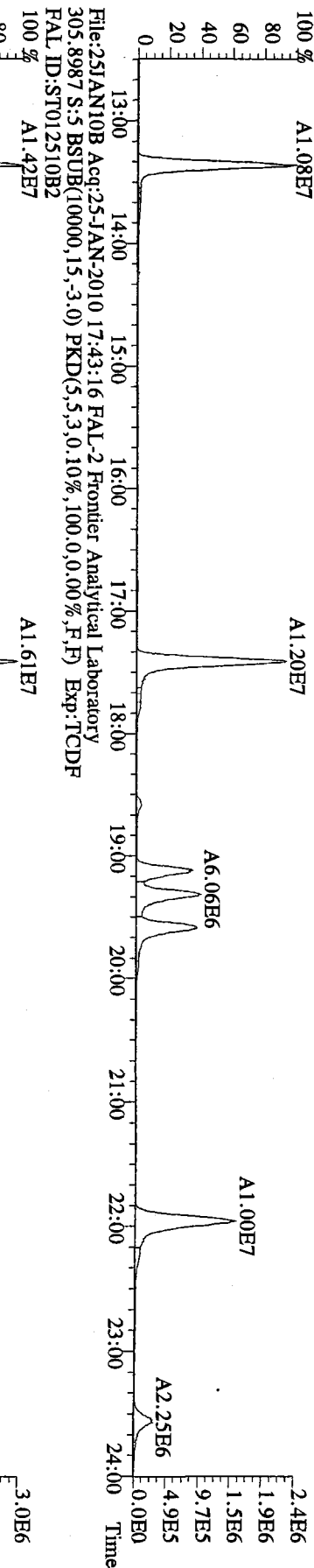
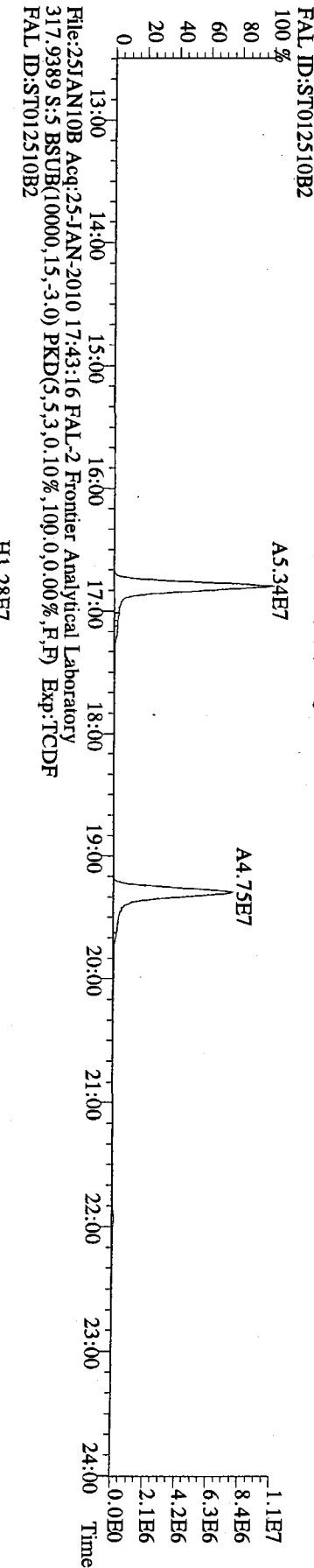


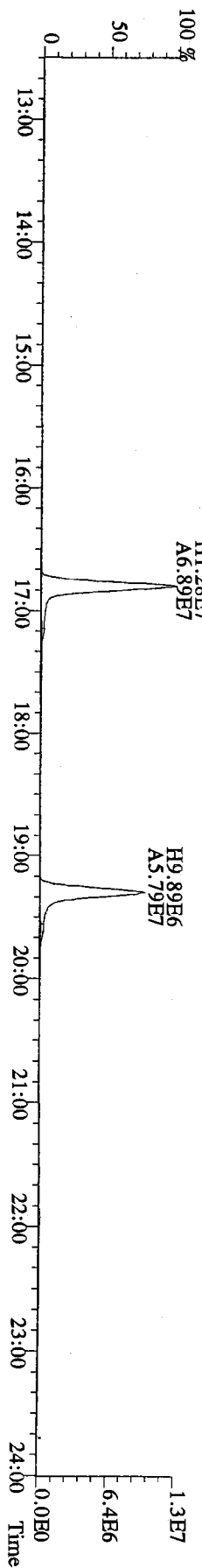
File:25JAN10B Acq:25-JAN-2010 17:43:16 PAL-2 Frontier Analytical Laboratory
 303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:TCDF
 FAL ID:ST012510B2
 100% A1.08E7



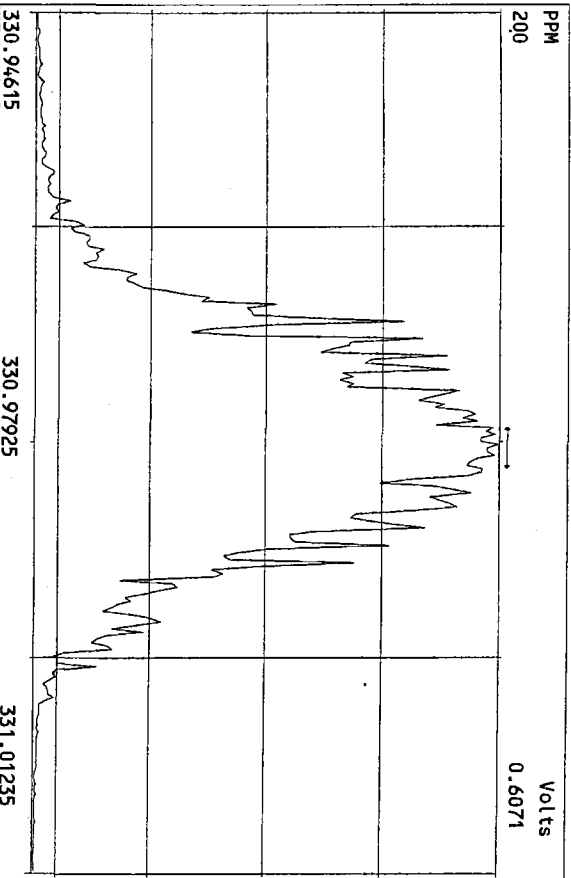
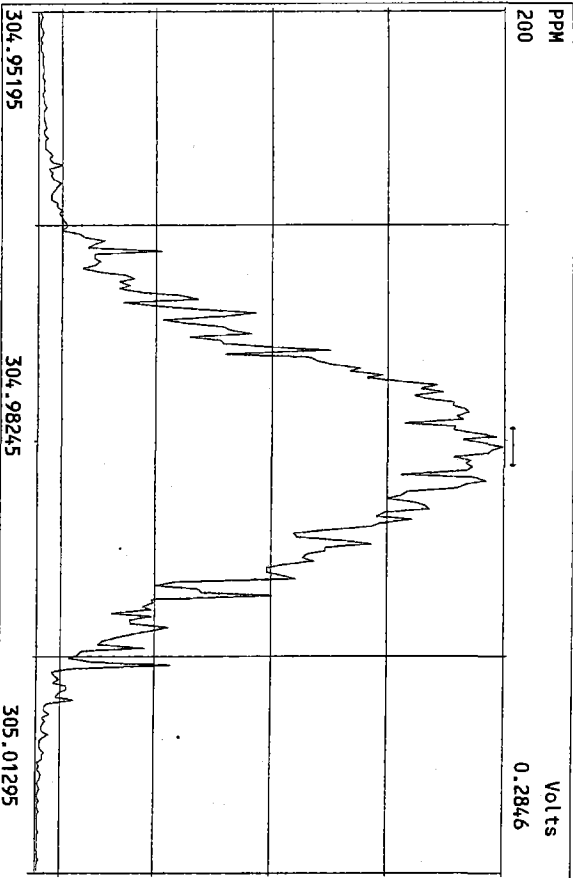
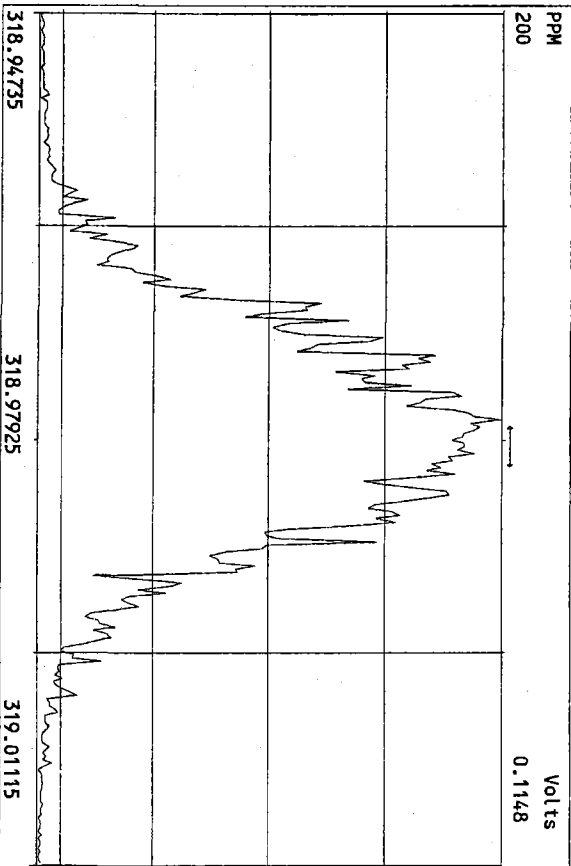
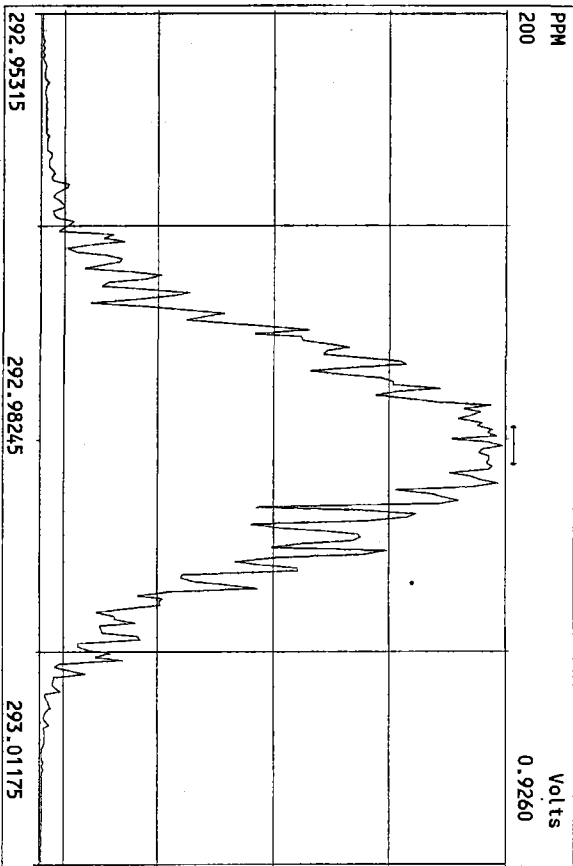
File:25JAN10B Acq:25-JAN-2010 17:43:16 PAL-2 Frontier Analytical Laboratory
 315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:TCDF
 FAL ID:ST012510B2
 100% A5.34E7



File:25JAN10B Acq:25-JAN-2010 17:43:16 PAL-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:ST012510B2
 100% H1.28E7
 A6.89E7



Peak Locate Examination: 26-JAN-2010:08:03 File: 25JAN10B_RES_CHECK
Experiment: TPDF Function: 1 Reference: PK



000295

April 15, 2010

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

Dear Ms. Dunning,

Enclosed are the results for Frontier Analytical Laboratory project **6076**. This corresponds to your **Lora Lakes Apartments** project under ARI project number **QQ59**. Four aqueous samples were received on 4/1/2010 in good condition. These samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The 2005 World Health Organizations toxic equivalency factors were used to calculate the toxic equivalency (TEQs) on your report. Analytical Resources Incorporated requested a Level IV report and a turnaround time of fifteen business days for project **6076**.

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

If you have any questions regarding project **6076**, 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

Sample Tracking Log

FAL Project ID: **6076**

Received on: **04/01/2010**

Project Due: **04/23/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
6076-001-SA	0	QQ59	CB31A032910COMP	EPA 1613 D/F	Aqueous	03/29/2010	06:12 pm	03/29/2011
6076-002-SA	0	QQ59	CB4857032910COMP	EPA 1613 D/F	Aqueous	03/29/2010	07:00 pm	03/29/2011
6076-003-SA	0	QQ59	CB1032910COMP	EPA 1613 D/F	Aqueous	03/29/2010	06:54 pm	03/29/2011
6076-004-SA	0	QQ59	CB100032910COMP	EPA 1613 D/F	Aqueous	03/29/2010	07:12 pm	03/29/2011

EPA Method 1613
PCDD/F



FAL ID: 6076-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.982		-	0.212				
1,2,3,7,8-PeCDD	ND	0.720		-	0.302				
1,2,3,4,7,8-HxCDD	ND	0.990		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.16		-	0.381	Total TCDD	ND	0.982	
1,2,3,7,8,9-HxCDD	ND	1.05		-	0.351	Total PeCDD	ND	0.720	
1,2,3,4,6,7,8-HpCDD	ND	1.53		-	0.495	Total HxCDD	ND	1.16	
OCDD	ND	2.95		-	1.02	Total HpCDD	ND	1.53	
2,3,7,8-TCDF	ND	0.445		-	0.112				
1,2,3,7,8-PeCDF	ND	0.658		-	0.219				
2,3,4,7,8-PeCDF	ND	0.712		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.612		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.634		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.639		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.696		-	0.185	Total TCDF	ND	0.445	
1,2,3,4,6,7,8-HpCDF	ND	0.866		-	0.251	Total PeCDF	ND	0.712	
1,2,3,4,7,8,9-HpCDF	ND	0.913		-	0.280	Total HxCDF	ND	0.696	
OCDF	ND	1.64		-	0.451	Total HpCDF	ND	0.913	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	83.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	81.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.4	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	79.1	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	75.4	23.0 - 140	
13C-OCDD	77.0	17.0 - 157	
13C-2,3,7,8-TCDF	82.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	79.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	81.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	77.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	76.5	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	79.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	80.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	75.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	79.9	26.0 - 138	
13C-OCDF	79.6	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 85.4 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: 4/15/10

Reviewed By: DN
Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 04-14-2010
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	49.8	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	51.1	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	50.2	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	51.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.2	35.0 - 70.0	
OCDD	103	78.0 - 144	
2,3,7,8-TCDF	9.48	7.50 - 15.8	
1,2,3,7,8-PeCDF	50.4	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.2	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	50.6	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50.7	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	50.2	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	50.7	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	50.6	39.0 - 69.0	
OCDF	101	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	79.9	20.0 - 175	
13C-1,2,3,7,8-PeCDD	73.9	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	68.6	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	69.1	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	66.9	26.0 - 166	
13C-OCDD	68.2	13.0 - 198	
13C-2,3,7,8-TCDF	80.6	22.0 - 152	
13C-1,2,3,7,8-PeCDF	70.8	21.0 - 192	
13C-2,3,4,7,8-PeCDF	73.8	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	68.1	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	68.2	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	70.2	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	71.7	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	64.4	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	70.5	20.0 - 186	
13C-OCDF	70.6	13.0 - 198	

- 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	95.5	31.0 - 191	
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Analyst: 
Date: 4/15/10

Reviewed By: DN
Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-001-SA
Client ID: CB31A032910COMP
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: 04-01-2010
Amount: 1.041 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 30.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.09		-	0.212				
1,2,3,7,8-PeCDD	3.70	-	J	3.70	0.302				
1,2,3,4,7,8-HxCDD	9.09	-	J	0.909	0.328				
1,2,3,6,7,8-HxCDD	26.3	-		2.63	0.381	Total TCDD	ND	1.09	
1,2,3,7,8,9-HxCDD	17.4	-	J	1.74	0.351	Total PeCDD	12.3	-	J
1,2,3,4,6,7,8-HpCDD	897	-		8.97	0.495	Total HxCDD	134	-	
OCDD	10800	-		3.24	1.02	Total HpCDD	1500	-	
2,3,7,8-TCDF	ND	0.549		-	0.112				
1,2,3,7,8-PeCDF	ND	1.54		-	0.219				
2,3,4,7,8-PeCDF	2.23	-	J	0.669	0.232				
1,2,3,4,7,8-HxCDF	32.5	-		3.25	0.162				
1,2,3,6,7,8-HxCDF	16.0	-	J	1.60	0.167				
2,3,4,6,7,8-HxCDF	11.4	-	J	1.14	0.167				
1,2,3,7,8,9-HxCDF	3.06	-	J	0.306	0.185	Total TCDF	34.0	-	D,M
1,2,3,4,6,7,8-HpCDF	202	-		2.02	0.251	Total PeCDF	94.8	-	D,M
1,2,3,4,7,8,9-HpCDF	17.9	-	J	0.179	0.280	Total HxCDF	442	-	D,M
OCDF	578	-		0.173	0.451	Total HpCDF	656	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	92.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	95.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	91.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	90.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	96.8	23.0 - 140	
13C-OCDD	97.7	17.0 - 157	
13C-2,3,7,8-TCDF	90.0	24.0 - 169	
13C-1,2,3,7,8-PeCDF	97.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	97.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	85.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	86.6	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	90.3	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	93.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	89.4	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	95.2	26.0 - 138	
13C-OCDF	94.8	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 99.3 35.0 - 197

Analyst: [Signature]
Date: 4/15/10

Reviewed By: DPJ
Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-002-SA
Client ID: CB4857032910COMP
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: 04-01-2010
Amount: 1.029 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 29.2

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.18		-	0.212				
1,2,3,7,8-PeCDD	3.85	-	J	3.85	0.302				
1,2,3,4,7,8-HxCDD	9.07	-	J	0.907	0.328				
1,2,3,6,7,8-HxCDD	24.6	-		2.46	0.381	Total TCDD	ND	1.18	
1,2,3,7,8,9-HxCDD	16.4	-	J	1.64	0.351	Total PeCDD	12.4	-	J
1,2,3,4,6,7,8-HpCDD	855	-		8.55	0.495	Total HxCDD	133	-	
OCDD	10900	-		3.27	1.02	Total HpCDD	1460	-	
2,3,7,8-TCDF	ND	0.654		-	0.112				
1,2,3,7,8-PeCDF	ND	1.36		-	0.219				
2,3,4,7,8-PeCDF	1.89	-	J	0.567	0.232				
1,2,3,4,7,8-HxCDF	28.7	-		2.87	0.162				
1,2,3,6,7,8-HxCDF	14.5	-	J	1.45	0.167				
2,3,4,6,7,8-HxCDF	10.9	-	J	1.09	0.167				
1,2,3,7,8,9-HxCDF	3.26	-	J	0.326	0.185	Total TCDF	29.5	-	D,M
1,2,3,4,6,7,8-HpCDF	186	-		1.86	0.251	Total PeCDF	85.1	-	D,M
1,2,3,4,7,8,9-HpCDF	16.8	-	J	0.168	0.280	Total HxCDF	396	-	D,M
OCDF	500	-		0.150	0.451	Total HpCDF	590	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	85.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	82.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	83.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	80.8	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	86.9	23.0 - 140	
13C-OCDD	92.1	17.0 - 157	
13C-2,3,7,8-TCDF	89.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	89.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	90.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	78.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	78.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	86.2	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	81.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	87.9	26.0 - 138	
13C-OCDF	88.1	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 86.5 35.0 - 197

Analyst: [Signature]

Date: 4/15/10

Reviewed By: DN

Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-003-SA
Client ID: CB1032910COMP
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: 04-01-2010
Amount: 1.023 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 0.375

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.888		-	0.212				
1,2,3,7,8-PeCDD	ND	0.889		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.53		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.79		-	0.381	Total TCDD	ND	0.888	
1,2,3,7,8,9-HxCDD	ND	1.62		-	0.351	Total PeCDD	ND	0.889	
1,2,3,4,6,7,8-HpCDD	26.0	-		0.260	0.495	Total HxCDD	8.32	-	J
OCDD	196	-		0.0588	1.02	Total HpCDD	52.9	-	
2,3,7,8-TCDF	ND	0.859		-	0.112				
1,2,3,7,8-PeCDF	ND	0.498		-	0.219				
2,3,4,7,8-PeCDF	ND	0.489		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.771		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.785		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.820		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.838		-	0.185	Total TCDF	ND	0.859	
1,2,3,4,6,7,8-HpCDF	5.20	-	J	0.0520	0.251	Total PeCDF	ND	1.53	
1,2,3,4,7,8,9-HpCDF	ND	0.650		-	0.280	Total HxCDF	6.84	-	J
OCDF	13.1	-	J	0.00393	0.451	Total HpCDF	12.4	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	91.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	85.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	84.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	82.6	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	85.5	23.0 - 140	
13C-OCDD	83.3	17.0 - 157	
13C-2,3,7,8-TCDF	88.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	89.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	89.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	81.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	85.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	81.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.4	26.0 - 138	
13C-OCDF	84.8	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 88.5 35.0 - 197

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

Analyst: [Signature]

Date: 4/15/10

Reviewed By: BN

Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-004-SA
Client ID: CB100032910COMP
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: 04-01-2010
Amount: 1.028 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 36.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.22		-	0.212				
1,2,3,7,8-PeCDD	5.83	-	J	5.83	0.302				
1,2,3,4,7,8-HxCDD	11.1	-	J	1.11	0.328				
1,2,3,6,7,8-HxCDD	32.0	-		3.20	0.381	Total TCDD	ND	1.22	
1,2,3,7,8,9-HxCDD	21.4	-	J	2.14	0.351	Total PeCDD	16.2	-	J
1,2,3,4,6,7,8-HpCDD	1030	-		10.3	0.495	Total HxCDD	170	-	
OCDD	9960	-		2.99	1.02	Total HpCDD	1730	-	
2,3,7,8-TCDF	ND	0.588		-	0.112				
1,2,3,7,8-PeCDF	1.90	-	J	0.0570	0.219				
2,3,4,7,8-PeCDF	3.14	-	J	0.942	0.232				
1,2,3,4,7,8-HxCDF	38.1	-		3.81	0.162				
1,2,3,6,7,8-HxCDF	16.3	-	J	1.63	0.167				
2,3,4,6,7,8-HxCDF	14.4	-	J	1.44	0.167				
1,2,3,7,8,9-HxCDF	3.67	-	J	0.367	0.185	Total TCDF	35.8	-	D,M
1,2,3,4,6,7,8-HpCDF	231	-		2.31	0.251	Total PeCDF	105	-	D,M
1,2,3,4,7,8,9-HpCDF	20.8	-	J	0.208	0.280	Total HxCDF	488	-	D,M
OCDF	642	-		0.193	0.451	Total HpCDF	733	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.8	25.0 - 164	
13C-1,2,3,7,8-PeCDD	83.5	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	85.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	80.2	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	85.0	23.0 - 140	
13C-OCDD	89.2	17.0 - 157	
13C-2,3,7,8-TCDF	87.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	86.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	86.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	80.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	79.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.6	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	84.2	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	80.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.6	26.0 - 138	
13C-OCDF	85.5	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 94.0 35.0 - 197

Analyst: [Signature]
Date: 4/15/10

Reviewed By: DN
Date: 4/15/10

- 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

SUBCONTRACTOR ANALYSIS REQUEST
 CUSTODY TRANSFER 03/30/10



6076
 002
 ARI Project: Q059

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: Lora Lakes Apartments
 ARI PM: Sue Dunnihoo
 Phone:
 Fax: 206-695-6201

Analytical Protocol: In-house
 Special Instructions:

Requested Turn Around: 05/30/08
 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
10-8212-QQ59A	CB31A032910COMP	03/29/10 18:12	Water	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-8213-QQ59B	CB4857032910COMP	03/29/10 19:00	Water	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-8214-QQ59C	CB1032910COMP	03/29/10 18:54	Water	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-8215-QQ59D	CB100032910COMP	03/29/10 19:12	Water	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					

L4 è EDD

Carrier UPS	Airbill 128326950151005778	Date 3/31/10
Relinquished by <i>[Signature]</i>	Company ARI	Date 3/31/10
Received by <i>[Signature]</i>	Company Frontier	Date 4/1/10
		Time 1355
		Time 1020

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **6076**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QQ59
Date Received:	04/01/2010
Time Received:	10:20 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	4
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950151005778
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	Yes
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	03/29/2011
Adequate Sample Volume	Yes
Anomalies or additional comments:	





Analytical Resources, Incorporated
Analytical Chemists and Consultants

April 28, 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: QR34

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.

Susan D. Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QR34

SD/sdrd

Chain of Custody
Documentation

prepared
for

Floyd/Snider

Project: Lora Lake Apts

ARI JOB NO: QR34

prepared
by

Analytical Resources, Inc.

QR34 : 00002



Cooler Receipt Form

ARI Client: Floyd Snider

Project Name: Lora Lake Apts

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: QR34

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) 9.1

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90077452

Cooler Accepted by: MM Date: 4/3/10 Time: 1255

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: N/A

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)

Was Sample Split by ARI: NA (YES) Date/Time: 4/5/10 1130 Equipment: Teflon Split by: JP/MM

Samples Logged by: JP Date: 4/5/10 Time: 1130

**** 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:

By: _____ Date: _____

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



ARI Job No: QR34

PC: Sue D.
VTSR: 04/03/10

Inquiry Number: NONE
Analysis Requested: 04/05/10
Contact: Woltman, Matt
Client: Floyd/Snider
Logged by: JP
Sample Set Used: Yes-481
Validatable Package: No
Deliverables:

Project #:
Project: Lora Lake Apts
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	POG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
10-8675 QR34A	CB31A040210COMP						DIS									N						
10-8676 QR34B	CB4857040310COMP						DIS									N						
10-8677 QR34C	CB1040210COMP						DIS									N						
10-8678 QR34D	CE102040210COMP						DIS									N						
10-8679 QR34E	CB31A040210COMP						TOT PASS															
10-8680 QR34F	CB4857040310COMP						TOT PASS															
10-8681 QR34G	CB1040210COMP						TOT PASS															
10-8682 QR34H	CE102040210COMP						TOT PASS															

Dissolved metals are not preserved

Case Narrative

prepared
for

Floyd/Snider

Project: Lora Lake Apts

ARI JOB NO: QR34

prepared
by

Analytical Resources, Inc.



Case Narrative

Client: Floyd Snider

Project: Lora Lake Apartments, POS-LLA

Matrix: Water

ARI Job No.: QR34

Sample receipt

Analytical Resources, Inc. (ARI) accepted four water samples on April 3, 2010 under ARI job QR34. The cooler temperature measured by IR thermometer following ARI SOP was 9.1°C . For details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

Samples were split for each laboratory using a Teflon churn splitter. The churn splitter was cleaned between each sample using the QAPP protocol. Limited sample volumes were available, insufficient for matrix QC for organic parameters.

Dioxin/Furan analyses were subcontracted to Frontier Analytical Laboratory in El Dorado Hills, CA. The Frontier report is included here in its entirety.

SIM Semivolatiles by SW8270

The samples were extracted and analyzed within the method recommended holding times.

Initial calibrations 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 percent recoveries were within control limits.

The matrix spike/matrix spike duplicate had recoveries and RPD within limits.

Pentachlorophenol by SW8041

The samples were extracted and analyzed within the method recommended holding times.

Initial calibrations and continuing calibrations were within limits for the target compound.

The surrogate percent recoveries were within control limits.



The method blank was clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike/matrix spike duplicate had recoveries and RPD within limits.

Total and Dissolved Arsenic by EPA 200.8

The samples were digested and analyzed within the method recommended holding time.

The method blanks were clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries were within limits. Duplicate RPDs were within control limits.

General Chemistry (TSS)

The samples were prepared and analyzed within the method recommended holding time.

The method blank was clean at the reporting limit. The LCS percent recovery was within control limits.

The replicate RPD was within the control limit.

SURR SOLUTIONS

4/3/2010

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1706-2	ABN	100/150	MEOH	07/30/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C	1705-4	SIM ABN	25/37.5	MEOH	03/08/11
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	1707-2	1,4DIOXANE	100	MEOH	03/19/11
H	1723-2	OP-PEST	25	MEOH	04/02/11
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	1699-1	TPH	450	MECL2	07/02/10
P	1707-4	HCID	2250	MECL2	07/02/10
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	01/13/11
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					

LCS SOLUTIONS

4/3/2010

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1716-1	PCB 1660	20	ACETONE	03/30/11
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1705-3	PEST	02/04/20	ACETONE	03/08/11
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1702-2	PCP	12.5/125	ACETONE	02/18/11
7	1705-1	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	1698-2	ABN ACID	100/200	MECL2	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1698-1	ABN BASE	200	MEOH	07/24/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15	1716-2	SIM PNA	15/75	MEOH	03/30/11
16	1707-1	DIOXANE	100	MEOH	11/05/10
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	1702-4	HERB	12.5/12500	MEOH	04/17/10
23	1706-1	LW ABN BASE	20	MEOH	03/08/11
24	1696-1	LOW ABN	10	ACETONE	01/13/11
25#	1481-1	DIPHENYL	100	MEOH	NA
26	1723-3	OP-PEST	25	MEOH	11/20/10
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

LCS SOLUTIONS

4/3/2010

31	1707-3	TERPINEOL	100	MEOH	03/19/11
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	1696-3	DDTS	2.5	ACETONE	06/03/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
53	1703-3	DALAPON	50	MEOH	09/11/10
54	1701-2	PBDE	0.5	ACETONE	02/10/11
	#=PROJECT SPECIFIC SOLUTION				
	*=REVERIFIED SOLUTION				



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 ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 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



- 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



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 ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 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



**Spike Recovery Control Limits for Polycyclic Aromatic Hydrocarbons
Selected Ion Monitoring (SIM) EPA Method SW-846-8270D-Modified
Low Level Aqueous Samples^(1,7)
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>

Sample Volume / Final Volume	500 mL to 0.5 mL	
	Control Limits	ME Limits ⁽²⁾
LCS Spike Recovery ⁽⁶⁾		
Napthalene	41 - 101	31 - 111
2-Methylnapthalene	47 - 100	39 - 103
1-Methylnapthalene	30 - 160 ⁽³⁾	30 - 160 ⁽³⁾
Acenaphthylene	35 - 100	25 - 104
Acenaphthene	43 - 104	33 - 114
Dibenzofuran	37 - 100	27 - 108
Fluorene	51 - 103	42 - 112
Phenanthrene	55 - 109	46 - 118
Anthracene	30 - 101	18 - 113
Fluoranthene	49 - 123	37 - 135
Pyrene	48 - 120	36 - 132
Benz(a)anthracene	43 - 113	31 - 125
Chrysene	59 - 112	50 - 121
Benzo(b)fluoranthene	44 - 121	31 - 134
Benzo(k)fluoranthene	50 - 117	39 - 128
Benzo(a)pyrene	10 - 100	10 - 109
Indeno(1,2,3-cd)pyrene	43 - 112	32 - 124
Dibenzo(a,h)anthracene	42 - 114	30 - 126
Benzo(g,h,i)perylene	31 - 118	17 - 133
MB / LCS Surrogate Recovery		
d10-2-Methylnapthalene	42 - 100	(4)
d14-Dibenzo(a,h)anthracene	40 - 125	(4)
Sample Surrogate Recovery		
d10-2-Methylnapthalene	31 - 109	(4)
d14-Dibenzo(a,h)anthracene	10 - 133	(4)

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 through 12/1/08.

(2) **ME** = A **marginal exceedance** defined in the NELAC Standard ⁽⁵⁾ 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 one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.

(3) 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.

(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) 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.

(7) 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.



Spike Recovery Control Limits for Chlorinated Phenols
EPA Method SW-846-8041^(1,2)
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>

Sample Matrix:	ARI's Calculated Control Limits	
	Water	Soil / Sediment
Sample Amount / Final Volume:	500 / 50 mL	10 g / 25 mL
LCS Spike Recovery⁽³⁾		
Pentachlorophenol	27 - 115	10 - 162
Method Blank/LCS Surrogate Recovery		
2,4,6-Tribromophenol	40 - 130	50 - 115
Sample Surrogate Recovery		
2,4,6-Tribromophenol	11 - 156	10 - 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.



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%



Spike Recovery Control Limits for Conventional Wet Chemistry 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		
Sample Matrix:	ARI's Control Limits	
	Water	Soil / Sediment
Matrix Spike Recoveries	% 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
Duplicate RPDs		
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: Lora Lake Apts

ARI JOB NO: QR34

prepared
by


Analytical Resources, Inc.

SIM SEMIVOLATILE ANALYSIS



ORGANICS ANALYSIS DATA SHEET
 PNAs by Low Level SW8270D-SIM GC/MS
 Page 1 of 1

Sample ID: CB31A040210COMP
 SAMPLE

Lab Sample ID: QR34A
 LIMS ID: 10-8675
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/05/10

QC Report No: QR34-Floyd/Snider
 Project: Lora Lake Apts
 Event: NA
 Date Sampled: 04/02/10
 Date Received: 04/03/10

Date Extracted: 04/06/10
 Date Analyzed: 04/12/10 20:43
 Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
 Final Extract Volume: 0.5 mL
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.018
91-57-6	2-Methylnaphthalene	0.010	0.011
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.033
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.050
129-00-0	Pyrene	0.010	0.054
56-55-3	Benzo (a) anthracene	0.010	0.011
218-01-9	Chrysene	0.010	0.036
205-99-2	Benzo (b) fluoranthene	0.010	0.015
207-08-9	Benzo (k) fluoranthene	0.010	0.015
50-32-8	Benzo (a) pyrene	0.010	0.014
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.010
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.028
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 61.0%
 d14-Dibenzo(a,h)anthracene 36.7%

QR34:00021R
 PSM/10

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

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Sample ID: CB4857040310COMP

SAMPLE

Lab Sample ID: QR34B

QC Report No: QR34-Floyd/Snider

LIMS ID: 10-8676

Project: Lora Lake Apts

Matrix: Water

Event: NA

Data Release Authorized: *[Signature]*

Date Sampled: 04/03/10

Reported: 05/05/10

Date Received: 04/03/10

Date Extracted: 04/06/10

Sample Amount: 500 mL

Date Analyzed: 04/12/10 21:06

Final Extract Volume: 0.5 mL

Instrument/Analyst: NT2/PK

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.019
91-57-6	2-Methylnaphthalene	0.010	0.011
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.039
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.061
129-00-0	Pyrene	0.010	0.063
56-55-3	Benzo (a) anthracene	0.010	0.016
218-01-9	Chrysene	0.010	0.043
205-99-2	Benzo (b) fluoranthene	0.010	0.020
207-08-9	Benzo (k) fluoranthene	0.010	0.020
50-32-8	Benzo (a) pyrene	0.010	0.019
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.016
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.034
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 63.3%
d14-Dibenzo(a,h)anthracene 37.7%

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
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Sample ID: CB1040210COMP
SAMPLE

Lab Sample ID: QR34C
LIMS ID: 10-8677
Matrix: Water
Data Release Authorized: *B*
Reported: 04/13/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts
Event: NA
Date Sampled: 04/02/10
Date Received: 04/03/10

Date Extracted: 04/06/10
Date Analyzed: 04/12/10 22:17
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.014
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 64.3%
d14-Dibenzo(a,h)anthracene 51.0%

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
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Sample ID: CB102040210COMP
SAMPLE

Lab Sample ID: QR34D
LIMS ID: 10-8678
Matrix: Water
Data Release Authorized
Reported: 04/13/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts
Event: NA
Date Sampled: 04/02/10
Date Received: 04/03/10

Date Extracted: 04/06/10
Date Analyzed: 04/12/10 22:41
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.012
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo (b) fluoranthene	0.010	< 0.010 U
207-08-9	Benzo (k) fluoranthene	0.010	< 0.010 U
50-32-8	Benzo (a) pyrene	0.010	< 0.010 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	< 0.010 U
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 66.3%
d14-Dibenzo (a,h) anthracene 49.3%

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
CB31A040210COMP	61.0%	36.7%	0
MB-040610	62.3%	53.0%	0
LCS-040610	66.7%	67.0%	0
CB4857040310COMP	63.3%	37.7%	0
CB4857040310COMP MS	65.0%	48.3%	0
CB4857040310COMP MSD	66.3%	50.7%	0
CB1040210COMP	64.3%	51.0%	0
CB102040210COMP	66.3%	49.3%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(MNP) = d10-2-Methylnaphthalene	(42-100)	(31-109)
(DBA) = d14-Dibenzo (a, h) anthracene	(40-125)	(10-133)

Prep Method: SW3520C
Log Number Range: 10-8675 to 10-8678



ORGANICS ANALYSIS DATA SHEET
 PNAs by Low Level SW8270D-SIM GC/MS
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Sample ID: CB4857040310COMP
 MATRIX SPIKE

Lab Sample ID: QR34B
 LIMS ID: 10-8676
 Matrix: Water
 Data Release Authorized: *[Signature]*
 Reported: 05/05/10

QC Report No: QR34-Floyd/Snider
 Project: Lora Lake Apts
 Event: NA
 Date Sampled: 04/03/10
 Date Received: 04/03/10

Date Extracted MS/MSD: 04/06/10
 Date Analyzed MS: 04/12/10 21:30
 MSD: 04/12/10 21:53
 Instrument/Analyst MS: NT2/PK
 MSD: NT2/PK

Sample Amount MS: 500 mL
 MSD: 500 mL
 Final Extract Volume MS: 0.50 mL
 MSD: 0.50 mL
 Dilution Factor MS: 1.00
 MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	0.0188	0.200	0.300	60.4%	0.204	0.300	61.7%	2.0%
2-Methylnaphthalene	0.0111	0.213	0.300	67.3%	0.218	0.300	69.0%	2.3%
1-Methylnaphthalene	< 0.0100 U	0.191	0.300	63.7%	0.193	0.300	64.3%	1.0%
Acenaphthylene	< 0.0100 U	0.205	0.300	68.3%	0.210	0.300	70.0%	2.4%
Acenaphthene	< 0.0100 U	0.206	0.300	68.7%	0.215	0.300	71.7%	4.3%
Fluorene	< 0.0100 U	0.219	0.300	73.0%	0.230	0.300	76.7%	4.9%
Phenanthrene	0.0391	0.285	0.300	82.0%	0.283	0.300	81.3%	0.7%
Anthracene	< 0.0100 U	0.223	0.300	74.3%	0.224	0.300	74.7%	0.4%
Fluoranthene	0.0607	0.286	0.300	75.1%	0.283	0.300	74.1%	1.1%
Pyrene	0.0631	0.286	0.300	74.3%	0.292	0.300	76.3%	2.1%
Benzo(a)anthracene	0.0160	0.221	0.300	68.3%	0.232	0.300	72.0%	4.9%
Chrysene	0.0429	0.270	0.300	75.7%	0.290	0.300	82.4%	7.1%
Benzo(b)fluoranthene	0.0200	0.236	0.300	72.0%	0.210	0.300	63.3%	11.7%
Benzo(k)fluoranthene	0.0200	0.187	0.300	55.7%	0.231	0.300	70.3%	21.1%
Benzo(a)pyrene	0.0194	0.190	0.300	56.9%	0.202	0.300	60.9%	6.1%
Indeno(1,2,3-cd)pyrene	0.0158	0.159	0.300	47.7%	0.170	0.300	51.4%	6.7%
Dibenz(a,h)anthracene	< 0.0100 U	0.152	0.300	50.7%	0.162	0.300	54.0%	6.4%
Benzo(g,h,i)perylene	0.0340	0.200	0.300	55.3%	0.214	0.300	60.0%	6.8%
Dibenzofuran	< 0.0100 U	0.221	0.300	73.7%	0.230	0.300	76.7%	4.0%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
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Sample ID: CB4857040310COMP
MATRIX SPIKE

Lab Sample ID: QR34B
LIMS ID: 10-8676
Matrix: Water
Data Release Authorized: *B*
Reported: 04/13/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts
Event: NA
Date Sampled: 04/03/10
Date Received: 04/03/10

Date Extracted: 04/06/10
Date Analyzed: 04/12/10 21:30
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	---
91-57-6	2-Methylnaphthalene	0.010	---
90-12-0	1-Methylnaphthalene	0.010	---
208-96-8	Acenaphthylene	0.010	---
83-32-9	Acenaphthene	0.010	---
86-73-7	Fluorene	0.010	---
85-01-8	Phenanthrene	0.010	---
120-12-7	Anthracene	0.010	---
206-44-0	Fluoranthene	0.010	---
129-00-0	Pyrene	0.010	---
56-55-3	Benzo(a)anthracene	0.010	---
218-01-9	Chrysene	0.010	---
205-99-2	Benzo(b)fluoranthene	0.010	---
207-08-9	Benzo(k)fluoranthene	0.010	---
50-32-8	Benzo(a)pyrene	0.010	---
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	---
53-70-3	Dibenz(a,h)anthracene	0.010	---
191-24-2	Benzo(g,h,i)perylene	0.010	---
132-64-9	Dibenzofuran	0.010	---

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 65.0%
d14-Dibenzo(a,h)anthracene 48.3%

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
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Sample ID: CB4857040310COMP
MATRIX SPIKE DUPLICATE

Lab Sample ID: QR34B
LIMS ID: 10-8676
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/13/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts
Event: NA
Date Sampled: 04/03/10
Date Received: 04/03/10

Date Extracted: 04/06/10
Date Analyzed: 04/12/10 21:53
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	---
91-57-6	2-Methylnaphthalene	0.010	---
90-12-0	1-Methylnaphthalene	0.010	---
208-96-8	Acenaphthylene	0.010	---
83-32-9	Acenaphthene	0.010	---
86-73-7	Fluorene	0.010	---
85-01-8	Phenanthrene	0.010	---
120-12-7	Anthracene	0.010	---
206-44-0	Fluoranthene	0.010	---
129-00-0	Pyrene	0.010	---
56-55-3	Benzo (a) anthracene	0.010	---
218-01-9	Chrysene	0.010	---
205-99-2	Benzo (b) fluoranthene	0.010	---
207-08-9	Benzo (k) fluoranthene	0.010	---
50-32-8	Benzo (a) pyrene	0.010	---
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	---
53-70-3	Dibenz (a,h) anthracene	0.010	---
191-24-2	Benzo (g,h,i) perylene	0.010	---
132-64-9	Dibenzofuran	0.010	---

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 66.3%
d14-Dibenzo (a,h) anthracene 50.7%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

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Sample ID: LCS-040610

LAB CONTROL SAMPLE

Lab Sample ID: LCS-040610

LIMS ID: 10-8676

Matrix: Water

Data Release Authorized:

Reported: 05/05/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Event: NA

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 04/06/10

Date Analyzed LCS: 04/12/10 20:19

Instrument/Analyst LCS: NT2/PK

Sample Amount LCS: 500 mL

Final Extract Volume LCS: 0.50 mL

Dilution Factor LCS: 1.00

Analyte	LCS	Spike Added	Recovery
Naphthalene	0.206	0.300	68.7%
2-Methylnaphthalene	0.210	0.300	70.0%
1-Methylnaphthalene	0.197	0.300	65.7%
Acenaphthylene	0.196	0.300	65.3%
Acenaphthene	0.229	0.300	76.3%
Fluorene	0.233	0.300	77.7%
Phenanthrene	0.246	0.300	82.0%
Anthracene	0.185	0.300	61.7%
Fluoranthene	0.226	0.300	75.3%
Pyrene	0.200	0.300	66.7%
Benzo(a)anthracene	0.183	0.300	61.0%
Chrysene	0.275	0.300	91.7%
Benzo(b)fluoranthene	0.261	0.300	87.0%
Benzo(k)fluoranthene	0.204	0.300	68.0%
Benzo(a)pyrene	0.131	0.300	43.7%
Indeno(1,2,3-cd)pyrene	0.197	0.300	65.7%
Dibenz(a,h)anthracene	0.203	0.300	67.7%
Benzo(g,h,i)perylene	0.226	0.300	75.3%
Dibenzofuran	0.239	0.300	79.7%

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	66.7%
d14-Dibenzo(a,h)anthracene	67.0%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QR34MBW1

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QR34
 Lab File ID: 041218
 Instrument ID: NT2
 Matrix: LIQUID

Client: FLOYD/SNIDER
 Project: LORA LAKE APTS
 Date Extracted: 04/06/10
 Date Analyzed: 04/12/10
 Time Analyzed: 1956

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	QR34LCSW1	QR34LCSW1	041219	04/12/10
02	CB31A040210COMP	QR34A	041220	04/12/10
03	CB4857040310COMP	QR34B	041221	04/12/10
04	CB4857040310COM	QR34BMS	041222	04/12/10
05	CB4857040310COM	QR34BMSD	041223	04/12/10
06	CB1040210COMP	QR34C	041224	04/12/10
07	CB102040210COMP	QR34D	041225	04/12/10
08				
09				
10				
11				
12				
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ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-040610

METHOD BLANK

Lab Sample ID: MB-040610

LIMS ID: 10-8676

Matrix: Water

Data Release Authorized: *AS*

Reported: 04/13/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Event: NA

Date Sampled: NA

Date Received: NA

Date Extracted: 04/06/10

Date Analyzed: 04/12/10 19:56

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo (b) fluoranthene	0.010	< 0.010 U
207-08-9	Benzo (k) fluoranthene	0.010	< 0.010 U
50-32-8	Benzo (a) pyrene	0.010	< 0.010 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	< 0.010 U
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 62.3%
d14-Dibenzo (a,h) anthracene 53.0%

PCP/CHLOROPHENOLS ANALYSIS

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB31A040210COMP
SAMPLE

Lab Sample ID: QR34A

LIMS ID: 10-8675

Matrix: Water

Data Release Authorized: *VTS*

Reported: 04/15/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Date Sampled: 04/02/10

Date Received: 04/03/10

Date Extracted: 04/06/10

Date Analyzed: 04/07/10 14:54

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	1.3

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	74.8%
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Lab Sample ID: QR34B
LIMS ID: 10-8676
Matrix: Water
Data Release Authorized: *VJS*
Reported: 04/15/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts

Date Sampled: 04/03/10
Date Received: 04/03/10

Date Extracted: 04/06/10
Date Analyzed: 04/07/10 15:13
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.91

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	68.4%
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ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB1040210COMP
SAMPLE

Lab Sample ID: QR34C

LIMS ID: 10-8677

Matrix: Water

Data Release Authorized: *VIS*

Reported: 04/15/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Date Sampled: 04/02/10

Date Received: 04/03/10

Date Extracted: 04/06/10

Date Analyzed: 04/07/10 16:13

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	63.2%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB102040210COMP
SAMPLE

Lab Sample ID: QR34D

LIMS ID: 10-8678

Matrix: Water

Data Release Authorized: *VJS*

Reported: 04/15/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Date Sampled: 04/02/10

Date Received: 04/03/10

Date Extracted: 04/06/10

Date Analyzed: 04/07/10 16:33

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	63.2%
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SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
CB31A040210COMP	74.8%	0
MB-040610	76.4%	0
LCS-040610	61.6%	0
CB4857040310COMP	68.4%	0
CB4857040310COMP MS	85.8%	0
CB4857040310COMP MSD	78.2%	0
CB1040210COMP	63.2%	0
CB102040210COMP	63.2%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol

(40-130)

(11-156)

Prep Method: SW3510C
Log Number Range: 10-8675 to 10-8678

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: CB4857040310COMP
MS/MSD

Lab Sample ID: QR34B
 LIMS ID: 10-8676
 Matrix: Water
 Data Release Authorized: *VIS*
 Reported: 04/15/10

QC Report No: QR34-Floyd/Snider
 Project: Lora Lake Apts
 Date Sampled: 04/03/10
 Date Received: 04/03/10

Date Extracted MS/MSD: 04/06/10
 Date Analyzed MS: 04/07/10 15:33
 MSD: 04/07/10 15:53
 Instrument/Analyst MS: ECD1/AAR
 MSD: ECD1/AAR

Sample Amount MS: 500 mL
 MSD: 500 mL
 Final Extract Volume MS: 50 mL
 MSD: 50 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	0.91	3.35	2.50	97.6%	3.21	2.50	92.0%	4.3%

Results reported in µg/L
 RPD calculated using sample concentrations per SW846.

Sample ID: CB4857040310COMP
MATRIX SPIKE

Lab Sample ID: QR34B
LIMS ID: 10-8676
Matrix: Water
Data Release Authorized: *VRB*
Reported: 04/15/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts

Date Sampled: 04/03/10
Date Received: 04/03/10

Date Extracted: 04/06/10
Date Analyzed: 04/07/10 15:33
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	85.8%
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ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB4857040310COMP

MATRIX SPIKE DUP

Lab Sample ID: QR34B

LIMS ID: 10-8676

Matrix: Water

Data Release Authorized: *VIS*

Reported: 04/15/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Date Sampled: 04/03/10

Date Received: 04/03/10

Date Extracted: 04/06/10

Date Analyzed: 04/07/10 15:53

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	78.2%
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ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: LCS-040610
 LAB CONTROL

Lab Sample ID: LCS-040610
 LIMS ID: 10-8676
 Matrix: Water
 Data Release Authorized: **VTS**
 Reported: 04/15/10

QC Report No: QR34-Floyd/Snider
 Project: Lora Lake Apts

Date Sampled: 04/03/10
 Date Received: 04/03/10

Date Extracted: 04/06/10
 Date Analyzed: 04/07/10 14:34
 Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
 Final Extract Volume: 50 mL
 Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	2.38	2.50	95.2%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol	61.6%
----------------------	-------

Results reported in µg/L

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QR34MBW1

Lab Name: ANALYTICAL RESOURCES, INC	Client: FLOYD/SNIDER
ARI Job No.: QR34	Project: LORA LAKE APTS
Lab Sample ID: QR34MBW1	Lab File ID: 0407A006
Matrix (soil/water) LIQUID	Extraction: (SepF/Cont/Sonc) SW3510C
Sulfur Cleanup (Y/N) Y	Date Extracted: 04/06/10
Date Analyzed (1): 04/07/10	Date Analyzed (2): 04/07/10
Time Analyzed (1): 1414	Time Analyzed (2): 1414
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	QR34LCSW1	QR34LCSW1	04/07/10	04/07/10
02	CB31A040210C	QR34A	04/07/10	04/07/10
03	CB4857040310	QR34B	04/07/10	04/07/10
04	CB4857040310	QR34BMS	04/07/10	04/07/10
05	CB4857040310	QR34BMSD	04/07/10	04/07/10
06	CB1040210COM	QR34C	04/07/10	04/07/10
07	CB102040210C	QR34D	04/07/10	04/07/10

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: MB-040610

METHOD BLANK

Lab Sample ID: MB-040610

LIMS ID: 10-8676

Matrix: Water

Data Release Authorized: *VTB*

Reported: 04/15/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Date Sampled: NA

Date Received: NA

Date Extracted: 04/06/10

Date Analyzed: 04/07/10 14:14

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

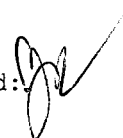
Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	76.4%
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METALS ANALYSIS

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB31A040210COMP
 SAMPLE

Lab Sample ID: QR34A
 LIMS ID: 10-8675
 Matrix: Water
 Data Release Authorized: 
 Reported: 04/27/10

QC Report No: QR34-Floyd/Snider
 Project: Lora Lake Apts


Date Sampled: 04/02/10
 Date Received: 04/03/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/26/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB4857040310COMP
SAMPLE

Lab Sample ID: QR34B
LIMS ID: 10-8676
Matrix: Water
Data Release Authorized: 
Reported: 04/27/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts


Date Sampled: 04/03/10
Date Received: 04/03/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/23/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB4857040310COMP
DUPLICATE

Lab Sample ID: QR34B
LIMS ID: 10-8676
Matrix: Water
Data Release Authorized: 
Reported: 04/27/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts
Date Sampled: 04/03/10
Date Received: 04/03/10

MATRIX DUPLICATE QUALITY CONTROL REPORT


Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.3	0.3	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB4857040310COMP
MATRIX SPIKE

Lab Sample ID: QR34B
LIMS ID: 10-8676
Matrix: Water
Data Release Authorized: 
Reported: 04/27/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts

Date Sampled: 04/03/10
Date Received: 04/03/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.290	24.7	25.0	97.6%	

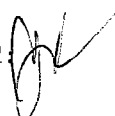
Reported in µg/L

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
DISSOLVED METALS
Page 1 of 1

Sample ID: CB1040210COMP
SAMPLE

Lab Sample ID: QR34C
LIMS ID: 10-8677
Matrix: Water
Data Release Authorized: 
Reported: 04/27/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts


Date Sampled: 04/02/10
Date Received: 04/03/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/26/10	7440-38-2	Arsenic	0.2	0.2	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB102040210COMP
SAMPLE

Lab Sample ID: QR34D
LIMS ID: 10-8678
Matrix: Water
Data Release Authorized: 
Reported: 04/27/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts
Date Sampled: 04/02/10
Date Received: 04/03/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/26/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS**

Sample ID: METHOD BLANK

Page 1 of 1


Lab Sample ID: QR34MB

QC Report No: QR34-Floyd/Snider

LIMS ID: 10-8677

Project: Lora Lake Apts

Matrix: Water

Data Release Authorized: 

Date Sampled: NA

Reported: 04/27/10


Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/23/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QR34LCS
LIMS ID: 10-8677
Matrix: Water
Data Release Authorized: 
Reported: 04/27/10

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.5	25.0	102%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB31A040210COMP
SAMPLE

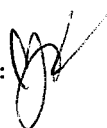
Lab Sample ID: QR34E

QC Report No: QR34-Floyd/Snider

LIMS ID: 10-8679

Project: Lora Lake Apts

Matrix: Water

Data Release Authorized: 

Date Sampled: 04/02/10

Reported: 04/27/10

Date Received: 04/03/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/23/10	7440-38-2	Arsenic	0.2	0.7	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1


Sample ID: CB4857040310COMP

SAMPLE

Lab Sample ID: QR34F

LIMS ID: 10-8680

Matrix: Water

Data Release Authorized: 

Reported: 04/27/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Date Sampled: 04/03/10

Date Received: 04/03/10

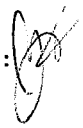
Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/26/10	7440-38-2	Arsenic	0.2	0.7	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
 Page 1 of 1

Sample ID: CB4857040310COMP
 DUPLICATE

Lab Sample ID: QR34F
 LIMS ID: 10-8680
 Matrix: Water
 Data Release Authorized: 
 Reported: 04/27/10

QC Report No: QR34-Floyd/Snider
 Project: Lora Lake Apts

Date Sampled: 04/03/10
 Date Received: 04/03/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.7	0.6	15.4%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
 L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB4857040310COMP

MATRIX SPIKE

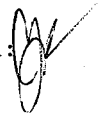
Lab Sample ID: QR34F

QC Report No: QR34-Floyd/Snider

LIMS ID: 10-8680

Project: Lora Lake Apts

Matrix: Water

Data Release Authorized: 

Date Sampled: 04/03/10

Reported: 04/27/10

Date Received: 04/03/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.660	26.7	25.0	104%	

Reported in µg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

NR-Not Recovered

Percent Recovery Limits: 75-125%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB1040210COMP

SAMPLE

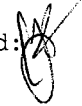
Lab Sample ID: QR34G

QC Report No: QR34-Floyd/Snider

LIMS ID: 10-8681

Project: Lora Lake Apts

Matrix: Water

Data Release Authorized: 

Date Sampled: 04/02/10

Reported: 04/27/10

Date Received: 04/03/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/23/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB102040210COMP

SAMPLE


Lab Sample ID: QR34H

QC Report No: QR34-Floyd/Snider

LIMS ID: 10-8682

Project: Lora Lake Apts

Matrix: Water

Data Release Authorized 

Date Sampled: 04/02/10

Reported: 04/27/10

Date Received: 04/03/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/23/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Sample ID: METHOD BLANK

Page 1 of 1


Lab Sample ID: QR34MB

QC Report No: QR34-Floyd/Snider

LIMS ID: 10-8681

Project: Lora Lake Apts

Matrix: Water

Data Release Authorized: 

Date Sampled: NA

Reported: 04/27/10

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/07/10	200.8	04/23/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

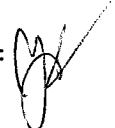
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QR34LCS

LIMS ID: 10-8681

Matrix: Water

Data Release Authorized: 

Reported: 04/27/10

QC Report No: QR34-Floyd/Snider

Project: Lora Lake Apts

Date Sampled: NA

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.5	25.0	102%	

Reported in µg/L

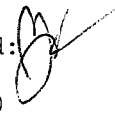
N-Control limit not met

Control Limits: 80-120%

GENERAL CHEMISTRY ANALYSIS

INORGANICS ANALYSIS DATA SHEET
Total Suspended Solids by Method EPA 160.2



Data Release Authorized: 
Reported: 04/07/10
Date Received: 04/03/10
Page 1 of 1

QC Report No: QR34-Floyd/Snider
Project: Lora Lake Apts

Client/ ARI ID	Date Sampled	Matrix	Analysis Date & Batch	RL	Result
CB31A040210COMP QR34A 10-8675	04/02/10	Water	04/05/10 17:22 040510#1	1.4	32.3
CB4857040310COMP QR34B 10-8676	04/03/10	Water	04/05/10 17:22 040510#1	1.4	35.9
CB1040210COMP QR34C 10-8677	04/02/10	Water	04/05/10 17:22 040510#1	1.1	5.5
CB102040210COMP QR34D 10-8678	04/02/10	Water	04/05/10 17:22 040510#1	1.1	6.1

Reported in mg/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QR34-Floyd/Snider



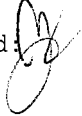
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/07/10

Project: Lora Lake Apts
Event: NA
Date Sampled: 04/03/10
Date Received: 04/03/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QR34B Client ID: CB4857040310COMP					
Total Suspended Solids	04/05/10	mg/L	35.9	34.3	4.6%

LAB CONTROL RESULTS-CONVENTIONALS
QR34-Floyd/Snider




Matrix: Water
Data Release Authorized: 
Reported: 04/07/10

Project: Lora Lake Apts
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	LCS	Spike Added	Recovery
Total Suspended Solids	04/05/10 17:22	mg/L	49.4	50.0	98.8%

METHOD BLANK RESULTS-CONVENTIONALS
QR34-Floyd/Snider



Matrix: Water
Data Release Authorized: 
Reported: 04/07/10

Project: Lora Lake Apts
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	Blank
Total Suspended Solids	04/05/10 17:22	mg/L	< 1.0 U

SUBCONTRACTED ANALYSIS

EPA Method 1613
PCDD/F



FAL ID: 6083-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-20-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.499		-	0.212				
1,2,3,7,8-PeCDD	ND	0.442		-	0.302				
1,2,3,4,7,8-HxCDD	ND	0.518		-	0.328				
1,2,3,6,7,8-HxCDD	ND	0.615		-	0.381	Total TCDD	ND	0.499	
1,2,3,7,8,9-HxCDD	ND	0.552		-	0.351	Total PeCDD	ND	0.442	
1,2,3,4,6,7,8-HpCDD	ND	1.13		-	0.495	Total HxCDD	ND	0.615	
OCDD	ND	2.55		-	1.02	Total HpCDD	ND	1.13	
2,3,7,8-TCDF	ND	0.355		-	0.112				
1,2,3,7,8-PeCDF	ND	0.555		-	0.219				
2,3,4,7,8-PeCDF	ND	0.592		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.285		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.285		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.287		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.306		-	0.185	Total TCDF	ND	0.355	
1,2,3,4,6,7,8-HpCDF	ND	0.290		-	0.251	Total PeCDF	ND	0.592	
1,2,3,4,7,8,9-HpCDF	ND	0.306		-	0.280	Total HxCDF	ND	0.306	
OCDF	ND	0.806		-	0.451	Total HpCDF	ND	0.306	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	95.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	92.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	90.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	90.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.5	23.0 - 140	
13C-OCDD	94.3	17.0 - 157	
13C-2,3,7,8-TCDF	91.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	85.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	88.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	93.2	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	92.5	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	96.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	91.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	97.5	26.0 - 138	
13C-OCDF	98.7	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 92.3 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: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10



EPA Method 1613
PCDD/F



FAL ID: 6083-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 04-20-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.19	6.70 - 15.8	
1,2,3,7,8-PeCDD	47.0	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.1	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	49.9	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	49.7	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	47.8	35.0 - 70.0	
OCDD	97.6	78.0 - 144	
2,3,7,8-TCDF	9.20	7.50 - 15.8	
1,2,3,7,8-PeCDF	48.7	40.0 - 67.0	
2,3,4,7,8-PeCDF	49.5	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	49.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50.7	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	50.2	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50.1	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	48.6	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	49.2	39.0 - 69.0	
OCDF	98.8	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	74.8	20.0 - 175	
13C-1,2,3,7,8-PeCDD	65.4	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	65.3	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	64.6	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	64.8	26.0 - 166	
13C-OCDD	65.4	13.0 - 198	
13C-2,3,7,8-TCDF	74.6	22.0 - 152	
13C-1,2,3,7,8-PeCDF	63.1	21.0 - 192	
13C-2,3,4,7,8-PeCDF	66.2	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	65.8	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	65.2	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	68.4	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	68.8	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	65.0	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	68.7	20.0 - 186	
13C-OCDF	67.8	13.0 - 198	

- 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	84.0	31.0 - 191	
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Analyst: [Signature]
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-001-SA
Client ID: CB31A040210COMP
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: 04-07-2010
Amount: 0.468 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-20-2010
2005 WHO TEQ: 22.8

				2005					
Compound	Conc	DL	Qual	WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.34		-	0.212				
1,2,3,7,8-PeCDD	ND	3.14		-	0.302				
1,2,3,4,7,8-HxCDD	7.89	-	J	0.789	0.328				
1,2,3,6,7,8-HxCDD	23.8	-	J	2.38	0.381	Total TCDD	ND	1.34	
1,2,3,7,8,9-HxCDD	14.9	-	J	1.49	0.351	Total PeCDD	ND	3.14	
1,2,3,4,6,7,8-HpCDD	768	-		7.68	0.495	Total HxCDD	113	-	
OCDD	7380	-		2.21	1.02	Total HpCDD	1280	-	
2,3,7,8-TCDF	ND	1.23		-	0.112				
1,2,3,7,8-PeCDF	ND	1.49		-	0.219				
2,3,4,7,8-PeCDF	ND	1.56		-	0.232				
1,2,3,4,7,8-HxCDF	32.9	-	J	3.29	0.162				
1,2,3,6,7,8-HxCDF	12.6	-	J	1.26	0.167				
2,3,4,6,7,8-HxCDF	11.9	-	J	1.19	0.167				
1,2,3,7,8,9-HxCDF	3.57	-	J	0.357	0.185	Total TCDF	26.2	-	D,M
1,2,3,4,6,7,8-HpCDF	178	-		1.78	0.251	Total PeCDF	81.1	-	D,M
1,2,3,4,7,8,9-HpCDF	17.8	-	J	0.178	0.280	Total HxCDF	371	-	D,M
OCDF	517	-		0.155	0.451	Total HpCDF	594	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	74.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	76.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	71.4	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	71.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	76.6	23.0 - 140	
13C-OCDD	78.7	17.0 - 157	
13C-2,3,7,8-TCDF	72.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	77.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	77.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	72.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	72.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	74.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	75.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	75.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	79.0	26.0 - 138	
13C-OCDF	75.2	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	77.1	35.0 - 197
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Analyst: A
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-002-SA
Client ID: CB4857040310COMP
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: 04-07-2010
Amount: 0.453 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 25.4

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.799		-	0.212				
1,2,3,7,8-PeCDD	3.80	-	J	3.80	0.302				
1,2,3,4,7,8-HxCDD	9.12	-	J	0.912	0.328				
1,2,3,6,7,8-HxCDD	25.2	-	J	2.52	0.381	Total TCDD	ND	0.799	
1,2,3,7,8,9-HxCDD	17.7	-	J	1.77	0.351	Total PeCDD	3.80	-	J
1,2,3,4,6,7,8-HpCDD	726	-	-	7.26	0.495	Total HxCDD	127	-	-
OCDD	6420	-	-	1.93	1.02	Total HpCDD	1190	-	-
2,3,7,8-TCDF	ND	0.652		-	0.112				
1,2,3,7,8-PeCDF	ND	2.50		-	0.219				
2,3,4,7,8-PeCDF	ND	2.46		-	0.232				
1,2,3,4,7,8-HxCDF	26.9	-	J	2.69	0.162				
1,2,3,6,7,8-HxCDF	12.1	-	J	1.21	0.167				
2,3,4,6,7,8-HxCDF	10.3	-	J	1.03	0.167				
1,2,3,7,8,9-HxCDF	3.13	-	J	0.313	0.185	Total TCDF	22.0	-	D,M
1,2,3,4,6,7,8-HpCDF	167	-	-	1.67	0.251	Total PeCDF	72.2	-	D,M
1,2,3,4,7,8,9-HpCDF	14.1	-	J	0.141	0.280	Total HxCDF	332	-	D,M
OCDF	459	-	-	0.138	0.451	Total HpCDF	509	-	-

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	99.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	102	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	92.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	91.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	97.0	23.0 - 140	
13C-OCDD	99.9	17.0 - 157	
13C-2,3,7,8-TCDF	97.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	95.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	99.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	92.0	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	92.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	95.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.2	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	94.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	98.0	26.0 - 138	
13C-OCDF	97.1	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 100 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: J
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-003-SA
Client ID: CB1040210COMP
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: 04-07-2010
Amount: 0.462 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 0.0943

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.02		-	0.212				
1,2,3,7,8-PeCDD	ND	1.02		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.23		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.42		-	0.381	Total TCDD	ND	1.02	
1,2,3,7,8,9-HxCDD	ND	1.29		-	0.351	Total PeCDD	ND	1.02	
1,2,3,4,6,7,8-HpCDD	8.02	-	J	0.0802	0.495	Total HxCDD	ND	1.42	
OCDD	43.5	-	J	0.0130	1.02	Total HpCDD	16.9	-	J
2,3,7,8-TCDF	ND	0.688		-	0.112				
1,2,3,7,8-PeCDF	ND	0.953		-	0.219				
2,3,4,7,8-PeCDF	ND	0.991		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.609		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.592		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.609		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.650		-	0.185	Total TCDF	ND	0.688	
1,2,3,4,6,7,8-HpCDF	ND	1.49		-	0.251	Total PeCDF	ND	0.991	
1,2,3,4,7,8,9-HpCDF	ND	1.54		-	0.280	Total HxCDF	ND	0.937	
OCDF	3.46	-	J	0.00104	0.451	Total HpCDF	ND	1.54	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	100	25.0 - 164	
13C-1,2,3,7,8-PeCDD	97.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	94.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	92.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	96.8	23.0 - 140	
13C-OCDD	95.3	17.0 - 157	
13C-2,3,7,8-TCDF	95.8	24.0 - 169	
13C-1,2,3,7,8-PeCDF	90.7	24.0 - 185	
13C-2,3,4,7,8-PeCDF	96.0	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	92.8	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	91.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	95.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	91.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	96.5	26.0 - 138	
13C-OCDF	93.9	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 101 35.0 - 197

Analyst: [Signature]
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-004-SA
Client ID: CB102040210COMP
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: 04-07-2010
Amount: 0.452 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 0.0984

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.944		-	0.212				
1,2,3,7,8-PeCDD	ND	1.08		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.51		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.79		-	0.381	Total TCDD	ND	0.944	
1,2,3,7,8,9-HxCDD	ND	1.61		-	0.351	Total PeCDD	ND	1.08	
1,2,3,4,6,7,8-HpCDD	8.43	-	J	0.0843	0.495	Total HxCDD	ND	1.79	
OCDD	43.6	-	J	0.0131	1.02	Total HpCDD	16.9	-	J
2,3,7,8-TCDF	ND	0.685		-	0.112				
1,2,3,7,8-PeCDF	ND	1.02		-	0.219				
2,3,4,7,8-PeCDF	ND	1.04		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.744		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.764		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.774		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.826		-	0.185	Total TCDF	ND	0.685	
1,2,3,4,6,7,8-HpCDF	ND	1.34		-	0.251	Total PeCDF	ND	1.04	
1,2,3,4,7,8,9-HpCDF	ND	1.33		-	0.280	Total HxCDF	ND	1.10	
OCDF	3.41	-	J	0.00102	0.451	Total HpCDF	ND	1.34	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	103	25.0 - 164	
13C-1,2,3,7,8-PeCDD	101	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	96.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	96.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	98.1	23.0 - 140	
13C-OCDD	98.8	17.0 - 157	
13C-2,3,7,8-TCDF	99.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	97.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	97.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	97.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	95.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	99.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	102	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	94.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	99.5	26.0 - 138	
13C-OCDF	97.6	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 113 35.0 - 197

Analyst: J
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10



April 21, 2010

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

Dear Ms. Dunnihoo,

Enclosed are the results for Frontier Analytical Laboratory project **6083**. This corresponds to your **Lora Lake Apts** project under ARI project number **QR34**. Four aqueous samples were received on 4/7/2010 in good condition. These samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The 2005 World Health Organizations toxic equivalency factors were used to calculate the toxic equivalency (TEQs) on your report. Analytical Resources Incorporated requested a Level IV report and a turnaround time of fifteen business days for project **6083**.

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

If you have any questions regarding project **6083**, 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, appearing to read "Bradley B. Silverbush".

Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **6083**

Received on: **04/07/2010**

Project Due: **04/29/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time
6083-001-SA	1	QR34	CB31A040210COMP	EPA 1613 D/F	Aqueous	04/02/2010	06:41 pm
6083-002-SA	1	QR34	CB4857040310COMP	EPA 1613 D/F	Aqueous	04/03/2010	12:02 am
6083-003-SA	1	QR34	CB1040210COMP	EPA 1613 D/F	Aqueous	04/02/2010	04:40 pm
6083-004-SA	1	QR34	CB102040210COMP	EPA 1613 D/F	Aqueous	04/02/2010	05:40 pm

EPA Method 1613
PCDD/F



FAL ID: 6083-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-20-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005		Compound	Conc	DL	Qual
				WHO Tox	MDL				
2,3,7,8-TCDD	ND	0.499		-	0.212				
1,2,3,7,8-PeCDD	ND	0.442		-	0.302				
1,2,3,4,7,8-HxCDD	ND	0.518		-	0.328				
1,2,3,6,7,8-HxCDD	ND	0.615		-	0.381	Total TCDD	ND	0.499	
1,2,3,7,8,9-HxCDD	ND	0.552		-	0.351	Total PeCDD	ND	0.442	
1,2,3,4,6,7,8-HpCDD	ND	1.13		-	0.495	Total HxCDD	ND	0.615	
OCDD	ND	2.55		-	1.02	Total HpCDD	ND	1.13	
2,3,7,8-TCDF	ND	0.355		-	0.112				
1,2,3,7,8-PeCDF	ND	0.555		-	0.219				
2,3,4,7,8-PeCDF	ND	0.592		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.285		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.285		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.287		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.306		-	0.185	Total TCDF	ND	0.355	
1,2,3,4,6,7,8-HpCDF	ND	0.290		-	0.251	Total PeCDF	ND	0.592	
1,2,3,4,7,8,9-HpCDF	ND	0.306		-	0.280	Total HxCDF	ND	0.306	
OCDF	ND	0.806		-	0.451	Total HpCDF	ND	0.306	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	95.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	92.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	90.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	90.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.5	23.0 - 140	
13C-OCDD	94.3	17.0 - 157	
13C-2,3,7,8-TCDF	91.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	85.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	88.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	93.2	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	92.5	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	96.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	91.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	97.5	26.0 - 138	
13C-OCDF	98.7	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 92.3 35.0 - 197

Analyst: [Signature]
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 04-20-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.19	6.70 - 15.8	
1,2,3,7,8-PeCDD	47.0	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.1	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	49.9	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	49.7	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	47.8	35.0 - 70.0	
OCDD	97.6	78.0 - 144	
2,3,7,8-TCDF	9.20	7.50 - 15.8	
1,2,3,7,8-PeCDF	48.7	40.0 - 67.0	
2,3,4,7,8-PeCDF	49.5	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	49.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50.7	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	50.2	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50.1	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	48.6	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	49.2	39.0 - 69.0	
OCDF	98.8	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	74.8	20.0 - 175	
13C-1,2,3,7,8-PeCDD	65.4	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	65.3	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	64.6	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	64.8	26.0 - 166	
13C-OCDD	65.4	13.0 - 198	
13C-2,3,7,8-TCDF	74.6	22.0 - 152	
13C-1,2,3,7,8-PeCDF	63.1	21.0 - 192	
13C-2,3,4,7,8-PeCDF	66.2	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	65.8	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	65.2	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	68.4	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	68.8	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	65.0	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	68.7	20.0 - 186	
13C-OCDF	67.8	13.0 - 198	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	84.0	31.0 - 191	
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- 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: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-001-SA
Client ID: CB31A040210COMP
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: 04-07-2010
Amount: 0.468 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-20-2010
2005 WHO TEQ: 22.8

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.34		-	0.212				
1,2,3,7,8-PeCDD	ND	3.14		-	0.302				
1,2,3,4,7,8-HxCDD	7.89	-	J	0.789	0.328				
1,2,3,6,7,8-HxCDD	23.8	-	J	2.38	0.381	Total TCDD	ND	1.34	
1,2,3,7,8,9-HxCDD	14.9	-	J	1.49	0.351	Total PeCDD	ND	3.14	
1,2,3,4,6,7,8-HpCDD	768	-		7.68	0.495	Total HxCDD	113	-	
OCDD	7380	-		2.21	1.02	Total HpCDD	1280	-	
2,3,7,8-TCDF	ND	1.23		-	0.112				
1,2,3,7,8-PeCDF	ND	1.49		-	0.219				
2,3,4,7,8-PeCDF	ND	1.56		-	0.232				
1,2,3,4,7,8-HxCDF	32.9	-	J	3.29	0.162				
1,2,3,6,7,8-HxCDF	12.6	-	J	1.26	0.167				
2,3,4,6,7,8-HxCDF	11.9	-	J	1.19	0.167				
1,2,3,7,8,9-HxCDF	3.57	-	J	0.357	0.185	Total TCDF	26.2	-	D,M
1,2,3,4,6,7,8-HpCDF	178	-		1.78	0.251	Total PeCDF	81.1	-	D,M
1,2,3,4,7,8,9-HpCDF	17.8	-	J	0.178	0.280	Total HxCDF	371	-	D,M
OCDF	517	-		0.155	0.451	Total HpCDF	594	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	74.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	76.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	71.4	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	71.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	76.6	23.0 - 140	
13C-OCDD	78.7	17.0 - 157	
13C-2,3,7,8-TCDF	72.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	77.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	77.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	72.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	72.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	74.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	75.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	75.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	79.0	26.0 - 138	
13C-OCDF	75.2	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 77.1 35.0 - 197

Analyst: [Signature]
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-002-SA
Client ID: CB4857040310COMP
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: 04-07-2010
Amount: 0.453 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 25.4

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.799		-	0.212				
1,2,3,7,8-PeCDD	3.80	-	J	3.80	0.302				
1,2,3,4,7,8-HxCDD	9.12	-	J	0.912	0.328				
1,2,3,6,7,8-HxCDD	25.2	-	J	2.52	0.381	Total TCDD	ND	0.799	
1,2,3,7,8,9-HxCDD	17.7	-	J	1.77	0.351	Total PeCDD	3.80	-	J
1,2,3,4,6,7,8-HpCDD	726	-		7.26	0.495	Total HxCDD	127	-	
OCDD	6420	-		1.93	1.02	Total HpCDD	1190	-	
2,3,7,8-TCDF	ND	0.652		-	0.112				
1,2,3,7,8-PeCDF	ND	2.50		-	0.219				
2,3,4,7,8-PeCDF	ND	2.46		-	0.232				
1,2,3,4,7,8-HxCDF	26.9	-	J	2.69	0.162				
1,2,3,6,7,8-HxCDF	12.1	-	J	1.21	0.167				
2,3,4,6,7,8-HxCDF	10.3	-	J	1.03	0.167				
1,2,3,7,8,9-HxCDF	3.13	-	J	0.313	0.185	Total TCDF	22.0	-	D,M
1,2,3,4,6,7,8-HpCDF	167	-		1.67	0.251	Total PeCDF	72.2	-	D,M
1,2,3,4,7,8,9-HpCDF	14.1	-	J	0.141	0.280	Total HxCDF	332	-	D,M
OCDF	459	-		0.138	0.451	Total HpCDF	509	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	99.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	102	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	92.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	91.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	97.0	23.0 - 140	
13C-OCDD	99.9	17.0 - 157	
13C-2,3,7,8-TCDF	97.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	95.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	99.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	92.0	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	92.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	95.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.2	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	94.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	98.0	26.0 - 138	
13C-OCDF	97.1	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

37CI-2,3,7,8-TCDD	100	35.0 - 197
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Analyst: [Signature]
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-003-SA
Client ID: CB1040210COMP
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: 04-07-2010
Amount: 0.462 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 0.0943

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.02		-	0.212				
1,2,3,7,8-PeCDD	ND	1.02		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.23		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.42		-	0.381	Total TCDD	ND	1.02	
1,2,3,7,8,9-HxCDD	ND	1.29		-	0.351	Total PeCDD	ND	1.02	
1,2,3,4,6,7,8-HpCDD	8.02	-	J	0.0802	0.495	Total HxCDD	ND	1.42	
OCDD	43.5	-	J	0.0130	1.02	Total HpCDD	16.9	-	J
2,3,7,8-TCDF	ND	0.688		-	0.112				
1,2,3,7,8-PeCDF	ND	0.953		-	0.219				
2,3,4,7,8-PeCDF	ND	0.991		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.609		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.592		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.609		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.650		-	0.185	Total TCDF	ND	0.688	
1,2,3,4,6,7,8-HpCDF	ND	1.49		-	0.251	Total PeCDF	ND	0.991	
1,2,3,4,7,8,9-HpCDF	ND	1.54		-	0.280	Total HxCDF	ND	0.937	
OCDF	3.46	-	J	0.00104	0.451	Total HpCDF	ND	1.54	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	100	25.0 - 164	
13C-1,2,3,7,8-PeCDD	97.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	94.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	92.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	96.8	23.0 - 140	
13C-OCDD	95.3	17.0 - 157	
13C-2,3,7,8-TCDF	95.8	24.0 - 169	
13C-1,2,3,7,8-PeCDF	90.7	24.0 - 185	
13C-2,3,4,7,8-PeCDF	96.0	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	92.8	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	91.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	95.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	91.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	96.5	26.0 - 138	
13C-OCDF	93.9	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	101	35.0 - 197
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Analyst: [Signature]
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10

EPA Method 1613
PCDD/F



FAL ID: 6083-004-SA
Client ID: CB102040210COMP
Matrix: Aqueous
Batch No: X1990

Date Extracted: 04-19-2010
Date Received: 04-07-2010
Amount: 0.452 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 0.0984

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.944		-	0.212				
1,2,3,7,8-PeCDD	ND	1.08		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.51		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.79		-	0.381	Total TCDD	ND	0.944	
1,2,3,7,8,9-HxCDD	ND	1.61		-	0.351	Total PeCDD	ND	1.08	
1,2,3,4,6,7,8-HpCDD	8.43	-	J	0.0843	0.495	Total HxCDD	ND	1.79	
OCDD	43.6	-	J	0.0131	1.02	Total HpCDD	16.9	-	J
2,3,7,8-TCDF	ND	0.685		-	0.112				
1,2,3,7,8-PeCDF	ND	1.02		-	0.219				
2,3,4,7,8-PeCDF	ND	1.04		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.744		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.764		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.774		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.826		-	0.185	Total TCDF	ND	0.685	
1,2,3,4,6,7,8-HpCDF	ND	1.34		-	0.251	Total PeCDF	ND	1.04	
1,2,3,4,7,8,9-HpCDF	ND	1.33		-	0.280	Total HxCDF	ND	1.10	
OCDF	3.41	-	J	0.00102	0.451	Total HpCDF	ND	1.34	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	103	25.0 - 164	
13C-1,2,3,7,8-PeCDD	101	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	96.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	96.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	98.1	23.0 - 140	
13C-OCDD	98.8	17.0 - 157	
13C-2,3,7,8-TCDF	99.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	97.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	97.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	97.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	95.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	99.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	102	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	94.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	99.5	26.0 - 138	
13C-OCDF	97.6	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 113 35.0 - 197

Analyst: J
Date: 4/21/10

Reviewed By: [Signature]
Date: 4/21/10



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

*6083
00c*

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

Analytical Protocol: In-house
 Special Instructions:

Requested Turn Around: 04/14/10
 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, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
10-8675-QR34A	CB31A040210COMP	04/02/10 18:41	Water	2	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-8676-QR34B	CB4857040310COMP	04/03/10 00:02	Water	2	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-8677-QR34C	CB1040210COMP	04/02/10 16:40	Water	2	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-8678-QR34D	CB102040210COMP	04/02/10 17:40	Water	2	Dioxin/Furans 1613 (Sub)
Special Instructions: None					

L4 + EDD

Carrier <i>UPS</i>	Airbill <i>1Z 832 WRS 01 4903 7382</i>	Date <i>4/10/10</i>
Relinquished by <i>J. Peterson</i>	Company <i>ARI</i>	Date <i>4/10/10</i>
Received by <i>Kelly Zipp</i>	Company <i>Frontier</i>	Date <i>4-7-10</i>
		Time <i>14:30</i>
		Time <i>955</i>

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **6083**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QR34
Date Received:	04/07/2010
Time Received:	09:55 am
Received By:	KZ
Logged In By:	GN
# of Samples Received:	4
Duplicates:	4
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950149037382
Shipping Container Received Intact	Yes
Custody seals(s) present?	No
Custody seals(s) intact?	No
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	Yes
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	04/03/2011
Adequate Sample Volume	Yes
Anomalies or additional comments:	



April 23, 2010

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

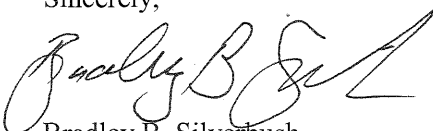
Dear Ms. Dunnihoo,

Enclosed are the results for Frontier Analytical Laboratory project **6090**. This corresponds to your **Lora Lakes Apartments** project under ARI project number **QS23**. Four aqueous samples were received on 4/13/2010 in good condition. These samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The 2005 World Health Organizations toxic equivalency factors were used to calculate the toxic equivalency (TEQs) on your report. Analytical Resources Incorporated requested a Level IV report and a turnaround time of fifteen business days for project **6090**.

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

If you have any questions regarding project **6090**, 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

Sample Tracking Log

FAL Project ID: **6090**

Received on: **04/13/2010**

Project Due: **05/05/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
6090-001-SA	0	QS23	CB31A040810COMP	EPA 1613 D/F	Aqueous	04/08/2010	03:23 am	04/08/2011
6090-002-SA	0	QS23	CB4857040810COMP	EPA 1613 D/F	Aqueous	04/08/2010	03:37 am	04/08/2011
6090-003-SA	0	QS23	CB1040810COMP	EPA 1613 D/F	Aqueous	04/08/2010	03:37 am	04/08/2011
6090-004-SA	0	QS23	CB100040810COMP	EPA 1613 D/F	Aqueous	04/08/2010	04:23 am	04/08/2011

FAL Sample ID	Notes
6090-003-SA	'Using hand written sampling time from bottle label for our tracking purposes.'

EPA Method 1613
PCDD/F



FAL ID: 6090-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005		Compound	Conc	DL	Qual
				WHO Tox	MDL				
2,3,7,8-TCDD	ND	1.20		-	0.212				
1,2,3,7,8-PeCDD	ND	0.967		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.20		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.37		-	0.381	Total TCDD	ND	1.20	
1,2,3,7,8,9-HxCDD	ND	1.26		-	0.351	Total PeCDD	ND	0.967	
1,2,3,4,6,7,8-HpCDD	ND	1.78		-	0.495	Total HxCDD	ND	1.37	
OCDD	ND	2.77		-	1.02	Total HpCDD	ND	1.78	
2,3,7,8-TCDF	ND	0.550		-	0.112				
1,2,3,7,8-PeCDF	ND	0.874		-	0.219				
2,3,4,7,8-PeCDF	ND	0.924		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.705		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.685		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.702		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.807		-	0.185	Total TCDF	ND	0.550	
1,2,3,4,6,7,8-HpCDF	ND	1.09		-	0.251	Total PeCDF	ND	0.924	
1,2,3,4,7,8,9-HpCDF	ND	1.18		-	0.280	Total HxCDF	ND	0.807	
OCDF	ND	1.80		-	0.451	Total HpCDF	ND	1.18	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	76.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	73.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	77.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	71.4	23.0 - 140	
13C-OCDD	75.6	17.0 - 157	
13C-2,3,7,8-TCDF	74.9	24.0 - 169	
13C-1,2,3,7,8-PeCDF	68.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	70.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	74.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	76.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	78.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	77.2	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	74.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	74.5	26.0 - 138	
13C-OCDF	76.6	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 87.3 35.0 - 197

Analyst: [Signature]

Date: 4/22/10

Reviewed By: [Signature]

Date: 4/23/10

EPA Method 1613
PCDD/F



FAL ID: 6090-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 04-21-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.56	6.70 - 15.8	
1,2,3,7,8-PeCDD	48.9	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.6	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	50.6	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	49.6	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	51.5	35.0 - 70.0	
OCDD	98.9	78.0 - 144	
2,3,7,8-TCDF	10.0	7.50 - 15.8	
1,2,3,7,8-PeCDF	50.6	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.9	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	52.1	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	52.1	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	51.2	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	52.4	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	52.6	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	52.3	39.0 - 69.0	
OCDF	103	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	67.1	20.0 - 175	
13C-1,2,3,7,8-PeCDD	60.5	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	62.7	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	63.4	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	60.0	26.0 - 166	
13C-OCDD	62.6	13.0 - 198	
13C-2,3,7,8-TCDF	62.7	22.0 - 152	
13C-1,2,3,7,8-PeCDF	57.1	21.0 - 192	
13C-2,3,4,7,8-PeCDF	59.0	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	63.3	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	64.5	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	66.0	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	63.9	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	61.1	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	61.6	20.0 - 186	
13C-OCDF	62.9	13.0 - 198	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	78.9	31.0 - 191	
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- 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: 4/22/10

Reviewed By: [Signature]
Date: 4/23/10

EPA Method 1613
PCDD/F



FAL ID: 6090-001-SA
Client ID: CB31A040810COMP
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: 04-13-2010
Amount: 0.972 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 7.33

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.939		-	0.212				
1,2,3,7,8-PeCDD	ND	1.51		-	0.302				
1,2,3,4,7,8-HxCDD	2.80	-	J	0.280	0.328	Total TCDD	ND	0.940	
1,2,3,6,7,8-HxCDD	8.10	-	J	0.810	0.381	Total PeCDD	ND	1.51	
1,2,3,7,8,9-HxCDD	5.90	-	J	0.590	0.351	Total HxCDD	43.4	-	
1,2,3,4,6,7,8-HpCDD	246	-		2.46	0.495	Total HpCDD	402	-	
OCDD	2160	-		0.648	1.02				
2,3,7,8-TCDF	ND	0.441		-	0.112				
1,2,3,7,8-PeCDF	ND	1.11		-	0.219				
2,3,4,7,8-PeCDF	ND	1.18		-	0.232				
1,2,3,4,7,8-HxCDF	9.66	-	J	0.966	0.162	Total TCDF	8.59	-	D,M
1,2,3,6,7,8-HxCDF	5.06	-	J	0.506	0.167	Total PeCDF	26.5	-	D,M
2,3,4,6,7,8-HxCDF	3.84	-	J	0.384	0.167	Total HxCDF	119	-	D,M
1,2,3,7,8,9-HxCDF	ND	1.02		-	0.185	Total HpCDF	175	-	
1,2,3,4,6,7,8-HpCDF	58.7	-		0.587	0.251				
1,2,3,4,7,8,9-HpCDF	5.63	-	J	0.0563	0.280				
OCDF	151	-		0.0453	0.451				

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	89.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	89.3	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	91.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	89.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.2	23.0 - 140	
13C-OCDD	99.9	17.0 - 157	
13C-2,3,7,8-TCDF	89.8	24.0 - 169	
13C-1,2,3,7,8-PeCDF	90.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	90.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	87.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	88.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	93.0	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	95.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	93.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	96.0	26.0 - 138	
13C-OCDF	98.7	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 85.7 35.0 - 197

Analyst: 

Date: 4/22/10

Reviewed By: 

Date: 4/23/10

EPA Method 1613
PCDD/F



FAL ID: 6090-003-SA
Client ID: CB1040810COMP
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: 04-13-2010
Amount: 1.043 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 0.0975

Compound	Conc	DL	Qual	2005		Compound	Conc	DL	Qual
				WHO Tox	MDL				
2,3,7,8-TCDD	ND	1.15		-	0.212				
1,2,3,7,8-PeCDD	ND	0.730		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.16		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.41		-	0.381	Total TCDD	ND	1.15	
1,2,3,7,8,9-HxCDD	ND	1.25		-	0.351	Total PeCDD	ND	0.730	
1,2,3,4,6,7,8-HpCDD	6.99	-	J	0.0699	0.495	Total HxCDD	ND	1.41	
OCDD	33.5	-	J	0.0100	1.02	Total HpCDD	15.0	-	J
2,3,7,8-TCDF	ND	0.467		-	0.112				
1,2,3,7,8-PeCDF	ND	0.464		-	0.219				
2,3,4,7,8-PeCDF	ND	0.501		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.791		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.814		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.821		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.874		-	0.185	Total TCDF	ND	0.467	
1,2,3,4,6,7,8-HpCDF	1.67	-	J	0.0167	0.251	Total PeCDF	ND	0.501	
1,2,3,4,7,8,9-HpCDF	ND	0.380		-	0.280	Total HxCDF	ND	0.874	
OCDF	2.97	-	J	0.000891	0.451	Total HpCDF	2.96	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	81.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	79.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	78.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	79.0	23.0 - 140	
13C-OCDD	80.5	17.0 - 157	
13C-2,3,7,8-TCDF	79.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	79.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	77.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	76.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	77.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	78.7	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	79.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	80.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	81.7	26.0 - 138	
13C-OCDF	79.1	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 89.1 35.0 - 197

Analyst: [Signature]
Date: 4/22/10

Reviewed By: [Signature]
Date: 4/23/10

EPA Method 1613
PCDD/F



FAL ID: 6090-004-SA
Client ID: CB100040810COMP
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: 04-13-2010
Amount: 1.011 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 8.40

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.19		-	0.212				
1,2,3,7,8-PeCDD	ND	1.80		-	0.302				
1,2,3,4,7,8-HxCDD	3.27	-	J	0.327	0.328				
1,2,3,6,7,8-HxCDD	9.00	-	J	0.900	0.381	Total TCDD	ND	1.19	
1,2,3,7,8,9-HxCDD	6.64	-	J	0.664	0.351	Total PeCDD	ND	1.80	
1,2,3,4,6,7,8-HpCDD	290	-		2.90	0.495	Total HxCDD	49.9	-	
OCDD	2560	-		0.768	1.02	Total HpCDD	486	-	
2,3,7,8-TCDF	ND	0.400		-	0.112				
1,2,3,7,8-PeCDF	ND	1.24		-	0.219				
2,3,4,7,8-PeCDF	ND	1.27		-	0.232				
1,2,3,4,7,8-HxCDF	10.8	-	J	1.08	0.162				
1,2,3,6,7,8-HxCDF	5.15	-	J	0.515	0.167				
2,3,4,6,7,8-HxCDF	4.57	-	J	0.457	0.167				
1,2,3,7,8,9-HxCDF	ND	1.11		-	0.185	Total TCDF	7.94	-	D,M
1,2,3,4,6,7,8-HpCDF	66.9	-		0.669	0.251	Total PeCDF	27.5	-	D,M
1,2,3,4,7,8,9-HpCDF	6.48	-	J	0.0648	0.280	Total HxCDF	122	-	D,M
OCDF	168	-		0.0504	0.451	Total HpCDF	198	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	87.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	86.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	86.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	86.6	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	83.7	23.0 - 140	
13C-OCDD	92.7	17.0 - 157	
13C-2,3,7,8-TCDF	87.6	24.0 - 169	
13C-1,2,3,7,8-PeCDF	86.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	89.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	82.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	81.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	87.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	89.7	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	86.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	90.4	26.0 - 138	
13C-OCDF	89.7	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 88.3 35.0 - 197

Analyst: [Signature]
Date: 4/22/10

Reviewed By: [Signature]
Date: 4/23/10

SUBCONTRACTOR ANALYSIS REQUEST
 CUSTODY TRANSFER 04/12/10



6090
00L

ARI Project: QS23

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: Lora Lakes Apartments
 ARI PM: Sue Dunnihoo
 Phone:
 Fax: 206-695-6201

Analytical Protocol: In-house
 Special Instructions:

Requested Turn Around: 04/23/10
 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, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
10-9292-QS23A	CB31A040810COMP	04/08/10 03:23	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-9293-QS23B	CB4857040810COMP	04/08/10 03:37	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-9294-QS23C	CB1040810COMP	04/08/10 03:13	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-9295-QS23D	CB100040810COMP	04/08/10 04:23	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					

L4 & EDD.

Carrier UPS	Airbill 128326950109037686	Date 4/12/10
Relinquished by <i>[Signature]</i>	Company ARI	Date 4/12/10
Received by <i>[Signature]</i>	Company Frontier	Date 4-13-10
		Time 1517
		Time 1040

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **6090**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QS23
Date Received:	04/13/2010
Time Received:	10:40 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	4
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950149037686
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	Yes
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	04/08/2011
Adequate Sample Volume	Yes
Anomalies or additional comments:	



May 7, 2010

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

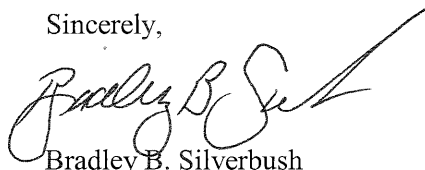
Dear Ms. Dunnihoo,

Enclosed are the results for Frontier Analytical Laboratory project **6118**. This corresponds to your **Lora Lakes Apartments** project under ARI project number **QU08**. Four aqueous samples were received on 4/27/2010 in good condition. These samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The 2005 World Health Organizations toxic equivalency factors were used to calculate the toxic equivalency (TEQs) on your report. Analytical Resources Incorporated requested a Level IV report and a turnaround time of ten business days for project **6118**.

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

If you have any questions regarding project **6118**, 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

Sample Tracking Log

FAL Project ID: **6118**

Received on: **04/27/2010**

Project Due: **05/19/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
6118-001-SA	0	QU08	CB31A042110COMP	EPA 1613 D/F	Aqueous	04/21/2010	NP	04/21/2011
6118-002-SA	0	QU08	CB1042110COMP	EPA 1613 D/F	Aqueous	04/21/2010	NP	04/21/2011
6118-003-SA	0	QU08	CB4857042110COMP	EPA 1613 D/F	Aqueous	04/21/2010	NP	04/21/2011
6118-004-SA	0	QU08	CB101042110COMP	EPA 1613 D/F	Aqueous	04/21/2010	NP	04/21/2011

EPA Method 1613
PCDD/F



FAL ID: 6118-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.09		-	0.212				
1,2,3,7,8-PeCDD	ND	1.14		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.48		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.68		-	0.381	Total TCDD	ND	1.09	
1,2,3,7,8,9-HxCDD	ND	1.55		-	0.351	Total PeCDD	ND	1.14	
1,2,3,4,6,7,8-HpCDD	ND	3.03		-	0.495	Total HxCDD	ND	1.68	
OCDD	ND	4.75		-	1.02	Total HpCDD	ND	3.03	
2,3,7,8-TCDF	ND	0.582		-	0.112				
1,2,3,7,8-PeCDF	ND	0.836		-	0.219				
2,3,4,7,8-PeCDF	ND	0.838		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.761		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.767		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.792		-	0.167				
1,2,3,7,8,9-HxCDF	ND	1.05		-	0.185	Total TCDF	ND	0.582	
1,2,3,4,6,7,8-HpCDF	ND	1.13		-	0.251	Total PeCDF	ND	0.838	
1,2,3,4,7,8,9-HpCDF	ND	1.53		-	0.280	Total HxCDF	ND	1.05	
OCDF	ND	3.21		-	0.451	Total HpCDF	ND	1.53	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	61.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	72.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	87.2	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	52.8	23.0 - 140	
13C-OCDD	50.9	17.0 - 157	
13C-2,3,7,8-TCDF	80.0	24.0 - 169	
13C-1,2,3,7,8-PeCDF	58.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	61.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	70.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	76.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	70.6	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	57.0	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	50.2	26.0 - 138	
13C-OCDF	56.2	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 84.2 35.0 - 197

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

Analyst: [Signature]
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 05-06-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	8.76	6.70 - 15.8	
1,2,3,7,8-PeCDD	45.4	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	44.5	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	43.5	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	42.1	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	53.3	35.0 - 70.0	
OCDD	103	78.0 - 144	
2,3,7,8-TCDF	9.50	7.50 - 15.8	
1,2,3,7,8-PeCDF	45.9	40.0 - 67.0	
2,3,4,7,8-PeCDF	46.2	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	41.5	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	45.9	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	41.0	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	42.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	43.9	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	43.3	39.0 - 69.0	
OCDF	87.3	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	78.3	20.0 - 175	
13C-1,2,3,7,8-PeCDD	59.0	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	68.4	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	82.2	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	50.8	26.0 - 166	
13C-OCDD	51.8	13.0 - 198	
13C-2,3,7,8-TCDF	77.1	22.0 - 152	
13C-1,2,3,7,8-PeCDF	58.1	21.0 - 192	
13C-2,3,4,7,8-PeCDF	61.3	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	65.1	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	70.3	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	75.1	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	67.0	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	56.0	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	47.0	20.0 - 186	
13C-OCDF	55.2	13.0 - 198	

- 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	77.3	31.0 - 191	
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Analyst: TC
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-001-SA
Client ID: CB31A042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.001 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 17.5


Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.13		-	0.212				
1,2,3,7,8-PeCDD	ND	2.70		-	0.302				
1,2,3,4,7,8-HxCDD	5.35	-	J	0.535	0.328				
1,2,3,6,7,8-HxCDD	15.8	-	J	1.58	0.381	Total TCDD	ND	1.13	
1,2,3,7,8,9-HxCDD	9.17	-	J	0.917	0.351	Total PeCDD	ND	2.70	
1,2,3,4,6,7,8-HpCDD	712	-		7.12	0.495	Total HxCDD	78.8	-	
OCDD	7550	-		2.26	1.02	Total HpCDD	1220	-	
2,3,7,8-TCDF	ND	0.745		-	0.112				
1,2,3,7,8-PeCDF	ND	1.40		-	0.219				
2,3,4,7,8-PeCDF	ND	1.47		-	0.232				
1,2,3,4,7,8-HxCDF	19.8	-	J	1.98	0.162				
1,2,3,6,7,8-HxCDF	9.28	-	J	0.928	0.167				
2,3,4,6,7,8-HxCDF	7.36	-	J	0.736	0.167				
1,2,3,7,8,9-HxCDF	ND	2.86		-	0.185	Total TCDF	18.4	-	D,M
1,2,3,4,6,7,8-HpCDF	118	-		1.18	0.251	Total PeCDF	59.4	-	D,M
1,2,3,4,7,8,9-HpCDF	12.2	-	J	0.122	0.280	Total HxCDF	252	-	D,M
OCDF	358	-		0.107	0.451	Total HpCDF	424	-	


Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	65.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	84.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	102	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	73.1	23.0 - 140	
13C-OCDD	78.7	17.0 - 157	
13C-2,3,7,8-TCDF	80.6	24.0 - 169	
13C-1,2,3,7,8-PeCDF	65.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	66.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	81.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	88.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	84.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	79.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	70.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	62.3	26.0 - 138	
13C-OCDF	75.5	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 81.9 35.0 - 197

Analyst: 
Date: 5/7/10

Reviewed By: 
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-002-SA
Client ID: CB1042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.043 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 0.261

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.45		-	0.212				
1,2,3,7,8-PeCDD	ND	1.77		-	0.302				
1,2,3,4,7,8-HxCDD	ND	2.12		-	0.328				
1,2,3,6,7,8-HxCDD	ND	2.49		-	0.381	Total TCDD	ND	1.45	
1,2,3,7,8,9-HxCDD	ND	2.25		-	0.351	Total PeCDD	ND	1.77	
1,2,3,4,6,7,8-HpCDD	18.5	-	J	0.185	0.495	Total HxCDD	ND	2.49	
OCDD	150	-		0.0450	1.02	Total HpCDD	39.5	-	
2,3,7,8-TCDF	ND	0.904		-	0.112				
1,2,3,7,8-PeCDF	ND	1.21		-	0.219				
2,3,4,7,8-PeCDF	ND	1.27		-	0.232				
1,2,3,4,7,8-HxCDF	ND	2.48		-	0.162	Total TCDF	ND	0.904	
1,2,3,6,7,8-HxCDF	ND	2.47		-	0.167	Total PeCDF	ND	1.27	
2,3,4,6,7,8-HxCDF	ND	2.59		-	0.167	Total HxCDF	ND	3.31	
1,2,3,7,8,9-HxCDF	ND	3.31		-	0.185	Total HpCDF	7.31	-	J
1,2,3,4,6,7,8-HpCDF	3.09	-	J	0.0309	0.251				
1,2,3,4,7,8,9-HpCDF	ND	1.74		-	0.280				
OCDF	ND	6.91		-	0.451				

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	56.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	45.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	55.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	62.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	47.5	23.0 - 140	
13C-OCDD	47.7	17.0 - 157	
13C-2,3,7,8-TCDF	56.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	47.7	24.0 - 185	
13C-2,3,4,7,8-PeCDF	48.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	52.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	56.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	54.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	50.4	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	45.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	40.4	26.0 - 138	
13C-OCDF	44.7	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 60.4 35.0 - 197

Analyst: [Signature]
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-003-SA
Client ID: CB4857042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.044 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 15.0

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.34		-	0.212				
1,2,3,7,8-PeCDD	ND	2.62		-	0.302				
1,2,3,4,7,8-HxCDD	4.78	-	J	0.478	0.328				
1,2,3,6,7,8-HxCDD	14.3	-	J	1.43	0.381	Total TCDD	ND	1.34	
1,2,3,7,8,9-HxCDD	8.85	-	J	0.885	0.351	Total PeCDD	ND	2.62	
1,2,3,4,6,7,8-HpCDD	602	-		6.02	0.495	Total HxCDD	71.5	-	
OCDD	5780	-		1.73	1.02	Total HpCDD	1030	-	
2,3,7,8-TCDF	ND	1.21		-	0.112				
1,2,3,7,8-PeCDF	ND	1.98		-	0.219				
2,3,4,7,8-PeCDF	ND	2.11		-	0.232				
1,2,3,4,7,8-HxCDF	17.0	-	J	1.70	0.162				
1,2,3,6,7,8-HxCDF	8.31	-	J	0.831	0.167				
2,3,4,6,7,8-HxCDF	6.52	-	J	0.652	0.167				
1,2,3,7,8,9-HxCDF	ND	2.33		-	0.185	Total TCDF	20.5	-	D,M
1,2,3,4,6,7,8-HpCDF	109	-		1.09	0.251	Total PeCDF	52.5	-	D,M
1,2,3,4,7,8,9-HpCDF	10.6	-	J	0.106	0.280	Total HxCDF	227	-	D,M
OCDF	303	-		0.0909	0.451	Total HpCDF	364	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	57.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	45.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	59.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	65.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	50.1	23.0 - 140	
13C-OCDD	49.7	17.0 - 157	
13C-2,3,7,8-TCDF	55.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	47.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	46.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	55.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	59.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	57.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	52.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	45.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	41.3	26.0 - 138	
13C-OCDF	46.4	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	56.3	35.0 - 197
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Analyst: [Signature]
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-004-SA
Client ID: CB101042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.046 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 17.0

Compound	Conc	DL	Qual	2005		Compound	Conc	DL	Qual
				WHO Tox	MDL				
2,3,7,8-TCDD	ND	1.39		-	0.212				
1,2,3,7,8-PeCDD	ND	2.87		-	0.302				
1,2,3,4,7,8-HxCDD	5.24	-	J	0.524	0.328				
1,2,3,6,7,8-HxCDD	14.9	-	J	1.49	0.381	Total TCDD	ND		1.39
1,2,3,7,8,9-HxCDD	9.39	-	J	0.939	0.351	Total PeCDD	ND		2.87
1,2,3,4,6,7,8-HpCDD	683	-		6.83	0.495	Total HxCDD	76.1		-
OCDD	7150	-		2.15	1.02	Total HpCDD	1170		-
2,3,7,8-TCDF	ND	0.628		-	0.112				
1,2,3,7,8-PeCDF	ND	2.42		-	0.219				
2,3,4,7,8-PeCDF	ND	2.77		-	0.232				
1,2,3,4,7,8-HxCDF	19.7	-	J	1.97	0.162				
1,2,3,6,7,8-HxCDF	8.34	-	J	0.834	0.167				
2,3,4,6,7,8-HxCDF	7.12	-	J	0.712	0.167				
1,2,3,7,8,9-HxCDF	ND	2.56		-	0.185	Total TCDF	16.7		- D,M
1,2,3,4,6,7,8-HpCDF	127	-		1.27	0.251	Total PeCDF	56.7		- D,M
1,2,3,4,7,8,9-HpCDF	12.9	-	J	0.129	0.280	Total HxCDF	239		- D,M
OCDF	365	-		0.110	0.451	Total HpCDF	435		-

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	73.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	58.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	70.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	82.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	62.3	23.0 - 140	
13C-OCDD	65.4	17.0 - 157	
13C-2,3,7,8-TCDF	72.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	63.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	60.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	66.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	70.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	70.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	66.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	60.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	53.1	26.0 - 138	
13C-OCDF	60.9	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 74.3 35.0 - 197

Analyst:
Date: 5/7/10

Reviewed By:
Date: 5/7/10

SUBCONTRACTOR ANALYSIS REQUEST
 CUSTODY TRANSFER 04/23/10



*6/11/8
OIC*

ARI Project: QU08

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: Lora Lakes Apartments
 ARI PM: Sue Dunning
 Phone:
 Fax: 206-695-6201

Analytical Protocol: In-house
 Special Instructions:

Requested Turn Around: 05/07/10
 Email Results (Y/N): **email**

Limits of Liability. Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or 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, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
10-10294-QU08A	CB31A042110COMP	04/21/10	Water	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-10295-QU08B	CB1042110COMP	04/21/10	Water	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-10296-QU08C	CB4857042110COMP	04/21/10	Water	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					
10-10297-QU08D	CB101042110COMP	04/21/10	Water	1	Dioxin/Furans 1613 (Sub)
Special Instructions: None					

L4 + EDD

Carrier <i>UPS</i>	Airbill <i>128320950151590901</i>	Date <i>4/20/10</i>
Relinquished by <i>[Signature]</i>	Company <i>ARI</i>	Date <i>4/20/10</i>
Received by <i>[Signature]</i>	Company <i>Frontier Analytical</i>	Date <i>4-27-10</i>
		Time <i>1042</i>
		Time <i>1022</i>

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **6118**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QU08
Date Received:	04/27/2010
Time Received:	10:22 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	4
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z832695015159691
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	Yes
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	04/21/2011
Adequate Sample Volume	Yes
Anomalies or additional comments:	





Analytical Resources, Incorporated
Analytical Chemists and Consultants

April 30, 2010

Jessi Massingale
Floyd-Snyder Inc.
601 Union Street, Suite 600
Seattle, WA 98101-2341

RE: Client Project: Lora Lake Apartments, POS-LLA
ARI Job No: QS23

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.

A handwritten signature in black ink, appearing to read "Susan D. Dunning".

Susan D. Dunning
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QS23

SD/sdrd

**Chain of Custody
Documentation**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QS23

**prepared
by**

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

Port of Seattle



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number: _____ Turn-around Requested: Standard

ARI Client Company: Floyd/Snyder Phone: 206-292-2078

Client Contact: Megan McCullough / Matt Woltman

Client Project Name: Lova Lake Apartments

Client Project #: POS-LLA Samplers: D. Metallo

Date: 4-8-2010

Page: 1 of 1

No. of Coolers: 1 Cooler Temps: _____

Sample ID	Date	Time	Matrix	No. Containers
CB31AD40810GRAB	4-8-10	0020	W	5
CB4857040810GRAB	4-8-10	0130	W	5
CB1040810GRAB	4-8-10	0050	W	13
CB100040810GRAB	4-8-10	0120	W	5
TB040710	4-7-10	2130	W	3

Analysis Requested							Notes/Comments
VOC	MS	SEM	TPH	DX			
X	X						
X	X						
X	X						Run MS/MSD
X	X						Trip blank

Comments/Special Instructions
① Acid/soil a gal clean up for NWTPH-DX

Relinquished by: [Signature]
 (Signature)
 Printed Name: Dave Metallo
 Company: Taylor Assoc. Inc.
 Date & Time: 4-9-2010 (1300)

Received by: [Signature]
 (Signature)
 Printed Name: Dan O'Brien
 Company: TAI
 Date & Time: 4/9/10 1300

Relinquished by: [Signature]
 (Signature)
 Printed Name: Dan O'Brien
 Company: TAI
 Date & Time: 4/9/10 1458

Received by: [Signature]
 (Signature)
 Printed Name: Jonathan Walter
 Company: ARI
 Date & Time: 4/9/10 1458

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, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

0520:0000

Chain of Custody Record & Laboratory Analysis Request

Port of Seattle



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number: 0523	Turn-around Requested: Standard	Date: 4-9-2010
ARI Client Company: N. Floyd/Snyder	Phone: 206-292-2078	Page: 1 of 1
Client Contact: Megan McCullough / Matt Wattman		No. of Coolers: 2
Client Project Name: Lora Lake Apts		Cooler Temps:

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested					Notes/Comments		
					PAH 82700-SIM low level	PCP 8041	Arsenic Tot & Diss 200.8	Dioxin/ Furans 16.13	TSS SM2540D			
CB31A040810 COMP	4.8.10	0323	W	1	X	X	X	X	X			6.86
CB4857040810 COMP	4.8.10	0337	W	1	X	X	X	X	X			7.09
CB1040810 COMP	4.8.10	0313	W	1	X	X	X	X	X			6.80
CB100040810 COMP	4.8.10	0423	W	1	X	X	X	X	X			6.80

① Run MS/MSD
 ← MSD

Comments/Special Instructions - Bottles & glassware decontaminated to LLA project specific SOP (see attached sht)	Relinquished by (Signature): <i>Don O'Brien</i>	Received by (Signature): <i>Jonathan Watter</i>	Relinquished by (Signature):	Received by (Signature):
	Printed Name: Don O'Brien	Printed Name: Jonathan Watter	Printed Name:	Printed Name:
	Company: TAI	Company: ARI	Company:	Company:
	Date & Time: 4/9/10 1459	Date & Time: 4/9/10 1459	Date & Time:	Date & Time:

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: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

① MS/MSD vol. does not include extra vol. for Dioxin/Furan analysis

0523:000011



Cooler Receipt Form

ARI Client: Floyd Snider

Project Name: Lora Lake Apts

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: Q523

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)..... 4.2

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90241619

Cooler Accepted by: JW Date: 4/9/10 Time: 1458

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 4/1/10

Was Sample Split by ARI : NA YES Date/Time: 4/9/10 1600 Equipment: Teflon churns Split by: JW/AV

Samples Logged by: AV Date: 4/9/10 Time: 1706

**** 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:

By: _____ Date: _____

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



ARI Job No: QS23
PC: Sue D.
VTSR: 04/09/10

Inquiry Number: NONE
Analysis Requested: 04/09/10
Contact: Woltman, Matt
Client: Floyd/Snyder
Logged by: AV
Sample Set Used: Yes-481
Validatable Package: No
Deliverables:

Project #: LLA-POS
Project: Lora Lakes Apartments
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/ BY
10-9292 QS23A	CB31A040810COMP						TOT ROSS															
10-9293 QS23B	CB4857040810COMP						TOT															
10-9294 QS23C	CB1040810COMP						TOT															
10-9295 QS23D	CB100040810COMP						TDT															
10-9301 QS23J	CB31A040810COMP						DIS NP										N					
10-9302 QS23K	CB4857040810COMP						DIS										N					
10-9303 QS23L	CB1040810COMP						DIS										N					
10-9304 QS23M	CB100040810COMP						DIS										N					

NP= Not preserved

Case Narrative

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QS23

**prepared
by**

Analytical Resources, Inc.



Case Narrative

Client: Floyd Snider
Project: Lora Lake Apartments, POS-LLA
Matrix: Water
ARI Job No.: QS23

Sample receipt

Analytical Resources, Inc. (ARI) accepted eight water samples and a trip blank on April 9, 2010 under ARI job QS23. The cooler temperature measured by IR thermometer following ARI SOP was 4.2°C. For details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The four composite samples were split for each laboratory using a Teflon churn splitter. The churn splitter was cleaned between each sample using the QAPP protocol.

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 SIM

The samples and associated 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 blanks were clean at the reporting limit. The LCS and LCSD percent recoveries and RPD were within control limits for both analysis dates.

Due to a mechanical malfunction, no internal standard was injected for the initial analysis of the matrix spike duplicate (MSD). The MSD was analyzed on a different day than the sample and associated matrix spike. The matrix spike/matrix spike duplicate pair had recoveries and RPD within limits.

Sample preservation was confirmed within limits after analysis.



SIM Semivolatiles by SW8270

The samples were extracted and analyzed within the method recommended holding times. Due to limited volumes, the MS/MSD for sample **CB1040810COMP** were analyzed using splits of any remaining sample volume.

Initial calibrations 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 percent recoveries were within control limits.

The matrix spike/matrix spike duplicate had recoveries and RPD within limits.

Pentachlorophenol by SW8041

The samples were extracted and analyzed within the method recommended holding times.

Initial calibrations and continuing calibrations were within limits for the target compound.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike/matrix spike duplicate had recoveries and RPD within limits.

NW-TPHDx with Acid Silica cleanups

The samples and associated 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 blank was clean at the reporting limits. The LCS had recovery within limits.

The matrix spike and matrix spike duplicate percent recovery and RPD of Diesel was within limits.



Total and Dissolved Arsenic by EPA 200.8

The samples were digested and analyzed within the method recommended holding time.

The method blanks were clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries were within limits. Duplicate RPDs were within control limits.

General Chemistry (TSS)

The samples were prepared and analyzed within the method recommended holding time.

The method blank was clean at the reporting limit. The LCS percent recovery was within control limits.

The replicate RPD was within the control limit.



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 ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 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



- 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

SURR SOLUTIONS

4/3/2010

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1706-2	ABN	100/150	MEOH	07/30/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C	1705-4	SIM ABN	25/37.5	MEOH	03/08/11
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	1707-2	1,4DIOXANE	100	MEOH	03/19/11
H	1723-2	OP-PEST	25	MEOH	04/02/11
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	1699-1	TPH	450	MECL2	07/02/10
P	1707-4	HCID	2250	MECL2	07/02/10
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	01/13/11
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					

LCS SOLUTIONS

4/3/2010

LABL SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.	
1	1716-1	PCB 1660	20	ACETONE	03/30/11
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1705-3	PEST	02/04/20	ACETONE	03/08/11
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1702-2	PCP	12.5/125	ACETONE	02/18/11
7	1705-1	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	1698-2	ABN ACID	100/200	MECL2	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1698-1	ABN BASE	200	MEOH	07/24/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15	1716-2	SIM PNA	15/75	MEOH	03/30/11
16	1707-1	DIOXANE	100	MEOH	11/05/10
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	1702-4	HERB	12.5/12500	MEOH	04/17/10
23	1706-1	LW ABN BASE	20	MEOH	03/08/11
24	1696-1	LOW ABN	10	ACETONE	01/13/11
25#	1481-1	DIPHENYL	100	MEOH	NA
26	1723-3	OP-PEST	25	MEOH	11/20/10
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

LCS SOLUTIONS

4/3/2010

31	1707-3	TERPINEOL	100	MEOH	03/19/11
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	1696-3	DDTS	2.5	ACETONE	06/03/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
53	1703-3	DALAPON	50	MEOH	09/11/10
54	1701-2	PBDE	0.5	ACETONE	02/10/11
	#=PROJECT SPECIFIC SOLUTION				
	*=REVERIFIED SOLUTION				



Spike Recovery Control Limits for SIM VOA EPA Method SW-846-8260C ^(1,2) Effective 12/24/07	
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	
Sample Matrix:	Water
Purge Volume:	10 mL
LCS Spike Recovery ⁽³⁾	
Vinyl Chloride	76 - 120
1,1-Dichloroethene	79 - 126
<i>cis</i> -1,2-Dichloroethene	76 - 127
Trichloroethene	79 - 120
Benzene	75 - 121
Tetrachloroethene	75 - 123
1,1,2,2-Tetrachloroethane	72 - 129
Method Blank/LCS Surrogate Recovery	
d4-1,2-Dichloroethane	80 - 133
d8-Toluene	80 - 121
Sample Surrogate Recovery	
d4-1,2-Dichloroethane	80 - 136
d8-Toluene	80 - 120

(1) Control limits calculated using historic data collected from 4/1/05 to 11/15/07

(2) Highlighted control limits (**bold font**) 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.

(3) 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 Polycyclic Aromatic Hydrocarbons
Selected Ion Monitoring (SIM) EPA Method SW-846-8270D-Modified
Low Level Aqueous Samples^(1,7)
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>

Sample Volume / Final Volume	500 mL to 0.5 mL	
	Control Limits	ME Limits ⁽²⁾
LCS Spike Recovery⁽⁶⁾		
Napthalene	41 - 101	31 - 111
2-Methylnapthalene	47 - 100	39 - 103
1-Methylnapthalene	30 - 160 ⁽³⁾	30 - 160 ⁽³⁾
Acenaphthylene	35 - 100	25 - 104
Acenaphthene	43 - 104	33 - 114
Dibenzofuran	37 - 100	27 - 108
Fluorene	51 - 103	42 - 112
Phenanthrene	55 - 109	46 - 118
Anthracene	30 - 101	18 - 113
Fluoranthene	49 - 123	37 - 135
Pyrene	48 - 120	36 - 132
Benz(a)anthracene	43 - 113	31 - 125
Chrysene	59 - 112	50 - 121
Benzo(b)fluoranthene	44 - 121	31 - 134
Benzo(k)fluoranthene	50 - 117	39 - 128
Benzo(a)pyrene	10 - 100	10 - 109
Indeno(1,2,3-cd)pyrene	43 - 112	32 - 124
Dibenzo(a,h)anthracene	42 - 114	30 - 126
Benzo(g,h,i)perylene	31 - 118	17 - 133
MB / LCS Surrogate Recovery		
d10-2-Methylnapthalene	42 - 100	(4)
d14-Dibenzo(a,h)anthracene	40 - 125	(4)
Sample Surrogate Recovery		
d10-2-Methylnapthalene	31 - 109	(4)
d14-Dibenzo(a,h)anthracene	10 - 133	(4)

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 through 12/1/08.

(2) **ME = A marginal exceedance** defined in the NELAC Standard⁽⁵⁾ 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 one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.

(3) 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.

(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) 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.

(7) 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.



Spike Recovery Control Limits for Chlorinated Phenols

EPA Method SW-846-8041^(1,2)

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>

Sample Matrix:	ARI's Calculated Control Limits	
	Water	Soil / Sediment
Sample Amount / Final Volume:	500 / 50 mL	10 g / 25 mL
LCS Spike Recovery ⁽³⁾		
Pentachlorophenol	27 - 115	10 - 162
Method Blank/LCS Surrogate Recovery		
2,4,6-Tribromophenol	40 - 130	50 - 115
Sample Surrogate Recovery		
2,4,6-Tribromophenol	11 - 156	10 - 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.



**Spike Recovery Control Limits Hydrocarbon Identification (NWTPH-HCID)
and Diesel Range Petroleum Hydrocarbons (NWTPH-D & AK-102) ⁽¹⁾**
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>

Method:	NWTPH-HCID ⁽²⁾	NWTPH-D		AK102 ⁽²⁾
Sample Matrix:	Water & Soil	Water	Soil	Water & Soil
Preparation:	500 to 1 mL	500 to 1 mL	10g to 1 mL	500 to 1 mL or 10g to 1 mL
LCS Spike Recovery ⁽³⁾				
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
Method Blank/LCS Surrogate Recovery				
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
Sample Surrogate Recovery				
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

- Control Limits calculated using all data generated 1/1/08 through 12/31/08
- Method specified, non-prescriptive limits. The NWTPH-HCID Method does not include LCS or MS analyses.
- 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.
- 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%



Spike Recovery Control Limits for Conventional Wet Chemistry 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		
Sample Matrix:	ARI's Control Limits	
	Water	Soil / Sediment
Matrix Spike Recoveries	% 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
Duplicate RPDs		
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: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QS23

**prepared
by**

Analytical Resources, Inc.

SIM VOLATILE ANALYSIS

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB31A040810GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QS23E


QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9296

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: 

Date Sampled: 04/08/10

Reported: 04/20/10

Date Received: 04/09/10

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 04/13/10 19:19

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	111%
d8-Toluene	99.4%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040810GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QS23F

QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9297

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: *AS*

Date Sampled: 04/08/10

Reported: 04/20/10

Date Received: 04/09/10

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 04/13/10 19:44

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	98.5%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB1040810GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QS23G

QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9298

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: *AS*

Date Sampled: 04/08/10

Reported: 04/20/10

Date Received: 04/09/10

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 04/13/10 20:10

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	98.7%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB100040810GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QS23H

QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9299

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: *AS*

Date Sampled: 04/08/10

Reported: 04/20/10

Date Received: 04/09/10

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 04/13/10 21:27

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	108%
d8-Toluene	100%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: TB040710
Page 1 of 1 Trip Blank

Lab Sample ID: QS23I


QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9300

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: 

Date Sampled: 04/07/10

Reported: 04/20/10

Date Received: 04/09/10

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 04/13/10 14:12

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	104%
d8-Toluene	97.8%

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

<u>Client ID</u>	<u>DCE</u>	<u>TOL</u>	<u>TOT OUT</u>
MB-041310	96.4%	98.6%	0
LCS-041310	88.4%	99.4%	0
LCSD-041310	87.5%	98.2%	0
CB31A040810GRAB	111%	99.4%	0
CB4857040810GRAB	105%	98.5%	0
MB-041510	107%	100%	0
LCS-041510	96.3%	98.9%	0
LCSD-041510	96.5%	101%	0
CB1040810GRAB	105%	98.7%	0
CB1040810GRAB-MS	92.4%	99.0%	0
CB1040810GRAB-MSD	99.2%	100%	0
CB100040810GRAB	108%	100%	0
TB040710	104%	97.8%	0

LCS/MB LIMITS QC LIMITS

(DCE) = d4-1,2-Dichloroethane (80-133) (80-136)
(TOL) = d8-Toluene (80-121) (80-120)

Prep Method: SW5030
Log Number Range: 10-9296 to 10-9300

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB1040810GRAB
Page 1 of 1 MATRIX SPIKE

Lab Sample ID: QS23G
LIMS ID: 10-9298
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/20/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Instrument/Analyst MS: NT7/PKC
MSD: NT7/PKC
Date Analyzed MS: 04/13/10 20:35
MSD: 04/15/10 17:38

Sample Amount MS: 10.0 mL
MSD: 10.0 mL
Purge Volume MS: 10.0 mL
MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
1,2-Dichloroethane	< 0.020 U	0.978	1.00	97.8%	1.19	1.00	119%	19.6%
cis-1,2-Dichloroethene	< 0.020 U	0.966	1.00	96.6%	1.18	1.00	118%	19.9%
trans-1,2-Dichloroethene	< 0.020 U	0.974	1.00	97.4%	1.19	1.00	119%	20.0%
Trichloroethene	< 0.020 U	0.972	1.00	97.2%	1.10	1.00	110%	12.4%
Tetrachloroethene	< 0.020 U	0.976	1.00	97.6%	1.13	1.00	113%	14.6%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB1040810GRAB

Page 1 of 1

MATRIX SPIKE

Lab Sample ID: QS23G

QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9298

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: *MB*

Date Sampled: 04/08/10

Reported: 04/20/10

Date Received: 04/09/10

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 04/13/10 20:35

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	92.4%
d8-Toluene	99.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB1040810GRAB

Page 1 of 1

MATRIX SPIKE DUP

Lab Sample ID: QS23G


QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9298

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: 

Date Sampled: 04/08/10

Reported: 04/20/10

Date Received: 04/09/10

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 04/15/10 17:38

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	99.2%
d8-Toluene	100%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-041310

Page 1 of 1

LAB CONTROL SAMPLE

Lab Sample ID: LCS-041310
LIMS ID: 10-9296
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/20/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT7/PKC
LCSD: NT7/PKC
Date Analyzed LCS: 04/13/10 11:58
LCSD: 04/13/10 12:24

Sample Amount LCS: 10.0 mL
LCSD: 10.0 mL
Purge Volume LCS: 10.0 mL
LCSD: 10.0 mL

Analyte	LCS		LCS		LCSD		RPD
	Concentration	Spike Added	Recovery	Concentration	Spike Added	Recovery	
1,2-Dichloroethane	0.928	1.00	92.8%	0.914	1.00	91.4%	1.5%
cis-1,2-Dichloroethene	0.975	1.00	97.5%	0.930	1.00	93.0%	4.7%
trans-1,2-Dichloroethene	0.968	1.00	96.8%	0.923	1.00	92.3%	4.8%
Trichloroethene	0.910	1.00	91.0%	0.913	1.00	91.3%	0.3%
Tetrachloroethene	0.937	1.00	93.7%	0.930	1.00	93.0%	0.7%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	88.4%	87.5%
d8-Toluene	99.4%	98.2%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-041510

Page 1 of 1

LAB CONTROL SAMPLE

Lab Sample ID: LCS-041510

QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9298

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: *AS*

Date Sampled: NA

Reported: 04/20/10

Date Received: NA

Instrument/Analyst LCS: NT7/PKC

Sample Amount LCS: 10.0 mL

LCSD: NT7/PKC

LCSD: 10.0 mL

Date Analyzed LCS: 04/15/10 14:57

Purge Volume LCS: 10.0 mL

LCSD: 04/15/10 15:22

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,2-Dichloroethane	1.05	1.00	105%	1.13	1.00	113%	7.3%
cis-1,2-Dichloroethene	1.05	1.00	105%	1.12	1.00	112%	6.5%
trans-1,2-Dichloroethene	1.07	1.00	107%	1.13	1.00	113%	5.5%
Trichloroethene	0.995	1.00	99.5%	1.07	1.00	107%	7.3%
Tetrachloroethene	1.02	1.00	102%	1.08	1.00	108%	5.7%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	96.3%	96.5%
d8-Toluene	98.9%	101%

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0413

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QS23
 Lab File ID: 04131006
 Date Analyzed: 04/13/10
 Instrument ID: NT7

Client: FLOYD/SNIDER
 Project: LORA LAKES APARTMENTS
 Lab Sample ID: MB0413
 Time Analyzed: 1249
 Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LCS0413	LCS0413	04131004	1158
02	LCSD0413	LCSD0413	04131005	1224
03	TB040710	QS23I	04131009	1412
04	CB31A040810G	QS23E	04131021	1919
05	CB4857040810	QS23F	04131022	1944
06	CB1040810GRA	QS23G	04131023	2010
07	CB1040810GRA	QS23GMS	04131024	2035
08	CB100040810G	QS23H	04131026	2127
09				
10				
11				
12				
13				
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27				
28				
29				
30				

COMMENTS:

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: MB-041310
Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-041310
LIMS ID: 10-9296
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/20/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/PKC
Date Analyzed: 04/13/10 12:49

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.4%
d8-Toluene	98.6%

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0415

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QS23
 Lab File ID: 04151005
 Date Analyzed: 04/15/10
 Instrument ID: NT7

Client: FLOYD/SNIDER
 Project: LORA LAKES APARTMENTS
 Lab Sample ID: MB0415
 Time Analyzed: 1548
 Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LCS0415	LCS0415	04151003	1457
02	LCSD0415	LCSD0415	04151004	1522
03	CB1040810GRA	QS23GMSD	04151009	1738
04				
05				
06				
07				
08				
09				
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COMMENTS:

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: MB-041510
Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-041510
LIMS ID: 10-9298
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/20/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/PKC
Date Analyzed: 04/15/10 15:48

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	107%
d8-Toluene	100%

SIM SEMIVOLATILE ANALYSIS

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB31A040810COMP

SAMPLE

Lab Sample ID: QS23A

LIMS ID: 10-9292

Matrix: Water

Data Release Authorized: 

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Date Extracted: 04/13/10

Date Analyzed: 04/19/10 10:41

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.012
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.021
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.041
129-00-0	Pyrene	0.010	0.049
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	0.028
205-99-2	Benzo (b) fluoranthene	0.010	< 0.010 U
207-08-9	Benzo (k) fluoranthene	0.010	< 0.010 U
50-32-8	Benzo (a) pyrene	0.010	< 0.010 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	< 0.010 U
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.019
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 51.3%
d14-Dibenzo (a,h) anthracene 44.3%

ORGANICS ANALYSIS DATA SHEET

PNA's by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB4857040810COMP

SAMPLE

Lab Sample ID: QS23B

LIMS ID: 10-9293

Matrix: Water

Data Release Authorized: 

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Date Extracted: 04/13/10

Date Analyzed: 04/19/10 11:04

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.013
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.025
129-00-0	Pyrene	0.010	0.030
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	0.016
205-99-2	Benzo (b) fluoranthene	0.010	< 0.010 U
207-08-9	Benzo (k) fluoranthene	0.010	< 0.010 U
50-32-8	Benzo (a) pyrene	0.010	< 0.010 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	< 0.010 U
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.011
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 54.7%
d14-Dibenzo (a,h) anthracene 41.7%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB1040810COMP

SAMPLE

Lab Sample ID: QS23C

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: 

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Date Extracted: 04/13/10

Date Analyzed: 04/16/10 17:02

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo (b) fluoranthene	0.010	< 0.010 U
207-08-9	Benzo (k) fluoranthene	0.010	< 0.010 U
50-32-8	Benzo (a) pyrene	0.010	< 0.010 U
193-39-5	Indeno (1, 2, 3-cd) pyrene	0.010	< 0.010 U
53-70-3	Dibenz (a, h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g, h, i) perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 60.3%
d14-Dibenzo (a, h) anthracene 51.7%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB100040810COMP

SAMPLE

Lab Sample ID: QS23D

LIMS ID: 10-9295

Matrix: Water

Data Release Authorized: 

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Date Extracted: 04/13/10

Date Analyzed: 04/19/10 11:28

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.013
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.021
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.036
129-00-0	Pyrene	0.010	0.044
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	0.024
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	0.018
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 56.7%
d14-Dibenzo(a,h)anthracene 55.3%

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
CB31A040810COMP	51.3%	44.3%	0
CB4857040810COMP	54.7%	41.7%	0
MB-041310	57.0%	54.0%	0
LCS-041310	53.3%	63.0%	0
CB1040810COMP	60.3%	51.7%	0
CB1040810COMP MS	63.0%	54.7%	0
CB1040810COMP MSD	62.7%	53.7%	0
CB100040810COMP	56.7%	55.3%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(MNP) = d10-2-Methylnaphthalene	(42-100)	(31-109)
(DBA) = d14-Dibenzo(a,h)anthracene	(40-125)	(10-133)

Prep Method: SW3520C
Log Number Range: 10-9292 to 10-9295

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: CB1040810COMP

MATRIX SPIKE

Lab Sample ID: QS23C

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: *BB*

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Date Extracted MS/MSD: 04/13/10

Sample Amount MS: 275 mL

MSD: 275 mL

Date Analyzed MS: 04/16/10 17:26

Final Extract Volume MS: 0.50 mL

MSD: 04/16/10 17:49

MSD: 0.50 mL

Instrument/Analyst MS: NT2/PK

Dilution Factor MS: 1.00

MSD: NT2/PK

MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	< 0.0100 U	0.346	0.545	63.5%	0.346	0.545	63.5%	0.0%
2-Methylnaphthalene	< 0.0100 U	0.357	0.545	65.5%	0.351	0.545	64.4%	1.7%
1-Methylnaphthalene	< 0.0100 U	0.335	0.545	61.5%	0.324	0.545	59.4%	3.3%
Acenaphthylene	< 0.0100 U	0.346	0.545	63.5%	0.338	0.545	62.0%	2.3%
Acenaphthene	< 0.0100 U	0.369	0.545	67.7%	0.362	0.545	66.4%	1.9%
Fluorene	< 0.0100 U	0.378	0.545	69.4%	0.366	0.545	67.2%	3.2%
Phenanthrene	< 0.0100 U	0.402	0.545	73.8%	0.381	0.545	69.9%	5.4%
Anthracene	< 0.0100 U	0.388	0.545	71.2%	0.372	0.545	68.3%	4.2%
Fluoranthene	< 0.0100 U	0.441	0.545	80.9%	0.423	0.545	77.6%	4.2%
Pyrene	< 0.0100 U	0.429	0.545	78.7%	0.428	0.545	78.5%	0.2%
Benzo(a)anthracene	< 0.0100 U	0.406	0.545	74.5%	0.406	0.545	74.5%	0.0%
Chrysene	< 0.0100 U	0.471	0.545	86.4%	0.460	0.545	84.4%	2.4%
Benzo(b)fluoranthene	< 0.0100 U	0.342	0.545	62.8%	0.339	0.545	62.2%	0.9%
Benzo(k)fluoranthene	< 0.0100 U	0.375	0.545	68.8%	0.366	0.545	67.2%	2.4%
Benzo(a)pyrene	< 0.0100 U	0.318	0.545	58.3%	0.307	0.545	56.3%	3.5%
Indeno(1,2,3-cd)pyrene	< 0.0100 U	0.286	0.545	52.5%	0.293	0.545	53.8%	2.4%
Dibenz(a,h)anthracene	< 0.0100 U	0.295	0.545	54.1%	0.292	0.545	53.6%	1.0%
Benzo(g,h,i)perylene	< 0.0100 U	0.291	0.545	53.4%	0.311	0.545	57.1%	6.6%
Dibenzofuran	< 0.0100 U	0.400	0.545	73.4%	0.392	0.545	71.9%	2.0%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB1040810COMP

MATRIX SPIKE

Lab Sample ID: QS23C

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: 

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Date Extracted: 04/13/10

Date Analyzed: 04/16/10 17:26

Instrument/Analyst: NT2/PK

Sample Amount: 275 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.018	---
91-57-6	2-Methylnaphthalene	0.018	---
90-12-0	1-Methylnaphthalene	0.018	---
208-96-8	Acenaphthylene	0.018	---
83-32-9	Acenaphthene	0.018	---
86-73-7	Fluorene	0.018	---
85-01-8	Phenanthrene	0.018	---
120-12-7	Anthracene	0.018	---
206-44-0	Fluoranthene	0.018	---
129-00-0	Pyrene	0.018	---
56-55-3	Benzo (a) anthracene	0.018	---
218-01-9	Chrysene	0.018	---
205-99-2	Benzo (b) fluoranthene	0.018	---
207-08-9	Benzo (k) fluoranthene	0.018	---
50-32-8	Benzo (a) pyrene	0.018	---
193-39-5	Indeno (1, 2, 3-cd) pyrene	0.018	---
53-70-3	Dibenz (a, h) anthracene	0.018	---
191-24-2	Benzo (g, h, i) perylene	0.018	---
132-64-9	Dibenzofuran	0.018	---

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	63.0%
d14-Dibenzo (a, h) anthracene	54.7%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB1040810COMP

MATRIX SPIKE DUPLICATE

Lab Sample ID: QS23C

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: 

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Date Extracted: 04/13/10

Date Analyzed: 04/16/10 17:49

Instrument/Analyst: NT2/PK

Sample Amount: 275 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.018	---
91-57-6	2-Methylnaphthalene	0.018	---
90-12-0	1-Methylnaphthalene	0.018	---
208-96-8	Acenaphthylene	0.018	---
83-32-9	Acenaphthene	0.018	---
86-73-7	Fluorene	0.018	---
85-01-8	Phenanthrene	0.018	---
120-12-7	Anthracene	0.018	---
206-44-0	Fluoranthene	0.018	---
129-00-0	Pyrene	0.018	---
56-55-3	Benzo(a)anthracene	0.018	---
218-01-9	Chrysene	0.018	---
205-99-2	Benzo(b)fluoranthene	0.018	---
207-08-9	Benzo(k)fluoranthene	0.018	---
50-32-8	Benzo(a)pyrene	0.018	---
193-39-5	Indeno(1,2,3-cd)pyrene	0.018	---
53-70-3	Dibenz(a,h)anthracene	0.018	---
191-24-2	Benzo(g,h,i)perylene	0.018	---
132-64-9	Dibenzofuran	0.018	---

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 62.7%
d14-Dibenzo(a,h)anthracene 53.7%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: LCS-041310

LAB CONTROL SAMPLE

Lab Sample ID: LCS-041310

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: 

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 04/13/10

Date Analyzed LCS: 04/16/10 16:38

Instrument/Analyst LCS: NT2/PK

Sample Amount LCS: 500 mL

Final Extract Volume LCS: 0.50 mL

Dilution Factor LCS: 1.00

Analyte	LCS	Spike Added	Recovery
Naphthalene	0.166	0.300	55.3%
2-Methylnaphthalene	0.170	0.300	56.7%
1-Methylnaphthalene	0.155	0.300	51.7%
Acenaphthylene	0.158	0.300	52.7%
Acenaphthene	0.184	0.300	61.3%
Fluorene	0.198	0.300	66.0%
Phenanthrene	0.198	0.300	66.0%
Anthracene	0.178	0.300	59.3%
Fluoranthene	0.237	0.300	79.0%
Pyrene	0.221	0.300	73.7%
Benzo(a)anthracene	0.202	0.300	67.3%
Chrysene	0.263	0.300	87.7%
Benzo(b)fluoranthene	0.192	0.300	64.0%
Benzo(k)fluoranthene	0.238	0.300	79.3%
Benzo(a)pyrene	0.153	0.300	51.0%
Indeno(1,2,3-cd)pyrene	0.183	0.300	61.0%
Dibenz(a,h)anthracene	0.194	0.300	64.7%
Benzo(g,h,i)perylene	0.176	0.300	58.7%
Dibenzofuran	0.208	0.300	69.3%

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	53.3%
d14-Dibenzo(a,h)anthracene	63.0%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QS23MBW1

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QS23
 Lab File ID: QS23MB
 Instrument ID: NT2
 Matrix: LIQUID

Client: FLOYD/SNIDER
 Project: LORA LAKES APARTMENT
 Date Extracted: 04/13/10
 Date Analyzed: 04/16/10
 Time Analyzed: 1615

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	QS23LCSW1	QS23LCSW1	QS23SB	04/16/10
02	CB1040810COMP	QS23C	QS23C	04/16/10
03	CB1040810COMP MS	QS23CMS	QS23CMS	04/16/10
04	CB1040810COMP MS	QS23CMSD	QS23CMSD	04/16/10
05	CB31A040810COMP	QS23A	041901	04/19/10
06	CB4857040810COMP	QS23B	041902	04/19/10
07	CB100040810COMP	QS23D	041903	04/19/10
08				
09				
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ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: MB-041310

METHOD BLANK

Lab Sample ID: MB-041310

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: 

Reported: 04/19/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: NA

Date Received: NA

Date Extracted: 04/13/10

Date Analyzed: 04/16/10 16:15

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo (b) fluoranthene	0.010	< 0.010 U
207-08-9	Benzo (k) fluoranthene	0.010	< 0.010 U
50-32-8	Benzo (a) pyrene	0.010	< 0.010 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	< 0.010 U
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	57.0%
d14-Dibenzo (a,h) anthracene	54.0%

PCP/CHLOROPHENOLS ANALYSIS

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB31A040810COMP
SAMPLE

Lab Sample ID: QS23A
LIMS ID: 10-9292
Matrix: Water
Data Release Authorized: *AS*
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Date Extracted: 04/13/10
Date Analyzed: 04/16/10 14:47
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.49


Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol 70.4%

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB4857040810COMP
SAMPLE

Lab Sample ID: QS23B
LIMS ID: 10-9293
Matrix: Water
Data Release Authorized: 
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Date Extracted: 04/13/10
Date Analyzed: 04/16/10 15:06
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.31


Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	65.6%
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ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1040810COMP
SAMPLE

Lab Sample ID: QS23C
LIMS ID: 10-9294
Matrix: Water
Data Release Authorized: 
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Date Extracted: 04/13/10
Date Analyzed: 04/16/10 15:27
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U


Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	61.6%
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ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB100040810COMP
SAMPLE

Lab Sample ID: QS23D
LIMS ID: 10-9295
Matrix: Water
Data Release Authorized: 
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Date Extracted: 04/13/10
Date Analyzed: 04/16/10 16:27
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.43

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	66.4%
----------------------	-------

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
CB31A040810COMP	70.4%	0
CB4857040810COMP	65.6%	0
MB-041310	70.8%	0
LCS-041310	60.8%	0
CB1040810COMP	61.6%	0
CB1040810COMP MS	67.2%	0
CB1040810COMP MSD	66.6%	0
CB100040810COMP	66.4%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol


(40-130)

(11-156)

Prep Method: SW3510C
Log Number Range: 10-9292 to 10-9295

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1040810COMP
MS/MSD

Lab Sample ID: QS23C
LIMS ID: 10-9294
Matrix: Water
Data Release Authorized: 
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Date Extracted MS/MSD: 04/13/10
Date Analyzed MS: 04/16/10 15:47
MSD: 04/16/10 16:07
Instrument/Analyst MS: ECD1/AAR
MSD: ECD1/AAR

Sample Amount MS: 500 mL
MSD: 500 mL
Final Extract Volume MS: 50 mL
MSD: 50 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	< 0.25 U	2.26	2.50	90.4%	2.20	2.50	88.0%	2.7%

Results reported in $\mu\text{g/L}$
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1040810COMP
MATRIX SPIKE

Lab Sample ID: QS23C
LIMS ID: 10-9294
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Date Extracted: 04/13/10
Date Analyzed: 04/16/10 15:47
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---


Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	67.2%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1040810COMP
MATRIX SPIKE DUP

Lab Sample ID: QS23C
LIMS ID: 10-9294
Matrix: Water
Data Release Authorized: 
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Date Extracted: 04/13/10
Date Analyzed: 04/16/10 16:07
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	66.6%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: LCS-041310
LAB CONTROL

Lab Sample ID: LCS-041310
LIMS ID: 10-9294
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Date Extracted: 04/13/10
Date Analyzed: 04/16/10 14:26
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	2.30	2.50	92.0%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol	60.8%
----------------------	-------

Results reported in µg/L

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QS23MBW1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QS23

Project: LORA LAKES APARTMENTS

Lab Sample ID: QS23MBW1

Lab File ID: 0416A010

Matrix (soil/water) LIQUID

Extraction: (SepF/Cont/Sonc) SW3510C

Sulfur Cleanup (Y/N) Y

Date Extracted: 04/13/10

Date Analyzed (1): 04/16/10

Date Analyzed (2): 04/16/10

Time Analyzed (1): 1406

Time Analyzed (2): 1406

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	QS23LCSW1	QS23LCSW1	04/16/10	04/16/10
02	CB31A040810C	QS23A	04/16/10	04/16/10
03	CB4857040810	QS23B	04/16/10	04/16/10
04	CB1040810COM	QS23C	04/16/10	04/16/10
05	CB1040810COM	QS23CMS	04/16/10	04/16/10
06	CB1040810COM	QS23CMSD	04/16/10	04/16/10
07	CB100040810C	QS23D	04/16/10	04/16/10

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: MB-041310
METHOD BLANK

Lab Sample ID: MB-041310
LIMS ID: 10-9294
Matrix: Water
Data Release Authorized: 
Reported: 04/21/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: NA
Date Received: NA

Date Extracted: 04/13/10
Date Analyzed: 04/16/10 14:06
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U
Reported in $\mu\text{g/L}$ (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	70.8%	

TPHD ANALYSIS

**ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS**

NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1
Matrix: Water

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

Data Release Authorized: **VTS**
Reported: 04/17/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
QS23E 10-9296	CB31A040810GRAB HC ID: MOTOR OIL	04/12/10	04/15/10 FID4A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U 0.64 81.4%
QS23F 10-9297	CB4857040810GRAB HC ID: ---	04/12/10	04/15/10 FID4A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 73.7%
MB-041210 10-9298	Method Blank HC ID: ---	04/12/10	04/15/10 FID4A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 79.5%
QS23G 10-9298	CB1040810GRAB HC ID: ---	04/12/10	04/15/10 FID4A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 83.2%
QS23H 10-9299	CB100040810GRAB HC ID: MOTOR OIL	04/12/10	04/15/10 FID4A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U 0.66 80.7%

Reported in mg/L (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: Water

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
CB31A040810GRAB	81.4%	0
CB4857040810GRAB	73.7%	0
MB-041210	79.5%	0
LCS-041210	88.3%	0
CB1040810GRAB	83.2%	0
CB1040810GRAB MS	89.8%	0
CB1040810GRAB MSD	92.5%	0
CB100040810GRAB	80.7%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(51-120)

(41-121)

Prep Method: SW3510C
Log Number Range: 10-9296 to 10-9299

ORGANICS ANALYSIS DATA SHEET
 NWTPHD by GC/FID-Silica and Acid Cleaned
 Page 1 of 1

Sample ID: CB1040810GRAB
 MS/MSD

Lab Sample ID: QS23G
 LIMS ID: 10-9298
 Matrix: Water
 Data Release Authorized: *VTS*
 Reported: 04/17/10

QC Report No: QS23-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/08/10
 Date Received: 04/09/10

Date Extracted MS/MSD: 04/12/10
 Date Analyzed MS: 04/15/10 16:08
 MSD: 04/15/10 16:34
 Instrument/Analyst MS: FID/MS
 MSD: FID/MS

Sample Amount MS: 500 mL
 MSD: 500 mL
 Final Extract Volume MS: 1.0 mL
 MSD: 1.0 mL
 Dilution Factor MS: 1.00
 MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 0.25	2.42	3.00	80.7%	2.44	3.00	81.3%	0.8%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	89.8%	92.5%

Results reported in mg/L
 RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Sample ID: LCS-041210

Page 1 of 1

LAB CONTROL

Lab Sample ID: LCS-041210

QC Report No: QS23-Floyd/Snider

LIMS ID: 10-9298

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: *VTS*

Date Sampled: 04/08/10

Reported: 04/17/10

Date Received: 04/09/10

Date Extracted: 04/12/10

Sample Amount: 500 mL

Date Analyzed: 04/15/10 17:24

Final Extract Volume: 1.0 mL

Instrument/Analyst: FID/MS

Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	2.33	3.00	77.7%

TPHD Surrogate Recovery

o-Terphenyl	88.3%
-------------	-------

Results reported in mg/L

4
TPH METHOD BLANK SUMMARY

BLANK NO.

QS23MBW1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

SDG No.: QS23

Project No.: LLA

Date Extracted: 04/12/10

Matrix: LIQUID

Date Analyzed : 04/15/10

Instrument ID : FID4A

Time Analyzed : 1749

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
	=====	=====	=====
01	CB31A040810G	QS23E	04/15/10
02	CB4857040810	QS23F	04/15/10
03	CB1040810GRA	QS23G	04/15/10
04	CB1040810GRA	QS23GMS	04/15/10
05	CB1040810GRA	QS23GMSD	04/15/10
06	CB100040810G	QS23H	04/15/10
07	QS23LCSW1	QS23LCSW1	04/15/10
08			
09			
10			
11			
12			
13			
14			
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29			
30			

METALS ANALYSIS

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

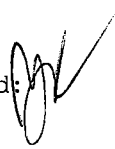
Page 1 of 1

Sample ID: CB31A040810COMP
SAMPLE

Lab Sample ID: QS23A

LIMS ID: 10-9292

Matrix: Water

Data Release Authorized: 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.8	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

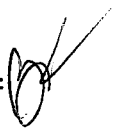
Sample ID: CB4857040810COMP

SAMPLE

Lab Sample ID: QS23B

LIMS ID: 10-9293

Matrix: Water

Data Release Authorized: 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.6	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

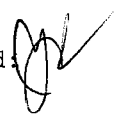
Sample ID: CB1040810COMP

SAMPLE

Lab Sample ID: QS23C

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.6	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: CB1040810COMP
DUPLICATE

Lab Sample ID: QS23C

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.6	0.6	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1


Sample ID: CB1040810COMP

MATRIX SPIKE

Lab Sample ID: QS23C

LIMS ID: 10-9294

Matrix: Water

Data Release Authorized: 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.580	26.3	25.0	103%	

Reported in µg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

NR-Not Recovered

Percent Recovery Limits: 75-125%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: CB100040810COMP
SAMPLE

Lab Sample ID: QS23D

LIMS ID: 10-9295

Matrix: Water

Data Release Authorized: 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/08/10

Date Received: 04/09/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.9	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QS23MB

LIMS ID: 10-9295

Matrix: Water

Data Release Authorized: 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.2	U

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: QS23LCS

LIMS ID: 10-9295

Matrix: Water

Data Release Authorized: 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: NA

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	26.0	25.0	104%	

Reported in µg/L

N-Control limit not met


Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB31A040810COMP
SAMPLE

Lab Sample ID: QS23J
LIMS ID: 10-9301
Matrix: Water
Data Release Authorized:
Reported: 04/26/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10




Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.5	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB4857040810COMP
SAMPLE

Lab Sample ID: QS23K
 LIMS ID: 10-9302
 Matrix: Water
 Data Release Authorized: 
 Reported: 04/26/10

QC Report No: QS23-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/08/10
 Date Received: 04/09/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.5	

U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB1040810COMP
SAMPLE

Lab Sample ID: QS23L
LIMS ID: 10-9303
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 05/11/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.5	

U-Analyte undetected at given RL
RL-Reporting Limit

QS23: 00080R
5/11/10

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 11

Sample ID: CB1040810COMP

Lab Sample ID: QS23L
LIMS ID: 10-9303
Matrix: Water
Data Release Authorized:
Reported: 05/11/10



QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.5	0.5	0.0%	+/- 0.5	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS**
Page 1 of 1

Sample ID: CB1040810COMP
MATRIX SPIKE

Lab Sample ID: QS23L
LIMS ID: 10-9303
Matrix: Water
Data Release Authorized:
Reported: 05/11/10

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10



MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.480	26.5	25.0	104%	

Reported in µg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

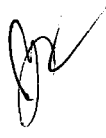
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB100040810COMP
SAMPLE

Lab Sample ID: QS23M
 LIMS ID: 10-9304
 Matrix: Water
 Data Release Authorized:
 Reported: 04/26/10



QC Report No: QS23-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/08/10
 Date Received: 04/09/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.5	

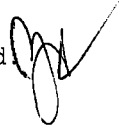
U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QS23MB
 LIMS ID: 10-9304
 Matrix: Water
 Data Release Authorized
 Reported: 04/26/10

QC Report No: QS23-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: NA
 Date Received: NA



Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/13/10	200.8	04/24/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

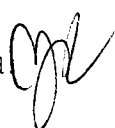
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QS23LCS

LIMS ID: 10-9304

Matrix: Water

Data Release Authorized 

Reported: 04/26/10

QC Report No: QS23-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: NA

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.8	25.0	103%	

Reported in µg/L


N-Control limit not met

Control Limits: 80-120%

GENERAL CHEMISTRY ANALYSIS

INORGANICS ANALYSIS DATA SHEET
Total Suspended Solids by Method EPA 160.2



Data Release Authorized: 
Reported: 04/15/10
Date Received: 04/09/10
Page 1 of 1

QC Report No: QS23-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

Client/ ARI ID	Date Sampled	Matrix	Analysis Date & Batch	RL	Result
CB31A040810COMP QS23A 10-9292	04/08/10	Water	04/14/10 13:26 041410#1	2.0	16.4
CB4857040810COMP QS23B 10-9293	04/08/10	Water	04/14/10 13:26 041410#1	2.1	9.6
CB1040810COMP QS23C 10-9294	04/08/10	Water	04/14/10 13:26 041410#1	1.0	3.4
CB100040810COMP QS23D 10-9295	04/08/10	Water	04/14/10 13:26 041410#1	2.2	18.2

Reported in mg/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QS23-Floyd/Snider



Matrix: Water
Data Release Authorized
Reported: 04/15/10

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

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/08/10
Date Received: 04/09/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QS23C Client ID: CB1040810COMP					
Total Suspended Solids	04/14/10	mg/L	3.4	3.1	9.2%

LAB CONTROL RESULTS-CONVENTIONALS
QS23-Floyd/Snider



Matrix: Water
Data Release Authorized
Reported: 04/15/10


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

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	LCS	Spike Added	Recovery
Total Suspended Solids	04/14/10 13:26	mg/L	49.3	50.0	98.6%

METHOD BLANK RESULTS-CONVENTIONALS
QS23-Floyd/Snider



Matrix: Water
Data Release Authorized: 
Reported: 04/15/10

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	Blank
Total Suspended Solids	04/14/10 13:26	mg/L	< 1.0 U

SUBCONTRACTED ANALYSIS

EPA Method 1613
PCDD/F



FAL ID: 6090-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.20		-	0.212				
1,2,3,7,8-PeCDD	ND	0.967		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.20		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.37		-	0.381	Total TCDD	ND	1.20	
1,2,3,7,8,9-HxCDD	ND	1.26		-	0.351	Total PeCDD	ND	0.967	
1,2,3,4,6,7,8-HpCDD	ND	1.78		-	0.495	Total HxCDD	ND	1.37	
OCDD	ND	2.77		-	1.02	Total HpCDD	ND	1.78	
2,3,7,8-TCDF	ND	0.550		-	0.112				
1,2,3,7,8-PeCDF	ND	0.874		-	0.219				
2,3,4,7,8-PeCDF	ND	0.924		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.705		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.685		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.702		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.807		-	0.185	Total TCDF	ND	0.550	
1,2,3,4,6,7,8-HpCDF	ND	1.09		-	0.251	Total PeCDF	ND	0.924	
1,2,3,4,7,8,9-HpCDF	ND	1.18		-	0.280	Total HxCDF	ND	0.807	
OCDF	ND	1.80		-	0.451	Total HpCDF	ND	1.18	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	76.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	73.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	77.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	71.4	23.0 - 140	
13C-OCDD	75.6	17.0 - 157	
13C-2,3,7,8-TCDF	74.9	24.0 - 169	
13C-1,2,3,7,8-PeCDF	68.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	70.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	74.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	76.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	78.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	77.2	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	74.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	74.5	26.0 - 138	
13C-OCDF	76.6	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	87.3	35.0 - 197
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- 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: 4/23/10

Reviewed By: [Signature]
Date: 4/23/10

EPA Method 1613
PCDD/F



FAL ID: 6090-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 04-21-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.56	6.70 - 15.8	
1,2,3,7,8-PeCDD	48.9	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.6	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	50.6	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	49.6	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	51.5	35.0 - 70.0	
OCDD	98.9	78.0 - 144	
2,3,7,8-TCDF	10.0	7.50 - 15.8	
1,2,3,7,8-PeCDF	50.6	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.9	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	52.1	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	52.1	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	51.2	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	52.4	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	52.6	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	52.3	39.0 - 69.0	
OCDF	103	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	67.1	20.0 - 175	
13C-1,2,3,7,8-PeCDD	60.5	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	62.7	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	63.4	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	60.0	26.0 - 166	
13C-OCDD	62.6	13.0 - 198	
13C-2,3,7,8-TCDF	62.7	22.0 - 152	
13C-1,2,3,7,8-PeCDF	57.1	21.0 - 192	
13C-2,3,4,7,8-PeCDF	59.0	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	63.3	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	64.5	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	66.0	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	63.9	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	61.1	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	61.6	20.0 - 186	
13C-OCDF	62.9	13.0 - 198	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	78.9	31.0 - 191	
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- 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: 4/22/10

Reviewed By: [Signature]
Date: 4/23/10

EPA Method 1613
PCDD/F



FAL ID: 6090-001-SA
Client ID: CB31A040810COMP
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: 04-13-2010
Amount: 0.972 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 7.33

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.939		-	0.212				
1,2,3,7,8-PeCDD	ND	1.51		-	0.302				
1,2,3,4,7,8-HxCDD	2.80	-	J	0.280	0.328				
1,2,3,6,7,8-HxCDD	8.10	-	J	0.810	0.381	Total TCDD	ND	0.940	
1,2,3,7,8,9-HxCDD	5.90	-	J	0.590	0.351	Total PeCDD	ND	1.51	
1,2,3,4,6,7,8-HpCDD	246	-		2.46	0.495	Total HxCDD	43.4	-	
OCDD	2160	-		0.648	1.02	Total HpCDD	402	-	
2,3,7,8-TCDF	ND	0.441		-	0.112				
1,2,3,7,8-PeCDF	ND	1.11		-	0.219				
2,3,4,7,8-PeCDF	ND	1.18		-	0.232				
1,2,3,4,7,8-HxCDF	9.66	-	J	0.966	0.162				
1,2,3,6,7,8-HxCDF	5.06	-	J	0.506	0.167				
2,3,4,6,7,8-HxCDF	3.84	-	J	0.384	0.167				
1,2,3,7,8,9-HxCDF	ND	1.02		-	0.185	Total TCDF	8.59	-	D,M
1,2,3,4,6,7,8-HpCDF	58.7	-		0.587	0.251	Total PeCDF	26.5	-	D,M
1,2,3,4,7,8,9-HpCDF	5.63	-	J	0.0563	0.280	Total HxCDF	119	-	D,M
OCDF	151	-		0.0453	0.451	Total HpCDF	175	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	89.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	89.3	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	91.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	89.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.2	23.0 - 140	
13C-OCDD	99.9	17.0 - 157	
13C-2,3,7,8-TCDF	89.8	24.0 - 169	
13C-1,2,3,7,8-PeCDF	90.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	90.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	87.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	88.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	93.0	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	95.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	93.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	96.0	26.0 - 138	
13C-OCDF	98.7	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 85.7 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: 4/22/10

Reviewed By: [Signature]
Date: 4/23/10

EPA Method 1613
PCDD/F



FAL ID: 6090-002-SA
Client ID: CB4857040810COMP
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: 04-13-2010
Amount: 0.973 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 4.52

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.12		-	0.212				
1,2,3,7,8-PeCDD	ND	1.17		-	0.302				
1,2,3,4,7,8-HxCDD	1.93	-	J	0.193	0.328				
1,2,3,6,7,8-HxCDD	5.28	-	J	0.528	0.381	Total TCDD	ND	1.12	
1,2,3,7,8,9-HxCDD	3.80	-	J	0.380	0.351	Total PeCDD	ND	1.17	
1,2,3,4,6,7,8-HpCDD	149	-	-	1.49	0.495	Total HxCDD	27.6	-	
OCDD	1200	-	-	0.360	1.02	Total HpCDD	246	-	
2,3,7,8-TCDF	ND	0.466		-	0.112				
1,2,3,7,8-PeCDF	ND	0.905		-	0.219				
2,3,4,7,8-PeCDF	ND	0.933		-	0.232				
1,2,3,4,7,8-HxCDF	5.72	-	J	0.572	0.162				
1,2,3,6,7,8-HxCDF	3.27	-	J	0.327	0.167				
2,3,4,6,7,8-HxCDF	2.53	-	J	0.253	0.167				
1,2,3,7,8,9-HxCDF	ND	0.765		-	0.185	Total TCDF	8.42	-	D,M
1,2,3,4,6,7,8-HpCDF	35.5	-	-	0.355	0.251	Total PeCDF	17.5	-	D,J,M
1,2,3,4,7,8,9-HpCDF	3.74	-	J	0.0374	0.280	Total HxCDF	74.7	-	D,M
OCDF	86.4	-	-	0.0259	0.451	Total HpCDF	100	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	83.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	85.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	83.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	81.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	83.6	23.0 - 140	
13C-OCDD	90.6	17.0 - 157	
13C-2,3,7,8-TCDF	82.8	24.0 - 169	
13C-1,2,3,7,8-PeCDF	83.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	85.9	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	80.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	79.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	83.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	85.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	83.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	87.7	26.0 - 138	
13C-OCDF	88.9	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	86.4	35.0 - 197
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Analyst: [Signature]

Date: 4/22/10

Reviewed By: [Signature]

Date: 4/22/10

EPA Method 1613
PCDD/F



FAL ID: 6090-003-SA
Client ID: CB1040810COMP
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: 04-13-2010
Amount: 1.043 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 0.0975

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.15		-	0.212				
1,2,3,7,8-PeCDD	ND	0.730		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.16		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.41		-	0.381	Total TCDD	ND	1.15	
1,2,3,7,8,9-HxCDD	ND	1.25		-	0.351	Total PeCDD	ND	0.730	
1,2,3,4,6,7,8-HpCDD	6.99	-	J	0.0699	0.495	Total HxCDD	ND	1.41	
OCDD	33.5	-	J	0.0100	1.02	Total HpCDD	15.0	-	J
2,3,7,8-TCDF	ND	0.467		-	0.112				
1,2,3,7,8-PeCDF	ND	0.464		-	0.219				
2,3,4,7,8-PeCDF	ND	0.501		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.791		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.814		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.821		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.874		-	0.185	Total TCDF	ND	0.467	
1,2,3,4,6,7,8-HpCDF	1.67	-	J	0.0167	0.251	Total PeCDF	ND	0.501	
1,2,3,4,7,8,9-HpCDF	ND	0.380		-	0.280	Total HxCDF	ND	0.874	
OCDF	2.97	-	J	0.000891	0.451	Total HpCDF	2.96	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	81.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	79.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	78.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	79.0	23.0 - 140	
13C-OCDD	80.5	17.0 - 157	
13C-2,3,7,8-TCDF	79.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	79.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	77.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	76.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	77.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	78.7	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	79.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	80.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	81.7	26.0 - 138	
13C-OCDF	79.1	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	89.1	35.0 - 197
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Analyst: [Signature]
Date: 4/22/10

Reviewed By: [Signature]
Date: 4/23/10

- 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: 6090-004-SA
Client ID: CB100040810COMP
Matrix: Aqueous
Batch No: X1992

Date Extracted: 04-20-2010
Date Received: 04-13-2010
Amount: 1.011 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-21-2010
2005 WHO TEQ: 8.40

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.19		-	0.212				
1,2,3,7,8-PeCDD	ND	1.80		-	0.302				
1,2,3,4,7,8-HxCDD	3.27	-	J	0.327	0.328				
1,2,3,6,7,8-HxCDD	9.00	-	J	0.900	0.381	Total TCDD	ND	1.19	
1,2,3,7,8,9-HxCDD	6.64	-	J	0.664	0.351	Total PeCDD	ND	1.80	
1,2,3,4,6,7,8-HpCDD	290	-		2.90	0.495	Total HxCDD	49.9	-	
OCDD	2560	-		0.768	1.02	Total HpCDD	486	-	
2,3,7,8-TCDF	ND	0.400		-	0.112				
1,2,3,7,8-PeCDF	ND	1.24		-	0.219				
2,3,4,7,8-PeCDF	ND	1.27		-	0.232				
1,2,3,4,7,8-HxCDF	10.8	-	J	1.08	0.162				
1,2,3,6,7,8-HxCDF	5.15	-	J	0.515	0.167				
2,3,4,6,7,8-HxCDF	4.57	-	J	0.457	0.167				
1,2,3,7,8,9-HxCDF	ND	1.11		-	0.185	Total TCDF	7.94	-	D,M
1,2,3,4,6,7,8-HpCDF	66.9	-		0.669	0.251	Total PeCDF	27.5	-	D,M
1,2,3,4,7,8,9-HpCDF	6.48	-	J	0.0648	0.280	Total HxCDF	122	-	D,M
OCDF	168	-		0.0504	0.451	Total HpCDF	198	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	87.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	86.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	86.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	86.6	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	83.7	23.0 - 140	
13C-OCDD	92.7	17.0 - 157	
13C-2,3,7,8-TCDF	87.6	24.0 - 169	
13C-1,2,3,7,8-PeCDF	86.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	89.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	82.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	81.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	87.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	89.7	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	86.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	90.4	26.0 - 138	
13C-OCDF	89.7	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	88.3	35.0 - 197
-------------------	------	------------

Analyst: [Signature]
Date: 4/22/10

Reviewed By: [Signature]
Date: 4/23/10



Analytical Resources, Incorporated
Analytical Chemists and Consultants

May 18, 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: QU08

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.

Susan D. Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QU08

SD/co

**Chain of Custody
Documentation**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

Port of Seattle

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)



Date: 4/22/10
Page: 1 of 1
No. of Coolers: 1
Cooler Temps: 20.8

ARI Assigned Number: QU08
Turn-around Requested: STANDARD
ARI Client Company: FLOYD/SNIDER
Phone: (206) 292-2078
Client Contact: Megan McCreegan / Matt Weisman
Client Project Name: LORRA LAKES APPE
Client Project #: 66A-Pes

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested				Notes/Comments
					PAH B270-SIM LOW LEVEL	PCP	ARSENIC 707+DSS	TSS 2008	
CB31042110COMP	04/21/10		W	1	X	X	X	X	PH MEASUREMENTS (SEE ATTACHED MEAS47)
CB1042110COMP	04/21/10		W	1	X	X	X	X	6.22
CB4857042110COMP	04/21/10		W	1	X	X	X	X	6.51
CB1042110COMP	04/21/10		W	1	X	X	X	X	6.63 6.45

* RUN
← MS/MSD

Comments/Special Instructions

Relinquished by: [Signature] Peteron
Printed Name: Peteron
Company: ARI
Date & Time: 4/22/10 10:57

Received by: [Signature] J. Peterson
Printed Name: J. Peterson
Company: ARI
Date & Time: 4/22/10 10:57

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: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDAP/SE/SP/MS protocol will be stored frozen for up to one year and then discarded.

* MS/MSD VOL. DOES NOT INCLUDE EXTRA VOL. FOR DIXON/FURER ANALYSIS

POS STIA Stormwater Monitoring Program
pH measurement worksheet

Project: POS - LORU LAKES APTS.

Date 04/21/10
Staff B. KWASNOWSKI

pH meter make/model # THERMO SCIENTIFIC ORION 2 STAR

(meter calibration and maintenance to be kept in log book for meter)

Sample ID	pH (SU)	time of measurement	notes
<u>CB31042110 COMP</u>	<u>6.22</u>	<u>16:12</u>	
<u>CB1042110 COMP</u>	<u>6.51</u>	<u>16:30</u>	
<u>CB4857042110 COMP</u>	<u>6.22</u>	<u>16:12</u>	
<u>CB101042110 COMP</u>	<u>6.45</u>	<u>16:05</u>	
<u>CB4857042110 COMP</u>	<u>6.63</u>	<u>16:20</u>	

Post-Measurement Check

Nominal pH value of standard	<u>4.00</u>
Temperature (deg C)	<u>37.9 20°C</u>
Standard pH, temp corrected	<u>3.99</u>
Meter pH reading (SU)	<u>4.00</u>
Difference (SU)	<u>0.01</u>
Time	<u>16:35</u>

Should be < 0.1 (round to 0.0)

Form to be included in storm file, as applicable



Cooler Receipt Form

ARI Client: POS^{AV} Floyd Snider
 COC No(s): _____ (NA)
 Assigned ARI Job No: QU08

Project Name: Lora Lake Apts
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 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)..... 2.8 3.9
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952

Cooler Accepted by: JP Date: 4/22/10 Time: 1057

Complete custody forms and attach all shipping documents

Log-In Phase:


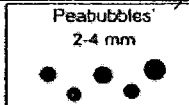
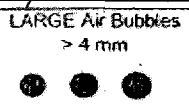
Was a temperature blank included in the cooler? YES (NO)
 What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA (YES) NO
 Were all bottles sealed in individual plastic bags? YES (NO)
 Did all bottles 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)
 Was Sample Split by ARI : NA (YES) Date/Time: 4/23/10 10⁰⁰ Equipment: Teflon Churn Split by: AV/MM

Samples Logged by: AV Date: 4/23/10 Time: 1035

**** 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:
MS/MSD Volume on CB10421100comp not CB48570421100comp.
Dioxins not requested on C.O.C, volume was split.
 By: AV Date: 4/23/10 NO TIMES on COC 4/23/10

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



ARI Job No: QU08

PC: Sue D.

VTSR: 04/22/10

Inquiry Number: NONE
 Analysis Requested: 04/23/10

Contact: Woltman, Matt

Client: Floyd/Snider

Logged by: AV

Sample Set Used: Yes-481

Validatable Package: No

Deliverables:

Project #: LLA-POS
 Project: Lora Lakes Apartments
 Sample Site:
 SDG No:
 Analytical Protocol: In-house

X

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET DOC FLT FLT	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/ BY
10-10294 QU08A	CB31A042110COMP						TOT PS													
10-10295 QU08B	CB1042110COMP						TOT													
10-10296 QU08C	CB4857042110COMP						TOT													
10-10297 QU08D	CB101042110COMP						TOT													
10-10298 QU08E	CB31A042110COMP						DIS NP									N				
10-10299 QU08F	CB1042110COMP						DIS									N				
10-10300 QU08G	CB4857042110COMP						DIS									N				
10-10301 QU08H	CB101042110COMP						DIS									N				

NP= Not preserved or filtered

QU08 : 000006

Checked By AV Date 4/23/10

Case Narrative

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.



Case Narrative

Client: Floyd Snider
Project: Lora Lake Apartments, POS-LLA
Matrix: Water
ARI Job No.: QU08

Sample receipt

Analytical Resources, Inc. (ARI) accepted four water samples on April 22, 2010 under ARI job QU08. The cooler temperatures measured by IR thermometer following ARI SOP were 2.8 and 3.9°C. For details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The four composite samples were split for each laboratory using a Teflon churn splitter. The churn splitter was cleaned between each sample using the QAPP protocol.

Dioxin/Furan analyses were subcontracted to Frontier Analytical Laboratory in El Dorado Hills, CA. The Frontier report is included here in its entirety.

SIM Semivolatiles by SW8270

The samples were extracted and analyzed within the method recommended holding times. Due to limited volumes, the MS/MSD for sample **CB1042110COMP** were analyzed using splits of any remaining sample volume.

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.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

Pentachlorophenol by SW8041

The samples were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within limits for the target compound.

The surrogate percent recoveries were within control limits.



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.

Total and Dissolved Arsenic by EPA 200.8

The samples were digested and analyzed within the method recommended holding time.

The method blanks were clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

General Chemistry (TSS)

The samples were prepared and analyzed within the method recommended holding time.

The method blank was clean at the reporting limit. The LCS percent recovery was within control limits.

The replicate RPD was within the control limit.



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 ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 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



- 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

SURR SOLUTIONS

4/3/2010

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1706-2	ABN	100/150	MEOH	07/30/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C	1705-4	SIM ABN	25/37.5	MEOH	03/08/11
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	1707-2	1,4DIOXANE	100	MEOH	03/19/11
H	1723-2	OP-PEST	25	MEOH	04/02/11
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	1699-1	TPH	450	MECL2	07/02/10
P	1707-4	HCID	2250	MECL2	07/02/10
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	01/13/11
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					

LCS SOLUTIONS

4/3/2010

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1716-1	PCB 1660	20	ACETONE	03/30/11
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1705-3	PEST	02/04/20	ACETONE	03/08/11
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1702-2	PCP	12.5/125	ACETONE	02/18/11
7	1705-1	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	1698-2	ABN ACID	100/200	MECL2	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1698-1	ABN BASE	200	MEOH	07/24/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15	1716-2	SIM PNA	15/75	MEOH	03/30/11
16	1707-1	DIOXANE	100	MEOH	11/05/10
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	1702-4	HERB	12.5/12500	MEOH	04/17/10
23	1706-1	LW ABN BASE	20	MEOH	03/08/11
24	1696-1	LOW ABN	10	ACETONE	01/13/11
25#	1481-1	DIPHENYL	100	MEOH	NA
26	1723-3	OP-PEST	25	MEOH	11/20/10
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

LCS SOLUTIONS

4/3/2010

31	1707-3	TERPINEOL	100	MEOH	03/19/11
32	1619-3	GUAIACOL	50-200	ACETONE	04/30/10
33	1639-3	RETENE	100	MEOH	09/03/10
34	1633-1	CONGENERES	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	1696-3	DDTS	2.5	ACETONE	06/03/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
53	1703-3	DALAPON	50	MEOH	09/11/10
54	1701-2	PBDE	0.5	ACETONE	02/10/11
#=PROJECT SPECIFIC SOLUTION					
*=REVERIFIED SOLUTION					



**Spike Recovery Control Limits for Polycyclic Aromatic Hydrocarbons
Selected Ion Monitoring (SIM) EPA Method SW-846-8270D-Modified
Low Level Aqueous Samples^(1,7)
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>

Sample Volume / Final Volume	500 mL to 0.5 mL	
	Control Limits	ME Limits ⁽²⁾
LCS Spike Recovery ⁽⁶⁾		
Napthalene	41 - 101	31 - 111
2-Methylnapthalene	47 - 100	39 - 103
1-Methylnapthalene	30 - 160 ⁽³⁾	30 - 160 ⁽³⁾
Acenaphthylene	35 - 100	25 - 104
Acenaphthene	43 - 104	33 - 114
Dibenzofuran	37 - 100	27 - 108
Fluorene	51 - 103	42 - 112
Phenanthrene	55 - 109	46 - 118
Anthracene	30 - 101	18 - 113
Fluoranthene	49 - 123	37 - 135
Pyrene	48 - 120	36 - 132
Benz(a)anthracene	43 - 113	31 - 125
Chrysene	59 - 112	50 - 121
Benzo(b)fluoranthene	44 - 121	31 - 134
Benzo(k)fluoranthene	50 - 117	39 - 128
Benzo(a)pyrene	10 - 100	10 - 109
Indeno(1,2,3-cd)pyrene	43 - 112	32 - 124
Dibenzo(a,h)anthracene	42 - 114	30 - 126
Benzo(g,h,i)perylene	31 - 118	17 - 133
MB / LCS Surrogate Recovery		
d10-2-Methylnaphthalene	42 - 100	(4)
d14-Dibenzo(a,h)anthracene	40 - 125	(4)
Sample Surrogate Recovery		
d10-2-Methylnaphthalene	31 - 109	(4)
d14-Dibenzo(a,h)anthracene	10 - 133	(4)

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 through 12/1/08.

(2) **ME** = A **marginal exceedance** defined in the NELAC Standard ⁽⁵⁾ 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 one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.

(3) 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.

(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) 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.

(7) 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.



Spike Recovery Control Limits Analysis of PCB / Aroclors in Aqueous Samples - EPA SW-846 Methods 8081 & 8082^(1,2) 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				
Analytical Method:	Standard Analysis	MTCA Analysis	Low Level Analysis	Manchester Extraction
Sample Weight / Final Volume:	500 / 5 mL	500 / 1 mL	1000 / 0.5 mL	3000 / 1 mL
LCS Spike Recovery⁽⁴⁾				
Aroclor 1016	45 - 121	36 - 100	44 - 117	30 - 160 ⁽³⁾
Aroclor 1260	54 - 129	41 - 113	46 - 131	30 - 160 ⁽³⁾
Method Blank/LCS Surrogate Recovery				
Tetrachloro- <i>meta</i> -xylene (TCMX)	40 - 118	29 - 100	31 - 100	30 - 160 ⁽³⁾
Decachlorobiphenyl	41 - 111	35 - 116	32 - 108	30 - 160 ⁽³⁾
Sample Surrogate Recovery				
Tetrachloro- <i>meta</i> -xylene (TCMX)	38 - 118	25 - 100	21 - 100	30 - 160 ⁽³⁾
Decachlorobiphenyl	29 - 118	10 - 128	19 - 111	30 - 160 ⁽³⁾

(1) Control Limits calculated using all data generated 1/1/08 through 12/1/08.

(2) 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.

(3) 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.

(4) 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.



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%



Spike Recovery Control Limits for Conventional Wet Chemistry 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 Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% 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
Duplicate RPDs		
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: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08


**prepared
by**

Analytical Resources, Inc.

