	13.972	(1.028)	650360	60.0000	61.05
50 Diethylphthalate	149	14.404	14.383	(1.059)	2054164	60.0000	56.32
49 Fluorene	166	14.487	14.472	(1.065)	1782670	60.0000	53.59
51 4-Chlorophenyl-phenylether	204	14.487	14.477	(1.065)	838748	60.0000	55.56
52 4-Nitroaniline	138	14.604	14.560	(1.073)	525809	60.0000	60.22
53 4,6-Dinitro-2-methylphenol	198	14.669	14.630	(0.916)	785982	120.0000	143.8
54 N-Nitrosodiphenylamine	169	14.704	14.683	(0.919)	1183074	60.0000	57.71
§ 55 2,4,6-Tribromophenol	330	14.915	14.900	(1.096)	207802	60.0000	61.81
56 4-Bromophenyl-phenylether	248	15.280	15.270	(0.954)	512486	60.0000	57.62
57 Hexachlorobenzene	284	15.521	15.511	(0.970)	504237	60.0000	56.97
58 Pentachlorophenol	266	15.820	15.811	(0.988)	219823	60.0000	97.10
* 59 Phenanthrene-d10	188	16.008	16.005	(1.000)	907075	20.0000	
60 Phenanthrene	178	16.049	16.034	(1.003)	2546774	60.0000	53.99
61 Anthracene	178	16.126	16.110	(1.007)	2487136	60.0000	53.54
62 Carbazole	167	16.396	16.387	(1.024)	1470139	60.0000	52.89
63 Di-n-butylphthalate	149	17.060	17.056	(1.066)	2896700	60.0000	51.74
64 Fluoranthene	202	18.011	17.996	(1.125)	2546849	60.0000	54.95
65 Pyrene	202	18.376	18.360	(0.902)	2637912	60.0000	52.66
§ 66 Terphenyl-d14	244	18.652	18.642	(0.916)	1591742	60.0000	54.56
67 Butylbenzylphthalate	149	19.509	19.500	(0.958)	1471258	60.0000	54.84
68 Benzo(a)anthracene	228	20.349	20.328	(0.999)	2545154	60.0000	54.84
* 69 Chrysene-d12	240	20.373	20.358	(1.000)	786643	20.0000	
70 3,3'-Dichlorobenzidine	252	20.332	20.317	(0.998)	967567	60.0000	58.76
71 Chrysene	228	20.420	20.399	(1.002)	2406002	60.0000	54.59
72 bis(2-Ethylhexyl)phthalate	149	20.490	20.487	(0.956)	2014954	60.0000	57.71
* 134 Di-n-octylphthalate-d4	153	21.430	21.421	(1.000)	1204515	20.0000	
73 Di-n-octylphthalate	149	21.442	21.433	(1.001)	3086917	60.0000	53.21

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)
=====	=====	==	=====	=====	=====	=====	=====
74 Benzo(b)fluoranthene	252	22.029	21.997	(0.976)	2825259	60.0000	56.64
75 Benzo(k)fluoranthene	252	22.065	22.032	(0.978)	2726312	60.0000	52.75
76 Benzo(a)pyrene	252	22.493	22.467	(0.997)	2556899	60.0000	56.72
* 77 Perylene-d12	264	22.570	22.561	(1.000)	810286	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.450	24.388	(1.083)	3155156	60.0000	60.92
79 Dibenzo(a,h)anthracene	278	24.467	24.411	(1.084)	2501031	60.0000	57.73
80 Benzo(g,h,i)perylene	276	24.984	24.916	(1.107)	2677038	60.0000	57.88
90 N-Nitrosodimethylamine	74	4.253	4.215	(0.491)	541606	60.0000	58.59
103 Pyridine	79	4.201	4.209	(0.485)	976232	60.0000	61.18
91 Aniline	93	8.219	8.209	(0.948)	1267883	60.0000	56.08
105 1-methylnaphthalene	141	12.049	12.045	(1.124)	1467985	60.0000	55.26
93 Benzidine	184	18.235	18.225	(0.895)	982581	60.0000	75.41
111 Azobenzene (1,2-DP-Hydrazine)	77	14.751	14.736	(1.084)	1504218	60.0000	49.83
143 1,4-Dioxane	88	3.460	3.445	(0.399)	359061	60.0000	59.10
§ 137 d8-1,4-Dioxane	96	3.396	3.381	(0.392)	358990	60.0000	58.33
151 1,2,4,5-Tetrachlorobenzene	216	12.213	12.210	(0.898)	801058	60.0000	55.05
120 2,3,4,6-Tetrachlorophenol	232	14.205	14.195	(1.044)	434174	60.0000	63.18
144 alpha-Terpineol	59	10.756	10.747	(1.004)	349993	60.0000	49.35
98 Retene	219	18.910	18.901	(0.928)	1251949	60.0000	54.74
133 Butylatedhydroxytoluene	205	13.741	13.731	(1.010)	1446517	60.0000	53.32
115 Tributyl Phosphate	99	14.763	14.730	(0.922)	2099901	60.0000	50.57
116 Dibutyl Phenyl Phosphate	175	16.502	16.492	(1.031)	1742223	60.0000	55.48
117 Butyl Diphenyl Phosphate	94	18.211	18.202	(0.894)	546470	60.0000	51.37
118 Triphenyl Phosphate	326	19.838	19.823	(0.974)	458257	60.0000	57.30
123 Acetophenone	105	9.358	9.337	(0.873)	1743070	60.0000	54.17
179 n-Decane	57	8.465	8.456	(0.977)	771635	60.0000	51.78
180 n-Octadecane	57	15.850	15.846	(0.990)	903868	60.0000	47.33
168 Pentachlorobenzene	250	13.964	13.949	(1.026)	639060	60.0000	58.24
113 Diphenyl Oxide	170	12.836	12.833	(0.943)	1139301	60.0000	56.23
112 Biphenyl	154	12.654	12.645	(0.930)	1849131	60.0000	52.63

QC Flag Legend

M - Compound response manually integrated.



Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01071007.d  
 Lab Smp Id: IC600107  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
 Misc Info: 10-

Calibration Date: 07-JAN-2010  
 Calibration Time: 15:22  
 Client Smp ID: IC600107  
 Level:  
 Sample Type:

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	270135	-5.59
27 Naphthalene-d8	1035557	517778	2071114	1001488	-3.29
42 Acenaphthene-d10	594267	297134	1188534	565443	-4.85
59 Phenanthrene-d10	951721	475860	1903442	907075	-4.69
69 Chrysene-d12	794862	397431	1589724	786643	-1.03
134 Di-n-octylphthala	1280700	640350	2561400	1204515	-5.95
77 Perylene-d12	826094	413047	1652188	810286	-1.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.67	0.03
27 Naphthalene-d8	10.71	10.21	11.21	10.72	0.02
42 Acenaphthene-d10	13.60	13.10	14.10	13.61	0.06
59 Phenanthrene-d10	16.01	15.51	16.51	16.01	0.02
69 Chrysene-d12	20.36	19.86	20.86	20.37	0.04
134 Di-n-octylphthala	21.42	20.92	21.92	21.43	0.04
77 Perylene-d12	22.56	22.06	23.06	22.57	0.04

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

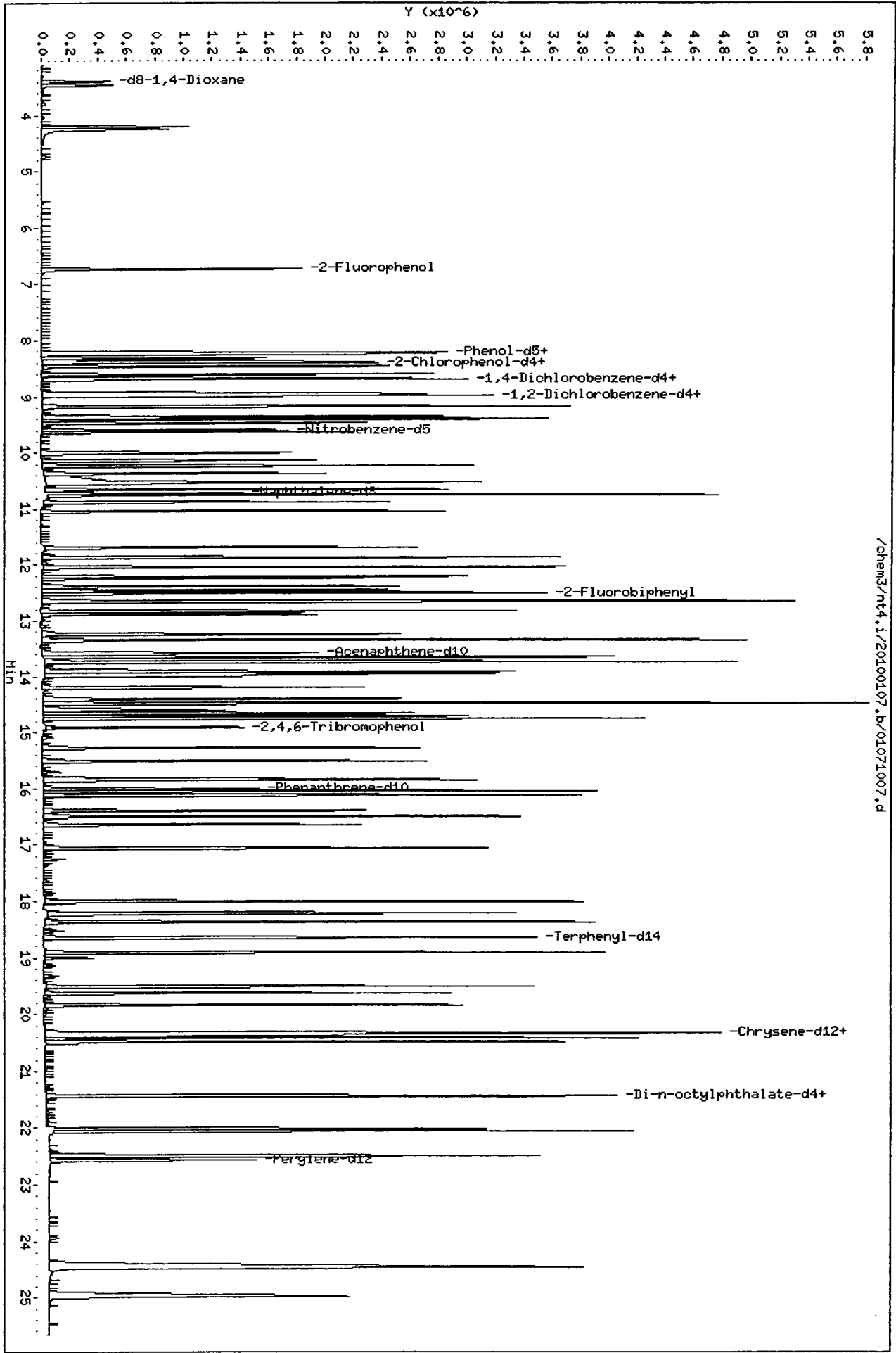
Data File: /chems/nt4.i/20100107.b/01071007.d  
Date : 07-JAN-2010 16:29  
Client ID: IC600107  
Sample Info: IC600107

Column phase: ZB-Smsi

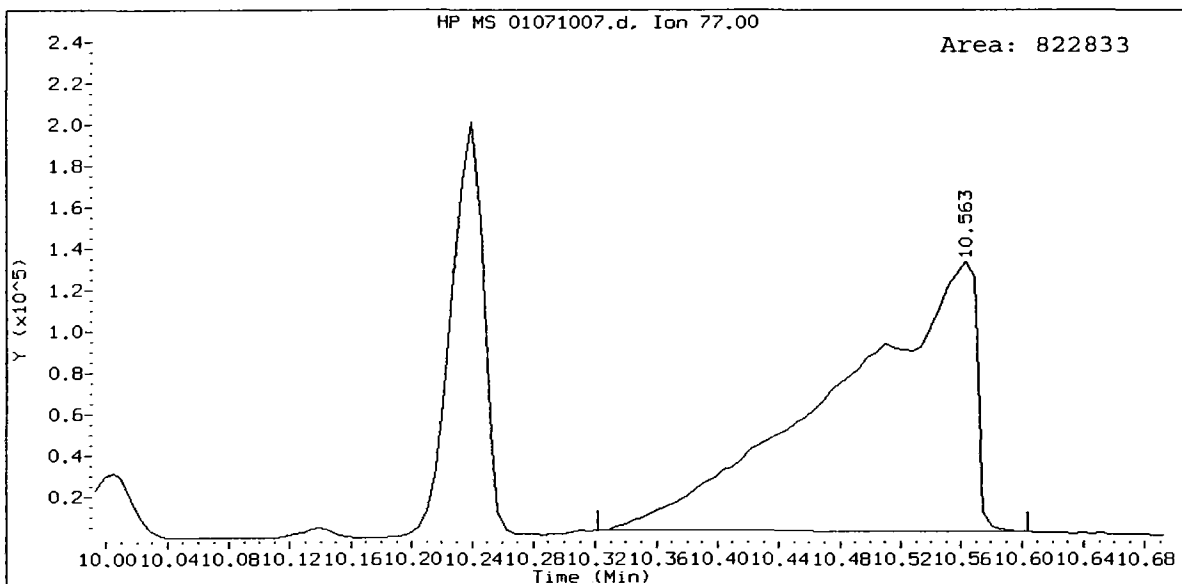
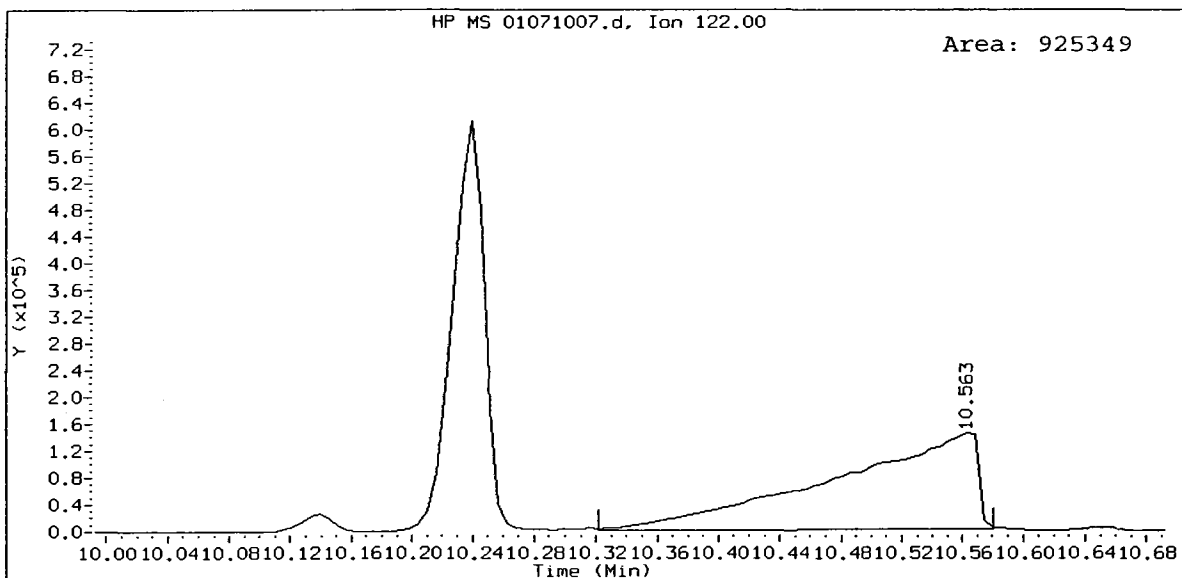
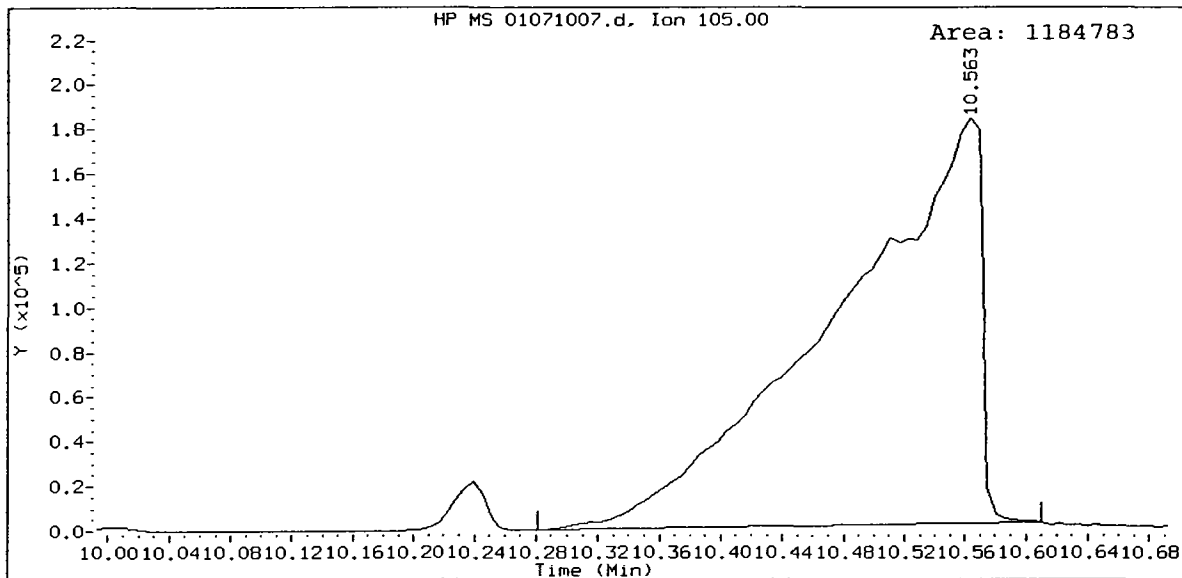
Instrument: nt4.i

Operator: JZ  
Column diameter: 0.32

/chems/nt4.i/20100107.b/01071007.d







Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100107.b/01071008.d  
 Lab Smp Id: IC800107 Client Smp ID: IC800107  
 Inj Date : 07-JAN-2010 17:02  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : IC800107,  
 Misc Info : 10-  
 Comment : lul Injection  
 Method : /chem3/nt4.i/20100107.b/SW846100107.m  
 Meth Date : 07-Jan-2010 18:43 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 17:02 Cal File: 01071008.d  
 Als bottle: 8 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: ICAL.sub  
 Target Version: 3.50

*B* 01/07/10

Compounds	QUANT	SIG	AMOUNTS				CAL-AMT (ug/mL)	ON-COL (ug/mL)
			MASS	RT	EXP RT	REL RT		
\$ 1 2-Fluorophenol	112		6.733	6.723	(0.777)	1102623	80.0000	75.64
\$ 2 Phenol-d5	99		8.237	8.209	(0.950)	1087270	80.0000	72.92
3 Phenol	94		8.254	8.227	(0.953)	1436385	80.0000	71.76
\$ 5 2-Chlorophenol-d4	132		8.377	8.362	(0.967)	1116779	80.0000	75.73
4 Bis(2-Chloroethyl) ether	93		8.325	8.303	(0.961)	1120994	80.0000	72.93
6 2-Chlorophenol	128		8.407	8.386	(0.970)	1282575	80.0000	75.40
7 1,3-Dichlorobenzene	146		8.607	8.597	(0.993)	1363507	80.0000	73.85
* 8 1,4-Dichlorobenzene-d4	152		8.665	8.656	(1.000)	266285	20.0000	
9 1,4-Dichlorobenzene	146		8.695	8.685	(1.003)	1367042	80.0000	72.77
\$ 10 1,2-Dichlorobenzene-d4	152		8.971	8.955	(1.035)	780347	80.0000	16.65
12 1,2-Dichlorobenzene	146		8.988	8.979	(1.037)	1278507	80.0000	72.73
11 Benzyl alcohol	108		8.947	8.926	(1.033)	793528	80.0000	82.46
14 2,2'-oxybis(1-Chloropropane)	45		9.188	9.173	(1.060)	988674	80.0000	58.86
13 2-Methylphenol	108		9.182	9.155	(1.060)	1031305	80.0000	72.19
17 Hexachloroethane	117		9.476	9.467	(1.094)	575283	80.0000	74.11
16 N-Nitroso-di-n-propylamine	70		9.423	9.378	(1.087)	765048	80.0000	69.57
15 4-Methylphenol	108		9.406	9.384	(1.085)	1072435	80.0000	72.06
\$ 18 Nitrobenzene-d5	82		9.605	9.578	(0.896)	1222703	80.0000	71.23
19 Nitrobenzene	77		9.635	9.608	(0.899)	1190204	80.0000	68.16
20 Isophorone	82		10.011	9.978	(0.934)	1943516	80.0000	72.12
21 2-Nitrophenol	139		10.146	10.130	(0.946)	736370	80.0000	77.17
22 2,4-Dimethylphenol	107		10.246	10.224	(0.956)	1252001	80.0000	71.44
23 Bis(2-Chloroethoxy)methane	93		10.375	10.359	(0.968)	1320246	80.0000	70.27
24 Benzoic acid	105		10.592	10.342	(0.988)	1432942	160.0000	205.9(M)
25 2,4-Dichlorophenol	162		10.539	10.518	(0.983)	1034117	80.0000	74.66
26 1,2,4-Trichlorobenzene	180		10.657	10.647	(0.994)	1077869	80.0000	73.12
* 27 Naphthalene-d8	136		10.721	10.712	(1.000)	994426	20.0000	

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====	==	=====	=====	=====	=====	=====
28 Naphthalene	128	10.757	10.741	(1.003)	2939472	80.0000	62.35
29 4-Chloroaniline	127	10.886	10.871	(1.015)	1518038	80.0000	74.72
30 Hexachlorobutadiene	225	11.050	11.047	(1.031)	599086	80.0000	72.32
31 4-Chloro-3-methylphenol	107	11.697	11.687	(1.091)	1078508	80.0000	72.86
32 2-Methylnaphthalene	141	11.879	11.869	(1.108)	1867957	80.0000	69.98
33 Hexachlorocyclopentadiene	237	12.243	12.239	(0.900)	679011	80.0000	81.58
34 2,4,6-Trichlorophenol	196	12.396	12.386	(0.911)	770281	80.0000	80.92
35 2,4,5-Trichlorophenol	196	12.460	12.451	(0.916)	769132	80.0000	79.65
§ 36 2-Fluorobiphenyl	172	12.513	12.504	(0.920)	2270890	80.0000	70.60
37 2-Chloronaphthalene	162	12.672	12.656	(0.931)	2000271	80.0000	68.94
38 2-Nitroaniline	65	12.901	12.880	(0.948)	627745	80.0000	70.08
39 Dimethylphthalate	163	13.253	13.226	(0.974)	2338565	80.0000	69.20
40 Acenaphthylene	152	13.359	13.344	(0.982)	2960125	80.0000	66.44
41 2,6-Dinitrotoluene	165	13.359	13.332	(0.982)	569549	80.0000	73.56
* 42 Acenaphthene-d10	164	13.606	13.596	(1.000)	557203	20.0000	
43 3-Nitroaniline	138	12.901	12.880	(0.948)	825924	80.0000	75.68
44 Acenaphthene	153	13.664	13.649	(1.004)	2053763	80.0000	69.82
45 2,4-Dinitrophenol	184	13.758	13.725	(1.011)	761378	160.0000	218.8 (M)
46 Dibenzofuran	168	13.929	13.908	(1.024)	2704264	80.0000	67.51
47 4-Nitrophenol	109	13.905	13.866	(1.022)	331719	80.0000	68.50
48 2,4-Dinitrotoluene	165	13.993	13.972	(1.028)	817262	80.0000	77.85
50 Diethylphthalate	149	14.411	14.383	(1.059)	2546660	80.0000	70.86
49 Fluorene	166	14.493	14.472	(1.065)	2078664	80.0000	63.41
51 4-Chlorophenyl-phenylether	204	14.493	14.477	(1.065)	983918	80.0000	66.14
52 4-Nitroaniline	138	14.616	14.560	(1.074)	668154	80.0000	77.66
53 4,6-Dinitro-2-methylphenol	198	14.675	14.630	(0.917)	989223	160.0000	190.7 (M)
54 N-Nitrosodiphenylamine	169	14.710	14.683	(0.919)	1473759	80.0000	76.18
§ 55 2,4,6-Tribromophenol	330	14.922	14.900	(1.097)	256581	80.0000	77.45
56 4-Bromophenyl-phenylether	248	15.280	15.270	(0.954)	620938	80.0000	73.97
57 Hexachlorobenzene	284	15.521	15.511	(0.970)	644429	80.0000	77.15
58 Pentachlorophenol	266	15.826	15.811	(0.989)	281630	80.0000	131.8
* 59 Phenanthrene-d10	188	16.008	16.005	(1.000)	856068	20.0000	
60 Phenanthrene	178	16.055	16.034	(1.003)	3018311	80.0000	67.80
61 Anthracene	178	16.126	16.110	(1.007)	2935379	80.0000	66.95
62 Carbazole	167	16.396	16.387	(1.024)	1790972	80.0000	68.28
63 Di-n-butylphthalate	149	17.066	17.056	(1.066)	3468150	80.0000	65.64
64 Fluoranthene	202	18.012	17.996	(1.125)	3009360	80.0000	68.79
65 Pyrene	202	18.376	18.360	(0.902)	3216474	80.0000	65.73
§ 66 Terphenyl-d14	244	18.652	18.642	(0.915)	1991507	80.0000	69.89
67 Butylbenzylphthalate	149	19.515	19.500	(0.958)	1811841	80.0000	69.13
68 Benzo(a)anthracene	228	20.355	20.328	(0.999)	3112892	80.0000	68.67
* 69 Chrysene-d12	240	20.379	20.358	(1.000)	768384	20.0000	
70 3,3'-Dichlorobenzidine	252	20.338	20.317	(0.998)	1230986	80.0000	76.53
71 Chrysene	228	20.426	20.399	(1.002)	2967834	80.0000	68.93
72 bis(2-Ethylhexyl)phthalate	149	20.491	20.487	(0.956)	2452323	80.0000	72.36
* 134 Di-n-octylphthalate-d4	153	21.430	21.421	(1.000)	1169150	20.0000	
73 Di-n-octylphthalate	149	21.448	21.433	(1.001)	3611628	80.0000	64.14

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
74 Benzo(b)fluoranthene	252	22.041	21.997	(0.977)	4014780	80.0000	81.89
75 Benzo(k)fluoranthene	252	22.071	22.032	(0.978)	2842908	80.0000	58.37 (H)
76 Benzo(a)pyrene	252	22.500	22.467	(0.997)	3178585	80.0000	71.74
* 77 Perylene-d12	264	22.570	22.561	(1.000)	796348	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.456	24.388	(1.084)	2803755	80.0000	55.08
79 Dibenzo(a,h)anthracene	278	24.479	24.411	(1.085)	3189299	80.0000	74.90
80 Benzo(g,h,i)perylene	276	24.996	24.916	(1.107)	3374166	80.0000	74.23
90 N-Nitrosodimethylamine	74	4.254	4.215	(0.491)	679389	80.0000	74.56
103 Pyridine	79	4.201	4.209	(0.485)	884630	80.0000	56.24
91 Aniline	93	8.225	8.209	(0.949)	1625572	80.0000	72.94
105 1-methylnaphthalene	141	12.055	12.045	(1.124)	1821391	80.0000	69.06
93 Benzidine	184	18.235	18.225	(0.895)	1326001	80.0000	104.2
111 Azobenzene (1,2-DP-Hydrazine)	77	14.751	14.736	(1.084)	1765774	80.0000	59.36
143 1,4-Dioxane	88	3.455	3.445	(0.399)	453903	80.0000	75.79
\$ 137 d8-1,4-Dioxane	96	3.390	3.381	(0.391)	454988	80.0000	75.00
151 1,2,4,5-Tetrachlorobenzene	216	12.219	12.210	(0.898)	1022764	80.0000	71.32
120 2,3,4,6-Tetrachlorophenol	232	14.205	14.195	(1.044)	565357	80.0000	83.49
144 alpha-Terpineol	59	10.762	10.747	(1.004)	442983	80.0000	62.90
98 Retene	219	18.916	18.901	(0.928)	1575257	80.0000	70.52
133 Butylatedhydroxytoluene	205	13.747	13.731	(1.010)	1700182	80.0000	63.60
115 Tributyl Phosphate	99	14.769	14.730	(0.923)	2479673	80.0000	63.27
116 Dibutyl Phenyl Phosphate	175	16.508	16.492	(1.031)	2185726	80.0000	73.75
117 Butyl Diphenyl Phosphate	94	18.217	18.202	(0.894)	669245	80.0000	64.41
118 Triphenyl Phosphate	326	19.844	19.823	(0.974)	619656	80.0000	79.33
123 Acetophenone	105	9.364	9.337	(0.873)	2204387	80.0000	68.99
179 n-Decane	57	8.466	8.456	(0.977)	964035	80.0000	65.63
180 n-Octadecane	57	15.856	15.846	(0.990)	1101885	80.0000	61.14
168 Pentachlorobenzene	250	13.970	13.949	(1.027)	778454	80.0000	71.99
113 Diphenyl Oxide	170	12.836	12.833	(0.943)	1473020	80.0000	73.78
112 Biphenyl	154	12.660	12.645	(0.930)	2191714	80.0000	63.30

QC Flag Legend

M - Compound response manually integrated.  
 H - Operator selected an alternate compound hit.

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01071008.d  
 Lab Smp Id: IC800107  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
 Misc Info: 10-

Calibration Date: 07-JAN-2010  
 Calibration Time: 15:22  
 Client Smp ID: IC800107  
 Level:  
 Sample Type:

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	266285	-6.93
27 Naphthalene-d8	1035557	517778	2071114	994426	-3.97
42 Acenaphthene-d10	594267	297134	1188534	557203	-6.24
59 Phenanthrene-d10	951721	475860	1903442	856068	-10.05
69 Chrysene-d12	794862	397431	1589724	768384	-3.33
134 Di-n-octylphthala	1280700	640350	2561400	1169150	-8.71
77 Perylene-d12	826094	413047	1652188	796348	-3.60

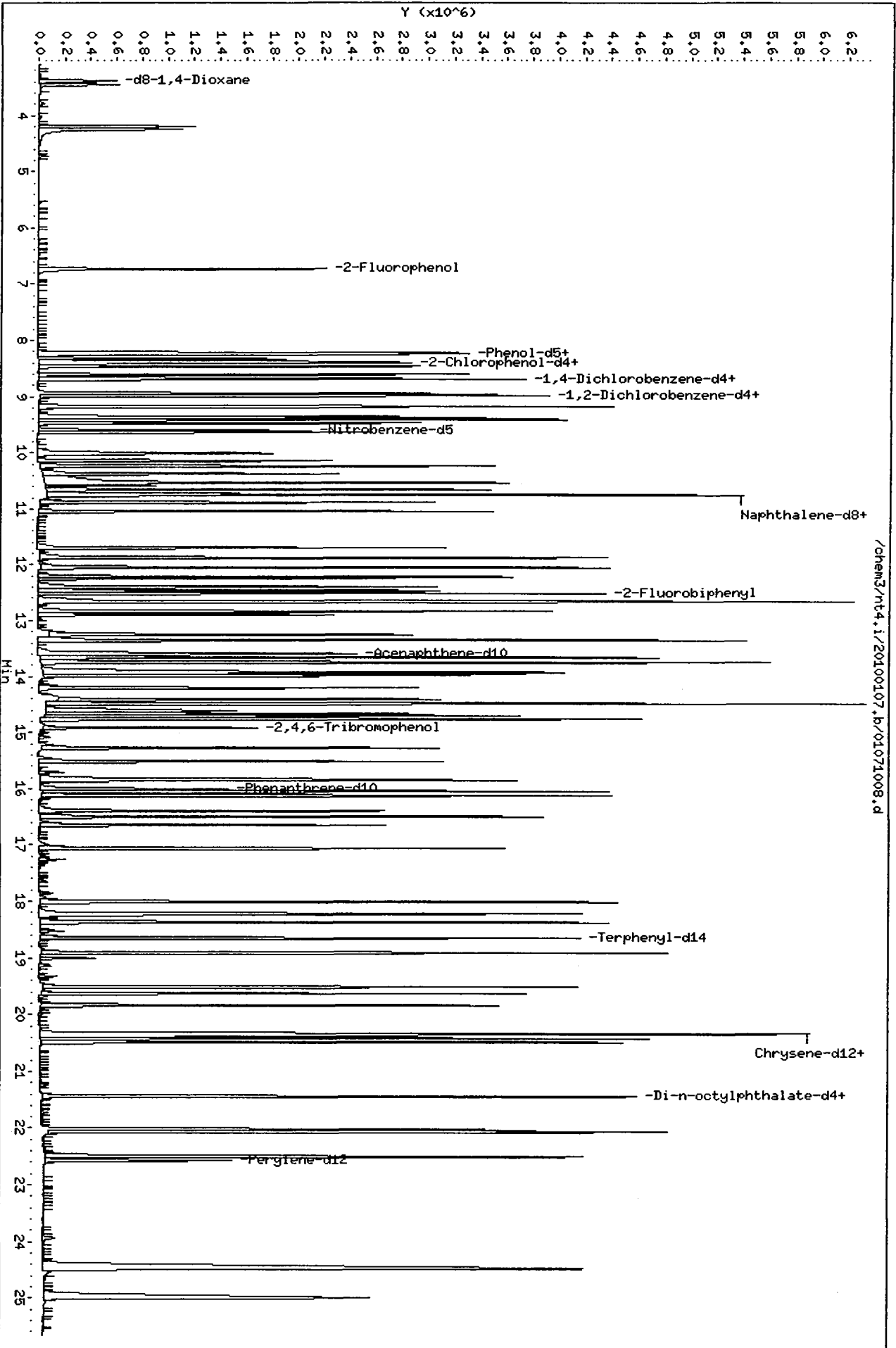
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.67	0.03
27 Naphthalene-d8	10.71	10.21	11.21	10.72	0.08
42 Acenaphthene-d10	13.60	13.10	14.10	13.61	0.06
59 Phenanthrene-d10	16.01	15.51	16.51	16.01	0.02
69 Chrysene-d12	20.36	19.86	20.86	20.38	0.07
134 Di-n-octylphthala	21.42	20.92	21.92	21.43	0.04
77 Perylene-d12	22.56	22.06	23.06	22.57	0.04

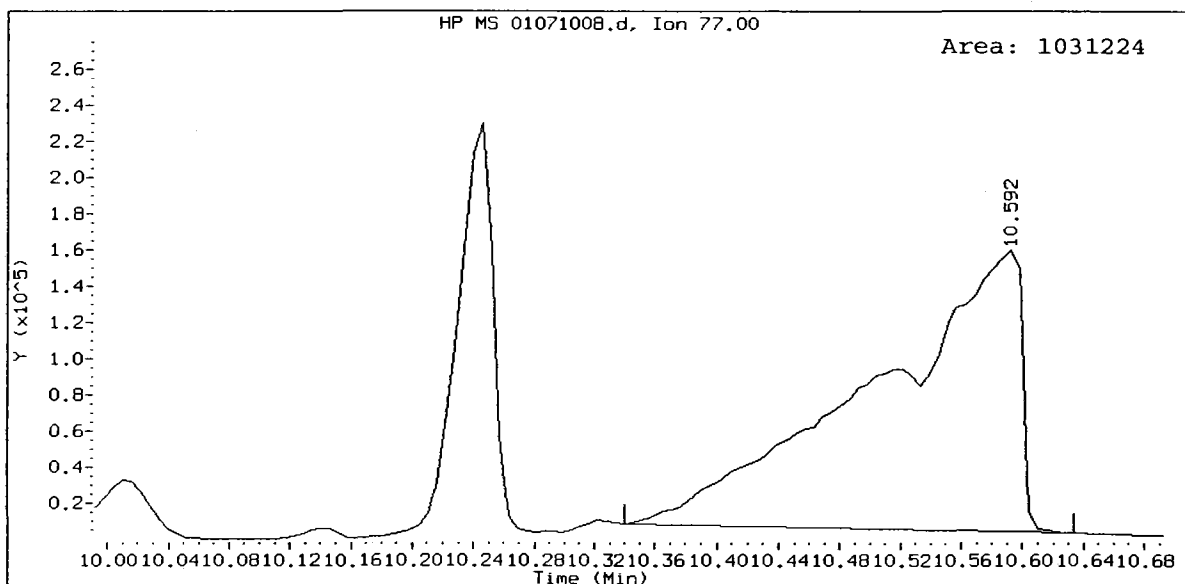
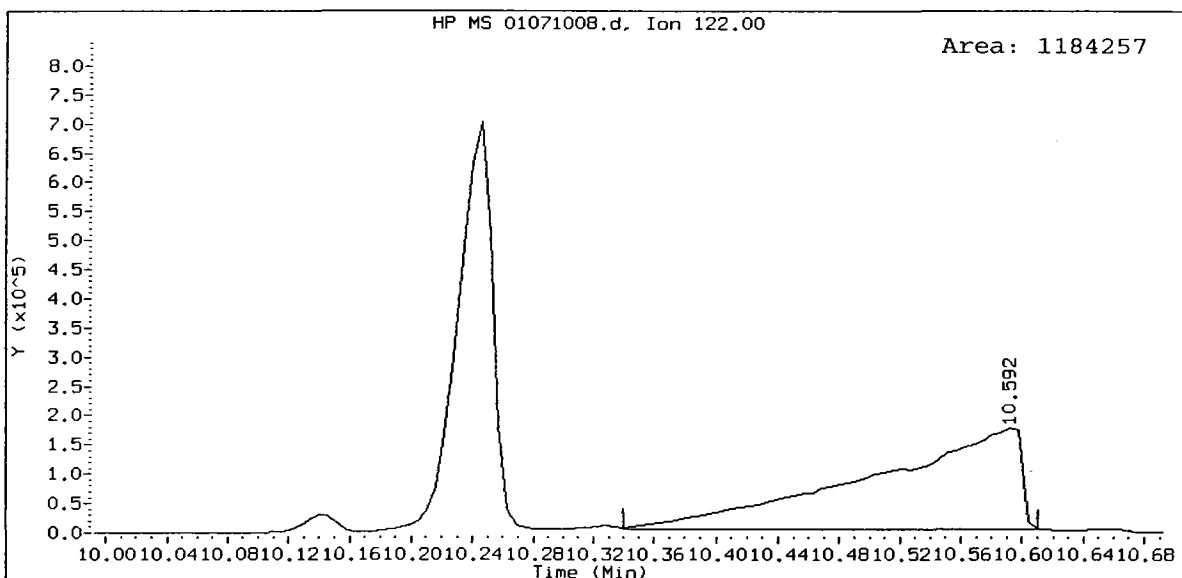
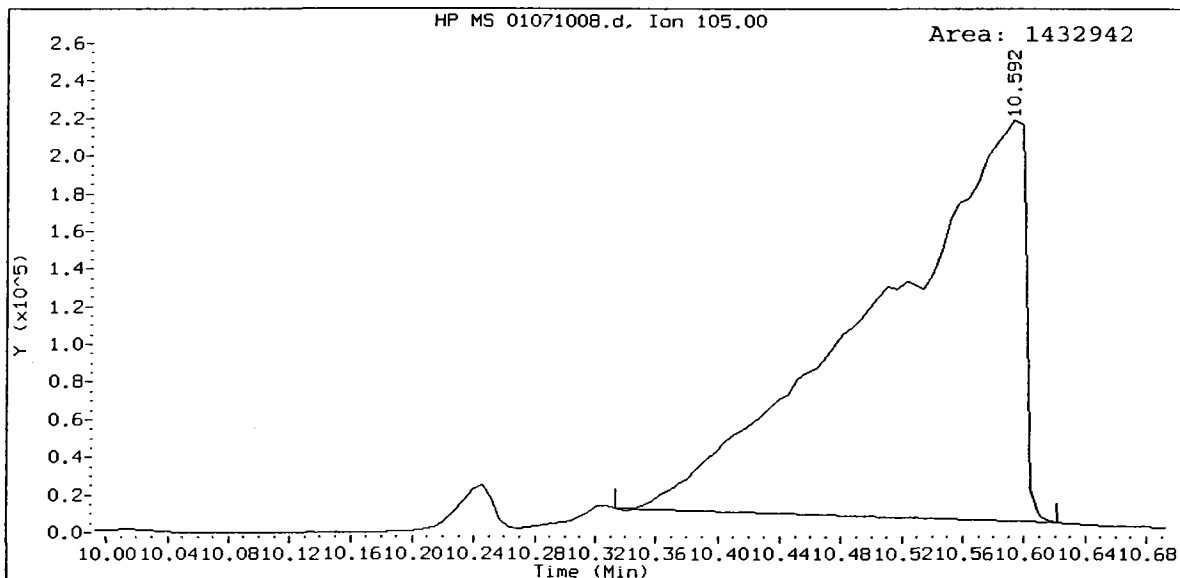
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Column phase: ZB-5msi

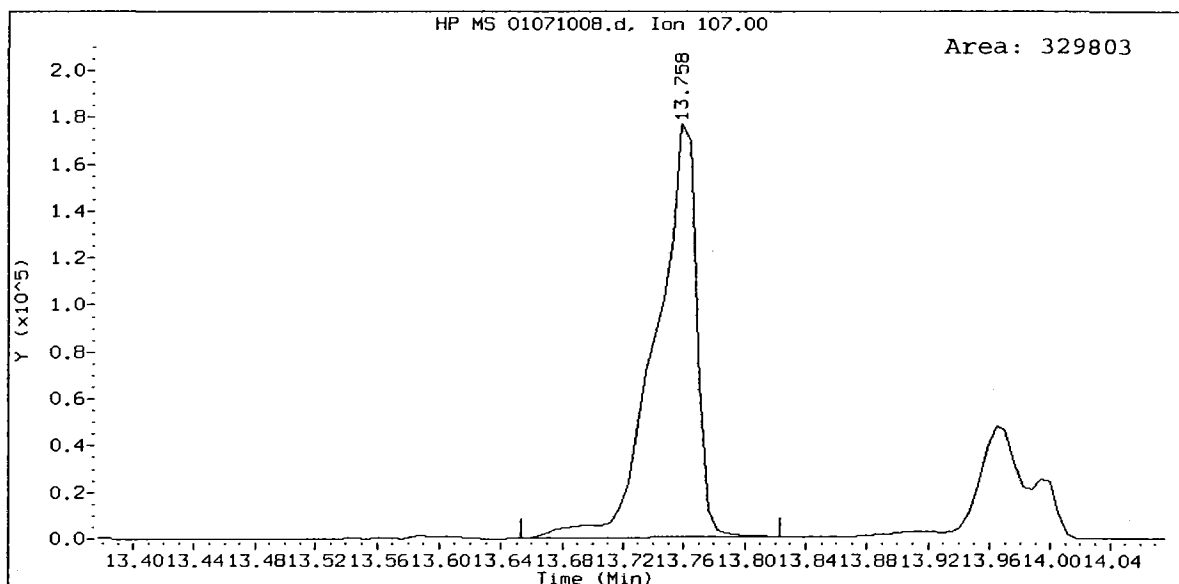
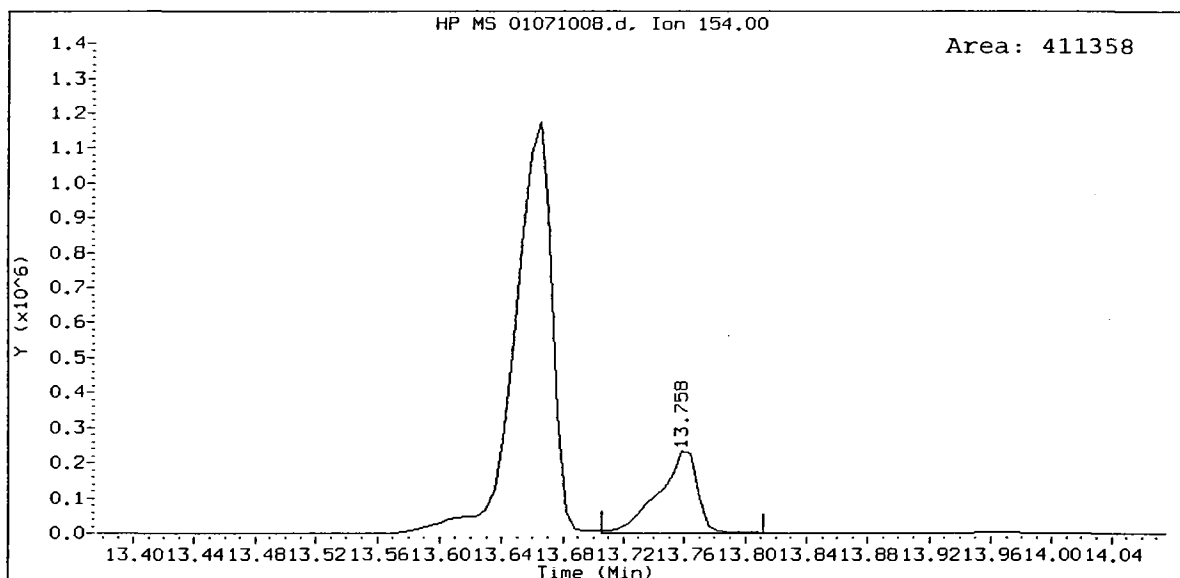
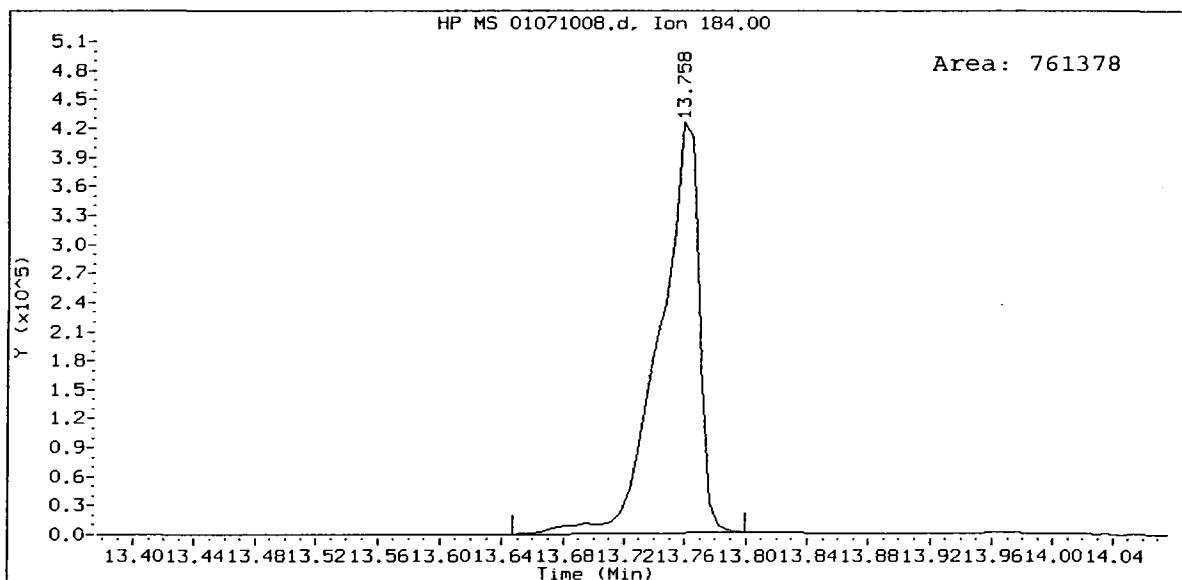
Instrument: nt4.i

Operator: JZ  
Column diameter: 0.32

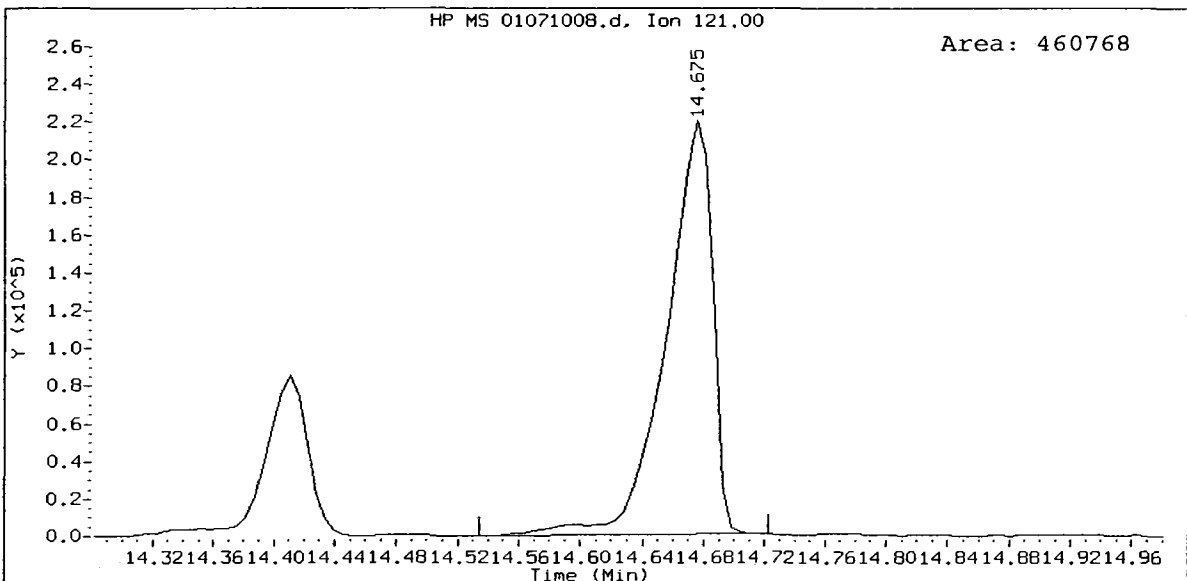
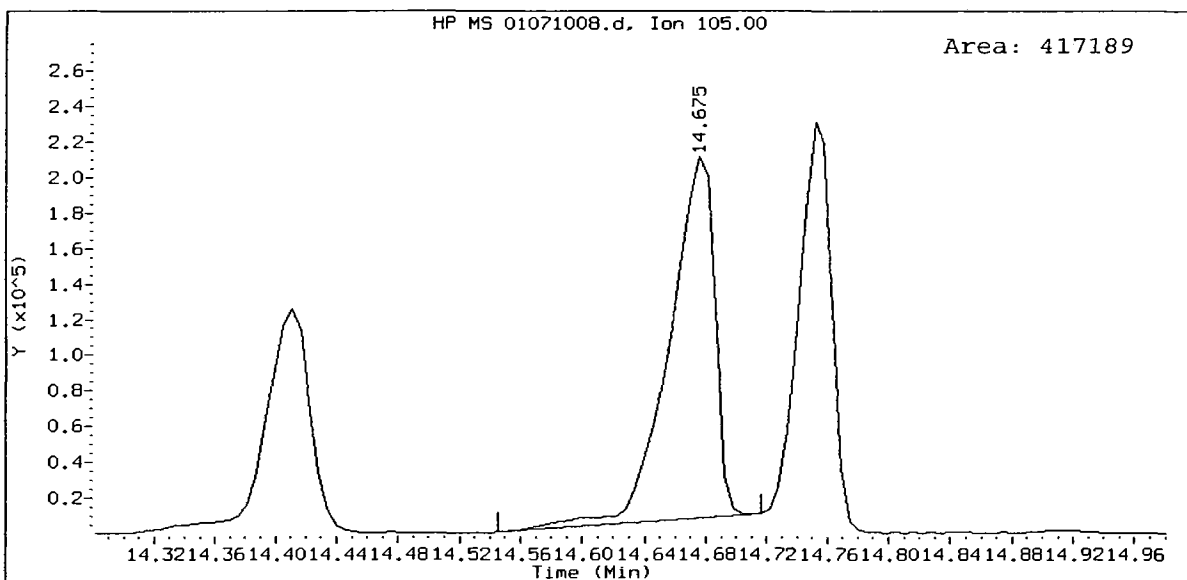
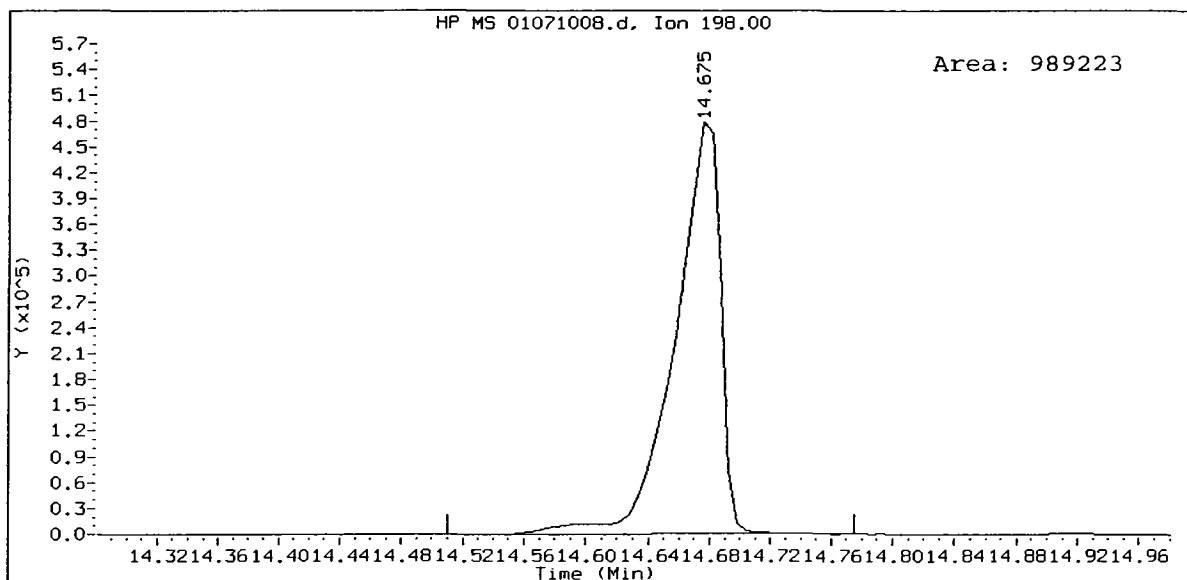




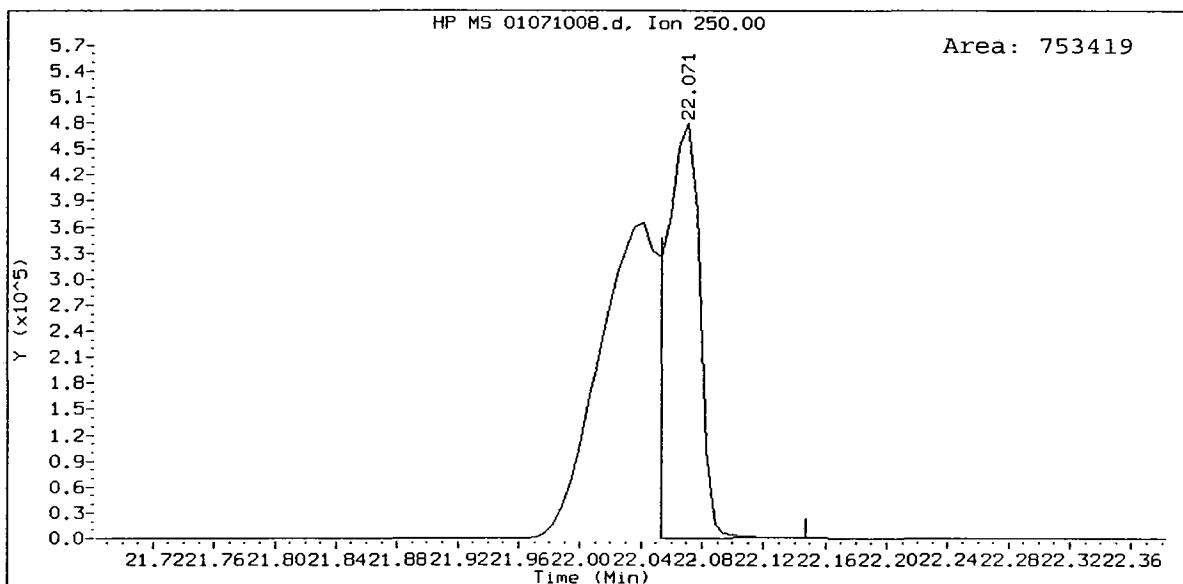
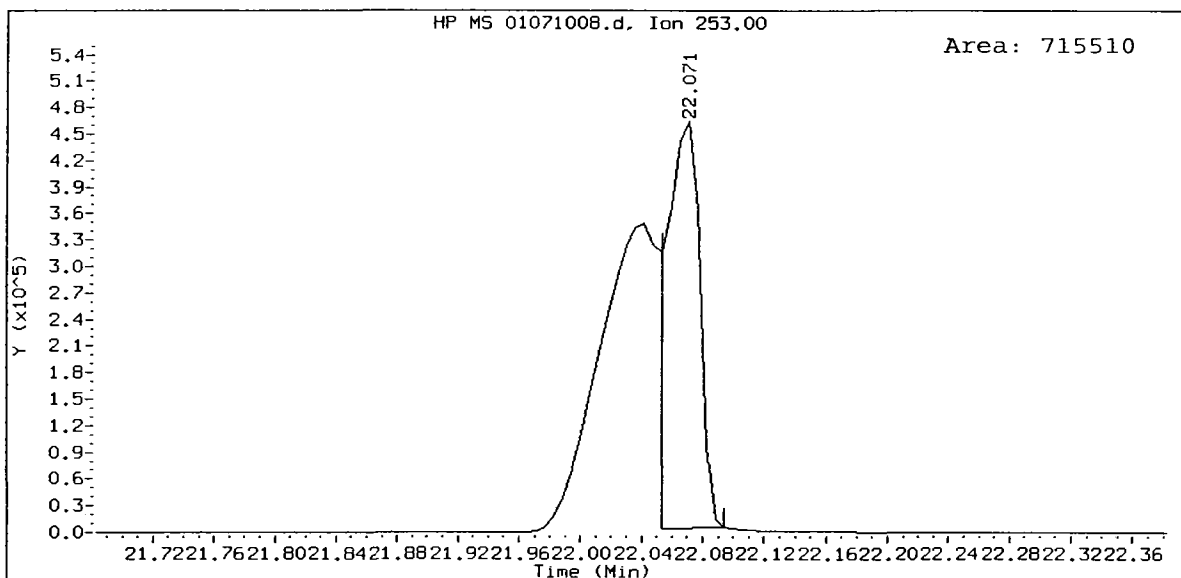
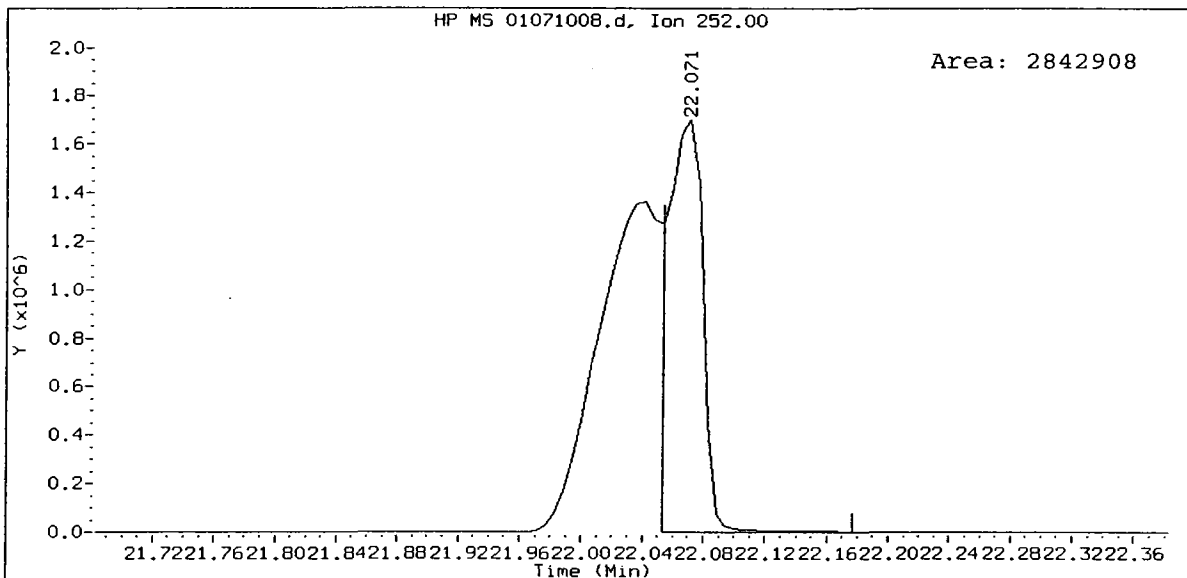
IC800107, /chem3/nt4.i/20100107.b/01071008.d  
2,4-Dinitrophenol Amount: 218.82







IC800107, /chem3/nt4.i/20100107.b/01071008.d  
Benzo(k)fluoranthene Amount: 58.37



Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100107.b/01071009.d  
 Lab Smp Id: ICV0107 Client Smp ID: ICV0107  
 Inj Date : 07-JAN-2010 17:36  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : ICV0107,  
 Misc Info : 10-  
 Comment : lul Injection  
 Method : /chem3/nt4.i/20100107.b/SW846100107.m  
 Meth Date : 07-Jan-2010 18:43 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 9 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: ICV.sub  
 Target Version: 3.50

*JZ* 01/07/10

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
3 Phenol	94		8.234	8.227	(0.951)	476214	25.6523	25.65
4 Bis(2-Chloroethyl)ether	93		8.304	8.303	(0.959)	358990	25.1818	25.18
6 2-Chlorophenol	128		8.386	8.386	(0.969)	405225	25.6883	25.69
7 1,3-Dichlorobenzene	146		8.598	8.597	(0.993)	433738	25.3307	25.33
* 8 1,4-Dichlorobenzene-d4	152		8.657	8.656	(1.000)	246959	20.0000	
9 1,4-Dichlorobenzene	146		8.686	8.685	(1.003)	443553	25.4594	25.46
11 Benzyl alcohol	108		8.927	8.926	(1.031)	242509	27.1729	27.17
12 1,2-Dichlorobenzene	146		8.980	8.979	(1.037)	412298	25.2902	25.29
13 2-Methylphenol	108		9.162	9.155	(1.058)	336473	25.3947	25.39
14 2,2'-oxybis(1-Chloropropane)	45		9.174	9.173	(1.060)	405557	24.9350	24.94
15 4-Methylphenol	108		9.385	9.384	(1.084)	345482	25.0322	25.03
16 N-Nitroso-di-n-propylamine	70		9.391	9.378	(1.085)	252669	24.7748	24.77
17 Hexachloroethane	117		9.467	9.467	(1.094)	185019	25.7012	25.70
19 Nitrobenzene	77		9.614	9.608	(0.897)	397410	25.3917	25.39
20 Isophorone	82		9.984	9.978	(0.932)	604801	25.0364	25.04
21 2-Nitrophenol	139		10.131	10.130	(0.946)	222092	25.9653	25.97
22 2,4-Dimethylphenol	107		10.225	10.224	(0.954)	398282	25.3541	25.35
23 Bis(2-Chloroethoxy)methane	93		10.360	10.359	(0.967)	423581	25.1513	25.15
24 Benzoic acid	105		10.466	10.342	(0.977)	341791	41.8036	41.80
25 2,4-Dichlorophenol	162		10.519	10.518	(0.982)	316639	25.5053	25.51
26 1,2,4-Trichlorobenzene	180		10.648	10.647	(0.994)	329414	24.9293	24.93
* 27 Naphthalene-d8	136		10.713	10.712	(1.000)	891363	20.0000	
28 Naphthalene	128		10.742	10.741	(1.003)	1071359	25.3511	25.35
29 4-Chloroaniline	127		10.871	10.871	(1.015)	445399	24.4575	24.46
30 Hexachlorobutadiene	225		11.042	11.047	(1.031)	188010	25.3210	25.32
31 4-Chloro-3-methylphenol	107		11.682	11.687	(1.090)	329684	24.8465	24.85
32 2-Methylnaphthalene	141		11.870	11.869	(1.108)	610616	25.5218	25.52

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
33 Hexachlorocyclopentadiene	237	12.240	12.239	(0.900)	199014	26.6205	26.62
34 2,4,6-Trichlorophenol	196	12.387	12.386	(0.911)	213911	25.0170	25.02
35 2,4,5-Trichlorophenol	196	12.452	12.451	(0.916)	221444	25.5295	25.53
37 2-Chloronaphthalene	162	12.657	12.656	(0.931)	661256	25.3715	25.37
38 2-Nitroaniline	65	12.880	12.880	(0.947)	208773	25.9497	25.95
39 Dimethylphthalate	163	13.233	13.226	(0.973)	758632	24.9923	24.99
40 Acenaphthylene	152	13.344	13.344	(0.981)	1028244	25.6931	25.69
41 2,6-Dinitrotoluene	165	13.339	13.332	(0.981)	176839	25.4294	25.43
* 42 Acenaphthene-d10	164	13.597	13.596	(1.000)	500490	20.0000	
43 3-Nitroaniline	138	12.880	12.880	(0.947)	248112	25.3107	25.31
44 Acenaphthene	153	13.650	13.649	(1.004)	665266	25.1799	25.18
45 2,4-Dinitrophenol	184	13.732	13.725	(1.010)	187206	45.9684	45.97
46 Dibenzofuran	168	13.914	13.908	(1.023)	916105	25.4614	25.46
47 4-Nitrophenol	109	13.879	13.866	(1.021)	115479	26.5480	26.55
48 2,4-Dinitrotoluene	165	13.973	13.972	(1.028)	238183	25.2597	25.26
49 Fluorene	166	14.478	14.472	(1.065)	753429	25.5867	25.59
50 Diethylphthalate	149	14.390	14.383	(1.058)	796250	24.6658	24.67
51 4-Chlorophenyl-phenylether	204	14.478	14.477	(1.065)	335944	25.1420	25.14
52 4-Nitroaniline	138	14.572	14.560	(1.072)	196385	25.4111	25.41
53 4,6-Dinitro-2-methylphenol	198	14.643	14.630	(0.915)	265107	52.8123	52.81
54 N-Nitrosodiphenylamine	169	14.684	14.683	(0.918)	439687	25.0432	25.04
56 4-Bromophenyl-phenylether	248	15.271	15.270	(0.954)	190273	24.9766	24.98
57 Hexachlorobenzene	284	15.512	15.511	(0.970)	188281	24.8381	24.84
58 Pentachlorophenol	266	15.812	15.811	(0.988)	47727	19.3382	19.34
* 59 Phenanthrene-d10	188	16.000	16.005	(1.000)	776886	20.0000	
60 Phenanthrene	178	16.041	16.034	(1.003)	1008023	24.9521	24.95
61 Anthracene	178	16.111	16.110	(1.007)	1012982	25.4603	25.46
62 Carbazole	167	16.387	16.387	(1.024)	637128	26.7649	26.76
63 Di-n-butylphthalate	149	17.057	17.056	(1.066)	1211284	25.2616	25.26
64 Fluoranthene	202	17.997	17.996	(1.125)	990666	24.9540	24.95
65 Pyrene	202	18.361	18.360	(0.902)	1036269	25.0743	25.07
67 Butylbenzylphthalate	149	19.501	19.500	(0.958)	553413	25.0020	25.00
68 Benzo(a)anthracene	228	20.335	20.328	(0.999)	955798	24.9643	24.96
* 69 Chrysene-d12	240	20.359	20.358	(1.000)	648969	20.0000	
70 3,3'-Dichlorobenzidine	252	20.317	20.317	(0.998)	357795	26.3380	26.34
71 Chrysene	228	20.406	20.399	(1.002)	911445	25.0660	25.07
72 bis(2-Ethylhexyl)phthalate	149	20.482	20.487	(0.956)	771384	24.8480	24.85
* 134 Di-n-octylphthalate-d4	153	21.422	21.421	(1.000)	1070944	20.0000	
73 Di-n-octylphthalate	149	21.434	21.433	(1.001)	1315868	25.5127	25.51
74 Benzo(b)fluoranthene	252	22.009	21.997	(0.976)	999954	23.0132	23.01
75 Benzo(k)fluoranthene	252	22.044	22.032	(0.977)	1142114	26.4602	26.46
76 Benzo(a)pyrene	252	22.473	22.467	(0.996)	979366	24.9418	24.94
* 77 Perylene-d12	264	22.561	22.561	(1.000)	705785	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.406	24.388	(1.082)	1161692	25.7498	25.75
79 Dibenzo(a,h)anthracene	278	24.424	24.411	(1.083)	930153	24.6488	24.65
80 Benzo(g,h,i)perylene	276	24.935	24.916	(1.105)	1001830	24.8668	24.87
103 Pyridine	79	4.186	4.209	(0.484)	390219	26.7494	26.75

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	====	==	=====	=====	=====	=====	=====
90 N-Nitrosodimethylamine	74	4.216	4.215	(0.487)	213548	25.2711	25.27
91 Aniline	93	8.210	8.209	(0.948)	528105	25.5494	25.55
105 1-methylnaphthalene	141	12.046	12.045	(1.124)	593022	25.0836	25.08
111 Azobenzene (1,2-DP-Hydrazine)	77	14.737	14.736	(1.084)	664364	23.8389	23.84
93 Benzidine	184	18.220	18.225	(0.895)	290421	23.5442	23.54
143 1,4-Dioxane	88	3.434	3.445	(0.397)	139776	25.1656	25.17

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01071009.d  
 Lab Smp Id: ICV0107  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
 Misc Info: 10-

Calibration Date: 07-JAN-2010  
 Calibration Time: 15:22  
 Client Smp ID: ICV0107  
 Level:  
 Sample Type:

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	246959	-13.69
27 Naphthalene-d8	1035557	517778	2071114	891363	-13.92
42 Acenaphthene-d10	594267	297134	1188534	500490	-15.78
59 Phenanthrene-d10	951721	475860	1903442	776886	-18.37
69 Chrysene-d12	794862	397431	1589724	648969	-18.35
134 Di-n-octylphthala	1280700	640350	2561400	1070944	-16.38
77 Perylene-d12	826094	413047	1652188	705785	-14.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.66	-0.07
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.00
42 Acenaphthene-d10	13.60	13.10	14.10	13.60	0.00
59 Phenanthrene-d10	16.01	15.51	16.51	16.00	-0.04
69 Chrysene-d12	20.36	19.86	20.86	20.36	-0.03
134 Di-n-octylphthala	21.42	20.92	21.92	21.42	0.00
77 Perylene-d12	22.56	22.06	23.06	22.56	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 20100107  
Sample Matrix: NONE Fraction: SV  
Lab Smp Id: ICV0107 Client Smp ID: ICV0107  
Level: Operator: JZ  
Data Type: MS DATA SampleType: LCS  
SpikeList File: ICV.spk Quant Type: ISTD  
Sublist File: ICV.sub  
Method File: /chem3/nt4.i/20100107.b/SW846100107.m  
Misc Info: 10-

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
3 Phenol	25.00	25.65	102.61	
4 Bis(2-Chloroethyl)	25.00	25.18	100.73	
6 2-Chlorophenol	25.00	25.69	102.75	
7 1,3-Dichlorobenzen	25.00	25.33	101.32	
9 1,4-Dichlorobenzen	25.00	25.46	101.84	
11 Benzyl alcohol	25.00	27.17	108.69	
12 1,2-Dichlorobenzen	25.00	25.29	101.16	
13 2-Methylphenol	25.00	25.39	101.58	
14 2,2'-oxybis(1-Chlo	25.00	24.94	99.74	
15 4-Methylphenol	25.00	25.03	100.13	
16 N-Nitroso-di-n-pro	25.00	24.77	99.10	
17 Hexachloroethane	25.00	25.70	102.80	
19 Nitrobenzene	25.00	25.39	101.57	
20 Isophorone	25.00	25.04	100.15	
21 2-Nitrophenol	25.00	25.97	103.86	
22 2,4-Dimethylphenol	25.00	25.35	101.42	
23 Bis(2-Chloroethoxy	25.00	25.15	100.61	
24 Benzoic acid	50.00	41.80	83.61	
25 2,4-Dichlorophenol	25.00	25.51	102.02	
26 1,2,4-Trichloroben	25.00	24.93	99.72	
28 Naphthalene	25.00	25.35	101.40	
29 4-Chloroaniline	25.00	24.46	97.83	
30 Hexachlorobutadien	25.00	25.32	101.28	
31 4-Chloro-3-methylp	25.00	24.85	99.39	
32 2-Methylnaphthalen	25.00	25.52	102.09	
33 Hexachlorocyclopen	25.00	26.62	106.48	
34 2,4,6-Trichlorophe	25.00	25.02	100.07	
35 2,4,5-Trichlorophe	25.00	25.53	102.12	
37 2-Chloronaphthalen	25.00	25.37	101.49	
38 2-Nitroaniline	25.00	25.95	103.80	
39 Dimethylphthalate	25.00	24.99	99.97	
40 Acenaphthylene	25.00	25.69	102.77	
41 2,6-Dinitrotoluene	25.00	25.43	101.72	

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
43 3-Nitroaniline	25.00	25.31	101.24	
44 Acenaphthene	25.00	25.18	100.72	
45 2,4-Dinitrophenol	50.00	45.97	91.94	
46 Dibenzofuran	25.00	25.46	101.85	
47 4-Nitrophenol	25.00	26.55	106.19	
48 2,4-Dinitrotoluene	25.00	25.26	101.04	
49 Fluorene	25.00	25.59	102.35	
50 Diethylphthalate	25.00	24.67	98.66	
51 4-Chlorophenyl-phe	25.00	25.14	100.57	
52 4-Nitroaniline	25.00	25.41	101.64	
53 4,6-Dinitro-2-meth	50.00	52.81	105.62	
54 N-Nitrosodiphenyla	25.00	25.04	100.17	
56 4-Bromophenyl-phen	25.00	24.98	99.91	
57 Hexachlorobenzene	25.00	24.84	99.35	
58 Pentachlorophenol	25.00	19.34	77.35	
60 Phenanthrene	25.00	24.95	99.81	
61 Anthracene	25.00	25.46	101.84	
63 Di-n-butylphthalat	25.00	25.26	101.05	
64 Fluoranthene	25.00	24.95	99.82	
65 Pyrene	25.00	25.07	100.30	
67 Butylbenzylphthala	25.00	25.00	100.01	
68 Benzo(a)anthracene	25.00	24.96	99.86	
70 3,3'-Dichlorobenzi	25.00	26.34	105.35	
71 Chrysene	25.00	25.07	100.26	
72 bis(2-Ethylhexyl)p	25.00	24.85	99.39	
73 Di-n-octylphthalat	25.00	25.51	102.05	
74 Benzo(b)fluoranth	25.00	23.01	92.05	
75 Benzo(k)fluoranth	25.00	26.46	105.84	
76 Benzo(a)pyrene	25.00	24.94	99.77	
78 Indeno(1,2,3-cd)py	25.00	25.75	103.00	
79 Dibenzo(a,h)anthra	25.00	24.65	98.60	
80 Benzo(g,h,i)peryle	25.00	24.87	99.47	
90 N-Nitrosodimethyla	25.00	25.27	101.08	
91 Aniline	25.00	25.55	102.20	
93 Benzidine	25.00	23.54	94.18	
105 1-methylnaphthalen	25.00	25.08	100.33	
143 1,4-Dioxane	25.00	25.17	100.66	



Data File: /chem3/nt4.i/20100107.b/01071009.d  
Date : 07-JAN-2010 17:36

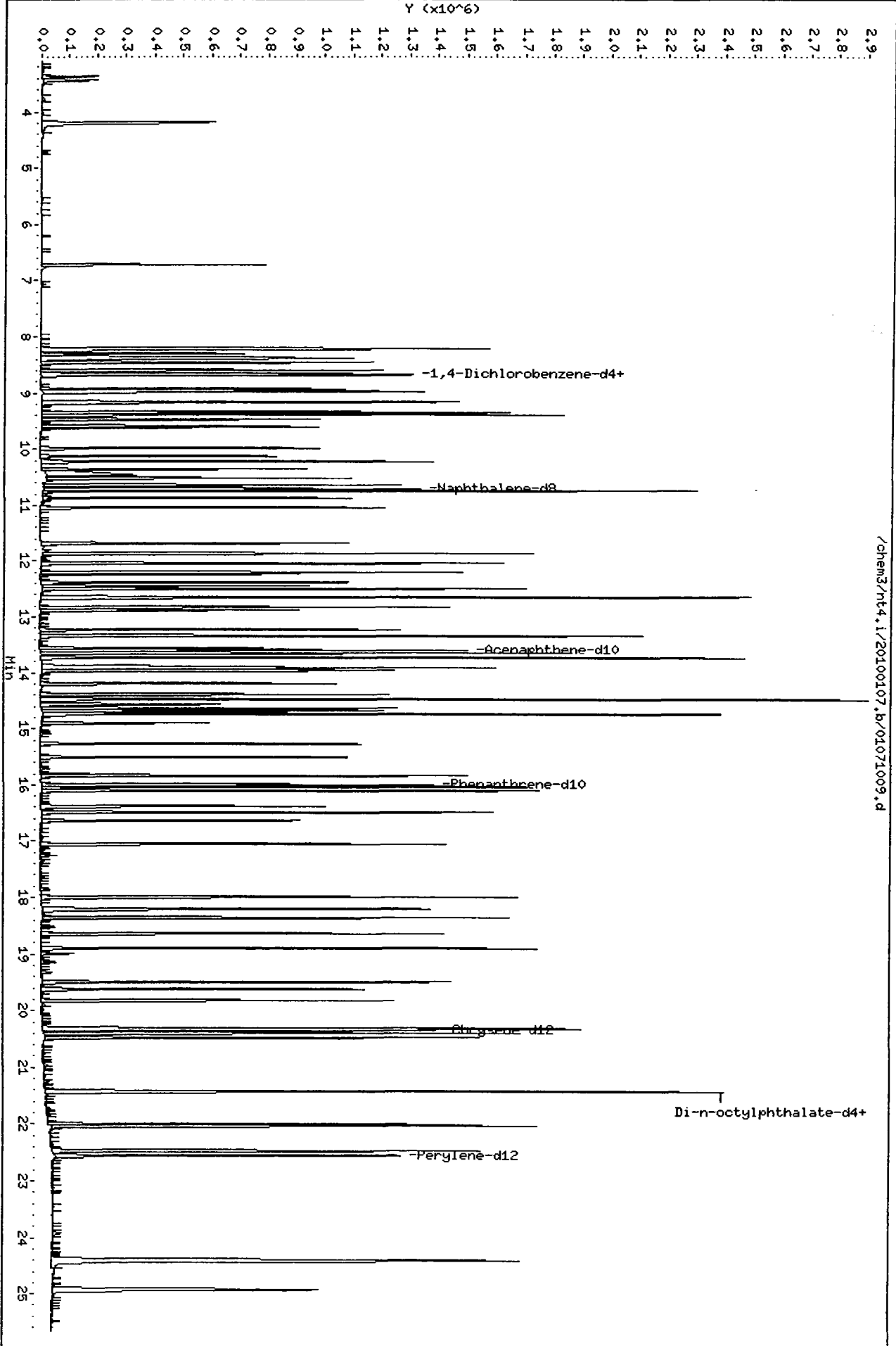
Client ID: ICV0107

Sample Info: ICV0107,

Column phase: ZB-5msi

Instrument: nt4.i

Operator: JZ  
Column diameter: 0.32



11  
10  
09  
08  
07  
06  
05  
04  
03  
02  
01  
00

## SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QE56

Project: POS-LLA(LORA LAKE APTS)

Instrument ID: NT4

Cont. Calib. Date: 01/14/10

Init. Calib. Date: 01/07/10

Cont. Calib. Time: 1130

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Naphthalene	0.948	0.979	0.700	AVRG	3.3
2-Methylnaphthalene	0.537	0.541	0.400	AVRG	0.7
Acenaphthylene	1.599	1.638	0.900	AVRG	2.4
Acenaphthene	1.056	1.085	0.900	AVRG	2.7
Dibenzofuran	1.438	1.459	0.800	AVRG	1.5
Fluorene	1.177	1.200	0.900	AVRG	2.0
Phenanthrene	1.040	1.049	0.700	AVRG	0.9
Anthracene	1.024	1.052	0.700	AVRG	2.7
Fluoranthene	1.022	1.037	0.600	AVRG	1.5
Pyrene	1.274	1.271	0.600	AVRG	-0.2
Benzo (a) anthracene	1.180	1.165	0.800	AVRG	-1.3
Chrysene	1.120	1.128	0.700	AVRG	0.7
Benzo (b) fluoranthene	1.231	1.196	0.700	AVRG	-2.8
Benzo (k) fluoranthene	1.223	1.224	0.700	AVRG	0.1
Benzo (a) pyrene	1.113	1.123	0.700	AVRG	0.9
Indeno (1, 2, 3-cd) pyrene	1.278	1.297	0.500	AVRG	1.5
Dibenzo (a, h) anthracene	1.069	1.052	0.400	AVRG	-1.6
Benzo (g, h, i) perylene	1.141	1.149	0.500	AVRG	0.7
1-methylnaphthalene	0.530	0.532	0.010	AVRG	0.4
Terphenyl-d14	0.741	0.715	0.010	AVRG	-3.5
2-Fluorobiphenyl	1.154	1.165	0.010	AVRG	1.0

&lt;- Exceeds QC limit of 20% D

\* RF less than minimum RF

Analytical Resources, Inc.  
 CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt4.i Injection Date: 14-JAN-2010 11:30  
 Lab File ID: 01141001.d Init. Cal. Date(s): 07-JAN-2010 07-JAN-2010  
 Analysis Type: Init. Cal. Times: 13:14 17:02  
 Lab Sample ID: CC0114 Quant Type: ISTD  
 Method: /chem3/nt4.i/20100114.b/SW846100107.m

*DZ 01/14/10*

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
\$ 1 2-Fluorophenol	1.09483	1.14304	1.14304	0.010	4.40384	20.00000	Averaged
\$ 2 Phenol-d5	1.11990	1.14798	1.14798	0.010	2.50760	20.00000	Averaged
3 Phenol	1.50342	1.63359	1.63359	0.100	8.65806	20.00000	Averaged
\$ 5 2-Chlorophenol-d4	1.10762	1.13513	1.13513	0.010	2.48330	20.00000	Averaged
4 Bis(2-Chloroethyl)ether	1.15452	1.21413	1.21413	0.700	5.16362	20.00000	Averaged
6 2-Chlorophenol	1.27752	1.38839	1.38839	0.800	8.67897	20.00000	Averaged
7 1,3-Dichlorobenzene	1.38671	1.44656	1.44656	0.010	4.31641	20.00000	Averaged
9 1,4-Dichlorobenzene	1.41092	1.47286	1.47286	0.010	4.39000	20.00000	Averaged
\$ 10 1,2-Dichlorobenzene-d4	0.78674	0.79651	0.79651	0.010	1.24246	20.00000	Averaged
12 1,2-Dichlorobenzene	1.32027	1.37805	1.37805	0.010	4.37596	20.00000	Averaged
11 Benzyl alcohol	0.72276	0.80295	0.80295	0.010	11.09403	20.00000	Averaged
14 2,2'-oxybis(1-Chloropropane	1.31719	1.46721	1.46721	0.010	11.38966	20.00000	Averaged
13 2-Methylphenol	1.07303	1.14727	1.14727	0.700	6.91872	20.00000	Averaged
17 Hexachloroethane	0.58300	0.62497	0.62497	0.300	7.19877	20.00000	Averaged
16 N-Nitroso-di-n-propylamine	0.82594	0.85388	0.85388	0.500	3.38315	20.00000	Averaged
15 4-Methylphenol	1.11772	1.19353	1.19353	0.600	6.78319	20.00000	Averaged
\$ 18 Nitrobenzene-d5	0.34525	0.37919	0.37919	0.010	9.83266	20.00000	Averaged
19 Nitrobenzene	0.35117	0.37688	0.37688	0.200	7.32136	20.00000	Averaged
20 Isophorone	0.54202	0.55915	0.55915	0.400	3.15991	20.00000	Averaged
21 2-Nitrophenol	0.19192	0.20549	0.20549	0.100	7.06993	20.00000	Averaged
22 2,4-Dimethylphenol	0.35247	0.37719	0.37719	0.200	7.01460	20.00000	Averaged
23 Bis(2-Chloroethoxy)methane	0.37788	0.38885	0.38885	0.050	2.90331	20.00000	Averaged
24 Benzoic acid	41.53168	50.00000	0.15238	0.010	-16.93664	20.00000	Quadratic
25 2,4-Dichlorophenol	0.27855	0.29265	0.29265	0.100	5.05879	20.00000	Averaged
26 1,2,4-Trichlorobenzene	0.29649	0.29887	0.29887	0.010	0.80463	20.00000	Averaged
28 Naphthalene	0.94823	0.97885	0.97885	0.100	3.22894	20.00000	Averaged
29 4-Chloroaniline	0.40861	0.38908	0.38908	0.010	-4.78052	20.00000	Averaged
30 Hexachlorobutadiene	0.16660	0.17050	0.17050	0.010	2.34321	20.00000	Averaged
31 4-Chloro-3-methylphenol	0.29772	0.31097	0.31097	0.200	4.45102	20.00000	Averaged
32 2-Methylnaphthalene	0.53682	0.54100	0.54100	0.300	0.77733	20.00000	Averaged
33 Hexachlorocyclopentadiene	0.29875	0.33210	0.33210	0.010	11.16272	20.00000	Averaged
34 2,4,6-Trichlorophenol	0.34169	0.34560	0.34560	0.200	1.14398	20.00000	Averaged
35 2,4,5-Trichlorophenol	0.34662	0.35107	0.35107	0.200	1.28281	20.00000	Averaged
\$ 36 2-Fluorobiphenyl	1.15459	1.16500	1.16500	0.010	0.90144	20.00000	Averaged
37 2-Chloronaphthalene	1.04150	1.07233	1.07233	0.700	2.96047	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt4.i Injection Date: 14-JAN-2010 11:30  
 Lab File ID: 01141001.d Init. Cal. Date(s): 07-JAN-2010 07-JAN-2010  
 Analysis Type: Init. Cal. Times: 13:14 17:02  
 Lab Sample ID: CC0114 Quant Type: ISTD  
 Method: /chem3/nt4.i/20100114.b/SW846100107.m

*01/14/10*

COMPOUND	___		CCAL	MIN	MAX		CURVE TYPE
	RRF / AMOUNT	RF25	RRF25	RRF	%D / %DRIFT	%D / %DRIFT	
38 2-Nitroaniline	0.32150	0.33907	0.33907	0.010	5.46750	20.00000	Averaged
39 Dimethylphthalate	1.21299	1.21226	1.21226	0.010	-0.06086	20.00000	Averaged
40 Acenaphthylene	1.59924	1.63856	1.63856	0.900	2.45869	20.00000	Averaged
41 2,6-Dinitrotoluene	0.27789	0.27915	0.27915	0.100	0.45271	20.00000	Averaged
43 3-Nitroaniline	0.39172	0.39398	0.39398	0.010	0.57616	20.00000	Averaged
44 Acenaphthene	1.05579	1.08505	1.08505	0.100	2.77172	20.00000	Averaged
45 2,4-Dinitrophenol	43.40195	50.00000	0.14106	0.030	-13.19610	20.00000	Quadratic
46 Dibenzofuran	1.43780	1.45945	1.45945	0.800	1.50621	20.00000	Averaged
47 4-Nitrophenol	0.17382	0.17244	0.17244	0.010	-0.79520	20.00000	Averaged
48 2,4-Dinitrotoluene	0.37681	0.37751	0.37751	0.200	0.18547	20.00000	Averaged
50 Diethylphthalate	1.29000	1.32655	1.32655	0.010	2.83328	20.00000	Averaged
49 Fluorene	1.17669	1.20056	1.20056	0.100	2.02856	20.00000	Averaged
51 4-Chlorophenyl-phenylether	0.53395	0.53186	0.53186	0.100	-0.39241	20.00000	Averaged
52 4-Nitroaniline	0.30883	0.27511	0.27511	0.010	-10.91780	20.00000	Averaged
53 4,6-Dinitro-2-methylphenol	0.12923	0.13806	0.13806	0.001	6.83280	20.00000	Averaged
54 N-Nitrosodiphenylamine	0.45199	0.45571	0.45571	0.010	0.82252	20.00000	Averaged
55 2,4,6-Tribromophenol	0.11892	0.11611	0.11611	0.010	-2.36180	20.00000	Averaged
56 4-Bromophenyl-phenylether	0.19612	0.20040	0.20040	0.100	2.18218	20.00000	Averaged
57 Hexachlorobenzene	0.19515	0.20406	0.20406	0.100	4.56730	20.00000	Averaged
58 Pentachlorophenol	18.51645	25.00000	0.04694	0.010	-25.93421	20.00000	Quadratic
60 Phenanthrene	1.04001	1.04894	1.04894	0.700	0.85872	20.00000	Averaged
61 Anthracene	1.02426	1.05209	1.05209	0.700	2.71725	20.00000	Averaged
62 Carbazole	0.61282	0.58945	0.58945	0.010	-3.81368	20.00000	Averaged
63 Di-n-butylphthalate	1.23440	1.25755	1.25755	0.010	1.87499	20.00000	Averaged
64 Fluoranthene	1.02202	1.03734	1.03734	0.600	1.49893	20.00000	Averaged
65 Pyrene	1.27365	1.27073	1.27073	0.600	-0.22928	20.00000	Averaged
66 Terphenyl-d14	0.74170	0.71524	0.71524	0.010	-3.56745	20.00000	Averaged
67 Butylbenzylphthalate	0.68215	0.67871	0.67871	0.010	-0.50395	20.00000	Averaged
68 Benzo(a)anthracene	1.17992	1.16468	1.16468	0.800	-1.29140	20.00000	Averaged
70 3,3'-Dichlorobenzidine	0.41866	0.39585	0.39585	0.010	-5.44793	20.00000	Averaged
71 Chrysene	1.12060	1.12789	1.12789	0.700	0.65070	20.00000	Averaged
72 bis(2-Ethylhexyl)phthalate	0.57975	0.57348	0.57348	0.010	-1.08244	20.00000	Averaged
73 Di-n-octylphthalate	0.96321	1.00126	1.00126	0.010	3.95083	20.00000	Averaged
74 Benzo(b)fluoranthene	1.23129	1.19557	1.19557	0.700	-2.90119	20.00000	Averaged
75 Benzo(k)fluoranthene	1.22313	1.22417	1.22417	0.700	0.08475	20.00000	Averaged

*NTC*

Analytical Resources, Inc.  
 CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt4.i                      Injection Date: 14-JAN-2010 11:30  
 Lab File ID: 01141001.d                Init. Cal. Date(s): 07-JAN-2010    07-JAN-2010  
 Analysis Type:                            Init. Cal. Times:    13:14                    17:02  
 Lab Sample ID: CC0114                    Quant Type:    ISTD  
 Method: /chem3/nt4.i/20100114.b/SW846100107.m

COMPOUND	RF25		CCAL	MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF25	RRF25	RRF	%D / %DRIFT	%D / %DRIFT		
76 Benzo(a)pyrene	1.11269	1.12294	1.12294	0.700	0.92070	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.27842	1.29722	1.29722	0.500	1.47024	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	1.06934	1.05179	1.05179	0.400	-1.64141	20.00000	Averaged	
80 Benzo(g,h,i)perylene	1.14165	1.14862	1.14862	0.500	0.61071	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.68435	0.73685	0.73685	0.010	7.67164	20.00000	Averaged	
103 Pyridine	1.18141	1.33716	1.33716	0.010	13.18332	20.00000	Averaged	
91 Aniline	1.67396	1.75013	1.75013	0.010	4.55030	20.00000	Averaged	
105 1-methylnaphthalene	0.53046	0.53175	0.53175	0.010	0.24336	20.00000	Averaged	
93 Benzidine	21.65620	25.00000	0.32808	0.010	-13.37519	20.00000	Quadratic	
111 Azobenzene (1,2-DP-Hydrazin	1.11366	1.14016	1.14016	0.010	2.37888	20.00000	Averaged	
143 1,4-Dioxane	0.44981	0.47641	0.47641	0.010	5.91385	20.00000	Averaged	
\$ 137 d8-1,4-Dioxane	0.45562	0.47571	0.47571	0.010	4.40958	20.00000	Averaged	
144 alpha-Terpineol	0.14164	0.15329	0.15329	0.010	8.22117	20.00000	Averaged	
98 Retene	0.58145	0.58862	0.58862	0.010	1.23264	20.00000	Averaged	
133 Butylatedhydroxytoluene	0.95957	1.00688	1.00688	0.010	4.93010	20.00000	Averaged	
115 Tributyl Phosphate	0.91559	0.97298	0.97298	0.010	6.26871	20.00000	Averaged	
116 Dibutyl Phenyl Phosphate	0.69239	0.68206	0.68206	0.010	-1.49227	20.00000	Averaged	
117 Butyl Diphenyl Phosphate	0.27046	0.28179	0.28179	0.010	4.18733	20.00000	Averaged	
118 Triphenyl Phosphate	0.20332	0.20570	0.20570	0.010	1.16644	20.00000	Averaged	
123 Acetophenone	0.64261	0.66705	0.66705	0.010	3.80320	20.00000	Averaged	
179 n-Decane	1.10322	1.23467	1.23467	0.010	11.91541	20.00000	Averaged	
180 n-Octadecane	0.39776	0.46738	0.46738	0.010	17.50321	20.00000	Averaged	
168 Pentachlorobenzene	0.38812	0.39747	0.39747	0.010	2.41027	20.00000	Averaged	
113 Diphenyl Oxide	0.71663	0.72798	0.72798	0.010	1.58362	20.00000	Averaged	
112 Biphenyl	1.24279	1.30794	1.30794	0.010	5.24196	20.00000	Averaged	

Data File: /chem3/nt4.i/20100114.b/tune.b/01141001.d

Date : 14-JAN-2010 11:30

Client ID: DFTPP0114

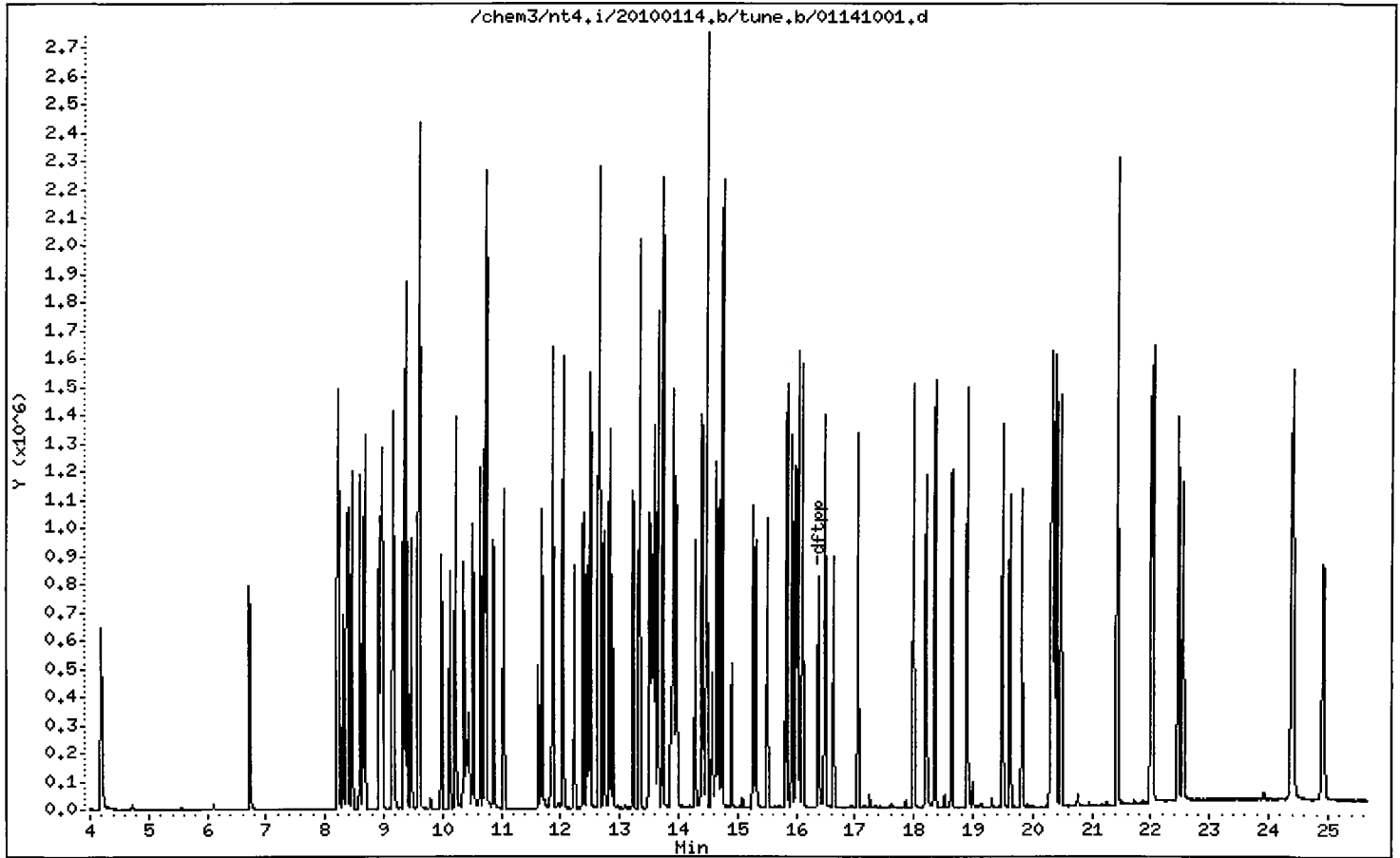
Instrument: nt4.i

Sample Info: DFTPP0114

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



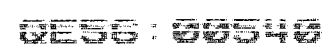
Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141001.d  
 Lab Smp Id: CC0114 Client Smp ID: CC0114  
 Inj Date : 14-JAN-2010 11:30  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : CC0114  
 Misc Info : 10-  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 14-Jan-2010 14:27 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 3.50  
 Compound Sublist: ICALS.sub

*12 01/14/10*

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112	6.720	6.720	(0.776)	325617	25.0000	26.10
\$ 2 Phenol-d5	99	8.212	8.212	(0.948)	327023	25.0000	25.63
3 Phenol	94	8.229	8.229	(0.950)	465358	25.0000	27.16
\$ 5 2-Chlorophenol-d4	132	8.364	8.364	(0.966)	323363	25.0000	25.62
4 Bis(2-Chloroethyl)ether	93	8.306	8.306	(0.959)	345868	25.0000	26.29
6 2-Chlorophenol	128	8.388	8.388	(0.969)	395509	25.0000	27.17
7 1,3-Dichlorobenzene	146	8.599	8.599	(0.993)	412081	25.0000	26.08
* 8 1,4-Dichlorobenzene-d4	152	8.658	8.658	(1.000)	227895	20.0000	
9 1,4-Dichlorobenzene	146	8.682	8.682	(1.003)	419571	25.0000	26.10
\$ 10 1,2-Dichlorobenzene-d4	152	8.958	8.958	(1.035)	226902	25.0000	25.31
12 1,2-Dichlorobenzene	146	8.981	8.981	(1.037)	392562	25.0000	26.09
11 Benzyl alcohol	108	8.922	8.922	(1.031)	228735	25.0000	27.77
14 2,2'-oxybis(1-Chloropropane)	45	9.175	9.175	(1.060)	417962	25.0000	27.85
13 2-Methylphenol	108	9.157	9.157	(1.058)	326821	25.0000	26.73
17 Hexachloroethane	117	9.469	9.469	(1.094)	178034	25.0000	26.80
16 N-Nitroso-di-n-propylamine	70	9.387	9.387	(1.084)	243244	25.0000	25.85
15 4-Methylphenol	108	9.387	9.387	(1.084)	340000	25.0000	26.70
\$ 18 Nitrobenzene-d5	82	9.580	9.580	(0.895)	391111	25.0000	27.46
19 Nitrobenzene	77	9.610	9.610	(0.897)	388729	25.0000	26.83
20 Isophorone	82	9.986	9.986	(0.933)	576721	25.0000	25.79
21 2-Nitrophenol	139	10.127	10.127	(0.946)	211944	25.0000	26.77
22 2,4-Dimethylphenol	107	10.221	10.221	(0.954)	389045	25.0000	26.75
23 Bis(2-Chloroethoxy)methane	93	10.356	10.356	(0.967)	401069	25.0000	25.73
24 Benzoic acid	105	10.456	10.456	(0.976)	314330	50.0000	41.53
25 2,4-Dichlorophenol	162	10.520	10.520	(0.982)	301843	25.0000	26.26
26 1,2,4-Trichlorobenzene	180	10.644	10.644	(0.994)	308266	25.0000	25.20
* 27 Naphthalene-d8	136	10.708	10.708	(1.000)	825141	20.0000	



Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====	==	=====	=====	=====	=====	=====
28 Naphthalene	128	10.744	10.744	(1.003)	1009607	25.0000	25.81
29 4-Chloroaniline	127	10.867	10.867	(1.015)	401308	25.0000	23.80
30 Hexachlorobutadiene	225	11.043	11.043	(1.031)	175863	25.0000	25.59
31 4-Chloro-3-methylphenol	107	11.683	11.683	(1.091)	320745	25.0000	26.11
32 2-Methylnaphthalene	141	11.866	11.866	(1.108)	557999	25.0000	25.19
33 Hexachlorocyclopentadiene	237	12.236	12.236	(0.900)	186810	25.0000	27.79
34 2,4,6-Trichlorophenol	196	12.383	12.383	(0.911)	194406	25.0000	25.29
35 2,4,5-Trichlorophenol	196	12.447	12.447	(0.916)	197483	25.0000	25.32
\$ 36 2-Fluorobiphenyl	172	12.500	12.500	(0.920)	655334	25.0000	25.23
37 2-Chloronaphthalene	162	12.653	12.653	(0.931)	603207	25.0000	25.74
38 2-Nitroaniline	65	12.876	12.876	(0.947)	190736	25.0000	26.37
39 Dimethylphthalate	163	13.228	13.228	(0.973)	681917	25.0000	24.98
40 Acenaphthylene	152	13.340	13.340	(0.981)	921721	25.0000	25.61
41 2,6-Dinitrotoluene	165	13.334	13.334	(0.981)	157028	25.0000	25.11
* 42 Acenaphthene-d10	164	13.593	13.593	(1.000)	450015	20.0000	
43 3-Nitroaniline	138	12.876	12.876	(0.947)	221621	25.0000	25.14
44 Acenaphthene	153	13.646	13.646	(1.004)	610362	25.0000	25.69
45 2,4-Dinitrophenol	184	13.728	13.728	(1.010)	158703	50.0000	43.40
46 Dibenzofuran	168	13.910	13.910	(1.023)	820969	25.0000	25.38
47 4-Nitrophenol	109	13.875	13.875	(1.021)	97001	25.0000	24.80
48 2,4-Dinitrotoluene	165	13.969	13.969	(1.028)	212354	25.0000	25.05
50 Diethylphthalate	149	14.392	14.392	(1.059)	746207	25.0000	25.71
49 Fluorene	166	14.474	14.474	(1.065)	675338	25.0000	25.51
51 4-Chlorophenyl-phenylether	204	14.474	14.474	(1.065)	299179	25.0000	24.90
52 4-Nitroaniline	138	14.568	14.568	(1.072)	154756	25.0000	22.27
53 4,6-Dinitro-2-methylphenol	198	14.638	14.638	(0.915)	237294	50.0000	53.42
54 N-Nitrosodiphenylamine	169	14.679	14.679	(0.918)	391630	25.0000	25.21
\$ 55 2,4,6-Tribromophenol	330	14.903	14.903	(1.096)	65313	25.0000	24.41
56 4-Bromophenyl-phenylether	248	15.267	15.267	(0.954)	172220	25.0000	25.55
57 Hexachlorobenzene	284	15.508	15.508	(0.970)	175368	25.0000	26.14
58 Pentachlorophenol	266	15.807	15.807	(0.988)	40340	25.0000	18.52 (M)
* 59 Phenanthrene-d10	188	15.995	15.995	(1.000)	687514	20.0000	
60 Phenanthrene	178	16.036	16.036	(1.003)	901448	25.0000	25.21
61 Anthracene	178	16.107	16.107	(1.007)	904161	25.0000	25.68
62 Carbazole	167	16.383	16.383	(1.024)	506570	25.0000	24.05
63 Di-n-butylphthalate	149	17.053	17.053	(1.066)	1080727	25.0000	25.47
64 Fluoranthene	202	17.993	17.993	(1.125)	891484	25.0000	25.37
65 Pyrene	202	18.357	18.357	(0.902)	918895	25.0000	24.94
\$ 66 Terphenyl-d14	244	18.639	18.639	(0.916)	517207	25.0000	24.11
67 Butylbenzylphthalate	149	19.496	19.496	(0.958)	490795	25.0000	24.87
68 Benzo(a)anthracene	228	20.331	20.331	(0.999)	842210	25.0000	24.68
* 69 Chrysene-d12	240	20.354	20.354	(1.000)	578500	20.0000	
70 3,3'-Dichlorobenzidine	252	20.307	20.307	(0.998)	286248	25.0000	23.64
71 Chrysene	228	20.395	20.395	(1.002)	815609	25.0000	25.16
72 bis(2-Ethylhexyl)phthalate	149	20.477	20.477	(0.956)	692463	25.0000	24.73
* 134 Di-n-octylphthalate-d4	153	21.417	21.417	(1.000)	965986	20.0000	
73 Di-n-octylphthalate	149	21.429	21.429	(1.001)	1209005	25.0000	25.99



Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====	==	=====	=====	=====	=====	=====
74 Benzo(b)fluoranthene	252	21.999	21.999	(0.976)	951883	25.0000	24.27
75 Benzo(k)fluoranthene	252	22.034	22.034	(0.977)	974656	25.0000	25.02
76 Benzo(a)pyrene	252	22.469	22.469	(0.996)	894057	25.0000	25.23
* 77 Perylene-d12	264	22.551	22.551	(1.000)	636941	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.390	24.390	(1.082)	1032814	25.0000	25.37
79 Dibenzo(a,h)anthracene	278	24.407	24.407	(1.082)	837410	25.0000	24.59
80 Benzo(g,h,i)perylene	276	24.924	24.924	(1.105)	914502	25.0000	25.15
90 N-Nitrosodimethylamine	74	4.217	4.217	(0.487)	209905	25.0000	26.92
103 Pyridine	79	4.188	4.188	(0.484)	380914	25.0000	28.30
91 Aniline	93	8.206	8.206	(0.948)	498557	25.0000	26.14
105 1-methylnaphthalene	141	12.042	12.042	(1.125)	548466	25.0000	25.06
93 Benzidine	184	18.216	18.216	(0.895)	237243	25.0000	21.66
111 Azobenzene (1,2-DP-Hydrazine)	77	14.732	14.732	(1.084)	641360	25.0000	25.59
143 1,4-Dioxane	88	3.436	3.436	(0.397)	135715	25.0000	26.48
\$ 137 d8-1,4-Dioxane	96	3.371	3.371	(0.389)	135516	25.0000	26.10
144 alpha-Terpineol	59	10.744	10.744	(1.003)	158103	25.0000	27.06
98 Retene	219	18.897	18.897	(0.928)	425643	25.0000	25.31
133 Butylatedhydroxytoluene	205	13.728	13.728	(1.010)	566388	25.0000	26.23
115 Tributyl Phosphate	99	14.738	14.738	(0.921)	836173	25.0000	26.57
116 Dibutyl Phenyl Phosphate	175	16.489	16.489	(1.031)	586155	25.0000	24.63
117 Butyl Diphenyl Phosphate	94	18.198	18.198	(0.894)	203767	25.0000	26.05
118 Triphenyl Phosphate	326	19.825	19.825	(0.974)	148744	25.0000	25.29
123 Acetophenone	105	9.340	9.340	(0.872)	688008	25.0000	25.95
179 n-Decane	57	8.458	8.458	(0.977)	351719	25.0000	27.98
180 n-Octadecane	57	15.843	15.843	(0.990)	401666	25.0000	29.38
168 Pentachlorobenzene	250	13.951	13.951	(1.026)	223586	25.0000	25.60
113 Diphenyl Oxide	170	12.829	12.829	(0.944)	409503	25.0000	25.40
112 Biphenyl	154	12.641	12.641	(0.930)	735739	25.0000	26.31

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.  
 INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01141001.d  
 Lab Smp Id: CC0114  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
 Misc Info: 10-

Calibration Date: 14-JAN-2010  
 Calibration Time: 11:30  
 Client Smp ID: CC0114  
 Level:  
 Sample Type:

Test Mode: Use Initial Calibration Level 4.

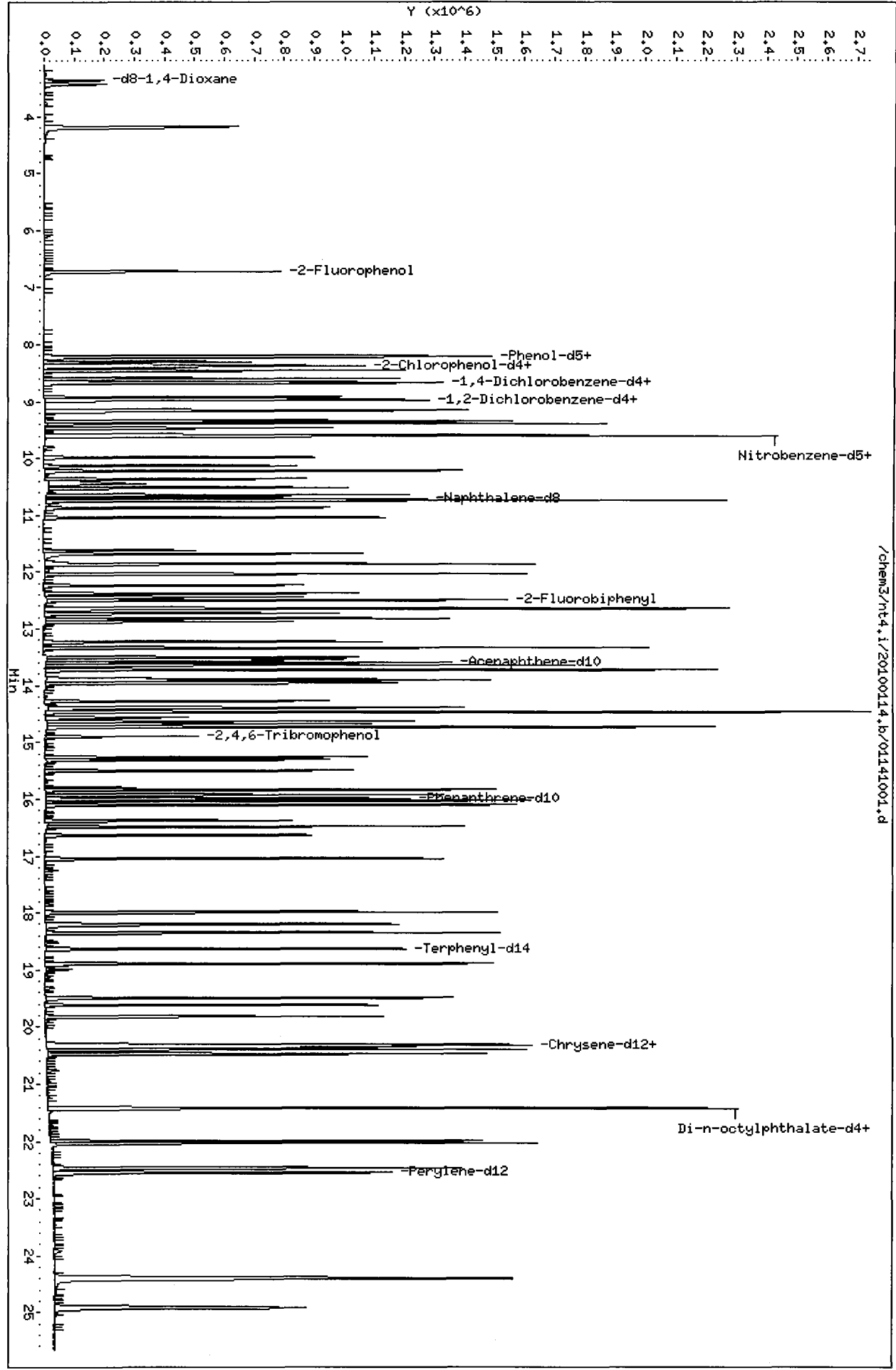
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	286117	143058	572234	227895	-20.35
27 Naphthalene-d8	1035557	517778	2071114	825141	-20.32
42 Acenaphthene-d10	594267	297134	1188534	450015	-24.27
59 Phenanthrene-d10	951721	475860	1903442	687514	-27.76
69 Chrysene-d12	794862	397431	1589724	578500	-27.22
134 Di-n-octylphthala	1280700	640350	2561400	965986	-24.57
77 Perylene-d12	826094	413047	1652188	636941	-22.90

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.66	8.16	9.16	8.66	0.00
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.00
42 Acenaphthene-d10	13.59	13.09	14.09	13.59	0.00
59 Phenanthrene-d10	16.00	15.50	16.50	16.00	0.00
69 Chrysene-d12	20.35	19.85	20.85	20.35	0.00
134 Di-n-octylphthala	21.42	20.92	21.92	21.42	0.00
77 Perylene-d12	22.55	22.05	23.05	22.55	0.00

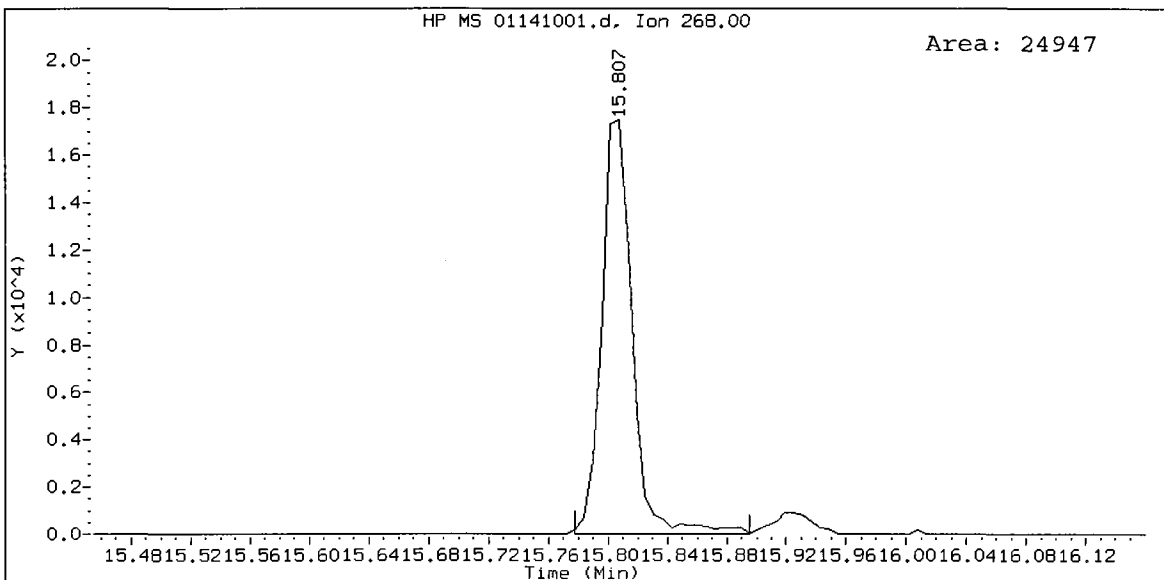
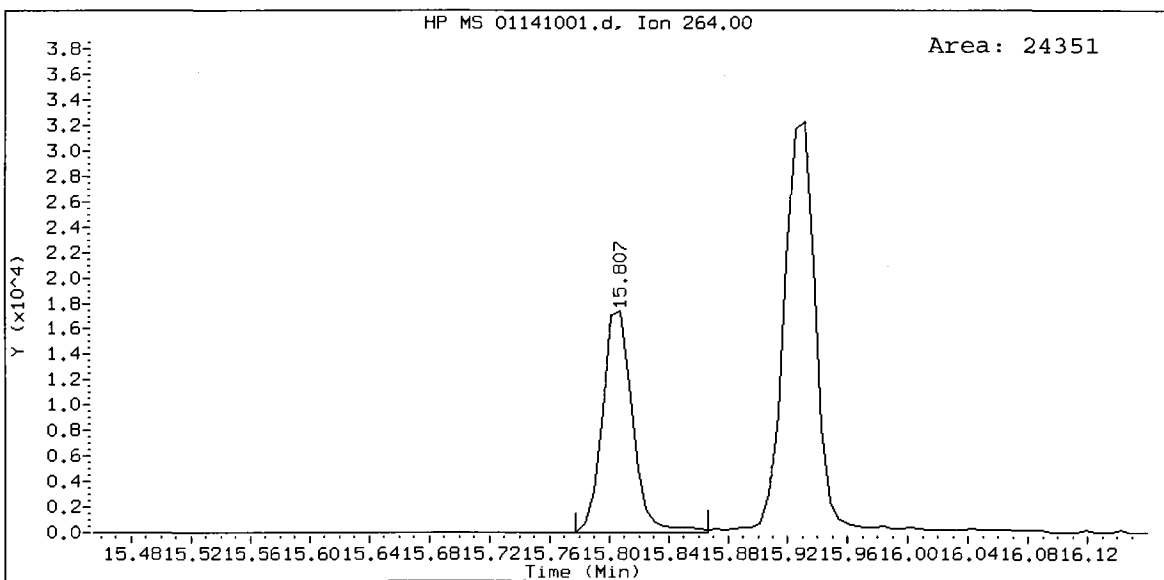
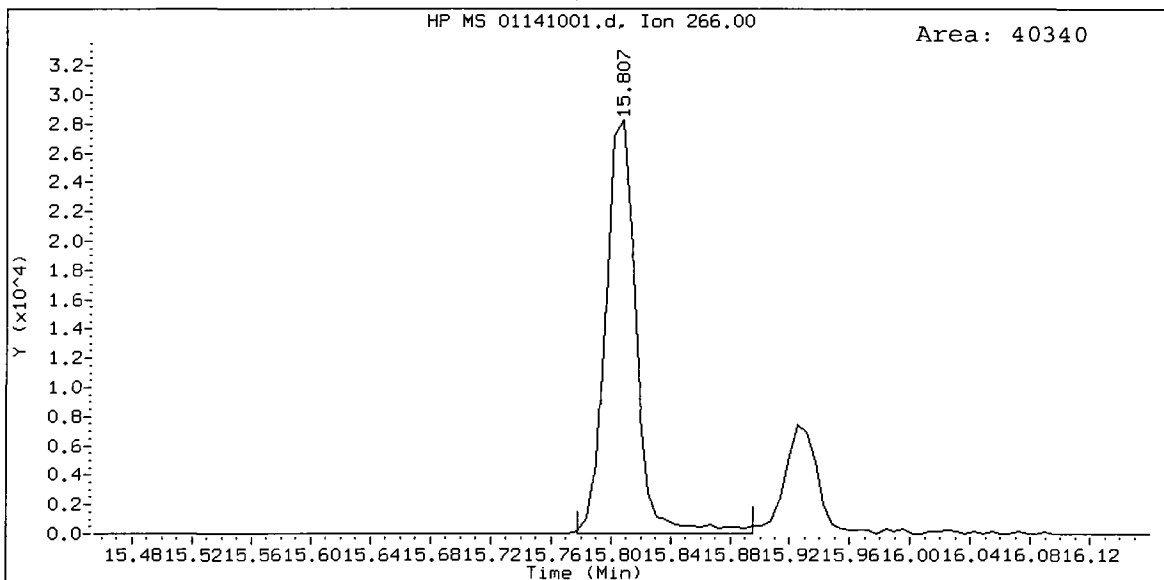
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Column phase: ZB-Smsi

Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32



11:30:00



Semivolatile PAH Analysis  
QC Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

Data File: /chem3/nt4.i/20100107.b/tune.b/01071001.d

Date : 07-JAN-2010 12:18

Client ID: DFTPP0107

Instrument: nt4.i

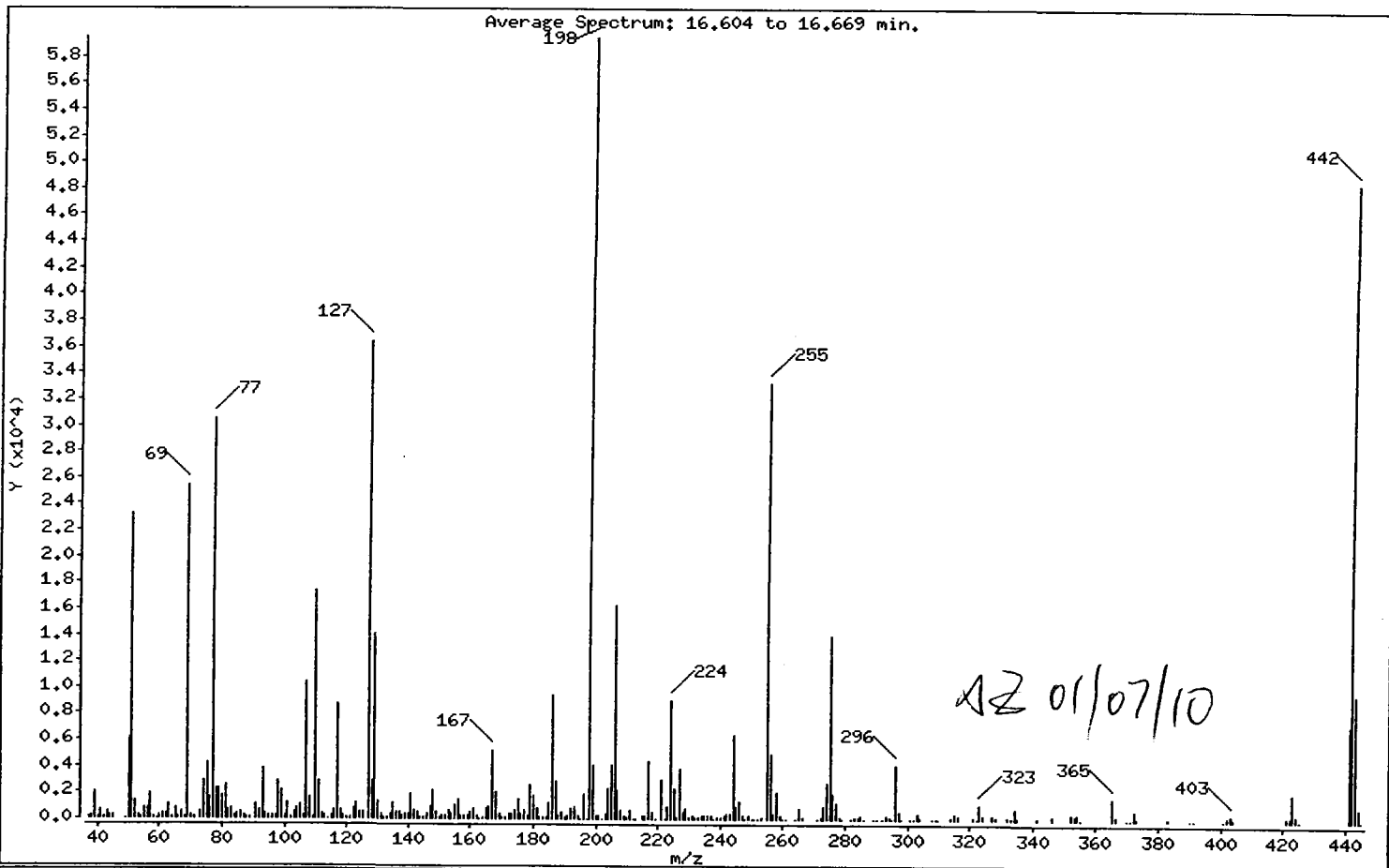
Sample Info: DFTPP0107

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	39.06
68	Less than 2.00% of mass 69	0.12 ( 0.28)
69	Mass 69 relative abundance	42.65
70	Less than 2.00% of mass 69	0.38 ( 0.88)
127	25.00 - 75.00% of mass 198	61.11
197	Less than 1.00% of mass 198	0.02
199	5.00 - 9.00% of mass 198	6.97
275	10.00 - 30.00% of mass 198	23.45
365	Greater than 0.75% of mass 198	2.71
441	Present, but less than mass 443	12.19
442	40.00 - 110.00% of mass 198	81.53
443	15.00 - 24.00% of mass 442	16.08 ( 19.73)

Data File: /chem3/nt4.i/20100107.b/tune.b/01071001.d

Date : 07-JAN-2010 12:18

Client ID: DFTPP0107

Instrument: nt4.i

Sample Info: DFTPP0107

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 01071001.d

Spectrum: Average Spectrum: 16.604 to 16.669 min.

Location of Maximum: 198.00

Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	104	115.00	268	189.00	602	271.00	63
38.00	336	116.00	645	190.00	92	272.00	87
39.00	2070	117.00	8709	191.00	286	273.00	978
40.00	166	118.00	685	192.00	809	274.00	2670
41.00	720	119.00	238	193.00	898	275.00	13944
42.00	185	120.00	172	194.00	211	276.00	1850
43.00	508	121.00	193	195.00	62	277.00	1254
44.00	306	122.00	825	196.00	1969	278.00	191
45.00	272	123.00	1200	197.00	13	279.00	12
49.00	56	124.00	486	198.00	59456	282.00	20
50.00	6211	125.00	496	199.00	4142	283.00	182
51.00	23224	127.00	36336	200.00	340	284.00	94
52.00	1330	128.00	2929	201.00	291	285.00	243
53.00	269	129.00	14044	202.00	65	286.00	29
54.00	103	130.00	1357	203.00	473	289.00	46
55.00	753	131.00	411	204.00	2365	290.00	27
56.00	791	132.00	119	205.00	4098	292.00	43
57.00	1924	133.00	156	206.00	16290	293.00	275
58.00	85	134.00	466	207.00	2202	294.00	73
59.00	13	135.00	1248	208.00	633	295.00	15
60.00	321	136.00	487	209.00	207	296.00	4038
61.00	399	137.00	580	210.00	175	297.00	571
62.00	386	138.00	211	211.00	702	298.00	18
63.00	1037	139.00	403	212.00	39	301.00	39
64.00	170	140.00	408	213.00	14	302.00	56
65.00	755	141.00	1914	215.00	231	303.00	442
66.00	86	142.00	623	216.00	278	304.00	97
67.00	485	143.00	493	217.00	4361	308.00	19
68.00	72	144.00	140	218.00	583	309.00	29
69.00	25360	145.00	148	219.00	48	310.00	15
70.00	223	146.00	363	221.00	2972	314.00	188
71.00	163	147.00	977	222.00	56	315.00	439
73.00	490	148.00	2241	223.00	996	316.00	244
74.00	2865	149.00	508	224.00	8980	321.00	139
75.00	4220	150.00	179	225.00	2329	322.00	18

Data File: /chem3/nt4.i/20100107.b/tune.br/01071001.d

Date : 07-JAN-2010 12:18

Client ID: DFTPP0107

Instrument: nt4.i

Sample Info: DFTPP0107

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 01071001.d

Spectrum: Average Spectrum: 16.604 to 16.669 min.

Location of Maximum: 198.00

Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	1627	151.00	257	226.00	100	323.00	1143
77.00	30424	152.00	214	227.00	3860	324.00	244
78.00	2316	153.00	646	228.00	560	327.00	238
79.00	2323	154.00	478	229.00	779	328.00	92
80.00	1729	155.00	1074	230.00	120	332.00	82
81.00	2565	156.00	1523	231.00	288	333.00	94
82.00	691	157.00	326	232.00	71	334.00	790
83.00	794	158.00	337	233.00	89	335.00	180
84.00	210	159.00	296	234.00	234	341.00	133
85.00	410	160.00	543	235.00	278	346.00	295
86.00	609	161.00	839	236.00	249	352.00	343
87.00	339	162.00	253	237.00	320	353.00	283
88.00	141	163.00	59	238.00	45	354.00	365
89.00	94	164.00	106	239.00	142	355.00	44
91.00	1109	165.00	779	240.00	95	365.00	1611
92.00	716	166.00	894	241.00	230	366.00	261
93.00	3781	167.00	5241	242.00	466	370.00	13
94.00	372	168.00	2037	243.00	351	371.00	39
95.00	315	169.00	345	244.00	6402	372.00	617
96.00	291	170.00	124	245.00	889	373.00	127
97.00	229	171.00	187	246.00	1344	383.00	126
98.00	2851	172.00	348	247.00	282	390.00	53
99.00	2187	173.00	416	248.00	45	391.00	16
100.00	225	174.00	750	249.00	260	401.00	30
101.00	1249	175.00	1558	250.00	30	402.00	230
102.00	100	176.00	429	251.00	52	403.00	347
103.00	481	177.00	654	252.00	15	404.00	110
104.00	861	178.00	258	253.00	194	421.00	293
105.00	1143	179.00	2635	255.00	33152	422.00	261
106.00	217	180.00	1746	256.00	4880	423.00	2069
107.00	10402	181.00	831	257.00	373	424.00	418
108.00	1632	182.00	167	258.00	2009	425.00	13
109.00	156	183.00	70	259.00	311	441.00	7247
110.00	17296	184.00	199	260.00	17	442.00	48472
111.00	2846	185.00	1274	261.00	36	443.00	9562



Data File: /chem3/nt4.i/20100107.b/tune.b/01071001.d

Date : 07-JAN-2010 12:18

Client ID: DFTPP0107

Sample Info: DFTPP0107

Instrument: nt4.i

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 01071001.d

Spectrum: Average Spectrum: 16.604 to 16.669 min.

Location of Maximum: 198.00

Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	403	186.00	9393	264.00	36	444.00	895
113.00	224	187.00	2812	265.00	798	445.00	43
114.00	27	188.00	303	266.00	145		

Data File: /chem3/nt4.i/20100107.b/tune.b/01071001.d

Date : 07-JAN-2010 12:18

Client ID: DFTPP0107

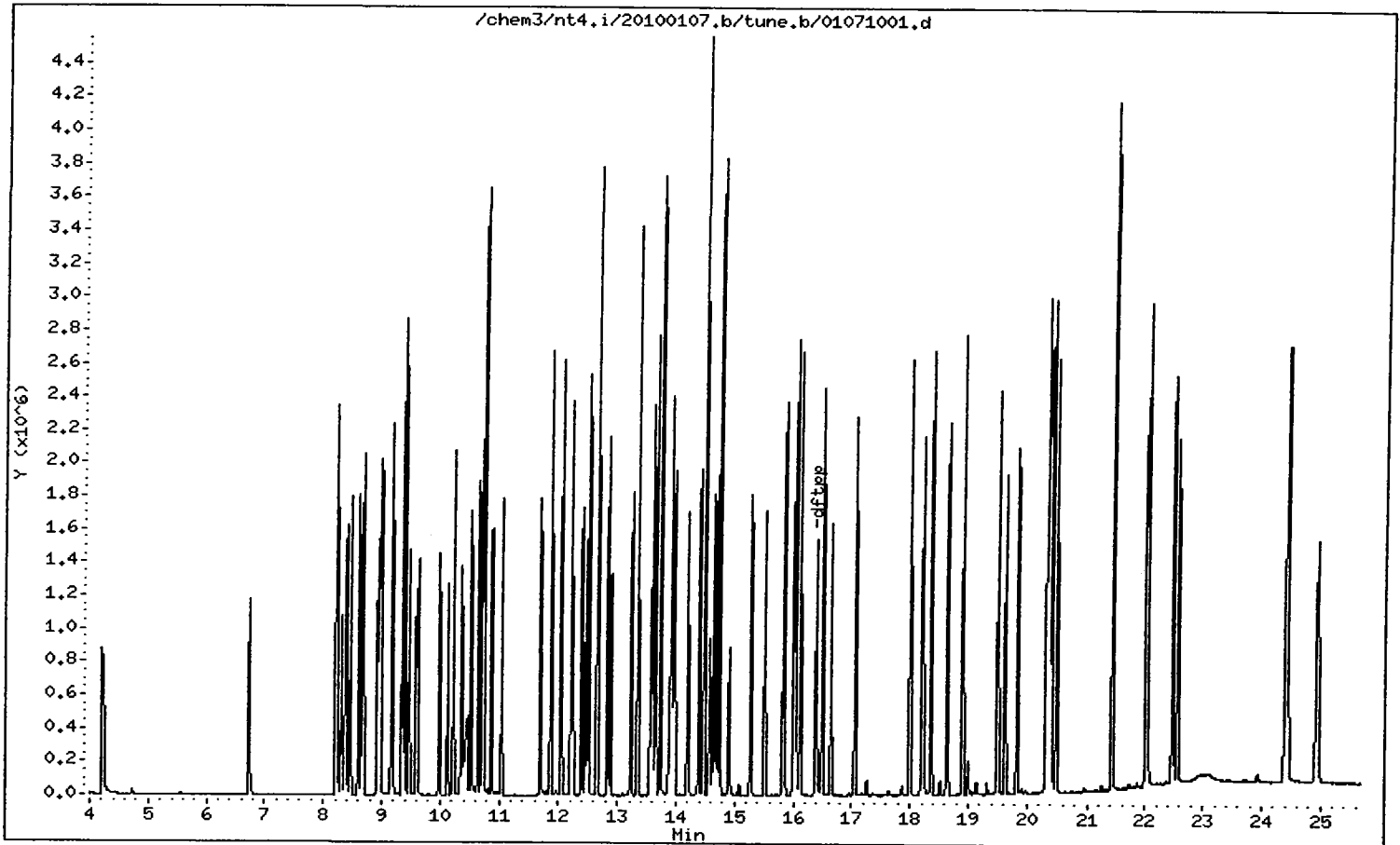
Instrument: nt4.i

Sample Info: DFTPP0107

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



Analytical Resources Inc.  
ABN by sw846 8270C  
DDT Breakdown Report

Data file: /chem3/nt4.i/20100107.b/ddt.b/01071001.d      ARI ID: DDT0107  
Method: /chem3/nt4.i/20100107.b/ddt.b/sw846ddt.m      Misc: 10-  
Analysis Date: 07-JAN-2010 12:18      Instrument: nt4.i

COMPOUND	RT	AREA
Pentachlorophenol	15.811	86318
Benzidine	18.226	418428
4,4'-DDE	----	----
4,4'-DDD	19.148	20539
4,4'-DDT	19.624	501076

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

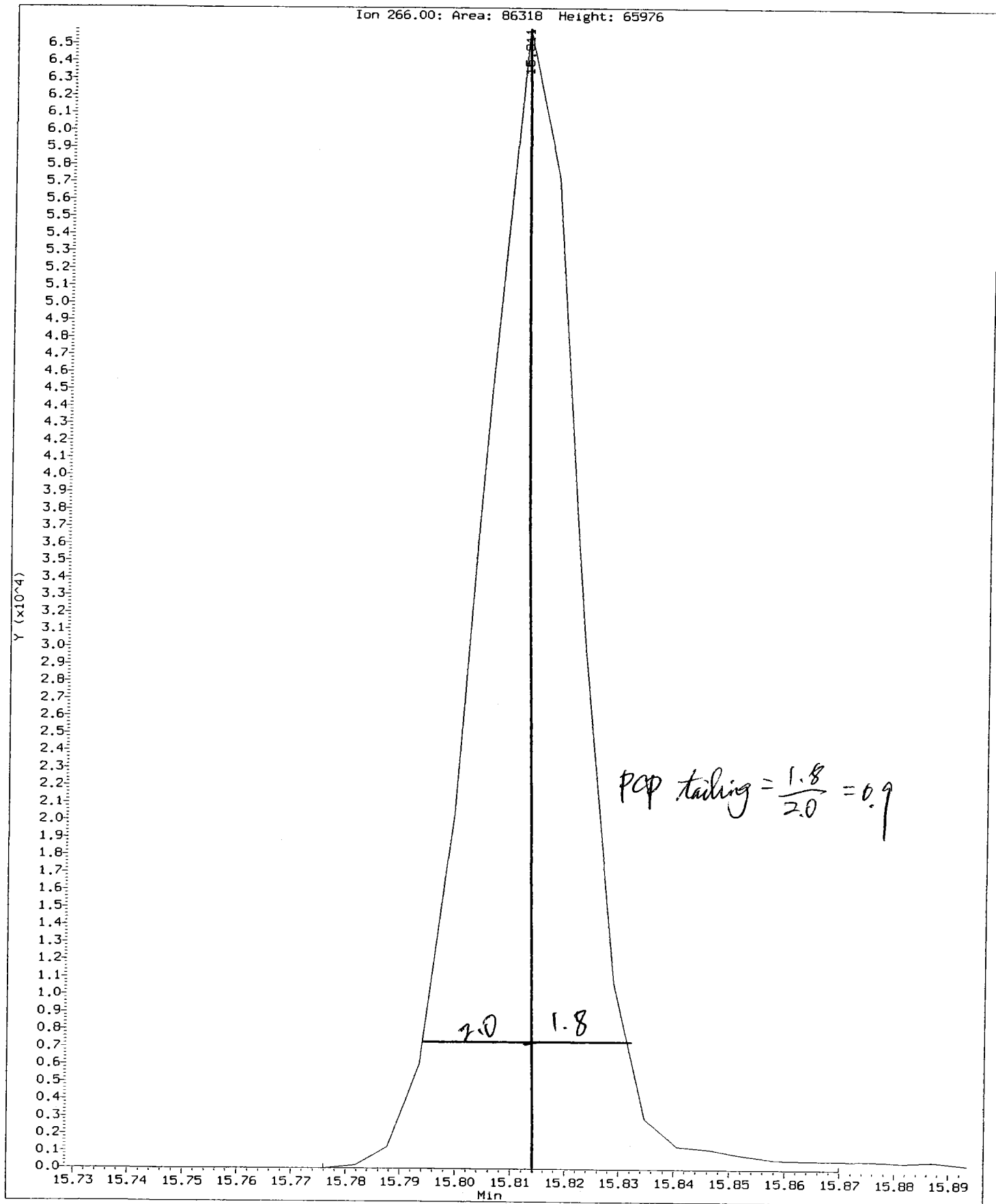
$$\text{DDT Percent Breakdown} = \frac{(0 + 20539) * 100}{(0 + 20539 + 501076)}$$

DDT Percent Breakdown = 3.9 %

*ok JB 01/07/10*

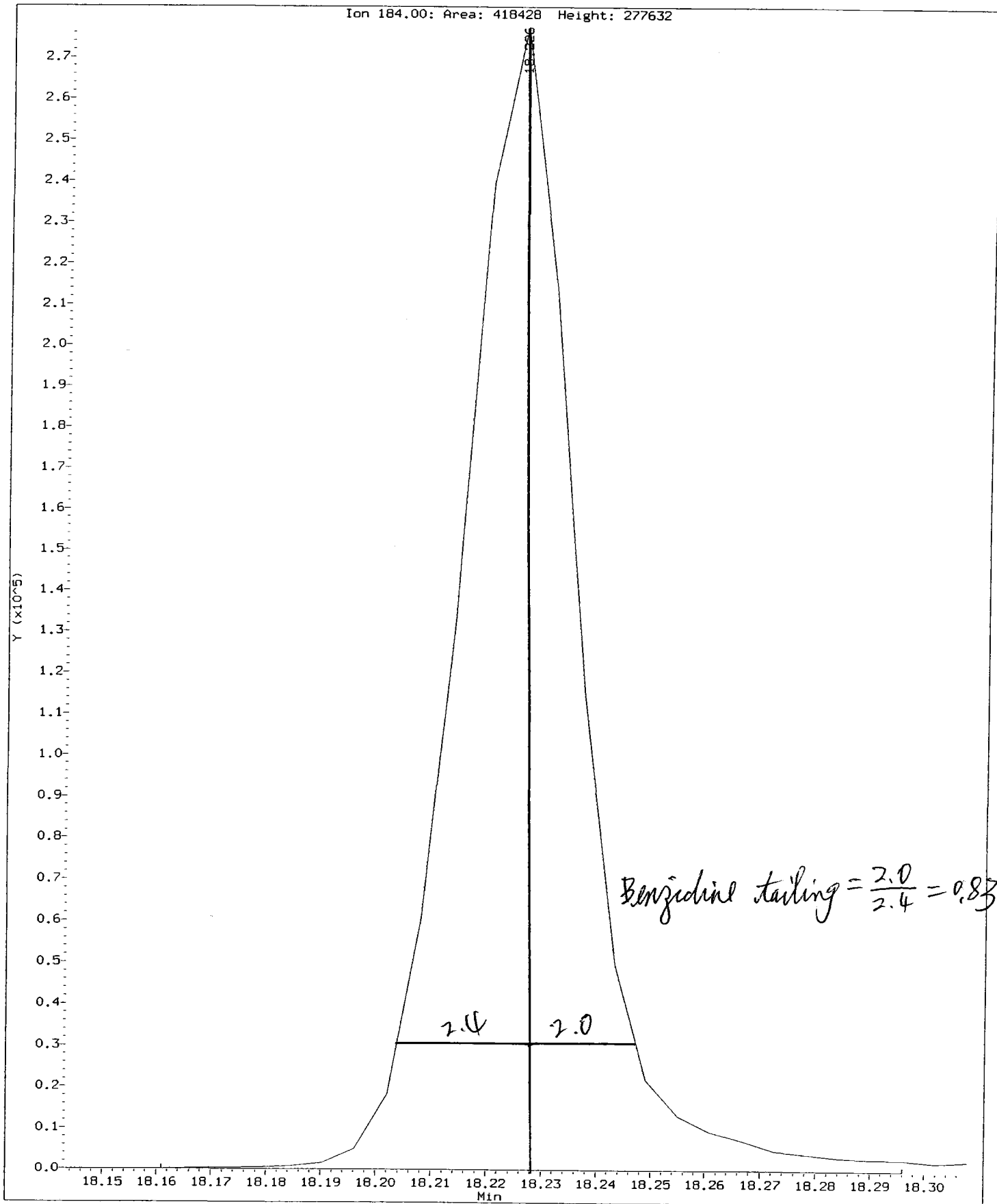
Data File: /chem3/nt4.i/20100107.b/ddt.b/01071001.d  
Injection Date: 07-JAN-2010 12:18  
Instrument: nt4.i  
Client Sample ID: DDT0107

Compound: Pentachlorophenol  
CAS Number: 87-86-5



Data File: /chem3/nt4.i/20100107.b/ddt.b/01071001.d  
Injection Date: 07-JAN-2010 12:18  
Instrument: nt4.i  
Client Sample ID: DDT0107

Compound: Benzidine  
CAS Number:



Data File: /chem3/nt4.i/20100114.b/tune.b/01141001.d

Date : 14-JAN-2010 11:30

Client ID: DFTPP0114

Instrument: nt4.i

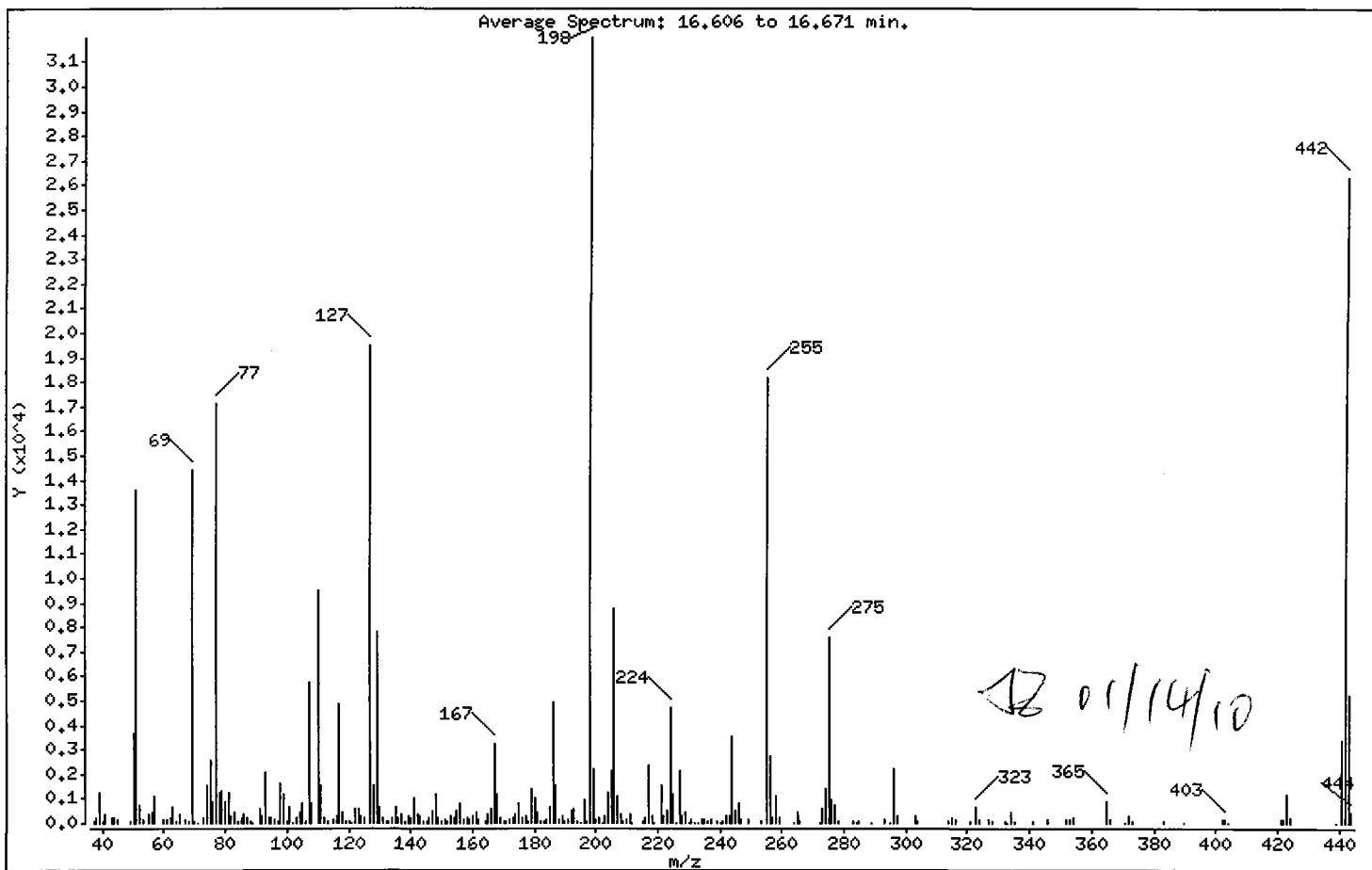
Sample Info: DFTPP0114

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0,32

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100,00
51	30,00 - 80,00% of mass 198	42,58
68	Less than 2,00% of mass 69	0,19 ( 0,42)
69	Mass 69 relative abundance	45,10
70	Less than 2,00% of mass 69	0,28 ( 0,62)
127	25,00 - 75,00% of mass 198	60,94
197	Less than 1,00% of mass 198	0,15
199	5,00 - 9,00% of mass 198	6,86
275	10,00 - 30,00% of mass 198	23,74
365	Greater than 0,75% of mass 198	2,80
441	Present, but less than mass 443	10,65
442	40,00 - 110,00% of mass 198	82,35
443	15,00 - 24,00% of mass 442	16,33 ( 19,83)

Data File: /chem3/nt4.i/20100114.b/tune.b/01141001.d

Date : 14-JAN-2010 11:30

Client ID: DFTPP0114

Instrument: nt4.i

Sample Info: DFTPP0114

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0,32

Data File: 01141001.d

Spectrum: Average Spectrum: 16,606 to 16,671 min.

Location of Maximum: 198,00

Number of points: 256

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37,00	68	113,00	96	181,00	438	255,00	18152
38,00	187	115,00	128	182,00	78	256,00	2692
39,00	1234	116,00	319	183,00	53	257,00	216
40,00	61	117,00	4839	184,00	146	258,00	1107
41,00	351	118,00	413	185,00	673	259,00	184
43,00	249	119,00	69	186,00	4930	264,00	17
44,00	218	120,00	70	187,00	1527	265,00	405
45,00	117	121,00	29	188,00	131	266,00	44
49,00	45	122,00	569	189,00	324	272,00	14
50,00	3701	123,00	603	190,00	47	273,00	579
51,00	13624	124,00	263	191,00	161	274,00	1423
52,00	757	125,00	257	192,00	504	275,00	7597
53,00	131	127,00	19496	193,00	553	276,00	953
55,00	398	128,00	1569	194,00	97	277,00	699
56,00	460	129,00	7761	195,00	29	278,00	99
57,00	1067	130,00	675	196,00	988	283,00	54
60,00	156	131,00	188	197,00	48	284,00	28
61,00	179	132,00	80	198,00	31992	285,00	100
62,00	244	133,00	44	199,00	2196	289,00	12
63,00	691	134,00	227	200,00	165	293,00	122
64,00	80	135,00	680	201,00	186	295,00	16
65,00	380	136,00	254	202,00	14	296,00	2233
67,00	169	137,00	334	203,00	272	297,00	298
68,00	61	138,00	77	204,00	1269	303,00	267
69,00	14429	139,00	302	205,00	2162	304,00	37
70,00	90	140,00	254	206,00	8732	314,00	91
71,00	26	141,00	1015	207,00	1103	315,00	211
73,00	251	142,00	331	208,00	332	316,00	111
74,00	1556	143,00	267	209,00	90	321,00	58
75,00	2560	144,00	72	210,00	148	323,00	631
76,00	898	145,00	49	211,00	370	324,00	115
77,00	17104	146,00	185	212,00	12	327,00	128
78,00	1256	147,00	531	215,00	96	328,00	47
79,00	1293	148,00	1168	216,00	203	332,00	43
80,00	919	149,00	251	217,00	2336	333,00	33

Data File: /chem3/nt4.i/20100114.b/tune.b/01141001.d

Date : 14-JAN-2010 11:30

Client ID: DFTPP0114

Instrument: nt4.i

Sample Info: DFTPP0114

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 01141001.d

Spectrum: Average Spectrum: 16.606 to 16.671 min.

Location of Maximum: 198.00

Number of points: 256

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	1287	150.00	60	218.00	316	334.00	430
82.00	328	151.00	180	219.00	16	335.00	95
83.00	449	152.00	64	221.00	1566	341.00	60
84.00	60	153.00	326	222.00	273	346.00	132
85.00	224	154.00	247	223.00	522	352.00	163
86.00	354	155.00	524	224.00	4717	353.00	125
87.00	215	156.00	794	225.00	1174	354.00	185
88.00	45	157.00	171	226.00	24	365.00	897
89.00	26	158.00	198	227.00	2138	366.00	127
91.00	577	159.00	134	228.00	285	371.00	16
92.00	326	160.00	298	229.00	413	372.00	318
93.00	2040	161.00	456	230.00	36	373.00	60
94.00	209	162.00	126	231.00	169	383.00	84
95.00	188	164.00	70	232.00	13	390.00	15
96.00	121	165.00	381	233.00	17	402.00	113
97.00	42	166.00	573	234.00	119	403.00	157
98.00	1616	167.00	3262	235.00	130	404.00	26
99.00	1141	168.00	1208	236.00	78	421.00	143
100.00	95	169.00	184	237.00	137	422.00	128
101.00	672	170.00	49	239.00	62	423.00	1177
102.00	28	171.00	98	240.00	35	424.00	218
103.00	224	172.00	178	241.00	93	439.00	13
104.00	455	173.00	227	242.00	266	441.00	3407
105.00	800	174.00	380	243.00	264	442.00	26344
106.00	48	175.00	782	244.00	3501	443.00	5225
107.00	5700	176.00	206	245.00	508	444.00	466
108.00	831	177.00	319	246.00	789		
110.00	9460	178.00	93	247.00	157		
111.00	1565	179.00	1399	249.00	127		
112.00	206	180.00	1000	253.00	72		



Analytical Resources Inc.  
ABN by sw846 8270C  
DDT Breakdown Report

Data file: /chem3/nt4.i/20100114.b/ddt.b/01141001.d    ARI ID:  
Method: /chem3/nt4.i/20100114.b/ddt.b/sw846ddt.m    Misc: 10-  
Analysis Date: 14-JAN-2010 11:30    Instrument: nt4.i

COMPOUND	RT	AREA
Pentachlorophenol	15.807	39373
Benzidine	18.216	237243
4,4'-DDE	----	----
4,4'-DDD	19.138	4702
4,4'-DDT	19.620	277826

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

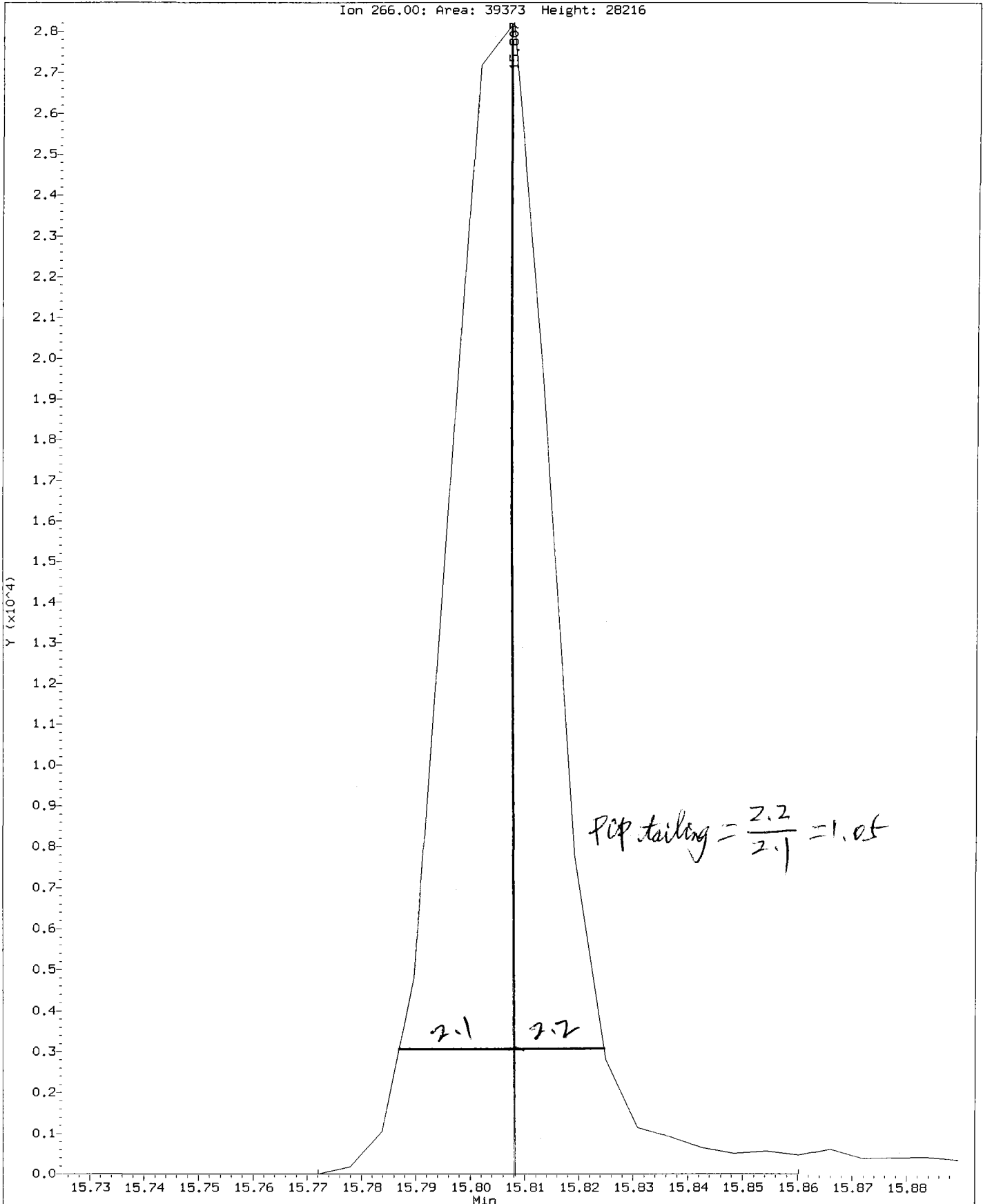
$$\text{DDT Percent Breakdown} = \frac{(0 + 4702) * 100}{(0 + 4702 + 277826)}$$

DDT Percent Breakdown = 1.7 %

ok    12 01/14/10

Data File: /chem3/nt4.i/20100114.b/ddt.b/01141001.d  
Injection Date: 14-JAN-2010 11:30  
Instrument: nt4.i  
Client Sample ID: CC0114

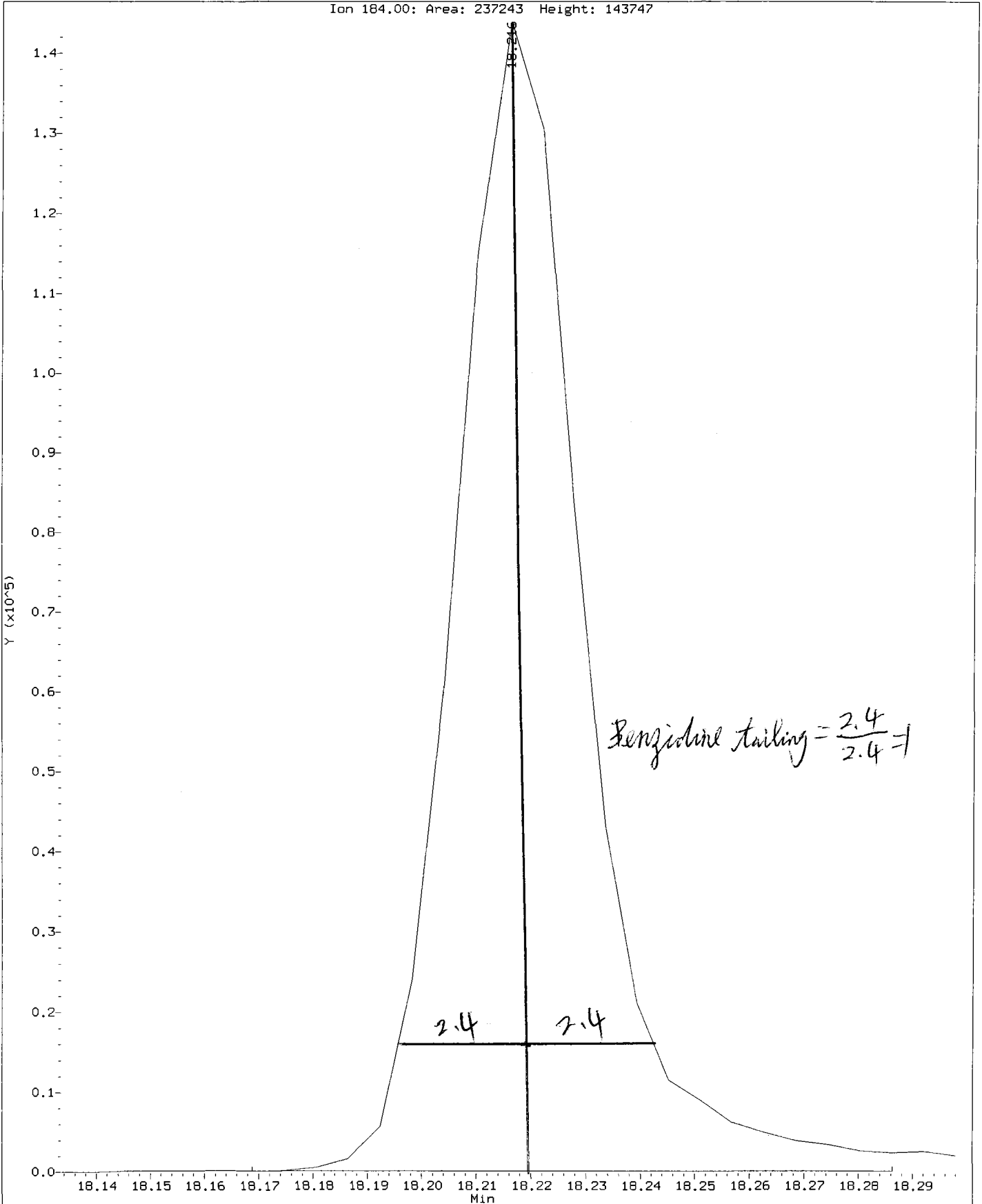
Compound: Pentachlorophenol  
CAS Number: 87-86-5



Data File: /chem3/nt4.1/20100114.b/ddt.b/01141001.d  
Injection Date: 14-JAN-2010 11:30  
Instrument: nt4.1  
Client Sample ID: CC0114

Compound: Benzidine  
CAS Number:

Ion 184.00: Area: 237243 Height: 143747



ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: MB-011310  
METHOD BLANK

Lab Sample ID: MB-011310  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *BB*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
          POS-LLA  
Date Sampled: NA  
Date Received: NA

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 13:44  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 25.0 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	20	< 20 U
91-57-6	2-Methylnaphthalene	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
83-32-9	Acenaphthene	20	< 20 U
86-73-7	Fluorene	20	< 20 U
85-01-8	Phenanthrene	20	< 20 U
120-12-7	Anthracene	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
56-55-3	Benzo (a) anthracene	20	< 20 U
218-01-9	Chrysene	20	< 20 U
205-99-2	Benzo (b) fluoranthene	20	< 20 U
207-08-9	Benzo (k) fluoranthene	20	< 20 U
50-32-8	Benzo (a) pyrene	20	< 20 U
193-39-5	Indeno (1,2,3-cd) pyrene	20	< 20 U
53-70-3	Dibenz (a,h) anthracene	20	< 20 U
191-24-2	Benzo (g,h,i) perylene	20	< 20 U
132-64-9	Dibenzofuran	20	< 20 U

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	105%
2-Fluorobiphenyl	80.0%

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141004.d  
 Lab Smp Id: QE56MBS1 Client Smp ID: QE56MBS1  
 Inj Date : 14-JAN-2010 13:44 Inst ID: nt4.i  
 Operator : JZ  
 Smp Info : QE56MBS1,  
 Misc Info : 10-434  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 18:30 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 4 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pnamlcs.sub  
 Target Version: 3.50

Concentration Formula: Amt \* DF \* Vt / (Ws \* (100 - M) / 100) \* CpndVariable B 01/15/10

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.702	10.708	(1.000)	1097484	20.0000	
28 Naphthalene	128				Compound Not Detected.		
32 2-Methylnaphthalene	141				Compound Not Detected.		
105 1-methylnaphthalene	141				Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172	12.499	12.500	(0.920)	719652	20.0103	400.2
40 Acenaphthylene	152				Compound Not Detected.		
* 42 Acenaphthene-d10	164	13.592	13.593	(1.000)	622975	20.0000	
44 Acenaphthene	153				Compound Not Detected.		
46 Dibenzofuran	168				Compound Not Detected.		
49 Fluorene	166				Compound Not Detected.		
* 59 Phenanthrene-d10	188	15.994	15.995	(1.000)	978268	20.0000	
60 Phenanthrene	178				Compound Not Detected.		
61 Anthracene	178				Compound Not Detected.		
64 Fluoranthene	202				Compound Not Detected.		
65 Pyrene	202				Compound Not Detected.		

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)	
=====	====	--	=====	=====	=====	=====	=====	
\$ 66 Terphenyl-d14	244	18.638	18.639	(0.916)	789953	26.2475	525.0	
68 Benzo(a)anthracene	228	Compound Not Detected.						
* 69 Chrysene-d12	240	20.347	20.354	(1.000)	811550	20.0000		
71 Chrysene	228	Compound Not Detected.						
74 Benzo(b)fluoranthene	252	Compound Not Detected.						
75 Benzo(k)fluoranthene	252	Compound Not Detected.						
76 Benzo(a)pyrene	252	Compound Not Detected.						
* 77 Perylene-d12	264	22.550	22.551	(1.000)	833499	20.0000		
78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
79 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
80 Benzo(g,h,i)perylene	276	Compound Not Detected.						

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i  
 Lab File ID: 01141004.d  
 Lab Smp Id: QE56MBS1  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: JZ  
 Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
 Misc Info: 10-434

Calibration Date: 14-JAN-2010  
 Calibration Time: 11:30  
 Client Smp ID: QE56MBS1  
 Level: LOW  
 Sample Type: Solid

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1097484	5.98
42 Acenaphthene-d10	594267	297134	1188534	622975	4.83
59 Phenanthrene-d10	951721	475860	1903442	978268	2.79
69 Chrysene-d12	794862	397431	1589724	811550	2.10
77 Perylene-d12	826094	413047	1652188	833499	0.90

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.70	-0.06
42 Acenaphthene-d10	13.59	13.09	14.09	13.59	-0.01
59 Phenanthrene-d10	16.00	15.50	16.50	15.99	-0.01
69 Chrysene-d12	20.35	19.85	20.85	20.35	-0.03
77 Perylene-d12	22.55	22.05	23.05	22.55	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider  
Sample Matrix: SOLID  
Lab Smp Id: QE56MBS1  
Level: LOW  
Data Type: MS DATA  
SpikeList File: pnalcs.w.spk  
Sublist File: pnamblcs.sub  
Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
Misc Info: 10-434  
Client SDG: QE56  
Fraction: SV  
Client Smp ID: QE56MBS1  
Operator: JZ  
SampleType: BLANK  
Quant Type: ISTD

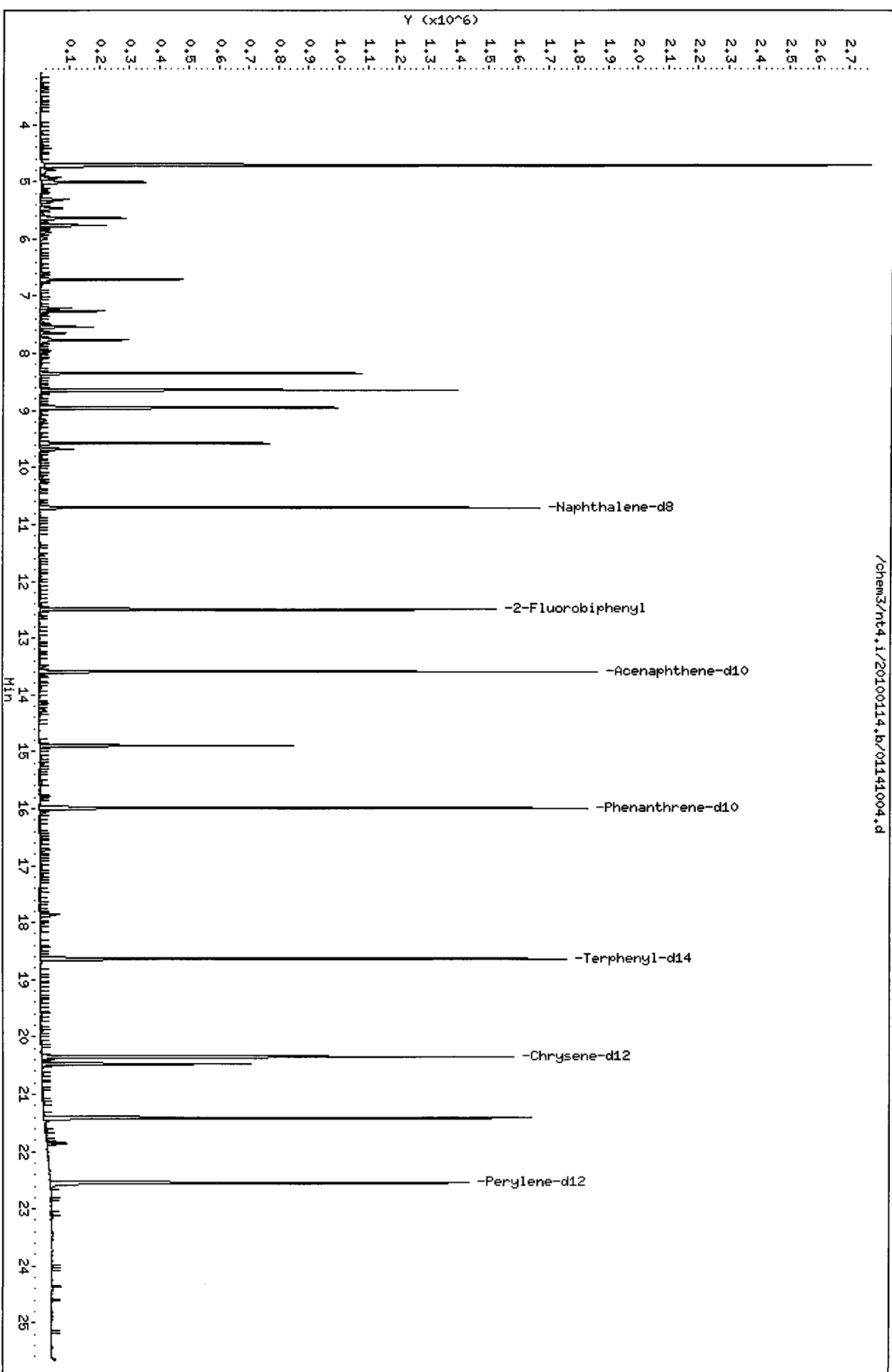
SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
28 Naphthalene	500.0	0.000	*	30-100
32 2-Methylnaphthale	500.0	0.000	*	33-108
105 1-methylnaphthale	500.0	0.000	*	34-100
40 Acenaphthylene	500.0	0.000	*	45-100
44 Acenaphthene	500.0	0.000	*	40-100
46 Dibenzofuran	500.0	0.000	*	45-100
49 Fluorene	500.0	0.000	*	45-100
60 Phenanthrene	500.0	0.000	*	47-101
61 Anthracene	500.0	0.000	*	47-100
64 Fluoranthene	500.0	0.000	*	48-110
65 Pyrene	500.0	0.000	*	48-109
68 Benzo(a)anthracene	500.0	0.000	*	44-105
71 Chrysene	500.0	0.000	*	50-103
74 Benzo(b)fluoranth	500.0	0.000	*	43-115
75 Benzo(k)fluoranth	500.0	0.000	*	51-110
76 Benzo(a)pyrene	500.0	0.000	*	44-107
78 Indeno(1,2,3-cd)p	500.0	0.000	*	30-106
79 Dibenzo(a,h)anthr	500.0	0.000	*	42-103
80 Benzo(g,h,i)peryl	500.0	0.000	*	42-102

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	500.0	400.2	80.04	40-100
\$ 66 Terphenyl-d14	500.0	525.0	104.99	47-112



Client ID: QES6HBS1  
Sample Info: QES6HBS1,  
Volume Injected (uL): 1.0  
Column phase: ZB-Smsi

Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32



000000 : 000000

Analytical Resources, Inc.

Semivolatiles Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141005.d  
 Lab Smp Id: QE56LCSS1 Client Smp ID: QE56LCSS1  
 Inj Date : 14-JAN-2010 14:17  
 Operator : JZ Inst ID: nt4.i  
 Smp Info : QE56LCSS1,  
 Misc Info : 10-434  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 18:30 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 5 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pnamlcs.sub  
 Target Version: 3.50

*B 01/15/10*

Concentration Formula: Amt \* DF \* Vt / (Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)
* 27 Naphthalene-d8	136	10.702	10.708	(1.000)	1223940	20.0000	
28 Naphthalene	128	10.737	10.744	(1.003)	909187	15.6679	313.4
32 2-Methylnaphthalene	141	11.865	11.866	(1.109)	513630	15.6346	312.7
105 1-methylnaphthalene	141	12.035	12.042	(1.125)	535692	16.5017	330.0
\$ 36 2-Fluorobiphenyl	172	12.494	12.500	(0.919)	747213	18.6210	372.4
40 Acenaphthylene	152	13.339	13.340	(0.981)	919829	16.5493	331.0
* 42 Acenaphthene-d10	164	13.592	13.593	(1.000)	695093	20.0000	
44 Acenaphthene	153	13.639	13.646	(1.003)	596095	16.2452	324.9
46 Dibenzofuran	168	13.903	13.910	(1.023)	867028	17.3509	347.0
49 Fluorene	166	14.467	14.474	(1.064)	721655	17.6463	352.9
* 59 Phenanthrene-d10	188	15.995	15.995	(1.000)	1038615	20.0000	
60 Phenanthrene	178	16.030	16.036	(1.002)	1010752	18.7148	374.3
61 Anthracene	178	16.106	16.107	(1.007)	1004910	18.8926	377.9
64 Fluoranthene	202	17.992	17.993	(1.125)	1056637	19.9086	398.2
65 Pyrene	202	18.356	18.357	(0.902)	1064698	20.2979	406.0

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN (ug/mL)	FINAL (ug/kg)
\$ 66 Terphenyl-d14	244	18.638	18.639	(0.916)	792585	25.9473	518.9
68 Benzo(a)anthracene	228	20.324	20.331	(0.999)	948486	19.5188	390.4
* 69 Chrysene-d12	240	20.354	20.354	(1.000)	823675	20.0000	
71 Chrysene	228	20.395	20.395	(1.002)	918773	19.9081	398.2
74 Benzo(b)fluoranthene	252	21.998	21.999	(0.976)	1117160	19.7796	395.6
75 Benzo(k)fluoranthene	252	22.034	22.034	(0.977)	1078052	19.2145	384.3
76 Benzo(a)pyrene	252	22.462	22.469	(0.996)	881348	17.2677	345.4
* 77 Perylene-d12	264	22.551	22.551	(1.000)	917417	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.395	24.390	(1.082)	1197312	20.4172	408.3
79 Dibenzo(a,h)anthracene	278	24.407	24.407	(1.082)	959991	19.5710	391.4
80 Benzo(g,h,i)perylene	276	24.918	24.924	(1.105)	1047622	20.0049	400.1

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 14-JAN-2010
Lab File ID: 01141005.d	Calibration Time: 11:30
Lab Smp Id: QE56LCSS1	Client Smp ID: QE56LCSS1
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Solid
Operator: JZ	
Method File: /chem3/nt4.i/20100114.b/SW846100107.m	
Misc Info: 10-434	

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1223940	18.19
42 Acenaphthene-d10	594267	297134	1188534	695093	16.97
59 Phenanthrene-d10	951721	475860	1903442	1038615	9.13
69 Chrysene-d12	794862	397431	1589724	823675	3.62
77 Perylene-d12	826094	413047	1652188	917417	11.05

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.70	-0.06
42 Acenaphthene-d10	13.59	13.09	14.09	13.59	0.00
59 Phenanthrene-d10	16.00	15.50	16.50	15.99	0.00
69 Chrysene-d12	20.35	19.85	20.85	20.35	0.00
77 Perylene-d12	22.55	22.05	23.05	22.55	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider	Client SDG: QE56
Sample Matrix: SOLID	Fraction: SV
Lab Smp Id: QE56LCSS1	Client Smp ID: QE56LCSS1
Level: LOW	Operator: JZ
Data Type: MS DATA	SampleType: LCS
SpikeList File: pnalcss.spk	Quant Type: ISTD
Sublist File: pnamblcs.sub	
Method File: /chem3/nt4.i/20100114.b/SW846100107.m	
Misc Info: 10-434	

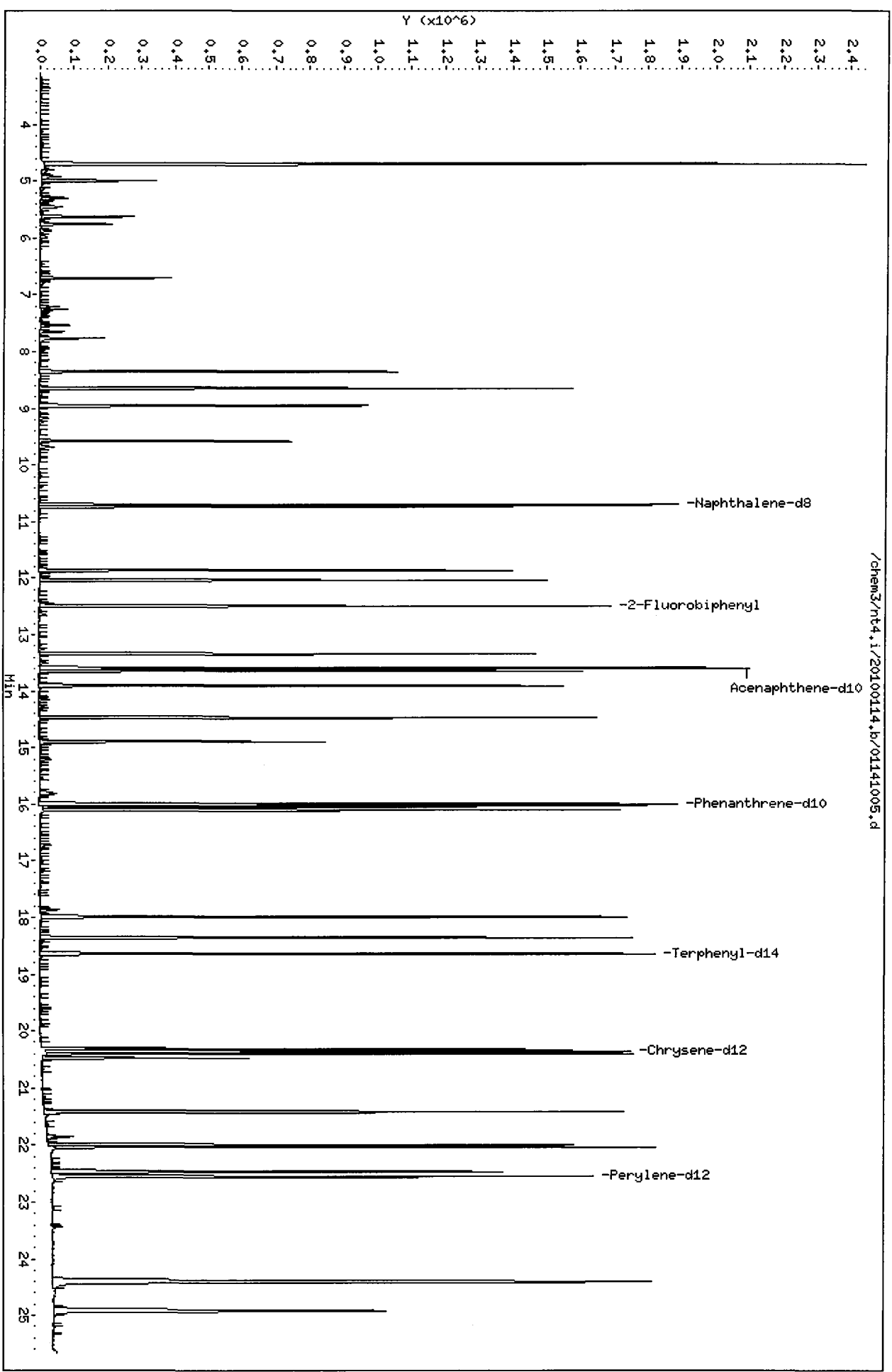
SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
28 Naphthalene	500.0	313.4	62.67	37-100
32 2-Methylnaphthalen	500.0	312.7	62.54	43-101
105 1-methylnaphthalen	500.0	330.0	66.01	39-100
40 Acenaphthylene	500.0	331.0	66.20	44-100
44 Acenaphthene	500.0	324.9	64.98	41-100
46 Dibenzofuran	500.0	347.0	69.40	44-100
49 Fluorene	500.0	352.9	70.59	49-100
60 Phenanthrene	500.0	374.3	74.86	48-100
61 Anthracene	500.0	377.9	75.57	50-100
64 Fluoranthene	500.0	398.2	79.63	54-100
65 Pyrene	500.0	406.0	81.19	41-105
68 Benzo(a)anthracene	500.0	390.4	78.08	49-100
71 Chrysene	500.0	398.2	79.63	50-100
74 Benzo(b)fluoranthene	500.0	395.6	79.12	53-100
75 Benzo(k)fluoranthene	500.0	384.3	76.86	54-100
76 Benzo(a)pyrene	500.0	345.4	69.07	50-100
78 Indeno(1,2,3-cd)py	500.0	408.3	81.67	33-101
79 Dibenz(a,h)anthra	500.0	391.4	78.28	37-104
80 Benzo(g,h,i)perylene	500.0	400.1	80.02	33-107

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	500.0	372.4	74.48	40-100
\$ 66 Terphenyl-d14	500.0	518.9	103.79	47-112

Data File: /chem3/nt4.i/20100114.b/01141005.d  
Date: 14-JAN-2010 14:17

Client ID: QES6LCSS1  
Sample Info: QES6LCSS1,  
Volume Injected (uL): 1.0  
Column phase: ZB-Smsi


Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32



14:00:00 : 000000

ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 18:11  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.24 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	220	---
91-57-6	2-Methylnaphthalene	220	---
90-12-0	1-Methylnaphthalene	220	---
208-96-8	Acenaphthylene	220	---
83-32-9	Acenaphthene	220	---
86-73-7	Fluorene	220	---
85-01-8	Phenanthrene	220	---
120-12-7	Anthracene	220	---
206-44-0	Fluoranthene	220	---
129-00-0	Pyrene	220	---
56-55-3	Benzo (a) anthracene	220	---
218-01-9	Chrysene	220	---
205-99-2	Benzo (b) fluoranthene	220	---
207-08-9	Benzo (k) fluoranthene	220	---
50-32-8	Benzo (a) pyrene	220	---
193-39-5	Indeno (1,2,3-cd) pyrene	220	---
53-70-3	Dibenz (a,h) anthracene	220	---
191-24-2	Benzo (g,h,i) perylene	220	---
132-64-9	Dibenzofuran	220	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	238%
2-Fluorobiphenyl	82.0%

Analytical Resources, Inc.

Semivolatiles Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141012.d  
 Lab Smp Id: QE56CMS Client Smp ID: CB12010710Sed MS  
 Inj Date : 14-JAN-2010 18:11 Inst ID: nt4.i  
 Operator : JZ  
 Smp Info : QE56CMS  
 Misc Info : 10-434  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 18:30 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 12 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pna.sub  
 Target Version: 3.50

*JZ 01/15/10*

Concentration Formula: Amt \* DF \* Vt / (Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	9.00000	Weight of sample extracted (g)
M	75.20000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)
* 27 Naphthalene-d8	136	10.713	10.708	(1.000)	1272002	20.0000	
28 Naphthalene	128	10.748	10.744	(1.003)	1066034	17.6767	3960
32 2-Methylnaphthalene	141	11.870	11.866	(1.108)	645495	18.9061	4235
105 1-methylnaphthalene	141	12.046	12.042	(1.124)	656395	19.4559	4358
\$ 36 2-Fluorobiphenyl	172	12.504	12.500	(0.919)	913965	20.4660	4585
40 Acenaphthylene	152	13.350	13.340	(0.981)	1190682	19.2492	4312
* 42 Acenaphthene-d10	164	13.603	13.593	(1.000)	773569	20.0000	
44 Acenaphthene	153	13.656	13.646	(1.004)	745167	18.2477	4088
46 Dibenzofuran	168	13.914	13.910	(1.023)	1074618	19.3236	4329
49 Fluorene	166	14.478	14.474	(1.064)	911150	20.0197	4485
* 59 Phenanthrene-d10	188	16.011	15.995	(1.000)	1390134	20.0000	
60 Phenanthrene	178	16.053	16.036	(1.003)	1429272	19.7721	4429
61 Anthracene	178	16.123	16.107	(1.007)	1423002	19.9879	4478
64 Fluoranthene	202	18.032	17.993	(1.126)	1689934	23.7893	5329
65 Pyrene	202	18.414	18.357	(0.901)	1587983	51.9820	11640 (R)



Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN (ug/mL)	FINAL (ug/kg)
-----	----	==	=====	=====	-----	-----	-----
\$ 66 Terphenyl-d14	244	18.690	18.639	(0.915)	1056306	59.3771	13300(R)
68 Benzo(a)anthracene	228	20.406	20.331	(0.999)	505827	17.8734	4004
* 69 Chrysene-d12	240	20.429	20.354	(1.000)	479704	20.0000	
71 Chrysene	228	20.470	20.395	(1.002)	614838	22.8752	5124
74 Benzo(b)fluoranthene	252	22.080	21.999	(0.976)	365044	24.4326	5473
75 Benzo(k)fluoranthene	252	22.103	22.034	(0.977)	299772	20.1977	4525(M)
76 Benzo(a)pyrene	252	22.544	22.469	(0.996)	232776	17.2404	3862
* 77 Perylene-d12	264	22.626	22.551	(1.000)	242686	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.465	24.390	(1.081)	186752	12.0386	2697
79 Dibenzo(a,h)anthracene	278	24.476	24.407	(1.082)	144178	11.1114	2489
80 Benzo(g,h,i)perylene	276	24.988	24.924	(1.104)	160452	11.5824	2595

QC Flag Legend

R - Spike/Surrogate failed recovery limits.  
 M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 14-JAN-2010
Lab File ID: 01141012.d	Calibration Time: 11:30
Lab Smp Id: QE56CMS	Client Smp ID: CB12010710Sed MS
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Sediment
Operator: JZ	
Method File: /chem3/nt4.i/20100114.b/SW846100107.m	
Misc Info: 10-434	

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1272002	22.83
42 Acenaphthene-d10	594267	297134	1188534	773569	30.17
59 Phenanthrene-d10	951721	475860	1903442	1390134	46.07
69 Chrysene-d12	794862	397431	1589724	479704	-39.65
77 Perylene-d12	826094	413047	1652188	242686	-70.62

<-

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.04
42 Acenaphthene-d10	13.59	13.09	14.09	13.60	0.08
59 Phenanthrene-d10	16.00	15.50	16.50	16.01	0.10
69 Chrysene-d12	20.35	19.85	20.85	20.43	0.37
77 Perylene-d12	22.55	22.05	23.05	22.63	0.33

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: FSI Client SDG: QE56  
 Sample Matrix: SOLID Fraction: SV  
 Lab Smp Id: QE56CMS Client Smp ID: CB12010710Sed MS  
 Level: LOW Operator: JZ  
 Data Type: MS DATA SampleType: MS  
 SpikeList File: pnalcss.spk Quant Type: ISTD  
 Sublist File: pna.sub  
 Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
 Misc Info: 10-434

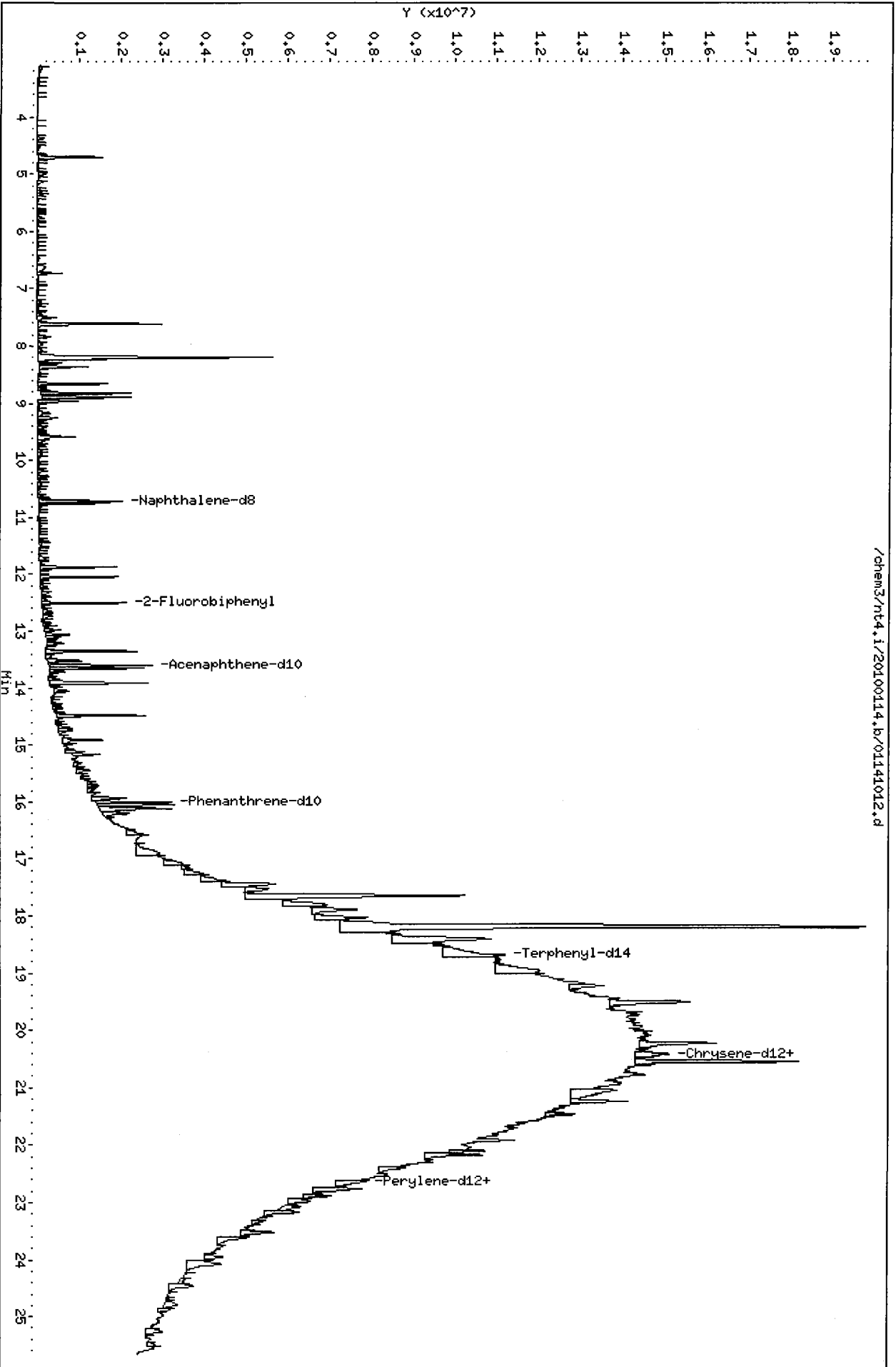
SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
28 Naphthalene	5600	3960	70.71	37-100
32 2-Methylnaphthalen	5600	4235	75.62	43-101
105 1-methylnaphthalen	5600	4358	77.82	39-100
40 Acenaphthylene	5600	4312	77.00	44-100
44 Acenaphthene	5600	4088	72.99	41-100
46 Dibenzofuran	5600	4329	77.29	44-100
49 Fluorene	5600	4485	80.08	49-100
60 Phenanthrene	5600	4429	79.09	48-100
61 Anthracene	5600	4478	79.95	50-100
64 Fluoranthene	5600	5329	95.16	54-100
65 Pyrene	5600	11640	207.93*	41-105
68 Benzo(a) anthracene	5600	4004	71.49	49-100
71 Chrysene	5600	5124	91.50	50-100
74 Benzo(b) fluoranthe	5600	5473	97.73	53-100
75 Benzo(k) fluoranthe	5600	4525	80.79	54-100
76 Benzo(a) pyrene	5600	3862	68.96	50-100
78 Indeno(1,2,3-cd)py	5600	2697	48.15	33-101
79 Dibenzo(a,h) anthra	5600	2489	44.45	37-104
80 Benzo(g,h,i) peryle	5600	2595	46.33	33-107

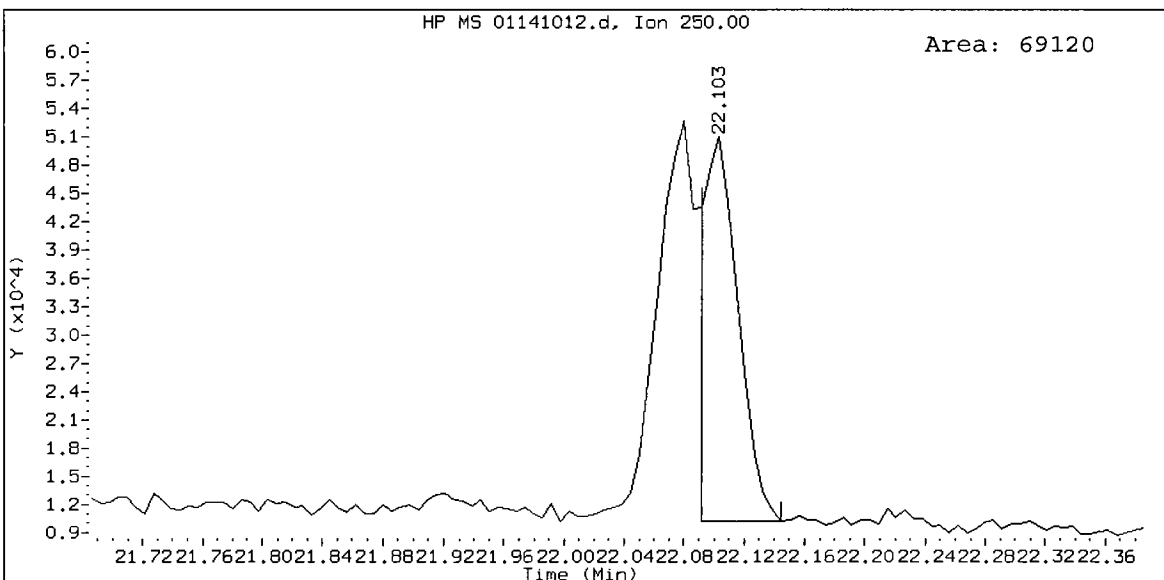
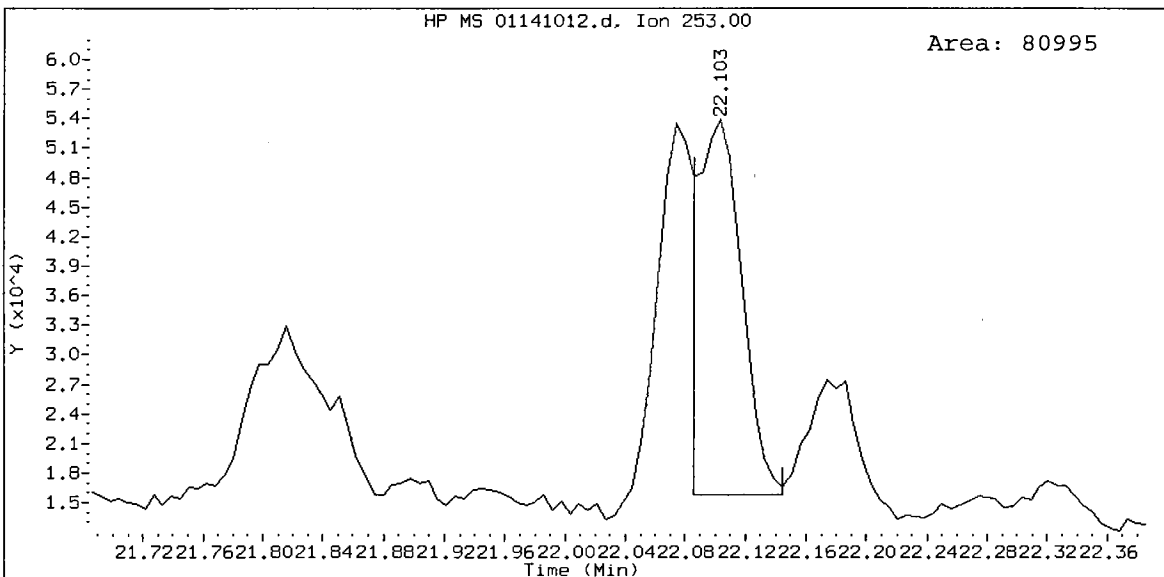
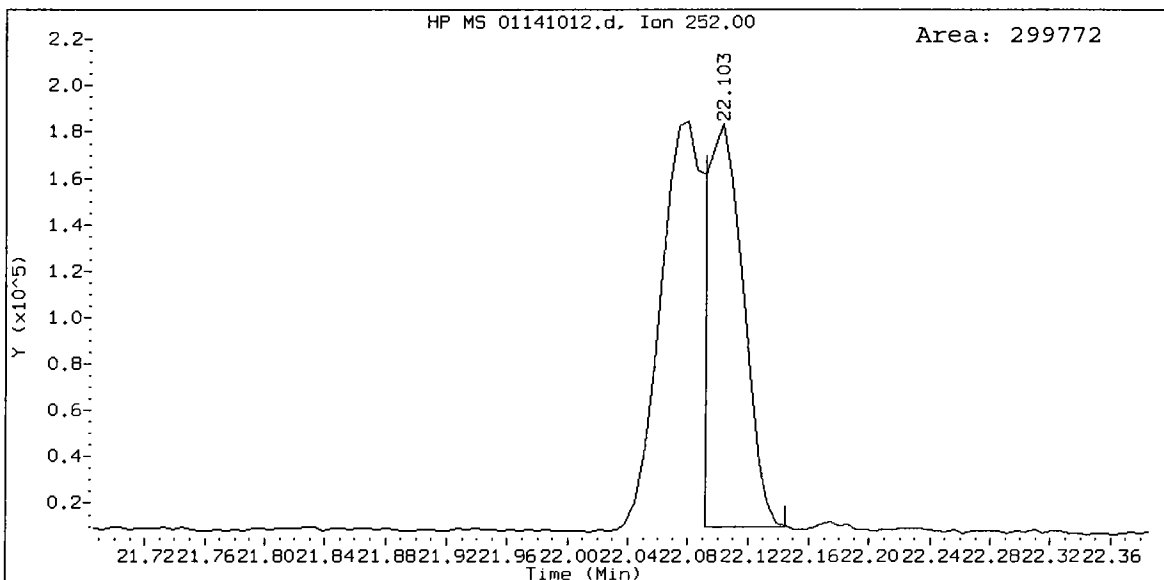
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	5600	4585	81.86	34-100
\$ 66 Terphenyl-d14	5600	13300	237.51*	35-112

Data File: /chem3/nt4.i/20100114.b/01141012.d  
Date: 14-JAN-2010 18:11  
Client ID: C812010710Seel HS  
Sample Info: QES6CHS  
Volume Injected (uL): 1.0  
Column phase: ZB-5msi

Instrument: nt4.i  
Operator: JZ  
Column diameter: 0.32

/chem3/nt4.i/20100114.b/01141012.d





ORGANICS ANALYSIS DATA SHEET  
PSDDA PNAs by 8270D PNA GC/MS  
Page 1 of 1

Sample ID: CB12010710Sed  
MATRIX SPIKE DUPLICATE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 01/18/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/13/10  
Date Analyzed: 01/14/10 18:44  
Instrument/Analyst: NT4/JZ  
GPC Cleanup: No  
Alumina: No  
Silica Gel: Yes

Sample Amount: 2.23 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	220	---
91-57-6	2-Methylnaphthalene	220	---
90-12-0	1-Methylnaphthalene	220	---
208-96-8	Acenaphthylene	220	---
83-32-9	Acenaphthene	220	---
86-73-7	Fluorene	220	---
85-01-8	Phenanthrene	220	---
120-12-7	Anthracene	220	---
206-44-0	Fluoranthene	220	---
129-00-0	Pyrene	220	---
56-55-3	Benzo (a) anthracene	220	---
218-01-9	Chrysene	220	---
205-99-2	Benzo (b) fluoranthene	220	---
207-08-9	Benzo (k) fluoranthene	220	---
50-32-8	Benzo (a) pyrene	220	---
193-39-5	Indeno (1,2,3-cd) pyrene	220	---
53-70-3	Dibenz (a,h) anthracene	220	---
191-24-2	Benzo (g,h,i) perylene	220	---
132-64-9	Dibenzofuran	220	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d14-p-Terphenyl	257%
2-Fluorobiphenyl	83.2%

Analytical Resources, Inc.

Semivolatiles Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100114.b/01141013.d  
 Lab Smp Id: QE56CMSD Client Smp ID: CB12010710Sed MSD  
 Inj Date : 14-JAN-2010 18:44 Inst ID: nt4.i  
 Operator : JZ  
 Smp Info : QE56CMSD  
 Misc Info : 10-434  
 Comment : 1ul Injection  
 Method : /chem3/nt4.i/20100114.b/SW846100107.m  
 Meth Date : 15-Jan-2010 18:30 jianqing Quant Type: ISTD  
 Cal Date : 07-JAN-2010 13:14 Cal File: 01071002.d  
 Als bottle: 13 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pna.sub  
 Target Version: 3.50

Concentration Formula: Amt \* DF \* Vt / (Ws \* (100 - M) / 100) \* CpndVariable 12 01/15/10

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	9.00000	Weight of sample extracted (g)
M	75.20000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.713	10.708	(1.000)	1260356	20.0000		
28 Naphthalene	128	10.748	10.744	(1.003)	1070989	17.9229	4015	
32 2-Methylnaphthalene	141	11.876	11.866	(1.109)	643708	19.0280	4263	
105 1-methylnaphthalene	141	12.052	12.042	(1.125)	660692	19.7642	4427	
\$ 36 2-Fluorobiphenyl	172	12.505	12.500	(0.919)	909819	20.8203	4664	
40 Acenaphthylene	152	13.351	13.340	(0.981)	1182729	19.5403	4377	
* 42 Acenaphthene-d10	164	13.603	13.593	(1.000)	756955	20.0000		
44 Acenaphthene	153	13.656	13.646	(1.004)	739402	18.5039	4145	
46 Dibenzofuran	168	13.921	13.910	(1.023)	1069610	19.6557	4403	
49 Fluorene	166	14.484	14.474	(1.065)	890187	19.9884	4478	
* 59 Phenanthrene-d10	188	16.012	15.995	(1.000)	1345414	20.0000		
60 Phenanthrene	178	16.053	16.036	(1.003)	1386866	19.8232	4441	
61 Anthracene	178	16.123	16.107	(1.007)	1385198	20.1037	4504	
64 Fluoranthene	202	18.033	17.993	(1.126)	1605818	23.3566	5232	
65 Pyrene	202	18.414	18.357	(0.901)	1526396	58.0075	12990 (R)	

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN (ug/mL)	FINAL (ug/kg)
=====	====	==	=====	=====	=====	=====	=====
\$ 66 Terphenyl-d14	244	18.685	18.639	(0.915)	983157	64.1597	14370(R)
68 Benzo(a)anthracene	228	20.400	20.331	(0.999)	458976	18.8280	4218
* 69 Chrysene-d12	240	20.429	20.354	(1.000)	413203	20.0000	
71 Chrysene	228	20.471	20.395	(1.002)	520591	22.4860	5037
74 Benzo(b)fluoranthene	252	22.074	21.999	(0.976)	283628	24.4081	5468
75 Benzo(k)fluoranthene	252	22.104	22.034	(0.977)	278377	24.1160	5402
76 Benzo(a)pyrene	252	22.538	22.469	(0.996)	192773	18.3576	4112
* 77 Perylene-d12	264	22.621	22.551	(1.000)	188749	20.0000	
78 Indeno(1,2,3-cd)pyrene	276	24.465	24.390	(1.082)	159622	13.2301	2964
79 Dibenzo(a,h)anthracene	278	24.477	24.407	(1.082)	121000	11.9899	2686
80 Benzo(g,h,i)perylene	276	25.000	24.924	(1.105)	144429	13.4051	3003

QC Flag Legend

R - Spike/Surrogate failed recovery limits.



Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 14-JAN-2010
Lab File ID: 01141013.d	Calibration Time: 11:30
Lab Smp Id: QE56CMSD	Client Smp ID: CB12010710Sed MS
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Sediment
Operator: JZ	
Method File: /chem3/nt4.i/20100114.b/SW846100107.m	
Misc Info: 10-434	

Test Mode:  
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	1035557	517778	2071114	1260356	21.71
42 Acenaphthene-d10	594267	297134	1188534	756955	27.38
59 Phenanthrene-d10	951721	475860	1903442	1345414	41.37
69 Chrysene-d12	794862	397431	1589724	413203	-48.02
77 Perylene-d12	826094	413047	1652188	188749	-77.15

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	10.71	10.21	11.21	10.71	0.04
42 Acenaphthene-d10	13.59	13.09	14.09	13.60	0.08
59 Phenanthrene-d10	16.00	15.50	16.50	16.01	0.10
69 Chrysene-d12	20.35	19.85	20.85	20.43	0.37
77 Perylene-d12	22.55	22.05	23.05	22.62	0.31

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

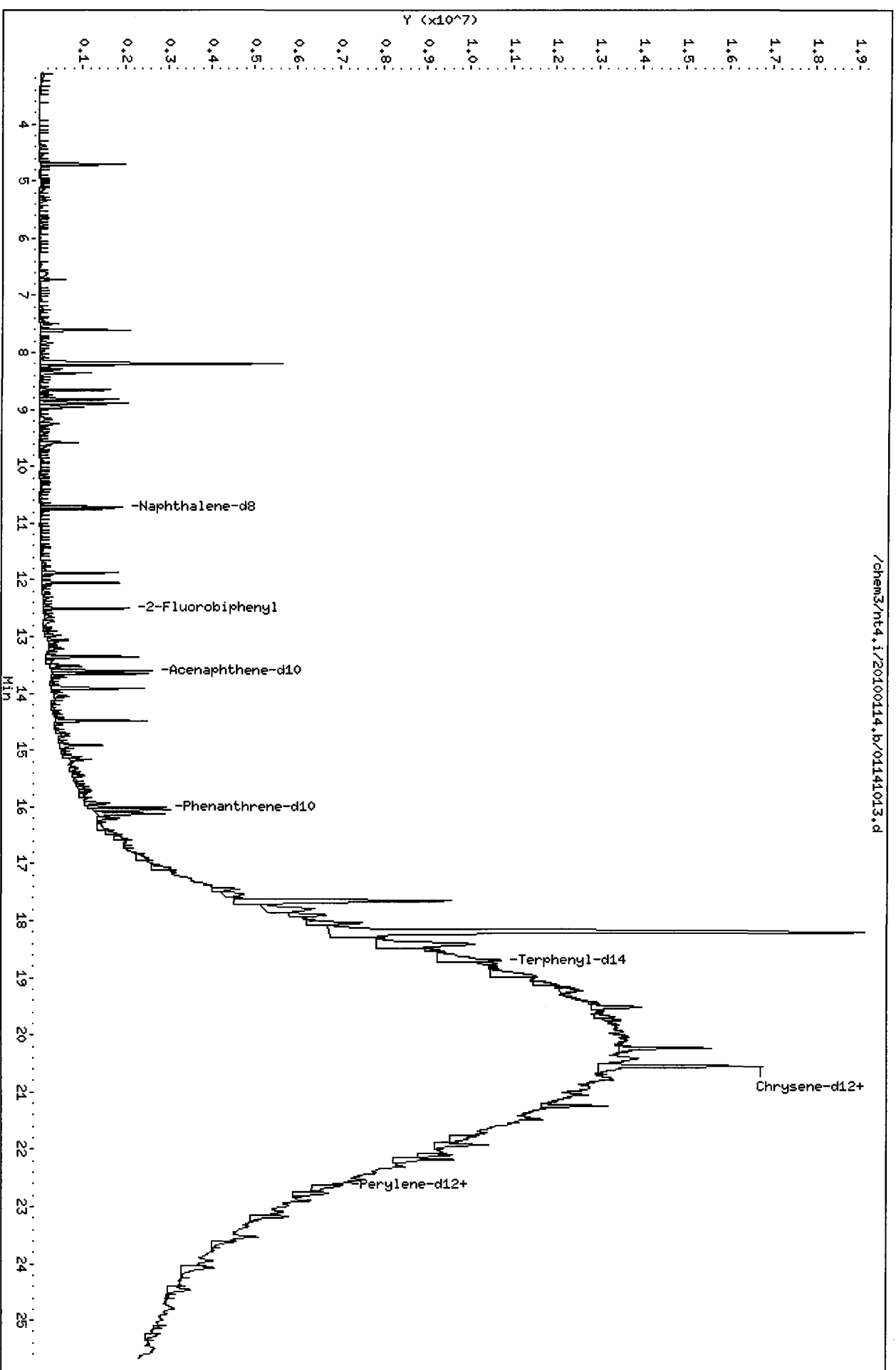
Analytical Resources, Inc.

RECOVERY REPORT

Client Name: FSI Client SDG: QE56  
 Sample Matrix: SOLID Fraction: SV  
 Lab Smp Id: QE56CMSD Client Smp ID: CB12010710Sed MSD  
 Level: LOW Operator: JZ  
 Data Type: MS DATA SampleType: MSD  
 SpikeList File: pnalcss.spk Quant Type: ISTD  
 Sublist File: pna.sub  
 Method File: /chem3/nt4.i/20100114.b/SW846100107.m  
 Misc Info: 10-434

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
28 Naphthalene	5600	4015	71.69	37-100
32 2-Methylnaphthalen	5600	4263	76.11	43-101
105 1-methylnaphthalen	5600	4427	79.06	39-100
40 Acenaphthylene	5600	4377	78.16	44-100
44 Acenaphthene	5600	4145	74.02	41-100
46 Dibenzofuran	5600	4403	78.62	44-100
49 Fluorene	5600	4478	79.95	49-100
60 Phenanthrene	5600	4441	79.29	48-100
61 Anthracene	5600	4504	80.41	50-100
64 Fluoranthene	5600	5232	93.43	54-100
65 Pyrene	5600	12990	232.03*	41-105
68 Benzo(a) anthracene	5600	4218	75.31	49-100
71 Chrysene	5600	5037	89.94	50-100
74 Benzo(b) fluoranthe	5600	5468	97.63	53-100
75 Benzo(k) fluoranthe	5600	5402	96.46	54-100
76 Benzo(a) pyrene	5600	4112	73.43	50-100
78 Indeno(1,2,3-cd) py	5600	2964	52.92	33-101
79 Dibenzo(a,h) anthra	5600	2686	47.96	37-104
80 Benzo(g,h,i) peryle	5600	3003	53.62	33-107

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 36 2-Fluorobiphenyl	5600	4664	83.28	34-100
\$ 66 Terphenyl-d14	5600	14370	256.64*	35-112



/chem3/nt4.i/20100114.b/01141013.d

11  
10  
09  
08  
07  
06  
05  
04  
03  
02  
01  
00  
-1  
-2  
-3  
-4  
-5  
-6  
-7  
-8  
-9  
-10  
-11  
-12  
-13  
-14  
-15  
-16  
-17  
-18  
-19  
-20  
-21  
-22  
-23  
-24  
-25

Semivolatile PAH Analysis  
Extraction Bench Sheets/Run Logs

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.



Miscellaneous  
Water/Soil/~~Sed~~/Tissue/Other  
Separatory Funnel (3510C)

Sonication (3550B)

Parameter 8274 PNA PSDVA  
Preparation Test Misc # 1  
ARI Job No(s) QE56

Batch set up by: JH

ARI Sample I.D.	Verify Client ID	Volume Extracted	KD	Turbo Vap	(REQ) Clean-Up Silica (g)	Clean-Up	Clean-Up	KD	Turbo Vap	Final Effective Volume	Volume to Lab	Comments
QE56				123	Y(N) 121	Y(N)	Y(N)		123			
MB	Date 01/13/10	25.47g								0.5ML	0.5ML	1kg Action
SB		25.47g										
SB Dup.												
7 QE56B	Checked	4.06										
7 C		9.00										
7 cms		9.05										
7 cmsd		9.01										
8 D		8.07										
Analyst/Date:				CSZ					CSZ			
AR 01/13/10 →				1/13/10 →					1/13/10 →			

Standard Surrogate	Standard ID	Volume	Expiration Date	Analyst	Witness
BAN Spike	A1	125 µL	10/28/10		
8274 PNA Spike	2φ	125 µL	12/04/10		
Spike		µL			

Extraction Time: 16:30 Liq/Liq Start: \_\_\_\_\_ Liq/Liq Stop: \_\_\_\_\_

SPECIAL INSTRUCTIONS:

QE56 : 00582



ARI Job No.: QE56

Client ID: Floyd-Suider

Parameter: 8274 PNA PSDDA

Client Project: POS-LLA (Lora Lake Apts)

SOP Number(s): 3575

No Anomalies:

List problems, concerns, corrective actions and any other pertinent information

Received corrected folders on 1/11/14. ~~JA~~  
 Samples A-C contained water @ top. The water was discarded. Also samples  
 (A-C) were very wet w/ organics (leaves). We 1/11/14  
 GCMS analyst, reduced extraction weights for all samples, based  
 on sample pre-screens. Samples were extracted by sonication,  
 due to very low total solids. ~~JA~~ 1/12/14

Analyst Initials:

Date:

# Analytical Resources Inc.: Organics Instrument Log

NT-4 Serial No.: GC = US00010849; MS = US72821113

Date: 01/07/10 Analysis: 8270 Analyst: B

GC Program: \_\_\_\_\_ Column No.: \_\_\_\_\_ Column Type: ZB-FAME

Instrument Tune (.U or .CT.): 100104 EM Voltage: 116.5

Calibration File: 010710af Curve Date: 01/07/10

IS/SS	Ical/Ccal	LCS/ICV
<u>1627-1</u>	<u>1669-2, 1670-1</u>	<u>1678-1, 1679-1</u>
	<u>1671-1, 1626-2</u>	<u>1680-1, 1672-1</u>
	<u>1679-2, 1667-1</u>	<u>1674-4, 1647-5</u>
	<u>1685-4</u>	<u>1634-3</u>

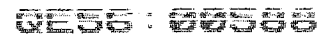
INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt4.i/20100107.b

Time	Filename	LabID	ClientID	DF	NO ISTDs FOUND														
1	1218	01071001.d	CC0107	CC0107	1	out of DC													
2	1314	01071002.d	IC010107	IC010107	1	8.66	250552	10.71	894883	13.60	515321	16.00	817465	20.36	652198	22.56	687115	21.42	1104794
3	1415	01071003.d	IC050107	IC050107	1	8.66	230656	10.71	816977	13.60	463708	16.00	727498	20.36	587293	22.56	632794	21.42	1010753
4	1449	01071004.d	IC100107	IC100107	1	8.66	281417	10.71	999242	13.59	574053	16.00	907483	20.36	770789	22.56	816539	21.42	1301379
5	1522	01071005.d	IC250107	IC250107	1	8.66	286117	10.71	1035557	13.60	594267	16.01	951721	20.36	794862	22.56	826094	21.42	1280700
6	1555	01071006.d	IC400107	IC400107	1	8.66	275908	10.71	1007609	13.60	574151	16.01	913448	20.37	750618	22.56	785897	21.43	1191095
7	1629	01071007.d	IC600107	IC600107	1	8.67	270135	10.72	1001488	13.61	565443	16.01	907075	20.37	786643	22.57	810286	21.43	1204515
8	1702	01071008.d	IC800107	IC800107	1	8.67	266285	10.72	894426	13.61	557203	16.01	856068	20.38	768384	22.57	796348	21.43	1169150
9	1716	01071009.d	ICV0107	ICV0107	1	8.66	246959	10.71	891563	13.60	500490	16.00	776886	20.36	648969	22.56	705785	21.42	1070944

B 01/07/10

**Maintenance / Comments**

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):  
 Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.





### GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: ARM Client ID: \_\_\_\_\_

ARI SOP: 801S(SIM-PNA) 802S(Butyl Tins) 804S(SVOA-8270D) 805S(op-Pest)

Parameter(s): 8270

Instrument: NT-1 NT-2 NT-4 NT-6 NT-8

Curve Date: 01/07/10 Analysis Start Date: 01/07/10

DFTPP Tune Meets Criteria? YES / NO Internal Standard Meets Criteria? YES / NO

DDT Breakdown <20%? YES / NO / NA Method Blank In Control? YES / NO / NA

Peak Tailing Factor ≤2? YES / NO / NA LCS / LCSD Recovery In Control? YES / NO

ICal acceptable YES / NO; Q flag applied YES / NO Surrogate Recovery In Control? YES / NO

CCal acceptable YES / NO; Q flag applied YES / NO Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 01/07/10

Reviewer's Signature: [Signature] Date: 1/8/2010



# Analytical Resources Inc.: Organics Instrument Log

NT-4 Serial No.: GC = US00010849; MS = US72821113

Date: 01/14/10 Analysis: 8270 Analyst: JZ  
 GC Program: ABN Column No: 16767F Column Type: ZB-EMSI  
 Instrument Tune (.U or .CT.): 100104 EM Voltage: 1188  
 Calibration File: 01141001 Curve Date: 01/07/10

IS/SS	Ical/Ccal	LCS/ICV
<u>1627-1</u>	<u>1669-2, 1670-1</u>	
	<u>1671-1, 1676-2</u>	
	<u>1679-2, 1669-1</u>	
	<u>1685-4</u>	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt4.i/20100114.b

Time	Filename	LabID	ClientID	DF																	
1	1130	01141001.d	CC0114	CC0114	1	8.66	227895	10.71	825141	13.59	450015	16.00	687514	20.35	578500	22.55	636941	21.42	96598		
2	1224	01141002.d	GPC#2	Acetone	GPC#2	Acetone	1	8.65	242815	10.71	852132	13.59	470501	16.00	700287	20.35	574690	21.42	962792	22.55	75025
3	1257	01141003.d	GPC#2	SPK	GPC#2	SPK	1	8.66	277186	10.71	994628	13.60	552413	15.99	822891	20.35	696367	21.42	1156425	22.56	75025
4	1344	01141004.d	QE56MBS1	QE56MBS1	1	10.70	1097484	13.59	622975	15.99	978268	20.35	811550	22.55	833499						
5	1417	01141005.d	QE56LCSS1	QE56LCSS1	1	10.70	1223940	13.59	695093	15.99	1038615	20.35	823675	22.55	917417						
6	1450	01141006.d	QE56B	3x	CB19010710Se	3	10.70	1227493	13.59	675024	16.00	1014150	20.37	1145107	22.59	1192835					
7	1524	01141007.d	QE56C	3x	CB12010710Se	3	10.71	1177685	13.59	642819	15.99	1022615	20.38	1169246	22.60	748606					
8	1557	01141008.d	QE56D	3x	CB2010710Sed	3	10.71	1148912	13.59	632162	16.00	1030652	20.38	1158528	22.59	638400					
9	1631	01141009.d	QE56B	1x	CB19010710Se	1	10.71	1245274	13.60	717353	16.00	1227401	20.41	976681	22.63	402961					
10	1704	01141010.d	QE56C	1x	CB12010710Se	1	10.71	1116269	13.60	645796	16.00	1157168	20.42	671151	22.63	309320					
11	1737	01141011.d	QE56D	1x	CB2010710Sed	1	10.71	1291134	13.60	752209	16.01	1311880	20.41	680339	22.62	293215					
12	1811	01141012.d	QE56CMS	1x	CB12010710Se	1	10.71	1272002	13.60	773569	16.01	1390134	20.43	479704	22.63	242686					
13	1844	01141013.d	QE56CMSD	1x	CB12010710Se	1	10.71	1260356	13.60	756955	16.01	1345414	20.43	413203	22.62	188749					
14	1918	01141014.d	RINSE0114	RINSE0114	1	15.99	57	20.36	236	21.39	394	22.55	327								
15	1951	01141015.d	RINSE0114	RINSE0114	1	20.37	222	21.45	377	22.55	285										
16	2024	01141016.d	RINSE0114	RINSE0114	1	20.35	240	21.42	934	22.55	147										
17	2057	01141017.d	RINSE0114	RINSE0114	1	20.37	548	21.41	404	22.55	183										
18	2131	01141018.d	RINSE0114	RINSE0114	1	20.35	233	21.42	632	22.55	369										
19	2204	01141019.d	I5325	I5325	1	8.66	325025	10.72	1242389	13.60	759417	16.00	1274267	20.36	621733	21.42	1374301	22.56	227		
20	2237	01141020.d	I5326	I5326	1	8.66	373070	10.71	1247678	13.60	728489	16.01	1237123	20.36	687349	21.42	1481367	22.56	271		

} 25 out of 30  
(R)

**Maintenance / Comments**

01/15/10

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):  
 Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.



**GC/MS SVOA Analyst Notes / Corrective Action Log**

ARI Project ID: QES6 Client ID: Floyd - Snider

ARI SOP: 801S(SIM-PNA) 802S(Butyl Tins) 804S(SVOA-8270D) 805S(op-Pest)

Parameter(s): 8270

Instrument:  NT-1  NT-2  NT-4  NT-6  NT-8

Curve Date: 01/07/10 Analysis Start Date: 01/14/10

DFTPP Tune Meets Criteria?  YES / NO Internal Standard Meets Criteria?  YES / NO

DDT Breakdown <20%?  YES / NO / NA Method Blank In Control?  YES / NO

Peak Tailing Factor ≤2?  YES / NO / NA LCS / LCSD Recovery In Control?  YES / NO

ICal acceptable  YES / NO; Q flag applied YES / NO Surrogate Recovery In Control?  YES / NO

CCal acceptable  YES / NO; Q flag applied YES / NO Special Analysis Criteria Met? YES / NO /  NA

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

- 1) Samples B-D + MB/LCS + MS/MSD
- 2) Due to matrix effect, IS, Perylene-d12, and SS, Terphenyl-d14, were out of QC limits for all the samples which were run with 1X dilution.
- 3) Forms included.

J-values reported - ALL samples chromatography pushed on 1st run 1X/3X - Dil was ok <sup>IS low as</sup>

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 01/18/10

Reviewer's Signature: [Signature] Date: 1/19/10

PCP/Chlorophenols ANALYSIS  
QC Summary Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

**SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY**

Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
MB-011210	47.2%*	1
LCS-011210	67.6%	0
CB19010710Sed	46.8%	0
CB19010710Sed DL	79.6%	0
CB19010710Sed MS	41.2%	0
CB19010710Sed MSD	145%	0
CB12010710Sed	84.4%	0
CB12010710Sed DL	69.6%	0
CB2010710Sed	44.8%	0
CB2010710Sed DL	55.2%	0

**LCS/MB LIMITS      QC LIMITS**

(TBP) = 2,4,6-Tribromophenol

(50-115)

(10-146)

Prep Method: SW3550B  
Log Number Range: 10-433 to 10-435

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB19010710Sed  
MS/MSD

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted MS/MSD: 01/12/10  
Date Analyzed MS: 01/15/10 18:28  
MSD: 01/15/10 18:48  
Instrument/Analyst MS: ECD1/AAR  
MSD: ECD1/AAR  
Percent Moisture: 76.3%

Sample Amount MS: 2.37 g-dry-wt  
MSD: 2.38 g-dry-wt  
Final Extract Volume MS: 25 mL  
MSD: 25 mL  
Dilution Factor MS: 1.00  
MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Pentachlorophenol	< 26.4	124	264	47.0%	138	263	52.5%	10.7%

Results reported in µg/kg  
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: LCS-011210  
LAB CONTROL

Lab Sample ID: LCS-011210  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 14:50  
Instrument/Analyst: ECD1/AAR

Sample Amount: 10.0 g  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	57.1	62.5	91.4%

**Chlorophenols Surrogate Recovery**

2,4,6-Tribromophenol	67.6%
----------------------	-------

Results reported in  $\mu\text{g}/\text{kg}$

4  
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QE56MBS1
----------

Lab Name: ANALYTICAL RESOURCES, INC	Client: FLOYD-SNIDER
ARI Job No.: QE56	Project: POS-LLA
Lab Sample ID: QE56MBS1	Lab File ID: 0115A015
Matrix (soil/water) SOLID	Extraction: (SepF/Cont/Sonc) SW3550B
Sulfur Cleanup (Y/N) Y	Date Extracted: 01/12/10
Date Analyzed (1): 01/15/10	Date Analyzed (2): 01/15/10
Time Analyzed (1): 1430	Time Analyzed (2): 1430
Instrument ID (1): ECD1	Instrument ID (2): ECD1
GC Column (1): ZB5      ID: 0.53 (mm)	GC Column (2): ZB35      ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	=====	=====	=====	=====
01	QE56LCSS1	QE56LCSS1	01/15/10	01/15/10
02	CB19010710SE	QE56B	01/15/10	01/15/10
03	CB12010710SE	QE56C	01/15/10	01/15/10
04	CB2010710SED	QE56D	01/15/10	01/15/10
05	CB19010710SE	QE56B	01/15/10	01/15/10
06	CB19010710SE	QE56BMS	01/15/10	01/15/10
07	CB19010710SE	QE56BMSD	01/15/10	01/15/10
08	CB12010710SE	QE56C	01/15/10	01/15/10
09	CB2010710SED	QE56D	01/15/10	01/15/10

8  
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC      Client: FLOYD-SNIDER  
 ARI Job No.: QE56      Project: POS-LLA  
 GC Column: ZB5      ID: 0.53 (mm)      Instrument ID: ECD1  
 Init. Calib. Date(s): 10/21/09 10/21/09

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
 SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 10.05				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
-----				
01		PCP D	10/21/09	1633
02		PCP A	10/21/09	1653
03		PCP B	10/21/09	1713
04		PCP C	10/21/09	1733
05		PCP E	10/21/09	1753
06		PCP F	10/21/09	1812
07	ZZZZZ	ZZZZZ	01/15/10	1350
08		PCPCCAL	01/15/10	1410
09	QE56MBS1	QE56MBS1	01/15/10	1430
10	QE56LCSS1	QE56LCSS1	01/15/10	1450
11		PCPCCAL	01/15/10	1509
12	CB19010710SE	QE56B	01/15/10	1529
13	CB12010710SE	QE56C	01/15/10	1629
14	CB2010710SED	QE56D	01/15/10	1649
15	ZZZZZ	ZZZZZ	01/15/10	1709
16	ZZZZZ	ZZZZZ	01/15/10	1729
17		PCPCCAL	01/15/10	1749
18	CB19010710SE	QE56B	01/15/10	1808
19	CB19010710SE	QE56BMS	01/15/10	1828
20	CB19010710SE	QE56BMSD	01/15/10	1848
21	CB12010710SE	QE56C	01/15/10	1908
22	CB2010710SED	QE56D	01/15/10	1928
23	ZZZZZ	ZZZZZ	01/15/10	1948
24	ZZZZZ	ZZZZZ	01/15/10	2008
25		PCPCCAL	01/15/10	2027

QC LIMITS  
 S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

\* Values outside of QC limits.



8  
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC      Client: FLOYD-SNIDER  
 ARI Job No.: QE56      Project: POS-LLA  
 GC Column: ZB35      ID: 0.53 (mm)      Instrument ID: ECD1  
 Init. Calib. Date(s): 10/21/09 10/21/09

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
 SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 10.68				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
-----				
01		PCP D	10/21/09	1633
02		PCP A	10/21/09	1653
03		PCP B	10/21/09	1713
04		PCP C	10/21/09	1733
05		PCP E	10/21/09	1753
06		PCP F	10/21/09	1812
07	ZZZZZ	ZZZZZ	01/15/10	1350
08		PCPCCAL	01/15/10	1410
09	QE56MBS1	QE56MBS1	01/15/10	1430
10	QE56LCSS1	QE56LCSS1	01/15/10	1450
11		PCPCCAL	01/15/10	1509
12	CB19010710SE	QE56B	01/15/10	1529
13	CB12010710SE	QE56C	01/15/10	1629
14	CB2010710SED	QE56D	01/15/10	1649
15	ZZZZZ	ZZZZZ	01/15/10	1709
16	ZZZZZ	ZZZZZ	01/15/10	1729
17		PCPCCAL	01/15/10	1749
18	CB19010710SE	QE56B	01/15/10	1808
19	CB19010710SE	QE56BMS	01/15/10	1828
20	CB19010710SE	QE56BMSD	01/15/10	1848
21	CB12010710SE	QE56C	01/15/10	1908
22	CB2010710SED	QE56D	01/15/10	1928
23	ZZZZZ	ZZZZZ	01/15/10	1948
24	ZZZZZ	ZZZZZ	01/15/10	2008
25		PCPCCAL	01/15/10	2027

QC LIMITS  
 S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

\* Values outside of QC limits.