SIM SEMIVOLATILE ANALYSIS

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB31A042110COMP
SAMPLE

Lab Sample ID: QU08A
LIMS ID: 10-10294
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 15:24
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.012
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.028
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.061
129-00-0	Pyrene	0.010	0.056
56-55-3	Benzo (a) anthracene	0.010	0.015
218-01-9	Chrysene	0.010	0.040
205-99-2	Benzo (b) fluoranthene	0.010	0.022
207-08-9	Benzo (k) fluoranthene	0.010	0.022
50-32-8	Benzo (a) pyrene	0.010	0.018
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.014
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.022
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatle Surrogate Recovery

d10-2-Methylnaphthalene 56.0%
d14-Dibenzo(a,h)anthracene 48.3%

ORGANICS ANALYSIS DATA SHEET

PNA's by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: CB1042110COMP

SAMPLE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized:

Reported: 04/30/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/27/10

Date Analyzed: 04/29/10 15:48

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 56.3%
d14-Dibenzo(a,h)anthracene 47.3%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

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Sample ID: CB4857042110COMP

SAMPLE

Lab Sample ID: QU08C

LIMS ID: 10-10296

Matrix: Water

Data Release Authorized: 

Reported: 04/30/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/27/10

Date Analyzed: 04/29/10 16:59

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.011
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.024
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.046
129-00-0	Pyrene	0.010	0.042
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	0.026
205-99-2	Benzo(b)fluoranthene	0.010	0.014
207-08-9	Benzo(k)fluoranthene	0.010	0.014
50-32-8	Benzo(a)pyrene	0.010	0.011
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	0.011
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	0.018
132-64-9	Dibenzofuran	0.010	< 0.010 U


Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 60.0%
d14-Dibenzo(a,h)anthracene 59.0%

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
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Sample ID: CB101042110COMP
SAMPLE

Lab Sample ID: QU08D
LIMS ID: 10-10297
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 17:22
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.011
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.028
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.057
129-00-0	Pyrene	0.010	0.052
56-55-3	Benzo (a) anthracene	0.010	0.010
218-01-9	Chrysene	0.010	0.036
205-99-2	Benzo (b) fluoranthene	0.010	0.020
207-08-9	Benzo (k) fluoranthene	0.010	0.020
50-32-8	Benzo (a) pyrene	0.010	0.018
193-39-5	Indeno (1,2,3-cd)pyrene	0.010	0.012
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.021
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatle Surrogate Recovery

d10-2-Methylnaphthalene 63.3%
d14-Dibenzo (a,h) anthracene 55.3%

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
CB31A042110COMP	56.0%	48.3%	0
MB-042710	62.0%	50.0%	0
LCS-042710	62.7%	61.7%	0
LCSD-042710	60.0%	62.3%	0
CB1042110COMP	56.3%	47.3%	0
CB1042110COMP MS	56.0%	55.7%	0
CB1042110COMP MSD	53.7%	56.7%	0
CB4857042110COMP	60.0%	59.0%	0
CB101042110COMP	63.3%	55.3%	0

LCS/MB LIMITS QC LIMITS

(MNP) = d10-2-Methylnaphthalene (42-100) (31-109)
(DBA) = d14-Dibenzo(a,h)anthracene (40-125) (10-133)

Prep Method: SW3520C
Log Number Range: 10-10294 to 10-10297

ORGANICS ANALYSIS DATA SHEET
PNA's by Low Level SW8270D-SIM GC/MS
 Page 1 of 1

Sample ID: CB1042110COMP
MATRIX SPIKE

Lab Sample ID: QU08B
 LIMS ID: 10-10295
 Matrix: Water
 Data Release Authorized: *[Signature]*
 Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 Event: LLA-POS
 Date Sampled: 04/21/10
 Date Received: 04/22/10

Date Extracted MS/MSD: 04/27/10
 Date Analyzed MS: 04/29/10 16:11
 MSD: 04/29/10 16:35
 Instrument/Analyst MS: NT2/PK
 MSD: NT2/PK

Sample Amount MS: 310 mL
 MSD: 310 mL
 Final Extract Volume MS: 0.50 mL
 MSD: 0.50 mL
 Dilution Factor MS: 1.00
 MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	< 0.0100 U	0.276	0.484	57.0%	0.271	0.484	56.0%	1.8%
2-Methylnaphthalene	< 0.0100 U	0.272	0.484	56.2%	0.276	0.484	57.0%	1.5%
1-Methylnaphthalene	< 0.0100 U	0.269	0.484	55.6%	0.256	0.484	52.9%	5.0%
Acenaphthylene	< 0.0100 U	0.271	0.484	56.0%	0.267	0.484	55.2%	1.5%
Acenaphthene	< 0.0100 U	0.293	0.484	60.5%	0.283	0.484	58.5%	3.5%
Fluorene	< 0.0100 U	0.310	0.484	64.0%	0.301	0.484	62.2%	2.9%
Phenanthrene	< 0.0100 U	0.346	0.484	71.5%	0.330	0.484	68.2%	4.7%
Anthracene	< 0.0100 U	0.330	0.484	68.2%	0.320	0.484	66.1%	3.1%
Fluoranthene	< 0.0100 U	0.376	0.484	77.7%	0.364	0.484	75.2%	3.2%
Pyrene	< 0.0100 U	0.372	0.484	76.9%	0.367	0.484	75.8%	1.4%
Benzo(a)anthracene	< 0.0100 U	0.348	0.484	71.9%	0.345	0.484	71.3%	0.9%
Chrysene	< 0.0100 U	0.388	0.484	80.2%	0.384	0.484	79.3%	1.0%
Benzo(b)fluoranthene	< 0.0100 U	0.310	0.484	64.0%	0.311	0.484	64.3%	0.3%
Benzo(k)fluoranthene	< 0.0100 U	0.330	0.484	68.2%	0.326	0.484	67.4%	1.2%
Benzo(a)pyrene	< 0.0100 U	0.275	0.484	56.8%	0.285	0.484	58.9%	3.6%
Indeno(1,2,3-cd)pyrene	< 0.0100 U	0.259	0.484	53.5%	0.261	0.484	53.9%	0.8%
Dibenz(a,h)anthracene	< 0.0100 U	0.280	0.484	57.9%	0.274	0.484	56.6%	2.2%
Benzo(g,h,i)perylene	< 0.0100 U	0.270	0.484	55.8%	0.268	0.484	55.4%	0.7%
Dibenzofuran	< 0.0100 U	0.298	0.484	61.6%	0.285	0.484	58.9%	4.5%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

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Sample ID: CB1042110COMP

MATRIX SPIKE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 04/30/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/27/10

Date Analyzed: 04/29/10 16:11

Instrument/Analyst: NT2/PK

Sample Amount: 310 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.016	---
91-57-6	2-Methylnaphthalene	0.016	---
90-12-0	1-Methylnaphthalene	0.016	---
208-96-8	Acenaphthylene	0.016	---
83-32-9	Acenaphthene	0.016	---
86-73-7	Fluorene	0.016	---
85-01-8	Phenanthrene	0.016	---
120-12-7	Anthracene	0.016	---
206-44-0	Fluoranthene	0.016	---
129-00-0	Pyrene	0.016	---
56-55-3	Benzo(a)anthracene	0.016	---
218-01-9	Chrysene	0.016	---
205-99-2	Benzo(b)fluoranthene	0.016	---
207-08-9	Benzo(k)fluoranthene	0.016	---
50-32-8	Benzo(a)pyrene	0.016	---
193-39-5	Indeno(1,2,3-cd)pyrene	0.016	---
53-70-3	Dibenz(a,h)anthracene	0.016	---
191-24-2	Benzo(g,h,i)perylene	0.016	---
132-64-9	Dibenzofuran	0.016	---

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 56.0%
d14-Dibenzo(a,h)anthracene 55.7%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

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Sample ID: CB1042110COMP

MATRIX SPIKE DUPLICATE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 04/30/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/27/10

Date Analyzed: 04/29/10 16:35

Instrument/Analyst: NT2/PK

Sample Amount: 310 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.016	---
91-57-6	2-Methylnaphthalene	0.016	---
90-12-0	1-Methylnaphthalene	0.016	---
208-96-8	Acenaphthylene	0.016	---
83-32-9	Acenaphthene	0.016	---
86-73-7	Fluorene	0.016	---
85-01-8	Phenanthrene	0.016	---
120-12-7	Anthracene	0.016	---
206-44-0	Fluoranthene	0.016	---
129-00-0	Pyrene	0.016	---
56-55-3	Benzo(a)anthracene	0.016	---
218-01-9	Chrysene	0.016	---
205-99-2	Benzo(b)fluoranthene	0.016	---
207-08-9	Benzo(k)fluoranthene	0.016	---
50-32-8	Benzo(a)pyrene	0.016	---
193-39-5	Indeno(1,2,3-cd)pyrene	0.016	---
53-70-3	Dibenz(a,h)anthracene	0.016	---
191-24-2	Benzo(g,h,i)perylene	0.016	---
132-64-9	Dibenzofuran	0.016	---

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 53.7%
d14-Dibenzo(a,h)anthracene 56.7%

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: LCS-042710
LAB CONTROL SAMPLE

Lab Sample ID: LCS-042710
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 04/27/10
Date Analyzed LCS: 04/29/10 13:03
LCSD: 04/29/10 13:26
Instrument/Analyst LCS: NT2/PK
LCSD: NT2/PK

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	0.181	0.300	60.3%	0.183	0.300	61.0%	1.1%
2-Methylnaphthalene	0.188	0.300	62.7%	0.189	0.300	63.0%	0.5%
1-Methylnaphthalene	0.181	0.300	60.3%	0.177	0.300	59.0%	2.2%
Acenaphthylene	0.162	0.300	54.0%	0.154	0.300	51.3%	5.1%
Acenaphthene	0.199	0.300	66.3%	0.191	0.300	63.7%	4.1%
Fluorene	0.206	0.300	68.7%	0.195	0.300	65.0%	5.5%
Phenanthrene	0.214	0.300	71.3%	0.204	0.300	68.0%	4.8%
Anthracene	0.173	0.300	57.7%	0.182	0.300	60.7%	5.1%
Fluoranthene	0.239	0.300	79.7%	0.235	0.300	78.3%	1.7%
Pyrene	0.234	0.300	78.0%	0.232	0.300	77.3%	0.9%
Benzo(a)anthracene	0.216	0.300	72.0%	0.217	0.300	72.3%	0.5%
Chrysene	0.259	0.300	86.3%	0.256	0.300	85.3%	1.2%
Benzo(b)fluoranthene	0.207	0.300	69.0%	0.203	0.300	67.7%	2.0%
Benzo(k)fluoranthene	0.231	0.300	77.0%	0.224	0.300	74.7%	3.1%
Benzo(a)pyrene	0.151	0.300	50.3%	0.161	0.300	53.7%	6.4%
Indeno(1,2,3-cd)pyrene	0.181	0.300	60.3%	0.182	0.300	60.7%	0.6%
Dibenz(a,h)anthracene	0.189	0.300	63.0%	0.187	0.300	62.3%	1.1%
Benzo(g,h,i)perylene	0.180	0.300	60.0%	0.182	0.300	60.7%	1.1%
Dibenzofuran	0.200	0.300	66.7%	0.187	0.300	62.3%	6.7%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
d10-2-Methylnaphthalene	62.7%	60.0%
d14-Dibenzo(a,h)anthracene	61.7%	62.3%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QU08MBW1

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QU08
 Lab File ID: 042905
 Instrument ID: NT2
 Matrix: LIQUID

Client: FLOYD/SNIDER
 Project: LORA LAKES APARTMENT
 Date Extracted: 04/27/10
 Date Analyzed: 04/29/10
 Time Analyzed: 1239

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	QU08LCSW1	QU08LCSW1	042906	04/29/10
02	QU08LCSDW1	QU08LCSDW1	042907	04/29/10
03	CB31A042110COMP	QU08A	042912	04/29/10
04	CB1042110COMP	QU08B	042913	04/29/10
05	CB1042110COMP MS	QU08BMS	042914	04/29/10
06	CB1042110COMP MS	QU08BMSD	042915	04/29/10
07	CB4857042110COMP	QU08C	042916	04/29/10
08	CB101042110COMP	QU08D	042917	04/29/10
09				
10				
11				
12				
13				
14				
15				
16				
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25				
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27				
28				
29				
30				

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
 Page 1 of 1

Sample ID: MB-042710
METHOD BLANK

Lab Sample ID: MB-042710
 LIMS ID: 10-10295
 Matrix: Water
 Data Release Authorized: *AB*
 Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 Event: LLA-POS
 Date Sampled: NA
 Date Received: NA

Date Extracted: 04/27/10
 Date Analyzed: 04/29/10 12:39
 Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
 Final Extract Volume: 0.5 mL
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	62.0%
d14-Dibenzo(a,h)anthracene	50.0%

PCP/CHLOROPHENOLS ANALYSIS

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: CB31A042110COMP

SAMPLE

Lab Sample ID: QU08A

LIMS ID: 10-10294

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 18:48

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.64

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	55.2%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB1042110COMP

SAMPLE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: *AS*

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 19:08

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	53.6%
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ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB4857042110COMP
SAMPLE

Lab Sample ID: QU08C
LIMS ID: 10-10296
Matrix: Water
Data Release Authorized: *AS*
Reported: 05/04/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/26/10
Date Analyzed: 04/30/10 20:08
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.55


Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol 57.6%

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB101042110COMP
SAMPLE

Lab Sample ID: QU08D
LIMS ID: 10-10297
Matrix: Water
Data Release Authorized: 
Reported: 05/04/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/26/10
Date Analyzed: 04/30/10 20:28
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.51

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	55.6%
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SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
CB31A042110COMP	55.2%	0
MB-042610	63.6%	0
LCS-042610	56.4%	0
CB1042110COMP	53.6%	0
CB1042110COMP MS	54.2%	0
CB1042110COMP MSD	55.4%	0
CB4857042110COMP	57.6%	0
CB101042110COMP	55.6%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol

(40-130)

(11-156)

Prep Method: SW3510C
Log Number Range: 10-10294 to 10-10297

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1042110COMP
MS/MSD

Lab Sample ID: QU08B
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: *BB*
Reported: 05/04/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted MS/MSD: 04/26/10
Date Analyzed MS: 04/30/10 19:28
MSD: 04/30/10 19:48
Instrument/Analyst MS: ECD1/AAR
MSD: ECD1/AAR

Sample Amount MS: 500 mL
MSD: 500 mL
Final Extract Volume MS: 50 mL
MSD: 50 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	< 0.25 U	1.90	2.50	76.0%	1.98	2.50	79.2%	4.1%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: CB1042110COMP

MATRIX SPIKE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 19:28

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---


Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	54.2%
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ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1042110COMP
MATRIX SPIKE DUP

Lab Sample ID: QU08B
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: 
Reported: 05/04/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/26/10
Date Analyzed: 04/30/10 19:48
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---
Reported in µg/L (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	55.4%	

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: LCS-042610
LAB CONTROL

Lab Sample ID: LCS-042610
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: *BS*
Reported: 05/04/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/26/10
Date Analyzed: 04/30/10 18:28
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	2.05	2.50	82.0%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol	56.4%
----------------------	-------

Results reported in µg/L

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QU08MBW1

Lab Name: ANALYTICAL RESOURCES, INC	Client: FLOYD/SNIDER
ARI Job No.: QU08	Project: LORA LAKES APARTMENTS
Lab Sample ID: QU08MBW1	Lab File ID: 0430A027
Matrix (soil/water) LIQUID	Extraction: (SepF/Cont/Sonc) SW3510C
Sulfur Cleanup (Y/N) Y	Date Extracted: 04/26/10
Date Analyzed (1): 04/30/10	Date Analyzed (2): 04/30/10
Time Analyzed (1): 1808	Time Analyzed (2): 1808
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	QU08LCSW1	QU08LCSW1	04/30/10	04/30/10
02	CB31A042110C	QU08A	04/30/10	04/30/10
03	CB1042110COM	QU08B	04/30/10	04/30/10
04	CB1042110COM	QU08BMS	04/30/10	04/30/10
05	CB1042110COM	QU08BMSD	04/30/10	04/30/10
06	CB4857042110	QU08C	04/30/10	04/30/10
07	CB101042110C	QU08D	04/30/10	04/30/10

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: MB-042610

METHOD BLANK

Lab Sample ID: MB-042610

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: NA

Date Received: NA

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 18:08

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	63.6%
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METALS ANALYSIS

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1


Sample ID: CB31A042110COMP

SAMPLE

Lab Sample ID: QU08A

LIMS ID: 10-10294

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.5	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: CB1042110COMP
SAMPLE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.4	


U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB1042110COMP
MATRIX SPIKE

Lab Sample ID: QU08B
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.380	26.9	25.0	106%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: CB1042110COMP
DUPLICATE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.4	0.4	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met


L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB4857042110COMP
SAMPLE

Lab Sample ID: QU08C
LIMS ID: 10-10296
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

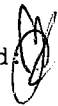
Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.6	

U-Analyte undetected at given RL
RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET
 TOTAL METALS
 Page 1 of 1

Sample ID: CB101042110COMP
 SAMPLE

Lab Sample ID: QU08D
 LIMS ID: 10-10297
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/21/10
 Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.7	

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: QU08LCS


QC Report No: QU08-Floyd/Snider

LIMS ID: 10-10294

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized 

Date Sampled: NA

Reported: 05/12/10

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.6	25.0	102%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QU08MB

LIMS ID: 10-10294

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: NA


Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB31A042110COMP
SAMPLE

Lab Sample ID: QU08E
LIMS ID: 10-10298
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10


QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.4	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB1042110COMP
 SAMPLE

Lab Sample ID: QU08F
 LIMS ID: 10-10299
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/21/10
 Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.3	


U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Sample ID: CB1042110COMP
MATRIX SPIKE

Lab Sample ID: QU08F
LIMS ID: 10-10299
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.310	26.4	25.0	104%	

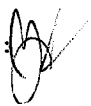
Reported in µg/L

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
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB1042110COMP
 DUPLICATE

Lab Sample ID: QU08F
 LIMS ID: 10-10299
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/21/10
 Date Received: 04/22/10

MATRIX DUPLICATE QUALITY CONTROL REPORT


Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.3	0.3	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
 L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB4857042110COMP
SAMPLE

Lab Sample ID: QU08G
 LIMS ID: 10-10300
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/21/10
 Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

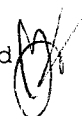
Page 1 of 1

Sample ID: CB101042110COMP
SAMPLE

Lab Sample ID: QU08H

LIMS ID: 10-10301

Matrix: Water

Data Release Authorized 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10


Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.4	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QU08LCS
 LIMS ID: 10-10298
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: NA
 Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT


Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	24.8	25.0	99.2%	

Reported in µg/L

N-Control limit not met
 Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QU08MB
LIMS ID: 10-10298
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: NA
Date Received: NA


Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

GENERAL CHEMISTRY ANALYSIS

INORGANICS ANALYSIS DATA SHEET
Total Suspended Solids by Method EPA 160.2



Data Release Authorized: 
Reported: 04/28/10
Date Received: 04/22/10
Page 1 of 1

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

Client/ ARI ID	Date Sampled	Matrix	Analysis Date & Batch	RL	Result
CB31A042110COMP QU08A 10-10294	04/21/10	Water	04/27/10 15:40 042710#1	2.2	37.2
CB1042110COMP QU08B 10-10295	04/21/10	Water	04/27/10 15:40 042710#1	1.0	6.5
CB4857042110COMP QU08C 10-10296	04/21/10	Water	04/27/10 15:40 042710#1	2.2	34.0
CB101042110COMP QU08D 10-10297	04/21/10	Water	04/27/10 15:40 042710#1	2.1	31.7

Reported in mg/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QU08-Floyd/Snider



Matrix: Water
Data Release Authorized
Reported: 04/28/10


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

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Analyte	Date	Units	Sample	Replicate (s)	RPD/RSD
ARI ID: QU08B Client ID: CB1042110COMP					
Total Suspended Solids	04/27/10	mg/L	6.5	6.9	6.0%

LAB CONTROL RESULTS-CONVENTIONALS
QU08-Floyd/Snider




Matrix: Water
Data Release Authorized: 
Reported: 04/28/10

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	LCS	Spike Added	Recovery
Total Suspended Solids	04/27/10 15:40	mg/L	49.5	50.0	99.0%

METHOD BLANK RESULTS-CONVENTIONALS
QU08-Floyd/Snider



Matrix: Water
Data Release Authorized: 
Reported: 04/28/10

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	Blank
Total Suspended Solids	04/27/10 15:40	mg/L	< 1.0 U

SUBCONTRACTED ANALYSIS

EPA Method 1613
PCDD/F



FAL ID: 6118-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.09		-	0.212				
1,2,3,7,8-PeCDD	ND	1.14		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.48		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.68		-	0.381	Total TCDD	ND	1.09	
1,2,3,7,8,9-HxCDD	ND	1.55		-	0.351	Total PeCDD	ND	1.14	
1,2,3,4,6,7,8-HpCDD	ND	3.03		-	0.495	Total HxCDD	ND	1.68	
OCDD	ND	4.75		-	1.02	Total HpCDD	ND	3.03	
2,3,7,8-TCDF	ND	0.582		-	0.112				
1,2,3,7,8-PeCDF	ND	0.836		-	0.219				
2,3,4,7,8-PeCDF	ND	0.838		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.761		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.767		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.792		-	0.167				
1,2,3,7,8,9-HxCDF	ND	1.05		-	0.185	Total TCDF	ND	0.582	
1,2,3,4,6,7,8-HpCDF	ND	1.13		-	0.251	Total PeCDF	ND	0.838	
1,2,3,4,7,8,9-HpCDF	ND	1.53		-	0.280	Total HxCDF	ND	1.05	
OCDF	ND	3.21		-	0.451	Total HpCDF	ND	1.53	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	61.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	72.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	87.2	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	52.8	23.0 - 140	
13C-OCDD	50.9	17.0 - 157	
13C-2,3,7,8-TCDF	80.0	24.0 - 169	
13C-1,2,3,7,8-PeCDF	58.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	61.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	70.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	76.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	70.6	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	57.0	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	50.2	26.0 - 138	
13C-OCDF	56.2	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	84.2	35.0 - 197
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Analyst: [Signature]
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 05-06-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	8.76	6.70 - 15.8	
1,2,3,7,8-PeCDD	45.4	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	44.5	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	43.5	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	42.1	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	53.3	35.0 - 70.0	
OCDD	103	78.0 - 144	
2,3,7,8-TCDF	9.50	7.50 - 15.8	
1,2,3,7,8-PeCDF	45.9	40.0 - 67.0	
2,3,4,7,8-PeCDF	46.2	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	41.5	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	45.9	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	41.0	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	42.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	43.9	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	43.3	39.0 - 69.0	
OCDF	87.3	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	78.3	20.0 - 175	
13C-1,2,3,7,8-PeCDD	59.0	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	68.4	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	82.2	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	50.8	26.0 - 166	
13C-OCDD	51.8	13.0 - 198	
13C-2,3,7,8-TCDF	77.1	22.0 - 152	
13C-1,2,3,7,8-PeCDF	58.1	21.0 - 192	
13C-2,3,4,7,8-PeCDF	61.3	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	65.1	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	70.3	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	75.1	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	67.0	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	56.0	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	47.0	20.0 - 186	
13C-OCDF	55.2	13.0 - 198	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	77.3	31.0 - 191	
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Analyst: JC
Date: 5/7/10

Reviewed By: J
Date: 5/7/10

- 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: 6118-001-SA
Client ID: CB31A042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.001 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 17.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.13		-	0.212				
1,2,3,7,8-PeCDD	ND	2.70		-	0.302				
1,2,3,4,7,8-HxCDD	5.35	-	J	0.535	0.328				
1,2,3,6,7,8-HxCDD	15.8	-	J	1.58	0.381	Total TCDD	ND	1.13	
1,2,3,7,8,9-HxCDD	9.17	-	J	0.917	0.351	Total PeCDD	ND	2.70	
1,2,3,4,6,7,8-HpCDD	712	-		7.12	0.495	Total HxCDD	78.8	-	
OCDD	7550	-		-2.26	1.02	Total HpCDD	1220	-	
2,3,7,8-TCDF	ND	0.745		-	0.112				
1,2,3,7,8-PeCDF	ND	1.40		-	0.219				
2,3,4,7,8-PeCDF	ND	1.47		-	0.232				
1,2,3,4,7,8-HxCDF	19.8	-	J	1.98	0.162				
1,2,3,6,7,8-HxCDF	9.28	-	J	0.928	0.167				
2,3,4,6,7,8-HxCDF	7.36	-	J	0.736	0.167				
1,2,3,7,8,9-HxCDF	ND	2.86		-	0.185	Total TCDF	18.4	-	D,M
1,2,3,4,6,7,8-HpCDF	118	-		1.18	0.251	Total PeCDF	59.4	-	D,M
1,2,3,4,7,8,9-HpCDF	12.2	-	J	0.122	0.280	Total HxCDF	252	-	D,M
OCDF	358	-		0.107	0.451	Total HpCDF	424	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	65.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	84.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	102	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	73.1	23.0 - 140	
13C-OCDD	78.7	17.0 - 157	
13C-2,3,7,8-TCDF	80.6	24.0 - 169	
13C-1,2,3,7,8-PeCDF	65.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	66.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	81.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	88.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	84.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	79.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	70.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	62.3	26.0 - 138	
13C-OCDF	75.5	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 81.9 35.0 - 197

Analyst: [Signature]
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-002-SA
Client ID: CB1042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.043 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 0.261

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.45		-	0.212				
1,2,3,7,8-PeCDD	ND	1.77		-	0.302				
1,2,3,4,7,8-HxCDD	ND	2.12		-	0.328				
1,2,3,6,7,8-HxCDD	ND	2.49		-	0.381	Total TCDD	ND	1.45	
1,2,3,7,8,9-HxCDD	ND	2.25		-	0.351	Total PeCDD	ND	1.77	
1,2,3,4,6,7,8-HpCDD	18.5	-	J	0.185	0.495	Total HxCDD	ND	2.49	
OCDD	150	-		0.0450	1.02	Total HpCDD	39.5	-	
2,3,7,8-TCDF	ND	0.904		-	0.112				
1,2,3,7,8-PeCDF	ND	1.21		-	0.219				
2,3,4,7,8-PeCDF	ND	1.27		-	0.232				
1,2,3,4,7,8-HxCDF	ND	2.48		-	0.162				
1,2,3,6,7,8-HxCDF	ND	2.47		-	0.167				
2,3,4,6,7,8-HxCDF	ND	2.59		-	0.167				
1,2,3,7,8,9-HxCDF	ND	3.31		-	0.185	Total TCDF	ND	0.904	
1,2,3,4,6,7,8-HpCDF	3.09	-	J	0.0309	0.251	Total PeCDF	ND	1.27	
1,2,3,4,7,8,9-HpCDF	ND	1.74		-	0.280	Total HxCDF	ND	3.31	
OCDF	ND	6.91		-	0.451	Total HpCDF	7.31	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	56.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	45.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	55.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	62.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	47.5	23.0 - 140	
13C-OCDD	47.7	17.0 - 157	
13C-2,3,7,8-TCDF	56.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	47.7	24.0 - 185	
13C-2,3,4,7,8-PeCDF	48.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	52.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	56.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	54.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	50.4	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	45.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	40.4	26.0 - 138	
13C-OCDF	44.7	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 60.4 35.0 - 197

Analyst: [Signature]
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

- 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: 6118-003-SA
Client ID: CB4857042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.044 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 15.0

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.34		-	0.212				
1,2,3,7,8-PeCDD	ND	2.62		-	0.302				
1,2,3,4,7,8-HxCDD	4.78	-	J	0.478	0.328				
1,2,3,6,7,8-HxCDD	14.3	-	J	1.43	0.381	Total TCDD	ND	1.34	
1,2,3,7,8,9-HxCDD	8.85	-	J	0.885	0.351	Total PeCDD	ND	2.62	
1,2,3,4,6,7,8-HpCDD	602	-		6.02	0.495	Total HxCDD	71.5	-	
OCDD	5780	-		1.73	1.02	Total HpCDD	1030	-	
2,3,7,8-TCDF	ND	1.21		-	0.112				
1,2,3,7,8-PeCDF	ND	1.98		-	0.219				
2,3,4,7,8-PeCDF	ND	2.11		-	0.232				
1,2,3,4,7,8-HxCDF	17.0	-	J	1.70	0.162				
1,2,3,6,7,8-HxCDF	8.31	-	J	0.831	0.167				
2,3,4,6,7,8-HxCDF	6.52	-	J	0.652	0.167				
1,2,3,7,8,9-HxCDF	ND	2.33		-	0.185	Total TCDF	20.5	-	D,M
1,2,3,4,6,7,8-HpCDF	109	-		1.09	0.251	Total PeCDF	52.5	-	D,M
1,2,3,4,7,8,9-HpCDF	10.6	-	J	0.106	0.280	Total HxCDF	227	-	D,M
OCDF	303	-		0.0909	0.451	Total HpCDF	364	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	57.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	45.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	59.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	65.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	50.1	23.0 - 140	
13C-OCDD	49.7	17.0 - 157	
13C-2,3,7,8-TCDF	55.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	47.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	46.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	55.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	59.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	57.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	52.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	45.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	41.3	26.0 - 138	
13C-OCDF	46.4	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 56.3 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: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-004-SA
Client ID: CB101042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.046 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 17.0

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.39		-	0.212				
1,2,3,7,8-PeCDD	ND	2.87		-	0.302				
1,2,3,4,7,8-HxCDD	5.24	-	J	0.524	0.328				
1,2,3,6,7,8-HxCDD	14.9	-	J	1.49	0.381	Total TCDD	ND	1.39	
1,2,3,7,8,9-HxCDD	9.39	-	J	0.939	0.351	Total PeCDD	ND	2.87	
1,2,3,4,6,7,8-HpCDD	683	-		6.83	0.495	Total HxCDD	76.1	-	
OCDD	7150	-		2.15	1.02	Total HpCDD	1170	-	
2,3,7,8-TCDF	ND	0.628		-	0.112				
1,2,3,7,8-PeCDF	ND	2.42		-	0.219				
2,3,4,7,8-PeCDF	ND	2.77		-	0.232				
1,2,3,4,7,8-HxCDF	19.7	-	J	1.97	0.162				
1,2,3,6,7,8-HxCDF	8.34	-	J	0.834	0.167				
2,3,4,6,7,8-HxCDF	7.12	-	J	0.712	0.167				
1,2,3,7,8,9-HxCDF	ND	2.56		-	0.185	Total TCDF	16.7	-	D,M
1,2,3,4,6,7,8-HpCDF	127	-		1.27	0.251	Total PeCDF	56.7	-	D,M
1,2,3,4,7,8,9-HpCDF	12.9	-	J	0.129	0.280	Total HxCDF	239	-	D,M
OCDF	365	-		0.110	0.451	Total HpCDF	435	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	73.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	58.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	70.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	82.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	62.3	23.0 - 140	
13C-OCDD	65.4	17.0 - 157	
13C-2,3,7,8-TCDF	72.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	63.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	60.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	66.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	70.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	70.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	66.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	60.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	53.1	26.0 - 138	
13C-OCDF	60.9	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 74.3 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: 5/7/10

Reviewed By: [Signature]

Date: 5/7/10

SUBCONTRACTOR ANALYSIS REQUEST
 CUSTODY TRANSFER 04/23/10



*6/11/8
OIC*

ARI Project: QU08

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: Lora Lakes Apartments
 ARI PM: Sue Dunnihoo
 Phone:
 Fax: 206-695-6201

Analytical Protocol: In-house
 Special Instructions:

Requested Turn Around: 05/07/10
 Email Results (Y/N): **email**

Limits of Liability. Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or 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
10-10294-QU08A	CB31A042110COMP	04/21/10	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-10295-QU08B	CB1042110COMP	04/21/10	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-10296-QU08C	CB4857042110COMP	04/21/10	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-10297-QU08D	CB101042110COMP	04/21/10	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					

L4 + EDD

Carrier UPS	Airbill 1283210950151596961	Date 4/26/10
Relinquished by <i>[Signature]</i>	Company ARI	Date 4/26/10
Received by <i>[Signature]</i>	Company Frontier Analytical	Date 4-27-10
		Time 1042
		Time 1022

Laboratory Data Package

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

**SIM Semivolatile Analysis
QC Summary Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
CB31A042110COMP	56.0%	48.3%	0
MB-042710	62.0%	50.0%	0
LCS-042710	62.7%	61.7%	0
LCSD-042710	60.0%	62.3%	0
CB1042110COMP	56.3%	47.3%	0
CB1042110COMP MS	56.0%	55.7%	0
CB1042110COMP MSD	53.7%	56.7%	0
CB4857042110COMP	60.0%	59.0%	0
CB101042110COMP	63.3%	55.3%	0

	LCS/MB LIMITS	QC LIMITS
(MNP) = d10-2-Methylnaphthalene	(42-100)	(31-109)
(DBA) = d14-Dibenzo(a,h)anthracene	(40-125)	(10-133)

Prep Method: SW3520C
Log Number Range: 10-10294 to 10-10297

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

**Sample ID: CB1042110COMP
MATRIX SPIKE**

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: *AB*

Reported: 04/30/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

Event: LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted MS/MSD: 04/27/10

Sample Amount MS: 310 mL

MSD: 310 mL

Date Analyzed MS: 04/29/10 16:11

Final Extract Volume MS: 0.50 mL

MSD: 04/29/10 16:35

MSD: 0.50 mL

Instrument/Analyst MS: NT2/PK

Dilution Factor MS: 1.00

MSD: NT2/PK

MSD: 1.00


Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	< 0.0100 U	0.276	0.484	57.0%	0.271	0.484	56.0%	1.8%
2-Methylnaphthalene	< 0.0100 U	0.272	0.484	56.2%	0.276	0.484	57.0%	1.5%
1-Methylnaphthalene	< 0.0100 U	0.269	0.484	55.6%	0.256	0.484	52.9%	5.0%
Acenaphthylene	< 0.0100 U	0.271	0.484	56.0%	0.267	0.484	55.2%	1.5%
Acenaphthene	< 0.0100 U	0.293	0.484	60.5%	0.283	0.484	58.5%	3.5%
Fluorene	< 0.0100 U	0.310	0.484	64.0%	0.301	0.484	62.2%	2.9%
Phenanthrene	< 0.0100 U	0.346	0.484	71.5%	0.330	0.484	68.2%	4.7%
Anthracene	< 0.0100 U	0.330	0.484	68.2%	0.320	0.484	66.1%	3.1%
Fluoranthene	< 0.0100 U	0.376	0.484	77.7%	0.364	0.484	75.2%	3.2%
Pyrene	< 0.0100 U	0.372	0.484	76.9%	0.367	0.484	75.8%	1.4%
Benzo(a)anthracene	< 0.0100 U	0.348	0.484	71.9%	0.345	0.484	71.3%	0.9%
Chrysene	< 0.0100 U	0.388	0.484	80.2%	0.384	0.484	79.3%	1.0%
Benzo(b)fluoranthene	< 0.0100 U	0.310	0.484	64.0%	0.311	0.484	64.3%	0.3%
Benzo(k)fluoranthene	< 0.0100 U	0.330	0.484	68.2%	0.326	0.484	67.4%	1.2%
Benzo(a)pyrene	< 0.0100 U	0.275	0.484	56.8%	0.285	0.484	58.9%	3.6%
Indeno(1,2,3-cd)pyrene	< 0.0100 U	0.259	0.484	53.5%	0.261	0.484	53.9%	0.8%
Dibenz(a,h)anthracene	< 0.0100 U	0.280	0.484	57.9%	0.274	0.484	56.6%	2.2%
Benzo(g,h,i)perylene	< 0.0100 U	0.270	0.484	55.8%	0.268	0.484	55.4%	0.7%
Dibenzofuran	< 0.0100 U	0.298	0.484	61.6%	0.285	0.484	58.9%	4.5%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: LCS-042710
LAB CONTROL SAMPLE

Lab Sample ID: LCS-042710
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 04/27/10
Date Analyzed LCS: 04/29/10 13:03
LCSD: 04/29/10 13:26
Instrument/Analyst LCS: NT2/PK
LCSD: NT2/PK

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	0.181	0.300	60.3%	0.183	0.300	61.0%	1.1%
2-Methylnaphthalene	0.188	0.300	62.7%	0.189	0.300	63.0%	0.5%
1-Methylnaphthalene	0.181	0.300	60.3%	0.177	0.300	59.0%	2.2%
Acenaphthylene	0.162	0.300	54.0%	0.154	0.300	51.3%	5.1%
Acenaphthene	0.199	0.300	66.3%	0.191	0.300	63.7%	4.1%
Fluorene	0.206	0.300	68.7%	0.195	0.300	65.0%	5.5%
Phenanthrene	0.214	0.300	71.3%	0.204	0.300	68.0%	4.8%
Anthracene	0.173	0.300	57.7%	0.182	0.300	60.7%	5.1%
Fluoranthene	0.239	0.300	79.7%	0.235	0.300	78.3%	1.7%
Pyrene	0.234	0.300	78.0%	0.232	0.300	77.3%	0.9%
Benzo(a)anthracene	0.216	0.300	72.0%	0.217	0.300	72.3%	0.5%
Chrysene	0.259	0.300	86.3%	0.256	0.300	85.3%	1.2%
Benzo(b)fluoranthene	0.207	0.300	69.0%	0.203	0.300	67.7%	2.0%
Benzo(k)fluoranthene	0.231	0.300	77.0%	0.224	0.300	74.7%	3.1%
Benzo(a)pyrene	0.151	0.300	50.3%	0.161	0.300	53.7%	6.4%
Indeno(1,2,3-cd)pyrene	0.181	0.300	60.3%	0.182	0.300	60.7%	0.6%
Dibenz(a,h)anthracene	0.189	0.300	63.0%	0.187	0.300	62.3%	1.1%
Benzo(g,h,i)perylene	0.180	0.300	60.0%	0.182	0.300	60.7%	1.1%
Dibenzofuran	0.200	0.300	66.7%	0.187	0.300	62.3%	6.7%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
d10-2-Methylnaphthalene	62.7%	60.0%
d14-Dibenzo(a,h)anthracene	61.7%	62.3%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QU08MBW1

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QU08
 Lab File ID: 042905
 Instrument ID: NT2
 Matrix: LIQUID

Client: FLOYD/SNIDER
 Project: LORA LAKES APARTMENT
 Date Extracted: 04/27/10
 Date Analyzed: 04/29/10
 Time Analyzed: 1239

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	QU08LCSW1	QU08LCSW1	042906	04/29/10
02	QU08LCSDW1	QU08LCSDW1	042907	04/29/10
03	CB31A042110COMP	QU08A	042912	04/29/10
04	CB1042110COMP	QU08B	042913	04/29/10
05	CB1042110COMP MS	QU08BMS	042914	04/29/10
06	CB1042110COMP MS	QU08BMSD	042915	04/29/10
07	CB4857042110COMP	QU08C	042916	04/29/10
08	CB101042110COMP	QU08D	042917	04/29/10
09				
10				
11				
12				
13				
14				
15				
16				
17				
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27				
28				
29				
30				

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

Instrument ID: NT2

Project: LORA LAKES APARTMENT

DFTPP Injection Date: 04/06/10

DFTPP Injection Time: 1359

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	64.8
68	Less than 2.0% of mass 69	0.6 (0.8)1
69	Mass 69 relative abundance	78.4
70	Less than 2.0% of mass 69	0.5 (0.7)1
127	10.0 - 80.0% of mass 198	65.3
197	Less than 2.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 60.0% of mass 198	23.7
365	Greater than 1.0% of mass 198	4.58
441	0.0 - 24.0% of mass 442	9.6 (13.3)2
442	50.0 - 200.0% of mass 198	71.9
443	15.0 - 24.0% of mass 442	13.6 (19.0)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		PNA 250	IC040601	04/06/10	1424
02		PNA 1000	IC040603	04/06/10	1514
03		PNA 50	IC040604	04/06/10	1538
04		PNA 500	IC040605	04/06/10	1603
05		PNA 100	IC040606	04/06/10	1627
06		PNA 10	IC040607	04/06/10	1652
07					
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: NT2

Project: LORA LAKES APARTMENT

DFTPP Injection Date: 04/29/10

DFTPP Injection Time: 0946

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	70.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	82.4
70	Less than 2.0% of mass 69	0.5 (0.6)1
127	10.0 - 80.0% of mass 198	68.2
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	22.8
365	Greater than 1.0% of mass 198	3.82
441	0.0 - 24.0% of mass 442	8.4 (14.1)2
442	50.0 - 200.0% of mass 198	59.3
443	15.0 - 24.0% of mass 442	10.7 (18.0)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		PNA 250	CC0429	04/29/10	1035
02	QU08MBW1	QU08MBW1	042905	04/29/10	1239
03	QU08LCSW1	QU08LCSW1	042906	04/29/10	1303
04	QU08LCSDW1	QU08LCSDW1	042907	04/29/10	1326
05	CB31A042110COMP	QU08A	042912	04/29/10	1524
06	CB1042110COMP	QU08B	042913	04/29/10	1548
07	CB1042110COMP MS	QU08BMS	042914	04/29/10	1611
08	CB1042110COMP MS	QU08BMSD	042915	04/29/10	1635
09	CB4857042110COMP	QU08C	042916	04/29/10	1659
10	CB101042110COMP	QU08D	042917	04/29/10	1722
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC
ARI Job No: QU08
Ical Midpoint ID: IC040601
Instrument ID: NT2

Client: FLOYD/SNIDER
Project: LORA LAKES APARTMENT
Ical Date: 04/06/10
Cont. Cal Date: 04/29/10

	IS1 (NPT) AREA #	RT #	IS2 (ANT) AREA #	RT #	IS3 (PHN) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	120808	6.63	72668	8.83	112603	10.65
UPPER LIMIT	241616		145336		225206	
LOWER LIMIT	60404		36334		56302	
=====	=====	=====	=====	=====	=====	=====
CCAL	97369	6.50	51314	8.68	84398	10.49
UPPER LIMIT		7.00		9.18		10.99
LOWER LIMIT		6.00		8.18		9.99
01 QU08MBW1	92119	6.48	51796	8.67	80832	10.49
02 QU08LCSW1	86312	6.48	49539	8.67	75179	10.49
03 QU08LCSDW1	89220	6.50	53687	8.68	81955	10.49
04 CB31A042110C	90236	6.50	52900	8.68	82449	10.49
05 CB1042110COM	87672	6.48	52167	8.67	81931	10.49
06 CB1042110COM	89916	6.48	53221	8.68	80621	10.49
07 CB1042110COM	91561	6.48	54821	8.67	84339	10.49
08 CB4857042110	96031	6.48	53021	8.67	80269	10.49
09 CB101042110C	88863	6.48	55629	8.67	85276	10.48
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

IS1 = Naphthalene-d8
IS2 = Acenaphthene-d10
IS3 = Phenanthrene-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: QU08

Project: LORA LAKES APARTMENT

Ical Midpoint ID: IC040601

Ical Date: 04/06/10

Instrument ID: NT2

Cont. Cal Date: 04/29/10

	IS4 (CRY)		IS5 (PRY)			
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	101702	13.91	87112	15.60		
UPPER LIMIT	203404		174224			
LOWER LIMIT	50851		43556			
=====	=====	=====	=====	=====	=====	=====
CCAL	77737	13.75	65658	15.40		
UPPER LIMIT		14.25		15.90		
LOWER LIMIT		13.25		14.90		
01 QU08MBW1	73642	13.75	70912	15.40		
02 QU08LCSW1	70015	13.75	67758	15.40		
03 QU08LCSDW1	74129	13.75	70926	15.40		
04 CB31A042110C	69182	13.75	65218	15.40		
05 CB1042110COM	70757	13.75	66688	15.40		
06 CB1042110COM	72028	13.75	66623	15.40		
07 CB1042110COM	73802	13.75	68302	15.40		
08 CB4857042110	70796	13.75	66096	15.40		
09 CB101042110C	73044	13.75	68608	15.40		
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

IS4 = Chrysene-d12
IS5 = 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.

**SIM Semivolatile Analysis
Sample Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB31A042110COMP
SAMPLE

Lab Sample ID: QU08A
LIMS ID: 10-10294
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 15:24
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.012
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.028
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.061
129-00-0	Pyrene	0.010	0.056
56-55-3	Benzo (a) anthracene	0.010	0.015
218-01-9	Chrysene	0.010	0.040
205-99-2	Benzo (b) fluoranthene	0.010	0.022
207-08-9	Benzo (k) fluoranthene	0.010	0.022
50-32-8	Benzo (a) pyrene	0.010	0.018
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.014
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.022
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 56.0%
d14-Dibenzo(a,h)anthracene 48.3%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042912.d
 Lab Smp Id: QU08A Client Smp ID: CB31A042110COMP
 Inj Date : 29-APR-2010 15:24
 Operator : pk Inst ID: nt2.i
 Smp Info : QU08A
 Misc Info : 10-10294
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 13:03 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalnm.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpdnVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpdn Variable

Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136			6.495	6.496	(1.000)	90236	200.000	
5 Naphthalene	128			6.511	6.511	(1.002)	5933	11.5303	11.5
\$ 6 2-Methylnaphthalene-d10	152			7.341	7.342	(1.130)	51582	167.506	168
7 2-Methylnaphthalene	142			7.372	7.373	(1.135)	1899	5.95968	5.96
8 1-Methylnaphthalene	142			Compound Not Detected.					
10 Acenaphthylene	152			Compound Not Detected.					
* 11 Acenaphthene-d10	164			8.681	8.681	(1.000)	52900	200.000	
12 Acenaphthene	153			Compound Not Detected.					
14 Dibenzofuran	168			Compound Not Detected.					
15 Fluorene	166			Compound Not Detected.					
* 18 Phenanthrene-d10	188			10.486	10.486	(1.000)	82449	200.000	
19 Phenanthrene	178			10.501	10.502	(1.001)	14976	28.4173	28.4
20 Anthracene	178			Compound Not Detected.					
24 Fluoranthene	202			11.970	11.970	(1.142)	33743	61.3426	61.3
25 Pyrene	202			12.245	12.245	(1.168)	30982	55.6038	55.6

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)	
28 Benzo (a) anthracene	228	13.726	13.726	(0.998)	6742	15.2890	15.3	
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	69182	200.000		
30 Chrysene	228	13.770	13.770	(1.002)	17443	40.2224	40.2	
32 Benzo (b) fluoranthene	252	14.978	14.978	(0.972)	20547	44.5780	44.6	
33 Benzo (k) fluoranthene	252	14.978	15.001	(0.972)	23017	41.8766	41.9 (M)	
34 Benzo (a) pyrene	252	15.334	15.342	(0.995)	6692	18.1729	18.2	
* 35 Perylene-d12	264	15.404	15.404	(1.000)	65218	200.000		
37 Indeno (1,2,3-cd) pyrene	276	16.842	16.842	(1.093)	5906	14.0248	14.0	
\$ 36 Dibenzo (a,h) anthracene-d14	292	16.815	16.815	(1.092)	36315	144.893	145	
38 Dibenzo (a,h) anthracene	278	Compound Not Detected.						
39 Benzo (g,h,i) perylene	276	17.260	17.260	(1.121)	7898	21.7564	21.8	

21.6

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i	Calibration Date: 29-APR-2010
Lab File ID: 042912.d	Calibration Time: 10:35
Lab Smp Id: QU08A	Client Smp ID: CB31A042110COMP
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Water
Operator: pk	
Method File: /chem3/nt2.i/20100429.b/lowsim.m	
Misc Info: 10-10294	

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	90236	-25.31
11 Acenaphthene-d10	72668	36334	145336	52900	-27.20
18 Phenanthrene-d10	112603	56302	225206	82449	26.78
29 Chrysene-d12	101702	50851	203404	69182	-31.98
35 Perylene-d12	87112	43556	174224	65218	-25.13

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.50	-0.01
11 Acenaphthene-d10	8.68	8.18	9.18	8.68	0.00
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	0.00
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	0.00

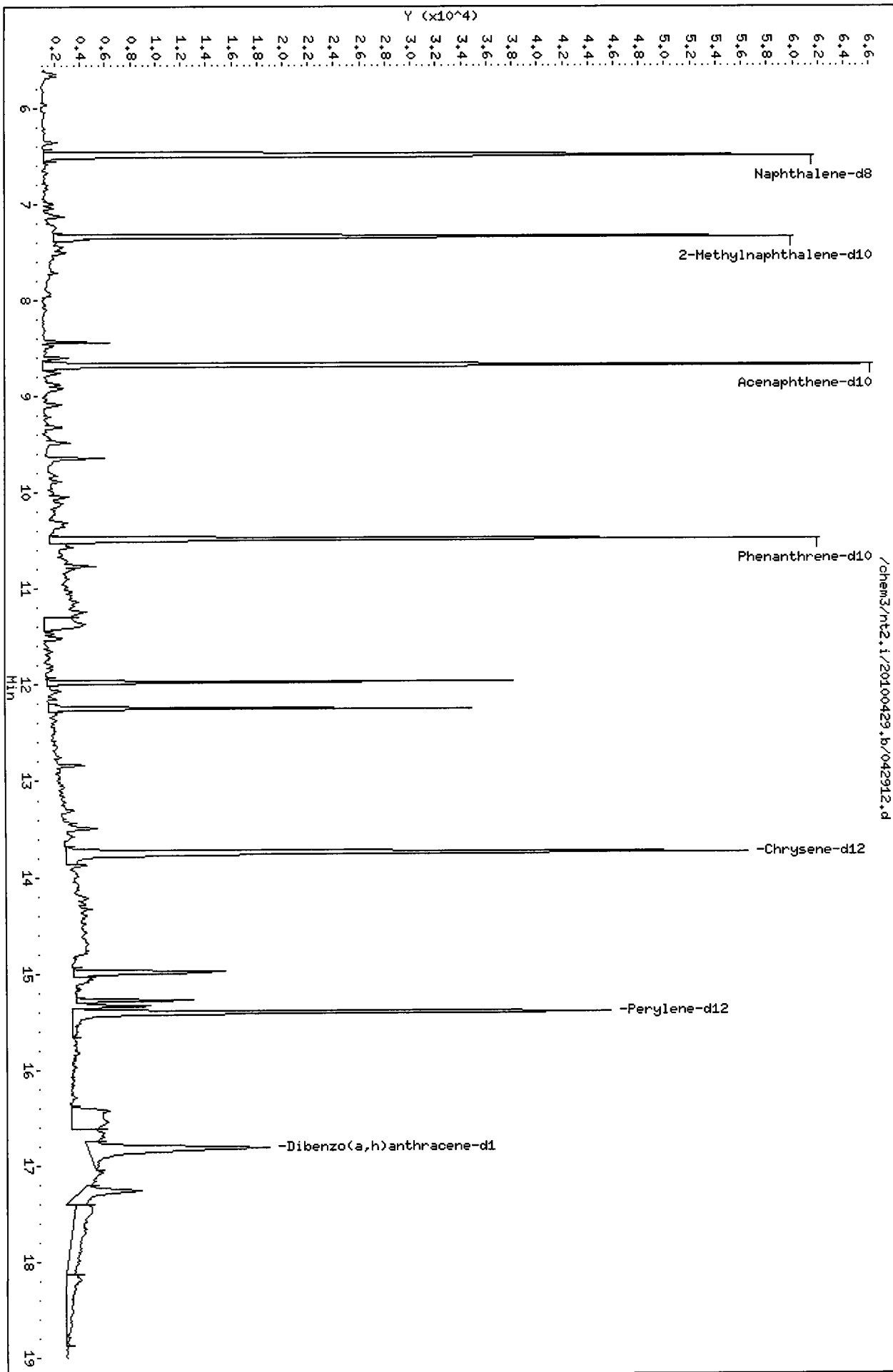
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd/Snider Client SDG: QU08
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: QU08A Client Smp ID: CB31A042110COMP
Level: LOW Operator: pk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: waterlcs.spk Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt2.i/20100429.b/lowsim.m
Misc Info: 10-10294

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	168	55.84	31-109
\$ 36 Dibenzo(a,h) anthra	300	145	48.30	10-133



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

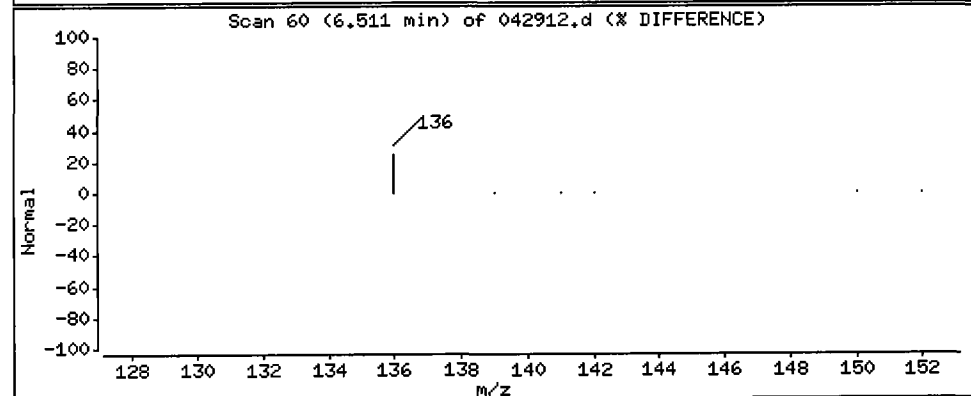
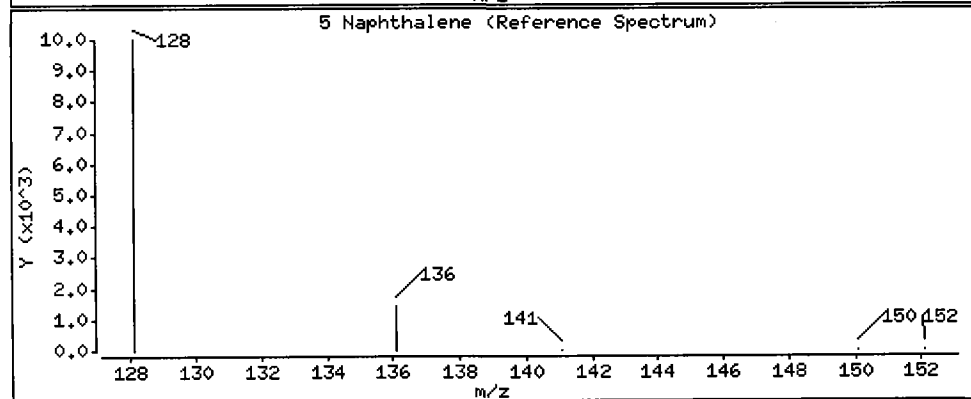
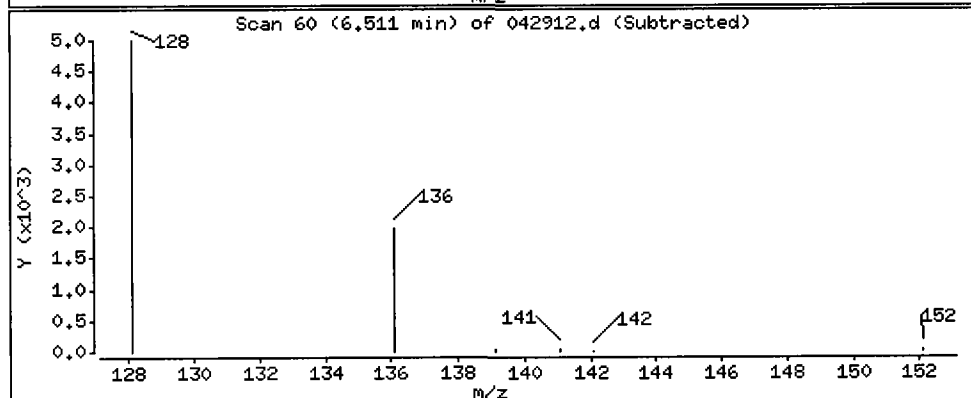
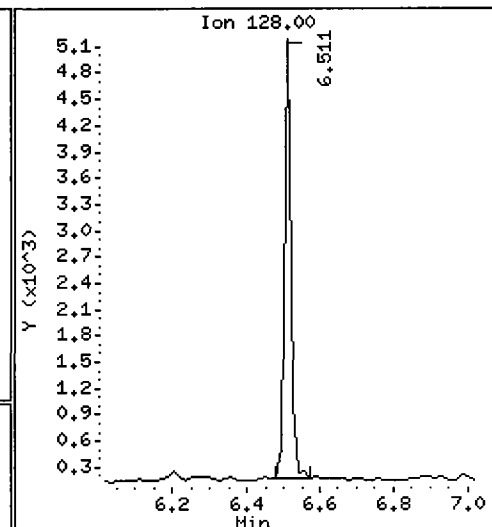
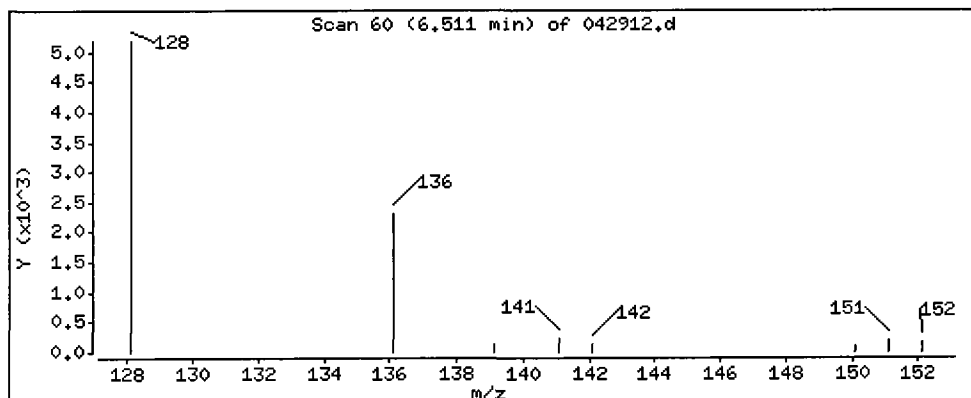
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

5 Naphthalene

Concentration: 11.5 ug/L



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

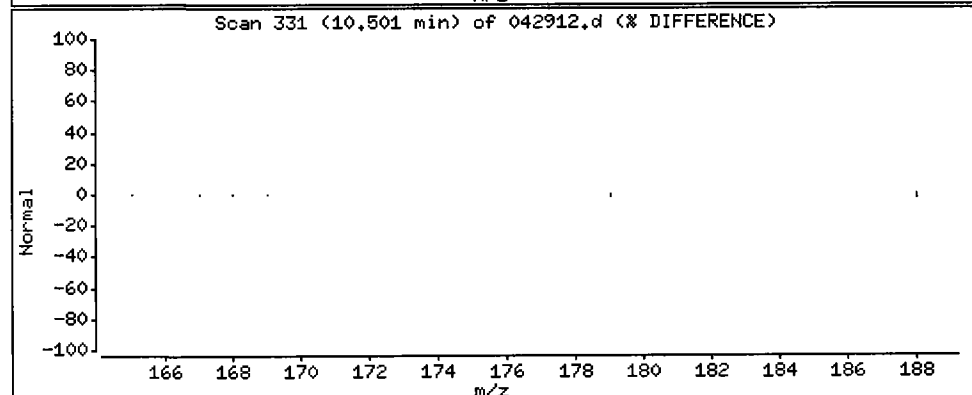
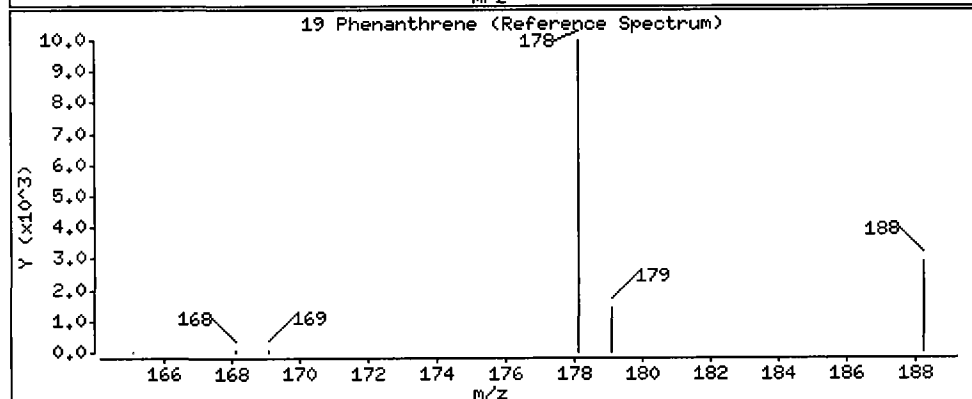
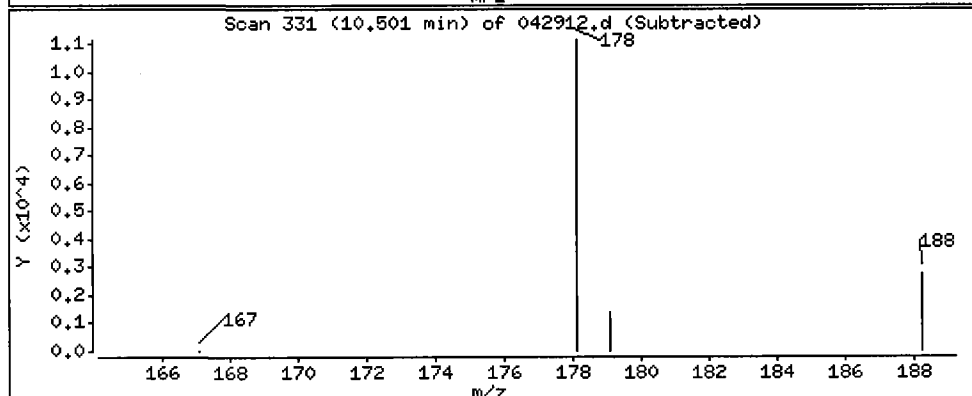
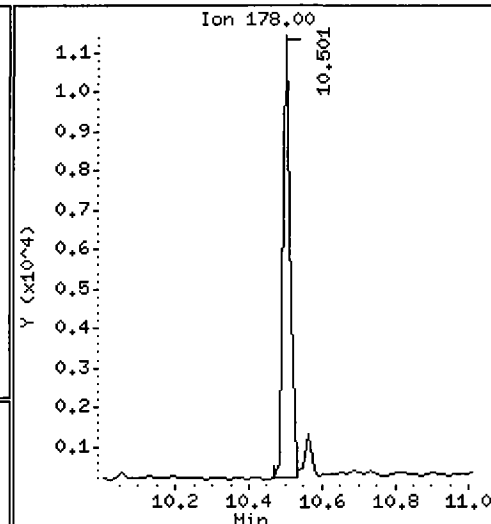
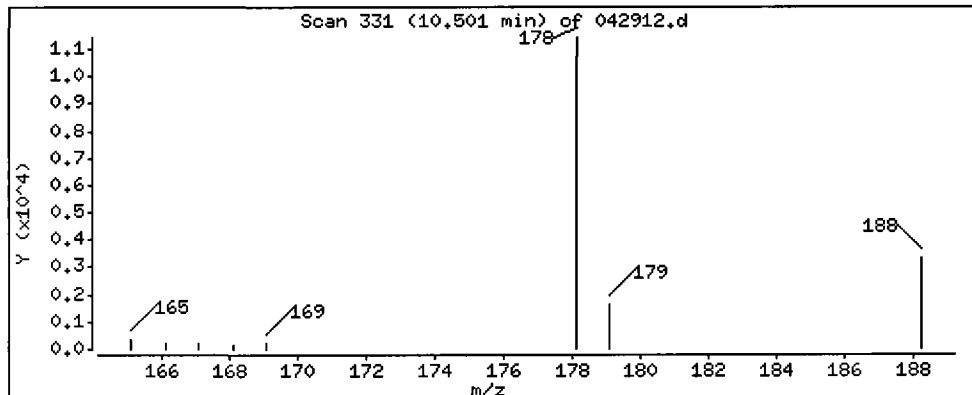
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

19 Phenanthrene

Concentration: 28.4 ug/L



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

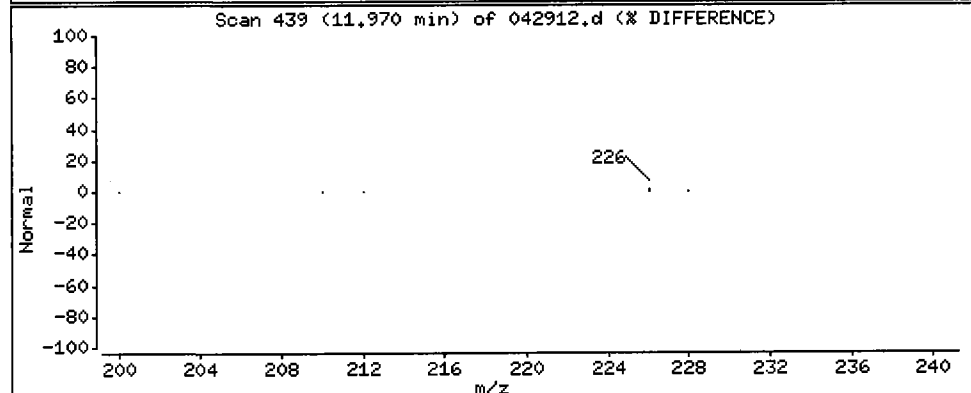
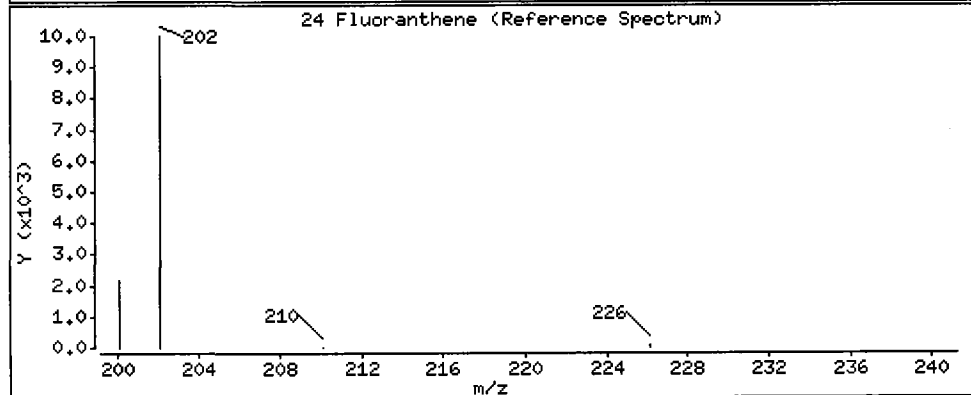
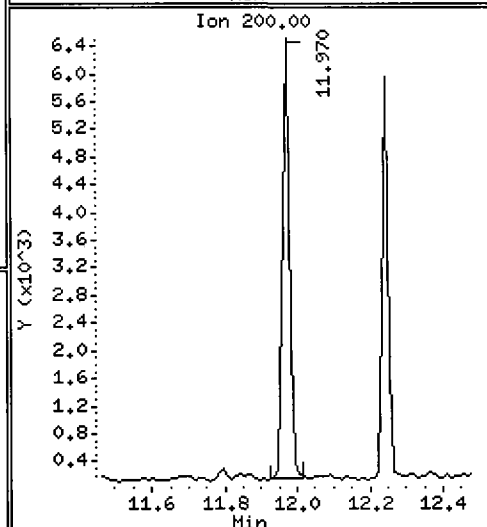
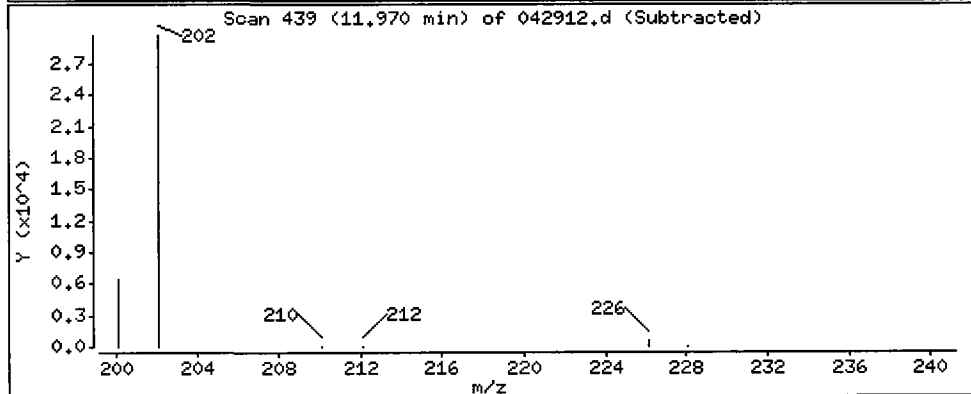
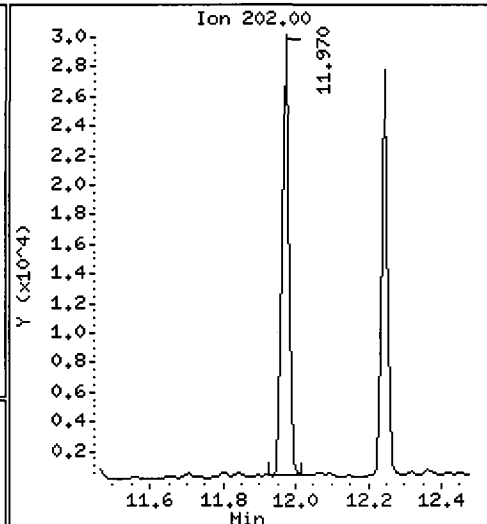
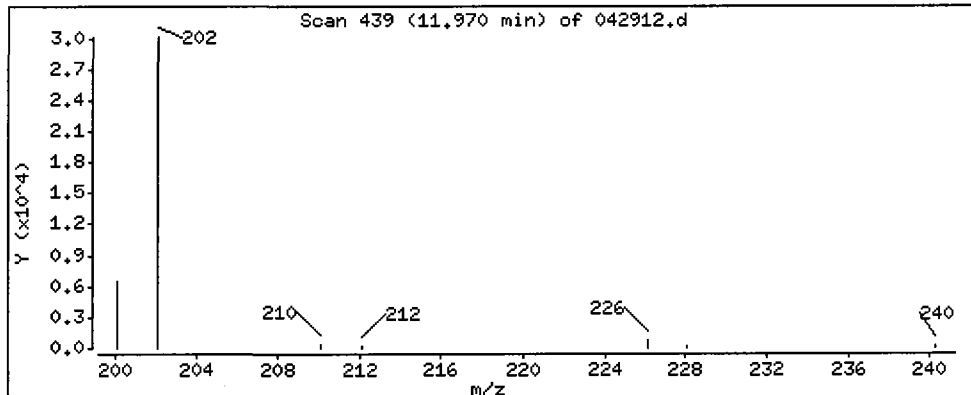
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

24 Fluoranthene

Concentration: 61.3 ug/L



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

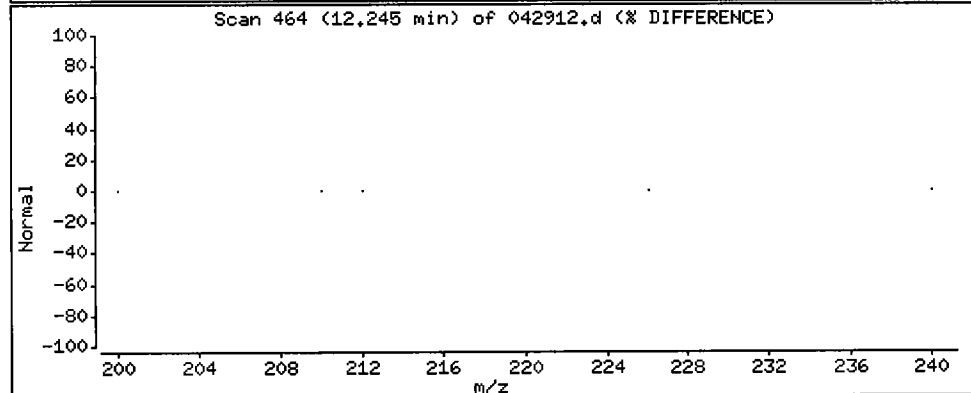
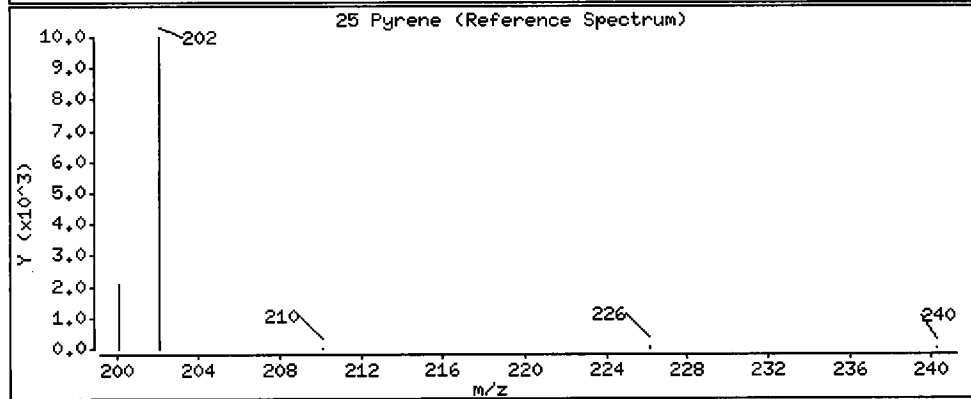
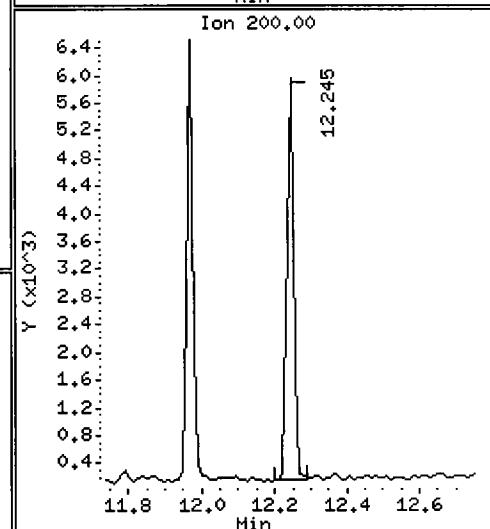
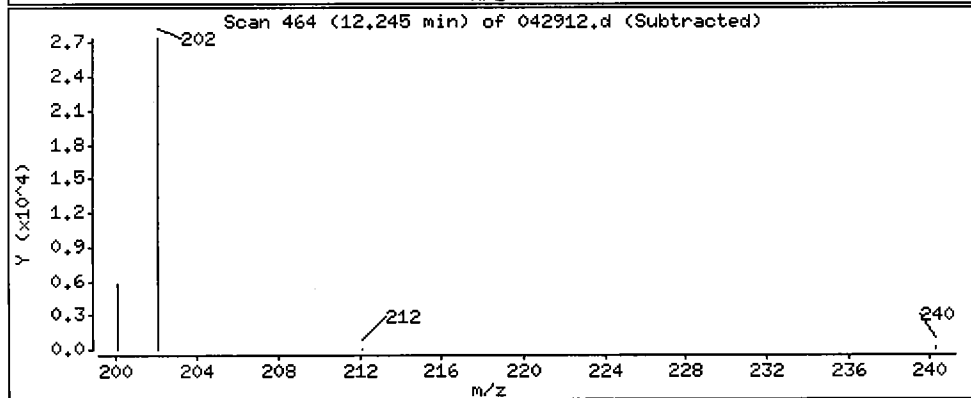
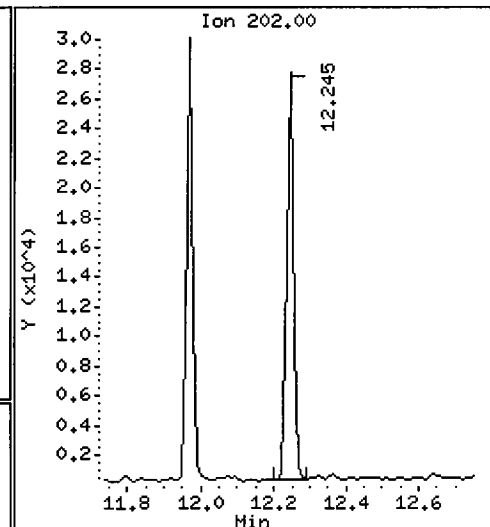
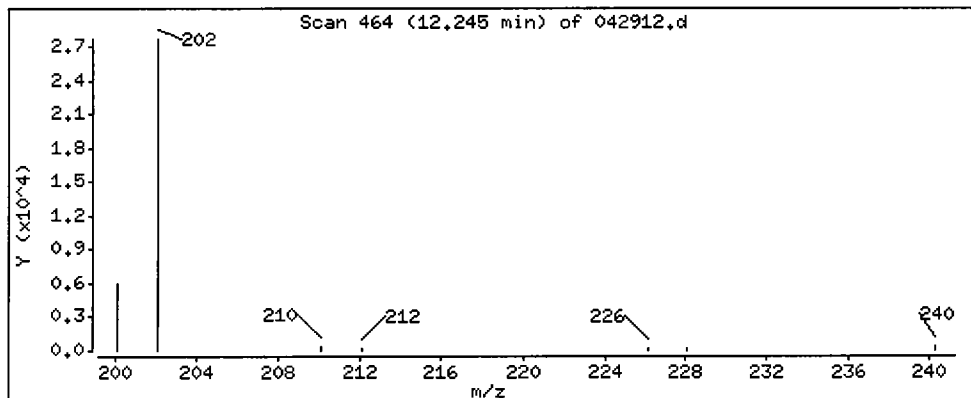
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

25 Pyrene

Concentration: 55.6 ug/L



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

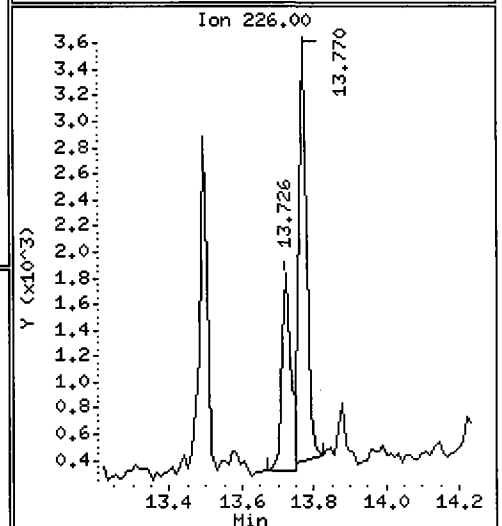
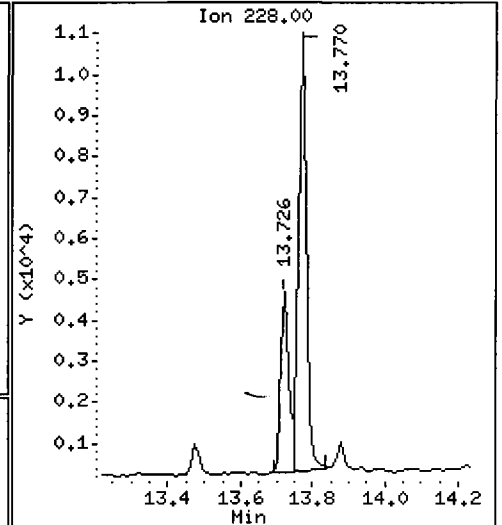
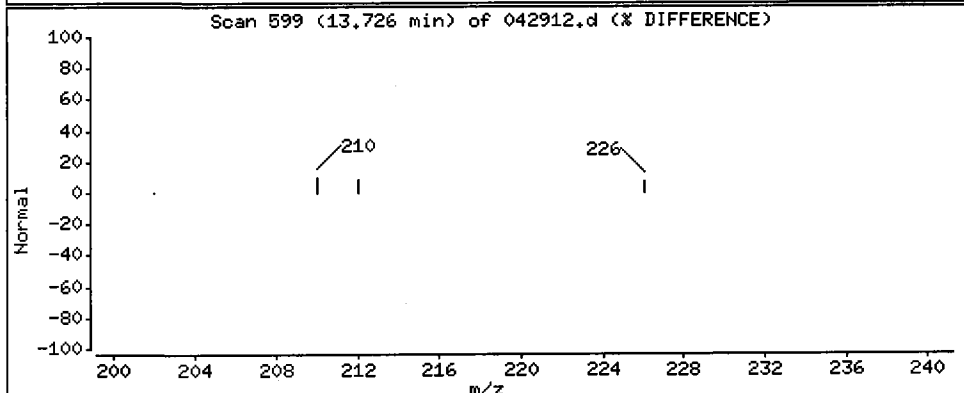
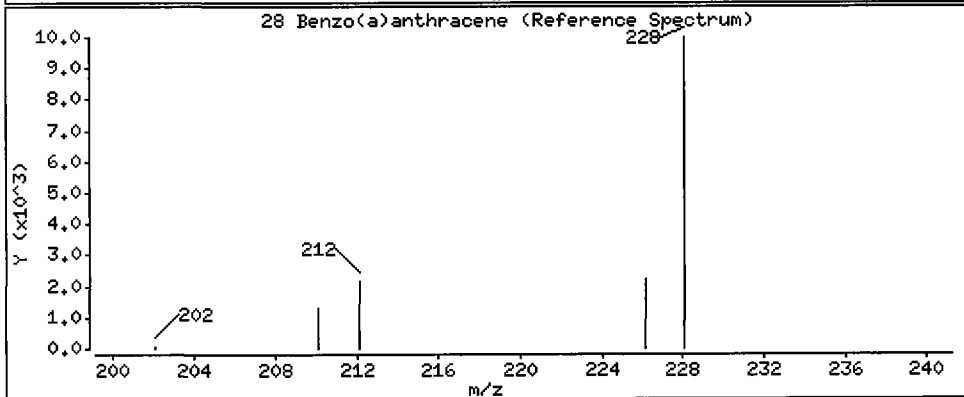
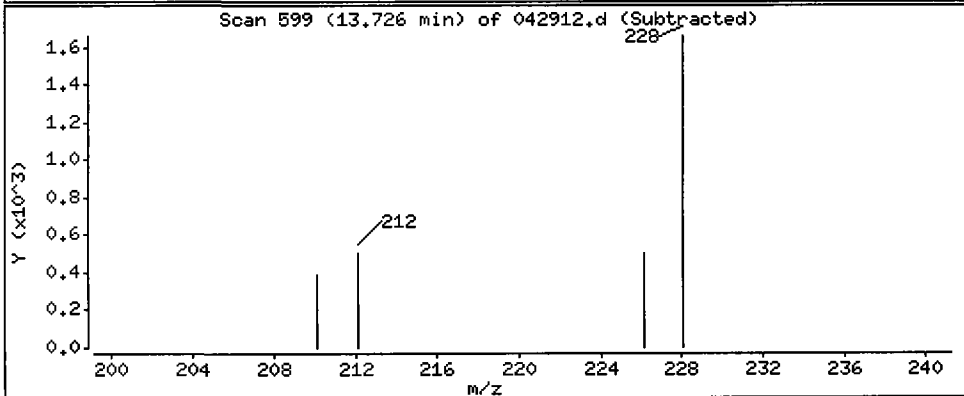
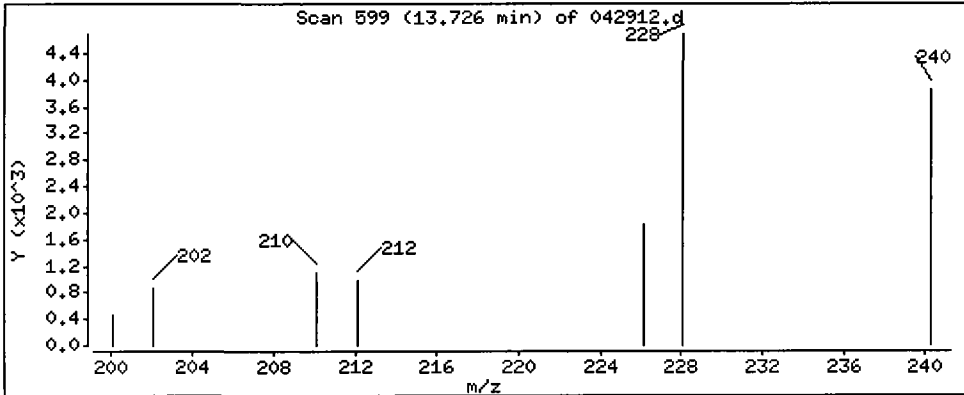
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

28 Benzo(a)anthracene

Concentration: 15.3 ug/L



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

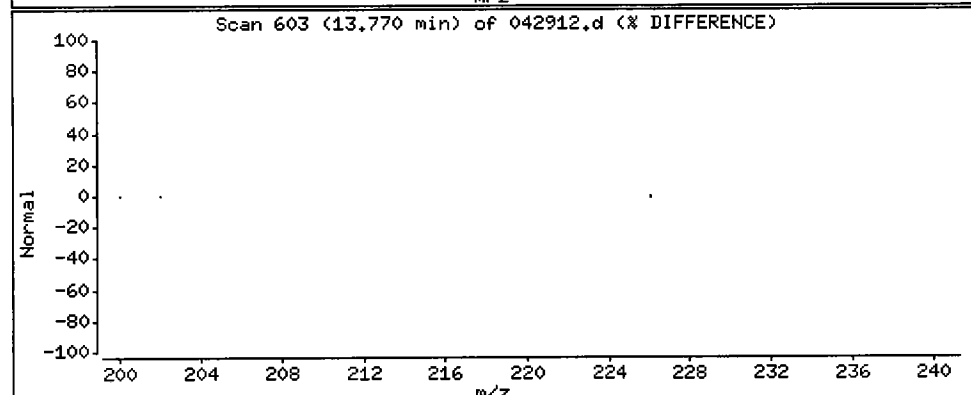
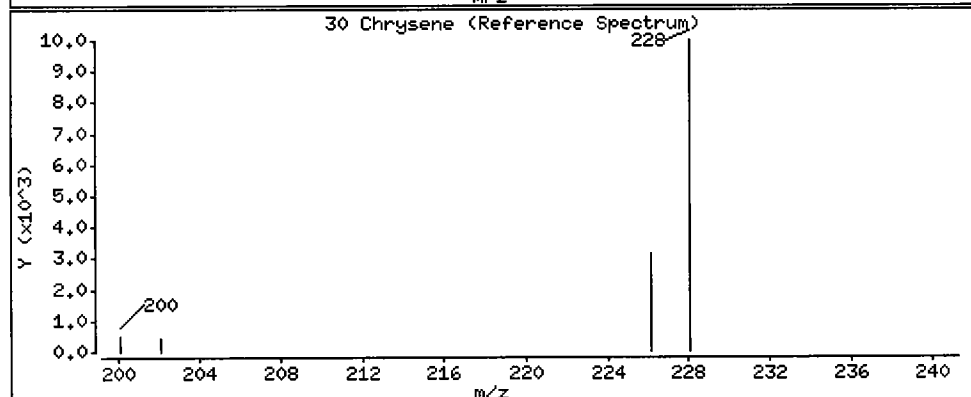
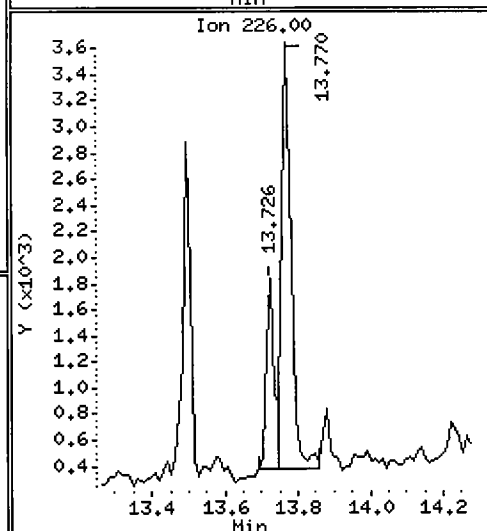
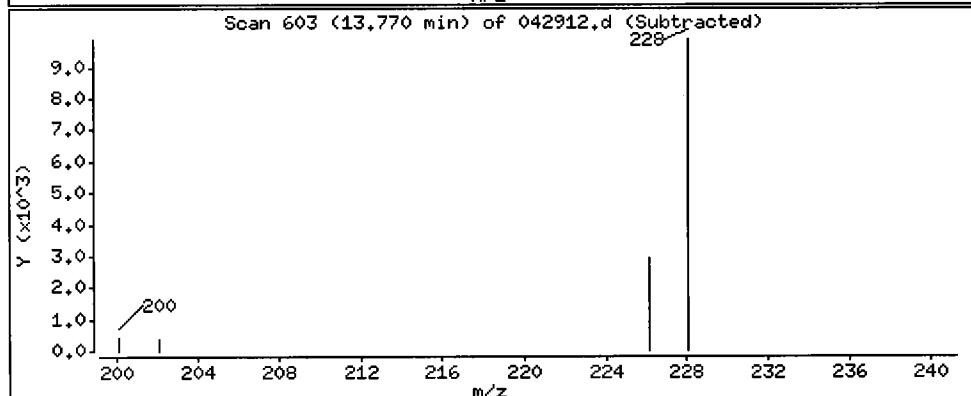
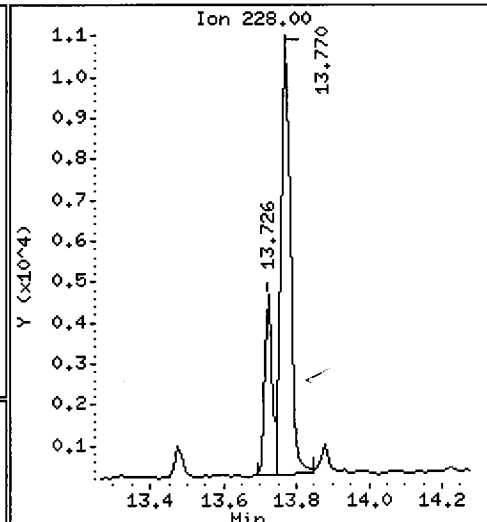
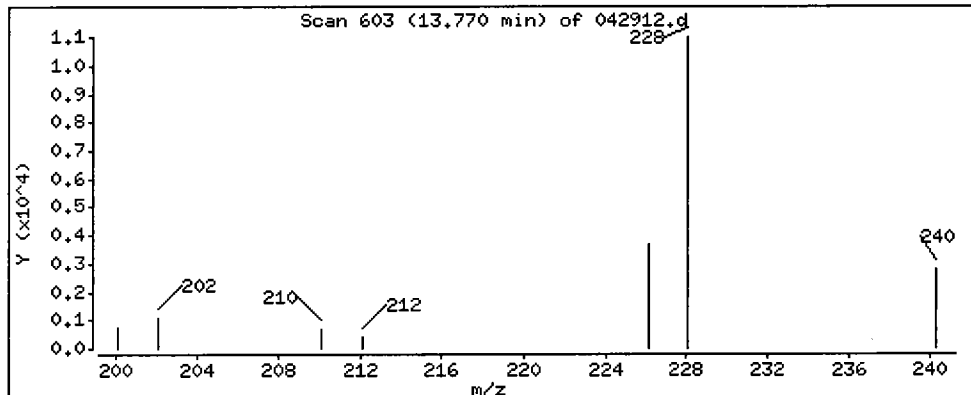
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

30 Chrysene

Concentration: 40.2 ug/L



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

Operator: pk

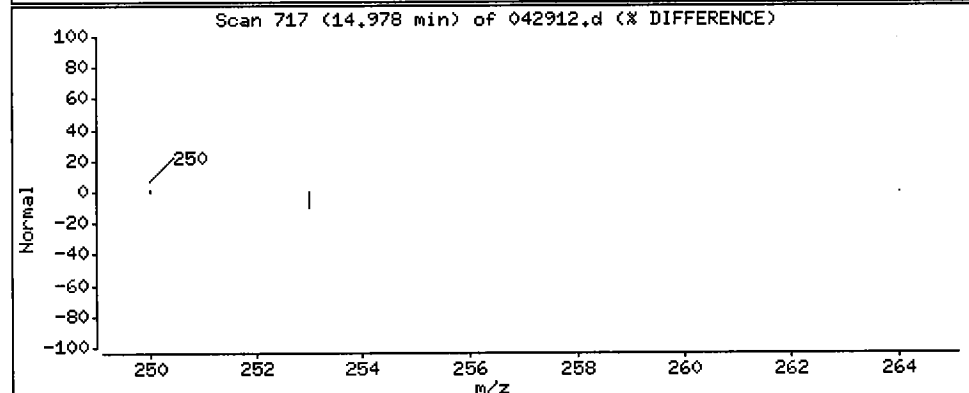
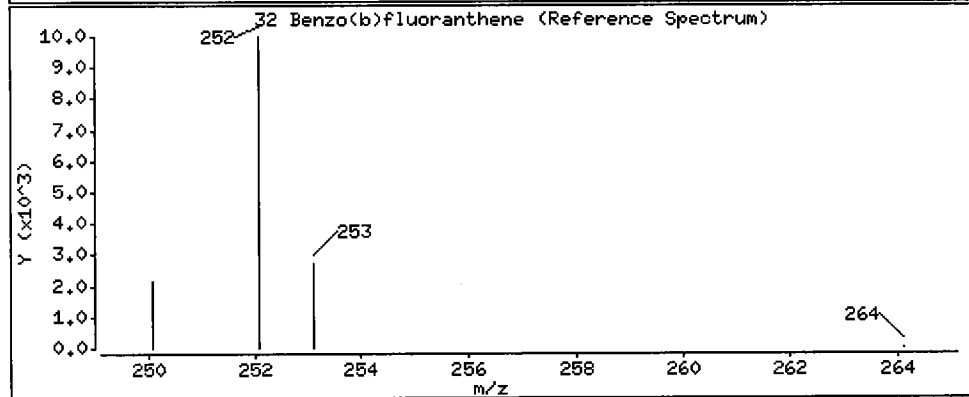
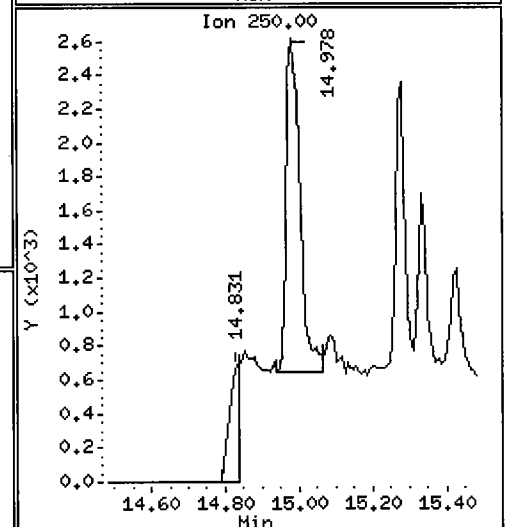
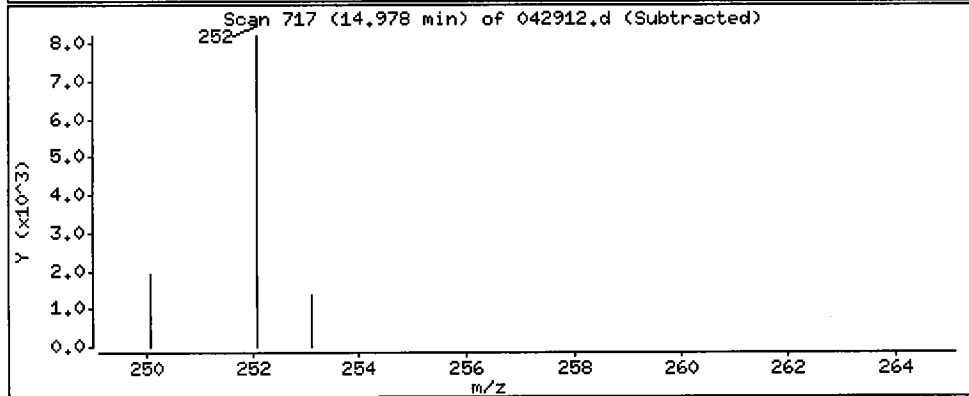
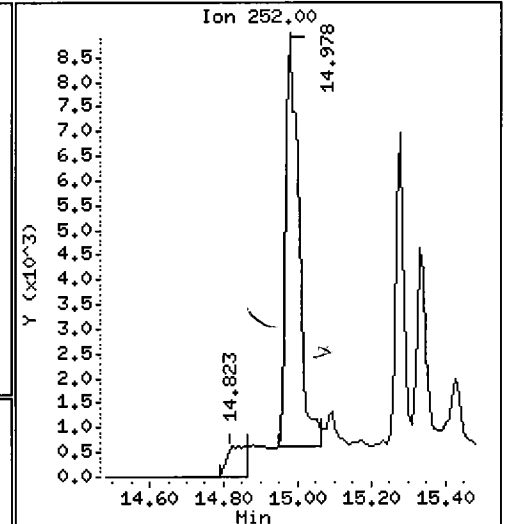
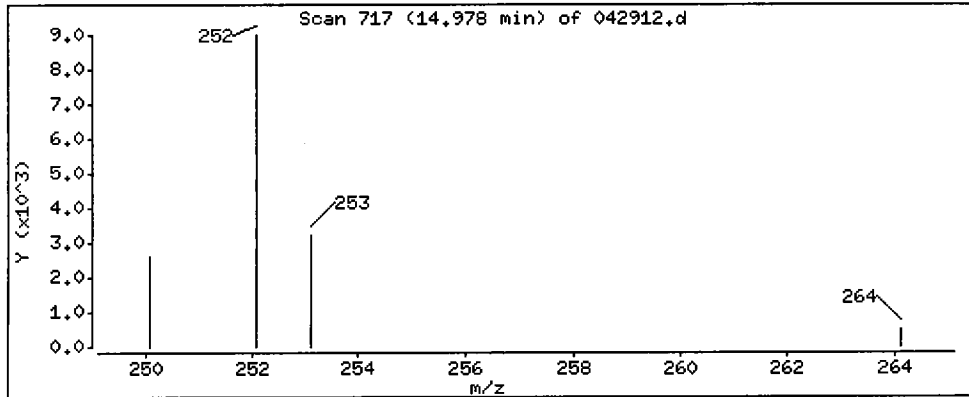
Column phase: ZB-5

Column diameter: 0.25

32 Benzo(b)fluoranthene

Concentration: 44.6 ug/L

1/2



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

Operator: pk

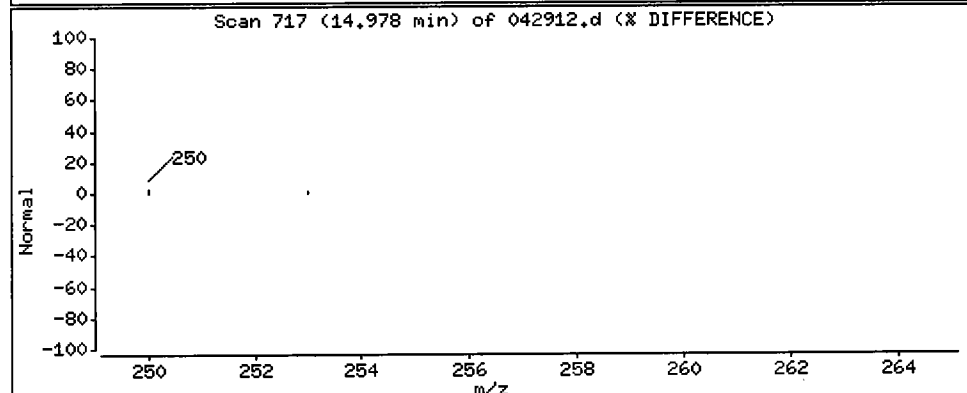
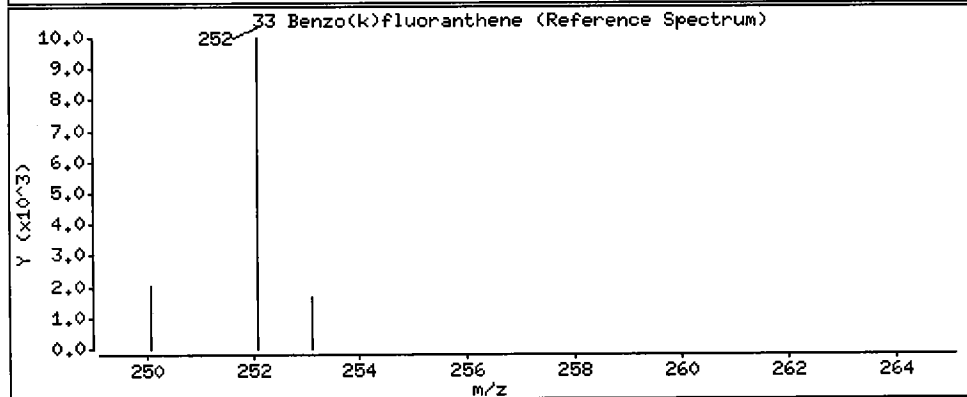
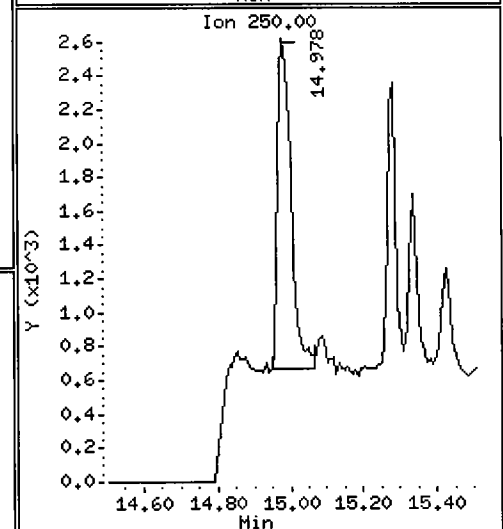
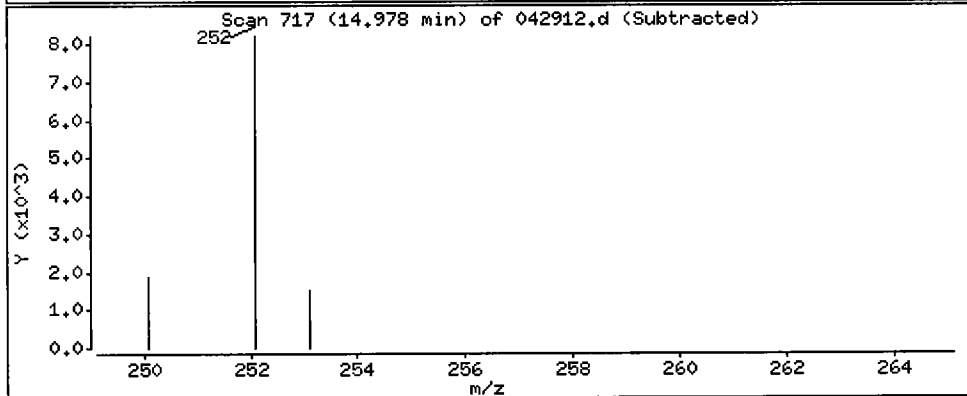
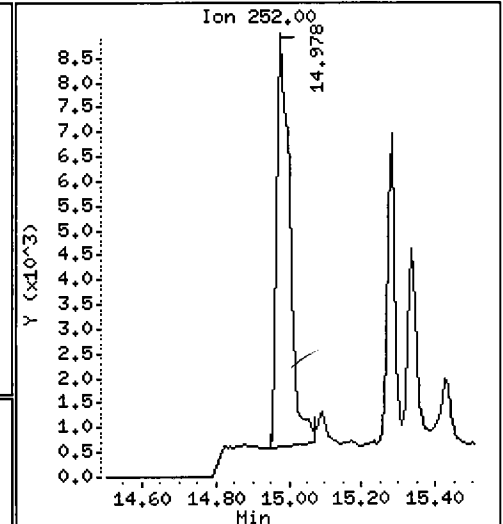
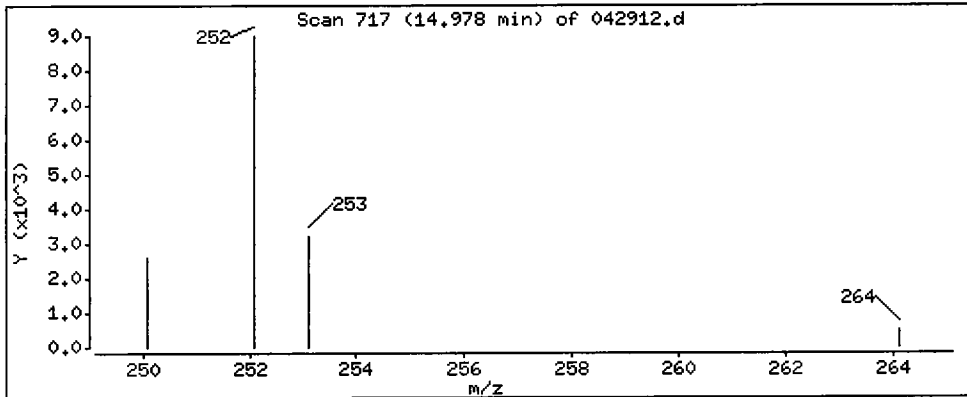
Column phase: ZB-5

Column diameter: 0.25

33 Benzo(k)fluoranthene

Concentration: 41.9 ug/L

11c



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

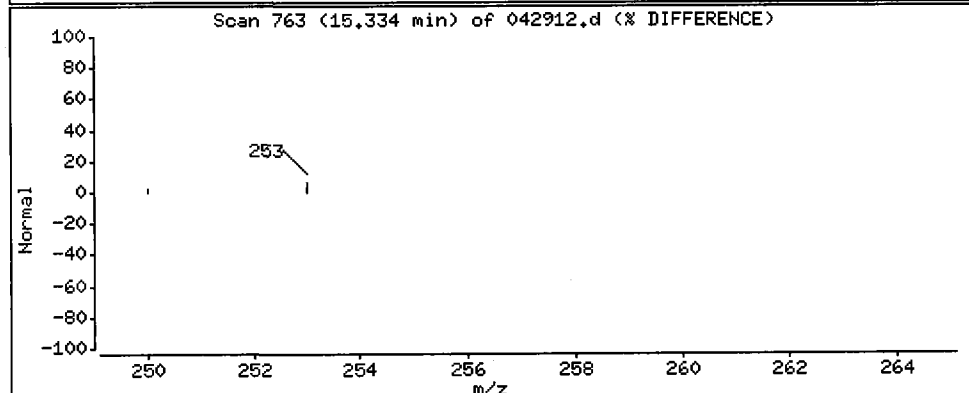
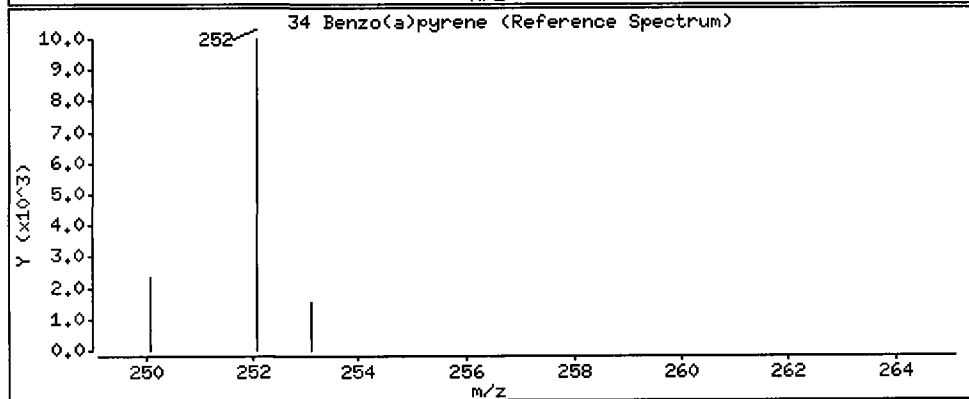
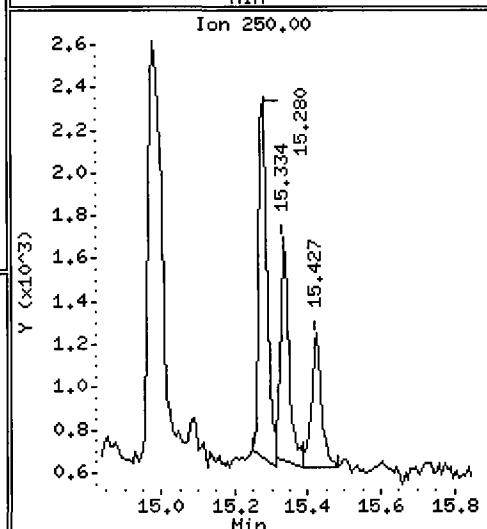
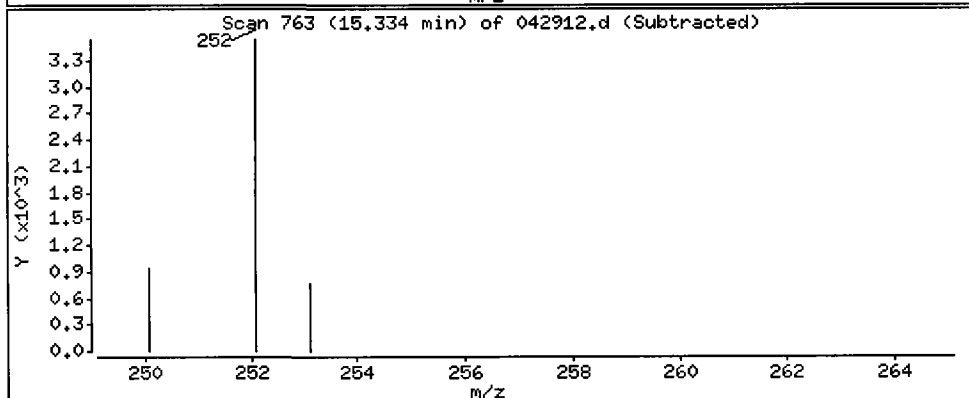
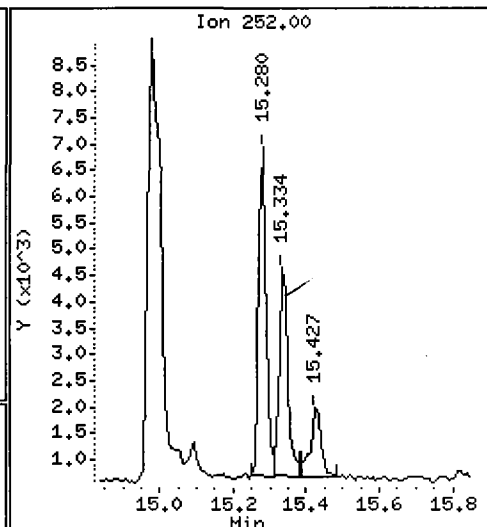
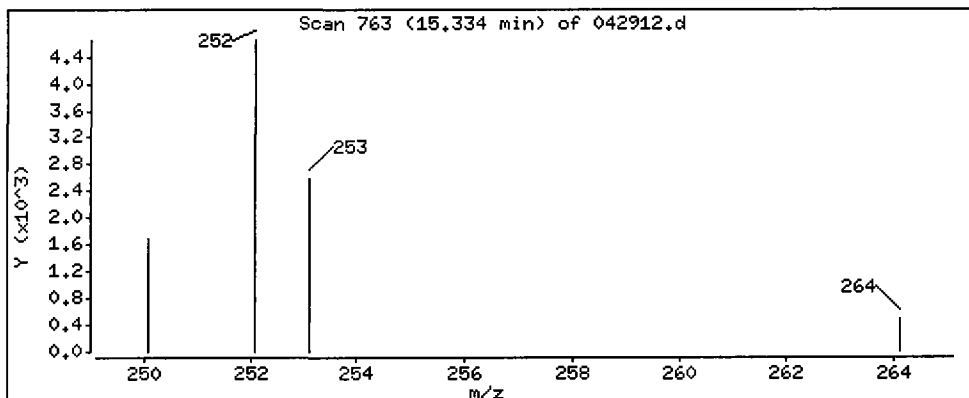
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

34 Benzo(a)pyrene

Concentration: 18.2 ug/L



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

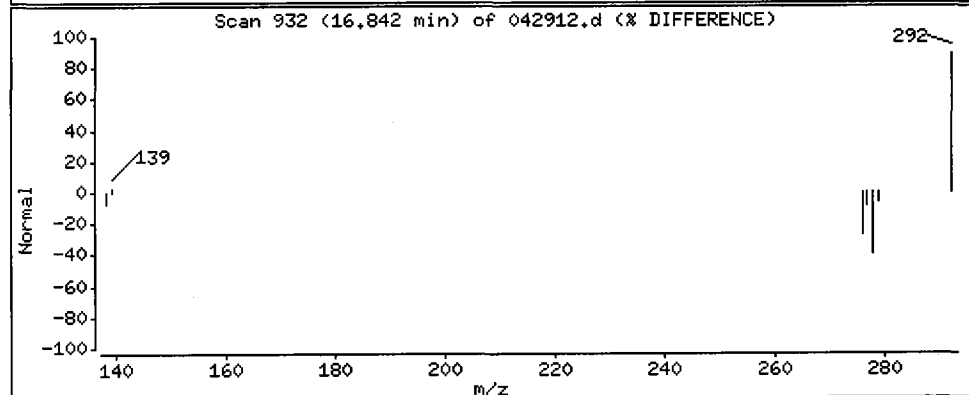
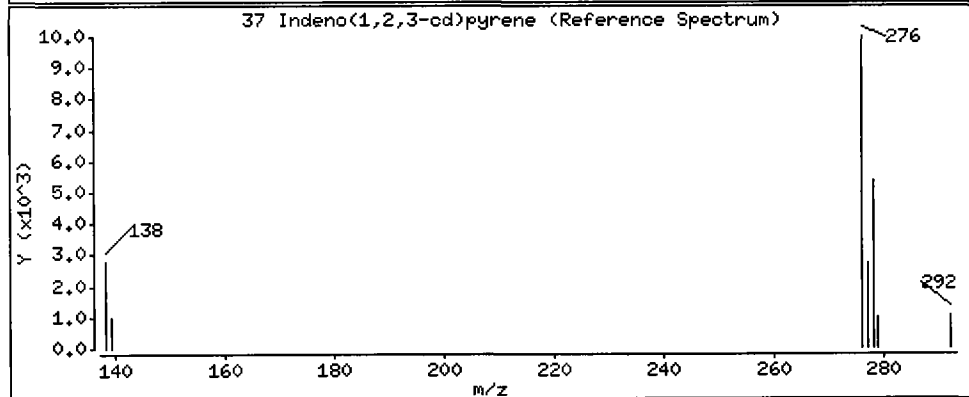
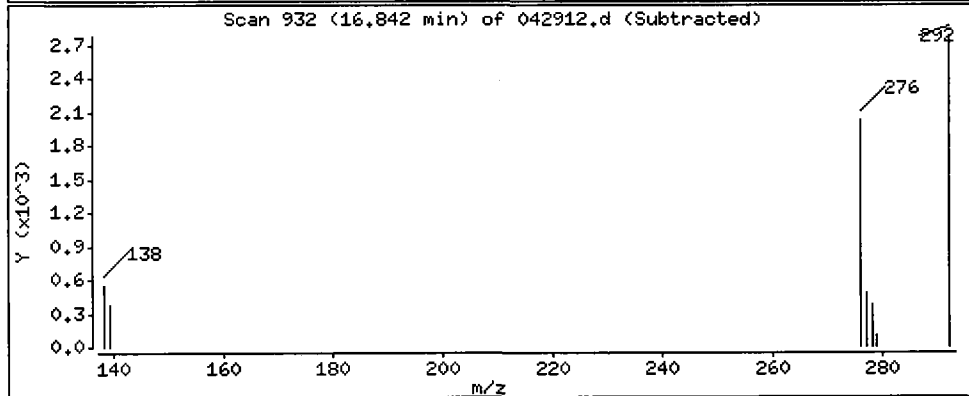
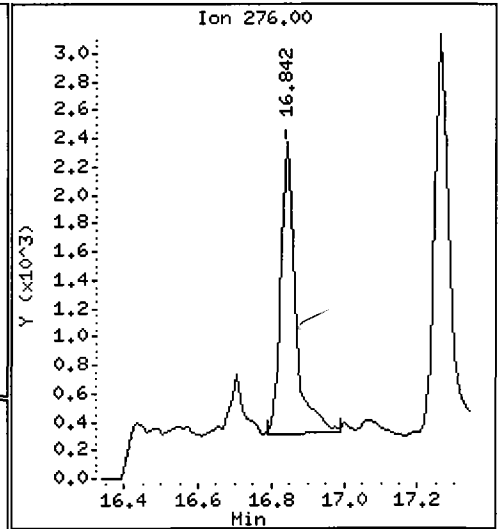
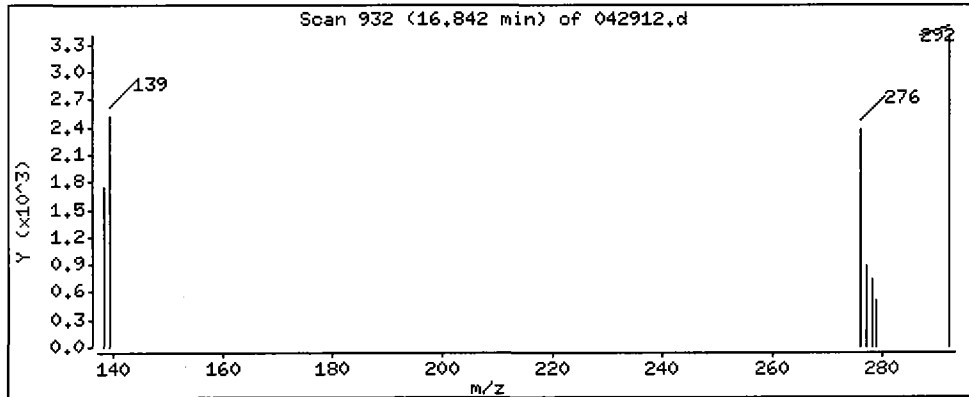
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

37 Indeno(1,2,3-cd)pyrene

Concentration: 14.0 ug/L



Date : 29-APR-2010 15:24

Client ID: CB31A042110COMP

Instrument: nt2.i

Sample Info: QU08A

Volume Injected (uL): 2.0

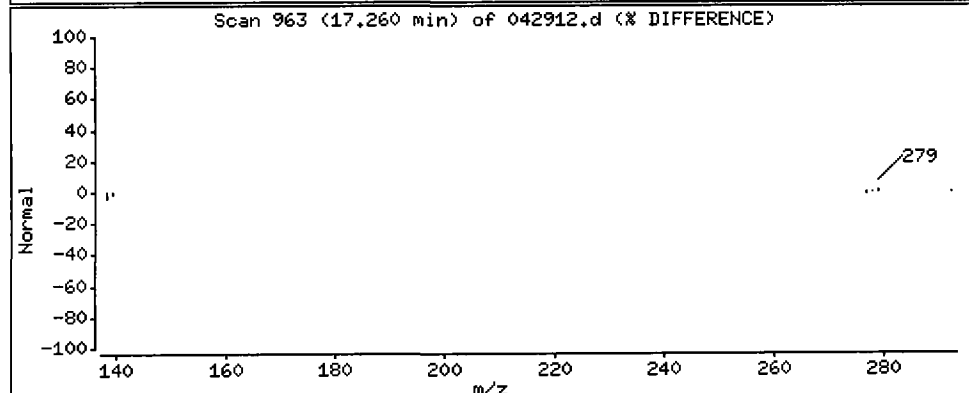
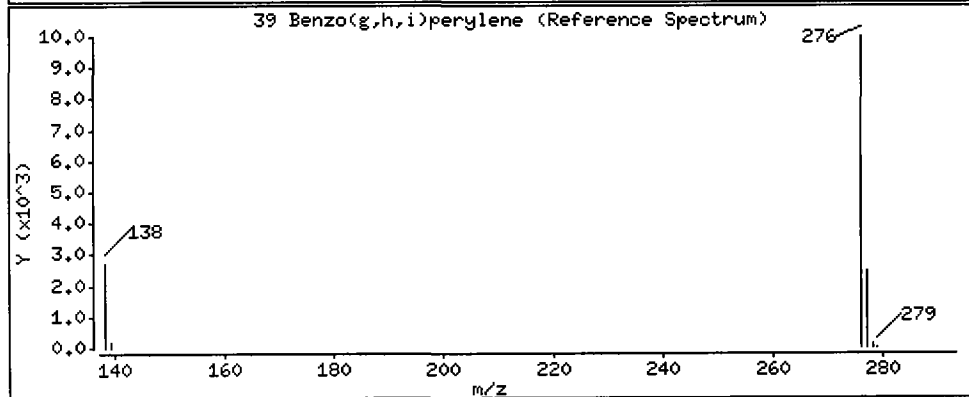
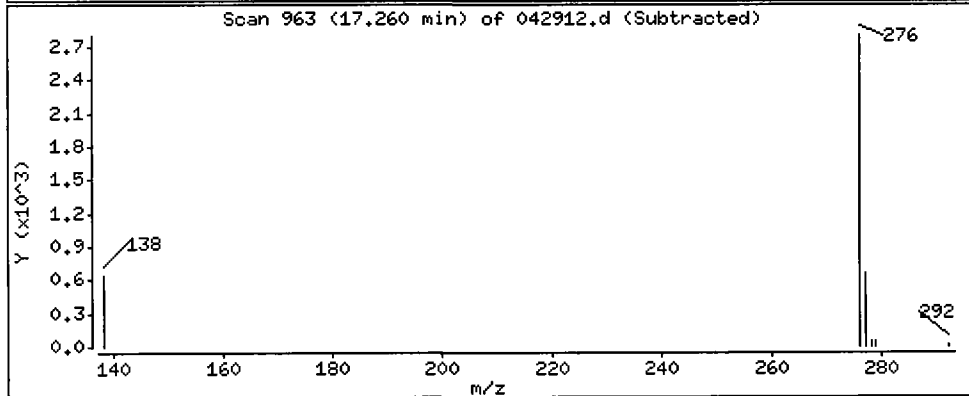
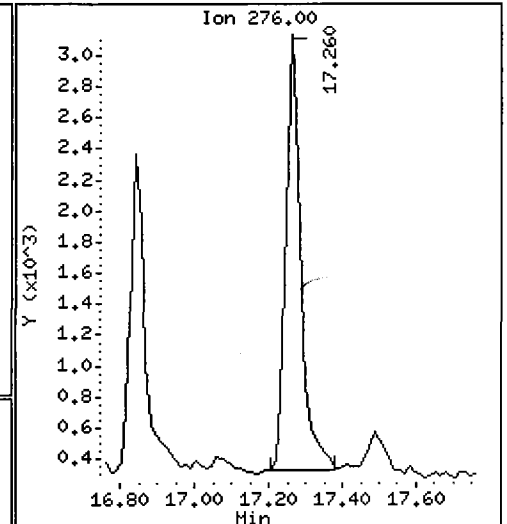
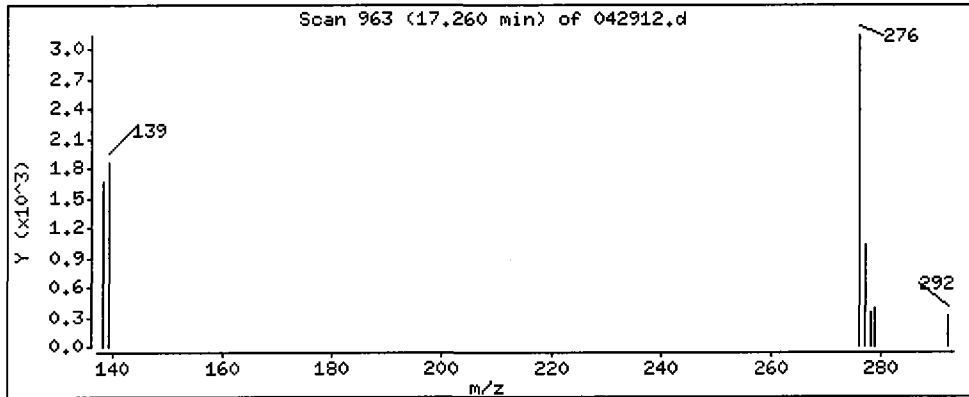
Operator: pk

Column phase: ZB-5

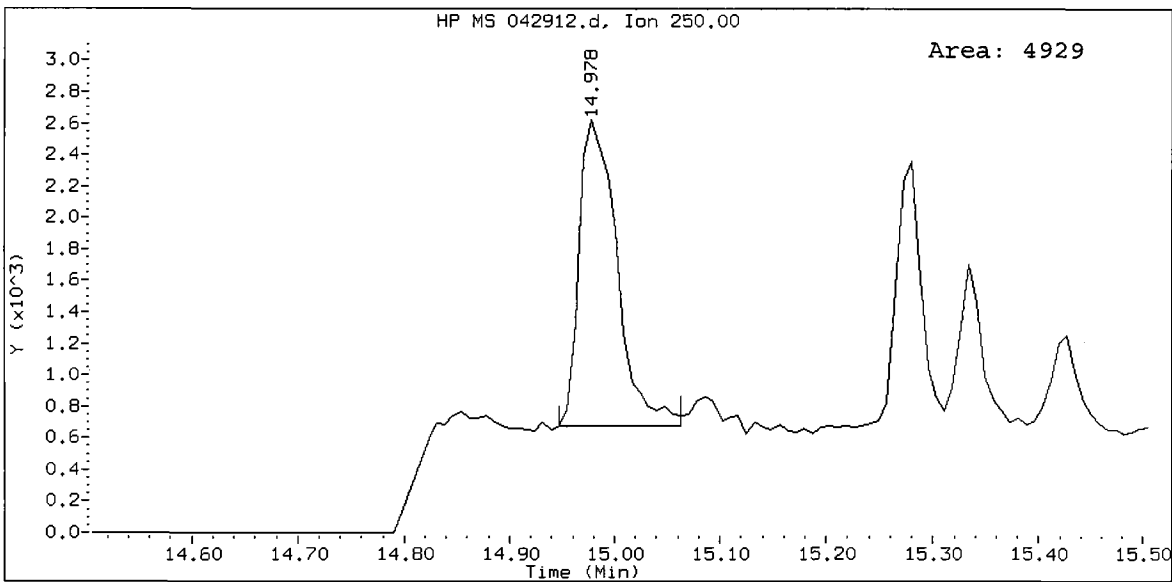
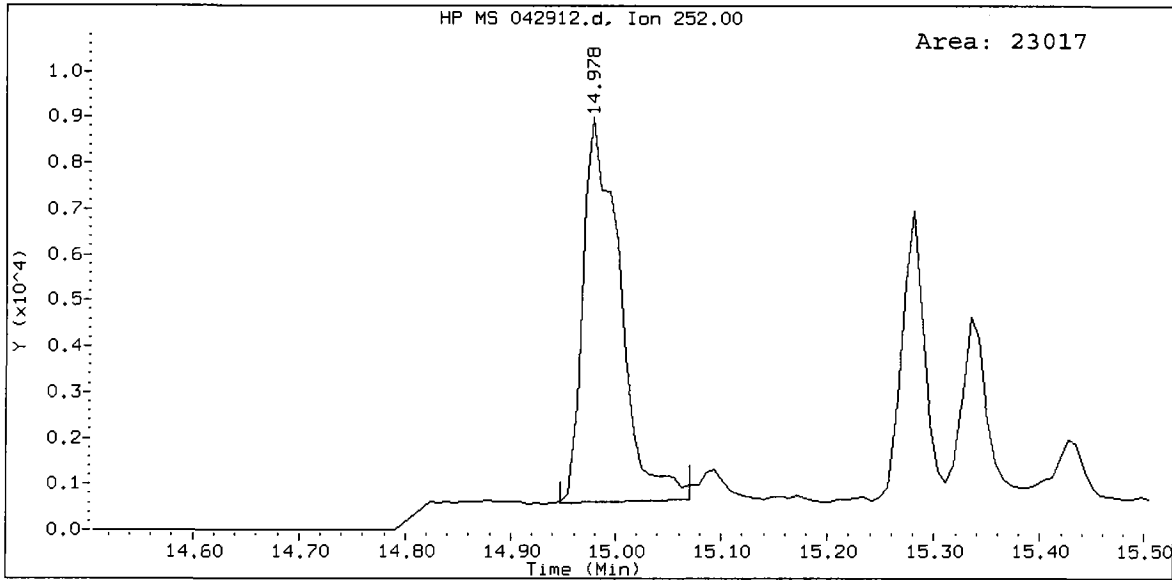
Column diameter: 0.25

39 Benzo(g,h,i)perylene

Concentration: 21.8 ug/L




QU08A, /chem3/nt2.i/20100429.b/042912.d
Benzo(k)fluoranthene Amount: 41.88



ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB1042110COMP
SAMPLE

Lab Sample ID: QU08B
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 15:48
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 56.3%
d14-Dibenzo(a,h)anthracene 47.3%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042913.d
 Lab Smp Id: QU08B Client Smp ID: CB1042110COMP
 Inj Date : 29-APR-2010 15:48
 Operator : pk Inst ID: nt2.i
 Smp Info : QU08B
 Misc Info : 10-10295
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 13:03 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalnm.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.480	6.496	(1.000)	87672	200.000	
5 Naphthalene	128	6.511	6.511	(1.005)	3901	7.80301	7.80
\$ 6 2-Methylnaphthalene-d10	152	7.342	7.342	(1.133)	50458	168.648	169
7 2-Methylnaphthalene	142	Compound Not Detected.					
8 1-Methylnaphthalene	142	Compound Not Detected.					
10 Acenaphthylene	152	Compound Not Detected.					
* 11 Acenaphthene-d10	164	8.668	8.681	(1.000)	52167	200.000	
12 Acenaphthene	153	Compound Not Detected.					
14 Dibenzofuran	168	Compound Not Detected.					
15 Fluorene	166	Compound Not Detected.					
* 18 Phenanthrene-d10	188	10.486	10.486	(1.000)	81931	200.000	
19 Phenanthrene	178	10.501	10.502	(1.001)	3146	6.00735	6.01
20 Anthracene	178	Compound Not Detected.					
24 Fluoranthene	202	11.970	11.970	(1.142)	3268	5.97857	5.98
25 Pyrene	202	Compound Not Detected.					

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
=====	=====	==	=====	=====	=====	=====	=====
28 Benzo (a) anthracene	228				Compound Not Detected.		
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	70757	200.000	
30 Chrysene	228				Compound Not Detected.		
32 Benzo (b) fluoranthene	252				Compound Not Detected.		
33 Benzo (k) fluoranthene	252				Compound Not Detected.		
34 Benzo (a) pyrene	252				Compound Not Detected.		
* 35 Perylene-d12	264	15.403	15.404	(1.000)	66688	200.000	
37 Indeno (1,2,3-cd) pyrene	276				Compound Not Detected.		
\$ 36 Dibenzo (a,h) anthracene-d14	292	16.815	16.815	(1.092)	36463	142.277	142
38 Dibenzo (a,h) anthracene	278				Compound Not Detected.		
39 Benzo (g,h,i) perylene	276				Compound Not Detected.		

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i	Calibration Date: 29-APR-2010
Lab File ID: 042913.d	Calibration Time: 10:35
Lab Smp Id: QU08B	Client Smp ID: CB1042110COMP
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Water
Operator: pk	
Method File: /chem3/nt2.i/20100429.b/lowsim.m	
Misc Info: 10-10295	

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	87672	-27.43
11 Acenaphthene-d10	72668	36334	145336	52167	-28.21
18 Phenanthrene-d10	112603	56302	225206	81931	27.24
29 Chrysene-d12	101702	50851	203404	70757	-30.43
35 Perylene-d12	87112	43556	174224	66688	-23.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.48	-0.24
11 Acenaphthene-d10	8.68	8.18	9.18	8.67	-0.15
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	0.00
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	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

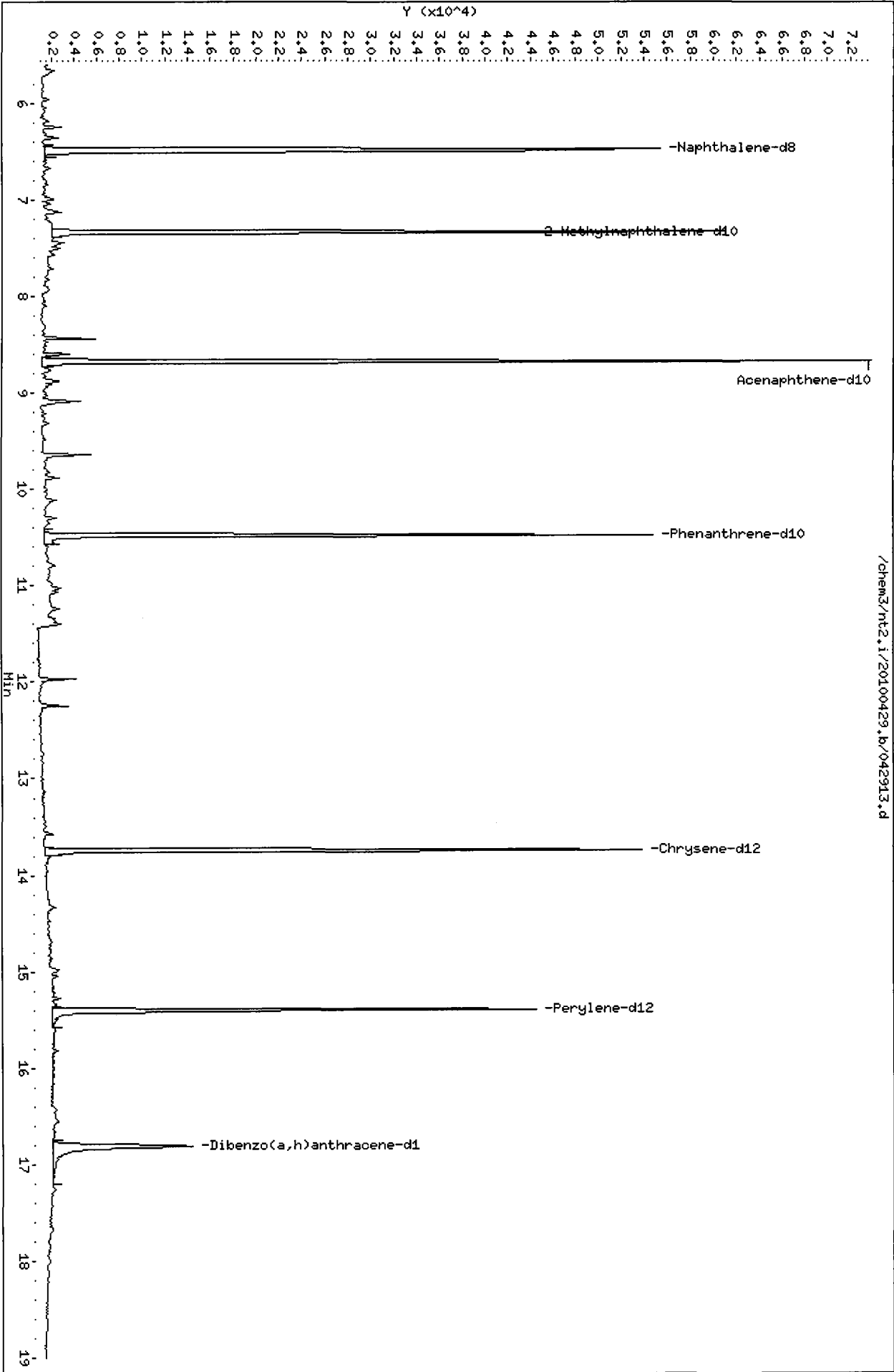
Client Name: Floyd/Snider
Sample Matrix: LIQUID
Lab Smp Id: QU08B
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pnalnm.sub
Method File: /chem3/nt2.i/20100429.b/lowsim.m
Misc Info: 10-10295

Client SDG: QU08
Fraction: SV
Client Smp ID: CB1042110COMP
Operator: pk
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	169	56.22	31-109
\$ 36 Dibenzo(a,h) anthra	300	142	47.43	10-133


Data File: /chem3/nt2.i/20100429.b/042913.d
Date : 29-APR-2010 15:48
Client ID: CB1042110C0HP
Sample Info: QU08B
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: pk
Column diameter: 0.25



ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB4857042110COMP
SAMPLE

Lab Sample ID: QU08C
LIMS ID: 10-10296
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 16:59
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.011
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.024
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.046
129-00-0	Pyrene	0.010	0.042
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	0.026
205-99-2	Benzo (b) fluoranthene	0.010	0.014
207-08-9	Benzo (k) fluoranthene	0.010	0.014
50-32-8	Benzo (a) pyrene	0.010	0.011
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.011
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.018
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 60.0%
d14-Dibenzo (a,h) anthracene 59.0%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042916.d
 Lab Smp Id: QU08C Client Smp ID: CB4857042110COMP
 Inj Date : 29-APR-2010 16:59
 Operator : pk Inst ID: nt2.i
 Smp Info : QU08C
 Misc Info : 10-10296
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 13:03 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 16
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalnm.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.481	6.496	(1.000)	96031	200.000	
5 Naphthalene	128	6.512	6.511	(1.005)	6180	11.2856	11.3
\$ 6 2-Methylnaphthalene-d10	152	7.328	7.342	(1.131)	58959	179.909	180
7 2-Methylnaphthalene	142	7.358	7.373	(1.135)	2230	6.57614	6.58
8 1-Methylnaphthalene	142	Compound Not Detected.					
10 Acenaphthylene	152	Compound Not Detected.					
* 11 Acenaphthene-d10	164	8.669	8.681	(1.000)	53021	200.000	
12 Acenaphthene	153	Compound Not Detected.					
14 Dibenzofuran	168	Compound Not Detected.					
15 Fluorene	166	Compound Not Detected.					
* 18 Phenanthrene-d10	188	10.485	10.486	(1.000)	80269	200.000	
19 Phenanthrene	178	10.501	10.502	(1.001)	12449	24.2638	24.3
20 Anthracene	178	Compound Not Detected.					
24 Fluoranthene	202	11.970	11.970	(1.142)	24448	45.6519	45.7
25 Pyrene	202	12.244	12.245	(1.168)	23060	42.5100	42.5

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN (ng/mL)	FINAL (ug/L)
28 Benzo (a) anthracene	228	13.726	13.726	(0.998)	4059	8.99484	8.99
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	70796	200.000	
30 Chrysene	228	13.770	13.770	(1.002)	11570	26.0714	26.1
32 Benzo (b) fluoranthene	252	14.977	14.978	(0.972)	14045	30.0667	30.1
33 Benzo (k) fluoranthene	252	14.977	15.001	(0.972)	15019	26.9622	27.0 (M)
34 Benzo (a) pyrene	252	15.333	15.342	(0.995)	4223	11.3157	11.3
* 35 Perylene-d12	264	15.403	15.404	(1.000)	66096	200.000	
37 Indeno (1,2,3-cd) pyrene	276	16.843	16.842	(1.094)	4603	10.7854	10.8
\$ 36 Dibenzo (a,h) anthracene-d14	292	16.816	16.815	(1.092)	45035	177.298	177
38 Dibenzo (a,h) anthracene	278	16.857	16.855	(1.094)	1744	5.20056	5.20
39 Benzo (g,h,i) perylene	276	17.261	17.260	(1.121)	6695	18.1975	18.2

14.3

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i	Calibration Date: 29-APR-2010
Lab File ID: 042916.d	Calibration Time: 10:35
Lab Smp Id: QU08C	Client Smp ID: CB4857042110COMP
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Water
Operator: pk	
Method File: /chem3/nt2.i/20100429.b/lowsim.m	
Misc Info: 10-10296	

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	96031	-20.51
11 Acenaphthene-d10	72668	36334	145336	53021	-27.04
18 Phenanthrene-d10	112603	56302	225206	80269	-28.72
29 Chrysene-d12	101702	50851	203404	70796	-30.39
35 Perylene-d12	87112	43556	174224	66096	-24.13

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.48	-0.22
11 Acenaphthene-d10	8.68	8.18	9.18	8.67	-0.14
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	-0.01
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	-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.

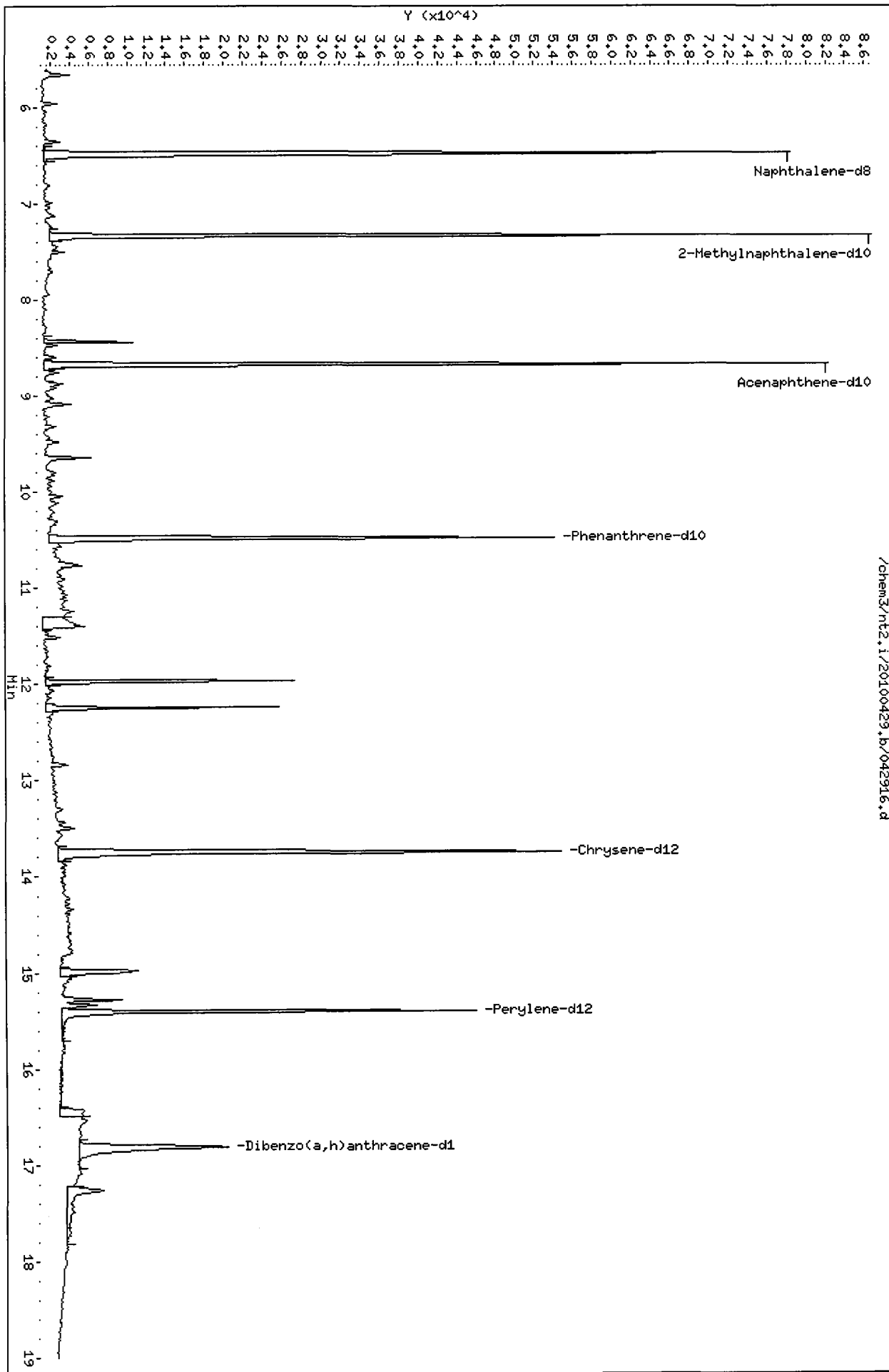
Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd/Snider Client SDG: QU08
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: QU08C Client Smp ID: CB4857042110COMP
Level: LOW Operator: pk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: waterlcs.spk Quant Type: ISTD
Sublist File: pnalnm.sub
Method File: /chem3/nt2.i/20100429.b/lowsim.m
Misc Info: 10-10296

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	180	59.97	31-109
\$ 36 Dibenzo(a,h) anthra	300	177	59.10	10-133

/chem3/nt2.i/20100429.b/042916.d



Date : 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

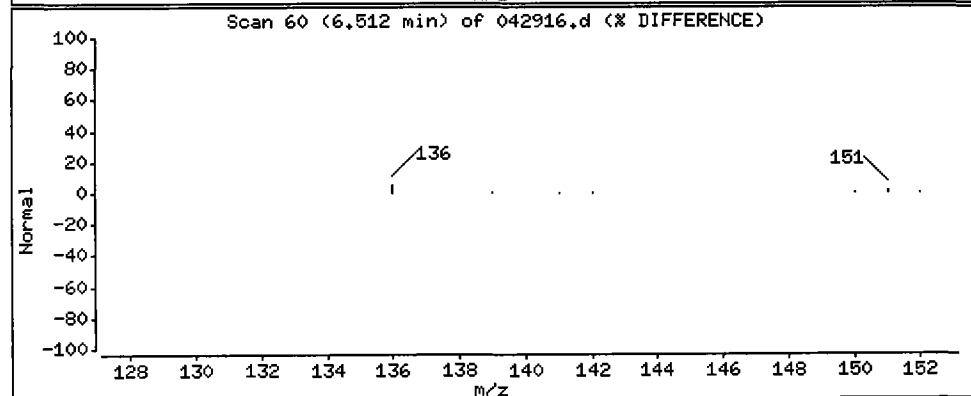
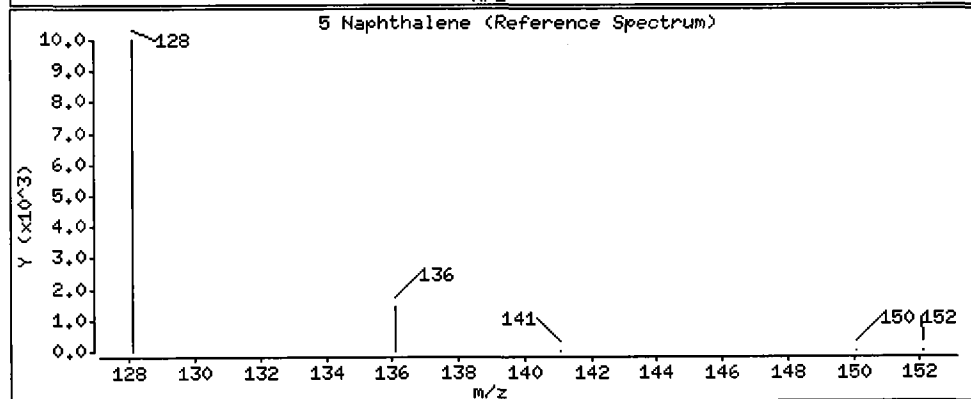
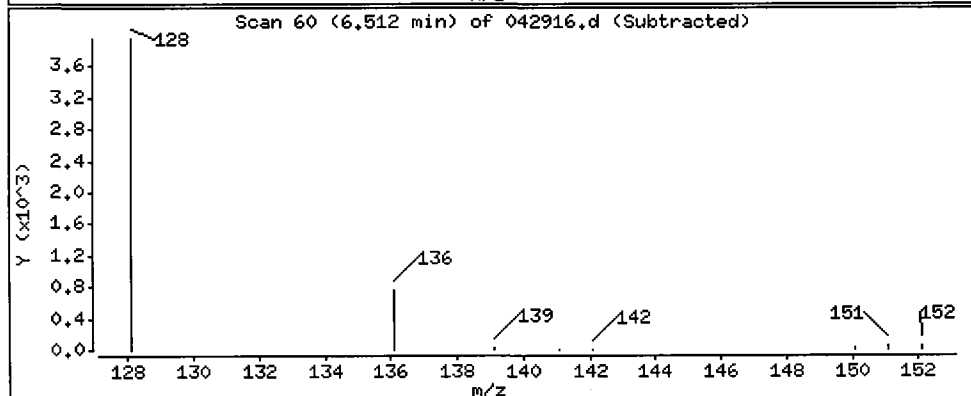
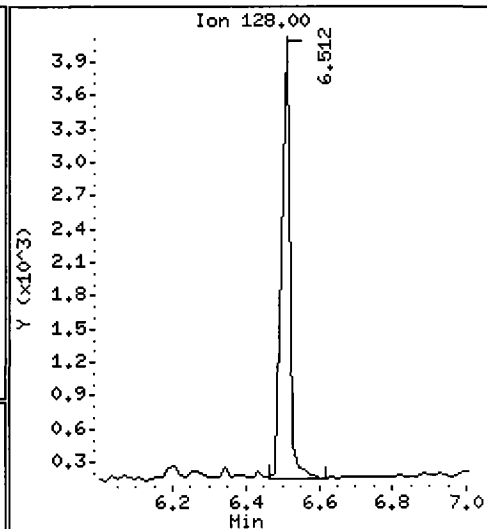
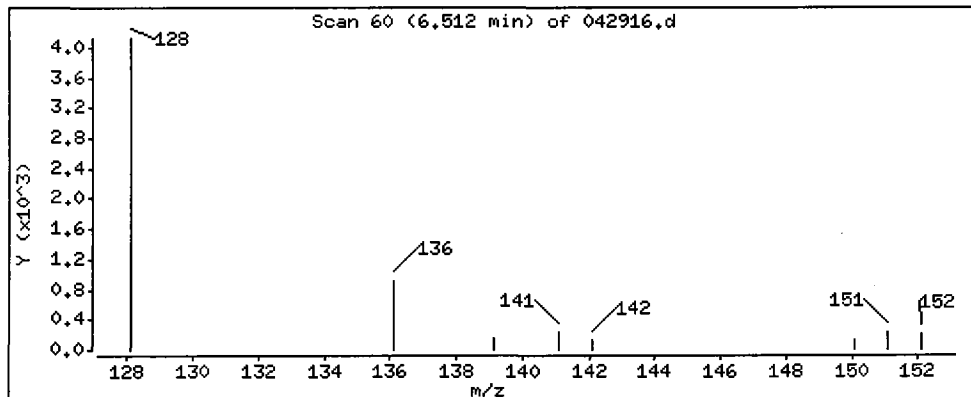
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

5 Naphthalene

Concentration: 11.3 ug/L



Date : 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

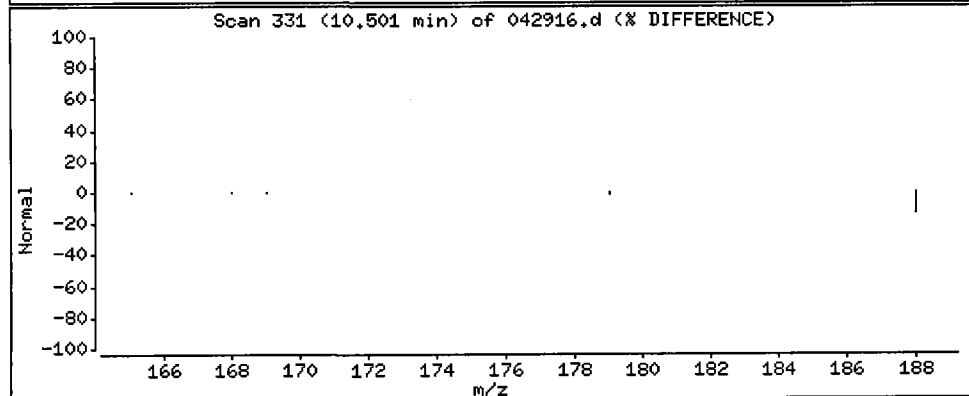
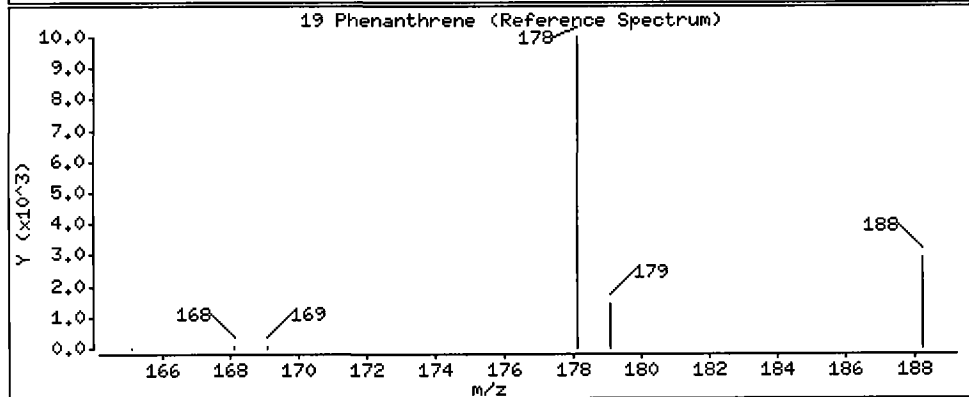
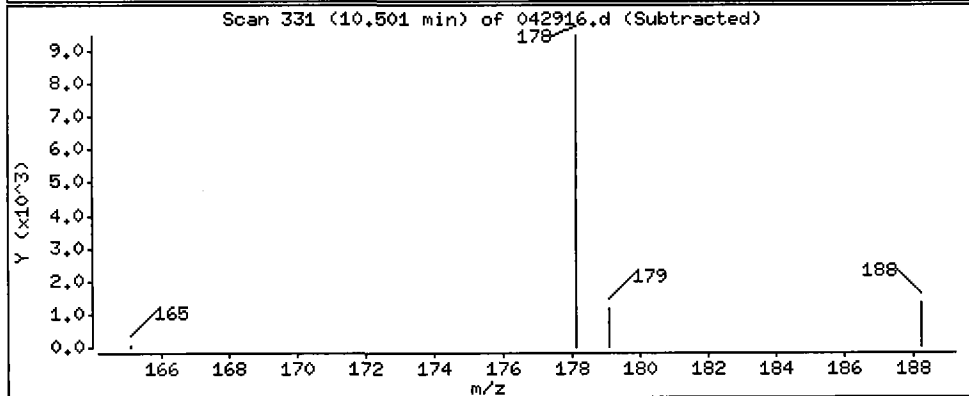
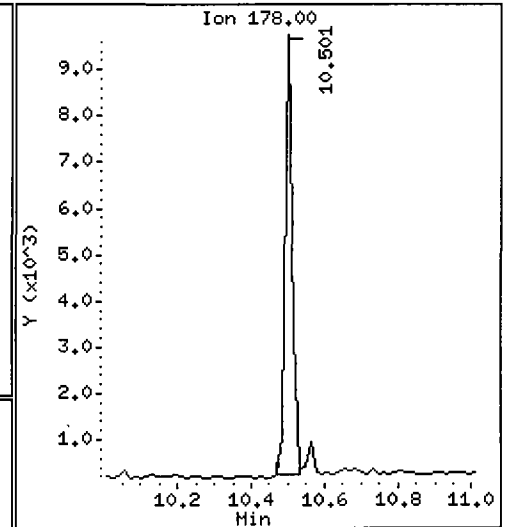
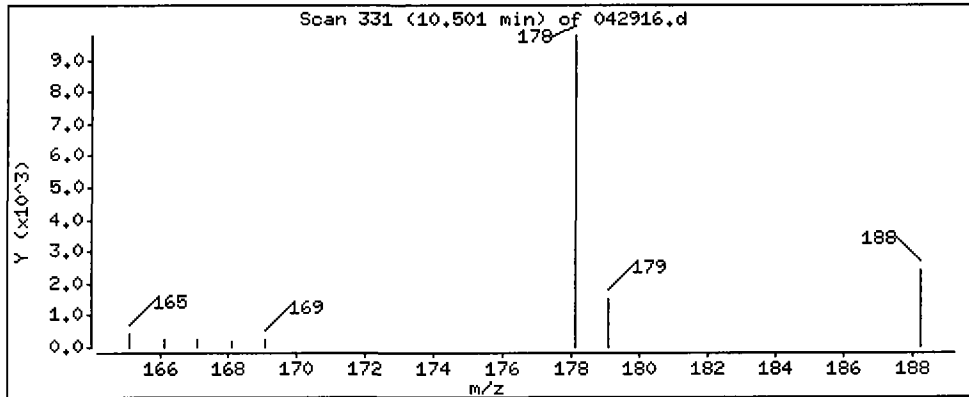
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

19 Phenanthrene

Concentration: 24.3 ug/L



Date : 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

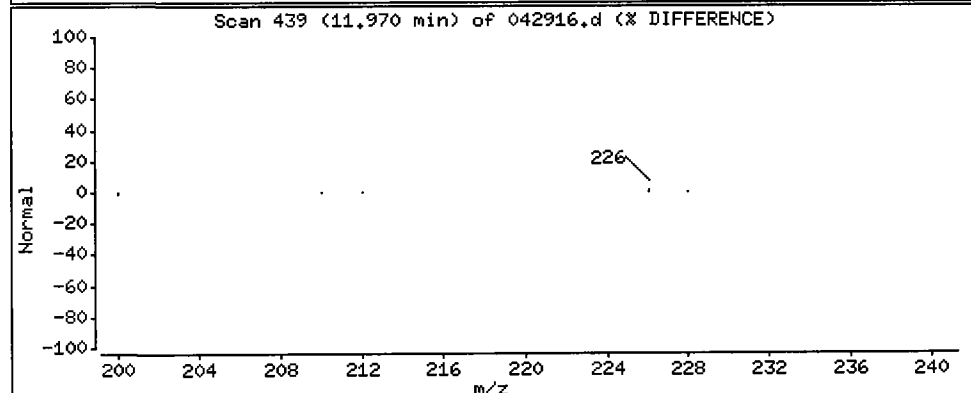
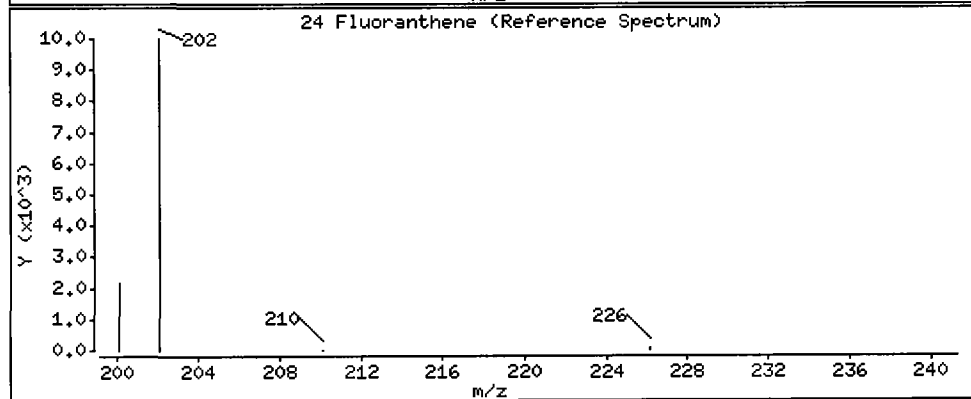
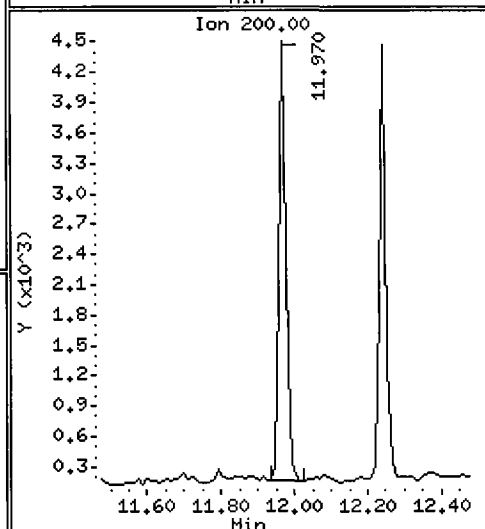
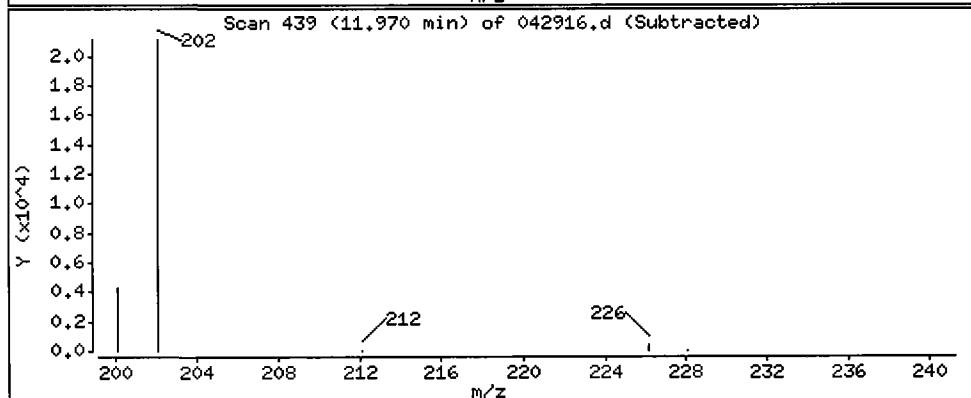
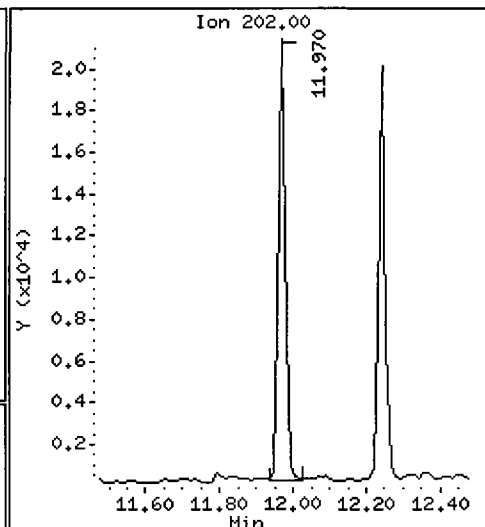
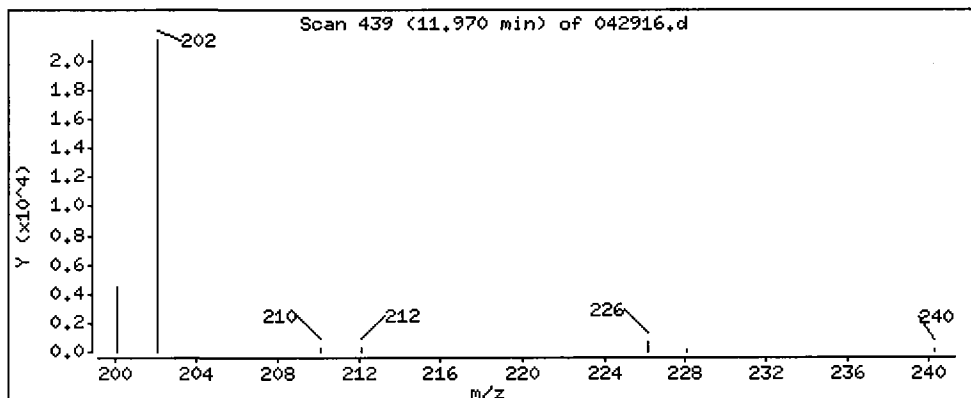
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

24 Fluoranthene

Concentration: 45.7 ug/L



Date : 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

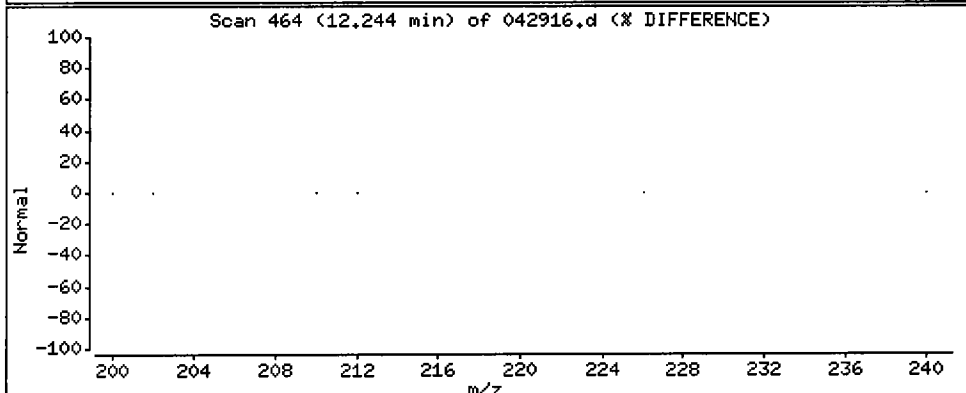
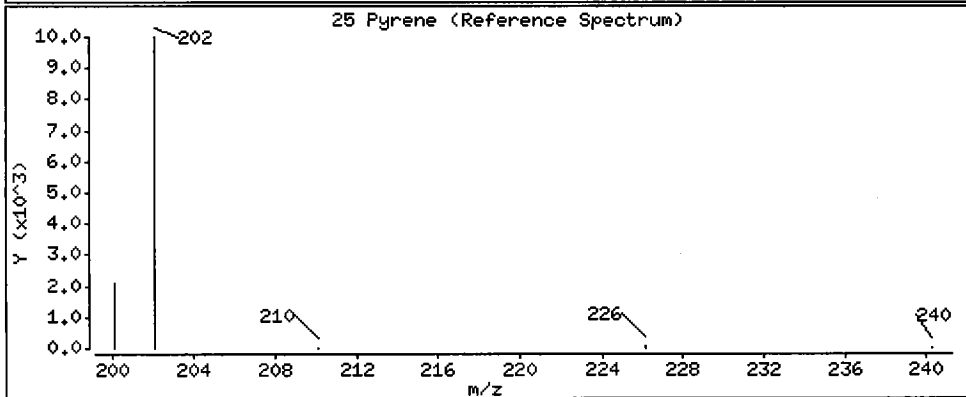
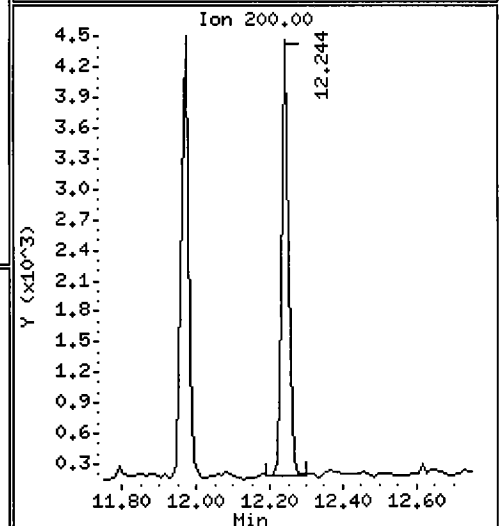
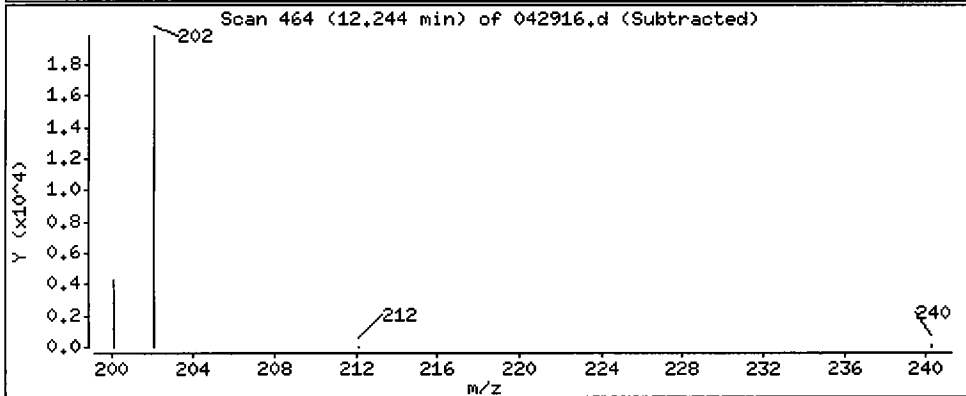
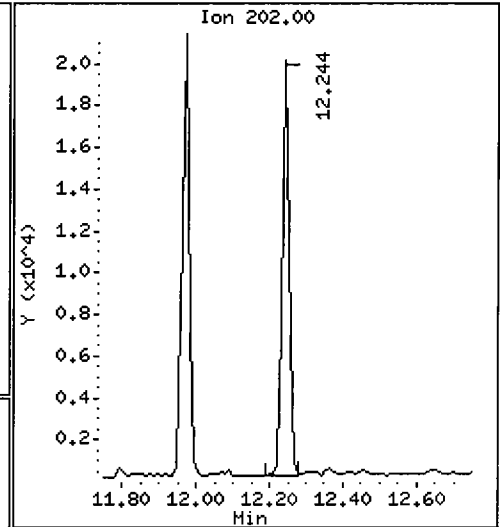
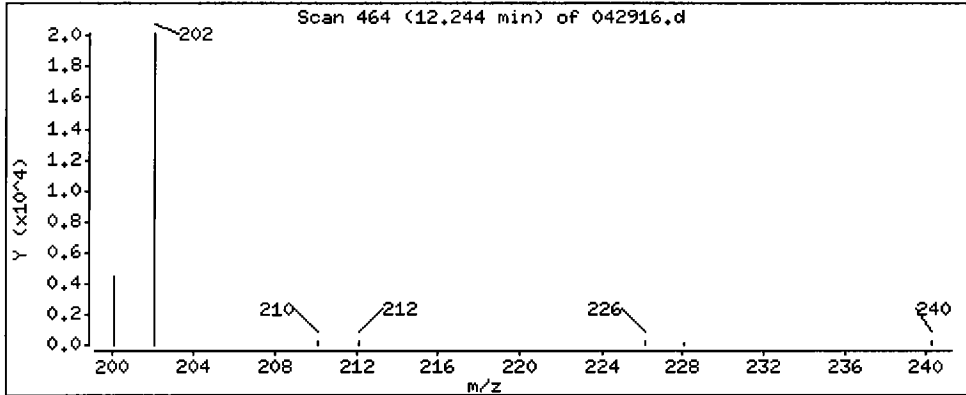
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

25 Pyrene

Concentration: 42.5 ug/L



Date : 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

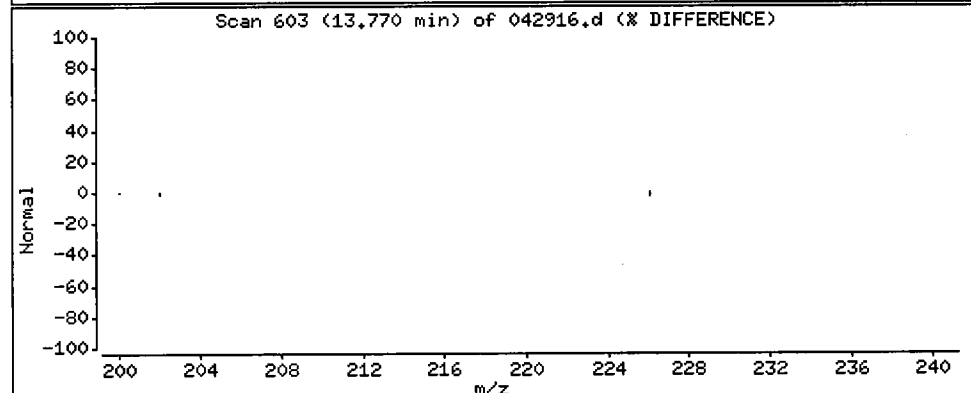
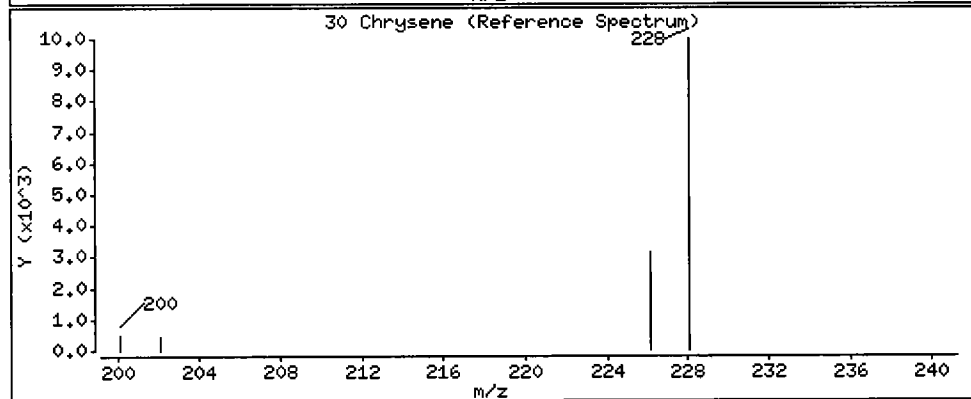
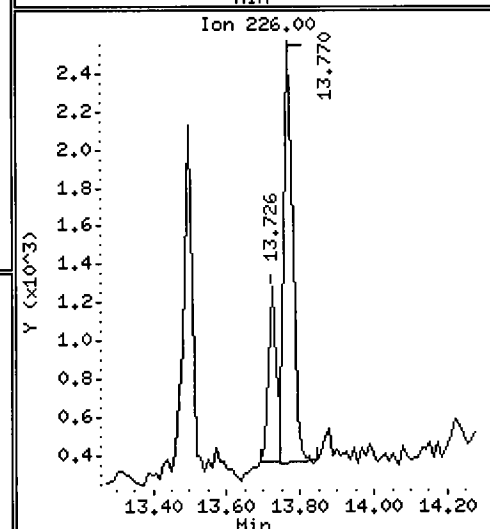
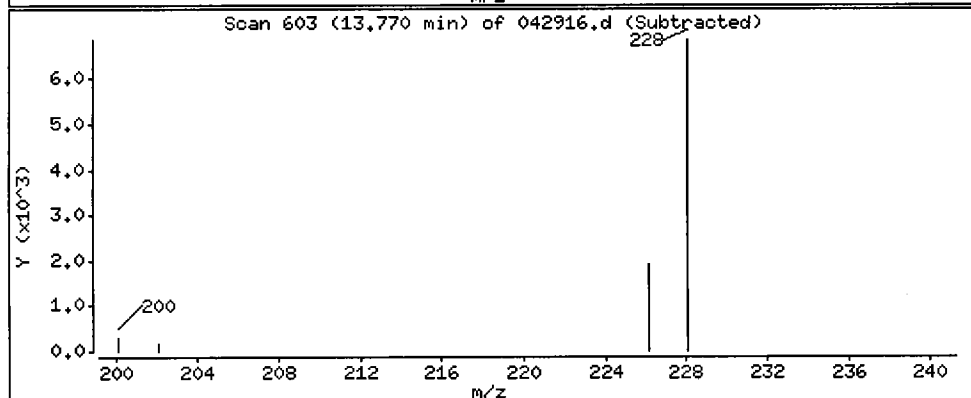
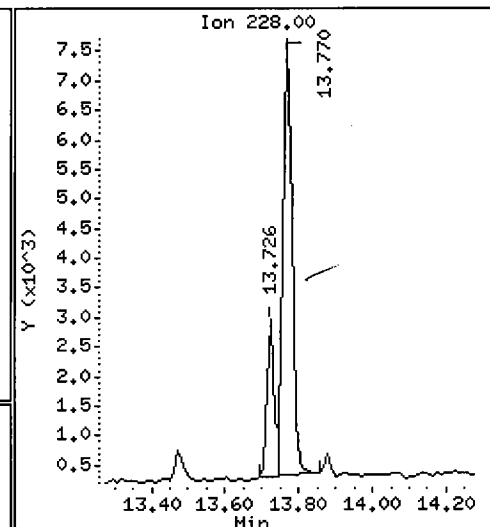
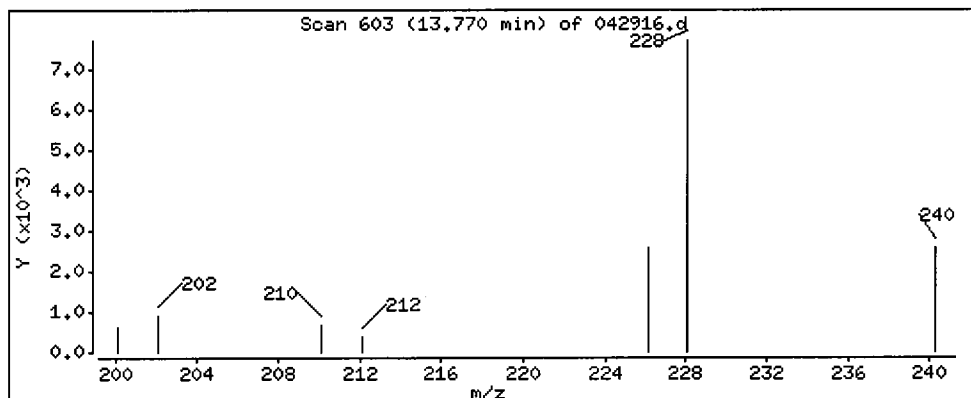
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

30 Chrysene

Concentration: 26.1 ug/L



Date : 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

Operator: pk

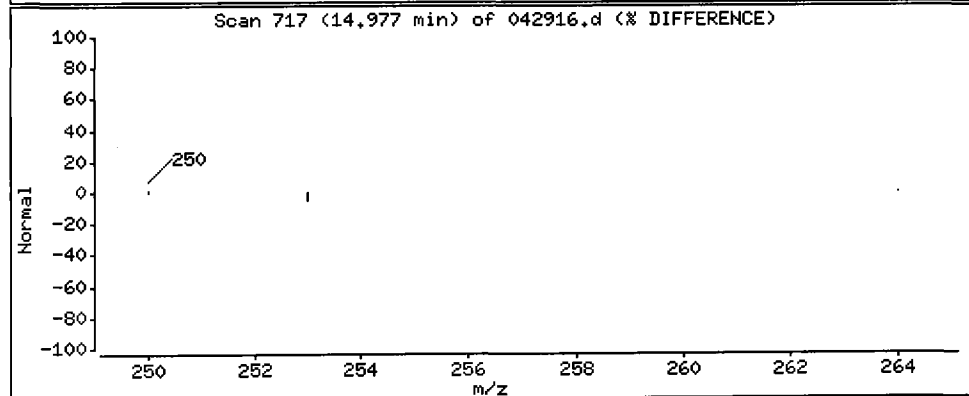
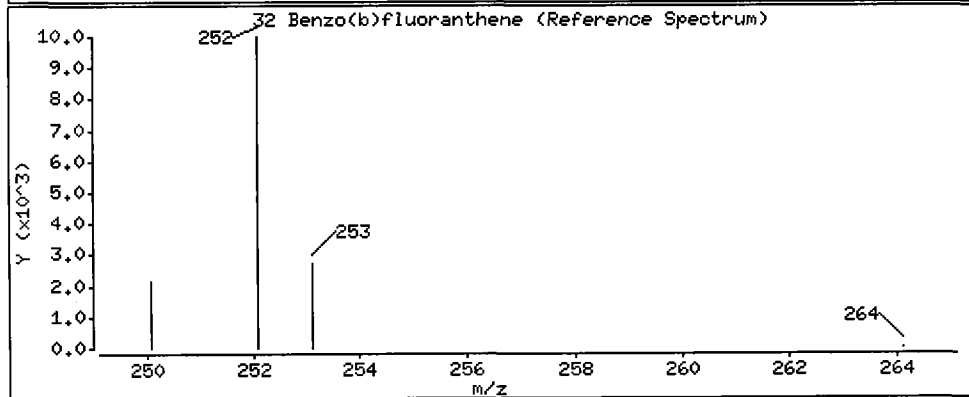
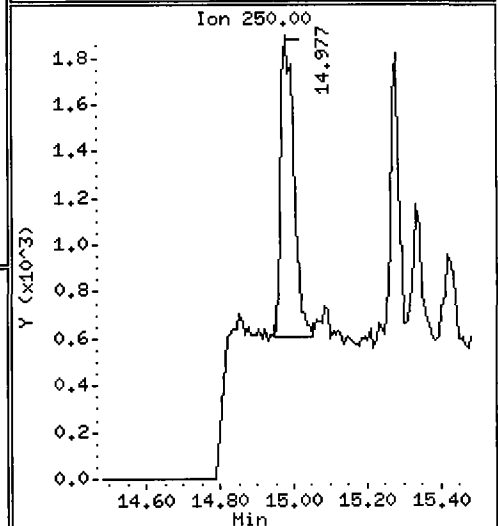
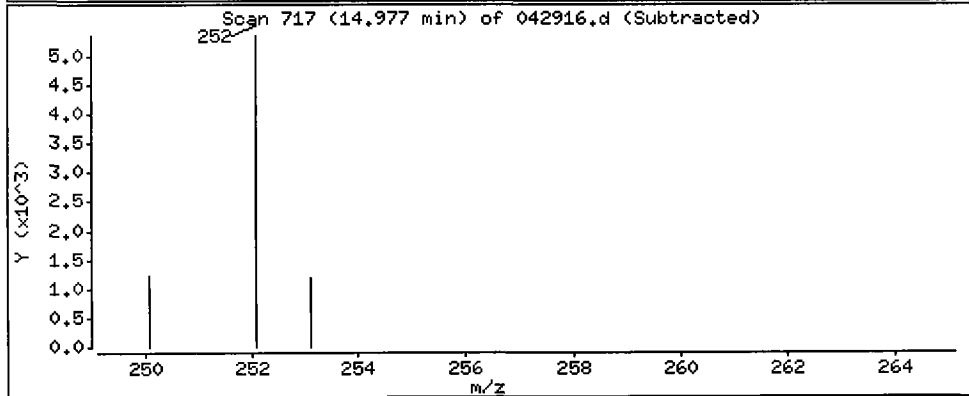
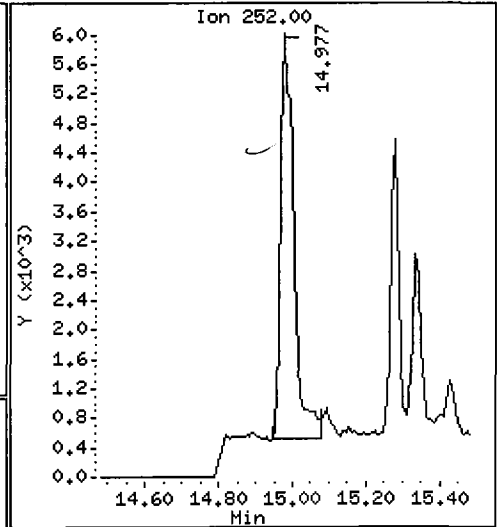
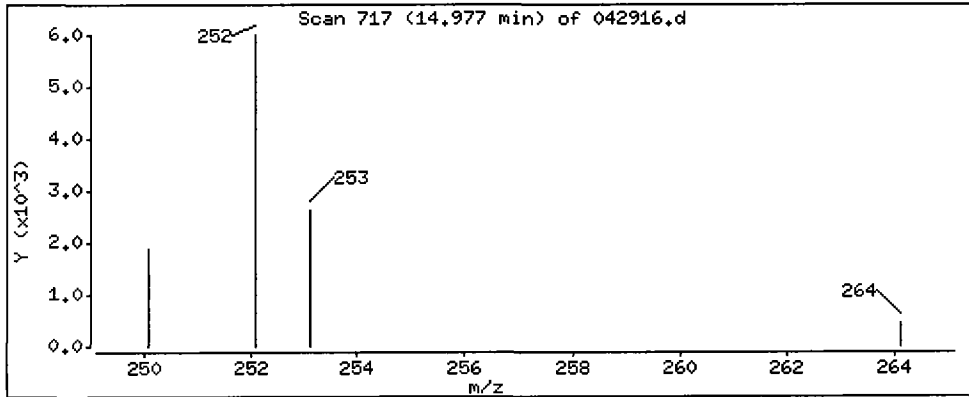
Column phase: ZB-5

Column diameter: 0.25

Handwritten mark

32 Benzo(b)fluoranthene

Concentration: 30.1 ug/L



Date : 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

Operator: pk

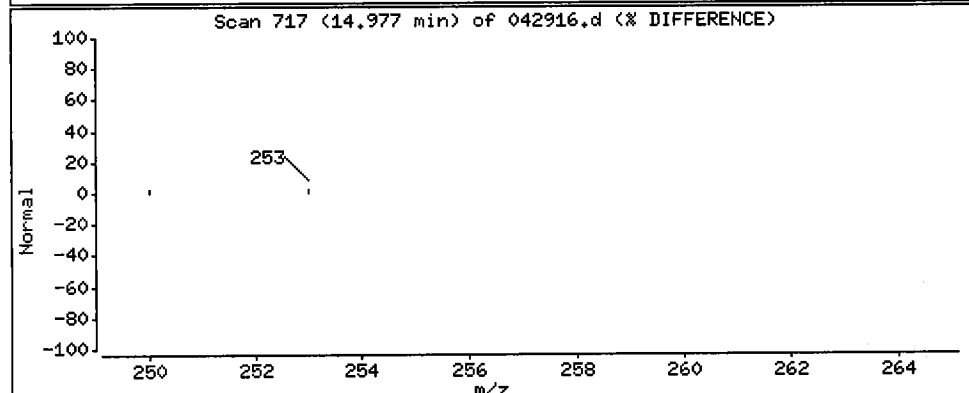
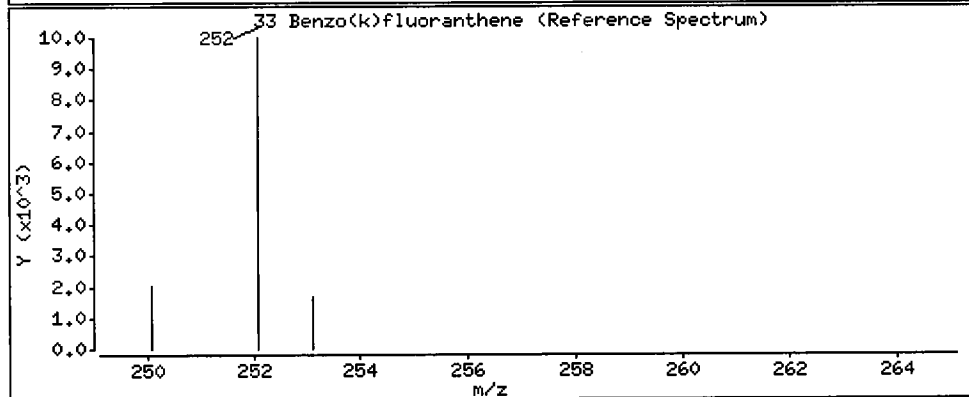
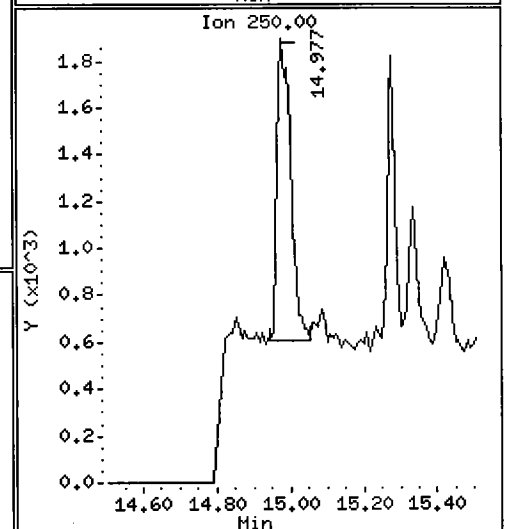
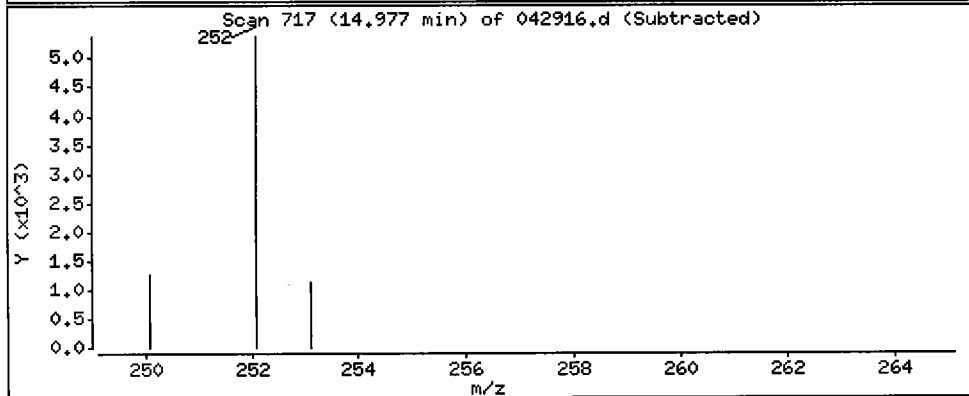
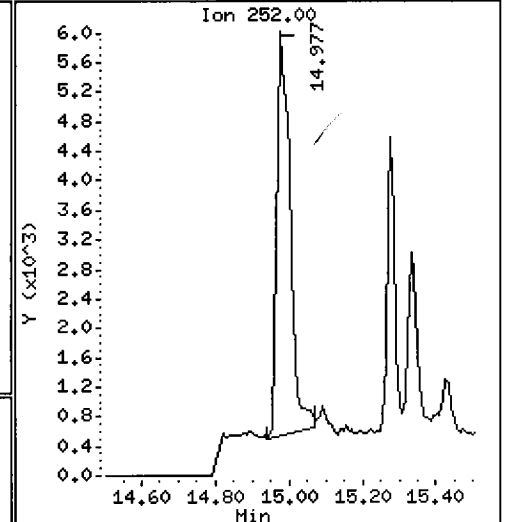
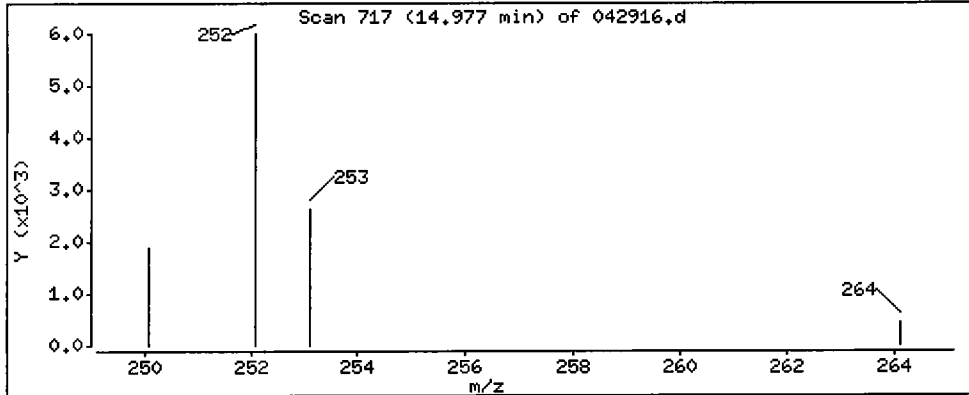
Column phase: ZB-5

Column diameter: 0.25

112

33 Benzo(k)fluoranthene

Concentration: 27.0 ug/L



Date : 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

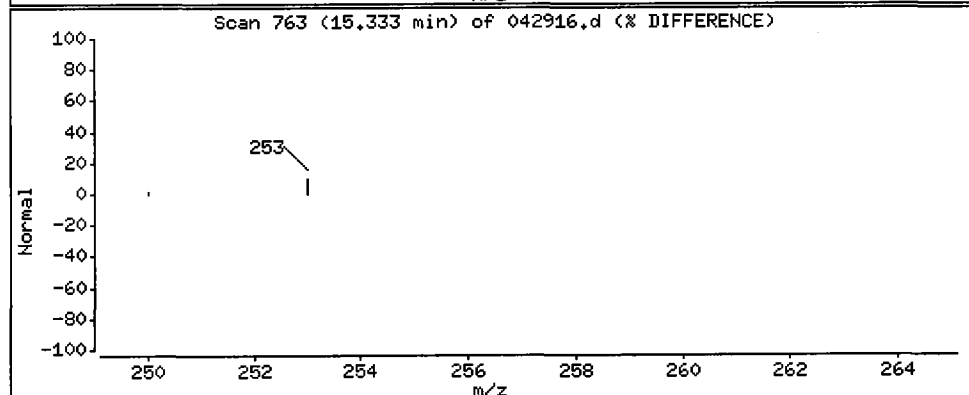
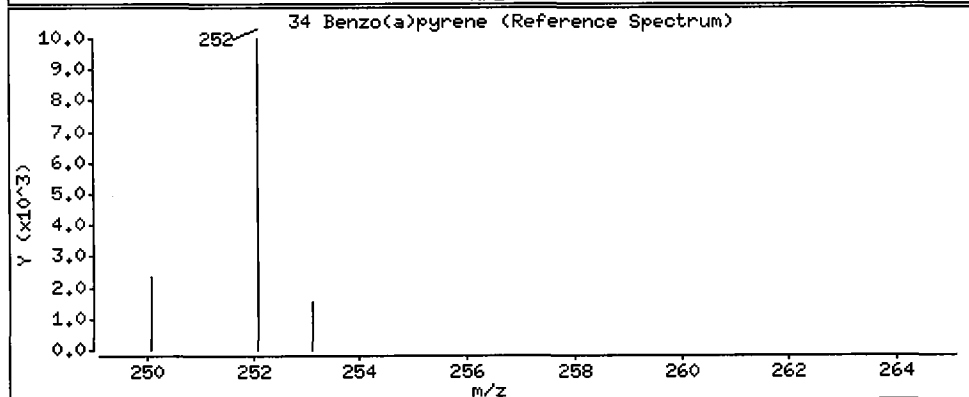
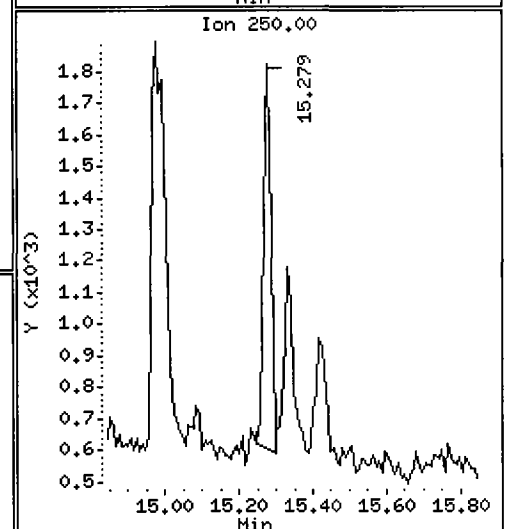
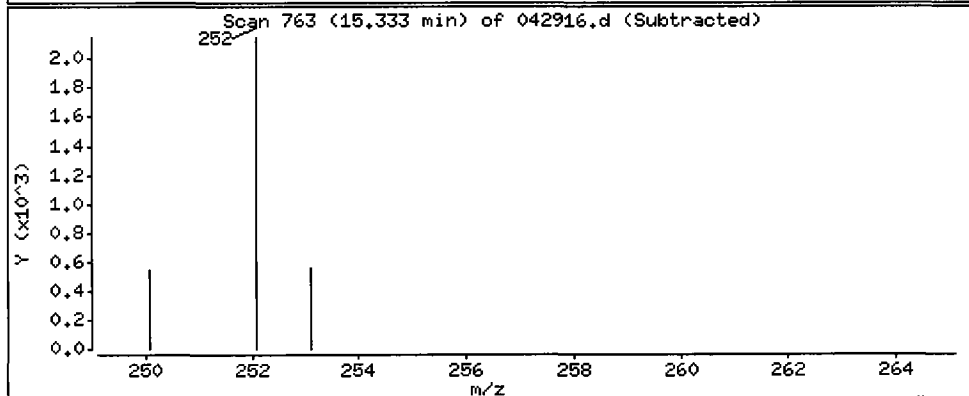
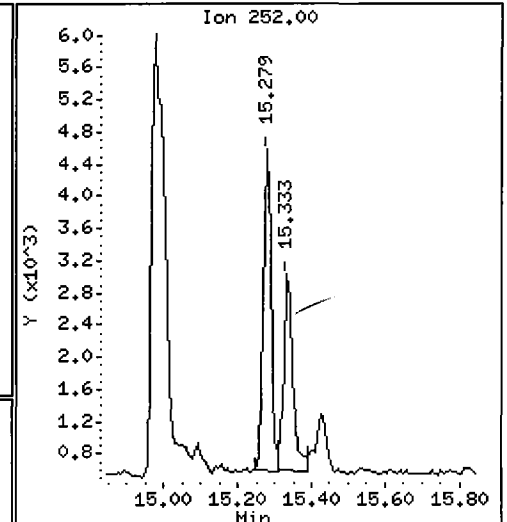
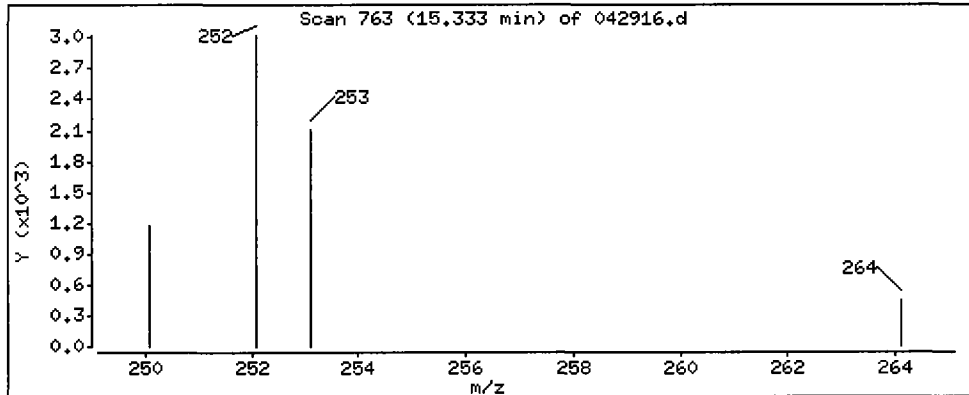
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

34 Benzo(a)pyrene

Concentration: 11.3 ug/L



Date: 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

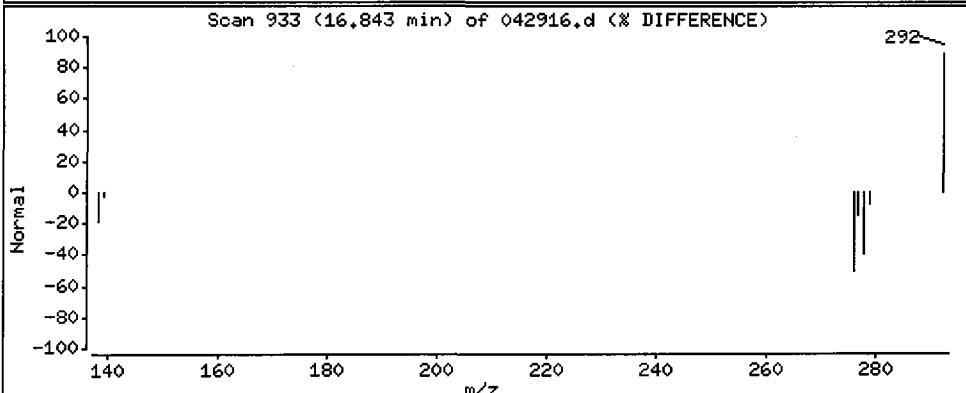
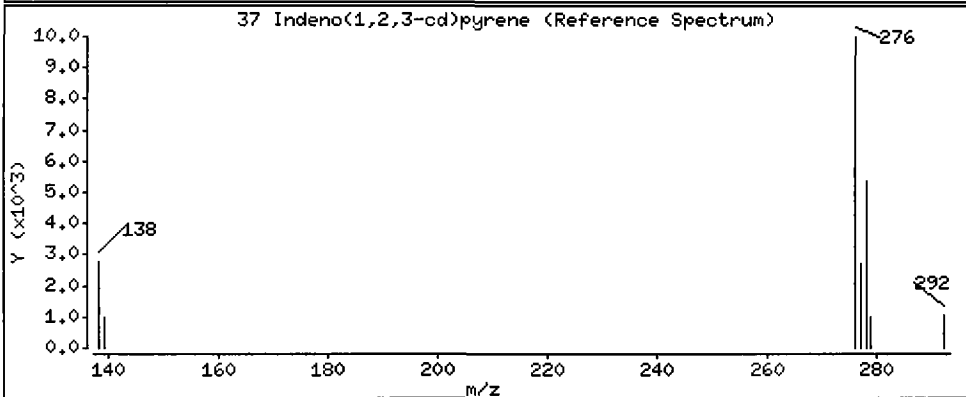
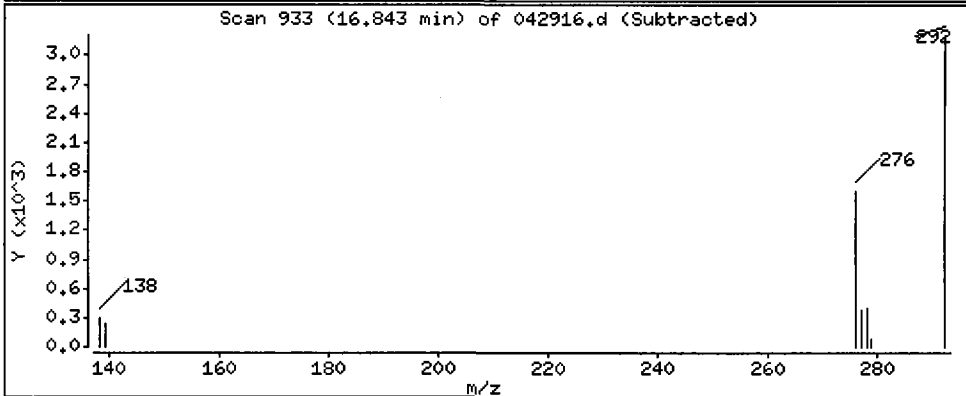
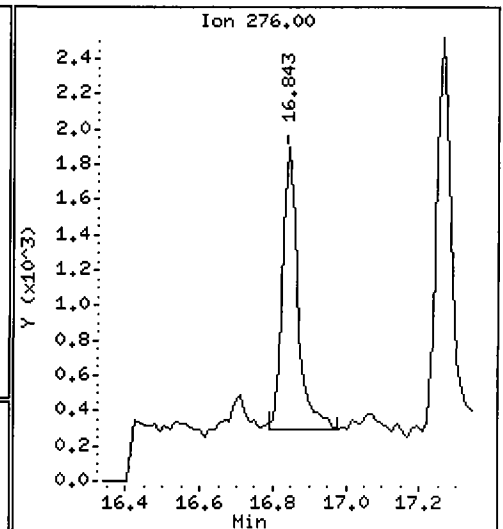
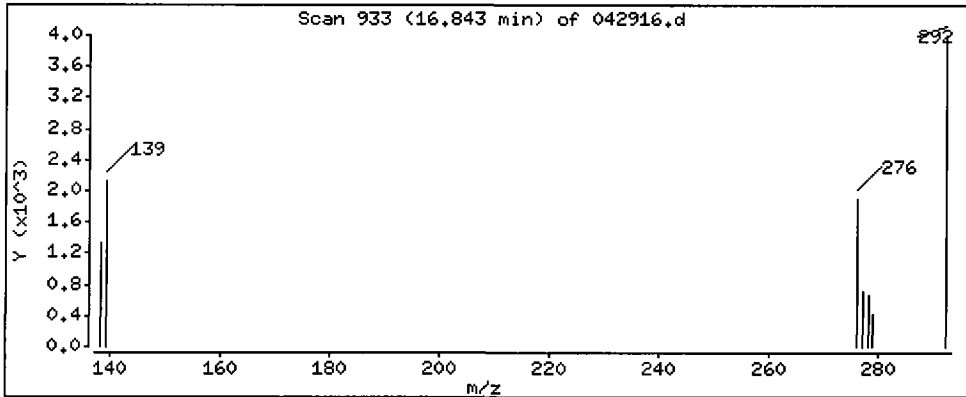
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

37 Indeno(1,2,3-cd)pyrene

Concentration: 10.8 ug/L



Date: 29-APR-2010 16:59

Client ID: CB4857042110COMP

Instrument: nt2.i

Sample Info: QU08C

Volume Injected (uL): 2.0

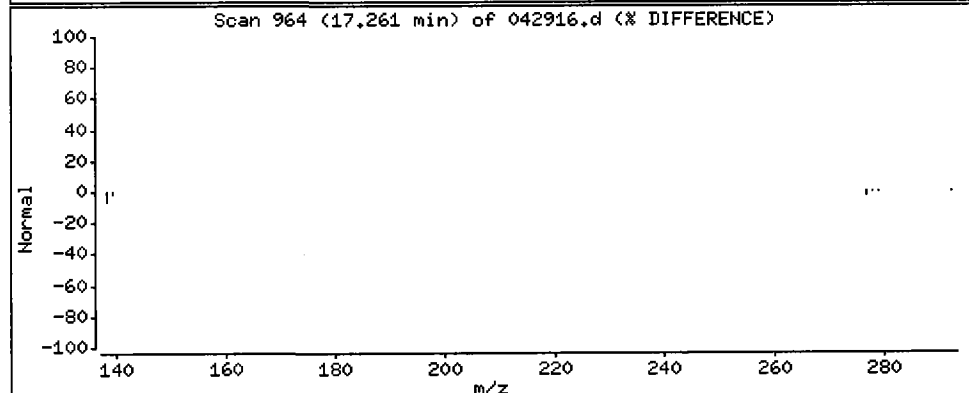
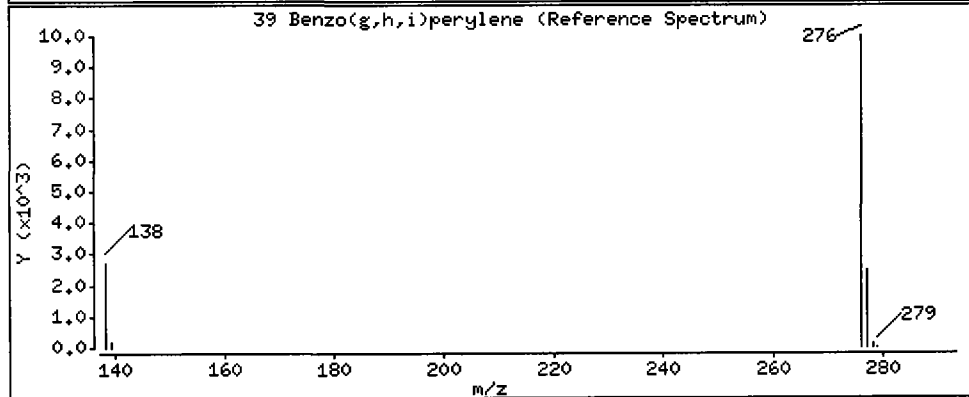
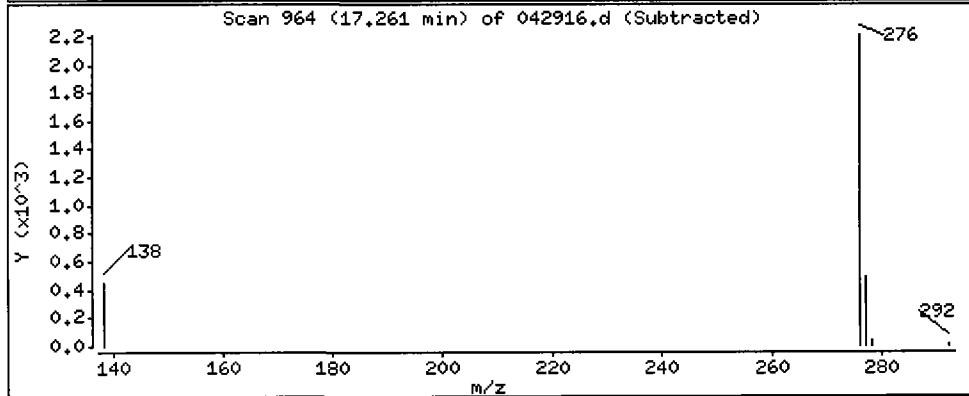
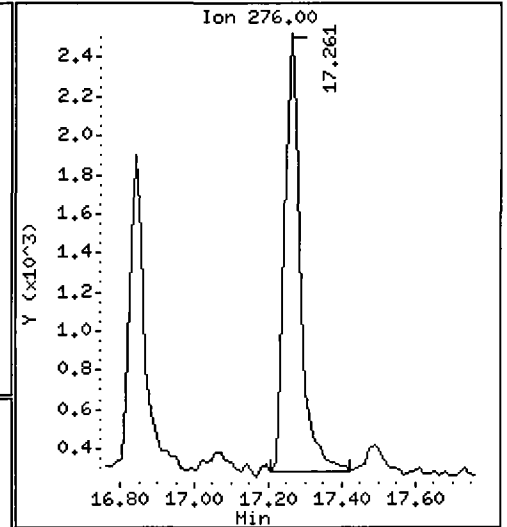
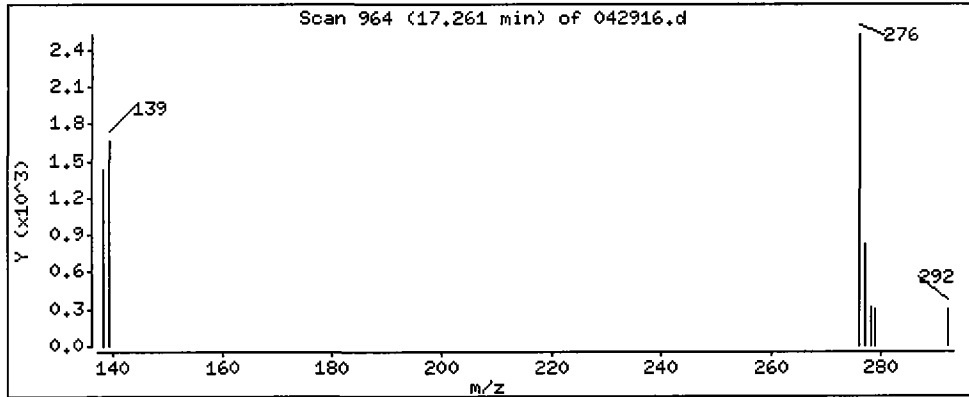
Operator: pk

Column phase: ZB-5

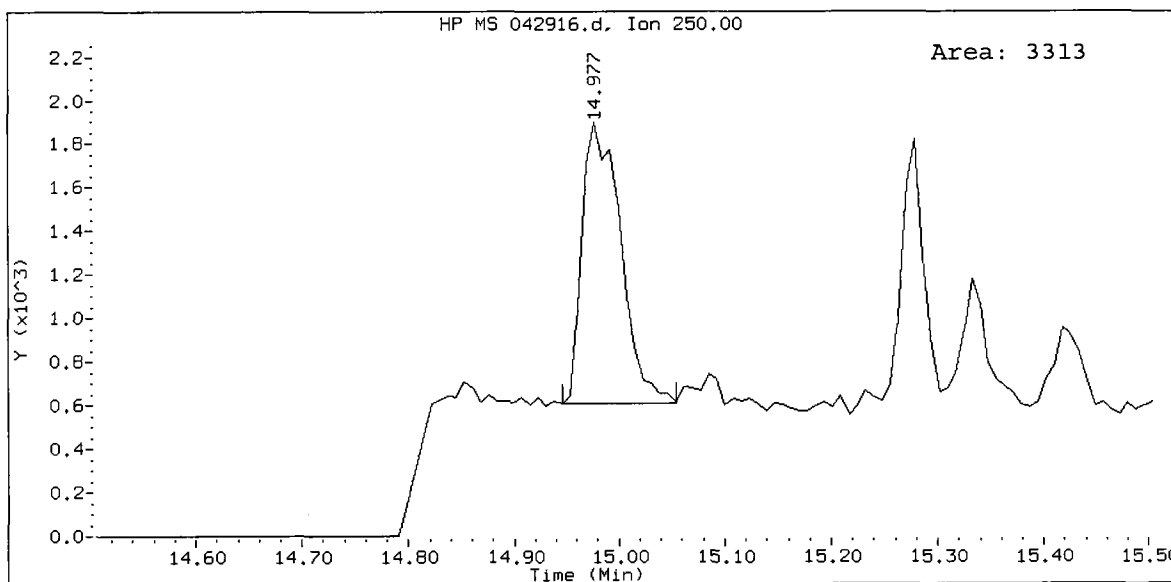
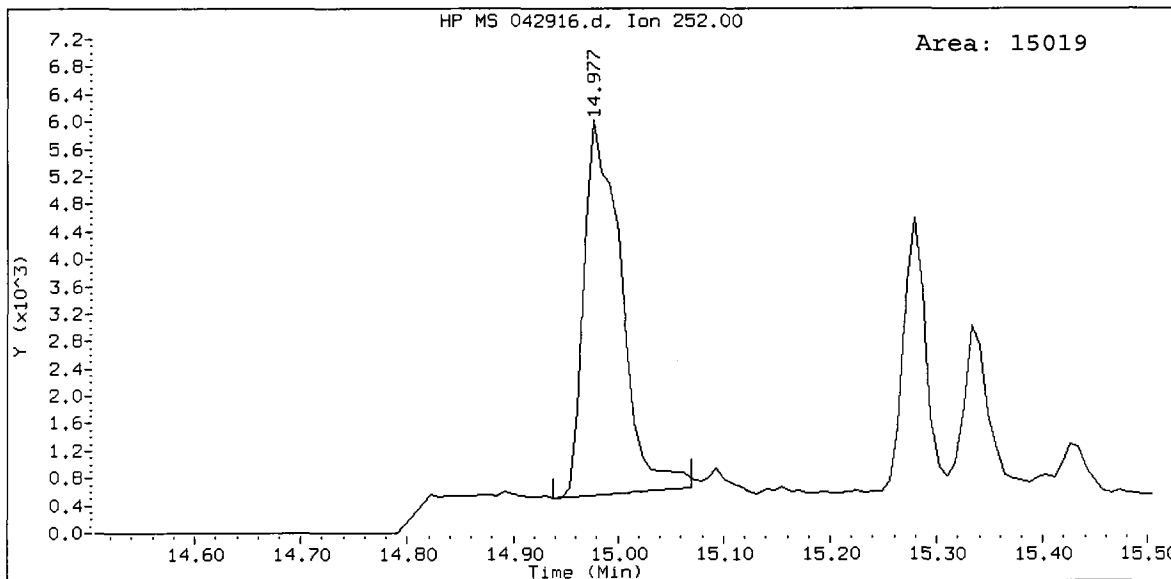
Column diameter: 0.25

39 Benzo(g,h,i)perylene

Concentration: 18.2 ug/L




QU08C, /chem3/nt2.i/20100429.b/042916.d
Benzo(k)fluoranthene Amount: 26.96



ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB101042110COMP
SAMPLE

Lab Sample ID: QU08D
LIMS ID: 10-10297
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 17:22
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.011
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.028
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.057
129-00-0	Pyrene	0.010	0.052
56-55-3	Benzo (a) anthracene	0.010	0.010
218-01-9	Chrysene	0.010	0.036
205-99-2	Benzo (b) fluoranthene	0.010	0.020
207-08-9	Benzo (k) fluoranthene	0.010	0.020
50-32-8	Benzo (a) pyrene	0.010	0.018
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.012
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.021
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatle Surrogate Recovery

d10-2-Methylnaphthalene 63.3%
d14-Dibenzo(a,h)anthracene 55.3%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042917.d
 Lab Smp Id: QU08D Client Smp ID: CB101042110COMP
 Inj Date : 29-APR-2010 17:22
 Operator : pk Inst ID: nt2.i
 Smp Info : QU08D
 Misc Info : 10-10297
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 13:03 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 17
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalnm.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.481	6.496	(1.000)	88863	200.000	
5 Naphthalene	128	6.512	6.511	(1.005)	5739	11.3256	11.3 (M)
\$ 6 2-Methylnaphthalene-d10	152	7.327	7.342	(1.131)	57548	189.768	190
7 2-Methylnaphthalene	142	7.373	7.373	(1.138)	2221	7.07792	7.08
8 1-Methylnaphthalene	142	Compound Not Detected.					
10 Acenaphthylene	152	Compound Not Detected.					
* 11 Acenaphthene-d10	164	8.669	8.681	(1.000)	55629	200.000	
12 Acenaphthene	153	Compound Not Detected.					
14 Dibenzofuran	168	Compound Not Detected.					
15 Fluorene	166	Compound Not Detected.					
* 18 Phenanthrene-d10	188	10.485	10.486	(1.000)	85276	200.000	
19 Phenanthrene	178	10.500	10.502	(1.001)	15518	28.4696	28.5
20 Anthracene	178	Compound Not Detected.					
24 Fluoranthene	202	11.971	11.970	(1.142)	32654	57.3949	57.4
25 Pyrene	202	12.245	12.245	(1.168)	29848	51.7927	51.8

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)	
28 Benzo (a) anthracene	228	13.727	13.726	(0.998)	4885	10.4921	10.5	
* 29 Chrysene-d12	240	13.749	13.748	(1.000)	73044	200.000		
30 Chrysene	228	13.771	13.770	(1.002)	16369	35.7501	35.8	
32 Benzo (b) fluoranthene	252	14.976	14.978	(0.972)	20683	42.6558	42.7	
33 Benzo (k) fluoranthene	252	14.976	15.001	(0.972)	22571	39.0361	39.0 (M)	
34 Benzo (a) pyrene	252	15.332	15.342	(0.995)	6864	17.7189	17.7	
* 35 Perylene-d12	264	15.402	15.404	(1.000)	68608	200.000		
37 Indeno (1,2,3-cd) pyrene	276	16.843	16.842	(1.094)	5189	11.7133	11.7	
\$ 36 Dibenzo (a,h) anthracene-d14	292	16.816	16.815	(1.092)	43779	166.043	166	
38 Dibenzo (a,h) anthracene	278	Compound Not Detected.						
39 Benzo (g,h,i) perylene	276	17.261	17.260	(1.121)	7919	20.7364	20.7	

20.4

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 042917.d
 Lab Smp Id: QU08D
 Analysis Type: SV
 Quant Type: ISTD
 Operator: pk
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info: 10-10297

Calibration Date: 29-APR-2010
 Calibration Time: 10:35
 Client Smp ID: CB101042110COMP
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	88863	-26.44
11 Acenaphthene-d10	72668	36334	145336	55629	-23.45
18 Phenanthrene-d10	112603	56302	225206	85276	24.27
29 Chrysene-d12	101702	50851	203404	73044	28.18
35 Perylene-d12	87112	43556	174224	68608	-21.24

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.48	-0.23
11 Acenaphthene-d10	8.68	8.18	9.18	8.67	-0.14
18 Phenanthrene-d10	10.49	9.99	10.99	10.48	-0.01
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	-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.