PCP/Chlorophenols ANALYSIS  
Sample Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)


ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB19010710Sed  
SAMPLE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 18:08  
Instrument/Analyst: ECD1/AAR

Sample Amount: 2.37 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	26	< 26 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	46.8%
----------------------	-------

Analytical Resources Inc.  
 Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 1/19/2010

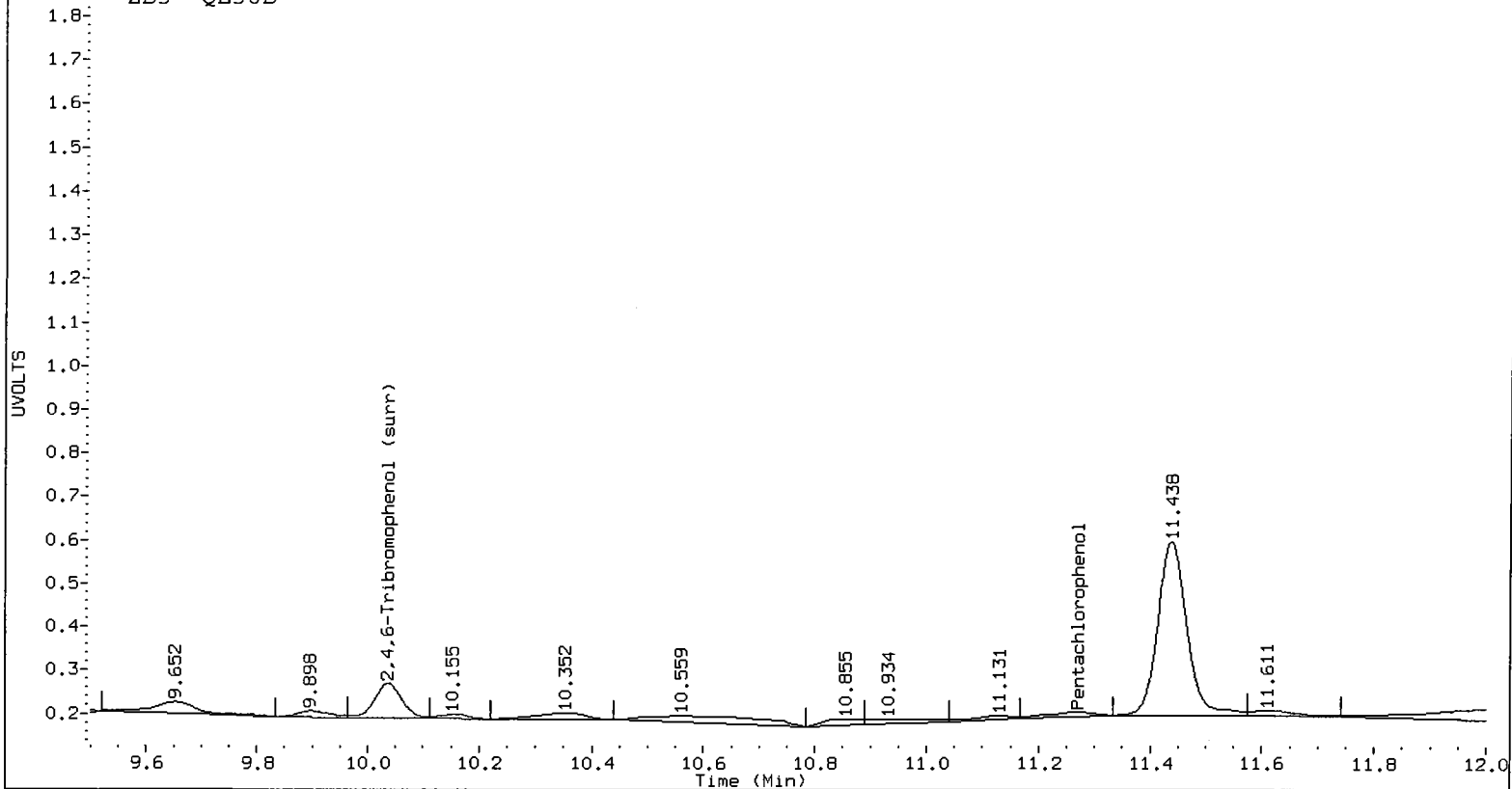
Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A026.d ARI ID: QE56B  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A026.d Client ID: CB19010710Sed  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 18:08  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i Matrix: SOIL  
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.269	-0.002	34132	11.692	-0.003	11996	2.1965	0.7403	99.2*	Pentachlorophenol
7.280	-0.014	166172	7.392	0.040	37735	21.8673	3.9594	138.7*	2,4,6-Trichlorophenol
----			7.884	0.001	10035	0.0000	1.0843	---	2,3,6-Trichlorophenol
8.209	-0.050	21849	8.598	-0.021	11922	4.1206	2.0238	68.3*	2,4,5-Trichlorophenol
----			9.455	0.057	45971	0.0000	5.9582	---	2,3,4-Trichlorophenol
9.072	0.034	2691347	9.288	-0.007	20747	203.8030	1.5494	197.0*	2,3,5,6-Tetrachlorophenol
----			11.191	0.032	33190	0.0000	3.2240	---	2,3,4,5-Tetrachlorophenol
----			7.154	-0.023	26006	0.0000	49.5960	---	2,4-Dichlorophenol
10.037	-0.012	137606	10.677	-0.003	150870	11.4	11.7	2.6	2,4,6-Tribromophenol (surr)

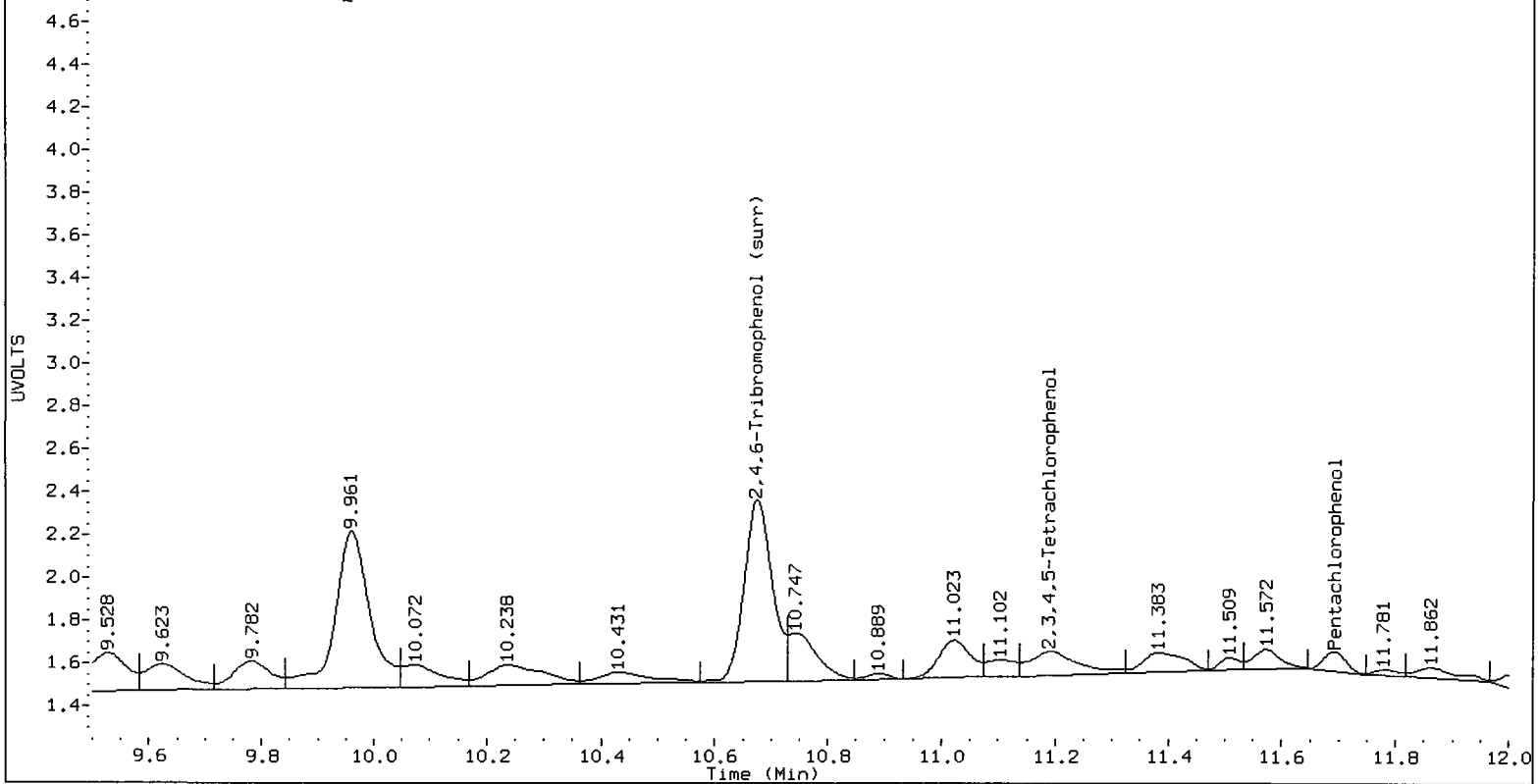
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	45.6	46.8

chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A026.d 0115A026.cdf  
ZB5 QE56B



chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A026.d 0115A026.cdf  
ZB35 QE56B



ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB19010710Sed  
DILUTION

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *AB*  
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 15:29  
Instrument/Analyst: ECD1/AAR

Sample Amount: 2.37 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 10.0  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	260	< 260 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	79.6%
----------------------	-------

AR 1/19/2010

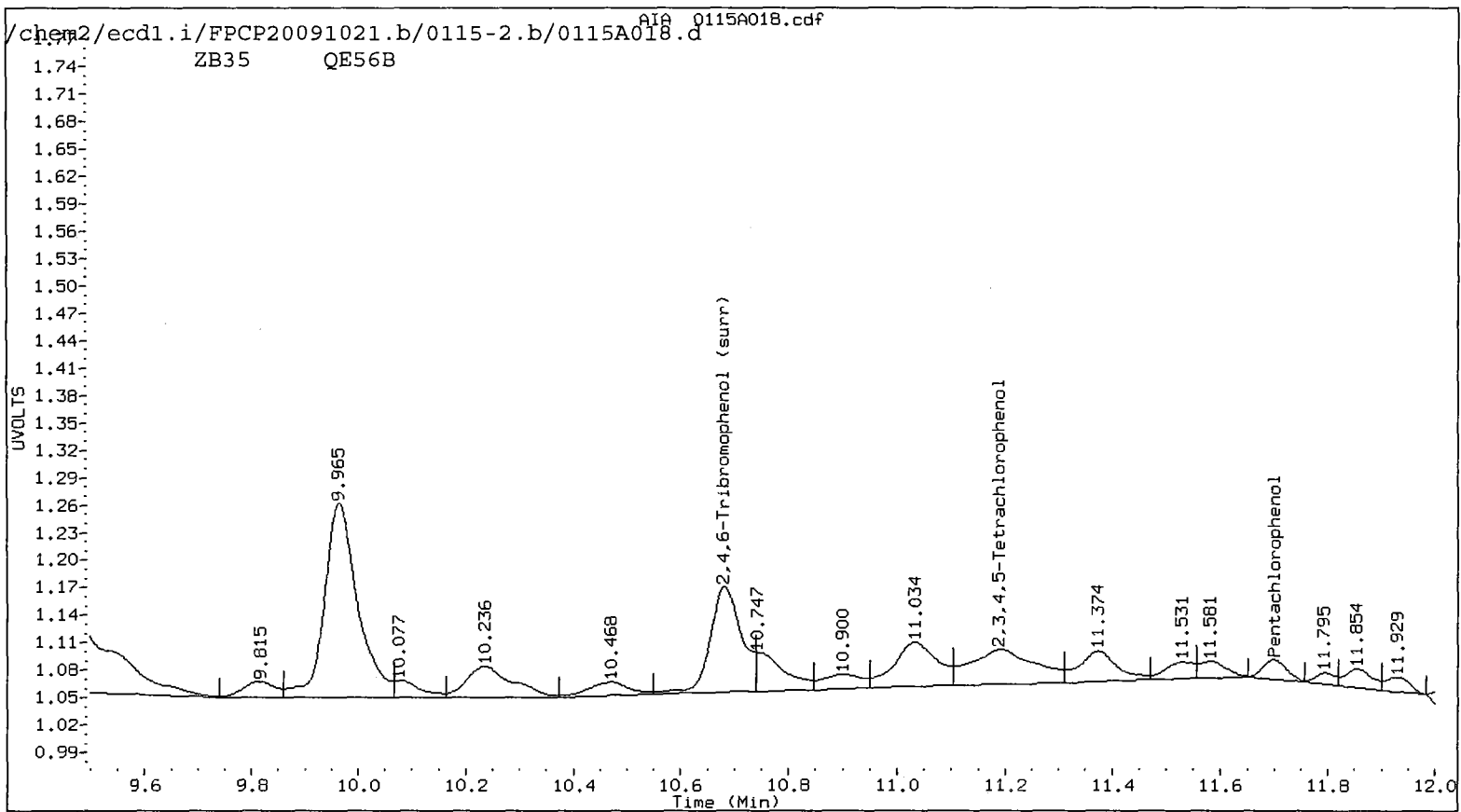
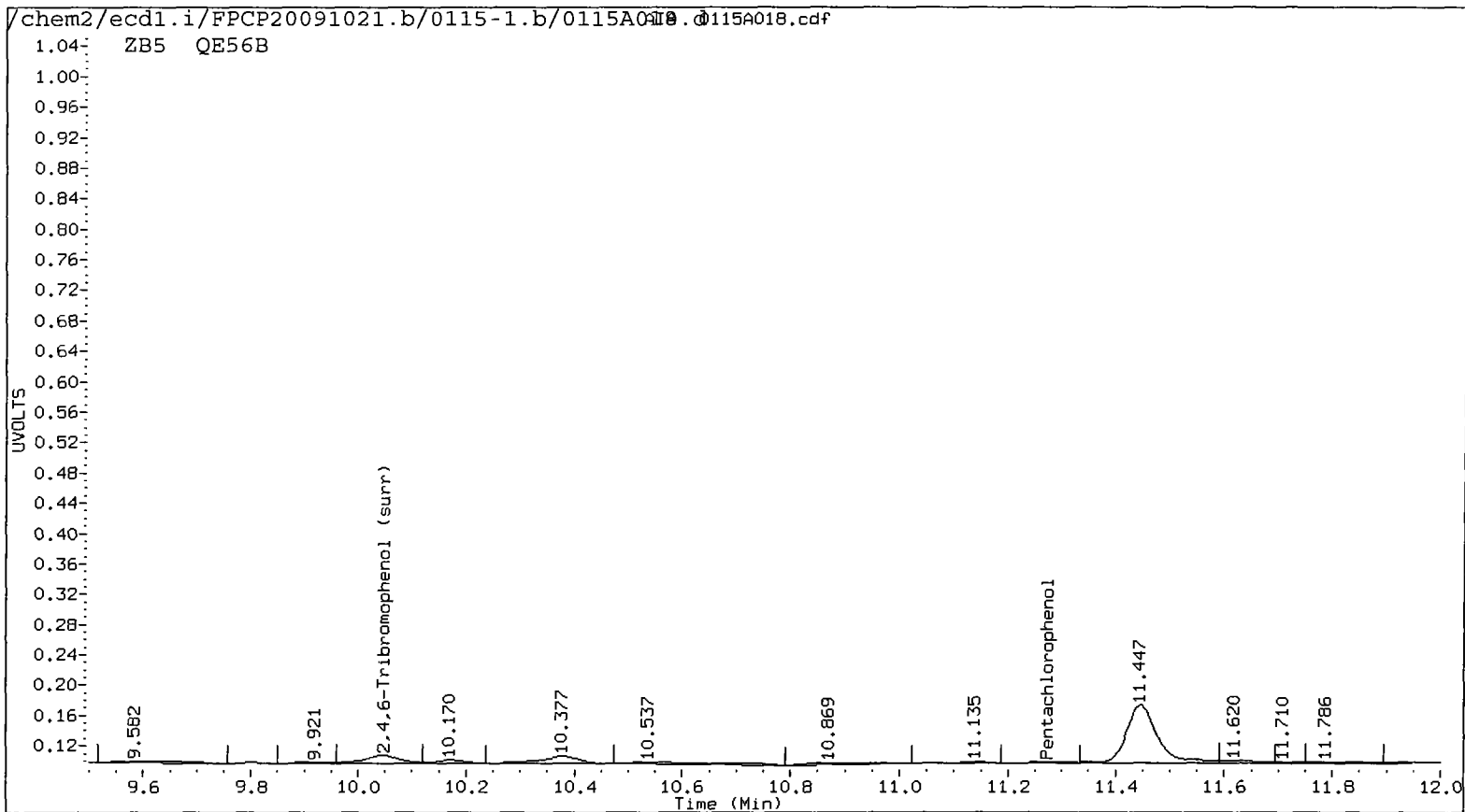
Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A018.d ARI ID: QE56B  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A018.d Client ID: CB19010710Sed  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 15:29  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i Matrix: SOIL  
 Operator: ar Dilution Factor: 10.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.275	0.003	6068	11.699	0.004	3247	0.3905	0.2004 <sup>RC</sup>	64.3*	Pentachlorophenol
7.268	-0.026	33632	7.390	0.038	6462	4.4258	0.6780	146.9*	2,4,6-Trichlorophenol
----			7.890	0.008	1040	0.0000	0.1124	---	2,3,6-Trichlorophenol
8.207	-0.052	5641	8.594	-0.026	3969	1.0435	0.6671	44.0*	2,4,5-Trichlorophenol
8.840	0.014	4810	----			0.7916	0.0000	---	2,3,4-Trichlorophenol
9.083	0.045	71688	9.299	0.003	3551	5.4286	0.2652	181.4*	2,3,5,6-Tetrachlorophenol
----			11.191	0.032	15972	0.0000	1.5515	---	2,3,4,5-Tetrachlorophenol
6.967	0.049	7001	7.158	-0.019	9396	12.6772	17.4963	31.9	2,4-Dichlorophenol
10.046	-0.004	23988	10.683	0.003	23631	<u>2.0</u>	<u>1.8</u>	8.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY


COMPOUND	Col1	Col2
2,4,6-TBP (surr)	79.5	73.3





ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB12010710Sed  
SAMPLE

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 19:08  
Instrument/Analyst: ECD1/AAR

Sample Amount: 2.50 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	25	< 25 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	84.4%
----------------------	-------

Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 1/19/2010

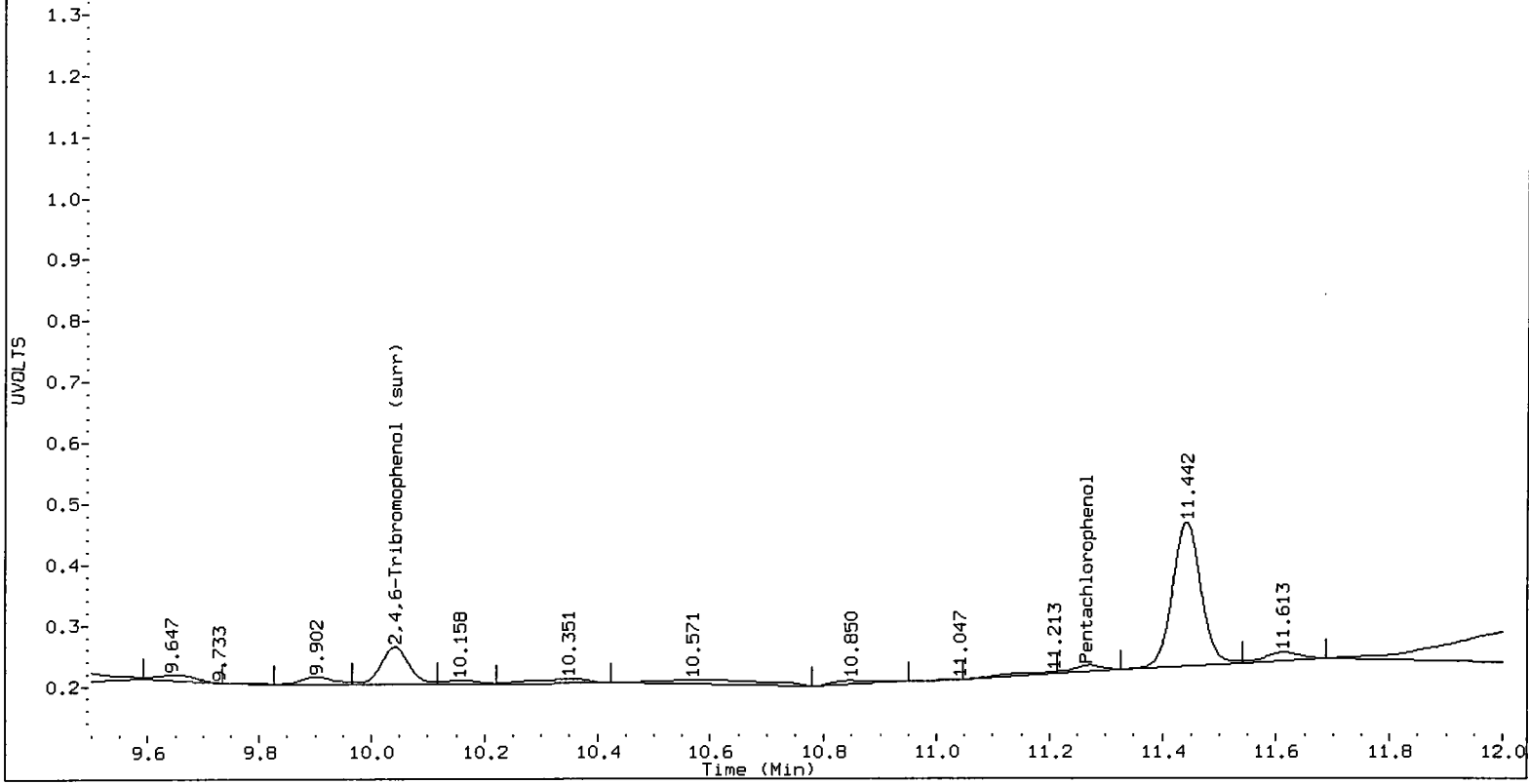
Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A029.d ARI ID: QE56C  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A029.d Client ID: CB12010710Sed  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 19:08  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i Matrix: SOIL  
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.270	-0.001	21817	11.697	0.002	17170	1.4040	1.0596 <sup>LR</sup>	28.0	Pentachlorophenol
7.279	-0.014	66201	7.358	0.006	4782	8.7117	0.5018	178.2*	2,4,6-Trichlorophenol
----			7.843	-0.040	3414	0.0000	0.3689	---	2,3,6-Trichlorophenol
8.217	-0.042	12027	8.601	-0.019	7774	2.2419	1.3129	52.3*	2,4,5-Trichlorophenol
----			9.426	0.028	89783	0.0000	12.0143	---	2,3,4-Trichlorophenol
9.080	0.041	3770447	----			285.5182	0.0000	---	2,3,5,6-Tetrachlorophenol
----			11.212	0.053	30008	0.0000	2.9149	---	2,3,4,5-Tetrachlorophenol
----			7.147	-0.030	10835	0.0000	20.2181	---	2,4-Dichlorophenol
10.042	-0.008	102847	10.678	-0.002	272224	<u>8.5</u>	<u>21.1</u>	<u>85.0*</u>	2,4,6-Tribromophenol (surr)

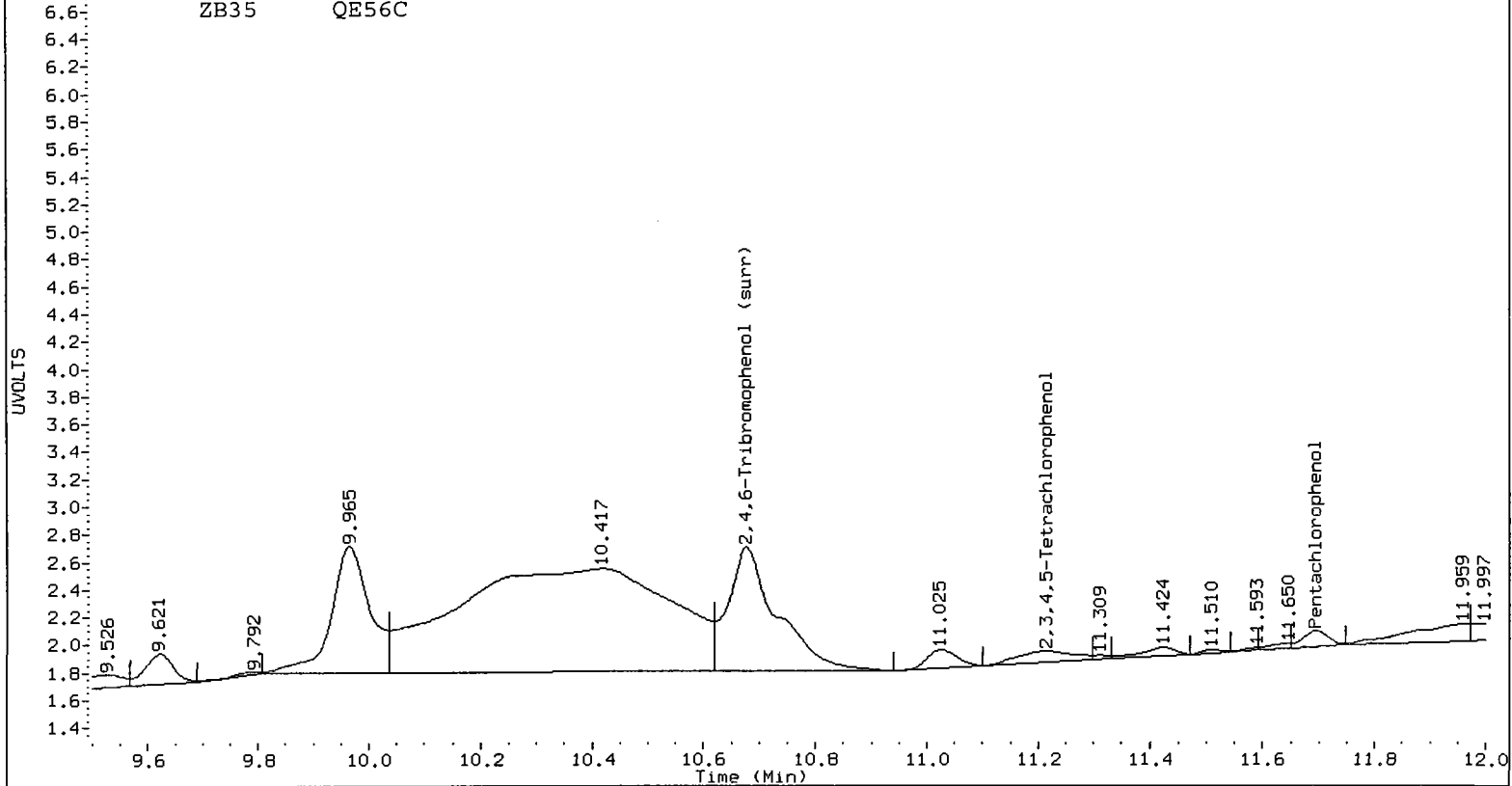
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	34.1	84.4 ✓

ZB5 QE56C




ZB35 QE56C



ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB12010710Sed  
DILUTION

Lab Sample ID: QE56C  
LIMS ID: 10-434  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 16:29  
Instrument/Analyst: ECD1/AAR

Sample Amount: 2.50 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 10.0  
Percent Moisture: 75.2%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	250	< 250 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	69.6%
----------------------	-------

AR 1/19/2010

Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

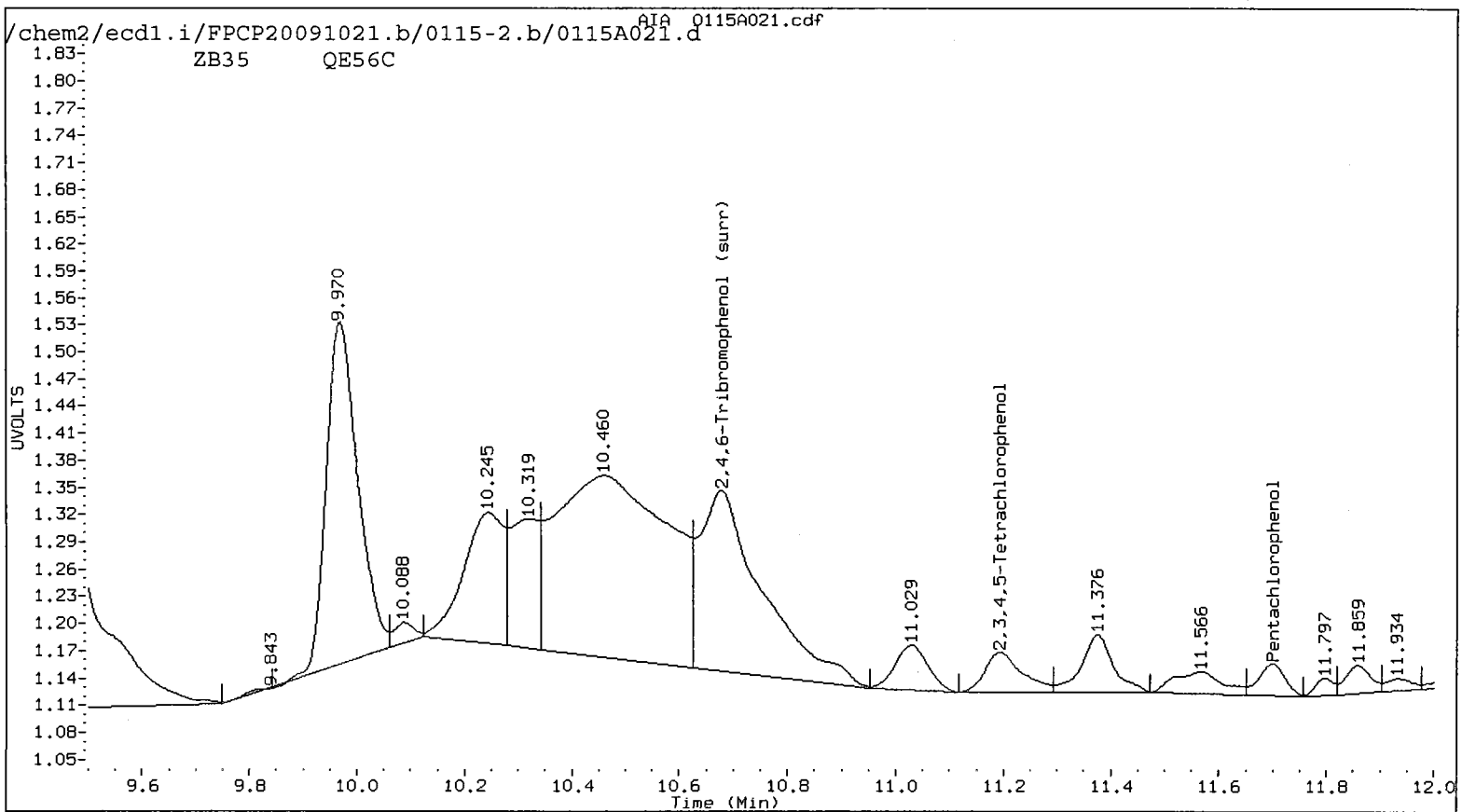
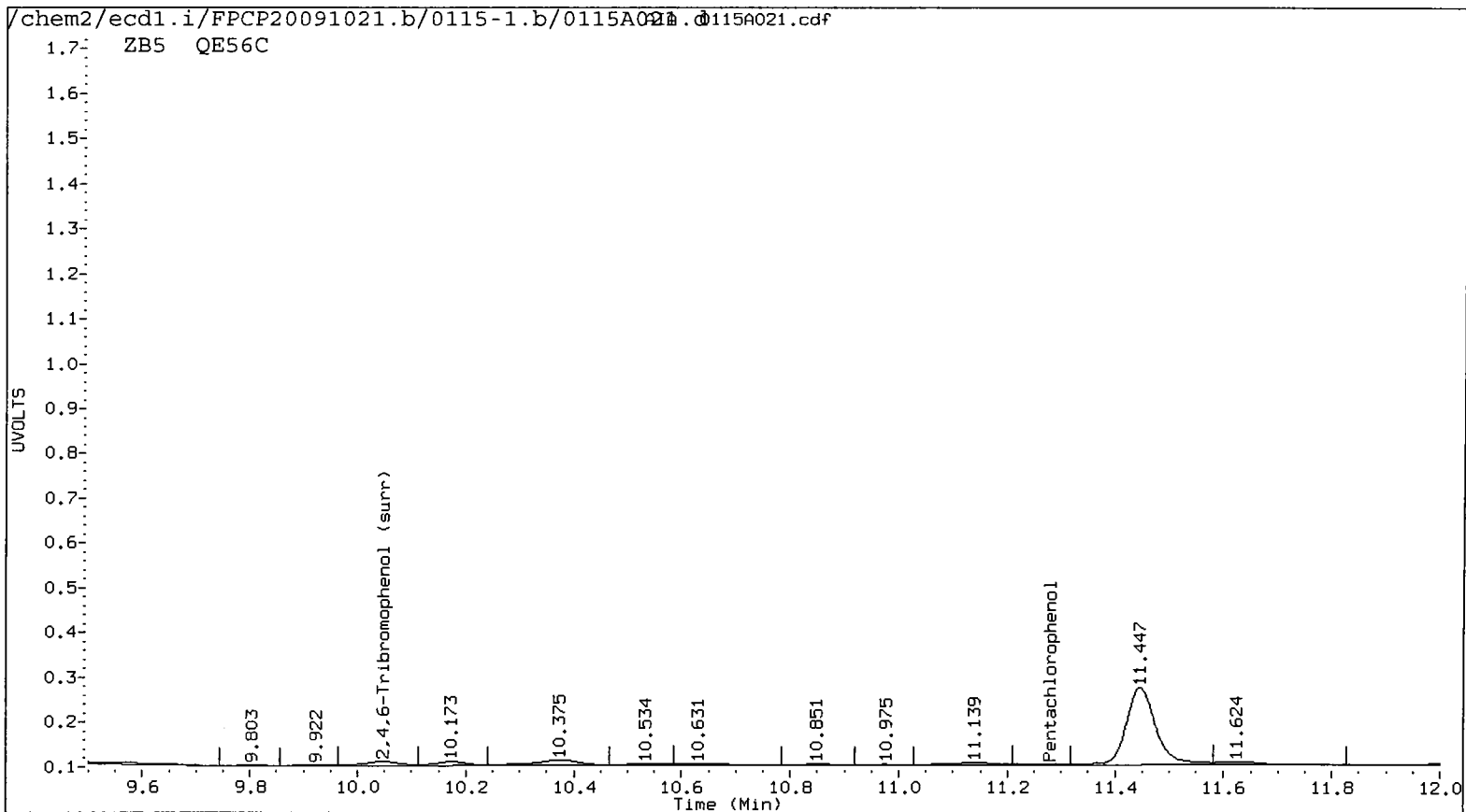
Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A021.d ARI ID: QE56C  
Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A021.d Client ID: CB12010710Sed  
Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 16:29  
Compound Sublist: all Report Date: 01/19/2010 12:05  
Instrument: ecd1.i Matrix: SOIL  
Operator: ar Dilution Factor: 10.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.279	0.008	6719	11.699	0.004	5848	0.4324	0.3609	18.0	Pentachlorophenol
7.267	-0.027	45012	7.352	0.000	9609	5.9233	1.0082	141.8*	2,4,6-Trichlorophenol
----			7.895	0.013	3127	0.0000	0.3379	---	2,3,6-Trichlorophenol
8.207	-0.052	14122	8.595	-0.025	7260	2.6391	1.2254	73.2*	2,4,5-Trichlorophenol
----			9.466	0.068	72008	0.0000	9.5128	---	2,3,4-Trichlorophenol
9.080	0.041	395479	9.302	0.006	15679	29.9478	1.1709	184.9*	2,3,5,6-Tetrachlorophenol
----			11.193	0.034	10575	0.0000	1.0272	---	2,3,4,5-Tetrachlorophenol
6.967	0.049	17196	7.158	-0.019	13860	31.6613	25.9753	19.7	2,4-Dichlorophenol
10.046	-0.003	21064	10.679	-0.001	80115	<u>11.7</u>	<u>6.2</u>	112.3*	2,4,6-Tribromophenol (surr)

CNR

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	69.8	<del>248.4</del>



ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB2010710Sed  
SAMPLE

Lab Sample ID: QE56D  
LIMS ID: 10-435  
Matrix: Sediment  
Data Release Authorized: *AS*  
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 19:28  
Instrument/Analyst: ECD1/AAR

Sample Amount: 3.24 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00  
Percent Moisture: 67.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	19	< 19 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	44.8%
----------------------	-------

Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 1/19/2010

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A030.d ARI ID: QE56D  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A030.d Client ID: CB2010710Sed  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 19:28  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i Matrix: SOIL  
 Operator: ar Dilution Factor: 1.000

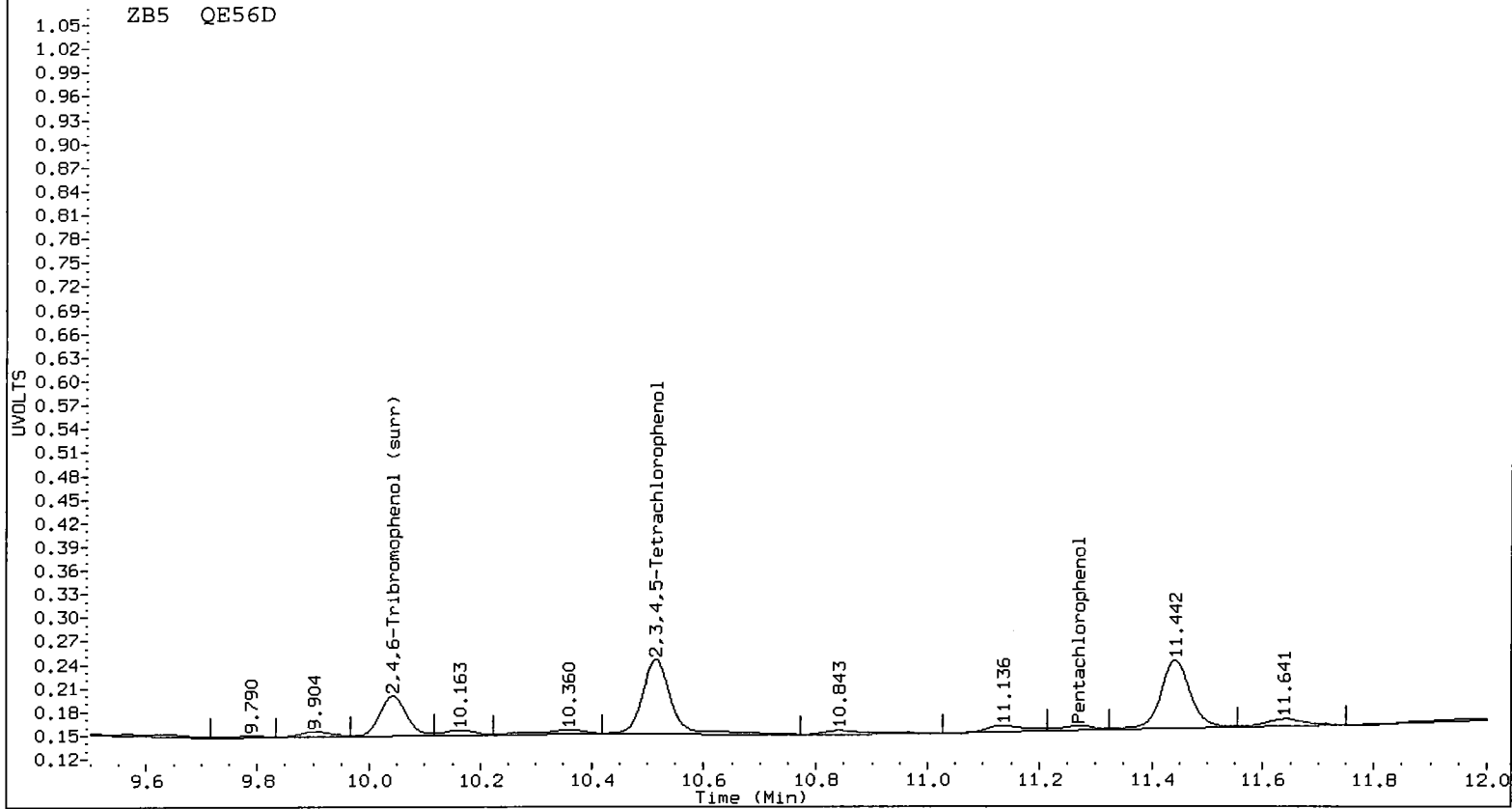
RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
11.270	-0.001 14433	11.697 0.002 12770	0.9288	0.7881	16.4	Pentachlorophenol
----		7.353 0.001 7735	0.0000	0.8116	---	2,4,6-Trichlorophenol
----		7.887 0.005 944	0.0000	0.1020	---	2,3,6-Trichlorophenol
8.213	-0.046 11480	8.594 -0.026 5892	2.1385	0.9927	73.2*	2,4,5-Trichlorophenol
----		9.446 0.048 45993	0.0000	5.9611	---	2,3,4-Trichlorophenol
9.070	0.032 1644119	9.335 0.040 40790	124.5014	3.0462	190.4*	2,3,5,6-Tetrachlorophenol
10.516	0.053 168326	11.204 0.045 24975	16.4040	2.4261	148.5*	2,3,4,5-Tetrachlorophenol
----		7.154 -0.023 12317	0.0000	23.0329	---	2,4-Dichlorophenol
10.042	-0.007 84827	10.677 -0.003 144240	<u>7.0</u>	<u>11.2</u>	<u>45.7*</u>	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

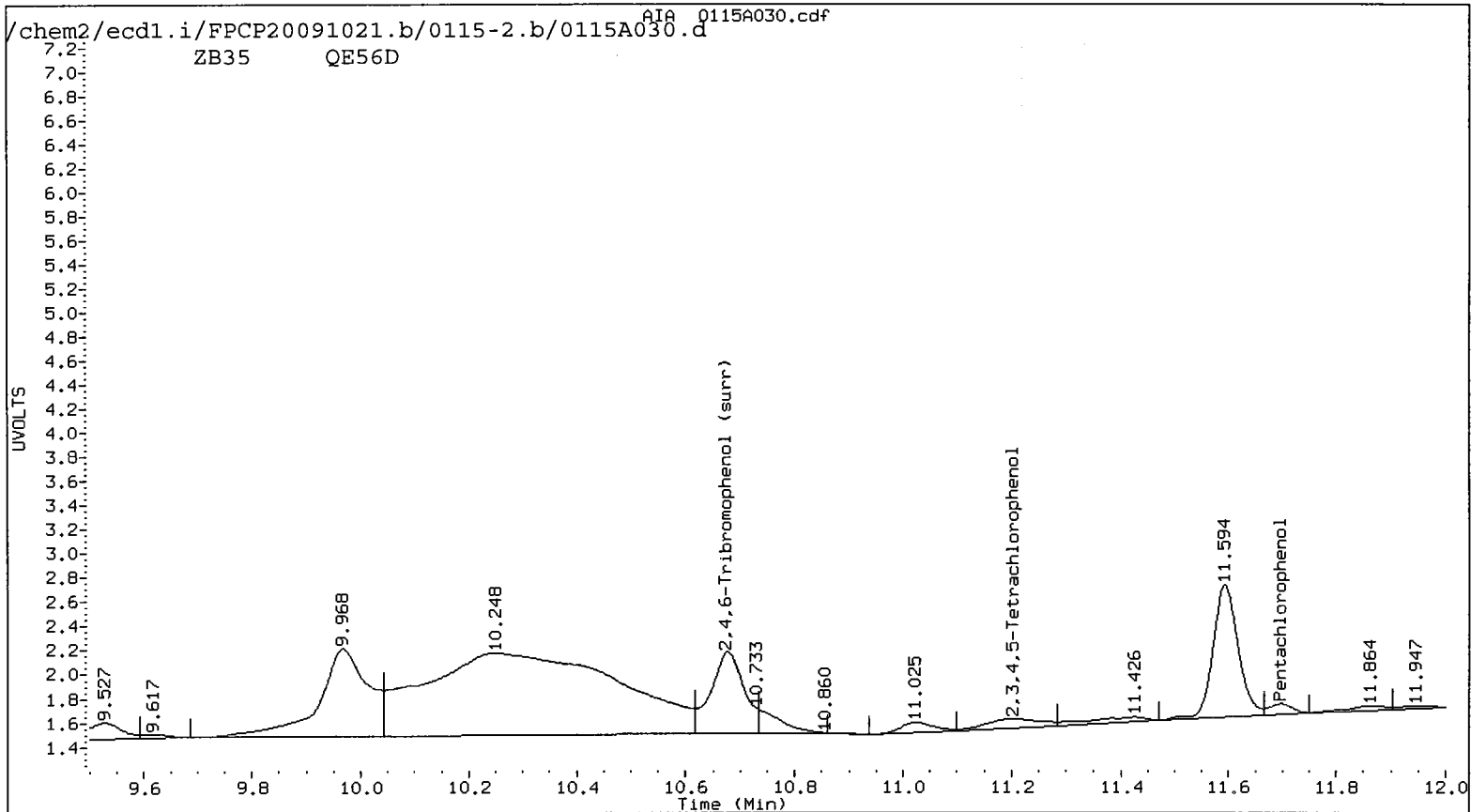
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	28.1	44.7



ZB5 QE56D



ZB35 QE56D



ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB2010710Sed  
DILUTION

Lab Sample ID: QE56D  
LIMS ID: 10-435  
Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 16:49  
Instrument/Analyst: ECD1/AAR

Sample Amount: 3.24 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 10.0  
Percent Moisture: 67.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	190	< 190 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	55.2%
----------------------	-------

Analytical Resources Inc.  
 Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 1/19/2010

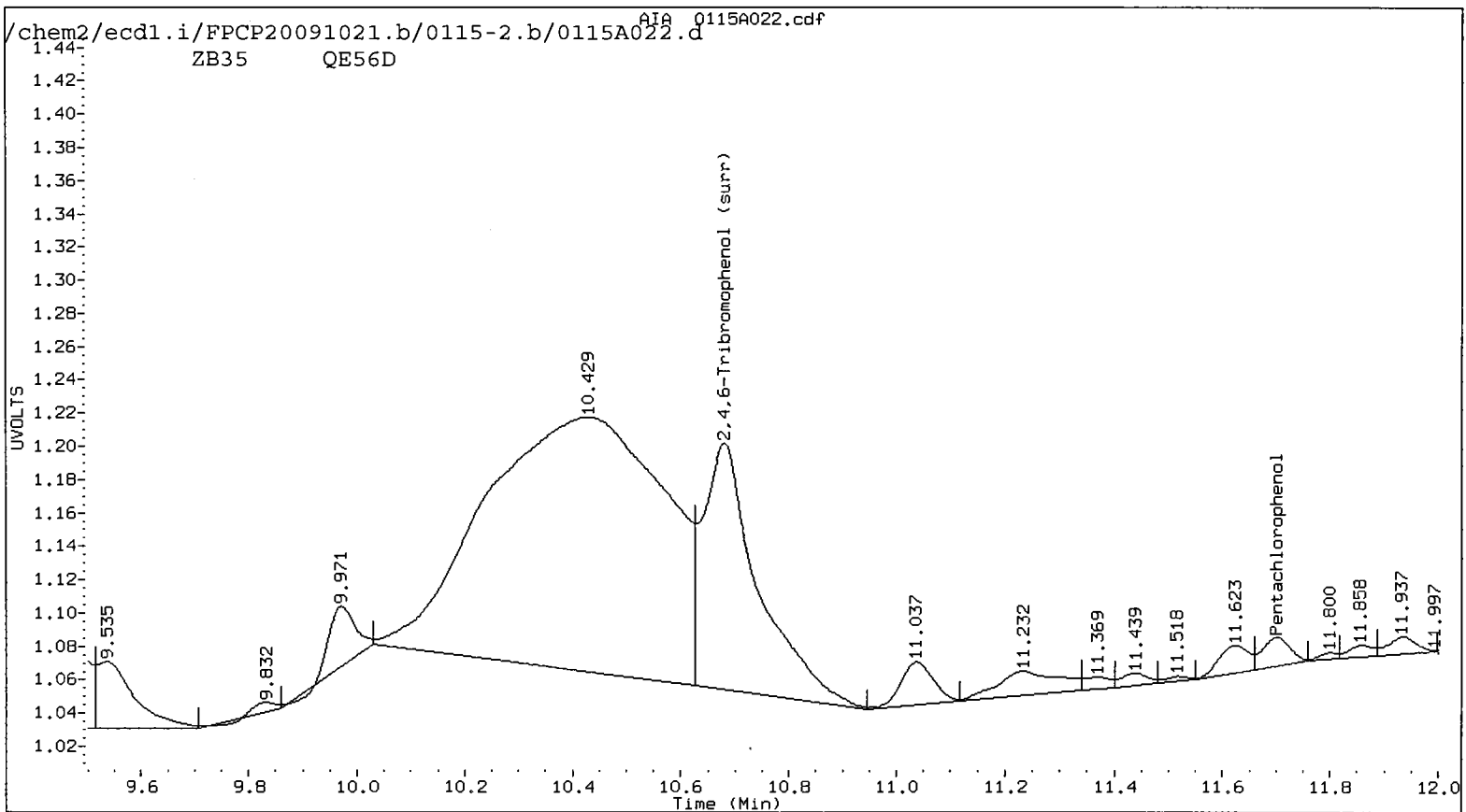
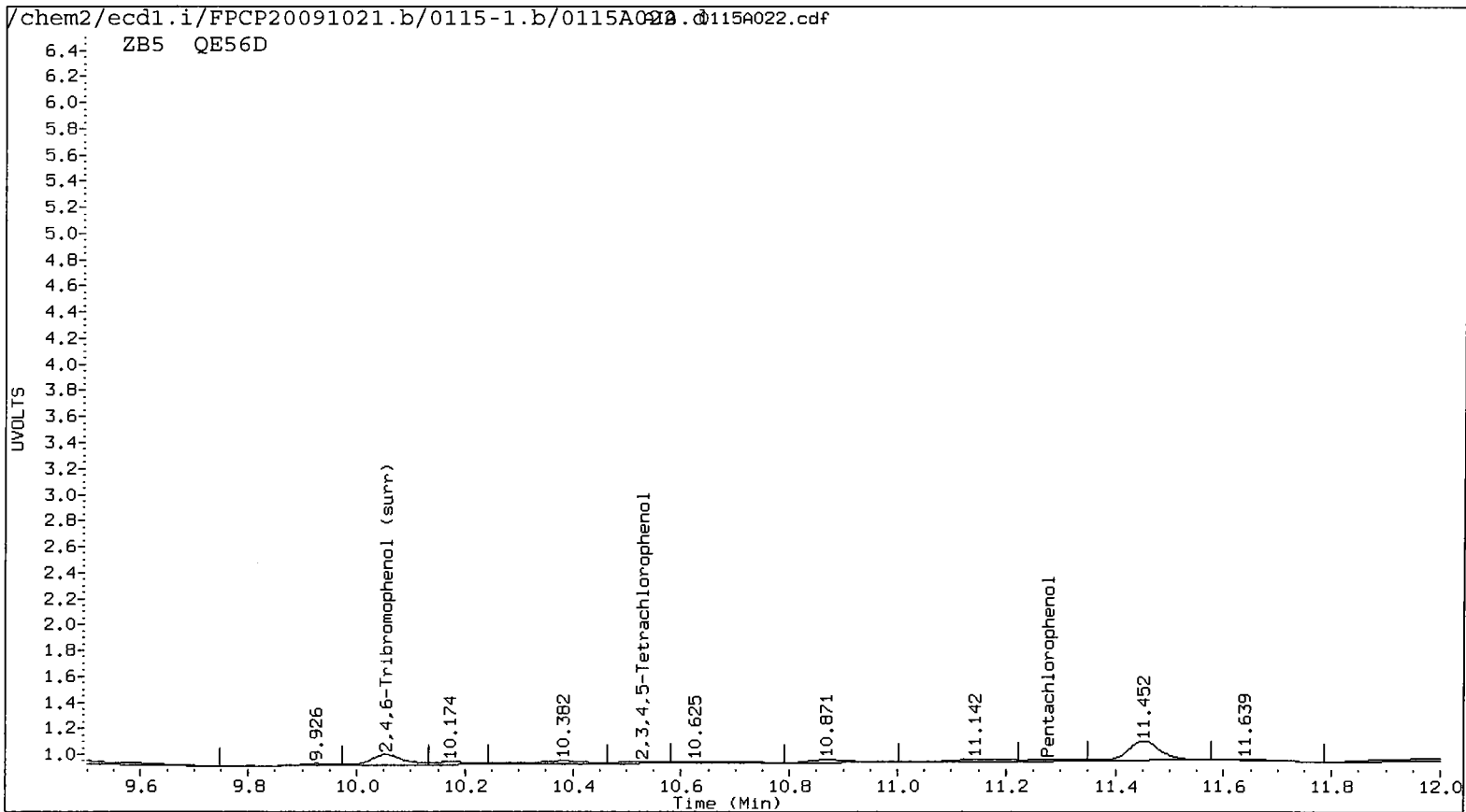
Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A022.d ARI ID: QE56D  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A022.d Client ID: CB2010710Sed  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 16:49  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i Matrix: SOIL  
 Operator: ar Dilution Factor: 10.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.278	0.007	4275	11.700	0.006	3089	0.2751	0.1906 <sup>NR</sup>	36.3	Pentachlorophenol
7.252	-0.042	27835	7.390	0.038	1016	3.6630	0.1066	188.7*	2,4,6-Trichlorophenol
-----			7.884	0.001	278	0.0000	0.0300	---	2,3,6-Trichlorophenol
8.216	-0.043	2427	8.596	-0.024	1206	0.4473	0.2020	75.6*	2,4,5-Trichlorophenol
-----			-----			0.0000	0.0000	---	2,3,4-Trichlorophenol
9.089	0.050	137935	9.345	0.050	5563	10.4452	0.4154	184.7*	2,3,5,6-Tetrachlorophenol
10.530	0.068	4624	-----			0.4506	0.0000	---	2,3,4,5-Tetrachlorophenol
6.883	-0.034	213	7.158	-0.019	3776	0.3814	6.9733	179.3*	2,4-Dichlorophenol
10.054	0.004	16669	10.680	0.000	52042	<u>1.4</u>	<del>4.0</del>	<del>98.0*</del>	2,4,6-Tribromophenol (surr)

NR

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	55.2✓	<del>161.4</del>



PCP/Chlorophenols ANALYSIS  
Standard Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

6D  
 CHLOROPHENOL INITIAL CALIBRATION  
 RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 10/21/09

COMPOUND	RT OF STANDARDS					MEAN RT	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		FROM	TO
Pentachlorophenol	11.28	11.28	11.27	11.27	11.27	11.27	11.20	11.34
2,4,6-Trichloropheno	7.29	7.29	7.29	7.29	7.29	7.29	7.22	7.36
2,3,6-Trichloropheno	7.65	7.65	7.64	7.65	7.64	7.64	7.58	7.72
2,4,5-Trichloropheno	8.27	8.26	8.26	8.26	8.25	8.26	8.19	8.33
2,3,4-Trichloropheno	8.85	8.84	8.83	8.83	8.81	8.83	8.76	8.90
2,3,5,6-Tetrachlorop	9.04	9.04	9.04	9.04	9.03	9.04	8.97	9.11
2,3,4,5-Tetrachlorop	10.48	10.47	10.46	10.46	10.45	10.46	10.39	10.53
2,4-Dichlorophenol	6.92	6.91	6.91	6.92	6.91	6.91	6.85	6.99
2,4,6-Tribromophenol	10.06	10.05	10.05	10.05	10.04	10.05	9.98	10.12

6D  
 CHLOROPHENOL INITIAL CALIBRATION  
 RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 10/21/09

COMPOUND	RT OF STANDARDS					MEAN RT	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		FROM	TO
Pentachlorophenol	11.70	11.70	11.70	11.69	11.69	11.70	11.62	11.76
2,4,6-Trichloropheno	7.35	7.35	7.35	7.35	7.35	7.35	7.28	7.42
2,3,6-Trichloropheno	7.88	7.88	7.88	7.88	7.88	7.88	7.81	7.95
2,4,5-Trichloropheno	8.63	8.62	8.62	8.62	8.62	8.62	8.55	8.69
2,3,4-Trichloropheno	9.41	9.40	9.40	9.40	9.39	9.40	9.33	9.47
2,3,5,6-Tetrachlorop	9.30	9.30	9.30	9.30	9.29	9.30	9.23	9.37
2,3,4,5-Tetrachlorop	11.17	11.16	11.16	11.16	11.16	11.16	11.09	11.23
2,4-Dichlorophenol	7.18	7.18	7.18	7.18	7.17	7.18	7.11	7.25
2,4,6-Tribromophenol	10.69	10.68	10.68	10.68	10.68	10.68	10.61	10.75

6E  
 CHLOROPHENOL INITIAL CALIBRATION  
 CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 10/21/09

COMPOUND	CALIBRATION FACTORS						R <sup>2</sup> / %RSD	CT
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		
Pentachlorophenol	18833	17561	16239	14693	13334	12576	15.7	A
2,4,6-Trichlorophenol	12707	11050	9817	8689	7872	7374	0.9929	L
2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	16.6	A
2,4,5-Trichlorophenol	6561	5514	5743	4686	4241	3750	0.9994	Q
2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	16.4	A
2,3,5,6-Tetrachloroph	15518	14554	13607	12505	11993	11056	12.6	A
2,3,4,5-Tetrachloroph	12818	11723	10909	9693	8548	7877	18.5	A
2,4-Dichlorophenol	673	644	558	469	404	353	0.9991	Q
2,4,6-Tribromophenol	13920	13228	12506	11556	10717	10527	11.4	A
							AVE RSD	17.6

CT stands for Curve Types:

- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

LVL 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A010.d  
 LVL 2: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A011.d  
 LVL 3: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A012.d  
 LVL 4: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A009.d  
 LVL 5: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A013.d  
 LVL 6: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A014.d



6E  
 CHLOROPHENOL INITIAL CALIBRATION  
 CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 10/21/09

COMPOUND	CALIBRATION FACTORS						R <sup>2</sup> / %RSD	CT
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		
Pentachlorophenol	19304	17945	16707	15360	14237	13672	13.5	A
2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	16.4	A
2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	12.6	A
2,4,5-Trichlorophenol	7804	6975	6158	5032	4549	4003	0.9992	Q
2,3,4-Trichlorophenol	9692	9054	8149	7049	6270	5605	0.9995	Q
2,3,5,6-Tetrachloroph	15877	14658	13700	12697	11907	11504	12.6	A
2,3,4,5-Tetrachloroph	12083	11690	10825	9751	8980	8440	14.3	A
2,4-Dichlorophenol	708	628	548	468	404	358	0.9992	Q
2,4,6-Tribromophenol	14709	13981	13233	12347	11640	11484	10.1	A
							AVE RSD	16.9

CT stands for Curve Types:

- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES  
 -----

LVL 1: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A010.d  
 LVL 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d  
 LVL 3: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A012.d  
 LVL 4: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A009.d  
 LVL 5: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A013.d  
 LVL 6: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A014.d

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33  
 End Cal Date : 21-OCT-2009 18:12  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP Genie  
 Method file : /chem2/ecd1.i/FPCP20091022.b/FPCPB.m  
 Cal Date : 22-Oct-2009 10:50 aron  
 Curve Type : Average

*Rename batch  
10/21*

Calibration File Names:

- Level 1: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A010.d
- Level 2: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A011.d
- Level 3: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A012.d
- Level 4: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A009.d
- Level 5: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A013.d
- Level 6: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A014.d

Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
1 2,4-Dichlorophenol	708	628	548	468	405	358	519	25.855 <-
2 2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	9531	16.459
3 2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	9255	12.610
4 2,4,5-Trichlorophenol	7804	6975	6158	5032	4549	4003	5754	25.652 <-
5 2,3,5,6-Tetrachlorophenol	15877	14658	13700	12697	11907	11504	13390	12.553
6 2,3,4-Trichlorophenol	9692	9054	8149	7049	6270	5605	7637	20.983 <-
8 2,3,4,5-Tetrachlorophenol	12083	11690	10825	9751	8980	8440	10295	14.335
9 Pentachlorophenol	19304	17945	16707	15360	14237	13672	16204	13.488
\$ 7 2,4,6-Tribromophenol (surr)	14709	13981	13233	12347	11640	11484	12899	10.079

Analytical Resources, Inc.

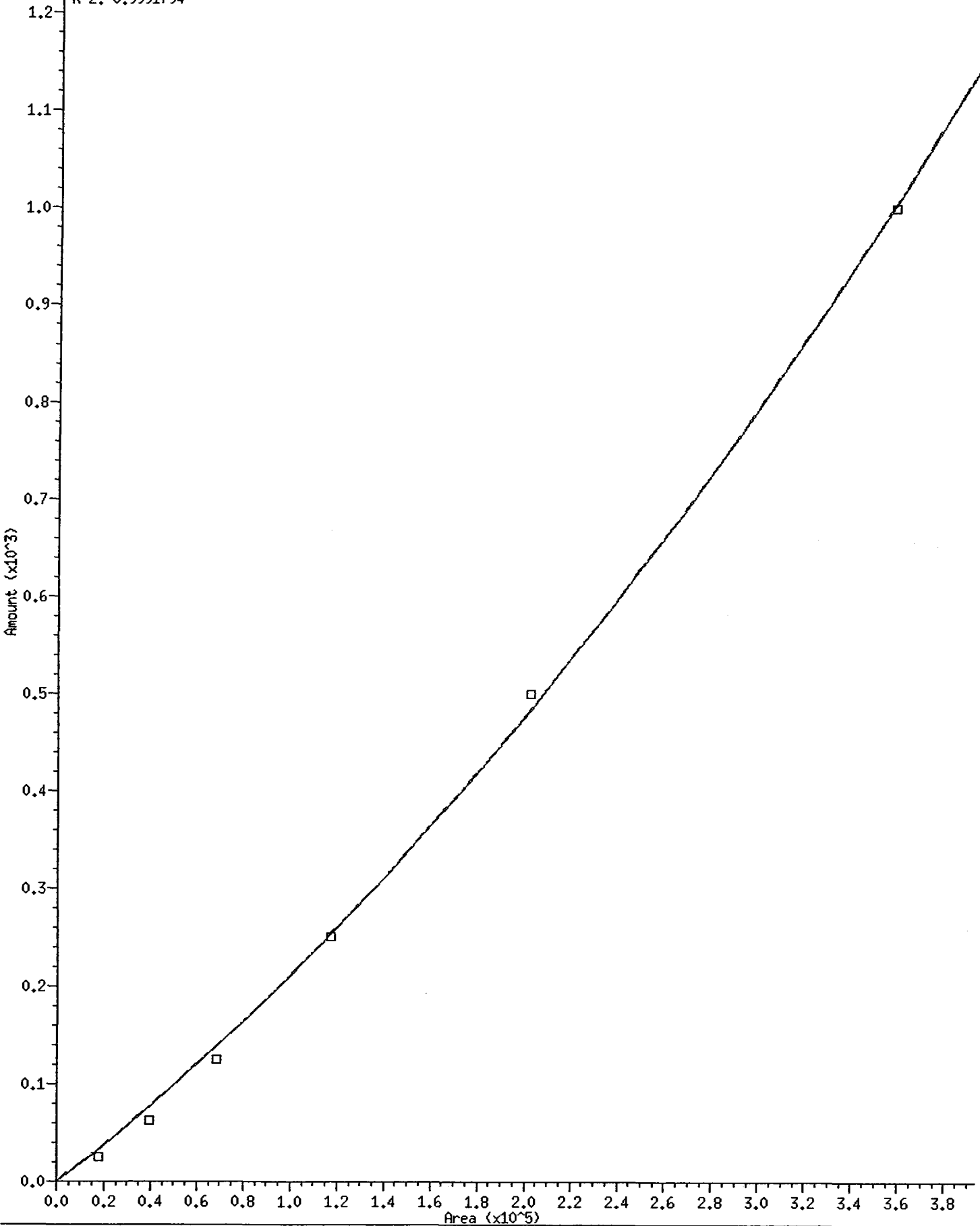
INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33  
End Cal Date : 21-OCT-2009 18:12  
Quant Method : ESTD  
Origin : Disabled  
Target Version : 3.50  
Integrator : HP Genie  
Method file : /chem2/ecdl.i/FPCP20091022.b/FPCPB.m  
Cal Date : 22-Oct-2009 10:50 aron  
Curve Type : Average

Average %RSD Results.	
Calculated Average %RSD =	16.89042
Maximum Average %RSD =	20.00000
* Passed Average %RSD Test.	

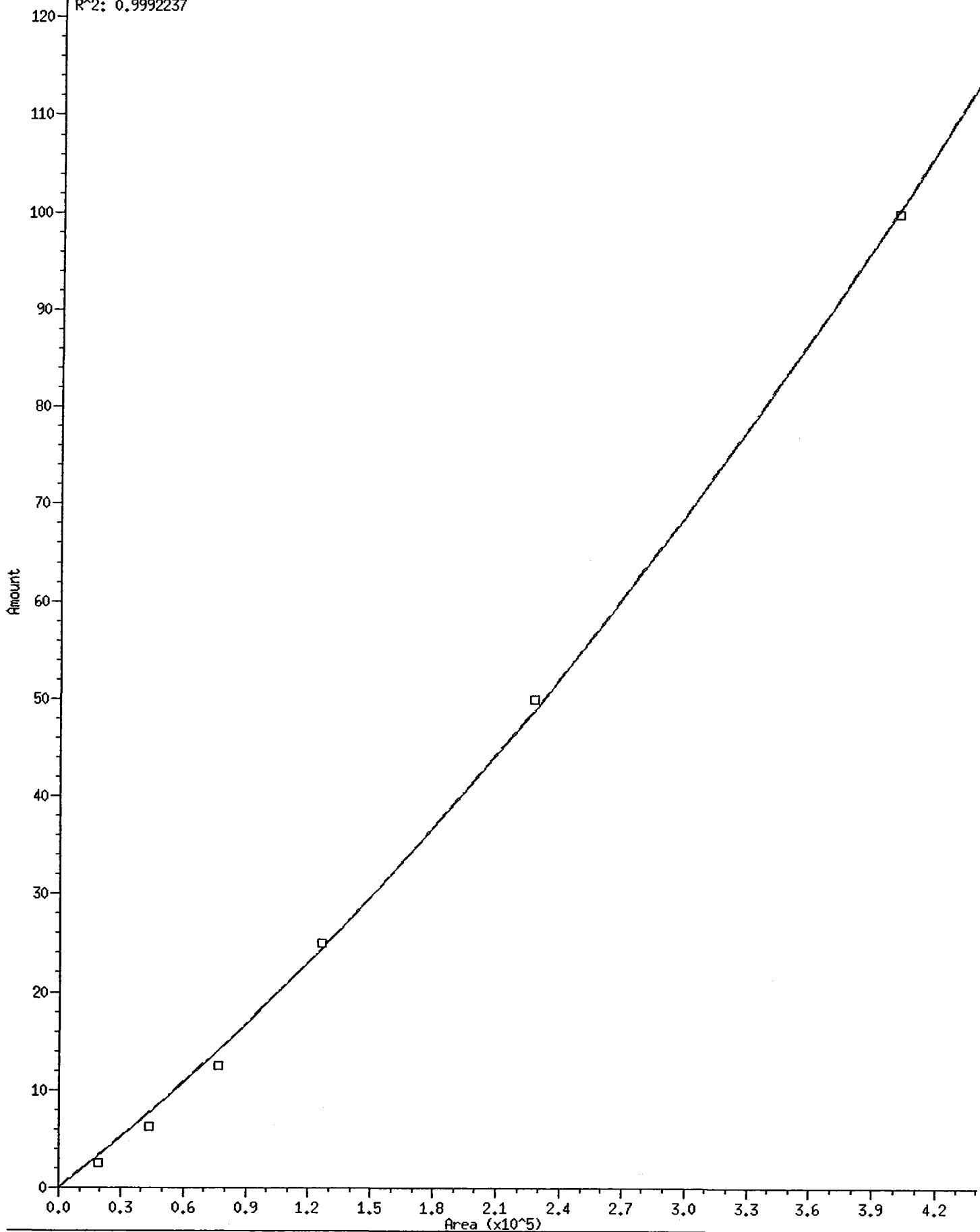
1,2,4-Dichlorophenol

Curve Type: Quadratic By-Response  
Amt = 0 + 0.001836492\*Rsp + 2.715004e-09\*Rsp^2  
R^2: 0.9991794



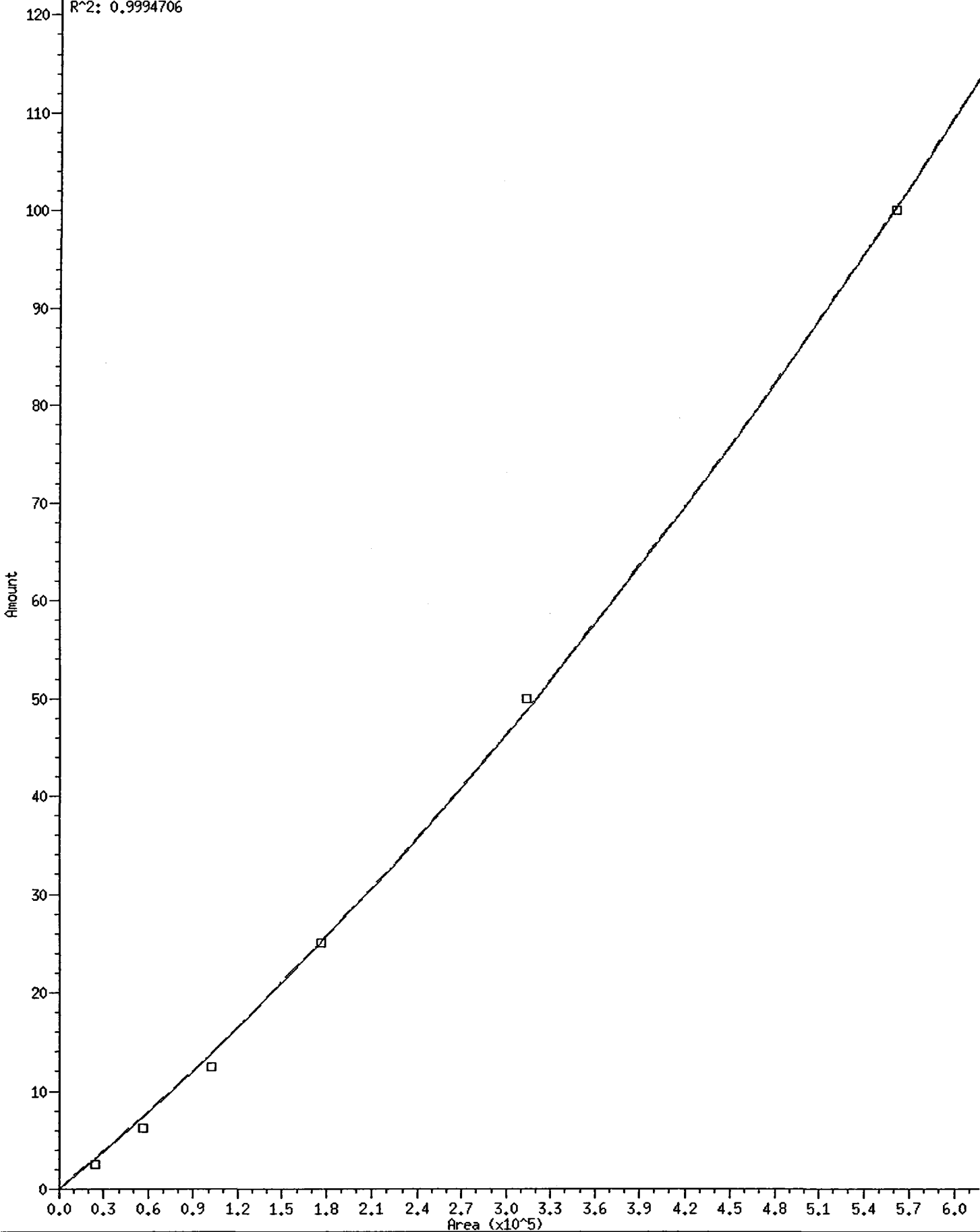
4 2,4,5-Trichlorophenol

Curve Type: Quadratic By-Response  
Amt = 0 + 0.0001672582\*Rsp + 2.084205e-10\*Rsp^2  
R^2: 0.9992237



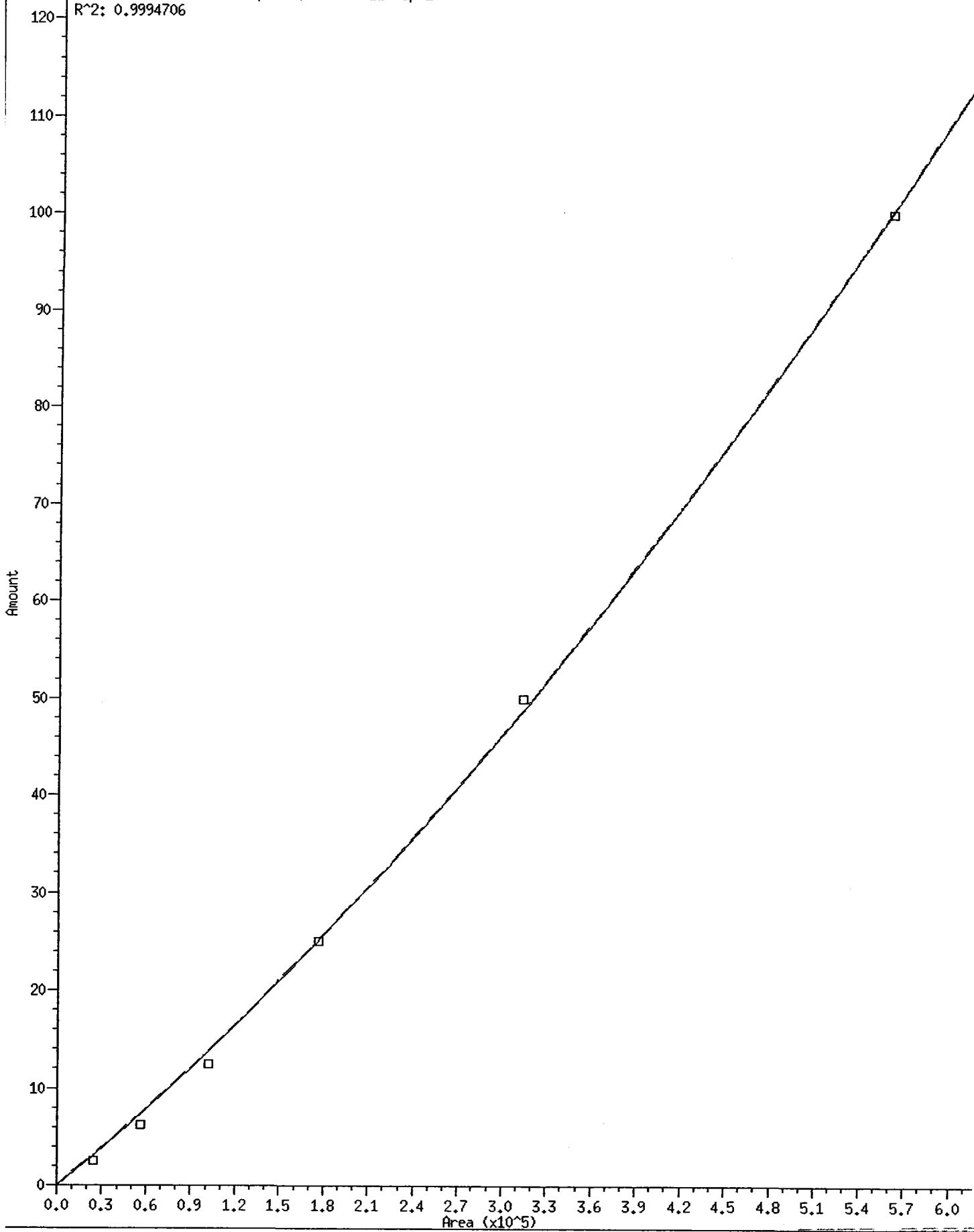
6 2,3,4-Trichlorophenol

Curve Type: Quadratic By-Response  
Amt = 0 + 0.00012519\*Rsp + 9.606129e-11\*Rsp^2  
R^2: 0.9994706



6 2,3,4-Trichlorophenol

Curve Type: Quadratic By-Response  
Amt = 0 + 0.00012519\*Rsp + 9.606129e-11\*Rsp^2  
R^2: 0.9994706



Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33  
 End Cal Date : 21-OCT-2009 18:12  
 Quant Method : ESTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP Genie  
 Method file : /chem2/ecd1.i/FPCP20091021.b/FPCPB.m  
 Cal Date : 23-Oct-2009 11:17 aron

Calibration File Names:  
 Level 1: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A010.d  
 Level 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d  
 Level 3: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A012.d  
 Level 4: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A009.d  
 Level 5: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A013.d  
 Level 6: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A014.d

Compound	Level						Coefficients						or R <sup>2</sup>
	2 Level 1	6 Level 2	12 Level 3	25 Level 4	50 Level 5	100 Level 6	b	m1	m2				
1 2,4-Dichlorophenol	17700	39225	68497	117023	202273	357799	0.000e+00	0.00184	2.715e-09			0.99918	
2 2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	AVRG	9531				16.45945	
3 2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	AVRG	9255				12.60997	
4 2,4,5-Trichlorophenol	19509	43595	76979	125809	227473	400339	QUAD	0.000e+00	0.00017	2.084e-10		0.99922	
5 2,3,5,6-Tetrachlorophenol	15877	14658	13700	12697	11907	11504	AVRG	13390				12.55347	
6 2,3,4-Trichlorophenol	24231	56589	101861	176218	313504	560518	QUAD	0.000e+00	0.00013	9.606e-11		0.99947	
8 2,3,4,5-Tetrachlorophenol	12083	11690	10825	9751	8980	8440	AVRG	10295				14.33482	
9 Pentachlorophenol	19304	17945	16707	15360	14237	13672	AVRG	16204				13.48754	
7 2,4,6-Tribromophenol (surr)	14709	13981	13233	12347	11640	11484	AVRG	12899				10.07874	



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33  
 End Cal Date : 21-OCT-2009 18:12  
 Quant Method : ESTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP Genie  
 Method file : /chem2/ecd1.i/FPCP20091021.b/FPCPB.m  
 Cal Date : 23-Oct-2009 11:17 aron

Average %RSD Results.
-----
Calculated Average %RSD = 13.25400
Maximum Average %RSD = 20.00000
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Ant = Rsp/ml	Response
Quad	Ant = b + m1*Rsp + m2*Rsp^2	Response

2100 4200 6300

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33  
 End Cal Date : 21-OCT-2009 18:12  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP Genie  
 Method file : /chem2/ecdl.i/FPCP20091022.b/FPCP.m  
 Cal Date : 22-Oct-2009 11:10 aron  
 Curve Type : Average

Calibration File Names:

- Level 1: /chem2/ecdl.i/FPCP20091022.b/ical-1.b/1021A010.d
- Level 2: /chem2/ecdl.i/FPCP20091022.b/ical-1.b/1021A011.d
- Level 3: /chem2/ecdl.i/FPCP20091022.b/ical-1.b/1021A012.d
- Level 4: /chem2/ecdl.i/FPCP20091022.b/ical-1.b/1021A009.d
- Level 5: /chem2/ecdl.i/FPCP20091022.b/ical-1.b/1021A013.d
- Level 6: /chem2/ecdl.i/FPCP20091022.b/ical-1.b/1021A014.d

*Rename  
Batch 1021*

Compound	2.500	6.250	12.500	25.000	50.000	100.000		
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
1 2,4-Dichlorophenol	673	644	558	469	404	353	517	25.095 <-
2 2,4,6-Trichlorophenol	12707	11051	9817	8689	7872	7374	9585	21.163 <-
3 2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	8776	16.599
4 2,4,5-Trichlorophenol	6561	5514	5743	4686	4241	3751	5082	20.536 <-
5 2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	6077	16.433
6 2,3,5,6-Tetrachlorophenol	15518	14554	13607	12505	11993	11056	13206	12.631
8 2,3,4,5-Tetrachlorophenol	12818	11723	10909	9693	8548	7877	10261	18.508
9 Pentachlorophenol	18833	17561	16239	14693	13334	12576	15539	15.706
\$ 7 2,4,6-Tribromophenol (surr)	13920	13228	12507	11556	10717	10527	12076	11.373

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33  
End Cal Date : 21-OCT-2009 18:12  
Quant Method : ESTD  
Origin : Disabled  
Target Version : 3.50  
Integrator : HP Genie  
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCP.m  
Cal Date : 22-Oct-2009 11:10 aron  
Curve Type : Average

Average %RSD Results.

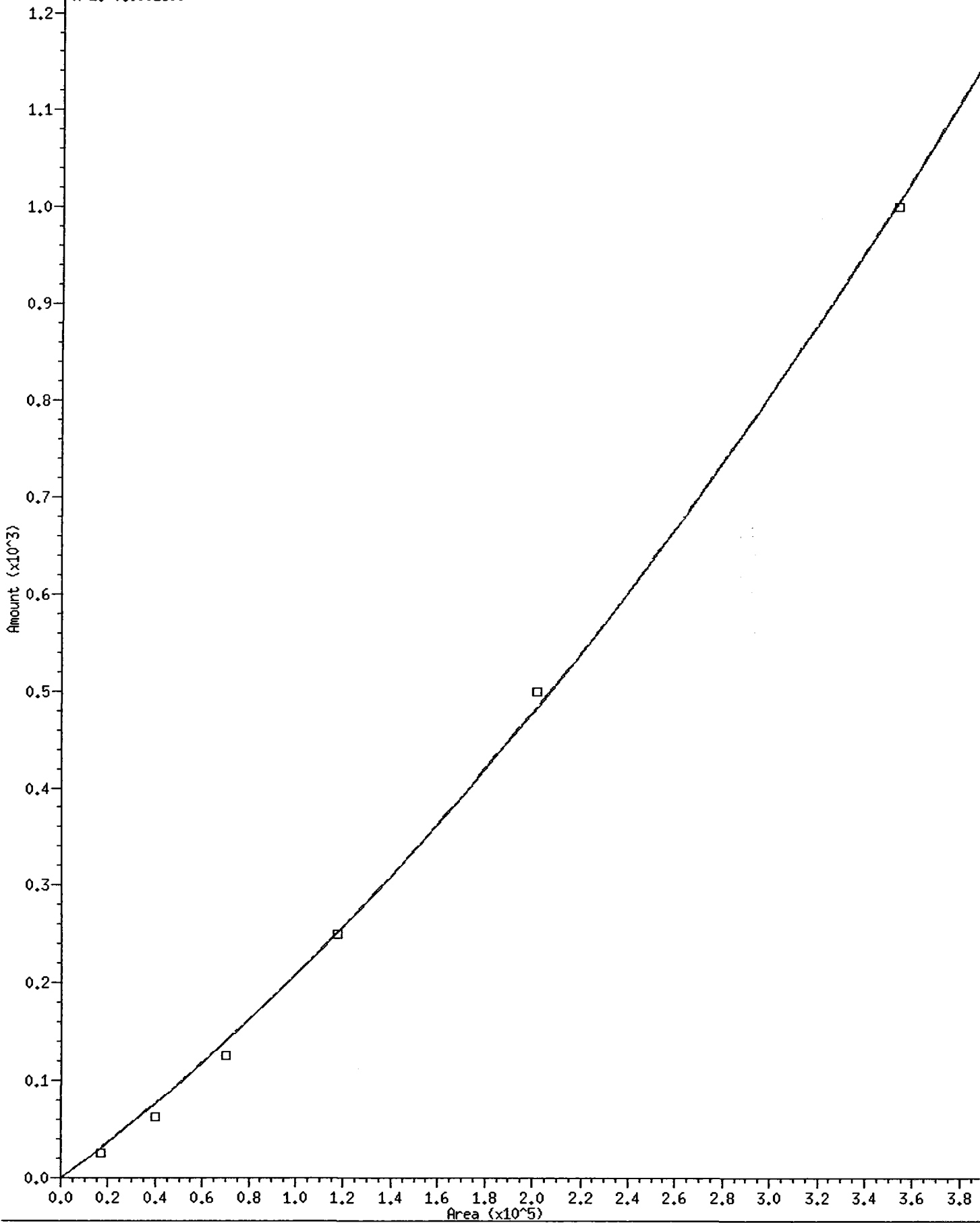
-----  
Calculated Average %RSD = 17.56055

Maximun Average %RSD = 20.00000

\* Passed Average %RSD Test.

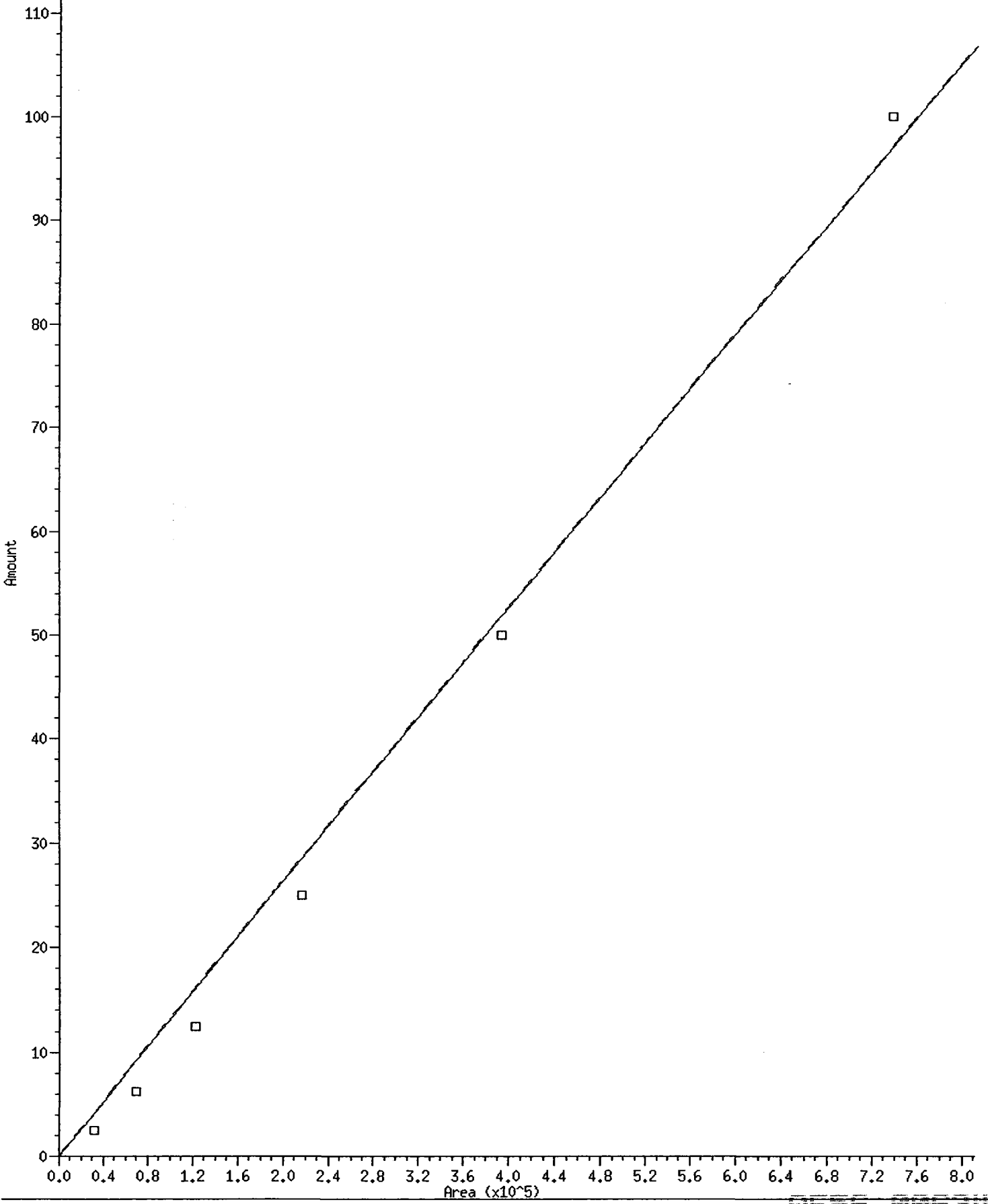
1,2,4-Dichlorophenol

Curve Type: Quadratic By-Response  
Amt = 0 + 0.001789882\*Rsp + 2.984475e-09\*Rsp^2  
R^2: 0.9991399



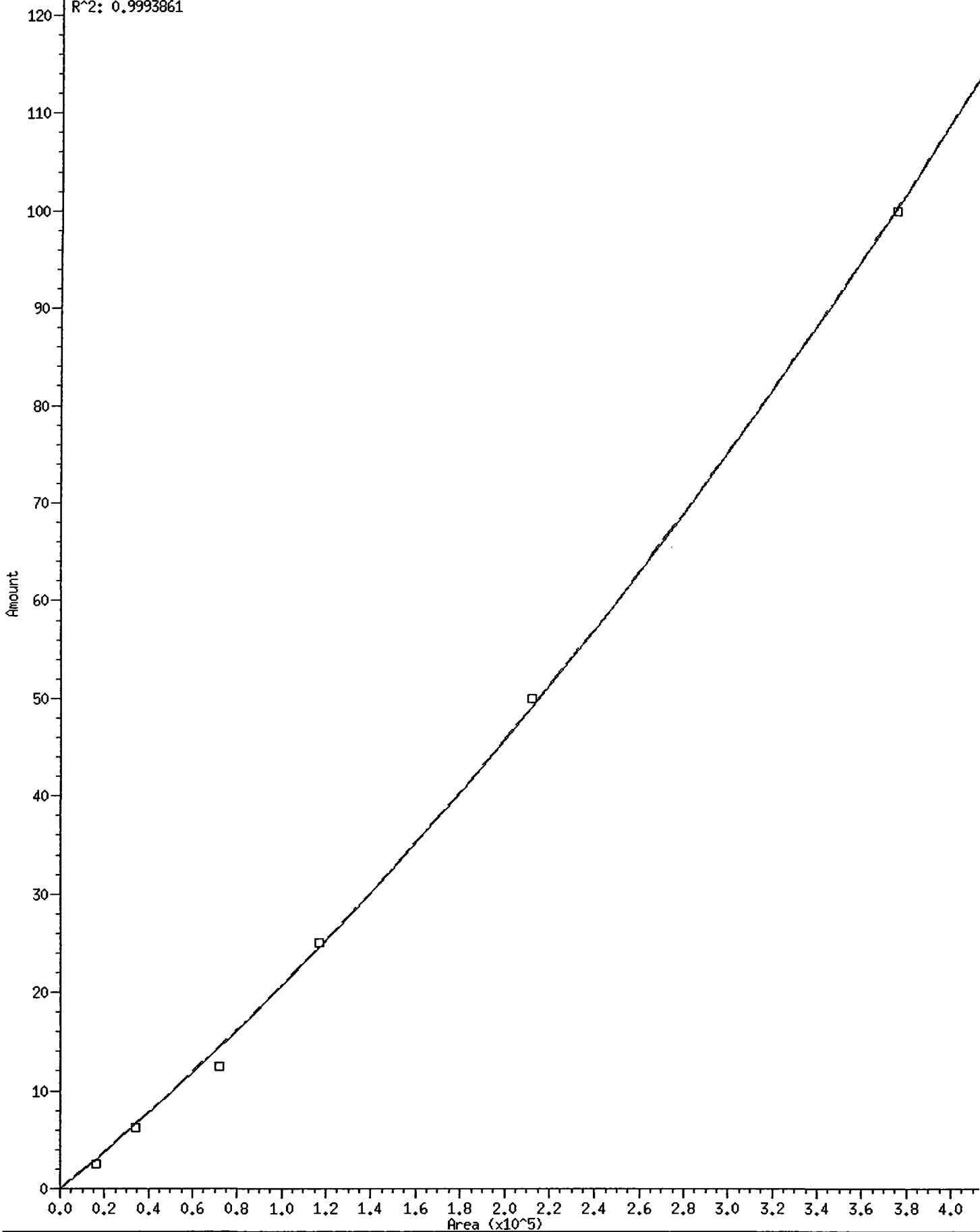
2 2,4,6-Trichlorophenol

Curve Type: Linear By-Response  
Amt = 0 + Rsp/7599.114  
R<sup>2</sup>: 0.9929028



4 2,4,5-Trichlorophenol

Curve Type: Quadratic By-Response  
Amt = 0 + 0.0001837214\*Rsp + 2.231234e-10\*Rsp^2  
R^2: 0.9993861



Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33  
 End Cal Date : 21-OCT-2009 18:12  
 Quant Method : ESTD  
 Origin : Force  
 Target Version : 3.50  
 Integrator : HP Genie  
 Method file : /chem2/ecdl.i/FPCCP20091021.b/FPCCP.m  
 Cal Date : 23-Oct-2009 11:18 aron

Calibration File Names:  
 Level 1: /chem2/ecdl.i/FPCCP20091021.b/ical-1.b/1021A010.d  
 Level 2: /chem2/ecdl.i/FPCCP20091021.b/ical-1.b/1021A011.d  
 Level 3: /chem2/ecdl.i/FPCCP20091021.b/ical-1.b/1021A012.d  
 Level 4: /chem2/ecdl.i/FPCCP20091021.b/ical-1.b/1021A009.d  
 Level 5: /chem2/ecdl.i/FPCCP20091021.b/ical-1.b/1021A013.d  
 Level 6: /chem2/ecdl.i/FPCCP20091021.b/ical-1.b/1021A014.d

Compound	2	6	12	25	50	100	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	OR R <sup>2</sup>
1 2,4-Dichlorophenol	16819	40263	69803	117243	201819	353265	QUAD	0.000e+00	0.00179	2.984e-09	0.99914
2 2,4,6-Trichlorophenol	31767	69066	122711	217230	393586	737425	LINR	0.000e+00	7599		0.99290
3 2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	AVRG		8776		16.59946
4 2,4,5-Trichlorophenol	16402	34462	71784	117139	212054	375055	QUAD	0.000e+00	0.00018	2.231e-10	0.99939
5 2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	AVRG		6077		16.43273
6 2,3,5,6-Tetrachlorophenol	15518	14554	13607	12505	11993	11056	AVRG		13206		12.63104
8 2,3,4,5-Tetrachlorophenol	12818	11723	10909	9693	8548	7877	AVRG		10261		18.50805
9 Pentachlorophenol	18833	17561	16239	14693	13334	12576	AVRG		15539		15.70600
7 2,4,6-Tribromophenol (burr)	13920	13228	12507	11556	10717	10527	AVRG		12076		11.37346

Analytical Resources, Inc.  
INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33  
End Cal Date : 21-OCT-2009 18:12  
Quant Method : ESTD  
Origin : Force  
Target Version : 3.50  
Integrator : HP Genie  
Method file : /chem2/ecdl.i/FPCCP20091021.b/FPCCP.m  
Cal Date : 23-Oct-2009 11:18 aron

Average %RSD Results.  
-----  
Calculated Average %RSD = 15.20846  
Maximum Average %RSD = 20.00000  
\* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

11  
10  
09  
08  
07  
06  
05  
04  
03  
02  
01



Analytical Resources Inc.  
Dual Column Pentachlorophenol Quantitation Report

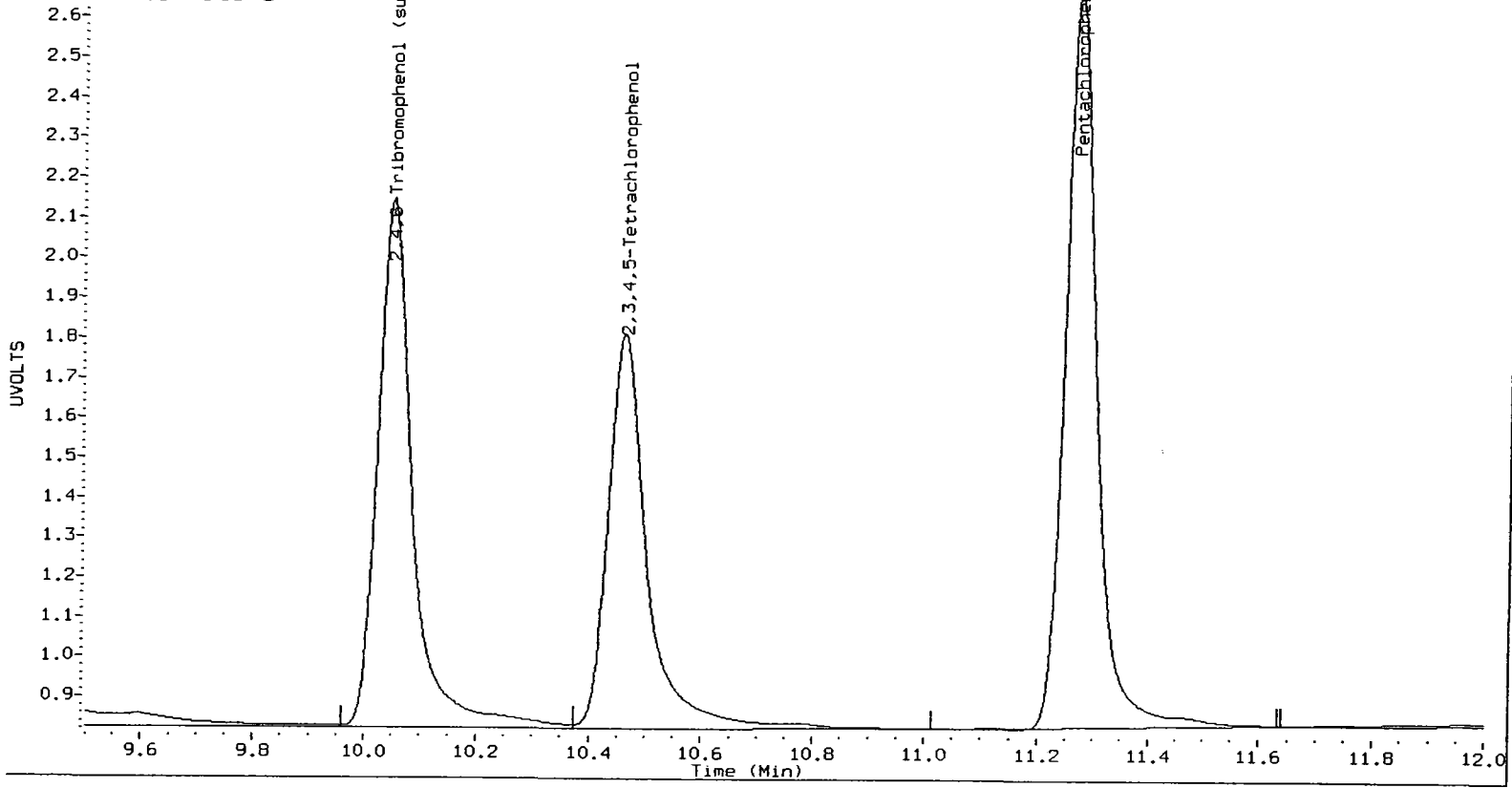
Data file 1: /chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A009.d ARI ID: PCP D  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A009.d Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 16:33  
 Compound Sublist: all Report Date: 10/23/2009 11:19  
 Instrument: ecd1.i Matrix: NONE  
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.271	0.000	367330	11.695	0.000	383997	23.6387	23.6974	0.2	Pentachlorophenol
7.293	0.000	217230	7.352	0.000	222315	28.5862	23.3266	20.3	2,4,6-Trichlorophenol
7.648	0.000	205876	7.883	0.000	230697	23.4592	24.9272	6.1	2,3,6-Trichlorophenol
8.258	0.000	117139	8.620	0.000	125809	24.5825	24.3414	1.0	2,4,5-Trichlorophenol
8.826	0.000	142230	9.398	0.000	176218	23.4058	25.0437	6.8	2,3,4-Trichlorophenol
9.038	0.000	312635	9.295	0.000	317417	23.6744	23.7047	0.1	2,3,5,6-Tetrachlorophenol
10.462	0.000	242318	11.159	0.000	243787	23.6148	23.6808	0.3	2,3,4,5-Tetrachlorophenol
6.917	0.000	117243	7.177	0.000	117023	250.8755	252.0921	0.5	2,4-Dichlorophenol
10.050	0.000	288892	10.680	0.000	308677	23.9	23.9	0.0	2,4,6-Tribromophenol (surr)

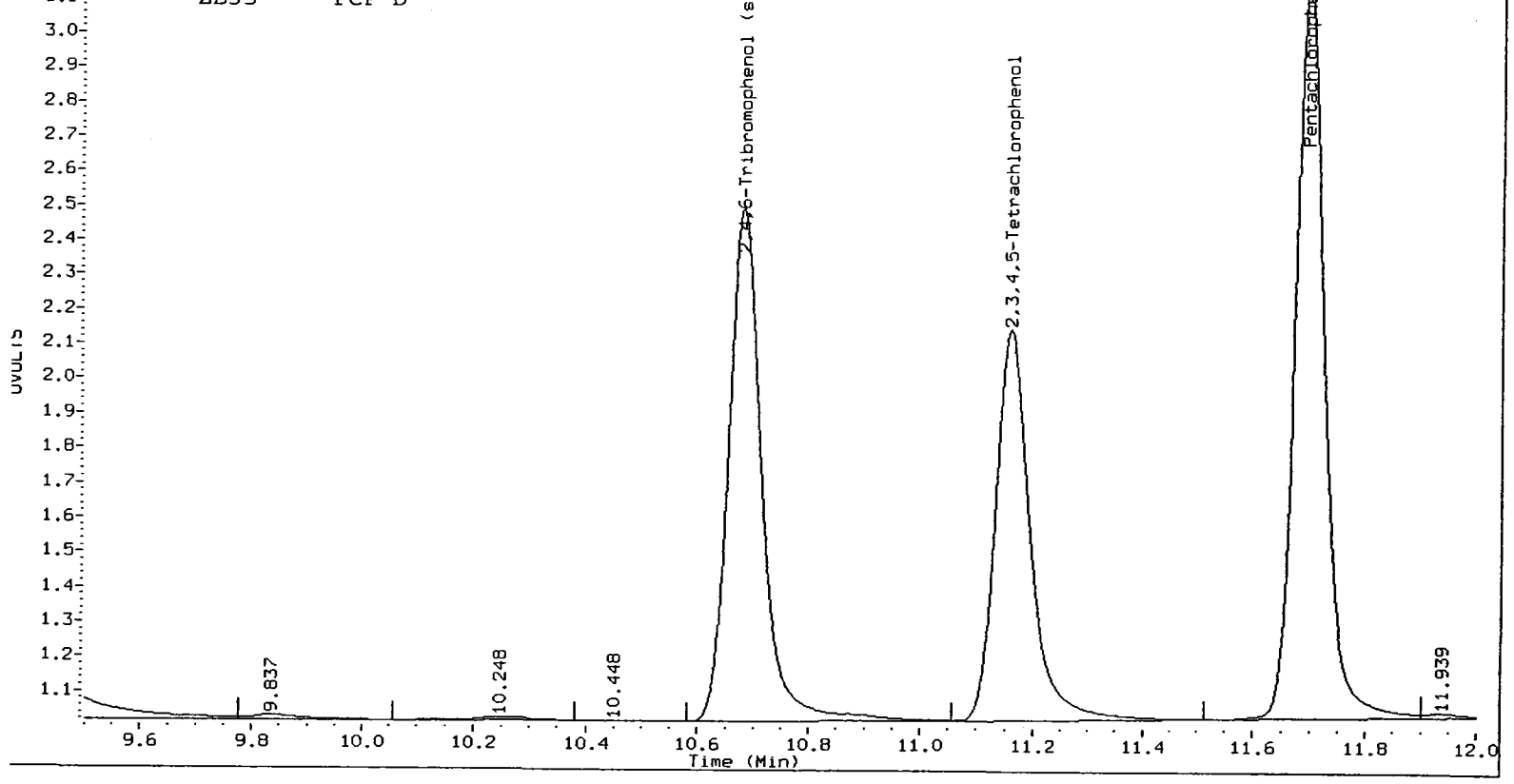
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	95.7	95.7

/chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A009.d021A009.cdf  
ZB5 PCP D



/chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A009.d021A009.cdf  
ZB35 PCP D



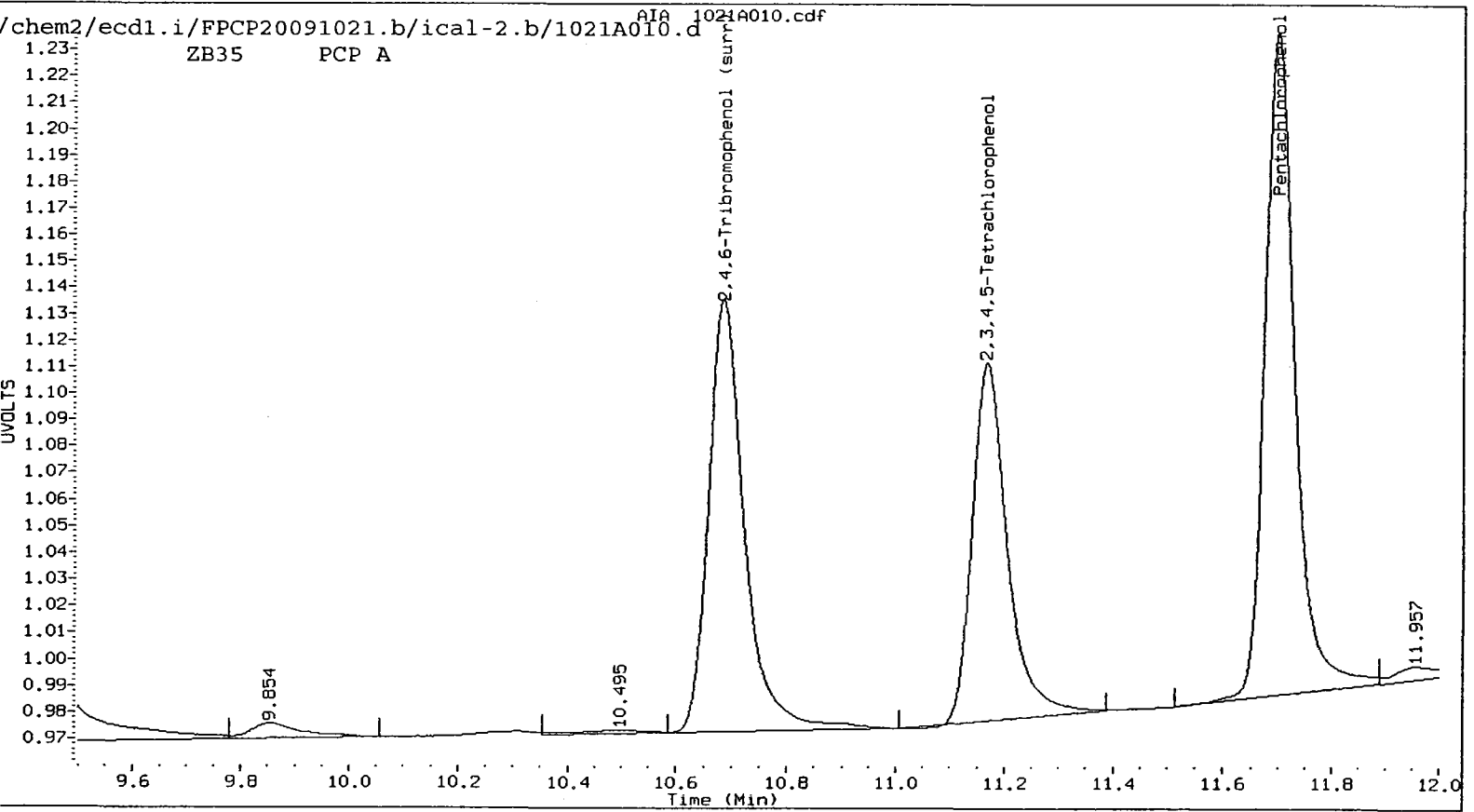
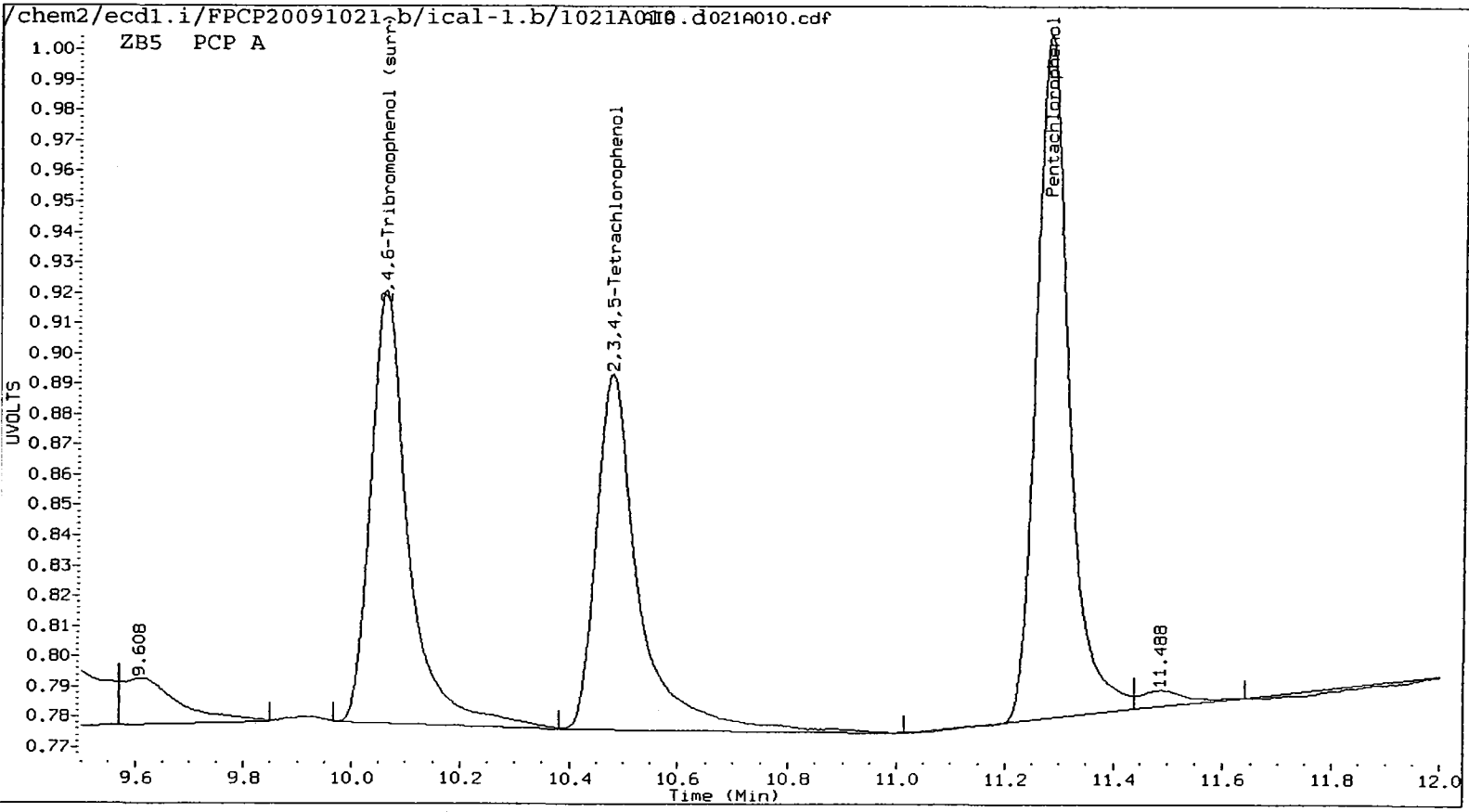
Analytical Resources Inc.  
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A010.d   ARI ID: PCP A  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A010.d   Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                   Injection Date: 21-OCT-2009 16:53  
 Compound Sublist: all    Report Date: 10/23/2009 11:19  
 Instrument: ecd1.i    Matrix: NONE  
 Operator: ar   Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.279	0.008	47083	11.699	0.004	48259	2.8087	2.7844	0.9	Pentachlorophenol
7.292	-0.001	31767	7.351	-0.001	29494	3.6317	2.8510	24.1	2,4,6-Trichlorophenol
7.647	-0.002	27047	7.882	-0.001	27277	2.8390	2.7089	4.7	2,3,6-Trichlorophenol
8.270	0.012	16402	8.626	0.006	19509	3.4813	3.8444	9.9	2,4,5-Trichlorophenol
8.845	0.020	18180	9.410	0.011	24231	2.8053	3.4202	19.8	2,3,4-Trichlorophenol
9.041	0.002	38795	9.296	0.001	39693	2.7688	2.7783	0.3	2,3,5,6-Tetrachlorophenol
10.478	0.015	32044	11.168	0.009	30207	2.8470	2.7669	2.9	2,3,4,5-Tetrachlorophenol
6.917	-0.001	16819	7.177	0.000	17700	35.6445	37.5265	5.1	2,4-Dichlorophenol
10.061	0.011	34800	10.686	0.006	36772	2.7	2.7	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	10.9	10.9



Analytical Resources Inc.  
Dual Column Pentachlorophenol Quantitation Report

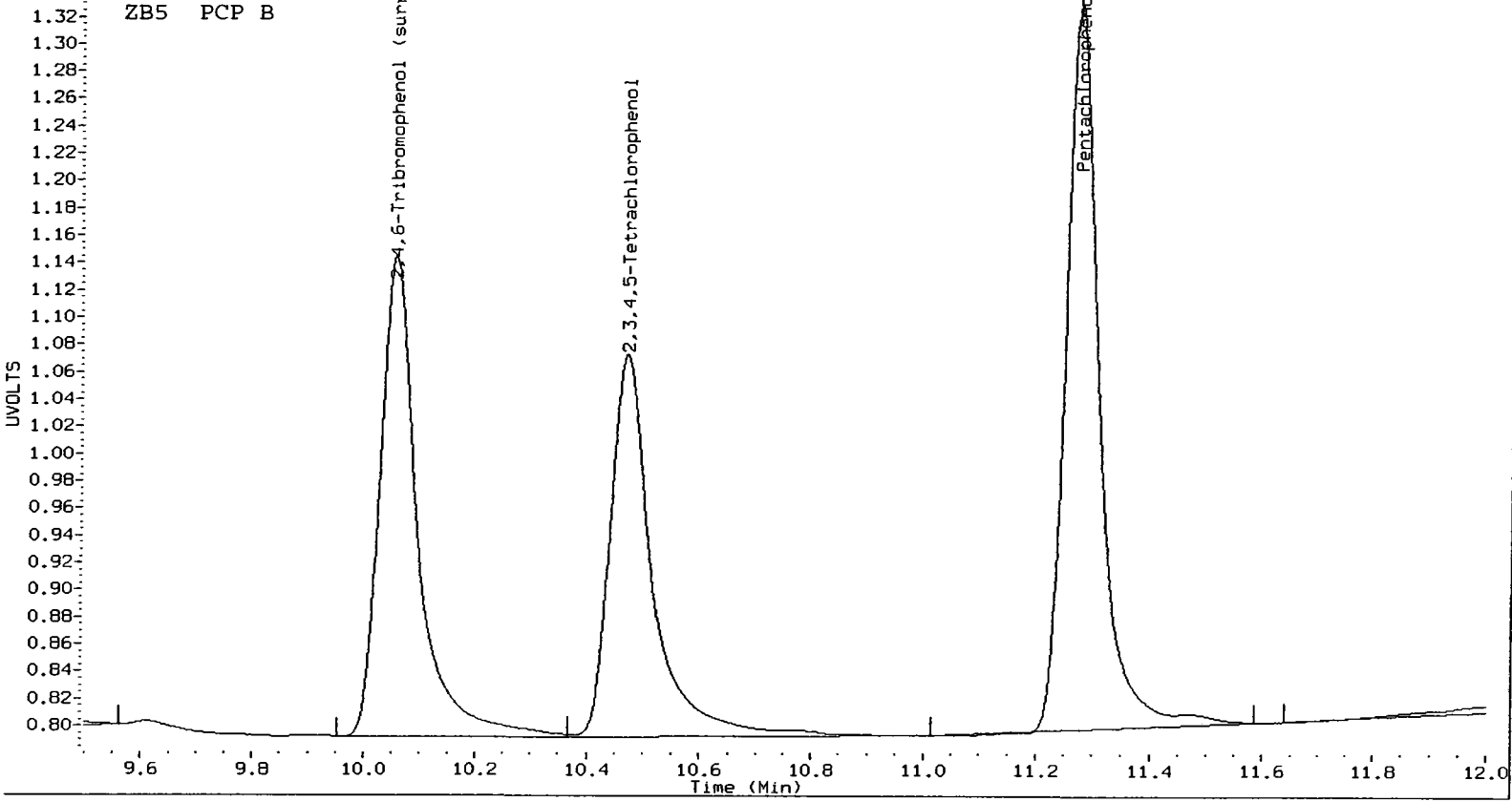
Data file 1: /chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A011.d   ARI ID: PCP B  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A011.d   Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                   Injection Date: 21-OCT-2009 17:13  
 Compound Sublist: all    Report Date: 10/23/2009 11:19  
 Instrument: ecd1.i    Matrix: NONE  
 Operator: ar    Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.275	0.004	109754	11.696	0.001	112156	6.4451	6.3957	0.8	Pentachlorophenol
7.291	-0.002	69066	7.350	-0.002	67317	7.7476	6.4191	18.8	2,4,6-Trichlorophenol
7.645	-0.003	62285	7.881	-0.002	63108	6.4390	6.2616	2.8	2,3,6-Trichlorophenol
8.262	0.004	34462	8.623	0.003	43595	6.0940	6.2584	2.7	2,4,5-Trichlorophenol
8.837	0.012	44152	9.404	0.006	56589	6.6144	6.2625	5.5	2,3,4-Trichlorophenol
9.038	-0.001	90965	9.295	0.000	91612	6.4093	6.3573	0.8	2,3,5,6-Tetrachlorophenol
10.470	0.007	73270	11.164	0.005	73060	6.4209	6.5380	1.8	2,3,4,5-Tetrachlorophenol
6.915	-0.002	40263	7.176	-0.001	39225	63.2816	62.2651	1.6	2,4-Dichlorophenol
10.054	0.005	82674	10.682	0.002	87382	6.4	6.4	0.3	2,4,6-Tribromophenol (surr)

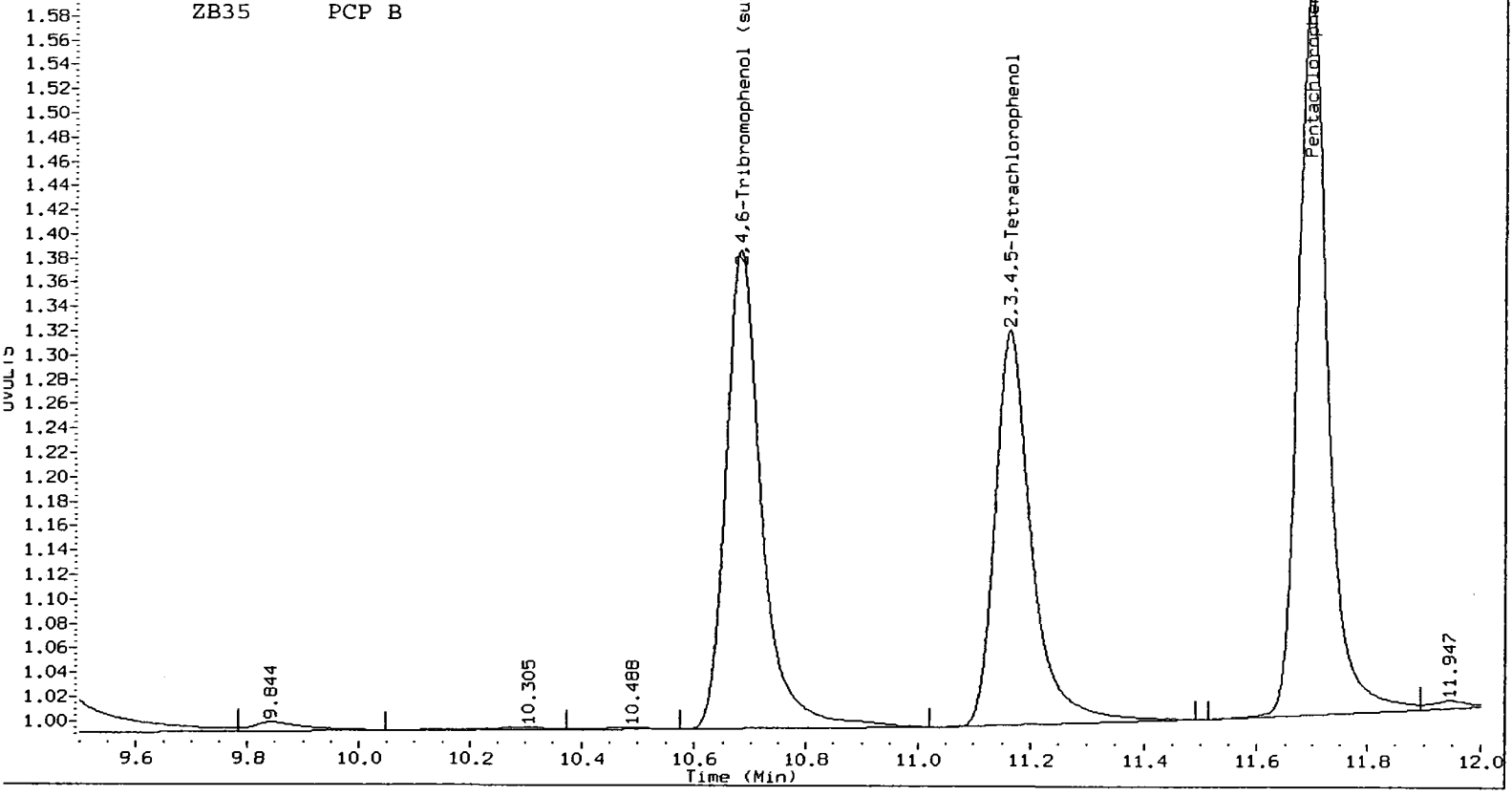
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	25.6	25.6

/chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A011.d021A011.cdf



/chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A011.d021A011.cdf



Analytical Resources Inc.  
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A012.d   ARI ID: PCP C  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A012.d   Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                   Injection Date: 21-OCT-2009 17:33  
 Compound Sublist: all    Report Date: 10/23/2009 11:19  
 Instrument: ecd1.i    Matrix: NONE  
 Operator: ar    Dilution Factor: 1.000

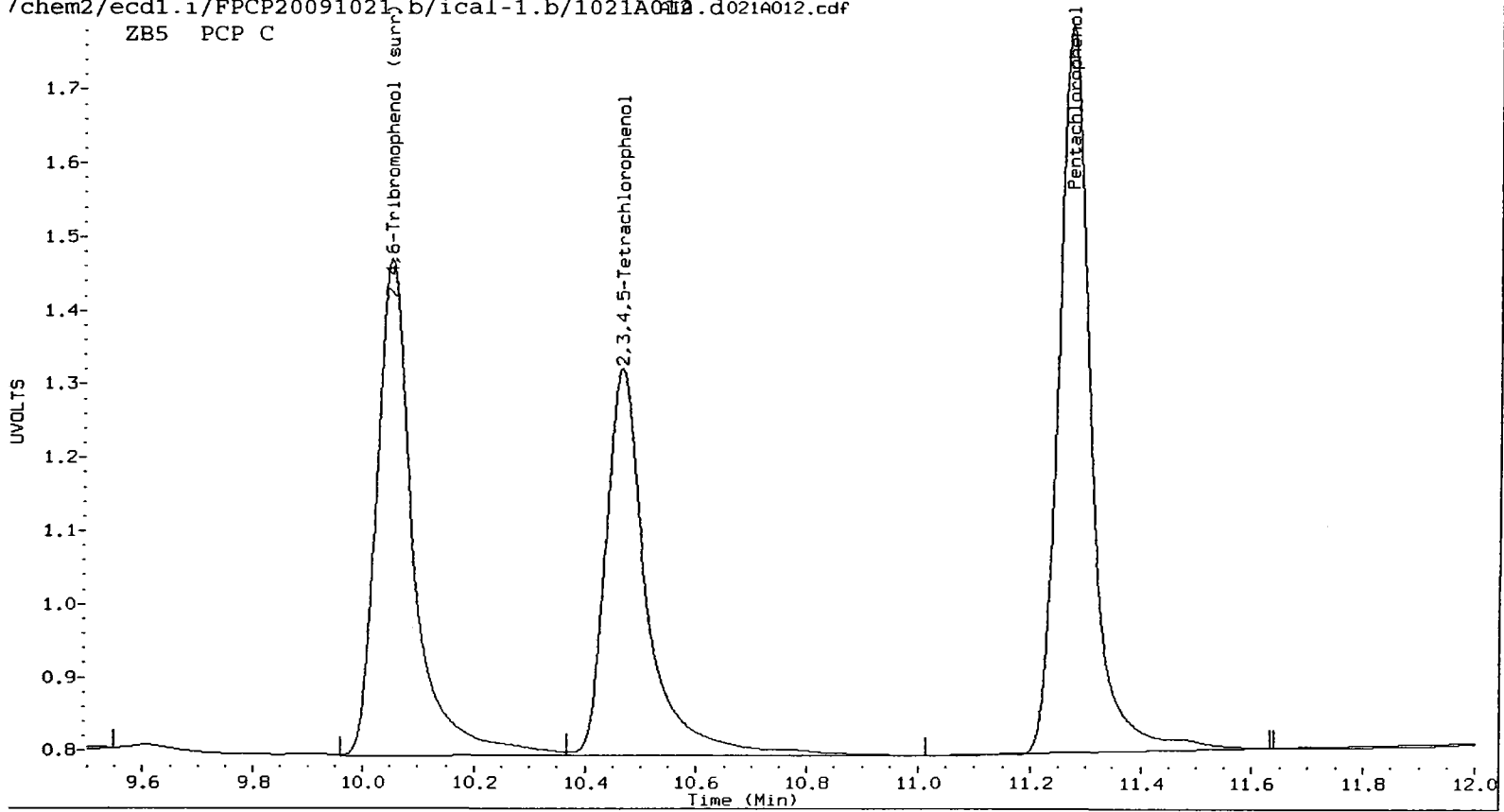
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.272	0.001	202983	11.696	0.001	208842	12.0598	12.0516	0.1	Pentachlorophenol
7.290	-0.003	122711	7.351	-0.001	122881	13.4853	11.9038	12.5	2,4,6-Trichlorophenol
7.645	-0.003	113716	7.882	-0.001	116643	11.9335	11.7918	1.2	2,3,6-Trichlorophenol
8.258	-0.001	71784	8.622	0.002	76979	13.1700	12.6449	4.1	2,4,5-Trichlorophenol
8.830	0.004	80139	9.401	0.003	101861	12.1254	12.4877	2.9	2,3,4-Trichlorophenol
9.037	-0.002	170093	9.295	0.000	171254	12.1094	12.0322	0.6	2,3,5,6-Tetrachlorophenol
10.465	0.002	136364	11.163	0.003	135310	12.0829	12.2042	1.0	2,3,4,5-Tetrachlorophenol
6.914	-0.004	69803	7.176	-0.001	68497	124.8517	123.9132	0.8	2,4-Dichlorophenol
10.051	0.001	156332	10.682	0.002	165413	12.2	12.2	0.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	48.8	48.8

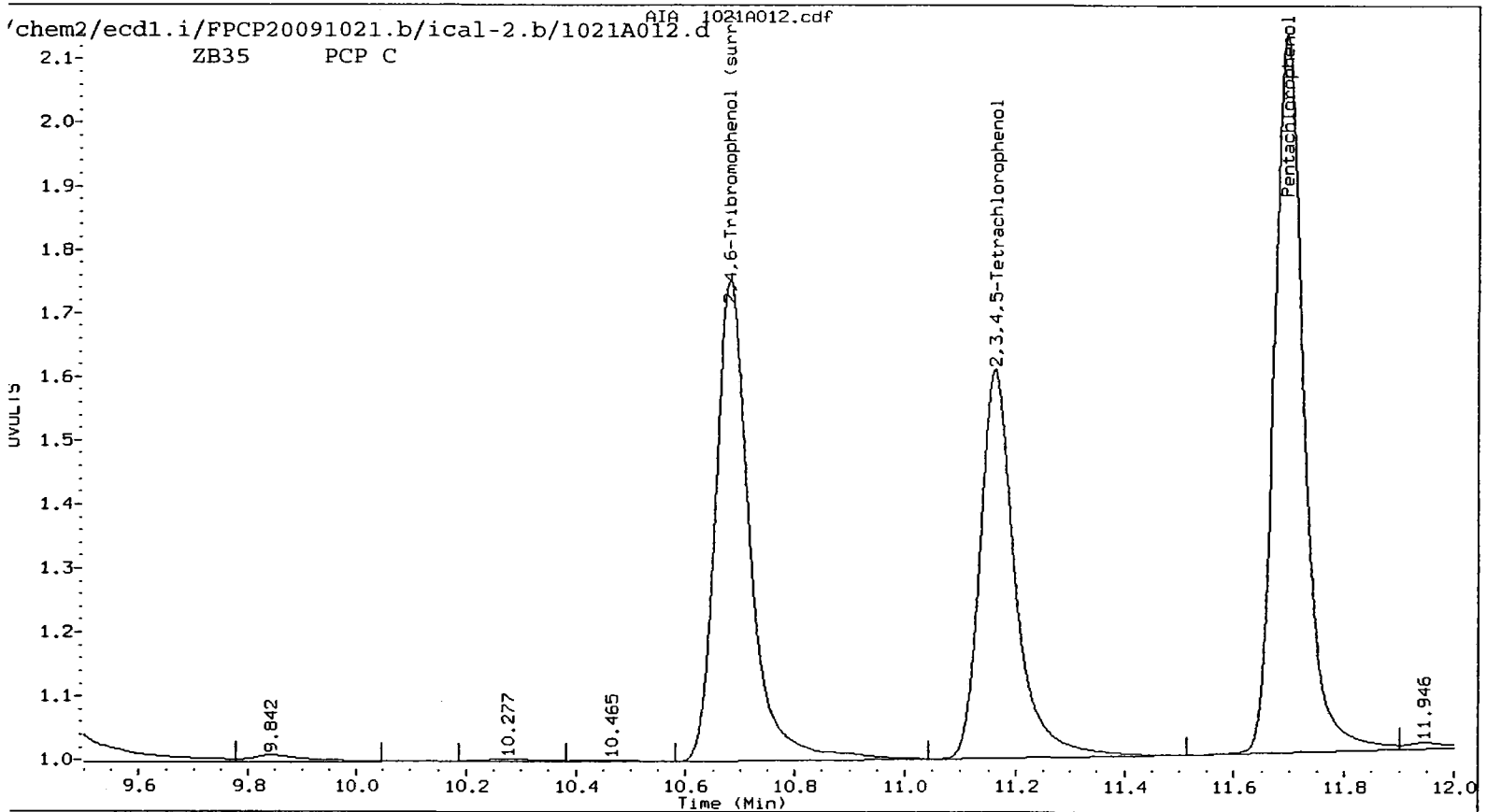
/chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A012.d021A012.cdf

ZB5 PCP C



/chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A012.d021A012.cdf

ZB35 PCP C





Analytical Resources Inc.  
Dual Column Pentachlorophenol Quantitation Report

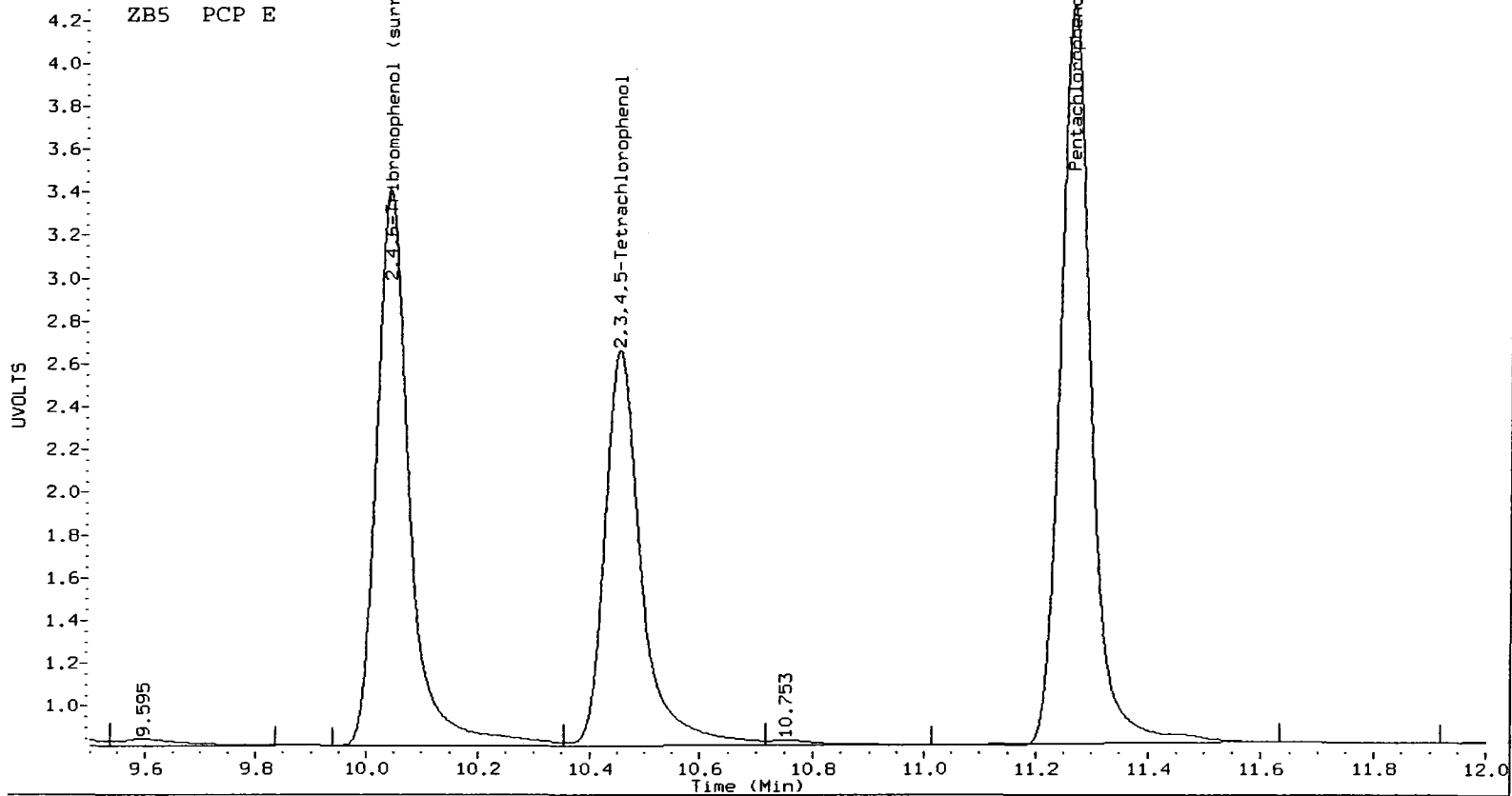
Data file 1: /chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A013.d   ARI ID: PCP E  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A013.d   Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                   Injection Date: 21-OCT-2009 17:53  
 Compound Sublist: all    Report Date: 10/23/2009 11:19  
 Instrument: ecd1.i    Matrix: NONE  
 Operator: ar    Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.266	-0.005	666704	11.691	-0.003	711873	41.3282	42.6000	3.0	Pentachlorophenol
7.290	-0.003	393586	7.350	-0.002	408854	47.9413	41.3247	14.8	2,4,6-Trichlorophenol
7.645	-0.004	373912	7.881	-0.002	410494	41.0037	42.9591	4.7	2,3,6-Trichlorophenol
8.251	-0.008	212054	8.617	-0.003	227473	50.1833	50.2897	0.2	2,4,5-Trichlorophenol
8.814	-0.012	258615	9.393	-0.005	313504	40.9085	50.1589	20.3	2,3,4-Trichlorophenol
9.034	-0.004	599646	9.293	-0.002	595350	43.9764	43.2421	1.7	2,3,5,6-Tetrachlorophenol
10.454	-0.008	427389	11.156	-0.004	448986	39.8012	42.0963	5.6	2,3,4,5-Tetrachlorophenol
6.913	-0.005	201819	7.174	-0.003	202273	501.8098	501.6570	0.0	2,4-Dichlorophenol
10.042	-0.008	535832	10.676	-0.004	581984	43.3	44.2	2.0	2,4,6-Tribromophenol (surr)

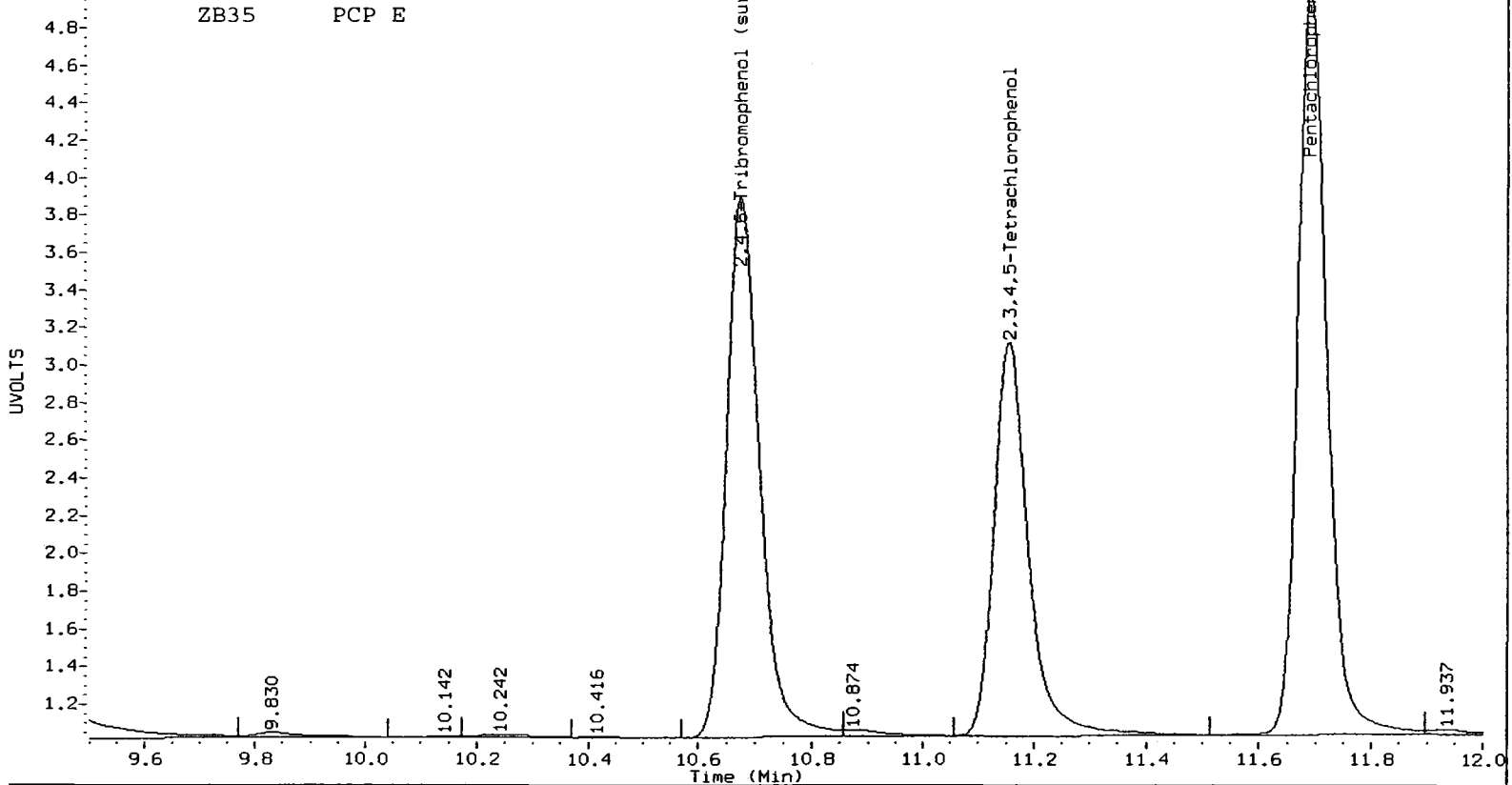
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	173.1	176.6

/chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A013.d



/chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A013.d



Analytical Resources Inc.  
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A014.d   ARI ID: PCP F  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A014.d   Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                   Injection Date: 21-OCT-2009 18:12  
 Compound Sublist: all   Report Date: 10/23/2009 11:19  
 Instrument: ecd1.i   Matrix: NONE  
 Operator: ar   Dilution Factor: 1.000

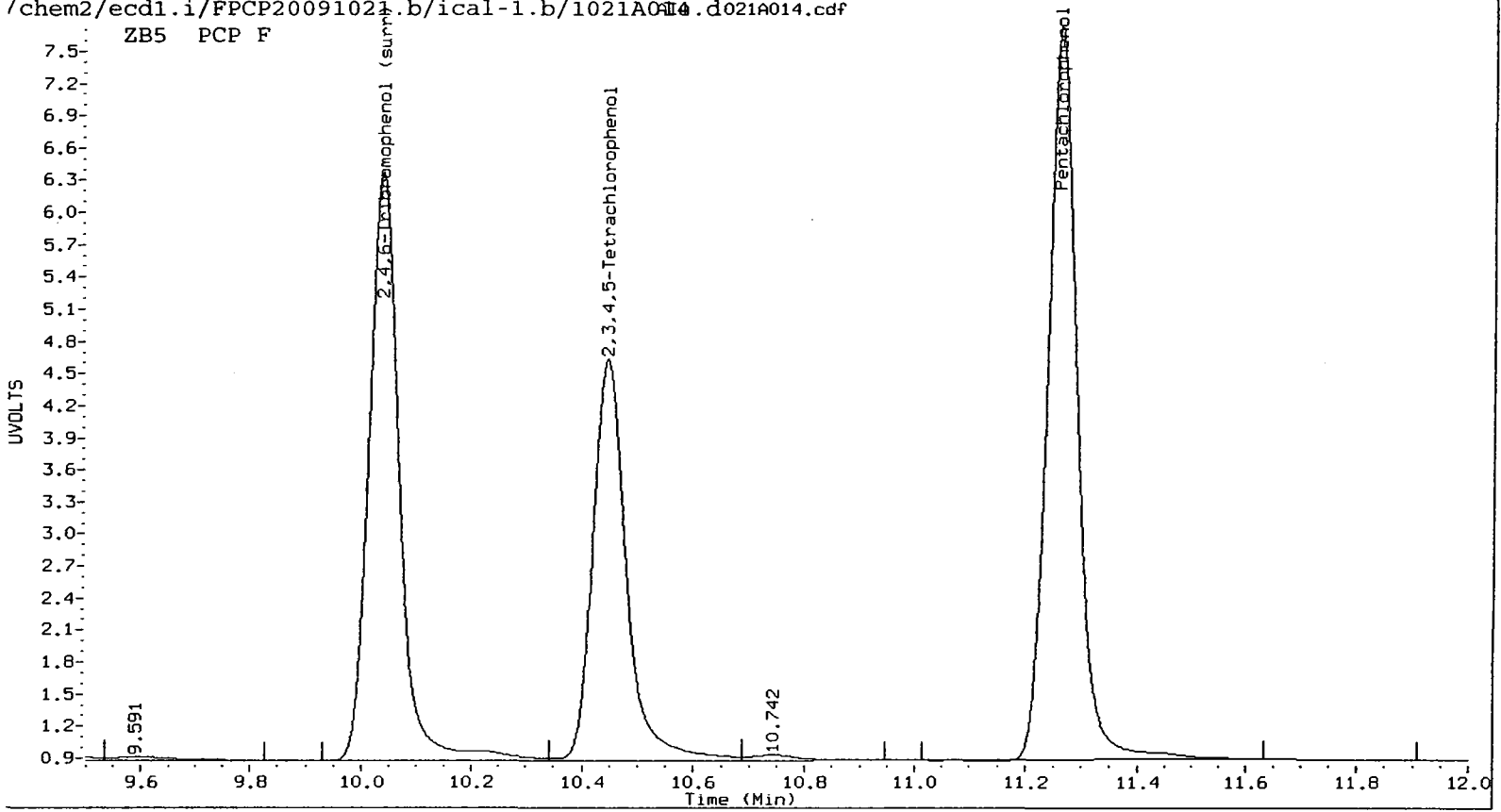
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.261	-0.010	1257631	11.688	-0.007	1367192	80.9320	84.3727	4.2	Pentachlorophenol
7.289	-0.004	737425	7.349	-0.003	771470	97.0409	80.9472	18.1	2,4,6-Trichlorophenol
7.643	-0.005	706063	7.880	-0.003	775172	80.4545	83.7586	4.0	2,3,6-Trichlorophenol
8.246	-0.013	375055	8.613	-0.007	400339	100.2916	100.3638	0.1	2,4,5-Trichlorophenol
8.803	-0.022	485129	9.386	-0.012	560518	79.8342	100.3518	22.8	2,3,4-Trichlorophenol
9.031	-0.007	1105561	9.291	-0.004	1150368	83.7189	85.9095	2.6	2,3,5,6-Tetrachloropheno
10.444	-0.018	787735	11.149	-0.010	843983	76.7676	81.9822	6.6	2,3,4,5-Tetrachlorophenol
6.911	-0.007	353265	7.172	-0.004	357799	1004.7537	1004.6702	0.0	2,4-Dichlorophenol
10.036	-0.013	1052673	10.672	-0.008	1148400	87.2	89.0	2.1	2,4,6-Tribromophenol (sur

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	348.7	356.1

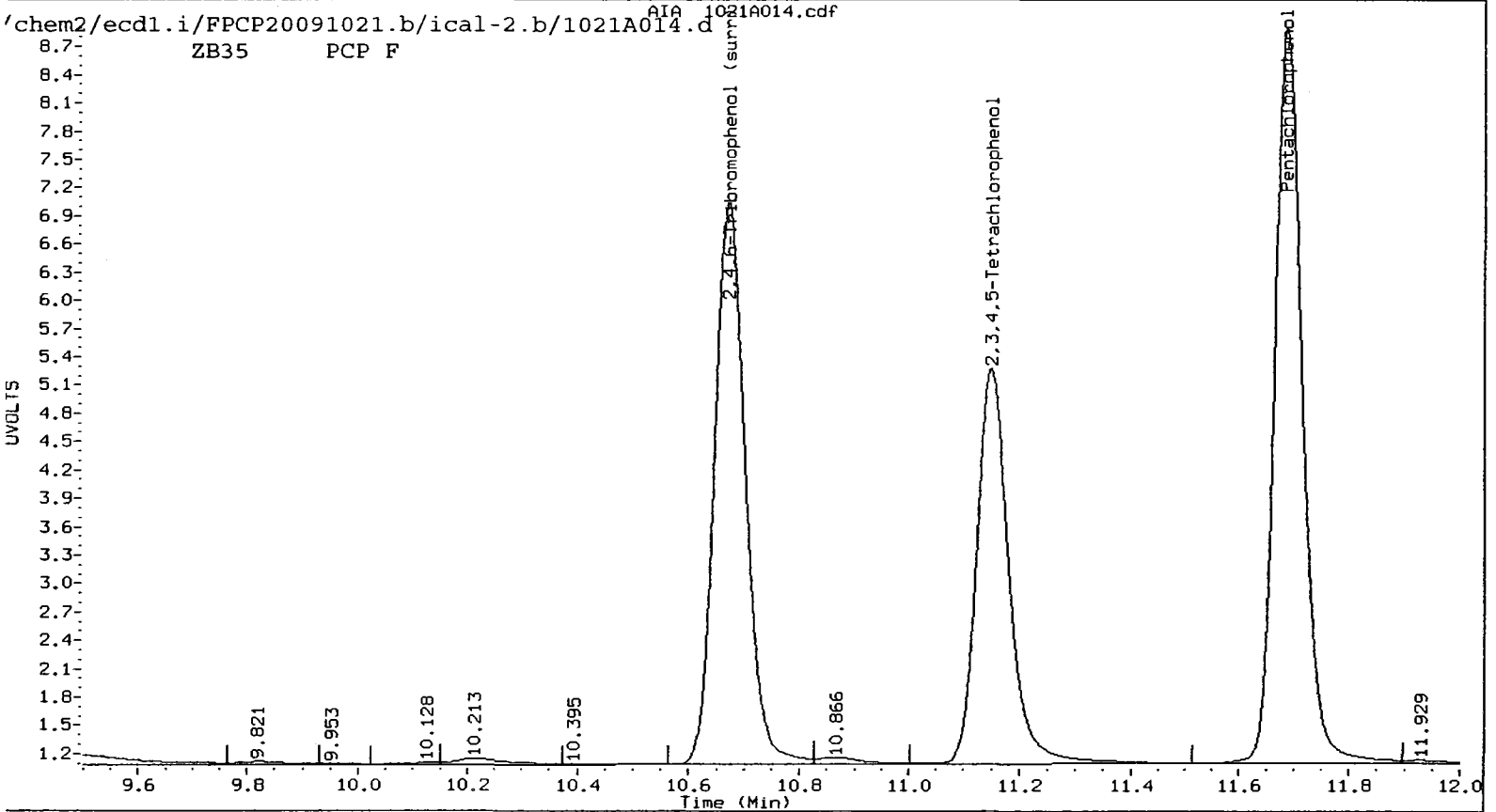
/chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A014.d021A014.cdf

ZB5 PCP F



/chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A014.d021A014.cdf

ZB35 PCP F



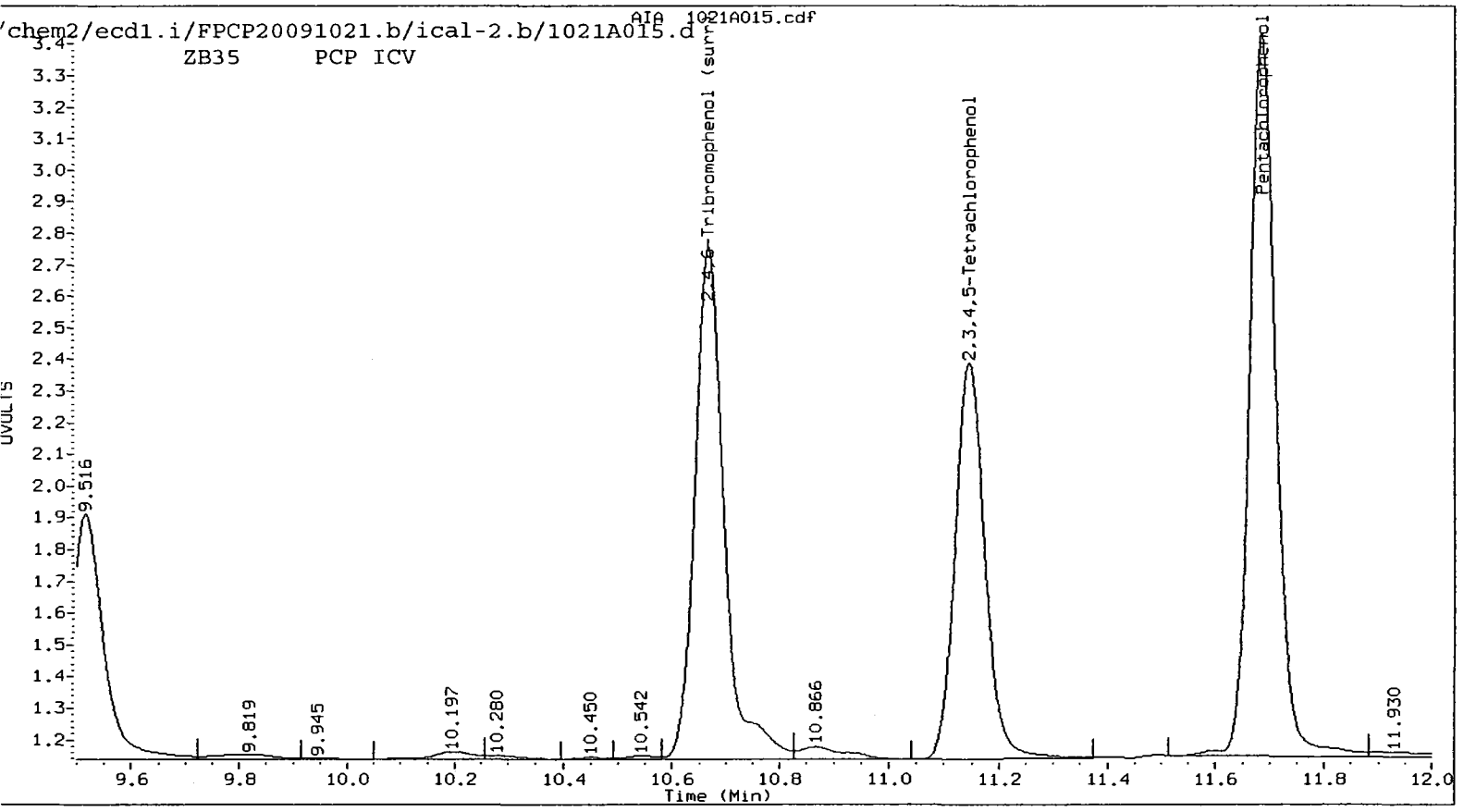
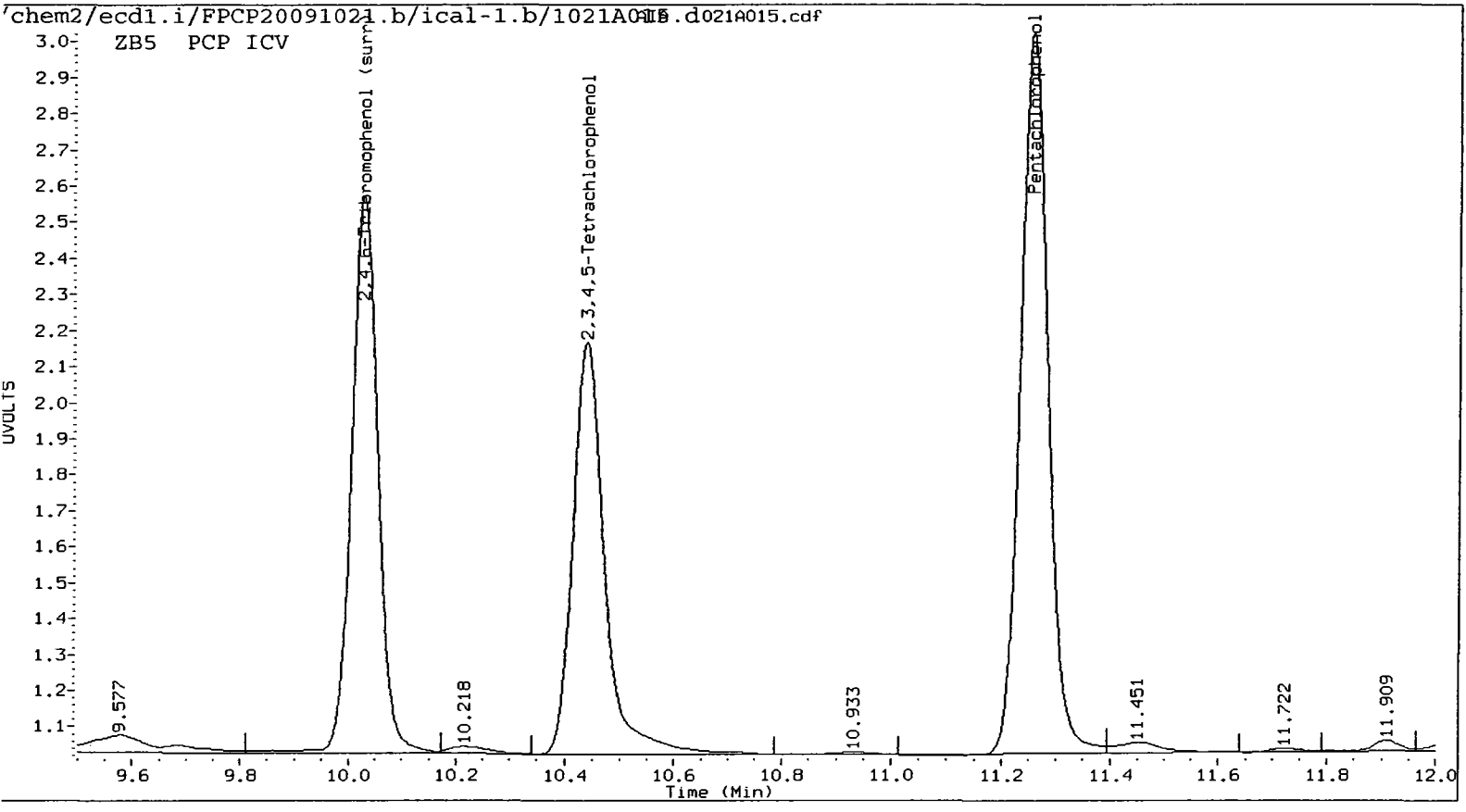
Analytical Resources Inc.  
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/ical-1.b/1021A015.d   ARI ID: PCP ICV  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/ical-2.b/1021A015.d   Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                   Injection Date: 21-OCT-2009 18:32  
 Compound Sublist: all    Report Date: 10/23/2009 11:19  
 Instrument: ecd1.i    Matrix: NONE  
 Operator: ar    Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.257	-0.015	352965	11.686	-0.009	385654	22.7143	23.7996	4.7	Pentachlorophenol
7.287	-0.007	214813	7.348	-0.003	229189	28.2682	24.0479	16.1	2,4,6-Trichlorophenol
7.640	-0.008	205185	7.879	-0.004	209509	23.3804	22.6378	3.2	2,3,6-Trichlorophenol
8.241	-0.018	118561	8.611	-0.009	121192	24.9186	23.3315	6.6	2,4,5-Trichlorophenol
8.795	-0.030	136414	9.382	-0.016	145492	22.4487	20.2476	10.3	2,3,4-Trichlorophenol
9.027	-0.011	286061	9.289	-0.006	314482	21.6621	23.4855	8.1	2,3,5,6-Tetrachlorophenol
10.439	-0.023	229183	11.146	-0.014	236673	22.3347	22.9898	2.9	2,3,4,5-Tetrachlorophenol
6.909	-0.009	111314	7.172	-0.005	109143	236.2190	232.7819	1.5	2,4-Dichlorophenol
10.028	-0.022	264698	10.667	-0.012	309286	21.9	24.0	9.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	90.9	95.2
2,4,6-Trichlorophenol	113.1	96.2
2,3,6-Trichlorophenol	93.5	90.6
2,4,5-Trichlorophenol	99.7	93.3
2,3,4-Trichlorophenol	89.8	81.0
2,3,5,6-Tetrachlorophenol	86.6	93.9
2,3,4,5-Tetrachlorophenol	89.3	92.0
2,4-Dichlorophenol	94.5	93.1
2,4,6-TBP (surr)	43.8	48.0



7E  
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP):

Date Analyzed :01/15/10

Lab Sample ID (PCP): PCPCCAL

Time Analyzed :1410

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	=====	=====	=====	=====	=====
Pentachlorophenol	11.28	11.20	11.34	24.4	25.0	-2.4
2,4,6-Trichlorophenol	7.30	7.22	7.36	29.8	25.0	19.2
2,3,6-Trichlorophenol	7.65	7.58	7.72	22.8	25.0	-8.8
2,4,5-Trichlorophenol	8.26	8.19	8.33	24.8	25.0	-0.8
2,3,4-Trichlorophenol	8.83	8.76	8.90	22.8	25.0	-8.8
2,3,5,6-Tetrachlorophenol	9.04	8.97	9.11	23.6	25.0	-5.6
2,3,4,5-Tetrachlorophenol	10.47	10.39	10.53	24.4	25.0	-2.4
2,4-Dichlorophenol	6.92	6.85	6.99	245	250	-2.0
2,4,6-Tribromophenol (surr)	10.05	9.98	10.12	24.4	25.0	-2.4

AVERAGE %D = 5.8

7E  
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP):

Date Analyzed :01/15/10

Lab Sample ID (PCP): PCPCCAL

Time Analyzed :1410

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	FROM	TO	=====	=====	=====
Pentachlorophenol	11.70	11.62	11.76	27.6	25.0	10.4
2,4,6-Trichlorophenol	7.36	7.28	7.42	24.6	25.0	-1.6
2,3,6-Trichlorophenol	7.89	7.81	7.95	24.0	25.0	-4.0
2,4,5-Trichlorophenol	8.63	8.55	8.69	24.9	25.0	-0.4
2,3,4-Trichlorophenol	9.40	9.33	9.47	23.7	25.0	-5.2
2,3,5,6-Tetrachlorophenol	9.30	9.23	9.37	26.0	25.0	4.0
2,3,4,5-Tetrachlorophenol	11.17	11.09	11.23	26.9	25.0	7.6
2,4-Dichlorophenol	7.18	7.11	7.25	284	250	13.6
2,4,6-Tribromophenol (surr	10.69	10.61	10.75	27.2	25.0	8.8

AVERAGE %D = 6.2



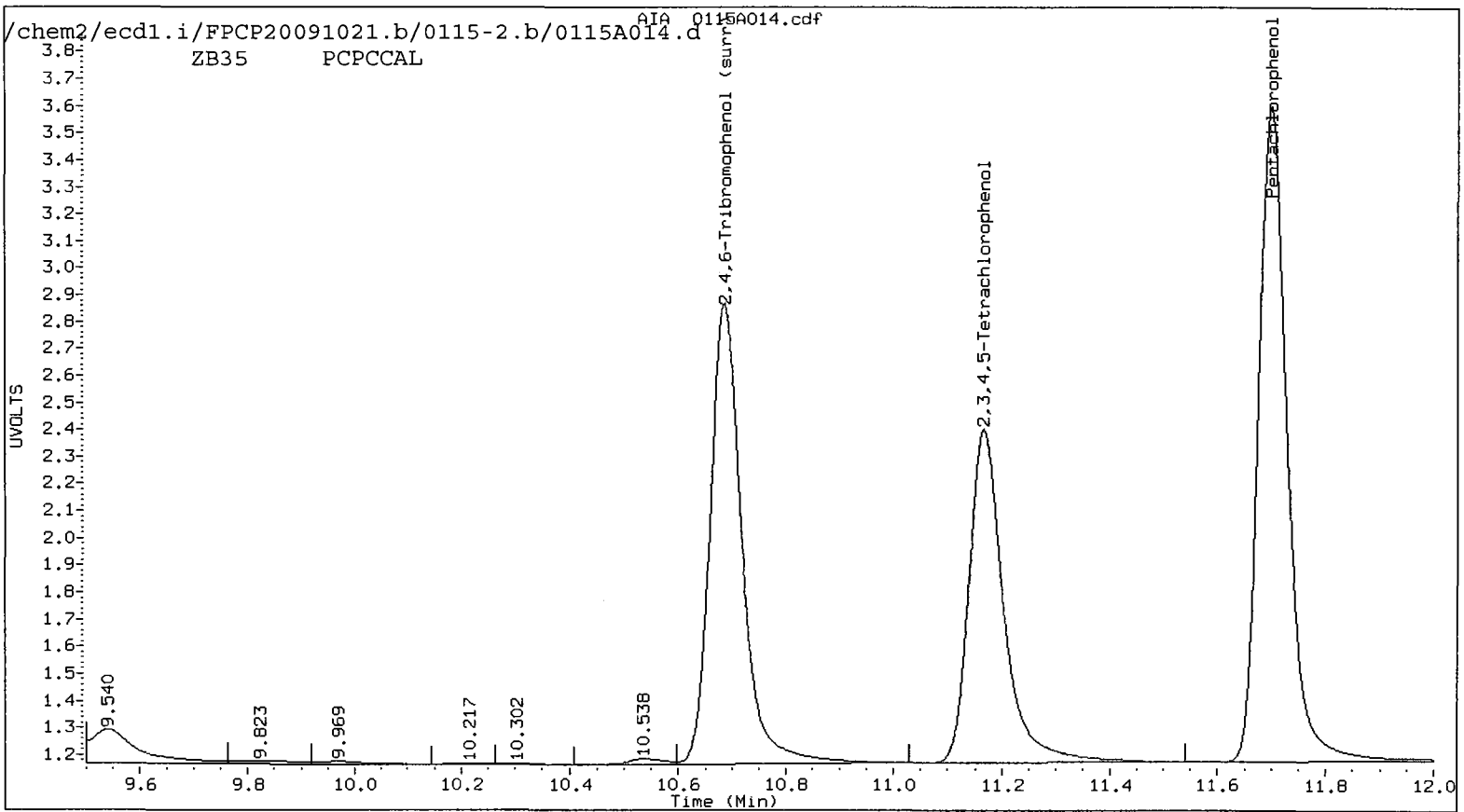
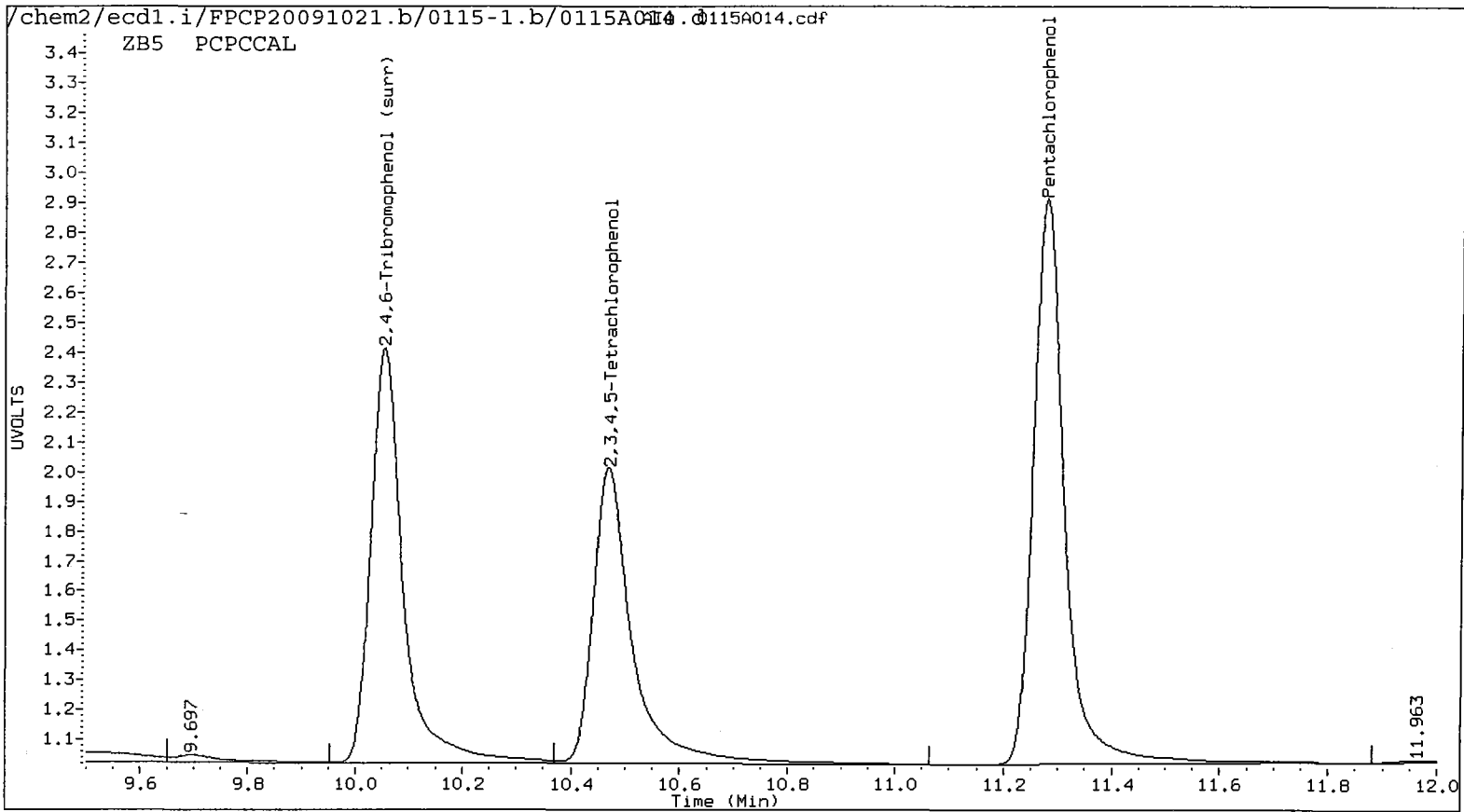
Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A014.d   ARI ID: PCPCCAL  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A014.d   Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                   Injection Date: 15-JAN-2010 14:10  
 Compound Sublist: all    Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i    Matrix: NONE  
 Operator: ar    Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.278	0.007	379845	11.700	0.005	447570	24.4441	27.6206	12.2	Pentachlorophenol
7.297	0.004	226099	7.356	0.004	234113	29.7533	24.5646	19.1	2,4,6-Trichlorophenol
7.652	0.004	200528	7.887	0.004	222488	22.8498	24.0403	5.1	2,3,6-Trichlorophenol
8.264	0.005	118060	8.626	0.006	128447	24.8002	24.9227	0.5	2,4,5-Trichlorophenol
8.827	0.001	138730	9.402	0.004	167566	22.8298	23.6749	3.6	2,3,4-Trichlorophenol
9.044	0.006	311943	9.302	0.006	347563	23.6220	25.9560	9.4	2,3,5,6-Tetrachlorophenol
10.469	0.006	250388	11.166	0.007	277316	24.4013	26.9378	9.9	2,3,4,5-Tetrachlorophenol
6.920	0.003	114772	7.180	0.004	129970	244.7434	284.5522	15.0	2,4-Dichlorophenol
10.054	0.004	294939	10.685	0.006	351475	24.4	27.2	10.9	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	97.8	110.5
2,4,6-Trichlorophenol	119.0	98.3
2,3,6-Trichlorophenol	91.4	96.2
2,4,5-Trichlorophenol	99.2	99.7
2,3,4-Trichlorophenol	91.3	94.7
2,3,5,6-Tetrachlorophenol	94.5	103.8
2,3,4,5-Tetrachlorophenol	97.6	107.8
2,4-Dichlorophenol	97.9	113.8
2,4,6-TBP (surr)	97.7	109.0



7E  
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP):

Date Analyzed :01/15/10

Lab Sample ID (PCP): PCPCCAL

Time Analyzed :1509

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	FROM	TO	=====	=====	=====
Pentachlorophenol	11.28	11.20	11.34	24.4	25.0	-2.4
2,4,6-Trichlorophenol	7.30	7.22	7.36	29.6	25.0	18.4
2,3,6-Trichlorophenol	7.65	7.58	7.72	23.4	25.0	-6.4
2,4,5-Trichlorophenol	8.26	8.19	8.33	24.5	25.0	-2.0
2,3,4-Trichlorophenol	8.83	8.76	8.90	22.7	25.0	-9.2
2,3,5,6-Tetrachlorophenol	9.04	8.97	9.11	24.4	25.0	-2.4
2,3,4,5-Tetrachlorophenol	10.47	10.39	10.53	24.3	25.0	-2.8
2,4-Dichlorophenol	6.92	6.85	6.99	244	250	-2.4
2,4,6-Tribromophenol (surr	10.05	9.98	10.12	24.3	25.0	-2.8

AVERAGE %D = 5.4

7E  
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP):

Date Analyzed :01/15/10

Lab Sample ID (PCP): PCPCCAL

Time Analyzed :1509

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	11.70	11.62	11.76	27.6	25.0	10.4
2,4,6-Trichlorophenol	7.36	7.28	7.42	24.5	25.0	-2.0
2,3,6-Trichlorophenol	7.89	7.81	7.95	24.0	25.0	-4.0
2,4,5-Trichlorophenol	8.63	8.55	8.69	24.8	25.0	-0.8
2,3,4-Trichlorophenol	9.40	9.33	9.47	23.6	25.0	-5.6
2,3,5,6-Tetrachlorophenol	9.30	9.23	9.37	25.9	25.0	3.6
2,3,4,5-Tetrachlorophenol	11.17	11.09	11.23	26.8	25.0	7.2
2,4-Dichlorophenol	7.18	7.11	7.25	283	250	13.2
2,4,6-Tribromophenol (surr)	10.69	10.61	10.75	27.2	25.0	8.8

AVERAGE %D = 6.2

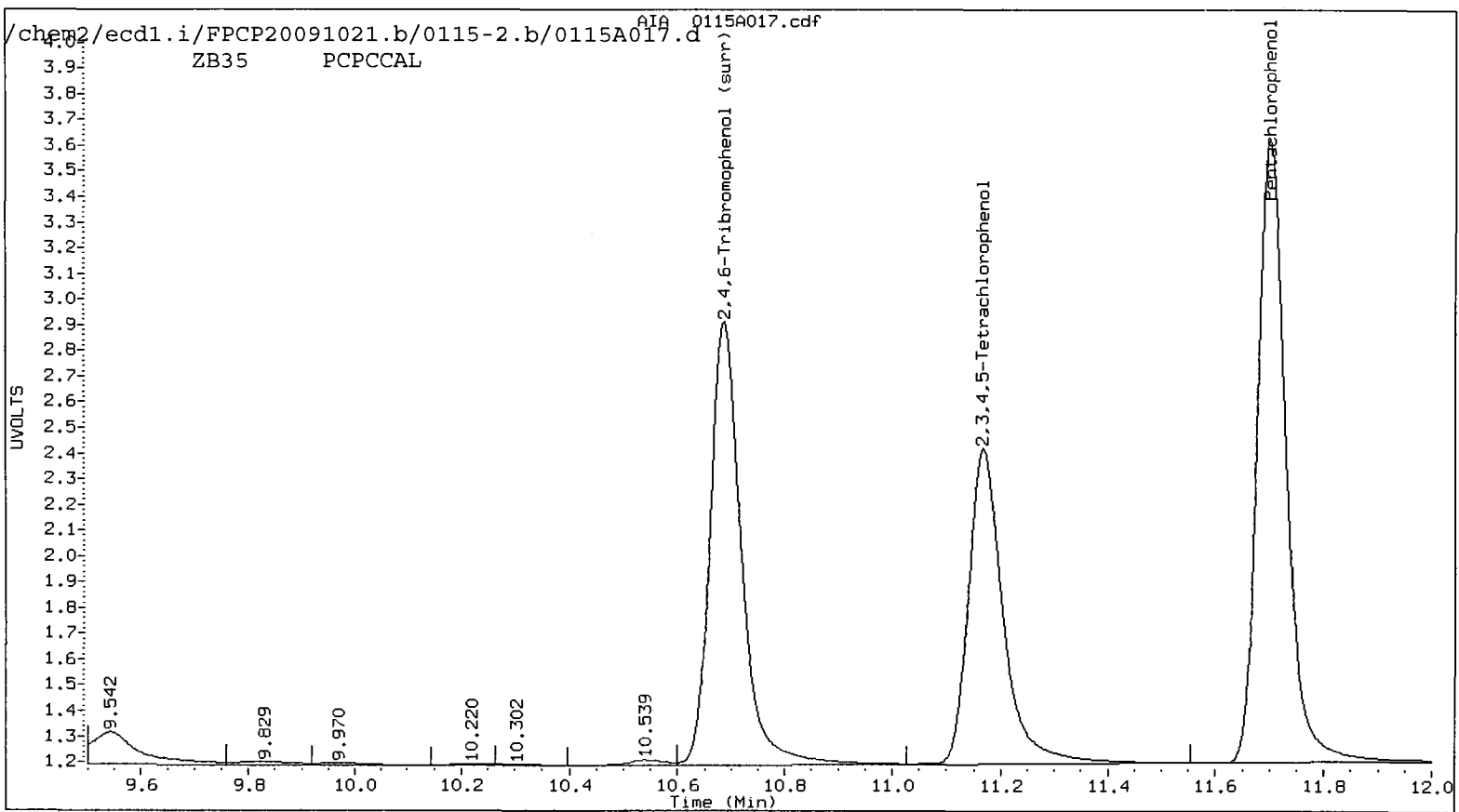
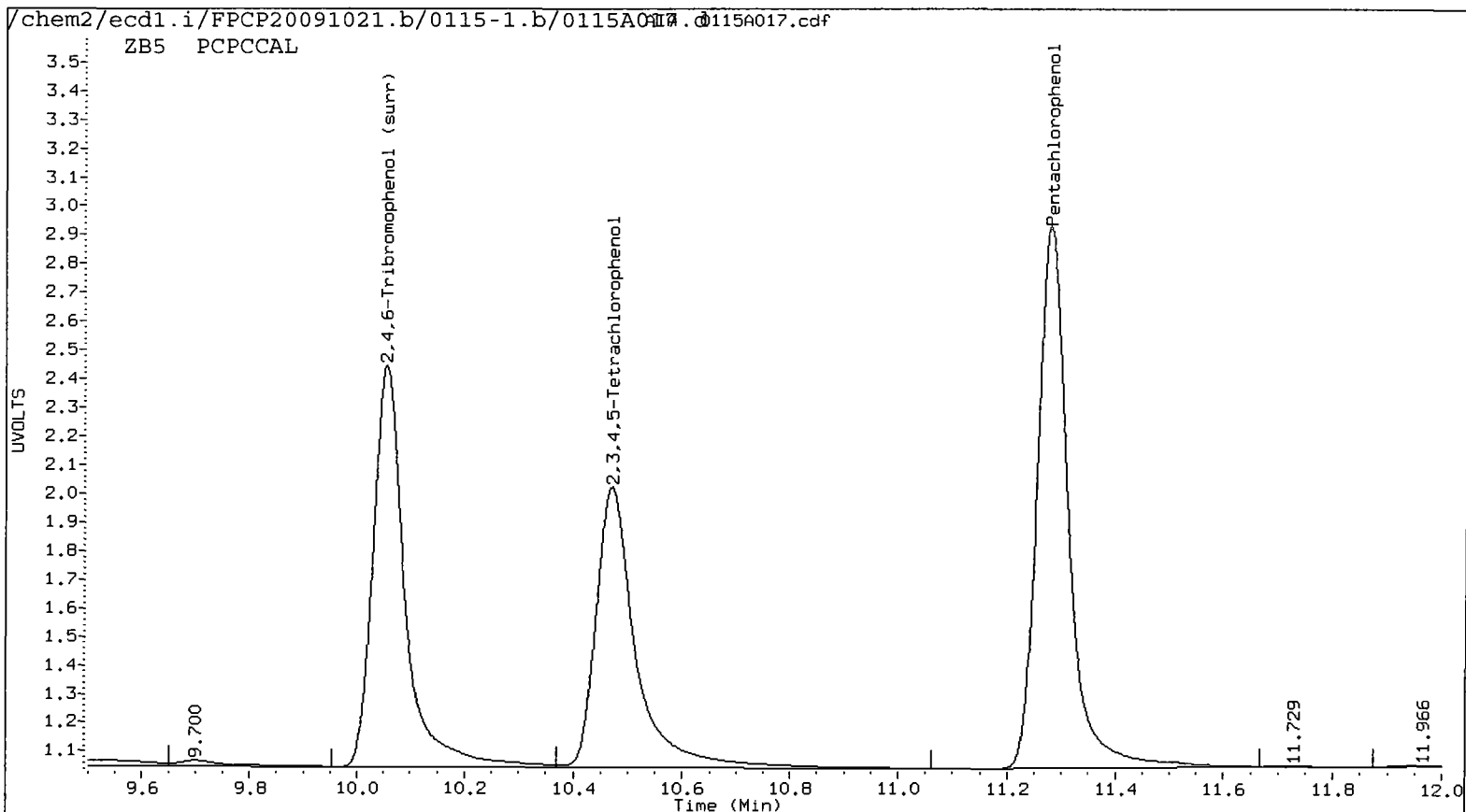
Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A017.d   ARI ID: PCPCCAL  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A017.d   Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                   Injection Date: 15-JAN-2010 15:09  
 Compound Sublist: all   Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i   Matrix: NONE  
 Operator: ar   Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.279	0.007	378780	11.701	0.006	446956	24.3756	27.5828	12.3	Pentachlorophenol
7.298	0.005	224762	7.356	0.005	233498	29.5775	24.5000	18.8	2,4,6-Trichlorophenol
7.653	0.005	204965	7.888	0.005	222605	23.3554	24.0529	2.9	2,3,6-Trichlorophenol
8.264	0.006	116872	8.627	0.007	127841	24.5196	24.7887	1.1	2,4,5-Trichlorophenol
8.827	0.002	137899	9.403	0.005	166882	22.6931	23.5673	3.8	2,3,4-Trichlorophenol
9.045	0.006	322598	9.302	0.007	347104	24.4288	25.9218	5.9	2,3,5,6-Tetrachlorophenol
10.470	0.007	249390	11.168	0.008	275561	24.3040	26.7673	9.6	2,3,4,5-Tetrachlorophenol
6.921	0.003	114605	7.181	0.005	129206	244.3300	282.6121	14.5	2,4-Dichlorophenol
10.055	0.005	293310	10.686	0.006	350892	24.3	27.2	11.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	97.5	110.3
2,4,6-Trichlorophenol	118.3	98.0
2,3,6-Trichlorophenol	93.4	96.2
2,4,5-Trichlorophenol	98.1	99.2
2,3,4-Trichlorophenol	90.8	94.3
2,3,5,6-Tetrachlorophenol	97.7	103.7
2,3,4,5-Tetrachlorophenol	97.2	107.1
2,4-Dichlorophenol	97.7	113.0
2,4,6-TBP (surr)	97.2	108.8



7E  
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP):

Date Analyzed :01/15/10

Lab Sample ID (PCP): PCPCCAL

Time Analyzed :1749

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	11.27	11.20	11.34	22.4	25.0	-10.4
2,4,6-Trichlorophenol	7.30	7.22	7.36	29.0	25.0	16.0
2,3,6-Trichlorophenol	7.65	7.58	7.72	22.5	25.0	-10.0
2,4,5-Trichlorophenol	8.26	8.19	8.33	22.8	25.0	-8.8
2,3,4-Trichlorophenol	8.82	8.76	8.90	22.2	25.0	-11.2
2,3,5,6-Tetrachlorophenol	9.04	8.97	9.11	22.0	25.0	-12.0
2,3,4,5-Tetrachlorophenol	10.46	10.39	10.53	23.9	25.0	-4.4
2,4-Dichlorophenol	6.92	6.85	6.99	240	250	-4.0
2,4,6-Tribromophenol (surr)	10.05	9.98	10.12	24.0	25.0	-4.0

AVERAGE %D = 9.0

7E  
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP):

Date Analyzed :01/15/10

Lab Sample ID (PCP): PCPCCAL

Time Analyzed :1749

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	11.70	11.62	11.76	25.6	25.0	2.4
2,4,6-Trichlorophenol	7.36	7.28	7.42	23.9	25.0	-4.4
2,3,6-Trichlorophenol	7.89	7.81	7.95	23.5	25.0	-6.0
2,4,5-Trichlorophenol	8.62	8.55	8.69	23.6	25.0	-5.6
2,3,4-Trichlorophenol	9.40	9.33	9.47	22.4	25.0	-10.4
2,3,5,6-Tetrachlorophenol	9.30	9.23	9.37	25.4	25.0	1.6
2,3,4,5-Tetrachlorophenol	11.16	11.09	11.23	25.0	25.0	0.0
2,4-Dichlorophenol	7.18	7.11	7.25	250	250	0.0
2,4,6-Tribromophenol (surr)	10.68	10.61	10.75	26.0	25.0	4.0

AVERAGE %D = 3.8



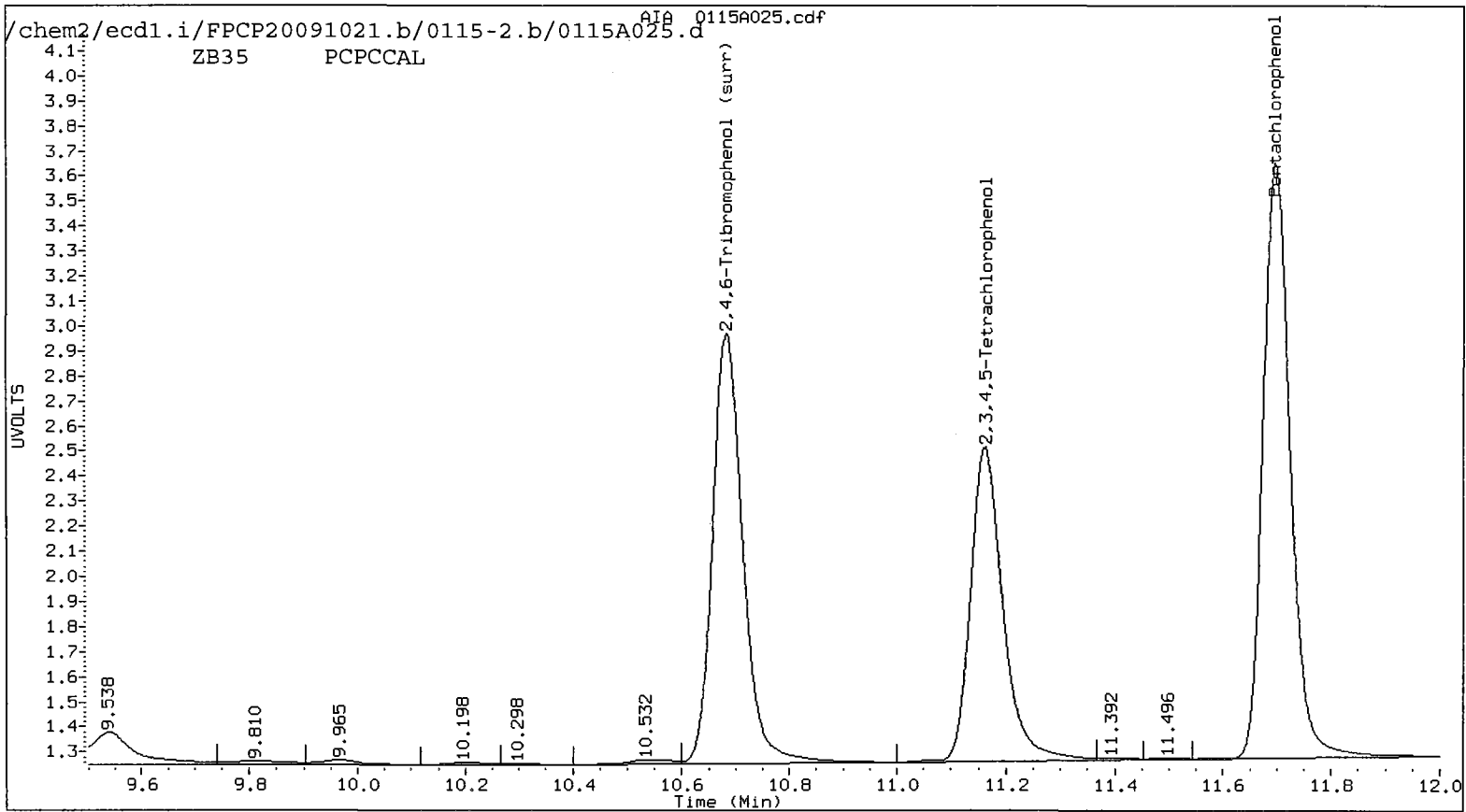
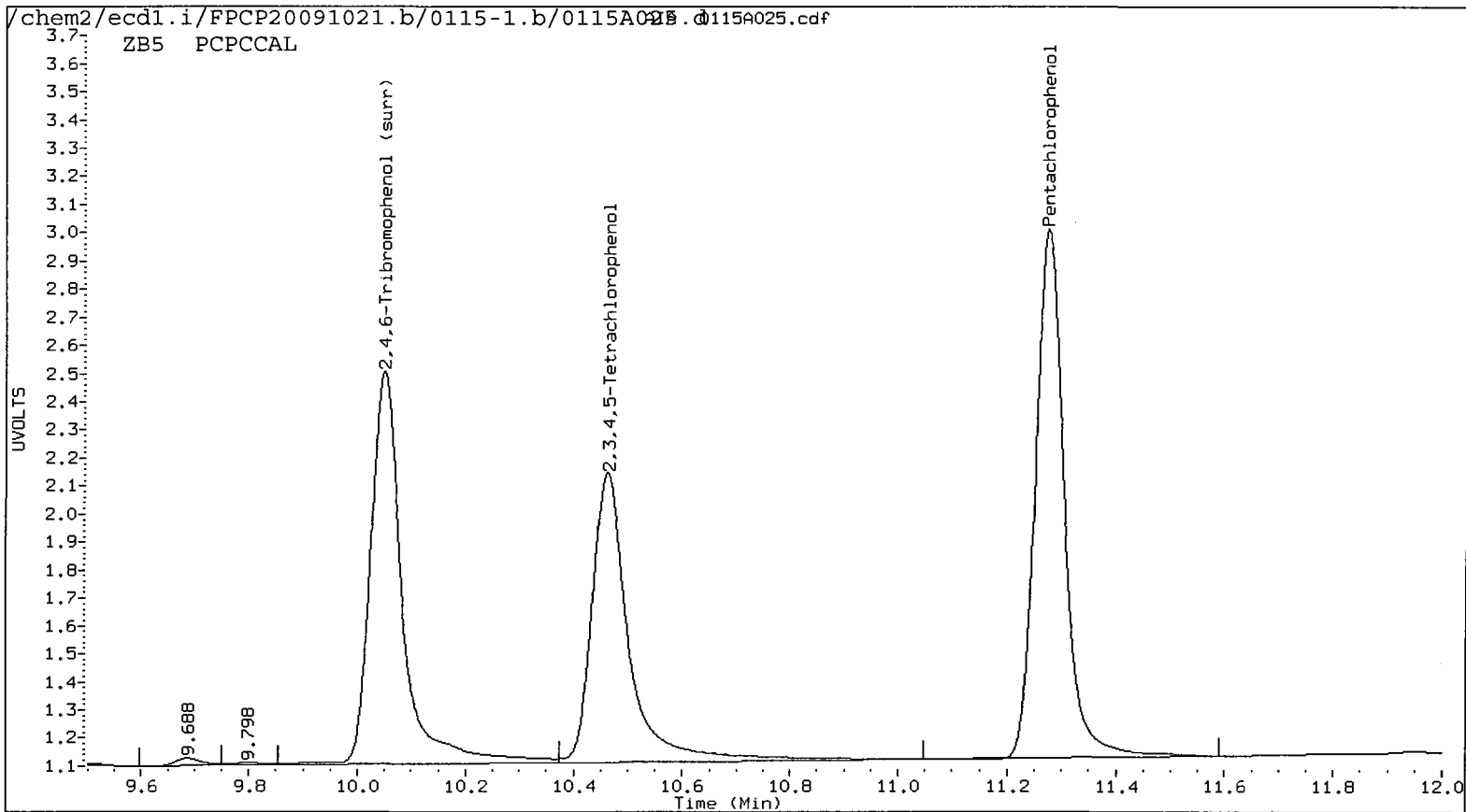
Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A025.d	ARI ID: PCPCCAL
Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A025.d	Client ID:
Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m	Injection Date: 15-JAN-2010 17:49
Compound Sublist: all	Report Date: 01/19/2010 12:05
Instrument: ecdl.i	Matrix: NONE
Operator: ar	Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.274	0.003	348276	11.697	0.003	414598	22.4126	25.5859	13.2	Pentachlorophenol
7.297	0.004	220088	7.356	0.004	227629	28.9625	23.8843	19.2	2,4,6-Trichlorophenol
7.653	0.004	197184	7.887	0.005	217797	22.4688	23.5334	4.6	2,3,6-Trichlorophenol
8.259	0.001	109759	8.624	0.005	122632	22.8532	23.6457	3.4	2,4,5-Trichlorophenol
8.820	-0.005	134869	9.399	0.001	159238	22.1945	22.3709	0.8	2,3,4-Trichlorophenol
9.043	0.005	290498	9.301	0.006	340730	21.9981	25.4457	14.5	2,3,5,6-Tetrachlorophenol
10.462	-0.001	245528	11.162	0.003	257136	23.9277	24.9775	4.3	2,3,4,5-Tetrachlorophenol
6.920	0.003	112984	7.181	0.004	116047	240.3276	249.6842	3.8	2,4-Dichlorophenol
10.049	0.000	290285	10.683	0.004	335018	24.0	26.0	7.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	89.7	102.3
2,4,6-Trichlorophenol	115.8	95.5
2,3,6-Trichlorophenol	89.9	94.1
2,4,5-Trichlorophenol	91.4	94.6
2,3,4-Trichlorophenol	88.8	89.5
2,3,5,6-Tetrachlorophenol	88.0	101.8
2,3,4,5-Tetrachlorophenol	95.7	99.9
2,4-Dichlorophenol	96.1	99.9
2,4,6-TBP (surr)	96.2	103.9



7E  
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP):

Date Analyzed :01/15/10

Lab Sample ID (PCP): PCPCCAL

Time Analyzed :2027

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	FROM	TO	=====	=====	=====
Pentachlorophenol	11.27	11.20	11.34	20.8	25.0	-16.8
2,4,6-Trichlorophenol	7.30	7.22	7.36	26.8	25.0	7.2
2,3,6-Trichlorophenol	7.65	7.58	7.72	20.3	25.0	-18.8
2,4,5-Trichlorophenol	8.26	8.19	8.33	18.5	25.0	-26.0
2,3,4-Trichlorophenol	8.81	8.76	8.90	16.9	25.0	-32.4
2,3,5,6-Tetrachlorophenol	9.04	8.97	9.11	17.5	25.0	-30.0
2,3,4,5-Tetrachlorophenol	10.45	10.39	10.53	29.1	25.0	16.4
2,4-Dichlorophenol	6.92	6.85	6.99	213	250	-14.8
2,4,6-Tribromophenol (surr	10.05	9.98	10.12	25.7	25.0	2.8

AVERAGE %D = 18.4

7E  
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No.: QE56

Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No. (PCP):

Date Analyzed :01/15/10

Lab Sample ID (PCP): PCPCCAL

Time Analyzed :2027

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	11.70	11.62	11.76	21.2	25.0	-15.2
2,4,6-Trichlorophenol	7.36	7.28	7.42	21.6	25.0	-13.6
2,3,6-Trichlorophenol	7.89	7.81	7.95	21.2	25.0	-15.2
2,4,5-Trichlorophenol	8.62	8.55	8.69	19.9	25.0	-20.4
2,3,4-Trichlorophenol	9.40	9.33	9.47	18.8	25.0	-24.8
2,3,5,6-Tetrachlorophenol	9.30	9.23	9.37	22.7	25.0	-9.2
2,3,4,5-Tetrachlorophenol	11.16	11.09	11.23	20.0	25.0	-20.0
2,4-Dichlorophenol	7.18	7.11	7.25	21.6	25.0	-13.6
2,4,6-Tribromophenol (surr)	10.68	10.61	10.75	22.1	25.0	-11.6

AVERAGE %D = 16.0

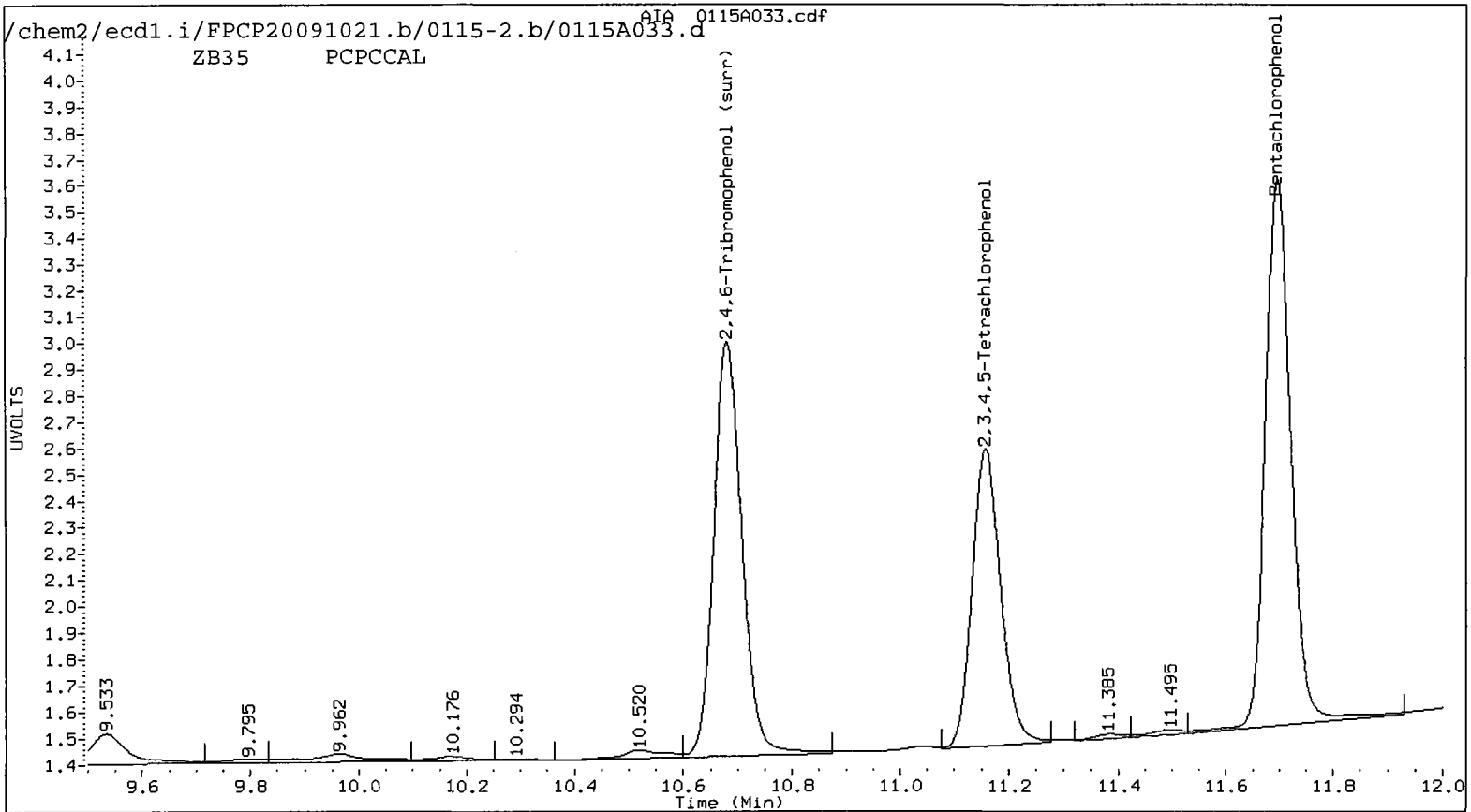
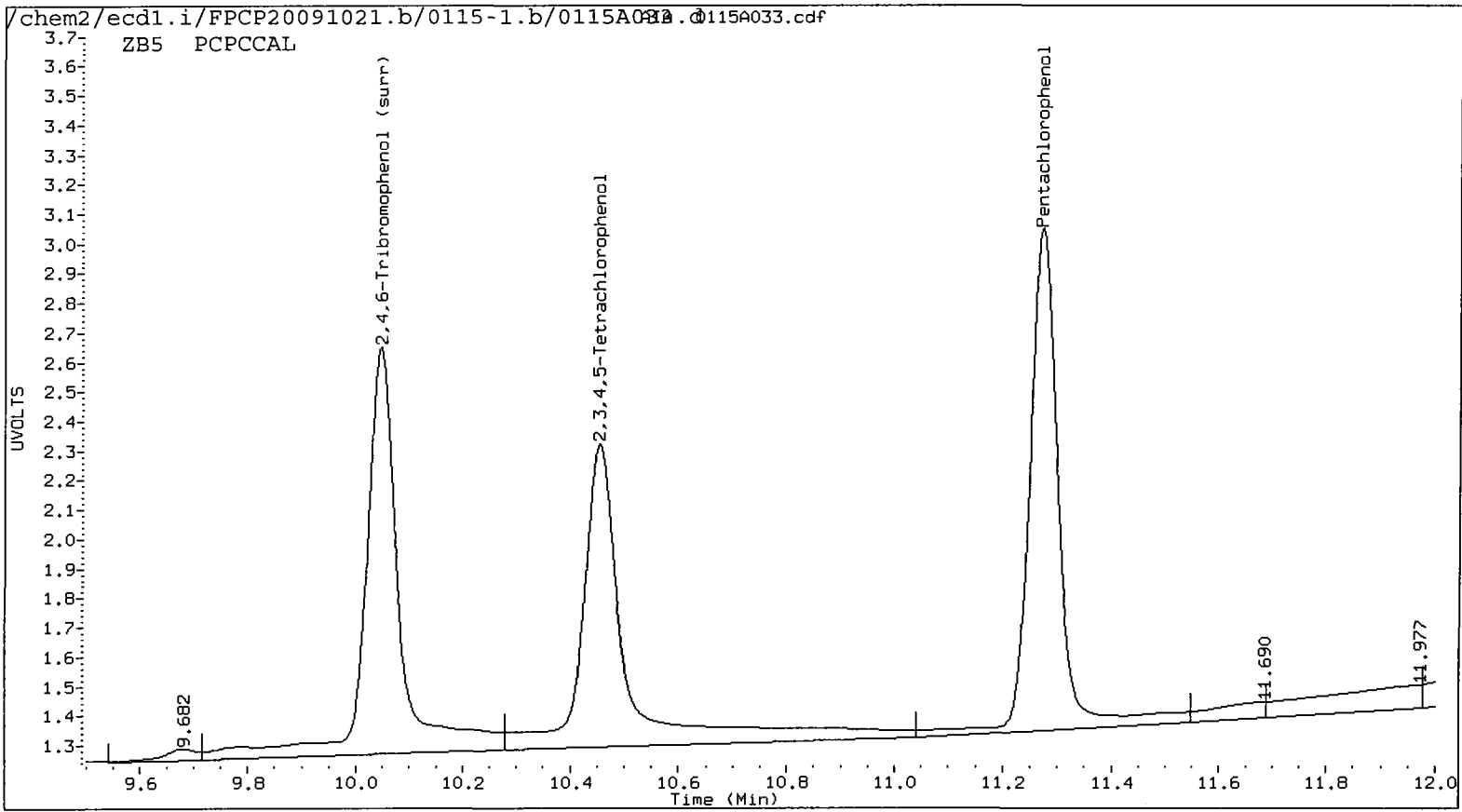
Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A033.d ARI ID: PCPCCAL  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A033.d Client ID:  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 20:27  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i Matrix: NONE  
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.273	0.002	323209	11.697	0.002	343713	20.7994	21.2114	2.0	Pentachlorophenol
7.300	0.007	203962	7.358	0.006	206320	26.8403	21.6484	21.4	2,4,6-Trichlorophenol
7.655	0.006	178290	7.889	0.006	195909	20.3158	21.1683	4.1	2,3,6-Trichlorophenol
8.257	-0.001	90540	8.623	0.004	105423	18.4632	19.9492	7.7	2,4,5-Trichlorophenol
8.814	-0.012	102942	9.396	-0.002	135708	16.9405	18.7585	10.2	2,3,4-Trichlorophenol
9.043	0.005	231400	9.301	0.006	304492	17.5228	22.7395	25.9	2,3,5,6-Tetrachlorophenol
10.454	-0.008	298262	11.158	-0.001	206385	29.0668	20.0477	36.7	2,3,4,5-Tetrachlorophenol
6.922	0.005	101754	7.183	0.006	102249	213.0297	216.1666	1.5	2,4-Dichlorophenol
10.046	-0.003	309944	10.681	0.001	284582	25.7	22.1	15.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	83.2	84.8
2,4,6-Trichlorophenol	107.4	86.6
2,3,6-Trichlorophenol	81.3	84.7
2,4,5-Trichlorophenol	73.9	79.8
2,3,4-Trichlorophenol	67.8	75.0
2,3,5,6-Tetrachlorophenol	70.1	91.0
2,3,4,5-Tetrachlorophenol	116.3	80.2
2,4-Dichlorophenol	85.2	86.5
2,4,6-TBP (surr)	102.7	88.2



Analytical Resources Inc.  
 Dual Column 8041 Chlorinated Phenols Quantitation Report

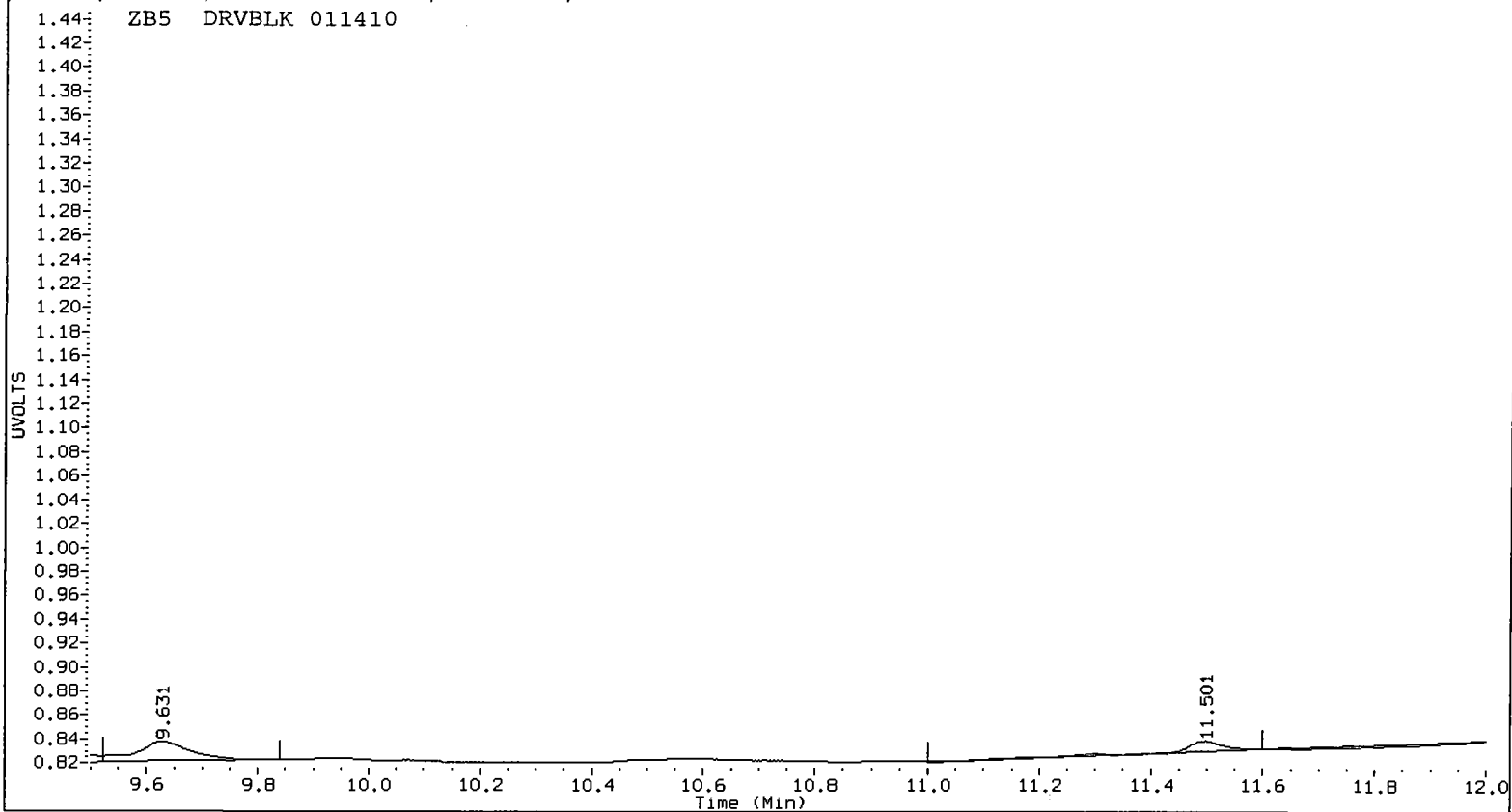
Data file 1: /chem2/ecd1.i/FPCP20091021.b/0114-1.b/0114A028.d ARI ID: DRVBLK 011410  
 Data file 2: /chem2/ecd1.i/FPCP20091021.b/0114-2.b/0114A028.d Client ID:  
 Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 14-JAN-2010 21:21  
 Compound Sublist: all Report Date: 01/15/2010 09:50  
 Instrument: ecd1.i Matrix: NONE  
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
7.305	0.011 13947	11.730 0.035 1206	0.0000	0.0745	---	Pentachlorophenol
---	---	---	1.8354	0.0000	---	2,4,6-Trichlorophenol
---	---	7.880 -0.003 2768	0.0000	0.2992	---	2,3,6-Trichlorophenol
---	---	---	0.0000	0.0000	---	2,4,5-Trichlorophenol
---	---	---	0.0000	0.0000	---	2,3,4-Trichlorophenol
---	---	---	0.0000	0.0000	---	2,3,5,6-Tetrachlorophenol
---	---	---	0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
---	---	---	0.0000	0.0000	---	2,4-Dichlorophenol
---	---	10.694 0.014 618	0.0	0.0	---	2,4,6-Tribromophenol (surr

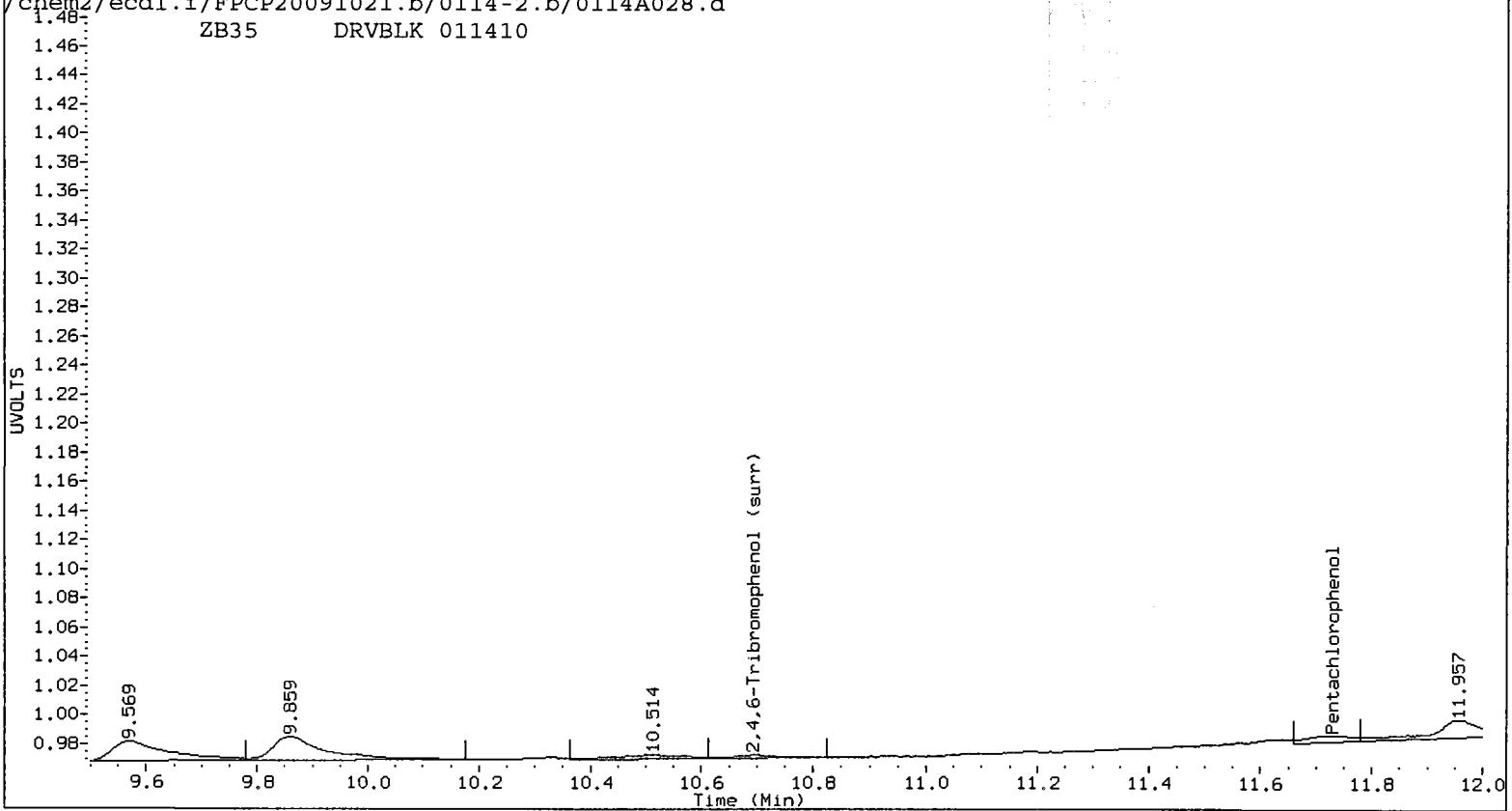
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	0.0	0.2

/chem2/ecdl.i/FPCP20091021.b/0114-1.b/0114A028.d



/chem2/ecdl.i/FPCP20091021.b/0114-2.b/0114A028.d





PCP/Chlorophenols ANALYSIS  
QC Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)


ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: MB-011210  
METHOD BLANK

Lab Sample ID: MB-011210  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: NA  
Date Received: NA

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 14:30  
Instrument/Analyst: ECD1/AAR

Sample Amount: 10.0 g  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.2	< 6.2 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	47.2%
----------------------	-------

Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

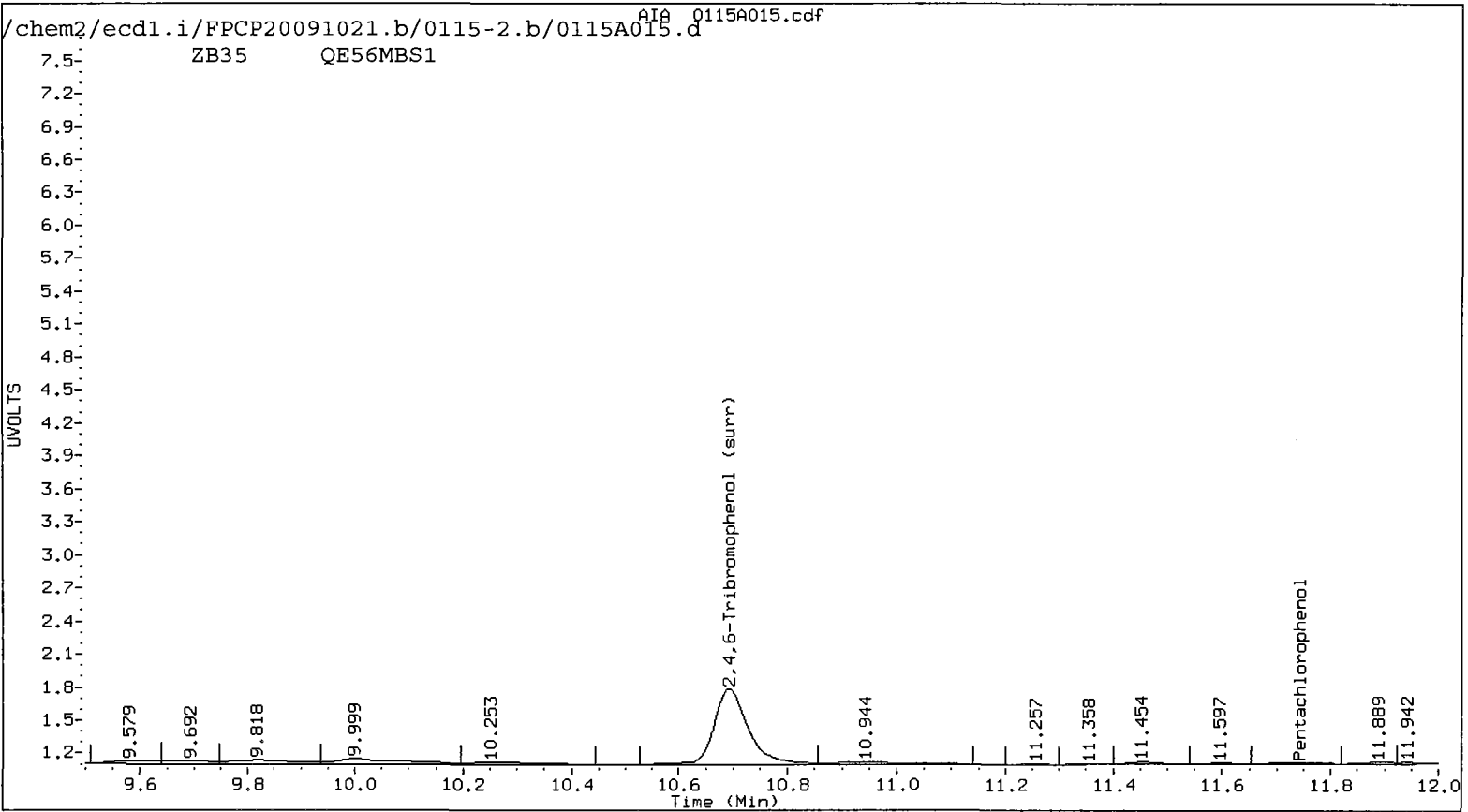
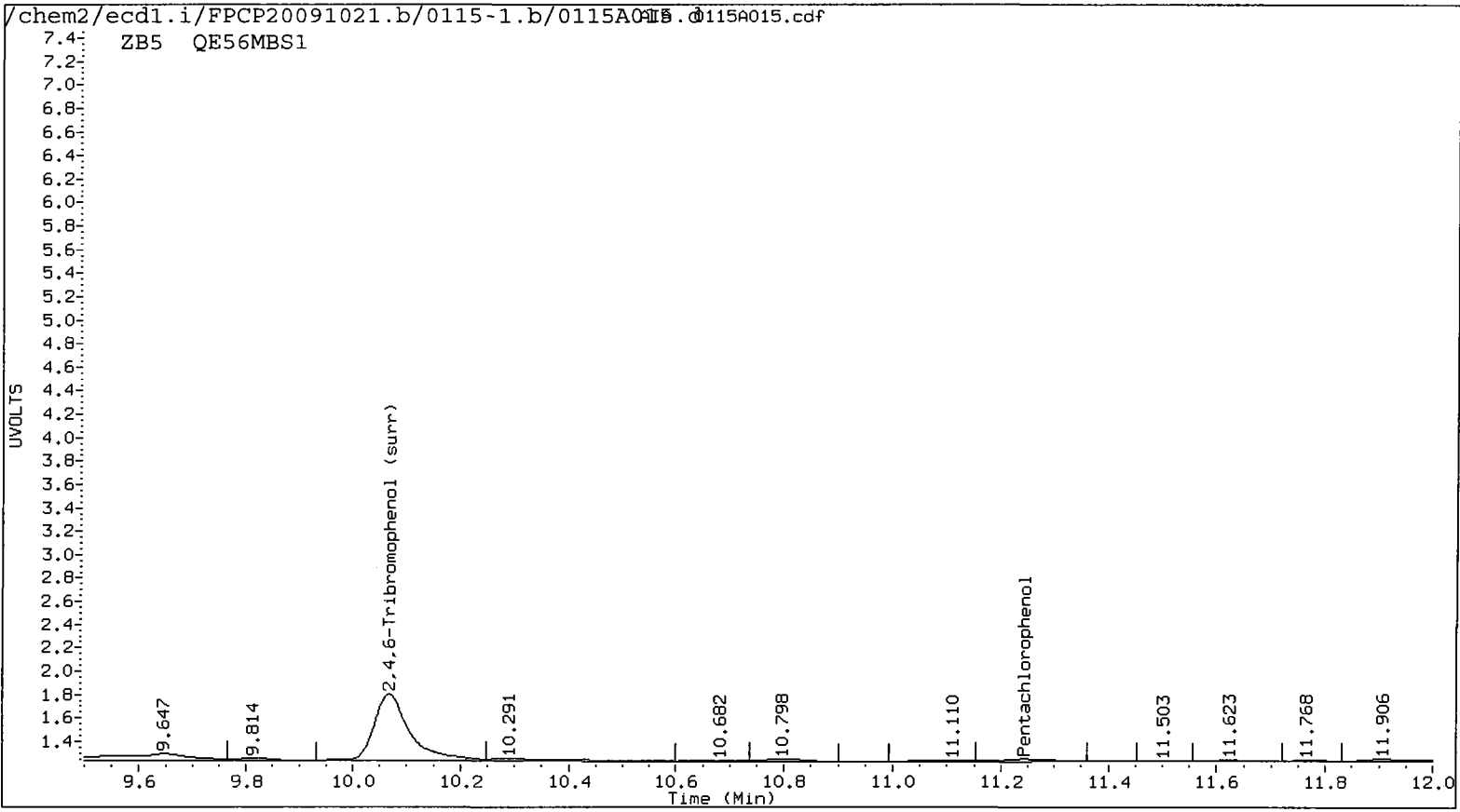
AR 1/19/2010

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A015.d ARI ID: QE56MBS1  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A015.d Client ID: QE56MBS1  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 14:30  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecd1.i Matrix: SOIL  
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.245	-0.027	6876	11.744	0.049	4482	0.4425	0.2767	46.1*	Pentachlorophenol
7.323	0.029	52807	7.393	0.042	40513	6.9492	4.2509	48.2*	2,4,6-Trichlorophenol
----			7.865	-0.018	7339	0.0000	0.7930	---	2,3,6-Trichlorophenol
8.193	-0.065	24000	----			4.5379	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
9.077	0.039	17839	9.299	0.004	19484	1.3509	1.4551	7.4	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
----			7.185	0.008	15714	0.0000	29.5290	---	2,4-Dichlorophenol
10.068	0.018	132419	10.694	0.014	151716	11.0	11.8	7.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	43.9	47.0



0000000000000000

Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 1/19/2010

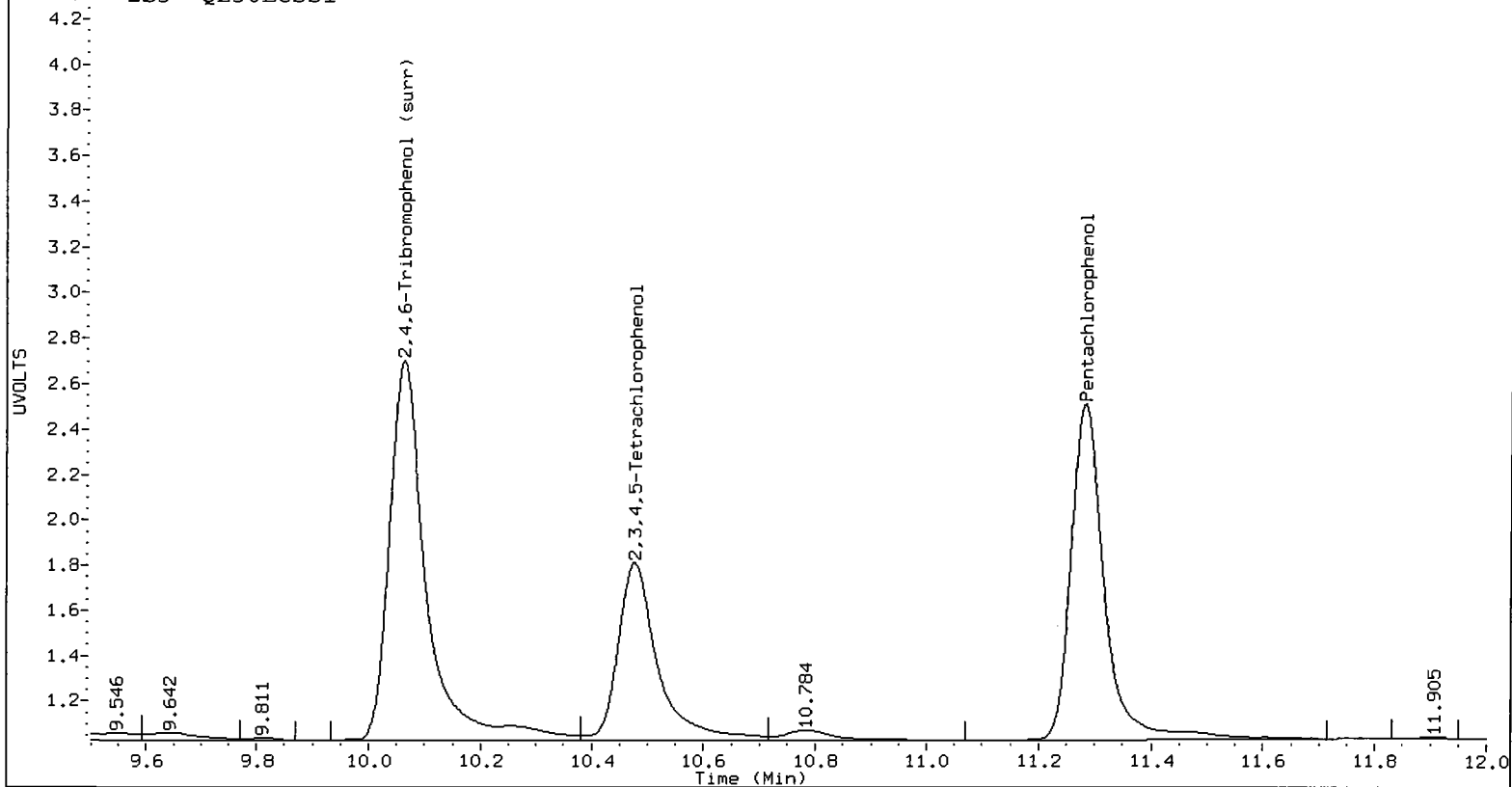
Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A016.d    ARI ID: QE56LCSS1  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A016.d    Client ID: QE56LCSS1  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m                            Injection Date: 15-JAN-2010 14:50  
 Compound Sublist: all    Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i     Matrix: SOIL  
 Operator: ar    Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.283	0.012	305534	11.704	0.010	369874	19.6620	22.8259	14.9	Pentachlorophenol
7.300	0.007	157816	7.358	0.007	166199	20.7677	17.4386	17.4	2,4,6-Trichlorophenol
7.655	0.006	183333	7.889	0.007	162452	20.8905	17.5532	17.4	2,3,6-Trichlorophenol
8.273	0.015	93713	8.633	0.013	85628	19.1766	15.8502	19.0	2,4,5-Trichlorophenol
8.842	0.017	84168	9.412	0.014	119064	13.8511	16.2674	16.0	2,3,4-Trichlorophenol
9.049	0.011	248471	9.306	0.010	268014	18.8156	20.0153	6.2	2,3,5,6-Tetrachlorophenol
10.477	0.015	193444	11.171	0.012	218999	18.8519	21.2730	12.1	2,3,4,5-Tetrachlorophenol
6.922	0.005	30937	7.185	0.008	39041	58.2304	75.8367	26.3	2,4-Dichlorophenol
10.064	0.014	383850	10.692	0.013	436241	31.8	33.8	6.2	2,4,6-Tribromophenol (surr)

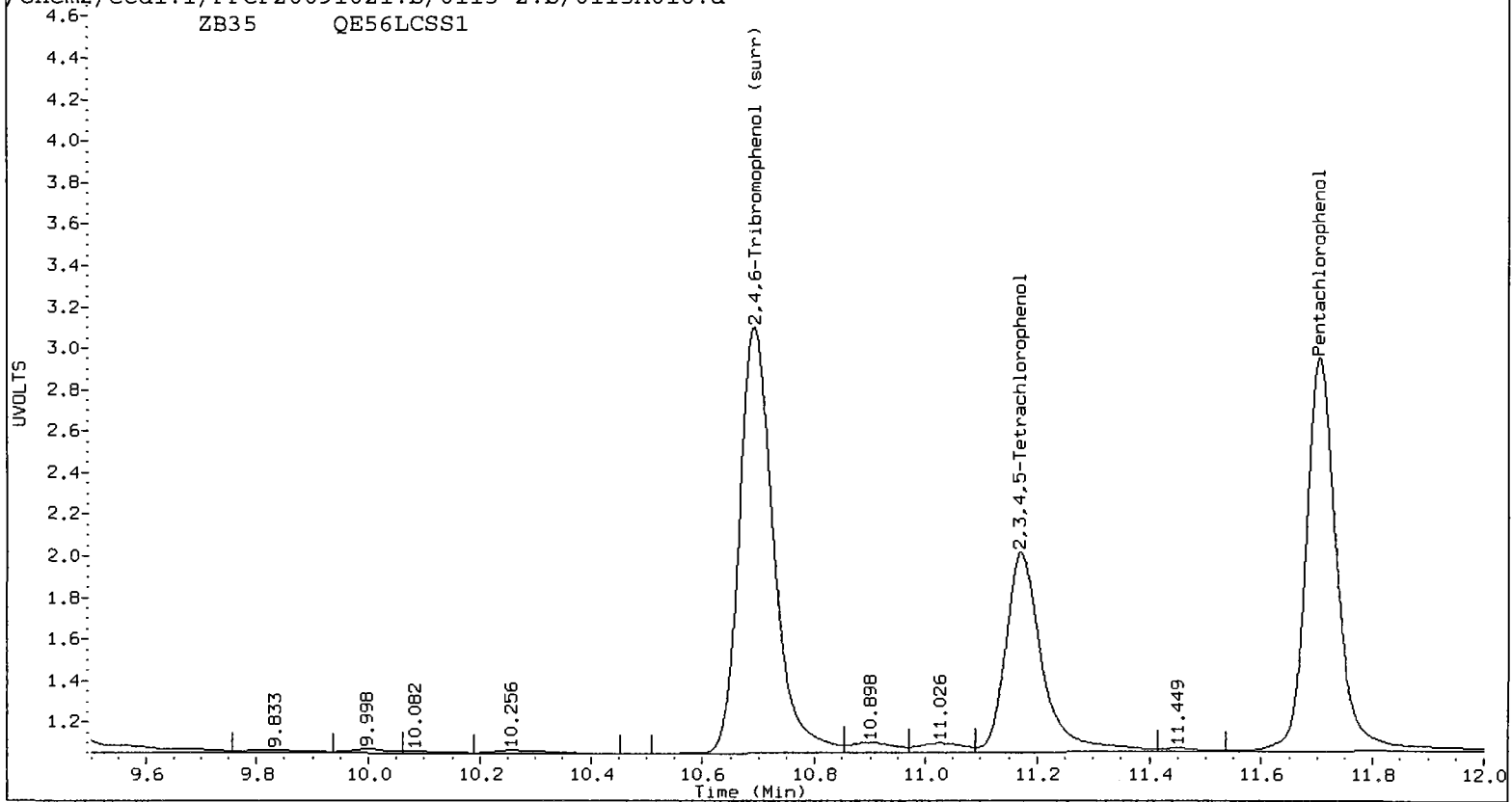
PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	78.6	91.3
2,4,6-Trichlorophenol	83.1	69.8
2,3,6-Trichlorophenol	83.6	70.2
2,4,5-Trichlorophenol	76.7	63.4
2,3,4-Trichlorophenol	55.4	65.1
2,3,5,6-Tetrachlorophenol	75.3	80.1
2,3,4,5-Tetrachlorophenol	75.4	85.1
2,4-Dichlorophenol	23.3	30.3
2,4,6-TBP (surr)	63.6	67.6

ZB5 QE56LCSS1



ZB35 QE56LCSS1





ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 18:28  
Instrument/Analyst: ECD1/AAR

Sample Amount: 2.37 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	26	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	41.2%
----------------------	-------

Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 1/19/2010

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A027.d ARI ID: QE56BMS  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A027.d Client ID: CB19010710Sed MS  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 18:28  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecdl.i Matrix: SOIL  
 Operator: ar Dilution Factor: 1.000

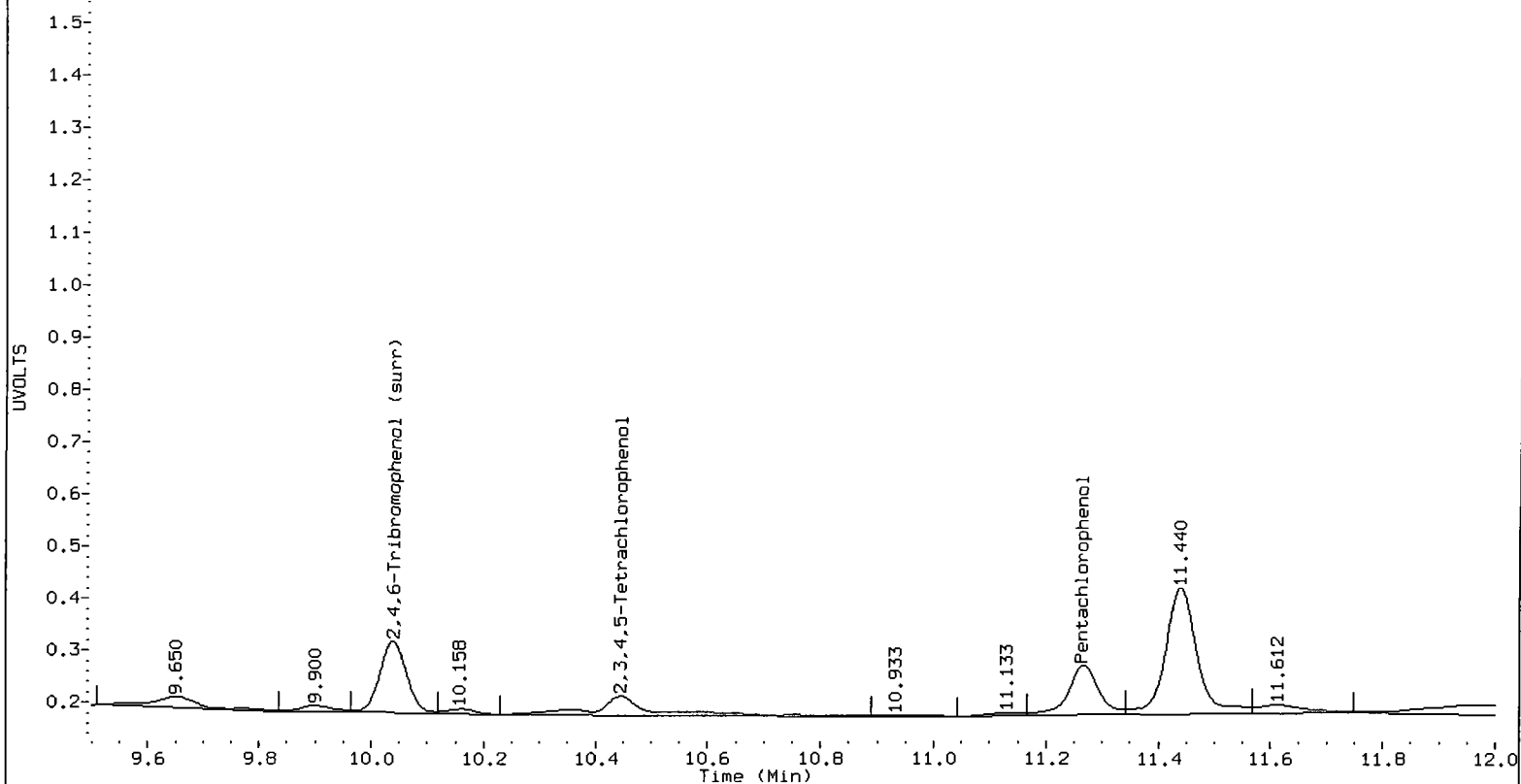
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.267	-0.005	182266	11.694	0.000	171513	11.7293	10.5845	10.3	Pentachlorophenol
7.298	0.005	180032	7.357	0.005	118192	<del>23.6912</del>	<del>12.4015</del>	62.6*	2,4,6-Trichlorophenol
7.654	0.006	215300	7.887	0.005	90745	<del>24.5330</del>	9.8052	85.8*	2,3,6-Trichlorophenol
8.250	-0.009	45796	8.619	-0.001	41542	<del>8.8817</del>	7.3080	19.4	2,4,5-Trichlorophenol
8.807	-0.019	53168	9.393	-0.006	140982	<del>8.7485</del>	19.5589	76.4*	2,3,4-Trichlorophenol
9.072	0.034	2396535	9.299	0.004	191485	<del>181.4783</del>	14.3002	170.8*	2,3,5,6-Tetrachlorophenol
10.446	-0.017	140469	11.153	-0.006	116639	<del>13.6853</del>	11.3300	18.9	2,3,4,5-Tetrachlorophenol
6.924	0.006	29857	7.235	0.058	226373	<del>56.1010</del>	<del>554.8636</del>	163.3*	2,4-Dichlorophenol
10.039	-0.010	221040	10.677	-0.003	265658	18.3	20.6	11.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

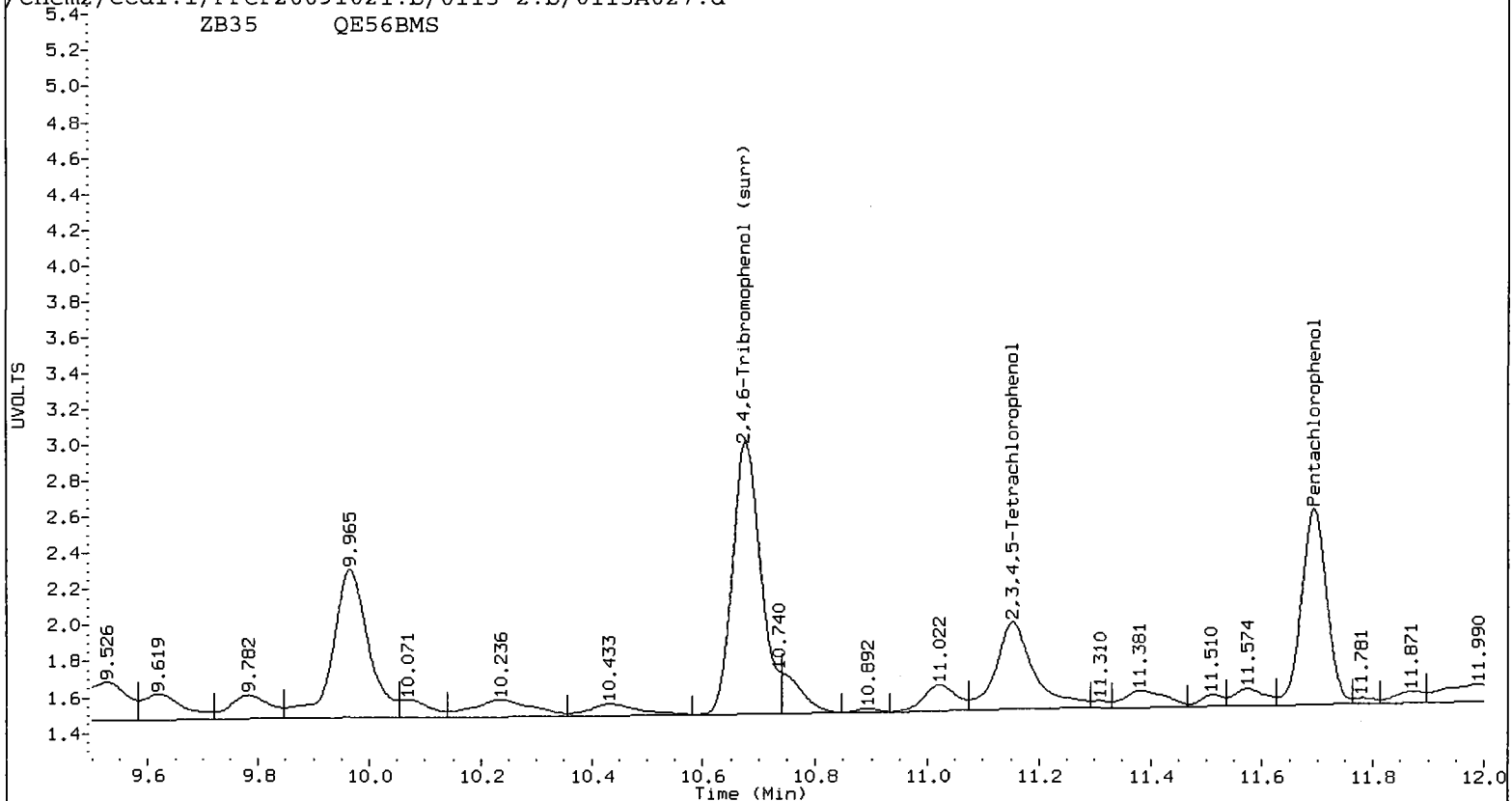
COMPOUND	Col1	Col2
Pentachlorophenol	46.9	42.3
2,4,6-Trichlorophenol	<del>94.8</del>	<del>49.6</del>
2,3,6-Trichlorophenol	98.1	39.2
2,4,5-Trichlorophenol	35.5	29.2
2,3,4-Trichlorophenol	35.0	78.2
2,3,5,6-Tetrachlorophenol	725.9	57.2
2,3,4,5-Tetrachlorophenol	54.8	45.3
2,4-Dichlorophenol	<del>22.4</del>	<del>221.9</del>
2,4,6-TBP (surr)	36.6	41.2



/chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A027.d 0115A027.cdf  
ZB5 QE56BMS




/chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A027.d 0115A027.cdf  
ZB35 QE56BMS



ORGANICS ANALYSIS DATA SHEET  
PCP by GC/ECD Method SW8041  
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE DUP

Lab Sample ID: QE56B  
LIMS ID: 10-433  
Matrix: Sediment  
Data Release Authorized:   
Reported: 01/19/10

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Date Extracted: 01/12/10  
Date Analyzed: 01/15/10 18:48  
Instrument/Analyst: ECD1/AAR

Sample Amount: 2.38 g-dry-wt  
Final Extract Volume: 25 mL  
Dilution Factor: 1.00  
Percent Moisture: 76.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	26	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Chlorophenol Surrogate Recovery**

2,4,6-Tribromophenol	145%
----------------------	------

Analytical Resources Inc.  
Dual Column 8041 Chlorinated Phenols Quantitation Report

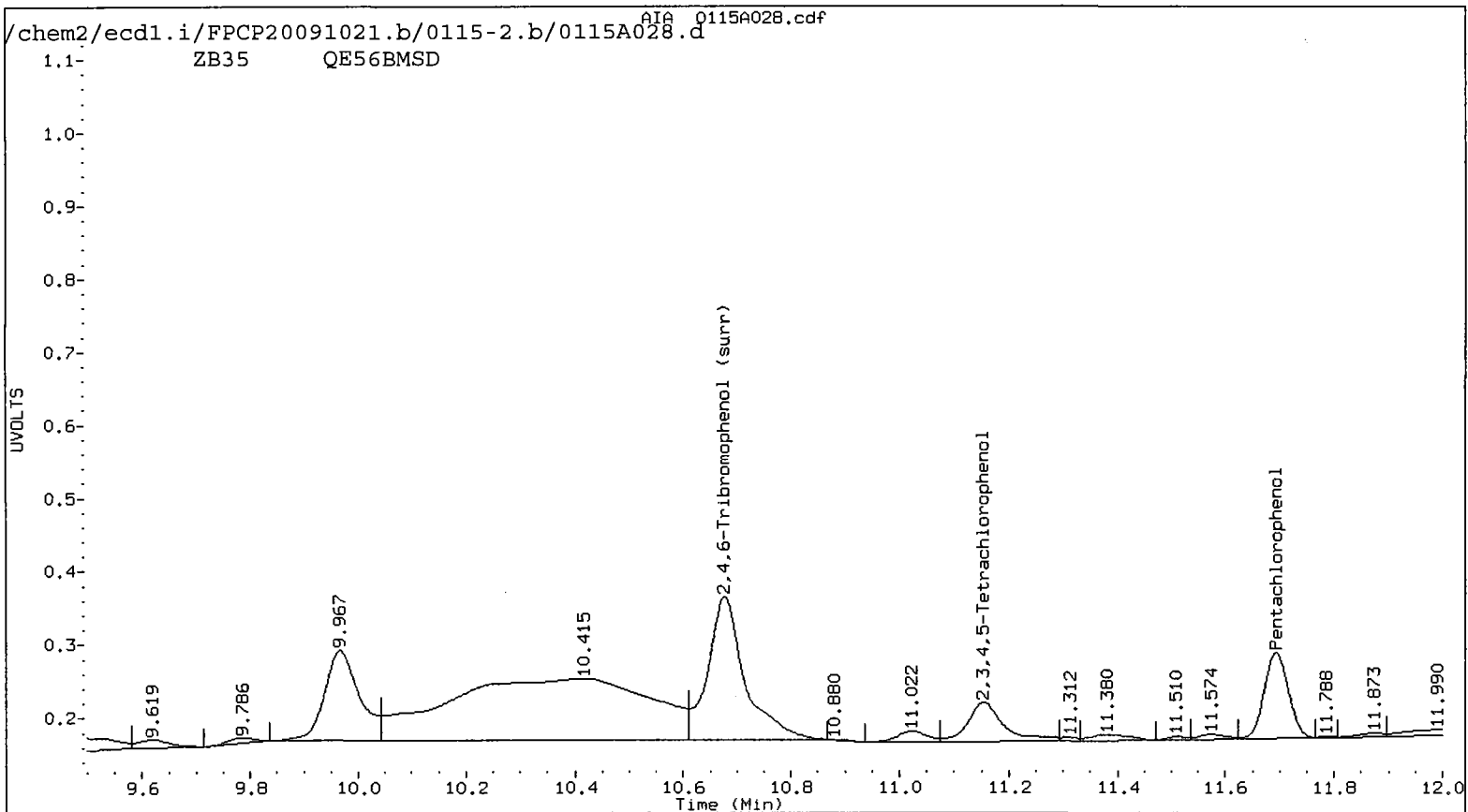
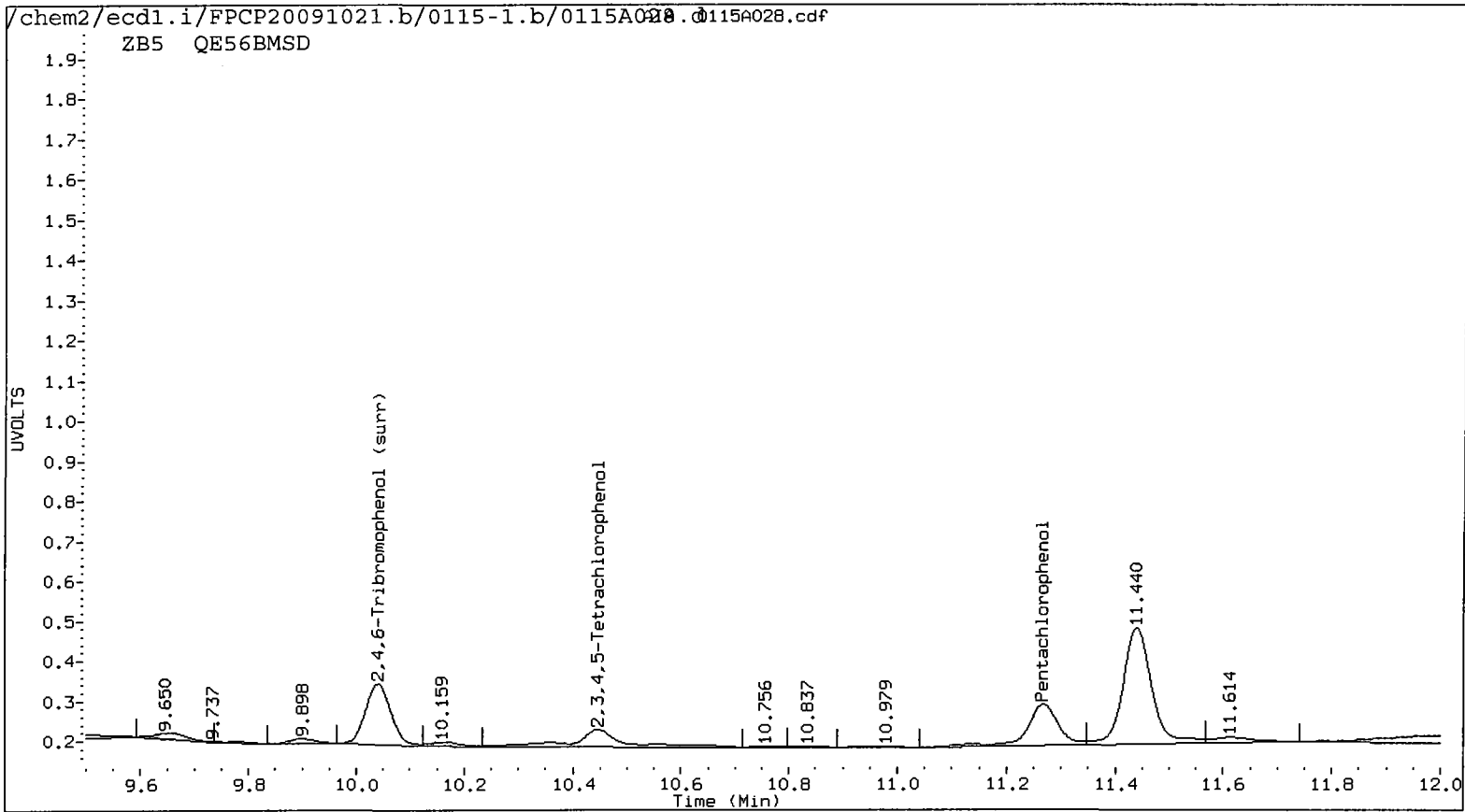
AR 1/19/2010

Data file 1: /chem2/ecdl.i/FPCP20091021.b/0115-1.b/0115A028.d ARI ID: QE56BMSD  
 Data file 2: /chem2/ecdl.i/FPCP20091021.b/0115-2.b/0115A028.d Client ID: CB19010710Sed MSD  
 Method: /chem2/ecdl.i/FPCP20091021.b/FPCP.m Injection Date: 15-JAN-2010 18:48  
 Compound Sublist: all Report Date: 01/19/2010 12:05  
 Instrument: ecd1.i Matrix: SOIL  
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.268	-0.003	204695	11.693	-0.001	179714	13.1727	11.0906	17.2	Pentachlorophenol
7.300	0.007	185904	7.358	0.006	129435	<del>24.4640</del>	<del>13.5811</del>	57.2*	2,4,6-Trichlorophenol
7.655	0.006	274338	7.888	0.005	99953	31.2603	10.8001	97.3*	2,3,6-Trichlorophenol
8.251	-0.008	56347	8.620	0.000	46657	11.0606	8.2576	29.0	2,4,5-Trichlorophenol
8.812	-0.014	151246	9.394	-0.004	87690	24.8895	11.7166	72.0*	2,3,4-Trichlorophenol
9.073	0.035	3321547	9.300	0.005	203605	251.5251	15.2052	177.2*	2,3,5,6-Tetrachlorophenol
10.446	-0.016	131240	11.154	-0.005	120910	12.7898	11.7450	8.5	2,3,4,5-Tetrachlorophenol
6.923	0.006	36480	7.235	0.058	276820	<del>69.2666</del>	<del>716.4266</del>	164.7*	2,4-Dichlorophenol
10.040	-0.009	247902	10.676	-0.003	468427	20.5	36.3	155.5*	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	52.7	44.4
2,4,6-Trichlorophenol	<del>97.9</del>	<del>54.3</del>
2,3,6-Trichlorophenol	<del>125.0</del>	<del>43.2</del>
2,4,5-Trichlorophenol	44.2	33.0
2,3,4-Trichlorophenol	99.6	46.9
2,3,5,6-Tetrachlorophenol	1006.4	60.8
2,3,4,5-Tetrachlorophenol	51.2	47.0
2,4-Dichlorophenol	<del>27.7</del>	<del>286.6</del>
2,4,6-TBP (surr)	41.1	72.6



PCP/Chlorophenols ANALYSIS  
Extraction Bench Sheets/Run Logs

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.



Preparation Test PCP # 3

ARI Job No(s) QE56

In-House  
Batch set up by: SP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange To Hexane (X 2)	Turbo Vap (1) 2 3	Final Effective Volume	Volume to Lab	Derivitize	Comments
	<u>QE56</u> MB	Date <u>01/12/10</u>	10.00g			25mL	1-2mL		see notes
	SB	↓	↓			↓	↓		
7	B	checked	10.01						
7	Bms		10.02						
7	BmsD		10.06						
7	C		10.07						
7	✓ D	↓	10.04	↓	✓	✓	✓		↓

Analyst/Date: AR 01/12/10 → SP 1/13/10 SP 1/13/10

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	<u>F 1683-3</u>	<u>50µL 12.5</u>	<u>12/9/10</u>	<u>AR</u>	<u>SP</u>
Spike	<u>6 1655-3</u>	<u>50µL 12.5/</u>	<u>9/24/10</u>	<u>AR</u>	<u>SP</u>

Extraction Time: 14:25 12:5

- SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers. 2. Acidify all with ¼ pipet conc. Sulfuric Acid. 3. Add surr/spike.  
4. Leave in DCM overnight. 5. Extract 3X DCM. 6. Pour directly into KD (NO Glasswool). 7. KD to 5mL at 80°.  
8. Exchange (2 X with 20mL) Hexane at 100°. 9. \*Note: if filtering is necessary: Pre-rinse filter with 0.05% HCL in Acetone+Post Rinse with Hexane.  
10. Turbo Vap to 1mL 11. Pipet into Herb Tubes. 12. GC Analyst to Derivitize.

A. Need Total Solids Y/(N) B. Archive / Freeze Y/(N)

9831



ARI Job No.: QE56

Client ID: Floyd-Suider

Parameter: PCP

Client Project: POS-LLA (Lora Lake Apts)

SOP Number(s): 3675

No Anomalies:

List problems, concerns, corrective actions and any other pertinent information

Received corrected folders on 1/11/10. JA

Samples A-C contained water @ top. The water was discarded. Also samples (A-C) were very wet w/ organics (leaves). We 1/11/10

While being sonicated samples QE56 B-D are dark in color. At 01/12/10

MB, SB - had sulfate fines clinging to the turbo-tubes during blowdown. Allowed sulfate to settle before pipetting to turbo-<sup>SP 1/3/10</sup> herb. tubes. SP 1/13/10

Samples B, Bms, BmsD, C, and D - large amounts of gross particulates. Transferred to 40ml VOA vials and centrifuged to separate particulates. Transfer rinsed with hexane to clean turbo-tubes and proceeded with final blowdown. SP 1/13/10 — 2nd Blank Run SP 1/19/10

Analyst Initials:

Date:

# Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 10/21/09 Analysis: PCP/Herb Analyst: AR  
 GC Program: PCPFAST.W Column No: 150608/148146 Column Type: ZB5/ZB35  
 Instrument Tune (.U or .CT.): NA EM Voltage: NA  
 Calibration File: FPCP20091021.b Curve Date: 10/21/09

IS/SS	Ical/Ccal	LCS/ICV
	<u>1659-1 Herb</u>	<u>1353-2 Herb ICV</u>
	<u>1663-2 PCP</u>	<u>1324-1 PCP KV</u>

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd1.i/FPCP20091021.b/ical-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	21-OCT-2009 16:33	1021A009.d	1	PCP D	
2	21-OCT-2009 16:53	1021A010.d	1	PCP A	
3	21-OCT-2009 17:13	1021A011.d	1	PCP B	
4	21-OCT-2009 17:33	1021A012.d	1	PCP C	
5	21-OCT-2009 17:53	1021A013.d	1	PCP E	
6	21-OCT-2009 18:12	1021A014.d	1	PCP F	
7	21-OCT-2009 18:32	1021A015.d	1	PCP ICV	
8	21-OCT-2009 18:52	1021A016.d	1	PCP CCAL	
9	21-OCT-2009 19:12	1021A017.d	1	PS52MBW1	PS52MBW1
10	21-OCT-2009 19:32	1021A018.d	1	PS52LCSW1	PS52LCSW1
11	21-OCT-2009 19:52	1021A019.d	1	PS52A	1009PSR02
12	21-OCT-2009 20:12	1021A020.d	1	PS52B	1009PSR06
13	21-OCT-2009 20:32	1021A021.d	1	PS52D	1009PSR08
14	21-OCT-2009 20:52	1021A022.d	1	PS52F	1009PSR09
15	21-OCT-2009 21:12	1021A023.d	1	PS52G	1009PSR10
16	21-OCT-2009 21:32	1021A024.d	1	PS52H	1009PSR11
17	21-OCT-2009 21:52	1021A025.d	1	PS52HMS	1009PSR11 MS
18	21-OCT-2009 22:12	1021A026.d	1	PS52HMSD	1009PSR11 MSD
19	21-OCT-2009 22:32	1021A027.d	1	PCP	
20	21-OCT-2009 22:51	1021A028.d	1	PCP CCAL	
21	21-OCT-2009 23:11	1021A029.d	1	PS52I	1009PSR12
22	21-OCT-2009 23:31	1021A030.d	1	PS52K	SSV1068
23	21-OCT-2009 23:51	1021A031.d	1	PS67A	1009PSR05
24	22-OCT-2009 00:11	1021A032.d	1	PS67B	1009PSR13
25	22-OCT-2009 00:31	1021A033.d	1	PS67C	1009PSR15
26	22-OCT-2009 00:51	1021A034.d	1	PS67D	1009PSR01
27	22-OCT-2009 01:11	1021A035.d	1	PS67F	1009PSR04
28	22-OCT-2009 01:31	1021A036.d	1	PCP	
29	22-OCT-2009 01:51	1021A037.d	1	PCP CCAL	
30	22-OCT-2009 02:10	1021A038.d	1	PS67MBW1	PS67MBW1
31	22-OCT-2009 02:30	1021A039.d	1	PS67LCSW1	PS67LCSW1
32	22-OCT-2009 02:50	1021A040.d	1	PS67E	1009PSR03
33	22-OCT-2009 03:10	1021A041.d	1	PS67EMS	1009PSR03 MS
34	22-OCT-2009 03:30	1021A042.d	1	PS67EMSD	1009PSR03 MSD
35	22-OCT-2009 03:50	1021A043.d	1	PS95MBW1	PS95MBW1
36	22-OCT-2009 04:10	1021A044.d	1	PS95LCSW1	PS95LCSW1
37	22-OCT-2009 04:29	1021A045.d	1	PS95A	Batch 2# Third Pass
38	22-OCT-2009 04:49	1021A046.d	1	PCP	
39	22-OCT-2009 05:09	1021A047.d	1	PCP CCAL	

*AR 10/26/09*

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.



### GC Analyst Notes / Corrective Action Log

ARI Project ID: FPCP Curve Client ID: ARI

ARI SOP: **403S**(PCB) **405S**(Herbicides) **407S**(TPH-D) **409S**(HCID) **423S**(Pesticides) **Other**

Parameter(s): PCP & Tribromophenol (surrogate) only

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8  
 ECD-1  ECD-3  ECD-4  ECD-5  ECD-6  ECD-7

Dates: Curve: 10/21/09 Analysis Start: 10/21/09

Endrin/DDT Breakdown <15%? YES / NO /  NA Method Blank In Control? YES / NO  NA  
 ICal Meets RF & %RSD Criteria?  YES / NO LCS/LCSD Recovery In Control? YES / NO  NA  
 CCal Meets RF & %RSD Criteria  YES / NO Surrogate Recovery In Control?  YES / NO  
 Internal Standard Meets Criteria? YES / NO /  NA Special Analysis Criteria Met? YES / NO /  NA

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 10/22/09

Reviewer's Signature: [Signature] Date: 10/22/09

**Analytical Resources Inc.: Organics Instrument Log**

ECD1 Serial No.: 3410A39690

Date: 1/15/2010 Analysis: PCP Analyst: AR  
 GC Program: HERB.M Column No: 150608/148148 Column Type: 285/21335  
 Instrument Tune (.U or .CT.): PCFAST.M EM Voltage: N/A  
 Calibration File: PCP20091026.b & FPCP20091026.b Curve Date: 10/20/2009 & 10/21/2009

IS/SS	Ical/Ccal	LCS/ICV
	1659-1	1353-2
	1663-2	1324-1

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd1.i/PCP20091026.b/0115-1.b

Inject Date/Time	Filename	DF	LabID	ClientID
1 15-JAN-2010 07:48	0115A003.d	1	RINSE	
2 15-JAN-2010 08:24	0115A004.d	1	PCPCCAL	
3 15-JAN-2010 09:00	0115A005.d	1	QE42MBW1	QE42MBW1
4 15-JAN-2010 09:36	0115A006.d	1	QE42LCSW1	QE42LCSW1
5 15-JAN-2010 10:13	0115A007.d	1	QE42A	N Pond-0110
6 15-JAN-2010 10:49	0115A008.d	1	QE42B	S Pond-0110
7 15-JAN-2010 11:25	0115A009.d	1	QE42C	SE Pond-0110
8 15-JAN-2010 12:01	0115A010.d	1	QE42D	93-1A-0110
9 15-JAN-2010 12:37	0115A011.d	1	PCPCCAL	
10 15-JAN-2010 13:14	0115A012.d	1	PCPCCAL	
11 15-JAN-2010 13:50	0115A013.d	1	PCP	
12 15-JAN-2010 14:10	0115A014.d	1	PCPCCAL	
13 15-JAN-2010 14:30	0115A015.d	1	QE56MBS1	QE56MBS1
14 15-JAN-2010 14:50	0115A016.d	1	QE56LCSS1	QE56LCSS1
15 15-JAN-2010 15:09	0115A017.d	1	PCPCCAL	
16 15-JAN-2010 15:29	0115A018.d	10	QE56B	CB19010710Sed
17 15-JAN-2010 15:49	0115A019.d	10	QE56BMS	CB19010710Sed MS
18 15-JAN-2010 16:09	0115A020.d	10	QE56BMSD	CB19010710Sed MSD
19 15-JAN-2010 16:29	0115A021.d	10	QE56C	CB12010710Sed
20 15-JAN-2010 16:49	0115A022.d	10	QE56D	CB2010710Sed
21 15-JAN-2010 17:09	0115A023.d	1	PCP	
22 15-JAN-2010 17:29	0115A024.d	1	PCP	
23 15-JAN-2010 17:49	0115A025.d	1	PCPCCAL	
24 15-JAN-2010 18:08	0115A026.d	1	QE56B	CB19010710Sed
25 15-JAN-2010 18:28	0115A027.d	1	QE56BMS	CB19010710Sed MS
26 15-JAN-2010 18:48	0115A028.d	1	QE56BMSD	CB19010710Sed MSD
27 15-JAN-2010 19:08	0115A029.d	1	QE56C	CB12010710Sed
28 15-JAN-2010 19:28	0115A030.d	1	QE56D	CB2010710Sed
29 15-JAN-2010 19:48	0115A031.d	1	PCP	
30 15-JAN-2010 20:08	0115A032.d	1	PCP	
31 15-JAN-2010 20:27	0115A033.d	1	PCPCCAL	

Maintenance / Comments AR 1/19/2010

---



---



---

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):  
 Every line must contain information or be lined out. Make all entries legible. Start a new page for each GC period.



### GC Analyst Notes / Corrective Action Log

ARI Project ID: QES6 Client ID: Floyd-Sneider

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other

Parameter(s): Cl. Phenols, Method 8041, 425

Instrument:	FID-3A	FID-3B	FID-4A	FID-4B	FID-7	FID-8
	ECD-1	ECD-3	ECD-4	ECD-5	ECD-6	ECD-7

Dates: Curve: 10/21/2009 Analysis Start: 11

Endrin/DDT Breakdown <15%? YES / NO / <u>NA</u>	Method Blank In Control? <u>YES</u> / <u>NO</u> <sup>1</sup>
ICal Meets RF & %RSD Criteria? <u>YES</u> / NO	LCS/LCSD Recovery In Control? <u>YES</u> / NO
CCal Meets RF & %RSD Criteria <u>YES</u> / <u>NO</u> <sup>2</sup>	Surrogate Recovery In Control? <u>YES</u> / <u>NO</u> <sup>1</sup>
Internal Standard Meets Criteria? YES / NO / <u>NA</u>	Special Analysis Criteria Met? <u>YES</u> / NO / NA <sup>A</sup>

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

① - Surr recovery in MB is < 50%R in house limit at ~ 43.9 # 47.0  
No hits in samples & surps have passing surr rec. [20-822R]

② - PCP recovery in closing cal, bracketing 1x runs is out low  
>±15% however within ±20%

③ - Interference w/ 2nd col. surr; BmsD, C & D affected in  
AR 11/19/2010

Samples appear <sup>Dark color</sup> oily?

See ext. notes extra  
conc (Blow Down)

Additional Details on Reverse: Yes No

Analyst Signature: [Signature] Date: 11/19/2010

Reviewer's Signature: [Signature] Date: 11/19/10

TPHD Analysis  
QC Summary Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

**CLEANED TPHD SURROGATE RECOVERY SUMMARY**

Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-011110	92.4%	0
LCS-011110	93.1%	0
CB19010710Sed	78.9%	0
CB12010710Sed	76.2%	0
MB-011210	86.5%	0
LCS-011210	92.0%	0
CB2010710Sed	62.4%	0
CB2010710Sed MS	68.0%	0
CB2010710Sed MSD	60.0%	0

**LCS/MB LIMITS      QC LIMITS**

(OTER) = o-Terphenyl

(63-115)

(49-120)

Prep Method: SW3546  
Log Number Range: 10-433 to 10-435

**FORM-II TPHD**

**ORGANICS ANALYSIS DATA SHEET**

NWTPHD by GC/FID-Silica and Acid Cleaned

Sample ID: CB2010710Sed

Page 1 of 1

MS/MSD

Lab Sample ID: QE56D

QC Report No: QE56-Floyd-Snider

LIMS ID: 10-435

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: *VIS*

Date Sampled: 01/07/10

Reported: 01/15/10

Date Received: 01/07/10

Date Extracted MS/MSD: 01/12/10

Sample Amount MS: 3.38 g-dry-wt

MSD: 3.36 g-dry-wt

Date Analyzed MS: 01/13/10 15:00

Final Extract Volume MS: 1.0 mL

MSD: 01/13/10 15:19

MSD: 1.0 mL

Instrument/Analyst MS: FID/MS

Dilution Factor MS: 10.0

MSD: FID/MS

MSD: 10.0

Percent Moisture: 67.7%

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	1240	1510	444	60.8%	1410	446	38.1%	6.8%

**TPHD Surrogate Recovery**

	MS	MSD
o-Terphenyl	68.0%	60.0%

Results reported in mg/kg

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Sample ID: LCS-011110

LAB CONTROL

Lab Sample ID: LCS-011110

LIMS ID: 10-433

Matrix: Sediment

Data Release Authorized: *VTS*

Reported: 01/15/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Date Extracted: 01/11/10

Date Analyzed: 01/12/10 14:53

Instrument/Analyst: FID/MS

Sample Amount: 10.0 g

Final Extract Volume: 1.0 mL

Dilution Factor: 1.0

Range	Lab Control	Spike Added	Recovery
Diesel	138	150	92.0%

**TPHD Surrogate Recovery**

o-Terphenyl	93.1%
-------------	-------

Results reported in mg/kg

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Sample ID: LCS-011210

LAB CONTROL

Lab Sample ID: LCS-011210

LIMS ID: 10-435

Matrix: Sediment

Data Release Authorized: *VRS*

Reported: 01/15/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Date Extracted: 01/12/10

Date Analyzed: 01/13/10 15:39

Instrument/Analyst: FID/MS

Sample Amount: 10.0 g

Final Extract Volume: 1.0 mL

Dilution Factor: 1.0

Range	Lab Control	Spike Added	Recovery
Diesel	131	150	87.3%

TPHD Surrogate Recovery

o-Terphenyl	92.0%
-------------	-------

Results reported in mg/kg



4  
TPH METHOD BLANK SUMMARY

BLANK NO.

QE56MBS1

Lab Name: ANALYTICAL RESOURCES, INC      Client: FLOYD-SNIDER  
SDG No.: QE56      Project No.: POS-LLA  
Date Extracted: 01/11/10      Matrix: SOLID  
Date Analyzed : 01/13/10      Instrument ID : FID9  
Time Analyzed : 1559

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QE56LCSS1	QE56LCSS1	01/13/10
02	CB2010710SED	QE56D	01/13/10
03	CB2010710SED	QE56DMS	01/13/10
04	CB2010710SED	QE56DMSD	01/13/10

4  
TPH METHOD BLANK SUMMARY

BLANK NO.

QE56MBS1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

SDG No.: QE56

Project No.: POS-LLA

Date Extracted: 01/11/10

Matrix: SOLID

Date Analyzed : 01/12/10

Instrument ID : FID9

Time Analyzed : 1513

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO. =====	LAB SAMPLE ID =====	DATE ANALYZED =====
01	CB19010710SE	QE56B	01/12/10
02	CB12010710SE	QE56C	01/12/10
03	QE56LCSS1	QE56LCSS1	01/12/10

8  
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD-SNIDER

Instrument: FID9.I

Project: POS-LLA

Calibration Date: 22-DEC-2009

SDG No.: QE56

Run Date: 12/22/09

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,  
IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD						
		TERPH: 4.90		TRIAc: 7.07		
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAc RT #	
01	RT	RT	12/22/09	1905	4.90	7.07
02	IB	IB	12/22/09	1924	4.90	7.07
03	DIESEL50	DIESEL50	12/22/09	1944	4.90	7.06
04	DIESEL100	DIESEL100	12/22/09	2003	4.90	7.06
05	DIESEL250	DIESEL250	12/22/09	2023	4.90	7.06
06	DIESEL500	DIESEL500	12/22/09	2042	4.91	7.08
07	DIESEL1000	DIESEL1000	12/22/09	2101	4.92	7.08
08	DIESEL2500	DIESEL2500	12/22/09	2121	4.96*	7.08
09	DIESELICV	DIESELICV	12/22/09	2140	4.90	7.06
10	MOIL100	MOIL100	12/22/09	2200	4.91	7.06
11	MOIL250	MOIL250	12/22/09	2219	4.91	7.07
12	MOIL500	MOIL500	12/22/09	2239	4.91	7.08
13	MOIL1000	MOIL1000	12/22/09	2258	4.91	7.09
14	MOIL2500	MOIL2500	12/22/09	2318	4.90	7.11
15	MOIL5000	MOIL5000	12/22/09	2337	4.90	7.14*
16	MOILICV	MOILICV	12/22/09	2357	4.91	7.07

TERPH = o-terph  
TRIAc = Triacon Surr

QC LIMITS  
(+/- 0.05 MINUTES)  
(+/- 0.05 MINUTES)

\* Values outside of QC limits.

8  
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

SDG No.: QE56

Project: POS-LLA

Instrument ID: FID9

GC Column: RTX-1

Run Date: 01/05/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,  
IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD						
			TERPH: 4.90		TRIAC: 7.08	
CLIENT	LAB	DATE	TIME	TERPH	TRIAC	
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT	RT	#
=====						
01	RT	01/05/10	1232	4.90	7.08	
02	IB	01/05/10	1252	4.90	7.08	
03	MOIL 100	01/05/10	1937	4.90	7.08	
04	MOIL 250	01/05/10	1956	4.90	7.08	
05	MOIL 500	01/05/10	2016	4.90	7.09	
06	MOIL 1000	01/05/10	2035	4.90	7.09	
07	MOIL 2500	01/05/10	2055	4.90	7.12	
08	MOIL 5000	01/05/10	2115	4.90	7.14*	
09	MOIL ICV	01/05/10	2134	4.91	7.08	

TERPH = o-terph  
TRIAC = Triacon Surr

QC LIMITS  
(+/- 0.05 MINUTES)  
(+/- 0.05 MINUTES)

\* Values outside of QC limits.

8  
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

SDG No.: QE56

Project: POS-LLA

Instrument ID: FID9

GC Column: RTX-1

Run Date: 01/12/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,  
IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD					
TERPH: 4.90		TRAC: 7.07			
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRAC RT #
01	ZZZZZ	01/12/10	1156	4.91	7.11
02	ZZZZZ	01/12/10	1215	4.90	7.08
03	RT	01/12/10	1235	4.90	7.07
04	IB	01/12/10	1255	4.91	7.08
05	DIESEL#1	01/12/10	1315	4.90	7.06
06	MOIL#1	01/12/10	1334	4.90	7.08
07	ZZZZZ	01/12/10	1354	4.90	7.07
08	CB19010710SE	01/12/10	1414	4.90	
09	CB12010710SE	01/12/10	1434	4.90	7.09
10	QE56LCSS1	01/12/10	1453	4.91	7.07
11	QE56MBS1	01/12/10	1513	4.90	7.07
12	ZZZZZ	01/12/10	1533	4.91	7.07
13	ZZZZZ	01/12/10	1553	4.90	7.07
14	DIESEL#2	01/12/10	1612	4.90	7.08
15	MOIL#2	01/12/10	1632	4.91	7.09
16	ZZZZZ	01/12/10	1652	4.90	7.08
17	ZZZZZ	01/12/10	1712	4.90	7.07
18	ZZZZZ	01/12/10	1732	4.90	7.07
19	ZZZZZ	01/12/10	1752	4.90	7.09

TERPH = o-terph  
TRAC = Triacon Surr

QC LIMITS  
(+/- 0.05 MINUTES)  
(+/- 0.05 MINUTES)

\* Values outside of QC limits.

8  
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

SDG No.: QE56

Project: POS-LLA

Instrument ID: FID9

GC Column: RTX-1

Run Date: 01/13/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,  
IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD					
		TERPH: 4.90		TRIAC: 7.07	
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
=====	=====	=====	=====	=====	=====
01	RT	01/13/10	1301	4.90	7.07
02	ZZZZZ	01/13/10	1321	4.90	7.08
03	IB	01/13/10	1341	4.91	7.07
04	DIESEL#1	01/13/10	1400	4.90	7.07
05	MOIL#1	01/13/10	1420	4.91	7.08
06	CB2010710SED	01/13/10	1440	4.90	7.09
07	CB2010710SED	01/13/10	1500	4.90	7.09
08	CB2010710SED	01/13/10	1519	4.90	7.09
09	QE56LCSS1	01/13/10	1539	4.91	7.07
10	QE56MBS1	01/13/10	1559	4.90	7.08
11	ZZZZZ	01/13/10	1619	4.90	7.08
12	ZZZZZ	01/13/10	1639	4.90	7.09
13	ZZZZZ	01/13/10	1658	4.90	7.08
14	ZZZZZ	01/13/10	1718	4.91	7.08
15	ZZZZZ	01/13/10	1738	4.91	7.07
16	ZZZZZ	01/13/10	1758	4.90	7.08
17	ZZZZZ	01/13/10	1817	4.90	7.07
18	DIESEL#2	01/13/10	1837	4.90	7.09
19	MOIL#2	01/13/10	1856	4.90	7.09

TERPH = o-terph  
 TRIAC = Triacon Surr

QC LIMITS  
 (+/- 0.05 MINUTES)  
 (+/- 0.05 MINUTES)

\* Values outside of QC limits.

TPHD Analysis  
Sample Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

**ORGANICS ANALYSIS DATA SHEET  
TOTAL DIESEL RANGE HYDROCARBONS**

NWTPHD by GC/FID-Silica and Acid Cleaned  
Page 1 of 1  
Matrix: Sediment

QC Report No: QE56-Floyd-Snider  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

Data Release Authorized: *VTS*  
Reported: 01/15/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-011110 10-433	Method Blank HC ID: ---	01/11/10	01/12/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 92.4%
QE56B 10-433	CB19010710Sed HC ID: <b>DRO/MOTOR OIL</b>	01/11/10	01/12/10 FID9	1.00 10	<b>Diesel</b> <b>Motor Oil</b> o-Terphenyl	<b>210</b> <b>420</b>	<b>4200</b> <b>18000</b> 78.9%
QE56C 10-434	CB12010710Sed HC ID: <b>DRO/MOTOR OIL</b>	01/11/10	01/12/10 FID9	1.00 10	<b>Diesel</b> <b>Motor Oil</b> o-Terphenyl	<b>200</b> <b>390</b>	<b>1300</b> <b>6600</b> 76.2%
MB-011210 10-435	Method Blank HC ID: ---	01/12/10	01/13/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 86.5%
QE56D 10-435	CB2010710Sed HC ID: <b>DRO/MOTOR OIL</b>	01/12/10	01/13/10 FID9	1.00 10	<b>Diesel</b> <b>Motor Oil</b> o-Terphenyl	<b>150</b> <b>310</b>	<b>1200</b> <b>6100</b> 62.4%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.  
DL-Dilution of extract prior to analysis.  
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.  
Motor Oil quantitation on total peaks in the range from C24 to C38.  
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.



ms 1/12/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100112.B/0112A008.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56B  
Client ID: CB19010710Sed  
Injection: 12-JAN-2010 14:14  
Dilution Factor: 10

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.793	-0.011	3090	3898	GAS (Tol-C12)	480669	37
C8	1.993	0.003	9029	23484	DIESEL (C12-C24)	16697863	989
C10	2.640	0.028	7737	9434	M.OIL (C24-C38)	59109599	4278
C12	3.195	-0.011	7159	8266	AK-102 (C10-C25)	19833910	1050
C14	3.738	0.004	7225	6750	AK-103 (C25-C36)	53552323	5663
C16	4.206	0.000	12931	10667			
C18	4.671	-0.001	19162	20917			
C20	5.217	0.005	73260	94307			
C22	5.687	-0.002	257797	96658			
C24	6.098	-0.001	484196	105724			
C25	6.283	-0.003	572299	193070			
C26	6.460	0.002	662470	222500			
C28	6.776	0.002	725611	331002			
C32	7.367	0.003	412897	130780			
C34	7.706	0.001	247396	167751	BUNKERC (C10-C38)	76158229	8683
Filter Peak	9.144	0.003	34345	17420			
C36	8.128	-0.002	130286	41347			
C38	8.675	-0.003	64894	37592			
C40	9.410	0.009	25034	25194			
o-terph	4.896	-0.006	107747	74752			
Triacon Surr	----						

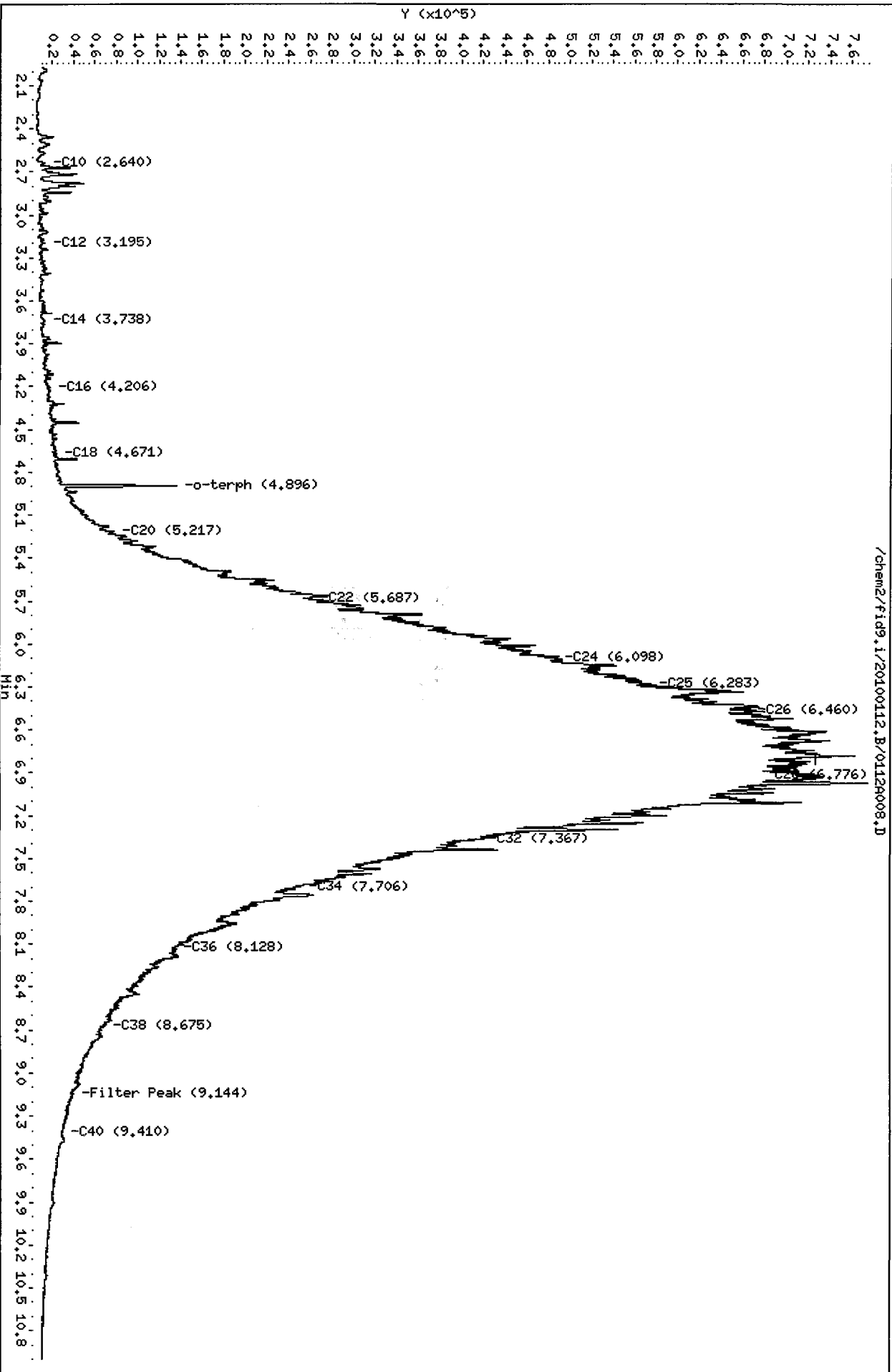
Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	74752	3.5	78.8
Triacontane	0	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100112.B/0112A008.D  
Date: 12-JAN-2010 14:14  
Client ID: CB19010710Sed  
Sample Info: QES6B,10  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



mo 1/12/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100112.B/0112A009.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56C  
Client ID: CB12010710Sed  
Injection: 12-JAN-2010 14:34  
Dilution Factor: 10

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.807	0.003	3136	2290	GAS (Tol-C12)	214151	17
C8	1.988	-0.002	3587	9633	DIESEL (C12-C24)	5701487	338
C10	2.593	-0.019	1883	2249	M.OIL (C24-C38)	23441078	1696
C12	3.196	-0.011	1592	1391	AK-102 (C10-C25)	6702644	355
C14	3.739	0.005	2695	2702	AK-103 (C25-C36)	21201297	2242
C16	4.209	0.003	3708	2946			
C18	4.671	-0.001	7414	9027			
C20	5.210	-0.002	23602	22208			
C22	5.692	0.003	87778	84127			
C24	6.102	0.003	171214	70494			
C25	6.285	-0.001	209578	53904			
C26	6.456	-0.002	245028	77121			
C28	6.777	0.003	256629	97073			
C32	7.370	0.007	171618	54470			
C34	7.697	-0.008	107346	66811	BUNKERC (C10-C38)	29190883	3328
Filter Peak	9.143	0.002	17464	17395			
C36	8.132	0.002	62645	17204			
C38	8.675	-0.003	30077	13057			
C40	9.399	-0.002	13695	5703			
o-terph	4.896	-0.006	108083	72217			
Triacon Surr	7.088	0.015	127755	69829			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	72217	3.4	76.1
Triacontane	69829	3.2	70.7

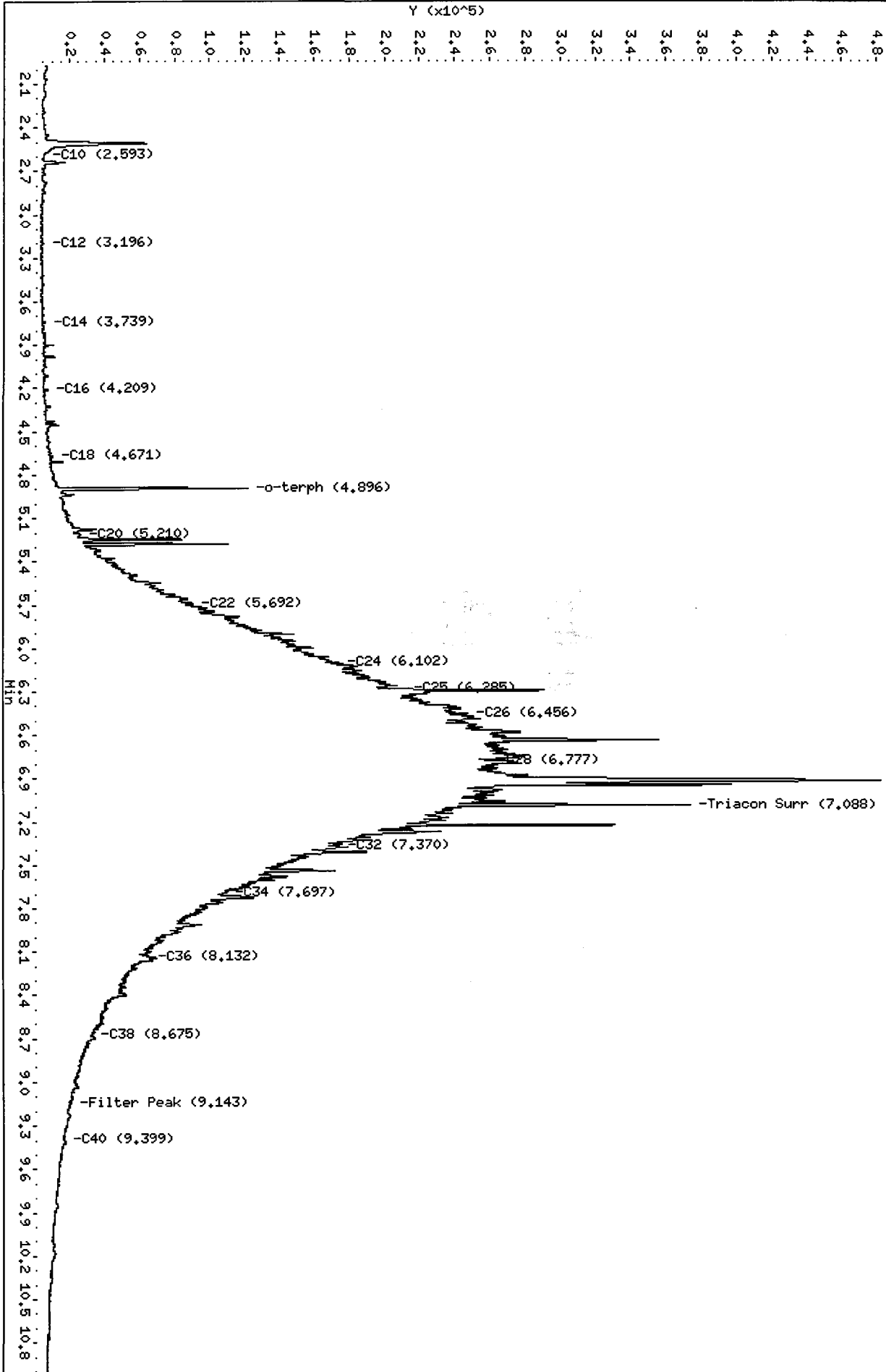
Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100112.B/0112A009.D  
Date: 12-JAN-2010 14:34  
Client ID: CBI2010710Sec  
Sample Info: QES6C.10

Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25

/chem2/fid9.i/20100112.B/0112A009.D



**TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Sediment  
Date Received: 01/07/10

ARI Job: QE56  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-433-011110MB1	Method Blank	10.0 g	1.00 mL	-	01/11/10
10-433-011110LCS1	Lab Control	10.0 g	1.00 mL	-	01/11/10
10-433-QE56B	CB19010710Sed	2.38 g	1.00 mL	D	01/11/10
10-434-QE56C	CB12010710Sed	2.56 g	1.00 mL	D	01/11/10

Basis: D=Dry Weight W=As Received  
**Diesel Extraction Report**

ms1119110

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A008.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56D  
Client ID: CB2010710Sed  
Injection: 13-JAN-2010 14:40

Dilution Factor: 10

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.846	0.039	2498	3028	GAS (Tol-C12)	227739	18
C8	1.990	-0.002	2603	7262	DIESEL (C12-C24)	6829454	404
C10	2.594	-0.019	1680	1923	M.OIL (C24-C38)	27434632	1985
C12	3.196	-0.011	2299	1559	AK-102 (C10-C25)	8107067	429
C14	3.739	0.005	3327	2744	AK-103 (C25-C36)	24690546	2611
C16	4.209	0.002	6156	4288			
C18	4.672	-0.002	9494	10248			
C20	5.212	-0.001	28749	36918			
C22	5.693	0.002	109098	46822			
C24	6.098	-0.001	211579	100515			
C25	6.283	-0.004	257730	131738			
C26	6.460	0.002	295531	110822			
C28	6.777	0.002	304365	72743			
C32	7.359	-0.004	200544	141921			
C34	7.704	0.000	120976	19270	BUNKERC (C10-C38)	34328625	3914
Filter Peak	9.139	0.005	20396	15490			
C36	8.134	0.004	70914	52826			
C38	8.681	0.006	34770	18486			
C40	9.399	-0.001	15221	5378			
o-terph	4.897	-0.008	88783	59251			
Triacon Surr	7.095	0.020	92677	48001			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

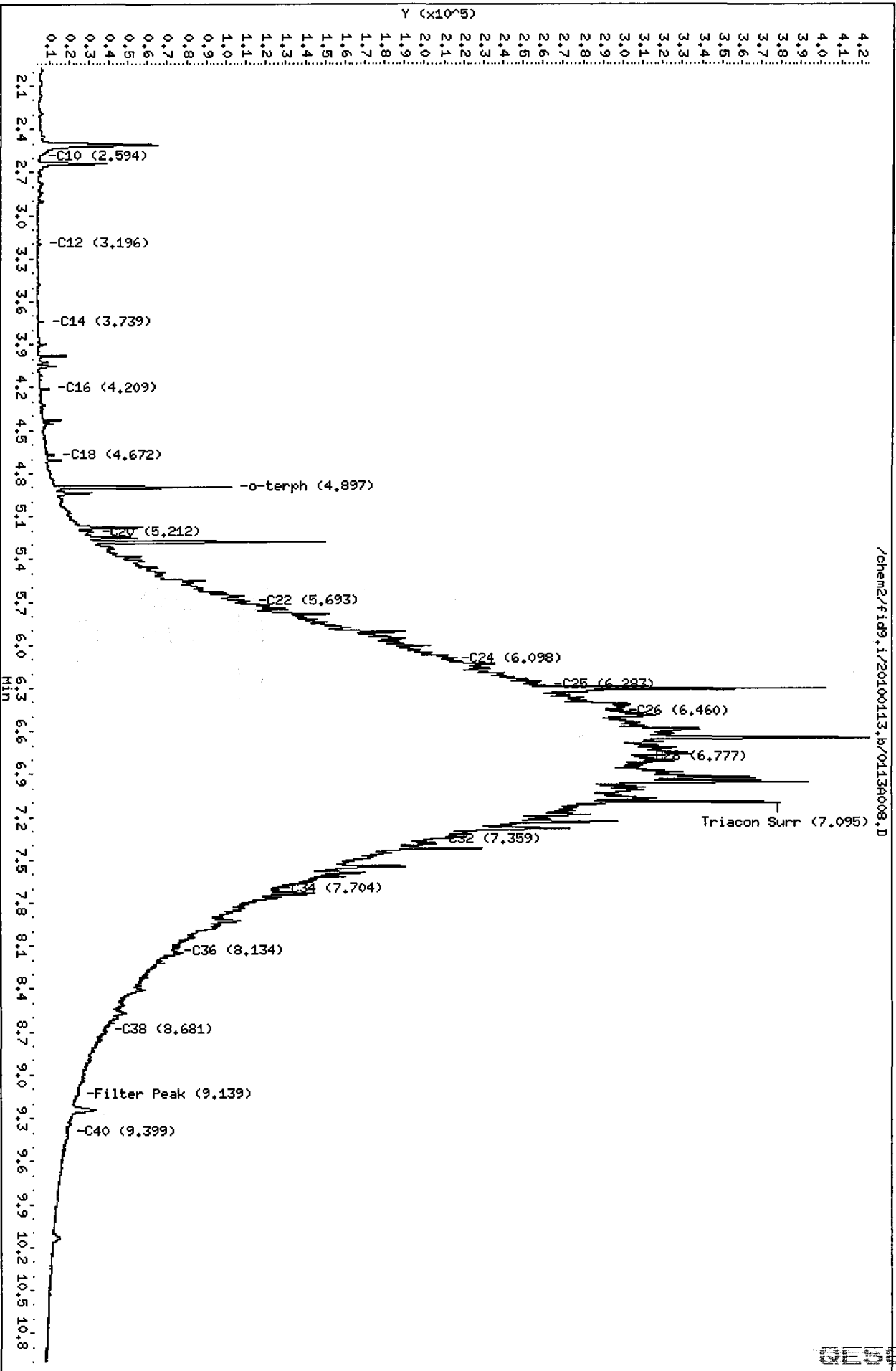
Surrogate	Area	Amount	%Rec
o-Terphenyl	59251	2.8	62.5
Triacontane	48001	2.2	48.6

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100113.b/0113A008.D  
Date: 13-JAN-2010 14:40  
Client ID: CB2010710sed  
Sample Info: QES6D,10  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25

/chem2/fid9.i/20100113.b/0113A008.D



**TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Sediment  
Date Received: 01/07/10

ARI Job: QE56  
Project: POS-LLA (Lora Lake Apts.)  
POS-LLA

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-433-011110MB1	Method Blank	10.0 g	1.00 mL	-	01/11/10
10-433-011110LCS1	Lab Control	10.0 g	1.00 mL	-	01/11/10
10-433-QE56B	CB19010710Sed	2.38 g	1.00 mL	D	01/11/10
10-434-QE56C	CB12010710Sed	2.56 g	1.00 mL	D	01/11/10
10-435-011210MB1	Method Blank	10.0 g	1.00 mL	-	01/12/10
10-435-011210LCS1	Lab Control	10.0 g	1.00 mL	-	01/12/10
10-435-QE56D	CB2010710Sed	3.27 g	1.00 mL	D	01/12/10
10-435-QE56DMS	CB2010710Sed	3.38 g	1.00 mL	D	01/12/10
10-435-QE56DMSD	CB2010710Sed	3.36 g	1.00 mL	D	01/12/10

Basis: D=Dry Weight W=As Received  
**Diesel Extraction Report**



TPHD Analysis  
Standard Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

6a  
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD-SNIDER

Instrument: FID9.I

Project: POS-LLA

Calibration Date: 22-DEC-2009

SDG No.: QE56

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	15344	16898	16682	16808	16407	19171	16885	7.4
AK Diesel	17414	18959	18637	18698	18235	21362	18884	7.0
OR Diesel	17500	19050	18733	18818	18362	21538	19000	7.1
o-Terph	18979	20708	20582	20679	20468	25047	21077	9.7

<- Indicates %RSD outside limits  
Surrogate areas are not included in Diesel RF calculation.

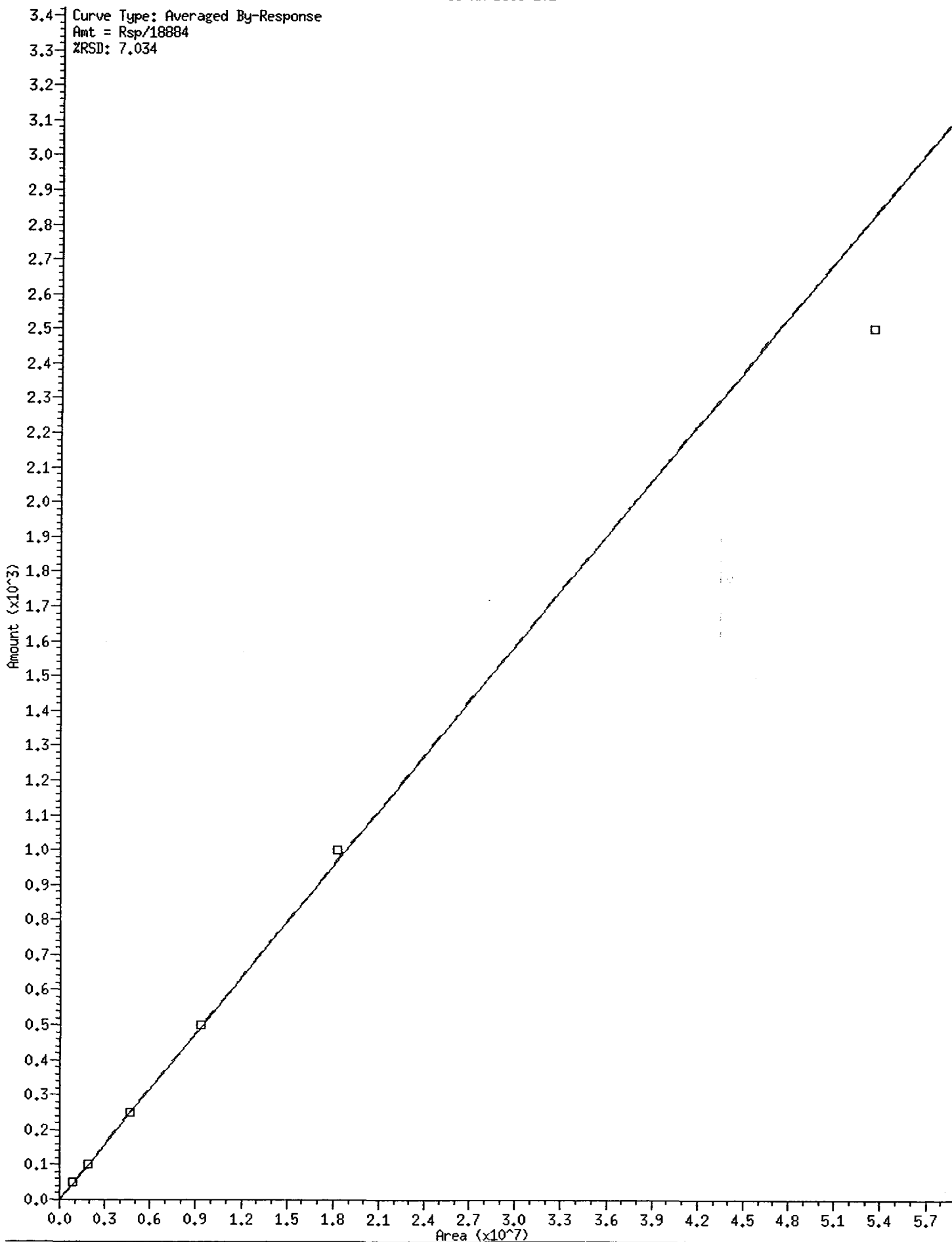
Quant Ranges :   WA Diesel   C12-C24 (3.204-6.097)  
                  AK Diesel   C10-C25 (2.611-6.284)  
                  OR Diesel   C10-C28 (2.611-6.773)

Calibration Files      Analysis Time

---

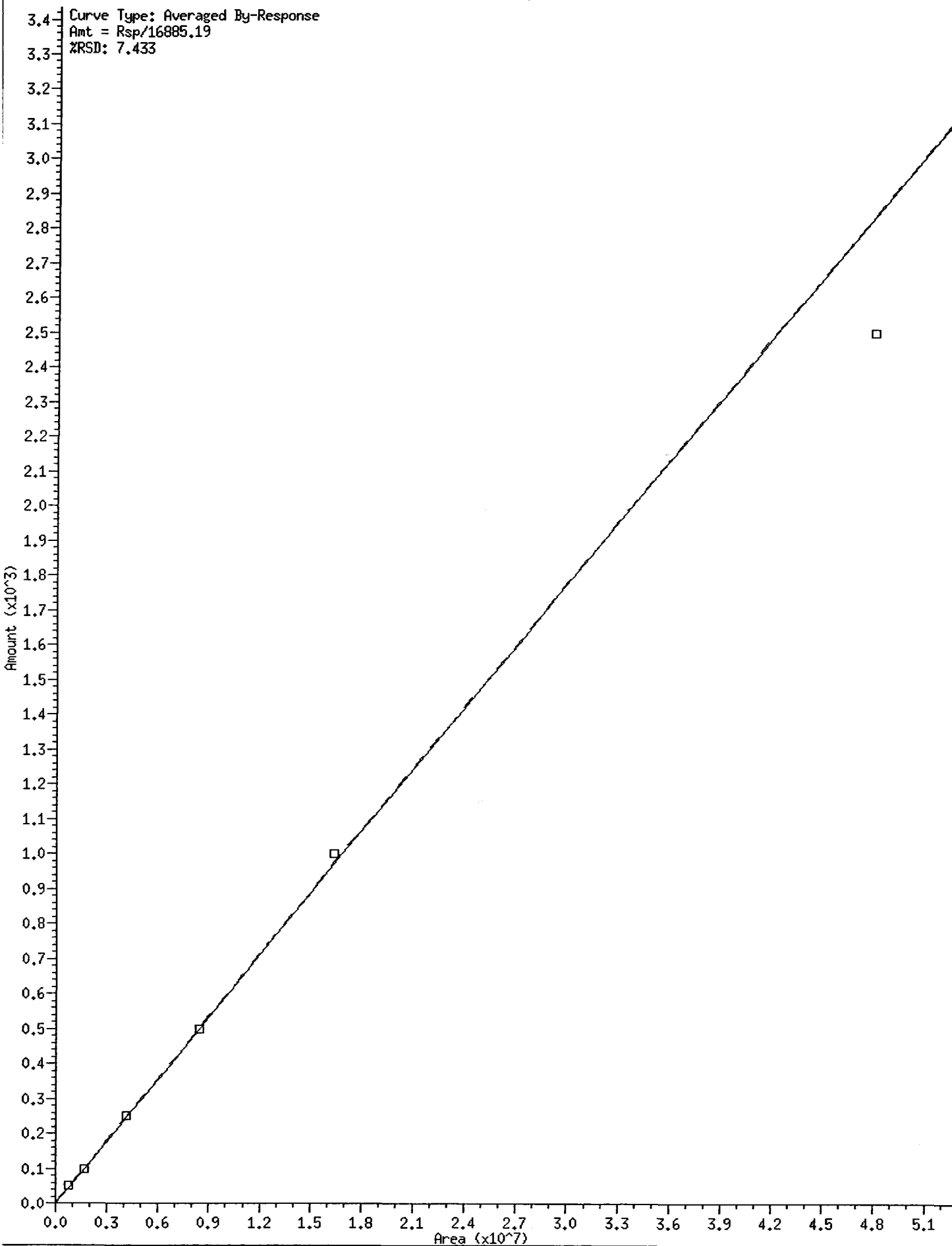
1222A022.D	22-DEC-2009 19:44
1222A023.D	22-DEC-2009 20:03
1222A024.D	22-DEC-2009 20:23
1222A025.D	22-DEC-2009 20:42
1222A026.D	22-DEC-2009 21:01
1222A027.D	22-DEC-2009 21:21

Curve Type: Averaged By-Response  
Amt = Rsp/18884  
%RSD: 7.034



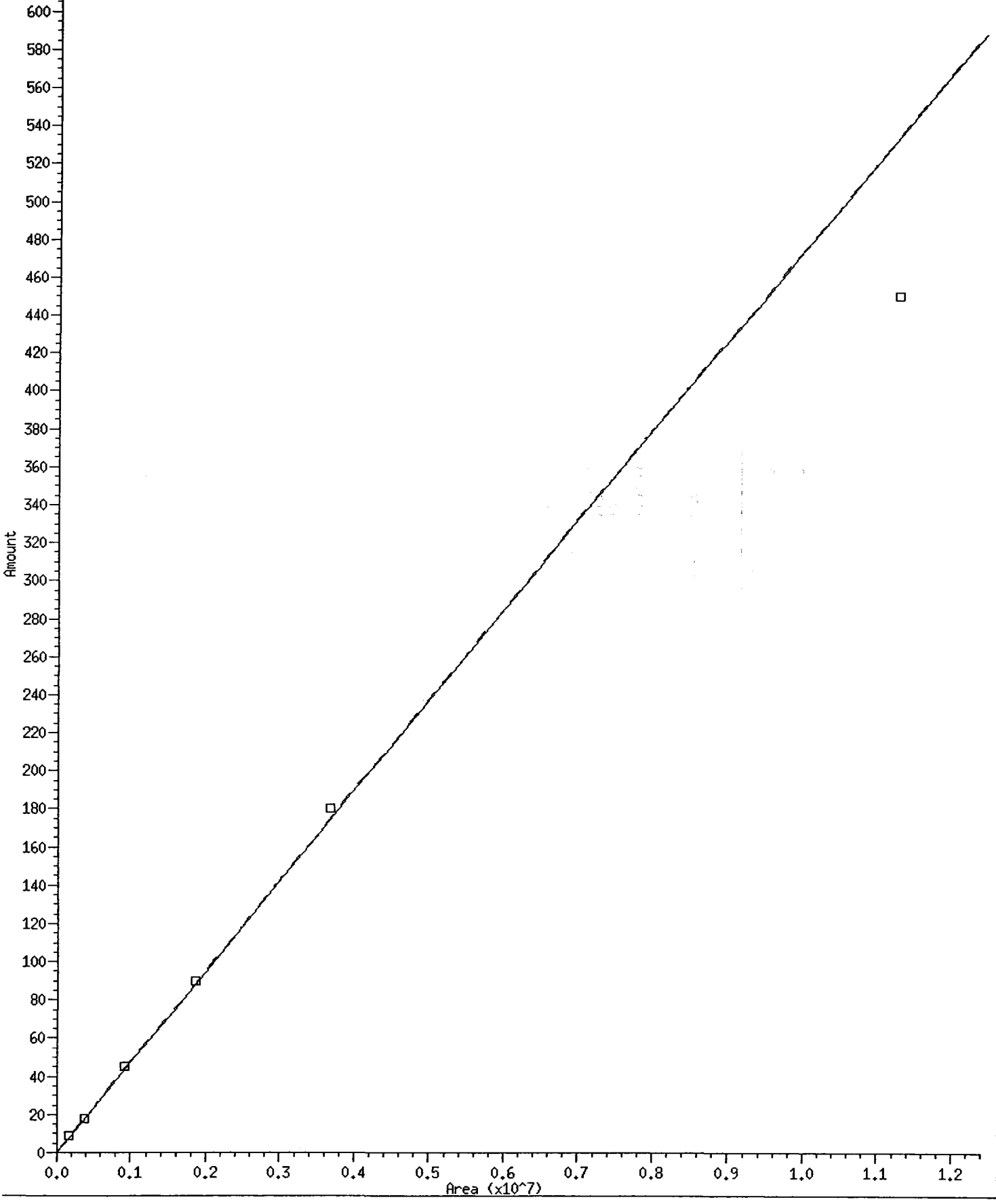
31 NW Diesel

Curve Type: Averaged By-Response  
Amt = Rsp/16885.19  
%RSD: 7.433



8 o-terph

Curve Type: Averaged By-Response  
Amt = Rsp/21076.96  
%RSD: 9.741



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A020.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: RT  
Client ID: RT  
Injection: 22-DEC-2009 19:05  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.813	0.000	2350095	865819	GAS (Tol-C12)	666790116	51516
C8	1.995	0.000	453784	220065	DIESEL (C12-C24)	2361475	140
C10	2.611	0.000	746416	365853	M.OIL (C24-C38)	2700186	243
C12	3.204	0.000	669749	370843	AK-102 (C10-C25)	3151998	167
C14	3.731	0.000	678308	379562	AK-103 (C25-C36)	2464236	261
C16	4.204	0.000	752469	382759	OR.DIES (C10-C28)	4522337	302
C18	4.670	0.000	647117	387716	OR.MOIL (C28-C40)	1506129	217
C20	5.211	0.000	624183	381590			
C22	5.689	0.000	706175	396516			
C24	6.097	0.000	712030	393850			
C25	6.284	0.000	916350	552695			
C26	6.456	0.000	734807	395553			
C28	6.773	0.000	711098	404408			
C32	7.363	0.000	558809	386089			
C34	7.702	0.000	421880	344107	CREOSOT (C12-C22)	1962326	470
Filter Peak	9.142	0.000	1216	628			
C36	8.125	0.000	243932	263514			
C38	8.665	0.000	137790	196625			
C40	9.385	0.000	69588	134939			
o-terph	4.901	0.000	1660014	1265679	JET-A (C10-C18)	1960650	115
Triacon Surr	7.074	0.000	1668120	1391127			

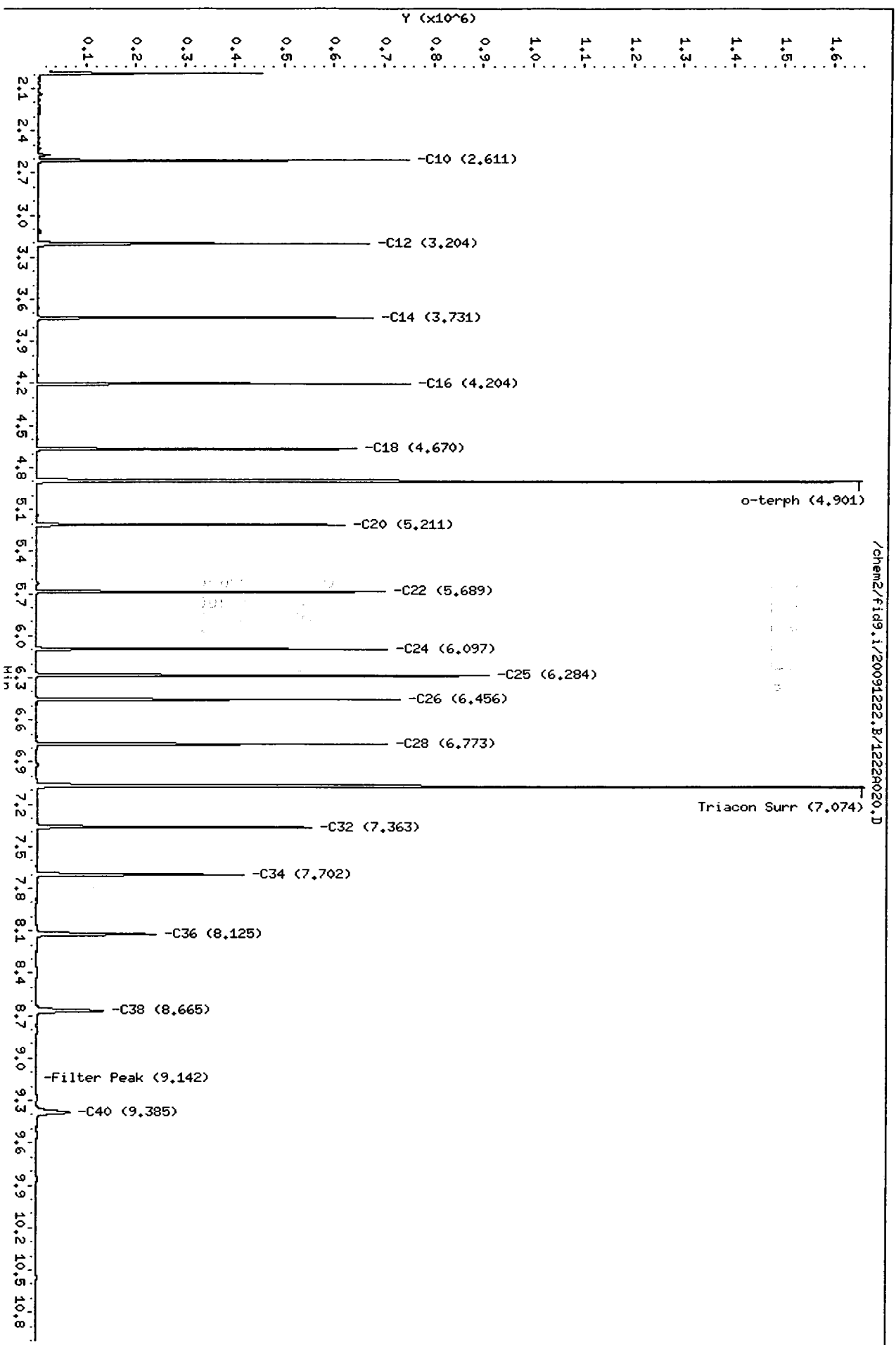
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1265679	60.1	133.4
Triacontane	1391127	59.8	133.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.1/20091222.B/1222A020.D  
Date: 22-DEC-2009 19:05  
Client ID: RT  
Sample Info: RT  
Column phase: RTX-1

Instrument: fid9.1  
Operator: HS  
Column diameter: 0.25



/chem2/fid9.1/20091222.B/1222A020.D

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A021.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: IB  
Client ID: IB  
Injection: 22-DEC-2009 19:24  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.817	0.004	2080	744	GAS (Tol-C12)	88352	7
C8	2.005	0.010	1206	454	DIESEL (C12-C24)	34507	2
C10	2.621	0.009	948	206	M.OIL (C24-C38)	148132	13
C12	3.193	-0.011	1817	1867	AK-102 (C10-C25)	75372	4
C14	3.723	-0.008	329	342	AK-103 (C25-C36)	114244	12
C16	4.198	-0.006	351	246	OR.DIES (C10-C28)	94067	6
C18	4.667	-0.003	1133	756	OR.MOIL (C28-C40)	173093	25
C20	5.211	-0.001	1346	836			
C22	5.687	-0.002	1518	951			
C24	6.093	-0.004	1695	1041			
C25	6.277	-0.007	2284	1502			
C26	6.449	-0.007	1849	1369			
C28	6.764	-0.009	3133	2901			
C32	7.352	-0.011	5916	5767			
C34	7.690	-0.013	2202	3875	CREOSOT (C12-C22)	28559	7
Filter Peak	9.148	0.005	1125	624			
C36	8.139	0.014	1088	539			
C38	8.677	0.012	1052	854			
C40	9.369	-0.016	1202	1315			
o-terph	4.904	0.002	2077450	1743583	JET-A (C10-C18)	61352	4
Triacon Surr	7.070	-0.005	1828117	1471907			

Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1743583	82.7	183.8
Triacontane	1471907	63.3	140.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009



Data File: /chem2/fid9.i/20091222.B/1222A021.D  
Date: 22-DEC-2009 19:24  
Client ID: IB  
Sample Info: IB

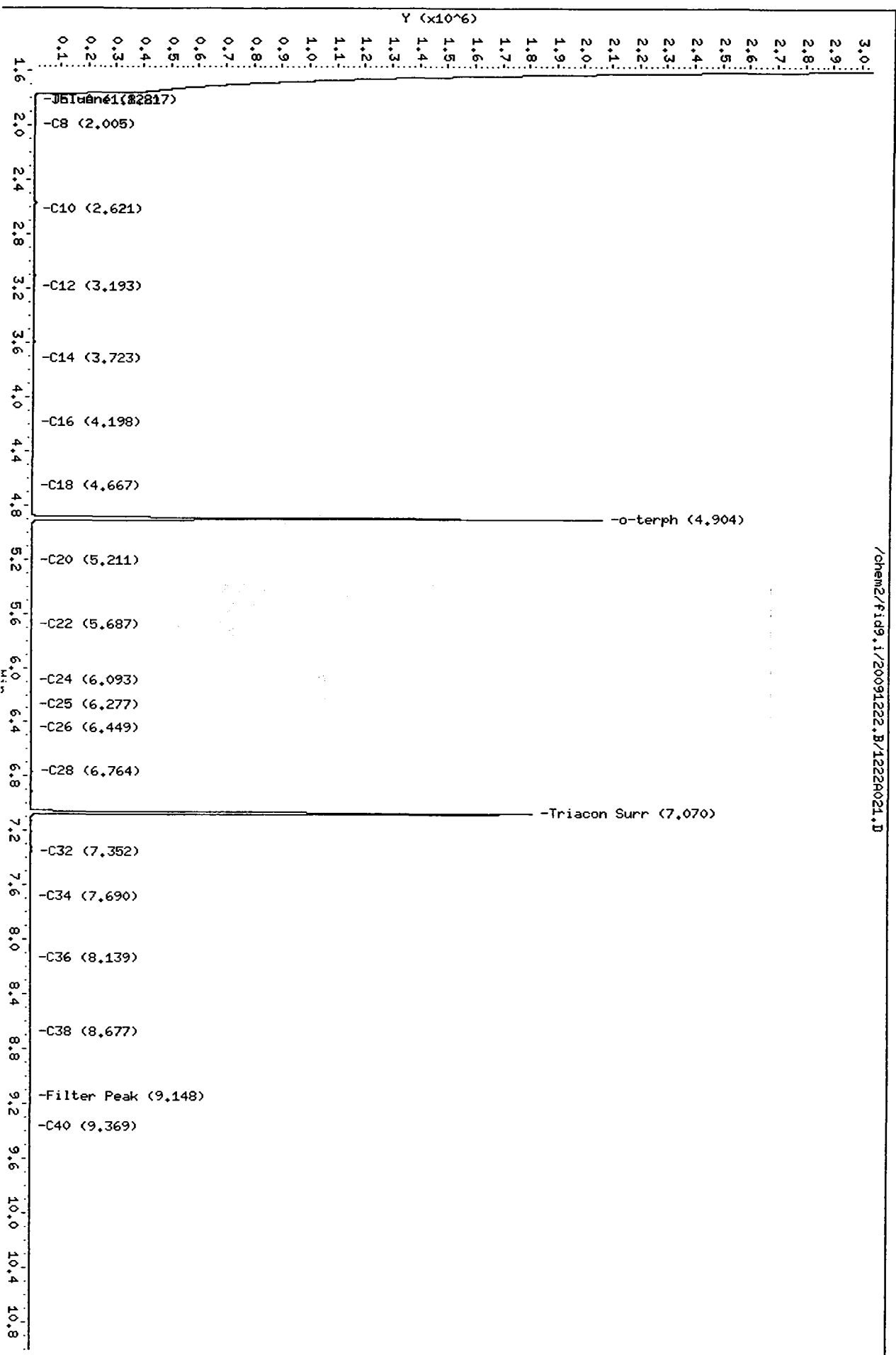
Column phase: RTX-1

Instrument: fid9.i

Operator: HS

Column diameter: 0.25

/chem2/fid9.i/20091222.B/1222A021.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A022.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 50  
Client ID: DIESEL 50  
Injection: 22-DEC-2009 19:44  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.818	0.005	1711	475	GAS (Tol-C12)	167179	13
C8	1.995	0.000	1301	1693	DIESEL (C12-C24)	767208	45
C10	2.630	0.018	2071	3337	M.OIL (C24-C38)	65088	6
C12	3.193	-0.012	8857	8133	AK-102 (C10-C25)	870678	46
C14	3.735	0.004	18047	11579	AK-103 (C25-C36)	43943	5
C16	4.206	0.003	37455	26289	OR.DIES (C10-C28)	875008	58
C18	4.669	0.000	26334	20061	OR.MOIL (C28-C40)	88531	13
C20	5.210	-0.001	16361	13729			
C22	5.688	-0.001	8592	6868			
C24	6.096	0.000	2732	1977			
C25	6.281	-0.003	1344	1171			
C26	6.453	-0.003	587	420			
C28	6.769	-0.004	258	221			
C32	7.353	-0.010	659	1105			
C34	7.706	0.004	701	452	CREOSOT (C12-C22)	742904	178
Filter Peak	9.146	0.003	691	518			
C36	8.129	0.004	631	212			
C38	8.670	0.005	691	432			
C40	9.386	0.001	741	467			
o-terph	4.896	-0.005	236693	170807	JET-A (C10-C18)	639217	38
Triacon Surr	7.061	-0.013	3039	2302			

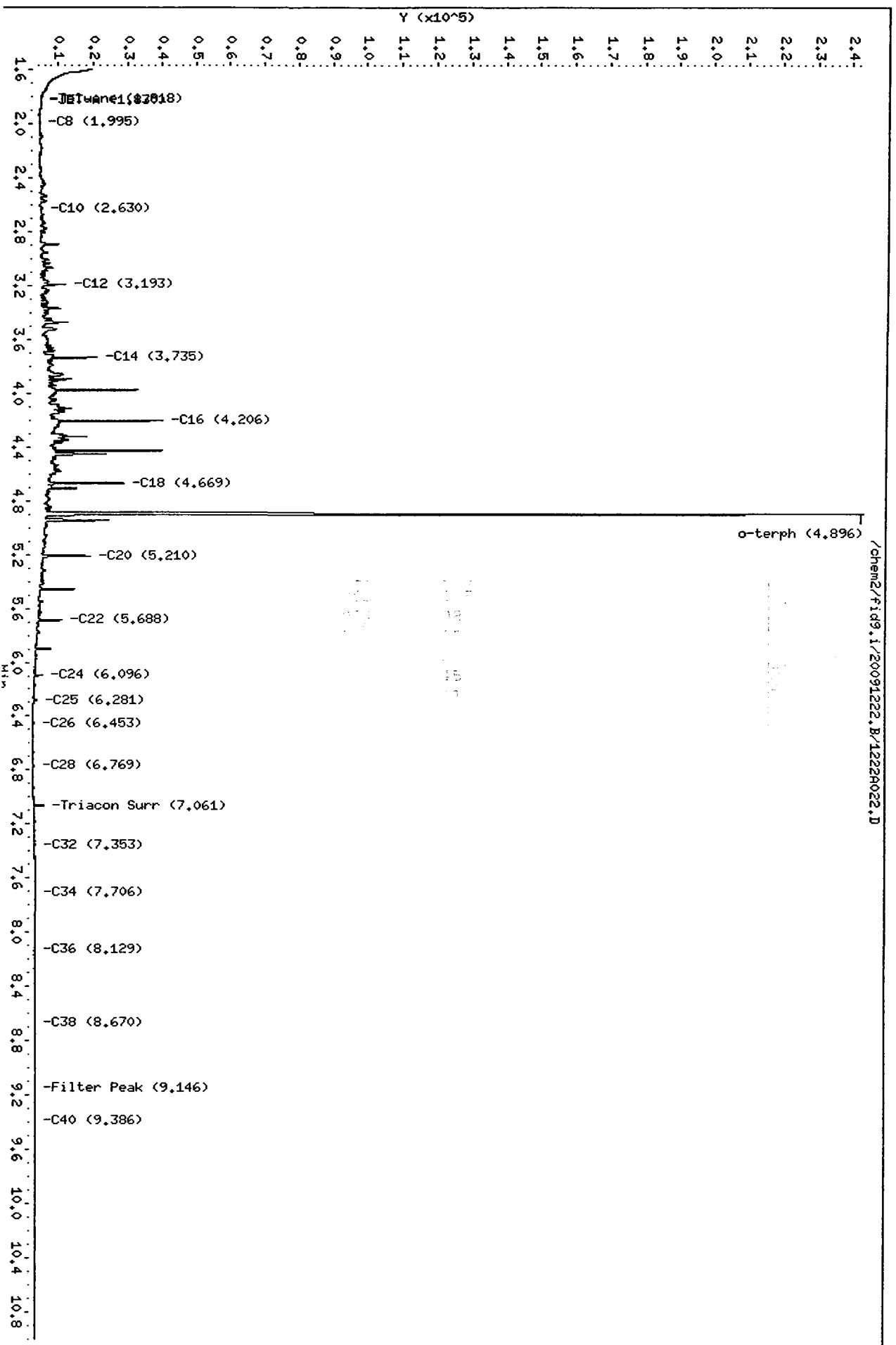
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	170807	8.1	18.0
Triacontane	2302	0.1	0.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A022.D  
Date: 22-DEC-2009 19:44  
Client ID: DIESEL 50  
Sample Info: DIESEL 50  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A023.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 100  
Client ID: DIESEL 100  
Injection: 22-DEC-2009 20:03  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.807	-0.006	2030	2340	GAS (Tol-C12)	298714	23
C8	1.999	0.004	1705	1853	DIESEL (C12-C24)	1689799	100
C10	2.631	0.020	3952	6188	M.OIL (C24-C38)	64075	6
C12	3.194	-0.010	19230	16885	AK-102 (C10-C25)	1895907	100
C14	3.734	0.003	40131	25229	AK-103 (C25-C36)	42949	5
C16	4.205	0.002	81133	57598	OR.DIES (C10-C28)	1905017	127
C18	4.669	-0.001	60683	44127	OR.MOIL (C28-C40)	75321	11
C20	5.209	-0.002	36844	31207			
C22	5.686	-0.003	18803	15117			
C24	6.095	-0.002	6033	4425			
C25	6.281	-0.003	2604	2977			
C26	6.453	-0.003	1129	807			
C28	6.770	-0.003	192	139			
C32	7.352	-0.012	603	1174			
C34	7.705	0.003	558	219	CREOSOT (C12-C22)	1629196	391
Filter Peak	9.140	-0.002	589	610			
C36	8.126	0.001	559	285			
C38	8.664	-0.001	584	370			
C40	9.384	-0.001	614	399			
o-terph	4.897	-0.004	529328	372739	JET-A (C10-C18)	1369630	80
Triacon Surr	7.062	-0.012	1350	1114			

Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	372739	17.7	39.3
Triacotane	1114	0.0	0.1

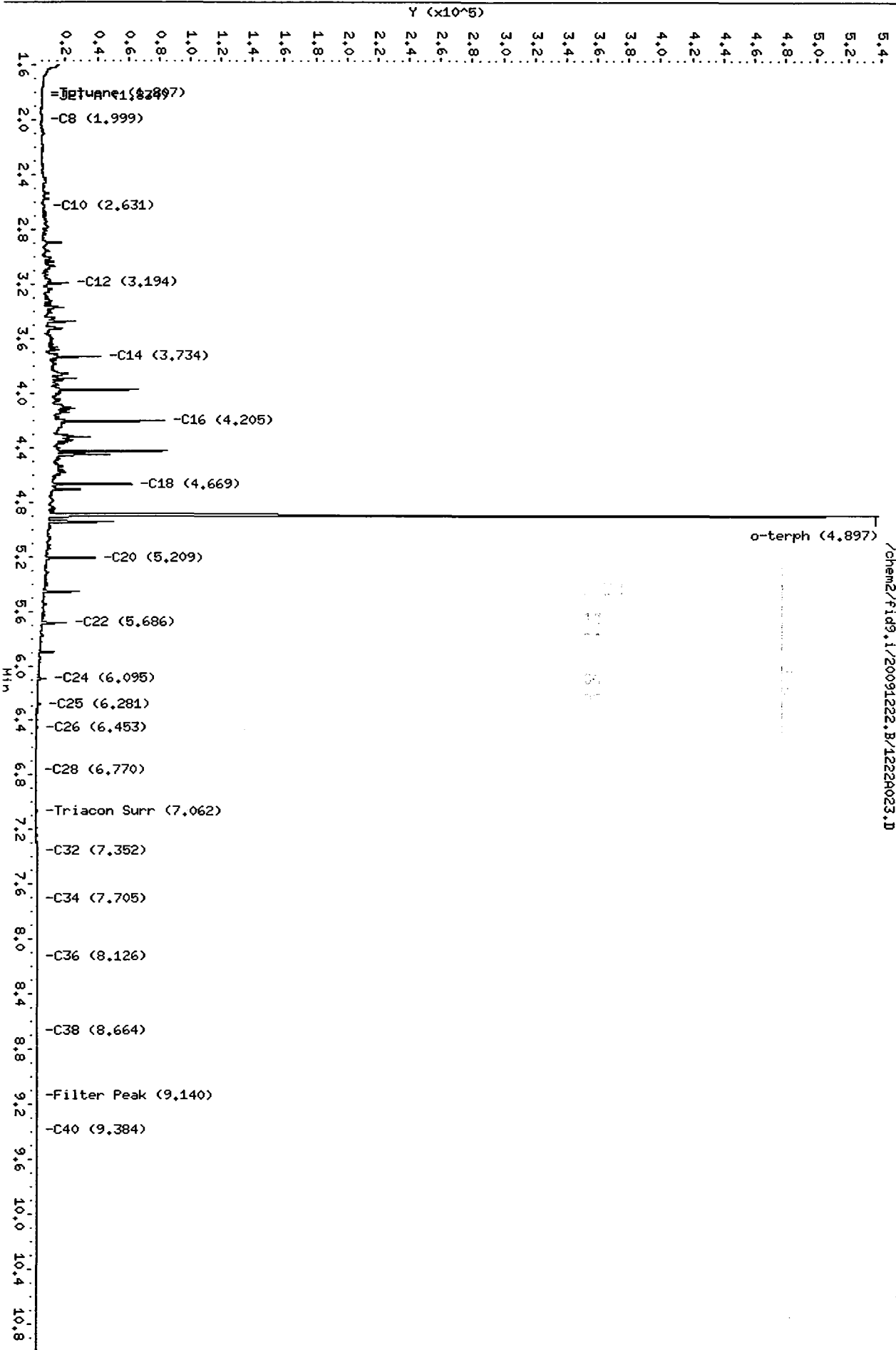
Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A023.D  
Date: 22-DEC-2009 20:03  
Client ID: DIESEL 100  
Sample Info: DIESEL 100

Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25

/chem2/fid9.i/20091222.B/1222A023.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A024.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i

ARI ID: DIESEL 250  
Client ID: DIESEL 250  
Injection: 22-DEC-2009 20:23

Operator: MS  
Report Date: 12/23/2009

Dilution Factor: 1

Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

FID:9 RESULTS							
Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.809	-0.003	2723	3523	GAS (Tol-C12)	654885	51
C8	2.000	0.005	2856	3170	DIESEL (C12-C24)	4170568	247
C10	2.592	-0.020	5746	5878	M.OIL (C24-C38)	75327	7
C12	3.195	-0.009	47815	40303	AK-102 (C10-C25)	4659191	247
C14	3.731	0.000	98832	59583	AK-103 (C25-C36)	47737	5
C16	4.204	0.000	199167	140796	OR.DIES (C10-C28)	4683336	313
C18	4.670	0.000	147509	109223	OR.MOIL (C28-C40)	54384	8
C20	5.210	-0.001	89201	79756			
C22	5.686	-0.003	46407	37169			
C24	6.095	-0.002	15259	11433			
C25	6.279	-0.005	6735	6053			
C26	6.452	-0.004	2845	2358			
C28	6.771	-0.002	316	241			
C32	7.363	-0.001	401	69			
C34	7.702	0.000	425	355	CREOSOT (C12-C22)	4014808	962
Filter Peak	9.138	-0.004	449	414			
C36	8.120	-0.005	404	163			
C38	8.666	0.001	444	385			
C40	9.385	0.000	450	530			
o-terph	4.902	0.001	1253628	926205	JET-A (C10-C18)	3351621	197
Triacon Surr	7.063	-0.011	924	681			

Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

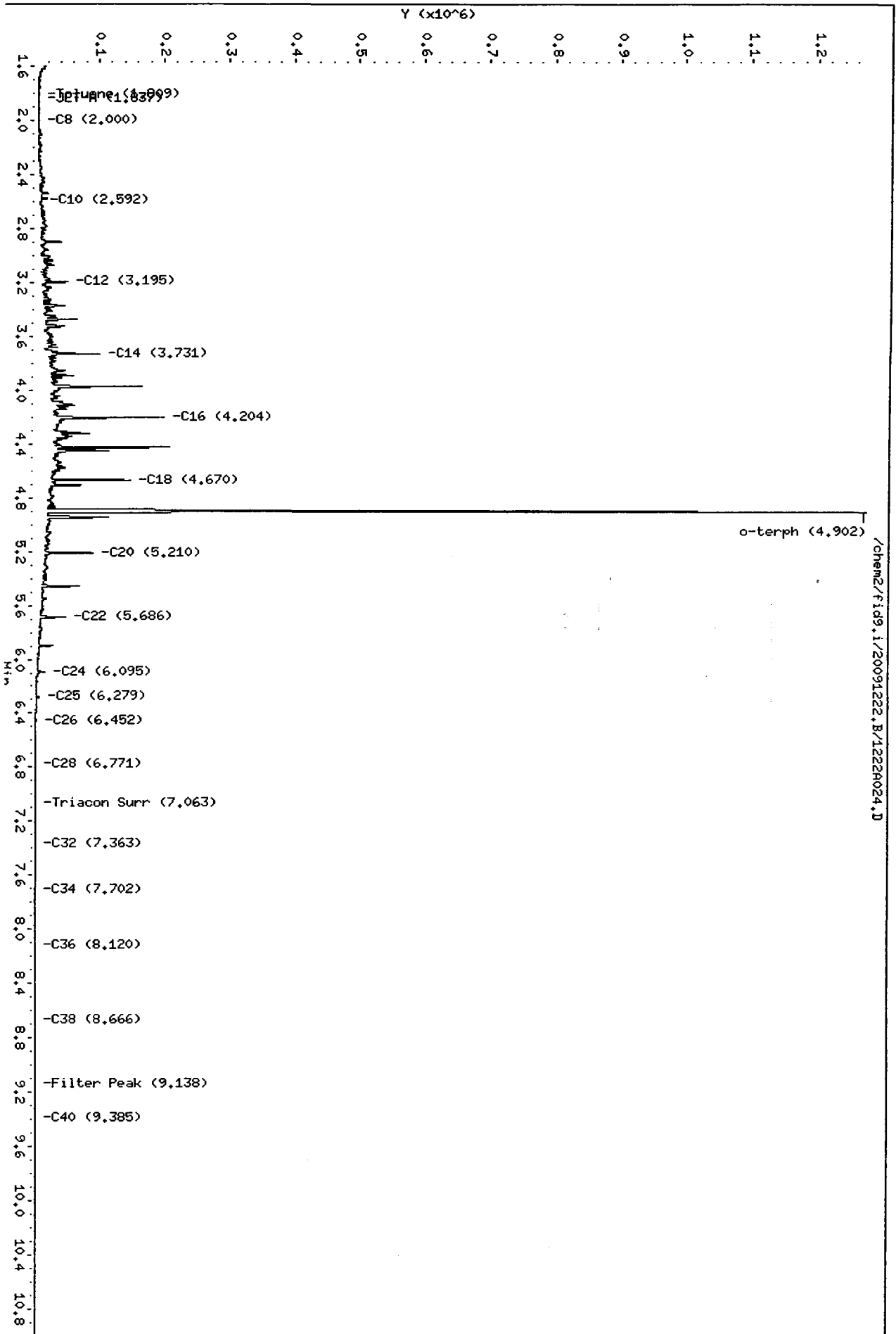
Surrogate	Area	Amount	%Rec
o-Terphenyl	926205	43.9	97.7
Triacontane	681	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9,1/20091222.B/1222A024.D  
Date: 22-DEC-2009 20:23  
Client ID: DIESEL 250  
Sample Info: DIESEL 250

Column phase: RTX-1

Instrument: fid9,1  
Operator: MS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A025.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 500  
Client ID: DIESEL 500  
Injection: 22-DEC-2009 20:42  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.818	0.005	3756	7681	GAS (Tol-C12)	1244439	96
C8	2.006	0.011	4700	8722	DIESEL (C12-C24)	8404059	498
C10	2.596	-0.016	10928	9930	M.OIL (C24-C38)	116662	11
C12	3.196	-0.008	95120	78809	AK-102 (C10-C25)	9348799	495
C14	3.731	0.000	197511	119054	AK-103 (C25-C36)	76538	8
C16	4.205	0.001	404345	279536	OR.DIES (C10-C28)	9408797	628
C18	4.671	0.001	291147	220492	OR.MOIL (C28-C40)	34868	5
C20	5.212	0.001	182493	154754			
C22	5.688	-0.001	94881	77393			
C24	6.096	-0.001	32099	22048			
C25	6.280	-0.004	14045	18086			
C26	6.453	-0.003	5794	4712			
C28	6.768	-0.004	646	636			
C32	7.366	0.003	243	189			
C34	7.712	0.010	253	98	CREOSOT (C12-C22)	8096505	1941
Filter Peak	9.140	-0.002	267	51			
C36	8.120	-0.005	253	167			
C38	8.669	0.004	289	186			
C40	9.387	0.002	282	187			
o-terph	4.909	0.008	2133148	1861070	JET-A (C10-C18)	6659291	391
Triacon Surr	7.084	0.010	57	10			

Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1861070	88.3	196.2
Triacontane	10	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009



Data File: /chem2/fid9.i/20091222.B/1222A025.D

Date: 22-DEC-2009 20:42

Client ID: DIESEL 500

Sample Info: DIESEL 500

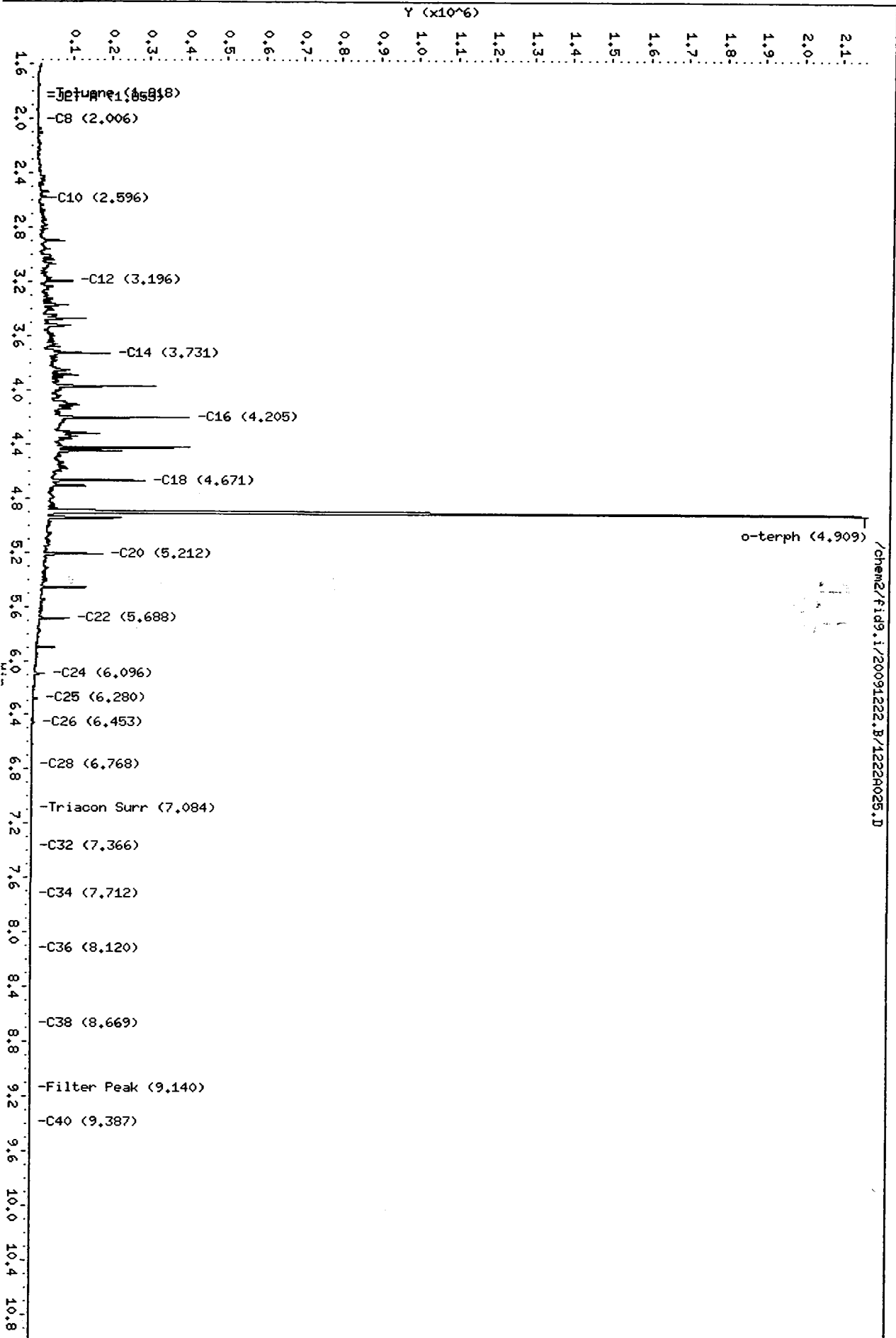
Column phase: RTX-1

Instrument: fid9.i

Operator: HS

Column diameter: 0.25

/chem2/fid9.i/20091222.B/1222A025.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A026.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 1000  
Client ID: DIESEL 1000  
Injection: 22-DEC-2009 21:01  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.802	-0.010	4372	4241	GAS (Tol-C12)	2393211	185
C8	2.013	0.018	11214	15802	DIESEL (C12-C24)	16407228	972
C10	2.622	0.011	17247	13641	M.OIL (C24-C38)	201222	18
C12	3.198	-0.007	193458	155320	AK-102 (C10-C25)	18235441	966
C14	3.732	0.001	379665	232401	AK-103 (C25-C36)	136123	14
C16	4.207	0.003	768773	559487	OR.DIES (C10-C28)	18362277	1226
C18	4.676	0.007	558006	439291	OR.MOIL (C28-C40)	13386	2
C20	5.218	0.007	350239	302734			
C22	5.693	0.004	188915	146774			
C24	6.098	0.001	59609	47496			
C25	6.282	-0.003	28062	32795			
C26	6.453	-0.003	12206	11182			
C28	6.770	-0.003	1479	1570			
C32	7.372	0.009	93	53			
C34	7.708	0.006	115	86	CREOSOT (C12-C22)	15796511	3786
Filter Peak	9.147	0.005	63	12			
C36	8.121	-0.004	71	54			
C38	8.668	0.003	75	25			
C40	9.379	-0.006	76	54			
o-terph	4.921	0.020	3268280	3684180	JET-A (C10-C18)	13085663	768
Triacon Surr	7.079	0.005	36	19			

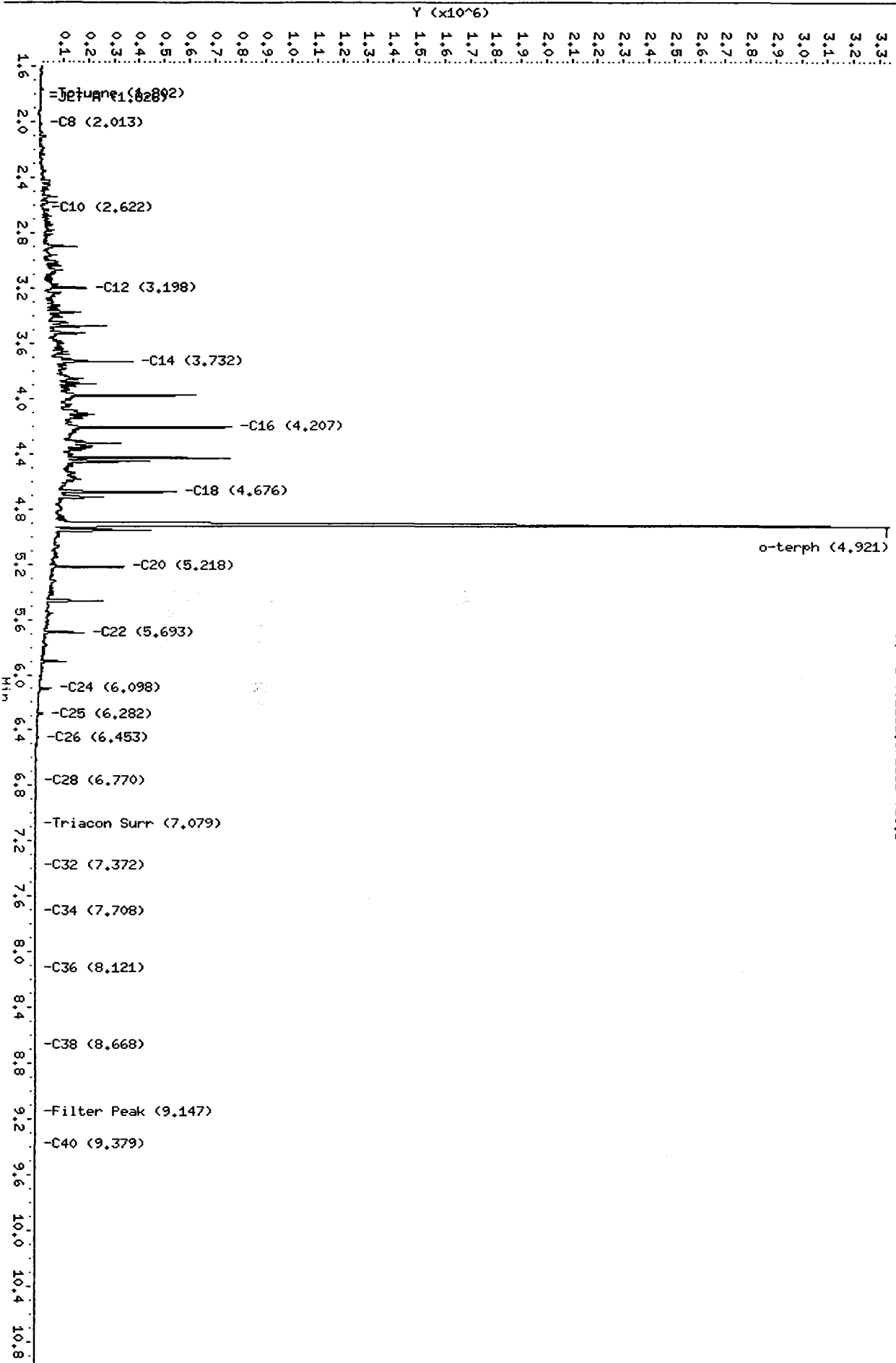
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3684180	174.8	388.4
Triacontane	19	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A026.D  
Date: 22-DEC-2009 21:01  
Client ID: DIESEL 1000  
Sample Info: DIESEL 1000  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A027.D  
Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 12/23/2009  
Macro: 22-DEC-2009  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 2500  
Client ID: DIESEL 2500  
Injection: 22-DEC-2009 21:21  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.813	0.000	13280	15722	GAS (Tol-C12)	7112141	549
C8	1.978	-0.017	8985	6105	DIESEL (C12-C24)	47928435	2838
C10	2.614	0.003	41997	22099	M.OIL (C24-C38)	672623	61
C12	3.200	-0.005	604772	451987	AK-102 (C10-C25)	53403913	2828
C14	3.733	0.002	1138506	703123	AK-103 (C25-C36)	481603	51
C16	4.197	-0.007	453490	321789	OR.DIES (C10-C28)	53844462	3594
C18	4.660	-0.010	294341	253851	OR.MOIL (C28-C40)	44851	6
C20	5.203	-0.008	218596	357400			
C22	5.686	-0.003	107694	29717			
C24	6.089	-0.008	49692	48067			
C25	6.287	0.002	80177	101812			
C26	6.456	0.000	36322	28881			
C28	6.770	-0.003	5485	7944			
C32	7.353	-0.011	683	878			
C34	7.694	-0.008	501	591	CREOSOT (C12-C22)	46086036	11047
Filter Peak	9.139	-0.003	41	25			
C36	8.116	-0.009	202	293			
C38	8.673	0.008	50	25			
C40	9.381	-0.004	42	37			
o-terph	4.960	0.059	4572253	11271121	JET-A (C10-C18)	37731892	2215
Triacon Surr	7.076	0.002	762	521			

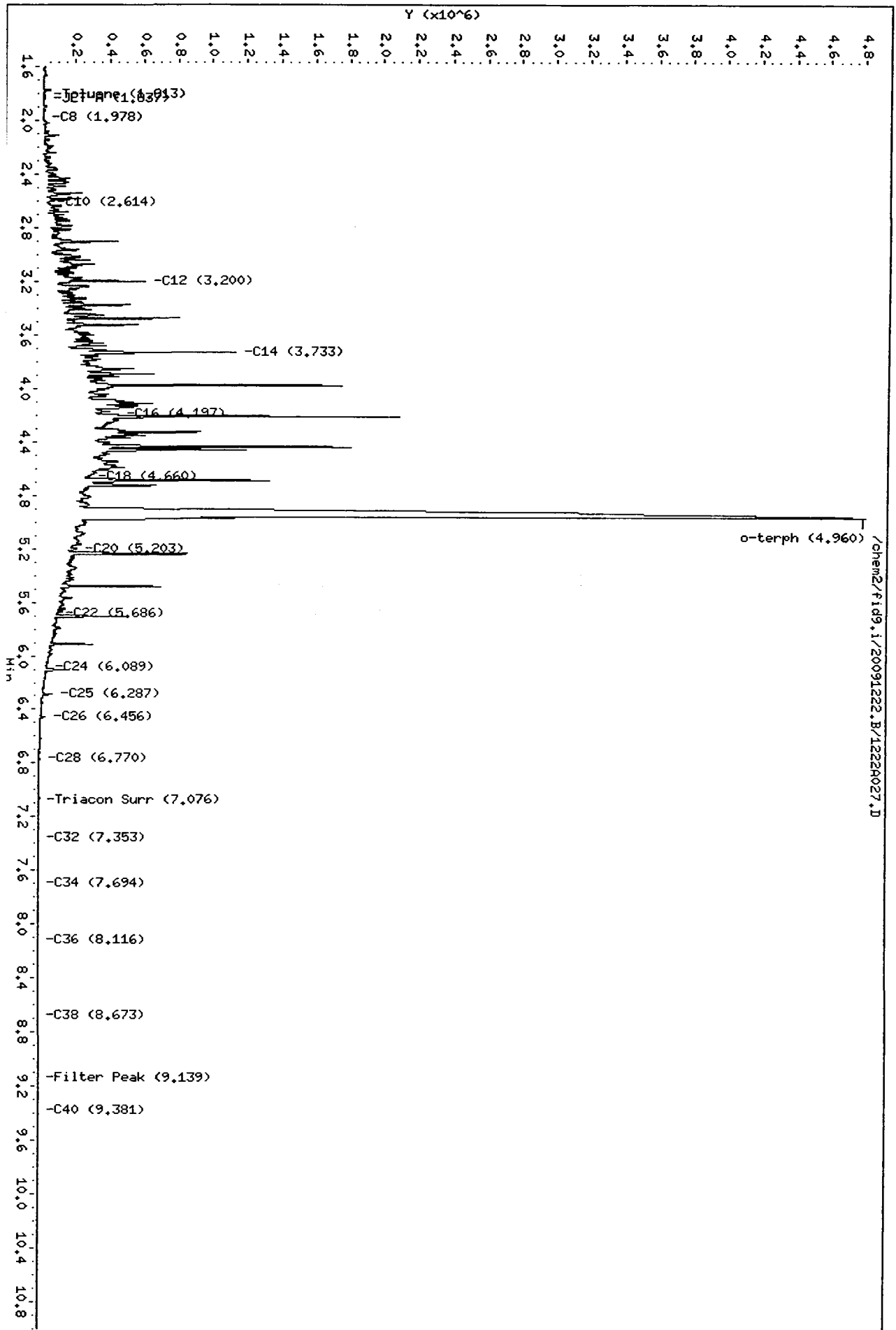
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	11271121	534.8	1188.4
Triacontane	521	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A027.D  
Date: 22-DEC-2009 21:21  
Client ID: DIESEL 2500  
Sample Info: DIESEL 2500  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



Analytical Resources Inc.  
 TPH Quantitation Report

Data file: /chem2/fid9.i/20091222.B/1222A028.D  
 Method: /chem2/fid9.i/20091222.B/ftphfid9a.m  
 Instrument: fid9.i  
 Operator: MS  
 Report Date: 12/23/2009  
 Macro: 22-DEC-2009  
 Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL ICV  
 Client ID: DIESEL ICV  
 Injection: 22-DEC-2009 21:40  
 Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.804	-0.009	4464	5506	GAS (Tol-C12)	844389	65
C8	1.996	0.001	4444	5381	DIESEL (C12-C24)	3727421	221
C10	2.633	0.022	12055	16410	M.OIL (C24-C38)	57437	5
C12	3.195	-0.009	69735	53594	AK-102 (C10-C25)	4332853	229
C14	3.732	0.001	115236	68083	AK-103 (C25-C36)	41687	4
C16	4.206	0.002	147631	111417	OR.DIES (C10-C28)	4357507	291
C18	4.670	0.000	93575	71972	OR.MOIL (C28-C40)	38692	6
C20	5.210	-0.001	60325	56413			
C22	5.687	-0.002	31052	25645			
C24	6.095	-0.001	11295	9721			
C25	6.281	-0.004	5509	5217			
C26	6.453	-0.003	2709	2289			
C28	6.769	-0.003	422	324			
C32	7.356	-0.007	276	407			
C34	7.705	0.003	348	230	CREOSOT (C12-C22)	3620778	868
Filter Peak	9.143	0.000	321	69			
C36	8.125	0.000	263	141			
C38	8.663	-0.002	312	164			
C40	9.387	0.002	342	153			
o-terph	4.902	0.001	1271858	932737	JET-A (C10-C18)	3297297	194
Triacon Surr	7.062	-0.012	1204	800			

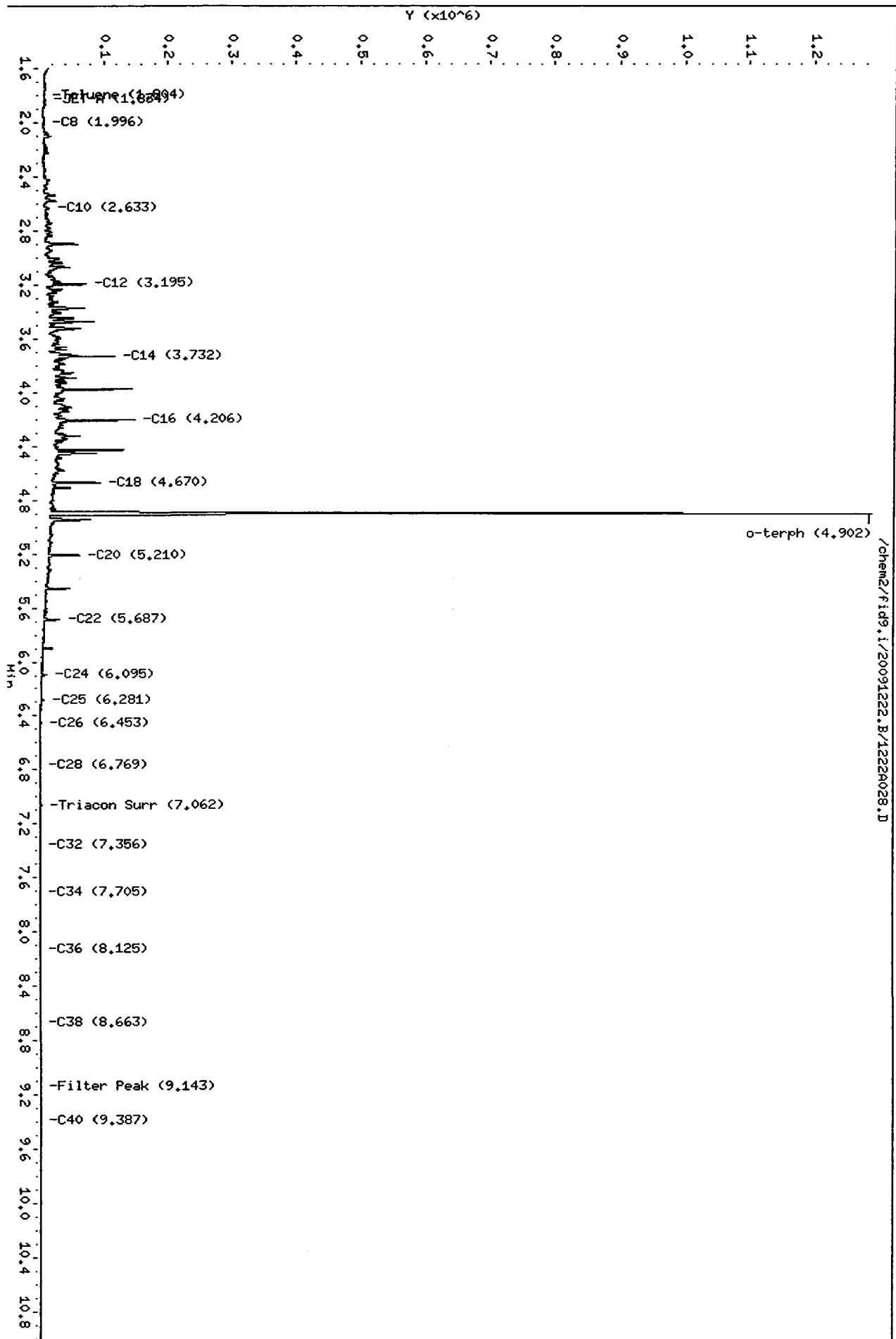
Range Times: NW Diesel(3.204 - 6.097) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
 NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	932737	44.3	98.3
Triacontane	800	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	23246.3	22-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	11092.2	22-DEC-2009
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

Data File: /chem2/fid9.i/20091222.B/1222A028.D  
Date : 22-DEC-2009 21:40  
Client ID: DIESEL ICV  
Sample Info: DIESEL ICV  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



6a  
NW MOTOR OIL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD-SNIDER

Instrument: FID9.I

Project: POS-LLA

Calibration Date: 05-JAN-2010

SDG No.: QE56

Motor Oil Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil	16362	14679	13357	13226	12747	12535	13818	10.5
AK M.Oil	13589	12392	11370	11349	10950	10930	11763	8.8
OR M.Oil	15145	12842	11466	11163	10724	10210	11925	15.2
Triac Surr	22397	22532	21421	21879	21231	22154	21936	2.4

<- Indicates %RSD outside limits  
Surrogate areas are not included in Motor Oil RF calculation.

Quant Ranges :   WA M.Oil     C24-C38  
                  AK M.Oil     C25-C36  
                  OR M.Oil     C28-C40

Calibration Files      Analysis Time

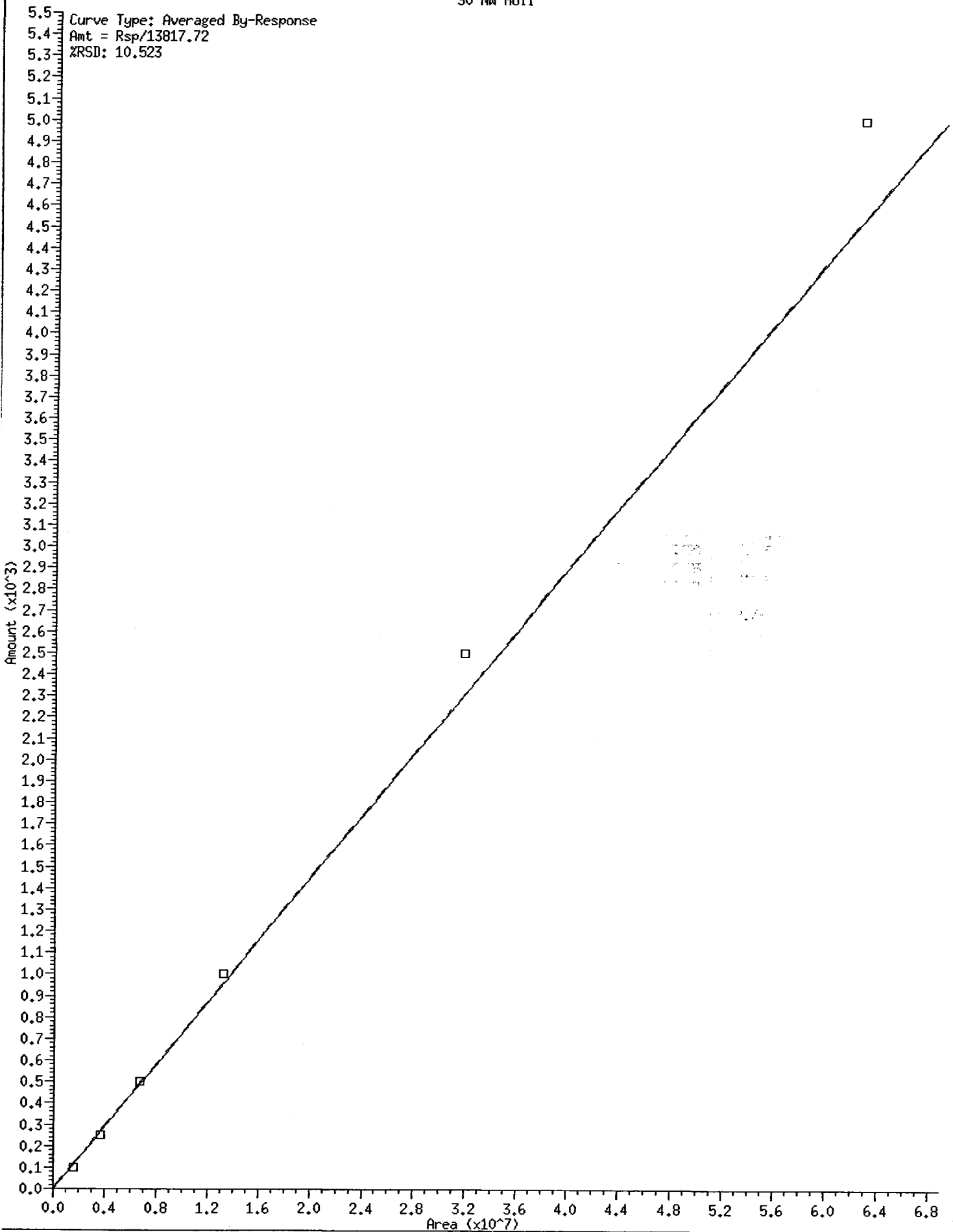
---

0105A020.D	05-JAN-2010 19:37
0105A021.D	05-JAN-2010 19:56
0105A022.D	05-JAN-2010 20:16
0105A023.D	05-JAN-2010 20:35
0105A024.D	05-JAN-2010 20:55
0105A025.D	05-JAN-2010 21:15



30 NW MD11

Curve Type: Averaged By-Response  
Amt = Rsp/13817.72  
%RSD: 10.523

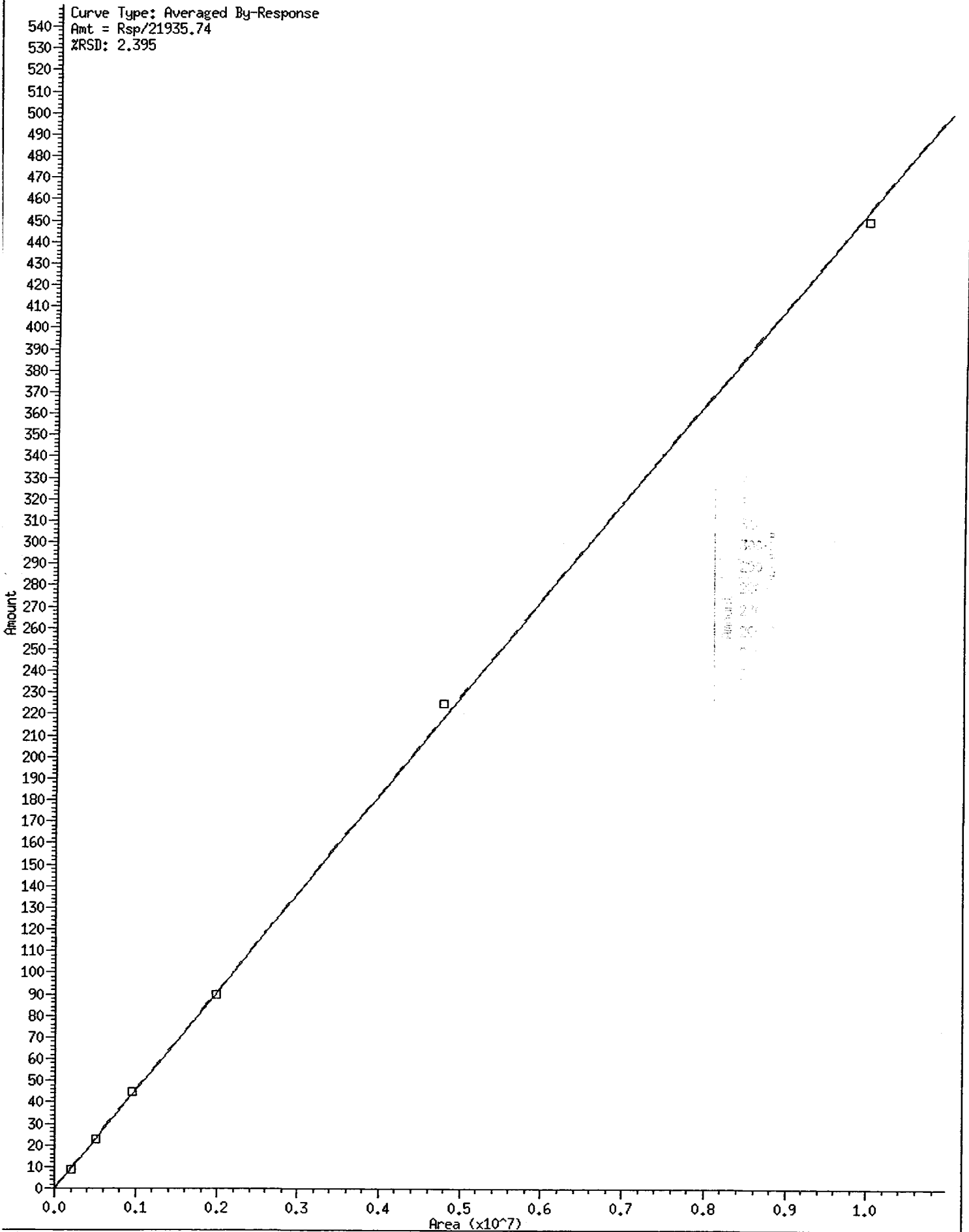


\* 15 Triacon Surr

Curve Type: Averaged By-Response

Amt = Rsp/21935.74

%RSD: 2.395



0055:00735

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A018.D  
Method: /chem2/fid9.i/20100105.B/ftp9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: RT  
Client ID:  
Injection: 05-JAN-2010 18:57  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.799	0.000	2155778	767659	GAS (Tol-C12)	593211527	45832
C8	1.983	0.000	357860	184748	DIESEL (C12-C24)	1787159	106
C10	2.609	0.000	564311	276657	M.OIL (C24-C38)	2410363	174
C12	3.204	0.000	487416	278651	AK-102 (C10-C25)	2396184	127
C14	3.732	0.000	528302	280974	AK-103 (C25-C36)	2056036	217
C16	4.205	0.000	580490	286107			
C18	4.671	0.000	498111	292594			
C20	5.210	0.000	496063	289817			
C22	5.688	0.000	522800	302195			
C24	6.096	0.000	526488	297329			
C25	6.282	0.000	725230	415024			
C26	6.454	0.000	526604	293795			
C28	6.771	0.000	516632	294939			
C32	7.359	0.000	449678	299498			
C34	7.700	0.000	355097	313470	BUNKERC (C10-C38)	4804397	548
Filter Peak	9.142	0.000	3141	2252			
C36	8.125	0.000	251241	290374			
C38	8.671	0.000	191849	279627			
C40	9.391	0.000	120768	246072			
o-terph	4.900	0.000	1288434	958064			
Triacon Surr	7.071	0.000	1419063	1014780			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	958064	45.5	101.0
Triacontane	1014780	46.3	102.8

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/0105A018.D  
Date : 05-JAN-2010 18:57

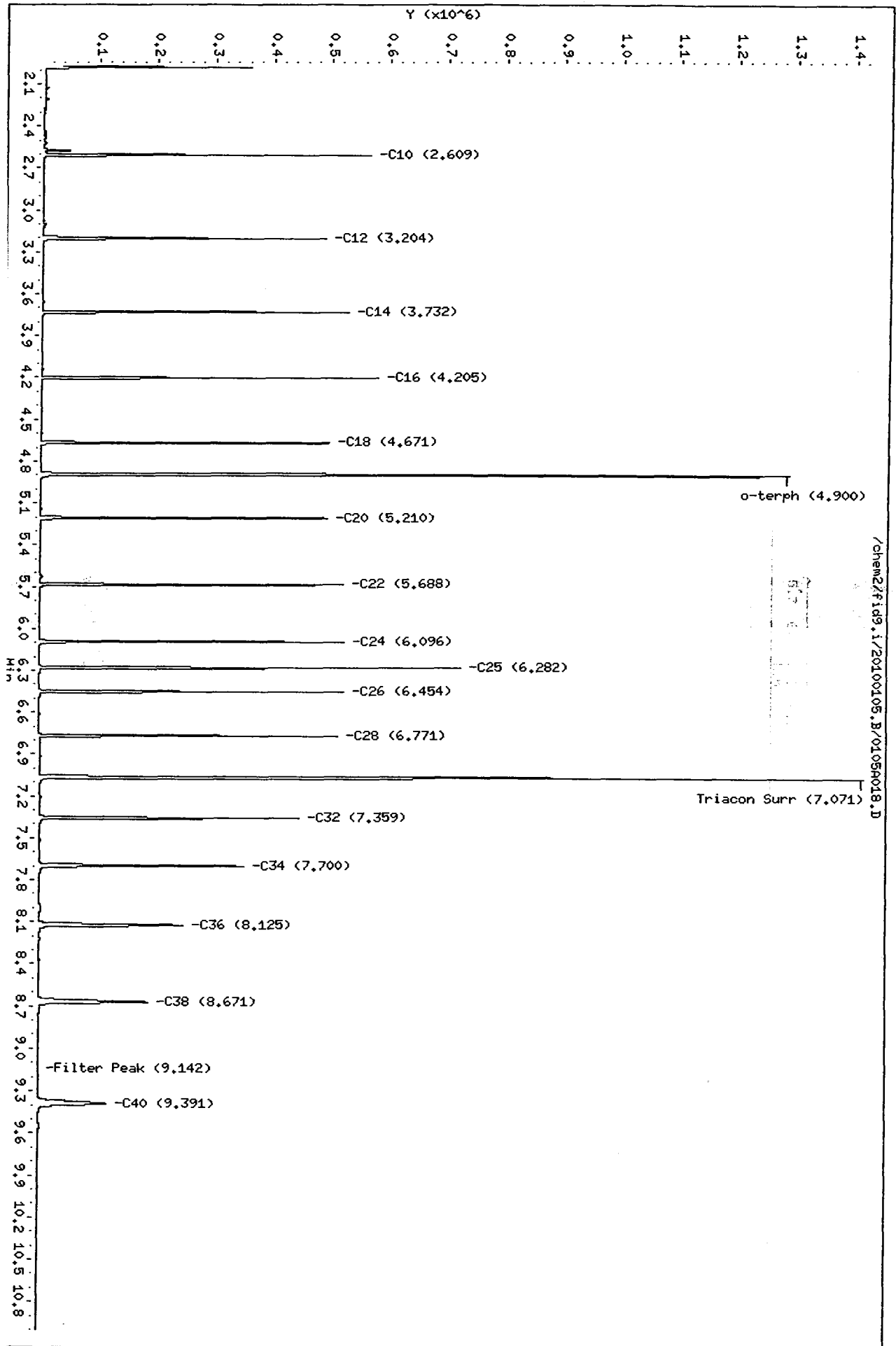
Client ID:  
Sample Info: RT

Column phase: RTX-1

Instrument: fid9.i

Operator: HS  
Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A019.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: IB  
Client ID:  
Injection: 05-JAN-2010 19:17  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.840	0.042	2334	832	GAS (Tol-C12)	87208	7
C8	1.982	-0.002	1689	1343	DIESEL (C12-C24)	33260	2
C10	2.617	0.009	1077	319	M.OIL (C24-C38)	290822	21
C12	3.195	-0.009	871	1291	AK-102 (C10-C25)	72597	4
C14	3.728	-0.005	354	170	AK-103 (C25-C36)	206137	22
C16	4.199	-0.006	240	237			
C18	4.672	0.001	349	274			
C20	5.213	0.003	457	389			
C22	5.691	0.002	582	473			
C24	6.098	0.001	783	646			
C25	6.281	-0.001	987	883			
C26	6.453	-0.001	1047	1047			
C28	6.769	-0.002	2075	3042			
C32	7.357	-0.002	5491	7882			
C34	7.696	-0.004	2794	5663	BUNKERC (C10-C38)	361851	41
Filter Peak	9.140	-0.002	2992	1073			
C36	8.117	-0.008	2830	7158			
C38	8.659	-0.012	3074	5150			
C40	9.397	0.006	2902	2067			
o-terph	4.905	0.005	1623076	1307314			
Triacon Surr	7.073	0.002	1494173	1048222			

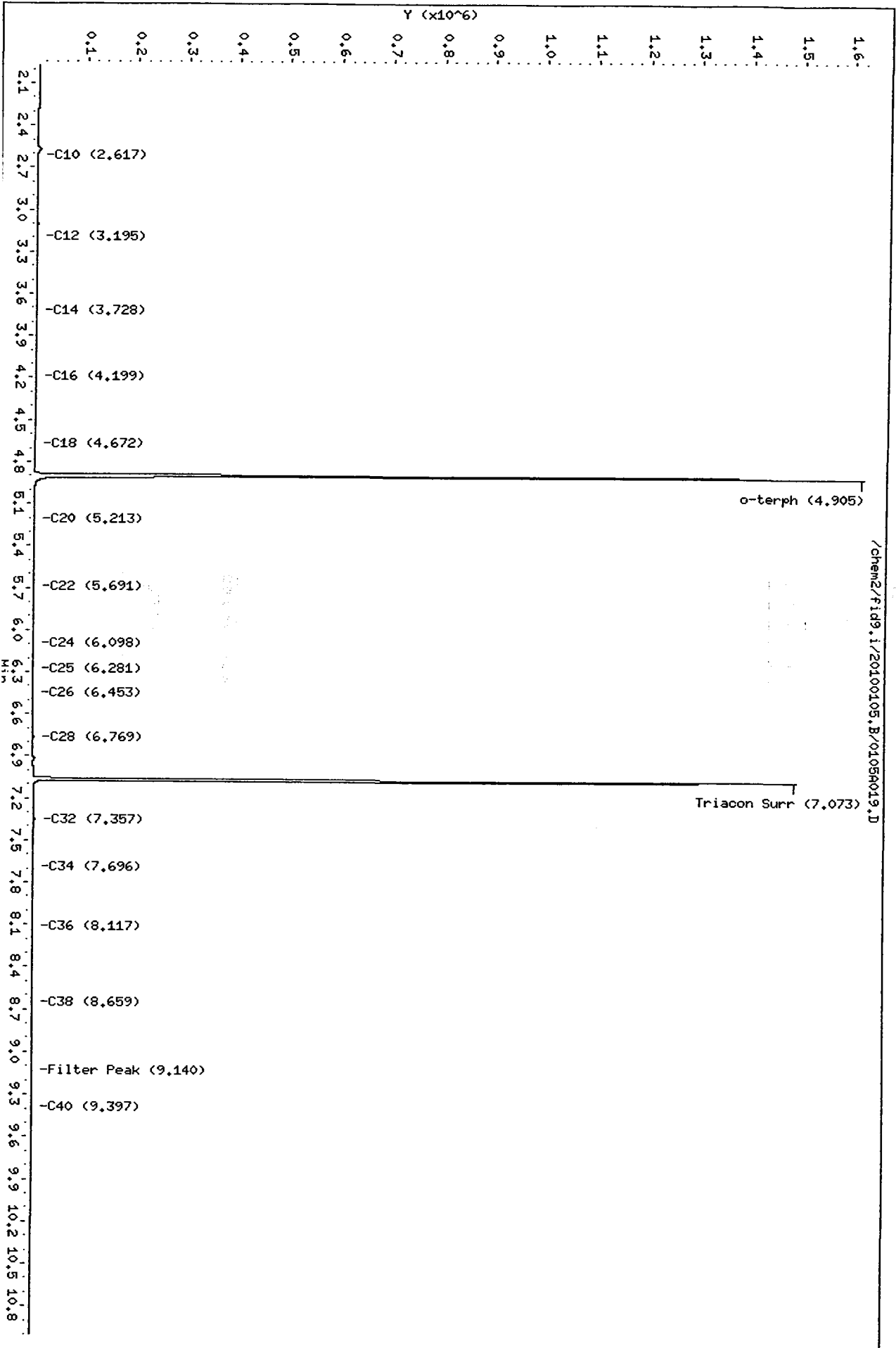
Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1307314	62.0	137.8
Triacontane	1048222	47.8	106.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/0105A019.D  
Date: 05-JAN-2010 19:17  
Client ID:  
Sample Info: IB  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



/chem2/fid9.i/20100105.B/0105A019.D

10 10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A020.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 100  
Client ID: MOIL 100  
Injection: 05-JAN-2010 19:37  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.806	0.007	2669	4182	GAS (Tol-C12)	89378	7
C8	1.982	-0.001	1768	1356	DIESEL (C12-C24)	174852	10
C10	2.622	0.014	975	365	M.OIL (C24-C38)	1641825	119
C12	3.194	-0.010	674	1212	AK-102 (C10-C25)	234435	12
C14	3.744	0.012	415	645	AK-103 (C25-C36)	1355152	143
C16	4.214	0.009	248	270			
C18	4.675	0.005	286	228			
C20	5.211	0.001	737	827			
C22	5.687	-0.001	2721	3825			
C24	6.096	0.000	5915	5204			
C25	6.278	-0.004	7557	3845			
C26	6.451	-0.003	9721	12692			
C28	6.773	0.002	12414	7057			
C32	7.360	0.001	14443	3451			
C34	7.700	0.000	12218	5562	BUNKERC (C10-C38)	1844756	210
Filter Peak	9.142	0.001	5560	4842			
C36	8.131	0.006	9681	11928			
C38	8.673	0.002	7158	4749			
C40	9.389	-0.002	4929	2244			
o-terph	4.904	0.004	1737	1485			
Triacon Surr	7.078	0.007	362245	201571			

Range Times: NW Diesel (3.204 - 6.096) AK102 (2.61 - 6.28) Jet A (2.61 - 4.67)  
NW M.Oil (6.10 - 8.67) AK103 (6.28 - 8.13) OR Diesel (2.61 - 6.77)

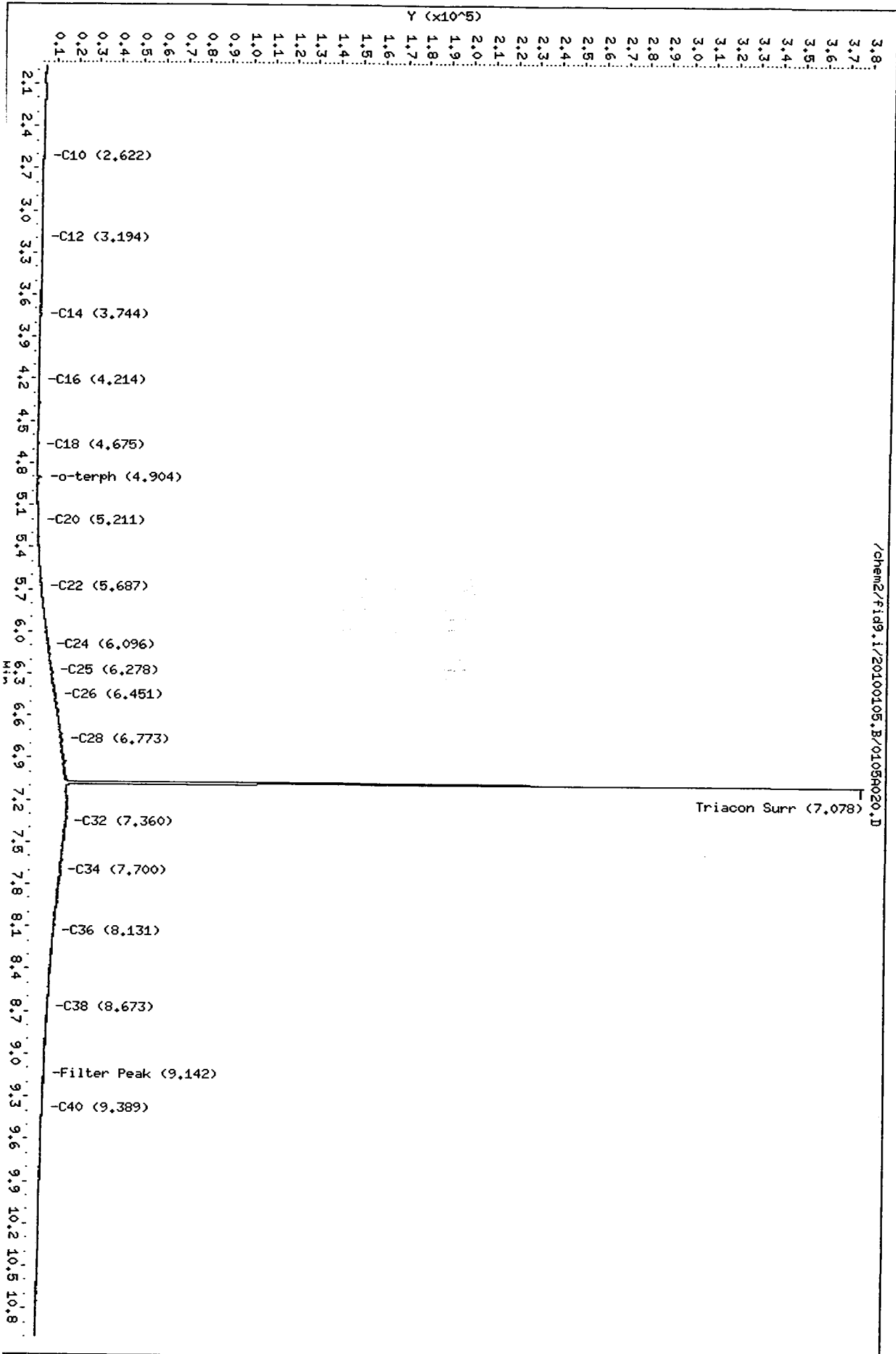
Surrogate	Area	Amount	%Rec
o-Terphenyl	1485	0.1	0.2
Triacontane	201571	9.2	20.4

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/0105A020.D  
 Date: 05-JAN-2010 19:37  
 Client ID: HDIL 100  
 Sample Info: HDIL 100  
 Column phase: RTX-1

Instrument: fid9.i  
 Operator: HS  
 Column diameter: 0.25

/chem2/fid9.i/20100105.B/0105A020.D



10 10



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A021.D

ARI ID: MOIL 250

Method: /chem2/fid9.i/20100105.B/ftphfid9a.m

Client ID: MOIL 250

Instrument: fid9.i

Injection: 05-JAN-2010 19:56

Operator: MS

Report Date: 01/08/2010

Dilution Factor: 1

Macro: 05-JAN-2010

Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.806	0.008	2777	3718	GAS (Tol-C12)	85960	7
C8	1.982	-0.002	1737	1734	DIESEL (C12-C24)	389481	23
C10	2.607	-0.002	973	643	M.OIL (C24-C38)	3682199	266
C12	3.194	-0.010	701	1283	AK-102 (C10-C25)	505992	27
C14	3.730	-0.002	273	63	AK-103 (C25-C36)	3085514	326
C16	4.216	0.010	201	161			
C18	4.675	0.004	391	271			
C20	5.212	0.002	1502	1575			
C22	5.686	-0.002	6308	6843			
C24	6.095	-0.001	14082	9937			
C25	6.283	0.001	17753	2829			
C26	6.453	-0.001	23033	14735			
C28	6.771	0.000	29437	9328			
C32	7.366	0.007	33133	14361			
C34	7.703	0.003	27148	17202	BUNKERC (C10-C38)	4100099	467
Filter Peak	9.142	0.000	9770	6366			
C36	8.121	-0.004	20610	11357			
C38	8.668	-0.003	13435	10622			
C40	9.389	-0.003	8325	6042			
o-terph	4.905	0.004	1108	1035			
Triacon Surr	7.081	0.011	836498	506970			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

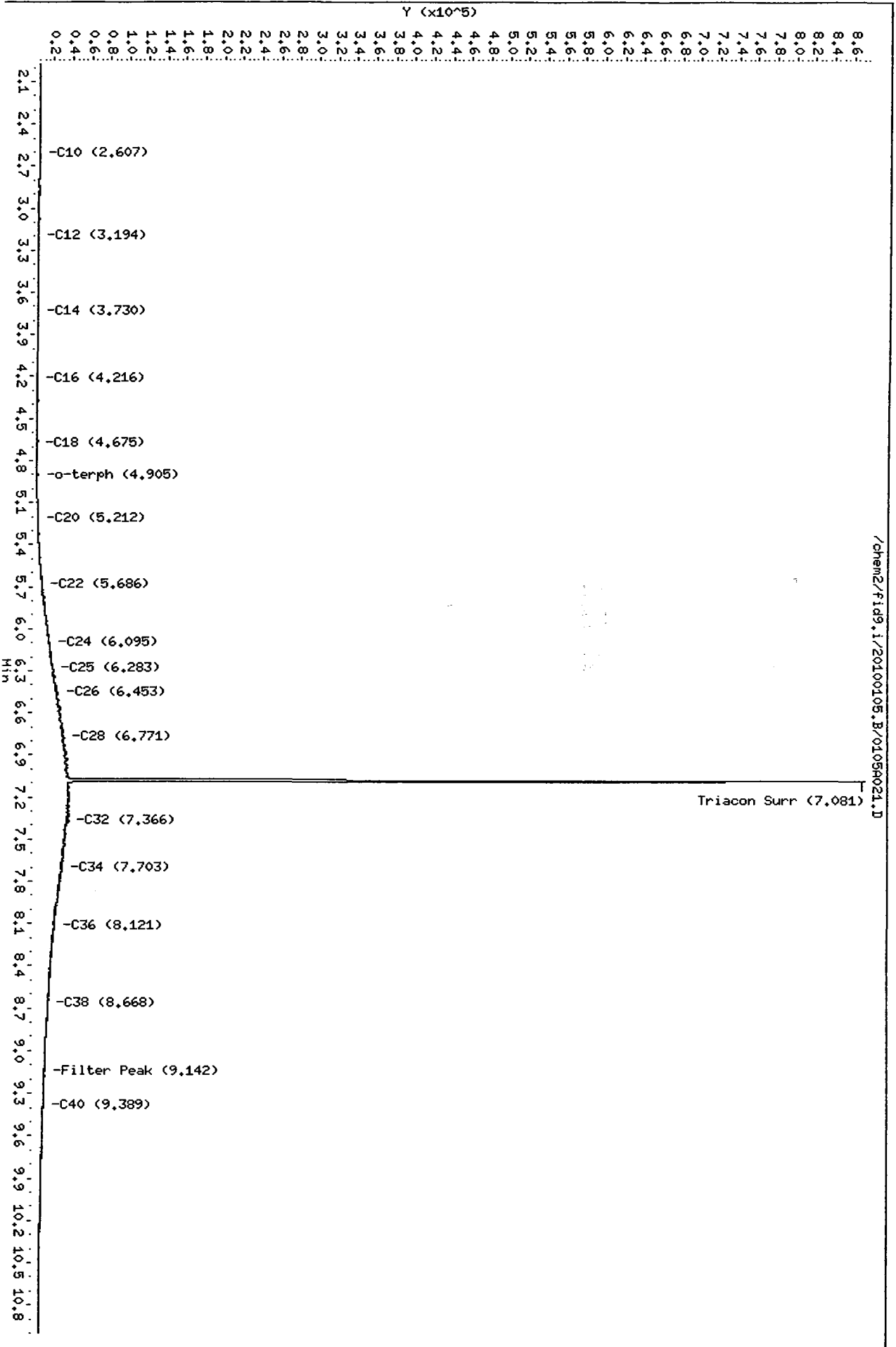
Surrogate	Area	Amount	%Rec
o-Terphenyl	1035	0.0	0.1
Triacontane	506970	23.1	51.4

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.1/20100105.B/01050021.D  
Date : 05-JAN-2010 19:56  
Client ID: H01L 250  
Sample Info: H01L 250

Column phase: RTX-1

Instrument: fid9.1  
Operator: HS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A022.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 500  
Client ID: MOIL 500  
Injection: 05-JAN-2010 20:16  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.845	0.046	2796	1223	GAS (Tol-C12)	93809	7
C8	1.985	0.001	1831	2593	DIESEL (C12-C24)	732569	43
C10	2.597	-0.012	1101	1265	M.OIL (C24-C38)	6686315	484
C12	3.193	-0.011	826	1133	AK-102 (C10-C25)	896180	47
C14	3.742	0.010	570	708	AK-103 (C25-C36)	5675022	600
C16	4.213	0.008	206	141			
C18	4.657	-0.014	2955	2528			
C20	5.211	0.001	2728	2560			
C22	5.687	-0.001	11537	12921			
C24	6.096	0.000	26020	19151			
C25	6.283	0.001	33643	12568			
C26	6.455	0.000	42116	46982			
C28	6.771	0.000	54025	27640			
C32	7.359	0.000	60284	11952			
C34	7.699	-0.001	48717	13444	BUNKERC (C10-C38)	7448657	849
Filter Peak	9.145	0.003	15501	13190			
C36	8.123	-0.002	35684	21867			
C38	8.672	0.001	23373	23666			
C40	9.391	0.000	13290	10437			
o-terph	4.904	0.004	1053	1147			
Triacon Surr	7.087	0.016	1254542	963947			

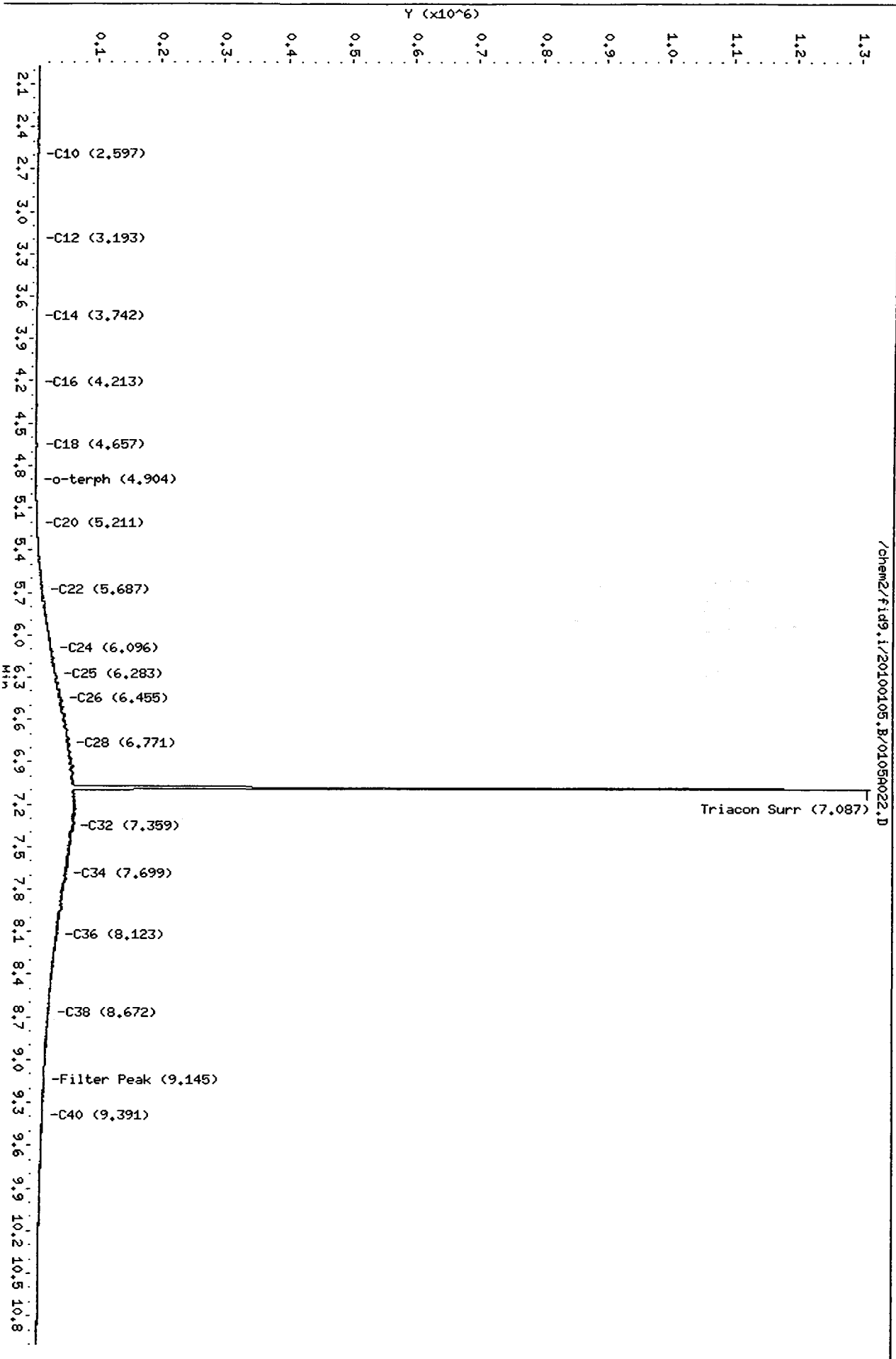
Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1147	0.1	0.1
Triacontane	963947	43.9	97.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/0105022.D  
Date: 05-JAN-2010 20:16  
Client ID: MOIL 500  
Sample Info: MOIL 500  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A023.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 1000  
Client ID: MOIL 1000  
Injection: 05-JAN-2010 20:35  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.840	0.041	2969	1534	GAS (Tol-C12)	88164	7
C8	1.976	-0.008	1835	1317	DIESEL (C12-C24)	1440534	85
C10	2.630	0.021	1043	1640	M.OIL (C24-C38)	13244965	959
C12	3.194	-0.010	1127	1496	AK-102 (C10-C25)	1753361	93
C14	3.741	0.009	857	933	AK-103 (C25-C36)	11348773	1200
C16	4.213	0.007	342	221			
C18	4.654	-0.017	5804	4949			
C20	5.210	0.000	5510	5239			
C22	5.686	-0.002	23740	20908			
C24	6.096	-0.001	53448	40256			
C25	6.282	-0.001	67235	19998			
C26	6.454	0.000	86698	33669			
C28	6.772	0.001	112693	46668			
C32	7.361	0.002	120877	40778			
C34	7.699	-0.001	95240	41588	BUNKERC (C10-C38)	14716607	1678
Filter Peak	9.147	0.005	28729	24149			
C36	8.131	0.006	69780	42374			
C38	8.667	-0.004	42338	9216			
C40	9.389	-0.002	23374	9218			
o-terph	4.902	0.001	1733	2174			
Triacon Surr	7.091	0.021	2229233	1969148			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

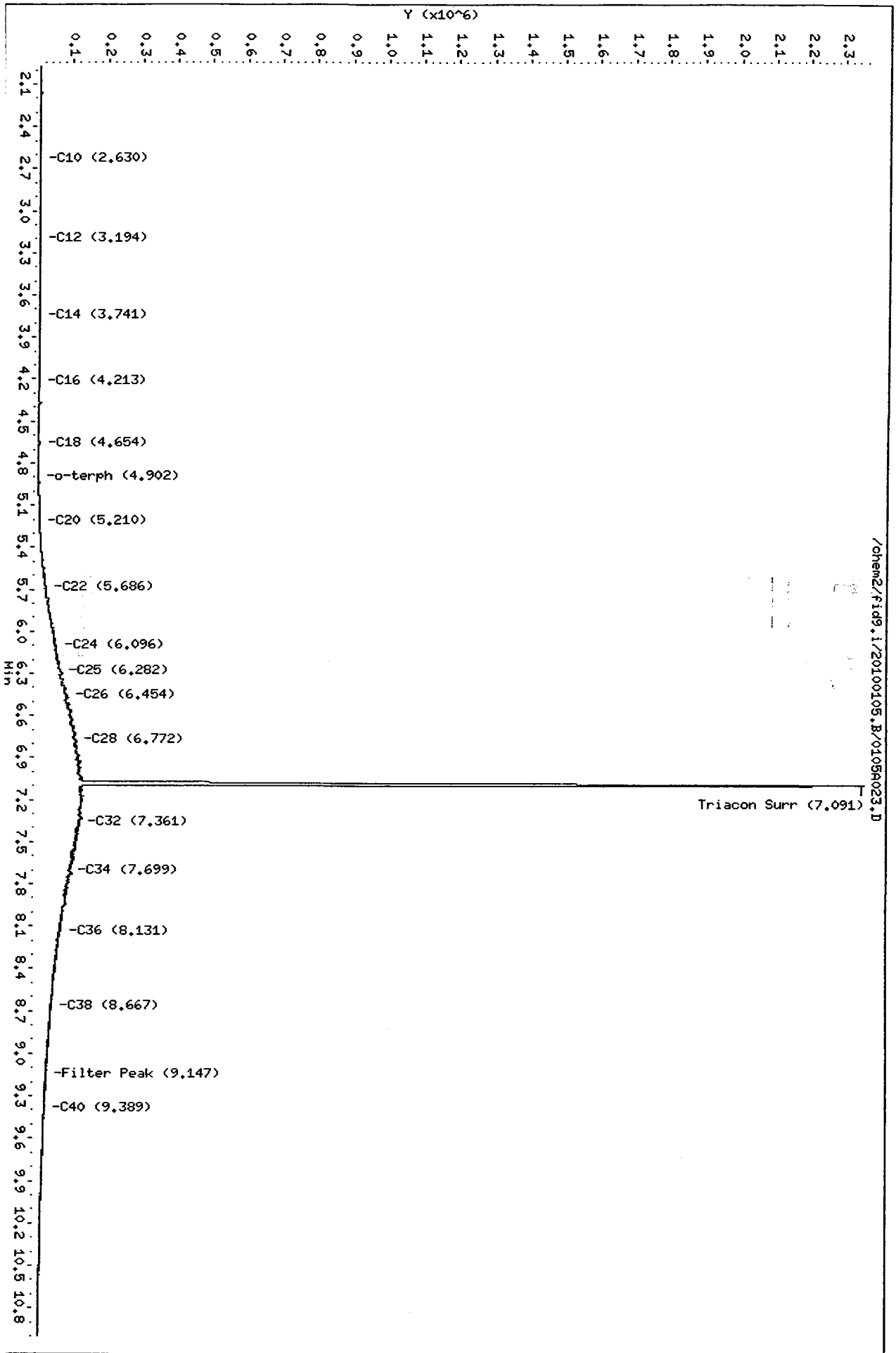
Surrogate	Area	Amount	%Rec
o-Terphenyl	2174	0.1	0.2
Triacontane	1969148	89.8	199.5

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/01056023.D  
Date : 05-JAN-2010 20:35  
Client ID: M01L 1000  
Sample Info: M01L 1000

Column phase: RTX-1

Instrument: fid9.1  
Operator: MS  
Column diameter: 0.25



10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A024.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 2500  
Client ID: MOIL 2500  
Injection: 05-JAN-2010 20:55  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.858	0.059	2884	8420	GAS (Tol-C12)	72298	6
C8	2.004	0.021	1206	477	DIESEL (C12-C24)	3493517	207
C10	2.632	0.023	830	1537	M.OIL (C24-C38)	31929864	2311
C12	3.194	-0.010	1648	1656	AK-102 (C10-C25)	4178703	221
C14	3.739	0.007	1698	1231	AK-103 (C25-C36)	27374663	2895
C16	4.211	0.006	1094	745			
C18	4.654	-0.017	13040	11830			
C20	5.212	0.002	13135	12526			
C22	5.691	0.003	55238	73986			
C24	6.102	0.006	123982	90203			
C25	6.283	0.001	158245	47058			
C26	6.449	-0.006	191339	93975			
C28	6.765	-0.006	255500	219673			
C32	7.353	-0.006	305703	225226			
C34	7.700	0.000	228383	54228	BUNKERC (C10-C38)	35446828	4042
Filter Peak	9.137	-0.005	63504	36934			
C36	8.126	0.001	159813	82579			
C38	8.671	0.000	97810	46290			
C40	9.390	-0.001	49859	37181			
o-terph	4.902	0.002	3627	5301			
Triacon Surr	7.116	0.046	4301755	4777016			

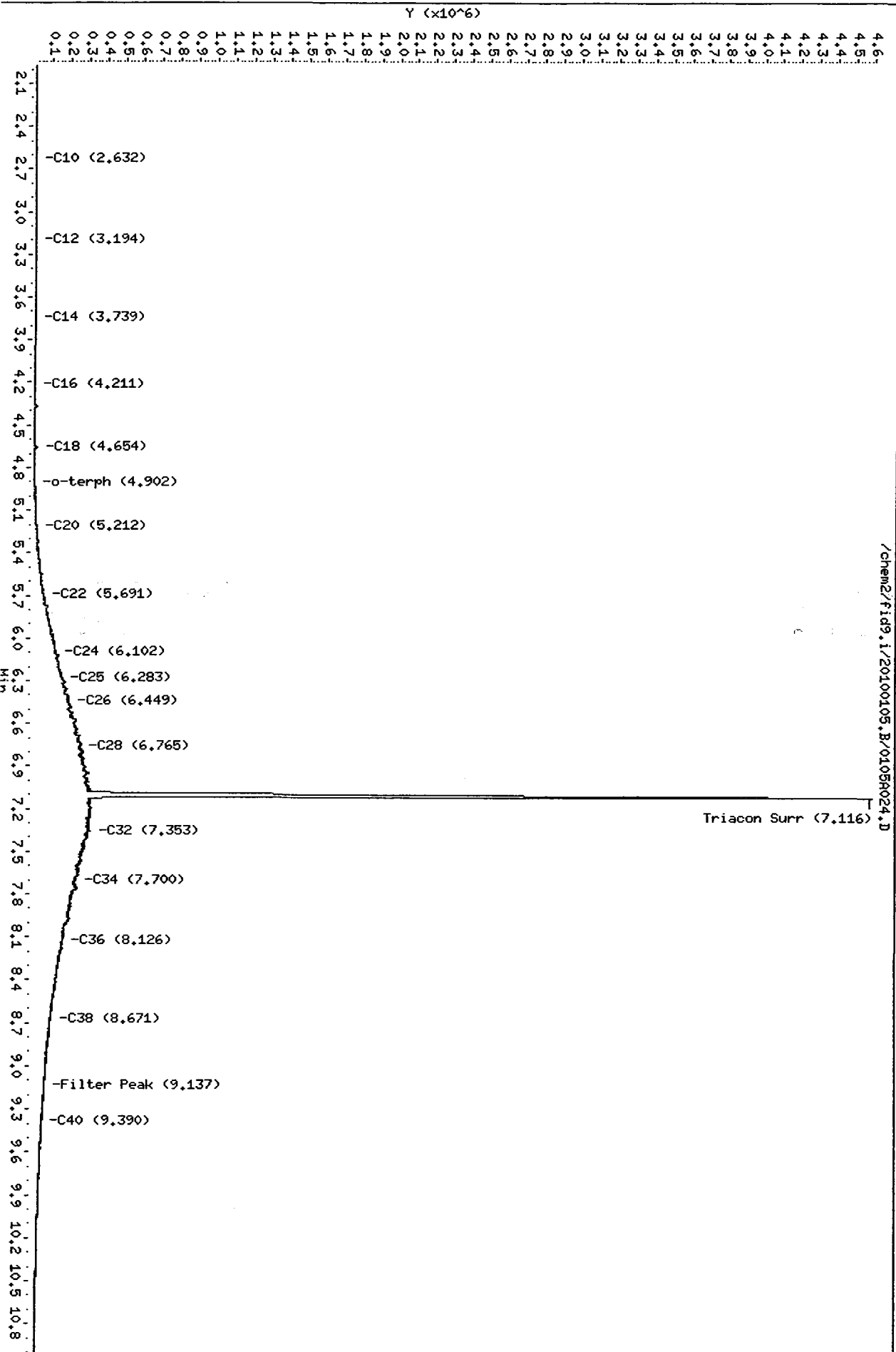
Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	5301	0.3	0.6
Triacantane	4777016	217.8	483.9

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/0105R024.D  
Date : 05-JAN-2010 20:55  
Client ID: M01L 2500  
Sample Info: M01L 2500  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



10 11 12 13 14 15 16 17 18 19 20



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A025.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL 5000  
Client ID: MOIL 5000  
Injection: 05-JAN-2010 21:15  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	56374	4
C8	1.963	-0.020	1641	3120	DIESEL (C12-C24)	6935061	411
C10	2.620	0.012	498	305	M.OIL (C24-C38)	62747200	4541
C12	3.193	-0.011	2949	2076	AK-102 (C10-C25)	8263752	438
C14	3.735	0.002	3755	2692	AK-103 (C25-C36)	54571019	5770
C16	4.208	0.002	2537	1946			
C18	4.669	-0.002	7123	5585			
C20	5.210	0.000	26982	42089			
C22	5.686	-0.002	105859	75804			
C24	6.095	-0.001	245334	82664			
C25	6.277	-0.005	309092	55292			
C26	6.452	-0.002	395043	341314			
C28	6.768	-0.003	538694	149295			
C32	7.356	-0.003	588317	371283			
C34	7.698	-0.002	469303	380732	BUNKERC (C10-C38)	69704564	7948
Filter Peak	9.136	-0.006	84660	79571			
C36	8.123	-0.002	301731	166876			
C38	8.664	-0.007	160075	170587			
C40	9.384	-0.007	63215	83673			
o-terph	4.900	0.000	7442	10737			
Triacon Surr	7.136	0.065	5022592	9969308			

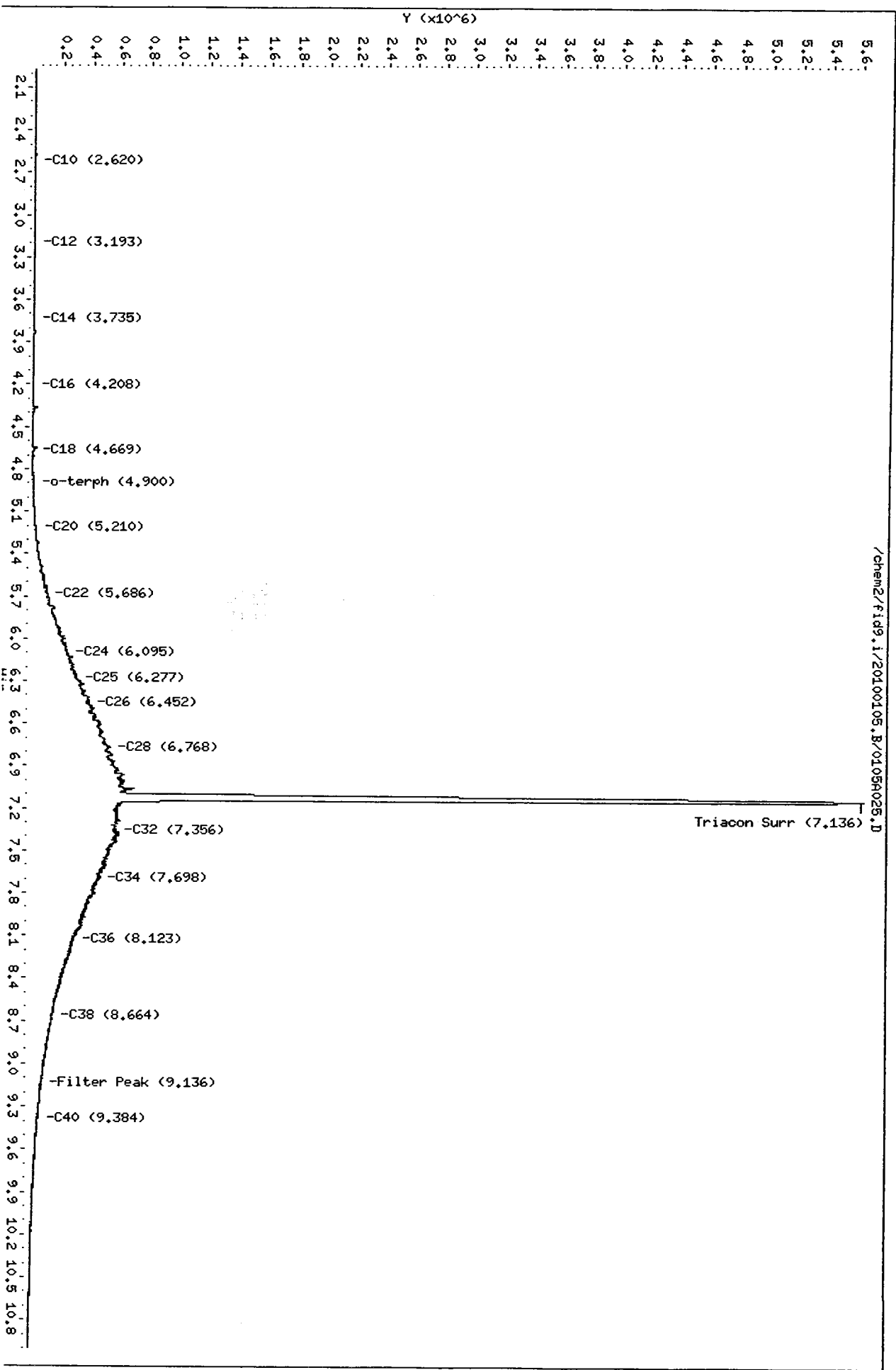
Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	10737	0.5	1.1
Triacantane	9969308	454.5	1010.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9,1/20100105.B/0105A025.D  
Date: 05-JAN-2010 21:15  
Client ID: MOIL 5000  
Sample Info: MOIL 5000  
Column phase: RTX-1

Instrument: fid9,1  
Operator: HS  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100105.B/0105A026.D  
Method: /chem2/fid9.i/20100105.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/08/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL ICV  
Client ID:  
Injection: 05-JAN-2010 21:34  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.790	-0.009	2954	5494	GAS (Tol-C12)	94323	7
C8	1.979	-0.005	1793	1524	DIESEL (C12-C24)	644882	38
C10	2.615	0.007	916	253	M.OIL (C24-C38)	6764970	490
C12	3.195	-0.009	875	1198	AK-102 (C10-C25)	816536	43
C14	3.720	-0.012	290	398	AK-103 (C25-C36)	5535095	585
C16	4.216	0.011	192	132			
C18	4.657	-0.014	8824	6876			
C20	5.211	0.001	2670	2780			
C22	5.689	0.000	9831	10477			
C24	6.097	0.001	22693	15814			
C25	6.273	-0.010	28994	37542			
C26	6.454	0.000	37274	21866			
C28	6.769	-0.002	49795	37756			
C32	7.363	0.004	60470	28915			
C34	7.698	-0.002	52223	21806	BUNKERC (C10-C38)	7438469	848
Filter Peak	9.144	0.002	20880	11405			
C36	8.127	0.001	43040	32718			
C38	8.669	-0.002	29436	30197			
C40	9.387	-0.004	17228	7453			
o-terph	4.905	0.005	1252	1357			
Triacon Surr	7.080	0.009	1307486	990209			

Range Times: NW Diesel(3.204 - 6.096) AK102(2.61 - 6.28) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.67) AK103(6.28 - 8.13) OR Diesel(2.61 - 6.77)

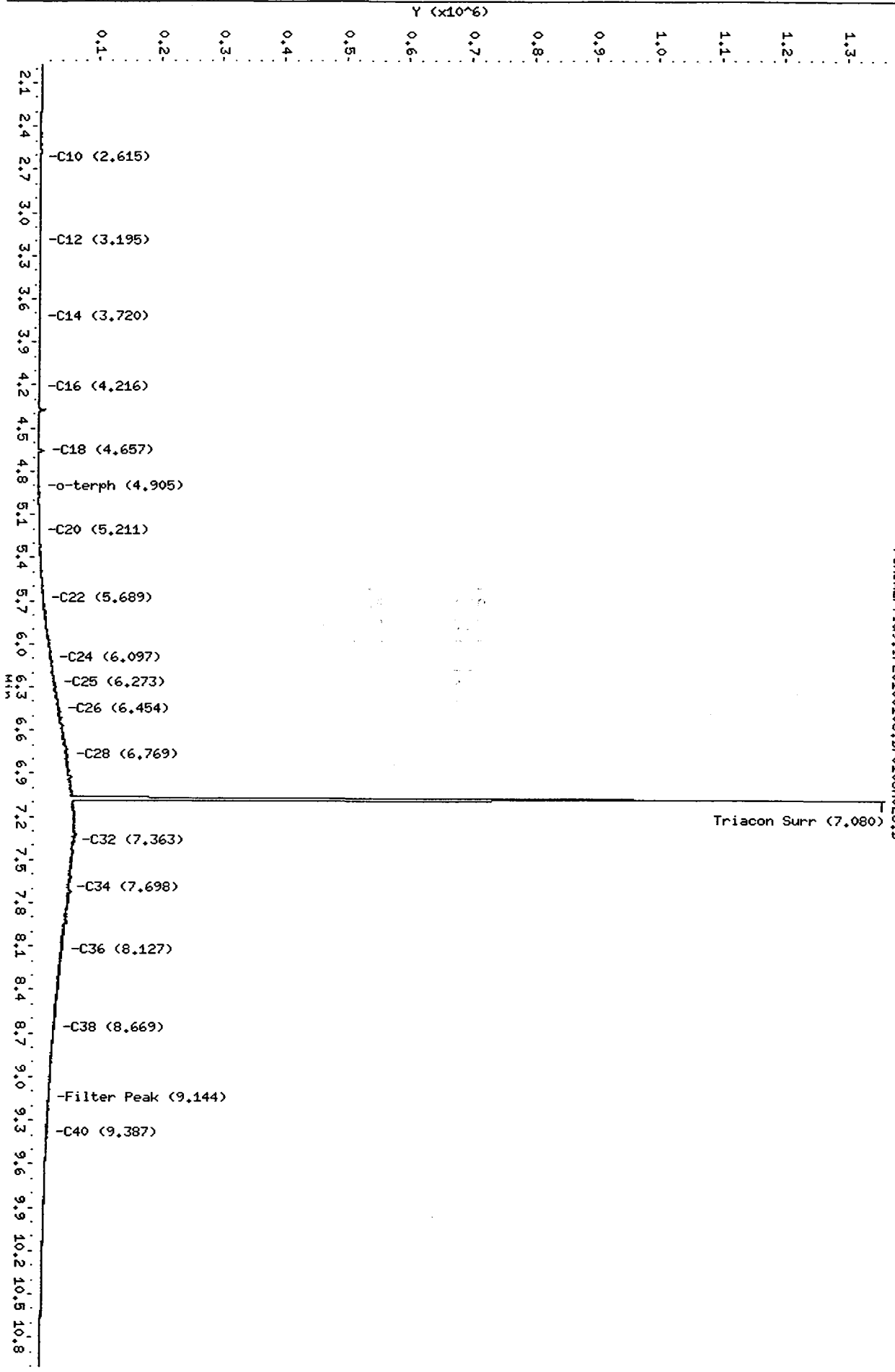
Surrogate	Area	Amount	%Rec
o-Terphenyl	1357	0.1	0.1
Triacotane	990209	45.1	100.3

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100105.B/0105A026.D  
Date : 05-JAN-2010 21:34  
Client ID:  
Sample Info: HDIL ICV  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25

/chem2/fid9.i/20100105.B/0105A026.D



Analytical Resources Inc.  
TPH Quantitation Report

ms 1/12/10

Data file: /chem2/fid9.i/20100112.B/0112A003.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: RT  
Client ID:  
Injection: 12-JAN-2010 12:35  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.804	0.000	2119579	765102	GAS (Tol-C12)	805300598	62218
C8	1.990	0.000	364970	193385	DIESEL (C12-C24)	1792868	106
C10	2.612	0.000	564074	269494	M.OIL (C24-C38)	2235428	162
C12	3.206	0.000	474479	281629	AK-102 (C10-C25)	2395434	127
C14	3.734	0.000	510376	284182	AK-103 (C25-C36)	1950103	206
C16	4.206	0.000	572974	289248			
C18	4.672	0.000	488016	295074			
C20	5.212	0.000	487028	291790			
C22	5.689	0.000	509731	303439			
C24	6.099	0.000	513983	296486			
C25	6.286	0.000	720493	414827			
C26	6.458	0.000	518639	294936			
C28	6.773	0.000	505657	295416			
C32	7.363	0.000	392203	295394			
C34	7.705	0.000	317946	286602	BUNKERC (C10-C38)	4629024	528
Filter Peak	9.141	0.000	1699	943			
C36	8.130	0.000	235128	259900			
C38	8.678	0.000	151193	235503			
C40	9.401	0.000	93470	188538			
o-terph	4.902	0.000	1324506	966204			
Triacon Surr	7.073	0.000	1387862	1010961			

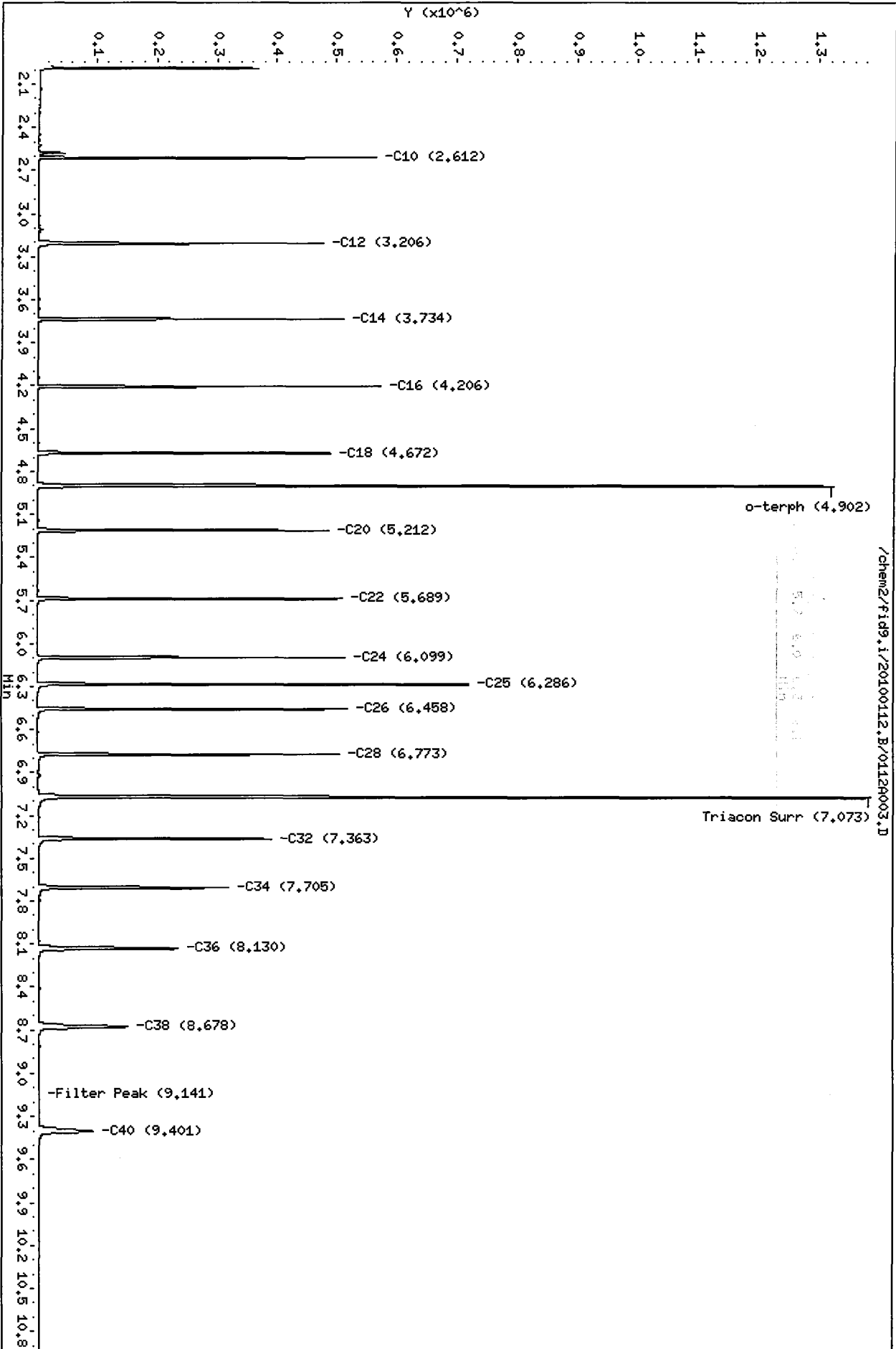
Range Times: NW Diesel (3.206 - 6.099) AK102 (2.61 - 6.29) Jet A (2.61 - 4.67)  
NW M.Oil (6.10 - 8.68) AK103 (6.29 - 8.13) OR Diesel (2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	966204	45.8	101.9
Triacontane	1010961	46.1	102.4

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100112.B/0112A003.D  
Date: 12-JAN-2010 12:35  
Client ID:  
Sample Info: RT  
Column phase: RTX-1

Instrument: fid9.i  
Operator: HS  
Column diameter: 0.25



MS 1/12/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100112.B/0112A004.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: IB  
Client ID:  
Injection: 12-JAN-2010 12:55  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.859	0.055	2021	3072	GAS (Tol-C12)	85434	7
C8	1.991	0.000	1394	690	DIESEL (C12-C24)	25577	2
C10	2.625	0.013	948	824	M.OIL (C24-C38)	148872	11
C12	3.196	-0.010	736	1245	AK-102 (C10-C25)	62096	3
C14	3.730	-0.004	335	200	AK-103 (C25-C36)	105738	11
C16	4.201	-0.005	186	164			
C18	4.672	0.001	158	140			
C20	5.216	0.004	201	171			
C22	5.696	0.007	254	217			
C24	6.101	0.003	367	379			
C25	6.286	0.000	443	497			
C26	6.456	-0.001	486	493			
C28	6.773	0.000	1345	1758			
C32	7.361	-0.002	3680	4564			
C34	7.704	-0.001	1511	2829	BUNKERC (C10-C38)	210029	24
Filter Peak	9.143	0.002	1467	1102			
C36	8.127	-0.003	1517	3904			
C38	8.673	-0.005	1555	2711			
C40	9.396	-0.005	1562	2367			
o-terph	4.907	0.004	1557307	1355967			
Triacon Surr	7.077	0.004	1493483	1068307			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1355967	64.3	143.0
Triacontane	1068307	48.7	108.2

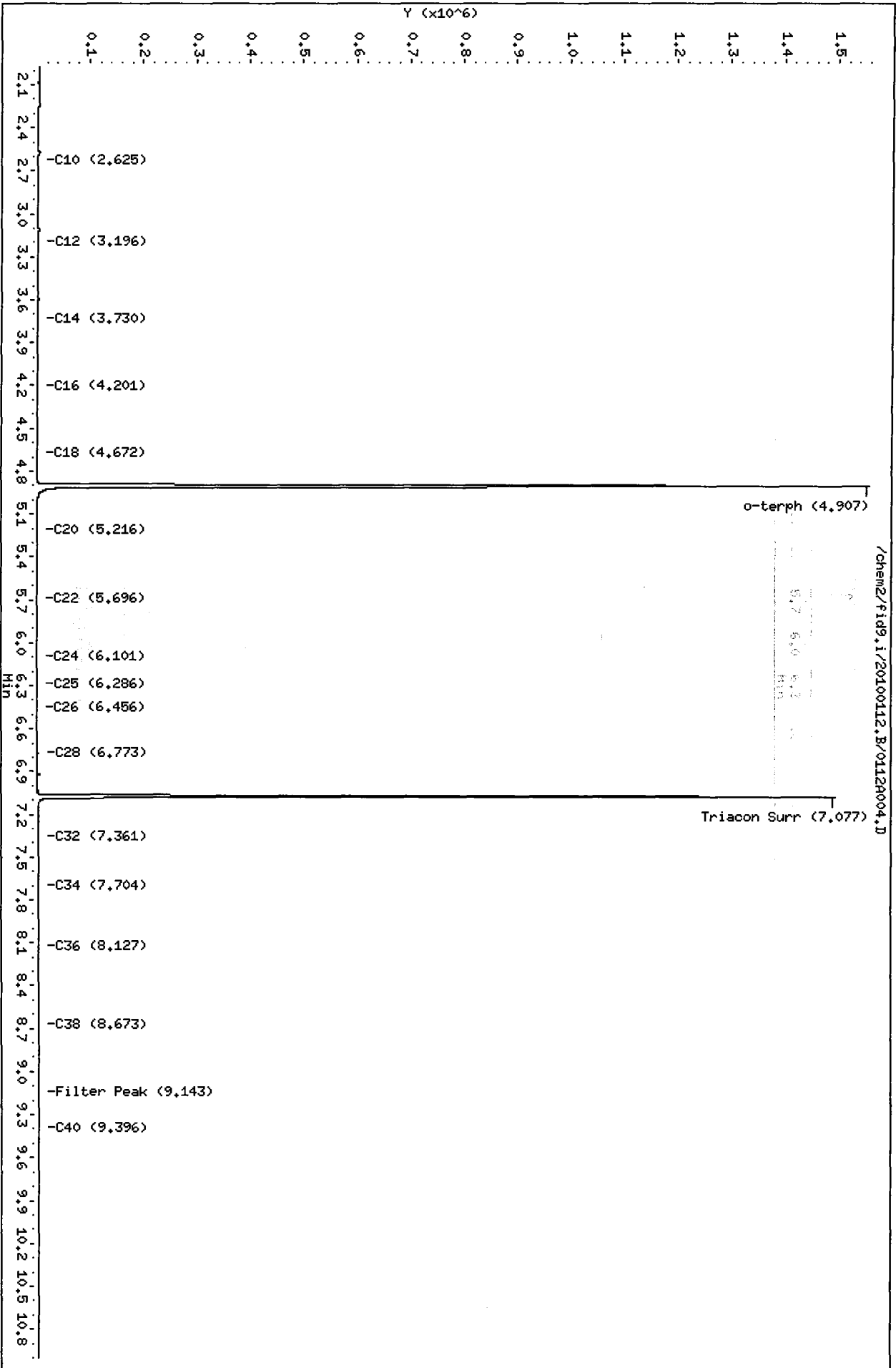
Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100112.B/0112R004.D  
Date : 12-JAN-2010 12:55

Client ID:  
Sample Info: IB

Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



12100112



7a  
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 22-DEC-2009                      Project: POS-LLA  
 CCal Date: 12-JAN-2010                      SDG No.: QE56  
 Analysis Time: 13:15                         Lab ID: DIESEL#1  
 Instrument: FID9.I                             Lab File Name: 0112A005.D

Diesel Range	Area*	CalcAmt	NomAmt	% D
WADies (C12-C24)	4488539	265.8	250	6.3
AK102 (C10-C25)	5011807	265.4	250	6.2
Terphenyl	1001052	47.5	45	5.5

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA Diesel    C12-C24  
                       AK Diesel    C10-C25

MSI/12/11

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100112.B/0112A005.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: DIESEL#1  
Client ID:  
Injection: 12-JAN-2010 13:15  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.815	0.010	2750	3921	GAS (Tol-C12)	686292	53
C8	1.989	-0.001	2329	507	DIESEL (C12-C24)	4488539	266
C10	2.631	0.019	9349	13397	M.OIL (C24-C38)	110644	8
C12	3.195	-0.011	49593	42349	AK-102 (C10-C25)	5011807	265
C14	3.731	-0.003	105819	63972	AK-103 (C25-C36)	74262	8
C16	4.204	-0.002	212631	151180			
C18	4.670	-0.002	161172	117440			
C20	5.210	-0.002	94183	84256			
C22	5.687	-0.002	48621	40141			
C24	6.097	-0.001	16293	11397			
C25	6.283	-0.003	7070	7755			
C26	6.455	-0.003	2770	2492			
C28	6.771	-0.002	295	268			
C32	7.367	0.004	481	433			
C34	7.697	-0.008	582	456	BUNKERC (C10-C38)	5106933	582
Filter Peak	9.144	0.003	641	732			
C36	8.131	0.001	583	295			
C38	8.673	-0.005	683	414			
C40	9.394	-0.007	659	678			
o-terph	4.904	0.001	1317775	1001052			
Triacon Surr	7.063	-0.010	1001	895			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1001052	47.5	105.5
Triacotane	895	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

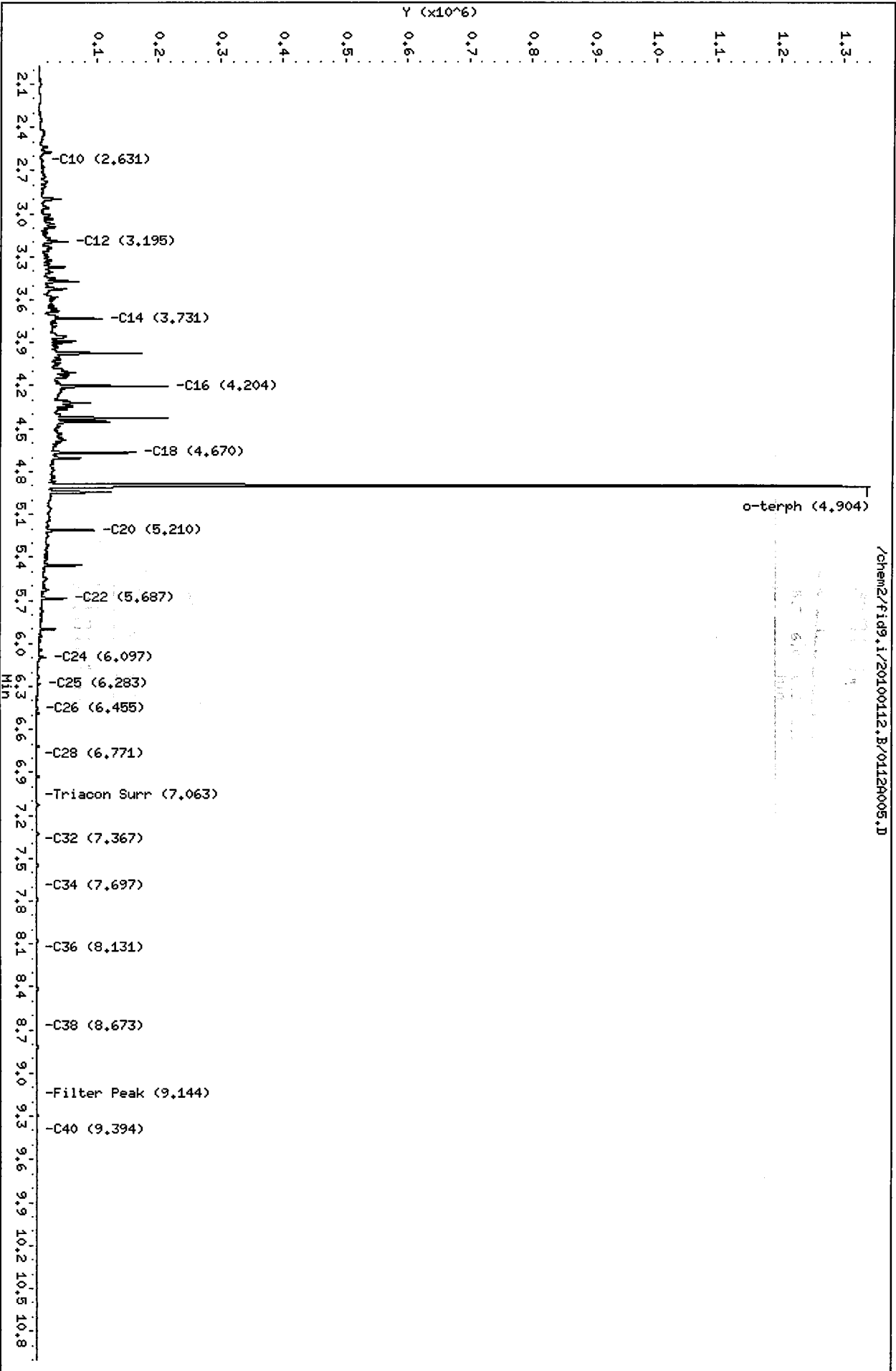
Data File: /chem2/fid9.i/20100112.B/0112A005.D  
Date: 12-JAN-2010 13:15

Client ID:  
Sample Info: DIESEL#1

Column phase: RTX-1

Instrument: fid9.i

Operator: MS  
Column diameter: 0.25



7a  
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 05-JAN-2010                      Project: POS-LLA  
 CCal Date: 12-JAN-2010                      SDG No.: QE56  
 Analysis Time: 13:34                         Lab ID: MOIL#1  
 Instrument: FID9.I                             Lab File Name: 0112A006.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil (C24-C38)	6876049	497.6	500	-0.5
AK103 (C25-C36)	5924263	626.4	500	25.3
n-Triacontane	1012982	46.2	45	2.6

<-

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA M.Oil    C24-C38  
                       AK M.Oil    C25-C36

Analytical Resources Inc.  
TPH Quantitation Report

M112116

Data file: /chem2/fid9.i/20100112.B/0112A006.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL#1  
Client ID:  
Injection: 12-JAN-2010 13:34  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.811	0.006	2520	4683	GAS (Tol-C12)	90868	7
C8	1.988	-0.002	1386	1878	DIESEL (C12-C24)	778864	46
C10	2.624	0.012	959	189	M.OIL (C24-C38)	6876049	498
C12	3.216	0.010	420	138	AK-102 (C10-C25)	976936	52
C14	3.746	0.012	525	701	AK-103 (C25-C36)	5924263	626
C16	4.195	-0.011	96	97			
C18	4.677	0.005	697	595			
C20	5.211	-0.001	2830	2791			
C22	5.689	0.000	11894	15173			
C24	6.095	-0.004	27555	21239			
C25	6.284	-0.002	35076	6935			
C26	6.452	-0.005	45258	28181			
C28	6.770	-0.003	57992	32303			
C32	7.358	-0.005	64013	59031			
C34	7.708	0.003	50960	17057	BUNKERC (C10-C38)	7696483	878
Filter Peak	9.139	-0.002	12109	2885			
C36	8.132	0.002	34050	30516			
C38	8.682	0.004	19178	5679			
C40	9.404	0.003	9575	4180			
o-terph	4.905	0.003	1120	1232			
Triacon Surr	7.078	0.004	1348934	1012982			

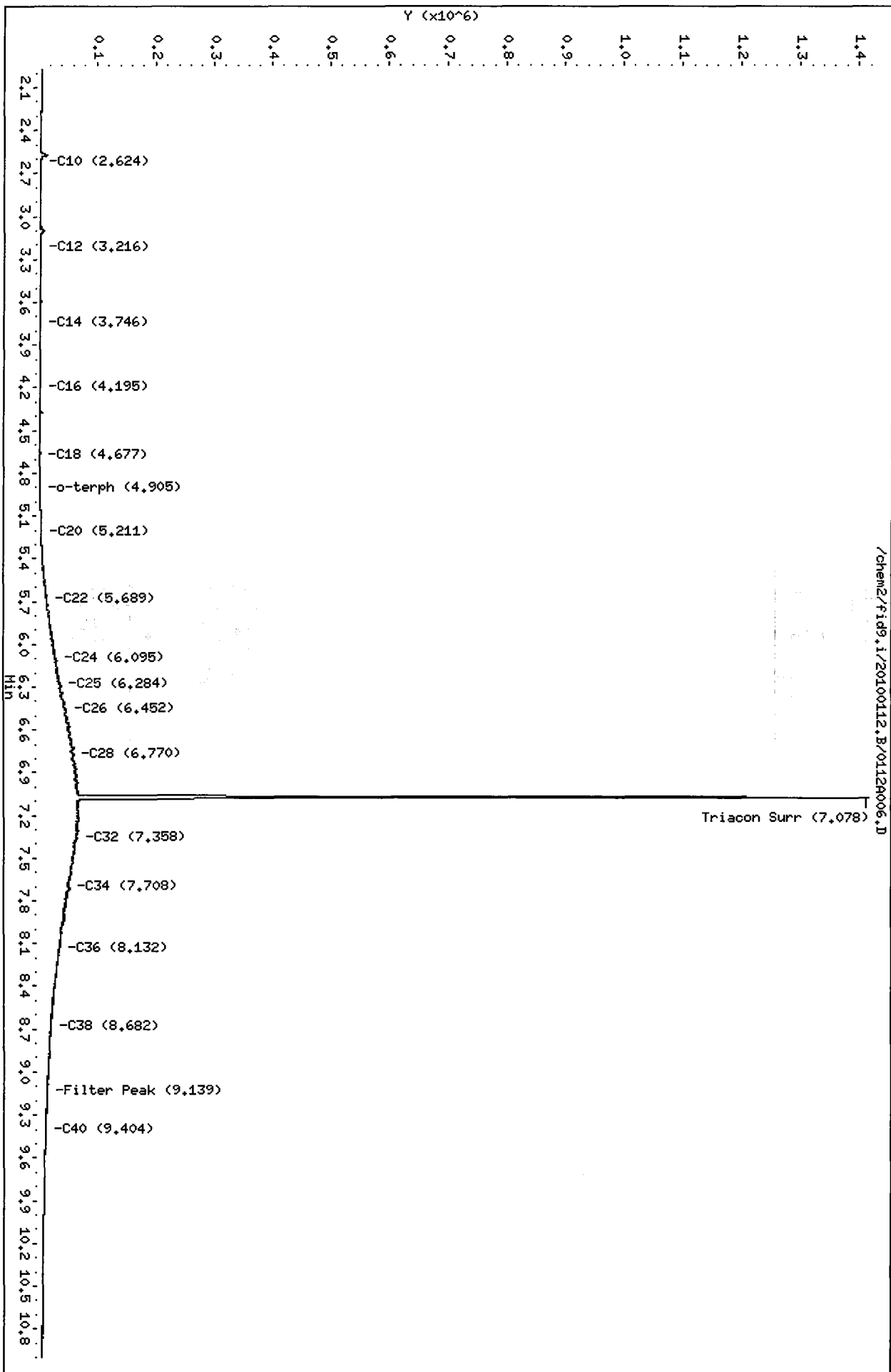
Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1232	0.1	0.1
Triacontane	1012982	46.2	102.6

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100112.B/0112A006.D  
Date : 12-JAN-2010 13:34  
Client ID:  
Sample Info: HQIL#1  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



7a  
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
ICal Date: 22-DEC-2009                      Project: POS-LLA  
CCal Date: 12-JAN-2010                      SDG No.: QE56  
Analysis Time: 16:12                         Lab ID: DIESEL#2  
Instrument: FID9.I                             Lab File Name: 0112A014.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies (C12-C24)	4337521	256.9	250	2.8
AK102 (C10-C25)	4883407	258.6	250	3.4
Terphenyl	977023	46.4	45	3.0

\* Surrogate areas are subtracted from range areas  
<- Indicates a %D outside QC limits

Quant Ranges :    WA Diesel    C12-C24  
                  AK Diesel    C10-C25

Analytical Resources Inc.  
TPH Quantitation Report

*M 1/12/10*

Data file: /chem2/fid9.i/20100112.B/0112A014.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: DIESEL#2  
Client ID:  
Injection: 12-JAN-2010 16:12  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.818	0.014	3026	3578	GAS (Tol-C12)	717563	55
C8	1.991	0.001	2550	2409	DIESEL (C12-C24)	4337521	257
C10	2.632	0.020	8905	13420	M.OIL (C24-C38)	109781	8
C12	3.195	-0.011	48457	41516	AK-102 (C10-C25)	4883407	259
C14	3.732	-0.002	102372	61425	AK-103 (C25-C36)	74086	8
C16	4.205	-0.001	207088	124946			
C18	4.672	0.000	156057	112959			
C20	5.212	0.000	96182	78791			
C22	5.688	-0.002	48732	39630			
C24	6.098	-0.001	15851	11314			
C25	6.284	-0.002	6742	8935			
C26	6.458	0.000	2748	2290			
C28	6.779	0.006	300	272			
C32	7.363	0.000	556	238			
C34	7.701	-0.004	575	214	BUNKERC (C10-C38)	4977013	567
Filter Peak	9.141	0.000	605	533			
C36	8.142	0.012	598	923			
C38	8.680	0.002	602	178			
C40	9.405	0.004	635	299			
o-terph	4.905	0.002	1283901	977023			
Triacon Surr	7.076	0.002	1062	861			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	977023	46.4	103.0
Triacontane	861	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Data File: /chem2/fid9.i/20100112.B/0112H014.D  
Date: 12-JAN-2010 16:12

Client ID:

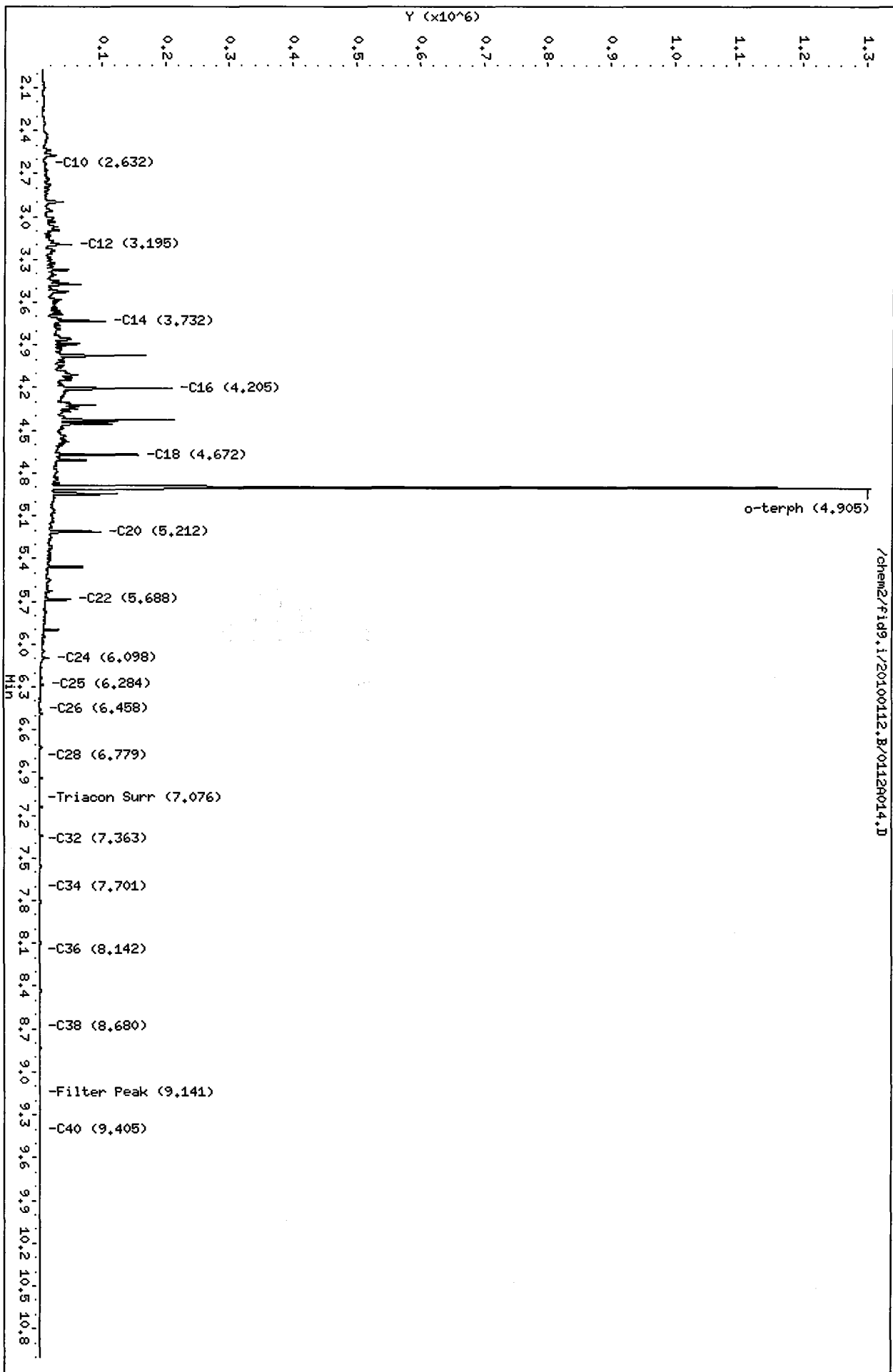
Sample Info: DIESEL#2

Column phase: RTX-1

Instrument: fid9.i

Operator: MS

Column diameter: 0.25



7a  
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 05-JAN-2010                      Project: POS-LLA  
 CCal Date: 12-JAN-2010                      SDG No.: QE56  
 Analysis Time: 16:32                          Lab ID: MOIL#2  
 Instrument: FID9.I                              Lab File Name: 0112A015.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil (C24-C38)	6653264	481.5	500	-3.7
AK103 (C25-C36)	5749924	608.0	500	21.6
n-Triacontane	997304	45.5	45	1.0

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA M.Oil    C24-C38  
                       AK M.Oil    C25-C36

Mr 1/12/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100112.B/0112A015.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL#2  
Client ID:  
Injection: 12-JAN-2010 16:32  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.831	0.026	2330	2603	GAS (Tol-C12)	89076	7
C8	1.983	-0.008	1423	1530	DIESEL (C12-C24)	746320	44
C10	2.621	0.009	973	328	M.OIL (C24-C38)	6653264	482
C12	3.196	-0.011	818	1086	AK-102 (C10-C25)	935869	50
C14	3.732	-0.002	235	45	AK-103 (C25-C36)	5749924	608
C16	4.202	-0.004	96	72			
C18	4.660	-0.012	3044	2670			
C20	5.214	0.002	2785	2868			
C22	5.690	0.001	11617	20523			
C24	6.100	0.001	27485	25096			
C25	6.294	0.008	36641	19623			
C26	6.455	-0.002	43886	28283			
C28	6.773	0.000	55829	15441			
C32	7.362	-0.001	60698	22798			
C34	7.711	0.006	48915	29801	BUNKERC (C10-C38)	7441559	848
Filter Peak	9.146	0.005	11511	3397			
C36	8.136	0.006	33478	13661			
C38	8.671	-0.007	18584	20939			
C40	9.406	0.005	9300	7067			
o-terph	4.906	0.004	1053	1165			
Triacon Surr	7.086	0.013	1294688	997304			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

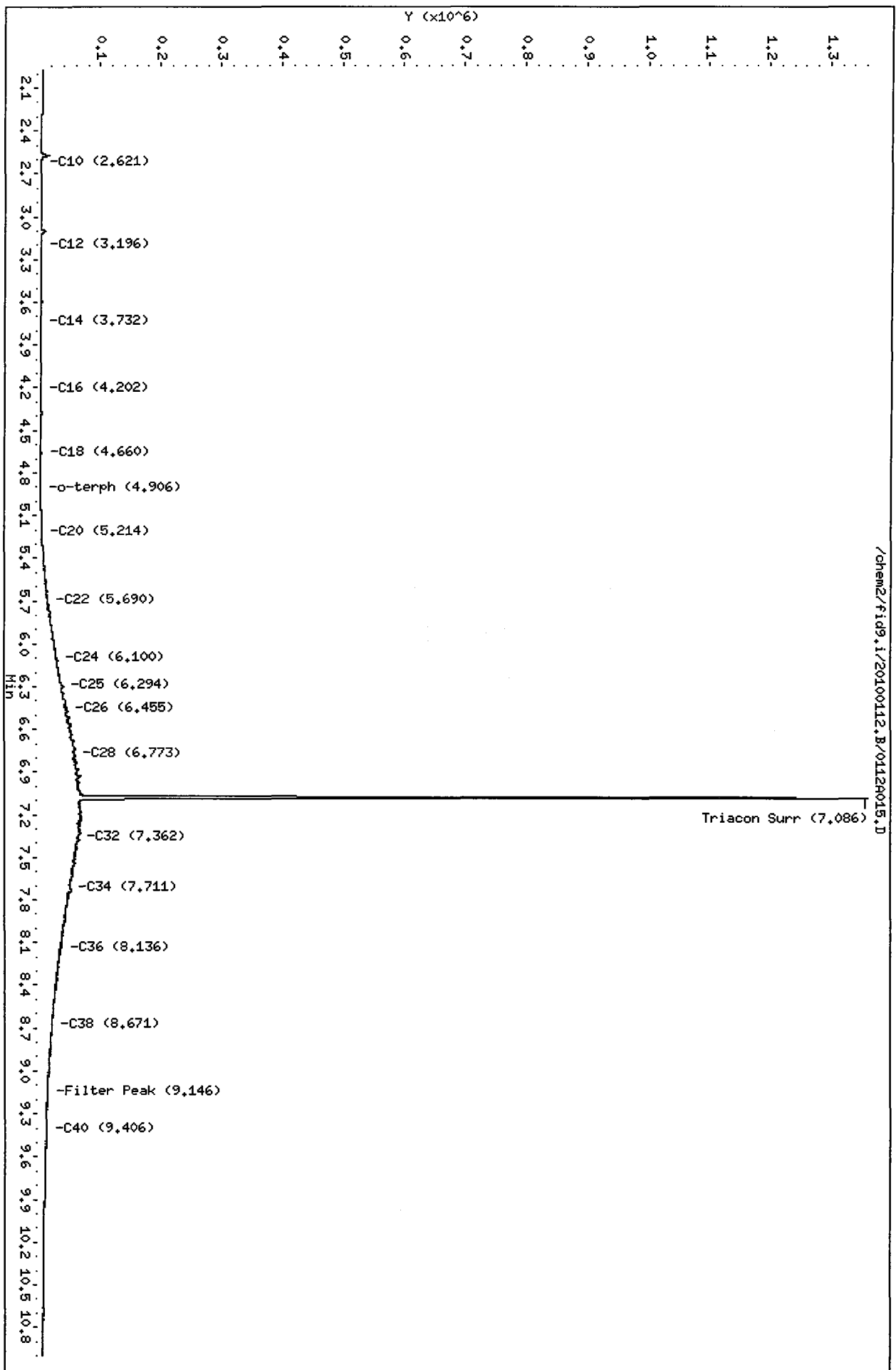
Surrogate	Area	Amount	%Rec
o-Terphenyl	1165	0.1	0.1
Triacontane	997304	45.5	101.0

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100112.B/0112A015.D  
Date: 12-JAN-2010 16:32  
Client ID:  
Sample Info: H01L#2  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25

/chem2/fid9.i/20100112.B/0112A015.D



Ms 1/14/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A003.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: RT  
Client ID: RT  
Injection: 13-JAN-2010 13:01

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.807	0.000	2151081	775383	GAS (Tol-C12)	598085666	46208
C8	1.992	0.000	374257	184525	DIESEL (C12-C24)	1878907	111
C10	2.613	0.000	579816	280111	M.OIL (C24-C38)	2345361	170
C12	3.206	0.000	498520	292569	AK-102 (C10-C25)	2507757	133
C14	3.734	0.000	544313	295949	AK-103 (C25-C36)	2047616	217
C16	4.207	0.000	591917	302099			
C18	4.674	0.000	515113	308819			
C20	5.214	0.000	500128	305731			
C22	5.691	0.000	531025	318262			
C24	6.099	0.000	543004	311066			
C25	6.287	0.000	719723	434752			
C26	6.458	0.000	542690	309987			
C28	6.774	0.000	550941	312241			
C32	7.363	0.000	427331	306485			
C34	7.704	0.000	333995	301953	BUNKERC (C10-C38)	4850171	553
Filter Peak	9.135	0.000	2227	1555			
C36	8.130	0.000	230514	266958			
C38	8.676	0.000	153066	237407			
C40	9.400	0.000	87284	184630			
o-terph	4.905	0.000	1317411	1011112			
Triacon Surr	7.075	0.000	1439158	1064764			

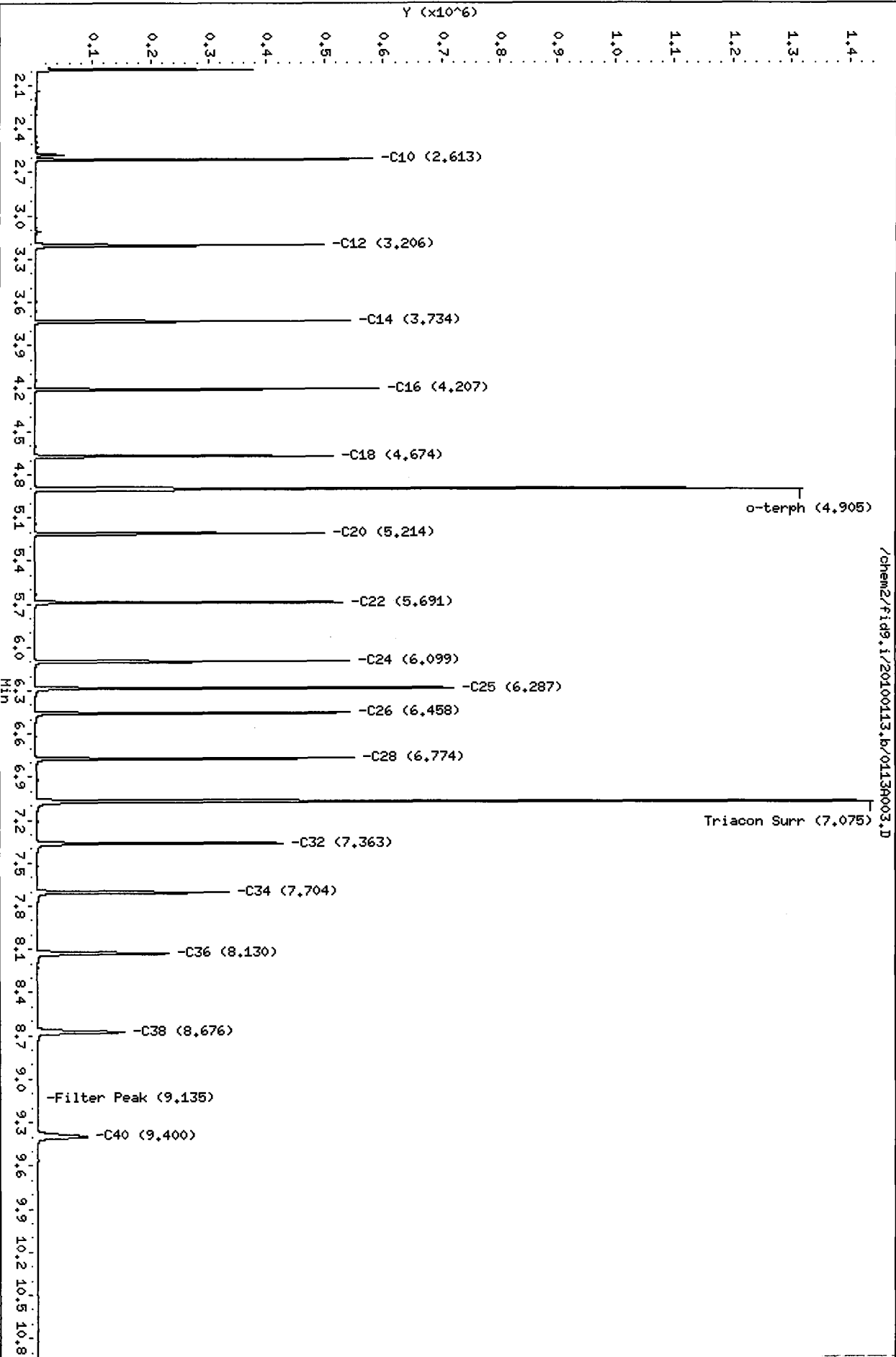
Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1011112	48.0	106.6
Triacontane	1064764	48.5	107.9

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.1/20100113.b/01130003.D  
Date: 13-JAN-2010 13:01  
Client ID: RT  
Sample Info: RT  
Column phase: RTX-1

Instrument: fid9.1  
Operator: MS  
Column diameter: 0.25



Ms 1/14/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A005.D      ARI ID: IB  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m      Client ID: IB  
Instrument: fid9.i      Injection: 13-JAN-2010 13:41  
Operator: MS  
Report Date: 01/14/2010      Dilution Factor: 1  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.851	0.044	1996	594	GAS (Tol-C12)	80599	6
C8	1.987	-0.005	1413	1995	DIESEL (C12-C24)	31624	2
C10	2.629	0.016	966	512	M.OIL (C24-C38)	217258	16
C12	3.195	-0.011	710	1186	AK-102 (C10-C25)	69545	4
C14	3.721	-0.013	352	514	AK-103 (C25-C36)	155383	16
C16	4.200	-0.007	239	259			
C18	4.673	-0.001	217	211			
C20	5.216	0.002	221	211			
C22	5.695	0.004	260	201			
C24	6.100	0.001	368	347			
C25	6.285	-0.001	437	473			
C26	6.456	-0.002	531	534			
C28	6.772	-0.003	1642	2560			
C32	7.359	-0.004	4320	5681			
C34	7.698	-0.007	1927	1456	BUNKERC (C10-C38)	284775	32
Filter Peak	9.135	0.001	2007	439			
C36	8.122	-0.008	1965	1864			
C38	8.671	-0.004	2013	1364			
C40	9.395	-0.005	2010	1999			
o-terph	4.906	0.001	1638583	1412941			
Triacon Surr	7.074	0.000	1506801	1111715			

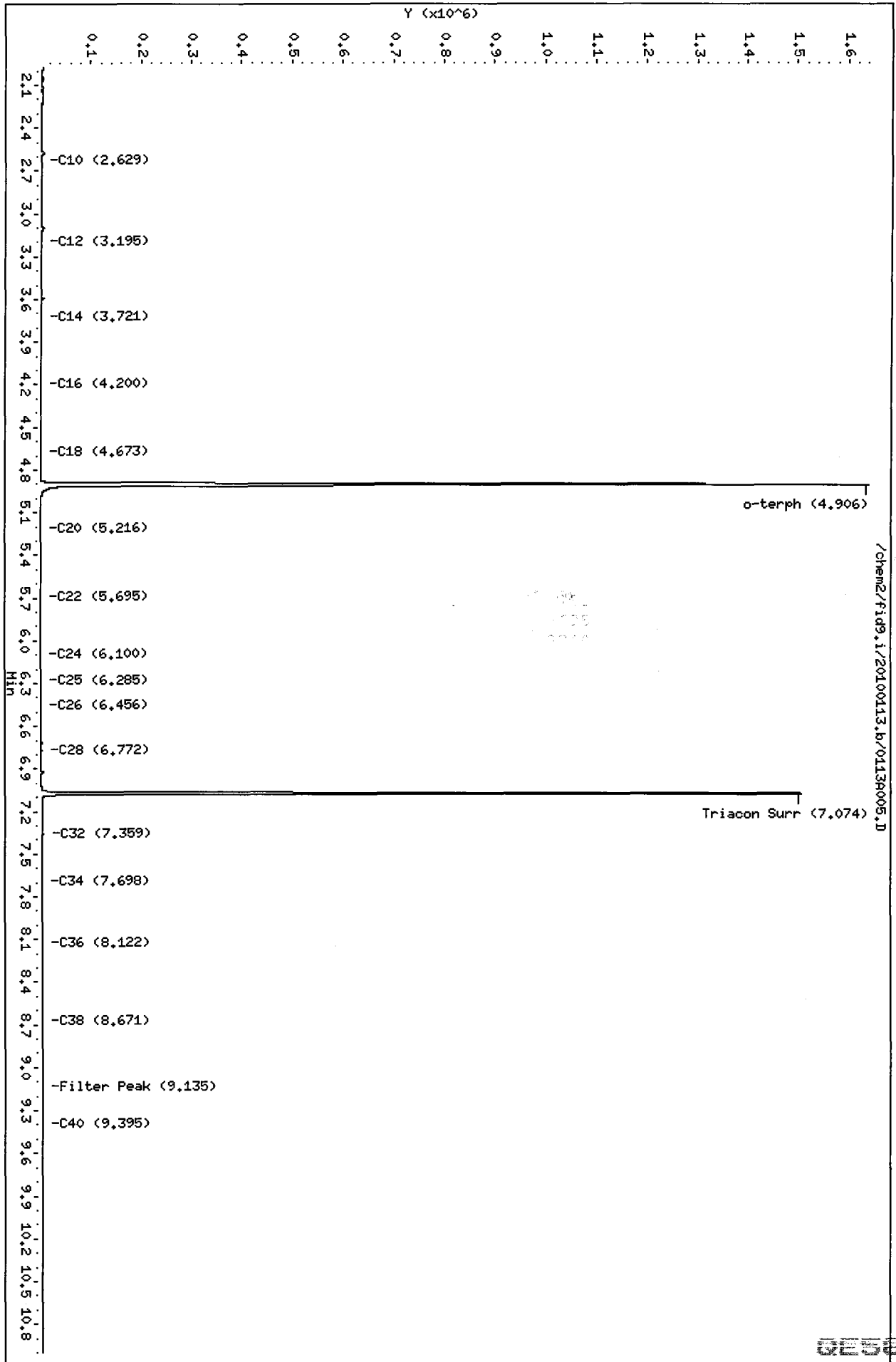
Range Times: NW Diesel(3.206 - 6.099)      AK102(2.61 - 6.29)      Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68)      AK103(6.29 - 8.13)      OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1412941	67.0	149.0
Triacontane	1111715	50.7	112.6

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.1/20100113.b/0113A005.D  
Date : 13-JAN-2010 13:44  
Client ID: IB  
Sample Info: IB  
Column phase: RTX-1

Instrument: fid9.1  
Operator: MS  
Column diameter: 0.25





7a  
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 22-DEC-2009                      Project: POS-LLA  
 CCal Date: 13-JAN-2010                      SDG No.: QE56  
 Analysis Time: 14:00                         Lab ID: DIESEL#1  
 Instrument: FID9.I                             Lab File Name: 0113A006.D

Diesel Range	Area*	CalcAmt	NomAmt	% D
WADies (C12-C24)	4296216	254.4	250	1.8
AK102 (C10-C25)	4822001	255.3	250	2.1
Terphenyl	977506	46.4	45	3.1

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA Diesel    C12-C24  
                       AK Diesel    C10-C25

Mr 11/4/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A006.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: DIESEL#1  
Client ID: DIESEL#1  
Injection: 13-JAN-2010 14:00  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.817	0.010	2505	3261	GAS (Tol-C12)	673614	52
C8	1.989	-0.003	2146	4381	DIESEL (C12-C24)	4296216	254
C10	2.632	0.019	8517	12604	M.OIL (C24-C38)	139879	10
C12	3.195	-0.012	48704	41394	AK-102 (C10-C25)	4822001	255
C14	3.731	-0.003	102273	61480	AK-103 (C25-C36)	92777	10
C16	4.205	-0.002	201565	147970			
C18	4.671	-0.003	151997	114917			
C20	5.211	-0.003	97052	78714			
C22	5.688	-0.003	48523	37530			
C24	6.097	-0.002	15919	11113			
C25	6.284	-0.003	6737	7907			
C26	6.455	-0.003	2682	2463			
C28	6.773	-0.001	340	226			
C32	7.370	0.007	778	664			
C34	7.702	-0.002	887	1051	BUNKERC (C10-C38)	4945776	564
Filter Peak	9.132	-0.002	926	403			
C36	8.136	0.006	928	146			
C38	8.672	-0.003	927	239			
C40	9.405	0.005	949	316			
o-terph	4.903	-0.002	1279690	977506			
Triacon Surr	7.066	-0.009	1717	1434			

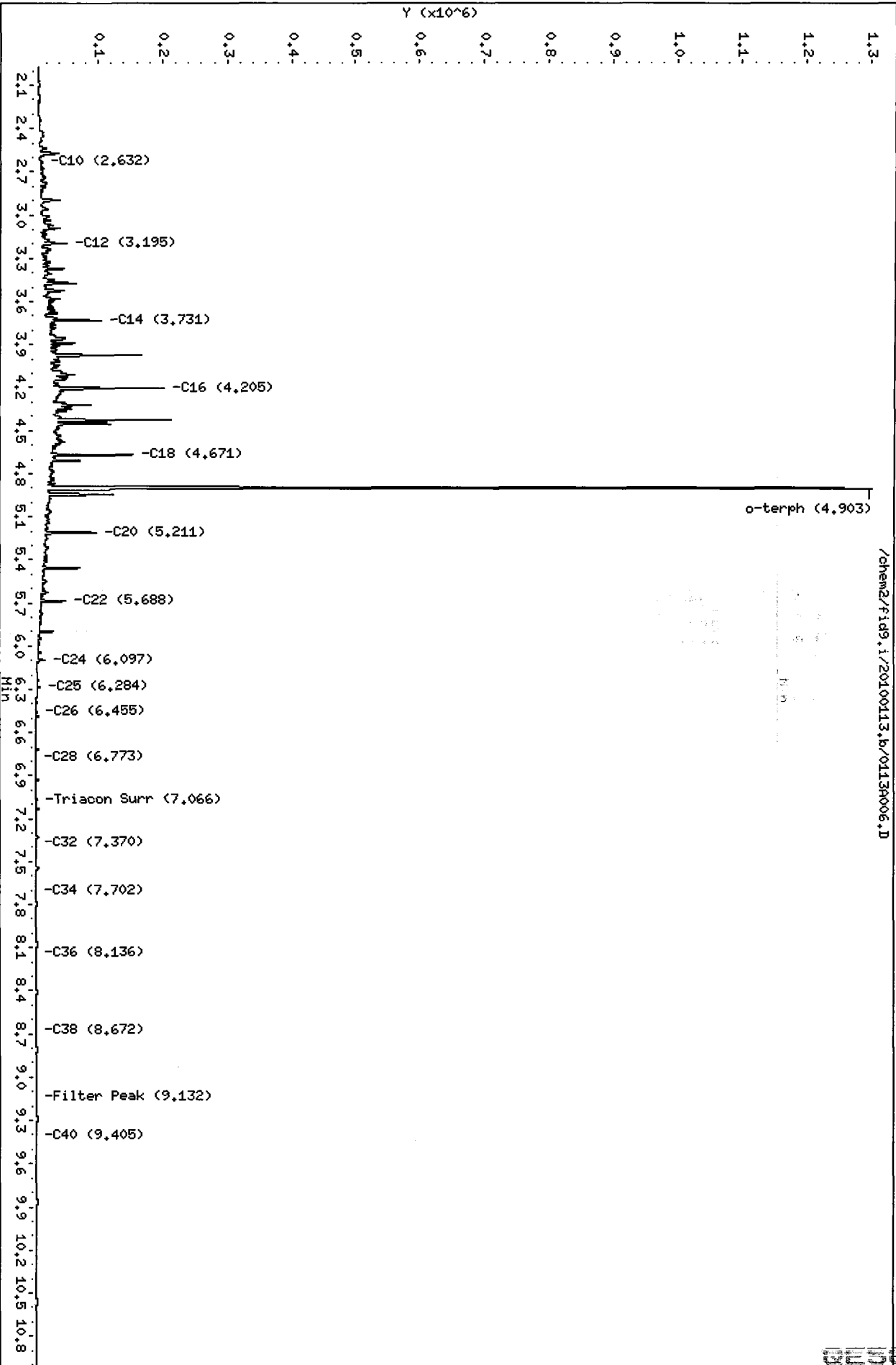
Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	977506	46.4	103.1
Triacontane	1434	0.1	0.1

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.1/20100113.b/0113A006.D  
Date: 13-JAN-2010 14:00  
Client ID: DIESEL#1  
Sample Info: DIESEL#1  
Column phase: RTX-1

Instrument: fid9.1  
Operator: HS  
Column diameter: 0.25



/chem2/fid9.1/20100113.b/0113A006.D

10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50

7a  
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 05-JAN-2010                      Project: POS-LLA  
 CCal Date: 13-JAN-2010                      SDG No.: QE56  
 Analysis Time: 14:20                          Lab ID: MOIL#1  
 Instrument: FID9.I                              Lab File Name: 0113A007.D

M.oil Range	Area*	CalcAmt	NomAmt	% D
WAMoil (C24-C38)	6221610	450.3	500	-9.9
AK103 (C25-C36)	5362526	567.0	500	13.4
n-Triacontane	934746	42.6	45	-5.3

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA M.Oil    C24-C38  
                       AK M.Oil    C25-C36

Mr 1/14/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A007.D

ARI ID: MOIL#1

Method: /chem2/fid9.i/20100113.b/ftphfid9a.m

Client ID: MOIL#1

Instrument: fid9.i

Injection: 13-JAN-2010 14:20

Operator: MS

Report Date: 01/14/2010

Dilution Factor: 1

Macro: 05-JAN-2010

Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	83388	6
C8	1.983	-0.009	1229	996	DIESEL (C12-C24)	693529	41
C10	2.623	0.010	864	566	M.OIL (C24-C38)	6221610	450
C12	3.195	-0.011	856	1003	AK-102 (C10-C25)	906741	48
C14	3.728	-0.006	220	86	AK-103 (C25-C36)	5362526	567
C16	4.197	-0.010	116	105			
C18	4.679	0.005	971	745			
C20	5.213	0.000	2918	2831			
C22	5.688	-0.003	11510	13259			
C24	6.096	-0.003	25182	15685			
C25	6.282	-0.005	32258	8932			
C26	6.453	-0.005	41756	30509			
C28	6.770	-0.005	53152	18969			
C32	7.364	0.001	59070	33303			
C34	7.701	-0.004	46406	31552	BUNKERC (C10-C38)	6964369	794
Filter Peak	9.134	0.000	11088	9821			
C36	8.129	-0.001	30241	18511			
C38	8.679	0.004	17382	12373			
C40	9.410	0.010	8772	7041			
o-terph	4.906	0.001	1128	1239			
Triacon Surr	7.077	0.003	1308032	934746			

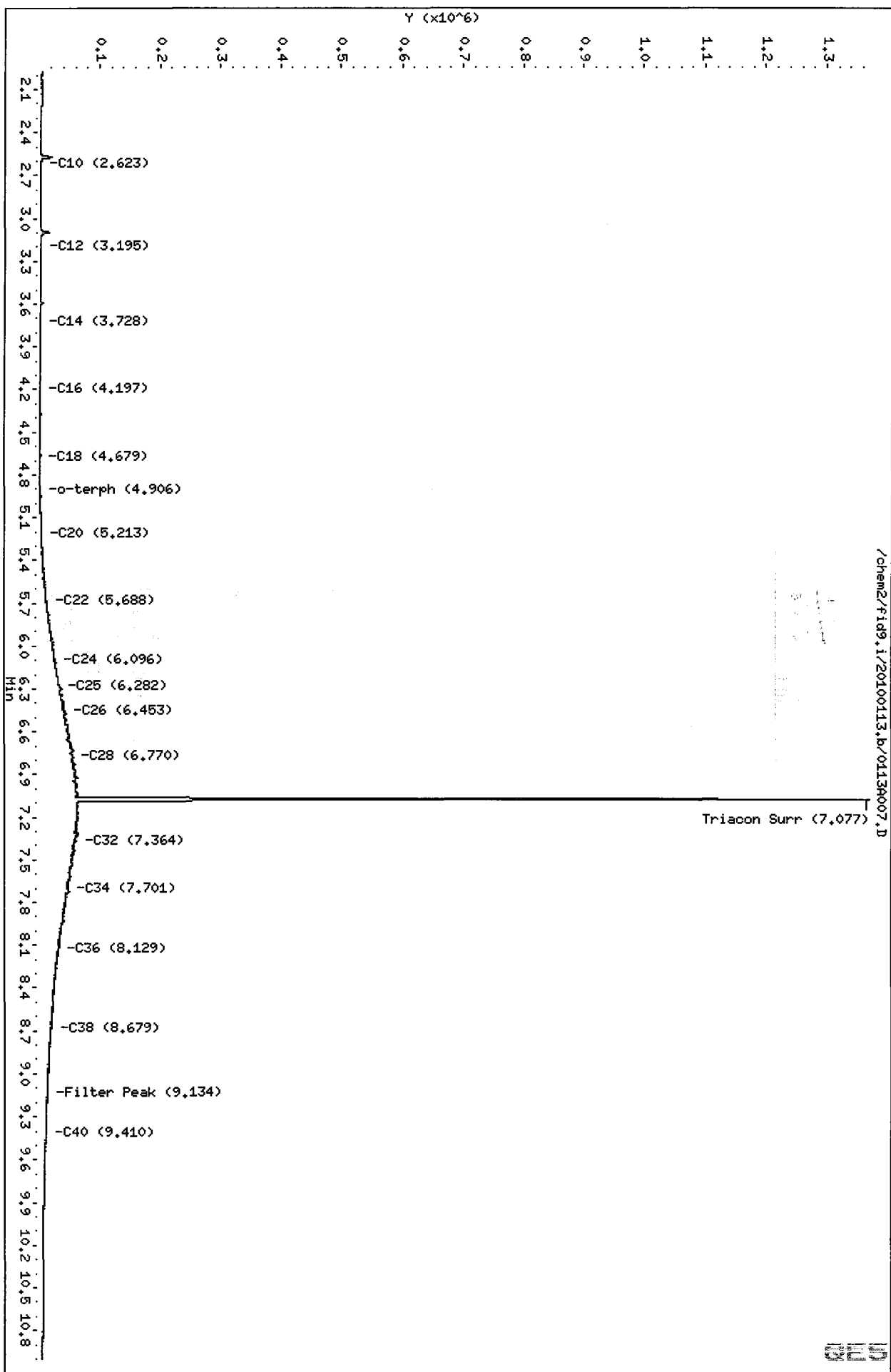
Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
 NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1239	0.1	0.1
Triacontane	934746	42.6	94.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100113.b/0113A007.D  
Date: 13-JAN-2010 14:20  
Client ID: M01L#1  
Sample Info: M01L#1  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



7a  
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD-SNIDER

ICal Date: 22-DEC-2009

Project: POS-LLA

CCal Date: 13-JAN-2010

SDG No.: QE56

Analysis Time: 18:37

Lab ID: DIESEL#2

Instrument: FID9.I

Lab File Name: 0113A020.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies (C12-C24)	4510959	267.2	250	6.9
AK102 (C10-C25)	5056569	267.8	250	7.1
Terphenyl	1017865	48.3	45	7.3

\* Surrogate areas are subtracted from range areas  
<- Indicates a %D outside QC limits

Quant Ranges :   WA Diesel    C12-C24  
                  AK Diesel    C10-C25

Analytical Resources Inc.  
TPH Quantitation Report

*m/1/14/10*

Data file: /chem2/fid9.i/20100113.b/0113A020.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: DIESEL#2  
Client ID: DIESEL#2  
Injection: 13-JAN-2010 18:37

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.823	0.015	2272	2800	GAS (Tol-C12)	693580	54
C8	1.989	-0.003	2033	3995	DIESEL (C12-C24)	4510959	267
C10	2.632	0.019	8796	13011	M.OIL (C24-C38)	205653	15
C12	3.195	-0.011	50889	42908	AK-102 (C10-C25)	5056569	268
C14	3.731	-0.004	104519	63325	AK-103 (C25-C36)	141431	15
C16	4.204	-0.003	216062	152026			
C18	4.670	-0.004	159530	116717			
C20	5.210	-0.004	99297	85991			
C22	5.687	-0.004	51684	39287			
C24	6.095	-0.004	16656	11697			
C25	6.281	-0.005	6848	7774			
C26	6.454	-0.004	3058	2427			
C28	6.769	-0.005	488	508			
C32	7.352	-0.011	1805	1636			
C34	7.708	0.004	1658	688	BUNKERC (C10-C38)	5247021	598
Filter Peak	9.134	-0.001	1506	926			
C36	8.125	-0.005	1610	891			
C38	8.675	-0.001	1460	870			
C40	9.396	-0.004	1271	677			
o-terph	4.904	-0.001	1339990	1017865			
Triacon Surr	7.085	0.011	1101	796			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1017865	48.3	107.3
Triacontane	796	0.0	0.1

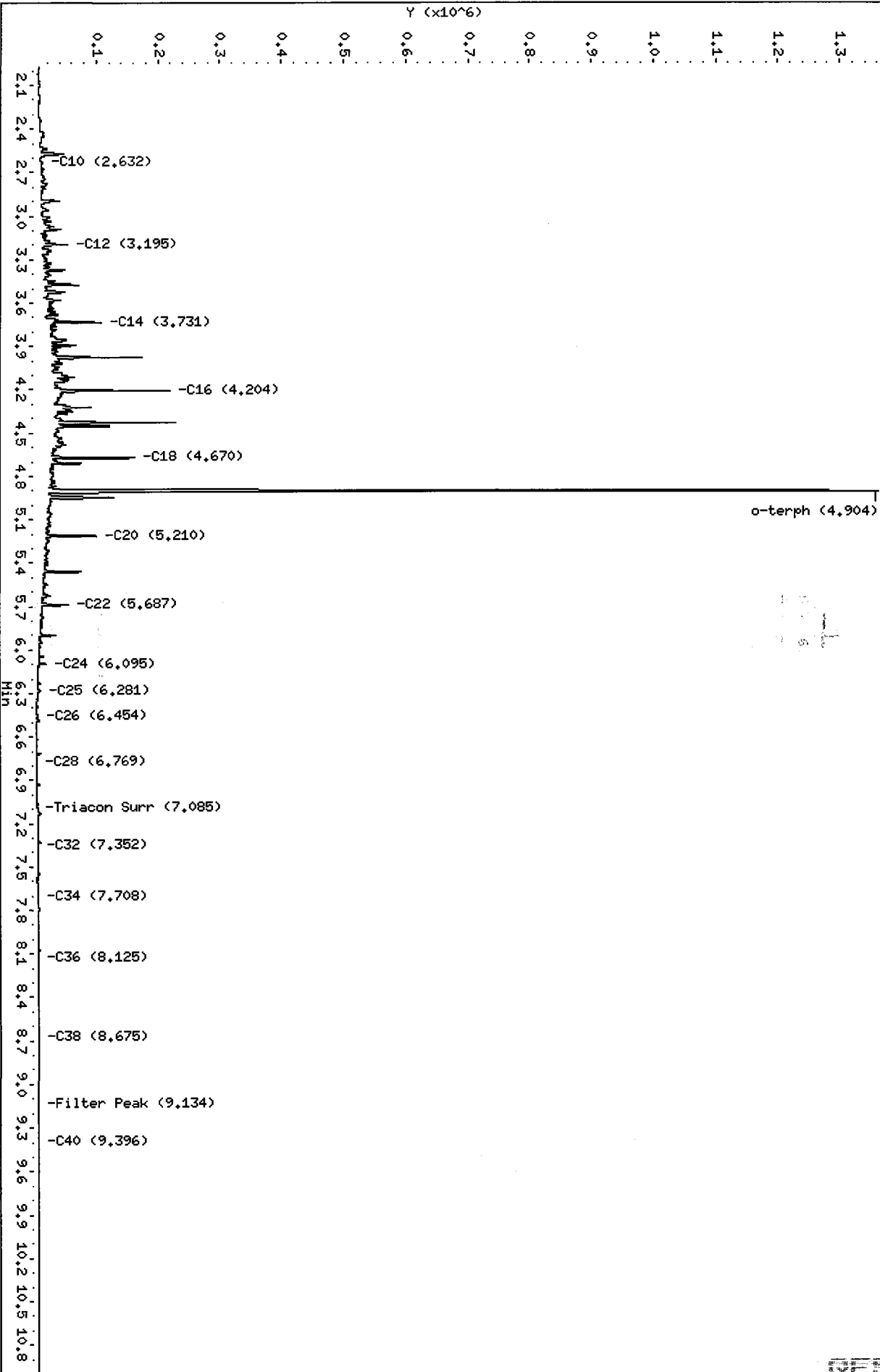
Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Data File: /chem2/fid9,i/20100113,b/0113A020.D  
Date: 13-JAN-2010 18:37  
Client ID: DIESEL#2  
Sample Info: DIESEL#2  
Column phase: RTX-1

Instrument: fid9,i  
Operator: HS  
Column diameter: 0.25

/chem2/fid9,i/20100113,b/0113A020.D



7a  
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.      Client: FLOYD-SNIDER  
 ICal Date: 05-JAN-2010                      Project: POS-LLA  
 CCal Date: 13-JAN-2010                      SDG No.: QE56  
 Analysis Time: 18:56                          Lab ID: MOIL#2  
 Instrument: FID9.I                              Lab File Name: 0113A021.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil (C24-C38)	5888976	426.2	500	-14.8
AK103 (C25-C36)	5239592	554.0	500	10.8
n-Triacontane	964210	44.0	45	-2.3

\* Surrogate areas are subtracted from range areas  
 <- Indicates a %D outside QC limits

Quant Ranges :    WA M.Oil    C24-C38  
                       AK M.Oil    C25-C36

Jan 14/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A021.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: MOIL#2  
Client ID: MOIL#2  
Injection: 13-JAN-2010 18:56  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	98299	8
C8	1.981	-0.011	1151	1283	DIESEL (C12-C24)	733739	43
C10	2.650	0.037	585	240	M.OIL (C24-C38)	5888976	426
C12	3.195	-0.012	875	886	AK-102 (C10-C25)	944097	50
C14	3.743	0.009	671	655	AK-103 (C25-C36)	5239592	554
C16	4.215	0.008	553	406			
C18	4.675	0.001	998	793			
C20	5.211	-0.003	2961	2832			
C22	5.694	0.003	11090	4563			
C24	6.094	-0.005	25582	23048			
C25	6.293	0.007	35022	28995			
C26	6.462	0.004	40282	8028			
C28	6.775	0.001	54380	11826			
C32	7.365	0.002	56758	30084			
C34	7.707	0.002	39611	24616	BUNKERC (C10-C38)	6678441	761
Filter Peak	9.135	0.000	7247	1444			
C36	8.135	0.005	22513	19061			
C38	8.672	-0.004	11653	6858			
C40	9.401	0.002	5864	5348			
o-terph	4.903	-0.002	1181	1300			
Triacon Surr	7.089	0.015	1320551	964210			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

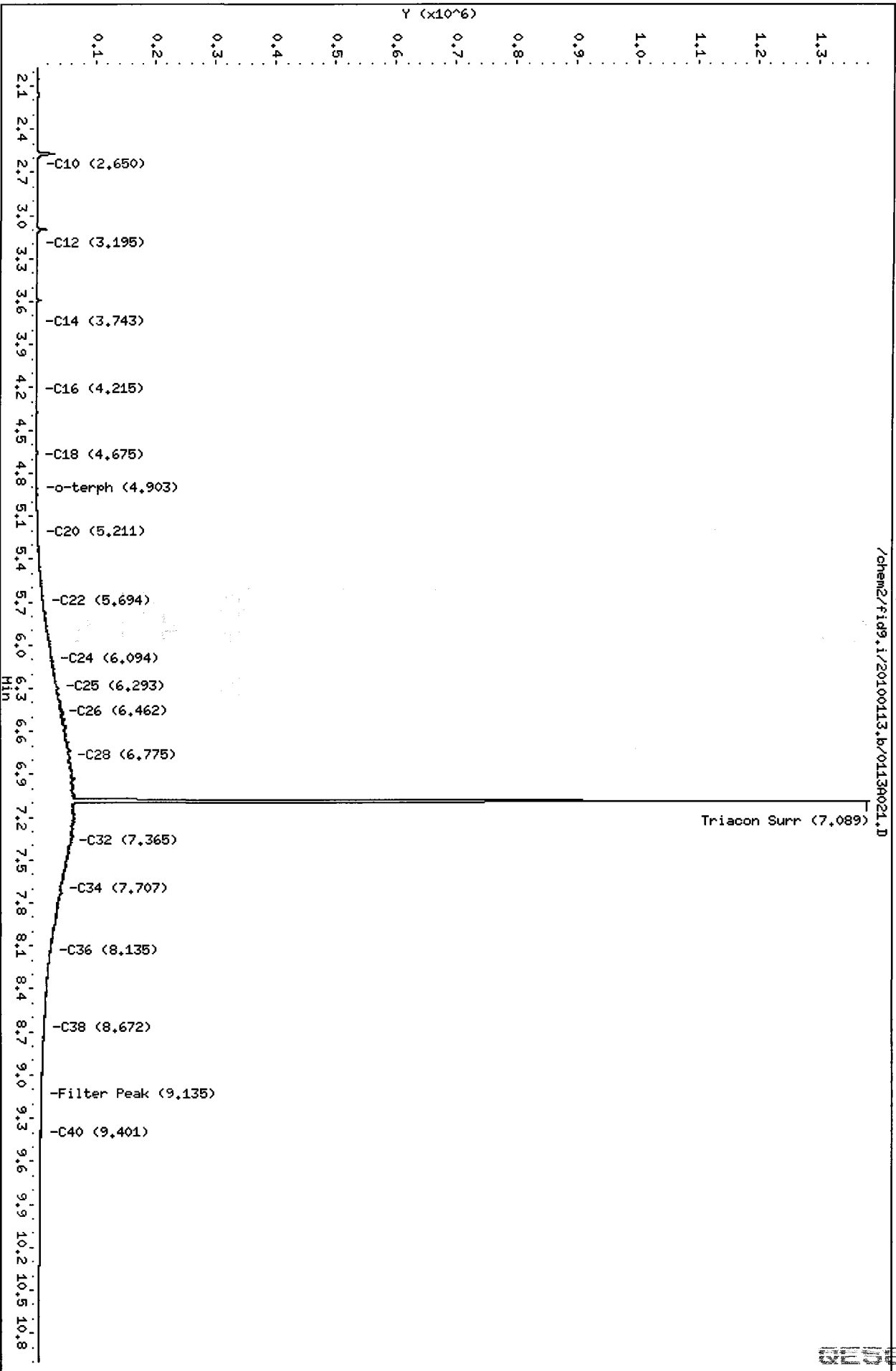
Surrogate	Area	Amount	%Rec
o-Terphenyl	1300	0.1	0.1
Triacontane	964210	44.0	97.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100113.b/0113A021.D  
 Date: 13-JAN-2010 18:56  
 Client ID: M01L#2  
 Sample Info: M01L#2  
 Column phase: RTX-1

Instrument: fid9.i  
 Operator: HS  
 Column diameter: 0.25

/chem2/fid9.i/20100113.b/0113A021.D



TPHD Analysis  
QC Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

Analytical Resources Inc.  
TPH Quantitation Report

*Ms 1/12/10*

Data file: /chem2/fid9.i/20100112.B/0112A011.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56MBS1  
Client ID: QE56MBS1  
Injection: 12-JAN-2010 15:13  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.797	-0.007	2697	3626	GAS (Tol-C12)	191516	15
C8	1.992	0.002	2155	1732	DIESEL (C12-C24)	87421	5
C10	2.617	0.005	4721	6069	M.OIL (C24-C38)	152362	11
C12	3.196	-0.010	1463	1633	AK-102 (C10-C25)	148926	8
C14	3.745	0.011	1157	1199	AK-103 (C25-C36)	111454	12
C16	4.216	0.010	1598	1427			
C18	4.672	0.001	732	549			
C20	5.215	0.003	617	519			
C22	5.692	0.003	686	662			
C24	6.100	0.002	733	878			
C25	6.286	0.001	509	773			
C26	6.456	-0.001	663	628			
C28	6.772	-0.001	1494	2466			
C32	7.361	-0.002	3694	4377			
C34	7.702	-0.003	1524	3778	BUNKERC (C10-C38)	300003	34
Filter Peak	9.139	-0.002	1223	677			
C36	8.125	-0.005	1744	4732			
C38	8.678	0.000	1489	2070			
C40	9.403	0.002	1237	918			
o-terph	4.904	0.001	1093411	875956			
Triacon Surr	7.075	0.002	1363813	929878			

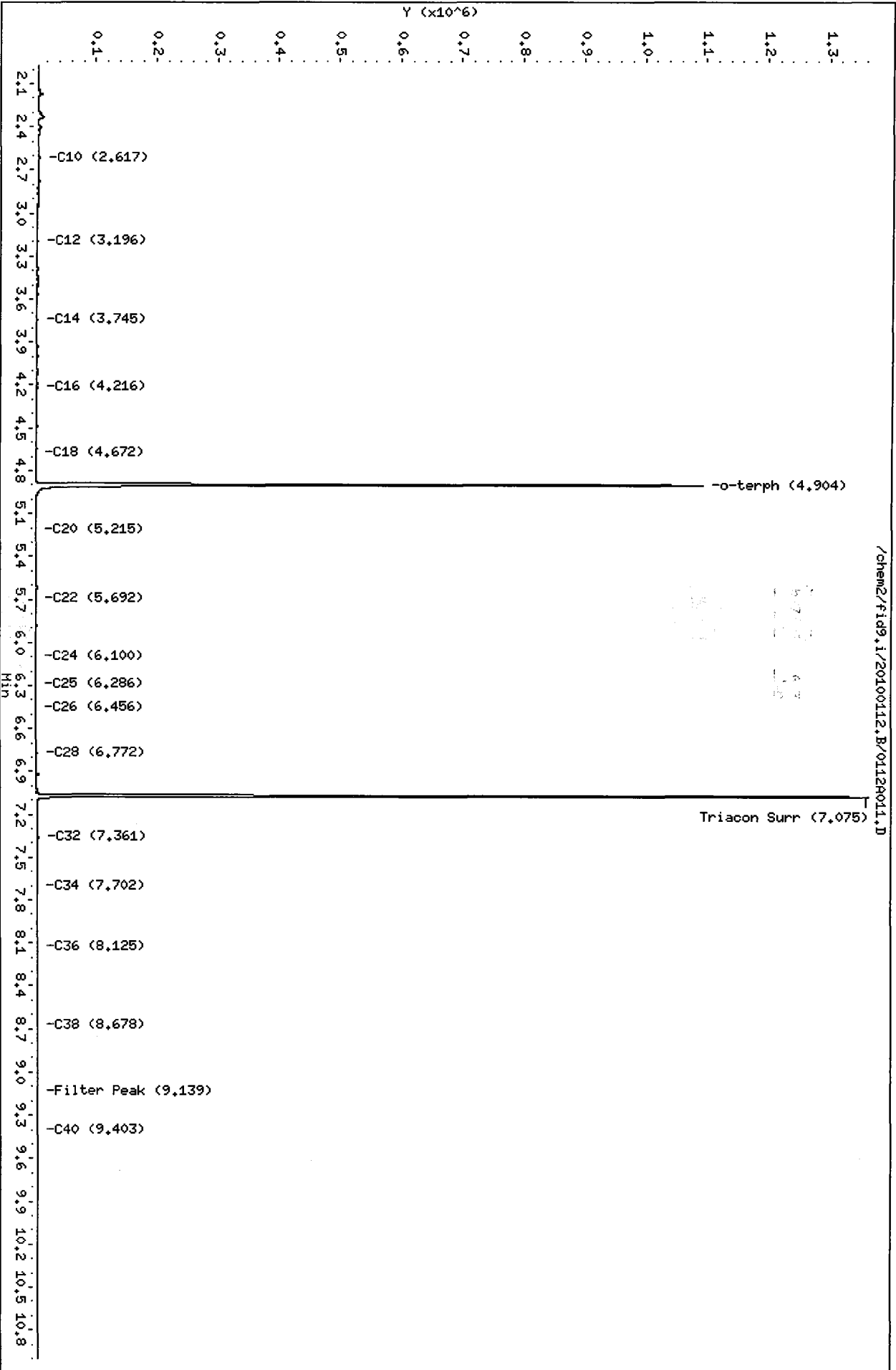
Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	875956	41.6	92.4
Triacontane	929878	42.4	94.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100112.B/0112R011.D  
Date : 12-JAN-2010 15:13  
Client ID: QES6HBS1  
Sample Info: QES6HBS1  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



/chem2/fid9.i/20100112.B/0112R011.D

ms 1/12/11 0

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100112.B/0112A010.D  
Method: /chem2/fid9.i/20100112.B/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/12/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56LCSS1  
Client ID: QE56LCSS1  
Injection: 12-JAN-2010 14:53  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.813	0.008	5052	6294	GAS (Tol-C12)	3144087	243
C8	1.987	-0.004	5469	7854	DIESEL (C12-C24)	23312433	1381
C10	2.635	0.023	44717	60700	M.OIL (C24-C38)	347723	25
C12	3.197	-0.010	248619	215432	AK-102 (C10-C25)	25836773	1368
C14	3.731	-0.003	514857	318799	AK-103 (C25-C36)	255573	27
C16	4.208	0.002	1072406	806901			
C18	4.680	0.008	782166	621764			
C20	5.220	0.008	501225	440614			
C22	5.694	0.005	265024	209252			
C24	6.099	0.000	89809	67104			
C25	6.283	-0.003	38887	43533			
C26	6.454	-0.004	17789	17914			
C28	6.772	-0.002	3571	5307			
C32	7.358	-0.005	3256	3731			
C34	7.699	-0.006	728	1186	BUNKERC (C10-C38)	26102918	2976
Filter Peak	9.142	0.001	161	74			
C36	8.122	-0.008	1001	1402			
C38	8.691	0.013	313	89			
C40	9.404	0.003	224	137			
o-terph	4.909	0.007	1181837	883394			
Triacon Surr	7.073	0.000	1343448	926635			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

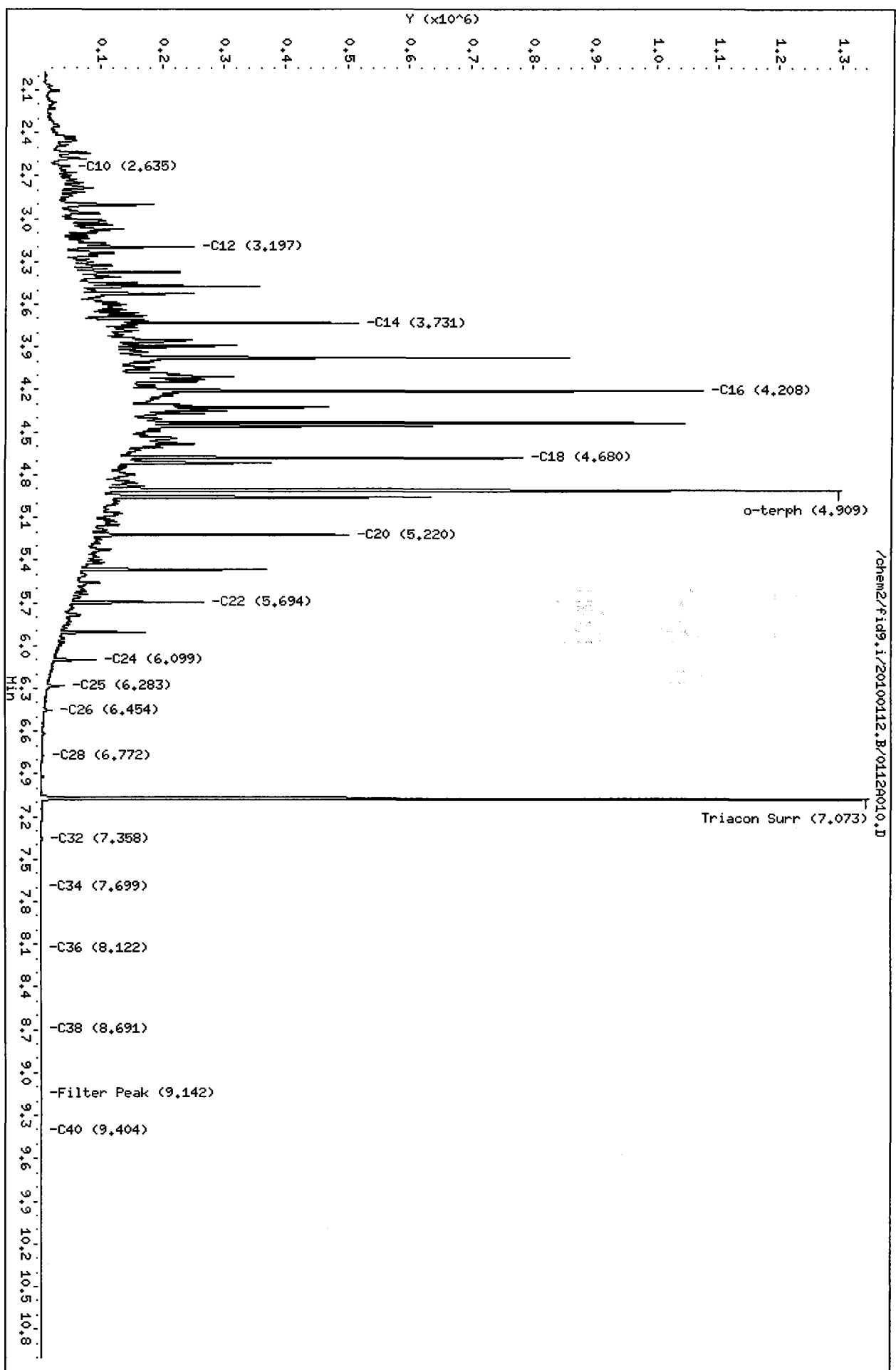
Surrogate	Area	Amount	%Rec
o-Terphenyl	883394	41.9	93.1
Triacontane	926635	42.2	93.9

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Data File: /chem2/fid9.i/20100112.B/0112A010.D  
Date: 12-JAN-2010 14:53  
Client ID: QES6LCSS1  
Sample Info: QES6LCSS1  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25



M 1/19/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A012.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56MBS1  
Client ID: QE56MBS1  
Injection: 13-JAN-2010 15:59  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.846	0.039	1761	454	GAS (Tol-C12)	91901	7
C8	1.993	0.001	1368	2106	DIESEL (C12-C24)	125091	7
C10	2.614	0.001	566	267	M.OIL (C24-C38)	189863	14
C12	3.207	0.001	769	446	AK-102 (C10-C25)	176332	9
C14	3.742	0.008	2308	2032	AK-103 (C25-C36)	141724	15
C16	4.212	0.005	4998	4199			
C18	4.672	-0.002	1539	1101			
C20	5.215	0.001	1075	789			
C22	5.691	0.000	746	553			
C24	6.099	0.000	739	504			
C25	6.286	-0.001	573	802			
C26	6.455	-0.003	725	467			
C28	6.772	-0.003	1642	1810			
C32	7.362	-0.001	4010	5257			
C34	7.706	0.001	1894	4324	BUNKERC (C10-C38)	364444	42
Filter Peak	9.128	-0.006	1468	1257			
C36	8.130	0.000	2425	6497			
C38	8.672	-0.004	1578	2002			
C40	9.400	0.001	1416	309			
o-terph	4.901	-0.004	1026037	820842			
Triacon Surr	7.076	0.001	1245273	870922			

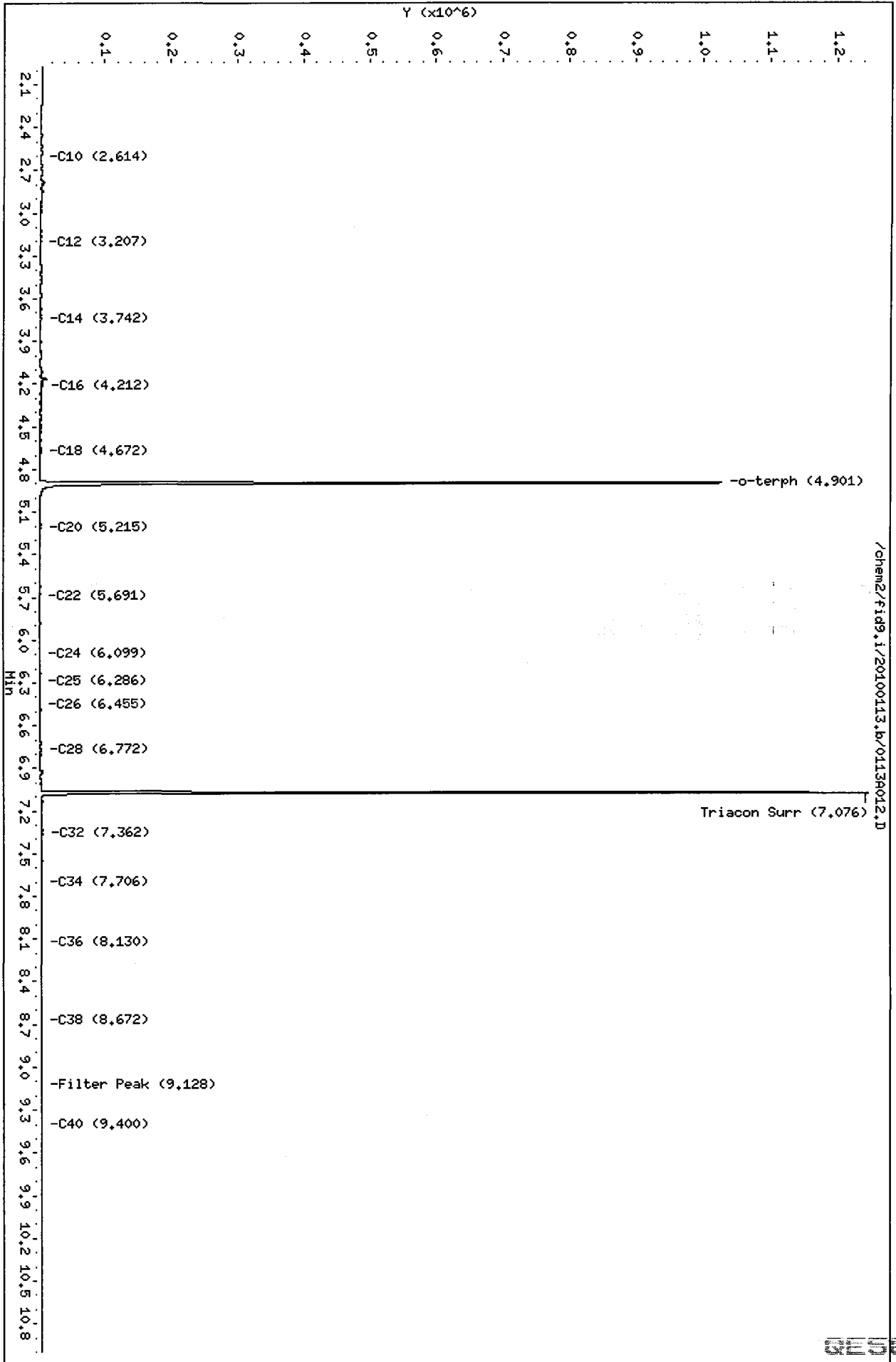
Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	820842	38.9	86.5
Triacontane	870922	39.7	88.2

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.1/20100113.b/0113A012.D  
Date: 13-JAN-2010 15:59  
Client ID: QES6HBS1  
Sample Info: QES6HBS1  
Column phase: RTX-1

Instrument: fid9.1  
Operator: HS  
Column diameter: 0.25



/chem2/fid9.1/20100113.b/0113A012.D

Jan 14/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A011.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56LCSS1  
Client ID: QE56LCSS1  
Injection: 13-JAN-2010 15:39  
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.817	0.009	3852	4523	GAS (Tol-C12)	2930241	226
C8	1.993	0.001	5186	16044	DIESEL (C12-C24)	22170759	1313
C10	2.633	0.020	39755	57154	M.OIL (C24-C38)	403354	29
C12	3.197	-0.009	231489	202639	AK-102 (C10-C25)	24548932	1300
C14	3.732	-0.003	501658	305170	AK-103 (C25-C36)	306747	32
C16	4.208	0.001	1018096	763588			
C18	4.679	0.005	752869	611787			
C20	5.219	0.005	498610	414385			
C22	5.694	0.003	255683	199971			
C24	6.100	0.001	87290	60363			
C25	6.284	-0.002	39085	49958			
C26	6.455	-0.003	17081	13533			
C28	6.773	-0.001	4119	6181			
C32	7.360	-0.004	4261	5712			
C34	7.700	-0.004	1256	2624	BUNKERC (C10-C38)	24873926	2836
Filter Peak	9.139	0.004	259	186			
C36	8.125	-0.005	1572	2980			
C38	8.670	-0.006	699	1586			
C40	9.397	-0.003	376	334			
o-terph	4.907	0.002	1156359	873036			
Triacon Surr	7.075	0.000	1328514	905362			

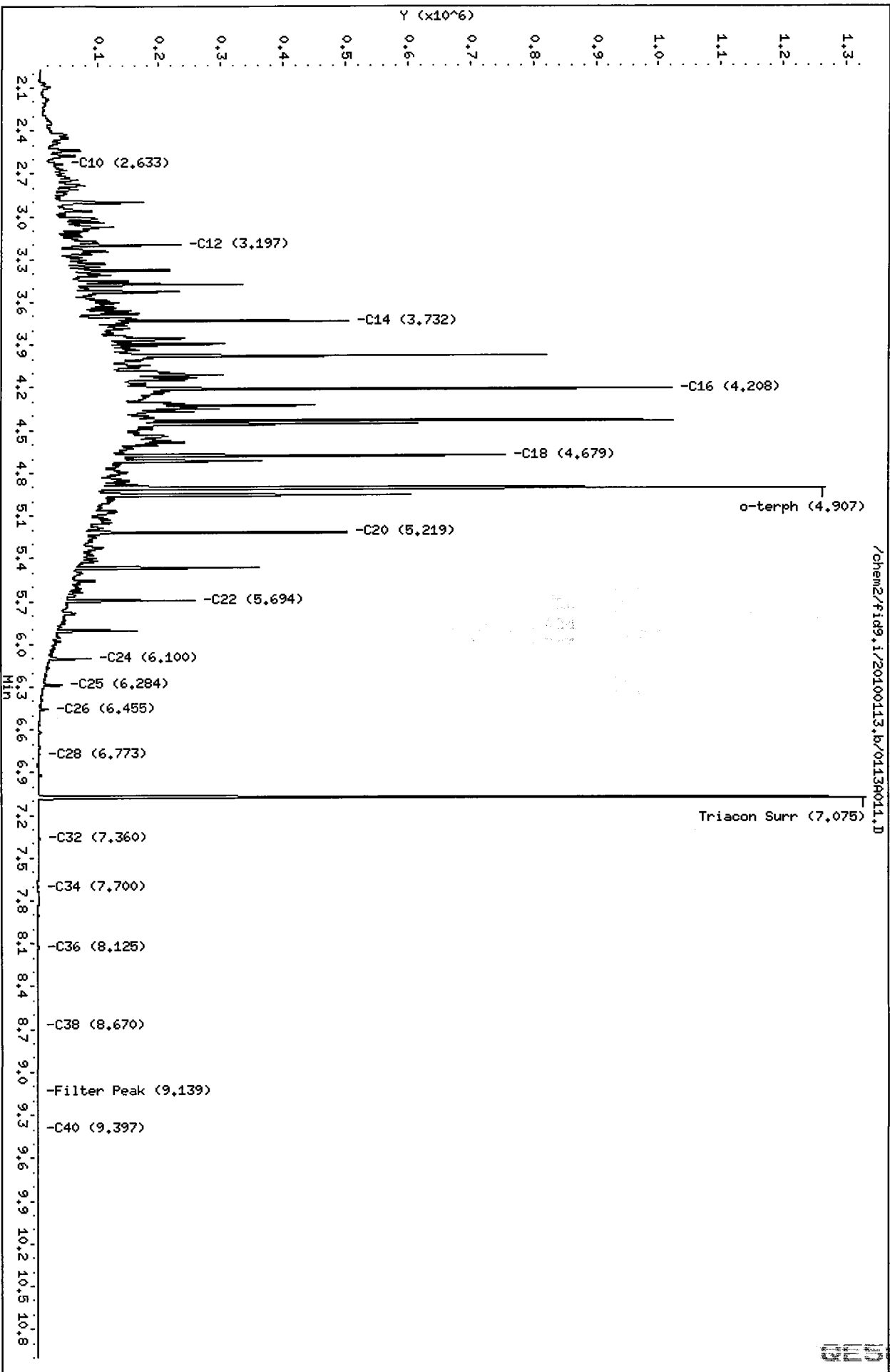
Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	873036	41.4	92.0
Triacotane	905362	41.3	91.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.i/20100113.b/0113A011.D  
Date: 13-JAN-2010 15:39  
Client ID: QES6LCSS1  
Sample Info: QES6LCSS1  
Column phase: RTX-1

Instrument: fid9.i  
Operator: NS  
Column diameter: 0.25



ms 1/14/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A009.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56DMS  
Client ID: CB2010710Sed MS  
Injection: 13-JAN-2010 15:00

Dilution Factor: 10

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.818	0.011	1369	1663	GAS (Tol-C12)	235055	18
C8	1.988	-0.004	1558	2211	DIESEL (C12-C24)	8633512	511
C10	2.640	0.027	9616	11189	M.OIL (C24-C38)	29883708	2163
C12	3.196	-0.010	18384	14161	AK-102 (C10-C25)	10118214	536
C14	3.735	0.000	40162	30224	AK-103 (C25-C36)	26958607	2851
C16	4.207	0.000	82946	48667			
C18	4.672	-0.002	68478	52926			
C20	5.212	-0.002	63715	79339			
C22	5.694	0.003	134288	196982			
C24	6.099	0.000	228334	94971			
C25	6.286	0.000	282954	77832			
C26	6.458	0.000	321068	95887			
C28	6.779	0.005	338750	148534			
C32	7.371	0.008	215113	55453			
C34	7.706	0.002	132245	80813	BUNKERC (C10-C38)	38654063	4407
Filter Peak	9.134	-0.001	20804	8658			
C36	8.136	0.006	75439	46314			
C38	8.671	-0.004	36977	23523			
C40	9.404	0.004	15481	8575			
o-terph	4.899	-0.006	96635	64567			
Triacon Surr	7.095	0.020	84280	50056			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

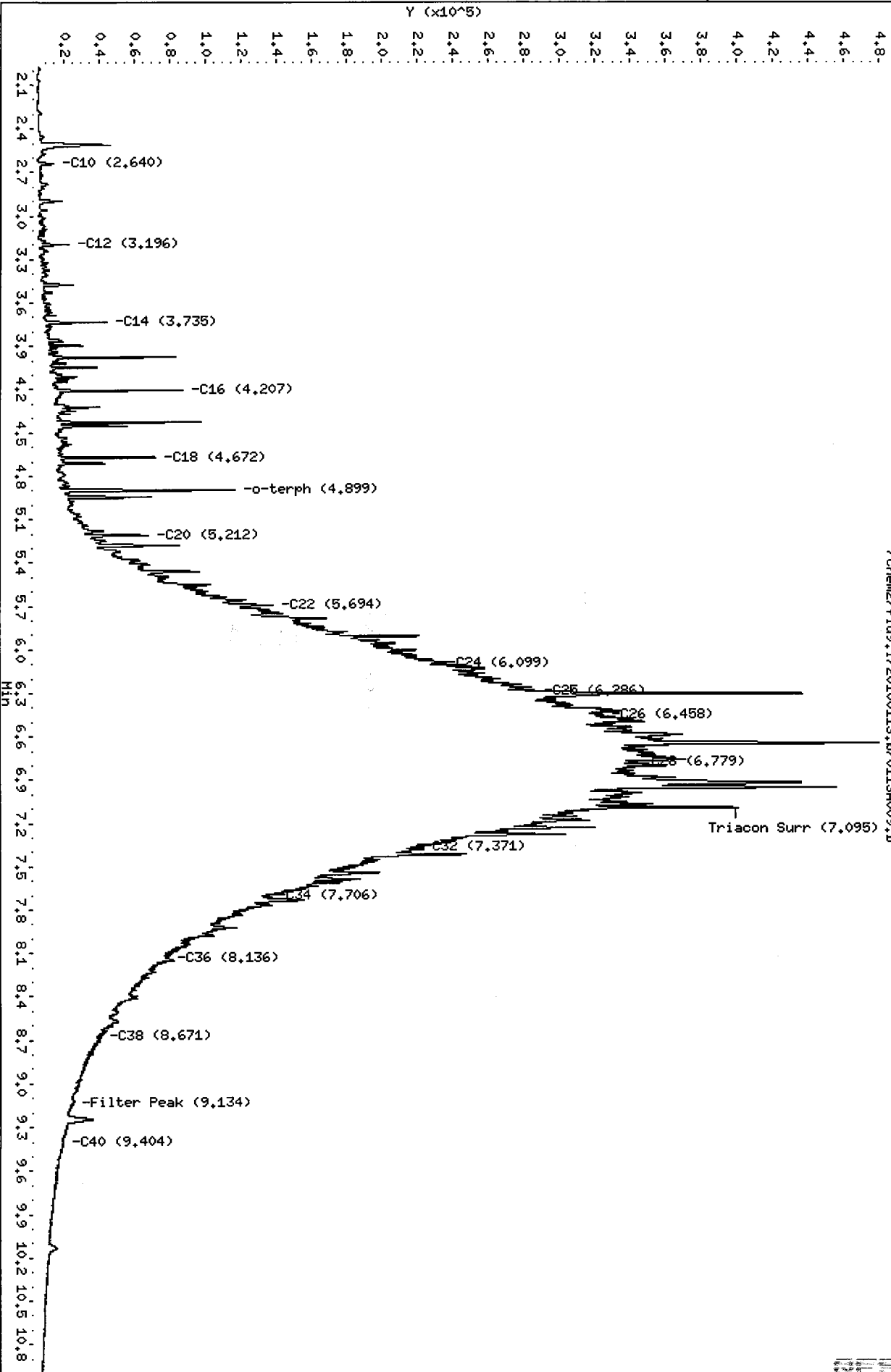
Surrogate	Area	Amount	%Rec
o-Terphenyl	64567	3.1	68.1
Triacotane	50056	2.3	50.7

Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010

Data File: /chem2/fid9.1/20100113.b/0113A009.D  
Date: 13-JAN-2010 15:00  
Client ID: CB20107105ed MS  
Sample Info: QES6DMS.10  
Column phase: RTX-1

Instrument: fid9.1  
Operator: MS  
Column diameter: 0.25

/chem2/fid9.1/20100113.b/0113A009.D



ms 1/14/10

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem2/fid9.i/20100113.b/0113A010.D  
Method: /chem2/fid9.i/20100113.b/ftphfid9a.m  
Instrument: fid9.i  
Operator: MS  
Report Date: 01/14/2010  
Macro: 05-JAN-2010  
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:05-JAN-2010

ARI ID: QE56DMSD  
Client ID: CB2010710Sed MSD  
Injection: 13-JAN-2010 15:19

Dilution Factor: 10

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.819	0.011	1216	1424	GAS (Tol-C12)	249194	19
C8	1.991	-0.001	1235	2760	DIESEL (C12-C24)	7988299	473
C10	2.641	0.028	24654	24740	M.OIL (C24-C38)	27509650	1991
C12	3.196	-0.010	16216	12271	AK-102 (C10-C25)	9347125	495
C14	3.734	0.000	35383	30312	AK-103 (C25-C36)	24875573	2630
C16	4.206	-0.001	76226	43790			
C18	4.672	-0.002	61607	45342			
C20	5.212	-0.002	58508	75349			
C22	5.693	0.002	124413	167849			
C24	6.102	0.003	212405	58716			
C25	6.287	0.000	257691	86359			
C26	6.457	-0.001	295723	117428			
C28	6.778	0.004	311347	98586			
C32	7.365	0.001	198517	94214			
C34	7.706	0.002	120694	61177	BUNKERC (C10-C38)	35640826	4064
Filter Peak	9.138	0.004	18421	5868			
C36	8.128	-0.002	66571	42451			
C38	8.674	-0.002	32328	24667			
C40	9.398	-0.002	13451	7438			
o-terph	4.899	-0.006	85857	56949			
Triacon Surr	7.094	0.020	74669	43197			

Range Times: NW Diesel(3.206 - 6.099) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)  
NW M.Oil(6.10 - 8.68) AK103(6.29 - 8.13) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	56949	2.7	60.0
Triacotane	43197	2.0	43.8

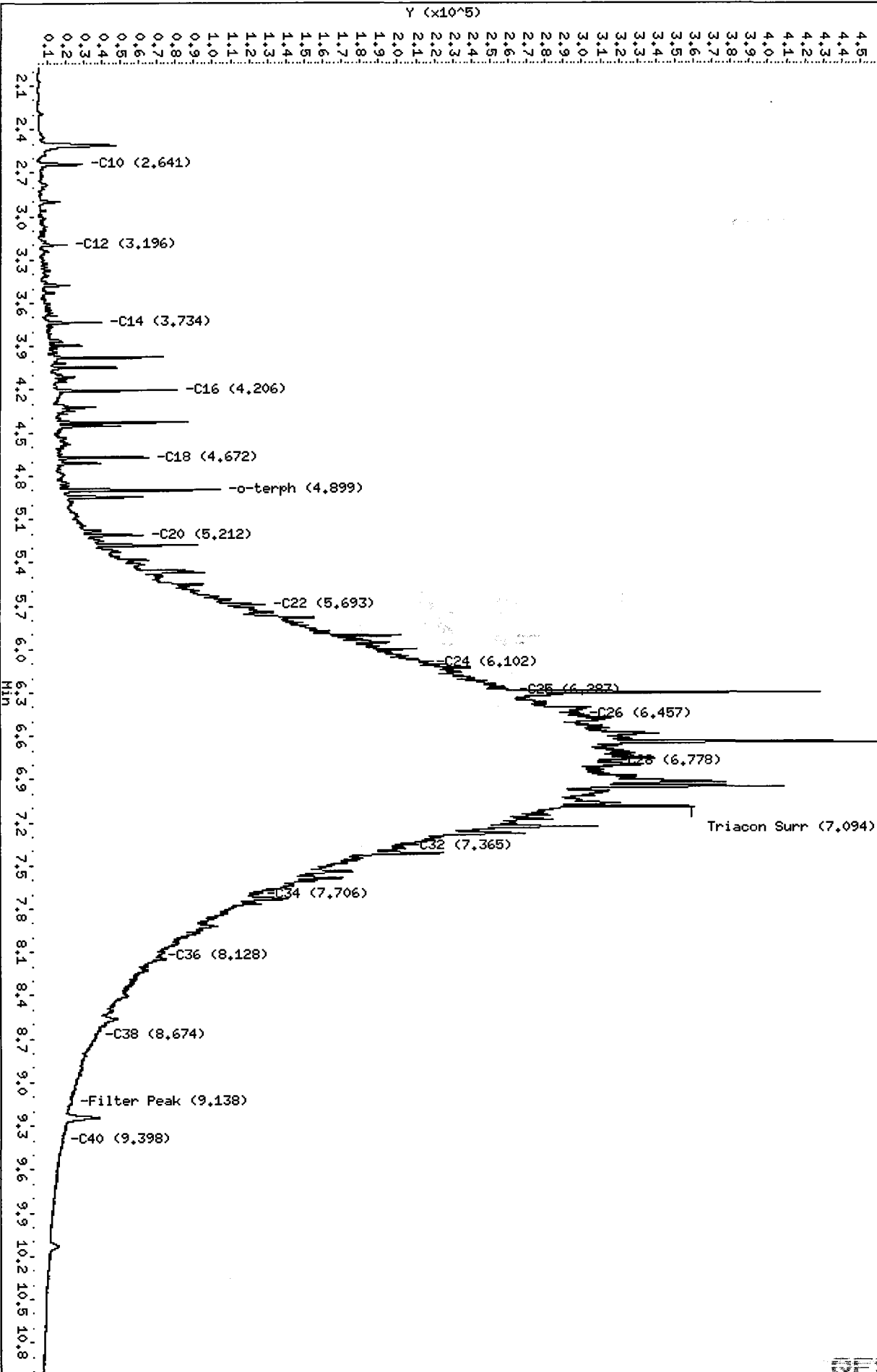
Analyte	RF	Curve Date
o-Terph Surr	21077.0	22-DEC-2009
Triacon Surr	21935.7	05-JAN-2010
Gas	12943.2	01-OCT-2009
Diesel	16885.2	22-DEC-2009
Motor Oil	13817.7	05-JAN-2010
AK102	18884.0	22-DEC-2009
AK103	9457.0	10-DEC-2009
Bunker C	8770.6	05-JAN-2010



Data File: /chem2/fid9.i/20100113.b/0113A010.D  
Date: 13-JAN-2010 15:19  
Client ID: CB20107105ed MSD  
Sample Info: QES6DMSD,10  
Column phase: RTX-1

Instrument: fid9.i  
Operator: MS  
Column diameter: 0.25

/chem2/fid9.i/20100113.b/0113A010.D



TPHD Analysis  
Extraction Bench Sheets/Run Logs

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.