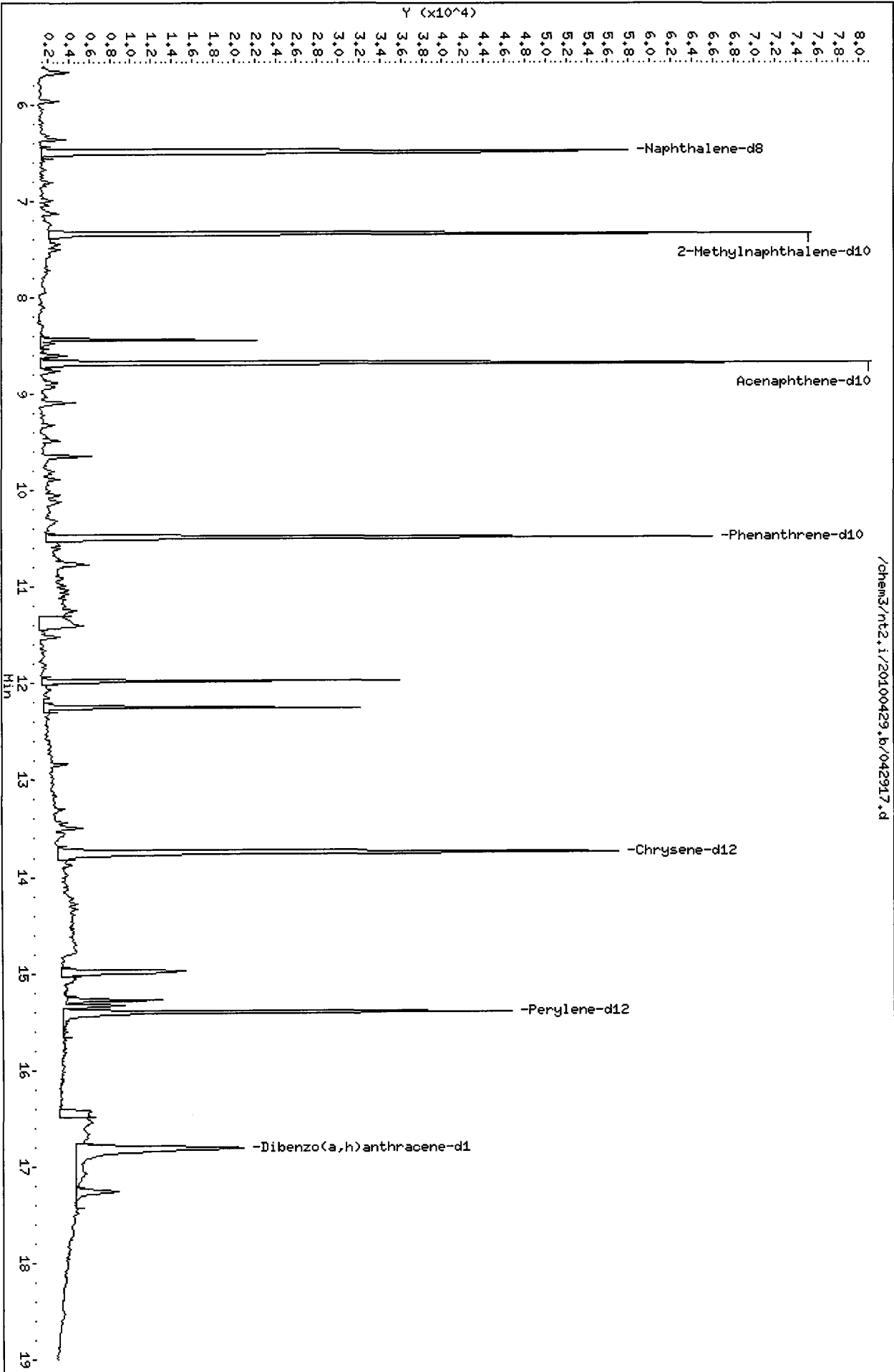
RECOVERY REPORT

Client Name: Floyd/Snider Client SDG: QU08
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: QU08D Client Smp ID: CB101042110COMP
Level: LOW Operator: pk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: waterlcs.spk Quant Type: ISTD
Sublist File: pnalnm.sub
Method File: /chem3/nt2.i/20100429.b/lowsim.m
Misc Info: 10-10297

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	190	63.26	31-109
\$ 36 Dibenzo(a,h) anthra	300	166	55.35	10-133

Data File: /chem3/nt2.i/20100429.b/042917.d
Date : 29-APR-2010 17:22
Client ID: CB1010421100DHP
Sample Info: QU08D
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: pk
Column diameter: 0.25



/chem3/nt2.i/20100429.b/042917.d

Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

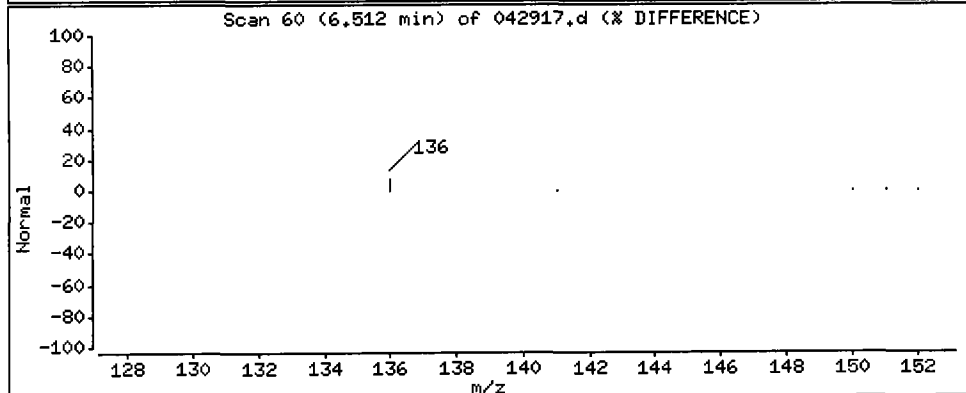
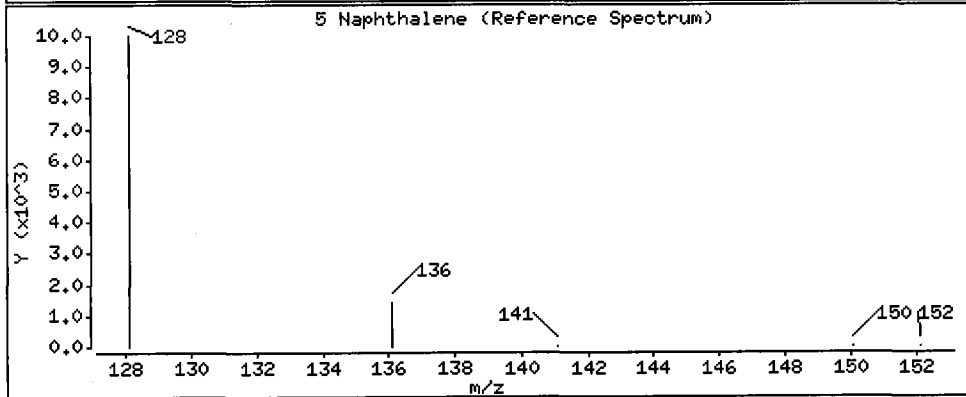
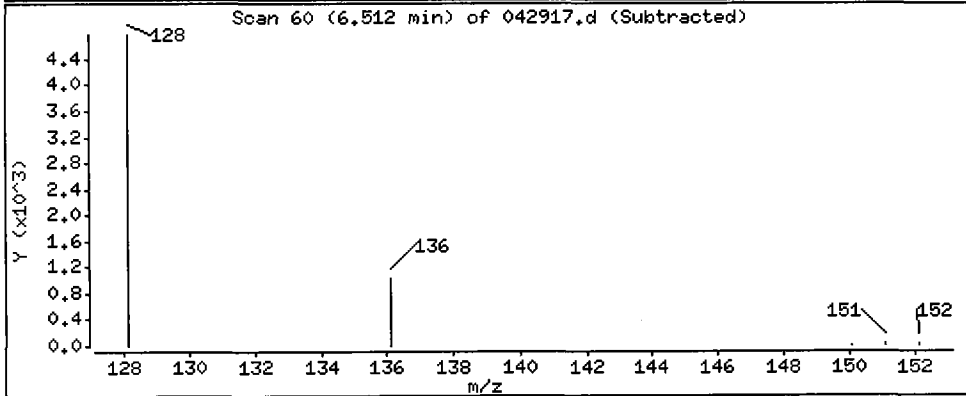
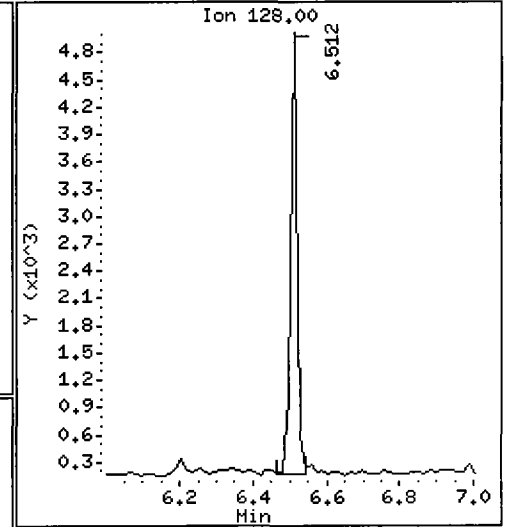
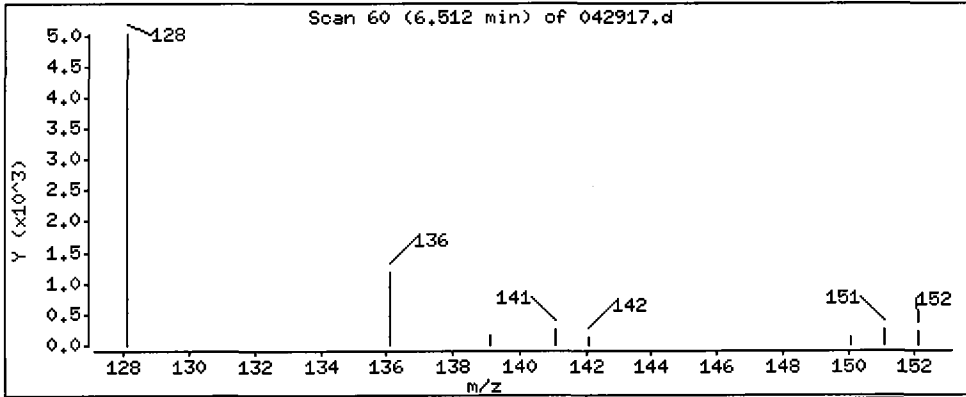
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

5 Naphthalene

Concentration: 11.3 ug/L



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

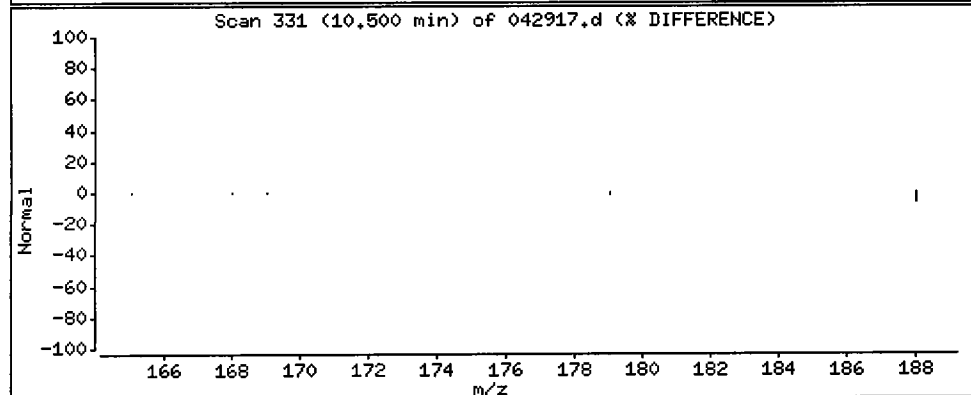
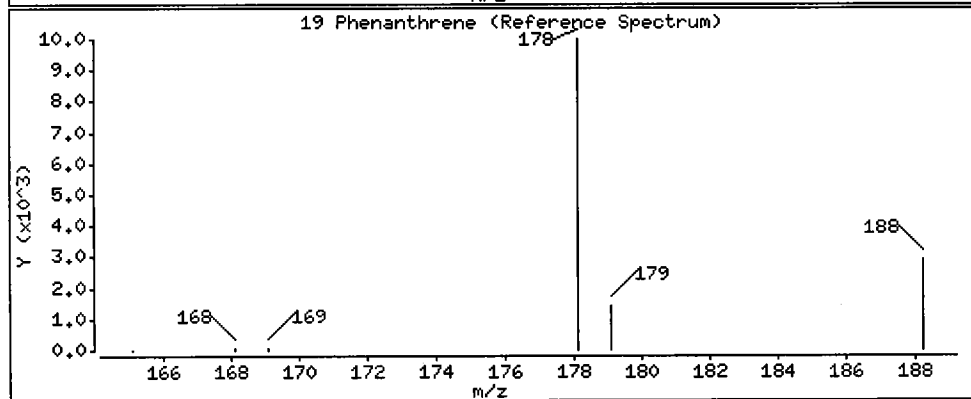
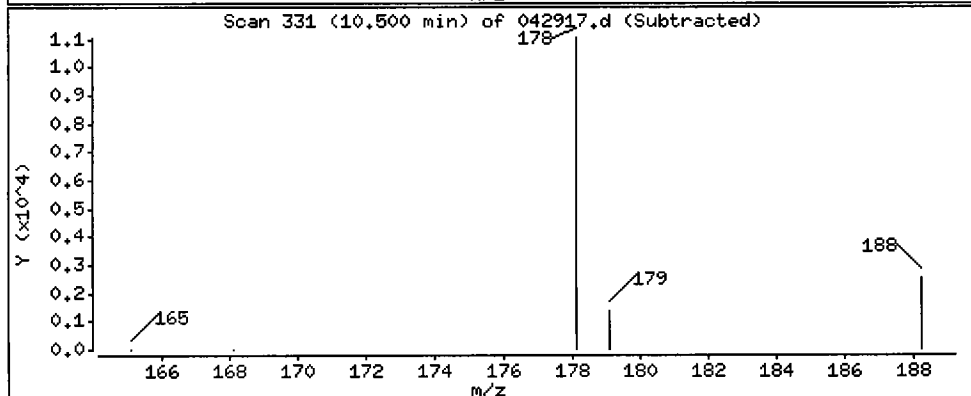
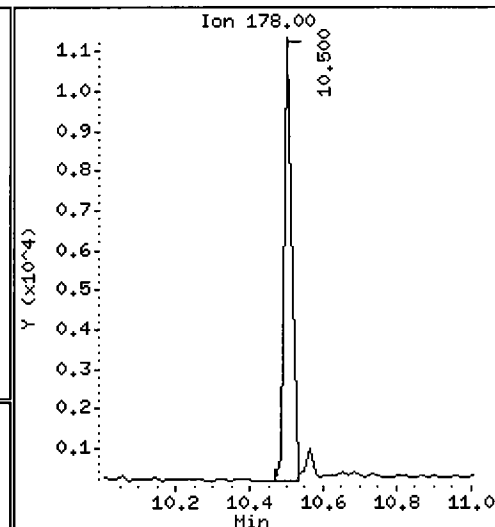
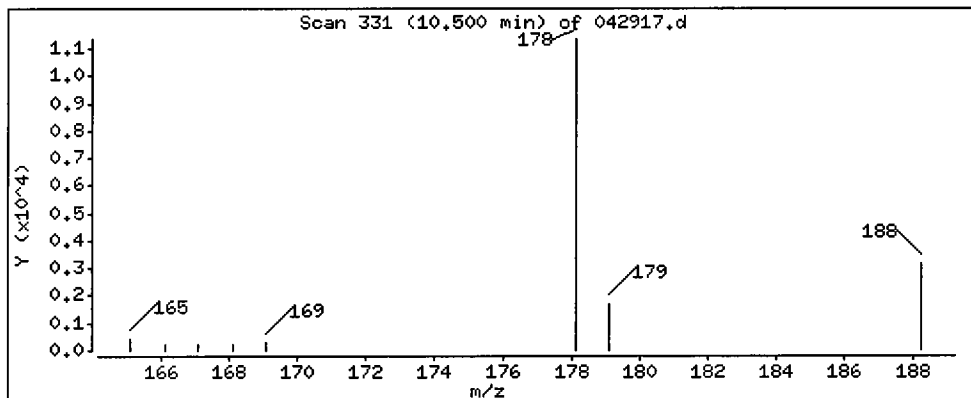
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

19 Phenanthrene

Concentration: 28.5 ug/L



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

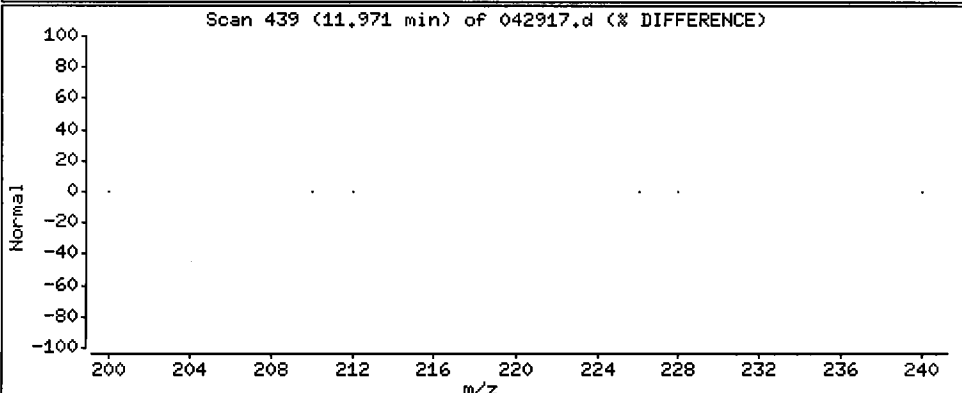
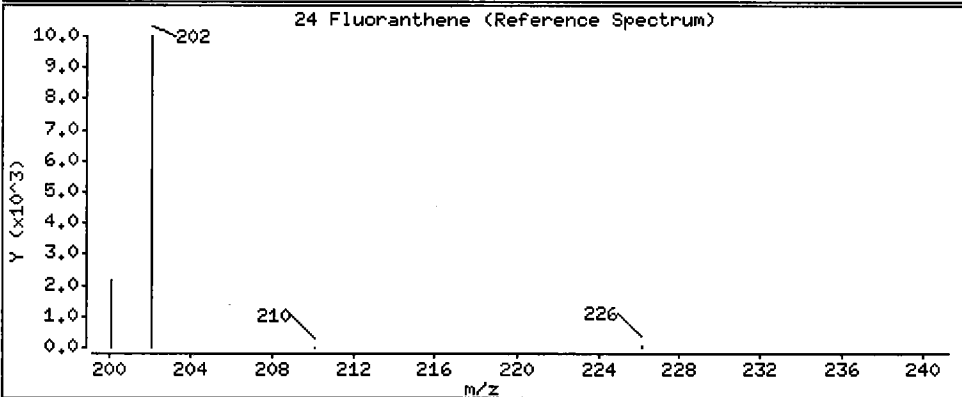
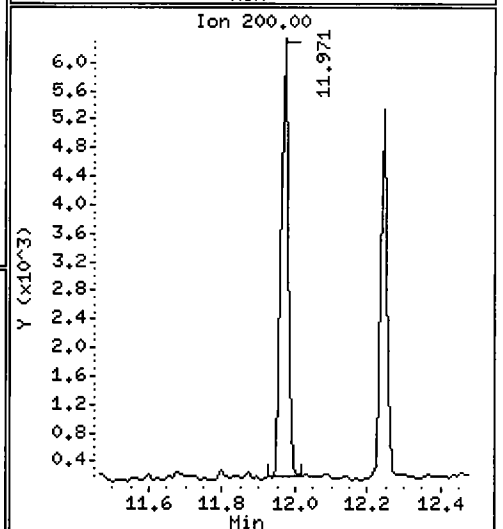
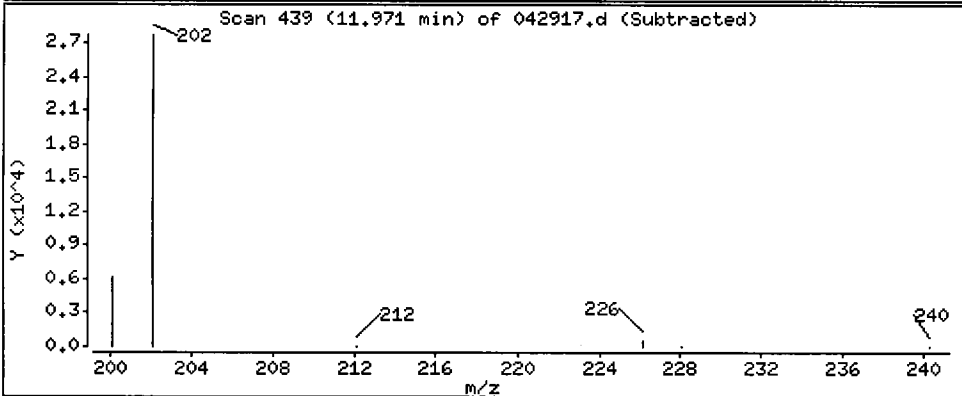
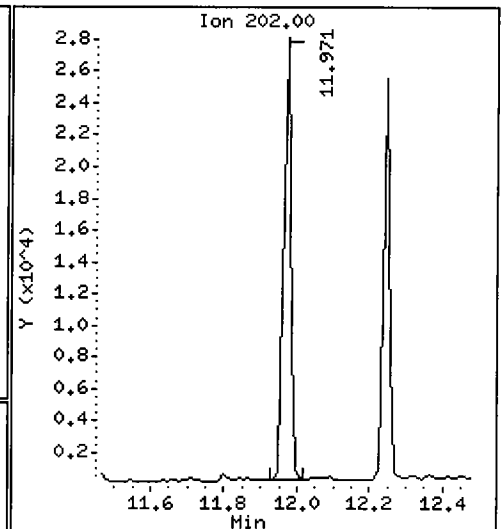
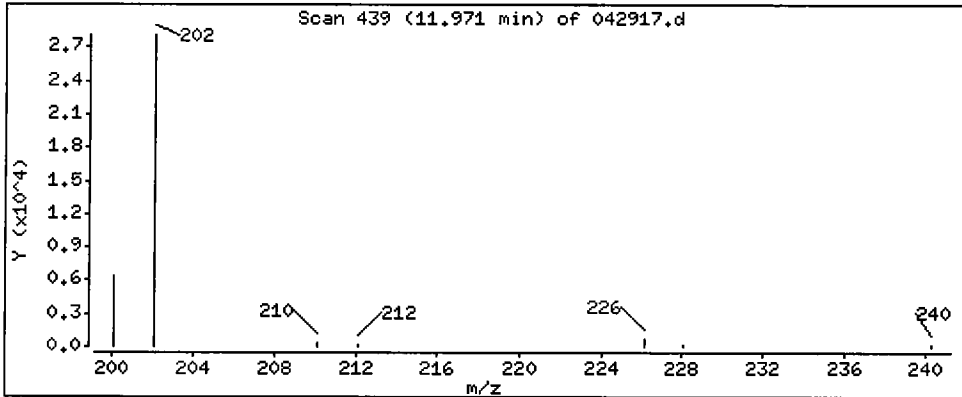
Operator: pk

Column phase: ZB-5

Column diameter: 0,25

24 Fluoranthene

Concentration: 57,4 ug/L



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

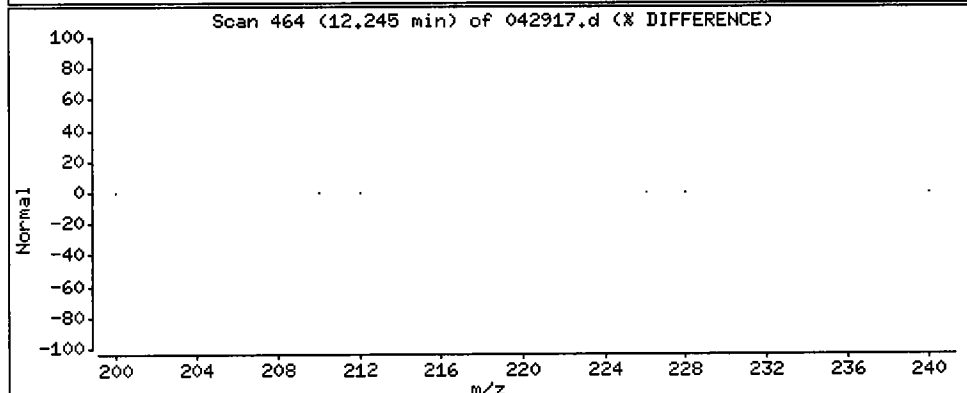
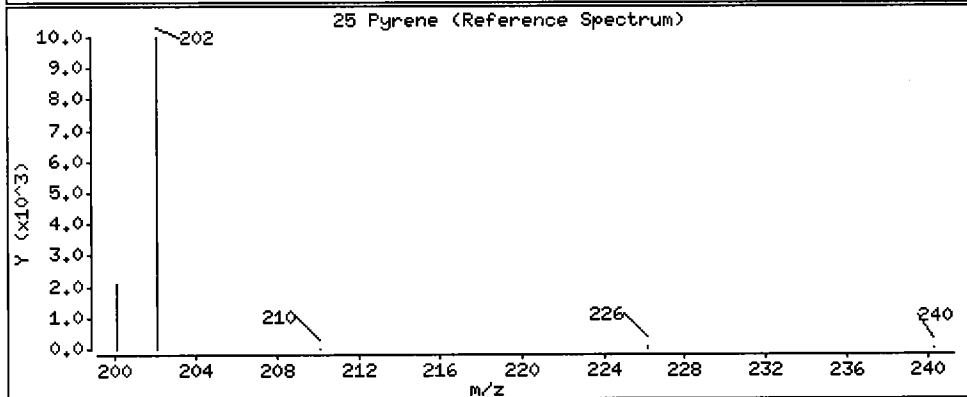
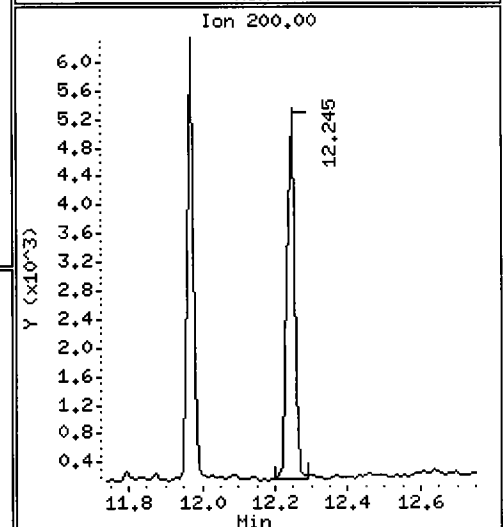
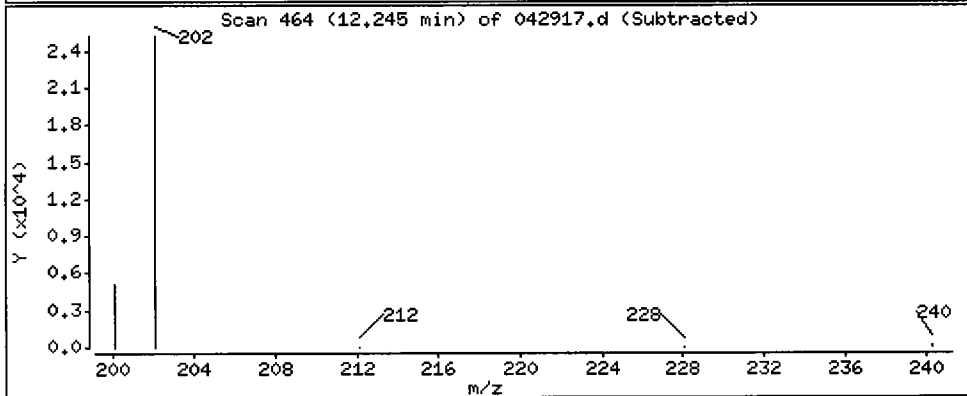
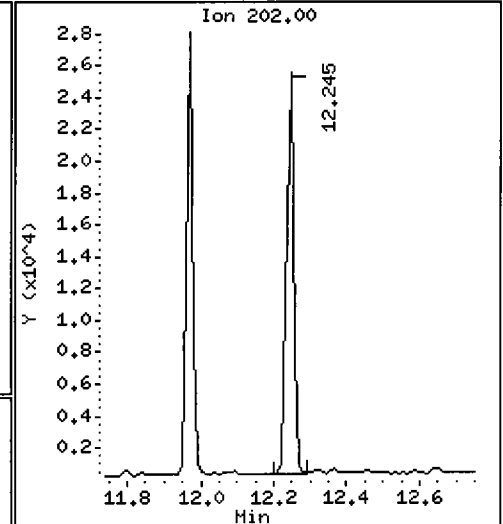
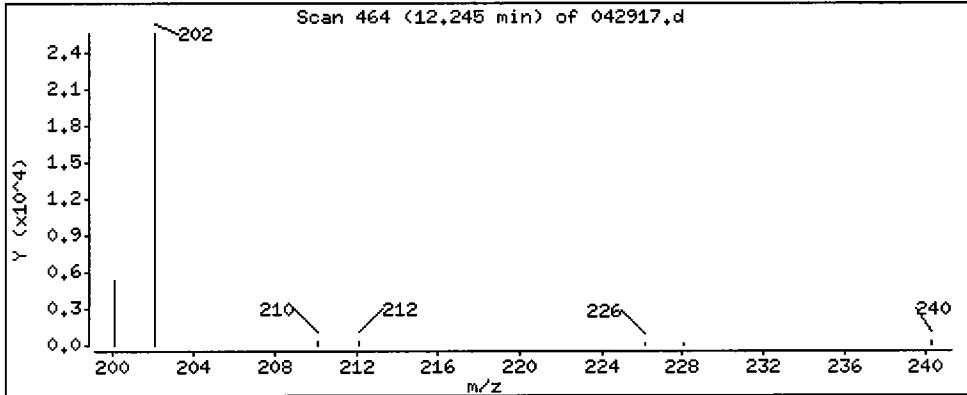
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

25 Pyrene

Concentration: 51.8 ug/L



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

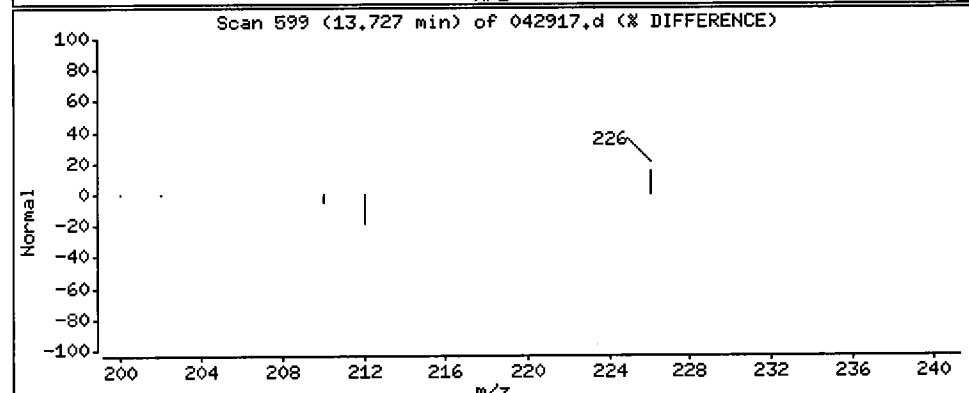
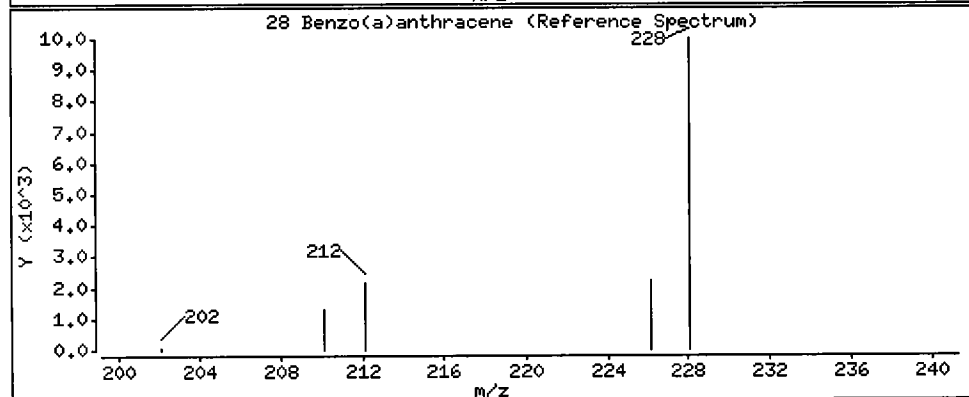
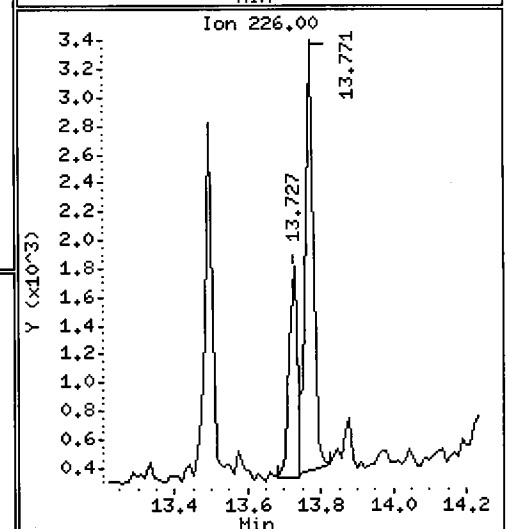
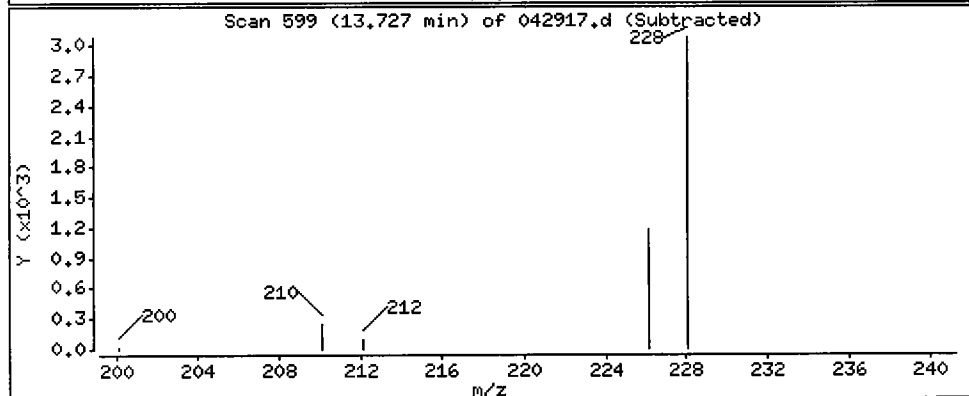
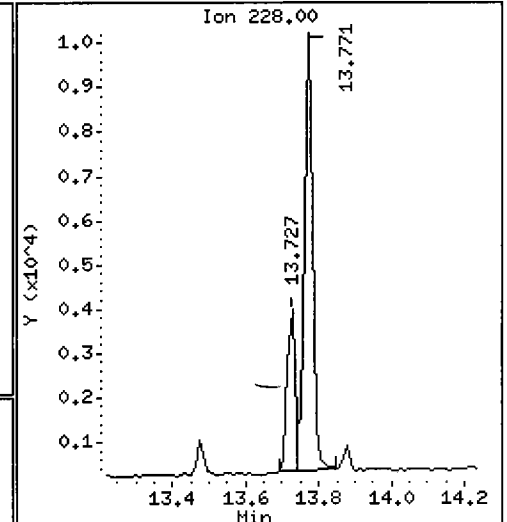
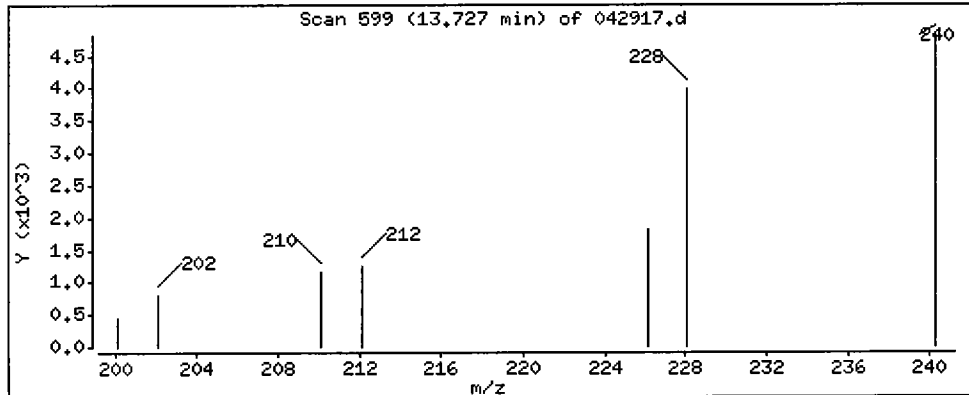
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

28 Benzo(a)anthracene

Concentration: 10.5 ug/L



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

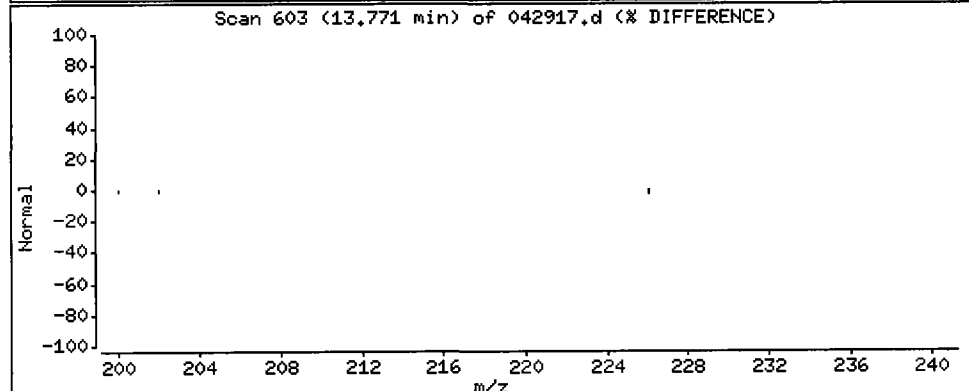
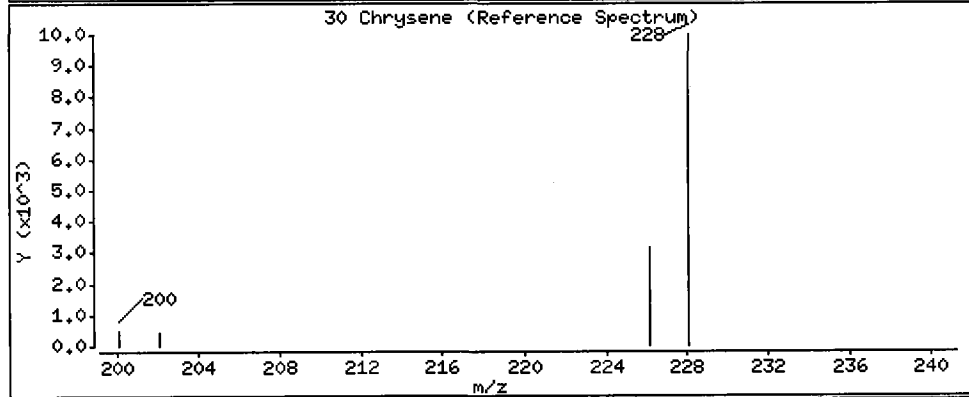
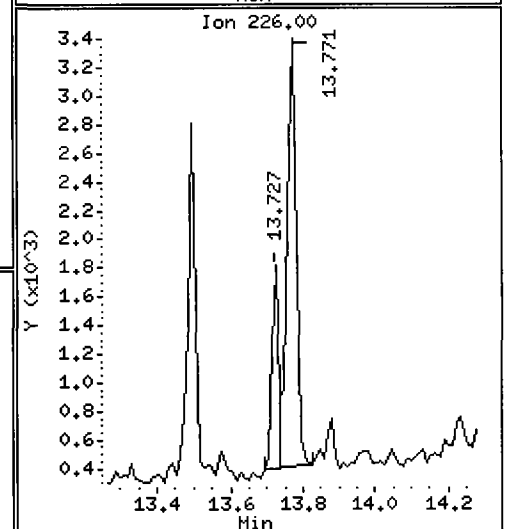
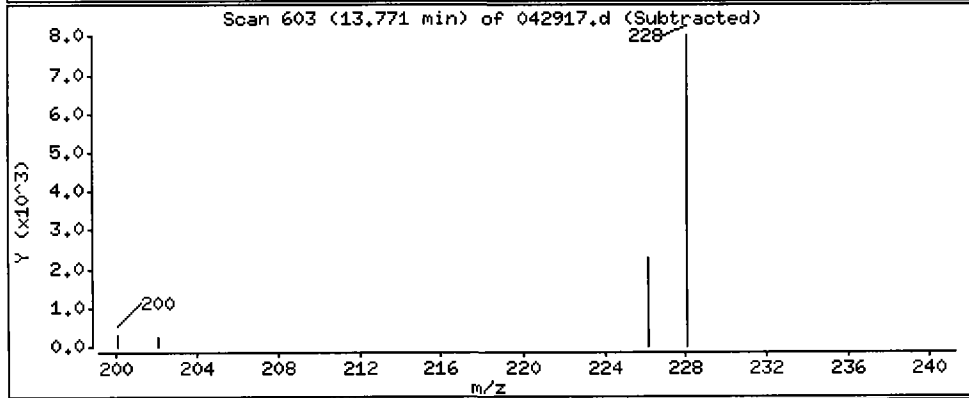
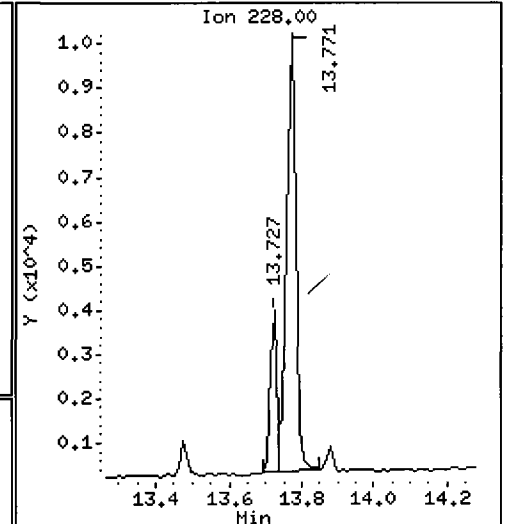
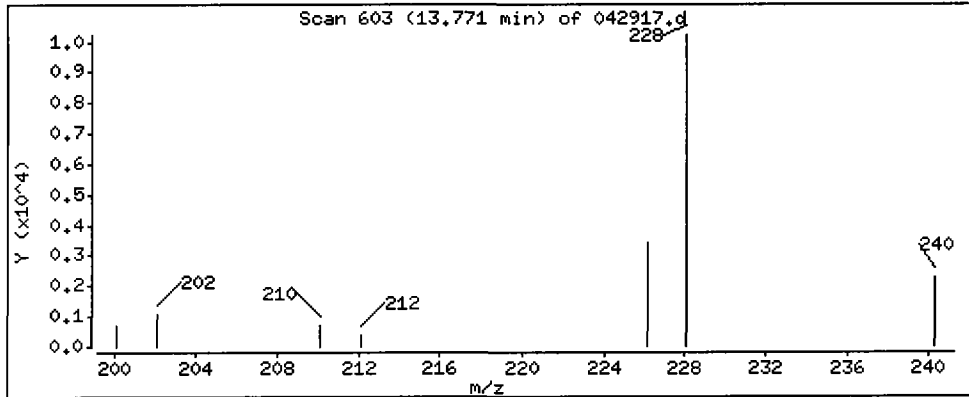
Operator: pk

Column phase: ZB-5

Column diameter: 0.25

30 Chrysene

Concentration: 35.8 ug/L



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

Operator: pk

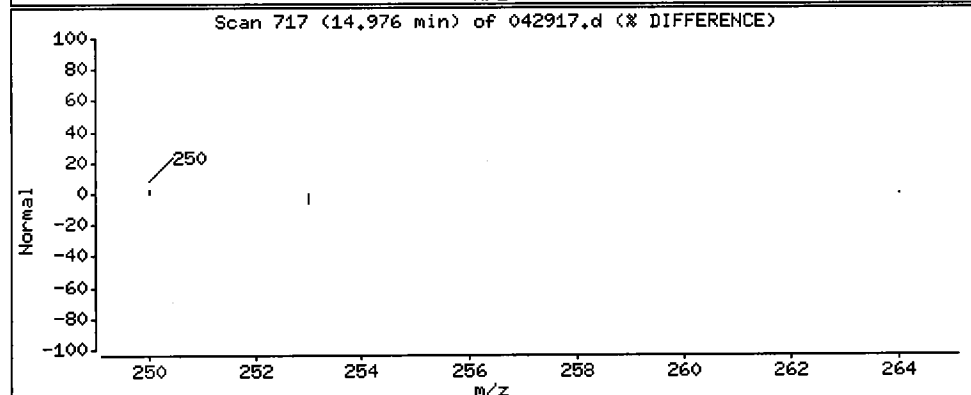
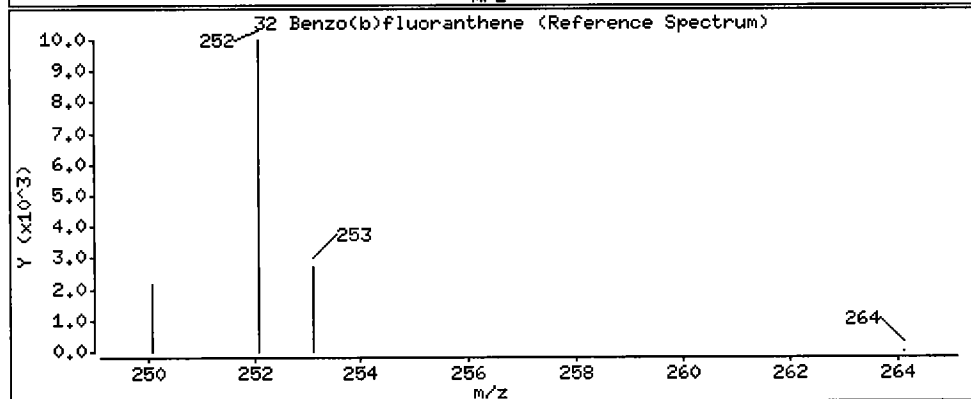
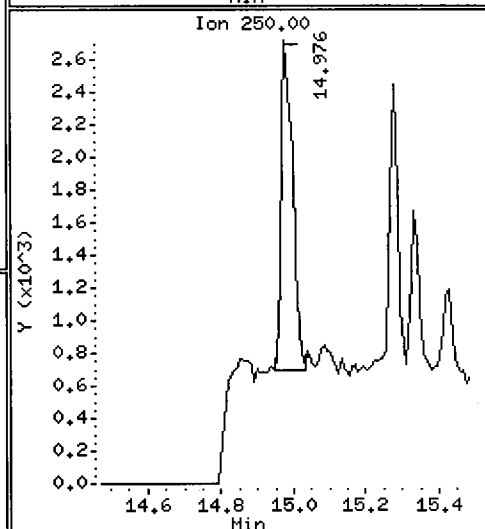
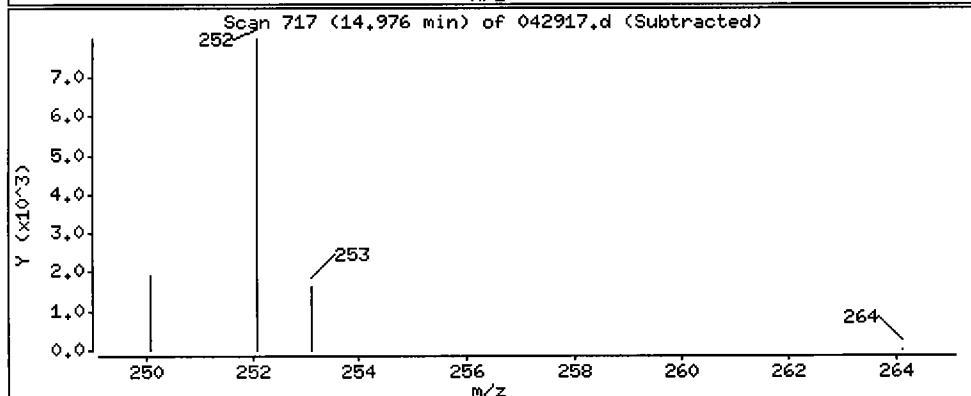
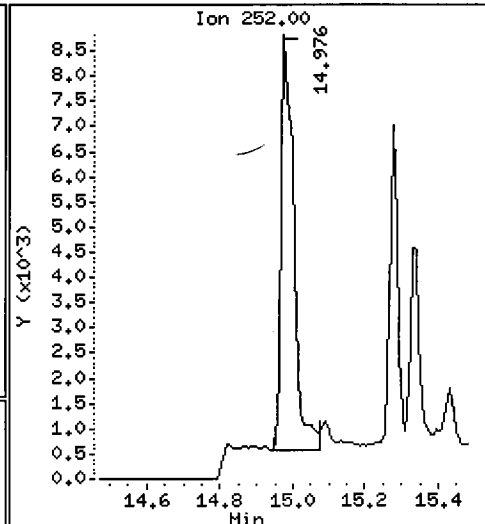
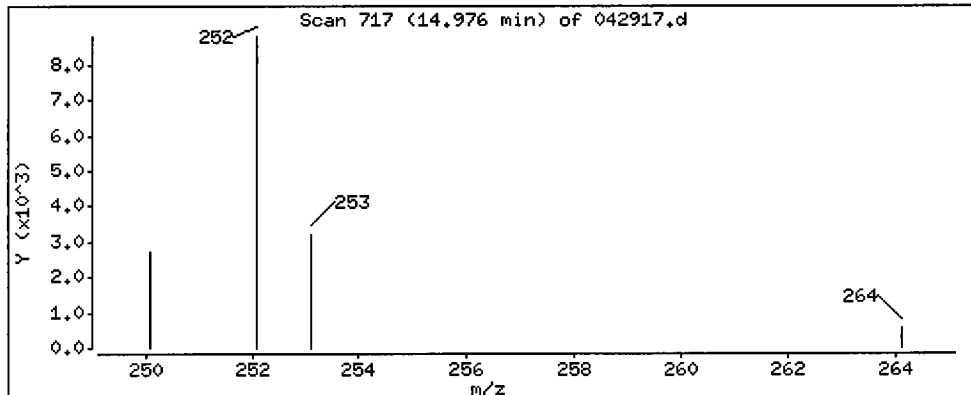
Column phase: ZB-5

Column diameter: 0.25

32 Benzo(b)fluoranthene

Concentration: 42.7 ug/L

112



Date: 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

Operator: pk

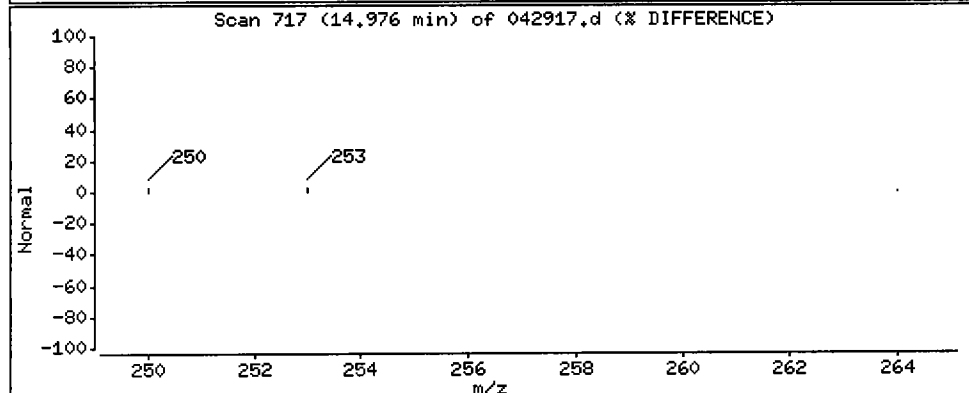
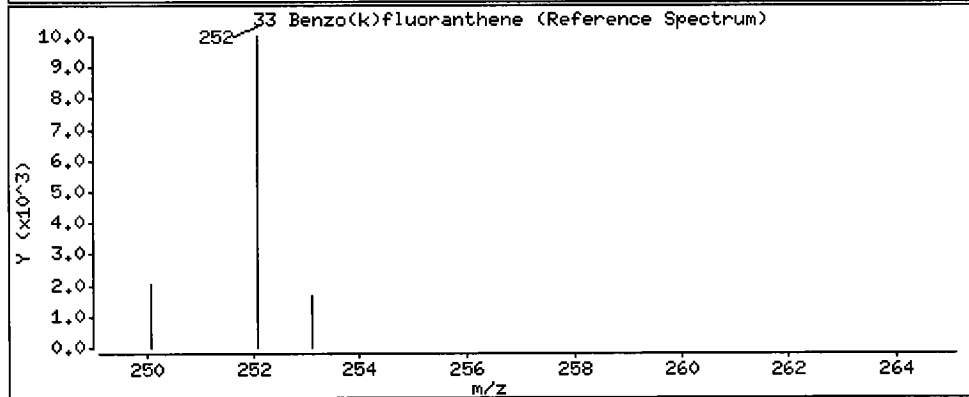
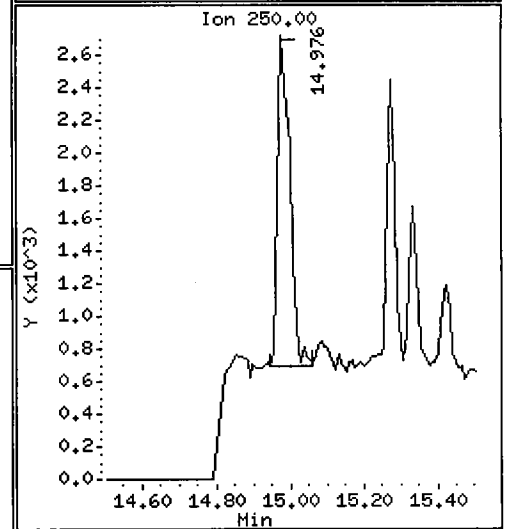
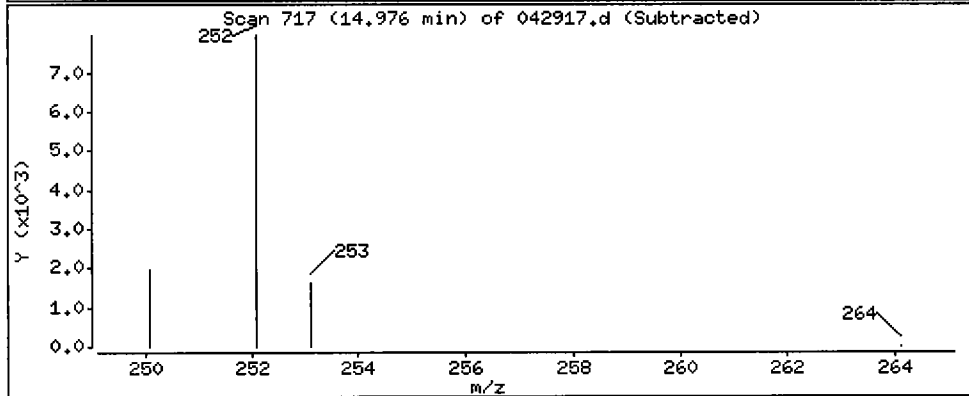
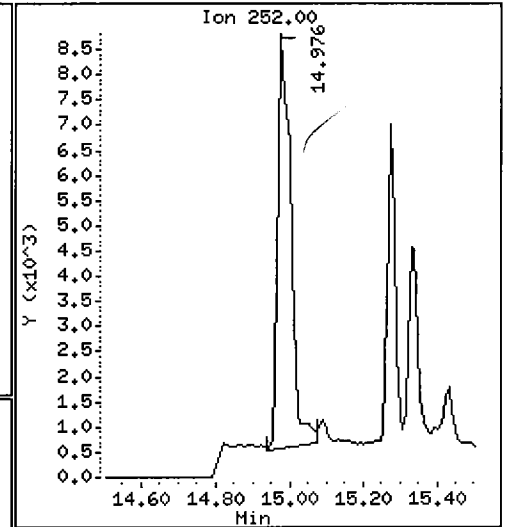
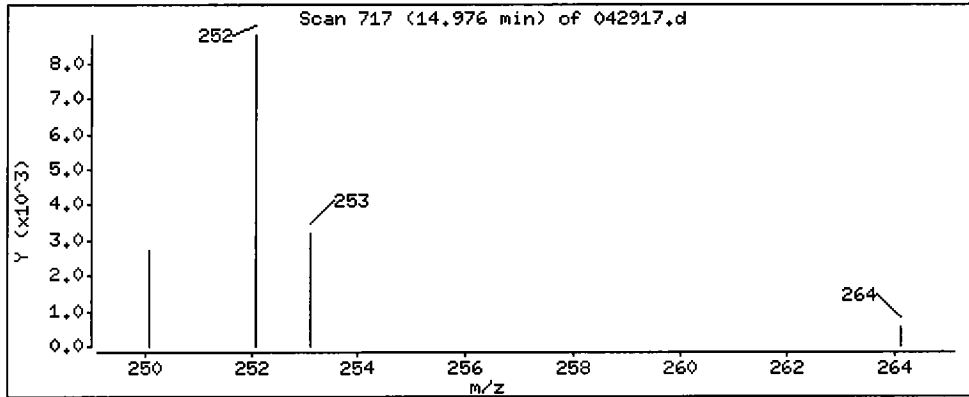
Column phase: ZB-5

Column diameter: 0.25

33 Benzo(k)fluoranthene

Concentration: 39.0 ug/L

1/2



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

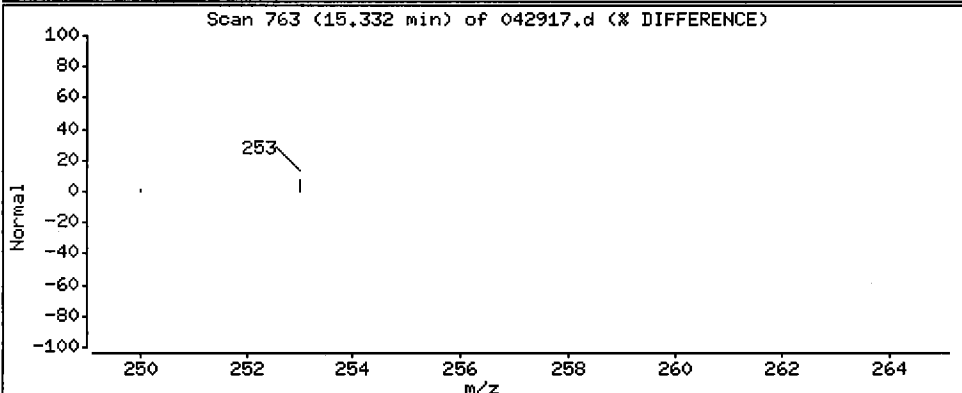
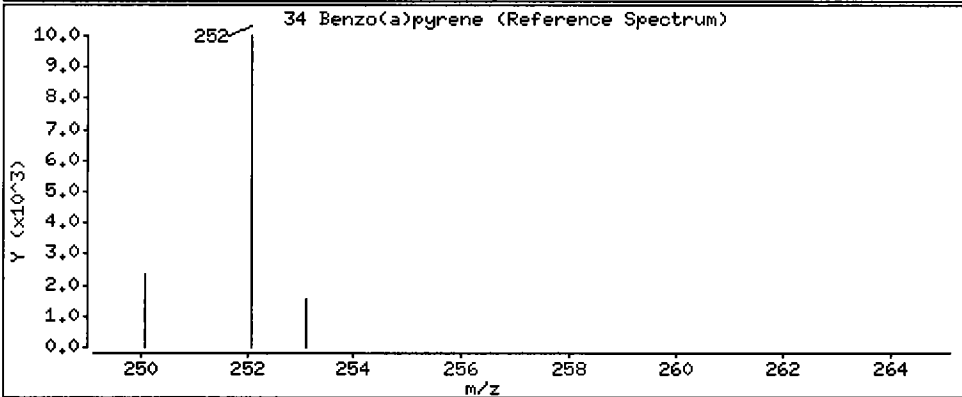
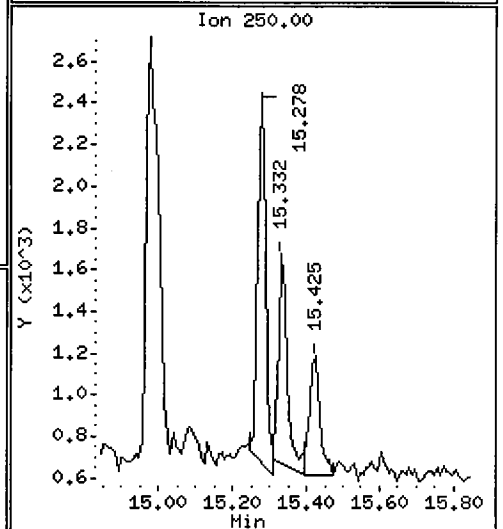
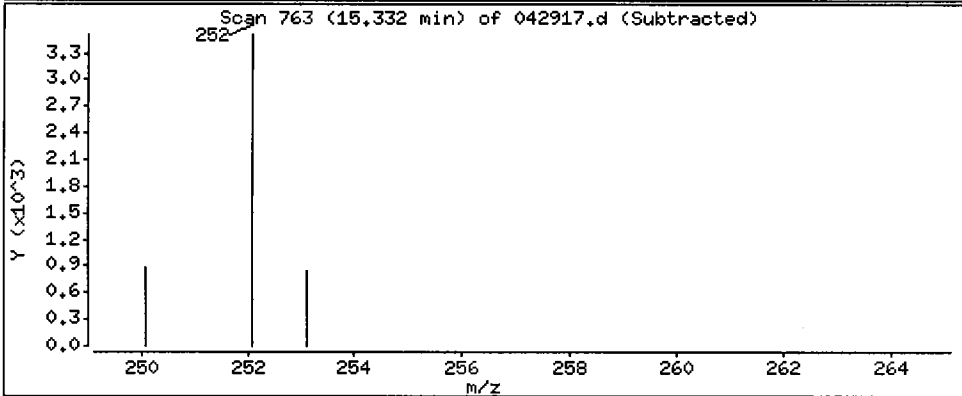
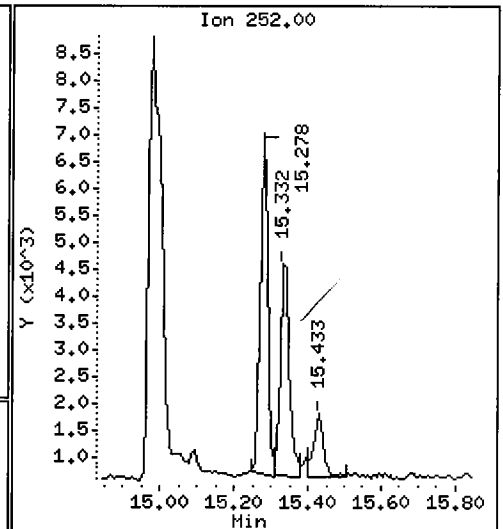
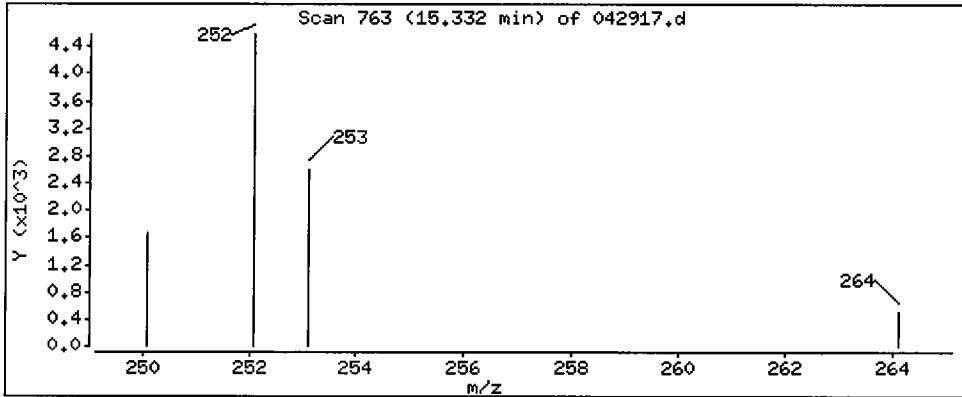
Operator: pk

Column phase: ZB-5

Column diameter: 0,25

34 Benzo(a)pyrene

Concentration: 17,7 ug/L



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

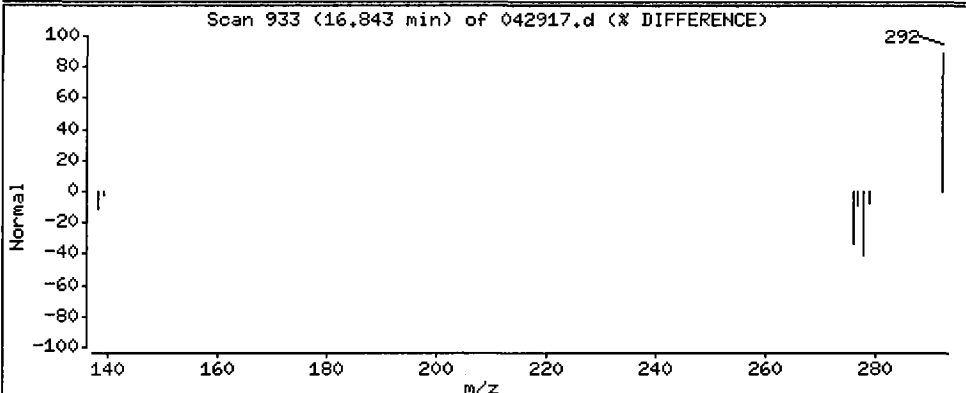
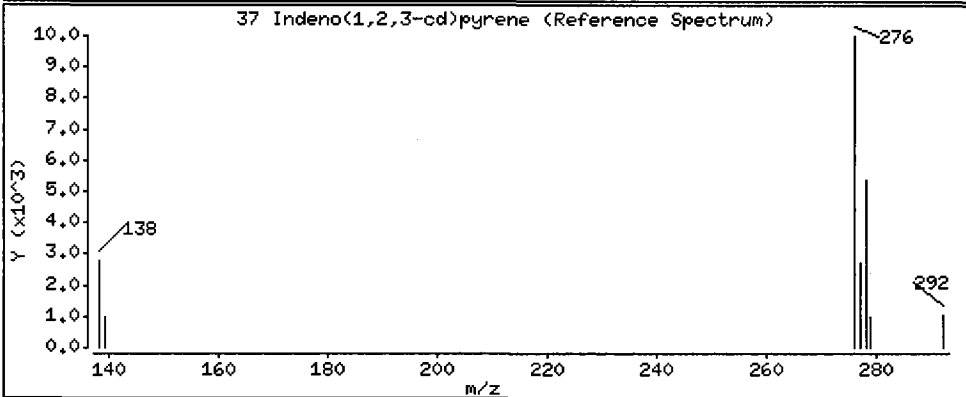
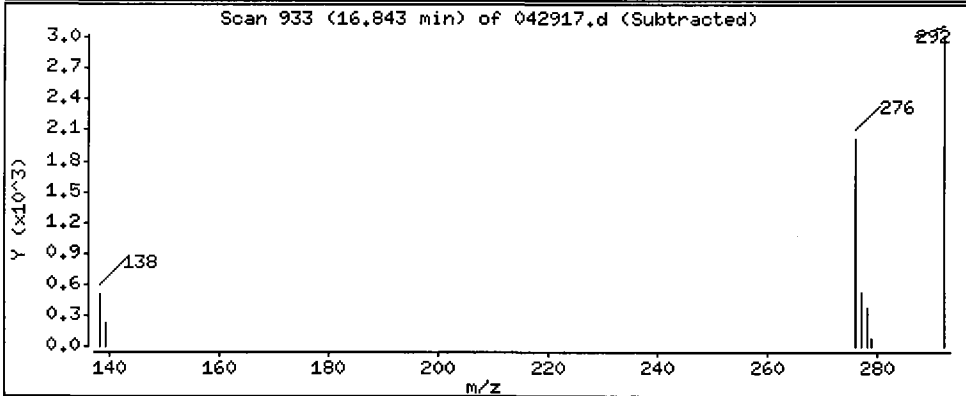
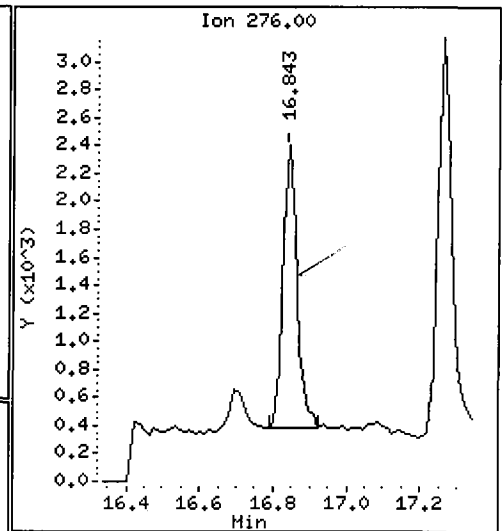
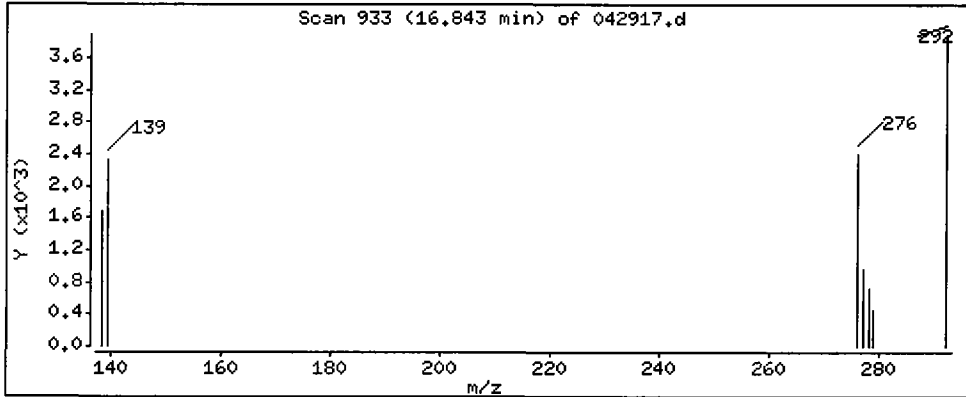
Operator: pk

Column phase: ZB-5

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 11.7 ug/L



Date : 29-APR-2010 17:22

Client ID: CB101042110COMP

Instrument: nt2.i

Sample Info: QU08D

Volume Injected (uL): 2.0

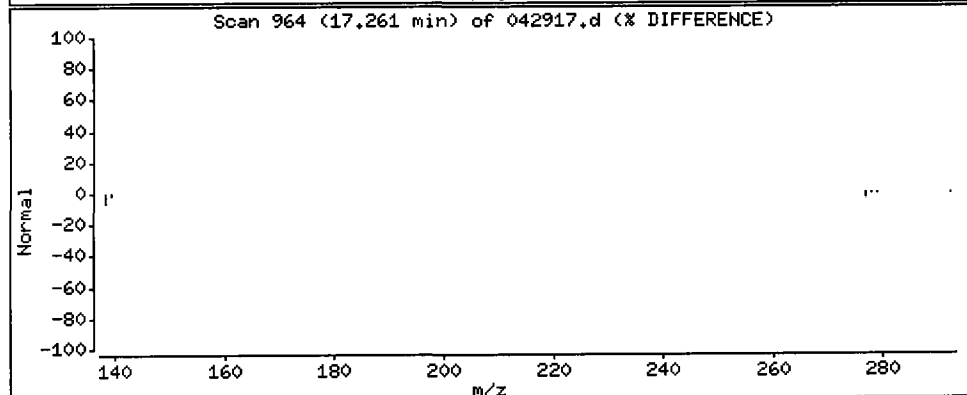
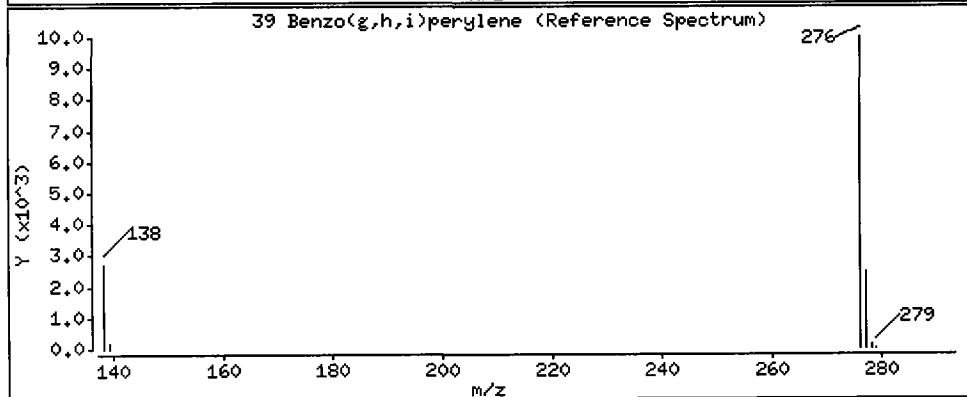
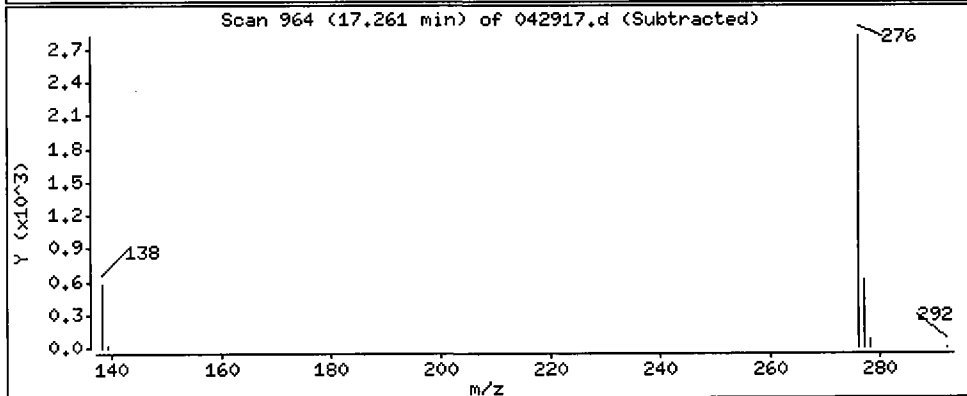
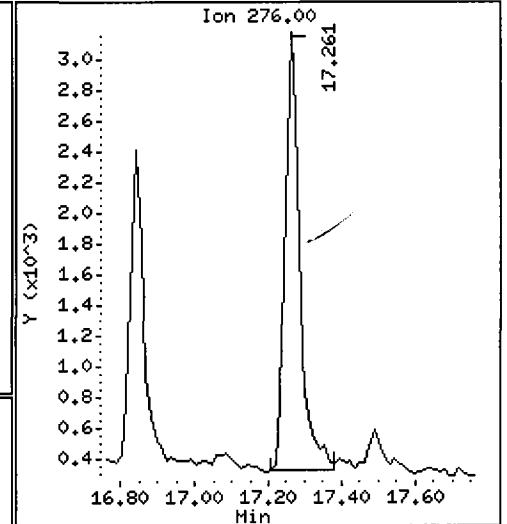
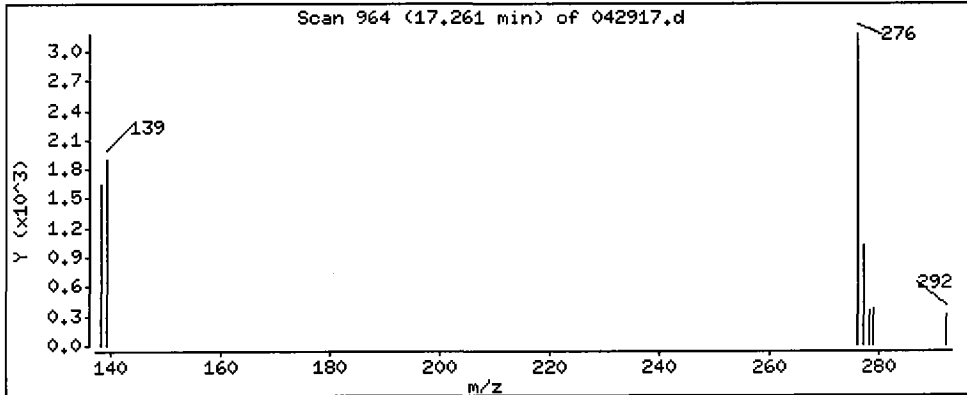
Operator: pk

Column phase: ZB-5

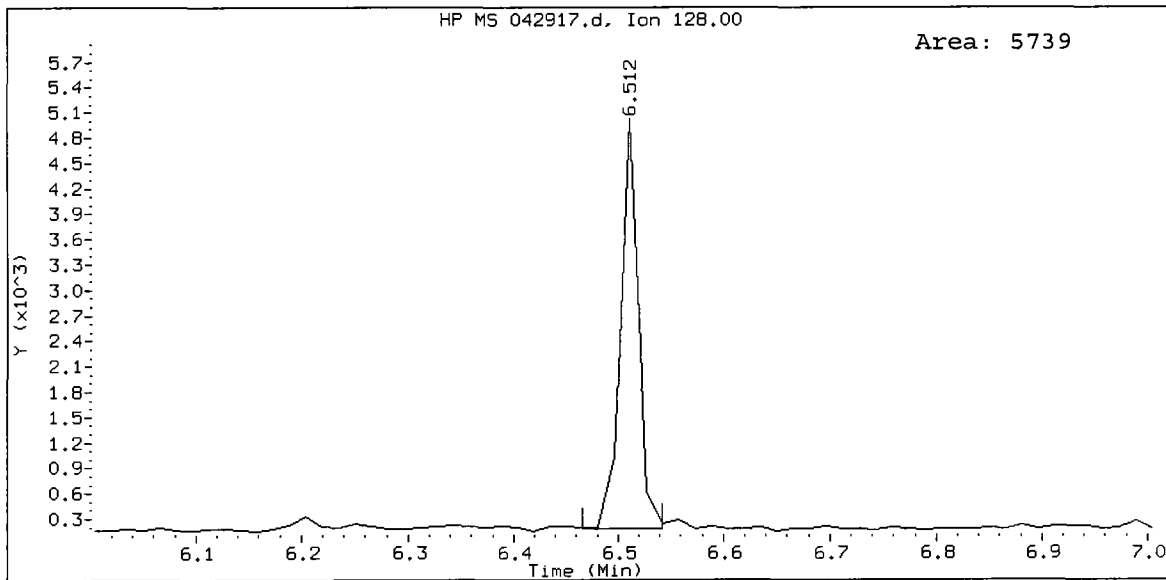
Column diameter: 0.25

39 Benzo(g,h,i)perylene

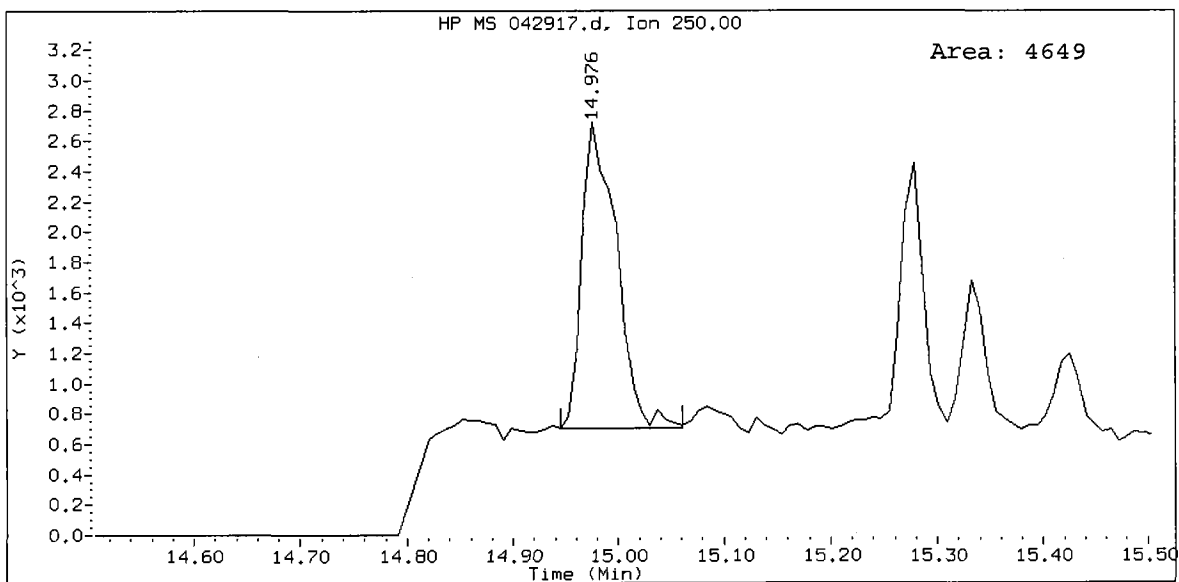
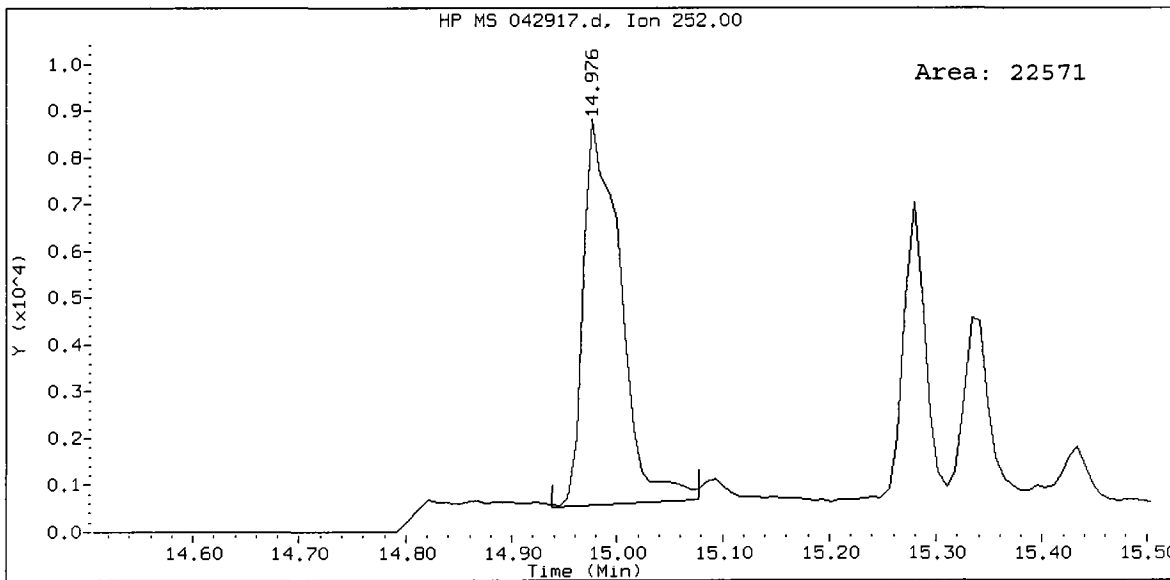
Concentration: 20.7 ug/L



QU08D, /chem3/nt2.i/20100429.b/042917.d
Naphthalene Amount: 11.33



QU08D, /chem3/nt2.i/20100429.b/042917.d
Benzo(k)fluoranthene Amount: 39.04



**SIM Semivolatile Analysis
Standard Raw Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QU08

Project: LORA LAKES APARTMENT

Instrument ID: NT2

Calibration Date: 04/06/10

COMPOUND	RRF	RRF	RRF	RRF	RRF	RRF	RRF	%RSD /R ²
	10	50	100	250	500	1000	RRF	
Naphthalene	1.147	1.198	1.198	1.103	1.087	1.109	1.140	4.3
2-Methylnaphthalene	0.726	0.718	0.722	0.714	0.692	0.665	0.706	3.3
Acenaphthylene	1.694	1.874	1.880	1.886	1.944	1.944	1.870	4.9
Acenaphthene	1.049	1.186	1.191	1.146	1.202	1.185	1.160	4.9
Dibenzofuran	1.565	1.584	1.608	1.637	1.682	1.662	1.623	2.8
Fluorene	1.211	1.392	1.352	1.434	1.436	1.425	1.375	6.3
Phenanthrene	1.285	1.262	1.290	1.250	1.276	1.308	1.278	1.6
Anthracene	1.124	1.124	1.161	1.224	1.225	1.247	1.184	4.6
Fluoranthene	1.340	1.321	1.316	1.360	1.321	1.348	1.334	1.3
Pyrene	1.325	1.358	1.349	1.365	1.338	1.375	1.352	1.4
Benzo(a)anthracene	1.285	1.276	1.285	1.288	1.279	1.236	1.275	1.5
Chrysene	1.357	1.188	1.250	1.261	1.260	1.206	1.254	4.7
Benzo(b)fluoranthene	1.323	1.380	1.439	1.575	1.431	1.332	1.413	6.6
Benzo(k)fluoranthene	1.846	1.694	1.630	1.534	1.700	1.710	1.686	6.1
Benzo(a)pyrene	1.103	1.111	1.107	1.170	1.158	1.126	1.129	2.5
Indeno(1,2,3-cd)pyrene	1.210	1.285	1.283	1.303	1.338	1.329	1.291	3.6
Dibenzo(a,h)anthracene	0.920	0.997	1.001	1.057	1.066	1.048	1.015	5.4
Benzo(g,h,i)perylene	1.110	1.101	1.118	1.098	1.148	1.104	1.113	1.7
1-Methylnaphthalene	0.729	0.758	0.766	0.749	0.740	0.693	0.739	3.5
2-Methylnaphthalene-d10		0.696	0.714	0.689	0.677	0.637	0.683	4.2
Dibenzo(a,h)anthracene-d14	0.742	0.743	0.748	0.794	0.796	0.789	0.769	3.5

<- Outside QC limits: %RSD <20% or R² > 0.990

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 14:24
 End Cal Date : 06-APR-2010 16:52
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem3/nt2.i/20100406.b/lowsim.m
 Cal Date : 07-Apr-2010 09:48 peter
 Curve Type : Average

Calibration File Names:

Level 1: /chem3/nt2.i/20100406.b/ic040607.d
 Level 2: /chem3/nt2.i/20100406.b/ic040604.d
 Level 3: /chem3/nt2.i/20100406.b/ic040606.d
 Level 4: /chem3/nt2.i/20100406.b/ic040601.d
 Level 5: /chem3/nt2.i/20100406.b/ic040605.d
 Level 6: /chem3/nt2.i/20100406.b/ic040603.d

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
2 Phenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Naphthalene	1.14667	1.19857	1.19769	1.10315	1.08746	1.10926	1.14047	4.271
7 2-Methylnaphthalene	0.72553	0.71853	0.72247	0.71363	0.69225	0.66504	0.70624	3.311
8 1-Methylnaphthalene	0.72907	0.75838	0.76583	0.74877	0.73962	0.69339	0.73918	3.512
9 Dimethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Acenaphthylene	1.69367	1.87440	1.88056	1.88660	1.94458	1.94358	1.87056	4.927
12 Acenaphthene	1.04930	1.18554	1.19107	1.14644	1.20244	1.18494	1.15996	4.949
13 Diethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Dibenzofuran	1.56510	1.58436	1.60824	1.63738	1.68179	1.66240	1.62321	2.793
15 Fluorene	1.21085	1.39257	1.35230	1.43440	1.43600	1.42511	1.37521	6.300
17 Pentachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Phenanthrene	1.28474	1.26181	1.28954	1.24991	1.27578	1.30845	1.27837	1.626
20 Anthracene	1.12423	1.12411	1.16073	1.22450	1.22521	1.24724	1.18437	4.627
21 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Fluoranthene	1.33984	1.32119	1.31606	1.36003	1.32120	1.34771	1.33434	1.319
25 Pyrene	1.32503	1.35816	1.34906	1.36476	1.33750	1.37513	1.35161	1.357
26 Butylbenzylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 Bis(2-Ethylhexyl)phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 Benzo(a)anthracene	1.28544	1.27592	1.28467	1.28790	1.27905	1.23590	1.27481	1.535

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 14:24
 End Cal Date : 06-APR-2010 16:52
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem3/nt2.i/20100406.b/lowsim.m
 Cal Date : 07-Apr-2010 09:48 peter
 Curve Type : Average

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
30 Chrysene	1.35665	1.18815	1.25036	1.26088	1.26027	1.20583	1.25369	4.691
31 Di-n-octylphthalate	++++	++++	++++	++++	++++	++++	++++	++++
32 Benzo(b)fluoranthene	1.32284	1.38035	1.43929	1.57543	1.43066	1.33233	1.41348	6.567
33 Benzo(k)fluoranthene	1.84606	1.69401	1.62992	1.53380	1.69979	1.70953	1.68554	6.096
34 Benzo(a)pyrene	1.10319	1.11101	1.10718	1.16955	1.15815	1.12649	1.12926	2.494
37 Indeno(1,2,3-cd)pyrene	1.20963	1.28499	1.28348	1.30304	1.33850	1.32874	1.29140	3.555
38 Dibenzo(a,h)anthracene	0.91964	0.99720	1.00082	1.05707	1.06599	1.04768	1.01473	5.407
39 Benzo(g,h,i)perylene	1.10967	1.10066	1.11837	1.09844	1.14834	1.10402	1.11325	1.672
\$ 1 D5-Phenol	++++	++++	++++	++++	++++	++++	++++	++++
\$ 6 2-Methylnaphthalene-d10	++++	0.69626	0.71356	0.68873	0.67700	0.63706	0.68252	4.200
\$ 16 2,4,6-Tribromophenol	++++	++++	++++	++++	++++	++++	++++	++++
\$ 23 Fluoranthene-d10	++++	++++	++++	++++	++++	++++	++++	++++
\$ 36 Dibenzo(a,h)anthracene-d14	0.74194	0.74289	0.74849	0.79367	0.79589	0.78873	0.76860	3.469

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040601.d
 Lab Smp Id: PNA 250
 Inj Date : 06-APR-2010 14:24
 Operator : VTS
 Smp Info : PNA 250
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Calibration Sample, Level: 4
 Compound Sublist: pnalmn.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.635	6.636	(1.000)	120808	200.000	
5 Naphthalene	128	6.666	6.667	(1.005)	166587	250.000	242
\$ 6 2-Methylnaphthalene-d10	152	7.481	7.482	(1.128)	104005	250.000	252
7 2-Methylnaphthalene	142	7.512	7.513	(1.132)	107765	250.000	253
8 1-Methylnaphthalene	142	7.650	7.651	(1.153)	113072	250.000	253
10 Acenaphthylene	152	8.627	8.626	(0.977)	171369	250.000	252
* 11 Acenaphthene-d10	164	8.833	8.832	(1.000)	72668	200.000	
12 Acenaphthene	153	8.859	8.858	(1.003)	104137	250.000	247
14 Dibenzofuran	168	9.065	9.064	(1.026)	148731	250.000	252
15 Fluorene	166	9.477	9.478	(1.073)	130294	250.000	261
* 18 Phenanthrene-d10	188	10.647	10.632	(1.000)	112603	200.000	
19 Phenanthrene	178	10.662	10.662	(1.001)	175930	250.000	244
20 Anthracene	178	10.724	10.724	(1.007)	172353	250.000	258
24 Fluoranthene	202	12.136	12.136	(1.140)	191430	250.000	255
25 Pyrene	202	12.410	12.410	(1.166)	192095	250.000	252

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	=====	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	163728	250.000	253
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	101702	200.000	
30 Chrysene	228	13.946	13.936	(1.002)	160293	250.000	251
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	171549	250.000	279
33 Benzo(k)fluoranthene	252	15.170	15.170	(0.972)	167016	250.000	227
34 Benzo(a)pyrene	252	15.526	15.527	(0.995)	127352	250.000	259
* 35 Perylene-d12	264	15.603	15.596	(1.000)	87112	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.145	17.132	(1.099)	141888	250.000	252
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.105	17.092	(1.096)	86423	250.000	258
38 Dibenzo(a,h)anthracene	278	17.145	17.146	(1.099)	115104	250.000	260
39 Benzo(g,h,i)perylene	276	17.590	17.577	(1.127)	119609	250.000	247

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040601.d
 Lab Smp Id: PNA 250
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	120808	0.00
11 Acenaphthene-d10	72668	36334	145336	72668	0.00
18 Phenanthrene-d10	112603	56302	225206	112603	0.00
29 Chrysene-d12	101702	50851	203404	101702	0.00
35 Perylene-d12	87112	43556	174224	87112	0.00

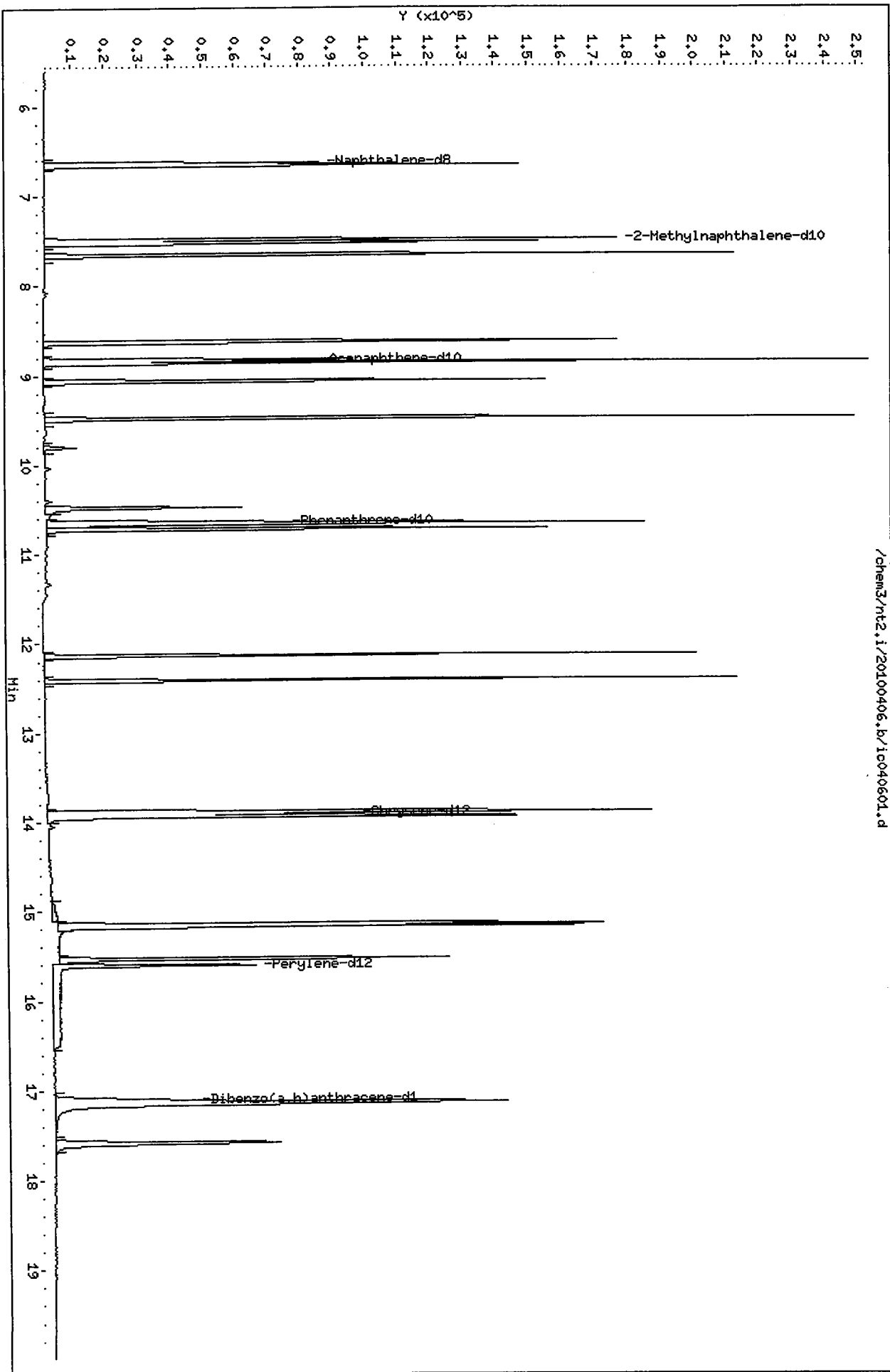
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	0.00
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	0.00
18 Phenanthrene-d10	10.65	10.15	11.15	10.65	0.00
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	0.00

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:
Sample Info: PNA 250
Volume Injected (uL): 2.0
Column Phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25

/chem3/nt2.i/20100406.b/ic040601.d



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040603.d
 Lab Smp Id: PNA 1000
 Inj Date : 06-APR-2010 15:14
 Operator : VTS
 Smp Info : PNA 1000
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Calibration Sample, Level: 6
 Compound Sublist: pnalnm.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.635	6.636	(1.000)	124126	200.000	
5 Naphthalene	128	6.666	6.667	(1.005)	688442	1000.00	973
\$ 6 2-Methylnaphthalene-d10	152	7.481	7.482	(1.128)	395381	1000.00	933
7 2-Methylnaphthalene	142	7.527	7.513	(1.134)	412745	1000.00	942
8 1-Methylnaphthalene	142	7.650	7.651	(1.153)	430338	1000.00	938
10 Acenaphthylene	152	8.639	8.626	(0.978)	654753	1000.00	1040(A)
* 11 Acenaphthene-d10	164	8.832	8.832	(1.000)	67376	200.000	
12 Acenaphthene	153	8.858	8.858	(1.003)	399183	1000.00	1020(A)
14 Dibenzofuran	168	9.064	9.064	(1.026)	560030	1000.00	1020(A)
15 Fluorene	166	9.478	9.478	(1.073)	480091	1000.00	1040(A)
* 18 Phenanthrene-d10	188	10.632	10.632	(1.000)	101452	200.000	
19 Phenanthrene	178	10.662	10.662	(1.003)	663724	1000.00	1020(A)
20 Anthracene	178	10.724	10.724	(1.009)	632676	1000.00	1050(A)
24 Fluoranthene	202	12.136	12.136	(1.141)	683638	1000.00	1010(A)
25 Pyrene	202	12.410	12.410	(1.167)	697546	1000.00	1020(A)

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	----	--	-----	-----	-----	-----	-----
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	566240	1000.00	969
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	91632	200.000	
30 Chrysene	228	13.936	13.936	(1.002)	552461	1000.00	962
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	544025	1000.00	943
33 Benzo(k)fluoranthene	252	15.170	15.170	(0.973)	698043	1000.00	1010 (A)
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	459976	1000.00	998
* 35 Perylene-d12	264	15.596	15.596	(1.000)	81665	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.132	(1.098)	542557	1000.00	1030 (A)
§ 36 Dibenzo(a,h)anthracene-d14	292	17.104	17.092	(1.097)	322058	1000.00	1030 (A)
38 Dibenzo(a,h)anthracene	278	17.144	17.146	(1.099)	427792	1000.00	1030 (A)
39 Benzo(g,h,i)perylene	276	17.576	17.577	(1.127)	450799	1000.00	992

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040603.d
 Lab Smp Id: PNA 1000
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	124126	2.75
11 Acenaphthene-d10	72668	36334	145336	67376	-7.28
18 Phenanthrene-d10	112603	56302	225206	101452	-9.90
29 Chrysene-d12	101702	50851	203404	91632	-9.90
35 Perylene-d12	87112	43556	174224	81665	-6.25

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	0.00
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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.

Date : 06-APR-2010 15:14

Instrument: nt2.i

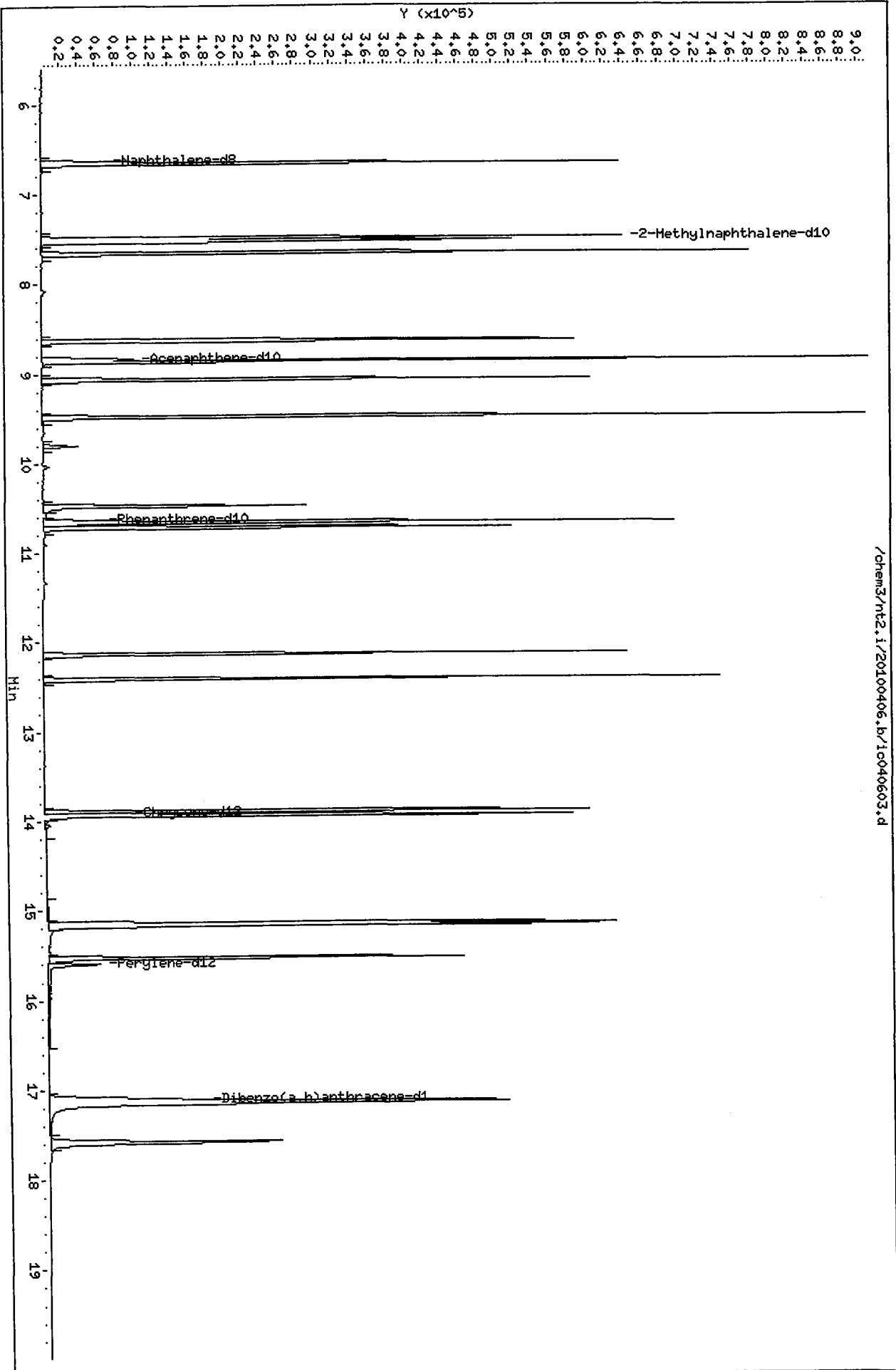
Client ID:

Sample Info: PNA 1000

Volume Injected (uL): 2.0

Column phase: ZB-5

Operator: VTS
Column diameter: 0.25



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040604.d
 Lab Smp Id: PNA 50
 Inj Date : 06-APR-2010 15:38
 Operator : VTS
 Smp Info : PNA 50
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Calibration Sample, Level: 2
 Compound Sublist: pnalnm.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.636	6.636	(1.000)	111907	200.000	
5 Naphthalene	128	6.666	6.667	(1.005)	33532	50.0000	52.5
§ 6 2-Methylnaphthalene-d10	152	7.482	7.482	(1.128)	19479	50.0000	51.0
7 2-Methylnaphthalene	142	7.513	7.513	(1.132)	20102	50.0000	50.9
8 1-Methylnaphthalene	142	7.651	7.651	(1.153)	21217	50.0000	51.3
10 Acenaphthylene	152	8.639	8.626	(0.978)	30122	50.0000	50.1
* 11 Acenaphthene-d10	164	8.832	8.832	(1.000)	64281	200.000	
12 Acenaphthene	153	8.858	8.858	(1.003)	19052	50.0000	51.1
14 Dibenzofuran	168	9.064	9.064	(1.026)	25461	50.0000	48.8
15 Fluorene	166	9.478	9.478	(1.073)	22379	50.0000	50.6
* 18 Phenanthrene-d10	188	10.632	10.632	(1.000)	94905	200.000	
19 Phenanthrene	178	10.663	10.662	(1.003)	29938	50.0000	49.4
20 Anthracene	178	10.724	10.724	(1.009)	26671	50.0000	47.5
24 Fluoranthene	202	12.137	12.136	(1.142)	31347	50.0000	49.5
25 Pyrene	202	12.411	12.410	(1.167)	32224	50.0000	50.2

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
28 Benzo(a)anthracene	228	13.893	13.892	(0.998)	25817	50.0000	50.0
* 29 Chrysene-d12	240	13.915	13.914	(1.000)	80936	200.000	
30 Chrysene	228	13.937	13.936	(1.002)	24041	50.0000	47.4
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	25348	50.0000	48.8
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	31108	50.0000	50.3
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	20402	50.0000	49.2
* 35 Perylene-d12	264	15.596	15.596	(1.000)	73454	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.132	(1.098)	23597	50.0000	49.8
§ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.092	(1.096)	13642	50.0000	48.3
38 Dibenzo(a,h)anthracene	278	17.144	17.146	(1.099)	18312	50.0000	49.1
39 Benzo(g,h,i)perylene	276	17.575	17.577	(1.127)	20212	50.0000	49.4

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040604.d
 Lab Smp Id: PNA 50
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	111907	-7.37
11 Acenaphthene-d10	72668	36334	145336	64281	-11.54
18 Phenanthrene-d10	112603	56302	225206	94905	-15.72
29 Chrysene-d12	101702	50851	203404	80936	-20.42
35 Perylene-d12	87112	43556	174224	73454	-15.68

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.01
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.01
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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/nt2.i/20100406.b/ic040604.d
Date : 06-APR-2010 15:38

Client ID:

Sample Info: PNA 50

Volume Injected (uL): 2.0

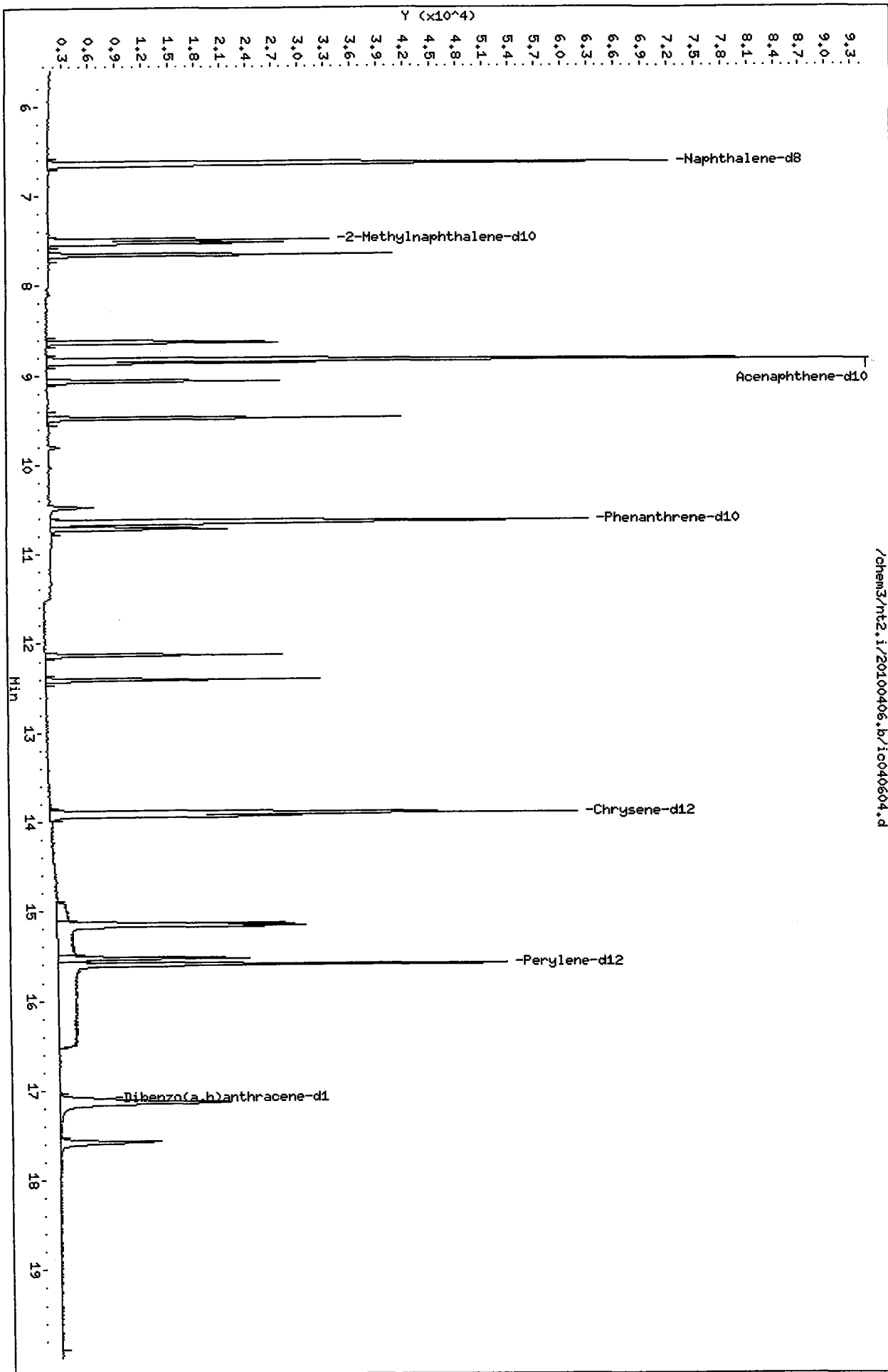
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS

Column diameter: 0.25

/chem3/nt2.i/20100406.b/ic040604.d



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040605.d
Lab Smp Id: PNA 500
Inj Date : 06-APR-2010 16:03
Operator : VTS
Smp Info : PNA 500
Misc Info :
Comment :
Method : /chem3/nt2.i/20100406.b/lowsim.m
Meth Date : 07-Apr-2010 09:50 peter
Cal Date : 06-APR-2010 16:52
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: cserv3
Inst ID: nt2.i
Quant Type: ISTD
Cal File: ic040607.d
Calibration Sample, Level: 5
Compound Sublist: pnalnm.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.637	6.636	(1.000)	120735	200.000	
5 Naphthalene	128	6.668	6.667	(1.005)	328236	500.000	477
\$ 6 2-Methylnaphthalene-d10	152	7.483	7.482	(1.127)	204344	500.000	496
7 2-Methylnaphthalene	142	7.514	7.513	(1.132)	208946	500.000	490
8 1-Methylnaphthalene	142	7.653	7.651	(1.153)	223246	500.000	500
10 Acenaphthylene	152	8.626	8.626	(0.977)	315775	500.000	520
* 11 Acenaphthene-d10	164	8.832	8.832	(1.000)	64955	200.000	
12 Acenaphthene	153	8.858	8.858	(1.003)	195261	500.000	518
14 Dibenzofuran	168	9.064	9.064	(1.026)	273102	500.000	518
15 Fluorene	166	9.478	9.478	(1.073)	233188	500.000	522
* 18 Phenanthrene-d10	188	10.632	10.632	(1.000)	99310	200.000	
19 Phenanthrene	178	10.663	10.662	(1.003)	316745	500.000	499
20 Anthracene	178	10.724	10.724	(1.009)	304189	500.000	517
24 Fluoranthene	202	12.136	12.136	(1.141)	328022	500.000	495
25 Pyrene	202	12.411	12.410	(1.167)	332069	500.000	495

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
-----	----	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	257415	500.000	502
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	80502	200.000	
30 Chrysene	228	13.936	13.936	(1.002)	253635	500.000	503
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	254364	500.000	506
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	302214	500.000	504
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	205913	500.000	513
* 35 Perylene-d12	264	15.596	15.596	(1.000)	71118	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.130	17.132	(1.098)	237978	500.000	518
§ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.092	(1.096)	141506	500.000	518
38 Dibenzo(a,h)anthracene	278	17.144	17.146	(1.099)	189528	500.000	525
39 Benzo(g,h,i)perylene	276	17.575	17.577	(1.127)	204169	500.000	516

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040605.d
 Lab Smp Id: PNA 500
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	120735	-0.06
11 Acenaphthene-d10	72668	36334	145336	64955	-10.61
18 Phenanthrene-d10	112603	56302	225206	99310	-11.81
29 Chrysene-d12	101702	50851	203404	80502	-20.85
35 Perylene-d12	87112	43556	174224	71118	-18.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.04
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.01
35 Perylene-d12	15.60	15.10	16.10	15.60	-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: /chem3/nt2.i/20100406.b/ic040605.d
Date : 06-APR-2010 16:03

Client ID:

Sample Info: PNA 500

Volume Injected (uL): 2.0

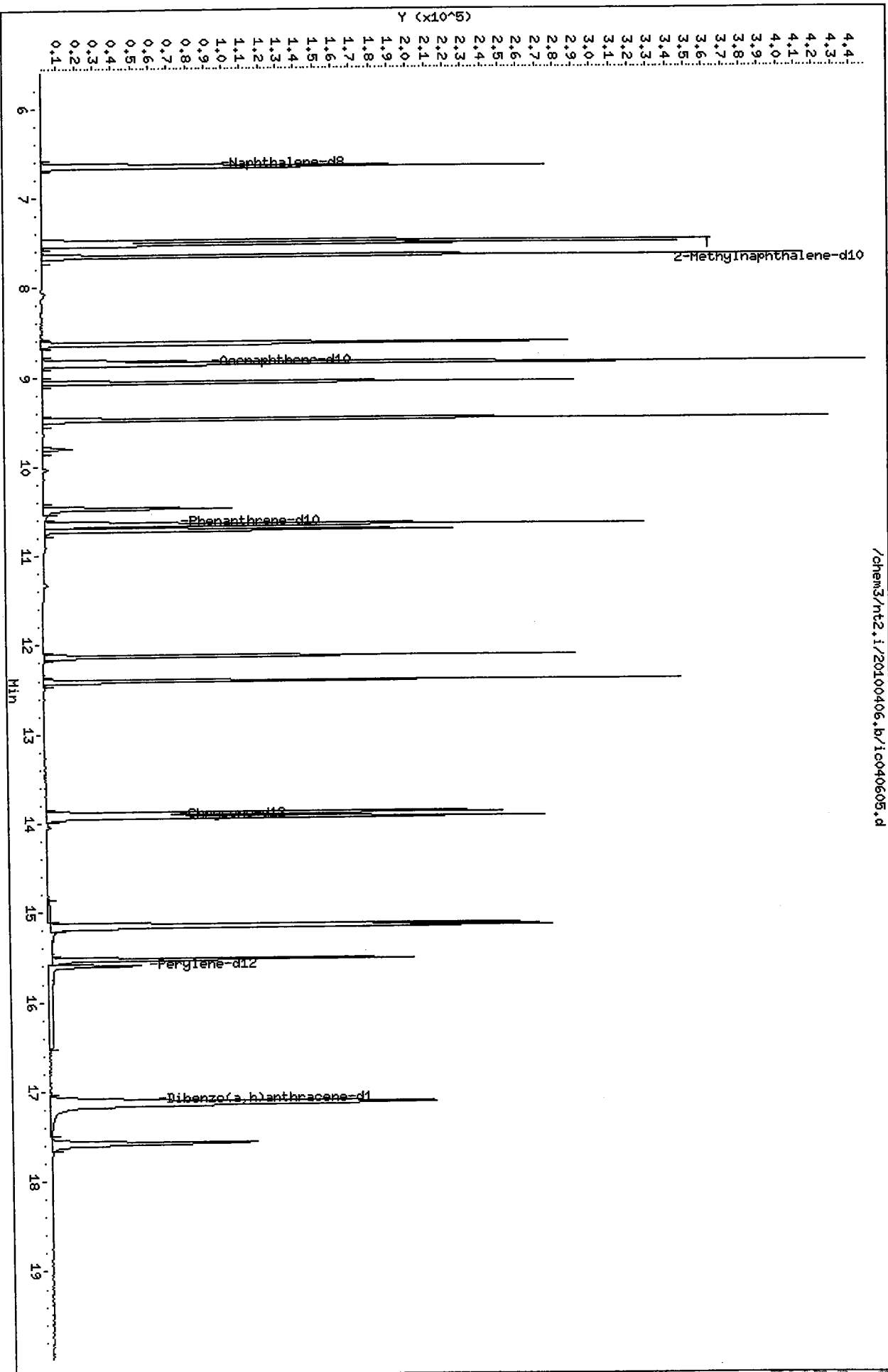
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS

Column diameter: 0.25

/chem3/nt2.i/20100406.b/ic040605.d



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040606.d
 Lab Smp Id: PNA 100
 Inj Date : 06-APR-2010 16:27
 Operator : VTS
 Smp Info : PNA 100
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Calibration Sample, Level: 3
 Compound Sublist: pnalnm.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.635	6.636	(1.000)	112523	200.000	
5 Naphthalene	128	6.666	6.667	(1.005)	67384	100.000	105
\$ 6 2-Methylnaphthalene-d10	152	7.481	7.482	(1.128)	40146	100.000	105
7 2-Methylnaphthalene	142	7.512	7.513	(1.132)	40647	100.000	102
8 1-Methylnaphthalene	142	7.651	7.651	(1.153)	43087	100.000	104
10 Acenaphthylene	152	8.626	8.626	(0.977)	62317	100.000	101
* 11 Acenaphthene-d10	164	8.833	8.832	(1.000)	66275	200.000	
12 Acenaphthene	153	8.858	8.858	(1.003)	39469	100.000	103
14 Dibenzofuran	168	9.065	9.064	(1.026)	53293	100.000	99.1
15 Fluorene	166	9.478	9.478	(1.073)	44812	100.000	98.3
* 18 Phenanthrene-d10	188	10.632	10.632	(1.000)	95400	200.000	
19 Phenanthrene	178	10.663	10.662	(1.003)	61511	100.000	101
20 Anthracene	178	10.724	10.724	(1.009)	55367	100.000	98.0
24 Fluoranthene	202	12.125	12.136	(1.140)	62776	100.000	98.6
25 Pyrene	202	12.410	12.410	(1.167)	64350	100.000	99.8

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	48863	100.000	101
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	76071	200.000	
30 Chrysene	228	13.936	13.936	(1.002)	47558	100.000	99.7
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	49800	100.000	102
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	56396	100.000	96.7
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	38309	100.000	98.0
* 35 Perylene-d12	264	15.596	15.596	(1.000)	69201	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.130	17.132	(1.098)	44409	100.000	99.4
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.092	(1.096)	25898	100.000	97.4
38 Dibenzo(a,h)anthracene	278	17.144	17.146	(1.099)	34629	100.000	98.6
39 Benzo(g,h,i)perylene	276	17.575	17.577	(1.127)	38696	100.000	100

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040606.d
 Lab Smp Id: PNA 100
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	112523	-6.86
11 Acenaphthene-d10	72668	36334	145336	66275	-8.80
18 Phenanthrene-d10	112603	56302	225206	95400	-15.28
29 Chrysene-d12	101702	50851	203404	76071	-25.20
35 Perylene-d12	87112	43556	174224	69201	-20.56

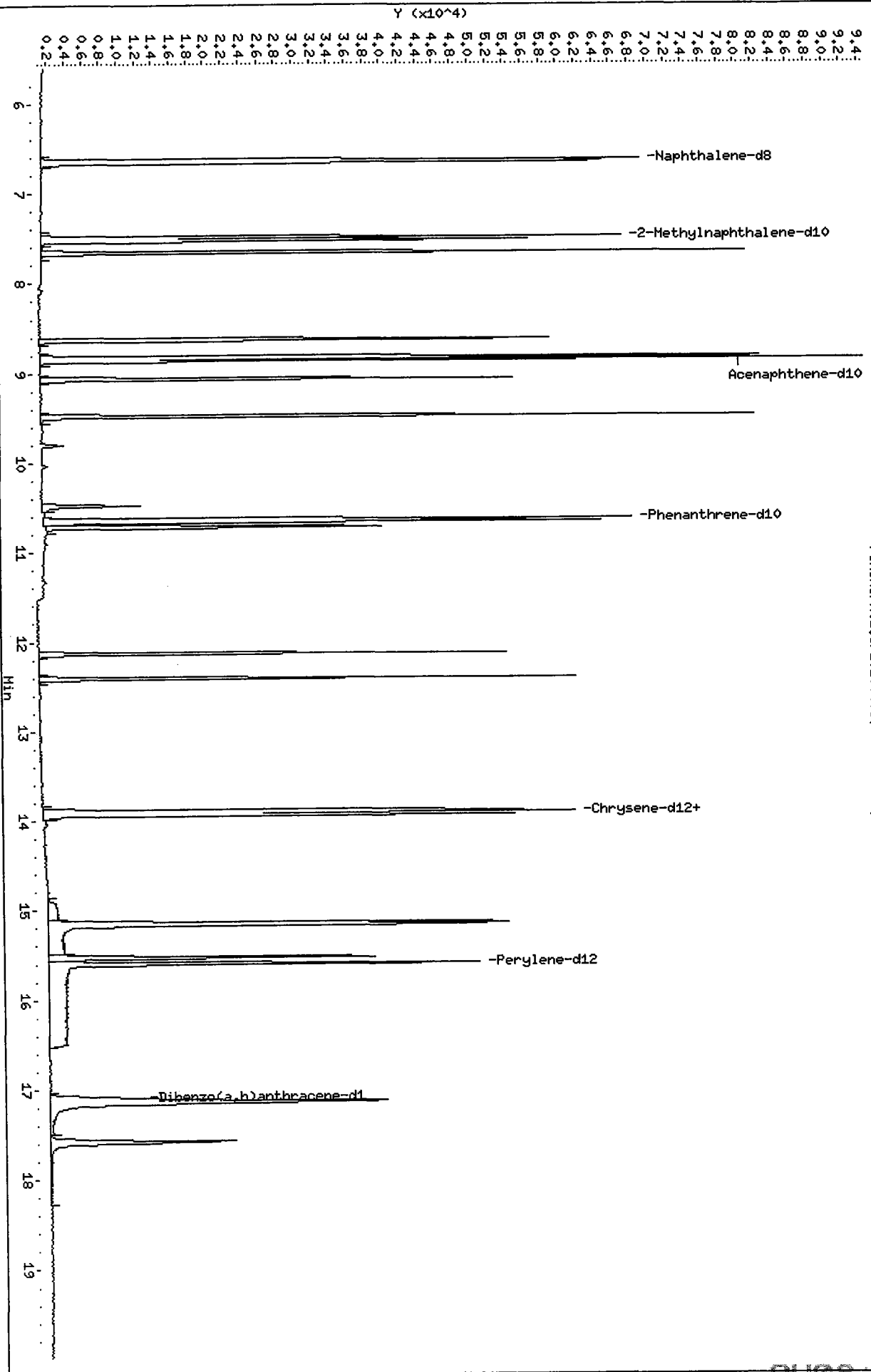
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.00
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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:
Sample Info: PMA 100
Volume Injected (µL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25

/chem3/nt2.i/20100406.b/ic040606.d



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040607.d
 Lab Smp Id: PNA 10
 Inj Date : 06-APR-2010 16:52
 Operator : VTS
 Smp Info : PNA 10
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Calibration Sample, Level: 1
 Compound Sublist: pnalnm.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136		6.636	6.636	(1.000)	112883	200.000	
5 Naphthalene	128		6.667	6.667	(1.005)	6472	10.0000	10.1
\$ 6 2-Methylnaphthalene-d10	152		7.482	7.482	(1.128)	3732	10.0000	9.69
7 2-Methylnaphthalene	142		7.513	7.513	(1.132)	4095	10.0000	10.3
8 1-Methylnaphthalene	142		7.651	7.651	(1.153)	4115	10.0000	9.86
10 Acenaphthylene	152		8.626	8.626	(0.977)	5546	10.0000	9.05
* 11 Acenaphthene-d10	164		8.832	8.832	(1.000)	65491	200.000	
12 Acenaphthene	153		8.858	8.858	(1.003)	3436	10.0000	9.05
14 Dibenzofuran	168		9.064	9.064	(1.026)	5125	10.0000	9.64
15 Fluorene	166		9.478	9.478	(1.073)	3965	10.0000	8.80
* 18 Phenanthrene-d10	188		10.632	10.632	(1.000)	91832	200.000	
19 Phenanthrene	178		10.662	10.662	(1.003)	5899	10.0000	10.0
20 Anthracene	178		10.724	10.724	(1.009)	5162	10.0000	9.49(M)
24 Fluoranthene	202		12.136	12.136	(1.141)	6152	10.0000	10.0
25 Pyrene	202		12.410	12.410	(1.167)	6084	10.0000	9.80

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	====	==	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.892	13.892 (0.998)	4531	10.0000	10.1
* 29 Chrysene-d12	240	13.914	13.914 (1.000)	70497	200.000	
30 Chrysene	228	13.936	13.936 (1.002)	4782	10.0000	10.8
32 Benzo(b)fluoranthene	252	15.147	15.147 (0.971)	4288	10.0000	9.36
33 Benzo(k)fluoranthene	252	15.170	15.170 (0.973)	5984	10.0000	11.0(M)
34 Benzo(a)pyrene	252	15.527	15.527 (0.996)	3576	10.0000	9.77
* 35 Perylene-d12	264	15.596	15.596 (1.000)	64830	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.132	17.132 (1.098)	3921	10.0000	9.37
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.092	17.092 (1.096)	2405	10.0000	9.65
38 Dibenzo(a,h)anthracene	278	17.146	17.146 (1.099)	2981	10.0000	9.06
39 Benzo(g,h,i)perylene	276	17.577	17.577 (1.127)	3597	10.0000	9.97

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040607.d
 Lab Smp Id: PNA 10
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	112883	-6.56
11 Acenaphthene-d10	72668	36334	145336	65491	-9.88
18 Phenanthrene-d10	112603	56302	225206	91832	-18.45
29 Chrysene-d12	101702	50851	203404	70497	-30.68
35 Perylene-d12	87112	43556	174224	64830	-25.58

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.02
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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:

Sample Info: PNA 10

Volume Injected (uL): 2.0

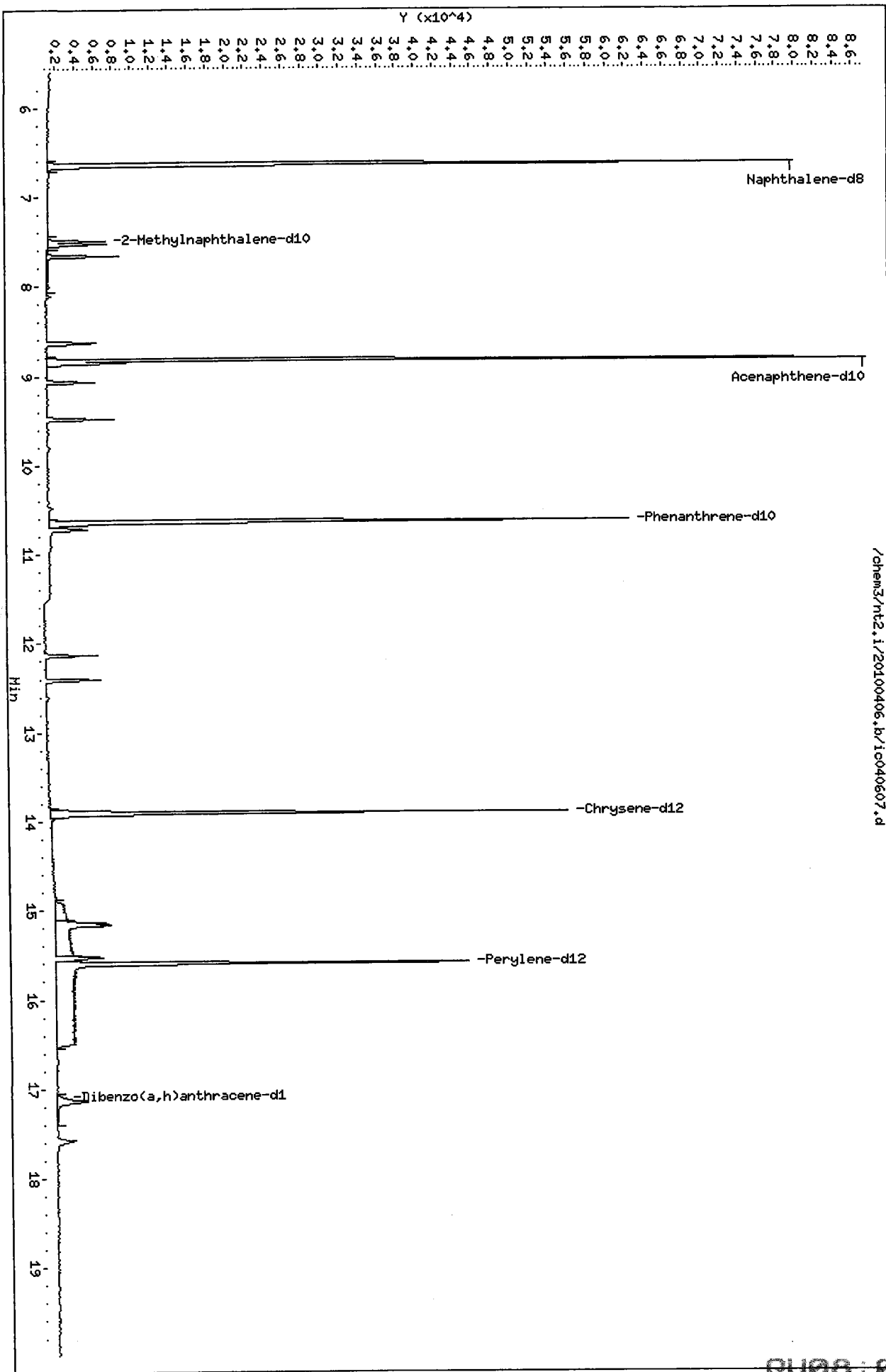
Column phase: ZB-5

Instrument: nt2.i

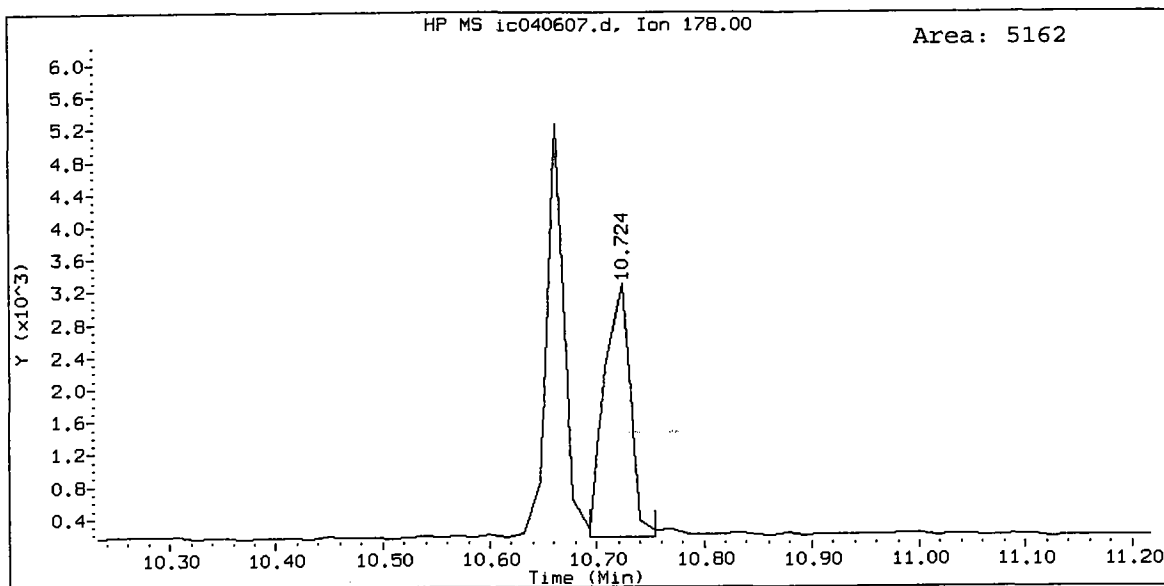
Operator: VTS

Column diameter: 0.25

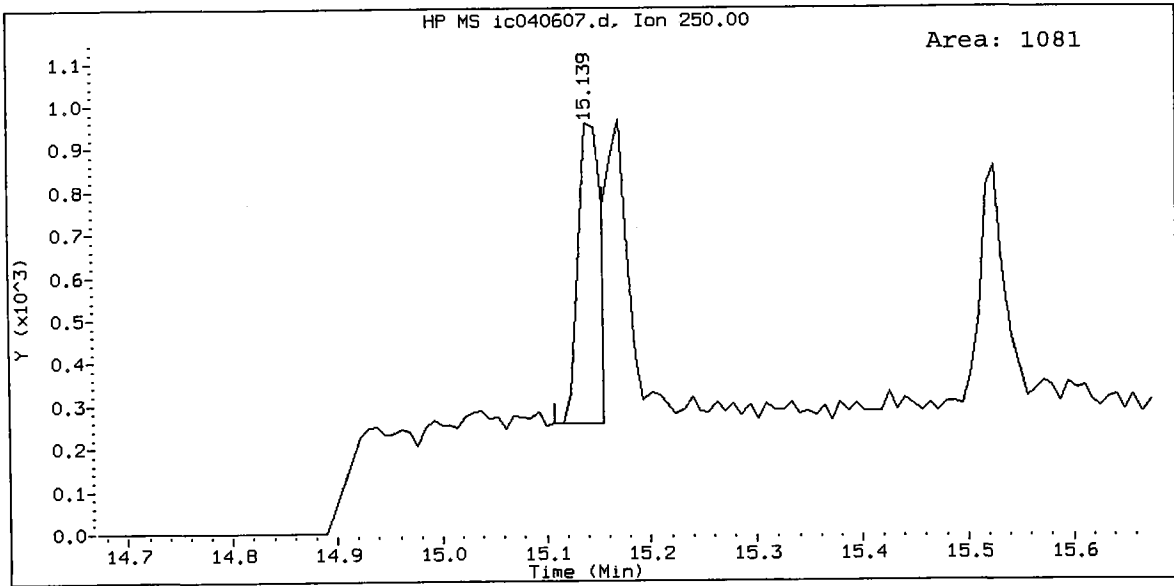
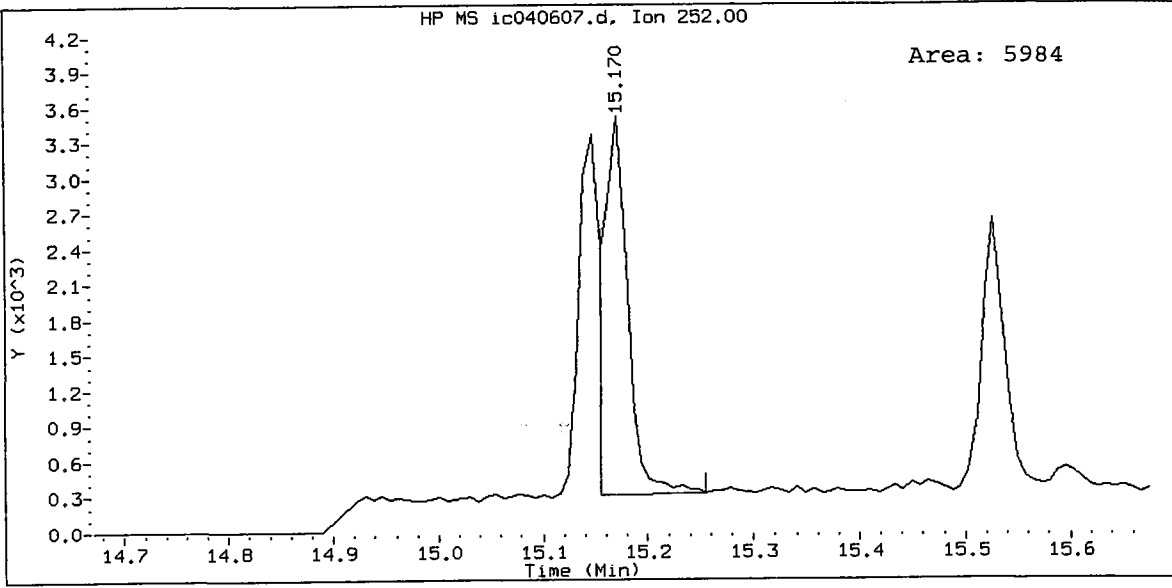
/chem3/nt2.i/20100406.b/i0040607.d



PNA 10, /chem3/nt2.i/20100406.b/ic040607.d
Anthracene Amount: 9.49



PNA 10, /chem3/nt2.i/20100406.b/ic040607.d
Benzo(k)fluoranthene Amount: 10.95



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040608.d
 Lab Smp Id: ICV
 Inj Date : 06-APR-2010 17:16
 Operator : VTS
 Smp Info : ICV
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 QC Sample: LCS
 Compound Sublist: pnalmn.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ng/mL)	FINAL (ng/L)	
* 4 Naphthalene-d8	136	6.636	6.636	(1.000)	109275	200.000		
5 Naphthalene	128	6.667	6.667	(1.005)	163512	262.407	262 (R)	
§ 6 2-Methylnaphthalene-d10	152	Compound Not Detected.						
7 2-Methylnaphthalene	142	7.651	7.513	(1.153)	101733	263.645	264 (R)	
8 1-Methylnaphthalene	142	7.651	7.651	(1.153)	101827	252.129	252	
10 Acenaphthylene	152	8.626	8.626	(0.977)	153865	262.727	263 (R)	
* 11 Acenaphthene-d10	164	8.833	8.832	(1.000)	62617	200.000		
12 Acenaphthene	153	8.858	8.858	(1.003)	98128	270.202	270 (R)	
14 Dibenzofuran	168	Compound Not Detected.						
15 Fluorene	166	9.478	9.478	(1.073)	119615	277.815	278 (R)	
* 18 Phenanthrene-d10	188	10.632	10.632	(1.000)	92425	200.000		
19 Phenanthrene	178	10.663	10.662	(1.003)	155588	263.366	263	
20 Anthracene	178	10.709	10.724	(1.007)	142546	260.441	260 (R)	
24 Fluoranthene	202	12.125	12.136	(1.140)	158829	257.575	258	
25 Pyrene	202	12.411	12.410	(1.167)	161776	259.003	259	

Compounds	QUANT SIG			CONCENTRATIONS			
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ng/L)
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	125378	262.095	262
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	75049	200.000	
30 Chrysene	228	13.936	13.936	(1.002)	124349	264.325	264
32 Benzo(b)fluoranthene	252	15.148	15.147	(0.971)	126699	258.336	258
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	151425	258.916	259
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	101735	259.644	260 (R)
* 35 Perylene-d12	264	15.597	15.596	(1.000)	69395	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.132	(1.098)	118950	265.465	265
\$ 36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
38 Dibenzo(a,h)anthracene	278	17.145	17.146	(1.099)	92425	262.507	263
39 Benzo(g,h,i)perylene	276	17.576	17.577	(1.127)	103888	268.952	269

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040608.d
 Lab Smp Id: ICV
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	109275	-9.55
11 Acenaphthene-d10	72668	36334	145336	62617	-13.83
18 Phenanthrene-d10	112603	56302	225206	92425	-17.92
29 Chrysene-d12	101702	50851	203404	75049	-26.21
35 Perylene-d12	87112	43556	174224	69395	-20.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.02
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.13
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.01
35 Perylene-d12	15.60	15.10	16.10	15.60	-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.

Analytical Resources, Inc.

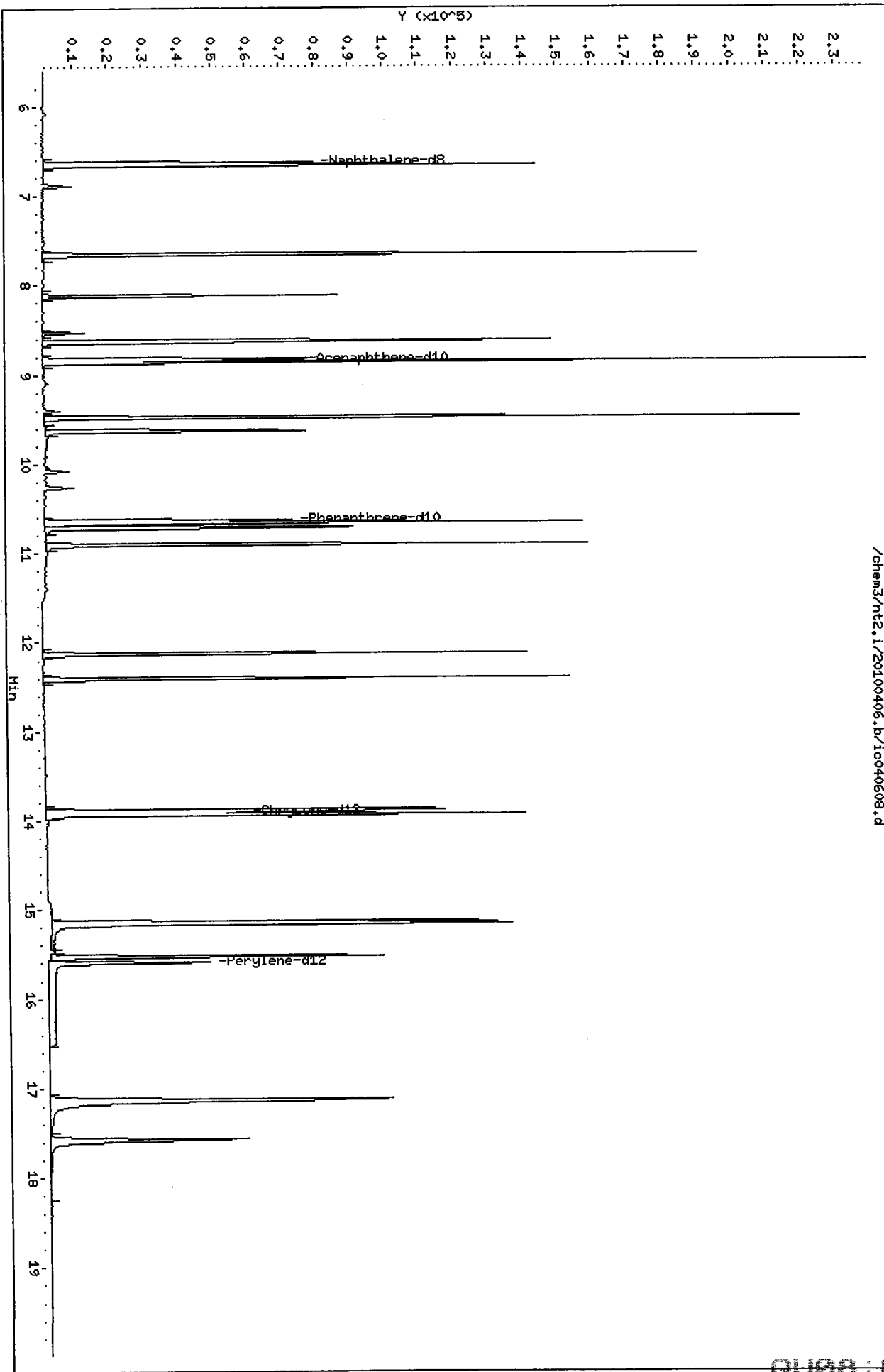
RECOVERY REPORT

Client Name: Client SDG: 20100406
 Sample Matrix: LIQUID Fraction: SV
 Lab Smp Id: ICV Operator: VTS
 Level: LOW SampleType: LCS
 Data Type: MS DATA Quant Type: ISTD
 SpikeList File: waterlcs.spk
 Sublist File: pna1mn.sub
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

SPIKE COMPOUND	CONC ADDED ng/L	CONC RECOVERED ng/L	% RECOVERED	LIMITS
5 Naphthalene	250	262	105.00*	41-101
7 2-Methylnaphthalen	250	264	105.50*	47-100
8 1-Methylnaphthalen	250	252	100.89	30-160
10 Acenaphthylene	250	263	105.13*	35-100
12 Acenaphthene	250	270	108.12*	43-104
14 Dibenzofuran	250	0.00	*	37-100
15 Fluorene	250	278	111.17*	51-103
19 Phenanthrene	250	263	105.39	55-109
20 Anthracene	250	260	104.22*	30-101
24 Fluoranthene	250	258	103.07	49-123
25 Pyrene	250	259	103.64	48-120
28 Benzo(a)anthracene	250	262	104.88	43-113
30 Chrysene	250	264	105.77	59-112
32 Benzo(b)fluoranthene	250	258	103.38	44-121
33 Benzo(k)fluoranthene	250	259	103.61	50-117
34 Benzo(a)pyrene	250	260	103.90*	10-100
37 Indeno(1,2,3-cd)py	250	265	106.23	43-112
38 Dibenzo(a,h)anthra	250	263	105.04	42-114
39 Benzo(g,h,i)perylene	250	269	107.62	31-118

SURROGATE COMPOUND	CONC ADDED ng/L	CONC RECOVERED ng/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalene	300	0.00	*	31-109
\$ 36 Dibenzo(a,h)anthr	300	0.00	*	10-133

/chem3/nt2.i/20100406.b/ic040608.d



SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QU08

Project: LORA LAKES APARTMENT

Instrument ID: NT2

Cont. Calib. Date: 04/29/10

Init. Calib. Date: 04/06/10

Cont. Calib. Time: 1035

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Naphthalene	1.140	1.000	0.700	AVRG	-12.3
2-Methylnaphthalene	0.706	0.705	0.400	AVRG	-0.1
Acenaphthylene	1.870	1.758	0.900	AVRG	-6.0
Acenaphthene	1.160	1.181	0.900	AVRG	1.8
Dibenzofuran	1.623	1.688	0.800	AVRG	4.0
Fluorene	1.375	1.337	0.900	AVRG	-2.8
Phenanthrene	1.278	1.206	0.700	AVRG	-5.6
Anthracene	1.184	1.127	0.700	AVRG	-4.8
Fluoranthene	1.334	1.289	0.600	AVRG	-3.4
Pyrene	1.352	1.337	0.600	AVRG	-1.1
Benzo (a) anthracene	1.275	1.156	0.800	AVRG	-9.3
Chrysene	1.254	1.321	0.700	AVRG	5.3
Benzo (b) fluoranthene	1.413	1.241	0.700	AVRG	-12.2
Benzo (k) fluoranthene	1.686	1.943	0.700	AVRG	15.2
Benzo (a) pyrene	1.129	1.113	0.700	AVRG	-1.4
Indeno (1, 2, 3-cd) pyrene	1.291	1.134	0.500	AVRG	-12.2
Dibenzo (a, h) anthracene	1.015	0.884	0.400	AVRG	-12.9
Benzo (g, h, i) perylene	1.113	0.998	0.500	AVRG	-10.3
1-Methylnaphthalene	0.739	0.629	0.010	AVRG	-14.9
2-Methylnaphthalene-d10	0.683	0.645	0.010	AVRG	-5.6
Dibenzo (a, h) anthracene-d14	0.769	0.649	0.010	AVRG	-15.6

<- Exceeds QC limit of 20% D

* RF less than minimum RF

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt2.i Injection Date: 29-APR-2010 10:35
 Lab File ID: cc0429.d Init. Cal. Date(s): 06-APR-2010 06-APR-2010
 Analysis Type: WATER Init. Cal. Times: 14:24 16:52
 Lab Sample ID: PNA 250 Quant Type: ISTD
 Method: /chem3/nt2.i/20100429.b/lowsim.m

COMPOUND	RRF / AMOUNT	RF250	MIN		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D	%DRIFT	
5 Naphthalene	1.14047	1.00060	0.010	-12.26416	20.00000		Averaged
6 2-Methylnaphthalene-d10	0.68252	0.64483	0.010	-5.52187	20.00000		Averaged
7 2-Methylnaphthalene	0.70624	0.70532	0.010	-0.13061	20.00000		Averaged
8 1-Methylnaphthalene	0.73918	0.62923	0.010	-14.87483	20.00000		Averaged
10 Acenaphthylene	1.87056	1.75859	0.010	-5.98583	20.00000		Averaged
12 Acenaphthene	1.15996	1.18086	0.010	1.80238	20.00000		Averaged
14 Dibenzofuran	1.62321	1.68797	0.010	3.98957	20.00000		Averaged
15 Fluorene	1.37521	1.33729	0.010	-2.75753	20.00000		Averaged
19 Phenanthrene	1.27837	1.20593	0.010	-5.66651	20.00000		Averaged
20 Anthracene	1.18437	1.12740	0.010	-4.80977	20.00000		Averaged
24 Fluoranthene	1.33434	1.28912	0.010	-3.38912	20.00000		Averaged
25 Pyrene	1.35161	1.33739	0.010	-1.05207	20.00000		Averaged
28 Benzo(a)anthracene	1.27481	1.15563	0.010	-9.34952	20.00000		Averaged
30 Chrysene	1.25369	1.32092	0.010	5.36259	20.00000		Averaged
32 Benzo(b)fluoranthene	1.41348	1.24129	0.010	-12.18199	20.00000		Averaged
33 Benzo(k)fluoranthene	1.68554	1.94307	0.010	15.27845	20.00000		Averaged
34 Benzo(a)pyrene	1.12926	1.11283	0.010	-1.45509	20.00000		Averaged
37 Indeno(1,2,3-cd)pyrene	1.29140	1.13405	0.010	-12.18390	20.00000		Averaged
36 Dibenzo(a,h)anthracene-d14	0.76860	0.64878	0.010	-15.59001	20.00000		Averaged
38 Dibenzo(a,h)anthracene	1.01473	0.88416	0.010	-12.86710	20.00000		Averaged
39 Benzo(g,h,i)perylene	1.11325	0.99805	0.010	-10.34804	20.00000		Averaged

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/cc0429.d
 Lab Smp Id: PNA 250
 Inj Date : 29-APR-2010 10:35
 Operator : pk Inst ID: nt2.i
 Smp Info : PNA 250
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 29-Apr-2010 11:31 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalmn.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136			6.496	6.496	(1.000)	97369	200.000	
5 Naphthalene	128			6.511	6.511	(1.002)	121784	250.000	219
\$ 6 2-Methylnaphthalene-d10	152			7.342	7.342	(1.130)	78484	250.000	236
7 2-Methylnaphthalene	142			7.373	7.373	(1.135)	85845	250.000	250
8 1-Methylnaphthalene	142			7.511	7.511	(1.156)	76584	250.000	213
10 Acenaphthylene	152			8.488	8.488	(0.978)	112801	250.000	235
* 11 Acenaphthene-d10	164			8.681	8.681	(1.000)	51314	200.000	
12 Acenaphthene	153			8.707	8.707	(1.003)	75743	250.000	255
14 Dibenzofuran	168			8.913	8.913	(1.027)	108271	250.000	260
15 Fluorene	166			9.332	9.332	(1.075)	85777	250.000	243
* 18 Phenanthrene-d10	188			10.486	10.486	(1.000)	84398	200.000	
19 Phenanthrene	178			10.502	10.502	(1.001)	127222	250.000	236
20 Anthracene	178			10.563	10.563	(1.007)	118938	250.000	238
24 Fluoranthene	202			11.970	11.970	(1.142)	135998	250.000	242
25 Pyrene	202			12.245	12.245	(1.168)	141090	250.000	247
28 Benzo(a)anthracene	228			13.726	13.726	(0.998)	112293	250.000	227

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	77737	200.000	
30 Chrysene	228	13.770	13.770	(1.002)	128355	250.000	263
32 Benzo (b) fluoranthene	252	14.978	14.978	(0.972)	101876	250.000	220
33 Benzo (k) fluoranthene	252	15.001	15.001	(0.974)	159472	250.000	288
34 Benzo (a) pyrene	252	15.342	15.342	(0.996)	91332	250.000	246
* 35 Perylene-d12	264	15.404	15.404	(1.000)	65658	200.000	
37 Indeno (1,2,3-cd) pyrene	276	16.842	16.842	(1.093)	93074	250.000	220
\$ 36 Dibenzo (a,h) anthracene-d14	292	16.815	16.815	(1.092)	53246	250.000	211
38 Dibenzo (a,h) anthracene	278	16.855	16.855	(1.094)	72565	250.000	218
39 Benzo (g,h,i) perylene	276	17.260	17.260	(1.120)	81912	250.000	224

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: cc0429.d
 Lab Smp Id: PNA 250
 Analysis Type: SV
 Quant Type: ISTD
 Operator: pk
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info:

Calibration Date: 29-APR-2010
 Calibration Time: 10:07
 Level: LOW
 Sample Type: WATER

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	97369	-19.40
11 Acenaphthene-d10	72668	36334	145336	51314	-29.39
18 Phenanthrene-d10	112603	56302	225206	84398	-25.05
29 Chrysene-d12	101702	50851	203404	77737	-23.56
35 Perylene-d12	87112	43556	174224	65658	-24.63

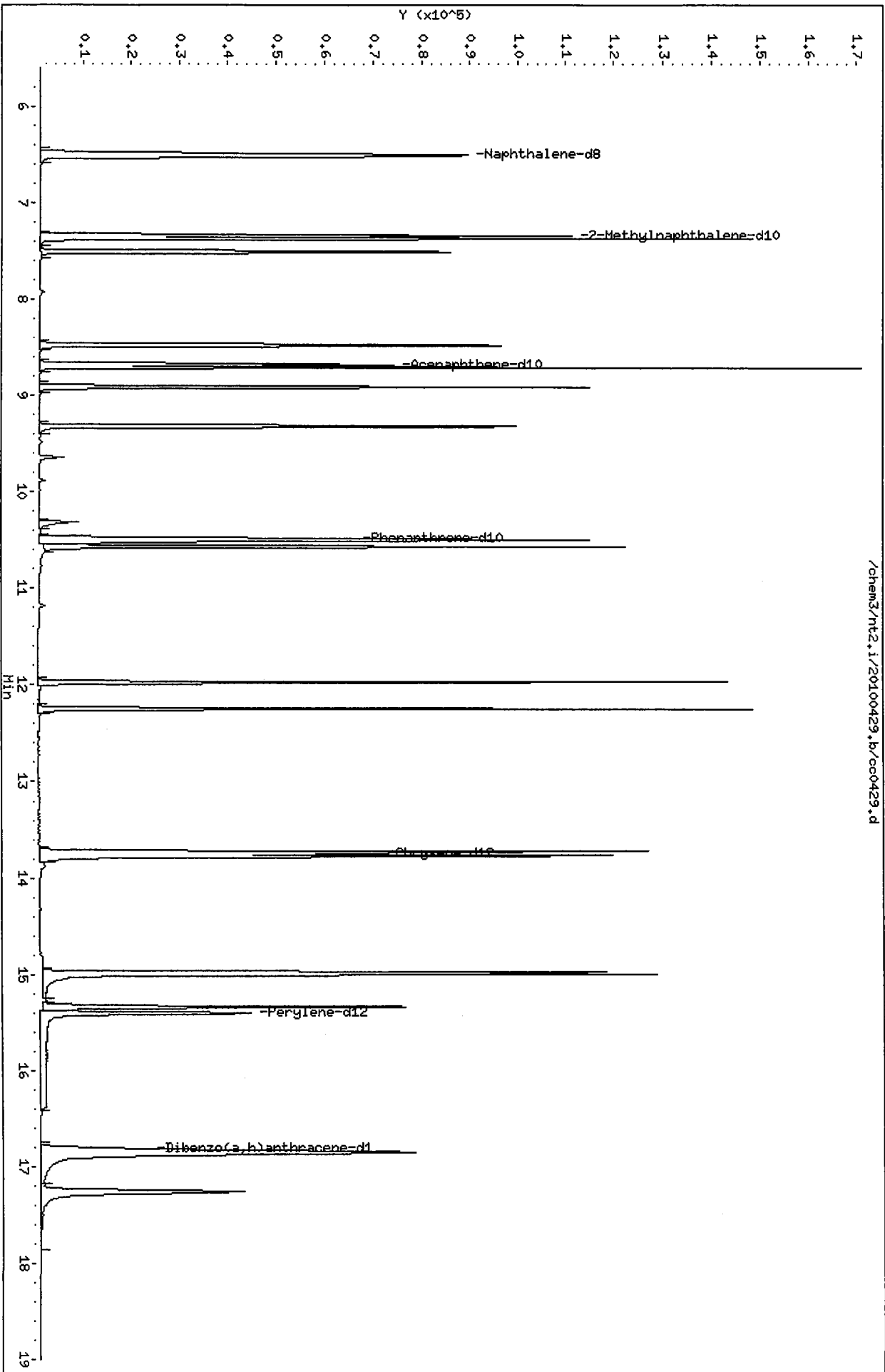
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.50	0.00
11 Acenaphthene-d10	8.68	8.18	9.18	8.68	0.00
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	0.00
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	0.00

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/nt2.i/20100429.b/cc0429.d
Date: 29-APR-2010 10:35

Client ID:
Sample Info: PNA 250
Volume Injected (ul): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: pk
Column diameter: 0.25



/chem3/nt2.i/20100429.b/cc0429.d

**SIM Semivolatile Analysis
QC Raw Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

QU08 : 00186

Date : 06-APR-2010 13:59

Client ID:

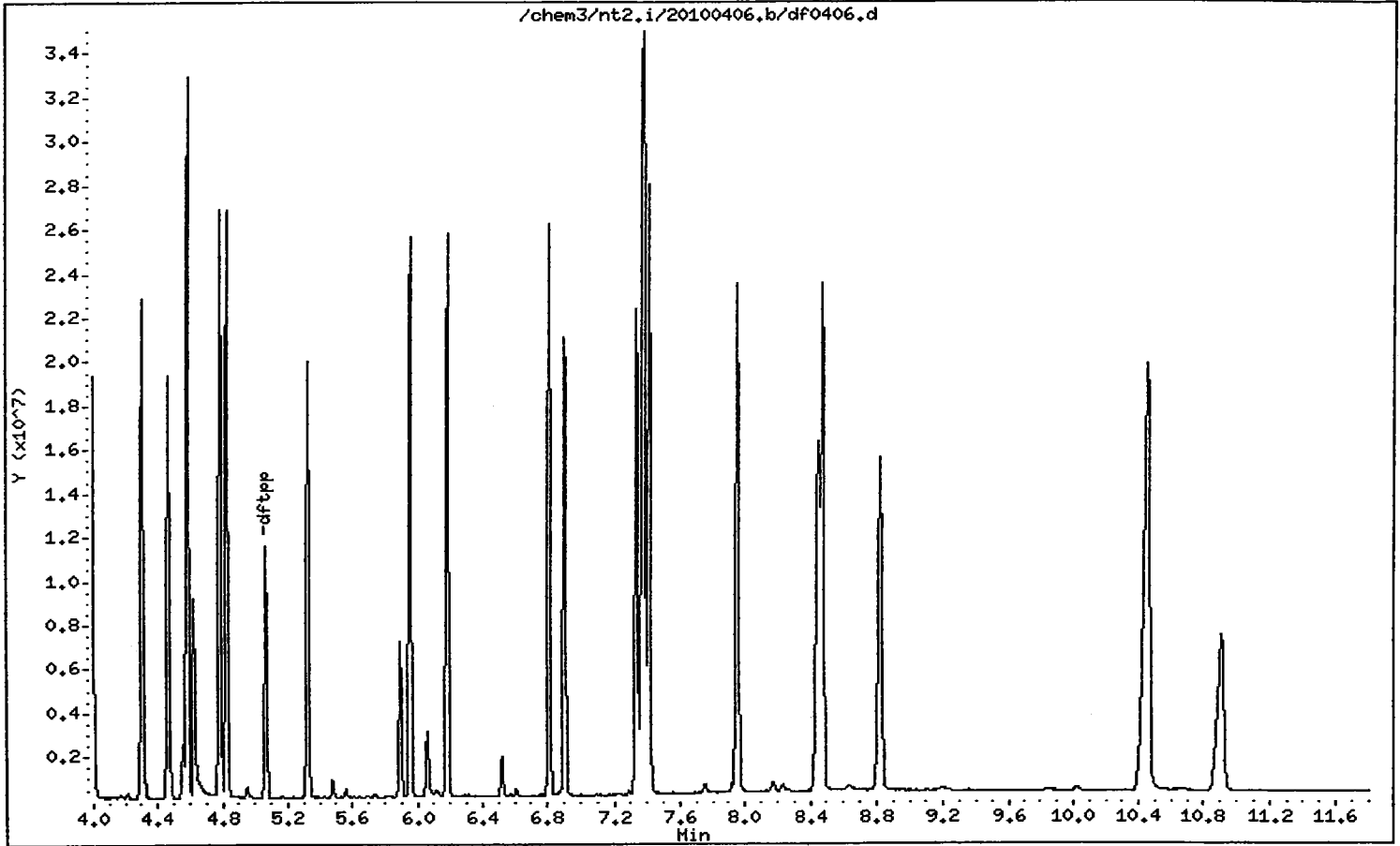
Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Date : 06-APR-2010 13:59

Client ID:

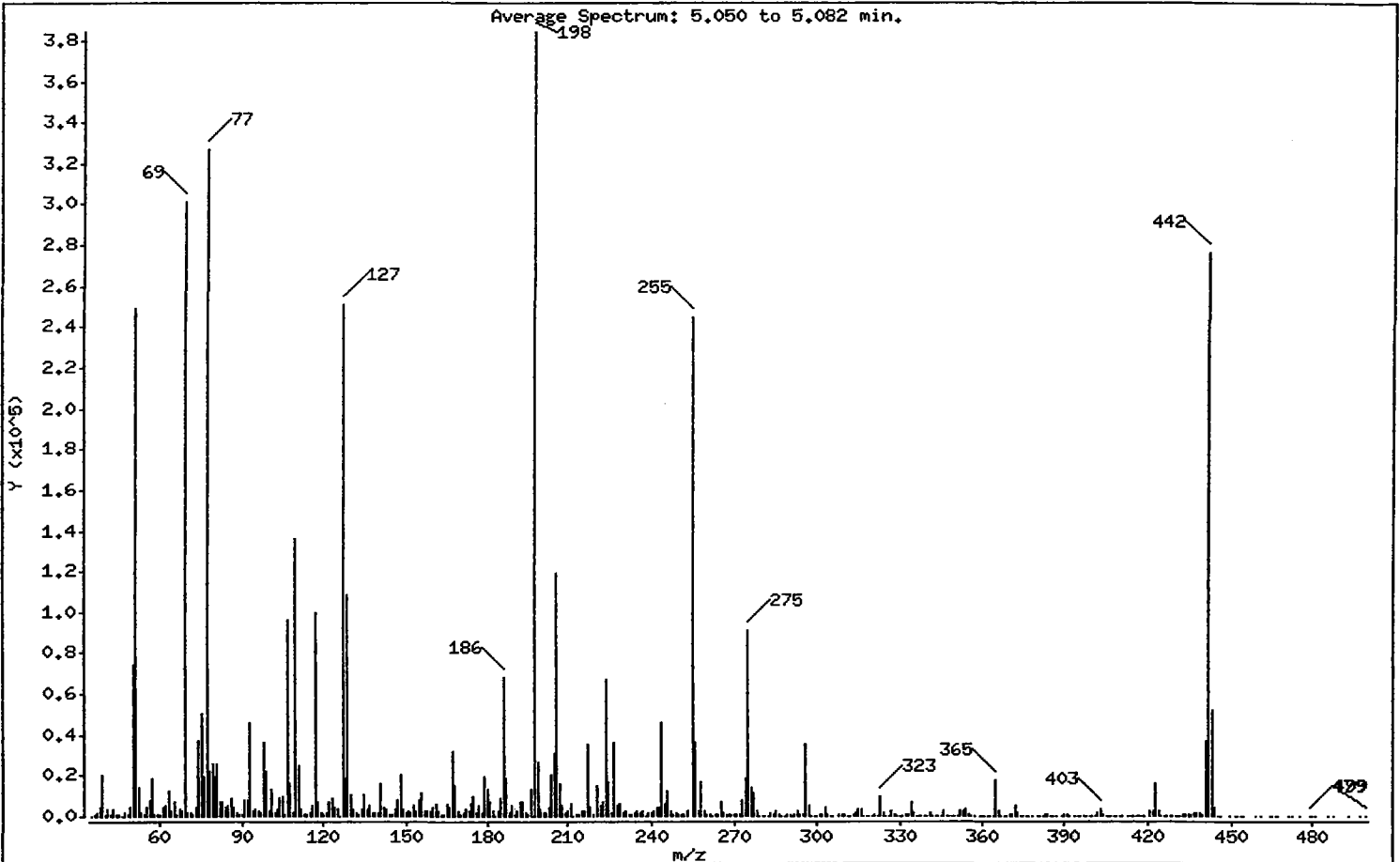
Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi
1 dftpp

Column diameter: 0.25



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	64.75
68	Less than 2.00% of mass 69	0.61 (0.77)
69	Mass 69 relative abundance	78.43
70	Less than 2.00% of mass 69	0.55 (0.70)
127	10.00 - 80.00% of mass 198	65.26
197	Less than 2.00% of mass 198	0.09
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 60.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	4.58
441	0.01 - 24.00% of mass 442	9.58 (13.33)
442	50.00 - 200.00% of mass 198	71.90
443	15.00 - 24.00% of mass 442	13.64 (18.97)

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Average Spectrum: 5.050 to 5.082 min.

Location of Maximum: 198.00

Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	416	142.00	4760	250.00	677	360.00	121
36.00	1002	143.00	3921	251.00	1008	361.00	287
37.00	2155	144.00	1109	252.00	1096	362.00	281
38.00	4395	145.00	888	253.00	2316	363.00	158
39.00	20424	146.00	3319	255.00	244480	364.00	43
40.00	1230	147.00	8205	256.00	36088	365.00	17600
41.00	3813	148.00	20008	257.00	3013	366.00	2806
42.00	1118	149.00	3712	258.00	16472	367.00	191
43.00	3495	150.00	1692	259.00	2825	368.00	66
44.00	1085	151.00	2357	260.00	590	369.00	270
45.00	1210	152.00	1758	261.00	574	370.00	551
46.00	269	153.00	5487	262.00	155	371.00	783
47.00	1520	154.00	2992	263.00	705	372.00	5254
48.00	779	155.00	7683	264.00	1191	373.00	1577
49.00	4201	156.00	11055	265.00	7045	374.00	232
50.00	74256	157.00	2318	266.00	1785	375.00	144
51.00	248896	158.00	2501	267.00	674	376.00	121
52.00	14238	159.00	2987	268.00	559	377.00	232
53.00	1993	160.00	4510	269.00	450	378.00	45
54.00	699	161.00	6592	270.00	573	380.00	99
55.00	4766	162.00	2357	271.00	986	381.00	32
56.00	7742	163.00	658	272.00	575	382.00	176
57.00	18208	164.00	784	273.00	7542	383.00	1295
58.00	886	165.00	5914	274.00	18488	384.00	504
59.00	454	166.00	4536	275.00	91008	385.00	285
60.00	1070	167.00	31712	276.00	14537	386.00	77
61.00	4542	168.00	14628	277.00	11371	387.00	111
62.00	4942	169.00	2984	278.00	2419	389.00	108
63.00	12346	170.00	1022	279.00	382	390.00	856
64.00	2598	171.00	1604	280.00	73	391.00	558
65.00	6976	172.00	3465	281.00	236	392.00	195
66.00	1109	173.00	2848	282.00	393	394.00	127
67.00	3298	174.00	6037	283.00	1354	395.00	37
68.00	2335	175.00	10146	284.00	1072	396.00	106
69.00	301440	176.00	2144	285.00	2289	397.00	65

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Average Spectrum: 5.050 to 5.082 min.

Location of Maximum: 198.00

Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.00	2110	177.00	4897	286.00	588	398.00	178
71.00	2082	178.00	2070	287.00	374	399.00	180
72.00	620	179.00	19552	288.00	196	400.00	140
73.00	4300	180.00	13224	289.00	629	401.00	308
74.00	36768	181.00	6822	290.00	589	402.00	1826
75.00	50000	182.00	2393	291.00	435	403.00	3464
76.00	19336	183.00	346	292.00	552	404.00	1023
77.00	327360	184.00	2668	293.00	2391	405.00	291
78.00	22288	185.00	9268	294.00	935	406.00	109
79.00	25336	186.00	68232	295.00	1253	407.00	86
80.00	19528	187.00	18576	296.00	35736	408.00	74
81.00	25584	188.00	1935	297.00	5467	409.00	37
82.00	6741	189.00	5633	298.00	405	410.00	182
83.00	6784	190.00	758	299.00	236	411.00	101
84.00	4298	191.00	2867	300.00	189	413.00	31
85.00	5181	192.00	6876	301.00	595	414.00	235
86.00	8831	193.00	7238	302.00	487	415.00	174
87.00	4065	194.00	1815	303.00	4764	416.00	210
88.00	1753	195.00	1014	304.00	1297	417.00	59
89.00	1207	196.00	12894	305.00	104	418.00	124
90.00	465	197.00	354	306.00	129	419.00	271
91.00	7977	198.00	384384	308.00	531	421.00	2273
92.00	7665	199.00	26880	309.00	455	422.00	2902
93.00	45664	200.00	3438	310.00	652	423.00	15533
94.00	3087	201.00	1705	311.00	304	424.00	3000
95.00	3231	202.00	1478	312.00	187	425.00	408
96.00	2456	203.00	4259	313.00	639	426.00	261
97.00	2069	204.00	19968	314.00	1915	427.00	269
98.00	36488	205.00	31232	315.00	3802	428.00	289
99.00	21704	206.00	119128	316.00	3108	429.00	55
100.00	2251	207.00	16069	317.00	404	430.00	415
101.00	13543	208.00	5412	318.00	105	431.00	395
102.00	1728	209.00	1355	319.00	175	432.00	430
103.00	3911	210.00	2714	320.00	268	433.00	785
104.00	9027	211.00	5816	321.00	1026	434.00	1256

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Average Spectrum: 5.050 to 5.082 min.