Preparation Test TPHD # 3

ARI Job No(s) QES6

Batch set up by: ST

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	Transfer to Turbo Tube	TurboVap 123	Acid/Silica Clean (1:1) Y/N	TurboVap 123	Final Effective Volume	Volume to Lab	Comments
	QES6 MBS	Date 11/16	10.00g	↓	↓	Y	↓	1mL	1mL	
	↓ SBS	↓	↓	↓	↓	↓	↓	↓	↓	
	— SBS Dup.		↓							
8	QES6 B	verified	14.63g	↓	↓	↓	↓	↓	↓	
	C		14.33g	↓	↓	↓	↓	↓	↓	
	D		14.31g	↓	↓	↓	↓	↓	↓	see Analyst Notes
	Dms		14.45g	↓	↓	↓	↓	↓	↓	↓
	Dmsd		14.15g	↓	↓	↓	↓	↓	↓	↓
Analyst/Date: PD 11/16 → WP 01/12/10 WP 01/12/10 WP 01/12/10 WP 01/12/10 WP 01/12/10										

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	O2	100µL	7/27/14	PD	ST
Spike	11	100µL	7/27/14	PD	ST

Extraction Time: 12:55

- SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers-dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add 20mL DCM to the vessel (if needed-Add 5mL increments until solvent is 1" above soil layer). 4. Add surr/spike. 5. Mix samples thoroughly before microwaving. 6. Microwave on appropriate power setting determined by # of samples. 7. After microwave-let cool 10-15 min. 8. Collect into turbo tube with sm. funnel containing glasswool and 1" sodium sulfate. 9. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube. 10. TurboVap. 11. Acid/Silica Clean-up? Y/N. 12. TurboVap (if Silica Clean). 13. Vial.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)



ARI Job No.: QE 56

Client ID: Floyd-Snyder

Parameter: TPHD ALS

Client Project: POS-LLA (Lora Lakes Apts)

SOP Number(s): 3975

No Anomalies:

List problems, concerns, corrective actions and any other pertinent information

Received corrected folders on 1/11/10. ~~JA~~

Sample D extract was lost when the culture tube broke on the centrifuge. Sample is frozen so it will be re-extracted within holding time. ~~JA~~ 1/12/10

Analyst Initials:

Date:



Preparation Test TPHD # 3

ARI Job No(s) QE56 (Rx)

Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	Transfer to Turbo Tube	TurboVap 123	Acid/Silica Clean (1:1) Y/N	TurboVap 123	Final Effective Volume	Volume to Lab	Comments
	QE56 (Rx) MBS	Date: 1-12-16	10.00g	↓	↓	Y	↓	1mL	1mL	
	↓ SBS	↓	↓	↓	↓	↓	↓	↓	↓	
	<del>SBS Dup.</del>									
7	QE56 (Rx) D2	verified	10.13g	↓	↓	↓	↓	↓	↓	
7	↓ Dms2	↓	10.46g	↓	↓	↓	↓	↓	↓	
7	↓ Dms2	↓	10.37g	↓	↓	↓	↓	↓	↓	
Analyst/Date: PD 1-12-16 → WJ 01/12/10 WJ 01/12/10 WJ 1/12/10 →										

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	O3	100µL	7/12/14	PD	SP
Spike	11	100µL	7/7/14	PD	SP

Extraction Time: 1300

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers-dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add 20mL DCM to the vessel (if needed-Add 5mL increments until solvent is 1" above soil layer). 4. Add surr/spike. 5. Mix samples thoroughly before microwaving. 6. Microwave on appropriate power setting determined by # of samples. 7. After microwave-let cool 10-15 min. 8. Collect into turbo tube with sm. funnel containing glasswool and 1" sodium sulfate. 9. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube. 10. TurboVap. 11. Acid/Silica Clean-up? = Y/N. 12. TurboVap (if Silica Clean). 13. Vial.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)



ARI Job No.: QE 56 (Rx)

Client ID: Floyd-Snyder

Parameter: TPHD ALS

Client Project: POS-LLA (Lora Lakes Apts)

SOP Number(s): 3975

No Anomalies:

List problems, concerns, corrective actions and any other pertinent information

Received corrected folders on 1/11/14. JA

Analyst Initials:

Date:

# Analytical Resources Inc.: Organics Instrument Log

FID-9 Agilent 6850 - Serial No.: US10404004

Date: 12/22/09 Analysis: TPHd Analyst: MS

GC Program: TPH Column No.: 802037 Column Type: RTX 1

Instrument Tune (.U or .CT.): NA EM Voltage: NA

Calibration File: 20091222.2.B Curve Date: 12/22/09

IS/SS	Ical/CCal	LCS/ICV
	1686-3	1597-1
	1639-1	1605-2
	1687-3	
	1638-3	

Time	Filename	LabID	ClientID	DP	Time	Filename	LabID	ClientID	DP	Time	Filename	LabID	ClientID	DP
1 1232	1222A001.D	RINSE		1	23 2003	1222A023.D	DIESEL 100	DIESEL 100	1	46 0310	1222A046.D	DIESEL#2		1
2 1251	1222A002.D	RT		1	24 2003	1222A024.D	DIESEL 250	DIESEL 250	1	47 0319	1222A047.D	MOIL#2		1
3 1311	1222A003.D	IB		1	25 2042	1222A025.D	DIESEL 500	DIESEL 500	1					
4 1330	1222A004.D	DIESEL#1		1	26 2101	1222A026.D	DIESEL 1000	DIESEL 1000	1					
5 1350	1222A005.D	MOIL#1		1	27 2121	1222A027.D	DIESEL 2500	DIESEL 2500	1					
6 1410	1222A006.D	MOIL#1		1	28 2140	1222A028.D	DIESEL 1CV	DIESEL 1CV	1					
7 1431	1222A007.D	QB60B#1		1	29 2209	1222A029.D	MOIL 100	MOIL 100	1					
8 1451	1222A008.D	QB61C#1		1	30 2219	1222A030.D	MOIL 250	MOIL 250	1					
9 1521	1222A009.D	QB61C#1		1	31 2244	1222A031.D	MOIL 500	MOIL 500	1					
10 1542	1222A010.D	QB6A		1	32 2258	1222A032.D	MOIL 1000	MOIL 1000	1					
11 1601	1222A011.D	QB6B		1	33 2316	1222A033.D	MOIL 2500	MOIL 2500	1					
12 1621	1222A012.D	QB6C		1	34 2337	1222A034.D	MOIL 5000	MOIL 5000	1					
13 1640	1222A013.D	QB6D		1	35 2357	1222A035.D	MOIL 1CV	MOIL 1CV	1					
14 1700	1222A014.D	DIESEL#2		1	36 0016	1222A036.D	IB		1					
15 1719	1222A015.D	MOIL#2		1	37 0035	1222A037.D	DIESEL#1		1					
16 1739	1222A016.D	QB6MB#1		1	38 0055	1222A038.D	MOIL#1		1					
17 1802	1222A017.D	QC41C		1	39 0114	1222A039.D	QB6D		1					
18 1826	1222A018.D	RINSE		1	40 0134	1222A040.D	QB6C		1					
19 1845	1222A019.D	RINSE		1	41 0153	1222A041.D	QB6B		1					
20 1905	1222A020.D	RT	RT	1	42 0212	1222A042.D	QB6A		1					
21 1924	1222A021.D	IB	IB	1	43 0232	1222A043.D	QB61C#1		1					
22 1944	1222A022.D	DIESEL 50	DIESEL 50	1	44 0251	1222A044.D	QB61C#1		1					
					45 0310	1222A045.D	QB6MB#1		1					

AR 12/31/09

## Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):  
 The must contain information or be lined out. Make all entries legible. Start a new page for each QC period.





**GC Analyst Notes / Corrective Action Log**

ARI Project ID: Diesel CURVE Client ID: ARI  
AK102, o-Terphenyl

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other  
Parameter(s): Diesel, AK102, -o-Terphenyl

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 FID-9  
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/22/09 Analysis Start: 12/22/09

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 12/23/09

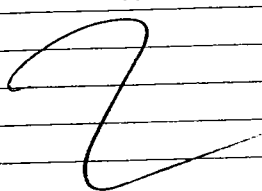
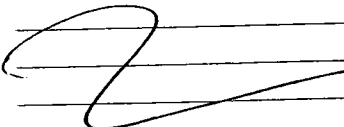
Reviewer's Signature: [Signature] Date: 12.23.1009



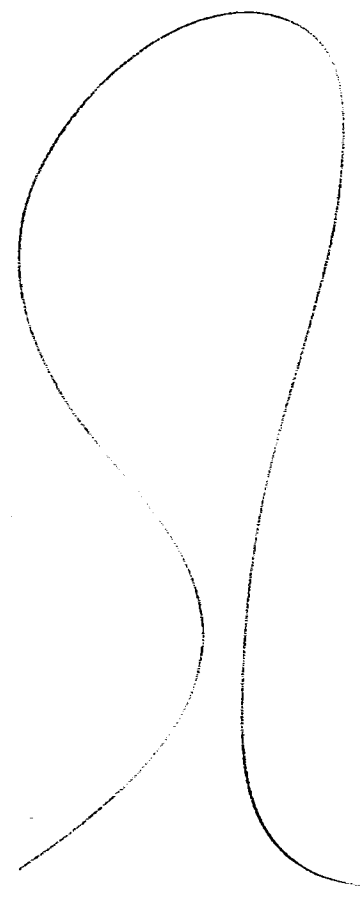
# Analytical Resources Inc.: Organics Instrument Log

## FID-9 Agilent 6850 - Serial No.: US10404004

Date: 1/5/10 Analysis: TPM Analyst: ms  
 GC Program: TPM Column No: 802037 Column Type: RXX1  
 Instrument Tune (.U or .CT.): \_\_\_\_\_ EM Voltage: \_\_\_\_\_  
 Calibration File: \_\_\_\_\_ Curve Date: Discal: 12/2/09 MOI: 1/5/10

IS/SS	Ical/Ccal	LCS/ICV
	<u>1680-3</u> <u>1639-1</u> <u>1687-3</u> <u>1638-3</u>	

Time	Filename	LabID	ClientID	DF	Time	Filename	LabID	ClientID	DF	
1	1153	0105A001.D	RINSE	1	23	2035	0105A023.D	MOIL 1000	MOIL 1000	1
2	1213	0105A002.D	RINSE	1	24	2055	0105A024.D	MOIL 2500	MOIL 2500	1
3	1232	0105A003.D	RT	1	25	2115	0105A025.D	MOIL 5000	MOIL 5000	1
4	1252	0105A004.D	IB	1	26	2134	0105A026.D	MOIL ICV		1
5	1312	0105A005.D	DIESEL#1	1	27	2153	0105A027.D	RINSE		1
6	1331	0105A006.D	MOIL#1	1	28	2213	0105A028.D	RINSE		1
7	1351	0105A007.D	MOIL#1	1	29	2233	0105A029.D	RINSE		1
8	1411	0105A008.D	OC23C	5	30	2252	0105A030.D	BUNKER 50		1
9	1431	0105A009.D	QD74A	1	31	2312	0105A031.D	BUNKER 100		1
10	1450	0105A010.D	RINSE	1	32	2332	0105A032.D	BUNKER 250		1
11	1510	0105A011.D	RINSE	1	33	2351	0105A033.D	BUNKER 500		1
12	1530	0105A012.D	MOIL#1	1	34	0011	0105A034.D	BUNKER 1000		1
13	1549	0105A013.D	OC23C	5	35	0030	0105A035.D	BUNKER 2500		1
14	1609	0105A014.D	NEW MOIL CHECK		36	0050	0105A036.D	BUNKER 5000		1
15	1629	0105A015.D	DIESEL#2	1	37	0110	0105A037.D	RINSE		1
16	1818	0105A016.D	RINSE	1	38	0129	0105A038.D	DIESEL#1		1
17	1838	0105A017.D	RINSE	1	39	0149	0105A039.D	MOIL#1		1
18	1857	0105A018.D	RT	1	40	0208	0105A040.D	BUNKER#1		1
19	1917	0105A019.D	IB	1	41	0228	0105A041.D	RINSE		1
20	1937	0105A020.D	MOIL 100	MOIL 100	1					
21	1956	0105A021.D	MOIL 250	MOIL 250	1					
22	2016	0105A022.D	MOIL 500	MOIL 500	1					



**Maintenance / Comments** Curved MOI and Bunker C.

---



---



---

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):  
 Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.





**GC Analyst Notes / Corrective Action Log**

ARI Project ID: MOTOR OIL CORRECTION Client ID: ART

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other

Parameter(s): MOTOR OIL, N-TRIACONTANE

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 FID 9  
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 1/5/10 Analysis Start: 1/5/10

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO NA  
 ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO ✓  
 CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery In Control? YES / NO  
 Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst Signature: MA Date: 1/8/10

Reviewer's Signature: [Signature] Date: 1/8/10

# Analytical Resources Inc.: Organics Instrument Log

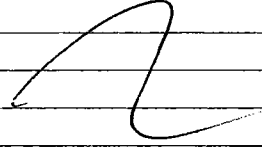
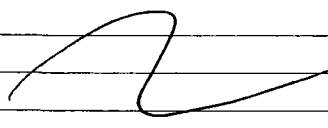
FID-9 Agilent 6850 - Serial No.: US10404004

Date: 11/2/10 Analysis: TPH Analyst: Mo

GC Program: TPH Column No: 802037 Column Type: RTX-1

Instrument Tune (.U or .CT.): --- EM Voltage: ---

Calibration File: --- Curve Date: 12/22/09, 1/5/10

IS/SS	Ical/Ccal	LCS/ICV
	1686-3 1639-1 1687-3 1638-3	

Time	Filename	LabID	ClientId	DF	
1	1156	0112A001.D	RINSE	1	
2	1215	0112A002.D	RINSE	1	
3	1235	0112A003.D	RT	1	
4	1255	0112A004.D	IB	1	
5	1315	0112A005.D	DIESEL#1	1	
6	1334	0112A006.D	MOIL#1	1	
7	1354	0112A007.D	QE98A	RAP-1	1
8	1414	0112A008.D	QE56B	CB19010710Se	10
9	1434	0112A009.D	QE56C	CB12010710Se	10
10	1453	0112A010.D	QE56LCSS1	QE56LCSS1	1
11	1513	0112A011.D	QE56MBS1	QE56MBS1	1
12	1533	0112A012.D	QE98LCSW1	QE98LCSW1	1
13	1553	0112A013.D	QE98MBW1	QE98MBW1	1
14	1612	0112A014.D	DIESEL#2		1
15	1632	0112A015.D	MOIL#2		1
16	1652	0112A016.D	QE79A		5
17	1712	0112A017.D	QE79B		5
18	1732	0112A018.D	QE79C		5
19	1752	0112A019.D	QE79A		1

*ms* Run continues.

**Maintenance / Comments**

---



---



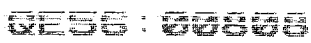
---



---

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.



### GC Analyst Notes / Corrective Action Log

ARI Project ID: QES6 Client ID: POS-LLA

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other

Parameter(s): Diesel, mail, o Teph.

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 FID-9  
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/22/10, 1/5/10 Analysis Start: 1/12/10

- Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO
- ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO
- CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery In Control? YES / NO
- Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

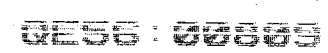
Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

sample D and its ms, msols are being reextracted and will be reported to separately.

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 1/12/10

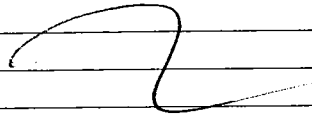
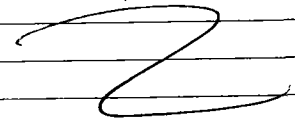
Reviewer's Signature: [Signature] Date: 1/13/2010



# Analytical Resources Inc.: Organics Instrument Log

FID-9 Agilent 6850 - Serial No.: US10404004

Date: 11/3/10 Analysis: TPHD Analyst: MD  
 GC Program: TPH Column No: 802037 Column Type: RTX-1  
 Instrument Tune (.U or .CT.): \_\_\_\_\_ EM Voltage: \_\_\_\_\_  
 Calibration File: \_\_\_\_\_ Curve Date: 12/22/09, 1/5/10

IS/SS	Ical/Ccal	LCS/ICV
	<u>1686-3</u> <u>1639-1</u> <u>1687-3</u> <u>1638-3</u>	

Time	Filename	LabID	ClientID	DF	Time	Filename	LabID	ClientID	DF	
1	1222	0113A001.D	RINSE	1	3	1936	0113A023.D	QF10LCSS1	QF10LCSS1	1
2	1241	0113A002.D	RINSE	1	4	1956	0113A024.D	QF10A	CB31A011110S	5
3	1301	0113A003.D	RT	1	5	2016	0113A025.D	QF10AMS	CB31A011110S	1
4	1321	0113A004.D	MDL VER	1	6	2035	0113A026.D	QF10AMSD	CB31A011110S	1
5	1341	0113A005.D	IB	1	7	2055	0113A027.D	QF10B	CB99011110SE	5
6	1400	0113A006.D	DIESEL#1	1	8	2115	0113A028.D	DIESEL#3		1
7	1420	0113A007.D	MOIL#1	1	9	2134	0113A029.D	MOIL#3		1
8	1440	0113A008.D	QE56D	CB2010710Sed	10					
9	1500	0113A009.D	QE56DMS	CB2010710Sed	10					
10	1519	0113A010.D	QE56DMSD	CB2010710Sed	10					
11	1539	0113A011.D	QE56LCSS1	QE56LCSS1	1					
12	1559	0113A012.D	QE56MBS1	QE56MBS1	1					
13	1619	0113A013.D	QF05A	NBF-3-323-BU	5					
14	1639	0113A014.D	QF05B	NBF-3-323-BU	1					
15	1658	0113A015.D	QF05C	NBF-3-323-BU	1					
16	1718	0113A016.D	QF05LCSS1	QF05LCSS1	1					
17	1738	0113A017.D	QF05LCSDS1	QF05LCSDS1	1					
18	1758	0113A018.D	QF05A	NBF-3-323-BU	2					
19	1817	0113A019.D	QF05MBS1	QF05MBS1	1					
20	1837	0113A020.D	DIESEL#2		1					
21	1856	0113A021.D	MOIL#2		1					
22	1916	0113A022.D	QF10MBS1	QF10MBS1	1					

*Handwritten signature and date: MD 11/4/10*

**Maintenance / Comments**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Maintenance Verification** (Identify ICal or CCal that demonstrates the instrument is in control):  
 Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.





### GC Analyst Notes / Corrective Action Log

ARI Project ID: QES6 Client ID: POS-LLA

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other

Parameter(s): Diesel Mal, other

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 FID9  
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/22/09, 1/5/10 Analysis Start: 1/13/10

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO  
 ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO  
 CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery In Control? YES / NO  
 Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Sample D was reextracted since the sample was lost due to a broken test tube originally.

Additional Details on Reverse: Yes / No

Analyst Signature: mo Date: 1/14/10

Reviewer's Signature: [Signature] Date: 1/15/2010

Metals Analysis  
QC Summary Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

# Cover Page

INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Floyd-Snider

PROJECT: POS-LLA (Lora Lake A)

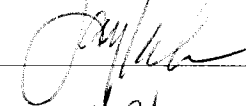
SDG: QE56

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
CB19010710Sed	QE56B	10-433	
CB19010710SedD	QE56BDUP	10-433	
CB19010710SedS	QE56BSPK	10-433	
CB12010710Sed	QE56C	10-434	
PBS	QE56MB1	10-434	
LCSS	QE56MB1SPK	10-434	
CB2010710Sed	QE56D	10-435	

Were ICP interelement corrections applied ?                      Yes/No    YES  
Were ICP background corrections applied ?                      Yes/No    YES  
If yes - were raw data generated before  
application of background corrections ?                      Yes/No    NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:                       Name: Jay Kuhn  
Date: 1/19/10                      Title: Inorganics Director



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

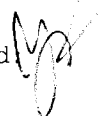
Page 1 of 1

Sample ID: CB19010710Sed  
MATRIX SPIKE

Lab Sample ID: QE56B

LIMS ID: 10-433

Matrix: Sediment

Data Release Authorized 

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	20 U	810	916	88.4%	
Lead	6010B	243	1,030	916	85.9%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: CB19010710Sed  
DUPLICATE

Lab Sample ID: QE56B

LIMS ID: 10-433

Matrix: Sediment

Data Release Authorized: 

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	20 U	20 U	0.0%	+/- 20	L
Lead	6010B	243	222	9.0%	+/- 20%	

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: QE56LCS


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-434

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 01/19/10

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	203	200	102%	
Lead	6010B	203	200	102%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QE56MB


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-434

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 01/19/10

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	5	5	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	2	2	U

U-Analyte undetected at given RL

RL-Reporting Limit

# Calibration Verification

CLIENT: Floyd-Snyder

PROJECT: POS-LLA (Lora Lake A)

SDG: QE56



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP011872	2000.0	1996.81	99.8	2000.0	2015.38	100.8	2089.51	104.5	2163.89	108.2	1981.45	99.1	1974.52	98.7
Lead	PB	ICP	IP011872	2000.0	2055.21	102.8	2000.0	2072.36	103.6	2143.65	107.2	2219.52	111.0	2057.79	102.9	2045.94	102.3

Control Limits: Mercury 80-120; Other Metals 90-110

# CRDL Standard

CLIENT: Floyd-Snyder

PROJECT: POS-LLA (Lora Lake A)

SDG: QE56



UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	ICP	IP011872	50.0		53.05	106.1										
Lead	PB	ICP	IP011872	20.0		21.30	106.5										

Control Limits: no control limits have been established by the EPA at this time.

53 01 01 21 30 106 106



# ICP Interference Check Sample



CLIENT: Floyd-Snider  
 PROJECT: POS-LLA (Lora Lake A)  
 SDG: QE56

ICS SOURCE: I.V.  
 RUNID: IP011872  
 INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSA3 TV	ICSA3	ICSA2	ICSA1	ICSA1	%R	ICSA2	ICSA2	ICSA3	ICSA3	%R
Aluminum	200000	200000	199598.3	198767.8	99.4							
Antimony	1000	1000	18.2	1038.6	103.9							
Arsenic	1000	1000	15.3	1065.9	106.6							
Barium	1000	1000	0.6	1047.6	104.8							
Beryllium	1000	1000	0.0	1032.5	103.3							
Boron			-2.2	-1.0								
Cadmium	1000	1000	0.9	1090.4	109.0							
Calcium	100000	100000	101405.4	100944.3	100.9							
Chromium	1000	1000	-2.2	1048.6	104.9							
Cobalt	1000	1000	1.1	1024.2	102.4							
Copper	1000	1000	1.8	1142.5	114.3							
Iron	200000	200000	196915.9	195452.3	97.7							
Lead	1000	1000	-9.6	1028.8	102.9							
Magnesium	100000	100000	97592.9	97433.9	97.4							
Manganese	1000	1000	0.6	990.4	99.0							
Molybdenum			4.9	4.3								
Nickel	1000	1000	0.5	1008.4	100.8							
Potassium			-21.5	-171.1								
Selenium	1000	1000	51.1	1087.9	108.8							
Silicon			-9.5	-1.5								
Silver	1000	1000	-0.7	1110.5	111.1							
Sodium			0.5	-0.6								
Strontium			0.8	0.9								
Thallium	1000	1000	14.6	1001.3	100.1							
Tin			-8.9	-8.3								
Titanium			0.7	0.5								
Vanadium	1000	1000	5.9	1075.9	107.6							
Zinc	1000	1000	0.1	989.7	99.0							



# IDLs and ICP Linear Ranges



CLIENT: Floyd-Snider

PROJECT: POS-LLA (Lora Lake A)

SDG: QE56

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENGTH (nm)	GFA BACK- GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Arsenic	AS	ICP	OPTIMA ICP 2	197.20		10	50.0	4/1/2009	30000.0	10/6/2009
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2009	300000.0	10/6/2009



# ICP Interelement Correction Factors



CLIENT: Floyd-Snyder

PROJECT: POS-LLA (Lora Lake A

SDG: QE56

IEC DATE: 1/4/2010

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.000000	1.7035100	9.9539600	0.0000000	0.0000000	0.0000000	1.4982200	0.0000000	19.5485000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3985360	0.0000000	0.0000000	-1.1464800	0.0000000	-3.0730000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	1.7477900	0.0000000	0.0000000	0.0000000	-21.3147000	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0633017	0.0000000	0.0000000	0.0000000	0.0000000	0.5444030	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0116703	0.0000000	0.5528390	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0698191	-0.5618170	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.1643740	-0.1533160	0.1572220	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2665480	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1888730	0.1685330	0.0000000	0.0000000	1.6986700	0.0000000	0.0897250	0.0000000
Copper	324.75	0.0239683	0.0000000	0.6453040	0.0000000	0.0000000	0.0691174	0.3628600	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.8018300	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-3.6133100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0065823	0.0000000	0.0000000	0.0000000	-0.2590290	0.0000000	0.0000000	0.0000000	-0.0276034	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7407090	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0539161	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.2132540	0.1386910	0.0000000	0.0000000	0.0000000	-0.0398067	0.0000000	-0.2460000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	-1.3086600	-2.7571600	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.4924200	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.6591750	-0.4466800	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.2023400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1565760	-0.5580890	0.0000000	0.0000000	0.0000000	0.5757670	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2945050	0.0000000	-0.0507580	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

# Preparation Log



CLIENT: Floyd-Snider

ANALYSIS METHOD: ICP

PROJECT: POS-LLA (Lora Lake A)

ARI PREP CODE: SWC

SDG: QE56

PREPDATE: 1/12/2010

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
CB19010710Sed	QE56B	1.045	0.0	50.0
CB19010710SedD	QE56BDUP	1.048	0.0	50.0
CB19010710SedS	QE56BSPK	1.046	0.0	50.0
CB12010710Sed	QE56C	1.032	0.0	50.0
CB2010710Sed	QE56D	1.022	0.0	50.0
PBS	QE56MB1	1.000	0.0	50.0
LCSS	QE56MB1SPK	1.000	0.0	50.0

# Analysis Run Log



CLIENT: Floyd-Snider

PROJECT: POS-LLA (Lora Lake A)

INSTRUMENT ID: OPTIMA ICP 2

START DATE: 1/18/2010

SDG: QE56

RUNID: IP011872

METHOD: ICP

END DATE: 1/18/2010

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN							
S0	S0	1.00	11034																																	X				
S2	S2	1.00	11064																																		X			
S3	S3	1.00	11082																																		X			
S4	S4	1.00	11111																																			X		
S5	S5	1.00	11130																																			X		
ICV	ICV	1.00	11165																																		X			
ICB	ICB	1.00	11202																																		X			
CRI	CRII	1.00	11240																																		X			
ICSA	ICSAI	1.00	11281																																		X			
ICSAB	ICSABI	1.00	11320																																		X			
ZZZZZZ	SPEX21	1.00	11354																																		X			
CCV	CCV1	1.00	11393																																		X			
CCB	CCB1	1.00	11433																																			X		
ZZZZZZ	QF00MB1	1.00	11532																																			X		
ZZZZZZ	QF00E	1.00	11550																																			X		
ZZZZZZ	QF00G	1.00	11564																																			X		
ZZZZZZ	QF00J	1.00	11593																																				X	
ZZZZZZ	QF00A	1.00	12022																																				X	
ZZZZZZ	QF00B	1.00	12062																																				X	
ZZZZZZ	QF00DDUP	1.00	12101																																				X	
ZZZZZZ	QF00D	1.00	12141																																					X
ZZZZZZ	QF00DSPK	1.00	12180																																				X	
ZZZZZZ	QF00MB1SPK	1.00	12214																																				X	
CCV	CCV2	1.00	12252																																				X	
CCB	CCB2	1.00	12290																																				X	
ZZZZZZ	QF15MB1	1.00	12324																																				X	
ZZZZZZ	QF00I	1.00	12361																																					X
ZZZZZZ	QF00C	1.00	12401																																					X
ZZZZZZ	QF15A	1.00	12440																																					X
ZZZZZZ	QF00E	1.00	12474																																					X
ZZZZZZ	QF10ADUP	2.00	12555																																					X
ZZZZZZ	QF10A	2.00	12595																																					X
ZZZZZZ	QF10ASPK	2.00	13012																																					X
ZZZZZZ	QF10MB1SPK	2.00	13035																																					X
ZZZZZZ	QF15MB1SPK	1.00	13053																																					X



Metals Analysis  
Sample Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: CB19010710Sed  
SAMPLE

Lab Sample ID: QE56B


QC Report No: QE56-Floyd-Snider

LIMS ID: 10-433

Project: POS-LLA (Lora Lake Apts.)

Matrix: Sediment

POS-LLA

Data Release Authorized 

Date Sampled: 01/07/10

Reported: 01/19/10

Date Received: 01/07/10

Percent Total Solids: 20.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	20	20	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	9	243	

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

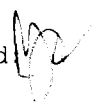
Page 1 of 1

Sample ID: CB12010710Sed  
SAMPLE

Lab Sample ID: QE56C

LIMS ID: 10-434

Matrix: Sediment

Data Release Authorized 

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Percent Total Solids: 19.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	20	20	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	10	270	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: CB2010710Sed  
SAMPLE

Lab Sample ID: QE56D

LIMS ID: 10-435

Matrix: Sediment

Data Release Authorized: *[Signature]*

Reported: 01/19/10

QC Report No: QE56-Floyd-Snider

Project: POS-LLA (Lora Lake Apts.)

POS-LLA

Date Sampled: 01/07/10

Date Received: 01/07/10

Percent Total Solids: 20.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/12/10	6010B	01/18/10	7440-38-2	Arsenic	20	20	U
3050B	01/12/10	6010B	01/18/10	7439-92-1	Lead	9	322	

U-Analyte undetected at given RL

RL-Reporting Limit

Metals Analysis  
Instrument Raw Data and Logs

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.



IEC Date: \_\_\_\_\_ Analysis Date: 1-18-10 Analyst: AT

LR Date: \_\_\_\_\_ Page: 2 of 5

All corrections made by analyst unless otherwise noted.

At 1-18-10

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	QFOO H	<del>TWC</del>		rem
	✓	↓ rtspk	↓		Ca 100% *
		↓ MBZSPK	↓		
		QF18 MB1SPK	WMM		0.08 ml ICP spl
		CCV1			
		CCCBZ			
		QFOO H Dup	TWC	✓	
		↓ H	↓		
		↓ rtspk	↓		✓ tea str.
		QRI			
		ICSA			
		ICSA B			
		CCV3			Pb high also ✓
		CCB3			
		STD0			2672-13
		↓ 2			2673-10
		↓ 3			↓ -11
		↓ 4			↓ -12
		↓ 5			↓ -13
		ICV			2664-6
		ICB			
		QRI			
		ICSA			
		ICSA B			



IEC Date: \_\_\_\_\_ Analysis Date: 1-18-10 Analyst: JA

LR Date: \_\_\_\_\_ Page: 3 of 5

All corrections made by analyst unless otherwise noted. JA 1-18-10

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		SPEX 21			
		CCr1			
		CCB1			
		QFOO MB1	wmw		
	✓	E	TWC		RVR Mg SE noisy
		G	↓		
		J	↓		
		A	wmw		
		B	↓		
		DDup		✓	
		D	↓		
		↓ Dspl	↓		✓ 0.08 mL ICP spl
		MAISPL	↓		✓ 0.08 mL ICP spl
		CCVZ			
		CCWZ			
		QF15 MB1	TWC		
	✓	QFOO I	wmw		
	✓	h C	↓		Clout Se. R noisy ↓
<del>Label</del>		<del>QF15</del> <del>off</del> A	TWC		
Label	✓	QFOO E	h		Clout
		QF10 ADup	Suc	Z	Pb high RFD RR
		↓ A	↓		↓
		↓ A spl	↓		↓
	✓	↓ MBISPL	h	↓	↓



IEC Date: \_\_\_\_\_ Analysis Date: 1-18-10 Analyst: HA

LR Date: \_\_\_\_\_ Page: 4 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		QF15 MB1spl	tw		✓
		CCV3			many high
		CCB3			
		STD 2			
		↓ 3			
		CCV4			Mn low
		CCB4			
		QES6 MB1	Swc	Z	
		QF10 MB1	↓	↓	
		↓ B			
		QES6 @			
		D			
		Bdep			✓
		B			
		Bspl			✓
		↓ MB1spl	↓	↓	✓
		CCV5			Si high
		CCB5			
		QF00 I	wmw		
		↓ C	↓		
		↓ E	twc		
		QF10 ADup	Swc	Z	Pb high RPD
		↓ A	↓	↓	CAF
		↓ A spl	↓	↓	✓

*Signature*  
1/19/10

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 1-18-10

	Analyst H-119	Peer V-119-10	Comment
<b>OPT II</b>			
<b>Logbook:</b>			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
<b>Calibration:</b>			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
<b>Calibration Verification:</b>			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
<b>Samples:</b>			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	
Carry-over	✓	✓	
<b>Method QC:</b>			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
<b>Matrix QC:</b>			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	QF10 CAF
Method Blanks	✓	✓	QF05 AN
<b>Data Distribution:</b>			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
<b>Necessary Analysts Notes and CAF's</b>	✓	✓	AN QF05 CAF QF10

=====  
Analysis Begun

Start Time: 1/18/2010 11:04:44 AM                      Plasma On Time: 1/18/2010 7:29:15 AM  
Logged In Analyst: metals                                Technique: ICP Continuous  
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif  
Batch ID:  
Results Data Set: I2100118  
Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 1    Autosampler Location: 1  
Sample ID: Calib Blank 1                                 Date Collected: 1/18/2010 11:03:41 AM  
Data Type: Original

-----  
Nebulizer Parameters: Calib Blank 1

Analyte                      Back Pressure              Flow  
All                            196.0 kPa                    0.75 L/min

-----  
Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	1889308.4	15116.07	0.80%	100.0	%
ScR 361.383	263740.6	1226.88	0.47%	100.00	%
Ag 328.068†	-198.1	19.83	10.01%	[0.00]	mg/L
Al 308.215†	96.2	10.05	10.45%	[0.00]	mg/L
As 188.979†	-7.1	3.22	45.23%	[0.00]	mg/L
B 249.677†	-2.6	5.89	224.58%	[0.00]	mg/L
Ba 233.527†	14.3	0.66	4.65%	[0.00]	mg/L
Be 313.042†	813.6	17.37	2.13%	[0.00]	mg/L
Ca 317.933†	343.9	33.89	9.86%	[0.00]	mg/L
Cd 228.802†	138.2	3.15	2.28%	[0.00]	mg/L
Co 228.616†	-35.2	2.12	6.02%	[0.00]	mg/L
Cr 267.716†	-82.5	2.64	3.20%	[0.00]	mg/L
Cu 324.752†	4457.9	19.51	0.44%	[0.00]	mg/L
Fe 273.955†	15.5	3.06	19.74%	[0.00]	mg/L
K 766.490†	9.2	10.75	117.30%	[0.00]	mg/L
Mg 279.077†	83.5	4.64	5.55%	[0.00]	mg/L
Mn 257.610†	135.5	3.82	2.82%	[0.00]	mg/L
Mo 202.031†	49.5	2.67	5.39%	[0.00]	mg/L
Na 589.592†	203.8	45.33	22.24%	[0.00]	mg/L
Na 330.237†	-237.9	8.60	3.62%	[0.00]	mg/L
Ni 231.604†	-23.1	3.03	13.08%	[0.00]	mg/L
Pb 220.353†	-36.8	3.74	10.17%	[0.00]	mg/L
Sb 206.836†	49.2	3.69	7.49%	[0.00]	mg/L
Se 196.026†	-37.0	2.90	7.85%	[0.00]	mg/L
Si 288.158†	90.1	9.76	10.84%	[0.00]	mg/L
Sn 189.927†	-4.4	3.93	89.73%	[0.00]	mg/L
Sr 421.552†	-71.8	29.32	40.83%	[0.00]	mg/L
Ti 334.903†	4.6	11.84	258.44%	[0.00]	mg/L
Tl 190.801†	-25.0	0.12	0.49%	[0.00]	mg/L
V 292.402†	157.7	20.58	13.06%	[0.00]	mg/L
Zn 206.200†	14.5	0.89	6.15%	[0.00]	mg/L



Sequence No.: 2  
Sample ID: STD2

Autosampler Location: 2  
Date Collected: 1/18/2010 11:06:47 AM  
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	196.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	1930080.6	17707.21	0.92%	102.2	%
ScR 361.383	264683.6	4114.51	1.55%	100.4	%
Ba 233.527†	34577.8	533.16	1.54%	[10]	mg/L
Cd 228.802†	205920.3	2608.43	1.27%	[10]	mg/L
Co 228.616†	206272.9	2528.12	1.23%	[10]	mg/L
Cr 267.716†	45685.9	956.69	2.09%	[10]	mg/L
Cu 324.752†	2515762.0	18094.88	0.72%	[10]	mg/L
Mn 257.610†	313590.6	5250.62	1.67%	[10]	mg/L
V 292.402†	775218.7	8156.34	1.05%	[10]	mg/L

Sequence No.: 3  
Sample ID: STD3

Autosampler Location: 3  
Date Collected: 1/18/2010 11:08:29 AM  
Data Type: Original

Nebulizer Parameters: STD3

Analyte Back Pressure Flow  
All 196.0 kPa 0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	1883334.8	18172.04	0.96%	99.68	%
ScR 361.383	264927.1	2677.43	1.01%	100.4	%
Ag 328.068†	136488.8	1893.58	1.39%	[1.0]	mg/L
As 188.979†	10217.0	99.74	0.98%	[10]	mg/L
B 249.677†	47457.6	968.09	2.04%	[10]	mg/L
Be 313.042†	2642287.9	35304.96	1.34%	[5.0]	mg/L
Na 589.592†	556239.0	6097.22	1.10%	[50]	mg/L
Ni 231.604†	20898.6	285.22	1.36%	[10]	mg/L
Pb 220.353†	44596.0	445.72	1.00%	[10]	mg/L
Se 196.026†	7894.2	66.13	0.84%	[10]	mg/L
Sr 421.552†	2488480.8	45750.58	1.84%	[5]	mg/L
Tl 190.801†	13243.4	123.49	0.93%	[10]	mg/L
Zn 206.200†	10683.8	163.72	1.53%	[10]	mg/L

Sequence No.: 4  
Sample ID: STD4

Autosampler Location: 4  
Date Collected: 1/18/2010 11:11:12 AM  
Data Type: Original

## Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	196.0 kPa	0.75 L/min

## Mean Data: STD4

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	1874013.7	45879.42	2.45%	99.19	%
ScR 361.383	266129.8	872.16	0.33%	100.9	%
Mo 202.031†	115462.3	3419.22	2.96%	[10]	mg/L
Sb 206.836†	19185.3	569.99	2.97%	[10]	mg/L
Si 288.158†	20285.5	55.43	0.27%	[10]	mg/L
Sn 189.927†	25165.1	741.61	2.95%	[10]	mg/L
Ti 334.903†	191113.8	1238.42	0.65%	[10]	mg/L

Sequence No.: 5  
 Sample ID: STD5

Autosampler Location: 5  
 Date Collected: 1/18/2010 11:13:01 AM  
 Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	196.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1760707.8	13519.47	0.77%	93.19	%
ScR 361.383	261608.8	1907.16	0.73%	99.19	%
Al 308.215†	51199.6	788.08	1.54%	[30]	mg/L
Ca 317.933†	449208.5	13441.86	2.99%	[30]	mg/L
Fe 273.955†	122870.6	3212.17	2.61%	[100]	mg/L
K 766.490†	121328.8	1918.86	1.58%	[100]	mg/L
Mg 279.077†	37868.5	526.26	1.39%	[30]	mg/L
Na 330.237†	2651.1	48.37	1.82%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	136500	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1707	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1022	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	4746	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	3458	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	528500	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	14970	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	20590	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	20630	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	4569	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	251600	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1229	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1213	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1262	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	31360	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	11550	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	11120	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	26.51	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	2090	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	4460	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	1919	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	789.4	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2029	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	2517	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	497700	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	19110	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1324	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	77520	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	1068	0.00000	1.000000	

=====  
Analysis Begun

Start Time: 1/18/2010 11:16:50 AM

Plasma On Time: 1/18/2010 7:29:15 AM

Logged In Analyst: metals

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif

Batch ID:

Results Data Set: I2100118

Results Library: C:\pe\metals\Results\Results.mdb  
=====

Sequence No.: 1

Autosampler Location: 7

Sample ID: ICV

Date Collected: 1/18/2010 11:16:51 AM

Analyst: ALA

Data Type: Original

Dilution: 1X  
=====

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	197.0 kPa	0.75 L/min

=====  
Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1892656.2	100.2 %	1.34			1.34%
ScR 361.383	272908.5	103.5 %	1.14			1.10%
Ag 328.068†	137109.5	1.005 mg/L	0.0109	1.005 mg/L	0.0109	1.09%
Al 308.215†	3342.8	1.926 mg/L	0.0300	1.926 mg/L	0.0300	1.56%
As 188.979†	2021.5	1.997 mg/L	0.0168	1.997 mg/L	0.0168	0.84%
B 249.677†	4670.2	0.9825 mg/L	0.00827	0.9825 mg/L	0.00827	0.84%
Ba 233.527†	3467.9	1.002 mg/L	0.0130	1.002 mg/L	0.0130	1.29%
Be 313.042†	509369.1	0.9633 mg/L	0.00997	0.9633 mg/L	0.00997	1.04%
Ca 317.933†	27856.4	1.860 mg/L	0.0207	1.860 mg/L	0.0207	1.11%
Cd 228.802†	21490.6	1.037 mg/L	0.0167	1.037 mg/L	0.0167	1.61%
Co 228.616†	20774.1	1.005 mg/L	0.0151	1.005 mg/L	0.0151	1.51%
Cr 267.716†	4571.1	1.000 mg/L	0.0107	1.000 mg/L	0.0107	1.07%
Cu 324.752†	262342.1	1.042 mg/L	0.0154	1.042 mg/L	0.0154	1.48%
Fe 273.955†	2347.3	1.904 mg/L	0.0255	1.904 mg/L	0.0255	1.34%
K 766.490†	22582.7	18.61 mg/L	0.253	18.61 mg/L	0.253	1.36%
Mg 279.077†	2455.1	1.950 mg/L	0.0276	1.950 mg/L	0.0276	1.41%
Mn 257.610†	29748.2	0.9492 mg/L	0.00791	0.9492 mg/L	0.00791	0.83%
Mo 202.031†	11168.5	0.9673 mg/L	0.01043	0.9673 mg/L	0.01043	1.08%
Na 589.592†	544653.6	48.96 mg/L	0.429	48.96 mg/L	0.429	0.88%
Na 330.237†	1325.6	50.02 mg/L	0.610	50.02 mg/L	0.610	1.22%
Ni 231.604†	2047.4	0.9811 mg/L	0.01222	0.9811 mg/L	0.01222	1.25%
Pb 220.353†	9160.6	2.055 mg/L	0.0268	2.055 mg/L	0.0268	1.30%
Sb 206.836†	3765.8	1.969 mg/L	0.0228	1.969 mg/L	0.0228	1.16%
Se 196.026†	1582.8	2.005 mg/L	0.0212	2.005 mg/L	0.0212	1.06%
Si 288.158†	4064.2	2.008 mg/L	0.0136	2.008 mg/L	0.0136	0.68%
Sn 189.927†	2415.8	0.9618 mg/L	0.01035	0.9618 mg/L	0.01035	1.08%
Sr 421.552†	493537.7	0.9916 mg/L	0.01104	0.9916 mg/L	0.01104	1.11%
Ti 334.903†	18128.6	0.9470 mg/L	0.00840	0.9470 mg/L	0.00840	0.89%
Tl 190.801†	2669.9	2.016 mg/L	0.0275	2.016 mg/L	0.0275	1.37%
V 292.402†	79753.8	1.033 mg/L	0.0185	1.033 mg/L	0.0185	1.79%
Zn 206.200†	1040.6	0.9727 mg/L	0.01156	0.9727 mg/L	0.01156	1.19%

Sequence No.: 2  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 11:20:27 AM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 196.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1867207.5	98.83 %	2.009			2.03%
ScR 361.383	261356.6	99.10 %	0.380			0.38%
Ag 328.068†	33.7	0.00025 mg/L	0.000089	0.00025 mg/L	0.000089	36.23%
Al 308.215†	11.5	0.00672 mg/L	0.013945	0.00672 mg/L	0.013945	207.58%
As 188.979†	0.4	0.00038 mg/L	0.005129	0.00038 mg/L	0.005129	>999.9%
B 249.677†	28.2	0.00593 mg/L	0.000529	0.00593 mg/L	0.000529	8.92%
Ba 233.527†	1.2	0.00034 mg/L	0.000726	0.00034 mg/L	0.000726	212.09%
Be 313.042†	17.4	0.00003 mg/L	0.000017	0.00003 mg/L	0.000017	50.59%
Ca 317.933†	19.7	0.00132 mg/L	0.000206	0.00132 mg/L	0.000206	15.66%
Cd 228.802†	3.4	0.00016 mg/L	0.000287	0.00016 mg/L	0.000287	174.54%
Co 228.616†	3.8	0.00019 mg/L	0.000127	0.00019 mg/L	0.000127	68.86%
Cr 267.716†	1.1	0.00023 mg/L	0.001354	0.00023 mg/L	0.001354	578.43%
Cu 324.752†	-13.4	-0.00005 mg/L	0.000409	-0.00005 mg/L	0.000409	758.56%
Fe 273.955†	-0.4	-0.00035 mg/L	0.002215	-0.00035 mg/L	0.002215	641.52%
K 766.490†	-40.9	-0.03369 mg/L	0.017118	-0.03369 mg/L	0.017118	50.81%
Mg 279.077†	7.9	0.00625 mg/L	0.002963	0.00625 mg/L	0.002963	47.42%
Mn 257.610†	1.6	0.00005 mg/L	0.000141	0.00005 mg/L	0.000141	278.09%
Mo 202.031†	-0.3	-0.00003 mg/L	0.000363	-0.00003 mg/L	0.000363	>999.9%
Na 589.592†	-38.5	-0.00346 mg/L	0.002905	-0.00346 mg/L	0.002905	83.94%
Na 330.237†	17.4	0.6558 mg/L	0.22335	0.6558 mg/L	0.22335	34.06%
Ni 231.604†	0.0	0.00000 mg/L	0.002287	0.00000 mg/L	0.002287	>999.9%
Pb 220.353†	2.8	0.00062 mg/L	0.000772	0.00062 mg/L	0.000772	124.73%
Sb 206.836†	4.9	0.00254 mg/L	0.000267	0.00254 mg/L	0.000267	10.54%
Se 196.026†	1.9	0.00240 mg/L	0.004044	0.00240 mg/L	0.004044	168.30%
Si 288.158†	-4.8	-0.00236 mg/L	0.001462	-0.00236 mg/L	0.001462	62.08%
Sn 189.927†	1.4	0.00055 mg/L	0.000601	0.00055 mg/L	0.000601	109.66%
Sr 421.552†	5.4	0.00001 mg/L	0.000035	0.00001 mg/L	0.000035	321.74%
Ti 334.903†	7.2	0.00037 mg/L	0.000854	0.00037 mg/L	0.000854	227.91%
Tl 190.801†	-0.0	-0.00001 mg/L	0.000759	-0.00001 mg/L	0.000759	>999.9%
V 292.402†	-16.3	-0.00021 mg/L	0.000357	-0.00021 mg/L	0.000357	170.91%
Zn 206.200†	0.5	0.00043 mg/L	0.000922	0.00043 mg/L	0.000922	216.90%

Sequence No.: 3  
 Sample ID: CRI  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 320  
 Date Collected: 1/18/2010 11:24:08 AM  
 Data Type: Original

Nebulizer Parameters: CRI

Analyte Back Pressure Flow  
 All 196.0 kPa 0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1848246.5	97.83	%	0.500			0.51%
ScR 361.383	261244.0	99.05	%	0.932			0.94%
Ag 328.068†	394.4	0.00289	mg/L	0.000066	0.00289	mg/L	0.000066 2.27%
Al 308.215†	93.0	0.05438	mg/L	0.008277	0.05438	mg/L	0.008277 15.22%
As 188.979†	54.1	0.05305	mg/L	0.001140	0.05305	mg/L	0.001140 2.15%
B 249.677†	110.8	0.02335	mg/L	0.001022	0.02335	mg/L	0.001022 4.37%
Ba 233.527†	11.3	0.00327	mg/L	0.001039	0.00327	mg/L	0.001039 31.80%
Be 313.042†	542.8	0.00103	mg/L	0.000041	0.00103	mg/L	0.000041 3.95%
Ca 317.933†	772.3	0.05158	mg/L	0.001766	0.05158	mg/L	0.001766 3.42%
Cd 228.802†	51.4	0.00232	mg/L	0.000116	0.00232	mg/L	0.000116 5.00%
Co 228.616†	67.5	0.00326	mg/L	0.000211	0.00326	mg/L	0.000211 6.48%
Cr 267.716†	27.7	0.00605	mg/L	0.001424	0.00605	mg/L	0.001424 23.52%
Cu 324.752†	509.4	0.00202	mg/L	0.000033	0.00202	mg/L	0.000033 1.63%
Fe 273.955†	63.9	0.05201	mg/L	0.003070	0.05201	mg/L	0.003070 5.90%
K 766.490†	582.6	0.4802	mg/L	0.03240	0.4802	mg/L	0.03240 6.75%
Mg 279.077†	71.5	0.05664	mg/L	0.006077	0.05664	mg/L	0.006077 10.73%
Mn 257.610†	34.0	0.00109	mg/L	0.000130	0.00109	mg/L	0.000130 11.96%
Mo 202.031†	57.6	0.00499	mg/L	0.000200	0.00499	mg/L	0.000200 4.00%
Na 589.592†	5740.5	0.5160	mg/L	0.00457	0.5160	mg/L	0.00457 0.89%
Na 330.237†	17.8	0.6688	mg/L	0.27215	0.6688	mg/L	0.27215 40.69%
Ni 231.604†	20.3	0.00978	mg/L	0.001043	0.00978	mg/L	0.001043 10.67%
Pb 220.353†	94.9	0.02130	mg/L	0.001218	0.02130	mg/L	0.001218 5.72%
Sb 206.836†	99.4	0.05191	mg/L	0.002279	0.05191	mg/L	0.002279 4.39%
Se 196.026†	37.2	0.04707	mg/L	0.005080	0.04707	mg/L	0.005080 10.79%
Si 288.158†	133.0	0.06559	mg/L	0.004762	0.06559	mg/L	0.004762 7.26%
Sn 189.927†	25.7	0.01024	mg/L	0.000884	0.01024	mg/L	0.000884 8.63%
Sr 421.552†	500.7	0.00101	mg/L	0.000013	0.00101	mg/L	0.000013 1.29%
Ti 334.903†	88.0	0.00459	mg/L	0.000524	0.00459	mg/L	0.000524 11.42%
Tl 190.801†	70.7	0.05336	mg/L	0.001148	0.05336	mg/L	0.001148 2.15%
V 292.402†	223.7	0.00290	mg/L	0.000092	0.00290	mg/L	0.000092 3.16%
Zn 206.200†	10.5	0.00986	mg/L	0.001128	0.00986	mg/L	0.001128 11.44%

User canceled analysis.

=====  
Analysis Begun

Start Time: 1/18/2010 11:28:09 AM Plasma On Time: 1/18/2010 7:29:15 AM  
Logged In Analyst: metals Technique: ICP Continuous  
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif  
Batch ID:  
Results Data Set: I2100118  
Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 4 Autosampler Location: 321  
Sample ID: ICSA Date Collected: 1/18/2010 11:28:10 AM  
Analyst: ALA Data Type: Original  
Dilution: 1X

-----  
Nebulizer Parameters: ICSA

Analyte Back Pressure Flow  
All 197.0 kPa 0.75 L/min

-----  
Mean Data: ICSA

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1811736.6	95.89	%	1.226				1.28%
ScR 361.383	263218.2	99.80	%	1.115				1.12%
Ag 328.068†	-98.7	-0.00072	mg/L	0.000349	-0.00072	mg/L	0.000349	48.59%
Al 308.215†	340646.1	199.6	mg/L	4.53	199.6	mg/L	4.53	2.27%
As 188.979†	20.9	0.01526	mg/L	0.007098	0.01526	mg/L	0.007098	46.52%
B 249.677†	-10.5	-0.00221	mg/L	0.003066	-0.00221	mg/L	0.003066	138.74%
Ba 233.527†	78.7	0.00062	mg/L	0.001433	0.00062	mg/L	0.001433	232.66%
Be 313.042†	22.2	0.00003	mg/L	0.000012	0.00003	mg/L	0.000012	43.77%
Ca 317.933†	1518406.0	101.4	mg/L	2.40	101.4	mg/L	2.40	2.37%
Cd 228.802†	19.3	0.00087	mg/L	0.000100	0.00087	mg/L	0.000100	11.58%
Co 228.616†	78.2	0.00109	mg/L	0.000276	0.00109	mg/L	0.000276	25.36%
Cr 267.716†	14.7	-0.00222	mg/L	0.002230	-0.00222	mg/L	0.002230	100.49%
Cu 324.752†	-3137.9	0.00178	mg/L	0.000921	0.00178	mg/L	0.000921	51.68%
Fe 273.955†	241951.8	196.9	mg/L	4.96	196.9	mg/L	4.96	2.52%
K 766.490†	-26.1	-0.02150	mg/L	0.028353	-0.02150	mg/L	0.028353	131.85%
Mg 279.077†	123332.0	97.59	mg/L	2.027	97.59	mg/L	2.027	2.08%
Mn 257.610†	39.2	0.00064	mg/L	0.000432	0.00064	mg/L	0.000432	67.22%
Mo 202.031†	73.0	0.00486	mg/L	0.000887	0.00486	mg/L	0.000887	18.25%
Na 589.592†	5.7	0.00051	mg/L	0.001819	0.00051	mg/L	0.001819	357.93%
Na 330.237†	16.3	0.6127	mg/L	0.15421	0.6127	mg/L	0.15421	25.17%
Ni 231.604†	1.1	0.00052	mg/L	0.001208	0.00052	mg/L	0.001208	233.83%
Pb 220.353†	-127.3	-0.00959	mg/L	0.001359	-0.00959	mg/L	0.001359	14.18%
Sb 206.836†	35.2	0.01824	mg/L	0.001546	0.01824	mg/L	0.001546	8.48%
Se 196.026†	44.5	0.05110	mg/L	0.007908	0.05110	mg/L	0.007908	15.47%
Si 288.158†	-19.2	-0.00945	mg/L	0.005153	-0.00945	mg/L	0.005153	54.52%
Sn 189.927†	-30.2	-0.00890	mg/L	0.002317	-0.00890	mg/L	0.002317	26.04%
Sr 421.552†	419.1	0.00084	mg/L	0.000024	0.00084	mg/L	0.000024	2.85%
Ti 334.903†	150.5	0.00070	mg/L	0.000217	0.00070	mg/L	0.000217	31.21%
Tl 190.801†	-19.1	0.01462	mg/L	0.002256	0.01462	mg/L	0.002256	15.43%
V 292.402†	2076.8	0.00593	mg/L	0.001123	0.00593	mg/L	0.001123	18.94%
Zn 206.200†	15.9	0.00013	mg/L	0.001265	0.00013	mg/L	0.001265	944.24%



Sequence No.: 5  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 322  
 Date Collected: 1/18/2010 11:32:05 AM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1810185.6	95.81 %	0.048			0.05%
ScR 361.383	262245.7	99.43 %	0.905			0.91%
Ag 328.068†	151564.0	1.111 mg/L	0.0028	1.111 mg/L	0.0028	0.25%
Al 308.215†	339267.1	198.8 mg/L	2.65	198.8 mg/L	2.65	1.33%
As 188.979†	1094.5	1.066 mg/L	0.0019	1.066 mg/L	0.0019	0.18%
B 249.677†	6.6	-0.00102 mg/L	0.001165	-0.00102 mg/L	0.001165	114.27%
Ba 233.527†	3700.3	1.048 mg/L	0.0065	1.048 mg/L	0.0065	0.62%
Be 313.042†	545948.9	1.032 mg/L	0.0147	1.032 mg/L	0.0147	1.42%
Ca 317.933†	1511501.5	100.9 mg/L	1.39	100.9 mg/L	1.39	1.38%
Cd 228.802†	22519.6	1.090 mg/L	0.0012	1.090 mg/L	0.0012	0.11%
Co 228.616†	21189.5	1.024 mg/L	0.0005	1.024 mg/L	0.0005	0.05%
Cr 267.716†	4816.1	1.049 mg/L	0.0075	1.049 mg/L	0.0075	0.72%
Cu 324.752†	283812.1	1.143 mg/L	0.0051	1.143 mg/L	0.0051	0.44%
Fe 273.955†	240161.4	195.5 mg/L	2.36	195.5 mg/L	2.36	1.21%
K 766.490†	-207.7	-0.1711 mg/L	0.03334	-0.1711 mg/L	0.03334	19.48%
Mg 279.077†	123126.9	97.43 mg/L	1.050	97.43 mg/L	1.050	1.08%
Mn 257.610†	31068.6	0.9904 mg/L	0.01286	0.9904 mg/L	0.01286	1.30%
Mo 202.031†	65.9	0.00426 mg/L	0.000401	0.00426 mg/L	0.000401	9.43%
Na 589.592†	-6.8	-0.00061 mg/L	0.003334	-0.00061 mg/L	0.003334	547.89%
Na 330.237†	14.4	0.3004 mg/L	0.16570	0.3004 mg/L	0.16570	55.15%
Ni 231.604†	2105.8	1.008 mg/L	0.0032	1.008 mg/L	0.0032	0.31%
Pb 220.353†	4500.6	1.029 mg/L	0.0038	1.029 mg/L	0.0038	0.37%
Sb 206.836†	2007.0	1.039 mg/L	0.0042	1.039 mg/L	0.0042	0.40%
Se 196.026†	863.0	1.088 mg/L	0.0033	1.088 mg/L	0.0033	0.31%
Si 288.158†	-11.6	-0.00150 mg/L	0.001399	-0.00150 mg/L	0.001399	93.46%
Sn 189.927†	-30.2	-0.00825 mg/L	0.001592	-0.00825 mg/L	0.001592	19.29%
Sr 421.552†	450.4	0.00091 mg/L	0.000030	0.00091 mg/L	0.000030	3.26%
Ti 334.903†	152.2	0.00049 mg/L	0.000443	0.00049 mg/L	0.000443	90.74%
Tl 190.801†	1291.8	1.001 mg/L	0.0043	1.001 mg/L	0.0043	0.43%
V 292.402†	84686.5	1.076 mg/L	0.0059	1.076 mg/L	0.0059	0.54%
Zn 206.200†	1074.0	0.9897 mg/L	0.00971	0.9897 mg/L	0.00971	0.98%

Sequence No.: 6  
 Sample ID: SPEX 21  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 323  
 Date Collected: 1/18/2010 11:35:44 AM  
 Data Type: Original

## Nebulizer Parameters: SPEX 21

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: SPEX 21

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
ScA 357.253	1914364.6		101.3 %	0.83			0.82%
ScR 361.383	264709.6		100.4 %	1.46			1.46%
Ag 328.068†	51.5	0.00025	mg/L	0.000225	0.00025	mg/L	0.000225 90.56%
Al 308.215†	126.6	0.00937	mg/L	0.003384	0.00937	mg/L	0.003384 36.13%
As 188.979†	1987.5	1.985	mg/L	0.0196	1.985	mg/L	0.0196 0.99%
B 249.677†	21.5	0.00111	mg/L	0.000303	0.00111	mg/L	0.000303 27.24%
Ba 233.527†	5.7	0.00045	mg/L	0.001314	0.00045	mg/L	0.001314 289.82%
Be 313.042†	1072995.8	2.029	mg/L	0.0266	2.029	mg/L	0.0266 1.31%
Ca 317.933†	30277.5	2.022	mg/L	0.0193	2.022	mg/L	0.0193 0.95%
Cd 228.802†	43594.1	2.111	mg/L	0.0189	2.111	mg/L	0.0189 0.89%
Co 228.616†	42936.7	2.078	mg/L	0.0197	2.078	mg/L	0.0197 0.95%
Cr 267.716†	9291.9	2.033	mg/L	0.0273	2.033	mg/L	0.0273 1.34%
Cu 324.752†	514782.7	2.045	mg/L	0.0176	2.045	mg/L	0.0176 0.86%
Fe 273.955†	2510.4	2.031	mg/L	0.0325	2.031	mg/L	0.0325 1.60%
K 766.490†	-38.1	-0.03142	mg/L	0.018092	-0.03142	mg/L	0.018092 57.57%
Mg 279.077†	2560.5	2.039	mg/L	0.0363	2.039	mg/L	0.0363 1.78%
Mn 257.610†	64933.6	2.071	mg/L	0.0232	2.071	mg/L	0.0232 1.12%
Mo 202.031†	21931.7	1.899	mg/L	0.0245	1.899	mg/L	0.0245 1.29%
Na 589.592†	88.8	0.00798	mg/L	0.002800	0.00798	mg/L	0.002800 35.08%
Na 330.237†	-9.9	-0.3302	mg/L	0.13783	-0.3302	mg/L	0.13783 41.75%
Ni 231.604†	4357.5	2.087	mg/L	0.0283	2.087	mg/L	0.0283 1.36%
Pb 220.353†	9076.8	2.037	mg/L	0.0295	2.037	mg/L	0.0295 1.45%
Sb 206.836†	3829.5	1.984	mg/L	0.0210	1.984	mg/L	0.0210 1.06%
Se 196.026†	1585.9	2.009	mg/L	0.0203	2.009	mg/L	0.0203 1.01%
Si 288.158†	86.1	0.05065	mg/L	0.011660	0.05065	mg/L	0.011660 23.02%
Sn 189.927†	-9.8	-0.00159	mg/L	0.000504	-0.00159	mg/L	0.000504 31.70%
Sr 421.552†	1039467.3	2.089	mg/L	0.0116	2.089	mg/L	0.0116 0.56%
Ti 334.903†	38999.0	2.038	mg/L	0.0242	2.038	mg/L	0.0242 1.19%
Tl 190.801†	2751.9	2.078	mg/L	0.0239	2.078	mg/L	0.0239 1.15%
V 292.402†	155979.0	2.020	mg/L	0.0175	2.020	mg/L	0.0175 0.87%
Zn 206.200†	2193.3	2.051	mg/L	0.0290	2.051	mg/L	0.0290 1.41%

Sequence No.: 7  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 7  
 Date Collected: 1/18/2010 11:39:39 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	197.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
ScA 357.253	1892604.1	100.2 %		1.07			1.07%
ScR 361.383	264994.7	100.5 %		0.77			0.76%
Ag 328.068†	139914.3	1.025 mg/L		0.0125	1.025 mg/L	0.0125	1.22%
Al 308.215†	3486.0	2.009 mg/L		0.0130	2.009 mg/L	0.0130	0.65%
As 188.979†	2039.3	2.015 mg/L		0.0193	2.015 mg/L	0.0193	0.96%
B 249.677†	4842.6	1.019 mg/L		0.0059	1.019 mg/L	0.0059	0.58%
Ba 233.527†	3615.6	1.045 mg/L		0.0046	1.045 mg/L	0.0046	0.44%
Be 313.042†	529006.8	1.000 mg/L		0.0044	1.000 mg/L	0.0044	0.44%
Ca 317.933†	29650.1	1.980 mg/L		0.0059	1.980 mg/L	0.0059	0.30%
Cd 228.802†	21761.0	1.050 mg/L		0.0133	1.050 mg/L	0.0133	1.26%
Co 228.616†	21027.2	1.017 mg/L		0.0107	1.017 mg/L	0.0107	1.05%
Cr 267.716†	4745.8	1.038 mg/L		0.0073	1.038 mg/L	0.0073	0.70%
Cu 324.752†	266951.3	1.060 mg/L		0.0093	1.060 mg/L	0.0093	0.88%
Fe 273.955†	2438.8	1.979 mg/L		0.0131	1.979 mg/L	0.0131	0.66%
K 766.490†	24338.6	20.06 mg/L		0.092	20.06 mg/L	0.092	0.46%
Mg 279.077†	2550.6	2.026 mg/L		0.0141	2.026 mg/L	0.0141	0.69%
Mn 257.610†	31590.1	1.008 mg/L		0.0032	1.008 mg/L	0.0032	0.32%
Mo 202.031†	11234.8	0.9730 mg/L		0.01279	0.9730 mg/L	0.01279	1.31%
Na 589.592†	569751.8	51.21 mg/L		0.268	51.21 mg/L	0.268	0.52%
Na 330.237†	1362.1	51.40 mg/L		0.390	51.40 mg/L	0.390	0.76%
Ni 231.604†	2132.9	1.022 mg/L		0.0042	1.022 mg/L	0.0042	0.41%
Pb 220.353†	9236.8	2.072 mg/L		0.0267	2.072 mg/L	0.0267	1.29%
Sb 206.836†	3797.5	1.985 mg/L		0.0222	1.985 mg/L	0.0222	1.12%
Se 196.026†	1597.1	2.023 mg/L		0.0267	2.023 mg/L	0.0267	1.32%
Si 288.158†	4232.9	2.091 mg/L		0.0145	2.091 mg/L	0.0145	0.69%
Sn 189.927†	2440.6	0.9716 mg/L		0.01282	0.9716 mg/L	0.01282	1.32%
Sr 421.552†	521111.6	1.047 mg/L		0.0023	1.047 mg/L	0.0023	0.22%
Ti 334.903†	19211.9	1.004 mg/L		0.0012	1.004 mg/L	0.0012	0.12%
Tl 190.801†	2694.5	2.035 mg/L		0.0269	2.035 mg/L	0.0269	1.32%
V 292.402†	80480.6	1.042 mg/L		0.0102	1.042 mg/L	0.0102	0.98%
Zn 206.200†	1079.9	1.010 mg/L		0.0074	1.010 mg/L	0.0074	0.73%

Sequence No.: 8  
 Sample ID: CB |  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 11:43:34 AM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
ScA 357.253	1872654.6		99.12 %	0.099			0.10%
ScR 361.383	261803.4		99.27 %	0.609			0.61%
Ag 328.068†	11.0	0.00008	mg/L	0.000220	0.00008	mg/L	0.000220 273.39%
Al 308.215†	15.2	0.00891	mg/L	0.009277	0.00891	mg/L	0.009277 104.14%
As 188.979†	2.3	0.00228	mg/L	0.002708	0.00228	mg/L	0.002708 118.79%
B 249.677†	17.2	0.00361	mg/L	0.000155	0.00361	mg/L	0.000155 4.30%
Ba 233.527†	1.2	0.00034	mg/L	0.000656	0.00034	mg/L	0.000656 192.48%
Be 313.042†	11.8	0.00002	mg/L	0.000028	0.00002	mg/L	0.000028 123.32%
Ca 317.933†	11.5	0.00077	mg/L	0.001832	0.00077	mg/L	0.001832 238.86%
Cd 228.802†	1.4	0.00006	mg/L	0.000218	0.00006	mg/L	0.000218 360.05%
Co 228.616†	6.0	0.00029	mg/L	0.000258	0.00029	mg/L	0.000258 87.97%
Cr 267.716†	1.9	0.00041	mg/L	0.000555	0.00041	mg/L	0.000555 136.43%
Cu 324.752†	28.9	0.00011	mg/L	0.000031	0.00011	mg/L	0.000031 27.44%
Fe 273.955†	2.2	0.00178	mg/L	0.000384	0.00178	mg/L	0.000384 21.63%
K 766.490†	-21.8	-0.01796	mg/L	0.014244	-0.01796	mg/L	0.014244 79.31%
Mg 279.077†	-1.0	-0.00082	mg/L	0.009224	-0.00082	mg/L	0.009224 >999.9%
Mn 257.610†	2.7	0.00009	mg/L	0.000099	0.00009	mg/L	0.000099 114.31%
Mo 202.031†	7.6	0.00066	mg/L	0.000481	0.00066	mg/L	0.000481 72.82%
Na 589.592†	-16.3	-0.00147	mg/L	0.004523	-0.00147	mg/L	0.004523 308.50%
Na 330.237†	8.6	0.3253	mg/L	0.47720	0.3253	mg/L	0.47720 146.70%
Ni 231.604†	1.3	0.00062	mg/L	0.002316	0.00062	mg/L	0.002316 374.46%
Pb 220.353†	7.7	0.00173	mg/L	0.001614	0.00173	mg/L	0.001614 93.36%
Sb 206.836†	3.7	0.00191	mg/L	0.000072	0.00191	mg/L	0.000072 3.80%
Se 196.026†	-0.1	-0.00007	mg/L	0.003656	-0.00007	mg/L	0.003656 >999.9%
Si 288.158†	-14.3	-0.00705	mg/L	0.005039	-0.00705	mg/L	0.005039 71.45%
Sn 189.927†	-2.2	-0.00086	mg/L	0.000520	-0.00086	mg/L	0.000520 60.68%
Sr 421.552†	-7.1	-0.00001	mg/L	0.000090	-0.00001	mg/L	0.000090 627.54%
Ti 334.903†	-14.5	-0.00076	mg/L	0.000490	-0.00076	mg/L	0.000490 64.68%
Tl 190.801†	5.6	0.00422	mg/L	0.000614	0.00422	mg/L	0.000614 14.55%
V 292.402†	2.8	0.00004	mg/L	0.000118	0.00004	mg/L	0.000118 308.89%
Zn 206.200†	-0.2	-0.00023	mg/L	0.001455	-0.00023	mg/L	0.001455 638.63%

Sequence No.: 9  
 Sample ID: QF00 MB1 WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 324  
 Date Collected: 1/18/2010 11:53:21 AM  
 Data Type: Original

## Nebulizer Parameters: QF00 MB1 WMN

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: QF00 MB1 WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1877145.0	99.36	%	2.549				2.57%
ScR 361.383	263651.7	99.97	%	0.339				0.34%
Ag 328.068†	-31.2	-0.00023	mg/L	0.000230	-0.00023	mg/L	0.000230	100.45%
Al 308.215†	9.0	0.00529	mg/L	0.004628	0.00529	mg/L	0.004628	87.51%
As 188.979†	3.5	0.00347	mg/L	0.002464	0.00347	mg/L	0.002464	71.07%
B 249.677†	3.6	0.00077	mg/L	0.000770	0.00077	mg/L	0.000770	100.63%
Ba 233.527†	-1.1	-0.00031	mg/L	0.001330	-0.00031	mg/L	0.001330	435.53%
Be 313.042†	7.4	0.00001	mg/L	0.000025	0.00001	mg/L	0.000025	178.41%
Ca 317.933†	-6.5	-0.00043	mg/L	0.001087	-0.00043	mg/L	0.001087	251.77%
Cd 228.802†	4.1	0.00019	mg/L	0.000276	0.00019	mg/L	0.000276	147.79%
Co 228.616†	7.6	0.00037	mg/L	0.000175	0.00037	mg/L	0.000175	47.56%
Cr 267.716†	5.5	0.00121	mg/L	0.000302	0.00121	mg/L	0.000302	25.04%
Cu 324.752†	-23.0	-0.00009	mg/L	0.000544	-0.00009	mg/L	0.000544	595.02%
Fe 273.955†	1.2	0.00100	mg/L	0.001639	0.00100	mg/L	0.001639	163.47%
K 766.490†	-20.4	-0.01685	mg/L	0.013551	-0.01685	mg/L	0.013551	80.42%
Mg 279.077†	8.4	0.00662	mg/L	0.005179	0.00662	mg/L	0.005179	78.17%
Mn 257.610†	-1.8	-0.00006	mg/L	0.000136	-0.00006	mg/L	0.000136	232.17%
Mo 202.031†	0.8	0.00007	mg/L	0.000305	0.00007	mg/L	0.000305	452.55%
Na 589.592†	12.8	0.00115	mg/L	0.003158	0.00115	mg/L	0.003158	275.38%
Na 330.237†	0.6	0.02300	mg/L	0.094016	0.02300	mg/L	0.094016	408.72%
Ni 231.604†	-1.1	-0.00053	mg/L	0.000951	-0.00053	mg/L	0.000951	178.68%
Pb 220.353†	2.5	0.00057	mg/L	0.000978	0.00057	mg/L	0.000978	171.78%
Sb 206.836†	-1.0	-0.00056	mg/L	0.003814	-0.00056	mg/L	0.003814	683.47%
Se 196.026†	2.9	0.00369	mg/L	0.003666	0.00369	mg/L	0.003666	99.39%
Si 288.158†	-8.4	-0.00413	mg/L	0.006677	-0.00413	mg/L	0.006677	161.61%
Sn 189.927†	-1.7	-0.00069	mg/L	0.001775	-0.00069	mg/L	0.001775	256.52%
Sr 421.552†	-3.7	-0.00001	mg/L	0.000041	-0.00001	mg/L	0.000041	552.11%
Ti 334.903†	4.4	0.00023	mg/L	0.001202	0.00023	mg/L	0.001202	526.29%
Tl 190.801†	4.5	0.00340	mg/L	0.001624	0.00340	mg/L	0.001624	47.77%
V 292.402†	-15.1	-0.00019	mg/L	0.000266	-0.00019	mg/L	0.000266	139.62%
Zn 206.200†	1.3	0.00118	mg/L	0.001444	0.00118	mg/L	0.001444	122.22%

Sequence No.: 10  
Sample ID: QF00 E TWC  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 325  
Date Collected: 1/18/2010 11:55:02 AM  
Data Type: Original

Nebulizer Parameters: QF00 E TWC

Analyte Back Pressure Flow  
All 197.0 kPa 0.75 L/min

Mean Data: QF00 E TWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1896678.0	100.4	%	0.94			0.94%
ScR 361.383	269844.0	102.3	%	2.36			2.31%
Ag 328.068†	36.5	0.00024	mg/L	0.000144	0.00024 mg/L	0.000144	60.72%
Al 308.215†	33.8	0.01949	mg/L	0.004939	0.01949 mg/L	0.004939	25.34%
As 188.979†	24.0	0.02147	mg/L	0.002186	0.02147 mg/L	0.002186	10.18%
B 249.677†	125.8	0.02651	mg/L	0.000637	0.02651 mg/L	0.000637	2.40%
Ba 233.527†	87.4	0.02554	mg/L	0.001590	0.02554 mg/L	0.001590	6.22%
Be 313.042†	-12.3	-0.00002	mg/L	0.000080	-0.00002 mg/L	0.000080	341.66%
Ca 317.933†	594051.8	39.67	mg/L	1.036	39.67 mg/L	1.036	2.61%
Cd 228.802†	-5.4	-0.00034	mg/L	0.000106	-0.00034 mg/L	0.000106	30.88%
Co 228.616†	15.5	0.00074	mg/L	0.000247	0.00074 mg/L	0.000247	33.26%
Cr 267.716†	18.4	0.00061	mg/L	0.000857	0.00061 mg/L	0.000857	140.16%
Cu 324.752†	439.6	0.00131	mg/L	0.000240	0.00131 mg/L	0.000240	18.35%
Fe 273.955†	31.4	0.02557	mg/L	0.002673	0.02557 mg/L	0.002673	10.45%
K 766.490†	7316.4	6.030	mg/L	0.2078	6.030 mg/L	0.2078	3.45%
Mg 279.077†	22949.9	18.18	mg/L	0.642	18.18 mg/L	0.642	3.53%
Mn 257.610†	4418.8	0.1407	mg/L	0.00426	0.1407 mg/L	0.00426	3.03%
Mo 202.031†	54.6	0.00416	mg/L	0.000456	0.00416 mg/L	0.000456	10.97%
Na 589.592†	159878.5	14.37	mg/L	0.352	14.37 mg/L	0.352	2.45%
Na 330.237†	379.3	14.31	mg/L	0.405	14.31 mg/L	0.405	2.83%
Ni 231.604†	4.0	0.00191	mg/L	0.000518	0.00191 mg/L	0.000518	27.09%
Pb 220.353†	-14.3	-0.00320	mg/L	0.000380	-0.00320 mg/L	0.000380	11.87%
Sb 206.836†	0.7	0.00025	mg/L	0.001094	0.00025 mg/L	0.001094	437.56%
Se 196.026†	17.4	0.02111	mg/L	0.005457	0.02111 mg/L	0.005457	25.85%
Si 288.158†	31193.3	15.38	mg/L	0.933	15.38 mg/L	0.933	6.07%
Sn 189.927†	-17.9	-0.00591	mg/L	0.001546	-0.00591 mg/L	0.001546	26.16%
Sr 421.552†	101530.0	0.2040	mg/L	0.00526	0.2040 mg/L	0.00526	2.58%
Ti 334.903†	75.1	0.00112	mg/L	0.000477	0.00112 mg/L	0.000477	42.77%
Tl 190.801†	16.1	0.01237	mg/L	0.002127	0.01237 mg/L	0.002127	17.19%
V 292.402†	15.0	0.00023	mg/L	0.000127	0.00023 mg/L	0.000127	55.57%
Zn 206.200†	1.7	-0.00069	mg/L	0.002210	-0.00069 mg/L	0.002210	318.89%

Sequence No.: 11
Sample ID: QF00 G TWC
Analyst: ALA
Dilution: 1X

Autosampler Location: 326
Date Collected: 1/18/2010 11:56:47 AM
Data Type: Original

Nebulizer Parameters: QF00 G TWC

Analyte Back Pressure Flow
All 197.0 kPa 0.75 L/min

Mean Data: QF00 G TWC

Table with 8 columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like ScA, ScR, Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, V, Zn with their respective values.

Sequence No.: 12  
 Sample ID: QF00 J TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 327  
 Date Collected: 1/18/2010 11:59:37 AM  
 Data Type: Original

-----  
 Nebulizer Parameters: QF00 J TWC

Analyte                      Back Pressure              Flow  
 All                              197.0 kPa                      0.75 L/min

-----  
 Mean Data: QF00 J TWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1909552.5	101.1 %		0.42			0.41%
ScR 361.383	275196.0	104.3 %		1.52			1.46%
Ag 328.068†	15.4	0.00011 mg/L		0.000079	0.00011 mg/L	0.000079	70.33%
Al 308.215†	42.9	0.02509 mg/L		0.011074	0.02509 mg/L	0.011074	44.14%
As 188.979†	9.2	0.00715 mg/L		0.001783	0.00715 mg/L	0.001783	24.94%
B 249.677†	213.0	0.04489 mg/L		0.000809	0.04489 mg/L	0.000809	1.80%
Ba 233.527†	52.1	0.01530 mg/L		0.000390	0.01530 mg/L	0.000390	2.55%
Be 313.042†	-22.9	-0.00004 mg/L		0.000033	-0.00004 mg/L	0.000033	75.27%
Ca 317.933†	548283.1	36.62 mg/L		0.391	36.62 mg/L	0.391	1.07%
Cd 228.802†	-7.3	-0.00039 mg/L		0.000126	-0.00039 mg/L	0.000126	32.47%
Co 228.616†	19.3	0.00093 mg/L		0.000177	0.00093 mg/L	0.000177	19.10%
Cr 267.716†	20.6	0.00244 mg/L		0.000404	0.00244 mg/L	0.000404	16.53%
Cu 324.752†	450.9	0.00155 mg/L		0.000111	0.00155 mg/L	0.000111	7.16%
Fe 273.955†	20.9	0.01699 mg/L		0.001659	0.01699 mg/L	0.001659	9.76%
K 766.490†	2873.8	2.369 mg/L		0.0375	2.369 mg/L	0.0375	1.58%
Mg 279.077†	12692.1	10.05 mg/L		0.073	10.05 mg/L	0.073	0.72%
Mn 257.610†	56.5	0.00161 mg/L		0.000044	0.00161 mg/L	0.000044	2.72%
Mo 202.031†	47.5	0.00359 mg/L		0.000491	0.00359 mg/L	0.000491	13.68%
Na 589.592†	108241.2	9.730 mg/L		0.1073	9.730 mg/L	0.1073	1.10%
Na 330.237†	264.8	9.989 mg/L		0.0938	9.989 mg/L	0.0938	0.94%
Ni 231.604†	2.7	0.00130 mg/L		0.002422	0.00130 mg/L	0.002422	186.01%
Pb 220.353†	-16.7	-0.00373 mg/L		0.001308	-0.00373 mg/L	0.001308	35.08%
Sb 206.836†	-0.2	-0.00022 mg/L		0.002301	-0.00022 mg/L	0.002301	>999.9%
Se 196.026†	9.2	0.01114 mg/L		0.002452	0.01114 mg/L	0.002452	22.01%
Si 288.158†	10264.3	5.060 mg/L		0.0852	5.060 mg/L	0.0852	1.68%
Sn 189.927†	-14.3	-0.00459 mg/L		0.000784	-0.00459 mg/L	0.000784	17.09%
Sr 421.552†	124103.1	0.2494 mg/L		0.00188	0.2494 mg/L	0.00188	0.75%
Ti 334.903†	62.8	0.00069 mg/L		0.000490	0.00069 mg/L	0.000490	70.86%
Tl 190.801†	17.5	0.01326 mg/L		0.002780	0.01326 mg/L	0.002780	20.96%
V 292.402†	72.2	0.00095 mg/L		0.000114	0.00095 mg/L	0.000114	12.02%
Zn 206.200†	6.4	0.00393 mg/L		0.000330	0.00393 mg/L	0.000330	8.40%



Sequence No.: 13  
 Sample ID: QF00 A WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 328  
 Date Collected: 1/18/2010 12:02:28 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 A WMN

Analyte Back Pressure Flow  
 All 197.0 kPa 0.75 L/min

## Mean Data: QF00 A WMN

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
ScA 357.253	1858086.2		98.35 %	0.854				0.87%
ScR 361.383	273273.4		103.6 %	1.53				1.47%
Ag 328.068†	-4.2	-0.00006	mg/L	0.000069	-0.00006	mg/L	0.000069	112.67%
Al 308.215†	-3.6	-0.00239	mg/L	0.007202	-0.00239	mg/L	0.007202	301.96%
As 188.979†	28.8	0.02603	mg/L	0.002289	0.02603	mg/L	0.002289	8.80%
B 249.677†	136.4	0.02875	mg/L	0.001475	0.02875	mg/L	0.001475	5.13%
Ba 233.527†	85.8	0.02510	mg/L	0.000291	0.02510	mg/L	0.000291	1.16%
Be 313.042†	-1.3	0.00000	mg/L	0.000037	0.00000	mg/L	0.000037	>999.9%
Ca 317.933†	628222.7	41.96	mg/L	0.367	41.96	mg/L	0.367	0.87%
Cd 228.802†	-6.0	-0.00039	mg/L	0.000051	-0.00039	mg/L	0.000051	13.17%
Co 228.616†	24.5	0.00118	mg/L	0.000094	0.00118	mg/L	0.000094	7.98%
Cr 267.716†	20.1	0.00077	mg/L	0.001230	0.00077	mg/L	0.001230	160.33%
Cu 324.752†	524.9	0.00162	mg/L	0.000423	0.00162	mg/L	0.000423	26.11%
Fe 273.955†	17.8	0.01452	mg/L	0.001700	0.01452	mg/L	0.001700	11.71%
K 766.490†	7774.8	6.408	mg/L	0.0605	6.408	mg/L	0.0605	0.94%
Mg 279.077†	24337.6	19.27	mg/L	0.215	19.27	mg/L	0.215	1.11%
Mn 257.610†	4433.1	0.1411	mg/L	0.00148	0.1411	mg/L	0.00148	1.05%
Mo 202.031†	59.6	0.00456	mg/L	0.000185	0.00456	mg/L	0.000185	4.05%
Na 589.592†	169218.3	15.21	mg/L	0.063	15.21	mg/L	0.063	0.42%
Na 330.237†	410.2	15.47	mg/L	0.418	15.47	mg/L	0.418	2.70%
Ni 231.604†	3.8	0.00183	mg/L	0.002312	0.00183	mg/L	0.002312	126.69%
Pb 220.353†	-12.1	-0.00270	mg/L	0.000423	-0.00270	mg/L	0.000423	15.66%
Sb 206.836†	-2.9	-0.00164	mg/L	0.001270	-0.00164	mg/L	0.001270	77.48%
Se 196.026†	20.1	0.02444	mg/L	0.000977	0.02444	mg/L	0.000977	4.00%
Si 288.158†	36904.6	18.19	mg/L	0.235	18.19	mg/L	0.235	1.29%
Sn 189.927†	-17.2	-0.00556	mg/L	0.001557	-0.00556	mg/L	0.001557	28.01%
Sr 421.552†	107110.7	0.2152	mg/L	0.00199	0.2152	mg/L	0.00199	0.93%
Ti 334.903†	65.1	0.00043	mg/L	0.000472	0.00043	mg/L	0.000472	108.55%
Tl 190.801†	17.3	0.01330	mg/L	0.001393	0.01330	mg/L	0.001393	10.48%
V 292.402†	10.4	0.00017	mg/L	0.000204	0.00017	mg/L	0.000204	118.32%
Zn 206.200†	0.7	-0.00175	mg/L	0.000895	-0.00175	mg/L	0.000895	51.13%

Sequence No.: 14  
 Sample ID: QF00 B WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 329  
 Date Collected: 1/18/2010 12:06:20 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 B WMN

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF00 B WMN

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1933320.5	102.3	%	0.86			0.84%
ScR 361.383	279656.3	106.0	%	1.11			1.05%
Ag 328.068†	25.6	0.00014	mg/L	0.000135	0.00014	mg/L	0.000135 96.11%
Al 308.215†	31.6	0.01808	mg/L	0.006939	0.01808	mg/L	0.006939 38.39%
As 188.979†	17.5	0.01450	mg/L	0.003960	0.01450	mg/L	0.003960 27.31%
B 249.677†	96.9	0.02042	mg/L	0.000685	0.02042	mg/L	0.000685 3.35%
Ba 233.527†	52.2	0.01544	mg/L	0.000219	0.01544	mg/L	0.000219 1.42%
Be 313.042†	-7.2	-0.00001	mg/L	0.000043	-0.00001	mg/L	0.000043 303.56%
Ca 317.933†	760022.7	50.76	mg/L	0.524	50.76	mg/L	0.524 1.03%
Cd 228.802†	-8.3	-0.00046	mg/L	0.000131	-0.00046	mg/L	0.000131 28.48%
Co 228.616†	20.7	0.00100	mg/L	0.000305	0.00100	mg/L	0.000305 30.58%
Cr 267.716†	27.0	0.00143	mg/L	0.000522	0.00143	mg/L	0.000522 36.60%
Cu 324.752†	1038.4	0.00355	mg/L	0.000276	0.00355	mg/L	0.000276 7.79%
Fe 273.955†	24.7	0.02012	mg/L	0.000630	0.02012	mg/L	0.000630 3.13%
K 766.490†	3020.4	2.489	mg/L	0.0545	2.489	mg/L	0.0545 2.19%
Mg 279.077†	30241.7	23.95	mg/L	0.245	23.95	mg/L	0.245 1.02%
Mn 257.610†	6870.7	0.2188	mg/L	0.00234	0.2188	mg/L	0.00234 1.07%
Mo 202.031†	73.9	0.00567	mg/L	0.000423	0.00567	mg/L	0.000423 7.46%
Na 589.592†	81514.4	7.327	mg/L	0.1095	7.327	mg/L	0.1095 1.49%
Na 330.237†	207.3	7.822	mg/L	0.1854	7.822	mg/L	0.1854 2.37%
Ni 231.604†	15.2	0.00725	mg/L	0.000550	0.00725	mg/L	0.000550 7.58%
Pb 220.353†	-24.4	-0.00545	mg/L	0.001515	-0.00545	mg/L	0.001515 27.78%
Sb 206.836†	-6.3	-0.00340	mg/L	0.002388	-0.00340	mg/L	0.002388 70.30%
Se 196.026†	26.3	0.03206	mg/L	0.005709	0.03206	mg/L	0.005709 17.81%
Si 288.158†	26874.4	13.25	mg/L	0.099	13.25	mg/L	0.099 0.75%
Sn 189.927†	-12.7	-0.00351	mg/L	0.000577	-0.00351	mg/L	0.000577 16.42%
Sr 421.552†	115350.3	0.2318	mg/L	0.00287	0.2318	mg/L	0.00287 1.24%
Ti 334.903†	71.1	0.00012	mg/L	0.000243	0.00012	mg/L	0.000243 199.64%
Tl 190.801†	24.4	0.01869	mg/L	0.001124	0.01869	mg/L	0.001124 6.01%
V 292.402†	82.4	0.00112	mg/L	0.000069	0.00112	mg/L	0.000069 6.13%
Zn 206.200†	2.2	-0.00084	mg/L	0.001046	-0.00084	mg/L	0.001046 125.14%

Sequence No.: 15  
 Sample ID: QF00 DDUP WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 330  
 Date Collected: 1/18/2010 12:10:17 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 DDUP WMN

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF00 DDUP WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	1917461.6	101.5	%	0.48			0.47%
ScR 361.383	281923.7	106.9	%	0.98			0.91%
Ag 328.068†	26.4	0.00019	mg/L	0.000214	0.00019 mg/L	0.000214	110.69%
Al 308.215†	6.2	0.00356	mg/L	0.007521	0.00356 mg/L	0.007521	211.29%
As 188.979†	12.6	0.01026	mg/L	0.000770	0.01026 mg/L	0.000770	7.51%
B 249.677†	233.7	0.04924	mg/L	0.000820	0.04924 mg/L	0.000820	1.66%
Ba 233.527†	57.0	0.01675	mg/L	0.000625	0.01675 mg/L	0.000625	3.73%
Be 313.042†	-25.0	-0.00005	mg/L	0.000037	-0.00005 mg/L	0.000037	76.92%
Ca 317.933†	621424.6	41.50	mg/L	0.507	41.50 mg/L	0.507	1.22%
Cd 228.802†	-6.2	-0.00034	mg/L	0.000093	-0.00034 mg/L	0.000093	27.24%
Co 228.616†	25.1	0.00121	mg/L	0.000202	0.00121 mg/L	0.000202	16.68%
Cr 267.716†	14.0	0.00073	mg/L	0.000557	0.00073 mg/L	0.000557	76.65%
Cu 324.752†	499.9	0.00171	mg/L	0.000233	0.00171 mg/L	0.000233	13.61%
Fe 273.955†	-1.6	-0.00133	mg/L	0.001013	-0.00133 mg/L	0.001013	76.29%
K 766.490†	3144.0	2.591	mg/L	0.0475	2.591 mg/L	0.0475	1.83%
Mg 279.077†	14347.7	11.36	mg/L	0.159	11.36 mg/L	0.159	1.40%
Mn 257.610†	20.1	0.00042	mg/L	0.000033	0.00042 mg/L	0.000033	7.81%
Mo 202.031†	49.1	0.00366	mg/L	0.000094	0.00366 mg/L	0.000094	2.56%
Na 589.592†	121661.7	10.94	mg/L	0.163	10.94 mg/L	0.163	1.49%
Na 330.237†	297.4	11.22	mg/L	0.723	11.22 mg/L	0.723	6.44%
Ni 231.604†	3.9	0.00189	mg/L	0.000672	0.00189 mg/L	0.000672	35.63%
Pb 220.353†	-15.1	-0.00338	mg/L	0.001474	-0.00338 mg/L	0.001474	43.54%
Sb 206.836†	0.6	0.00026	mg/L	0.001180	0.00026 mg/L	0.001180	458.48%
Se 196.026†	15.5	0.01898	mg/L	0.009032	0.01898 mg/L	0.009032	47.59%
Si 288.158†	12376.4	6.101	mg/L	0.0857	6.101 mg/L	0.0857	1.40%
Sn 189.927†	-11.2	-0.00317	mg/L	0.000530	-0.00317 mg/L	0.000530	16.71%
Sr 421.552†	138239.1	0.2778	mg/L	0.00246	0.2778 mg/L	0.00246	0.89%
Ti 334.903†	69.6	0.00070	mg/L	0.000864	0.00070 mg/L	0.000864	123.06%
Tl 190.801†	23.8	0.01797	mg/L	0.001146	0.01797 mg/L	0.001146	6.37%
V 292.402†	77.7	0.00101	mg/L	0.000195	0.00101 mg/L	0.000195	19.26%
Zn 206.200†	1.6	-0.00082	mg/L	0.001771	-0.00082 mg/L	0.001771	217.21%

Sequence No.: 16  
Sample ID: QF00 D WMN  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 331  
Date Collected: 1/18/2010 12:14:10 PM  
Data Type: Original

Nebulizer Parameters: QF00 D WMN

Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: QF00 D WMN

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1944806.8	102.9	%	1.28			1.24%
ScR 361.383	283999.4	107.7	%	0.79			0.74%
Ag 328.068†	23.2	0.00017	mg/L	0.000217	0.00017	mg/L	0.000217 127.70%
Al 308.215†	7.3	0.00420	mg/L	0.010034	0.00420	mg/L	0.010034 239.06%
As 188.979†	13.7	0.01131	mg/L	0.000927	0.01131	mg/L	0.000927 8.20%
B 249.677†	231.7	0.04882	mg/L	0.001131	0.04882	mg/L	0.001131 2.32%
Ba 233.527†	60.2	0.01769	mg/L	0.001675	0.01769	mg/L	0.001675 9.47%
Be 313.042†	-27.2	-0.00005	mg/L	0.000014	-0.00005	mg/L	0.000014 27.54%
Ca 317.933†	620360.8	41.43	mg/L	0.152	41.43	mg/L	0.152 0.37%
Cd 228.802†	-7.4	-0.00040	mg/L	0.000043	-0.00040	mg/L	0.000043 10.61%
Co 228.616†	19.9	0.00096	mg/L	0.000155	0.00096	mg/L	0.000155 16.17%
Cr 267.716†	15.9	0.00115	mg/L	0.000771	0.00115	mg/L	0.000771 66.91%
Cu 324.752†	474.3	0.00161	mg/L	0.000290	0.00161	mg/L	0.000290 18.01%
Fe 273.955†	1.6	0.00128	mg/L	0.001641	0.00128	mg/L	0.001641 127.72%
K 766.490†	3181.3	2.622	mg/L	0.0241	2.622	mg/L	0.0241 0.92%
Mg 279.077†	14301.2	11.32	mg/L	0.108	11.32	mg/L	0.108 0.95%
Mn 257.610†	18.9	0.00039	mg/L	0.000079	0.00039	mg/L	0.000079 20.39%
Mo 202.031†	50.0	0.00373	mg/L	0.000294	0.00373	mg/L	0.000294 7.88%
Na 589.592†	121116.6	10.89	mg/L	0.086	10.89	mg/L	0.086 0.79%
Na 330.237†	309.1	11.66	mg/L	0.230	11.66	mg/L	0.230 1.97%
Ni 231.604†	3.6	0.00170	mg/L	0.001603	0.00170	mg/L	0.001603 94.36%
Pb 220.353†	-14.7	-0.00329	mg/L	0.001121	-0.00329	mg/L	0.001121 34.02%
Sb 206.836†	-4.9	-0.00264	mg/L	0.001546	-0.00264	mg/L	0.001546 58.50%
Se 196.026†	16.6	0.02037	mg/L	0.008290	0.02037	mg/L	0.008290 40.71%
Si 288.158†	12338.7	6.082	mg/L	0.0447	6.082	mg/L	0.0447 0.73%
Sn 189.927†	-13.7	-0.00420	mg/L	0.000451	-0.00420	mg/L	0.000451 10.75%
Sr 421.552†	138048.5	0.2774	mg/L	0.00235	0.2774	mg/L	0.00235 0.85%
Ti 334.903†	49.0	-0.00037	mg/L	0.000529	-0.00037	mg/L	0.000529 142.98%
Tl 190.801†	21.1	0.01593	mg/L	0.002241	0.01593	mg/L	0.002241 14.07%
V 292.402†	79.9	0.00104	mg/L	0.000201	0.00104	mg/L	0.000201 19.21%
Zn 206.200†	1.5	-0.00094	mg/L	0.000596	-0.00094	mg/L	0.000596 63.18%

Sequence No.: 17  
 Sample ID: QF00 DSPK WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 332  
 Date Collected: 1/18/2010 12:18:03 PM  
 Data Type: Original

## Nebulizer Parameters: QF00 DSPK WMN

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF00 DSPK WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1914404.6	101.3	%	1.20				1.18%
ScR 361.383	280098.6	106.2	%	0.60				0.57%
Ag 328.068†	61880.4	0.4534	mg/L	0.01736	0.4534	mg/L	0.01736	3.83%
Al 308.215†	3646.5	2.125	mg/L	0.0113	2.125	mg/L	0.0113	0.53%
As 188.979†	2394.9	2.341	mg/L	0.0265	2.341	mg/L	0.0265	1.13%
B 249.677†	232.3	0.04763	mg/L	0.000415	0.04763	mg/L	0.000415	0.87%
Ba 233.527†	7727.4	2.235	mg/L	0.0099	2.235	mg/L	0.0099	0.44%
Be 313.042†	291695.5	0.5517	mg/L	0.00246	0.5517	mg/L	0.00246	0.45%
Ca 317.933†	772620.4	51.60	mg/L	0.189	51.60	mg/L	0.189	0.37%
Cd 228.802†	12213.1	0.5853	mg/L	0.00555	0.5853	mg/L	0.00555	0.95%
Co 228.616†	11647.5	0.5642	mg/L	0.00688	0.5642	mg/L	0.00688	1.22%
Cr 267.716†	2556.2	0.5555	mg/L	0.00175	0.5555	mg/L	0.00175	0.32%
Cu 324.752†	143041.8	0.5684	mg/L	0.00696	0.5684	mg/L	0.00696	1.22%
Fe 273.955†	2629.1	2.136	mg/L	0.0106	2.136	mg/L	0.0106	0.50%
K 766.490†	16087.7	13.26	mg/L	0.058	13.26	mg/L	0.058	0.44%
Mg 279.077†	26725.4	21.17	mg/L	0.150	21.17	mg/L	0.150	0.71%
Mn 257.610†	16806.1	0.5362	mg/L	0.00255	0.5362	mg/L	0.00255	0.47%
Mo 202.031†	65.0	0.00488	mg/L	0.000248	0.00488	mg/L	0.000248	5.08%
Na 589.592†	242358.1	21.79	mg/L	0.145	21.79	mg/L	0.145	0.67%
Na 330.237†	584.6	21.92	mg/L	0.183	21.92	mg/L	0.183	0.83%
Ni 231.604†	1133.4	0.5424	mg/L	0.00150	0.5424	mg/L	0.00150	0.28%
Pb 220.353†	10093.3	2.264	mg/L	0.0218	2.264	mg/L	0.0218	0.96%
Sb 206.836†	5.7	-0.00106	mg/L	0.000514	-0.00106	mg/L	0.000514	48.24%
Se 196.026†	2051.3	2.597	mg/L	0.0265	2.597	mg/L	0.0265	1.02%
Si 288.158†	12154.9	5.994	mg/L	0.0264	5.994	mg/L	0.0264	0.44%
Sn 189.927†	-14.6	-0.00422	mg/L	0.000823	-0.00422	mg/L	0.000823	19.53%
Sr 421.552†	407291.6	0.8184	mg/L	0.00209	0.8184	mg/L	0.00209	0.26%
Ti 334.903†	80.3	0.00037	mg/L	0.000211	0.00037	mg/L	0.000211	57.39%
Tl 190.801†	2973.7	2.244	mg/L	0.0273	2.244	mg/L	0.0273	1.22%
V 292.402†	42986.1	0.5565	mg/L	0.00618	0.5565	mg/L	0.00618	1.11%
Zn 206.200†	585.3	0.5445	mg/L	0.00418	0.5445	mg/L	0.00418	0.77%

Sequence No.: 18  
 Sample ID: QF00 MB1SPK WMN  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 333  
 Date Collected: 1/18/2010 12:21:42 PM  
 Data Type: Original

Nebulizer Parameters: QF00 MB1SPK WMN  
 Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

Mean Data: QF00 MB1SPK WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1900451.2	100.6	%	1.36			1.35%
ScR 361.383	278722.0	105.7	%	0.74			0.70%
Ag 328.068†	79100.5	0.5796	mg/L	0.01424	0.5796	mg/L	0.01424 2.46%
Al 308.215†	3465.8	2.019	mg/L	0.0067	2.019	mg/L	0.0067 0.33%
As 188.979†	2265.7	2.217	mg/L	0.0366	2.217	mg/L	0.0366 1.65%
B 249.677†	0.6	-0.00114	mg/L	0.000736	-0.00114	mg/L	0.000736 64.77%
Ba 233.527†	7381.4	2.134	mg/L	0.0049	2.134	mg/L	0.0049 0.23%
Be 313.042†	276325.4	0.5226	mg/L	0.00228	0.5226	mg/L	0.00228 0.44%
Ca 317.933†	148342.9	9.907	mg/L	0.0281	9.907	mg/L	0.0281 0.28%
Cd 228.802†	11861.3	0.5687	mg/L	0.00721	0.5687	mg/L	0.00721 1.27%
Co 228.616†	11053.0	0.5354	mg/L	0.00845	0.5354	mg/L	0.00845 1.58%
Cr 267.716†	2438.2	0.5320	mg/L	0.00140	0.5320	mg/L	0.00140 0.26%
Cu 324.752†	138515.3	0.5507	mg/L	0.01019	0.5507	mg/L	0.01019 1.85%
Fe 273.955†	2528.4	2.055	mg/L	0.0035	2.055	mg/L	0.0035 0.17%
K 766.490†	12140.3	10.01	mg/L	0.034	10.01	mg/L	0.034 0.34%
Mg 279.077†	12323.4	9.762	mg/L	0.0112	9.762	mg/L	0.0112 0.11%
Mn 257.610†	16032.2	0.5117	mg/L	0.00159	0.5117	mg/L	0.00159 0.31%
Mo 202.031†	14.9	0.00115	mg/L	0.000527	0.00115	mg/L	0.000527 45.76%
Na 589.592†	115538.3	10.39	mg/L	0.025	10.39	mg/L	0.025 0.25%
Na 330.237†	284.1	10.59	mg/L	0.390	10.59	mg/L	0.390 3.68%
Ni 231.604†	1100.4	0.5265	mg/L	0.00195	0.5265	mg/L	0.00195 0.37%
Pb 220.353†	9614.0	2.156	mg/L	0.0365	2.156	mg/L	0.0365 1.69%
Sb 206.836†	1.9	-0.00278	mg/L	0.001285	-0.00278	mg/L	0.001285 46.25%
Se 196.026†	1909.3	2.418	mg/L	0.0409	2.418	mg/L	0.0409 1.69%
Si 288.158†	-7.1	-0.00126	mg/L	0.008993	-0.00126	mg/L	0.008993 711.80%
Sn 189.927†	-4.9	-0.00163	mg/L	0.000846	-0.00163	mg/L	0.000846 52.03%
Sr 421.552†	261069.6	0.5246	mg/L	0.00324	0.5246	mg/L	0.00324 0.62%
Ti 334.903†	9.3	-0.00039	mg/L	0.000618	-0.00039	mg/L	0.000618 159.38%
Tl 190.801†	2870.5	2.166	mg/L	0.0322	2.166	mg/L	0.0322 1.49%
V 292.402†	42125.4	0.5453	mg/L	0.00638	0.5453	mg/L	0.00638 1.17%
Zn 206.200†	559.0	0.5222	mg/L	0.00074	0.5222	mg/L	0.00074 0.14%

Sequence No.: 19  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 7  
 Date Collected: 1/18/2010 12:25:21 PM  
 Data Type: Original

Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

Mean Data: CV

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
ScA 357.253	1864649.7	98.69	%	1.020				1.03%
ScR 361.383	267652.3	101.5	%	0.51				0.50%
Ag 328.068†	147140.2	1.078	mg/L	0.0072	1.078	mg/L	0.0072	0.66%
Al 308.215†	3521.0	2.029	mg/L	0.0111	2.029	mg/L	0.0111	0.55%
As 188.979†	2114.9	2.090	mg/L	0.0252	2.090	mg/L	0.0252	1.20%
B 249.677†	4918.2	1.035	mg/L	0.0067	1.035	mg/L	0.0067	0.64%
Ba 233.527†	3712.0	1.073	mg/L	0.0040	1.073	mg/L	0.0040	0.37%
Be 313.042†	550334.7	1.041	mg/L	0.0114	1.041	mg/L	0.0114	1.10%
Ca 317.933†	29904.8	1.997	mg/L	0.0194	1.997	mg/L	0.0194	0.97%
Cd 228.802†	22165.4	1.070	mg/L	0.0166	1.070	mg/L	0.0166	1.55%
Co 228.616†	21544.3	1.043	mg/L	0.0126	1.043	mg/L	0.0126	1.21%
Cr 267.716†	4834.0	1.058	mg/L	0.0081	1.058	mg/L	0.0081	0.76%
Cu 324.752†	276979.1	1.100	mg/L	0.0117	1.100	mg/L	0.0117	1.06%
Fe 273.955†	2509.7	2.036	mg/L	0.0079	2.036	mg/L	0.0079	0.39%
K 766.490†	24198.3	19.94	mg/L	0.108	19.94	mg/L	0.108	0.54%
Mg 279.077†	2594.5	2.060	mg/L	0.0068	2.060	mg/L	0.0068	0.33%
Mn 257.610†	31956.4	1.020	mg/L	0.0133	1.020	mg/L	0.0133	1.30%
Mo 202.031†	11551.5	1.000	mg/L	0.0124	1.000	mg/L	0.0124	1.24%
Na 589.592†	575815.5	51.76	mg/L	0.526	51.76	mg/L	0.526	1.02%
Na 330.237†	1371.8	51.76	mg/L	0.043	51.76	mg/L	0.043	0.08%
Ni 231.604†	2198.9	1.054	mg/L	0.0065	1.054	mg/L	0.0065	0.62%
Pb 220.353†	9554.7	2.144	mg/L	0.0258	2.144	mg/L	0.0258	1.20%
Sb 206.836†	3904.9	2.042	mg/L	0.0259	2.042	mg/L	0.0259	1.27%
Se 196.026†	1665.2	2.109	mg/L	0.0304	2.109	mg/L	0.0304	1.44%
Si 288.158†	4322.6	2.135	mg/L	0.0162	2.135	mg/L	0.0162	0.76%
Sn 189.927†	2530.6	1.007	mg/L	0.0111	1.007	mg/L	0.0111	1.10%
Sr 421.552†	526033.3	1.057	mg/L	0.0126	1.057	mg/L	0.0126	1.19%
Ti 334.903†	19350.1	1.011	mg/L	0.0123	1.011	mg/L	0.0123	1.22%
Tl 190.801†	2785.6	2.103	mg/L	0.0315	2.103	mg/L	0.0315	1.50%
V 292.402†	82620.1	1.070	mg/L	0.0149	1.070	mg/L	0.0149	1.39%
Zn 206.200†	1110.0	1.038	mg/L	0.0065	1.038	mg/L	0.0065	0.63%

Sequence No.: 20  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 12:29:01 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1871379.0	99.05 %		0.479			0.48%
ScR 361.383	259540.0	98.41 %		0.620			0.63%
Ag 328.068†	12.5	0.00009 mg/L		0.000454	0.00009 mg/L	0.000454	497.34%
Al 308.215†	12.5	0.00729 mg/L		0.005566	0.00729 mg/L	0.005566	76.39%
As 188.979†	-0.3	-0.00034 mg/L		0.000828	-0.00034 mg/L	0.000828	246.12%
B 249.677†	9.2	0.00194 mg/L		0.001716	0.00194 mg/L	0.001716	88.37%
Ba 233.527†	-1.2	-0.00033 mg/L		0.001058	-0.00033 mg/L	0.001058	317.18%
Be 313.042†	6.6	0.00001 mg/L		0.000044	0.00001 mg/L	0.000044	351.01%
Ca 317.933†	22.6	0.00151 mg/L		0.001147	0.00151 mg/L	0.001147	75.99%
Cd 228.802†	-1.5	-0.00007 mg/L		0.000114	-0.00007 mg/L	0.000114	156.26%
Co 228.616†	5.2	0.00025 mg/L		0.000233	0.00025 mg/L	0.000233	92.60%
Cr 267.716†	-0.5	-0.00010 mg/L		0.001113	-0.00010 mg/L	0.001113	>999.9%
Cu 324.752†	93.0	0.00037 mg/L		0.000094	0.00037 mg/L	0.000094	25.51%
Fe 273.955†	1.2	0.00100 mg/L		0.001680	0.00100 mg/L	0.001680	167.47%
K 766.490†	-21.2	-0.01751 mg/L		0.035805	-0.01751 mg/L	0.035805	204.44%
Mg 279.077†	3.8	0.00302 mg/L		0.003882	0.00302 mg/L	0.003882	128.52%
Mn 257.610†	3.5	0.00011 mg/L		0.000043	0.00011 mg/L	0.000043	37.93%
Mo 202.031†	6.6	0.00058 mg/L		0.000146	0.00058 mg/L	0.000146	25.41%
Na 589.592†	-10.8	-0.00097 mg/L		0.005241	-0.00097 mg/L	0.005241	538.38%
Na 330.237†	-1.9	-0.07167 mg/L		0.344284	-0.07167 mg/L	0.344284	480.38%
Ni 231.604†	4.1	0.00194 mg/L		0.001667	0.00194 mg/L	0.001667	85.82%
Pb 220.353†	4.2	0.00095 mg/L		0.001131	0.00095 mg/L	0.001131	119.04%
Sb 206.836†	5.4	0.00285 mg/L		0.000526	0.00285 mg/L	0.000526	18.44%
Se 196.026†	-3.1	-0.00390 mg/L		0.001670	-0.00390 mg/L	0.001670	42.78%
Si 288.158†	4.7	0.00230 mg/L		0.006696	0.00230 mg/L	0.006696	291.59%
Sn 189.927†	2.3	0.00091 mg/L		0.001113	0.00091 mg/L	0.001113	121.94%
Sr 421.552†	-3.6	-0.00001 mg/L		0.000050	-0.00001 mg/L	0.000050	694.91%
Ti 334.903†	2.6	0.00013 mg/L		0.000733	0.00013 mg/L	0.000733	550.19%
Tl 190.801†	4.9	0.00370 mg/L		0.001545	0.00370 mg/L	0.001545	41.75%
V 292.402†	9.0	0.00012 mg/L		0.000178	0.00012 mg/L	0.000178	153.63%
Zn 206.200†	0.8	0.00075 mg/L		0.002651	0.00075 mg/L	0.002651	353.78%



Sequence No.: 21  
 Sample ID: QF15 MB1 TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 334  
 Date Collected: 1/18/2010 12:32:40 PM  
 Data Type: Original

## Nebulizer Parameters: QF15 MB1 TWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

## Mean Data: QF15 MB1 TWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1860639.6	98.48 %	0.339			0.34%
ScR 361.383	262016.9	99.35 %	1.005			1.01%
Ag 328.068†	3.8	0.00003 mg/L	0.000191	0.00003 mg/L	0.000191	685.18%
Al 308.215†	-6.8	-0.00399 mg/L	0.002320	-0.00399 mg/L	0.002320	58.11%
As 188.979†	3.1	0.00299 mg/L	0.000729	0.00299 mg/L	0.000729	24.35%
B 249.677†	4.6	0.00096 mg/L	0.002006	0.00096 mg/L	0.002006	209.11%
Ba 233.527†	1.4	0.00041 mg/L	0.000748	0.00041 mg/L	0.000748	181.74%
Be 313.042†	-1.2	0.00000 mg/L	0.000009	0.00000 mg/L	0.000009	438.34%
Ca 317.933†	56.6	0.00378 mg/L	0.001325	0.00378 mg/L	0.001325	35.04%
Cd 228.802†	1.6	0.00007 mg/L	0.000175	0.00007 mg/L	0.000175	263.03%
Co 228.616†	6.4	0.00031 mg/L	0.000192	0.00031 mg/L	0.000192	61.48%
Cr 267.716†	-3.4	-0.00074 mg/L	0.001340	-0.00074 mg/L	0.001340	181.32%
Cu 324.752†	119.7	0.00048 mg/L	0.000077	0.00048 mg/L	0.000077	16.20%
Fe 273.955†	5.3	0.00435 mg/L	0.001812	0.00435 mg/L	0.001812	41.66%
K 766.490†	-27.5	-0.02268 mg/L	0.027382	-0.02268 mg/L	0.027382	120.74%
Mg 279.077†	6.0	0.00474 mg/L	0.005997	0.00474 mg/L	0.005997	126.40%
Mn 257.610†	3.5	0.00011 mg/L	0.000085	0.00011 mg/L	0.000085	76.09%
Mo 202.031†	0.9	0.00008 mg/L	0.000366	0.00008 mg/L	0.000366	479.25%
Na 589.592†	25.9	0.00233 mg/L	0.004665	0.00233 mg/L	0.004665	200.23%
Na 330.237†	5.5	0.2060 mg/L	0.44725	0.2060 mg/L	0.44725	217.07%
Ni 231.604†	1.9	0.00090 mg/L	0.002275	0.00090 mg/L	0.002275	254.14%
Pb 220.353†	4.2	0.00095 mg/L	0.001233	0.00095 mg/L	0.001233	130.23%
Sb 206.836†	0.6	0.00033 mg/L	0.001608	0.00033 mg/L	0.001608	493.02%
Se 196.026†	-2.0	-0.00255 mg/L	0.007504	-0.00255 mg/L	0.007504	294.85%
Si 288.158†	27.8	0.01369 mg/L	0.005715	0.01369 mg/L	0.005715	41.74%
Sn 189.927†	0.3	0.00013 mg/L	0.000202	0.00013 mg/L	0.000202	153.64%
Sr 421.552†	1.7	0.00000 mg/L	0.000031	0.00000 mg/L	0.000031	919.45%
Ti 334.903†	-3.3	-0.00017 mg/L	0.000931	-0.00017 mg/L	0.000931	543.41%
Tl 190.801†	1.2	0.00090 mg/L	0.001208	0.00090 mg/L	0.001208	134.60%
V 292.402†	-15.4	-0.00020 mg/L	0.000298	-0.00020 mg/L	0.000298	148.14%
Zn 206.200†	-0.8	-0.00078 mg/L	0.002472	-0.00078 mg/L	0.002472	317.72%

Sequence No.: 22  
Sample ID: QF00 I WMN  
Analyst: ALA  
Dilution: 1X

Autosampler Location: 335  
Date Collected: 1/18/2010 12:36:19 PM  
Data Type: Original

Nebulizer Parameters: QF00 I WMN  
Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: QF00 I WMN

Analyte	Mean Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1915252.9	101.4 %		1.19			1.17%
ScR 361.383	276588.3	104.9 %		1.48			1.41%
Ag 328.068†	17.9	0.00013 mg/L		0.000060	0.00013 mg/L	0.000060	45.96%
Al 308.215†	14.5	0.00840 mg/L		0.012916	0.00840 mg/L	0.012916	153.67%
As 188.979†	15.6	0.01307 mg/L		0.000671	0.01307 mg/L	0.000671	5.14%
B 249.677†	237.1	0.04997 mg/L		0.001766	0.04997 mg/L	0.001766	3.53%
Ba 233.527†	56.9	0.01674 mg/L		0.000475	0.01674 mg/L	0.000475	2.84%
Be 313.042†	-0.1	0.00000 mg/L		0.000040	0.00000 mg/L	0.000040	>999.9%
Ca 317.933†	633513.6	42.31 mg/L		0.566	42.31 mg/L	0.566	1.34%
Cd 228.802†	-5.5	-0.00032 mg/L		0.000241	-0.00032 mg/L	0.000241	75.65%
Co 228.616†	24.0	0.00116 mg/L		0.000136	0.00116 mg/L	0.000136	11.80%
Cr 267.716†	14.3	0.00076 mg/L		0.001148	0.00076 mg/L	0.001148	150.86%
Cu 324.752†	527.9	0.00182 mg/L		0.000265	0.00182 mg/L	0.000265	14.56%
Fe 273.955†	2.7	0.00220 mg/L		0.002964	0.00220 mg/L	0.002964	134.94%
K 766.490†	3220.0	2.654 mg/L		0.0174	2.654 mg/L	0.0174	0.66%
Mg 279.077†	14493.9	11.48 mg/L		0.064	11.48 mg/L	0.064	0.55%
Mn 257.610†	29.0	0.00070 mg/L		0.000179	0.00070 mg/L	0.000179	25.41%
Mo 202.031†	49.4	0.00367 mg/L		0.000252	0.00367 mg/L	0.000252	6.86%
Na 589.592†	124255.4	11.17 mg/L		0.092	11.17 mg/L	0.092	0.83%
Na 330.237†	304.9	11.50 mg/L		0.412	11.50 mg/L	0.412	3.58%
Ni 231.604†	2.3	0.00109 mg/L		0.000680	0.00109 mg/L	0.000680	62.58%
Pb 220.353†	-10.3	-0.00230 mg/L		0.002306	-0.00230 mg/L	0.002306	100.10%
Sb 206.836†	-4.9	-0.00265 mg/L		0.001041	-0.00265 mg/L	0.001041	39.25%
Se 196.026†	15.6	0.01913 mg/L		0.006878	0.01913 mg/L	0.006878	35.96%
Si 288.158†	12659.3	6.241 mg/L		0.0452	6.241 mg/L	0.0452	0.72%
Sn 189.927†	-10.7	-0.00298 mg/L		0.000914	-0.00298 mg/L	0.000914	30.62%
Sr 421.552†	139723.7	0.2807 mg/L		0.00366	0.2807 mg/L	0.00366	1.30%
Ti 334.903†	45.6	-0.00061 mg/L		0.000488	-0.00061 mg/L	0.000488	80.13%
Tl 190.801†	20.3	0.01531 mg/L		0.000826	0.01531 mg/L	0.000826	5.40%
V 292.402†	75.2	0.00098 mg/L		0.000134	0.00098 mg/L	0.000134	13.65%
Zn 206.200†	4.5	0.00177 mg/L		0.000721	0.00177 mg/L	0.000721	40.75%

Sequence No.: 23  
 Sample ID: QF00 C WMN  
 Analyst: ALA  
 Dilution: 1X

*D.S.*

Autosampler Location: 336  
 Date Collected: 1/18/2010 12:40:12 PM  
 Data Type: Original

Nebulizer Parameters: QF00 C WMN  
 Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

Mean Data: QF00 C WMN

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1878702.5	99.44	%	0.838			0.84%
ScR 361.383	281605.7	106.8	%	3.82			3.57%
Ag 328.068†	122.7	0.00016	mg/L	0.000253	0.00016	mg/L	0.000253 159.23%
Al 308.215†	31.1	0.01226	mg/L	0.008228	0.01226	mg/L	0.008228 67.11%
As 188.979†	18.6	0.01539	mg/L	0.000982	0.01539	mg/L	0.000982 6.38%
B 249.677†	173.2	0.03650	mg/L	0.001355	0.03650	mg/L	0.001355 3.71%
Ba 233.527†	83.5	0.02448	mg/L	0.001984	0.02448	mg/L	0.001984 8.10%
Be 313.042†	-22.0	-0.00004	mg/L	0.000032	-0.00004	mg/L	0.000032 76.69%
Ca 317.933†	840101.4	56.11	mg/L	1.664	56.11	mg/L	1.664 2.97%
Cd 228.802†	-8.8	-0.00049	mg/L	0.000221	-0.00049	mg/L	0.000221 45.08%
Co 228.616†	30.3	0.00145	mg/L	0.000194	0.00145	mg/L	0.000194 13.35%
Cr 267.716†	17.8	0.00149	mg/L	0.001822	0.00149	mg/L	0.001822 121.89%
Cu 324.752†	1898.0	0.00723	mg/L	0.000214	0.00723	mg/L	0.000214 2.96%
Fe 273.955†	390.1	0.3175	mg/L	0.00877	0.3175	mg/L	0.00877 2.76%
K 766.490†	4701.2	3.875	mg/L	0.1458	3.875	mg/L	0.1458 3.76%
Mg 279.077†	17755.1	14.06	mg/L	0.383	14.06	mg/L	0.383 2.72%
Mn 257.610†	108786.6	3.469	mg/L	0.0936	3.469	mg/L	0.0936 2.70%
Mo 202.031†	66.2	0.00493	mg/L	0.000149	0.00493	mg/L	0.000149 3.02%
Na 589.592†	130089.4	11.69	mg/L	0.275	11.69	mg/L	0.275 2.35%
Na 330.237†	319.1	12.04	mg/L	0.531	12.04	mg/L	0.531 4.41%
Ni 231.604†	7.3	0.00348	mg/L	0.001866	0.00348	mg/L	0.001866 53.56%
Pb 220.353†	-21.1	-0.00476	mg/L	0.001286	-0.00476	mg/L	0.001286 27.02%
Sb 206.836†	3.7	0.00181	mg/L	0.001552	0.00181	mg/L	0.001552 85.57%
Se 196.026†	26.4	0.03272	mg/L	0.005259	0.03272	mg/L	0.005259 16.07%
Si 288.158†	19995.4	9.857	mg/L	0.3051	9.857	mg/L	0.3051 3.09%
Sn 189.927†	-14.5	-0.00403	mg/L	0.001289	-0.00403	mg/L	0.001289 31.98%
Sr 421.552†	158039.5	0.3175	mg/L	0.01131	0.3175	mg/L	0.01131 3.56%
Ti 334.903†	97.1	0.00111	mg/L	0.000805	0.00111	mg/L	0.000805 72.64%
Tl 190.801†	18.0	0.01817	mg/L	0.000712	0.01817	mg/L	0.000712 3.92%
V 292.402†	7.3	0.00062	mg/L	0.000145	0.00062	mg/L	0.000145 23.43%
Zn 206.200†	3.6	0.00016	mg/L	0.002512	0.00016	mg/L	0.002512 >999.9%

Sequence No.: 24  
 Sample ID: QF15 A TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 337  
 Date Collected: 1/18/2010 12:44:06 PM  
 Data Type: Original

Nebulizer Parameters: QF15 A TWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

Mean Data: QF15 A TWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1902686.0	100.7	%	0.15				0.15%
ScR 361.383	261901.4	99.30	%	1.301				1.31%
Ag 328.068†	16.6	0.00012	mg/L	0.000217	0.00012	mg/L	0.000217	179.81%
Al 308.215†	162.7	0.09530	mg/L	0.013751	0.09530	mg/L	0.013751	14.43%
As 188.979†	-1.0	-0.00090	mg/L	0.001810	-0.00090	mg/L	0.001810	201.51%
B 249.677†	8.4	0.00176	mg/L	0.001623	0.00176	mg/L	0.001623	92.08%
Ba 233.527†	6.8	0.00195	mg/L	0.000478	0.00195	mg/L	0.000478	24.50%
Be 313.042†	23.7	0.00004	mg/L	0.000027	0.00004	mg/L	0.000027	61.21%
Ca 317.933†	9284.8	0.6201	mg/L	0.01130	0.6201	mg/L	0.01130	1.82%
Cd 228.802†	2.1	0.00011	mg/L	0.000045	0.00011	mg/L	0.000045	42.13%
Co 228.616†	12.1	0.00058	mg/L	0.000163	0.00058	mg/L	0.000163	28.19%
Cr 267.716†	3.2	0.00069	mg/L	0.000087	0.00069	mg/L	0.000087	12.62%
Cu 324.752†	1249.3	0.00497	mg/L	0.000065	0.00497	mg/L	0.000065	1.31%
Fe 273.955†	169.2	0.1377	mg/L	0.00077	0.1377	mg/L	0.00077	0.56%
K 766.490†	104.3	0.08596	mg/L	0.025267	0.08596	mg/L	0.025267	29.39%
Mg 279.077†	119.3	0.09437	mg/L	0.003381	0.09437	mg/L	0.003381	3.58%
Mn 257.610†	145.3	0.00463	mg/L	0.000131	0.00463	mg/L	0.000131	2.83%
Mo 202.031†	6.0	0.00051	mg/L	0.000134	0.00051	mg/L	0.000134	26.44%
Na 589.592†	2553.3	0.2295	mg/L	0.00302	0.2295	mg/L	0.00302	1.32%
Na 330.237†	7.7	0.2837	mg/L	0.50885	0.2837	mg/L	0.50885	179.36%
Ni 231.604†	5.8	0.00279	mg/L	0.001526	0.00279	mg/L	0.001526	54.61%
Pb 220.353†	28.3	0.00636	mg/L	0.000895	0.00636	mg/L	0.000895	14.08%
Sb 206.836†	-3.3	-0.00171	mg/L	0.002102	-0.00171	mg/L	0.002102	122.95%
Se 196.026†	0.1	0.00009	mg/L	0.002423	0.00009	mg/L	0.002423	>999.9%
Si 288.158†	507.6	0.2502	mg/L	0.00443	0.2502	mg/L	0.00443	1.77%
Sn 189.927†	-0.8	-0.00029	mg/L	0.000829	-0.00029	mg/L	0.000829	288.19%
Sr 421.552†	1363.3	0.00274	mg/L	0.000032	0.00274	mg/L	0.000032	1.16%
Ti 334.903†	78.5	0.00406	mg/L	0.001222	0.00406	mg/L	0.001222	30.09%
Tl 190.801†	5.9	0.00450	mg/L	0.002615	0.00450	mg/L	0.002615	58.17%
V 292.402†	33.4	0.00042	mg/L	0.000036	0.00042	mg/L	0.000036	8.55%
Zn 206.200†	33.7	0.03148	mg/L	0.000772	0.03148	mg/L	0.000772	2.45%

Sequence No.: 25

Sample ID: ~~QF10-B-SWC~~ QF00 E

Analyst: ALA

Dilution: 2X 14 \* 1-18-10 Dd

Autosampler Location: 338

Date Collected: 1/18/2010 12:47:44 PM

Data Type: Original

Nebulizer Parameters: ~~QF10-B-SWC~~

Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: ~~QF10-B-SWC~~

Analyte	Mean Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1864602.4	98.69 %		0.992			1.01%
ScR 361.383	271873.1	103.1 %		0.30			0.30%
Ag 328.068†	48.1	0.00032 mg/L		0.000036	0.00064 mg/L	0.000072	11.19%
Al 308.215†	32.1	0.01850 mg/L		0.015533	0.03700 mg/L	0.031066	83.97%
As 188.979†	22.8	0.02020 mg/L		0.000791	0.04040 mg/L	0.001583	3.92%
B 249.677†	130.6	0.02753 mg/L		0.001306	0.05505 mg/L	0.002611	4.74%
Ba 233.527†	85.2	0.02491 mg/L		0.000124	0.04982 mg/L	0.000248	0.50%
Be 313.042†	-5.7	-0.00001 mg/L		0.000029	-0.00002 mg/L	0.000058	264.46%
Ca 317.933†	604678.9	40.38 mg/L		0.142	80.77 mg/L	0.285	0.35%
Cd 228.802†	-4.7	-0.00030 mg/L		0.000251	-0.00061 mg/L	0.000502	82.70%
Co 228.616†	20.2	0.00097 mg/L		0.000243	0.00194 mg/L	0.000486	25.06%
Cr 267.716†	22.2	0.00143 mg/L		0.000999	0.00287 mg/L	0.001998	69.72%
Cu 324.752†	567.8	0.00182 mg/L		0.000357	0.00364 mg/L	0.000714	19.63%
Fe 273.955†	31.6	0.02574 mg/L		0.001226	0.05147 mg/L	0.002453	4.77%
K 766.490†	7460.6	6.149 mg/L		0.0686	12.30 mg/L	0.137	1.12%
Mg 279.077†	23052.3	18.26 mg/L		0.218	36.51 mg/L	0.437	1.20%
Mn 257.610†	4508.2	0.1435 mg/L		0.00187	0.2870 mg/L	0.00373	1.30%
Mo 202.031†	54.8	0.00417 mg/L		0.000536	0.00833 mg/L	0.001073	12.87%
Na 589.592†	161672.9	14.53 mg/L		0.097	29.07 mg/L	0.194	0.67%
Na 330.237†	406.3	15.33 mg/L		0.170	30.65 mg/L	0.341	1.11%
Ni 231.604†	5.1	0.00243 mg/L		0.000449	0.00485 mg/L	0.000899	18.53%
Pb 220.353†	-19.6	-0.00439 mg/L		0.002664	-0.00878 mg/L	0.005329	60.69%
Sb 206.836†	3.6	0.00172 mg/L		0.001678	0.00344 mg/L	0.003355	97.41%
Se 196.026†	16.4	0.01982 mg/L		0.006013	0.03963 mg/L	0.012026	30.34%
Si 288.158†	32485.3	16.01 mg/L		0.167	32.03 mg/L	0.334	1.04%
Sn 189.927†	-17.2	-0.00562 mg/L		0.000518	-0.01124 mg/L	0.001037	9.23%
Sr 421.552†	102893.7	0.2067 mg/L		0.00174	0.4135 mg/L	0.00349	0.84%
Ti 334.903†	54.1	-0.00003 mg/L		0.000588	-0.00006 mg/L	0.001176	>999.9%
Tl 190.801†	17.4	0.01337 mg/L		0.002033	0.02674 mg/L	0.004066	15.21%
V 292.402†	11.8	0.00019 mg/L		0.000001	0.00038 mg/L	0.000002	0.63%
Zn 206.200†	2.4	-0.00005 mg/L		0.000762	-0.00011 mg/L	0.001523	>999.9%

Sequence No.: 26  
 Sample ID: QF10 ADUP SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 339  
 Date Collected: 1/18/2010 12:55:52 PM  
 Data Type: Original

Nebulizer Parameters: QF10 ADUP SWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

Mean Data: QF10 ADUP SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1866034.7	98.77	%	0.941			0.95%
ScR 361.383	273997.9	103.9	%	0.41			0.40%
Ag 328.068†	-25.9	-0.00032	mg/L	0.000330	-0.00065	mg/L	0.000659 101.83%
Al 308.215†	191745.6	112.3	mg/L	0.70	224.7	mg/L	1.40 0.63%
As 188.979†	-147.9	0.02053	mg/L	0.002383	0.04106	mg/L	0.004766 11.61%
B 249.677†	78.1	0.01626	mg/L	0.001718	0.03251	mg/L	0.003437 10.57%
Ba 233.527†	2026.7	0.5655	mg/L	0.00599	1.131	mg/L	0.0120 1.06%
Be 313.042†	998.4	0.00155	mg/L	0.000035	0.00310	mg/L	0.000069 2.24%
Ca 317.933†	974938.5	65.11	mg/L	0.638	130.2	mg/L	1.28 0.98%
Cd 228.802†	49.5	0.00309	mg/L	0.000348	0.00617	mg/L	0.000695 11.26%
Co 228.616†	1851.4	0.07365	mg/L	0.001364	0.1473	mg/L	0.00273 1.85%
Cr 267.716†	2189.2	0.4778	mg/L	0.00304	0.9557	mg/L	0.00607 0.64%
Cu 324.752†	81500.7	0.3346	mg/L	0.00312	0.6692	mg/L	0.00624 0.93%
Fe 273.955†	220957.0	179.8	mg/L	1.40	359.7	mg/L	2.80 0.78%
K 766.490†	7758.3	6.394	mg/L	0.1009	12.79	mg/L	0.202 1.58%
Mg 279.077†	89478.7	70.79	mg/L	0.515	141.6	mg/L	1.03 0.73%
Mn 257.610†	82258.6	2.623	mg/L	0.0261	5.247	mg/L	0.0523 1.00%
Mo 202.031†	105.6	0.00821	mg/L	0.000532	0.01642	mg/L	0.001064 6.48%
Na 589.592†	44837.1	4.030	mg/L	0.0293	8.061	mg/L	0.0585 0.73%
Na 330.237†	64.8	4.230	mg/L	0.1747	8.460	mg/L	0.3493 4.13%
Ni 231.604†	749.1	0.3584	mg/L	0.00317	0.7169	mg/L	0.00634 0.88%
Pb 220.353†	2074.3	0.4714	mg/L	0.00580	0.9428	mg/L	0.01160 1.23%
Sb 206.836†	14.8	0.01324	mg/L	0.002474	0.02647	mg/L	0.004947 18.69%
Se 196.026†	34.6	0.03996	mg/L	0.005151	0.07992	mg/L	0.010302 12.89%
Si 288.158†	2409.8	1.188	mg/L	0.0164	2.376	mg/L	0.0328 1.38%
Sn 189.927†	-13.7	0.00007	mg/L	0.000356	0.00014	mg/L	0.000712 521.51%
Sr 421.552†	156702.7	0.3149	mg/L	0.00299	0.6297	mg/L	0.00597 0.95%
Ti 334.903†	151709.7	7.933	mg/L	0.0699	15.87	mg/L	0.140 0.88%
Tl 190.801†	-20.8	0.01331	mg/L	0.003261	0.02662	mg/L	0.006522 24.50%
V 292.402†	34843.4	0.4281	mg/L	0.00163	0.8562	mg/L	0.00326 0.38%
Zn 206.200†	1383.4	1.286	mg/L	0.0081	2.572	mg/L	0.0163 0.63%

Sequence No.: 27  
Sample ID: QF10 A SWC  
Analyst: ALA  
Dilution: 2X

Autosampler Location: 340  
Date Collected: 1/18/2010 12:59:58 PM  
Data Type: Original

Nebulizer Parameters: QF10 A SWC

Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: QF10 A SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1886301.1	99.84	%	0.738				0.74%
ScR 361.383	273798.5	103.8	%	0.48				0.46%
Ag 328.068†	-61.3	-0.00054	mg/L	0.000259	-0.00107	mg/L	0.000518	48.24%
Al 308.215†	178502.3	104.6	mg/L	1.79	209.1	mg/L	3.58	1.71%
As 188.979†	-170.6	0.01052	mg/L	0.002462	0.02105	mg/L	0.004924	23.40%
B 249.677†	149.0	0.03121	mg/L	0.000845	0.06243	mg/L	0.001691	2.71%
Ba 233.527†	1698.8	0.4725	mg/L	0.00077	0.9450	mg/L	0.00155	0.16%
Be 313.042†	1177.3	0.00190	mg/L	0.000032	0.00380	mg/L	0.000064	1.69%
Ca 317.933†	1003404.4	67.01	mg/L	1.039	134.0	mg/L	2.08	1.55%
Cd 228.802†	47.3	0.00301	mg/L	0.000128	0.00603	mg/L	0.000256	4.24%
Co 228.616†	1708.4	0.06599	mg/L	0.000343	0.1320	mg/L	0.00069	0.52%
Cr 267.716†	1640.5	0.3602	mg/L	0.00128	0.7203	mg/L	0.00257	0.36%
Cu 324.752†	51832.5	0.2156	mg/L	0.00192	0.4312	mg/L	0.00384	0.89%
Fe 273.955†	201593.4	164.1	mg/L	2.85	328.1	mg/L	5.69	1.73%
K 766.490†	7961.2	6.562	mg/L	0.1132	13.12	mg/L	0.226	1.72%
Mg 279.077†	63320.9	50.07	mg/L	0.769	100.1	mg/L	1.54	1.54%
Mn 257.610†	77581.4	2.474	mg/L	0.0364	4.949	mg/L	0.0728	1.47%
Mo 202.031†	111.1	0.00866	mg/L	0.000394	0.01732	mg/L	0.000789	4.56%
Na 589.592†	43946.3	3.950	mg/L	0.0539	7.901	mg/L	0.1078	1.36%
Na 330.237†	57.6	4.115	mg/L	0.2813	8.230	mg/L	0.5626	6.84%
Ni 231.604†	595.0	0.2847	mg/L	0.00181	0.5694	mg/L	0.00363	0.64%
Pb 220.353†	1235.6	0.2831	mg/L	0.00305	0.5662	mg/L	0.00610	1.08%
Sb 206.836†	15.2	0.01520	mg/L	0.002136	0.03039	mg/L	0.004272	14.06%
Se 196.026†	28.3	0.03310	mg/L	0.010956	0.06620	mg/L	0.021912	33.10%
Si 288.158†	2886.4	1.423	mg/L	0.0075	2.846	mg/L	0.0150	0.53%
Sn 189.927†	-16.7	-0.00081	mg/L	0.001023	-0.00162	mg/L	0.002045	126.08%
Sr 421.552†	121573.7	0.2443	mg/L	0.00286	0.4885	mg/L	0.00572	1.17%
Ti 334.903†	162566.6	8.501	mg/L	0.1338	17.00	mg/L	0.268	1.57%
Tl 190.801†	-17.7	0.01319	mg/L	0.004459	0.02638	mg/L	0.008919	33.81%
V 292.402†	32296.0	0.3961	mg/L	0.00373	0.7922	mg/L	0.00746	0.94%
Zn 206.200†	1351.8	1.257	mg/L	0.0035	2.513	mg/L	0.0069	0.28%

Sequence No.: 28  
Sample ID: QF10 ASPK SWC  
Analyst: ALA  
Dilution: 2X

*Del*

Autosampler Location: 341  
Date Collected: 1/18/2010 1:01:29 PM  
Data Type: Original

Nebulizer Parameters: QF10 ASPK SWC

Analyte Back Pressure Flow  
All 198.0 kPa 0.75 L/min

Mean Data: QF10 ASPK SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1797530.2	95.14	%	0.328			0.34%
ScR 361.383	270581.2	102.6	%	0.97			0.95%
Ag 328.068†	74567.2	0.5462	mg/L	0.00642	1.092	mg/L	0.0128 1.18%
Al 308.215†	207251.2	121.4	mg/L	1.45	242.8	mg/L	2.89 1.19%
As 188.979†	1977.5	2.097	mg/L	0.0122	4.194	mg/L	0.0244 0.58%
B 249.677†	79.9	0.01543	mg/L	0.001514	0.03085	mg/L	0.003028 9.81%
Ba 233.527†	9462.4	2.713	mg/L	0.0120	5.426	mg/L	0.0239 0.44%
Be 313.042†	283913.0	0.5366	mg/L	0.00559	1.073	mg/L	0.0112 1.04%
Ca 317.933†	1174683.0	78.45	mg/L	0.809	156.9	mg/L	1.62 1.03%
Cd 228.802†	11640.0	0.5590	mg/L	0.00457	1.118	mg/L	0.0091 0.82%
Co 228.616†	12366.2	0.5829	mg/L	0.00538	1.166	mg/L	0.0108 0.92%
Cr 267.716†	3605.1	0.7904	mg/L	0.00114	1.581	mg/L	0.0023 0.14%
Cu 324.752†	211167.2	0.8523	mg/L	0.00780	1.705	mg/L	0.0156 0.91%
Fe 273.955†	247836.6	201.7	mg/L	2.23	403.4	mg/L	4.47 1.11%
K 766.490†	19578.9	16.14	mg/L	0.115	32.27	mg/L	0.230 0.71%
Mg 279.077†	77334.4	61.16	mg/L	0.899	122.3	mg/L	1.80 1.47%
Mn 257.610†	93825.8	2.993	mg/L	0.0322	5.986	mg/L	0.0645 1.08%
Mo 202.031†	101.9	0.00770	mg/L	0.000222	0.01540	mg/L	0.000444 2.88%
Na 589.592†	185629.7	16.69	mg/L	0.185	33.37	mg/L	0.370 1.11%
Na 330.237†	392.6	16.42	mg/L	0.061	32.83	mg/L	0.122 0.37%
Ni 231.604†	1638.3	0.7839	mg/L	0.00362	1.568	mg/L	0.0072 0.46%
Pb 220.353†	11019.6	2.477	mg/L	0.0206	4.954	mg/L	0.0412 0.83%
Sb 206.836†	22.7	0.01637	mg/L	0.005705	0.03274	mg/L	0.011409 34.84%
Se 196.026†	1686.5	2.133	mg/L	0.0162	4.266	mg/L	0.0324 0.76%
Si 288.158†	1852.8	0.9155	mg/L	0.01098	1.831	mg/L	0.0220 1.20%
Sn 189.927†	134.1	0.05918	mg/L	0.001425	0.1184	mg/L	0.00285 2.41%
Sr 421.552†	435046.2	0.8741	mg/L	0.00814	1.748	mg/L	0.0163 0.93%
Ti 334.903†	148956.9	7.788	mg/L	0.0988	15.58	mg/L	0.198 1.27%
Tl 190.801†	2644.7	2.028	mg/L	0.0179	4.055	mg/L	0.0358 0.88%
V 292.402†	74577.1	0.9396	mg/L	0.00496	1.879	mg/L	0.0099 0.53%
Zn 206.200†	1997.6	1.859	mg/L	0.0059	3.719	mg/L	0.0119 0.32%



Sequence No.: 29  
Sample ID: QF10 MB1SPK SWC  
Analyst: ALA  
Dilution: 2X

Autosampler Location: 342  
Date Collected: 1/18/2010 1:03:50 PM  
Data Type: Original

Nebulizer Parameters: QF10 MB1SPK SWC

Analyte Back Pressure Flow  
All 199.0 kPa 0.75 L/min

Mean Data: QF10 MB1SPK SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1802557.6	95.41	%	0.218				0.23%
ScR 361.383	262868.1	99.67	%	1.037				1.04%
Ag 328.068†	79678.2	0.5838	mg/L	0.00366	1.168	mg/L	0.0073	0.63%
Al 308.215†	3789.7	2.209	mg/L	0.0166	4.419	mg/L	0.0332	0.75%
As 188.979†	2168.8	2.122	mg/L	0.0098	4.245	mg/L	0.0197	0.46%
B 249.677†	2.2	-0.00076	mg/L	0.001045	-0.00152	mg/L	0.002091	137.84%
Ba 233.527†	7409.9	2.143	mg/L	0.0164	4.285	mg/L	0.0328	0.76%
Be 313.042†	279827.4	0.5292	mg/L	0.00446	1.058	mg/L	0.0089	0.84%
Ca 317.933†	152141.5	10.16	mg/L	0.070	20.32	mg/L	0.139	0.69%
Cd 228.802†	11325.1	0.5430	mg/L	0.00174	1.086	mg/L	0.0035	0.32%
Co 228.616†	10766.2	0.5214	mg/L	0.00162	1.043	mg/L	0.0032	0.31%
Cr 267.716†	2411.5	0.5262	mg/L	0.00455	1.052	mg/L	0.0091	0.87%
Cu 324.752†	142013.0	0.5646	mg/L	0.00327	1.129	mg/L	0.0065	0.58%
Fe 273.955†	2480.1	2.015	mg/L	0.0129	4.031	mg/L	0.0257	0.64%
K 766.490†	12077.0	9.954	mg/L	0.1547	19.91	mg/L	0.309	1.55%
Mg 279.077†	12145.7	9.621	mg/L	0.1134	19.24	mg/L	0.227	1.18%
Mn 257.610†	16057.1	0.5125	mg/L	0.00511	1.025	mg/L	0.0102	1.00%
Mo 202.031†	21.3	0.00170	mg/L	0.000198	0.00340	mg/L	0.000395	11.63%
Na 589.592†	117068.4	10.52	mg/L	0.095	21.05	mg/L	0.189	0.90%
Na 330.237†	283.9	10.58	mg/L	0.102	21.16	mg/L	0.203	0.96%
Ni 231.604†	1106.8	0.5296	mg/L	0.00282	1.059	mg/L	0.0056	0.53%
Pb 220.353†	9448.4	2.119	mg/L	0.0104	4.238	mg/L	0.0209	0.49%
Sb 206.836†	8.2	0.00052	mg/L	0.001250	0.00105	mg/L	0.002499	239.14%
Se 196.026†	1679.5	2.127	mg/L	0.0204	4.254	mg/L	0.0408	0.96%
Si 288.158†	37.2	0.02047	mg/L	0.005983	0.04095	mg/L	0.011967	29.23%
Sn 189.927†	-8.2	-0.00294	mg/L	0.001074	-0.00587	mg/L	0.002148	36.56%
Sr 421.552†	253853.5	0.5101	mg/L	0.00574	1.020	mg/L	0.0115	1.13%
Ti 334.903†	249.0	0.01214	mg/L	0.000051	0.02428	mg/L	0.000102	0.42%
Tl 190.801†	2782.6	2.100	mg/L	0.0091	4.200	mg/L	0.0182	0.43%
V 292.402†	41035.7	0.5312	mg/L	0.00287	1.062	mg/L	0.0057	0.54%
Zn 206.200†	567.6	0.5302	mg/L	0.00565	1.060	mg/L	0.0113	1.07%

Sequence No.: 30  
 Sample ID: QF15 MB1SPK TWC  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 343  
 Date Collected: 1/18/2010 1:05:36 PM  
 Data Type: Original

Nebulizer Parameters: QF15 MB1SPK TWC  
 Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

Mean Data: QF15 MB1SPK TWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1793972.2	94.95	%	0.755			0.80%
ScR 361.383	256553.4	97.27	%	0.935			0.96%
Ag 328.068†	81666.7	0.5984	mg/L	0.00678	0.5984	mg/L	0.00678 1.13%
Al 308.215†	3580.7	2.086	mg/L	0.0062	2.086	mg/L	0.0062 0.30%
As 188.979†	2227.9	2.180	mg/L	0.0083	2.180	mg/L	0.0083 0.38%
B 249.677†	-2.5	-0.00178	mg/L	0.000049	-0.00178	mg/L	0.000049 2.75%
Ba 233.527†	7672.7	2.219	mg/L	0.0130	2.219	mg/L	0.0130 0.59%
Be 313.042†	290476.6	0.5494	mg/L	0.00508	0.5494	mg/L	0.00508 0.92%
Ca 317.933†	154566.6	10.32	mg/L	0.089	10.32	mg/L	0.089 0.86%
Cd 228.802†	11595.3	0.5559	mg/L	0.00444	0.5559	mg/L	0.00444 0.80%
Co 228.616†	10991.0	0.5324	mg/L	0.00437	0.5324	mg/L	0.00437 0.82%
Cr 267.716†	2505.4	0.5467	mg/L	0.00100	0.5467	mg/L	0.00100 0.18%
Cu 324.752†	145505.8	0.5785	mg/L	0.00549	0.5785	mg/L	0.00549 0.95%
Fe 273.955†	2629.1	2.136	mg/L	0.0111	2.136	mg/L	0.0111 0.52%
K 766.490†	12578.1	10.37	mg/L	0.066	10.37	mg/L	0.066 0.64%
Mg 279.077†	12531.7	9.927	mg/L	0.0751	9.927	mg/L	0.0751 0.76%
Mn 257.610†	16748.1	0.5346	mg/L	0.00298	0.5346	mg/L	0.00298 0.56%
Mo 202.031†	19.8	0.00157	mg/L	0.000084	0.00157	mg/L	0.000084 5.38%
Na 589.592†	120572.6	10.84	mg/L	0.072	10.84	mg/L	0.072 0.66%
Na 330.237†	284.1	10.59	mg/L	0.202	10.59	mg/L	0.202 1.91%
Ni 231.604†	1140.8	0.5459	mg/L	0.00230	0.5459	mg/L	0.00230 0.42%
Pb 220.353†	9631.6	2.160	mg/L	0.0195	2.160	mg/L	0.0195 0.90%
Sb 206.836†	5.4	-0.00113	mg/L	0.002564	-0.00113	mg/L	0.002564 227.28%
Se 196.026†	1716.7	2.174	mg/L	0.0171	2.174	mg/L	0.0171 0.79%
Si 288.158†	27.5	0.01572	mg/L	0.007117	0.01572	mg/L	0.007117 45.27%
Sn 189.927†	-9.9	-0.00364	mg/L	0.001203	-0.00364	mg/L	0.001203 33.09%
Sr 421.552†	264062.8	0.5306	mg/L	0.00497	0.5306	mg/L	0.00497 0.94%
Ti 334.903†	19.8	0.00013	mg/L	0.000699	0.00013	mg/L	0.000699 540.76%
Tl 190.801†	2910.5	2.196	mg/L	0.0131	2.196	mg/L	0.0131 0.60%
V 292.402†	42615.2	0.5517	mg/L	0.00668	0.5517	mg/L	0.00668 1.21%
Zn 206.200†	560.5	0.5236	mg/L	0.00384	0.5236	mg/L	0.00384 0.73%

Sequence No.: 31  
 Sample ID: CV 3  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 7  
 Date Collected: 1/18/2010 1:09:40 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1793071.9	94.91 %	0.710			0.75%
ScR 361.383	256089.4	97.10 %	0.374			0.38%
Ag 328.068†	152719.5	1.119 mg/L	0.0104	1.119 mg/L	0.0104	0.93%
Al 308.215†	3714.5	2.141 mg/L	0.0112	2.141 mg/L	0.0112	0.52%
As 188.979†	2189.2	2.164 mg/L	0.0228	2.164 mg/L	0.0228	1.05%
B 249.677†	5175.5	1.089 mg/L	0.0019	1.089 mg/L	0.0019	0.18%
Ba 233.527†	3940.1	1.139 mg/L	0.0045	1.139 mg/L	0.0045	0.39%
Be 313.042†	581997.4	1.101 mg/L	0.0112	1.101 mg/L	0.0112	1.01%
Ca 317.933†	32496.7	2.170 mg/L	0.0061	2.170 mg/L	0.0061	0.28%
Cd 228.802†	22817.4	1.101 mg/L	0.0131	1.101 mg/L	0.0131	1.19%
Co 228.616†	22050.4	1.067 mg/L	0.0137	1.067 mg/L	0.0137	1.29%
Cr 267.716†	5085.4	1.113 mg/L	0.0036	1.113 mg/L	0.0036	0.32%
Cu 324.752†	293081.7	1.164 mg/L	0.0138	1.164 mg/L	0.0138	1.19%
Fe 273.955†	2660.5	2.159 mg/L	0.0059	2.159 mg/L	0.0059	0.27%
K 766.490†	25964.5	21.40 mg/L	0.087	21.40 mg/L	0.087	0.41%
Mg 279.077†	2727.1	2.166 mg/L	0.0059	2.166 mg/L	0.0059	0.27%
Mn 257.610†	34787.2	1.110 mg/L	0.0040	1.110 mg/L	0.0040	0.36%
Mo 202.031†	11929.1	1.033 mg/L	0.0105	1.033 mg/L	0.0105	1.02%
Na 589.592†	616949.8	55.46 mg/L	0.434	55.46 mg/L	0.434	0.78%
Na 330.237†	1443.5	54.47 mg/L	0.223	54.47 mg/L	0.223	0.41%
Ni 231.604†	2336.6	1.120 mg/L	0.0016	1.120 mg/L	0.0016	0.15%
Pb 220.353†	9892.8	2.220 mg/L	0.0220	2.220 mg/L	0.0220	0.99%
Sb 206.836†	4035.1	2.110 mg/L	0.0212	2.110 mg/L	0.0212	1.01%
Se 196.026†	1721.9	2.181 mg/L	0.0282	2.181 mg/L	0.0282	1.29%
Si 288.158†	4566.2	2.255 mg/L	0.0094	2.255 mg/L	0.0094	0.42%
Sn 189.927†	2620.2	1.043 mg/L	0.0111	1.043 mg/L	0.0111	1.06%
Sr 421.552†	557324.5	1.120 mg/L	0.0147	1.120 mg/L	0.0147	1.31%
Ti 334.903†	20920.2	1.093 mg/L	0.0065	1.093 mg/L	0.0065	0.60%
Tl 190.801†	2897.9	2.188 mg/L	0.0201	2.188 mg/L	0.0201	0.92%
V 292.402†	85639.1	1.109 mg/L	0.0151	1.109 mg/L	0.0151	1.37%
Zn 206.200†	1163.7	1.088 mg/L	0.0069	1.088 mg/L	0.0069	0.64%

Sequence No.: 32  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 1:13:36 PM  
 Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1861288.9	98.52 %		0.639			0.65%
ScR 361.383	257826.2	97.76 %		0.844			0.86%
Ag 328.068†	-16.6	-0.00012 mg/L		0.000173	-0.00012 mg/L	0.000173	141.99%
Al 308.215†	-1.8	-0.00107 mg/L		0.007210	-0.00107 mg/L	0.007210	676.19%
As 188.979†	-2.9	-0.00284 mg/L		0.001610	-0.00284 mg/L	0.001610	56.70%
B 249.677†	6.6	0.00138 mg/L		0.001432	0.00138 mg/L	0.001432	103.57%
Ba 233.527†	2.0	0.00058 mg/L		0.000461	0.00058 mg/L	0.000461	79.49%
Be 313.042†	57.3	0.00011 mg/L		0.000079	0.00011 mg/L	0.000079	73.22%
Ca 317.933†	19.0	0.00127 mg/L		0.000479	0.00127 mg/L	0.000479	37.67%
Cd 228.802†	-0.3	0.00000 mg/L		0.000068	0.00000 mg/L	0.000068	>999.9%
Co 228.616†	8.4	0.00041 mg/L		0.000179	0.00041 mg/L	0.000179	43.84%
Cr 267.716†	-0.2	-0.00005 mg/L		0.000152	-0.00005 mg/L	0.000152	296.38%
Cu 324.752†	43.1	0.00017 mg/L		0.000173	0.00017 mg/L	0.000173	101.16%
Fe 273.955†	0.3	0.00022 mg/L		0.002418	0.00022 mg/L	0.002418	>999.9%
K 766.490†	-22.8	-0.01882 mg/L		0.033490	-0.01882 mg/L	0.033490	177.92%
Mg 279.077†	11.0	0.00874 mg/L		0.005246	0.00874 mg/L	0.005246	60.04%
Mn 257.610†	4.4	0.00014 mg/L		0.000180	0.00014 mg/L	0.000180	127.20%
Mo 202.031†	2.6	0.00023 mg/L		0.000150	0.00023 mg/L	0.000150	66.20%
Na 589.592†	32.3	0.00290 mg/L		0.002988	0.00290 mg/L	0.002988	102.98%
Na 330.237†	10.4	0.3914 mg/L		0.33456	0.3914 mg/L	0.33456	85.48%
Ni 231.604†	0.3	0.00014 mg/L		0.001669	0.00014 mg/L	0.001669	>999.9%
Pb 220.353†	5.8	0.00130 mg/L		0.001300	0.00130 mg/L	0.001300	100.19%
Sb 206.836†	6.1	0.00320 mg/L		0.002251	0.00320 mg/L	0.002251	70.46%
Se 196.026†	0.8	0.00106 mg/L		0.001447	0.00106 mg/L	0.001447	136.59%
Si 288.158†	4.5	0.00222 mg/L		0.004045	0.00222 mg/L	0.004045	182.52%
Sr 189.927†	2.1	0.00085 mg/L		0.001305	0.00085 mg/L	0.001305	153.72%
Sr 421.552†	-25.6	-0.00005 mg/L		0.000065	-0.00005 mg/L	0.000065	126.27%
Ti 334.903†	5.3	0.00028 mg/L		0.000488	0.00028 mg/L	0.000488	177.43%
Tl 190.801†	4.6	0.00344 mg/L		0.002080	0.00344 mg/L	0.002080	60.43%
V 292.402†	-8.8	-0.00011 mg/L		0.000324	-0.00011 mg/L	0.000324	284.19%
Zn 206.200†	0.7	0.00061 mg/L		0.002445	0.00061 mg/L	0.002445	397.80%

=====  
Analysis Begun

Start Time: 1/18/2010 1:18:50 PM Plasma On Time: 1/18/2010 7:29:15 AM  
Logged In Analyst: metals Technique: ICP Continuous  
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif  
Batch ID:  
Results Data Set: I2100118  
Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 1 Date Collected: 1/18/2010 1:18:51 PM  
Sample ID: STD2 Data Type: Original

-----  
Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	198.0 kPa	0.75 L/min

-----  
Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1847459.6	3331.76	0.18%	97.78	%
ScR 361.383	245945.1	1766.62	0.72%	93.25	%
Ba 233.527†	40113.5	572.27	1.43%	[10]	mg/L
Cd 228.802†	215522.5	1656.59	0.77%	[10]	mg/L
Co 228.616†	216858.7	1478.60	0.68%	[10]	mg/L
Cr 267.716†	51772.4	770.91	1.49%	[10]	mg/L
Cu 324.752†	2786127.8	13435.96	0.48%	[10]	mg/L
Mn 257.610†	369466.2	5564.55	1.51%	[10]	mg/L
V 292.402†	818176.6	9249.52	1.13%	[10]	mg/L

Sequence No.: 2  
Sample ID: STD3

Date Collected: 1/18/2010 1:20:38 PM  
Data Type: Original

## Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

## Mean Data: STD3

Analyte	Mean Corrected			Calib
	Intensity	Std.Dev.	RSD	
ScA 357.253	1819754.9	15405.79	0.85%	96.32 %
ScR 361.383	258051.6	2229.01	0.86%	97.84 %
Ag 328.068†	147447.0	1256.39	0.85%	[1.0] mg/L
As 188.979†	10788.8	88.97	0.82%	[10] mg/L
B 249.677†	50895.6	665.34	1.31%	[10] mg/L
Be 313.042†	2994900.5	16233.99	0.54%	[5.0] mg/L
Na 589.592†	605540.8	4305.77	0.71%	[50] mg/L
Ni 231.604†	23099.5	252.11	1.09%	[10] mg/L
Pb 220.353†	46709.1	399.93	0.86%	[10] mg/L
Se 196.026†	8363.8	64.10	0.77%	[10] mg/L
Sr 421.552†	2699531.9	19422.45	0.72%	[5] mg/L
Tl 190.801†	14039.2	112.72	0.80%	[10] mg/L
Zn 206.200†	11542.6	183.55	1.59%	[10] mg/L

=====  
Analysis Begun

Start Time: 1/18/2010 1:26:03 PM

Plasma On Time: 1/18/2010 7:29:15 AM

Logged In Analyst: metals

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif

Batch ID:

Results Data Set: I2100118

Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 7

Sample ID: CV 4

Date Collected: 1/18/2010 1:26:04 PM

Analyst: ALA

Data Type: Original

Dilution: 1X

-----  
Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

-----  
Mean Data: CV

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1853107.7	98.08	%	1.664				1.70%
ScR 361.383	264491.0	100.3	%	1.76				1.76%
Ag 328.068†	148196.4	1.005	mg/L	0.0105	1.005	mg/L	0.0105	1.05%
Al 308.215†	3565.2	2.056	mg/L	0.0481	2.056	mg/L	0.0481	2.34%
As 188.979†	2115.9	1.981	mg/L	0.0242	1.981	mg/L	0.0242	1.22%
B 249.677†	5019.7	0.9847	mg/L	0.01755	0.9847	mg/L	0.01755	1.78%
Ba 233.527†	3789.3	0.9439	mg/L	0.02088	0.9439	mg/L	0.02088	2.21%
Be 313.042†	568807.1	0.9491	mg/L	0.01190	0.9491	mg/L	0.01190	1.25%
Ca 317.933†	30849.3	2.060	mg/L	0.0269	2.060	mg/L	0.0269	1.30%
Cd 228.802†	21933.7	1.011	mg/L	0.0132	1.011	mg/L	0.0132	1.31%
Co 228.616†	21270.2	0.9789	mg/L	0.01081	0.9789	mg/L	0.01081	1.10%
Cr 267.716†	4863.8	0.9389	mg/L	0.01930	0.9389	mg/L	0.01930	2.06%
Cu 324.752†	283291.3	1.016	mg/L	0.0102	1.016	mg/L	0.0102	1.00%
Fe 273.955†	2560.6	2.078	mg/L	0.0444	2.078	mg/L	0.0444	2.13%
K 766.490†	24578.9	20.26	mg/L	0.141	20.26	mg/L	0.141	0.69%
Mg 279.077†	2607.6	2.071	mg/L	0.0421	2.071	mg/L	0.0421	2.03%
Mn 257.610†	33080.7	0.8959	mg/L	0.00822	0.8959	mg/L	0.00822	0.92%
Mo 202.031†	11576.6	1.003	mg/L	0.0146	1.003	mg/L	0.0146	1.46%
Na 589.592†	592708.2	48.94	mg/L	0.566	48.94	mg/L	0.566	1.16%
Na 330.237†	1394.8	52.66	mg/L	0.968	52.66	mg/L	0.968	1.84%
Ni 231.604†	2254.6	0.9775	mg/L	0.02022	0.9775	mg/L	0.02022	2.07%
Pb 220.353†	9607.0	2.058	mg/L	0.0326	2.058	mg/L	0.0326	1.59%
Sb 206.836†	3897.5	2.039	mg/L	0.0297	2.039	mg/L	0.0297	1.46%
Se 196.026†	1668.5	1.995	mg/L	0.0266	1.995	mg/L	0.0266	1.33%
Si 288.158†	4364.4	2.155	mg/L	0.0374	2.155	mg/L	0.0374	1.74%
Sn 189.927†	2550.7	1.015	mg/L	0.0149	1.015	mg/L	0.0149	1.47%
Sr 421.552†	527376.5	0.9768	mg/L	0.00899	0.9768	mg/L	0.00899	0.92%
Ti 334.903†	19905.3	1.040	mg/L	0.0098	1.040	mg/L	0.0098	0.94%
Tl 190.801†	2813.9	2.005	mg/L	0.0313	2.005	mg/L	0.0313	1.56%
V 292.402†	81945.1	1.005	mg/L	0.0099	1.005	mg/L	0.0099	0.99%
Zn 206.200†	1116.2	0.9658	mg/L	0.02182	0.9658	mg/L	0.02182	2.26%

Sequence No.: 2  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 1:29:45 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1824601.4	96.58	%	0.494			0.51%
ScR 361.383	255635.9	96.93	%	0.316			0.33%
Ag 328.068†	0.2	0.00000	mg/L	0.000050	0.00000	mg/L	0.000050 >999.9%
Al 308.215†	-1.6	-0.00096	mg/L	0.001318	-0.00096	mg/L	0.001318 137.03%
As 188.979†	2.8	0.00256	mg/L	0.002429	0.00256	mg/L	0.002429 94.89%
B 249.677†	35.3	0.00693	mg/L	0.000880	0.00693	mg/L	0.000880 12.70%
Ba 233.527†	3.3	0.00081	mg/L	0.000371	0.00081	mg/L	0.000371 45.77%
Be 313.042†	45.4	0.00008	mg/L	0.000061	0.00008	mg/L	0.000061 80.12%
Ca 317.933†	22.5	0.00150	mg/L	0.000690	0.00150	mg/L	0.000690 45.86%
Cd 228.802†	-1.1	-0.00006	mg/L	0.000270	-0.00006	mg/L	0.000270 457.75%
Co 228.616†	7.5	0.00034	mg/L	0.000172	0.00034	mg/L	0.000172 49.84%
Cr 267.716†	-2.2	-0.00042	mg/L	0.001154	-0.00042	mg/L	0.001154 276.22%
Cu 324.752†	115.1	0.00041	mg/L	0.000093	0.00041	mg/L	0.000093 22.62%
Fe 273.955†	1.4	0.00110	mg/L	0.001146	0.00110	mg/L	0.001146 103.94%
K 766.490†	-47.2	-0.03891	mg/L	0.026787	-0.03891	mg/L	0.026787 68.84%
Mg 279.077†	6.6	0.00521	mg/L	0.003657	0.00521	mg/L	0.003657 70.20%
Mn 257.610†	2.5	0.00007	mg/L	0.000196	0.00007	mg/L	0.000196 288.43%
Mo 202.031†	8.0	0.00070	mg/L	0.000427	0.00070	mg/L	0.000427 61.29%
Na 589.592†	25.7	0.00212	mg/L	0.003182	0.00212	mg/L	0.003182 149.99%
Na 330.237†	-3.3	-0.1253	mg/L	0.27441	-0.1253	mg/L	0.27441 219.05%
Ni 231.604†	2.7	0.00116	mg/L	0.001036	0.00116	mg/L	0.001036 89.22%
Pb 220.353†	11.6	0.00248	mg/L	0.000952	0.00248	mg/L	0.000952 38.29%
Sb 206.836†	7.2	0.00376	mg/L	0.001244	0.00376	mg/L	0.001244 33.05%
Se 196.026†	-2.5	-0.00295	mg/L	0.001166	-0.00295	mg/L	0.001166 39.48%
Si 288.158†	-2.3	-0.00111	mg/L	0.002035	-0.00111	mg/L	0.002035 183.46%
Sn 189.927†	-1.0	-0.00039	mg/L	0.001026	-0.00039	mg/L	0.001026 264.25%
Sr 421.552†	-52.3	-0.00010	mg/L	0.000029	-0.00010	mg/L	0.000029 29.90%
Ti 334.903†	-6.5	-0.00034	mg/L	0.000159	-0.00034	mg/L	0.000159 46.49%
Tl 190.801†	5.3	0.00381	mg/L	0.000507	0.00381	mg/L	0.000507 13.31%
V 292.402†	-9.8	-0.00012	mg/L	0.000220	-0.00012	mg/L	0.000220 181.58%
Zn 206.200†	1.1	0.00099	mg/L	0.001637	0.00099	mg/L	0.001637 166.01%



Sequence No.: 3  
 Sample ID: QE56 MB1 SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 344  
 Date Collected: 1/18/2010 1:33:24 PM  
 Data Type: Original

Nebulizer Parameters: QE56 MB1 SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

Mean Data: QE56 MB1 SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1837497.6	97.26	%	0.774				0.80%
ScR 361.383	257637.1	97.69	%	0.452				0.46%
Ag 328.068†	-1.6	-0.00001	mg/L	0.000111	-0.00002	mg/L	0.000222	>999.9%
Al 308.215†	494.1	0.2895	mg/L	0.00681	0.5789	mg/L	0.01362	2.35%
As 188.979†	1.0	0.00124	mg/L	0.002908	0.00249	mg/L	0.005816	233.69%
B 249.677†	21.2	0.00417	mg/L	0.000957	0.00833	mg/L	0.001914	22.97%
Ba 233.527†	3.3	0.00082	mg/L	0.000901	0.00164	mg/L	0.001802	109.58%
Be 313.042†	30.1	0.00005	mg/L	0.000011	0.00010	mg/L	0.000023	22.68%
Ca 317.933†	4345.6	0.2902	mg/L	0.00394	0.5804	mg/L	0.00788	1.36%
Cd 228.802†	-2.2	-0.00010	mg/L	0.000147	-0.00021	mg/L	0.000293	142.13%
Co 228.616†	7.4	0.00032	mg/L	0.000031	0.00064	mg/L	0.000061	9.62%
Cr 267.716†	-1.9	-0.00039	mg/L	0.000642	-0.00079	mg/L	0.001284	162.93%
Cu 324.752†	145.8	0.00052	mg/L	0.000195	0.00103	mg/L	0.000390	37.78%
Fe 273.955†	7.7	0.00630	mg/L	0.001288	0.01259	mg/L	0.002576	20.46%
K 766.490†	-27.1	-0.02232	mg/L	0.013155	-0.04464	mg/L	0.026311	58.94%
Mg 279.077†	117.4	0.09294	mg/L	0.006193	0.1859	mg/L	0.01239	6.66%
Mn 257.610†	12.5	0.00033	mg/L	0.000056	0.00067	mg/L	0.000111	16.63%
Mo 202.031†	7.5	0.00065	mg/L	0.000211	0.00129	mg/L	0.000423	32.66%
Na 589.592†	938.1	0.07746	mg/L	0.003337	0.1549	mg/L	0.00667	4.31%
Na 330.237†	2.1	0.07908	mg/L	1.022451	0.1582	mg/L	2.04490	>999.9%
Ni 231.604†	0.9	0.00037	mg/L	0.001624	0.00075	mg/L	0.003249	435.95%
Pb 220.353†	13.2	0.00288	mg/L	0.001335	0.00576	mg/L	0.002670	46.34%
Sb 206.836†	1.7	0.00091	mg/L	0.000156	0.00183	mg/L	0.000312	17.09%
Se 196.026†	-0.6	-0.00068	mg/L	0.004204	-0.00135	mg/L	0.008408	620.96%
Si 288.158†	34.8	0.01718	mg/L	0.001460	0.03436	mg/L	0.002921	8.50%
Sn 189.927†	0.5	0.00023	mg/L	0.000890	0.00046	mg/L	0.001780	383.43%
Sr 421.552†	131.3	0.00024	mg/L	0.000067	0.00049	mg/L	0.000133	27.34%
Ti 334.903†	274.0	0.01431	mg/L	0.000114	0.02863	mg/L	0.000228	0.80%
Tl 190.801†	2.3	0.00166	mg/L	0.002115	0.00333	mg/L	0.004229	127.06%
V 292.402†	-10.4	-0.00014	mg/L	0.000284	-0.00028	mg/L	0.000568	206.15%
Zn 206.200†	23.8	0.02060	mg/L	0.001245	0.04121	mg/L	0.002490	6.04%

Sequence No.: 4  
Sample ID: QF10 MB1 SWC  
Analyst: ALA  
Dilution: 2X

Autosampler Location: 345  
Date Collected: 1/18/2010 1:37:03 PM  
Data Type: Original

## Nebulizer Parameters: QF10 MB1 SWC

Analyte	Back Pressure	Flow
All	198.0 kPa	0.75 L/min

## Mean Data: QF10 MB1 SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
ScA 357.253	1839101.0		97.34 %	0.502			0.52%
ScR 361.383	256977.8		97.44 %	0.378			0.39%
Ag 328.068†	15.7	0.00011	mg/L	0.000241	0.00021	mg/L	0.000482 224.58%
Al 308.215†	456.5	0.2675	mg/L	0.00665	0.5349	mg/L	0.01329 2.48%
As 188.979†	0.2	0.00046	mg/L	0.000669	0.00093	mg/L	0.001339 144.47%
B 249.677†	13.8	0.00271	mg/L	0.000965	0.00543	mg/L	0.001931 35.58%
Ba 233.527†	1.7	0.00044	mg/L	0.000612	0.00088	mg/L	0.001223 139.74%
Be 313.042†	-0.5	0.00000	mg/L	0.000046	0.00000	mg/L	0.000091 >999.9%
Ca 317.933†	4273.8	0.2854	mg/L	0.00367	0.5708	mg/L	0.00734 1.29%
Cd 228.802†	-0.6	-0.00003	mg/L	0.000122	-0.00006	mg/L	0.000244 437.42%
Co 228.616†	9.4	0.00041	mg/L	0.000179	0.00082	mg/L	0.000357 43.58%
Cr 267.716†	3.4	0.00064	mg/L	0.001249	0.00128	mg/L	0.002498 194.50%
Cu 324.752†	54.4	0.00019	mg/L	0.000124	0.00038	mg/L	0.000247 65.63%
Fe 273.955†	4.9	0.00403	mg/L	0.002104	0.00805	mg/L	0.004207 52.24%
K 766.490†	-19.1	-0.01577	mg/L	0.014425	-0.03154	mg/L	0.028850 91.46%
Mg 279.077†	115.8	0.09173	mg/L	0.004288	0.1835	mg/L	0.00858 4.67%
Mn 257.610†	9.0	0.00024	mg/L	0.000041	0.00048	mg/L	0.000082 17.01%
Mo 202.031†	2.7	0.00023	mg/L	0.000145	0.00045	mg/L	0.000290 64.07%
Na 589.592†	926.6	0.07651	mg/L	0.003160	0.1530	mg/L	0.00632 4.13%
Na 330.237†	4.9	0.1823	mg/L	0.07179	0.3646	mg/L	0.14359 39.38%
Ni 231.604†	2.1	0.00093	mg/L	0.002481	0.00186	mg/L	0.004962 267.10%
Pb 220.353†	5.9	0.00130	mg/L	0.000679	0.00260	mg/L	0.001358 52.18%
Sb 206.836†	-0.1	-0.00002	mg/L	0.000648	-0.00004	mg/L	0.001295 >999.9%
Se 196.026†	-4.3	-0.00511	mg/L	0.001976	-0.01022	mg/L	0.003952 38.66%
Si 288.158†	36.4	0.01793	mg/L	0.007255	0.03585	mg/L	0.014509 40.47%
Sn 189.927†	1.9	0.00078	mg/L	0.000915	0.00156	mg/L	0.001830 116.93%
Sr 421.552†	109.0	0.00020	mg/L	0.000022	0.00040	mg/L	0.000043 10.66%
Ti 334.903†	258.8	0.01352	mg/L	0.000798	0.02704	mg/L	0.001596 5.90%
Tl 190.801†	3.8	0.00268	mg/L	0.002389	0.00536	mg/L	0.004778 89.11%
V 292.402†	6.5	0.00007	mg/L	0.000115	0.00015	mg/L	0.000230 156.45%
Zn 206.200†	29.2	0.02526	mg/L	0.000858	0.05053	mg/L	0.001716 3.40%

Sequence No.: 5  
 Sample ID: QF10 B SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 346  
 Date Collected: 1/18/2010 1:40:41 PM  
 Data Type: Original

Nebulizer Parameters: QF10 B SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

Mean Data: QF10 B SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1841882.9	97.49	%	0.808			0.83%
ScR 361.383	271471.6	102.9	%	1.49			1.44%
Ag 328.068†	-90.3	-0.00070	mg/L	0.000178	-0.00140 mg/L	0.000357	25.41%
Al 308.215†	174701.9	102.3	mg/L	0.34	204.7 mg/L	0.69	0.34%
As 188.979†	-127.0	0.02948	mg/L	0.004141	0.05897 mg/L	0.008281	14.04%
B 249.677†	85.0	0.01652	mg/L	0.001933	0.03305 mg/L	0.003866	11.70%
Ba 233.527†	1652.6	0.3904	mg/L	0.00645	0.7809 mg/L	0.01291	1.65%
Be 313.042†	960.6	0.00131	mg/L	0.000054	0.00261 mg/L	0.000108	4.13%
Ca 317.933†	698629.3	46.66	mg/L	0.199	93.31 mg/L	0.399	0.43%
Cd 228.802†	49.3	0.00282	mg/L	0.000247	0.00564 mg/L	0.000494	8.76%
Co 228.616†	1682.8	0.06297	mg/L	0.000502	0.1259 mg/L	0.00100	0.80%
Cr 267.716†	1405.2	0.2718	mg/L	0.00430	0.5436 mg/L	0.00860	1.58%
Cu 324.752†	57107.9	0.2167	mg/L	0.00163	0.4333 mg/L	0.00326	0.75%
Fe 273.955†	229395.0	186.7	mg/L	0.88	373.4 mg/L	1.75	0.47%
K 766.490†	8017.5	6.608	mg/L	0.0574	13.22 mg/L	0.115	0.87%
Mg 279.077†	80472.0	63.65	mg/L	0.288	127.3 mg/L	0.58	0.45%
Mn 257.610†	80366.2	2.176	mg/L	0.0071	4.351 mg/L	0.0142	0.33%
Mo 202.031†	88.7	0.00701	mg/L	0.000763	0.01402 mg/L	0.001526	10.88%
Na 589.592†	42003.5	3.468	mg/L	0.0033	6.937 mg/L	0.0066	0.09%
Na 330.237†	56.4	3.724	mg/L	0.2664	7.448 mg/L	0.5328	7.15%
Ni 231.604†	589.1	0.2550	mg/L	0.00225	0.5100 mg/L	0.00450	0.88%
Pb 220.353†	1136.2	0.2471	mg/L	0.00137	0.4943 mg/L	0.00275	0.56%
Sb 206.836†	15.7	0.01461	mg/L	0.005635	0.02923 mg/L	0.011271	38.56%
Se 196.026†	22.6	0.02362	mg/L	0.007588	0.04724 mg/L	0.015177	32.12%
Si 288.158†	1765.3	0.8702	mg/L	0.01932	1.740 mg/L	0.0386	2.22%
Sn 189.927†	-12.5	-0.00040	mg/L	0.001785	-0.00079 mg/L	0.003569	451.37%
Sr 421.552†	112702.2	0.2087	mg/L	0.00086	0.4175 mg/L	0.00171	0.41%
Ti 334.903†	134431.2	7.031	mg/L	0.0299	14.06 mg/L	0.060	0.43%
Tl 190.801†	-24.7	0.01204	mg/L	0.003066	0.02408 mg/L	0.006133	25.47%
V 292.402†	31798.7	0.3662	mg/L	0.00365	0.7324 mg/L	0.00730	1.00%
Zn 206.200†	1255.6	1.080	mg/L	0.0185	2.161 mg/L	0.0369	1.71%

Sequence No.: 6  
 Sample ID: QE56 C SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 347  
 Date Collected: 1/18/2010 1:44:19 PM  
 Data Type: Original

## Nebulizer Parameters: QE56 C SWC

Analyte	Back Pressure	Flow
All	198.0 kPa	0.75 L/min

## Mean Data: QE56 C SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1858800.0	98.39	%	0.662			0.67%
ScR 361.383	259095.4	98.24	%	0.412			0.42%
Ag 328.068†	130.7	0.00088	mg/L	0.000142	0.00177	mg/L	0.000285 16.11%
Al 308.215†	52076.2	30.51	mg/L	0.225	61.02	mg/L	0.449 0.74%
As 188.979†	4.3	0.03839	mg/L	0.001773	0.07678	mg/L	0.003547 4.62%
B 249.677†	321.9	0.06321	mg/L	0.001299	0.1264	mg/L	0.00260 2.06%
Ba 233.527†	1445.3	0.3551	mg/L	0.00213	0.7102	mg/L	0.00426 0.60%
Be 313.042†	435.6	0.00064	mg/L	0.000009	0.00128	mg/L	0.000017 1.37%
Ca 317.933†	309655.8	20.68	mg/L	0.121	41.36	mg/L	0.243 0.59%
Cd 228.802†	81.5	0.00382	mg/L	0.000255	0.00763	mg/L	0.000510 6.68%
Co 228.616†	423.8	0.01601	mg/L	0.000216	0.03201	mg/L	0.000432 1.35%
Cr 267.716†	1048.4	0.2036	mg/L	0.00147	0.4072	mg/L	0.00294 0.72%
Cu 324.752†	126930.6	0.4586	mg/L	0.00554	0.9172	mg/L	0.01107 1.21%
Fe 273.955†	55666.4	45.30	mg/L	0.280	90.61	mg/L	0.559 0.62%
K 766.490†	3188.5	2.628	mg/L	0.0148	5.256	mg/L	0.0296 0.56%
Mg 279.077†	10807.2	8.536	mg/L	0.0598	17.07	mg/L	0.120 0.70%
Mn 257.610†	17083.1	0.4626	mg/L	0.00278	0.9252	mg/L	0.00556 0.60%
Mo 202.031†	143.6	0.01214	mg/L	0.000456	0.02428	mg/L	0.000911 3.75%
Na 589.592†	15680.0	1.295	mg/L	0.0088	2.589	mg/L	0.0177 0.68%
Na 330.237†	34.7	1.096	mg/L	0.1398	2.191	mg/L	0.2797 12.76%
Ni 231.604†	205.3	0.08890	mg/L	0.001062	0.1778	mg/L	0.00212 1.19%
Pb 220.353†	2533.4	0.5440	mg/L	0.00757	1.088	mg/L	0.0151 1.39%
Sb 206.836†	14.2	0.00772	mg/L	0.000553	0.01543	mg/L	0.001106 7.17%
Se 196.026†	7.5	0.00848	mg/L	0.001740	0.01697	mg/L	0.003480 20.51%
Si 288.158†	1965.2	0.9688	mg/L	0.00402	1.938	mg/L	0.0080 0.42%
Sn 189.927†	24.8	0.01124	mg/L	0.000563	0.02247	mg/L	0.001126 5.01%
Sr 421.552†	64881.2	0.1202	mg/L	0.00076	0.2403	mg/L	0.00152 0.63%
Ti 334.903†	32051.0	1.676	mg/L	0.0099	3.351	mg/L	0.0198 0.59%
Tl 190.801†	0.6	0.00745	mg/L	0.001314	0.01489	mg/L	0.002627 17.64%
V 292.402†	10086.3	0.1184	mg/L	0.00149	0.2367	mg/L	0.00298 1.26%
Zn 206.200†	3135.8	2.714	mg/L	0.0083	5.428	mg/L	0.0167 0.31%

Sequence No.: 7

Autosampler Location: 348

Sample ID: QE56 D SWC

Date Collected: 1/18/2010 1:53:24 PM

Analyst: ALA

Data Type: Original

Dilution: 2X

## Nebulizer Parameters: QE56 D SWC

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

## Mean Data: QE56 D SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1849725.4	97.90	%	0.663			0.68%
ScR 361.383	259433.4	98.37	%	0.214			0.22%
Ag 328.068†	30.4	0.00022	mg/L	0.000157	0.00043	mg/L	0.000314 72.69%
Al 308.215†	49812.2	29.18	mg/L	0.174	58.36	mg/L	0.347 0.59%
As 188.979†	-3.9	0.03118	mg/L	0.002113	0.06235	mg/L	0.004225 6.78%
B 249.677†	124.0	0.02434	mg/L	0.000445	0.04868	mg/L	0.000890 1.83%
Ba 233.527†	1142.5	0.2806	mg/L	0.00157	0.5612	mg/L	0.00315 0.56%
Be 313.042†	400.7	0.00059	mg/L	0.000022	0.00117	mg/L	0.000044 3.77%
Ca 317.933†	277733.8	18.55	mg/L	0.193	37.10	mg/L	0.386 1.04%
Cd 228.802†	49.4	0.00234	mg/L	0.000262	0.00468	mg/L	0.000523 11.17%
Co 228.616†	361.2	0.01323	mg/L	0.000139	0.02645	mg/L	0.000277 1.05%
Cr 267.716†	1264.7	0.2449	mg/L	0.00126	0.4898	mg/L	0.00252 0.51%
Cu 324.752†	54489.4	0.1979	mg/L	0.00214	0.3958	mg/L	0.00428 1.08%
Fe 273.955†	45412.1	36.96	mg/L	0.204	73.92	mg/L	0.407 0.55%
K 766.490†	3311.8	2.730	mg/L	0.0268	5.459	mg/L	0.0536 0.98%
Mg 279.077†	10970.2	8.670	mg/L	0.0447	17.34	mg/L	0.089 0.52%
Mn 257.610†	14526.6	0.3934	mg/L	0.00351	0.7867	mg/L	0.00702 0.89%
Mo 202.031†	145.9	0.01237	mg/L	0.000631	0.02473	mg/L	0.001262 5.10%
Na 589.592†	13121.4	1.083	mg/L	0.0048	2.167	mg/L	0.0096 0.45%
Na 330.237†	20.2	0.9706	mg/L	0.22493	1.941	mg/L	0.4499 23.17%
Ni 231.604†	163.5	0.07079	mg/L	0.001962	0.1416	mg/L	0.00392 2.77%
Pb 220.353†	3161.2	0.6792	mg/L	0.00425	1.358	mg/L	0.0085 0.63%
Sb 206.836†	14.0	0.00710	mg/L	0.001310	0.01420	mg/L	0.002620 18.45%
Se 196.026†	7.7	0.00876	mg/L	0.002750	0.01751	mg/L	0.005500 31.40%
Si 288.158†	1918.7	0.9458	mg/L	0.01646	1.892	mg/L	0.0329 1.74%
Sn 189.927†	13.8	0.00681	mg/L	0.001100	0.01362	mg/L	0.002201 16.16%
Sr 421.552†	52683.6	0.09758	mg/L	0.000483	0.1952	mg/L	0.00097 0.49%
Ti 334.903†	32293.1	1.688	mg/L	0.0150	3.377	mg/L	0.0299 0.89%
Tl 190.801†	2.4	0.00743	mg/L	0.001451	0.01487	mg/L	0.002902 19.52%
V 292.402†	9187.1	0.1084	mg/L	0.00102	0.2168	mg/L	0.00205 0.94%
Zn 206.200†	1132.6	0.9788	mg/L	0.00479	1.958	mg/L	0.0096 0.49%

Sequence No.: 8  
 Sample ID: QE56 BDUP SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 349  
 Date Collected: 1/18/2010 1:55:59 PM  
 Data Type: Original

-----  
 Nebulizer Parameters: QE56 BDUP SWC

Analyte Back Pressure Flow  
 All 198.0 kPa 0.75 L/min

-----  
 Mean Data: QE56 BDUP SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1824988.1	96.60	%	0.726			0.75%
ScR 361.383	258216.1	97.91	%	0.603			0.62%
Ag 328.068†	147.0	0.00100	mg/L	0.000055	0.00199 mg/L	0.000111	5.55%
Al 308.215†	58553.3	34.30	mg/L	0.179	68.60 mg/L	0.358	0.52%
As 188.979†	-6.7	0.03312	mg/L	0.002765	0.06625 mg/L	0.005531	8.35%
B 249.677†	99.8	0.01958	mg/L	0.000464	0.03915 mg/L	0.000928	2.37%
Ba 233.527†	1377.8	0.3385	mg/L	0.00159	0.6770 mg/L	0.00317	0.47%
Be 313.042†	430.8	0.00062	mg/L	0.000033	0.00125 mg/L	0.000066	5.27%
Ca 317.933†	280438.5	18.73	mg/L	0.104	37.46 mg/L	0.209	0.56%
Cd 228.802†	130.4	0.00611	mg/L	0.000097	0.01223 mg/L	0.000194	1.59%
Co 228.616†	444.2	0.01660	mg/L	0.000359	0.03320 mg/L	0.000719	2.16%
Cr 267.716†	889.3	0.1727	mg/L	0.00167	0.3455 mg/L	0.00334	0.97%
Cu 324.752†	94495.0	0.3419	mg/L	0.00067	0.6838 mg/L	0.00134	0.20%
Fe 273.955†	53120.2	43.23	mg/L	0.236	86.46 mg/L	0.471	0.55%
K 766.490†	3727.0	3.072	mg/L	0.0233	6.144 mg/L	0.0465	0.76%
Mg 279.077†	11052.8	8.732	mg/L	0.0444	17.46 mg/L	0.089	0.51%
Mn 257.610†	18201.9	0.4928	mg/L	0.00257	0.9856 mg/L	0.00514	0.52%
Mo 202.031†	248.9	0.02129	mg/L	0.000184	0.04258 mg/L	0.000368	0.86%
Na 589.592†	19386.5	1.601	mg/L	0.0081	3.202 mg/L	0.0162	0.51%
Na 330.237†	51.1	1.393	mg/L	0.1060	2.785 mg/L	0.2120	7.61%
Ni 231.604†	194.1	0.08404	mg/L	0.000680	0.1681 mg/L	0.00136	0.81%
Pb 220.353†	2261.5	0.4867	mg/L	0.00451	0.9734 mg/L	0.00903	0.93%
Sb 206.836†	16.2	0.00939	mg/L	0.001199	0.01877 mg/L	0.002398	12.77%
Se 196.026†	6.2	0.00697	mg/L	0.002018	0.01394 mg/L	0.004036	28.94%
Si 288.158†	2047.1	1.009	mg/L	0.0081	2.018 mg/L	0.0163	0.81%
Sn 189.927†	27.3	0.01227	mg/L	0.000866	0.02455 mg/L	0.001731	7.05%
Sr 421.552†	56496.7	0.1046	mg/L	0.00079	0.2093 mg/L	0.00159	0.76%
Ti 334.903†	36307.4	1.898	mg/L	0.0122	3.797 mg/L	0.0243	0.64%
Tl 190.801†	1.5	0.00788	mg/L	0.002636	0.01577 mg/L	0.005271	33.43%
V 292.402†	10904.2	0.1283	mg/L	0.00058	0.2567 mg/L	0.00116	0.45%
Zn 206.200†	4936.0	4.274	mg/L	0.0398	8.547 mg/L	0.0796	0.93%

Sequence No.: 9  
 Sample ID: QE56 B SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 350  
 Date Collected: 1/18/2010 1:57:29 PM  
 Data Type: Original

## Nebulizer Parameters: QE56 B SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QE56 B SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1847973.5	97.81	%	0.748			0.76%
ScR 361.383	257490.8	97.63	%	0.109			0.11%
Ag 328.068†	124.4	0.00084	mg/L	0.000250	0.00168	mg/L	0.000500 29.73%
Al 308.215†	62467.3	36.60	mg/L	0.214	73.19	mg/L	0.428 0.58%
As 188.979†	-6.8	0.03583	mg/L	0.002517	0.07165	mg/L	0.005034 7.03%
B 249.677†	102.6	0.02011	mg/L	0.000322	0.04022	mg/L	0.000645 1.60%
Ba 233.527†	1494.4	0.3669	mg/L	0.00204	0.7339	mg/L	0.00407 0.55%
Be 313.042†	494.2	0.00072	mg/L	0.000024	0.00144	mg/L	0.000048 3.30%
Ca 317.933†	309410.7	20.66	mg/L	0.190	41.33	mg/L	0.381 0.92%
Cd 228.802†	139.3	0.00653	mg/L	0.000215	0.01306	mg/L	0.000431 3.30%
Co 228.616†	483.4	0.01809	mg/L	0.000152	0.03618	mg/L	0.000304 0.84%
Cr 267.716†	972.1	0.1889	mg/L	0.00191	0.3779	mg/L	0.00382 1.01%
Cu 324.752†	105140.0	0.3805	mg/L	0.00287	0.7610	mg/L	0.00574 0.75%
Fe 273.955†	60026.3	48.85	mg/L	0.414	97.70	mg/L	0.828 0.85%
K 766.490†	3509.3	2.892	mg/L	0.0455	5.785	mg/L	0.0909 1.57%
Mg 279.077†	12007.3	9.485	mg/L	0.0656	18.97	mg/L	0.131 0.69%
Mn 257.610†	20238.9	0.5480	mg/L	0.00362	1.096	mg/L	0.0072 0.66%
Mo 202.031†	201.1	0.01712	mg/L	0.000301	0.03423	mg/L	0.000602 1.76%
Na 589.592†	19517.4	1.612	mg/L	0.0083	3.223	mg/L	0.0165 0.51%
Na 330.237†	49.8	1.261	mg/L	0.0880	2.521	mg/L	0.1759 6.98%
Ni 231.604†	212.4	0.09195	mg/L	0.001693	0.1839	mg/L	0.00339 1.84%
Pb 220.353†	2459.9	0.5291	mg/L	0.00427	1.058	mg/L	0.0085 0.81%
Sb 206.836†	13.9	0.00824	mg/L	0.003388	0.01648	mg/L	0.006776 41.11%
Se 196.026†	5.9	0.00657	mg/L	0.001959	0.01313	mg/L	0.003918 29.84%
Si 288.158†	2696.9	1.330	mg/L	0.0058	2.659	mg/L	0.0116 0.44%
Sn 189.927†	28.9	0.01303	mg/L	0.000208	0.02605	mg/L	0.000416 1.60%
Sr 421.552†	61068.2	0.1131	mg/L	0.00098	0.2262	mg/L	0.00195 0.86%
Ti 334.903†	38971.1	2.038	mg/L	0.0160	4.075	mg/L	0.0320 0.79%
Tl 190.801†	-3.3	0.00529	mg/L	0.001885	0.01059	mg/L	0.003769 35.61%
V 292.402†	11707.9	0.1376	mg/L	0.00084	0.2751	mg/L	0.00169 0.61%
Zn 206.200†	5520.8	4.780	mg/L	0.0274	9.560	mg/L	0.0549 0.57%

Sequence No.: 10  
 Sample ID: QE56 BSPK SWC  
 Analyst: ALA  
 Dilution: 2X

Autosampler Location: 351  
 Date Collected: 1/18/2010 1:58:59 PM  
 Data Type: Original

## Nebulizer Parameters: QE56 BSPK SWC

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

## Mean Data: QE56 BSPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1835084.3	97.13 %	0.473			0.49%
ScR 361.383	267476.9	101.4 %	0.49			0.48%
Ag 328.068†	73999.9	0.5019 mg/L	0.00229	1.004 mg/L	0.0046	0.46%
Al 308.215†	50956.8	29.84 mg/L	0.224	59.69 mg/L	0.449	0.75%
As 188.979†	1867.5	1.764 mg/L	0.0104	3.528 mg/L	0.0208	0.59%
B 249.677†	102.0	0.01902 mg/L	0.001289	0.03804 mg/L	0.002577	6.77%
Ba 233.527†	7323.8	1.821 mg/L	0.0145	3.642 mg/L	0.0289	0.79%
Be 313.042†	236308.2	0.3942 mg/L	0.00355	0.7884 mg/L	0.00710	0.90%
Ca 317.933†	361934.1	24.17 mg/L	0.216	48.34 mg/L	0.433	0.90%
Cd 228.802†	9945.9	0.4558 mg/L	0.00139	0.9116 mg/L	0.00279	0.31%
Co 228.616†	9443.1	0.4318 mg/L	0.00147	0.8635 mg/L	0.00293	0.34%
Cr 267.716†	2711.9	0.5232 mg/L	0.00508	1.046 mg/L	0.0102	0.97%
Cu 324.752†	204622.9	0.7369 mg/L	0.00114	1.474 mg/L	0.0023	0.15%
Fe 273.955†	47915.3	38.99 mg/L	0.310	77.99 mg/L	0.621	0.80%
K 766.490†	13521.1	11.14 mg/L	0.055	22.29 mg/L	0.110	0.49%
Mg 279.077†	20542.1	16.25 mg/L	0.157	32.50 mg/L	0.313	0.96%
Mn 257.610†	30330.3	0.8215 mg/L	0.00842	1.643 mg/L	0.0168	1.02%
Mo 202.031†	169.8	0.01436 mg/L	0.000393	0.02872 mg/L	0.000786	2.74%
Na 589.592†	120052.9	9.913 mg/L	0.0664	19.83 mg/L	0.133	0.67%
Na 330.237†	295.8	10.63 mg/L	0.461	21.26 mg/L	0.922	4.34%
Ni 231.604†	1082.7	0.4687 mg/L	0.00570	0.9375 mg/L	0.01141	1.22%
Pb 220.353†	10460.3	2.242 mg/L	0.0121	4.483 mg/L	0.0241	0.54%
Sb 206.836†	19.0	0.00815 mg/L	0.002091	0.01630 mg/L	0.004182	25.65%
Se 196.026†	1502.9	1.796 mg/L	0.0093	3.592 mg/L	0.0185	0.52%
Si 288.158†	1610.8	0.7958 mg/L	0.01059	1.592 mg/L	0.0212	1.33%
Sn 189.927†	16.5	0.00802 mg/L	0.002052	0.01604 mg/L	0.004103	25.58%
Sr 421.552†	264215.1	0.4894 mg/L	0.00433	0.9787 mg/L	0.00867	0.89%
Ti 334.903†	31104.5	1.626 mg/L	0.0127	3.251 mg/L	0.0253	0.78%
Tl 190.801†	2530.3	1.807 mg/L	0.0133	3.614 mg/L	0.0266	0.74%
V 292.402†	43457.8	0.5282 mg/L	0.00265	1.056 mg/L	0.0053	0.50%
Zn 206.200†	4574.1	3.960 mg/L	0.0487	7.920 mg/L	0.0973	1.23%



User canceled analysis.

=====  
Analysis Begun

Start Time: 1/18/2010 2:03:02 PM

Plasma On Time: 1/18/2010 7:29:15 AM

Logged In Analyst: metals

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C8121202 Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0118.sif

Batch ID:

Results Data Set: I2100118

Results Library: C:\pe\metals\Results\Results.mdb

=====  
Sequence No.: 12

Autosampler Location: 353

Sample ID: QE56 MB1SPK SWC

Date Collected: 1/18/2010 2:03:03 PM

Analyst: ALA

Data Type: Original

Dilution: 2X

-----  
Nebulizer Parameters: QE56 MB1SPK SWC

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

-----  
Mean Data: QE56 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1856769.0	98.28 %	0.734			0.75%
ScR 361.383	271218.5	102.8 %	0.75			0.73%
Ag 328.068†	79138.0	0.5368 mg/L	0.00522	1.074 mg/L	0.0104	0.97%
Al 308.215†	3915.5	2.283 mg/L	0.0467	4.567 mg/L	0.0934	2.05%
As 188.979†	2193.2	2.033 mg/L	0.0146	4.065 mg/L	0.0291	0.72%
B 249.677†	10.5	0.00087 mg/L	0.001030	0.00175 mg/L	0.002060	118.02%
Ba 233.527†	7678.4	1.914 mg/L	0.0413	3.827 mg/L	0.0826	2.16%
Be 313.042†	291034.6	0.4856 mg/L	0.00687	0.9712 mg/L	0.01374	1.41%
Ca 317.933†	157358.6	10.51 mg/L	0.139	21.02 mg/L	0.277	1.32%
Cd 228.802†	11398.9	0.5222 mg/L	0.00624	1.044 mg/L	0.0125	1.19%
Co 228.616†	10986.3	0.5062 mg/L	0.00692	1.012 mg/L	0.0138	1.37%
Cr 267.716†	2519.5	0.4849 mg/L	0.01164	0.9699 mg/L	0.02329	2.40%
Cu 324.752†	139910.5	0.5023 mg/L	0.00180	1.005 mg/L	0.0036	0.36%
Fe 273.955†	2583.9	2.100 mg/L	0.0468	4.200 mg/L	0.0935	2.23%
K 766.490†	12421.9	10.24 mg/L	0.205	20.48 mg/L	0.411	2.01%
Mg 279.077†	12579.0	9.964 mg/L	0.1600	19.93 mg/L	0.320	1.61%
Mn 257.610†	16735.3	0.4534 mg/L	0.00716	0.9068 mg/L	0.01432	1.58%
Mo 202.031†	18.6	0.00146 mg/L	0.000454	0.00291 mg/L	0.000908	31.19%
Na 589.592†	119556.4	9.872 mg/L	0.1481	19.74 mg/L	0.296	1.50%
Na 330.237†	292.5	10.91 mg/L	0.101	21.83 mg/L	0.203	0.93%
Ni 231.604†	1152.3	0.4989 mg/L	0.01105	0.9977 mg/L	0.02209	2.21%
Pb 220.353†	9500.4	2.035 mg/L	0.0216	4.069 mg/L	0.0432	1.06%
Sb 206.836†	5.8	-0.00033 mg/L	0.001671	-0.00066 mg/L	0.003342	505.99%
Se 196.026†	1687.5	2.017 mg/L	0.0193	4.034 mg/L	0.0387	0.96%
Si 288.158†	24.7	0.01420 mg/L	0.004594	0.02841 mg/L	0.009188	32.34%
Sn 189.927†	-5.6	-0.00189 mg/L	0.000766	-0.00379 mg/L	0.001532	40.46%
Sr 421.552†	266395.7	0.4934 mg/L	0.00885	0.9868 mg/L	0.01770	1.79%
Ti 334.903†	245.8	0.01196 mg/L	0.000306	0.02391 mg/L	0.000612	2.56%
Tl 190.801†	2789.3	1.986 mg/L	0.0139	3.971 mg/L	0.0277	0.70%
V 292.402†	42034.0	0.5155 mg/L	0.00555	1.031 mg/L	0.0111	1.08%
Zn 206.200†	585.8	0.5065 mg/L	0.01310	1.013 mg/L	0.0262	2.59%

Sequence No.: 13  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 7  
 Date Collected: 1/18/2010 2:06:46 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	199.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
ScA 357.253	1851322.5		97.99 %	0.455			0.46%
ScR 361.383	259910.5		98.55 %	0.140			0.14%
Ag 328.068†	147247.0		0.9986 mg/L	0.00645	0.9986 mg/L	0.00645	0.65%
Al 308.215†	3660.4		2.112 mg/L	0.0042	2.112 mg/L	0.0042	0.20%
As 188.979†	2107.7		1.975 mg/L	0.0126	1.975 mg/L	0.0126	0.64%
B 249.677†	5108.4		1.002 mg/L	0.0020	1.002 mg/L	0.0020	0.20%
Ba 233.527†	3885.4		0.9679 mg/L	0.00157	0.9679 mg/L	0.00157	0.16%
Be 313.042†	572600.4		0.9554 mg/L	0.00983	0.9554 mg/L	0.00983	1.03%
Ca 317.933†	32028.5		2.139 mg/L	0.0095	2.139 mg/L	0.0095	0.45%
Cd 228.802†	22173.8		1.023 mg/L	0.0053	1.023 mg/L	0.0053	0.52%
Co 228.616†	21483.3		0.9886 mg/L	0.00646	0.9886 mg/L	0.00646	0.65%
Cr 267.716†	5008.5		0.9669 mg/L	0.00271	0.9669 mg/L	0.00271	0.28%
Cu 324.752†	282440.7		1.013 mg/L	0.0060	1.013 mg/L	0.0060	0.59%
Fe 273.955†	2628.6		2.133 mg/L	0.0041	2.133 mg/L	0.0041	0.19%
K 766.490†	25726.4		21.20 mg/L	0.146	21.20 mg/L	0.146	0.69%
Mg 279.077†	2680.7		2.129 mg/L	0.0134	2.129 mg/L	0.0134	0.63%
Mn 257.610†	34211.5		0.9265 mg/L	0.00378	0.9265 mg/L	0.00378	0.41%
Mo 202.031†	11512.4		0.9970 mg/L	0.00347	0.9970 mg/L	0.00347	0.35%
Na 589.592†	604031.0		49.88 mg/L	0.430	49.88 mg/L	0.430	0.86%
Na 330.237†	1424.9		53.79 mg/L	0.423	53.79 mg/L	0.423	0.79%
Ni 231.604†	2311.1		1.002 mg/L	0.0017	1.002 mg/L	0.0017	0.17%
Pb 220.353†	9551.4		2.046 mg/L	0.0055	2.046 mg/L	0.0055	0.27%
Sb 206.836†	3888.2		2.034 mg/L	0.0069	2.034 mg/L	0.0069	0.34%
Se 196.026†	1651.8		1.975 mg/L	0.0052	1.975 mg/L	0.0052	0.26%
Si 288.158†	4491.6		2.218 mg/L	0.0063	2.218 mg/L	0.0063	0.29%
Sn 189.927†	2520.7		1.004 mg/L	0.0028	1.004 mg/L	0.0028	0.28%
Sr 421.552†	549841.4		1.018 mg/L	0.0152	1.018 mg/L	0.0152	1.49%
Ti 334.903†	20569.1		1.075 mg/L	0.0035	1.075 mg/L	0.0035	0.33%
Tl 190.801†	2789.3		1.987 mg/L	0.0079	1.987 mg/L	0.0079	0.40%
V 292.402†	82845.6		1.016 mg/L	0.0093	1.016 mg/L	0.0093	0.91%
Zn 206.200†	1149.1		0.9943 mg/L	0.00452	0.9943 mg/L	0.00452	0.45%

Sequence No.: 14  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1X

Autosampler Location: 1  
 Date Collected: 1/18/2010 2:10:44 PM  
 Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 199.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1847491.3	97.79	%	0.441			0.45%
ScR 361.383	259077.8	98.23	%	0.395			0.40%
Ag 328.068†	12.4	0.00008	mg/L	0.000269	0.00008	mg/L	321.47%
Al 308.215†	2.4	0.00142	mg/L	0.007938	0.00142	mg/L	560.52%
As 188.979†	0.5	0.00042	mg/L	0.001324	0.00042	mg/L	318.39%
B 249.677†	15.6	0.00306	mg/L	0.001693	0.00306	mg/L	55.40%
Ba 233.527†	0.9	0.00022	mg/L	0.000679	0.00022	mg/L	303.21%
Be 313.042†	11.0	0.00002	mg/L	0.000015	0.00002	mg/L	81.51%
Ca 317.933†	32.3	0.00215	mg/L	0.001276	0.00215	mg/L	59.26%
Cd 228.802†	3.4	0.00016	mg/L	0.000242	0.00016	mg/L	154.76%
Co 228.616†	6.4	0.00029	mg/L	0.000201	0.00029	mg/L	68.29%
Cr 267.716†	0.5	0.00010	mg/L	0.000109	0.00010	mg/L	104.15%
Cu 324.752†	52.0	0.00019	mg/L	0.000135	0.00019	mg/L	72.29%
Fe 273.955†	2.3	0.00187	mg/L	0.000800	0.00187	mg/L	42.79%
K 766.490†	-34.5	-0.02844	mg/L	0.018258	-0.02844	mg/L	64.20%
Mg 279.077†	2.9	0.00233	mg/L	0.004669	0.00233	mg/L	200.59%
Mn 257.610†	6.0	0.00016	mg/L	0.000037	0.00016	mg/L	22.68%
Mo 202.031†	4.6	0.00040	mg/L	0.000126	0.00040	mg/L	31.30%
Na 589.592†	-40.7	-0.00336	mg/L	0.003399	-0.00336	mg/L	101.06%
Na 330.237†	12.0	0.4545	mg/L	0.54108	0.4545	mg/L	119.06%
Ni 231.604†	0.3	0.00013	mg/L	0.001733	0.00013	mg/L	>999.9%
Pb 220.353†	11.3	0.00242	mg/L	0.000110	0.00242	mg/L	4.54%
Sb 206.836†	5.0	0.00262	mg/L	0.001230	0.00262	mg/L	46.99%
Se 196.026†	-2.7	-0.00323	mg/L	0.000988	-0.00323	mg/L	30.65%
Si 288.158†	-7.2	-0.00354	mg/L	0.002731	-0.00354	mg/L	77.12%
Sn 189.927†	-1.7	-0.00066	mg/L	0.000923	-0.00066	mg/L	140.53%
Sr 421.552†	-9.2	-0.00002	mg/L	0.000020	-0.00002	mg/L	119.93%
Ti 334.903†	-10.7	-0.00056	mg/L	0.000717	-0.00056	mg/L	128.00%
Tl 190.801†	5.7	0.00406	mg/L	0.001434	0.00406	mg/L	35.31%
V 292.402†	12.8	0.00016	mg/L	0.000020	0.00016	mg/L	12.90%
Zn 206.200†	-1.3	-0.00110	mg/L	0.001282	-0.00110	mg/L	116.94%

Metals Analysis  
Prep Logs

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.



# SPIKING LOG

Sample ID QF10 ASPK, MB1SPK  
QES6 83PK, MB1SPK

Analyst: JM  
Date: 01-12-10

Final Volume 50  
Final Volume (Hg): \_\_\_\_\_

Prepcode:	ICP Routine	ICP No GFA	GFA
Spike Solution:	<u>3024-11</u>		
Standard No.:	<u>1.0</u>		
Vol Added (mL):			
Ag	50		2.0
Al	200	200	
As	200		10
Ba	200	200	
Be	50	50	
Ca	1000	1000	
Cd	50		2.0
Co	50	50	
Cr	50	50	
Cu	50	50	
Fe	200	200	
K	1000	1000	
Mg	1000	1000	
Mn	50	50	
Na	1000	1000	
Ni	50	50	
Pb	200		10
Se	200		10
Sr	50	50	
Tl	200		10
V	50	50	
Zn	50	50	

ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25	
Al		500
As	25	
Ba	25	
Be	25	
Ca		500
Cd	25	
Co	25	
Cr	25	
Cu	25	500
Fe		500
K		500
Mg		500
Mn	25	
Mo		
Na		
Ni	25	500
Pb	25	
Sb		
Se	80	
Tl	25	
U	25	
V	25	
Zn	80	

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.



# Digestion Log

Analyst: DM  
Matrix: Soil

Date: 1-12-10  
Block Temp: 90°C

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SNC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
QE75 A	1	-	1.037	50.0	1.054	50.0	
" MBI	-	-	-		-	50.0	
" MBSPK	-	-	-		-	50.0	
QE10 A	11	-	1.058				
" ADVP	11	-	1.061				
" ASPK	11	-	1.063				
" B	6	-	1.017				
" MBI	-	-	-				
" MBSPK	-	-	-				
QES6 B	5	-	1.045				
" BDVP	5	-	1.048				
" BSPK	5	-	1.046				
" C	5	-	1.032				
" D	5	-	1.022				
" MBI	-	-	-				
" MBSPK	-	-	-	50.0			
QE94 B	1	-			1.062	50.0	
" MB	-	-			-	50.0	
" MBSPK	-	-			-	50.0	

Chemical/Reagent ID:  
 HNO<sub>3</sub>: MP1812/IS277 HCl: I4949 H<sub>2</sub>O<sub>2</sub>: IS135 Tube Lot #: AP09LS164

General Chemistry Analysis  
QC Summary Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

METHOD BLANK RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized  
Reported: 01/15/10

A handwritten signature in black ink, appearing to be 'F. Snider', written over the 'Data Release Authorized' text.

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	01/11/10	Percent	< 0.01 U
Total Organic Carbon	01/13/10	Percent	< 0.020 U



LAB CONTROL RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized:  
Reported: 01/15/10


*Handwritten initials/signature*

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb, 1981	ICVL	01/13/10	Percent	0.099	0.100	99.0%

STANDARD REFERENCE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: NA  
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST #8704	01/13/10	Percent	3.50	3.35	104.5%

REPLICATE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized:  
Reported: 01/15/10



Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Analyte	Date	Units	Sample	Replicate (s)	RPD/RSD
ARI ID: QE56B Client ID: CB19010710Sed					
Total Solids	01/11/10	Percent	23.50	19.90 20.20	9.4%
Total Organic Carbon	01/13/10	Percent	40.7	41.7 31.2	15.3%

MS/MSD RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
---------	------	-------	--------	-------	-------------	----------

ARI ID: QE56B Client ID: CB19010710Sed

Total Organic Carbon	01/13/10	Percent	40.7	74.1	40.3	82.8%
----------------------	----------	---------	------	------	------	-------

General Chemistry Analysis  
Sample Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized  
Reported: 01/15/10

A handwritten signature in black ink, appearing to be 'Floyd Snider', written over the 'Data Release Authorized' text.

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Client ID: CB19010710Sed  
ARI ID: 10-433 QE56B

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/11/10 011110#1	EPA 160.3	Percent	0.01	23.50
Total Organic Carbon	01/13/10 011310#1	Plumb, 1981	Percent	0.192	40.7

RL Analytical reporting limit  
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

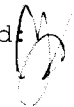
Client ID: CB12010710Sed  
ARI ID: 10-434 QE56C

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/11/10 011110#1	EPA 160.3	Percent	0.01	20.60
Total Organic Carbon	01/13/10 011310#1	Plumb, 1981	Percent	0.190	44.6

RL Analytical reporting limit  
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS  
QE56-Floyd-Snider



Matrix: Sediment  
Data Release Authorized:   
Reported: 01/15/10

Project: POS-LLA (Lora Lake Apts.)  
Event: POS-LLA  
Date Sampled: 01/07/10  
Date Received: 01/07/10

Client ID: CB2010710Sed  
ARI ID: 10-435 QE56D

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/11/10 011110#1	EPA 160.3	Percent	0.01	27.30
Total Organic Carbon	01/13/10 011310#1	Plumb, 1981	Percent	0.186	28.3

RL Analytical reporting limit  
U Undetected at reported detection limit



General Chemistry Analysis  
Instrument Raw Data

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.

1-12-10

**TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET**

**SOLIDS** (dry at 104 (12-24 hr) then combust at 550 (30 min)) DATE: 1/11/2010 ANALYST: CDE 17:02

**Instrumentation** Drying Ovens: 12 Analytical Balance: 1123230597 Muffle Furnace: N/A

**Batch drying time**  
 record times as mm/dd/yy hh:mm  
 1/11/2010 17:02 CDE  
 1/12/2010 9:50 CDE  
 elapsed hrs = 16.8

TS (%) calculated as:  
 Final dry wt (g) = (Dry Wt - Tare Wt)  
 TS = (Final Dry Wt)/(grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:  
 Final ash wt (g) = (min ash wt - tare wt)  
 TVS (mg/kg) = [(Dry wt-Ash wt)/(dry weight)] \*1,000,000  
 if ash wt > dry wt, "Chk for Efr"  
 if dry wt-ash wt < 0.001 g, "< (1/dry wt)\*1,000,000"

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams)		dry Wt (g)	TS (%)	ASH WT 550C (grams)		Ash Wt (g)	TVS (mg/kg) (%)
				CV-02	CV-02			1	2		
Blank		0.0000	1.1276	1/11/10 13:31	1/12/10 10:07	0.00					
QE56 B6		6.7336	1.1396	10.0000	10.0000	1.31	23.5%				
QE56 B6 dup		6.5786	1.1287	Cal OK!	Cal OK!	1.09	19.9%				
							RPD =	16.44%			

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams)	dry Wt (g)	TS (%)	RPD =
QE56 B6 trp		6.8382	1.1081	2.2649	1.16	20.2%	NA

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams)	dry Wt (g)	TS (%)	RSD =	
QE56 C6		6.5115	1.1412	2.2451	1.10	20.6%	NA	
QE56 D6		6.9456	1.1327	2.7202	1.59	27.3%		
QE77 A1		7.1322	1.1172	6.3993	5.28	87.8%		
QE77 A1 dup		7.3594	1.1055	6.6061	5.50	88.0%		
							RPD =	0.16%

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams)	dry Wt (g)	TS (%)	RPD =	
QE77 B1		7.0036	1.1102	6.2500	5.14	87.2%	NA	
QE79 A4		6.5400	1.1531	4.7602	3.61	67.0%		
QE79 A4 dup		6.5024	1.1443	5.0844	3.94	73.5%		
							RPD =	9.36%

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams)	dry Wt (g)	TS (%)	RSD =
QE79 A4 trp		7.6030	1.1386	5.4682	4.33	67.0%	NA

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams)	dry Wt (g)	TS (%)	RSD =	
QE79 B4		6.2883	1.1346	4.2265	3.09	60.0%	NA	
QE79 C4		6.9473	1.1272	5.1206	3.99	68.6%		
							RPD =	5.48%



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analyst: <i>CDS</i>		Date: <i>1/11/10</i>	Time in Oven: <i>17:02</i>	Time Out of Oven:	Oven ID: <i>12</i>	Elapsed Time (> 12 Hrs):	Balance ID: <i>1123230597</i>
Sample ID	Dish #	Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02
TS (%) calculated as: Final Dry Weight (g) = (Dry Weight - Tare Weight) TS = (Final Dry Weight) / (Grams Sample - Tare Weight)							
TVS (mg/kg dry weight) calculated as: Final Ash Weight (g) = (Minimum Ash Weight - Tare Weight) TVS (mg/kg) = ((Dry Weight - Ash Weight) / (Dry Weight) * 1,000,000 If Ash Weight > Dry Weight then "Check for Error" If Dry Weight - Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000							
Cal Weight (10.0000):		CV-02	CV-02	CV-02	CV-02	CV-02	CV-02
<i>1/11/10</i>		<i>1/11/10</i>	<i>1/12/10</i>	<i>1/12/10</i>	<i>9:50</i>		
<i>10.0000</i>		<i>10.0000</i>	<i>10.0000</i>	<i>10.0000</i>			
<i>16.90</i>		<i>13.31</i>					
Sample	Tare						
		1	2	3	1	2	3
		Dry Weight 104°C	Dry Weight 104°C	Dry Weight 550°C	Dry Weight	Ash Weight 550°C	
BLANK	1	<i>1.1276</i>	<i>1.1275</i>		grams		
<i>QES6 B6</i>	2	<i>6.7336</i>	<i>1.1396</i>	<i>2.4538</i>			
<i>QES6 B6</i>	3	<i>6.5786</i>	<i>1.1287</i>	<i>2.2146</i>			
<i>QES6 B6</i>	4	<i>6.8382</i>	<i>1.1081</i>	<i>2.2649</i>			
<i>QES6 B6</i>	5	<i>6.5115</i>	<i>1.1412</i>	<i>2.2451</i>			
<i>QES6 B6</i>	6	<i>6.9456</i>	<i>1.1327</i>	<i>2.7202</i>			
<i>QES7 A'</i>	7	<i>7.1322</i>	<i>1.1172</i>	<i>6.3993</i>			
<i>QES7 A'</i>	8	<i>7.3594</i>	<i>1.1055</i>	<i>6.6061</i>			
<i>QES7 B'</i>	9	<i>7.0036</i>	<i>1.1102</i>	<i>6.2500</i>			
<i>QES7 A'</i>	10	<i>6.5400</i>	<i>1.1531</i>	<i>4.7602</i>			
<i>QES7 A'</i>	11	<i>6.5024</i>	<i>1.1443</i>	<i>5.0844</i>			
<i>QES7 A'</i>	12	<i>7.6030</i>	<i>1.1386</i>	<i>5.4692</i>			
<i>QES7 B'</i>	13	<i>6.2883</i>	<i>1.1346</i>	<i>4.2265</i>			
<i>QES7 C'</i>	14	<i>6.9473</i>	<i>1.1272</i>	<i>5.1206</i>			
<i>1/11/10 CDS</i>							

W  
1-12-1

TOC Solids Prep Log						DATE:	1/11/2010
acid purging to remove IC and drying at 70°C for TOC analysis General notes regarding prep method and samples (identify the acid used)						ANALYST:	CDE / KE 17:09
						<i>make no entry to shaded cells, they are calculated</i>	
Sample ID		IC Test + / -	Gravimetric Data (grams)			% Solids	Sample description & notes (homogeneity and exclusions)
ARI #	Client		Tare Wt.	Wet wt.	70°C dry wt		
Blank			12.7246		12.7246	0 mg	
QE56 B6		-	12.7760	18.5558	14.8299	35.54%	
QE56 B6 DUP		-	12.7678	18.0649	14.4720	32.17%	
QE56 B6 TRIP		-	12.8176	18.6284	14.8099	34.29%	
QE56 C6		-	12.7926	19.7234	16.3131	50.80%	
QE56 D6		-	12.7471	19.3316	15.8811	47.60%	
QE79 A4		-	12.8668	19.0452	17.3790	73.03%	
QE79 A4 DUP		-	12.7672	18.1829	16.6748	72.15%	
QE79 A4 TRIP		-	12.8029	18.8380	17.0061	69.65%	
QE79 B4		-	12.8010	18.7913	16.9678	69.56%	
QE79 C4		-	12.7665	18.9056	16.9802	68.64%	



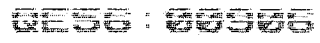
### TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis  
Add general notes regarding samples and preparation and identify the acid used

Analyst COS/@

Date 1/11/10 17:09

Sample Identification		IC Test	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID		Tare	Wet	70 °C		
Blank			12.7246	Ø	12.7246		
QE56 B <sup>6</sup>		-	12.7760	18.5558	14.8299		oily matt / leaves
↓ DP B <sup>6</sup>		-	12.7678	18.0649	14.4720		↓
↓ TP B <sup>6</sup>		-	12.8176	18.6284	14.8099		
↓ C <sup>6</sup>		-	12.7926	19.7239	16.3131		
↓ D <sup>6</sup>		-	12.7471	19.3316	15.8811		
QE79 A <sup>4</sup>		-	12.8668	19.0452	17.3790		sil & rocks some plant mat
↓ DP A <sup>4</sup>		-	12.7672	18.1829	16.6748		↓
↓ TP A <sup>4</sup>		-	12.8029	18.8380	17.0061		
↓ B <sup>4</sup>		-	12.8010	18.7913	16.9678		
↓ C <sup>4</sup>		✓	12.7665	18.9056	16.9802		
<del>Handwritten scribbles and '1/11/10' across the bottom half of the table.</del>							



12  
1-14-11

TOC, Solids Data Analysis					DATE:	1/13/2009				
Instrument: Apollo 2					ANALYST:	KE 10:32				
Mode: NPOC Inlet: Boat										
Spike Std = 2,500 ppm C										
<b>Calibration Data</b>										
Cal Curve ID: CAL 123009					Conc: 5,000 ppm					
Calibration Curve Standard: ARI # 0089-09					Curve Date: 01/04/10					
CalFact: 2.464E+05 intercept: -186,465					r2: 0.99965					
Curve Range (µgC): 8 to 100										
<b>Verification Standard</b>										
Source: ERA# 0506-09-01					Conc: 5,000 ppm					
dilution: 10 mL to 50					1,000 ppm					
<b>Standard Reference Material</b>										
Source: NIST 8704					Conc: 33,510 ppm					
<b>Silica Blanks</b>										
Replicate determinations							Mean	RSD	condition	
69.0	73.0	62.0				68.0	8.2%	OK		
<b>Sample Data</b>										
"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor										
Sample ID	Dilution Data				Spike (µL Std)	Combustion Data			comments	
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor		Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)		
ICV				1.00		40.0	990	990	99.00%	
Blank				1.00		40.0	20.64	21	Blank OK	
NIST 8704				1.00		1.6	35015	35,015	104.49%	
SB 1				1.00		20.9	68.88	69	Low, Increase wt	
SB 2				1.00		20.2	72.71	73	Low, Increase wt	
SB 3				1.00		20.4	62.29	62	Low, Increase wt	
QE79 A4	10.7	100.1	89.31%	9.36		2.1	12031	111,984	Range OK!	
QE79 A4 dup	10.3	100.9	89.79%	9.80		2.0	11704	114,056	RPD=1.8%	
QE79 A4 trp	10.1	100.1	89.91%	9.91		2.0	13617	134,351	RSD=10.3%	
QE79 A4 ms	10.7	100.1	89.31%	9.36	10	1.9	26203	244,565	Range OK!	
Spike = 0.025 mg C to 0.2 mg samp = 123,094 ppm 108%										
QE79 B4	10.1	100.7	89.97%	9.97		2.1	13759	136,571	Range OK!	
QE79 C4	10.1	100.2	89.92%	9.92		2.1	12714	125,526	Range OK!	
CCV				1.00		40.0	1047	1,047	104.70%	
Blank				1.00		40.0	20.09	20	Blank OK	
QE56 B6	10.5	100.5	89.55%	9.57		2.1	28157	268,920	Range OK!	
QE56 B6 dup	10.5	100.6	89.56%	9.58		2.1	18749	179,050	RPD=40.1%	
QE56 B6 dup	10.5	100.6	89.56%	9.58		2.1	28872	276,038	RPD=2.6%	
QE56 B6 trp	10.0	100.4	90.04%	10.04		2.1	20637	206,581	RSD=15.3%	
QE56 B6 ms	10.5	100.5	89.55%	9.57	20	1.8	51225	489,714	Range OK!	
Spike = 0.05 mg C to 0.2 mg samp = 265,873 ppm 83%										
QE56 C6	10.6	100.7	89.47%	9.50		2.0	19084	180,720	Range OK!	
QE56 D6	10.8	100.8	89.29%	9.33		2.3	17478	162,561	Range OK!	
CCV				1.00		40.0	306	306	Low, increase wt	
CCV				1.00		40.0	248	248	Low, increase wt	
CCV				1.00		40.0	956	956	95.60%	
Blank				1.00		40.0	25.67	26	Blank OK	
QF10 A10				1.00		1.7	33060	33,060	Range OK!	



<b>Sample Data</b>									
<i>"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor</i>									
Sample ID	Dilution Data				Spike ( $\mu$ L Std)	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor		Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
QF10 A10 dup				1.00		1.7	31803	31,803	RPD=3.9%
QF10 A10 trp				1.00		1.8	36300	36,300	RSD=6.9%
QF10 A10 ms				1.00	20	1.6	62388	62,388	Range OK!
Spike = 0.05		mg C to		1.6	mg samp=	31,250	ppm	94%	
QF10 B5				1.00		1.7	37021	37,021	Range OK!
NIST 8704				1.00		1.7	32617	32,617	97.34%
CCV				1.00		40.0	1041	1,041	104.10%
Blank				1.00		40.0	47.33	47	Blank OK



1-13-09 (W)

TOC Solids Sample Run Log  
Apollo 9000

Page 1 of 1

Set-Up Parameters			MODE: NPOC (Boat)	INLET: Boat Sampler		
Standards:	Source	Conc (ppm)				
Calibration:	ARI 0098-09	5000		10.32		
Verification:	ERA 050609-01	5000 to 1000 for CUS				
SRM:	NBS 8704	33510				
Sample Sequence:						
Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICW			40			
ICB			40			
NBS 8704			1.6			
SB 1			20.9			
2			20.2			
3			20.4			
QE79 A4	10.7	100.1	2.1			
oPA4	10.3	100.9	2.0			
pPA4	10.1	100.1	2.0			
ms A4	10.7	100.1	1.9	2500	10	
B4	10.1	100.7	2.1			
C4	10.1	100.2	2.1			
CCW			40			
CCB			40			
QE56 B6	10.5	100.5	2.1			
oPB6	10.5	100.6	2.1/2.1			2 injects
pPB6	10.0	100.4	2.1			
ms B6	10.5	100.5	1.8	2500	20	
C6	10.6	100.7	2.0			
D6	10.8	100.8	2.3			
CCW			40/40			Analyst put 10 µL 3 injects in Not 40 to CCW
CCB			40			
QF10 A10			1.7			
oPA10			1.7			
pPA10			1.8			
ms A10			1.6	2500	20	
B5			1.7			
NBS 8704			1.7			
CCW			40			
CCB			40			



1-13-09 (W)

Sample ID: ICB BOAT Mode: TOC  
 Method: Boat Sampler Filename: 01131622  
 Cal. Curve: CAL 123009 Timestamp: 2010/01/13 16:24  
 Operator ID: CARLOS Sample Type: Cal. Verification

NA  
 1-13-09 (W)

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	47.3298	1.8932	279965	27.589	28.578	59

Sample ID: CVS BOAT 1000 Mode: TOC  
 Method: Boat Sampler Filename: 01131017  
 Cal. Curve: CAL 123009 Timestamp: 2010/01/13 10:20  
 Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	990.1503	39.6060	9571354	26.555	27.552	126

Sample ID: ICB BOAT Mode: TOC  
 Method: Boat Sampler Filename: 01131022  
 Cal. Curve: CAL 123009 Timestamp: 2010/01/13 10:25  
 Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20.6357	0.8254	16898	26.752	26.508	120

Last Message: Low Sample Detected

Sample ID: NBS 8704 Mode: TOC  
 Method: Boat Sampler Filename: 01131031  
 Cal. Curve: CAL 123009 Timestamp: 2010/01/13 10:35  
 Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	35014.8242	56.0237	13616219	26.822	27.818	192

Sample ID: SB 1 Mode: TOC  
 Method: Boat Sampler Filename: 01131049  
 Cal. Curve: CAL 123009 Timestamp: 2010/01/13 10:51  
 Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	68.8827	1.4396	354690	27.278	28.273	66

Sample ID: SB 2 Mode: TOC  
 Method: Boat Sampler Filename: 01131118  
 Cal. Curve: CAL 123009 Timestamp: 2010/01/13 11:20  
 Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	72.7134	1.4688	361874	27.911	28.911	66

Sample ID: SB 3 Mode: TOC  
 Method: Boat Sampler Filename: 01131128  
 Cal. Curve: CAL 123009 Timestamp: 2010/01/13 11:30  
 Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
-------	-------	------	----------	-----------------------	--------------------	---------------------

1 62.2897 1.2707 313067 28.013 29.012 67  
=====

Sample ID: QE79 A4 Mode: TOC  
Method: Boat Sampler Filename: 01131136  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 11:39  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12031.0469	25.2652	6224641	28.069	29.068	109

=====

Sample ID: QE79 A4 DUP Mode: TOC  
Method: Boat Sampler Filename: 01131142  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 11:45  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11704.2725	23.4085	5767213	28.112	29.111	105

=====

Sample ID: QE79 A4 TRIP Mode: TOC  
Method: Boat Sampler Filename: 01131149  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 11:51  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13616.7148	27.2334	6709559	28.057	29.052	113

=====

Sample ID: QE79 A4 MS Mode: TOC  
Method: Boat Sampler Filename: 01131159  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 12:03  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26202.8926	49.7855	12265759	28.135	29.133	140

=====

Sample ID: QE79 B4 Mode: TOC  
Method: Boat Sampler Filename: 01131211  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 12:14  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13759.1035	28.8941	7118705	28.084	29.082	121

=====

Sample ID: QE79 C4 Mode: TOC  
Method: Boat Sampler Filename: 01131220  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 12:23  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12714.1094	26.6996	6578045	28.134	29.130	106

=====

Sample ID: CVS BOAT 1000 Mode: TOC  
Method: Boat Sampler Filename: 01131231  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 12:35  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1047.0879	41.8835	10132467	28.112	29.109	137

=====

=====  
Sample ID: ICB BOAT Mode: TOC  
Method: Boat Sampler Filename: 01131240  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 12:44  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26.0905	1.0436	70654	28.250	28.236	120

-----  
Last Message: Low Sample Detected  
=====

Sample ID: QE56 B6 Mode: TOC  
Method: Boat Sampler Filename: 01131253  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 13:04  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28157.0078	59.1297	14567915	28.222	29.220	159

Sample ID: QE56 B6 DUP Mode: TOC  
Method: Boat Sampler *NA* *1-13-10* *(2)* Filename: 01131307  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 13:10  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18749.4922	39.3739	9700640	28.451	29.448	133

Sample ID: QE56 B6 DUP Mode: TOC  
Method: Boat Sampler Filename: 01131313  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 13:17  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28872.4668	60.6322	14938080	28.427	29.425	154

Sample ID: QE56 B6 TRIP Mode: TOC  
Method: Boat Sampler Filename: 01131322  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 13:25  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20637.3281	43.3384	10677372	28.172	29.171	139

Sample ID: QE56 B6 MS Mode: TOC  
Method: Boat Sampler Filename: 01131329  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 13:32  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	51224.8398	92.2047	22716672	28.482	29.475	160

Sample ID: QE56 C6 Mode: TOC  
Method: Boat Sampler Filename: 01131340  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 13:43  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
-------	-------	------	----------	-----------------------	--------------------	---------------------

1 19083.5957 38.1672 9403333 28.103 29.099 134

Sample ID: QE56 D6 Mode: TOC  
Method: Boat Sampler Filename: 01131348  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 13:51  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17477.7070	40.1987	9903846	28.096	29.094	135

Sample ID: CVS BOAT 1000 Mode: TOC  
Method: Boat Sampler Filename: 01131444  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 14:46  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	306.1323	12.2453	2830434	27.702	28.696	82

Last Message: Out of Calibration

Sample ID: CVS BOAT 1000 Mode: TOC  
Method: Boat Sampler Filename: 01131448  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 14:50  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	248.0946	9.9238	2258479	27.755	68.619	42

Last Message: Out of Calibration

Sample ID: CVS BOAT 1000 Mode: TOC  
Method: Boat Sampler Filename: 01131501  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 15:05  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	955.6404	38.2256	9231262	27.727	28.725	132

Sample ID: ICB BOAT Mode: TOC  
Method: Boat Sampler Filename: 01131509  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 15:11  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25.6748	1.0270	66558	27.844	28.836	46

Sample ID: QF10 A10 Mode: TOC  
Method: Boat Sampler Filename: 01131514  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 15:18  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	33060.3398	56.2026	13846749	27.856	28.855	165

Sample ID: QF10 A10 *Dup* Mode: TOC  
Method: Boat Sampler *1-13-10* *(V)* Filename: 01131520  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 15:24  
Operator ID: CARLOS Sample Type: Sample



Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31803.4766	54.0659	13320334	27.695	28.688	165

Sample ID: QF10 A10 TRIP Mode: TOC  
Method: Boat Sampler Filename: 01131528  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 15:32  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36299.5156	65.3391	16097741	27.815	28.813	168

Sample ID: QF10 A10 MS Mode: TOC  
Method: Boat Sampler Filename: 01131536  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 15:39  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	62387.8242	99.8205	24592996	28.451	29.451	157

Last Message: Over-range

Sample ID: QF10 B5 Mode: TOC  
Method: Boat Sampler Filename: 01131547  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 15:51  
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	37020.9297	62.9356	15505574	27.757	28.754	172

Sample ID: NBS 8704 Mode: TOC  
Method: Boat Sampler Filename: 01131557  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 16:01  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32617.2500	55.4493	13474704	27.680	28.677	165

Sample ID: CVS BOAT 1000 Mode: TOC  
Method: Boat Sampler Filename: 01131618  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 16:21  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1040.5906	41.6236	10068437	27.353	28.352	131

Sample ID: ICB BOAT Mode: TOC  
Method: Boat Sampler Filename: 01131622  
Cal. Curve: CAL 123009 Timestamp: 2010/01/13 16:24  
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	47.3298	1.8932	279965	27.589	28.578	59



Subcontracted Results  
Dioxin/Furans 1613(Sub) Analyzed by Frontier Analytical Laboratory

prepared  
for

Floyd-Snider

Project: POS-LLA (Lora Lakes Apts.)

ARI JOB NO: QE56

prepared  
by

Analytical Resources, Inc.



January 26, 2010

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

Dear Ms. Dunnihoo,

Attached are the results for Frontier Analytical Laboratory project **5913**. This corresponds to your **POS-LLA (Lora Lake Apts.)** project under ARI project number **QE56**. Three sediment samples were received on 1/13/2010 in good condition. These samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The toxic equivalents (TEQ) for your samples were calculated using the 2005 World Health Organizations toxic equivalent factors. Analytical Resources Incorporated requested a level IV data package, an electronic disk deliverable (EDD) and a turnaround time of fifteen business days for project **5913**.