Location of Maximum: 198.00

Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
105.00	9796	212.00	437	322.00	298	435.00	921
106.00	959	213.00	489	323.00	9745	436.00	988
107.00	96704	214.00	508	324.00	1952	437.00	1719
108.00	15501	215.00	2362	325.00	158	438.00	2203
109.00	1783	216.00	2854	326.00	179	439.00	1479
110.00	136448	217.00	35224	327.00	2324	440.00	1132
111.00	24928	218.00	4044	328.00	863	441.00	36832
112.00	3556	219.00	1052	329.00	420	442.00	276352
113.00	1133	221.00	14884	330.00	141	443.00	52424
114.00	603	222.00	5051	331.00	125	444.00	4496
115.00	1812	223.00	7321	332.00	893	445.00	141
116.00	4990	224.00	67384	333.00	1217	446.00	29
117.00	99632	225.00	16816	334.00	7045	449.00	196
118.00	7310	226.00	1610	335.00	1799	451.00	29
119.00	1942	227.00	36048	336.00	389	452.00	109
120.00	1242	228.00	5631	337.00	148	453.00	31
121.00	1553	229.00	6424	338.00	132	454.00	96
122.00	6968	230.00	1449	339.00	195	459.00	114
123.00	9049	231.00	2782	340.00	123	461.00	73
124.00	4450	232.00	523	341.00	1330	464.00	36
125.00	3651	233.00	779	342.00	358	465.00	33
126.00	192	234.00	2190	343.00	115	466.00	57
127.00	250880	235.00	2215	344.00	78	467.00	43
128.00	18840	236.00	2153	345.00	47	471.00	93
129.00	109032	237.00	2707	346.00	2380	472.00	83
130.00	10582	238.00	238	347.00	350	475.00	78
131.00	3101	239.00	1949	348.00	55	479.00	99
132.00	1831	240.00	1358	349.00	51	480.00	35
133.00	1093	241.00	2260	350.00	191	481.00	35
134.00	3510	242.00	4046	351.00	58	486.00	94
135.00	10859	243.00	4825	352.00	2884	488.00	78
136.00	3358	244.00	45824	353.00	2213	493.00	90
137.00	5416	245.00	6556	354.00	3619	497.00	32
138.00	1733	246.00	12563	355.00	1298	499.00	143
139.00	1456	247.00	2520	356.00	230		

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

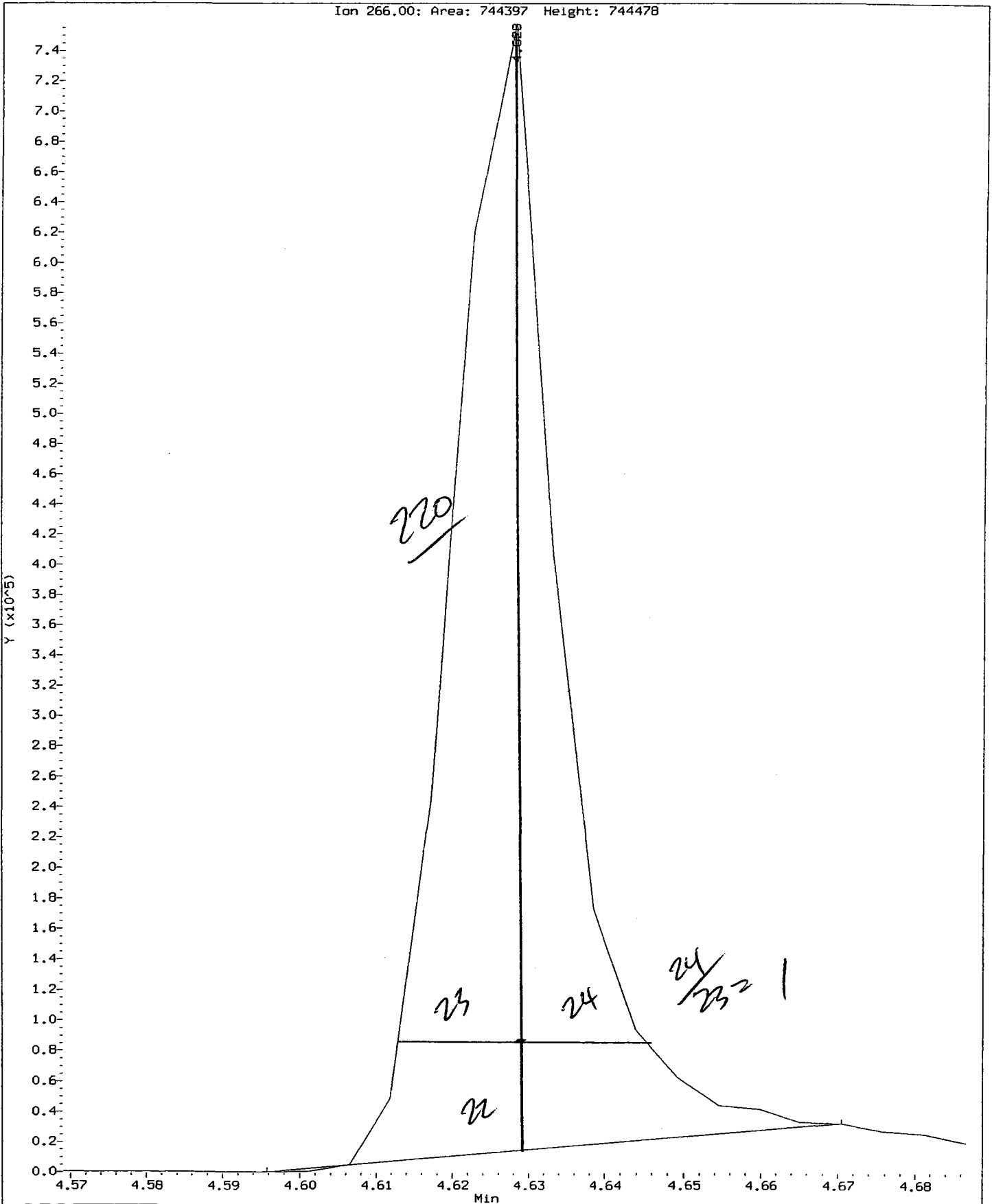
Column diameter: 0.25

Data File: df0406.d
Spectrum: Average Spectrum: 5.050 to 5.082 min.
Location of Maximum: 198.00
Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
140.00	1652	248.00	890	357.00	190		
141.00	15558	249.00	1907	359.00	359		

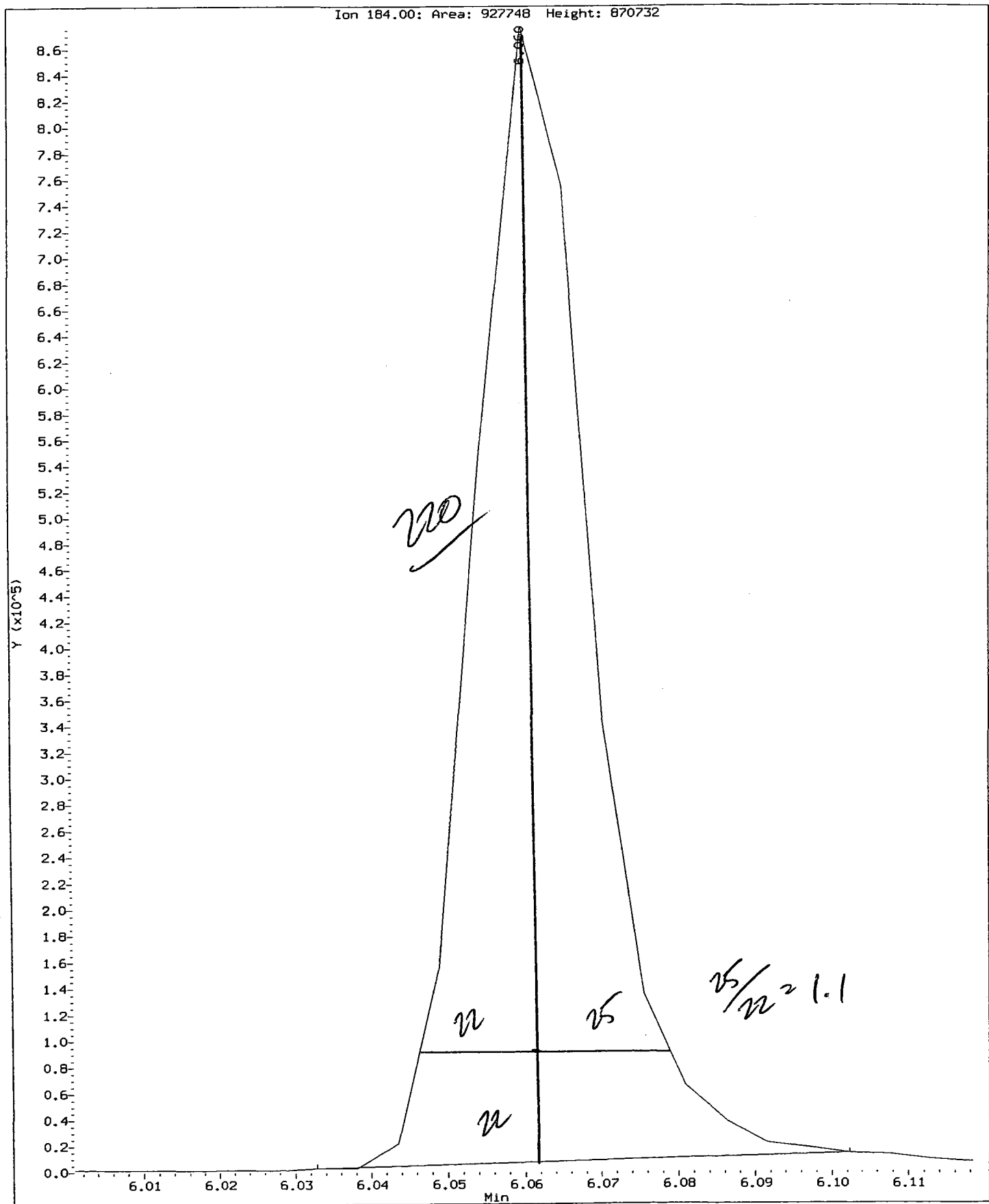
Data File: /chem3/nt2.i/20100406.b/ddt.b/df0406.d
Injection Date: 06-APR-2010 13:59
Instrument: nt2.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt2.i/20100406.b/ddt.b/df0406.d
Injection Date: 06-APR-2010 13:59
Instrument: nt2.1
Client Sample ID:

Compound: Benzidine
CAS Number:



QU08:00194

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt2.i/20100406.b/ddt.b/df0406.d
Method: /chem3/nt2.i/20100406.b/ddt.b/sw846ddt.m
Analysis Date: 06-APR-2010 13:59

ARI ID: DFTPP
Misc:
Instrument: nt2.i

COMPOUND	RT	AREA
Pentachlorophenol	4.628	744396
Benzidine	6.060	927747
4,4'-DDE	6.284	7060
4,4'-DDD	6.610	41201
4,4'-DDT	6.909	2934000

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(7060 + 41201) * 100}{(7060 + 41201 + 2934000)}$$

DDT Percent Breakdown = 1.6 %

Date : 29-APR-2010 09:46

Client ID:

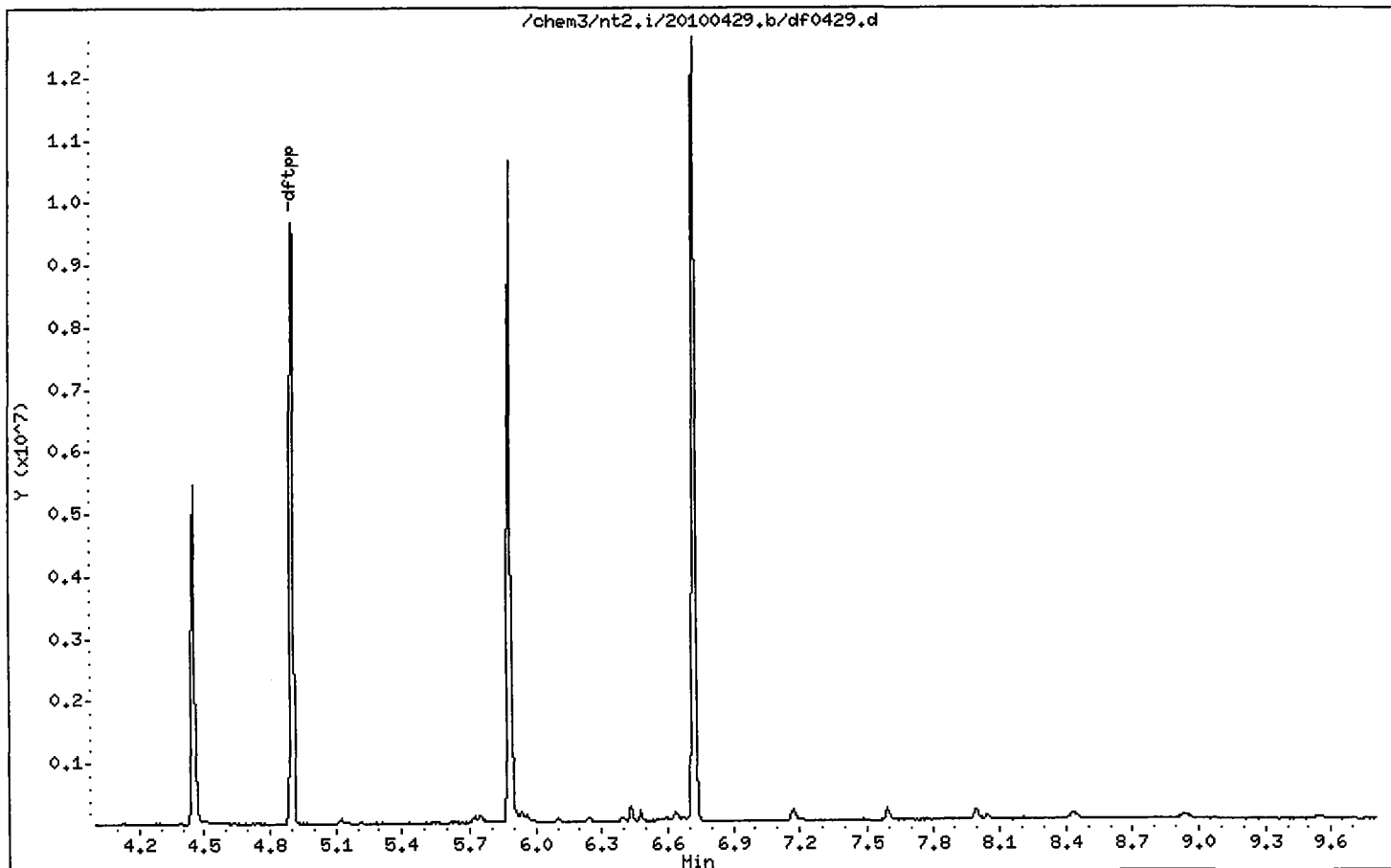
Instrument: nt2.i

Sample Info: DFTPP

Operator: pk

Column phase: ZB-5msi

Column diameter: 0.25



Date : 29-APR-2010 09:46

Client ID:

Instrument: nt2.i

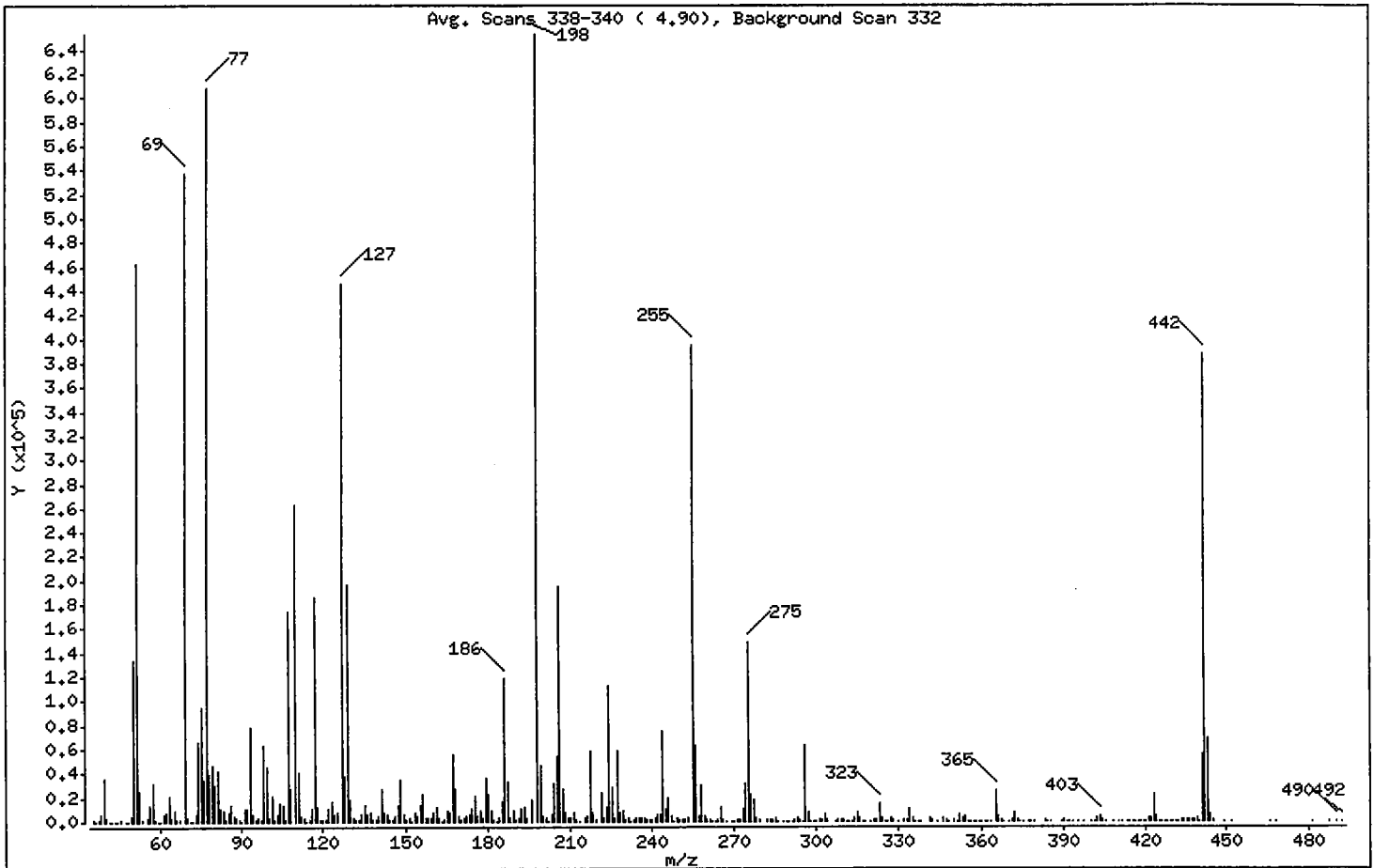
Sample Info: DFTPP

Operator: pk

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	70.88
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	82.35
70	Less than 2.00% of mass 69	0.49 (0.59)
127	10.00 - 80.00% of mass 198	68.20
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.09
275	10.00 - 60.00% of mass 198	22.81
365	Greater than 1.00% of mass 198	3.82
441	0.01 - 24.00% of mass 442	8.39 (14.15)
442	50.00 - 200.00% of mass 198	59.33
443	15.00 - 24.00% of mass 442	10.65 (17.95)

Date : 29-APR-2010 09:46

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: pk

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0429.d

Spectrum: Avg. Scans 338-340 (4.90), Background Scan 332

Location of Maximum: 198.00

Number of points: 378

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	773	135.00	13980	234.00	3233	341.00	2592
36.00	321	136.00	5527	235.00	3188	342.00	795
37.00	2219	137.00	7205	236.00	2603	344.00	224
38.00	6492	138.00	1590	237.00	2946	346.00	3487
39.00	36248	139.00	1289	238.00	809	347.00	1290
40.00	2314	140.00	3852	239.00	1754	348.00	242
41.00	683	141.00	26424	240.00	1461	350.00	792
42.00	257	142.00	7893	241.00	3333	351.00	394
43.00	69	143.00	5864	242.00	5896	352.00	5316
44.00	452	144.00	1714	243.00	5980	353.00	2626
45.00	964	145.00	1515	244.00	75088	354.00	4207
47.00	510	146.00	5232	245.00	10796	355.00	709
48.00	689	147.00	14074	246.00	19712	356.00	173
49.00	4181	148.00	34760	247.00	4473	357.00	260
50.00	133056	149.00	6071	248.00	732	358.00	139
51.00	462912	150.00	1773	249.00	3210	359.00	187
52.00	25600	151.00	3617	250.00	904	360.00	232
53.00	1167	152.00	421	251.00	941	361.00	169
55.00	2429	153.00	7586	252.00	1179	362.00	113
56.00	13446	154.00	5159	253.00	2533	363.00	408
57.00	32072	155.00	14218	255.00	395456	365.00	24960
58.00	2190	156.00	22256	256.00	62408	366.00	3787
59.00	248	157.00	2880	257.00	4989	367.00	1194
60.00	699	158.00	3683	258.00	30520	368.00	108
61.00	6399	159.00	2813	259.00	4722	370.00	654
62.00	8100	160.00	7715	260.00	757	371.00	1465
63.00	20336	161.00	11764	261.00	1365	372.00	7295
64.00	2994	162.00	2837	262.00	318	373.00	1697
65.00	9115	163.00	732	263.00	307	374.00	489
66.00	921	164.00	970	264.00	1017	375.00	168
67.00	1703	165.00	9532	265.00	11707	377.00	396
69.00	537856	166.00	7333	266.00	1780	378.00	80
70.00	3190	167.00	56048	267.00	747	379.00	89
71.00	659	168.00	27088	269.00	117	383.00	1684
72.00	79	169.00	3997	270.00	612	384.00	458

Date : 29-APR-2010 09:46

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: pk

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0429.d

Spectrum: Avg. Scans 338-340 (4.90), Background Scan 332

Location of Maximum: 198.00

Number of points: 378

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	5293	170.00	1695	271.00	1158	385.00	161
74.00	66432	171.00	2648	272.00	1769	389.00	245
75.00	94496	172.00	4280	273.00	11097	390.00	1283
76.00	34120	173.00	5379	274.00	31688	391.00	735
77.00	608384	174.00	11027	275.00	148992	392.00	439
78.00	38360	175.00	20632	276.00	22696	393.00	151
79.00	45920	176.00	4451	277.00	18608	395.00	93
80.00	30192	177.00	9307	278.00	3490	397.00	103
81.00	41952	178.00	2466	279.00	778	400.00	264
82.00	10835	179.00	36208	282.00	990	401.00	340
83.00	8325	180.00	22888	283.00	1471	402.00	2802
84.00	1387	181.00	9539	284.00	1880	403.00	4285
85.00	6777	182.00	1195	285.00	2873	404.00	1297
86.00	13118	183.00	262	286.00	171	405.00	134
87.00	5223	184.00	3133	288.00	287	408.00	73
88.00	2781	185.00	17152	289.00	584	410.00	411
89.00	884	186.00	118560	290.00	683	411.00	169
90.00	419	187.00	33736	291.00	314	413.00	92
91.00	9864	188.00	3264	292.00	1091	414.00	185
92.00	10763	189.00	8834	293.00	3040	415.00	174
93.00	78656	190.00	1277	294.00	938	416.00	167
94.00	5675	191.00	3442	295.00	553	417.00	158
95.00	940	192.00	10425	296.00	62512	418.00	436
96.00	2830	193.00	12181	297.00	7150	419.00	73
97.00	825	194.00	2830	298.00	475	420.00	209
98.00	63448	196.00	18184	299.00	176	421.00	3135
99.00	45256	198.00	653120	300.00	251	422.00	2919
100.00	3706	199.00	46304	301.00	864	423.00	22352
101.00	21544	200.00	5254	302.00	1424	424.00	4014
102.00	1111	201.00	2772	303.00	6246	425.00	401
103.00	6510	202.00	414	304.00	1566	426.00	295
104.00	15556	203.00	5936	307.00	185	427.00	182
105.00	13507	204.00	30832	308.00	1200	428.00	484
106.00	1715	205.00	54136	309.00	871	429.00	287
107.00	174848	206.00	195712	310.00	933	430.00	581

Date : 29-APR-2010 09:46

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: pk

Column phase: ZB-5msi

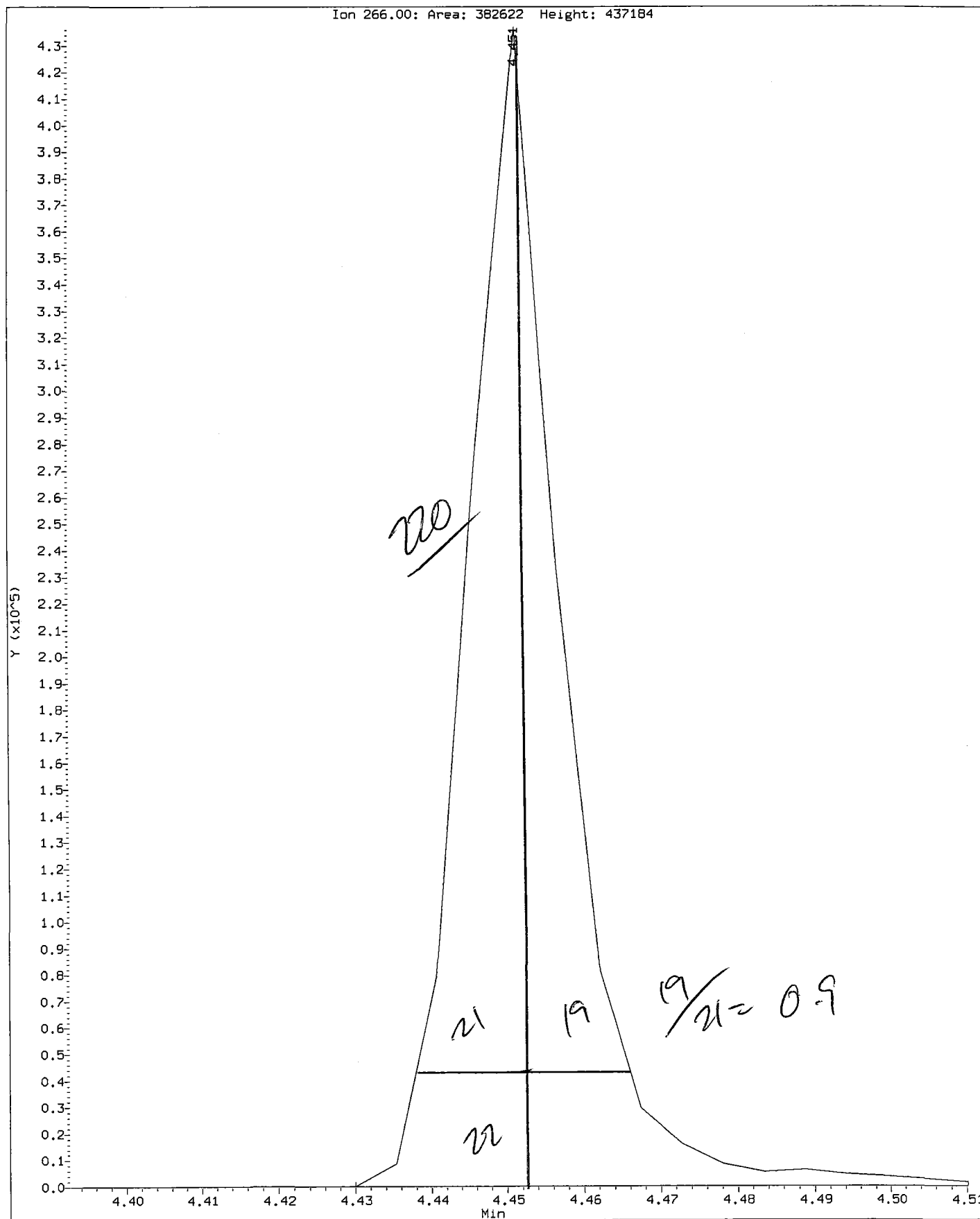
Column diameter: 0.25

Data File: df0429.d
 Spectrum: Avg. Scans 338-340 (4.90), Background Scan 332
 Location of Maximum: 198.00
 Number of points: 378

m/z	Y	m/z	Y	m/z	Y	m/z	Y
108.00	26472	207.00	26824	311.00	409	431.00	465
110.00	262784	208.00	7498	312.00	108	432.00	643
111.00	40408	209.00	2347	313.00	540	433.00	861
112.00	5097	210.00	3674	314.00	2541	434.00	1224
113.00	2277	211.00	7580	315.00	7006	435.00	1152
114.00	364	212.00	1056	316.00	3458	436.00	2252
115.00	1434	213.00	532	317.00	525	437.00	2155
116.00	10648	215.00	2466	318.00	309	438.00	1121
117.00	186816	216.00	5056	320.00	467	439.00	2898
118.00	12247	217.00	58544	321.00	1827	440.00	706
119.00	1211	218.00	7484	322.00	1010	441.00	54816
120.00	2238	219.00	1405	323.00	15471	442.00	387520
121.00	819	221.00	24632	324.00	3055	443.00	69560
122.00	10838	222.00	3355	325.00	263	444.00	6603
123.00	16456	223.00	12232	326.00	557	445.00	841
124.00	6709	224.00	112336	327.00	3483	449.00	179
125.00	7521	225.00	27840	328.00	1756	452.00	209
127.00	445440	226.00	2553	330.00	110	466.00	90
128.00	38200	227.00	58248	332.00	2103	468.00	79
129.00	197184	228.00	8239	333.00	2165	481.00	72
130.00	18736	229.00	9055	334.00	10313	487.00	73
131.00	2987	230.00	1010	335.00	2889	490.00	182
132.00	1990	231.00	2992	336.00	188	492.00	225
133.00	1200	232.00	388	337.00	109		
134.00	6227	233.00	1236	338.00	125		

Data File: /chem3/nt2.i/20100429.b/ddt.b/df0429.d
Injection Date: 29-APR-2010 09:46
Instrument: nt2.1
Client Sample ID:

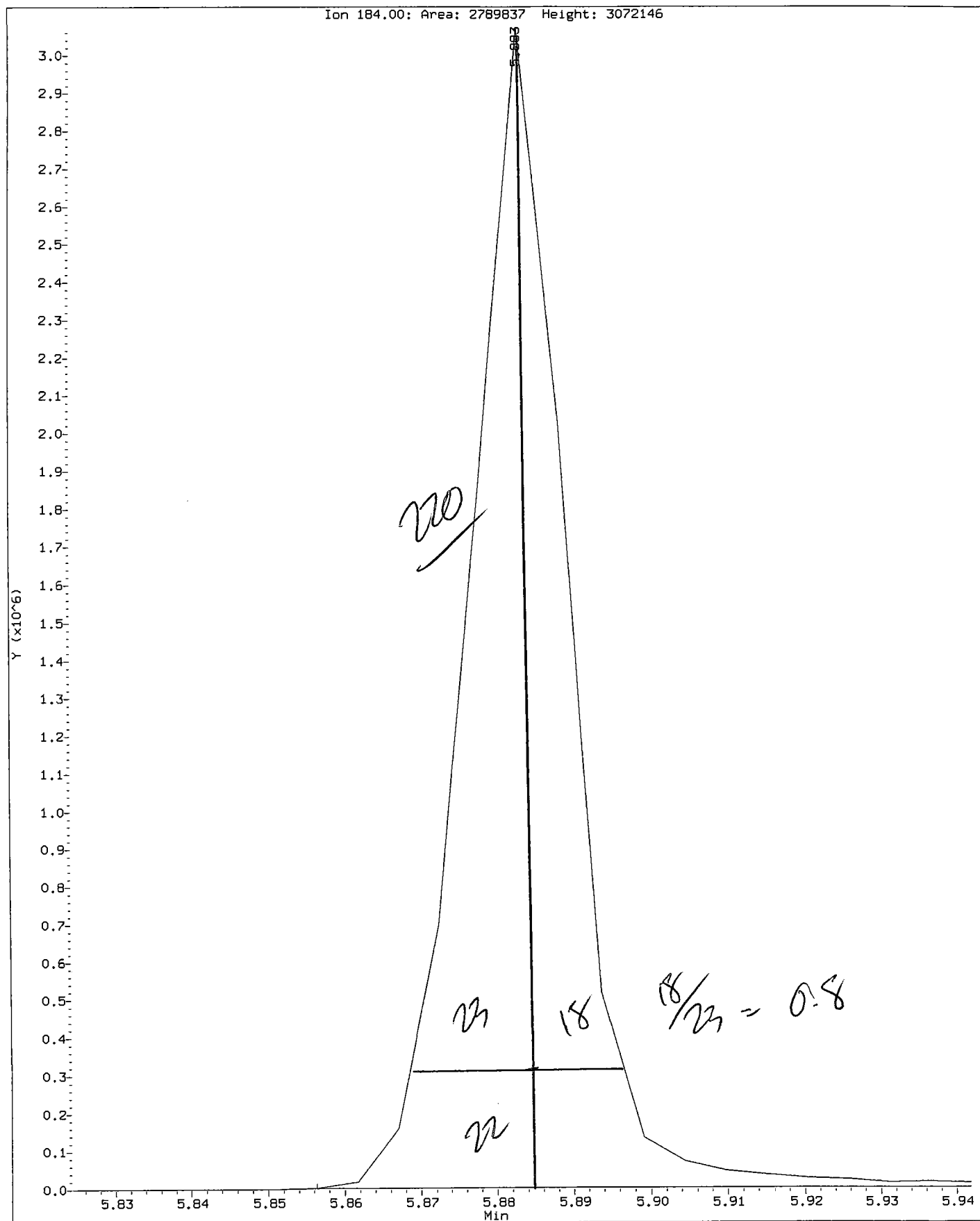
Compound: Pentachlorophenol
CAS Number: 87-86-5



QU08: 00201

Data File: /chem3/nt2.i/20100429.b/ddt.b/df0429.d
Injection Date: 29-APR-2010 09:46
Instrument: nt2.1
Client Sample ID:

Compound: Benzidine
CAS Number:



QU08 : 00202

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt2.i/20100429.b/ddt.b/df0429.d
Method: /chem3/nt2.i/20100429.b/ddt.b/sw846ddt.m
Analysis Date: 29-APR-2010 09:46

ARI ID: DFTPP
Misc:
Instrument: nt2.i

COMPOUND	RT	AREA
Pentachlorophenol	4.451	382622
Benzidine	5.883	2789837
4,4'-DDE	6.102	5746
4,4'-DDD	6.433	29085
4,4'-DDT	6.727	1582742


$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(5746 + 29085) * 100}{(5746 + 29085 + 1582742)}$$

$$\text{DDT Percent Breakdown} = 2.2 \%$$

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: MB-042710
METHOD BLANK

Lab Sample ID: MB-042710
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 12:39
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 62.0%
d14-Dibenzo(a,h)anthracene 50.0%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042905.d
 Lab Smp Id: QT83MBW1 Client Smp ID: QT83MBW1
 Inj Date : 29-APR-2010 12:39
 Operator : pk Inst ID: nt2.i
 Smp Info : QT83MBW1
 Misc Info : 10-10143
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 13:11 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 5 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalnm.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136		6.480	6.496	(1.000)	92119	200.000	
5 Naphthalene	128					Compound Not Detected.		
\$ 6 2-Methylnaphthalene-d10	152		7.326	7.342	(1.131)	58459	185.958	186
7 2-Methylnaphthalene	142					Compound Not Detected.		
8 1-Methylnaphthalene	142					Compound Not Detected.		
10 Acenaphthylene	152					Compound Not Detected.		
* 11 Acenaphthene-d10	164		8.668	8.681	(1.000)	51796	200.000	
12 Acenaphthene	153					Compound Not Detected.		
14 Dibenzofuran	168					Compound Not Detected.		
15 Fluorene	166					Compound Not Detected.		
* 18 Phenanthrene-d10	188		10.486	10.486	(1.000)	80832	200.000	
19 Phenanthrene	178					Compound Not Detected.		
20 Anthracene	178					Compound Not Detected.		
24 Fluoranthene	202					Compound Not Detected.		
25 Pyrene	202					Compound Not Detected.		

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
=====	=====	==	=====	=====	=====	=====	=====
28 Benzo (a) anthracene	228		Compound Not Detected.				
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	73642	200.000	
30 Chrysene	228		Compound Not Detected.				
32 Benzo (b) fluoranthene	252		Compound Not Detected.				
33 Benzo (k) fluoranthene	252		Compound Not Detected.				
34 Benzo (a) pyrene	252		Compound Not Detected.				
* 35 Perylene-d12	264	15.404	15.404	(1.000)	70912	200.000	
37 Indeno (1,2,3-cd) pyrene	276		Compound Not Detected.				
\$ 36 Dibenzo (a,h) anthracene-d14	292	16.815	16.815	(1.092)	40914	150.135	150
38 Dibenzo (a,h) anthracene	278		Compound Not Detected.				
39 Benzo (g,h,i) perylene	276		Compound Not Detected.				

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 042905.d
 Lab Smp Id: QT83MBW1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: pk
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info: 10-10143

Calibration Date: 29-APR-2010
 Calibration Time: 10:35
 Client Smp ID: QT83MBW1
 Level: LOW
 Sample Type: Liquid

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	92119	-23.75
11 Acenaphthene-d10	72668	36334	145336	51796	-28.72
18 Phenanthrene-d10	112603	56302	225206	80832	-28.22
29 Chrysene-d12	101702	50851	203404	73642	-27.59
35 Perylene-d12	87112	43556	174224	70912	-18.60

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.48	-0.24
11 Acenaphthene-d10	8.68	8.18	9.18	8.67	-0.15
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	0.00
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	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.

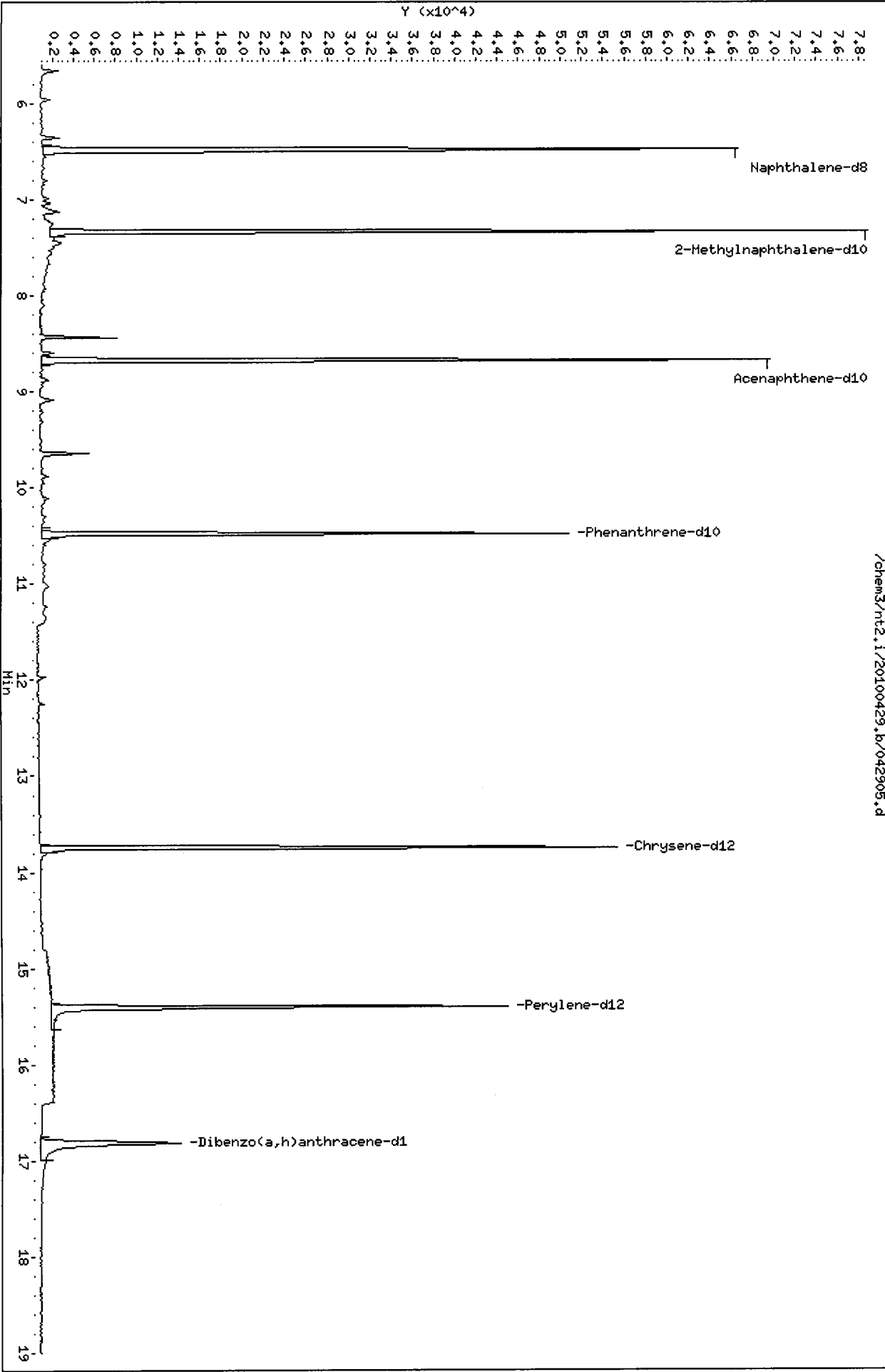
RECOVERY REPORT

Client Name: The Boeing Company Client SDG: QT83
 Sample Matrix: LIQUID Fraction: SV
 Lab Smp Id: QT83MBW1 Client Smp ID: QT83MBW1
 Level: LOW Operator: pk
 Data Type: MS DATA SampleType: BLANK
 SpikeList File: waterlcs.spk Quant Type: ISTD
 Sublist File: pnalnm.sub
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info: 10-10143

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	0.00	*	41-101
7 2-Methylnaphthale	300	0.00	*	47-100
8 1-Methylnaphthale	300	0.00	*	30-160
10 Acenaphthylene	300	0.00	*	35-100
12 Acenaphthene	300	0.00	*	43-104
14 Dibenzofuran	300	0.00	*	37-100
15 Fluorene	300	0.00	*	51-103
19 Phenanthrene	300	0.00	*	55-109
20 Anthracene	300	0.00	*	30-101
24 Fluoranthene	300	0.00	*	49-123
25 Pyrene	300	0.00	*	48-120
28 Benzo (a) anthracene	300	0.00	*	43-113
30 Chrysene	300	0.00	*	59-112
32 Benzo (b) fluoranth	300	0.00	*	44-121
33 Benzo (k) fluoranth	300	0.00	*	50-117
34 Benzo (a) pyrene	300	0.00	*	10-100
37 Indeno (1, 2, 3-cd) p	300	0.00	*	43-112
38 Dibenzo (a, h) anthr	300	0.00	*	42-114
39 Benzo (g, h, i) peryl	300	0.00	*	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	186	61.99	31-109
\$ 36 Dibenzo (a, h) anthra	300	150	50.04	10-133


/chem3/nt2.i/20100429.b/042905.d



ORGANICS ANALYSIS DATA SHEET

PNA's by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB1042110COMP
MATRIX SPIKE

Lab Sample ID: QU08B
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 16:11
Instrument/Analyst: NT2/PK

Sample Amount: 310 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.016	---
91-57-6	2-Methylnaphthalene	0.016	---
90-12-0	1-Methylnaphthalene	0.016	---
208-96-8	Acenaphthylene	0.016	---
83-32-9	Acenaphthene	0.016	---
86-73-7	Fluorene	0.016	---
85-01-8	Phenanthrene	0.016	---
120-12-7	Anthracene	0.016	---
206-44-0	Fluoranthene	0.016	---
129-00-0	Pyrene	0.016	---
56-55-3	Benzo(a)anthracene	0.016	---
218-01-9	Chrysene	0.016	---
205-99-2	Benzo(b)fluoranthene	0.016	---
207-08-9	Benzo(k)fluoranthene	0.016	---
50-32-8	Benzo(a)pyrene	0.016	---
193-39-5	Indeno(1,2,3-cd)pyrene	0.016	---
53-70-3	Dibenz(a,h)anthracene	0.016	---
191-24-2	Benzo(g,h,i)perylene	0.016	---
132-64-9	Dibenzofuran	0.016	---

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 56.0%
d14-Dibenzo(a,h)anthracene 55.7%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042914.d
 Lab Smp Id: QU08BMS Client Smp ID: CB1042110COMP MS
 Inj Date : 29-APR-2010 16:11
 Operator : pk Inst ID: nt2.i
 Smp Info : QU08BMS
 Misc Info : 10-10295
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 12:57 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 14 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalnm.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	310.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ng/mL)	(ug/L)
=====	====	==	=====	=====	=====	=====	=====	=====
* 4 Naphthalene-d8	136		6.482	6.496	(1.000)	89916	200.000	
5 Naphthalene	128		6.512	6.511	(1.005)	87739	171.121	276
\$ 6 2-Methylnaphthalene-d10	152		7.328	7.342	(1.131)	51398	167.503	270
7 2-Methylnaphthalene	142		7.374	7.373	(1.138)	53628	168.901	272
8 1-Methylnaphthalene	142		7.497	7.511	(1.157)	55367	166.608	269
10 Acenaphthylene	152		8.474	8.488	(0.976)	83632	168.015	271
* 11 Acenaphthene-d10	164		8.681	8.681	(1.000)	53221	200.000	
12 Acenaphthene	153		8.706	8.707	(1.003)	56011	181.459	293
14 Dibenzofuran	168		8.913	8.913	(1.027)	79856	184.876	298
15 Fluorene	166		9.316	9.332	(1.073)	70308	192.125	310
* 18 Phenanthrene-d10	188		10.485	10.486	(1.000)	80621	200.000	
19 Phenanthrene	178		10.501	10.502	(1.001)	110441	214.316	346
20 Anthracene	178		10.562	10.563	(1.007)	97659	204.554	330
24 Fluoranthene	202		11.970	11.970	(1.142)	125326	233.000	376
25 Pyrene	202		12.244	12.245	(1.168)	125795	230.885	372

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
=====	====	==	=====	=====	=====	=====	=====
28 Benzo (a) anthracene	228	13.726	13.726	(0.998)	99155	215.971	348
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	72028	200.000	
30 Chrysene	228	13.770	13.770	(1.002)	108642	240.623	388
32 Benzo (b) fluoranthene	252	14.978	14.978	(0.972)	90461	192.122	310
33 Benzo (k) fluoranthene	252	15.001	15.001	(0.974)	114780	204.424	330
34 Benzo (a) pyrene	252	15.334	15.342	(0.995)	64143	170.514	275
* 35 Perylene-d12	264	15.404	15.404	(1.000)	66623	200.000	
37 Indeno (1,2,3-cd) pyrene	276	16.843	16.842	(1.093)	69187	160.831	259
\$ 36 Dibenzo (a,h) anthracene-d14	292	16.803	16.815	(1.091)	42703	166.787	269
38 Dibenzo (a,h) anthracene	278	16.857	16.855	(1.094)	58596	173.350	280
39 Benzo (g,h,i) perylene	276	17.261	17.260	(1.121)	62012	167.220	270

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i	Calibration Date: 29-APR-2010
Lab File ID: 042914.d	Calibration Time: 10:35
Lab Smp Id: QU08BMS	Client Smp ID: CB1042110COMP MS
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Water
Operator: pk	
Method File: /chem3/nt2.i/20100429.b/lowsim.m	
Misc Info: 10-10295	

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	89916	-25.57
11 Acenaphthene-d10	72668	36334	145336	53221	-26.76
18 Phenanthrene-d10	112603	56302	225206	80621	-28.40
29 Chrysene-d12	101702	50851	203404	72028	-29.18
35 Perylene-d12	87112	43556	174224	66623	-23.52

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.48	-0.22
11 Acenaphthene-d10	8.68	8.18	9.18	8.68	0.00
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	-0.01
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	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

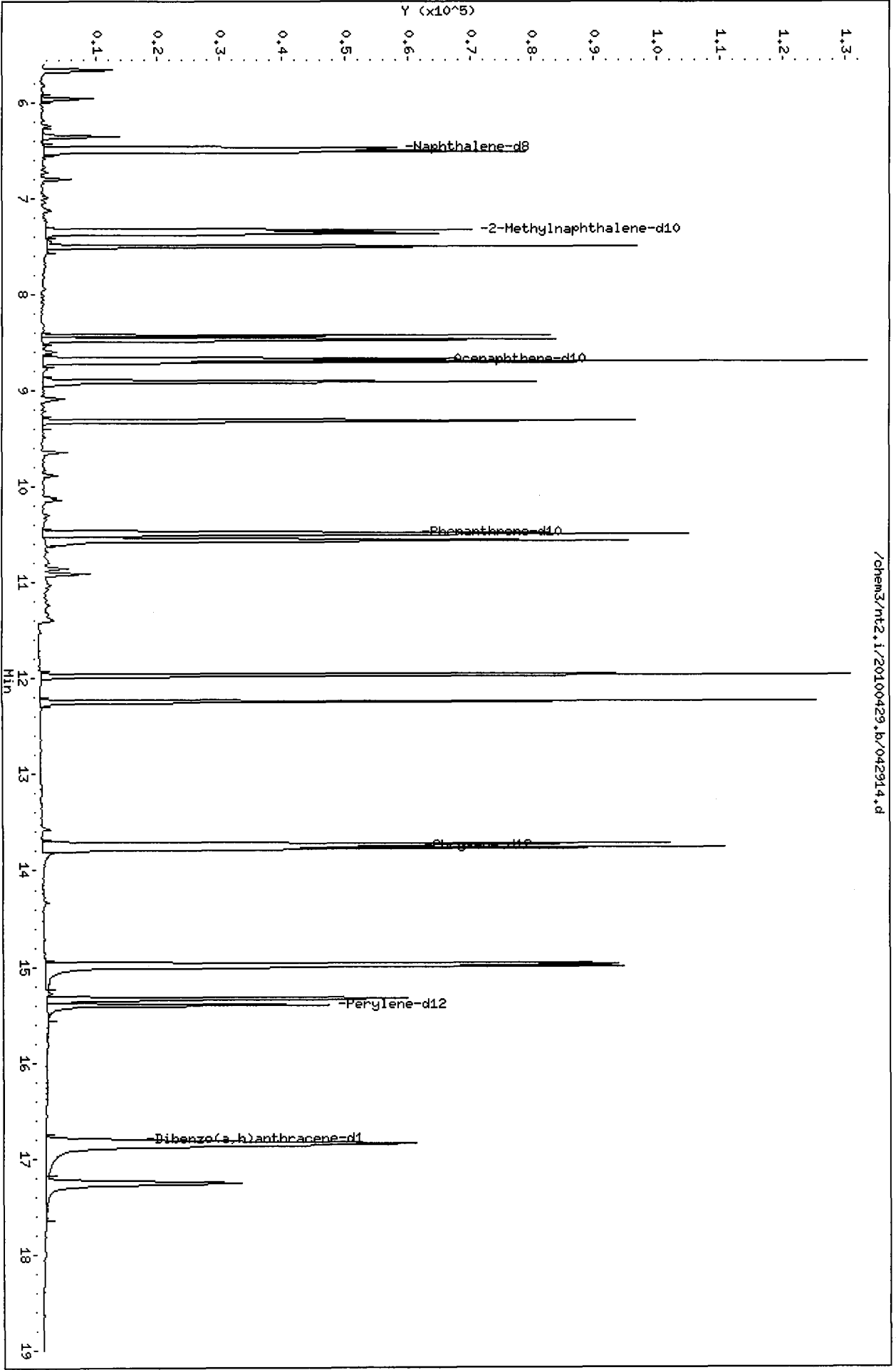
Client Name: Floyd/Snider Client SDG: QU08
 Sample Matrix: LIQUID Fraction: SV
 Lab Smp Id: QU08BMS Client Smp ID: CB1042110COMP MS
 Level: LOW Operator: pk
 Data Type: MS DATA SampleType: MS
 SpikeList File: waterlcs.spk Quant Type: ISTD
 Sublist File: pnalmn.sub
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info: 10-10295

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	484	276	57.04	41-101
7 2-Methylnaphthalen	484	272	56.30	47-100
8 1-Methylnaphthalen	484	269	55.54	30-160
10 Acenaphthylene	484	271	56.00	35-100
12 Acenaphthene	484	293	60.49	43-104
14 Dibenzofuran	484	298	61.63	37-100
15 Fluorene	484	310	64.04	51-103
19 Phenanthrene	484	346	71.44	55-109
20 Anthracene	484	330	68.18	30-101
24 Fluoranthene	484	376	77.67	49-123
25 Pyrene	484	372	76.96	48-120
28 Benzo(a)anthracene	484	348	71.99	43-113
30 Chrysene	484	388	80.21	59-112
32 Benzo(b)fluoranthene	484	310	64.04	44-121
33 Benzo(k)fluoranthene	484	330	68.14	50-117
34 Benzo(a)pyrene	484	275	56.84	10-100
37 Indeno(1,2,3-cd)py	484	259	53.61	43-112
38 Dibenzo(a,h)anthra	484	280	57.78	42-114
39 Benzo(g,h,i)perylene	484	270	55.74	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	484	270	55.83	31-109
\$ 36 Dibenzo(a,h)anthra	484	269	55.60	10-133

Data File: /chem3/nt2.i/20100429.b/042914.d
Date : 29-APR-2010 16:11
Client ID: CB1042110COMP HS
Sample Info: QU08BHS
Volume Injected (uL): 2.0
Column phase: ZB-5


Instrument: nt2.i
Operator: pk
Column diameter: 0.25



QU08:00215

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB1042110COMP
MATRIX SPIKE DUPLICATE

Lab Sample ID: QU08B
LIMS ID: 10-10295
Matrix: Water
Data Release Authorized: 
Reported: 04/30/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Date Extracted: 04/27/10
Date Analyzed: 04/29/10 16:35
Instrument/Analyst: NT2/PK

Sample Amount: 310 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.016	---
91-57-6	2-Methylnaphthalene	0.016	---
90-12-0	1-Methylnaphthalene	0.016	---
208-96-8	Acenaphthylene	0.016	---
83-32-9	Acenaphthene	0.016	---
86-73-7	Fluorene	0.016	---
85-01-8	Phenanthrene	0.016	---
120-12-7	Anthracene	0.016	---
206-44-0	Fluoranthene	0.016	---
129-00-0	Pyrene	0.016	---
56-55-3	Benzo(a)anthracene	0.016	---
218-01-9	Chrysene	0.016	---
205-99-2	Benzo(b)fluoranthene	0.016	---
207-08-9	Benzo(k)fluoranthene	0.016	---
50-32-8	Benzo(a)pyrene	0.016	---
193-39-5	Indeno(1,2,3-cd)pyrene	0.016	---
53-70-3	Dibenz(a,h)anthracene	0.016	---
191-24-2	Benzo(g,h,i)perylene	0.016	---
132-64-9	Dibenzofuran	0.016	---

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 53.7%
d14-Dibenzo(a,h)anthracene 56.7%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042915.d
 Lab Smp Id: QU08BMSD Client Smp ID: CB1042110COMP MSD
 Inj Date : 29-APR-2010 16:35
 Operator : pk Inst ID: nt2.i
 Smp Info : QU08BMSD
 Misc Info : 10-10295
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 12:57 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 15 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalnm.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	310.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ng/mL)	(ug/L)
* 4 Naphthalene-d8	136		6.481	6.496	(1.000)	91561	200.000	
5 Naphthalene	128		6.512	6.511	(1.005)	87763	168.092	271
\$ 6 2-Methylnaphthalene-d10	152		7.342	7.342	(1.133)	50386	161.255	260
7 2-Methylnaphthalene	142		7.373	7.373	(1.138)	55417	171.400	276
8 1-Methylnaphthalene	142		7.496	7.511	(1.157)	53678	158.623	256
10 Acenaphthylene	152		8.475	8.488	(0.978)	84854	165.494	267
* 11 Acenaphthene-d10	164		8.669	8.681	(1.000)	54821	200.000	
12 Acenaphthene	153		8.707	8.707	(1.004)	55826	175.581	283
14 Dibenzofuran	168		8.913	8.913	(1.028)	78528	176.495	285
15 Fluorene	166		9.316	9.332	(1.075)	70343	186.610	301
* 18 Phenanthrene-d10	188		10.486	10.486	(1.000)	84339	200.000	
19 Phenanthrene	178		10.501	10.502	(1.001)	110152	204.332	330
20 Anthracene	178		10.563	10.563	(1.007)	99180	198.582	320
24 Fluoranthene	202		11.970	11.970	(1.142)	127094	225.871	364
25 Pyrene	202		12.245	12.245	(1.168)	129641	227.454	367

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
=====	====	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.726	13.726	(0.998)	100712	214.090	345
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	73802	200.000	
30 Chrysene	228	13.770	13.770	(1.002)	110050	237.882	384
32 Benzo(b)fluoranthene	252	14.978	14.978	(0.972)	92956	192.568	311
33 Benzo(k)fluoranthene	252	15.001	15.001	(0.974)	116506	202.397	326
34 Benzo(a)pyrene	252	15.334	15.342	(0.995)	68150	176.713	285
* 35 Perylene-d12	264	15.404	15.404	(1.000)	68302	200.000	
37 Indeno(1,2,3-cd)pyrene	276	16.842	16.842	(1.093)	71408	161.914	261
§ 36 Dibenzo(a,h)anthracene-d14	292	16.815	16.815	(1.092)	44520	169.610	274
38 Dibenzo(a,h)anthracene	278	16.855	16.855	(1.094)	58845	169.807	274
39 Benzo(g,h,i)perylene	276	17.260	17.260	(1.121)	63176	166.171	268

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i	Calibration Date: 29-APR-2010
Lab File ID: 042915.d	Calibration Time: 10:35
Lab Smp Id: QU08BMSD	Client Smp ID: CB1042110COMP MS
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Water
Operator: pk	
Method File: /chem3/nt2.i/20100429.b/lowsim.m	
Misc Info: 10-10295	

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	91561	-24.21
11 Acenaphthene-d10	72668	36334	145336	54821	-24.56
18 Phenanthrene-d10	112603	56302	225206	84339	-25.10
29 Chrysene-d12	101702	50851	203404	73802	-27.43
35 Perylene-d12	87112	43556	174224	68302	-21.59

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.48	-0.23
11 Acenaphthene-d10	8.68	8.18	9.18	8.67	-0.14
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	0.00
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	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.

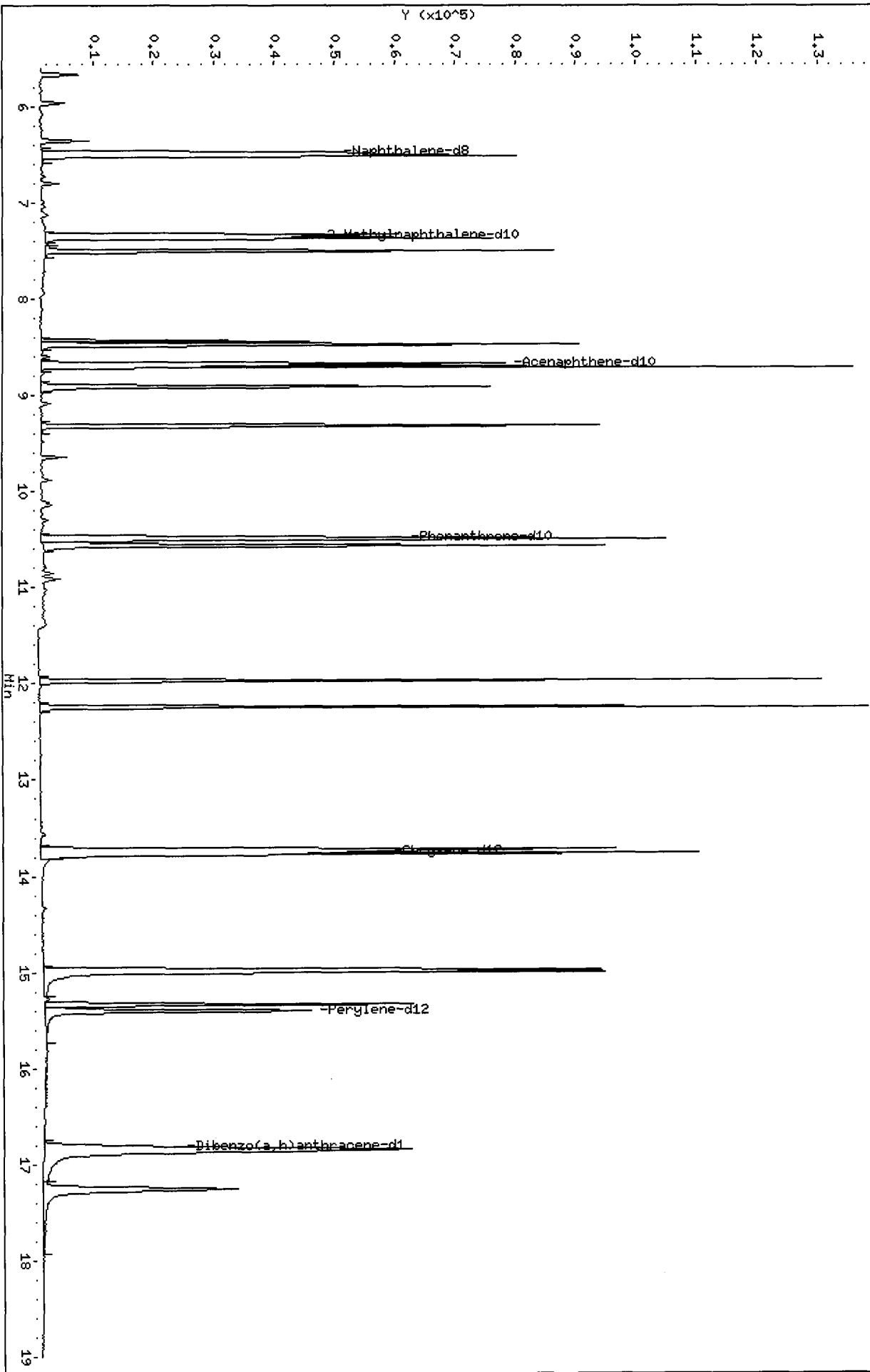
RECOVERY REPORT

Client Name: Floyd/Snider Client SDG: QU08
 Sample Matrix: LIQUID Fraction: SV
 Lab Smp Id: QU08BMSD Client Smp ID: CB1042110COMP MSD
 Level: LOW Operator: pk
 Data Type: MS DATA SampleType: MS
 SpikeList File: waterlcs.spk Quant Type: ISTD
 Sublist File: pnalmn.sub
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info: 10-10295

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	484	271	56.03	41-101
7 2-Methylnaphthalen	484	276	57.13	47-100
8 1-Methylnaphthalen	484	256	52.87	30-160
10 Acenaphthylene	484	267	55.16	35-100
12 Acenaphthene	484	283	58.53	43-104
14 Dibenzofuran	484	285	58.83	37-100
15 Fluorene	484	301	62.20	51-103
19 Phenanthrene	484	330	68.11	55-109
20 Anthracene	484	320	66.19	30-101
24 Fluoranthene	484	364	75.29	49-123
25 Pyrene	484	367	75.82	48-120
28 Benzo(a)anthracene	484	345	71.36	43-113
30 Chrysene	484	384	79.29	59-112
32 Benzo(b)fluoranthene	484	311	64.19	44-121
33 Benzo(k)fluoranthene	484	326	67.47	50-117
34 Benzo(a)pyrene	484	285	58.90	10-100
37 Indeno(1,2,3-cd)py	484	261	53.97	43-112
38 Dibenzo(a,h)anthra	484	274	56.60	42-114
39 Benzo(g,h,i)perylene	484	268	55.39	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	484	260	53.75	31-109
\$ 36 Dibenzo(a,h)anthra	484	274	56.54	10-133

/chem3/rt2.i/20100429.b/042915.d



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042906.d
 Lab Smp Id: QT83LCSW1 Client Smp ID: QT83LCSW1
 Inj Date : 29-APR-2010 13:03
 Operator : pk Inst ID: nt2.i
 Smp Info : QT83LCSW1
 Misc Info : 10-10143
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 13:11 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 6 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalnm.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136		6.480	6.496	(1.000)	86312	200.000	
5 Naphthalene	128		6.511	6.511	(1.005)	89140	181.112	181
\$ 6 2-Methylnaphthalene-d10	152		7.326	7.342	(1.131)	55475	188.339	188
7 2-Methylnaphthalene	142		7.372	7.373	(1.138)	57199	187.670	188
8 1-Methylnaphthalene	142		7.495	7.511	(1.157)	57675	180.799	181
10 Acenaphthylene	152		8.475	8.488	(0.978)	74889	161.632	162
* 11 Acenaphthene-d10	164		8.668	8.681	(1.000)	49539	200.000	
12 Acenaphthene	153		8.707	8.707	(1.004)	57091	198.705	199
14 Dibenzofuran	168		8.913	8.913	(1.028)	80284	199.681	200
15 Fluorene	166		9.317	9.332	(1.075)	70342	206.504	207
* 18 Phenanthrene-d10	188		10.486	10.486	(1.000)	75179	200.000	
19 Phenanthrene	178		10.502	10.502	(1.001)	103075	214.501	215
20 Anthracene	178		10.563	10.563	(1.007)	76986	172.925	173
24 Fluoranthene	202		11.970	11.970	(1.142)	119839	238.927	239
25 Pyrene	202		12.245	12.245	(1.168)	118876	233.979	234

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
=====	====	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.726	13.726	(0.998)	96162	215.474	215
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	70015	200.000	
30 Chrysene	228	13.770	13.770	(1.002)	113614	258.869	259
32 Benzo(b)fluoranthene	252	14.978	14.978	(0.972)	99111	206.967	207
33 Benzo(k)fluoranthene	252	15.001	15.001	(0.974)	131764	230.742	231
34 Benzo(a)pyrene	252	15.334	15.342	(0.995)	57720	150.869	151
* 35 Perylene-d12	264	15.404	15.404	(1.000)	67758	200.000	
37 Indeno(1,2,3-cd)pyrene	276	16.842	16.842	(1.093)	79126	180.855	181
\$ 36 Dibenzo(a,h)anthracene-d14	292	16.815	16.815	(1.092)	48081	184.647	185
38 Dibenzo(a,h)anthracene	278	16.856	16.855	(1.094)	64956	188.946	189
39 Benzo(g,h,i)perylene	276	17.260	17.260	(1.121)	67838	179.866	180

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 042906.d
 Lab Smp Id: QT83LCSW1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: pk
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info: 10-10143

Calibration Date: 29-APR-2010
 Calibration Time: 10:35
 Client Smp ID: QT83LCSW1
 Level: LOW
 Sample Type: Liquid

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	86312	-28.55
11 Acenaphthene-d10	72668	36334	145336	49539	31.83
18 Phenanthrene-d10	112603	56302	225206	75179	-33.24
29 Chrysene-d12	101702	50851	203404	70015	-31.16
35 Perylene-d12	87112	43556	174224	67758	-22.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.48	-0.24
11 Acenaphthene-d10	8.68	8.18	9.18	8.67	-0.15
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	0.00
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	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

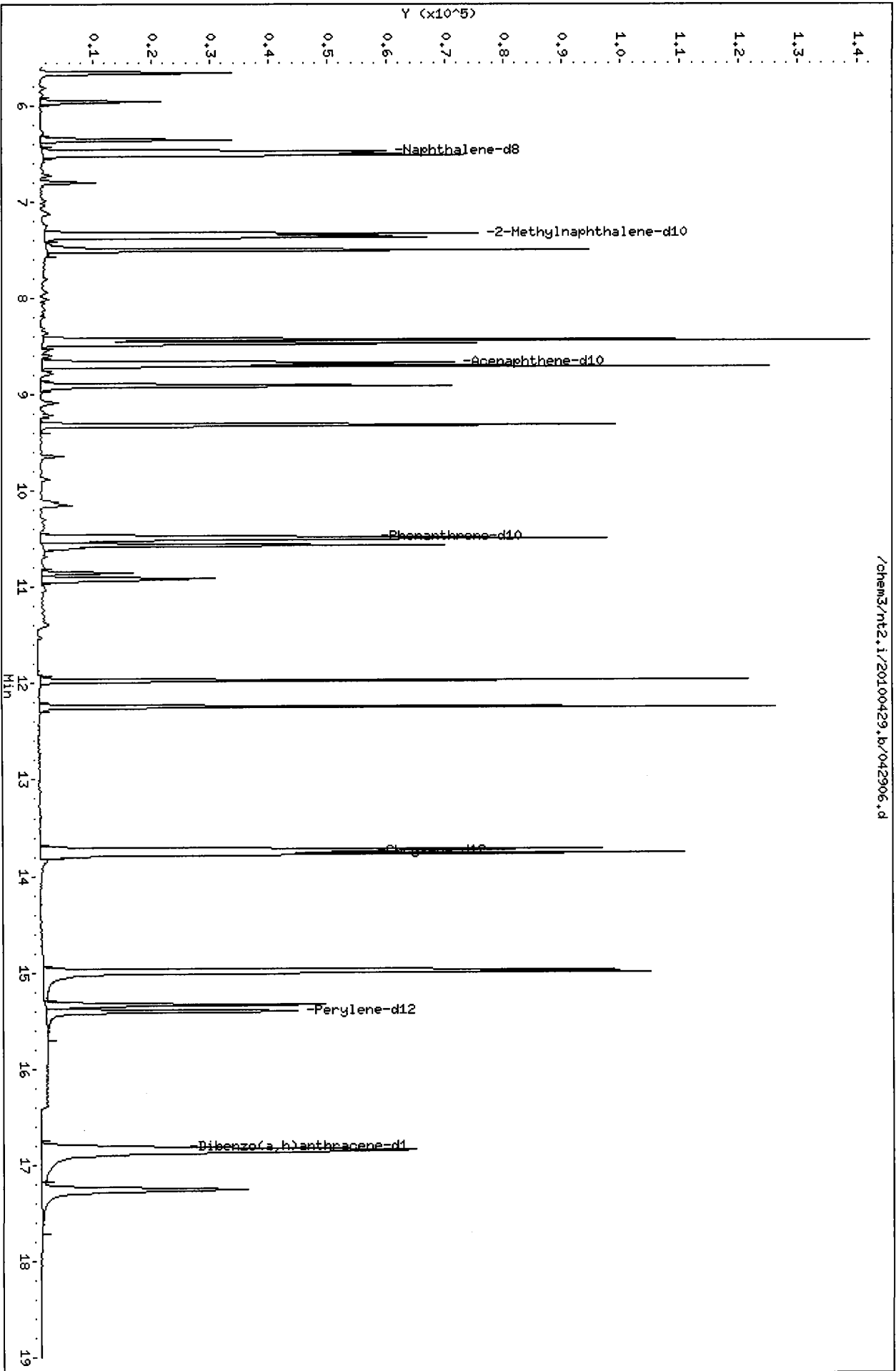
Client Name: The Boeing Company Client SDG: QT83
 Sample Matrix: LIQUID Fraction: SV
 Lab Smp Id: QT83LCSW1 Client Smp ID: QT83LCSW1
 Level: LOW Operator: pk
 Data Type: MS DATA SampleType: LCS
 SpikeList File: waterlcs.spk Quant Type: ISTD
 Sublist File: pnalmn.sub
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info: 10-10143

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	181	60.37	41-101
7 2-Methylnaphthalen	300	188	62.56	47-100
8 1-Methylnaphthalen	300	181	60.27	30-160
10 Acenaphthylene	300	162	53.88	35-100
12 Acenaphthene	300	199	66.23	43-104
14 Dibenzofuran	300	200	66.56	37-100
15 Fluorene	300	207	68.83	51-103
19 Phenanthrene	300	215	71.50	55-109
20 Anthracene	300	173	57.64	30-101
24 Fluoranthene	300	239	79.64	49-123
25 Pyrene	300	234	77.99	48-120
28 Benzo(a)anthracene	300	215	71.82	43-113
30 Chrysene	300	259	86.29	59-112
32 Benzo(b)fluoranthene	300	207	68.99	44-121
33 Benzo(k)fluoranthene	300	231	76.91	50-117
34 Benzo(a)pyrene	300	151	50.29	10-100
37 Indeno(1,2,3-cd)py	300	181	60.28	43-112
38 Dibenzo(a,h)anthra	300	189	62.98	42-114
39 Benzo(g,h,i)perylene	300	180	59.96	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	188	62.78	31-109
\$ 36 Dibenzo(a,h)anthra	300	185	61.55	10-133

Data File: /chem3/nt2.i/20100429.b/042906.d
Date : 29-APR-2010 13:03
Client ID: QT83LC5M1
Sample Info: QT83LC5M1
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: pk
Column diameter: 0.25



/chem3/nt2.i/20100429.b/042906.d

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100429.b/042907.d
 Lab Smp Id: QT83LCSDW1 Client Smp ID: QT83LCSDW1
 Inj Date : 29-APR-2010 13:26
 Operator : pk Inst ID: nt2.i
 Smp Info : QT83LCSDW1
 Misc Info : 10-10143
 Comment :
 Method : /chem3/nt2.i/20100429.b/lowsim.m
 Meth Date : 30-Apr-2010 13:11 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 7 QC Sample: LCSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalmn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	====	6.495	6.496	(1.000)	89220	200.000	
5 Naphthalene	128	==	6.511	6.511	(1.002)	93144	183.079	183
\$ 6 2-Methylnaphthalene-d10	152	=====	7.342	7.342	(1.130)	54821	180.052	180
7 2-Methylnaphthalene	142		7.372	7.373	(1.135)	59630	189.269	189
8 1-Methylnaphthalene	142		7.495	7.511	(1.154)	58318	176.857	177
10 Acenaphthylene	152		8.475	8.488	(0.976)	77140	153.627	154
* 11 Acenaphthene-d10	164		8.681	8.681	(1.000)	53687	200.000	
12 Acenaphthene	153		8.707	8.707	(1.003)	59552	191.256	191
14 Dibenzofuran	168		8.913	8.913	(1.027)	81373	186.752	187
15 Fluorene	166		9.316	9.332	(1.073)	71976	194.976	195
* 18 Phenanthrene-d10	188		10.486	10.486	(1.000)	81955	200.000	
19 Phenanthrene	178		10.501	10.502	(1.001)	106780	203.839	204
20 Anthracene	178		10.563	10.563	(1.007)	88138	181.606	182
24 Fluoranthene	202		11.970	11.970	(1.142)	128253	234.561	235
25 Pyrene	202		12.245	12.245	(1.168)	128442	231.906	232

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
=====	====	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.726	13.726	(0.998)	102740	217.437	217
* 29 Chrysene-d12	240	13.748	13.748	(1.000)	74129	200.000	
30 Chrysene	228	13.770	13.770	(1.002)	119002	256.098	256
32 Benzo(b)fluoranthene	252	14.978	14.978	(0.972)	101558	202.604	203
33 Benzo(k)fluoranthene	252	15.001	15.001	(0.974)	133667	223.619	224
34 Benzo(a)pyrene	252	15.334	15.342	(0.995)	64421	160.863	161
* 35 Perylene-d12	264	15.404	15.404	(1.000)	70926	200.000	
37 Indeno(1,2,3-cd)pyrene	276	16.842	16.842	(1.093)	83586	182.515	183
\$ 36 Dibenzo(a,h)anthracene-d14	292	16.815	16.815	(1.092)	50980	187.035	187
38 Dibenzo(a,h)anthracene	278	16.855	16.855	(1.094)	67214	186.781	187
39 Benzo(g,h,i)perylene	276	17.260	17.260	(1.121)	71756	181.757	182

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i	Calibration Date: 29-APR-2010
Lab File ID: 042907.d	Calibration Time: 10:35
Lab Smp Id: QT83LCSDW1	Client Smp ID: QT83LCSDW1
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Liquid
Operator: pk	
Method File: /chem3/nt2.i/20100429.b/lowsim.m	
Misc Info: 10-10143	

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	89220	-26.15
11 Acenaphthene-d10	72668	36334	145336	53687	26.12
18 Phenanthrene-d10	112603	56302	225206	81955	-27.22
29 Chrysene-d12	101702	50851	203404	74129	-27.11
35 Perylene-d12	87112	43556	174224	70926	-18.58

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.50	6.00	7.00	6.50	0.00
11 Acenaphthene-d10	8.68	8.18	9.18	8.68	0.00
18 Phenanthrene-d10	10.49	9.99	10.99	10.49	0.00
29 Chrysene-d12	13.75	13.25	14.25	13.75	0.00
35 Perylene-d12	15.40	14.90	15.90	15.40	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.

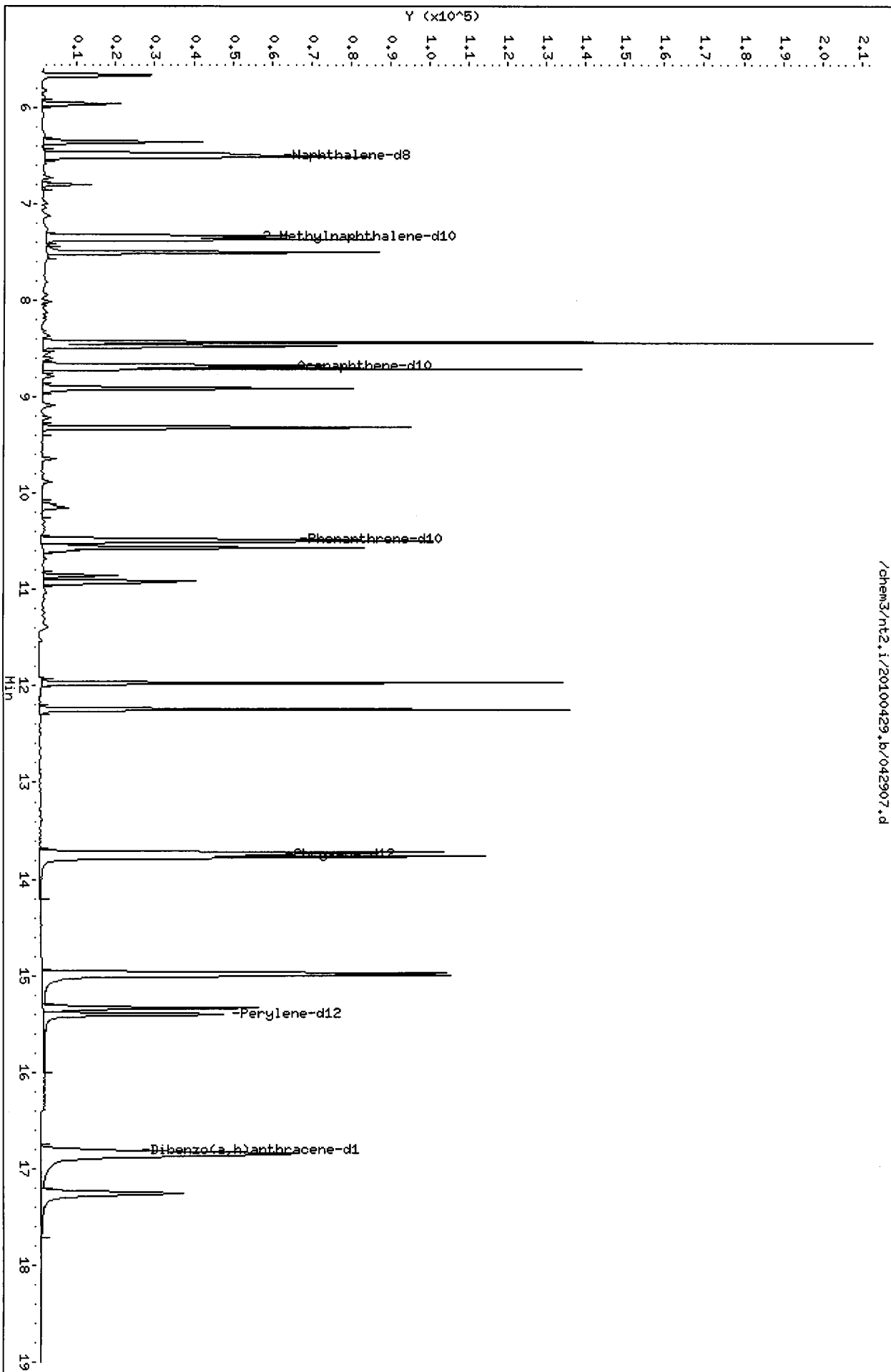
RECOVERY REPORT

Client Name: The Boeing Company Client SDG: QT83
 Sample Matrix: LIQUID Fraction: SV
 Lab Smp Id: QT83LCSDW1 Client Smp ID: QT83LCSDW1
 Level: LOW Operator: pk
 Data Type: MS DATA SampleType: LCSD
 SpikeList File: waterlcs.spk Quant Type: ISTD
 Sublist File: pnalnm.sub
 Method File: /chem3/nt2.i/20100429.b/lowsim.m
 Misc Info: 10-10143

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	183	61.03	41-101
7 2-Methylnaphthalen	300	189	63.09	47-100
8 1-Methylnaphthalen	300	177	58.95	30-160
10 Acenaphthylene	300	154	51.21	35-100
12 Acenaphthene	300	191	63.75	43-104
14 Dibenzofuran	300	187	62.25	37-100
15 Fluorene	300	195	64.99	51-103
19 Phenanthrene	300	204	67.95	55-109
20 Anthracene	300	182	60.54	30-101
24 Fluoranthene	300	235	78.19	49-123
25 Pyrene	300	232	77.30	48-120
28 Benzo(a)anthracene	300	217	72.48	43-113
30 Chrysene	300	256	85.37	59-112
32 Benzo(b)fluoranthene	300	203	67.53	44-121
33 Benzo(k)fluoranthene	300	224	74.54	50-117
34 Benzo(a)pyrene	300	161	53.62	10-100
37 Indeno(1,2,3-cd)py	300	183	60.84	43-112
38 Dibenzo(a,h)anthra	300	187	62.26	42-114
39 Benzo(g,h,i)perylene	300	182	60.59	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	180	60.02	31-109
\$ 36 Dibenzo(a,h)anthra	300	187	62.35	10-133

/chem3/nt2.i/20100429.b/042907.d



**SIM Semivolatile Analysis
Extraction Bench Sheets/Run Logs**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.



Preparation Test SIM PNA # 4

ARI Job No(s) QT83, QU08

Low Level (0.01ppb)

Batch set up by: SH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	Disassemble Liq/Liq	KD Hex X	TurboVap	(REQ) Silica Gel Clean (1:1)	TurboVap	Final Effective Volume	Volume to Lab	Comments
	QT83 MBW	Date 04/27/10	500mL			23		123	0.5mL	0.5mL	
	SBW		↓								
	SBW Dup.		↓								
1	A	Checked									
1	B										
1	C										
1	D										
3	QU08 A										
8	B		500mL								
9	B.m.s		310mL								
10	B.m.s		310mL								
3	C		500mL								
3	D		500mL								

Analyst/Date: AR 04/27/10 → 04-28-10 ⁹⁵ 4-28-10 ^{ww} 4/28/10 →

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	I	100µL	8/12/10	AR	SP
Spike	18	100µL	10/17/10	AR	SP

Extraction Time: 1230 Liq/Liq Start: 12:40 Liq/Liq Stop: 06:15

SPECIAL INSTRUCTIONS: 1. Rinse all glassware with Low Level DCM. 2. Use 500mL Liq/Liq Body
3. Add 20-25mL Low Level Hexane. 4. Add ~200mL Low Level DCM to Liq/Liq. 5. Add surr/spike.
6. Extract minimum 8 hrs. 7. KD (no drying column) to ~8mL at 80°. 8. Exchange (2 X with 10mL) to Low Level Hexane at 100°. 9. TurboVap. 10. Silica Clean-up=REQUIRED. 11. TurboVap. 12. Vial in Low Level DCM.
13. Post Screen extracts with any color noted for Silica Gel Clean-up.

Archive Y/N
Both jobs



Analytical Resources,
Incorporated
Analytical Chemists and
Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: QU08

Client ID: Floyd/Snyder

Parameter: SIM PNA low level

Client Project: Loma Lakes Apartments

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
<input type="checkbox"/> No Anomalies (standard soil/sediment)	
<input type="checkbox"/> Wet sediment/sludge=	
<input type="checkbox"/> Standing Water Decanted=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
<input type="checkbox"/> Rocks/Organics=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input checked="" type="checkbox"/> Turbid/Color= <u>QU08 samples A-D are clear, slight yellow color</u>	<u>AR 04/27/10</u>
<input checked="" type="checkbox"/> Particulates= <u>Samples A-D have 2% particulates</u>	<u>AR 04/27/10</u>
<input type="checkbox"/> Emulsions=	
<input checked="" type="checkbox"/> Other (Details)= <u>QU08 samples B, Bas, Busd had limited volume split ms/msd. Used 500ml Bottle for sample B as per pm.</u>	<u>AR 04/27/10</u>
<input type="checkbox"/> Other Notes/Comments=	

Analytical Resources Inc.: Organics Instrument Log

NT-2 Serial No.: 82321977

Date: 4/6/10 Analysis: Low SIm PNA Analyst: pk
 GC Program: Low SIm Column No: 77140 Column Type: ZXR100
 Instrument Tune (.U or .CT.): 010928 EM Voltage: 2499
 Calibration File: df0406 Curve Date: 4/6/10

IS/SS	Ical/Ccal	LCS/ICV
1706-3 (10x)	1665-3	1713-1

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt2.i/20100406.b

Time	Filename	LabID	ClientId	DF											
1	1359	df0406.d	DFTPP	1	NO ISTDs FOUND										
2	1424	ic040601.d	PNA 250	1	6.63	120808	8.83	72668	10.65	112603	13.91	101702	15.60	87112	
3	1514	ic040603.d	PNA 1000	1	6.63	124126	8.83	67376	10.63	101452	13.91	91632	15.60	81665	
4	1538	ic040604.d	PNA 50	1	6.64	111907	8.83	64281	10.63	94905	13.91	80936	15.60	73454	
5	1603	ic040605.d	PNA 500	1	6.64	120735	8.83	64955	10.63	99310	13.91	80502	15.60	71118	
6	1627	ic040606.d	PNA 100	1	6.64	112523	8.83	66275	10.63	95400	13.91	76071	15.60	69201	
7	1652	ic040607.d	PNA 10	1	6.64	112883	8.83	65491	10.63	91832	13.91	70497	15.60	64830	
8	1716	ic040608.d	ICV	1	6.64	109275	8.83	62617	10.63	92425	13.91	75049	15.60	69395	
9	1741	040601.d	QQ59MBW1	QQ59MBW1	1	6.63	120433	8.82	65049	10.63	94000	13.90	72845	15.59	69772
10	1805	040602.d	QQ59LCSW1	QQ59LCSW1	1	6.63	116104	8.82	62535	10.63	88946	13.90	72936	15.60	69164
11	1830	040603.d	QQ59A	CB31A032910C	1	6.63	118060	8.82	63953	10.63	91404	13.91	66602	15.60	63422
12	1854	040604.d	QQ59B	CB4857032910	1	6.64	119671	8.82	65242	10.63	93212	13.91	69641	15.60	67328
13	1919	040605.d	QQ59C	CB1032910COM	1	6.63	119448	8.83	65127	10.63	93812	13.91	71172	15.60	66808
14	1943	040606.d	QQ59CMS	CB1032910COM	1	6.63	117118	8.82	64035	10.63	93403	13.90	68447	15.60	65246
15	2008	040607.d	QQ59CMSD	CB1032910COM	1	6.63	117675	8.82	63340	10.63	92362	13.91	71484	15.60	69033
16	2033	040608.d	QQ59D	CB100032910C	1	6.64	117582	8.82	63208	10.63	92068	13.90	66940	15.60	65541

Maintenance / Comments

New liner, dip cal

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control): IC040601
 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: _____ Client ID: _____

ARI SOP: 801S(SIM-PNA) 802S(Butyl Tins) 804S(SVOA-8270D) 805S(op-Pest)

Parameter(s): NT2 LOW SIM PNA CURVE 4/6/10

Instrument: NT-1 NT-2 NT-4 NT-6 NT-8

Curve Date: 4/6/10 Analysis Start Date: _____

DFTPP Tune Meets Criteria?	<u>YES</u> / NO	Internal Standard Meets Criteria?	YES / NO
DDT Breakdown <20%?	<u>YES</u> / NO / NA	Method Blank In Control?	YES / NO
Peak Tailing Factor ≤2?	<u>YES</u> / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
ICal acceptable <u>YES</u> / NO; Q flag applied <u>YES</u> / <u>NO</u>		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):

All caps < 20% RSD or R² > .990

Additional Details on Reverse: Yes / No

Analyst Signature: *Phyllis* Date: 4/7/10

Reviewer's Signature: *[Signature]* Date: 4/30/10

Analytical Resources Inc.: Organics Instrument Log

NT-2 Serial No.: 82321977

Date: 4/22/10 Analysis: LowSim PNA Analyst: ph
 GC Program: LowSim Column No: 71140 Column Type: 25m msi
 Instrument Tune (.U or .CT.): 090728.U EM Voltage: 2671
 Calibration File: df0429 Curve Date: 4/6/10

IS/SS	Ical/Ccal	LCS/ICV
1706-3(10x)	1665-3	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt2.i/20100429.b

Time	Filename	LabID	ClientID	DF										
1	0946 df0429.d	DFTPP		1	NO ISTDs FOUND									
2	1035 cc0429.d	PNA 250		1	6.50	97369	8.68	51314	10.49	84398	13.75	77737	15.40	65658
3	1105 042901.d	QT14C	MW11-0410	10	6.50	121741	8.68	51237	10.49	86659	13.75	70651	15.40	66571
4	1128 042902.d	QT14CMS	MW11-0410 MS	10	6.50	195714	8.68	54161	10.49	89801	13.75	75776	15.40	70619
5	1152 042903.d	QT14CMSD	MW11-0410 MS	10	6.50	120729	8.68	54321	10.49	90762	13.75	76173	15.40	69971
6	1215 042904.d	QT14D	MW110-0410	5	6.50	152586	8.68	54073	10.49	90544	13.75	75267	15.40	72744
7	1239 042905.d	QT83MBW1	QT83MBW1	1	6.48	92119	8.67	51796	10.49	80832	13.75	73642	15.40	70912
8	1303 042906.d	QT83LCSW1	QT83LCSW1	1	6.48	86312	8.67	49539	10.49	75179	13.75	70015	15.40	67758
9	1326 042907.d	QT83LCSDW1	QT83LCSDW1	1	6.50	89220	8.68	53687	10.49	81955	13.75	74129	15.40	70926
10	1350 042908.d	QT83A	SW-1-100421	1	6.48	94295	8.67	52388	10.49	78434	13.75	67300	15.40	65193
11	1413 042909.d	QT83B	SW-2-100421	1	6.48	87831	8.67	50962	10.49	81084	13.75	72908	15.40	68344
12	1437 042910.d	QT83C	SW-3-100421	1	6.48	92364	8.67	50378	10.49	78516	13.75	71095	15.40	67534
13	1501 042911.d	QT83D	SW-4-100421	1	6.48	89587	8.67	51643	10.49	79945	13.75	71891	15.40	68464
14	1524 042912.d	QU08A	CB31A042110C	1	6.50	90236	8.68	52900	10.49	82449	13.75	69182	15.40	65218
15	1548 042913.d	QU08B	CB1042110COM	1	6.48	87672	8.67	52167	10.49	81931	13.75	70757	15.40	66688
16	1611 042914.d	QU08BMS	CB1042110COM	1	6.48	89916	8.68	53221	10.49	80621	13.75	72028	15.40	66623
17	1635 042915.d	QU08BMSD	CB1042110COM	1	6.48	91561	8.67	54821	10.49	84339	13.75	73802	15.40	68302
18	1659 042916.d	QU08C	CB4857042110	1	6.48	96031	8.67	53021	10.49	80269	13.75	70796	15.40	66096
19	1722 042917.d	QU08D	CB101042110C	1	6.48	88863	8.67	55629	10.48	85276	13.75	73044	15.40	68608

Maintenance /Comments

[Signature]

ph 4/30/10

NONP

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control): cc0429
 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: QU08 Client ID: Floyd Smider

ARI SOP: 801S(SIM-PNA) 802S(Butyl Tins) 804S(SVOA-8270D) 805S(op-Pest)

Parameter(s): Low Sum PNA

Instrument: NT-1 NT-2 NT-4 NT-6 NT-8

Curve Date: 4/6/10 Analysis Start Date: 4/29/10

DFTPP Tune Meets Criteria?	<u>YES</u> / NO	Internal Standard Meets Criteria?	<u>YES</u> / NO
DDT Breakdown <20%?	<u>YES</u> / NO / NA	Method Blank In Control?	<u>YES</u> / NO
Peak Tailing Factor ≤2?	<u>YES</u> / NO / NA	LCS / LCSD Recovery In Control?	<u>YES</u> / NO
ICal acceptable <u>YES</u> / NO; Q flag applied <u>YES</u> / NO		Surrogate Recovery In Control?	<u>YES</u> / NO
CCal acceptable <u>YES</u> / NO; Q flag applied <u>YES</u> / NO		Special Analysis Criteria Met?	<u>YES</u> / 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: 4/30/10

Reviewer's Signature: [Signature] Date: 4/30/10

**PCP/Chlorophenols ANALYSIS
QC Summary Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

<u>Client ID</u>	<u>TBP</u>	<u>TOT</u>	<u>OUT</u>
CB31A042110COMP	55.2%	0	
MB-042610	63.6%	0	
LCS-042610	56.4%	0	
CB1042110COMP	53.6%	0	
CB1042110COMP MS	54.2%	0	
CB1042110COMP MSD	55.4%	0	
CB4857042110COMP	57.6%	0	
CB101042110COMP	55.6%	0	

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol

(40-130)

(11-156)

Prep Method: SW3510C
Log Number Range: 10-10294 to 10-10297

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB1042110COMP
MS/MSD

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: *AS*

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted MS/MSD: 04/26/10

Sample Amount MS: 500 mL

MSD: 500 mL

Date Analyzed MS: 04/30/10 19:28

Final Extract Volume MS: 50 mL

MSD: 04/30/10 19:48

MSD: 50 mL

Instrument/Analyst MS: ECD1/AAR

Dilution Factor MS: 1.00

MSD: ECD1/AAR

MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Pentachlorophenol	< 0.25 U	1.90	2.50	76.0%	1.98	2.50	79.2%	4.1%

Results reported in µg/L

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: LCS-042610
LAB CONTROL

Lab Sample ID: LCS-042610
 LIMS ID: 10-10295
 Matrix: Water
 Data Release Authorized: *BS*
 Reported: 05/04/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/21/10
 Date Received: 04/22/10

Date Extracted: 04/26/10
 Date Analyzed: 04/30/10 18:28
 Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
 Final Extract Volume: 50 mL
 Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	2.05	2.50	82.0%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol 56.4%

Results reported in µg/L

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QU08MBW1

Lab Name: ANALYTICAL RESOURCES, INC	Client: FLOYD/SNIDER
ARI Job No.: QU08	Project: LORA LAKES APARTMENTS
Lab Sample ID: QU08MBW1	Lab File ID: 0430A027
Matrix (soil/water) LIQUID	Extraction: (SepF/Cont/Sonc) SW3510C
Sulfur Cleanup (Y/N) Y	Date Extracted: 04/26/10
Date Analyzed (1): 04/30/10	Date Analyzed (2): 04/30/10
Time Analyzed (1): 1808	Time Analyzed (2): 1808
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	QU08LCSW1	QU08LCSW1	04/30/10	04/30/10
02	CB31A042110C	QU08A	04/30/10	04/30/10
03	CB1042110COM	QU08B	04/30/10	04/30/10
04	CB1042110COM	QU08BMS	04/30/10	04/30/10
05	CB1042110COM	QU08BMSD	04/30/10	04/30/10
06	CB4857042110	QU08C	04/30/10	04/30/10
07	CB101042110C	QU08D	04/30/10	04/30/10

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB5

ID: 0.53 (mm)

Instrument ID: ECD1

Init. Calib. Date(s): 04/23/10 04/23/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION				
S1 : 9.99				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
=====	=====	=====	=====	=====
01	PCP D	04/23/10	1747	9.99
02	PCP A	04/23/10	1807	10.01
03	PCP B	04/23/10	1827	10.00
04	PCP C	04/23/10	1847	10.00
05	PCP E	04/23/10	1907	9.99
06	PCP F	04/23/10	1927	9.99
07	ZZZZZ	04/23/10	1947	10.00
08	PCP CCAL	04/30/10	1748	10.00
09	QU08MBW1	04/30/10	1808	10.01
10	QU08LCSW1	04/30/10	1828	10.01
11	CB31A042110C	04/30/10	1848	10.00
12	CB1042110COM	04/30/10	1908	10.01
13	CB1042110COM	04/30/10	1928	10.00
14	CB1042110COM	04/30/10	1948	10.00
15	CB4857042110	04/30/10	2008	10.00
16	CB101042110C	04/30/10	2028	10.01
17	ZZZZZ	04/30/10	2048	10.00
18	PCP CCAL	04/30/10	2108	10.00

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.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB35

ID: 0.53 (mm)

Instrument ID: ECD1

Init. Calib. Date(s): 04/23/10 04/23/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION				
S1 : 10.63				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
=====	=====	=====	=====	=====
01	PCP D	04/23/10	1747	10.64
02	PCP A	04/23/10	1807	10.64
03	PCP B	04/23/10	1827	10.64
04	PCP C	04/23/10	1847	10.64
05	PCP E	04/23/10	1907	10.63
06	PCP F	04/23/10	1927	10.63
07	ZZZZZ	04/23/10	1947	10.64
08	PCP CCAL	04/30/10	1748	10.64
09	QU08MBW1	04/30/10	1808	10.65
10	QU08LCSW1	04/30/10	1828	10.65
11	CB31A042110C	04/30/10	1848	10.64
12	CB1042110COM	04/30/10	1908	10.65
13	CB1042110COM	04/30/10	1928	10.65
14	CB1042110COM	04/30/10	1948	10.64
15	CB4857042110	04/30/10	2008	10.65
16	CB101042110C	04/30/10	2028	10.65
17	ZZZZZ	04/30/10	2048	10.64
18	PCP CCAL	04/30/10	2108	10.64

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: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: CB31A042110COMP

SAMPLE

Lab Sample ID: QU08A

LIMS ID: 10-10294

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 18:48

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.64

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	55.2%
----------------------	-------

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 5/4/10

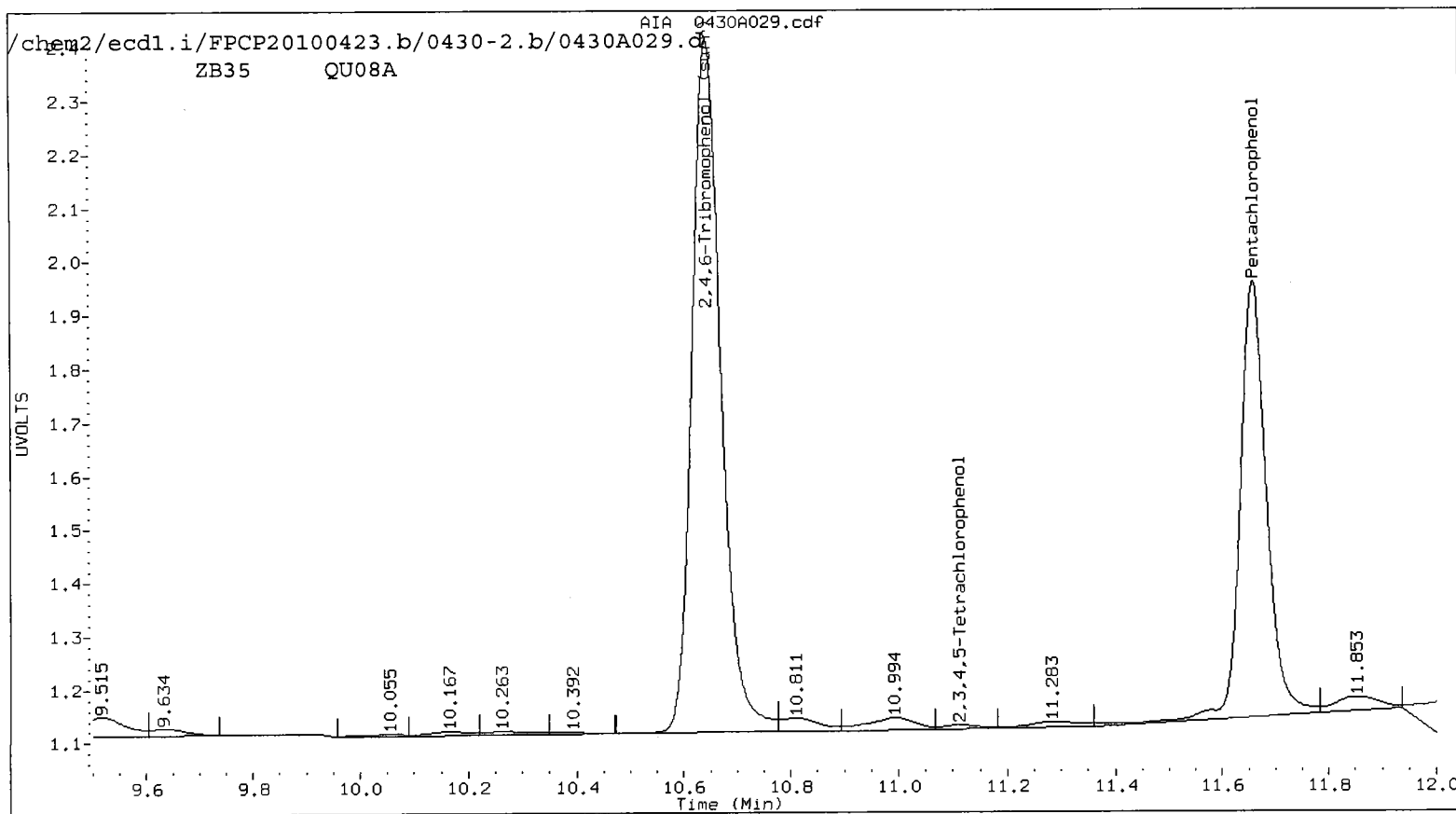
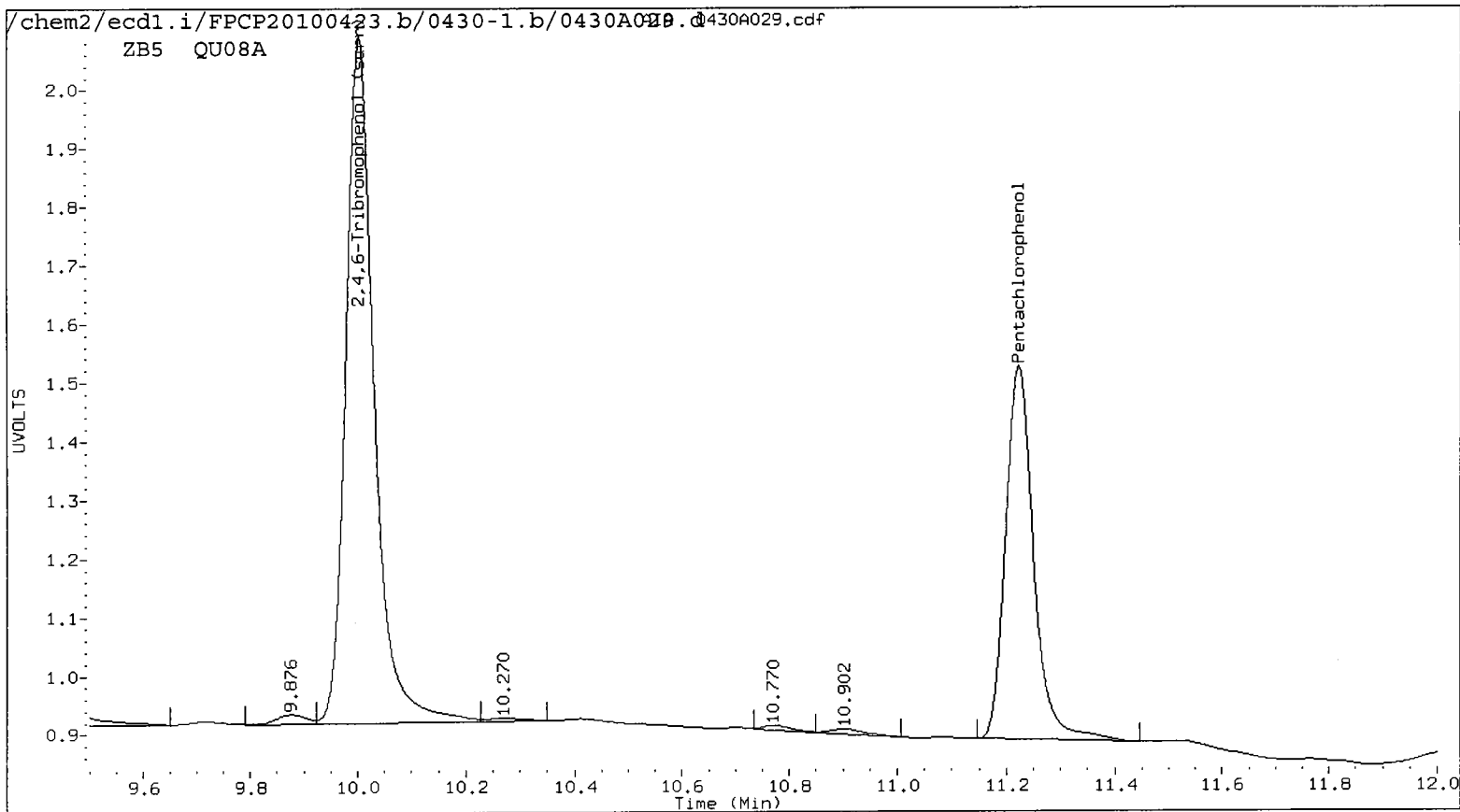
Data file 1: /chem2/ecdl.i/FPCP20100423.b/0430-1.b/0430A029.d ARI ID: QU08A
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430A029.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 30-APR-2010 18:48
 Compound Sublist: all Report Date: 05/03/2010 11:07
 Instrument: ecdl.i 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		
11.223	0.011	114670	11.659	0.008	140818	5.7081	6.3777	11.1	Pentachlorophenol
7.227	-0.035	14471	----			1.6333	0.0000	---	2,4,6-Trichlorophenol
----			7.908	0.050	1127	0.0000	0.0960	---	2,3,6-Trichlorophenol
8.267	0.055	4681	----			0.7999	0.0000	---	2,4,5-Trichlorophenol
8.737	-0.024	2348	----			0.3456	0.0000	---	2,3,4-Trichlorophenol
----			9.292	0.031	3631	0.0000	0.2016	---	2,3,5,6-Tetrachlorophenol
----			11.113	0.004	1589	0.0000	0.1155	---	2,3,4,5-Tetrachlorophenol
6.909	0.024	2768	----			5.0846	0.0000	---	2,4-Dichlorophenol
10.003	0.014	216099	10.644	0.012	245259	13.8	13.6	1.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

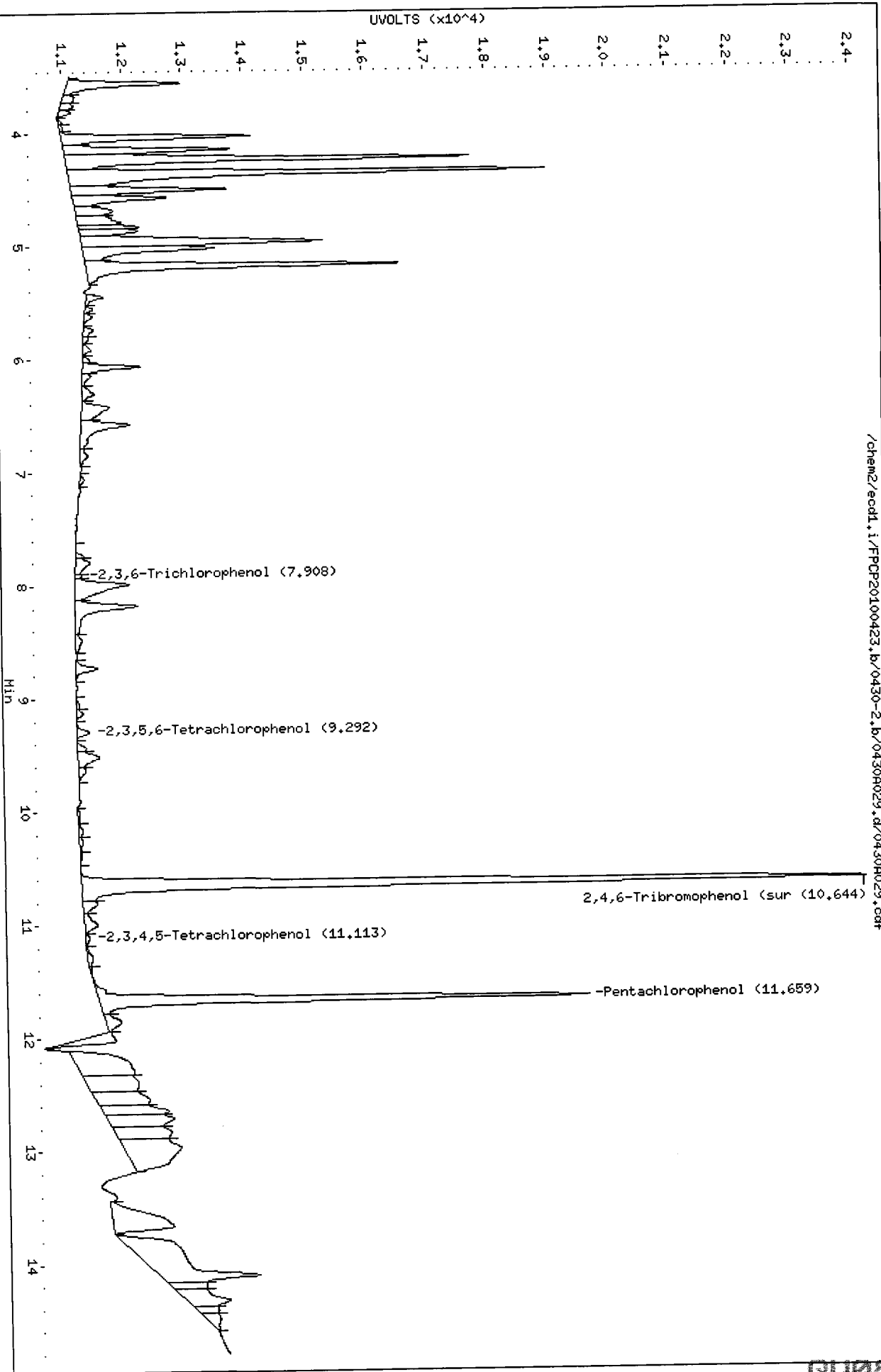
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	55.2	54.4

MANUAL ADJUSTMENTS
 X2. Peak not found
 X3. Baseline Correction
 4. Totals Calculation
 5. Other
 Analyst AR Date 5/4/10



Data File: /chem2/ecdl,i/PCP20100423,b/0430-2,b/04300029,d
Date: 30-APR-2010 18:48
Client ID:
Sample Info: QU08A
Column phase: ZB35

Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: CB1042110COMP

SAMPLE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 19:08

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	53.6%
----------------------	-------

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 54110

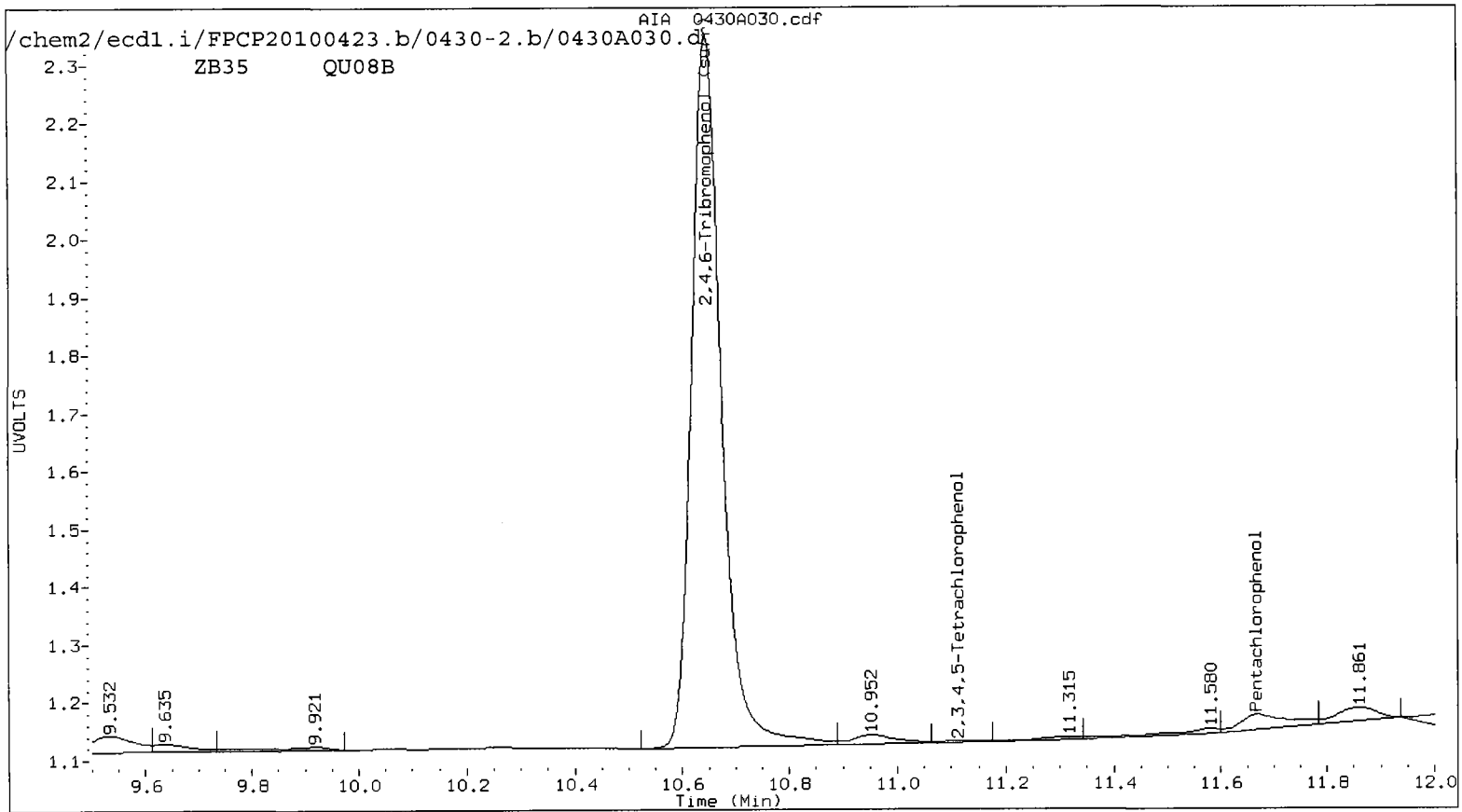
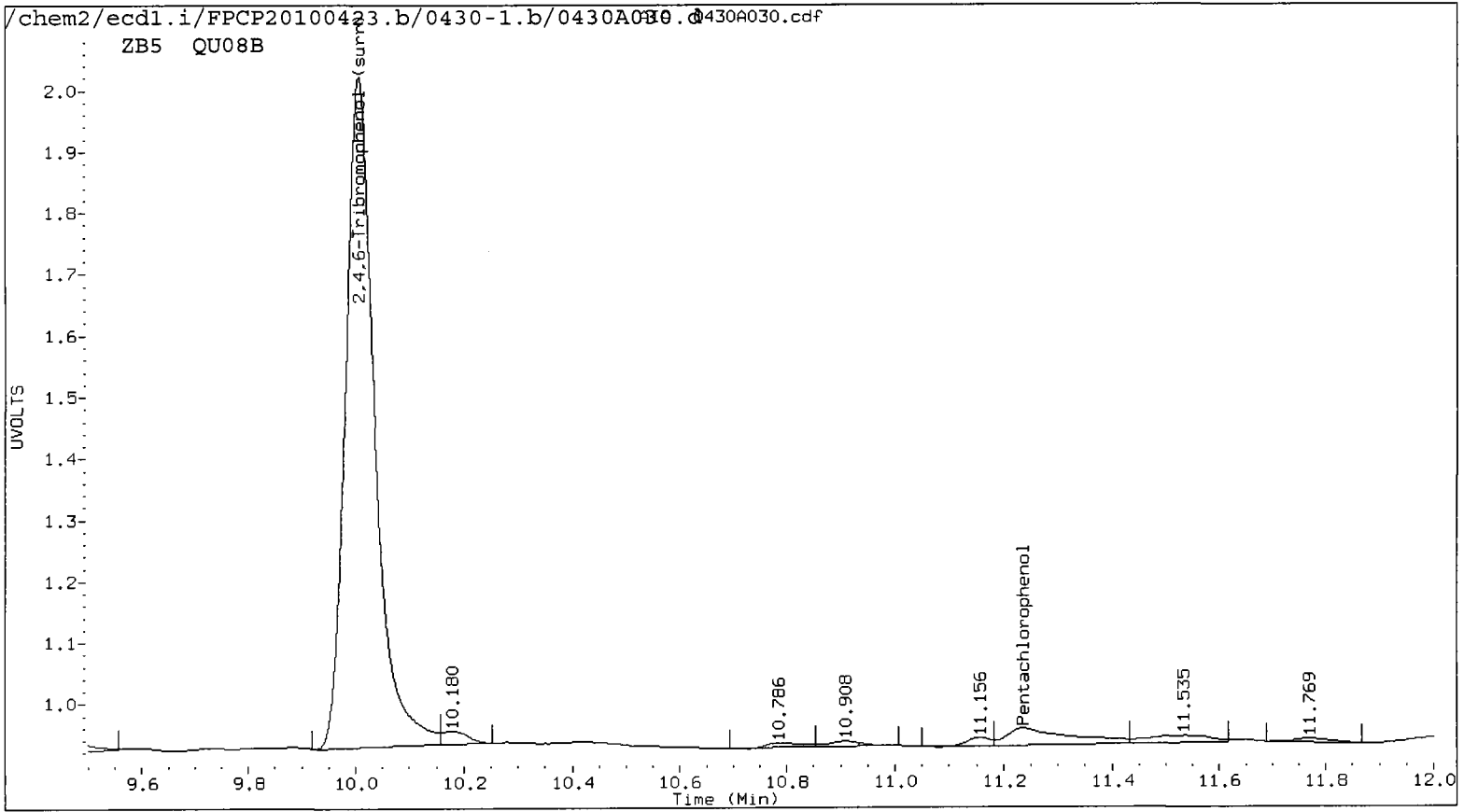
Data file 1: /chem2/ecdl.i/FPCP20100423.b/0430-1.b/0430A030.d ARI ID: QU08B
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430A030.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 30-APR-2010 19:08
 Compound Sublist: all Report Date: 05/03/2010 11:07
 Instrument: ecdl.i 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		
11.235	0.023	11946	11.667	0.016	8454	0.5947	0.3829	43.3*	Pentachlorophenol
7.236	-0.026	11374	----			1.2837	0.0000	---	2,4,6-Trichlorophenol
----			7.807	-0.051	9388	0.0000	0.7998	---	2,3,6-Trichlorophenol
8.264	0.052	1646	----			0.2813	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,5,6-Tetrachlorophenol
----			11.114	0.005	1109	0.0000	0.0806	---	2,3,4,5-Tetrachlorophenol
6.908	0.024	2396	----			4.3999	0.0000	---	2,4-Dichlorophenol
10.006	0.017	206368	10.646	0.013	241060	13.2	13.4	1.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	52.7	53.4

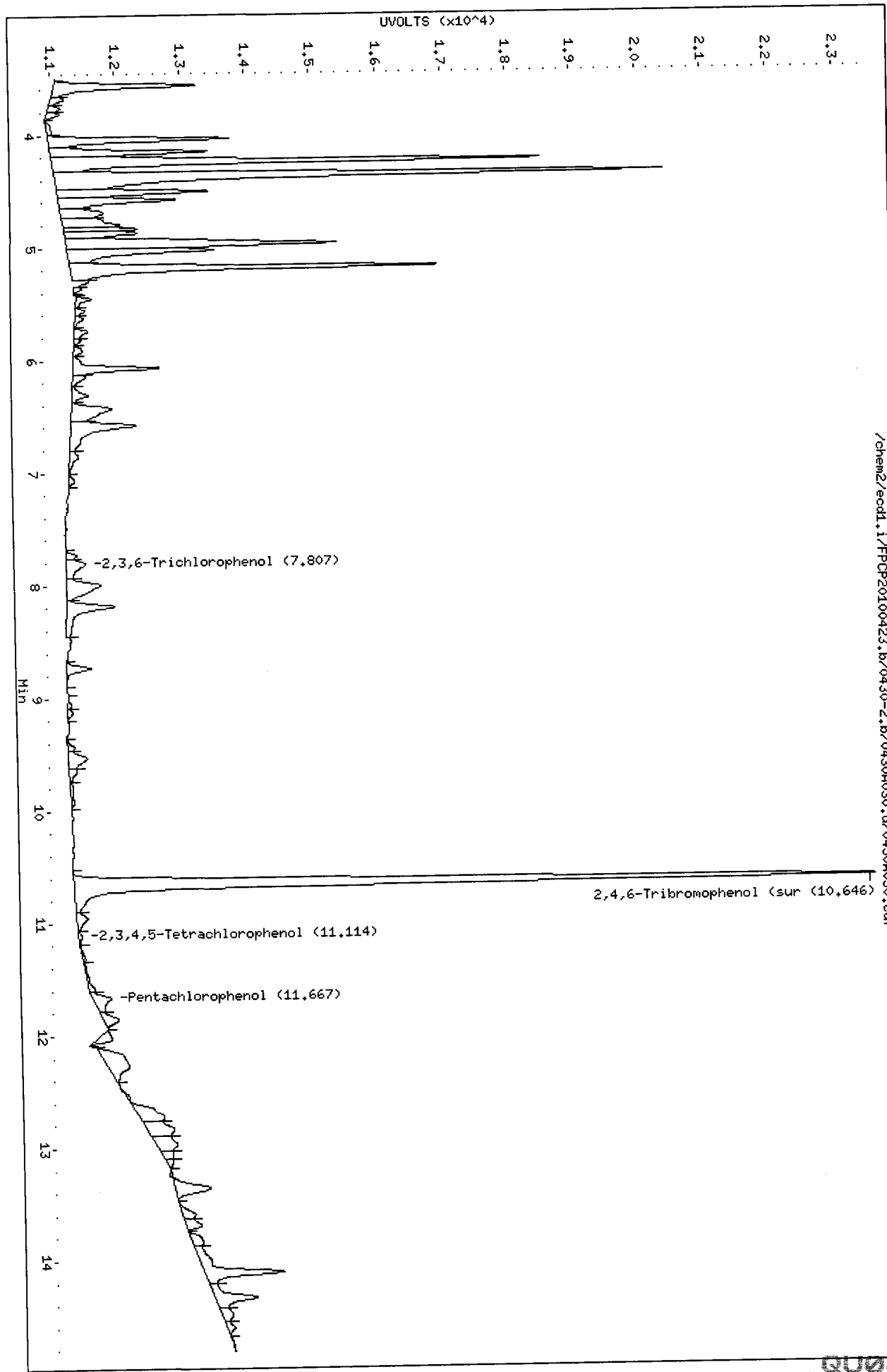
MANUAL ADJUSTMENTS
 X 1. Peak not found
 X 2. Poor Chromatography
 X 3. Baseline Correction
 4. Totals Calculation
 5. Other
 Analyst AR Date 5/4/10



Data File: /chem2/eod1.i/PCP20100423.b/0430-2.b/0430A030.d
Date : 30-APR-2010 19:08
Client ID:
Sample Info: QU088
Column phase: ZB35

Instrument: eod1.i
Operator: ar
Column diameter: 0.53

/chem2/eod1.i/PCP20100423.b/0430-2.b/0430A030.d/0430A030.cdf



ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB4857042110COMP
SAMPLE

Lab Sample ID: QU08C

LIMS ID: 10-10296

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 20:08

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.55

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	57.6%
----------------------	-------

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 5/4/10

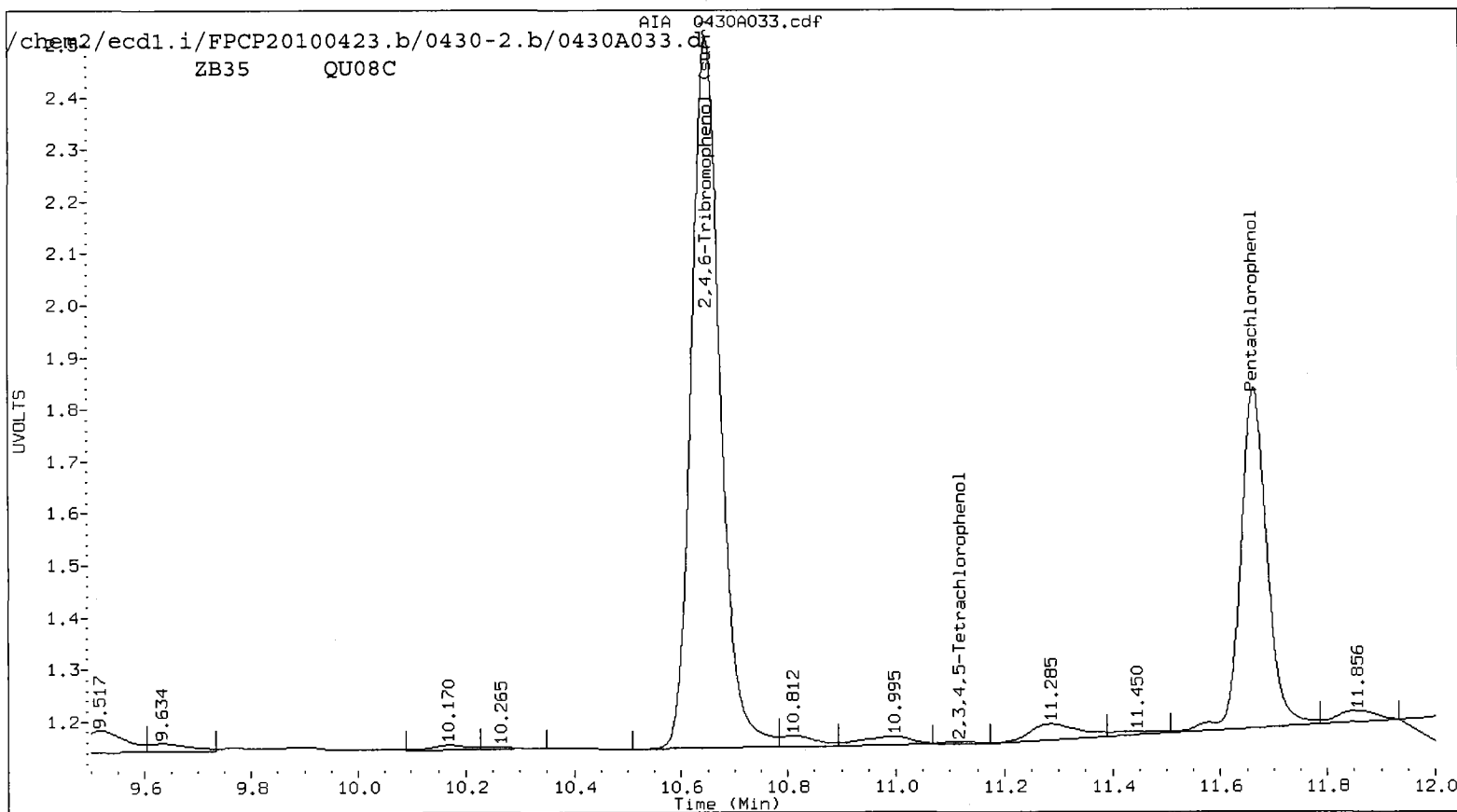
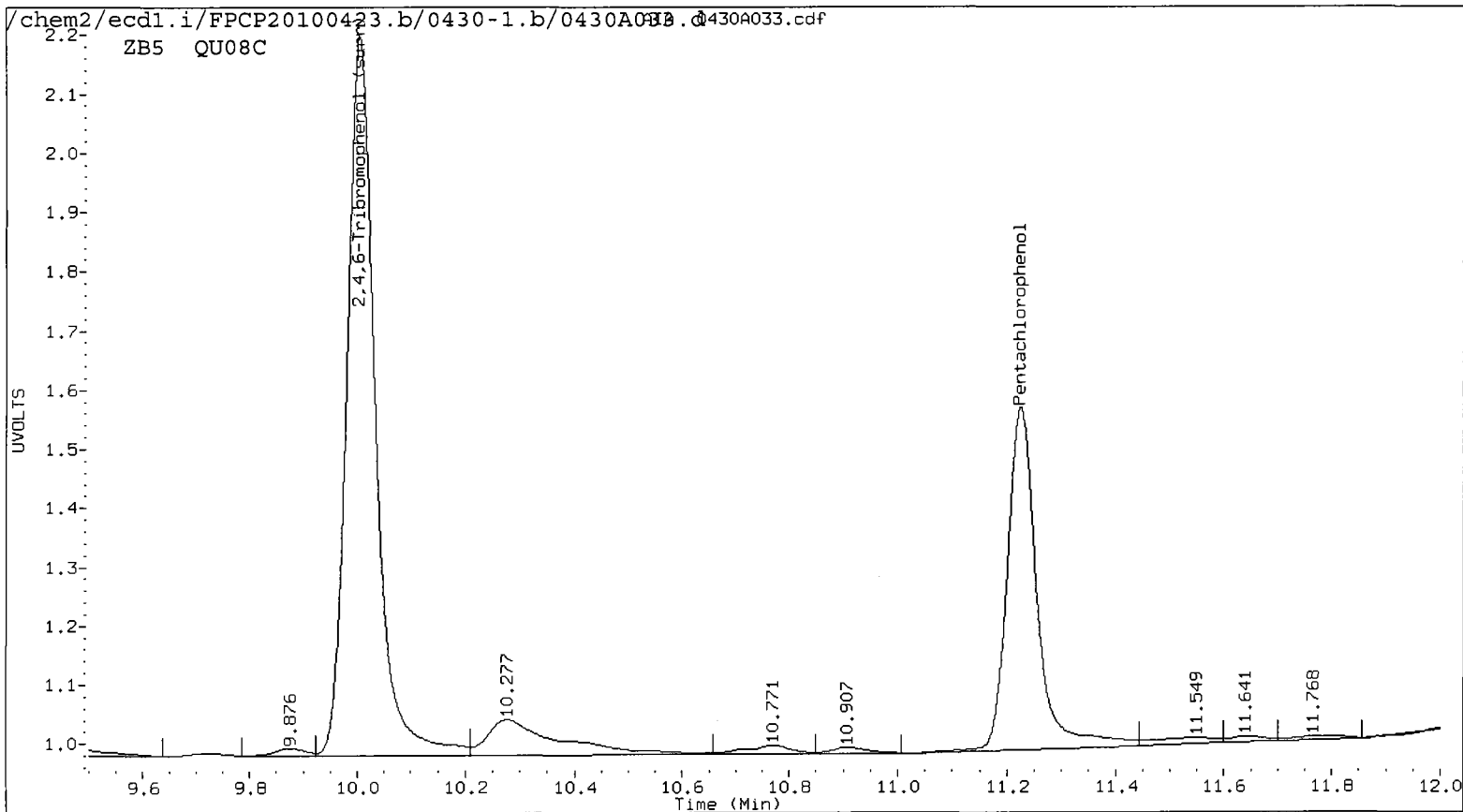
Data file 1: /chem2/ecdl.i/FPCP20100423.b/0430-1.b/0430A033.d ARI ID: QU08C
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430A033.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 30-APR-2010 20:08
 Compound Sublist: all Report Date: 05/03/2010 11:07
 Instrument: ecdl.i 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		
11.225	0.013	109754	11.660	0.009	112814	5.4634	5.1094	6.7	Pentachlorophenol
7.218	-0.044	55719	----			6.2885	0.0000	---	2,4,6-Trichlorophenol
----			7.794	-0.064	7875	0.0000	0.6709	---	2,3,6-Trichlorophenol
8.268	0.056	3598	----			0.6148	0.0000	---	2,4,5-Trichlorophenol
8.738	-0.023	1760	----			0.2592	0.0000	---	2,3,4-Trichlorophenol
----			9.292	0.031	3939	0.0000	0.2187	---	2,3,5,6-Tetrachlorophenol
----			11.117	0.008	1114	0.0000	0.0810	---	2,3,4,5-Tetrachlorophenol
6.911	0.026	3938	7.150	-0.005	1228	7.2317	2.0698	111.0*	2,4-Dichlorophenol
10.004	0.015	224785	10.646	0.014	256462	14.4	14.2	1.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

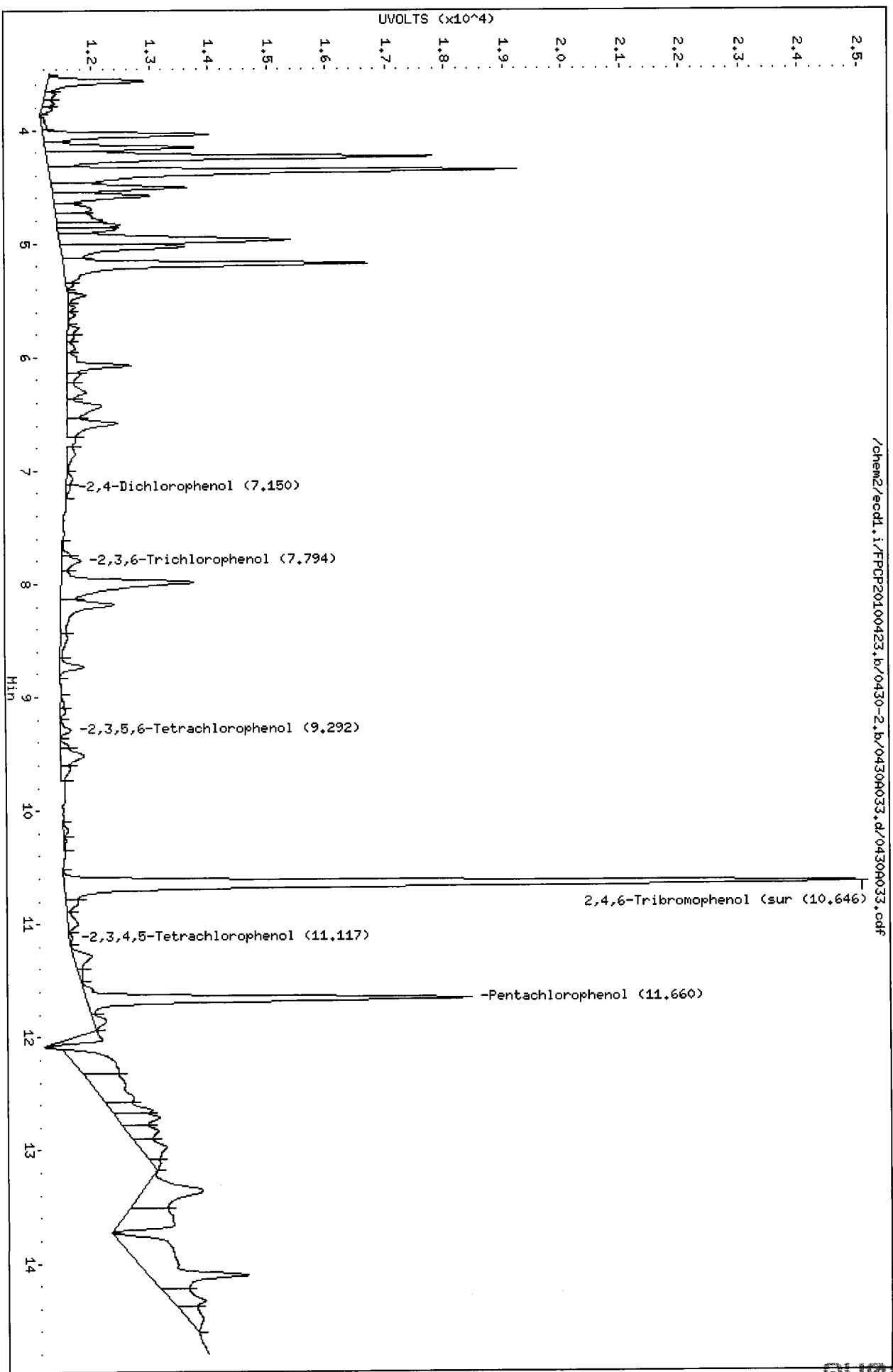
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	57.4	56.8

MANUAL ADJUSTMENTS
 X 1. Peak not found
 X 2. Poor Chromatography
 X 3. Baseline Correction
 4. Totals Calculation
 5. Other
 Analyst AR Date 5/4/10



Data File: /chem2/ecdl.i/PPFP20100423.b/0430-2.b/04300033.d
Date : 30-APR-2010 20:08
Client ID:
Sample Info: QU08C
Column phase: ZB35

Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: CB101042110COMP

SAMPLE

Lab Sample ID: QU08D

LIMS ID: 10-10297

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 20:28

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	0.51

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	55.6%
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Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR-5/4/10

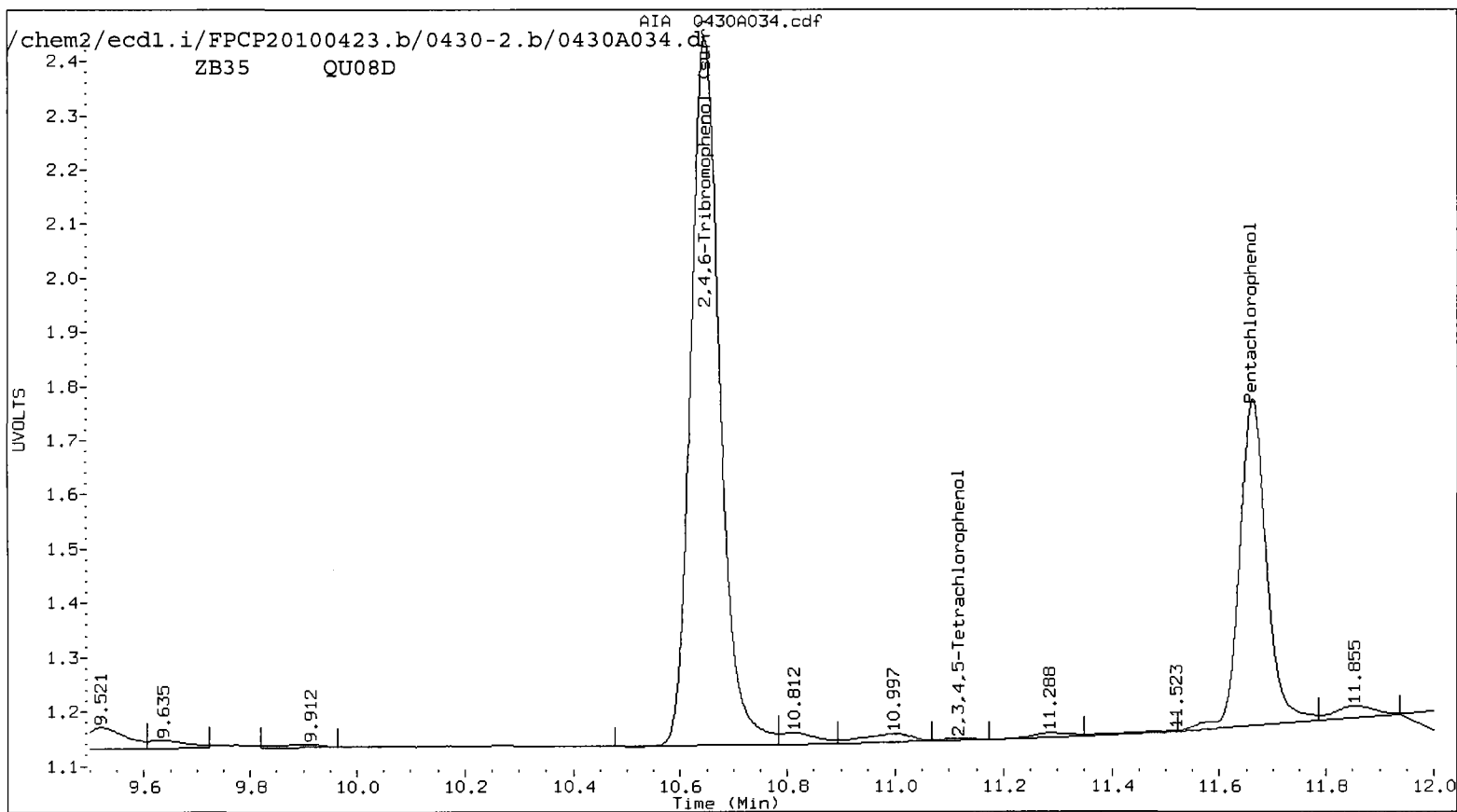
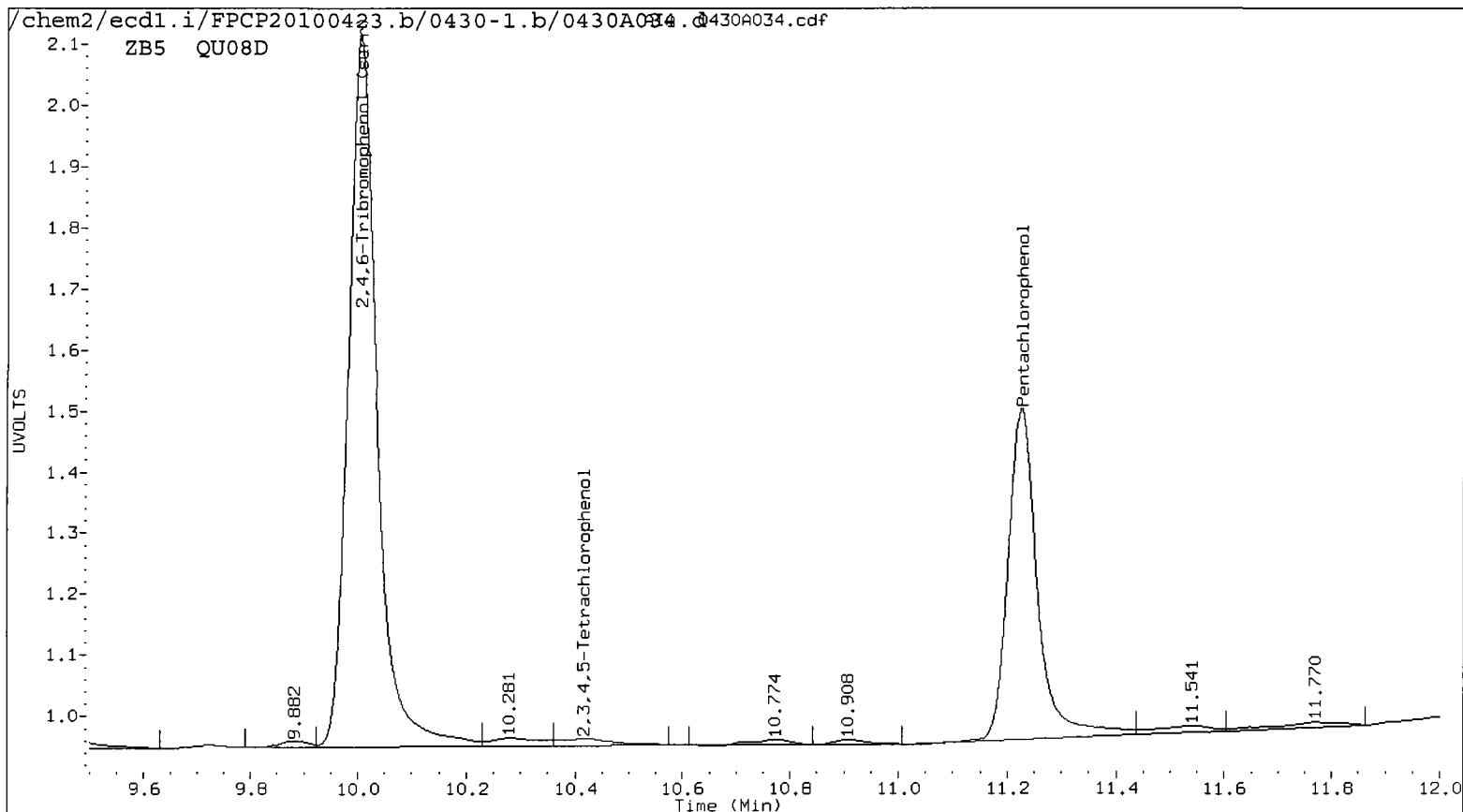
Data file 1: /chem2/ecdl.i/FPCP20100423.b/0430-1.b/0430A034.d ARI ID: QU08D
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430A034.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 30-APR-2010 20:28
 Compound Sublist: all Report Date: 05/03/2010 11:07
 Instrument: ecdl.i 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		
11.225	0.013	101850	11.660	0.009	106051	5.0700	4.8031	5.4	Pentachlorophenol
7.228	-0.034	17151	----			1.9357	0.0000	---	2,4,6-Trichlorophenol
----			7.800	-0.058	7863	0.0000	0.6698	---	2,3,6-Trichlorophenol
8.270	0.058	3176	----			0.5429	0.0000	---	2,4,5-Trichlorophenol
8.741	-0.020	1246	----			0.1835	0.0000	---	2,3,4-Trichlorophenol
----			9.293	0.032	2880	0.0000	0.1599	---	2,3,5,6-Tetrachlorophenol
10.418	0.025	3695	11.117	0.009	1076	0.2926	0.0782	115.6*	2,3,4,5-Tetrachlorophenol
6.910	0.025	1677	----			3.0795	0.0000	---	2,4-Dichlorophenol
10.006	0.017	217765	10.646	0.014	246948	13.9	13.7	1.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

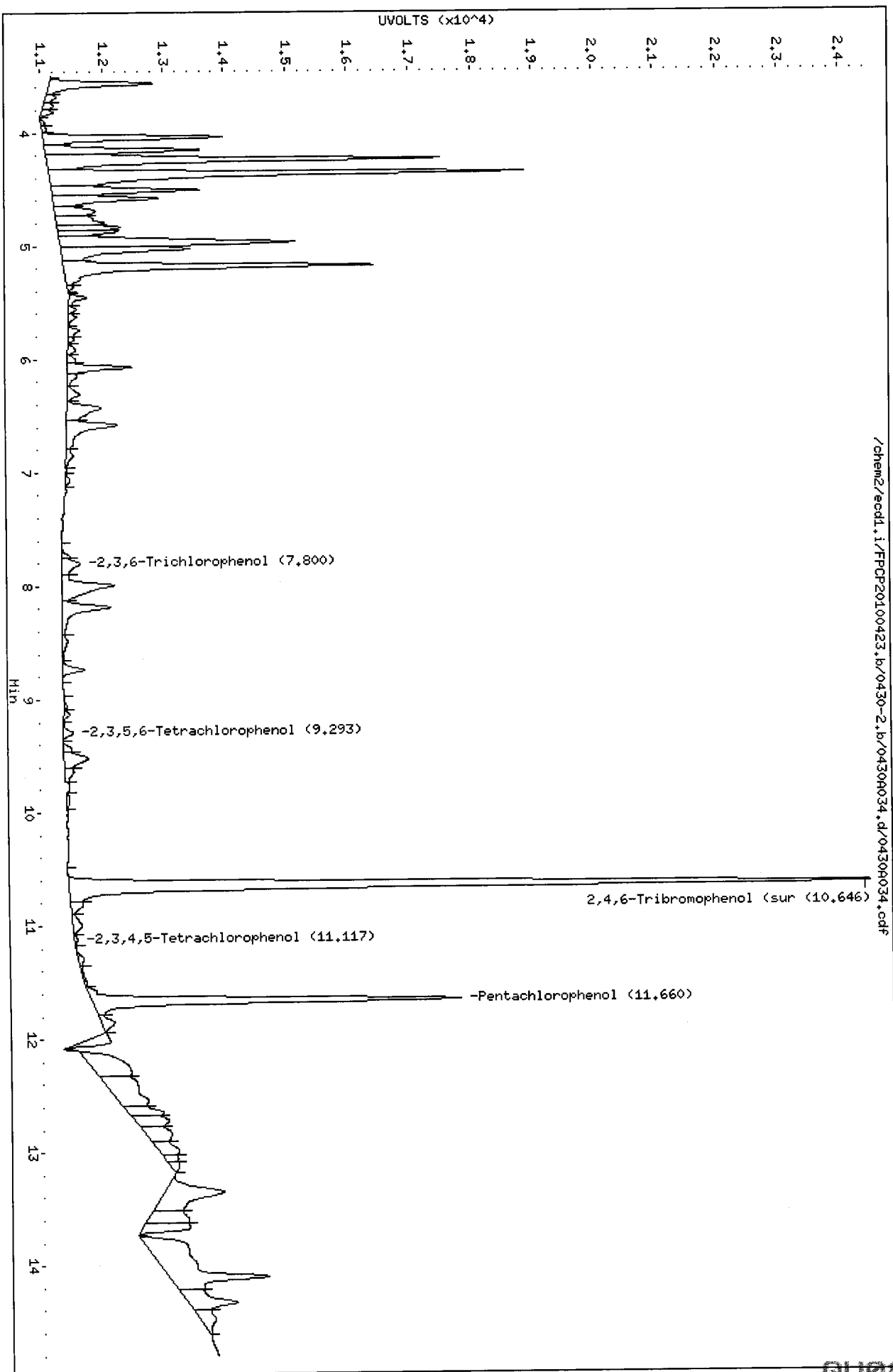
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	55.6	54.7

MANUAL ADJUSTMENTS
 X 1. Peak not found
 X 2. Poor Chromatography
 X 3. Baseline Correction
 4. Totals Calculation
 5. Other
 Analyst AR Date 5/4/10



Data File: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430034.d
Date : 30-APR-2010 20:28
Client ID:
Sample Info: QU08D
Column phase: ZB35

Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



/chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430034.d/cdf

**PCP/Chlorophenols ANALYSIS
Standard Raw Data**

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

prepared
by

Analytical Resources, Inc.

6D
 CHLOROPHENOL INITIAL CALIBRATION
 RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB5 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 04/23/10

COMPOUND	RT OF STANDARDS					MEAN RT	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		FROM	TO
=====	=====	=====	=====	=====	=====	=====	=====	=====
Pentachlorophenol	11.23	11.22	11.22	11.21	11.21	11.22	11.14	11.28
2,4,6-Trichloropheno	7.26	7.26	7.26	7.26	7.26	7.26	7.19	7.33
2,3,6-Trichloropheno	7.62	7.62	7.62	7.61	7.62	7.62	7.54	7.68
2,4,5-Trichloropheno	8.24	8.24	8.23	8.22	8.22	8.23	8.14	8.28
2,3,4-Trichloropheno	8.79	8.79	8.78	8.77	8.76	8.78	8.69	8.83
2,3,5,6-Tetrachlorop	9.01	9.01	9.00	9.00	9.00	9.00	8.92	9.06
2,3,4,5-Tetrachlorop	10.42	10.41	10.41	10.40	10.40	10.41	10.32	10.46
2,4-Dichlorophenol	6.89	6.89	6.89	6.89	6.89	6.89	6.81	6.95
=====	=====	=====	=====	=====	=====	=====	=====	=====
2,4,6-Tribromophenol	10.01	10.00	10.00	9.99	9.99	10.00	9.92	10.06

6D
 CHLOROPHENOL INITIAL CALIBRATION
 RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB35 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 04/23/10

COMPOUND	RT OF STANDARDS					MEAN	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT	FROM	TO
Pentachlorophenol	11.66	11.66	11.66	11.65	11.65	11.66	11.58	11.72
2,4,6-Trichloropheno	7.33	7.33	7.33	7.33	7.33	7.33	7.26	7.40
2,3,6-Trichloropheno	7.86	7.86	7.86	7.86	7.86	7.86	7.79	7.93
2,4,5-Trichloropheno	8.61	8.60	8.60	8.59	8.59	8.60	8.52	8.66
2,3,4-Trichloropheno	9.37	9.37	9.36	9.36	9.36	9.36	9.28	9.42
2,3,5,6-Tetrachlorop	9.27	9.27	9.27	9.26	9.26	9.27	9.19	9.33
2,3,4,5-Tetrachlorop	11.12	11.12	11.12	11.11	11.11	11.12	11.04	11.18
2,4-Dichlorophenol	7.16	7.16	7.16	7.16	7.16	7.16	7.08	7.22
2,4,6-Tribromophenol	10.64	10.64	10.64	10.64	10.63	10.64	10.56	10.70

6E
 CHLOROPHENOL INITIAL CALIBRATION
 CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB5 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 04/23/10

COMPOUND	CALIBRATION FACTORS						R ² / %RSD	CT
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		
Pentachlorophenol	24336	22525	21018	19114	17276	16266	15.5	A
2,4,6-Trichlorophenol	15158	12154	10856	10273	9146	8615	0.9938	L
2,3,6-Trichlorophenol	11883	11390	10946	10360	9550	9135	10.1	A
2,4,5-Trichlorophenol	6960	6531	6469	5653	4942	4558	16.4	A
2,3,4-Trichlorophenol	7296	7377	7074	6951	6278	5787	9.2	A
2,3,5,6-Tetrachloroph	20638	18025	16934	16115	14923	13992	14.1	A
2,3,4,5-Tetrachloroph	15625	14454	13328	11833	10613	9932	17.6	A
2,4-Dichlorophenol	655	613	580	537	466	417	16.6	A
2,4,6-Tribromophenol	18136	17040	16115	14988	14061	13606	11.2	A
AVE RSD							14.7	

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/ecdl.i/FPCP20100423.b/ical-1.b/0423A008.d
- LVL 2: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A009.d
- LVL 3: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A010.d
- LVL 4: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A007.d
- LVL 5: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A011.d
- LVL 6: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A012.d

6E
 CHLOROPHENOL INITIAL CALIBRATION
 CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB35 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 04/23/10

COMPOUND	CALIBRATION FACTORS						R ² / %RSD	CT
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		
Pentachlorophenol	22859	24505	23657	21646	20173	19639	8.8	A
2,4,6-Trichlorophenol	12930	12258	11768	12012	10766	10264	8.4	A
2,3,6-Trichlorophenol	12896	12620	12151	11456	10660	10651	8.3	A
2,4,5-Trichlorophenol	7475	7319	6779	6011	5423	5098	15.6	A
2,3,4-Trichlorophenol	10055	9693	9022	8137	7331	6904	15.0	A
2,3,5,6-Tetrachloroph	19555	19220	18767	17778	16624	16126	7.8	A
2,3,4,5-Tetrachloroph	14355	14985	14694	13680	12633	12218	8.2	A
2,4-Dichlorophenol	746	660	605	597	499	456	17.8	A
2,4,6-Tribromophenol	19096	18786	18475	17893	17040	16990	4.9	A
AVE RSD							10.5	

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/ecdl.i/FPCP20100423.b/ical-2.b/0423A008.d
- LVL 2: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A009.d
- LVL 3: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A010.d
- LVL 4: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A007.d
- LVL 5: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A011.d
- LVL 6: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A012.d

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-APR-2010 17:47
 End Cal Date : 23-APR-2010 19:27
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecd1.i/FPCP20100423.b/FPCPB.m
 Cal Date : 26-Apr-2010 11:22 aron
 Curve Type : Average

Calibration File Names:

Level 1: /chem2/ecd1.i/FPCP20100423.b/ical-2.b/0423A008.d
 Level 2: /chem2/ecd1.i/FPCP20100423.b/ical-2.b/0423A009.d
 Level 3: /chem2/ecd1.i/FPCP20100423.b/ical-2.b/0423A010.d
 Level 4: /chem2/ecd1.i/FPCP20100423.b/ical-2.b/0423A007.d
 Level 5: /chem2/ecd1.i/FPCP20100423.b/ical-2.b/0423A011.d
 Level 6: /chem2/ecd1.i/FPCP20100423.b/ical-2.b/0423A012.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	746	660	605	597	499	456	594	17.781
2 2,4,6-Trichlorophenol	12930	12258	11769	12012	10766	10264	11667	8.446
3 2,3,6-Trichlorophenol	12896	12620	12151	11456	10660	10651	11739	8.270
4 2,4,5-Trichlorophenol	7475	7319	6779	6011	5423	5098	6351	15.635
5 2,3,5,6-Tetrachlorophenol	19555	19220	18767	17778	16624	16126	18012	7.831
6 2,3,4-Trichlorophenol	10055	9693	9022	8137	7331	6904	8524	14.981
8 2,3,4,5-Tetrachlorophenol	14355	14985	14694	13681	12633	12218	13761	8.209
9 Pentachlorophenol	22859	24505	23657	21646	20173	19639	22080	8.773
\$ 7 2,4,6-Tribromophenol (surr)	19096	18786	18475	17893	17040	16990	18047	4.949

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-APR-2010 17:47
End Cal Date : 23-APR-2010 19:27
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20100423.b/FPCPB.m
Cal Date : 26-Apr-2010 11:22 aron
Curve Type : Average

Average %RSD Results.	

Calculated Average %RSD =	10.54158
Maximum Average %RSD =	20.00000
* Passed Average %RSD Test.	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-APR-2010 17:47
 End Cal Date : 23-APR-2010 19:27
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl.i/FPCP20100423.b/FPCP.m
 Cal Date : 26-Apr-2010 11:32 aron
 Curve Type : Average

Calibration File Names:

Level 1: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A008.d
 Level 2: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A009.d
 Level 3: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A010.d
 Level 4: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A007.d
 Level 5: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A011.d
 Level 6: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A012.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	655	613	580	537	466	417	545	16.551
2 2,4,6-Trichlorophenol	15158	12154	10856	10273	9146	8615	11034	21.558
3 2,3,6-Trichlorophenol	11883	11391	10946	10360	9551	9135	10544	10.106
4 2,4,5-Trichlorophenol	6960	6531	6469	5653	4942	4559	5852	16.408
5 2,3,4-Trichlorophenol	7296	7377	7074	6951	6278	5787	6794	9.250
6 2,3,5,6-Tetrachlorophenol	20638	18025	16934	16115	14923	13992	16771	14.141
8 2,3,4,5-Tetrachlorophenol	15625	14454	13328	11833	10613	9932	12631	17.620
9 Pentachlorophenol	24336	22525	21018	19114	17276	16267	20089	15.473
\$ 7 2,4,6-Tribromophenol (surr)	18136	17040	16115	14988	14061	13606	15658	11.235

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

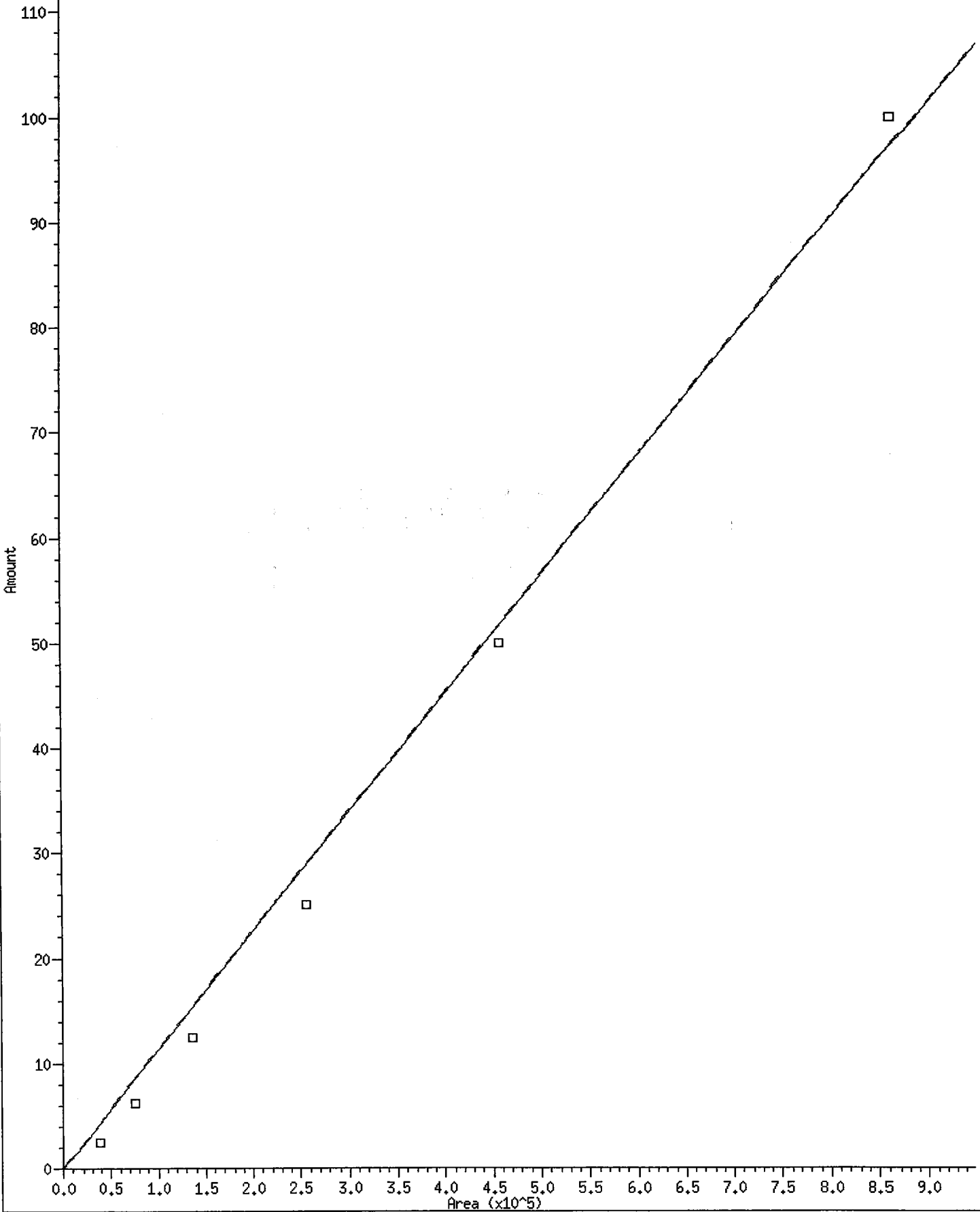
Start Cal Date : 23-APR-2010 17:47
End Cal Date : 23-APR-2010 19:27
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20100423.b/FPCP.m
Cal Date : 26-Apr-2010 11:32 aron
Curve Type : Average

Average %RSD Results.	

Calculated Average %RSD =	14.70475
Maximum Average %RSD =	20.00000
* Passed Average %RSD Test.	

2 2,4,6-Trichlorophenol

Curve Type: Linear By-Response
Amt = 0 + Rsp/8860.576
R²: 0.9938286



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-APR-2010 17:47
 End Cal Date : 23-APR-2010 19:27
 Quant Method : ESTD
 Origin : Force
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecd1.i/FPCP20100423.b/FPCP.m
 Cal Date : 26-Apr-2010 11:34 aron

Calibration File Names:

Level 1: /chem2/ecd1.i/FPCP20100423.b/ical-1.b/0423A008.d
 Level 2: /chem2/ecd1.i/FPCP20100423.b/ical-1.b/0423A009.d
 Level 3: /chem2/ecd1.i/FPCP20100423.b/ical-1.b/0423A010.d
 Level 4: /chem2/ecd1.i/FPCP20100423.b/ical-1.b/0423A007.d
 Level 5: /chem2/ecd1.i/FPCP20100423.b/ical-1.b/0423A011.d
 Level 6: /chem2/ecd1.i/FPCP20100423.b/ical-1.b/0423A012.d

Compound	2		6		12		25		50		100		Coefficients		RSD or R ²	
	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
1 2,4-Dichlorophenol	655	613	580	537	466	417	545	0.000e+00	545	16.55114						
2 2,4,6-Trichlorophenol	37896	75961	135694	256825	457316	861512	8861	0.000e+00	8861	0.99383						
3 2,3,6-Trichlorophenol	11883	11391	10946	10360	9551	9135	10544		10544	10.10633						
4 2,4,5-Trichlorophenol	6960	6531	6469	5653	4942	4559	5852		5852	16.40833						
5 2,3,4-Trichlorophenol	7296	7377	7074	6951	6278	5787	6794		6794	9.25012						
6 2,3,5,6-Tetrachlorophenol	20638	18025	16934	16115	14923	13992	16771		16771	14.14129						
8 2,3,4,5-Tetrachlorophenol	15625	14454	13328	11833	10613	9932	12631		12631	17.62016						
9 Pentachlorophenol	24336	22525	21018	19114	17276	16267	20089		20089	15.47281						
7 2,4,6-Tribromophenol (surr)	18136	17040	16115	14988	14061	13606	15658		15658	11.23455						

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-APR-2010 17:47
 End Cal Date : 23-APR-2010 19:27
 Quant Method : ESTD
 Origin : Force
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecd1.i/FPCP20100423.b/FPCP.m
 Cal Date : 26-Apr-2010 11:34 aron

Average %RSD Results.	
=====	
Calculated Average %RSD =	14.70475
Maximum Average %RSD =	20.00000
* Passed Average %RSD Test.	

Curve	Formula	Units
Averaged	Amt = Resp/ml	Response
Linear	Amt = b + Resp/ml	Response

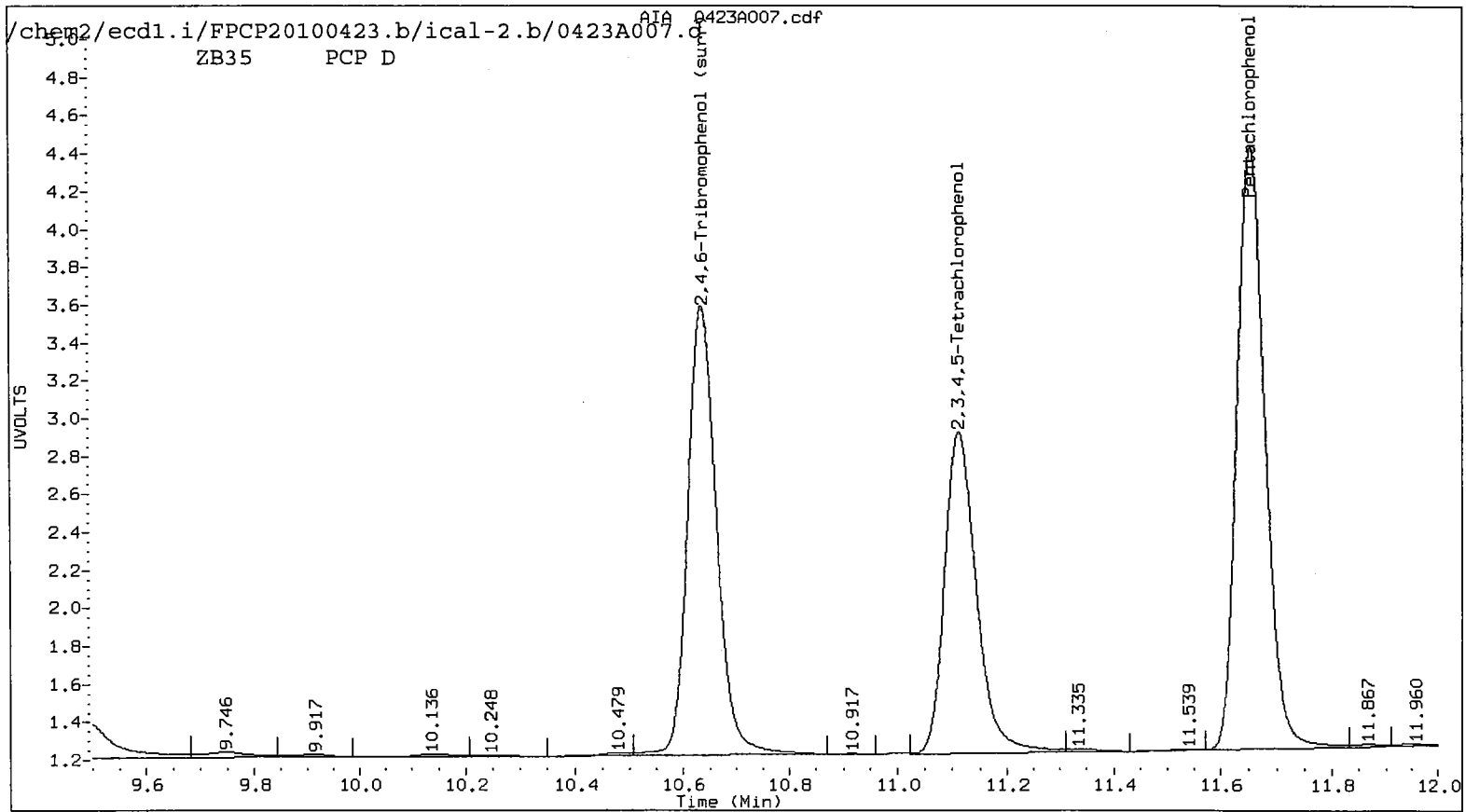
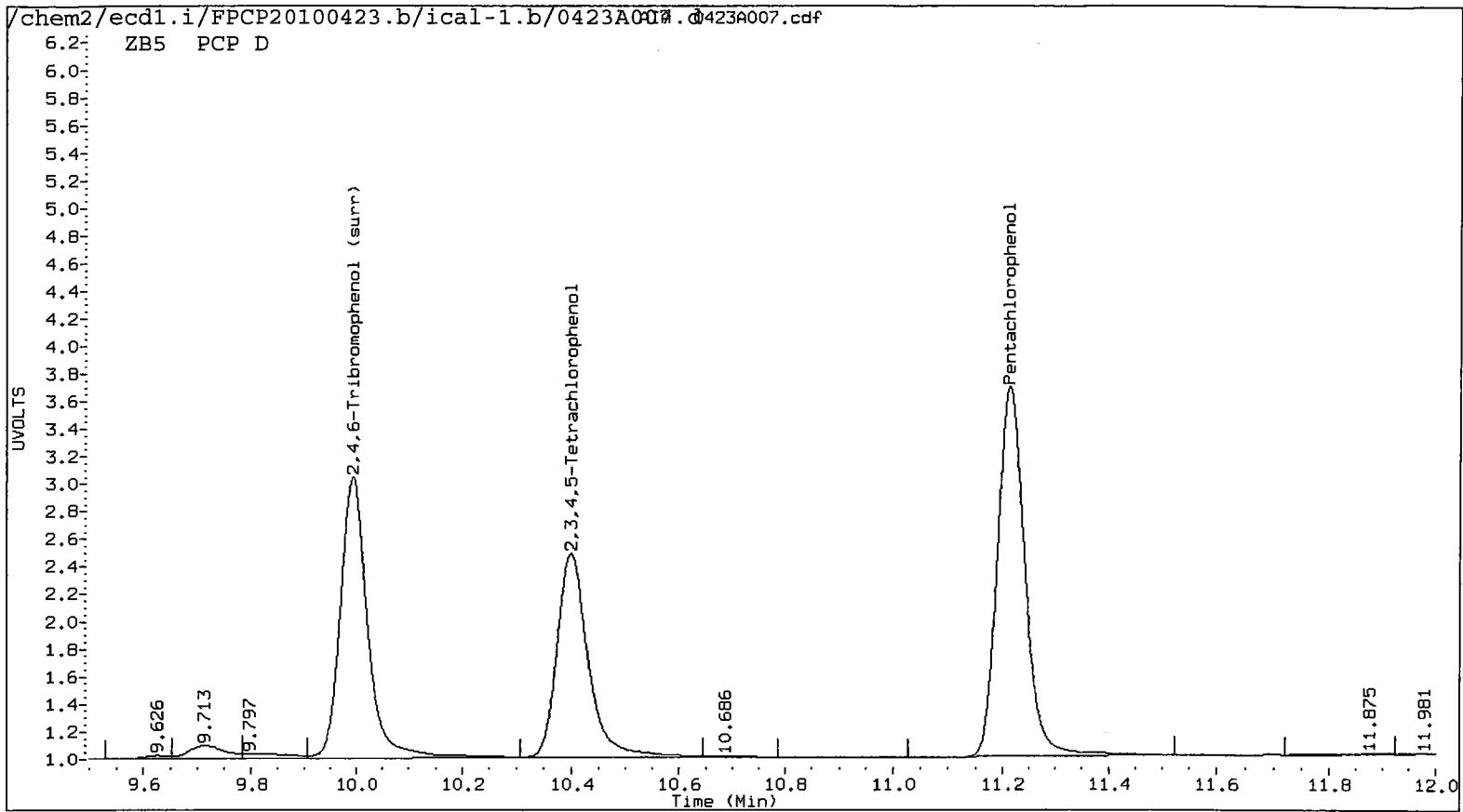
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A007.d ARI ID: PCP D
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A007.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 23-APR-2010 17:47
 Compound Sublist: all Report Date: 04/26/2010 11:34
 Instrument: ecd1.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

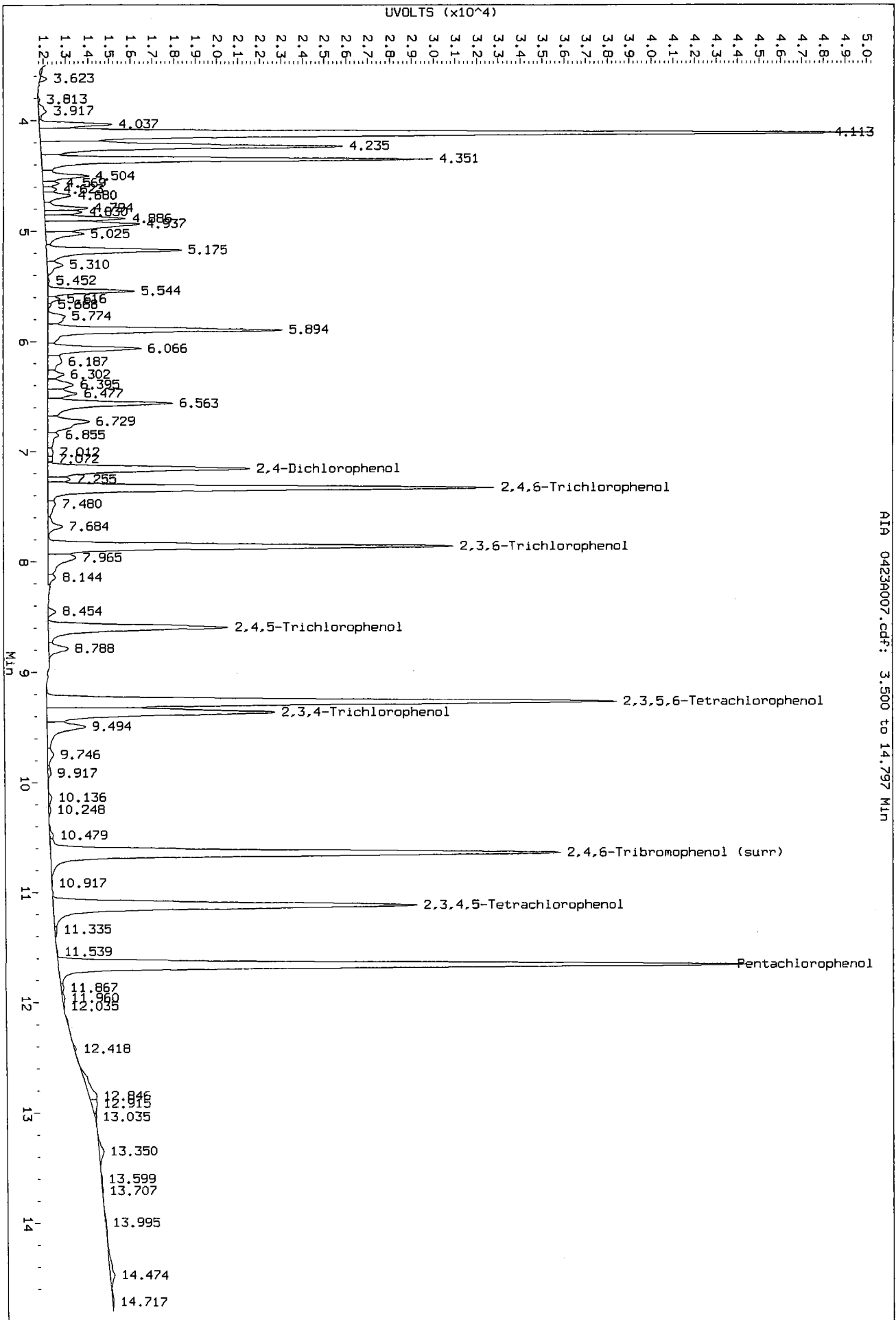
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.215	0.003	477841	11.654	0.002	541160	23.7862	24.5093	3.0	Pentachlorophenol
7.261	-0.001	256825	7.330	0.000	300311	28.9851	25.7413	11.9	2,4,6-Trichlorophenol
7.614	0.000	259004	7.859	0.001	286409	24.5633	24.3978	0.7	2,3,6-Trichlorophenol
8.220	0.008	141320	8.593	0.005	150267	24.1477	23.6611	2.0	2,4,5-Trichlorophenol
8.770	0.009	173771	9.359	0.006	203418	25.5781	23.8650	6.9	2,3,4-Trichlorophenol
8.996	0.003	402882	9.264	0.003	444456	24.0221	24.6760	2.7	2,3,5,6-Tetrachlorophenol
10.400	0.007	295836	11.113	0.004	342013	23.4218	24.8540	5.9	2,3,4,5-Tetrachlorophenol
6.886	0.001	134181	7.156	0.001	149232	246.4018	251.3595	2.0	2,4-Dichlorophenol
9.993	0.004	374689	10.635	0.003	447318	23.9	24.8	3.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	95.7	99.1

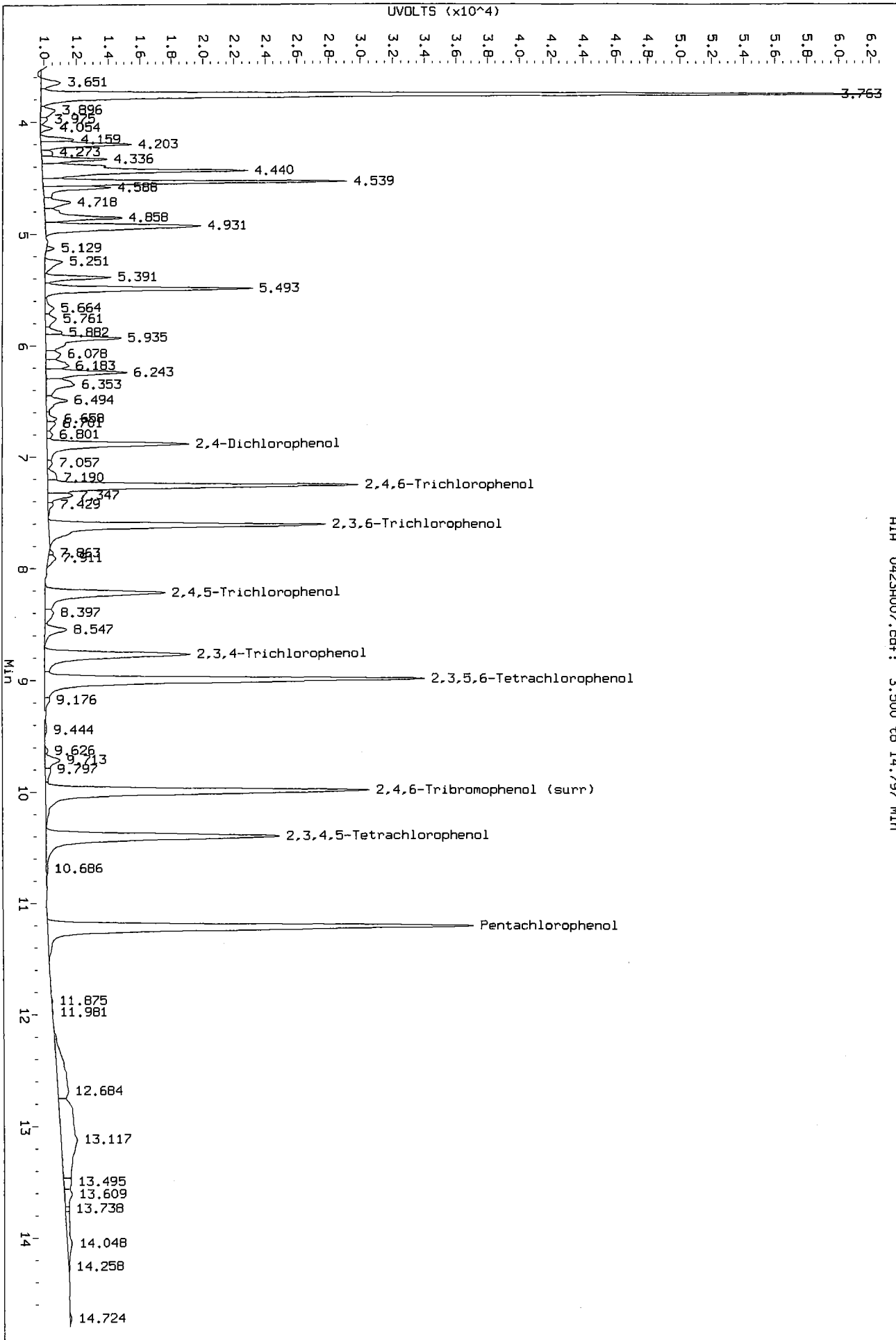


Data File: /chem2/ecdl1/PPCP20100423.b/1cal-2.b/0423R007.d/0423R007.cdf
 Injection Date: 23-APR-2010 17:47
 Instrument: ecdl1
 Client Sample ID:



AIR 0423R007.cdf: 3.500 to 14.797 MIN

Data File: /chem2/ecdl1/FPFP20100423.b/lcal-1.b/0423A007.d/0423A007.cdf
Injection Date: 23-APR-2010 17:47
Instrument: ecdl1
Client Sample ID:



RI# 0423A007.cdf: 3.500 to 14.797 MIN

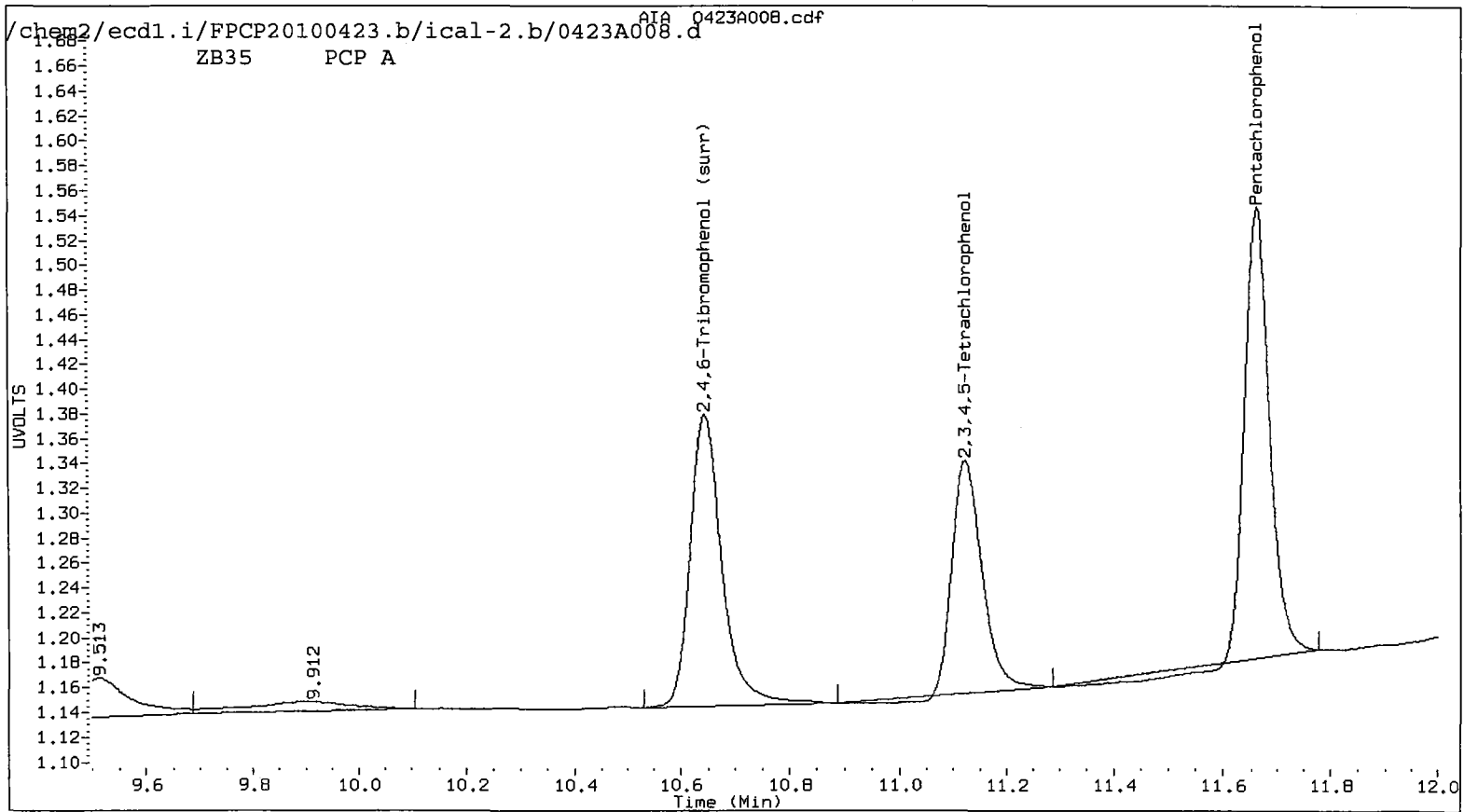
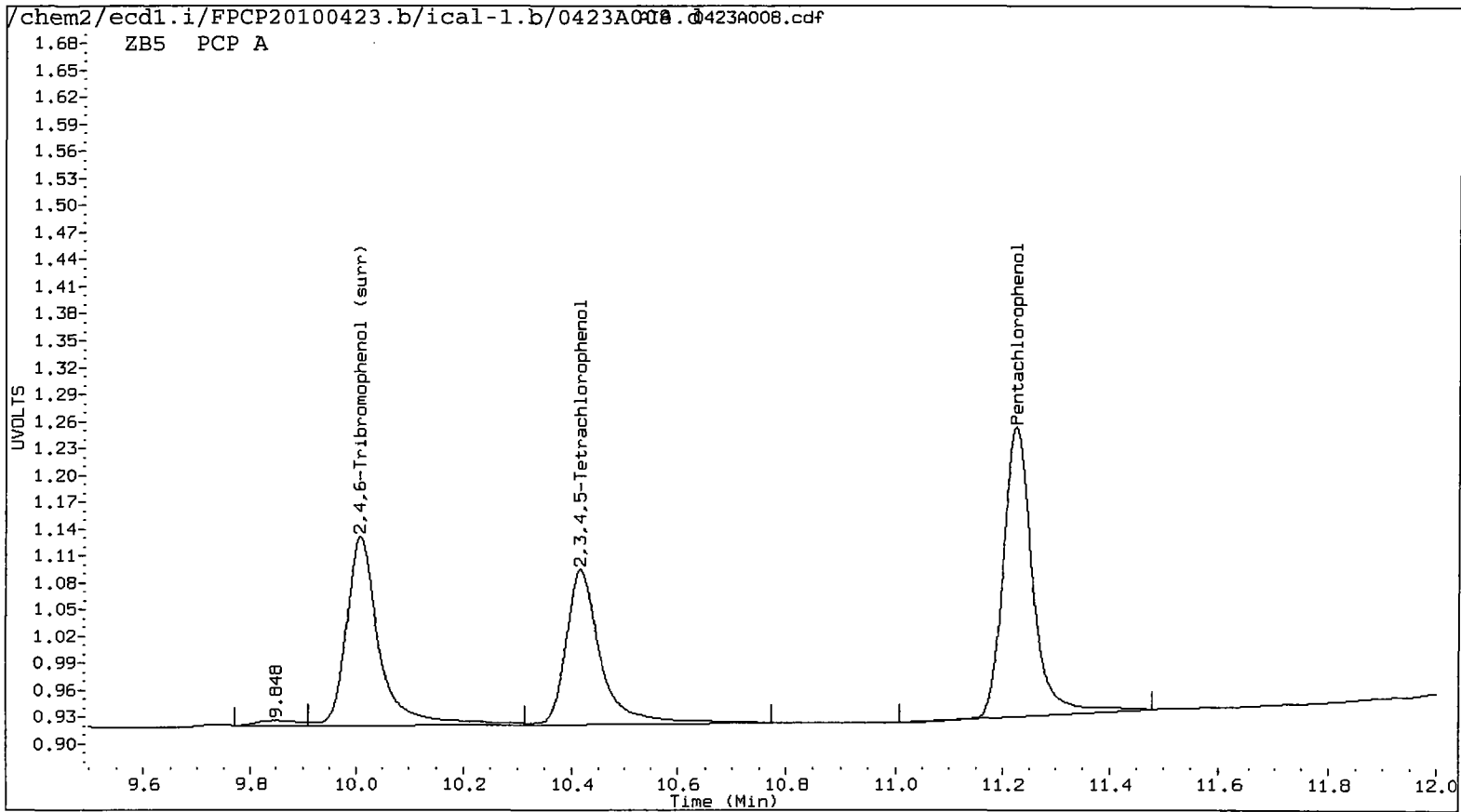
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A008.d ARI ID: PCP A
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A008.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 23-APR-2010 18:07
 Compound Sublist: all Report Date: 04/26/2010 11:34
 Instrument: ecdl.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

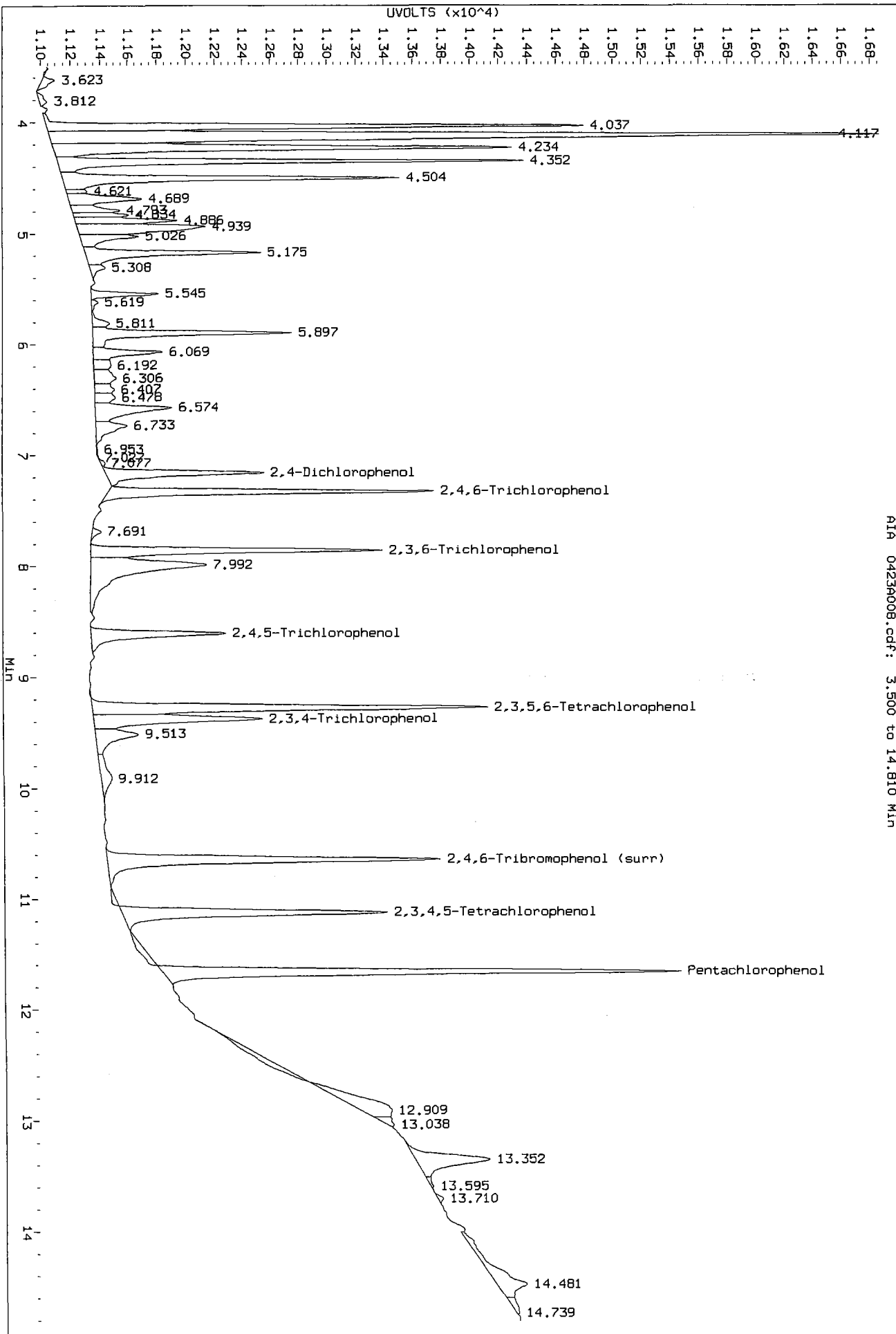
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.226	0.014	60839	11.660	0.009	57148	3.0285	2.5883	15.7	Pentachlorophenol
7.263	0.001	37896	7.331	0.001	32325	4.2769	2.7708	42.7*	2,4,6-Trichlorophenol
7.620	0.006	29708	7.861	0.003	32240	2.8174	2.7464	2.6	2,3,6-Trichlorophenol
8.245	0.033	17401	8.608	0.020	18688	2.9734	2.9426	1.0	2,4,5-Trichlorophenol
8.795	0.034	18239	9.374	0.020	25137	2.6847	2.9491	9.4	2,3,4-Trichlorophenol
9.012	0.018	51596	9.273	0.012	48887	3.0764	2.7142	12.5	2,3,5,6-Tetrachlorophenol
10.417	0.024	39062	11.123	0.015	35888	3.0926	2.6080	17.0	2,3,4,5-Tetrachlorophenol
6.893	0.008	16383	7.161	0.006	18646	30.0847	31.4065	4.3	2,4-Dichlorophenol
10.008	0.019	45341	10.644	0.012	47741	2.9	2.6	9.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	11.6	10.6

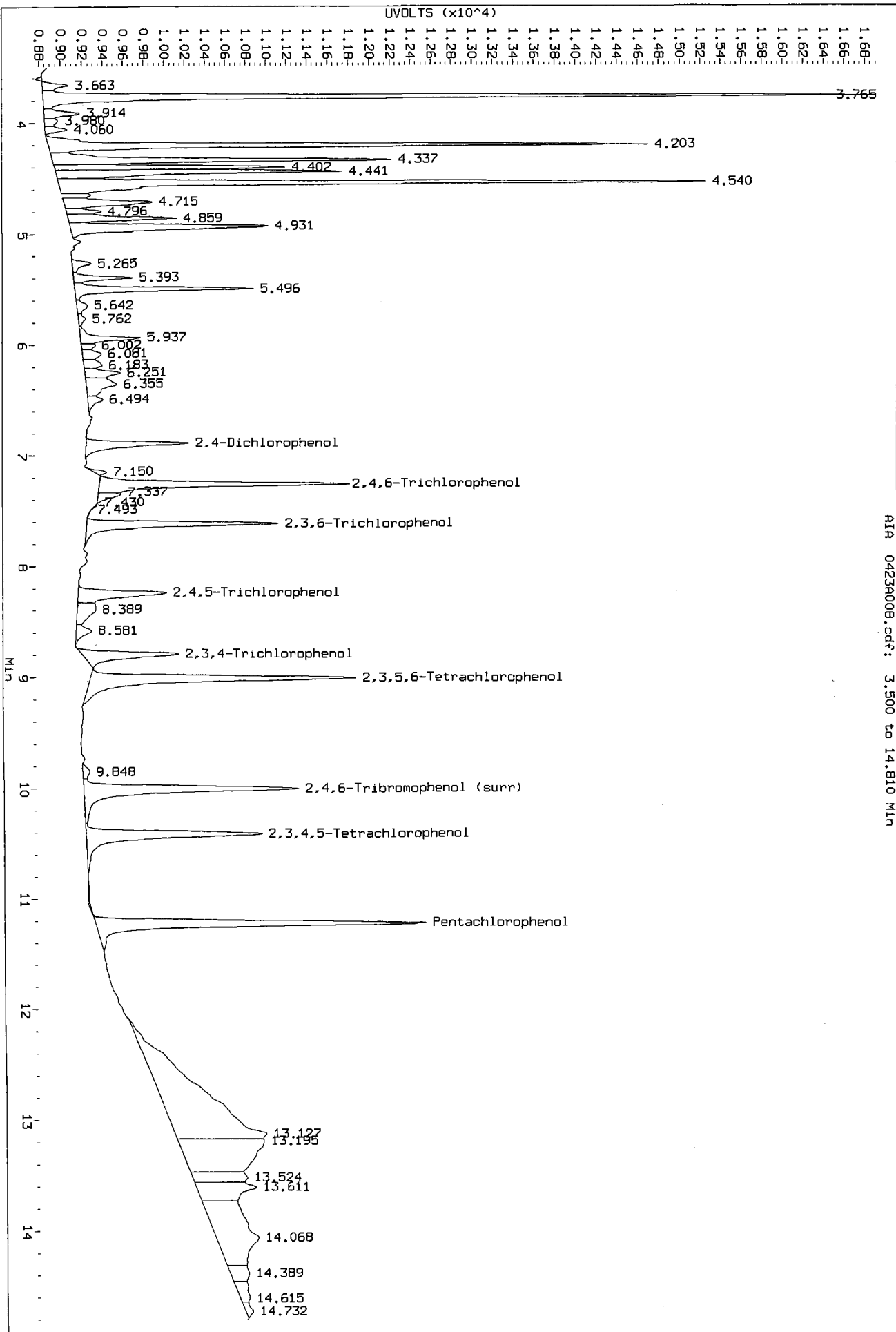


Data File: /chem2/eccl1.1/PCP20100423.b/ical-2.b/04239008.d/04239008.cdf
Injection Date: 23-APR-2010 18:07
Instrument: eccl1.1
Client Sample ID:



RI# 04239008.cdf: 3.500 to 14.810 MIN

Data File: /chem2/eccl1.1/FPQP20100423.b/1cal-1.b/0423A008.D/0423A008.cdf
Injection Date: 23-APR-2010 18:07
Instrument: eccl1.1
Client Sample ID:



AIA 0423A008.cdf: 3.500 to 14.810 MIN

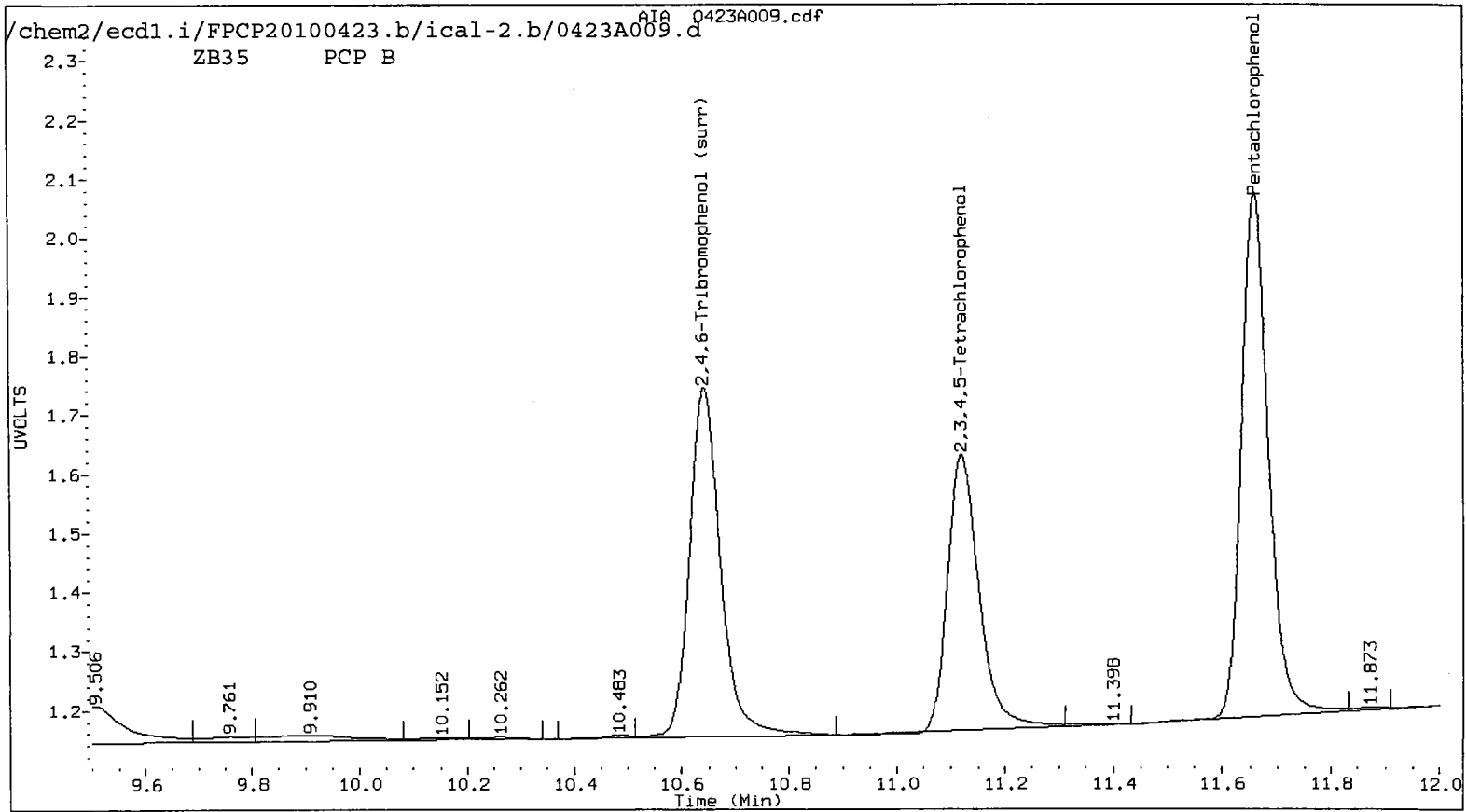
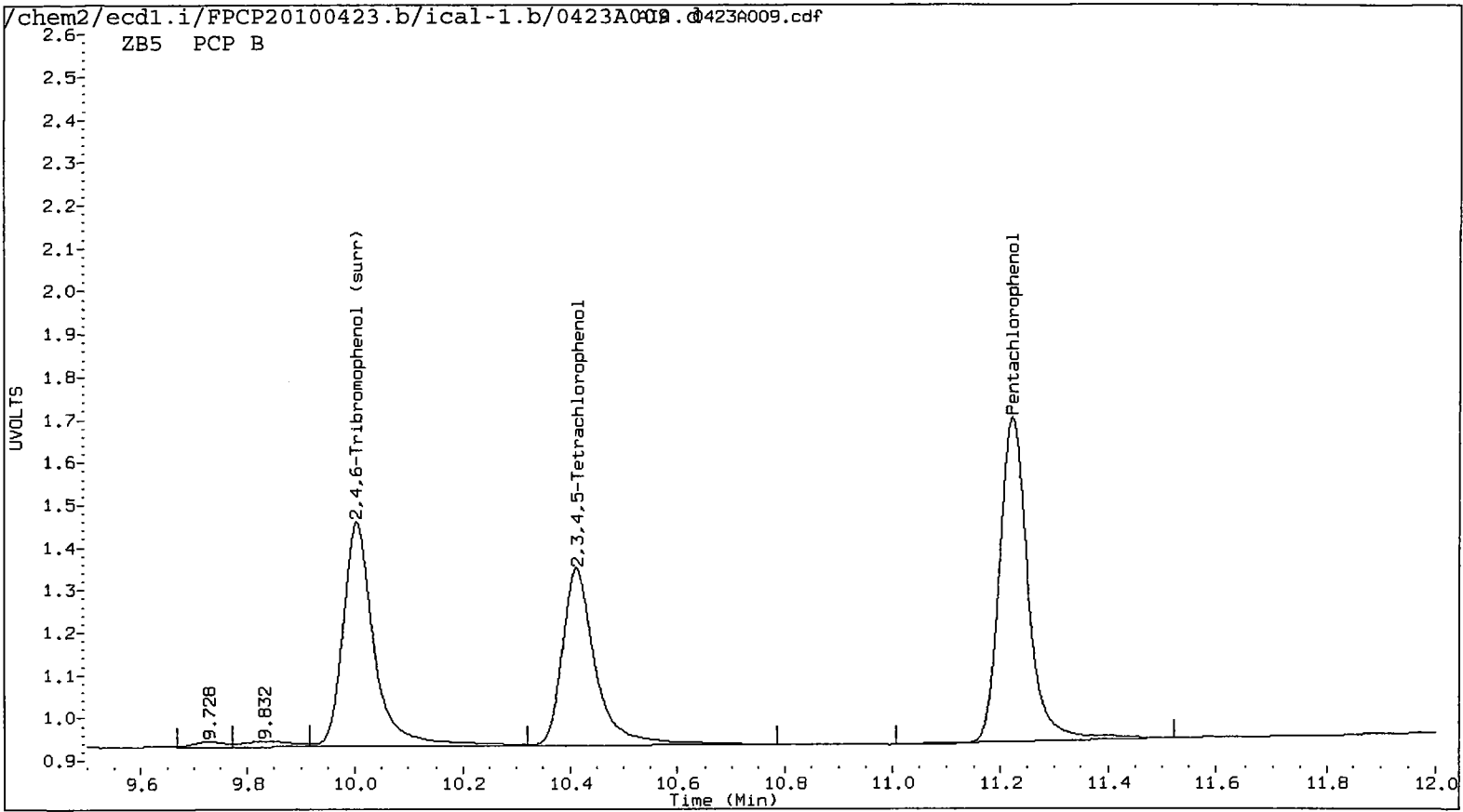
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A009.d ARI ID: PCP B
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A009.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 23-APR-2010 18:27
 Compound Sublist: all Report Date: 04/26/2010 11:34
 Instrument: ecd1.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

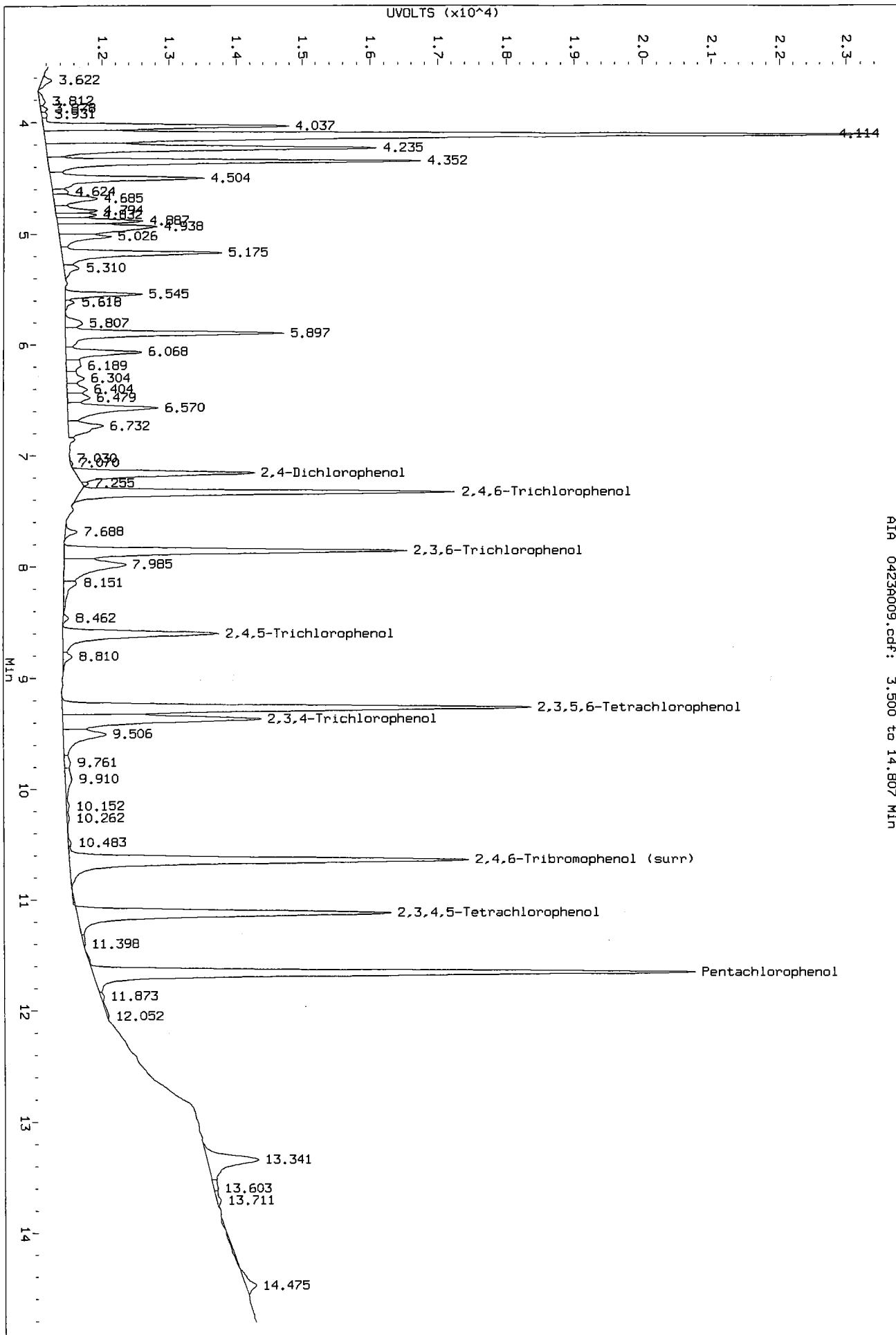
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.223	0.011	140782	11.659	0.007	153155	7.0079	6.9364	1.0	Pentachlorophenol
7.263	0.001	75961	7.331	0.001	76613	8.5729	6.5669	26.5	2,4,6-Trichlorophenol
7.619	0.005	71191	7.861	0.003	78877	6.7516	6.7191	0.5	2,3,6-Trichlorophenol
8.237	0.025	40819	8.602	0.015	45742	6.9748	7.2025	3.2	2,4,5-Trichlorophenol
8.786	0.026	46107	9.369	0.015	60580	6.7867	7.1072	4.6	2,3,4-Trichlorophenol
9.007	0.013	112656	9.269	0.008	120122	6.7172	6.6691	0.7	2,3,5,6-Tetrachlorophenol
10.412	0.019	90338	11.120	0.011	93655	7.1522	6.8059	5.0	2,3,4,5-Tetrachlorophenol
6.891	0.006	38301	7.159	0.005	41248	70.3336	69.4762	1.2	2,4-Dichlorophenol
10.003	0.014	106500	10.641	0.009	117414	6.8	6.5	4.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	27.2	26.0

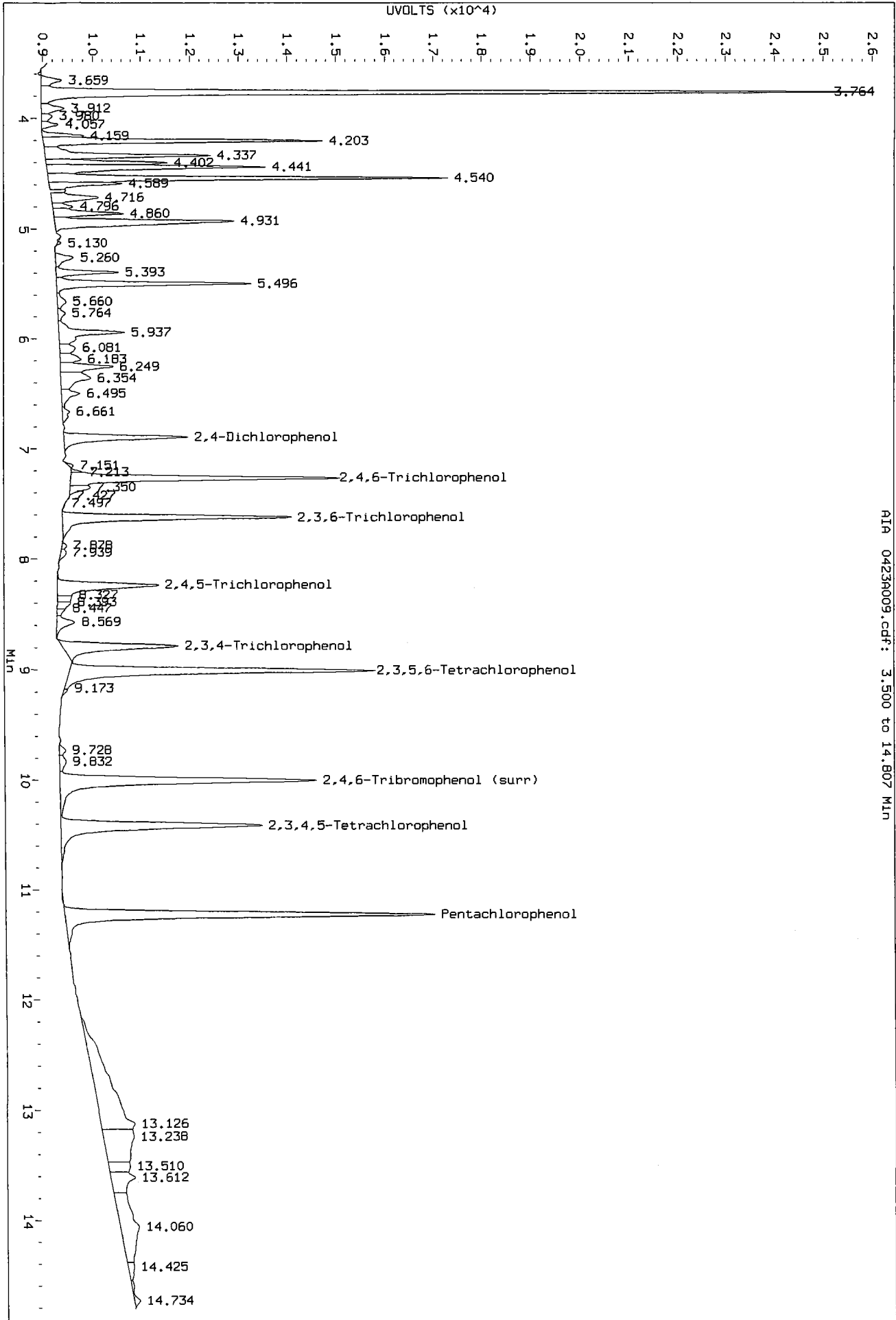


Data File: /chem2/ecdl1/PCP20100423_b/1cal-2.b/0423A009.d/0423A009.cdf
Injection Date: 23-APR-2010 18:27
Instrument: ecdl1
Client Sample ID:



RI# 0423A009.cdf: 3.500 to 14.807 MIN

Data File: /chem2/ecdl.1/FPCP20100423.b/1cal-1.b/0423R009.D/0423R009.cdf
 Injection Date: 23-APR-2010 18:27
 Instrument: ecdl.1
 Client Sample ID:



AIR 0423R009.cdf: 3.500 to 14.807 MIN

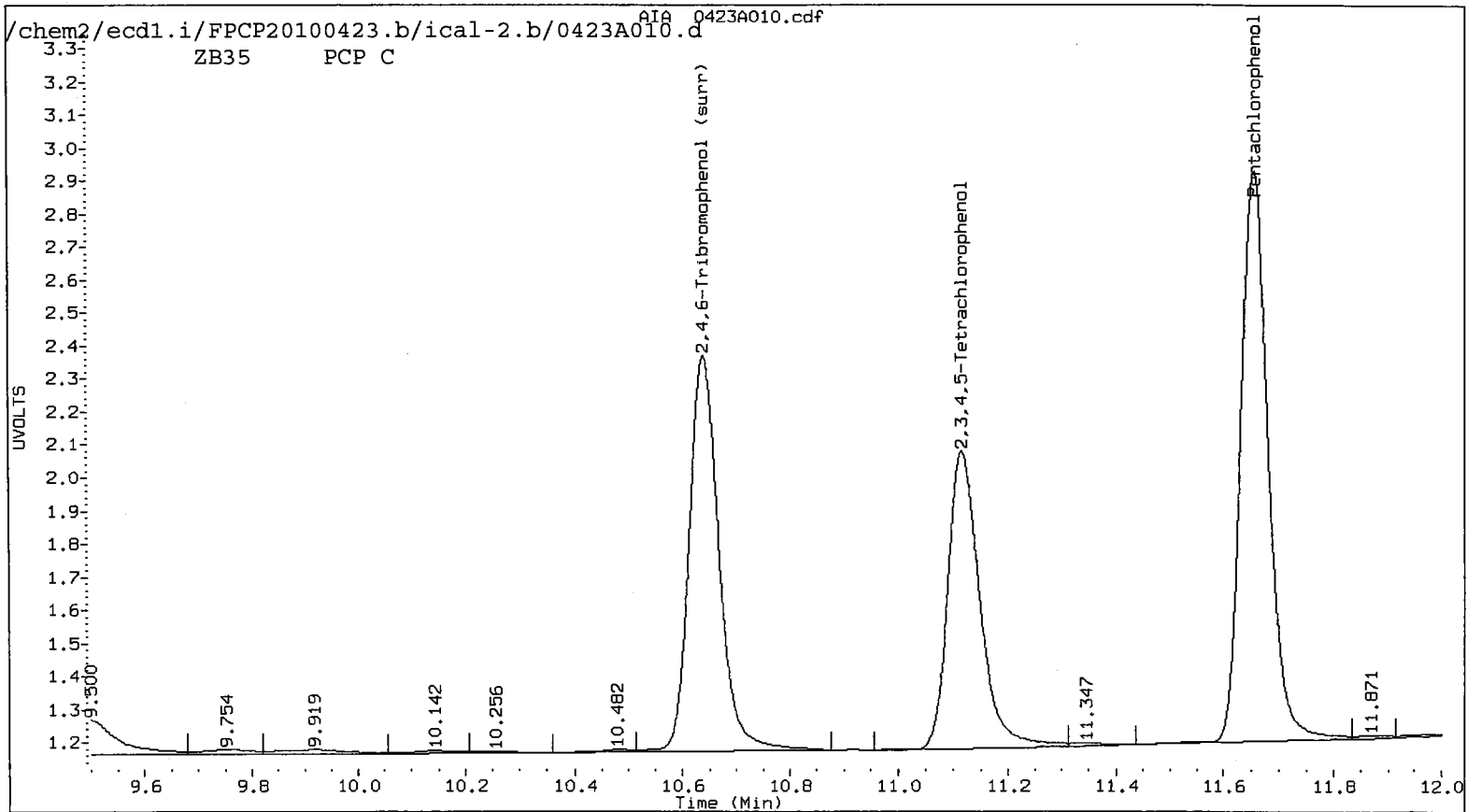
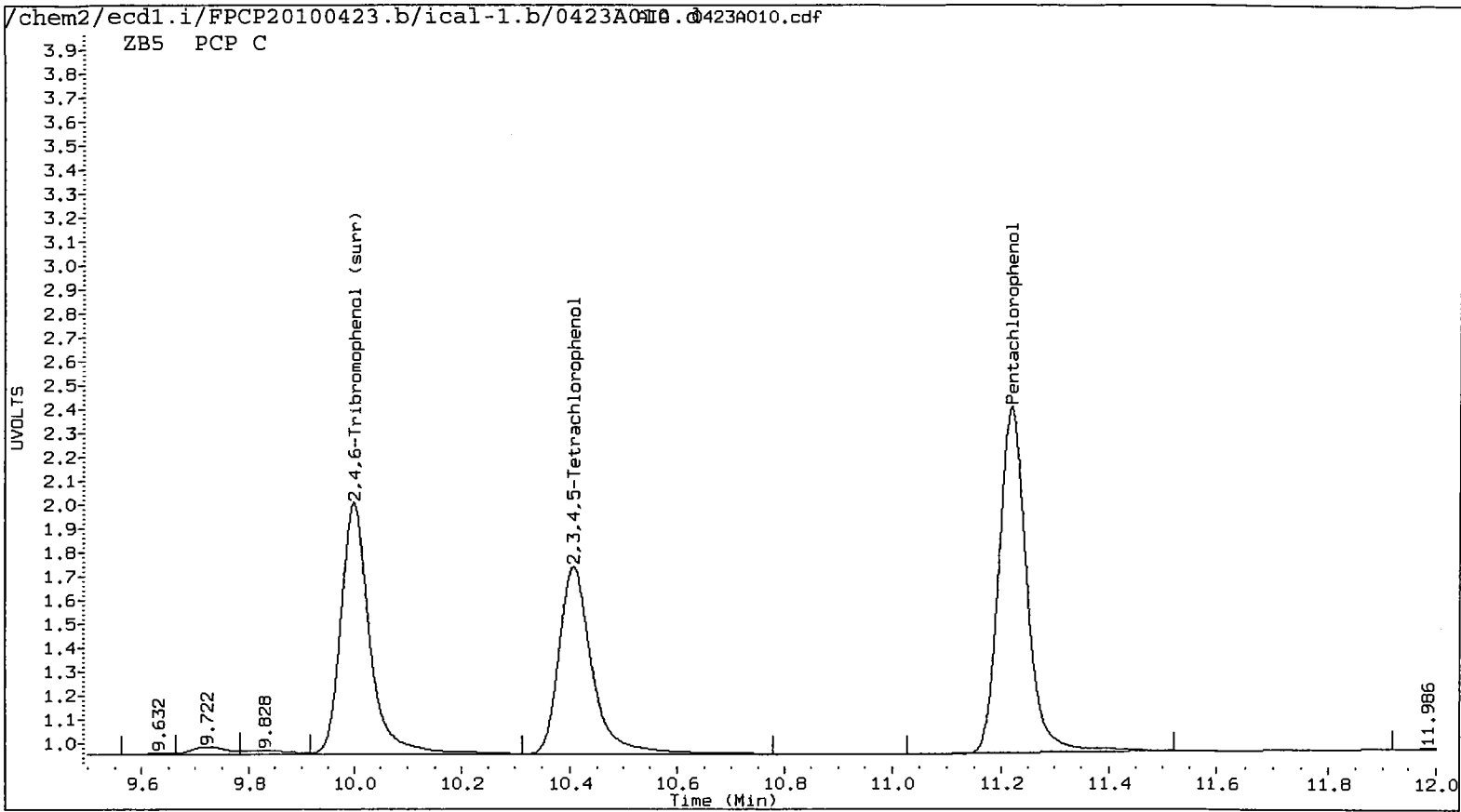
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A010.d ARI ID: PCP C
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A010.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 23-APR-2010 18:47
 Compound Sublist: all Report Date: 04/26/2010 11:34
 Instrument: ecdl.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

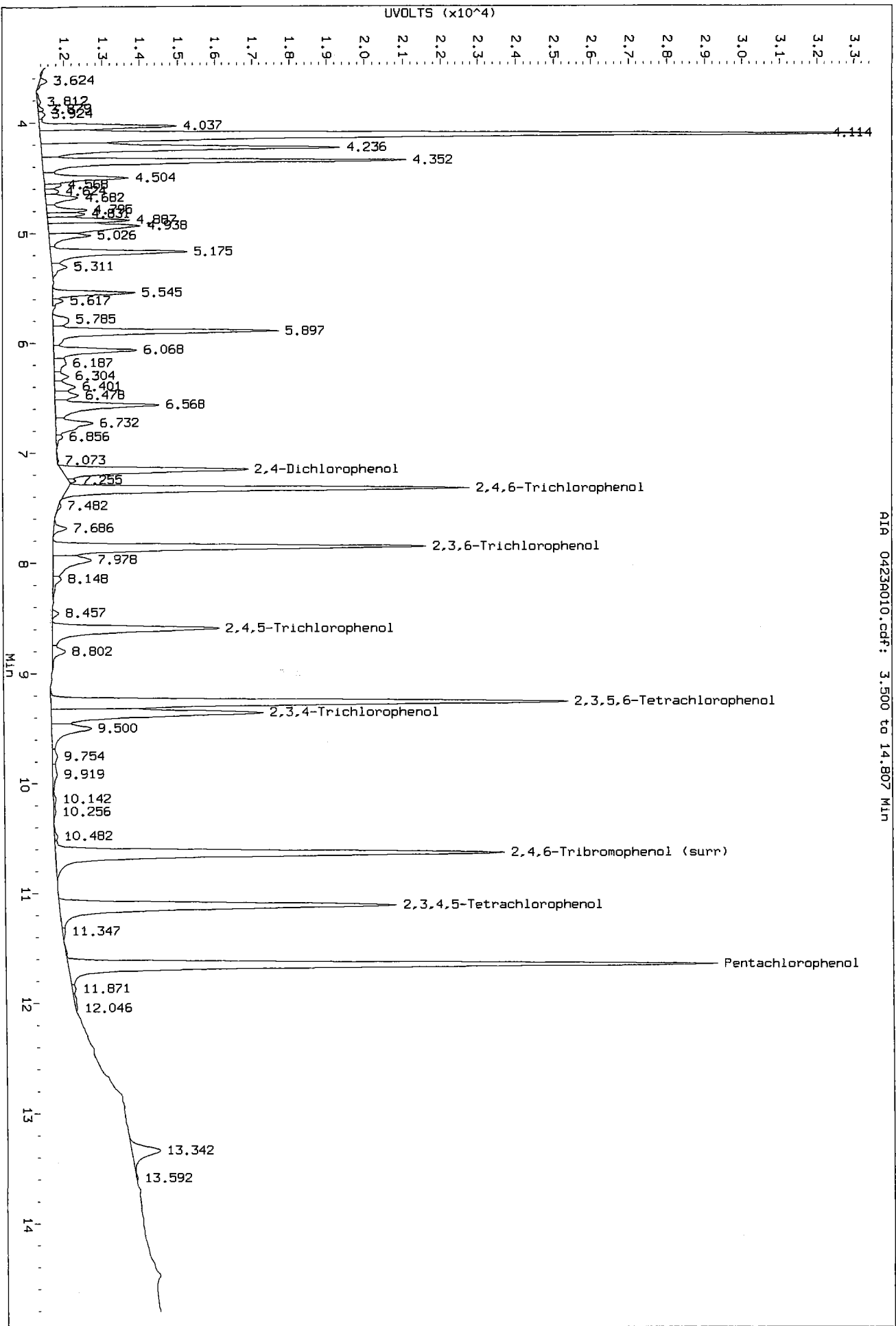
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.220	0.007	262719	11.656	0.005	295710	13.0778	13.3928	2.4	Pentachlorophenol
7.263	0.001	135694	7.331	0.001	147107	15.3144	12.6093	19.4	2,4,6-Trichlorophenol
7.617	0.003	136831	7.860	0.002	151886	12.9767	12.9384	0.3	2,3,6-Trichlorophenol
8.229	0.017	80861	8.598	0.011	84737	13.8169	13.3427	3.5	2,4,5-Trichlorophenol
8.779	0.018	88423	9.365	0.011	112775	13.0153	13.2308	1.6	2,3,4-Trichlorophenol
9.003	0.010	211677	9.268	0.007	234591	12.6214	13.0244	3.1	2,3,5,6-Tetrachlorophenol
10.407	0.014	166596	11.117	0.009	183674	13.1897	13.3475	1.2	2,3,4,5-Tetrachlorophenol
6.889	0.004	72441	7.159	0.004	75612	133.0262	127.3574	4.4	2,4-Dichlorophenol
9.998	0.009	201434	10.639	0.007	230939	12.9	12.8	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	51.5	51.2

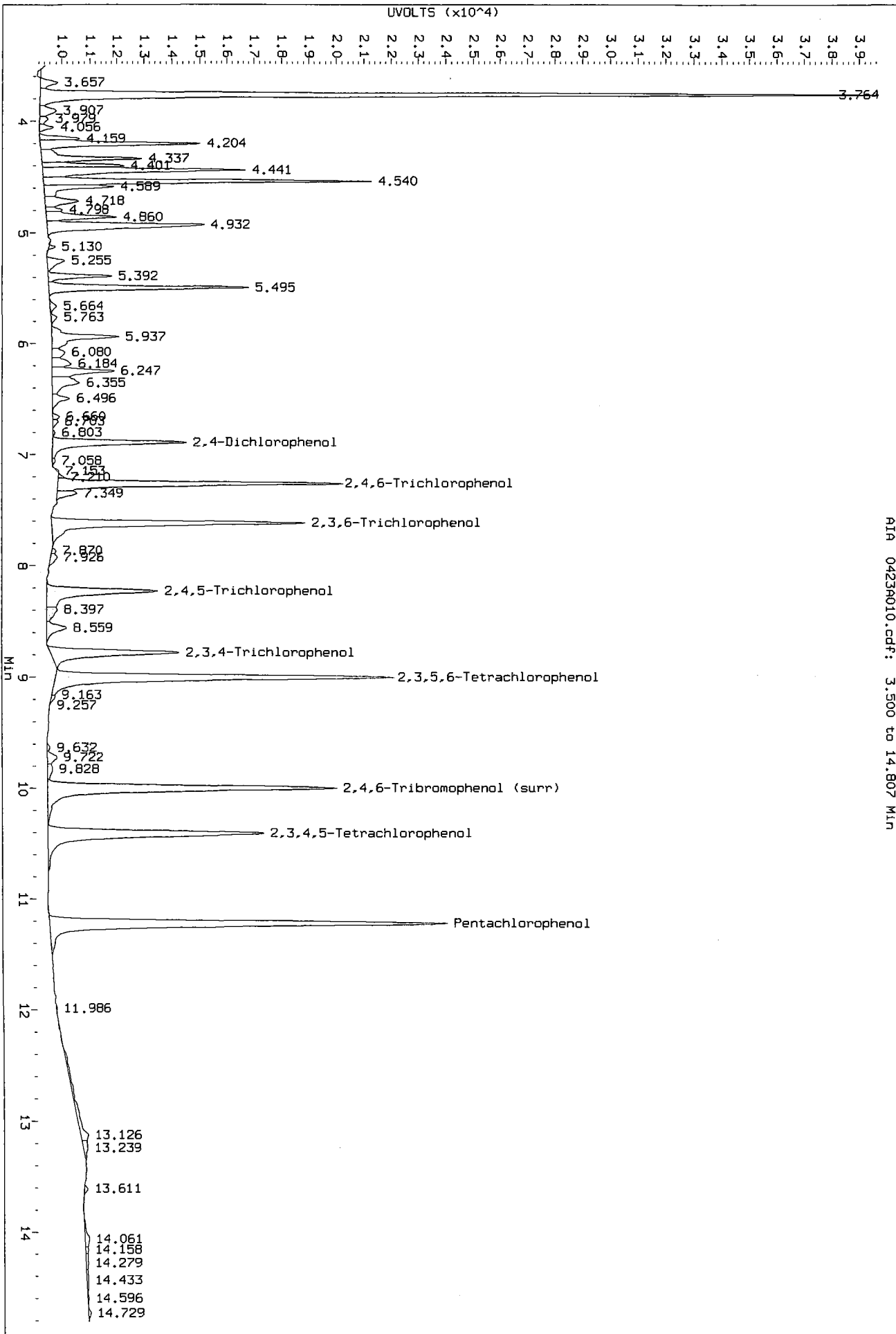


Data File: /chem2/ecdl.1/FPQP20100423.b/1cal-2.b/0423A010.d/0423A010.cdf
Injection Date: 23-APR-2010 18:47
Instrument: ecdl.1
Client Sample ID:



AIA 0423A010.cdf: 3.500 to 14.807 Min

Data File: /chem2/ecdl.1/PPCP20100423.b/1cal-1.b/0423a010.d/0423a010.cdf
Injection Date: 23-APR-2010 18:47
Instrument: ecdl.1
Client Sample ID:



RI# 0423a010.cdf: 3.500 to 14.807 Min

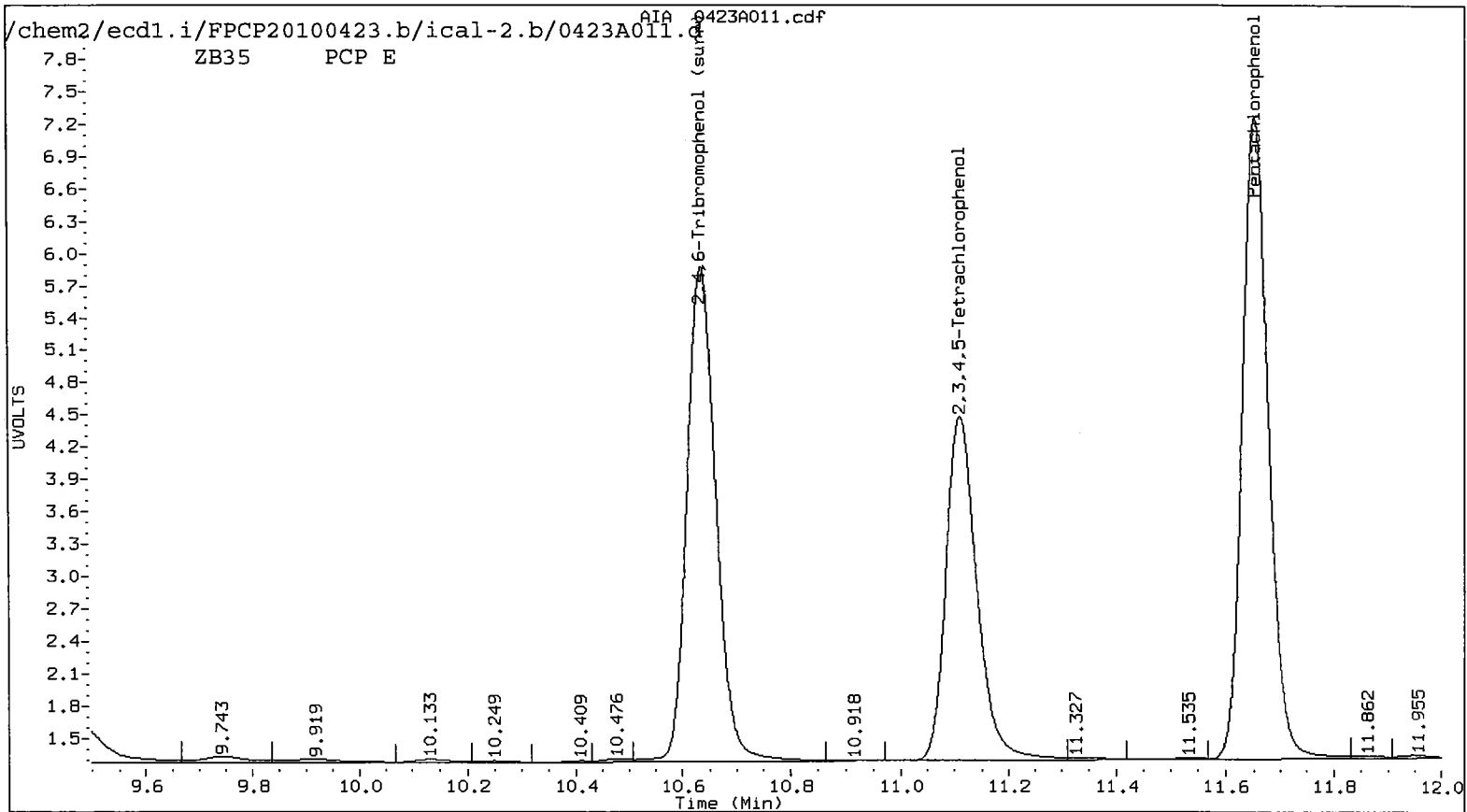
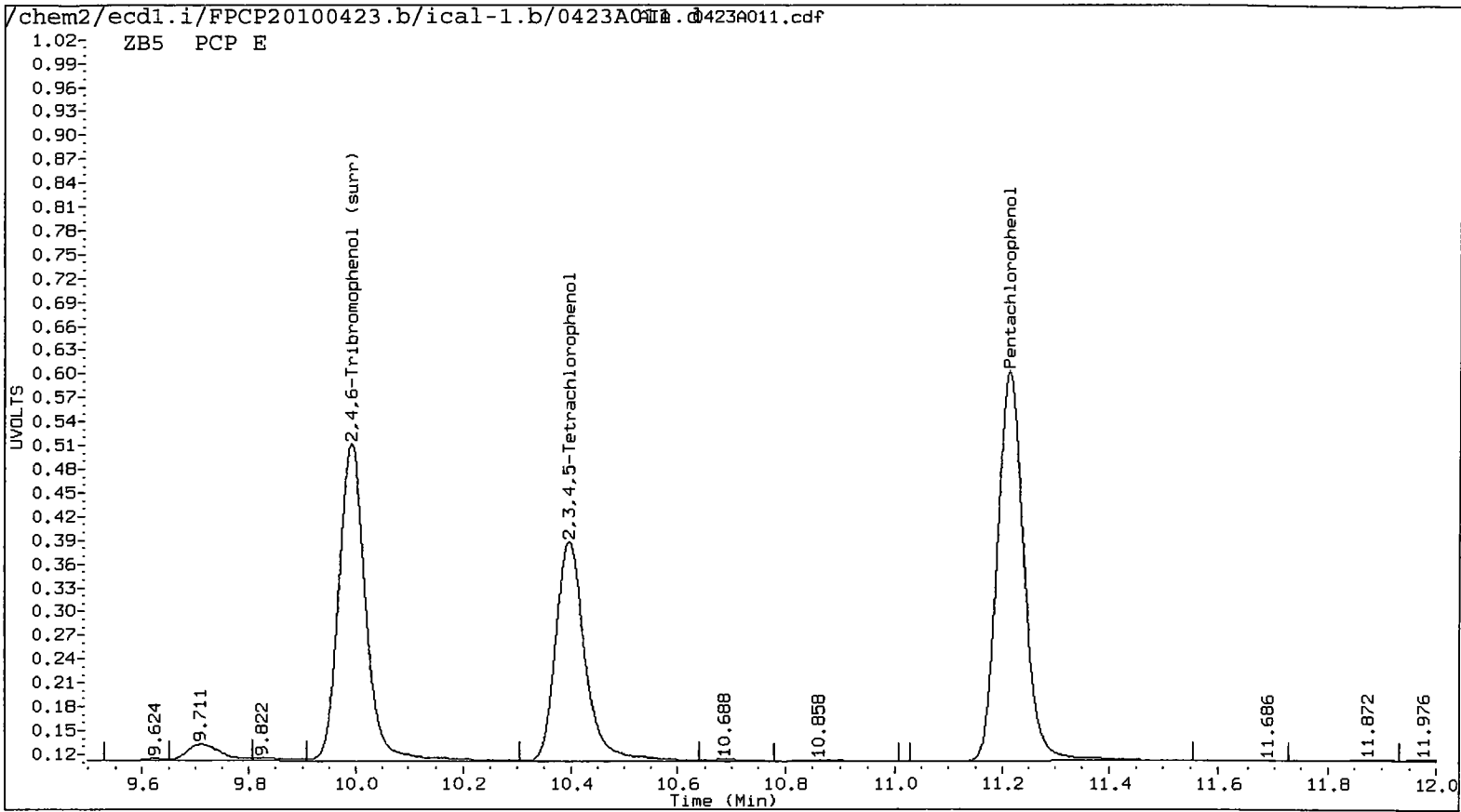
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A011.d ARI ID: PCP E
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A011.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 23-APR-2010 19:07
 Compound Sublist: all Report Date: 04/26/2010 11:34
 Instrument: ecdl.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

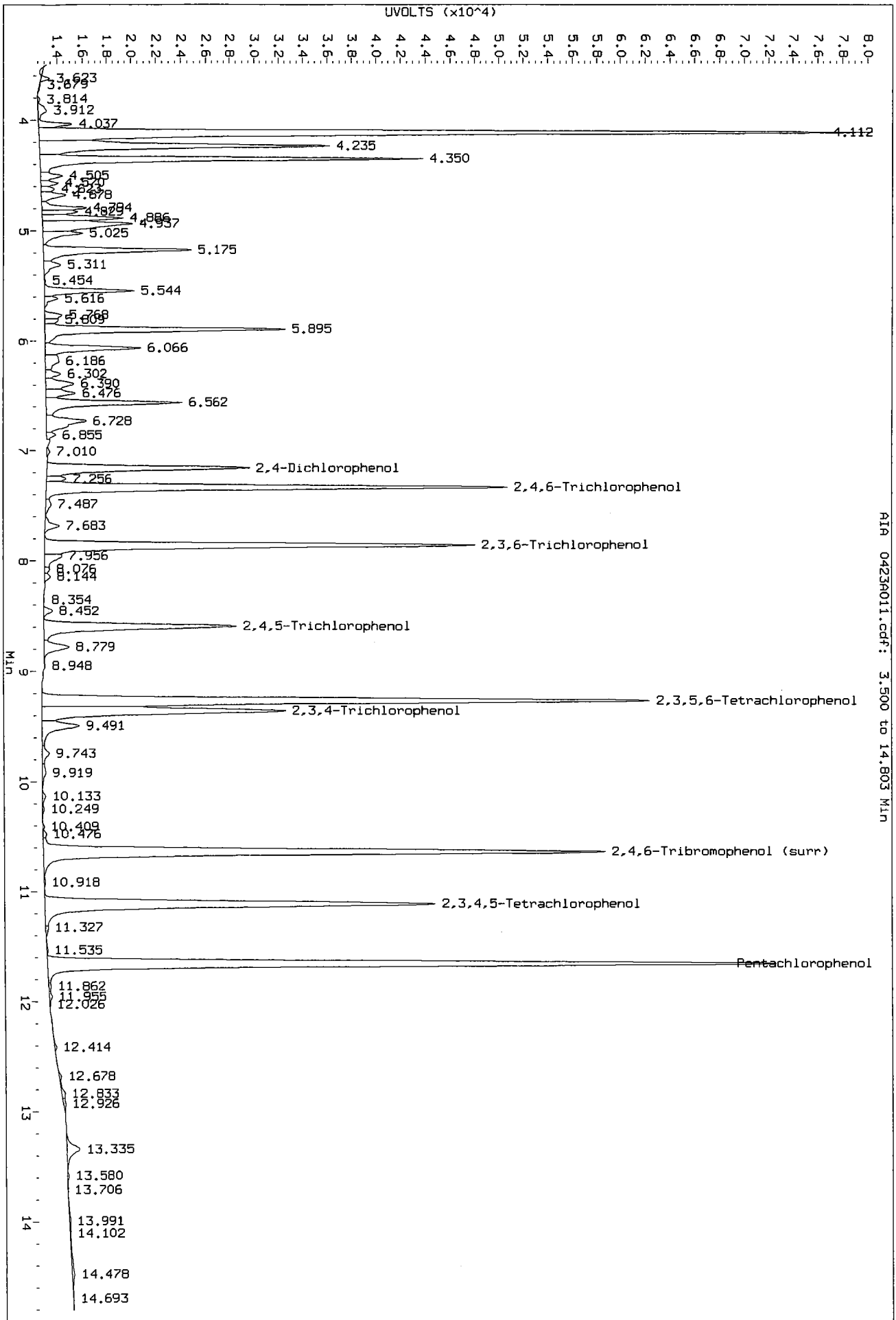
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.214	0.002	863778	11.652	0.001	1008637	42.9976	45.6815	6.1	Pentachlorophenol
7.262	0.000	457316	7.330	0.000	538305	51.6124	46.1410	11.2	2,4,6-Trichlorophenol
7.615	0.001	477528	7.858	0.000	532990	45.2876	45.4028	0.3	2,3,6-Trichlorophenol
8.216	0.004	247110	8.590	0.002	271166	42.2243	42.6978	1.1	2,4,5-Trichlorophenol
8.764	0.004	313900	9.356	0.002	366569	46.2042	43.0059	7.2	2,3,4-Trichlorophenol
8.996	0.002	746162	9.262	0.001	831208	44.4904	46.1484	3.7	2,3,5,6-Tetrachlorophenol
10.396	0.003	530641	11.111	0.002	631645	42.0117	45.9014	8.8	2,3,4,5-Tetrachlorophenol
6.886	0.001	232793	7.155	0.000	249494	427.4868	420.2362	1.7	2,4-Dichlorophenol
9.991	0.002	703036	10.634	0.002	851984	44.9	47.2	5.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	179.6	188.8

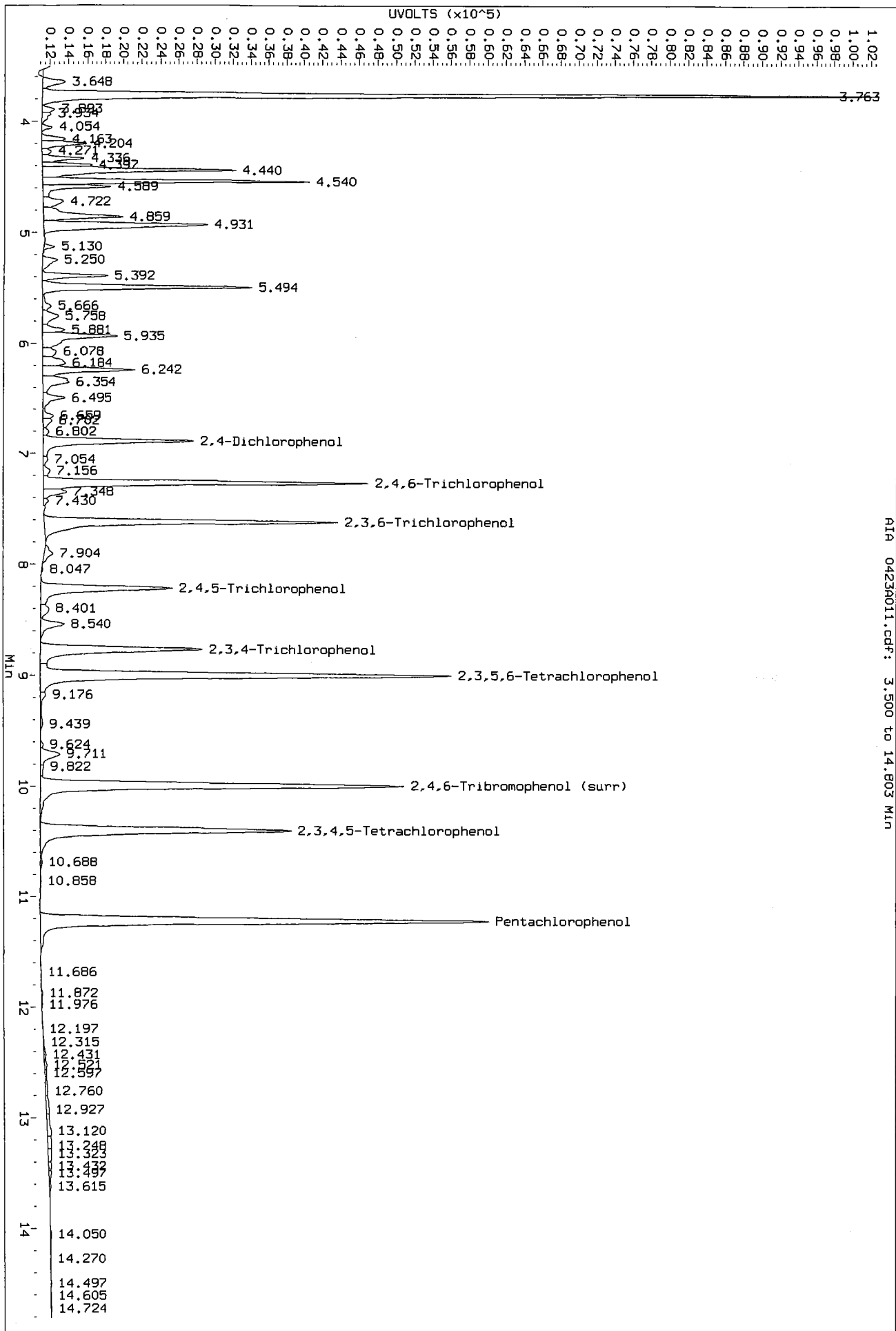


Data File: /chem2/ecdl.1/PPCP20100423.b/1ca1-2.b/0423a011.d/0423a011.cdf
 Injection Date: 23-APR-2010 19:07
 Instrument: ecdl.1
 Client Sample ID:



AIR 0423a011.cdf: 3.500 to 14.803 MIN

Data File: /chem2/ecdl.1/FPDP20100423.b/lcal-1.b/0423A011.d/0423A011.cdf
Injection Date: 23-APR-2010 19:07
Instrument: ecdl.1
Client Sample ID:



RI# 0423A011.cdf: 3.500 to 14.803 MIN

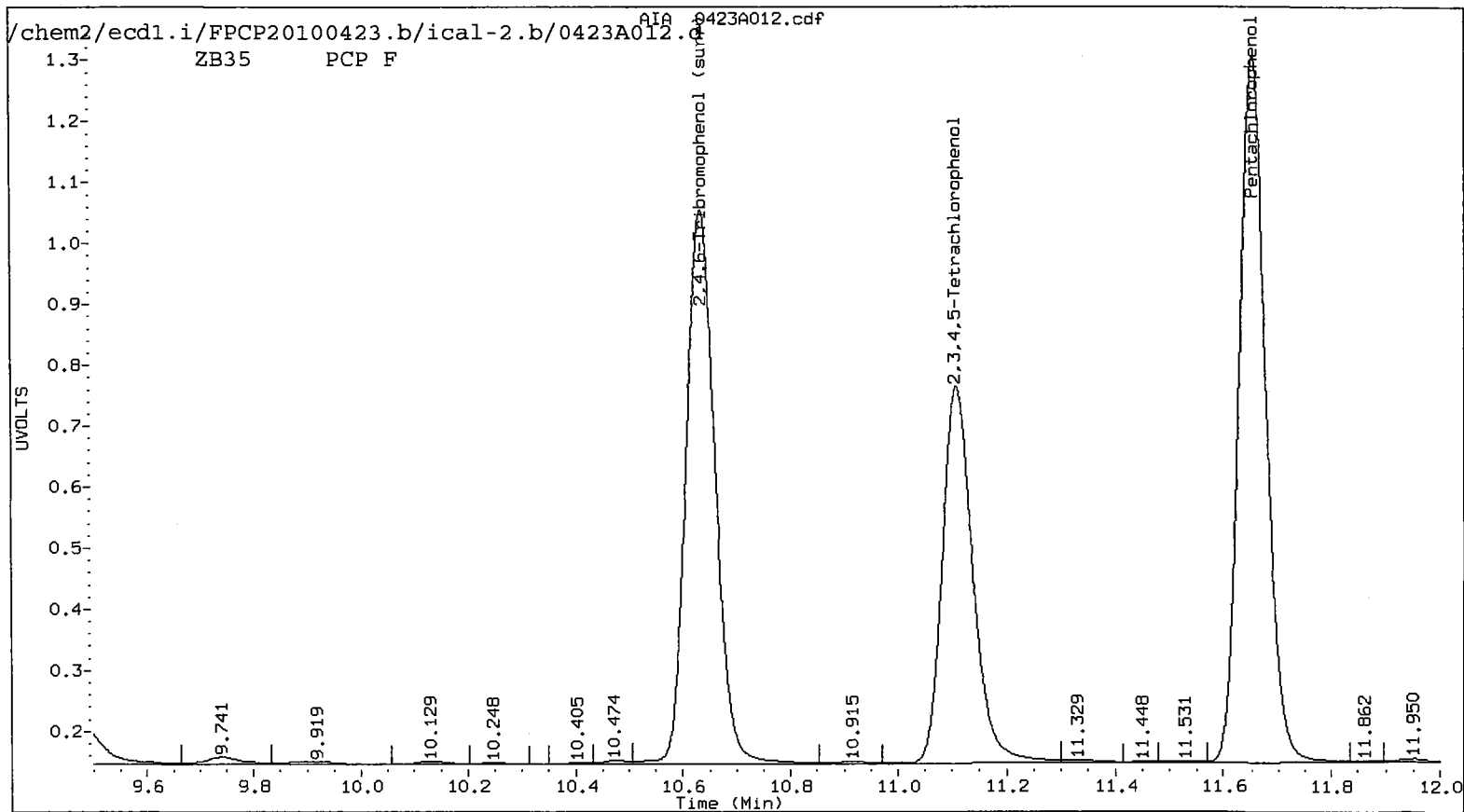
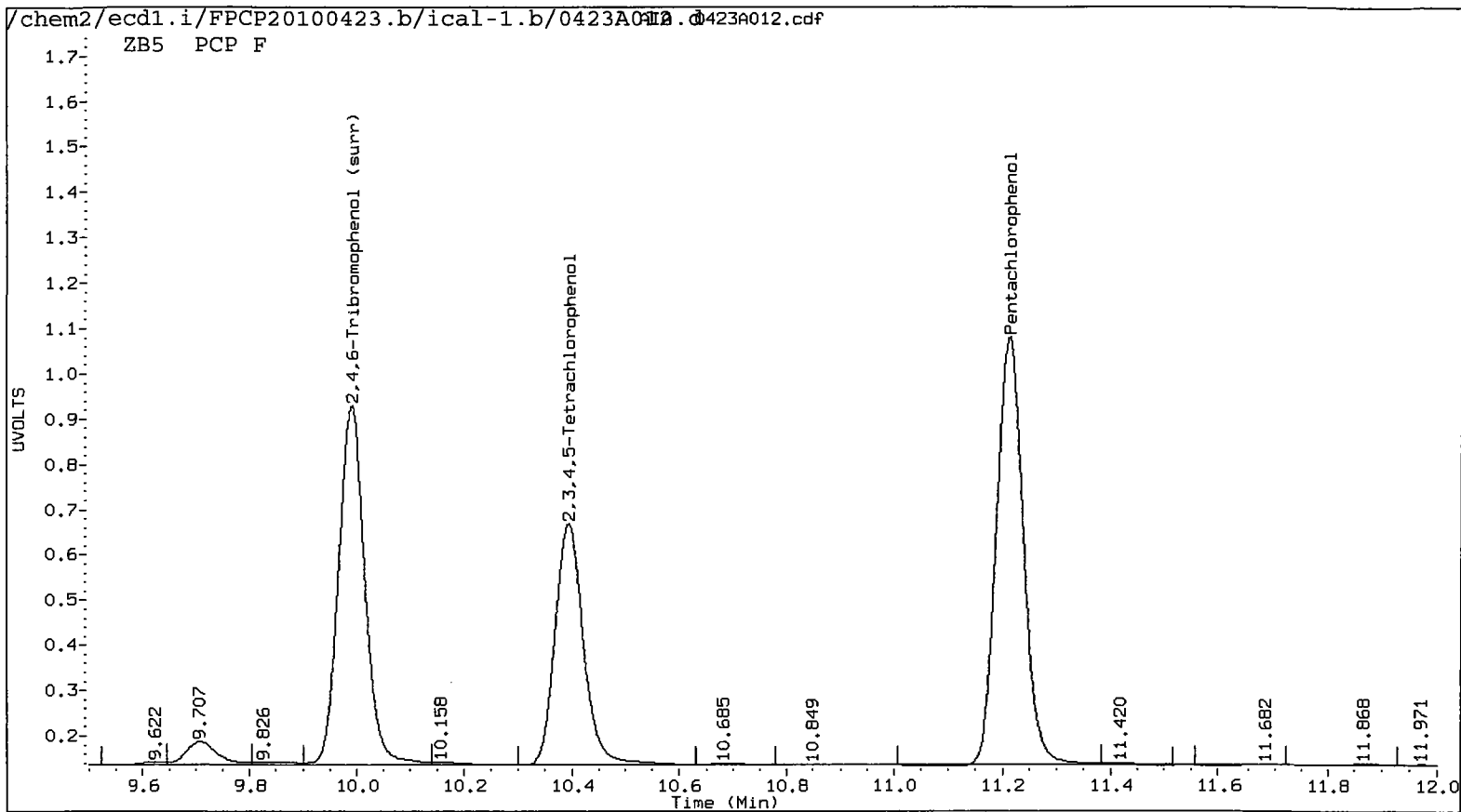
Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A012.d ARI ID: PCP F
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A012.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 23-APR-2010 19:27
 Compound Sublist: all Report Date: 04/26/2010 11:34
 Instrument: ecdl.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

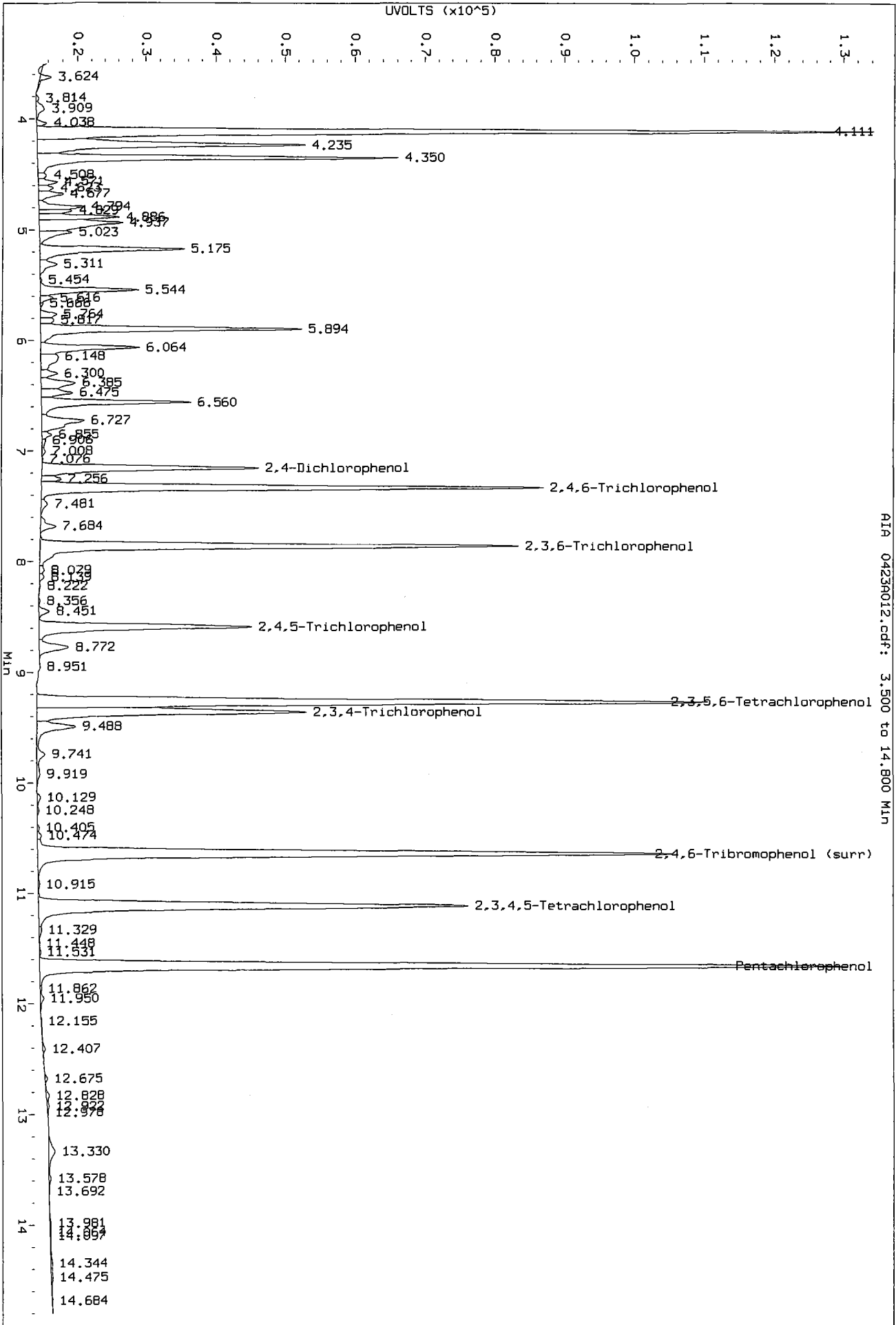
RT	ZB-5 Col		RT	ZB35 Col		ZB-5 on col	ZB35 on col	RPD	Compound
	Shift	Response		Shift	Response				
11.212	0.000	1626651	11.651	0.000	1963867	80.9723	88.9442	9.4	Pentachlorophenol
7.262	0.000	861512	7.330	0.000	1026389	97.2298	87.9774	10.0	2,4,6-Trichlorophenol
7.614	0.000	913504	7.858	0.000	1065147	86.6346	90.7347	4.6	2,3,6-Trichlorophenol
8.212	0.000	455857	8.588	0.000	509802	77.8934	80.2735	3.0	2,4,5-Trichlorophenol
8.761	0.000	578711	9.353	0.000	690448	85.1828	81.0034	5.0	2,3,4-Trichlorophenol
8.993	0.000	1399174	9.261	0.000	1612585	83.4267	89.5302	7.1	2,3,5,6-Tetrachloropheno
10.393	0.000	993197	11.108	0.000	1221806	78.6330	88.7882	12.1	2,3,4,5-Tetrachlorophenol
6.885	0.000	417397	7.155	0.000	455577	766.4823	767.3528	0.1	2,4-Dichlorophenol
9.989	0.000	1360624	10.632	0.000	1698950	86.9	94.1	8.0	2,4,6-Tribromophenol (sur

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	347.6	376.6

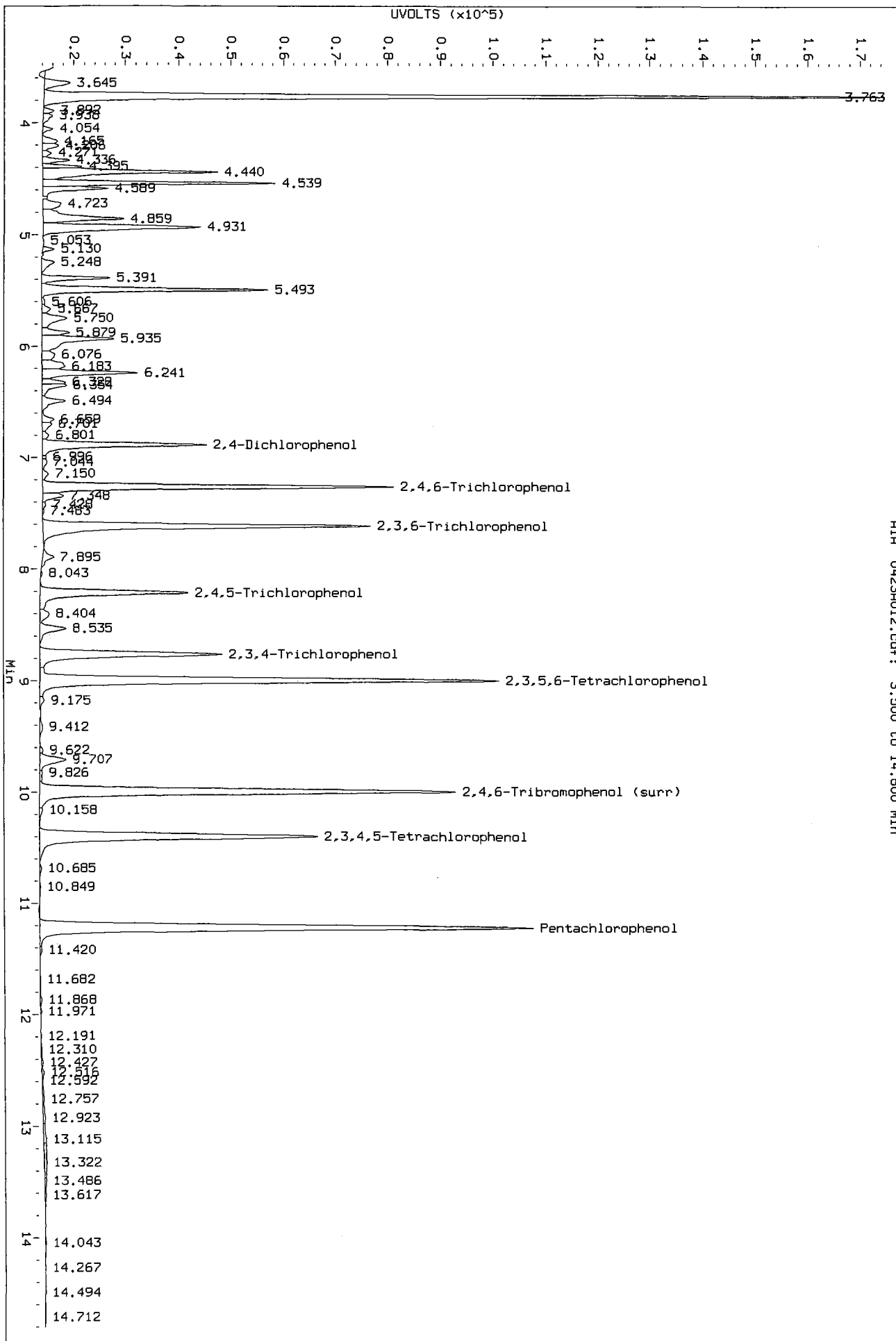


Data File: /chem2/ecdl1/PPCP20100423.b/1cal-2.b/0423R012.d/0423R012.cdf
 Injection Date: 23-APR-2010 19:27
 Instrument: ecdl1
 Client Sample ID:



AIA 0423R012.cdf: 3.500 to 14.800 Min

Data File: /chem2/ecdl1/FPCP20100423.b/cal-1.b/04236012.d/04236012.cdf
Injection Date: 23-APR-2010 19:27
Instrument: ecdl1
Client Sample ID:



MIN 04236012.cdf: 3.500 to 14.800 Min

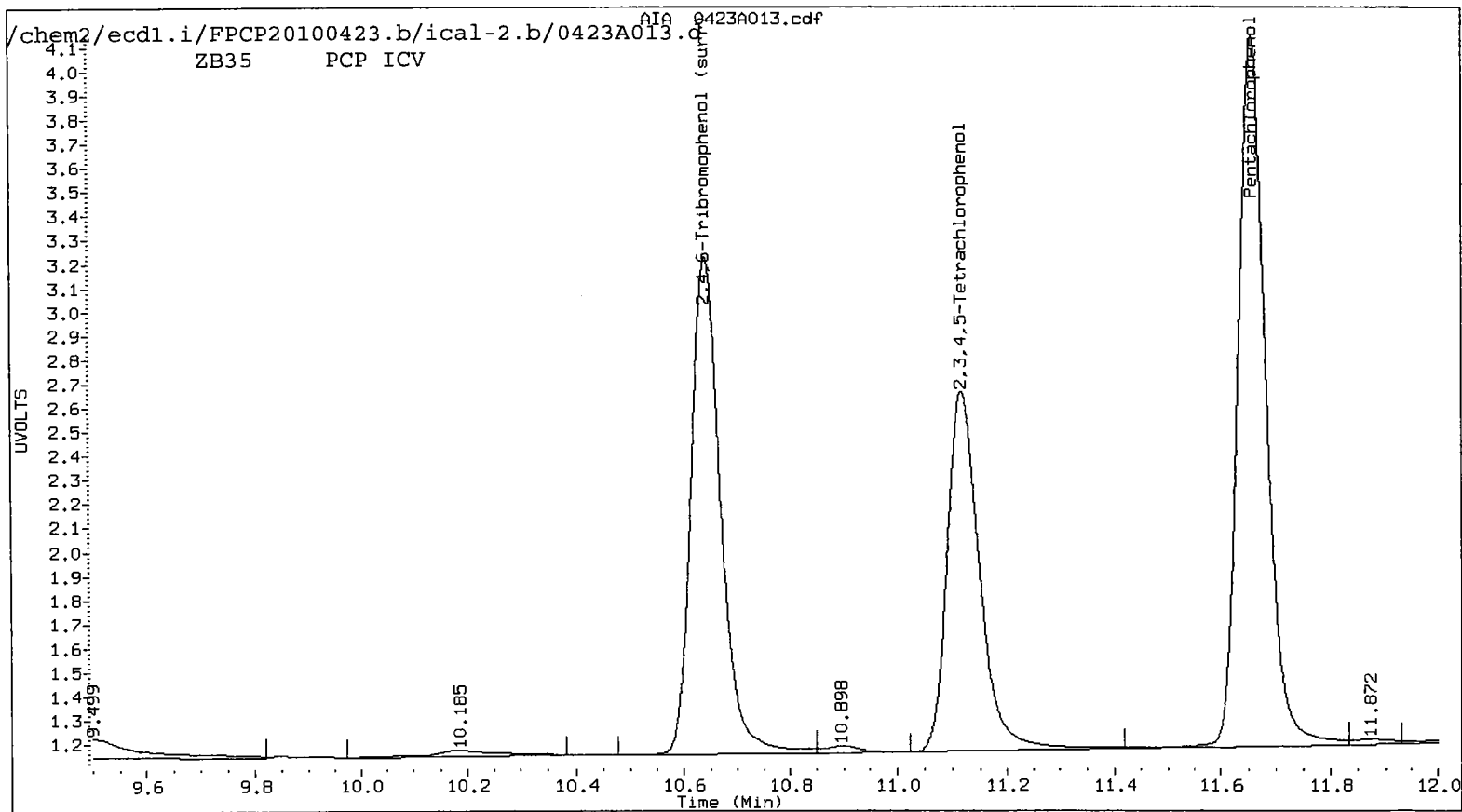
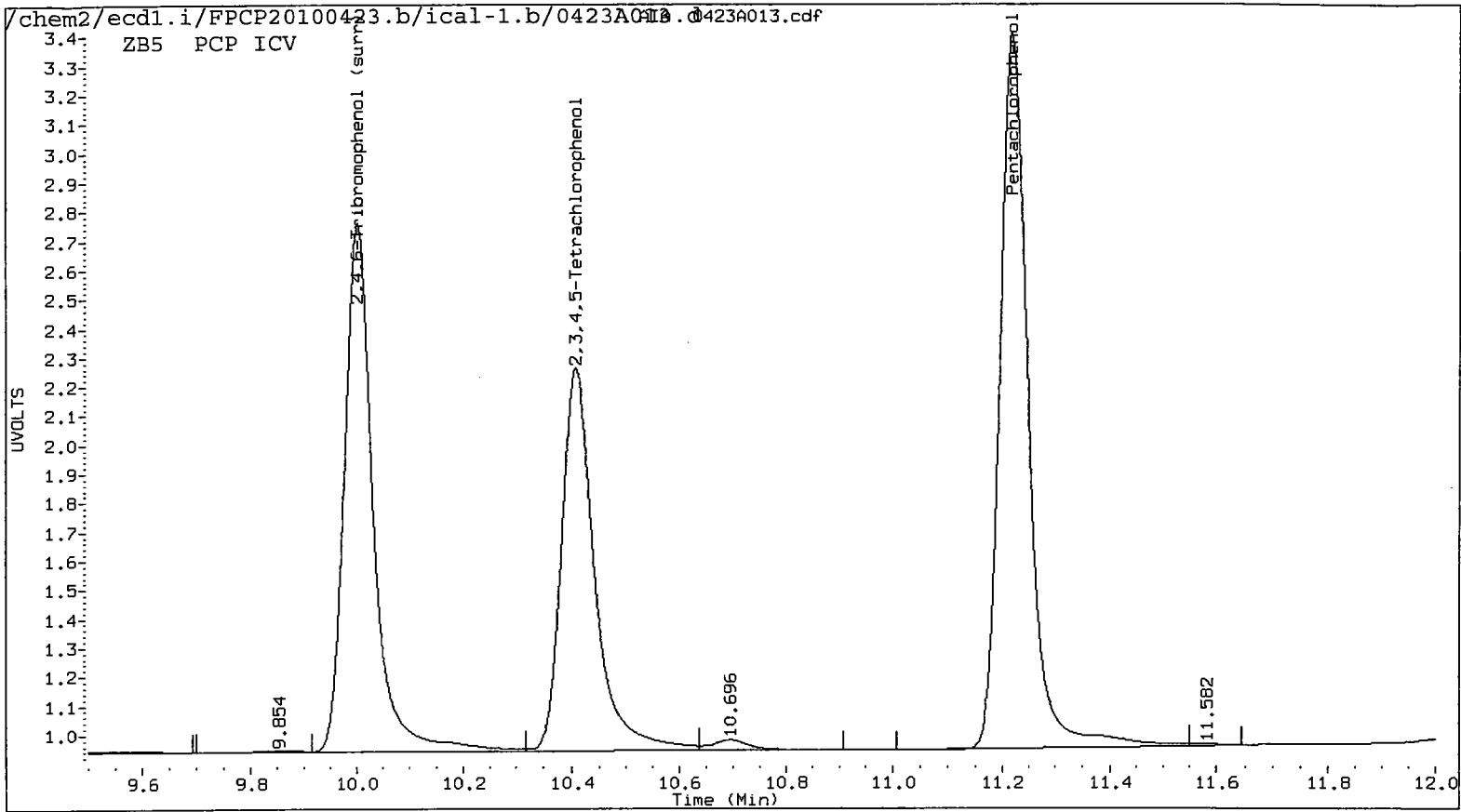
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/ical-1.b/0423A013.d ARI ID: PCP ICV
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/ical-2.b/0423A013.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 23-APR-2010 19:47
 Compound Sublist: all Report Date: 04/26/2010 11:41
 Instrument: ecdl.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

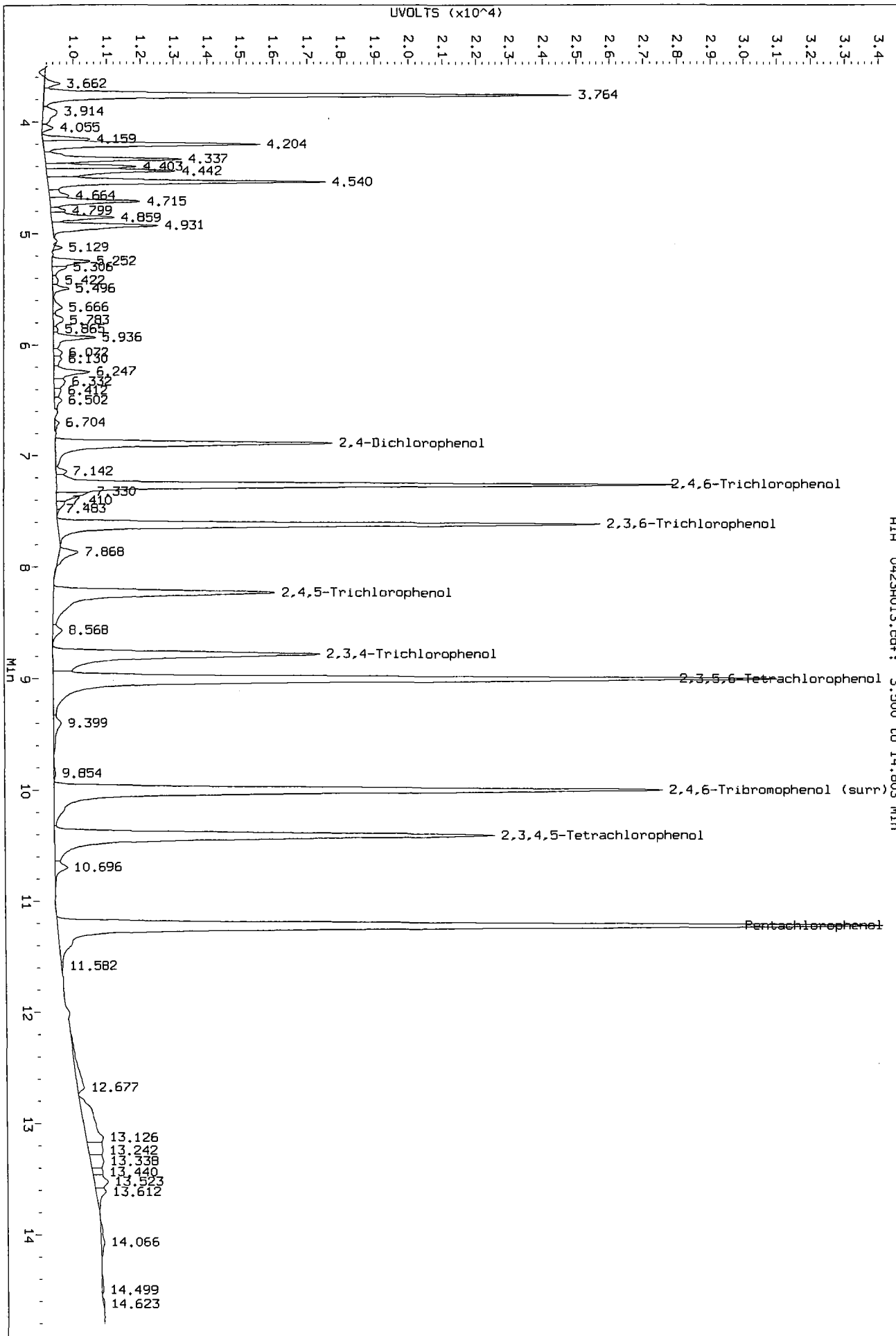
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.221	0.008	459705	11.657	0.006	518512	22.8834	23.4836	2.6	Pentachlorophenol
7.263	0.001	247261	7.331	0.001	285649	27.9058	24.4845	13.1	2,4,6-Trichlorophenol
7.617	0.003	227708	7.860	0.002	264818	21.5953	22.5586	4.4	2,3,6-Trichlorophenol
8.229	0.017	139090	8.598	0.011	143900	23.7667	22.6585	4.8	2,4,5-Trichlorophenol
8.781	0.020	168906	9.366	0.013	194574	24.8620	22.8274	8.5	2,3,4-Trichlorophenol
9.002	0.009	392758	9.267	0.007	408901	23.4185	22.7020	3.1	2,3,5,6-Tetrachlorophenol
10.407	0.014	278451	11.118	0.010	309277	22.0455	22.4751	1.9	2,3,4,5-Tetrachlorophenol
6.888	0.003	124458	7.158	0.003	142393	228.5487	239.8402	4.8	2,4-Dichlorophenol
10.000	0.011	347309	10.641	0.009	399360	22.2	22.1	0.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	91.5	93.9
2,4,6-Trichlorophenol	111.6	97.9
2,3,6-Trichlorophenol	86.4	90.2
2,4,5-Trichlorophenol	95.1	90.6
2,3,4-Trichlorophenol	99.4	91.3
2,3,5,6-Tetrachlorophenol	93.7	90.8
2,3,4,5-Tetrachlorophenol	88.2	89.9
2,4-Dichlorophenol	91.4	95.9
2,4,6-TBP (surr)	44.4	44.3

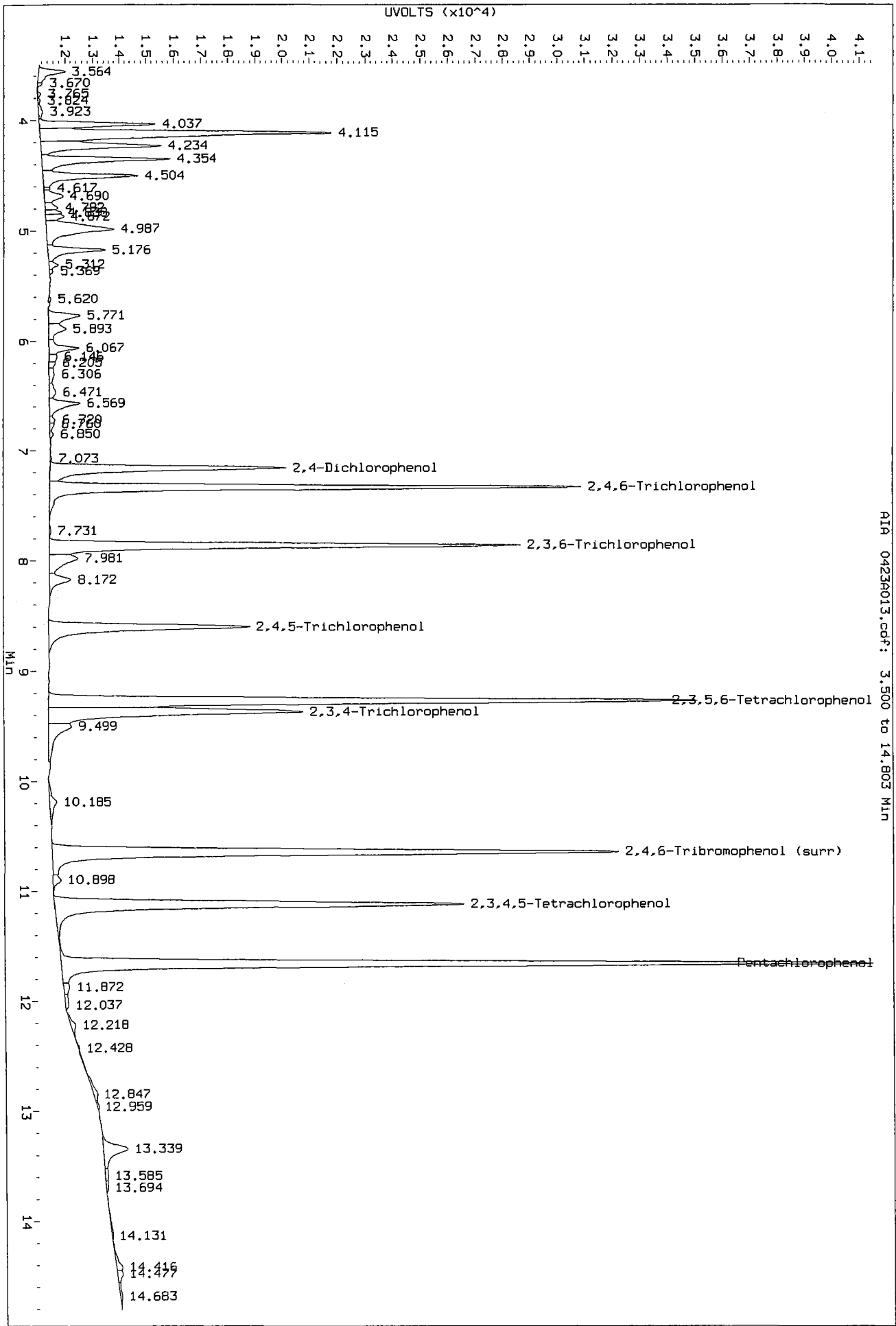


Data File: /chem2/ecdl.1/FP020100423.b/ical-1.b/04236013.d/04236013.cdf
Injection Date: 23-APR-2010 19:47
Instrument: ecdl.1
Client Sample ID:



AIR 04236013.cdf: 7.500 to 14.803 Min

Data File: /chem2/ecdl11/PPCP20100423.b/1cal-2.b/0423A013.d/0423A013.cdf
Injection Date: 23-APR-2010 19:47
Instrument: ecdl1
Client Sample ID:



AIA 0423A013.cdf: 3.500 to 14.803 MIN

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 04/23/10 04/23/10

Client Sample No. (PCP):

Date Analyzed :04/30/10

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :1748

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	11.22	11.14	11.28	23.3	25.0	-6.8
2,4,6-Trichlorophenol	7.26	7.19	7.33	25.8	25.0	3.2
2,3,6-Trichlorophenol	7.62	7.54	7.68	20.8	25.0	-16.8
2,4,5-Trichlorophenol	8.23	8.14	8.28	20.9	25.0	-16.4
2,3,4-Trichlorophenol	8.78	8.69	8.83	23.5	25.0	-6.0
2,3,5,6-Tetrachlorophenol	9.00	8.92	9.06	23.1	25.0	-7.6
2,3,4,5-Tetrachlorophenol	10.41	10.32	10.46	22.9	25.0	-8.4
2,4-Dichlorophenol	6.89	6.81	6.95	183	250	-26.8
2,4,6-Tribromophenol (surr	10.00	9.92	10.06	22.7	25.0	-9.2

AVERAGE %D = 11.2

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 04/23/10 04/23/10

Client Sample No. (PCP):

Date Analyzed :04/30/10

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :1748

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	11.66	11.58	11.72	23.8	25.0	-4.8
2,4,6-Trichlorophenol	7.33	7.26	7.40	23.6	25.0	-5.6
2,3,6-Trichlorophenol	7.86	7.79	7.93	23.2	25.0	-7.2
2,4,5-Trichlorophenol	8.60	8.52	8.66	22.1	25.0	-11.6
2,3,4-Trichlorophenol	9.36	9.28	9.42	22.5	25.0	-10.0
2,3,5,6-Tetrachlorophenol	9.27	9.19	9.33	23.1	25.0	-7.6
2,3,4,5-Tetrachlorophenol	11.12	11.04	11.18	23.1	25.0	-7.6
2,4-Dichlorophenol	7.16	7.08	7.22	207	250	-17.2
2,4,6-Tribromophenol (surr)	10.64	10.56	10.70	23.2	25.0	-7.2

AVERAGE %D = 8.8

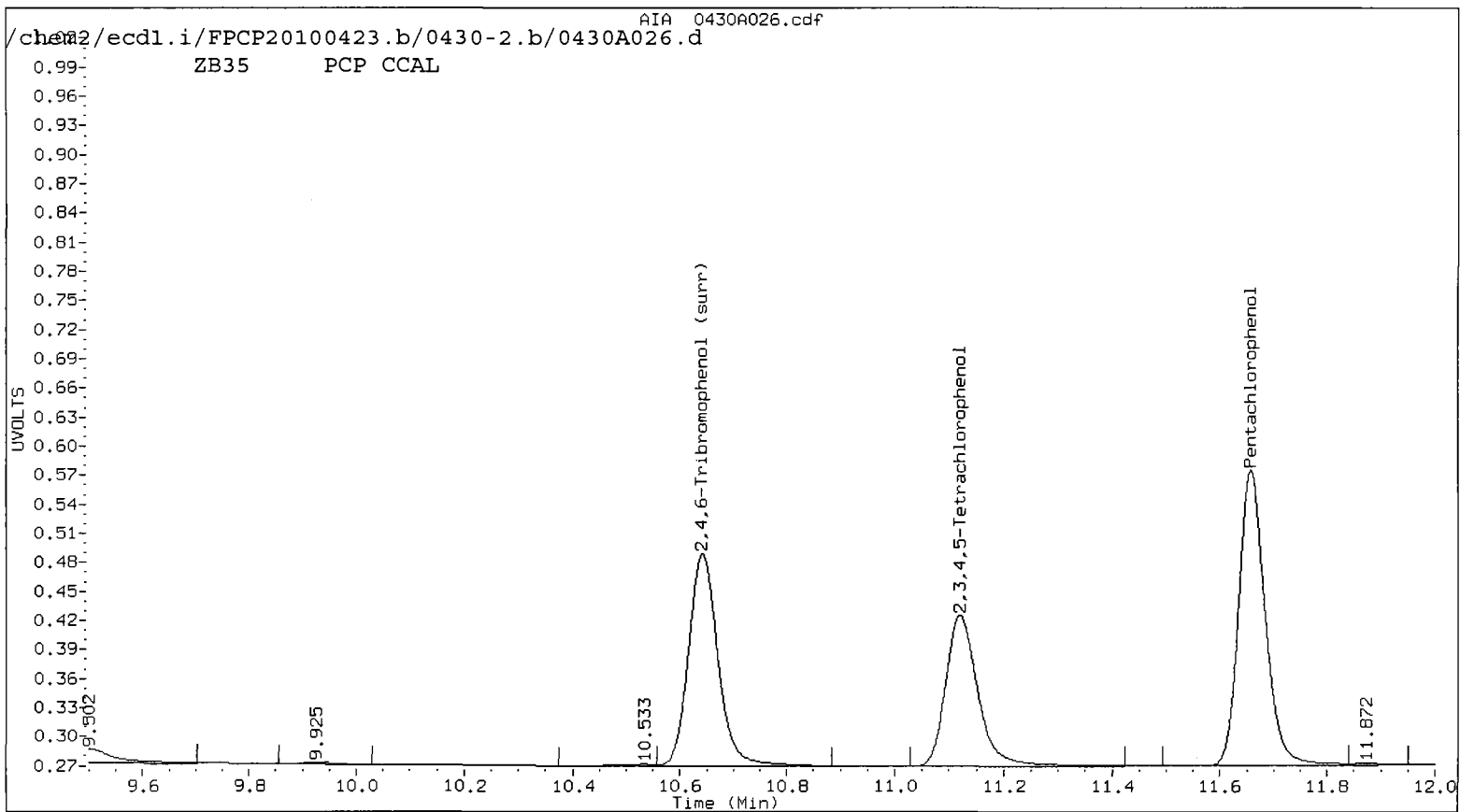
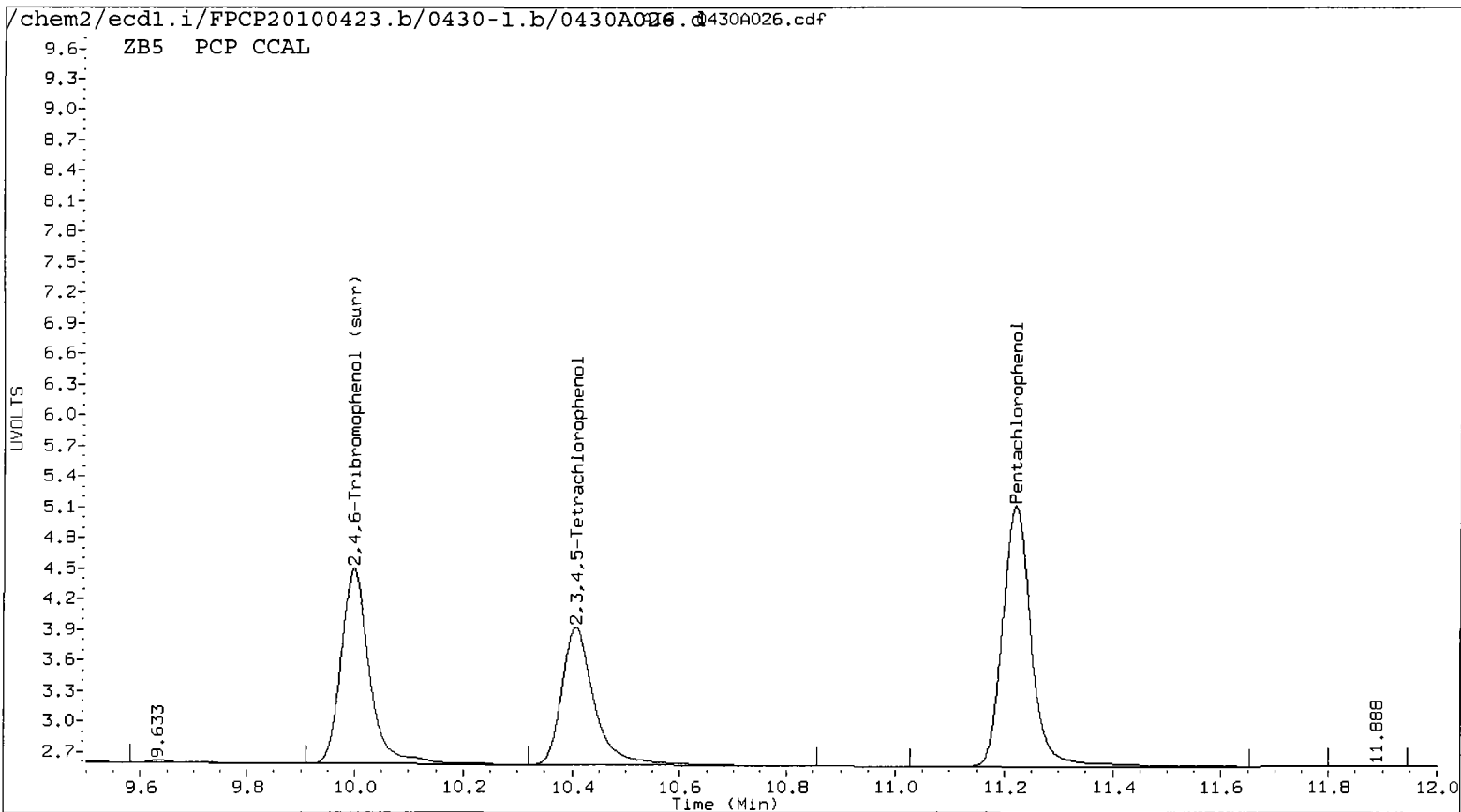
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/0430-1.b/0430A026.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430A026.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 30-APR-2010 17:48
 Compound Sublist: all Report Date: 05/03/2010 10:57
 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		
11.220	0.008	468871	11.658	0.006	524814	23.3397	23.7690	1.8	Pentachlorophenol
7.263	0.001	228703	7.332	0.002	274930	25.8113	23.5658	9.1	2,4,6-Trichlorophenol
7.617	0.003	219174	7.861	0.003	272887	20.7860	23.2460	11.2	2,3,6-Trichlorophenol
8.226	0.014	122201	8.598	0.011	140153	20.8809	22.0686	5.5	2,4,5-Trichlorophenol
8.776	0.016	159785	9.365	0.011	191966	23.5195	22.5215	4.3	2,3,4-Trichlorophenol
9.002	0.008	386790	9.267	0.006	415572	23.0627	23.0724	0.0	2,3,5,6-Tetrachlorophenol
10.406	0.014	288958	11.119	0.011	318020	22.8773	23.1104	1.0	2,3,4,5-Tetrachlorophenol
6.888	0.004	99449	7.159	0.004	123083	182.6226	207.3159	12.7	2,4-Dichlorophenol
9.998	0.009	355148	10.641	0.009	418144	22.7	23.2	2.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	93.4	95.1
2,4,6-Trichlorophenol	103.2	94.3
2,3,6-Trichlorophenol	83.1	93.0
2,4,5-Trichlorophenol	83.5	88.3
2,3,4-Trichlorophenol	94.1	90.1
2,3,5,6-Tetrachlorophenol	92.3	92.3
2,3,4,5-Tetrachlorophenol	91.5	92.4
2,4-Dichlorophenol	73.0	82.9
2,4,6-TBP (surr)	90.7	92.7



7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 04/23/10 04/23/10

Client Sample No. (PCP):

Date Analyzed :04/30/10

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :2108

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	11.22	11.14	11.28	23.9	25.0	-4.4
2,4,6-Trichlorophenol	7.27	7.19	7.33	26.7	25.0	6.8
2,3,6-Trichlorophenol	7.62	7.54	7.68	21.5	25.0	-14.0
2,4,5-Trichlorophenol	8.23	8.14	8.28	21.7	25.0	-13.2
2,3,4-Trichlorophenol	8.78	8.69	8.83	24.4	25.0	-2.4
2,3,5,6-Tetrachlorophenol	9.00	8.92	9.06	24.5	25.0	-2.0
2,3,4,5-Tetrachlorophenol	10.41	10.32	10.46	23.4	25.0	-6.4
2,4-Dichlorophenol	6.89	6.81	6.95	188	250	-24.8
2,4,6-Tribromophenol (surr	10.00	9.92	10.06	23.3	25.0	-6.8

AVERAGE %D = 9.0

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QU08

Project: LORA LAKES APARTMENTS

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 04/23/10 04/23/10

Client Sample No. (PCP):

Date Analyzed :04/30/10

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :2108

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	=====	=====	=====	=====	=====
Pentachlorophenol	11.66	11.58	11.72	24.4	25.0	-2.4
2,4,6-Trichlorophenol	7.33	7.26	7.40	24.3	25.0	-2.8
2,3,6-Trichlorophenol	7.86	7.79	7.93	22.9	25.0	-8.4
2,4,5-Trichlorophenol	8.60	8.52	8.66	22.6	25.0	-9.6
2,3,4-Trichlorophenol	9.37	9.28	9.42	23.1	25.0	-7.6
2,3,5,6-Tetrachlorophenol	9.27	9.19	9.33	23.8	25.0	-4.8
2,3,4,5-Tetrachlorophenol	11.12	11.04	11.18	23.7	25.0	-5.2
2,4-Dichlorophenol	7.16	7.08	7.22	213	250	-14.8
2,4,6-Tribromophenol (surr	10.64	10.56	10.70	23.9	25.0	-4.4

AVERAGE %D = 6.7

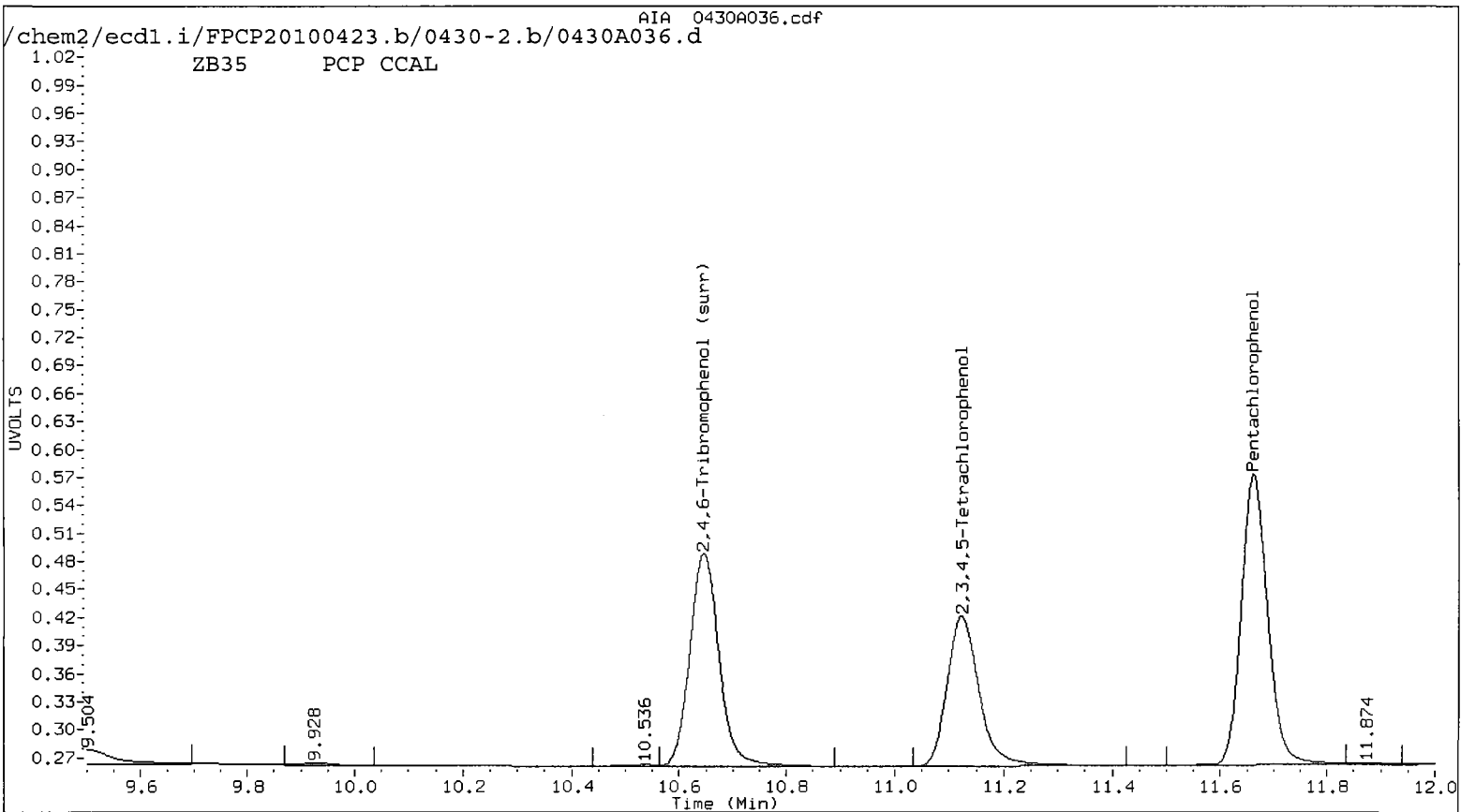
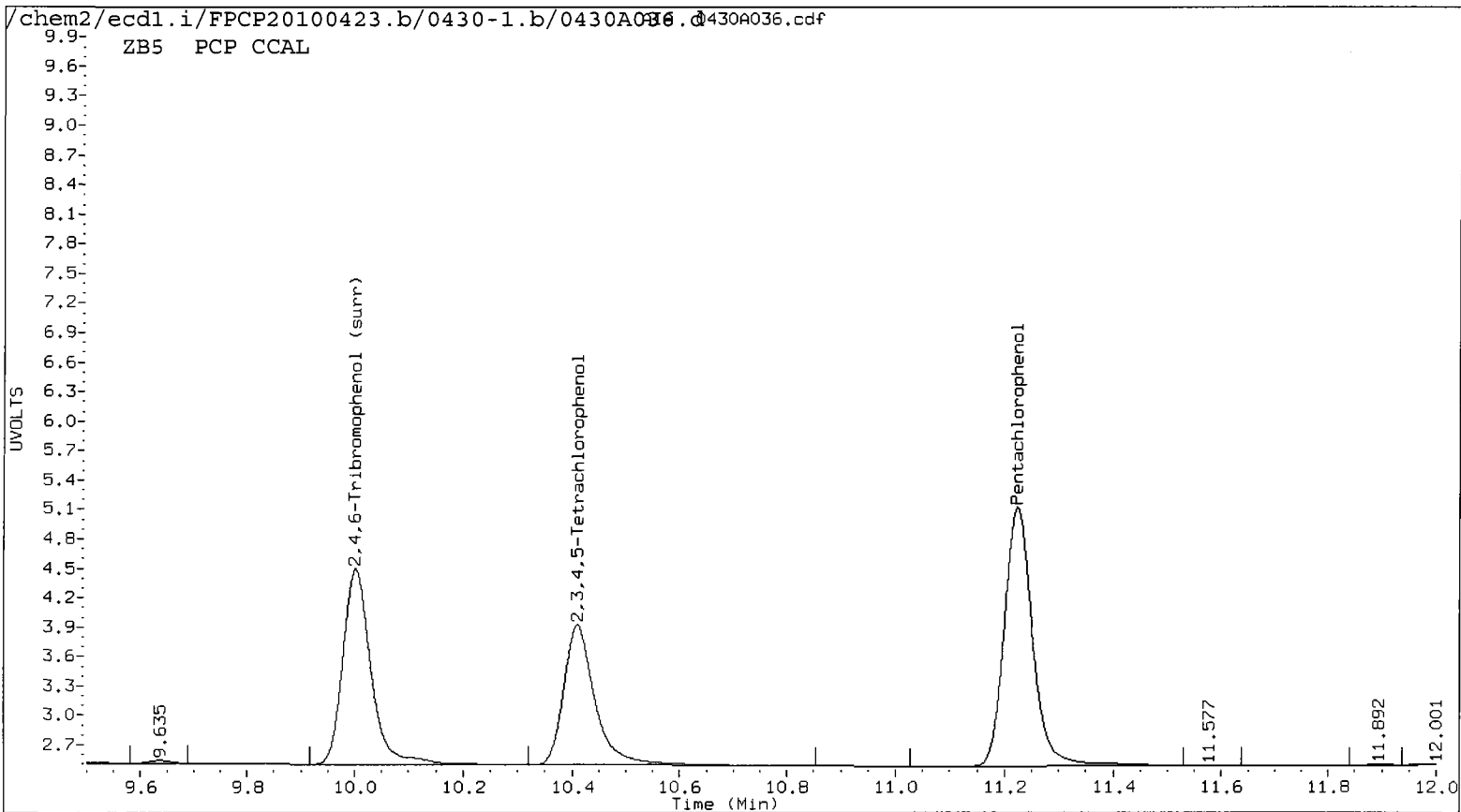
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100423.b/0430-1.b/0430A036.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430A036.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 30-APR-2010 21:08
 Compound Sublist: all Report Date: 05/03/2010 10:57
 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		
11.224	0.011	479797	11.661	0.010	537855	23.8836	24.3597	2.0	Pentachlorophenol
7.266	0.004	236979	7.335	0.005	284057	26.7454	24.3481	9.4	2,4,6-Trichlorophenol
7.621	0.007	227046	7.864	0.007	269061	21.5326	22.9200	6.2	2,3,6-Trichlorophenol
8.229	0.017	126859	8.600	0.013	143863	21.6768	22.6528	4.4	2,4,5-Trichlorophenol
8.779	0.018	166001	9.368	0.015	196709	24.4344	23.0780	5.7	2,3,4-Trichlorophenol
9.005	0.011	410367	9.271	0.010	428419	24.4684	23.7857	2.8	2,3,5,6-Tetrachlorophenol
10.409	0.017	295594	11.122	0.014	325923	23.4027	23.6848	1.2	2,3,4,5-Tetrachlorophenol
6.891	0.007	102434	7.161	0.006	126247	188.1041	212.6451	12.2	2,4-Dichlorophenol
10.002	0.013	365466	10.645	0.013	430706	23.3	23.9	2.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	95.5	97.4
2,4,6-Trichlorophenol	107.0	97.4
2,3,6-Trichlorophenol	86.1	91.7
2,4,5-Trichlorophenol	86.7	90.6
2,3,4-Trichlorophenol	97.7	92.3
2,3,5,6-Tetrachlorophenol	97.9	95.1
2,3,4,5-Tetrachlorophenol	93.6	94.7
2,4-Dichlorophenol	75.2	85.1
2,4,6-TBP (surr)	93.4	95.5



**PCP/Chlorophenols ANALYSIS
QC Raw Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: MB-042610

METHOD BLANK

Lab Sample ID: MB-042610

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: NA

Date Received: NA

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 18:08

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	63.6%
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Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 5/4/2010

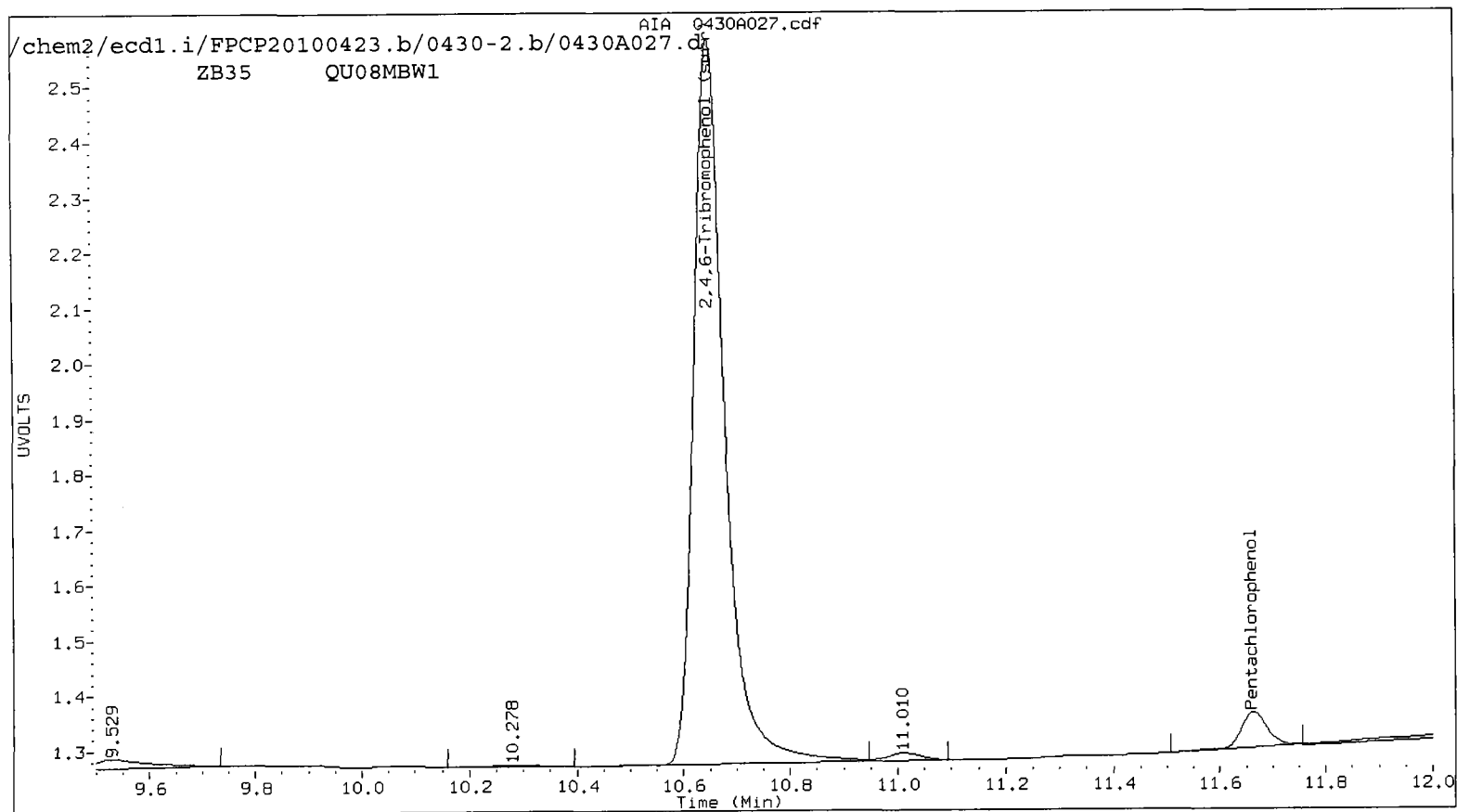
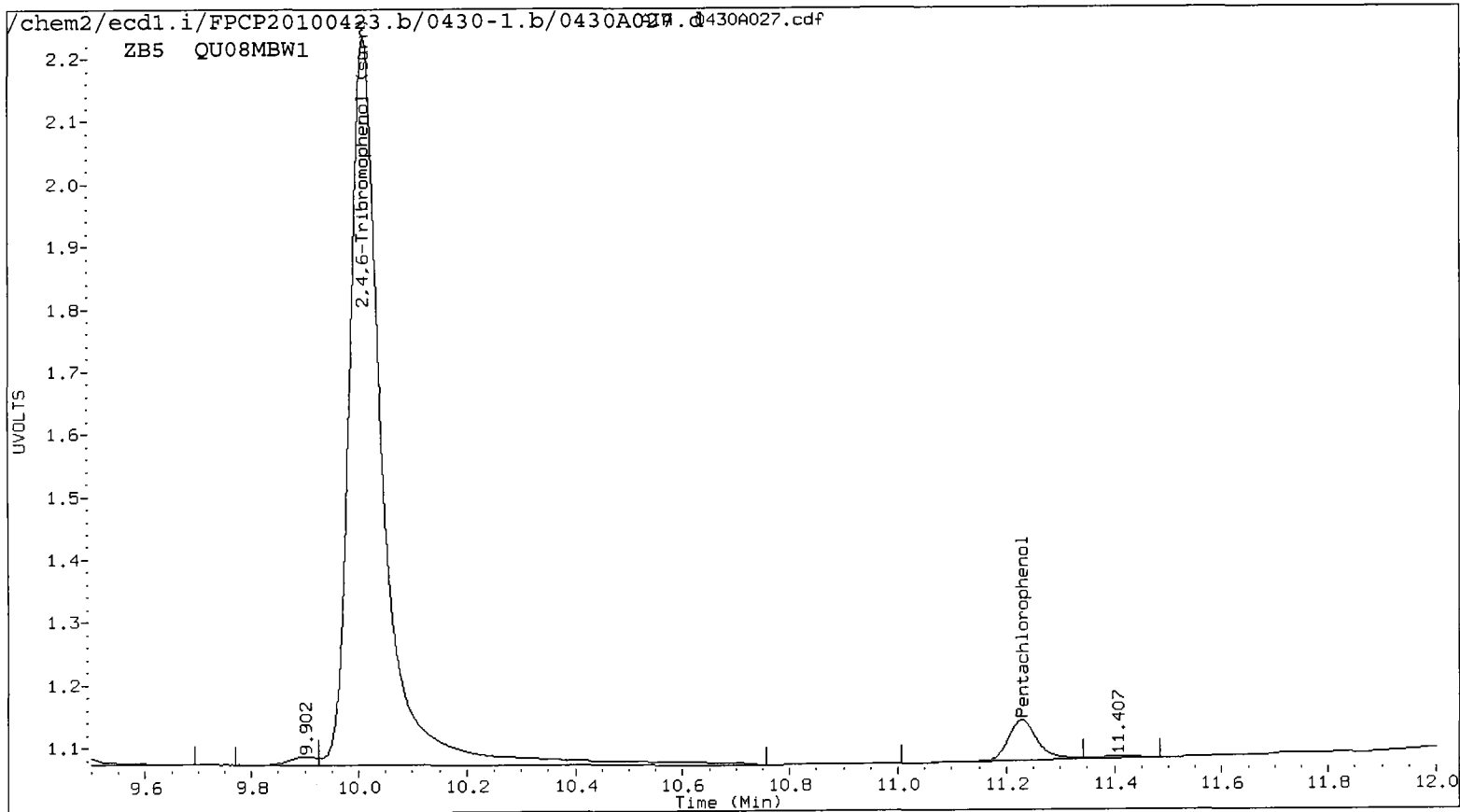
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 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 30-APR-2010 18:08
 Compound Sublist: all Report Date: 05/03/2010 11:07
 Instrument: ecdl.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.229	0.017	12365	11.663	0.012	11130	0.6155	0.5041	19.9	Pentachlorophenol
7.255	-0.007	14129	----	----	----	1.5947	0.0000	---	2,4,6-Trichlorophenol
----	----	----	7.816	-0.042	1608	0.0000	0.1370	---	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
10.010	0.021	249045	10.648	0.016	264607	15.9	14.7	8.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	63.6	58.6

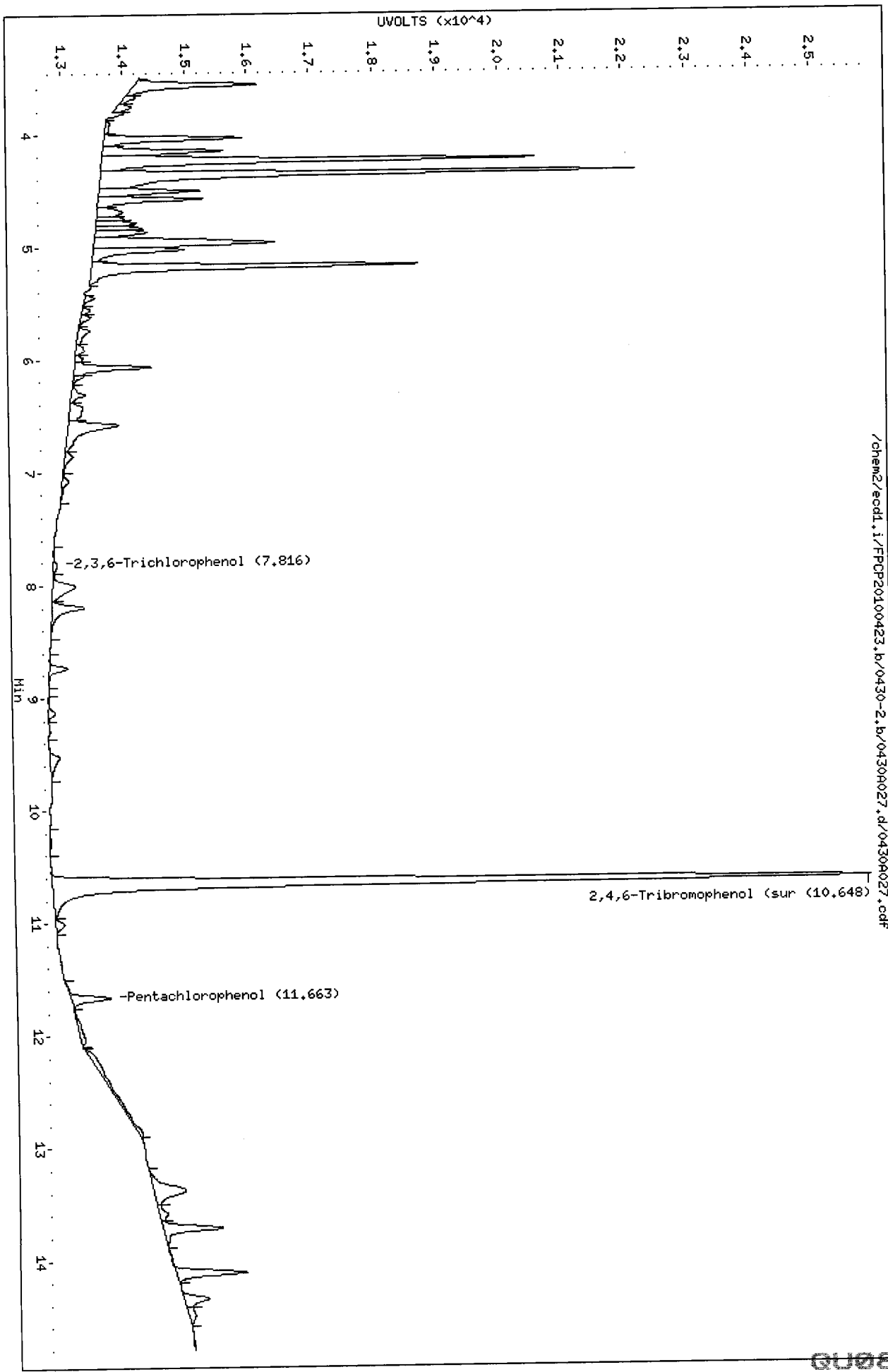
MANUAL ADJUSTMENTS
 ✓ 1. Peak not found
 ✓ 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other _____
 Analyst AR Date 5/4/10



QU08 : 00314

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Date : 30-APR-2010 18:08
Client ID:
Sample Info: QU08BMM
Column phase: ZB35

Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



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ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: CB1042110COMP

MATRIX SPIKE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 19:28

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---
Reported in µg/L (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	54.2%	

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 5/4/2010

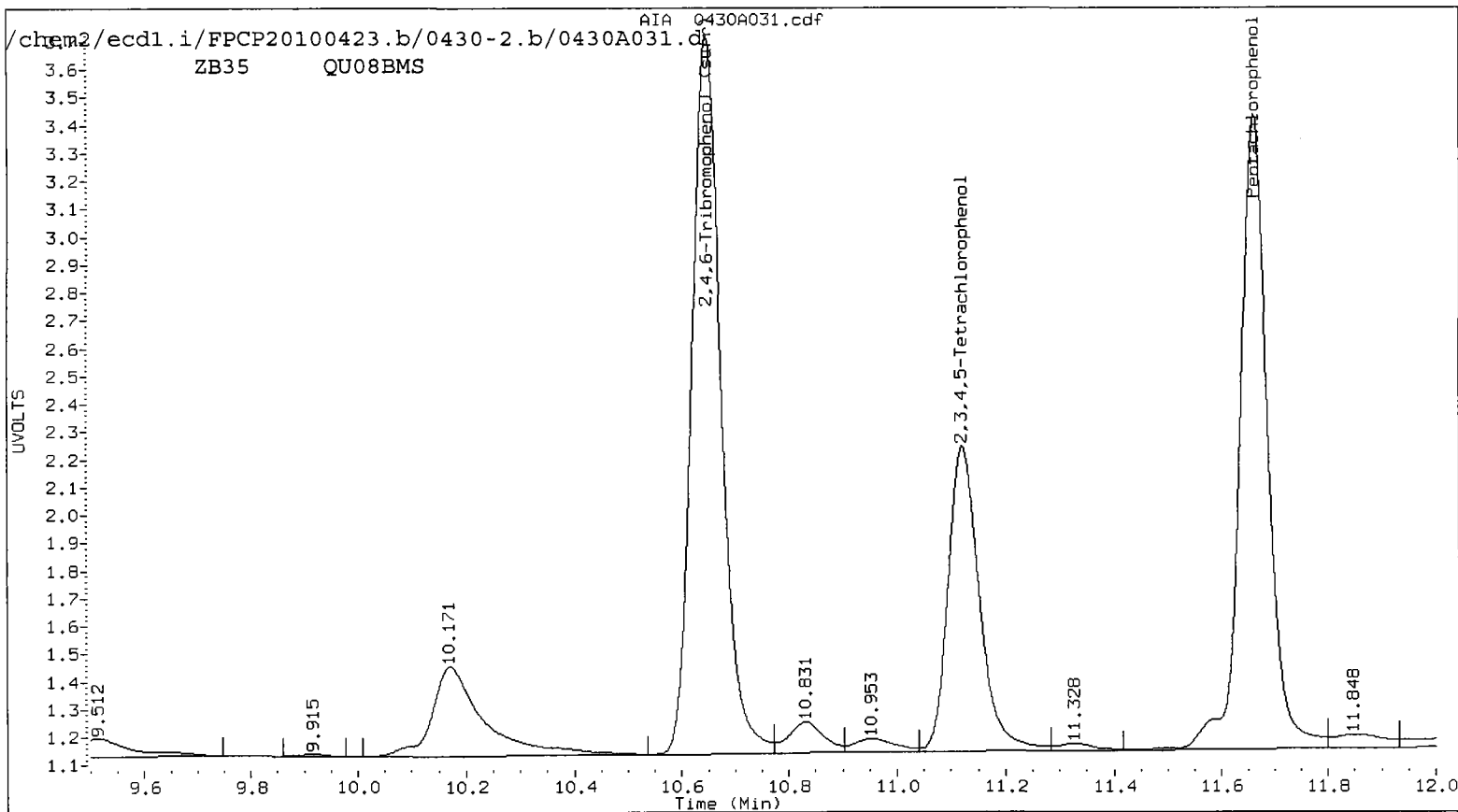
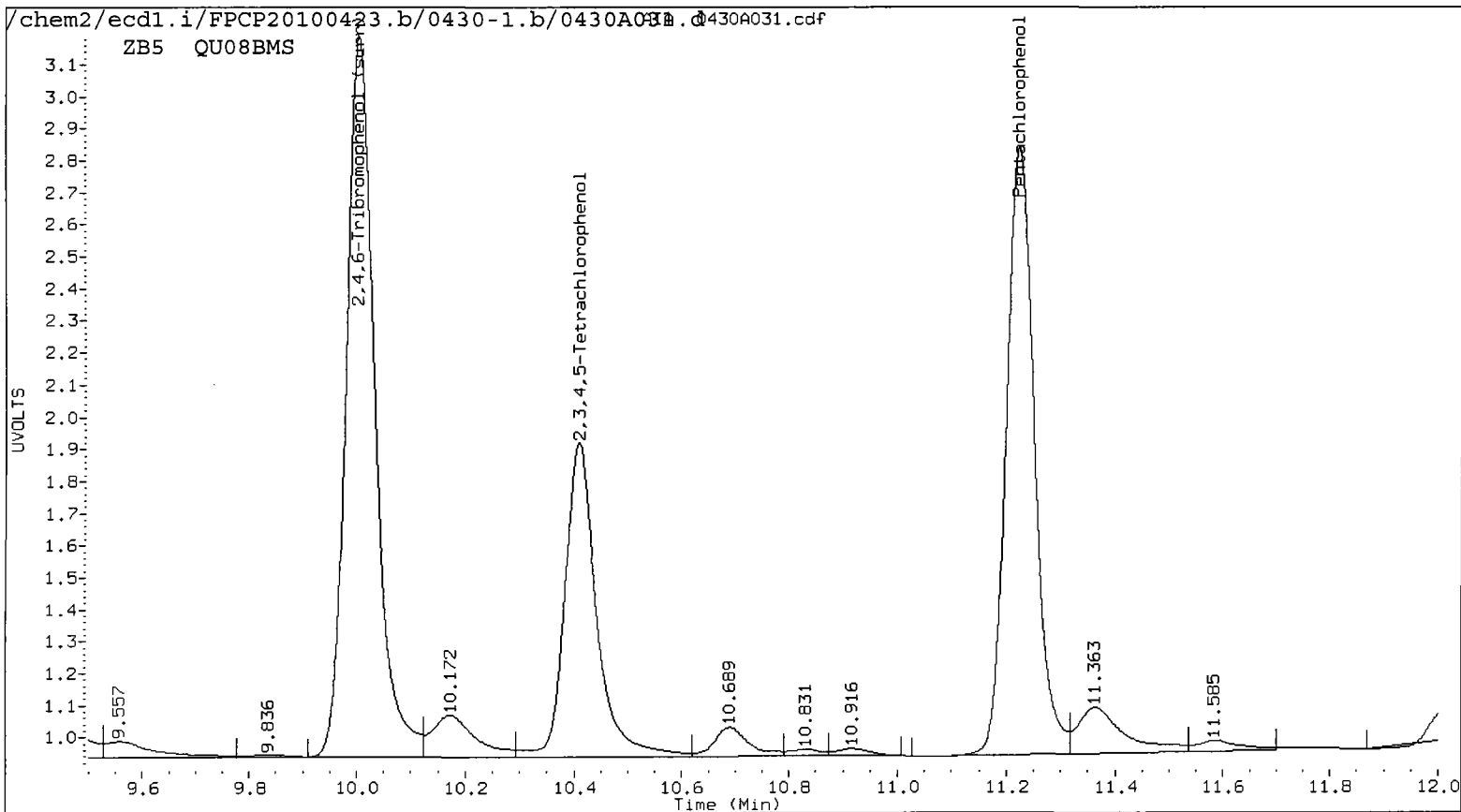
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 Compound Sublist: all Report Date: 05/03/2010 11:07
 Instrument: ecdl.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

ZB-5 Col		ZB35 Col		ZB-5	ZB35	RPD	Compound
RT	Shift Response	RT	Shift Response	on col	on col		
11.224	0.011 / 339522	11.660	0.009 / 420658	16.9009	19.0518 /	12.0	Pentachlorophenol
7.267	0.005 166464	7.336	0.006 178678	18.7872	15.3155	20.4	2,4,6-Trichlorophenol
7.622	0.008 156554	7.865	0.007 183833	14.8472	15.6599	5.3	2,3,6-Trichlorophenol
8.236	0.024 87816	8.605	0.017 85713	15.0055	13.4964	10.6	2,4,5-Trichlorophenol
8.787	0.026 94899	9.371	0.018 112174	13.9687	13.1603	6.0	2,3,4-Trichlorophenol
9.008	0.014 319342	9.273	0.012 311903	19.0410	17.3168	9.5	2,3,5,6-Tetrachlorophenol
10.409	0.016 201956	11.121	0.012 219294	15.9892	15.9361	0.3	2,3,4,5-Tetrachlorophenol
6.895	0.010 / 43944	7.164	0.009 / 51338	80.6969	86.4728 /	6.9	2,4-Dichlorophenol
10.004	0.015 416658	10.645	0.013 489034	26.6	27.1 /	1.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	67.6	76.2 /
2,4,6-Trichlorophenol	75.1	61.3
2,3,6-Trichlorophenol	59.4	62.6
2,4,5-Trichlorophenol	60.0	54.0
2,3,4-Trichlorophenol	55.9	52.6
2,3,5,6-Tetrachlorophenol	76.2	69.3
2,3,4,5-Tetrachlorophenol	64.0	63.7
2,4-Dichlorophenol	32.3	34.6
2,4,6-TBP (surr)	53.2	54.2 /

MANUAL ADJUSTMENTS
 1. Peak not found
 X2. Poor Chromatography
 X3. Baseline Correction
 4. Totals Calculation
 5. Other
 Analyst AR Date 5/4/10



Data File: /chem2/ecdl.i/PPCP20100423.b/0430-2.b/04300031.d

Date: 30-APR-2010 19:28

Client ID:

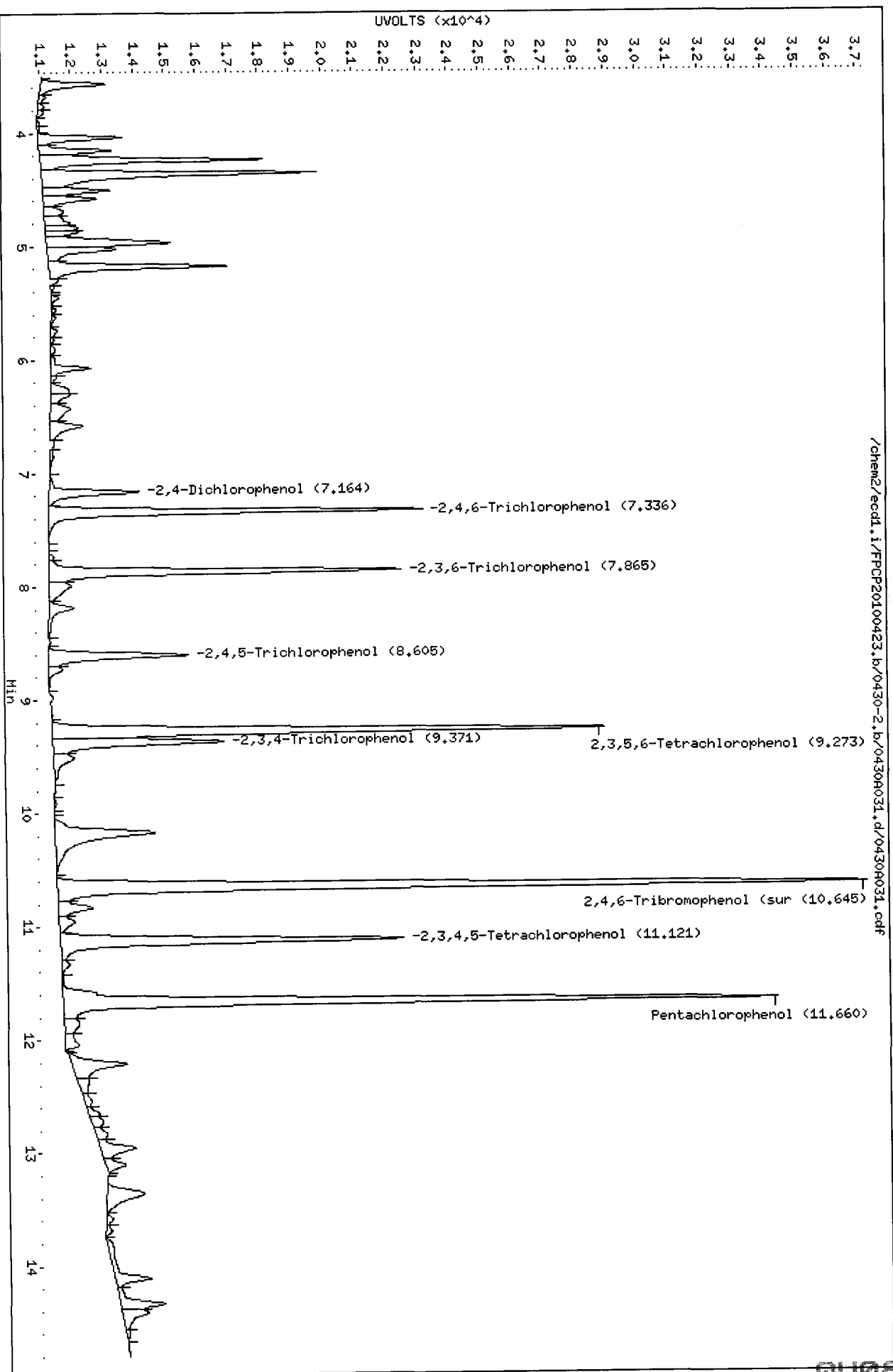
Sample Info: QU08BHS

Column phase: ZB35

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53



ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: CB1042110COMP

MATRIX SPIKE DUP

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/04/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Date Extracted: 04/26/10

Date Analyzed: 04/30/10 19:48

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---
Reported in µg/L (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	55.4%	

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 5/4/2010

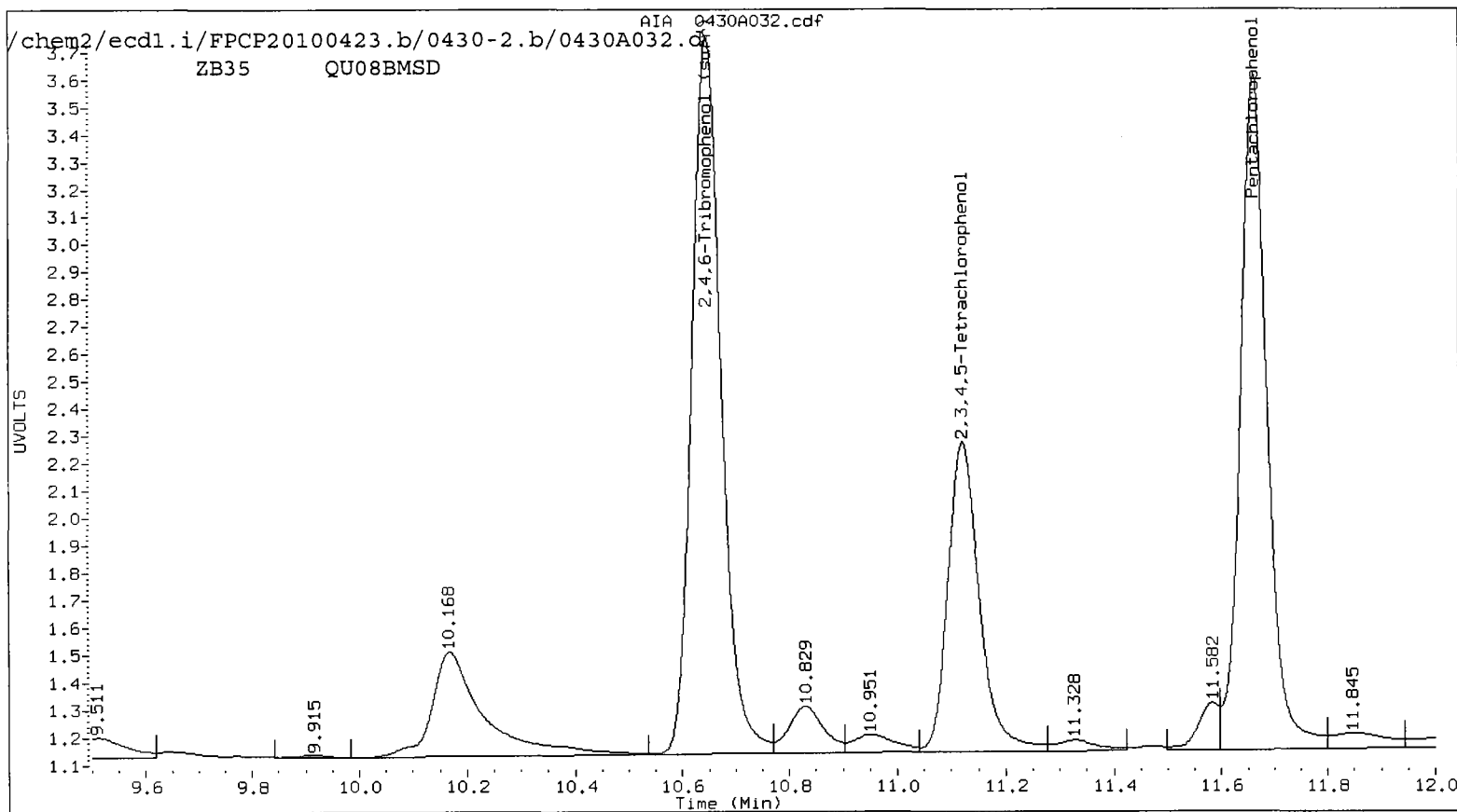
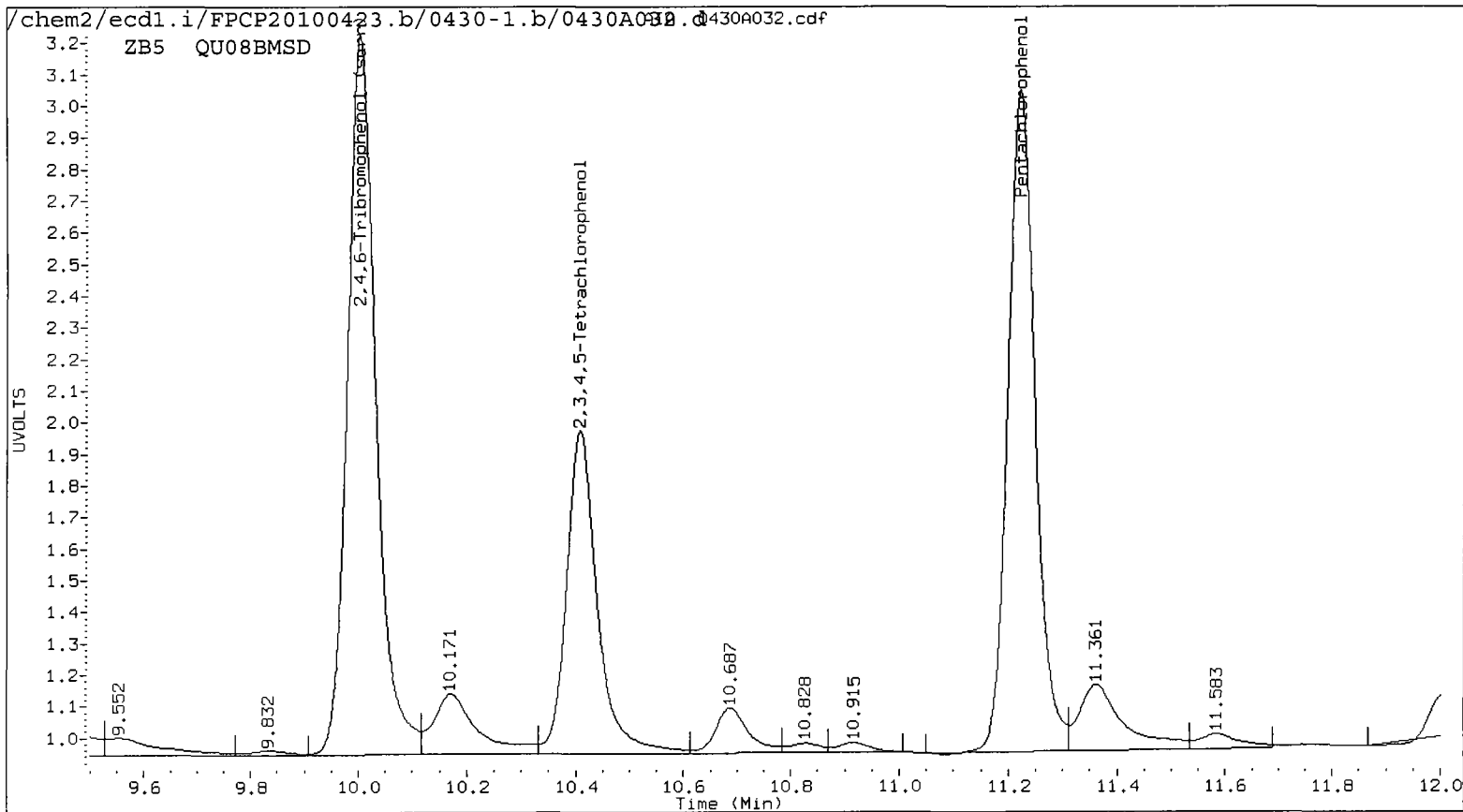
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 Compound Sublist: all Report Date: 05/03/2010 11:07
 Instrument: ecdl.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
11.223	0.010	365418	11.660	0.009	436774	18.1900	19.7817	8.4	Pentachlorophenol
7.267	0.005	165384	7.335	0.005	180322	18.6652	15.4564	18.8	2,4,6-Trichlorophenol
7.622	0.008	161431	7.864	0.006	190276	15.3098	16.2088	5.7	2,3,6-Trichlorophenol
8.235	0.023	82135	8.604	0.017	82431	14.0347	12.9796	7.8	2,4,5-Trichlorophenol
8.786	0.025	88369	9.370	0.017	106825	13.0074	12.5327	3.7	2,3,4-Trichlorophenol
9.007	0.014	329200	9.271	0.011	337650	19.6288	18.7462	4.6	2,3,5,6-Tetrachlorophenol
10.408	0.015	204501	11.120	0.012	227585	16.1907	16.5385	2.1	2,3,4,5-Tetrachlorophenol
6.895	0.011	36935	7.163	0.009	45674	67.8270	76.9324	12.6	2,4-Dichlorophenol
10.003	0.014	418811	10.645	0.013	500215	26.7	27.7	3.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	72.8	79.1
2,4,6-Trichlorophenol	74.7	61.8
2,3,6-Trichlorophenol	61.2	64.8
2,4,5-Trichlorophenol	56.1	51.9
2,3,4-Trichlorophenol	52.0	50.1
2,3,5,6-Tetrachlorophenol	78.5	75.0
2,3,4,5-Tetrachlorophenol	64.8	66.2
2,4-Dichlorophenol	27.1	30.8
2,4,6-TBP (surr)	53.5	55.4

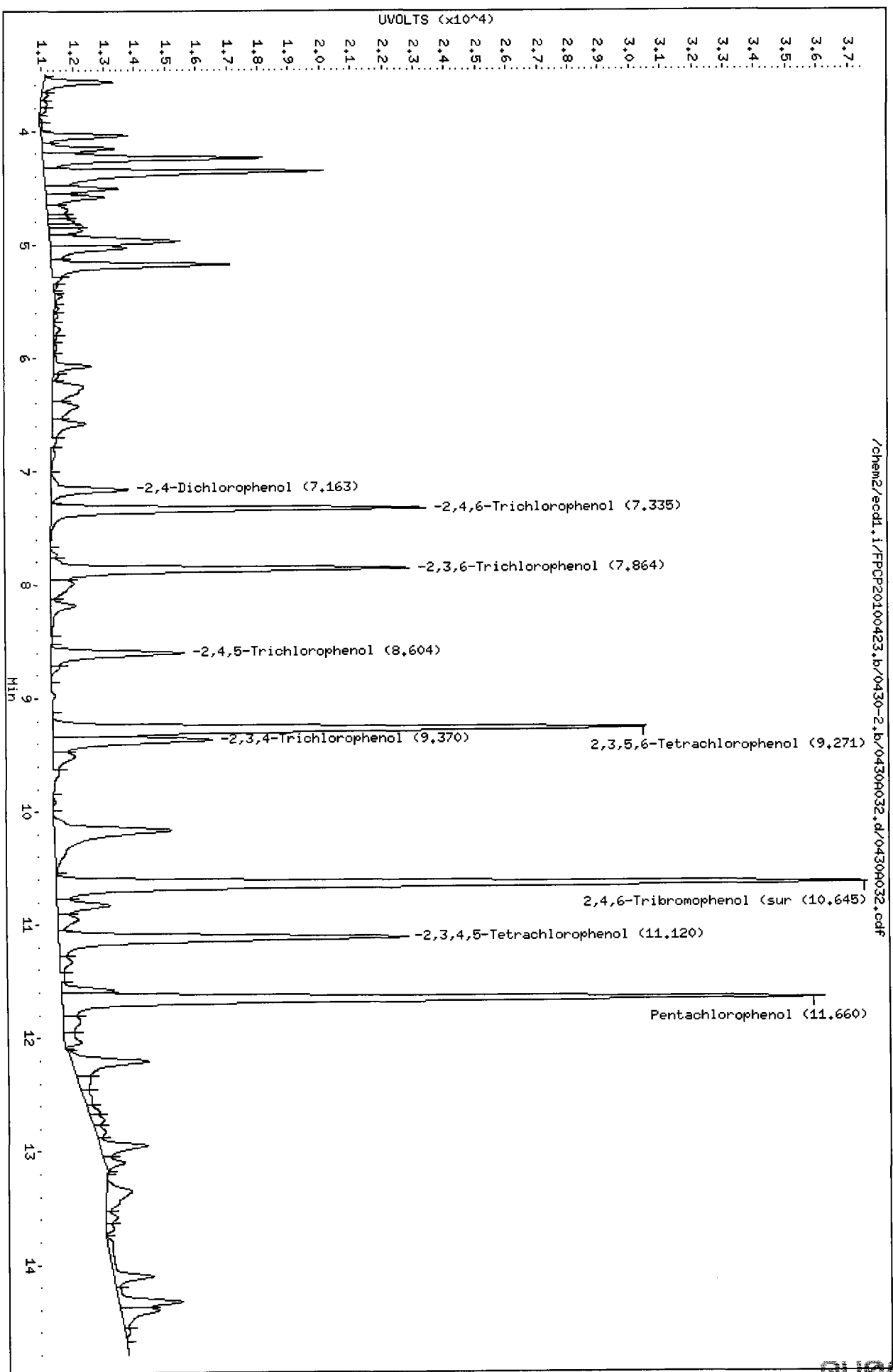
MANUAL ADJUSTMENTS
 X2. Peak not found
 X3. Poor Chromatography
 4. Totals Calculation
 5. Other
 Analyst AR Date 5/4/10



QU08 : 00322

Data File: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/04300032.d
Date : 30-APR-2010 19:48
Client ID:
Sample Info: QU08BMSD
Column phase: ZB35

Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 5/4/2010

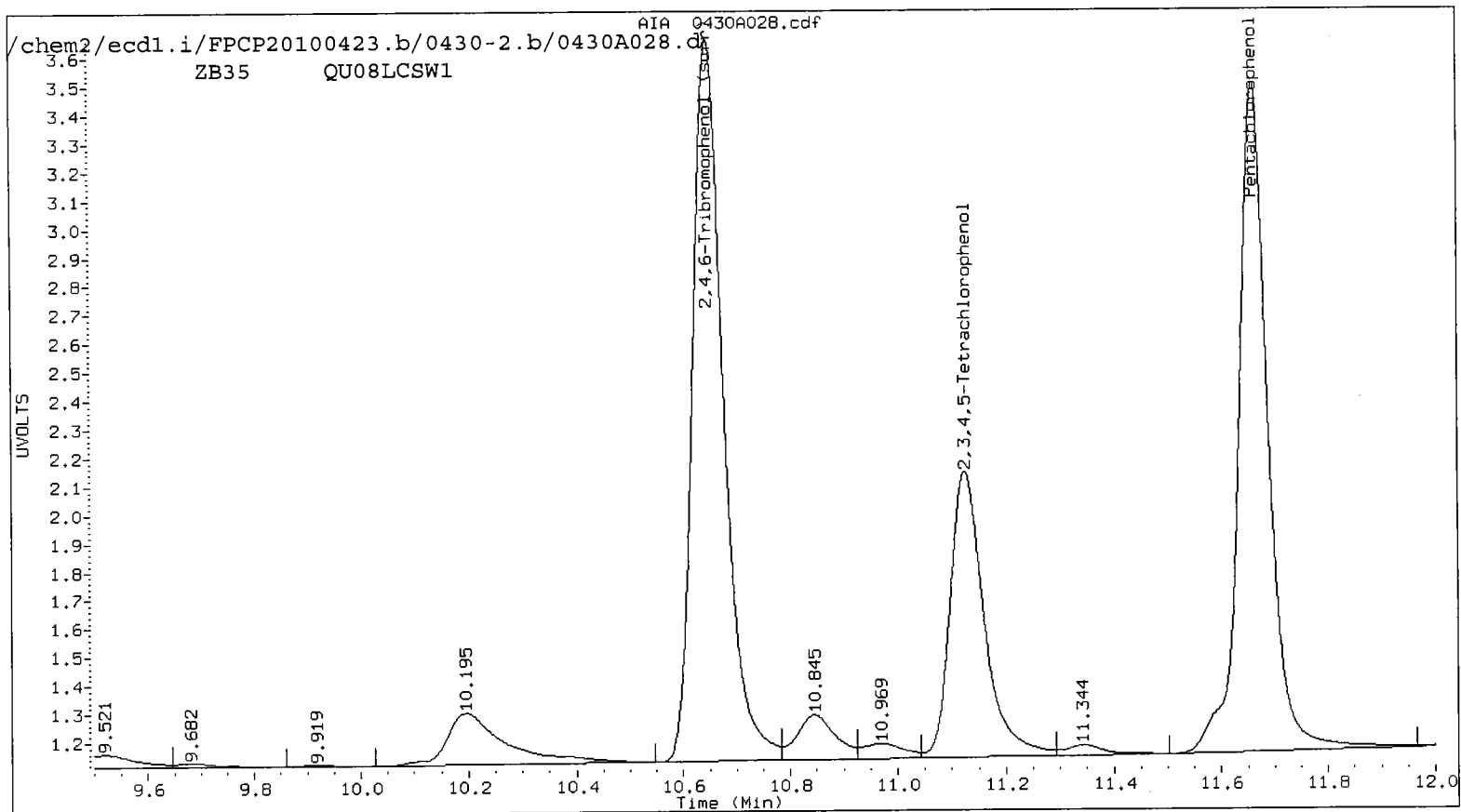
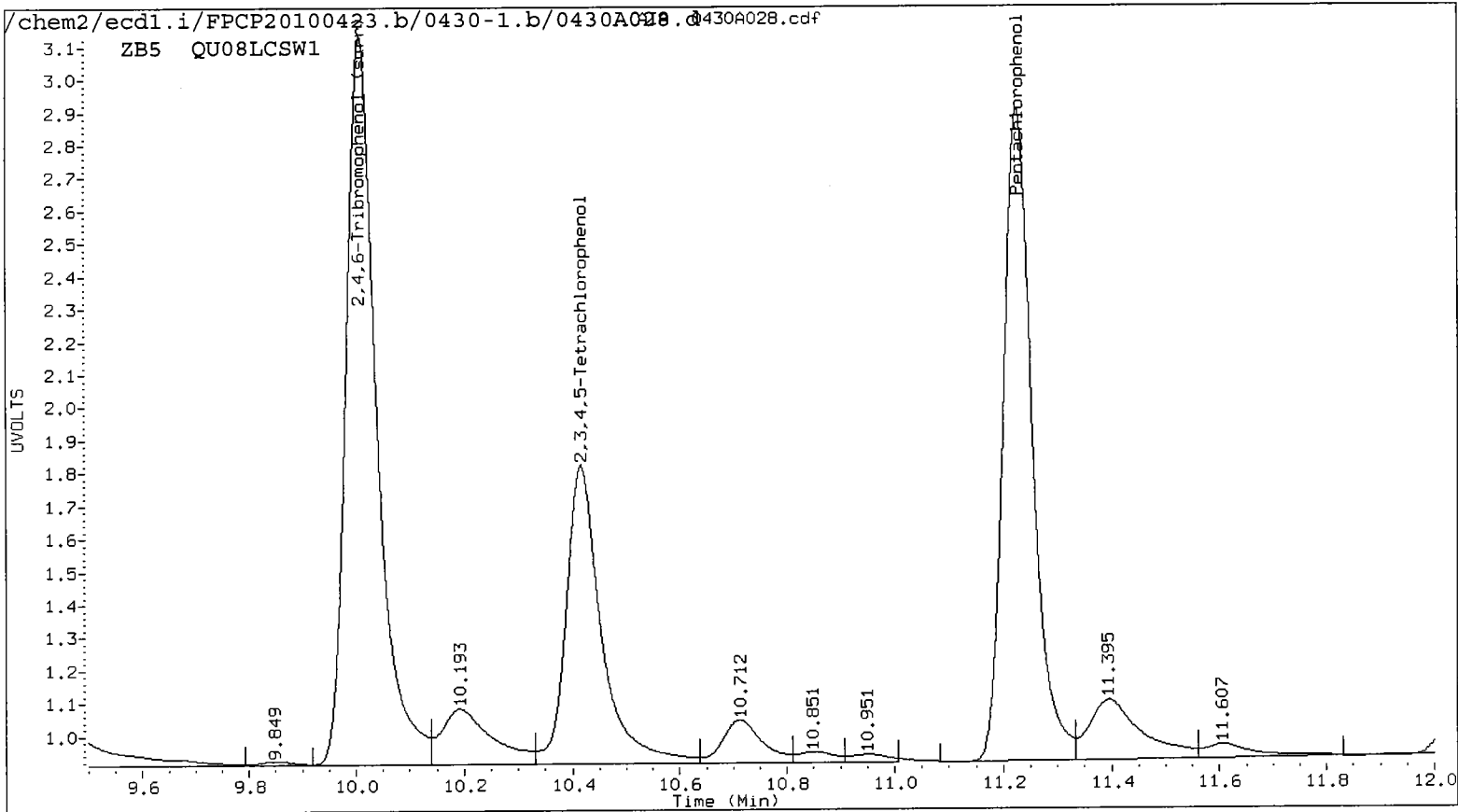
Data file 1: /chem2/ecdl.i/FPCP20100423.b/0430-1.b/0430A028.d ARI ID: QU08LCSW1
 Data file 2: /chem2/ecdl.i/FPCP20100423.b/0430-2.b/0430A028.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100423.b/FPCP.m Injection Date: 30-APR-2010 18:28
 Compound Sublist: all Report Date: 05/03/2010 11:07
 Instrument: ecd1.i 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		
11.225	0.013	368056	11.661	0.010	452031	18.3213	20.4726	11.1	Pentachlorophenol
7.265	0.003	173637	7.334	0.004	186981	19.5966	16.0272	20.0	2,4,6-Trichlorophenol
7.621	0.007	187328	7.864	0.006	187452	17.7658	15.9682	10.7	2,3,6-Trichlorophenol
8.241	0.029	79002	8.608	0.021	74270	13.4993	11.6946	14.3	2,4,5-Trichlorophenol
8.794	0.034	73616	9.375	0.022	93963	10.8358	11.0238	1.7	2,3,4-Trichlorophenol
9.010	0.017	326668	9.274	0.013	329389	19.4778	18.2876	6.3	2,3,5,6-Tetrachlorophenol
10.416	0.023	207436	11.125	0.017	218086	16.4231	15.8483	3.6	2,3,4,5-Tetrachlorophenol
6.895	0.010	23800	7.164	0.009	30348	43.7049	51.1169	15.6	2,4-Dichlorophenol
10.008	0.019	440746	10.647	0.015	508677	28.1	28.2	0.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

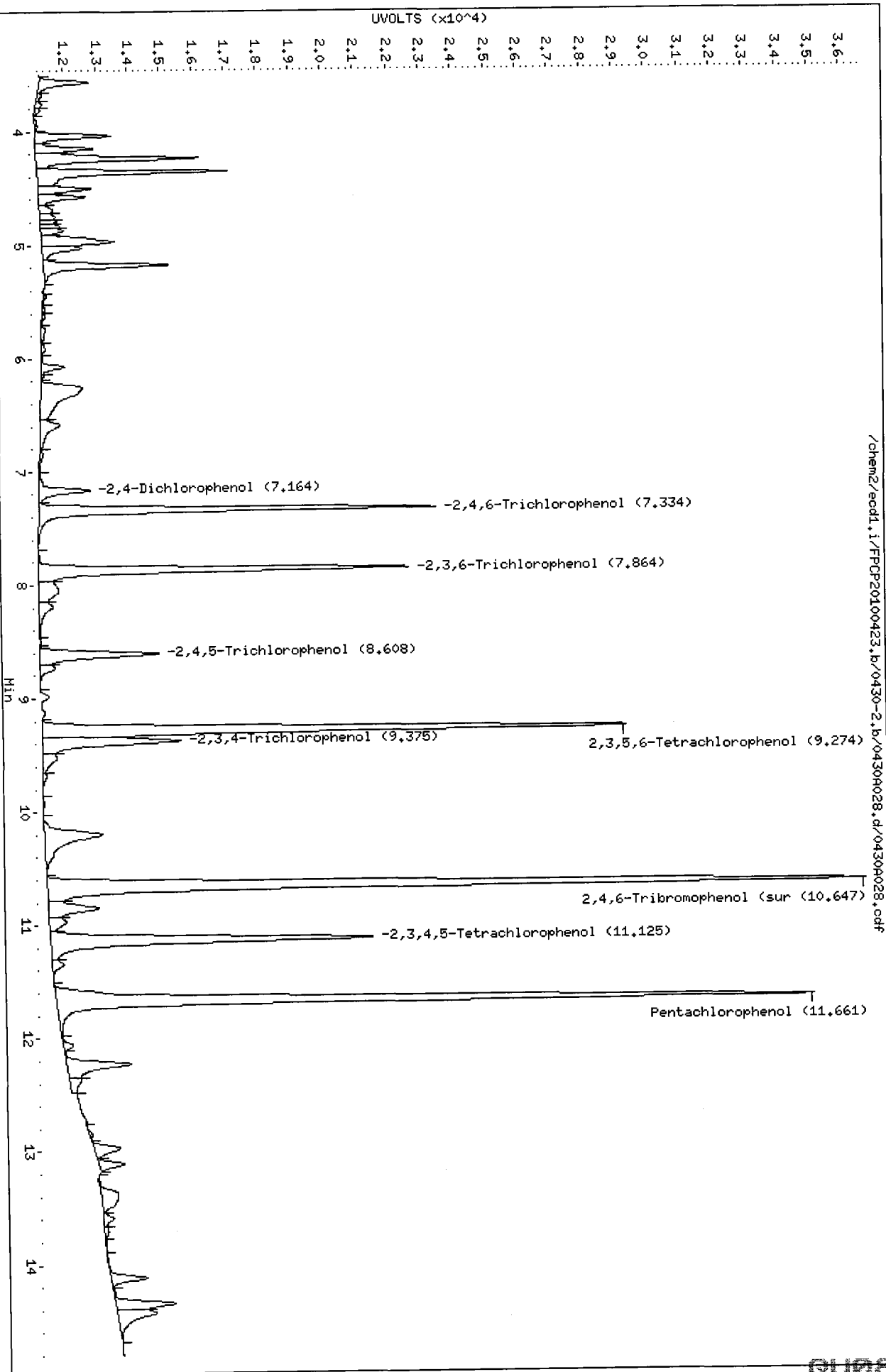
COMPOUND	Col1	Col2
Pentachlorophenol	73.3	81.9
2,4,6-Trichlorophenol	78.4	64.1
2,3,6-Trichlorophenol	71.1	63.9
2,4,5-Trichlorophenol	54.0	46.8
2,3,4-Trichlorophenol	43.3	44.1
2,3,5,6-Tetrachlorophenol	77.9	73.2
2,3,4,5-Tetrachlorophenol	65.7	63.4
2,4-Dichlorophenol	17.5	20.4
2,4,6-TBP (surr)	56.3	56.4

MANUAL ADJUSTMENTS
 1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other
 Analyst: AR Date: 5/4/10



Data File: /chem2/eecd1.i/FPP20100423.b/0430-2.b/0430028.d
Date: 30-APR-2010 18:28
Client ID:
Sample Info: QU08LCSM1
Column phase: ZB35

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



**PCP/Chlorophenols ANALYSIS
Extraction Bench Sheets/Run Logs**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.



Preparation Test PCP # 1

ARI Job No(s) QU08

In-House (0.25ppb)
Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange To Hexane (X2)	Turbo Vap ①/2/3	Final Effective Volume	Volume to Lab	Derivitaze	Comments
	QU08 MB	Date 4-26-10	500mL			50mL	1-2mL		
	↓ SB	↓	↓			↓	↓		
	SB Dup.		↓			↓	↓		
4	QU08 A	verified	500mL						
6,7,11	B								
↓	Bms								
↓	Bmsd								
4	C								
4	D								
Analyst/Date: PO 4-26-10				4-26-10 ¹⁵	JH	4/27/10 →			

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1683-3	100µL 12.5	12/29/10	PO	ww
Spike	6 1255-3	100µL 12.5	9/24/10	PO	ww

Extraction Time: 13:55

- SPECIAL INSTRUCTIONS: 1. Add surr/spike. 2. Acidify all with 1:1 Sulfuric Acid 3. Extract 3X with 30mL DCM.
4. KD (NO Drying Column) at 80° to 5mL. 5. Exchange (2 X with 20mL) Hexane at 100°. 6. Turbo Vap to 1-2mL
7. Pipet using Hexane into Herb Tubes. 8. GC Analyst to Derivitaze. A. Archive Y (N)



**Organic Extractions Laboratory
Analyst Notes**

ARI Job No.: QU08

Client ID: Floyd/Sneider

Parameter: PCP

Client Project: Lova Lakes Apartments

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
<input type="checkbox"/> No Anomalies (standard soil/sediment)	
<input type="checkbox"/> Wet sediment/sludge=	
<input type="checkbox"/> Standing Water Decanted=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
<input type="checkbox"/> Rocks/Organics=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input checked="" type="checkbox"/> Turbid/Color= A-D) light tan.	PD 4-26-10
<input checked="" type="checkbox"/> Particulates= A-D.	PD 4-26-10
<input checked="" type="checkbox"/> Emulsions= A-D.	PD 4-26-10
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Other Notes/Comments=	

Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 4/23/2010 Analysis: PCP Analyst: AR
 GC Program: PCFFAST.M Column No: 150608/146146 Column Type: ZBS/35
 Instrument Tune (.U or .CT.): NA EM Voltage: NA
 Calibration File: FPCP20100423.b Curve Date: 4/23/2010

IS/SS	Ical/Ccal	LCS/ICV
	1659-1	1703-8
	1663-2	1353-8

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd1.i/FPCP20100423.b/ical-1.b									
Inject	Date/Time	Filename	DF	LabID	ClientID				
1	23-APR-2010 17:47	0423A007.d	1	PCP D					
2	23-APR-2010 18:07	0423A008.d	1	PCP A					
3	23-APR-2010 18:27	0423A009.d	1	PCP B					
4	23-APR-2010 18:47	0423A010.d	1	PCP C					
5	23-APR-2010 19:07	0423A011.d	1	PCP E					
6	23-APR-2010 19:27	0423A012.d	1	PCP F					
7	23-APR-2010 19:47	0423A013.d	1	PCP ICV					
8	23-APR-2010 20:07	0423A014.d	1	Q054MBS1	Q054MBS1				
9	23-APR-2010 20:27	0423A015.d	1	Q054A	MDL1				
10	23-APR-2010 20:47	0423A016.d	1	Q054B	MDL2				
11	23-APR-2010 21:07	0423A017.d	1	Q054C	MDL3				
12	23-APR-2010 21:27	0423A018.d	1	Q054D	MDL4				
13	23-APR-2010 21:46	0423A019.d	1	Q054E	MDL5				
14	23-APR-2010 22:06	0423A020.d	1	Q054F	MDL6				
15	23-APR-2010 22:26	0423A021.d	1	Q054G	MDL7				
16	23-APR-2010 22:46	0423A022.d	1	Q054H	MDL8				
17	24-APR-2010 23:06	0423A023.d	1	Q054I	MDL9				
18	24-APR-2010 23:26	0423A024.d	1	PCP CCAL					
19	24-APR-2010 23:46	0423A025.d	1	QS82MBW1					
20	24-APR-2010 00:06	0423A026.d	1	QS82LCSW1					
21	24-APR-2010 00:25	0423A027.d	1	QS82B	CRP-1-04-14-10				
22	24-APR-2010 00:45	0423A028.d	1	QS82BMS	CRP-1-04-14-10 MS				
23	24-APR-2010 01:05	0423A029.d	1	QS82D	CRP-2-04-14-10				
24	24-APR-2010 01:25	0423A030.d	1	QS82F	CRP-3-04-14-10				
25	24-APR-2010 01:45	0423A031.d	1	PCP					
26	24-APR-2010 02:04	0423A032.d	1	PCP CCAL					
27	24-APR-2010 02:24	0423A033.d	1	QT01MBW1	QT01MBW1				
28	24-APR-2010 02:44	0423A034.d	1	QT01LCSW1	QT01LCSW1				
29	24-APR-2010 03:04	0423A035.d	1	QT01LCSW1	QT01LCSW1				
30	24-APR-2010 03:24	0423A036.d	1	QT01A	22				
31	24-APR-2010 03:44	0423A037.d	1	QT01B	22D				
32	24-APR-2010 04:03	0423A038.d	1	QT01C	15-A				
33	24-APR-2010 04:23	0423A039.d	1	QT01D	5-C				
34	24-APR-2010 04:43	0423A040.d	1	QT01E	5-A				
35	24-APR-2010 05:03	0423A041.d	1	QT01F	16-B				
36	24-APR-2010 05:22	0423A042.d	1	PCP					
37	24-APR-2010 05:42	0423A043.d	1	PCP CCAL					
38	24-APR-2010 06:02	0423A044.d	1	QT01G	25-B				
39	24-APR-2010 06:22	0423A045.d	1	QT01H	25-A				
40	24-APR-2010 06:42	0423A046.d	1	QT01I	26-C				
41	24-APR-2010 07:01	0423A047.d	1	QT01J	26-B				
42	24-APR-2010 07:21	0423A048.d	1	QT01K	26A				
43	24-APR-2010 07:41	0423A049.d	1	QT01L	9-C				
44	24-APR-2010 08:01	0423A050.d	1	QT01M	9-B				
45	24-APR-2010 08:20	0423A051.d	1	QT01N	9-A				
46	24-APR-2010 08:40	0423A052.d	1	QT01O	28-B				
47	24-APR-2010 09:00	0423A053.d	1	PCP					
48	24-APR-2010 09:20	0423A054.d	1	PCP CCAL					
49	24-APR-2010 09:40	0423A055.d	1	QT01P	GM-8				
50	24-APR-2010 10:00	0423A056.d	1	QT01Q	RES 8				

AR 4/20/2010

AR 4/22/2010

Maintenance / Comments

-Cleared liner & inlet and changed septa

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: C1 Phenols Curve Client ID: ARI

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

Parameter(s): Chlorinated Phenols, Method 8041, SOP 412S

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: 4/23/2010 Analysis Start: 4/23/2010

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 ^①
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):

① - The surrogate spiking volume is doubled when entering into LIMS, in the LCS/LCSD/MS&MSD; this is because the spike also contains surrogate and when both are spiked the concentration is double what it would be when only the surrogate is spiked.

Additional Details on Reverse: Yes / No

Analyst Signature: Date: 4/26/2010

Reviewer's Signature: Date: 4/26/10

Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 4/30/2010

Analysis: Cl. Phenols

Analyst: AR

GC Program: PCPFAST.M

Column No: 150608/148146

Column Type: ZBS/35

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

EM Voltage: NA

Calibration File: FPCP20100423b

Curve Date: 4/23/2010

IS/SS	Ical/Ccal	LCS/ICV
	<u>1659-1</u>	<u>1703-2</u>
	<u>1663-2</u>	<u>1353-2</u>

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd1.i/FPCP20100423.b/0430-1.b

Inject	Date/Time	Filename	DF	LabID	ClientID
1	30-APR-2010 09:28	0430A001.d	1	PCP	
2	30-APR-2010 09:47	0430A002.d	1	PCP	
3	30-APR-2010 10:07	0430A003.d	1	PCP	
4	30-APR-2010 10:27	0430A004.d	1	PCP	
5	30-APR-2010 10:47	0430A005.d	1	PCP	
6	30-APR-2010 11:07	0430A006.d	1	PCP CCAL	
7	30-APR-2010 11:27	0430A007.d	1	PCPA	
8	30-APR-2010 11:47	0430A008.d	1	PCP 0.5A	
9	30-APR-2010 12:07	0430A009.d	1	QS97MBW1	QS97MBW1
10	30-APR-2010 12:27	0430A010.d	1	QS97A	MDL1
11	30-APR-2010 12:48	0430A011.d	1	QS97B	MDL2
12	30-APR-2010 13:08	0430A012.d	1	QS97C	MDL3
13	30-APR-2010 13:28	0430A013.d	1	QS97D	MDL4
14	30-APR-2010 13:48	0430A014.d	1	QS97E	MDL5
15	30-APR-2010 14:08	0430A015.d	1	QS97F	MDL6
16	30-APR-2010 14:28	0430A016.d	1	QS97G	MDL7
17	30-APR-2010 14:48	0430A017.d	1	QS97H	MDL8
18	30-APR-2010 15:08	0430A018.d	1	QS97I	MDL9
19	30-APR-2010 15:28	0430A019.d	1	PCP	
20	30-APR-2010 15:48	0430A020.d	1	PCP CCAL	
21	30-APR-2010 16:08	0430A021.d	1	QT64MBW1	QT64MBW1
22	30-APR-2010 16:28	0430A022.d	1	QT64LCSW1	QT64LCSW1
23	30-APR-2010 16:48	0430A023.d	1	QT64A	Blair 4-19-10
24	30-APR-2010 17:08	0430A024.d	100	QT64A	Blair 4-19-10
25	30-APR-2010 17:28	0430A025.d	1	QT64A	Blair 4-19-10
26	30-APR-2010 17:48	0430A026.d	1	PCP	
27	30-APR-2010 18:08	0430A027.d	1	PCP CCAL	
28	30-APR-2010 18:28	0430A028.d	1	QU08MBW1	QU08MBW1
29	30-APR-2010 18:48	0430A029.d	1	QU08LCSW1	QU08LCSW1
30	30-APR-2010 19:08	0430A030.d	1	QU08A	CB31A042110COMP
31	30-APR-2010 19:28	0430A031.d	1	QU08B	CB1042110COMP
32	30-APR-2010 19:48	0430A032.d	1	QU08BMS	CB1042110COMP MS
33	30-APR-2010 20:08	0430A033.d	1	QU08BMSD	CB1042110COMP MSD
34	30-APR-2010 20:28	0430A034.d	1	QU08C	CB4857042110COMP
35	30-APR-2010 20:48	0430A035.d	1	QU08D	CB101042110COMP
36	30-APR-2010 21:08	0430A036.d	1	PCP	
37	30-APR-2010 21:28	0430A037.d	1	PCP CCAL	
				DRVBLK042910	

AR 5/4/10

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 Analyst Notes / Corrective Action Log

ARI Project ID: QU08 Client ID: Floyd Snider

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

Parameter(s): PCP only, 8041

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: 4/23/2010 Analysis Start: 4/30/2010
AR

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 ^②
 CCal Meets RF & %RSD Criteria YES / NO ^① Surrogate Recovery In Control? YES / NO
 Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA
VDP

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

- ① For requested compounds
- ② The spiking solution contains surr at the same concentration as the surr. solution. Both solutions are spiked into lab & matrix spike QC, to minimize spiking errors. Effectively the surr is doubled in those samples; therefore, we double the amount entered into LIMS for those samp's to account for the doubling.

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 5/4/2010

Reviewer's Signature: [Signature] Date: 5/4/10

**Metals Analysis
QC Summary Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

Cover Page

INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Floyd/Snider

PROJECT: Lora Lakes Apartment

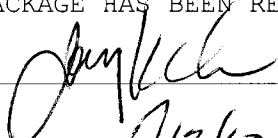
SDG: QU08

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
CB31A042110COMP	QU08A	10-10294	
PBW	QU08MB1	10-10294	
LCSW	QU08MB1SPK	10-10294	
CB1042110COMP	QU08B	10-10295	
CB1042110COMPD	QU08BDUP	10-10295	
CB1042110COMPS	QU08BSPK	10-10295	
CB4857042110COMP	QU08C	10-10296	
CB101042110COMP	QU08D	10-10297	
CB31A042110COMP	QU08E	10-10298	
PBW	QU08MB2	10-10298	
LCSW	QU08MB2SPK	10-10298	
CB1042110COMP	QU08F	10-10299	
CB1042110COMPD	QU08FDUP	10-10299	
CB1042110COMPS	QU08FSPK	10-10299	
CB4857042110COMP	QU08G	10-10300	
CB101042110COMP	QU08H	10-10301	

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: 5/13/10 Title: Inorganics Director

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1


Sample ID: CB1042110COMP

MATRIX SPIKE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.380	26.9	25.0	106%	

Reported in µg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

NR-Not Recovered

Percent Recovery Limits: 75-125%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: CB1042110COMP
DUPLICATE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.4	0.4	0.0%	+/- 0.2	L

Reported in µg/L

*-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: QU08LCS


QC Report No: QU08-Floyd/Snider

LIMS ID: 10-10294

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: 

Date Sampled: NA

Reported: 05/12/10

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.6	25.0	102%	

Reported in µg/L


N-Control limit not met
Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Sample ID: METHOD BLANK

Page 1 of 1

Lab Sample ID: QU08MB
 LIMS ID: 10-10294
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: NA
 Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB1042110COMP
MATRIX SPIKE

Lab Sample ID: QU08F
 LIMS ID: 10-10299
 Matrix: Water
 Data Release Authorized: *[Signature]*
 Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/21/10
 Date Received: 04/22/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.310	26.4	25.0	104%	

Reported in µg/L

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
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB1042110COMP
DUPLICATE

Lab Sample ID: QU08F
 LIMS ID: 10-10299
 Matrix: Water
 Data Release Authorized: *AS*
 Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
 Project: Lora Lakes Apartments
 LLA-POS
 Date Sampled: 04/21/10
 Date Received: 04/22/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.3	0.3	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
 L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QU08LCS

QC Report No: QU08-Floyd/Snider

LIMS ID: 10-10298

Project: Lora Lakes Apartments

Matrix: Water

LLA-POS

Data Release Authorized: 

Date Sampled: NA

Reported: 05/12/10

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	24.8	25.0	99.2%	


Reported in µg/L

N-Control limit not met

Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QU08MB
LIMS ID: 10-10298
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification



CLIENT: Floyd/Snyder

PROJECT: Lora Lakes Apartment

UNITS: ug/L

SDG: QU08

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS051182	50.0	50.04	100.1	50.0	50.65	101.3	51.01	102.0	50.03	100.1	50.93	101.9	51.33	102.7

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

CRDL Standard

CLIENT: Floyd/Snider

PROJECT: Lora Lakes Apartment

SDG: QU08



UNITS: ug/L

ANALYTE	AS	PMS	MS051182	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic				0.2	0.19	95.0										

QU08 : 00345

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

Calibration Blanks



CLIENT: Floyd/Snider

PROJECT: Lora Lakes Apartment

SDG: QU08

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	CCB1	CCB2	CCB3	CCB4	CCB5	C
Arsenic	AS	PMS	MS051182	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U

QU08 : 00346

ICP Interference Check Sample



CLIENT: Floyd/Snider

ICS SOURCE: I.V.

PROJECT: Lora Lakes Apartment

RUNID: MS051182

SDG: QU08

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Arsenic		20	0.0	20.3	101.5						
Cadmium		20	0.1	19.9	99.5						
Copper		20	0.4	20.4	102.0						
Nickel		20	0.5	20.6	103.0						
Selenium			0.0	-0.1							
Silver		20	0.0	18.0	90.0						
Zinc		20	1.4	20.4	102.0						

QU08 : 00347

IDLs and ICP Linear Ranges

ANALYTICAL
RESOURCES 
INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes Apartment

SDG: QU08

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	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2009		

Preparation Log



CLIENT: Floyd/Snider

ANALYSIS METHOD: PMS

PROJECT: Lora Lakes Apartment

ARI PREP CODE: REN

SDG: QU08

PREPDATE: 4/27/2010

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
CB31A042110COMP	QU08A	0.000	50.0	25.0
CB1042110COMP	QU08B	0.000	50.0	25.0
CB1042110COMP	QU08BDUP	0.000	50.0	25.0
CB1042110COMPS	QU08BSPK	0.000	50.0	25.0
CB4857042110COMP	QU08C	0.000	50.0	25.0
CB101042110COMP	QU08D	0.000	50.0	25.0
CB31A042110COMP	QU08E	0.000	50.0	25.0
CB1042110COMP	QU08F	0.000	50.0	25.0
CB1042110COMP	QU08FDUP	0.000	50.0	25.0
CB1042110COMPS	QU08FSPK	0.000	50.0	25.0
CB4857042110COMP	QU08G	0.000	50.0	25.0
CB101042110COMP	QU08H	0.000	50.0	25.0
PBW	QU08MB1	0.000	50.0	25.0
LCSW	QU08MB1SPK	0.000	50.0	25.0
PBW	QU08MB2	0.000	50.0	25.0
LCSW	QU08MB2SPK	0.000	50.0	25.0

Analysis Run Log



CLIENT: Floyd/Snider
 PROJECT: Lora Lakes Apartment
 SDG: QU08
 INSTRUMENT ID: PE ELAN 6000 MS
 RUNID: MS051182 METHOD: PMS
 START DATE: 5/11/2010
 END DATE: 5/11/2010

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			1.00 14250																																		
S1			1.00 14320																																		
S2			1.00 14400																																		
S3			1.00 14470																																		
S4			1.00 14540																																		
ZZZZZZ			Rinse Sampl																																		
ICV			1.00 15020																																		
ICB			1.00 15090																																		
ICB			1.00 15160																																		
CCV			1.00 15230																																		
CCB			1.00 15300																																		
CRI			1.00 15370																																		
ICSA			1.00 15430																																		
ICSAB			1.00 15510																																		
ZZZZZZ			1.00 15580																																		
ZZZZZZ			1.00 16050																																		
CCV			1.00 16120																																		
CCB			1.00 16190																																		
ZZZZZZ			2.00 16260																																		
ZZZZZZ			2.00 16320																																		
ZZZZZZ			2.00 16390																																		
ZZZZZZ			2.00 16450																																		
ZZZZZZ			2.00 16510																																		
ZZZZZZ			2.00 16580																																		
ZZZZZZ			2.00 17040																																		
ZZZZZZ			2.00 17100																																		
ZZZZZZ			2.00 17170																																		
ZZZZZZ			2.00 17230																																		
CCV			1.00 17290																																		
CCB			1.00 17360																																		
PBW			2.00 17520																																		
PBW			2.00 17580																																		
LCSW			2.00 18040																																		
LCSW			2.00 18110																																		
CB1042110COMP			2.00 18170																																		
CB1042110COMP			2.00 18230																																		

Analysis Run Log

CLIENT: Floyd/Snyder

PROJECT: Lora Lakes Apartment

SDG: QU08

INSTRUMENT ID: PE ELAN 6000 MS
 RUNID: MS051182 METHOD: PMS

START DATE: 5/11/2010
 END DATE: 5/11/2010

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						
CB1042110COMPS	QU08BSPK	2.00	18290																																				
CB1042110COMP	QU08FDUP	2.00	18360																																				
CB1042110COMP	QU08F	2.00	18420																																				
CB1042110COMPS	QU08FSPK	2.00	18480																																				
CCV	MCCV4	1.00	18550																																				
CCB	CCB4	1.00	19020																																				
ZZZZZZ	QT14CDUP	2.00	19090																																				
ZZZZZZ	QT14C	2.00	19150																																				
ZZZZZZ	QT14CSPK	2.00	19210																																				
ZZZZZZ	QT14D	2.00	19280																																				
CB31A042110COMP	QU08A	2.00	19340																																				
CB4857042110COMP	QU08C	2.00	19400																																				
CB101042110COMP	QU08D	2.00	19470																																				
CB31A042110COMP	QU08E	2.00	19530																																				
CB4857042110COMP	QU08G	2.00	19590																																				
CB101042110COMP	QU08H	2.00	20050																																				
CCV	MCCV5	1.00	20120																																				
CCB	CCB5	1.00	20190																																				

**Metals Analysis
Sample Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**


Analytical Resources, Inc.

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB31A042110COMP
SAMPLE

Lab Sample ID: QU08A
LIMS ID: 10-10294
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.5	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: CB1042110COMP
SAMPLE

Lab Sample ID: QU08B

LIMS ID: 10-10295

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.4	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: CB4857042110COMP
SAMPLE

Lab Sample ID: QU08C

LIMS ID: 10-10296

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.6	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB101042110COMP
SAMPLE

Lab Sample ID: QU08D
LIMS ID: 10-10297
Matrix: Water
Data Release Authorized:
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10



Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.7	


U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Sample ID: CB31A042110COMP
SAMPLE

Lab Sample ID: QU08E
LIMS ID: 10-10298
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.4	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS


Page 1 of 1

Sample ID: CB1042110COMP
SAMPLE

Lab Sample ID: QU08F

LIMS ID: 10-10299

Matrix: Water

Data Release Authorized: 

Reported: 05/12/10

QC Report No: QU08-Floyd/Snider

Project: Lora Lakes Apartments

LLA-POS

Date Sampled: 04/21/10

Date Received: 04/22/10

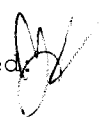
Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB4857042110COMP
SAMPLE

Lab Sample ID: QU08G
LIMS ID: 10-10300
Matrix: Water
Data Release Authorized: 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

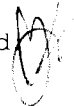
Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS**

Sample ID: CB101042110COMP
SAMPLE

Page 1 of 1

Lab Sample ID: QU08H
LIMS ID: 10-10301
Matrix: Water
Data Release Authorized 
Reported: 05/12/10

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/27/10	200.8	05/11/10	7440-38-2	Arsenic	0.2	0.4	

U-Analyte undetected at given RL
RL-Reporting Limit

**Metals Analysis
Instrument Raw Data and Logs**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.



ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 5.11.10

Analyst: BW

Page: 1 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		std 0			2706-7
		1			2704-11
		2			↓ -12
		3			2707-15
		↓ 4			2704-13
		rinse sample			
		ICV			2695-4
		ICB			
		CCV1			
		CCB1			
		low check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			TI Pb low
		CCB2			
		recalibrate different method			
		std 0			see previous
		1			
		2			
		3			
		↓ 4			↓
		rinse sample			



ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 5-11-10

Analyst: BW

Page: 2 of 6

All corrections made by analyst unless otherwise noted.