The following level IV report consists of an Analytical Data section, a Sample Receipt section, a Laboratory Raw Data section, and an Instrument Raw Data section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of 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. You also requested Electronic Data Deliverables (EDD) for this project. The EDD and Level I summary have been sent to you via email, per your request. A hardcopy of the Level IV data package and compact disk have been sent to you via OnTrac. 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 **5913**, 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 Hillside Circle • El Dorado Hills, CA 95762  
Tel (916) 934-0900 • Fax (916) 934-0999  
www.frontieranalytical.com

000001 of 000295

0000 : 00010

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **5913**

Received on: **01/13/2010**

Project Due: **02/04/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5913-001-SA	0	QE56	CB19010710SED	EPA 1613 D/F	Sediment	01/07/2010	11:50 am	01/07/2011
5913-002-SA	0	QE56	CB12010710SED	EPA 1613 D/F	Sediment	01/07/2010	01:30 pm	01/07/2011
5913-003-SA	0	QE56	CB2010710SED	EPA 1613 D/F	Sediment	01/07/2010	02:30 pm	01/07/2011



EPA Method 1613  
PCDD/F



FAL ID: 5913-001-MB  
Client ID: Method Blank  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: NA  
Amount: 5.00 g

ICal: pccdfal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.155		-	0.0252				
1,2,3,7,8-PeCDD	ND	0.218		-	0.0457				
1,2,3,4,7,8-HxCDD	ND	0.274		-	0.0496				
1,2,3,6,7,8-HxCDD	ND	0.320		-	0.0680	Total TCDD	ND	0.256	
1,2,3,7,8,9-HxCDD	ND	0.294		-	0.0666	Total PeCDD	ND	0.218	
1,2,3,4,6,7,8-HpCDD	ND	0.386		-	0.0927	Total HxCDD	ND	0.320	
OCDD	ND	1.27		-	0.272	Total HpCDD	ND	0.386	
2,3,7,8-TCDF	ND	0.109		-	0.0252				
1,2,3,7,8-PeCDF	ND	0.184		-	0.0365				
2,3,4,7,8-PeCDF	ND	0.210		-	0.0486				
1,2,3,4,7,8-HxCDF	ND	0.174		-	0.0267				
1,2,3,6,7,8-HxCDF	ND	0.179		-	0.0289				
2,3,4,6,7,8-HxCDF	ND	0.190		-	0.0298				
1,2,3,7,8,9-HxCDF	ND	0.221		-	0.0493	Total TCDF	ND	0.109	
1,2,3,4,6,7,8-HpCDF	ND	0.214		-	0.0404	Total PeCDF	ND	0.210	
1,2,3,4,7,8,9-HpCDF	ND	0.238		-	0.0469	Total HxCDF	ND	0.221	
OCDF	ND	0.507		-	0.177	Total HpCDF	ND	0.238	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	86.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	65.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	87.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	86.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	79.6	23.0 - 140	
13C-OCDD	68.7	17.0 - 157	
13C-2,3,7,8-TCDF	84.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	71.3	24.0 - 185	
13C-2,3,4,7,8-PeCDF	65.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	89.2	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	88.2	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	85.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	82.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	77.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	82.2	26.0 - 138	
13C-OCDF	68.6	17.0 - 157	

- 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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	90.5	35.0 - 197
-------------------	------	------------

Analyst: J  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/25/10

EPA Method 1613  
PCDD/F



FAL ID: 5913-001-OPR  
Client ID: OPR  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: NA  
Amount: 5.00 g

ICal: pccdfal3-11-18-09  
GC Column: DB5  
Units: ng/ml

Acquired: 01-22-2010  
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.83	6.70 - 15.8	
1,2,3,7,8-PeCDD	50.2	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.0	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	49.1	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	48.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	52.6	35.0 - 70.0	
OCDD	102	78.0 - 144	
2,3,7,8-TCDF	9.82	7.50 - 15.8	
1,2,3,7,8-PeCDF	49.7	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.5	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	49.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50.3	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	49.9	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	49.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.1	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	51.2	39.0 - 69.0	
OCDF	96.4	63.0 - 170	
Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.4	20.0 - 175	
13C-1,2,3,7,8-PeCDD	70.8	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	91.2	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	87.9	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	79.7	26.0 - 166	
13C-OCDD	67.5	13.0 - 198	
13C-2,3,7,8-TCDF	89.3	22.0 - 152	
13C-1,2,3,7,8-PeCDF	76.6	21.0 - 192	
13C-2,3,4,7,8-PeCDF	71.8	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	91.2	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	87.3	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	86.1	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	85.8	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	76.9	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	84.4	20.0 - 186	
13C-OCDF	68.4	13.0 - 198	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	96.1	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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst:                       
Date: 1/25/10

Reviewed By:                       
Date: 1/25/10

EPA Method 1613  
PCDD/F



FAL ID: 5913-001-SA  
Client ID: CB19010710SED  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: 01-13-2010  
Amount: 2.04 g  
% Solids: 18.78

ICal: pcddfal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 89.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	4.56	-		4.56	0.0252				
1,2,3,7,8-PeCDD	19.1	-		19.1	0.0457				
1,2,3,4,7,8-HxCDD	29.6	-		2.96	0.0496				
1,2,3,6,7,8-HxCDD	79.8	-		7.98	0.0680	Total TCDD	77.8	-	
1,2,3,7,8,9-HxCDD	69.8	-		6.98	0.0666	Total PeCDD	192	-	
1,2,3,4,6,7,8-HpCDD	2370	-		23.7	0.0927	Total HxCDD	754	-	
OCDD	23300	-		6.99	0.272	Total HpCDD	4680	-	
2,3,7,8-TCDF	5.83	-	F	0.583	0.0252				
1,2,3,7,8-PeCDF	6.06	-	J	0.182	0.0365				
2,3,4,7,8-PeCDF	10.7	-	J	3.21	0.0486				
1,2,3,4,7,8-HxCDF	28.9	-		2.89	0.0267				
1,2,3,6,7,8-HxCDF	19.2	-		1.92	0.0289				
2,3,4,6,7,8-HxCDF	25.3	-		2.53	0.0298				
1,2,3,7,8,9-HxCDF	4.65	-	J	0.465	0.0493	Total TCDF	141	-	
1,2,3,4,6,7,8-HpCDF	481	-		4.81	0.0404	Total PeCDF	198	-	
1,2,3,4,7,8,9-HpCDF	22.3	-		0.223	0.0469	Total HxCDF	513	-	D,M
OCDF	1340	-		0.402	0.177	Total HpCDF	1360	-	

Internal Standards	% Rec	QC Limits - Qual
13C-2,3,7,8-TCDD	85.6	25.0 - 164
13C-1,2,3,7,8-PeCDD	71.2	25.0 - 181
13C-1,2,3,4,7,8-HxCDD	88.6	32.0 - 141
13C-1,2,3,6,7,8-HxCDD	81.5	28.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	77.1	23.0 - 140
13C-OCDD	62.5	17.0 - 157
13C-2,3,7,8-TCDF	89.2	24.0 - 169
13C-1,2,3,7,8-PeCDF	76.7	24.0 - 185
13C-2,3,4,7,8-PeCDF	73.6	21.0 - 178
13C-1,2,3,4,7,8-HxCDF	80.2	26.0 - 152
13C-1,2,3,6,7,8-HxCDF	74.7	26.0 - 123
13C-2,3,4,6,7,8-HxCDF	78.1	28.0 - 136
13C-1,2,3,7,8,9-HxCDF	80.7	29.0 - 147
13C-1,2,3,4,6,7,8-HpCDF	68.6	28.0 - 143
13C-1,2,3,4,7,8,9-HpCDF	74.2	26.0 - 138
13C-OCDF	54.5	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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst: [Signature]  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/26/10

EPA Method 1613  
PCDD/F



FAL ID: 5913-002-SA  
Client ID: CB12010710SED  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: 01-13-2010  
Amount: 2.03 g  
% Solids: 13.82

ICal: pccdfal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 143

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	6.33	-		6.33	0.0252				
1,2,3,7,8-PeCDD	27.3	-		27.3	0.0457				
1,2,3,4,7,8-HxCDD	34.9	-		3.49	0.0496				
1,2,3,6,7,8-HxCDD	130	-		13.0	0.0680	Total TCDD	92.6	-	
1,2,3,7,8,9-HxCDD	95.8	-		9.58	0.0666	Total PeCDD	241	-	
1,2,3,4,6,7,8-HpCDD	4510	-		45.1	0.0927	Total HxCDD	1180	-	
OCDD	46200	-		13.9	0.272	Total HpCDD	9220	-	
2,3,7,8-TCDF	5.13	-	F	0.513	0.0252				
1,2,3,7,8-PeCDF	5.09	-	J	0.153	0.0365				
2,3,4,7,8-PeCDF	10.1	-	J	3.03	0.0486				
1,2,3,4,7,8-HxCDF	29.4	-		2.94	0.0267				
1,2,3,6,7,8-HxCDF	22.4	-		2.24	0.0289				
2,3,4,6,7,8-HxCDF	30.2	-		3.02	0.0298				
1,2,3,7,8,9-HxCDF	4.79	-	J	0.479	0.0493	Total TCDF	136	-	D,M
1,2,3,4,6,7,8-HpCDF	1060	-		10.6	0.0404	Total PeCDF	223	-	
1,2,3,4,7,8,9-HpCDF	31.8	-		0.318	0.0469	Total HxCDF	785	-	D,M
OCDF	3750	-		1.12	0.177	Total HpCDF	3220	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	79.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	69.5	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	81.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	75.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	76.9	23.0 - 140	
13C-OCDD	69.8	17.0 - 157	
13C-2,3,7,8-TCDF	83.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	72.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	73.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	74.8	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	69.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	72.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	76.1	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	66.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	72.3	26.0 - 138	
13C-OCDF	59.8	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 86.3 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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst: [Signature]  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/26/10

EPA Method 1613  
PCDD/F



FAL ID: 5913-003-SA  
Client ID: CB2010710SED  
Matrix: Sediment  
Batch No: X1926

Date Extracted: 01-21-2010  
Date Received: 01-13-2010  
Amount: 2.53 g  
% Solids: 21.35

ICal: pccdfal3-11-18-09  
GC Column: DB5  
Units: pg/g

Acquired: 01-22-2010  
2005 WHO TEQ: 44.9

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	2.84	-		2.84	0.0252				
1,2,3,7,8-PeCDD	10.6	-		10.6	0.0457				
1,2,3,4,7,8-HxCDD	14.8	-		1.48	0.0496				
1,2,3,6,7,8-HxCDD	37.6	-		3.76	0.0680	Total TCDD	36.8		-
1,2,3,7,8,9-HxCDD	37.3	-		3.73	0.0666	Total PeCDD	89.0		-
1,2,3,4,6,7,8-HpCDD	1110	-		11.1	0.0927	Total HxCDD	366		-
OCDD	13300	-		3.99	0.272	Total HpCDD	2160		-
2,3,7,8-TCDF	2.34	-		0.234	0.0252				
1,2,3,7,8-PeCDF	2.38	-	J	0.0714	0.0365				
2,3,4,7,8-PeCDF	3.44	-	J	1.03	0.0486				
1,2,3,4,7,8-HxCDF	14.9	-		1.49	0.0267				
1,2,3,6,7,8-HxCDF	8.67	-	J	0.867	0.0289				
2,3,4,6,7,8-HxCDF	10.7	-		1.07	0.0298				
1,2,3,7,8,9-HxCDF	2.27	-	J	0.227	0.0493	Total TCDF	57.1		-
1,2,3,4,6,7,8-HpCDF	209	-		2.09	0.0404	Total PeCDF	77.1		-
1,2,3,4,7,8,9-HpCDF	10.6	-		0.106	0.0469	Total HxCDF	228		-
OCDF	569	-		0.171	0.177	Total HpCDF	594		-

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	80.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	69.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	72.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	70.7	23.0 - 140	
13C-OCDD	57.0	17.0 - 157	
13C-2,3,7,8-TCDF	81.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	72.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	71.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	71.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	66.2	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	68.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	72.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	62.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	66.9	26.0 - 138	
13C-OCDF	50.3	17.0 - 157	

- 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
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 76.3 35.0 - 197

Analyst: J  
Date: 1/25/10

Reviewed By: [Signature]  
Date: 1/25/10

**SUBCONTRACTOR ANALYSIS REQUEST**  
 CUSTODY TRANSFER 01/08/10



5913  
 Doc

ARI Project: QE56

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

ARI Client: Floyd-Snider  
 Project ID: POS-LLA (Lora Lake Apts.)  
 ARI PM: Sue Dunnihoo  
 Phone: 206-695-6207  
 Fax: 206-695-6201

Analytical Protocol: PSDDA  
 Special Instructions:

Requested Turn Around: 01/29/10  
 Fax Results (Y/N): Email

**Limits of Liability.** Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, 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, notwithstanding 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
10-433-QE56B	CB19010710Sed	01/07/10 11:50	Sediment	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-434-QE56C	CB12010710Sed	01/07/10 13:30	Sediment	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-435-QE56D	CB2010710Sed	01/07/10 14:30	Sediment	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					

Full Package and EDD

Carrier	UPS	Airbill	17032695 01 4501 8212	Date	1/12/2010
Relinquished by	Nikka Mulumba	Company	ARI	Date	1/12/2010
Received by	Kathy SPP	Company	Frontier	Date	1-13-2010
				Time	1425
				Time	10:50

## Frontier Analytical Laboratory

### Sample Login Form

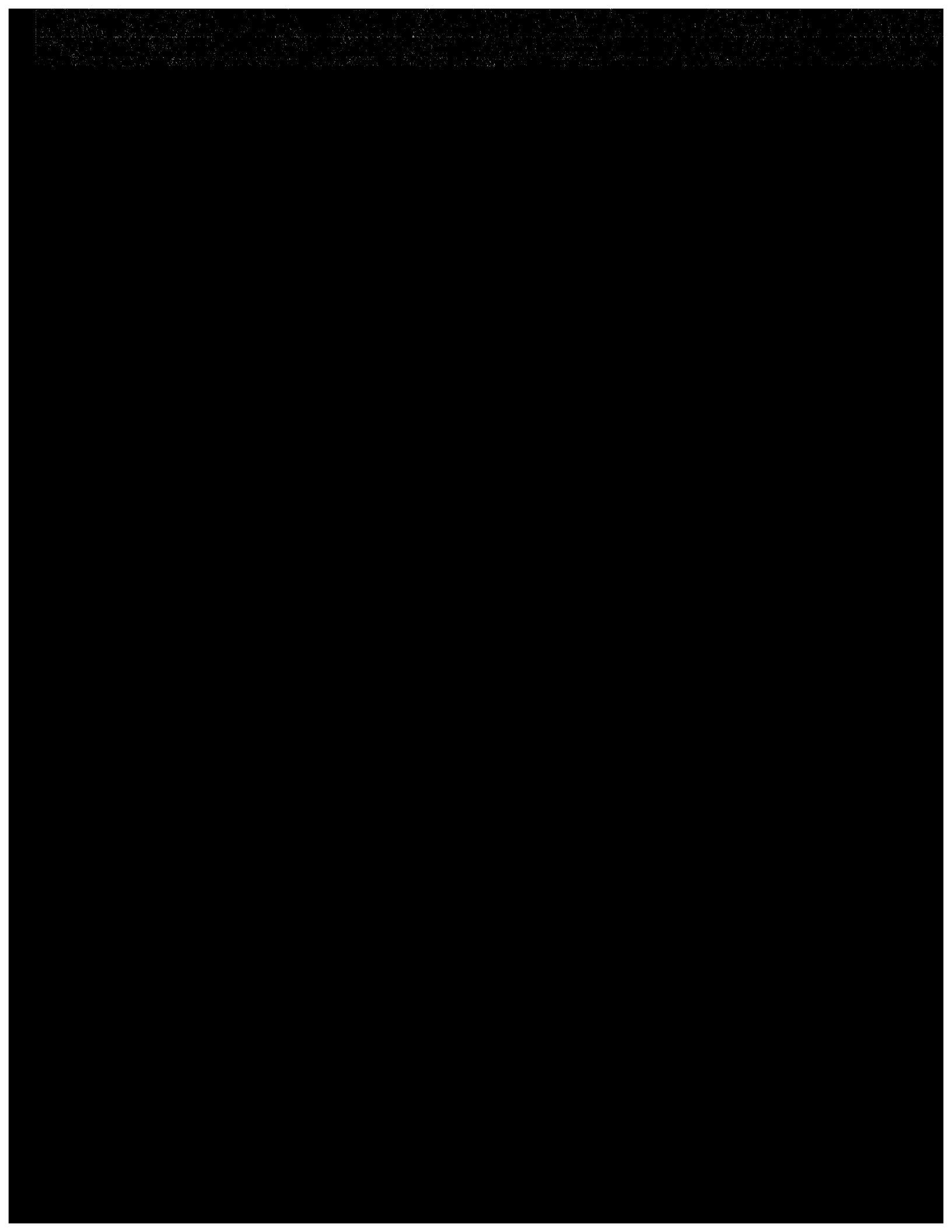
FAL Project ID: **5913**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QE56
Date Received:	01/13/2010
Time Received:	10:50 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	3
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950145018212
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	01/07/2011
Adequate Sample Volume	Yes
Anomalies or additional comments:	







**Frontier Analytical Laboratory**  
**PROJECT REQUEST SHEET**

Project #: 5913                      Sample #: 1-3                      Client Manager: BS  
Client: Analytical Resources Inc. Sue Dunning                      Hold Time: 01/07/2011  
Matrix: Sediment                      Extraction Batch: 1926                      Due Date: 02/04/2010  
Method: EPA 1613 D/F                      Storage: R1  
SOP: SOPs: EP2A Rev.7 IP2A Rev.8

**COMMENTS/INSTRUCTIONS:**

Results: 5913  
5913 TCDF

Extract/s located in box: "Sick Puppies"

Standards: 5913

Instrument:  
DB5 FAL-3  
DB225 FAL-1  
DB1 \_\_\_\_\_  
Other \_\_\_\_\_



# EXTRACTION SHEET

Project #: 5913      Extraction Date: 2010-01-21      Extraction Chemist: GN

Method/Analysis: EPA 1613 D/F

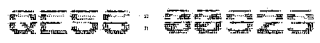
Procedure: SOX/SDS

Solvent: Toluene

Sample ID	Wet wt. (g/L)	Dry wt. (g/L)	IS		NS		CSS	
			Amt: 10.0uL ID: 090918A Vial: 3 Chemist/Witness/Date		Amt: 10.0uL ID: 090918B Vial: 3 Chemist/Witness/Date		Amt: 10.0uL ID: 090918C Vial: 3 Chemist/Witness/Date	
1926-001-0001-MB	(5.00g)	(5.00g)	GN	1/21/10	NA		GN	PN 1/22/10
1926-001-0001-OPR	(5.00g)	(5.00g)			GN	1/21/10		
5913-001-0001-SA	10.84	2.04			NA			
5913-002-0001-SA	14.72	2.03						
5913-003-0001-SA	11.87	2.53						

AX-21 Charcoal Cleaned	083109	Acetone	49260	Acid Alumina	08623DJ	Hexane	49275
Hydrochloric Acid	B08505	Methanol	095121	Methylene Chloride (DCM)	49296	Silica Gel	TA1593034
Sodium Hydroxide	9145	Sodium Sulfate	48273845	Sulfuric Acid	093621	Tetradecane	081394
Toluene	49110	Water	49273	C-18 Empore Discs	320469	Cyclohexane	48149

Comments:



# CLEANUP SHEET

Project #: 5913

Method/Analysis: EPA 1613 D/F

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

Sample ID	Cleanup 1	Cleanup 2	Cleanup 3	RS
	Chemist/Date	Chemist/Date	Chemist/Date	Chemist/Witness/Date
1926-001-0001-MB	ABP GN 1/22/10	MSG/AA GN 1/22/10	Charcoal GN 1/22/10	Amt: 10.0uL ID: 090918D Vial: 3 GN 1/22/10
1926-001-0001-OPR	↓	↓	↓	↓
5913-001-0001-SA				
5913-002-0001-SA				
5913-003-0001-SA				

Comments:

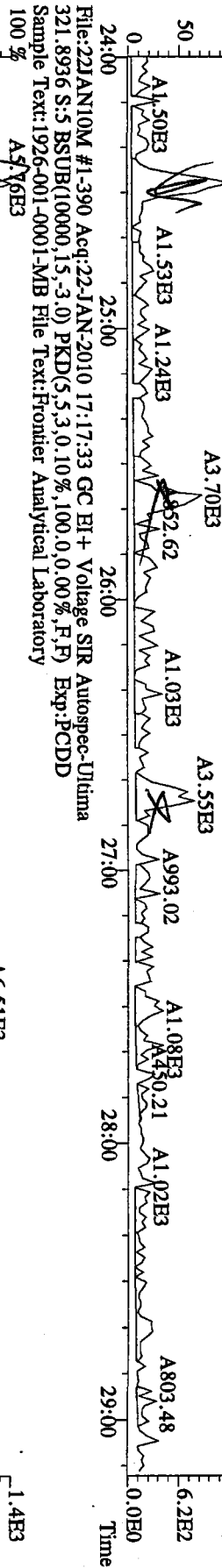


## **Sample Results**

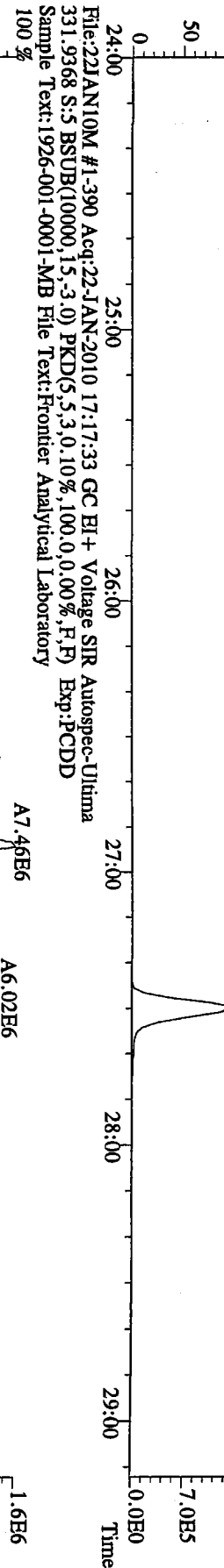




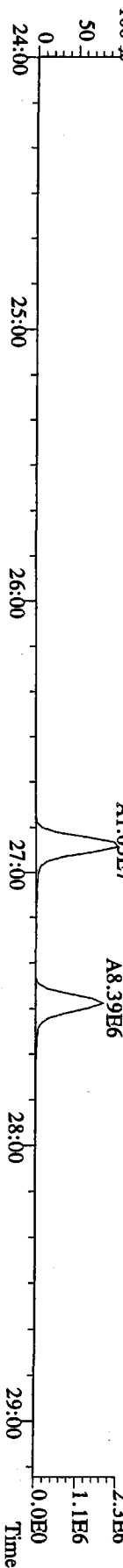
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
 100 % A5.89B3



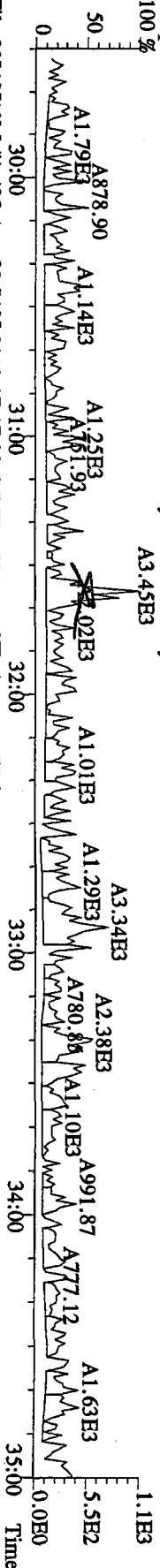
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
 100 % A6.26B6



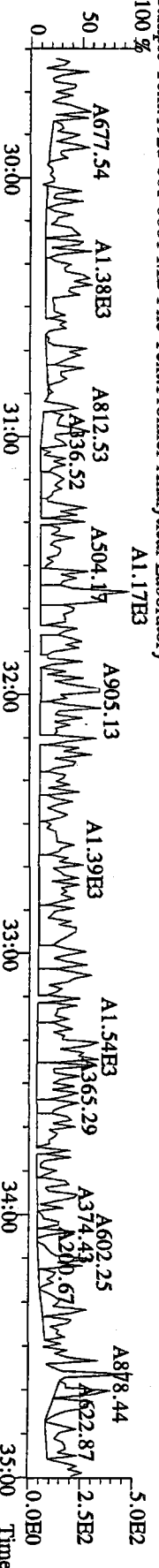
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
 100 % H2.29E6, A1.03E7, H1.89E6, A8.39E6



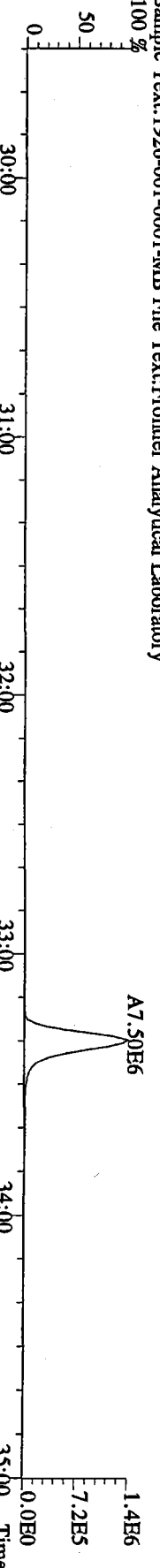
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 S.S.F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



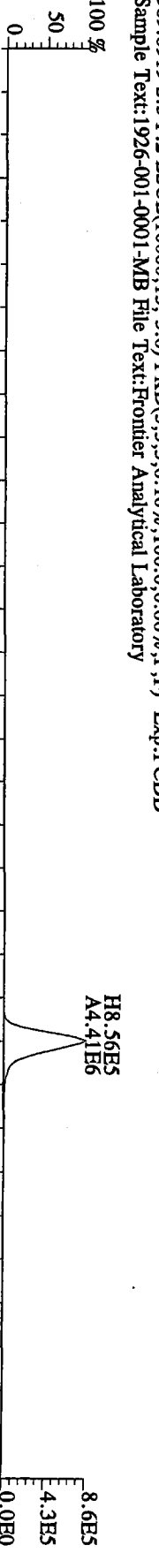
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 357.8517 S.S.F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



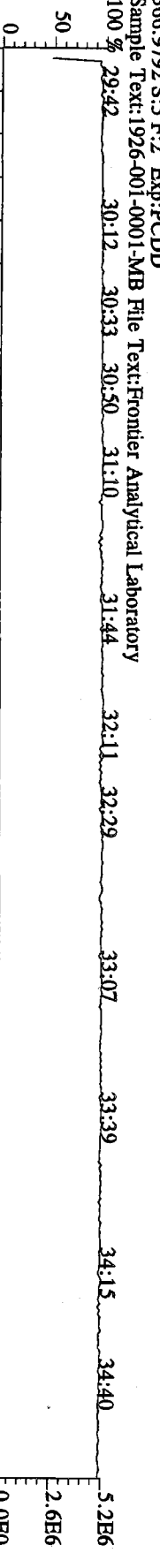
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 367.8949 S.S.F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



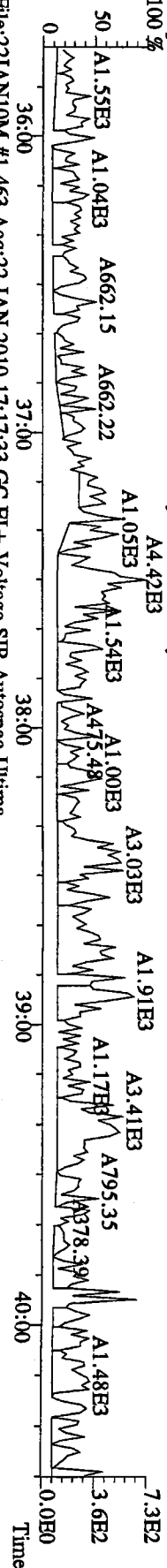
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 369.8919 S.S.F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



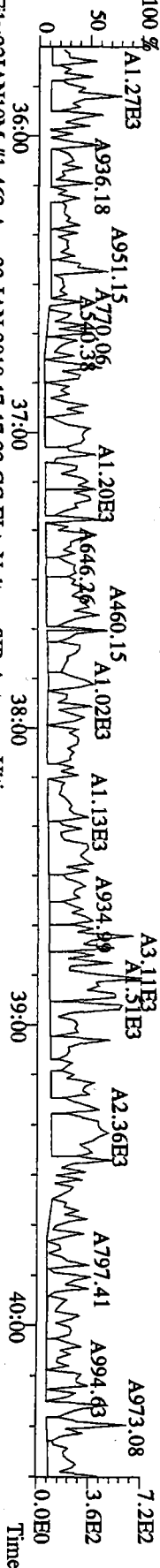
File:22JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 S.S.F:2 Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



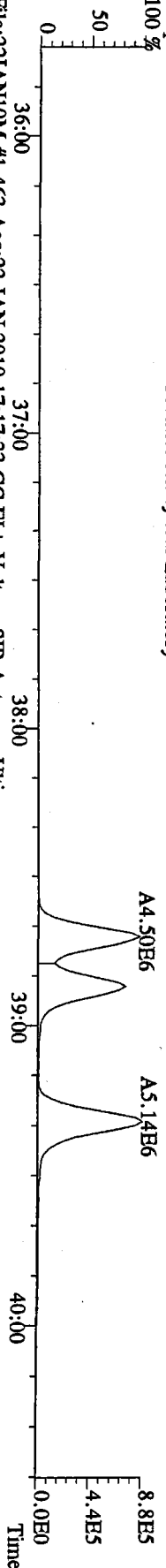
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



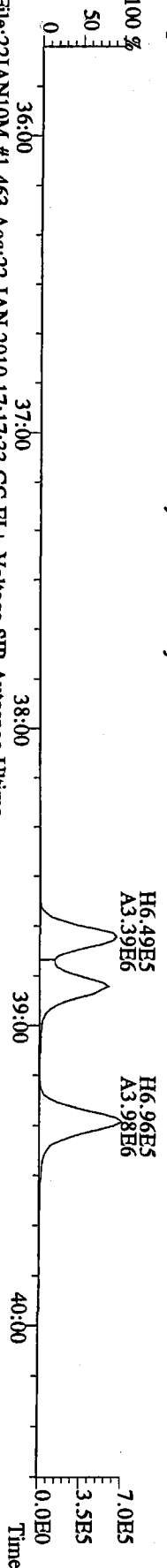
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



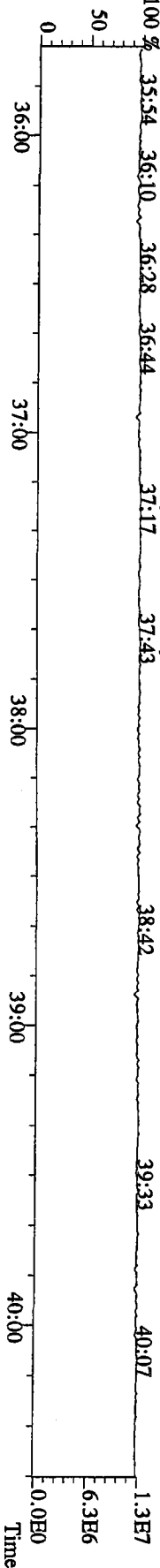
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory

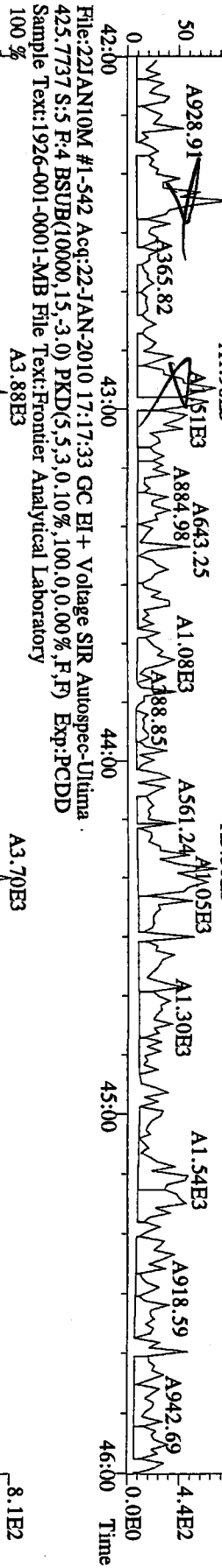


File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:5 F:3 Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory

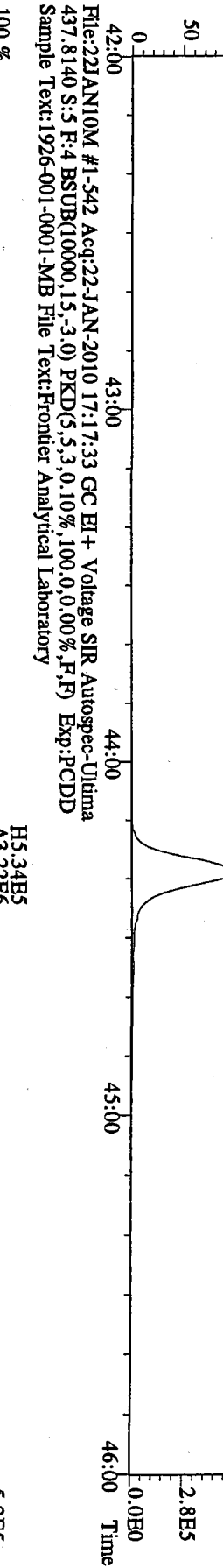


115  
116  
117  
118  
119  
120  
121  
122

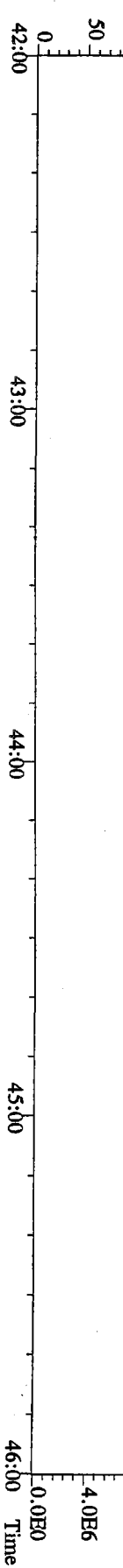
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
100 % A3.18E3



File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
100 % A3.32E6

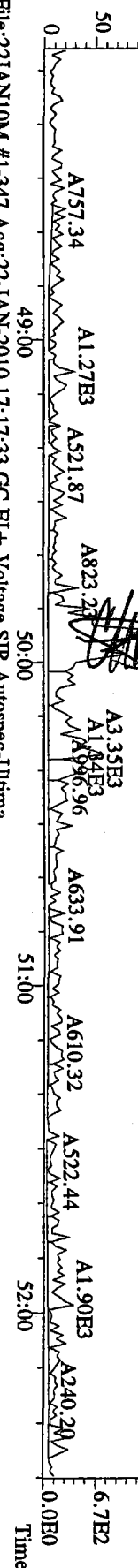


File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 S:5 F:4 Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory  
100 % 42:18 42:30 42:52 43:09 43:28 44:01 44:28 44:57 45:13 45:28 45:56

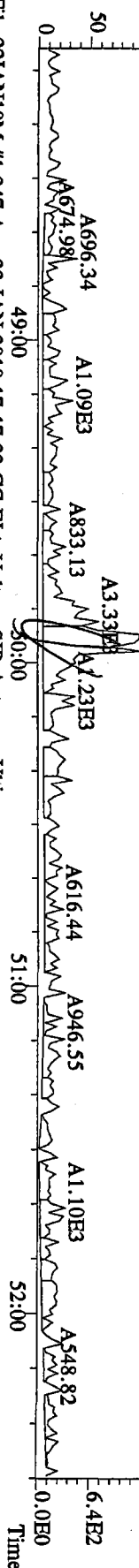


10  
10  
10  
10  
10  
10  
10  
10  
10  
10

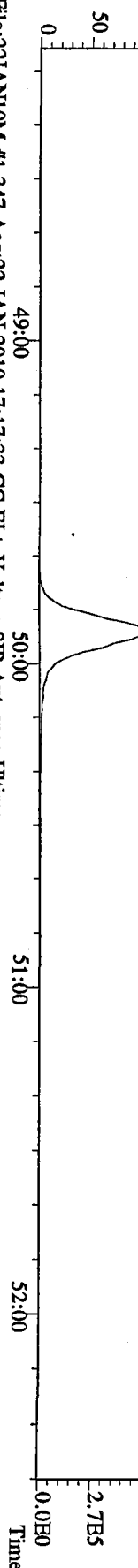
File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



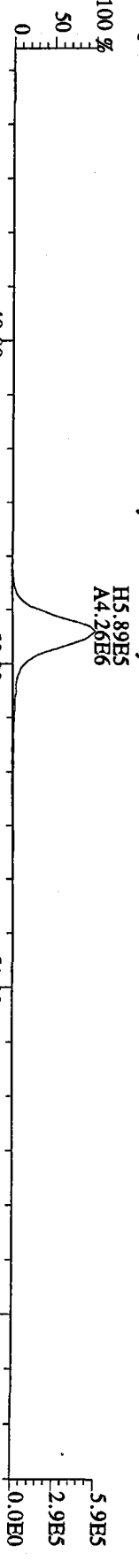
File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



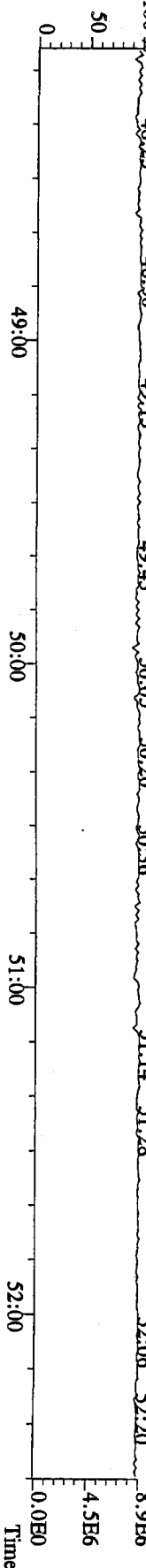
File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory

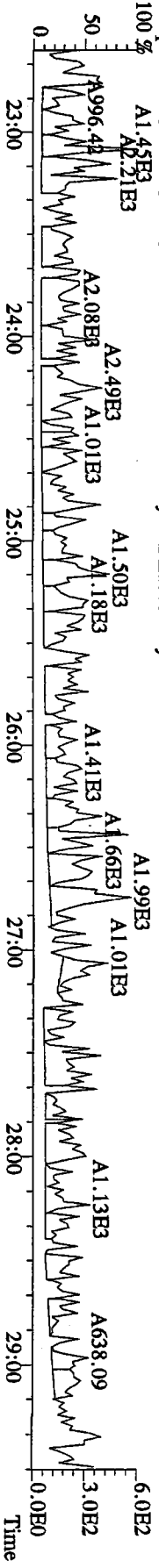


File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 S:5 F:5 Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory

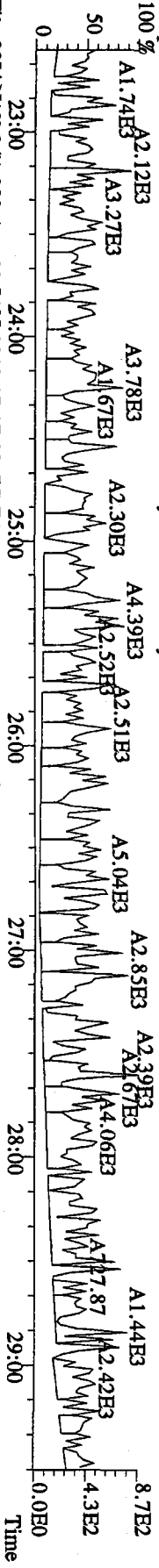


100  
100  
100  
100  
100

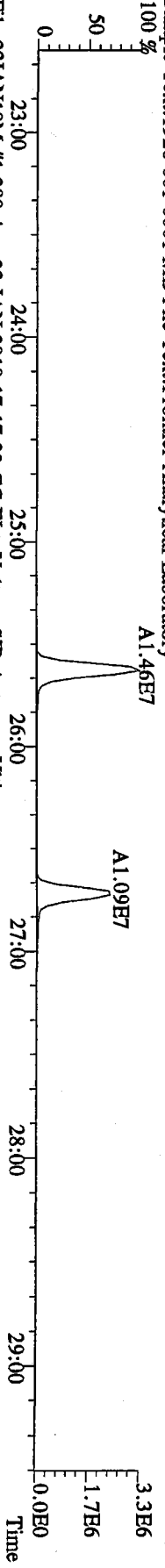
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
 303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



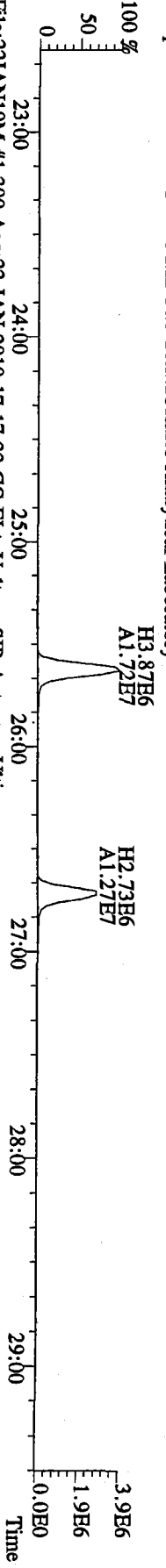
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
 305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



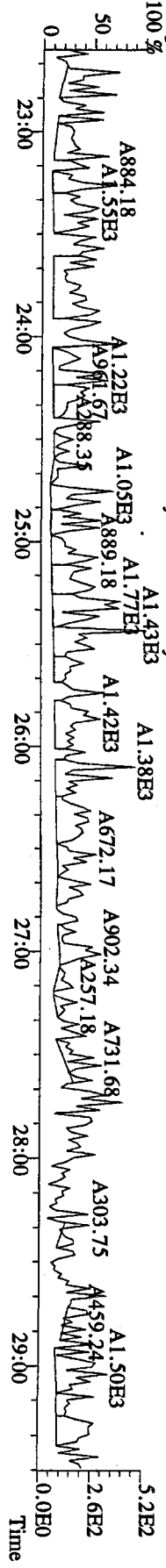
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



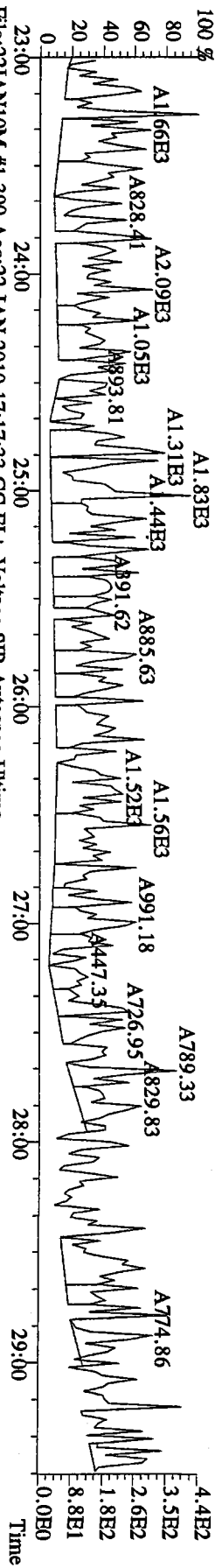
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
 317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



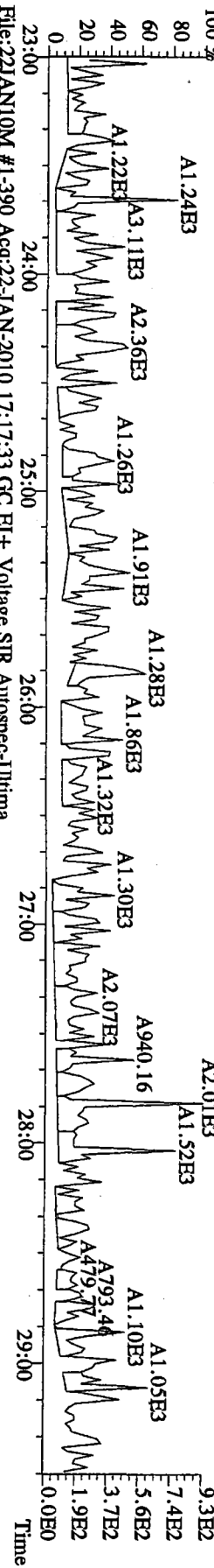
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Utima  
 375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



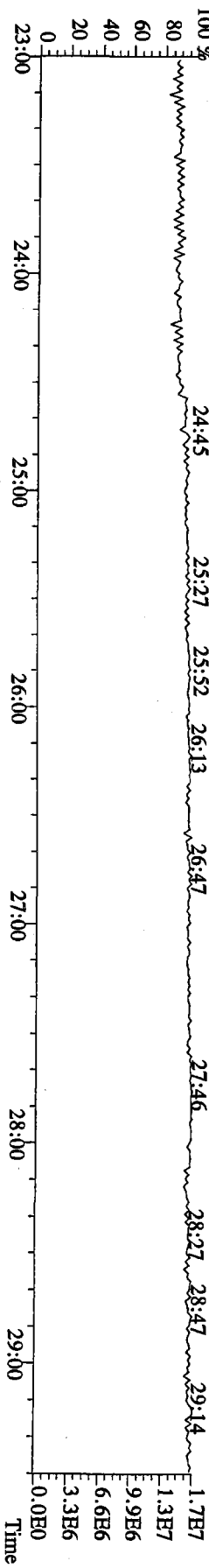
File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory

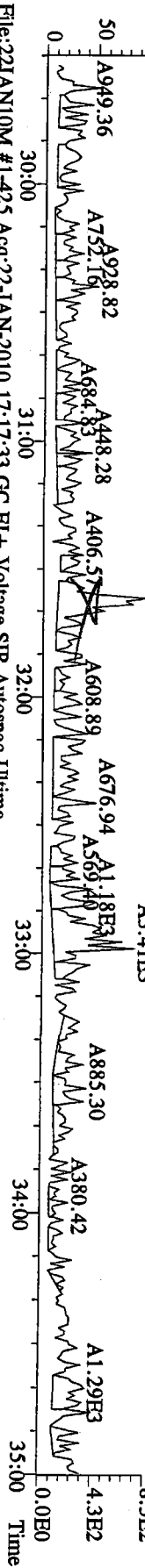


File:22JAN10M #1-390 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 S:5 Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory

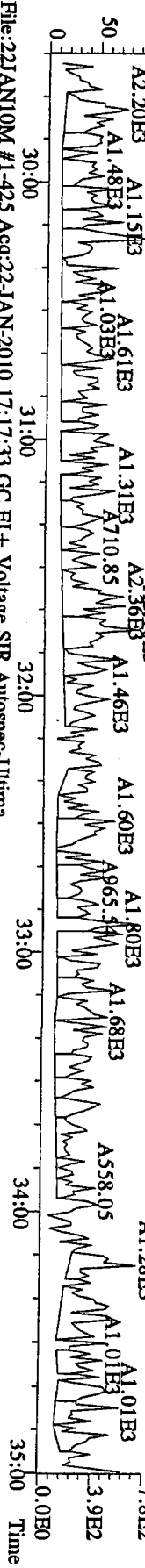


10  
 11  
 12  
 13  
 14  
 15  
 16  
 17  
 18  
 19  
 20

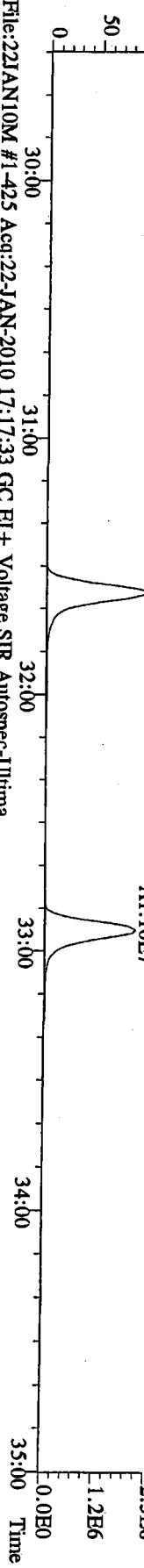
File:221JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



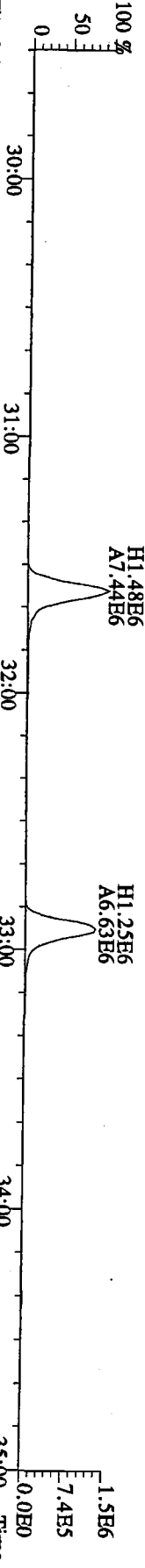
File:221JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



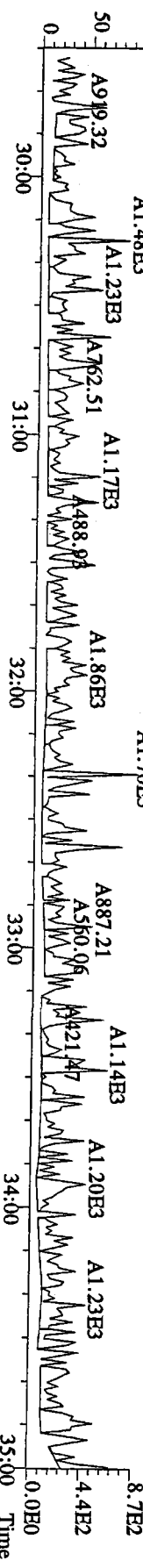
File:221JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:221JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 353.8970 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



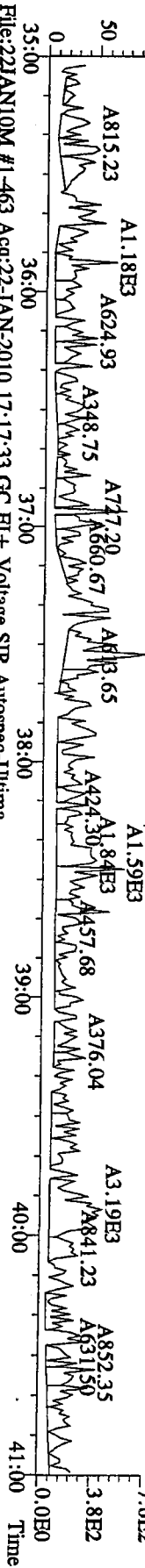
File:221JAN10M #1-425 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:5 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



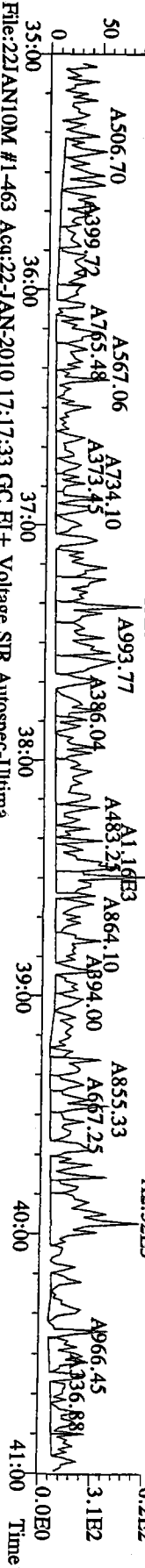
10  
11  
12  
13  
14  
15



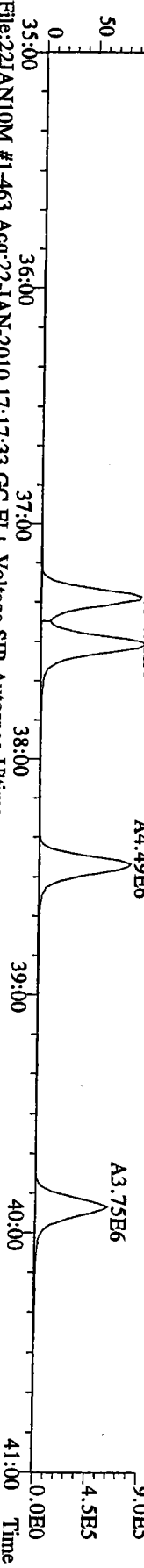
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



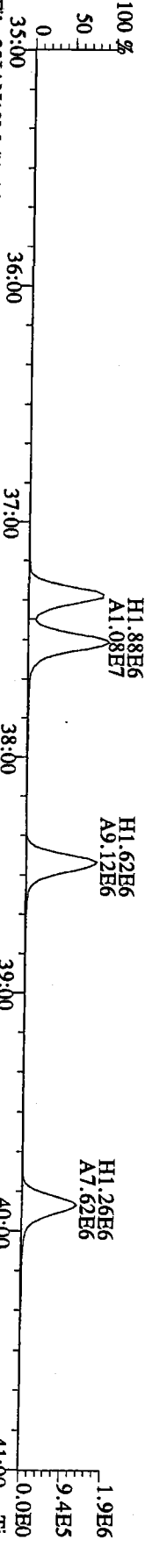
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



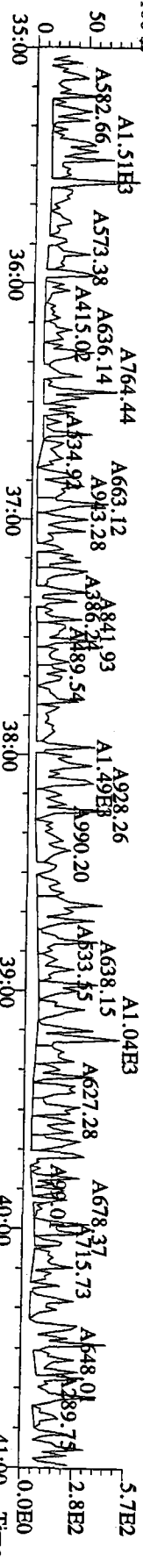
File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory

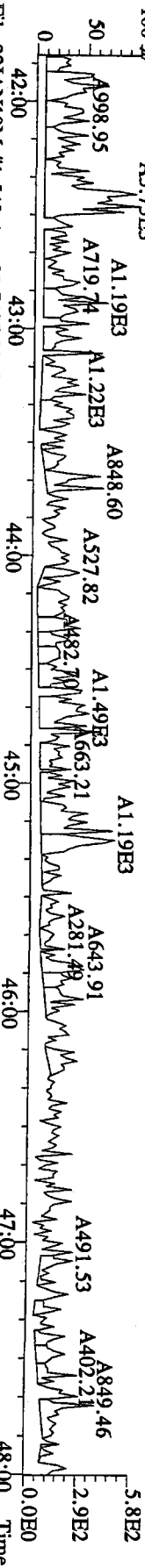


File:22JAN10M #1-463 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory

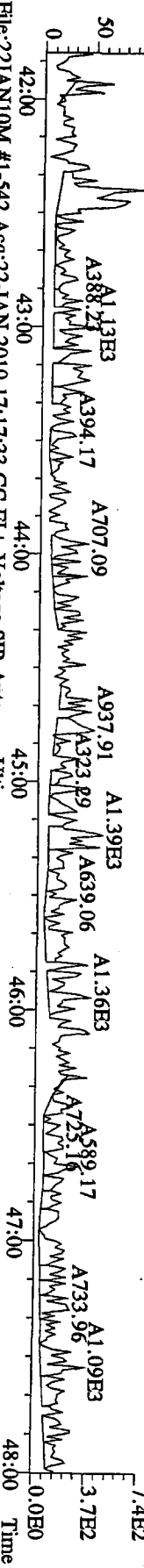


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

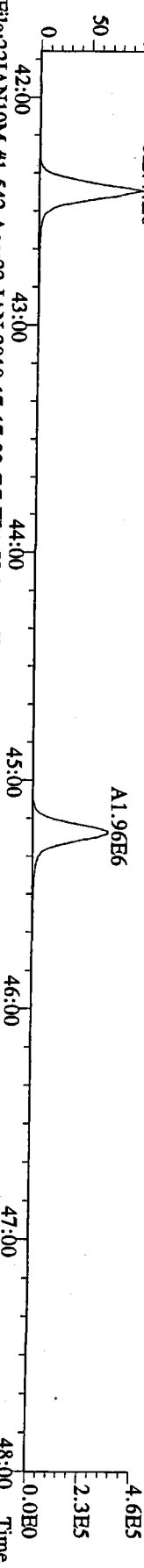
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 407.7818 S:5 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



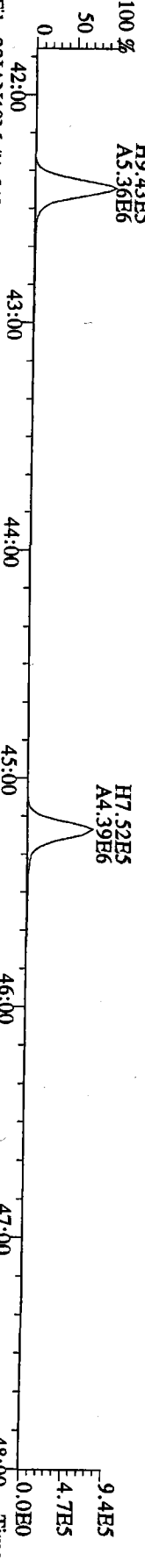
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 409.7788 S:5 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



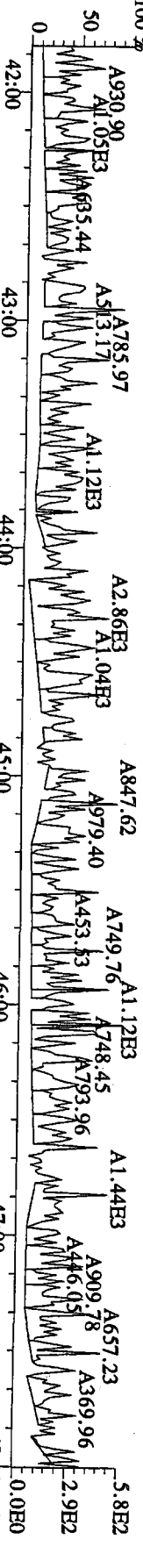
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 417.8253 S:5 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



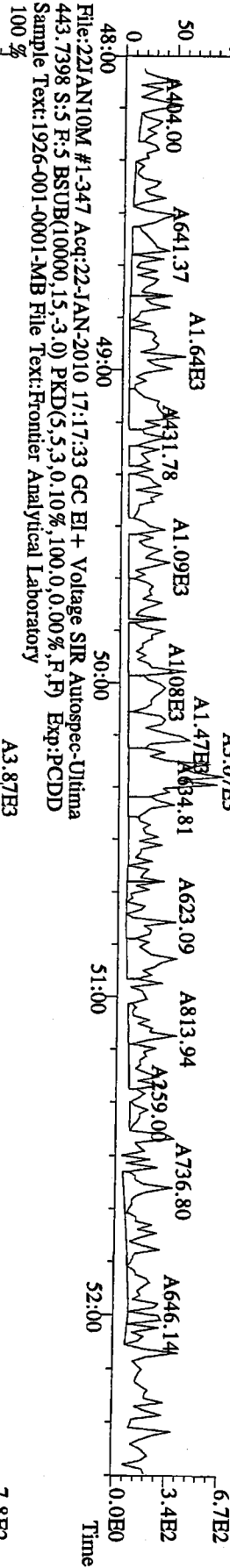
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 419.8220 S:5 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



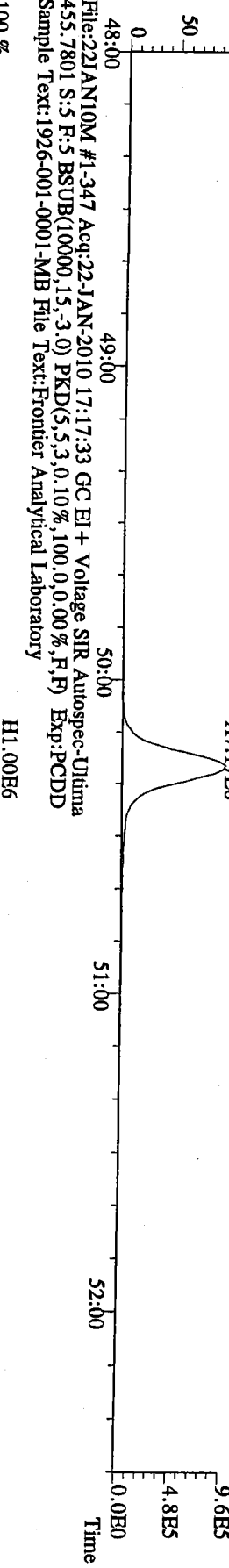
File:22JAN10M #1-542 Acq:22-JAN-2010 17:17:33 GC EI+ Voltage SIR Autospec-Ultima  
 479.7165 S:5 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



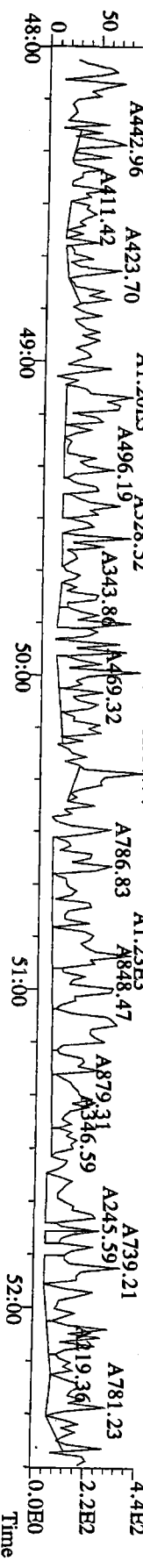
File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 GC EI + Voltage SIR Autospec-Ultima  
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:22-JAN-2010 17:17:33 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:1926-001-0001-MB File Text:Frontier Analytical Laboratory



## USEPA - ITD

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

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): Solid OPR Data Filename: 22JAN10M Sam:4

Ext. Date: 1/21/10 Shift: Day Analysis Date: 22-JAN-10 16:22:18

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	9.83	6.70 - 15.8
1,2,3,7,8-PeCDD	50	50.2	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	49.0	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	49.1	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	48.4	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	52.6	35.0 - 70.0
OCDD	100	102	78.0 - 144
2,3,7,8-TCDF	10	9.82	7.50 - 15.8
1,2,3,7,8-PeCDF	50	49.7	40.0 - 67.0
2,3,4,7,8-PeCDF	50	50.5	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	49.9	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	50.3	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	49.9	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	49.8	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	51.1	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	51.2	39.0 - 69.0
OCDF	100	96.4	63.0 - 170

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

Analyst: J

Date: 1/25/10

## 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): Solid      OPR Data Filename: 22JAN10M      Sam:4

Ext. Date: 1/21/10      Shift: Day      Analysis Date: 22-JAN-10      16:22:18

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
LABELED COMPOUNDS			
13C-2,3,7,8-TCDD	100	88.4	20.0 - 175
13C-1,2,3,7,8-PeCDD	100	70.8	21.0 - 227
13C-1,2,3,4,7,8-HxCDD	100	91.2	21.0 - 193
13C-1,2,3,6,7,8-HxCDD	100	87.9	25.0 - 163
13C-1,2,3,4,6,7,8-HpCDD	100	79.7	26.0 - 166
13C-OCDD	200	135	26.0 - 397
13C-2,3,7,8-TCDF	100	89.3	22.0 - 152
13C-1,2,3,7,8-PeCDF	100	76.6	21.0 - 192
13C-2,3,4,7,8-PeCDF	100	71.8	13.0 - 328
13C-1,2,3,4,7,8-HxCDF	100	91.2	19.0 - 202
13C-1,2,3,6,7,8-HxCDF	100	87.3	21.0 - 159
13C-2,3,4,6,7,8-HxCDF	100	86.1	22.0 - 176
13C-1,2,3,7,8,9-HxCDF	100	85.8	17.0 - 205
13C-1,2,3,4,6,7,8-HpCDF	100	76.9	21.0 - 158
13C-1,2,3,4,7,8,9-HpCDF	100	84.4	20.0 - 186
13C-OCDF	200	137	26.0 - 397
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	38.4	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: 

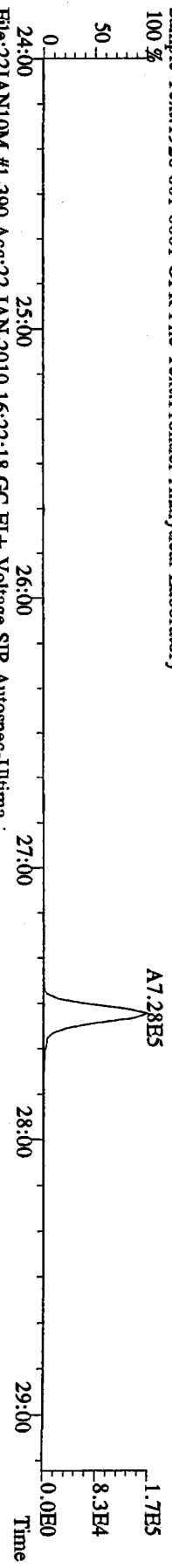
Date: 1/25/10

FAL ID: 1926-001-0001-OPR    Filename: 22JAN10M    Sam: 4    Acquired: 22-JAN-10 16:22:18    ICal: pcddfal3-11-18-09  
 Client ID: OPR    ConCal: ST012210M1    EndCal: ST012210M2  
 Results: 5913    GC Column: DB5    Amount: 1.000    NATO 1989 Tox: 100.0    WHO 1998 Tox: 125    WHO 2005 Tox: 114

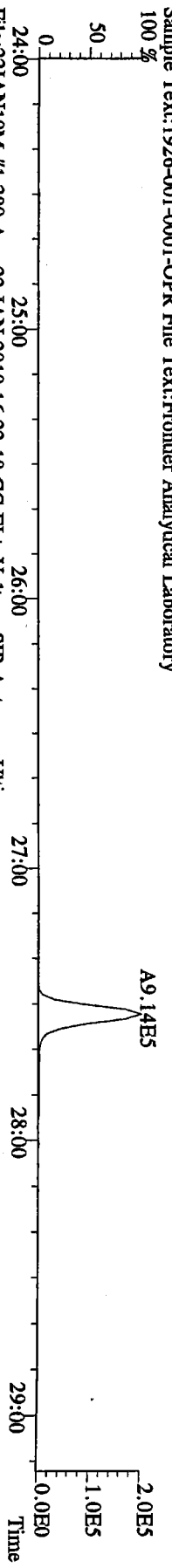
Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	Rec	#Hom
2,3,7,8-TCDD	1.64e+06	0.80 y	27:32	1.02	9.83		2.50	-	*		
1,2,3,7,8-PeCDD	6.86e+06	1.60 y	33:22	0.96	50.2		2.50	-	*		
1,2,3,4,7,8-HxCDD	6.75e+06	1.23 y	38:44	1.37	49.0		2.50	-	*		
1,2,3,6,7,8-HxCDD	6.07e+06	1.33 y	38:54	1.34	49.1		2.50	-	*		
1,2,3,7,8,9-HxCDD	6.36e+06	1.27 y	39:21	1.37	48.4		2.50	-	*		
1,2,3,4,6,7,8-HpCDD	4.92e+06	0.97 y	44:21	1.17	52.6		2.50	-	*		
OCDD	6.24e+06	0.93 y	49:57	1.21	102		2.50	-	*		
2,3,7,8-TCDF	3.44e+06	0.71 y	26:47	1.29	9.82		2.50	-	*		
1,2,3,7,8-PeCDF	1.03e+07	1.68 y	31:38	0.89	49.7		2.50	-	*		
2,3,4,7,8-PeCDF	9.70e+06	1.67 y	32:57	0.91	50.5		2.50	-	*		
1,2,3,4,7,8-HxCDF	8.71e+06	1.24 y	37:20	1.00	49.9		2.50	-	*		
1,2,3,6,7,8-HxCDF	9.01e+06	1.24 y	37:33	0.92	50.3		2.50	-	*		
2,3,4,6,7,8-HxCDF	8.21e+06	1.23 y	38:29	0.99	49.9		2.50	-	*		
1,2,3,7,8,9-HxCDF	7.83e+06	1.25 y	39:55	1.09	49.8		2.50	-	*		
1,2,3,4,6,7,8-HpCDF	6.57e+06	1.01 y	42:26	1.36	51.1		2.50	-	*		
1,2,3,4,7,8,9-HpCDF	6.57e+06	1.00 y	45:16	1.61	51.2		2.50	-	*		
OCDF	7.29e+06	0.89 y	50:19	0.84	96.4		2.50	-	*		
13C-2,3,7,8-TCDD	1.64e+07	0.71 y	27:31	0.94	88.4					88.4	
13C-1,2,3,7,8-PeCDD	1.42e+07	1.69 y	33:21	1.02	70.8					70.8	
13C-1,2,3,4,7,8-HxCDD	1.00e+07	1.30 y	38:43	0.98	91.2					91.2	
13C-1,2,3,6,7,8-HxCDD	9.20e+06	1.29 y	38:53	0.94	87.9					87.9	
13C-1,2,3,4,6,7,8-HpCDD	8.02e+06	1.05 y	44:19	0.90	79.7					79.7	
13C-OCDD	1.01e+07	0.96 y	49:55	0.67	135					67.5	
13C-2,3,7,8-TCDF	2.73e+07	0.85 y	26:46	0.88	89.3					89.3	
13C-1,2,3,7,8-PeCDF	2.34e+07	1.69 y	31:37	0.88	76.6					76.6	
13C-2,3,4,7,8-PeCDF	2.12e+07	1.68 y	32:56	0.85	71.8					71.8	
13C-1,2,3,4,7,8-HxCDF	1.75e+07	0.48 y	37:20	1.72	91.2					91.2	
13C-1,2,3,6,7,8-HxCDF	1.96e+07	0.50 y	37:31	2.00	87.3					87.3	
13C-2,3,4,6,7,8-HxCDF	1.67e+07	0.49 y	38:28	1.74	86.1					86.1	
13C-1,2,3,7,8,9-HxCDF	1.44e+07	0.50 y	39:54	1.51	85.8					85.8	
13C-1,2,3,4,6,7,8-HpCDF	9.45e+06	0.45 y	42:25	1.10	76.9					76.9	
13C-1,2,3,4,7,8,9-HpCDF	7.99e+06	0.45 y	45:14	0.85	84.4					84.4	
13C-OCDF	1.80e+07	0.95 y	50:17	1.17	137					68.4	
37Cl-2,3,7,8-TCDD	7.39e+06		27:32	0.97	38.4					96.1	
13C-1,2,3,4-TCDD	1.97e+07	0.73 y	26:57	-	75.5						
13C-1,2,3,4-TCDF	3.48e+07	0.86 y	25:40	-	75.3						
13C-1,2,3,7,8,9-HxCDD	1.12e+07	1.29 y	39:20	-	54.5						
Total Tetra-Dioxins	1.70e+06		23:09	1.02	10.2		2.50	-	*		21
Total Penta-Dioxins	6.86e+06		33:22	0.96	50.2		2.50	-	*		1
Total Hexa-Dioxins	1.92e+07		38:44	1.36	147		2.50	-	*		8
Total Hepta-Dioxins	5.03e+06		42:57	1.17	53.7		2.50	-	*		14
Total Tetra-Furans	3.52e+06		24:19	1.29	10.0		2.50	-	*		4
1st Fn. Tot Penta-Furans	3.71e+04		22:59	0.90	0.186		2.50	-	*	PeCDF	22
Total Penta-Furans	2.03e+07		30:21	0.90	102		2.50	-	*	102	8
Total Hexa-Furans	3.39e+07		35:40	0.99	200		2.50	-	*		10
Total Hepta-Furans	1.32e+07		42:26	1.47	103		2.50	-	*		7

Analyst:                           Date: 1/25/10

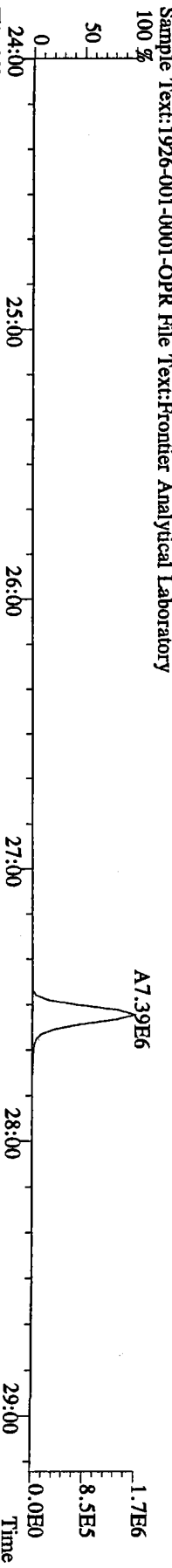
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



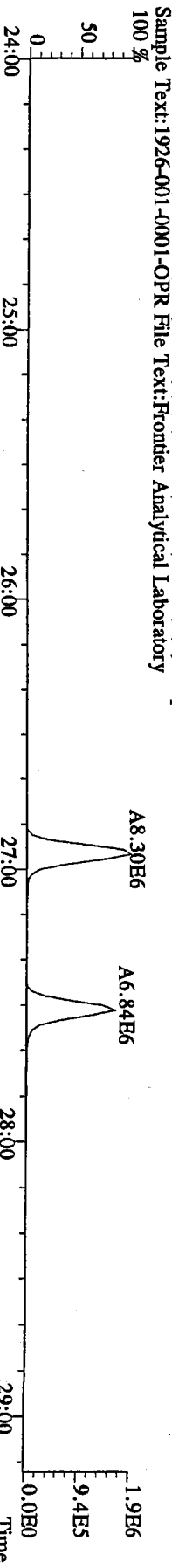
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



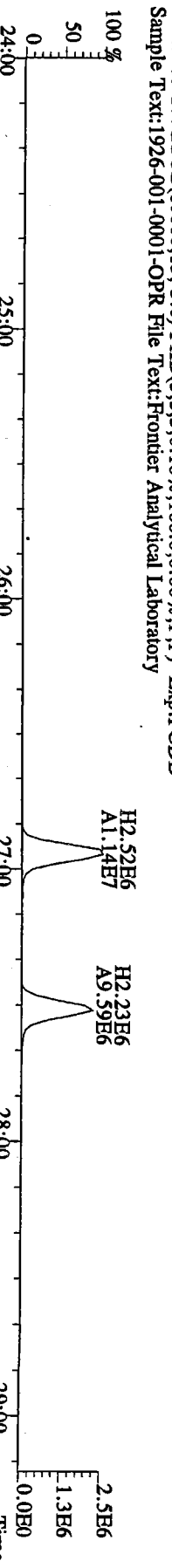
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
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:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

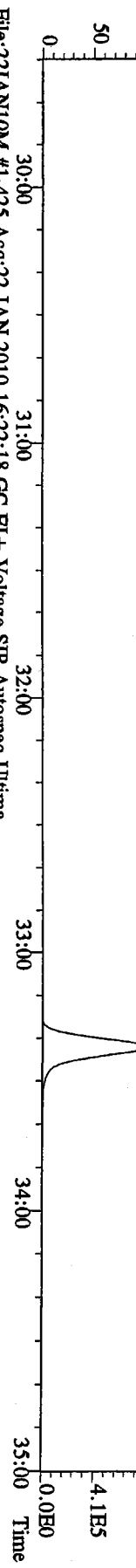


File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

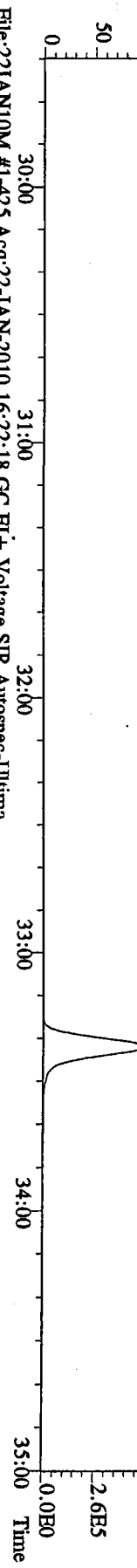


10  
11  
12  
13  
14  
15

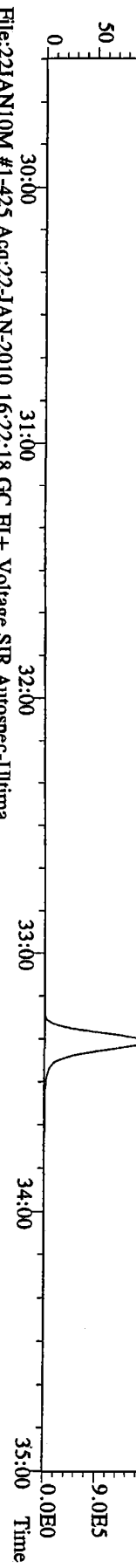
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



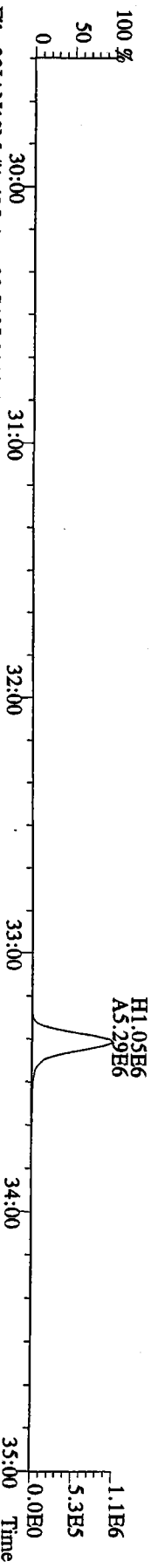
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 357.8517 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



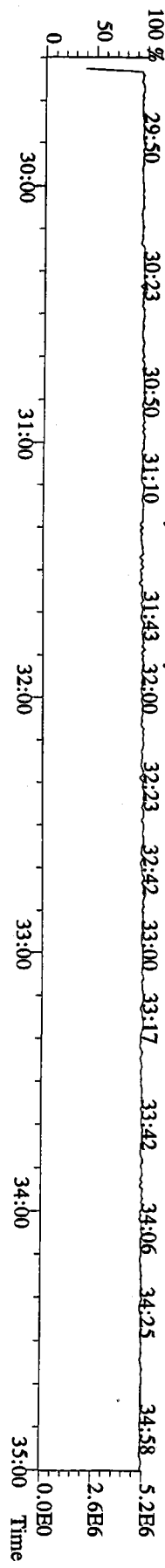
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 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:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



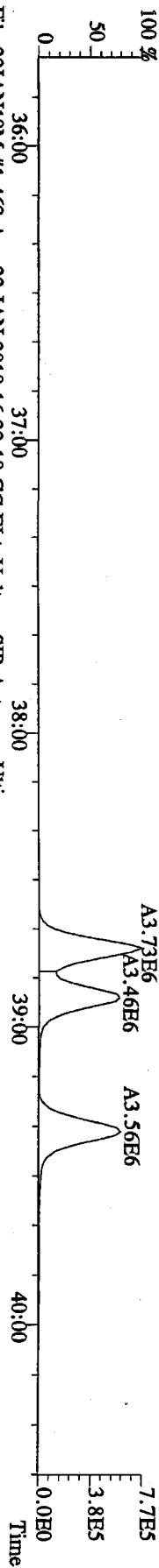
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 S:4 F:2 Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
 100 %



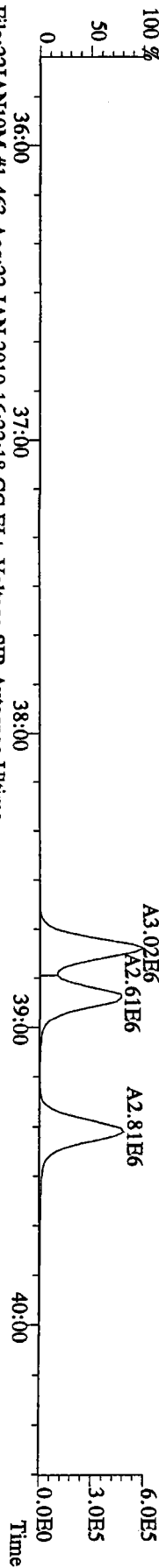
10  
 11  
 12  
 13  
 14  
 15  
 16  
 17  
 18  
 19  
 20



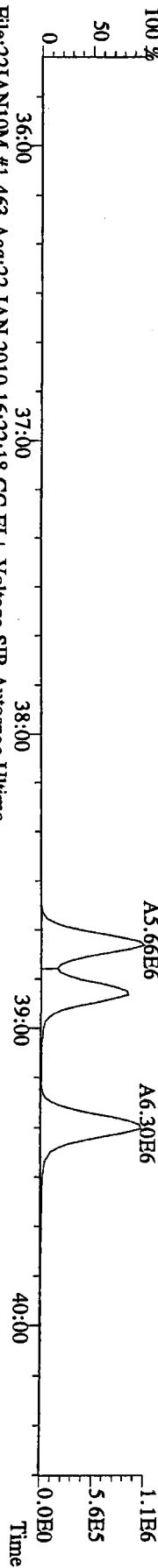
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



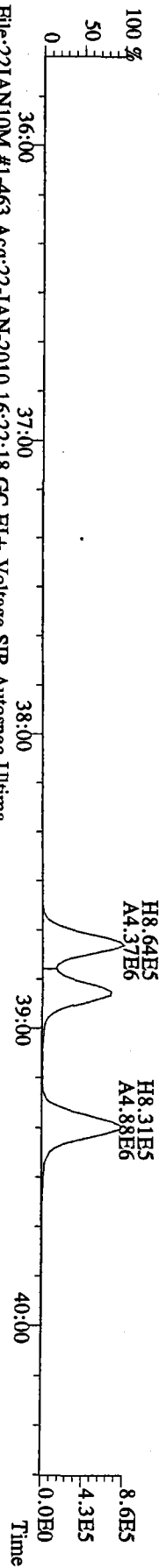
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



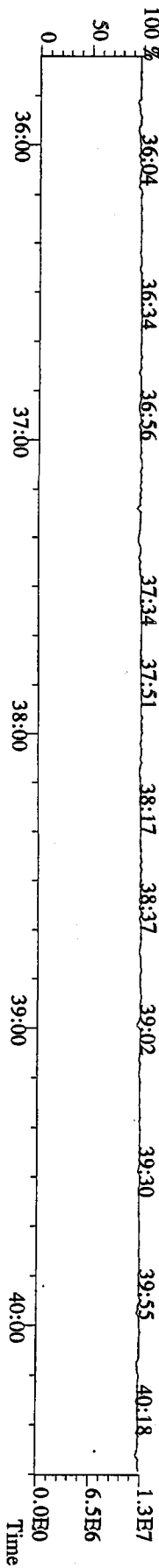
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



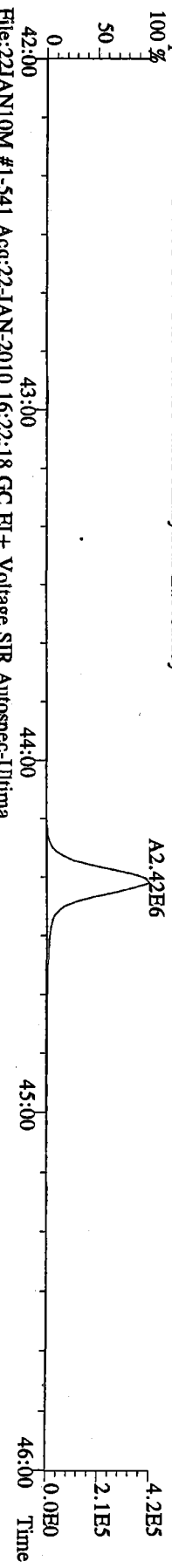
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



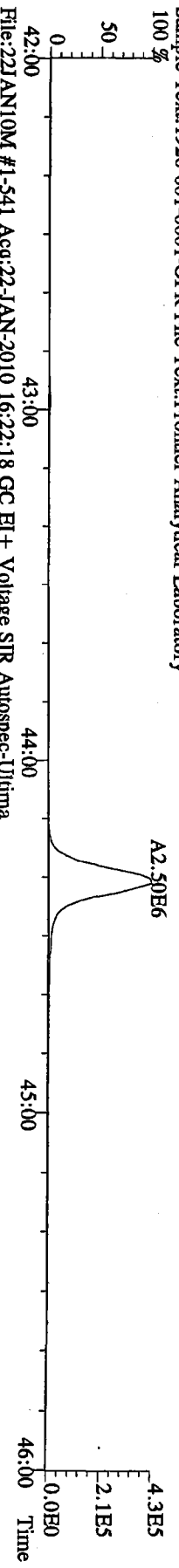
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
380.9760 S:4 F:3 Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



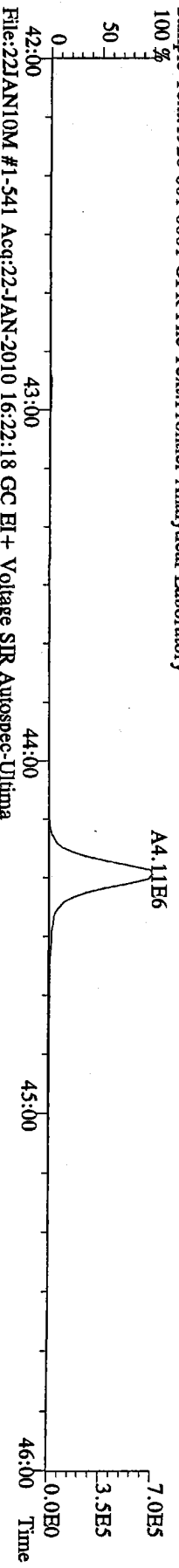
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



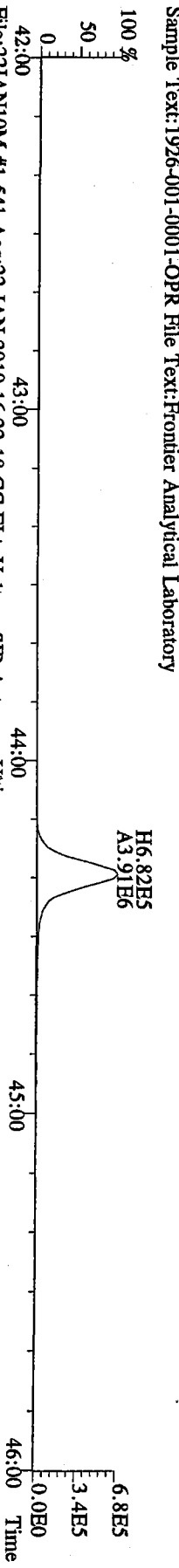
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



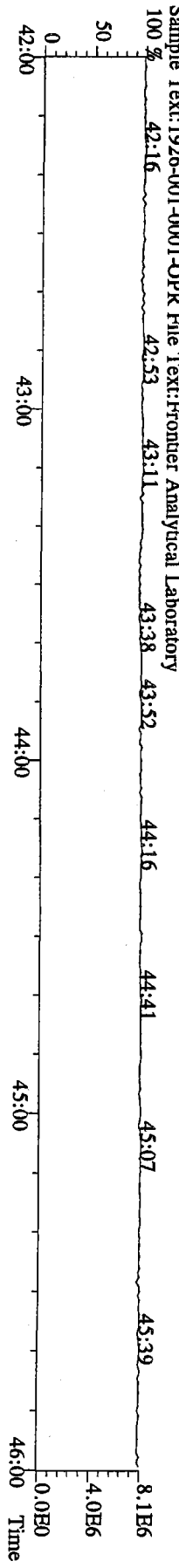
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
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:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

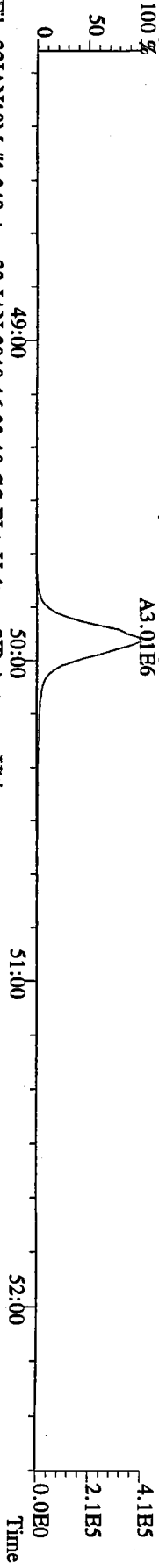


File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
430.9728 S:4 F:4 Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



4  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20

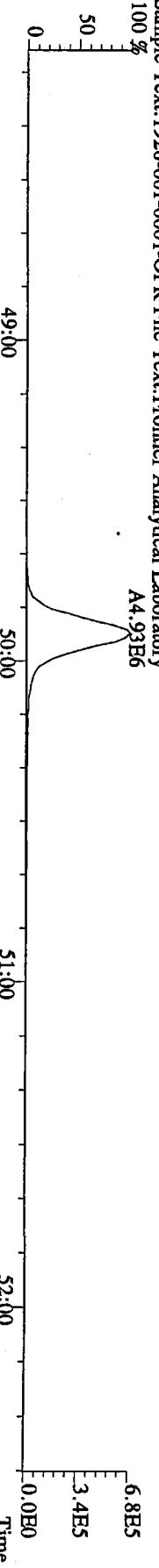
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



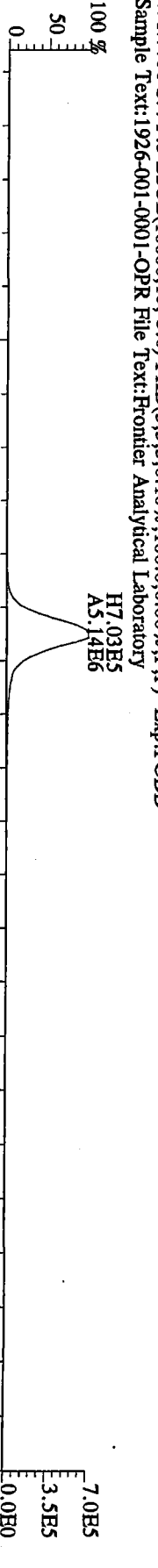
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
459.7348 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



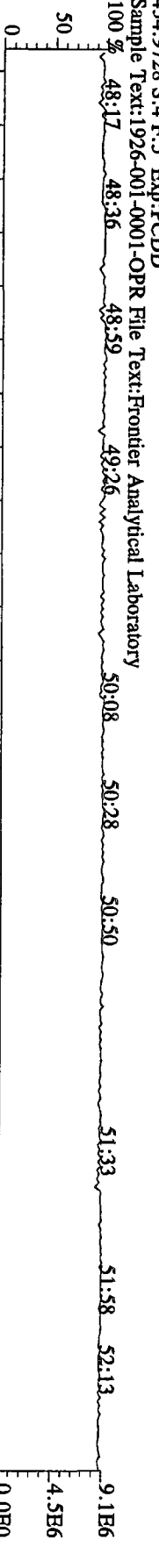
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
469.7780 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
471.7750 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

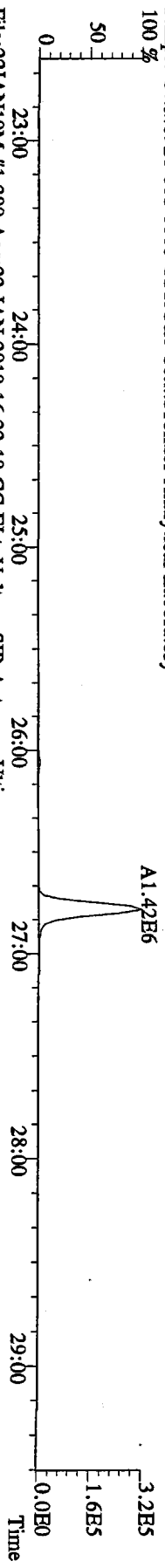


File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 S:4 F:5 Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %

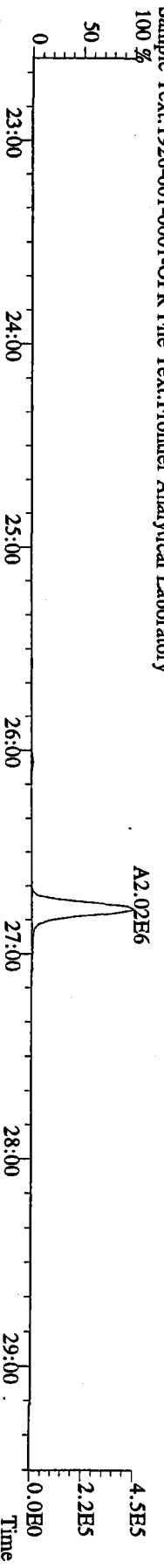


11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

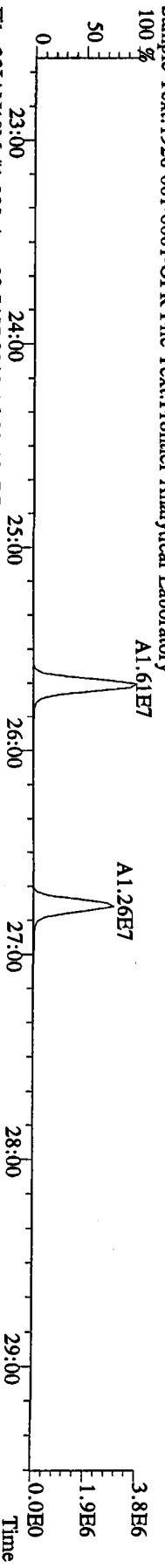
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-QPR File Text:Frontier Analytical Laboratory



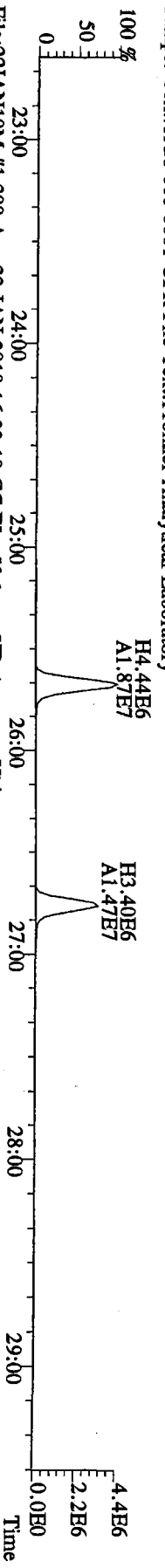
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-QPR File Text:Frontier Analytical Laboratory



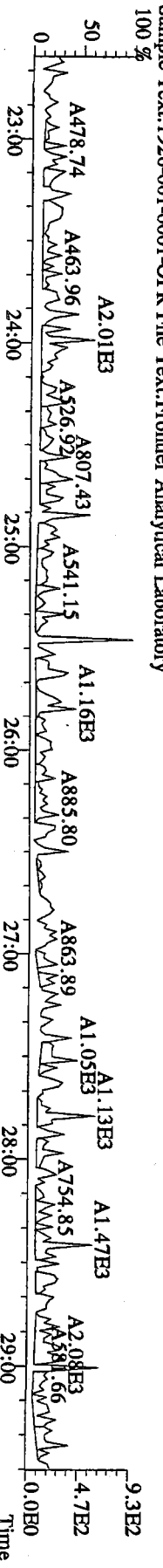
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-QPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 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:1926-001-0001-QPR File Text:Frontier Analytical Laboratory

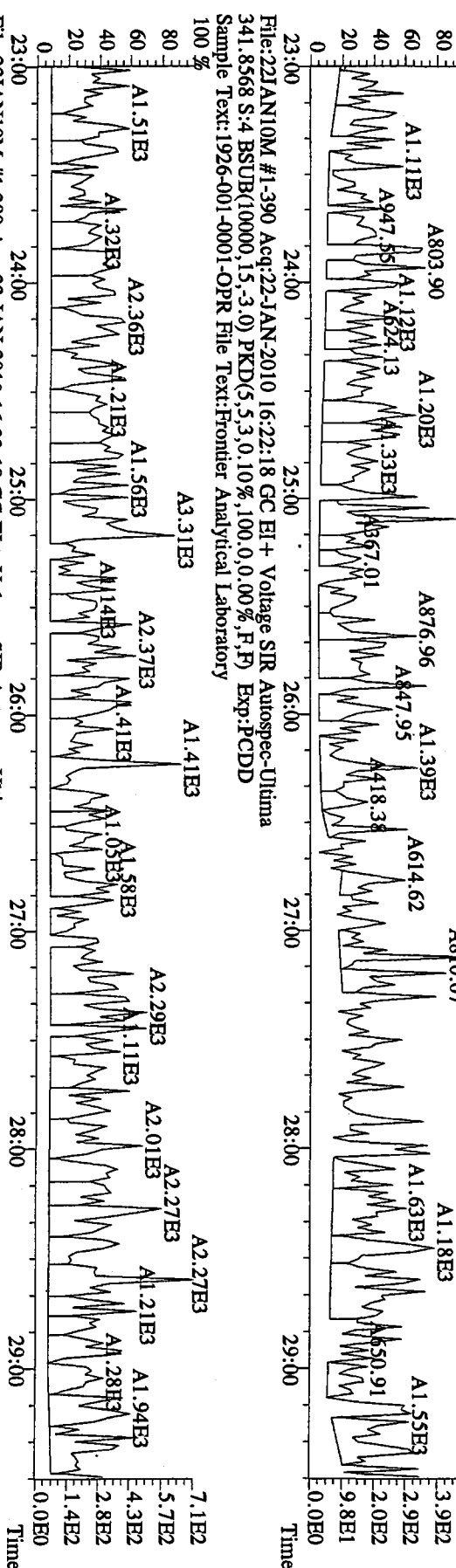


File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-QPR File Text:Frontier Analytical Laboratory

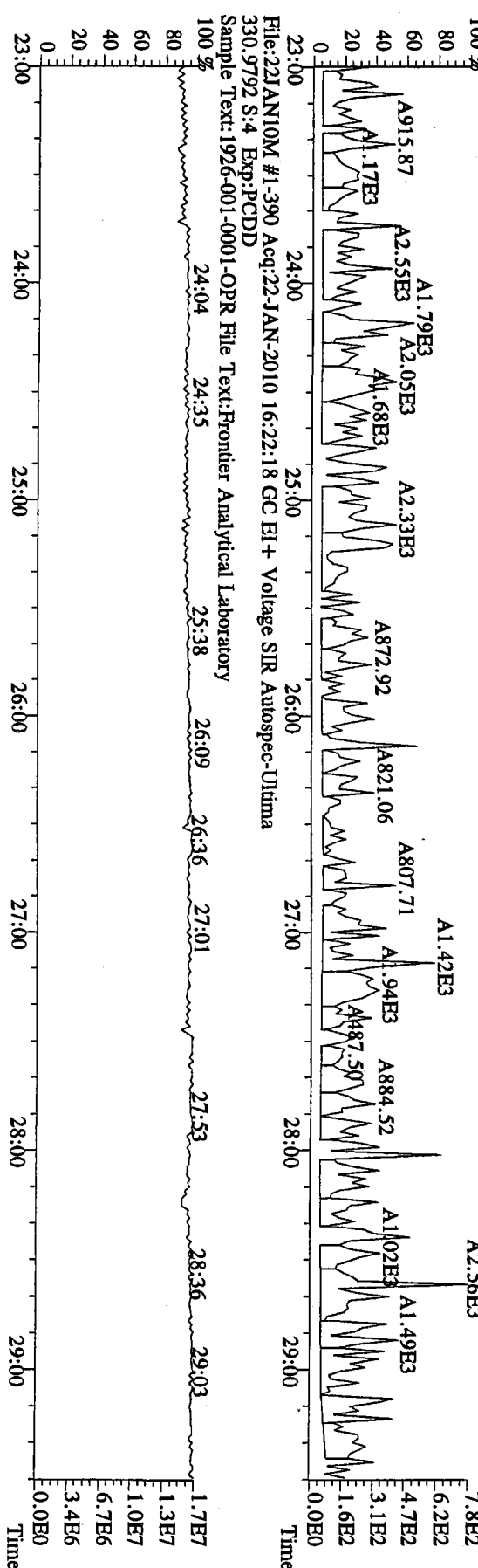


12 11 10 9 8 7 6 5 4 3 2 1

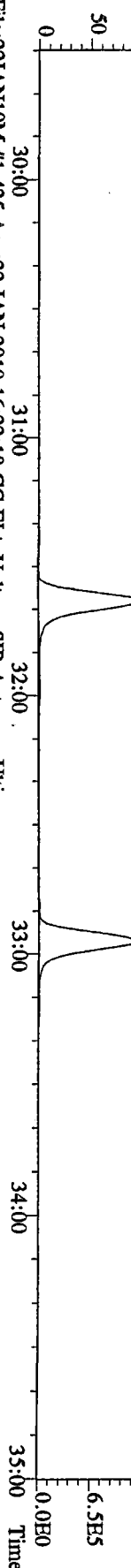
File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 16:22:18 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:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



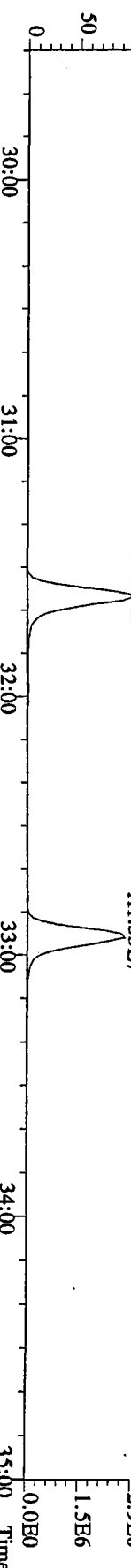
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



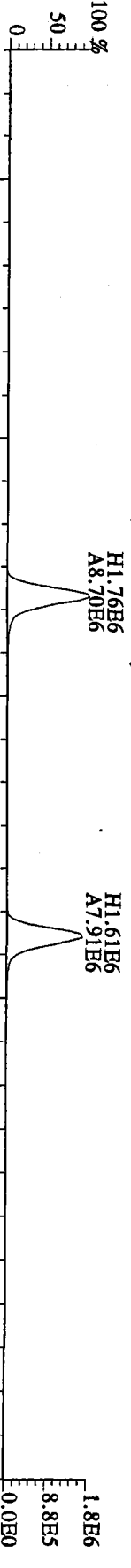
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



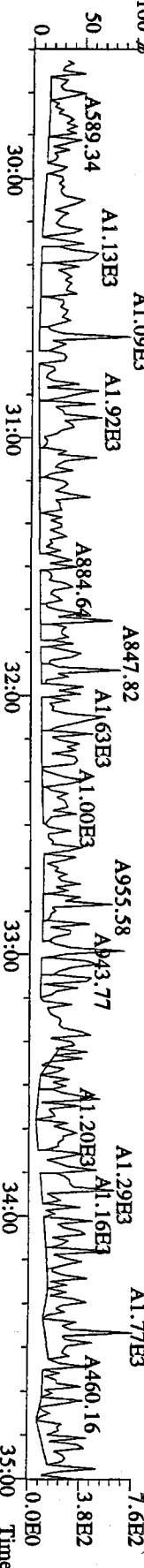
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



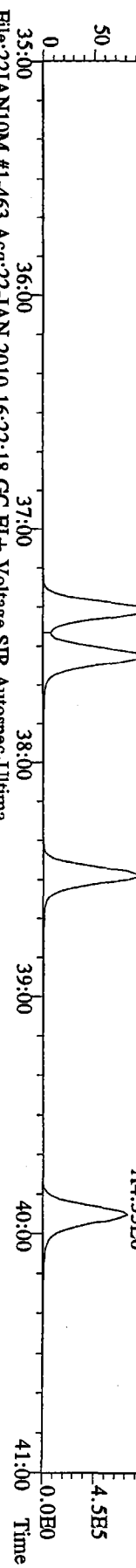
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



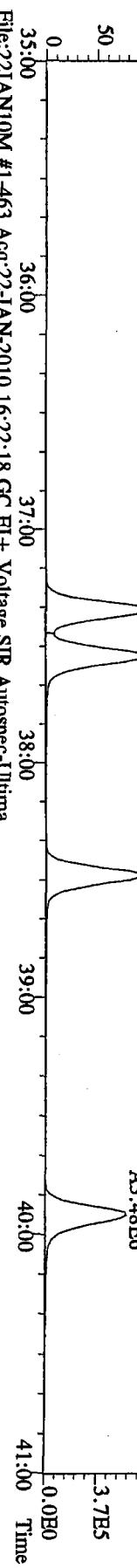
File:22JAN10M #1-425 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



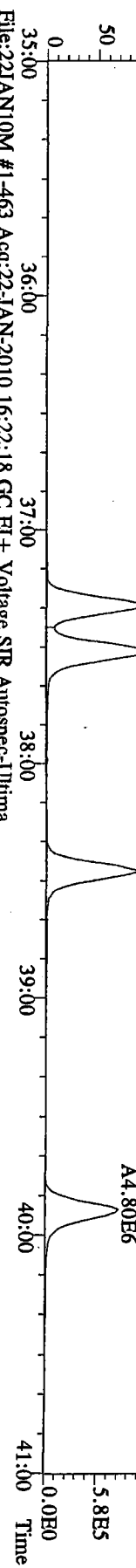
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 373.8207 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



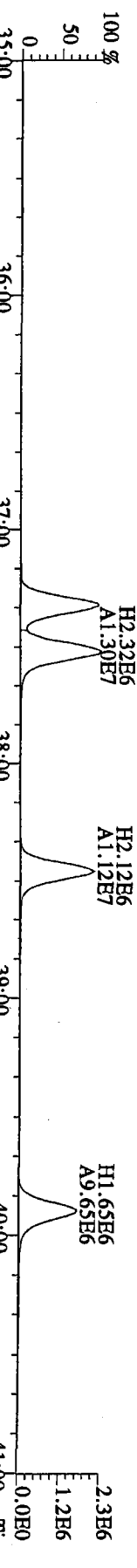
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 375.8178 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



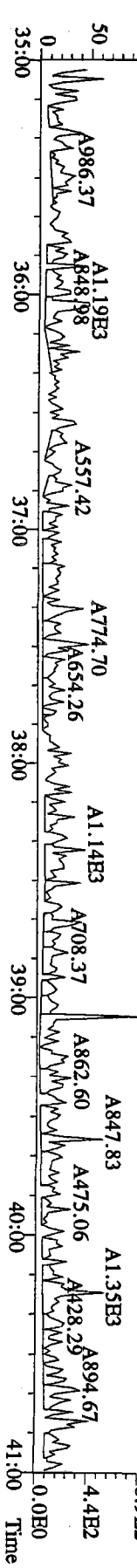
File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 383.8639 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 385.8610 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

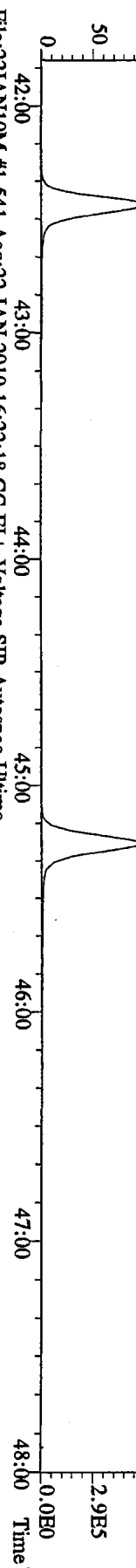


File:22JAN10M #1-463 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Utima  
 445.7555 S:4 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory

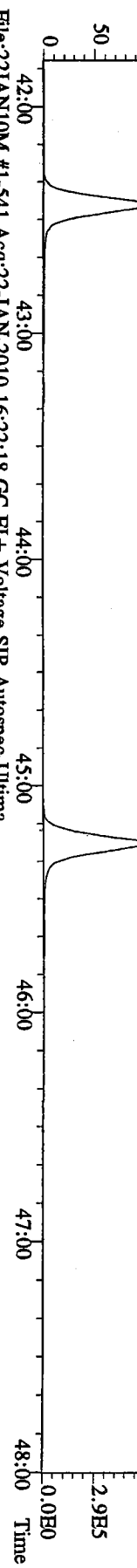


10  
11  
12  
13  
14  
15

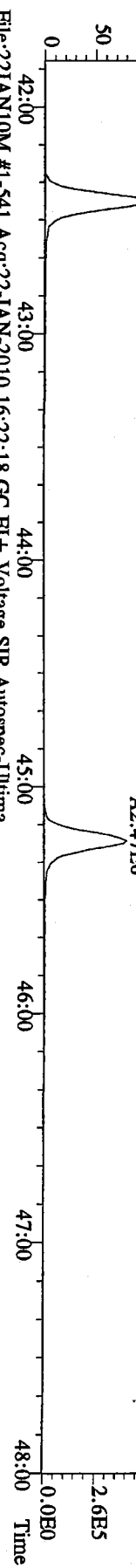
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



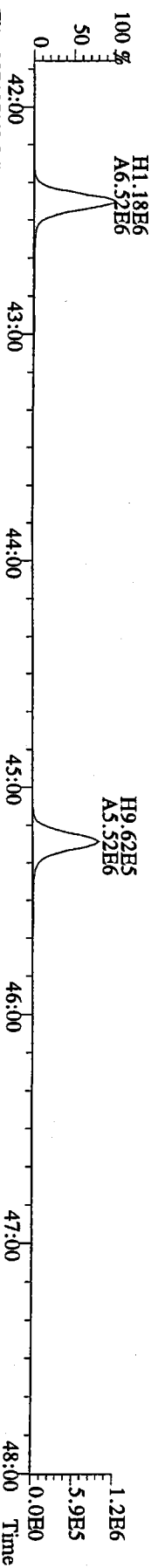
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



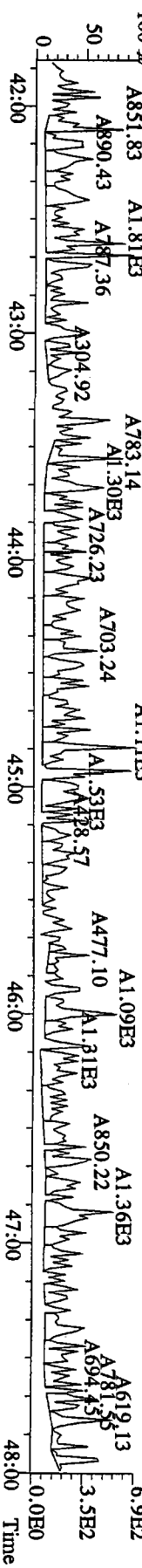
File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %

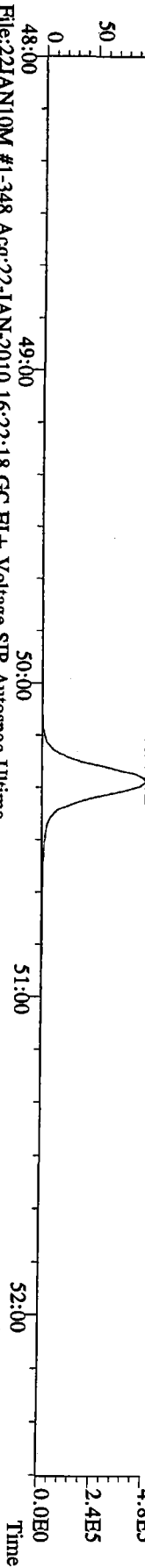


File:22JAN10M #1-541 Acq:22-JAN-2010 16:22:18 GC EI+ Voltage SIR Autospec-Ultima  
479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %

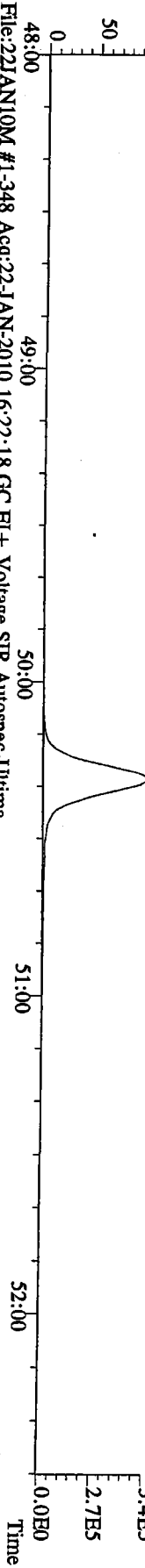




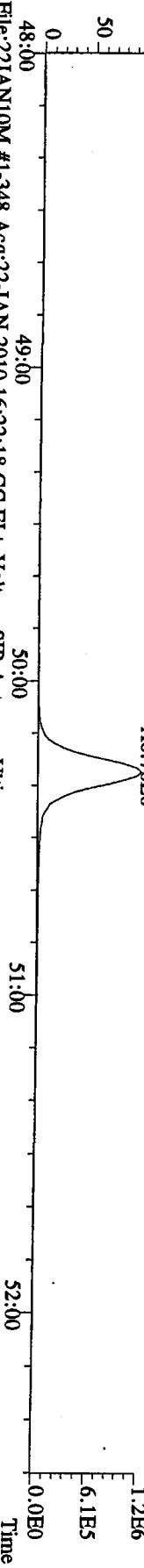
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



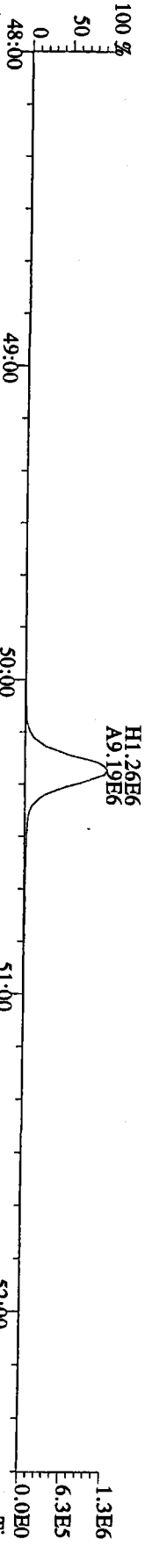
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
445.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



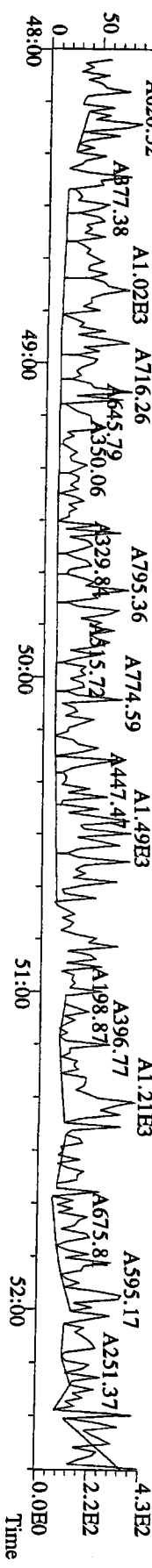
File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
455.7801 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22JAN10M #1-348 Acq:22-JAN-2010 16:22:18 GC EI + Voltage SIR Autospec-Ultima  
513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:1926-001-0001-OPR File Text:Frontier Analytical Laboratory  
100 %



110  
109  
108  
107  
106  
105  
104  
103  
102  
101  
100  
99  
98  
97  
96  
95  
94  
93  
92  
91  
90  
89  
88  
87  
86  
85  
84  
83  
82  
81  
80  
79  
78  
77  
76  
75  
74  
73  
72  
71  
70  
69  
68  
67  
66  
65  
64  
63  
62  
61  
60  
59  
58  
57  
56  
55  
54  
53  
52  
51  
50  
49  
48  
47  
46  
45  
44  
43  
42  
41  
40  
39  
38  
37  
36  
35  
34  
33  
32  
31  
30  
29  
28  
27  
26  
25  
24  
23  
22  
21  
20  
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1

FAL ID: 5913-001-0001-SA      Filename: 22JAN10M      Sam:6      Acquired: 22-JAN-10 18:12:51      ICal: pcddfal3-11-18-09  
Client ID: CB19010710SED      ConCal: ST012210M1      EndCal: ST012210M2  
Results: 5914      GC Column: DB5      Amount: 2.040      NATO 1989 Tox: 99.5

Name	Resp	RA	RT	RRF	WHO 1998 Tox: Conc	Qual	WHO 1989 Tox: Fac	WHO 2005 Tox: Noise-1	Noise-2	89.5 DL
2,3,7,8-TCDD	8.01e+04	0.75 y	27:34	1.02	4.56		2.50	-	-	*
1,2,3,7,8-PeCDD	2.84e+05	1.53 y	33:25	0.96	19.1		2.50	-	-	*
1,2,3,4,7,8-HxCDD	4.50e+05	1.30 y	38:50	1.37	29.6		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.04e+06	1.24 y	38:59	1.34	79.8		2.50	-	-	*
1,2,3,7,8,9-HxCDD	9.90e+05	1.19 y	39:27	1.37	69.8		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	2.43e+07	0.96 y	44:29	1.17	2370		2.50	-	-	*
OCDD	1.50e+08	0.91 y	50:11	1.21	23300		2.50	-	-	*
2,3,7,8-TCDF	2.07e+05	0.67 y	26:49	1.29	5.83	F	2.50	-	-	*
1,2,3,7,8-PeCDF	1.28e+05	1.67 y	31:40	0.89	6.06	J	2.50	-	-	*
2,3,4,7,8-PeCDF	2.14e+05	1.78 y	33:01	0.91	10.7	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	5.04e+05	1.29 y	37:26	1.00	28.9		2.50	-	-	*
1,2,3,6,7,8-HxCDF	3.34e+05	1.22 y	37:39	0.92	19.2		2.50	-	-	*
2,3,4,6,7,8-HxCDF	4.28e+05	1.23 y	38:35	0.99	25.3		2.50	-	-	*
1,2,3,7,8,9-HxCDF	7.81e+04	1.31 y	40:04	1.09	4.65	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	6.26e+06	1.01 y	42:35	1.36	481		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	2.85e+05	1.05 y	45:24	1.61	22.3		2.50	-	-	*
OCDF	9.19e+06	0.89 y	50:34	0.84	1340		2.50	-	-	*
Rec										
13C-2,3,7,8-TCDD	1.69e+07	0.71 y	27:33	0.94	839					85.6
13C-1,2,3,7,8-PeCDD	1.52e+07	1.67 y	33:24	1.02	698					71.2
13C-1,2,3,4,7,8-HxCDD	1.08e+07	1.30 y	38:49	0.98	868					88.6
13C-1,2,3,6,7,8-HxCDD	9.49e+06	1.29 y	38:59	0.94	799					81.5
13C-1,2,3,4,6,7,8-HpCDD	8.62e+06	1.04 y	44:28	0.90	756					77.1
13C-OCDD	1.04e+07	0.94 y	50:10	0.67	1230					62.5
13C-2,3,7,8-TCDF	2.71e+07	0.85 y	26:47	0.88	875					89.2
13C-1,2,3,7,8-PeCDF	2.32e+07	1.67 y	31:39	0.88	752					76.7
13C-2,3,4,7,8-PeCDF	2.16e+07	1.71 y	32:58	0.85	722					73.6
13C-1,2,3,4,7,8-HxCDF	1.71e+07	0.49 y	37:25	1.72	786					80.2
13C-1,2,3,6,7,8-HxCDF	1.86e+07	0.48 y	37:37	2.00	733					74.7
13C-2,3,4,6,7,8-HxCDF	1.69e+07	0.49 y	38:33	1.74	765					78.1
13C-1,2,3,7,8,9-HxCDF	1.51e+07	0.49 y	39:59	1.51	791					80.7
13C-1,2,3,4,6,7,8-HpCDF	9.38e+06	0.46 y	42:33	1.10	673					68.6
13C-1,2,3,4,7,8,9-HpCDF	7.81e+06	0.46 y	45:22	0.85	728					74.2
13C-OCDF	1.59e+07	0.95 y	50:32	1.17	1070					54.5
37Cl-2,3,7,8-TCDD	7.36e+06		27:34	0.97	353					90.1
13C-1,2,3,4-TCDD	2.10e+07	0.73 y	26:59	-	39.3					
13C-1,2,3,4-TCDF	3.46e+07	0.85 y	25:42	-	36.7					
13C-1,2,3,7,8,9-HxCDD	1.24e+07	1.27 y	39:26	-	29.7					
Total Tetra-Dioxins	1.37e+06		24:34	1.02	77.8		2.50	-	-	* 16
Total Penta-Dioxins	2.86e+06		30:25	0.96	192		2.50	-	-	* 10
Total Hexa-Dioxins	1.06e+07		36:21	1.36	754		2.50	-	-	* 8
Total Hepta-Dioxins	4.81e+07		43:06	1.17	4680		2.50	-	-	* 2
Total Tetra-Furans	5.02e+06		23:14	1.29	141		2.50	-	-	* 21
1st Fn. Tot Penta-Furans	1.37e+06		28:37	0.90	67.0		2.50	-	-	* PeCDF 1
Total Penta-Furans	2.69e+06		30:16	0.90	131		2.50	-	-	* 198 11
Total Hexa-Furans	8.78e+06		35:30	0.99	513	D,M	2.50	-	-	* 10
Total Hepta-Furans	1.75e+07		42:35	1.47	1360		2.50	-	-	* 4

*OK DATES 1/22/10*

Analyst:                     

Date: 1/22/10

Totals class: Total Tetra-Dioxins

Entry #: 38

Run: 11

File: 22JAN10M

S: 6 I: 1 F: 1

Acquired: 22-JAN-10 18:12:51

Total Concentration: 77.8

Unnamed Concentration: 73.247

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
24:34	1.06e+05	1.44e+05	0.73 y	2.50e+05	14.3	
24:51	7.10e+04	8.71e+04	0.82 y	1.58e+05	9.01	
25:09	3.16e+04	4.25e+04	0.74 y	7.41e+04	4.22	
25:47	2.85e+04	3.26e+04	0.87 y	6.11e+04	3.48	
25:56	5.72e+04	7.05e+04	0.81 y	1.28e+05	7.28	
26:06	4.91e+04	5.79e+04	0.85 y	1.07e+05	6.09	
26:16	2.21e+04	2.84e+04	0.78 y	5.05e+04	2.88	
26:29	1.13e+04	1.64e+04	0.69 y	2.76e+04	1.57	
26:38	3.12e+04	4.00e+04	0.78 y	7.12e+04	4.06	
26:57	5.04e+04	6.28e+04	0.80 y	1.13e+05	6.45	
27:19	3.79e+04	4.32e+04	0.88 y	8.11e+04	4.62	
27:27	1.01e+04	1.52e+04	0.66 y	2.53e+04	1.44	
27:34	3.44e+04	4.56e+04	0.75 y	8.01e+04	4.56	2,3,7,8-TCDD
27:53	2.97e+04	3.74e+04	0.80 y	6.71e+04	3.82	
27:58	1.00e+04	1.20e+04	0.83 y	2.20e+04	1.26	
28:30	2.13e+04	2.79e+04	0.77 y	4.92e+04	2.80	

Totals class: Total Penta-Dioxins

Entry #: 39

Run: 11

File: 22JAN10M

S: 6 I: 1 F: 2

Acquired: 22-JAN-10 18:12:51

Total Concentration: 192

Unnamed Concentration: 172.793

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:25	3.79e+05	2.44e+05	1.55 y	6.24e+05	41.8	
31:02	1.81e+05	1.15e+05	1.57 y	2.97e+05	19.9	
31:39	1.58e+05	1.02e+05	1.54 y	2.60e+05	17.4	
31:53	1.68e+05	1.11e+05	1.51 y	2.80e+05	18.8	
32:01	1.74e+05	1.15e+05	1.51 y	2.89e+05	19.4	
32:19	2.82e+05	1.91e+05	1.48 y	4.72e+05	31.7	
32:48	6.86e+04	4.28e+04	1.60 y	1.11e+05	7.47	
33:25	1.72e+05	1.12e+05	1.53 y	2.84e+05	19.1	1,2,3,7,8-PeCDD
33:32	6.20e+04	4.24e+04	1.46 y	1.04e+05	7.00	
34:00	8.27e+04	5.80e+04	1.43 y	1.41e+05	9.43	

Totals class: Total Hexa-Dioxins

Entry #: 40

Run: 11

File: 22JAN10M

S: 6 I: 1 F: 3

Acquired: 22-JAN-10 18:12:51

Total Concentration: 754

Unnamed Concentration: 574.828

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
36:21	1.80e+06	1.44e+06	1.25 y	3.23e+06	229	
37:18	3.73e+05	3.01e+05	1.24 y	6.74e+05	47.7	
37:44	2.05e+06	1.66e+06	1.23 y	3.72e+06	263	
37:54	1.11e+05	9.59e+04	1.16 y	2.07e+05	14.7	
38:50	2.55e+05	1.96e+05	1.30 y	4.50e+05	29.6	1,2,3,4,7,8-HxCDD
38:59	5.74e+05	4.64e+05	1.24 y	1.04e+06	79.8	1,2,3,6,7,8-HxCDD
39:18	1.64e+05	1.21e+05	1.35 y	2.85e+05	20.2	
39:27	5.38e+05	4.51e+05	1.19 y	9.90e+05	69.8	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 11

File: 22JAN10M

S: 6 I: 1 F: 4

Acquired: 22-JAN-10 18:12:51

Total Concentration: 4680

Unnamed Concentration: 2312.197

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
43:06	1.16e+07	1.21e+07	0.96 y	2.37e+07	2310	
44:29	1.19e+07	1.24e+07	0.96 y	2.43e+07	2370	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans

Entry #: 42

Run: 11

File: 22JAN10M

S: 6 I: 1 F: 1

Acquired: 22-JAN-10 18:12:51

Total Concentration: 141

Unnamed Concentration: 135.624

RT	ml Resp	m2 Resp RA	Resp	Concentration	Name
23:14	4.74e+04	7.21e+04 0.66 y	1.19e+05	3.37	
23:35	4.83e+04	6.56e+04 0.74 y	1.14e+05	3.21	
23:58	1.64e+05	2.46e+05 0.67 y	4.09e+05	11.5	
24:21	2.12e+05	3.22e+05 0.66 y	5.34e+05	15.0	
24:36	1.44e+05	2.13e+05 0.68 y	3.58e+05	10.1	
24:53	1.08e+05	1.60e+05 0.68 y	2.69e+05	7.57	
25:00	5.40e+04	7.51e+04 0.72 y	1.29e+05	3.64	
25:07	6.52e+04	9.88e+04 0.66 y	1.64e+05	4.62	
25:28	1.16e+05	1.70e+05 0.69 y	2.86e+05	8.06	
25:36	1.39e+05	1.87e+05 0.74 y	3.26e+05	9.19	
25:44	2.15e+05	3.05e+05 0.71 y	5.20e+05	14.7	
26:04	1.08e+05	1.63e+05 0.66 y	2.71e+05	7.63	
26:19	6.96e+04	1.03e+05 0.67 y	1.73e+05	4.87	
26:27	8.26e+04	1.26e+05 0.66 y	2.08e+05	5.87	
26:37	5.73e+04	8.04e+04 0.71 y	1.38e+05	3.88	
26:42	5.65e+04	8.46e+04 0.67 y	1.41e+05	3.98	
26:49	8.32e+04	1.24e+05 0.67 y	2.07e+05	5.83	2,3,7,8-TCDF
27:09	1.73e+05	2.56e+05 0.67 y	4.29e+05	12.1	
28:01	2.81e+04	3.94e+04 0.71 y	6.75e+04	1.90	
28:13	2.47e+04	3.46e+04 0.72 y	5.93e+04	1.67	
28:37	4.40e+04	5.47e+04 0.80 y	9.87e+04	2.78	

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

Run: 11 File: 22JAN10M S: 6 I: 1 F: 1  
Acquired: 22-JAN-10 18:12:51

Total Concentration: 67.0 Unnamed Concentration: 66.994

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:37	8.38e+05	5.37e+05	1.56 y	1.37e+06	67.0	



Totals class: Total Penta-Furans

Entry #: 44

Run: 11 File: 22JAN10M  
Acquired: 22-JAN-10 18:12:51

S: 6 I: 1 F: 2

Total Concentration: 131

Unnamed Concentration: 114.608

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:16	1.50e+05	9.07e+04	1.65 y	2.40e+05	11.7	
30:24	5.88e+05	3.55e+05	1.66 y	9.43e+05	46.0	
30:53	1.93e+04	1.44e+04	1.34 y	3.37e+04	1.64	
31:07	2.85e+05	1.71e+05	1.66 y	4.56e+05	22.2	
31:25	4.67e+04	2.78e+04	1.68 y	7.45e+04	3.63	
31:40	8.00e+04	4.78e+04	1.67 y	1.28e+05	6.06	1,2,3,7,8-PeCDF
32:01	2.00e+05	1.21e+05	1.66 y	3.21e+05	15.7	
32:13	2.24e+04	1.42e+04	1.58 y	3.65e+04	1.78	
32:51	1.02e+05	6.03e+04	1.69 y	1.62e+05	7.91	
33:01	1.37e+05	7.72e+04	1.78 y	2.14e+05	10.7	2,3,4,7,8-PeCDF
33:04	5.23e+04	3.11e+04	1.68 y	8.34e+04	4.06	

Totals class: Total Hexa-Furans

Entry #: 45

Run: 11 File: 22JAN10M  
Acquired: 22-JAN-10 18:12:51

S: 6 I: 1 F: 3

Total Concentration: 513

Unnamed Concentration: 434.692

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:30	5.26e+05	4.29e+05	1.23 y	9.55e+05	55.8	
35:45	1.84e+06	1.52e+06	1.21 y	3.35e+06	196	
36:20	4.75e+04	4.13e+04	1.15 y	8.88e+04	5.19	
36:39	1.47e+06	1.22e+06	1.21 y	2.69e+06	157	
37:16	9.69e+04	8.22e+04	1.18 y	1.79e+05	10.5	
37:26	2.84e+05	2.20e+05	1.29 y	5.04e+05	28.9	1,2,3,4,7,8-HxCDF
37:39	1.84e+05	1.50e+05	1.22 y	3.34e+05	19.2	1,2,3,6,7,8-HxCDF
38:18	9.72e+04	7.95e+04	1.22 y	1.77e+05	10.3	
38:35	2.36e+05	1.92e+05	1.23 y	4.28e+05	25.3	2,3,4,6,7,8-HxCDF
40:04	4.43e+04	3.38e+04	1.31 y	7.81e+04	4.65	1,2,3,7,8,9-HxCDF

Totals class: Total Hepta-Furans

Entry #: 46

Run: 11

File: 22JAN10M

S: 6 I: 1 F: 4

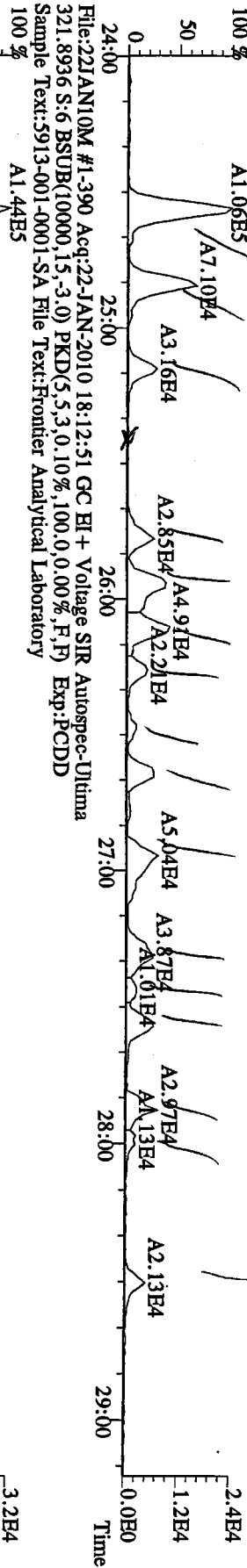
Acquired: 22-JAN-10 18:12:51

Total Concentration: 1360

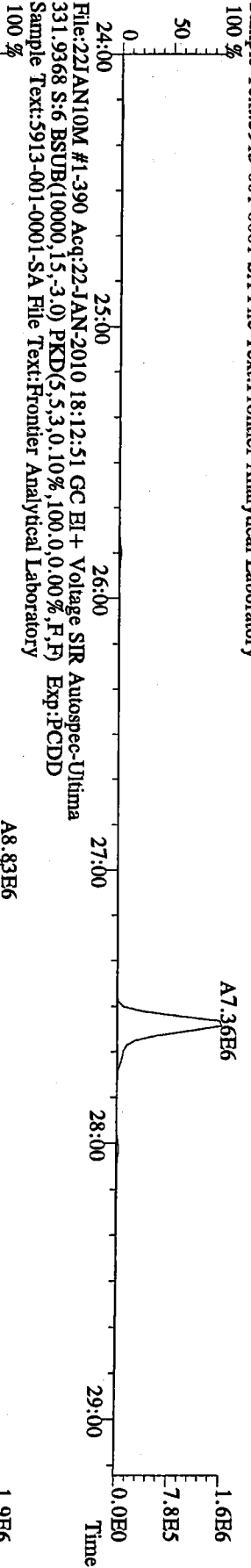
Unnamed Concentration: 852.386

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:35	3.15e+06	3.11e+06	1.01 y	6.26e+06	481	1,2,3,4,6,7,8-HpCDF
43:07	6.55e+04	7.03e+04	0.93 y	1.36e+05	10.6	
43:24	5.66e+06	5.17e+06	1.09 y	1.08e+07	842	
45:24	1.46e+05	1.39e+05	1.05 y	2.85e+05	22.3	1,2,3,4,7,8,9-HpCDF

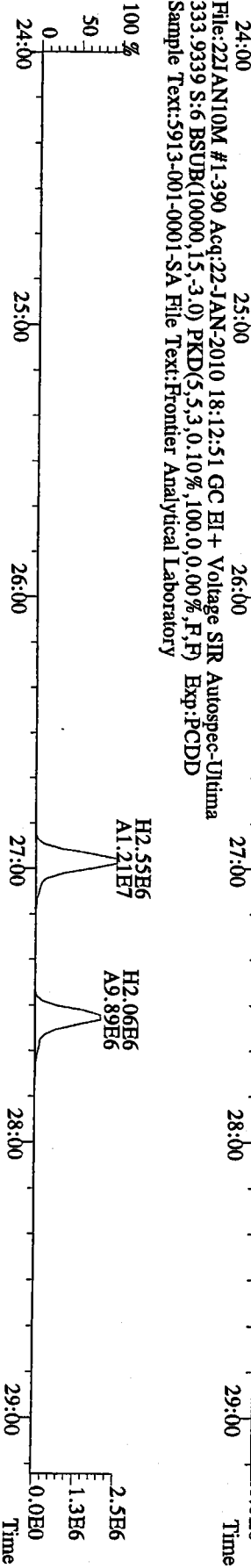
File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
 319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
 327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
 333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %

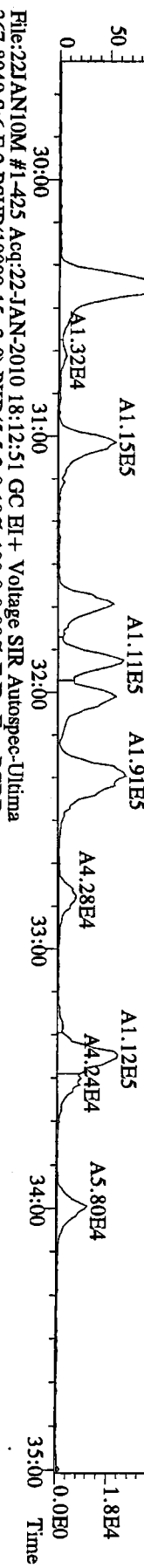


10  
10  
10  
10  
10  
10  
10  
10  
10  
10

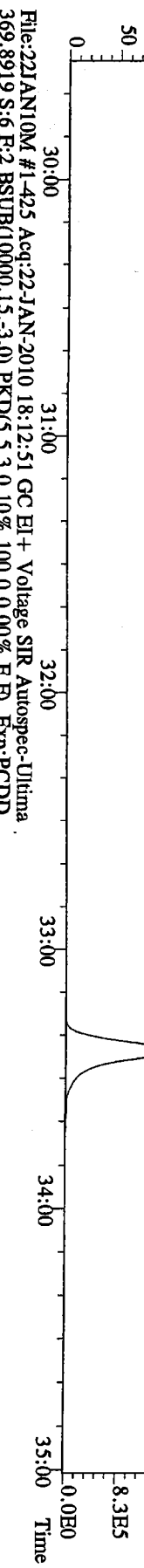
File:22JAN10M #1-425 Acq:22-JAN-2010 18:12:51 GC EI + Voltage SIR Autospec-Ultima  
 355.8546 S:6 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



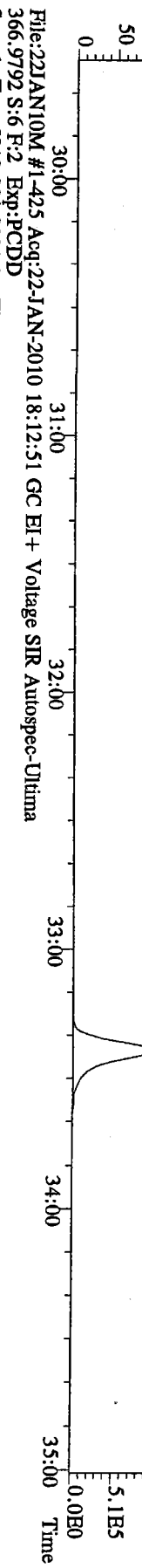
File:22JAN10M #1-425 Acq:22-JAN-2010 18:12:51 GC EI + Voltage SIR Autospec-Ultima  
 357.8517 S:6 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



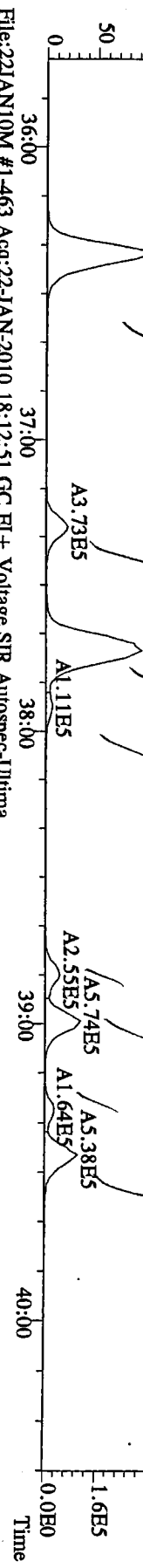
File:22JAN10M #1-425 Acq:22-JAN-2010 18:12:51 GC EI + Voltage SIR Autospec-Ultima  
 367.8949 S:6 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



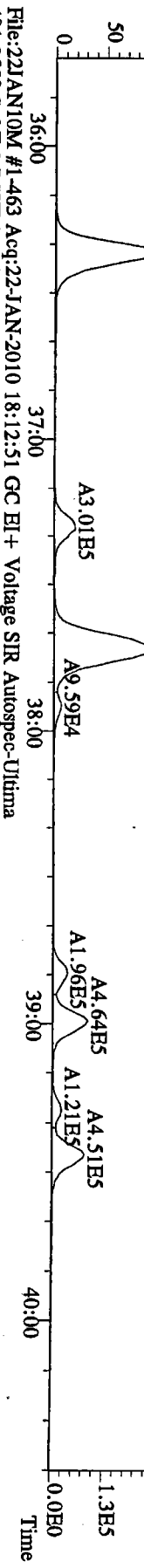
File:22JAN10M #1-425 Acq:22-JAN-2010 18:12:51 GC EI + Voltage SIR Autospec-Ultima  
 366.9792 S:6 F:2 Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



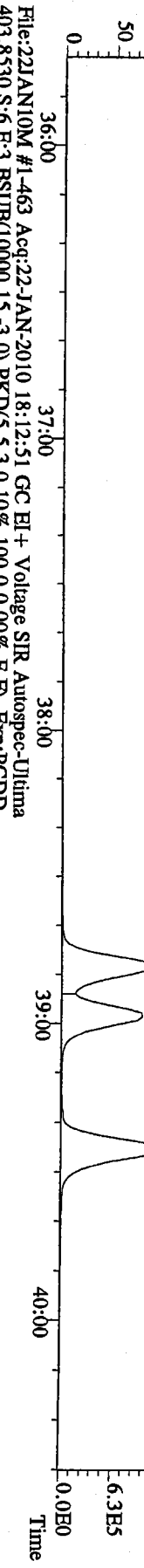
File:22JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:6 F:3 BSUB(10000,15,-3.0)/PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



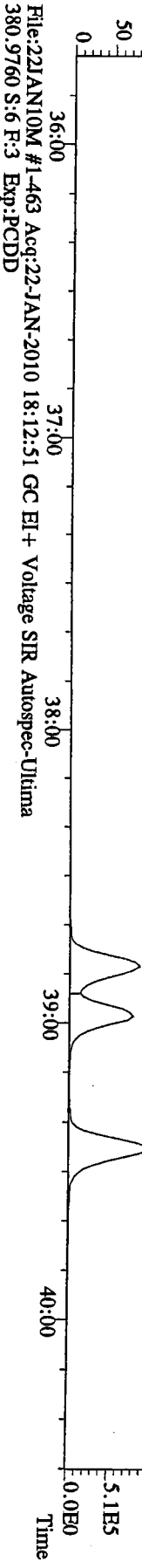
File:22JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:6 F:3 BSUB(10000,15,-3.0)/PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



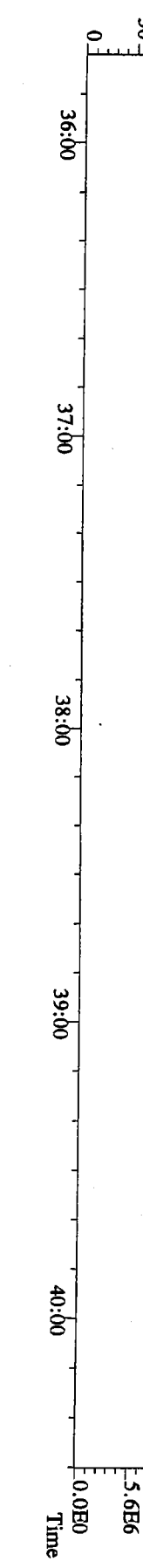
File:22JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:6 F:3 BSUB(10000,15,-3.0)/PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 S:6 F:3 BSUB(10000,15,-3.0)/PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory

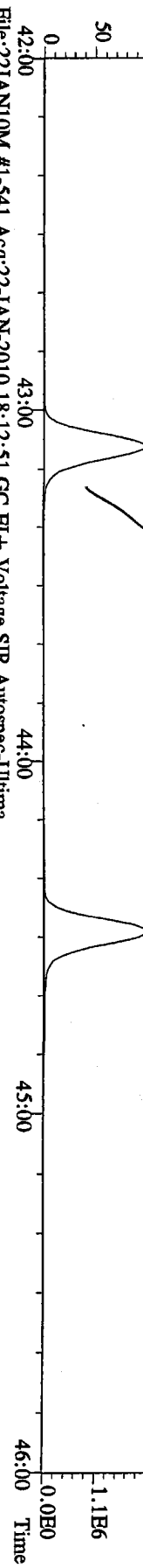


File:22JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:6 F:3 Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory

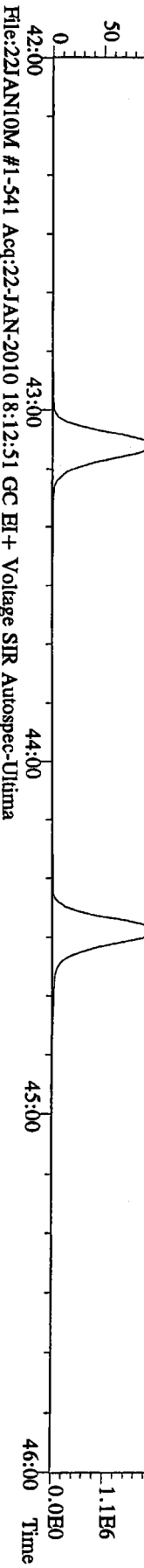


11-10-10 10:00:00

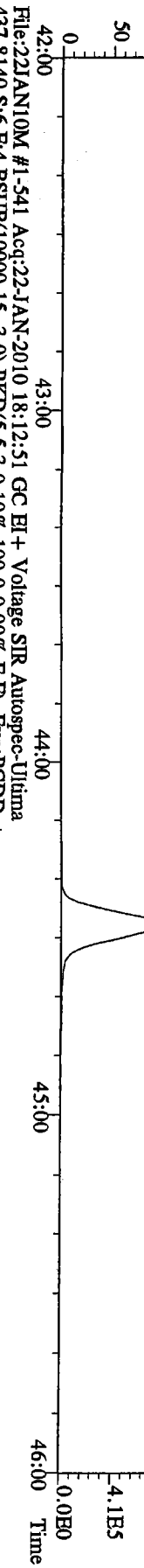
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %



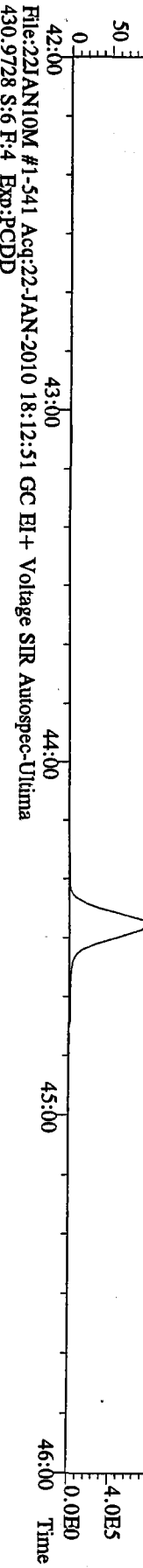
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %



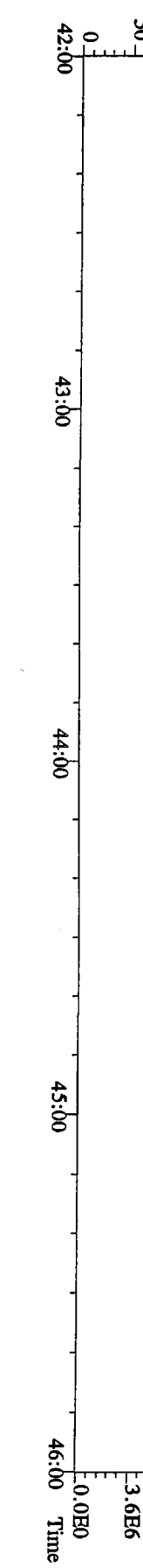
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %



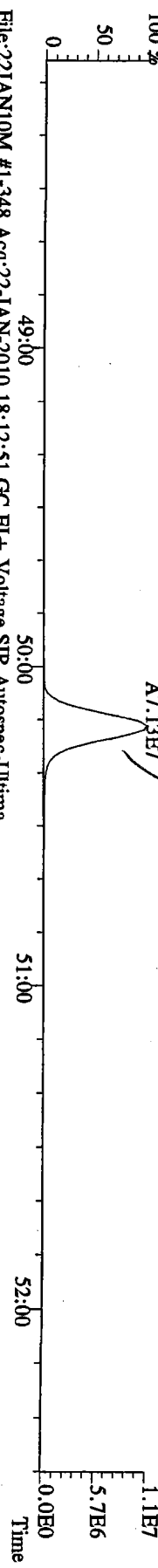
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %



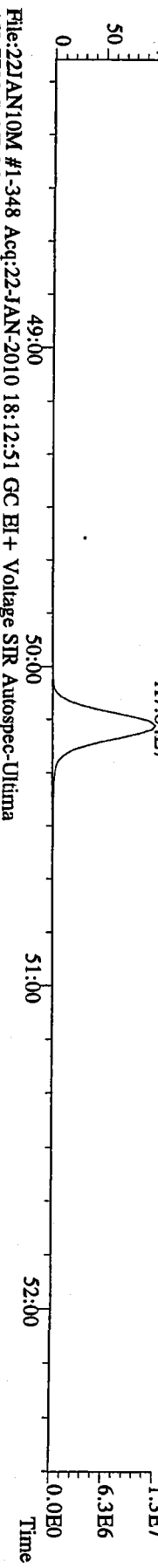
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
430.9728 S:6 F:4 Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %



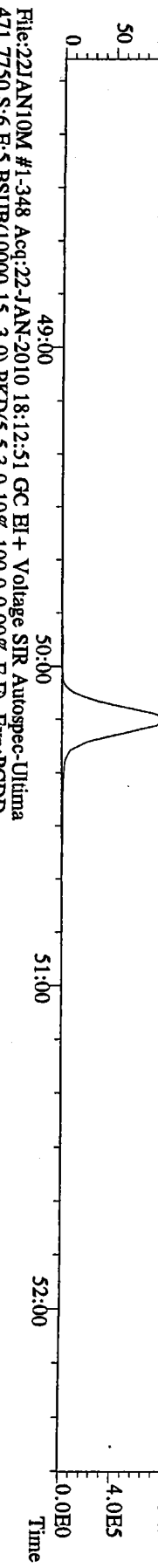
File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %



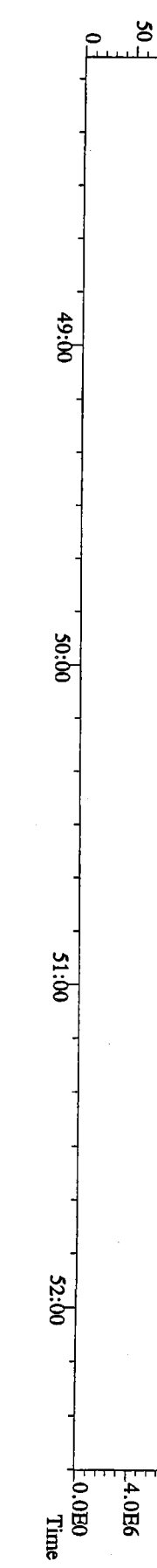
File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %

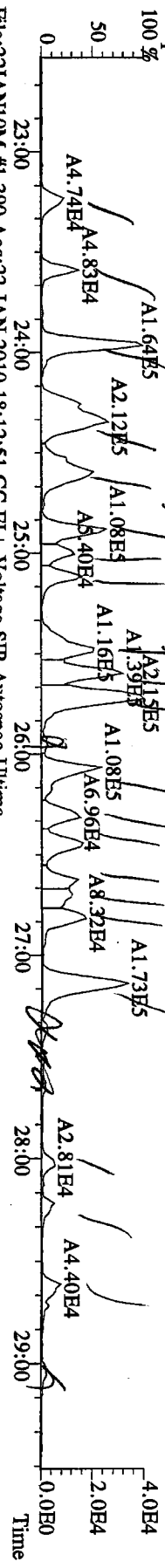


File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 S:6 F:5 Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
100 %

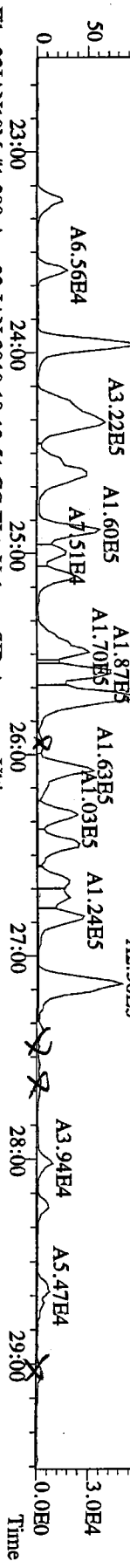




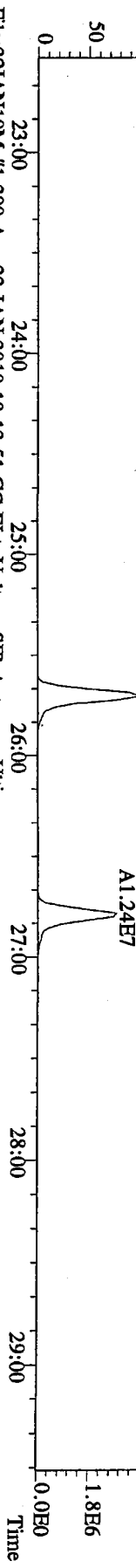
File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
 303.9016 S:6 BSUB(10000,15,-3,0) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



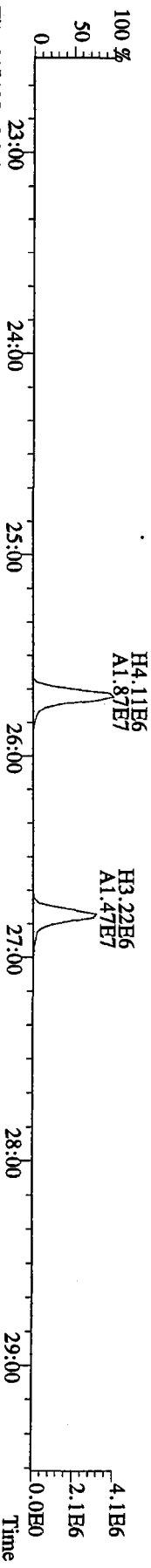
File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
 305.8987 S:6 BSUB(10000,15,-3,0) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



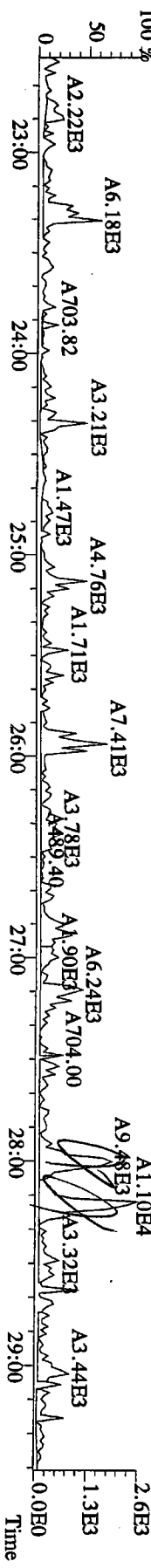
File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 S:6 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



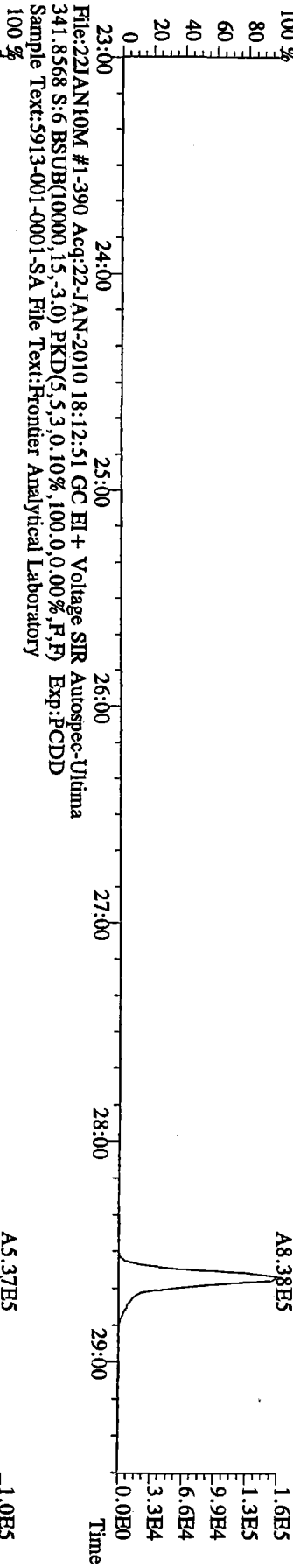
File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
 317.9389 S:6 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



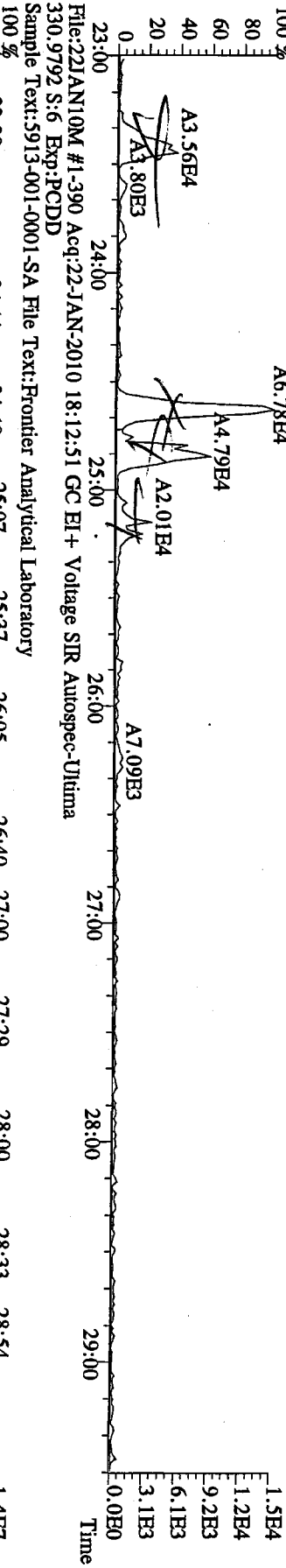
File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Utima  
 375.8364 S:6 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory

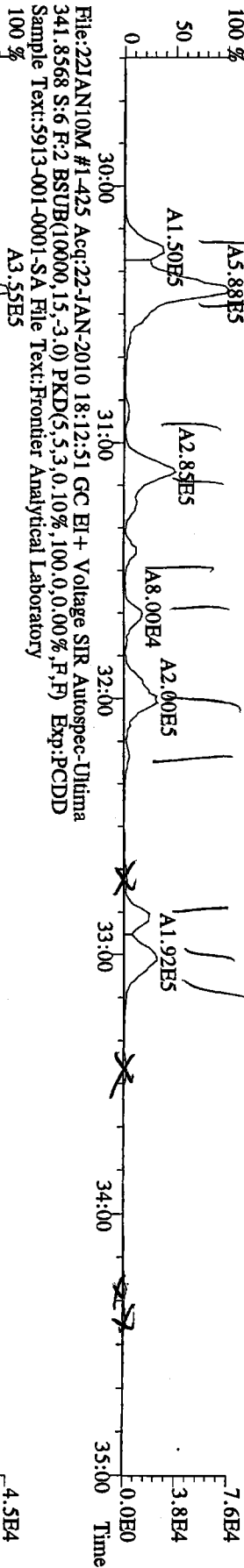


File:22JAN10M #1-390 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 S:6 Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory

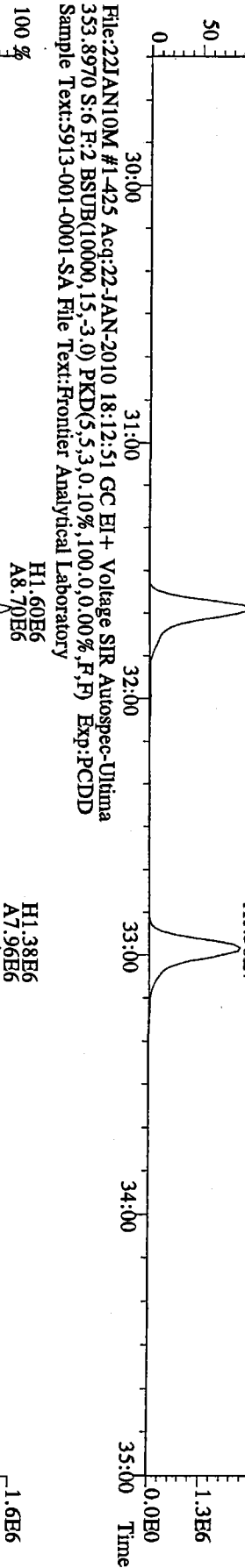


12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1

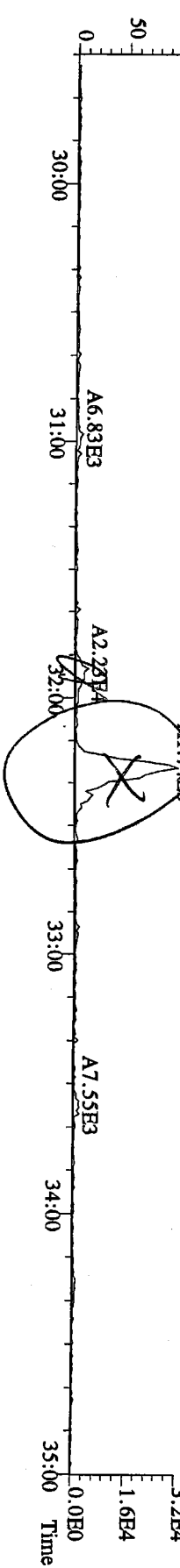
File:22JAN10M #1-425 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-425 Acq:22-JAN-2010 18:12:51 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:5913-001-0001-SA File Text:Frontier Analytical Laboratory

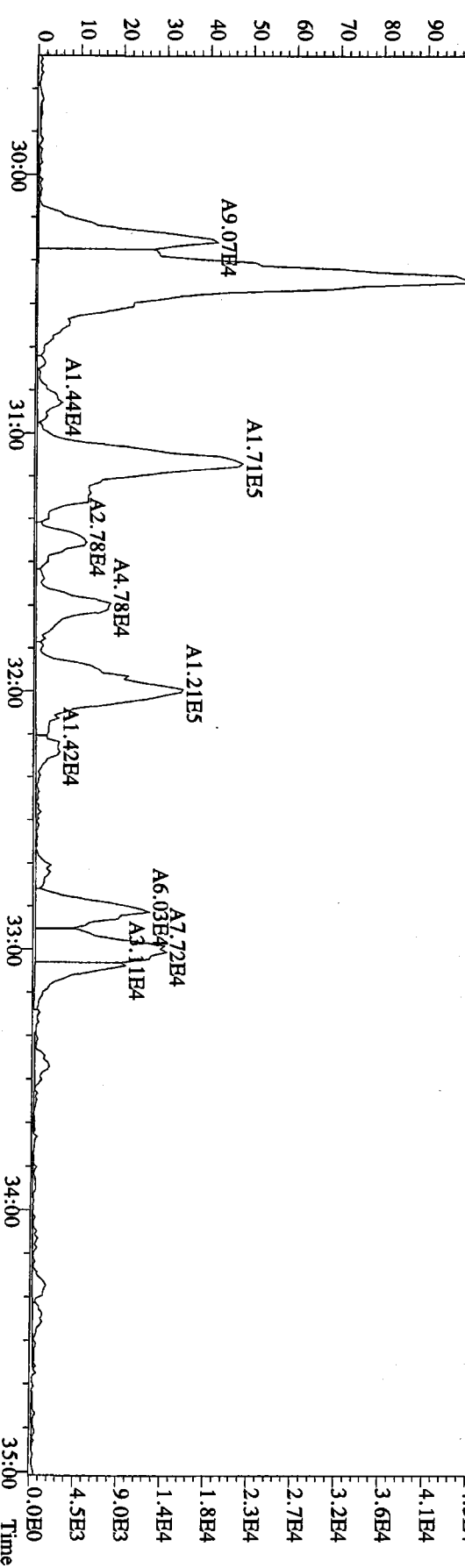
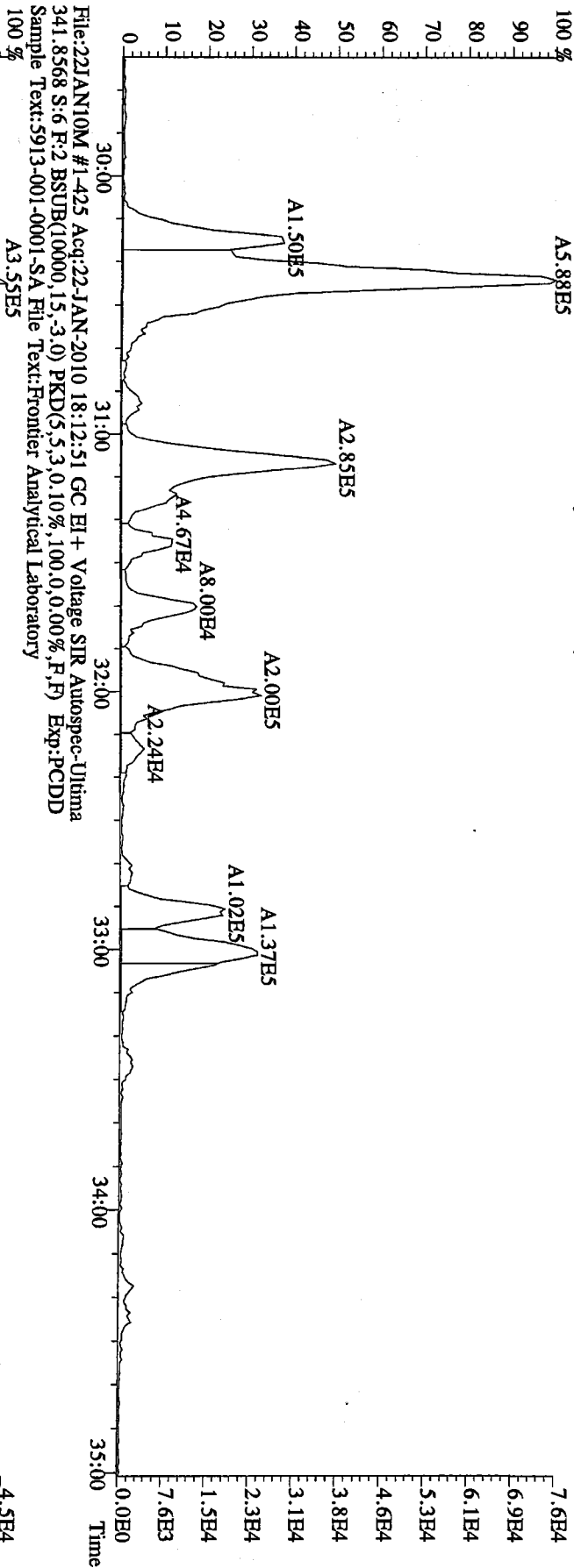


File:22JAN10M #1-425 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



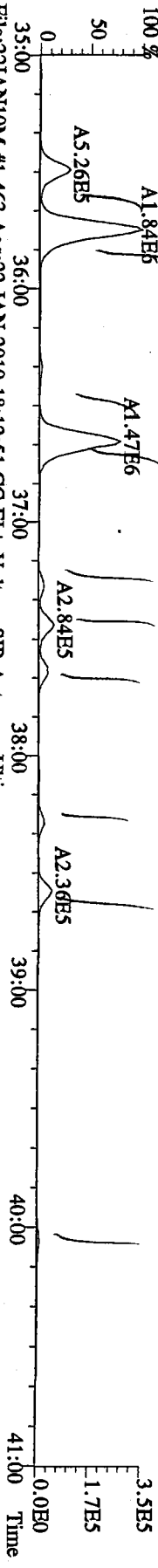
10  
11  
12  
13  
14  
15

File:22JAN10M #1-425 Acq:22-JAN-2010 18:12:51 GC EI + Voltage SIR Autospec-Ultima  
 339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory

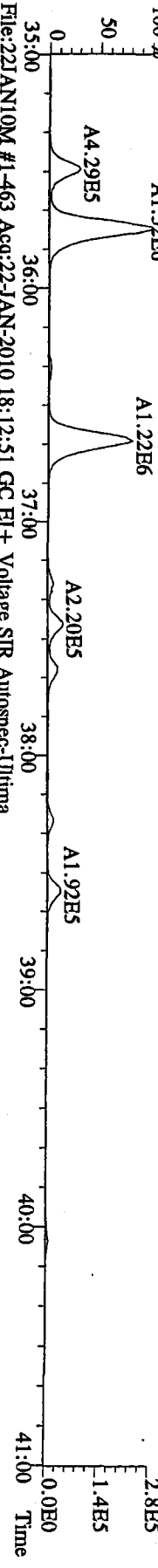


PCDD

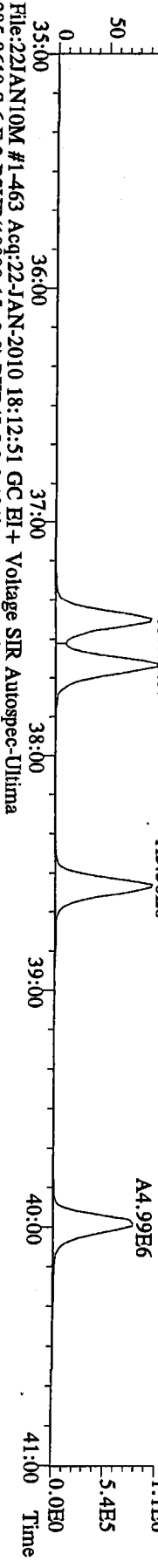
File:221JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 373.8207 S:6 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



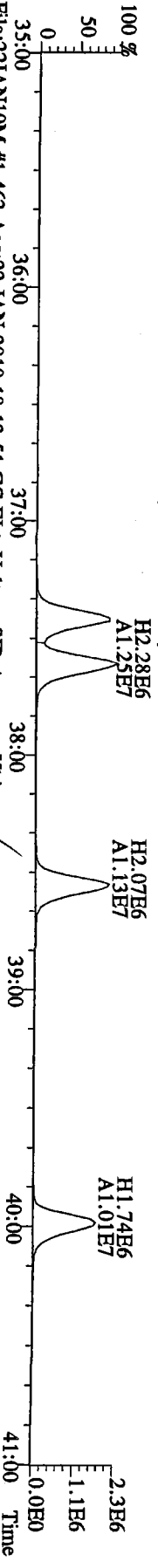
File:221JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 375.8178 S:6 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



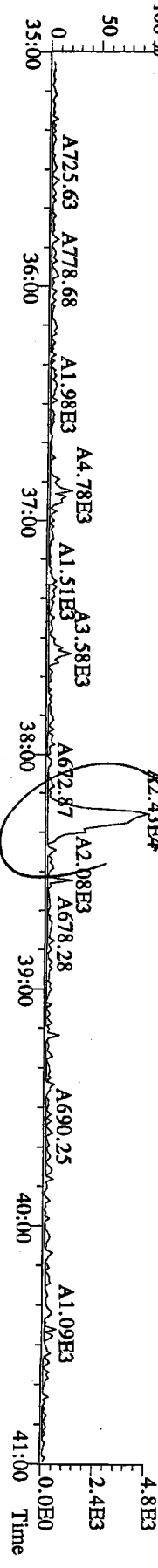
File:221JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 383.8639 S:6 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



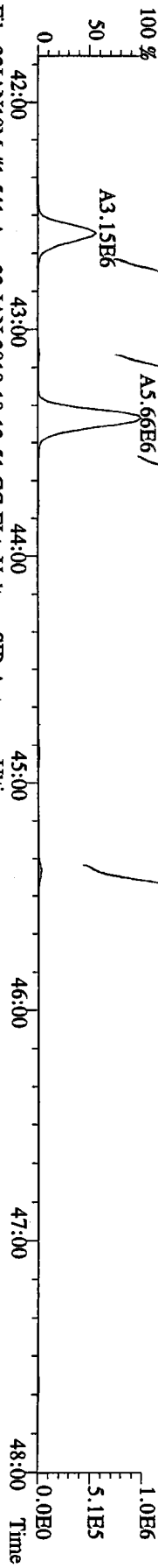
File:221JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 385.8610 S:6 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



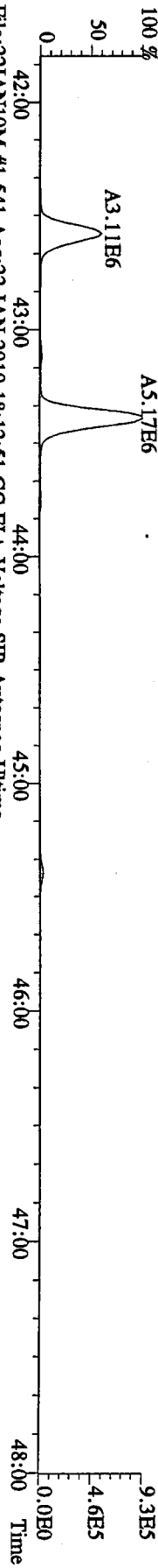
File:221JAN10M #1-463 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 445.7555 S:6 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



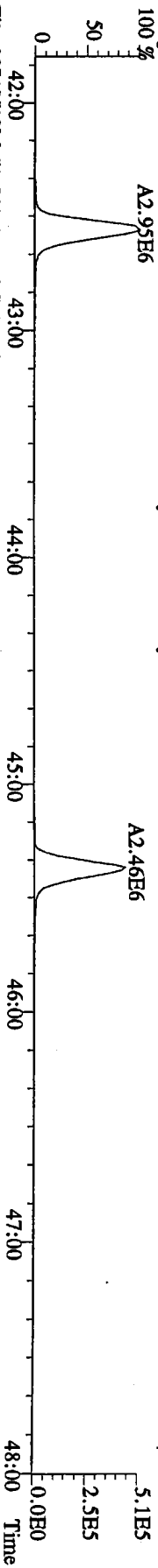
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 407.7818 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



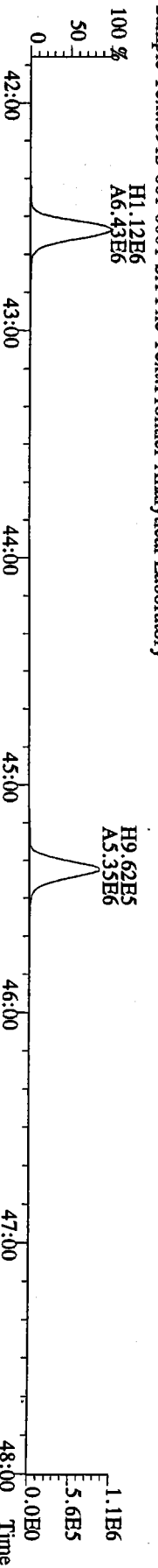
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 409.7788 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



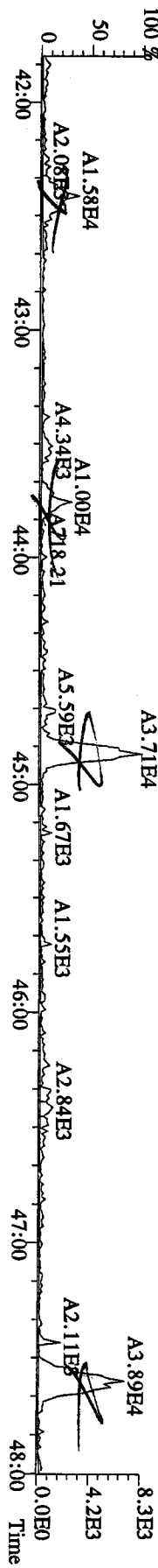
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 417.8253 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



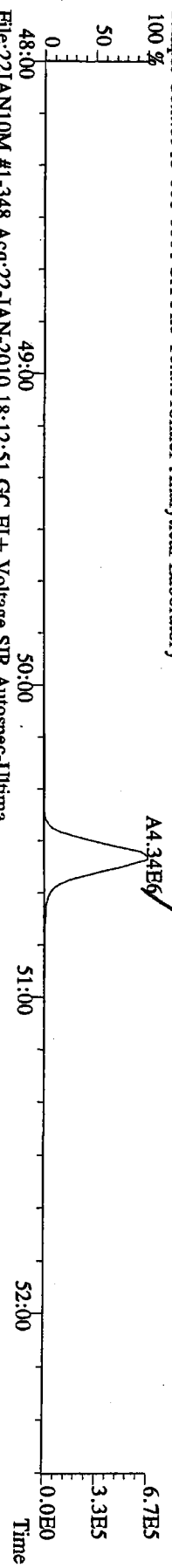
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 419.8220 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



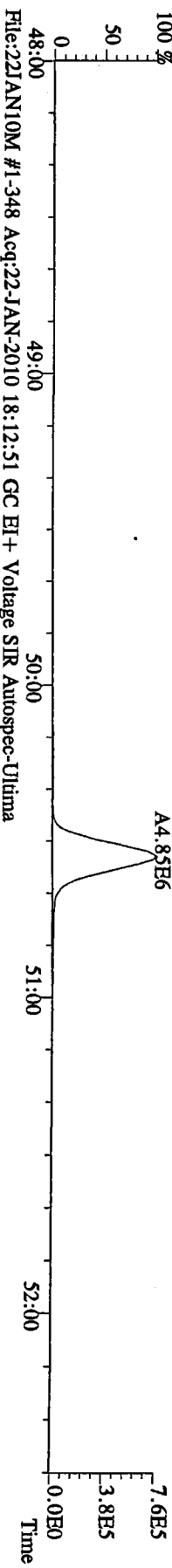
File:22JAN10M #1-541 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
 479.7165 S:6 F:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



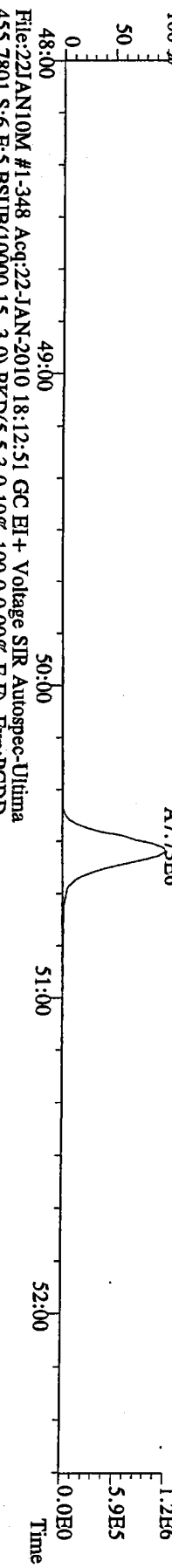
File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



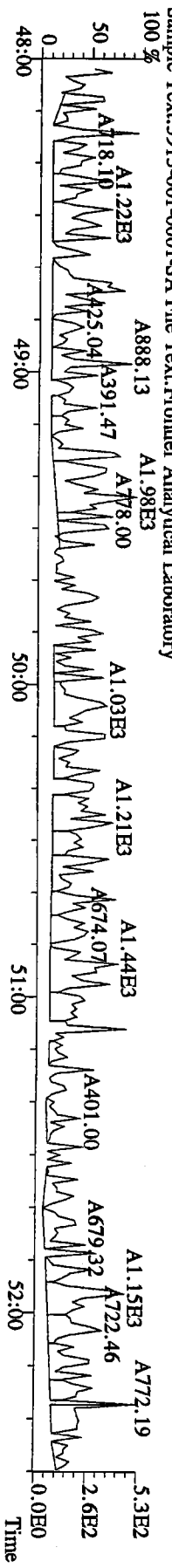
File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-348 Acq:22-JAN-2010 18:12:51 GC EI+ Voltage SIR Autospec-Ultima  
513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-001-0001-SA File Text:Frontier Analytical Laboratory



12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1

FAL ID: 5913-001-0001-SA     Filename: 25JAN10B     Sam:2     Acquired: 25-JAN-10 15:58:03     ICal: TCDFFAL1-11-19-09  
Client ID: CB19010710SED     ConCal: ST012510B1 EndCal: ST012510B2  
Results: 5913TCDF     GC Column: DB225     Amount: 2.040

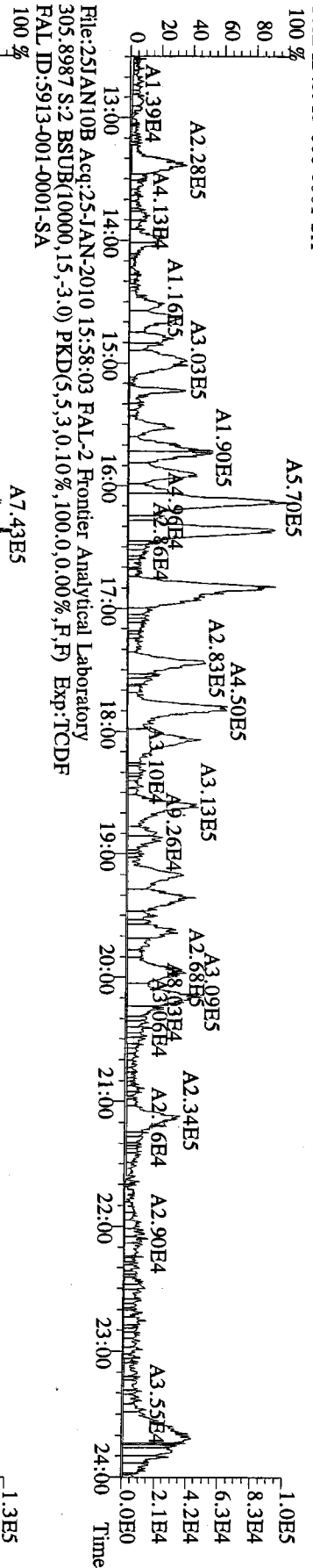
Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise	DL	#Hom	Rec
2,3,7,8-TCDF	6.42e+05	0.77	y 19:21	1.26	6.73		2.50	-	-	1	
13C-2,3,7,8-TCDF	7.42e+07	0.79	y 19:20	0.92	861						87.8
13C-1,2,3,4-TCDF	9.18e+07	0.79	y 16:49	-	77.5						

Analyst: 

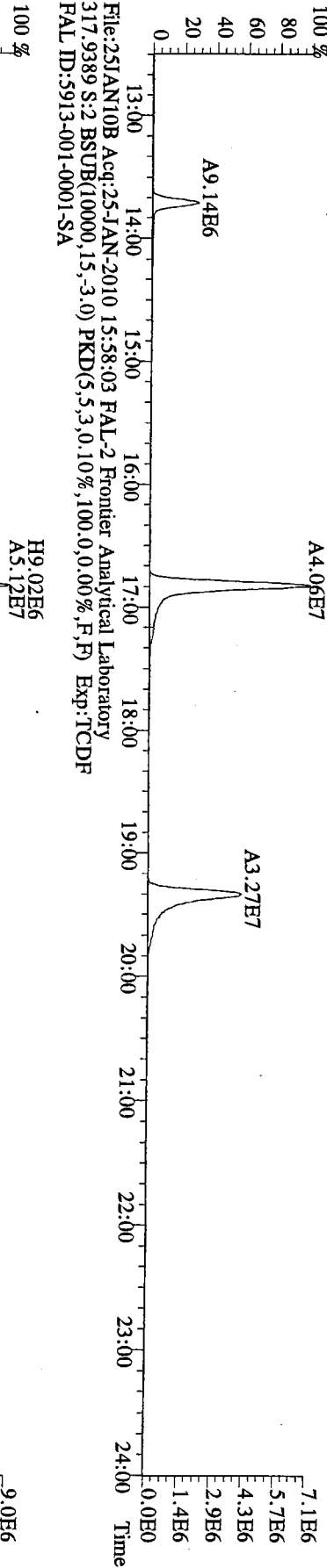
Date: 1/26/10



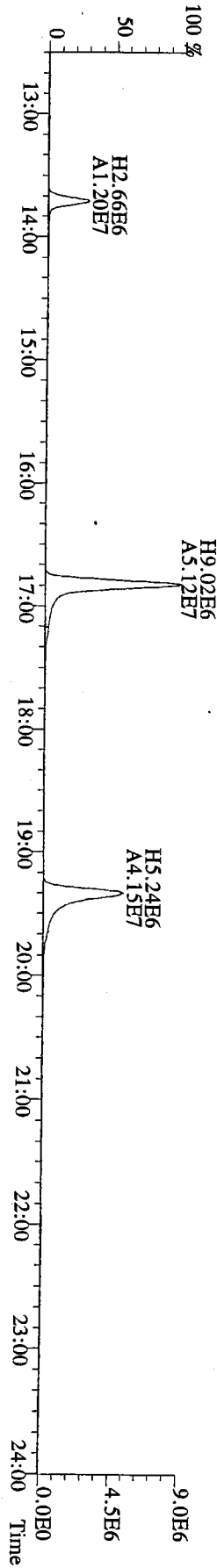
File:251JAN10B Acq:25-JAN-2010 15:58:03 FAL-2 Frontier Analytical Laboratory  
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:TCDF  
FAL ID:5913-001-0001-SA



File:251JAN10B Acq:25-JAN-2010 15:58:03 FAL-2 Frontier Analytical Laboratory  
315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:TCDF  
FAL ID:5913-001-0001-SA



File:251JAN10B Acq:25-JAN-2010 15:58:03 FAL-2 Frontier Analytical Laboratory  
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:TCDF  
FAL ID:5913-001-0001-SA



11 10 09 08 07 06 05 04 03 02 01 00

FAL ID: 5913-002-0001-SA      Filename: 22JAN10M      Sam:7      Acquired: 22-JAN-10 19:08:10      ICal: pcddfal3-11-18-09  
 Client ID: CB12010710SED      ConCal: ST012210M1      EndCal: ST012210M2  
 Results: 5914      GC Column: DB5      Amount: 2.030      NATO 1989 Tox: 167      WHO 1998 Tox: 135      WHO 2005 Tox: 143

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	#Hom
2,3,7,8-TCDD	9.85e+04	0.75 y	27:33	1.02	6.33		2.50	-	*	
1,2,3,7,8-PeCDD	3.80e+05	1.68 y	33:24	0.96	27.3		2.50	-	*	
1,2,3,4,7,8-HxCDD	5.08e+05	1.18 y	38:48	1.37	34.9		2.50	-	*	
1,2,3,6,7,8-HxCDD	1.63e+06	1.25 y	38:58	1.34	130		2.50	-	*	
1,2,3,7,8,9-HxCDD	1.31e+06	1.23 y	39:25	1.37	95.8		2.50	-	*	
1,2,3,4,6,7,8-HpCDD	4.85e+07	0.96 y	44:26	1.17	4510		2.50	-	*	
OCDD	3.48e+08	0.91 y	50:08	1.21	46200		2.50	-	*	
2,3,7,8-TCDF	1.60e+05	0.67 y	26:48	1.29	5.13	F	2.50	-	*	
1,2,3,7,8-PeCDF	9.50e+04	1.60 y	31:39	0.89	5.09	J	2.50	-	*	
2,3,4,7,8-PeCDF	1.87e+05	1.75 y	32:59	0.91	10.1	J	2.50	-	*	
1,2,3,4,7,8-HxCDF	5.03e+05	1.28 y	37:25	1.00	29.4		2.50	-	*	
1,2,3,6,7,8-HxCDF	3.78e+05	1.30 y	37:36	0.92	22.4		2.50	-	*	
2,3,4,6,7,8-HxCDF	4.96e+05	1.21 y	38:32	0.99	30.2		2.50	-	*	
1,2,3,7,8,9-HxCDF	7.96e+04	1.14 y	40:00	1.09	4.79	J	2.50	-	*	
1,2,3,4,6,7,8-HpCDF	1.40e+07	1.02 y	42:32	1.36	1060		2.50	-	*	
1,2,3,4,7,8,9-HpCDF	4.16e+05	1.04 y	45:20	1.61	31.8		2.50	-	*	
OCDF	2.95e+07	0.88 y	50:30	0.84	3750		2.50	-	*	
										Rec
13C-2,3,7,8-TCDD	1.51e+07	0.73 y	27:32	0.94	782					79.4
13C-1,2,3,7,8-PeCDD	1.43e+07	1.69 y	33:22	1.02	684					69.5
13C-1,2,3,4,7,8-HxCDD	1.05e+07	1.28 y	38:46	0.98	798					81.0
13C-1,2,3,6,7,8-HxCDD	9.25e+06	1.28 y	38:56	0.94	742					75.3
13C-1,2,3,4,6,7,8-HpCDD	9.08e+06	1.05 y	44:25	0.90	758					76.9
13C-OCDD	1.22e+07	0.96 y	50:06	0.67	1380					69.8
13C-2,3,7,8-TCDF	2.39e+07	0.84 y	26:47	0.88	825					83.7
13C-1,2,3,7,8-PeCDF	2.07e+07	1.70 y	31:38	0.88	715					72.6
13C-2,3,4,7,8-PeCDF	2.02e+07	1.67 y	32:57	0.85	723					73.4
13C-1,2,3,4,7,8-HxCDF	1.69e+07	0.48 y	37:22	1.72	737					74.8
13C-1,2,3,6,7,8-HxCDF	1.82e+07	0.49 y	37:35	2.00	681					69.1
13C-2,3,4,6,7,8-HxCDF	1.64e+07	0.49 y	38:31	1.74	710					72.1
13C-1,2,3,7,8,9-HxCDF	1.50e+07	0.49 y	39:57	1.51	750					76.1
13C-1,2,3,4,6,7,8-HpCDF	9.55e+06	0.46 y	42:31	1.10	653					66.3
13C-1,2,3,4,7,8,9-HpCDF	8.02e+06	0.46 y	45:20	0.85	712					72.3
13C-OCDF	1.84e+07	0.96 y	50:28	1.17	1180					59.8
37Cl-2,3,7,8-TCDD	6.77e+06		27:33	0.97	340					86.3
13C-1,2,3,4-TCDD	2.01e+07	0.73 y	26:58	-	38.0					
13C-1,2,3,4-TCDF	3.25e+07	0.86 y	25:41	-	34.6					
13C-1,2,3,7,8,9-HxCDD	1.31e+07	1.27 y	39:23	-	31.5					
Total Tetra-Dioxins	1.44e+06		24:33	1.02	92.6		2.50	-	*	16
Total Penta-Dioxins	3.35e+06		30:23	0.96	241		2.50	-	*	10
Total Hexa-Dioxins	1.60e+07		36:20	1.36	1180		2.50	-	*	8
Total Hepta-Dioxins	9.91e+07		43:03	1.17	9220		2.50	-	*	2
Total Tetra-Furans	4.24e+06		23:15	1.29	136	D,M	2.50	-	*	20
1st Fn. Tot Penta-Furans	1.73e+06		28:37	0.90	92.7		2.50	-	*	PeCDF 1
Total Penta-Furans	2.42e+06		30:14	0.90	130		2.50	-	*	223 11
Total Hexa-Furans	1.31e+07		35:27	0.99	785	D,M	2.50	-	*	11
Total Hepta-Furans	4.22e+07		42:32	1.47	3220		2.50	-	*	4

*OK Dioxins (full) TC*

Analyst:         

Date: 1/27/10

Totals class: Total Tetra-Dioxins

Entry #: 38

Run: 12 File: 22JAN10M S: 7 I: 1 F: 1  
Acquired: 22-JAN-10 19:08:10

Total Concentration: 92.6

Unnamed Concentration: 86.290

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
24:33	6.94e+04	9.01e+04	0.77 y	1.59e+05	10.3	
24:50	5.23e+04	6.63e+04	0.79 y	1.19e+05	7.62	
25:08	4.02e+04	4.54e+04	0.89 y	8.56e+04	5.50	
25:46	3.63e+04	4.28e+04	0.85 y	7.90e+04	5.08	
25:56	6.95e+04	8.71e+04	0.80 y	1.57e+05	10.1	
26:06	5.19e+04	6.31e+04	0.82 y	1.15e+05	7.39	
26:16	2.42e+04	2.88e+04	0.84 y	5.30e+04	3.41	
26:28	1.75e+04	2.17e+04	0.81 y	3.92e+04	2.52	
26:38	4.33e+04	4.94e+04	0.88 y	9.27e+04	5.96	
26:57	5.83e+04	7.63e+04	0.76 y	1.35e+05	8.65	
27:18	3.81e+04	4.99e+04	0.76 y	8.80e+04	5.65	
27:26	1.64e+04	1.98e+04	0.83 y	3.62e+04	2.33	
27:33	4.22e+04	5.63e+04	0.75 y	9.85e+04	6.33	2,3,7,8-TCDD
27:51	3.98e+04	5.06e+04	0.79 y	9.04e+04	5.81	
27:59	1.21e+04	1.47e+04	0.82 y	2.68e+04	1.72	
28:29	2.94e+04	3.80e+04	0.77 y	6.74e+04	4.33	

Totals class: Total Penta-Dioxins

Entry #: 39

Run: 12

File: 22JAN10M

S: 7 I: 1 F: 2

Acquired: 22-JAN-10 19:08:10

Total Concentration: 241

Unnamed Concentration: 213.309

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:23	4.28e+05	2.66e+05	1.61 y	6.94e+05	49.9	
31:01	2.39e+05	1.47e+05	1.62 y	3.86e+05	27.8	
31:38	1.44e+05	8.96e+04	1.61 y	2.33e+05	16.8	
31:52	2.33e+05	1.45e+05	1.61 y	3.78e+05	27.2	
32:01	1.78e+05	1.09e+05	1.64 y	2.87e+05	20.6	
32:17	3.51e+05	2.29e+05	1.53 y	5.80e+05	41.7	
32:47	5.67e+04	4.06e+04	1.40 y	9.73e+04	7.00	
33:24	2.38e+05	1.42e+05	1.68 y	3.80e+05	27.3	1,2,3,7,8-PeCDD
33:30	7.18e+04	4.62e+04	1.55 y	1.18e+05	8.49	
33:59	1.17e+05	7.57e+04	1.54 y	1.92e+05	13.8	

Totals class: Total Hexa-Dioxins

Entry #: 40

Run: 12

File: 22JAN10M

S: 7 I: 1 F: 3

Acquired: 22-JAN-10 19:08:10

Total Concentration: 1180

Unnamed Concentration: 923.113

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
36:20	2.76e+06	2.23e+06	1.24 y	4.98e+06	366	
37:16	4.43e+05	3.43e+05	1.29 y	7.87e+05	57.8	
37:42	3.43e+06	2.72e+06	1.26 y	6.15e+06	451	
37:53	1.58e+05	1.21e+05	1.30 y	2.79e+05	20.5	
38:48	2.75e+05	2.33e+05	1.18 y	5.08e+05	34.9	1,2,3,4,7,8-HxCDD
38:58	9.07e+05	7.27e+05	1.25 y	1.63e+06	130	1,2,3,6,7,8-HxCDD
39:16	2.07e+05	1.68e+05	1.23 y	3.74e+05	27.5	
39:25	7.23e+05	5.86e+05	1.23 y	1.31e+06	95.8	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 12

File: 22JAN10M

S: 7 I: 1 F: 4

Acquired: 22-JAN-10 19:08:10

Total Concentration: 9220

Unnamed Concentration: 4706.390

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
43:03	2.47e+07	2.58e+07	0.96 y	5.06e+07	4710	
44:26	2.37e+07	2.48e+07	0.96 y	4.85e+07	4510	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans

Entry #: 42

Run: 12

File: 22JAN10M

S: 7 I: 1 F: 1

Acquired: 22-JAN-10 19:08:10

Total Concentration: 136

Unnamed Concentration: 131.073

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
23:15	4.68e+04	7.03e+04	0.67 y	1.17e+05	3.76	
23:35	6.78e+04	9.97e+04	0.68 y	1.68e+05	5.38	
23:57	1.70e+05	2.45e+05	0.69 y	4.15e+05	13.3	
24:18	1.93e+05	2.85e+05	0.68 y	4.78e+05	15.3	
24:36	1.42e+05	2.11e+05	0.67 y	3.54e+05	11.4	
24:53	9.71e+04	1.45e+05	0.67 y	2.42e+05	7.76	
24:59	5.34e+04	8.07e+04	0.66 y	1.34e+05	4.31	
25:06	5.81e+04	8.42e+04	0.69 y	1.42e+05	4.57	
25:28	9.24e+04	1.35e+05	0.69 y	2.27e+05	7.30	
25:35	1.03e+05	1.54e+05	0.67 y	2.58e+05	8.29	
25:42	1.37e+05	2.05e+05	0.67 y	3.42e+05	11.0	
26:04	8.07e+04	1.22e+05	0.66 y	2.03e+05	6.51	
26:18	4.79e+04	6.83e+04	0.70 y	1.16e+05	3.73	
26:26	5.18e+04	7.87e+04	0.66 y	1.31e+05	4.19	
26:42	8.12e+04	1.22e+05	0.66 y	2.04e+05	6.54	
26:48	6.38e+04	9.58e+04	0.67 y	1.60e+05	5.13	2,3,7,8-TCDF
27:08	1.20e+05	1.82e+05	0.66 y	3.02e+05	9.70	
28:01	3.51e+04	4.53e+04	0.78 y	8.05e+04	2.58	
28:14	3.26e+04	4.72e+04	0.69 y	7.98e+04	2.56	
28:37	3.61e+04	5.20e+04	0.69 y	8.81e+04	2.83	

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

Run: 12      File: 22JAN10M      S: 7 I: 1 F: 1  
Acquired: 22-JAN-10 19:08:10

Total Concentration: 92.7      Unnamed Concentration: 92.662

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:37	1.04e+06	6.83e+05	1.53 y	1.73e+06	92.7	



Totals class: Total Penta-Furans

Entry #: 44

Run: 12

File: 22JAN10M

S: 7 I: 1 F: 2

Acquired: 22-JAN-10 19:08:10

Total Concentration: 130

Unnamed Concentration: 114.811

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:14	1.36e+05	8.44e+04	1.61 y	2.20e+05	11.8	
30:24	5.80e+05	3.44e+05	1.69 y	9.24e+05	49.6	
30:52	2.74e+04	1.67e+04	1.64 y	4.41e+04	2.37	
31:06	2.64e+05	1.57e+05	1.68 y	4.21e+05	22.6	
31:24	3.75e+04	2.14e+04	1.75 y	5.89e+04	3.16	
31:39	5.84e+04	3.66e+04	1.60 y	9.50e+04	5.09	1,2,3,7,8-PeCDF
32:00	1.50e+05	9.23e+04	1.62 y	2.42e+05	13.0	
32:13	2.38e+04	1.37e+04	1.73 y	3.75e+04	2.01	
32:50	7.17e+04	4.03e+04	1.78 y	1.12e+05	6.01	
32:59	1.19e+05	6.81e+04	1.75 y	1.87e+05	10.1	2,3,4,7,8-PeCDF
33:02	4.92e+04	3.00e+04	1.64 y	7.92e+04	4.25	

Totals class: Total Hexa-Furans

Entry #: 45

Run: 12

File: 22JAN10M

S: 7 I: 1 F: 3

Acquired: 22-JAN-10 19:08:10

Total Concentration: 785

Unnamed Concentration: 698.077

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:27	7.14e+05	6.15e+05	1.16 y	1.33e+06	79.5	
35:43	2.50e+06	2.07e+06	1.21 y	4.57e+06	273	
36:19	7.20e+04	5.58e+04	1.29 y	1.28e+05	7.65	
36:37	2.92e+06	2.39e+06	1.22 y	5.31e+06	318	
37:14	7.49e+04	6.44e+04	1.16 y	1.39e+05	8.33	
37:25	2.82e+05	2.20e+05	1.28 y	5.03e+05	29.4	1,2,3,4,7,8-HxCDF
37:36	2.14e+05	1.65e+05	1.30 y	3.78e+05	22.4	1,2,3,6,7,8-HxCDF
38:04	1.76e+04	1.39e+04	1.27 y	3.15e+04	1.89	
38:17	8.99e+04	7.10e+04	1.27 y	1.61e+05	9.63	
38:32	2.72e+05	2.24e+05	1.21 y	4.96e+05	30.2	2,3,4,6,7,8-HxCDF
40:00	4.24e+04	3.72e+04	1.14 y	7.96e+04	4.79	1,2,3,7,8,9-HxCDF

Totals class: Total Hepta-Furans

Entry #: 46

Run: 12

File: 22JAN10M

S: 7 I: 1 F: 4

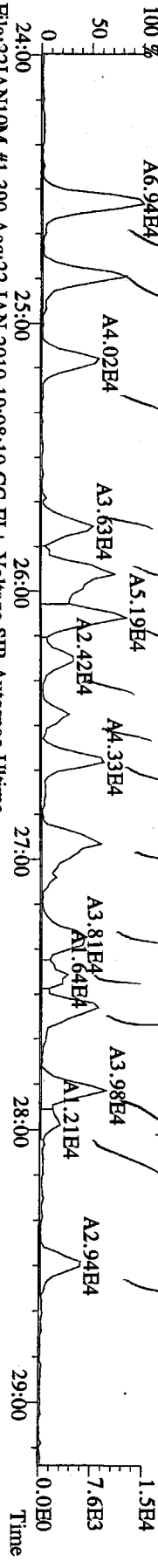
Acquired: 22-JAN-10 19:08:10

Total Concentration: 3220

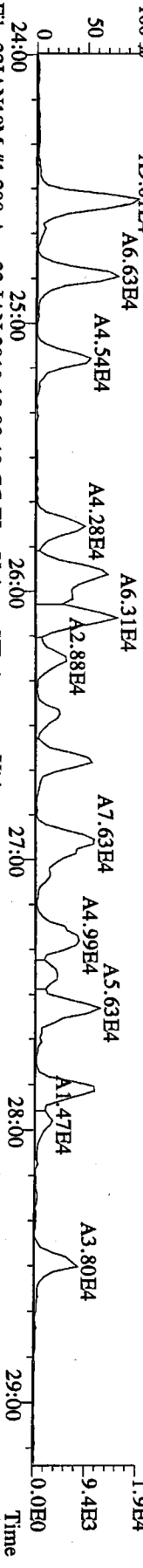
Unnamed Concentration: 2122.475

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:32	7.08e+06	6.92e+06	1.02 y	1.40e+07	1060	1,2,3,4,6,7,8-HpCDF
43:04	7.60e+04	7.78e+04	0.98 y	1.54e+05	11.8	
43:20	1.41e+07	1.36e+07	1.04 y	2.76e+07	2110	
45:20	2.12e+05	2.04e+05	1.04 y	4.16e+05	31.8	1,2,3,4,7,8,9-HpCDF

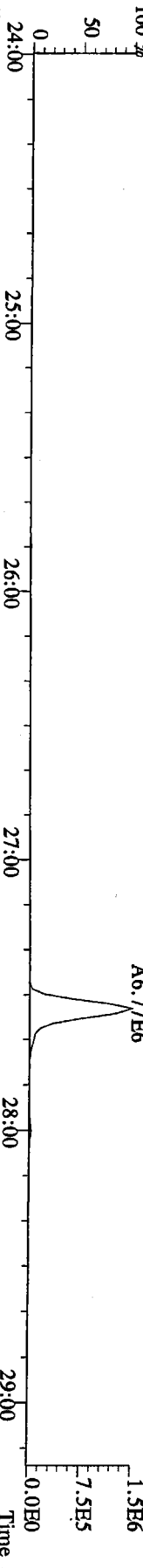
File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI + Voltage SIR Autospec-Ultima  
319.8965 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



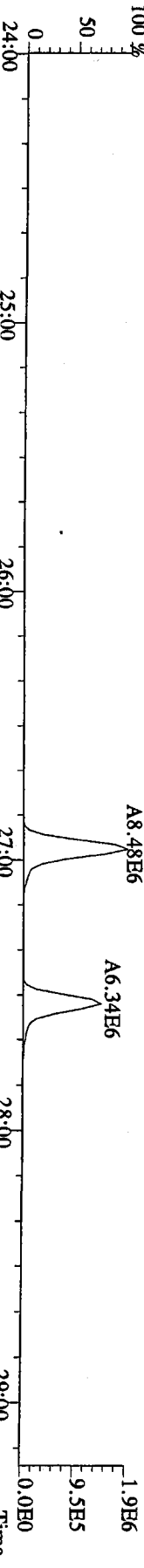
File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI + Voltage SIR Autospec-Ultima  
321.8936 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



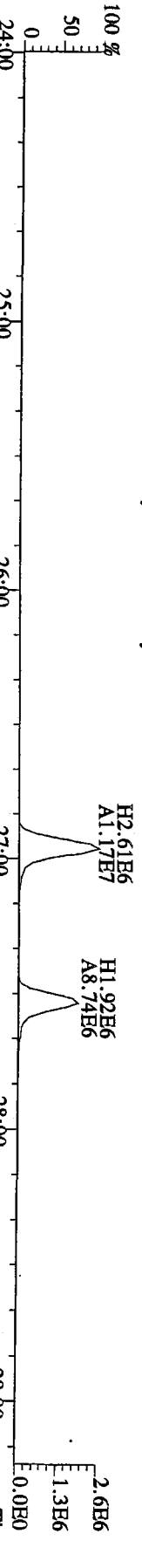
File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI + Voltage SIR Autospec-Ultima  
327.8847 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



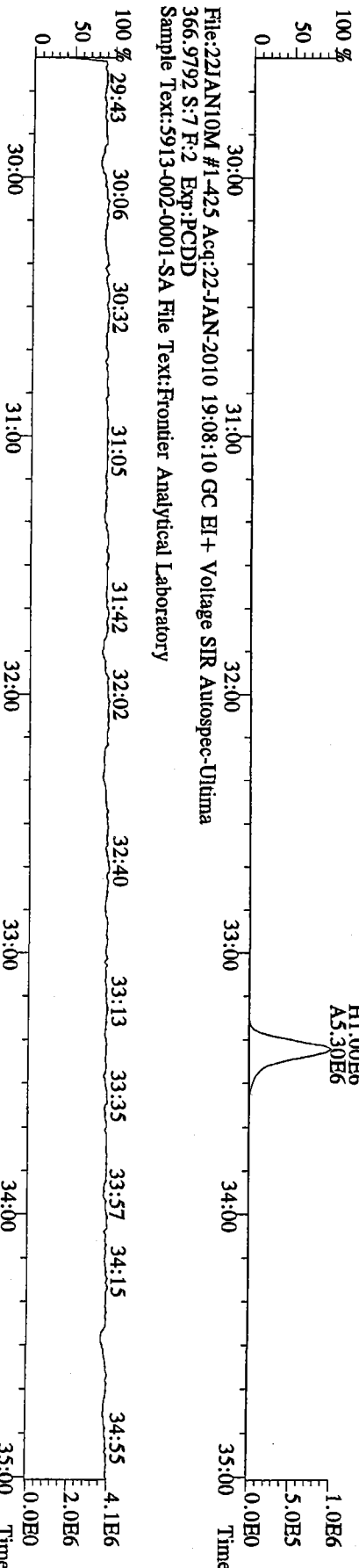
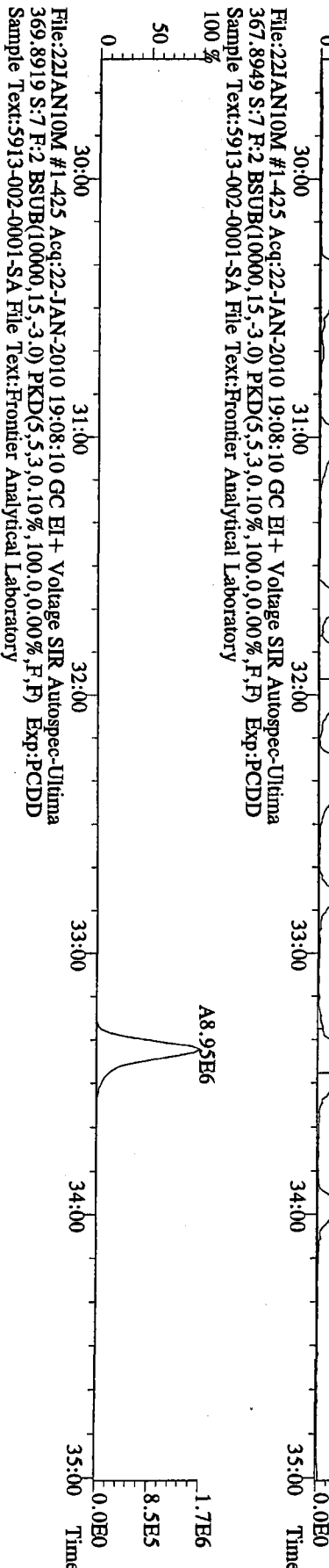
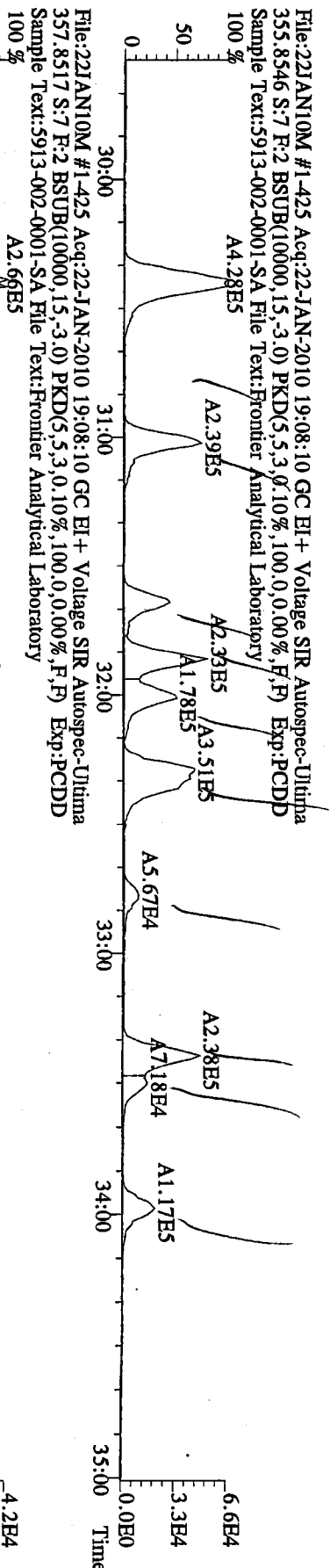
File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI + Voltage SIR Autospec-Ultima  
331.9368 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



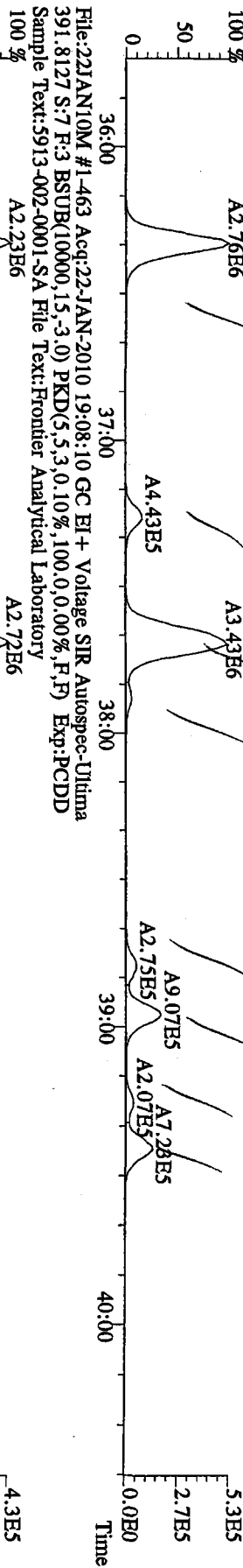
File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI + Voltage SIR Autospec-Ultima  
333.9339 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



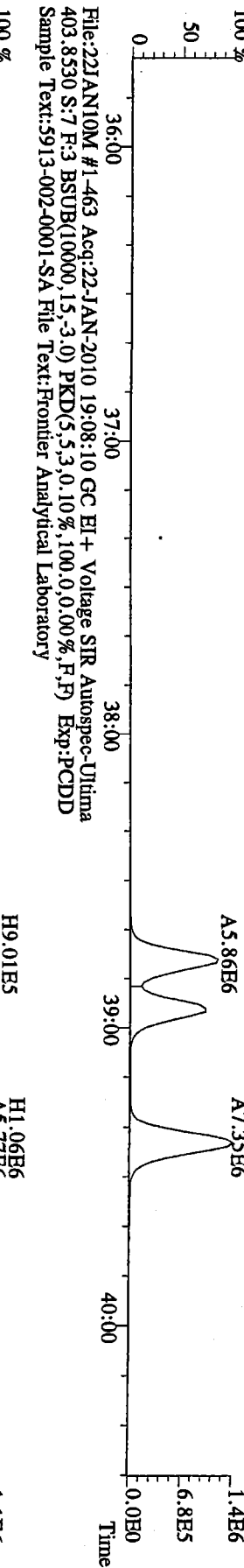
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20



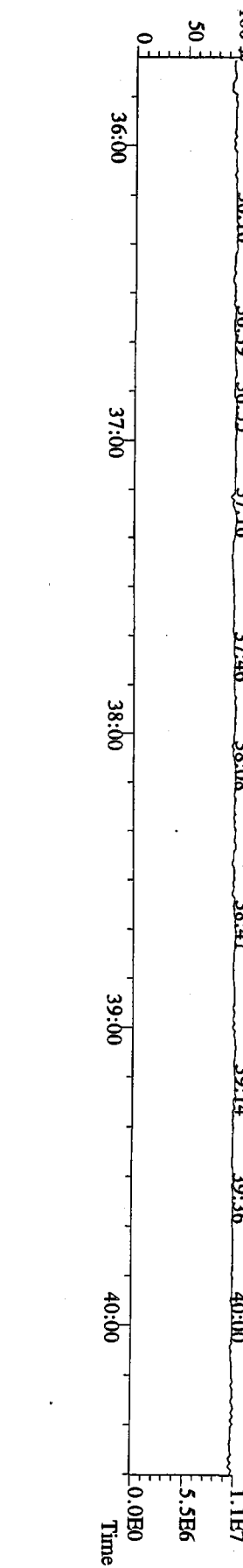
File:22JAN10M #1-463 Acq:22-JAN-2010 19:08:10 GC EI + Voltage SIR Autospec-Ultima  
389.8156 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



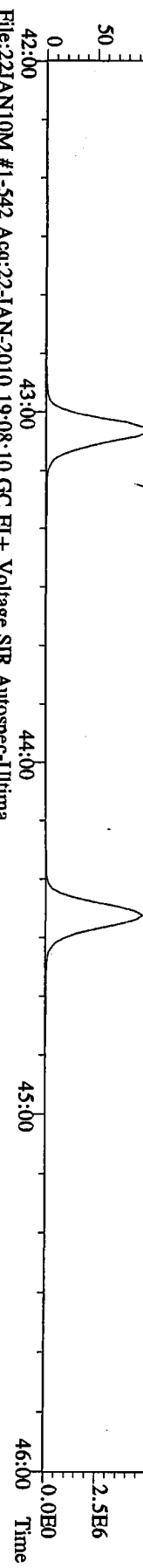
File:22JAN10M #1-463 Acq:22-JAN-2010 19:08:10 GC EI + Voltage SIR Autospec-Ultima  
401.8559 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



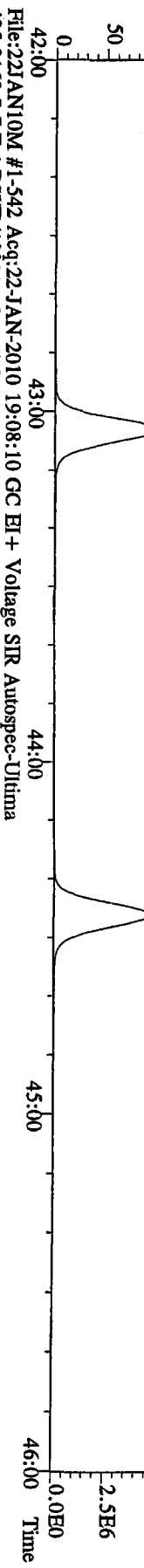
File:22JAN10M #1-463 Acq:22-JAN-2010 19:08:10 GC EI + Voltage SIR Autospec-Ultima  
380.9760 S:7 F:3 Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



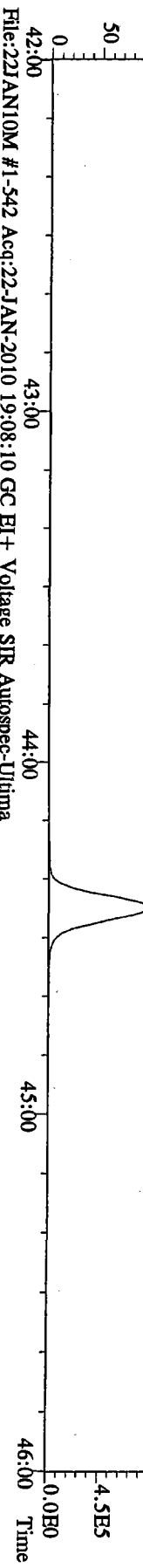
File:22JAN10M #1-542 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



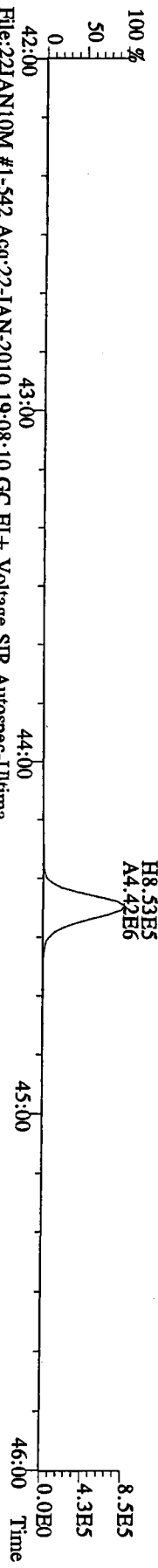
File:22JAN10M #1-542 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
425.7737 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



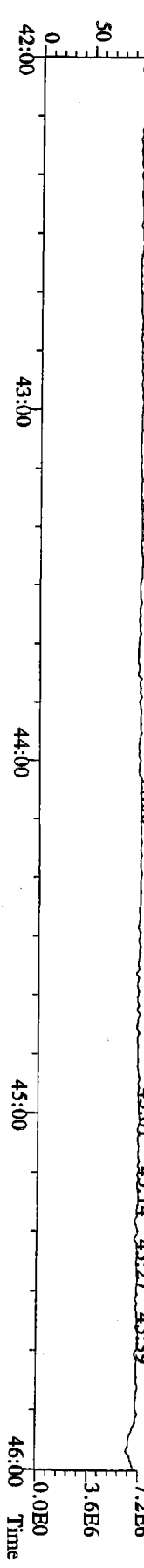
File:22JAN10M #1-542 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
435.8169 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-542 Acq:22-JAN-2010 19:08:10 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:5913-002-0001-SA File Text:Frontier Analytical Laboratory

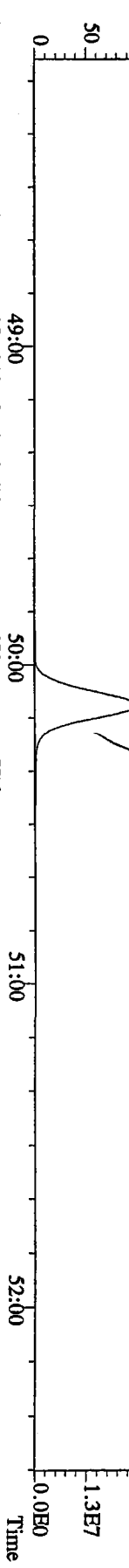


File:22JAN10M #1-542 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 S:7 F:4 Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory

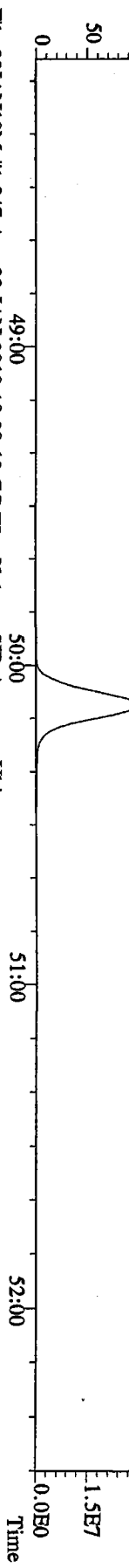


10  
11  
12  
13  
14  
15

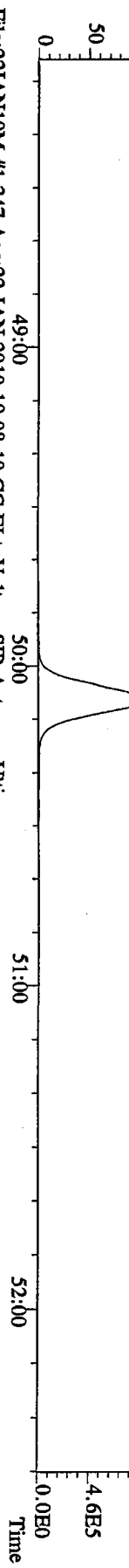
File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
 457.7377 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



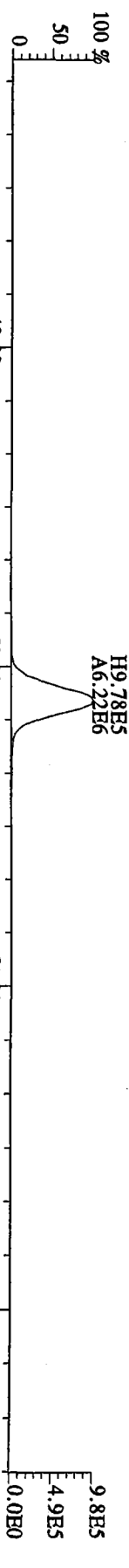
File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
 459.7348 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



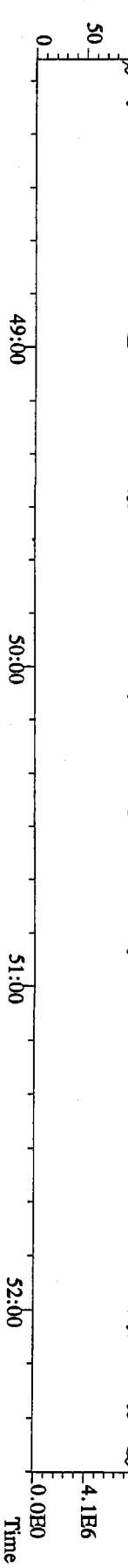
File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
 469.7780 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 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:5913-002-0001-SA File Text:Frontier Analytical Laboratory



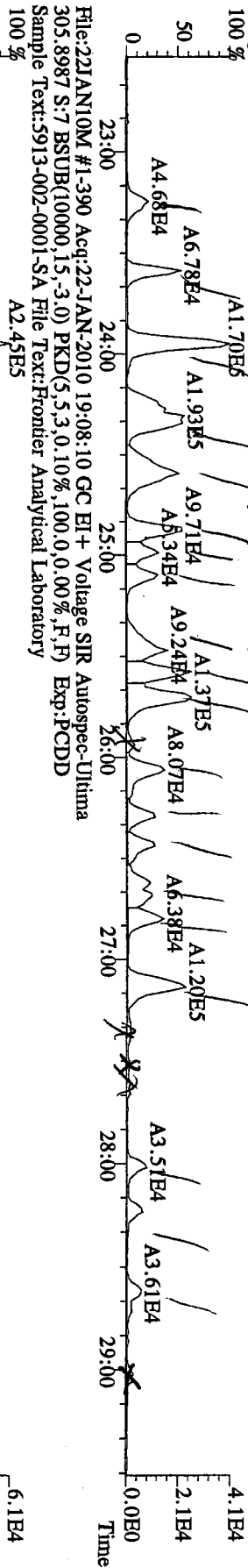
File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
 454.9728 S:7 F:5 Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



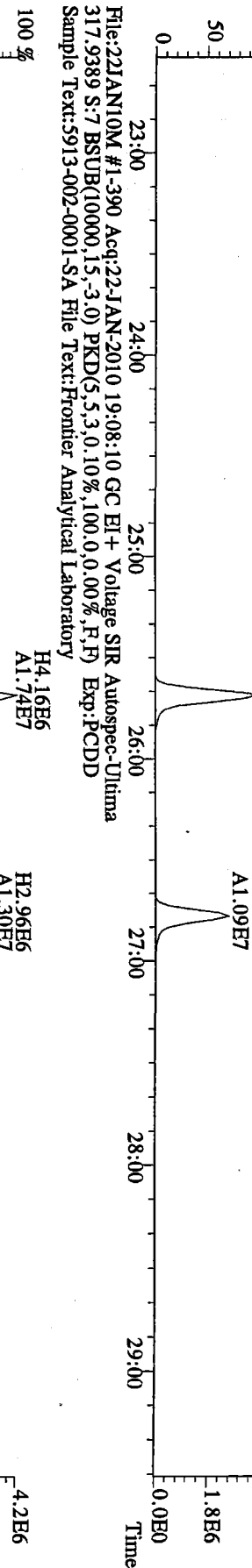
10 10 10 10 10 10 10 10 10 10



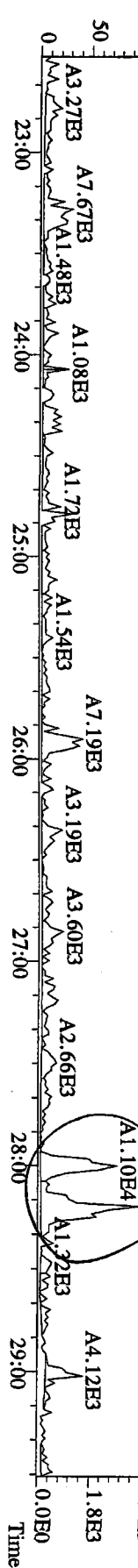
File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
303.9016 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



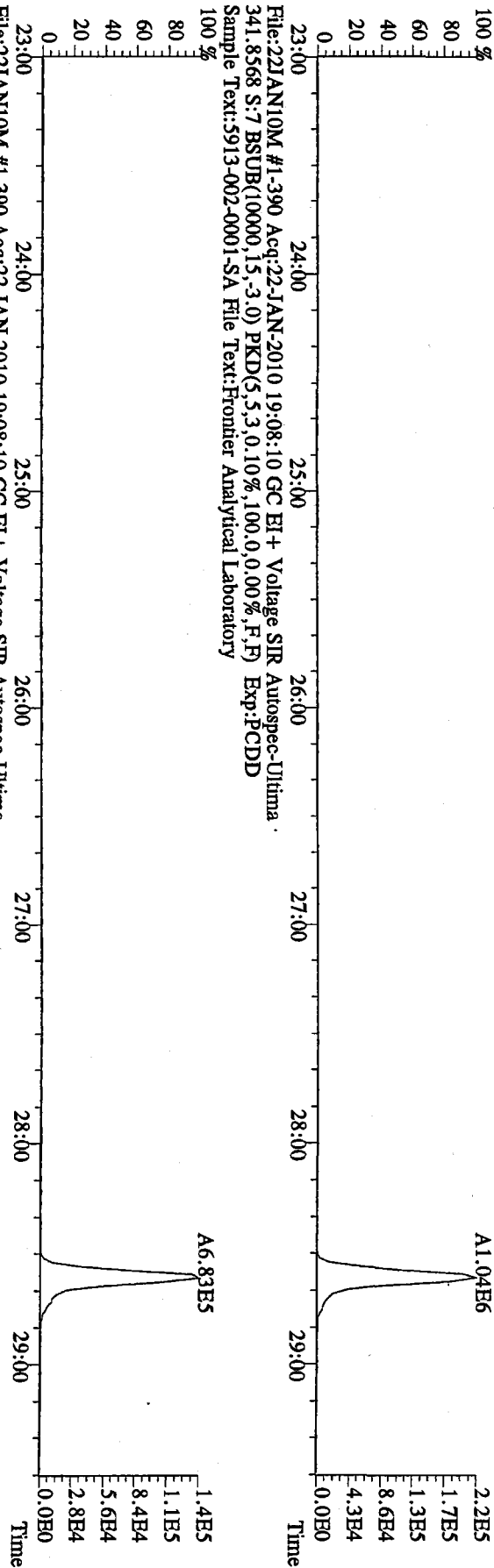
File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
315.9419 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



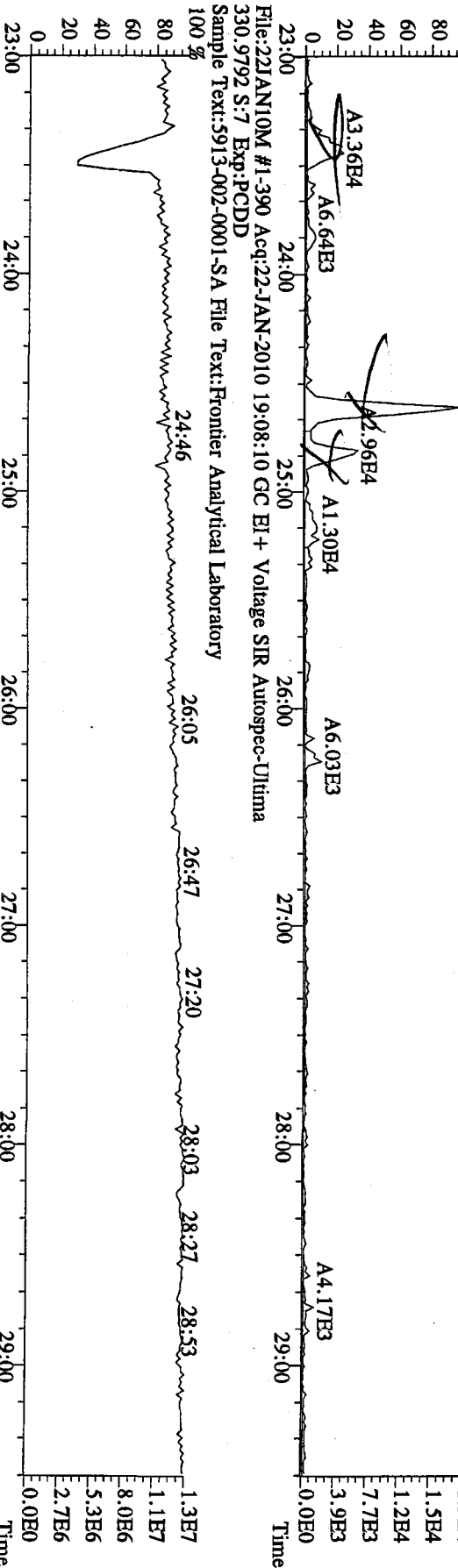
File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
375.8364 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
339.8597 S:7 BSUBR(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Fronier Analytical Laboratory

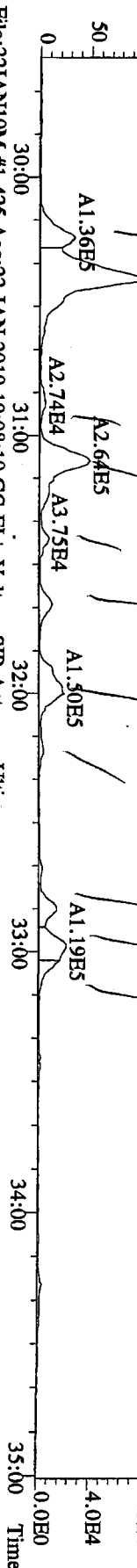


File:22JAN10M #1-390 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
409.7974 S:7 BSUBR(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Fronier Analytical Laboratory

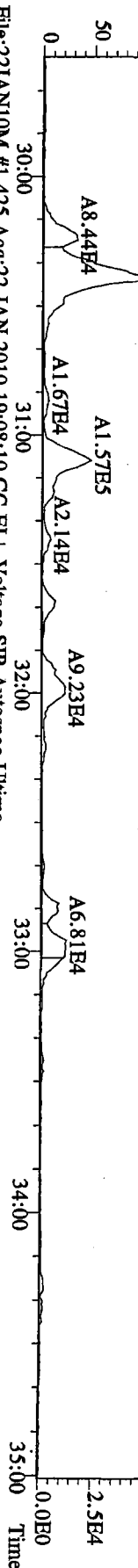


10 10 10 10 10 10 10 10 10 10

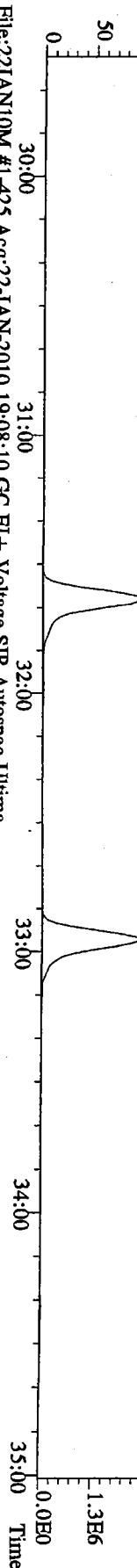
File:22JAN10M #1-425 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



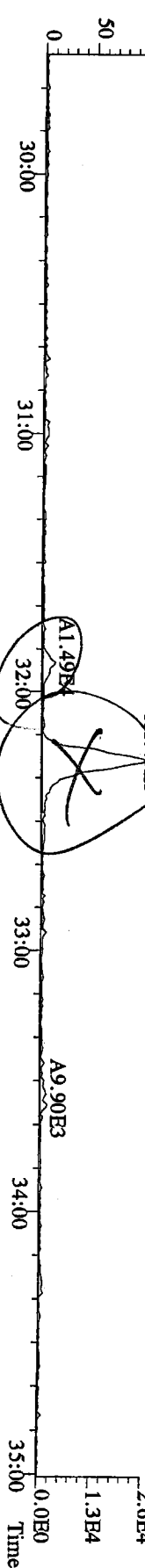
File:22JAN10M #1-425 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
 341.8568 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-425 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
 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:5913-002-0001-SA File Text:Frontier Analytical Laboratory

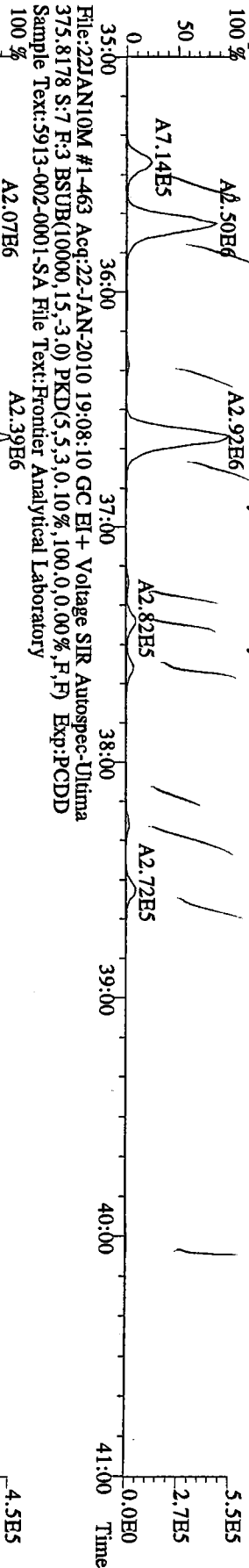


File:22JAN10M #1-425 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory

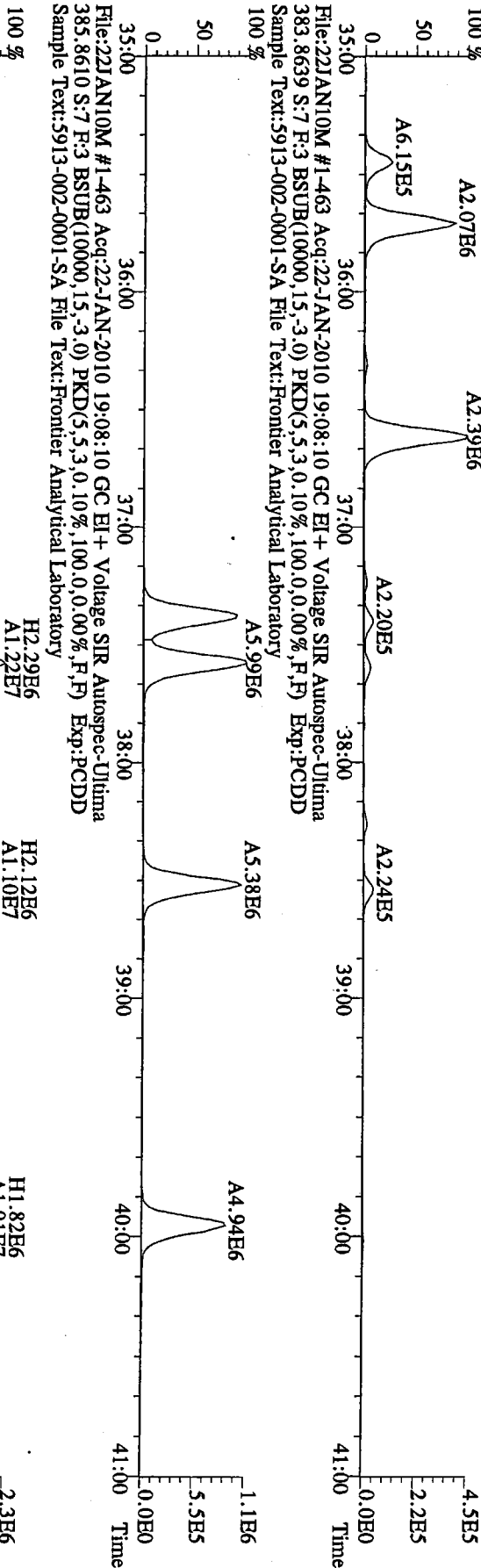


000082 of 000295

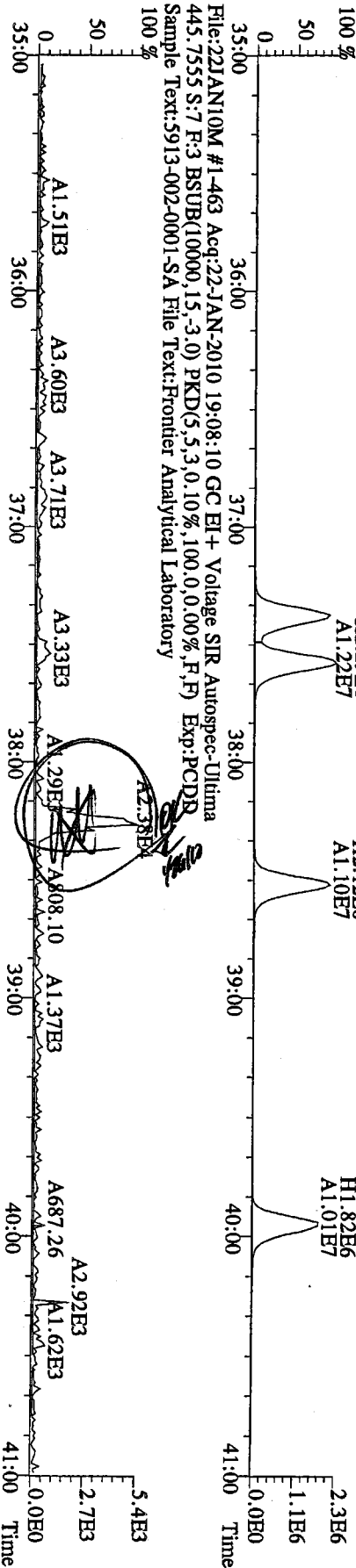
File:22JAN10M #1-463 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
373.8207 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
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:5913-002-0001-SA File Text:Frontier Analytical Laboratory

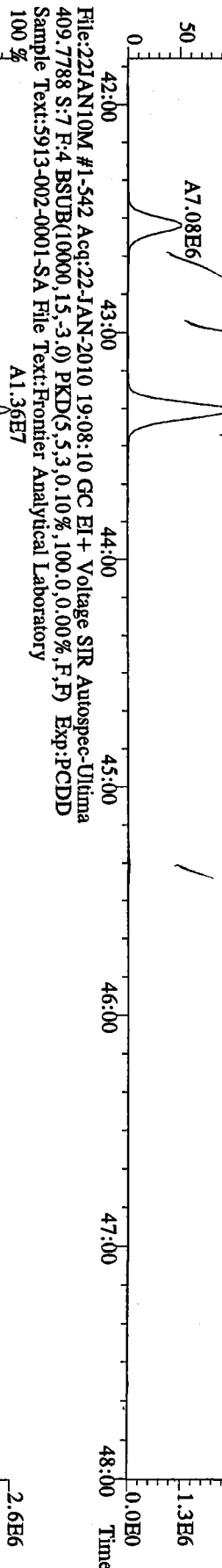


File:22JAN10M #1-463 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
445.7555 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory

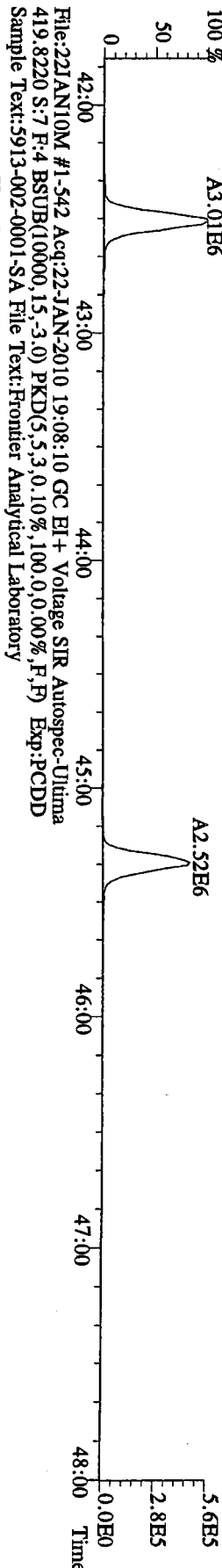


11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50

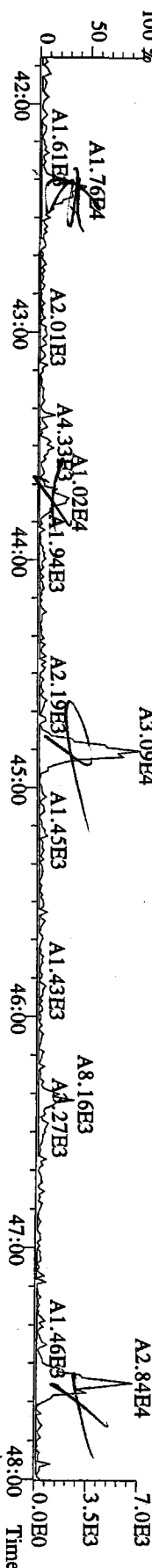
File:22JAN10M #1-542 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
 407.7818 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-542 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
 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:5913-002-0001-SA File Text:Frontier Analytical Laboratory

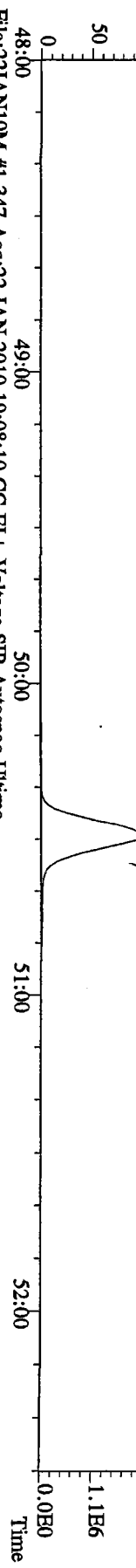


File:22JAN10M #1-542 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Utima  
 479.7165 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory

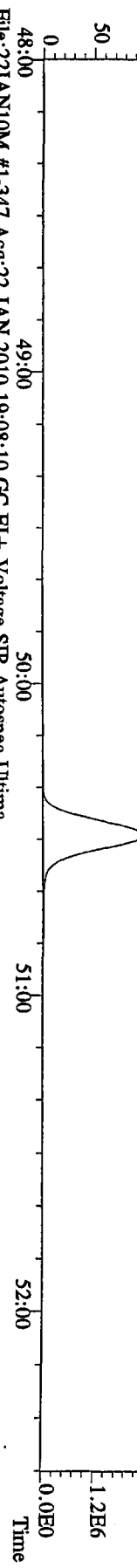


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

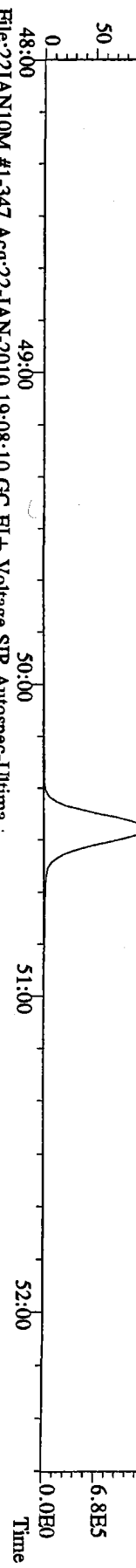
File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory  
100 %



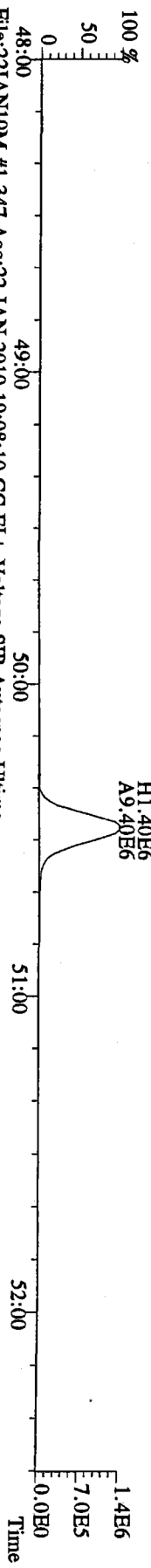
File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory  
100 %



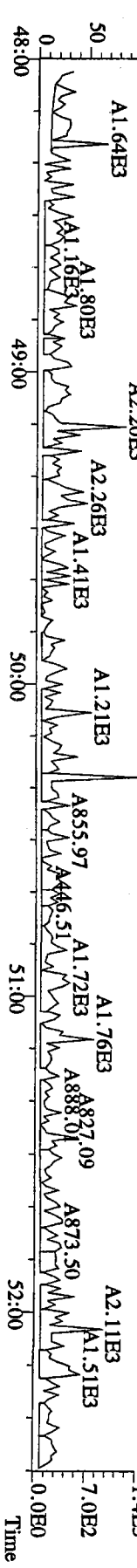
File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-002-0001-SA File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 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:5913-002-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:22-JAN-2010 19:08:10 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:5913-002-0001-SA File Text:Frontier Analytical Laboratory  
100 %



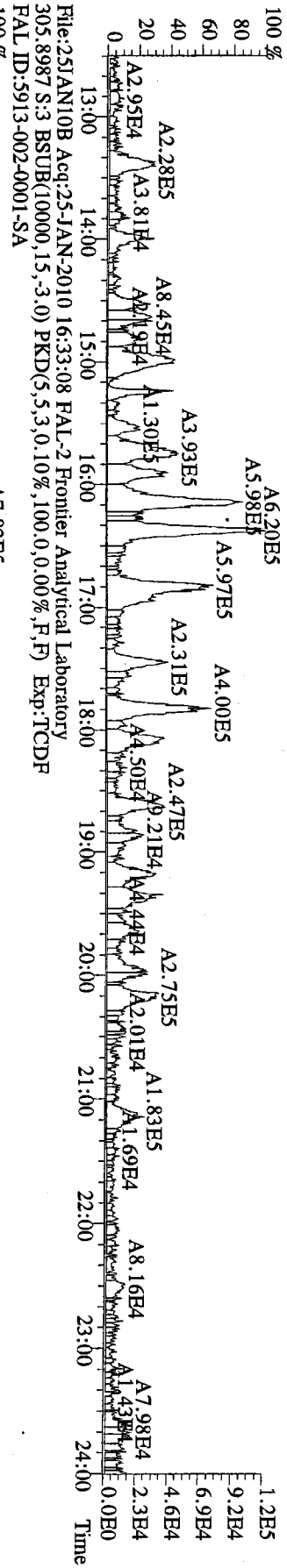
FAL ID: 5913-002-0001-SA      Filename: 25JAN10B    Sam:3    Acquired: 25-JAN-10 16:33:08    ICal: TCDFFAL1-11-19-09  
Client ID: CB12010710SED      ConCal: ST012510B1    EndCal: ST012510B2  
Results: 5913TCDF    GC Column: DB225    Amount: 2.030

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise	DL	#Hom	Rec
2,3,7,8-TCDF	5.21e+05	0.84 y	19:21	1.26	6.34		2.50	-	-	1	
13C-2,3,7,8-TCDF	6.43e+07	0.77 y	19:21	0.92	764						77.6
13C-1,2,3,4-TCDF	9.01e+07	0.81 y	16:49	-	76.4						

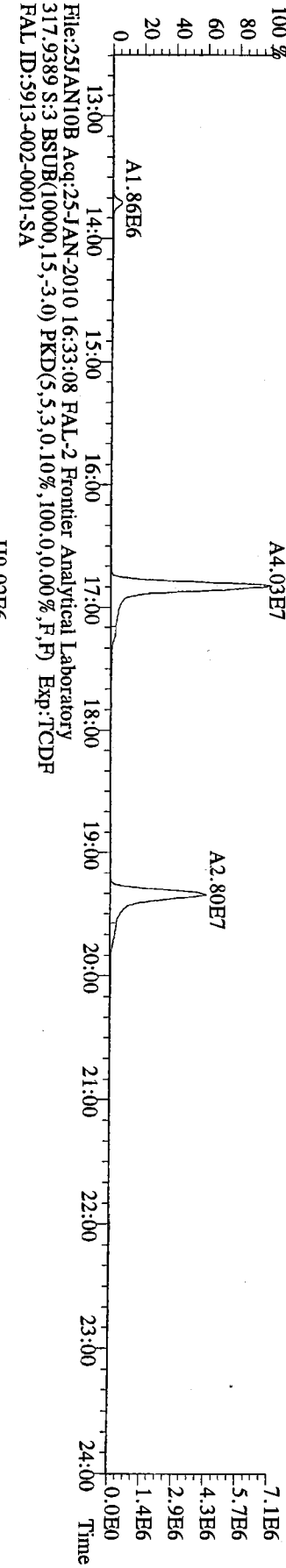
Analyst: 

Date: 1/26/10

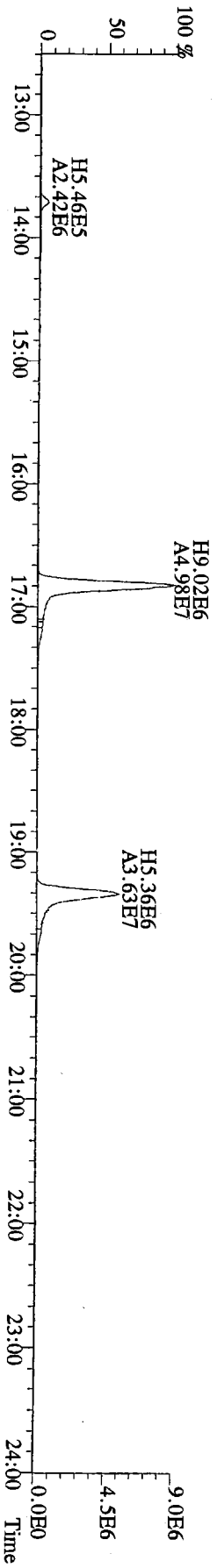
File:25JAN10B Acq:25-JAN-2010 16:33:08 FAL-2 Frontier Analytical Laboratory  
305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:TCDF  
FAL ID:5913-002-0001-SA



File:25JAN10B Acq:25-JAN-2010 16:33:08 FAL-2 Frontier Analytical Laboratory  
315.9419 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:TCDF  
FAL ID:5913-002-0001-SA



File:25JAN10B Acq:25-JAN-2010 16:33:08 FAL-2 Frontier Analytical Laboratory  
317.9389 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:TCDF  
FAL ID:5913-002-0001-SA



10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100



FAL ID: 5913-003-0001-SA      Filename: 22JAN10M    Sam:8    Acquired: 22-JAN-10 20:03:29    ICal: pccdfal3-11-18-09  
 Client ID: CB2010710SED      ConCal: ST012210M1    EndCal: ST012210M2  
 Results: 5914      GC Column: DB5      Amount: 2.530      NATO 1989 Tox: 50.0

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	DL	
2,3,7,8-TCDD	5.11e+04	0.77 y	27:32	1.02	2.84		2.50	-	-	*	
1,2,3,7,8-PeCDD	1.68e+05	1.49 y	33:23	0.96	10.6		2.50	-	-	*	
1,2,3,4,7,8-HxCDD	2.48e+05	1.29 y	38:47	1.37	14.8		2.50	-	-	*	
1,2,3,6,7,8-HxCDD	5.40e+05	1.22 y	38:56	1.34	37.6		2.50	-	-	*	
1,2,3,7,8,9-HxCDD	5.83e+05	1.27 y	39:23	1.37	37.3		2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	1.30e+07	0.96 y	44:25	1.17	1110		2.50	-	-	*	
OCDD	9.71e+07	0.91 y	50:05	1.21	13300		2.50	-	-	*	
2,3,7,8-TCDF	8.24e+04	0.69 y	26:47	1.29	2.34		2.50	-	-	*	
1,2,3,7,8-PeCDF	5.15e+04	1.68 y	31:39	0.89	2.38	J	2.50	-	-	*	
2,3,4,7,8-PeCDF	7.27e+04	1.73 y	32:59	0.91	3.44	J	2.50	-	-	*	
1,2,3,4,7,8-HxCDF	2.88e+05	1.16 y	37:23	1.00	14.9		2.50	-	-	*	
1,2,3,6,7,8-HxCDF	1.67e+05	1.27 y	37:36	0.92	8.67	J	2.50	-	-	*	
2,3,4,6,7,8-HxCDF	2.01e+05	1.25 y	38:32	0.99	10.7		2.50	-	-	*	
1,2,3,7,8,9-HxCDF	4.28e+04	1.31 y	40:01	1.09	2.27	J	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	3.09e+06	1.01 y	42:30	1.36	209		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	1.52e+05	1.03 y	45:20	1.61	10.6		2.50	-	-	*	
OCDF	4.48e+06	0.89 y	50:27	0.84	569		2.50	-	-	*	
										Rec	
13C-2,3,7,8-TCDD	1.40e+07	0.71 y	27:31	0.94	632					80.0	
13C-1,2,3,7,8-PeCDD	1.30e+07	1.68 y	33:22	1.02	546					69.0	
13C-1,2,3,4,7,8-HxCDD	9.63e+06	1.27 y	38:46	0.98	618					78.1	
13C-1,2,3,6,7,8-HxCDD	8.45e+06	1.28 y	38:56	0.94	569					72.0	
13C-1,2,3,4,6,7,8-HpCDD	7.96e+06	1.04 y	44:23	0.90	559					70.7	
13C-OCDD	9.51e+06	0.96 y	50:03	0.67	901					57.0	
13C-2,3,7,8-TCDF	2.17e+07	0.85 y	26:46	0.88	646					81.7	
13C-1,2,3,7,8-PeCDF	1.92e+07	1.69 y	31:38	0.88	574					72.6	
13C-2,3,4,7,8-PeCDF	1.84e+07	1.70 y	32:57	0.85	568					71.8	
13C-1,2,3,4,7,8-HxCDF	1.54e+07	0.50 y	37:22	1.72	565					71.4	
13C-1,2,3,6,7,8-HxCDF	1.66e+07	0.48 y	37:34	2.00	523					66.2	
13C-2,3,4,6,7,8-HxCDF	1.50e+07	0.49 y	38:31	1.74	545					68.9	
13C-1,2,3,7,8,9-HxCDF	1.37e+07	0.48 y	39:57	1.51	573					72.5	
13C-1,2,3,4,6,7,8-HpCDF	8.61e+06	0.44 y	42:29	1.10	494					62.5	
13C-1,2,3,4,7,8,9-HpCDF	7.09e+06	0.45 y	45:19	0.85	529					66.9	
13C-OCDF	1.48e+07	0.96 y	50:25	1.17	795					50.3	
37Cl-2,3,7,8-TCDD	5.50e+06		27:32	0.97	241					76.3	
13C-1,2,3,4-TCDD	1.85e+07	0.71 y	26:57	-	28.0						
13C-1,2,3,4-TCDF	3.02e+07	0.86 y	25:41	-	25.9						
13C-1,2,3,7,8,9-HxCDD	1.25e+07	1.28 y	39:23	-	24.1						
Total Tetra-Dioxins	6.61e+05		24:33	1.02	36.8		2.50	-	-	*	13
Total Penta-Dioxins	1.41e+06		30:24	0.96	89.0		2.50	-	-	*	10
Total Hexa-Dioxins	5.67e+06		36:19	1.36	366		2.50	-	-	*	8
Total Hepta-Dioxins	2.54e+07		43:02	1.17	2160		2.50	-	-	*	2
Total Tetra-Furans	2.01e+06		23:13	1.29	57.1		2.50	-	-	*	20
1st Fn. Tot Penta-Furans	5.92e+05		28:36	0.90	27.7		2.50	-	-	*	PeCDF 1
Total Penta-Furans	1.06e+06		30:13	0.90	49.4		2.50	-	-	*	77.1 10
Total Hexa-Furans	4.34e+06		35:27	0.99	228		2.50	-	-	*	10
Total Hepta-Furans	8.70e+06		42:30	1.47	594		2.50	-	-	*	4

Analyst: J

Date: 1/25/10

Totals class: Total Tetra-Dioxins

Entry #: 38

Run: 13

File: 22JAN10M

S: 8 I: 1 F: 1

Acquired: 22-JAN-10 20:03:29

Total Concentration: 36.8

Unnamed Concentration: 33.983

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
24:33	4.13e+04	5.53e+04	0.75 y	9.66e+04	5.38	
24:49	3.35e+04	3.96e+04	0.85 y	7.31e+04	4.07	
25:07	1.62e+04	2.00e+04	0.81 y	3.62e+04	2.02	
25:46	1.76e+04	1.99e+04	0.88 y	3.74e+04	2.08	
25:55	2.19e+04	2.82e+04	0.77 y	5.01e+04	2.79	
26:05	2.62e+04	3.53e+04	0.74 y	6.15e+04	3.43	
26:15	1.34e+04	1.59e+04	0.84 y	2.93e+04	1.63	
26:37	1.60e+04	2.42e+04	0.66 y	4.02e+04	2.24	
26:55	2.23e+04	3.05e+04	0.73 y	5.27e+04	2.94	
27:16	2.52e+04	2.97e+04	0.85 y	5.49e+04	3.06	
27:32	2.22e+04	2.89e+04	0.77 y	5.11e+04	2.84	2,3,7,8-TCDD
27:51	1.92e+04	2.49e+04	0.77 y	4.41e+04	2.46	
28:28	1.45e+04	1.95e+04	0.74 y	3.39e+04	1.89	