BW 5-11-10

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		ICV			repeatability
		ICB			
		CCV1			
		CCB1			
		low check			
		ICSA			
		ICS AB			62% high
		LR 200			
		LR 300			
		CCV2			
		CCB2			
		Q596 MBI	REN	2	Pb
		QTI4 MBI			Pb TI
		↓ MBI			↓
		↓ MBI sph			↓ ✓
		↓ MBI sph			↓ ✓
		Q596 MBI sph			↓ ✓ Pb
		↓ A dep			↓ ✓
		↓ A			↓ ✓
		↓ A sph			↓ ✓ Cu Ni Pb Zn
		QTI4 A	↓	↓	Pb TI
		CCV3			
		CCB3			
		Q008 MBI	REN	2	



ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 5.11.10

Analyst: BW

Page: 3 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		QU08 MB2	REN	2	
		↓ MB2spl	↓	↓	✓
		MB1spl	↓	↓	✓
		Bdep	↓	↓	✓
		B	↓	↓	✓
		Bspl	↓	↓	✓
		Fdep	↓	↓	✓
		F	↓	↓	✓
		↓ Fspl	↓	↓	✓
		CCV4			
		CCB4			
		QT14 Cdep	ZEW	2	Ni As Ti Ni poor RPD
		↓ C	↓	↓	CAF
		↓ Cspl	↓	↓	✓
		↓ D	↓	↓	Ni Ti
		QU08 A			
		↓ C	↓	↓	
		↓ D	↓	↓	
		↓ E	↓	↓	
		↓ G	↓	↓	
		↓ H	↓	↓	
		CCV5			
		CCB5			
		QU08 MB	REN	20	end package

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 5-11-10

	Analyst BWS.12	Peer JLD 5.12.10	Comment
Logbook:			
Analyst, Date, Method info	/	/	
Sample ID's	/	/	
Standard/QC solution ID's recorded	/	/	
Prep codes	/	/	
Dilution factors	/	/	
Crossouts/Corrections/Deletions	/	/	
Calibration:			
Blank & Standard intensities	/	/	
Standard deviations	/	/	
Curve fit	/	/	
Calibration Verification:			
ICV/CCV	/	/	see log
ICB/CCB	/	/	
Samples:			
RSD's & SD's	/	/	
Internal Standards	/	/	
Carry-over	/	/	
Method QC:			
CRI/CRA	/	/	
ICSA/ICSAB	/	/	
Post Spikes/Serial Dilutions	/	/	
Analytic Spikes	/	/	
Matrix QC:			
SRM/LCS	/	/	
Matrix Spikes	/	/	
Matrix Duplicates	/	/	Q T14 CAF
Method Blanks	/	/	
Data Distribution:			
Requested elements/isotope identified	/	/	
Correct samples identified for distribution	/	/	
Raw data match distributed data	/	/	
Data filename correct	/	/	
Necessary Analysts Notes and CAF's	/	/	Q T14

Instrument Tuning Report

1st

File Name: 2008.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.076 ✓	2037	2178	0.675	
Mg	23.985	23.979	5651	2281	0.713	
Co	58.933	58.979	14148	2556	0.690	
In	114.904	114.929	27768	3005	0.691	
Pb	207.977	207.926 ✓	50419	3772	0.709	

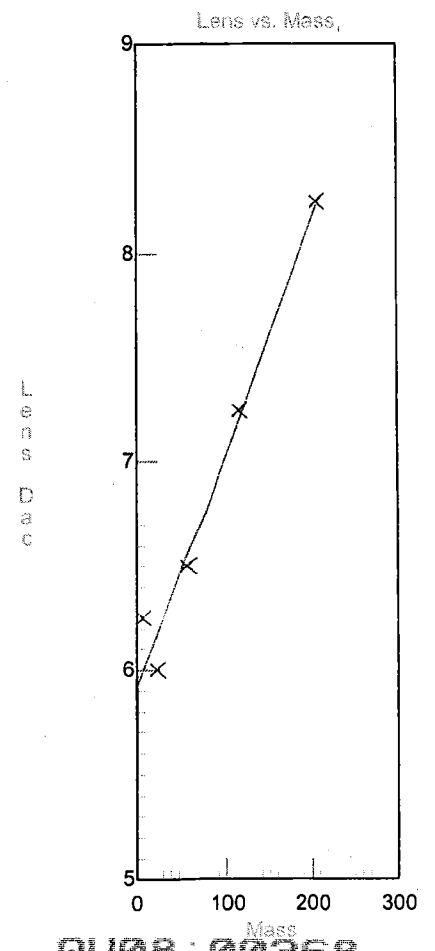
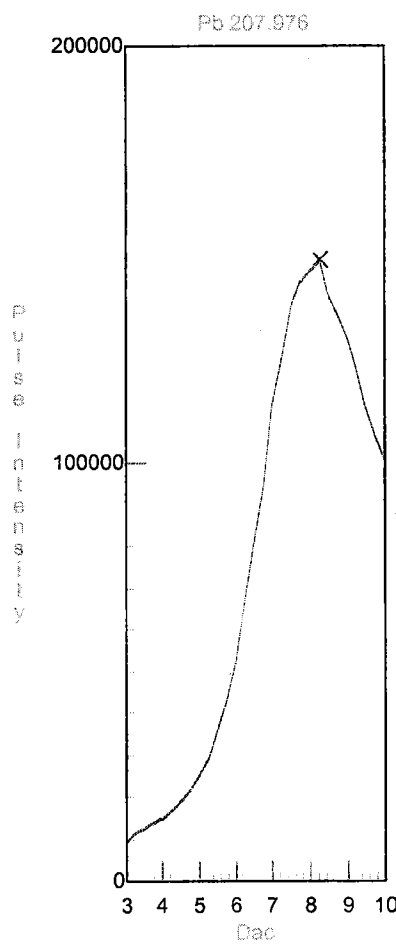
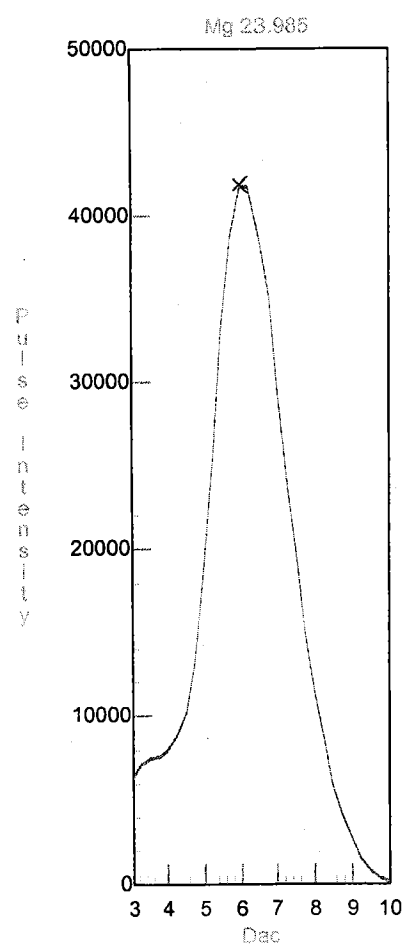
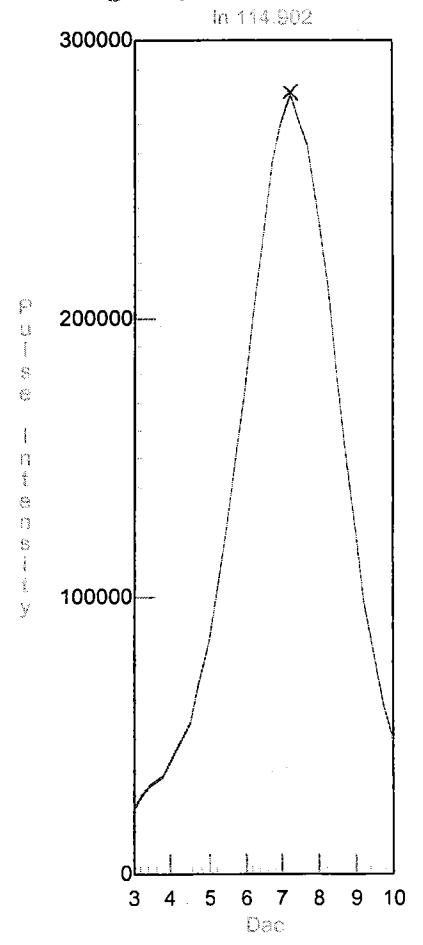
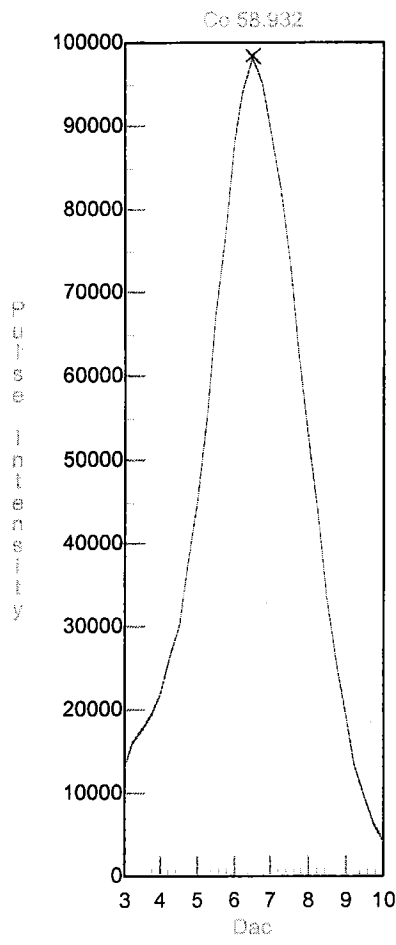
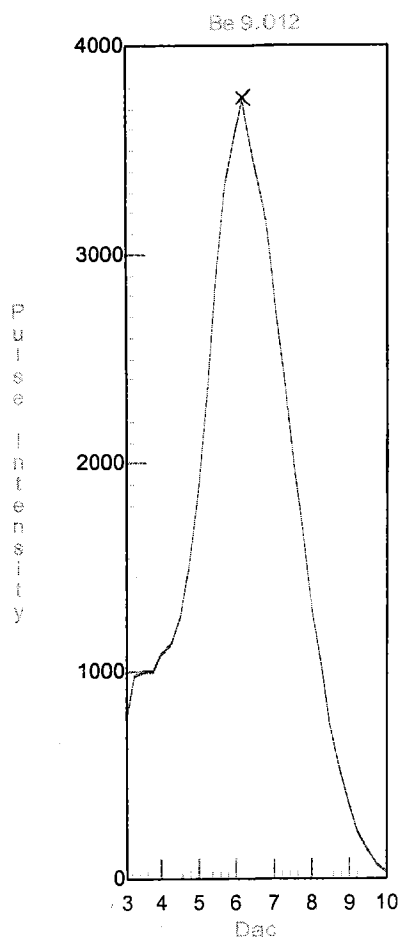
Instrument Tuning Report

2nd

File Name: 2008.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.976 ✓	2028	2178	0.716	
Mg	23.985	23.979 ✓	5649	2281	0.715	
Co	58.933	58.929 ✓	14146	2556	0.683	
In	114.904	114.878 ✓	27761	3005	0.696	
Pb	207.977	208.027 ✓	50431	3772	0.698	

5.11.10



Daily Performance Report

Sample ID: Sample

Sample Date/Time: Tuesday, May 11, 2010 11:31:26

Sample Description:

Sample File: 1120.sam

Method File: c:\elandata\Method\aridailyperf.mth

Dataset File: c:\elandata\Dataset\daily performance\Sample.6776

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Number of Replicates: 5

Dual Detector Mode: Pulse

neb
1.05

Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	39418.462	300.237	0.762
In	115	283094.331	1101.546	0.389
Pb	208	167821.774	891.872	0.531
[> Ba	138	200210.945	1006.643	0.503
[Ba++	69	0.008	0.000	1.592
[> Ce	140	233594.940	886.509	0.380
[CeO	156	0.029	0.000	1.031
Bkgd	220	3.000	1.896	63.191

Daily Performance Report

Sample ID: Sample

Sample Date/Time: Tuesday, May 11, 2010 12:08:20

Sample Description:

Sample File: 1120.sam

Method File: c:\elandata\Method\aridailyperf.mth

Dataset File: c:\elandata\Dataset\daily performance\Sample.6781

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Number of Replicates: 5

Dual Detector Mode: Pulse

*He 5 1.01
after dual
new tubing*

Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	46280.023	245.142	0.530
In	115	343547.638	986.210	0.287
Pb	208	187372.896	654.559	0.349
[> Ba	138	249328.861	976.436	0.392
[Ba++	69	0.007	0.000	1.405
[> Ce	140	290904.880	1509.041	0.519
[CeO	156	0.026	0.001	2.789
Bkgd	220	2.750	2.710	98.543

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 12:14:10

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L				464322	1
[Be	9		ug/L				1	43
C	13		mg/L				8952	4
Cl	37		mg/L				1426832	0
> Sc	45		ug/L				195573	0
V-1	51		ug/L				1057	7
V	51		ug/L				969	1
Cr	52		ug/L				3535	2
Cr	53		ug/L				371	6
Mn	55		ug/L				816	3
Co	59		ug/L				230	8
> Ge	72		ug/L				255733	0
Ni	60		ug/L				105	6
Ni	62		ug/L				69	16
Cu	63		ug/L				457	2
Cu	65		ug/L				101	4
Zn	66		ug/L				758	11
Zn	67		ug/L				215	5
Zn	68		ug/L				2628	3
As-1	75		ug/L				89	7
As	75		ug/L				3683	1
Se	82		ug/L				-26	22
Se	78		ug/L				3727	0
Mo	98		ug/L				25	24
Y	89		ug/L				185938	1
Kr	83		ug/L				84	6
> In	115		ug/L				324888	1
Ag	107		ug/L				47	8
Cd	111		ug/L				212	9
Cd	114		ug/L				109	18
Sb	121		ug/L				160	11
Sb	123		ug/L				103	6
Ba	135		ug/L				36	24
Ba	137		ug/L				72	3
> Tb	159		ug/L				326949	0
Tl	205		ug/L				387	3
Pb	208		ug/L				244	14
Bi	209		ug/L				274613	1
Th	232		ug/L				133	14
U	238		ug/L				27	34

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 12:21:57

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	469064	0
[Be	9	10.000	ug/L	0.101	1	1	4281	0
C	13		mg/L			8952	7050	1
Cl	37		mg/L			1426832	1440400	0
> Sc	45		ug/L			195573	194293	0
V-1	51	10.000	ug/L	0.078	0	1057	88522	0
V	51	10.000	ug/L	0.044	0	969	90435	0
Cr	52	10.000	ug/L	0.084	0	3535	82686	0
Cr	53	10.000	ug/L	0.076	0	371	9955	0
Mn	55	10.000	ug/L	0.074	0	816	145612	0
Co	59	10.000	ug/L	0.057	0	230	107122	0
> Ge	72		ug/L			255733	255926	0
Ni	60	10.000	ug/L	0.030	0	105	22571	0
Ni	62	10.000	ug/L	0.064	0	69	3456	0
Cu	63	10.000	ug/L	0.067	0	457	50167	0
Cu	65	10.000	ug/L	0.044	0	101	23539	0
Zn	66	10.000	ug/L	0.088	0	758	17211	1
Zn	67	10.000	ug/L	0.190	1	215	2963	1
Zn	68	10.000	ug/L	0.081	0	2628	13898	0
As-1	75	10.000	ug/L	0.021	0	89	12596	0
As	75	10.000	ug/L	0.013	0	3683	16293	0
Se	82	10.000	ug/L	0.068	0	-26	1321	1
Se	78	10.000	ug/L	0.006	0	3727	7266	0
Mo	98	10.000	ug/L	0.024	0	25	42591	0
Y	89		ug/L			185938	182721	0
Kr	83		ug/L			84	89	6
> In	115		ug/L			324888	321380	1
Ag	107	10.000	ug/L	0.035	0	47	93452	1
Cd	111	10.000	ug/L	0.096	0	212	25173	0
Cd	114	10.000	ug/L	0.112	1	109	60980	0
Sb	121	10.000	ug/L	0.060	0	160	90014	0
Sb	123	10.000	ug/L	0.076	0	103	68150	1
Ba	135	10.000	ug/L	0.130	1	36	21285	1
Ba	137	10.000	ug/L	0.140	1	72	35809	0
> Tb	159		ug/L			326949	323481	0
Tl	205	10.000	ug/L	0.063	0	387	232769	1
Pb	208	10.000	ug/L	0.018	0	244	322675	0
Bi	209		ug/L			274613	272520	0
Th	232	10.000	ug/L	0.016	0	133	443842	0
U	238	10.000	ug/L	0.031	0	27	460023	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 12:29:45

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			464322	480494	0
[Be	9	19.904	ug/L	0.311	1	1	8564	0
C	13		mg/L			8952	7600	1
Cl	37		mg/L			1426832	1448570	0
[> Sc	45		ug/L			195573	195853	0
V-1	51	19.946	ug/L	0.177	0	1057	175047	0
V	51	19.956	ug/L	0.143	0	969	179372	0
Cr	52	19.957	ug/L	0.057	0	3535	161463	0
Cr	53	19.985	ug/L	0.397	1	371	19628	1
Mn	55	19.960	ug/L	0.074	0	816	289851	0
Co	59	19.937	ug/L	0.081	0	230	212393	0
[> Ge	72		ug/L			255733	254667	0
Ni	60	19.917	ug/L	0.062	0	105	43898	0
Ni	62	19.956	ug/L	0.279	1	69	6737	1
Cu	63	19.936	ug/L	0.057	0	457	97834	0
Cu	65	19.983	ug/L	0.089	0	101	46543	0
Zn	66	20.031	ug/L	0.040	0	758	33754	0
Zn	67	19.966	ug/L	0.277	1	215	5636	0
Zn	68	20.060	ug/L	0.169	0	2628	25384	0
As-1	75	19.956	ug/L	0.045	0	89	24707	0
As	75	19.962	ug/L	0.062	0	3683	28521	0
Se	82	19.927	ug/L	0.274	1	-26	2608	1
Se	78	19.944	ug/L	0.193	0	3727	10653	0
Mo	98	19.975	ug/L	0.200	1	25	84202	0
Y	89		ug/L			185938	182234	0
Kr	83		ug/L			84	90	1
[> In	115		ug/L			324888	322533	0
Ag	107	19.958	ug/L	0.189	0	47	185579	0
Cd	111	19.955	ug/L	0.018	0	212	49760	0
Cd	114	19.975	ug/L	0.094	0	109	121536	0
Sb	121	19.987	ug/L	0.060	0	160	179939	0
Sb	123	20.030	ug/L	0.124	0	103	137713	0
Ba	135	19.935	ug/L	0.065	0	36	42008	0
Ba	137	20.015	ug/L	0.023	0	72	72089	0
[> Tb	159		ug/L			326949	324034	0
Ti	205	19.948	ug/L	0.168	0	387	460008	0
Pb	208	19.954	ug/L	0.118	0	244	638842	0
Bi	209		ug/L			274613	270951	0
Th	232	20.022	ug/L	0.122	0	133	894002	0
U	238	20.025	ug/L	0.119	0	27	927449	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 12:37:33

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	479295	0
[Be	9	50.051	ug/L	0.369	0	1	21590	1
C	13		mg/L			8952	4894	2
Cl	37		mg/L			1426832	1448115	0
> Sc	45		ug/L			195573	193262	0
V-1	51	50.094	ug/L	0.116	0	1057	436356	0
V	51	50.095	ug/L	0.170	0	969	447125	0
Cr	52	50.014	ug/L	0.156	0	3535	394590	0
Cr	53	50.022	ug/L	0.687	1	371	48032	1
Mn	55	50.034	ug/L	0.095	0	816	718183	0
Co	59	49.992	ug/L	0.102	0	230	524763	0
> Ge	72		ug/L			255733	254627	0
Ni	60	49.892	ug/L	0.144	0	105	108623	0
Ni	62	49.748	ug/L	0.453	0	69	16281	0
Cu	63	49.913	ug/L	0.251	0	457	242114	0
Cu	65	49.866	ug/L	0.228	0	101	114452	0
Zn	66	49.968	ug/L	0.474	0	758	82799	0
Zn	67	50.001	ug/L	0.512	1	215	13793	0
Zn	68	49.936	ug/L	0.272	0	2628	58920	0
As-1	75	50.053	ug/L	0.095	0	89	62155	0
As	75	50.047	ug/L	0.144	0	3683	66263	0
Se	82	49.973	ug/L	0.510	1	-26	6561	1
Se	78	49.958	ug/L	0.348	0	3727	21022	0
Mo	98	50.054	ug/L	0.353	0	25	212072	1
Y	89		ug/L			185938	181327	0
Kr	83		ug/L			84	104	7
> In	115		ug/L			324888	313049	1
Ag	107	49.998	ug/L	0.365	0	47	451072	0
Cd	111	50.136	ug/L	0.258	0	212	122701	1
Cd	114	50.155	ug/L	0.293	0	109	300693	0
Sb	121	50.184	ug/L	0.117	0	160	446500	0
Sb	123	50.144	ug/L	0.377	0	103	339339	0
Ba	135	50.078	ug/L	0.304	0	36	103172	0
[Ba	137	50.129	ug/L	0.438	0	72	177409	0
> Tb	159		ug/L			326949	318163	0
Tl	205	50.107	ug/L	0.283	0	387	1146207	1
Pb	208	50.040	ug/L	0.465	0	244	1578995	0
Bi	209		ug/L			274613	265488	0
Th	232	50.365	ug/L	0.511	1	133	2291336	0
[U	238	50.367	ug/L	0.342	0	27	2377723	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 12:45:23

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	475842	0
[Be	9	99.935	ug/L	0.547	0	1	42704	0
C	13		mg/L			8952	5734	1
Cl	37		mg/L			1426832	1413980	0
> Sc	45		ug/L			195573	191156	0
V-1	51	100.117	ug/L	0.489	0	1057	864909	0
V	51	100.024	ug/L	0.336	0	969	882785	0
Cr	52	99.920	ug/L	0.594	0	3535	774215	0
Cr	53	99.651	ug/L	0.535	0	371	93202	0
Mn	55	99.994	ug/L	0.908	0	816	1418575	0
Co	59	99.772	ug/L	0.936	0	230	1027865	0
> Ge	72		ug/L			255733	251624	0
Ni	60	99.396	ug/L	0.478	0	105	209530	0
Ni	62	99.394	ug/L	0.552	0	69	31444	0
Cu	63	99.262	ug/L	0.684	0	457	463958	0
Cu	65	99.345	ug/L	0.444	0	101	220413	0
Zn	66	99.280	ug/L	0.493	0	758	158066	0
Zn	67	99.332	ug/L	1.121	1	215	26290	1
Zn	68	99.362	ug/L	0.556	0	2628	110992	0
As-1	75	99.603	ug/L	0.326	0	89	120545	0
As	75	99.544	ug/L	0.323	0	3683	124818	0
Se	82	99.639	ug/L	0.348	0	-26	12800	0
Se	78	99.417	ug/L	0.572	0	3727	37063	0
Mo	98	99.979	ug/L	1.075	1	25	418278	1
Y	89		ug/L			185938	177977	1
Kr	83		ug/L			84	116	7
> In	115		ug/L			324888	310833	0
Ag	107	99.859	ug/L	0.544	0	47	890345	0
Cd	111	99.825	ug/L	0.481	0	212	240975	0
Cd	114	99.813	ug/L	0.373	0	109	590402	0
Sb	121	100.014	ug/L	0.799	0	160	883833	0
Sb	123	100.037	ug/L	0.648	0	103	672966	0
Ba	135	99.816	ug/L	0.259	0	36	202923	0
Ba	137	99.889	ug/L	0.467	0	72	349664	0
> Tb	159		ug/L			326949	312100	0
Tl	205	100.701	ug/L	0.140	0	387	2313286	0
Pb	208	100.079	ug/L	0.142	0	244	3105771	0
Bi	209		ug/L			274613	257362	0
Th	232	100.099	ug/L	0.295	0	133	4482120	0
U	238	100.068	ug/L	0.432	0	27	4644510	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 12:53:11

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	486249	1
[Be	9	0.001	ug/L	0.003	429	1	2	69
C	13		mg/L			8952	6345	2
Cl	37		mg/L			1426832	1441025	0
> Sc	45		ug/L			195573	192204	0
V-1	51	-0.005	ug/L	0.012	254	1057	1000	10
V	51	-0.007	ug/L	0.001	16	969	894	1
Cr	52	-0.039	ug/L	0.006	14	3535	3172	1
Cr	53	-0.043	ug/L	0.031	71	371	324	8
Mn	55	-0.010	ug/L	0.002	17	816	653	4
Co	59	-0.003	ug/L	0.001	40	230	195	6
> Ge	72		ug/L			255733	252618	0
Ni	60	-0.004	ug/L	0.005	122	105	95	11
Ni	62	-0.009	ug/L	0.025	269	69	65	11
Cu	63	-0.018	ug/L	0.005	26	457	370	5
Cu	65	-0.005	ug/L	0.004	86	101	90	10
Zn	66	-0.278	ug/L	0.008	2	758	307	4
Zn	67	-0.327	ug/L	0.033	10	215	126	6
Zn	68	-0.249	ug/L	0.031	12	2628	2323	2
As-1	75	-0.025	ug/L	0.014	57	89	57	30
As	75	0.003	ug/L	0.011	316	3683	3642	1
Se	82	-0.015	ug/L	0.041	264	-26	-28	18
Se	78	0.084	ug/L	0.022	26	3727	3710	0
Mo	98	0.010	ug/L	0.002	22	25	65	13
Y	89		ug/L			185938	183176	0
Kr	83		ug/L			84	82	6
> In	115		ug/L			324888	318648	0
Ag	107	0.002	ug/L	0.001	30	47	67	9
Cd	111	-0.010	ug/L	0.009	89	212	184	11
Cd	114	-0.000	ug/L	0.001	148	109	104	3
Sb	121	0.018	ug/L	0.002	11	160	318	6
Sb	123	0.022	ug/L	0.002	9	103	255	5
Ba	135	-0.007	ug/L	0.002	27	36	20	19
Ba	137	-0.005	ug/L	0.001	29	72	52	9
> Tb	159		ug/L			326949	320989	1
Tl	205	-0.003	ug/L	0.001	41	387	320	7
Pb	208	0.000	ug/L	0.001	1565	244	241	12
Bi	209		ug/L			274613	266931	0
Th	232	0.034	ug/L	0.004	12	133	1679	12
U	238	0.004	ug/L	0.001	16	27	236	15

Quantitative Analysis - Calibration Report

Sample Date/Time: Tuesday, May 11, 2010 12:45:23

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0009	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V-1	51	1.0000	0.0451	10	20	50	100	
V	51	1.0000	0.0461	10	20	50	100	
Cr	52	1.0000	0.0404	10	20	50	100	
Cr	53	1.0000	0.0049	10	20	50	100	
Mn	55	1.0000	0.0742	10	20	50	100	
Co	59	1.0000	0.0539	10	20	50	100	
Ge	72							
Ni	60	0.9999	0.0084	10	20	50	100	
Ni	62	0.9999	0.0013	10	20	50	100	
Cu	63	0.9999	0.0186	10	20	50	100	
Cu	65	0.9999	0.0088	10	20	50	100	
Zn	66	0.9999	0.0063	10	20	50	100	
Zn	67	0.9999	0.0010	10	20	50	100	
Zn	68	0.9999	0.0043	10	20	50	100	
As-1	75	1.0000	0.0048	10	20	50	100	
As	75	1.0000	0.0048	10	20	50	100	
Se	82	1.0000	0.0005	10	20	50	100	
Se	78	0.9999	0.0013	10	20	50	100	
Mo	98	1.0000	0.0166	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0287	10	20	50	100	
Cd	111	1.0000	0.0078	10	20	50	100	
Cd	114	1.0000	0.0190	10	20	50	100	
Sb	121	1.0000	0.0284	10	20	50	100	
Sb	123	1.0000	0.0216	10	20	50	100	
Ba	135	1.0000	0.0065	10	20	50	100	
Ba	137	1.0000	0.0113	10	20	50	100	
Tb	159							
Tl	205	0.9999	0.0736	10	20	50	100	
Pb	208	1.0000	0.0994	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1435	10	20	50	100	
U	238	1.0000	0.1487	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 13:00:40

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	508731	0
[Be	9	49.356	ug/L	0.637	1	1	22550	2
C	13		mg/L			8952	6396	1
Cl	37		mg/L			1426832	1392453	0
> Sc	45		ug/L			195573	195729	0
V-1	51	50.429	ug/L	0.137	0	1057	446602	0
V	51	50.390	ug/L	0.158	0	969	455853	1
Cr	52	50.076	ug/L	0.144	0	3535	399055	0
Cr	53	49.980	ug/L	0.456	0	371	48051	1
Mn	55	49.920	ug/L	0.207	0	816	725546	0
Co	59	50.646	ug/L	0.190	0	230	534366	0
> Ge	72		ug/L			255733	255804	0
Ni	60	50.862	ug/L	0.641	1	105	109051	1
Ni	62	50.937	ug/L	0.576	1	69	16416	0
Cu	63	50.660	ug/L	0.330	0	457	240946	0
Cu	65	50.989	ug/L	0.347	0	101	115056	0
Zn	66	50.489	ug/L	0.372	0	758	82090	0
Zn	67	50.503	ug/L	0.326	0	215	13694	0
Zn	68	50.865	ug/L	0.392	0	2628	59044	0
As-1	75	50.052	ug/L	0.274	0	89	61626	0
As	75	49.860	ug/L	0.196	0	3683	65397	0
Se	82	82.263	ug/L	1.576	1	-26	10739	2
Se	78	80.642	ug/L	0.497	0	3727	31267	0
Mo	98	50.246	ug/L	0.092	0	25	213718	0
Y	89		ug/L			185938	183357	0
Kr	83		ug/L			84	92	13
> In	115		ug/L			324888	321963	0
Ag	107	47.135	ug/L	0.095	0	47	435335	0
Cd	111	50.485	ug/L	0.071	0	212	126337	0
Cd	114	50.112	ug/L	0.208	0	109	307089	0
Sb	121	49.507	ug/L	0.140	0	160	453239	0
Sb	123	49.670	ug/L	0.077	0	103	346149	0
Ba	135	50.588	ug/L	0.334	0	36	106540	0
[Ba	137	50.127	ug/L	0.128	0	72	181790	0
> Tb	159		ug/L			326949	325204	0
Tl	205	49.172	ug/L	0.292	0	387	1177160	0
Pb	208	49.688	ug/L	0.284	0	244	1606791	0
Bi	209		ug/L			274613	268496	0
Th	232	50.810	ug/L	0.482	0	133	2370651	1
[U	238	51.768	ug/L	0.679	1	27	2503508	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 13:08:10

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	499859	0
[Be	9	0.002	ug/L	0.005	309	1	2	86
C	13		mg/L			8952	5977	1
Cl	37		mg/L			1426832	1400844	0
> Sc	45		ug/L			195573	188834	0
V-1	51	-0.004	ug/L	0.010	240	1057	986	9
V	51	-0.010	ug/L	0.004	38	969	848	4
Cr	52	-0.036	ug/L	0.013	37	3535	3140	2
Cr	53	-0.052	ug/L	0.035	68	371	310	10
Mn	55	-0.015	ug/L	0.003	23	816	583	8
[Co	59	-0.005	ug/L	0.003	67	230	170	20
> Ge	72		ug/L			255733	247994	0
Ni	60	-0.015	ug/L	0.010	67	105	72	28
Ni	62	-0.027	ug/L	0.029	110	69	58	15
Cu	63	-0.017	ug/L	0.004	21	457	366	4
Cu	65	-0.007	ug/L	0.009	132	101	83	24
Zn	66	-0.316	ug/L	0.015	4	758	241	9
Zn	67	-0.360	ug/L	0.027	7	215	115	6
Zn	68	-0.277	ug/L	0.044	15	2628	2251	2
As-1	75	-0.024	ug/L	0.007	29	89	58	14
As	75	0.078	ug/L	0.027	34	3683	3665	1
Se	82	-0.044	ug/L	0.061	138	-26	-31	24
Se	78	0.337	ug/L	0.081	24	3727	3726	1
[Mo	98	0.008	ug/L	0.002	26	25	58	15
Y	89		ug/L			185938	181352	0
Kr	83		ug/L			84	83	8
> In	115		ug/L			324888	319149	0
Ag	107	0.003	ug/L	0.001	32	47	71	10
Cd	111	-0.013	ug/L	0.003	21	212	176	4
Cd	114	-0.003	ug/L	0.003	78	109	88	17
Sb	121	0.005	ug/L	0.005	93	160	205	22
Sb	123	0.008	ug/L	0.001	15	103	156	5
Ba	135	-0.004	ug/L	0.001	23	36	26	8
[Ba	137	-0.006	ug/L	0.000	7	72	48	3
> Tb	159		ug/L			326949	323275	1
Tl	205	-0.004	ug/L	0.000	8	387	291	3
Pb	208	0.000	ug/L	0.001	321	244	248	9
Bi	209		ug/L			274613	264350	0
Th	232	0.020	ug/L	0.002	9	133	1052	9
[U	238	0.003	ug/L	0.001	36	27	175	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 11, 2010 13:15:37**

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	510877	0
[Be	9	48.703	ug/L	0.493	1	1	22345	1
C	13		mg/L			8952	4285	1
Cl	37		mg/L			1426832	1368117	0
> Sc	45		ug/L			195573	193624	0
V-1	51	49.995	ug/L	0.290	0	1057	438004	0
V	51	49.989	ug/L	0.213	0	969	447370	0
Cr	52	49.941	ug/L	0.049	0	3535	393709	0
Cr	53	49.928	ug/L	0.282	0	371	47484	0
Mn	55	50.330	ug/L	0.219	0	816	723636	0
Co	59	49.759	ug/L	0.286	0	230	519368	0
> Ge	72		ug/L			255733	250456	0
Ni	60	50.782	ug/L	0.431	0	105	106601	0
Ni	62	51.269	ug/L	0.696	1	69	16177	1
Cu	63	50.595	ug/L	0.131	0	457	235606	0
Cu	65	50.142	ug/L	0.277	0	101	110778	0
Zn	66	51.103	ug/L	0.165	0	758	81343	0
Zn	67	50.751	ug/L	0.754	1	215	13473	1
Zn	68	51.500	ug/L	0.175	0	2628	58500	0
As-1	75	50.511	ug/L	0.533	1	89	60888	0
As	75	50.391	ug/L	0.306	0	3683	64671	0
Se	82	51.585	ug/L	1.377	2	-26	6583	2
Se	78	51.061	ug/L	0.630	1	3727	20722	0
Mo	98	49.871	ug/L	0.916	1	25	207675	1
Y	89		ug/L			185938	179013	0
Kr	83		ug/L			84	92	3
> In	115		ug/L			324888	315262	0
Ag	107	48.976	ug/L	0.538	1	47	442933	1
Cd	111	50.261	ug/L	0.255	0	212	123160	1
Cd	114	50.079	ug/L	0.160	0	109	300496	0
Sb	121	49.746	ug/L	0.299	0	160	445940	0
Sb	123	49.917	ug/L	0.180	0	103	340634	0
Ba	135	50.199	ug/L	0.333	0	36	103522	0
Ba	137	49.842	ug/L	0.524	1	72	176992	0
> Tb	159		ug/L			326949	324374	0
Tl	205	47.857	ug/L	0.440	0	387	1142821	1
Pb	208	49.110	ug/L	0.297	0	244	1584100	0
Bi	209		ug/L			274613	265735	0
Th	232	50.070	ug/L	0.354	0	133	2330189	0
U	238	50.404	ug/L	0.078	0	27	2431477	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 13:23:05

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	502118	0
[Be	9	0.002	ug/L	0.004	170	1	2	65
C	13		mg/L			8952	5827	4
Cl	37		mg/L			1426832	1385405	0
> Sc	45		ug/L			195573	186516	0
V-1	51	-0.009	ug/L	0.014	161	1057	936	12
V	51	-0.017	ug/L	0.005	31	969	777	6
Cr	52	-0.041	ug/L	0.013	30	3535	3060	3
Cr	53	-0.065	ug/L	0.017	25	371	295	4
Mn	55	-0.016	ug/L	0.002	10	816	556	3
[Co	59	-0.008	ug/L	0.001	7	230	138	4
> Ge	72		ug/L			255733	244967	1
Ni	60	-0.012	ug/L	0.005	41	105	75	14
Ni	62	-0.038	ug/L	0.029	75	69	54	15
Cu	63	-0.010	ug/L	0.005	45	457	391	6
Cu	65	-0.013	ug/L	0.005	38	101	68	17
Zn	66	-0.308	ug/L	0.013	4	758	250	9
Zn	67	-0.387	ug/L	0.037	9	215	107	9
Zn	68	-0.244	ug/L	0.050	20	2628	2258	2
As-1	75	-0.020	ug/L	0.019	96	89	62	36
As	75	0.016	ug/L	0.007	42	3683	3547	1
Se	82	-0.059	ug/L	0.113	190	-26	-32	43
Se	78	0.128	ug/L	0.068	52	3727	3612	1
[Mo	98	0.009	ug/L	0.003	35	25	61	22
Y	89		ug/L			185938	178538	0
Kr	83		ug/L			84	88	13
> In	115		ug/L			324888	314646	0
Ag	107	0.004	ug/L	0.002	53	47	81	23
Cd	111	-0.013	ug/L	0.005	40	212	173	7
Cd	114	-0.004	ug/L	0.003	83	109	84	21
Sb	121	0.026	ug/L	0.006	21	160	391	13
Sb	123	0.031	ug/L	0.007	24	103	308	16
Ba	135	-0.006	ug/L	0.002	24	36	22	14
Ba	137	-0.008	ug/L	0.001	13	72	40	9
> Tb	159		ug/L			326949	322648	0
Tl	205	-0.005	ug/L	0.001	11	387	267	5
Pb	208	-0.000	ug/L	0.001	12819	244	240	13
Bi	209		ug/L			274613	262272	0
Th	232	0.034	ug/L	0.004	10	133	1725	10
[U	238	0.003	ug/L	0.001	28	27	165	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 13:30:31

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	488722	1
[Be	9	0.210	ug/L	0.014	6	1	93	7
C	13		mg/L			8952	5055	0
Cl	37		mg/L			1426832	1395267	0
> Sc	45		ug/L			195573	182105	1
V-1	51	0.186	ug/L	0.021	11	1057	2512	6
V	51	0.187	ug/L	0.002	1	969	2473	2
Cr	52	0.470	ug/L	0.017	3	3535	6744	0
Cr	53	0.455	ug/L	0.043	9	371	749	6
Mn	55	0.495	ug/L	0.009	1	816	7444	1
Co	59	0.199	ug/L	0.002	1	230	2170	2
> Ge	72		ug/L			255733	243813	0
Ni	60	0.514	ug/L	0.010	1	105	1149	1
Ni	62	0.481	ug/L	0.027	5	69	212	3
Cu	63	0.515	ug/L	0.017	3	457	2767	2
Cu	65	0.517	ug/L	0.015	2	101	1208	2
Zn	66	3.922	ug/L	0.058	1	758	6744	1
Zn	67	3.468	ug/L	0.133	3	215	1087	3
Zn	68	3.838	ug/L	0.171	4	2628	6563	2
As-1	75	0.187	ug/L	0.038	20	89	304	14
As	75	0.248	ug/L	0.025	10	3683	3804	0
Se	82	0.608	ug/L	0.041	6	-26	50	10
Se	78	0.764	ug/L	0.055	7	3727	3802	0
Mo	98	0.197	ug/L	0.010	5	25	823	5
Y	89		ug/L			185938	178194	0
Kr	83		ug/L			84	73	5
> In	115		ug/L			324888	311287	1
Ag	107	0.196	ug/L	0.001	0	47	1797	1
Cd	111	0.201	ug/L	0.015	7	212	689	4
Cd	114	0.208	ug/L	0.004	1	109	1334	2
Sb	121	0.195	ug/L	0.005	2	160	1882	3
Sb	123	0.205	ug/L	0.004	1	103	1479	2
Ba	135	0.489	ug/L	0.030	6	36	1031	6
Ba	137	0.491	ug/L	0.012	2	72	1790	3
> Tb	159		ug/L			326949	317162	1
Tl	205	0.189	ug/L	0.004	2	387	4787	3
Pb	208	0.976	ug/L	0.003	0	244	31007	2
Bi	209		ug/L			274613	255370	1
Th	232	0.203	ug/L	0.004	2	133	9361	1
U	238	0.195	ug/L	0.002	0	27	9211	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 13:37:57

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	477464	0
[Be	9	0.002	ug/L	0.006	316	1	2	100
C	13		mg/L			8952	15279	0
Cl	37		mg/L			1426832	2049268	5
> Sc	45		ug/L			195573	164369	0
V-1	51	-0.026	ug/L	0.020	78	1057	699	21
V	51	0.561	ug/L	0.007	1	969	5067	0
Cr	52	0.394	ug/L	0.020	5	3535	5587	2
Cr	53	2.142	ug/L	0.065	3	371	2027	2
Mn	55	0.183	ug/L	0.015	8	816	2917	6
Co	59	0.026	ug/L	0.001	5	230	419	2
> Ge	72		ug/L			255733	219322	1
Ni	60	0.513	ug/L	0.018	3	105	1033	1
Ni	62	4.257	ug/L	0.149	3	69	1230	3
Cu	63	0.447	ug/L	0.014	3	457	2212	3
Cu	65	0.698	ug/L	0.024	3	101	1436	1
Zn	66	1.097	ug/L	0.075	6	758	2164	3
Zn	67	0.845	ug/L	0.115	13	215	378	8
Zn	68	0.329	ug/L	0.057	17	2628	2567	1
As-1	75	-0.004	ug/L	0.019	496	89	72	26
As	75	-0.029	ug/L	0.018	63	3683	3128	1
Se	82	-0.068	ug/L	0.116	170	-26	-30	43
Se	78	0.006	ug/L	0.128	2276	3727	3198	2
Mo	98	415.764	ug/L	3.871	0	25	1516175	2
Y	89		ug/L			185938	160565	1
Kr	83		ug/L			84	91	13
> In	115		ug/L			324888	287298	2
Ag	107	0.024	ug/L	0.002	7	47	243	8
Cd	111	0.071	ug/L	0.009	12	212	347	3
Cd	114	0.589	ug/L	0.024	3	109	3318	5
Sb	121	0.042	ug/L	0.002	4	160	489	5
Sb	123	0.043	ug/L	0.003	7	103	360	7
Ba	135	0.027	ug/L	0.004	13	36	82	9
Ba	137	0.017	ug/L	0.004	25	72	119	12
> Tb	159		ug/L			326949	314485	0
Tl	205	0.005	ug/L	0.001	15	387	481	3
Pb	208	0.039	ug/L	0.001	3	244	1441	2
Bi	209		ug/L			274613	234483	0
Th	232	0.031	ug/L	0.004	14	133	1526	12
U	238	0.000	ug/L	0.000	30	27	43	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 13:45:44

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			464322	443029	1
[Be	9	0.003	ug/L	0.004	108	1	2	49
C	13		mg/L			8952	14456	1
Cl	37		mg/L			1426832	1806767	2
[> Sc	45		ug/L			195573	151068	0
V-1	51	-0.487	ug/L	0.037	7	1057	-2503	10
V	51	0.540	ug/L	0.023	4	969	4510	3
Cr	52	21.107	ug/L	0.137	0	3535	131408	1
Cr	53	22.824	ug/L	0.228	0	371	17092	1
Mn	55	20.805	ug/L	0.166	0	816	233762	1
Co	59	20.330	ug/L	0.163	0	230	165668	1
[> Ge	72		ug/L			255733	202520	1
Ni	60	20.253	ug/L	0.150	0	105	34426	1
Ni	62	23.732	ug/L	0.394	1	69	6084	2
Cu	63	19.599	ug/L	0.084	0	457	74018	1
Cu	65	19.650	ug/L	0.147	0	101	35149	1
Zn	66	20.155	ug/L	0.056	0	758	26305	1
Zn	67	18.270	ug/L	0.032	0	215	4030	1
Zn	68	19.326	ug/L	0.155	0	2628	19050	1
As-1	75	20.385	ug/L	0.112	0	89	19912	1
As	75	20.185	ug/L	0.150	0	3683	22696	1
Se	82	-0.078	ug/L	0.029	37	-26	-29	9
Se	78	-0.174	ug/L	0.162	93	3727	2904	2
Mo	98	417.245	ug/L	11.801	2	25	1404843	3
Y	89		ug/L			185938	150924	2
Kr	83		ug/L			84	80	2
[> In	115		ug/L			324888	268584	2
Ag	107	16.885	ug/L	0.075	0	47	130129	2
Cd	111	19.674	ug/L	0.035	0	212	41177	2
Cd	114	20.320	ug/L	0.081	0	109	103935	2
Sb	121	0.037	ug/L	0.005	14	160	415	12
Sb	123	0.041	ug/L	0.004	10	103	322	9
Ba	135	0.027	ug/L	0.008	28	36	77	19
[Ba	137	0.027	ug/L	0.003	11	72	140	7
[> Tb	159		ug/L			326949	313905	1
Tl	205	0.006	ug/L	0.001	26	387	502	7
Pb	208	0.037	ug/L	0.002	4	244	1403	4
Bi	209		ug/L			274613	225621	0
Th	232	0.016	ug/L	0.002	10	133	868	8
U	238	0.000	ug/L	0.000	14	27	37	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 13:53:29

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	453393	1
[Be	9	187.271	ug/L	1.798	0	1	76243	1
C	13		mg/L			8952	4412	2
Cl	37		mg/L			1426832	1080714	1
> Sc	45		ug/L			195573	155544	1
V-1	51	205.846	ug/L	1.381	0	1057	1446031	0
V	51	205.253	ug/L	1.393	0	969	1473128	0
Cr	52	203.211	ug/L	1.369	0	3535	1278236	0
Cr	53	201.586	ug/L	1.565	0	371	153106	0
Mn	55	207.252	ug/L	1.360	0	816	2391626	0
Co	59	199.106	ug/L	1.603	0	230	1668785	0
> Ge	72		ug/L			255733	210325	0
Ni	60	190.295	ug/L	0.848	0	105	335229	0
Ni	62	189.236	ug/L	0.309	0	69	49990	0
Cu	63	187.253	ug/L	0.808	0	457	731243	0
Cu	65	185.451	ug/L	0.780	0	101	343845	0
Zn	66	191.485	ug/L	0.590	0	758	254246	0
Zn	67	190.617	ug/L	0.665	0	215	42006	0
Zn	68	191.384	ug/L	0.458	0	2628	176693	0
As-1	75	196.703	ug/L	0.609	0	89	198914	0
As	75	196.284	ug/L	0.527	0	3683	202780	0
Se	82	205.099	ug/L	0.639	0	-26	22046	0
Se	78	203.241	ug/L	0.635	0	3727	60131	0
Mo	98	204.753	ug/L	2.622	1	25	716015	1
Y	89		ug/L			185938	155268	1
Kr	83		ug/L			84	113	4
> In	115		ug/L			324888	274533	1
Ag	107	186.122	ug/L	0.526	0	47	1465614	1
Cd	111	196.207	ug/L	0.294	0	212	418145	1
Cd	114	198.436	ug/L	0.796	0	109	1036593	1
Sb	121	205.153	ug/L	0.932	0	160	1601036	1
Sb	123	205.196	ug/L	1.799	0	103	1219010	0
Ba	135	200.363	ug/L	0.828	0	36	359714	1
Ba	137	200.683	ug/L	1.333	0	72	620357	0
> Tb	159		ug/L			326949	304614	0
Tl	205	181.391	ug/L	2.039	1	387	4066697	1
Pb	208	184.779	ug/L	1.475	0	244	5596532	0
Bi	209		ug/L			274613	225007	0
Th	232	193.525	ug/L	0.247	0	133	8457414	0
U	238	198.421	ug/L	0.960	0	27	8988525	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 14:01:12

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	457478	2
[Be	9	277.999	ug/L	1.398	0	1	114197	1
C	13		mg/L			8952	4691	1
Cl	37		mg/L			1426832	1078470	0
> Sc	45		ug/L			195573	157224	1
V-1	51	317.366	ug/L	1.811	0	1057	2253073	1
V	51	314.950	ug/L	1.766	0	969	2284461	1
Cr	52	304.739	ug/L	3.405	1	3535	1936005	0
Cr	53	298.242	ug/L	3.282	1	371	228806	0
Mn	55	307.512	ug/L	3.816	1	816	3586261	0
Co	59	300.434	ug/L	5.206	1	230	2544822	0
> Ge	72		ug/L			255733	209241	1
Ni	60	283.719	ug/L	3.309	1	105	497155	0
Ni	62	281.060	ug/L	2.068	0	69	73834	0
Cu	63	277.419	ug/L	2.520	0	457	1077531	0
Cu	65	275.042	ug/L	2.354	0	101	507272	0
Zn	66	281.275	ug/L	1.990	0	758	371236	0
Zn	67	279.905	ug/L	0.242	0	215	61283	1
Zn	68	280.836	ug/L	1.116	0	2628	256930	0
As-1	75	290.999	ug/L	1.297	0	89	292726	1
As	75	290.461	ug/L	0.881	0	3683	297082	1
Se	82	297.352	ug/L	4.508	1	-26	31811	2
Se	78	295.170	ug/L	2.605	0	3727	85502	1
Mo	98	309.863	ug/L	2.897	0	25	1078014	1
Y	89		ug/L			185938	153022	1
Kr	83		ug/L			84	145	4
> In	115		ug/L			324888	274802	0
Ag	107	284.093	ug/L	2.387	0	47	2239262	0
Cd	111	292.538	ug/L	1.299	0	212	623968	0
Cd	114	295.824	ug/L	0.437	0	109	1546813	0
Sb	121	310.837	ug/L	1.384	0	160	2428200	0
Sb	123	305.505	ug/L	1.715	0	103	1816778	0
Ba	135	297.092	ug/L	2.697	0	36	533907	1
Ba	137	297.140	ug/L	3.223	1	72	919470	1
> Tb	159		ug/L			326949	294434	1
Tl	205	282.590	ug/L	1.500	0	387	6123545	1
Pb	208	289.197	ug/L	3.322	1	244	8466076	1
Bi	209		ug/L			274613	212615	1
Th	232	299.423	ug/L	3.580	1	133	12647768	1
U	238	304.353	ug/L	2.554	0	27	13326291	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 14:08:59

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	465732	0
[Be	9	47.525	ug/L	0.486	1	1	19876	0
C	13		mg/L			8952	3525	0
Cl	37		mg/L			1426832	1096232	1
> Sc	45		ug/L			195573	155991	0
V-1	51	50.665	ug/L	0.137	0	1057	357596	0
V	51	50.609	ug/L	0.141	0	969	364876	0
Cr	52	50.676	ug/L	0.153	0	3535	321814	0
Cr	53	50.504	ug/L	0.118	0	371	38693	0
Mn	55	51.133	ug/L	0.342	0	816	592281	0
[Co	59	50.415	ug/L	0.111	0	230	423930	0
> Ge	72		ug/L			255733	208298	0
Ni	60	49.604	ug/L	0.231	0	105	86606	0
Ni	62	49.131	ug/L	0.209	0	69	12895	0
Cu	63	49.026	ug/L	0.289	0	457	189882	0
Cu	65	48.808	ug/L	0.367	0	101	89683	0
Zn	66	50.675	ug/L	0.393	0	758	67088	0
Zn	67	49.837	ug/L	0.596	1	215	11006	1
Zn	68	51.076	ug/L	0.463	0	2628	48271	1
As-1	75	50.965	ug/L	0.237	0	89	51096	1
As	75	50.641	ug/L	0.374	0	3683	54040	1
Se	82	54.813	ug/L	0.331	0	-26	5819	0
Se	78	53.542	ug/L	0.582	1	3727	17924	1
[Mo	98	51.795	ug/L	0.664	1	25	179385	0
Y	89		ug/L			185938	158493	1
Kr	83		ug/L			84	83	11
> In	115		ug/L			324888	279035	1
Ag	107	46.875	ug/L	0.456	0	47	375174	0
Cd	111	49.863	ug/L	0.060	0	212	108147	1
Cd	114	50.179	ug/L	0.128	0	109	266492	1
Sb	121	50.865	ug/L	0.372	0	160	403584	1
Sb	123	51.191	ug/L	0.344	0	103	309191	1
Ba	135	50.393	ug/L	0.316	0	36	91983	1
[Ba	137	50.399	ug/L	0.258	0	72	158410	1
> Tb	159		ug/L			326949	318458	1
Tl	205	43.394	ug/L	0.308	0	387	1017380	1
Pb	208	44.579	ug/L	0.108	0	244	1411713	1
Bi	209		ug/L			274613	236012	0
Th	232	47.537	ug/L	0.220	0	133	2171890	0
[U	238	48.867	ug/L	0.416	0	27	2314170	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 14:16:26

Number of Replicates: 3

Method File: c:\elandata\Method\2008LoNoMinNoRh.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			464322	459925	1
[Be	9	-0.002	ug/L	0.003	175	1	0	173
C	13		mg/L			8952	4443	0
Cl	37		mg/L			1426832	1087926	0
> Sc	45		ug/L			195573	150482	0
[V-1	51	-0.009	ug/L	0.011	124	1057	751	10
V	51	-0.016	ug/L	0.005	28	969	631	5
Cr	52	-0.059	ug/L	0.014	23	3535	2363	3
Cr	53	-0.078	ug/L	0.041	53	371	228	12
Mn	55	-0.007	ug/L	0.004	49	816	547	7
[Co	59	-0.000	ug/L	0.001	242	230	175	2
> Ge	72		ug/L			255733	200153	1
[Ni	60	-0.008	ug/L	0.002	22	105	68	3
Ni	62	-0.032	ug/L	0.028	89	69	46	16
Cu	63	-0.020	ug/L	0.001	7	457	282	0
Cu	65	-0.010	ug/L	0.002	20	101	62	5
Zn	66	-0.318	ug/L	0.019	6	758	192	13
Zn	67	-0.315	ug/L	0.046	14	215	102	9
Zn	68	-0.360	ug/L	0.060	16	2628	1744	1
As-1	75	0.011	ug/L	0.007	71	89	80	10
As	75	0.114	ug/L	0.067	58	3683	2992	1
Se	82	-0.001	ug/L	0.133	10903	-26	-20	64
Se	78	0.418	ug/L	0.218	52	3727	3028	0
[Mo	98	0.017	ug/L	0.002	9	25	77	6
Y	89		ug/L			185938	155108	0
Kr	83		ug/L			84	70	11
> In	115		ug/L			324888	275772	0
[Ag	107	0.006	ug/L	0.001	15	47	84	8
Cd	111	-0.022	ug/L	0.005	21	212	132	7
Cd	114	-0.004	ug/L	0.002	60	109	73	15
Sb	121	0.060	ug/L	0.010	17	160	606	13
Sb	123	0.062	ug/L	0.011	17	103	455	14
Ba	135	-0.005	ug/L	0.003	57	36	21	25
[Ba	137	-0.005	ug/L	0.001	23	72	45	8
> Tb	159		ug/L			326949	318529	0
[Tl	205	-0.005	ug/L	0.001	18	387	267	7
Pb	208	-0.000	ug/L	0.000	69	244	226	3
Bi	209		ug/L			274613	234869	0
Th	232	0.045	ug/L	0.003	7	133	2205	7
[U	238	0.005	ug/L	0.001	13	27	278	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 14:25:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L				4655	1
Cl	37		mg/L				1072210	0
> Ge	72		ug/L				200785	0
Ni	60		ug/L				58	25
Ni	62		ug/L				35	23
Cu	63		ug/L				275	5
Cu	65		ug/L				63	11
Zn	66		ug/L				177	6
Zn	67		ug/L				73	15
Zn	68		ug/L				1655	1
As-1	75		ug/L				56	40
As	75		ug/L				2905	0
Se	82		ug/L				-15	54
Se	78		ug/L				2958	0
Y	89		ug/L				157717	0
Kr	83		ug/L				62	3
> In	115		ug/L				279239	0
Ag	107		ug/L				52	6
Cd	111		ug/L				133	8
Cd	114		ug/L				70	7
Sb	121		ug/L				235	9
Sb	123		ug/L				160	6
Ba	135		ug/L				17	44
Ba	137		ug/L				25	10
> Tb	159		ug/L				322599	0
Tl	205		ug/L				190	9
Pb	208		ug/L				202	13
Bi	209		ug/L				239096	0
Th	232		ug/L				807	2
U	238		ug/L				91	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 14:32:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4036	2
Cl	37		mg/L			1072210	1046291	0
> Ge	72		ug/L			200785	198724	0
Ni	60	10.000	ug/L	0.070	0	58	16509	0
Ni	62	10.000	ug/L	0.129	1	35	2500	1
Cu	63	10.000	ug/L	0.105	1	275	36702	0
Cu	65	10.000	ug/L	0.038	0	63	17201	0
Zn	66	10.000	ug/L	0.065	0	177	13057	0
Zn	67	10.000	ug/L	0.023	0	73	2209	0
Zn	68	10.000	ug/L	0.065	0	1655	10534	0
As-1	75	10.000	ug/L	0.177	1	56	9782	1
As	75	10.000	ug/L	0.136	1	2905	12685	0
Se	82	10.000	ug/L	0.227	2	-15	1112	2
Se	78	10.000	ug/L	0.049	0	2958	5880	0
Y	89		ug/L			157717	156298	0
Kr	83		ug/L			62	63	5
> In	115		ug/L			279239	278216	0
Ag	107	10.000	ug/L	0.033	0	52	74752	0
Cd	111	10.000	ug/L	0.090	0	133	21629	0
Cd	114	10.000	ug/L	0.075	0	70	52527	0
Sb	121	10.000	ug/L	0.112	1	235	79568	1
Sb	123	10.000	ug/L	0.026	0	160	60929	0
Ba	135	10.000	ug/L	0.042	0	17	18291	0
Ba	137	10.000	ug/L	0.188	1	25	31641	1
> Tb	159		ug/L			322599	321988	0
Tl	205	10.000	ug/L	0.030	0	190	201563	0
Pb	208	10.000	ug/L	0.035	0	202	283055	0
Bi	209		ug/L			239096	238435	0
Th	232	10.000	ug/L	0.032	0	807	416911	0
U	238	10.000	ug/L	0.042	0	91	444382	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 14:40:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4703	1
Cl	37		mg/L			1072210	1033371	0
> Ge	72		ug/L			200785	196907	0
Ni	60	19.917	ug/L	0.074	0	58	31992	0
Ni	62	19.979	ug/L	0.241	1	35	4894	0
Cu	63	19.936	ug/L	0.038	0	275	71329	0
Cu	65	19.959	ug/L	0.323	1	63	33684	1
Zn	66	19.986	ug/L	0.043	0	177	25611	0
Zn	67	19.879	ug/L	0.609	3	73	4181	3
Zn	68	19.957	ug/L	0.137	0	1655	19067	1
As-1	75	20.007	ug/L	0.113	0	56	19363	0
As	75	19.972	ug/L	0.139	0	2905	22151	0
Se	82	20.024	ug/L	0.415	2	-15	2234	1
Se	78	19.896	ug/L	0.022	0	2958	8603	0
Y	89		ug/L			157717	154798	0
Kr	83		ug/L			62	59	4
> In	115		ug/L			279239	272936	0
Ag	107	19.990	ug/L	0.058	0	52	146247	0
Cd	111	19.943	ug/L	0.205	1	133	41713	0
Cd	114	19.987	ug/L	0.073	0	70	102665	0
Sb	121	20.022	ug/L	0.058	0	235	156764	0
Sb	123	20.039	ug/L	0.194	0	160	120551	0
Ba	135	19.985	ug/L	0.118	0	17	35737	0
Ba	137	19.995	ug/L	0.082	0	25	61984	0
> Tb	159		ug/L			322599	319993	0
Tl	205	19.996	ug/L	0.127	0	190	400039	0
Pb	208	19.965	ug/L	0.136	0	202	557528	0
Bi	209		ug/L			239096	236060	0
Th	232	19.980	ug/L	0.053	0	807	823711	0
U	238	20.002	ug/L	0.036	0	91	883650	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 14:47:29

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3175	3
Cl	37		mg/L			1072210	1017587	0
> Ge	72		ug/L			200785	194634	0
Ni	60	49.971	ug/L	0.457	0	58	79031	0
Ni	62	49.798	ug/L	0.325	0	35	11769	0
Cu	63	49.879	ug/L	0.130	0	275	173892	0
Cu	65	49.838	ug/L	0.174	0	63	81719	0
Zn	66	49.944	ug/L	0.221	0	177	62655	0
Zn	67	49.950	ug/L	0.672	1	73	10226	1
Zn	68	49.932	ug/L	0.083	0	1655	44452	0
As-1	75	50.016	ug/L	0.170	0	56	47843	0
As	75	49.987	ug/L	0.257	0	2905	50510	0
Se	82	49.978	ug/L	0.631	1	-15	5522	1
Se	78	49.903	ug/L	0.314	0	2958	16868	0
Y	89		ug/L			157717	151639	0
Kr	83		ug/L			62	72	11
> In	115		ug/L			279239	268236	0
Ag	107	49.933	ug/L	0.111	0	52	356540	0
Cd	111	50.113	ug/L	0.108	0	133	103989	0
Cd	114	50.124	ug/L	0.244	0	70	256089	0
Sb	121	50.085	ug/L	0.126	0	235	388338	0
Sb	123	50.083	ug/L	0.018	0	160	298347	0
Ba	135	50.092	ug/L	0.158	0	17	88828	0
Ba	137	50.079	ug/L	0.410	0	25	153738	0
> Tb	159		ug/L			322599	314844	0
Tl	205	50.157	ug/L	0.060	0	190	1002708	0
Pb	208	50.108	ug/L	0.322	0	202	1391463	0
Bi	209		ug/L			239096	231656	0
Th	232	50.462	ug/L	0.363	0	807	2144821	0
U	238	50.414	ug/L	0.356	0	91	2285889	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 14:54:47

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3784	0
Cl	37		mg/L			1072210	992344	0
> Ge	72		ug/L			200785	193020	0
Ni	60	99.650	ug/L	0.382	0	58	154434	0
Ni	62	99.441	ug/L	0.896	0	35	22848	0
Cu	63	99.497	ug/L	0.653	0	275	338071	0
Cu	65	99.599	ug/L	0.977	0	63	159766	1
Zn	66	99.379	ug/L	0.885	0	177	120970	0
Zn	67	99.367	ug/L	0.947	0	73	19692	1
Zn	68	99.395	ug/L	0.715	0	1655	84507	0
As-1	75	99.877	ug/L	0.414	0	56	94304	0
As	75	99.839	ug/L	0.252	0	2905	96756	0
Se	82	99.766	ug/L	0.578	0	-15	10863	0
Se	78	99.648	ug/L	0.089	0	2958	30246	0
Y	89		ug/L			157717	148999	0
Kr	83		ug/L			62	84	3
> In	115		ug/L			279239	265637	0
Ag	107	99.792	ug/L	0.252	0	52	700753	0
Cd	111	99.714	ug/L	0.301	0	133	202854	0
Cd	114	99.685	ug/L	0.187	0	70	499068	0
Sb	121	100.073	ug/L	0.336	0	235	770040	0
Sb	123	100.077	ug/L	0.216	0	160	591753	0
Ba	135	99.865	ug/L	0.435	0	17	174572	0
Ba	137	99.860	ug/L	0.479	0	25	302165	0
> Tb	159		ug/L			322599	308269	0
Tl	205	100.285	ug/L	0.224	0	190	1981599	0
Pb	208	100.240	ug/L	0.169	0	202	2747296	0
Bi	209		ug/L			239096	226962	0
Th	232	100.350	ug/L	0.548	0	807	4224609	0
U	238	100.400	ug/L	0.479	0	91	4517438	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:02:04

Number of Replicates: 3

Method File: C:\elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4204	2
Cl	37		mg/L			1072210	1018651	0
> Ge	72		ug/L			200785	190356	0
Ni	60	-0.002	ug/L	0.005	302	58	52	14
Ni	62	0.008	ug/L	0.033	396	35	35	20
Cu	63	-0.009	ug/L	0.005	57	275	230	7
Cu	65	-0.002	ug/L	0.008	470	63	57	21
Zn	66	-0.003	ug/L	0.010	314	177	164	7
Zn	67	-0.051	ug/L	0.032	62	73	59	10
Zn	68	-0.004	ug/L	0.054	1393	1655	1566	2
As-1	75	-0.014	ug/L	0.010	69	56	40	22
As	75	-0.018	ug/L	0.023	129	2905	2738	0
Se	82	-0.002	ug/L	0.066	3238	-15	-15	47
Se	78	-0.035	ug/L	0.130	370	2958	2794	0
Y	89		ug/L			157717	151110	0
Kr	83		ug/L			62	57	8
> In	115		ug/L			279239	265366	1
Ag	107	0.001	ug/L	0.001	96	52	57	12
Cd	111	0.002	ug/L	0.003	148	133	129	3
Cd	114	-0.001	ug/L	0.001	184	70	64	6
Sb	121	0.010	ug/L	0.002	21	235	302	6
Sb	123	0.012	ug/L	0.005	39	160	223	12
Ba	135	0.001	ug/L	0.002	293	17	17	21
Ba	137	0.004	ug/L	0.001	40	25	35	13
> Tb	159		ug/L			322599	314677	0
Tl	205	0.001	ug/L	0.001	99	190	206	9
Pb	208	0.001	ug/L	0.001	48	202	231	6
Bi	209		ug/L			239096	233422	0
Th	232	0.023	ug/L	0.002	8	807	1779	4
U	238	0.003	ug/L	0.000	13	91	232	8

Quantitative Analysis - Calibration Report

Sample Date/Time: Tuesday, May 11, 2010 14:54:47

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	1.0000	0.0080	10	20	50	100	
Ni	62	0.9999	0.0012	10	20	50	100	
Cu	63	1.0000	0.0176	10	20	50	100	
Cu	65	1.0000	0.0083	10	20	50	100	
Zn	66	0.9999	0.0063	10	20	50	100	
Zn	67	0.9999	0.0010	10	20	50	100	
Zn	68	0.9999	0.0043	10	20	50	100	
As-1	75	1.0000	0.0049	10	20	50	100	
As	75	1.0000	0.0049	10	20	50	100	
Se	82	1.0000	0.0006	10	20	50	100	
Se	78	1.0000	0.0014	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0264	10	20	50	100	
Cd	111	1.0000	0.0077	10	20	50	100	
Cd	114	1.0000	0.0188	10	20	50	100	
Sb	121	1.0000	0.0290	10	20	50	100	
Sb	123	1.0000	0.0223	10	20	50	100	
Ba	135	1.0000	0.0066	10	20	50	100	
Ba	137	1.0000	0.0114	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0641	10	20	50	100	
Pb	208	1.0000	0.0889	10	20	50	100	
Bi	209							
Th	232	0.9999	0.1365	10	20	50	100	
U	238	0.9999	0.1460	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:09:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4164	0
Cl	37		mg/L			1072210	985699	0
[> Ge	72		ug/L			200785	193893	0
Ni	60	50.646	ug/L	0.045	0	58	78873	0
Ni	62	50.500	ug/L	0.222	0	35	11673	0
Cu	63	50.899	ug/L	0.276	0	275	173861	1
Cu	65	50.873	ug/L	0.079	0	63	82004	0
Zn	66	50.792	ug/L	0.320	0	177	62190	0
Zn	67	50.893	ug/L	0.174	0	73	10165	0
Zn	68	50.877	ug/L	0.265	0	1655	44231	0
As-1	75	50.035	ug/L	0.229	0	56	47484	0
As	75	49.813	ug/L	0.238	0	2905	49898	0
Se	82	81.358	ug/L	0.321	0	-15	8896	0
Se	78	80.883	ug/L	0.581	0	2958	25199	0
Y	89		ug/L			157717	153812	0
Kr	83		ug/L			62	78	3
[> In	115		ug/L			279239	271677	0
Ag	107	47.902	ug/L	0.342	0	52	344043	0
Cd	111	50.170	ug/L	0.485	0	133	104447	0
Cd	114	50.129	ug/L	0.364	0	70	256707	0
Sb	121	49.998	ug/L	0.318	0	235	393583	0
Sb	123	49.904	ug/L	0.419	0	160	301866	0
Ba	135	50.999	ug/L	0.263	0	17	91184	0
Ba	137	51.073	ug/L	0.519	1	25	158064	0
[> Tb	159		ug/L			322599	318604	0
Tl	205	50.513	ug/L	0.386	0	190	1031652	0
Pb	208	50.177	ug/L	0.280	0	202	1421399	0
Bi	209		ug/L			239096	235613	0
Th	232	50.637	ug/L	0.249	0	807	2203634	0
U	238	51.501	ug/L	0.349	0	91	2394953	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:16:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4231	1
Cl	37		mg/L			1072210	1014267	0
> Ge	72		ug/L			200785	188826	0
Ni	60	0.001	ug/L	0.004	462	58	56	11
Ni	62	0.011	ug/L	0.024	214	35	36	15
Cu	63	-0.010	ug/L	0.006	55	275	226	8
Cu	65	-0.001	ug/L	0.005	404	63	57	15
Zn	66	0.013	ug/L	0.014	107	177	182	9
Zn	67	0.033	ug/L	0.021	64	73	75	5
Zn	68	-0.026	ug/L	0.081	308	1655	1535	4
As-1	75	-0.008	ug/L	0.001	15	56	45	2
As	75	0.017	ug/L	0.040	239	2905	2747	1
Se	82	-0.061	ug/L	0.025	40	-15	-21	12
Se	78	0.084	ug/L	0.100	119	2958	2804	0
Y	89		ug/L			157717	149347	1
Kr	83		ug/L			62	65	2
> In	115		ug/L			279239	265205	1
Ag	107	0.001	ug/L	0.001	60	52	58	9
Cd	111	-0.005	ug/L	0.002	31	133	115	4
Cd	114	-0.003	ug/L	0.001	28	70	52	8
Sb	121	-0.001	ug/L	0.005	329	235	212	17
Sb	123	0.002	ug/L	0.004	205	160	163	14
Ba	135	0.001	ug/L	0.002	232	17	18	21
Ba	137	0.003	ug/L	0.002	62	25	33	17
> Tb	159		ug/L			322599	314852	0
Tl	205	-0.000	ug/L	0.001	303	190	178	12
Pb	208	0.003	ug/L	0.001	36	202	270	9
Bi	209		ug/L			239096	230802	0
Th	232	0.013	ug/L	0.003	24	807	1326	9
U	238	0.002	ug/L	0.001	33	91	164	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:23:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	2954	1
Cl	37		mg/L			1072210	980424	0
> Ge	72		ug/L			200785	187523	0
Ni	60	50.534	ug/L	0.405	0	58	76114	0
Ni	62	50.772	ug/L	0.970	1	35	11350	2
Cu	63	50.739	ug/L	0.368	0	275	167615	0
Cu	65	50.809	ug/L	0.163	0	63	79209	0
Zn	66	51.036	ug/L	0.510	0	177	60434	0
Zn	67	51.215	ug/L	0.905	1	73	9893	1
Zn	68	50.987	ug/L	0.083	0	1655	42867	0
As-1	75	50.650	ug/L	0.211	0	56	46488	0
As	75	50.710	ug/L	0.355	0	2905	49079	0
Se	82	51.149	ug/L	0.587	1	-15	5403	0
Se	78	51.339	ug/L	0.696	1	2958	16478	0
Y	89		ug/L			157717	148674	0
Kr	83		ug/L			62	67	8
> In	115		ug/L			279239	261365	0
Ag	107	50.231	ug/L	0.472	0	52	347069	0
Cd	111	50.283	ug/L	0.277	0	133	100709	0
Cd	114	50.123	ug/L	0.450	0	70	246927	0
Sb	121	50.154	ug/L	0.324	0	235	379821	0
Sb	123	50.017	ug/L	0.500	0	160	291056	0
Ba	135	50.803	ug/L	0.370	0	17	87386	0
Ba	137	50.630	ug/L	0.388	0	25	150747	0
> Tb	159		ug/L			322599	310989	0
Tl	205	49.123	ug/L	0.344	0	190	979309	0
Pb	208	49.258	ug/L	0.127	0	202	1362035	0
Bi	209		ug/L			239096	227358	0
Th	232	49.745	ug/L	0.070	0	807	2113105	0
U	238	49.725	ug/L	0.110	0	91	2257121	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:30:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3912	2
Cl	37		mg/L			1072210	993949	0
> Ge	72		ug/L			200785	185736	0
Ni	60	0.003	ug/L	0.011	328	58	58	26
Ni	62	-0.005	ug/L	0.044	885	35	32	30
Cu	63	-0.012	ug/L	0.007	59	275	217	10
Cu	65	-0.004	ug/L	0.008	212	63	52	22
Zn	66	-0.011	ug/L	0.004	37	177	150	3
Zn	67	-0.008	ug/L	0.042	500	73	66	11
Zn	68	-0.002	ug/L	0.073	4584	1655	1530	3
As-1	75	-0.011	ug/L	0.008	73	56	41	18
As	75	-0.011	ug/L	0.023	203	2905	2677	0
Se	82	-0.052	ug/L	0.052	100	-15	-19	27
Se	78	-0.018	ug/L	0.062	340	2958	2731	0
Y	89		ug/L			157717	149598	0
Kr	83		ug/L			62	61	7
> In	115		ug/L			279239	263761	0
Ag	107	0.001	ug/L	0.002	163	52	56	19
Cd	111	-0.009	ug/L	0.003	28	133	106	4
Cd	114	-0.004	ug/L	0.001	25	70	47	11
Sb	121	0.018	ug/L	0.003	16	235	359	6
Sb	123	0.019	ug/L	0.004	19	160	262	7
Ba	135	0.002	ug/L	0.002	85	17	20	18
Ba	137	0.004	ug/L	0.002	48	25	37	17
> Tb	159		ug/L			322599	315211	0
Tl	205	-0.000	ug/L	0.000	44	190	177	1
Pb	208	0.003	ug/L	0.001	22	202	272	7
Bi	209		ug/L			239096	231280	0
Th	232	0.023	ug/L	0.003	12	807	1786	7
U	238	0.002	ug/L	0.001	44	91	164	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:37:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051410b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3218	3
Cl	37		mg/L			1072210	985208	0
> Ge	72		ug/L			200785	184068	0
Ni	60	0.510	ug/L	0.014	2	58	807	2
Ni	62	0.541	ug/L	0.080	14	35	151	12
Cu	63	0.504	ug/L	0.021	4	275	1884	2
Cu	65	0.555	ug/L	0.006	1	63	907	1
Zn	66	4.208	ug/L	0.043	1	177	5039	0
Zn	67	3.982	ug/L	0.230	5	73	816	4
Zn	68	4.120	ug/L	0.080	1	1655	4794	1
As-1	75	0.188	ug/L	0.014	7	56	221	6
As	75	0.235	ug/L	0.019	8	2905	2874	1
Se	82	0.478	ug/L	0.027	5	-15	35	8
Se	78	0.652	ug/L	0.031	4	2958	2883	0
Y	89		ug/L			157717	147292	0
Kr	83		ug/L			62	59	7
> In	115		ug/L			279239	260485	0
Ag	107	0.193	ug/L	0.003	1	52	1378	1
Cd	111	0.204	ug/L	0.015	7	133	530	5
Cd	114	0.204	ug/L	0.007	3	70	1069	3
Sb	121	0.200	ug/L	0.011	5	235	1725	4
Sb	123	0.189	ug/L	0.005	2	160	1247	2
Ba	135	0.514	ug/L	0.026	5	17	897	4
Ba	137	0.510	ug/L	0.027	5	25	1537	5
> Tb	159		ug/L			322599	314588	0
Tl	205	0.203	ug/L	0.006	2	190	4288	3
Pb	208	0.998	ug/L	0.013	1	202	28102	1
Bi	209		ug/L			239096	229102	0
Th	232	0.190	ug/L	0.002	1	807	8949	1
U	238	0.192	ug/L	0.001	0	91	8923	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:43:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	11157	0
Cl	37		mg/L			1072210	1459162	0
> Ge	72		ug/L			200785	165646	0
Ni	60	0.508	ug/L	0.002	0	58	723	0
Ni	62	4.157	ug/L	0.295	7	35	848	6
Cu	63	0.446	ug/L	0.028	6	275	1528	5
Cu	65	0.688	ug/L	0.049	7	63	999	6
Zn	66	1.411	ug/L	0.043	3	177	1617	2
Zn	67	1.263	ug/L	0.146	11	73	274	9
Zn	68	0.698	ug/L	0.072	10	1655	1865	2
As-1	75	0.022	ug/L	0.031	138	56	64	38
As	75	-0.058	ug/L	0.025	43	2905	2350	0
Se	82	-0.033	ug/L	0.040	121	-15	-16	23
Se	78	-0.116	ug/L	0.019	16	2958	2413	0
Y	89		ug/L			157717	133531	0
Kr	83		ug/L			62	69	4
> In	115		ug/L			279239	234099	1
Ag	107	0.028	ug/L	0.003	10	52	220	9
Cd	111	0.059	ug/L	0.034	57	133	218	29
Cd	114	0.513	ug/L	0.008	1	70	2324	1
Sb	121	0.030	ug/L	0.002	8	235	397	2
Sb	123	0.033	ug/L	0.002	7	160	308	5
Ba	135	0.031	ug/L	0.004	11	17	61	7
Ba	137	0.033	ug/L	0.008	23	25	109	17
> Tb	159		ug/L			322599	295295	0
Tl	205	0.013	ug/L	0.001	5	190	424	3
Pb	208	0.045	ug/L	0.002	3	202	1373	2
Bi	209		ug/L			239096	207400	0
Th	232	0.031	ug/L	0.007	22	807	1973	14
U	238	-0.001	ug/L	0.000	39	91	48	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:51:10

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	10914	1
Cl	37		mg/L			1072210	1384342	1
> Ge	72		ug/L			200785	156373	1
Ni	60	20.625	ug/L	0.202	0	58	25932	2
Ni	62	24.723	ug/L	0.738	2	35	4623	4
Cu	63	20.377	ug/L	0.051	0	275	56265	1
Cu	65	20.598	ug/L	0.083	0	63	26805	1
Zn	66	20.389	ug/L	0.317	1	177	20213	0
Zn	67	18.449	ug/L	0.146	0	73	3008	0
Zn	68	19.783	ug/L	0.112	0	1655	14659	1
As-1	75	20.257	ug/L	0.222	1	56	15531	2
As	75	20.326	ug/L	0.238	1	2905	17761	2
Se	82	-0.092	ug/L	0.041	44	-15	-20	18
Se	78	0.126	ug/L	0.097	76	2958	2332	1
Y	89		ug/L			157717	127000	1
Kr	83		ug/L			62	63	8
> In	115		ug/L			279239	220737	1
Ag	107	17.950	ug/L	0.053	0	52	104776	1
Cd	111	19.865	ug/L	0.112	0	133	33666	1
Cd	114	20.349	ug/L	0.104	0	70	84696	0
Sb	121	0.031	ug/L	0.001	3	235	382	2
Sb	123	0.032	ug/L	0.004	12	160	285	7
Ba	135	0.037	ug/L	0.004	11	17	67	7
Ba	137	0.030	ug/L	0.005	16	25	96	11
> Tb	159		ug/L			322599	289620	0
Tl	205	0.014	ug/L	0.001	9	190	433	5
Pb	208	0.044	ug/L	0.001	1	202	1313	1
Bi	209		ug/L			239096	201619	1
Th	232	0.009	ug/L	0.002	19	807	1067	6
U	238	-0.001	ug/L	0.000	26	91	45	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 15:58:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3091	2
Cl	37		mg/L			1072210	817074	0
> Ge	72		ug/L			200785	162247	1
Ni	60	195.436	ug/L	0.212	0	58	254546	1
Ni	62	196.393	ug/L	0.188	0	35	37903	1
Cu	63	194.132	ug/L	1.458	0	275	554214	1
Cu	65	192.423	ug/L	0.737	0	63	259395	1
Zn	66	190.686	ug/L	0.125	0	177	194979	1
Zn	67	192.925	ug/L	1.041	0	73	32081	1
Zn	68	191.788	ug/L	0.901	0	1655	135819	1
As-1	75	198.339	ug/L	1.498	0	56	157363	1
As	75	197.695	ug/L	1.802	0	2905	158733	1
Se	82	201.755	ug/L	0.912	0	-15	18478	1
Se	78	199.623	ug/L	2.052	1	2958	48529	0
Y	89		ug/L			157717	132689	1
Kr	83		ug/L			62	92	5
> In	115		ug/L			279239	232942	1
Ag	107	193.680	ug/L	0.984	0	52	1192538	1
Cd	111	196.555	ug/L	0.225	0	133	350545	2
Cd	114	196.686	ug/L	1.110	0	70	863503	2
Sb	121	202.446	ug/L	0.572	0	235	1365873	2
Sb	123	201.217	ug/L	0.644	0	160	1043198	1
Ba	135	202.947	ug/L	0.901	0	17	311087	1
Ba	137	203.835	ug/L	1.428	0	25	540822	1
> Tb	159		ug/L			322599	292458	1
Tl	205	197.557	ug/L	1.167	0	190	3703269	1
Pb	208	197.924	ug/L	1.387	0	202	5146126	1
Bi	209		ug/L			239096	206311	1
Th	232	200.536	ug/L	0.771	0	807	8008448	0
U	238	201.983	ug/L	0.939	0	91	8621657	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:05:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4410	2
Cl	37		mg/L			1072210	826230	0
[> Ge	72		ug/L			200785	166595	0
Ni	60	287.276	ug/L	3.017	1	58	384169	0
Ni	62	287.924	ug/L	1.426	0	35	57043	0
Cu	63	286.429	ug/L	2.237	0	275	839560	0
Cu	65	283.589	ug/L	2.638	0	63	392524	0
Zn	66	279.061	ug/L	3.034	1	177	292919	0
Zn	67	280.533	ug/L	1.428	0	73	47873	0
Zn	68	280.739	ug/L	0.305	0	1655	203502	0
As-1	75	291.871	ug/L	3.953	1	56	237764	1
As	75	291.661	ug/L	3.141	1	2905	239325	0
Se	82	292.693	ug/L	5.400	1	-15	27532	1
Se	78	292.137	ug/L	2.539	0	2958	71791	0
Y	89		ug/L			157717	134430	0
Kr	83		ug/L			62	123	4
[> In	115		ug/L			279239	236608	0
Ag	107	290.837	ug/L	0.481	0	52	1819012	0
Cd	111	294.637	ug/L	0.751	0	133	533677	0
Cd	114	296.362	ug/L	1.204	0	70	1321430	0
Sb	121	309.731	ug/L	0.600	0	235	2122445	0
Sb	123	302.551	ug/L	0.372	0	160	1593196	0
Ba	135	301.099	ug/L	1.082	0	17	468793	0
Ba	137	302.329	ug/L	1.295	0	25	814787	0
[> Tb	159		ug/L			322599	286788	0
Tl	205	304.372	ug/L	0.580	0	190	5594808	0
Pb	208	303.608	ug/L	1.705	0	202	7740685	0
Bi	209		ug/L			239096	194695	0
Th	232	307.568	ug/L	0.894	0	807	12044550	0
U	238	308.288	ug/L	0.558	0	91	12904382	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:12:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	2476	1
Cl	37		mg/L			1072210	843926	1
Ge	72		ug/L			200785	168413	0
Ni	60	50.800	ug/L	0.168	0	58	68716	0
Ni	62	51.079	ug/L	0.709	1	35	10254	1
Cu	63	50.615	ug/L	0.378	0	275	150166	0
Cu	65	50.573	ug/L	0.251	0	63	70807	0
Zn	66	50.777	ug/L	0.157	0	177	54002	0
Zn	67	51.230	ug/L	0.245	0	73	8888	0
Zn	68	51.029	ug/L	0.226	0	1655	38530	0
As-1	75	51.006	ug/L	0.130	0	56	42044	0
As	75	50.823	ug/L	0.159	0	2905	44171	0
Se	82	52.994	ug/L	0.981	1	-15	5028	1
Se	78	52.363	ug/L	0.416	0	2958	15044	0
Y	89		ug/L			157717	139762	0
Kr	83		ug/L			62	60	5
In	115		ug/L			279239	243121	0
Ag	107	49.153	ug/L	0.148	0	52	315919	0
Cd	111	50.288	ug/L	0.486	0	133	93688	0
Cd	114	50.524	ug/L	0.130	0	70	231539	0
Sb	121	50.399	ug/L	0.219	0	235	355037	0
Sb	123	50.254	ug/L	0.177	0	160	272032	0
Ba	135	51.542	ug/L	0.199	0	17	82470	0
Ba	137	51.652	ug/L	0.384	0	25	143052	0
Tb	159		ug/L			322599	312554	0
Tl	205	48.248	ug/L	0.290	0	190	966689	0
Pb	208	48.313	ug/L	0.364	0	202	1342575	0
Bi	209		ug/L			239096	223215	0
Th	232	49.607	ug/L	0.165	0	807	2117823	0
U	238	50.121	ug/L	0.303	0	91	2286476	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:19:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3356	2
Cl	37		mg/L			1072210	869392	0
> Ge	72		ug/L			200785	167182	0
Ni	60	0.012	ug/L	0.004	38	58	64	9
Ni	62	0.005	ug/L	0.035	691	35	30	22
Cu	63	-0.011	ug/L	0.002	13	275	197	2
Cu	65	0.002	ug/L	0.015	765	63	55	37
Zn	66	0.002	ug/L	0.011	437	177	150	7
Zn	67	-0.021	ug/L	0.062	296	73	57	18
Zn	68	0.013	ug/L	0.017	129	1655	1388	1
As-1	75	0.009	ug/L	0.045	503	56	54	67
As	75	-0.048	ug/L	0.050	104	2905	2380	1
Se	82	0.014	ug/L	0.079	573	-15	-11	63
Se	78	-0.170	ug/L	0.100	58	2958	2422	1
Y	89		ug/L			157717	137817	0
Kr	83		ug/L			62	53	2
> In	115		ug/L			279239	240512	0
Ag	107	0.006	ug/L	0.001	17	52	85	8
Cd	111	-0.007	ug/L	0.007	96	133	101	12
Cd	114	-0.002	ug/L	0.001	29	70	51	5
Sb	121	0.042	ug/L	0.011	24	235	497	14
Sb	123	0.052	ug/L	0.007	13	160	415	8
Ba	135	0.009	ug/L	0.004	45	17	30	23
Ba	137	0.005	ug/L	0.001	28	25	35	11
> Tb	159		ug/L			322599	310880	0
Tl	205	0.002	ug/L	0.001	43	190	217	6
Pb	208	0.004	ug/L	0.001	19	202	303	6
Bi	209		ug/L			239096	224141	0
Th	232	0.035	ug/L	0.002	6	807	2273	4
U	238	0.004	ug/L	0.000	9	91	277	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QS96 MB1 REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:26:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Pb

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3795	0
Cl	37		mg/L			1072210	845735	0
[> Ge	72		ug/L			200785	173224	0
Ni	60	0.018	ug/L	0.009	53	58	75	18
Ni	62	0.075	ug/L	0.022	29	35	46	9
Cu	63	0.024	ug/L	0.007	30	275	310	6
Cu	65	0.042	ug/L	0.008	19	63	115	10
Zn	66	1.983	ug/L	0.068	3	177	2316	3
Zn	67	1.834	ug/L	0.085	4	73	388	4
Zn	68	1.858	ug/L	0.145	7	1655	2819	3
As-1	75	0.011	ug/L	0.017	149	56	58	23
As	75	-0.145	ug/L	0.052	36	2905	2384	1
Se	82	0.038	ug/L	0.042	112	-15	-9	42
Se	78	-0.524	ug/L	0.165	31	2958	2422	1
Y	89		ug/L			157717	146715	0
Kr	83		ug/L			62	51	4
[> In	115		ug/L			279239	255733	0
Ag	107	-0.000	ug/L	0.001	583	52	47	12
Cd	111	-0.008	ug/L	0.002	32	133	106	3
Cd	114	-0.004	ug/L	0.001	37	70	47	13
Sb	121	0.006	ug/L	0.002	38	235	261	6
Sb	123	0.007	ug/L	0.002	27	160	187	6
Ba	135	0.029	ug/L	0.002	8	17	64	6
Ba	137	0.022	ug/L	0.001	4	25	88	3
[> Tb	159		ug/L			322599	326272	0
Tl	205	-0.002	ug/L	0.000	23	190	157	5
Pb	208	0.060	ug/L	0.002	2	202	1936	2
Bi	209		ug/L			239096	236382	0
Th	232	0.009	ug/L	0.004	45	807	1206	14
U	238	0.001	ug/L	0.000	25	91	145	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 MB1 REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:32:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

PbTl

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	5022	1
Cl	37		mg/L			1072210	855522	1
> Ge	72		ug/L			200785	173933	0
Ni	60	-0.005	ug/L	0.002	37	58	43	4
Ni	62	-0.021	ug/L	0.028	135	35	26	21
Cu	63	-0.012	ug/L	0.002	15	275	203	2
Cu	65	0.015	ug/L	0.005	31	63	75	9
Zn	66	0.063	ug/L	0.032	50	177	222	16
Zn	67	0.034	ug/L	0.001	4	73	69	1
Zn	68	-0.008	ug/L	0.062	788	1655	1428	2
As-1	75	-0.006	ug/L	0.014	225	56	43	25
As	75	-0.171	ug/L	0.025	14	2905	2372	0
Se	82	0.056	ug/L	0.104	185	-15	-8	126
Se	78	-0.552	ug/L	0.075	13	2958	2425	0
Y	89		ug/L			157717	145991	0
Kr	83		ug/L			62	49	17
> In	115		ug/L			279239	254667	0
Ag	107	-0.001	ug/L	0.001	137	52	44	11
Cd	111	-0.011	ug/L	0.004	35	133	100	6
Cd	114	-0.002	ug/L	0.002	80	70	52	17
Sb	121	-0.006	ug/L	0.002	28	235	168	8
Sb	123	-0.005	ug/L	0.002	31	160	118	7
Ba	135	0.030	ug/L	0.004	13	17	66	10
Ba	137	0.032	ug/L	0.001	2	25	115	1
> Tb	159		ug/L			322599	325560	0
Tl	205	-0.002	ug/L	0.001	74	190	155	17
Pb	208	0.004	ug/L	0.001	15	202	330	6
Bi	209		ug/L			239096	235095	0
Th	232	-0.004	ug/L	0.003	69	807	631	19
U	238	0.000	ug/L	0.000	42	91	106	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 MB2 REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:39:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Pb TI

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	5115	0
Cl	37		mg/L			1072210	851968	0
Ge	72		ug/L			200785	173647	0
Ni	60	0.011	ug/L	0.003	31	58	65	7
Ni	62	0.050	ug/L	0.033	66	35	41	16
Cu	63	0.009	ug/L	0.004	50	275	265	4
Cu	65	0.028	ug/L	0.011	39	63	95	16
Zn	66	0.409	ug/L	0.034	8	177	600	6
Zn	67	0.339	ug/L	0.074	21	73	123	11
Zn	68	0.346	ug/L	0.052	15	1655	1691	2
As-1	75	-0.010	ug/L	0.010	101	56	40	21
As	75	-0.136	ug/L	0.032	23	2905	2397	0
Se	82	0.030	ug/L	0.034	112	-15	-10	30
Se	78	-0.421	ug/L	0.091	21	2958	2454	0
Y	89		ug/L			157717	146952	0
Kr	83		ug/L			62	51	6
In	115		ug/L			279239	254873	0
Ag	107	-0.003	ug/L	0.000	15	52	27	12
Cd	111	-0.012	ug/L	0.005	43	133	99	10
Cd	114	-0.006	ug/L	0.002	31	70	34	26
Sb	121	-0.015	ug/L	0.003	18	235	102	20
Sb	123	-0.011	ug/L	0.003	28	160	86	19
Ba	135	0.018	ug/L	0.002	9	17	45	6
Ba	137	0.020	ug/L	0.004	19	25	82	13
Tb	159		ug/L			322599	328267	0
Tl	205	-0.004	ug/L	0.000	10	190	110	7
Pb	208	0.008	ug/L	0.001	8	202	432	4
Bi	209		ug/L			239096	237085	0
Th	232	-0.009	ug/L	0.002	20	807	397	21
U	238	-0.001	ug/L	0.000	57	91	62	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 MB2SPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:45:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Pb Tl

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	5458	2
Cl	37		mg/L			1072210	845455	0
> Ge	72		ug/L			200785	171870	0
Ni	60	26.576	ug/L	0.306	1	58	36709	0
Ni	62	26.895	ug/L	0.115	0	35	5524	0
Cu	63	27.204	ug/L	0.278	1	275	82476	1
Cu	65	27.211	ug/L	0.185	0	63	38904	0
Zn	66	80.679	ug/L	0.508	0	177	87476	0
Zn	67	75.732	ug/L	1.482	1	73	13378	1
Zn	68	80.725	ug/L	0.347	0	1655	61377	0
As-1	75	26.448	ug/L	0.571	2	56	22272	2
As	75	25.904	ug/L	0.111	0	2905	24195	0
Se	82	84.069	ug/L	1.518	1	-15	8149	1
Se	78	82.594	ug/L	0.166	0	2958	22756	0
Y	89		ug/L			157717	145414	0
Kr	83		ug/L			62	56	9
> In	115		ug/L			279239	252612	0
Ag	107	24.821	ug/L	0.158	0	52	165787	0
Cd	111	25.491	ug/L	0.186	0	133	49405	0
Cd	114	25.545	ug/L	0.101	0	70	121665	0
Sb	121	-0.004	ug/L	0.003	69	235	185	10
Sb	123	-0.001	ug/L	0.003	196	160	138	10
Ba	135	26.457	ug/L	0.519	1	17	43992	1
Ba	137	26.533	ug/L	0.212	0	25	76365	0
> Tb	159		ug/L			322599	323344	0
Tl	205	24.830	ug/L	0.114	0	190	514757	0
Pb	208	25.232	ug/L	0.029	0	202	725495	0
Bi	209		ug/L			239096	235460	0
Th	232	24.694	ug/L	0.122	0	807	1091070	1
U	238	24.982	ug/L	0.107	0	91	1179094	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 MB1SPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:51:49

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

TT Pb

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	5473	0
Cl	37		mg/L			1072210	845231	0
> Ge	72		ug/L			200785	171481	0
Ni	60	26.841	ug/L	0.052	0	58	36992	0
Ni	62	27.149	ug/L	0.559	2	35	5564	1
Cu	63	27.581	ug/L	0.144	0	275	83428	0
Cu	65	27.491	ug/L	0.178	0	63	39215	0
Zn	66	81.879	ug/L	0.798	0	177	88571	0
Zn	67	76.604	ug/L	0.311	0	73	13501	1
Zn	68	81.398	ug/L	0.592	0	1655	61737	0
As-1	75	26.786	ug/L	0.444	1	56	22503	1
As	75	26.338	ug/L	0.292	1	2905	24502	0
Se	82	85.069	ug/L	0.961	1	-15	8227	0
Se	78	83.911	ug/L	0.426	0	2958	23026	0
Y	89		ug/L			157717	145082	0
Kr	83		ug/L			62	55	4
> In	115		ug/L			279239	250831	0
Ag	107	25.234	ug/L	0.177	0	52	167347	0
Cd	111	25.690	ug/L	0.387	1	133	49435	0
Cd	114	25.642	ug/L	0.139	0	70	121265	0
Sb	121	-0.004	ug/L	0.003	82	235	181	13
Sb	123	-0.001	ug/L	0.003	197	160	136	10
Ba	135	27.087	ug/L	0.186	0	17	44722	0
Ba	137	27.220	ug/L	0.243	0	25	77788	0
> Tb	159		ug/L			322599	322932	0
Tl	205	25.016	ug/L	0.237	0	190	517961	0
Pb	208	25.607	ug/L	0.380	1	202	735320	1
Bi	209		ug/L			239096	234645	1
Th	232	25.006	ug/L	0.166	0	807	1103408	0
U	238	25.268	ug/L	0.165	0	91	1191077	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QS96 MB1SPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 16:58:07

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Pb

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4262	3
Cl	37		mg/L			1072210	847194	0
> Ge	72		ug/L			200785	173911	0
Ni	60	26.778	ug/L	0.425	1	58	37428	1
Ni	62	27.212	ug/L	0.318	1	35	5656	1
Cu	63	27.453	ug/L	0.242	0	275	84216	0
Cu	65	27.140	ug/L	0.156	0	63	39264	0
Zn	66	81.014	ug/L	0.850	1	177	88879	0
Zn	67	75.081	ug/L	0.306	0	73	13421	0
Zn	68	81.468	ug/L	0.336	0	1655	62665	0
As-1	75	26.553	ug/L	0.621	2	56	22625	2
As	75	25.851	ug/L	0.455	1	2905	24437	1
Se	82	84.189	ug/L	0.508	0	-15	8257	0
Se	78	82.135	ug/L	0.611	0	2958	22912	0
Y	89		ug/L			157717	146719	0
Kr	83		ug/L			62	53	6
> In	115		ug/L			279239	253702	0
Ag	107	24.959	ug/L	0.142	0	52	167425	0
Cd	111	25.467	ug/L	0.211	0	133	49571	1
Cd	114	25.620	ug/L	0.097	0	70	122552	0
Sb	121	-0.004	ug/L	0.003	76	235	183	12
Sb	123	-0.003	ug/L	0.002	58	160	128	8
Ba	135	26.617	ug/L	0.148	0	17	44450	0
Ba	137	26.682	ug/L	0.126	0	25	77127	0
> Tb	159		ug/L			322599	325131	0
Tl	205	24.891	ug/L	0.068	0	190	518878	0
Pb	208	25.466	ug/L	0.113	0	202	736261	0
Bi	209		ug/L			239096	238358	0
Th	232	25.142	ug/L	0.121	0	807	1116945	0
U	238	25.232	ug/L	0.122	0	91	1197434	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QS96 ADUP REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 17:04:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Pb

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	14206	3
Cl	37		mg/L			1072210	1184204	0
> Ge	72		ug/L			200785	164742	3
Ni	60	38.176	ug/L	0.474	1	58	50539	4
Ni	62	37.385	ug/L	0.199	0	35	7349	3
Cu	63	2.667	ug/L	0.063	2	275	7957	5
Cu	65	2.115	ug/L	0.079	3	63	2947	5
Zn	66	39.620	ug/L	0.218	0	177	41254	4
Zn	67	36.710	ug/L	1.101	2	73	6251	6
Zn	68	40.228	ug/L	0.478	1	1655	30006	4
As-1	75	3.823	ug/L	0.088	2	56	3127	5
As	75	1.970	ug/L	0.132	6	2905	3963	1
Se	82	6.038	ug/L	0.264	4	-15	549	7
Se	78	-0.276	ug/L	0.556	201	2958	2359	2
Y	89		ug/L			157717	143130	4
Kr	83		ug/L			62	51	4
> In	115		ug/L			279239	243031	4
Ag	107	0.006	ug/L	0.001	13	52	83	5
Cd	111	0.082	ug/L	0.021	26	133	269	18
Cd	114	0.175	ug/L	0.015	8	70	862	11
Sb	121	15.058	ug/L	0.170	1	235	106153	3
Sb	123	14.998	ug/L	0.115	0	160	81240	3
Ba	135	96.482	ug/L	0.648	0	17	154287	4
Ba	137	96.371	ug/L	1.064	1	25	266712	3
> Tb	159		ug/L			322599	291844	2
Tl	205	0.009	ug/L	0.001	12	190	339	4
Pb	208	4.133	ug/L	0.074	1	202	107457	4
Bi	209		ug/L			239096	206633	4
Th	232	0.056	ug/L	0.004	6	807	2955	6
U	238	0.009	ug/L	0.001	10	91	458	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QS96 A REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 17:10:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Pb

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	13158	1
Cl	37		mg/L			1072210	1165715	0
> Ge	72		ug/L			200785	170061	1
Ni	60	38.065	ug/L	0.061	0	58	52005	1
Ni	62	37.198	ug/L	0.306	0	35	7550	2
Cu	63	2.630	ug/L	0.022	0	275	8101	2
Cu	65	2.218	ug/L	0.035	1	63	3187	2
Zn	66	38.872	ug/L	0.364	0	177	41782	2
Zn	67	36.432	ug/L	0.374	1	73	6400	1
Zn	68	39.396	ug/L	0.071	0	1655	30356	1
As-1	75	3.764	ug/L	0.035	0	56	3177	1
As	75	1.780	ug/L	0.034	1	2905	3936	1
Se	82	6.043	ug/L	0.067	1	-15	567	1
Se	78	-0.746	ug/L	0.112	14	2958	2324	0
Y	89		ug/L			157717	147817	1
Kr	83		ug/L			62	50	6
> In	115		ug/L			279239	251565	2
Ag	107	0.001	ug/L	0.000	38	52	52	4
Cd	111	0.091	ug/L	0.026	28	133	294	17
Cd	114	0.177	ug/L	0.007	4	70	900	3
Sb	121	14.981	ug/L	0.121	0	235	109339	1
Sb	123	14.968	ug/L	0.114	0	160	83929	1
Ba	135	96.694	ug/L	0.555	0	17	160065	1
Ba	137	96.436	ug/L	0.588	0	25	276327	1
> Tb	159		ug/L			322599	297709	0
Tl	205	0.005	ug/L	0.001	13	190	277	4
Pb	208	4.221	ug/L	0.064	1	202	111904	2
Bi	209		ug/L			239096	213218	1
Th	232	0.003	ug/L	0.006	191	807	863	26
U	238	0.005	ug/L	0.001	10	91	300	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QS96 ASPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 17:17:04

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	13521	1
Cl	37		mg/L			1072210	1167971	1
> Ge	72		ug/L			200785	160074	4
Ni	60	62.537	ug/L	0.679	1	58	80411	5
Ni	62	61.848	ug/L	1.012	1	35	11801	5
Cu	63	27.641	ug/L	0.142	0	275	78054	4
Cu	65	27.394	ug/L	0.167	0	63	36477	4
Zn	66	111.958	ug/L	0.554	0	177	113016	4
Zn	67	105.076	ug/L	1.072	1	73	17270	5
Zn	68	112.610	ug/L	0.684	0	1655	79222	4
As-1	75	30.140	ug/L	0.339	1	56	23636	4
As	75	28.123	ug/L	0.278	0	2905	24264	3
Se	82	87.369	ug/L	2.025	2	-15	7892	6
Se	78	80.843	ug/L	1.294	1	2958	20798	5
Y	89		ug/L			157717	137147	5
Kr	83		ug/L			62	50	4
> In	115		ug/L			279239	233409	5
Ag	107	14.687	ug/L	0.124	0	52	90657	5
Cd	111	24.544	ug/L	0.092	0	133	43960	5
Cd	114	24.309	ug/L	0.094	0	70	106965	5
Sb	121	14.857	ug/L	0.193	1	235	100571	4
Sb	123	14.862	ug/L	0.063	0	160	77322	5
Ba	135	120.995	ug/L	1.164	0	17	185779	4
Ba	137	121.019	ug/L	1.583	1	25	321607	4
> Tb	159		ug/L			322599	281981	3
Tl	205	24.671	ug/L	0.328	1	190	446187	5
Pb	208	28.951	ug/L	0.481	1	202	726216	5
Bi	209		ug/L			239096	199209	5
Th	232	25.189	ug/L	0.241	0	807	970747	4
U	238	25.773	ug/L	0.265	1	91	1061060	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 A REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 17:23:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Pb Tl

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	8318	1
Cl	37		mg/L			1072210	3719792	1
> Ge	72		ug/L			200785	156550	0
Ni	60	4.971	ug/L	0.033	0	58	6291	1
Ni	62	4.006	ug/L	0.212	5	35	773	5
Cu	63	3.632	ug/L	0.066	1	275	10217	2
Cu	65	0.671	ug/L	0.029	4	63	922	3
Zn	66	4.171	ug/L	0.131	3	177	4249	2
Zn	67	5.182	ug/L	0.155	2	73	887	3
Zn	68	4.969	ug/L	0.153	3	1655	4652	2
As-1	75	3.428	ug/L	0.068	1	56	2667	1
As	75	0.678	ug/L	0.141	20	2905	2782	3
Se	82	9.321	ug/L	0.181	1	-15	812	2
Se	78	0.043	ug/L	0.320	736	2958	2315	2
Y	89		ug/L			157717	133917	1
Kr	83		ug/L			62	54	2
> In	115		ug/L			279239	217838	0
Ag	107	0.015	ug/L	0.001	7	52	127	5
Cd	111	-0.076	ug/L	0.037	48	133	-23	265
Cd	114	0.007	ug/L	0.002	22	70	83	7
Sb	121	0.194	ug/L	0.005	2	235	1406	2
Sb	123	0.183	ug/L	0.004	2	160	1013	1
Ba	135	89.646	ug/L	0.408	0	17	128513	0
Ba	137	88.711	ug/L	0.271	0	25	220133	0
> Tb	159		ug/L			322599	233768	0
Tl	205	0.011	ug/L	0.002	18	190	308	10
Pb	208	0.130	ug/L	0.002	1	202	2843	0
Bi	209		ug/L			239096	177719	0
Th	232	0.026	ug/L	0.002	8	807	1401	5
U	238	0.136	ug/L	0.002	1	91	4698	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 17:29:45

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3321	2
Cl	37		mg/L			1072210	1035223	0
[> Ge	72		ug/L			200785	195200	1
Ni	60	50.117	ug/L	0.333	0	58	78580	2
Ni	62	50.584	ug/L	0.649	1	35	11772	2
Cu	63	50.755	ug/L	0.235	0	275	174530	1
Cu	65	50.972	ug/L	0.108	0	63	82716	1
Zn	66	51.126	ug/L	0.213	0	177	63018	1
Zn	67	51.508	ug/L	0.361	0	73	10356	1
Zn	68	51.411	ug/L	0.320	0	1655	44978	1
As-1	75	50.033	ug/L	0.108	0	56	47803	1
As	75	50.150	ug/L	0.149	0	2905	50555	1
Se	82	49.570	ug/L	0.662	1	-15	5451	2
Se	78	49.915	ug/L	0.081	0	2958	16757	1
Y	89		ug/L			157717	148321	2
Kr	83		ug/L			62	66	8
[> In	115		ug/L			279239	260120	1
Ag	107	51.097	ug/L	0.427	0	52	351414	2
Cd	111	50.601	ug/L	0.335	0	133	100870	2
Cd	114	50.584	ug/L	0.221	0	70	248029	2
Sb	121	49.743	ug/L	0.057	0	235	374929	1
Sb	123	49.333	ug/L	0.110	0	160	285729	1
Ba	135	50.041	ug/L	0.059	0	17	85665	1
Ba	137	49.727	ug/L	0.128	0	25	147359	2
[> Tb	159		ug/L			322599	286342	1
Tl	205	52.496	ug/L	0.477	0	190	963682	2
Pb	208	52.370	ug/L	0.499	0	202	1333423	2
Bi	209		ug/L			239096	222676	1
Th	232	50.924	ug/L	0.731	1	807	1991991	2
U	238	51.283	ug/L	0.164	0	91	2143391	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 17:36:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4176	0
Cl	37		mg/L			1072210	1107874	0
> Ge	72		ug/L			200785	193870	1
Ni	60	0.000	ug/L	0.004	1786	58	56	11
Ni	62	0.059	ug/L	0.041	68	35	48	20
Cu	63	-0.003	ug/L	0.006	202	275	255	7
Cu	65	0.011	ug/L	0.007	64	63	78	13
Zn	66	0.014	ug/L	0.022	154	177	188	15
Zn	67	-0.027	ug/L	0.067	249	73	65	19
Zn	68	0.037	ug/L	0.042	115	1655	1629	2
As-1	75	0.023	ug/L	0.013	55	56	75	15
As	75	0.066	ug/L	0.089	135	2905	2867	1
Se	82	0.106	ug/L	0.078	73	-15	-3	246
Se	78	0.243	ug/L	0.270	111	2958	2922	1
Y	89		ug/L			157717	146334	1
Kr	83		ug/L			62	59	6
> In	115		ug/L			279239	257037	2
Ag	107	0.004	ug/L	0.000	10	52	72	4
Cd	111	0.002	ug/L	0.005	242	133	127	10
Cd	114	-0.001	ug/L	0.003	322	70	61	20
Sb	121	0.020	ug/L	0.007	35	235	366	16
Sb	123	0.023	ug/L	0.003	12	160	280	6
Ba	135	0.006	ug/L	0.008	141	17	25	53
Ba	137	0.010	ug/L	0.001	8	25	52	4
> Tb	159		ug/L			322599	284603	1
Tl	205	0.011	ug/L	0.002	17	190	367	10
Pb	208	0.005	ug/L	0.001	14	202	310	6
Bi	209		ug/L			239096	219131	1
Th	232	0.030	ug/L	0.004	14	807	1861	8
U	238	0.002	ug/L	0.001	37	91	175	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 MB1 REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 17:52:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4590	0
Cl	37		mg/L			1072210	1081950	0
Ge	72		ug/L			200785	200123	0
Ni	60	-0.000	ug/L	0.003	2318	58	57	8
Ni	62	0.011	ug/L	0.003	29	35	38	1
Cu	63	0.028	ug/L	0.005	16	275	372	4
Cu	65	0.043	ug/L	0.009	21	63	134	11
Zn	66	0.215	ug/L	0.006	2	177	447	1
Zn	67	0.156	ug/L	0.011	7	73	105	2
Zn	68	0.115	ug/L	0.049	42	1655	1749	2
As-1	75	0.014	ug/L	0.022	151	56	70	30
As	75	-0.052	ug/L	0.035	66	2905	2844	1
Se	82	0.134	ug/L	0.014	10	-15	0	344
Se	78	-0.167	ug/L	0.099	59	2958	2901	1
Y	89		ug/L			157717	154075	0
Kr	83		ug/L			62	54	9
In	115		ug/L			279239	270668	0
Ag	107	-0.004	ug/L	0.000	10	52	25	10
Cd	111	0.001	ug/L	0.008	1248	133	130	12
Cd	114	-0.003	ug/L	0.001	37	70	52	12
Sb	121	-0.012	ug/L	0.001	5	235	135	3
Sb	123	-0.008	ug/L	0.003	40	160	106	18
Ba	135	0.021	ug/L	0.003	12	17	55	9
Ba	137	0.022	ug/L	0.003	12	25	94	9
Tb	159		ug/L			322599	298099	0
Tl	205	-0.002	ug/L	0.000	21	190	133	7
Pb	208	0.052	ug/L	0.001	1	202	1573	1
Bi	209		ug/L			239096	233245	0
Th	232	-0.010	ug/L	0.001	5	807	342	6
U	238	-0.001	ug/L	0.000	2	91	37	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 MB2 REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 17:58:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4573	0
Cl	37		mg/L			1072210	1037318	0
Ge	72		ug/L			200785	197576	0
Ni	60	0.010	ug/L	0.004	44	58	72	8
Ni	62	0.063	ug/L	0.028	44	35	50	13
Cu	63	0.004	ug/L	0.010	224	275	287	12
Cu	65	0.033	ug/L	0.005	15	63	116	6
Zn	66	0.496	ug/L	0.018	3	177	790	3
Zn	67	0.389	ug/L	0.106	27	73	150	14
Zn	68	0.432	ug/L	0.081	18	1655	1998	3
As-1	75	0.007	ug/L	0.022	310	56	62	33
As	75	-0.091	ug/L	0.050	55	2905	2770	0
Se	82	0.156	ug/L	0.066	42	-15	2	359
Se	78	-0.274	ug/L	0.176	64	2958	2833	1
Y	89		ug/L			157717	155532	0
Kr	83		ug/L			62	51	10
In	115		ug/L			279239	272493	0
Ag	107	-0.002	ug/L	0.000	13	52	33	7
Cd	111	-0.003	ug/L	0.004	130	133	123	7
Cd	114	-0.003	ug/L	0.002	60	70	52	18
Sb	121	-0.021	ug/L	0.001	5	235	67	13
Sb	123	-0.018	ug/L	0.000	2	160	49	4
Ba	135	0.018	ug/L	0.001	6	17	48	4
Ba	137	0.019	ug/L	0.003	15	25	84	11
Tb	159		ug/L			322599	304764	0
Tl	205	-0.003	ug/L	0.000	15	190	118	8
Pb	208	0.010	ug/L	0.001	10	202	474	5
Bi	209		ug/L			239096	234935	0
Th	232	-0.011	ug/L	0.000	3	807	312	5
U	238	-0.001	ug/L	0.000	4	91	20	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 MB2SPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:04:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	5017	1
Cl	37		mg/L			1072210	982261	0
> Ge	72		ug/L			200785	192545	0
Ni	60	26.150	ug/L	0.091	0	58	40468	1
Ni	62	26.518	ug/L	0.020	0	35	6103	0
Cu	63	26.648	ug/L	0.223	0	275	90513	0
Cu	65	26.635	ug/L	0.269	1	63	42661	0
Zn	66	76.761	ug/L	0.519	0	177	93244	0
Zn	67	71.448	ug/L	0.548	0	73	14144	1
Zn	68	76.850	ug/L	0.465	0	1655	65538	1
As-1	75	24.800	ug/L	0.364	1	56	23398	0
As	75	24.723	ug/L	0.100	0	2905	25997	1
Se	82	74.771	ug/L	1.464	1	-15	8117	1
Se	78	74.746	ug/L	0.137	0	2958	23341	0
Y	89		ug/L			157717	153625	0
Kr	83		ug/L			62	53	3
> In	115		ug/L			279239	270951	0
Ag	107	24.601	ug/L	0.171	0	52	176244	0
Cd	111	24.481	ug/L	0.146	0	133	50896	0
Cd	114	24.582	ug/L	0.079	0	70	125583	0
Sb	121	-0.013	ug/L	0.001	6	235	122	6
Sb	123	-0.011	ug/L	0.001	10	160	89	7
Ba	135	25.192	ug/L	0.084	0	17	44931	0
Ba	137	25.016	ug/L	0.238	0	25	77227	0
> Tb	159		ug/L			322599	308620	0
Tl	205	25.387	ug/L	0.100	0	190	502352	0
Pb	208	25.830	ug/L	0.167	0	202	708886	0
Bi	209		ug/L			239096	235713	0
Th	232	24.768	ug/L	0.138	0	807	1044479	0
U	238	24.714	ug/L	0.183	0	91	1113319	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 MB1SPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:11:10

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4760	1
Cl	37		mg/L			1072210	960945	0
> Ge	72		ug/L			200785	185467	0
Ni	60	26.542	ug/L	0.180	0	58	39564	0
Ni	62	26.671	ug/L	0.503	1	35	5912	1
Cu	63	27.108	ug/L	0.226	0	275	88688	0
Cu	65	27.050	ug/L	0.051	0	63	41735	0
Zn	66	80.990	ug/L	0.745	0	177	94759	0
Zn	67	76.795	ug/L	1.301	1	73	14638	1
Zn	68	81.147	ug/L	0.925	1	1655	66571	0
As-1	75	25.609	ug/L	0.343	1	56	23274	1
As	75	25.386	ug/L	0.155	0	2905	25641	0
Se	82	80.365	ug/L	1.125	1	-15	8405	1
Se	78	79.884	ug/L	0.862	1	2958	23840	0
Y	89		ug/L			157717	149433	0
Kr	83		ug/L			62	52	8
> In	115		ug/L			279239	264442	0
Ag	107	24.823	ug/L	0.170	0	52	173554	0
Cd	111	25.330	ug/L	0.182	0	133	51392	1
Cd	114	25.341	ug/L	0.228	0	70	126343	0
Sb	121	-0.011	ug/L	0.002	19	235	137	11
Sb	123	-0.007	ug/L	0.003	41	160	108	15
Ba	135	25.726	ug/L	0.246	0	17	44783	1
Ba	137	25.868	ug/L	0.046	0	25	77940	1
> Tb	159		ug/L			322599	310417	0
Tl	205	25.444	ug/L	0.127	0	190	506394	0
Pb	208	25.876	ug/L	0.154	0	202	714278	0
Bi	209		ug/L			239096	232126	0
Th	232	24.870	ug/L	0.138	0	807	1054865	0
U	238	24.926	ug/L	0.148	0	91	1129381	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 BDUP REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:17:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4906	1
Cl	37		mg/L			1072210	910835	0
> Ge	72		ug/L			200785	176367	1
Ni	60	0.468	ug/L	0.005	1	58	713	1
Ni	62	0.508	ug/L	0.058	11	35	137	7
Cu	63	3.256	ug/L	0.061	1	275	10342	2
Cu	65	3.246	ug/L	0.029	0	63	4811	0
Zn	66	12.055	ug/L	0.010	0	177	13544	1
Zn	67	11.115	ug/L	0.116	1	73	2070	2
Zn	68	12.127	ug/L	0.224	1	1655	10696	0
As-1	75	0.392	ug/L	0.011	2	56	387	3
As	75	0.327	ug/L	0.020	6	2905	2833	0
Se	82	0.152	ug/L	0.076	49	-15	1	517
Se	78	-0.161	ug/L	0.071	43	2958	2557	0
Y	89		ug/L			157717	144108	0
Kr	83		ug/L			62	46	12
> In	115		ug/L			279239	252085	1
Ag	107	0.005	ug/L	0.001	14	52	81	5
Cd	111	0.034	ug/L	0.009	26	133	186	9
Cd	114	0.028	ug/L	0.002	7	70	196	5
Sb	121	0.101	ug/L	0.003	2	235	951	3
Sb	123	0.112	ug/L	0.003	2	160	772	1
Ba	135	2.573	ug/L	0.029	1	17	4284	1
Ba	137	2.586	ug/L	0.019	0	25	7449	1
> Tb	159		ug/L			322599	306245	0
Tl	205	0.005	ug/L	0.000	5	190	272	2
Pb	208	1.146	ug/L	0.004	0	202	31396	0
Bi	209		ug/L			239096	225332	0
Th	232	0.034	ug/L	0.002	4	807	2177	3
U	238	0.010	ug/L	0.001	7	91	553	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 B REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:23:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4702	0
Cl	37		mg/L			1072210	899528	0
> Ge	72		ug/L			200785	174747	0
Ni	60	0.437	ug/L	0.016	3	58	663	3
Ni	62	0.486	ug/L	0.057	11	35	132	8
Cu	63	3.222	ug/L	0.042	1	275	10145	1
Cu	65	3.202	ug/L	0.061	1	63	4702	1
Zn	66	11.812	ug/L	0.077	0	177	13152	0
Zn	67	10.875	ug/L	0.283	2	73	2007	2
Zn	68	11.968	ug/L	0.048	0	1655	10479	0
As-1	75	0.377	ug/L	0.013	3	56	371	2
As	75	0.220	ug/L	0.031	13	2905	2715	1
Se	82	0.193	ug/L	0.045	23	-15	5	82
Se	78	-0.431	ug/L	0.089	20	2958	2467	1
Y	89		ug/L			157717	144141	0
Kr	83		ug/L			62	46	4
> In	115		ug/L			279239	250818	0
Ag	107	0.001	ug/L	0.001	114	52	51	10
Cd	111	0.028	ug/L	0.005	17	133	173	5
Cd	114	0.025	ug/L	0.004	16	70	179	10
Sb	121	0.111	ug/L	0.008	7	235	1019	5
Sb	123	0.108	ug/L	0.009	8	160	745	6
Ba	135	2.557	ug/L	0.032	1	17	4236	1
Ba	137	2.572	ug/L	0.042	1	25	7370	1
> Tb	159		ug/L			322599	307773	0
Tl	205	0.000	ug/L	0.000	269	190	185	4
Pb	208	1.099	ug/L	0.009	0	202	30273	0
Bi	209		ug/L			239096	226229	0
Th	232	0.008	ug/L	0.001	10	807	1096	3
U	238	0.006	ug/L	0.000	1	91	355	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 BSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:29:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4459	2
Cl	37		mg/L			1072210	881249	0
> Ge	72		ug/L			200785	170660	0
Ni	60	27.443	ug/L	0.140	0	58	37639	0
Ni	62	28.309	ug/L	0.530	1	35	5772	2
Cu	63	30.964	ug/L	0.301	0	275	93183	0
Cu	65	31.088	ug/L	0.106	0	63	44127	0
Zn	66	94.010	ug/L	0.312	0	177	101187	0
Zn	67	87.726	ug/L	0.607	0	73	15378	0
Zn	68	93.921	ug/L	0.517	0	1655	70679	0
As-1	75	26.859	ug/L	0.512	1	56	22458	2
As	75	26.410	ug/L	0.355	1	2905	24446	1
Se	82	82.755	ug/L	0.809	0	-15	7965	1
Se	78	81.507	ug/L	0.140	0	2958	22332	0
Y	89		ug/L			157717	142236	0
Kr	83		ug/L			62	48	2
> In	115		ug/L			279239	246368	0
Ag	107	25.107	ug/L	0.145	0	52	163543	0
Cd	111	25.752	ug/L	0.178	0	133	48676	1
Cd	114	25.919	ug/L	0.181	0	70	120393	0
Sb	121	0.126	ug/L	0.006	4	235	1108	4
Sb	123	0.124	ug/L	0.005	3	160	822	2
Ba	135	29.453	ug/L	0.160	0	17	47763	1
Ba	137	29.487	ug/L	0.188	0	25	82767	0
> Tb	159		ug/L			322599	305492	0
Tl	205	25.542	ug/L	0.193	0	190	500277	0
Pb	208	27.197	ug/L	0.080	0	202	738815	0
Bi	209		ug/L			239096	222872	0
Th	232	21.428	ug/L	0.134	0	807	894567	0
U	238	25.732	ug/L	0.102	0	91	1147405	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 FDUP REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:36:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4513	2
Cl	37		mg/L			1072210	862444	1
> Ge	72		ug/L			200785	171757	0
Ni	60	0.346	ug/L	0.014	4	58	526	3
Ni	62	0.401	ug/L	0.065	16	35	112	11
Cu	63	1.977	ug/L	0.027	1	275	6207	1
Cu	65	2.020	ug/L	0.024	1	63	2937	1
Zn	66	8.660	ug/L	0.029	0	177	9518	0
Zn	67	8.093	ug/L	0.114	1	73	1484	1
Zn	68	8.800	ug/L	0.136	1	1655	7948	1
As-1	75	0.277	ug/L	0.003	1	56	281	1
As	75	0.189	ug/L	0.043	22	2905	2643	1
Se	82	0.080	ug/L	0.030	37	-15	-5	52
Se	78	-0.292	ug/L	0.141	48	2958	2459	1
Y	89		ug/L			157717	142889	0
Kr	83		ug/L			62	46	4
> In	115		ug/L			279239	248308	0
Ag	107	0.002	ug/L	0.001	80	52	56	14
Cd	111	0.012	ug/L	0.005	40	133	142	6
Cd	114	0.016	ug/L	0.002	13	70	138	7
Sb	121	0.082	ug/L	0.004	4	235	799	3
Sb	123	0.088	ug/L	0.004	4	160	631	3
Ba	135	1.486	ug/L	0.026	1	17	2443	1
Ba	137	1.523	ug/L	0.009	0	25	4331	0
> Tb	159		ug/L			322599	309248	0
Tl	205	0.001	ug/L	0.001	80	190	196	5
Pb	208	0.082	ug/L	0.002	3	202	2437	2
Bi	209		ug/L			239096	225540	0
Th	232	0.019	ug/L	0.004	22	807	1583	11
U	238	0.004	ug/L	0.001	26	91	245	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 F REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:42:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4640	1
Cl	37		mg/L			1072210	874566	0
> Ge	72		ug/L			200785	171135	0
Ni	60	0.334	ug/L	0.015	4	58	507	3
Ni	62	0.329	ug/L	0.068	20	35	97	13
Cu	63	1.969	ug/L	0.020	1	275	6162	1
Cu	65	2.000	ug/L	0.067	3	63	2896	3
Zn	66	9.176	ug/L	0.048	0	177	10040	0
Zn	67	8.548	ug/L	0.200	2	73	1559	1
Zn	68	9.246	ug/L	0.173	1	1655	8249	1
As-1	75	0.307	ug/L	0.017	5	56	305	4
As	75	0.171	ug/L	0.051	29	2905	2619	1
Se	82	0.153	ug/L	0.027	17	-15	1	175
Se	78	-0.373	ug/L	0.150	40	2958	2430	1
Y	89		ug/L			157717	141903	0
Kr	83		ug/L			62	47	3
> In	115		ug/L			279239	249511	0
Ag	107	-0.002	ug/L	0.001	45	52	35	14
Cd	111	0.010	ug/L	0.005	50	133	138	7
Cd	114	0.012	ug/L	0.003	23	70	117	11
Sb	121	0.080	ug/L	0.005	6	235	788	4
Sb	123	0.086	ug/L	0.005	5	160	619	4
Ba	135	1.464	ug/L	0.044	3	17	2419	3
Ba	137	1.462	ug/L	0.032	2	25	4178	2
> Tb	159		ug/L			322599	309043	0
Tl	205	-0.003	ug/L	0.000	6	190	129	2
Pb	208	0.075	ug/L	0.002	2	202	2242	2
Bi	209		ug/L			239096	225282	0
Th	232	-0.008	ug/L	0.000	5	807	455	3
U	238	0.001	ug/L	0.000	27	91	119	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 FSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:48:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4492	1
Cl	37		mg/L			1072210	853106	0
> Ge	72		ug/L			200785	168247	0
Ni	60	27.236	ug/L	0.227	0	58	36826	0
Ni	62	27.750	ug/L	0.146	0	35	5579	0
Cu	63	29.699	ug/L	0.110	0	275	88122	0
Cu	65	29.733	ug/L	0.073	0	63	41610	0
Zn	66	87.698	ug/L	0.696	0	177	93066	0
Zn	67	81.911	ug/L	1.340	1	73	14159	1
Zn	68	88.165	ug/L	0.620	0	1655	65493	0
As-1	75	26.369	ug/L	0.395	1	56	21736	1
As	75	25.854	ug/L	0.324	1	2905	23643	0
Se	82	79.886	ug/L	0.648	0	-15	7579	0
Se	78	78.393	ug/L	0.367	0	2958	21269	0
Y	89		ug/L			157717	140899	0
Kr	83		ug/L			62	47	8
> In	115		ug/L			279239	245134	0
Ag	107	24.858	ug/L	0.154	0	52	161116	0
Cd	111	25.387	ug/L	0.068	0	133	47747	0
Cd	114	25.379	ug/L	0.103	0	70	117298	0
Sb	121	0.092	ug/L	0.002	2	235	861	2
Sb	123	0.097	ug/L	0.005	4	160	670	3
Ba	135	28.352	ug/L	0.098	0	17	45747	0
Ba	137	28.428	ug/L	0.142	0	25	79395	0
> Tb	159		ug/L			322599	305321	0
Tl	205	25.513	ug/L	0.045	0	190	499447	0
Pb	208	26.048	ug/L	0.142	0	202	707208	0
Bi	209		ug/L			239096	224280	0
Th	232	24.419	ug/L	0.029	0	807	1018790	0
U	238	25.714	ug/L	0.035	0	91	1145982	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 18:55:16

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	2646	1
Cl	37		mg/L			1072210	886231	0
> Ge	72		ug/L			200785	166545	0
Ni	60	50.237	ug/L	0.123	0	58	67201	0
Ni	62	50.777	ug/L	0.822	1	35	10081	1
Cu	63	50.733	ug/L	0.161	0	275	148849	0
Cu	65	50.553	ug/L	0.044	0	63	69995	0
Zn	66	50.944	ug/L	0.196	0	177	53578	0
Zn	67	51.145	ug/L	0.929	1	73	8775	1
Zn	68	51.255	ug/L	0.004	0	1655	38265	0
As-1	75	50.932	ug/L	0.239	0	56	41517	0
As	75	50.751	ug/L	0.153	0	2905	43622	0
Se	82	52.313	ug/L	0.302	0	-15	4908	0
Se	78	51.636	ug/L	0.259	0	2958	14705	0
Y	89		ug/L			157717	136121	0
Kr	83		ug/L			62	55	7
> In	115		ug/L			279239	238136	0
Ag	107	49.572	ug/L	0.235	0	52	312080	0
Cd	111	50.028	ug/L	0.168	0	133	91294	0
Cd	114	50.275	ug/L	0.188	0	70	225667	0
Sb	121	50.535	ug/L	0.281	0	235	348695	0
Sb	123	50.581	ug/L	0.103	0	160	268187	0
Ba	135	51.047	ug/L	0.483	0	17	80002	0
Ba	137	51.312	ug/L	0.477	0	25	139198	0
> Tb	159		ug/L			322599	297315	0
Tl	205	48.375	ug/L	0.082	0	190	921996	0
Pb	208	48.747	ug/L	0.127	0	202	1288622	0
Bi	209		ug/L			239096	215013	0
Th	232	48.780	ug/L	0.157	0	807	1981028	0
U	238	50.069	ug/L	0.188	0	91	2172803	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:02:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3366	3
Cl	37		mg/L			1072210	897444	1
> Ge	72		ug/L			200785	163417	0
Ni	60	-0.006	ug/L	0.002	42	58	40	8
Ni	62	0.034	ug/L	0.043	125	35	35	23
Cu	63	-0.018	ug/L	0.004	20	275	172	5
Cu	65	0.003	ug/L	0.001	18	63	55	1
Zn	66	-0.014	ug/L	0.013	88	177	129	9
Zn	67	-0.021	ug/L	0.025	122	73	56	8
Zn	68	0.032	ug/L	0.081	250	1655	1370	3
As-1	75	-0.004	ug/L	0.014	395	56	43	26
As	75	0.036	ug/L	0.023	63	2905	2393	1
Se	82	0.059	ug/L	0.022	36	-15	-7	26
Se	78	0.145	ug/L	0.130	89	2958	2441	1
Y	89		ug/L			157717	134322	0
Kr	83		ug/L			62	46	2
> In	115		ug/L			279239	235257	0
Ag	107	0.001	ug/L	0.001	61	52	50	6
Cd	111	-0.012	ug/L	0.003	25	133	90	5
Cd	114	-0.004	ug/L	0.004	80	70	39	39
Sb	121	0.013	ug/L	0.002	13	235	288	3
Sb	123	0.017	ug/L	0.001	3	160	226	1
Ba	135	0.003	ug/L	0.004	109	17	20	28
Ba	137	0.004	ug/L	0.003	77	25	31	23
> Tb	159		ug/L			322599	296584	0
Tl	205	0.001	ug/L	0.004	259	190	201	33
Pb	208	0.002	ug/L	0.001	35	202	227	6
Bi	209		ug/L			239096	213939	0
Th	232	0.023	ug/L	0.002	8	807	1656	4
U	238	0.002	ug/L	0.000	25	91	167	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 CDUP REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:09:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Ni As TI

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	5083	0
Cl	37		mg/L			1072210	855799	1
> Ge	72		ug/L			200785	167028	0
Ni	60	1.774	ug/L	0.070	3	58	2426	3
Ni	62	1.206	ug/L	0.043	3	35	269	3
Cu	63	0.394	ug/L	0.021	5	275	1387	4
Cu	65	0.353	ug/L	0.006	1	63	542	1
Zn	66	5.114	ug/L	0.076	1	177	5526	2
Zn	67	5.547	ug/L	0.080	1	73	1008	2
Zn	68	5.962	ug/L	0.127	2	1655	5680	0
As-1	75	1.780	ug/L	0.031	1	56	1500	1
As	75	1.562	ug/L	0.040	2	2905	3689	0
Se	82	0.364	ug/L	0.092	25	-15	21	40
Se	78	-0.524	ug/L	0.140	26	2958	2336	0
Y	89		ug/L			157717	138544	1
Kr	83		ug/L			62	39	3
> In	115		ug/L			279239	239803	0
Ag	107	0.004	ug/L	0.001	32	52	69	12
Cd	111	0.005	ug/L	0.006	140	133	122	10
Cd	114	0.001	ug/L	0.001	108	70	65	7
Sb	121	0.099	ug/L	0.000	0	235	890	0
Sb	123	0.104	ug/L	0.001	0	160	694	0
Ba	135	83.047	ug/L	0.173	0	17	131059	1
Ba	137	82.692	ug/L	0.351	0	25	225881	0
> Tb	159		ug/L			322599	293248	0
Tl	205	-0.001	ug/L	0.001	142	190	156	15
Pb	208	0.452	ug/L	0.005	1	202	11975	1
Bi	209		ug/L			239096	211348	1
Th	232	0.010	ug/L	0.004	37	807	1129	13
U	238	0.017	ug/L	0.001	3	91	804	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 C REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:15:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

D. ASTI

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	5369	1
Cl	37		mg/L			1072210	834621	0
> Ge	72		ug/L			200785	166977	0
Ni	60	2.937	ug/L	0.108	3	58	3985	3
Ni	62	2.422	ug/L	0.180	7	35	510	7
Cu	63	0.442	ug/L	0.006	1	275	1526	0
Cu	65	0.399	ug/L	0.010	2	63	605	2
Zn	66	5.367	ug/L	0.020	0	177	5790	0
Zn	67	5.644	ug/L	0.061	1	73	1025	0
Zn	68	6.078	ug/L	0.174	2	1655	5762	2
As-1	75	1.781	ug/L	0.010	0	56	1501	0
As	75	1.539	ug/L	0.028	1	2905	3669	0
Se	82	0.361	ug/L	0.030	8	-15	21	13
Se	78	-0.618	ug/L	0.071	11	2958	2313	0
Y	89		ug/L			157717	137889	0
Kr	83		ug/L			62	38	7
> In	115		ug/L			279239	241645	0
Ag	107	0.001	ug/L	0.001	125	52	50	11
Cd	111	0.000	ug/L	0.010	44469	133	115	16
Cd	114	0.002	ug/L	0.003	114	70	72	16
Sb	121	0.094	ug/L	0.004	4	235	860	4
Sb	123	0.094	ug/L	0.005	5	160	642	4
Ba	135	83.643	ug/L	1.236	1	17	133002	0
Ba	137	83.880	ug/L	0.922	1	25	230880	0
> Tb	159		ug/L			322599	296721	0
Tl	205	0.001	ug/L	0.000	39	190	154	5
Pb	208	0.466	ug/L	0.001	0	202	12487	0
Bi	209		ug/L			239096	213767	0
Th	232	-0.005	ug/L	0.002	31	807	522	13
U	238	0.016	ug/L	0.001	4	91	787	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 CSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:21:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

N. ASTI

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4987	1
Cl	37		mg/L			1072210	824773	0
> Ge	72		ug/L			200785	164343	0
Ni	60	25.105	ug/L	0.148	0	58	33162	0
Ni	62	24.914	ug/L	0.356	1	35	4896	1
Cu	63	23.500	ug/L	0.072	0	275	68159	0
Cu	65	23.528	ug/L	0.044	0	63	32173	0
Zn	66	75.733	ug/L	0.209	0	177	78525	0
Zn	67	72.048	ug/L	0.326	0	73	12173	0
Zn	68	76.456	ug/L	0.643	0	1655	55659	0
As-1	75	25.753	ug/L	0.213	0	56	20738	1
As	75	25.056	ug/L	0.186	0	2905	22456	0
Se	82	75.599	ug/L	0.465	0	-15	7005	0
Se	78	73.436	ug/L	0.346	0	2958	19615	0
Y	89		ug/L			157717	136699	0
Kr	83		ug/L			62	43	8
> In	115		ug/L			279239	238246	0
Ag	107	21.978	ug/L	0.061	0	52	138453	0
Cd	111	23.323	ug/L	0.104	0	133	42641	0
Cd	114	23.328	ug/L	0.076	0	70	104792	0
Sb	121	0.093	ug/L	0.007	7	235	841	5
Sb	123	0.092	ug/L	0.005	5	160	622	4
Ba	135	101.939	ug/L	0.605	0	17	159825	0
Ba	137	102.886	ug/L	0.331	0	25	279221	0
> Tb	159		ug/L			322599	294602	0
Tl	205	23.212	ug/L	0.074	0	190	438454	0
Pb	208	23.893	ug/L	0.046	0	202	625948	0
Bi	209		ug/L			239096	211973	0
Th	232	23.540	ug/L	0.179	0	807	947653	0
U	238	23.783	ug/L	0.120	0	91	1022724	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QT14 D REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:28:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Ni Ti

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	5390	0
Cl	37		mg/L			1072210	822732	0
> Ge	72		ug/L			200785	163116	0
Ni	60	1.884	ug/L	0.063	3	58	2513	2
Ni	62	1.247	ug/L	0.091	7	35	270	6
Cu	63	0.538	ug/L	0.051	9	275	1767	8
Cu	65	0.488	ug/L	0.014	2	63	712	3
Zn	66	8.008	ug/L	0.135	1	177	8370	2
Zn	67	8.303	ug/L	0.157	1	73	1445	2
Zn	68	8.609	ug/L	0.135	1	1655	7414	1
As-1	75	1.891	ug/L	0.033	1	56	1553	1
As	75	1.654	ug/L	0.015	0	2905	3675	0
Se	82	0.345	ug/L	0.032	9	-15	19	15
Se	78	-0.586	ug/L	0.138	23	2958	2266	0
Y	89		ug/L			157717	136297	0
Kr	83		ug/L			62	40	12
> In	115		ug/L			279239	237027	1
Ag	107	0.025	ug/L	0.003	11	52	203	9
Cd	111	0.010	ug/L	0.003	28	133	130	4
Cd	114	0.016	ug/L	0.002	15	70	129	8
Sb	121	0.092	ug/L	0.002	1	235	830	0
Sb	123	0.096	ug/L	0.007	7	160	644	5
Ba	135	85.427	ug/L	0.297	0	17	133250	0
Ba	137	85.614	ug/L	0.309	0	25	231156	0
> Tb	159		ug/L			322599	291453	0
Tl	205	0.017	ug/L	0.003	17	190	484	11
Pb	208	0.663	ug/L	0.011	1	202	17366	1
Bi	209		ug/L			239096	210789	0
Th	232	0.025	ug/L	0.003	11	807	1732	6
U	238	0.035	ug/L	0.001	2	91	1584	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 A REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:34:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4179	2
Cl	37		mg/L			1072210	830598	0
> Ge	72		ug/L			200785	164568	0
Ni	60	1.043	ug/L	0.021	2	58	1425	2
Ni	62	1.205	ug/L	0.071	5	35	265	5
Cu	63	6.675	ug/L	0.125	1	275	19547	1
Cu	65	6.659	ug/L	0.056	0	63	9155	0
Zn	66	52.103	ug/L	0.139	0	177	54143	0
Zn	67	47.765	ug/L	0.265	0	73	8101	0
Zn	68	52.156	ug/L	0.156	0	1655	38451	0
As-1	75	0.517	ug/L	0.014	2	56	462	2
As	75	0.320	ug/L	0.020	6	2905	2638	0
Se	82	0.176	ug/L	0.027	15	-15	3	71
Se	78	-0.626	ug/L	0.125	19	2958	2277	1
Y	89		ug/L			157717	138699	0
Kr	83		ug/L			62	39	5
> In	115		ug/L			279239	239426	0
Ag	107	0.002	ug/L	0.001	51	52	60	13
Cd	111	0.050	ug/L	0.009	17	133	206	8
Cd	114	0.045	ug/L	0.001	2	70	262	1
Sb	121	0.814	ug/L	0.014	1	235	5846	1
Sb	123	0.819	ug/L	0.013	1	160	4501	1
Ba	135	9.810	ug/L	0.043	0	17	15470	0
Ba	137	9.895	ug/L	0.054	0	25	27005	0
> Tb	159		ug/L			322599	308712	0
Tl	205	0.000	ug/L	0.001	223	190	188	7
Pb	208	2.385	ug/L	0.012	0	202	65656	1
Bi	209		ug/L			239096	222542	0
Th	232	0.002	ug/L	0.001	50	807	850	4
U	238	0.007	ug/L	0.000	1	91	382	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 C REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:40:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3918	1
Cl	37		mg/L			1072210	813686	0
> Ge	72		ug/L			200785	165033	0
Ni	60	1.304	ug/L	0.041	3	58	1775	2
Ni	62	1.447	ug/L	0.058	4	35	313	3
Cu	63	8.701	ug/L	0.072	0	275	25483	0
Cu	65	8.660	ug/L	0.067	0	63	11925	0
Zn	66	64.258	ug/L	0.450	0	177	66929	0
Zn	67	59.877	ug/L	0.593	0	73	10169	0
Zn	68	64.695	ug/L	0.445	0	1655	47504	0
As-1	75	0.586	ug/L	0.010	1	56	519	1
As	75	0.377	ug/L	0.026	6	2905	2691	0
Se	82	0.199	ug/L	0.019	9	-15	5	30
Se	78	-0.638	ug/L	0.064	10	2958	2281	0
Y	89		ug/L			157717	140341	0
Kr	83		ug/L			62	40	2
> In	115		ug/L			279239	239314	0
Ag	107	0.001	ug/L	0.002	136	52	52	19
Cd	111	0.065	ug/L	0.004	5	133	233	3
Cd	114	0.061	ug/L	0.005	7	70	336	6
Sb	121	0.740	ug/L	0.006	0	235	5332	0
Sb	123	0.743	ug/L	0.004	0	160	4093	0
Ba	135	12.093	ug/L	0.102	0	17	19057	0
Ba	137	12.100	ug/L	0.120	0	25	33003	0
> Tb	159		ug/L			322599	309162	0
Tl	205	0.001	ug/L	0.001	57	190	212	8
Pb	208	6.378	ug/L	0.027	0	202	175490	0
Bi	209		ug/L			239096	224091	0
Th	232	0.007	ug/L	0.001	11	807	1079	2
U	238	0.011	ug/L	0.000	3	91	587	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 D REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:47:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3972	0
Cl	37		mg/L			1072210	812869	0
> Ge	72		ug/L			200785	161418	0
Ni	60	1.733	ug/L	0.031	1	58	2292	1
Ni	62	2.082	ug/L	0.156	7	35	428	7
Cu	63	9.134	ug/L	0.014	0	275	26155	0
Cu	65	9.184	ug/L	0.082	0	63	12365	1
Zn	66	67.945	ug/L	0.312	0	177	69210	0
Zn	67	62.579	ug/L	0.705	1	73	10393	1
Zn	68	68.186	ug/L	0.527	0	1655	48897	0
As-1	75	0.696	ug/L	0.002	0	56	594	0
As	75	0.545	ug/L	0.025	4	2905	2764	1
Se	82	0.213	ug/L	0.030	13	-15	6	39
Se	78	-0.446	ug/L	0.057	12	2958	2275	1
Y	89		ug/L			157717	140220	0
Kr	83		ug/L			62	37	3
> In	115		ug/L			279239	237589	0
Ag	107	0.006	ug/L	0.001	15	52	84	7
Cd	111	0.080	ug/L	0.008	10	133	259	5
Cd	114	0.071	ug/L	0.003	4	70	378	3
Sb	121	0.908	ug/L	0.015	1	235	6443	1
Sb	123	0.907	ug/L	0.026	2	160	4930	2
Ba	135	13.175	ug/L	0.087	0	17	20612	0
Ba	137	13.263	ug/L	0.060	0	25	35914	0
> Tb	159		ug/L			322599	307027	0
Tl	205	0.002	ug/L	0.001	37	190	229	7
Pb	208	6.495	ug/L	0.010	0	202	177470	0
Bi	209		ug/L			239096	222950	0
Th	232	0.021	ug/L	0.001	4	807	1665	2
U	238	0.014	ug/L	0.001	6	91	723	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 E REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:53:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4655	3
Cl	37		mg/L			1072210	793587	0
> Ge	72		ug/L			200785	161640	0
Ni	60	0.604	ug/L	0.023	3	58	830	3
Ni	62	0.561	ug/L	0.093	16	35	136	12
Cu	63	2.986	ug/L	0.029	0	275	8710	0
Cu	65	2.965	ug/L	0.022	0	63	4032	0
Zn	66	41.742	ug/L	0.463	1	177	42633	0
Zn	67	37.965	ug/L	0.075	0	73	6337	0
Zn	68	41.988	ug/L	0.373	0	1655	30664	0
As-1	75	0.369	ug/L	0.020	5	56	337	4
As	75	0.265	ug/L	0.027	10	2905	2547	0
Se	82	0.145	ug/L	0.074	50	-15	0	982
Se	78	-0.322	ug/L	0.021	6	2958	2307	0
Y	89		ug/L			157717	137392	0
Kr	83		ug/L			62	40	13
> In	115		ug/L			279239	239684	0
Ag	107	-0.003	ug/L	0.001	20	52	29	10
Cd	111	0.024	ug/L	0.006	24	133	157	7
Cd	114	0.029	ug/L	0.002	7	70	190	5
Sb	121	0.553	ug/L	0.015	2	235	4042	2
Sb	123	0.565	ug/L	0.017	3	160	3153	3
Ba	135	6.869	ug/L	0.075	1	17	10848	0
Ba	137	6.932	ug/L	0.124	1	25	18945	1
> Tb	159		ug/L			322599	305996	0
Tl	205	-0.004	ug/L	0.001	24	190	105	17
Pb	208	0.199	ug/L	0.001	0	202	5601	0
Bi	209		ug/L			239096	220787	0
Th	232	-0.011	ug/L	0.001	5	807	307	8
U	238	-0.000	ug/L	0.000	25	91	73	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 G REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 19:59:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4487	1
Cl	37		mg/L			1072210	805451	0
> Ge	72		ug/L			200785	163358	0
Ni	60	0.687	ug/L	0.003	0	58	948	0
Ni	62	0.715	ug/L	0.115	16	35	167	13
Cu	63	3.372	ug/L	0.033	0	275	9914	1
Cu	65	3.435	ug/L	0.050	1	63	4712	1
Zn	66	39.175	ug/L	0.270	0	177	40445	0
Zn	67	36.000	ug/L	0.141	0	73	6076	0
Zn	68	39.406	ug/L	0.192	0	1655	29168	0
As-1	75	0.339	ug/L	0.013	3	56	316	3
As	75	0.198	ug/L	0.004	2	2905	2521	0
Se	82	0.158	ug/L	0.075	47	-15	1	373
Se	78	-0.454	ug/L	0.020	4	2958	2301	0
Y	89		ug/L			157717	138991	0
Kr	83		ug/L			62	39	15
> In	115		ug/L			279239	241698	0
Ag	107	-0.004	ug/L	0.001	27	52	20	33
Cd	111	0.019	ug/L	0.002	12	133	150	3
Cd	114	0.020	ug/L	0.004	17	70	151	10
Sb	121	0.446	ug/L	0.019	4	235	3323	4
Sb	123	0.438	ug/L	0.006	1	160	2496	1
Ba	135	6.110	ug/L	0.031	0	17	9732	0
Ba	137	6.159	ug/L	0.019	0	25	16979	0
> Tb	159		ug/L			322599	309080	0
Tl	205	-0.003	ug/L	0.001	32	190	129	13
Pb	208	0.152	ug/L	0.004	2	202	4361	2
Bi	209		ug/L			239096	221777	0
Th	232	-0.014	ug/L	0.000	3	807	167	12
U	238	0.000	ug/L	0.000	968	91	89	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QU08 H REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Tuesday, May 11, 2010 20:05:54

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	4585	1
Cl	37		mg/L			1072210	804622	0
> Ge	72		ug/L			200785	163358	0
Ni	60	0.768	ug/L	0.029	3	58	1054	3
Ni	62	0.670	ug/L	0.075	11	35	159	9
Cu	63	3.324	ug/L	0.039	1	275	9775	0
Cu	65	3.369	ug/L	0.025	0	63	4624	1
Zn	66	39.191	ug/L	0.142	0	177	40462	0
Zn	67	34.933	ug/L	0.270	0	73	5897	0
Zn	68	39.160	ug/L	0.352	0	1655	28993	0
As-1	75	0.349	ug/L	0.018	5	56	324	3
As	75	0.155	ug/L	0.028	18	2905	2487	0
Se	82	0.167	ug/L	0.089	53	-15	2	308
Se	78	-0.581	ug/L	0.100	17	2958	2271	1
Y	89		ug/L			157717	138743	0
Kr	83		ug/L			62	43	9
> In	115		ug/L			279239	241268	0
Ag	107	-0.003	ug/L	0.000	6	52	23	5
Cd	111	0.020	ug/L	0.003	13	133	152	2
Cd	114	0.025	ug/L	0.005	18	70	173	11
Sb	121	0.422	ug/L	0.007	1	235	3152	1
Sb	123	0.428	ug/L	0.004	0	160	2438	0
Ba	135	5.966	ug/L	0.113	1	17	9486	2
Ba	137	5.943	ug/L	0.095	1	25	16354	1
> Tb	159		ug/L			322599	308354	0
Tl	205	-0.004	ug/L	0.001	38	190	110	24
Pb	208	0.148	ug/L	0.001	0	202	4262	0
Bi	209		ug/L			239096	224085	0
Th	232	-0.015	ug/L	0.001	3	807	159	13
U	238	0.000	ug/L	0.000	82	91	106	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV5**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 11, 2010 20:12:10**

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	2556	0
Cl	37		mg/L			1072210	851914	0
> Ge	72		ug/L			200785	161828	0
Ni	60	50.700	ug/L	0.206	0	58	65899	0
Ni	62	51.068	ug/L	0.682	1	35	9852	1
Cu	63	50.684	ug/L	0.079	0	275	144495	0
Cu	65	50.549	ug/L	0.360	0	63	68006	0
Zn	66	50.971	ug/L	0.235	0	177	52089	0
Zn	67	50.484	ug/L	0.266	0	73	8417	0
Zn	68	51.447	ug/L	0.252	0	1655	37315	0
As-1	75	51.328	ug/L	0.404	0	56	40654	0
As	75	51.072	ug/L	0.152	0	2905	42640	0
Se	82	53.221	ug/L	0.652	1	-15	4852	1
Se	78	52.267	ug/L	0.455	0	2958	14434	0
Y	89		ug/L			157717	133789	0
Kr	83		ug/L			62	51	6
> In	115		ug/L			279239	235517	0
Ag	107	49.010	ug/L	0.364	0	52	305142	0
Cd	111	49.954	ug/L	0.267	0	133	90154	0
Cd	114	49.875	ug/L	0.126	0	70	221412	0
Sb	121	50.142	ug/L	0.234	0	235	342173	0
Sb	123	50.264	ug/L	0.325	0	160	263572	0
Ba	135	50.868	ug/L	0.423	0	17	78842	0
Ba	137	51.316	ug/L	0.199	0	25	137678	0
> Tb	159		ug/L			322599	299251	0
Tl	205	48.068	ug/L	0.127	0	190	922116	0
Pb	208	48.475	ug/L	0.373	0	202	1289795	0
Bi	209		ug/L			239096	213752	0
Th	232	48.342	ug/L	0.081	0	807	1976010	0
U	238	49.856	ug/L	0.219	0	91	2177660	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 11, 2010 20:19:06

Number of Replicates: 3

Method File: C:\Elandata\Method\2008GFA7+.mth

Tuning File: c:\elandata\Tuning\2008.tun

Optimization File: c:\elandata\Optimize\arioptimize.dac

Calibration File: C:\Elandata\Caldata\051110b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4655	3155	3
Cl	37		mg/L			1072210	871564	0
> Ge	72		ug/L			200785	156007	0
Ni	60	-0.005	ug/L	0.002	43	58	39	6
Ni	62	0.036	ug/L	0.038	105	35	34	20
Cu	63	-0.027	ug/L	0.005	17	275	139	9
Cu	65	-0.001	ug/L	0.012	1686	63	48	31
Zn	66	-0.023	ug/L	0.003	13	177	115	2
Zn	67	-0.059	ug/L	0.020	34	73	47	6
Zn	68	0.072	ug/L	0.063	86	1655	1335	2
As-1	75	0.001	ug/L	0.013	2323	56	44	22
As	75	0.106	ug/L	0.028	26	2905	2338	0
Se	82	0.016	ug/L	0.010	60	-15	-10	8
Se	78	0.361	ug/L	0.083	23	2958	2378	0
Y	89		ug/L			157717	129976	1
Kr	83		ug/L			62	47	7
> In	115		ug/L			279239	225683	0
Ag	107	0.003	ug/L	0.001	34	52	61	11
Cd	111	-0.008	ug/L	0.009	120	133	94	16
Cd	114	-0.007	ug/L	0.001	15	70	28	15
Sb	121	0.021	ug/L	0.003	13	235	328	5
Sb	123	0.024	ug/L	0.005	21	160	248	9
Ba	135	0.009	ug/L	0.004	40	17	27	19
Ba	137	0.008	ug/L	0.002	29	25	42	14
> Tb	159		ug/L			322599	293983	0
Tl	205	-0.002	ug/L	0.000	15	190	134	4
Pb	208	0.002	ug/L	0.001	56	202	247	14
Bi	209		ug/L			239096	209975	0
Th	232	0.026	ug/L	0.004	14	807	1776	8
U	238	0.002	ug/L	0.000	23	91	174	12

end package

**Metals Analysis
Prep Logs**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

QU08 : 00443



Digestion Log

Analyst: MH
Matrix: Water

Date: 4/27/10
Block Temp: 92°C

ARI Sample ID	Btl #	pH<2	Prep Code: <u>REN</u>		Prep Code:		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
QU08 A	1	✓	50.0	25.0			
" B	1	✓					
" BDUP	1	✓					
" BSPK	1	✓					
" C	1	✓					
" D	1	✓					
" MBI	-	✓					
" MBSPK	-	✓					
" E	1	-					
" F	1	-					Filtered in Lab
" FDUP	1	-					
" FSPK	1	-					
" G	1	-					
" H	1	-					
" MBZ	-	-					
" MBZSPK	-	-	50.0	25.0			
MH 4/27/10							

Chemical/Reagent ID:

HNO₃: MP1872 HCl: - H₂O₂: I5367 Tube Lot #: A909LS16Z
I5435

**General Chemistry Analysis
QC Summary Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08


**prepared
by**

Analytical Resources, Inc.

QU08 : 00446

REPLICATE RESULTS-CONVENTIONALS
QU08-Floyd/Snider




Matrix: Water
Data Release Authorized: 
Reported: 04/28/10

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: 04/21/10
Date Received: 04/22/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QU08B Client ID: CB1042110COMP					
Total Suspended Solids	04/27/10	mg/L	6.5	6.9	6.0%

LAB CONTROL RESULTS-CONVENTIONALS
QU08-Floyd/Snider




Matrix: Water
Data Release Authorized: 
Reported: 04/28/10

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	LCS	Spike Added	Recovery
Total Suspended Solids	04/27/10 15:40	mg/L	49.5	50.0	99.0%

METHOD BLANK RESULTS-CONVENTIONALS
QU08-Floyd/Snider



Matrix: Water
Data Release Authorized: 
Reported: 04/28/10

Project: Lora Lakes Apartments
Event: LLA-POS
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	Blank
Total Suspended Solids	04/27/10 15:40	mg/L	< 1.0 U

**General Chemistry Analysis
Sample Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS


ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

INORGANICS ANALYSIS DATA SHEET
Total Suspended Solids by Method EPA 160.2



Data Release Authorized: 
Reported: 04/28/10
Date Received: 04/22/10
Page 1 of 1

QC Report No: QU08-Floyd/Snider
Project: Lora Lakes Apartments
LLA-POS

Client/ ARI ID	Date Sampled	Matrix	Analysis Date & Batch	RL	Result
CB31A042110COMP QU08A 10-10294	04/21/10	Water	04/27/10 15:40 042710#1	2.2	37.2
CB1042110COMP QU08B 10-10295	04/21/10	Water	04/27/10 15:40 042710#1	1.0	6.5
CB4857042110COMP QU08C 10-10296	04/21/10	Water	04/27/10 15:40 042710#1	2.2	34.0
CB101042110COMP QU08D 10-10297	04/21/10	Water	04/27/10 15:40 042710#1	2.1	31.7

Reported in mg/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

**General Chemistry Analysis
Instrument Raw Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.

TOTAL SUSPENDED SOLIDS / VOLATILE SUSPENDED SOLIDS (TSS / TVSS)

DATE: 4/27/2010
 ANALYST: CDE 15:40

Analytical Balance: 1123230597

Drying Ovens: 12
 Muffle Furnace: N/A

SAMPLE ID	DISH #	filtered (mL)	TARE WT (grams)	DRY WT 104C (grams)				1000 DryWT (mg)	TSS (mg/L)	ASH WT 550C (grams)				LOI (mg)	TVSS (mg/l)
				1	2	3	4			1	2	3	4		
LCS source: Cellulose, MP Biomedicals Lot# 6399J TSS (mg/l) calculated as: Final dry wt (mg) = (minimum Dry Wt - Tare Wt)*1000 TSS = [(Final Dry Wt)/ ml Sample] * 1000 if dry wt < 1mg, TSS = <1mg / mL sample * 1000 with "<" flag															
BLANK		1000	0.1259	0.1258	STOP	0.1	<1								
LCS # 552-6		1000	0.1229	0.1724	STOP	49.5	49.5	99.0%							
QU08 A2		465	0.1228	0.1402	STOP	17.3	37.2								
QU08 B2-4		1000	0.1248	0.1313	STOP	6.5	6.5								
QU08 B2-4 dup		1000	0.1235	0.1304	STOP	6.9	6.9								
RPD = 6.0%															
QU08 C2		465	0.1256	0.1414	STOP	15.8	34.0								
QU08 D2		480	0.1224	0.1376	STOP	15.2	31.7								
QU20 A2		450	0.1205	0.1250	STOP	4.5	10.0								
QU20 A2 dup		450	0.1209	0.1251	STOP	4.2	9.3								
RPD = 7.3%															
QU29 A6		460	0.1210	0.1320	STOP	11.0	23.9								
QU29 A6 dup		460	0.1247	0.1338	STOP	9.1	19.8								
RPD = 18.8%															
QU29 B6		100	0.1209	0.1567	STOP	35.7	357.0								
QU29 C6		940	0.1236	0.1451	STOP	21.5	22.9								
QU29 D6		960	0.1254	0.1346	STOP	9.1	9.5								
QU29 E6		930	0.1235	0.1301	STOP	6.4	6.9								
QU29 F6		910	0.1219	0.1257	STOP	3.7	4.1								
QU32 A3		460	0.1243	0.1245	STOP	0.0	<2.2								
QU32 A3 dup		460	0.1273	0.1275	STOP	0.1	<2.2								
RPD = NA															
QU32 B3		950	0.1230	0.1234	STOP	0.3	<1.1								
QU32 C3		900	0.1195	0.1213	STOP	1.8	2.0								
RPD = NA															

w
4-28-10

② Dish P5501 4/27/10 CWL
Tare 0.1209

① 0.1247
4/27/10 CWL

TOTAL SUSPENDED (TSS) / TOTAL VOLATILE SUSPENDED SOLID (TVSS) BENCHSHEET

Analytical Resources, Incorporated
Analytical Chemists and Consultants



Sample ID	Dish #	Filtered mL	Tare	Dry Weight 104°C (grams)		Dry Wt mg	TSS	Ash Weight 550°C		LOI - mg	TVSS mg/L
				1	2			1	2		
BLANK	P5477	1000	0.1259	0.1259	0.1259						
LCS#552-6	P5478	✓	0.1229	0.1724	0.1724						
QUOS A2	P5479	465	0.1228	0.1402	0.1401						
B ²⁻⁴	P5480	1000	0.1248	0.1313	0.1313						
B ²⁻³	P5481	✓	0.1235	0.1304	0.1304						
C ²	P5482	465	0.1256	0.1414	0.1414						
D ²	P5483	480	0.1224	0.1376	0.1376						
QU20 A ²	P5484	450	0.1205	0.1250	0.1250						
✓ dA ²	P5485	✓	0.1209	0.1251	0.1252						
QU21 A ⁶	P5486	460	0.1210	0.1320	0.1320						
✓ dA ⁶	P5487	✓	0.1247	0.1338	0.1338						
B ⁶	P5488	100	0.1202	0.1567	0.1566						
C ⁶	P5489	940	0.1236	0.1451	0.1451						
D ⁶	P5490	960	0.1254	0.1346	0.1345						
E ⁶	P5491	930	0.1235	0.1301	0.1299						
F ⁶	P5492	910	0.1219	0.1257	0.1256						
QU32 A3	P5493	460	0.1243	0.1245	0.1243						
✓ dA ³	P5494	✓	0.1273	0.1275	0.1274						
B ³	P5495	950	0.1230	0.1234	0.1233						
C ³	P5496	900	0.1195	0.1213	0.1213						

Analyst: *CWC* Date/Time: *4/27/10 15:40* Oven #: *12* Muffle Furnace: *N/A* Balance: *1123230597*

Loss on Ignition (LOI) = TVSS (mg / L) is calculated as:
LOI (mg / L) = Dry Weight (mg) - [(Minimum Ash Weight - Tare Weight) * 1000]
TVSS (mg / L) = LOI / mL sample * 1,000
if LOI < 1 mg, TVSS = < 1 mg / mL sample * 1000 use "<" flag

LCS (Cellulose from MP Biochemicals) Lott # *6399J*
0.0500 Gram to 1000 mL = 50 mg / L TSS
CV-02 CV-02 CV-02
4/27/10 17:09 4/27/10 18:37
12.0000 CWL 20.0200 CWL

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min.
Record Weights to 4 places
TSS (mg/L) calculated as:
Final Dry Weight (mg) = (Min Dry Weight - Tare Weight) * 1000
TSS = (Final Dry Weight) / (mL Sample) * 1000
if dry wt < 1 mg / mL sample * 1000 use "<" flag

QUOS: 00454

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

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, LLA-POS

ARI JOB NO: QU08

**prepared
by**

Analytical Resources, Inc.



May 7, 2010

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

Dear Ms. Dunninghoo,

Enclosed are the results for Frontier Analytical Laboratory project **6118**. This corresponds to your **Lora Lakes Apartments** project under ARI project number **QU08**. Four aqueous samples were received on 4/27/2010 in good condition. These samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The 2005 World Health Organizations toxic equivalency factors were used to calculate the toxic equivalency (TEQs) on your report. Analytical Resources Incorporated requested a Level IV report and a turnaround time of ten business days for project **6118**.

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

If you have any questions regarding project **6118**, 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, appearing to read "Bradley B. Silverbush".

Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **6118**

Received on: **04/27/2010**

Project Due: **05/19/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
6118-001-SA	0	QU08	CB31A042110COMP	EPA 1613 D/F	Aqueous	04/21/2010	NP	04/21/2011
6118-002-SA	0	QU08	CB1042110COMP	EPA 1613 D/F	Aqueous	04/21/2010	NP	04/21/2011
6118-003-SA	0	QU08	CB4857042110COMP	EPA 1613 D/F	Aqueous	04/21/2010	NP	04/21/2011
6118-004-SA	0	QU08	CB101042110COMP	EPA 1613 D/F	Aqueous	04/21/2010	NP	04/21/2011

EPA Method 1613
PCDD/F



FAL ID: 6118-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.09		-	0.212				
1,2,3,7,8-PeCDD	ND	1.14		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.48		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.68		-	0.381	Total TCDD	ND	1.09	
1,2,3,7,8,9-HxCDD	ND	1.55		-	0.351	Total PeCDD	ND	1.14	
1,2,3,4,6,7,8-HpCDD	ND	3.03		-	0.495	Total HxCDD	ND	1.68	
OCDD	ND	4.75		-	1.02	Total HpCDD	ND	3.03	
2,3,7,8-TCDF	ND	0.582		-	0.112				
1,2,3,7,8-PeCDF	ND	0.836		-	0.219				
2,3,4,7,8-PeCDF	ND	0.838		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.761		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.767		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.792		-	0.167				
1,2,3,7,8,9-HxCDF	ND	1.05		-	0.185	Total TCDF	ND	0.582	
1,2,3,4,6,7,8-HpCDF	ND	1.13		-	0.251	Total PeCDF	ND	0.838	
1,2,3,4,7,8,9-HpCDF	ND	1.53		-	0.280	Total HxCDF	ND	1.05	
OCDF	ND	3.21		-	0.451	Total HpCDF	ND	1.53	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	61.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	72.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	87.2	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	52.8	23.0 - 140	
13C-OCDD	50.9	17.0 - 157	
13C-2,3,7,8-TCDF	80.0	24.0 - 169	
13C-1,2,3,7,8-PeCDF	58.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	61.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	70.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	76.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	70.6	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	57.0	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	50.2	26.0 - 138	
13C-OCDF	56.2	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 84.2 35.0 - 197

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

Analyst: [Signature]
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 05-06-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	8.76	6.70 - 15.8	
1,2,3,7,8-PeCDD	45.4	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	44.5	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	43.5	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	42.1	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	53.3	35.0 - 70.0	
OCDD	103	78.0 - 144	
2,3,7,8-TCDF	9.50	7.50 - 15.8	
1,2,3,7,8-PeCDF	45.9	40.0 - 67.0	
2,3,4,7,8-PeCDF	46.2	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	41.5	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	45.9	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	41.0	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	42.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	43.9	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	43.3	39.0 - 69.0	
OCDF	87.3	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	78.3	20.0 - 175	
13C-1,2,3,7,8-PeCDD	59.0	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	68.4	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	82.2	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	50.8	26.0 - 166	
13C-OCDD	51.8	13.0 - 198	
13C-2,3,7,8-TCDF	77.1	22.0 - 152	
13C-1,2,3,7,8-PeCDF	58.1	21.0 - 192	
13C-2,3,4,7,8-PeCDF	61.3	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	65.1	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	70.3	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	75.1	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	67.0	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	56.0	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	47.0	20.0 - 186	
13C-OCDF	55.2	13.0 - 198	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD	77.3	31.0 - 191	
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- 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: JC
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-001-SA
Client ID: CB31A042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.001 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 17.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.13		-	0.212				
1,2,3,7,8-PeCDD	ND	2.70		-	0.302				
1,2,3,4,7,8-HxCDD	5.35	-	J	0.535	0.328				
1,2,3,6,7,8-HxCDD	15.8	-	J	1.58	0.381	Total TCDD	ND	1.13	
1,2,3,7,8,9-HxCDD	9.17	-	J	0.917	0.351	Total PeCDD	ND	2.70	
1,2,3,4,6,7,8-HpCDD	712	-		7.12	0.495	Total HxCDD	78.8	-	
OCDD	7550	-		2.26	1.02	Total HpCDD	1220	-	
2,3,7,8-TCDF	ND	0.745		-	0.112				
1,2,3,7,8-PeCDF	ND	1.40		-	0.219				
2,3,4,7,8-PeCDF	ND	1.47		-	0.232				
1,2,3,4,7,8-HxCDF	19.8	-	J	1.98	0.162				
1,2,3,6,7,8-HxCDF	9.28	-	J	0.928	0.167				
2,3,4,6,7,8-HxCDF	7.36	-	J	0.736	0.167				
1,2,3,7,8,9-HxCDF	ND	2.86		-	0.185	Total TCDF	18.4	-	D,M
1,2,3,4,6,7,8-HpCDF	118	-		1.18	0.251	Total PeCDF	59.4	-	D,M
1,2,3,4,7,8,9-HpCDF	12.2	-	J	0.122	0.280	Total HxCDF	252	-	D,M
OCDF	358	-		0.107	0.451	Total HpCDF	424	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	65.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	84.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	102	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	73.1	23.0 - 140	
13C-OCDD	78.7	17.0 - 157	
13C-2,3,7,8-TCDF	80.6	24.0 - 169	
13C-1,2,3,7,8-PeCDF	65.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	66.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	81.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	88.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	84.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	79.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	70.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	62.3	26.0 - 138	
13C-OCDF	75.5	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 81.9 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: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-002-SA
Client ID: CB1042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.043 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 0.261

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.45		-	0.212				
1,2,3,7,8-PeCDD	ND	1.77		-	0.302				
1,2,3,4,7,8-HxCDD	ND	2.12		-	0.328				
1,2,3,6,7,8-HxCDD	ND	2.49		-	0.381	Total TCDD	ND	1.45	
1,2,3,7,8,9-HxCDD	ND	2.25		-	0.351	Total PeCDD	ND	1.77	
1,2,3,4,6,7,8-HpCDD	18.5	-	J	0.185	0.495	Total HxCDD	ND	2.49	
OCDD	150	-		0.0450	1.02	Total HpCDD	39.5		
2,3,7,8-TCDF	ND	0.904		-	0.112				
1,2,3,7,8-PeCDF	ND	1.21		-	0.219				
2,3,4,7,8-PeCDF	ND	1.27		-	0.232				
1,2,3,4,7,8-HxCDF	ND	2.48		-	0.162				
1,2,3,6,7,8-HxCDF	ND	2.47		-	0.167				
2,3,4,6,7,8-HxCDF	ND	2.59		-	0.167				
1,2,3,7,8,9-HxCDF	ND	3.31		-	0.185	Total TCDF	ND	0.904	
1,2,3,4,6,7,8-HpCDF	3.09	-	J	0.0309	0.251	Total PeCDF	ND	1.27	
1,2,3,4,7,8,9-HpCDF	ND	1.74		-	0.280	Total HxCDF	ND	3.31	
OCDF	ND	6.91		-	0.451	Total HpCDF	7.31		J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	56.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	45.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	55.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	62.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	47.5	23.0 - 140	
13C-OCDD	47.7	17.0 - 157	
13C-2,3,7,8-TCDF	56.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	47.7	24.0 - 185	
13C-2,3,4,7,8-PeCDF	48.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	52.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	56.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	54.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	50.4	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	45.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	40.4	26.0 - 138	
13C-OCDF	44.7	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 60.4 35.0 - 197

Analyst: [Signature]
Date: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-003-SA
Client ID: CB4857042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.044 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 15.0

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.34		-	0.212				
1,2,3,7,8-PeCDD	ND	2.62		-	0.302				
1,2,3,4,7,8-HxCDD	4.78	-	J	0.478	0.328				
1,2,3,6,7,8-HxCDD	14.3	-	J	1.43	0.381	Total TCDD	ND	1.34	
1,2,3,7,8,9-HxCDD	8.85	-	J	0.885	0.351	Total PeCDD	ND	2.62	
1,2,3,4,6,7,8-HpCDD	602	-		6.02	0.495	Total HxCDD	71.5	-	
OCDD	5780	-		1.73	1.02	Total HpCDD	1030	-	
2,3,7,8-TCDF	ND	1.21		-	0.112				
1,2,3,7,8-PeCDF	ND	1.98		-	0.219				
2,3,4,7,8-PeCDF	ND	2.11		-	0.232				
1,2,3,4,7,8-HxCDF	17.0	-	J	1.70	0.162				
1,2,3,6,7,8-HxCDF	8.31	-	J	0.831	0.167				
2,3,4,6,7,8-HxCDF	6.52	-	J	0.652	0.167				
1,2,3,7,8,9-HxCDF	ND	2.33		-	0.185	Total TCDF	20.5	-	D,M
1,2,3,4,6,7,8-HpCDF	109	-		1.09	0.251	Total PeCDF	52.5	-	D,M
1,2,3,4,7,8,9-HpCDF	10.6	-	J	0.106	0.280	Total HxCDF	227	-	D,M
OCDF	303	-		0.0909	0.451	Total HpCDF	364	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	57.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	45.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	59.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	65.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	50.1	23.0 - 140	
13C-OCDD	49.7	17.0 - 157	
13C-2,3,7,8-TCDF	55.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	47.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	46.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	55.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	59.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	57.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	52.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	45.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	41.3	26.0 - 138	
13C-OCDF	46.4	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 56.3 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: 5/7/10

Reviewed By: [Signature]
Date: 5/7/10

EPA Method 1613
PCDD/F



FAL ID: 6118-004-SA
Client ID: CB101042110COMP
Matrix: Aqueous
Batch No: X2005

Date Extracted: 05-05-2010
Date Received: 04-27-2010
Amount: 1.046 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 05-06-2010
2005 WHO TEQ: 17.0

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.39		-	0.212				
1,2,3,7,8-PeCDD	ND	2.87		-	0.302				
1,2,3,4,7,8-HxCDD	5.24	-	J	0.524	0.328				
1,2,3,6,7,8-HxCDD	14.9	-	J	1.49	0.381	Total TCDD	ND	1.39	
1,2,3,7,8,9-HxCDD	9.39	-	J	0.939	0.351	Total PeCDD	ND	2.87	
1,2,3,4,6,7,8-HpCDD	683	-		6.83	0.495	Total HxCDD	76.1	-	
OCDD	7150	-		2.15	1.02	Total HpCDD	1170	-	
2,3,7,8-TCDF	ND	0.628		-	0.112				
1,2,3,7,8-PeCDF	ND	2.42		-	0.219				
2,3,4,7,8-PeCDF	ND	2.77		-	0.232				
1,2,3,4,7,8-HxCDF	19.7	-	J	1.97	0.162				
1,2,3,6,7,8-HxCDF	8.34	-	J	0.834	0.167				
2,3,4,6,7,8-HxCDF	7.12	-	J	0.712	0.167				
1,2,3,7,8,9-HxCDF	ND	2.56		-	0.185	Total TCDF	16.7	-	D,M
1,2,3,4,6,7,8-HpCDF	127	-		1.27	0.251	Total PeCDF	56.7	-	D,M
1,2,3,4,7,8,9-HpCDF	12.9	-	J	0.129	0.280	Total HxCDF	239	-	D,M
OCDF	365	-		0.110	0.451	Total HpCDF	435	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	73.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	58.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	70.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	82.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	62.3	23.0 - 140	
13C-OCDD	65.4	17.0 - 157	
13C-2,3,7,8-TCDF	72.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	63.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	60.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	66.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	70.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	70.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	66.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	60.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	53.1	26.0 - 138	
13C-OCDF	60.9	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 74.3 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: 5/7/10

Reviewed By: [Signature]

Date: 5/7/10

SUBCONTRACTOR ANALYSIS REQUEST
 CUSTODY TRANSFER 04/23/10



6118
 OIC

ARI Project: QU08

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: Lora Lakes Apartments
 ARI PM: Sue Dunnihoo
 Phone:
 Fax: 206-695-6201

Analytical Protocol: In-house
 Special Instructions:

Requested Turn Around: 05/07/10
 Email Results (Y/N): email

Limits of Liability. Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or 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
10-10294-QU08A	CB31A042110COMP	04/21/10	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-10295-QU08B	CB1042110COMP	04/21/10	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-10296-QU08C	CB4857042110COMP	04/21/10	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-10297-QU08D	CB101042110COMP	04/21/10	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					

L4 + EDD

Carrier UPS	Airbill 128320950151596961	Date 4/26/10
Relinquished by <i>[Signature]</i>	Company ARI	Date 4/26/10
Received by <i>[Signature]</i>	Company Frontier Analytical	Date 4-27-10
		Time 1042
		Time 1022

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **6118**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QU08
Date Received:	04/27/2010
Time Received:	10:22 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	4
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z832695015159691
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	Yes
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	04/21/2011
Adequate Sample Volume	Yes
Anomalies or additional comments:	



Frontier Analytical Laboratory
6118-001-SA
 Client ID: CB31A042110COMP
 Storage: R1 (01 of 01)

Specialty Cleaned Sample Container
 Lot #:

34 E. SJ YUNNELL BLVD.
 IRVING, OK 74334
 1-800-331-7428

DATE: 4/21/10 TIME: COLLECTED BY:
 SAMPLING SITE: CB31A042110COMP

SAMPLE TYPE:
 Gas Composite Other PRESERVATIVE

TESTS REQUIRED:

Frontier Analytical Laboratory
6118-002-SA
 Client ID: CB1042110COMP
 Storage: R1 (01 of 01)

Specialty Cleaned Sample Container
 Lot #:

34 E. SJ YUNNELL BLVD.
 IRVING, OK 74334
 1-800-331-7428

DATE: 4/21/10 TIME: COLLECTED BY:
 SAMPLING SITE: CB1042110COMP

SAMPLE TYPE:
 Gas Composite Other PRESERVATIVE

TESTS REQUIRED:

Frontier Analytical Laboratory
6118-003-SA
 Client ID: CB4857042110COMP
 Storage: R1 (01 of 01)

Specialty Cleaned Sample Container
 Lot #:

34 E. SJ YUNNELL BLVD.
 IRVING, OK 74334
 1-800-331-7428

DATE: 4/21/10 TIME: COLLECTED BY:
 SAMPLING SITE: CB4857042110COMP

SAMPLE TYPE:
 Gas Composite Other PRESERVATIVE

TESTS REQUIRED:

Frontier Analytical Laboratory
6118-004-SA
 Client ID: CB1042110COMP
 Storage: R1 (01 of 01)

Specialty Cleaned Sample Container
 Lot #:

34 E. SJ YUNNELL BLVD.
 IRVING, OK 74334
 1-800-331-7428

DATE: 4/21/10 TIME: COLLECTED BY:
 SAMPLING SITE: CB1042110COMP

SAMPLE TYPE:
 Gas Composite Other PRESERVATIVE

TESTS REQUIRED:

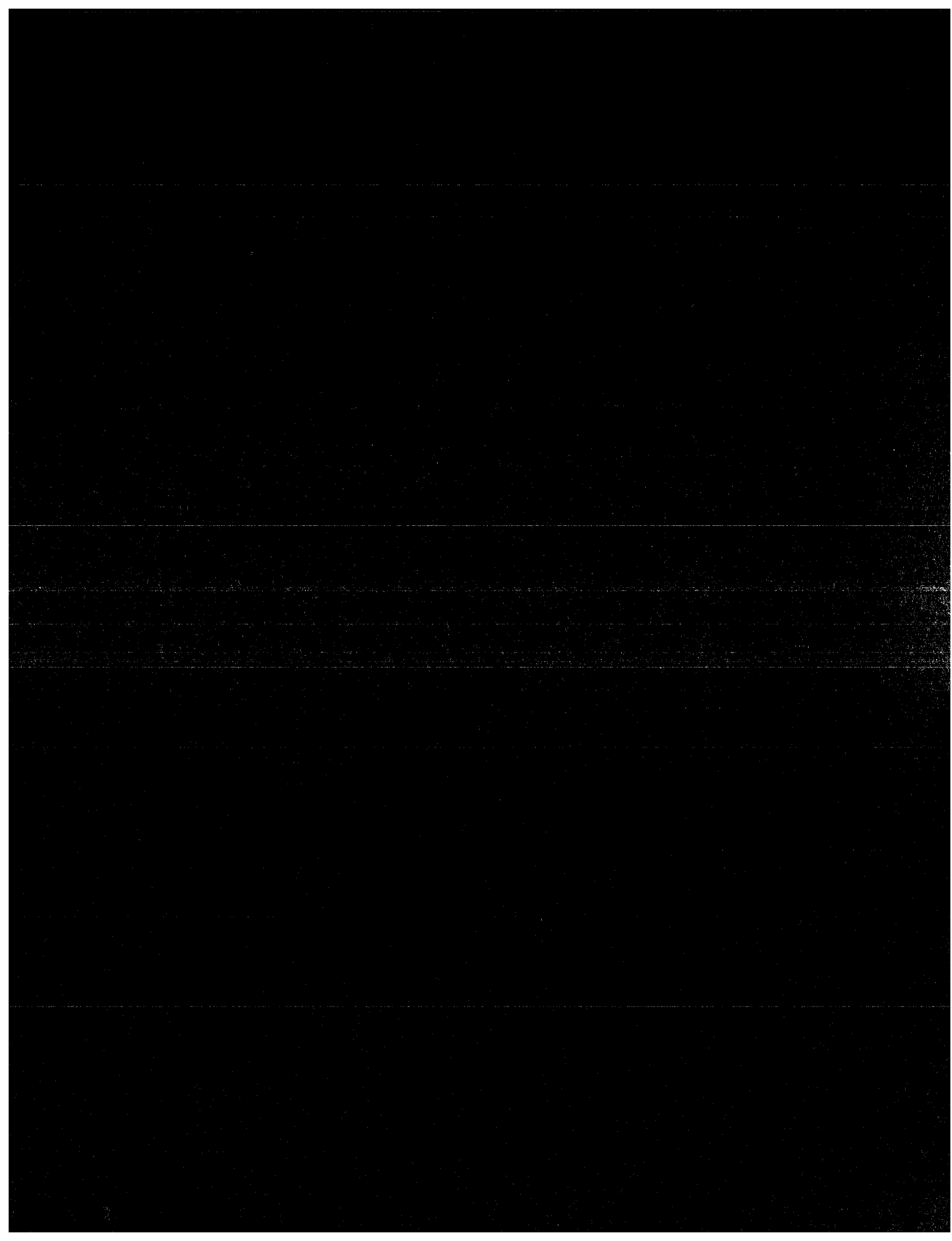
ANALYTICAL INSTRUCTIONS:
 Analyze for:
 As coordinator
 that meet a
 agency, map
 services, a
 of for some
 stability, a
 contract, p

10-10294-0000A CB13A042110COMP
 Special Instructions: None

10-10295-0000B CB1042110COMP
 Special Instructions: None

10-10296-0000C CB4857042110COMP
 Special Instructions: None

10-10297-0000D CB1042110COMP
 Special Instructions: None



Frontier Analytical Laboratory
PROJECT REQUEST SHEET

Project #: 6118 Sample #: 1-4 Client Manager: BS
 Client: Analytical Resources Inc. Sue Dunnihoo Hold Time: 04/21/2011
 Matrix: Aqueous Extraction Batch: 2005 Due Date: 05/19/2010
 Method: EPA 1613 D/F Storage: R1
 SOP: SOPs: EP2A Rev.7 IP2A Rev.8

COMMENTS/INSTRUCTIONS:

- NC

Sample	Full Weight (g)	Empty Weight (g)
6118-001-0001-SA	<u>1492.5</u>	<u>491.60</u>
6118-002-0001-SA	<u>1534.4</u>	<u>491.11</u>
6118-003-0001-SA	<u>1536.2</u>	<u>491.74</u>
6118-004-0001-SA	<u>1537.7</u>	<u>492.06</u>

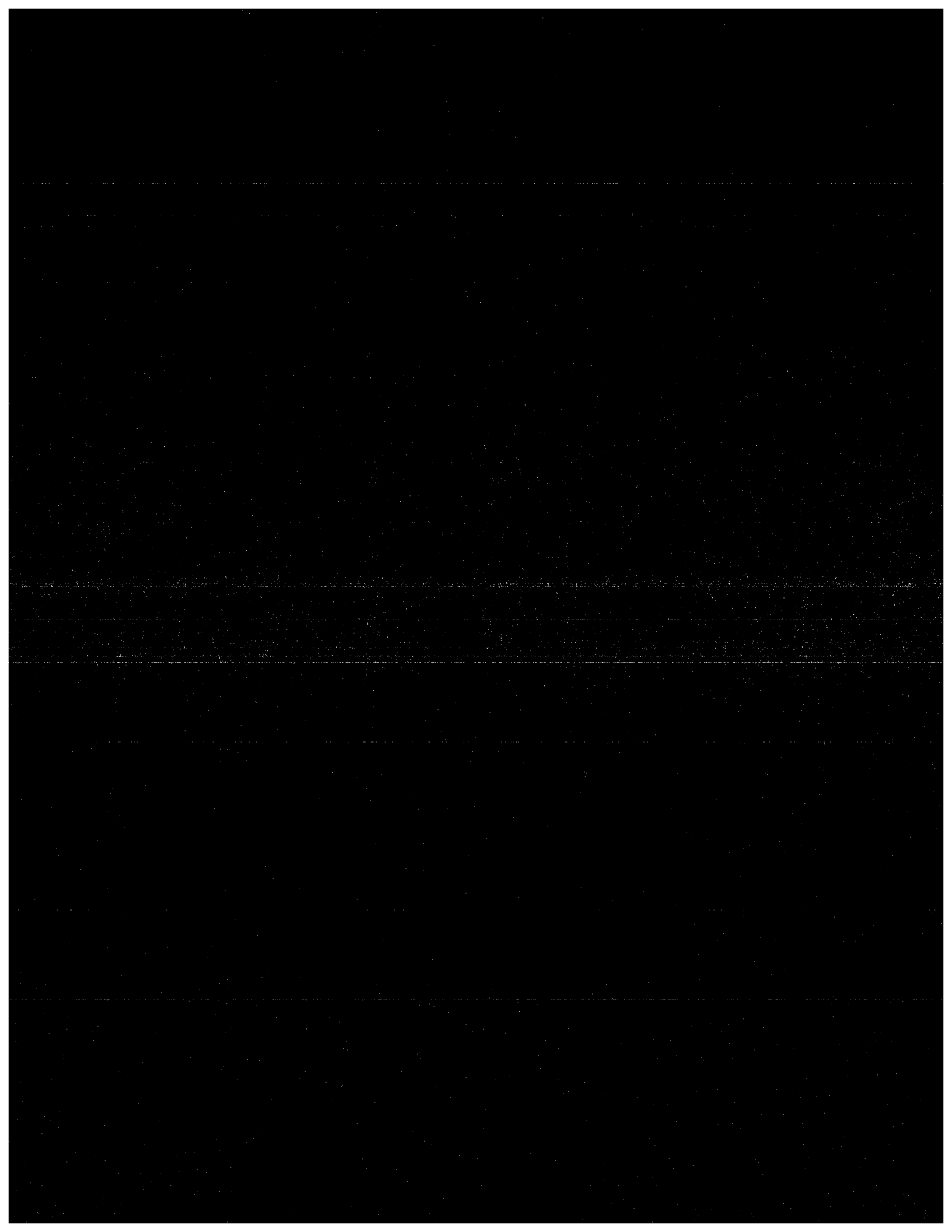
Results: 6118

Instrument:

DB5 FAL-3
 DB225 _____
 DB1 _____
 Other _____

Extract/s located in box: "Pork & Beans"

Standards: 6109



Sample Results

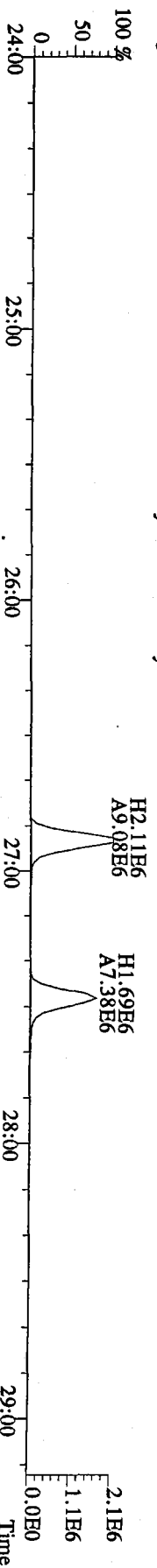
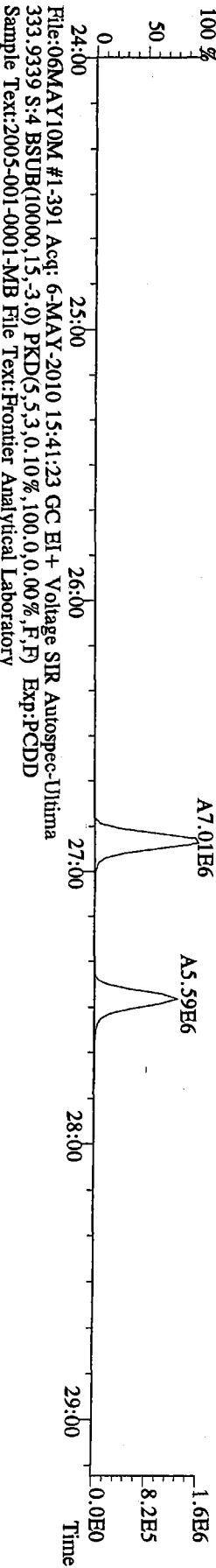
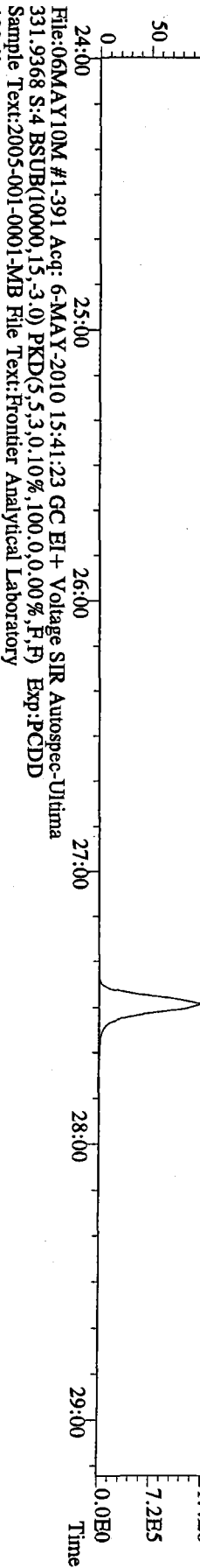
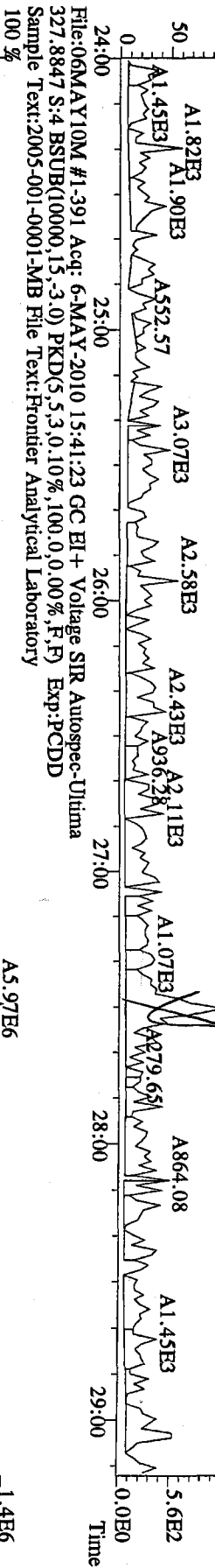
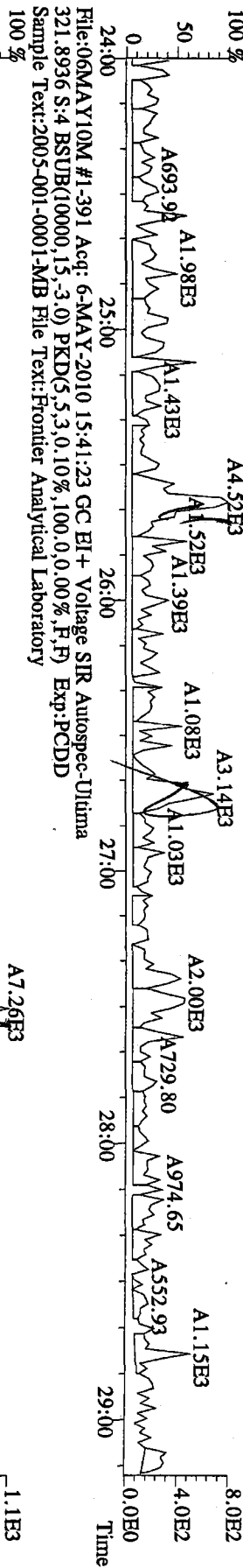
FAL ID: 2005-001-0001-MB Filename: 06MAY10M Sam:4 Acquired: 6-MAY-10 15:41:23 ICal: PCDDFAL3-4-14-10
 Client ID: Method Blank ConCal: ST050610M1 EndCal: ST050610M2
 Results: 2005 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 0.00 WHO 1998 Tox: 0.00 WHO 2005 Tox: 0.00

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	#Hom	
2,3,7,8-TCDD	*	* n	NotFnd	1.12	*		2.50	307	430	1.09	
1,2,3,7,8-PeCDD	*	* n	NotFnd	1.07	*		2.50	327	197	1.14	
1,2,3,4,7,8-HxCDD	*	* n	NotFnd	1.39	*		2.50	342	248	1.48	
1,2,3,6,7,8-HxCDD	*	* n	NotFnd	1.36	*		2.50	342	248	1.68	
1,2,3,7,8,9-HxCDD	*	* n	NotFnd	1.40	*		2.50	342	248	1.55	
1,2,3,4,6,7,8-HpCDD	*	* n	NotFnd	1.14	*		2.50	317	244	3.03	
OCDD	*	* n	NotFnd	1.22	*		2.50	281	254	4.75	
2,3,7,8-TCDF	*	* n	NotFnd	1.29	*		2.50	244	553	0.582	
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.93	*		2.50	168	351	0.836	
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.93	*		2.50	168	351	0.838	
1,2,3,4,7,8-HxCDF	*	* n	NotFnd	1.07	*		2.50	221	178	0.761	
1,2,3,6,7,8-HxCDF	*	* n	NotFnd	0.97	*		2.50	221	178	0.767	
2,3,4,6,7,8-HxCDF	*	* n	NotFnd	1.04	*		2.50	221	178	0.792	
1,2,3,7,8,9-HxCDF	*	* n	NotFnd	1.15	*		2.50	221	178	1.05	
1,2,3,4,6,7,8-HpCDF	*	* n	NotFnd	1.37	*		2.50	158	207	1.13	
1,2,3,4,7,8,9-HpCDF	*	* n	NotFnd	1.62	*		2.50	158	207	1.53	
OCDF	*	* n	NotFnd	0.85	*		2.50	200	309	3.21	
										Rec	
13C-2,3,7,8-TCDD	1.30e+07	0.76 y	27:28	0.98	1640					82.2	
13C-1,2,3,7,8-PeCDD	1.12e+07	1.65 y	33:16	1.14	1220					61.2	
13C-1,2,3,4,7,8-HxCDD	7.43e+06	1.29 y	38:38	1.00	1440					72.2	
13C-1,2,3,6,7,8-HxCDD	7.99e+06	1.30 y	38:49	0.89	1740					87.2	
13C-1,2,3,4,6,7,8-HpCDD	5.49e+06	1.03 y	44:14	1.01	1060					52.8	
13C-OCDD	7.84e+06	0.98 y	49:48	0.75	2030					50.9	
13C-2,3,7,8-TCDF	2.32e+07	0.84 y	26:43	0.93	1600					80.0	
13C-1,2,3,7,8-PeCDF	1.70e+07	1.68 y	31:33	0.93	1170					58.5	
13C-2,3,4,7,8-PeCDF	1.68e+07	1.67 y	32:52	0.87	1230					61.5	
13C-1,2,3,4,7,8-HxCDF	1.32e+07	0.46 y	37:15	1.82	1420					70.9	
13C-1,2,3,6,7,8-HxCDF	1.65e+07	0.46 y	37:28	2.01	1610					80.3	
13C-2,3,4,6,7,8-HxCDF	1.39e+07	0.45 y	38:23	1.77	1530					76.4	
13C-1,2,3,7,8,9-HxCDF	1.13e+07	0.45 y	39:49	1.57	1410					70.6	
13C-1,2,3,4,6,7,8-HpCDF	7.27e+06	0.44 y	42:21	1.24	1140					57.0	
13C-1,2,3,4,7,8,9-HpCDF	5.11e+06	0.44 y	45:09	0.99	1000					50.2	
13C-OCDF	1.52e+07	0.94 y	50:10	1.32	2250					56.2	
37Cl-2,3,7,8-TCDD	5.97e+06		27:29	1.10	674					84.2	
13C-1,2,3,4-TCDD	1.61e+07	0.77 y	26:54	-	92.0						
13C-1,2,3,4-TCDF	3.14e+07	0.84 y	25:38	-	84.6						
13C-1,2,3,7,8,9-HxCDD	1.03e+07	1.29 y	39:15	-	62.7						
Total Tetra-Dioxins	*		NotFnd	1.12	*		2.50	307	430	1.09	0
Total Penta-Dioxins	*		NotFnd	1.07	*		2.50	327	197	1.14	0
Total Hexa-Dioxins	*		NotFnd	1.38	*		2.50	342	248	1.68	0
Total Hepta-Dioxins	*		NotFnd	1.14	*		2.50	317	244	3.03	0
Total Tetra-Furans	*		NotFnd	1.29	*		2.50	244	553	0.582	0
1st Fn. Tot Penta-Furans	*		NotFnd	0.93	*		2.50	168	351	0.838	PeCDF 0
Total Penta-Furans	*		NotFnd	0.93	*		2.50	168	351	0.838	* 0
Total Hexa-Furans	*		NotFnd	1.05	*		2.50	221	178	1.05	0
Total Hepta-Furans	*		NotFnd	1.48	*		2.50	158	207	1.53	0

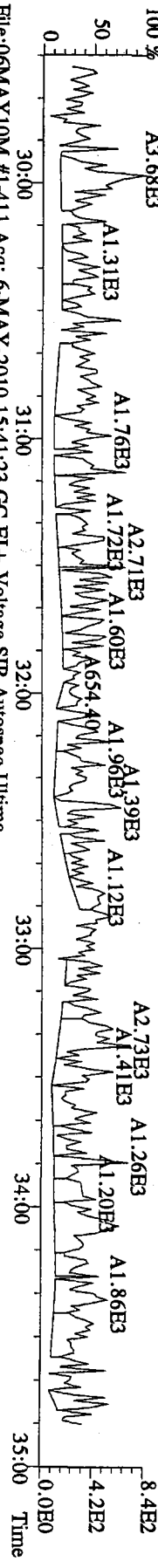
Analyst: 

Date: 5/7/10

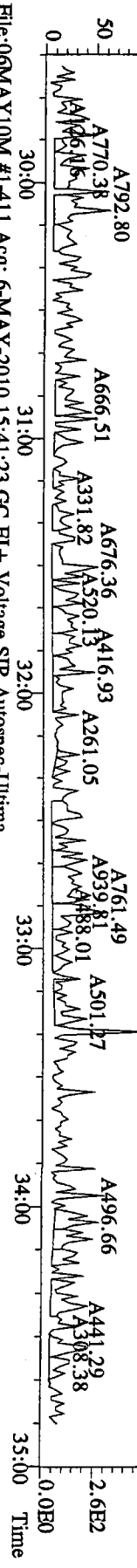
File:06MAY10M #1-391 Acq: 6-MAY-2010 15:41:23 GC EI + Voltage SIR Autospec-Ultima
 319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



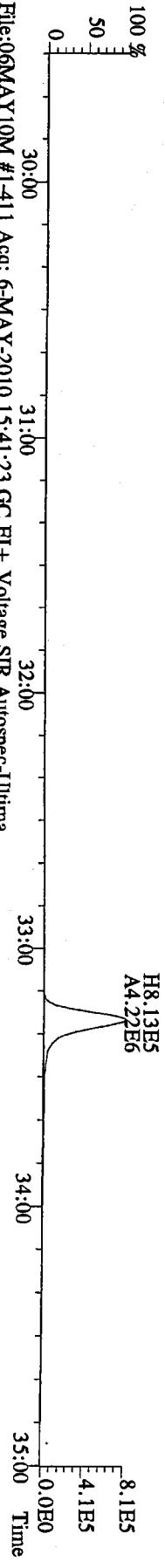
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 355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



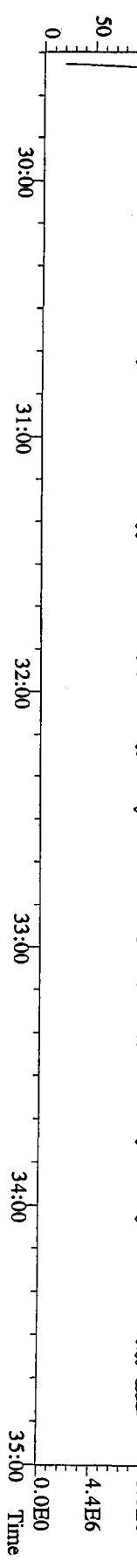
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 357.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



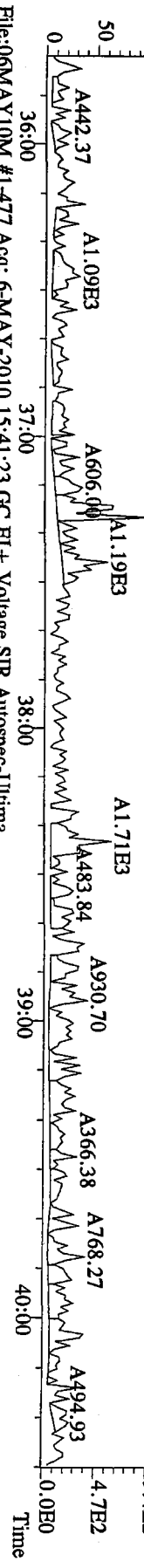
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 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



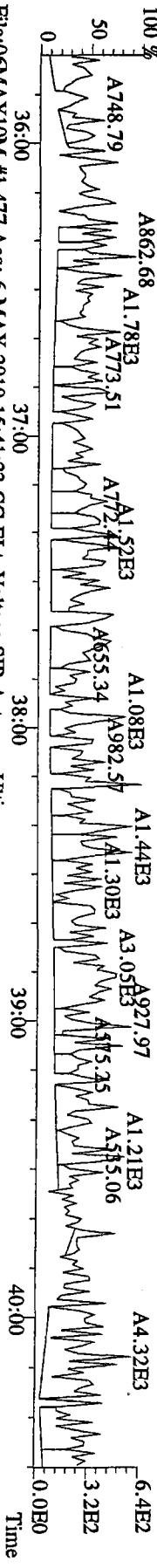
File:06MAY10M #1-411 Acq: 6-MAY-2010 15:41:23 GC EI+ Voltage SIR Autospec-Ultima
 366.9792 S:4 F:2 Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



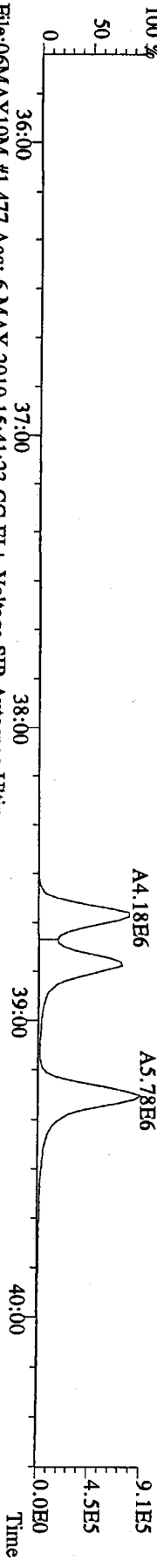
File:06MAY10M #1-477 Acq: 6-MAY-2010 15:41:23 GC EI+ Voltage SIR Autospec-Ultima
 389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



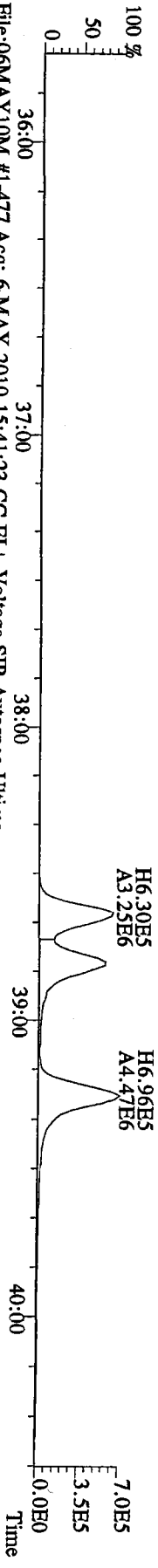
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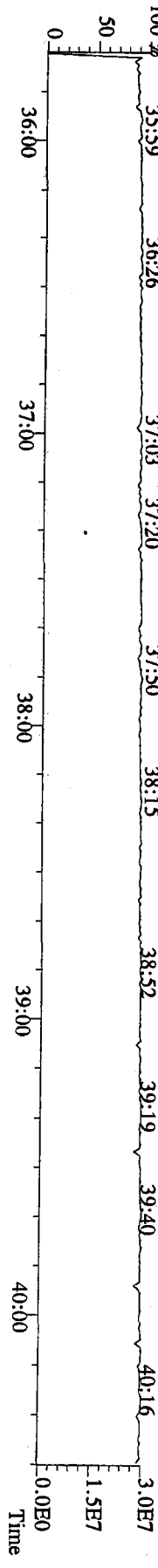
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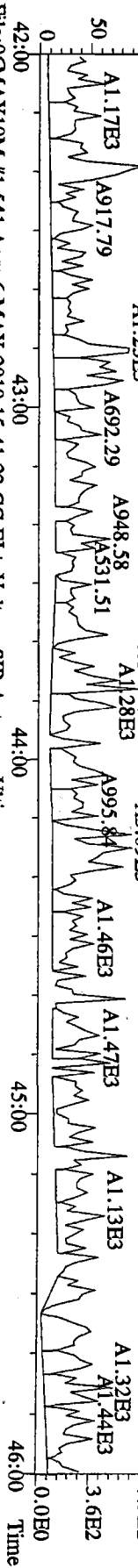
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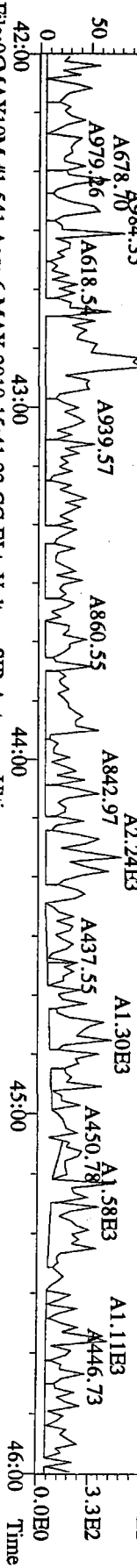
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 380.9760 S:4 F:3 Exp:PCDD
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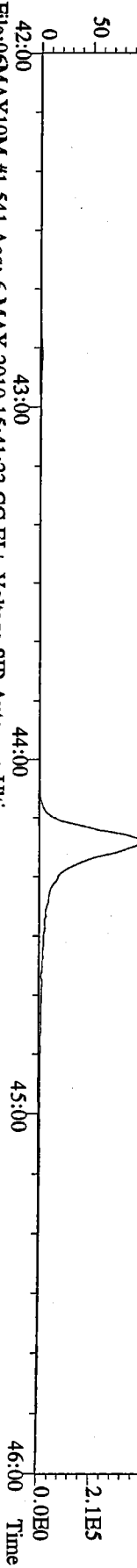
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423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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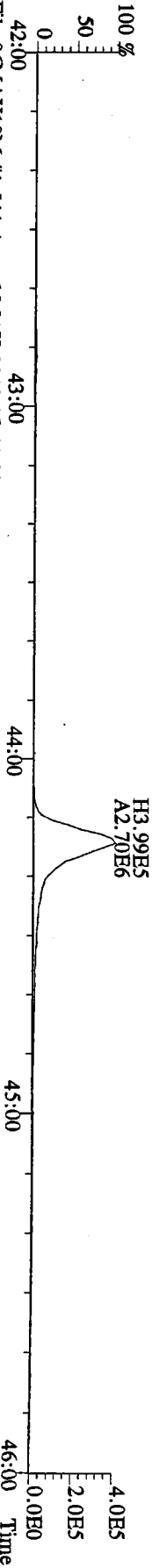
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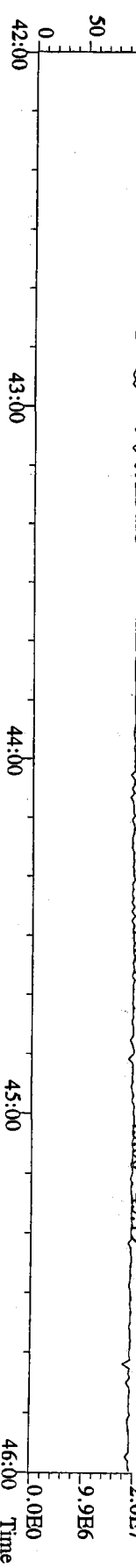
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Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



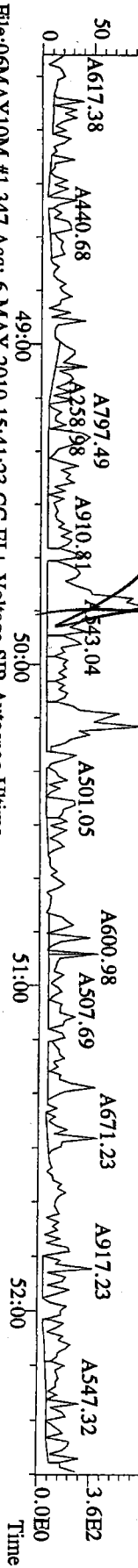
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430.9728 S:4 F:4 Exp:PCDD
Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



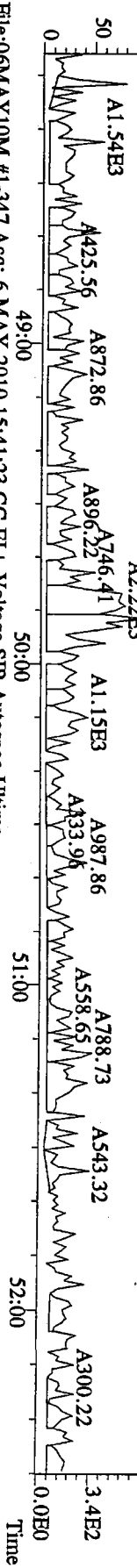
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Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



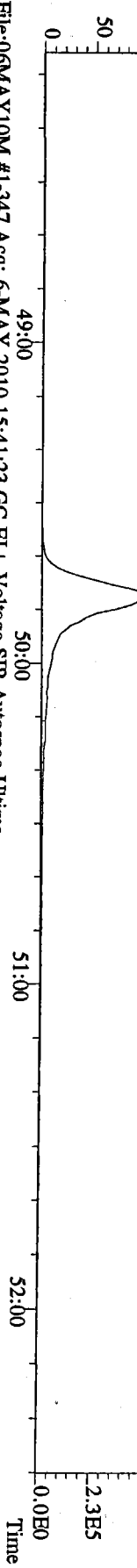
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 457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory
 100 %



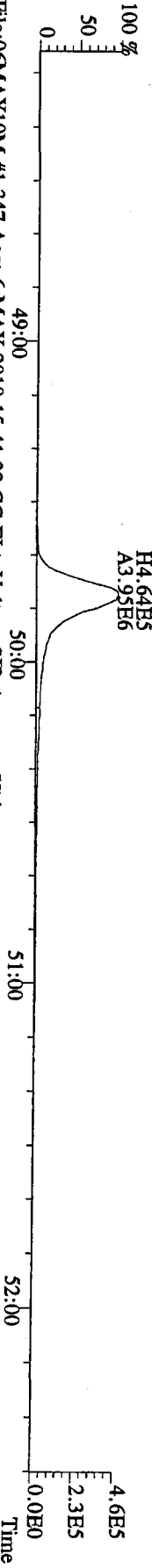
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 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory
 100 %



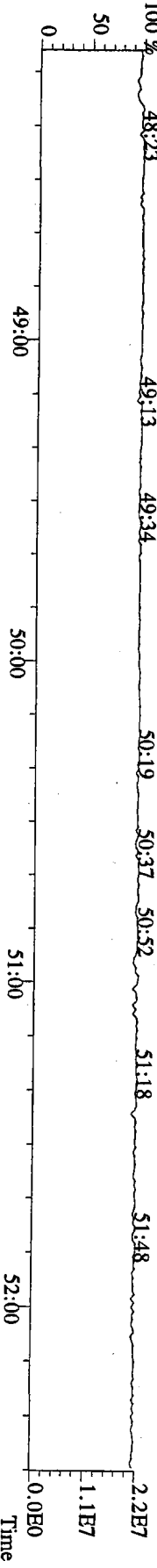
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 469.7780 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory
 100 %



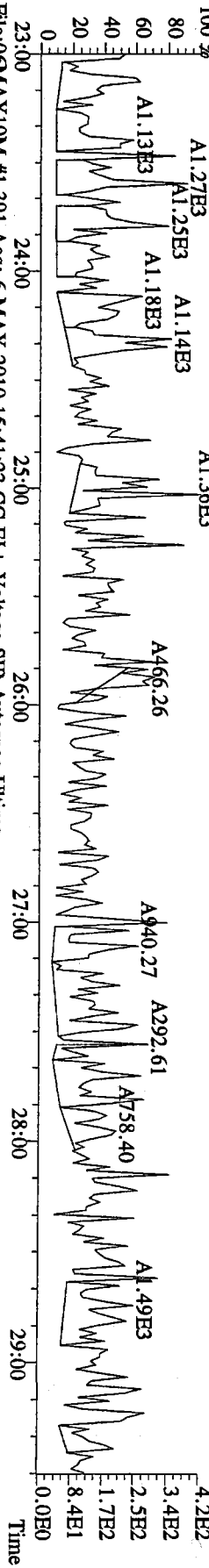
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 100 %



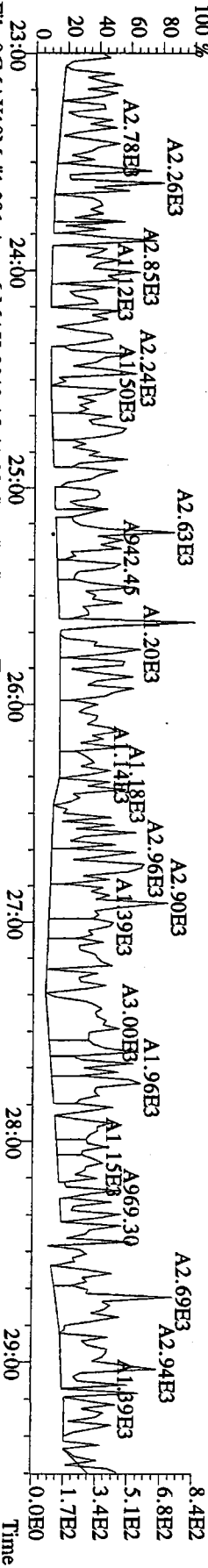
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 100 %



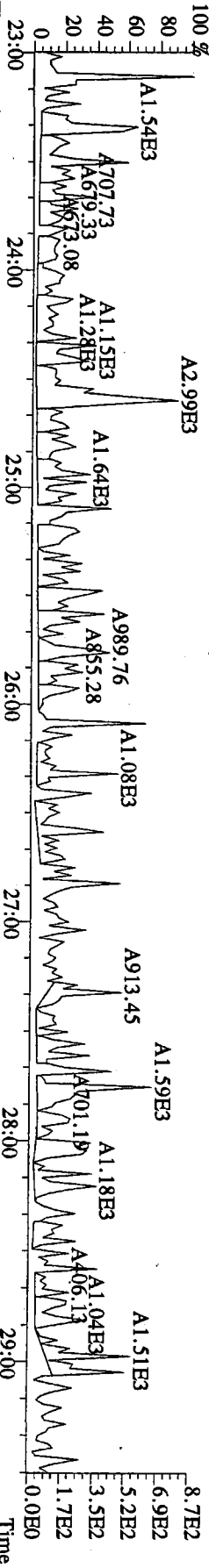
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 339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



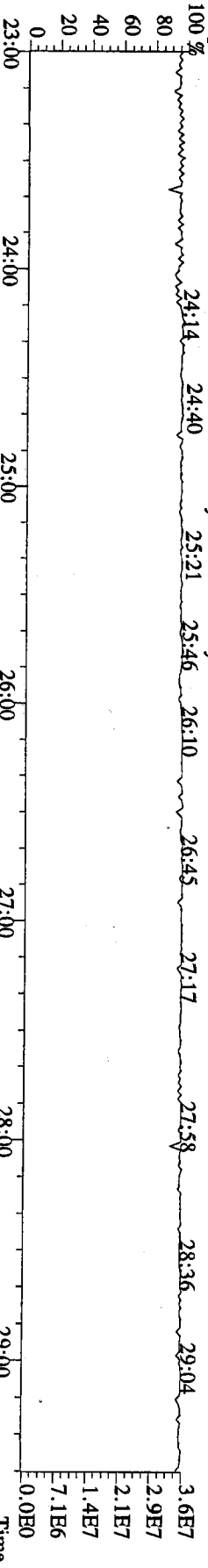
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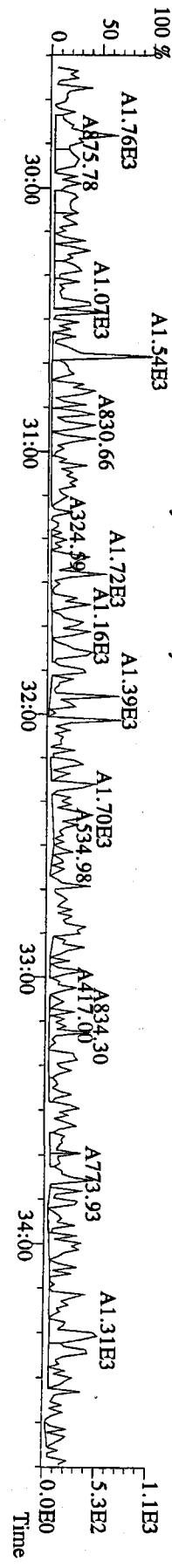
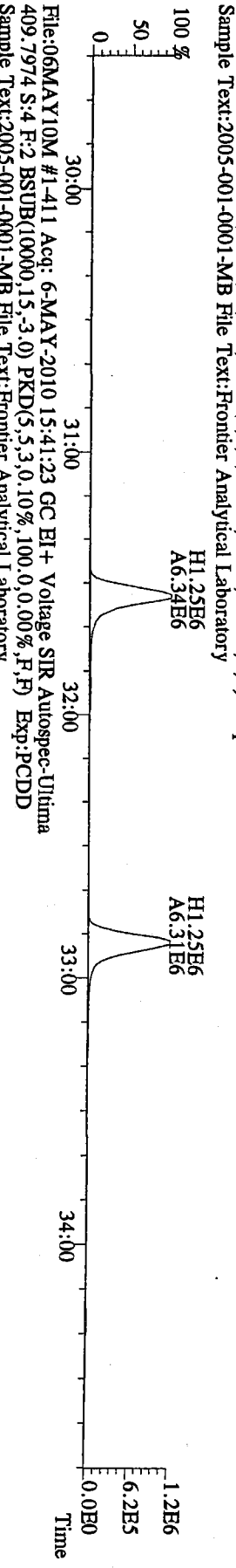
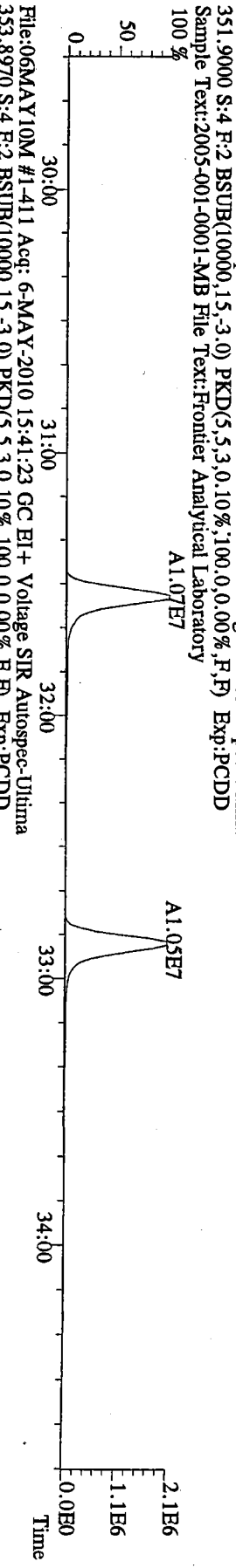
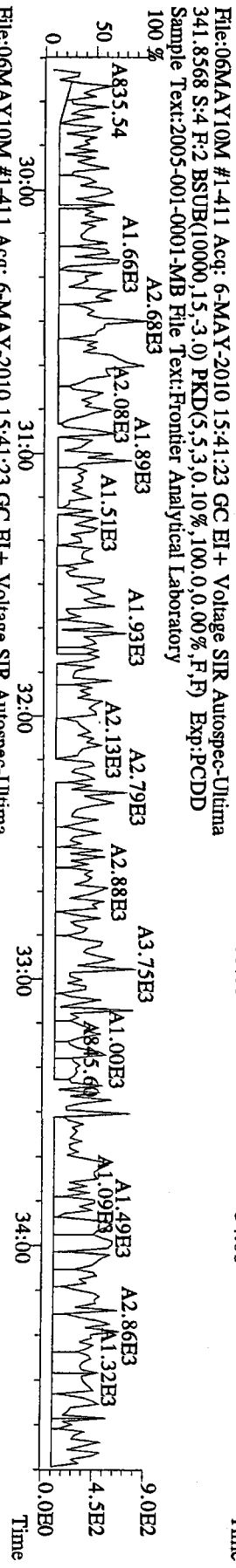
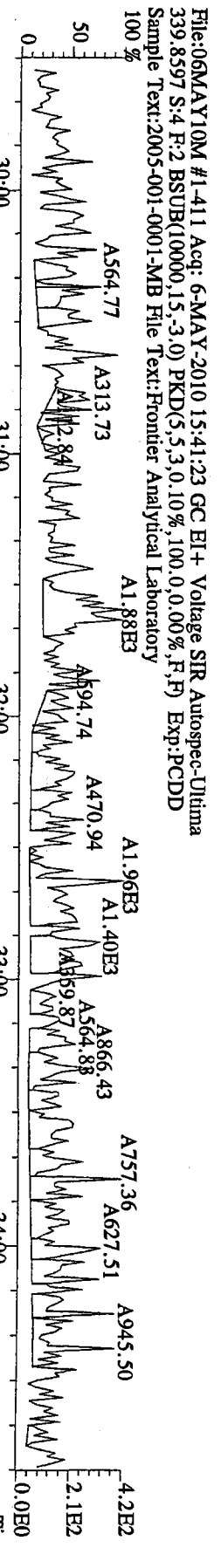


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 409.7974 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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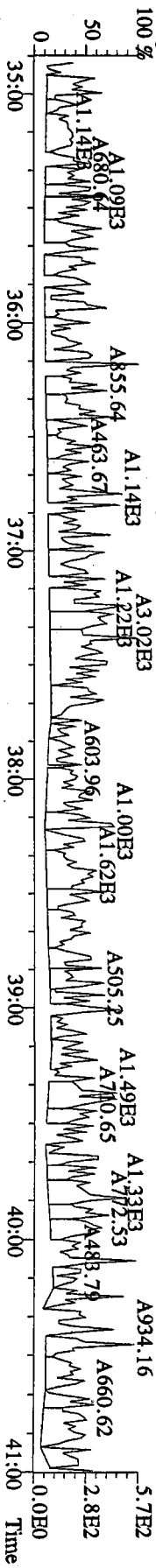


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 330.9792 S:4 Exp:PCDD
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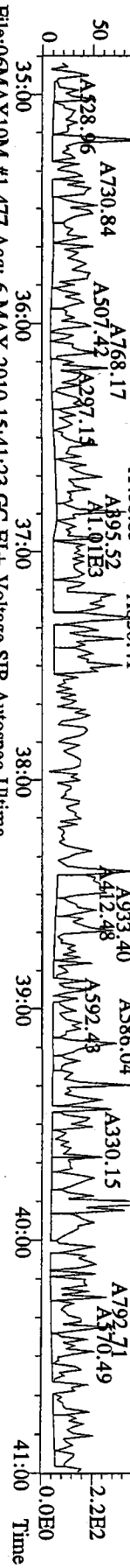




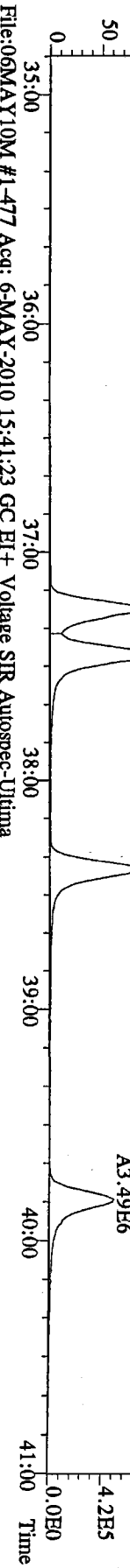
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 373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



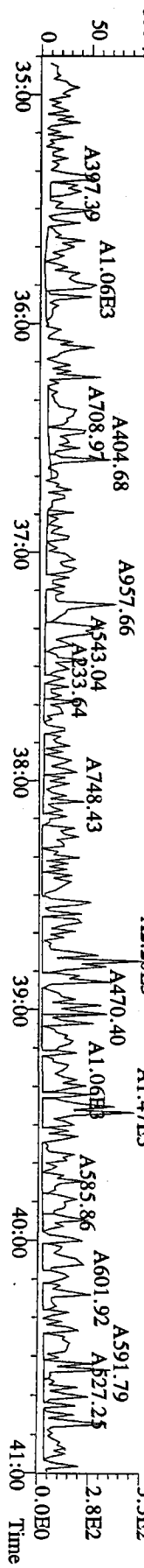
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 373.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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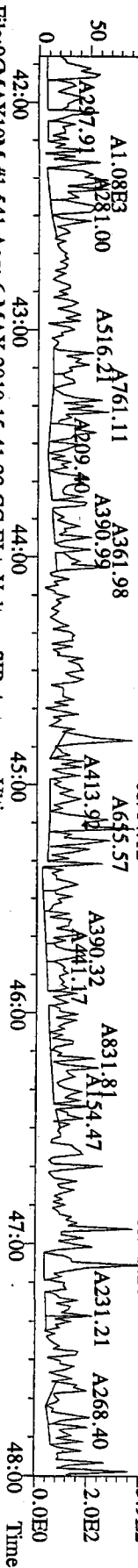
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 385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



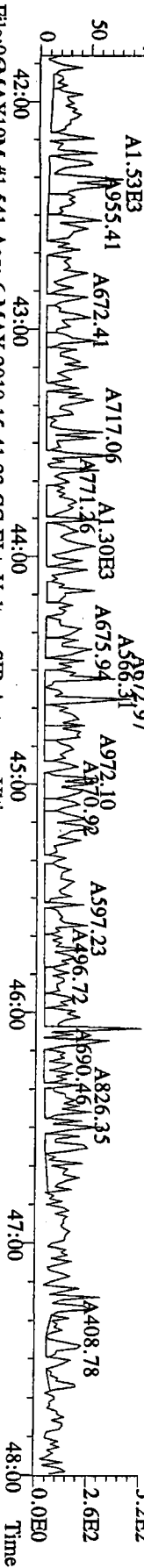
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 445.7555 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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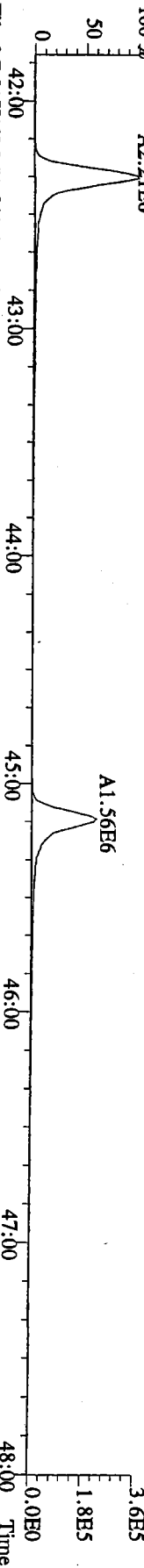
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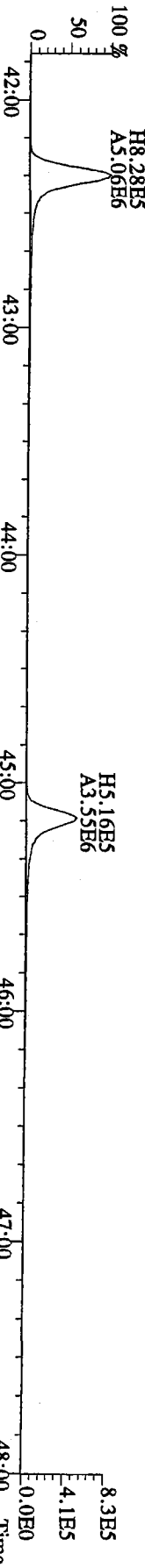
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409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
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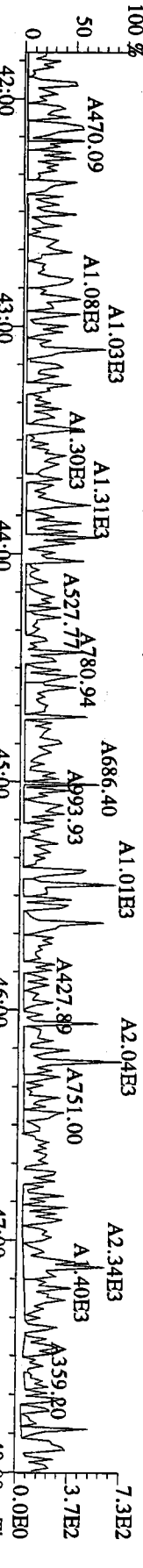
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417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
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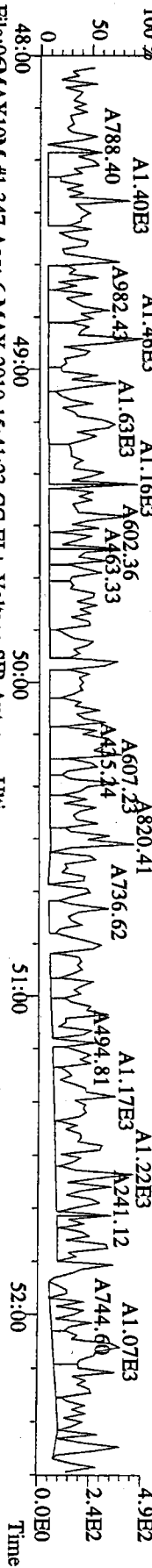
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419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
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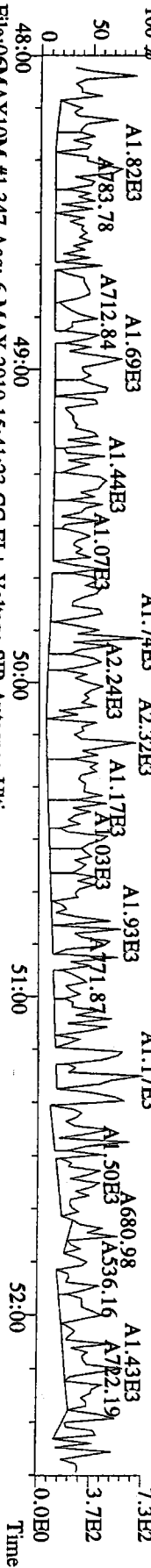
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479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



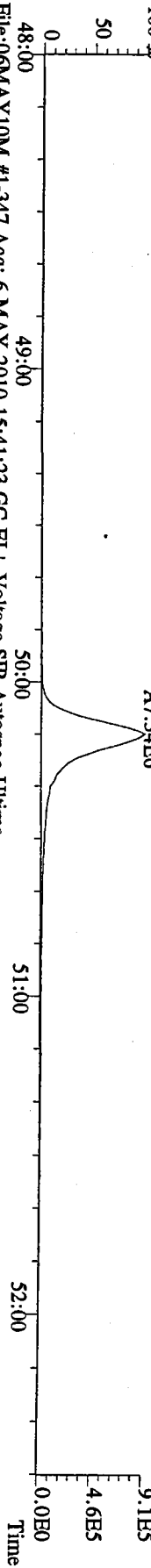
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441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
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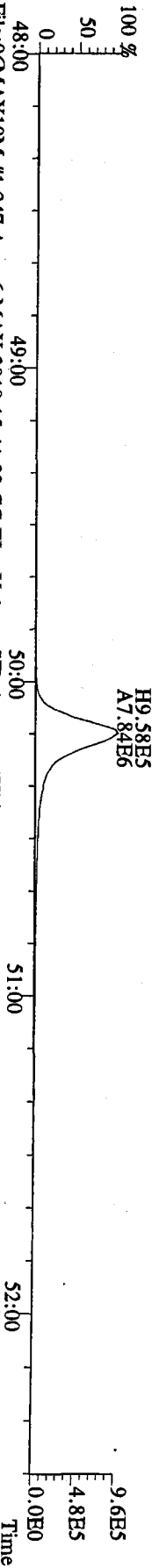
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445.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
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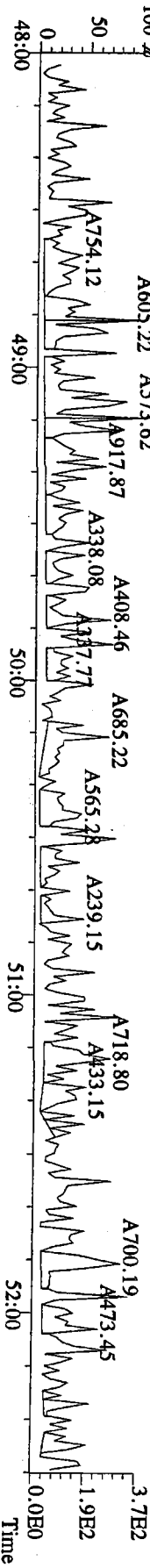
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453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:2005-001-0001-MB File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 6-MAY-2010 15:41:23 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:2005-001-0001-MB File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 6-MAY-2010 15:41:23 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:2005-001-0001-MB File Text:Frontier Analytical Laboratory



USEPA - ITD

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

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): Aqueous OPR Data Filename: 06MAY10M Sam:3

Ext. Date: 5/5/10 Shift: Day Analysis Date: 6-MAY-10 14:46:01

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	8.76	6.70 - 15.8
1,2,3,7,8-PeCDD	50	45.4	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	44.5	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	43.5	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	42.1	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	53.3	35.0 - 70.0
OCDD	100	103	78.0 - 144
2,3,7,8-TCDF	10	9.50	7.50 - 15.8
1,2,3,7,8-PeCDF	50	45.9	40.0 - 67.0
2,3,4,7,8-PeCDF	50	46.2	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	41.5	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	45.9	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	41.0	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	42.8	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	43.9	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	43.3	39.0 - 69.0
OCDF	100	87.3	63.0 - 170

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

Analyst: Date: 5/7/10

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): Aqueous OPR Data Filename: 06MAY10M Sam:3

Ext. Date: 5/5/10 Shift: Day Analysis Date: 6-MAY-10 14:46:01

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

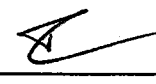
	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
LABELED COMPOUNDS			
13C-2,3,7,8-TCDD	100	78.3	20.0 - 175
13C-1,2,3,7,8-PeCDD	100	59.0	21.0 - 227
13C-1,2,3,4,7,8-HxCDD	100	68.4	21.0 - 193
13C-1,2,3,6,7,8-HxCDD	100	82.2	25.0 - 163
13C-1,2,3,4,6,7,8-HpCDD	100	50.8	26.0 - 166
13C-OCDD	200	104	26.0 - 397
13C-2,3,7,8-TCDF	100	77.1	22.0 - 152
13C-1,2,3,7,8-PeCDF	100	58.1	21.0 - 192
13C-2,3,4,7,8-PeCDF	100	61.3	13.0 - 328
13C-1,2,3,4,7,8-HxCDF	100	65.1	19.0 - 202
13C-1,2,3,6,7,8-HxCDF	100	70.3	21.0 - 159
13C-2,3,4,6,7,8-HxCDF	100	75.1	22.0 - 176
13C-1,2,3,7,8,9-HxCDF	100	67.0	17.0 - 205
13C-1,2,3,4,6,7,8-HpCDF	100	56.0	21.0 - 158
13C-1,2,3,4,7,8,9-HpCDF	100	47.0	20.0 - 186
13C-OCDF	200	110	26.0 - 397
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	30.9	12.4 - 76.4

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

Analyst: Date: 5/9/10

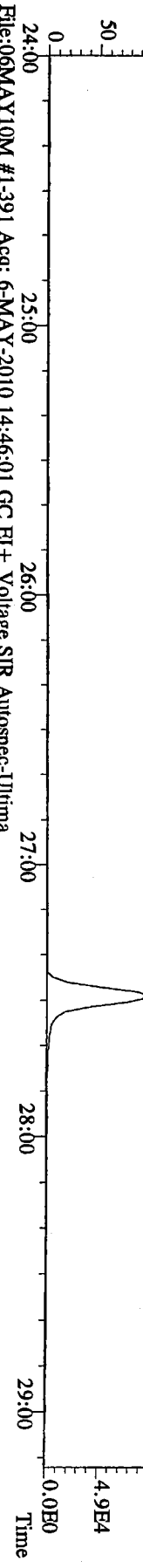
FAL ID: 2005-001-0001-OPR Filename: 06MAY10M Sam:3 Acquired: 6-MAY-10 14:46:01 ICal: PCDDFAL3-4-14-10
 Client ID: OPR ConCal: ST050610M1 EndCal: ST050610M2
 Results: 2005 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 89.5

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	102 DL	
2,3,7,8-TCDD	1.03e+06	0.81 y	27:29	1.12	8.76	2.50	-	-	*	
1,2,3,7,8-PeCDD	4.43e+06	1.56 y	33:18	1.07	45.4	2.50	-	-	*	
1,2,3,4,7,8-HxCDD	3.89e+06	1.32 y	38:40	1.39	44.5	2.50	-	-	*	
1,2,3,6,7,8-HxCDD	3.95e+06	1.31 y	38:50	1.36	43.5	2.50	-	-	*	
1,2,3,7,8,9-HxCDD	3.82e+06	1.29 y	39:17	1.40	42.1	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	2.85e+06	0.92 y	44:15	1.14	53.3	2.50	-	-	*	
OCDD	4.43e+06	1.00 y	49:48	1.22	103	2.50	-	-	*	
2,3,7,8-TCDF	2.30e+06	0.66 y	26:43	1.29	9.50	2.50	-	-	*	
1,2,3,7,8-PeCDF	6.02e+06	1.61 y	31:34	0.93	45.9	2.50	-	-	*	
2,3,4,7,8-PeCDF	6.06e+06	1.62 y	32:53	0.93	46.2	2.50	-	-	*	
1,2,3,4,7,8-HxCDF	4.79e+06	1.22 y	37:16	1.07	41.5	2.50	-	-	*	
1,2,3,6,7,8-HxCDF	5.74e+06	1.21 y	37:28	0.97	45.9	2.50	-	-	*	
2,3,4,6,7,8-HxCDF	5.20e+06	1.23 y	38:25	1.04	41.0	2.50	-	-	*	
1,2,3,7,8,9-HxCDF	4.70e+06	1.22 y	39:51	1.15	42.8	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	3.81e+06	1.03 y	42:21	1.37	43.9	2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	2.98e+06	1.03 y	45:10	1.62	43.3	2.50	-	-	*	
OCDF	4.90e+06	0.89 y	50:12	0.85	87.3	2.50	-	-	*	
									Rec	
13C-2,3,7,8-TCDD	1.05e+07	0.77 y	27:28	0.98	78.3				78.3	
13C-1,2,3,7,8-PeCDD	9.13e+06	1.65 y	33:17	1.14	59.0				59.0	
13C-1,2,3,4,7,8-HxCDD	6.27e+06	1.26 y	38:39	1.00	68.4				68.4	
13C-1,2,3,6,7,8-HxCDD	6.70e+06	1.34 y	38:48	0.89	82.2				82.2	
13C-1,2,3,4,6,7,8-HpCDD	4.70e+06	1.00 y	44:14	1.01	50.8				50.8	
13C-OCDD	7.10e+06	1.00 y	49:48	0.75	104				51.8	
13C-2,3,7,8-TCDF	1.88e+07	0.84 y	26:43	0.93	77.1				77.1	
13C-1,2,3,7,8-PeCDF	1.42e+07	1.69 y	31:33	0.93	58.1				58.1	
13C-2,3,4,7,8-PeCDF	1.41e+07	1.67 y	32:52	0.87	61.3				61.3	
13C-1,2,3,4,7,8-HxCDF	1.08e+07	0.45 y	37:15	1.82	65.1				65.1	
13C-1,2,3,6,7,8-HxCDF	1.29e+07	0.47 y	37:27	2.01	70.3				70.3	
13C-2,3,4,6,7,8-HxCDF	1.22e+07	0.46 y	38:23	1.77	75.1				75.1	
13C-1,2,3,7,8,9-HxCDF	9.56e+06	0.46 y	39:50	1.57	67.0				67.0	
13C-1,2,3,4,6,7,8-HpCDF	6.36e+06	0.46 y	42:20	1.24	56.0				56.0	
13C-1,2,3,4,7,8,9-HpCDF	4.26e+06	0.45 y	45:09	0.99	47.0				47.0	
13C-OCDF	1.33e+07	0.96 y	50:10	1.32	110				55.2	
37Cl-2,3,7,8-TCDD	4.64e+06		27:29	1.10	30.9				77.3	
13C-1,2,3,4-TCDD	1.36e+07	0.78 y	26:53	-	77.8					
13C-1,2,3,4-TCDF	2.63e+07	0.84 y	25:37	-	70.9					
13C-1,2,3,7,8,9-HxCDD	9.12e+06	1.28 y	39:15	-	55.8					
						Fac Noise-1	Noise-2	DL	#Hom	
Total Tetra-Dioxins	1.25e+06		22:58	1.12	10.7	2.50	-	-	*	31
Total Penta-Dioxins	4.61e+06		29:49	1.07	47.1	2.50	-	-	*	32
Total Hexa-Dioxins	1.19e+07		36:08	1.38	133	2.50	-	-	*	28
Total Hepta-Dioxins	3.47e+06		41:22	1.14	65.0	2.50	-	-	*	49
Total Tetra-Furans	2.53e+06		22:53	1.29	10.5	2.50	-	-	*	21
1st Fn. Tot Penta-Furans	1.53e+05		22:59	0.93	1.17	2.50	-	-	*	PeCDF 25
Total Penta-Furans	1.24e+07		30:18	0.93	94.9	2.50	-	-	*	96.0 15
Total Hexa-Furans	2.05e+07		35:18	1.05	172	2.50	-	-	*	9
Total Hepta-Furans	7.32e+06		41:33	1.48	93.8	2.50	-	-	*	37

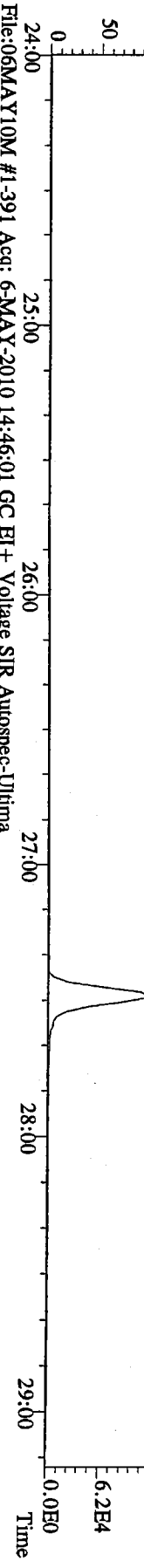
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Date: 5/7/10

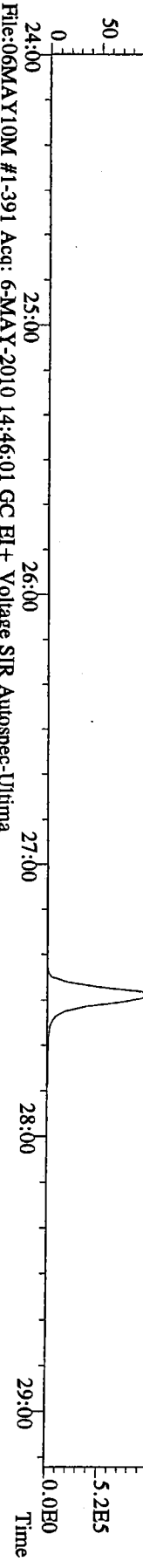
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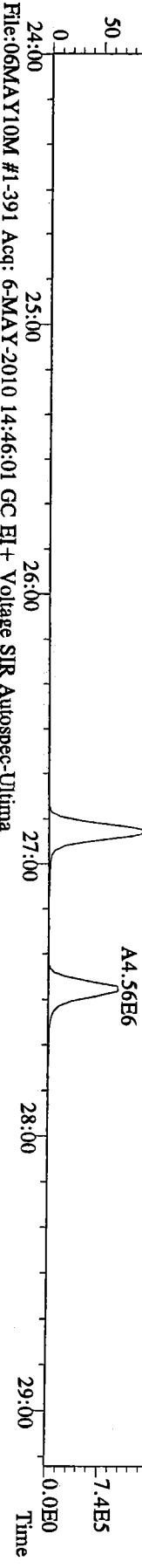
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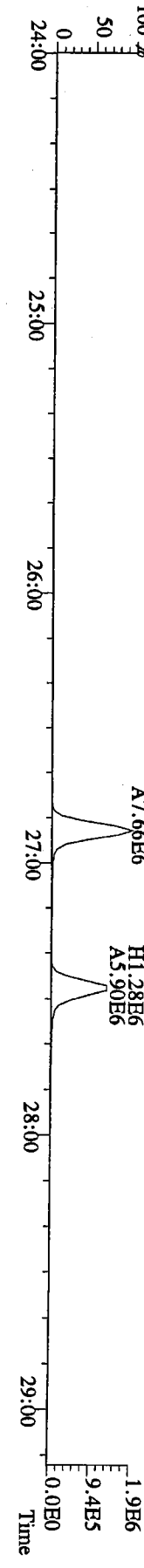
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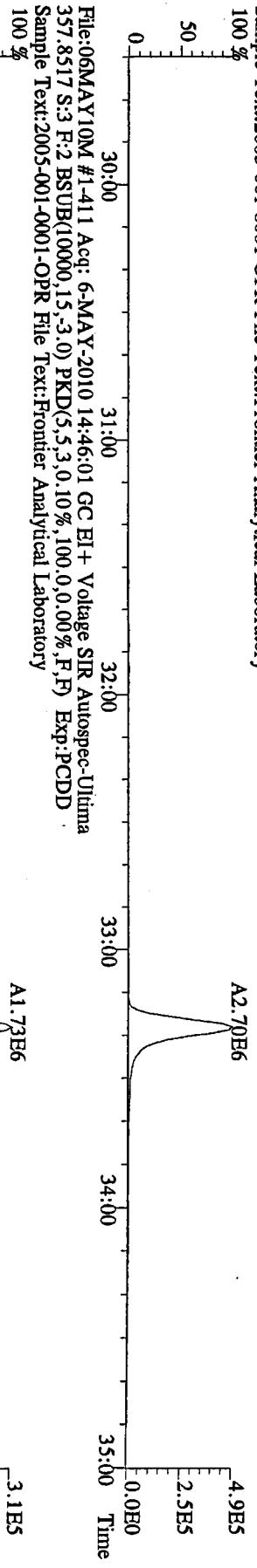
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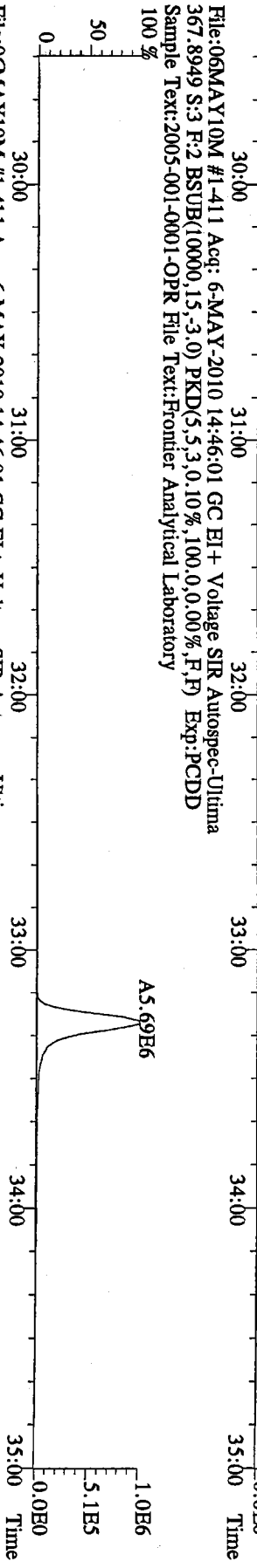
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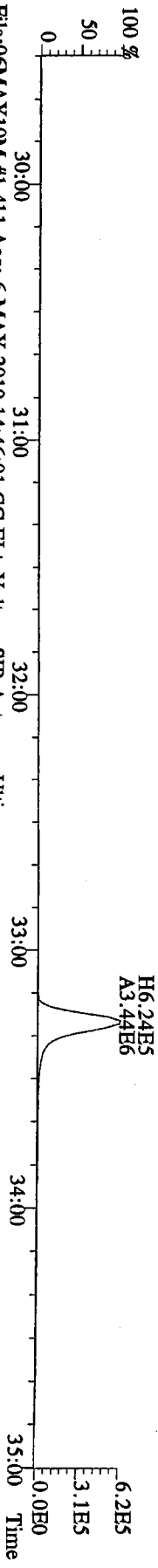
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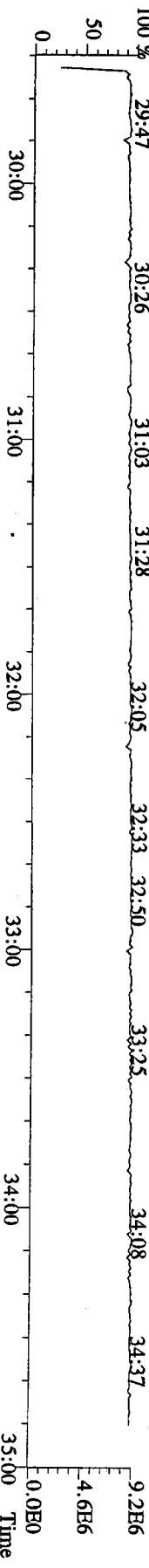
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Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory
100 %



File:06MAY10M #1-411 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
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Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory
100 %

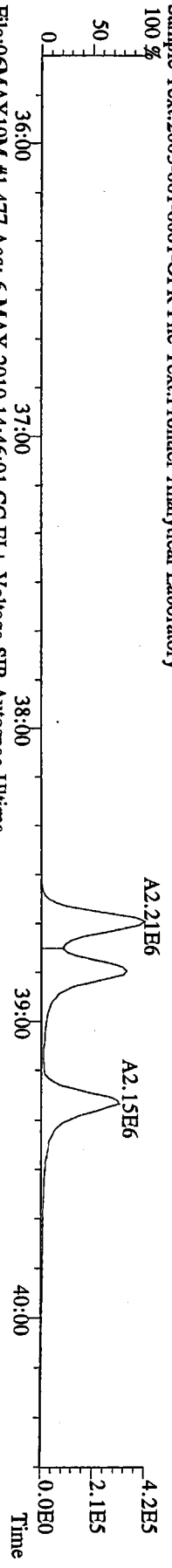


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100 %

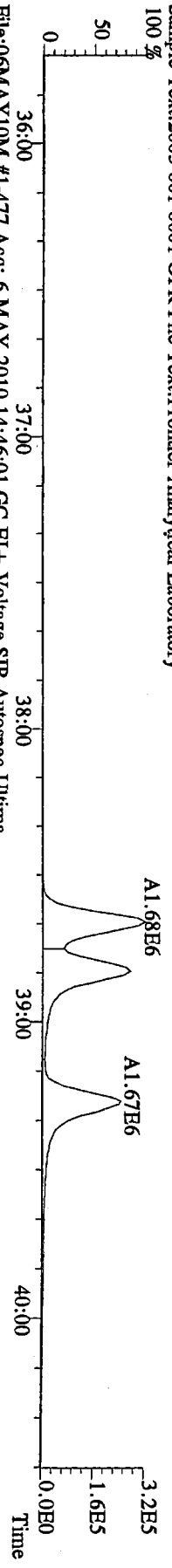


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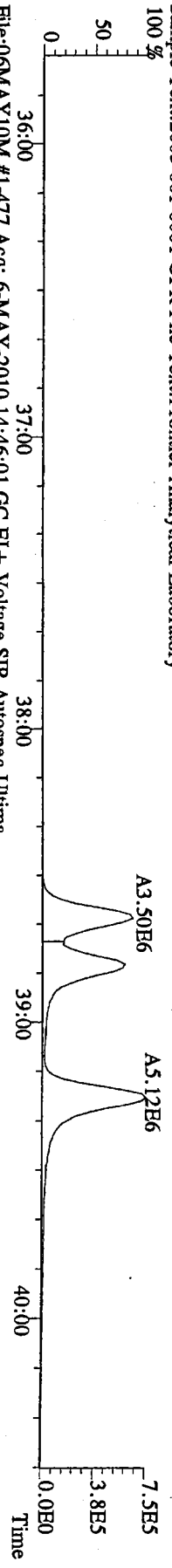
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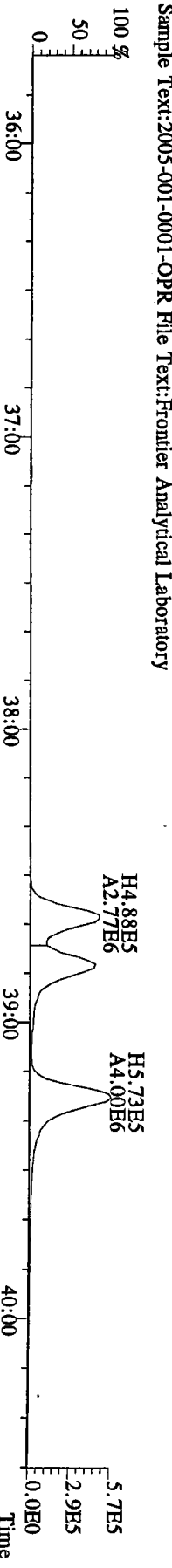
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 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



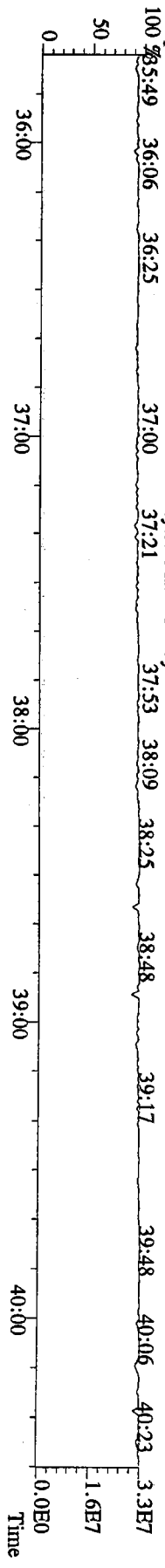
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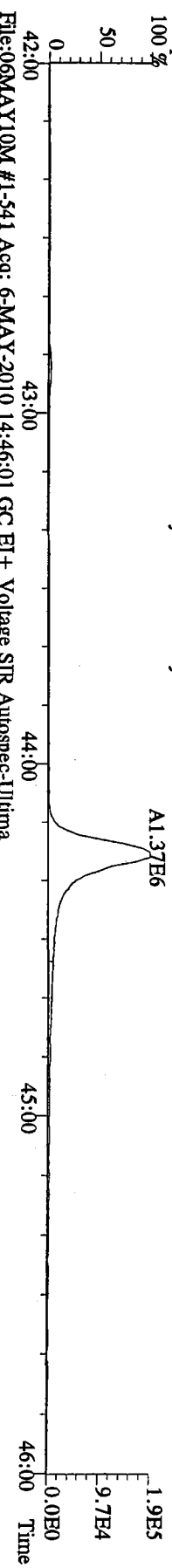
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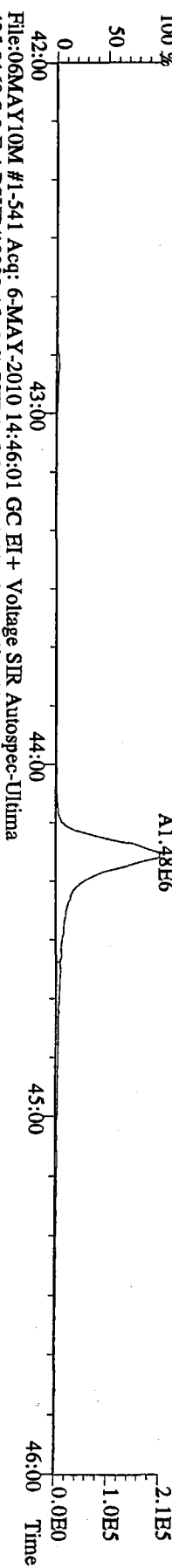
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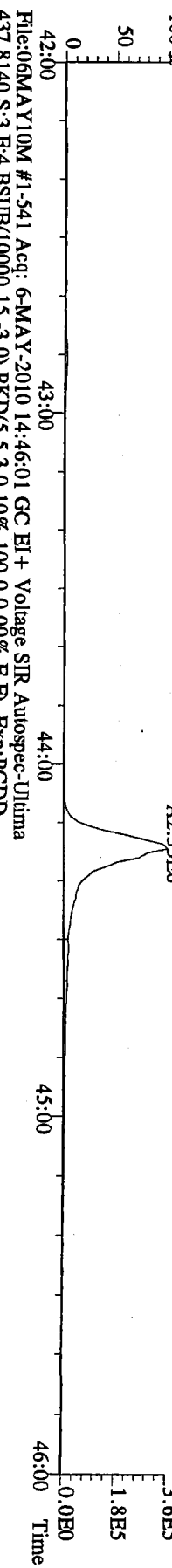
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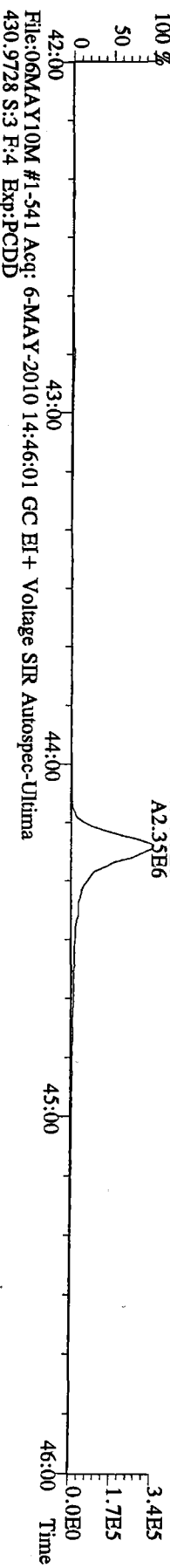
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Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory
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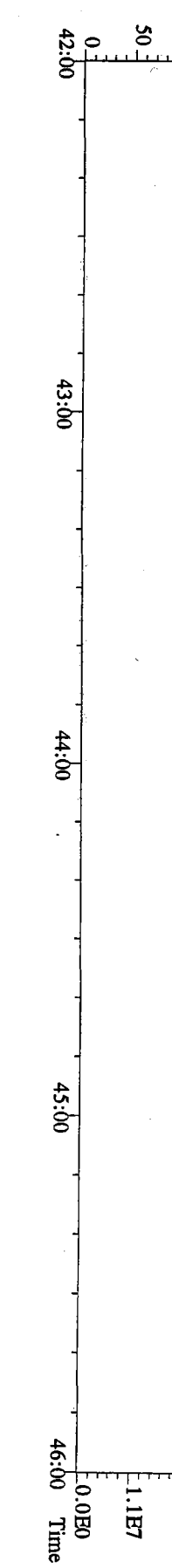
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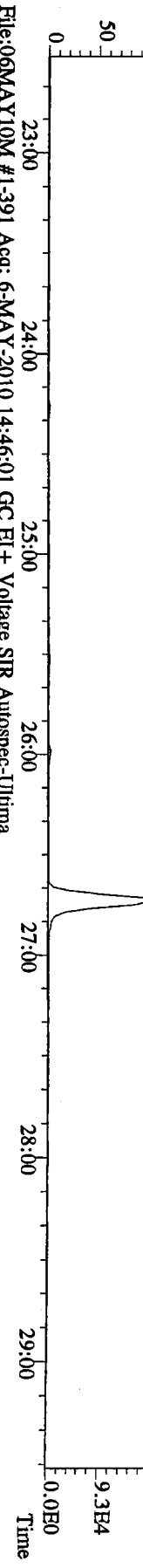
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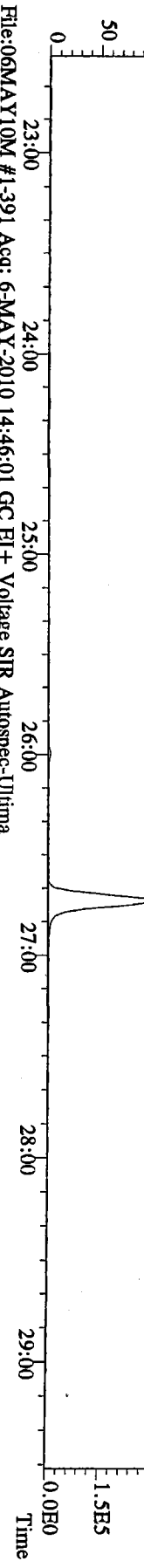
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100 %



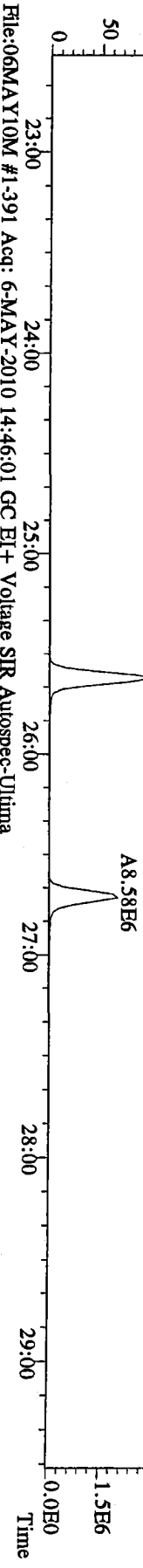
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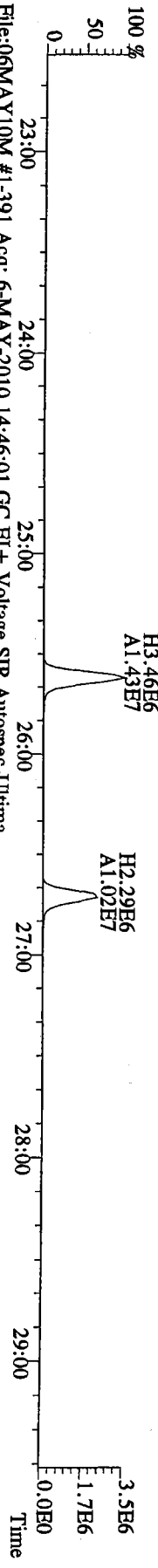
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Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



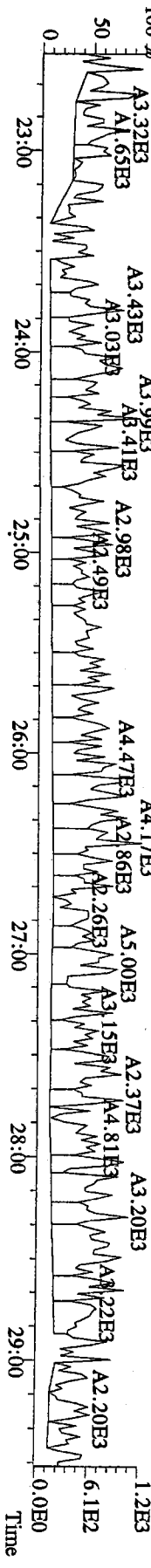
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Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



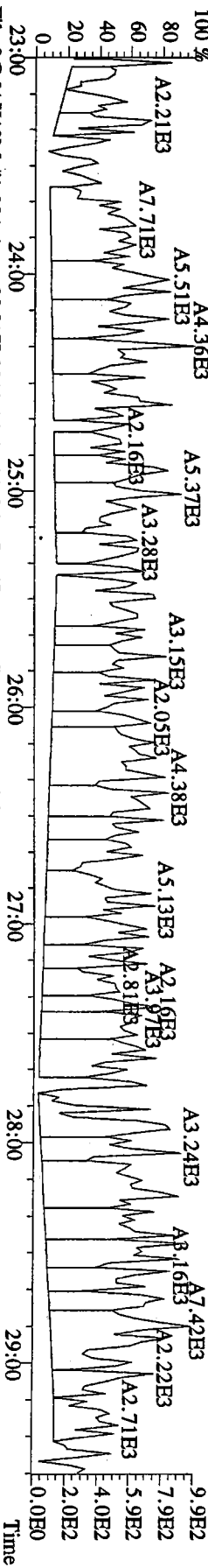
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Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



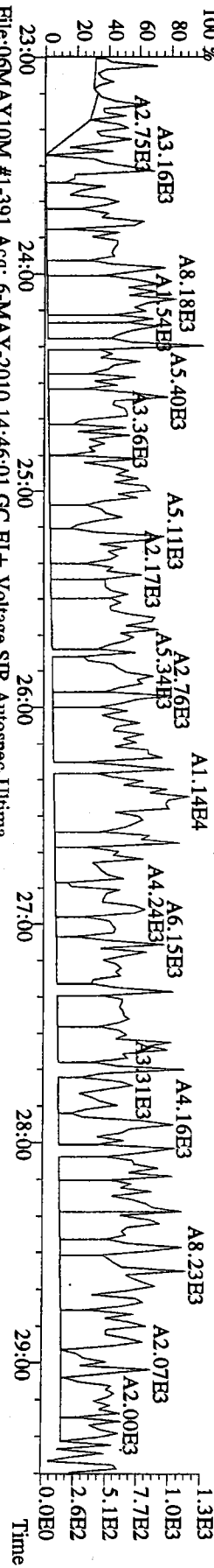
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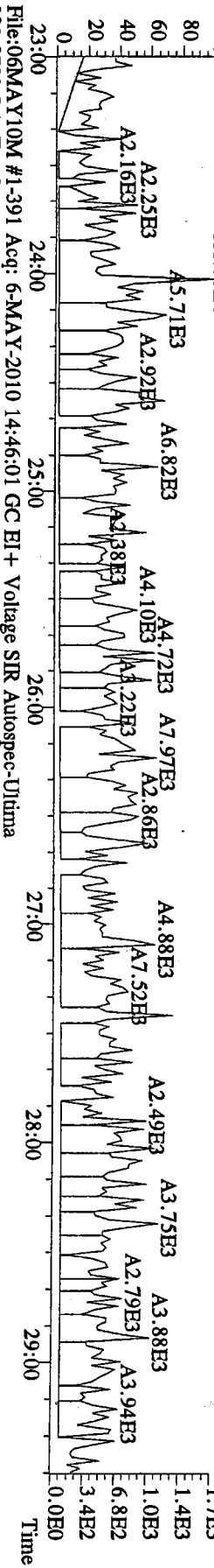
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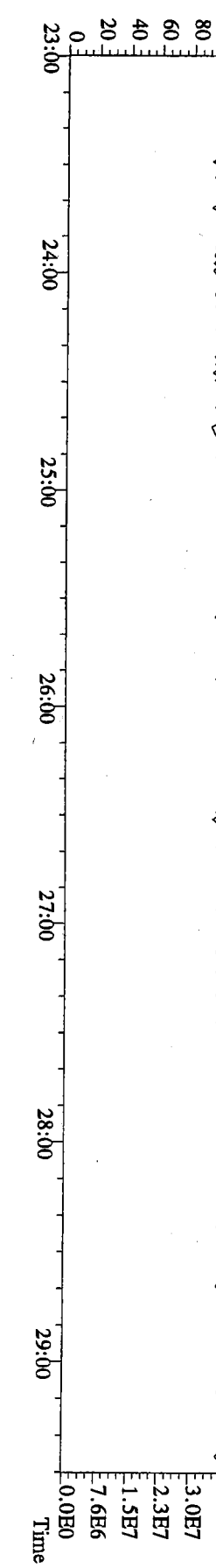
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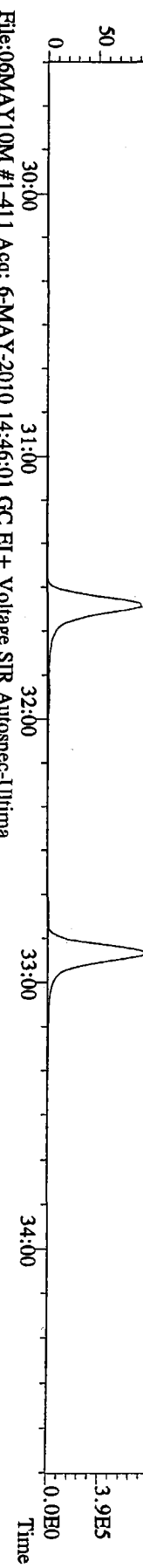
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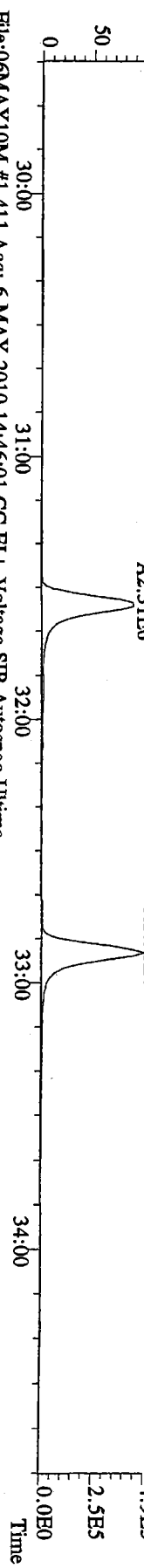
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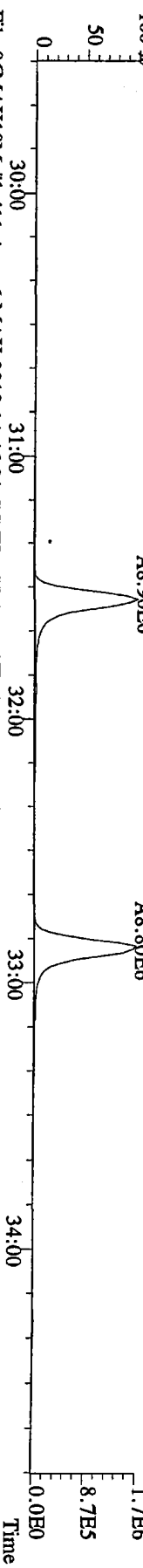
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 339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



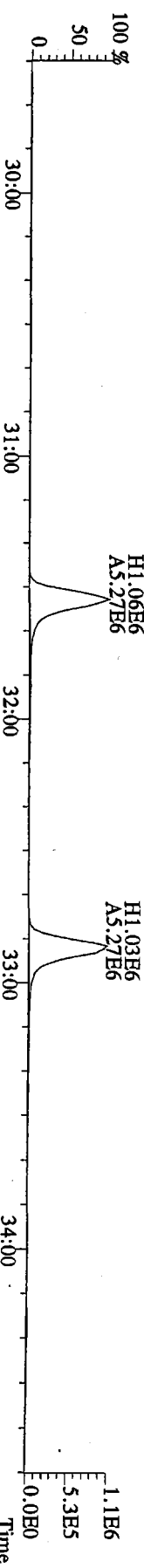
File:06MAY10M #1-411 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
 341.8368 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



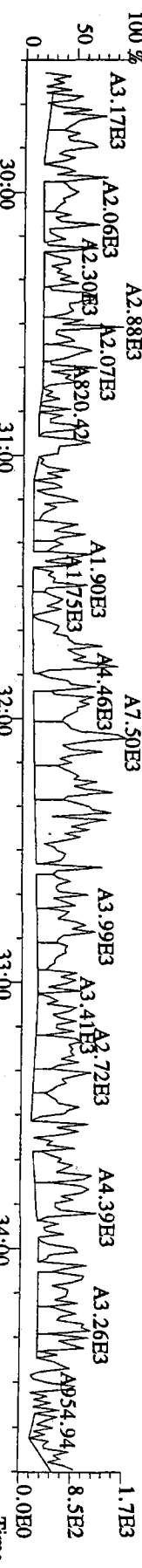
File:06MAY10M #1-411 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
 351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



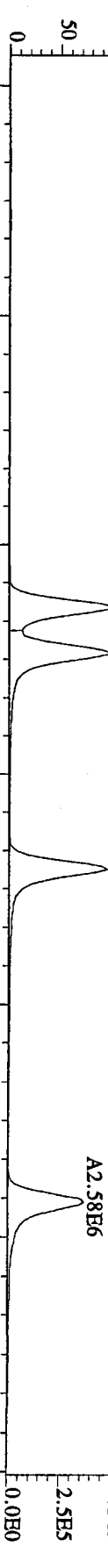
File:06MAY10M #1-411 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
 353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



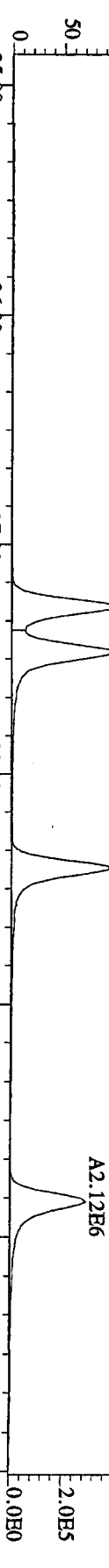
File:06MAY10M #1-411 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
 409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



File:06MAY10M #1-477 Acq: 6-MAY-2010 14:46:01 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:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



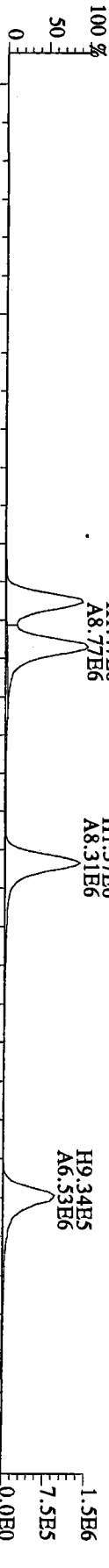
File:06MAY10M #1-477 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
 375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



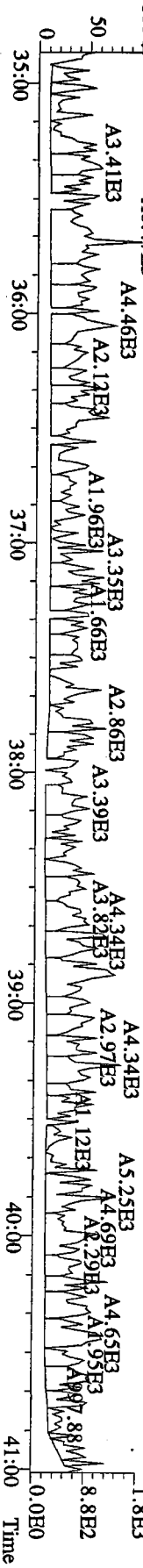
File:06MAY10M #1-477 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
 383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



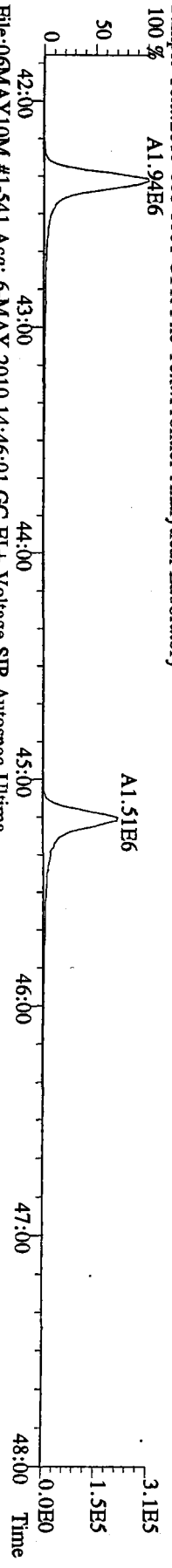
File:06MAY10M #1-477 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
 445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



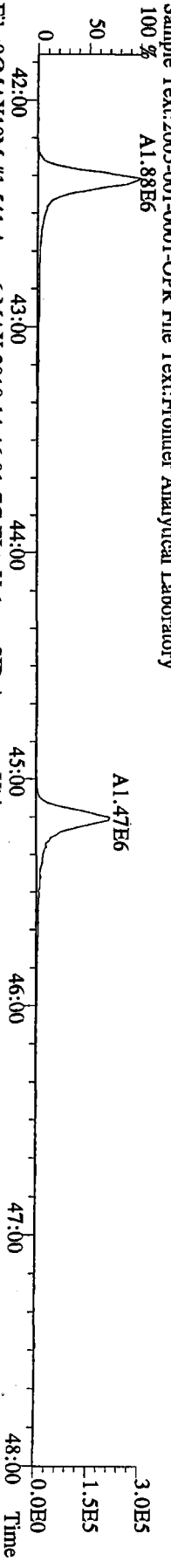
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 445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
 Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



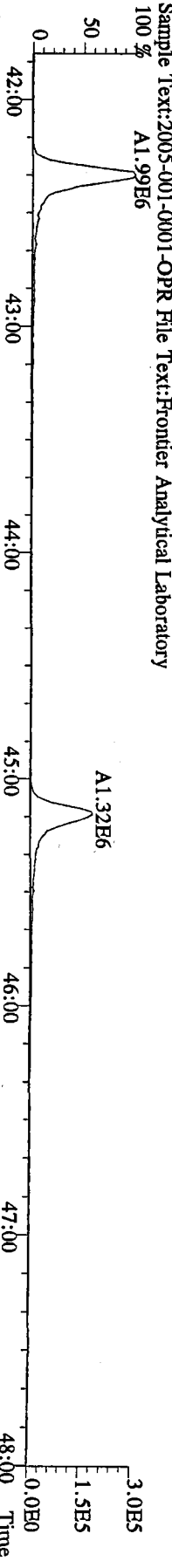
File:06MAY10M #1-541 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp.:PCDD
Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



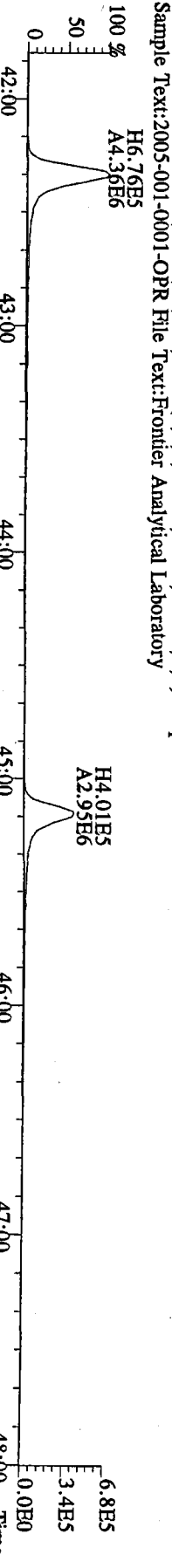
File:06MAY10M #1-541 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp.:PCDD
Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



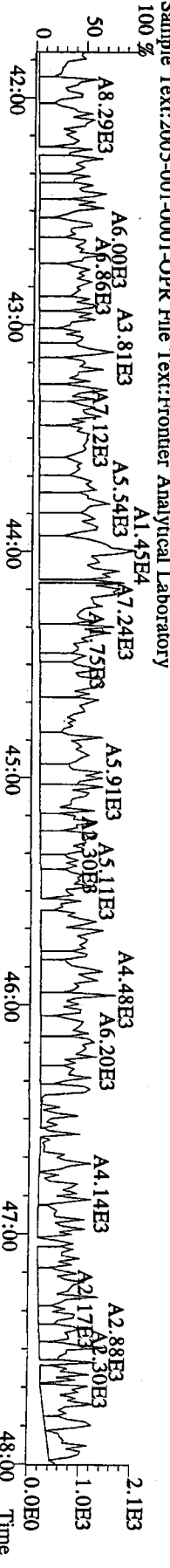
File:06MAY10M #1-541 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp.:PCDD
Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



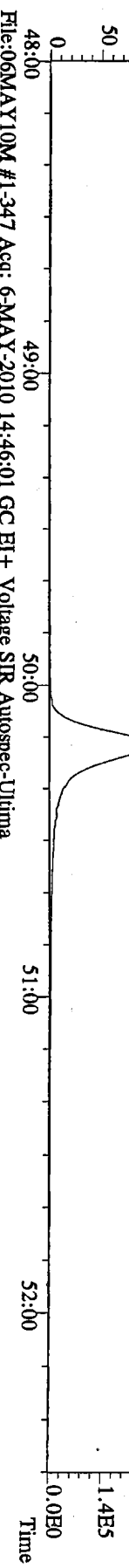
File:06MAY10M #1-541 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp.:PCDD
Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



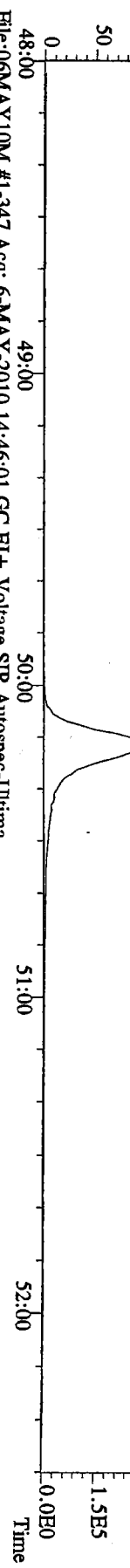
File:06MAY10M #1-541 Acq: 6-MAY-2010 14:46:01 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp.:PCDD
Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



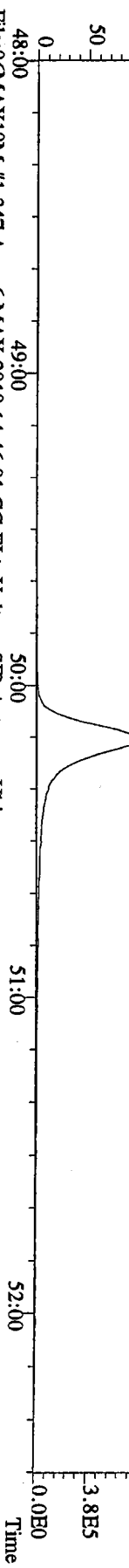
File:06MAY10M #1-347 Acq: 6-MAY-2010 14:46:01 GC EI + Voltage SIR Autospec-Ultima
441.7428 S:3 F:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



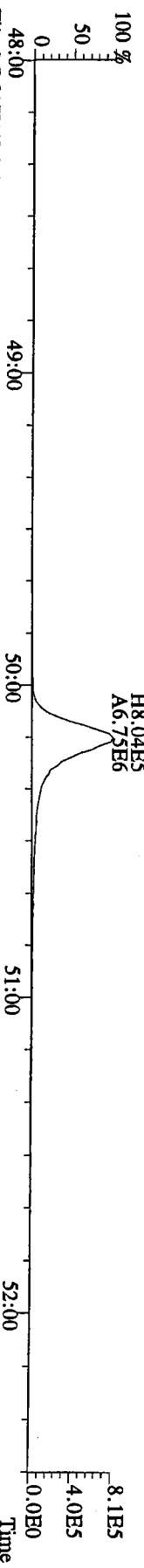
File:06MAY10M #1-347 Acq: 6-MAY-2010 14:46:01 GC EI + Voltage SIR Autospec-Ultima
443.7398 S:3 F:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



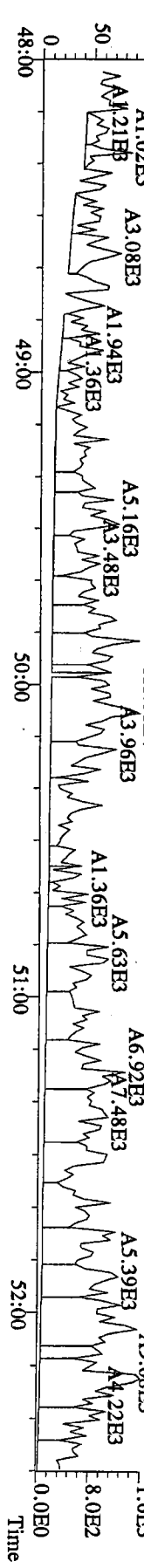
File:06MAY10M #1-347 Acq: 6-MAY-2010 14:46:01 GC EI + Voltage SIR Autospec-Ultima
453.7831 S:3 F:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 6-MAY-2010 14:46:01 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:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 6-MAY-2010 14:46:01 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:2005-001-0001-OPR File Text:Frontier Analytical Laboratory



FAL ID: 6118-001-0001-SA Filename: 06MAY10M Sam:8 Acquired: 6-MAY-10 19:22:39 ICal: PCDDFAL3-4-14-10
 Client ID: CB31A042110COMP ConCal: ST050610M1 EndCal: ST050610M2
 Results: 6119 GC Column: DB5 Amount: 1.001 NATO 1989 Tox: 23.0

Name	Resp	RA	RT	RRF	WHO 1998 Tox:		WHO 2005 Tox:		DL	#Hom
					Conc	Qual	Fac Noise-1	Noise-2		
2,3,7,8-TCDD	*	* n	NotFnd	1.12	*	2.50	222	368	1.13	0
1,2,3,7,8-PeCDD	*	* n	NotFnd	1.07	*	2.50	629	420	2.70	0
1,2,3,4,7,8-HxCDD	2.68e+04	1.09 y	38:40	1.39	5.35	J 2.50	-	-	*	6
1,2,3,6,7,8-HxCDD	8.29e+04	1.20 y	38:50	1.36	15.8	J 2.50	-	-	*	2
1,2,3,7,8,9-HxCDD	4.80e+04	1.25 y	39:17	1.40	9.17	J 2.50	-	-	*	3
1,2,3,4,6,7,8-HpCDD	2.55e+06	0.90 y	44:15	1.14	712	2.50	-	-	*	7
OCDD	2.31e+07	0.95 y	49:49	1.22	7550	2.50	-	-	*	3
2,3,7,8-TCDF	*	* n	NotFnd	1.29	*	2.50	256	538	0.745	0
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.93	*	2.50	164	605	1.40	0
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.93	*	2.50	164	605	1.47	0
1,2,3,4,7,8-HxCDF	1.34e+05	1.19 y	37:16	1.07	19.8	J 2.50	-	-	*	4
1,2,3,6,7,8-HxCDF	6.84e+04	1.16 y	37:28	0.97	9.28	J 2.50	-	-	*	7
2,3,4,6,7,8-HxCDF	4.92e+04	1.24 y	38:24	1.04	7.36	J 2.50	-	-	*	4
1,2,3,7,8,9-HxCDF	*	* n	NotFnd	1.15	*	2.50	647	389	2.86	0
1,2,3,4,6,7,8-HpCDF	6.07e+05	1.06 y	42:21	1.37	118	2.50	-	-	*	4
1,2,3,4,7,8,9-HpCDF	5.21e+04	1.03 y	45:11	1.62	12.2	J 2.50	-	-	*	4
OCDF	1.29e+06	0.86 y	50:12	0.85	358	2.50	-	-	*	3
										Rec
13C-2,3,7,8-TCDD	1.06e+07	0.76 y	27:27	0.98	1680					84.0
13C-1,2,3,7,8-PeCDD	9.65e+06	1.61 y	33:17	1.14	1320					65.9
13C-1,2,3,4,7,8-HxCDD	7.19e+06	1.30 y	38:39	1.00	1680					84.0
13C-1,2,3,6,7,8-HxCDD	7.73e+06	1.32 y	38:49	0.89	2030					102
13C-1,2,3,4,6,7,8-HpCDD	6.31e+06	1.03 y	44:14	1.01	1460					73.1
13C-OCDD	1.01e+07	1.02 y	49:48	0.75	3150					78.7
13C-2,3,7,8-TCDF	1.80e+07	0.84 y	26:42	0.93	1610					80.6
13C-1,2,3,7,8-PeCDF	1.47e+07	1.65 y	31:33	0.93	1310					65.6
13C-2,3,4,7,8-PeCDF	1.40e+07	1.67 y	32:52	0.87	1330					66.3
13C-1,2,3,4,7,8-HxCDF	1.26e+07	0.46 y	37:15	1.82	1630					81.4
13C-1,2,3,6,7,8-HxCDF	1.52e+07	0.45 y	37:28	2.01	1770					88.7
13C-2,3,4,6,7,8-HxCDF	1.28e+07	0.45 y	38:24	1.77	1690					84.8
13C-1,2,3,7,8,9-HxCDF	1.06e+07	0.46 y	39:50	1.57	1600					79.9
13C-1,2,3,4,6,7,8-HpCDF	7.50e+06	0.44 y	42:20	1.24	1420					70.9
13C-1,2,3,4,7,8,9-HpCDF	5.27e+06	0.42 y	45:09	0.99	1250					62.3
13C-OCDF	1.69e+07	0.92 y	50:10	1.32	3020					75.5
37Cl-2,3,7,8-TCDD	4.65e+06		27:30	1.10	654					81.9
13C-1,2,3,4-TCDD	1.29e+07	0.77 y	26:53	-	73.6					
13C-1,2,3,4-TCDF	2.42e+07	0.84 y	25:38	-	65.2					
13C-1,2,3,7,8,9-HxCDD	8.51e+06	1.32 y	39:15	-	52.0					
Total Tetra-Dioxins	*		NotFnd	1.12	*	2.50	222	368	1.13	0
Total Penta-Dioxins	*		NotFnd	1.07	*	2.50	629	420	2.70	0
Total Hexa-Dioxins	4.08e+05		36:12	1.38	78.8	2.50	-	-	*	6
Total Hepta-Dioxins	4.37e+06		42:52	1.14	1220	2.50	-	-	*	2
Total Tetra-Furans	2.14e+05		25:52	1.29	18.4	D,M 2.50	-	-	*	3
1st Fn. Tot Penta-Furans	8.57e+04		28:31	0.93	12.8	D,M 2.50	-	-	*	PeCDF 1
Total Penta-Furans	3.11e+05		30:19	0.93	46.6	D,M 2.50	-	-	*	59.5 4
Total Hexa-Furans	1.71e+06		35:19	1.05	252	D,M 2.50	-	-	*	7
Total Hepta-Furans	2.05e+06		42:21	1.48	424	2.50	-	-	*	3

Analyst: 

Date: 5/7/10

Totals class: Total Hexa-Dioxins

Entry #: 40

Run: 14

File: 06MAY10M

S: 8 I: 1 F: 3

Acquired: 6-MAY-10 19:22:39

Total Concentration: 78.8

Unnamed Concentration: 48.531

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
36:12	3.93e+04	3.22e+04	1.22 y	7.15e+04	13.8	
37:09	1.44e+04	1.05e+04	1.37 y	2.49e+04	4.82	
37:34	8.79e+04	6.65e+04	1.32 y	1.54e+05	29.9	
38:40	1.40e+04	1.28e+04	1.09 y	2.68e+04	5.35	1,2,3,4,7,8-HxCDD
38:50	4.52e+04	3.77e+04	1.20 y	8.29e+04	15.8	1,2,3,6,7,8-HxCDD
39:17	2.67e+04	2.13e+04	1.25 y	4.80e+04	9.17	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 14

File: 06MAY10M

S: 8 I: 1 F: 4

Acquired: 6-MAY-10 19:22:39

Total Concentration: 1220

Unnamed Concentration: 505.072

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:52	8.62e+05	9.50e+05	0.91 y	1.81e+06	505	
44:15	1.21e+06	1.34e+06	0.90 y	2.55e+06	712	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans

Entry #: 42

Run: 14

File: 06MAY10M

S: 8 I: 1 F: 1

Acquired: 6-MAY-10 19:22:39

Total Concentration: 18.4

Unnamed Concentration: 18.379

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
25:52	1.07e+04	1.60e+04	0.67 y	2.67e+04	2.30	
27:58	4.79e+04	7.31e+04	0.66 y	1.21e+05	10.4	
28:09	2.61e+04	3.97e+04	0.66 y	6.58e+04	5.66	

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

Run: 14 File: 06MAY10M S: 8 I: 1 F: 1
Acquired: 6-MAY-10 19:22:39

Total Concentration: 12.8 Unnamed Concentration: 12.843

RT	ml Resp	m2 Resp RA	Resp	Concentration	Name
28:31	5.11e+04	3.46e+04 1.48 y	8.57e+04	12.8	

Totals class: Total Penta-Furans

Entry #: 44

Run: 14

File: 06MAY10M

S: 8 I: 1 F: 2

Acquired: 6-MAY-10 19:22:39

Total Concentration: 46.6

Unnamed Concentration: 46.617

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:19	3.59e+04	2.56e+04	1.41 y	6.15e+04	9.22	
31:51	8.96e+04	5.66e+04	1.58 y	1.46e+05	21.9	
32:10	3.26e+04	2.22e+04	1.47 y	5.48e+04	8.21	
34:11	2.89e+04	1.97e+04	1.47 y	4.86e+04	7.29	

Totals class: Total Hexa-Furans

Entry #: 45

Run: 14

File: 06MAY10M

S: 8 I: 1 F: 3

Acquired: 6-MAY-10 19:22:39

Total Concentration: 252

Unnamed Concentration: 215.998

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:19	4.40e+04	3.43e+04	1.28 y	7.84e+04	11.6	
35:35	1.72e+05	1.40e+05	1.23 y	3.12e+05	46.3	
36:30	2.69e+05	2.22e+05	1.21 y	4.91e+05	72.8	
37:16	7.26e+04	6.11e+04	1.19 y	1.34e+05	19.8	1,2,3,4,7,8-HxCDF
37:28	3.67e+04	3.17e+04	1.16 y	6.84e+04	9.28	1,2,3,6,7,8-HxCDF
38:11	3.23e+05	2.53e+05	1.28 y	5.75e+05	85.3	
38:24	2.73e+04	2.19e+04	1.24 y	4.92e+04	7.36	2,3,4,6,7,8-HxCDF

Totals class: Total Hepta-Furans

Entry #: 46

Run: 14

File: 06MAY10M

S: 8 I: 1 F: 4

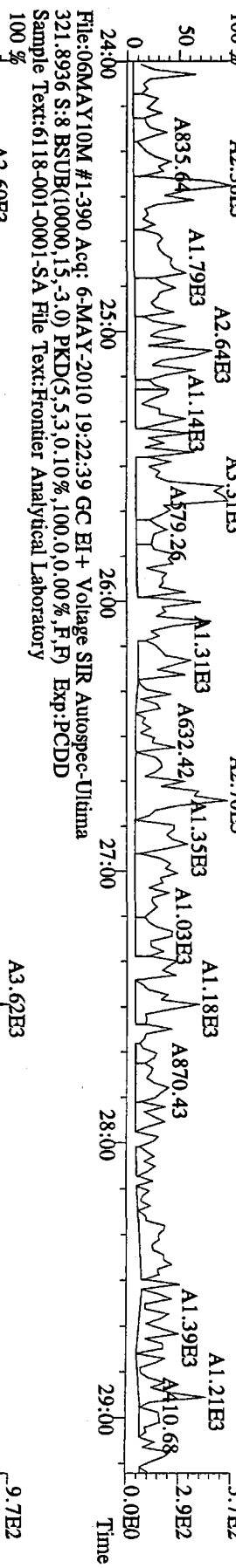
Acquired: 6-MAY-10 19:22:39

Total Concentration: 424

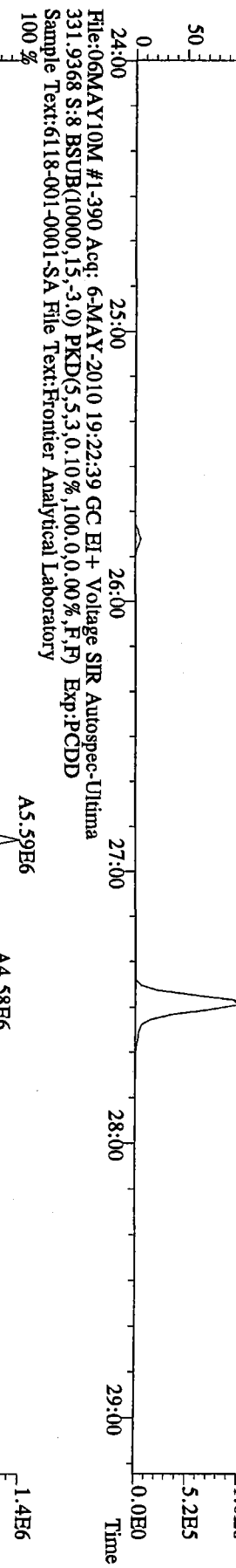
Unnamed Concentration: 293.490

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:21	3.13e+05	2.95e+05	1.06 y	6.07e+05	118	1,2,3,4,6,7,8-HpCDF
43:11	7.25e+05	6.62e+05	1.10 y	1.39e+06	293	
45:11	2.64e+04	2.57e+04	1.03 y	5.21e+04	12.2	1,2,3,4,7,8,9-HpCDF

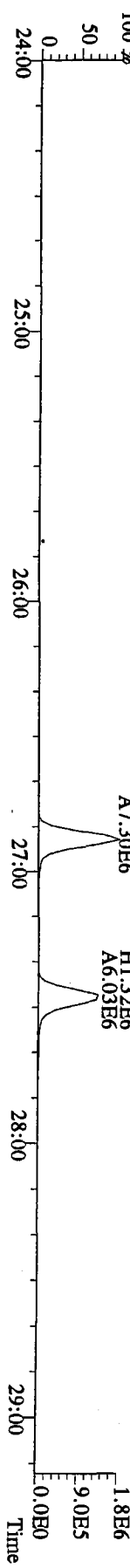
File:06MAY10M #1-390 Acq: 6-MAY-2010 19:22:39 GC EI + Voltage SIR Autospec-Ultima
 319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-390 Acq: 6-MAY-2010 19:22:39 GC EI + Voltage SIR Autospec-Ultima
 321.8936 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory

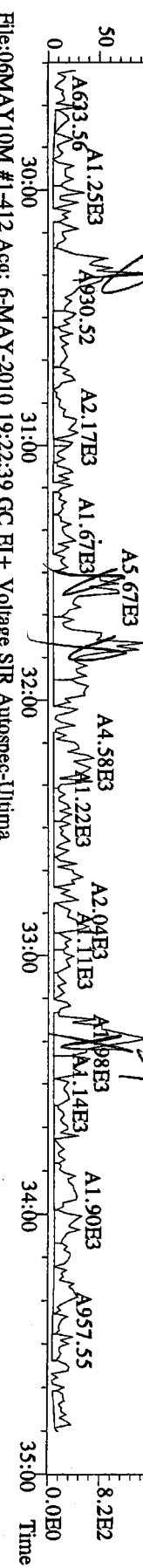


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 331.9368 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
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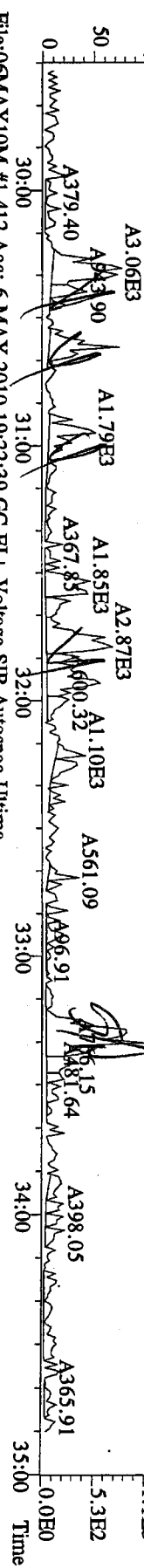


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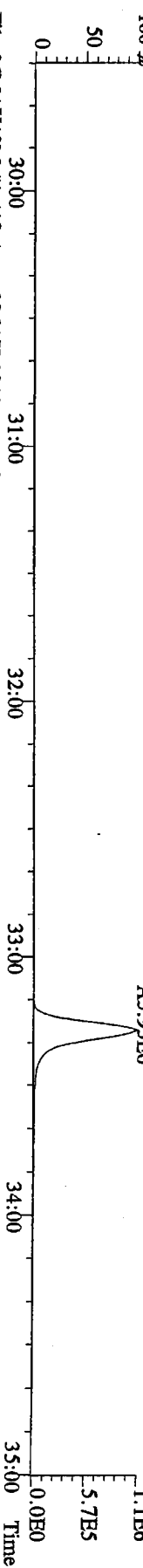
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 355.8546 S:8 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
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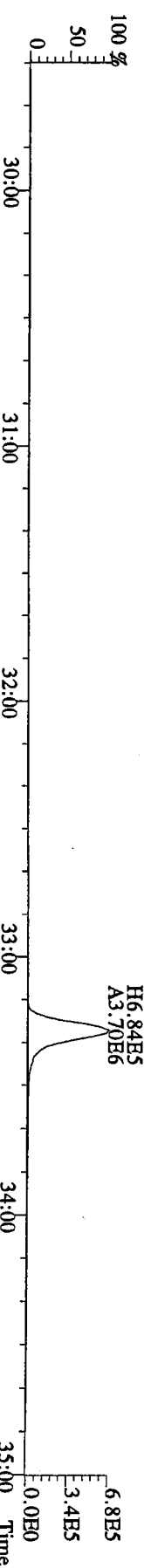
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 357.8517 S:8 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
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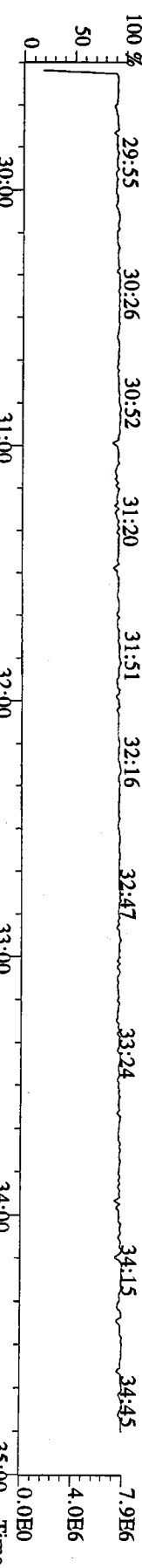
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 367.8919 S:8 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-412 Acq: 6-MAY-2010 19:22:39 GC EI + Voltage SIR Autospec-Ultima
 366.9792 S:8 F:2 Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory

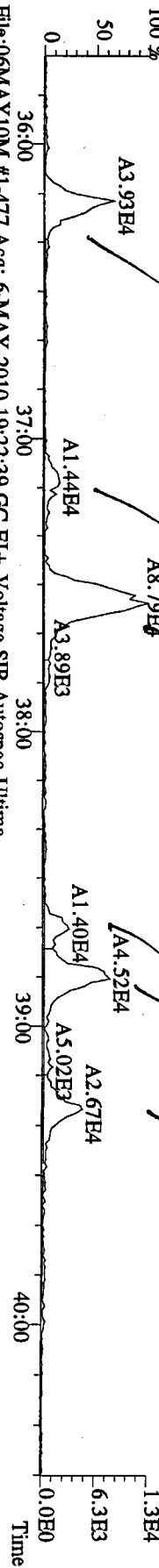


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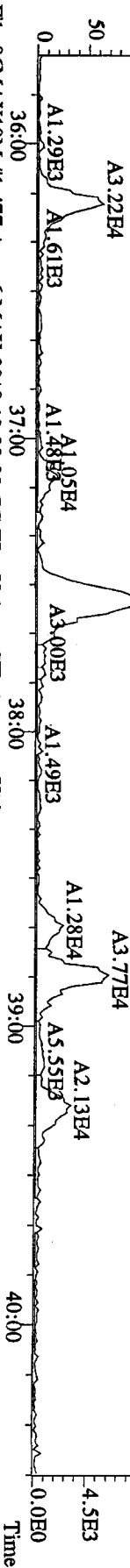


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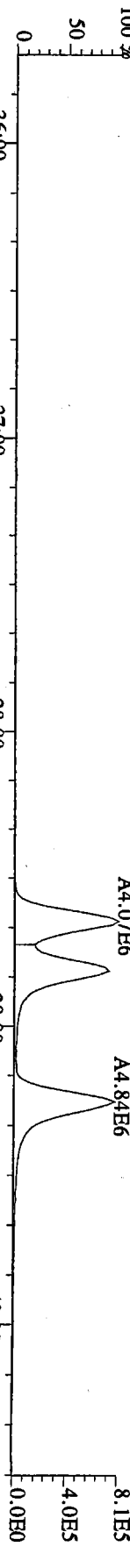
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 389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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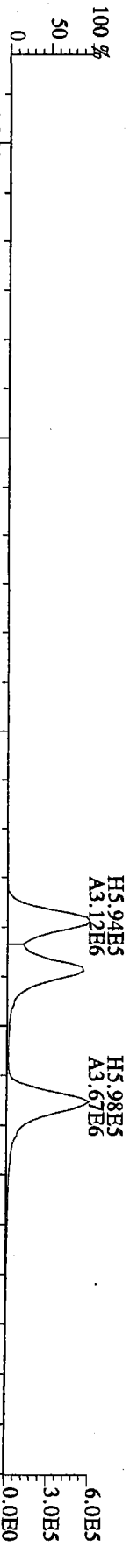
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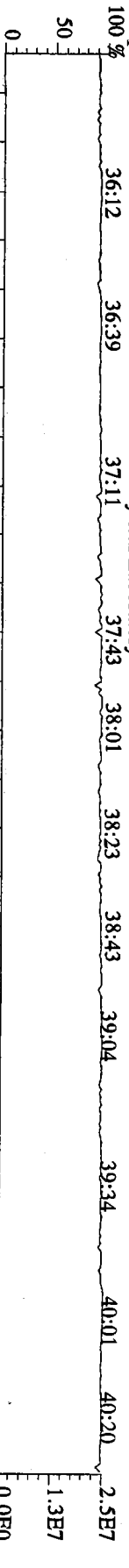
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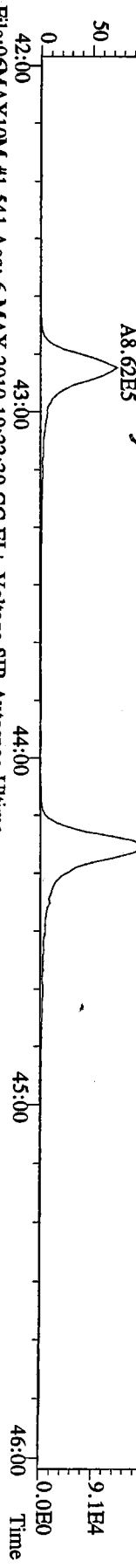
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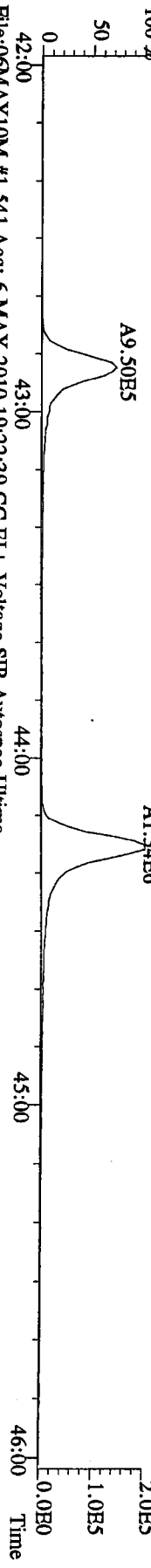
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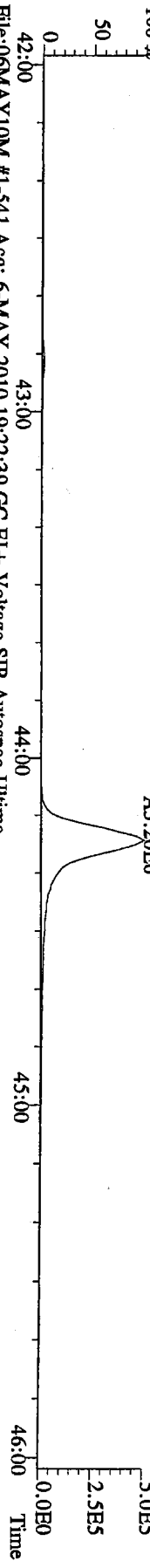
File:06MAY10M #1-541 Acq: 6-MAY-2010 19:22:39 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



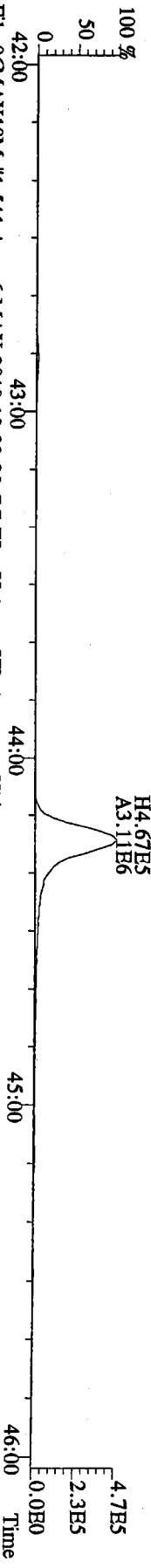
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425.7737 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



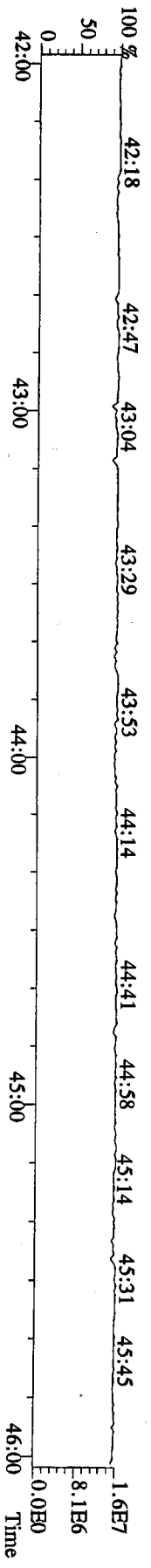
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435.8169 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



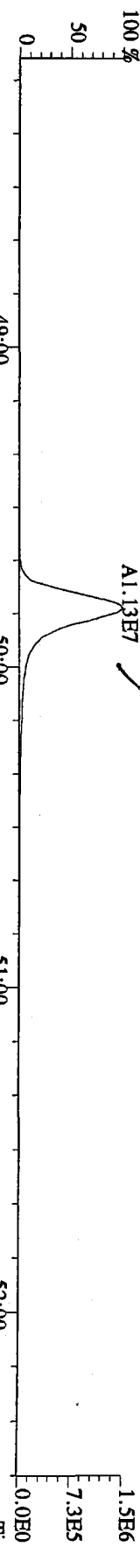
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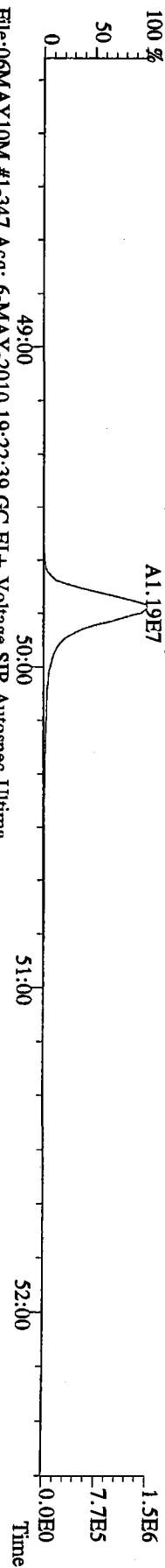
File:06MAY10M #1-541 Acq: 6-MAY-2010 19:22:39 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:8 F:4 Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



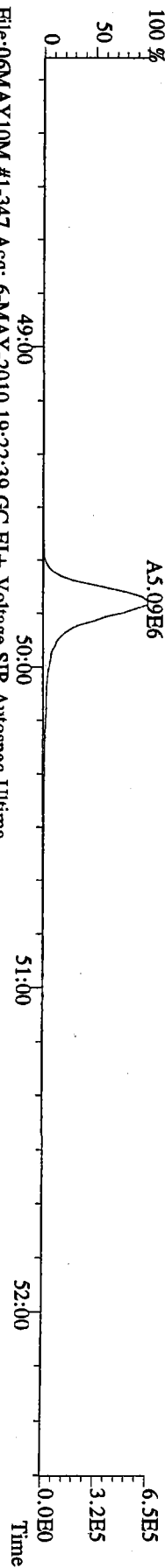
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457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



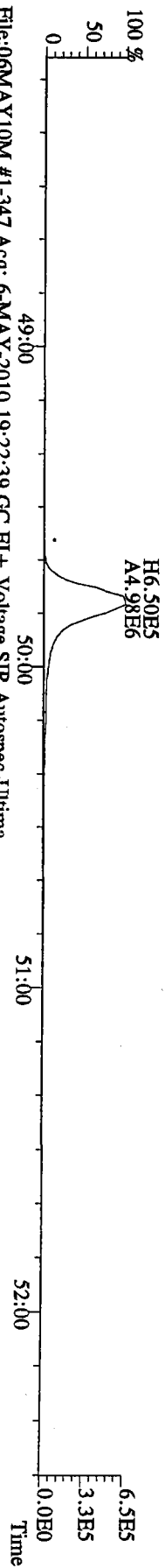
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459.7348 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
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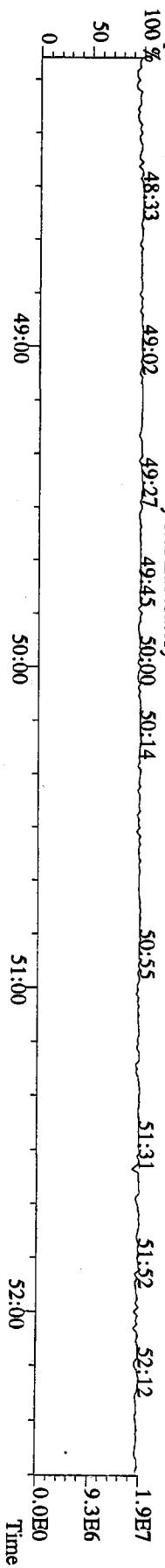
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469.7780 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
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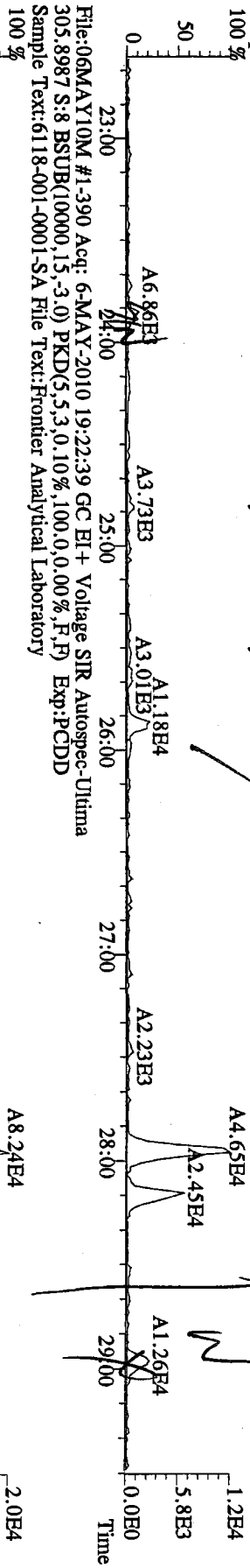
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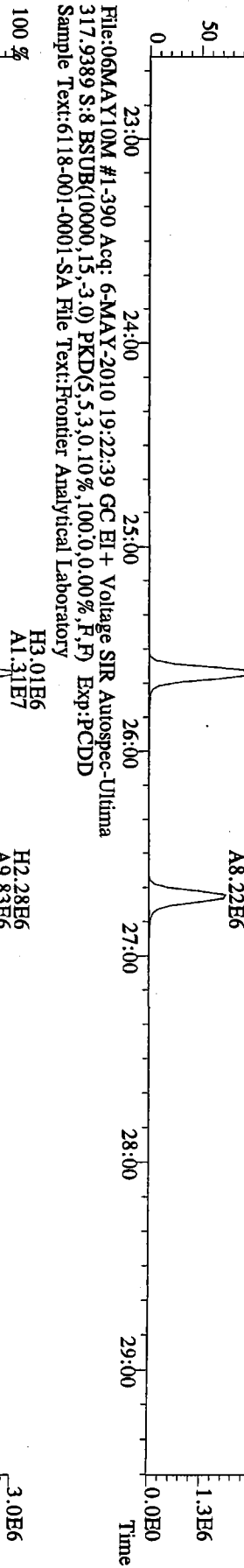
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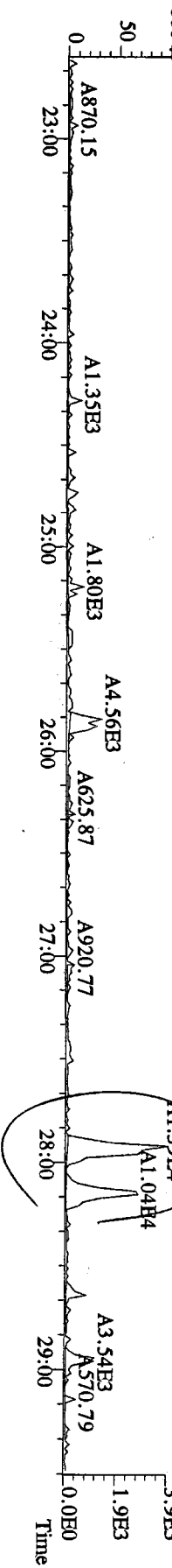
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303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



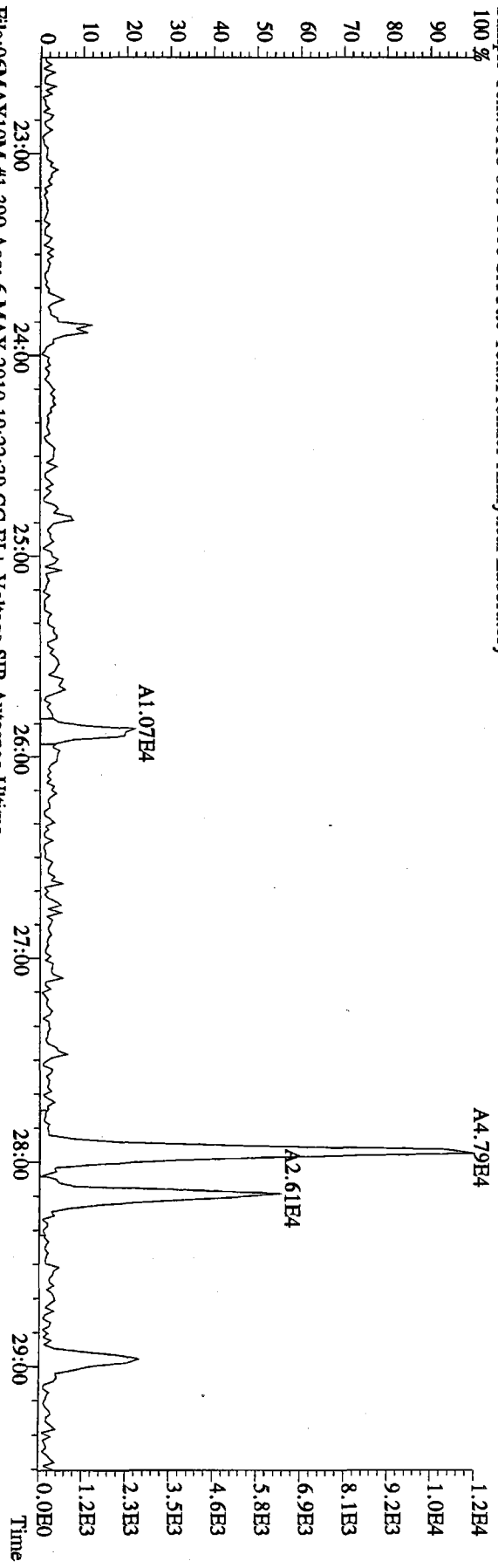
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315.9419 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
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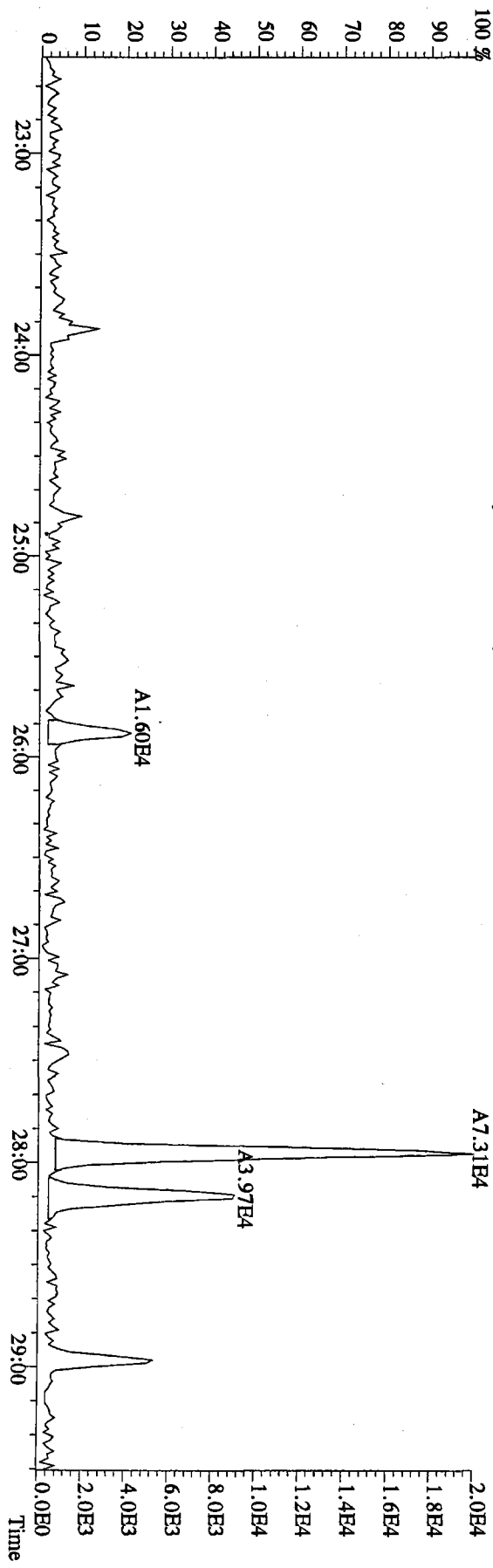
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375.8364 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
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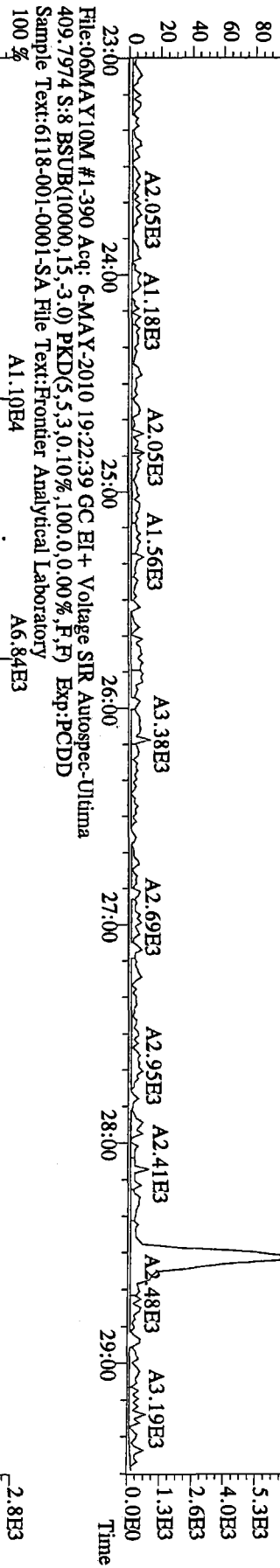
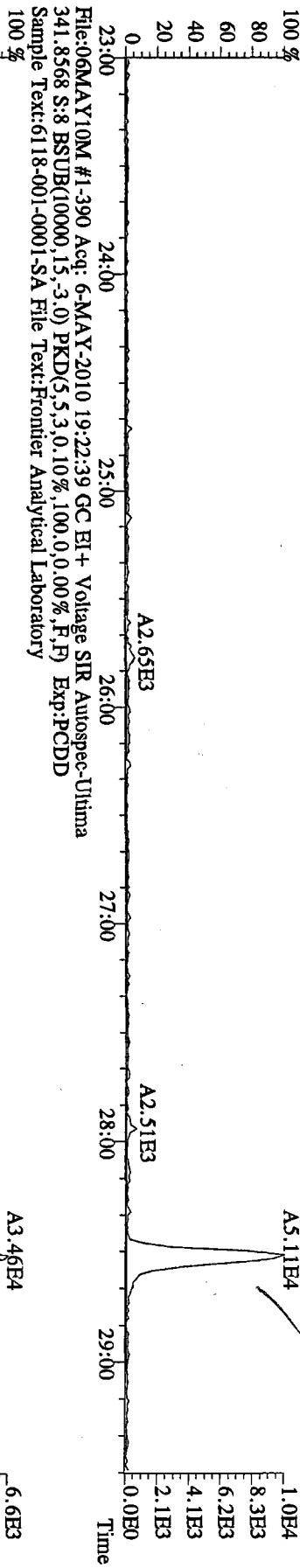
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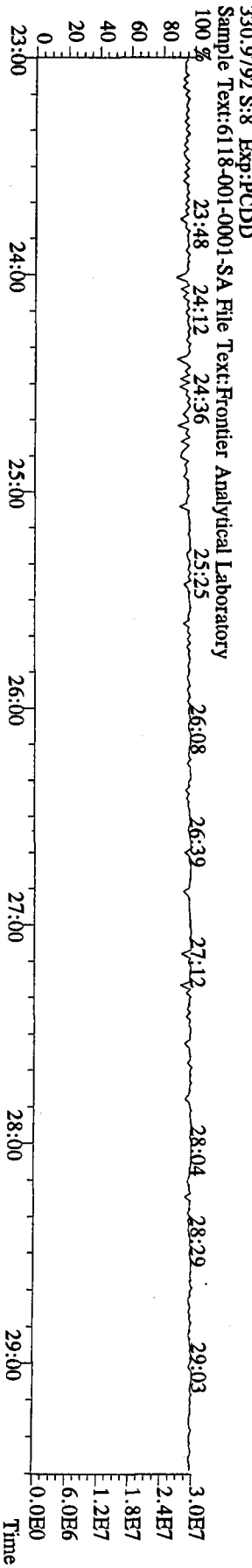
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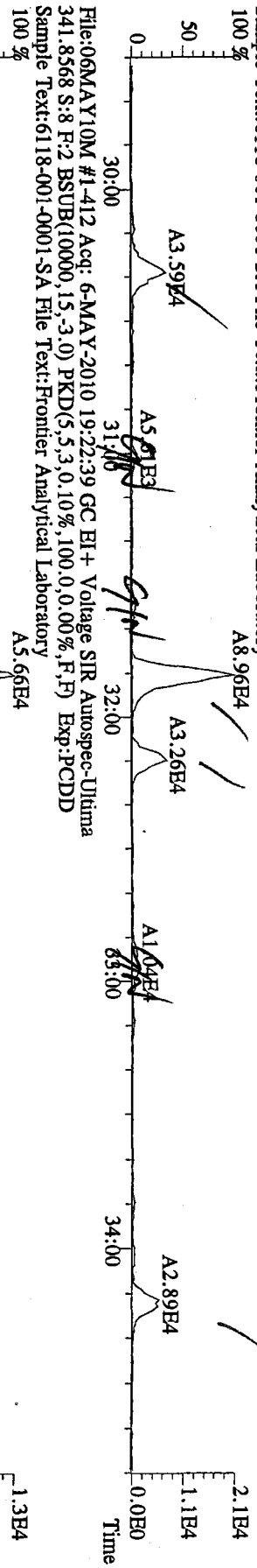
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 339.8597 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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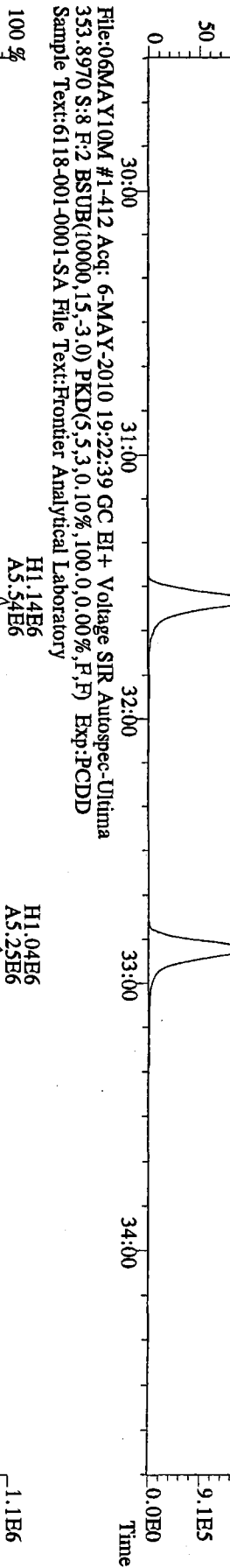
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 409.7974 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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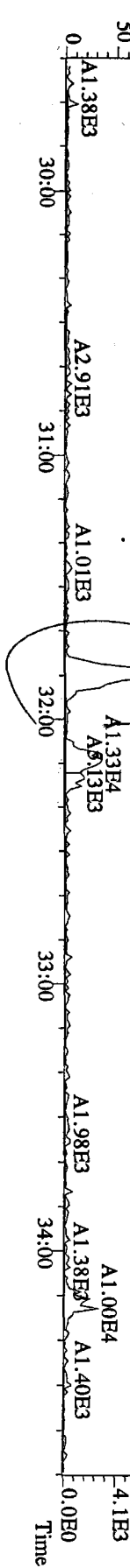
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339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



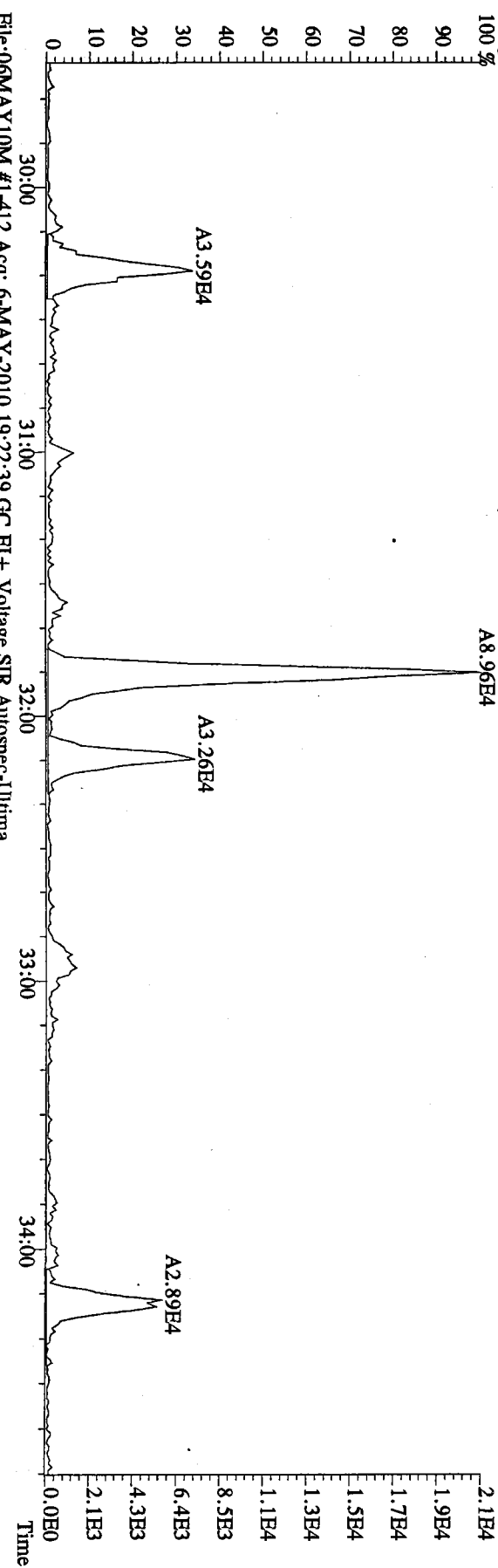
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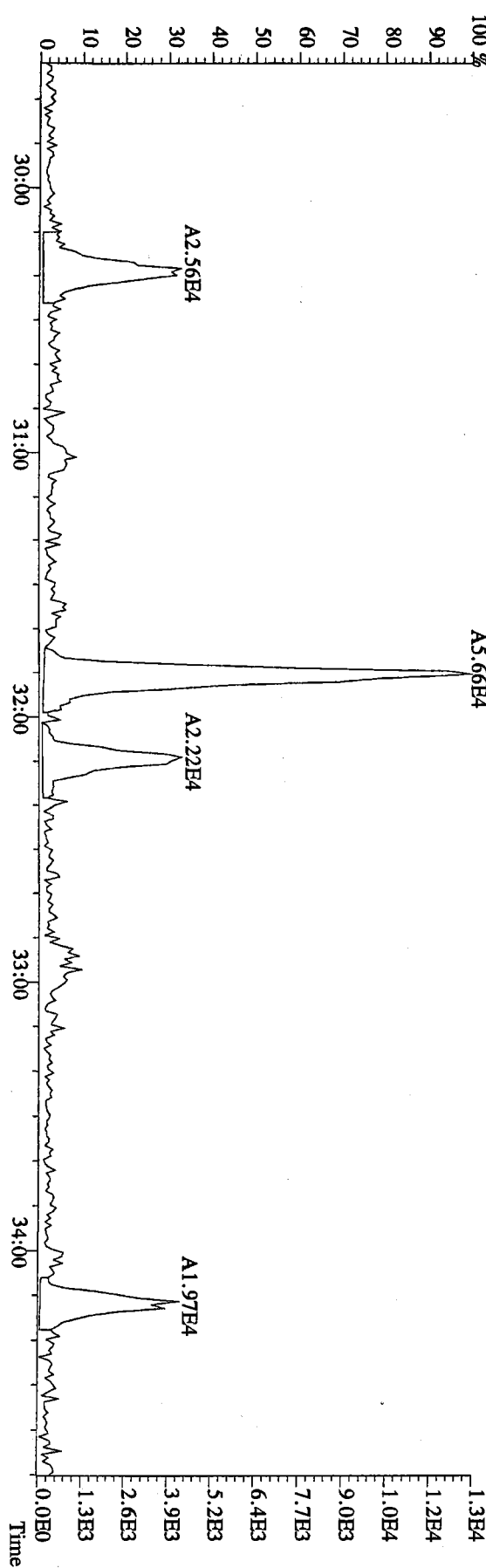
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Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



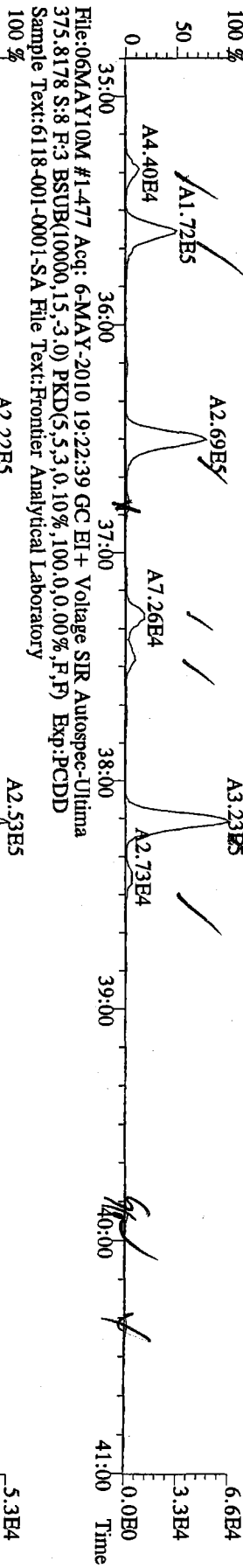
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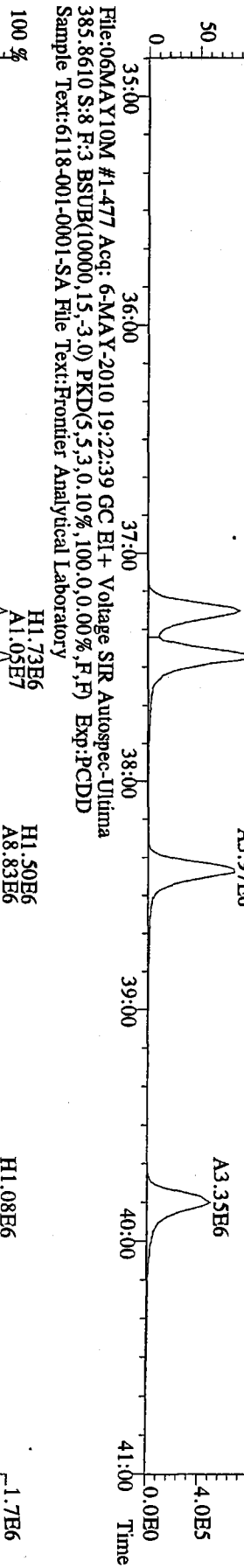
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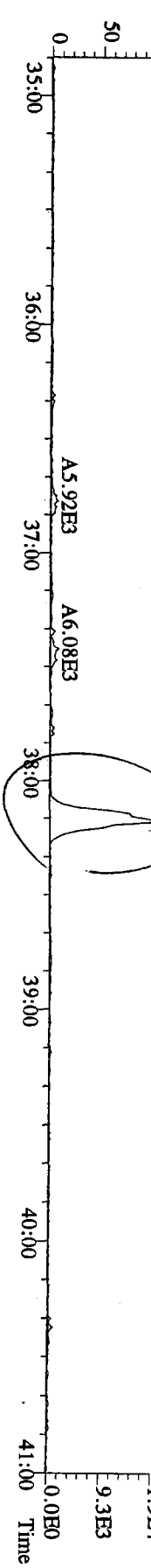
File:06MAY10M #1-477 Acq: 6-MAY-2010 19:22:39 GC EI + Voltage SIR Autospec-Ultima
 373.8207 S:8 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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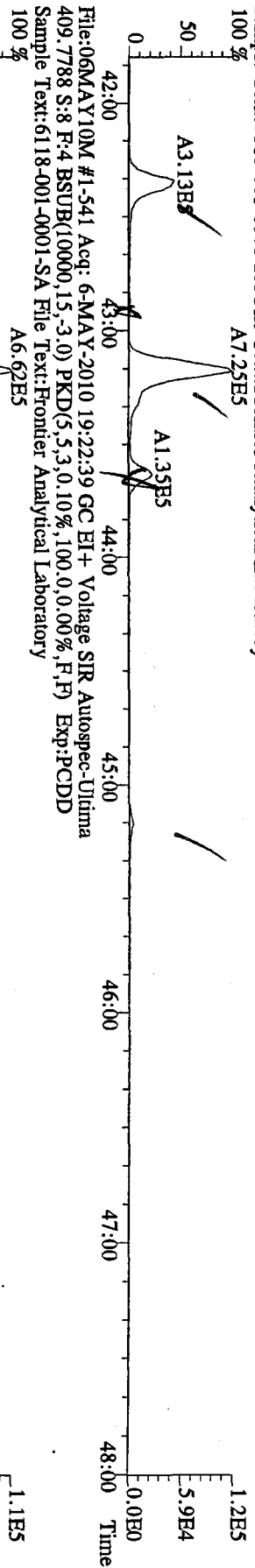
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 383.8639 S:8 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



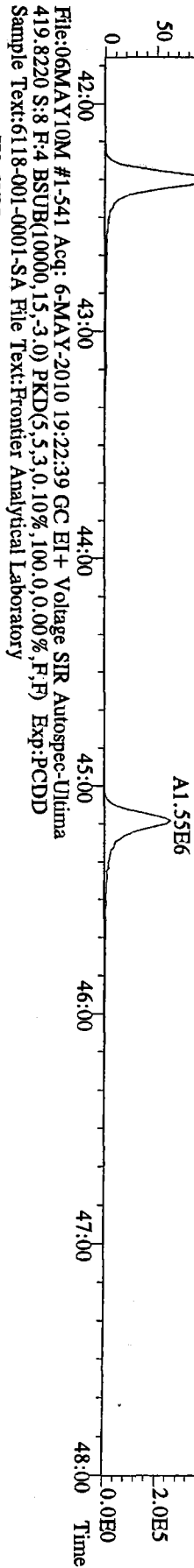
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 445.7555 S:8 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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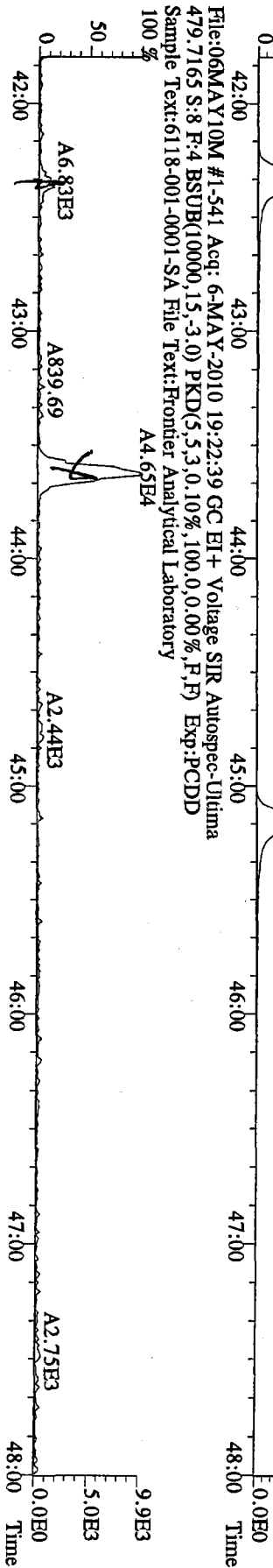
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407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory
100 %



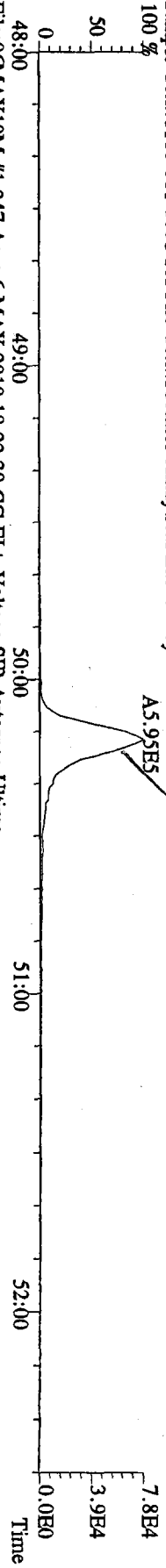
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417.8253 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory
100 %



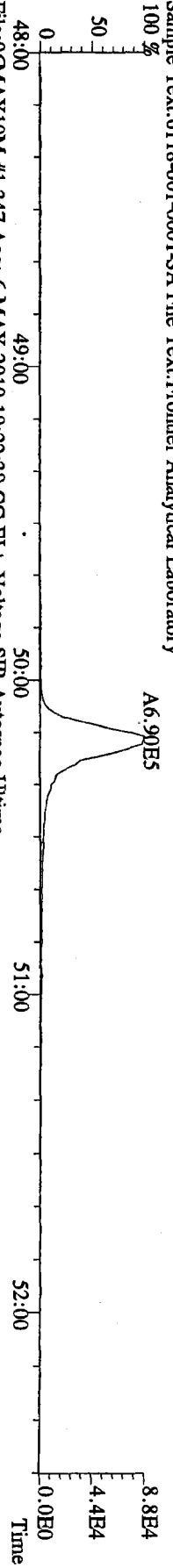
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479.7165 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory
100 %



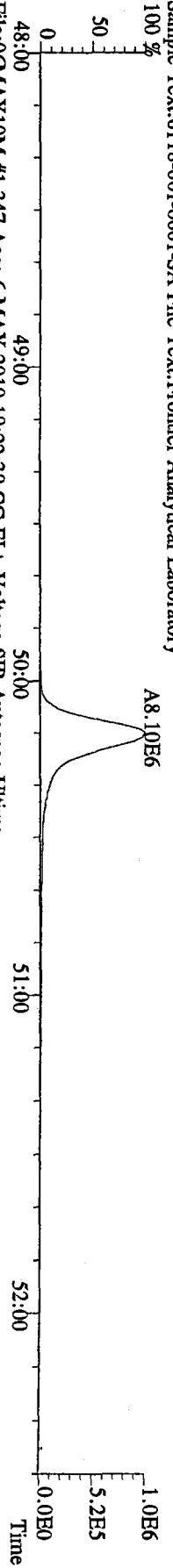
File:06MAY10M #1-347 Acq: 6-MAY-2010 19:22:39 GC EI + Voltage SIR Autospec-Ultima
 441.7428 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



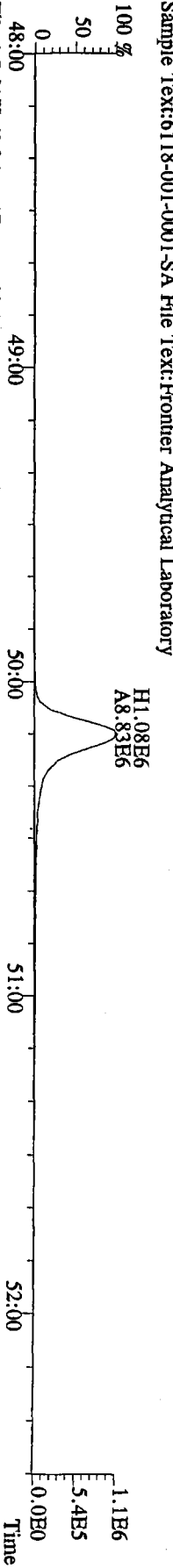
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 443.7398 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



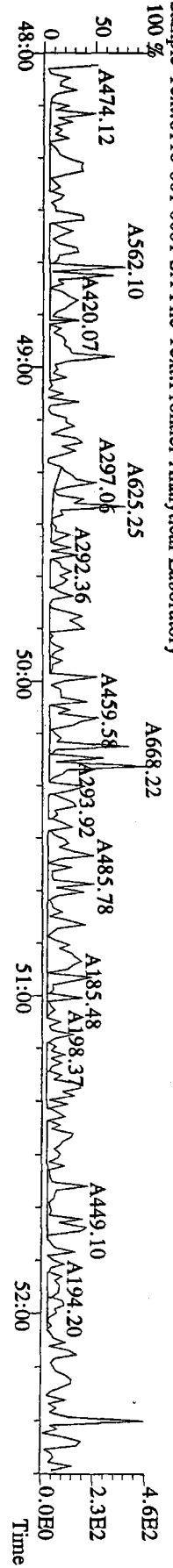
File:06MAY10M #1-347 Acq: 6-MAY-2010 19:22:39 GC EI + Voltage SIR Autospec-Ultima
 453.7831 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 6-MAY-2010 19:22:39 GC EI + Voltage SIR Autospec-Ultima
 455.7801 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 6-MAY-2010 19:22:39 GC EI + Voltage SIR Autospec-Ultima
 513.6775 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-001-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 6118-002-0001-SA Filename: 06MAY10M Sam:10 Acquired: 6-MAY-10 21:13:17 ICal: PCDDFAL3-4-14-10
 Client ID: CB1042110COMP ConCal: ST050610M1 EndCal: ST050610M2
 Results: 6118 GC Column: DB5 Amount: 1.043 NATO 1989 Tox: 0.366

WHO 1998 Tox: 0.231 WHO 2005 Tox: 0.261

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	#Hom	
2,3,7,8-TCDD	*	* n	NotFnd	1.12	*		2.50	317	362	1.45	
1,2,3,7,8-PeCDD	*	* n	NotFnd	1.07	*		2.50	484	138	1.77	
1,2,3,4,7,8-HxCDD	*	* n	NotFnd	1.39	*		2.50	282	364	2.12	
1,2,3,6,7,8-HxCDD	*	* n	NotFnd	1.36	*		2.50	282	364	2.49	
1,2,3,7,8,9-HxCDD	*	* n	NotFnd	1.40	*		2.50	282	364	2.25	
1,2,3,4,6,7,8-HpCDD	4.96e+04	0.91 y	44:16	1.14	18.5	J	2.50	-	-	*	
OCDD	3.21e+05	0.97 y	49:49	1.22	150		2.50	-	-	*	
2,3,7,8-TCDF	*	* n	NotFnd	1.29	*		2.50	237	561	0.904	
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.93	*		2.50	284	306	1.21	
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.93	*		2.50	284	306	1.27	
1,2,3,4,7,8-HxCDF	*	* n	NotFnd	1.07	*		2.50	472	447	2.48	
1,2,3,6,7,8-HxCDF	*	* n	NotFnd	0.97	*		2.50	472	447	2.47	
2,3,4,6,7,8-HxCDF	*	* n	NotFnd	1.04	*		2.50	472	447	2.59	
1,2,3,7,8,9-HxCDF	*	* n	NotFnd	1.15	*		2.50	472	447	3.31	
1,2,3,4,6,7,8-HpCDF	1.17e+04	1.15 y	42:21	1.37	3.09	J	2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	*	* n	NotFnd	1.62	*		2.50	198	157	1.74	
OCDF	*	* n	NotFnd	0.85	*		2.50	435	454	6.91	
Rec											
13C-2,3,7,8-TCDD	8.52e+06	0.76 y	27:28	0.98	1090					56.6	
13C-1,2,3,7,8-PeCDD	7.91e+06	1.70 y	33:17	1.14	871					45.4	
13C-1,2,3,4,7,8-HxCDD	5.27e+06	1.34 y	38:38	1.00	1070					55.8	
13C-1,2,3,6,7,8-HxCDD	5.23e+06	1.28 y	38:48	0.89	1190					62.3	
13C-1,2,3,4,6,7,8-HpCDD	4.53e+06	1.04 y	44:14	1.01	912					47.5	
13C-OCDD	6.74e+06	0.95 y	49:47	0.75	1830					47.7	
13C-2,3,7,8-TCDF	1.41e+07	0.87 y	26:43	0.93	1080					56.2	
13C-1,2,3,7,8-PeCDF	1.20e+07	1.70 y	31:33	0.93	915					47.7	
13C-2,3,4,7,8-PeCDF	1.16e+07	1.65 y	32:52	0.87	934					48.7	
13C-1,2,3,4,7,8-HxCDF	9.02e+06	0.46 y	37:15	1.82	1010					52.6	
13C-1,2,3,6,7,8-HxCDF	1.07e+07	0.47 y	37:27	2.01	1080					56.4	
13C-2,3,4,6,7,8-HxCDF	9.10e+06	0.46 y	38:24	1.77	1050					54.5	
13C-1,2,3,7,8,9-HxCDF	7.42e+06	0.47 y	39:49	1.57	967					50.4	
13C-1,2,3,4,6,7,8-HpCDF	5.32e+06	0.44 y	42:20	1.24	873					45.5	
13C-1,2,3,4,7,8,9-HpCDF	3.77e+06	0.44 y	45:09	0.99	774					40.4	
13C-OCDF	1.11e+07	0.94 y	50:10	1.32	1710					44.7	
37Cl-2,3,7,8-TCDD	4.08e+06		27:29	1.10	464					60.4	
13C-1,2,3,4-TCDD	1.53e+07	0.77 y	26:53	-	84.0						
13C-1,2,3,4-TCDF	2.72e+07	0.86 y	25:38	-	70.3						
13C-1,2,3,7,8,9-HxCDD	9.40e+06	1.28 y	39:15	-	55.1						
Total Tetra-Dioxins	*		NotFnd	1.12	*		2.50	317	362	1.45	0
Total Penta-Dioxins	*		NotFnd	1.07	*		2.50	484	138	1.77	0
Total Hexa-Dioxins	*		NotFnd	1.38	*		2.50	282	364	2.49	0
Total Hepta-Dioxins	1.06e+05		42:53	1.14	39.5		2.50	-	-	*	2
Total Tetra-Furans	*		NotFnd	1.29	*		2.50	237	561	0.904	0
1st Fn. Tot Penta-Furans	*		NotFnd	0.93	*		2.50	284	306	1.27	PeCDF 0
Total Penta-Furans	*		NotFnd	0.93	*		2.50	284	306	1.27	* 0
Total Hexa-Furans	*		NotFnd	1.05	*		2.50	472	477	3.31	0
Total Hepta-Furans	2.65e+04		42:21	1.48	7.31	J	2.50	-	-	*	2

Analyst:  Date: 5/7/10

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 16

File: 06MAY10M

S: 10 I: 1 F: 4

Acquired: 6-MAY-10 21:13:17

Total Concentration: 39.5

Unnamed Concentration: 20.985

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:53	2.81e+04	2.82e+04	1.00 y	5.63e+04	21.0	
44:16	2.36e+04	2.60e+04	0.91 y	4.96e+04	18.5	1,2,3,4,6,7,8-HpCDD

Totals class: Total Hepta-Furans

Entry #: 46

Run: 16

File: 06MAY10M

S: 10 I: 1 F: 4

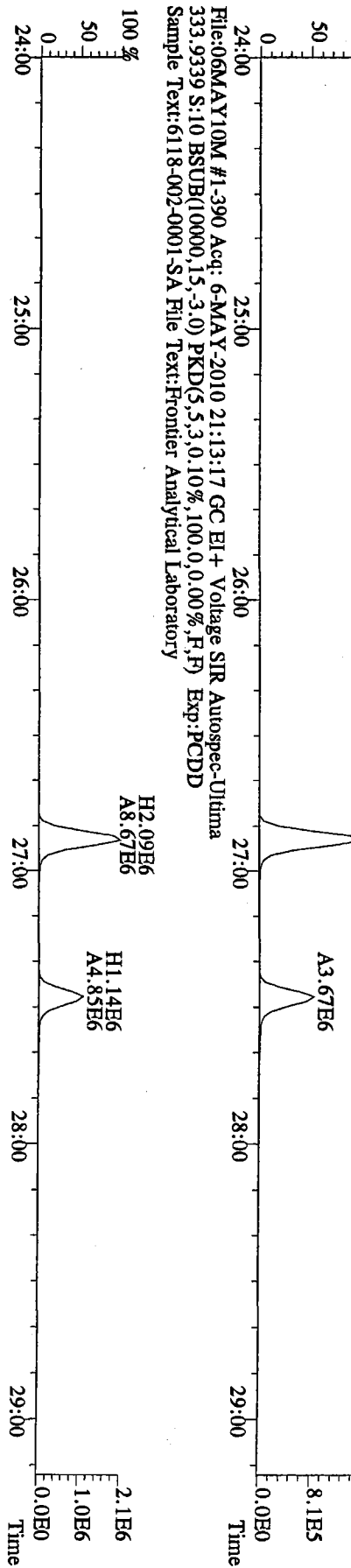
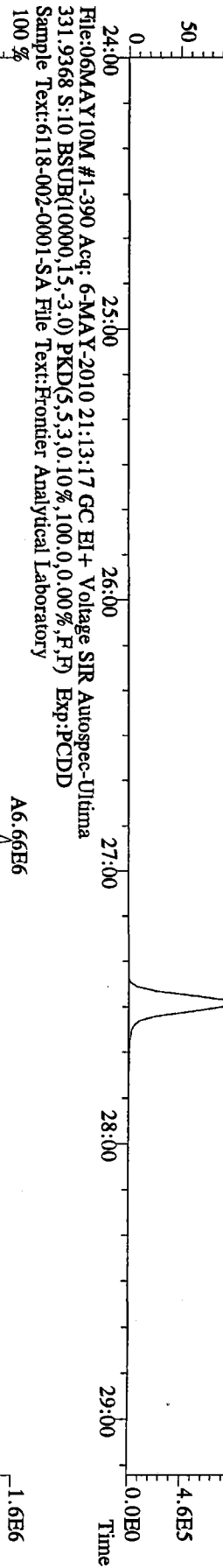
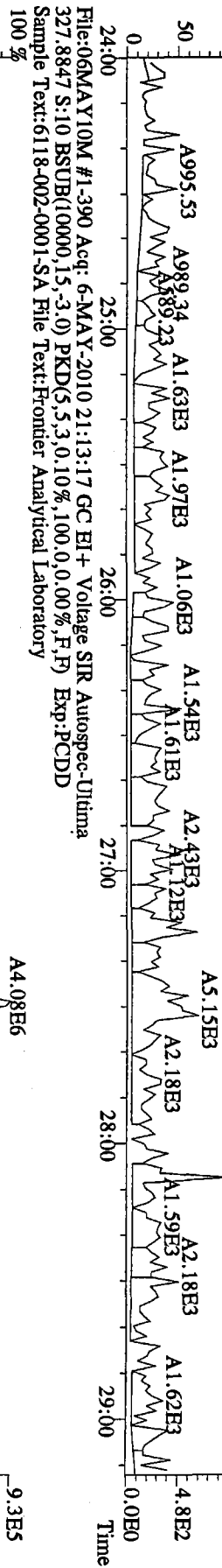
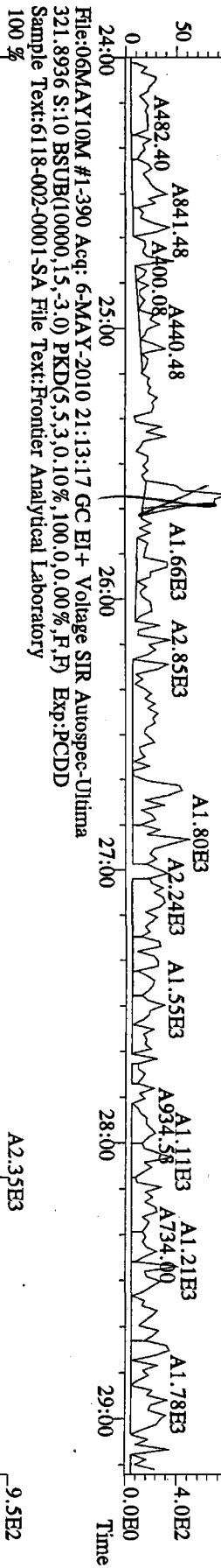
Acquired: 6-MAY-10 21:13:17

Total Concentration: 7.31

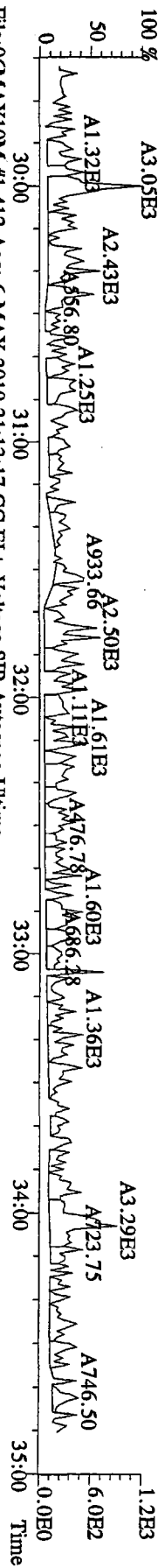
Unnamed Concentration: 4.219

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:21	6.26e+03	5.46e+03	1.15 y	1.17e+04	3.09	1,2,3,4,6,7,8-HpCDF
43:10	7.05e+03	7.74e+03	0.91 y	1.48e+04	4.22	

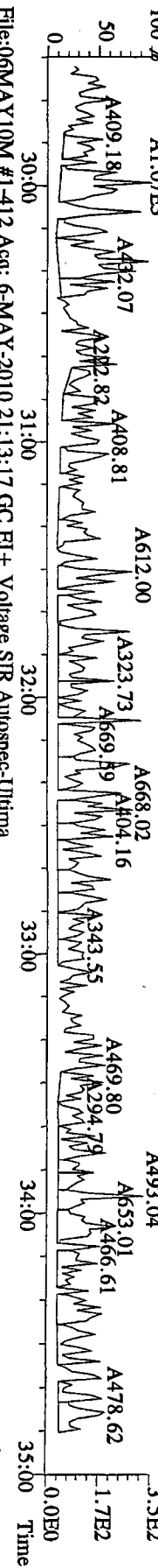
File:06MAY10M #1-390 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
 319.8965 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



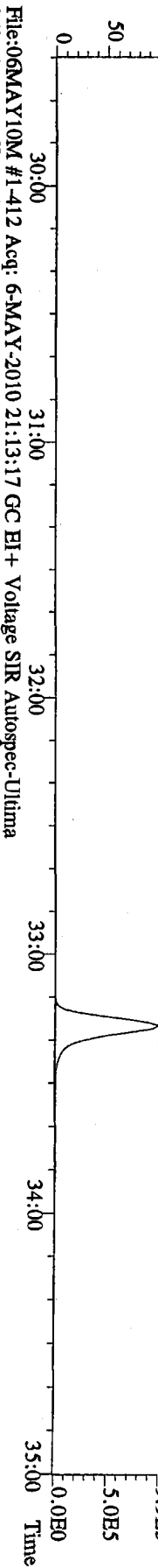
File:06MAY10M #1-412 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
 355.8546 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



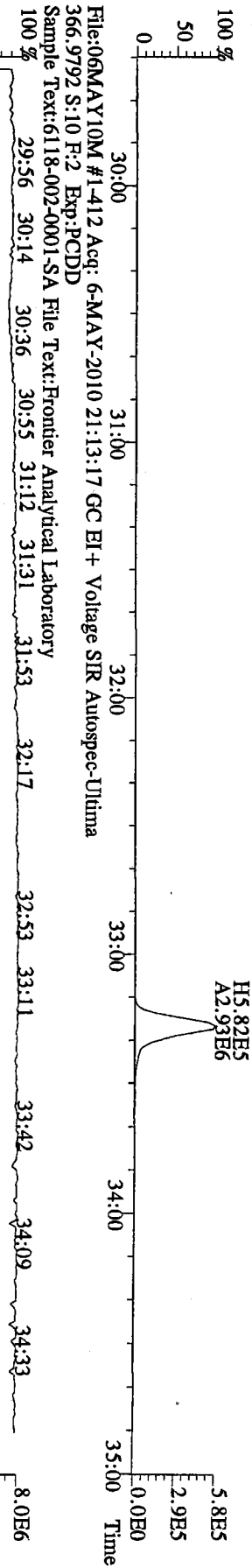
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 357.8517 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-412 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
 367.8949 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



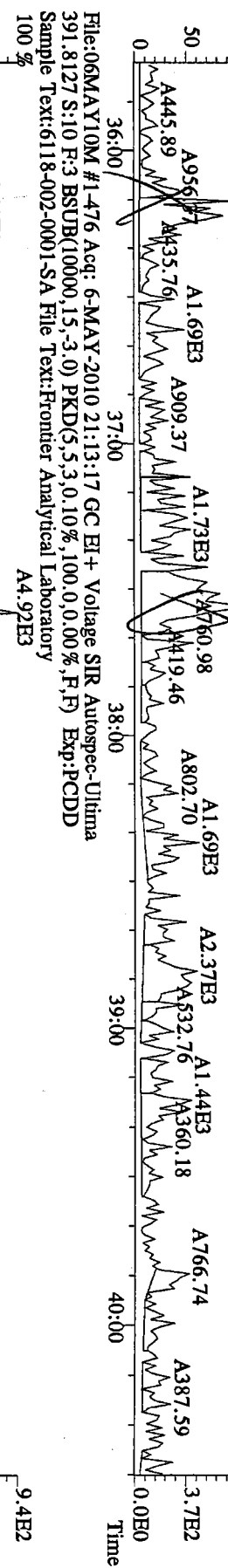
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 369.8919 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



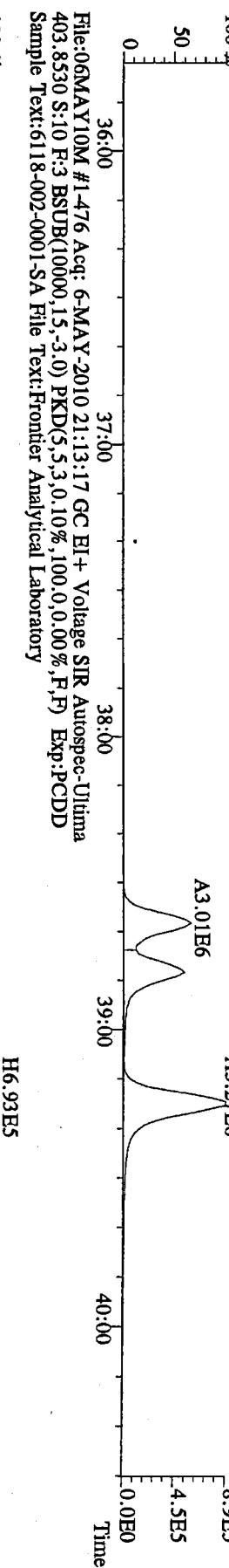
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 366.9792 S:10 F:2 Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory

INSTRUMENT

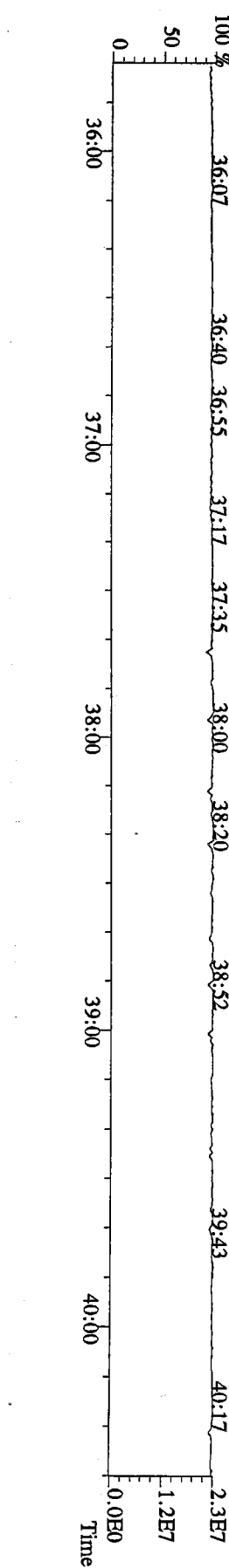
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 389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



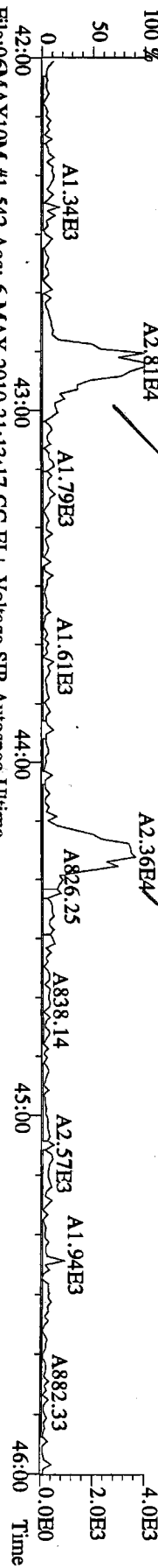
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 401.8559 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



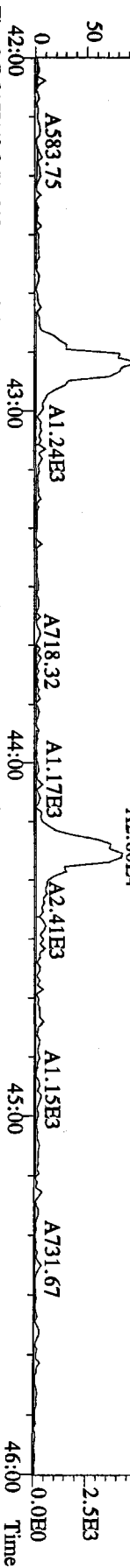
File:06MAY10M #1-476 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
 380.9760 S:10 F:3 Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



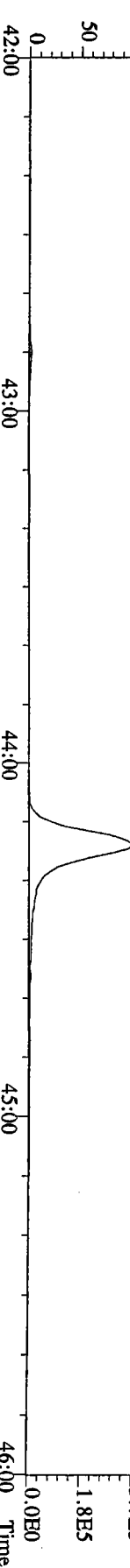
File:06MAY10M #1-542 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



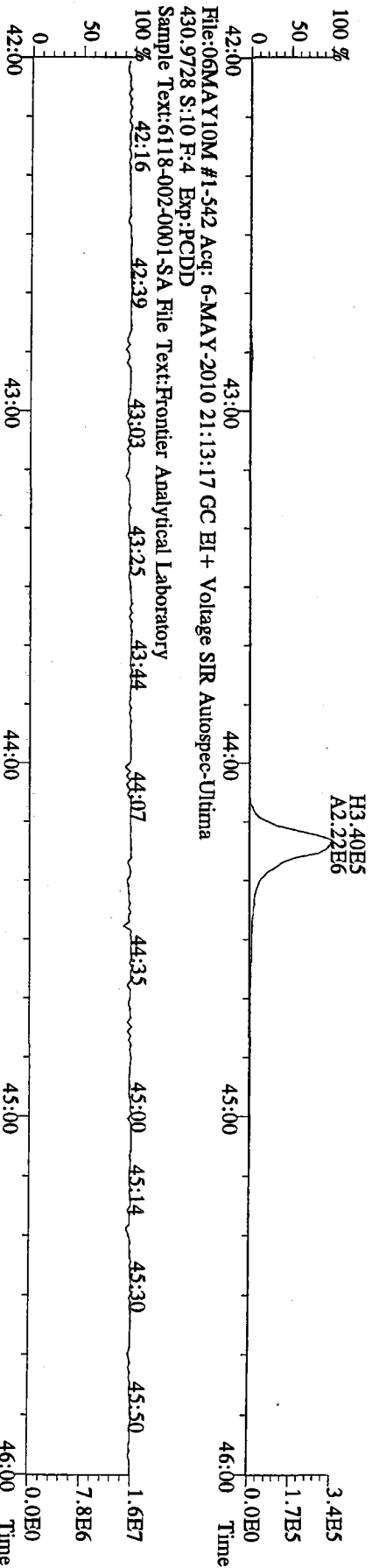
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425.7737 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



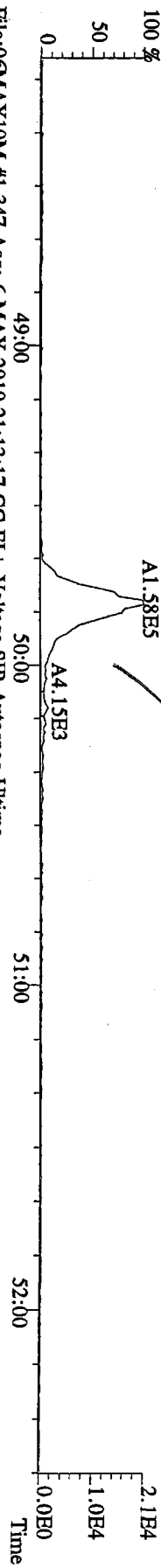
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437.8140 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



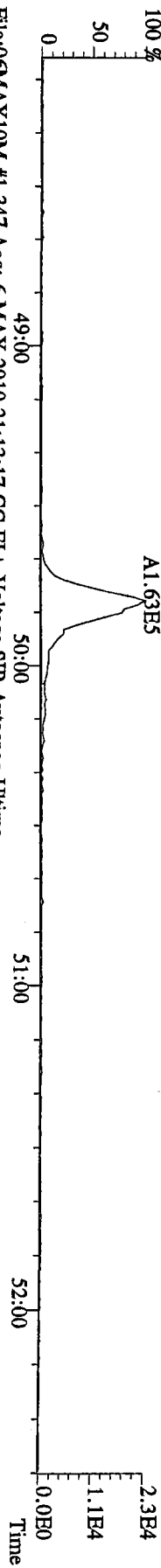
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Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



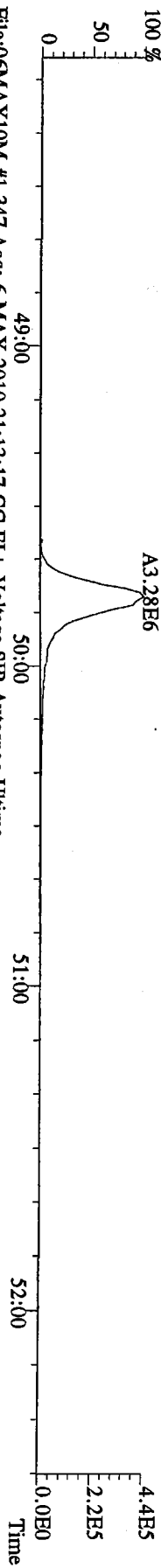
File:06MAY10M #1-347 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
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 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



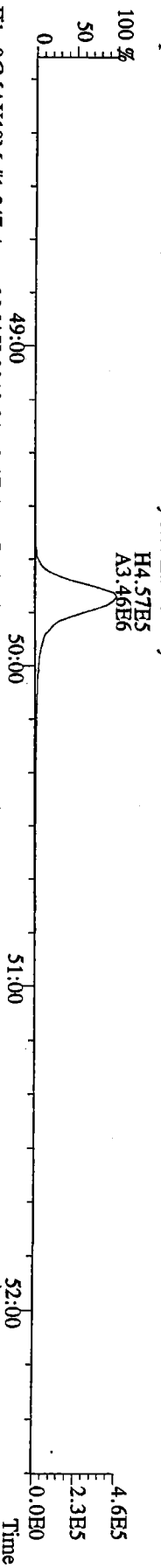
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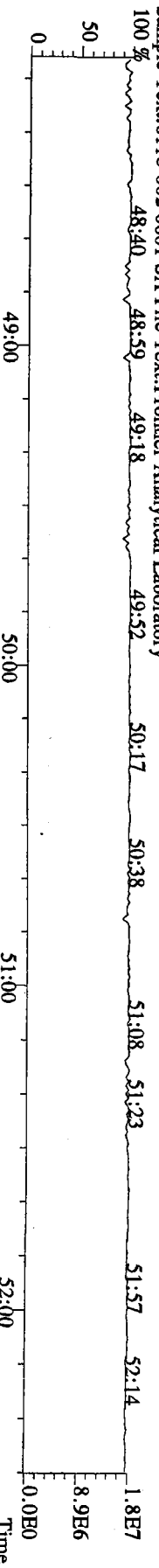
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 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



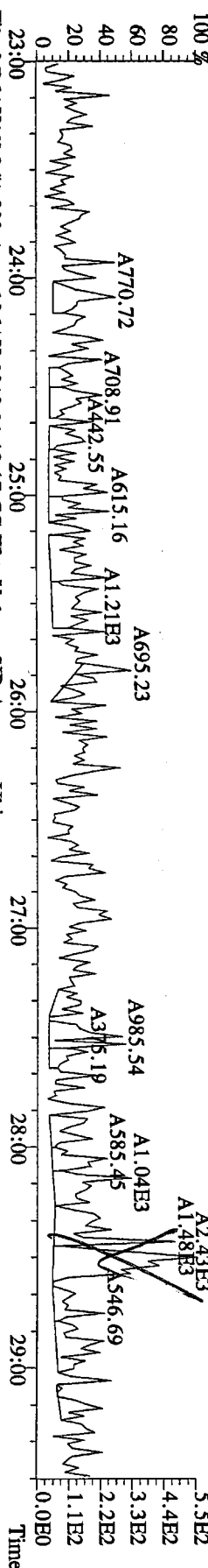
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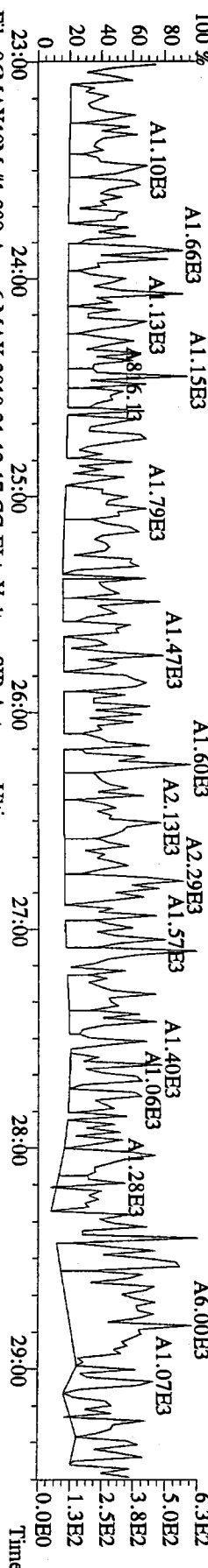
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 454.9728 S:10 F:5 Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



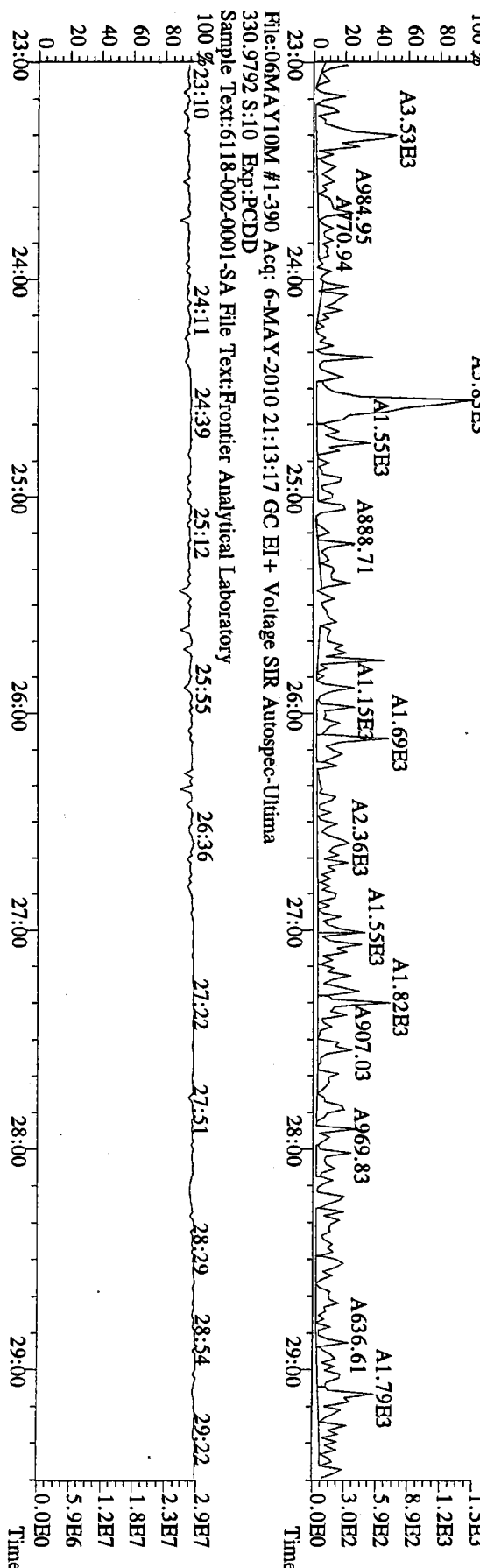
File:06MAY10M #1-390 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Ultima
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 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



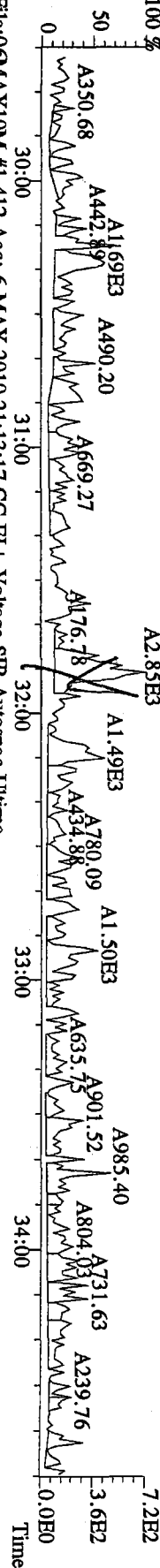
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 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



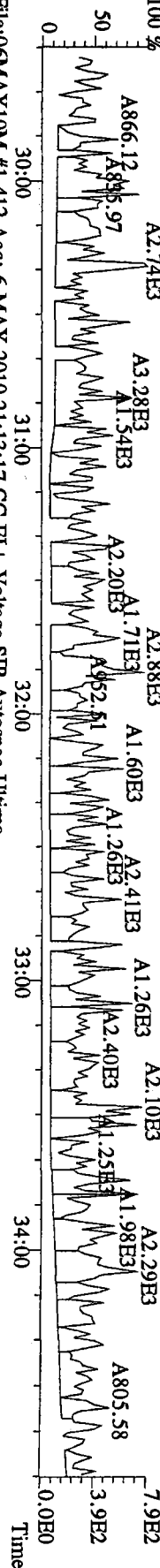
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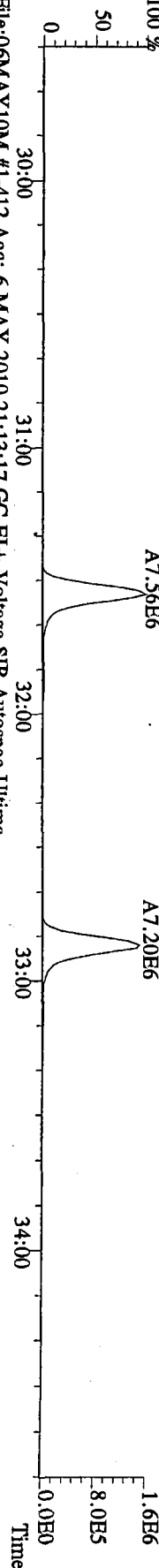
File:06MAY10M #1-412 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Utima
 339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



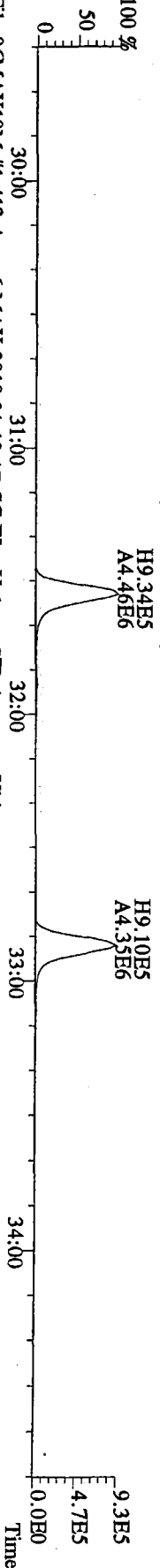
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 341.8568 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



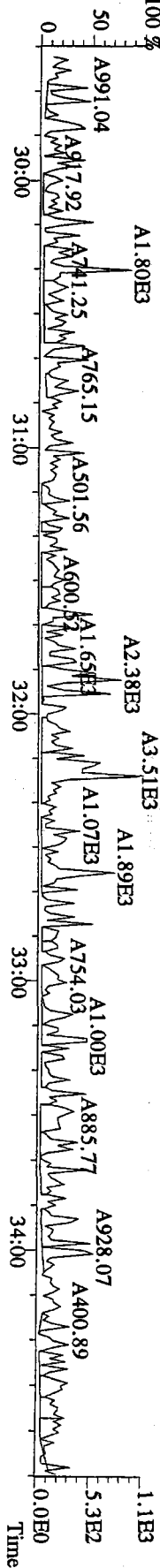
File:06MAY10M #1-412 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Utima
 351.9000 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



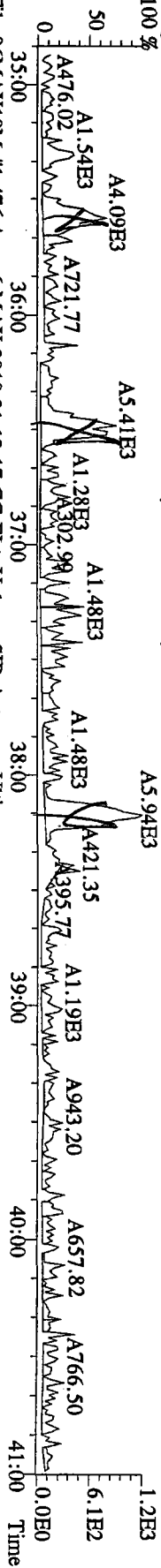
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 409.7974 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



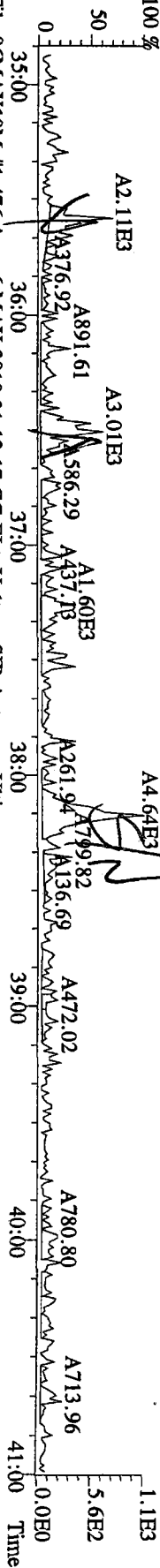
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 409.7974 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



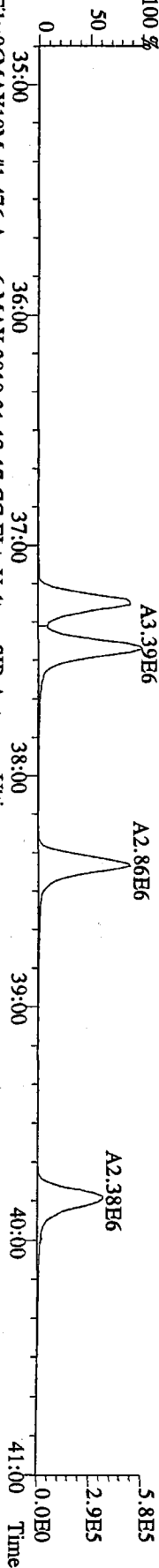
File:06MAY10M #1-476 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Ultima
 373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



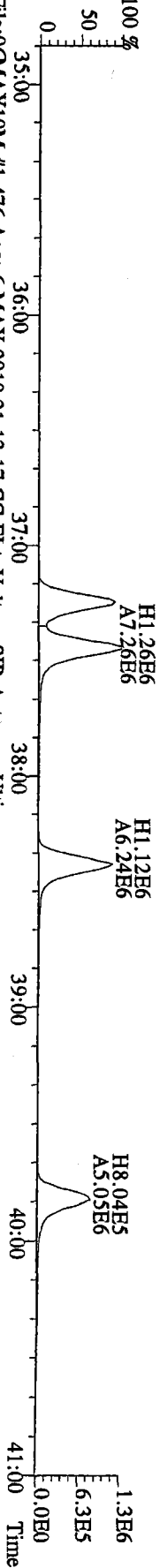
File:06MAY10M #1-476 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Ultima
 375.8178 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



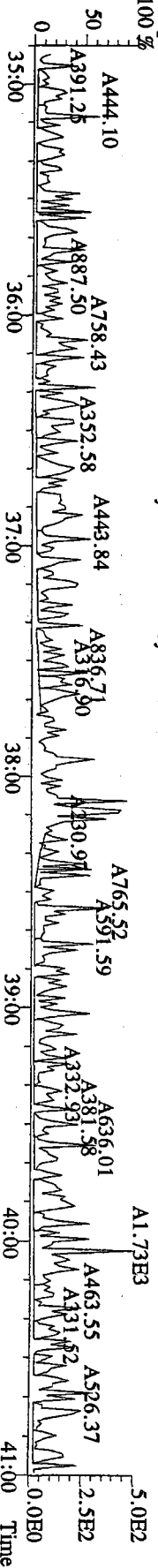
File:06MAY10M #1-476 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Ultima
 383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-476 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Ultima
 385.8610 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory

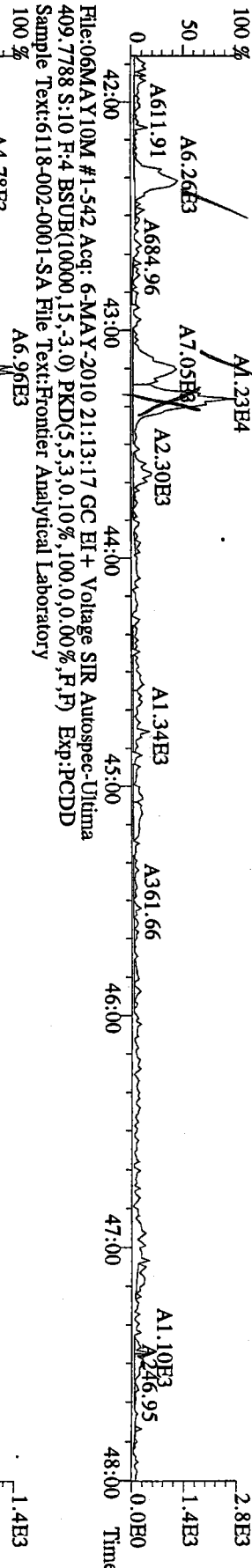


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 445.7555 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory

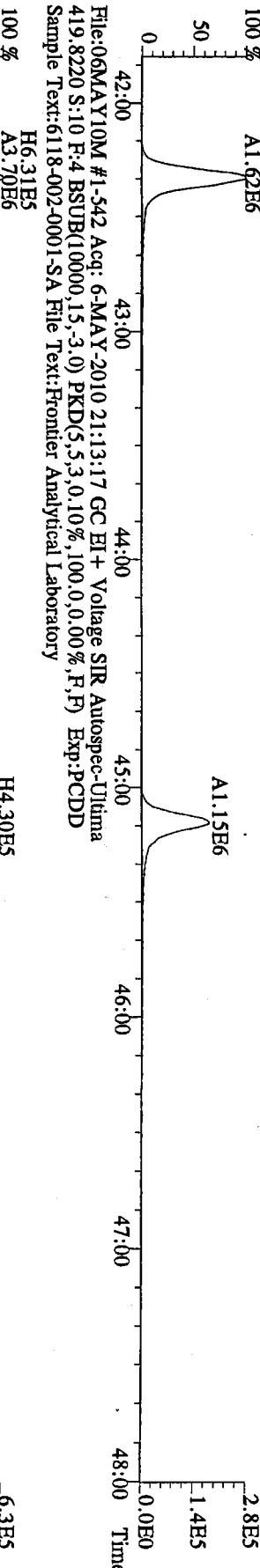


2005 : 8920

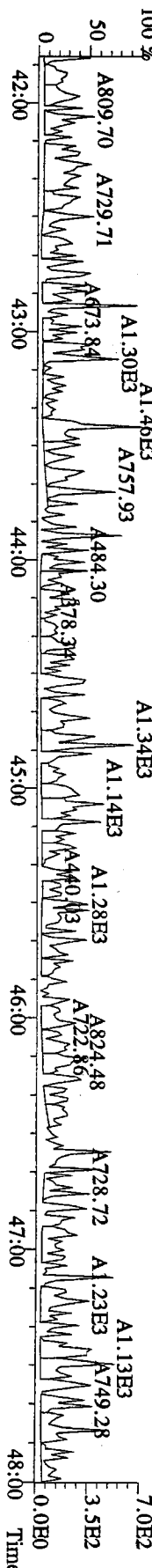
File:06MAY10M #1-542 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00% F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



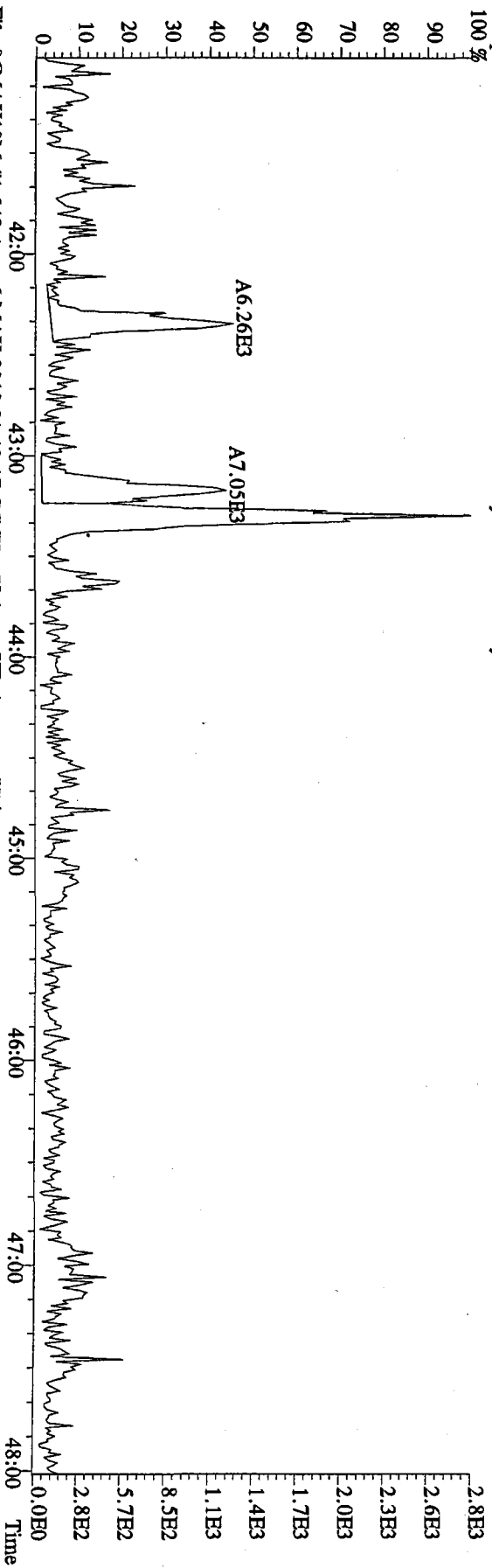
File:06MAY10M #1-542 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
417.8253 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00% F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