Totals class: Total Penta-Dioxins

Entry #: 39

Run: 13

File: 22JAN10M

S: 8 I: 1 F: 2

Acquired: 22-JAN-10 20:03:29

Total Concentration: 89.0

Unnamed Concentration: 78.405

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:24	1.77e+05	1.14e+05	1.55 y	2.91e+05	18.4	
31:00	9.37e+04	6.18e+04	1.52 y	1.56e+05	9.83	
31:38	6.83e+04	4.07e+04	1.68 y	1.09e+05	6.89	
31:52	9.11e+04	5.81e+04	1.57 y	1.49e+05	9.43	
32:00	8.25e+04	4.72e+04	1.75 y	1.30e+05	8.20	
32:18	1.40e+05	8.97e+04	1.56 y	2.30e+05	14.5	
32:46	2.50e+04	1.64e+04	1.53 y	4.13e+04	2.61	
33:23	1.01e+05	6.75e+04	1.49 y	1.68e+05	10.6	1,2,3,7,8-PeCDD
33:30	3.37e+04	2.09e+04	1.61 y	5.46e+04	3.45	
33:58	5.02e+04	2.98e+04	1.68 y	8.00e+04	5.06	

Totals class: Total Hexa-Dioxins

Entry #: 40

Run: 13

File: 22JAN10M

S: 8 I: 1 F: 3

Acquired: 22-JAN-10 20:03:29

Total Concentration: 366

Unnamed Concentration: 275.980

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
36:19	9.55e+05	7.74e+05	1.23 y	1.73e+06	111	
37:16	1.92e+05	1.51e+05	1.27 y	3.43e+05	22.0	
37:41	1.10e+06	8.65e+05	1.27 y	1.96e+06	126	
37:52	6.08e+04	5.21e+04	1.17 y	1.13e+05	7.25	
38:47	1.40e+05	1.08e+05	1.29 y	2.48e+05	14.8	1,2,3,4,7,8-HxCDD
38:56	2.97e+05	2.43e+05	1.22 y	5.40e+05	37.6	1,2,3,6,7,8-HxCDD
39:15	8.39e+04	6.68e+04	1.25 y	1.51e+05	9.68	
39:23	3.26e+05	2.57e+05	1.27 y	5.83e+05	37.3	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 13

File: 22JAN10M

S: 8 I: 1 F: 4

Acquired: 22-JAN-10 20:03:29

Total Concentration: 2160

Unnamed Concentration: 1048.997

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
43:02	6.03e+06	6.30e+06	0.96 y	1.23e+07	1050	
44:25	6.37e+06	6.65e+06	0.96 y	1.30e+07	1110	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans

Entry #: 42

Run: 13

File: 22JAN10M

S: 8 I: 1 F: 1

Acquired: 22-JAN-10 20:03:29

Total Concentration: 57.1

Unnamed Concentration: 54.806

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
23:13	2.32e+04	3.14e+04	0.74 y	5.46e+04	1.55	
23:34	2.31e+04	2.77e+04	0.83 y	5.08e+04	1.44	
23:56	7.55e+04	1.03e+05	0.74 y	1.78e+05	5.05	
24:20	8.13e+04	1.17e+05	0.69 y	1.99e+05	5.64	
24:35	6.04e+04	8.82e+04	0.68 y	1.49e+05	4.22	
24:52	4.63e+04	6.37e+04	0.73 y	1.10e+05	3.12	
24:58	2.30e+04	3.36e+04	0.68 y	5.65e+04	1.60	
25:05	2.87e+04	4.08e+04	0.70 y	6.95e+04	1.97	
25:27	4.74e+04	6.54e+04	0.73 y	1.13e+05	3.20	
25:34	5.51e+04	7.29e+04	0.76 y	1.28e+05	3.63	
25:41	8.18e+04	1.24e+05	0.66 y	2.06e+05	5.85	
26:03	4.27e+04	6.17e+04	0.69 y	1.04e+05	2.96	
26:17	2.94e+04	3.93e+04	0.75 y	6.87e+04	1.95	
26:24	2.82e+04	4.18e+04	0.67 y	6.99e+04	1.98	
26:41	4.27e+04	5.78e+04	0.74 y	1.01e+05	2.85	
26:47	3.37e+04	4.87e+04	0.69 y	8.24e+04	2.34	2,3,7,8-TCDF
27:08	6.94e+04	1.04e+05	0.67 y	1.74e+05	4.93	
28:00	1.30e+04	1.89e+04	0.68 y	3.19e+04	0.905	
28:13	1.08e+04	1.62e+04	0.66 y	2.70e+04	0.766	
28:37	1.77e+04	2.37e+04	0.75 y	4.14e+04	1.18	

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

Run: 13      File: 22JAN10M      S: 8 I: 1 F: 1  
Acquired: 22-JAN-10 20:03:29

Total Concentration: 27.7      Unnamed Concentration: 27.694

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:36	3.57e+05	2.35e+05	1.52 y	5.92e+05	27.7	

Totals class: Total Penta-Furans

Entry #: 44

Run: 13 File: 22JAN10M  
Acquired: 22-JAN-10 20:03:29

S: 8 I: 1 F: 2

Total Concentration: 49.4

Unnamed Concentration: 43.559

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:13	6.35e+04	4.07e+04	1.56 y	1.04e+05	4.87	
30:24	2.42e+05	1.44e+05	1.68 y	3.86e+05	18.1	
31:05	9.06e+04	5.62e+04	1.61 y	1.47e+05	6.86	
31:13	1.55e+04	1.09e+04	1.42 y	2.64e+04	1.24	
31:24	1.84e+04	1.14e+04	1.61 y	2.98e+04	1.40	
31:39	3.23e+04	1.92e+04	1.68 y	5.15e+04	2.38	1,2,3,7,8-PeCDF
31:58	7.38e+04	4.87e+04	1.52 y	1.22e+05	5.73	
32:50	3.88e+04	2.43e+04	1.60 y	6.31e+04	2.95	
32:59	4.61e+04	2.66e+04	1.73 y	7.27e+04	3.44	2,3,4,7,8-PeCDF
33:01	3.20e+04	2.04e+04	1.57 y	5.25e+04	2.45	



Totals class: Total Hexa-Furans

Entry #: 45

Run: 13

File: 22JAN10M

S: 8 I: 1 F: 3

Acquired: 22-JAN-10 20:03:29

Total Concentration: 228

Unnamed Concentration: 191.608

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:27	2.36e+05	2.02e+05	1.17 y	4.39e+05	23.1	
35:43	8.85e+05	7.23e+05	1.22 y	1.61e+06	84.6	
36:18	2.57e+04	2.27e+04	1.13 y	4.84e+04	2.55	
36:36	7.56e+05	6.27e+05	1.21 y	1.38e+06	72.8	
37:14	3.86e+04	3.21e+04	1.20 y	7.07e+04	3.72	
37:23	1.55e+05	1.34e+05	1.16 y	2.88e+05	14.9	1,2,3,4,7,8-HxCDF
37:36	9.35e+04	7.34e+04	1.27 y	1.67e+05	8.67	1,2,3,6,7,8-HxCDF
38:15	5.07e+04	4.09e+04	1.24 y	9.16e+04	4.82	
38:32	1.11e+05	8.94e+04	1.25 y	2.01e+05	10.7	2,3,4,6,7,8-HxCDF
40:01	2.42e+04	1.86e+04	1.31 y	4.28e+04	2.27	1,2,3,7,8,9-HxCDF

Totals class: Total Hepta-Furans

Entry #: 46

Run: 13

File: 22JAN10M

S: 8 I: 1 F: 4

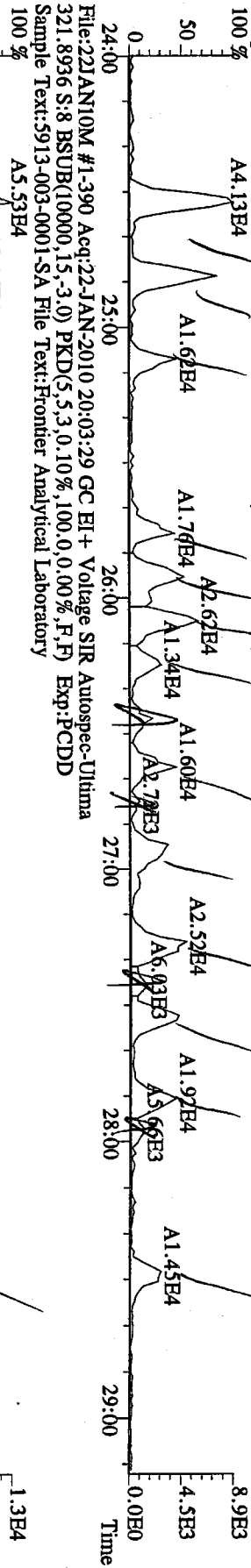
Acquired: 22-JAN-10 20:03:29

Total Concentration: 594

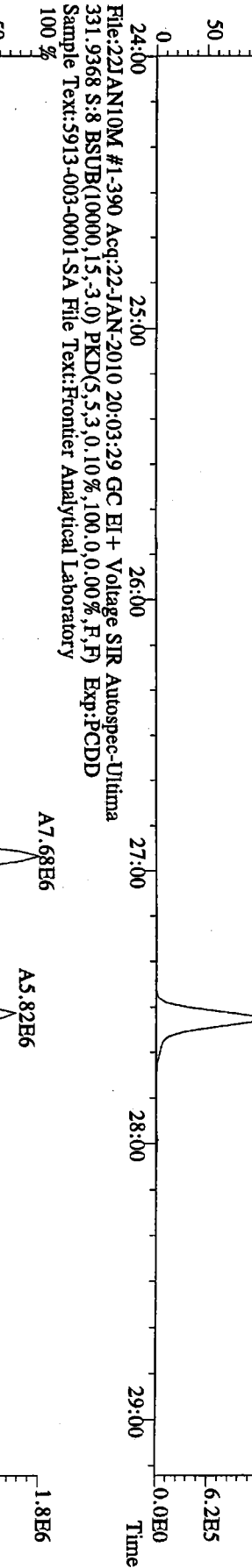
Unnamed Concentration: 374.650

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:30	1.55e+06	1.53e+06	1.01 y	3.09e+06	209	1,2,3,4,6,7,8-HpCDF
43:04	3.43e+04	3.48e+04	0.99 y	6.91e+04	4.75	
43:20	2.75e+06	2.64e+06	1.04 y	5.39e+06	370	
45:20	7.75e+04	7.49e+04	1.03 y	1.52e+05	10.6	1,2,3,4,7,8,9-HpCDF

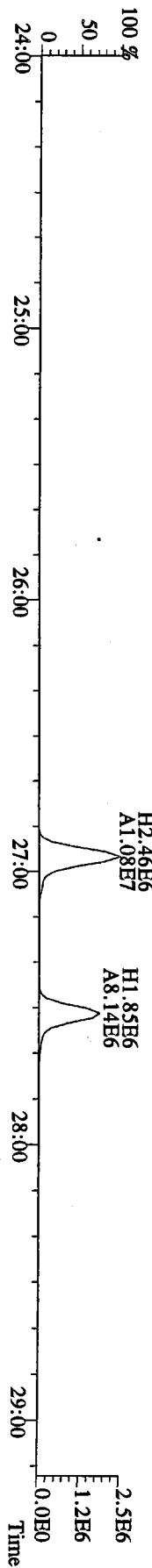
File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Utima  
 319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Utima  
 327.8847 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

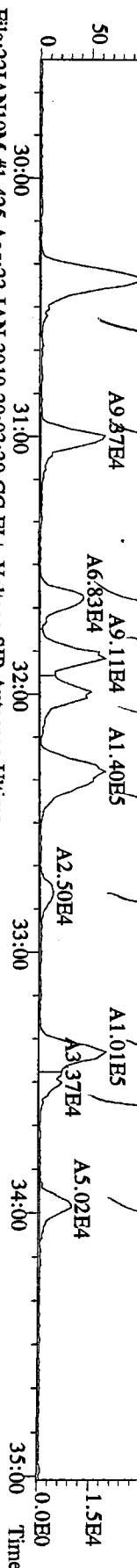


File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Utima  
 333.9339 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

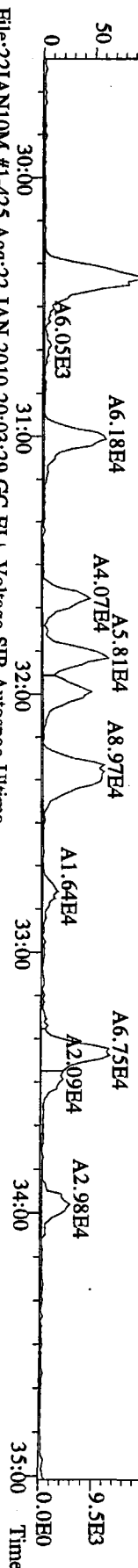


10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

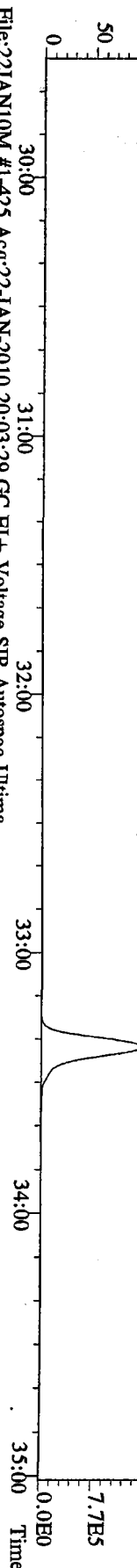
File:22JAN10M #1-425 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 S:8 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



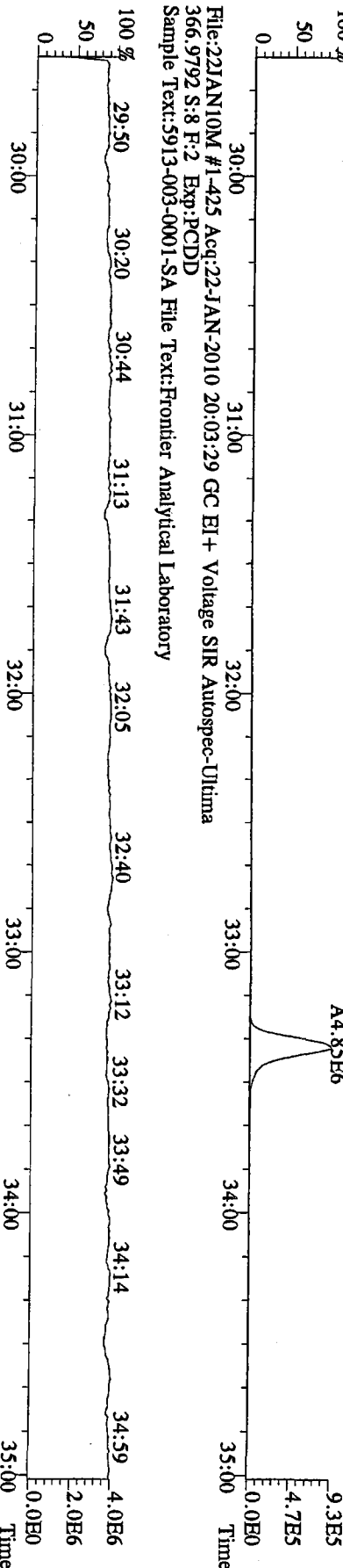
File:22JAN10M #1-425 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
357.8517 S:8 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



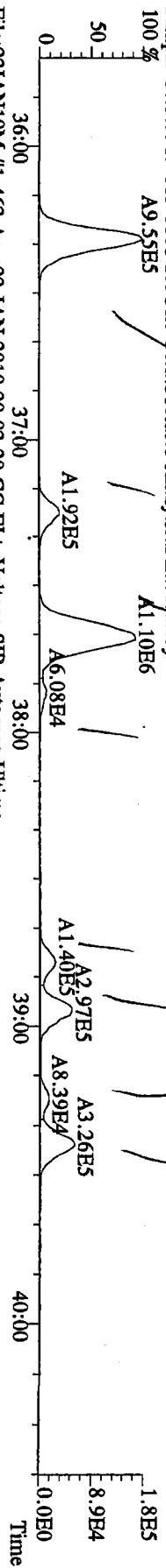
File:22JAN10M #1-425 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
367.8949 S:8 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



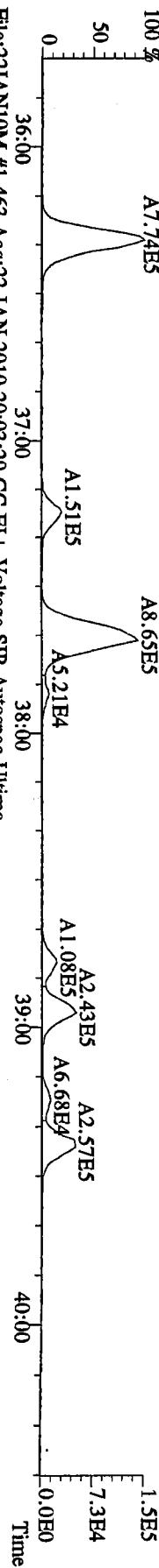
File:22JAN10M #1-425 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
366.9792 S:8 F:2 Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



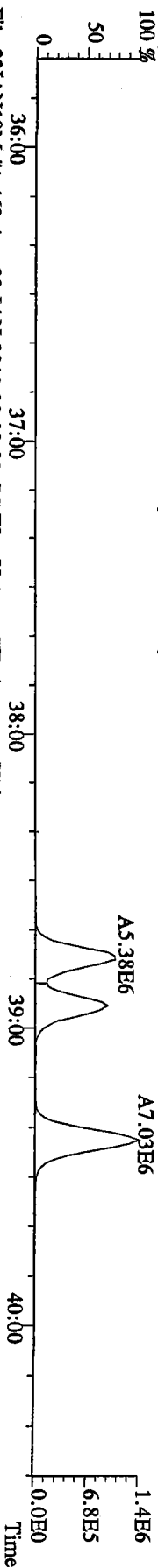
File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



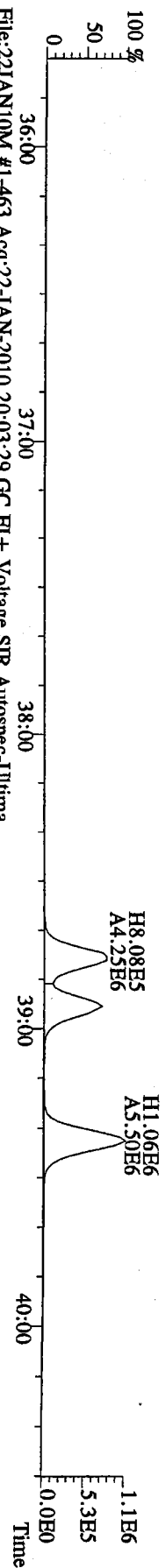
File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
391.8127 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



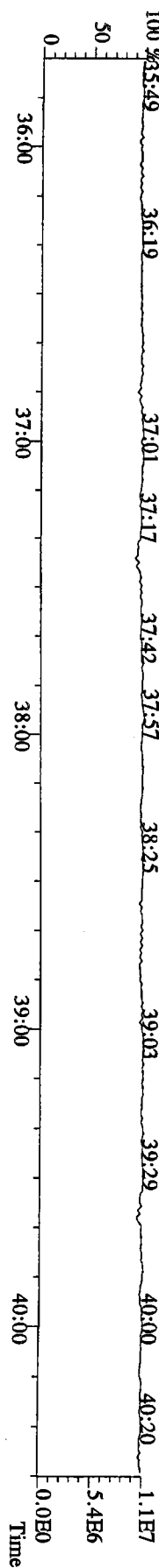
File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
401.8559 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
403.8530 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
380.9760 S:8 F:3 Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

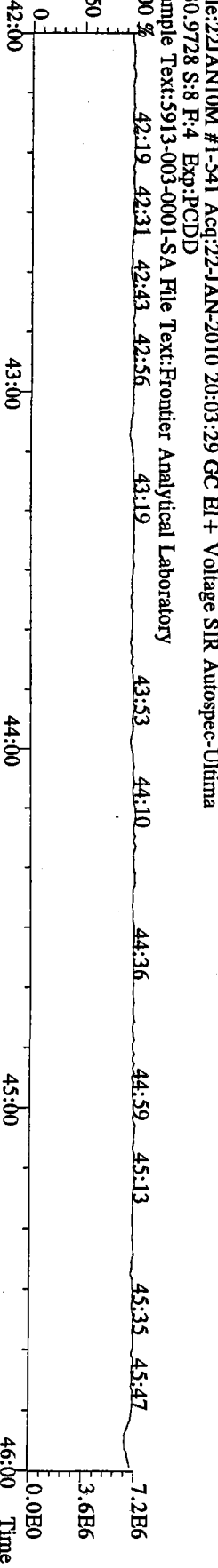
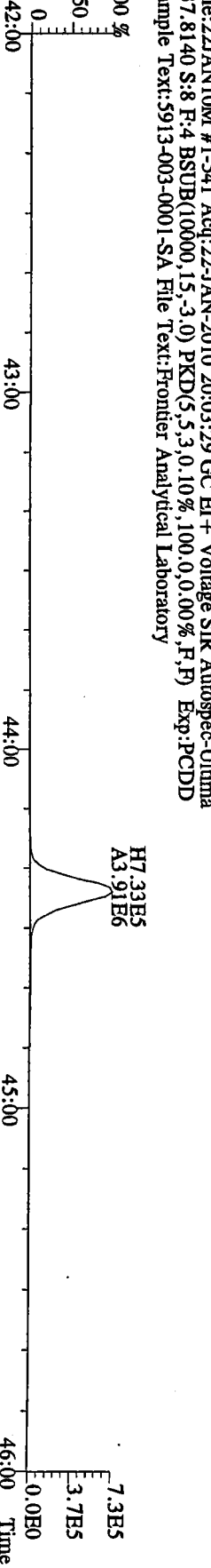
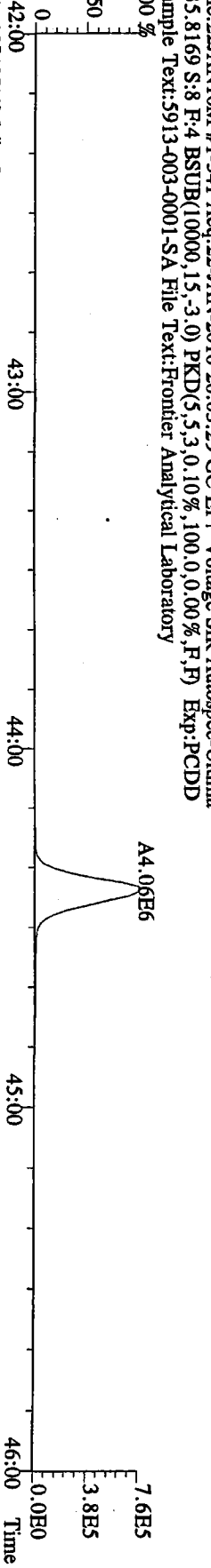
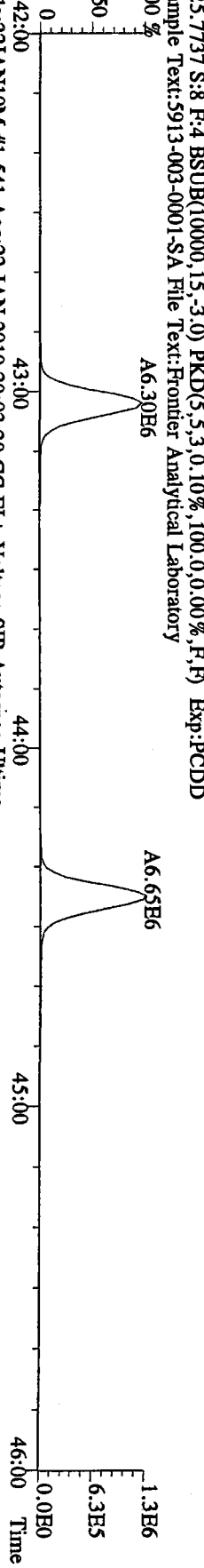
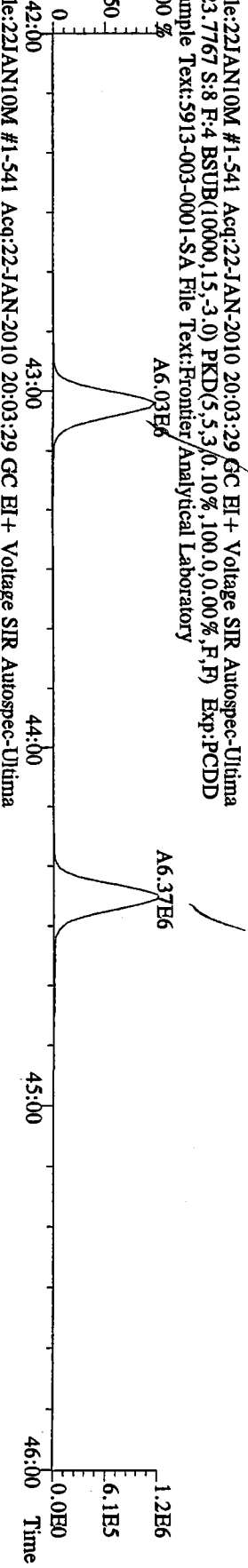


File:22JAN10M #1-541 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

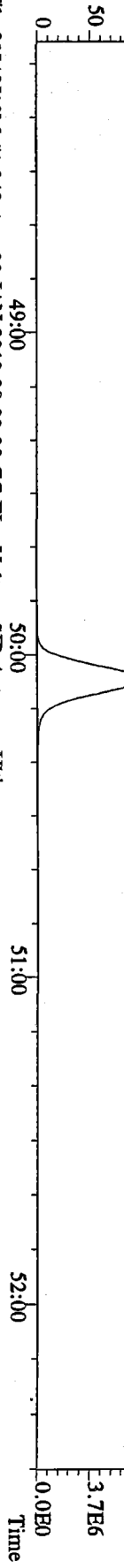
File:22JAN10M #1-541 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 425.7737 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

File:22JAN10M #1-541 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 435.8169 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

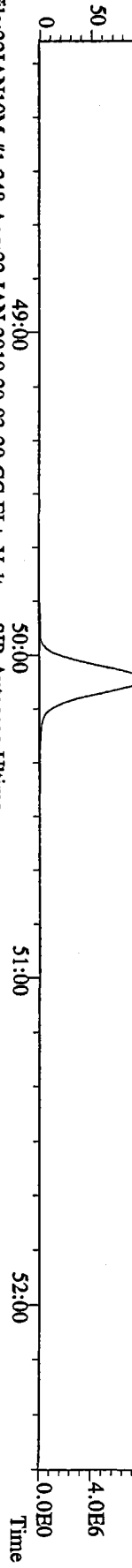
File:22JAN10M #1-541 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 437.8140 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



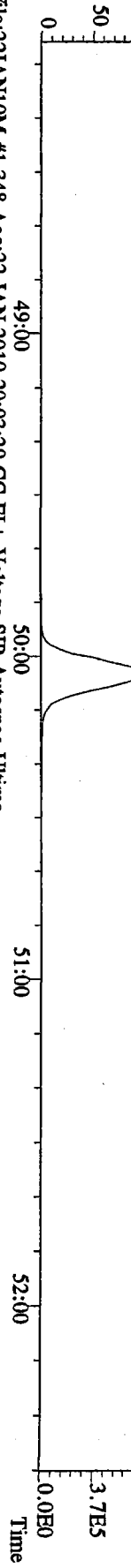
File:22JAN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



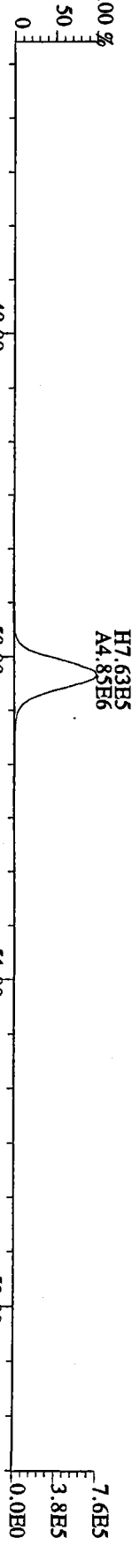
File:22JAN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 459.7348 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



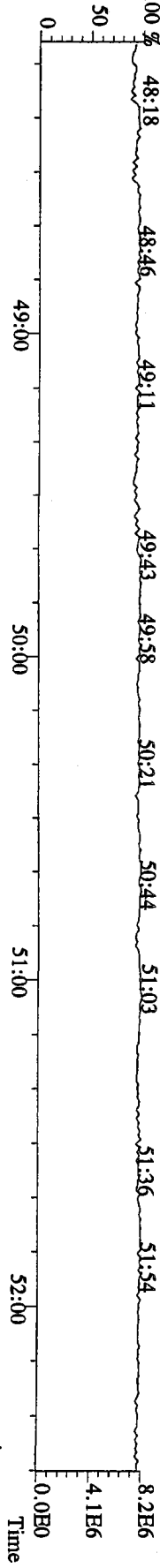
File:22JAN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 469.7780 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



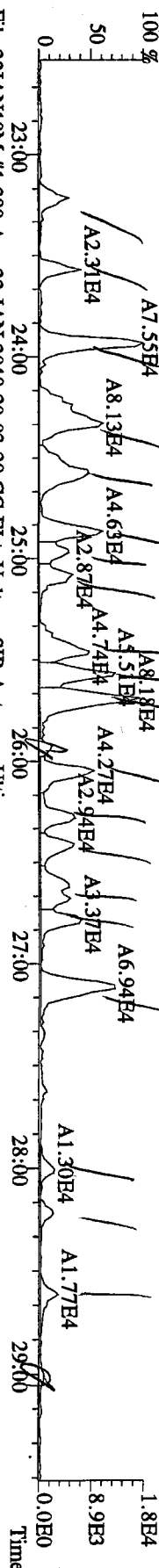
File:22JAN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 471.7750 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



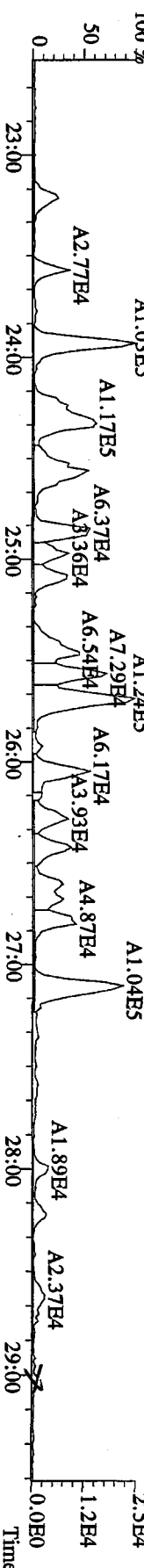
File:22JAN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 454.9728 S:8 F:5 Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



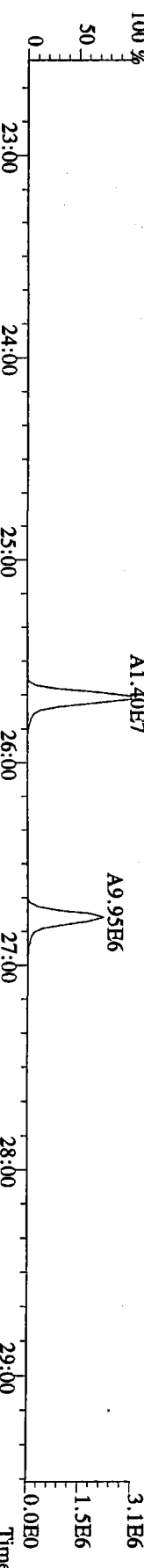
File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



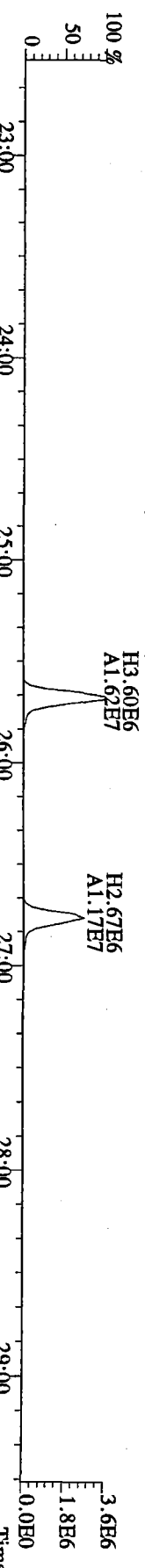
File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
305.8987 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



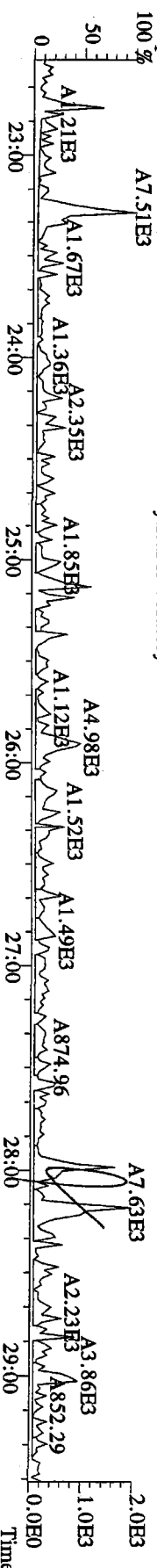
File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
315.9419 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
317.9389 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

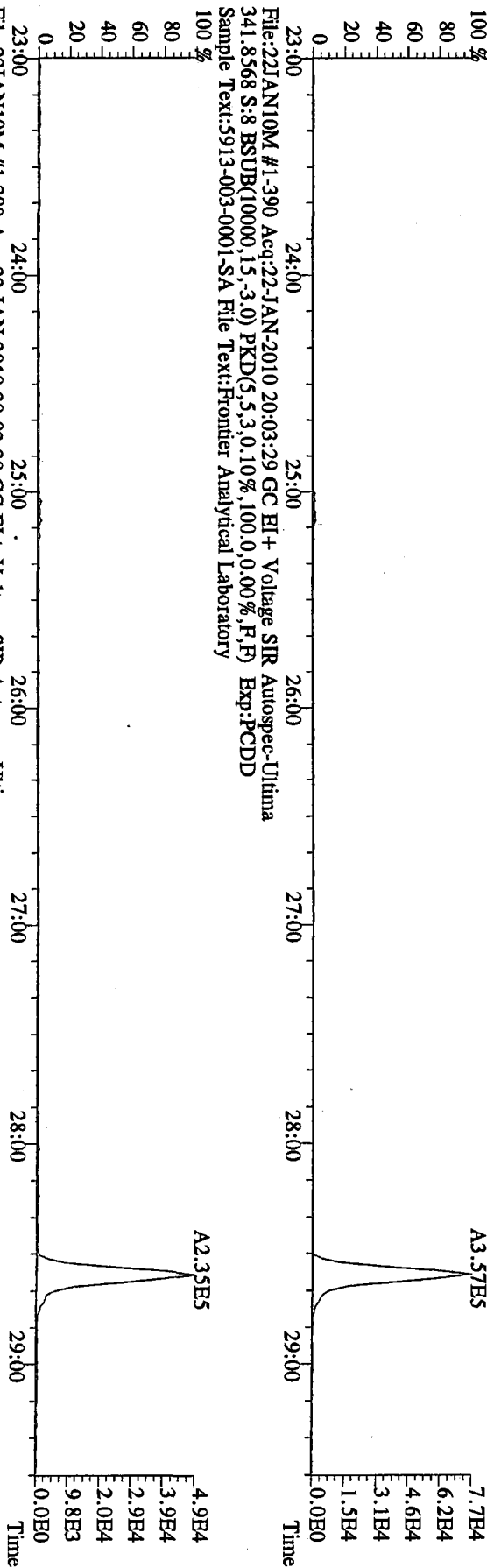


File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
375.8364 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



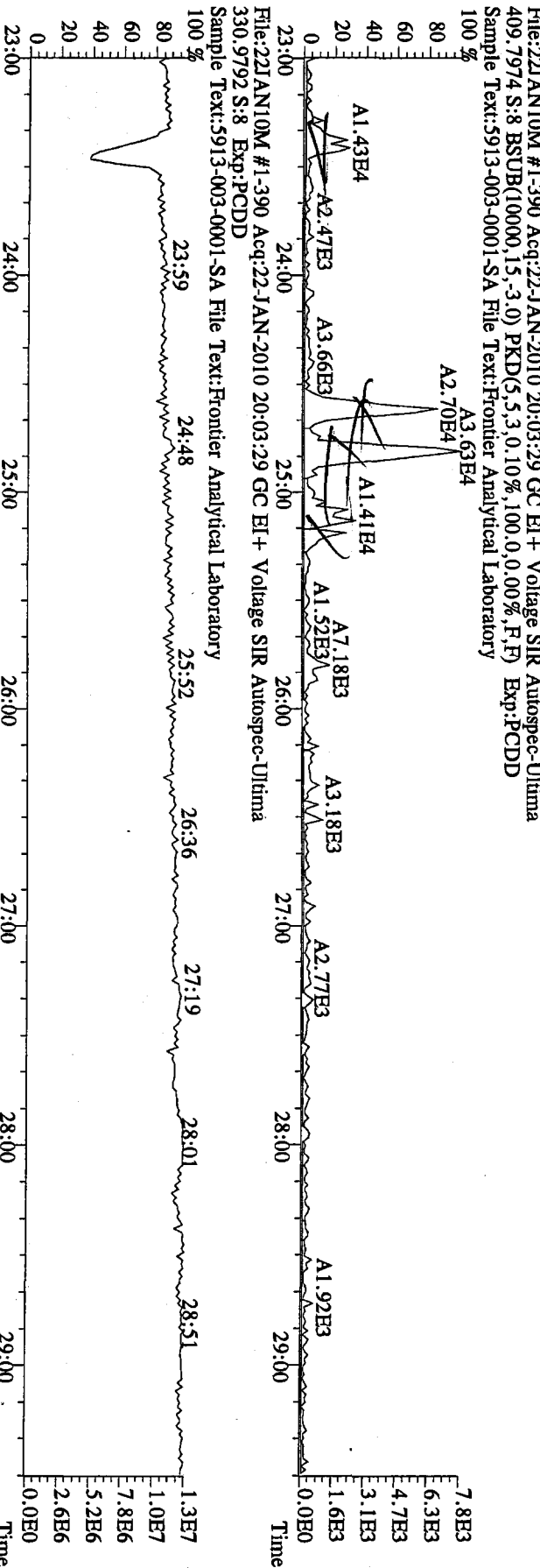


File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:8 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

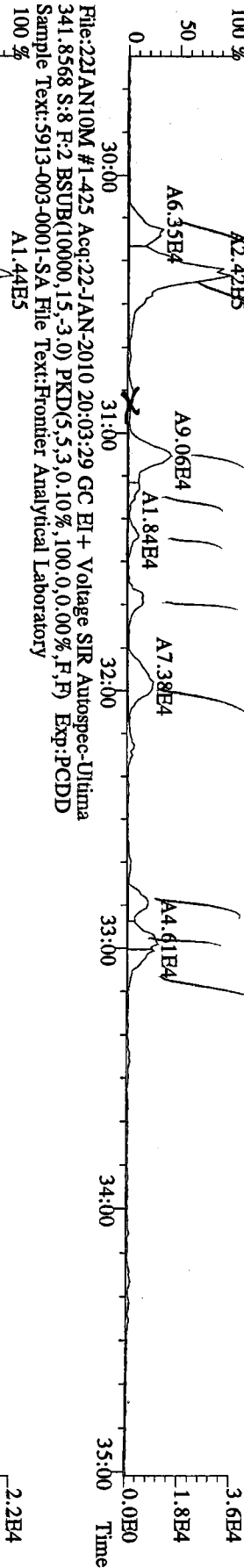


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

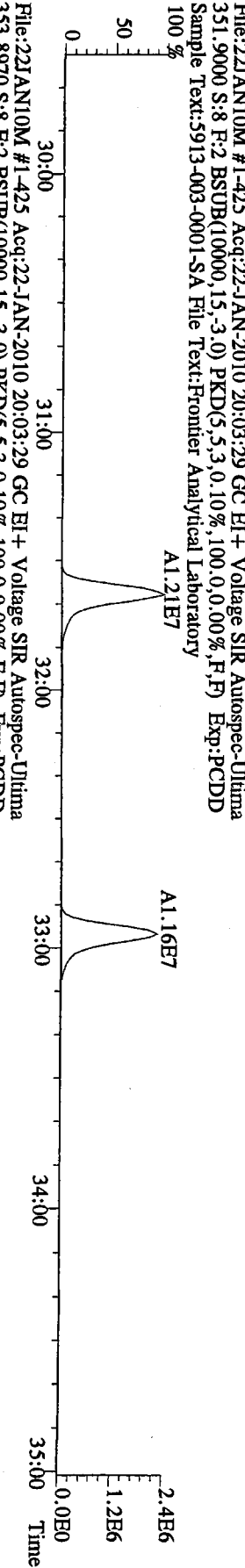
File:22JAN10M #1-390 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:8 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



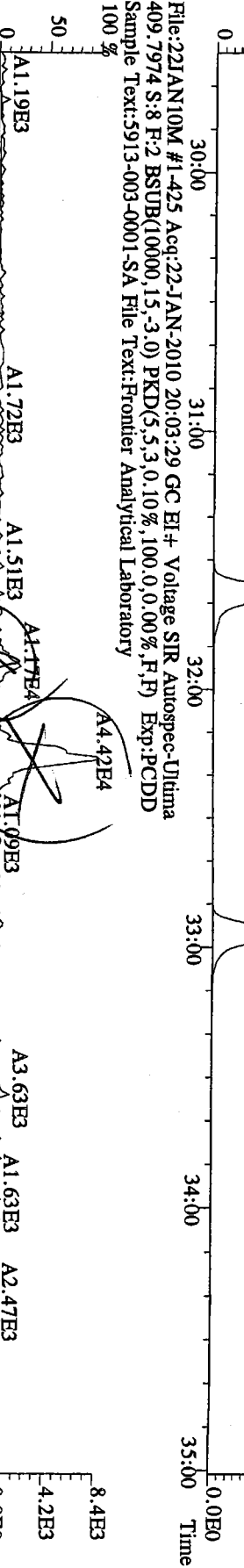
File:22JAN10M #1-425 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



File:22JAN10M #1-425 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
351.9000 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

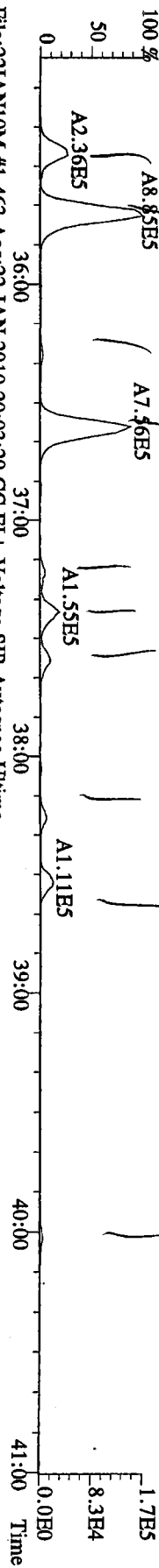


File:22JAN10M #1-425 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
409.7974 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory

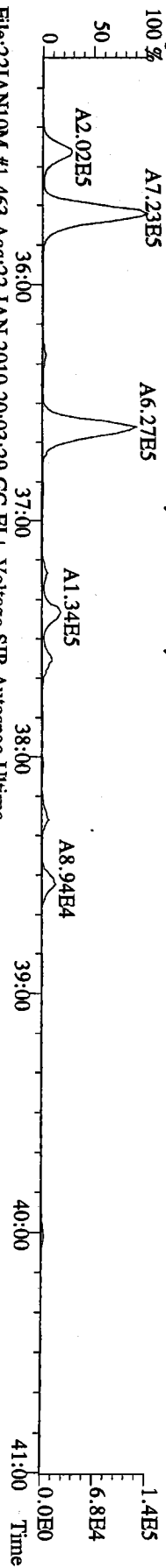


00 00

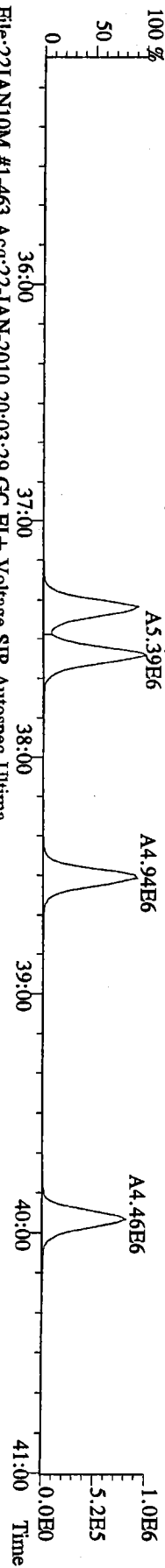
File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



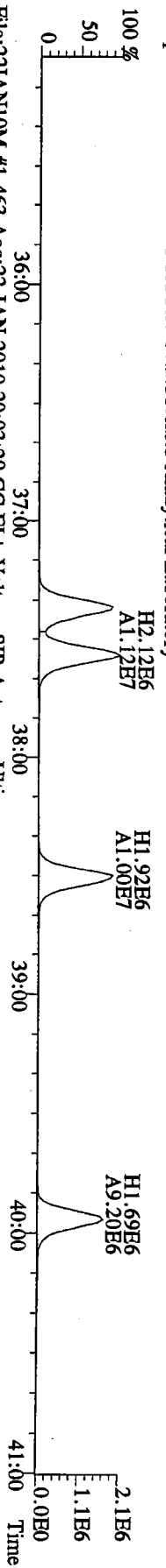
File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 375.8178 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



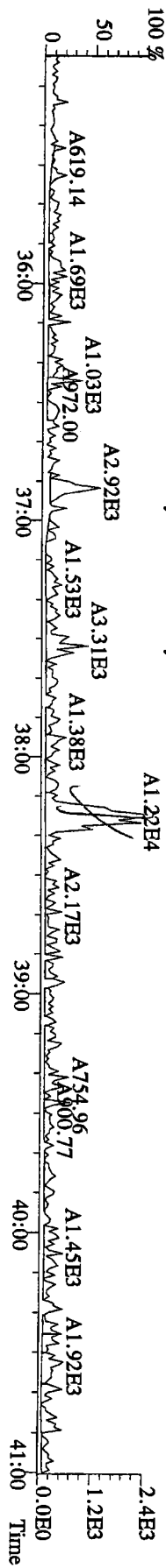
File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



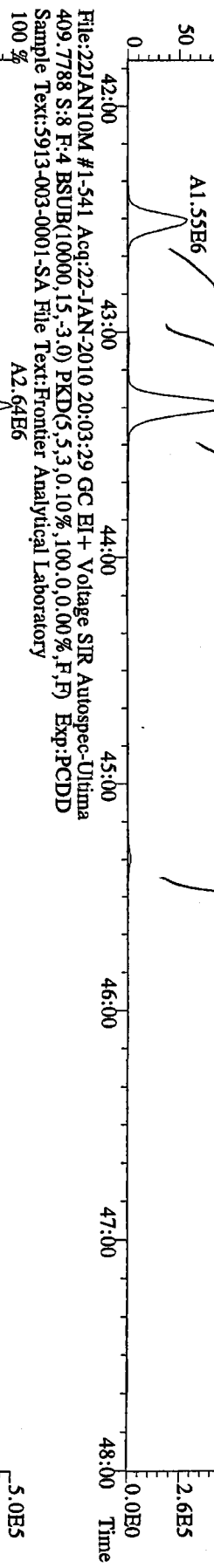
File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 385.8610 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



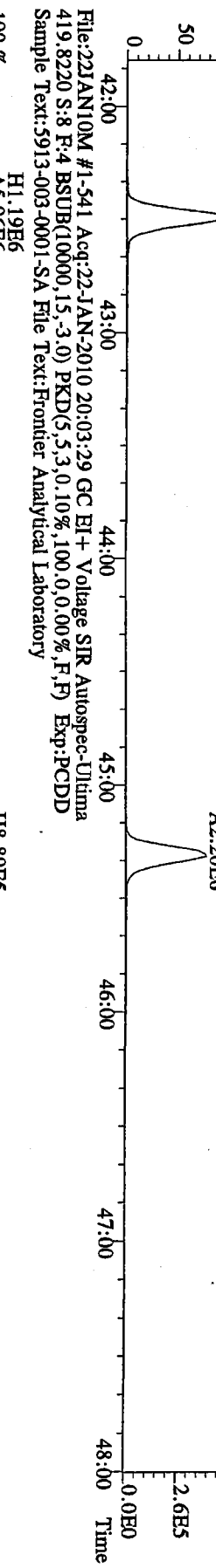
File:22JAN10M #1-463 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
 445.7555 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



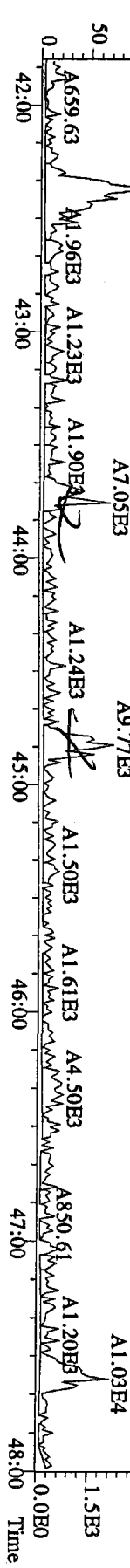
File:22JAN10M #1-541 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Utima  
 407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
 100 %



File:22JAN10M #1-541 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Utima  
 417.8253 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
 100 %

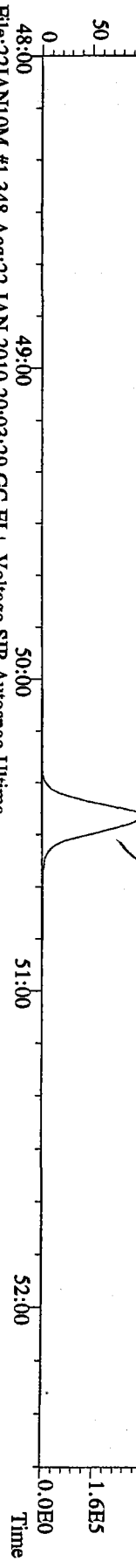


File:22JAN10M #1-541 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Utima  
 479.7165 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
 100 %

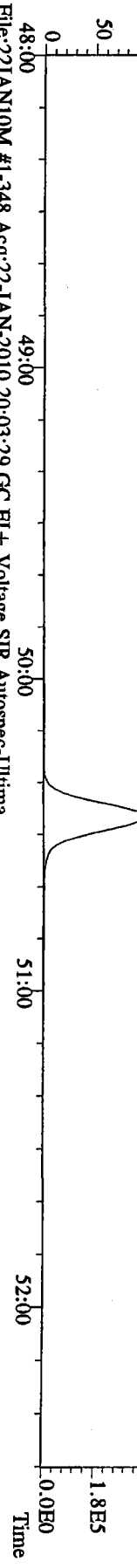


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

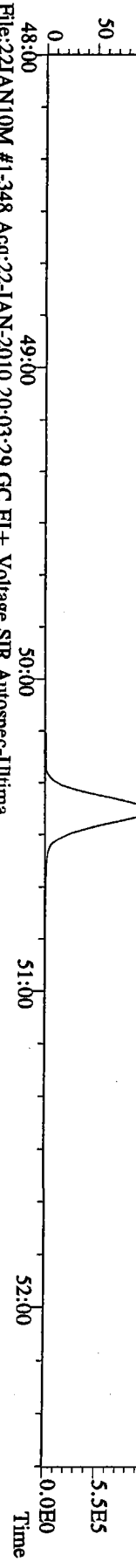
File:221AN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
100 %



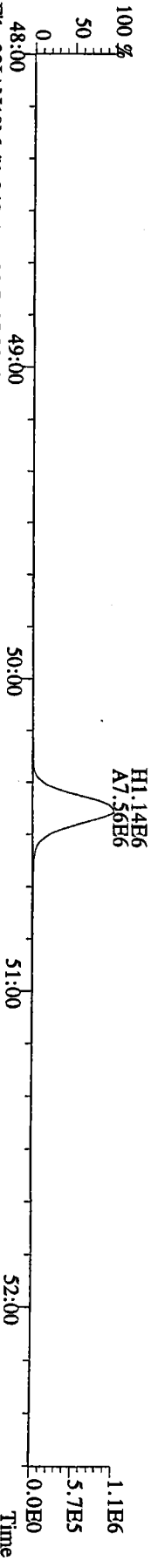
File:221AN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
100 %



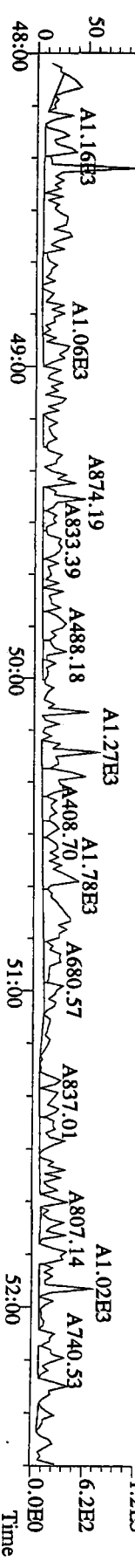
File:221AN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
100 %



File:221AN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
455.7801 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory



File:221AN10M #1-348 Acq:22-JAN-2010 20:03:29 GC EI+ Voltage SIR Autospec-Ultima  
513.6775 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:5913-003-0001-SA File Text:Frontier Analytical Laboratory  
100 %



10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

# **Initial Calibration Results**

## Frontier Analytical Laboratory

Data Filename: 18NOV09M

Analyte: PCDDFAL3-11-18-09

Cal: PCDDFAL3-11-18-09

Name	RRF	S. D.	%RSD	S2 RRF#1	S3 RRF#2	S4 RRF#3	S1 RRF#4	S5 RRF#5	S6 RRF#6
2,3,7,8-TCDD	1.02	0.0735	7.22 %	1.00	0.93	0.95	1.04	1.07	1.12
1,2,3,7,8-PeCDD	0.96	0.0778	8.09 %	0.88	0.88	0.93	0.99	1.02	1.07
1,2,3,4,7,8-HxCDD	1.37	0.110	8.00 %	1.26	1.27	1.31	1.41	1.48	1.52
1,2,3,6,7,8-HxCDD	1.34	0.0611	4.55 %	1.26	1.33	1.30	1.35	1.40	1.42
1,2,3,7,8,9-HxCDD	1.37	0.0751	5.49 %	1.32	1.27	1.32	1.40	1.43	1.47
1,2,3,4,6,7,8-HpCDD	1.17	0.0712	6.10 %	1.12	1.09	1.12	1.16	1.25	1.26
OCDD	1.21	0.113	9.27 %	1.09	1.11	1.17	1.23	1.34	1.35
2,3,7,8-TCDF	1.29	0.0564	4.39 %	1.22	1.28	1.25	1.26	1.31	1.38
1,2,3,7,8-PeCDF	0.89	0.0808	9.08 %	0.79	0.81	0.85	0.94	0.96	0.98
2,3,4,7,8-PeCDF	0.91	0.0710	7.85 %	0.83	0.84	0.87	0.92	0.98	1.00
1,2,3,4,7,8-HxCDF	1.00	0.0925	9.26 %	0.89	0.91	0.97	1.03	1.08	1.11
1,2,3,6,7,8-HxCDF	0.92	0.0747	8.16 %	0.82	0.86	0.88	0.93	0.99	1.01
2,3,4,6,7,8-HxCDF	0.99	0.0785	7.97 %	0.91	0.90	0.95	1.00	1.06	1.09
1,2,3,7,8,9-HxCDF	1.09	0.0901	8.28 %	0.98	1.01	1.06	1.11	1.17	1.20
1,2,3,4,6,7,8-HpCDF	1.36	0.131	9.61 %	1.22	1.22	1.31	1.39	1.50	1.51
1,2,3,4,7,8,9-HpCDF	1.61	0.159	9.90 %	1.49	1.44	1.50	1.62	1.77	1.82
OCDF	0.84	0.0791	9.39 %	0.75	0.76	0.81	0.86	0.93	0.93
13C-2,3,7,8-TCDD	0.94	0.0249	2.65 %	0.92	0.91	0.93	0.96	0.95	0.98
13C-1,2,3,7,8-PeCDD	1.02	0.0718	7.06 %	0.99	0.93	1.00	1.00	1.02	1.15
13C-1,2,3,4,7,8-HxCDD	0.98	0.0126	1.28 %	0.99	0.97	1.00	0.99	0.98	0.97
13C-1,2,3,6,7,8-HxCDD	0.94	0.0188	2.01 %	0.93	0.93	0.96	0.94	0.95	0.91
13C-1,2,3,4,6,7,8-HpCDD	0.90	0.0218	2.42 %	0.92	0.89	0.87	0.91	0.89	0.92
13C-OCDD	0.67	0.0306	4.59 %	0.69	0.66	0.62	0.69	0.64	0.70
13C-2,3,7,8-TCDF	0.88	0.0307	3.49 %	0.85	0.85	0.86	0.88	0.92	0.91
13C-1,2,3,7,8-PeCDF	0.88	0.0612	6.98 %	0.83	0.79	0.87	0.88	0.92	0.96
13C-2,3,4,7,8-PeCDF	0.85	0.0560	6.60 %	0.83	0.76	0.85	0.85	0.88	0.93
13C-1,2,3,4,7,8-HxCDF	1.72	0.0550	3.20 %	1.74	1.75	1.75	1.71	1.75	1.61
13C-1,2,3,6,7,8-HxCDF	2.00	0.0743	3.71 %	2.01	2.02	2.06	2.01	2.05	1.86
13C-2,3,4,6,7,8-HxCDF	1.74	0.0562	3.24 %	1.74	1.73	1.79	1.77	1.75	1.63
13C-1,2,3,7,8,9-HxCDF	1.51	0.0258	1.71 %	1.51	1.47	1.48	1.54	1.53	1.51
13C-1,2,3,4,6,7,8-HpCDF	1.10	0.0153	1.39 %	1.12	1.10	1.08	1.10	1.08	1.11
13C-1,2,3,4,7,8,9-HpCDF	0.85	0.0310	3.67 %	0.82	0.84	0.81	0.87	0.84	0.89
13C-OCDF	1.17	0.0555	4.73 %	1.18	1.15	1.10	1.21	1.14	1.26
37Cl-2,3,7,8-TCDD	0.97	0.0838	8.61 %	0.90	0.93	0.90	0.98	1.03	1.11
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-	-
13C-1,2,3,4-TCDF	-	-	- %	-	-	-	-	-	-
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-	-
Total Tetra-Dioxins	1.02	0.0735	7.22 %	1.00	0.93	0.95	1.04	1.07	1.12
Total Penta-Dioxins	0.96	0.0778	8.09 %	0.88	0.88	0.93	0.99	1.02	1.07
Total Hexa-Dioxins	1.36	0.0803	5.89 %	1.28	1.29	1.31	1.38	1.44	1.47
Total Hepta-Dioxins	1.17	0.0712	6.10 %	1.12	1.09	1.12	1.16	1.25	1.26
Total Tetra-Furans	1.29	0.0564	4.39 %	1.22	1.28	1.25	1.26	1.31	1.38
1st Fn. Tot Penta-Furans	0.90	0.0756	8.43 %	0.81	0.82	0.86	0.93	0.97	0.99
Total Penta-Furans	0.90	0.0756	8.43 %	0.81	0.82	0.86	0.93	0.97	0.99
Total Hexa-Furans	0.99	0.0838	8.45 %	0.89	0.91	0.96	1.01	1.07	1.10
Total Hepta-Furans	1.47	0.144	9.82 %	1.33	1.32	1.39	1.49	1.62	1.65

Analyst: 

Date: 11/19/05

000109 of 000295

QESG : 01020

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk      2,3,7,8-TCDD	0.25	6.29e+04	0.72 y	27:25	-	0.999 y
2	Unk      1,2,3,7,8-PeCDD	1.25	2.97e+05	1.58 y	33:14	-	0.878 y
3	Unk      1,2,3,4,7,8-HxCDD	1.25	3.17e+05	1.22 y	38:36	-	1.26 y
4	Unk      1,2,3,6,7,8-HxCDD	1.25	2.97e+05	1.25 y	38:46	-	1.26 y
5	Unk      1,2,3,7,8,9-HxCDD	1.25	3.23e+05	1.29 y	39:13	-	1.32 y
6	Unk      1,2,3,4,6,7,8-HpCDD	1.25	2.62e+05	0.93 y	44:14	-	1.12 y
7	Unk      OCDD	2.50	3.81e+05	0.92 y	49:49	-	1.09 y
8	Unk      2,3,7,8-TCDF	0.25	1.27e+05	0.69 y	26:39	-	1.22 y
9	Unk      1,2,3,7,8-PeCDF	1.25	4.03e+05	1.75 y	31:30	-	0.794 y
10	Unk      2,3,4,7,8-PeCDF	1.25	4.20e+05	1.65 y	32:49	-	0.830 y
11	Unk      1,2,3,4,7,8-HxCDF	1.25	3.91e+05	1.24 y	37:13	-	0.887 y
12	Unk      1,2,3,6,7,8-HxCDF	1.25	4.20e+05	1.21 y	37:26	-	0.822 y
13	Unk      2,3,4,6,7,8-HxCDF	1.25	4.00e+05	1.29 y	38:21	-	0.906 y
14	Unk      1,2,3,7,8,9-HxCDF	1.25	3.77e+05	1.28 y	39:47	-	0.981 y
15	Unk      1,2,3,4,6,7,8-HpCDF	1.25	3.46e+05	1.00 y	42:19	-	1.22 y
16	Unk      1,2,3,4,7,8,9-HpCDF	1.25	3.09e+05	1.00 y	45:08	-	1.49 y
17	Unk      OCDF	2.50	4.50e+05	0.88 y	50:10	-	0.754 y
18	IS/RT      13C-2,3,7,8-TCDD	100.00	2.52e+07	0.73 y	27:23	-	0.925 y
19	IS      13C-1,2,3,7,8-PeCDD	100.00	2.71e+07	1.63 y	33:13	-	0.994 y
20	IS      13C-1,2,3,4,7,8-HxCDD	100.00	2.02e+07	1.31 y	38:35	-	0.994 y
21	IS      13C-1,2,3,6,7,8-HxCDD	100.00	1.89e+07	1.33 y	38:45	-	0.930 y
22	IS      13C-1,2,3,4,6,7,8-HpCDD	100.00	1.87e+07	1.06 y	44:12	-	0.922 y
23	IS      13C-OCDD	200.00	2.79e+07	1.01 y	49:47	-	0.689 y
24	IS      13C-2,3,7,8-TCDF	100.00	4.15e+07	0.81 y	26:38	-	0.852 y
25	IS      13C-1,2,3,7,8-PeCDF	100.00	4.06e+07	1.67 y	31:28	-	0.835 y
26	IS      13C-2,3,4,7,8-PeCDF	100.00	4.04e+07	1.68 y	32:48	-	0.831 y
27	IS      13C-1,2,3,4,7,8-HxCDF	100.00	3.52e+07	0.48 y	37:12	-	1.74 y
28	IS      13C-1,2,3,6,7,8-HxCDF	100.00	4.09e+07	0.48 y	37:24	-	2.01 y
29	IS      13C-2,3,4,6,7,8-HxCDF	100.00	3.53e+07	0.49 y	38:20	-	1.74 y
30	IS      13C-1,2,3,7,8,9-HxCDF	100.00	3.07e+07	0.49 y	39:47	-	1.51 y
31	IS      13C-1,2,3,4,6,7,8-HpCDF	100.00	2.27e+07	0.46 y	42:18	-	1.12 y
32	IS      13C-1,2,3,4,7,8,9-HpCDF	100.00	1.66e+07	0.46 y	45:07	-	0.821 y
33	IS      13C-OCDF	200.00	4.77e+07	0.92 y	50:10	-	1.18 y
34	C/Up      37Cl-2,3,7,8-TCDD	0.25	6.12e+04		27:25	-	0.900 y
35	RS      13C-1,2,3,4-TCDD	100.00	2.72e+07	0.74 y	26:49	2.72e+05	- n
36	RS      13C-1,2,3,4-TCDF	100.00	4.87e+07	0.81 y	25:33	4.87e+05	- n
37	RS/RT      13C-1,2,3,7,8,9-HxCDD	100.00	2.03e+07	1.33 y	39:12	2.03e+05	- n
38	Tot      Total Tetra-Dioxins	0.00	-	- n	-	-	0.999 y
39	Tot      Total Penta-Dioxins	0.00	-	- n	-	-	0.878 y
40	Tot      Total Hexa-Dioxins	0.00	-	- n	-	-	1.28 y
41	Tot      Total Hepta-Dioxins	0.00	-	- n	-	-	1.12 y
42	Tot      Total Tetra-Furans	0.00	-	- n	-	-	1.22 y
43	Tot      1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.812 y
44	Tot      Total Penta-Furans	0.00	-	- n	-	-	0.812 y
45	Tot.      Total Hexa-Furans	0.00	-	- n	-	-	0.893 y
46	Tot      Total Hepta-Furans	0.00	-	- n	-	-	1.33 y

Analyst: \_\_\_\_\_ 

Date: 11/19/09



Run #2 Filename 18NOV09M  
Client ID: ST111809M1

S: 3 Acquired: 18-NOV-09 15:36:11 Cal: PCDDFAL3-11-18-09  
Analyte: FAL ID: 1613 CS1 090918H

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	0.50	1.11e+05	0.75 y	27:24	-	0.929 y
2	Unk 1,2,3,7,8-PeCDD	2.50	5.36e+05	1.55 y	33:13	-	0.880 y
3	Unk 1,2,3,4,7,8-HxCDD	2.50	5.91e+05	1.24 y	38:36	-	1.27 y
4	Unk 1,2,3,6,7,8-HxCDD	2.50	5.90e+05	1.34 y	38:46	-	1.33 y
5	Unk 1,2,3,7,8,9-HxCDD	2.50	5.76e+05	1.27 y	39:13	-	1.27 y
6	Unk 1,2,3,4,6,7,8-HpCDD	2.50	4.64e+05	0.91 y	44:14	-	1.09 y
7	Unk OCDD	5.00	7.02e+05	0.93 y	49:48	-	1.11 y
8	Unk 2,3,7,8-TCDF	0.50	2.57e+05	0.66 y	26:38	-	1.28 y
9	Unk 1,2,3,7,8-PeCDF	2.50	7.54e+05	1.68 y	31:29	-	0.811 y
10	Unk 2,3,4,7,8-PeCDF	2.50	7.51e+05	1.69 y	32:48	-	0.839 y
11	Unk 1,2,3,4,7,8-HxCDF	2.50	7.60e+05	1.28 y	37:12	-	0.906 y
12	Unk 1,2,3,6,7,8-HxCDF	2.50	8.29e+05	1.28 y	37:25	-	0.857 y
13	Unk 2,3,4,6,7,8-HxCDF	2.50	7.51e+05	1.20 y	38:21	-	0.905 y
14	Unk 1,2,3,7,8,9-HxCDF	2.50	7.09e+05	1.26 y	39:47	-	1.01 y
15	Unk 1,2,3,4,6,7,8-HpCDF	2.50	6.45e+05	1.00 y	42:19	-	1.22 y
16	Unk 1,2,3,4,7,8,9-HpCDF	2.50	5.81e+05	0.96 y	45:08	-	1.44 y
17	Unk OCDF	5.00	8.42e+05	0.93 y	50:11	-	0.763 y
18	IS/RT 13C-2,3,7,8-TCDD	100.00	2.38e+07	0.73 y	27:22	-	0.913 y
19	IS 13C-1,2,3,7,8-PeCDD	100.00	2.44e+07	1.69 y	33:12	-	0.934 y
20	IS 13C-1,2,3,4,7,8-HxCDD	100.00	1.86e+07	1.36 y	38:35	-	0.969 y
21	IS 13C-1,2,3,6,7,8-HxCDD	100.00	1.78e+07	1.31 y	38:44	-	0.928 y
22	IS 13C-1,2,3,4,6,7,8-HpCDD	100.00	1.70e+07	1.07 y	44:12	-	0.886 y
23	IS 13C-OCDD	200.00	2.54e+07	1.00 y	49:47	-	0.662 y
24	IS 13C-2,3,7,8-TCDF	100.00	4.01e+07	0.81 y	26:37	-	0.850 y
25	IS 13C-1,2,3,7,8-PeCDF	100.00	3.72e+07	1.68 y	31:28	-	0.790 y
26	IS 13C-2,3,4,7,8-PeCDF	100.00	3.58e+07	1.71 y	32:47	-	0.759 y
27	IS 13C-1,2,3,4,7,8-HxCDF	100.00	3.36e+07	0.48 y	37:11	-	1.75 y
28	IS 13C-1,2,3,6,7,8-HxCDF	100.00	3.87e+07	0.48 y	37:23	-	2.02 y
29	IS 13C-2,3,4,6,7,8-HxCDF	100.00	3.32e+07	0.49 y	38:20	-	1.73 y
30	IS 13C-1,2,3,7,8,9-HxCDF	100.00	2.82e+07	0.49 y	39:46	-	1.47 y
31	IS 13C-1,2,3,4,6,7,8-HpCDF	100.00	2.11e+07	0.45 y	42:17	-	1.10 y
32	IS 13C-1,2,3,4,7,8,9-HpCDF	100.00	1.61e+07	0.45 y	45:07	-	0.842 y
33	IS 13C-OCDF	200.00	4.41e+07	0.92 y	50:09	-	1.15 y
34	C/Up 37Cl-2,3,7,8-TCDD	0.50	1.21e+05		27:24	-	0.926 y
35	RS 13C-1,2,3,4-TCDD	100.00	2.61e+07	0.73 y	26:48	2.61e+05	- n
36	RS 13C-1,2,3,4-TCDF	100.00	4.71e+07	0.81 y	25:32	4.71e+05	- n
37	RS/RT 13C-1,2,3,7,8,9-HxCDD	100.00	1.92e+07	1.31 y	39:11	1.92e+05	- n
38	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	0.929 y
39	Tot Total Penta-Dioxins	0.00	-	- n	-	-	0.880 y
40	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.29 y
41	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	1.09 y
42	Tot Total Tetra-Furans	0.00	-	- n	-	-	1.28 y
43	Tot 1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.824 y
44	Tot Total Penta-Furans	0.00	-	- n	-	-	0.824 y
45	Tot Total Hexa-Furans	0.00	-	- n	-	-	0.913 y
46	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.32 y


Analyst: 

Date: 11/19/09

Run #3 Filename 18NOV09M  
Client ID: ST111809M2

S: 4 Acquired: 18-NOV-09 16:31:26 Cal: PCDDFAL3-11-18-09  
Analyte: FAL ID: 1613 CS2 0909181

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	2.00	4.69e+05	0.80 y	27:23	-	0.945 y
2	Unk 1,2,3,7,8-PeCDD	10.00	2.50e+06	1.55 y	33:13	-	0.933 y
3	Unk 1,2,3,4,7,8-HxCDD	10.00	2.60e+06	1.24 y	38:36	-	1.31 y
4	Unk 1,2,3,6,7,8-HxCDD	10.00	2.48e+06	1.24 y	38:46	-	1.30 y
5	Unk 1,2,3,7,8,9-HxCDD	10.00	2.57e+06	1.27 y	39:12	-	1.32 y
6	Unk 1,2,3,4,6,7,8-HpCDD	10.00	1.93e+06	0.91 y	44:13	-	1.12 y
7	Unk OCDD	20.00	2.90e+06	0.92 y	49:48	-	1.17 y
8	Unk 2,3,7,8-TCDF	2.00	1.02e+06	0.66 y	26:38	-	1.25 y
9	Unk 1,2,3,7,8-PeCDF	10.00	3.54e+06	1.71 y	31:29	-	0.852 y
10	Unk 2,3,4,7,8-PeCDF	10.00	3.49e+06	1.69 y	32:48	-	0.868 y
11	Unk 1,2,3,4,7,8-HxCDF	10.00	3.37e+06	1.23 y	37:12	-	0.972 y
12	Unk 1,2,3,6,7,8-HxCDF	10.00	3.62e+06	1.22 y	37:25	-	0.884 y
13	Unk 2,3,4,6,7,8-HxCDF	10.00	3.37e+06	1.24 y	38:20	-	0.951 y
14	Unk 1,2,3,7,8,9-HxCDF	10.00	3.10e+06	1.21 y	39:47	-	1.06 y
15	Unk 1,2,3,4,6,7,8-HpCDF	10.00	2.82e+06	1.00 y	42:18	-	1.31 y
16	Unk 1,2,3,4,7,8,9-HpCDF	10.00	2.41e+06	1.01 y	45:08	-	1.50 y
17	Unk OCDF	20.00	3.55e+06	0.91 y	50:10	-	0.813 y
18	IS/RT 13C-2,3,7,8-TCDD	100.00	2.48e+07	0.73 y	27:22	-	0.929 y
19	IS 13C-1,2,3,7,8-PeCDD	100.00	2.68e+07	1.66 y	33:12	-	1.00 y
20	IS 13C-1,2,3,4,7,8-HxCDD	100.00	1.99e+07	1.32 y	38:35	-	1.00 y
21	IS 13C-1,2,3,6,7,8-HxCDD	100.00	1.91e+07	1.31 y	38:44	-	0.964 y
22	IS 13C-1,2,3,4,6,7,8-HpCDD	100.00	1.73e+07	1.06 y	44:12	-	0.871 y
23	IS 13C-OCDD	200.00	2.47e+07	0.98 y	49:46	-	0.624 y
24	IS 13C-2,3,7,8-TCDF	100.00	4.07e+07	0.82 y	26:37	-	0.856 y
25	IS 13C-1,2,3,7,8-PeCDF	100.00	4.15e+07	1.68 y	31:28	-	0.873 y
26	IS 13C-2,3,4,7,8-PeCDF	100.00	4.02e+07	1.66 y	32:47	-	0.845 y
27	IS 13C-1,2,3,4,7,8-HxCDF	100.00	3.46e+07	0.49 y	37:11	-	1.75 y
28	IS 13C-1,2,3,6,7,8-HxCDF	100.00	4.09e+07	0.50 y	37:23	-	2.06 y
29	IS 13C-2,3,4,6,7,8-HxCDF	100.00	3.55e+07	0.50 y	38:19	-	1.79 y
30	IS 13C-1,2,3,7,8,9-HxCDF	100.00	2.93e+07	0.49 y	39:46	-	1.48 y
31	IS 13C-1,2,3,4,6,7,8-HpCDF	100.00	2.15e+07	0.46 y	42:18	-	1.08 y
32	IS 13C-1,2,3,4,7,8,9-HpCDF	100.00	1.60e+07	0.46 y	45:06	-	0.809 y
33	IS 13C-OCDF	200.00	4.36e+07	0.93 y	50:09	-	1.10 y
34	C/Up 37Cl-2,3,7,8-TCDD	2.00	4.80e+05		27:23	-	0.899 y
35	RS 13C-1,2,3,4-TCDD	100.00	2.67e+07	0.74 y	26:48	2.67e+05	- n
36	RS 13C-1,2,3,4-TCDF	100.00	4.76e+07	0.81 y	25:31	4.76e+05	- n
37	RS/RT 13C-1,2,3,7,8,9-HxCDD	100.00	1.98e+07	1.32 y	39:12	1.98e+05	- n
38	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	0.945 y
39	Tot Total Penta-Dioxins	0.00	-	- n	-	-	0.933 y
40	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.31 y
41	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	1.12 y
42	Tot Total Tetra-Furans	0.00	-	- n	-	-	1.25 y
43	Tot 1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.860 y
44	Tot Total Penta-Furans	0.00	-	- n	-	-	0.860 y
45	Tot Total Hexa-Furans	0.00	-	- n	-	-	0.959 y
46	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.39 y

Analyst: 

Date: 11/19/09



Run #5  
Client ID: ST111809M4

S: 5  
Analyte:  
Acquired: 18-NOV-09 17:26:40  
Cal: PCDDFAL3-11-18-09  
FAL ID: 1613 CS4 090918K

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	40.00	1.15e+07	0.78 y	27:23	-	1.07 y
2	Unk 1,2,3,7,8-PeCDD	200.00	5.92e+07	1.60 y	33:13	-	1.02 y
3	Unk 1,2,3,4,7,8-HxCDD	200.00	6.29e+07	1.27 y	38:35	-	1.48 y
4	Unk 1,2,3,6,7,8-HxCDD	200.00	5.74e+07	1.28 y	38:46	-	1.40 y
5	Unk 1,2,3,7,8,9-HxCDD	200.00	5.95e+07	1.26 y	39:13	-	1.43 y
6	Unk 1,2,3,4,6,7,8-HpCDD	200.00	4.77e+07	0.95 y	44:13	-	1.25 y
7	Unk OCDD	400.00	7.39e+07	0.92 y	49:48	-	1.34 y
8	Unk 2,3,7,8-TCDF	40.00	2.33e+07	0.66 y	26:37	-	1.31 y
9	Unk 1,2,3,7,8-PeCDF	200.00	8.59e+07	1.69 y	31:29	-	0.964 y
10	Unk 2,3,4,7,8-PeCDF	200.00	8.30e+07	1.71 y	32:48	-	0.978 y
11	Unk 1,2,3,4,7,8-HxCDF	200.00	8.21e+07	1.25 y	37:12	-	1.08 y
12	Unk 1,2,3,6,7,8-HxCDF	200.00	8.80e+07	1.25 y	37:24	-	0.991 y
13	Unk 2,3,4,6,7,8-HxCDF	200.00	8.00e+07	1.23 y	38:21	-	1.06 y
14	Unk 1,2,3,7,8,9-HxCDF	200.00	7.74e+07	1.25 y	39:47	-	1.17 y
15	Unk 1,2,3,4,6,7,8-HpCDF	200.00	7.01e+07	1.02 y	42:18	-	1.50 y
16	Unk 1,2,3,4,7,8,9-HpCDF	200.00	6.47e+07	1.02 y	45:08	-	1.77 y
17	Unk OCDF	400.00	9.18e+07	0.92 y	50:11	-	0.930 y
18	IS/RT 13C-2,3,7,8-TCDD	100.00	2.70e+07	0.73 y	27:22	-	0.950 y
19	IS 13C-1,2,3,7,8-PeCDD	100.00	2.91e+07	1.73 y	33:12	-	1.02 y
20	IS 13C-1,2,3,4,7,8-HxCDD	100.00	2.13e+07	1.33 y	38:35	-	0.983 y
21	IS 13C-1,2,3,6,7,8-HxCDD	100.00	2.05e+07	1.33 y	38:44	-	0.946 y
22	IS 13C-1,2,3,4,6,7,8-HpCDD	100.00	1.91e+07	1.06 y	44:12	-	0.885 y
23	IS 13C-OCDD	200.00	2.76e+07	0.99 y	49:47	-	0.638 y
24	IS 13C-2,3,7,8-TCDF	100.00	4.44e+07	0.82 y	26:36	-	0.918 y
25	IS 13C-1,2,3,7,8-PeCDF	100.00	4.45e+07	1.70 y	31:27	-	0.921 y
26	IS 13C-2,3,4,7,8-PeCDF	100.00	4.24e+07	1.70 y	32:47	-	0.877 y
27	IS 13C-1,2,3,4,7,8-HxCDF	100.00	3.79e+07	0.50 y	37:11	-	1.75 y
28	IS 13C-1,2,3,6,7,8-HxCDF	100.00	4.44e+07	0.49 y	37:23	-	2.05 y
29	IS 13C-2,3,4,6,7,8-HxCDF	100.00	3.79e+07	0.49 y	38:19	-	1.75 y
30	IS 13C-1,2,3,7,8,9-HxCDF	100.00	3.30e+07	0.48 y	39:46	-	1.53 y
31	IS 13C-1,2,3,4,6,7,8-HpCDF	100.00	2.33e+07	0.47 y	42:17	-	1.08 y
32	IS 13C-1,2,3,4,7,8,9-HpCDF	100.00	1.82e+07	0.46 y	45:07	-	0.843 y
33	IS 13C-OCDF	200.00	4.94e+07	0.92 y	50:09	-	1.14 y
34	C/Up 37Cl-2,3,7,8-TCDD	40.00	1.17e+07		27:23	-	1.03 y
35	RS 13C-1,2,3,4-TCDD	100.00	2.85e+07	0.74 y	26:47	2.85e+05	- n
36	RS 13C-1,2,3,4-TCDF	100.00	4.84e+07	0.82 y	25:32	4.84e+05	- n
37	RS/RT 13C-1,2,3,7,8,9-HxCDD	100.00	2.16e+07	1.31 y	39:12	2.16e+05	- n
38	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	1.07 y
39	Tot Total Penta-Dioxins	0.00	-	- n	-	-	1.02 y
40	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.44 y
41	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	1.25 y
42	Tot Total Tetra-Furans	0.00	-	- n	-	-	1.31 y
43	Tot 1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.971 y
44	Tot Total Penta-Furans	0.00	-	- n	-	-	0.971 y
45	Tot Total Hexa-Furans	0.00	-	- n	-	-	1.07 y
46	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.62 y

Analyst:                         

Date: 11/19/09

0000 - 010000

Run #6  
Client ID: ST111809M5

S: 6  
Analyte: PCDDFAL3-11-18-09

Acquired: 18-NOV-09 18:21:58  
Cal: PCDDFAL3-11-18-09  
FAL ID: 1613 CSS 090918L

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	200.00	4.98e+07	0.78 y	27:23	- 1.12 y
2	Unk	1,2,3,7,8-PeCDD	1000.00	2.79e+08	1.55 y	33:13	- 1.07 y
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	3.29e+08	1.27 y	38:36	- 1.52 y
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	2.88e+08	1.27 y	38:46	- 1.42 y
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	3.07e+08	1.25 y	39:13	- 1.47 y
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	2.60e+08	0.97 y	44:13	- 1.26 y
7	Unk	OCDD	2000.00	4.20e+08	0.91 y	49:49	- 1.35 y
8	Unk	2,3,7,8-TCDF	200.00	1.00e+08	0.68 y	26:38	- 1.38 y
9	Unk	1,2,3,7,8-PeCDF	1000.00	3.75e+08	1.67 y	31:29	- 0.979 y
10	Unk	2,3,4,7,8-PeCDF	1000.00	3.68e+08	1.68 y	32:48	- 0.995 y
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	3.99e+08	1.26 y	37:12	- 1.11 y
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	4.18e+08	1.25 y	37:24	- 1.01 y
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	3.97e+08	1.25 y	38:20	- 1.09 y
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	4.04e+08	1.24 y	39:47	- 1.20 y
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	3.72e+08	1.01 y	42:18	- 1.51 y
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	3.62e+08	1.01 y	45:08	- 1.82 y
17	Unk	OCDF	2000.00	5.23e+08	0.93 y	50:12	- 0.933 y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.22e+07	0.74 y	27:22	- 0.980 y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.61e+07	1.65 y	33:12	- 1.15 y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.17e+07	1.33 y	38:35	- 0.972 y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.02e+07	1.33 y	38:44	- 0.909 y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	2.06e+07	1.07 y	44:12	- 0.923 y
23	IS	13C-OCDD	200.00	3.11e+07	1.02 y	49:48	- 0.698 y
24	IS	13C-2,3,7,8-TCDF	100.00	3.62e+07	0.83 y	26:37	- 0.911 y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	3.83e+07	1.66 y	31:27	- 0.963 y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	3.70e+07	1.70 y	32:46	- 0.930 y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.59e+07	0.49 y	37:11	- 1.61 y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.14e+07	0.50 y	37:23	- 1.86 y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.63e+07	0.49 y	38:20	- 1.63 y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	3.35e+07	0.48 y	39:46	- 1.51 y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.47e+07	0.46 y	42:17	- 1.11 y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.99e+07	0.47 y	45:06	- 0.892 y
33	IS	13C-OCDF	200.00	5.61e+07	0.94 y	50:10	- 1.26 y
34	C/Up	37Cl-2,3,7,8-TCDD	200.00	5.04e+07		27:23	- 1.11 y
35	RS	13C-1,2,3,4-TCDD	100.00	2.27e+07	0.74 y	26:47	2.27e+05 - n
36	RS	13C-1,2,3,4-TCDF	100.00	3.98e+07	0.82 y	25:31	3.98e+05 - n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.23e+07	1.31 y	39:11	2.23e+05 - n
38	Tot	Total Tetra-Dioxins	0.00	-	- n	-	- 1.12 y
39	Tot	Total Penta-Dioxins	0.00	-	- n	-	- 1.07 y
40	Tot	Total Hexa-Dioxins	0.00	-	- n	-	- 1.47 y
41	Tot	Total Hepta-Dioxins	0.00	-	- n	-	- 1.26 y
42	Tot	Total Tetra-Furans	0.00	-	- n	-	- 1.38 y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	- 0.987 y
44	Tot	Total Penta-Furans	0.00	-	- n	-	- 0.987 y
45	Tot	Total Hexa-Furans	0.00	-	- n	-	- 1.10 y
46	Tot	Total Hepta-Furans	0.00	-	- n	-	- 1.65 y

Analyst: J Date: 11/19/09



## USEPA - ITD

FORM 3B  
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS4 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

Labeled Compounds	RELATIVE RESPONSE (RR)						MEAN RR	CV (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
13C-2,3,7,8-TCDD	0.92	0.91	0.93	0.96	0.95	0.98	0.94	2.65
13C-1,2,3,7,8-PeCDD	0.99	0.93	1.00	1.00	1.02	1.15	1.02	7.06
13C-1,2,3,4,7,8-HxCDD	0.99	0.97	1.00	0.99	0.98	0.97	0.98	1.28
13C-1,2,3,6,7,8-HxCDD	0.93	0.93	0.96	0.94	0.95	0.91	0.94	2.01
13C-1,2,3,4,6,7,8-HpCDD	0.92	0.89	0.87	0.91	0.89	0.92	0.90	2.42
13C-OCDD	0.69	0.66	0.62	0.69	0.64	0.70	0.67	4.59
13C-2,3,7,8-TCDF	0.85	0.85	0.86	0.88	0.92	0.91	0.88	3.49
13C-1,2,3,7,8-PeCDF	0.83	0.79	0.87	0.88	0.92	0.96	0.88	6.98
13C-2,3,4,7,8-PeCDF	0.83	0.76	0.85	0.85	0.88	0.93	0.85	6.60
13C-1,2,3,4,7,8-HxCDF	1.74	1.75	1.75	1.71	1.75	1.61	1.72	3.20
13C-1,2,3,6,7,8-HxCDF	2.01	2.02	2.06	2.01	2.05	1.86	2.00	3.71
13C-2,3,4,6,7,8-HxCDF	1.74	1.73	1.79	1.77	1.75	1.63	1.74	3.24
13C-1,2,3,7,8,9-HxCDF	1.51	1.47	1.48	1.54	1.53	1.51	1.51	1.71
13C-1,2,3,4,6,7,8-HpCDF	1.12	1.10	1.08	1.10	1.08	1.11	1.10	1.39
13C-1,2,3,4,7,8,9-HpCDF	0.82	0.84	0.81	0.87	0.84	0.89	0.85	3.67
13C-OCDF	1.18	1.15	1.10	1.21	1.14	1.26	1.17	4.73
CLEANUP STANDARD								
37Cl-2,3,7,8-TCDD	0.90	0.93	0.90	0.98	1.03	1.11	0.97	8.61

Analyst: 

Date: 11/19/09

## USEPA - ITD

## FORM 3C

## PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS3 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUNDANCE RATIOS						QC LIMITS
		CS1	CS2	CS3	CS4	CS5	CS6	
2,3,7,8-TCDD	M/M+2	0.72	0.75	0.80	0.76	0.78	0.78	0.65-0.89
1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.55	1.55	1.56	1.60	1.55	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.24	1.24	1.29	1.27	1.27	1.05-1.43
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.34	1.24	1.28	1.28	1.27	1.05-1.43
1,2,3,7,8,9-HxCDD	M+2/M+4	1.29	1.27	1.27	1.27	1.26	1.25	1.05-1.43
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.93	0.91	0.91	0.95	0.95	0.97	0.88-1.20
OCDD	M+2/M+4	0.92	0.93	0.92	0.91	0.92	0.91	0.76-1.02
2,3,7,8-TCDF	M/M+2	0.69	0.66	0.66	0.66	0.66	0.68	0.65-0.89
1,2,3,7,8-PeCDF	M+2/M+4	1.75	1.68	1.71	1.72	1.69	1.67	1.32-1.78
2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.69	1.69	1.72	1.71	1.68	1.32-1.78
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.28	1.23	1.25	1.25	1.26	1.05-1.43
1,2,3,6,7,8-HxCDF	M+2/M+4	1.21	1.28	1.22	1.25	1.25	1.25	1.05-1.43
2,3,4,6,7,8-HxCDF	M+2/M+4	1.29	1.20	1.24	1.26	1.23	1.25	1.05-1.43
1,2,3,7,8,9-HxCDF	M+2/M+4	1.28	1.26	1.21	1.24	1.25	1.24	1.05-1.43
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.00	1.00	1.00	1.01	1.02	1.01	0.88-1.20
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.00	0.96	1.01	0.99	1.02	1.01	0.88-1.20
OCDF	M+2/M+4	0.88	0.93	0.91	0.92	0.92	0.93	0.76-1.02

Analyst: 6Date: 11/19/05



USEPA - ITD

FORM 3D  
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS3 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

Labeled Compounds	M/Z'S FORMING RATIO	ION ABUNDANCE RATIOS						QC LIMITS
		CS1	CS2	CS3	CS4	CS5	CS6	
13C-2,3,7,8-TCDD	M/M+2	0.73	0.73	0.73	0.74	0.73	0.74	0.65-0.89
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.63	1.69	1.66	1.60	1.73	1.65	1.32-1.78
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.31	1.36	1.32	1.34	1.33	1.33	1.05-1.43
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.33	1.31	1.31	1.34	1.33	1.33	1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	1.07	1.06	1.09	1.06	1.07	0.88-1.20
13C-OCDD	M+2/M+4	1.01	1.00	0.98	1.02	0.99	1.02	0.76-1.02
13C-2,3,7,8-TCDF	M/M+2	0.81	0.81	0.82	0.82	0.82	0.83	0.65-0.89
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.67	1.68	1.68	1.68	1.70	1.66	1.32-1.78
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.68	1.71	1.66	1.69	1.70	1.70	1.32-1.78
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.48	0.49	0.49	0.50	0.49	0.43-0.59
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.48	0.48	0.50	0.49	0.49	0.50	0.43-0.59
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.49	0.50	0.49	0.49	0.49	0.43-0.59
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.49	0.49	0.49	0.48	0.48	0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.45	0.46	0.46	0.47	0.46	0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.45	0.46	0.44	0.46	0.47	0.37-0.51
13C-OCDF	M+2/M+4	0.92	0.92	0.93	0.94	0.92	0.94	0.76-1.02

Analyst: J

Date: 11/19/09

## USEPA - ITD

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 18NOV09M Sam:1

Analysis Date: 18-NOV-09 13:45:10

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	0.76	0.65-0.89	y	10.2	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.32-1.78	y	51.6	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	51.2	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	50.1	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.27	1.05-1.43	y	51.1	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.95	0.88-1.20	y	49.5	43.0 - 58.0
OCDD	M+2/M+4	0.91	0.76-1.02	y	101	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.66	0.65-0.89	y	9.77	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.72	1.32-1.78	y	52.6	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.72	1.32-1.78	y	50.9	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	51.5	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	50.8	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	y	50.9	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	y	51.1	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	51.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.99	0.88-1.20	y	50.3	43.0 - 58.0
OCDF	M+2/M+4	0.92	0.76-1.02	y	102	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: 11/19/09

USEPA - ITD  
FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No. : SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 18NOV09M Sam:1 Analysis Date: 18-NOV-09 13:45:10

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
13C-2,3,7,8-TCDD	M/M+2	0.74	0.65-0.89	y	102	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	y	98.5	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.34	1.05-1.43	y	100	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.34	1.05-1.43	y	101	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.09	0.88-1.20	y	101	72.0 - 138
13C-OCDD	M+2/M+4	1.02	0.76-1.02	y	207	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.82	0.65-0.89	y	100	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.68	1.32-1.78	y	101	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	101	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	99.5	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	101	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	102	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.43-0.59	y	102	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.37-0.51	y	100	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	103	77.0 - 129
13C-OCDF	M+2/M+4	0.94	0.76-1.02	y	206	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					10.0	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: J

Date: 11/19/09

00000000000000



USEPA - ITD

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 18-NOV-09 13:45:10 CS3 or VER Data Filename: 18NOV09M Sam:1

NATIVE ANALYTES	RETENTION TIME		QC LIMITS (1)
	REFERENCE	RRT	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.001	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		1.021	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		1.224	0.923-1.303

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

Analyst:         

Date: 11/18/09

USEPA - ITD  
FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:  
Contract No.: SAS No.: Init. Cal. Date: 11/18/09  
Instrument ID: FAL3 GC Column ID: DB5  
Analysis Date: 18-NOV-09 13:45:10 CS3 or VER Data Filename: 18NOV09M 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	1.000	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	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	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
<b>LABELED COMPOUNDS</b>			
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		1.014	0.977-1.047
13C-1,2,3,4,6,7,8-HpCDD		1.128	1.086-1.130
13C-1,2,3,4,6,7,8-HpCDF		1.079	1.043-1.085
13C-1,2,3,4,7,8,9-HpCDF		1.151	1.057-1.154
13C-OCDD		1.270	1.032-1.311
13C-OCDF		1.280	1.000-1.311

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

Analyst: J Date: 11/19/09

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	Rec
2,3,7,8-TCDD	2.56e+06	0.76 y	27:24	1.02	10.2		2.50	-	*	
1,2,3,7,8-PeCDD	1.28e+07	1.56 y	33:14	0.96	51.6		2.50	-	*	
1,2,3,4,7,8-HxCDD	1.38e+07	1.29 y	38:36	1.37	51.2		2.50	-	*	
1,2,3,6,7,8-HxCDD	1.26e+07	1.28 y	38:47	1.34	50.1		2.50	-	*	
1,2,3,7,8,9-HxCDD	1.34e+07	1.27 y	39:14	1.37	51.1		2.50	-	*	
1,2,3,4,6,7,8-HpCDD	1.05e+07	0.95 y	44:14	1.17	49.5		2.50	-	*	
OCDD	1.68e+07	0.91 y	49:49	1.21	101		2.50	-	*	
2,3,7,8-TCDF	5.06e+06	0.66 y	26:38	1.29	9.77		2.50	-	*	
1,2,3,7,8-PeCDF	1.89e+07	1.72 y	31:30	0.89	52.6		2.50	-	*	
2,3,4,7,8-PeCDF	1.80e+07	1.72 y	32:49	0.91	50.9		2.50	-	*	
1,2,3,4,7,8-HxCDF	1.75e+07	1.25 y	37:13	1.00	51.5		2.50	-	*	
1,2,3,6,7,8-HxCDF	1.87e+07	1.25 y	37:25	0.92	50.8		2.50	-	*	
2,3,4,6,7,8-HxCDF	1.77e+07	1.26 y	38:21	0.99	50.9		2.50	-	*	
1,2,3,7,8,9-HxCDF	1.70e+07	1.24 y	39:48	1.09	51.1		2.50	-	*	
1,2,3,4,6,7,8-HpCDF	1.53e+07	1.01 y	42:19	1.36	51.3		2.50	-	*	
1,2,3,4,7,8,9-HpCDF	1.40e+07	0.99 y	45:09	1.61	50.3		2.50	-	*	
OCDF	2.08e+07	0.92 y	50:11	0.84	102		2.50	-	*	
										Rec
13C-2,3,7,8-TCDD	2.46e+07	0.74 y	27:22	0.94	102					102
13C-1,2,3,7,8-PeCDD	2.58e+07	1.60 y	33:13	1.02	98.5					98.5
13C-1,2,3,4,7,8-HxCDD	1.96e+07	1.34 y	38:36	0.98	100					100
13C-1,2,3,6,7,8-HxCDD	1.88e+07	1.34 y	38:45	0.94	101					101
13C-1,2,3,4,6,7,8-HpCDD	1.81e+07	1.09 y	44:13	0.90	101					101
13C-OCDD	2.74e+07	1.02 y	49:48	0.67	207					103
13C-2,3,7,8-TCDF	4.03e+07	0.82 y	26:37	0.88	100					100
13C-1,2,3,7,8-PeCDF	4.03e+07	1.68 y	31:28	0.88	101					101
13C-2,3,4,7,8-PeCDF	3.90e+07	1.69 y	32:47	0.85	101					101
13C-1,2,3,4,7,8-HxCDF	3.40e+07	0.49 y	37:11	1.72	99.5					99.5
13C-1,2,3,6,7,8-HxCDF	4.01e+07	0.49 y	37:24	2.00	101					101
13C-2,3,4,6,7,8-HxCDF	3.52e+07	0.49 y	38:20	1.74	102					102
13C-1,2,3,7,8,9-HxCDF	3.06e+07	0.49 y	39:46	1.51	102					102
13C-1,2,3,4,6,7,8-HpCDF	2.19e+07	0.46 y	42:18	1.10	100					100
13C-1,2,3,4,7,8,9-HpCDF	1.74e+07	0.44 y	45:08	0.85	103					103
13C-OCDF	4.82e+07	0.94 y	50:10	1.17	206					103
37Cl-2,3,7,8-TCDD	2.51e+06		27:24	0.97	10.0					100
13C-1,2,3,4-TCDD	2.57e+07	0.74 y	26:48	-	98.3					
13C-1,2,3,4-TCDF	4.56e+07	0.81 y	25:32	-	98.8					
13C-1,2,3,7,8,9-HxCDD	1.99e+07	1.34 y	39:12	-	97.0					
Total Tetra-Dioxins	1.39e+07		24:23	1.02	55.3		2.50	-	*	20
Total Penta-Dioxins	2.72e+07		30:15	0.96	110		2.50	-	*	13
Total Hexa-Dioxins	4.52e+07		36:09	1.36	173		2.50	-	*	14
Total Hepta-Dioxins	2.21e+07		42:51	1.17	105		2.50	-	*	10
Total Tetra-Furans	2.16e+07		23:02	1.29	41.7		2.50	-	*	18
1st Fn. Tot Penta-Furans	1.85e+07		28:26	0.90	51.9		2.50	-	*	PeCDF 1
Total Penta-Furans	5.36e+07		30:11	0.90	151		2.50	-	*	203 9
Total Hexa-Furans	8.22e+07		35:16	0.99	237		2.50	-	*	15
Total Hepta-Furans	2.95e+07		42:19	1.47	102		2.50	-	*	4

Analyst: [Signature]

Date: 11/19/09

Frontier Analytical Laboratory - Acquisition Log

Run Name: 18NOV09M Instrument: FAL3 GC: DB5 Experiment: PCDD

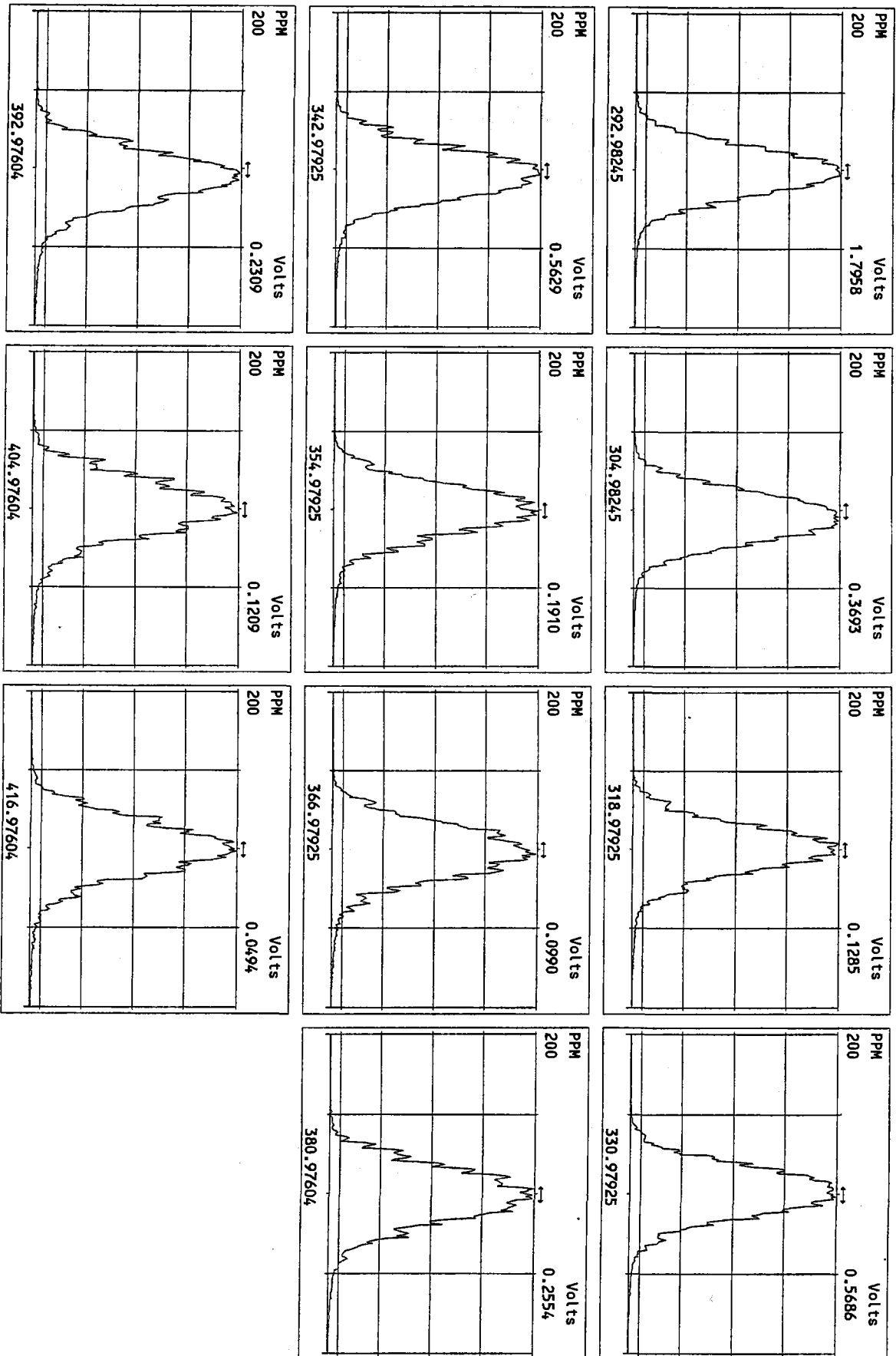
Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
18NOV09M 1	ST111809M3	1613 CS3 090918J	18-NOV-09 13:45:10	ST111809M3	ST111809M6	BS
18NOV09M 2	ST111809M0	1613 CS0 090918G	18-NOV-09 14:40:53	ST111809M3	ST111809M6	BS
18NOV09M 3	ST111809M1	1613 CS1 090918H	18-NOV-09 15:36:11	ST111809M3	ST111809M6	BS
18NOV09M 4	ST111809M2	1613 CS2 090918I	18-NOV-09 16:31:26	ST111809M3	ST111809M6	BS
18NOV09M 5	ST111809M4	1613 CS4 090918K	18-NOV-09 17:26:40	ST111809M3	ST111809M6	BS
18NOV09M 6	ST111809M5	1613 CS5 090918L	18-NOV-09 18:21:58	ST111809M3	ST111809M6	BS
18NOV09M 7	SB111809M1	Solvent Blank	18-NOV-09 19:17:18	ST111809M3	ST111809M6	BS
18NOV09M 8	1882-001-0001-OPR	OPR	18-NOV-09 20:12:37	ST111809M3	ST111809M6	BS
18NOV09M 9	1882-001-0001-MB	Method Blank	18-NOV-09 21:07:56	ST111809M3	ST111809M6	BS
18NOV09M 10	5820-009-0001-SA	EDS-114-106+69-C1-0.7	18-NOV-09 22:03:10	ST111809M3	ST111809M6	BS
18NOV09M 11	5820-014-0001-SA	EDS-116-105+86-W2-7.1	18-NOV-09 22:58:30	ST111809M3	ST111809M6	BS
18NOV09M 12	5820-002-0001-SA	EDS-119-106+09-W3-5.2	18-NOV-09 23:53:48	ST111809M3	ST111809M6	BS
18NOV09M 13	5820-011-0001-SA	EDS-105-106+69-W2-6.0	19-NOV-09 00:49:06	ST111809M3	ST111809M6	BS
18NOV09M 14	SB111809M2	Solvent Blank	19-NOV-09 01:44:25	ST111809M3	ST111809M6	BS
18NOV09M 15	SB111809M3	Solvent Blank	19-NOV-09 02:39:43	ST111809M3	ST111809M6	BS
18NOV09M 16	ST111809M6	1613 CS3 090918J	19-NOV-09 03:35:00	ST111809M6	ST111809M7	BS
18NOV09M 17	5820-003-0001-SA	EDS-117-105+86-W3-4.9	19-NOV-09 04:30:11	ST111809M6	ST111809M7	BS
18NOV09M 18	5820-006-0001-SA	EDS-118-106+09-W2-5.7	19-NOV-09 05:25:26	ST111809M6	ST111809M7	BS
18NOV09M 19	5820-010-0001-SA	EDS-104-106+69-W1-5.5	19-NOV-09 06:20:41	ST111809M6	ST111809M7	BS
18NOV09M 20	5820-008-0001-SA	EDS-120-106+09-W4-6.4	19-NOV-09 07:16:00	ST111809M6	ST111809M7	BS
18NOV09M 21	5820-007-0001-SA	EDS-113-106+44-W8-7.6	19-NOV-09 08:11:14	ST111809M6	ST111809M7	BS
18NOV09M 22	5820-004-0001-SA	EDS-107-106+69-W4-7.5	19-NOV-09 09:06:32	ST111809M6	ST111809M7	BS
18NOV09M 23	5820-001-0001-SA	EDS-115-105+86-W1-5.8	19-NOV-09 10:01:51	ST111809M6	ST111809M7	BS
18NOV09M 24	5820-005-0001-SA	EDS-106-106+69-W3-7.0	19-NOV-09 10:57:09	ST111809M6	ST111809M7	BS
18NOV09M 25	SB111809M4	Solvent Blank	19-NOV-09 11:52:24	ST111809M6	ST111809M7	BS
18NOV09M 26	SB111809M5	Solvent Blank	19-NOV-09 12:47:43	ST111809M6	ST111809M7	BS
18NOV09M 27	ST111809M7	1613 CS3 090918J	19-NOV-09 13:43:06	ST111809M6	ST111809M7	BS

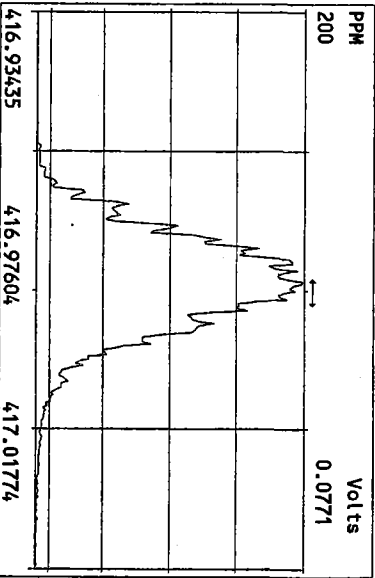
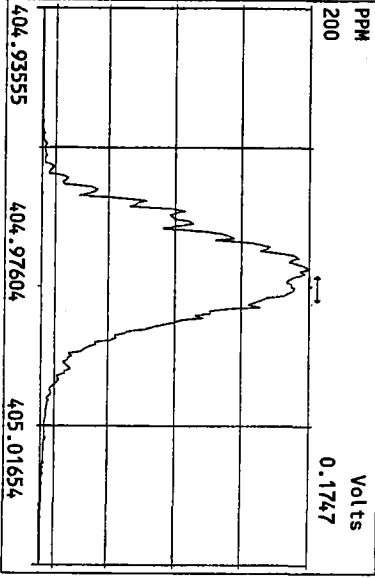
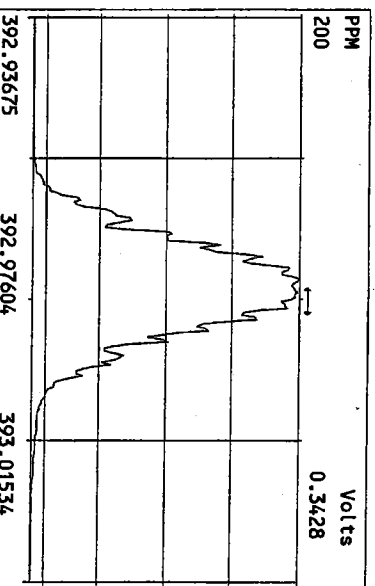
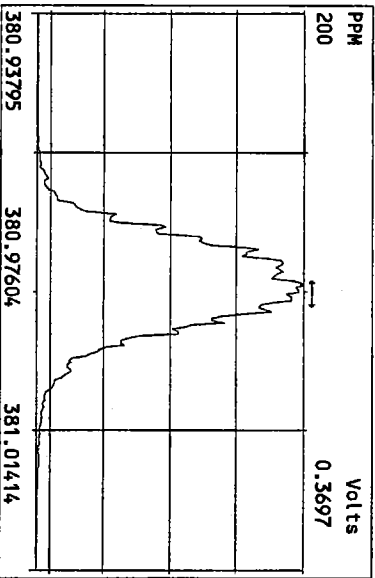
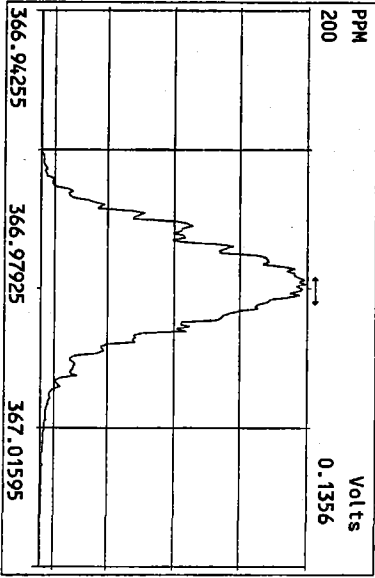
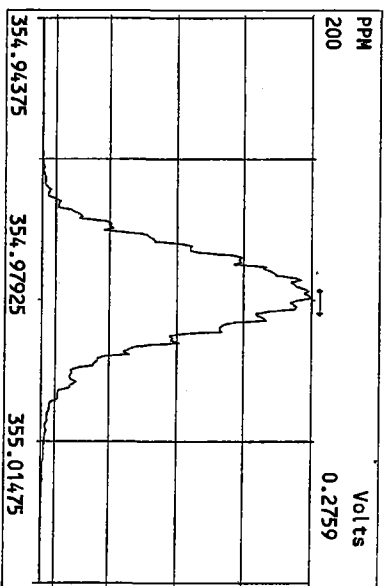
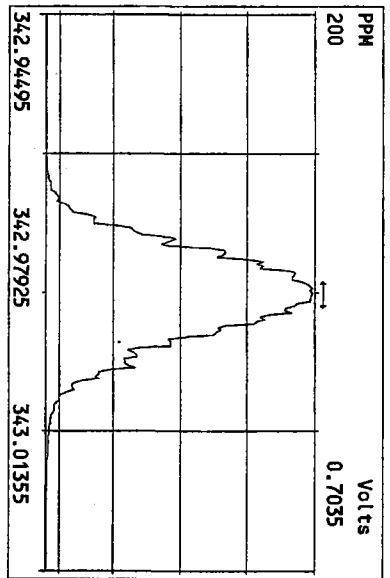
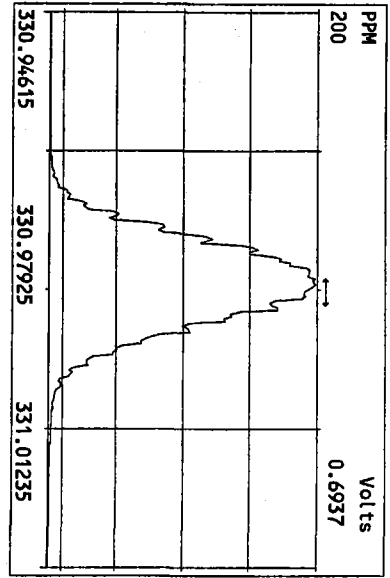
DN 11/19/09

Data Backed Up: \_\_\_\_\_

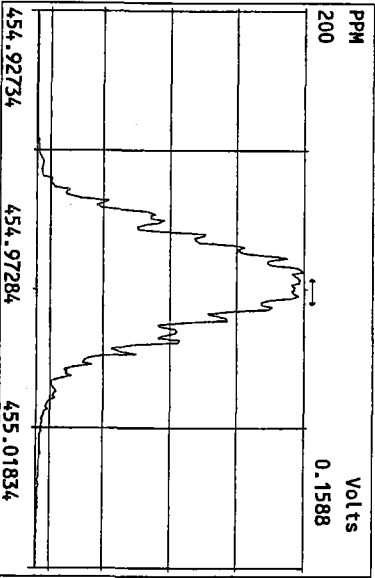
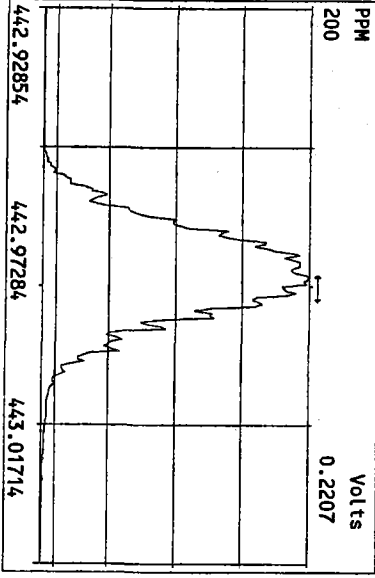
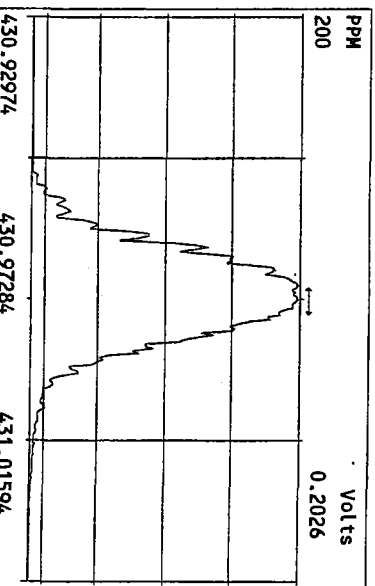
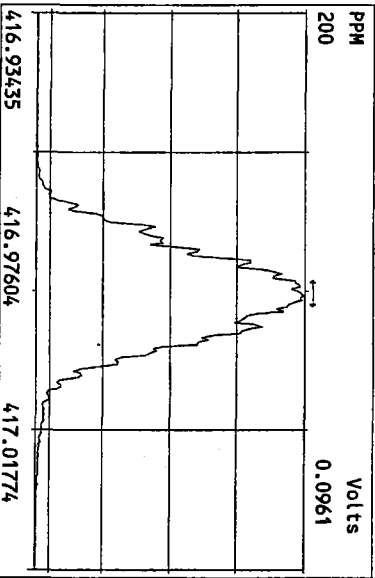
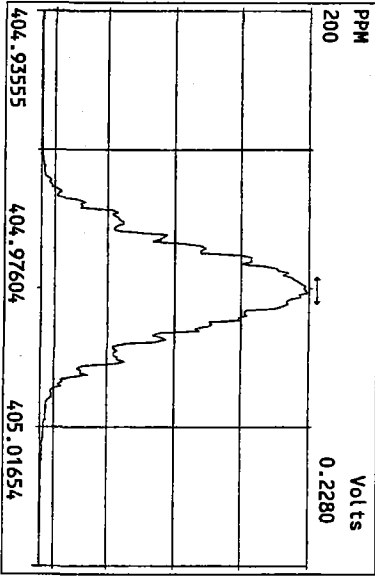
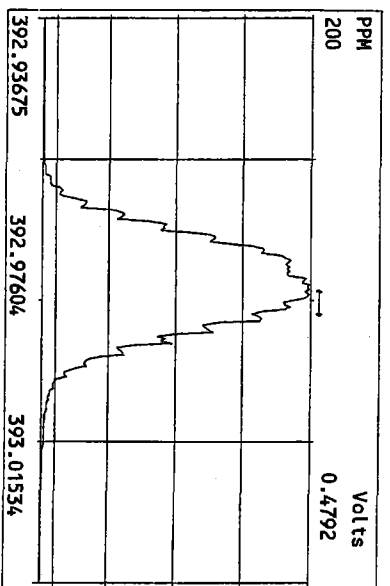
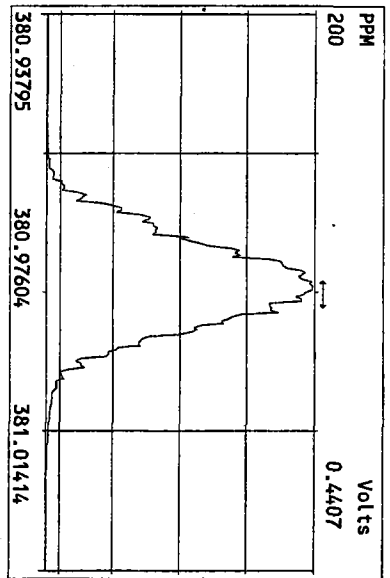
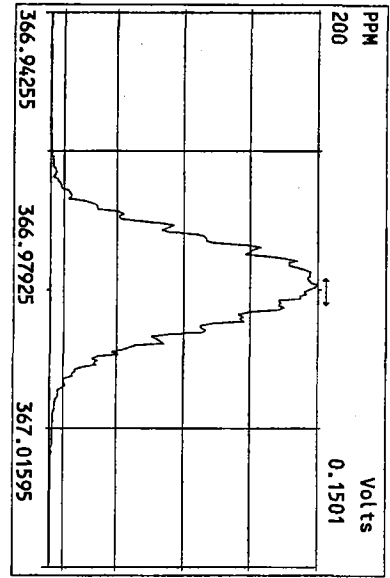
Date: \_\_\_\_\_



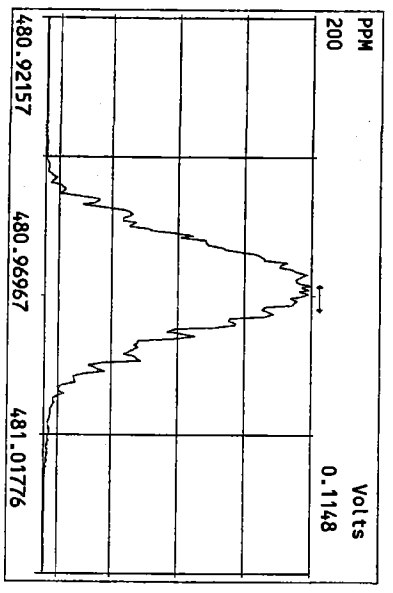
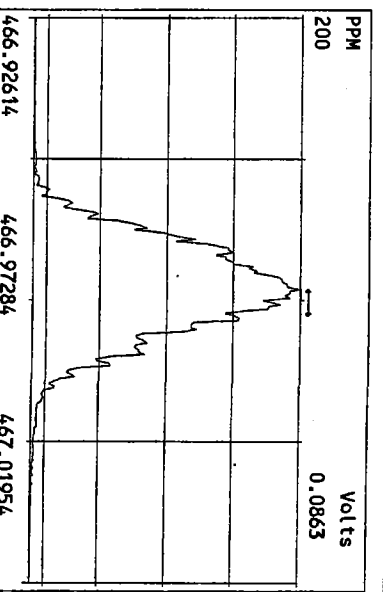
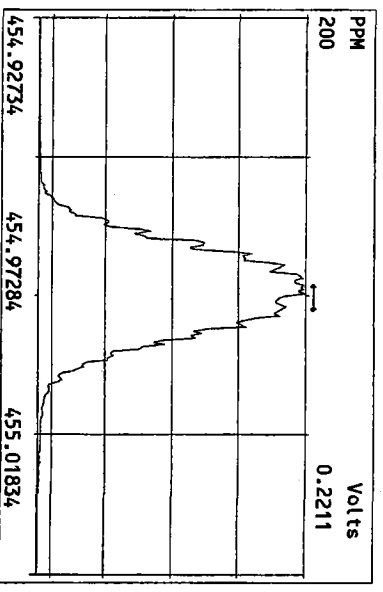
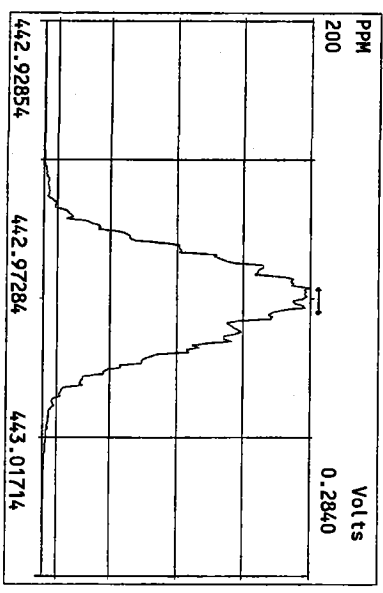
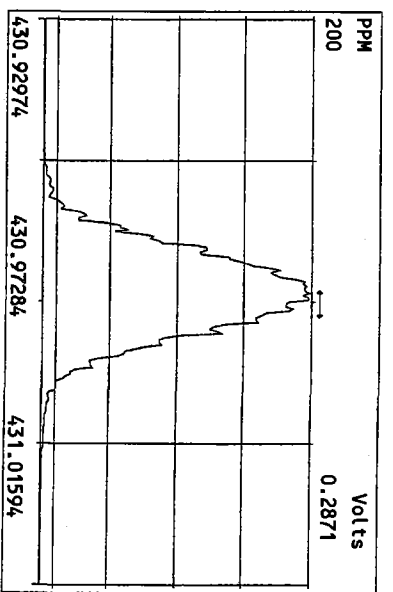
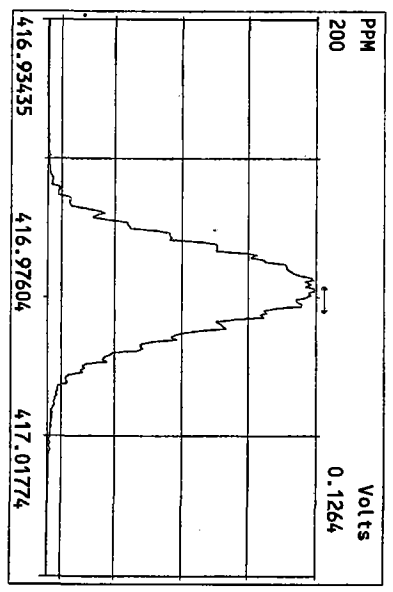
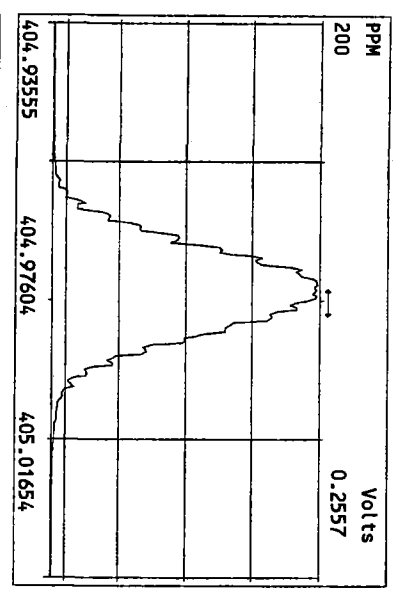




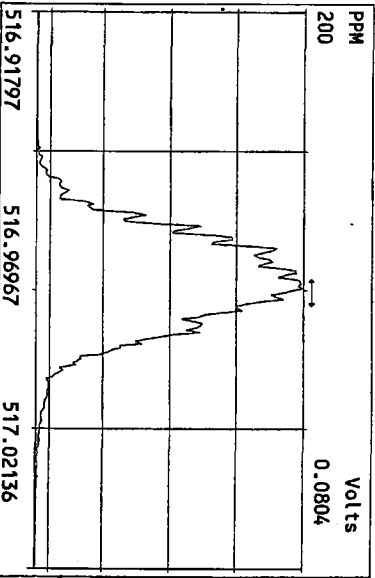
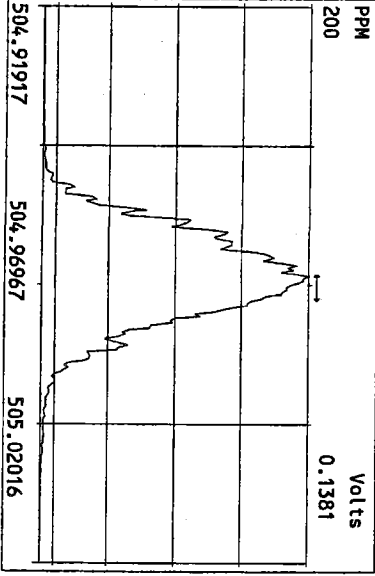
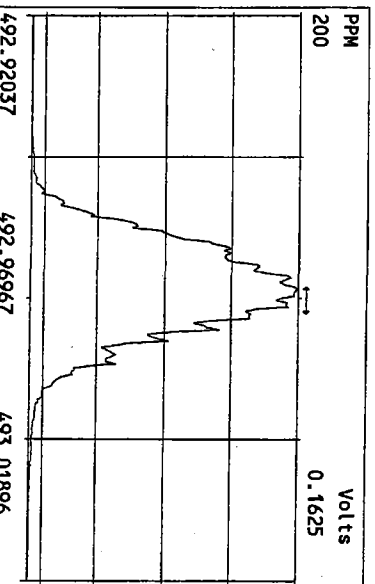
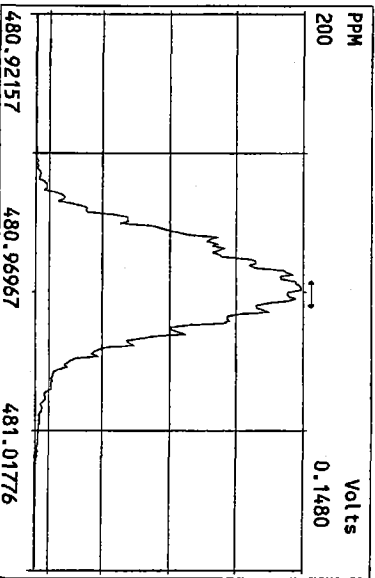
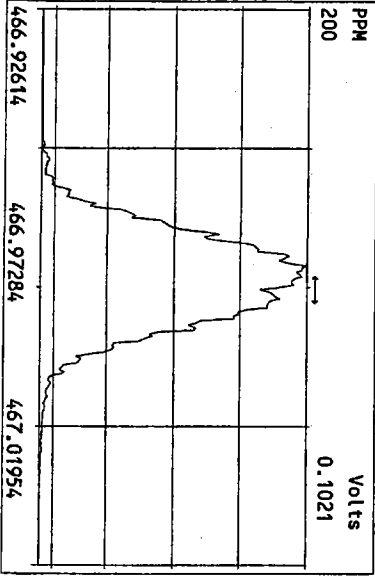
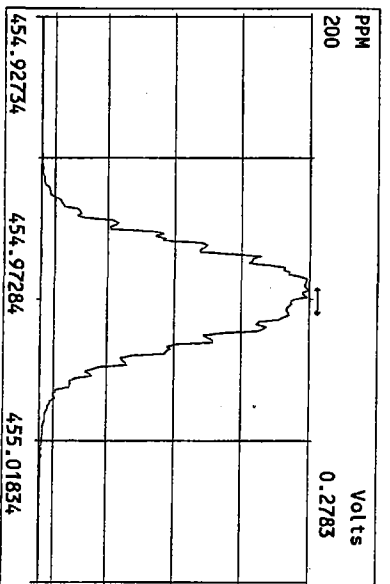
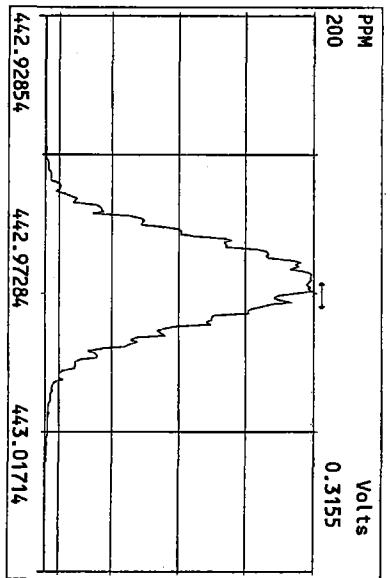
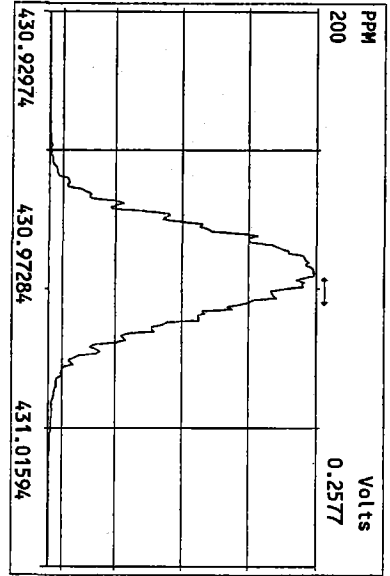
11 10 09 13 43



Peak Locate Examination: 18-NOV-2009:13:44 File: 18NOV09M  
 Experiment: PCDD Function: 4 Reference: PK

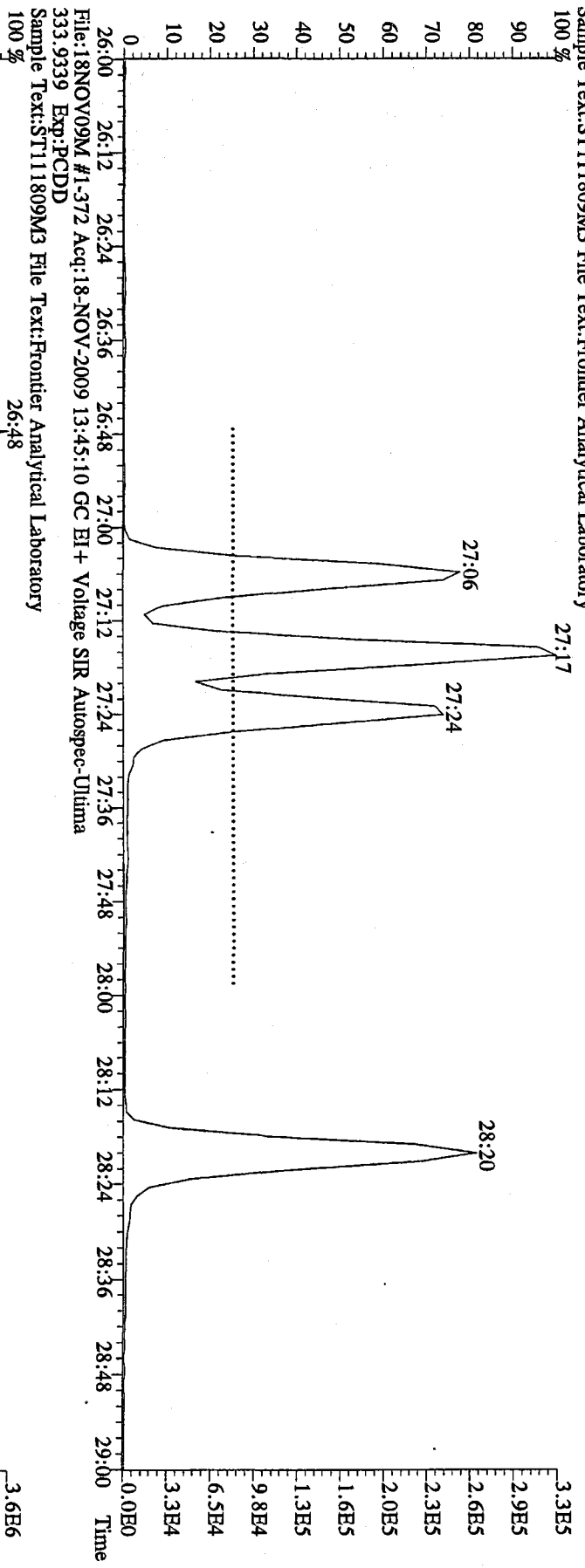


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

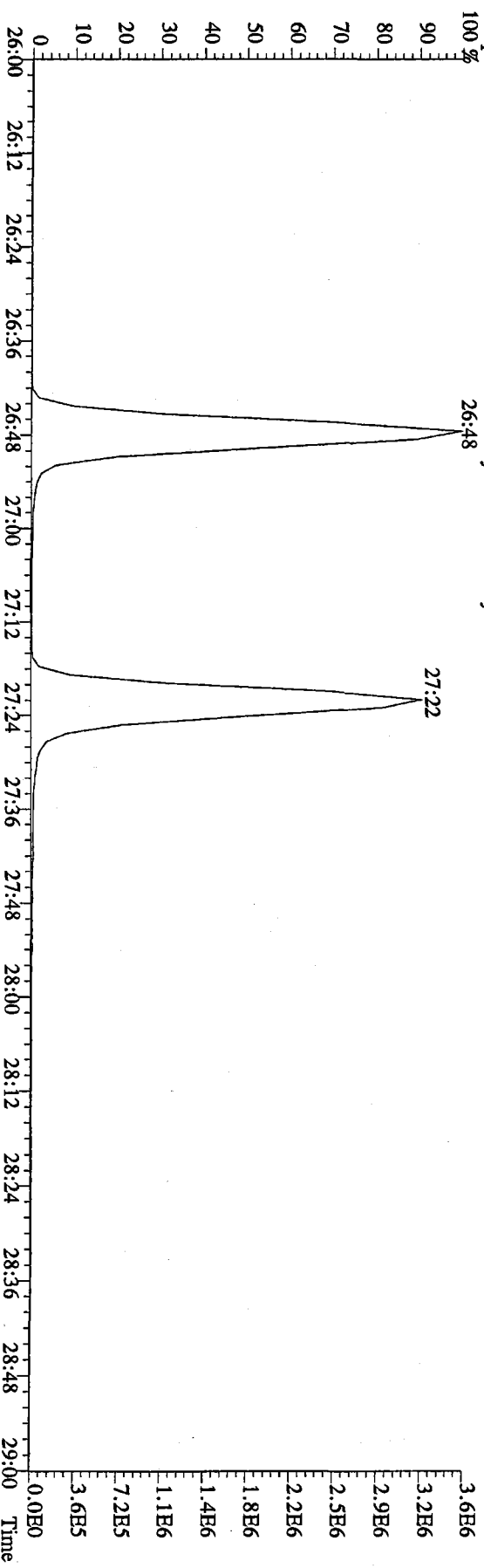


11 11 11 11 11 11 11 11 11 11

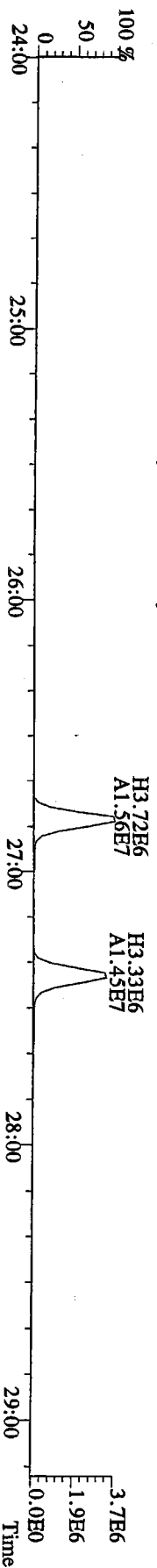
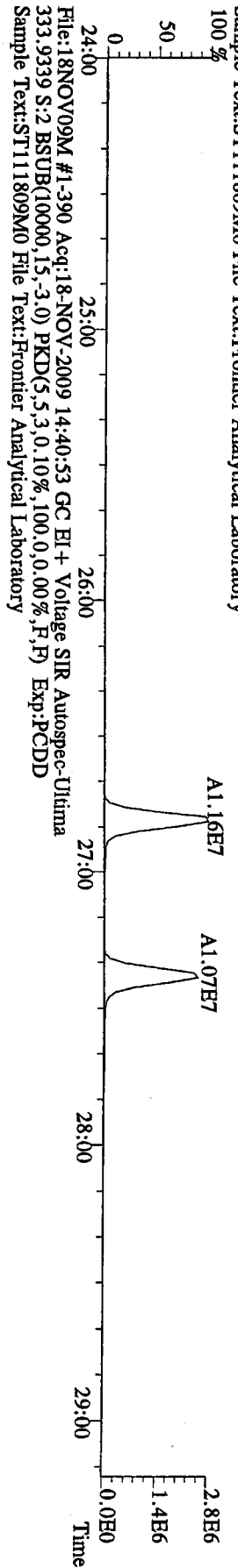
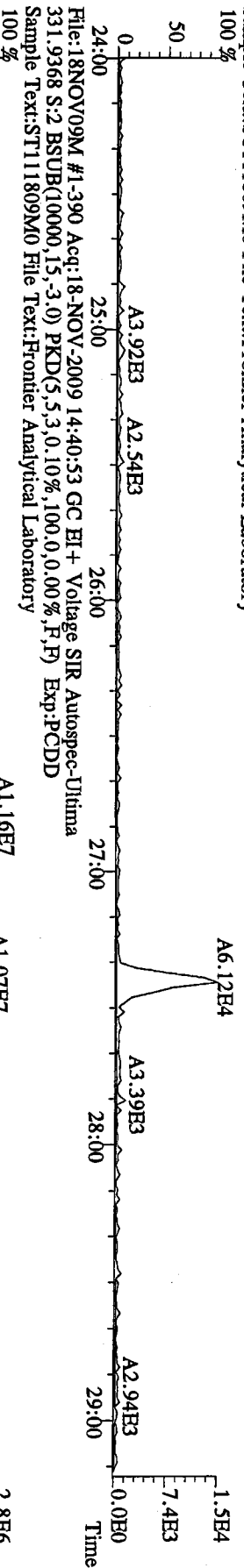
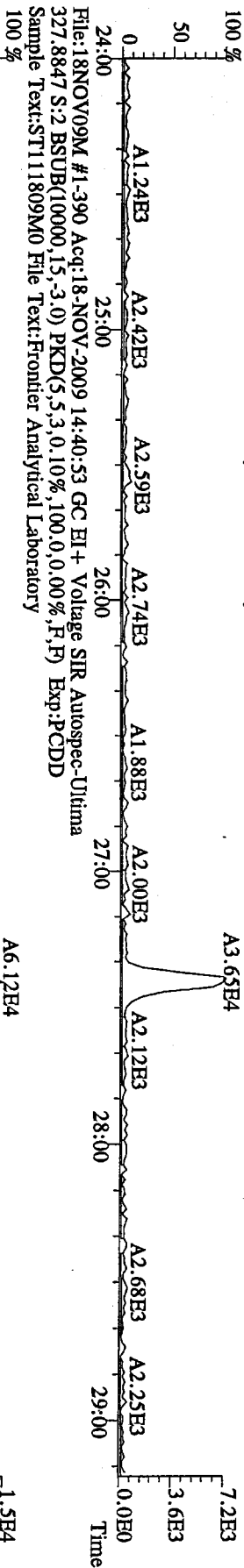
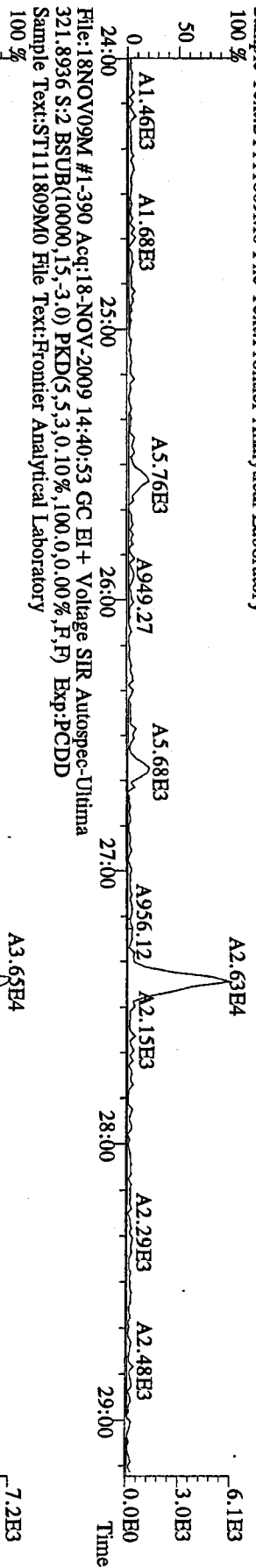
File:18NOV09M #1-372 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
319.8965 Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



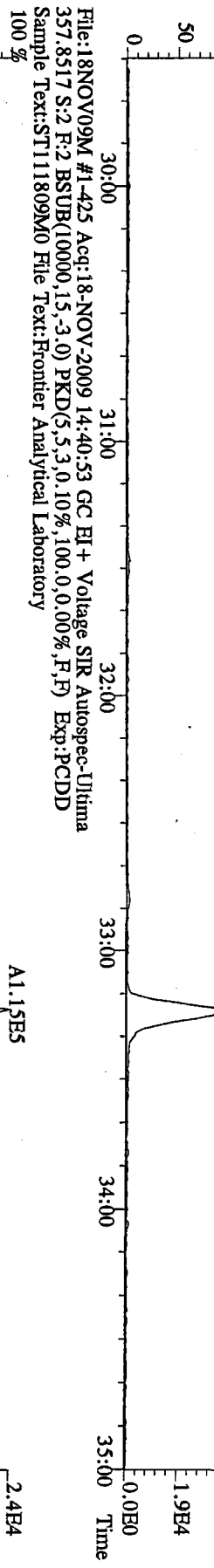
File:18NOV09M #1-372 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
333.9339 Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



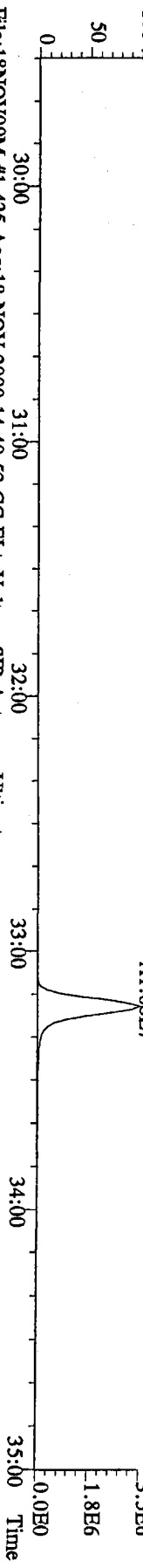
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100.0,0.00%,R,F) Exp:PCDD  
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



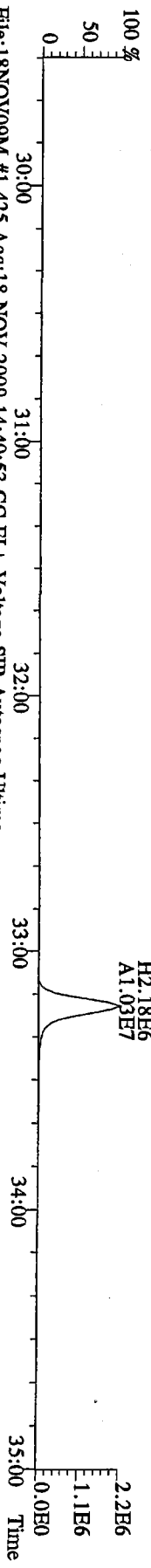
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 355.8546 S.2 F:2 BSUB(10000,15,-3.0) PKD(5.5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



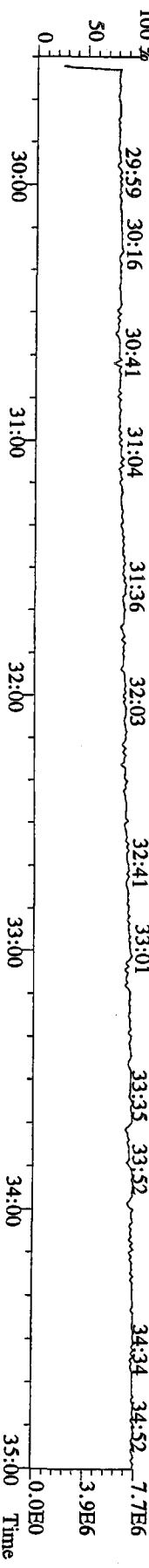
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 367.8949 S.2 F:2 BSUB(10000,15,-3.0) PKD(5.5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M0 File Text:Frontier Analytical Laboratory

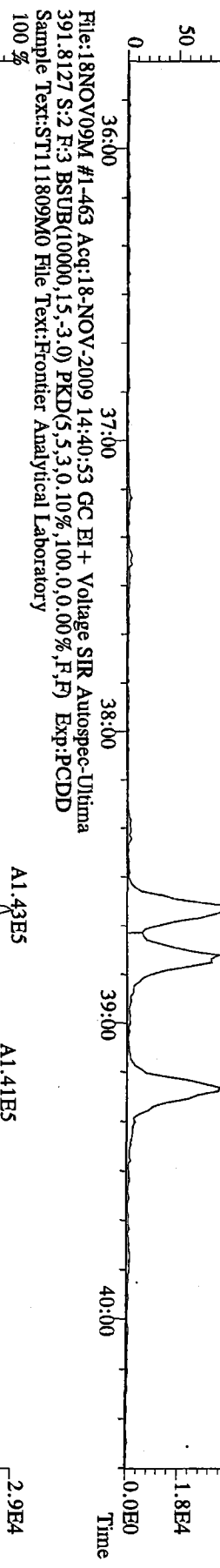


File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 366.9792 S.2 F:2 Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

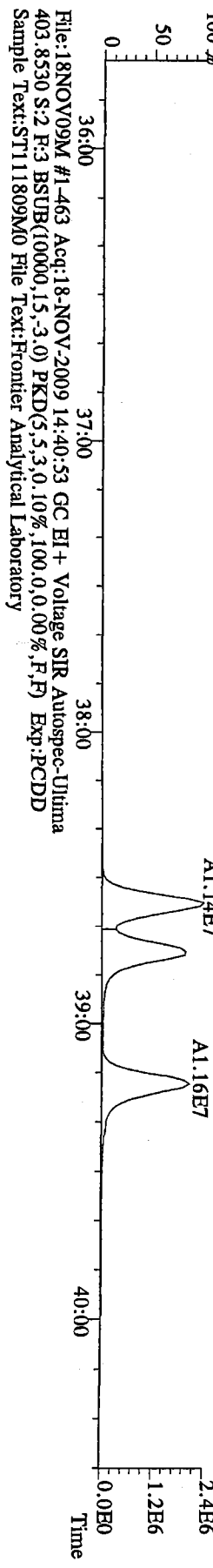




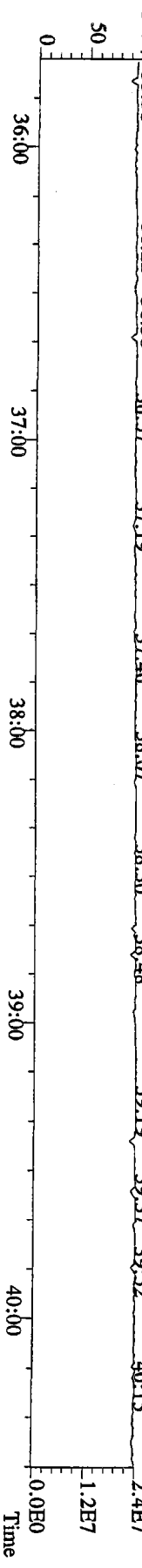
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



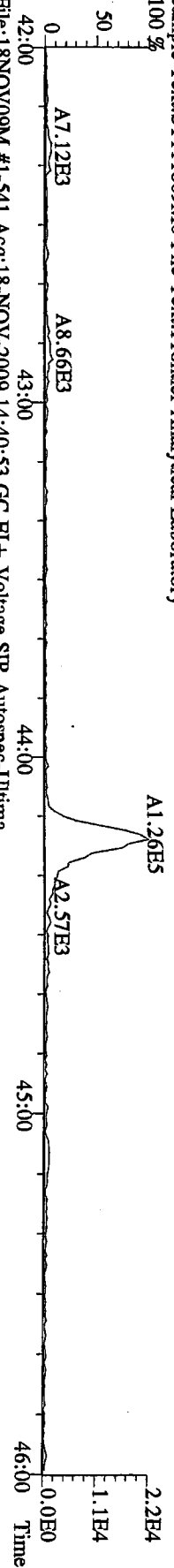
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



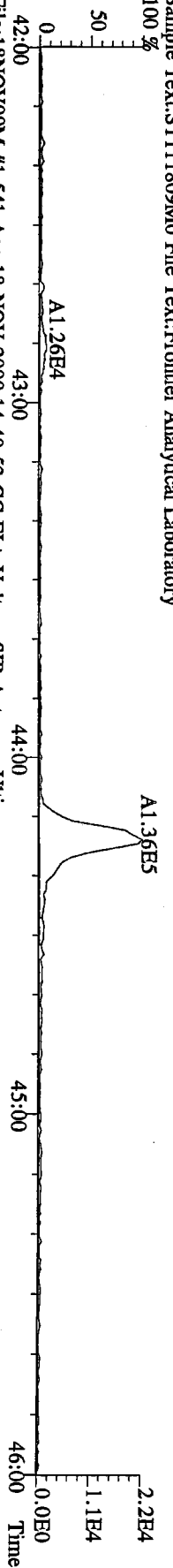
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:2 F:3 Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



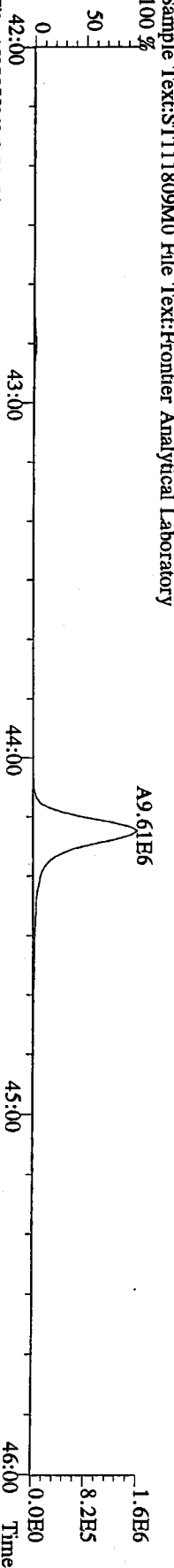
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %



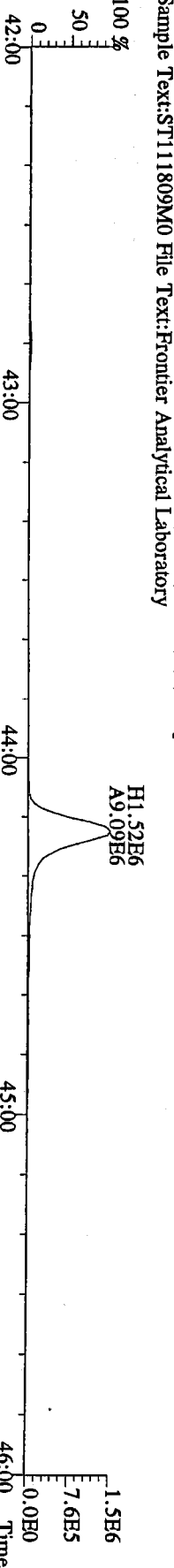
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 425.7737 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %



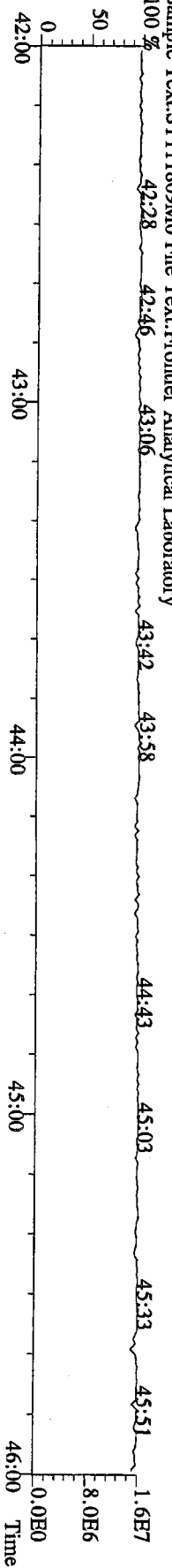
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 437.8140 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

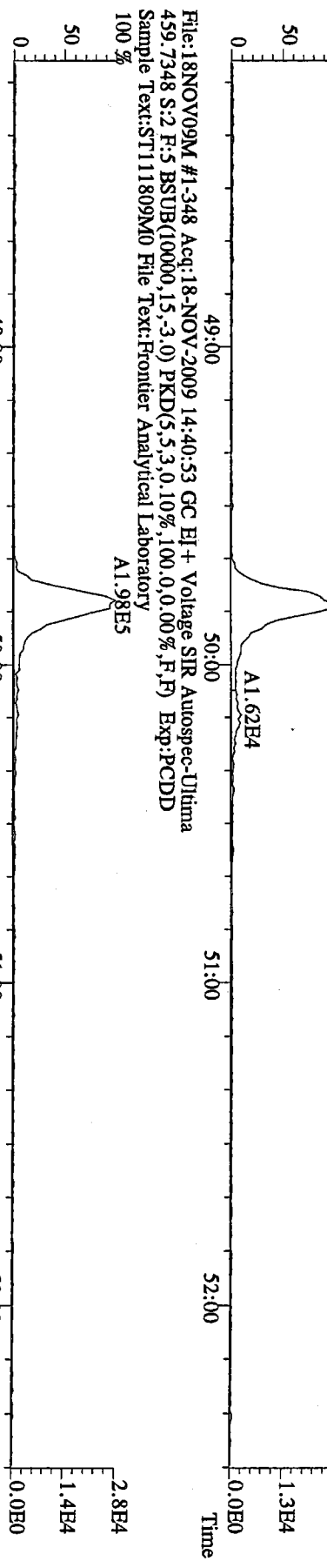


File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 430.9728 S:2 F:4 Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

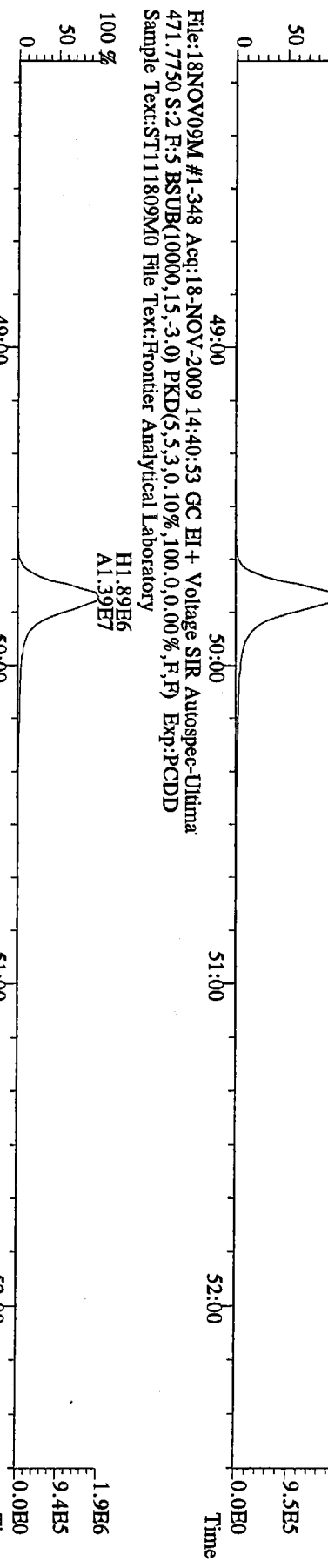


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

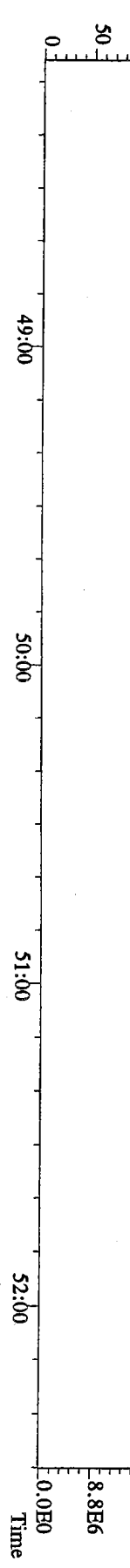
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

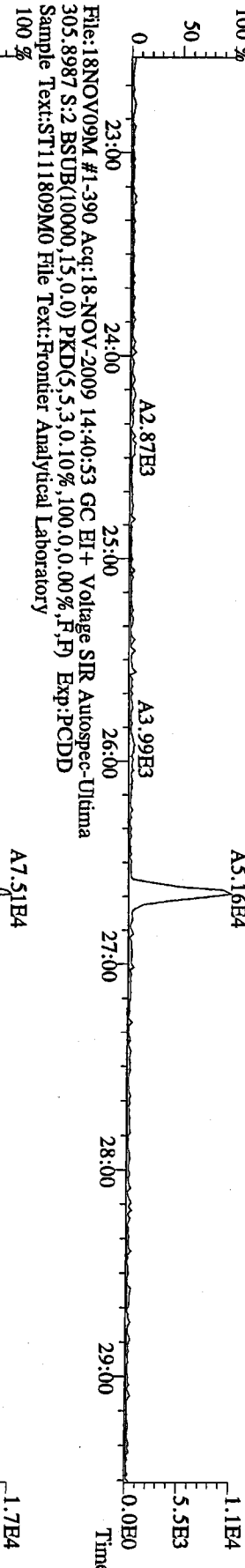


File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

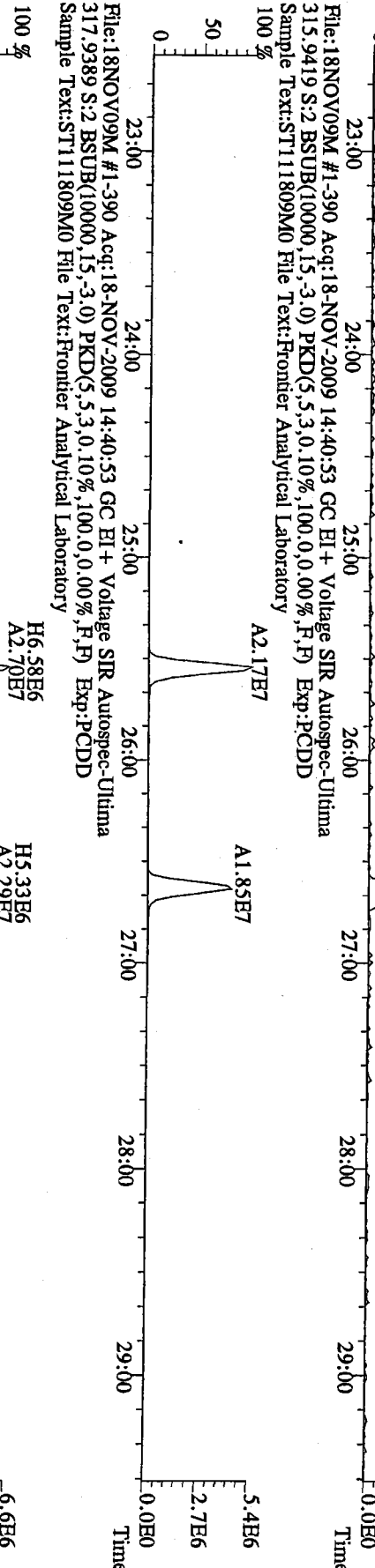


11 10 09

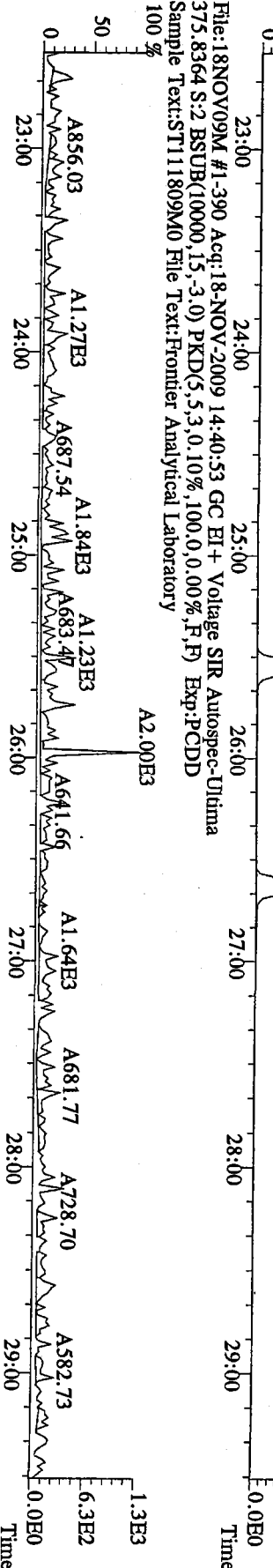
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



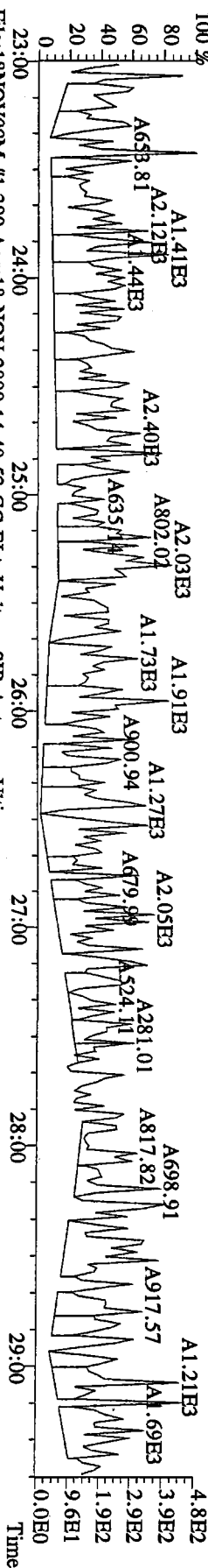
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



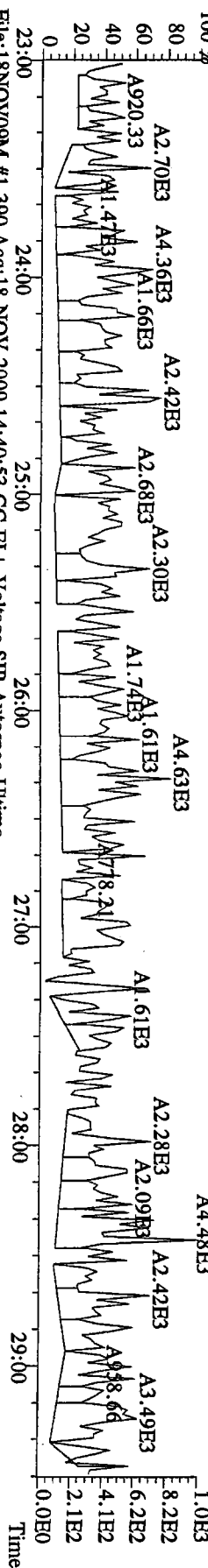
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



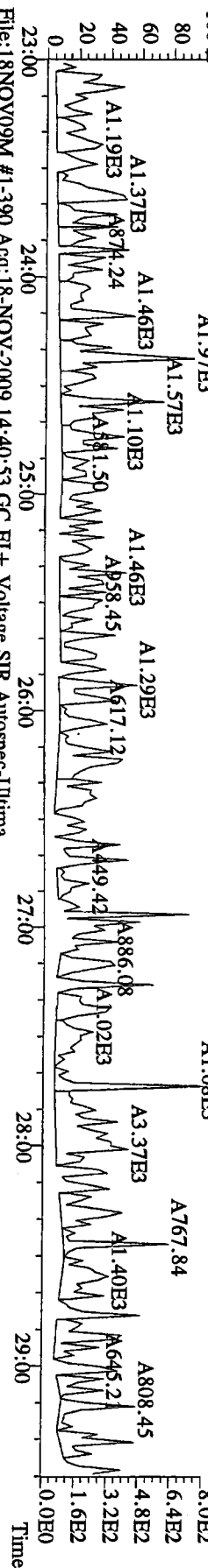
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



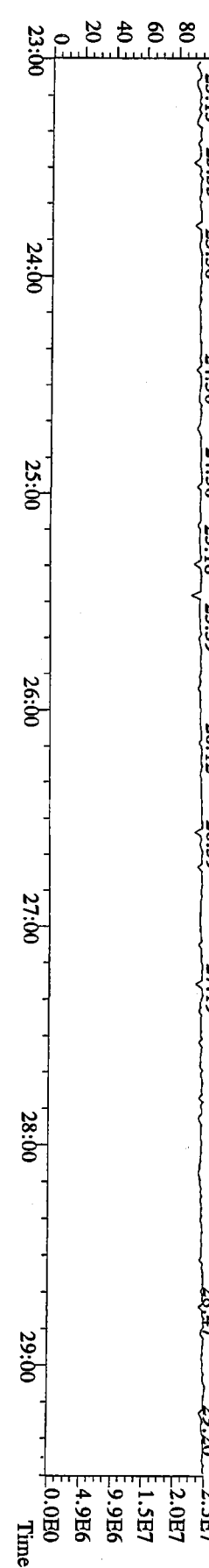
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



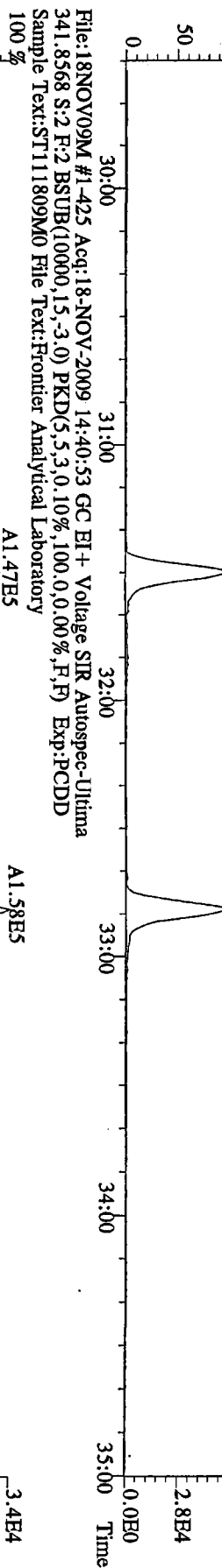
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



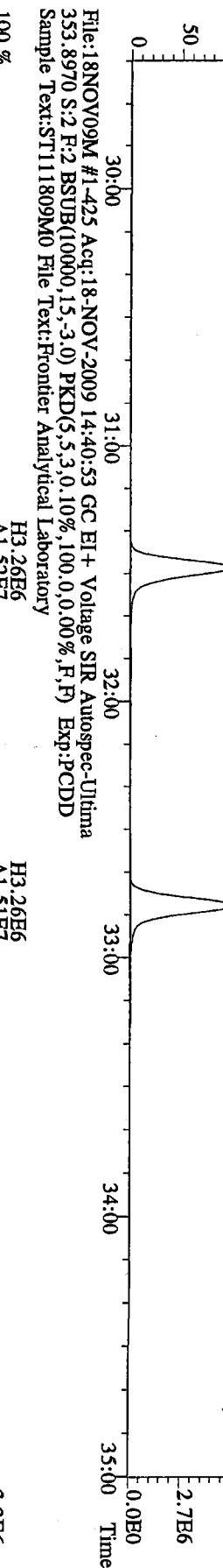
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 S:2 Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



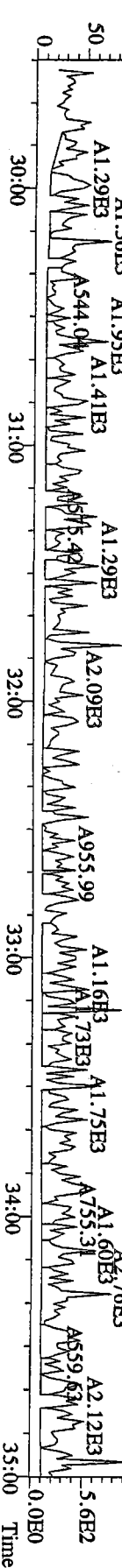
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



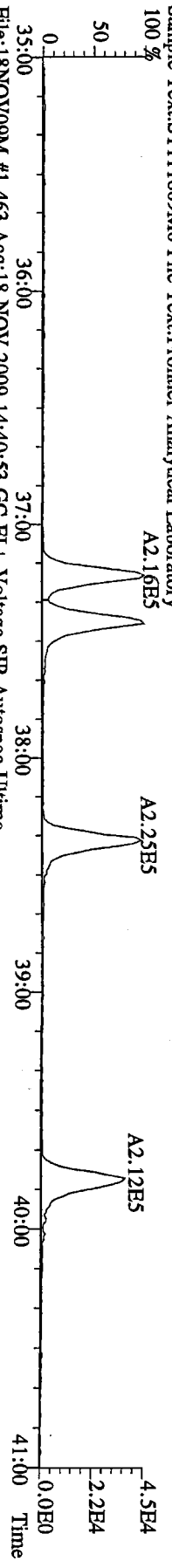
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



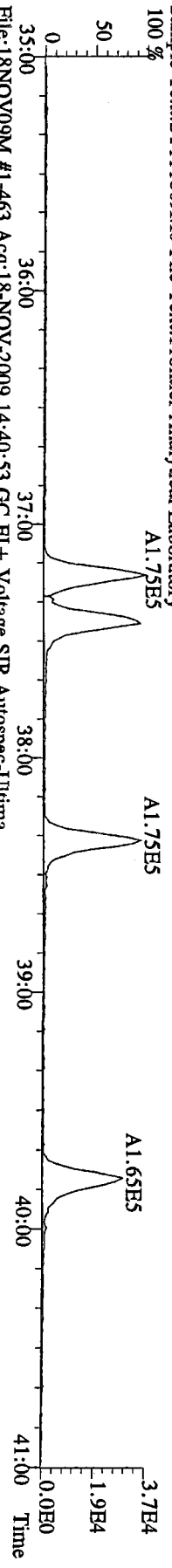
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



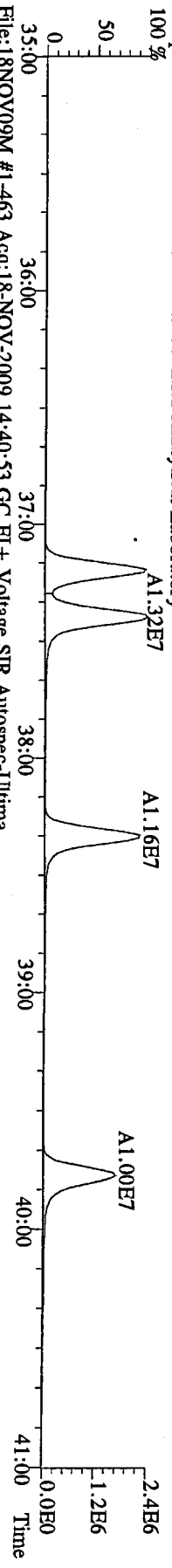
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



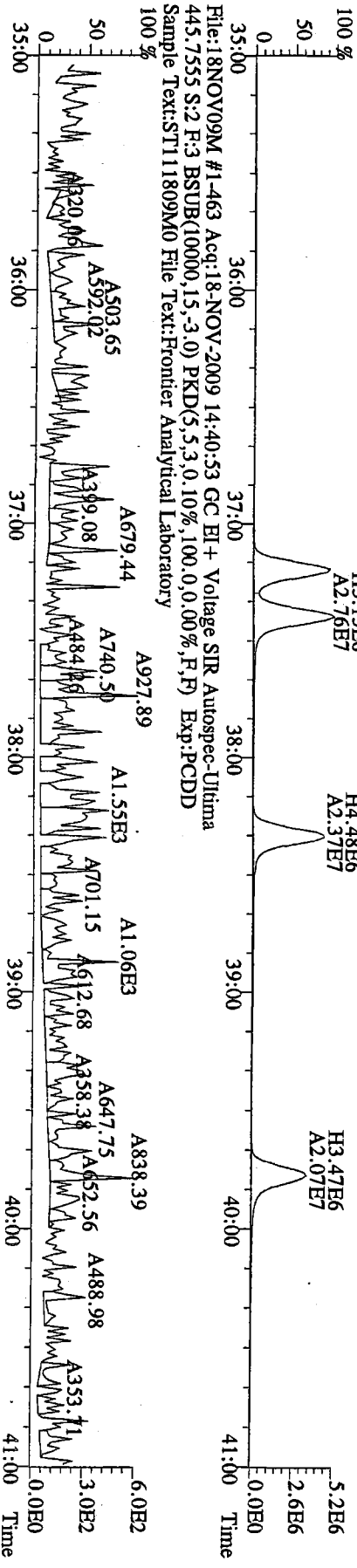
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M0 File Text:Frontier Analytical Laboratory

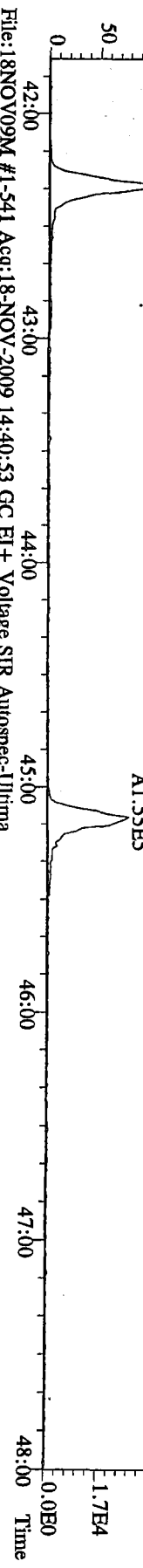


File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Utima  
 445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

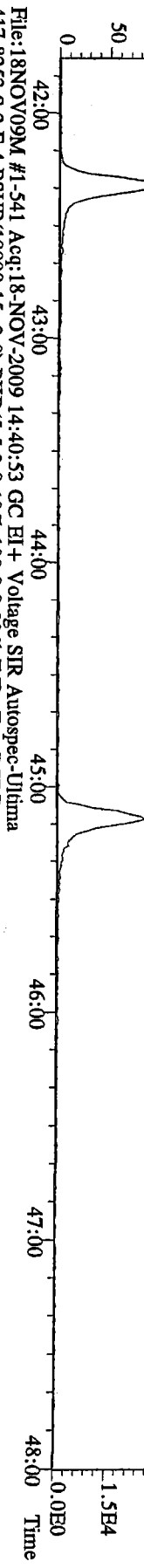


12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

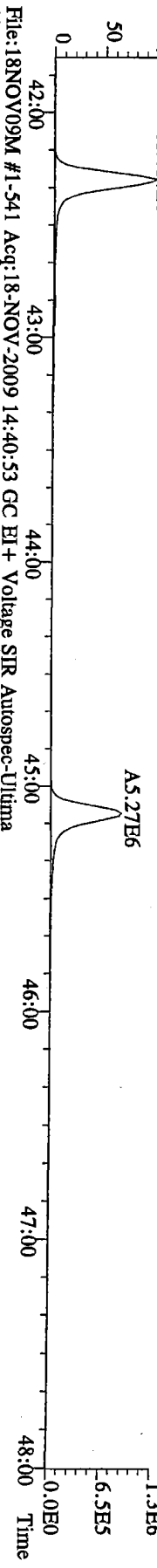
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 407.7818 S.2.F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



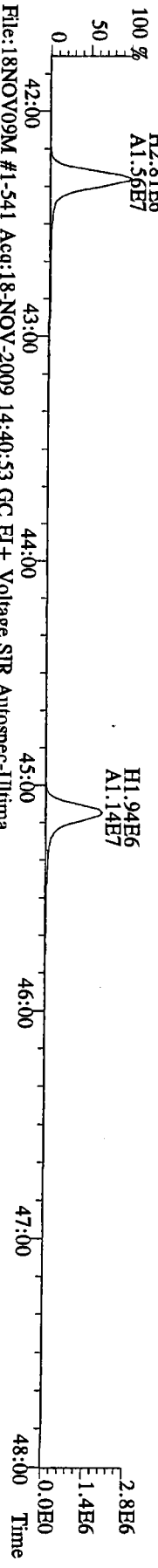
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 409.7788 S.2.F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



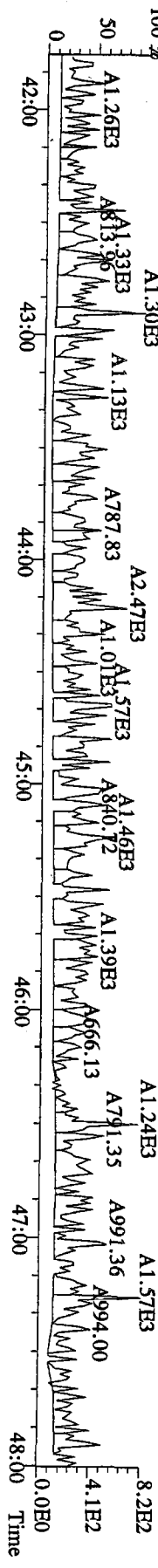
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 417.8253 S.2.F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 419.8220 S.2.F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

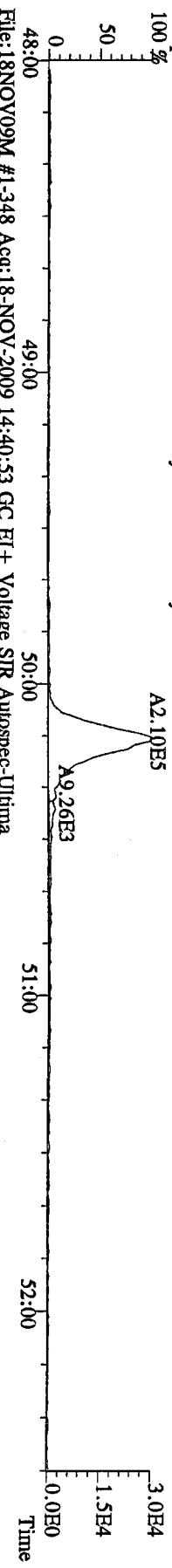


File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 479.7165 S.2.F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

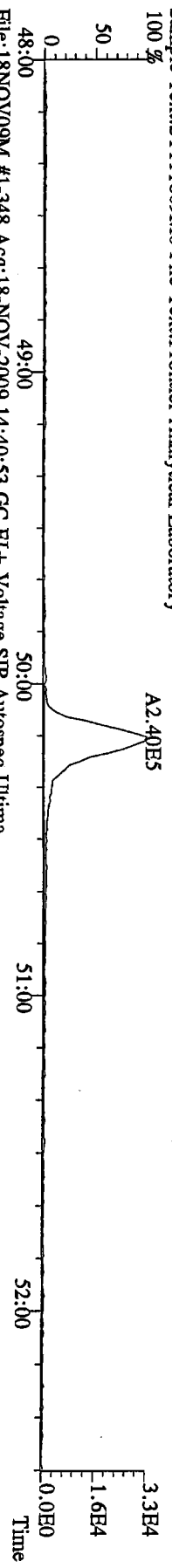




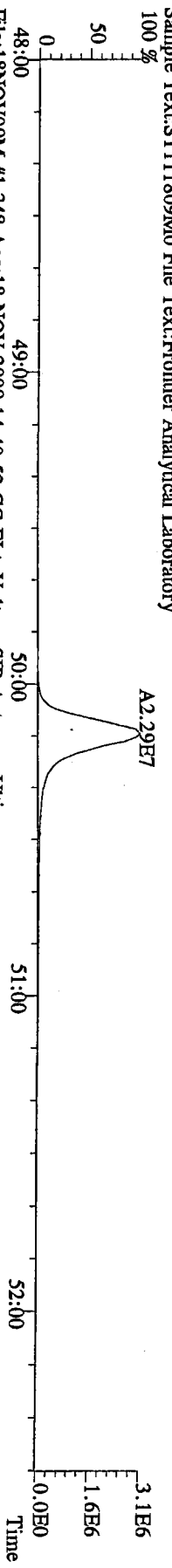
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



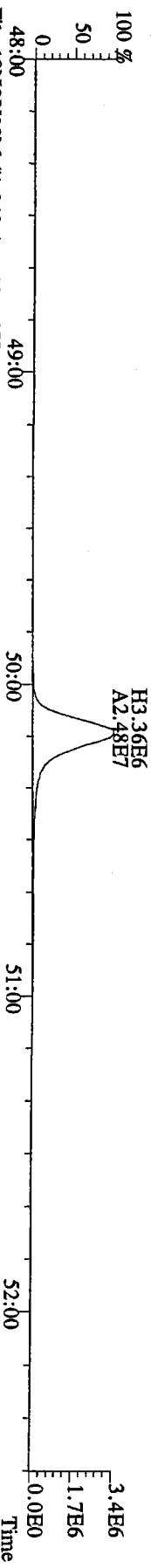
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



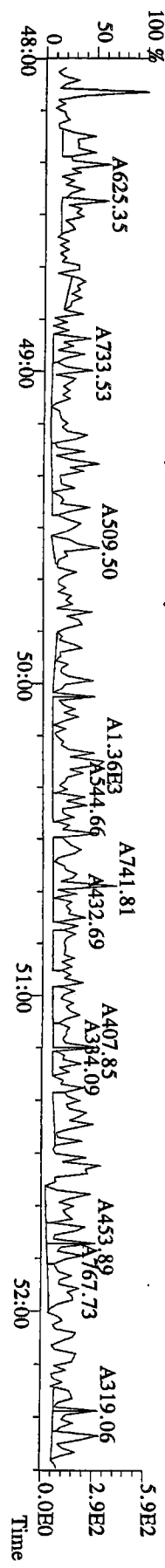
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 455.7801 S:2 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

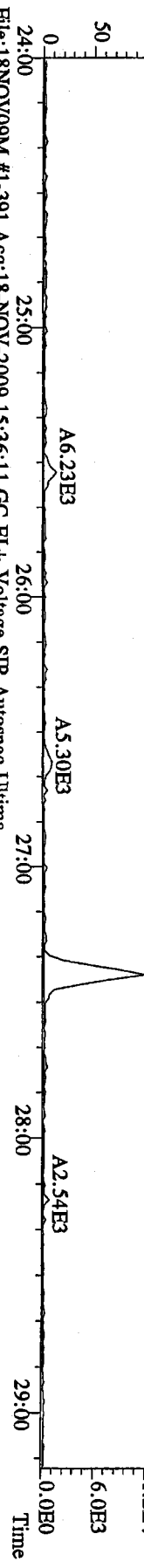


File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima  
 513.6775 S:2 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

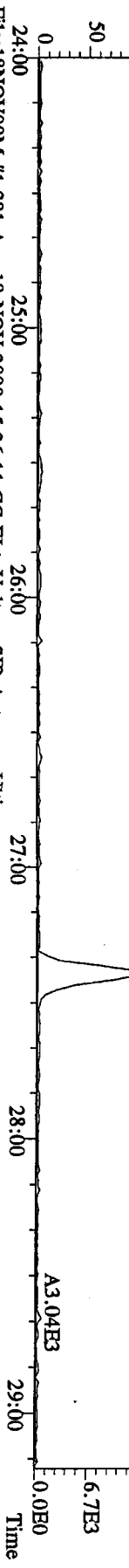


18 11 09 14:40:53

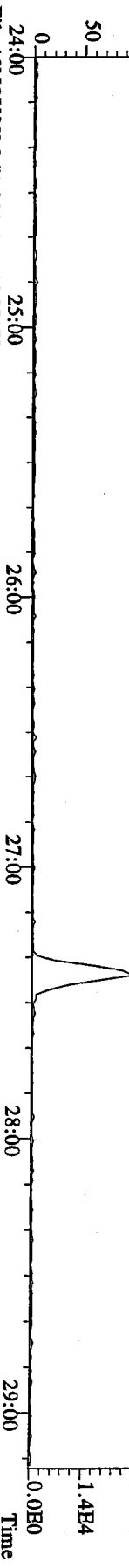
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 319.8965 S:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



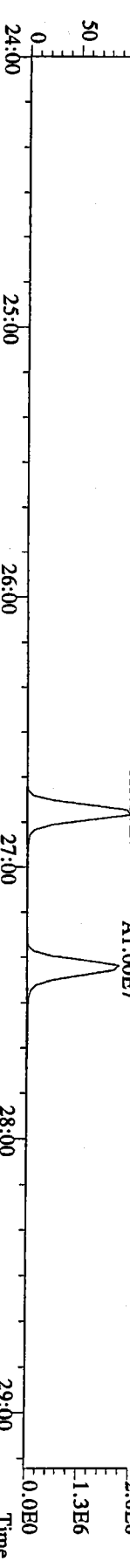
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 321.8936 S:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



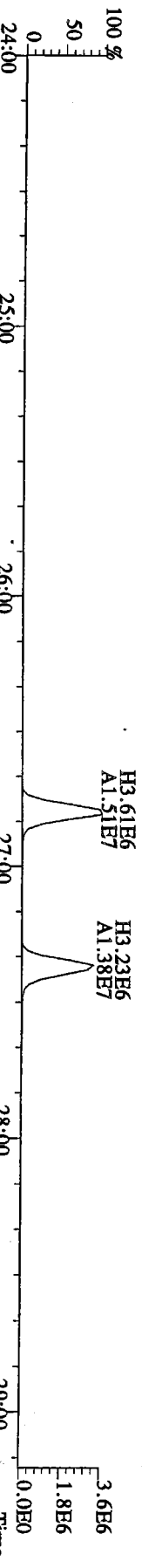
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 327.8847 S:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M1 File Text:Frontier Analytical Laboratory

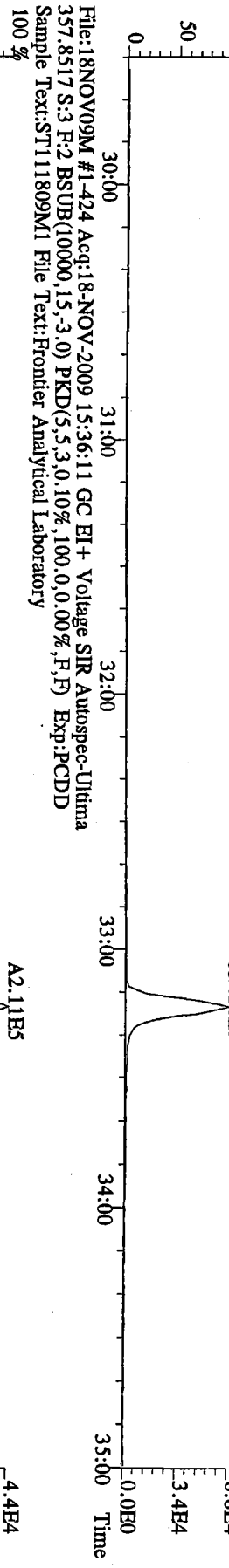


File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 333.9339 S:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

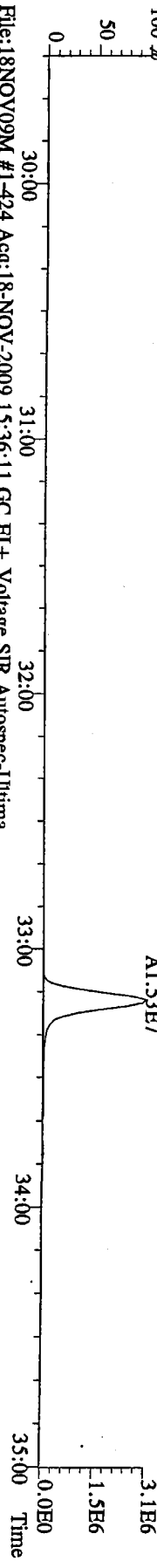


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

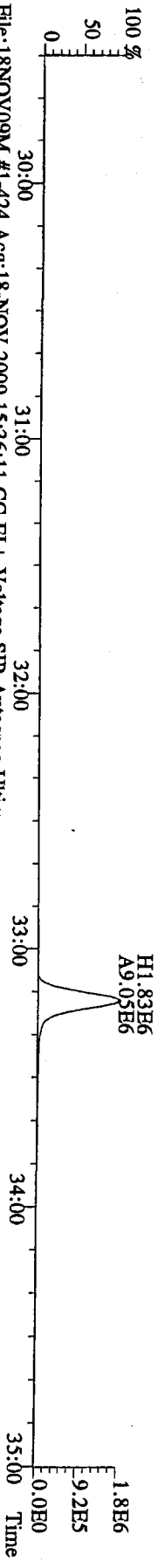
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



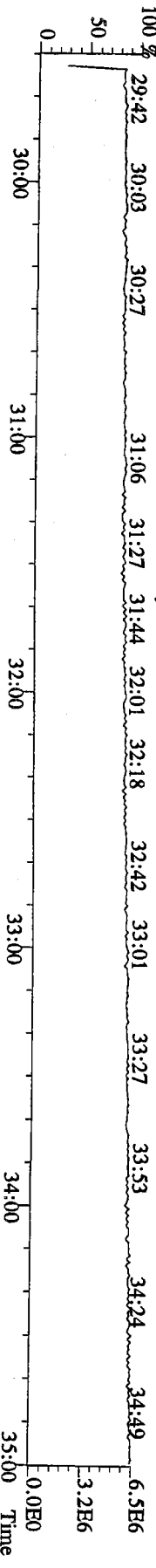
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 369.8919 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

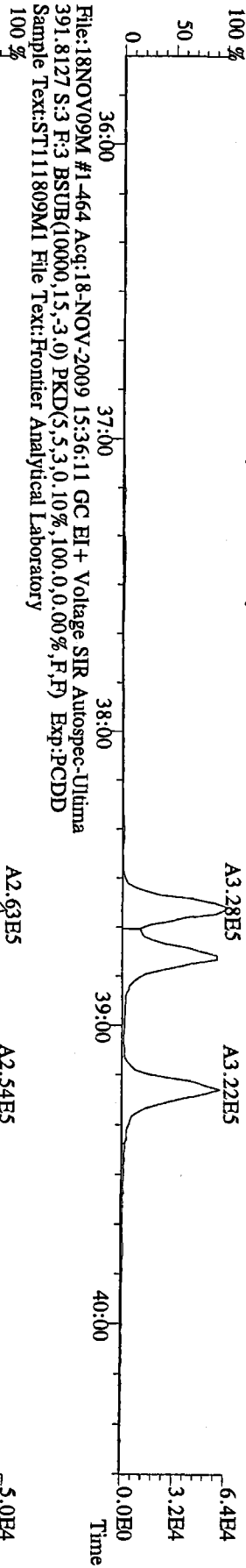


File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 366.9792 S:3 F:2 Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

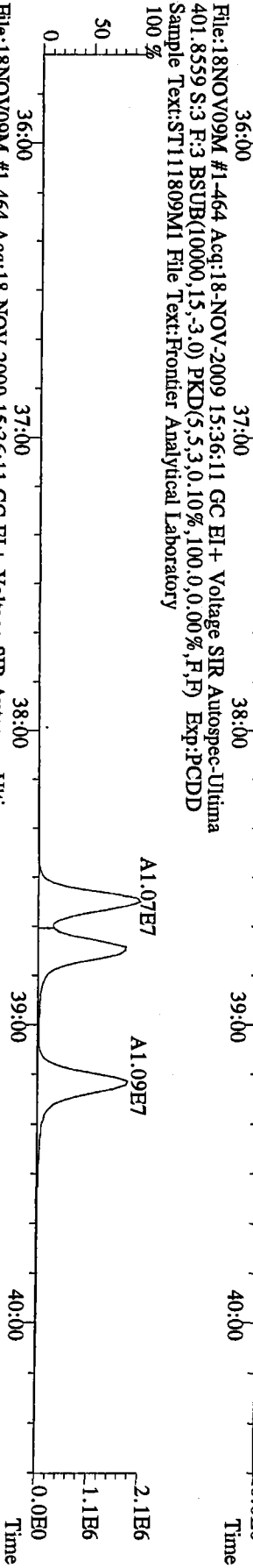


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

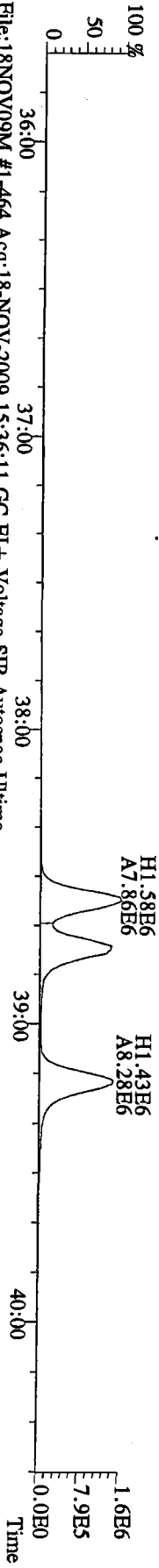
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



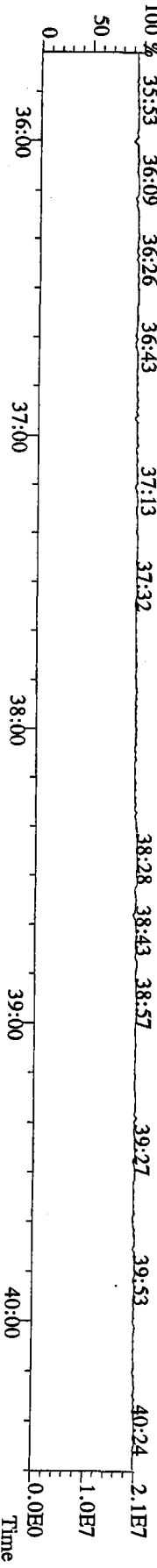
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

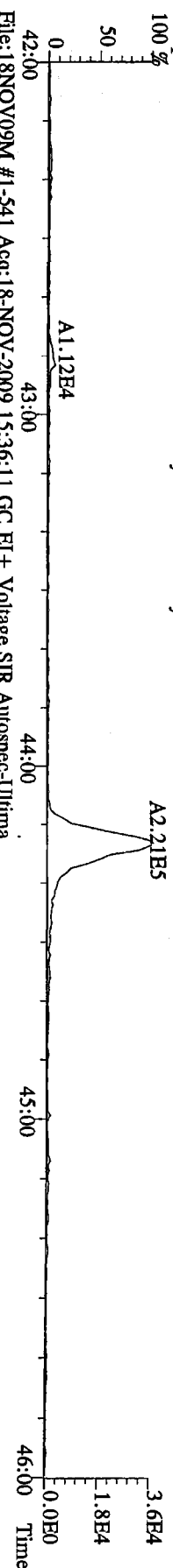


File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
380.9760 S:3 F:3 Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

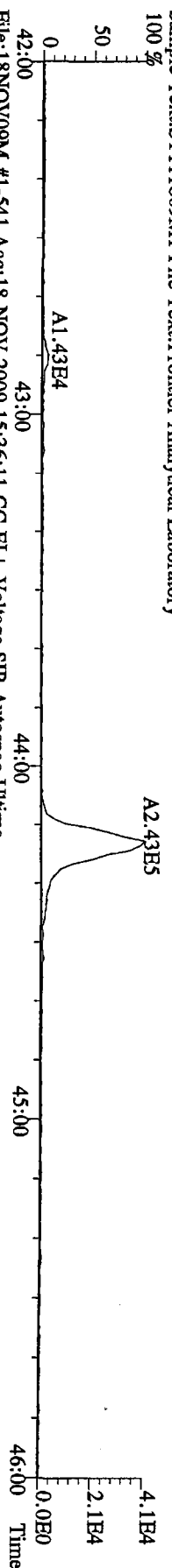


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

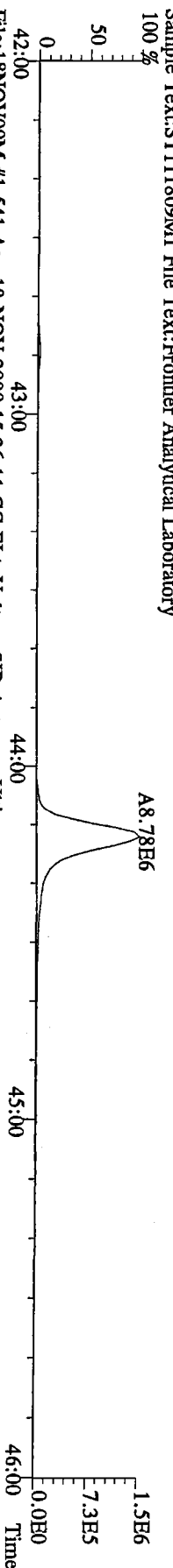
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



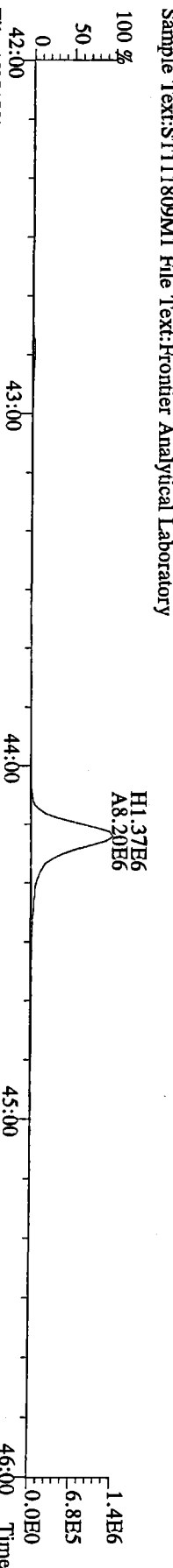
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



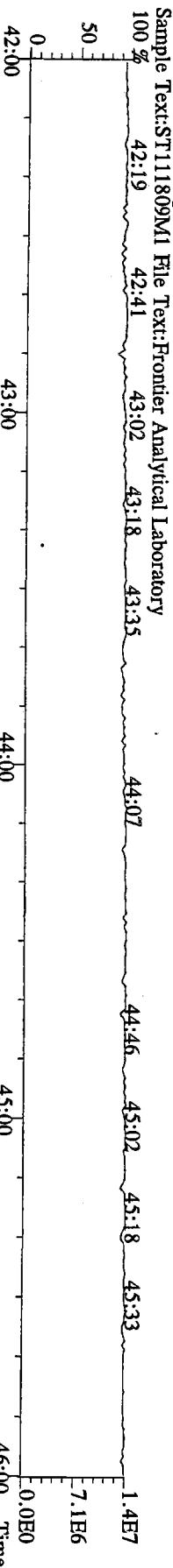
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



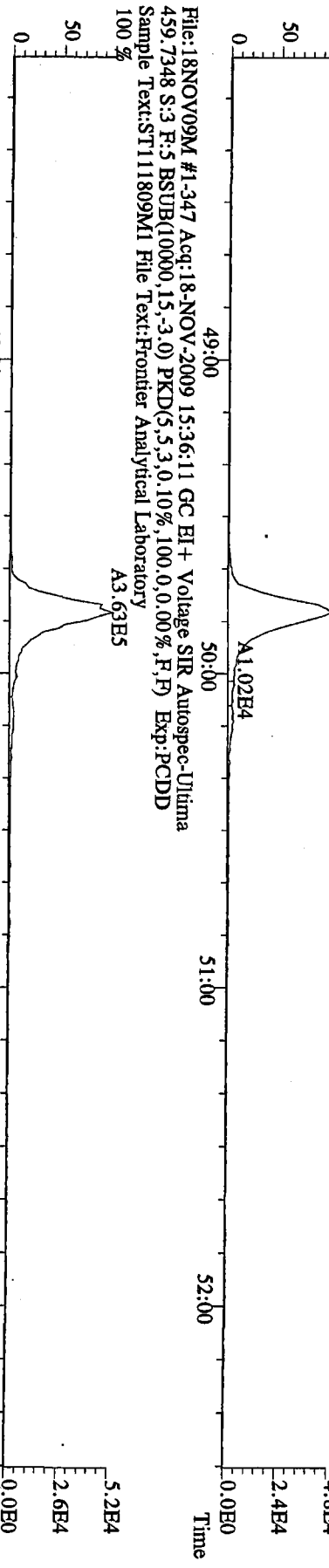
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



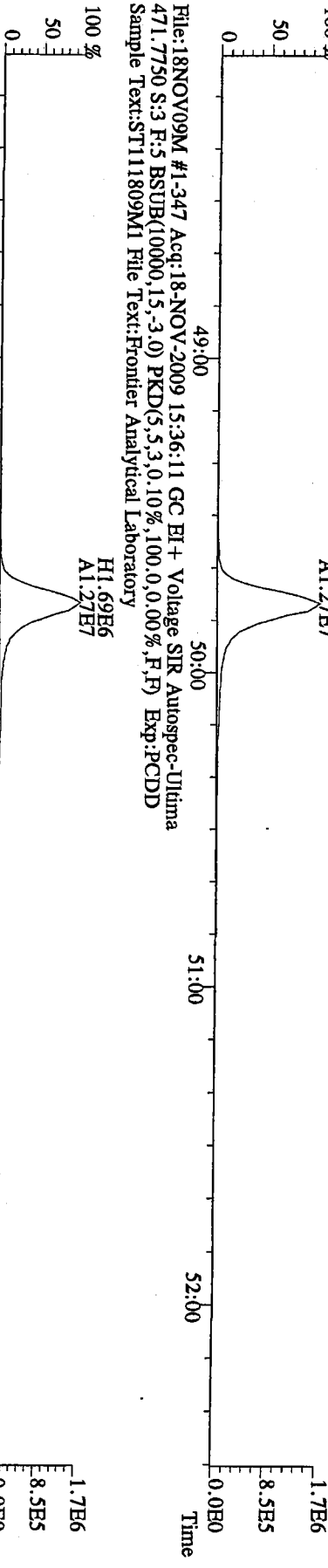
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
430.9728 S:3 F:4 Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



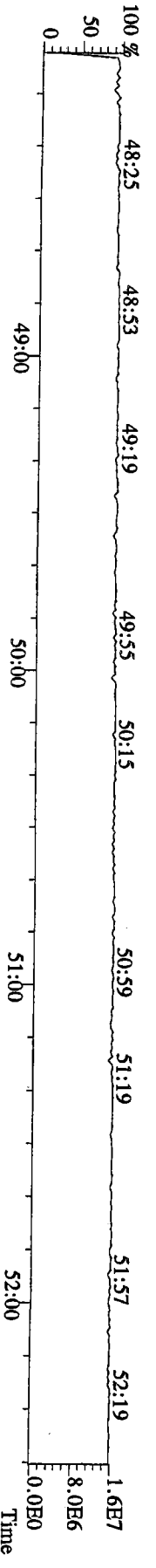
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %

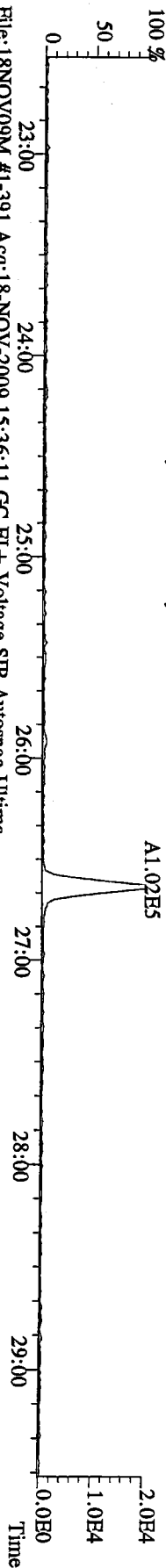


File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
471.7750 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %

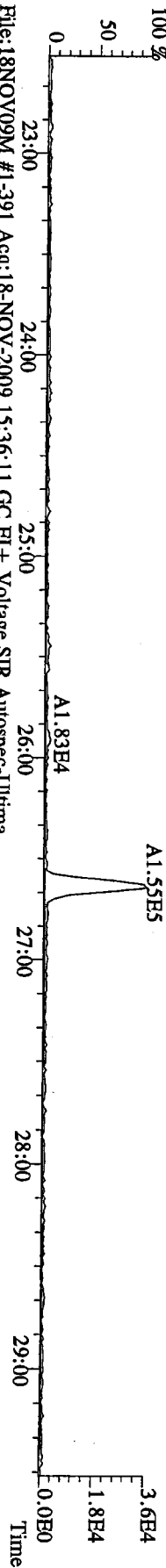


PCDD ST111809M1

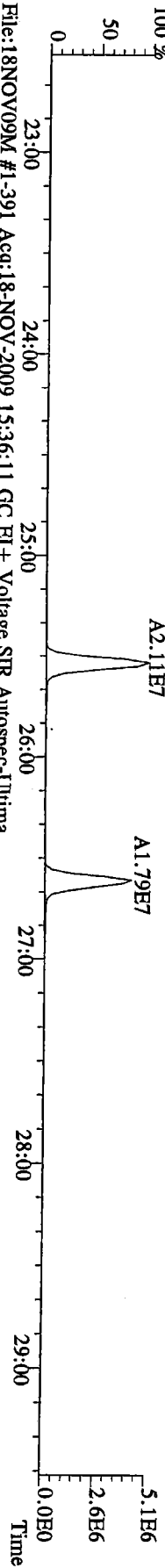
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



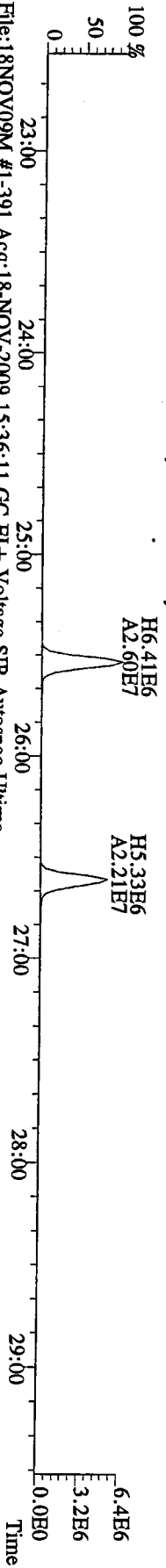
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



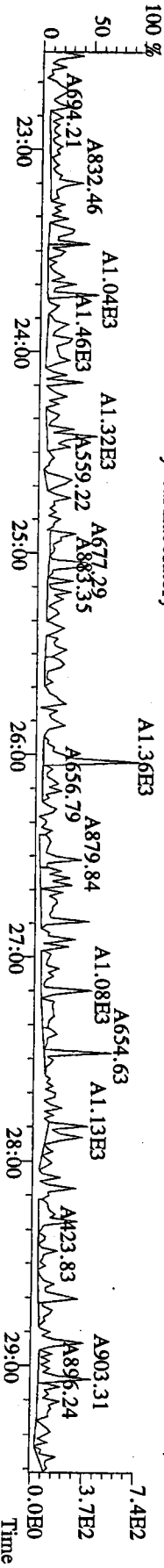
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 315.9419 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 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:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 375.8364 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

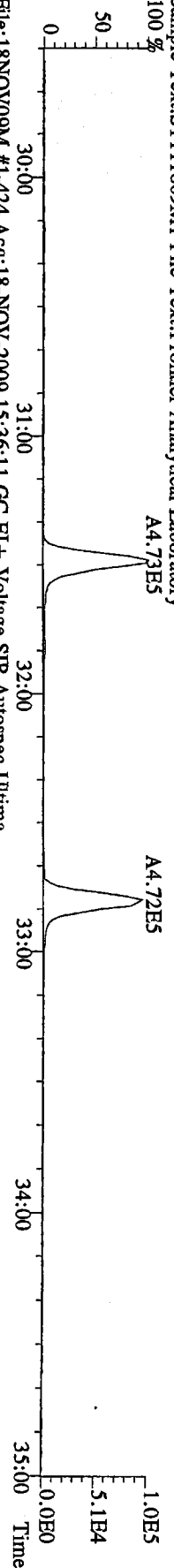


100 100 100 100 100 100 100 100 100 100

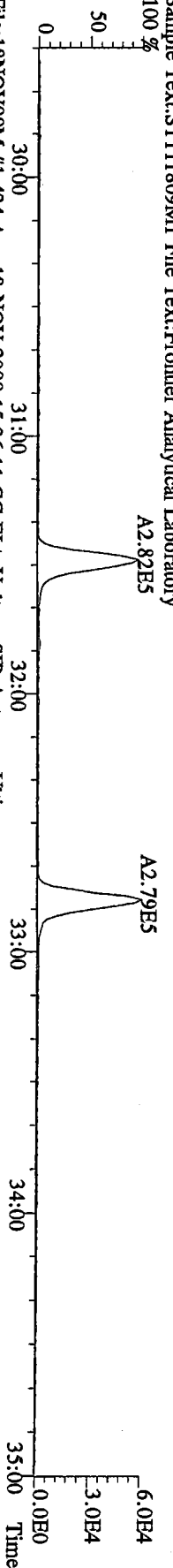




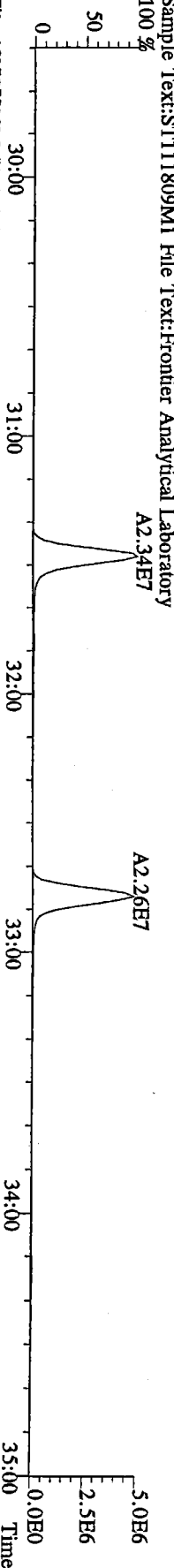
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



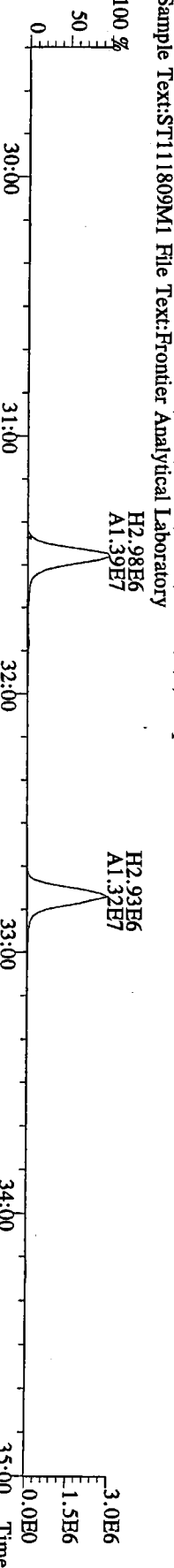
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



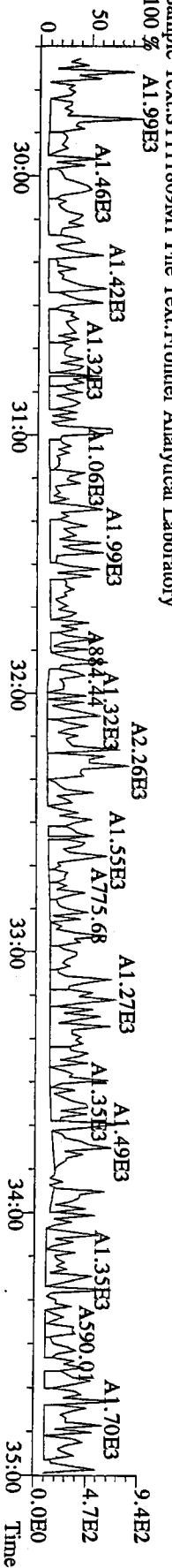
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



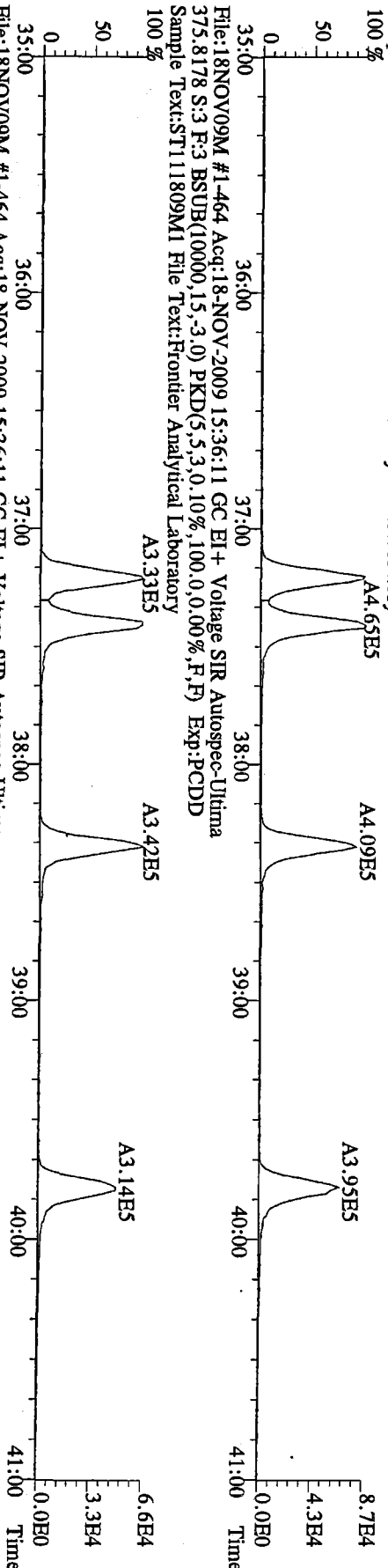
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



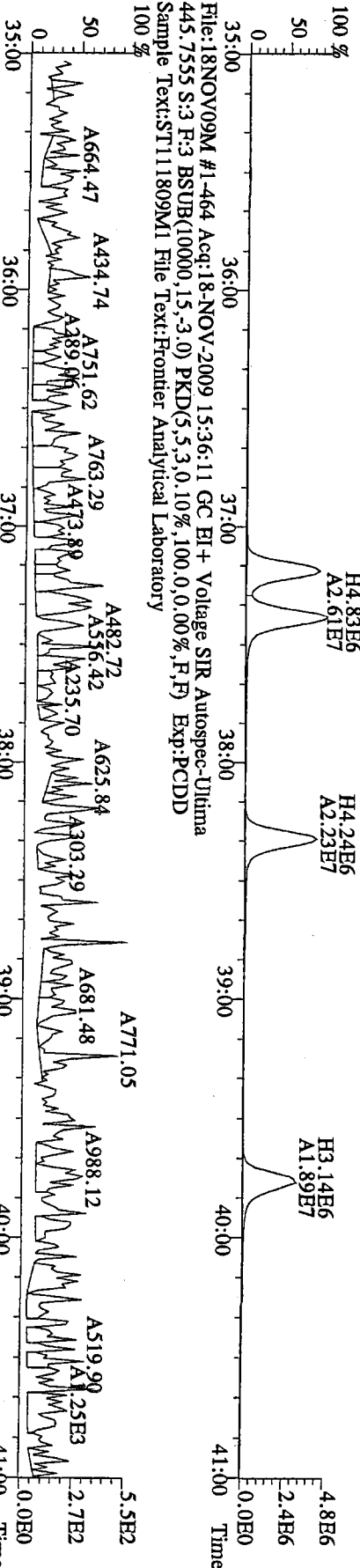
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



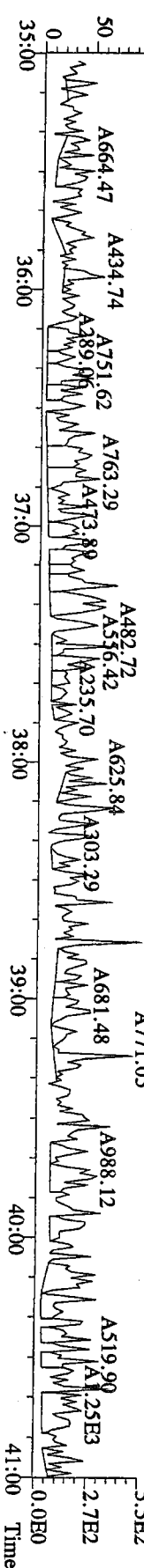
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

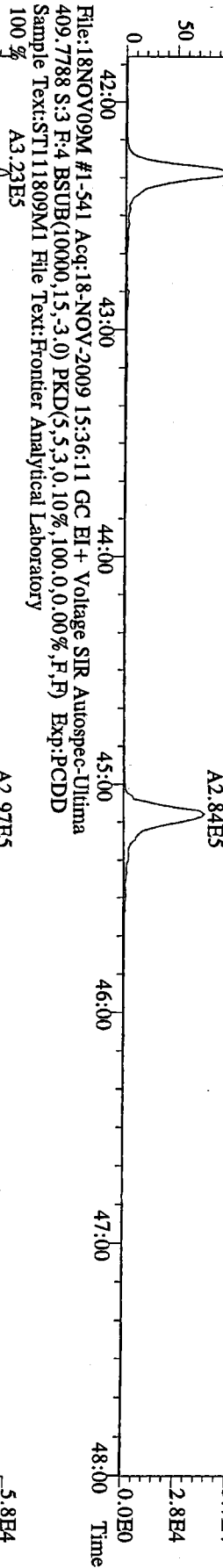


File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

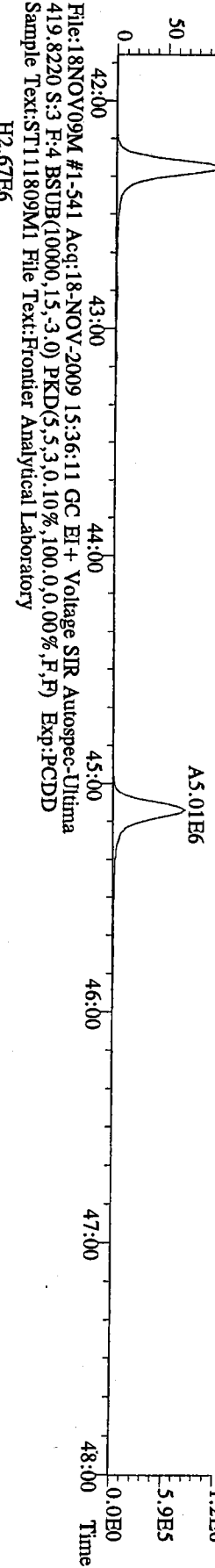


11 12 13 14 15 16 17 18 19 20 21 22

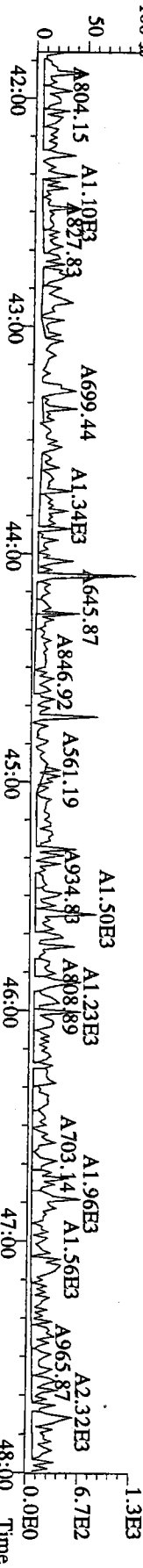
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
 100 % A3.22E5



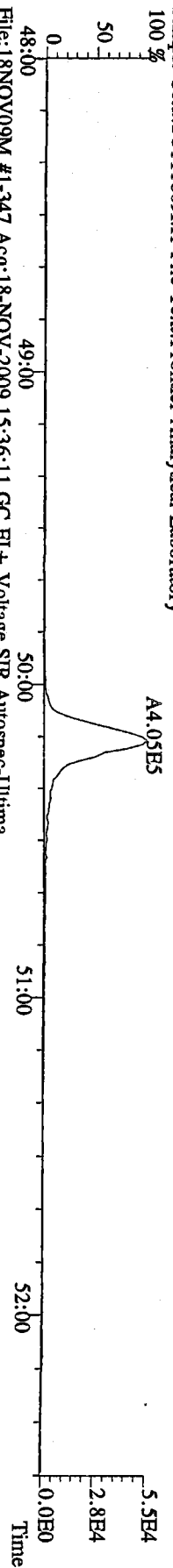
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
 100 % A6.57E6



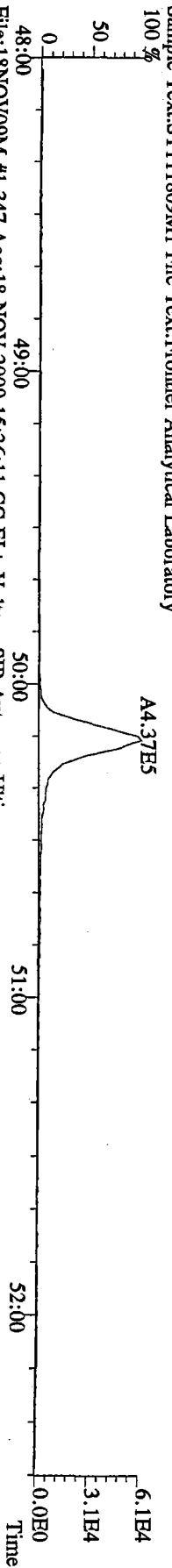
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
 419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD  
 Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
 100 % H2.67E6  
 A1.46E7



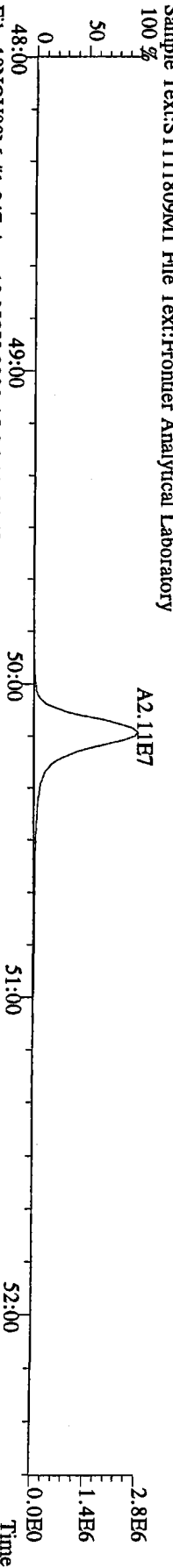
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
441.7428 S.3 F.5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



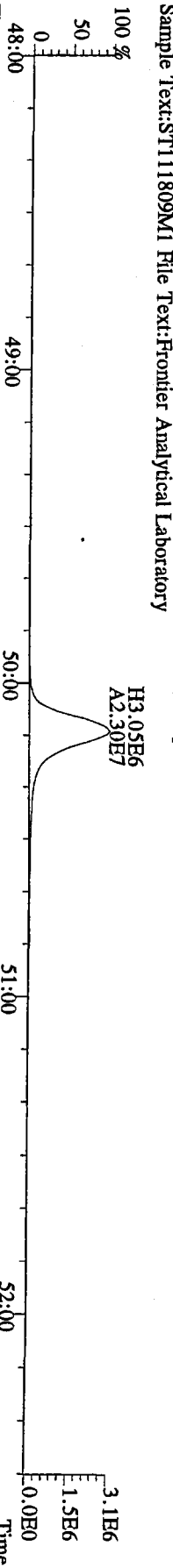
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
443.7398 S.3 F.5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



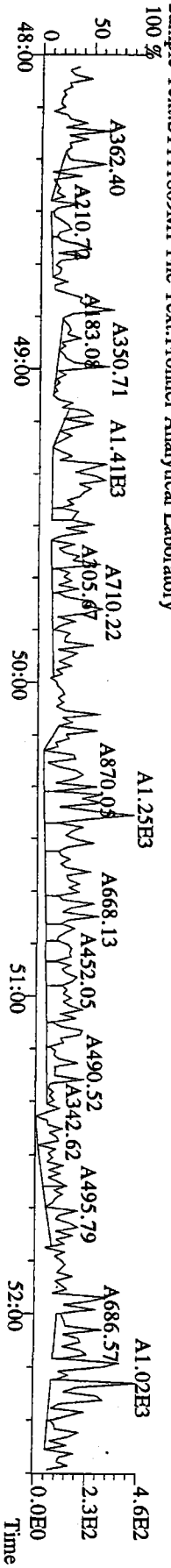
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
453.7831 S.3 F.5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M1 File Text:Frontier Analytical Laboratory

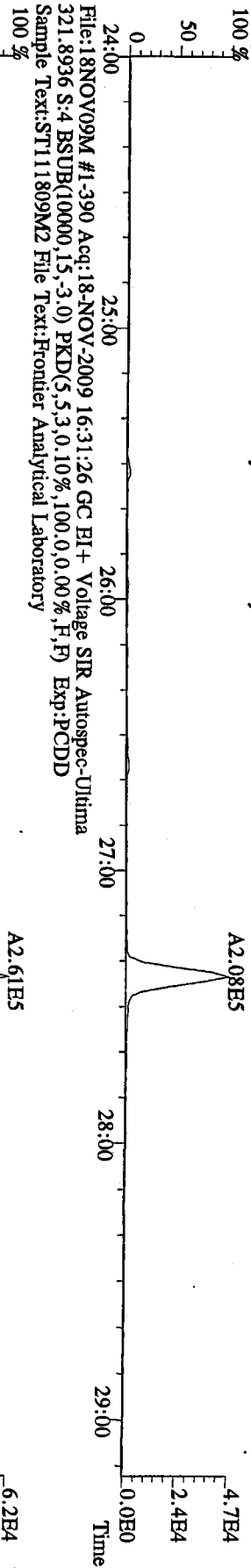


File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Utima  
513.6775 S.3 F.5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

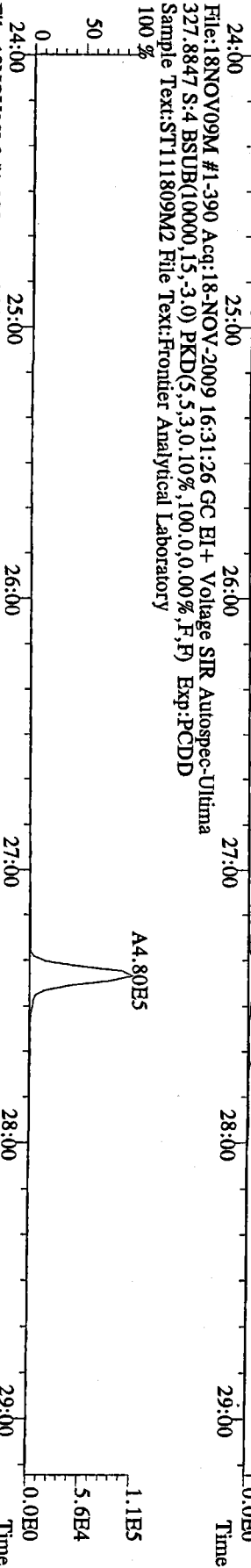


18 NOV 09 15:36:11

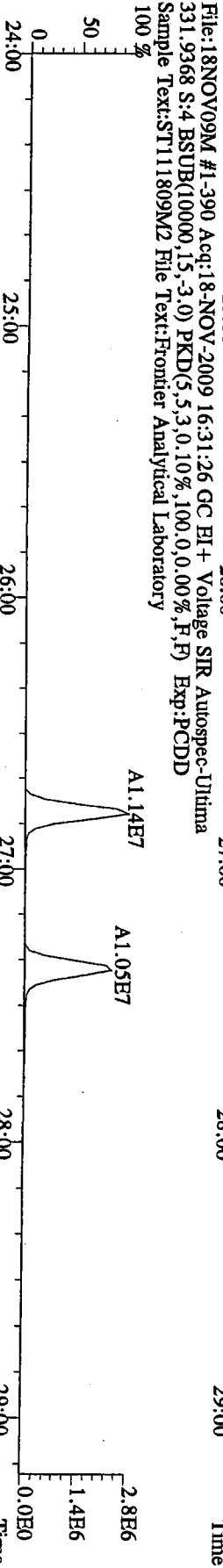
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



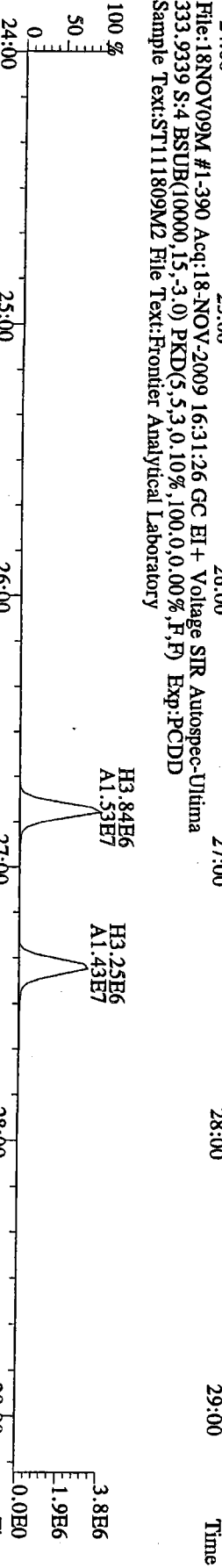
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M2 File Text:Frontier Analytical Laboratory

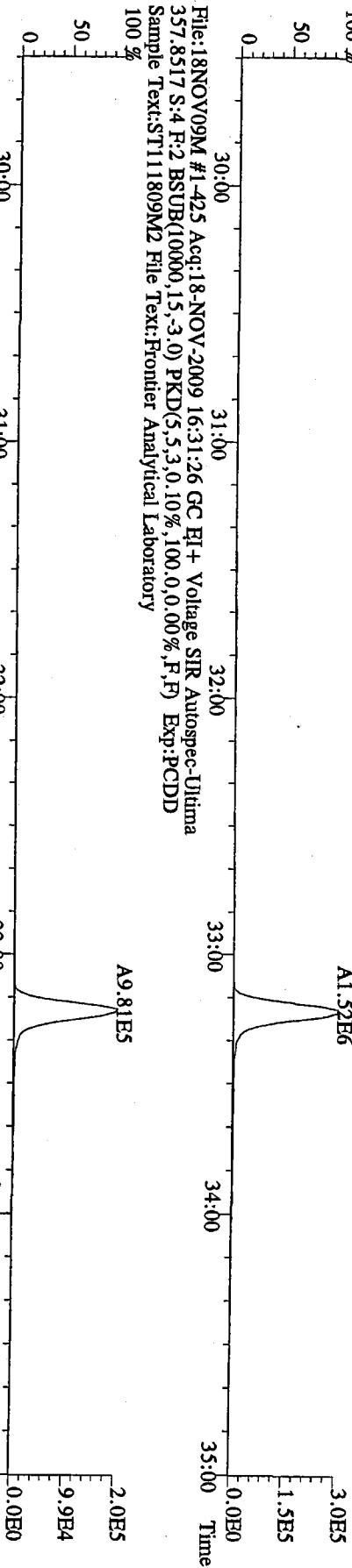


File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

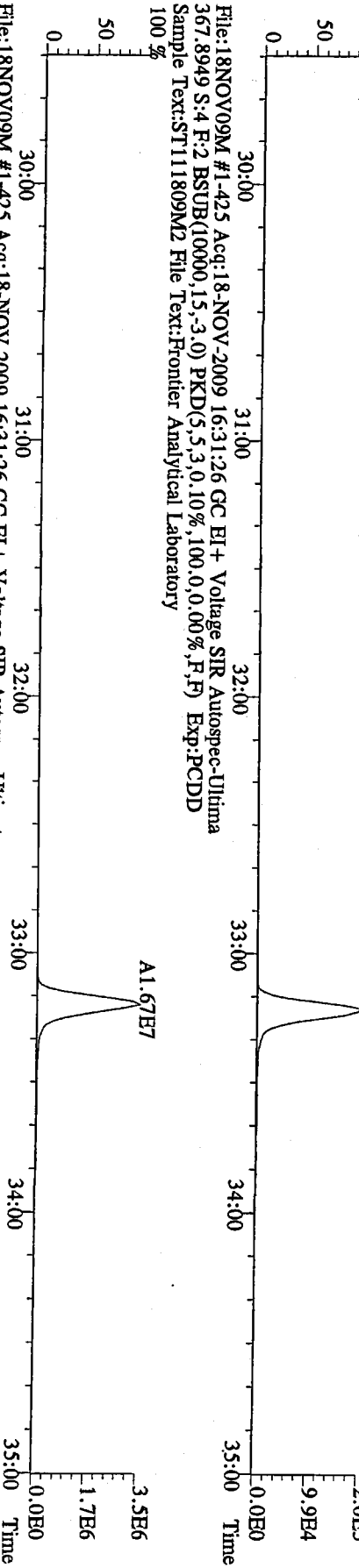


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

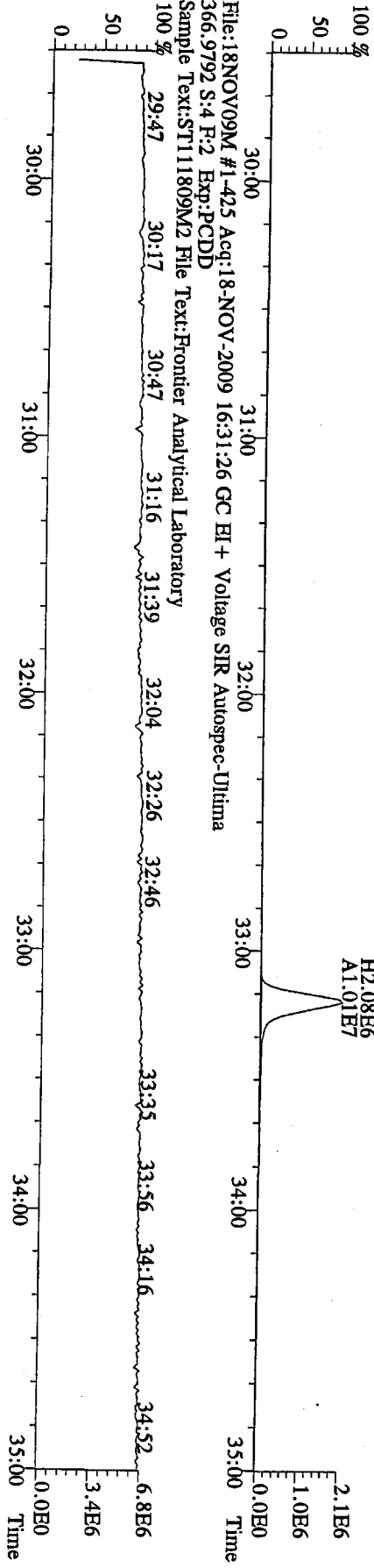
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 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:ST111809M2 File Text:Frontier Analytical Laboratory

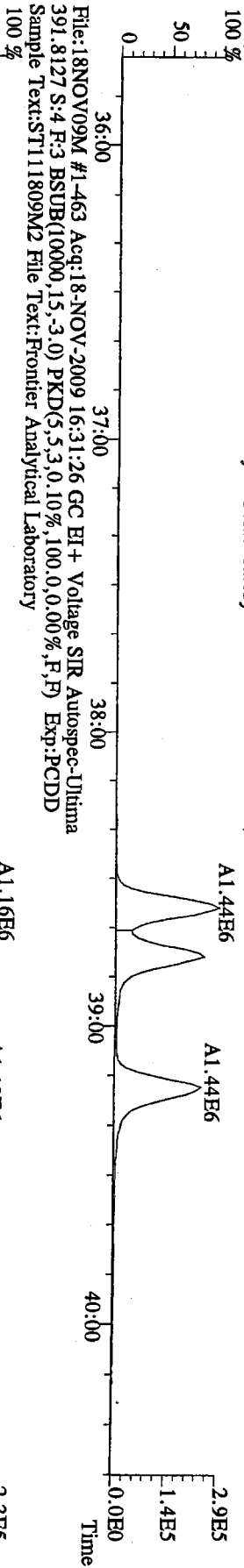


File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
369.8919 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

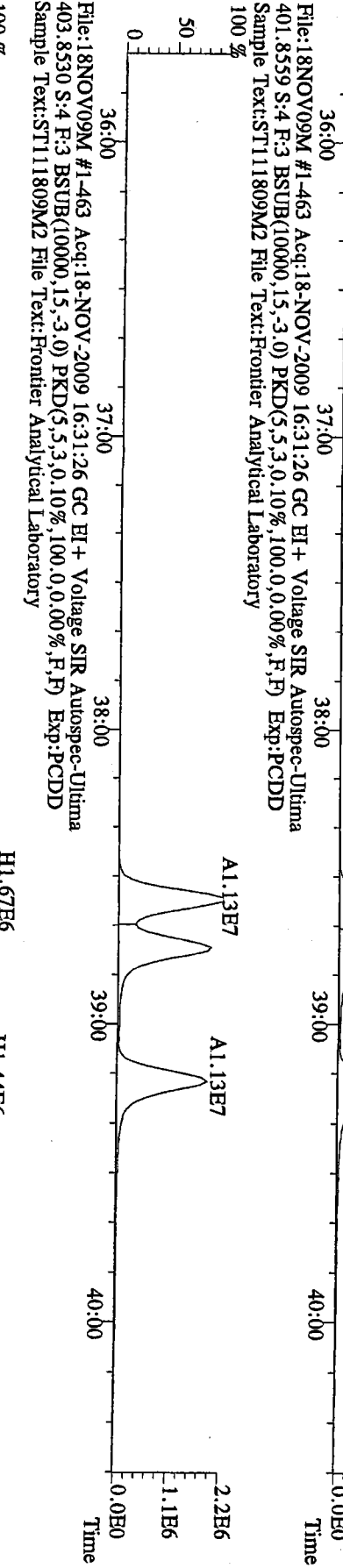


11-18-09 16:31:26

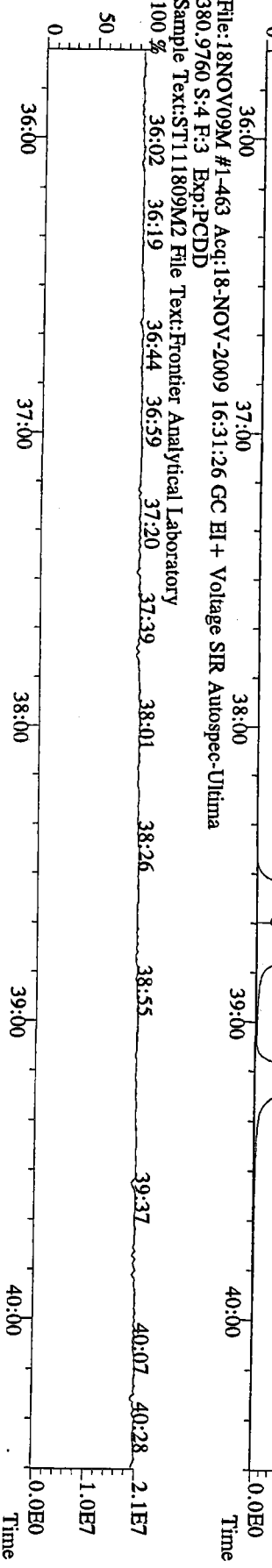
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M2 File Text:Frontier Analytical Laboratory

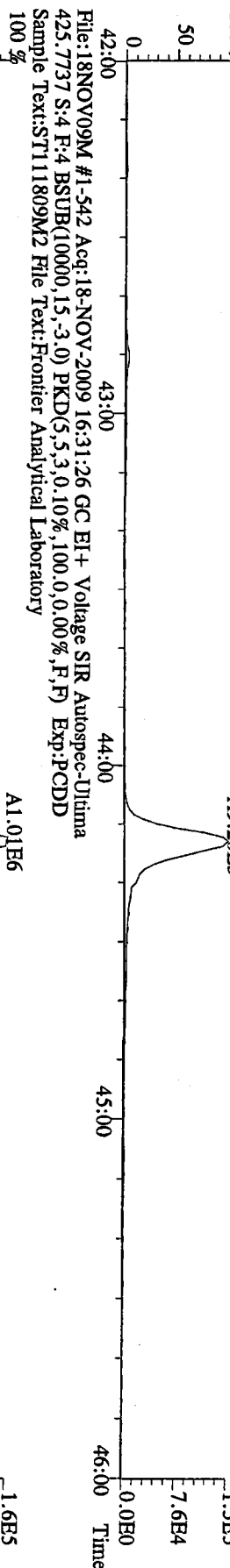


File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
380.9760 S:4 F:3 Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

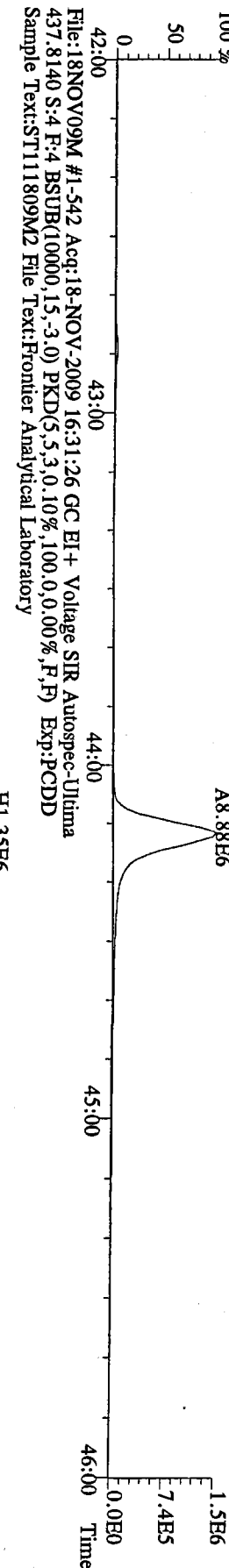


10 11 12 13 14 15 16 17 18 19 20

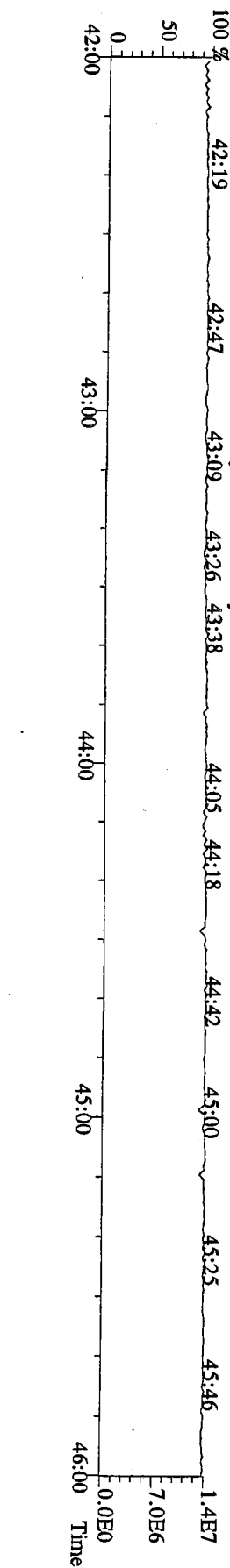
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 423.7767 S:4 F:4 BSub(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



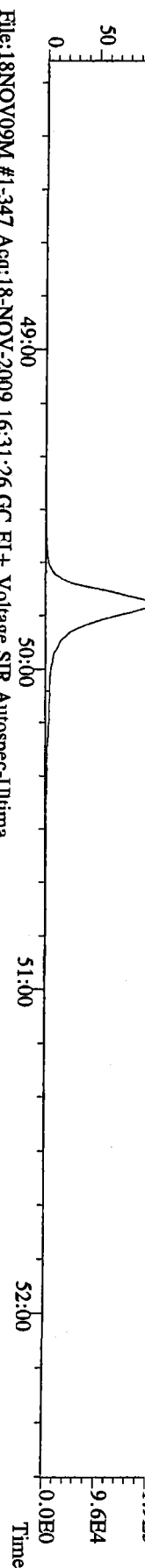
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 437.8140 S:4 F:4 BSub(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



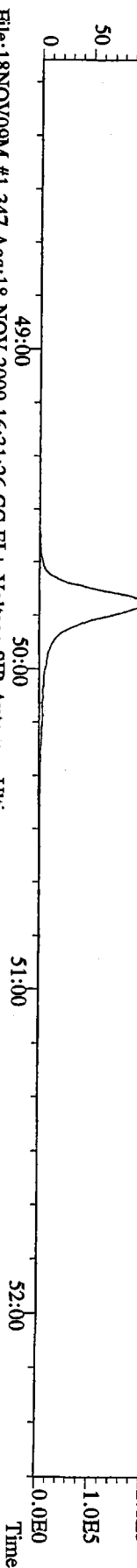
11/20/09 12:02:11



File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 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:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



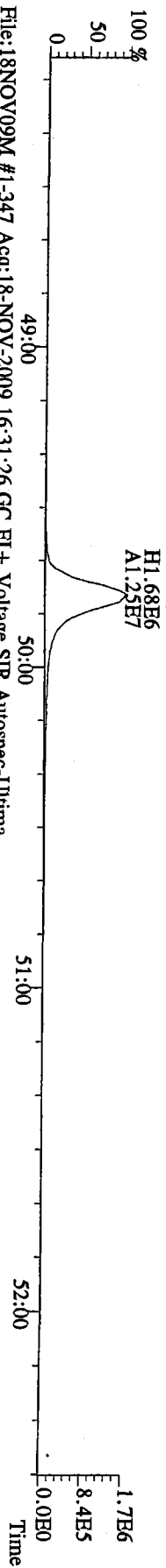
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
459.7348 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



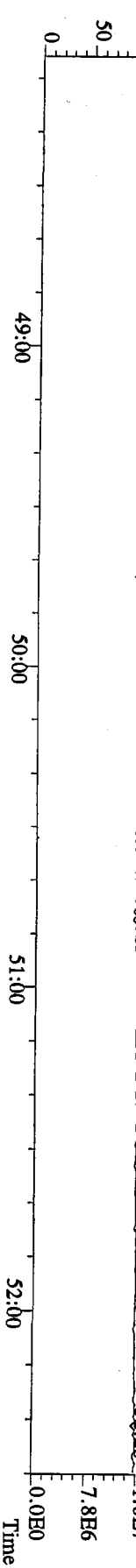
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
469.7780 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
100 %



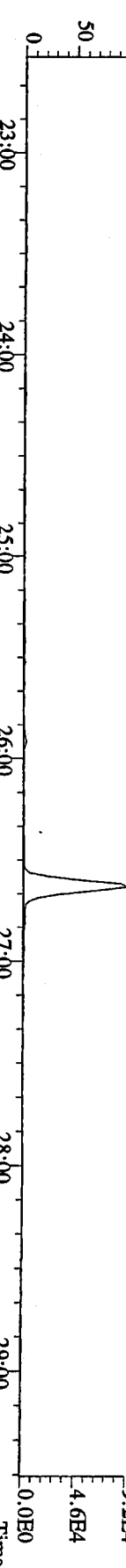
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
471.7750 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



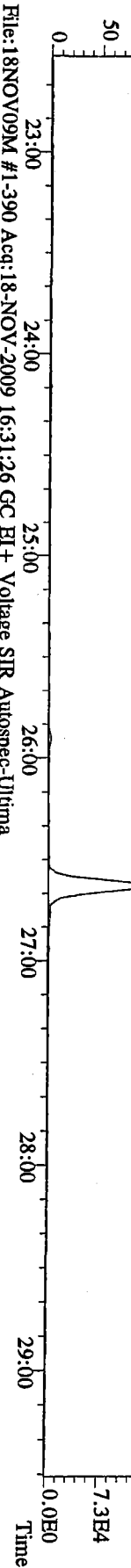
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 S:4 F:5 Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



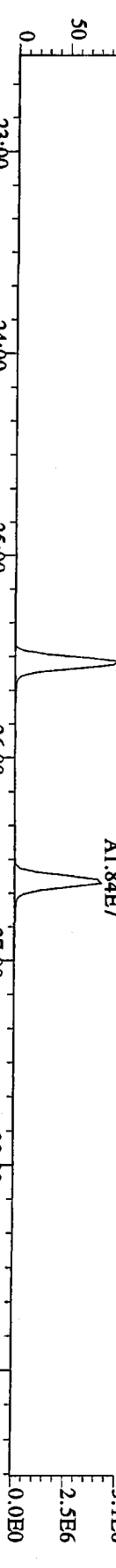
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100%



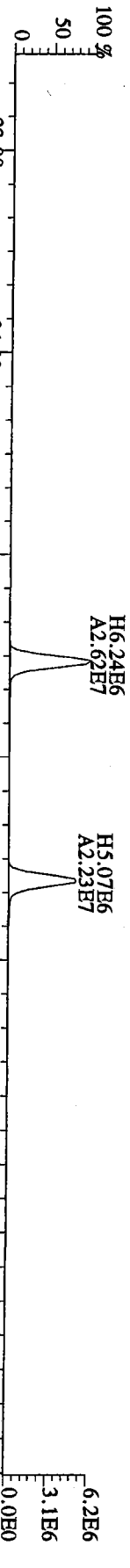
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100%



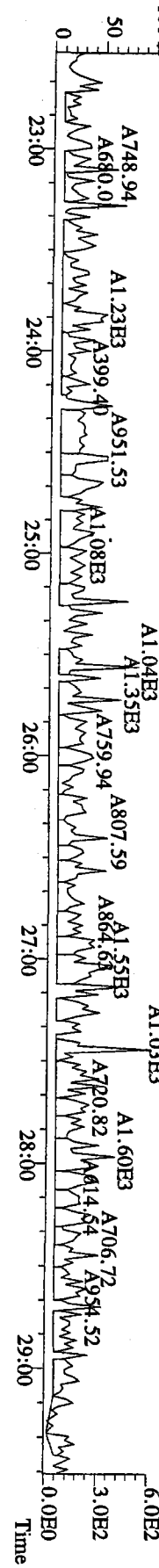
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100%



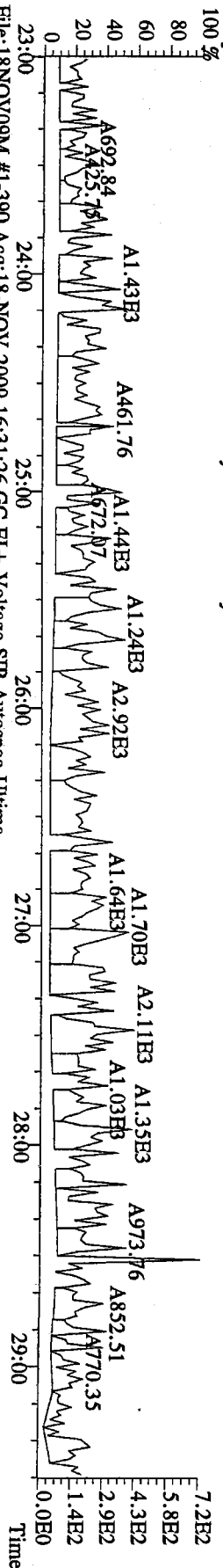
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



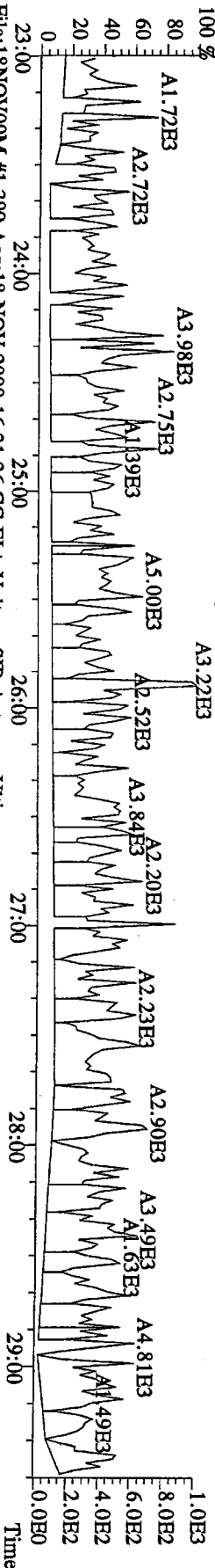
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



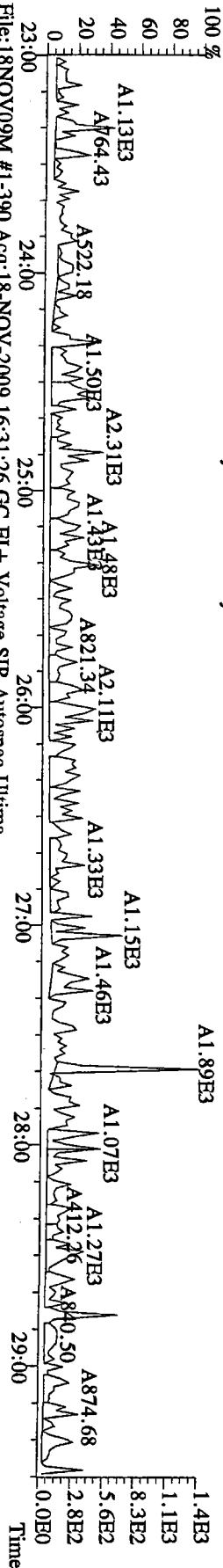
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



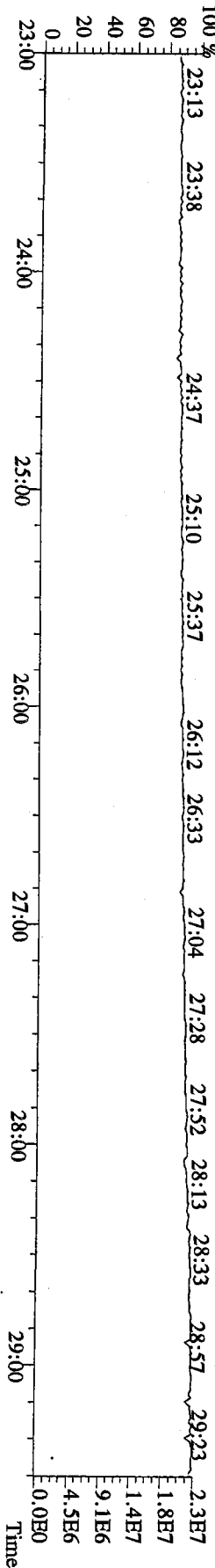
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 341.8568 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



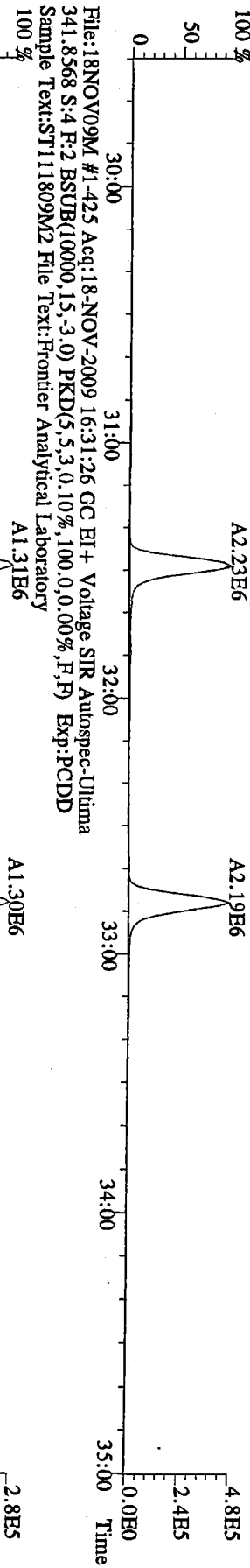
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



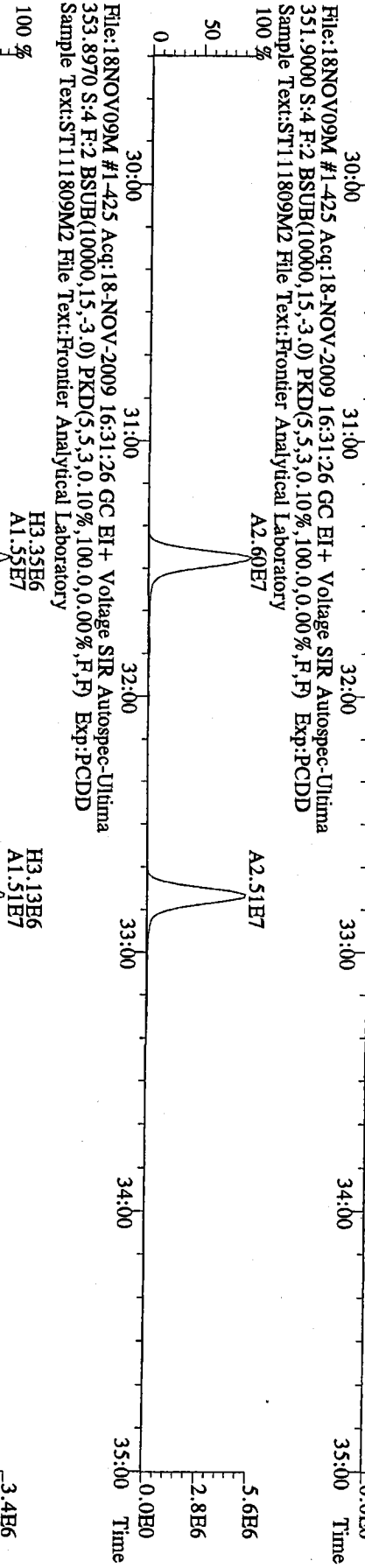
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
 330.9792 S:4 Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



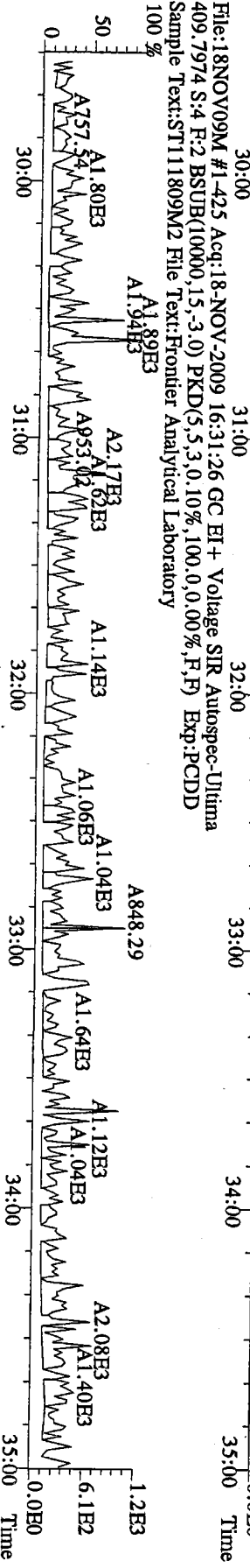
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



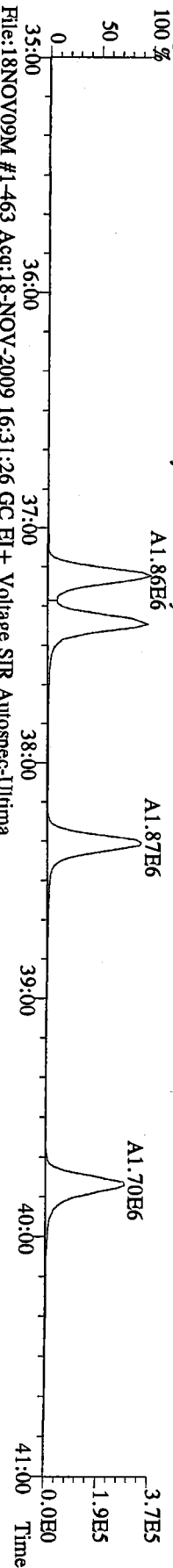
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



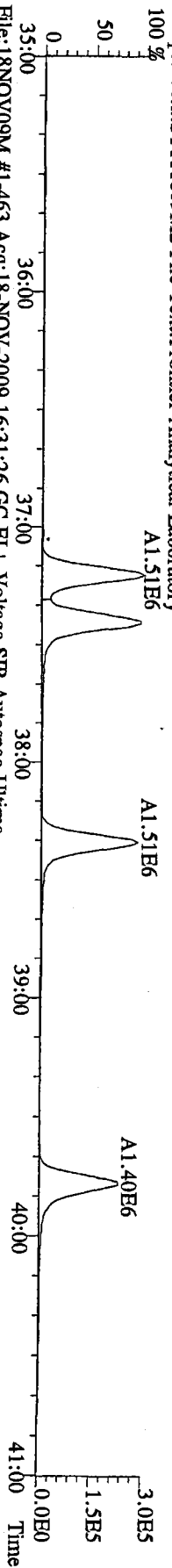
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



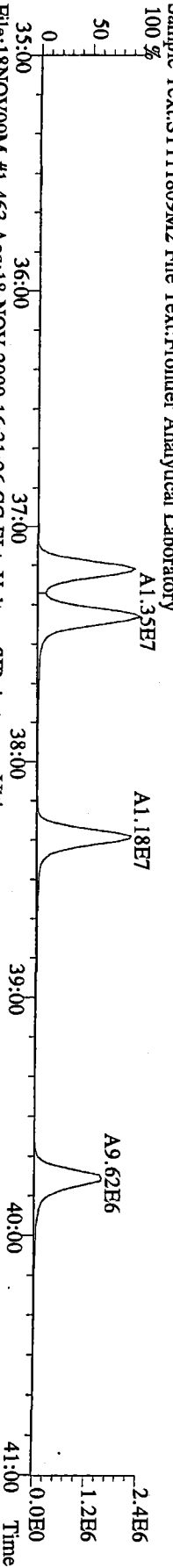
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



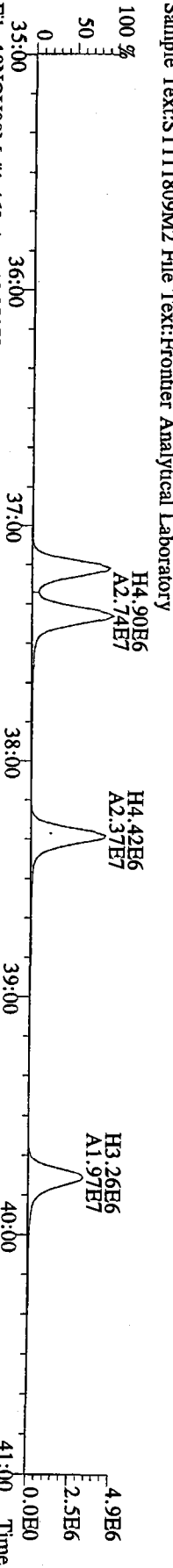
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
375.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



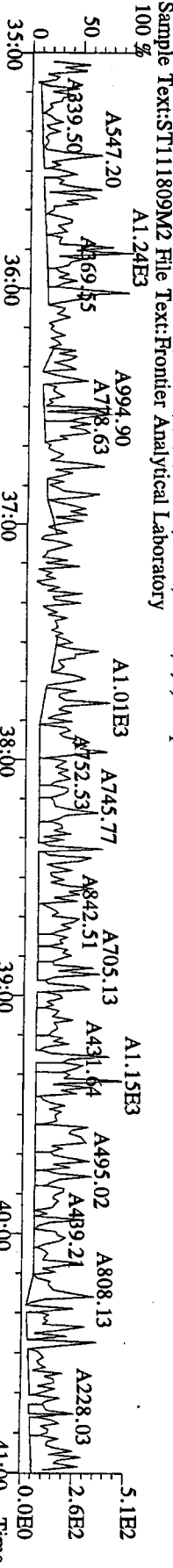
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
445.7555 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M2 File Text:Frontier Analytical Laboratory

100 % A1.41E6  
A1.21E6  
2.6E5  
1.3E5  
0.0E0  
Time

File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M2 File Text:Frontier Analytical Laboratory

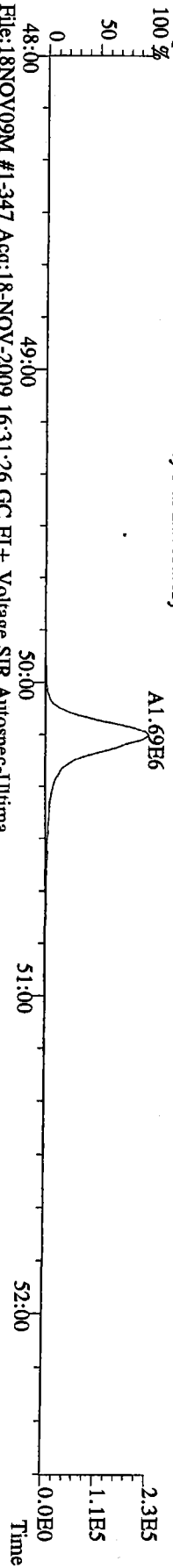
100 % A6.77E6  
A5.02E6  
1.2E6  
6.0E5  
0.0E0  
Time

File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M2 File Text:Frontier Analytical Laboratory

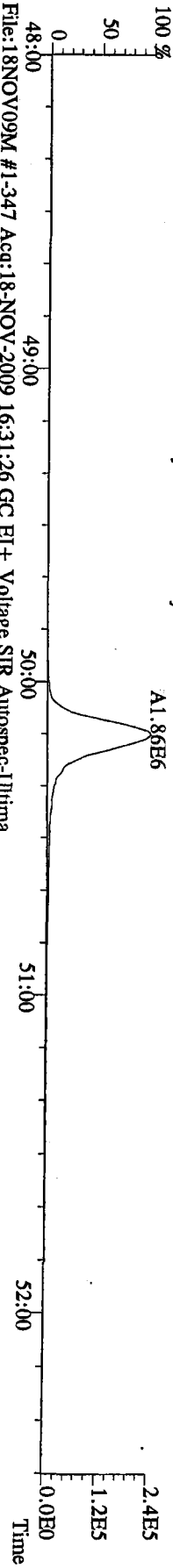
100 % A2.12E3  
A909.26  
A1.11E3  
A1.06E3  
A1.09E3  
A577.63  
A843.86  
A1.11E3  
A516.33  
A1.27E3  
A960.04  
A775.89  
6.4E2  
3.2E2  
0.0E0  
Time

PCDD

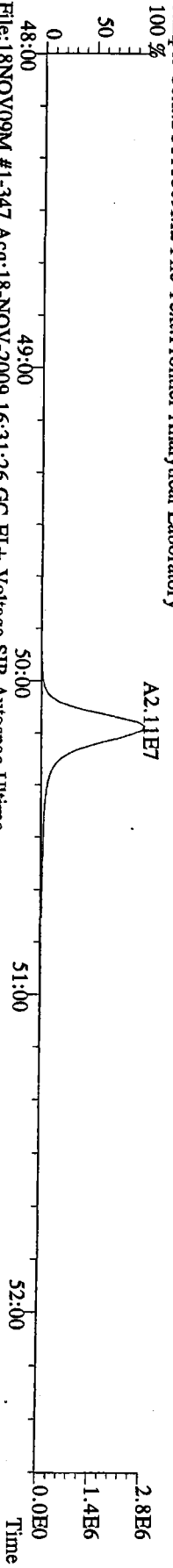
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



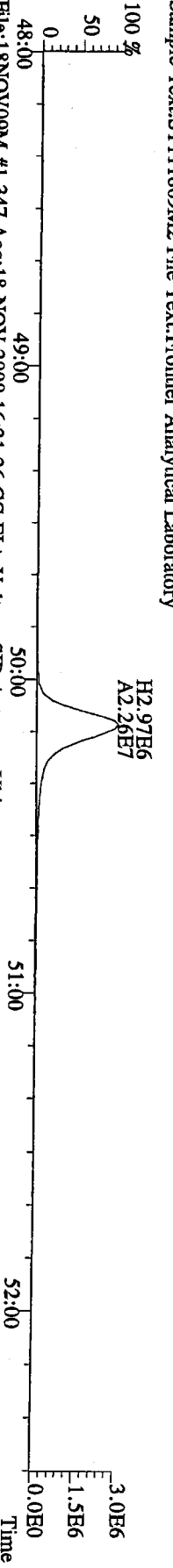
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



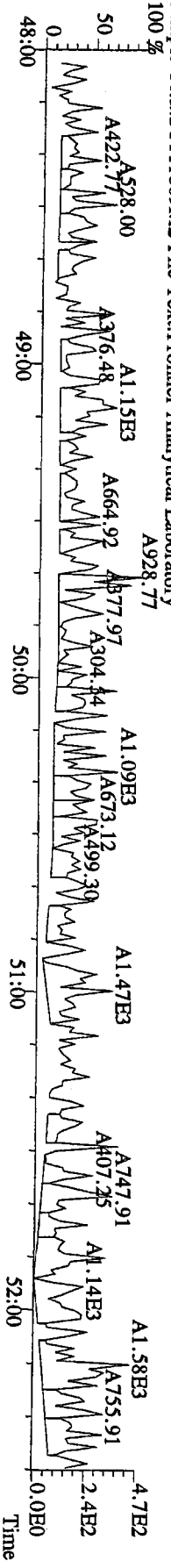
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



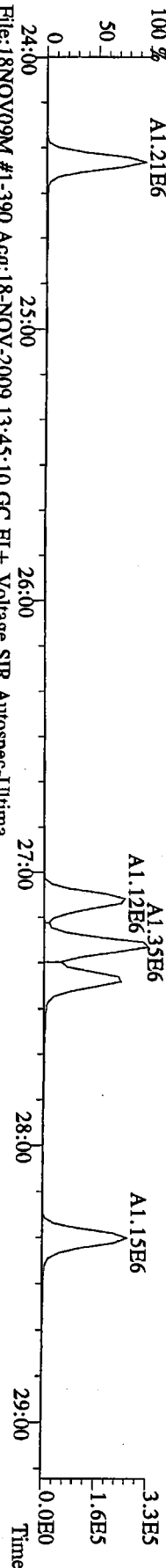
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 455.7801 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



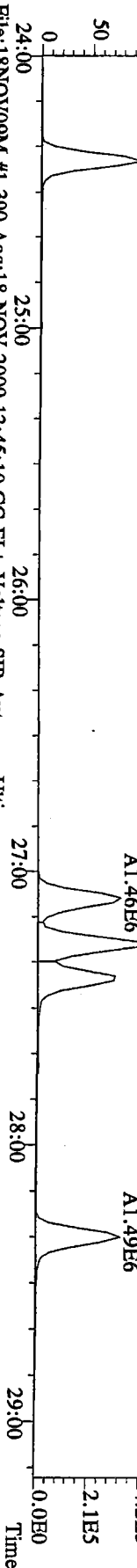
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima  
 513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory  
 100 %



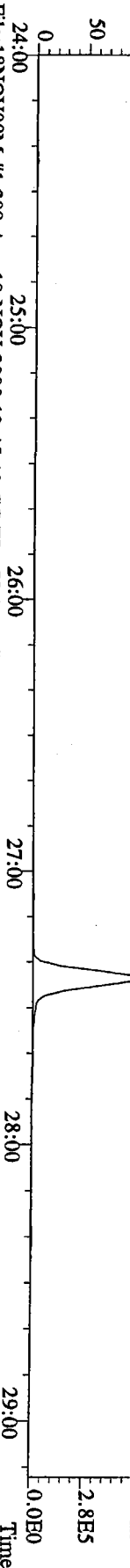
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 % A1.21E6



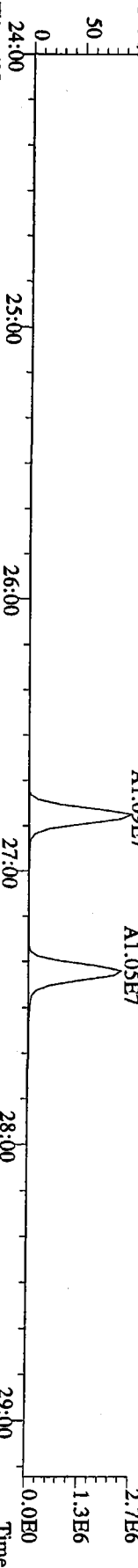
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 % A1.58E6



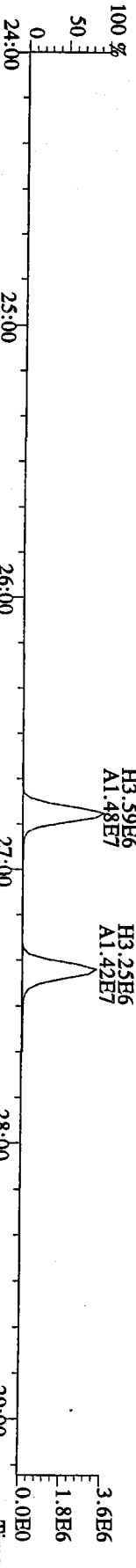
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 % A2.51E6



File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 % A1.09E7



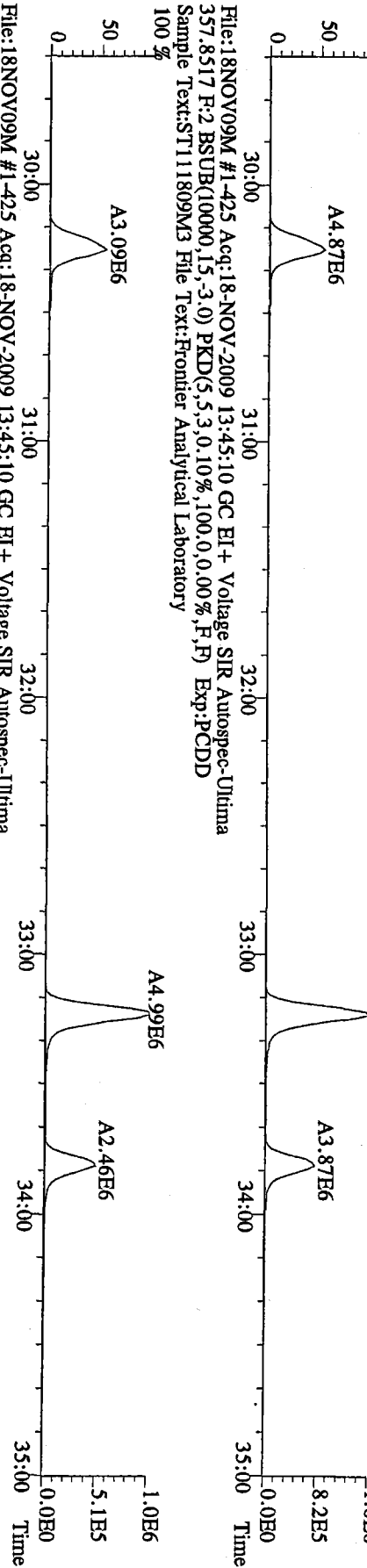
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



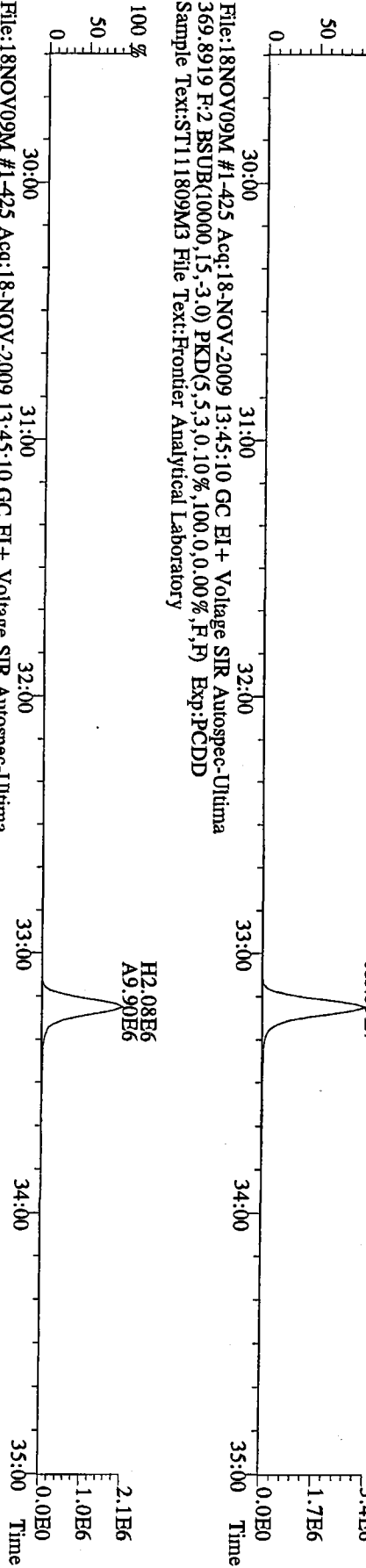
000166 of 000295



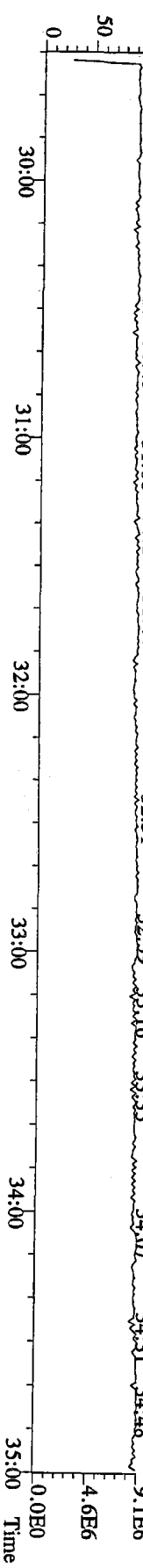
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
 355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



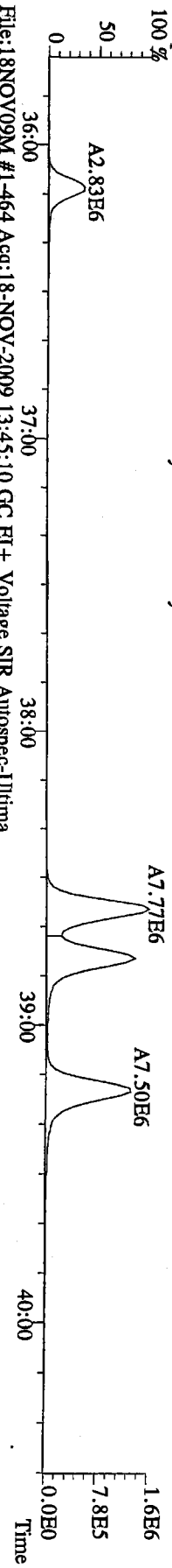
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
 367.8949 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



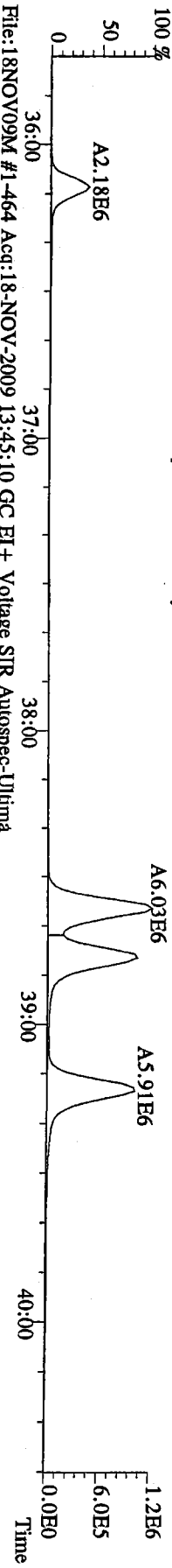
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
 366.9792 F:2 Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



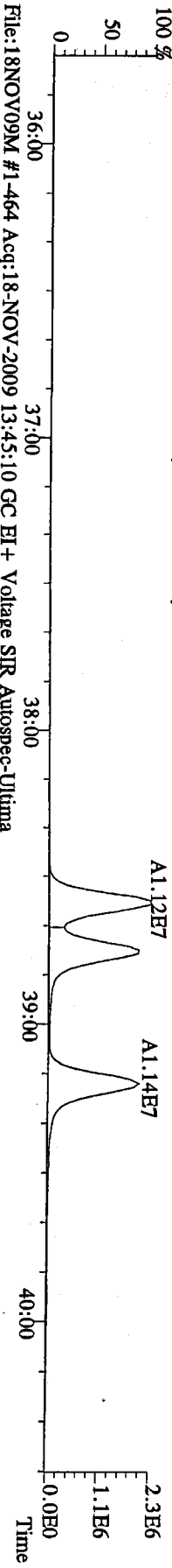
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



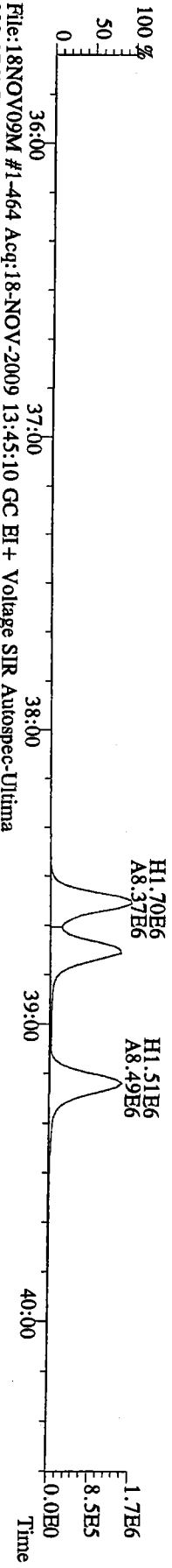
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



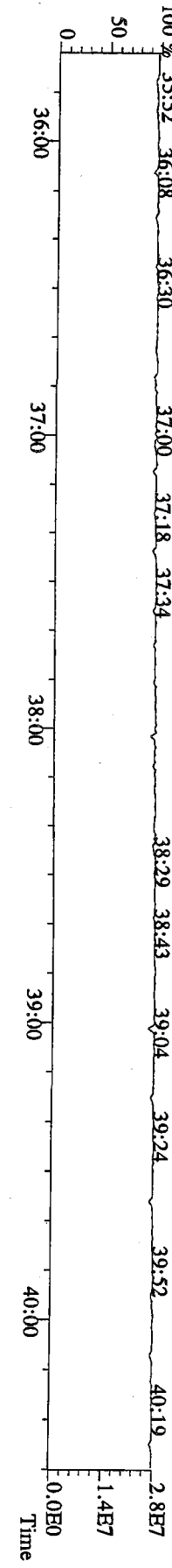
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



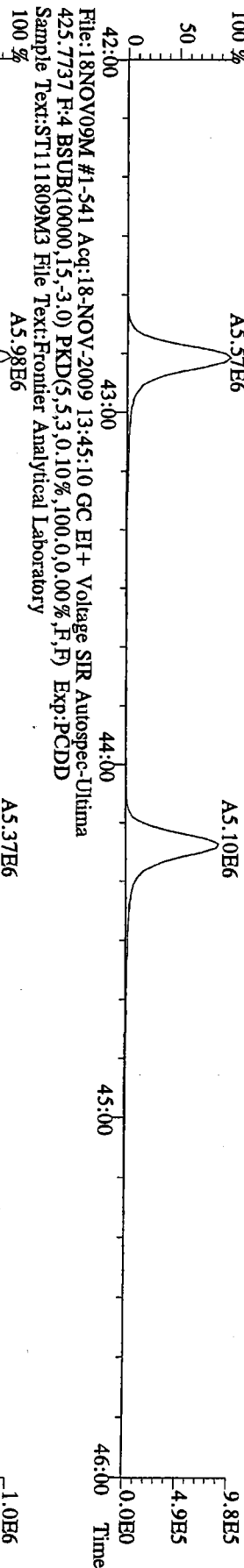
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



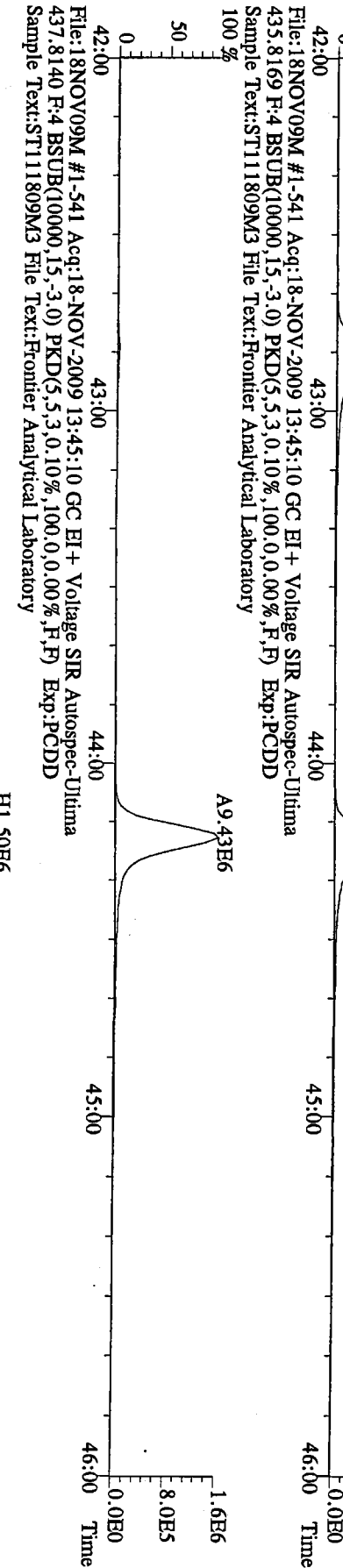
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 F:3 Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



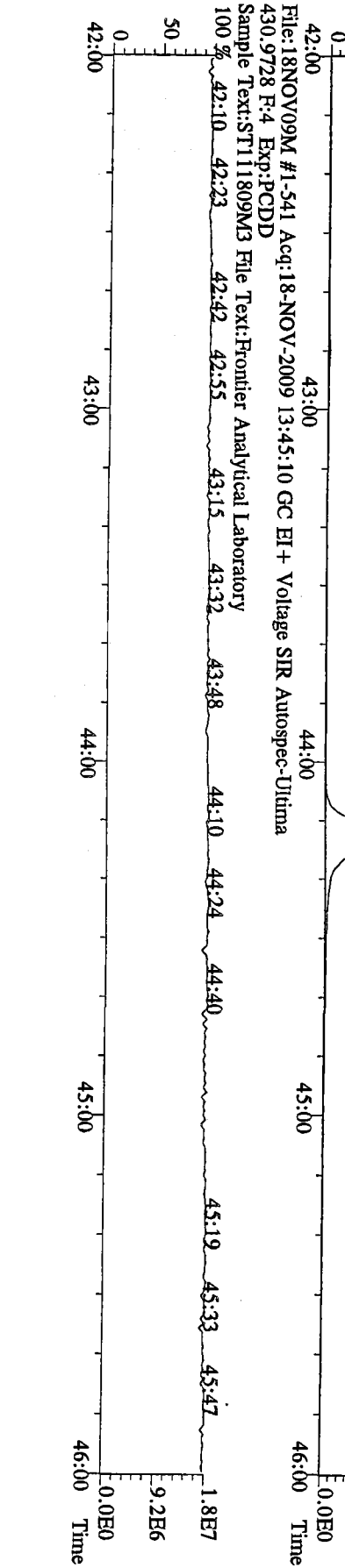
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



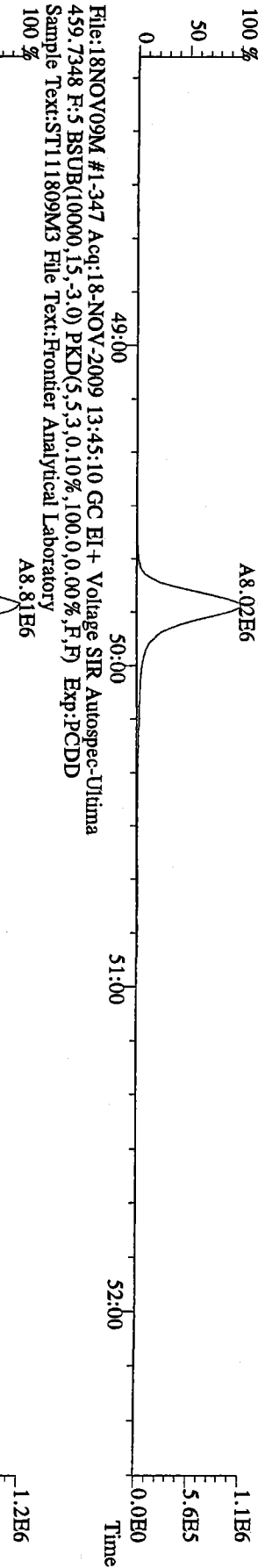
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 F:4 Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

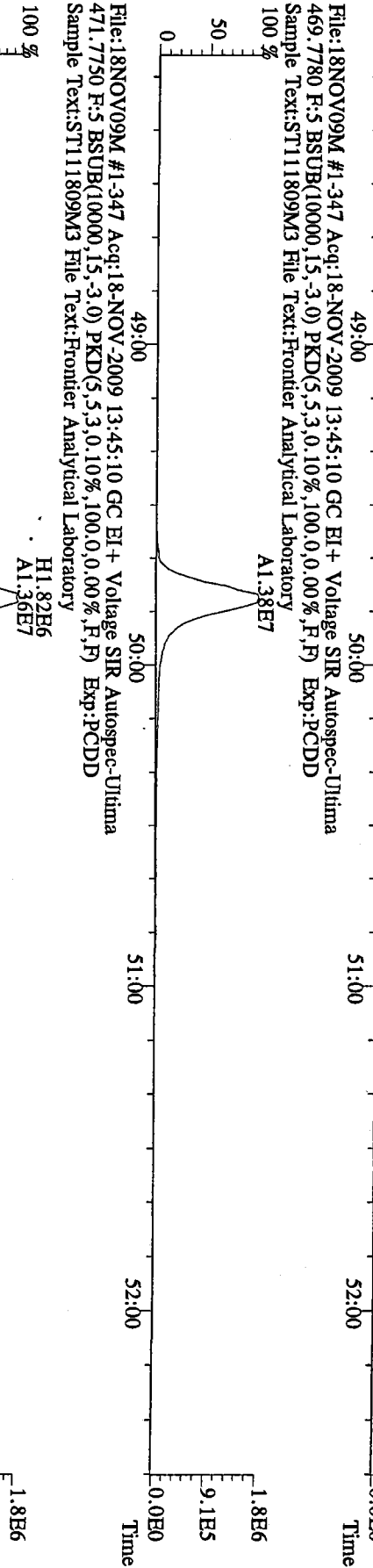


File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,0,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %

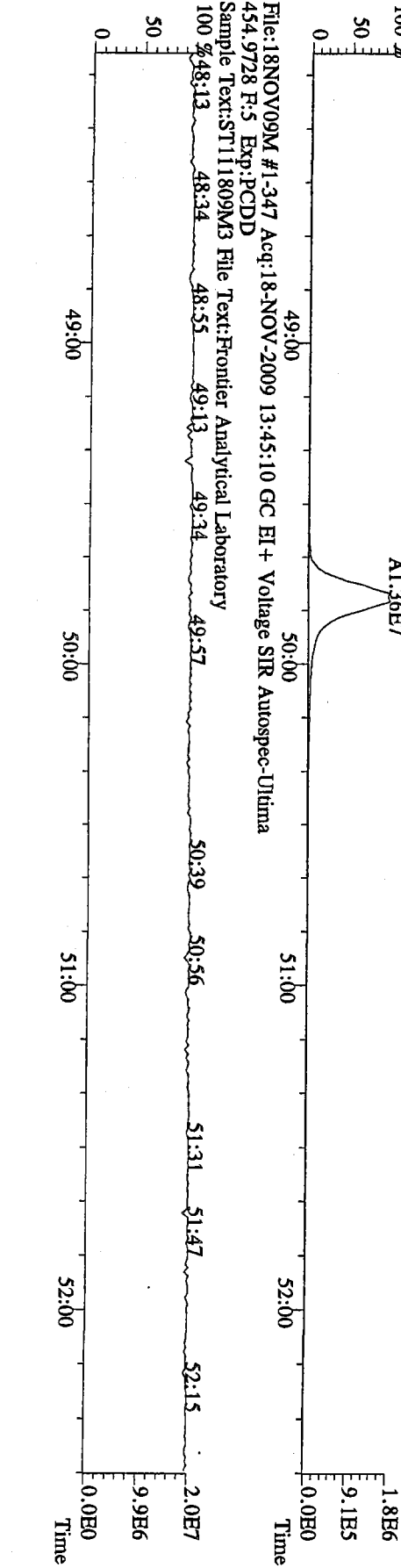


000170 of 000295

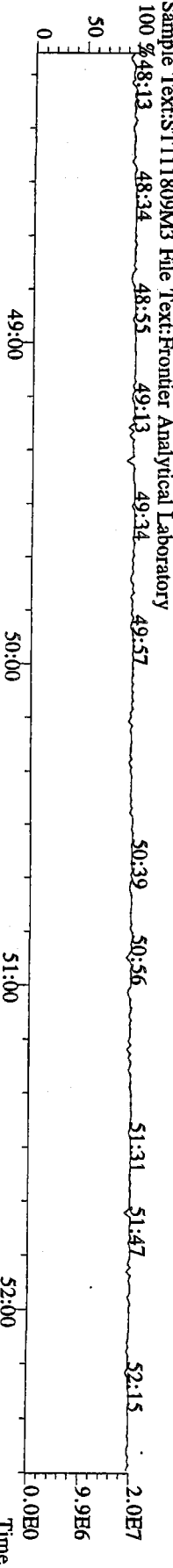
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



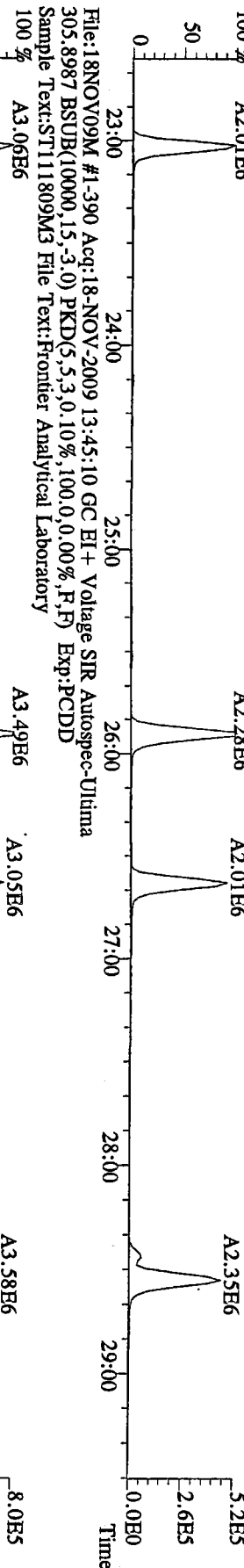
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



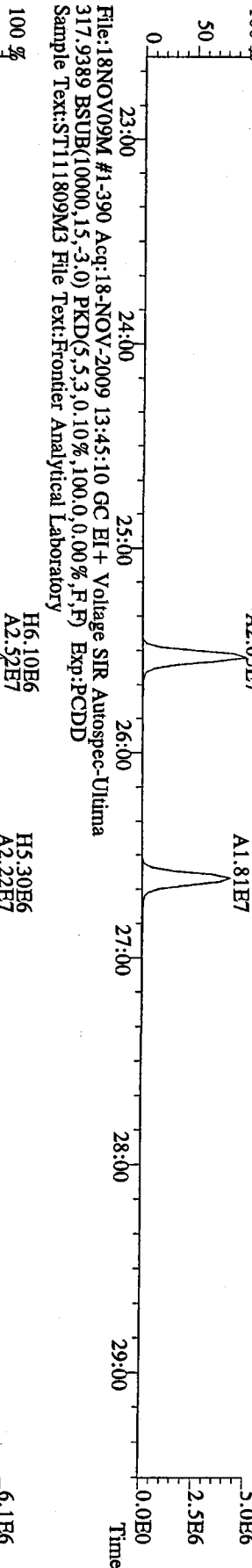
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 454.9728 F:5 Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



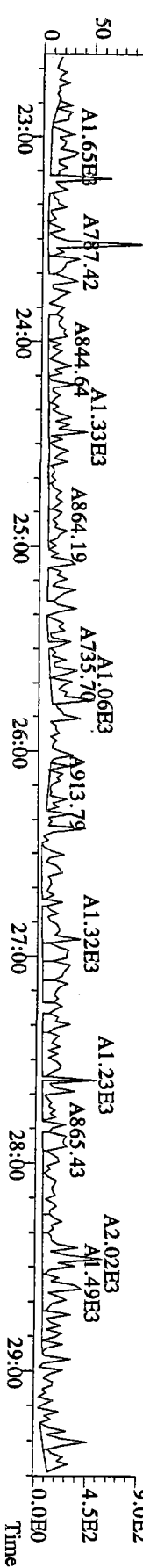
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

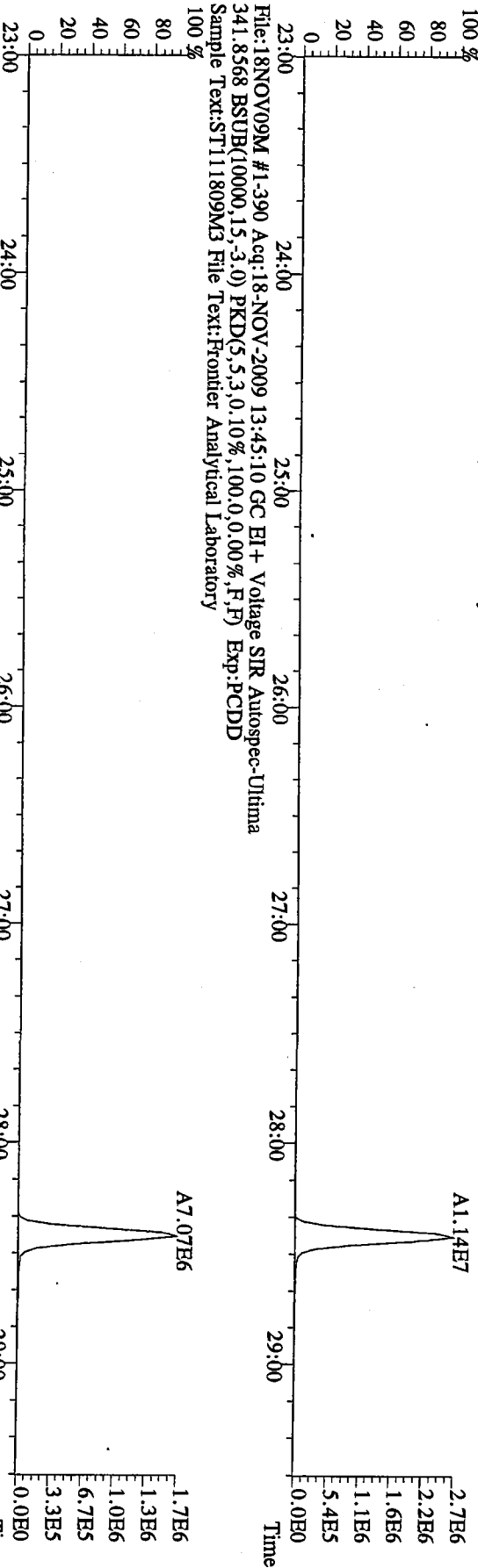


File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
 375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

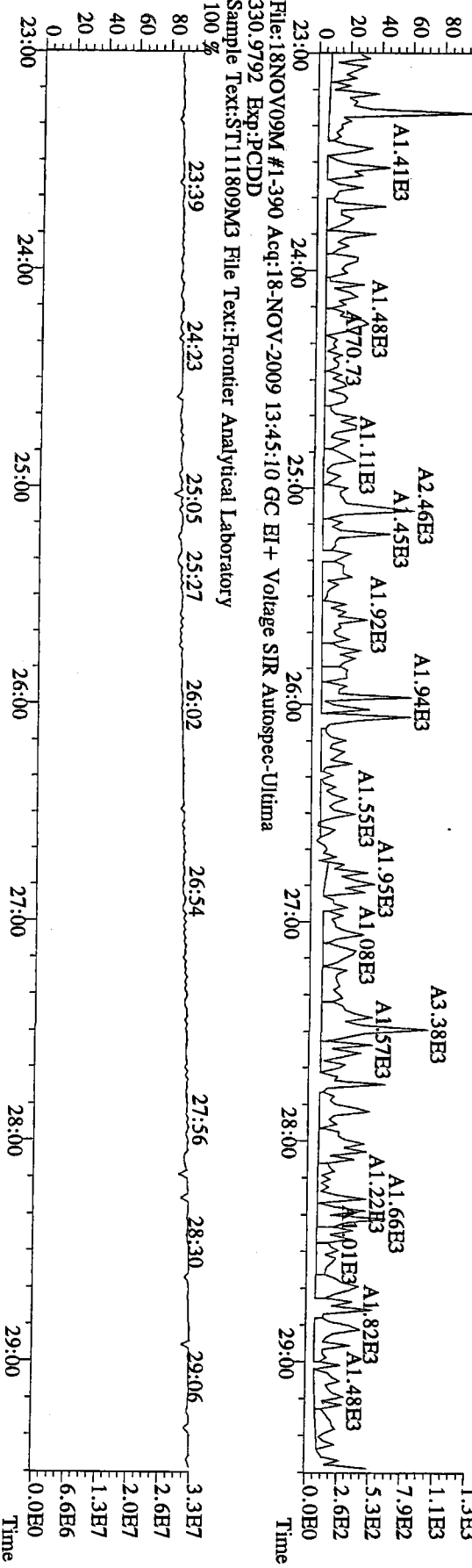


18 NOV 2009 13:45:10

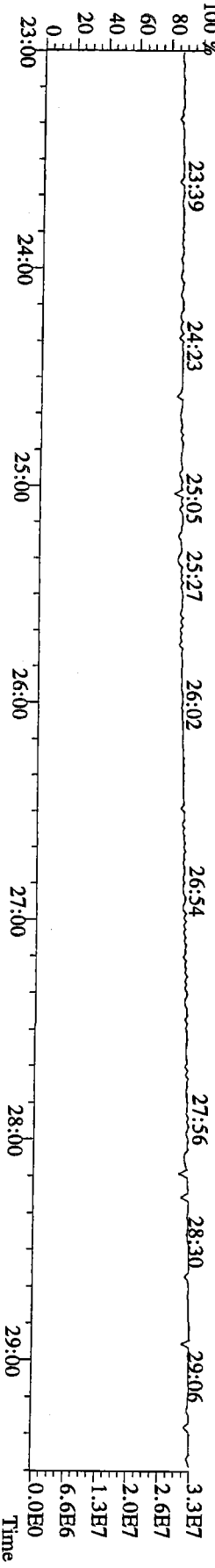
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
339.8597 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



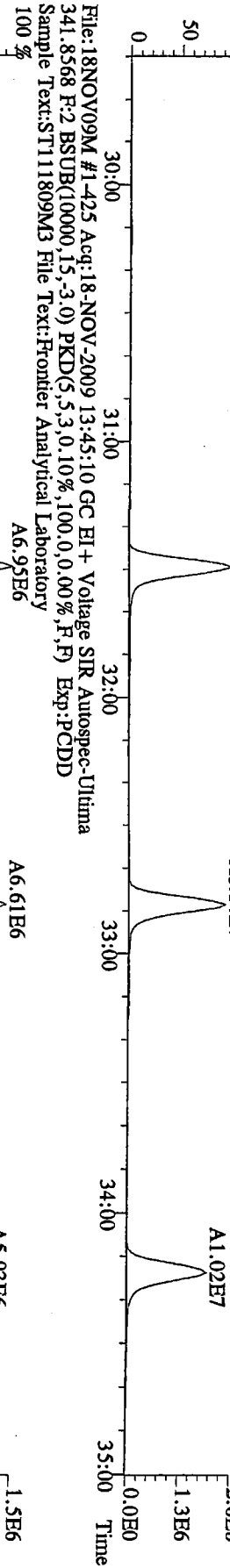
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
409.7974 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



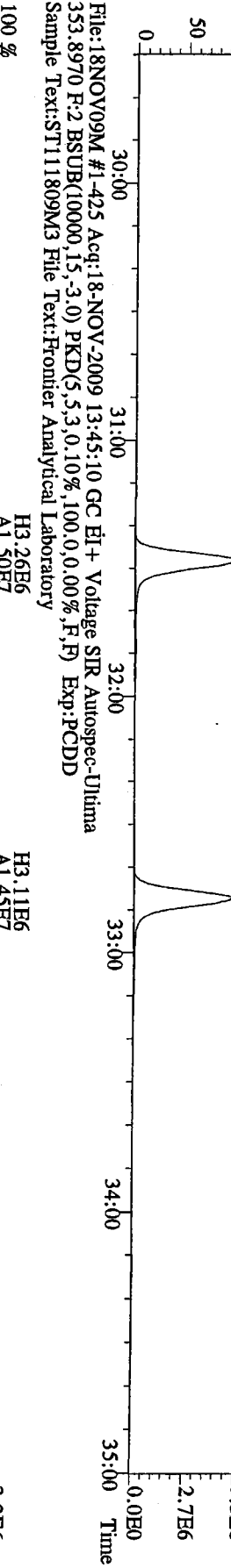
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utima  
330.9792 Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



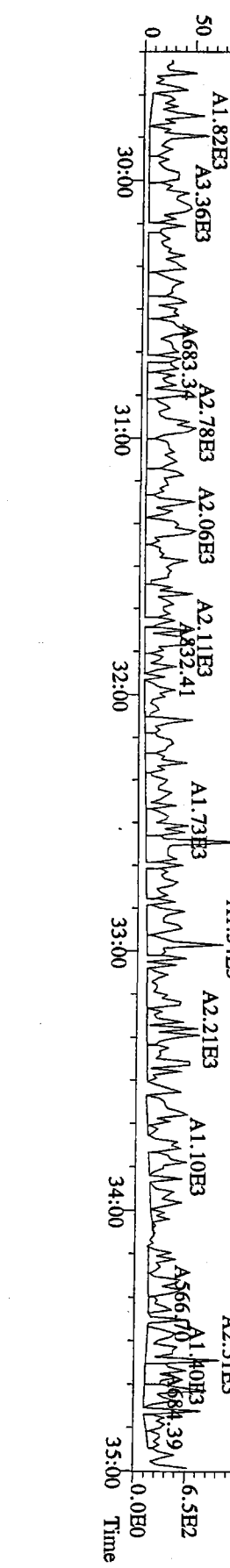
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 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:ST111809M3 File Text:Frontier Analytical Laboratory

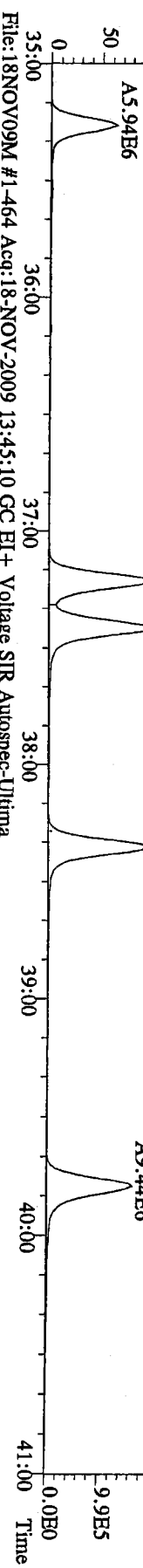


File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

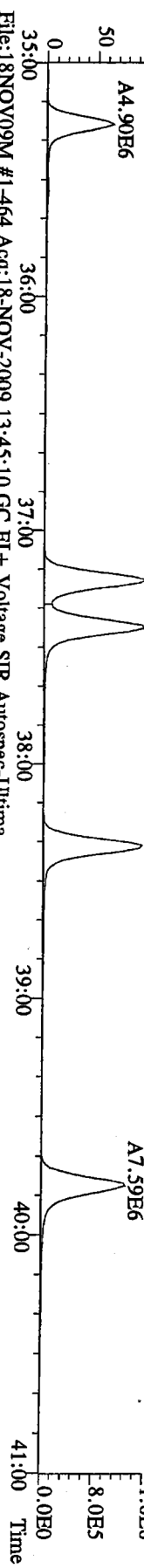


18 11 2009 13:45:10

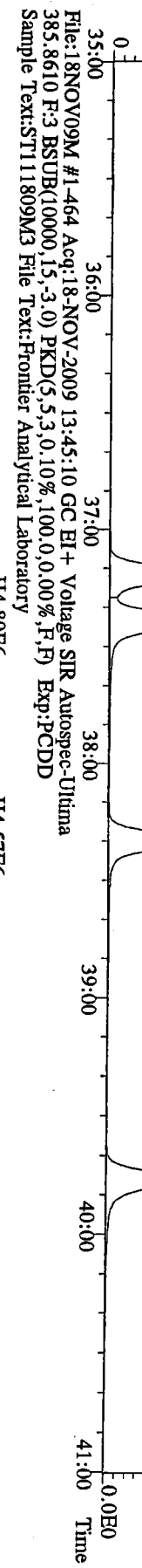
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



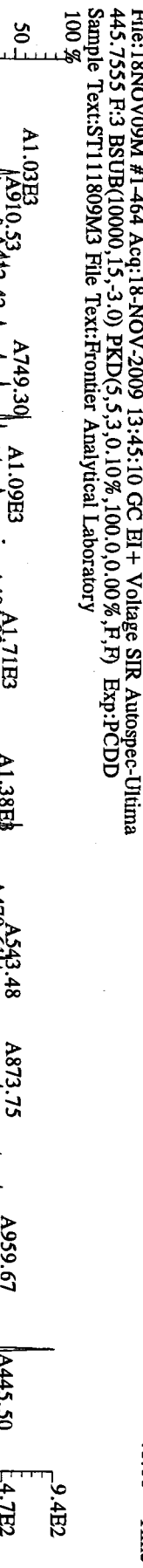
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

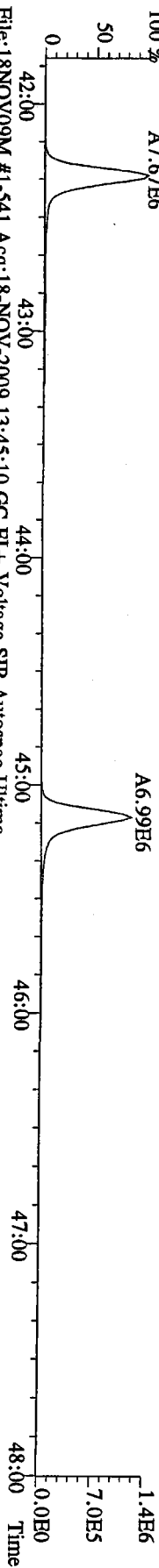


File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Utlima  
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

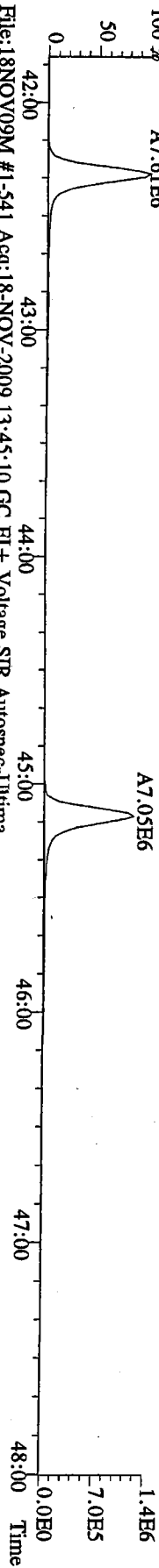




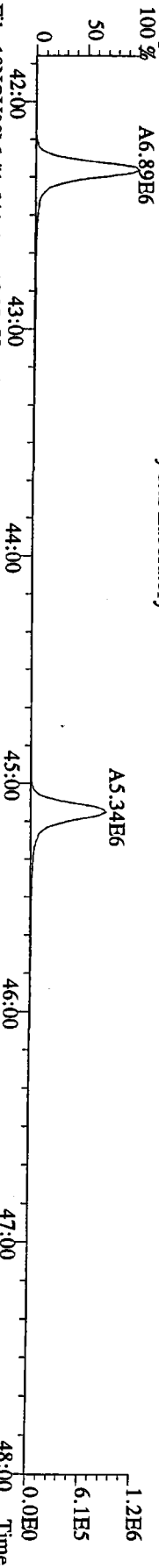
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



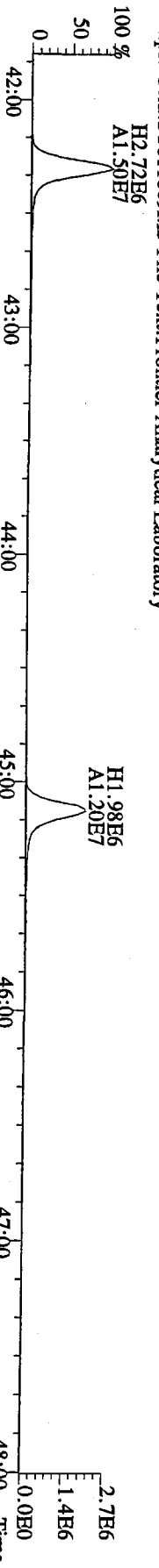
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



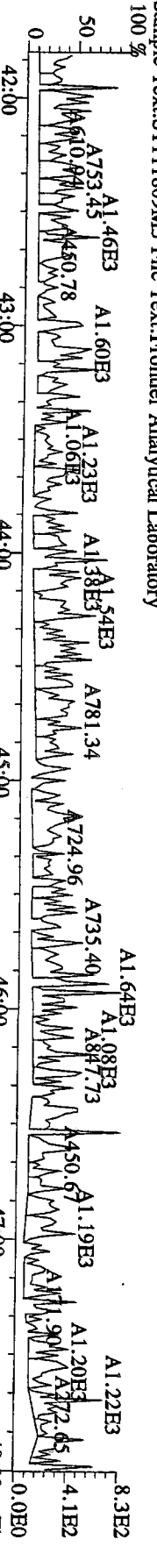
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



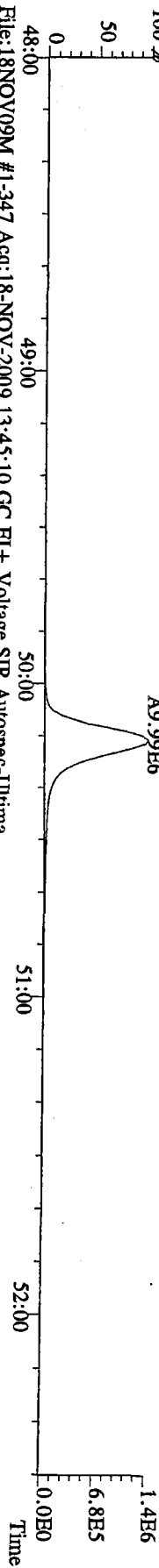
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



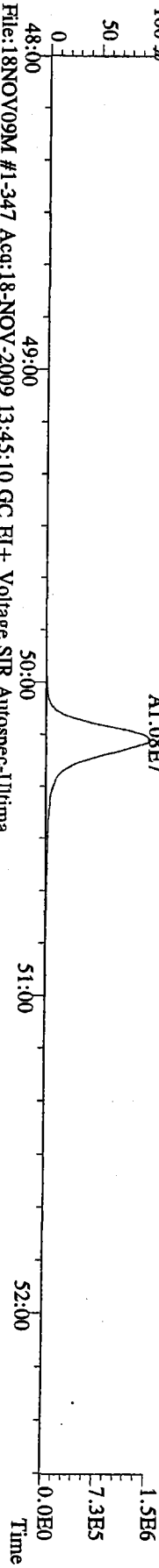
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



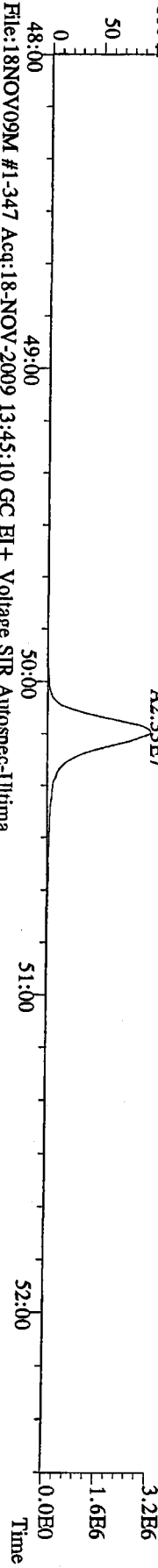
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



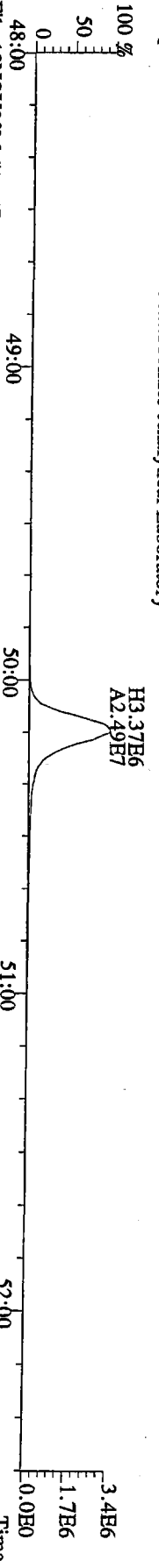
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



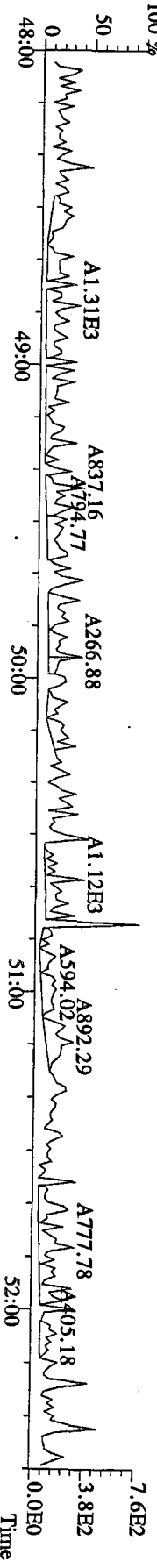
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



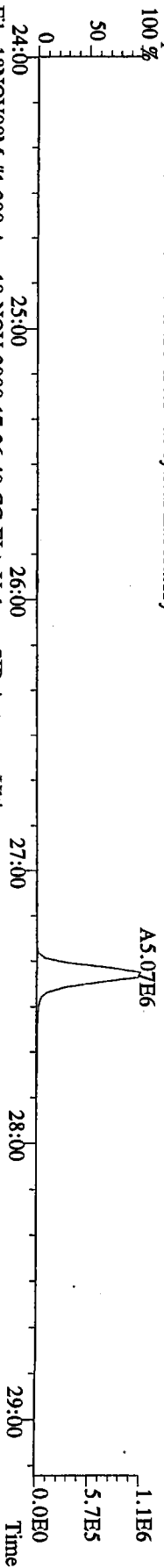
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



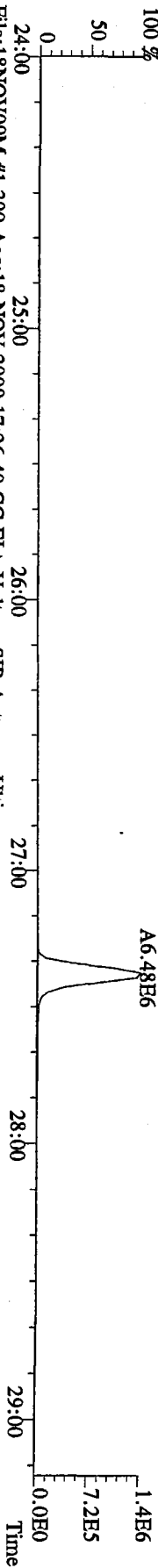
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima  
 513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory  
 100 %



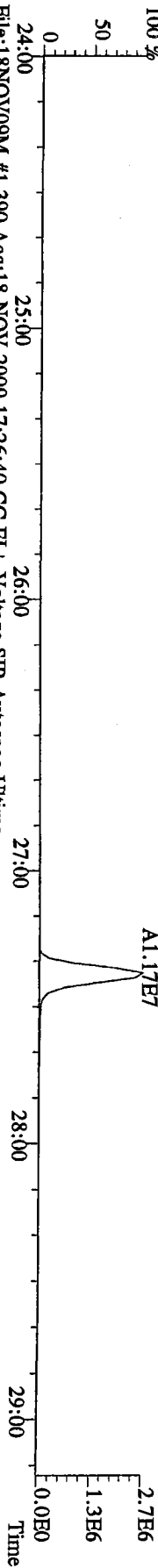
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 319.8965 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



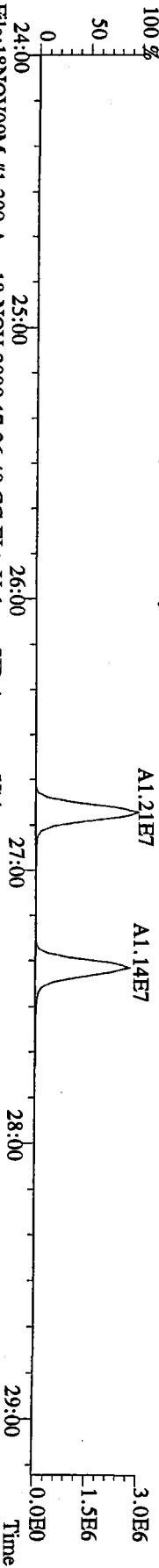
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 321.8936 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



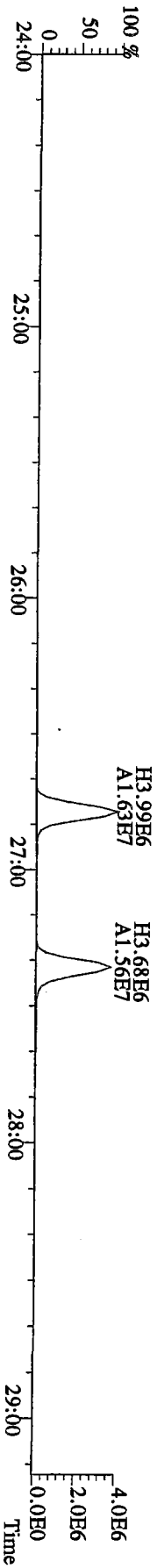
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 327.8847 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M4 File Text:Frontier Analytical Laboratory  
 100 %

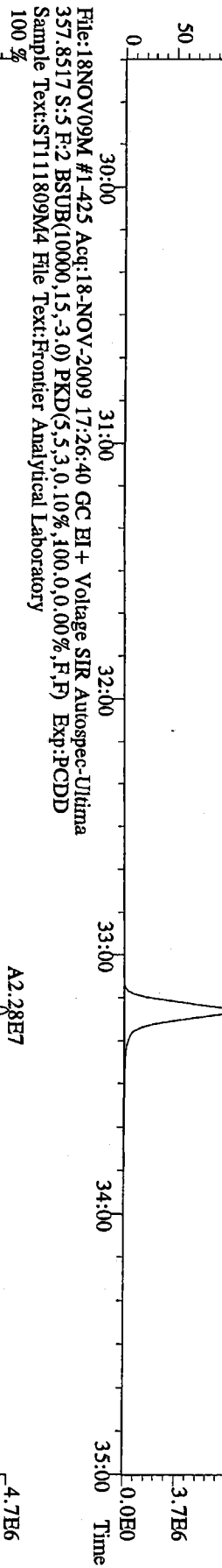


File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 333.9339 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

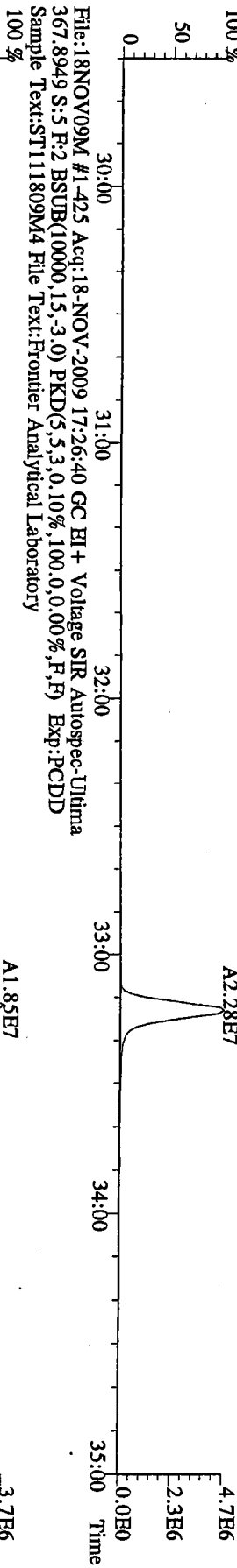


0000000000

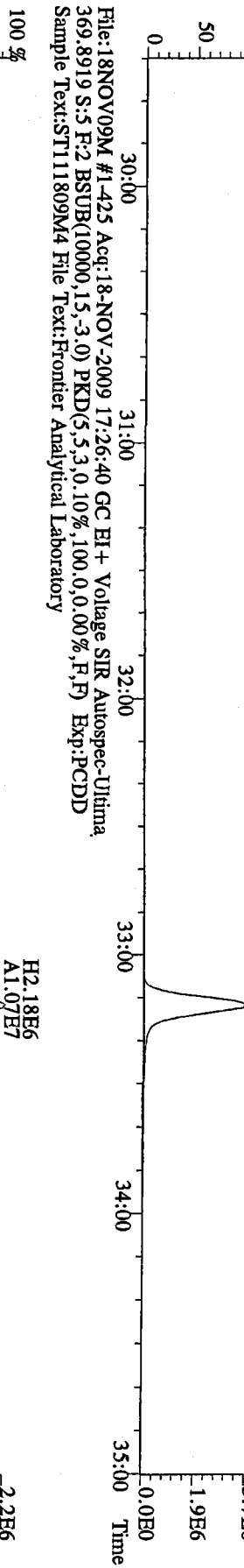
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



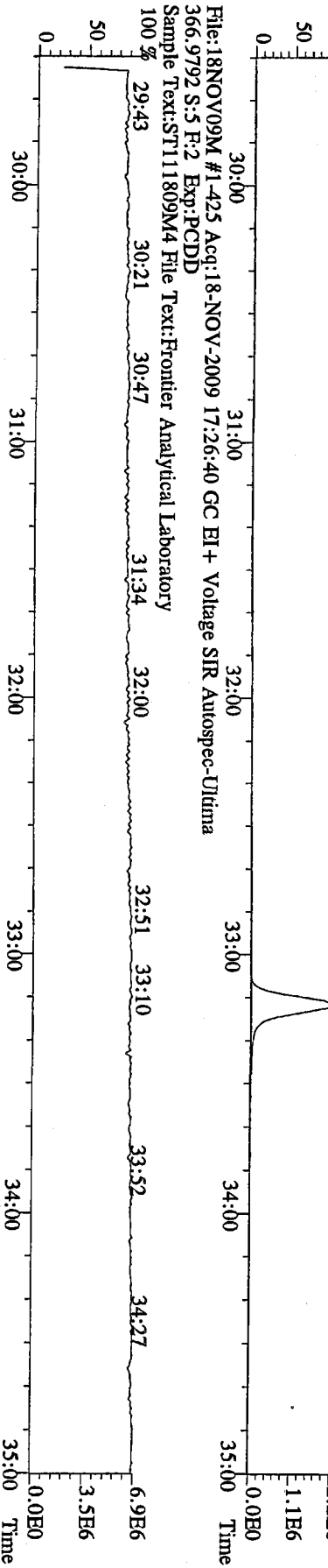
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
357.8517 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



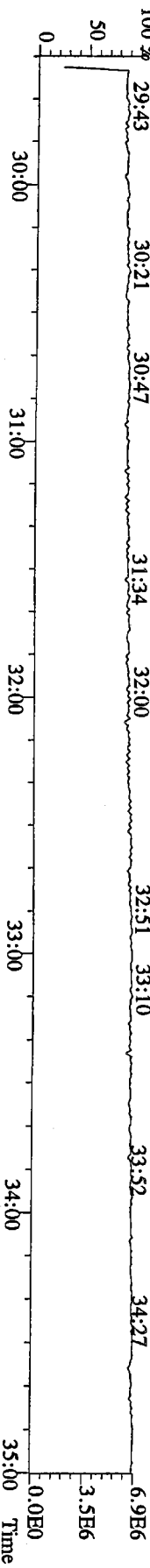
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



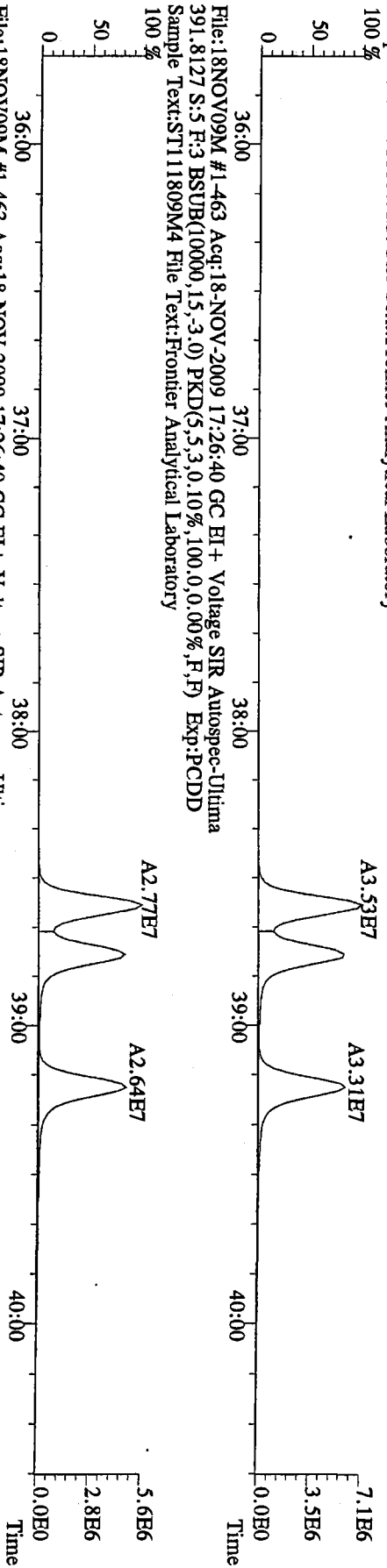
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
369.8919 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



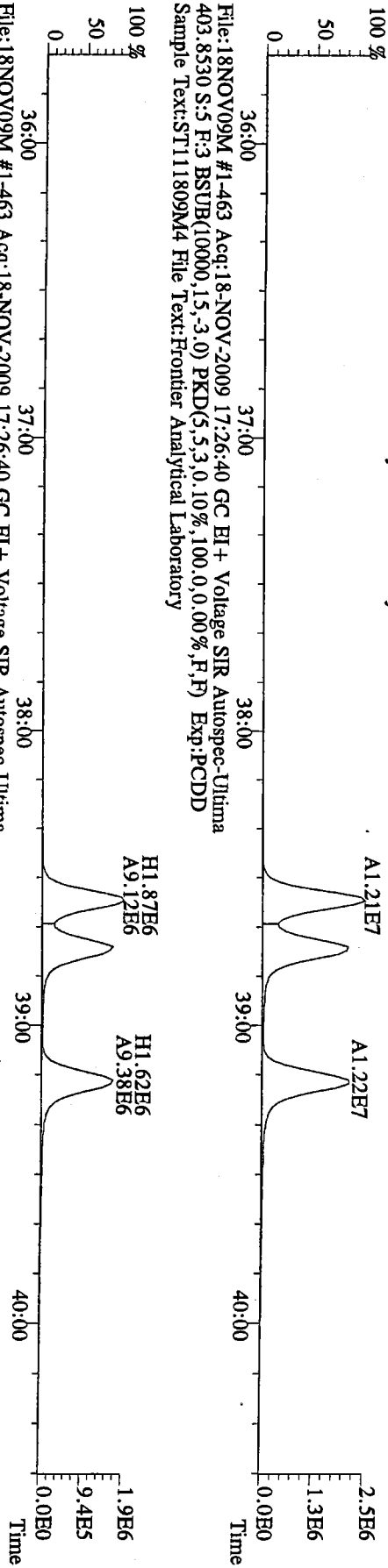
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
366.9792 S:5 F:2 Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



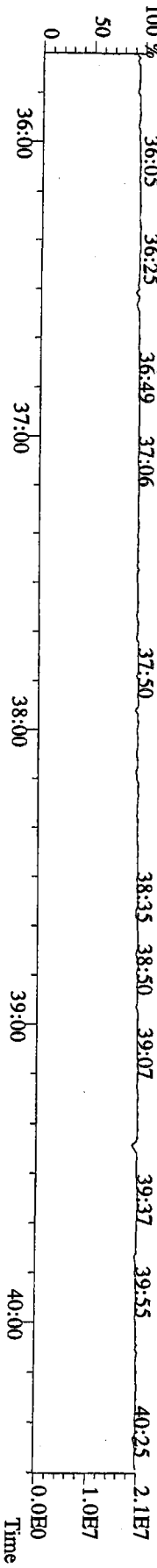
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %

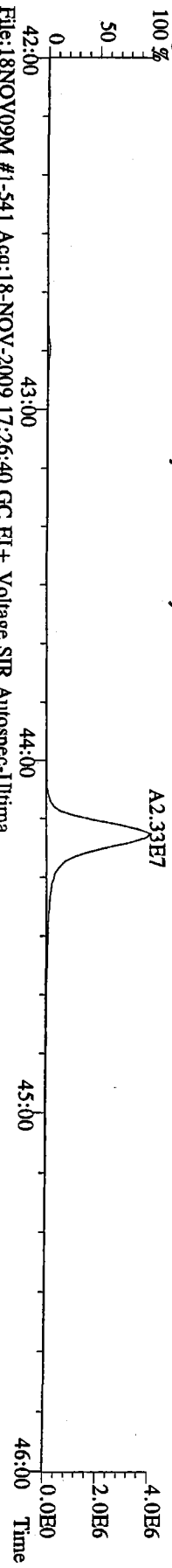


File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
380.9760 S:5 F:3 Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %

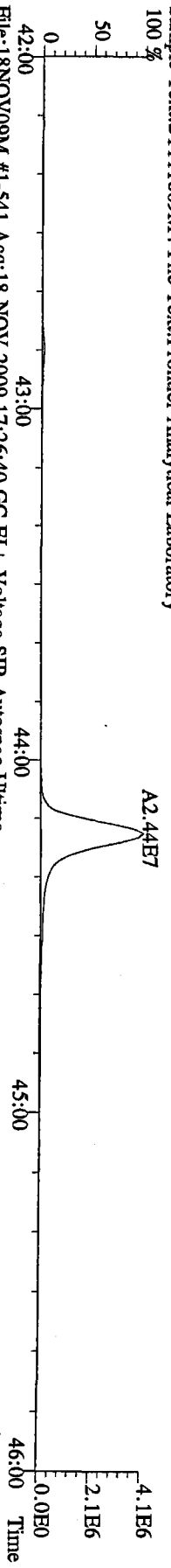


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

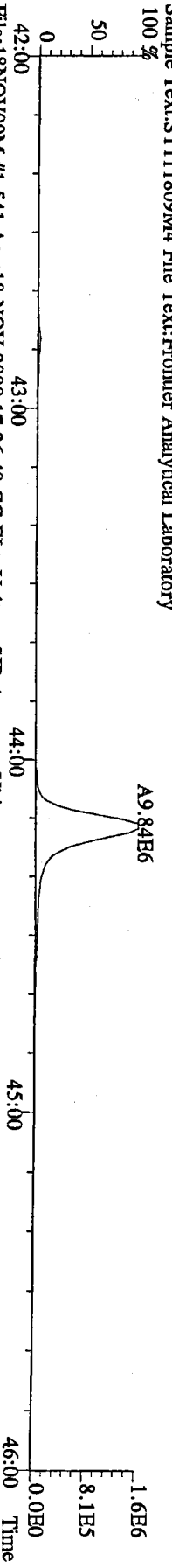
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



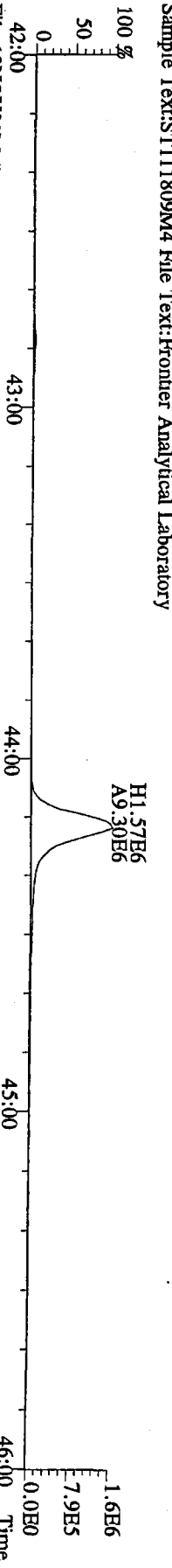
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
425.7737 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



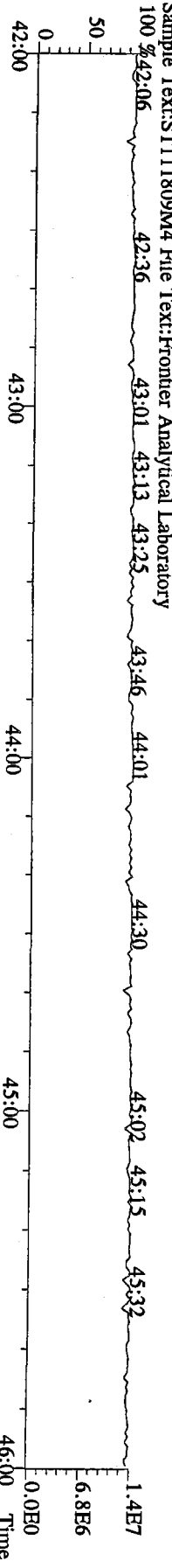
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



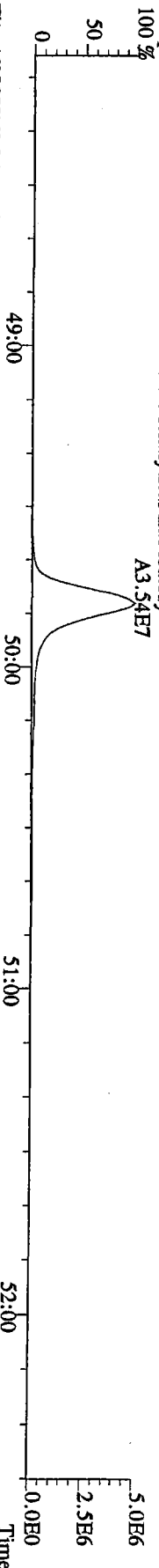
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
437.8140 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



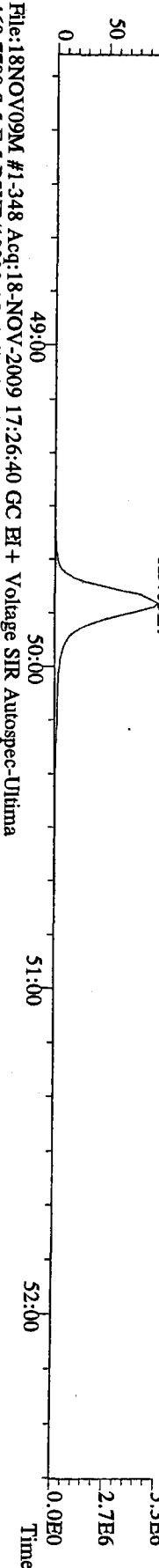
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 S:5 F:4 Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



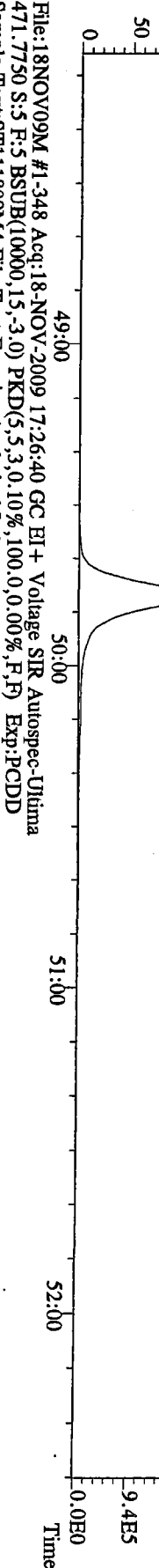
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



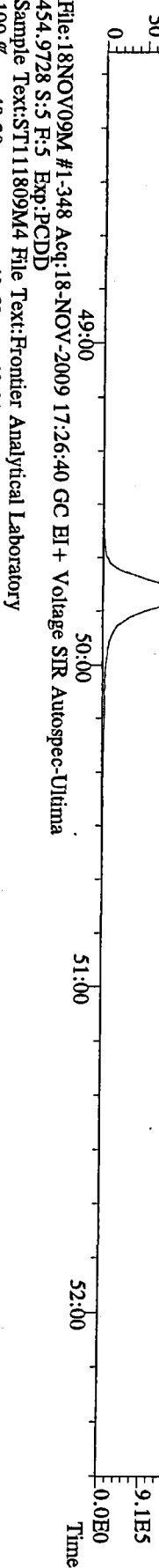
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



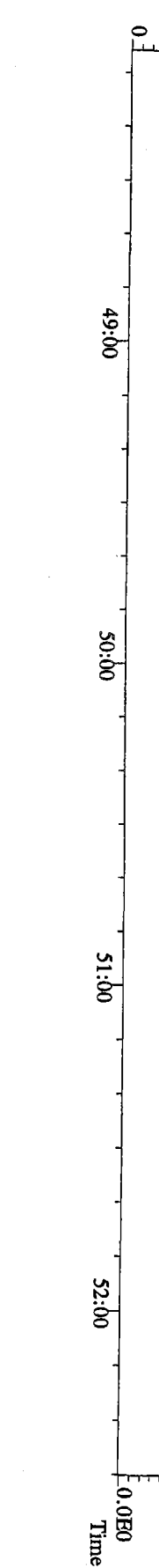
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



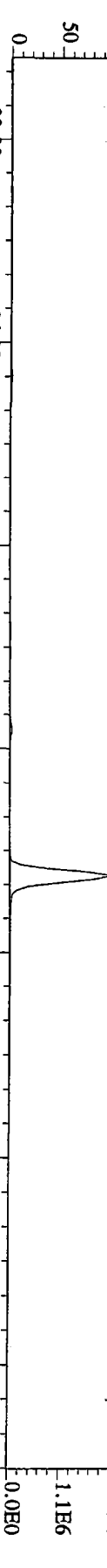
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
454.9728 S:5 F:5 Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M4 File Text:Frontier Analytical Laboratory



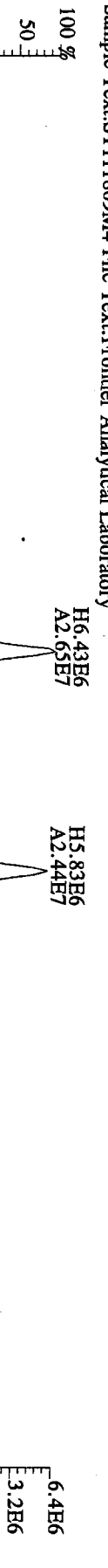
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



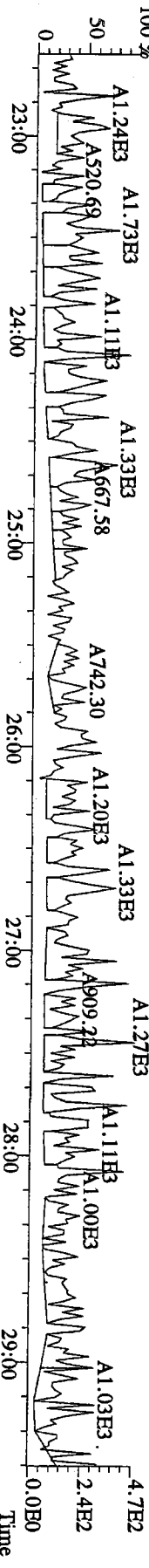
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M4 File Text:Frontier Analytical Laboratory

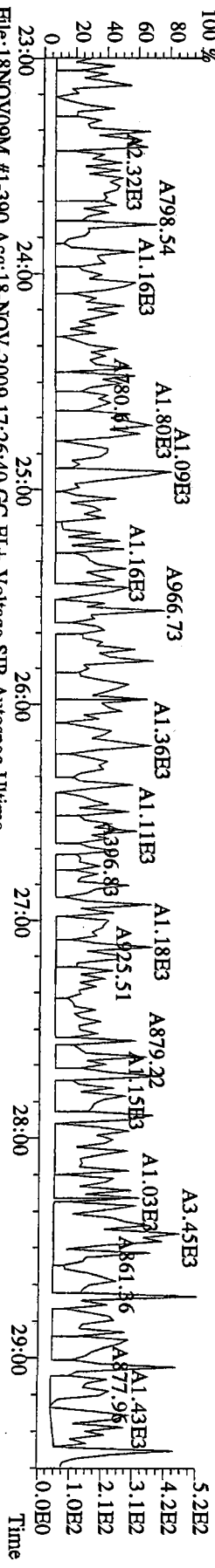


File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

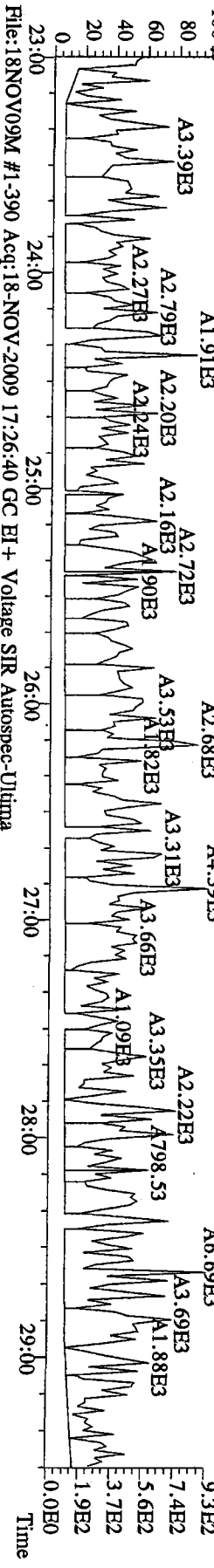




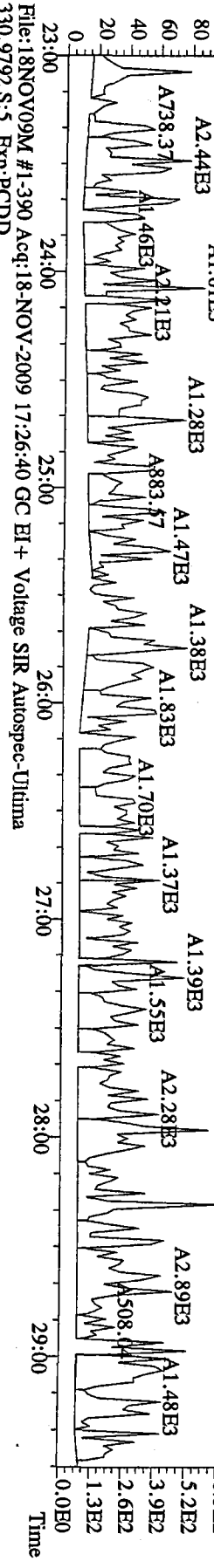
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



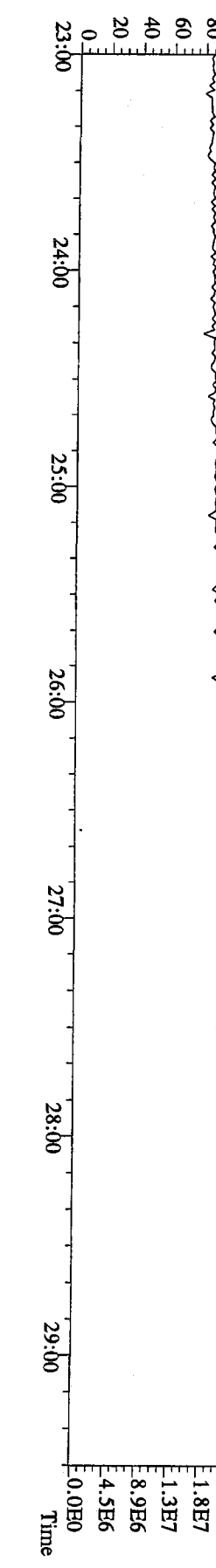
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 341.8568 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M4 File Text:Frontier Analytical Laboratory

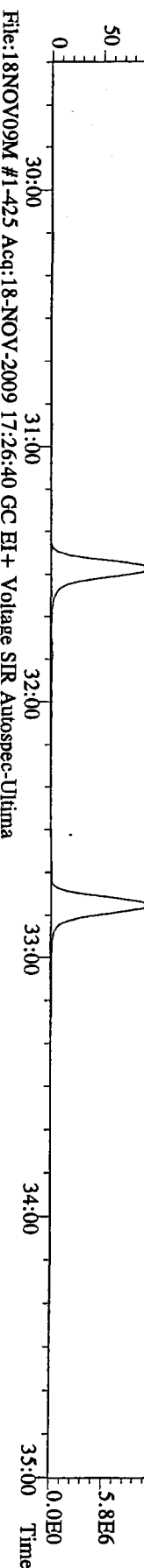


File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 330.9792 S:5 Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

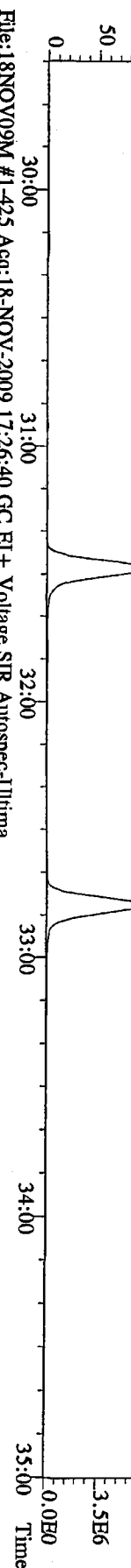


11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

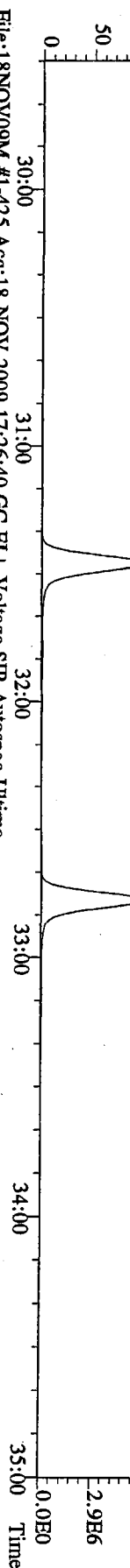
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



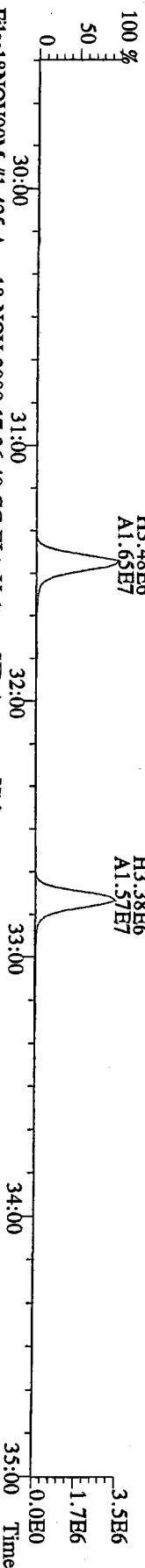
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



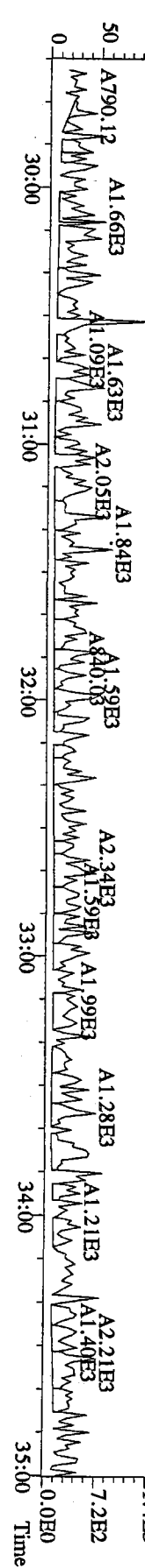
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



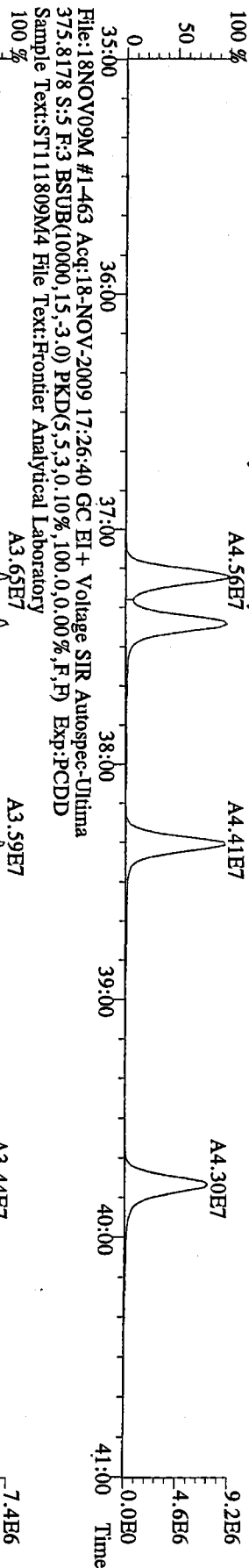
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 353.8970 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



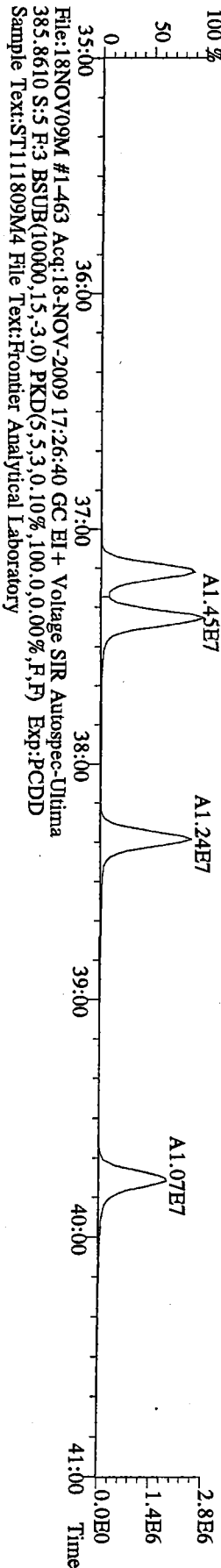
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



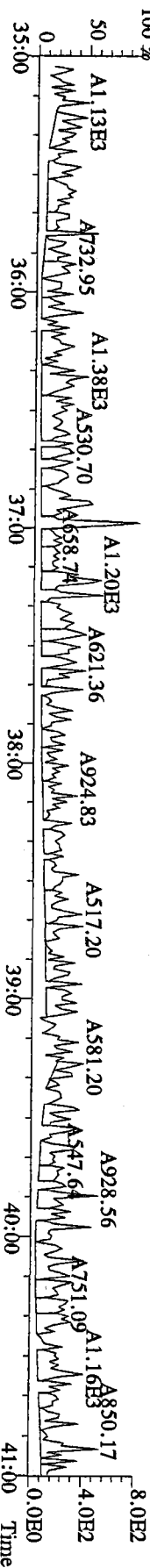
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
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:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %

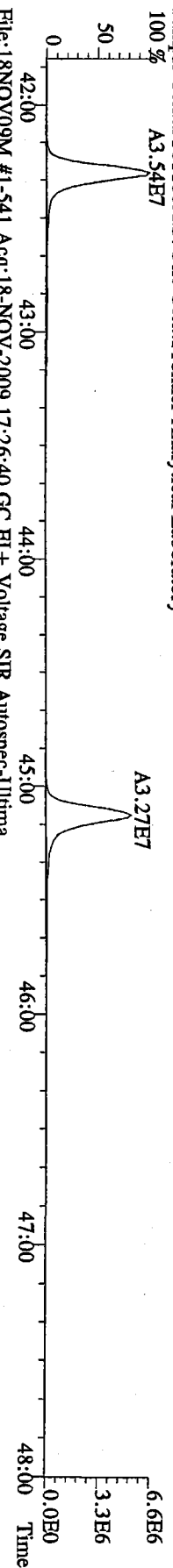


File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %

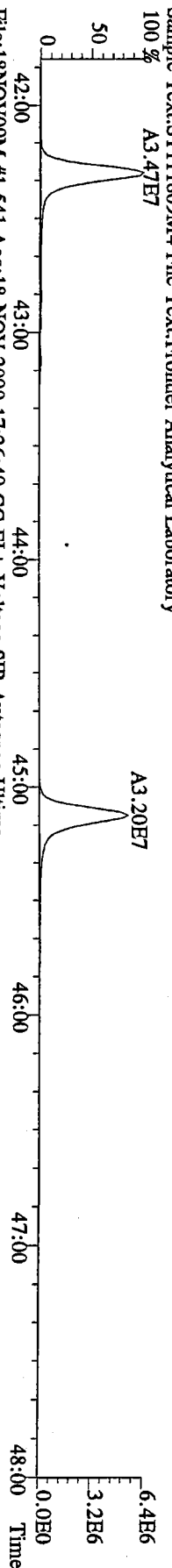


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

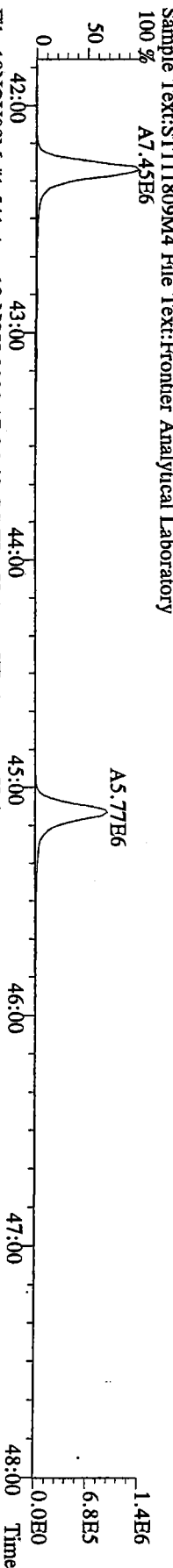
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC BI + Voltage SIR Autospec-Utima  
 407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



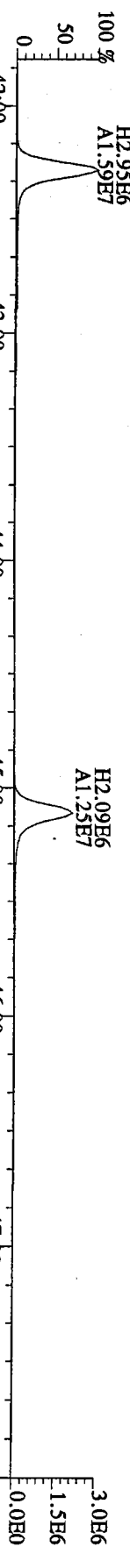
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC BI + Voltage SIR Autospec-Utima  
 409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



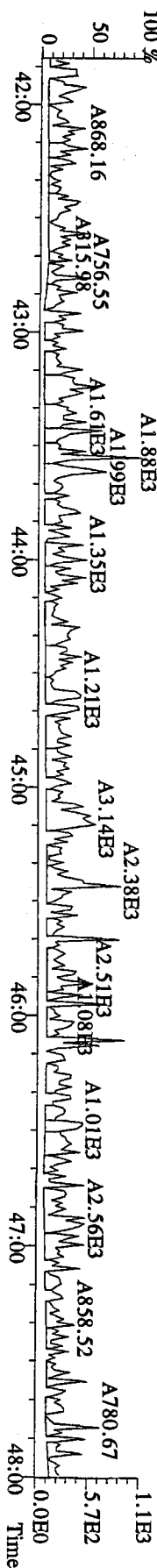
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC BI + Voltage SIR Autospec-Utima  
 417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



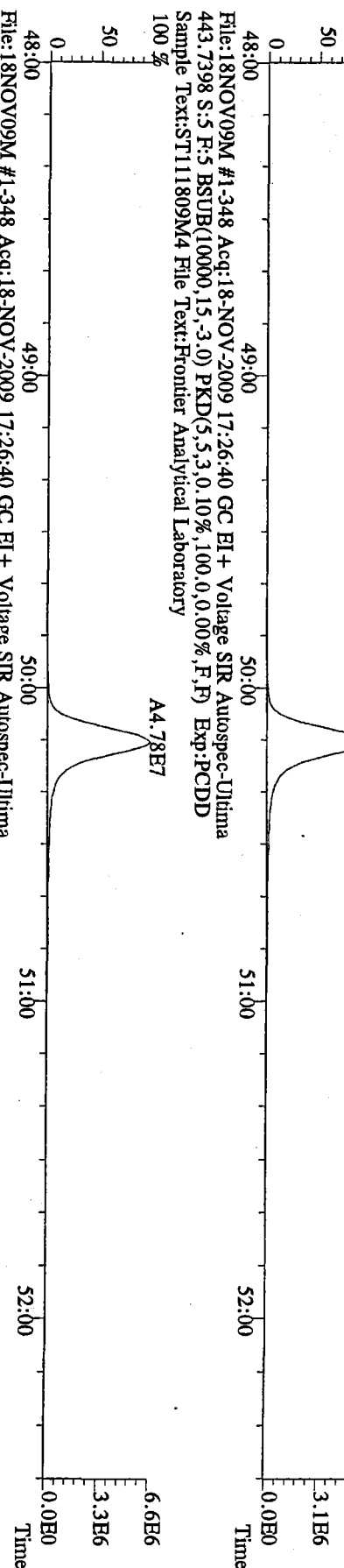
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC BI + Voltage SIR Autospec-Utima  
 419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



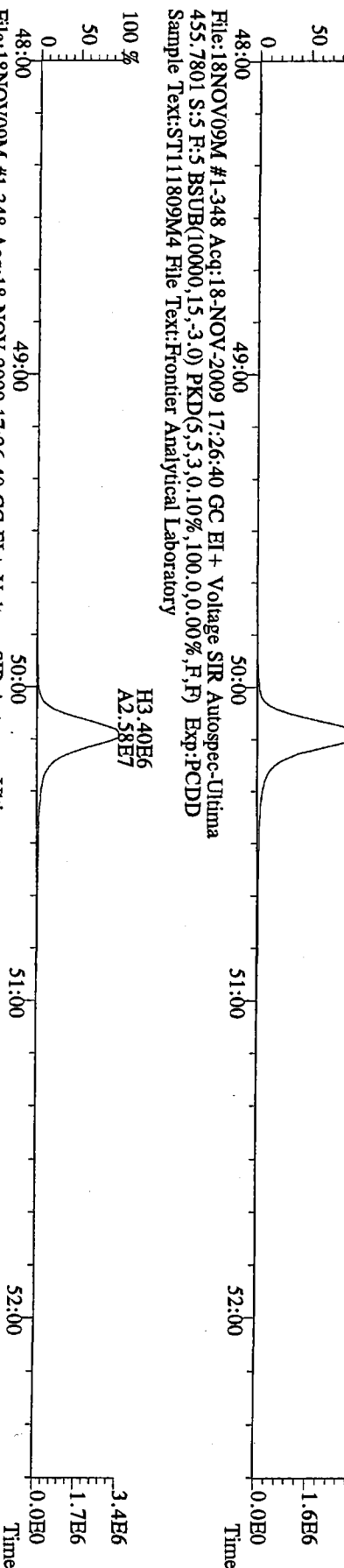
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC BI + Voltage SIR Autospec-Utima  
 479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



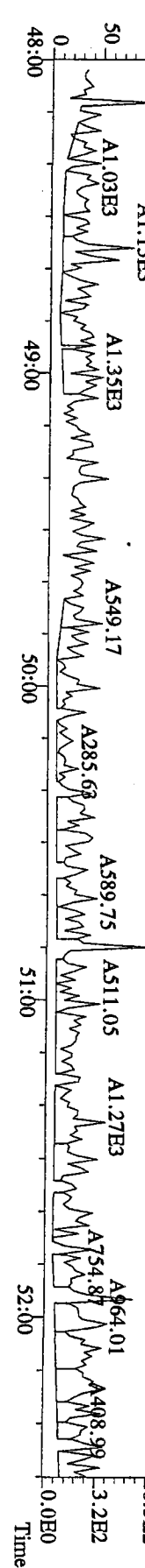
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



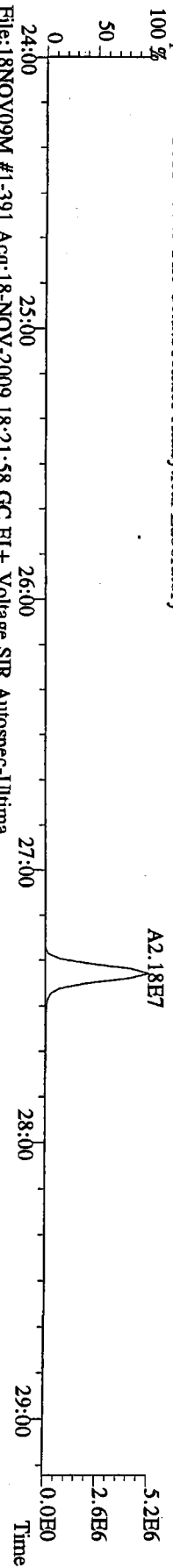
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory  
100 %



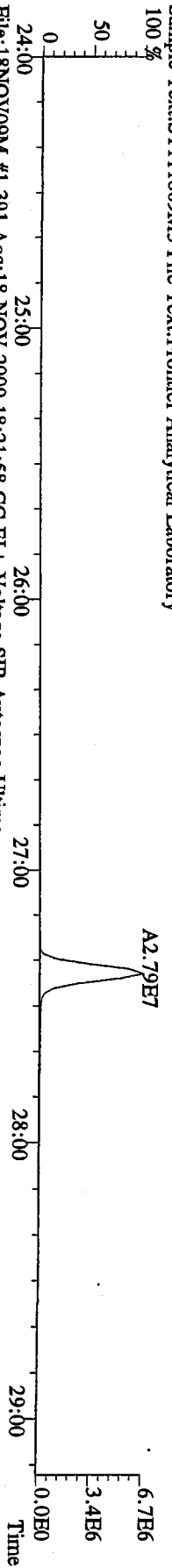
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Utima  
513.6775 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



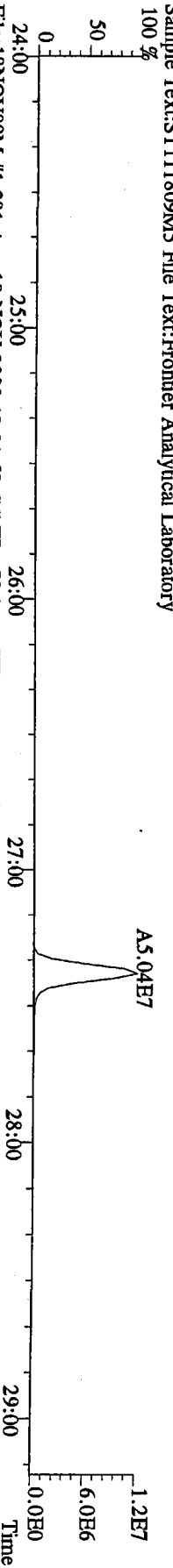
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



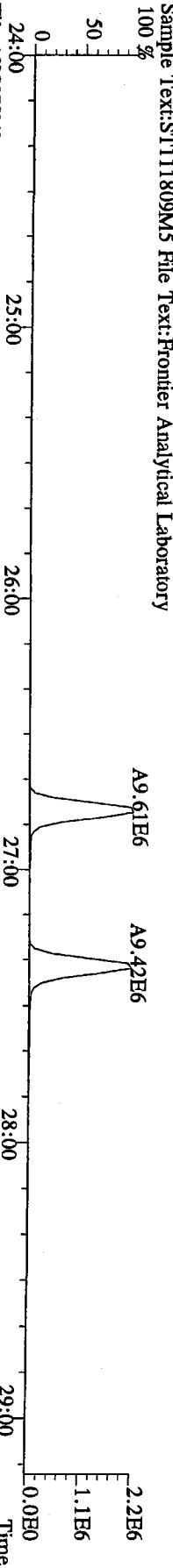
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



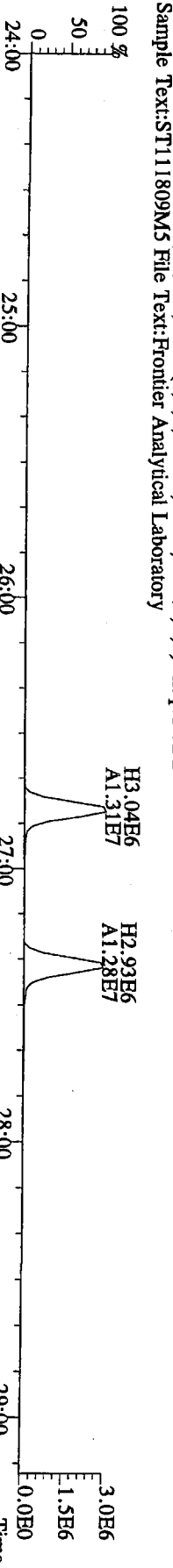
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



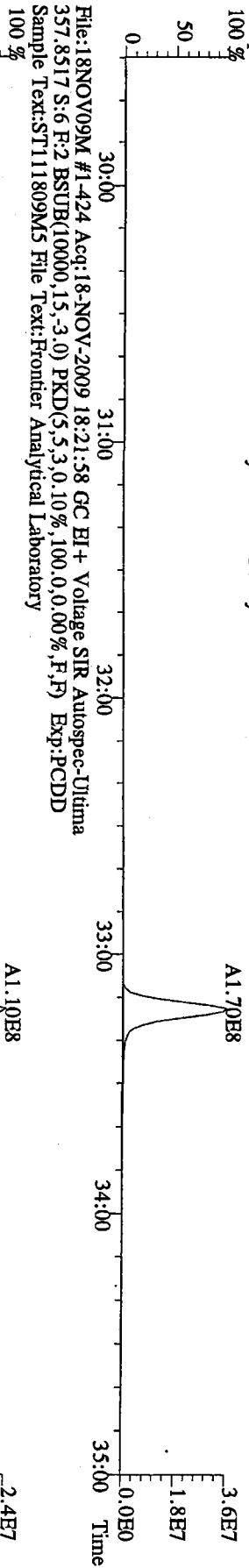
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



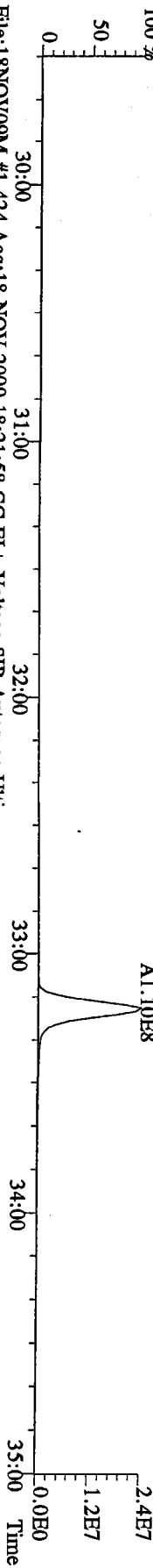
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



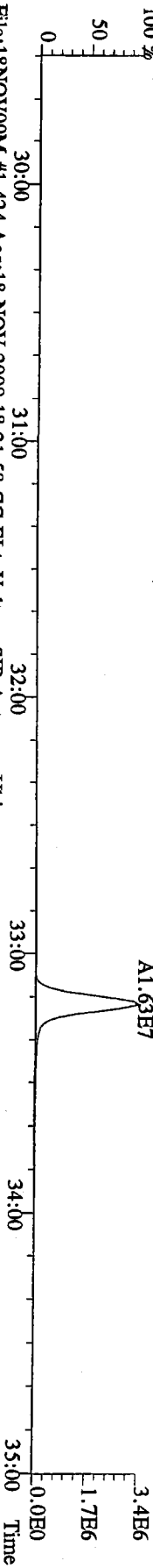
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



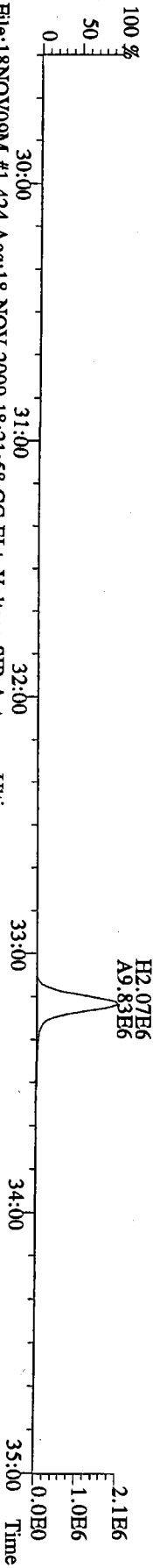
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 357.8517 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



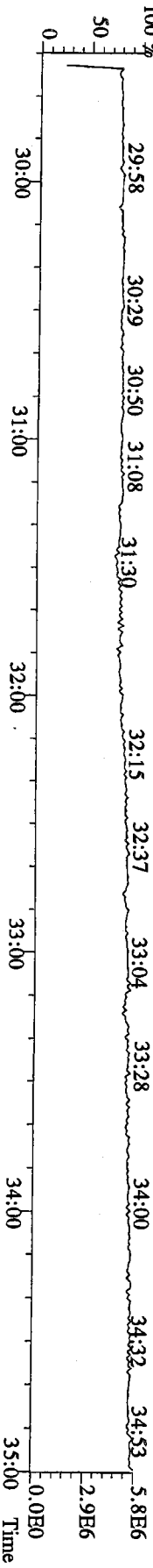
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 369.8919 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



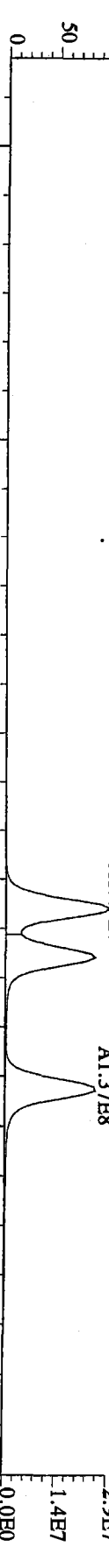
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 366.9792 S:6 F:2 Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M5 File Text:Frontier Analytical Laboratory



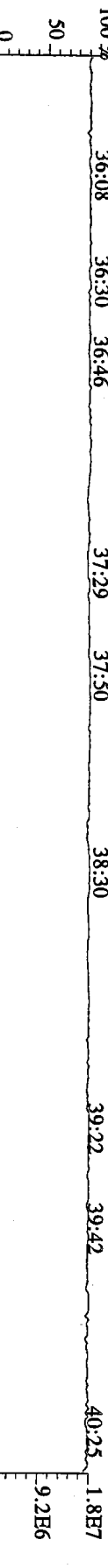
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M5 File Text:Frontier Analytical Laboratory

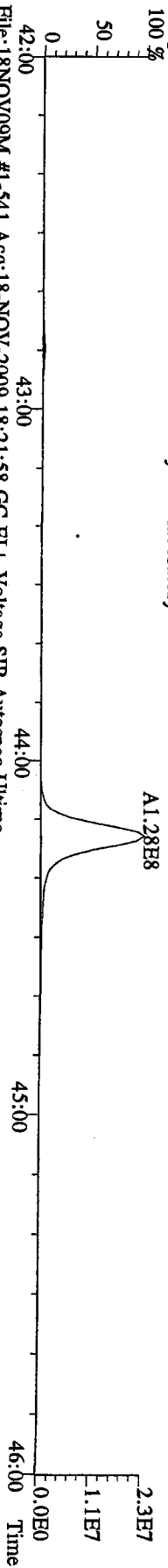


File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 380.9760 S:6 F:3 Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

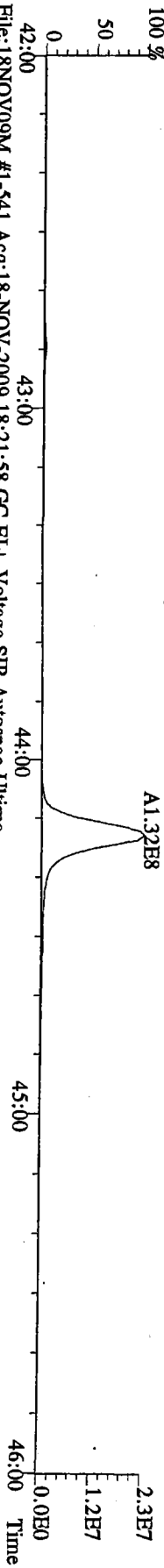




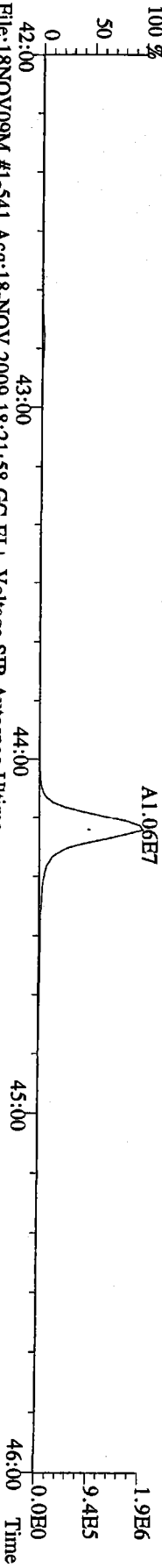
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



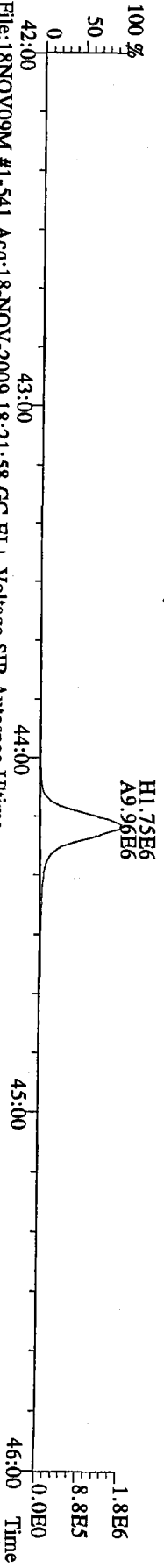
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



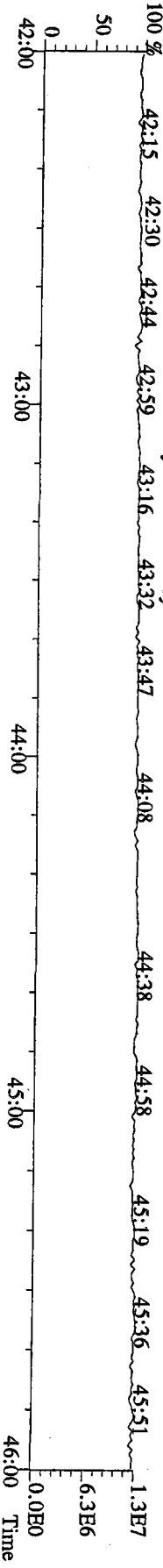
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



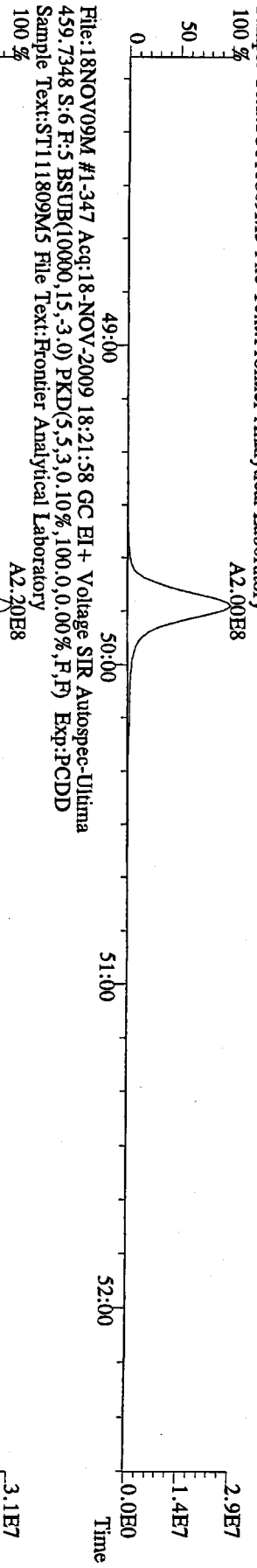
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



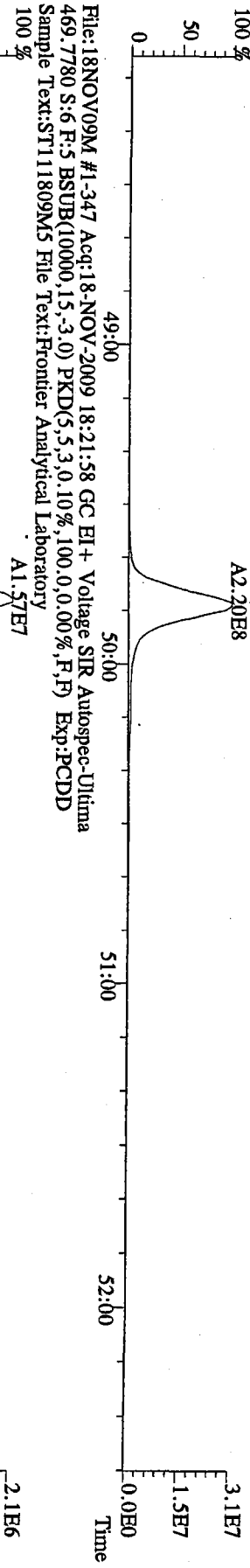
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 430.9728 S:6 F:4 Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



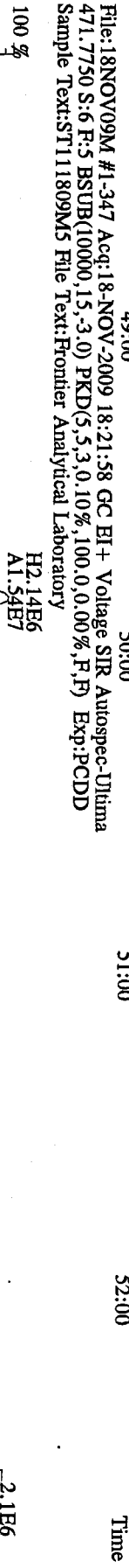
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
100 %



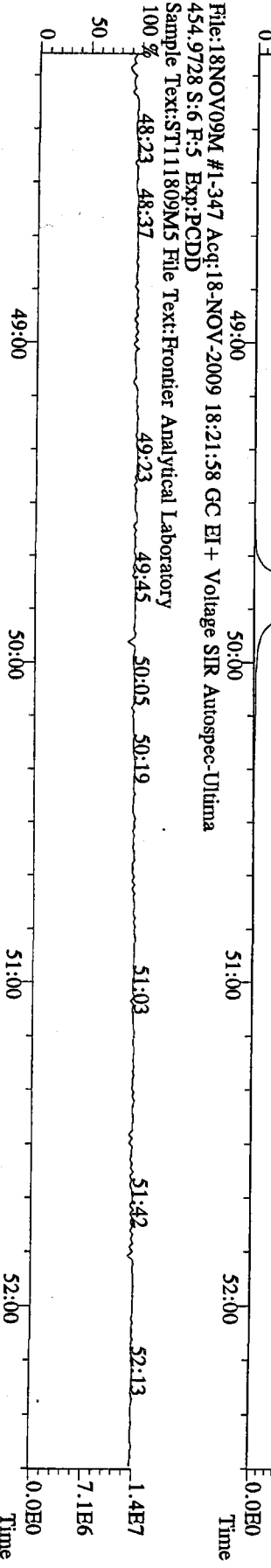
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
100 %



File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 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:ST111809M5 File Text:Frontier Analytical Laboratory  
100 %



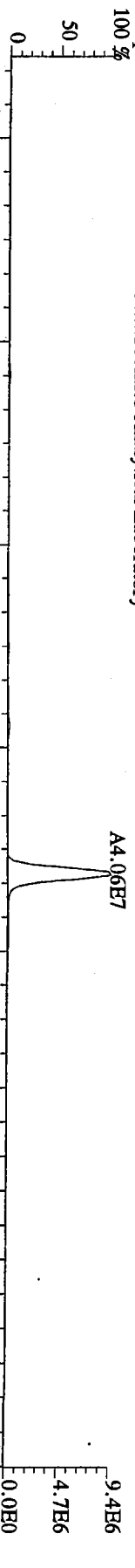
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
100 %



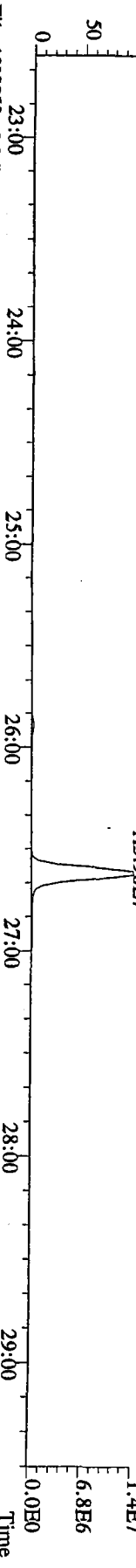
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 S:6 F:5 Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
100 %

11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

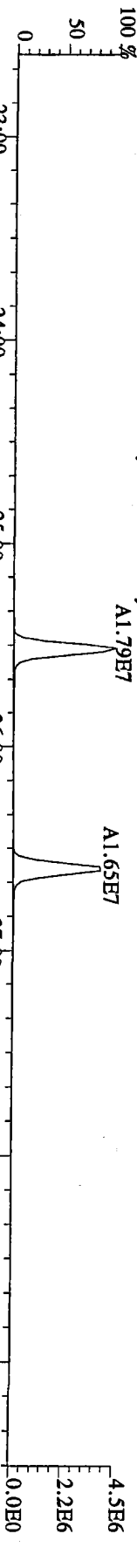
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



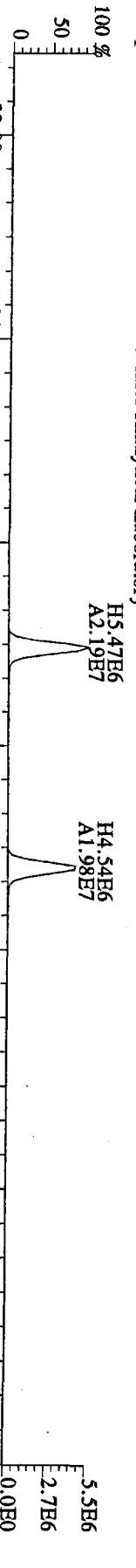
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 305.8987 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



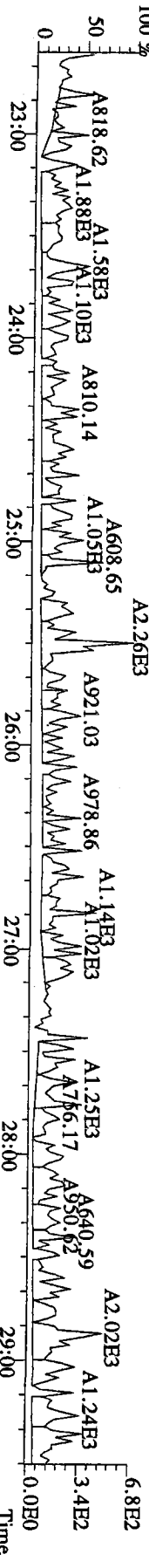
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 315.9419 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



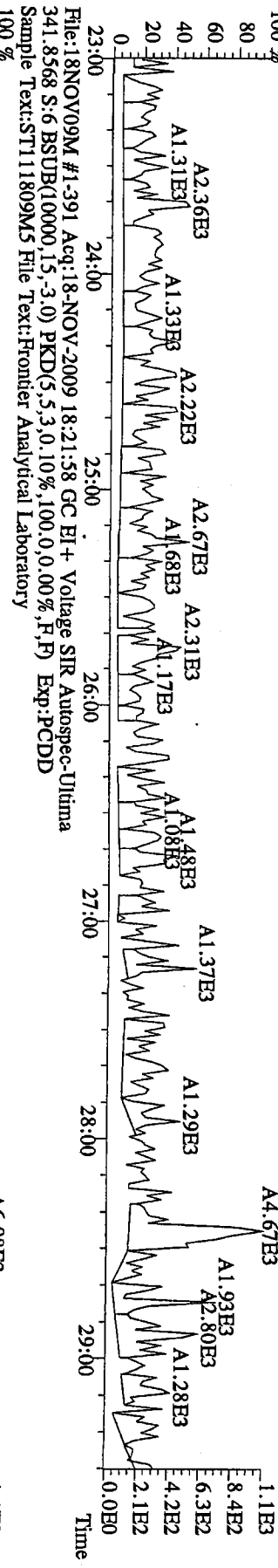
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 317.9389 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



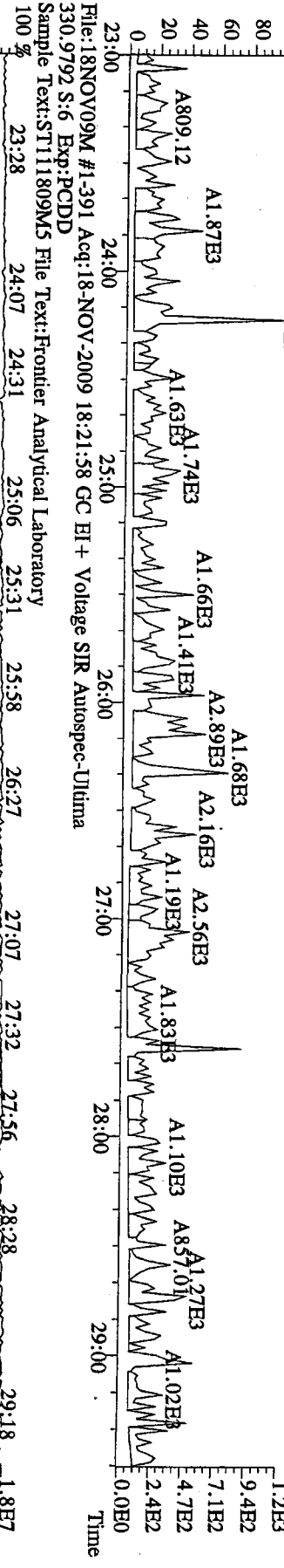
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



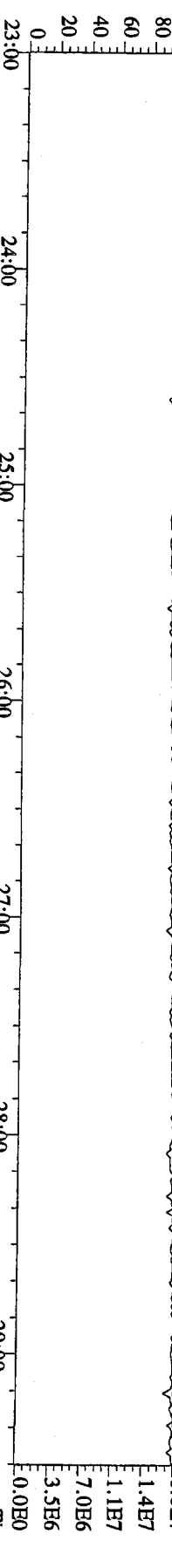
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:6 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M5 File Text:Frontier Analytical Laboratory

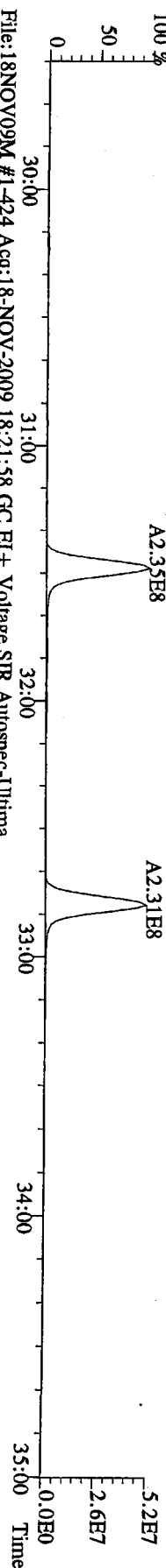


File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 330.9792 S:6 Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

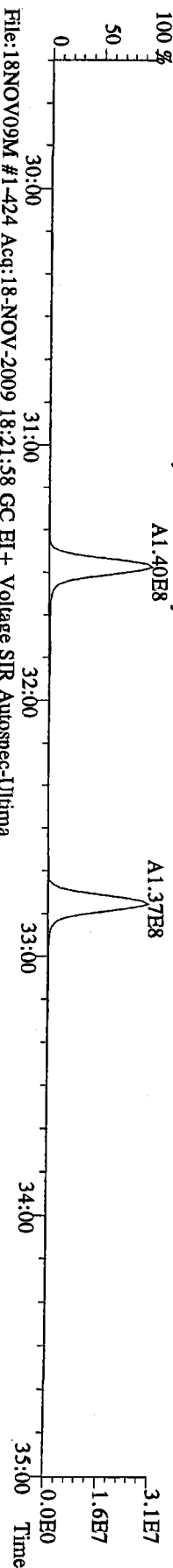


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

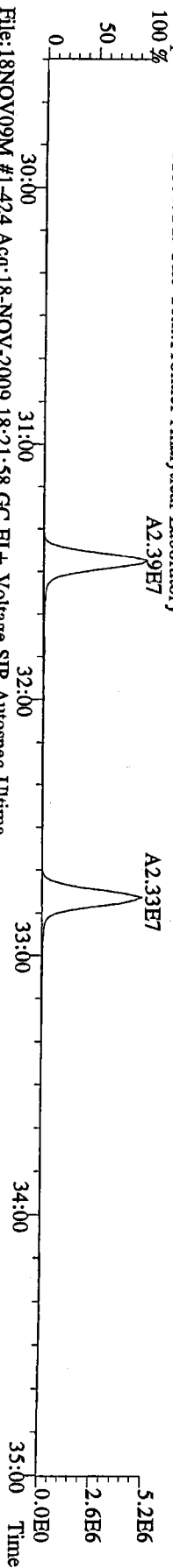
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



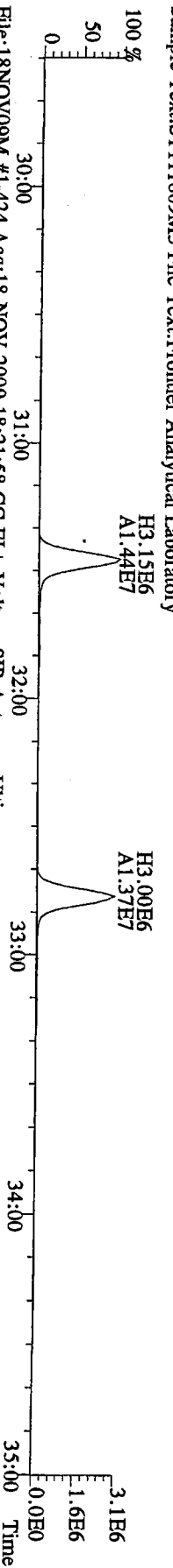
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 341.8568 S:6 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



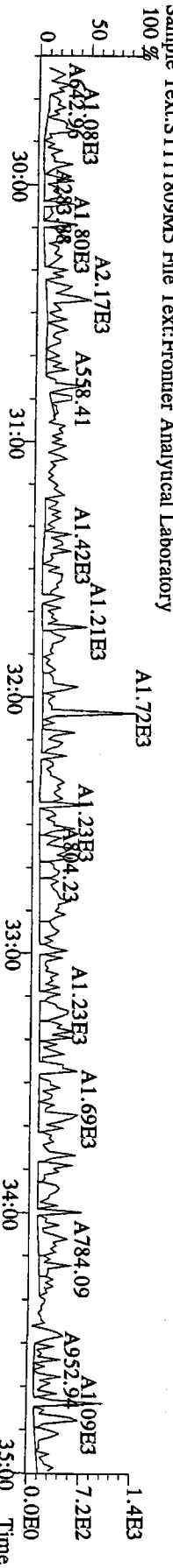
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



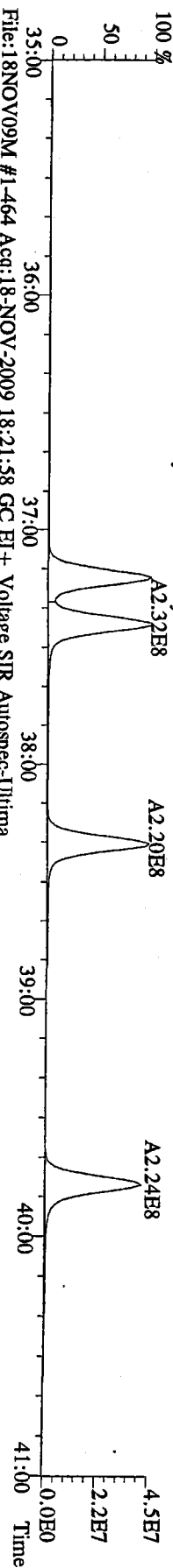
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



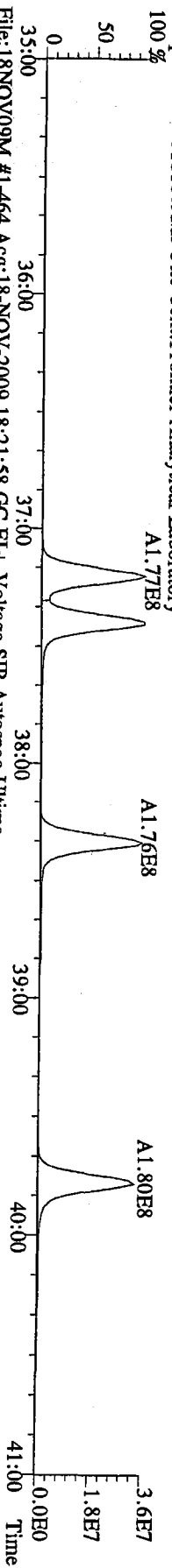
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



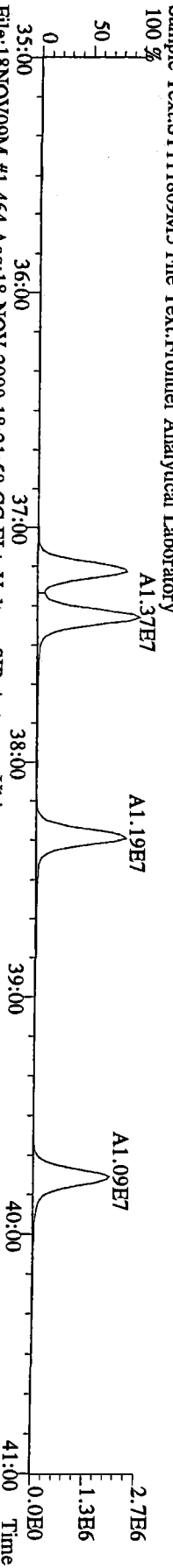
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



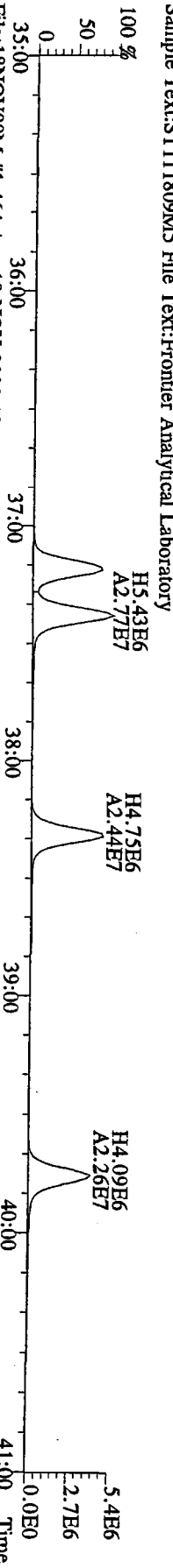
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
375.8178 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



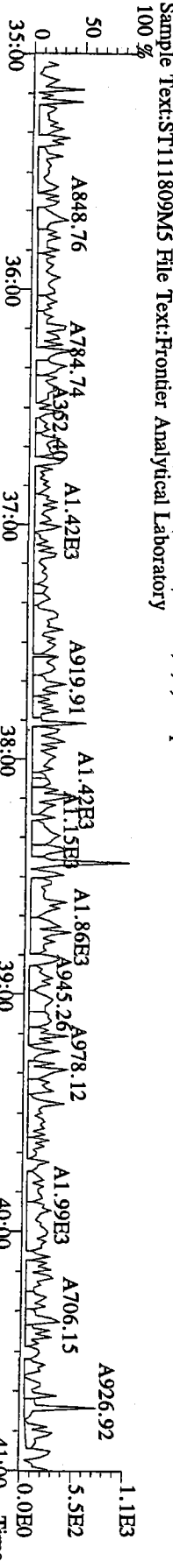
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
385.8610 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:ST111809M5 File Text:Frontier Analytical Laboratory

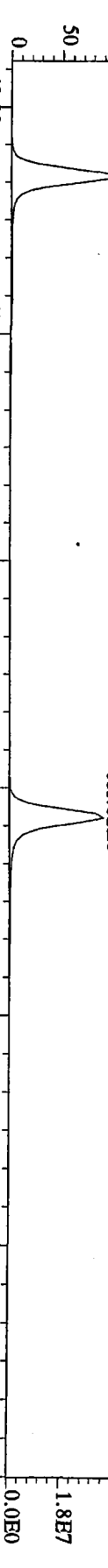


File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
445.7555 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

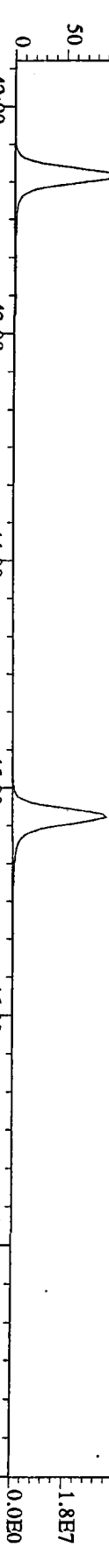


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

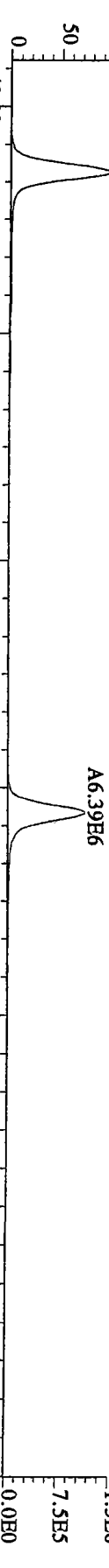
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



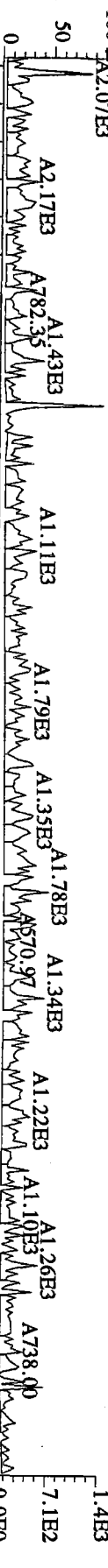
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 417.8253 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 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:ST111809M5 File Text:Frontier Analytical Laboratory



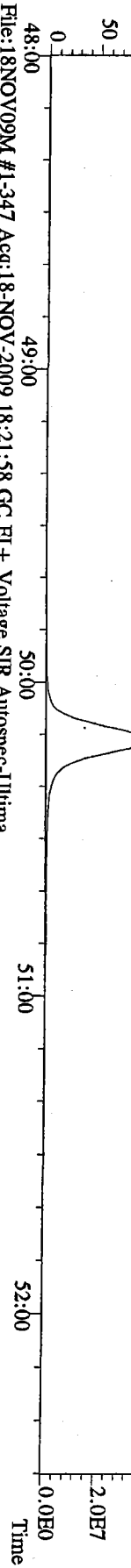
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Utima  
 479.7165 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



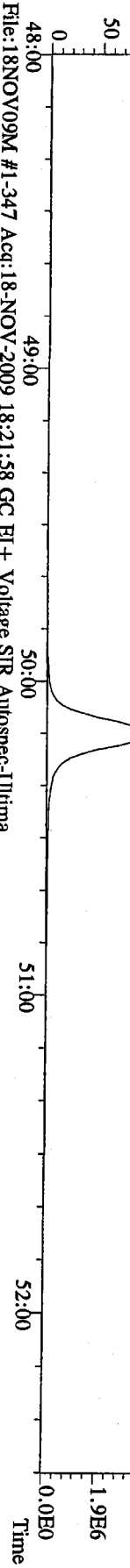
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



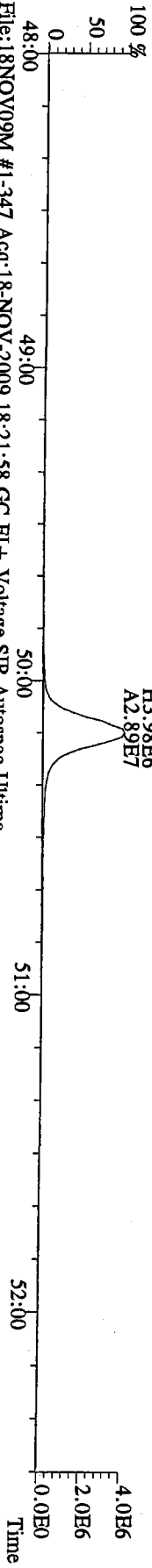
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



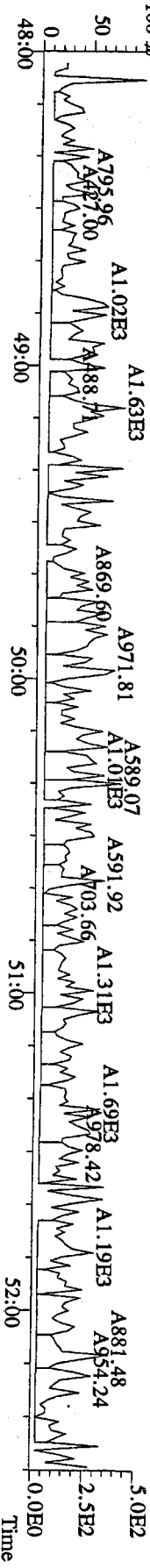
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory  
 100 %



File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 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:ST111809M5 File Text:Frontier Analytical Laboratory

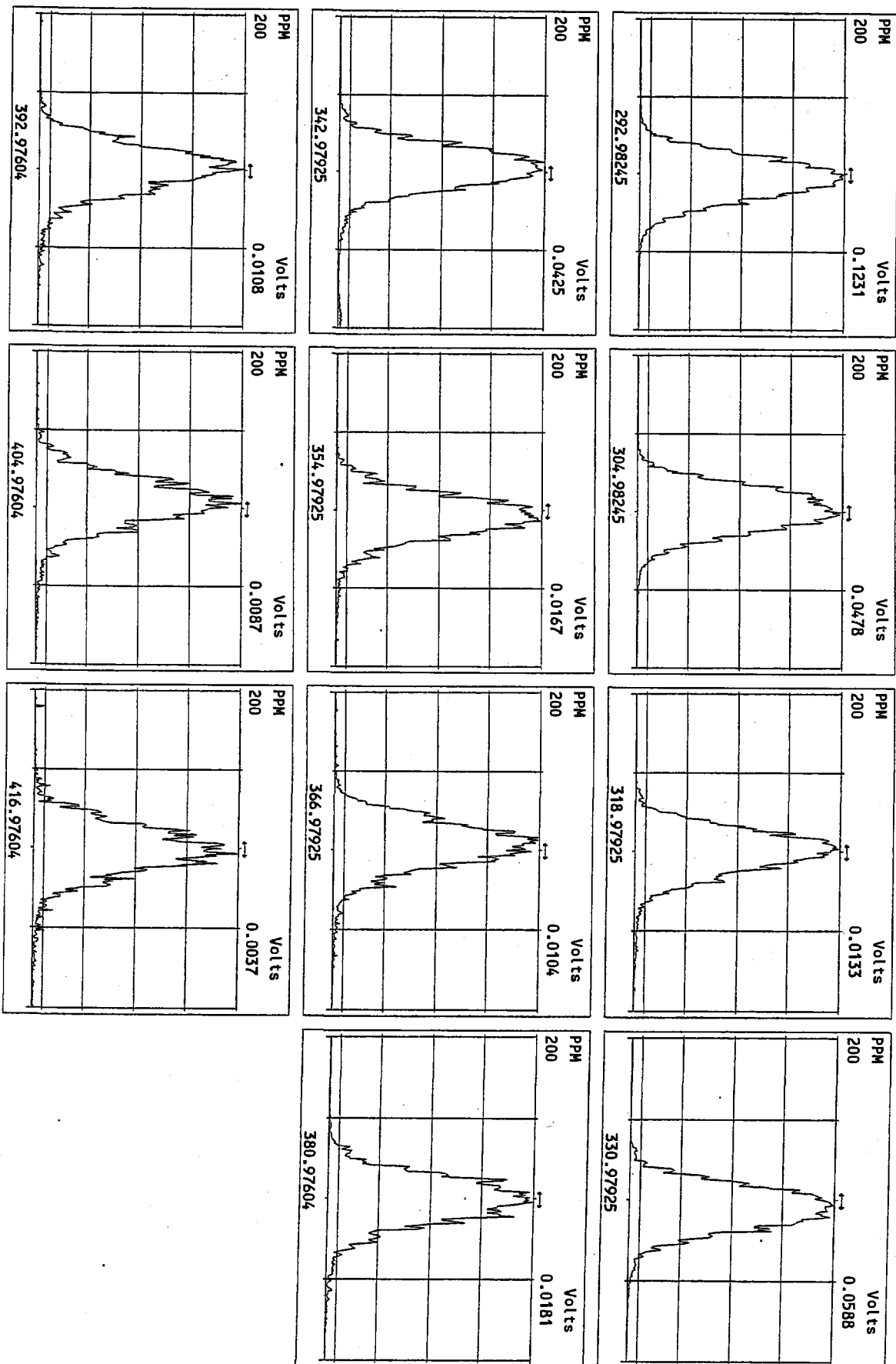


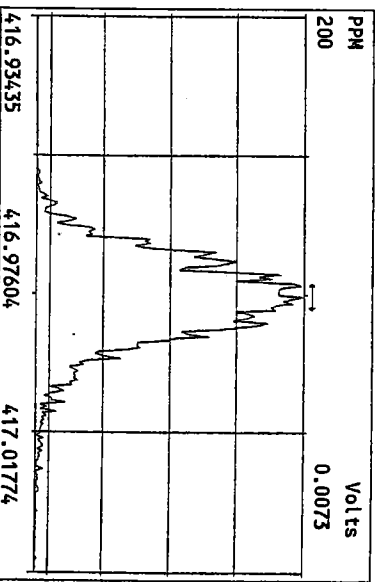
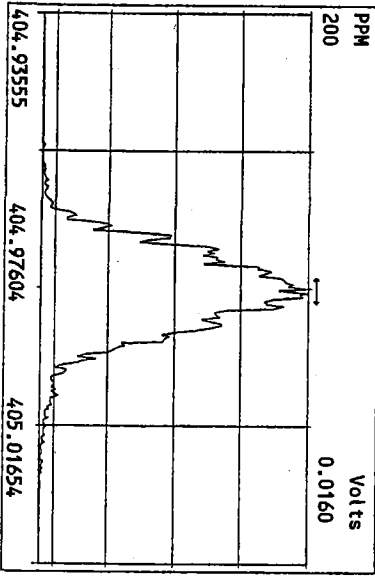
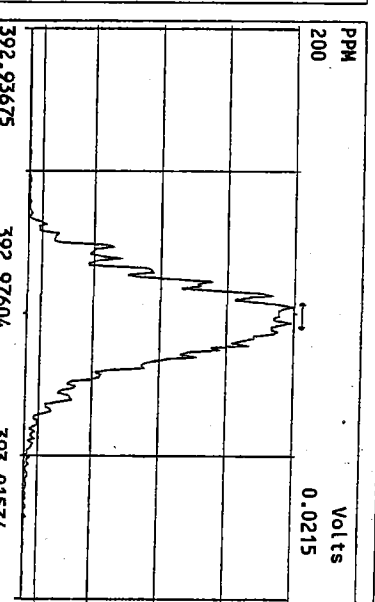
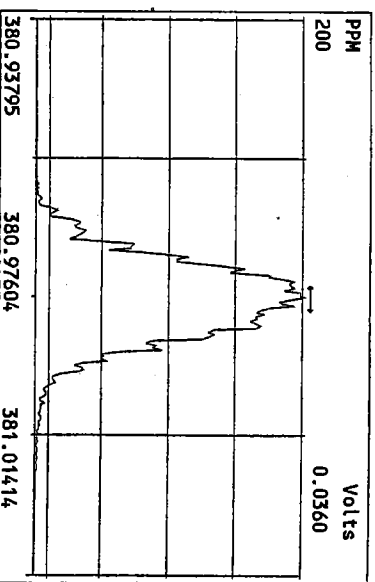
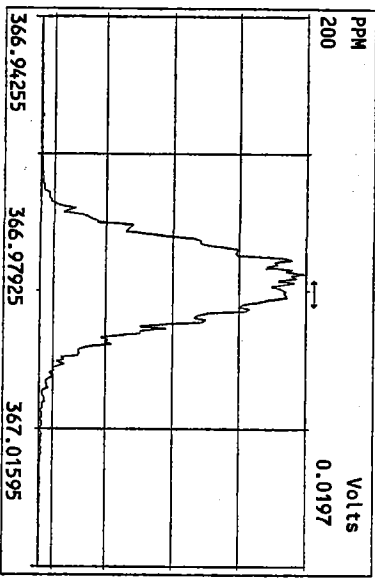
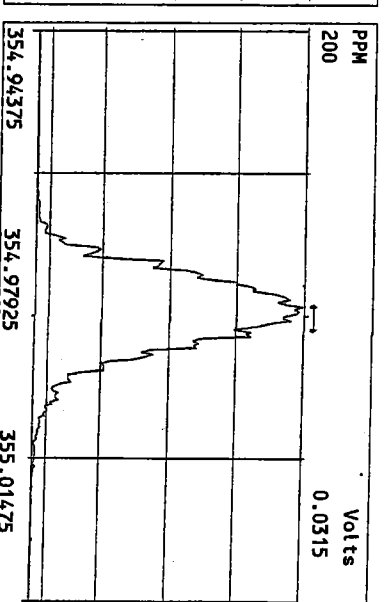
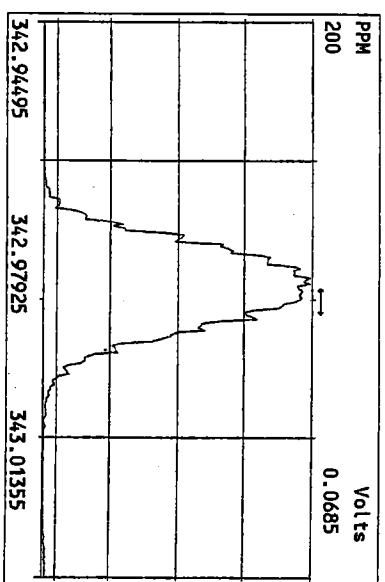
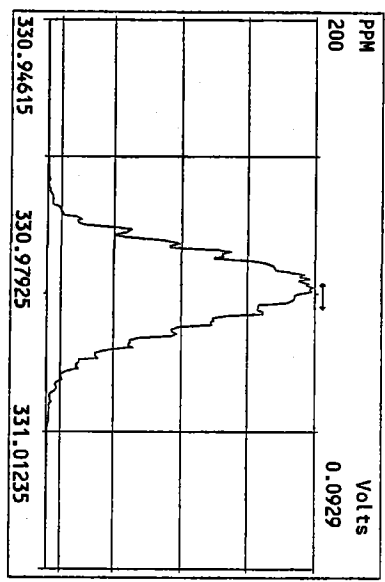
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima  
 513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory





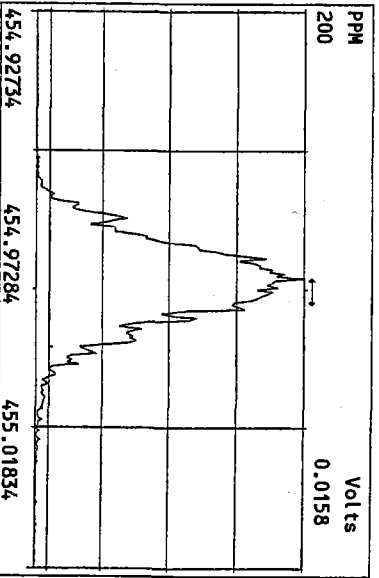
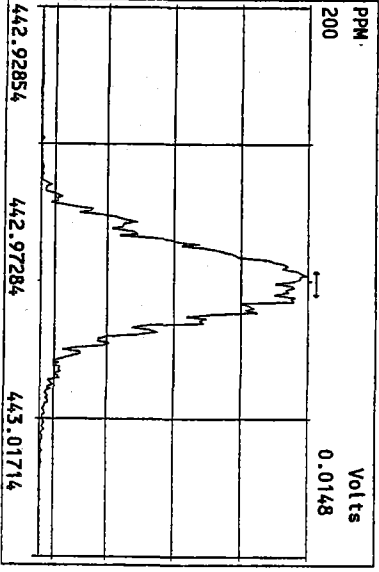
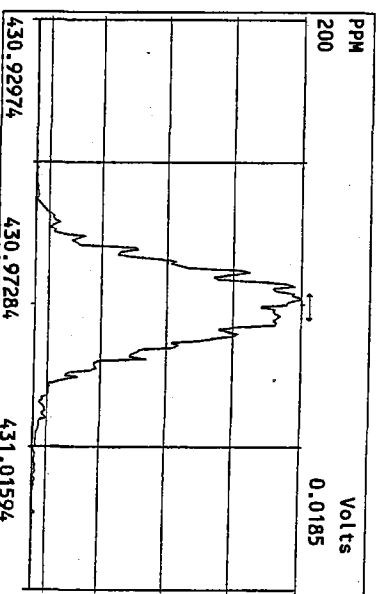
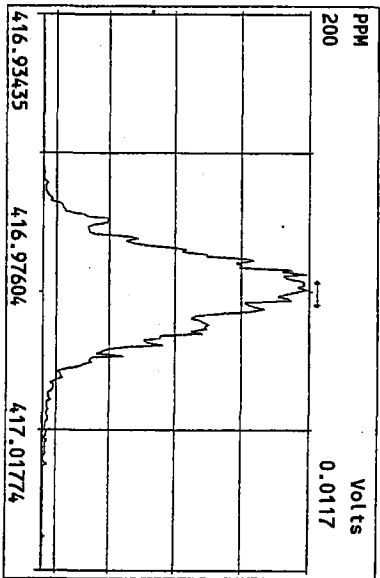
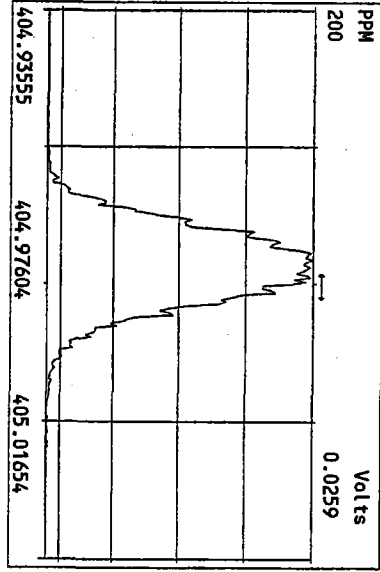
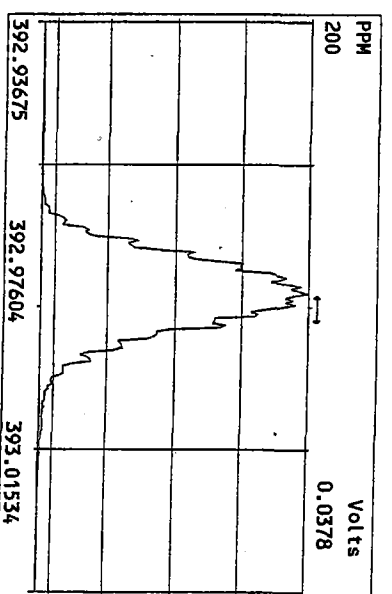
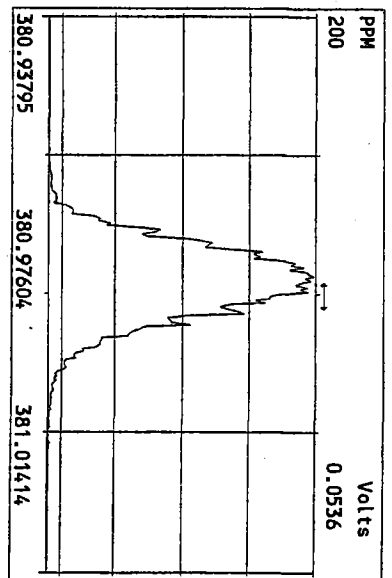
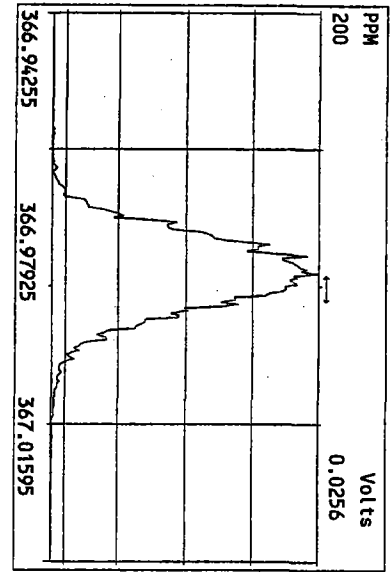
Peak Locate Examination:19-NOV-2009:14:42 File:18NOV09M\_RES\_CHECK  
Experiment:PCDD Function:1 Reference:PFK



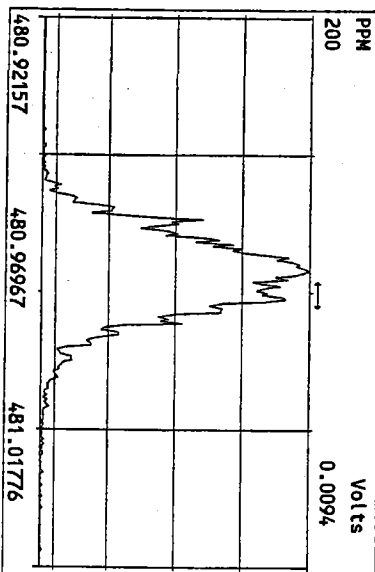
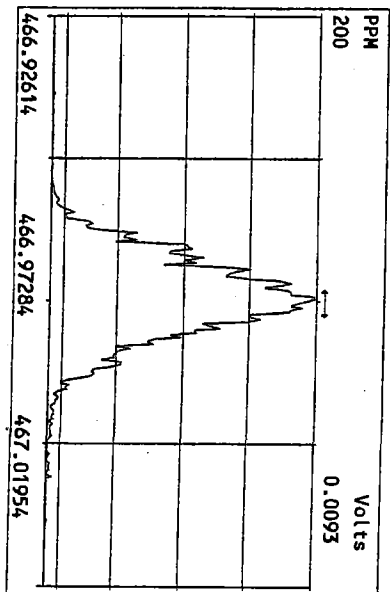
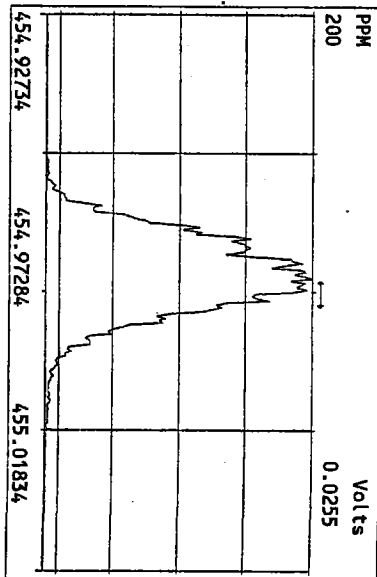
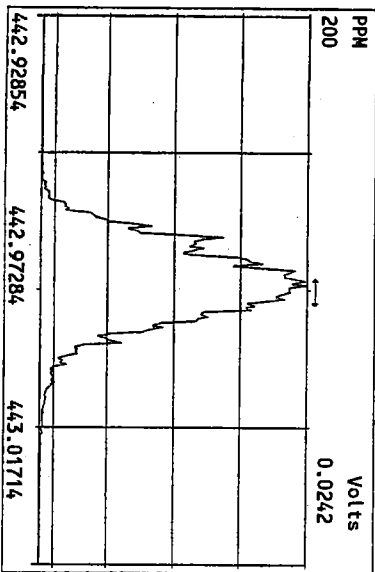
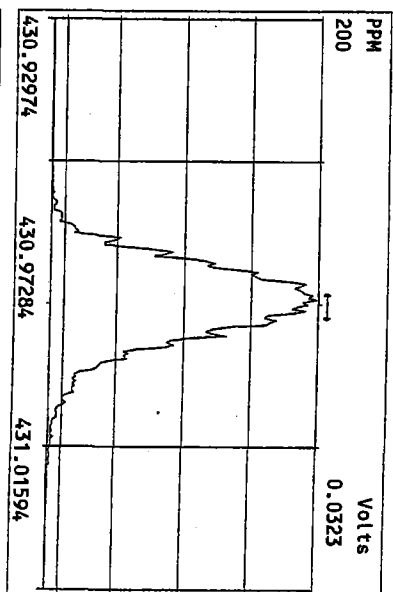
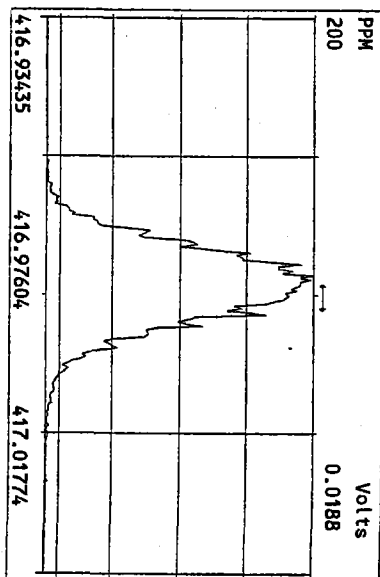
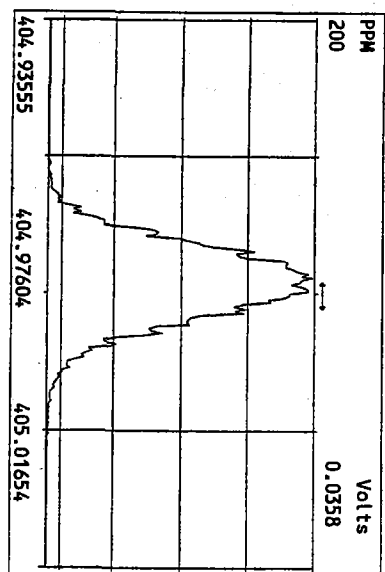


10 11 12 13 14 15 16 17 18 19 20

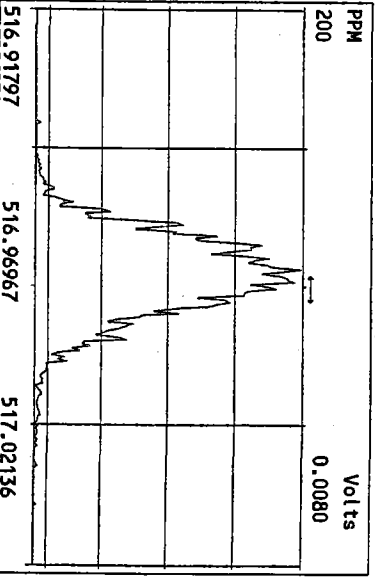
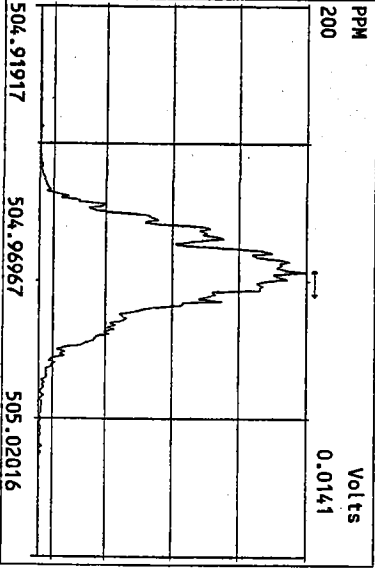
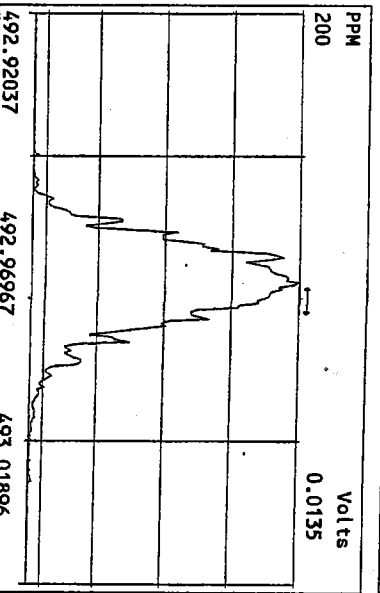
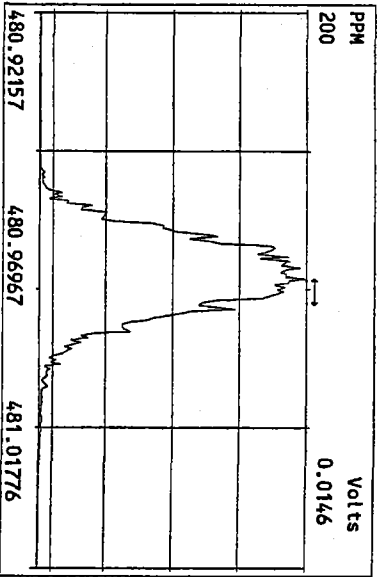
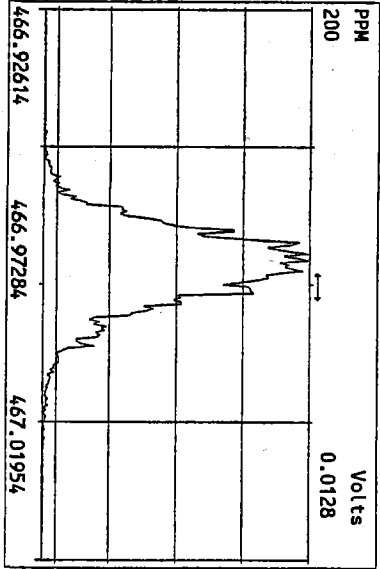
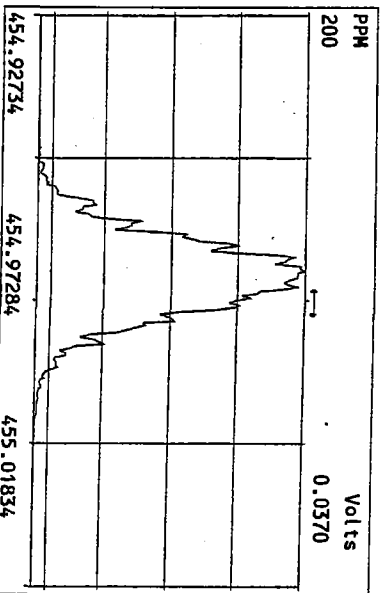
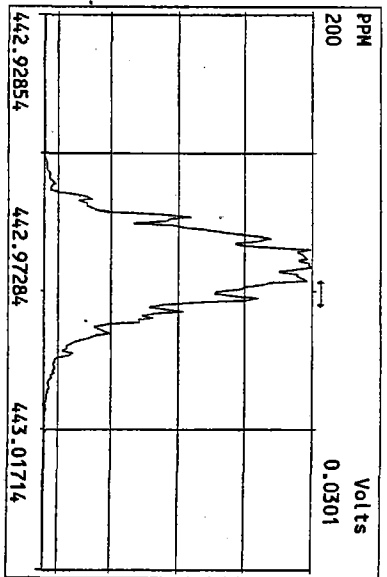
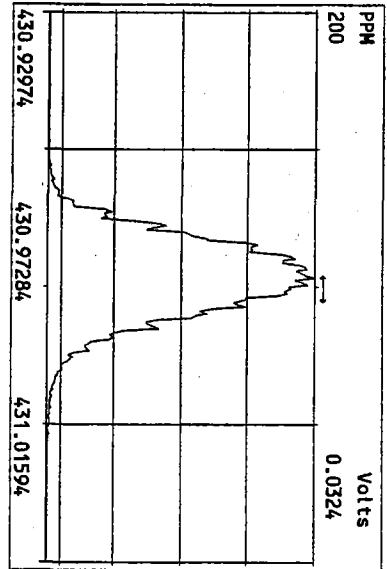
Peak Locate Examination:19-NOV-2009:14:42 File:18NOV09M\_RES\_CHECK  
 Experiment:PCDD Function:3 Reference:PK



11 11 11 11 11 11 11 11 11 11



11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



11/19/09 14:43:43

Frontier Analytical Laboratory

Data Filename: 19NOV09A

Analyte:

Cal: TCDFFAL1-11-19-09

Name	RRF	S. D.	%RSD	S2	S3	S1	S4	S5
				RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	1.26	0.103	8.21 %	1.43	1.25	1.26	1.16	1.19
13C-2,3,7,8-TCDF	0.92	0.0543	5.89 %	0.91	0.85	0.91	0.94	1.00
13C-1,2,3,4-TCDF	-	-	- %	-	-	-	-	-

Analyst: \_\_\_\_\_

Date: \_\_\_\_\_

Run #1      Filename 19NOV09A  
Client ID: ST111909A1

S: 2      Acquired: 19-NOV-09 13:35:40      Cal: TCDFFAL1-11-19-09  
Analyte:      FAL ID: 1613 CS1 090918H

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1 Unk	2,3,7,8-TCDF	0.50	3.74e+05	0.85 y	19:20	-	1.43 y
2 IS	13C-2,3,7,8-TCDF	100.00	5.23e+07	0.80 y	19:20	-	0.908 y
3 RS	13C-1,2,3,4-TCDF	100.00	5.76e+07	0.80 y	16:48	5.76e+05	- n


Analyst: 8

Date: 11/20/09

Run #2      Filename 19NOV09A  
Client ID: ST111909A2

S: 3      Acquired: 19-NOV-09 14:10:45      Cal: TCDFFAL1-11-19-09  
Analyte:      FAL ID: 1613 CS2 0909181

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	2,3,7,8-TCDF	2.00	1.22e+06	0.78 y	19:21	-	1.25	y
2	IS	13C-2,3,7,8-TCDF	100.00	4.88e+07	0.79 y	19:20	-	0.852	y
3	RS	13C-1,2,3,4-TCDF	100.00	5.73e+07	0.79 y	16:48	5.73e+05	-	n

Analyst: 

Date: 11/20/09



Run #3      Filename 19NOV09A  
Client ID: ST111909A3

S: 1      Acquired: 19-NOV-09 13:00:37      Cal: TCDFFAL1-11-19-09  
Analyte:      FAL ID: 1613 CS3 090918J

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	2,3,7,8-TCDF	10.00	8.14e+06	0.79 y	19:25	-	1.26	y
2	IS	13C-2,3,7,8-TCDF	100.00	6.45e+07	0.79 y	19:23	-	0.907	y
3	RS	13C-1,2,3,4-TCDF	100.00	7.11e+07	0.80 y	16:51	7.11e+05	-	n


Analyst: J

Date: 11/20/09

Run #4      Filename 19NOV09A  
Client ID: ST111909A4

S: 4      Acquired: 19-NOV-09 14:45:48      Cal: TCDFFAL1-11-19-09  
Analyte:      FAL ID: 1613 CS4 090918K

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDF	40.00	2.31e+07	0.78 y	19:21	-	1.16 y
2	IS	13C-2,3,7,8-TCDF	100.00	4.95e+07	0.80 y	19:20	-	0.935 y
3	RS	13C-1,2,3,4-TCDF	100.00	5.29e+07	0.79 y	16:48	5.29e+05	- n

Analyst: 

Date: 11/20/09



## USEPA - ITD

## FORM 3A

## TCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/19/09

Instrument ID: FAL1

GC Column ID: DB225

CS1 Data Filename: 19NOV09A

S2

CS4 Data Filename: 19NOV09A

S4

CS2 Data Filename: 19NOV09A

S3

CS5 Data Filename: 19NOV09A

S5

CS3 Data Filename: 19NOV09A S1

	RELATIVE RESPONSE (RR)					MEAN	Cv
	CS1	CS2	CS3	CS4	CS5	RR	(%RSD)
NATIVE ANALYTES							
2,3,7,8-TCDF	1.43	1.25	1.26	1.16	1.19	1.26	8.21
13C-2,3,7,8-TCDF	0.91	0.85	0.91	0.94	1.00	0.92	5.89

Analyst: 

Date: 11/20/09








FAL ID: ST111909A3      Filename: 19NOV09A    Sam:1    Acquired: 19-NOV-09 13:00:37    ICal: TCDFFAL1-11-19-09  
Client ID: 1613 CS3 090918J      ConCal: NA      EndCal: NA  
Results:      GC Column: DB225    Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise	DL	#Hom	Rec
2,3,7,8-TCDF	8.14e+06	0.79 y	19:25	1.26	10.0		2.50	-	*	1	
13C-2,3,7,8-TCDF	6.45e+07	0.79 y	19:23	0.92	98.5						98.5
13C-1,2,3,4-TCDF	7.11e+07	0.80 y	16:51	-	122						

Analyst: 

Date: 11/20/09



Frontier Analytical Laboratory - Acquisition Log

Run Name: 19NOV09A

Instrument: FAL1

GC: DB225

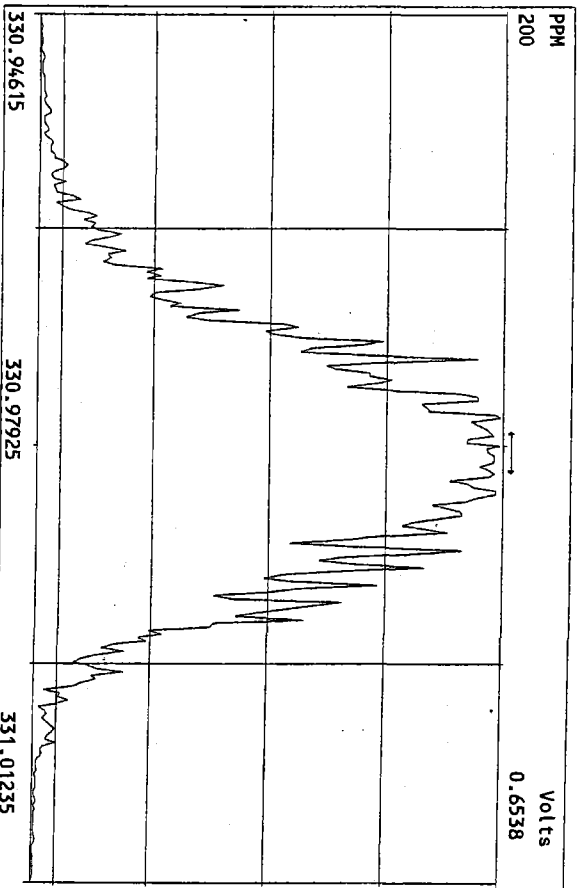
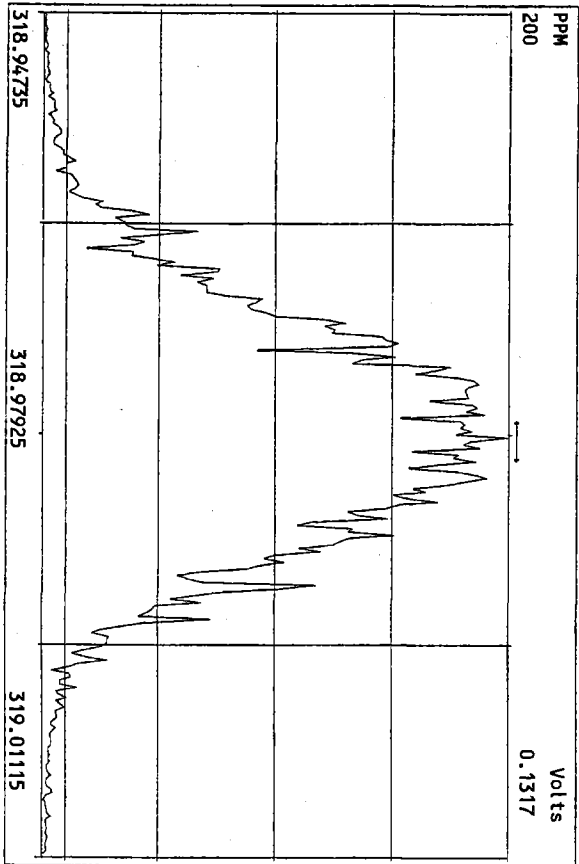
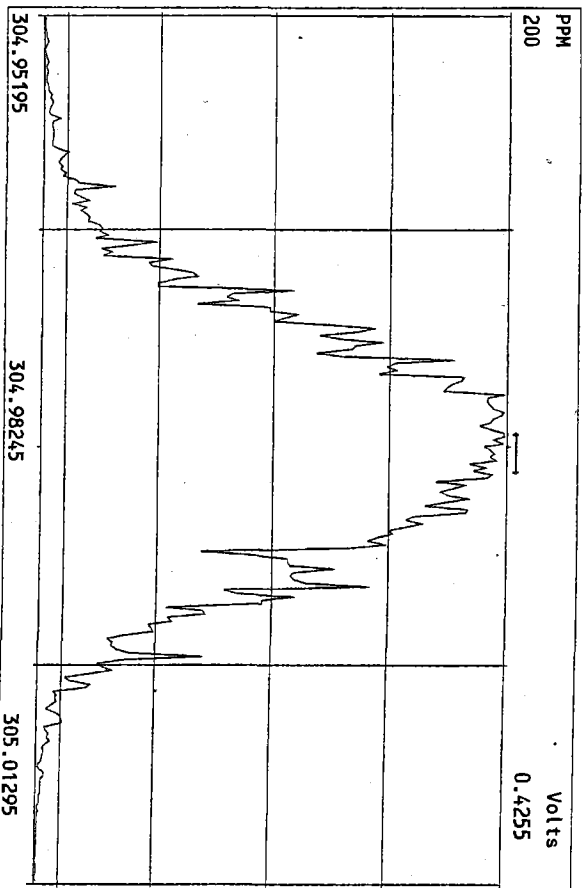
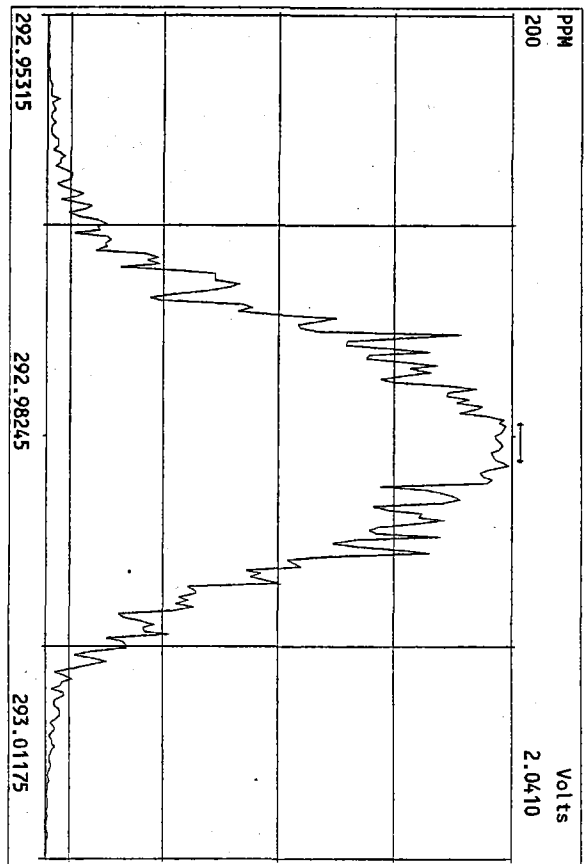
Experiment: TCDF

Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
19NOV09A 1	ST111909A3	1613 CS3 090918J	19-NOV-09 13:00:37	NA	NA	DV
19NOV09A 2	ST111909A1	1613 CS1 090918H	19-NOV-09 13:35:40	NA	NA	DV
19NOV09A 3	ST111909A2	1613 CS2 090918I	19-NOV-09 14:10:45	NA	NA	DV
19NOV09A 4	ST111909A4	1613 CS4 090918K	19-NOV-09 14:45:48	NA	NA	DV
19NOV09A 5	ST111909A5	1613 CS5 090918L	19-NOV-09 15:20:53	NA	NA	DV
19NOV09A 6	SB111909A1	Solvent Blank	19-NOV-09 15:55:56	ST111909A1	ST111909A6	DV
19NOV09A 7	5820-010-0001-SA	EDS-104-106+69-W1-5.5	19-NOV-09 16:31:01	ST111909A1	ST111909A6	DV
19NOV09A 8	5820-004-0001-SA	EDS-107-106+69-W4-7.5	19-NOV-09 17:06:04	ST111909A1	ST111909A6	DV
19NOV09A 9	5820-001-0001-SA	EDS-115-105+86-W1-5.8	19-NOV-09 17:41:09	ST111909A1	ST111909A6	DV
19NOV09A 10	5820-005-0001-SA	EDS-106-106+69-W3-7.0	19-NOV-09 18:16:12	ST111909A1	ST111909A6	DV
19NOV09A 11	SB111909A1	Solvent Blank	19-NOV-09 18:51:16	ST111909A1	ST111909A6	DV
19NOV09A 12	ST111909A6	1613 CS3 090918J	19-NOV-09 19:26:21	ST111909A1	ST111909A6	DV

*DN 11/20/09*

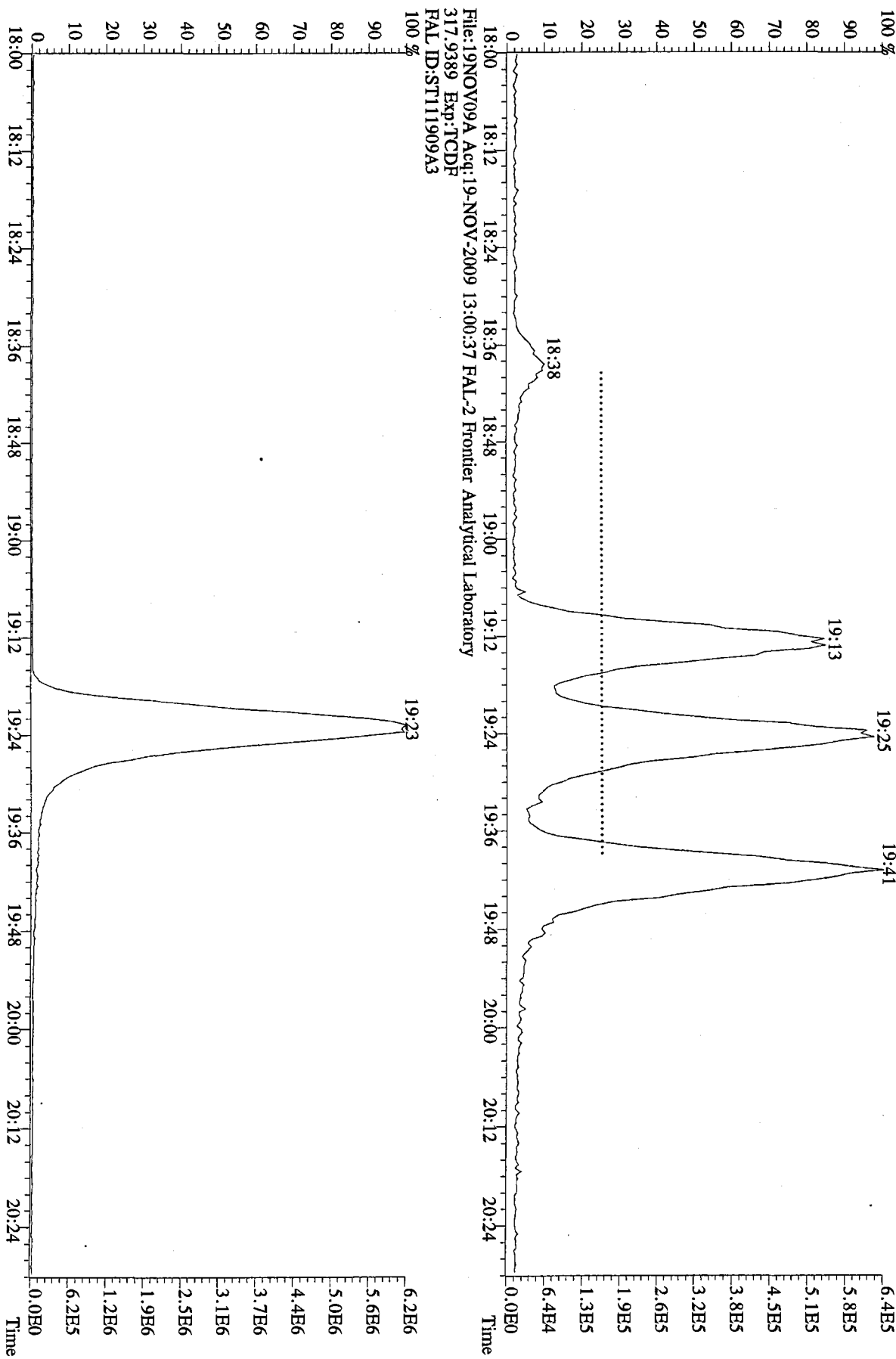
Data Backed Up: \_\_\_\_\_

Date: \_\_\_\_\_



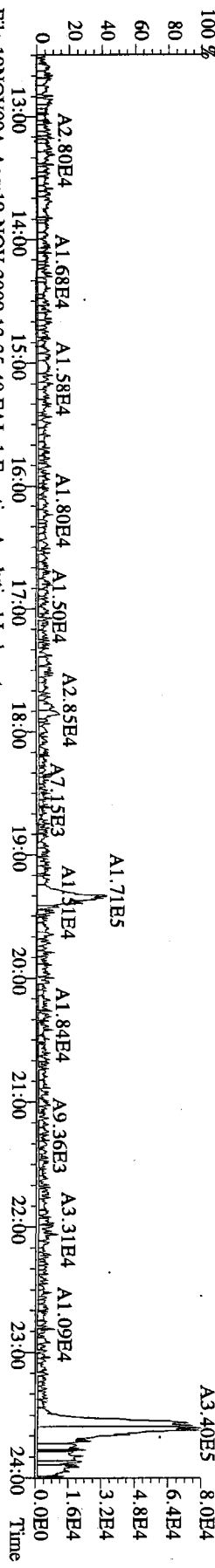
19 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

File:19NOV09A Acq:19-NOV-2009 13:00:37 FAL-2 Frontier Analytical Laboratory  
303.9016 Exp:TCDF  
FAL ID:ST111909A3

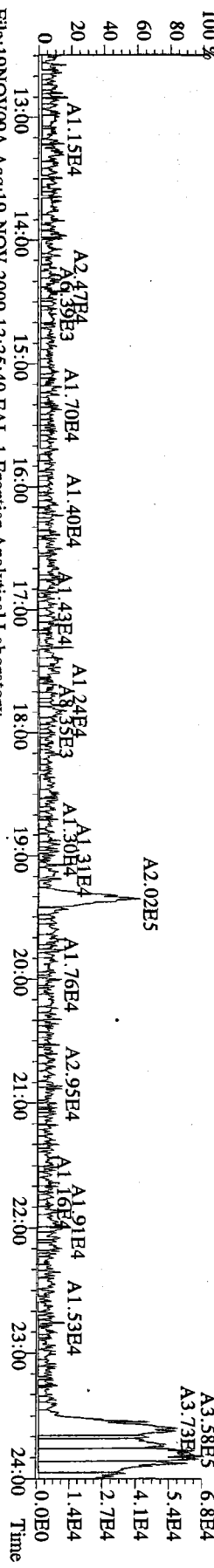


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

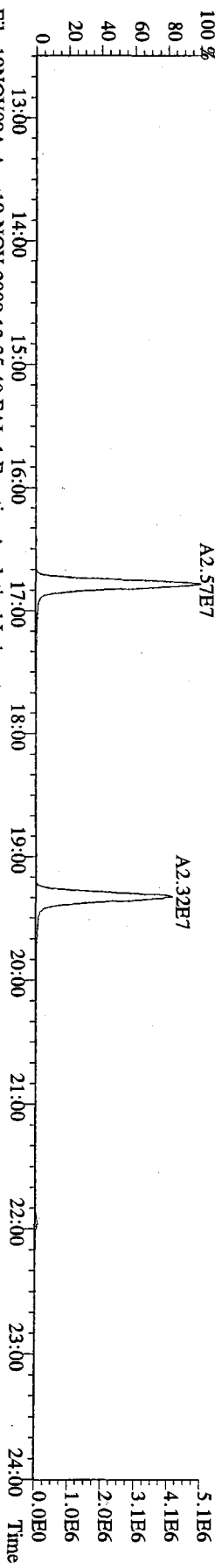
File:19NOV09A Acq:19-NOV-2009 13:35:40 PAL-1 Frontier Analytical Laboratory  
 303.9016 S.2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 PAL ID:ST111909A1



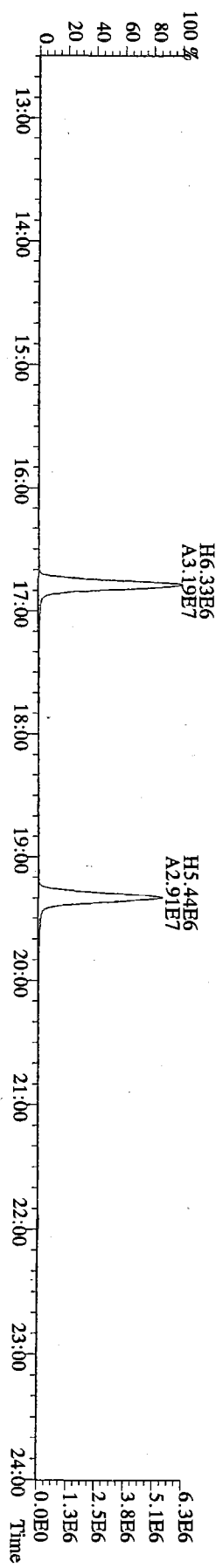
File:19NOV09A Acq:19-NOV-2009 13:35:40 PAL-1 Frontier Analytical Laboratory  
 305.8987 S.2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 PAL ID:ST111909A1



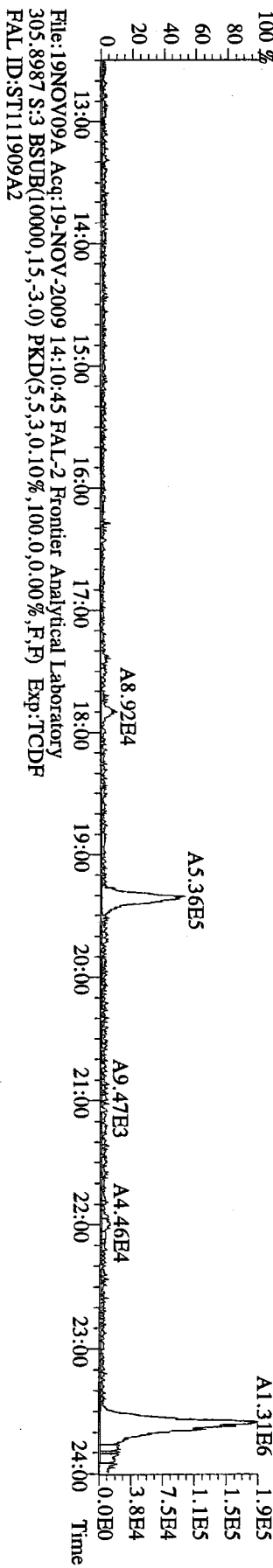
File:19NOV09A Acq:19-NOV-2009 13:35:40 PAL-1 Frontier Analytical Laboratory  
 315.9419 S.2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 PAL ID:ST111909A1



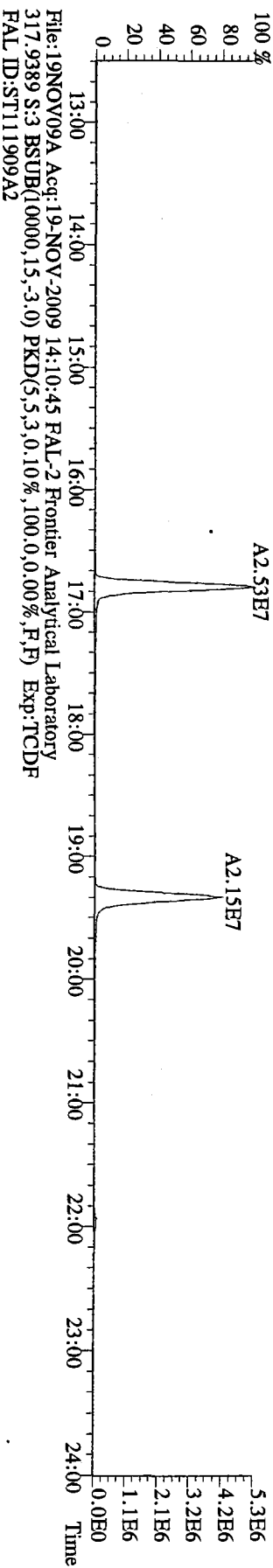
File:19NOV09A Acq:19-NOV-2009 13:35:40 PAL-1 Frontier Analytical Laboratory  
 317.9389 S.2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 PAL ID:ST111909A1



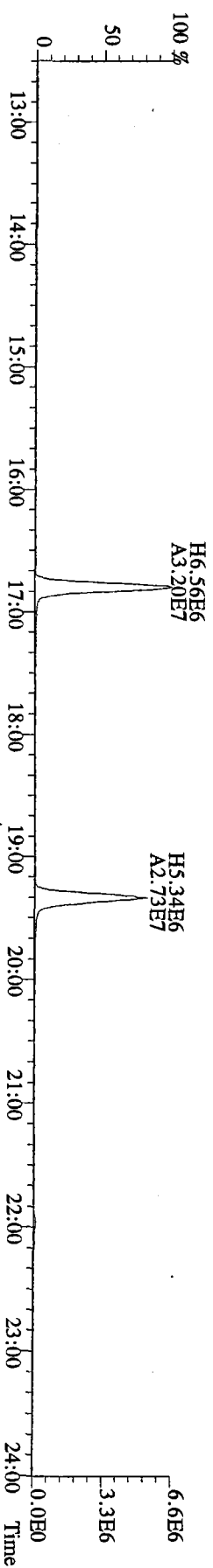
File: 19NOV09A Acq: 19-NOV-2009 14:10:45 FAL-2 Frontier Analytical Laboratory  
 303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST111909A2



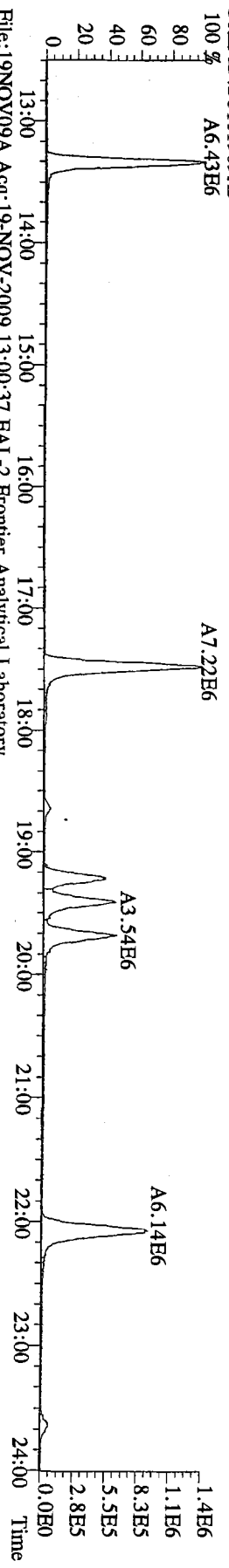
File: 19NOV09A Acq: 19-NOV-2009 14:10:45 FAL-2 Frontier Analytical Laboratory  
 315.9419 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST111909A2



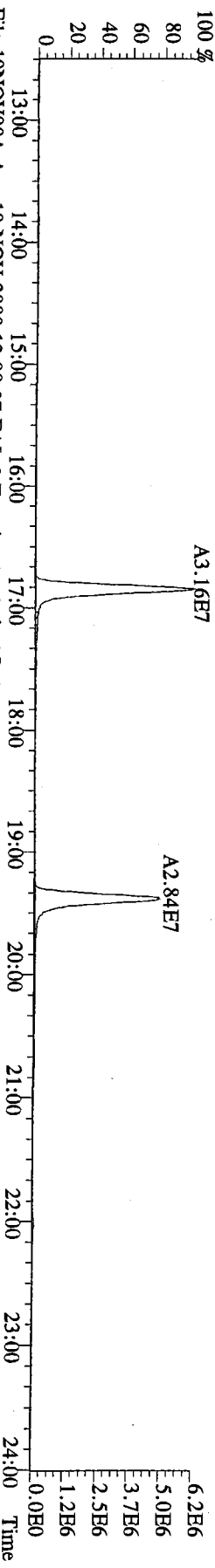
File: 19NOV09A Acq: 19-NOV-2009 14:10:45 FAL-2 Frontier Analytical Laboratory  
 317.9389 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST111909A2



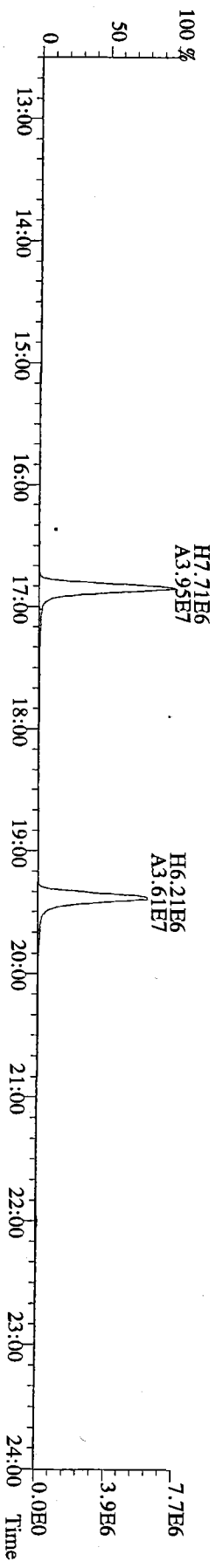
File:19NOV09A Acq:19-NOV-2009 13:00:37 FAL-2 Frontier Analytical Laboratory  
 303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:TCDF  
 FAL ID:ST111909A3



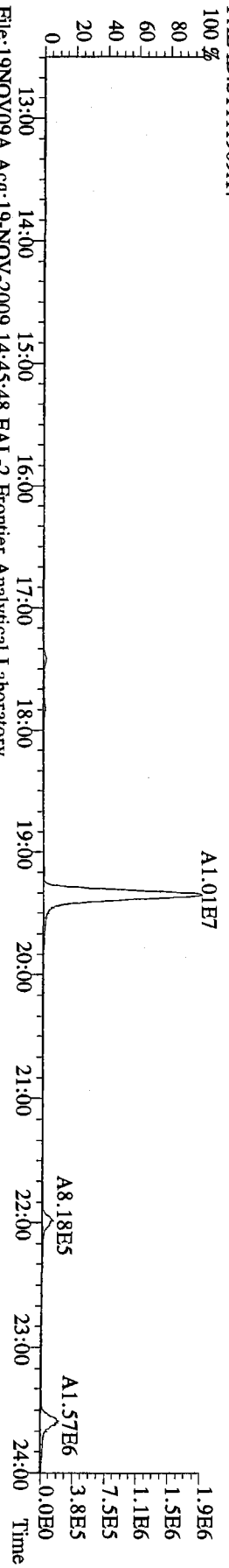
File:19NOV09A Acq:19-NOV-2009 13:00:37 FAL-2 Frontier Analytical Laboratory  
 315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:TCDF  
 FAL ID:ST111909A3



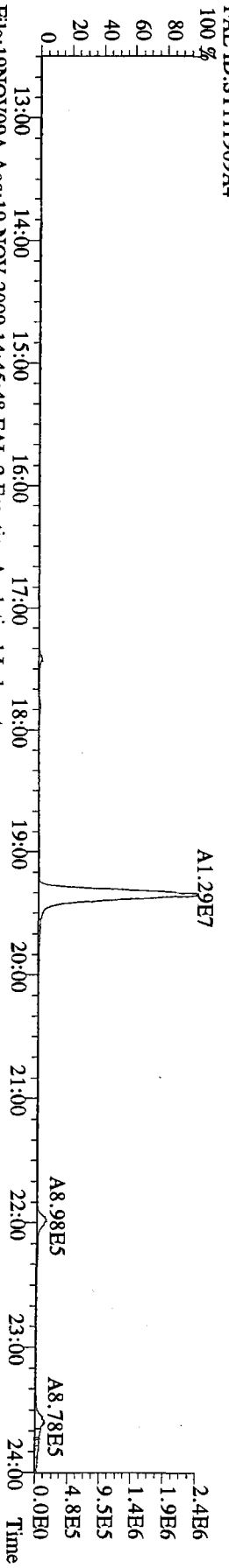
File:19NOV09A Acq:19-NOV-2009 13:00:37 FAL-2 Frontier Analytical Laboratory  
 317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:TCDF  
 FAL ID:ST111909A3



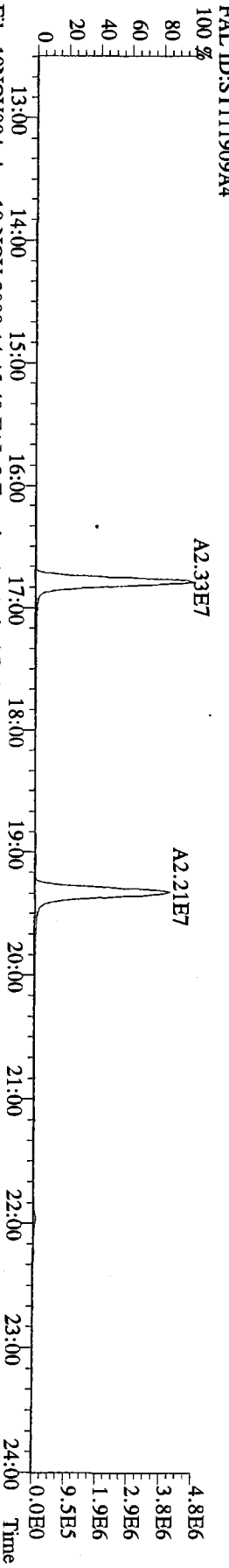
File:19NOV09A Acq:19-NOV-2009 14:45:48 FAL-2 Frontier Analytical Laboratory  
303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp.:TCDF  
FAL ID:ST111909A4



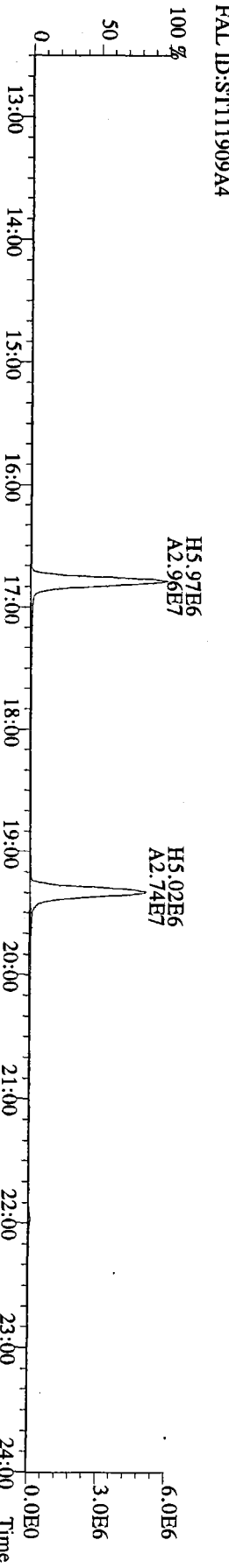
File:19NOV09A Acq:19-NOV-2009 14:45:48 FAL-2 Frontier Analytical Laboratory  
305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp.:TCDF  
FAL ID:ST111909A4



File:19NOV09A Acq:19-NOV-2009 14:45:48 FAL-2 Frontier Analytical Laboratory  
315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp.:TCDF  
FAL ID:ST111909A4

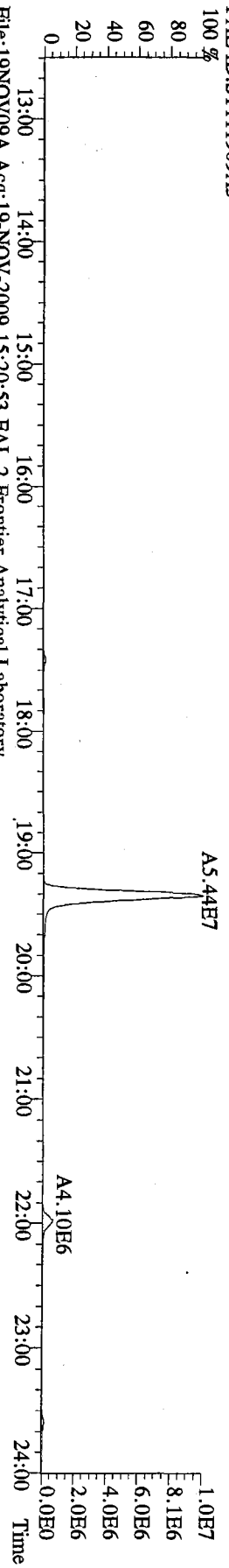


File:19NOV09A Acq:19-NOV-2009 14:45:48 FAL-2 Frontier Analytical Laboratory  
317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp.:TCDF  
FAL ID:ST111909A4

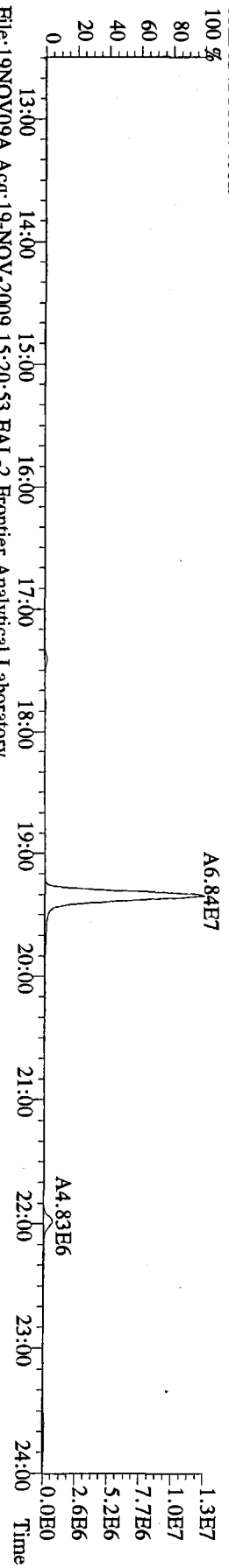


09 11 2009 14:45:48

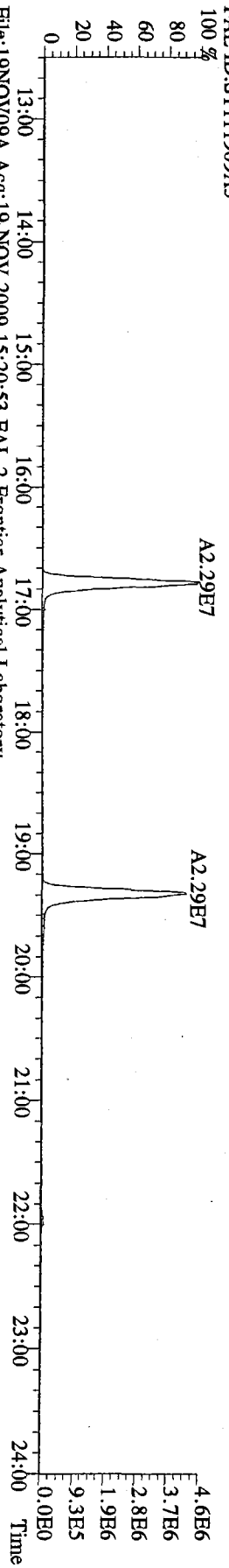
File: 19NOV09A Acq: 19-NOV-2009 15:20:53 FAL-2 Frontier Analytical Laboratory  
 303.9016 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST111909A5



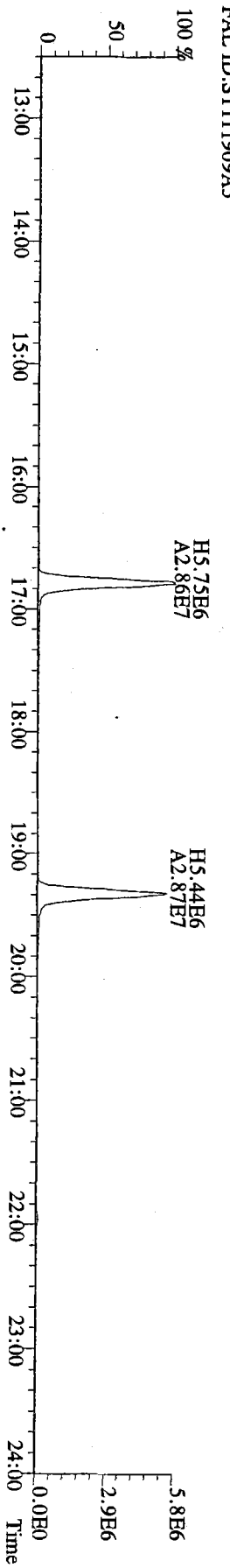
File: 19NOV09A Acq: 19-NOV-2009 15:20:53 FAL-2 Frontier Analytical Laboratory  
 305.8987 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST111909A5



File: 19NOV09A Acq: 19-NOV-2009 15:20:53 FAL-2 Frontier Analytical Laboratory  
 315.9419 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST111909A5



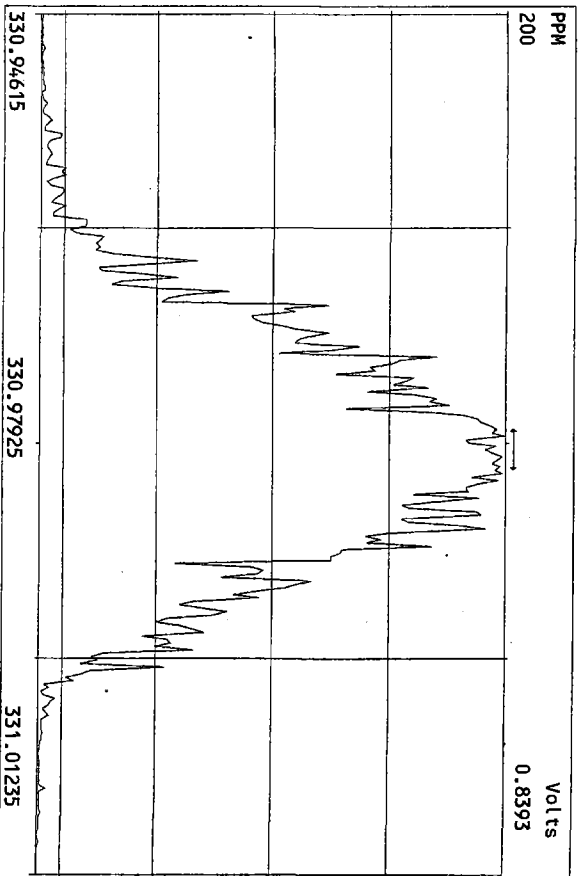
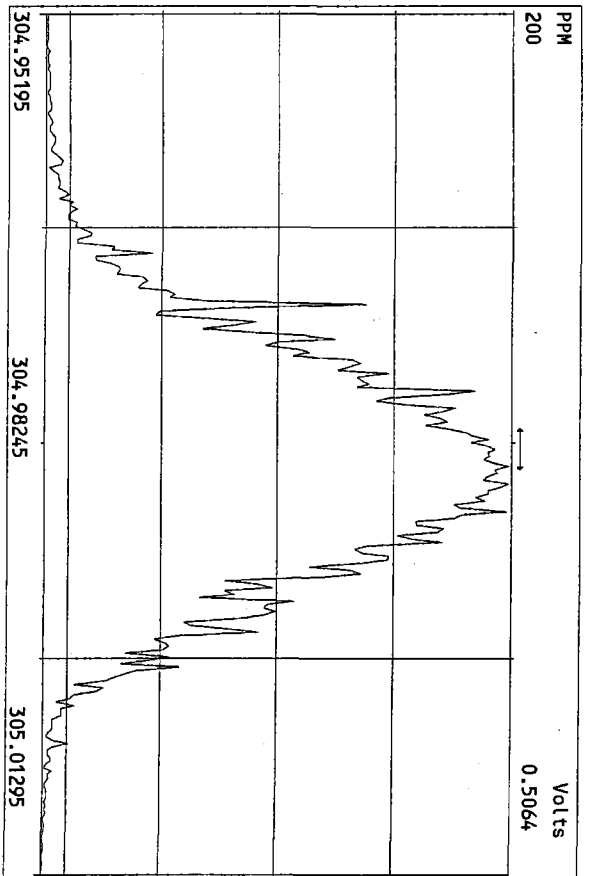
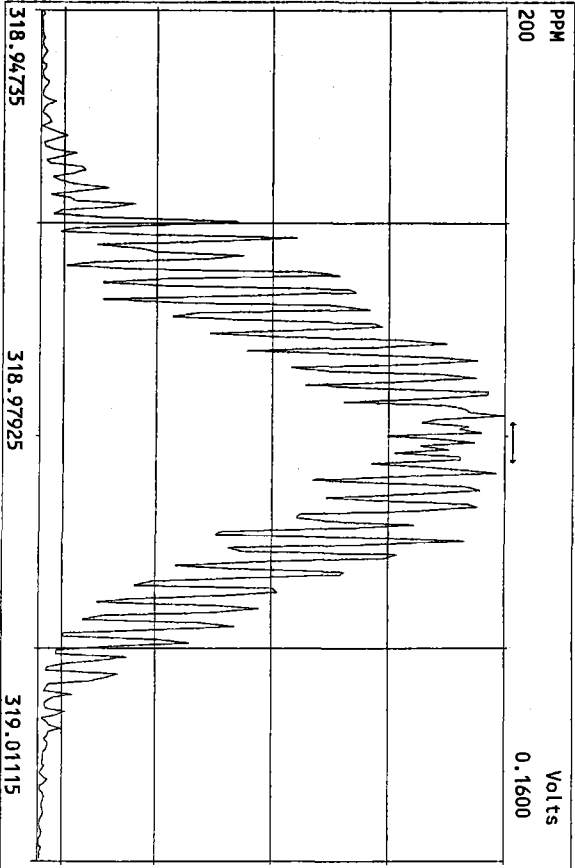
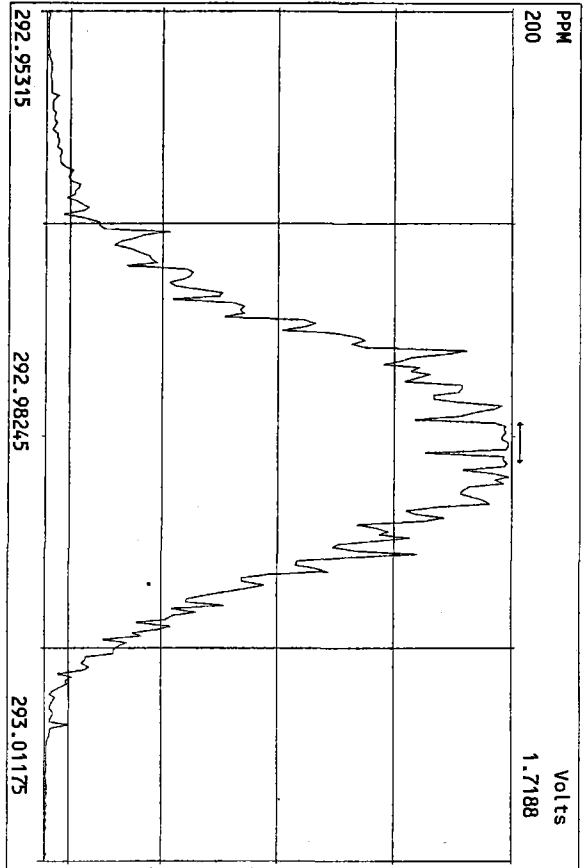
File: 19NOV09A Acq: 19-NOV-2009 15:20:53 FAL-2 Frontier Analytical Laboratory  
 317.9389 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST111909A5



11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



Peak Locate Examination: 20-NOV-2009:07:54 File: 19NOV09A\_RES\_CHECK  
Experiment: TCDF Function: 1 Reference: PFK



# **Continuing/Ending Calibration Results**















Frontier Analytical Laboratory - Acquisition Log

Run Name: 22JAN10M

Instrument: FAL3

GC: DB5

Experiment: PCDD

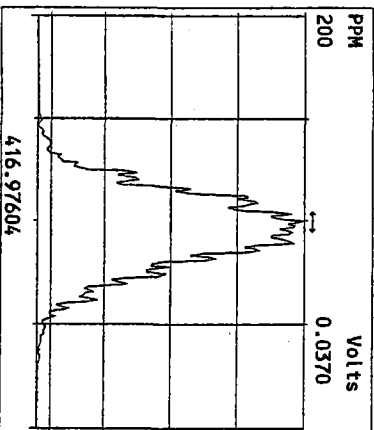
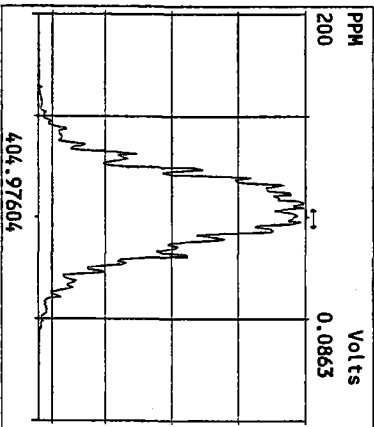
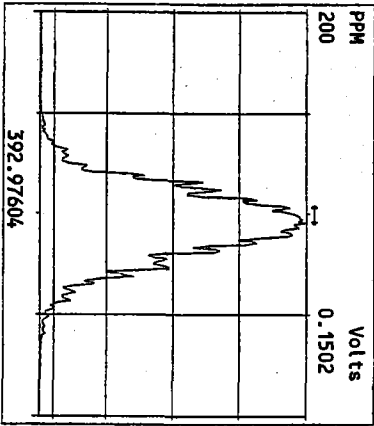
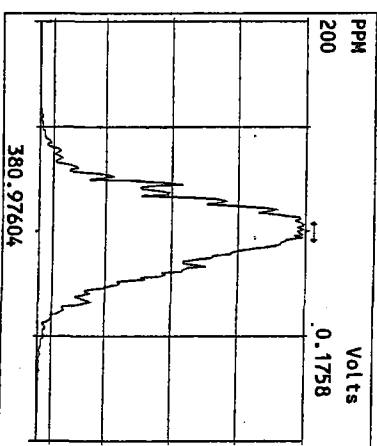
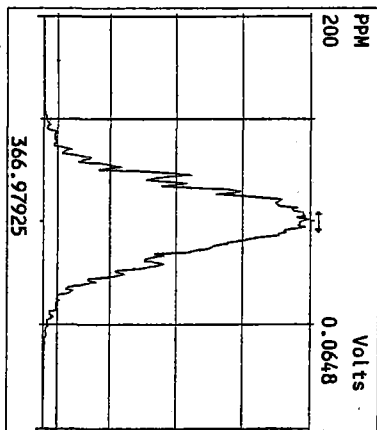
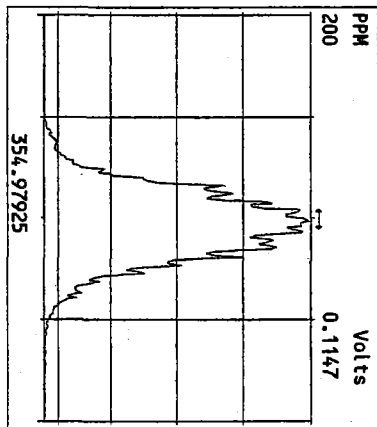
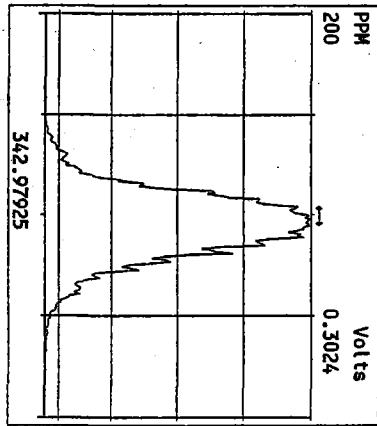
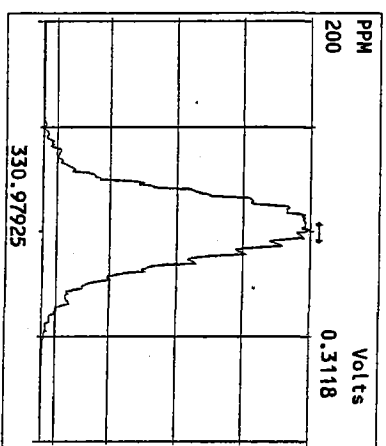
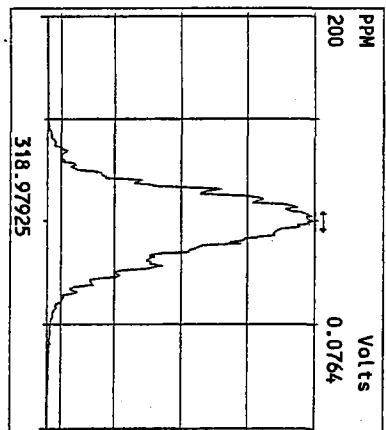
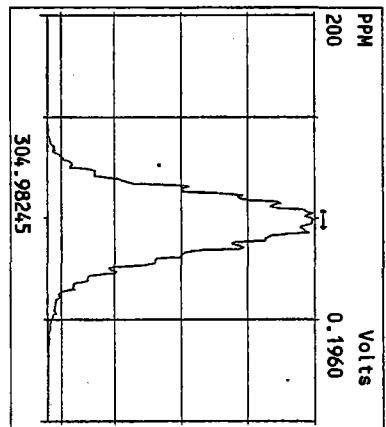
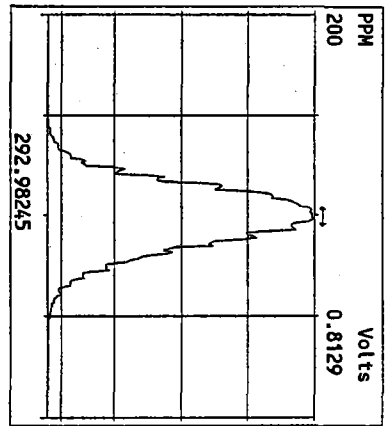
Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
22JAN10M 1	ST012210M1	1613 CS3 (90918J)	22-JAN-10 13:36:22	ST012210M1	ST012210M2	TC
22JAN10M 2	SB012210M1	Solvent Blank	22-JAN-10 14:31:41	ST012210M1	ST012210M2	TC
22JAN10M 3	SB012210M2	Solvent Blank	22-JAN-10 15:27:00	ST012210M1	ST012210M2	TC
22JAN10M 4	1926-001-0001-OPR	OPR	22-JAN-10 16:22:18	ST012210M1	ST012210M2	TC
22JAN10M 5	1926-001-0001-MB	Method Blank	22-JAN-10 17:17:33	ST012210M1	ST012210M2	TC
22JAN10M 6	5913-001-0001-SA	CB19010710SED	22-JAN-10 18:12:51	ST012210M1	ST012210M2	TC
22JAN10M 7	5913-002-0001-SA	CB12010710SED	22-JAN-10 19:08:10	ST012210M1	ST012210M2	TC
22JAN10M 8	5913-003-0001-SA	CB2010710SED	22-JAN-10 20:03:29	ST012210M1	ST012210M2	TC
22JAN10M 9	5914-001-0001-SA*	<del>CB34A011110SED</del>	22-JAN-10 20:58:52	ST012210M1	ST012210M2	TC
22JAN10M 10	5914-002-0001-SA	CB99011110SED	22-JAN-10 21:54:15	ST012210M1	ST012210M2	TC
22JAN10M 11	SB012210M3	Solvent Blank	22-JAN-10 22:49:37	ST012210M1	ST012210M2	TC
22JAN10M 12	SB012210M4	Solvent Blank	22-JAN-10 23:44:56	ST012210M1	ST012210M2	TC
22JAN10M 13	ST012210M2	1613 CS3 (90918J)	23-JAN-10 00:40:14	ST012210M1	ST012210M2	TC

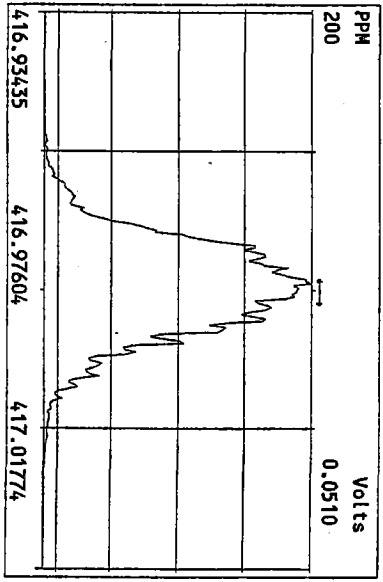
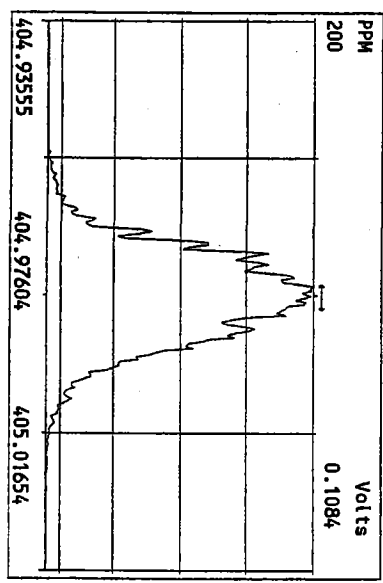
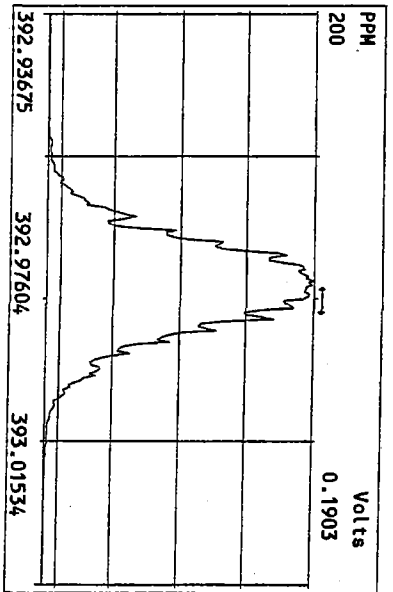
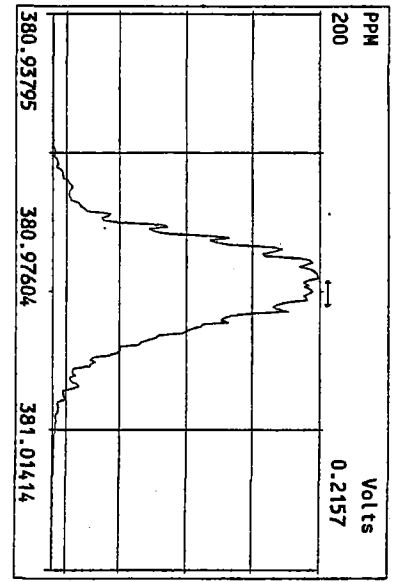
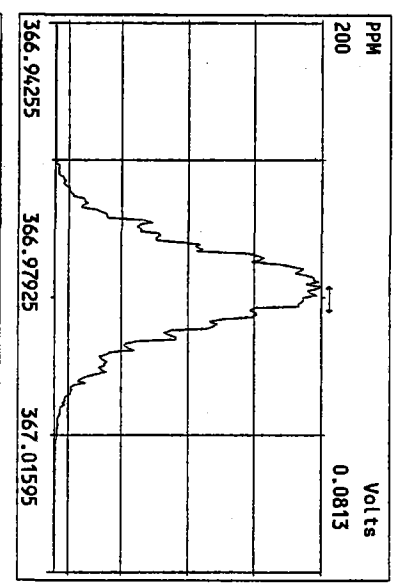
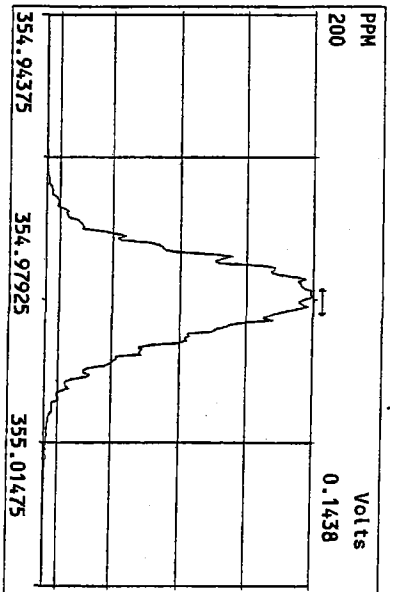
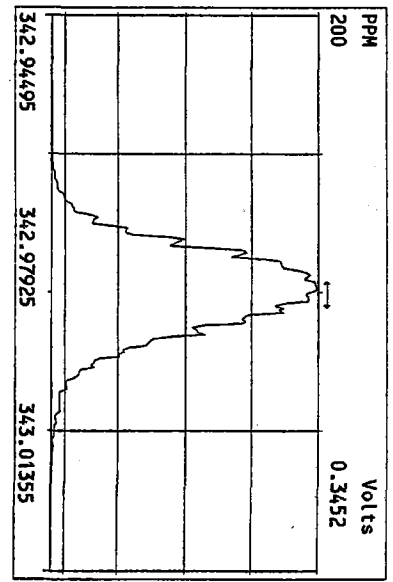
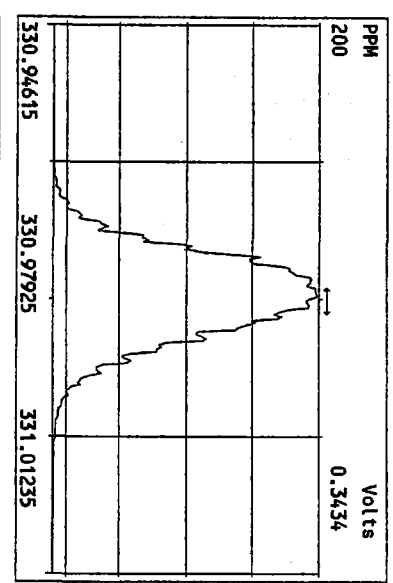
\* 5914-001-0001-SA did not inject. Syringe missed vial insert. Will run on 25 JANUARY  
 B 1/25/10

Data Backed Up: \_\_\_\_\_

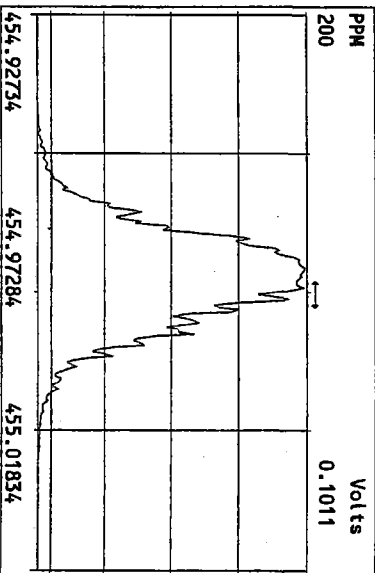
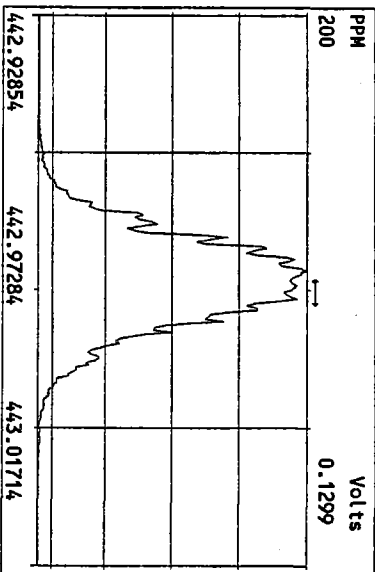
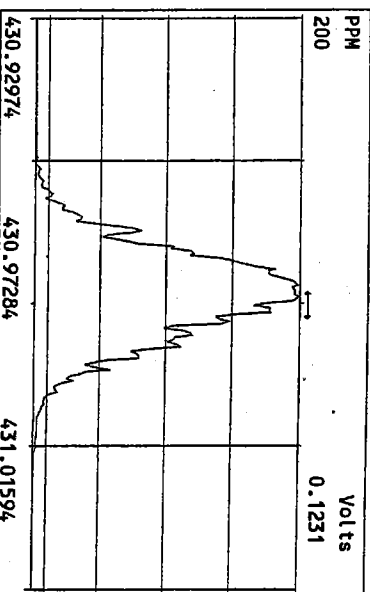
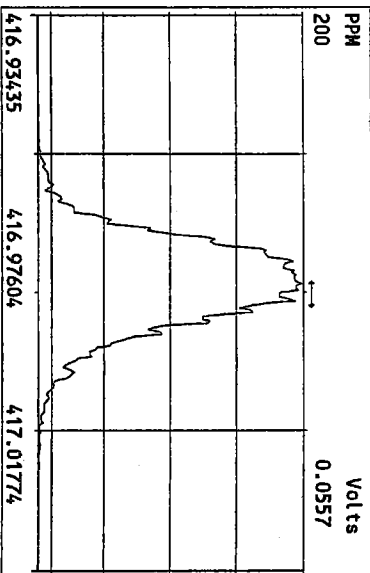
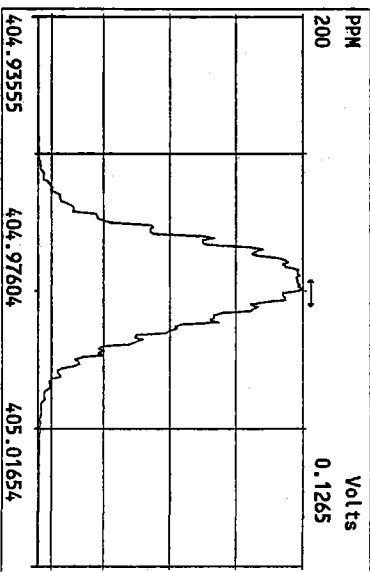
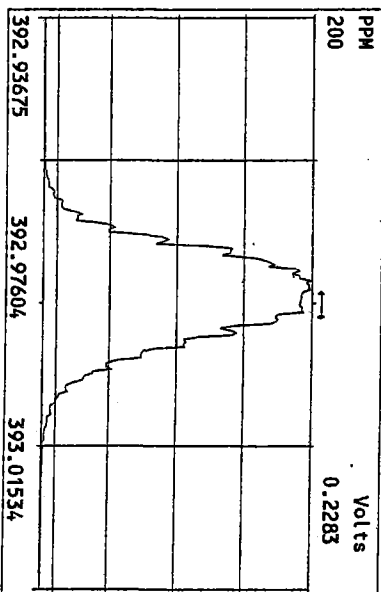
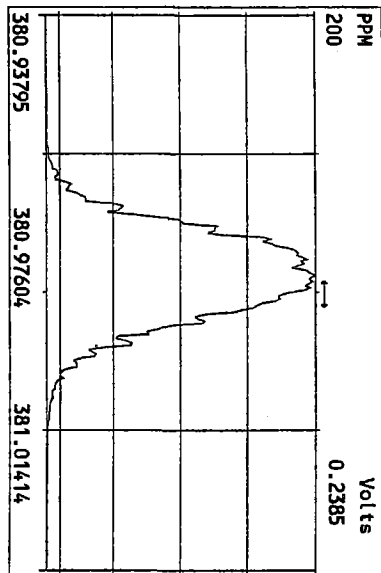
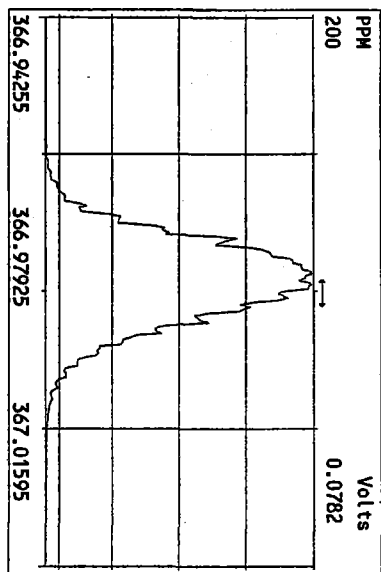
Date: \_\_\_\_\_

Peak Locate Examination:22-JAN-2010:13:34 File:22JAN10M  
Experiment:PCDD Function:1 Reference:PK

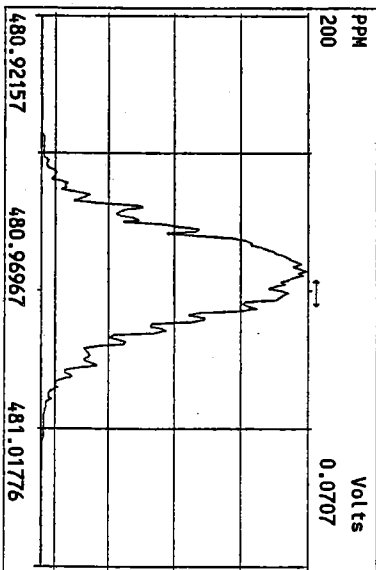
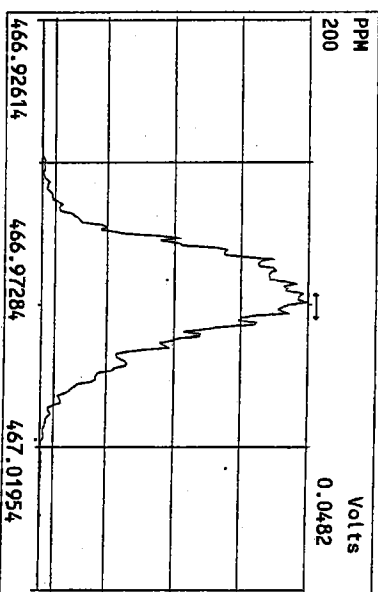
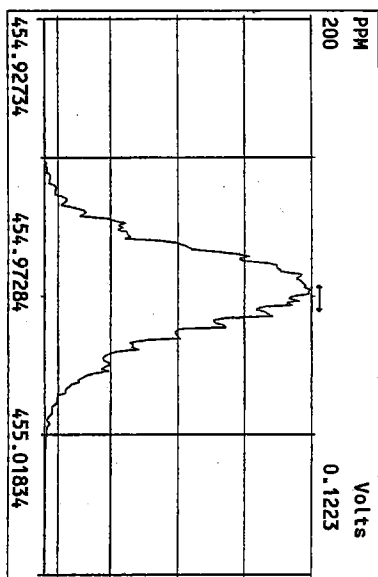
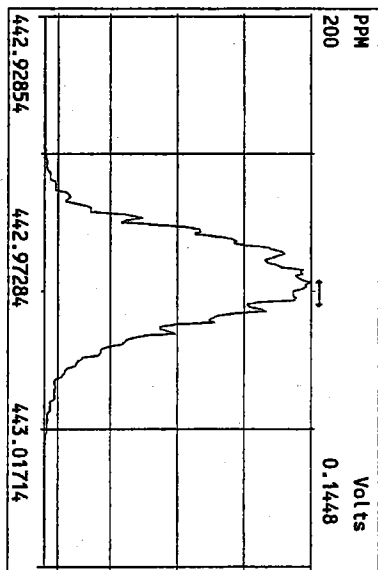
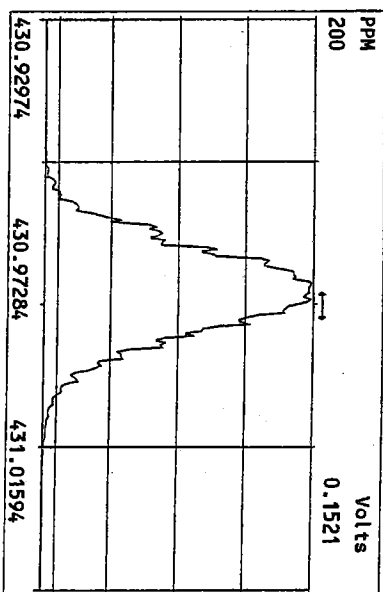
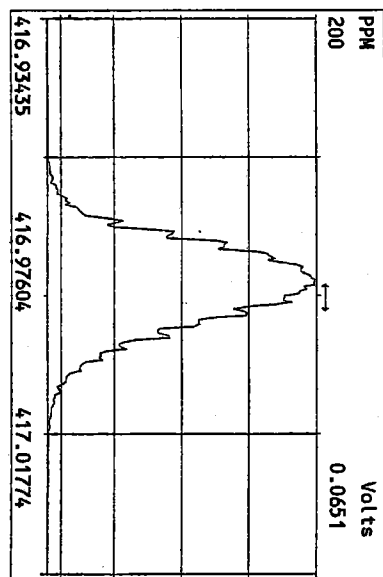
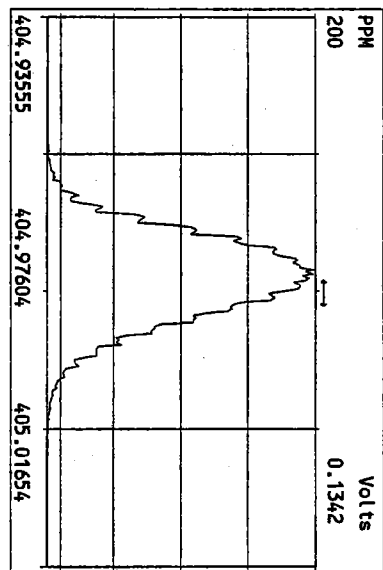




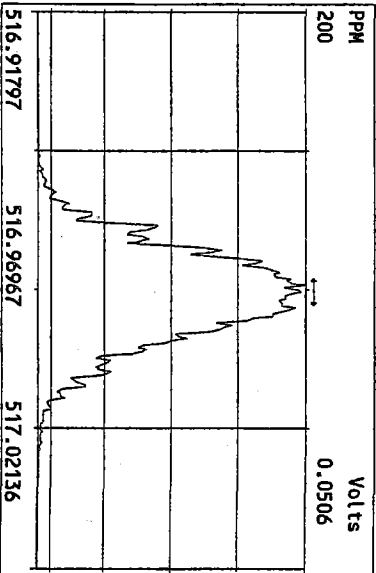
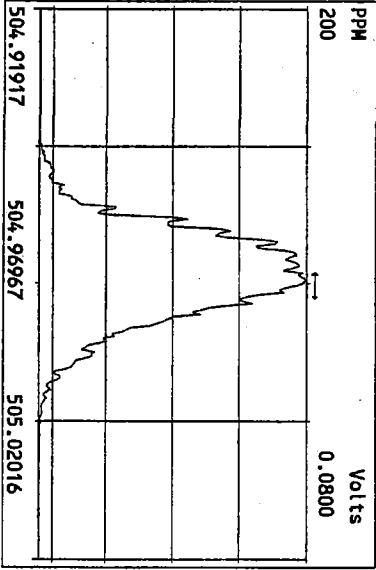
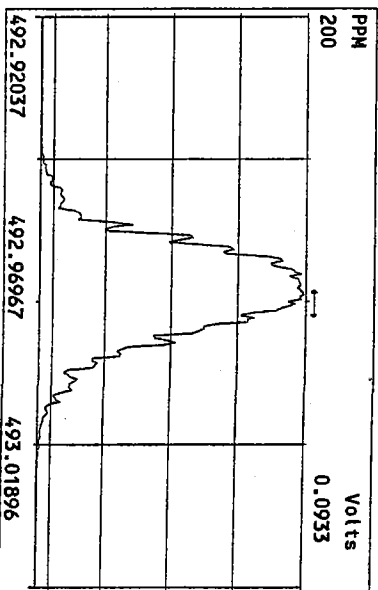
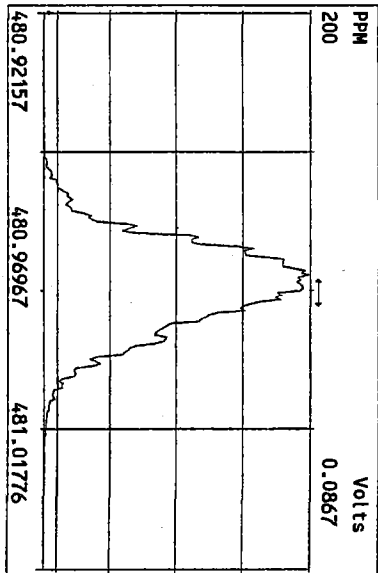
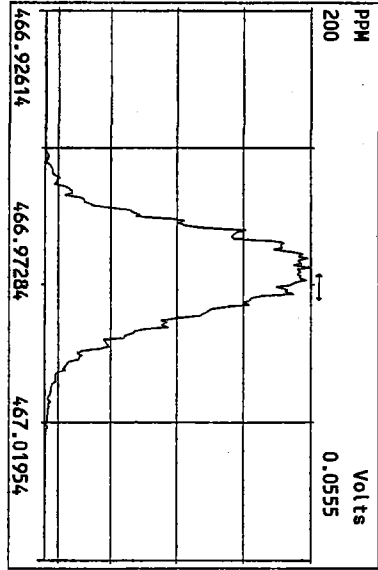
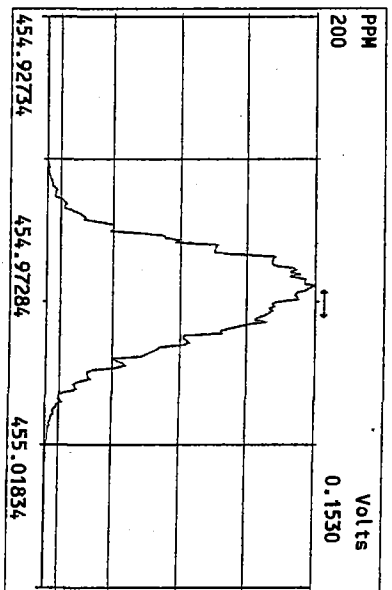
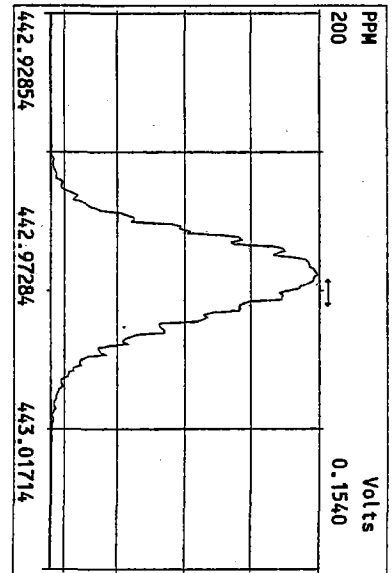
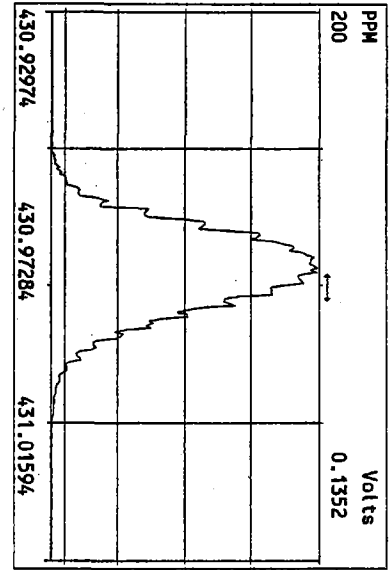
IN 11 05 : 00 00 00

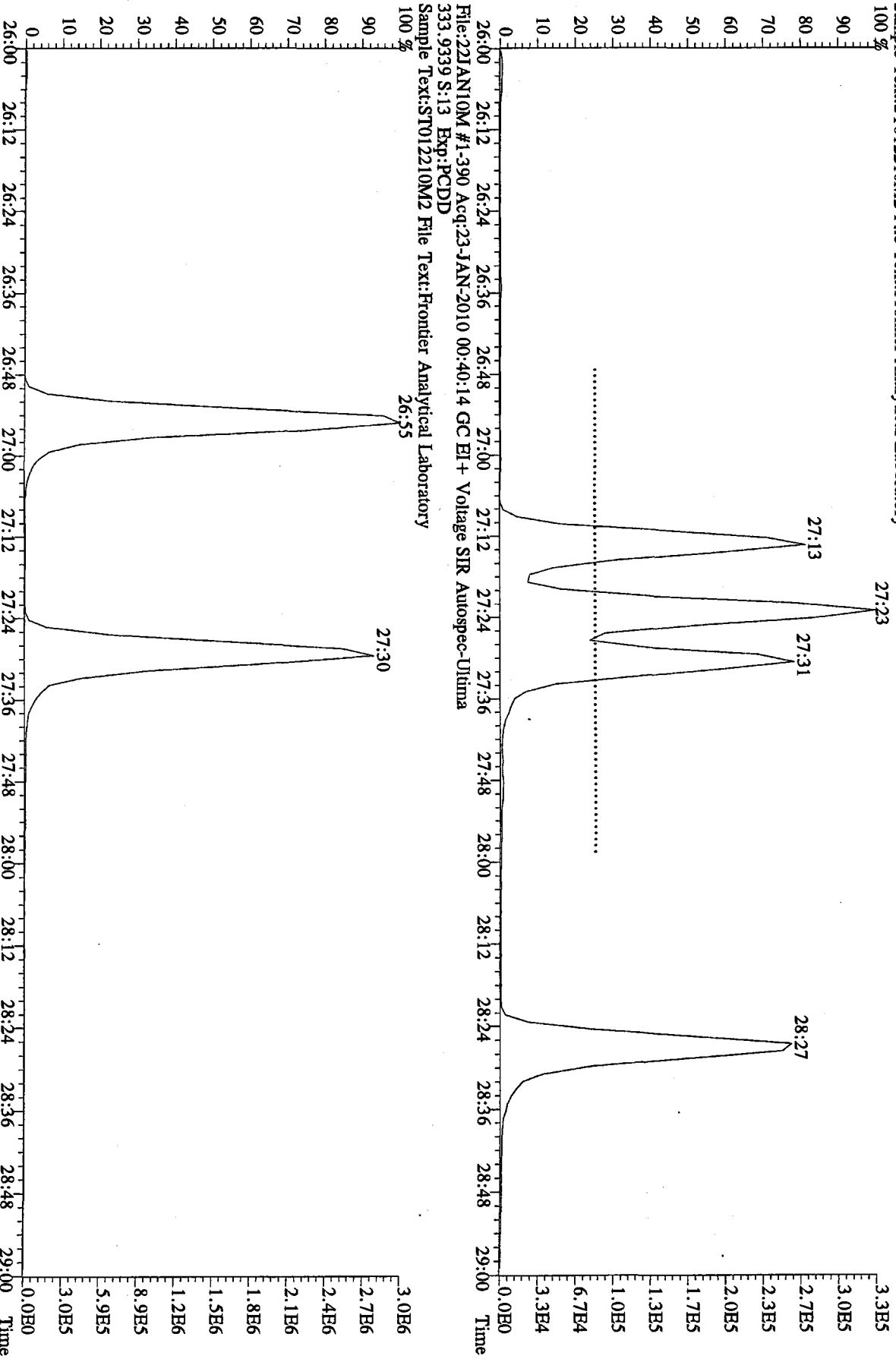


PPM 200  
Volts 0.1299  
442.92854 442.97284 443.01714

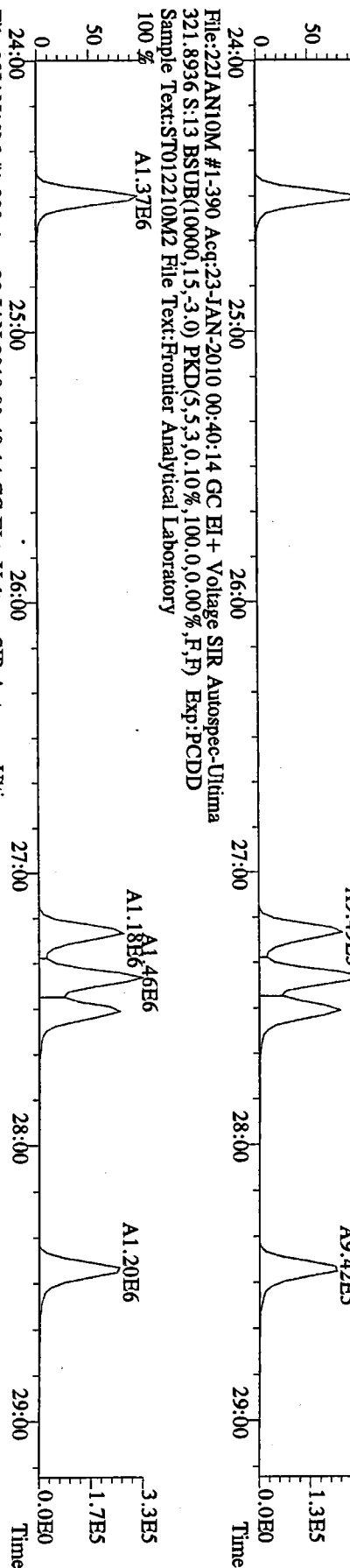


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

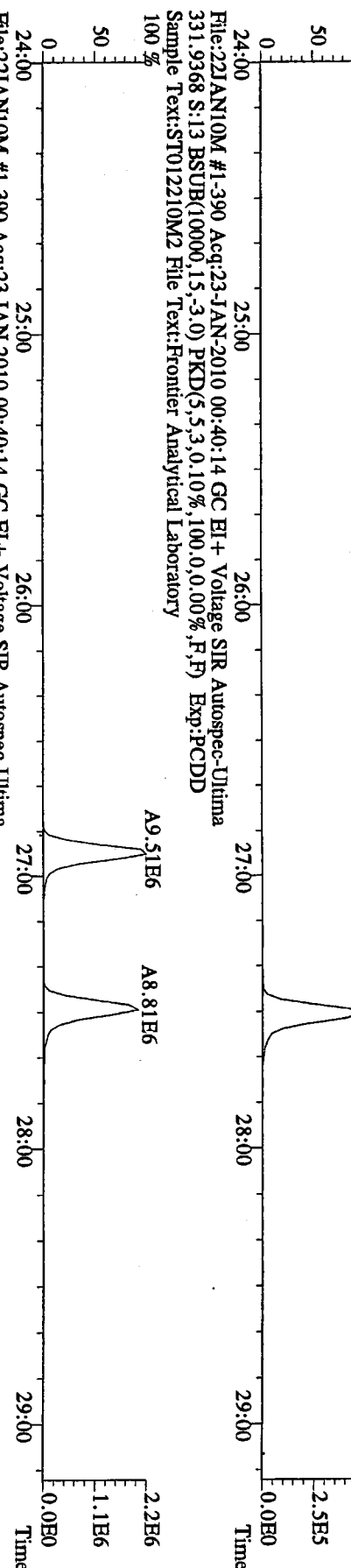




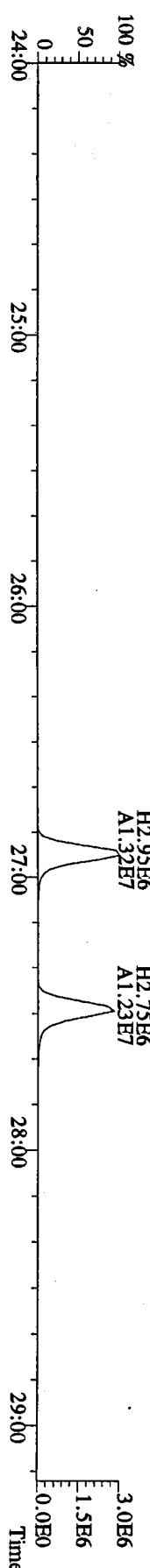
File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 319.8965 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 327.8847 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

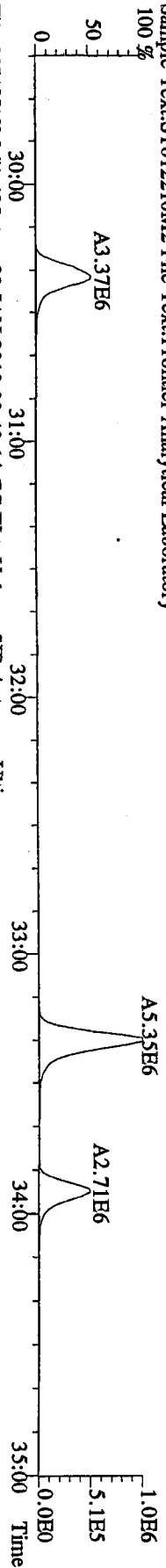


File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 333.9339 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

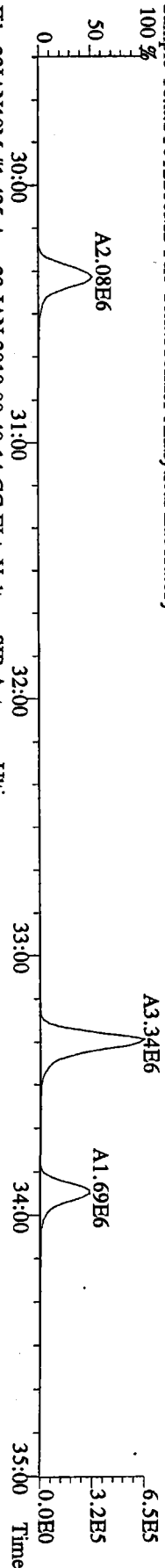




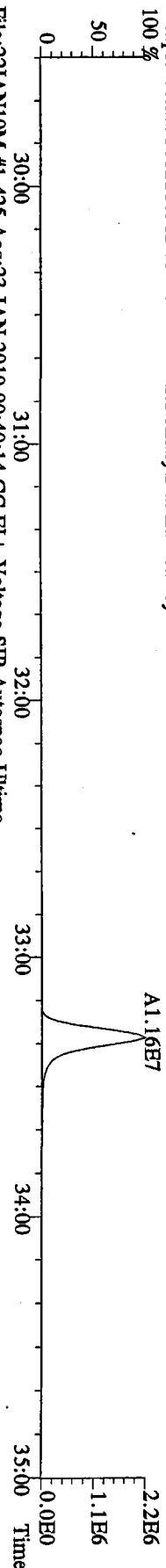
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
355.8546 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



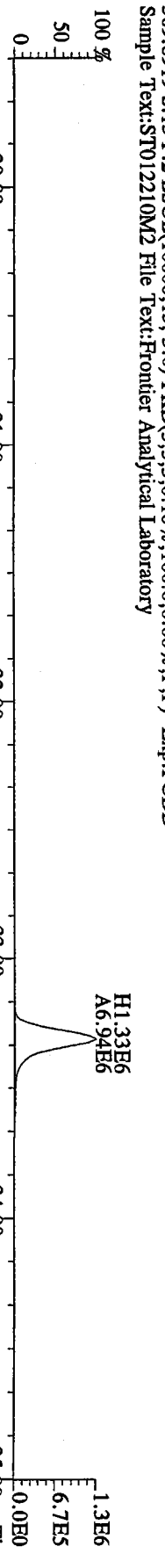
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
357.8517 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



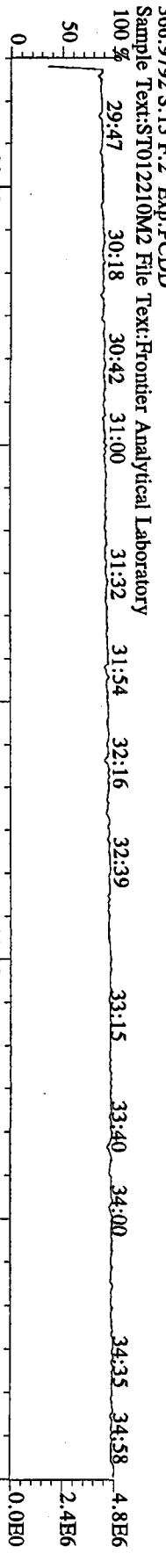
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
367.8949 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
369.8919 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

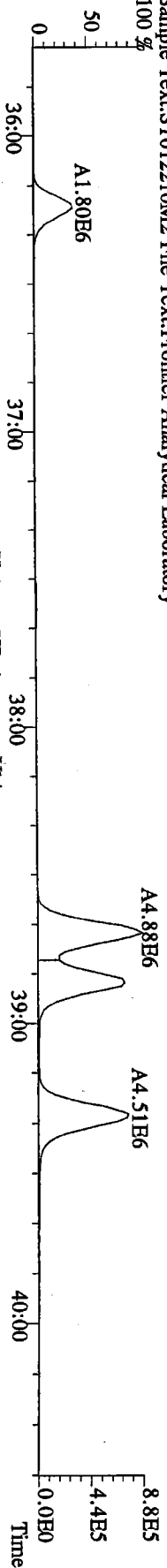


File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
366.9792 S:13 F:2 Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

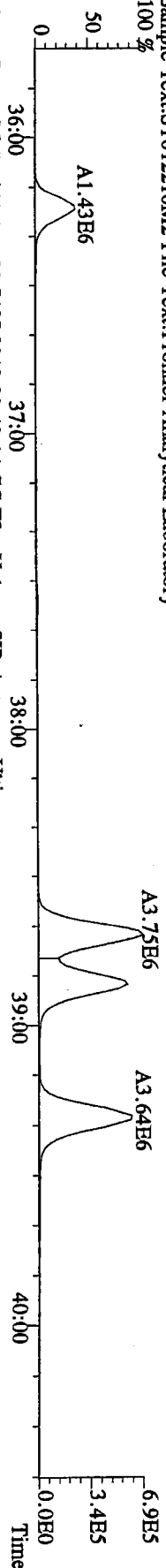


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

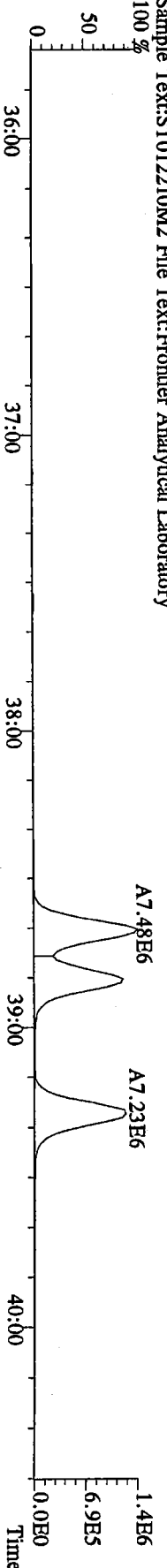
File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



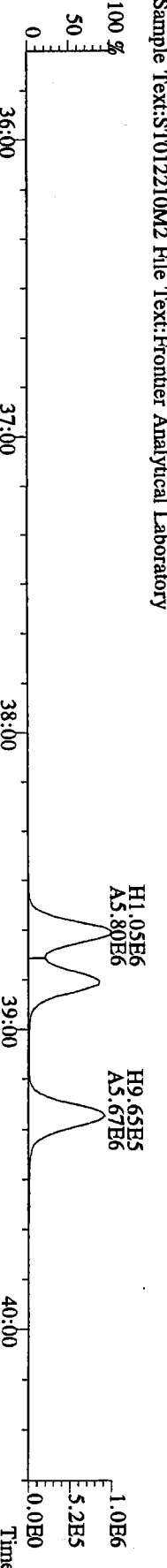
File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



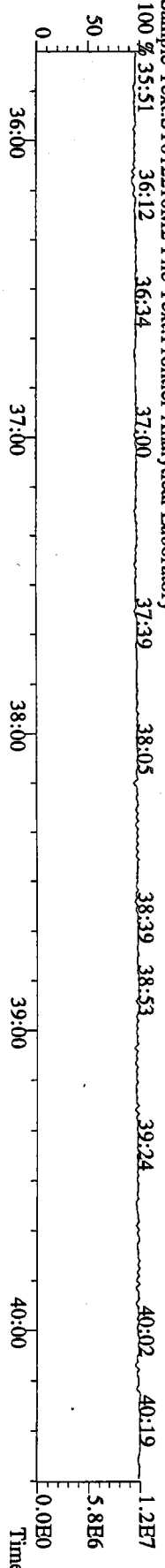
File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



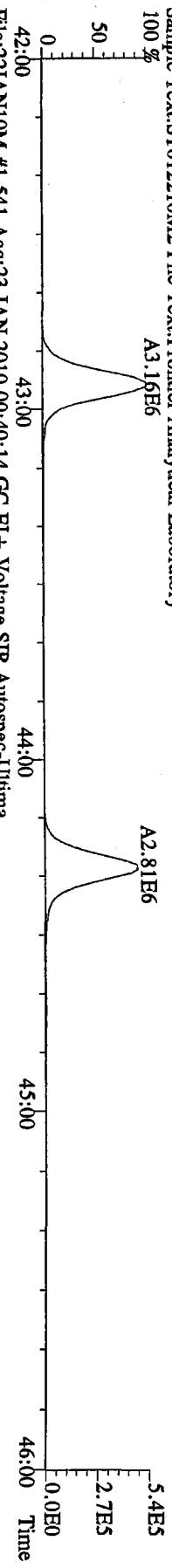
File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



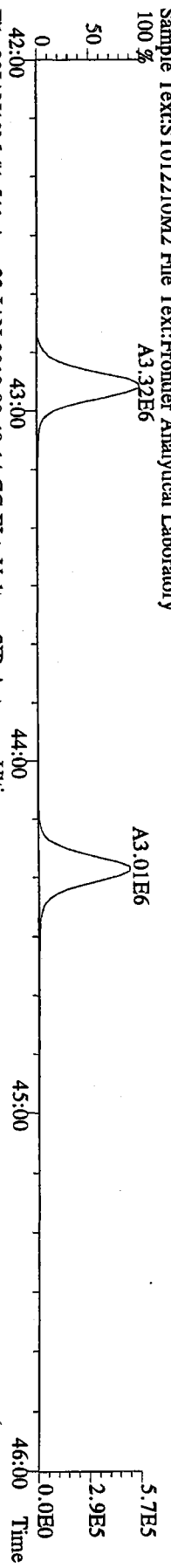
File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 S:13 F:3 Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



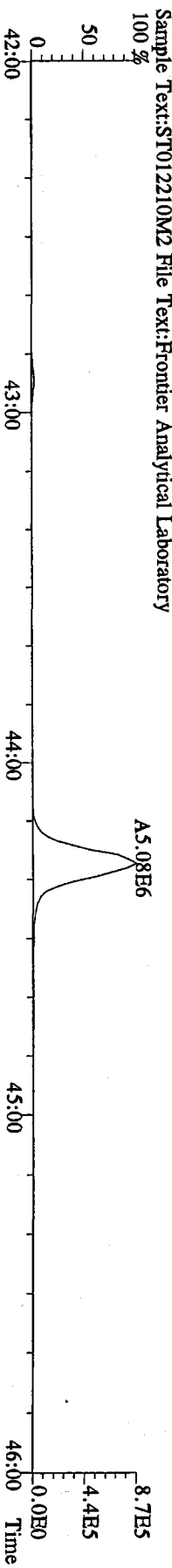
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
423.7767 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



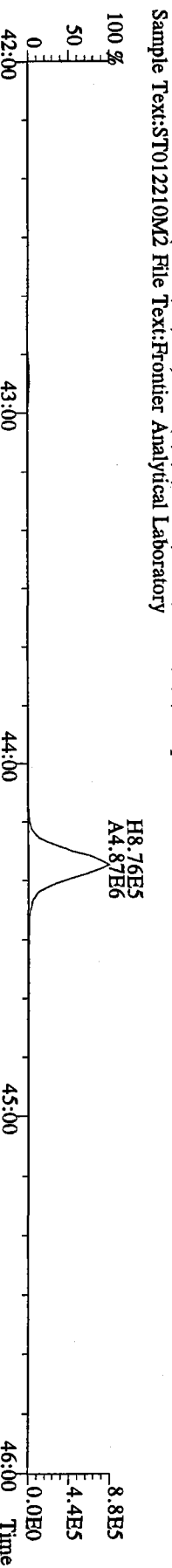
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
425.7737 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



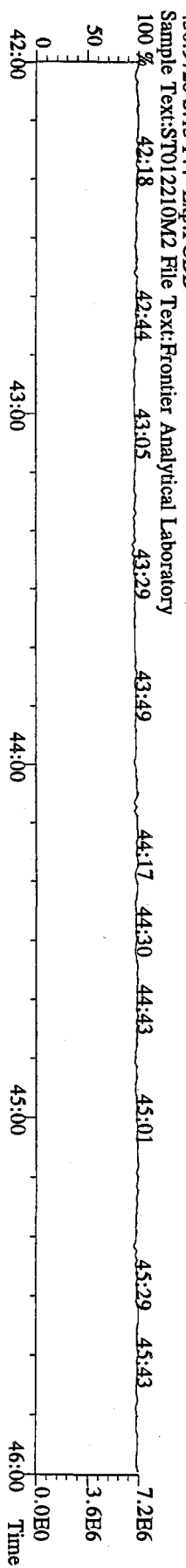
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
435.8169 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
437.8140 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

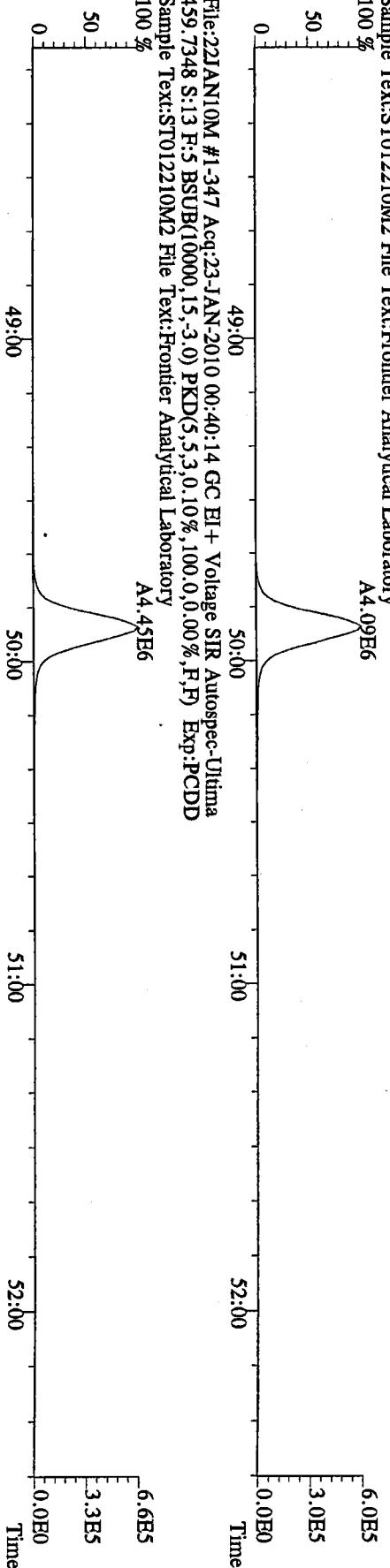


File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
430.9728 S:13 F:4 Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

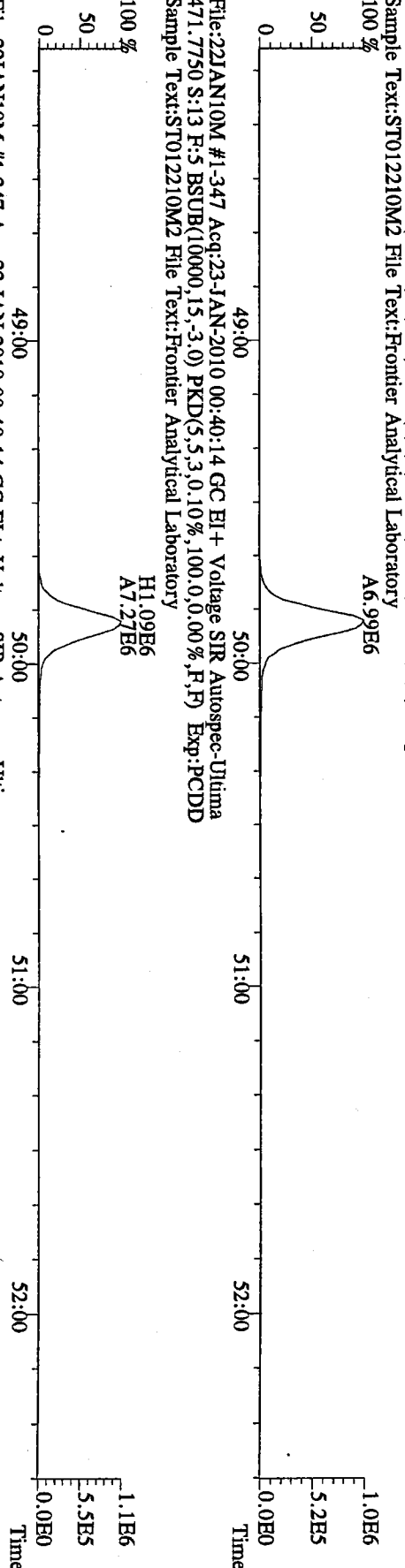


11 12 13 14 15 16 17 18 19 20

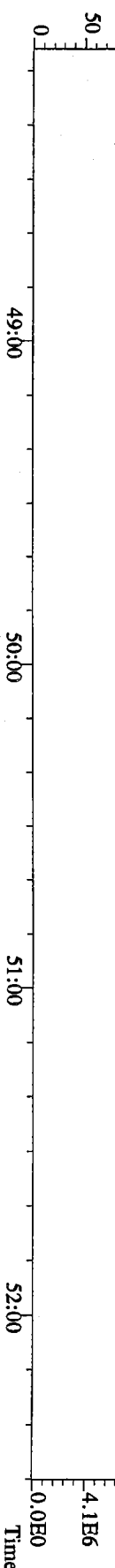
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
457.7377 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
469.7780 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



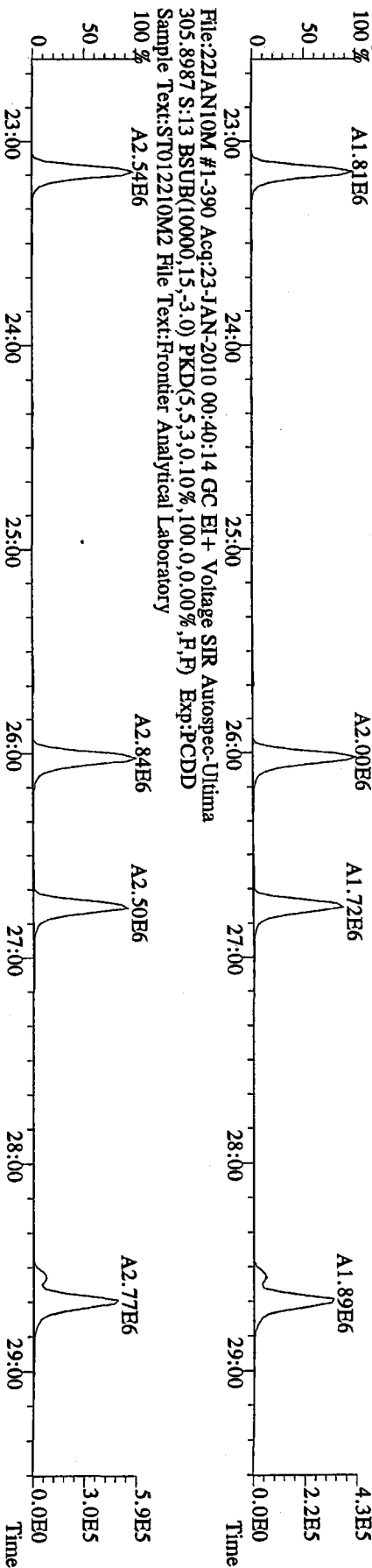
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
471.7750 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



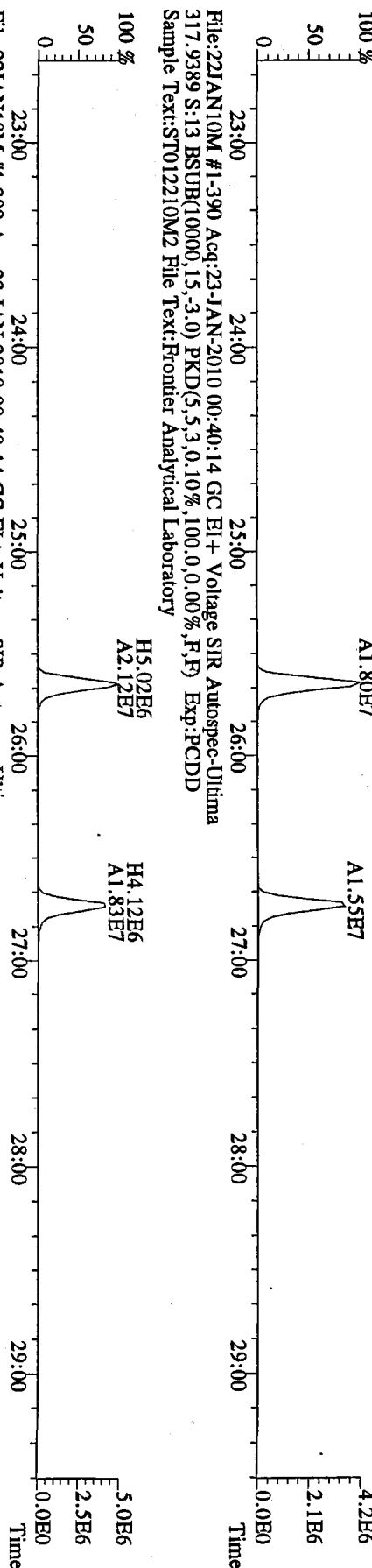
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 S:13 F:5 Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



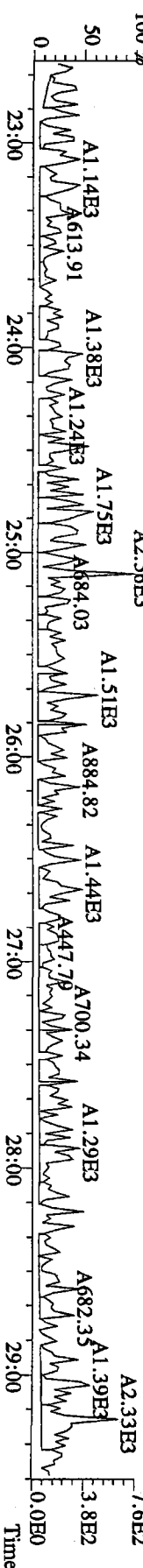
File:221JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



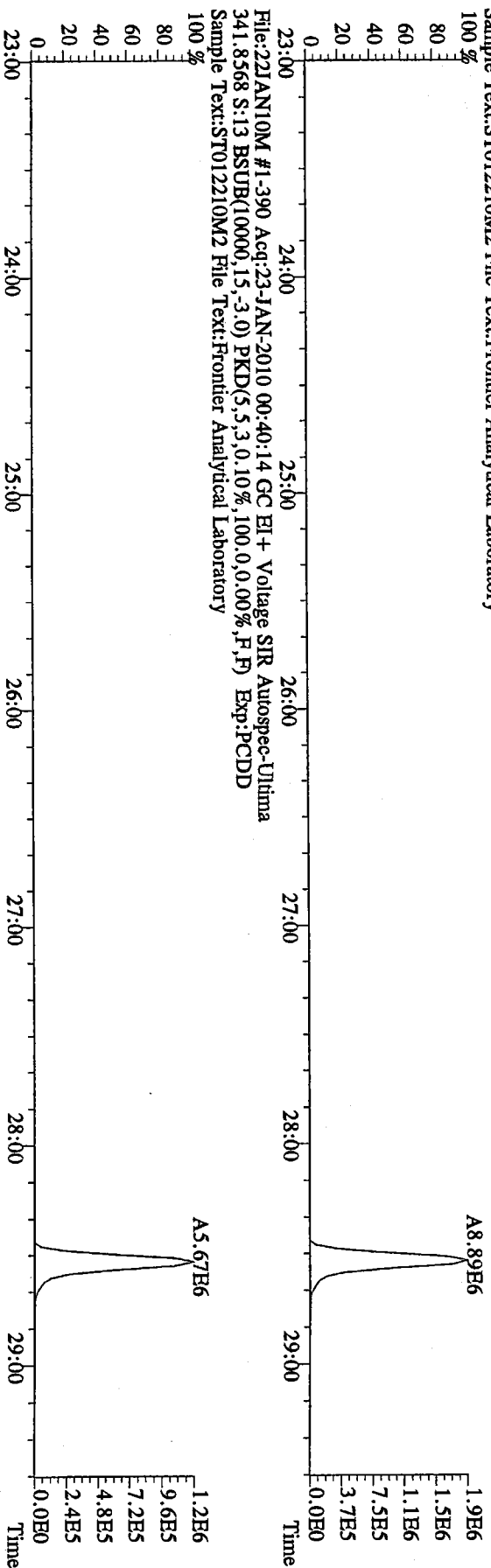
File:221JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
315.9419 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



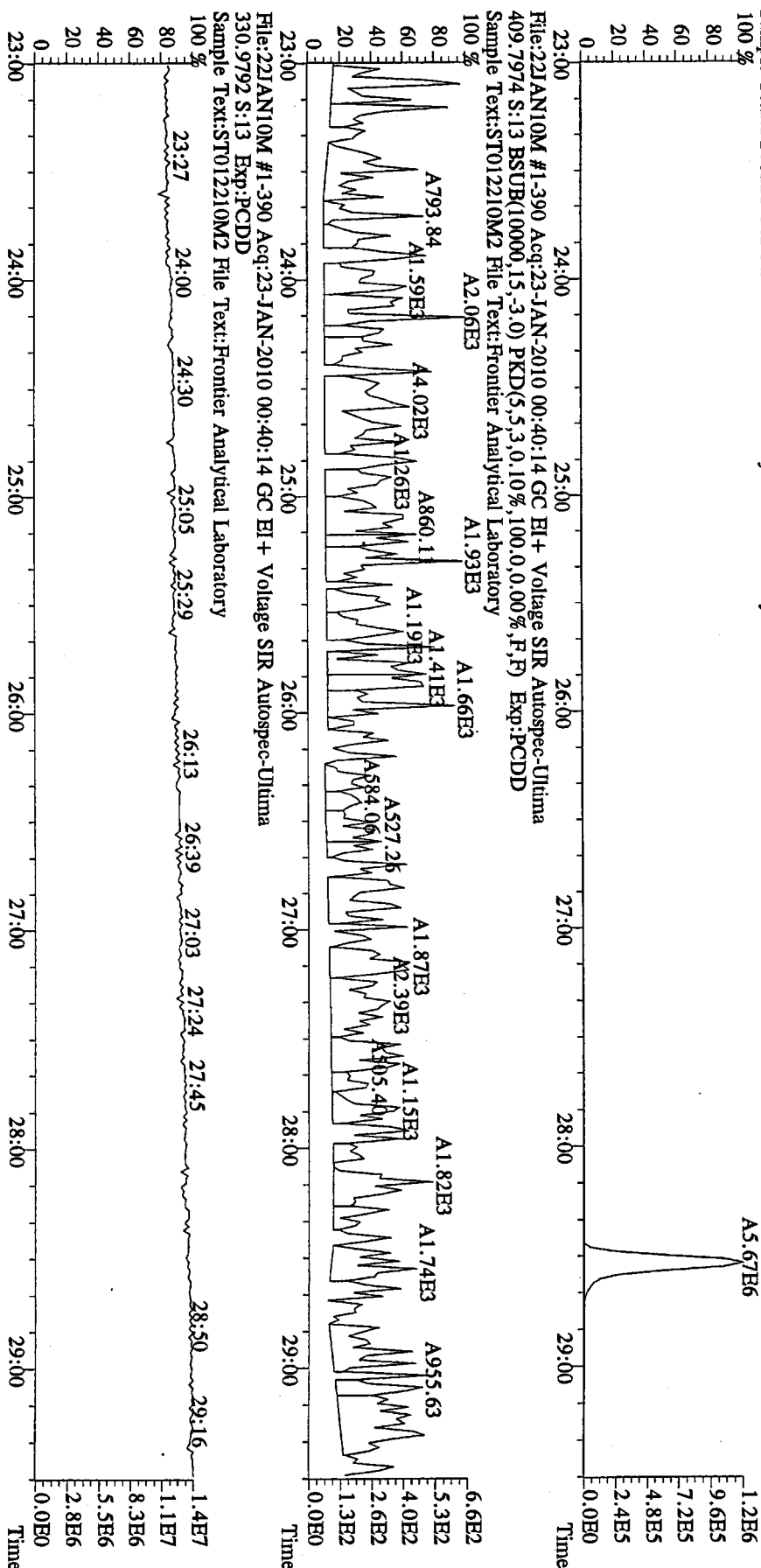
File:221JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
317.9389 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



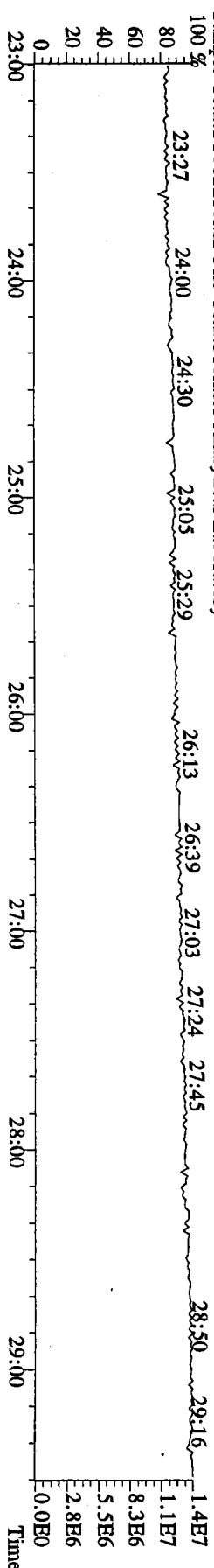
File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



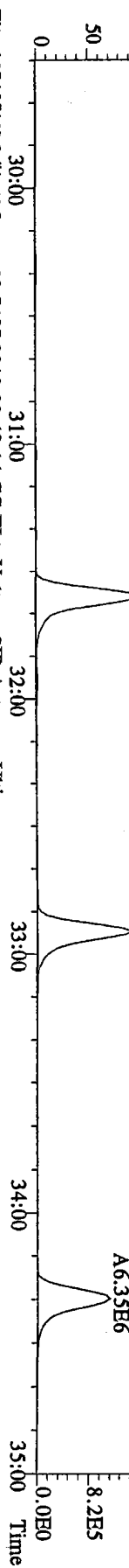
File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



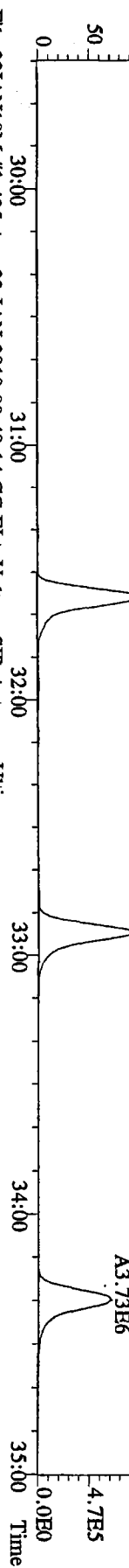
File:22JAN10M #1-390 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 S:13 Exp:PCDD  
 Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



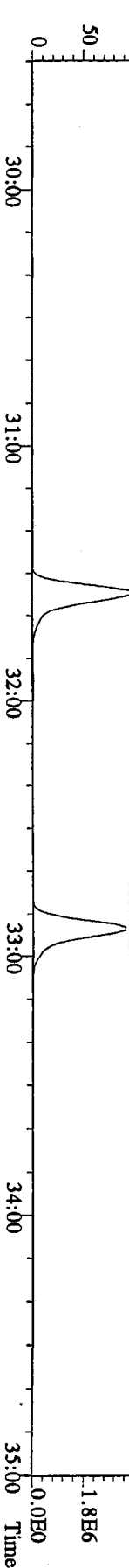
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
339.8597 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



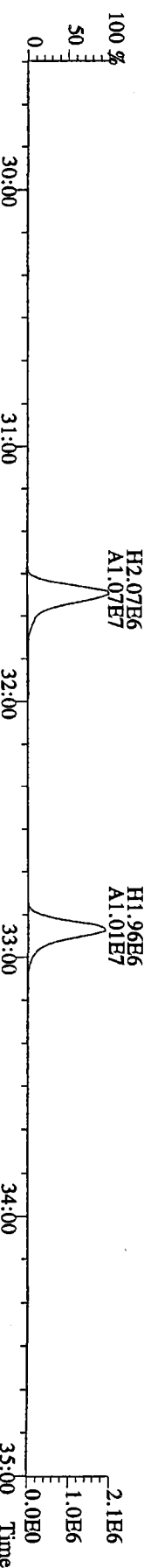
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
341.8568 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



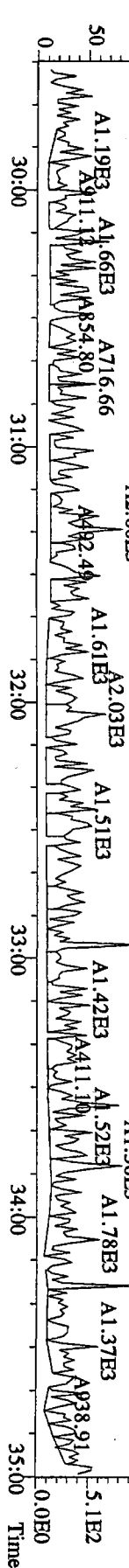
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
351.9000 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



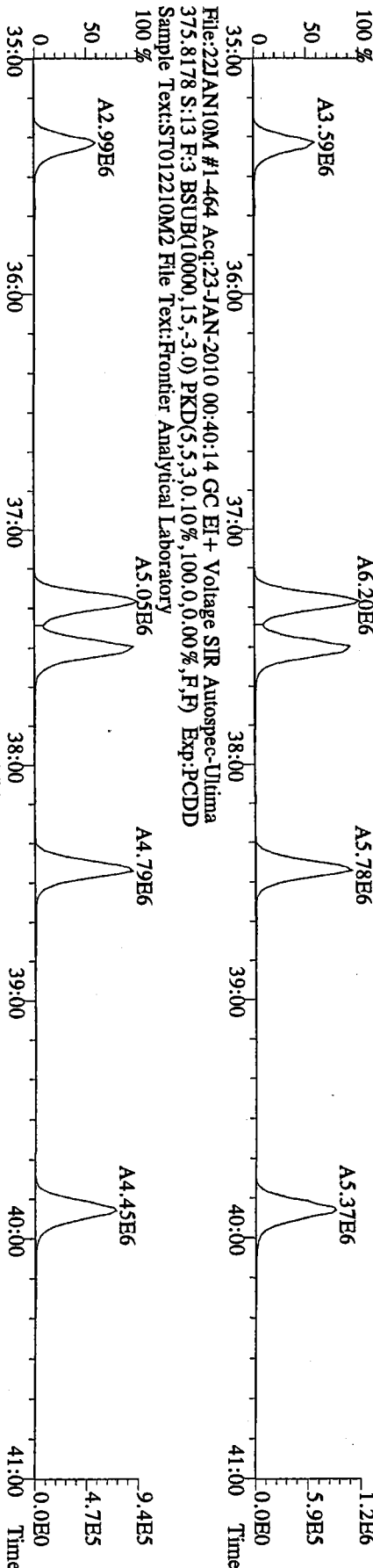
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
353.8970 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



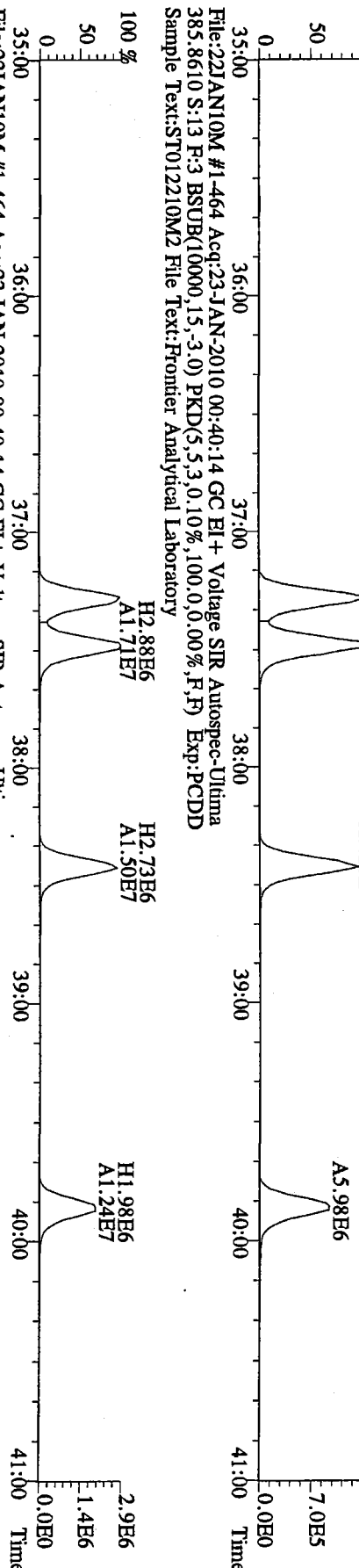
File:22JAN10M #1-425 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
409.7974 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



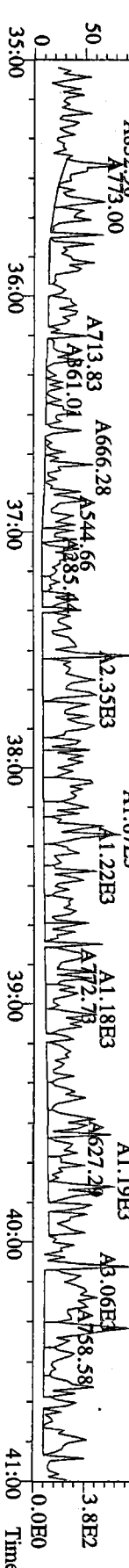
File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
383.8639 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

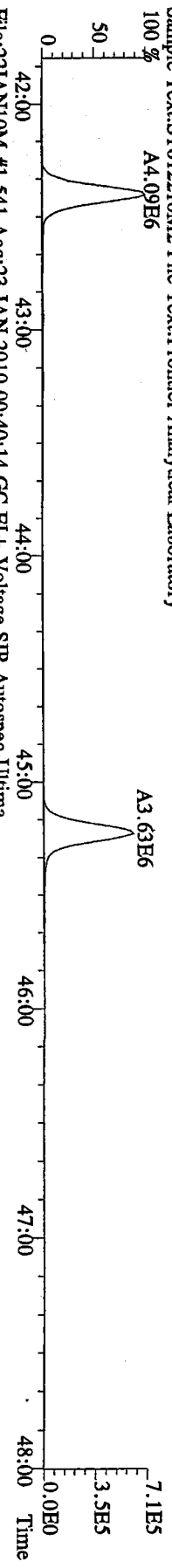


File:22JAN10M #1-464 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
445.7555 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

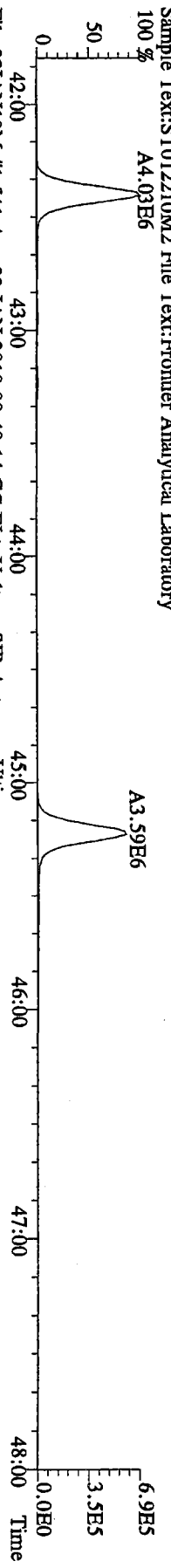




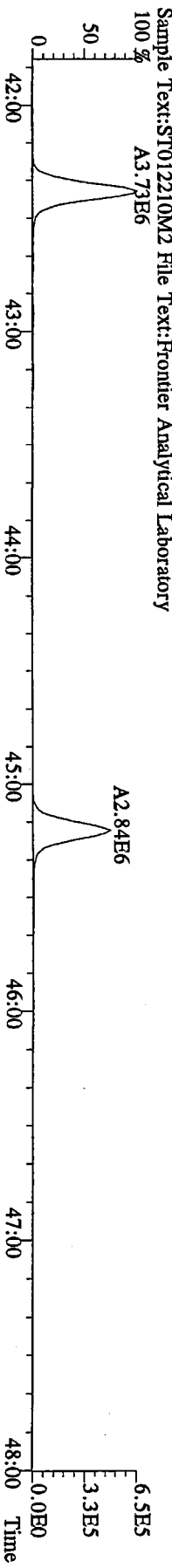
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
407.7818 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



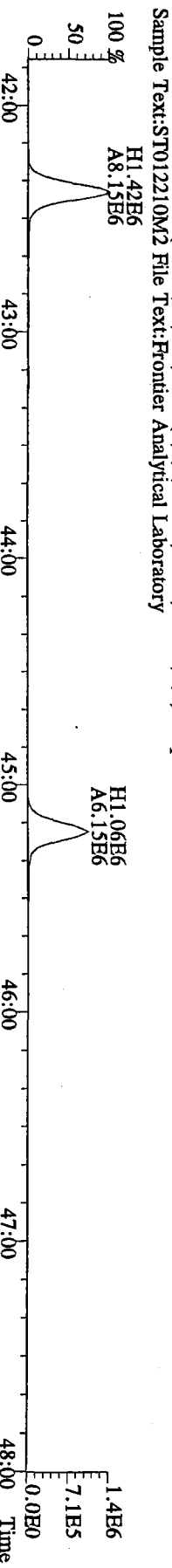
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
409.7788 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



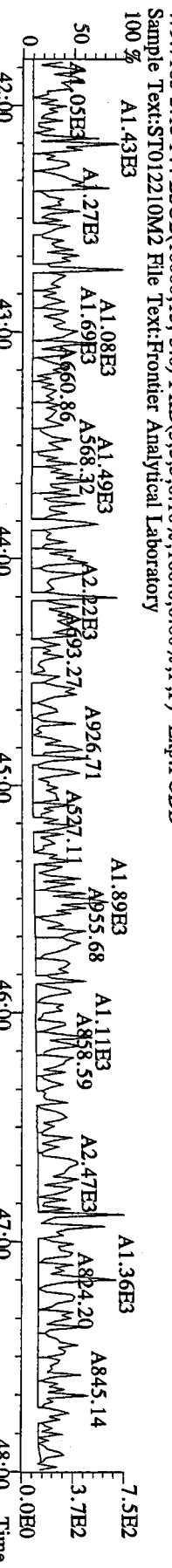
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
417.8253 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



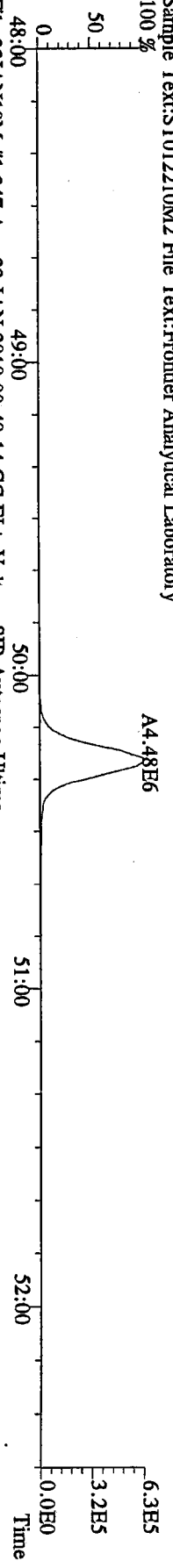
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



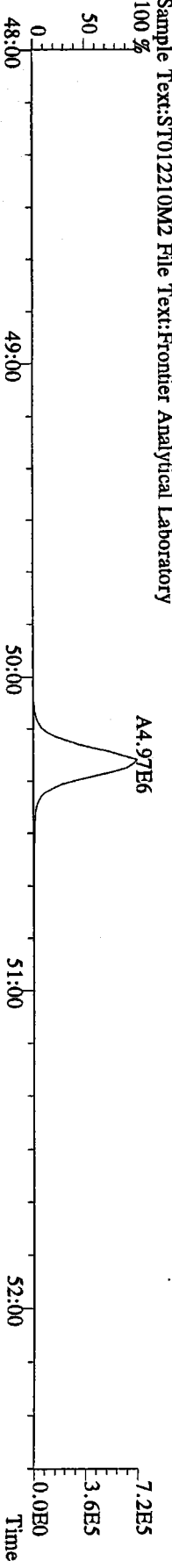
File:22JAN10M #1-541 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
419.8220 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory



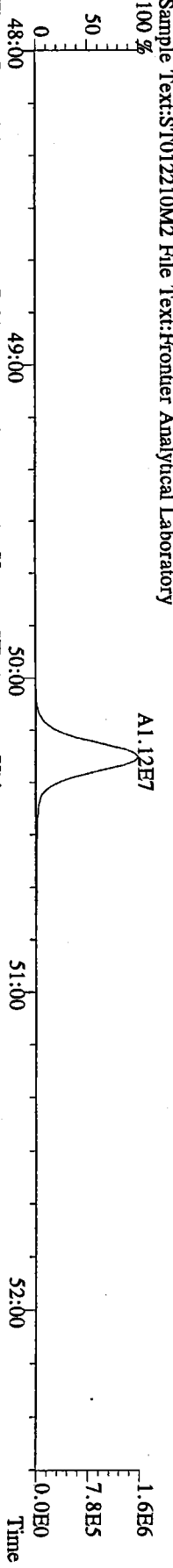
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory  
100 %



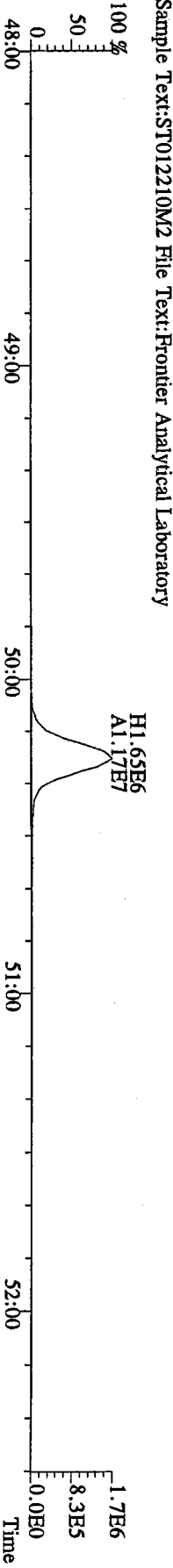
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory  
100 %



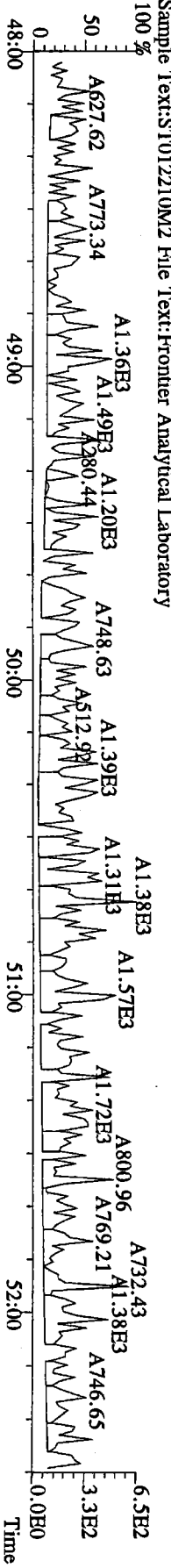
File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
455.7801 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory

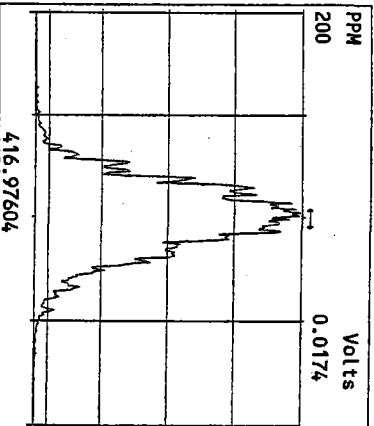
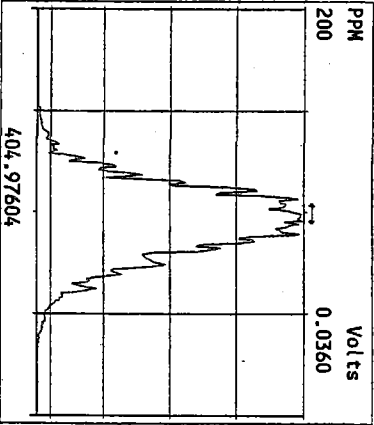
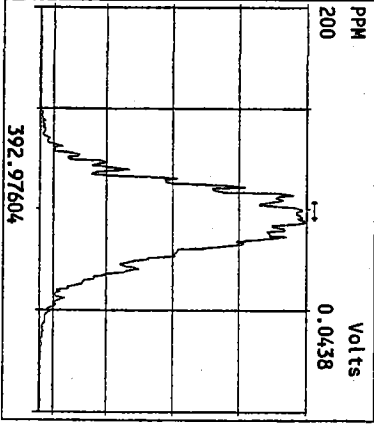
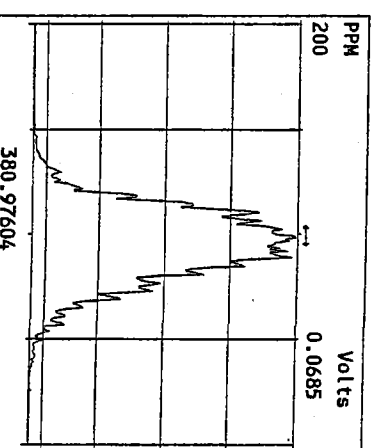
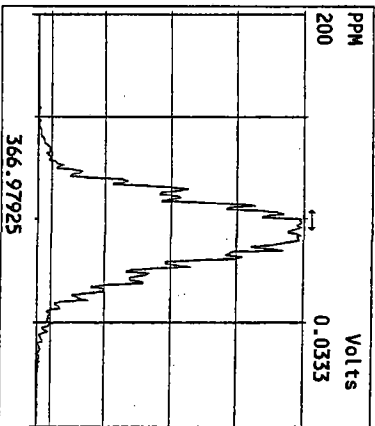
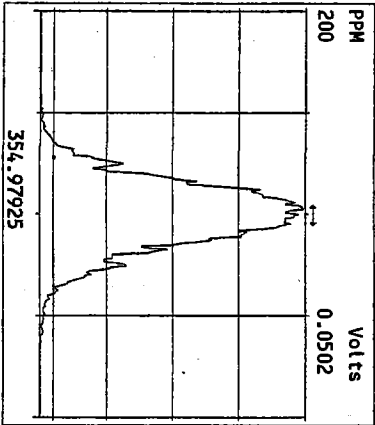
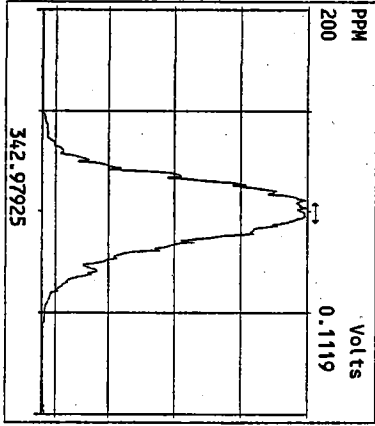
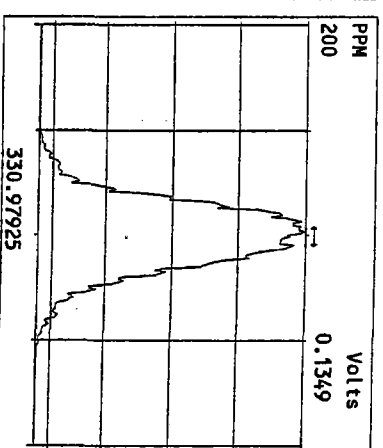
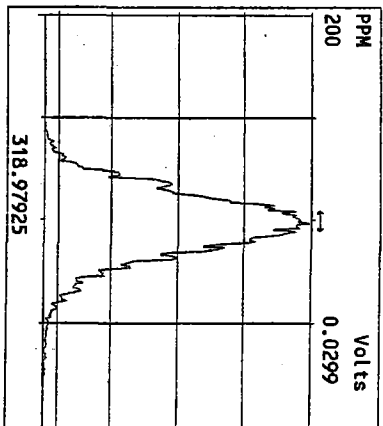
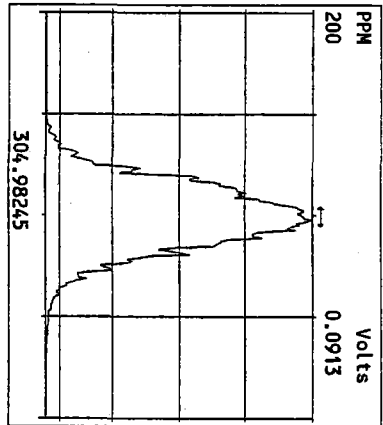
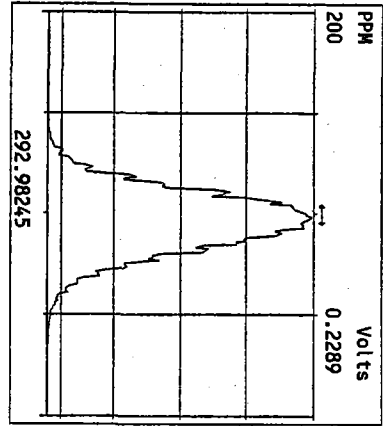


File:22JAN10M #1-347 Acq:23-JAN-2010 00:40:14 GC EI+ Voltage SIR Autospec-Ultima  
513.6775 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M2 File Text:Frontier Analytical Laboratory  
100 %

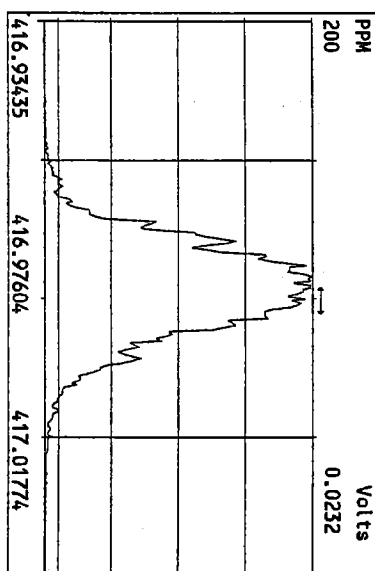
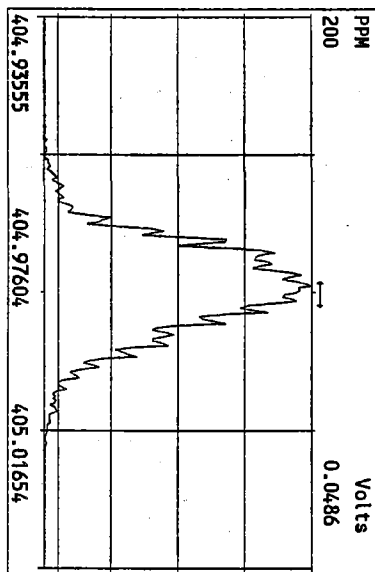
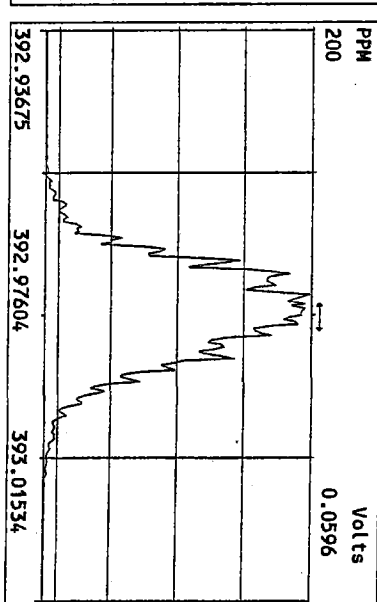
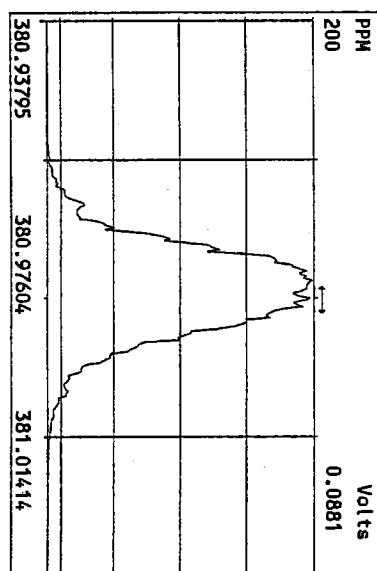
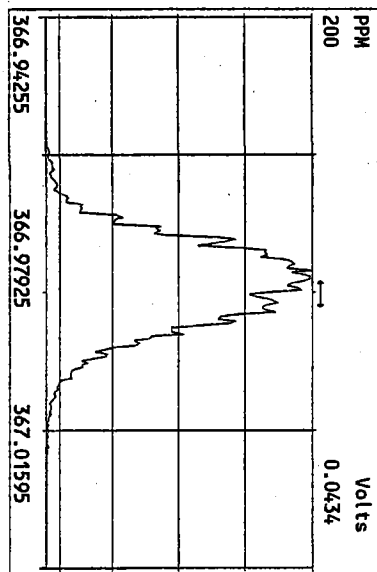
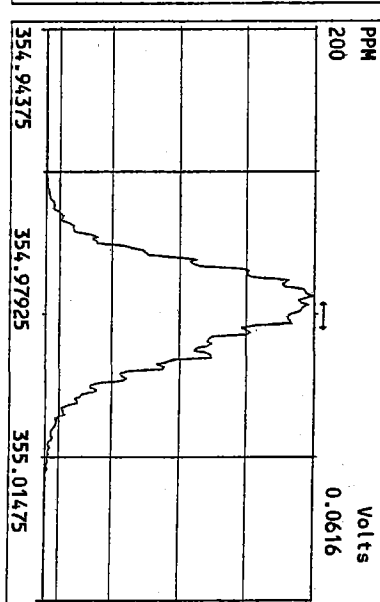
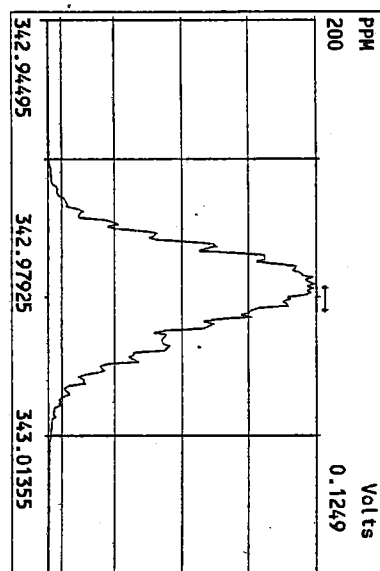
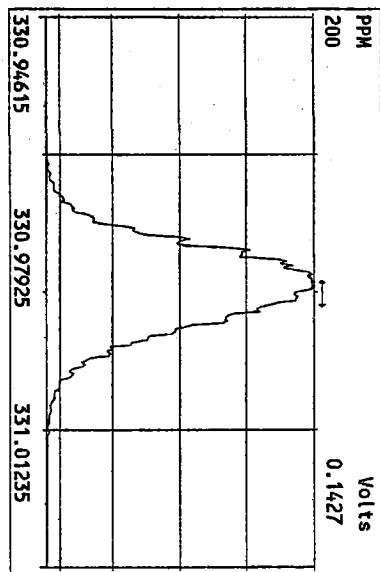


10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

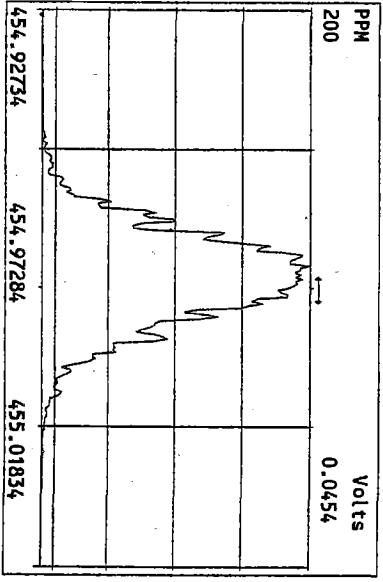
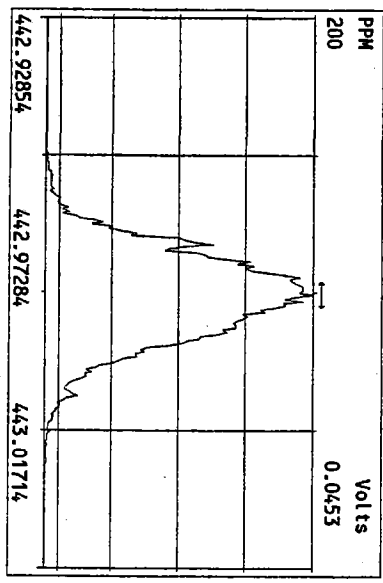
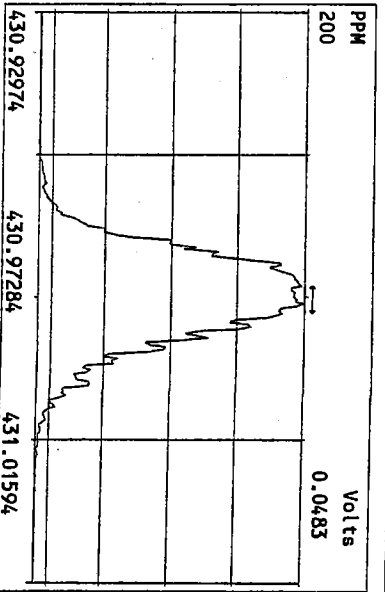
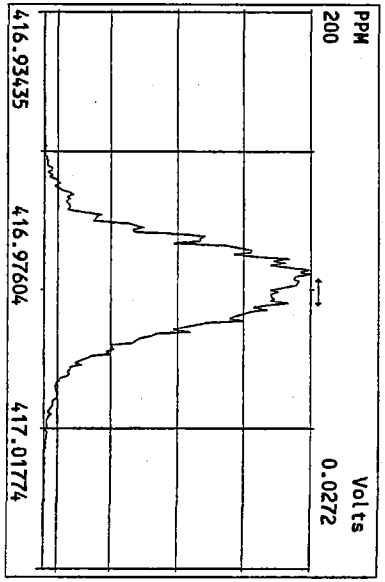
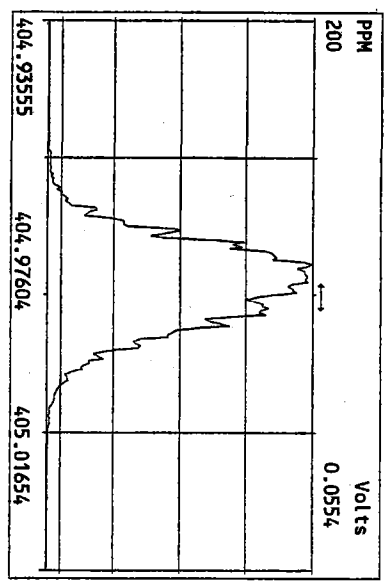
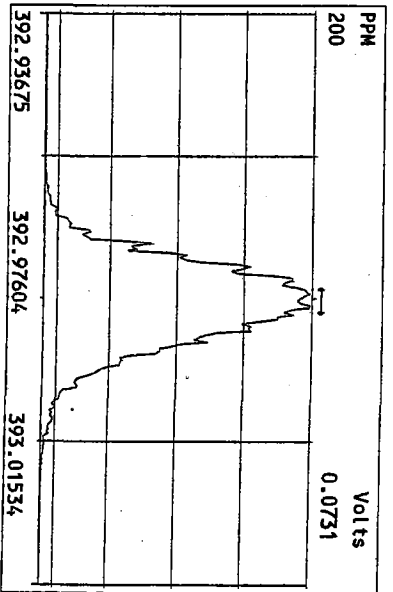
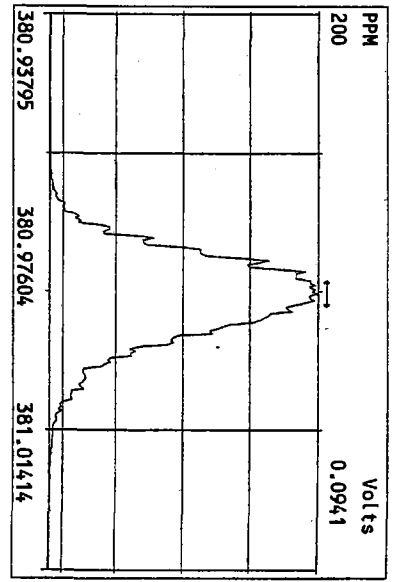
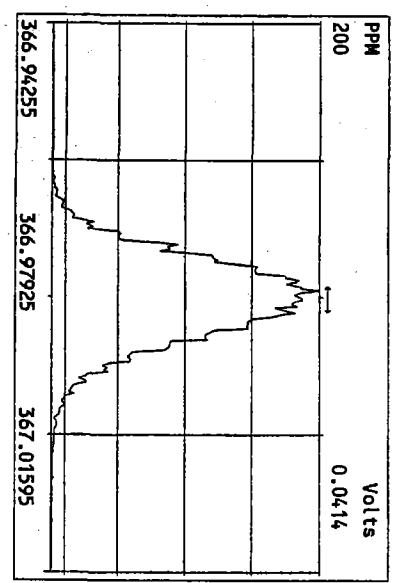
Peak Locate Examination:23-JAN-2010:01:38 File:22JAN10M\_RES\_CHECK  
Experiment:PCDD Function:1 Reference:PFK



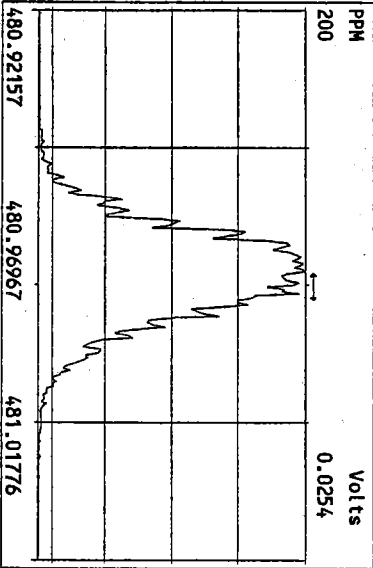
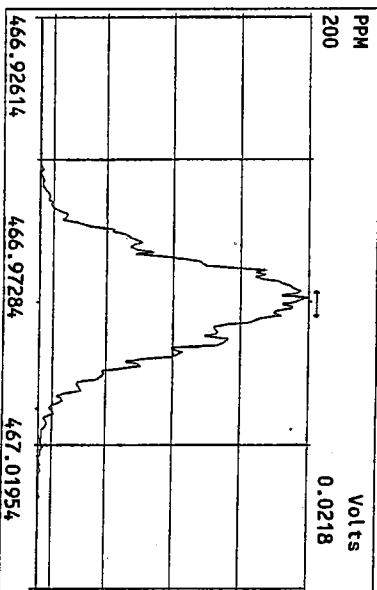
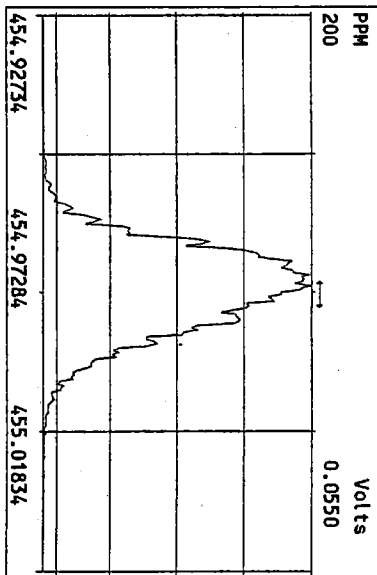
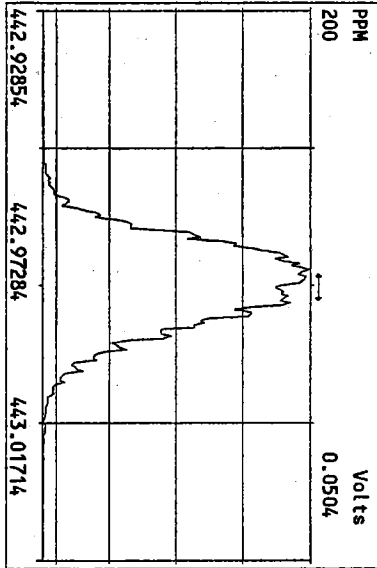
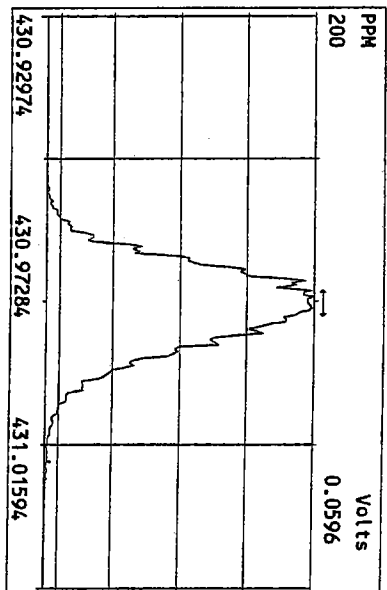
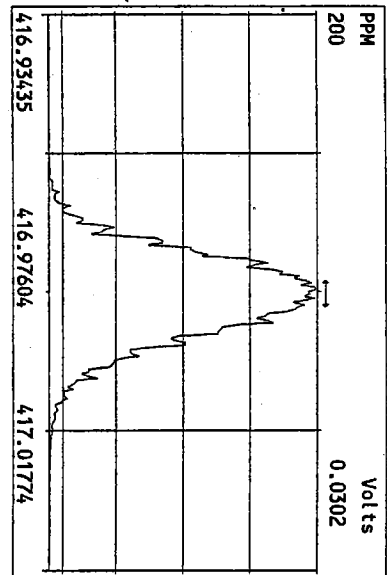
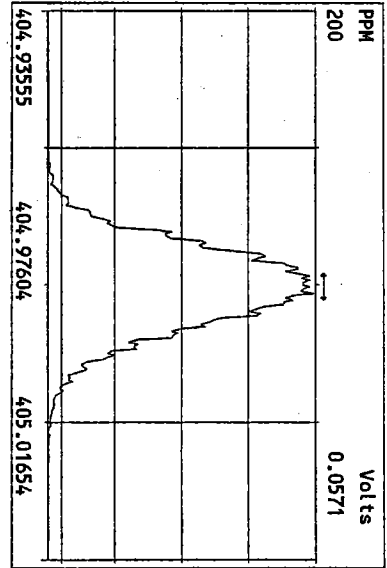
Peak Locate Examination:23-JAN-2010:01:40 File:22JAN10M\_RES\_CHECK  
 Experiment:PCDD Function:2 Reference:PK



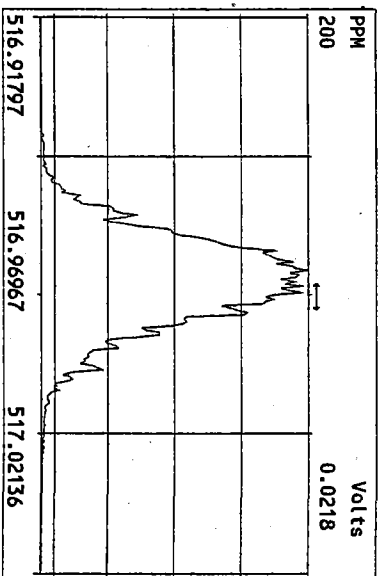
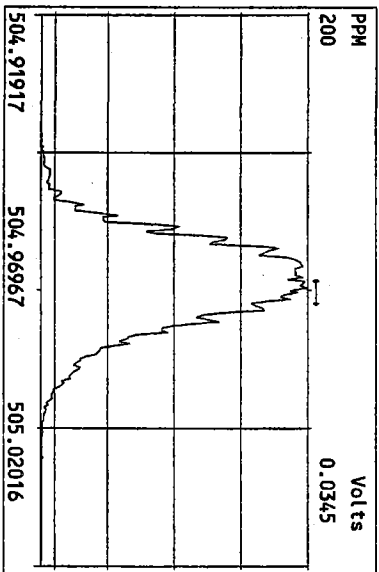
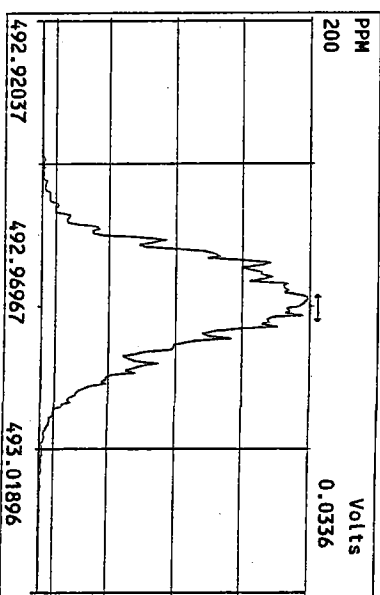
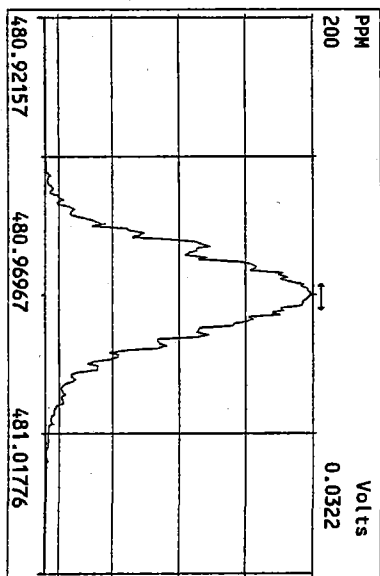
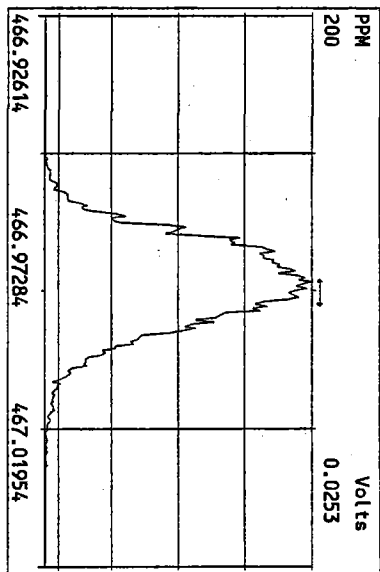
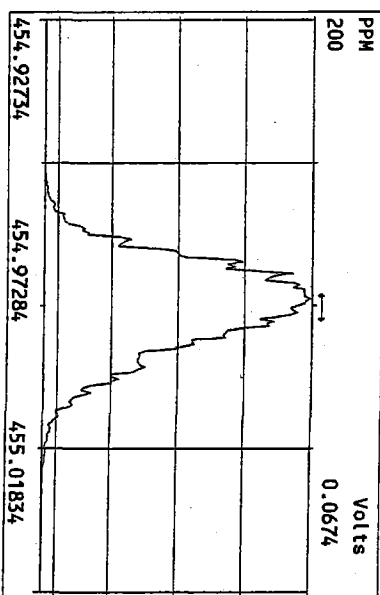
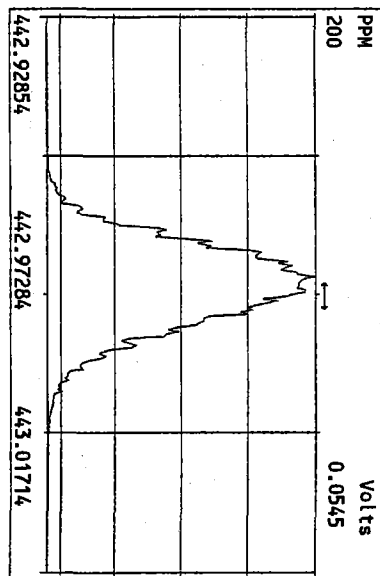
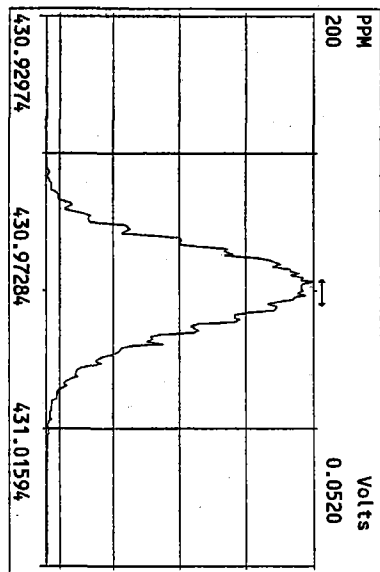
10 11 12 13 14 15



22 JAN 10 01:42



Peak Locate Examination: 23-JAN-2010:01:46 File: 22JAN10M\_RES\_CHECK  
 Experiment: PCDD Function: 5 Reference: PFK



23 JAN 2010 01:46

## USEPA - ITD

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 22JAN10M Sam:1

Analysis Date: 22-JAN-10 13:36:22

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
NATIVE ANALYTES						
2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	10.1	7.80 - 12.9 ✓
1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	y	48.8	39.0 - 65.0 ✓
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	47.1	39.0 - 64.0 ✓
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	45.8	39.0 - 64.0 ✓
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	46.6	41.0 - 61.0 ✓
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.98	0.88-1.20	y	50.6	43.0 - 58.0 ✓
OCDD	M+2/M+4	0.92	0.76-1.02	y	99.0	79.0 - 126 ✓
2,3,7,8-TCDF	M/M+2	0.74	0.65-0.89	y	9.70	8.40 - 12.0 ✓
1,2,3,7,8-PeCDF	M+2/M+4	1.66	1.32-1.78	y	51.7	41.0 - 60.0 ✓
2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	49.7	41.0 - 60.0 ✓
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.6	45.0 - 56.0 ✓
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	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	48.8	44.0 - 57.0 ✓
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.1	45.0 - 56.0 ✓
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	50.5	45.0 - 55.0 ✓
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.01	0.88-1.20	y	50.9	43.0 - 58.0 ✓
OCDF	M+2/M+4	0.90	0.76-1.02	y	96.9	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: DNDate: 1/22/10



## USEPA - ITD

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 22JAN10M Sam:1

Analysis Date: 22-JAN-10 13:36:22

LABELLED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
13C-2,3,7,8-TCDD	M/M+2	0.72	0.65-0.89	y	102	82.0 - 121 ✓
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.71	1.32-1.78	y	85.4	62.0 - 160 ✓
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	103	85.0 - 117 ✓
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	101	85.0 - 118 ✓
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	94.6	72.0 - 138 ✓
13C-OCDD	M+2/M+4	0.96	0.76-1.02	y	192	96.0 - 415 ✓
13C-2,3,7,8-TCDF	M/M+2	0.86	0.65-0.89	y	98.5	71.0 - 140 ✓
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	82.7	76.0 - 130 ✓
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	82.2	77.0 - 130 ✓
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	101	76.0 - 131 ✓
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	98.9	70.0 - 143 ✓
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	98.1	73.0 - 137 ✓
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.43-0.59	y	94.3	74.0 - 135 ✓
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.37-0.51	y	92.2	78.0 - 129 ✓
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	88.7	77.0 - 129 ✓
13C-OCDF	M+2/M+4	0.96	0.76-1.02	y	180	96.0 - 415 ✓
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					10.0	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: DNDate: 1/22/10



## USEPA - ITD

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 22-JAN-10 13:36:22 CS3 or VER Data Filename: 22JAN10M 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	1.001	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	1.022	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		1.173	0.923-1.203 ✓
13C-2,3,4,7,8-PeCDF		1.222	0.923-1.303 ✓

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

Analyst: DNDate: 1/22/10

## USEPA - ITD

## FORM 6B

## PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 11/18/09

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 22-JAN-10 13:36:22

CS3 or VER Data Filename: 22JAN10M

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	1.000	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	1.000	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	1.000	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	1.000	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	0.984	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		1.014	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		1.078	1.043-1.085 ✓
13C-1,2,3,4,7,8,9-HpCDF		1.150	1.057-1.154 ✓
13C-OCDD		1.269	1.032-1.311 ✓
13C-OCDF		1.278	1.000-1.311 ✓

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

Analyst: DNDate: 1/22/10

FAL ID: ST012210M1      Filename: 22JAN10M      Sam:1      Acquired: 22-JAN-10 13:36:22      ICal: pcddfal3-11-18-09  
 Client ID: 1613 CS3 (90918J)      ConCal: ST012210M1      EndCal: ST012210M2

Results:	GC Column: DB5	Amount: 1.000	NATO 1989 Tox: 98.0	WHO 1998 Tox: 122	WHO 2005 Tox: 111				
Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.62e+06	0.80 y	27:33	1.02	10.1	2.50	-	-	*
1,2,3,7,8-PeCDD	1.08e+07	1.60 y	33:22	0.96	48.8	2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.03e+07	1.25 y	38:44	1.37	47.1	2.50	-	-	*
1,2,3,6,7,8-HxCDD	9.21e+06	1.24 y	38:54	1.34	45.8	2.50	-	-	*
1,2,3,7,8,9-HxCDD	9.85e+06	1.23 y	39:21	1.37	46.6	2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	7.92e+06	0.98 y	44:20	1.17	50.6	2.50	-	-	*
OCDD	1.21e+07	0.92 y	49:57	1.21	99.0	2.50	-	-	*
2,3,7,8-TCDF	5.08e+06	0.74 y	26:47	1.29	9.70	2.50	-	-	*
1,2,3,7,8-PeCDF	1.57e+07	1.66 y	31:39	0.89	51.7	2.50	-	-	*
2,3,4,7,8-PeCDF	1.48e+07	1.65 y	32:58	0.91	49.7	2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.33e+07	1.21 y	37:21	1.00	48.6	2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.39e+07	1.22 y	37:33	0.92	48.7	2.50	-	-	*
2,3,4,6,7,8-HxCDF	1.29e+07	1.24 y	38:29	0.99	48.8	2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.17e+07	1.23 y	39:55	1.09	48.1	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.10e+07	1.03 y	42:26	1.36	50.5	2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	9.67e+06	1.01 y	45:15	1.61	50.9	2.50	-	-	*
OCDF	1.36e+07	0.90 y	50:19	0.84	96.9	2.50	-	-	*
13C-2,3,7,8-TCDD	2.55e+07	0.72 y	27:31	0.94	102				Rec 102
13C-1,2,3,7,8-PeCDD	2.30e+07	1.71 y	33:21	1.02	85.4				85.4
13C-1,2,3,4,7,8-HxCDD	1.59e+07	1.28 y	38:43	0.98	103				103
13C-1,2,3,6,7,8-HxCDD	1.50e+07	1.27 y	38:53	0.94	101				101
13C-1,2,3,4,6,7,8-HpCDD	1.34e+07	1.03 y	44:20	0.90	94.6				94.6
13C-OCDD	2.02e+07	0.96 y	49:56	0.67	192				96.1
13C-2,3,7,8-TCDF	4.07e+07	0.86 y	26:46	0.88	98.5				98.5
13C-1,2,3,7,8-PeCDF	3.42e+07	1.69 y	31:37	0.88	82.7				82.7
13C-2,3,4,7,8-PeCDF	3.29e+07	1.69 y	32:56	0.85	82.2				82.2
13C-1,2,3,4,7,8-HxCDF	2.74e+07	0.49 y	37:20	1.72	101				101
13C-1,2,3,6,7,8-HxCDF	3.12e+07	0.49 y	37:31	2.00	98.9				98.9
13C-2,3,4,6,7,8-HxCDF	2.68e+07	0.49 y	38:28	1.74	98.1				98.1
13C-1,2,3,7,8,9-HxCDF	2.24e+07	0.49 y	39:54	1.51	94.3				94.3
13C-1,2,3,4,6,7,8-HpCDF	1.60e+07	0.46 y	42:26	1.10	92.2				92.2
13C-1,2,3,4,7,8,9-HpCDF	1.18e+07	0.45 y	45:15	0.85	88.7				88.7
13C-OCDF	3.33e+07	0.96 y	50:17	1.17	180				90.0
37Cl-2,3,7,8-TCDD	2.59e+06		27:32	0.97	10.0				100
13C-1,2,3,4-TCDD	2.65e+07	0.72 y	26:57	-	101				
13C-1,2,3,4-TCDF	4.71e+07	0.86 y	25:41	-	102				
13C-1,2,3,7,8,9-HxCDD	1.57e+07	1.28 y	39:20	-	76.8				
Total Tetra-Dioxins	1.37e+07		24:33	1.02	53.0	2.50	-	-	* 20
Total Penta-Dioxins	2.32e+07		30:24	0.96	105	2.50	-	-	* 9
Total Hexa-Dioxins	3.34e+07		36:17	1.36	159	2.50	-	-	* 18
Total Hepta-Dioxins	1.70e+07		42:58	1.17	108	2.50	-	-	* 15
Total Tetra-Furans	2.10e+07		23:11	1.29	40.1	2.50	-	-	* 19
1st Fn. Tot Penta-Furans	1.82e+07		28:35	0.90	60.6	2.50	-	-	* PeCDF 1
Total Penta-Furans	4.34e+07		30:21	0.90	144	2.50	-	-	* 205 10
Total Hexa-Furans	6.04e+07		35:24	0.99	226	2.50	-	-	* 12
Total Hepta-Furans	2.08e+07		42:26	1.47	102	2.50	-	-	* 7

Analyst: DN

Date: 1/22/10

Frontier Analytical Laboratory - Acquisition Log

Run Name: 22JAN10M

Instrument: FAL3

GC: DB5

Experiment: PCDD

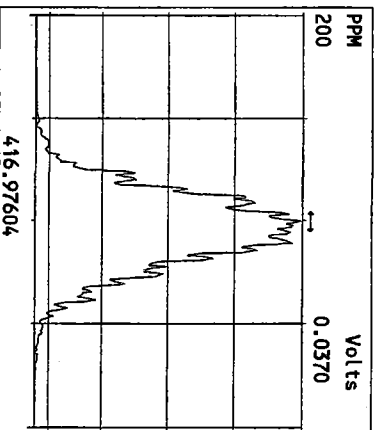
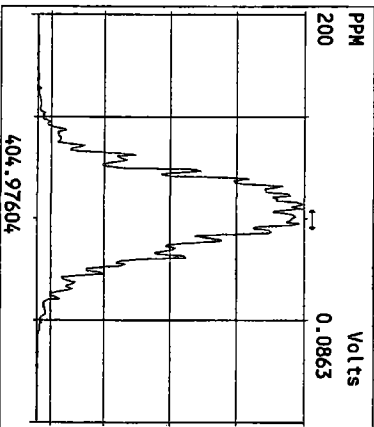
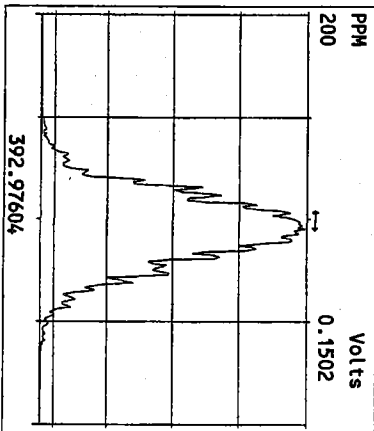
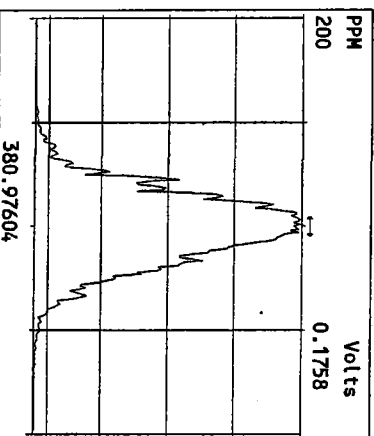
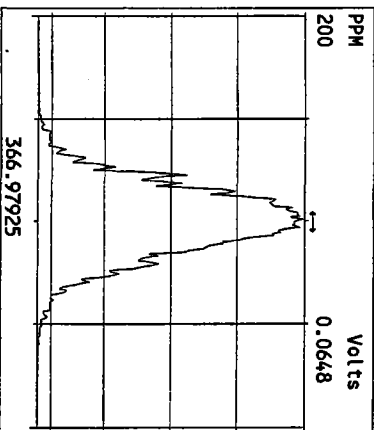
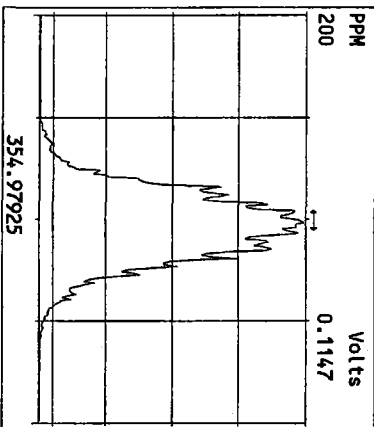
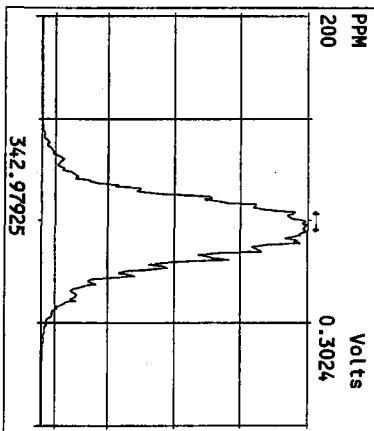
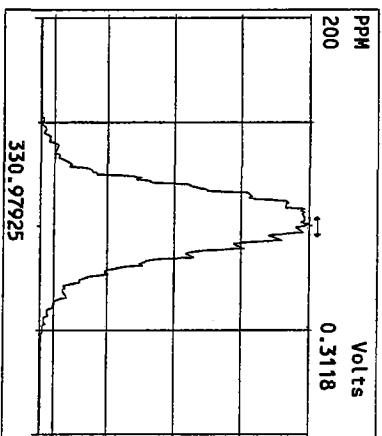
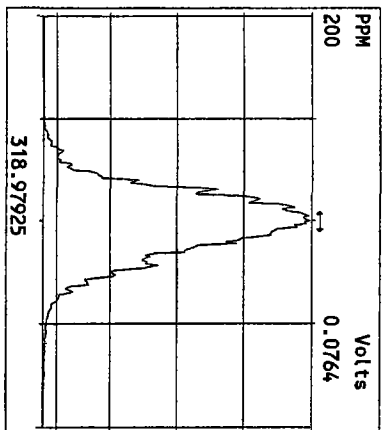
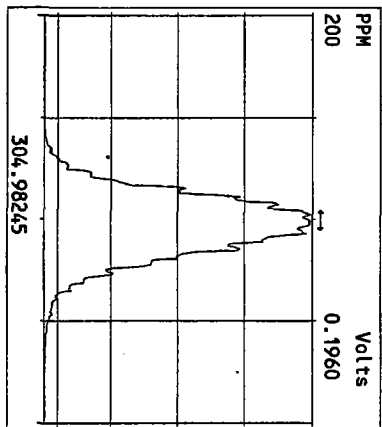
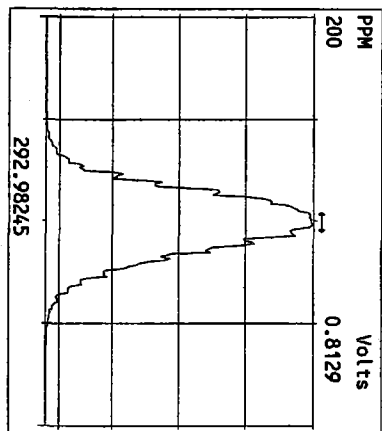
Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
22JAN10M 1	ST012210M1	1613 CS3 (90918J)	22-JAN-10 13:36:22	ST012210M1	ST012210M2	TC
22JAN10M 2	SB012210M1	Solvent Blank	22-JAN-10 14:31:41	ST012210M1	ST012210M2	TC
22JAN10M 3	SB012210M2	Solvent Blank	22-JAN-10 15:27:00	ST012210M1	ST012210M2	TC
22JAN10M 4	1926-001-0001-OPR	OPR	22-JAN-10 16:22:18	ST012210M1	ST012210M2	TC
22JAN10M 5	1926-001-0001-MB	Method Blank	22-JAN-10 17:17:33	ST012210M1	ST012210M2	TC
22JAN10M 6	5913-001-0001-SA	CB19010710SED	22-JAN-10 18:12:51	ST012210M1	ST012210M2	TC
22JAN10M 7	5913-002-0001-SA	CB12010710SED	22-JAN-10 19:08:10	ST012210M1	ST012210M2	TC
22JAN10M 8	5913-003-0001-SA	CB2010710SED	22-JAN-10 20:03:29	ST012210M1	ST012210M2	TC
22JAN10M 9	<u>5914-001-0001-SA*</u>	<del>CB31A011110SED</del>	22-JAN-10 20:58:52	ST012210M1	ST012210M2	TC
22JAN10M 10	5914-002-0001-SA	CB99011110SED	22-JAN-10 21:54:15	ST012210M1	ST012210M2	TC
22JAN10M 11	SB012210M3	Solvent Blank	22-JAN-10 22:49:37	ST012210M1	ST012210M2	TC
22JAN10M 12	SB012210M4	Solvent Blank	22-JAN-10 23:44:56	ST012210M1	ST012210M2	TC
22JAN10M 13	ST012210M2	1613 CS3 (90918J)	23-JAN-10 00:40:14	ST012210M1	ST012210M2	TC

\* 5914-001-0001-SA did not inject. *B 1/25/10*  
 Syringe missed vial inlet. Will run  
 on 25 JANUARY *B 1/25/10*

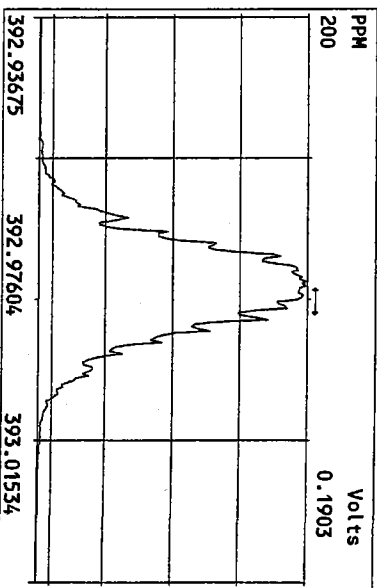
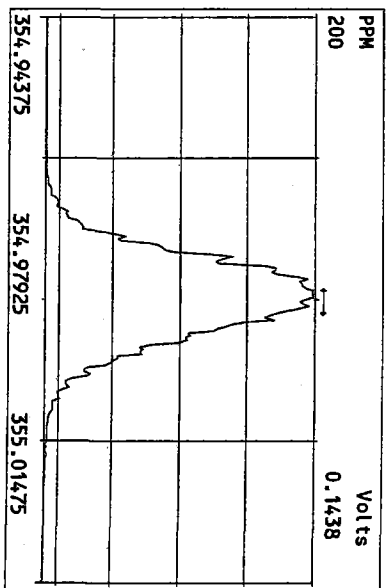
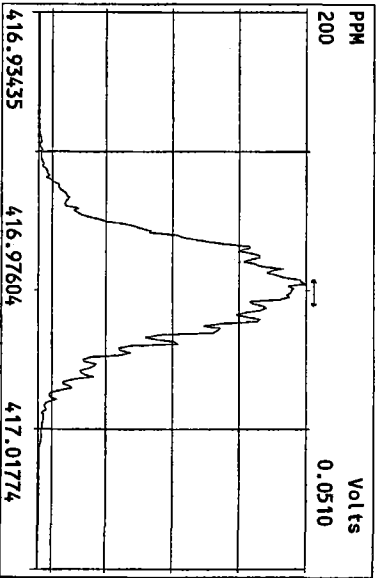
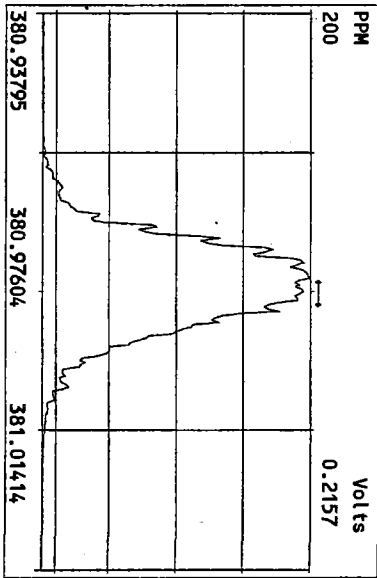
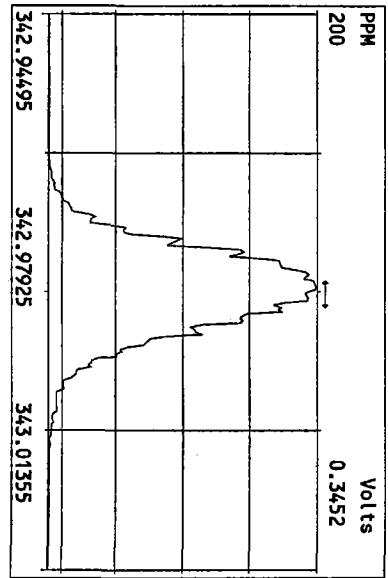
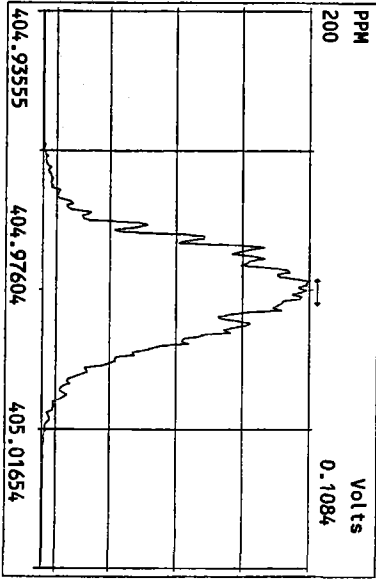
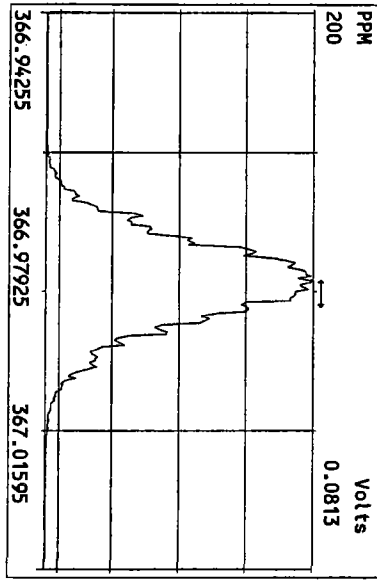
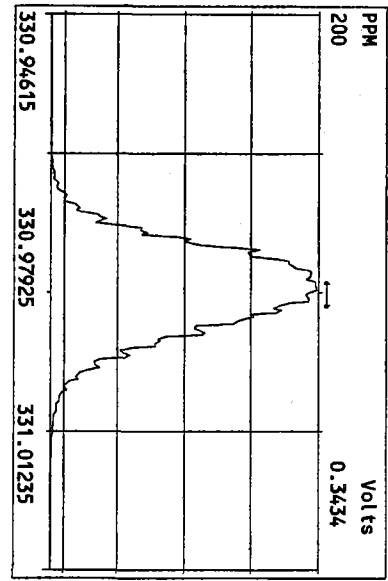
Data Backed Up: \_\_\_\_\_

Date: \_\_\_\_\_

Peak Locate Examination: 22-JAN-2010:13:34 File: 22JAN10M  
Experiment: PCDD Function: 1 Reference: PK



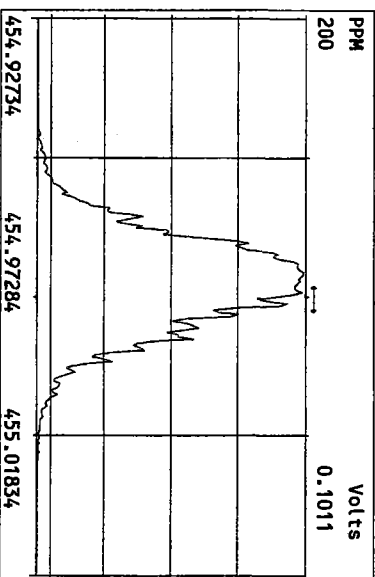
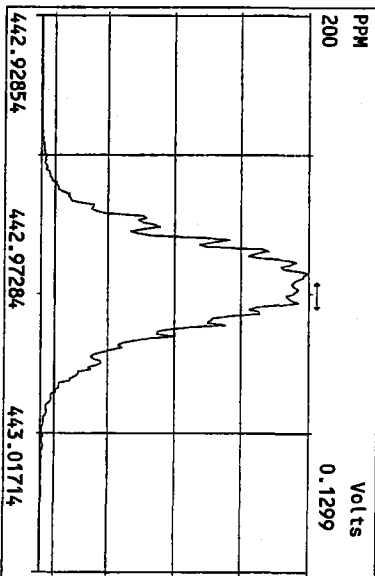
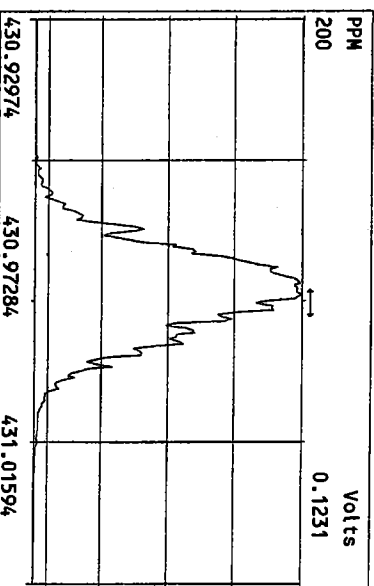
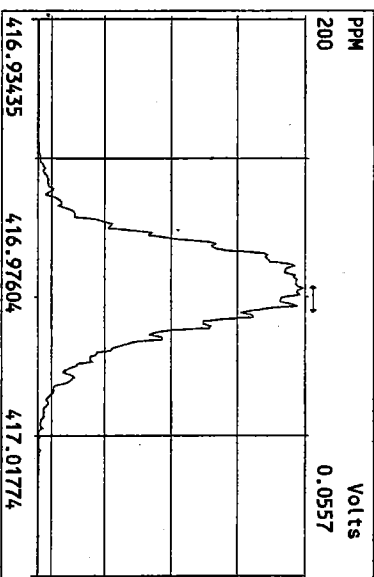
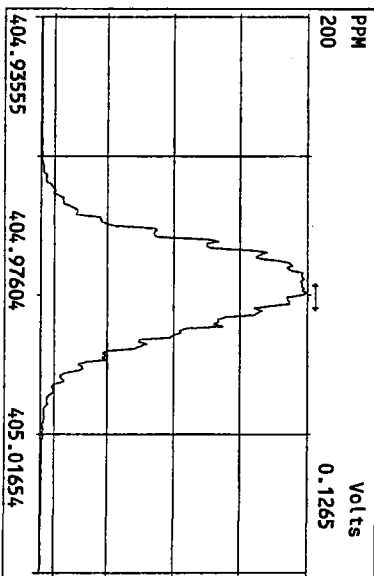
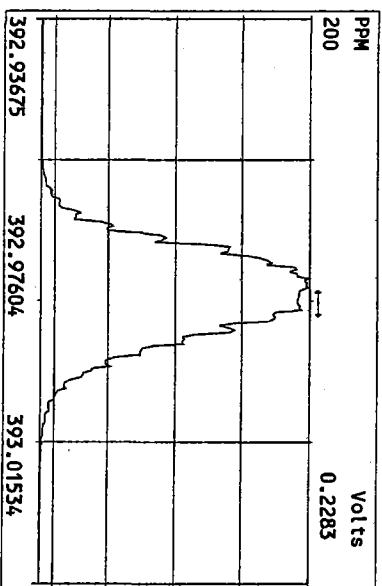
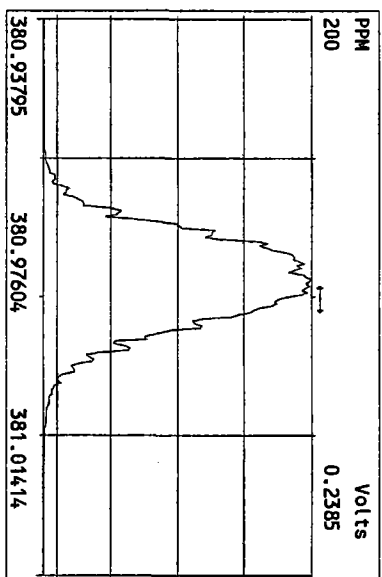
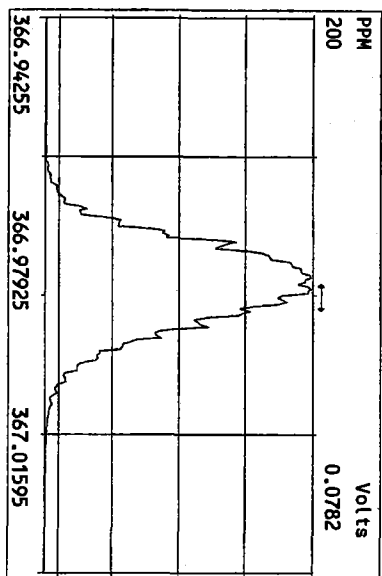
22 JAN 2010 13:34



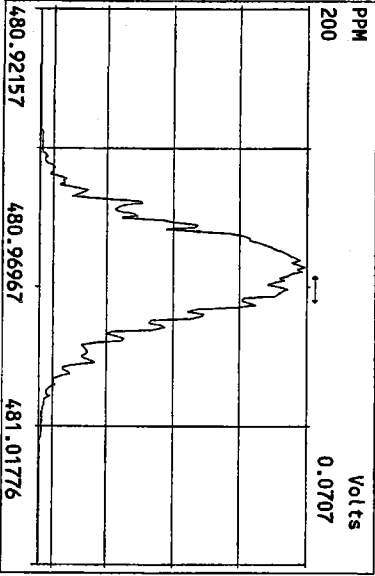
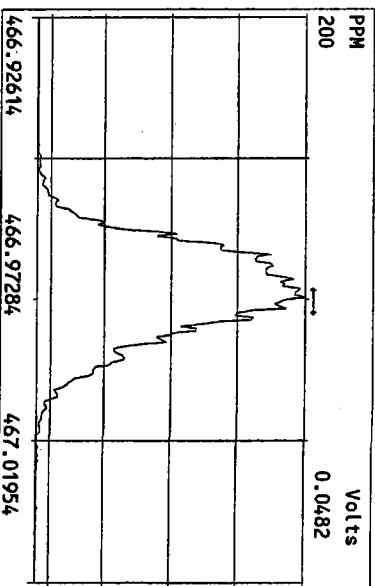
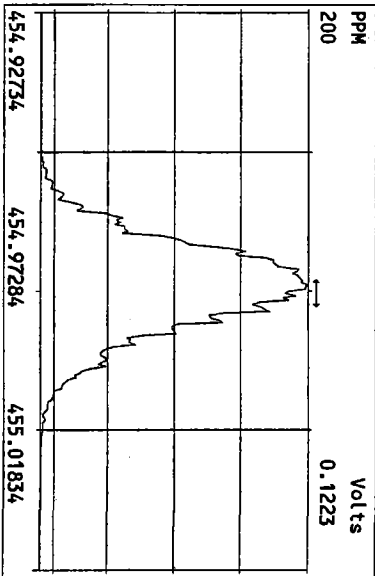
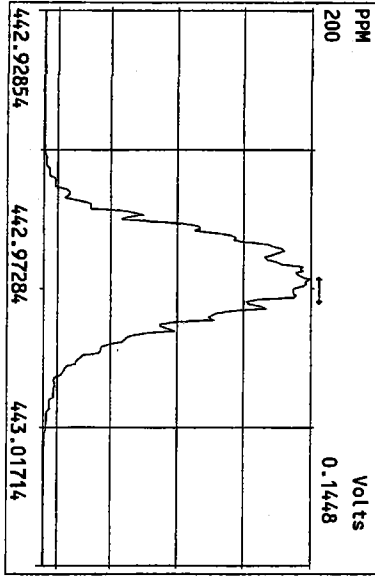
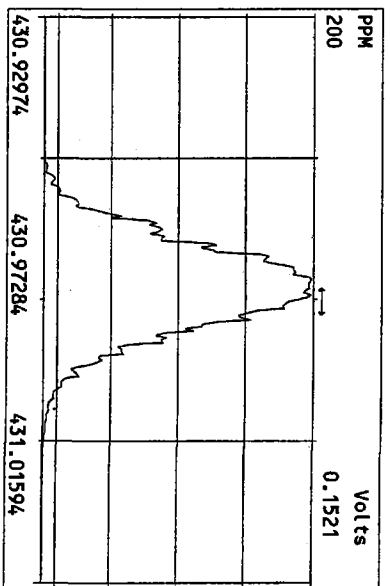
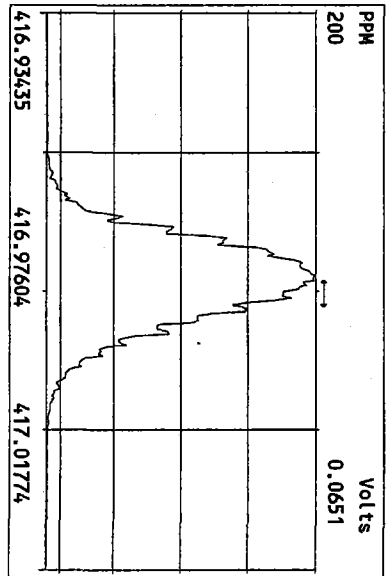
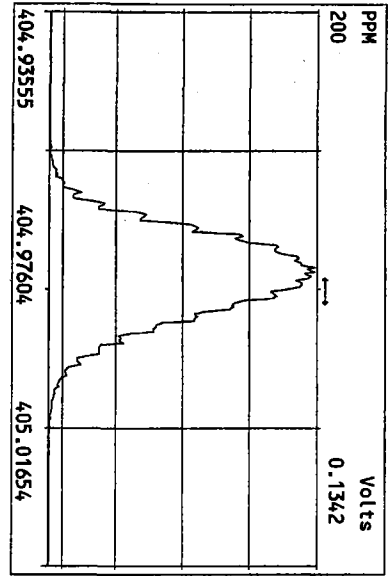
0000000000



Peak Locate Examination: 22-JAN-2010:13:35 File: 22JAN10M  
 Experiment: PCDD Function: 3 Reference: PK

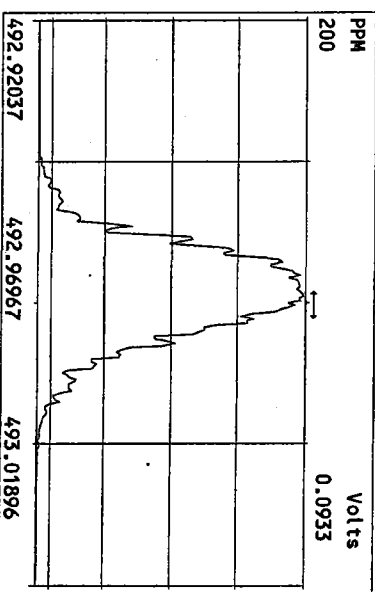
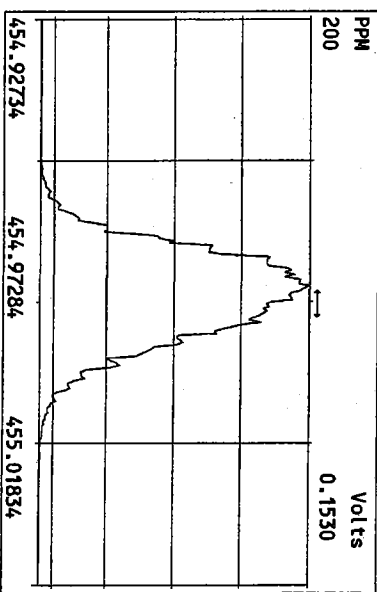
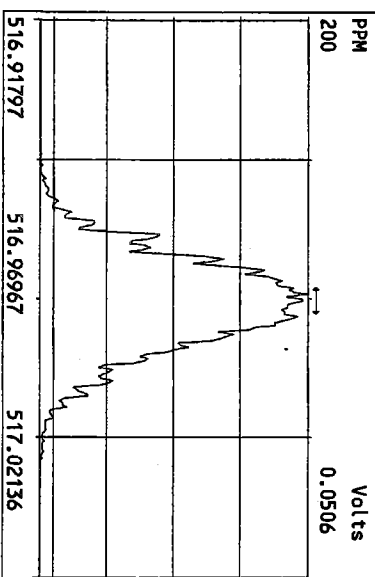
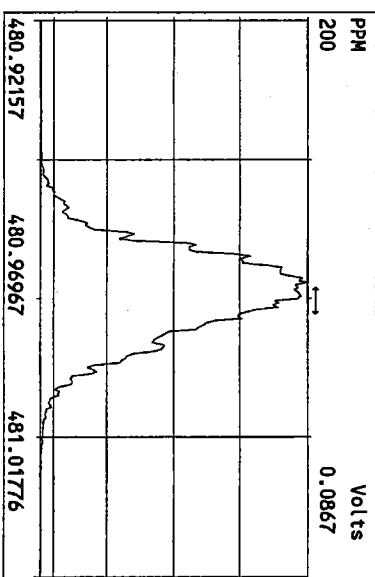
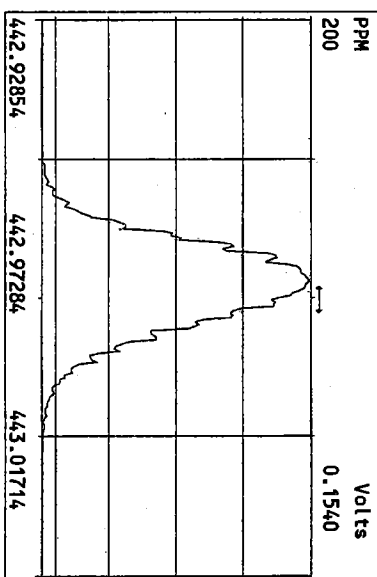
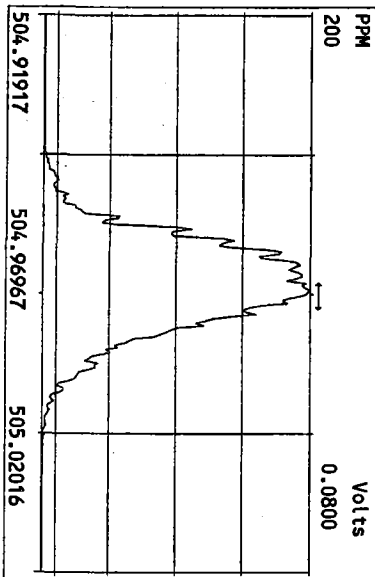
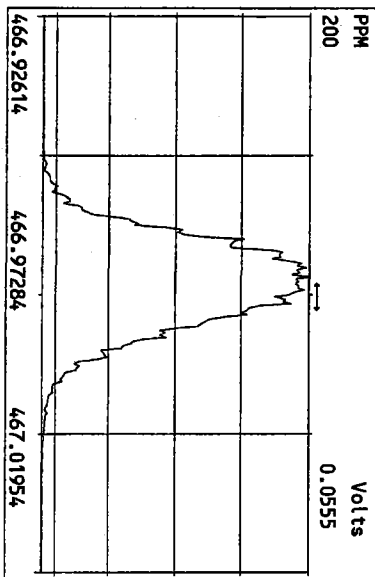
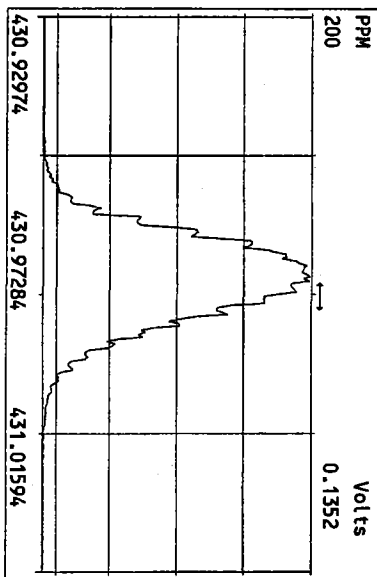


Peak Locate Examination:22-JAN-2010:13:35 File:22JAN10M  
Experiment:PCDD Function:4 Reference:PK



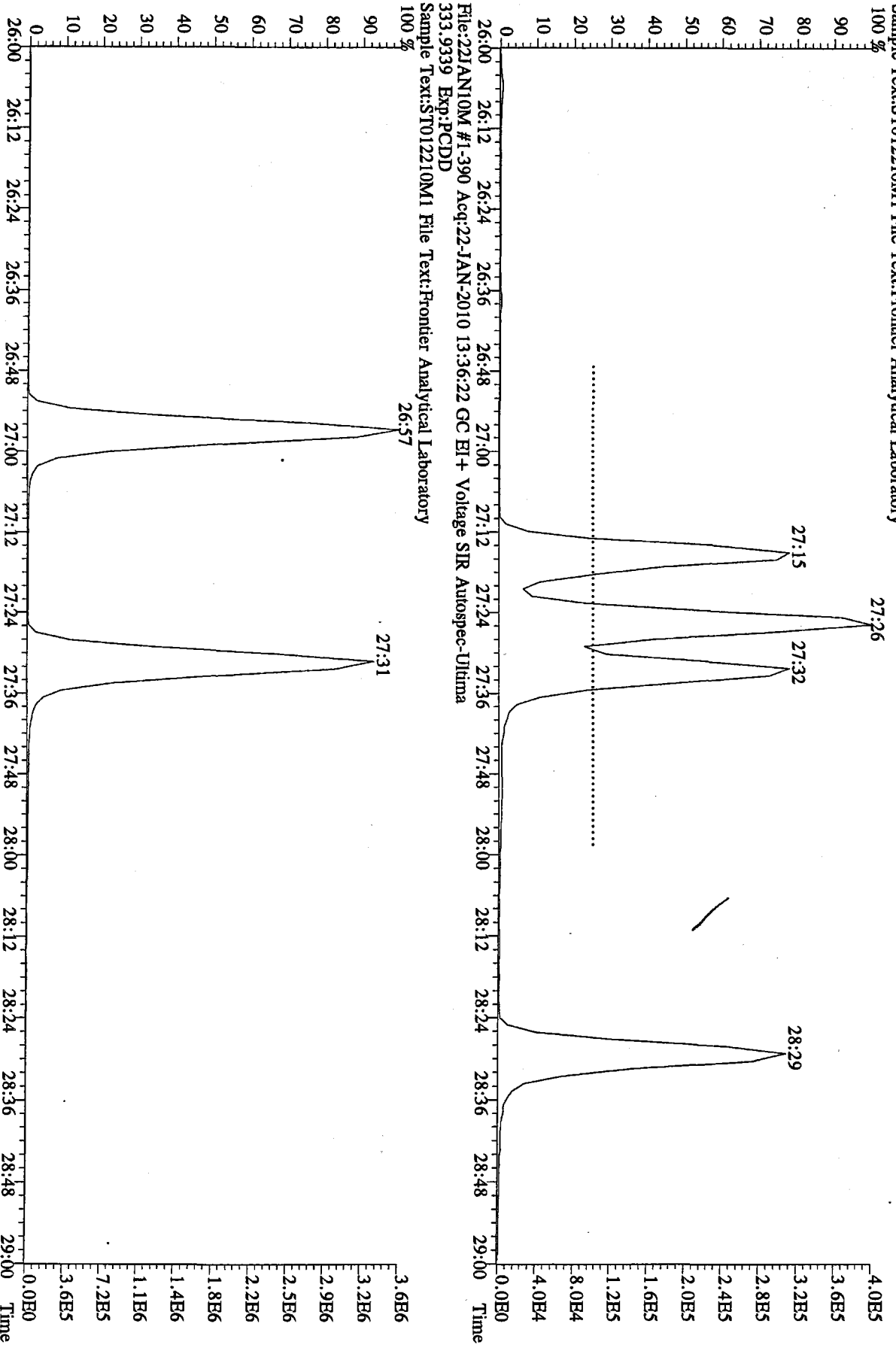
10 11 12 13 14 15 16 17 18 19 20

Peak Locate Examination:22-JAN-2010:13:36 File:22JAN10M  
 Experiment:PCDD Function:5 Reference:PK

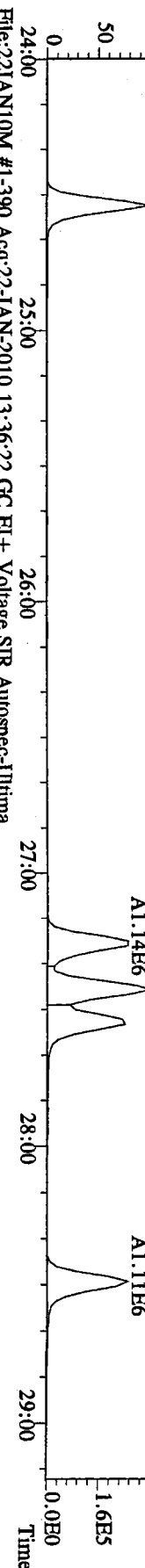


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

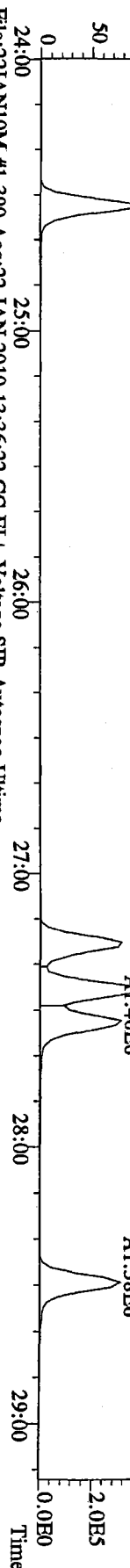
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utlima  
321.8936 Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



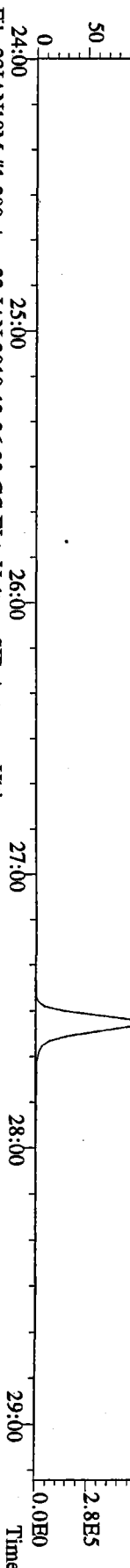
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 % A1.25E6



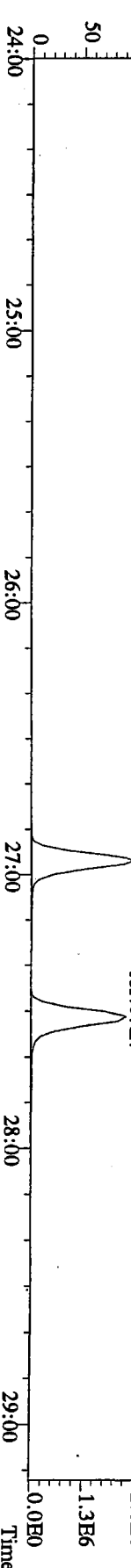
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 % A1.56E6



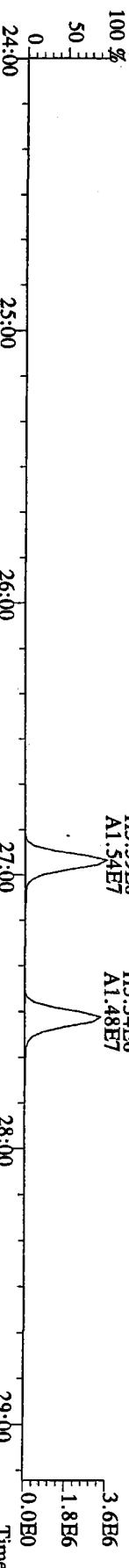
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 % A2.59E6



File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 % A1.11E7

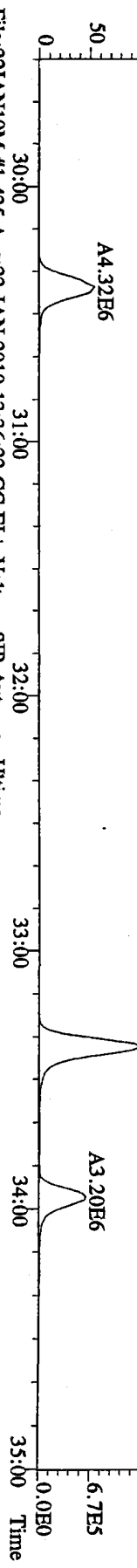


File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory

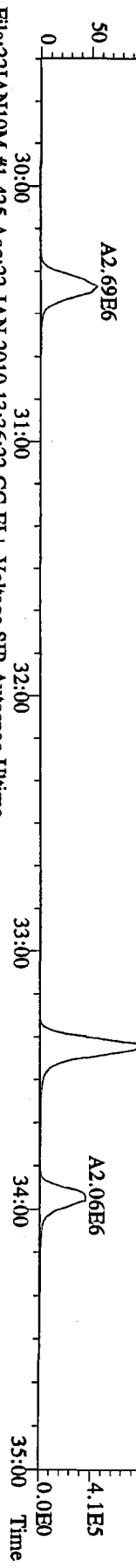


10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

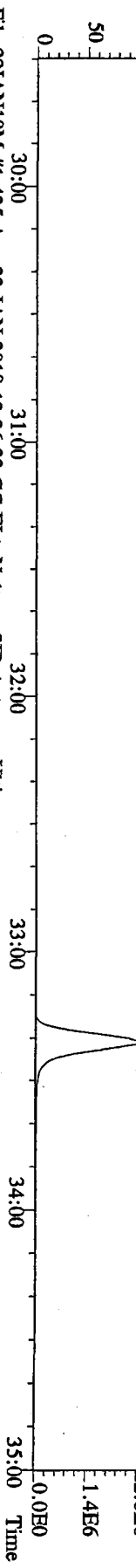
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 355.8546 F-2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



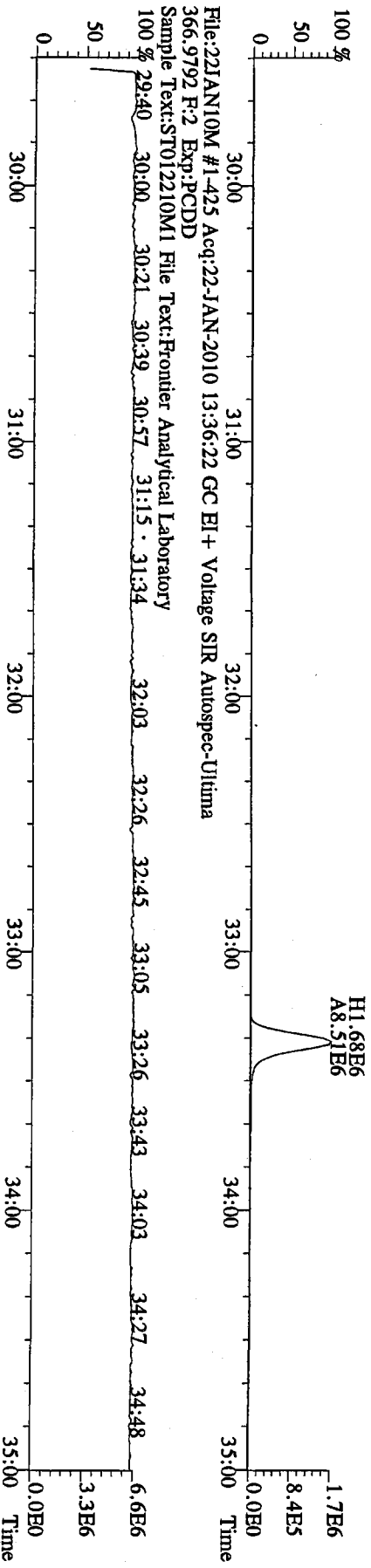
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 357.8517 F-2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



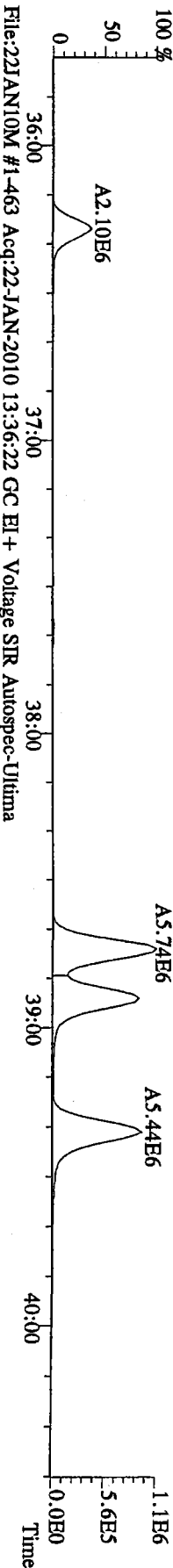
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 367.8949 F-2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



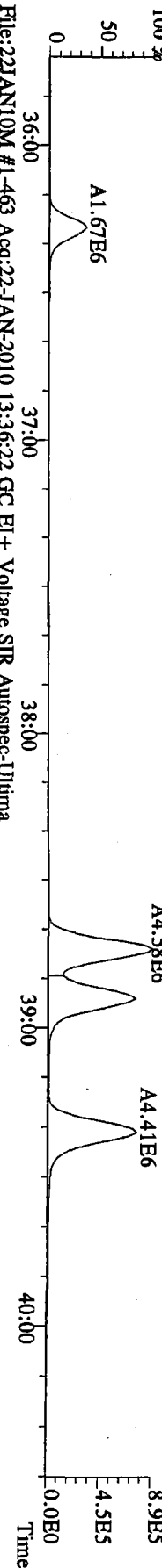
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 369.8919 F-2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



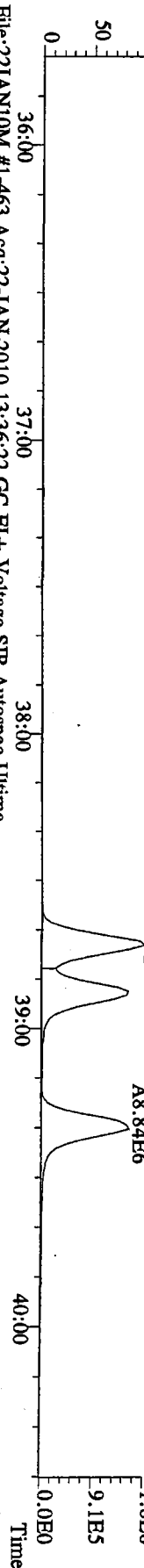
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



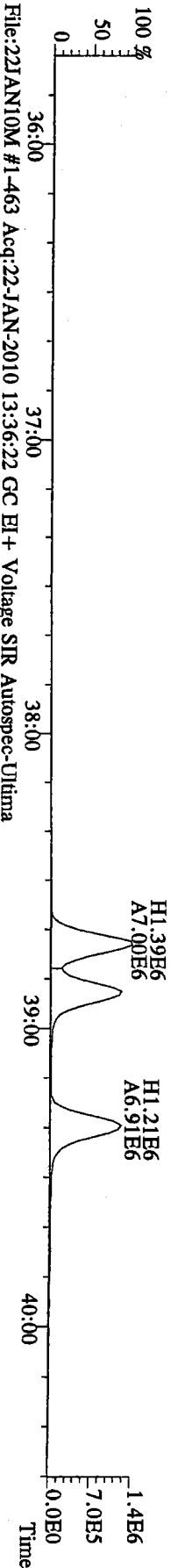
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



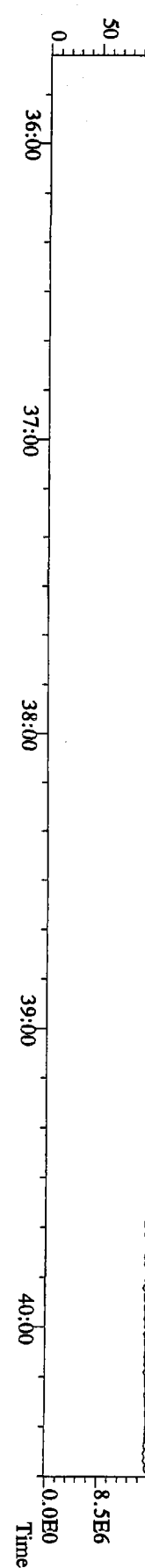
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



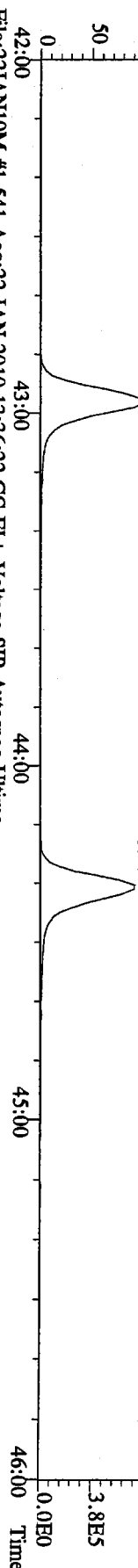
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



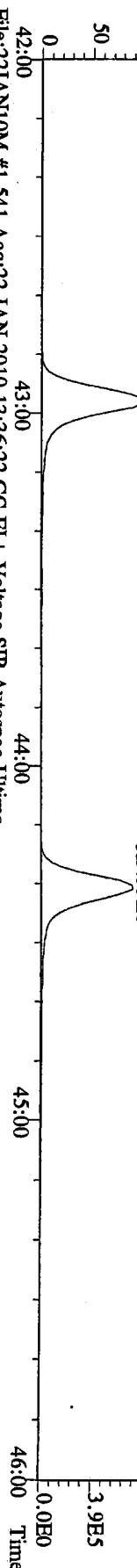
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 380.9760 F:3 Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
 100 %



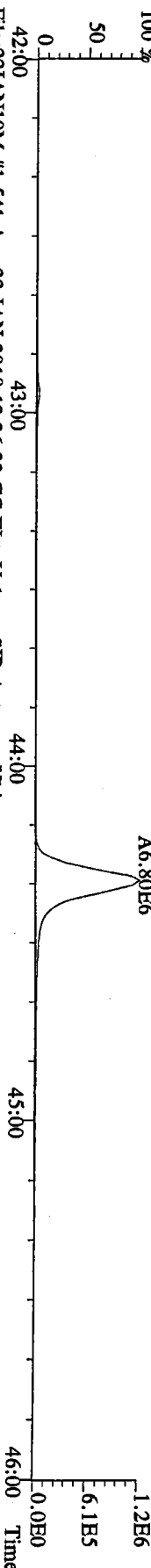
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



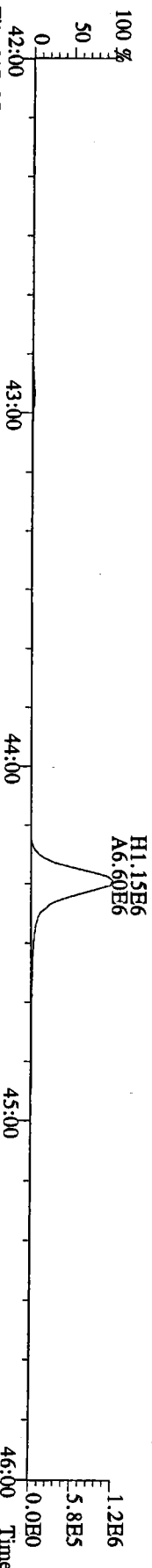
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



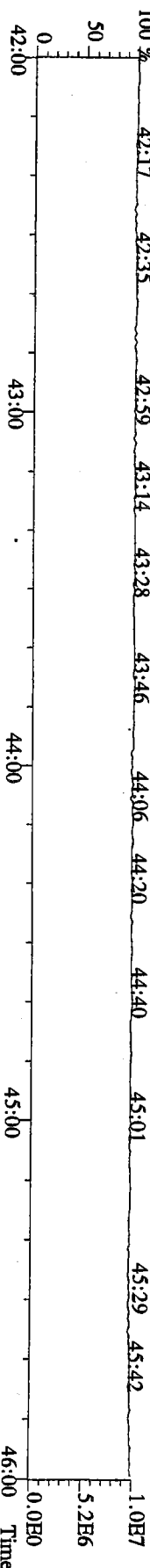
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %



File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %

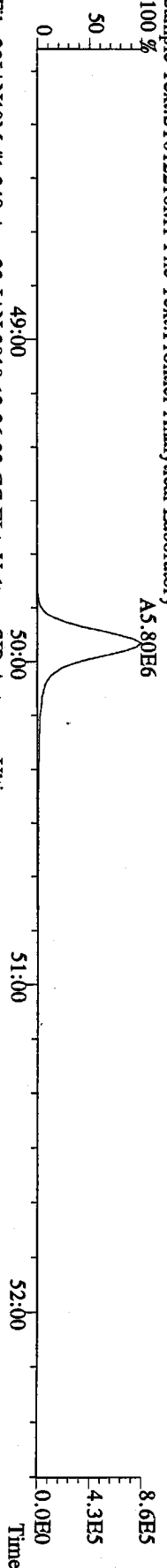


File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
430.9728 F:4 Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory  
100 %

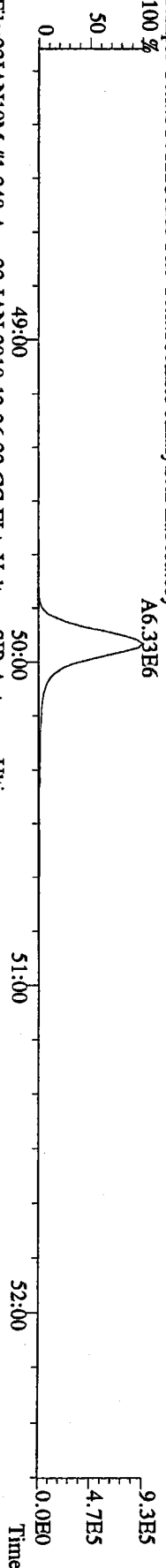




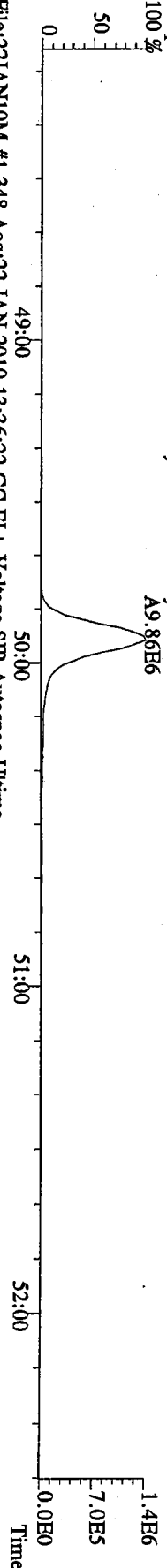
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



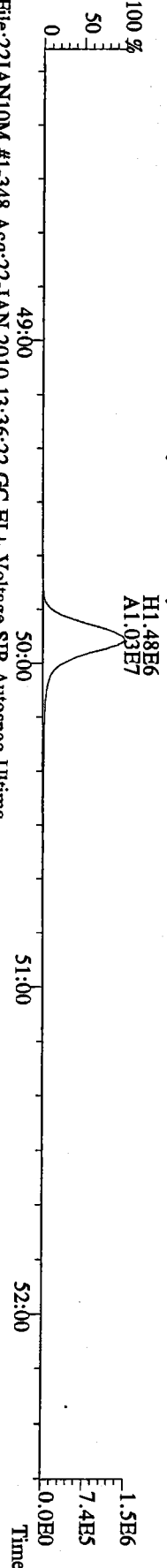
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



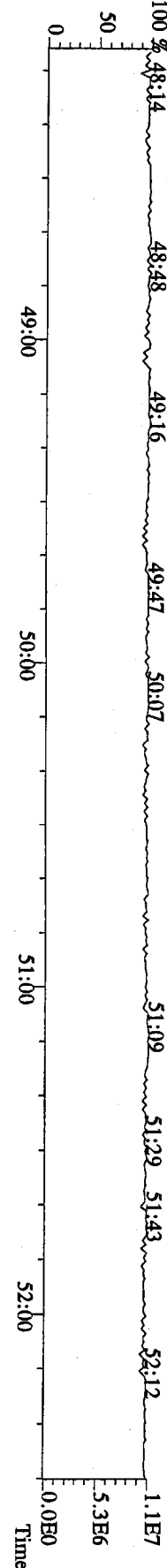
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



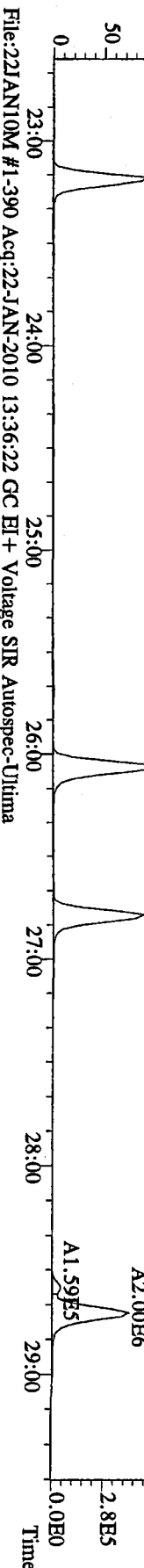
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



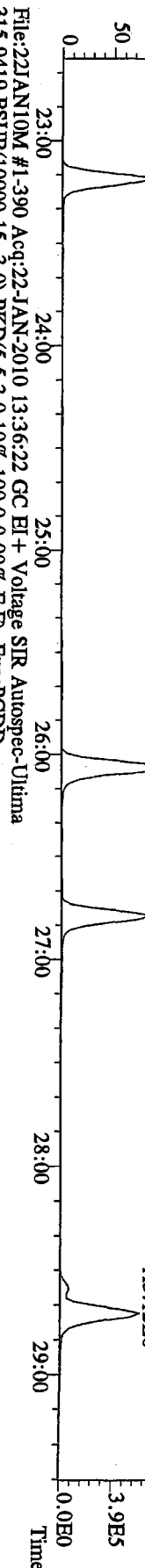
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
454.9728 F:5 Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



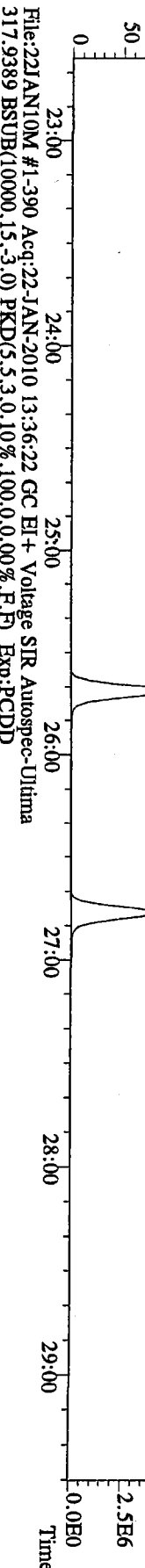
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
303.9016 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



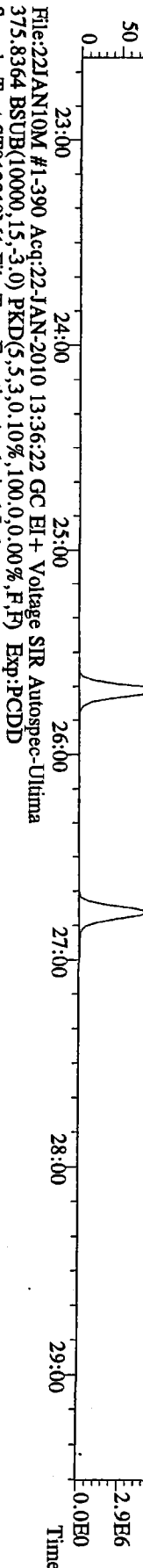
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
305.8987 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



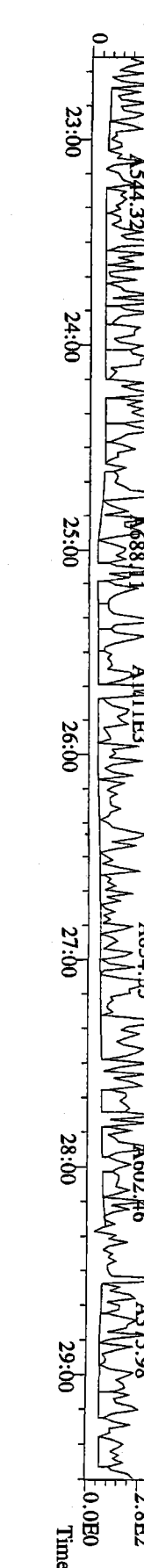
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
315.9419 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
317.9389 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory

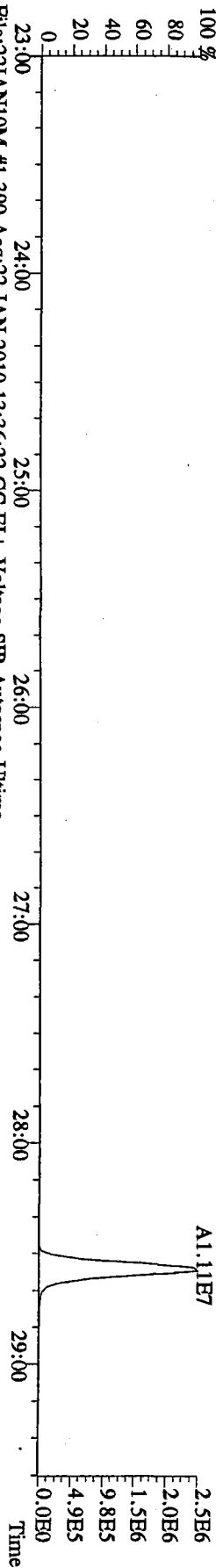


File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
375.8364 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory

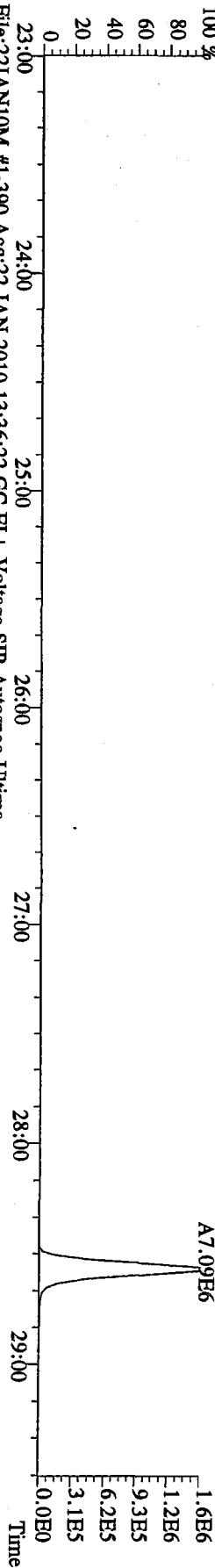


11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

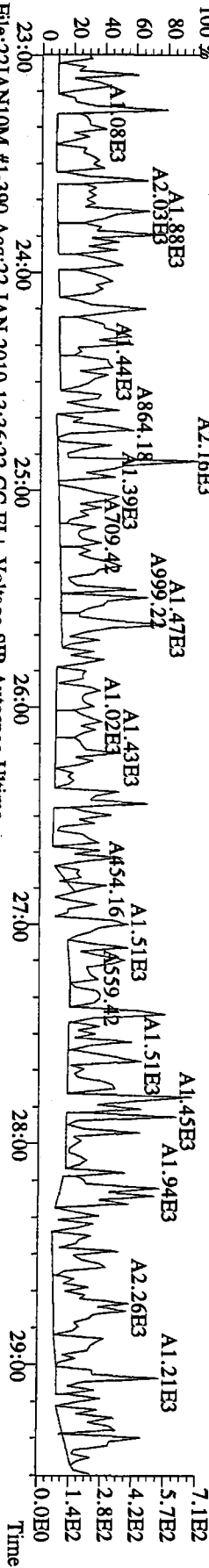
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 339.8597 BSUB(10000,15,-3.0) PKD(5.5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



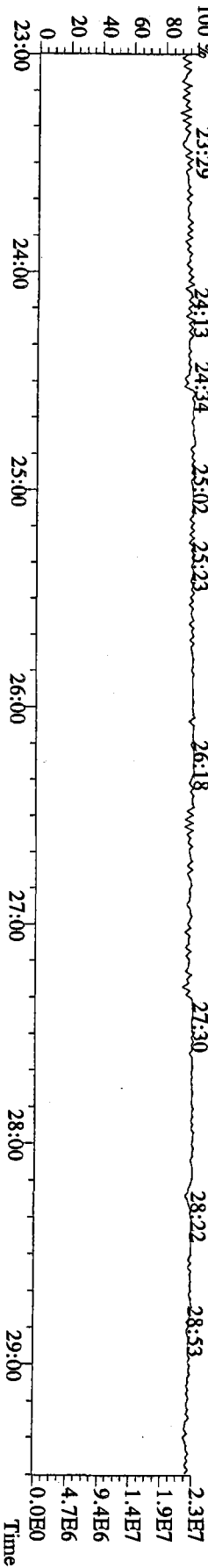
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 341.8568 BSUB(10000,15,-3.0) PKD(5.5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



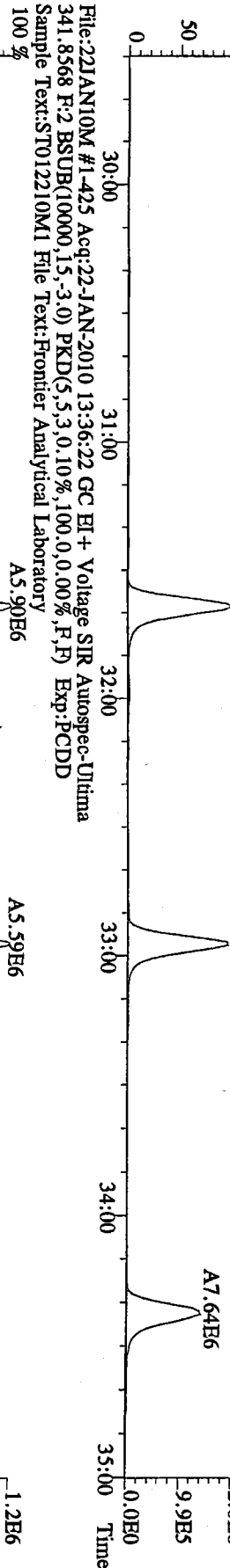
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 409.7974 BSUB(10000,15,-3.0) PKD(5.5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



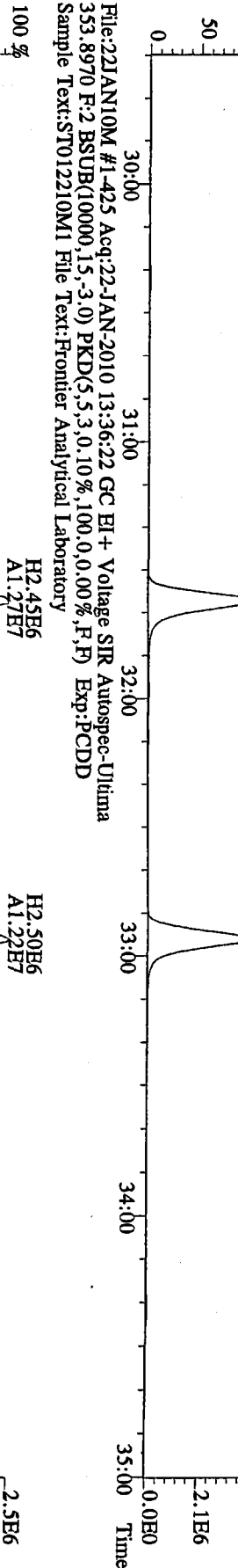
File:22JAN10M #1-390 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
 330.9792 Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



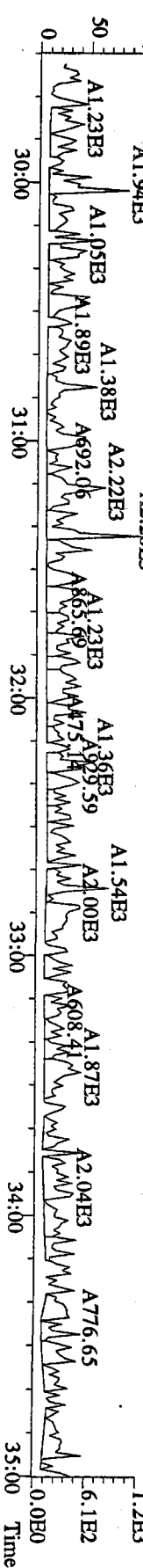
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



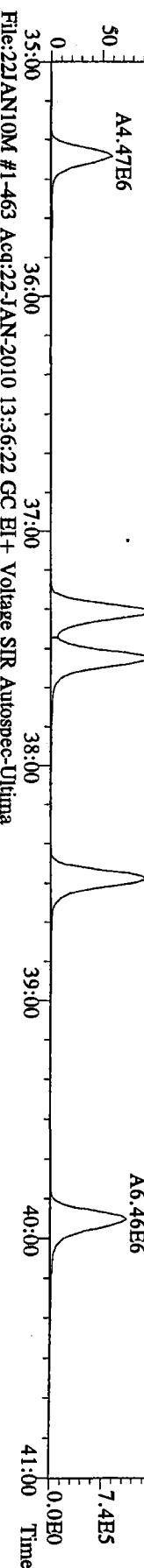
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



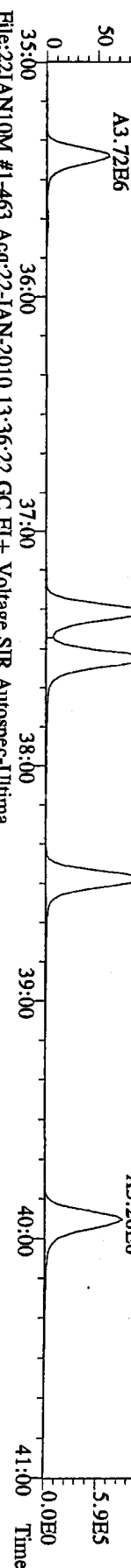
File:22JAN10M #1-425 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
 409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD  
 Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



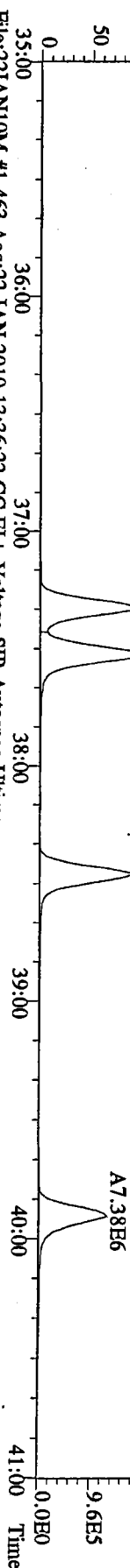
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
373.8207 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



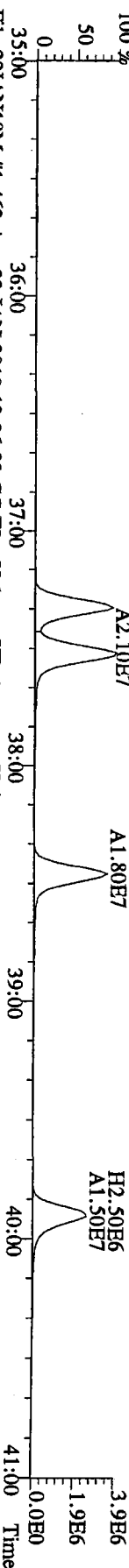
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
375.8178 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



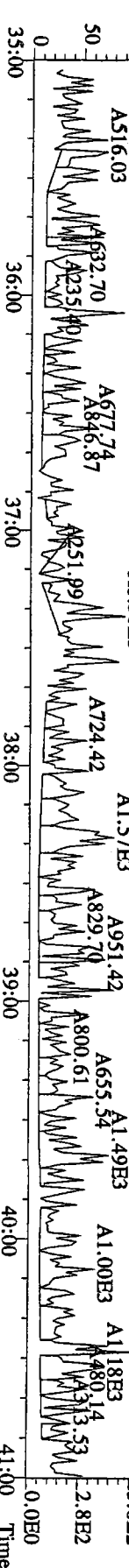
File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
383.8639 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
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:ST012210M1 File Text:Frontier Analytical Laboratory

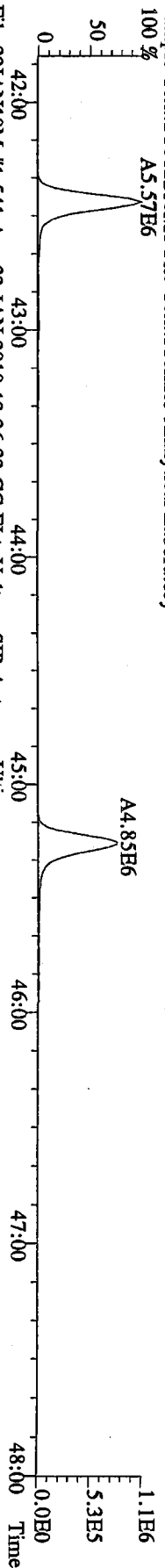


File:22JAN10M #1-463 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Utima  
445.7555 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory

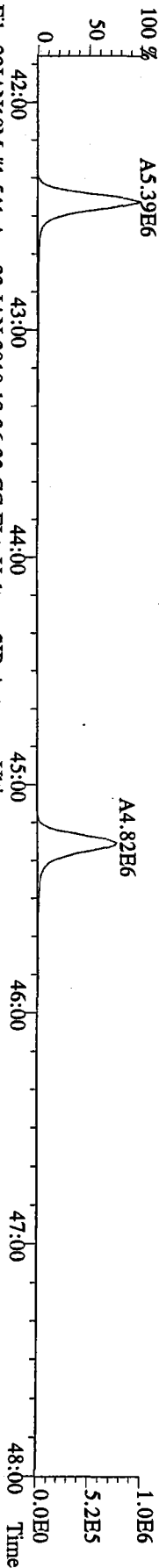


ST 01 22 10 M 1

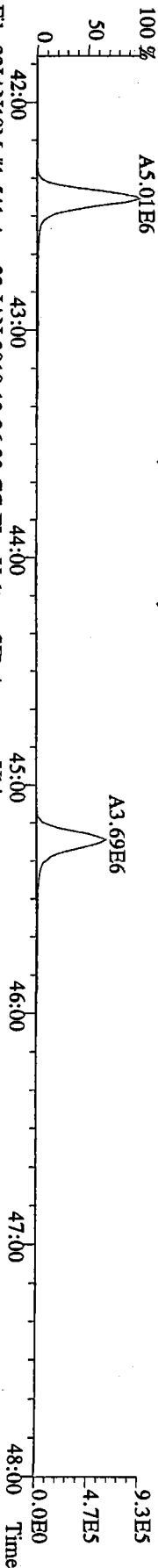
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI + Voltage SIR Autospec-Ultima  
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



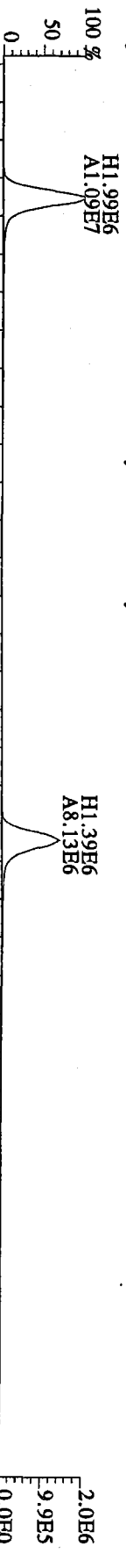
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI + Voltage SIR Autospec-Ultima  
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



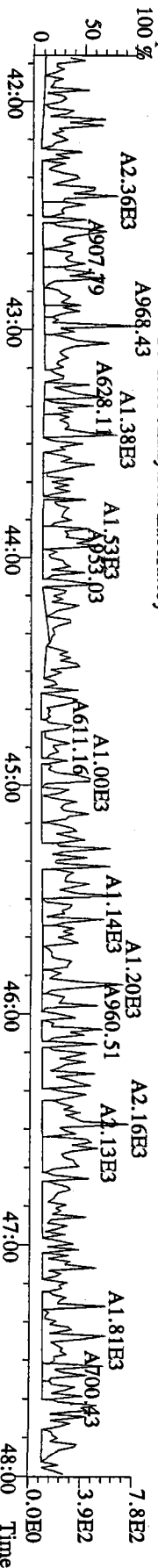
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI + Voltage SIR Autospec-Ultima  
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



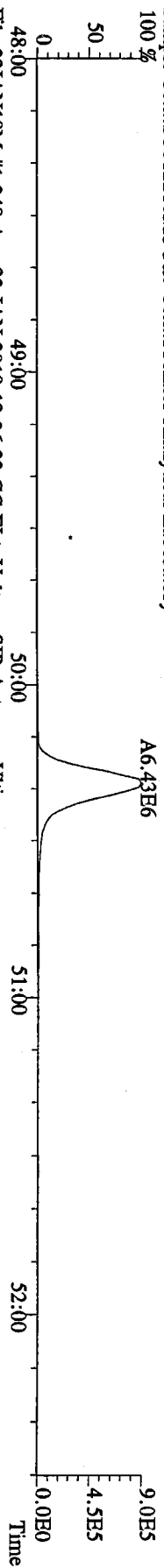
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI + Voltage SIR Autospec-Ultima  
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



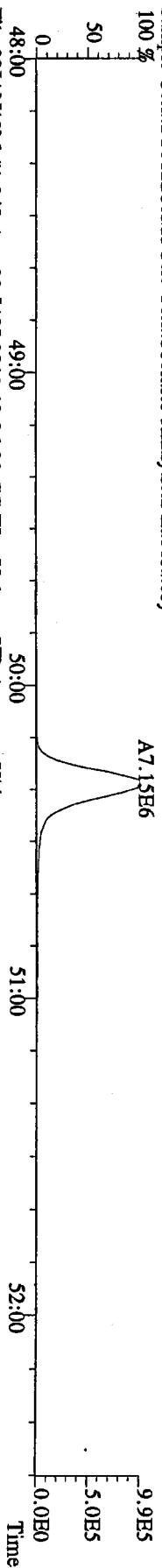
File:22JAN10M #1-541 Acq:22-JAN-2010 13:36:22 GC EI + Voltage SIR Autospec-Ultima  
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



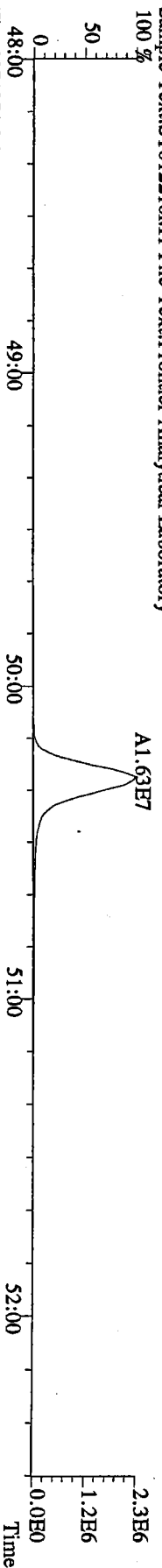
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



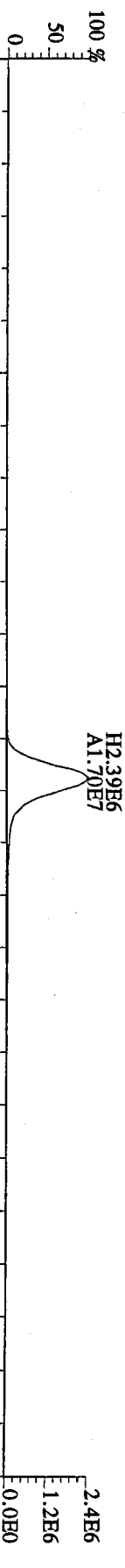
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



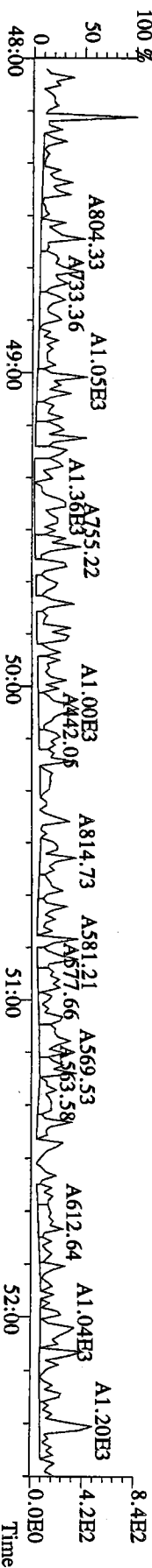
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



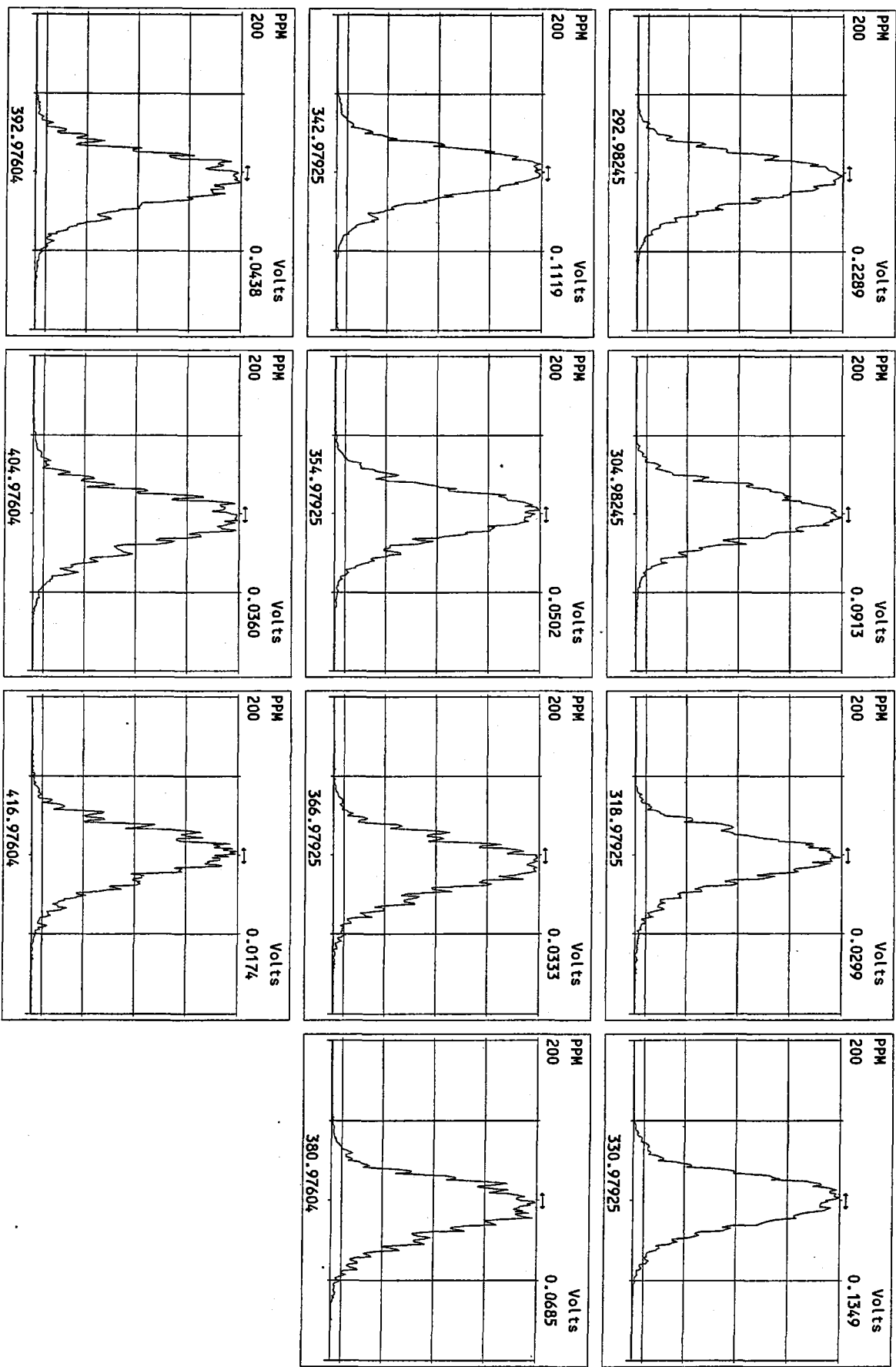
File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory



File:22JAN10M #1-348 Acq:22-JAN-2010 13:36:22 GC EI+ Voltage SIR Autospec-Ultima  
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD  
Sample Text:ST012210M1 File Text:Frontier Analytical Laboratory

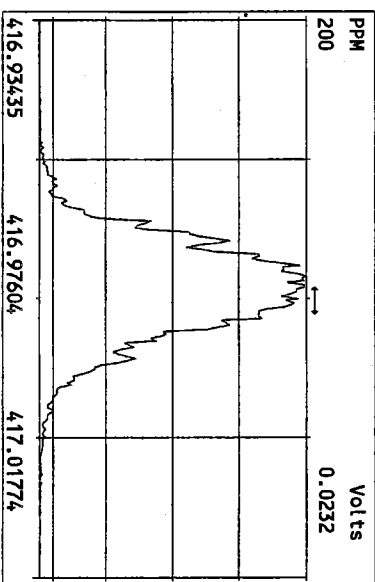
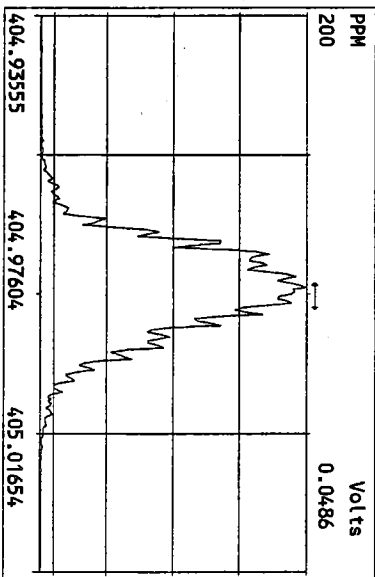
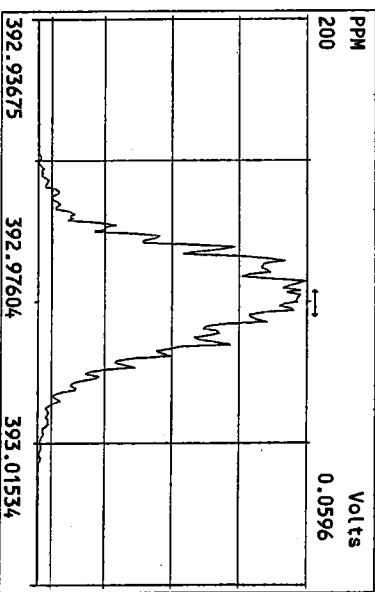
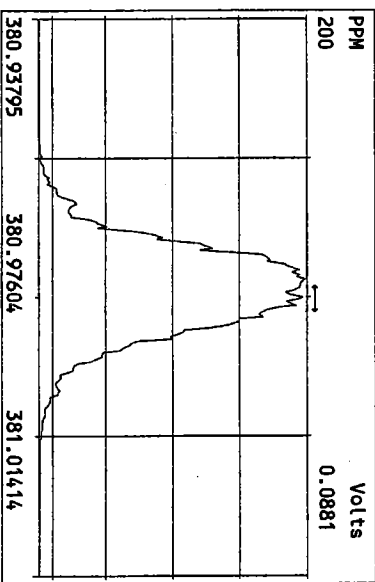
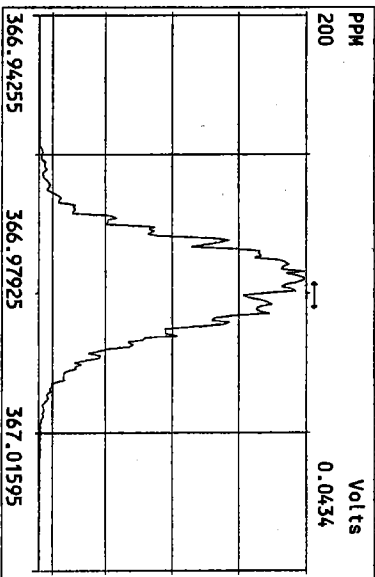
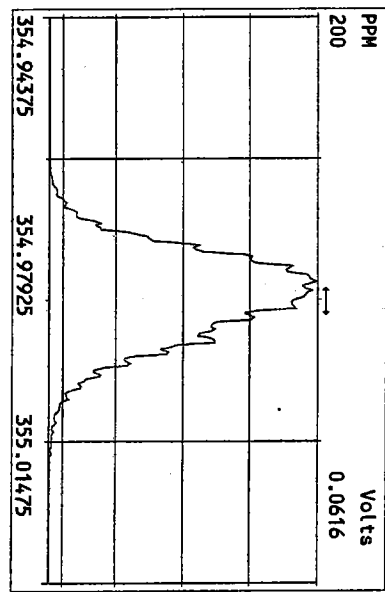
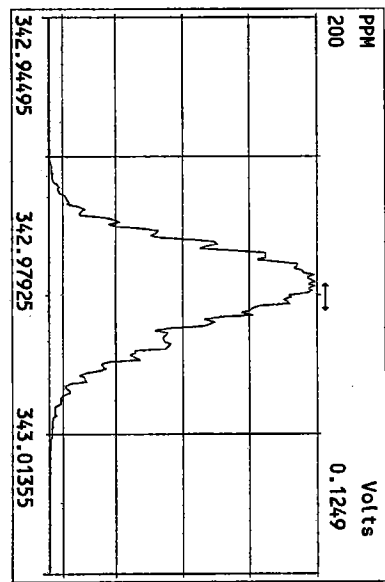
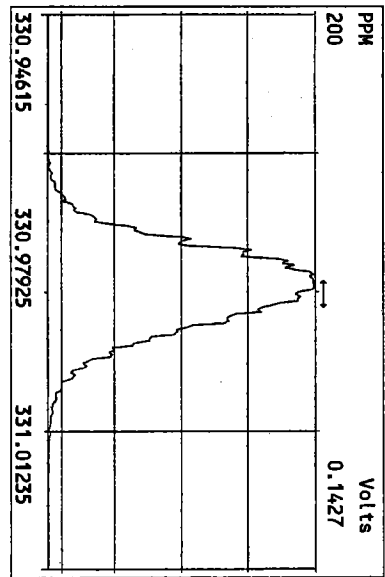


Peak Locate Examination: 23-JAN-2010:01:38 File: 22JAN10M\_RES\_CHECK  
 Experiment: PCDD Function: 1 Reference: PFK



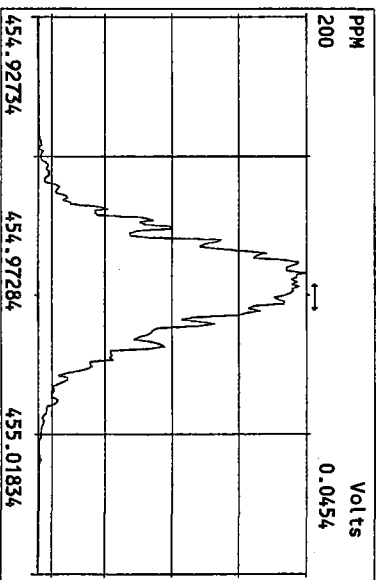
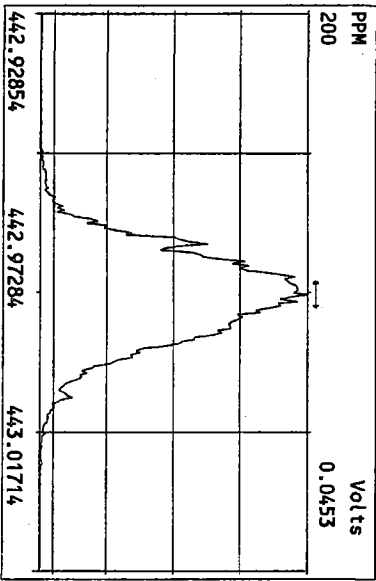
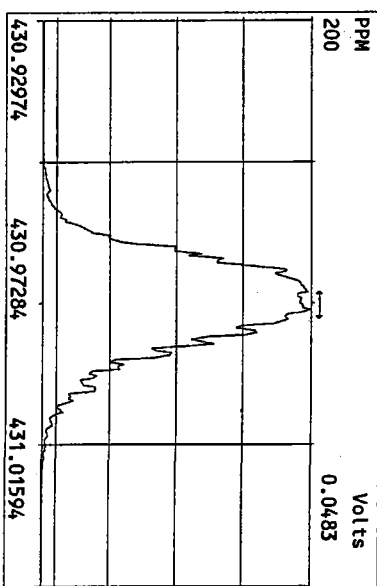
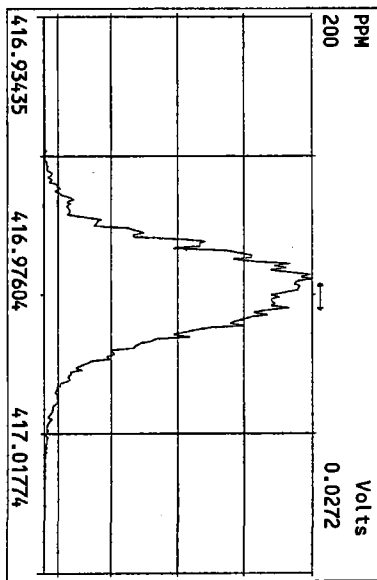
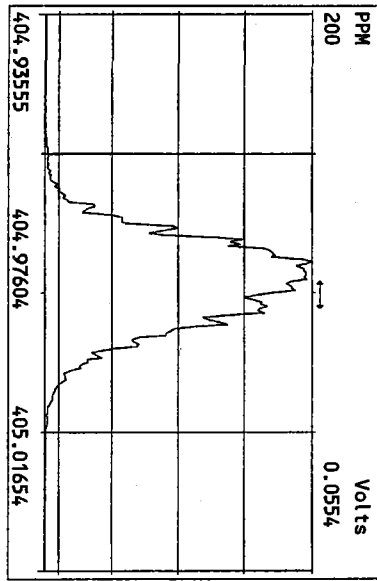
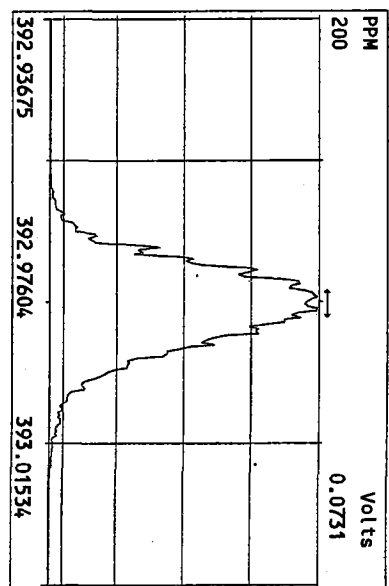
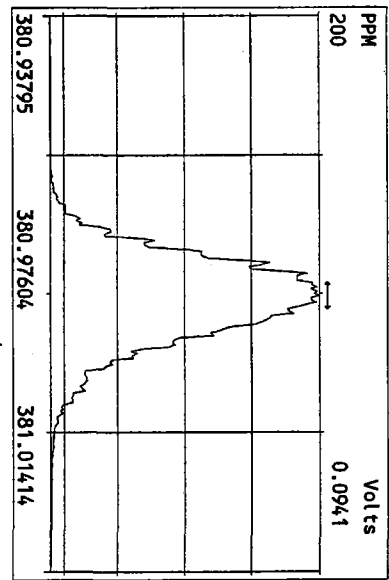
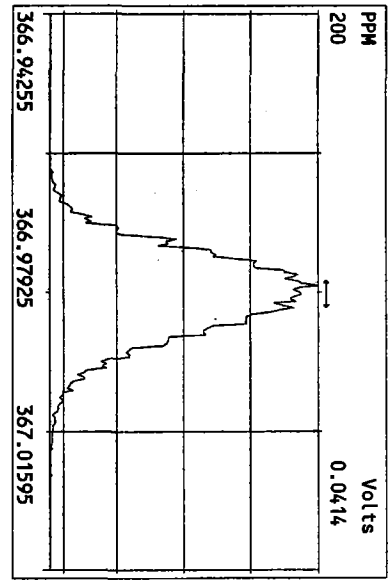
110 11





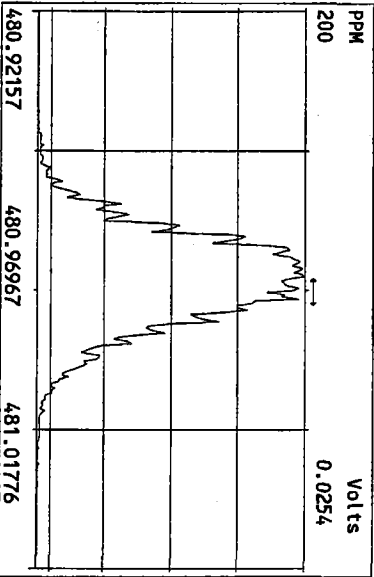
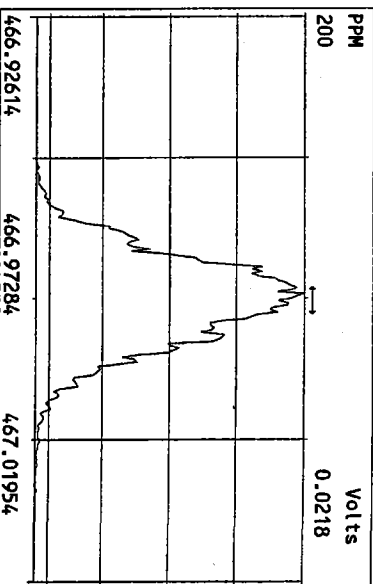
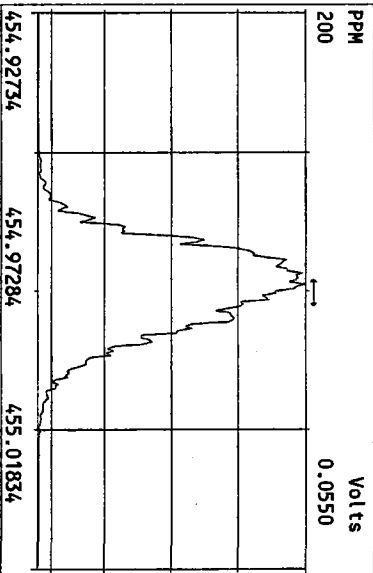
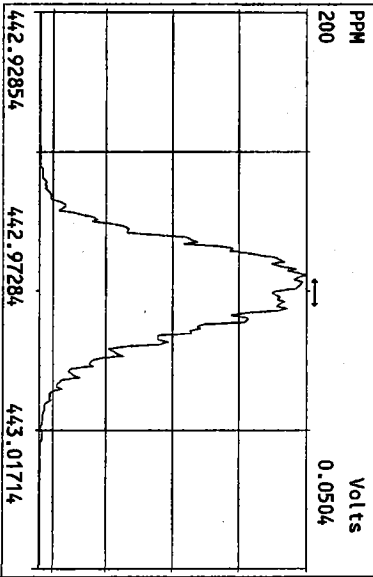
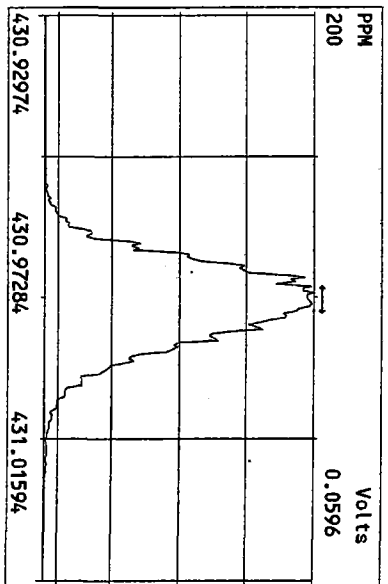
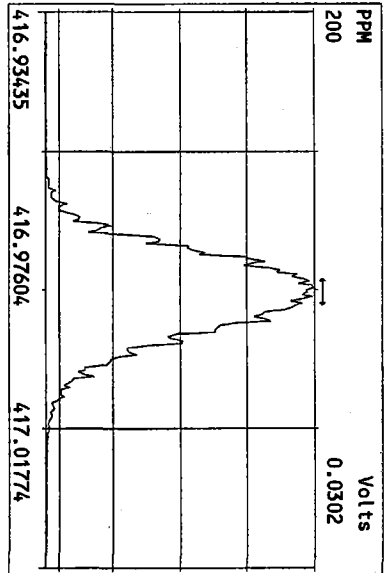
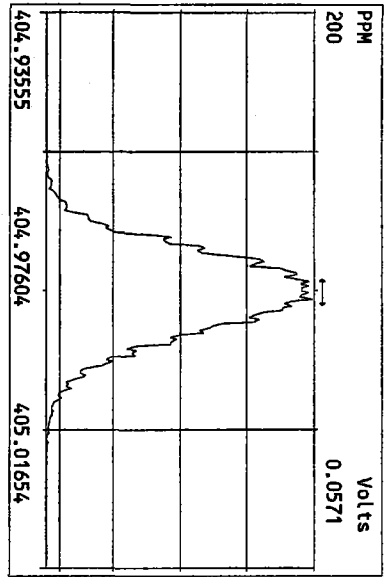
000000

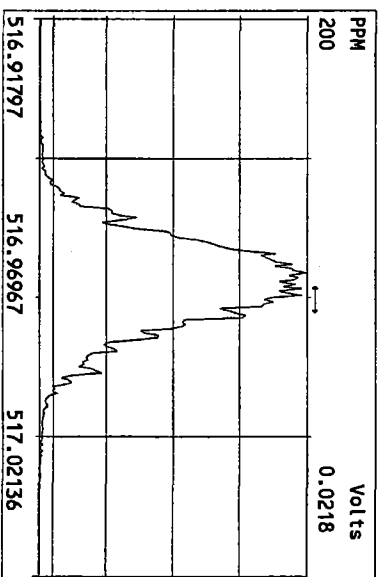
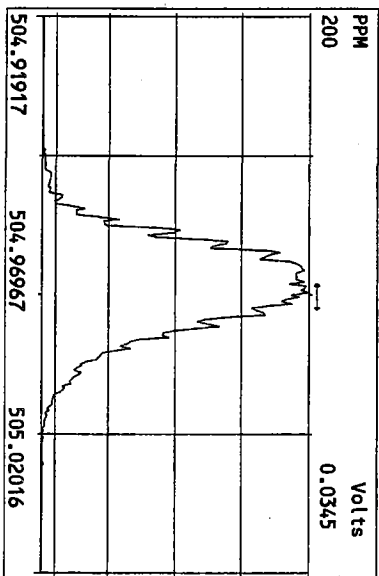
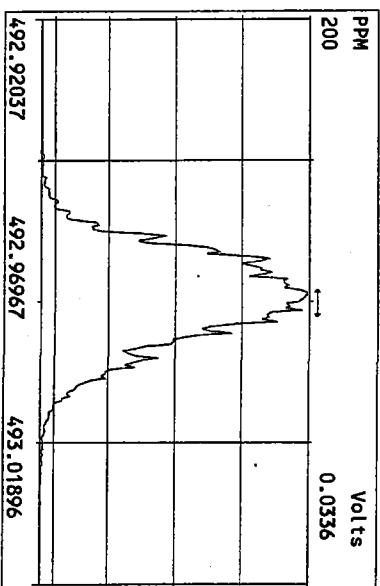
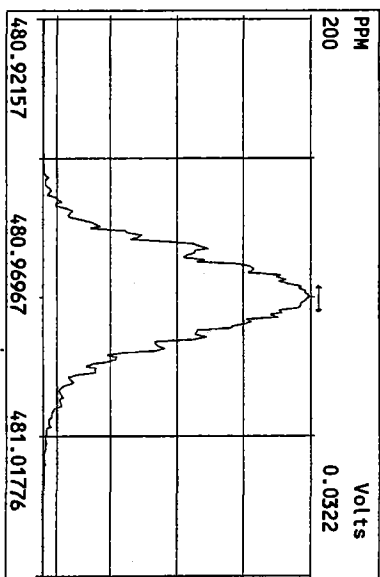
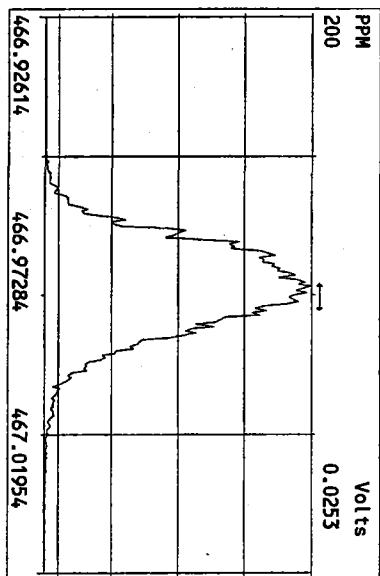
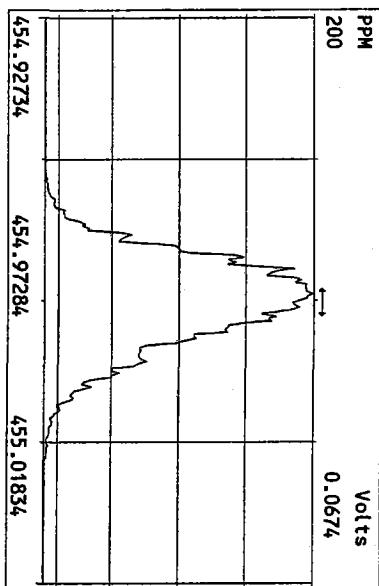
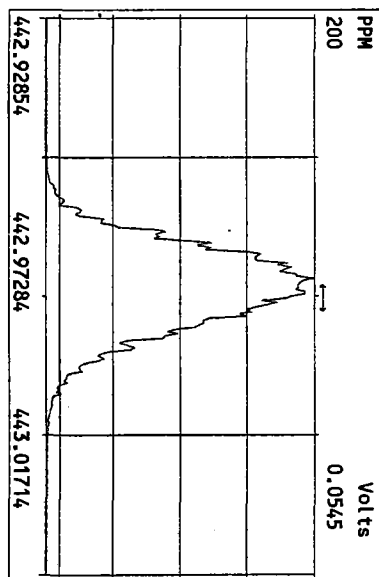
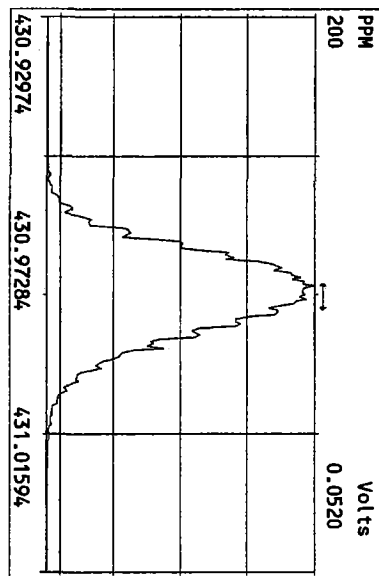
Peak Locate Examination:23 -JAN-2010:01:42 File:22JAN10M\_RES\_CHECK  
 Experiment:PCDD Function:3 Reference:PFK



0000000000

Peak Locate Examination:23-JAN-2010:01:44 File:22JAN10M\_RES\_CHECK  
Experiment:PCDD Function:4 Reference:PFK





## USEPA - ITD

FORM 4A  
TCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 11/19/09

Instrument ID: FAL1

GC Column ID: DB225

VER Data Filename: 25JAN10B Sam:1

Analysis Date: 25-JAN-10 Time: 15:23:00

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
NATIVE ANALYTES						
2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	9.65	8.40 - 12.0
LABELED COMPOUNDS						
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	98.7	71.0 - 140

(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 6A, Method 1613

Analyst: Date: 1/26/10

FAL ID: ST012510B1      Filename: 25JAN10B    Sam:1    Acquired: 25-JAN-10 15:23:00    ICal: TCDFFAL1-11-19-09  
Client ID: 1613 CS3 (90918J)      ConCal: ST012510B1 EndCal: ST012510B2  
Results: 5913TCDF    GC Column: DB225    Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise	DL	#Hom	Rec
2,3,7,8-TCDF	1.45e+07	0.79 y	19:22	1.26	9.65		2.50	-	-	1	
13C-2,3,7,8-TCDF	1.19e+08	0.80 y	19:20	0.92	98.7						98.7
13C-1,2,3,4-TCDF	1.31e+08	0.79 y	16:50	-	225						

Analyst: 

Date: 1/26/10

Frontier Analytical Laboratory - Acquisition Log

Run Name:25JAN10B

Instrument: FAL1

GC: DB225

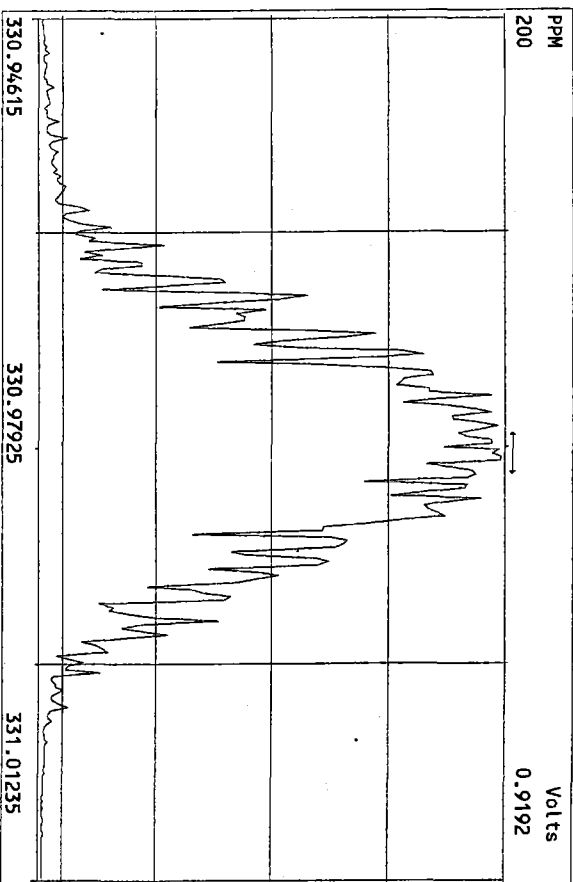
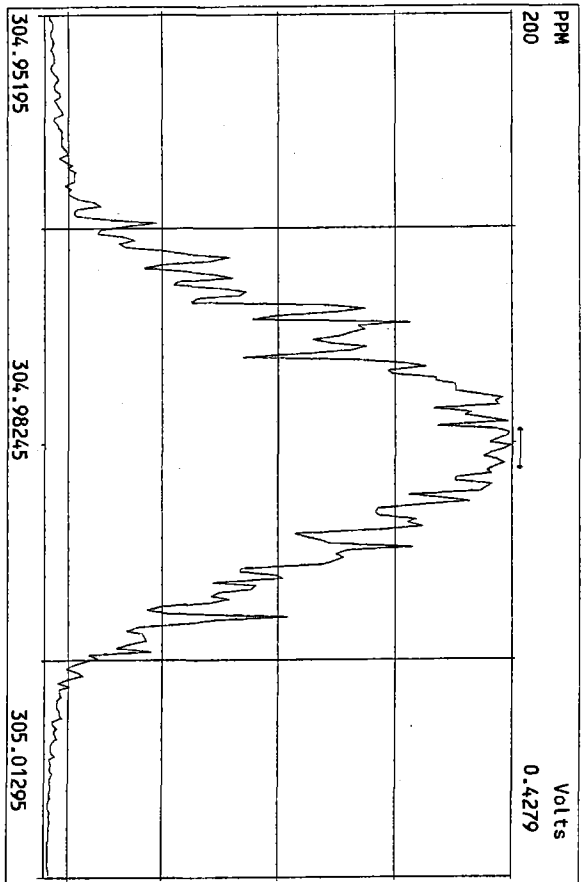
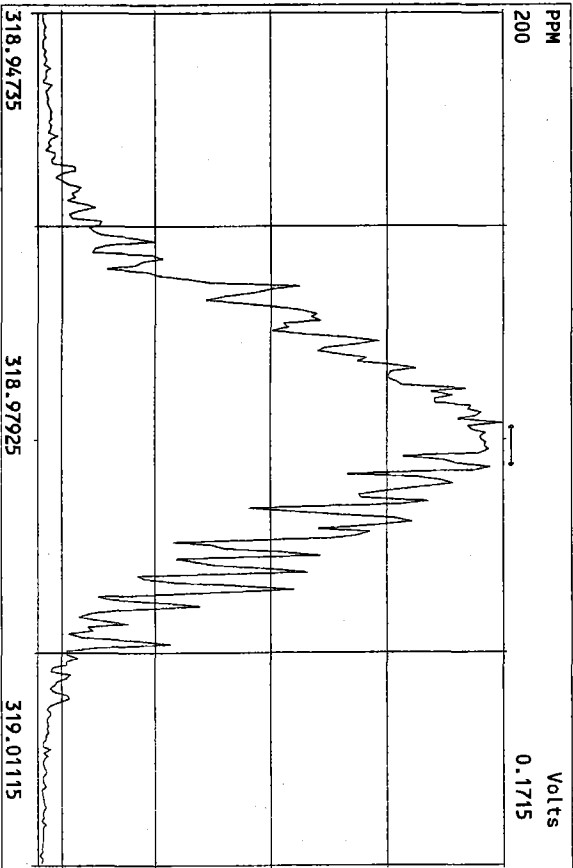
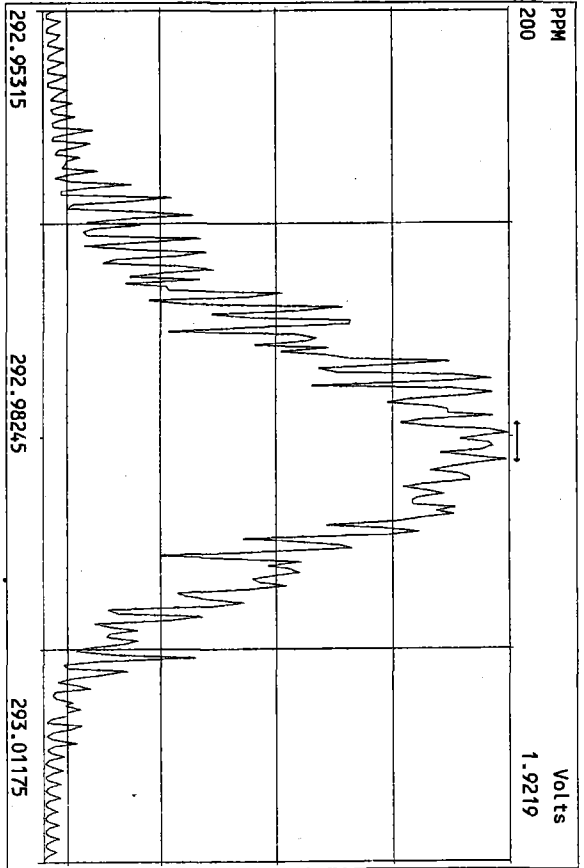
Experiment:TCDF

Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
25JAN10B 1	ST012510B1	1613 CS3 (90918J)	25-JAN-10 15:23:00	ST012510B1	ST012510B2	TC
25JAN10B 2	5913-001-0001-SA	CB19010710SED	25-JAN-10 15:58:03	ST012510B1	ST012510B2	TC
25JAN10B 3	5913-002-0001-SA	CB12010710SED	25-JAN-10 16:33:08	ST012510B1	ST012510B2	TC
25JAN10B 4	SB012510B1	Solvent Blank	25-JAN-10 17:08:11	ST012510B1	ST012510B2	TC
25JAN10B 5	ST012510B2	1613 CS3 (90918J)	25-JAN-10 17:43:16	ST012510B1	ST012510B2	TC

*TC* *1/20/10*

Data Backed Up: \_\_\_\_\_

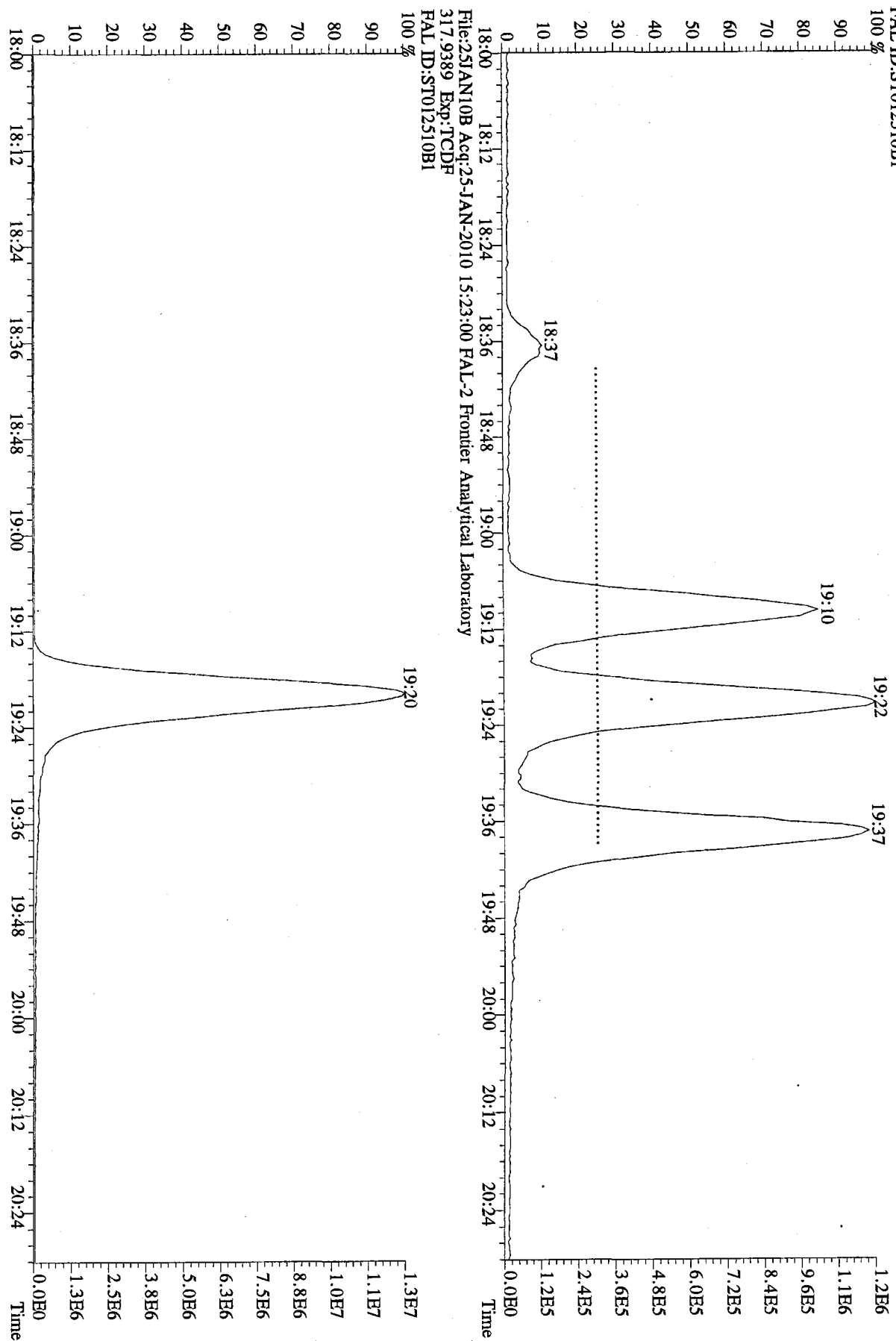
Date: \_\_\_\_\_



25 JAN 2010 15:22

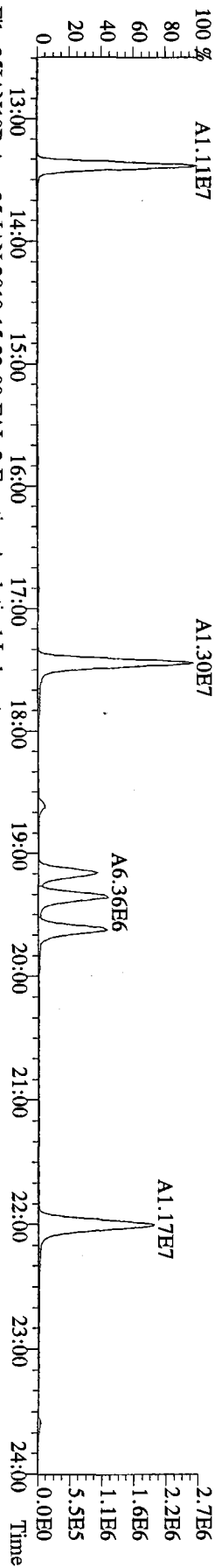


File:25JAN10B Acq:25-JAN-2010 15:23:00 FAL-2 Frontier Analytical Laboratory  
303.9016 Exp:TCDF  
FAL ID:ST012510B1  
100%

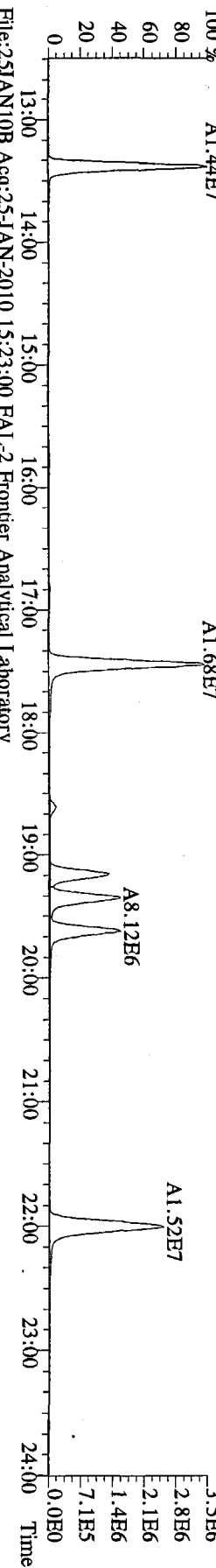


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

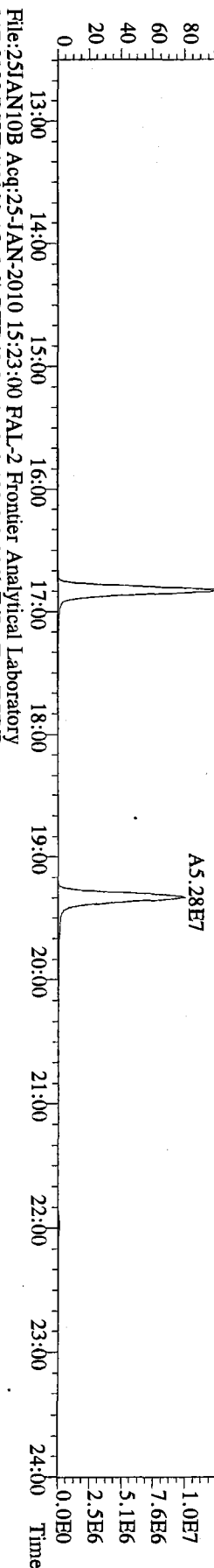
File:25JAN10B Acq:25-JAN-2010 15:23:00 FAL-2 Frontier Analytical Laboratory  
 303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST012510B1



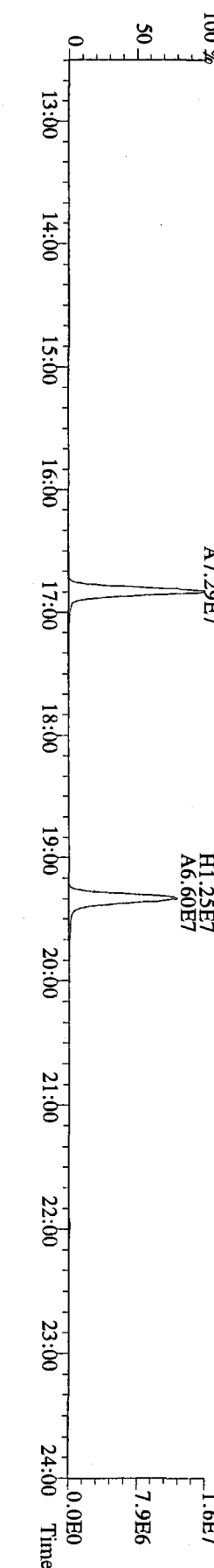
File:25JAN10B Acq:25-JAN-2010 15:23:00 FAL-2 Frontier Analytical Laboratory  
 305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST012510B1

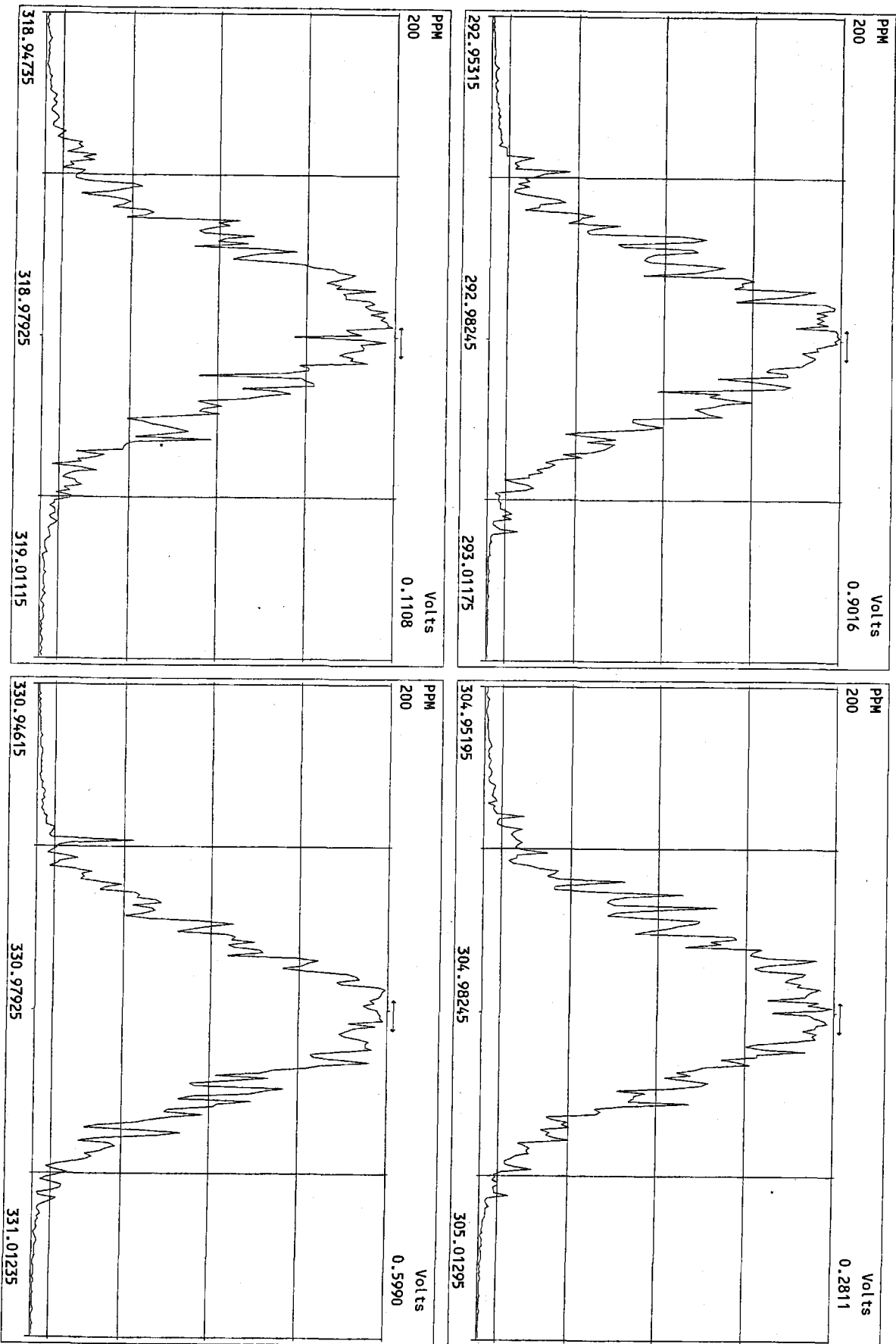


File:25JAN10B Acq:25-JAN-2010 15:23:00 FAL-2 Frontier Analytical Laboratory  
 315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST012510B1



File:25JAN10B Acq:25-JAN-2010 15:23:00 FAL-2 Frontier Analytical Laboratory  
 317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:TCDF  
 FAL ID:ST012510B1





10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

## USEPA - ITD

FORM 4A  
TCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory      Episode No.:

Contract No.:      SAS No.:

Initial Calibration Date: 11/19/09

Instrument ID: FAL1      GC Column ID: DB225

VER Data Filename: 25JAN10B Sam:5      Analysis Date: 25-JAN-10 Time: 17:43:16

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
NATIVE ANALYTES						
2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	10.3	8.40 - 12.0
LABELED COMPOUNDS						
13C-2,3,7,8-TCDF	M/M+2	0.82	0.65-0.89	y	93.6	71.0 - 140

(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 6A, Method 1613

Analyst: 

Date: 1/26/10

FAL ID: ST012510B2      Filename: 25JAN10B    Sam:5    Acquired: 25-JAN-10 17:43:16    ICal: TCDFFAL1-11-19-09  
Client ID: 1613 CS3 (90918J)      ConCal: ST012510B1 EndCal: ST012510B2  
Results: 5913TCDF    GC Column: DB225    Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise	DL	#Hom	Rec
2,3,7,8-TCDF	1.36e+07	0.80 y	19:19	1.26	10.3		2.50	-	-	1	
13C-2,3,7,8-TCDF	1.05e+08	0.82 y	19:18	0.92	93.6						93.6
13C-1,2,3,4-TCDF	1.22e+08	0.77 y	16:48	-	210						

Analyst:       Date: 1/26/10



Frontier Analytical Laboratory - Acquisition Log

Run Name:25JAN10B

Instrument: FAL1

GC: DB225

Experiment:TCDF

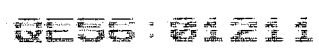
Data File S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
25JAN10B 1	ST012510B1	1613 CS3 (90918J)	25-JAN-10 15:23:00	ST012510B1	ST012510B2	TC
25JAN10B 2	5913-001-0001-SA	CB19010710SED	25-JAN-10 15:58:03	ST012510B1	ST012510B2	TC
25JAN10B 3	5913-002-0001-SA	CB12010710SED	25-JAN-10 16:33:08	ST012510B1	ST012510B2	TC
25JAN10B 4	SB012510B1	Solvent Blank	25-JAN-10 17:08:11	ST012510B1	ST012510B2	TC
25JAN10B 5	ST012510B2	1613 CS3 (90918J)	25-JAN-10 17:43:16	ST012510B1	ST012510B2	TC

*[Handwritten signature]*

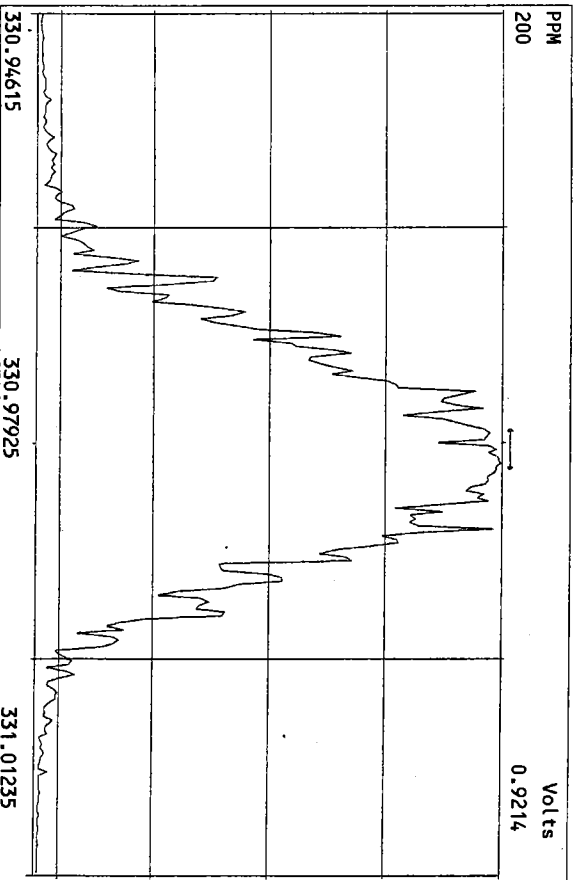
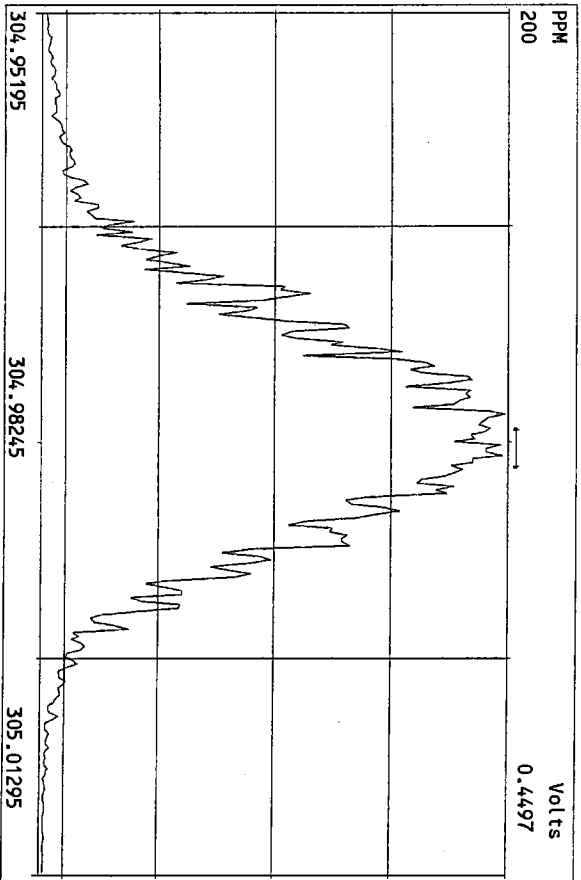
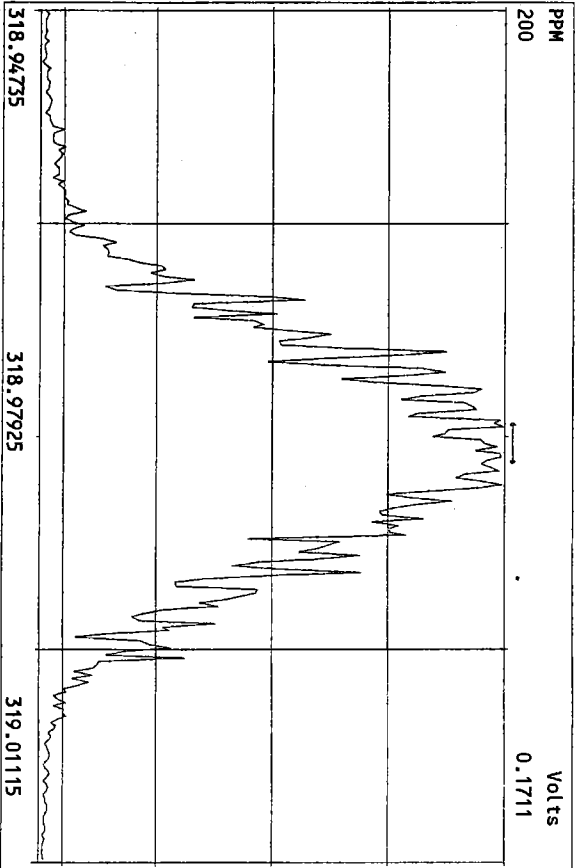
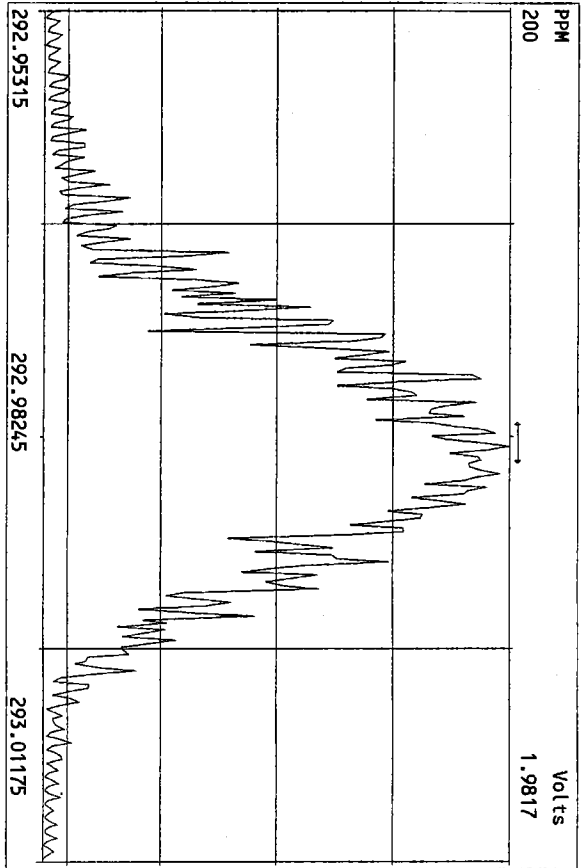
1/26/10

Data Backed Up: \_\_\_\_\_

Date: \_\_\_\_\_



Peak Locate Examination: 25-JAN-2010:15:22 File: 25JAN10B  
Experiment: TCDF Function: 1 Reference: PFK



14 11 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100