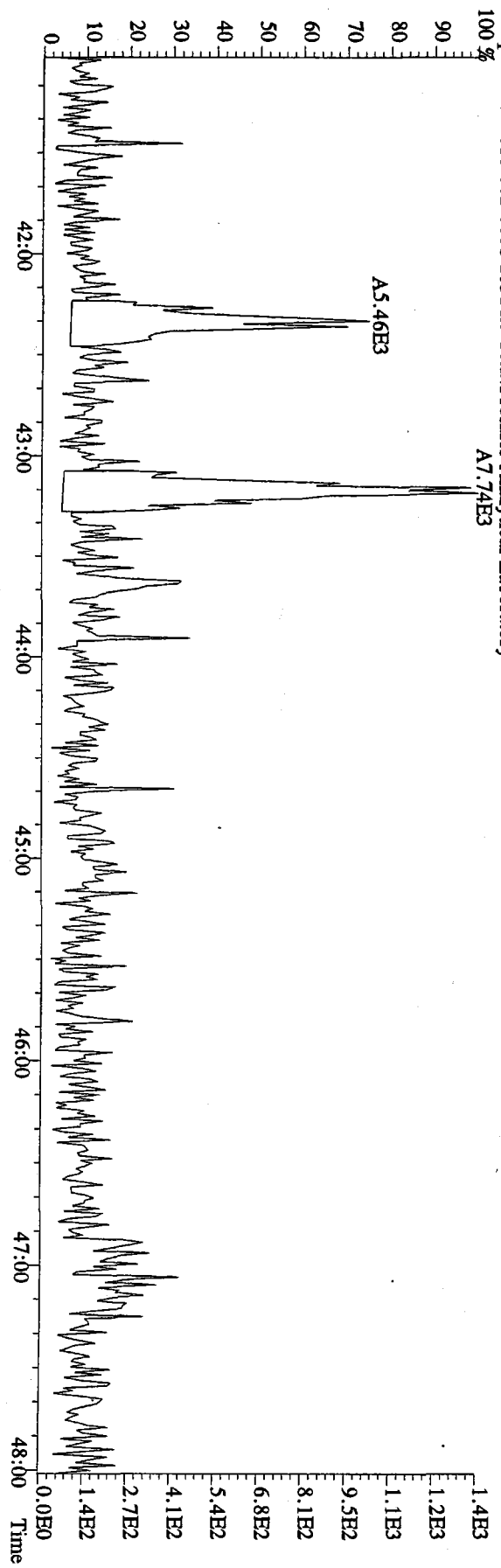
File:06MAY10M #1-542 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
479.7165 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00% F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



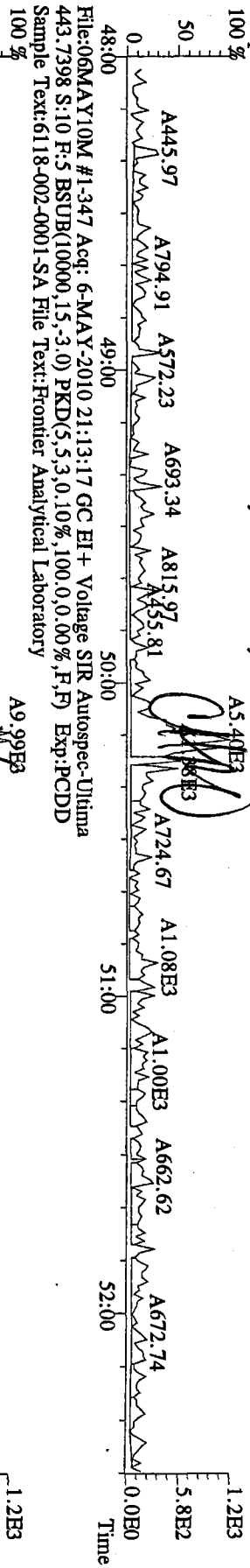
File:06MAY10M #1-542 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



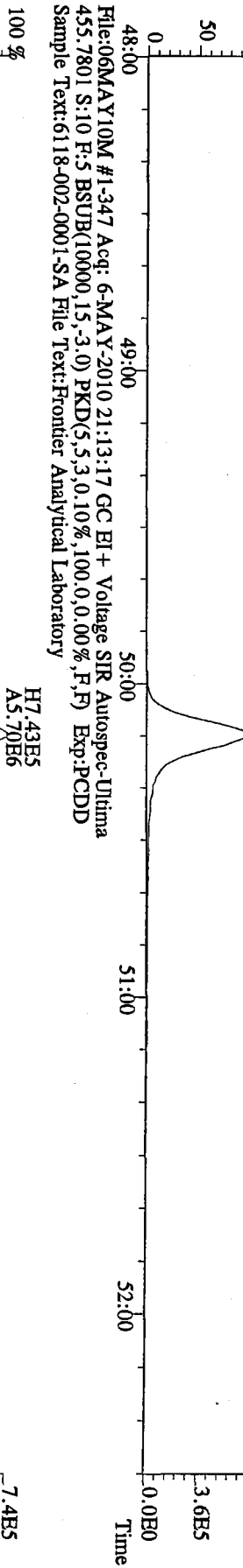
File:06MAY10M #1-542 Acq: 6-MAY-2010 21:13:17 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory



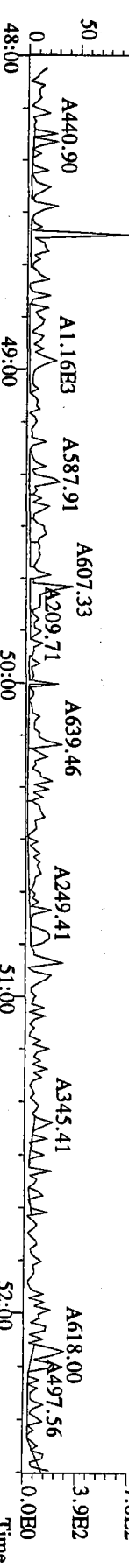
File:06MAY10M #1-347 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
441.7428 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory
100 %



File:06MAY10M #1-347 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
453.7831 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory
100 %



File:06MAY10M #1-347 Acq: 6-MAY-2010 21:13:17 GC EI + Voltage SIR Autospec-Ultima
513.6775 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-002-0001-SA File Text:Frontier Analytical Laboratory
100 %



FAL ID: 6118-003-0001-SA Filename: 06MAY10M Sam:11 Acquired: 6-MAY-10 22:08:40 ICal: PCDDFAL3-4-14-10
 Client ID: CB4857042110COMP ConCal: ST050610M1 EndCal: ST050610M2
 Results: 6118 GC Column: DB5 Amount: 1.044 NATO 1989 Tox: 19.3

Name	Resp	RA	RT	RRF	WHO 1998 Tox:		WHO 2005 Tox:		DL	#Hom	
					Conc	Qual	Fac Noise-1	Noise-2			
2,3,7,8-TCDD	*	* n	NotFnd	1.12	*		2.50	218	359	1.34	
1,2,3,7,8-PeCDD	*	* n	NotFnd	1.07	*		2.50	520	288	2.62	
1,2,3,4,7,8-HxCDD	1.78e+04	1.06 y	38:39	1.39	4.78	J	2.50	-	-	*	
1,2,3,6,7,8-HxCDD	5.13e+04	1.33 y	38:49	1.36	14.3	J	2.50	-	-	*	
1,2,3,7,8,9-HxCDD	3.30e+04	1.21 y	39:16	1.40	8.85	J	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	1.56e+06	0.90 y	44:16	1.14	602		2.50	-	-	*	
OCDD	1.18e+07	0.95 y	49:49	1.22	5780		2.50	-	-	*	
2,3,7,8-TCDF	*	* n	NotFnd	1.29	*		2.50	264	708	1.21	
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.93	*		2.50	416	427	1.98	
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.93	*		2.50	416	427	2.11	
1,2,3,4,7,8-HxCDF	8.25e+04	1.27 y	37:16	1.07	17.0	J	2.50	-	-	*	
1,2,3,6,7,8-HxCDF	4.31e+04	1.17 y	37:27	0.97	8.31	J	2.50	-	-	*	
2,3,4,6,7,8-HxCDF	3.09e+04	1.29 y	38:26	1.04	6.52	J	2.50	-	-	*	
1,2,3,7,8,9-HxCDF	*	* n	NotFnd	1.15	*		2.50	353	279	2.33	
1,2,3,4,6,7,8-HpCDF	3.79e+05	1.07 y	42:22	1.37	109		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	3.15e+04	1.17 y	45:10	1.62	10.6	J	2.50	-	-	*	
OCDF	7.05e+05	0.86 y	50:11	0.85	303		2.50	-	-	*	
											Rec
13C-2,3,7,8-TCDD	7.84e+06	0.75 y	27:28	0.98	1110						57.9
13C-1,2,3,7,8-PeCDD	7.06e+06	1.64 y	33:17	1.14	862						45.0
13C-1,2,3,4,7,8-HxCDD	5.12e+06	1.33 y	38:39	1.00	1130						59.2
13C-1,2,3,6,7,8-HxCDD	5.07e+06	1.24 y	38:49	0.89	1260						65.9
13C-1,2,3,4,6,7,8-HpCDD	4.37e+06	1.04 y	44:14	1.01	960						50.1
13C-OCDD	6.43e+06	0.98 y	49:47	0.75	1900						49.7
13C-2,3,7,8-TCDF	1.28e+07	0.86 y	26:43	0.93	1060						55.1
13C-1,2,3,7,8-PeCDF	1.09e+07	1.68 y	31:33	0.93	904						47.2
13C-2,3,4,7,8-PeCDF	1.01e+07	1.69 y	32:52	0.87	888						46.4
13C-1,2,3,4,7,8-HxCDF	8.72e+06	0.47 y	37:15	1.82	1070						55.7
13C-1,2,3,6,7,8-HxCDF	1.02e+07	0.44 y	37:27	2.01	1130						59.1
13C-2,3,4,6,7,8-HxCDF	8.71e+06	0.46 y	38:23	1.77	1090						57.1
13C-1,2,3,7,8,9-HxCDF	7.12e+06	0.47 y	39:50	1.57	1010						52.8
13C-1,2,3,4,6,7,8-HpCDF	4.89e+06	0.45 y	42:20	1.24	876						45.7
13C-1,2,3,4,7,8,9-HpCDF	3.53e+06	0.45 y	45:09	0.99	791						41.3
13C-OCDF	1.05e+07	0.95 y	50:10	1.32	1780						46.4
37Cl-2,3,7,8-TCDD	3.43e+06		27:29	1.10	432						56.3
13C-1,2,3,4-TCDD	1.38e+07	0.77 y	26:52	-	75.7						
13C-1,2,3,4-TCDF	2.50e+07	0.86 y	25:37	-	64.6						
13C-1,2,3,7,8,9-HxCDD	8.61e+06	1.32 y	39:15	-	50.4						
Total Tetra-Dioxins	*		NotFnd	1.12	*		2.50	218	359	1.34	0
Total Penta-Dioxins	*		NotFnd	1.07	*		2.50	520	288	2.62	0
Total Hexa-Dioxins	2.62e+05		36:12	1.38	71.5		2.50	-	-	*	6
Total Hepta-Dioxins	2.68e+06		42:53	1.14	1030		2.50	-	-	*	2
Total Tetra-Furans	1.76e+05		25:52	1.29	20.5	D,M	2.50	-	-	*	3
1st Fn. Tot Penta-Furans	5.75e+04		28:33	0.93	11.3	D,M	2.50	-	-	*	PeCDF 1
Total Penta-Furans	2.10e+05		30:19	0.93	41.2	D,M	2.50	-	-	*	52.4 4
Total Hexa-Furans	1.09e+06		35:19	1.05	227	D,M	2.50	-	-	*	8
Total Hepta-Furans	1.20e+06		42:22	1.48	364		2.50	-	-	*	3

Analyst: 

Date: 5/7/10

Totals class: Total Hexa-Dioxins

Entry #: 40

Run: 17 File: 06MAY10M
Acquired: 6-MAY-10 22:08:40

S: 11 I: 1 F: 3

Total Concentration: 71.5

Unnamed Concentration: 43.563

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
36:12	2.60e+04	2.06e+04	1.26 y	4.66e+04	12.7	
37:07	9.14e+03	7.25e+03	1.26 y	1.64e+04	4.46	
37:33	5.60e+04	4.13e+04	1.35 y	9.73e+04	26.4	
38:39	9.17e+03	8.62e+03	1.06 y	1.78e+04	4.78	1,2,3,4,7,8-HxCDD
38:49	2.93e+04	2.20e+04	1.33 y	5.13e+04	14.3	1,2,3,6,7,8-HxCDD
39:16	1.80e+04	1.49e+04	1.21 y	3.30e+04	8.85	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 17

File: 06MAY10M

S: 11 I: 1 F: 4

Acquired: 6-MAY-10 22:08:40

Total Concentration: 1030

Unnamed Concentration: 432.744

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:53	5.30e+05	5.92e+05	0.90 y	1.12e+06	433	
44:16	7.40e+05	8.20e+05	0.90 y	1.56e+06	602	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans

Entry #: 42

Run: 17

File: 06MAY10M

S: 11 I: 1 F: 1

Acquired: 6-MAY-10 22:08:40

Total Concentration: 20.5

Unnamed Concentration: 20.517

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
25:52	1.02e+04	1.44e+04	0.71 y	2.46e+04	2.87	
27:57	3.94e+04	5.88e+04	0.67 y	9.82e+04	11.5	
28:09	2.10e+04	3.18e+04	0.66 y	5.28e+04	6.17	

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

Run: 17 File: 06MAY10M S: 11 I: 1 F: 1
Acquired: 6-MAY-10 22:08:40

Total Concentration: 11.3 Unnamed Concentration: 11.255

RT	ml Resp	m2 Resp RA	Resp	Concentration	Name
28:33	3.45e+04	2.30e+04 1.50 y	5.75e+04	11.3	

Totals class: Total Penta-Furans

Entry #: 44

Run: 17

File: 06MAY10M

S: 11 I: 1 F: 2

Acquired: 6-MAY-10 22:08:40

Total Concentration: 41.2

Unnamed Concentration: 41.161

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:19	2.52e+04	1.77e+04	1.42 y	4.29e+04	8.40	
31:50	5.88e+04	4.12e+04	1.43 y	1.00e+05	19.6	
32:10	2.17e+04	1.59e+04	1.36 y	3.76e+04	7.37	
34:12	1.83e+04	1.13e+04	1.62 y	2.96e+04	5.80	

Totals class: Total Hexa-Furans

Entry #: 45

Run: 17

File: 06MAY10M

S: 11 I: 1 F: 3

Acquired: 6-MAY-10 22:08:40

Total Concentration: 227

Unnamed Concentration: 195.656

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:19	2.85e+04	2.41e+04	1.18 y	5.26e+04	11.0	
35:35	1.22e+05	9.83e+04	1.24 y	2.21e+05	46.2	
36:30	1.75e+05	1.44e+05	1.22 y	3.19e+05	66.9	
36:47	1.07e+04	8.27e+03	1.30 y	1.90e+04	3.98	
37:16	4.61e+04	3.63e+04	1.27 y	8.25e+04	17.0	1,2,3,4,7,8-HxCDF
37:27	2.32e+04	1.98e+04	1.17 y	4.31e+04	8.31	1,2,3,6,7,8-HxCDF
38:11	1.80e+05	1.43e+05	1.25 y	3.23e+05	67.6	
38:26	1.74e+04	1.35e+04	1.29 y	3.09e+04	6.52	2,3,4,6,7,8-HxCDF

Totals class: Total Hepta-Furans

Entry #: 46

Run: 17

File: 06MAY10M

S: 11 I: 1 F: 4

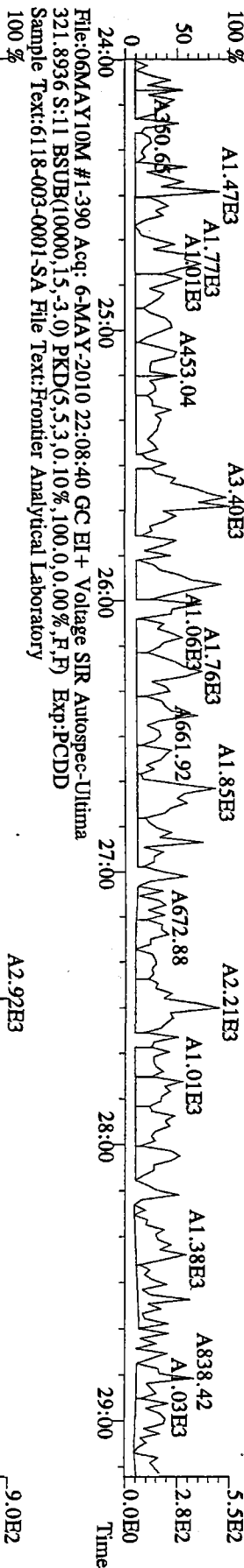
Acquired: 6-MAY-10 22:08:40

Total Concentration: 364

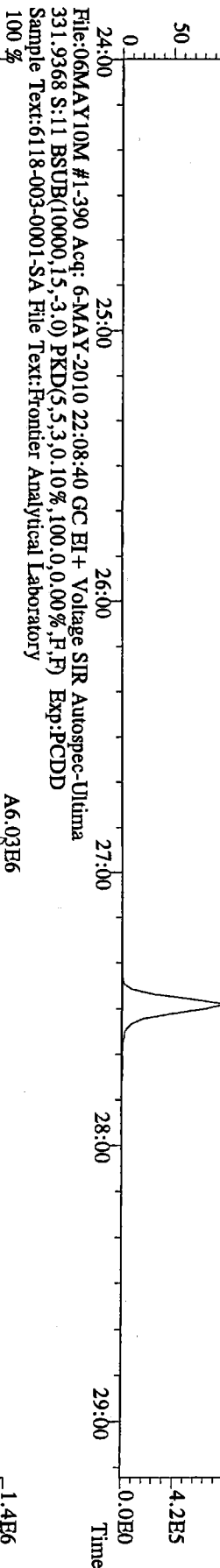
Unnamed Concentration: 244.253

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:22	1.96e+05	1.83e+05	1.07 y	3.79e+05	109	1,2,3,4,6,7,8-HpCDF
43:11	4.08e+05	3.86e+05	1.06 y	7.94e+05	244	
45:10	1.70e+04	1.45e+04	1.17 y	3.15e+04	10.6	1,2,3,4,7,8,9-HpCDF

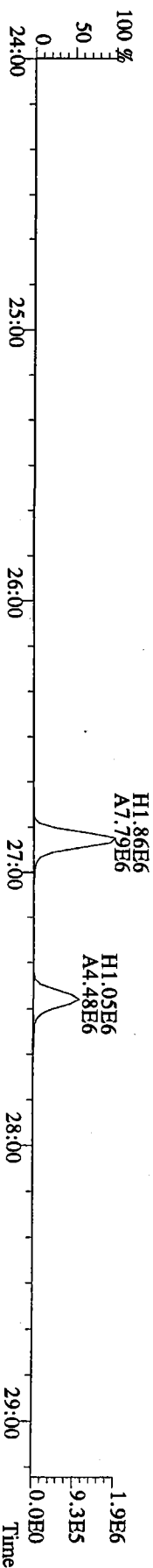
File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



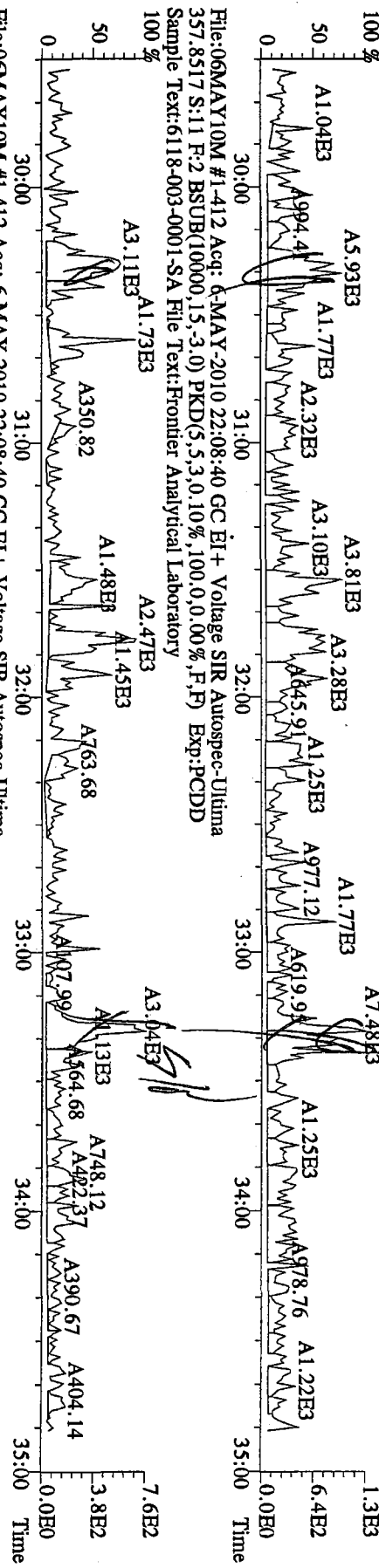
File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



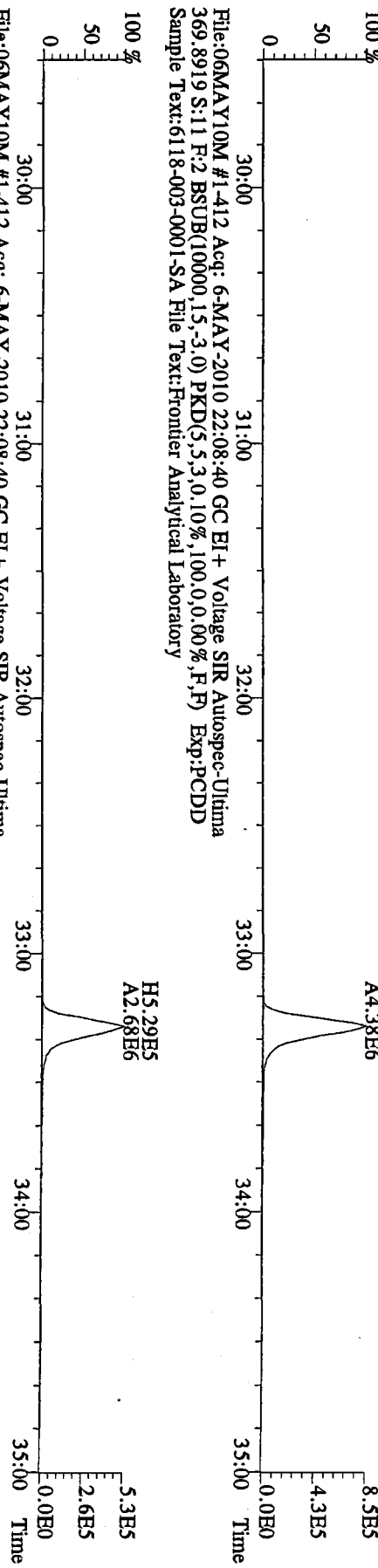
File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



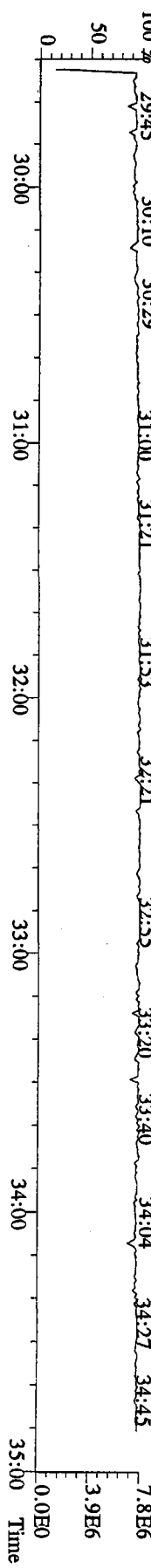
File:06MAY10M #1-412 Acq: 6-MAY-2010 22:08:40 GC EI + Voltage SIR Autospec-Ultima
 355.8546 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



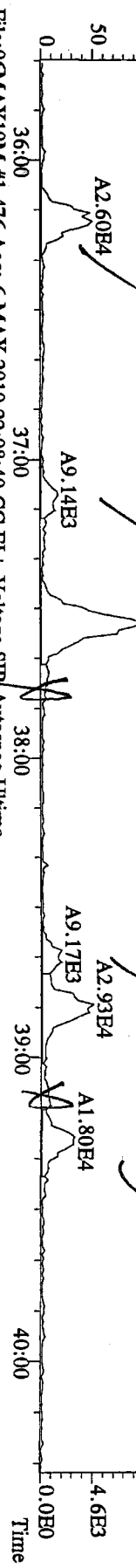
File:06MAY10M #1-412 Acq: 6-MAY-2010 22:08:40 GC EI + Voltage SIR Autospec-Ultima
 367.8949 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



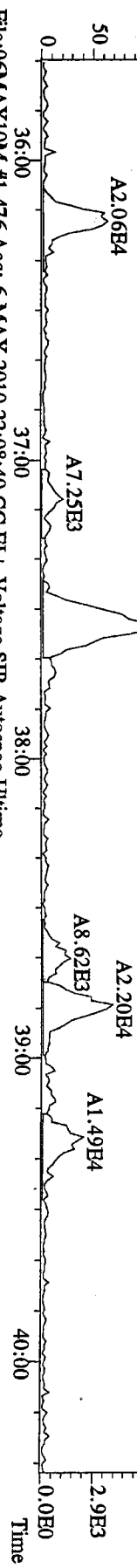
File:06MAY10M #1-412 Acq: 6-MAY-2010 22:08:40 GC EI + Voltage SIR Autospec-Ultima
 366.9792 S:11 F:2 Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



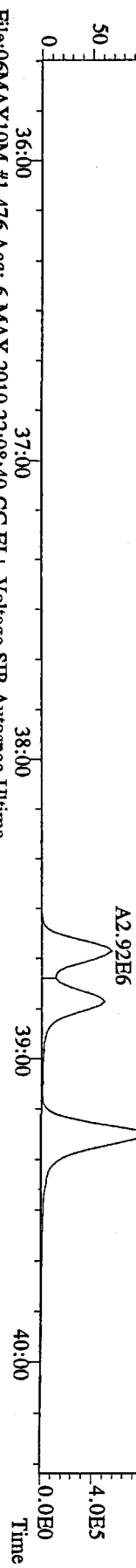
File:06MAY10M #1-476 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 389.8156 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



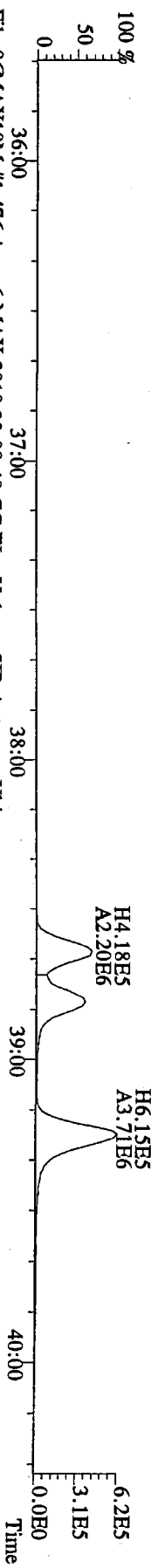
File:06MAY10M #1-476 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 391.8127 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



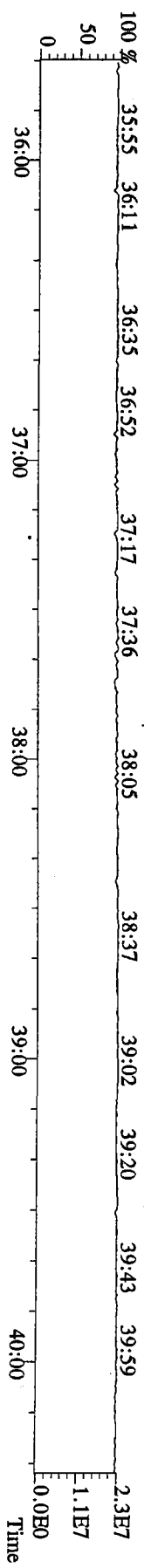
File:06MAY10M #1-476 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 401.8559 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



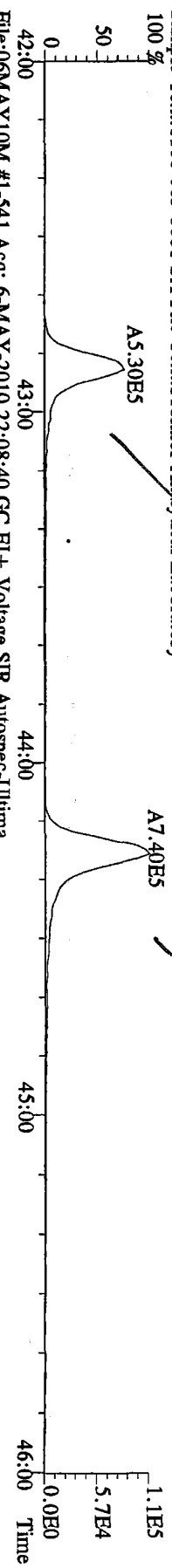
File:06MAY10M #1-476 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 403.8530 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



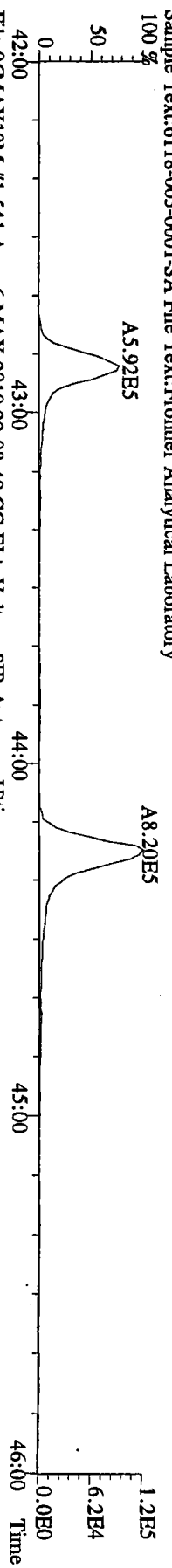
File:06MAY10M #1-476 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 380.9760 S:11 F:3 Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



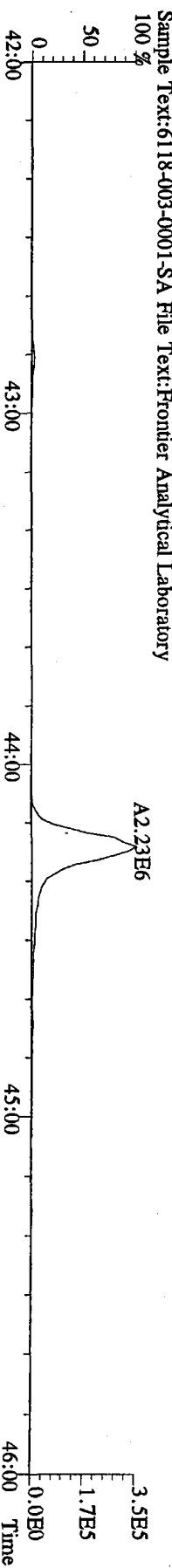
File:06MAY10M #1-541 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



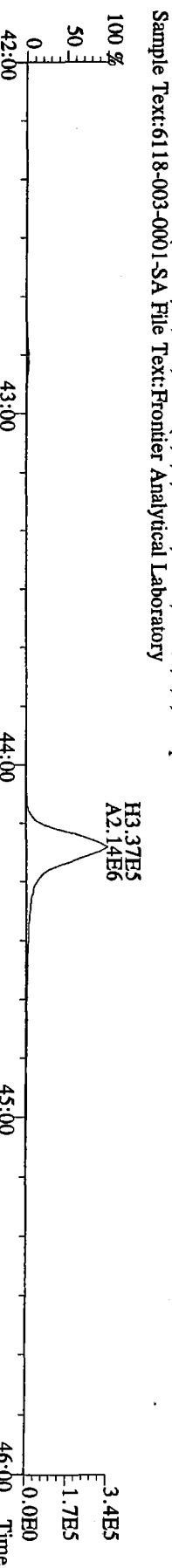
File:06MAY10M #1-541 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



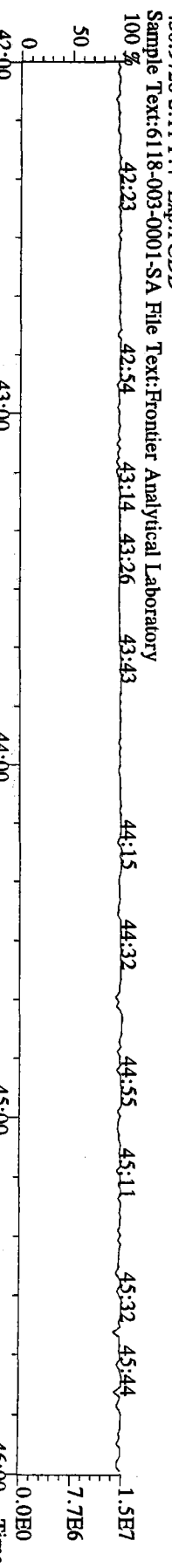
File:06MAY10M #1-541 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



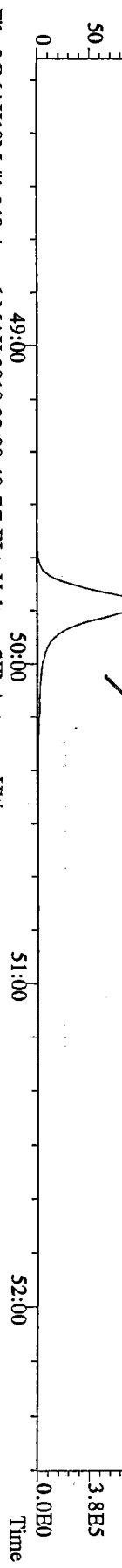
File:06MAY10M #1-541 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



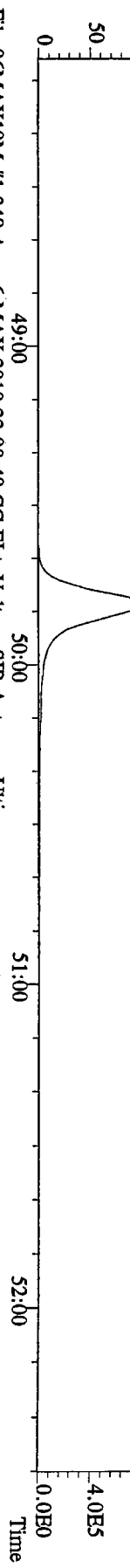
File:06MAY10M #1-541 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:11 F:4 Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



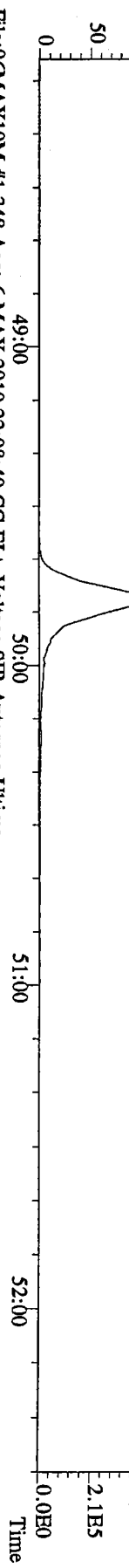
File:06MAY10M #1-348 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



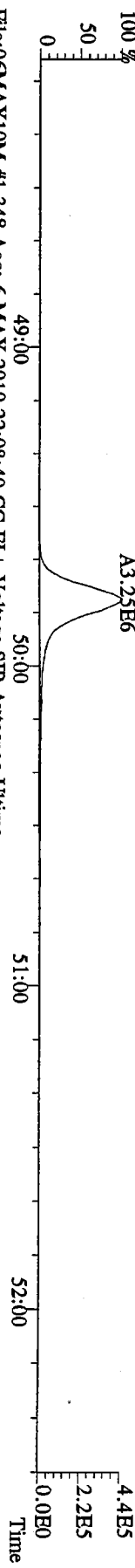
File:06MAY10M #1-348 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



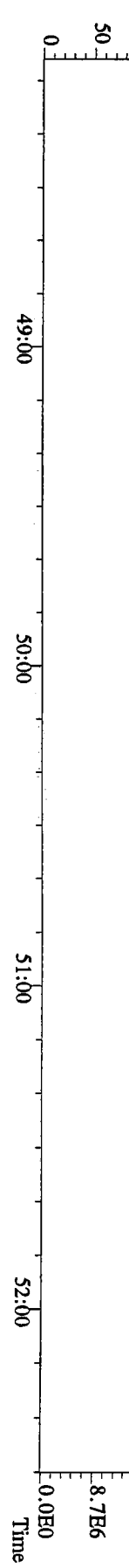
File:06MAY10M #1-348 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



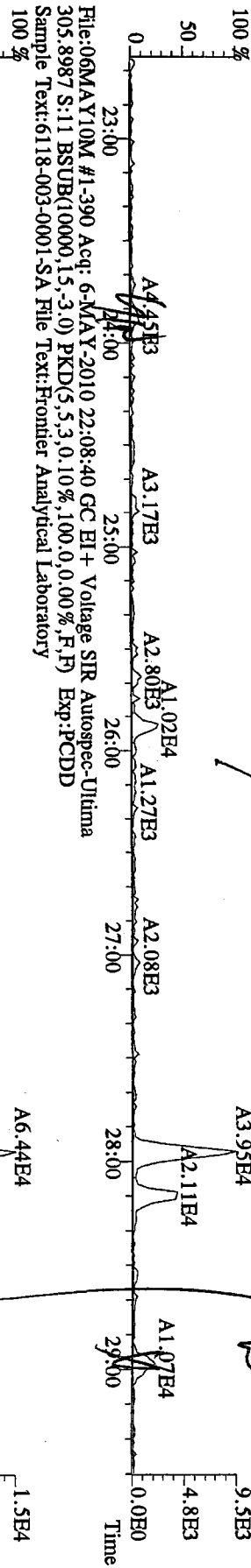
File:06MAY10M #1-348 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



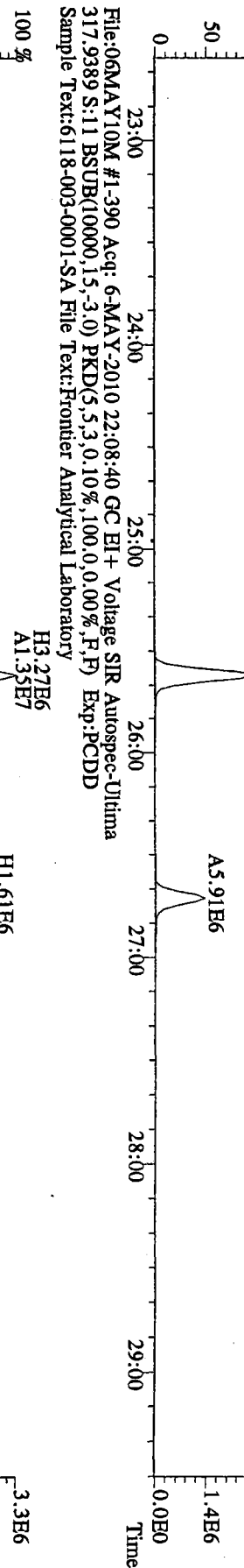
File:06MAY10M #1-348 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:11 F:5 Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



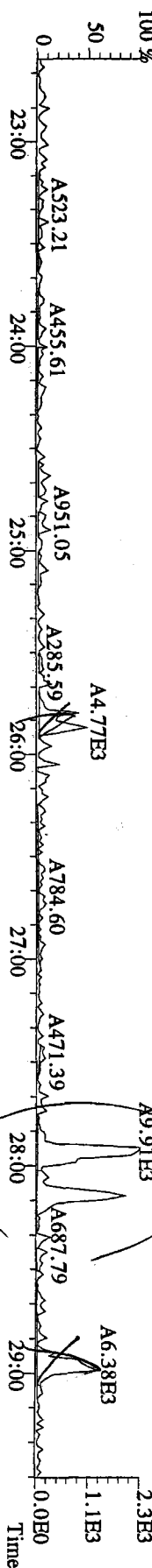
File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 303.9016 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



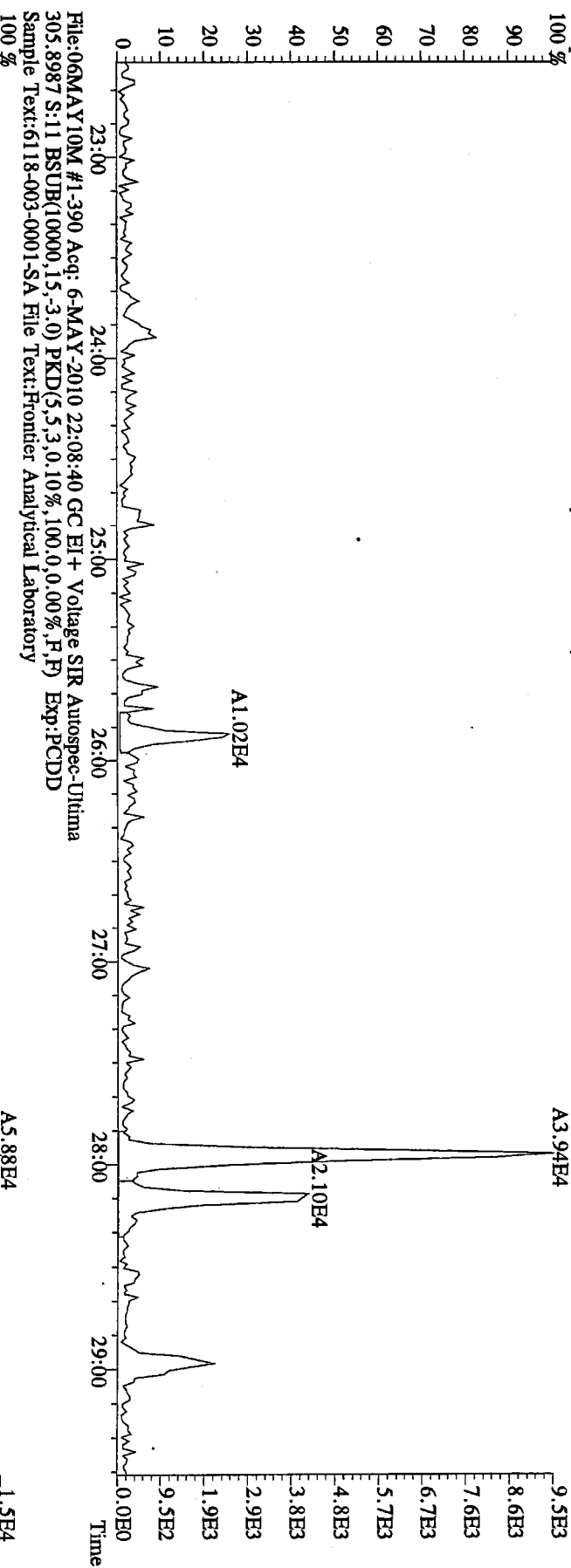
File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 315.9419 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



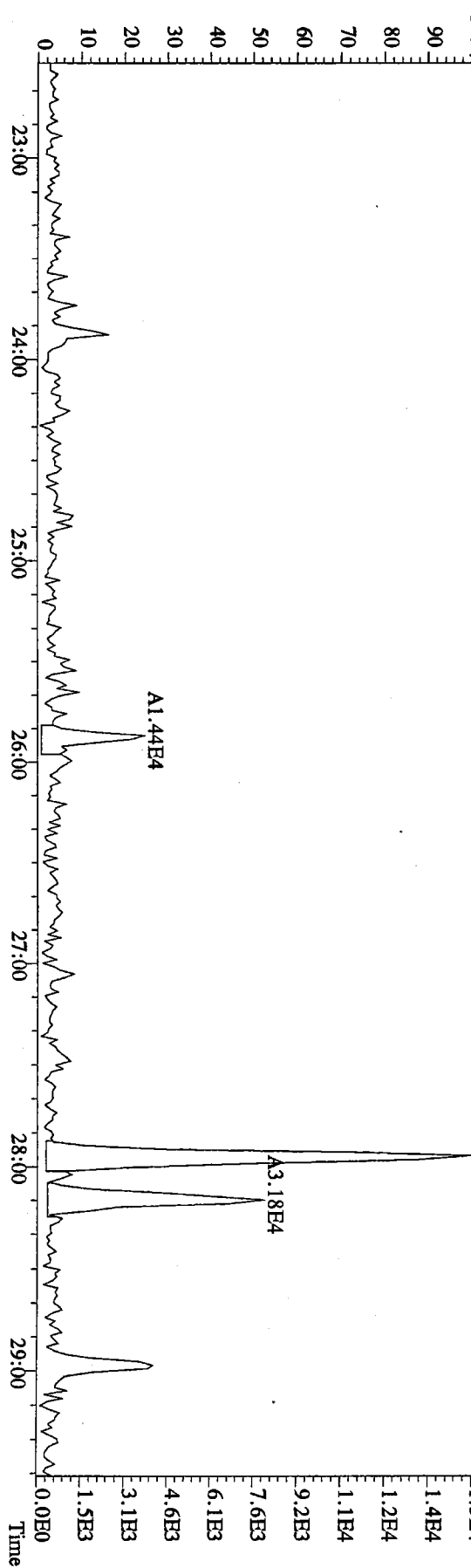
File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 375.8364 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



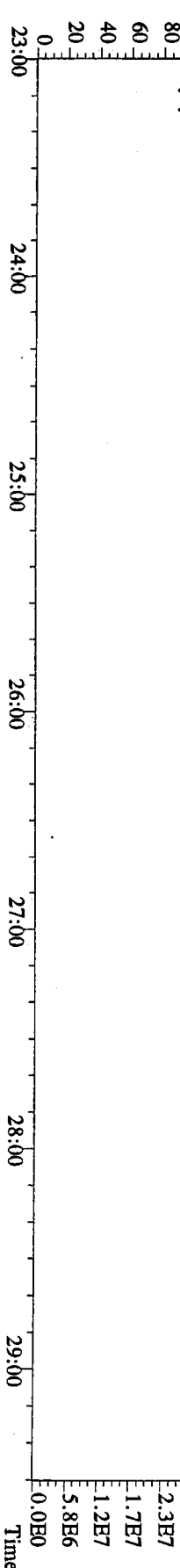
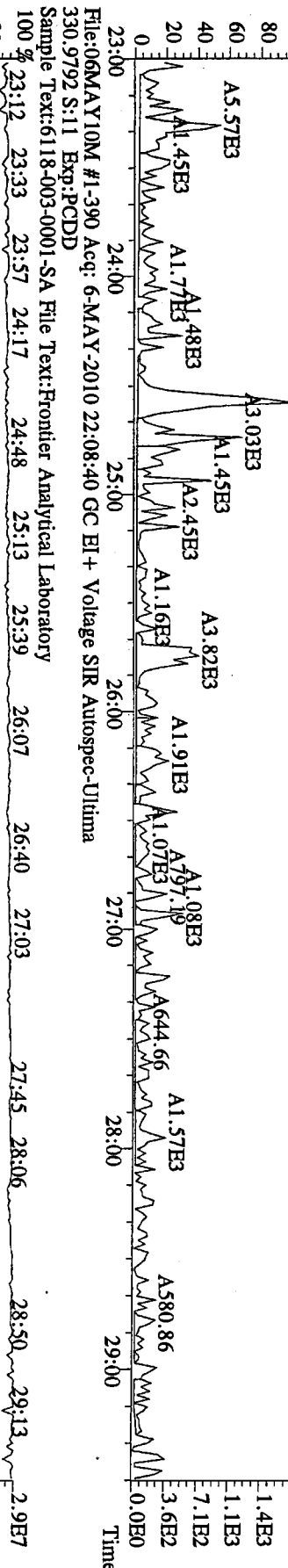
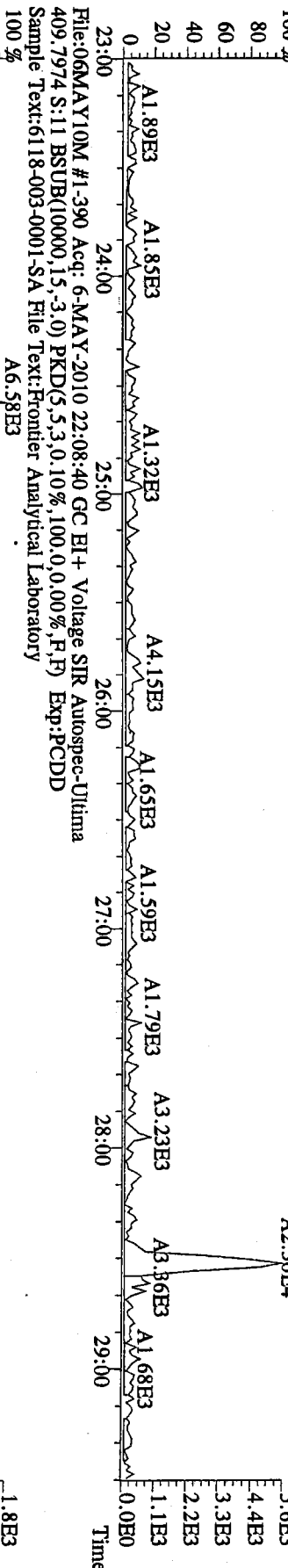
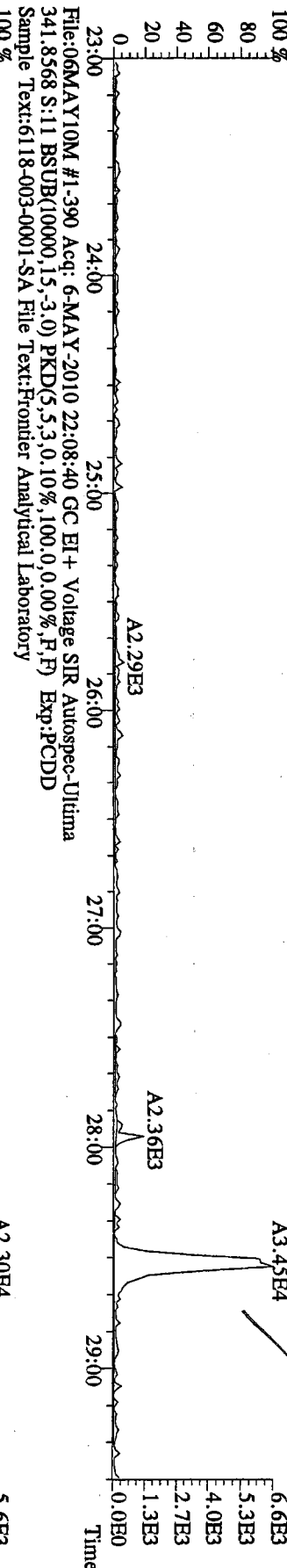
File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 303.9016 S:11 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 305.8987 S:11 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



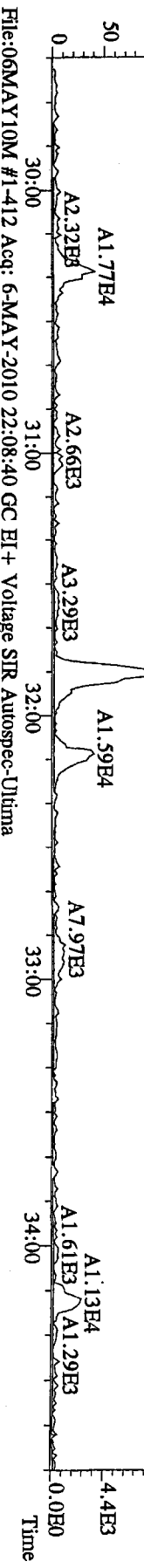
File:06MAY10M #1-390 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 339.8597 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



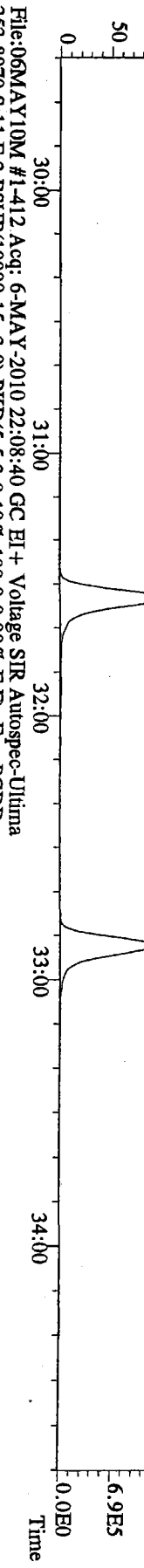
File:06MAY10M #1-412 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 339.8597 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



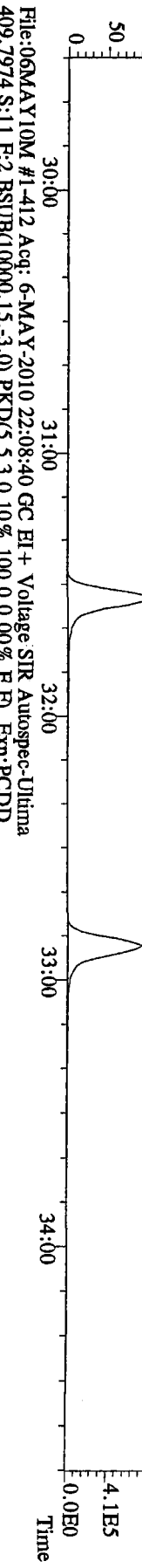
File:06MAY10M #1-412 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 341.8568 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



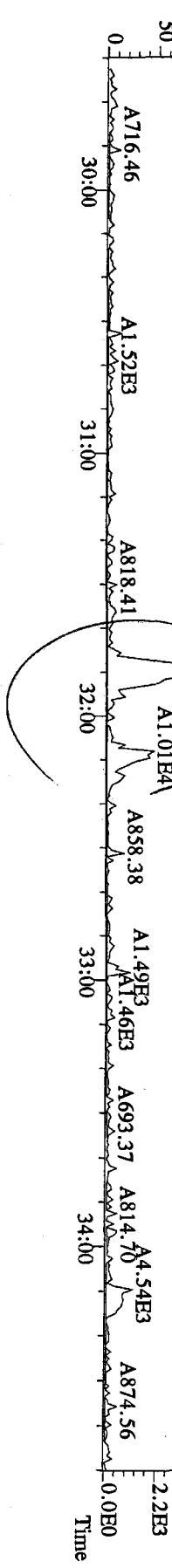
File:06MAY10M #1-412 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 351.9000 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-412 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 353.8970 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory

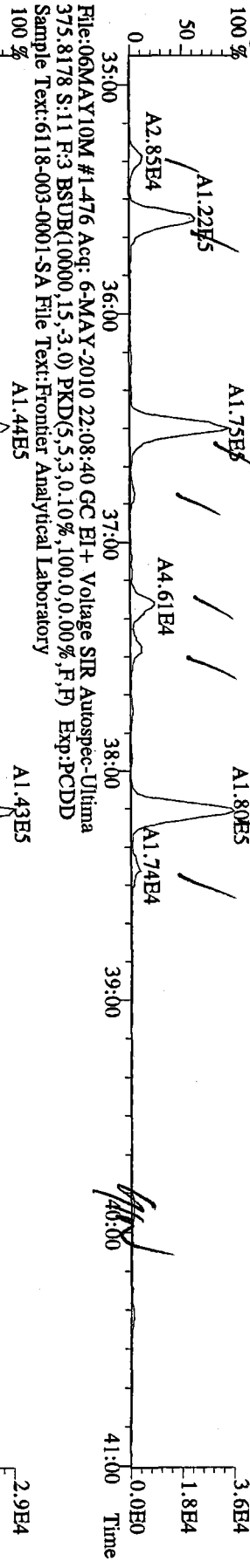


File:06MAY10M #1-412 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 409.7974 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory

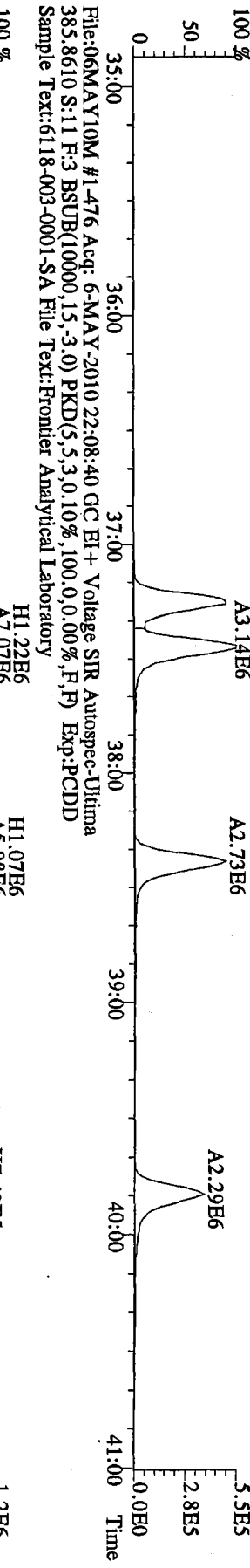


21 15 55 : 08 07 02

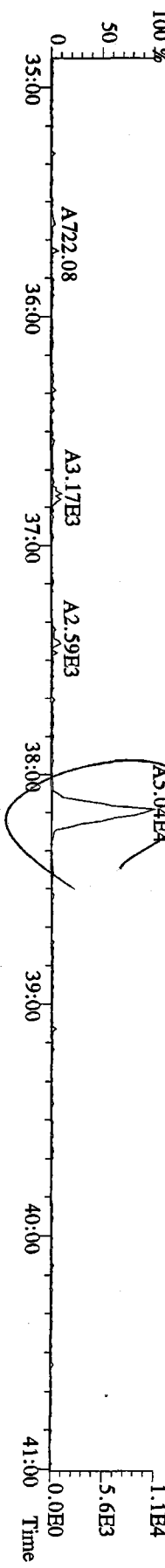
File:06MAY10M #1-476 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 373.8207 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



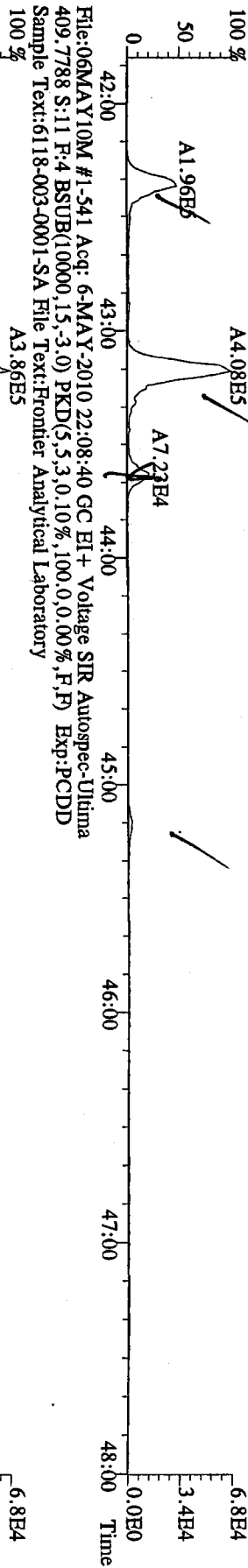
File:06MAY10M #1-476 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 383.8639 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



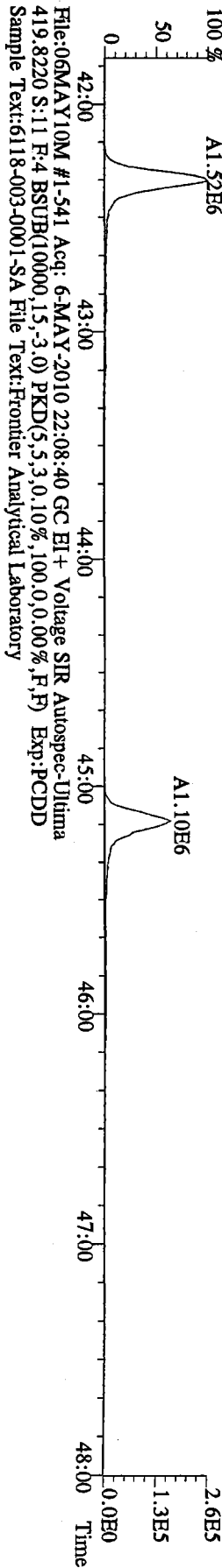
File:06MAY10M #1-476 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
 445.7555 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-541 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-541 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory

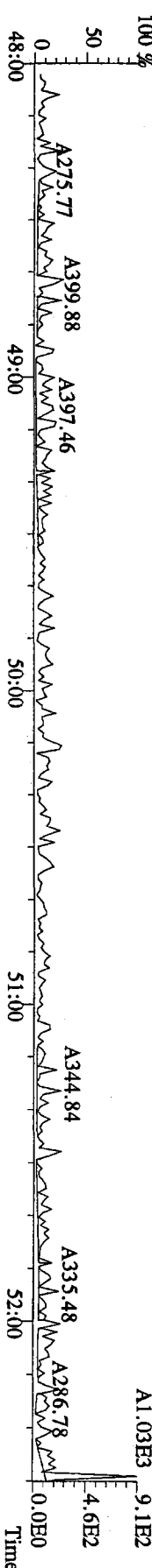
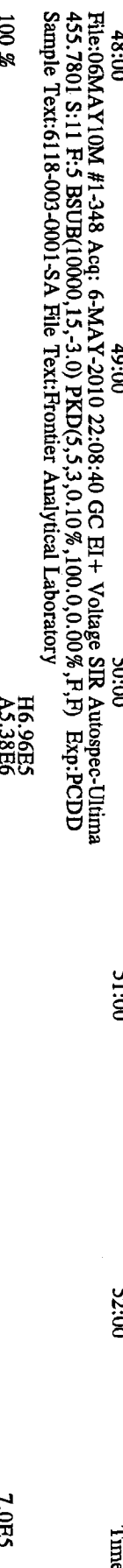
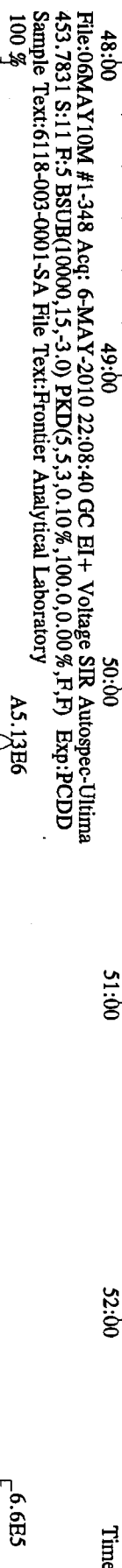
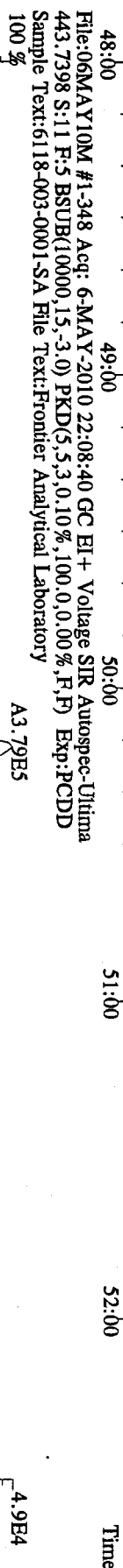


File:06MAY10M #1-541 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



FILE:06MAY10M

File:06MAY10M #1-348 Acq: 6-MAY-2010 22:08:40 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-003-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 6118-004-0001-SA Filename: 06MAY10M Sam:9 Acquired: 6-MAY-10 20:17:58 ICal: PCDDFAL3-4-14-10
 Client ID: CB101042110COMP ConCal: ST050610M1 EndCal: ST050610M2
 Results: 6118 GC Column: DB5 Amount: 1.046 NATO 1989 Tox: 22.2

WHO 1998 Tox: 15.5 WHO 2005 Tox: 17.0

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	#Hom	
2,3,7,8-TCDD	*	* n	NotFnd	1.12	*		2.50	321	392	1.39	
1,2,3,7,8-PeCDD	*	* n	NotFnd	1.07	*		2.50	660	438	2.87	
1,2,3,4,7,8-HxCDD	2.38e+04	1.25 y	38:40	1.39	5.24	J	2.50	-	-	*	
1,2,3,6,7,8-HxCDD	6.83e+04	1.26 y	38:50	1.36	14.9	J	2.50	-	-	*	
1,2,3,7,8,9-HxCDD	4.37e+04	1.12 y	39:16	1.40	9.39	J	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	2.26e+06	0.95 y	44:15	1.14	683		2.50	-	-	*	
OCDD	1.96e+07	0.93 y	49:49	1.22	7150		2.50	-	-	*	
2,3,7,8-TCDF	*	* n	NotFnd	1.29	*		2.50	223	423	0.628	
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.93	*		2.50	738	671	2.42	
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.93	*		2.50	738	671	2.77	
1,2,3,4,7,8-HxCDF	1.17e+05	1.30 y	37:17	1.07	19.7	J	2.50	-	-	*	
1,2,3,6,7,8-HxCDF	5.30e+04	1.17 y	37:28	0.97	8.34	J	2.50	-	-	*	
2,3,4,6,7,8-HxCDF	4.28e+04	1.24 y	38:25	1.04	7.12	J	2.50	-	-	*	
1,2,3,7,8,9-HxCDF	*	* n	NotFnd	1.15	*		2.50	410	429	2.56	
1,2,3,4,6,7,8-HpCDF	5.99e+05	1.07 y	42:21	1.37	127		2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	5.06e+04	1.03 y	45:10	1.62	12.9	J	2.50	-	-	*	
OCDF	1.14e+06	0.86 y	50:11	0.85	365		2.50	-	-	*	
										Rec	
13C-2,3,7,8-TCDD	9.85e+06	0.76 y	27:28	0.98	1410					73.6	
13C-1,2,3,7,8-PeCDD	9.00e+06	1.65 y	33:17	1.14	1110					58.1	
13C-1,2,3,4,7,8-HxCDD	6.23e+06	1.29 y	38:39	1.00	1350					70.5	
13C-1,2,3,6,7,8-HxCDD	6.47e+06	1.30 y	38:49	0.89	1580					82.4	
13C-1,2,3,4,6,7,8-HpCDD	5.56e+06	1.01 y	44:14	1.01	1190					62.3	
13C-OCDD	8.64e+06	0.97 y	49:48	0.75	2500					65.4	
13C-2,3,7,8-TCDF	1.66e+07	0.85 y	26:42	0.93	1380					72.3	
13C-1,2,3,7,8-PeCDF	1.46e+07	1.71 y	31:33	0.93	1210					63.4	
13C-2,3,4,7,8-PeCDF	1.31e+07	1.66 y	32:53	0.87	1150					60.3	
13C-1,2,3,4,7,8-HxCDF	1.06e+07	0.45 y	37:15	1.82	1260					66.1	
13C-1,2,3,6,7,8-HxCDF	1.25e+07	0.46 y	37:28	2.01	1350					70.8	
13C-2,3,4,6,7,8-HxCDF	1.10e+07	0.44 y	38:23	1.77	1350					70.5	
13C-1,2,3,7,8,9-HxCDF	9.13e+06	0.44 y	39:49	1.57	1270					66.3	
13C-1,2,3,4,6,7,8-HpCDF	6.60e+06	0.45 y	42:21	1.24	1150					60.3	
13C-1,2,3,4,7,8,9-HpCDF	4.65e+06	0.42 y	45:09	0.99	1020					53.1	
13C-OCDF	1.41e+07	0.91 y	50:10	1.32	2330					60.9	
37Cl-2,3,7,8-TCDD	4.46e+06		27:29	1.10	568					74.3	
13C-1,2,3,4-TCDD	1.36e+07	0.77 y	26:53	-	74.6						
13C-1,2,3,4-TCDF	2.48e+07	0.84 y	25:37	-	63.9						
13C-1,2,3,7,8,9-HxCDD	8.80e+06	1.29 y	39:15	-	51.4						
Total Tetra-Dioxins	*		NotFnd	1.12	*		2.50	321	392	1.39	0
Total Penta-Dioxins	*		NotFnd	1.07	*		2.50	660	438	2.87	0
Total Hexa-Dioxins	3.50e+05		36:13	1.38	76.1		2.50	-	-	*	6
Total Hepta-Dioxins	3.88e+06		42:52	1.14	1170		2.50	-	-	*	2
Total Tetra-Furans	1.86e+05		25:53	1.29	16.7	D,M	2.50	-	-	*	3
1st Fn. Tot Penta-Furans	7.43e+04		28:32	0.93	11.1	D,M	2.50	-	-	*	PeCDF 1
Total Penta-Furans	3.06e+05		30:20	0.93	45.6	D,M	2.50	-	-	*	56.7 4
Total Hexa-Furans	1.43e+06		35:19	1.05	239	D,M	2.50	-	-	*	8
Total Hepta-Furans	1.93e+06		42:21	1.48	435		2.50	-	-	*	3

Analyst: 

Date: 5/7/10

Totals class: Total Hexa-Dioxins

Entry #: 40

Run: 15

File: 06MAY10M

S: 9 I: 1 F: 3

Acquired: 6-MAY-10 20:17:58

Total Concentration: 76.1

Unnamed Concentration: 46.629

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
36:13	3.46e+04	3.13e+04	1.11 y	6.58e+04	14.3	
37:08	1.02e+04	9.45e+03	1.08 y	1.97e+04	4.27	
37:35	7.39e+04	5.52e+04	1.34 y	1.29e+05	28.0	
38:40	1.32e+04	1.06e+04	1.25 y	2.38e+04	5.24	1,2,3,4,7,8-HxCDD
38:50	3.80e+04	3.03e+04	1.26 y	6.83e+04	14.9	1,2,3,6,7,8-HxCDD
39:16	2.31e+04	2.06e+04	1.12 y	4.37e+04	9.39	1,2,3,7,8,9-HxCDD

Totals class: Total Hepta-Dioxins

Entry #: 41

Run: 15

File: 06MAY10M

S: 9 I: 1 F: 4

Acquired: 6-MAY-10 20:17:58

Total Concentration: 1170

Unnamed Concentration: 490.268

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:52	7.60e+05	8.59e+05	0.88 y	1.62e+06	490	
44:15	1.10e+06	1.15e+06	0.95 y	2.26e+06	683	1,2,3,4,6,7,8-HpCDD

Totals class: Total Tetra-Furans

Entry #: 42

Run: 15

File: 06MAY10M

S: 9 I: 1 F: 1

Acquired: 6-MAY-10 20:17:58

Total Concentration: 16.7

Unnamed Concentration: 16.720

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
25:53	1.26e+04	1.59e+04	0.79 y	2.85e+04	2.55	
27:58	4.09e+04	6.19e+04	0.66 y	1.03e+05	9.22	
28:09	2.43e+04	3.09e+04	0.78 y	5.52e+04	4.95	

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

Run: 15 File: 06MAY10M S: 9 I: 1 F: 1
Acquired: 6-MAY-10 20:17:58

Total Concentration: 11.1 Unnamed Concentration: 11.073

RT	ml Resp	m2 Resp RA	Resp	Concentration	Name
28:32	4.37e+04	3.06e+04	1.43 y	7.43e+04	11.1

Totals class: Total Penta-Furans

Entry #: 44

Run: 15

File: 06MAY10M

S: 9 I: 1 F: 2

Acquired: 6-MAY-10 20:17:58

Total Concentration: 45.6

Unnamed Concentration: 45.613

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:20	4.02e+04	2.79e+04	1.44 y	6.81e+04	10.2	
31:51	8.36e+04	5.42e+04	1.54 y	1.38e+05	20.5	
32:09	3.47e+04	2.41e+04	1.44 y	5.89e+04	8.77	
34:13	2.38e+04	1.75e+04	1.36 y	4.13e+04	6.15	

Totals class: Total Hexa-Furans

Entry #: 45

Run: 15

File: 06MAY10M

S: 9 I: 1 F: 3

Acquired: 6-MAY-10 20:17:58

Total Concentration: 239

Unnamed Concentration: 204.201

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
35:19	3.99e+04	3.03e+04	1.31 y	7.02e+04	11.8	
35:35	1.50e+05	1.27e+05	1.18 y	2.77e+05	46.6	
36:30	2.39e+05	1.92e+05	1.24 y	4.31e+05	72.4	
36:47	1.80e+04	1.27e+04	1.42 y	3.07e+04	5.17	
37:17	6.59e+04	5.06e+04	1.30 y	1.17e+05	19.7	1,2,3,4,7,8-HxCDF
37:28	2.86e+04	2.44e+04	1.17 y	5.30e+04	8.34	1,2,3,6,7,8-HxCDF
38:11	2.23e+05	1.83e+05	1.21 y	4.06e+05	68.3	
38:25	2.37e+04	1.91e+04	1.24 y	4.28e+04	7.12	2,3,4,6,7,8-HxCDF

Totals class: Total Hepta-Furans

Entry #: 46

Run: 15

File: 06MAY10M

S: 9 I: 1 F: 4

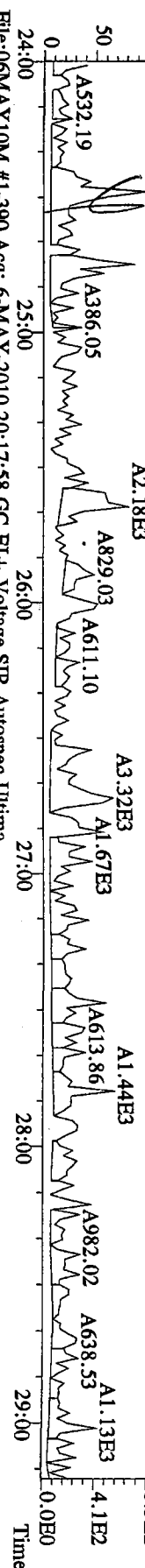
Acquired: 6-MAY-10 20:17:58

Total Concentration: 435

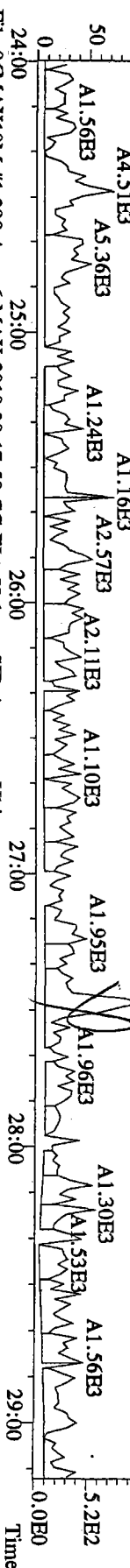
Unnamed Concentration: 294.679

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:21	3.10e+05	2.90e+05	1.07 y	5.99e+05	127	1,2,3,4,6,7,8-HpCDF
43:11	6.61e+05	6.19e+05	1.07 y	1.28e+06	295	
45:10	2.57e+04	2.49e+04	1.03 y	5.06e+04	12.9	1,2,3,4,7,8,9-HpCDF

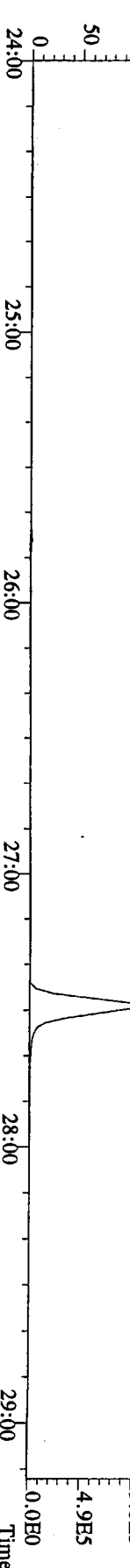
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 319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-390 Acq: 6-MAY-2010 20:17:58 GC EI+ Voltage SIR Autospec-Utima
 321.8936 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



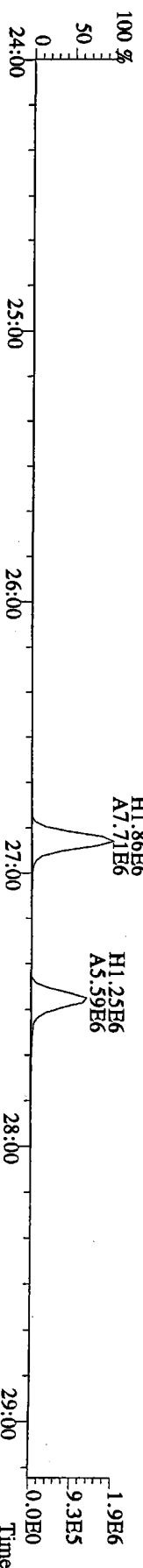
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 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



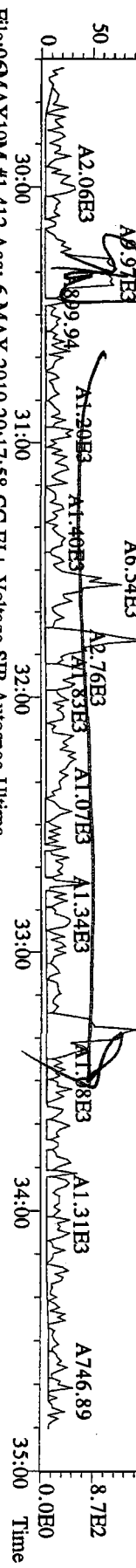
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 331.9368 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



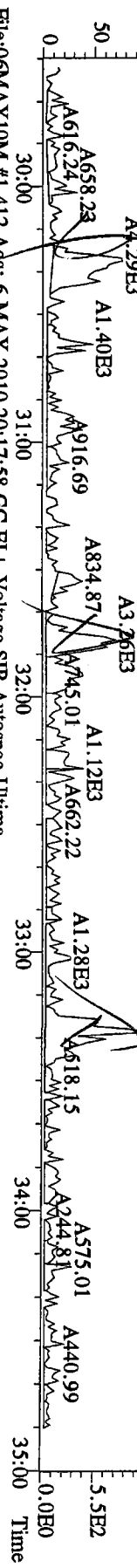
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 333.9339 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



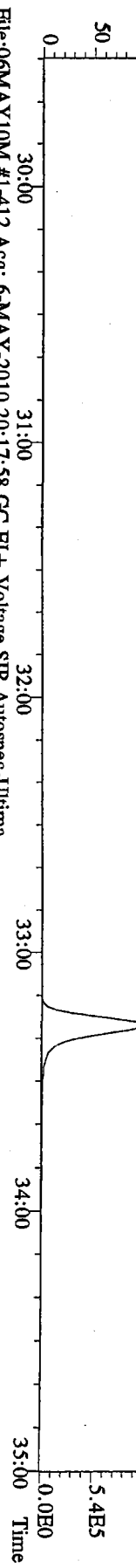
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 355.8546 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



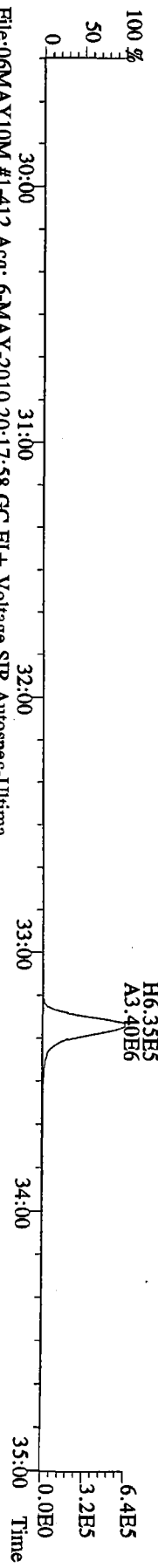
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 357.8517 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



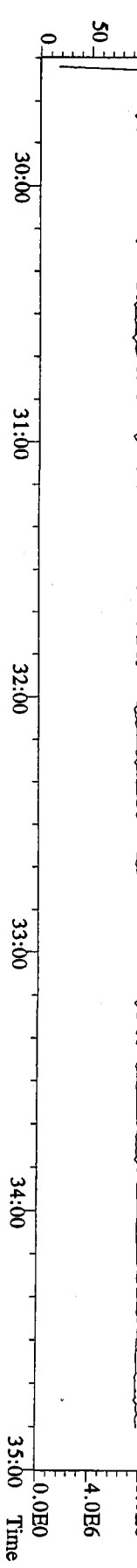
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 367.8949 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-412 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 369.8919 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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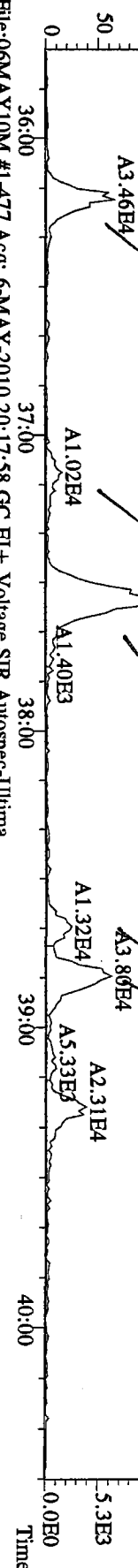


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 366.9792 S:9 F:2 Exp:PCDD
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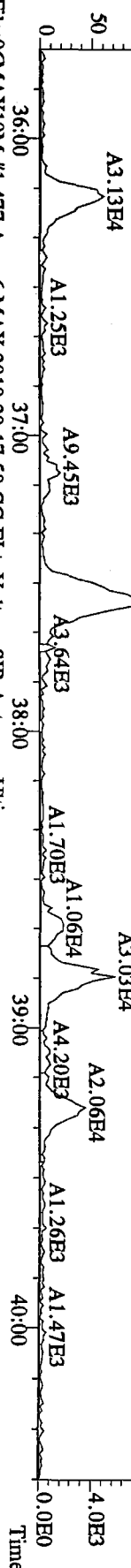


50505 : 0005070

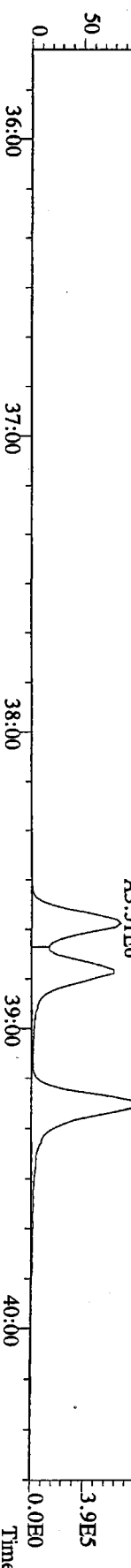
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 389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



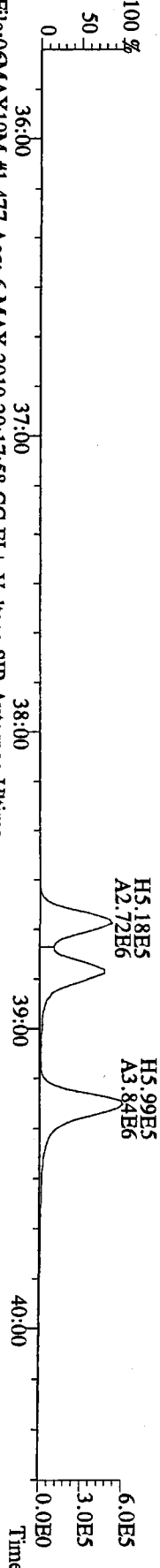
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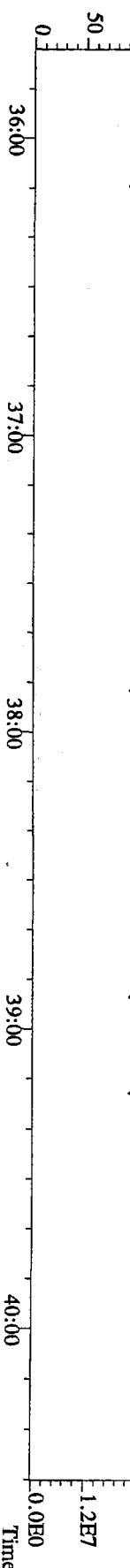
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 401.8559 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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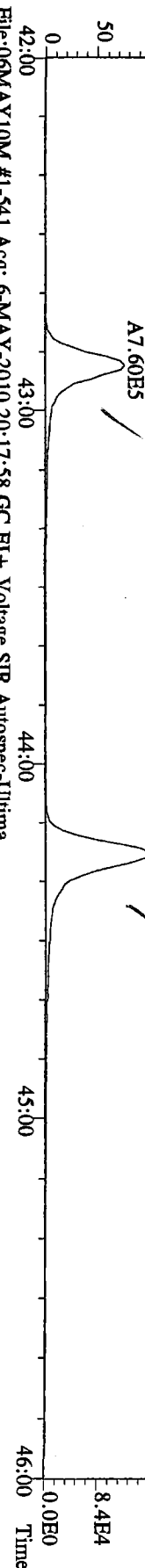
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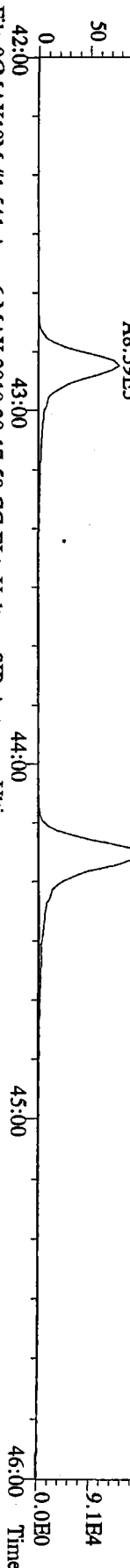
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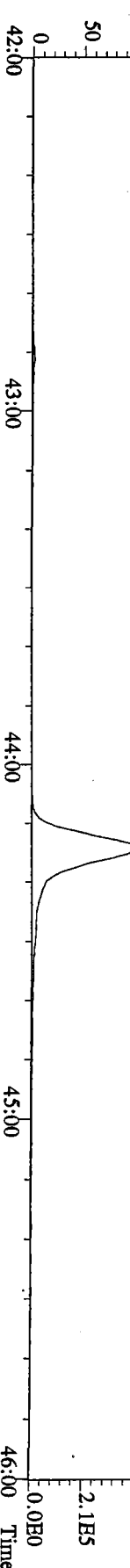
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423.7767 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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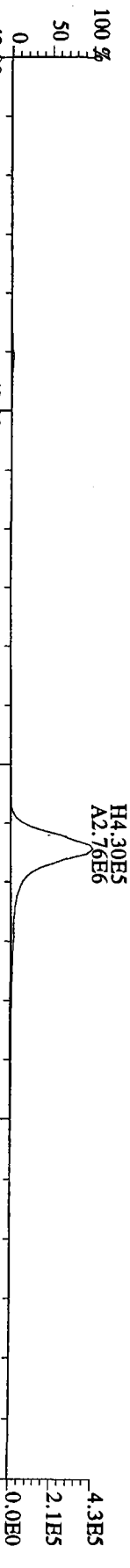
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425.7737 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



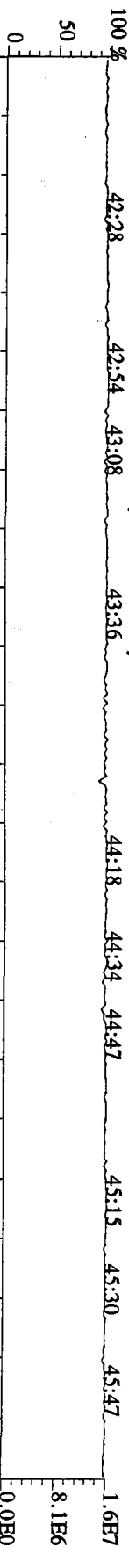
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437.8140 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



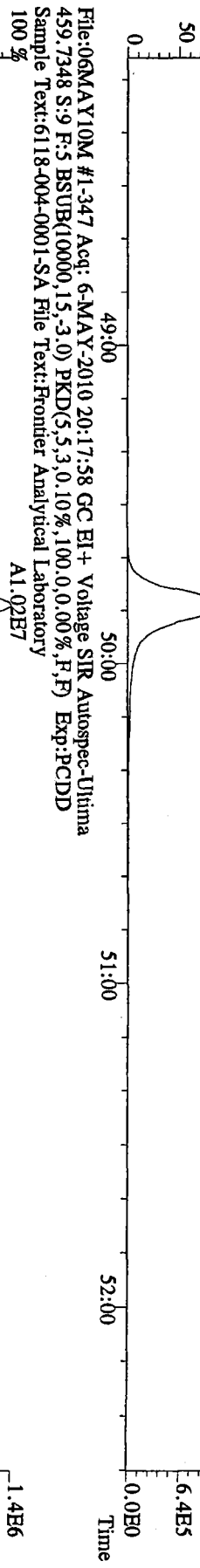
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Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



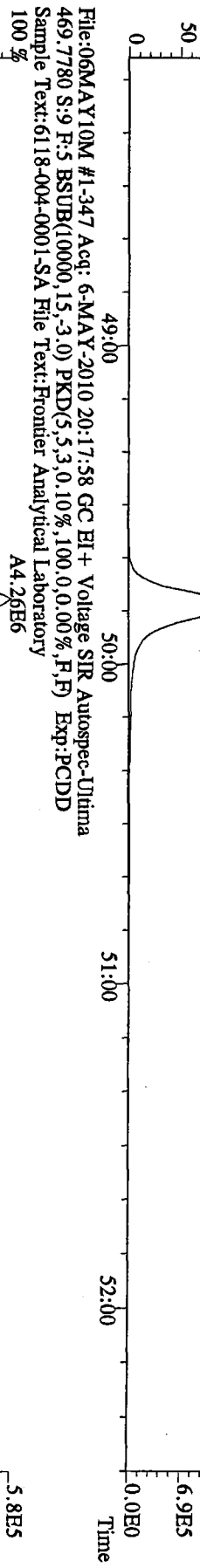
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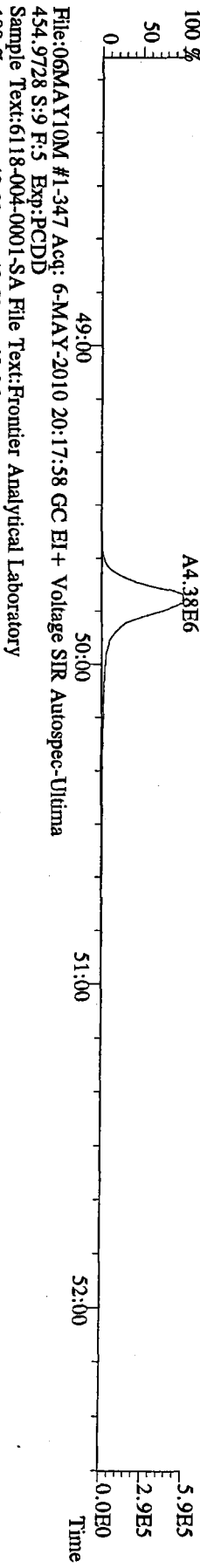
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457.7377 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



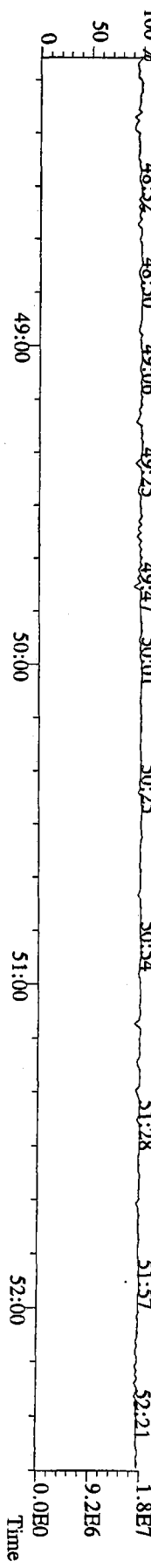
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459.7348 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



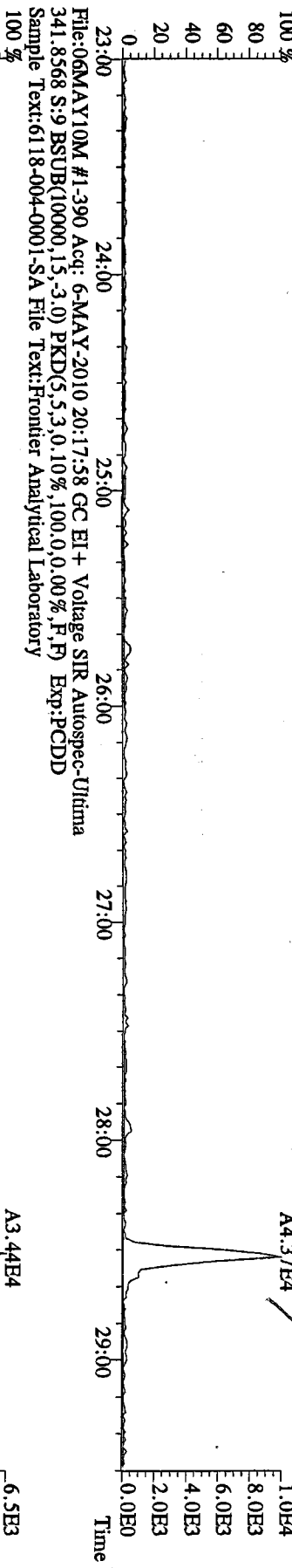
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471.7750 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



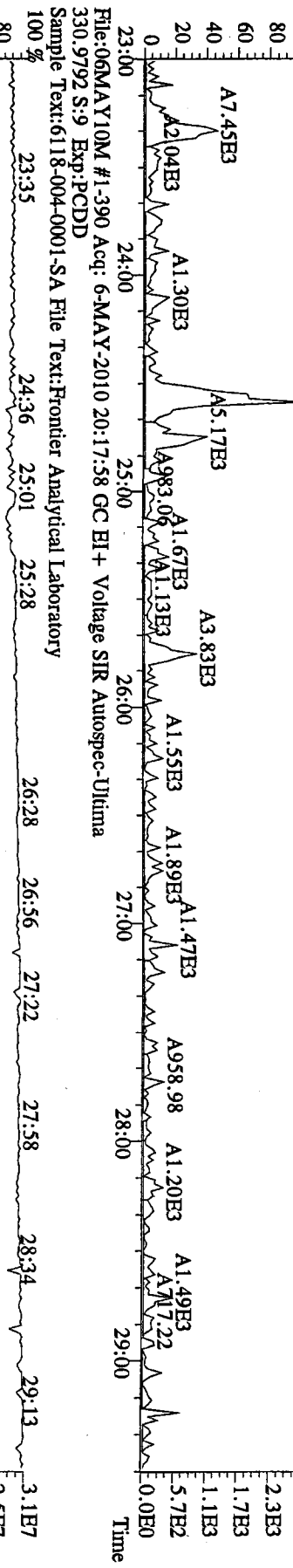
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454.9728 S:9 F:5 Exp:PCDD
Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



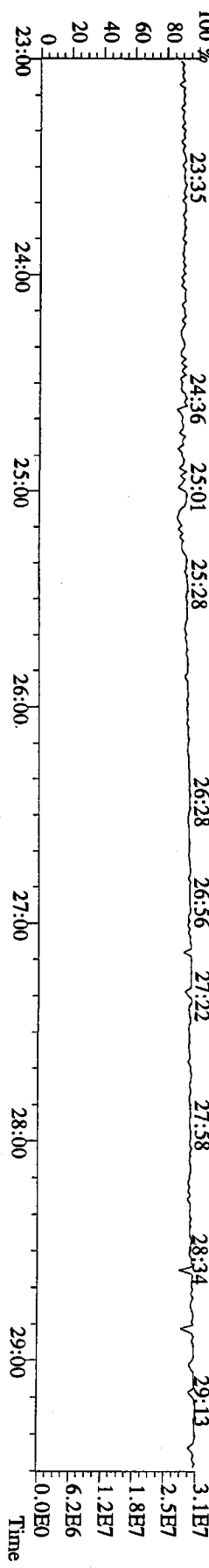
File:06MAY10M #1-390 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 339.8597 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD
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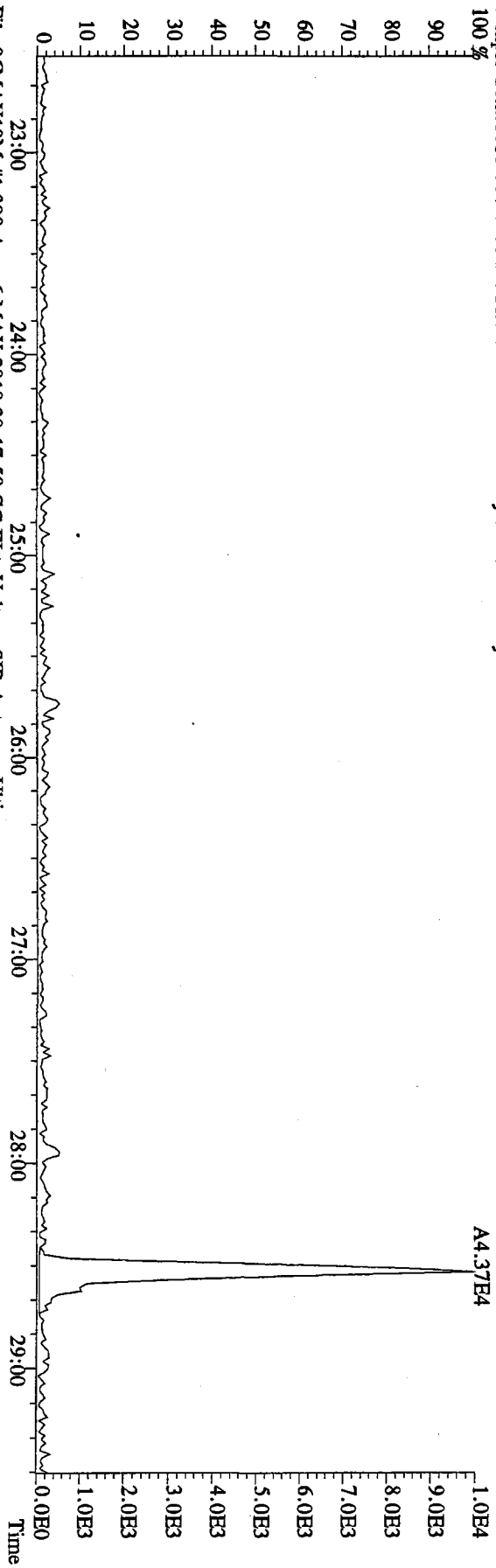
File:06MAY10M #1-390 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 409.7974 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



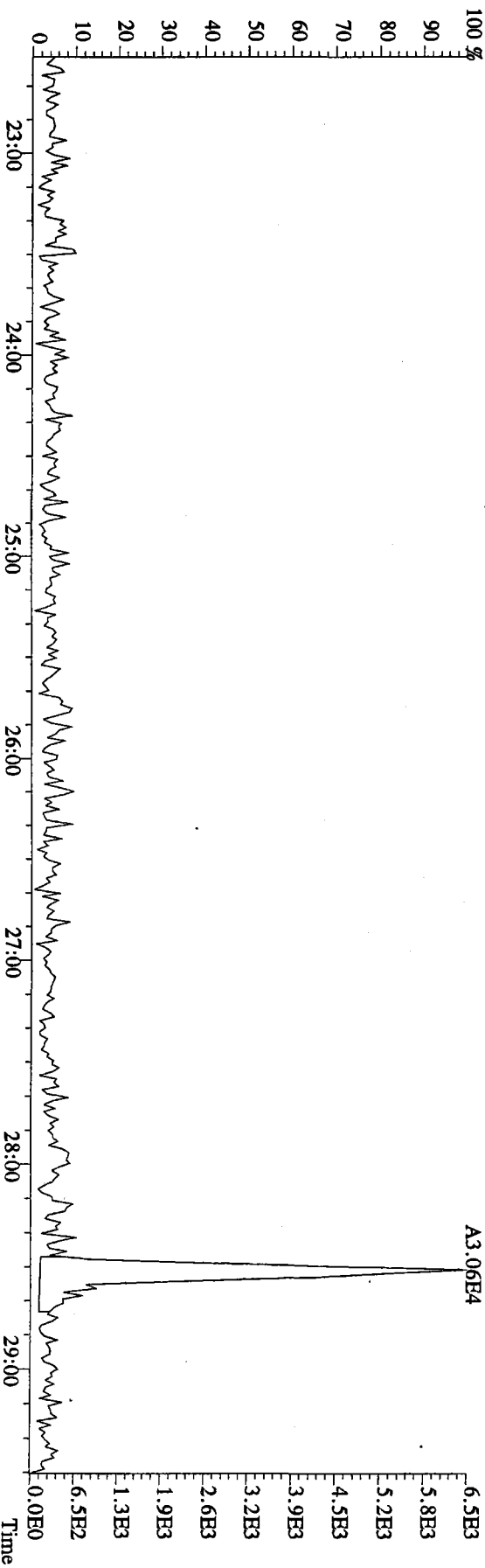
File:06MAY10M #1-390 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 330.9792 S:9 Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



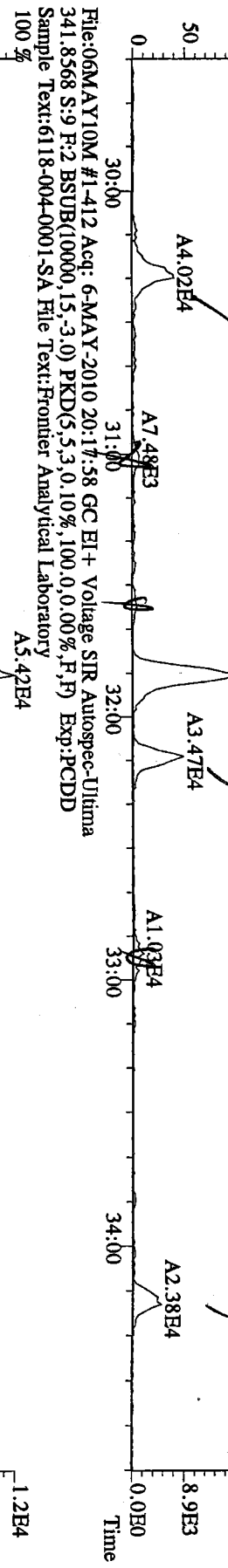
File:06MAY10M #1-390 Acq: 6-MAY-2010 20:17:58 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory
100 %



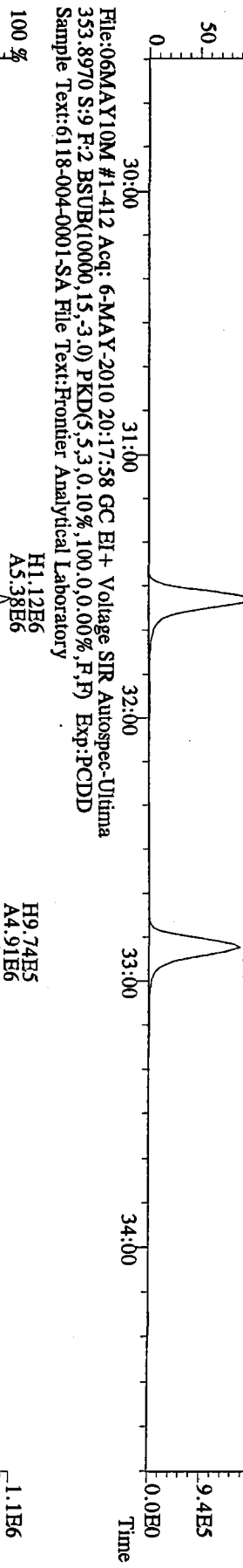
File:06MAY10M #1-390 Acq: 6-MAY-2010 20:17:58 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



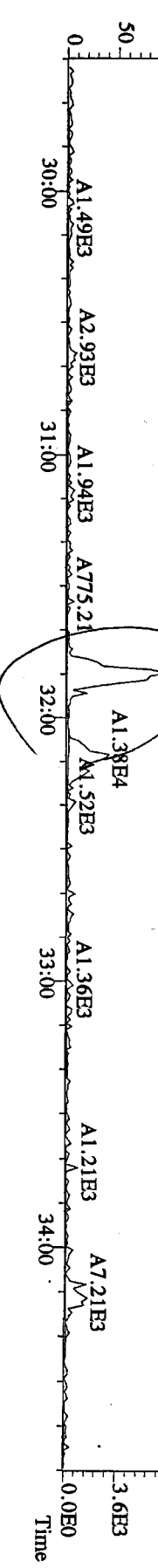
File:06MAY10M #1-412 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Fronier Analytical Laboratory



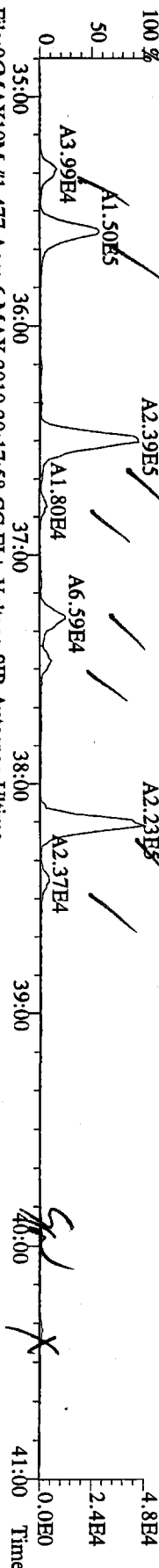
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 351.9000 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Fronier Analytical Laboratory



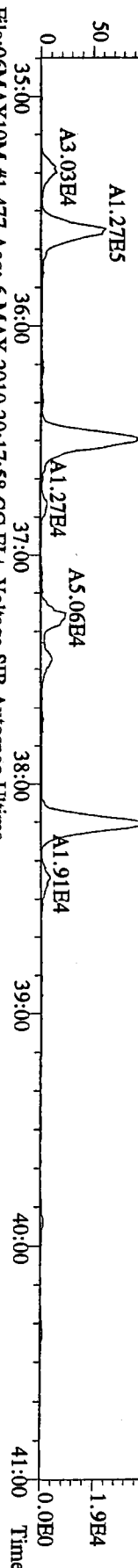
File:06MAY10M #1-412 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 409.7974 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Fronier Analytical Laboratory



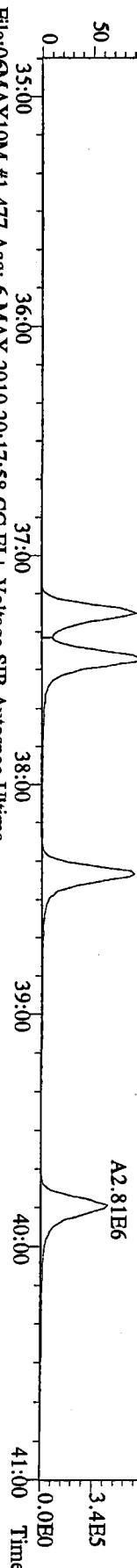
File:06MAY10M #1-477 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



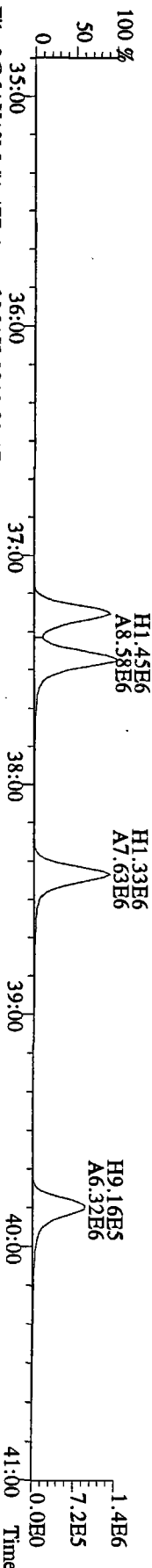
File:06MAY10M #1-477 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 375.8178 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



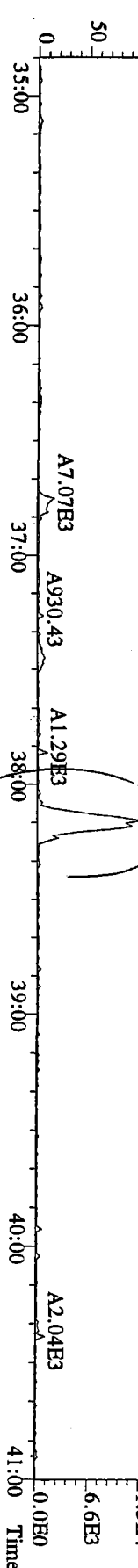
File:06MAY10M #1-477 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 383.8639 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-477 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 385.8610 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



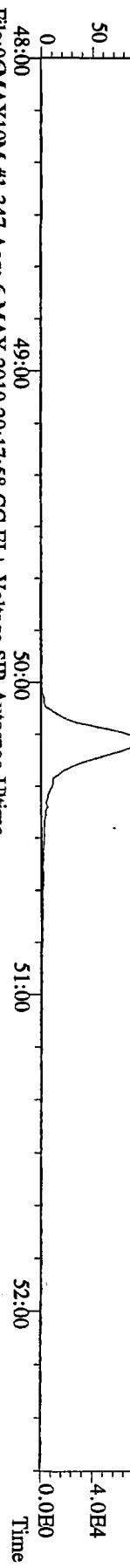
File:06MAY10M #1-477 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 445.7555 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



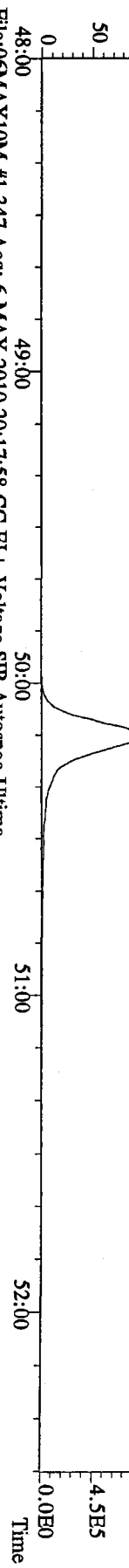
File:06MAY10M #1-347 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 441.7428 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



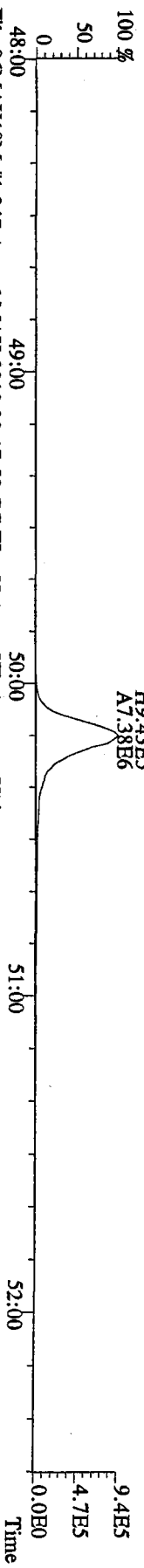
File:06MAY10M #1-347 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 443.7398 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



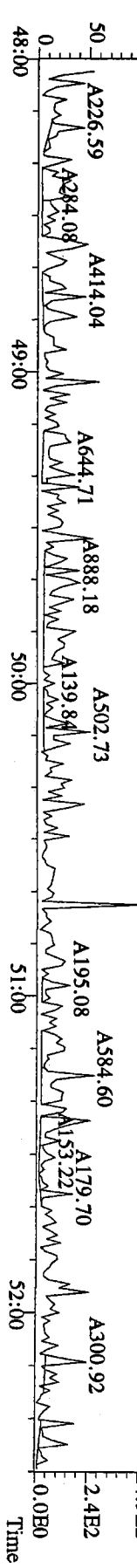
File:06MAY10M #1-347 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 453.7831 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 455.7801 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 6-MAY-2010 20:17:58 GC EI + Voltage SIR Autospec-Ultima
 513.6775 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:6118-004-0001-SA File Text:Frontier Analytical Laboratory



Initial Calibration Results

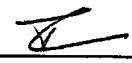
Frontier Analytical Laboratory

Data Filename: 14APR10M

Analyte: PCDDFAL3-4-14-10


Cal: PCDDFAL3-4-14-10

Name	RRF	S. D.	%RSD	S1 RRF#1	S2 RRF#2	S3 RRF#3	S4 RRF#4	S5 RRF#5	S6 RRF#6
2,3,7,8-TCDD	1.12	0.0847	7.56 %	1.15	1.04	1.00	1.15	1.15	1.23
1,2,3,7,8-PeCDD	1.07	0.0781	7.30 %	0.99	0.99	1.04	1.08	1.16	1.16
1,2,3,4,7,8-HxCDD	1.39	0.0866	6.22 %	1.31	1.31	1.36	1.39	1.49	1.50
1,2,3,6,7,8-HxCDD	1.36	0.0973	7.17 %	1.23	1.27	1.35	1.37	1.46	1.47
1,2,3,7,8,9-HxCDD	1.40	0.103	7.36 %	1.28	1.30	1.39	1.41	1.51	1.52
1,2,3,4,6,7,8-HpCDD	1.14	0.0780	6.86 %	1.07	1.05	1.09	1.15	1.22	1.24
OCDD	1.22	0.0838	6.89 %	1.14	1.14	1.16	1.23	1.31	1.32
2,3,7,8-TCDF	1.29	0.0588	4.57 %	1.22	1.33	1.24	1.25	1.31	1.37
1,2,3,7,8-PeCDF	0.93	0.0739	7.98 %	0.84	0.86	0.88	0.97	0.99	1.02
2,3,4,7,8-PeCDF	0.93	0.0826	8.87 %	0.84	0.84	0.90	0.96	1.01	1.03
1,2,3,4,7,8-HxCDF	1.07	0.0869	8.15 %	1.00	0.96	1.03	1.07	1.16	1.18
1,2,3,6,7,8-HxCDF	0.97	0.0861	8.86 %	0.87	0.90	0.93	1.00	1.05	1.08
2,3,4,6,7,8-HxCDF	1.04	0.0851	8.16 %	0.97	0.95	1.01	1.06	1.13	1.16
1,2,3,7,8,9-HxCDF	1.15	0.100	8.75 %	1.04	1.05	1.11	1.16	1.26	1.27
1,2,3,4,6,7,8-HpCDF	1.37	0.111	8.15 %	1.28	1.25	1.29	1.40	1.48	1.51
1,2,3,4,7,8,9-HpCDF	1.62	0.133	8.23 %	1.52	1.46	1.54	1.62	1.77	1.78
OCDF	0.85	0.0711	8.39 %	0.77	0.79	0.81	0.86	0.92	0.94
13C-2,3,7,8-TCDD	0.98	0.0214	2.18 %	0.98	0.96	0.99	0.96	1.00	1.00
13C-1,2,3,7,8-PeCDD	1.14	0.0377	3.32 %	1.13	1.10	1.11	1.12	1.16	1.20
13C-1,2,3,4,7,8-HxCDD	1.00	0.0241	2.40 %	1.02	1.02	0.96	1.03	1.00	1.01
13C-1,2,3,6,7,8-HxCDD	0.89	0.0134	1.51 %	0.91	0.89	0.89	0.89	0.89	0.87
13C-1,2,3,4,6,7,8-HpCDD	1.01	0.0219	2.16 %	1.01	1.01	0.99	0.99	1.03	1.04
13C-OCDD	0.75	0.0428	5.70 %	0.73	0.74	0.71	0.73	0.77	0.83
13C-2,3,7,8-TCDF	0.93	0.0375	4.05 %	0.93	0.88	0.91	0.97	0.90	0.97
13C-1,2,3,7,8-PeCDF	0.93	0.0524	5.66 %	0.92	0.87	0.89	0.94	0.91	1.02
13C-2,3,4,7,8-PeCDF	0.87	0.0417	4.77 %	0.86	0.83	0.85	0.88	0.87	0.95
13C-1,2,3,4,7,8-HxCDF	1.82	0.0584	3.21 %	1.84	1.88	1.82	1.87	1.80	1.72
13C-1,2,3,6,7,8-HxCDF	2.01	0.0642	3.20 %	2.05	2.06	2.02	2.04	1.99	1.89
13C-2,3,4,6,7,8-HxCDF	1.77	0.0378	2.13 %	1.78	1.80	1.78	1.81	1.77	1.70
13C-1,2,3,7,8,9-HxCDF	1.57	0.0141	0.902 %	1.56	1.56	1.55	1.55	1.59	1.58
13C-1,2,3,4,6,7,8-HpCDF	1.24	0.00688	0.553 %	1.24	1.24	1.24	1.24	1.26	1.24
13C-1,2,3,4,7,8,9-HpCDF	0.99	0.0338	3.40 %	0.98	0.98	0.96	0.98	1.01	1.05
13C-OCDF	1.32	0.0597	4.54 %	1.28	1.28	1.28	1.28	1.35	1.43
37Cl-2,3,7,8-TCDD	1.10	0.0835	7.58 %	1.05	1.07	1.02	1.07	1.16	1.24
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-	-
13C-1,2,3,4-TCDF	-	-	- %	-	-	-	-	-	-
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-	-
Total Tetra-Dioxins	1.12	0.0847	7.56 %	1.15	1.04	1.00	1.15	1.15	1.23
Total Penta-Dioxins	1.07	0.0781	7.30 %	0.99	0.99	1.04	1.08	1.16	1.16
Total Hexa-Dioxins	1.38	0.0951	6.87 %	1.27	1.29	1.37	1.39	1.49	1.50
Total Hepta-Dioxins	1.14	0.0780	6.86 %	1.07	1.05	1.09	1.15	1.22	1.24
Total Tetra-Furans	1.29	0.0588	4.57 %	1.22	1.33	1.24	1.25	1.31	1.37
1st Fn. Tot Penta-Furans	0.93	0.0779	8.38 %	0.84	0.85	0.89	0.97	1.00	1.02
Total Penta-Furans	0.93	0.0779	8.38 %	0.84	0.85	0.89	0.97	1.00	1.02
Total Hexa-Furans	1.05	0.0895	8.50 %	0.96	0.96	1.01	1.07	1.14	1.17
Total Hepta-Furans	1.48	0.122	8.28 %	1.38	1.34	1.40	1.50	1.61	1.63

Analyst: 

Date: 4/15/10

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1 Unk	2,3,7,8-TCDD	0.25	4.74e+04	0.74 y	27:19	-	1.15 y
2 Unk	1,2,3,7,8-PeCDD	1.25	2.34e+05	1.58 y	33:07	-	0.988 y
3 Unk	1,2,3,4,7,8-HxCDD	1.25	2.52e+05	1.30 y	38:28	-	1.31 y
4 Unk	1,2,3,6,7,8-HxCDD	1.25	2.13e+05	1.24 y	38:38	-	1.23 y
5 Unk	1,2,3,7,8,9-HxCDD	1.25	2.34e+05	1.23 y	39:05	-	1.28 y
6 Unk	1,2,3,4,6,7,8-HpCDD	1.25	2.06e+05	0.91 y	44:04	-	1.07 y
7 Unk	OCDD	2.50	3.14e+05	0.98 y	49:33	-	1.14 y
8 Unk	2,3,7,8-TCDF	0.25	1.01e+05	0.66 y	26:34	-	1.22 y
9 Unk	1,2,3,7,8-PeCDF	1.25	3.44e+05	1.57 y	31:24	-	0.841 y
10 Unk	2,3,4,7,8-PeCDF	1.25	3.22e+05	1.61 y	32:43	-	0.840 y
11 Unk	1,2,3,4,7,8-HxCDF	1.25	3.49e+05	1.18 y	37:05	-	0.997 y
12 Unk	1,2,3,6,7,8-HxCDF	1.25	3.37e+05	1.20 y	37:17	-	0.867 y
13 Unk	2,3,4,6,7,8-HxCDF	1.25	3.27e+05	1.27 y	38:13	-	0.967 y
14 Unk	1,2,3,7,8,9-HxCDF	1.25	3.07e+05	1.24 y	39:40	-	1.04 y
15 Unk	1,2,3,4,6,7,8-HpCDF	1.25	3.01e+05	0.93 y	42:09	-	1.28 y
16 Unk	1,2,3,4,7,8,9-HpCDF	1.25	2.84e+05	1.00 y	44:59	-	1.52 y
17 Unk	OCDF	2.50	3.74e+05	0.91 y	49:56	-	0.769 y
18 IS/RT	13C-2,3,7,8-TCDD	100.00	1.64e+07	0.75 y	27:18	-	0.978 y
19 IS	13C-1,2,3,7,8-PeCDD	100.00	1.89e+07	1.61 y	33:06	-	1.13 y
20 IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.54e+07	1.33 y	38:27	-	1.02 y
21 IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.39e+07	1.27 y	38:38	-	0.915 y
22 IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.54e+07	1.03 y	44:02	-	1.01 y
23 IS	13C-OCDD	200.00	2.21e+07	0.96 y	49:33	-	0.728 y
24 IS	13C-2,3,7,8-TCDF	100.00	3.30e+07	0.85 y	26:33	-	0.931 y
25 IS	13C-1,2,3,7,8-PeCDF	100.00	3.27e+07	1.63 y	31:22	-	0.921 y
26 IS	13C-2,3,4,7,8-PeCDF	100.00	3.06e+07	1.65 y	32:41	-	0.863 y
27 IS	13C-1,2,3,4,7,8-HxCDF	100.00	2.80e+07	0.48 y	37:04	-	1.84 y
28 IS	13C-1,2,3,6,7,8-HxCDF	100.00	3.11e+07	0.47 y	37:15	-	2.05 y
29 IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.70e+07	0.49 y	38:12	-	1.78 y
30 IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.37e+07	0.48 y	39:38	-	1.56 y
31 IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.89e+07	0.47 y	42:08	-	1.24 y
32 IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.50e+07	0.46 y	44:57	-	0.984 y
33 IS	13C-OCDF	200.00	3.90e+07	0.91 y	49:55	-	1.28 y
34 C/Up	37Cl-2,3,7,8-TCDD	0.25	4.40e+04		27:19	-	1.05 y
35 RS	13C-1,2,3,4-TCDD	100.00	1.68e+07	0.75 y	26:43	1.68e+05	- n
36 RS	13C-1,2,3,4-TCDF	100.00	3.55e+07	0.87 y	25:27	3.55e+05	- n
37 RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.52e+07	1.28 y	39:04	1.52e+05	- n
38 Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.15 y
39 Tot	Total Penta-Dioxins	0.00	-	- n	-	-	0.988 y
40 Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.27 y
41 Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.07 y
42 Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.22 y
43 Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.840 y
44 Tot	Total Penta-Furans	0.00	-	- n	-	-	0.840 y
45 Tot	Total Hexa-Furans	0.00	-	- n	-	-	0.962 y
46 Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.38 y

Analyst:  Date: 4/15/10

Run #2 Filename 14APR10M
 Client ID: ST041410M1

S: 2 Acquired: 14-APR-10 10:57:09 Cal: PCDDFAL3-4-14-10
 Analyte: FAL ID: 1613 CS1 090918H

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	0.50	8.32e+04	0.87 y	27:18	-	1.04 y
2	Unk 1,2,3,7,8-PeCDD	2.50	4.56e+05	1.60 y	33:07	-	0.995 y
3	Unk 1,2,3,4,7,8-HxCDD	2.50	4.75e+05	1.31 y	38:29	-	1.31 y
4	Unk 1,2,3,6,7,8-HxCDD	2.50	4.03e+05	1.30 y	38:39	-	1.27 y
5	Unk 1,2,3,7,8,9-HxCDD	2.50	4.43e+05	1.28 y	39:04	-	1.30 y
6	Unk 1,2,3,4,6,7,8-HpCDD	2.50	3.82e+05	0.90 y	44:03	-	1.05 y
7	Unk OCDD	5.00	6.06e+05	0.94 y	49:34	-	1.14 y
8	Unk 2,3,7,8-TCDF	0.50	2.12e+05	0.66 y	26:33	-	1.33 y
9	Unk 1,2,3,7,8-PeCDF	2.50	6.77e+05	1.67 y	31:23	-	0.859 y
10	Unk 2,3,4,7,8-PeCDF	2.50	6.30e+05	1.58 y	32:42	-	0.843 y
11	Unk 1,2,3,4,7,8-HxCDF	2.50	6.48e+05	1.21 y	37:05	-	0.964 y
12	Unk 1,2,3,6,7,8-HxCDF	2.50	6.64e+05	1.21 y	37:17	-	0.900 y
13	Unk 2,3,4,6,7,8-HxCDF	2.50	6.09e+05	1.23 y	38:13	-	0.947 y
14	Unk 1,2,3,7,8,9-HxCDF	2.50	5.86e+05	1.24 y	39:39	-	1.05 y
15	Unk 1,2,3,4,6,7,8-HpCDF	2.50	5.54e+05	1.01 y	42:09	-	1.25 y
16	Unk 1,2,3,4,7,8,9-HpCDF	2.50	5.13e+05	0.99 y	44:58	-	1.46 y
17	Unk OCDF	5.00	7.25e+05	0.93 y	49:56	-	0.789 y
18	IS/RT 13C-2,3,7,8-TCDD	100.00	1.60e+07	0.74 y	27:17	-	0.956 y
19	IS 13C-1,2,3,7,8-PeCDD	100.00	1.83e+07	1.64 y	33:06	-	1.10 y
20	IS 13C-1,2,3,4,7,8-HxCDD	100.00	1.45e+07	1.30 y	38:27	-	1.02 y
21	IS 13C-1,2,3,6,7,8-HxCDD	100.00	1.27e+07	1.29 y	38:37	-	0.888 y
22	IS 13C-1,2,3,4,6,7,8-HpCDD	100.00	1.45e+07	1.05 y	44:02	-	1.01 y
23	IS 13C-OCDD	200.00	2.12e+07	0.96 y	49:33	-	0.742 y
24	IS 13C-2,3,7,8-TCDF	100.00	3.17e+07	0.88 y	26:32	-	0.877 y
25	IS 13C-1,2,3,7,8-PeCDF	100.00	3.15e+07	1.65 y	31:22	-	0.871 y
26	IS 13C-2,3,4,7,8-PeCDF	100.00	2.99e+07	1.66 y	32:42	-	0.826 y
27	IS 13C-1,2,3,4,7,8-HxCDF	100.00	2.69e+07	0.47 y	37:03	-	1.88 y
28	IS 13C-1,2,3,6,7,8-HxCDF	100.00	2.95e+07	0.47 y	37:15	-	2.06 y
29	IS 13C-2,3,4,6,7,8-HxCDF	100.00	2.57e+07	0.48 y	38:12	-	1.80 y
30	IS 13C-1,2,3,7,8,9-HxCDF	100.00	2.24e+07	0.48 y	39:38	-	1.56 y
31	IS 13C-1,2,3,4,6,7,8-HpCDF	100.00	1.78e+07	0.46 y	42:08	-	1.24 y
32	IS 13C-1,2,3,4,7,8,9-HpCDF	100.00	1.40e+07	0.47 y	44:57	-	0.980 y
33	IS 13C-OCDF	200.00	3.67e+07	0.91 y	49:55	-	1.28 y
34	C/Up 37Cl-2,3,7,8-TCDD	0.50	8.94e+04		27:18	-	1.07 y
35	RS 13C-1,2,3,4-TCDD	100.00	1.67e+07	0.73 y	26:42	1.67e+05	- n
36	RS 13C-1,2,3,4-TCDF	100.00	3.62e+07	0.87 y	25:26	3.62e+05	- n
37	RS/RT 13C-1,2,3,7,8,9-HxCDD	100.00	1.43e+07	1.31 y	39:03	1.43e+05	- n
38	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	1.04 y
39	Tot Total Penta-Dioxins	0.00	-	- n	-	-	0.995 y
40	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.29 y
41	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	1.05 y
42	Tot Total Tetra-Furans	0.00	-	- n	-	-	1.33 y
43	Tot 1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.851 y
44	Tot Total Penta-Furans	0.00	-	- n	-	-	0.851 y
45	Tot Total Hexa-Furans	0.00	-	- n	-	-	0.960 y
46	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.34 y

Analyst: 

Date: 4/15/10

Run #3 Filename 14APR10M
 Client ID: ST041410M2

S: 3

Acquired: 14-APR-10 11:52:28 Cal: PCDDFAL3-4-14-10

Analyte:

FAL ID: 1613 CS2 090918I

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	2.00	3.32e+05	0.79 y	27:18	-	0.998 y
2	Unk 1,2,3,7,8-PeCDD	10.00	1.94e+06	1.56 y	33:07	-	1.04 y
3	Unk 1,2,3,4,7,8-HxCDD	10.00	2.00e+06	1.25 y	38:29	-	1.36 y
4	Unk 1,2,3,6,7,8-HxCDD	10.00	1.84e+06	1.28 y	38:39	-	1.35 y
5	Unk 1,2,3,7,8,9-HxCDD	10.00	1.96e+06	1.28 y	39:05	-	1.39 y
6	Unk 1,2,3,4,6,7,8-HpCDD	10.00	1.64e+06	0.91 y	44:03	-	1.09 y
7	Unk OCDD	20.00	2.51e+06	0.91 y	49:33	-	1.16 y
8	Unk 2,3,7,8-TCDF	2.00	8.13e+05	0.67 y	26:33	-	1.24 y
9	Unk 1,2,3,7,8-PeCDF	10.00	2.86e+06	1.68 y	31:23	-	0.885 y
10	Unk 2,3,4,7,8-PeCDF	10.00	2.78e+06	1.69 y	32:42	-	0.902 y
11	Unk 1,2,3,4,7,8-HxCDF	10.00	2.85e+06	1.24 y	37:05	-	1.03 y
12	Unk 1,2,3,6,7,8-HxCDF	10.00	2.87e+06	1.26 y	37:17	-	0.931 y
13	Unk 2,3,4,6,7,8-HxCDF	10.00	2.73e+06	1.23 y	38:13	-	1.01 y
14	Unk 1,2,3,7,8,9-HxCDF	10.00	2.63e+06	1.21 y	39:38	-	1.11 y
15	Unk 1,2,3,4,6,7,8-HpCDF	10.00	2.44e+06	1.01 y	42:09	-	1.29 y
16	Unk 1,2,3,4,7,8,9-HpCDF	10.00	2.25e+06	0.99 y	44:58	-	1.54 y
17	Unk OCDF	20.00	3.14e+06	0.91 y	49:56	-	0.807 y
18	IS/RT 13C-2,3,7,8-TCDD	100.00	1.66e+07	0.73 y	27:17	-	0.988 y
19	IS 13C-1,2,3,7,8-PeCDD	100.00	1.87e+07	1.62 y	33:06	-	1.11 y
20	IS 13C-1,2,3,4,7,8-HxCDD	100.00	1.46e+07	1.29 y	38:27	-	0.961 y
21	IS 13C-1,2,3,6,7,8-HxCDD	100.00	1.36e+07	1.31 y	38:37	-	0.895 y
22	IS 13C-1,2,3,4,6,7,8-HpCDD	100.00	1.51e+07	1.04 y	44:02	-	0.992 y
23	IS 13C-OCDD	200.00	2.16e+07	0.96 y	49:33	-	0.709 y
24	IS 13C-2,3,7,8-TCDF	100.00	3.28e+07	0.87 y	26:32	-	0.905 y
25	IS 13C-1,2,3,7,8-PeCDF	100.00	3.24e+07	1.67 y	31:22	-	0.892 y
26	IS 13C-2,3,4,7,8-PeCDF	100.00	3.08e+07	1.63 y	32:41	-	0.850 y
27	IS 13C-1,2,3,4,7,8-HxCDF	100.00	2.77e+07	0.47 y	37:03	-	1.82 y
28	IS 13C-1,2,3,6,7,8-HxCDF	100.00	3.08e+07	0.48 y	37:16	-	2.02 y
29	IS 13C-2,3,4,6,7,8-HxCDF	100.00	2.71e+07	0.48 y	38:12	-	1.78 y
30	IS 13C-1,2,3,7,8,9-HxCDF	100.00	2.36e+07	0.47 y	39:38	-	1.55 y
31	IS 13C-1,2,3,4,6,7,8-HpCDF	100.00	1.88e+07	0.46 y	42:08	-	1.24 y
32	IS 13C-1,2,3,4,7,8,9-HpCDF	100.00	1.46e+07	0.47 y	44:57	-	0.955 y
33	IS 13C-OCDF	200.00	3.89e+07	0.92 y	49:54	-	1.28 y
34	C/Up 37Cl-2,3,7,8-TCDD	2.00	3.43e+05		27:18	-	1.02 y
35	RS 13C-1,2,3,4-TCDD	100.00	1.68e+07	0.74 y	26:42	1.68e+05	- n
36	RS 13C-1,2,3,4-TCDF	100.00	3.62e+07	0.88 y	25:27	3.62e+05	- n
37	RS/RT 13C-1,2,3,7,8,9-HxCDD	100.00	1.52e+07	1.29 y	39:03	1.52e+05	- n
38	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	0.998 y
39	Tot Total Penta-Dioxins	0.00	-	- n	-	-	1.04 y
40	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.37 y
41	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	1.09 y
42	Tot Total Tetra-Furans	0.00	-	- n	-	-	1.24 y
43	Tot 1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.893 y
44	Tot Total Penta-Furans	0.00	-	- n	-	-	0.893 y
45	Tot Total Hexa-Furans	0.00	-	- n	-	-	1.01 y
46	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.40 y

Analyst: 

Date: 4/15/10

Run #4 Filename 14APR10M
Client ID: ST041410M3

S: 4

Acquired: 14-APR-10 12:47:47

Cal: PCDDFAL3-4-14-10

Analyte:

FAL ID: 1613 CS3 090918J

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1 Unk	2,3,7,8-TCDD	10.00	1.98e+06	0.82 y	27:19	-	1.15 y
2 Unk	1,2,3,7,8-PeCDD	50.00	1.08e+07	1.55 y	33:07	-	1.08 y
3 Unk	1,2,3,4,7,8-HxCDD	50.00	1.15e+07	1.28 y	38:29	-	1.39 y
4 Unk	1,2,3,6,7,8-HxCDD	50.00	9.78e+06	1.30 y	38:38	-	1.37 y
5 Unk	1,2,3,7,8,9-HxCDD	50.00	1.09e+07	1.30 y	39:05	-	1.41 y
6 Unk	1,2,3,4,6,7,8-HpCDD	50.00	9.14e+06	0.96 y	44:04	-	1.15 y
7 Unk	OCDD	100.00	1.43e+07	0.92 y	49:35	-	1.23 y
8 Unk	2,3,7,8-TCDF	10.00	4.48e+06	0.67 y	26:34	-	1.25 y
9 Unk	1,2,3,7,8-PeCDF	50.00	1.68e+07	1.68 y	31:23	-	0.967 y
10 Unk	2,3,4,7,8-PeCDF	50.00	1.57e+07	1.69 y	32:43	-	0.964 y
11 Unk	1,2,3,4,7,8-HxCDF	50.00	1.61e+07	1.25 y	37:05	-	1.07 y
12 Unk	1,2,3,6,7,8-HxCDF	50.00	1.62e+07	1.25 y	37:17	-	0.995 y
13 Unk	2,3,4,6,7,8-HxCDF	50.00	1.54e+07	1.25 y	38:13	-	1.06 y
14 Unk	1,2,3,7,8,9-HxCDF	50.00	1.45e+07	1.28 y	39:39	-	1.16 y
15 Unk	1,2,3,4,6,7,8-HpCDF	50.00	1.39e+07	1.01 y	42:09	-	1.40 y
16 Unk	1,2,3,4,7,8,9-HpCDF	50.00	1.27e+07	1.03 y	44:59	-	1.62 y
17 Unk	OCDF	100.00	1.77e+07	0.91 y	49:56	-	0.862 y
18 IS/RT	13C-2,3,7,8-TCDD	100.00	1.73e+07	0.74 y	27:18	-	0.956 y
19 IS	13C-1,2,3,7,8-PeCDD	100.00	2.02e+07	1.63 y	33:06	-	1.12 y
20 IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.65e+07	1.31 y	38:27	-	1.03 y
21 IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.43e+07	1.30 y	38:37	-	0.894 y
22 IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.58e+07	1.03 y	44:02	-	0.989 y
23 IS	13C-OCDD	200.00	2.33e+07	0.94 y	49:33	-	0.728 y
24 IS	13C-2,3,7,8-TCDF	100.00	3.58e+07	0.86 y	26:33	-	0.970 y
25 IS	13C-1,2,3,7,8-PeCDF	100.00	3.48e+07	1.65 y	31:22	-	0.944 y
26 IS	13C-2,3,4,7,8-PeCDF	100.00	3.25e+07	1.65 y	32:41	-	0.882 y
27 IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.00e+07	0.47 y	37:04	-	1.87 y
28 IS	13C-1,2,3,6,7,8-HxCDF	100.00	3.26e+07	0.47 y	37:15	-	2.04 y
29 IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.91e+07	0.48 y	38:12	-	1.81 y
30 IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.49e+07	0.47 y	39:38	-	1.55 y
31 IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.98e+07	0.46 y	42:08	-	1.24 y
32 IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.57e+07	0.46 y	44:57	-	0.979 y
33 IS	13C-OCDF	200.00	4.11e+07	0.91 y	49:55	-	1.28 y
34 C/Up	37Cl-2,3,7,8-TCDD	10.00	1.93e+06		27:19	-	1.07 y
35 RS	13C-1,2,3,4-TCDD	100.00	1.81e+07	0.75 y	26:42	1.81e+05	- n
36 RS	13C-1,2,3,4-TCDF	100.00	3.69e+07	0.88 y	25:27	3.69e+05	- n
37 RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.60e+07	1.32 y	39:04	1.60e+05	- n
38 Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.15 y
39 Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.08 y
40 Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.39 y
41 Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.15 y
42 Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.25 y
43 Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.965 y
44 Tot	Total Penta-Furans	0.00	-	- n	-	-	0.965 y
45 Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.07 y
46 Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.50 y

Analyst: 

Date: 4/15/10

Run #5 Filename 14APR10M
Client ID: ST041410M4

S: 5

Acquired: 14-APR-10 13:43:05

Cal: PCDDFAL3-4-14-10
FAL ID: 1613 CS4 090918K

Analyte:

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1 Unk	2,3,7,8-TCDD	40.00	8.06e+06	0.83 y	27:19	-	1.15 y
2 Unk	1,2,3,7,8-PeCDD	200.00	4.72e+07	1.55 y	33:07	-	1.16 y
3 Unk	1,2,3,4,7,8-HxCDD	200.00	5.15e+07	1.28 y	38:29	-	1.49 y
4 Unk	1,2,3,6,7,8-HxCDD	200.00	4.51e+07	1.29 y	38:38	-	1.46 y
5 Unk	1,2,3,7,8,9-HxCDD	200.00	4.95e+07	1.27 y	39:04	-	1.51 y
6 Unk	1,2,3,4,6,7,8-HpCDD	200.00	4.34e+07	0.96 y	44:04	-	1.22 y
7 Unk	OCDD	400.00	7.00e+07	0.92 y	49:34	-	1.31 y
8 Unk	2,3,7,8-TCDF	40.00	1.84e+07	0.68 y	26:33	-	1.31 y
9 Unk	1,2,3,7,8-PeCDF	200.00	6.98e+07	1.68 y	31:23	-	0.987 y
10 Unk	2,3,4,7,8-PeCDF	200.00	6.83e+07	1.65 y	32:42	-	1.01 y
11 Unk	1,2,3,4,7,8-HxCDF	200.00	7.19e+07	1.24 y	37:04	-	1.16 y
12 Unk	1,2,3,6,7,8-HxCDF	200.00	7.24e+07	1.24 y	37:17	-	1.05 y
13 Unk	2,3,4,6,7,8-HxCDF	200.00	6.92e+07	1.23 y	38:13	-	1.13 y
14 Unk	1,2,3,7,8,9-HxCDF	200.00	6.89e+07	1.25 y	39:39	-	1.26 y
15 Unk	1,2,3,4,6,7,8-HpCDF	200.00	6.42e+07	1.02 y	42:09	-	1.48 y
16 Unk	1,2,3,4,7,8,9-HpCDF	200.00	6.18e+07	1.00 y	44:59	-	1.77 y
17 Unk	OCDF	400.00	8.60e+07	0.91 y	49:57	-	0.924 y
18 IS/RT	13C-2,3,7,8-TCDD	100.00	1.76e+07	0.74 y	27:16	-	1.00 y
19 IS	13C-1,2,3,7,8-PeCDD	100.00	2.04e+07	1.60 y	33:06	-	1.16 y
20 IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.72e+07	1.31 y	38:27	-	0.998 y
21 IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.54e+07	1.31 y	38:37	-	0.894 y
22 IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.78e+07	1.04 y	44:02	-	1.03 y
23 IS	13C-OCDD	200.00	2.67e+07	0.97 y	49:33	-	0.773 y
24 IS	13C-2,3,7,8-TCDF	100.00	3.51e+07	0.88 y	26:31	-	0.902 y
25 IS	13C-1,2,3,7,8-PeCDF	100.00	3.54e+07	1.65 y	31:22	-	0.910 y
26 IS	13C-2,3,4,7,8-PeCDF	100.00	3.37e+07	1.64 y	32:41	-	0.868 y
27 IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.11e+07	0.47 y	37:04	-	1.80 y
28 IS	13C-1,2,3,6,7,8-HxCDF	100.00	3.43e+07	0.46 y	37:15	-	1.99 y
29 IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.07e+07	0.48 y	38:12	-	1.77 y
30 IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.74e+07	0.47 y	39:38	-	1.59 y
31 IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.17e+07	0.46 y	42:08	-	1.26 y
32 IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.75e+07	0.46 y	44:57	-	1.01 y
33 IS	13C-OCDF	200.00	4.66e+07	0.92 y	49:55	-	1.35 y
34 C/Up	37Cl-2,3,7,8-TCDD	40.00	8.09e+06		27:19	-	1.16 y
35 RS	13C-1,2,3,4-TCDD	100.00	1.75e+07	0.74 y	26:42	1.75e+05	- n
36 RS	13C-1,2,3,4-TCDF	100.00	3.89e+07	0.86 y	25:27	3.89e+05	- n
37 RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.73e+07	1.31 y	39:04	1.73e+05	- n
38 Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.15 y
39 Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.16 y
40 Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.49 y
41 Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.22 y
42 Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.31 y
43 Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	1.000 y
44 Tot	Total Penta-Furans	0.00	-	- n	-	-	1.000 y
45 Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.14 y
46 Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.61 y

Analyst: 

Date: 4/15/10

Run #6 Filename 14APR10M
Client ID: ST041410MS

S: 6 Acquired: 14-APR-10 14:38:27 Cal: PCDDFAL3-4-14-10
Analyte: PCDDFAL3-4-14-10

FAL ID: 1613 CS5 090918L

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	200.00	4.72e+07	0.81 y	27:18	-	1.23 y
2	Unk 1,2,3,7,8-PeCDD	1000.00	2.67e+08	1.52 y	33:08	-	1.16 y
3	Unk 1,2,3,4,7,8-HxCDD	1000.00	3.03e+08	1.28 y	38:29	-	1.50 y
4	Unk 1,2,3,6,7,8-HxCDD	1000.00	2.57e+08	1.29 y	38:39	-	1.47 y
5	Unk 1,2,3,7,8,9-HxCDD	1000.00	2.87e+08	1.28 y	39:06	-	1.52 y
6	Unk 1,2,3,4,6,7,8-HpCDD	1000.00	2.59e+08	0.97 y	44:04	-	1.24 y
7	Unk OCDD	2000.00	4.38e+08	0.92 y	49:36	-	1.32 y
8	Unk 2,3,7,8-TCDF	200.00	1.03e+08	0.70 y	26:33	-	1.37 y
9	Unk 1,2,3,7,8-PeCDF	1000.00	4.04e+08	1.65 y	31:23	-	1.02 y
10	Unk 2,3,4,7,8-PeCDF	1000.00	3.79e+08	1.65 y	32:42	-	1.03 y
11	Unk 1,2,3,4,7,8-HxCDF	1000.00	4.07e+08	1.24 y	37:06	-	1.18 y
12	Unk 1,2,3,6,7,8-HxCDF	1000.00	4.09e+08	1.24 y	37:17	-	1.08 y
13	Unk 2,3,4,6,7,8-HxCDF	1000.00	3.95e+08	1.24 y	38:14	-	1.16 y
14	Unk 1,2,3,7,8,9-HxCDF	1000.00	4.02e+08	1.25 y	39:40	-	1.27 y
15	Unk 1,2,3,4,6,7,8-HpCDF	1000.00	3.76e+08	1.02 y	42:09	-	1.51 y
16	Unk 1,2,3,4,7,8,9-HpCDF	1000.00	3.76e+08	1.02 y	44:59	-	1.78 y
17	Unk OCDF	2000.00	5.35e+08	0.91 y	49:58	-	0.937 y
18	IS/RT 13C-2,3,7,8-TCDD	100.00	1.92e+07	0.73 y	27:17	-	1.00 y
19	IS 13C-1,2,3,7,8-PeCDD	100.00	2.29e+07	1.61 y	33:06	-	1.20 y
20	IS 13C-1,2,3,4,7,8-HxCDD	100.00	2.02e+07	1.30 y	38:28	-	1.01 y
21	IS 13C-1,2,3,6,7,8-HxCDD	100.00	1.75e+07	1.31 y	38:38	-	0.873 y
22	IS 13C-1,2,3,4,6,7,8-HpCDD	100.00	2.09e+07	1.04 y	44:03	-	1.04 y
23	IS 13C-OCDD	200.00	3.32e+07	0.95 y	49:35	-	0.827 y
24	IS 13C-2,3,7,8-TCDF	100.00	3.76e+07	0.87 y	26:32	-	0.966 y
25	IS 13C-1,2,3,7,8-PeCDF	100.00	3.97e+07	1.64 y	31:22	-	1.02 y
26	IS 13C-2,3,4,7,8-PeCDF	100.00	3.69e+07	1.65 y	32:41	-	0.949 y
27	IS 13C-1,2,3,4,7,8-HxCDF	100.00	3.45e+07	0.47 y	37:04	-	1.72 y
28	IS 13C-1,2,3,6,7,8-HxCDF	100.00	3.78e+07	0.47 y	37:16	-	1.89 y
29	IS 13C-2,3,4,6,7,8-HxCDF	100.00	3.41e+07	0.48 y	38:12	-	1.70 y
30	IS 13C-1,2,3,7,8,9-HxCDF	100.00	3.16e+07	0.48 y	39:38	-	1.58 y
31	IS 13C-1,2,3,4,6,7,8-HpCDF	100.00	2.50e+07	0.46 y	42:09	-	1.24 y
32	IS 13C-1,2,3,4,7,8,9-HpCDF	100.00	2.11e+07	0.46 y	44:58	-	1.05 y
33	IS 13C-OCDF	200.00	5.72e+07	0.91 y	49:57	-	1.43 y
34	C/Up 37Cl-2,3,7,8-TCDD	200.00	4.76e+07		27:18	-	1.24 y
35	RS 13C-1,2,3,4-TCDD	100.00	1.91e+07	0.74 y	26:43	1.91e+05	- n
36	RS 13C-1,2,3,4-TCDF	100.00	3.89e+07	0.87 y	25:26	3.89e+05	- n
37	RS/RT 13C-1,2,3,7,8,9-HxCDD	100.00	2.00e+07	1.32 y	39:04	2.00e+05	- n
38	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	1.23 y
39	Tot Total Penta-Dioxins	0.00	-	- n	-	-	1.16 y
40	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.50 y
41	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	1.24 y
42	Tot Total Tetra-Furans	0.00	-	- n	-	-	1.37 y
43	Tot 1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	1.02 y
44	Tot Total Penta-Furans	0.00	-	- n	-	-	1.02 y
45	Tot Total Hexa-Furans	0.00	-	- n	-	-	1.17 y
46	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.63 y

Analyst: 

Date: 4/15/10

USEPA - ITD

FORM 3A

PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 4/14/10

Instrument ID: FAL3

GC Column ID: db5

CS0 Data Filename: 14APR10M S1 CS3 Data Filename: 14APR10M S4

CS1 Data Filename: 14APR10M S2 CS4 Data Filename: 14APR10M S5

CS2 Data Filename: 14APR10M S3 CS5 Data Filename: 14APR10M S6

	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
NATIVE ANALYTES								
2,3,7,8-TCDD	1.15	1.04	1.00	1.15	1.15	1.23	1.12	7.56
1,2,3,7,8-PeCDD	0.99	0.99	1.04	1.08	1.16	1.16	1.07	7.30
1,2,3,4,7,8-HxCDD	1.31	1.31	1.36	1.39	1.49	1.50	1.39	6.22
1,2,3,6,7,8-HxCDD	1.23	1.27	1.35	1.37	1.46	1.47	1.36	7.17
1,2,3,7,8,9-HxCDD	1.28	1.30	1.39	1.41	1.51	1.52	1.40	7.36
1,2,3,4,6,7,8-HpCDD	1.07	1.05	1.09	1.15	1.22	1.24	1.14	6.86
OCDD	1.14	1.14	1.16	1.23	1.31	1.32	1.22	6.89
2,3,7,8-TCDF	1.22	1.33	1.24	1.25	1.31	1.37	1.29	4.57
1,2,3,7,8-PeCDF	0.84	0.86	0.88	0.97	0.99	1.02	0.93	7.98
2,3,4,7,8-PeCDF	0.84	0.84	0.90	0.96	1.01	1.03	0.93	8.87
1,2,3,4,7,8-HxCDF	1.00	0.96	1.03	1.07	1.16	1.18	1.07	8.15
1,2,3,6,7,8-HxCDF	0.87	0.90	0.93	1.00	1.05	1.08	0.97	8.86
2,3,4,6,7,8-HxCDF	0.97	0.95	1.01	1.06	1.13	1.16	1.04	8.16
1,2,3,7,8,9-HxCDF	1.04	1.05	1.11	1.16	1.26	1.27	1.15	8.75
1,2,3,4,6,7,8-HpCDF	1.28	1.25	1.29	1.40	1.48	1.51	1.37	8.15
1,2,3,4,7,8,9-HpCDF	1.52	1.46	1.54	1.62	1.77	1.78	1.62	8.23
OCDF	0.77	0.79	0.81	0.86	0.92	0.94	0.85	8.39

Analyst: Date: 4/15/10

000126 of 000271

QU08 : 00585

USEPA - ITD

FORM 3B
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 4/14/10

Instrument ID: FAL3

GC Column ID: db5

CS0 Data Filename: 14APR10M S1 CS4 Data Filename: 14APR10M S4

CS1 Data Filename: 14APR10M S2 CS4 Data Filename: 14APR10M S5

CS2 Data Filename: 14APR10M S3 CS5 Data Filename: 14APR10M S6

Labeled Compounds	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
13C-2,3,7,8-TCDD	0.98	0.96	0.99	0.96	1.00	1.00	0.98	2.18
13C-1,2,3,7,8-PeCDD	1.13	1.10	1.11	1.12	1.16	1.20	1.14	3.32
13C-1,2,3,4,7,8-HxCDD	1.02	1.02	0.96	1.03	1.00	1.01	1.00	2.40
13C-1,2,3,6,7,8-HxCDD	0.91	0.89	0.89	0.89	0.89	0.87	0.89	1.51
13C-1,2,3,4,6,7,8-HpCDD	1.01	1.01	0.99	0.99	1.03	1.04	1.01	2.16
13C-OCDD	0.73	0.74	0.71	0.73	0.77	0.83	0.75	5.70
13C-2,3,7,8-TCDF	0.93	0.88	0.91	0.97	0.90	0.97	0.93	4.05
13C-1,2,3,7,8-PeCDF	0.92	0.87	0.89	0.94	0.91	1.02	0.93	5.66
13C-2,3,4,7,8-PeCDF	0.86	0.83	0.85	0.88	0.87	0.95	0.87	4.77
13C-1,2,3,4,7,8-HxCDF	1.84	1.88	1.82	1.87	1.80	1.72	1.82	3.21
13C-1,2,3,6,7,8-HxCDF	2.05	2.06	2.02	2.04	1.99	1.89	2.01	3.20
13C-2,3,4,6,7,8-HxCDF	1.78	1.80	1.78	1.81	1.77	1.70	1.77	2.13
13C-1,2,3,7,8,9-HxCDF	1.56	1.56	1.55	1.55	1.59	1.58	1.57	0.902
13C-1,2,3,4,6,7,8-HpCDF	1.24	1.24	1.24	1.24	1.26	1.24	1.24	0.553
13C-1,2,3,4,7,8,9-HpCDF	0.98	0.98	0.96	0.98	1.01	1.05	0.99	3.40
13C-OCDF	1.28	1.28	1.28	1.28	1.35	1.43	1.32	4.54
CLEANUP STANDARD								
37Cl-2,3,7,8-TCDD	1.05	1.07	1.02	1.07	1.16	1.24	1.10	7.58

Analyst: Date: 4/15/10

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: 4/14/10


Instrument ID: FAL3 GC Column ID: db5

CS0 Data Filename: 14APR10M S1 CS3 Data Filename: 14APR10M S4

CS1 Data Filename: 14APR10M S2 CS4 Data Filename: 14APR10M S5

CS2 Data Filename: 14APR10M S3 CS5 Data Filename: 14APR10M 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	0.74	0.87	0.79	0.82	0.83	0.81	0.65-0.89
1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.60	1.56	1.55	1.55	1.52	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.30	1.31	1.25	1.28	1.28	1.28	1.05-1.43
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.30	1.28	1.30	1.29	1.29	1.05-1.43
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.28	1.28	1.30	1.27	1.28	1.05-1.43
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.91	0.90	0.91	0.96	0.96	0.97	0.88-1.20
OCDD	M+2/M+4	0.98	0.94	0.91	0.92	0.92	0.92	0.76-1.02
2,3,7,8-TCDF	M/M+2	0.66	0.66	0.67	0.67	0.68	0.70	0.65-0.89
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.67	1.68	1.68	1.68	1.65	1.32-1.78
2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.58	1.69	1.69	1.65	1.65	1.32-1.78
1,2,3,4,7,8-HxCDF	M+2/M+4	1.18	1.21	1.24	1.25	1.24	1.24	1.05-1.43
1,2,3,6,7,8-HxCDF	M+2/M+4	1.20	1.21	1.26	1.25	1.24	1.24	1.05-1.43
2,3,4,6,7,8-HxCDF	M+2/M+4	1.27	1.23	1.23	1.25	1.23	1.24	1.05-1.43
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.24	1.21	1.28	1.25	1.25	1.05-1.43
1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.93	1.01	1.01	1.01	1.02	1.02	0.88-1.20
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.00	0.99	0.99	1.03	1.00	1.02	0.88-1.20
OCDF	M+2/M+4	0.91	0.93	0.91	0.91	0.91	0.91	0.76-1.02

Analyst: 

Date: 4/15/10

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: 4/14/10

Instrument ID: FAL3

GC Column ID: db5

CS0 Data Filename: 14APR10M S1 CS3 Data Filename: 14APR10M S4

CS1 Data Filename: 14APR10M S2 CS4 Data Filename: 14APR10M S5

CS2 Data Filename: 14APR10M S3 CS5 Data Filename: 14APR10M 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	0.75	0.74	0.73	0.74	0.74	0.73	0.65-0.89
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.61	1.64	1.62	1.63	1.60	1.61	1.32-1.78
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.33	1.30	1.29	1.31	1.31	1.30	1.05-1.43
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.29	1.31	1.30	1.31	1.31	1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	1.05	1.04	1.03	1.04	1.04	0.88-1.20
13C-OCDD	M+2/M+4	0.96	0.96	0.96	0.94	0.97	0.95	0.76-1.02
13C-2,3,7,8-TCDF	M/M+2	0.85	0.88	0.87	0.86	0.88	0.87	0.65-0.89
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.63	1.65	1.67	1.65	1.65	1.64	1.32-1.78
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.66	1.63	1.65	1.64	1.65	1.32-1.78
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.47	0.47	0.47	0.47	0.47	0.43-0.59
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.47	0.47	0.48	0.47	0.46	0.47	0.43-0.59
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.48	0.48	0.48	0.48	0.48	0.43-0.59
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.48	0.48	0.47	0.47	0.47	0.48	0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.47	0.46	0.46	0.46	0.46	0.46	0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.47	0.47	0.46	0.46	0.46	0.37-0.51
13C-OCDF	M+2/M+4	0.91	0.91	0.92	0.91	0.92	0.91	0.76-1.02

Analyst: Date: 4/15/10

USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4/14/10

Instrument ID: FAL3

GC Column ID: db5

VER Data Filename: 14APR10M Sam:4

Analysis Date: 14-APR-10 12:47:47

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	0.82	0.65-0.89	y	10.2	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.55	1.32-1.78	y	50.3	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	49.8	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	50.4	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.30	1.05-1.43	y	50.2	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.96	0.88-1.20	y	50.8	43.0 - 58.0
OCDD	M+2/M+4	0.92	0.76-1.02	y	101	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.67	0.65-0.89	y	9.73	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.68	1.32-1.78	y	52.2	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	51.7	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	50.3	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	51.2	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	50.7	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.28	1.05-1.43	y	50.7	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	51.1	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	y	50.2	43.0 - 58.0
OCDF	M+2/M+4	0.91	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: 4/15/10

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 4/14/10

Instrument ID: FAL3

GC Column ID: db5

VER Data Filename: 14APR10M Sam:4

Analysis Date: 14-APR-10 12:47:47

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	0.74	0.65-0.89	y	97.5	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.63	1.32-1.78	y	98.3	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.31	1.05-1.43	y	103	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	100	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	97.6	72.0 - 138
13C-OCDD	M+2/M+4	0.94	0.76-1.02	y	194	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.86	0.65-0.89	y	105	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	102	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	101	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.47	0.43-0.59	y	103	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.47	0.43-0.59	y	101	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.48	0.43-0.59	y	102	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.47	0.43-0.59	y	99.3	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.37-0.51	y	99.6	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	y	98.5	77.0 - 129
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	195	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.72	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: 4/15/10

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: 4/14/10
RT Window Data Filename: 14APR10M Sam:4 Analysis Date: 14-APR-10 Time: 12:47:47
DB-5 IS Data Filename: 14APR10M Sam:4 Analysis Date: 14-APR-10 Time: 12:47:47
DB-225 IS Date Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	24:19	1,3,6,8-TCDF (F)	22:59
1,2,8,9-TCDD (L)	28:15	1,2,8,9-TCDF (L)	28:28
1,2,4,7,9-PeCDD (F)	30:09	1,3,4,6,8-PeCDF (F)	28:19
1,2,3,8,9-PeCDD (L)	33:41	1,2,3,8,9-PeCDF (L)	34:07
1,2,4,6,7,9-HxCDD (F)	36:00	1,2,3,4,6,8-HxCDF (F)	35:08
1,2,3,7,8,9-HxCDD (L)	39:05	1,2,3,7,8,9-HxCDF (L)	39:39
1,2,3,4,6,7,9-HpCDD (F)	42:41	1,2,3,4,6,7,8-HpCDF (F)	42:09
1,2,3,4,6,7,8-HpCDD (L)	44:04	1,2,3,4,7,8,9-HpCDF (L)	44:59

(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: 

Date: 4/15/10

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 4/14/10

Instrument ID: FAL3

GC Column ID: db5

Analysis Date: 14-APR-10 12:47:47

CS3 or VER Data Filename: 14APR10M

Sam:4

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	1.023	0.989-1.052
13C-2,3,7,8-TCDD		1.022	0.976-1.043
13C-2,3,7,8-TCDF		0.994	0.923-1.103
13C-1,2,3,7,8-PeCDD		1.239	1.000-1.567
13C-1,2,3,7,8-PeCDF		1.175	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: 4/15/10

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 4/14/10

Instrument ID: FAL3

GC Column ID: db5

Analysis Date: 14-APR-10 12:47:47

CS3 or VER Data Filename: 14APR10M

Sam:4


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	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.001	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		1.015	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		1.268	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: Date: 4/15/10

FAL ID: ST041410M3 Filename: 14APR10M Sam:4 Acquired: 14-APR-10 12:47:47 ICal: PCDDFAL3-4-14-10
 Client ID: 1613 CS3 090918J ConCal: ST041410M3 EndCal: ST041410M6
 Results: GC Column: db5 Amount: 1.000 NATO 1989 Tox: 102

Name	Resp	RA	RT	RRF	WHO 1998 Tox:		WHO 2005 Tox:		115	
					Conc	Qual	Fac Noise-1	Noise-2		
2,3,7,8-TCDD	1.98e+06	0.82 y	27:19	1.12	10.2	2.50	-	-	*	
1,2,3,7,8-PeCDD	1.08e+07	1.55 y	33:07	1.07	50.3	2.50	-	-	*	
1,2,3,4,7,8-HxCDD	1.15e+07	1.28 y	38:29	1.39	49.8	2.50	-	-	*	
1,2,3,6,7,8-HxCDD	9.78e+06	1.30 y	38:38	1.36	50.4	2.50	-	-	*	
1,2,3,7,8,9-HxCDD	1.09e+07	1.30 y	39:05	1.40	50.2	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	9.14e+06	0.96 y	44:04	1.14	50.8	2.50	-	-	*	
OCDD	1.43e+07	0.92 y	49:35	1.22	101	2.50	-	-	*	
2,3,7,8-TCDF	4.48e+06	0.67 y	26:34	1.29	9.73	2.50	-	-	*	
1,2,3,7,8-PeCDF	1.68e+07	1.68 y	31:23	0.93	52.2	2.50	-	-	*	
2,3,4,7,8-PeCDF	1.57e+07	1.69 y	32:43	0.93	51.7	2.50	-	-	*	
1,2,3,4,7,8-HxCDF	1.61e+07	1.25 y	37:05	1.07	50.3	2.50	-	-	*	
1,2,3,6,7,8-HxCDF	1.62e+07	1.25 y	37:17	0.97	51.2	2.50	-	-	*	
2,3,4,6,7,8-HxCDF	1.54e+07	1.25 y	38:13	1.04	50.7	2.50	-	-	*	
1,2,3,7,8,9-HxCDF	1.45e+07	1.28 y	39:39	1.15	50.7	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	1.39e+07	1.01 y	42:09	1.37	51.1	2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	1.27e+07	1.03 y	44:59	1.62	50.2	2.50	-	-	*	
OCDF	1.77e+07	0.91 y	49:56	0.85	102	2.50	-	-	*	
									Rec	
13C-2,3,7,8-TCDD	1.73e+07	0.74 y	27:18	0.98	97.5				97.5	
13C-1,2,3,7,8-PeCDD	2.02e+07	1.63 y	33:06	1.14	98.3				98.3	
13C-1,2,3,4,7,8-HxCDD	1.65e+07	1.31 y	38:27	1.00	103				103	
13C-1,2,3,6,7,8-HxCDD	1.43e+07	1.30 y	38:37	0.89	100				100	
13C-1,2,3,4,6,7,8-HpCDD	1.58e+07	1.03 y	44:02	1.01	97.6				97.6	
13C-OCDD	2.33e+07	0.94 y	49:33	0.75	194				96.9	
13C-2,3,7,8-TCDF	3.58e+07	0.86 y	26:33	0.93	105				105	
13C-1,2,3,7,8-PeCDF	3.48e+07	1.65 y	31:22	0.93	102				102	
13C-2,3,4,7,8-PeCDF	3.25e+07	1.65 y	32:41	0.87	101				101	
13C-1,2,3,4,7,8-HxCDF	3.00e+07	0.47 y	37:04	1.82	103				103	
13C-1,2,3,6,7,8-HxCDF	3.26e+07	0.47 y	37:15	2.01	101				101	
13C-2,3,4,6,7,8-HxCDF	2.91e+07	0.48 y	38:12	1.77	102				102	
13C-1,2,3,7,8,9-HxCDF	2.49e+07	0.47 y	39:38	1.57	99.3				99.3	
13C-1,2,3,4,6,7,8-HpCDF	1.98e+07	0.46 y	42:08	1.24	99.6				99.6	
13C-1,2,3,4,7,8,9-HpCDF	1.57e+07	0.46 y	44:57	0.99	98.5				98.5	
13C-OCDF	4.11e+07	0.91 y	49:55	1.32	195				97.3	
37Cl-2,3,7,8-TCDD	1.93e+06		27:19	1.10	9.72				97.2	
13C-1,2,3,4-TCDD	1.81e+07	0.75 y	26:42	-	103					
13C-1,2,3,4-TCDF	3.69e+07	0.88 y	25:27	-	99.4					
13C-1,2,3,7,8,9-HxCDD	1.60e+07	1.32 y	39:04	-	98.0					
Total Tetra-Dioxins	1.08e+07		24:19	1.12	55.8	2.50	-	-	*	17
Total Penta-Dioxins	2.34e+07		30:09	1.07	108	2.50	-	-	*	7
Total Hexa-Dioxins	3.65e+07		36:00	1.38	171	2.50	-	-	*	8
Total Hepta-Dioxins	1.94e+07		42:41	1.14	108	2.50	-	-	*	8
Total Tetra-Furans	1.90e+07		22:59	1.29	41.3	2.50	-	-	*	18
1st Fn. Tot Penta-Furans	1.22e+07		28:19	0.93	39.0	2.50	-	-	*	PeCDF 1
Total Penta-Furans	4.74e+07		30:06	0.93	151	2.50	-	-	*	190 12
Total Hexa-Furans	7.09e+07		35:08	1.05	231	2.50	-	-	*	11
Total Hepta-Furans	2.70e+07		42:09	1.48	103	2.50	-	-	*	4

Analyst:  Date: 4/15/10

Frontier Analytical Laboratory - Acquisition Log

Run Name:14APR10M

Instrument: FAL3

GC: DB5

Experiment:PCDD

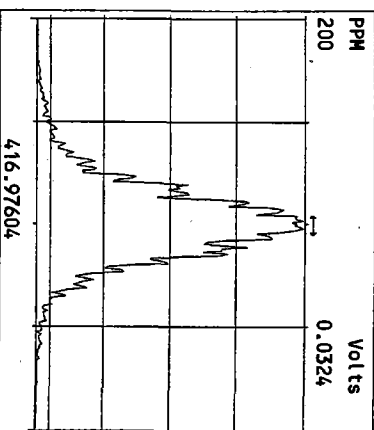
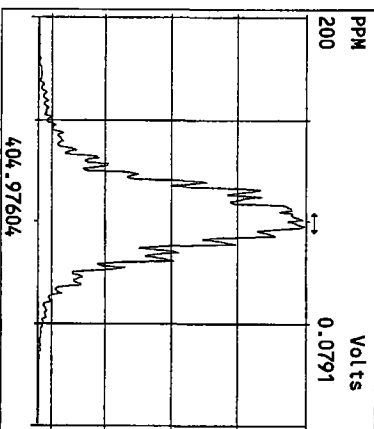
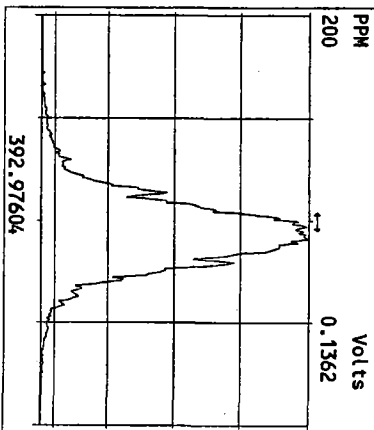
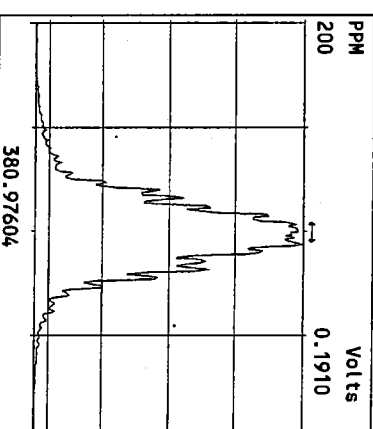
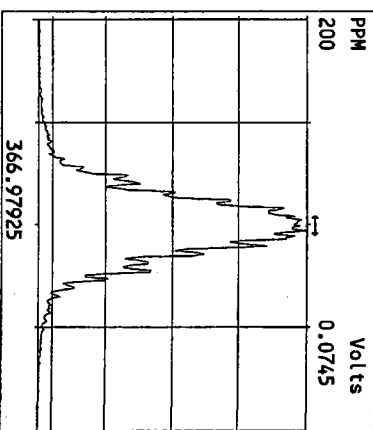
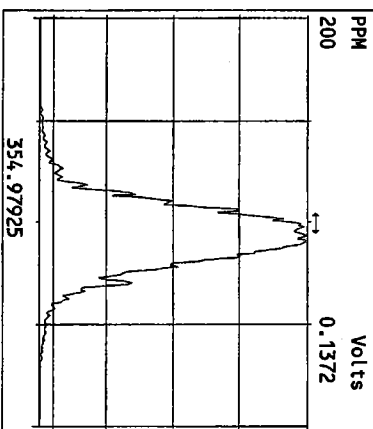
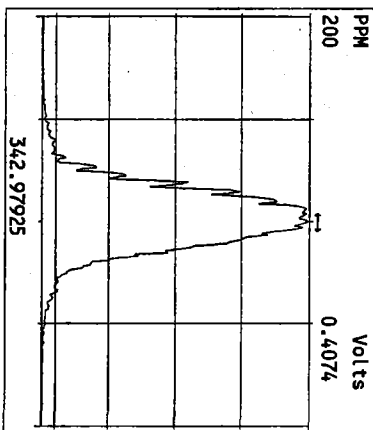
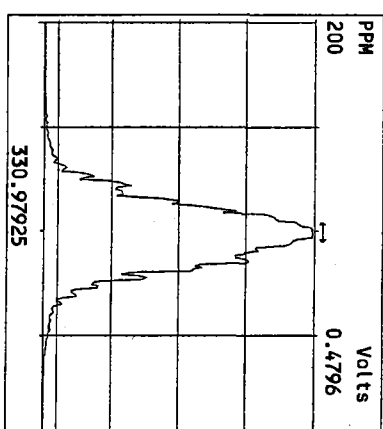
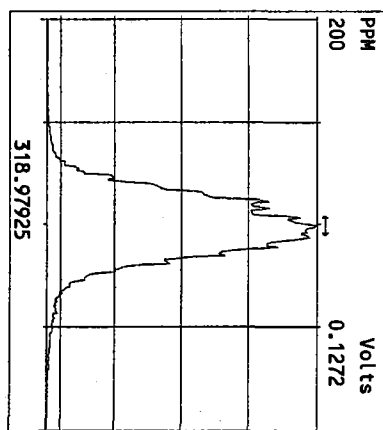
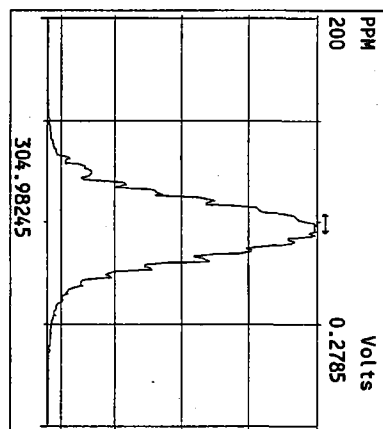
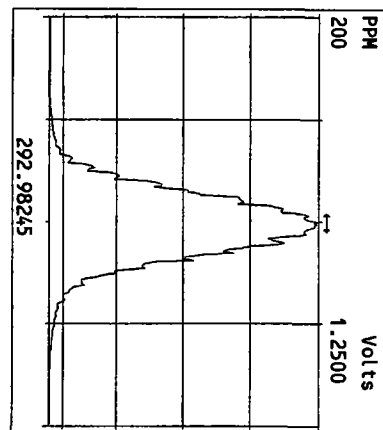
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14APR10M 7	SB041410M1	Solvent Blank	14-APR-10 15:33:50	ST041410M3	ST041410M6	TC
14APR10M 8	1987-001-0001-OPR	OPR	14-APR-10 16:29:08	ST041410M3	ST041410M6	TC
14APR10M 9	1987-001-0001-MB	Method Blank	14-APR-10 17:24:28	ST041410M3	ST041410M6	TC
14APR10M 10	6016-005-0002-DUP	MW-107A	14-APR-10 18:19:50	ST041410M3	ST041410M6	TC
14APR10M 11	6077-001-0001-SA	E-001	14-APR-10 19:15:06	ST041410M3	ST041410M6	TC
14APR10M 12	6074-001-0001-SA	31983 SPENT CAUST	14-APR-10 20:10:24	ST041410M3	ST041410M6	TC
14APR10M 13	6076-001-0001-SA	CB31A032910COMP	14-APR-10 21:05:47	ST041410M3	ST041410M6	TC
14APR10M 14	6076-002-0001-SA	CB4857032910COMP	14-APR-10 22:01:10	ST041410M3	ST041410M6	TC
14APR10M 15	6076-003-0001-SA	CB1032910COMP	14-APR-10 22:56:33	ST041410M3	ST041410M6	TC
14APR10M 16	6076-004-0001-SA	CB100032910COMP	14-APR-10 23:51:58	ST041410M3	ST041410M6	TC
14APR10M 17	SB041410M2	Solvent Blank	15-APR-10 00:47:21	ST041410M3	ST041410M6	TC
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[Handwritten signature] 4/15/10

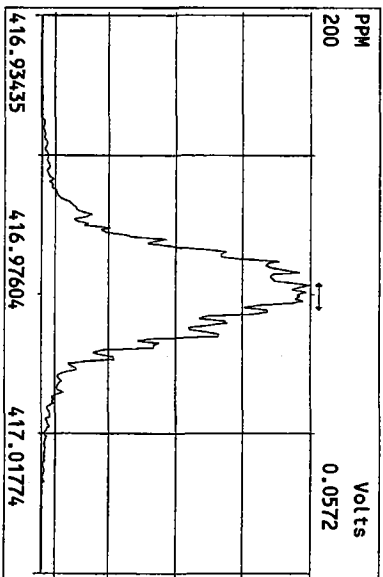
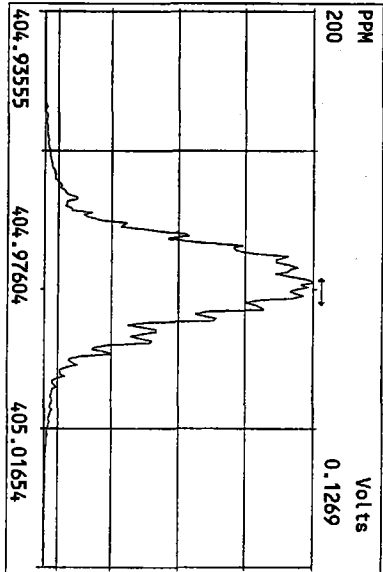
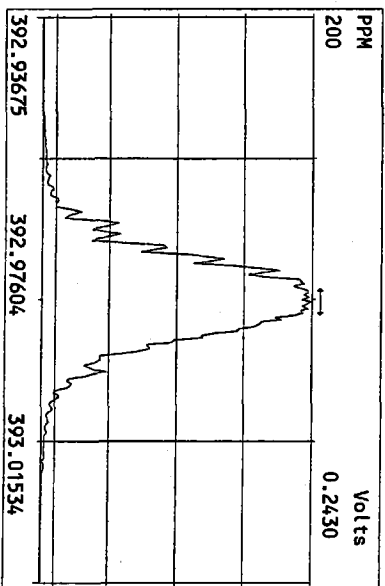
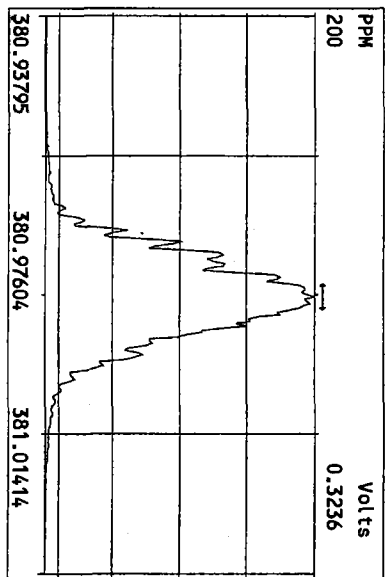
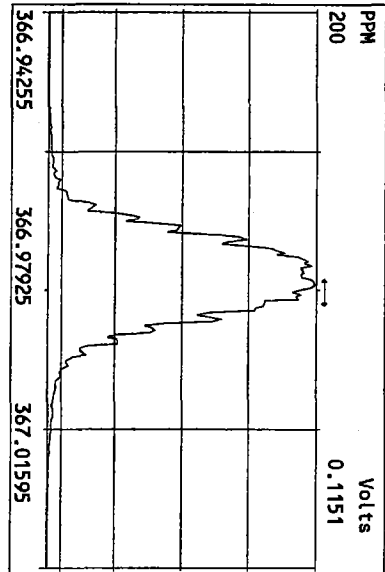
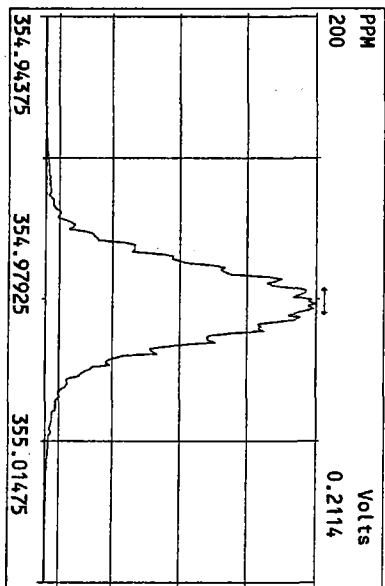
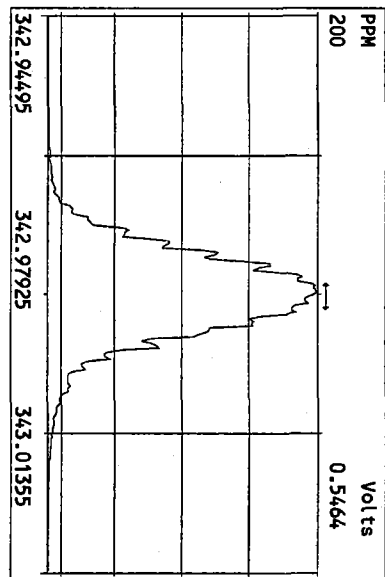
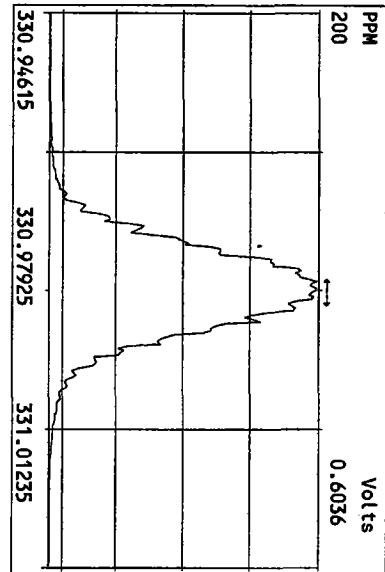
Data Backed Up: _____

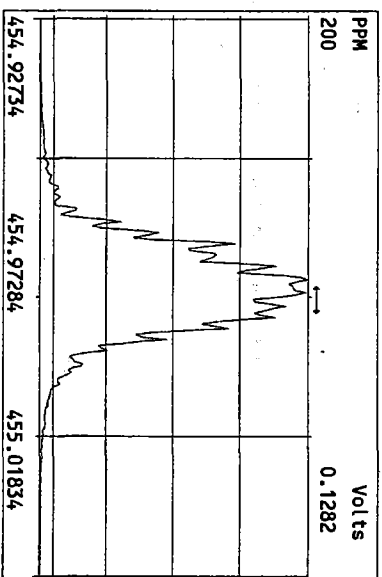
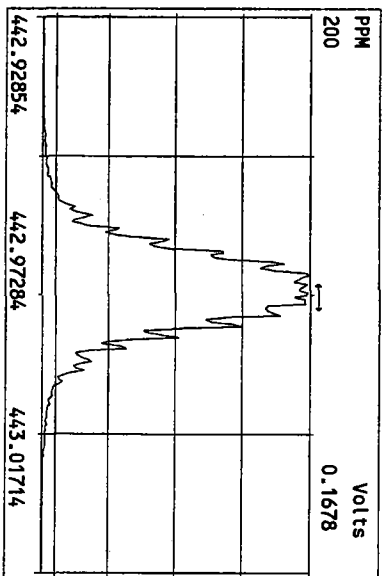
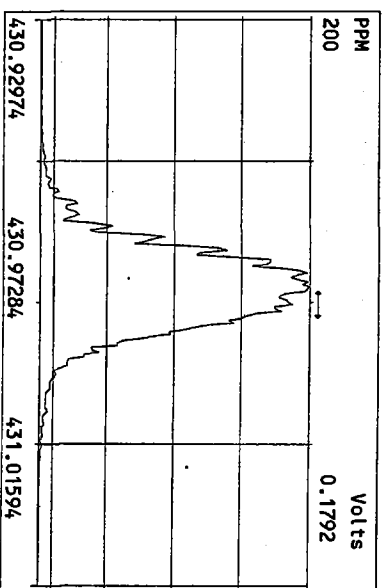
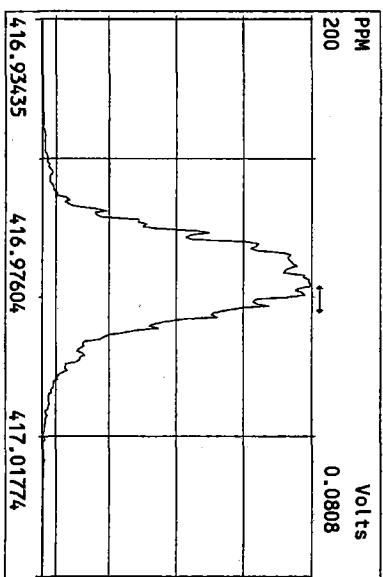
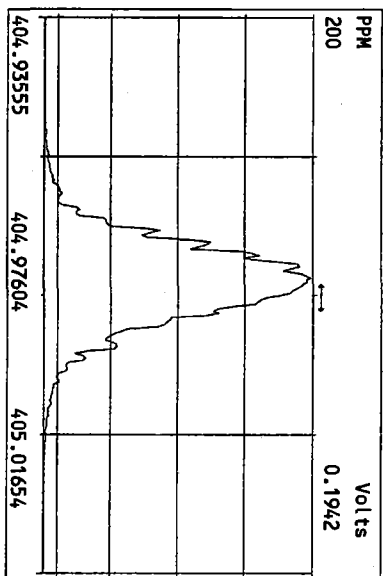
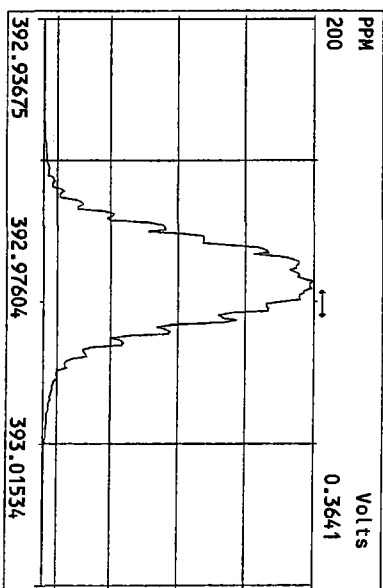
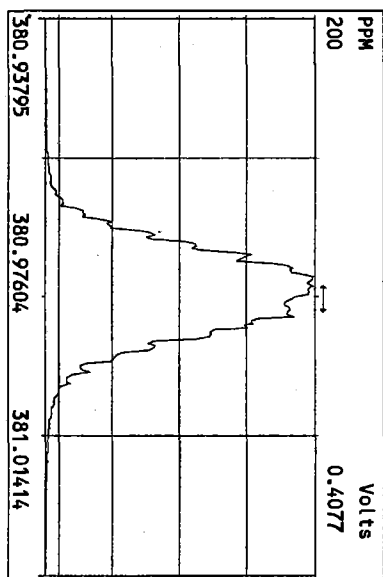
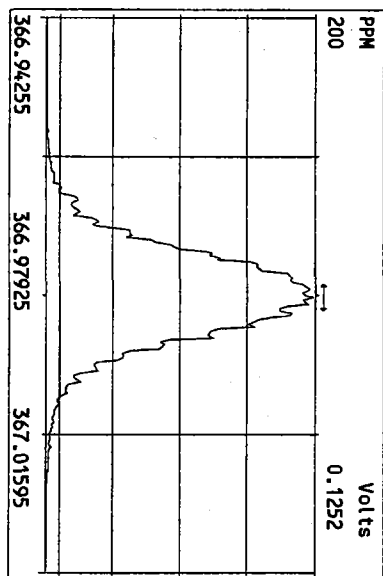
Date: _____

Peak Locate Examination:14-APR-2010:10:00 File:14APR10M
Experiment:PCDD Function:1 Reference:PFK

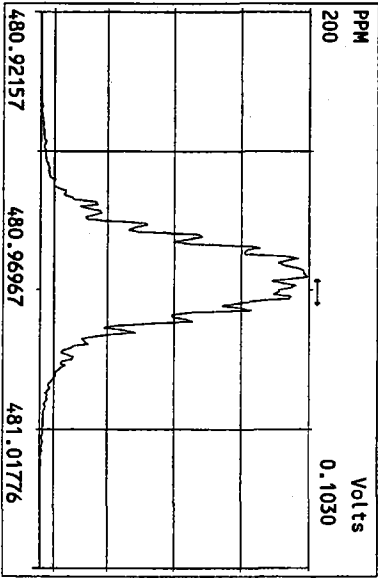
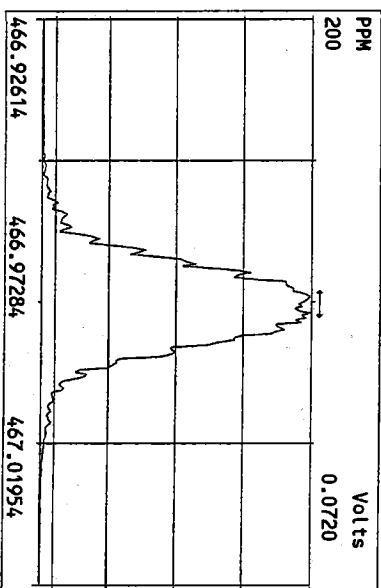
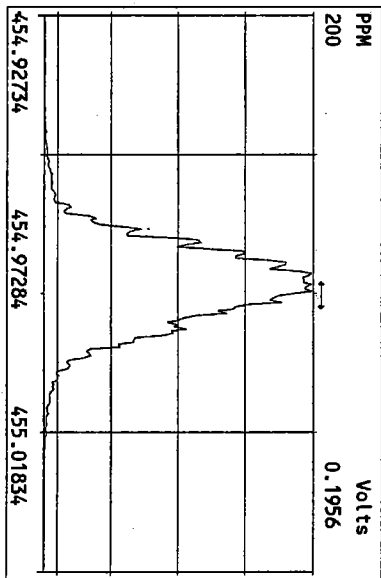
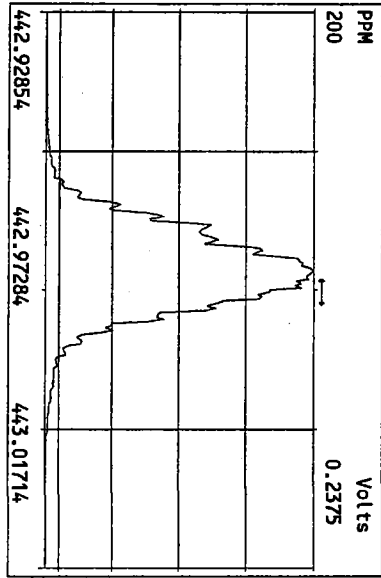
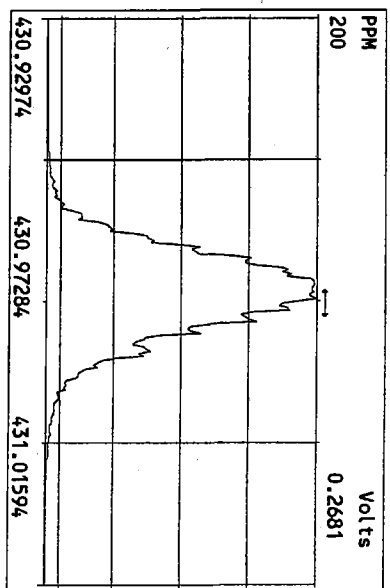
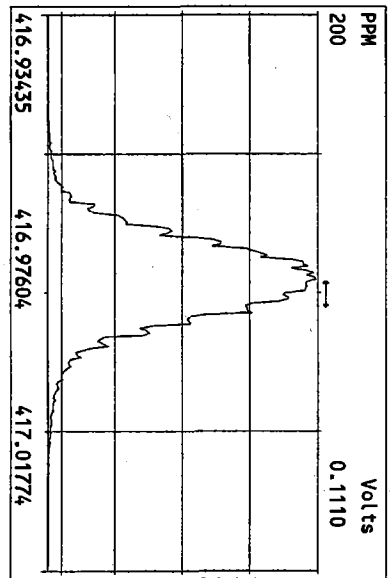
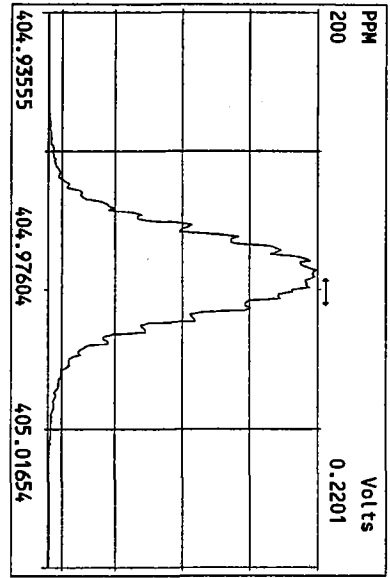


Peak Locate Examination: 14-APR-2010:10:00 File: 14APR10M
Experiment: PCDD Function: 2 Reference: PFK

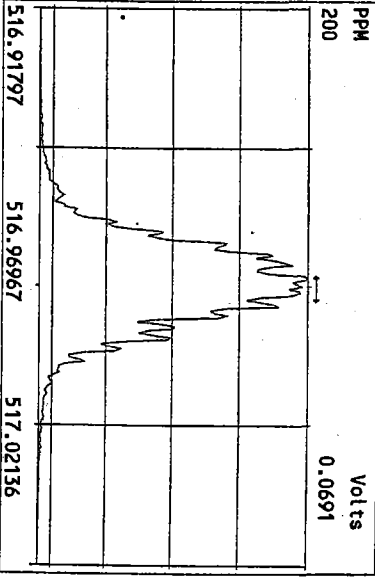
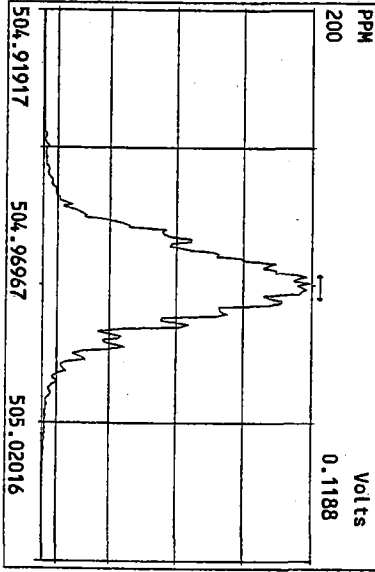
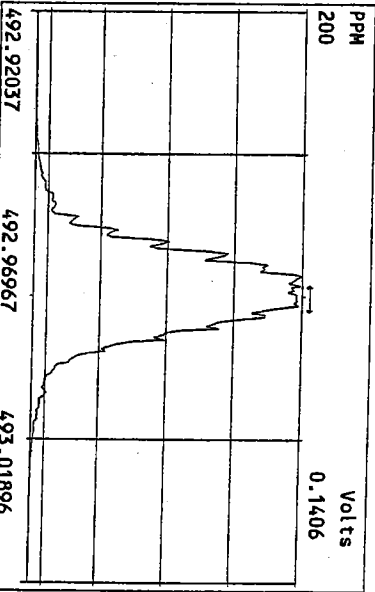
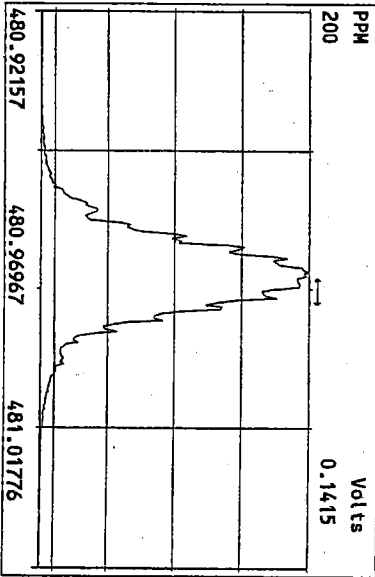
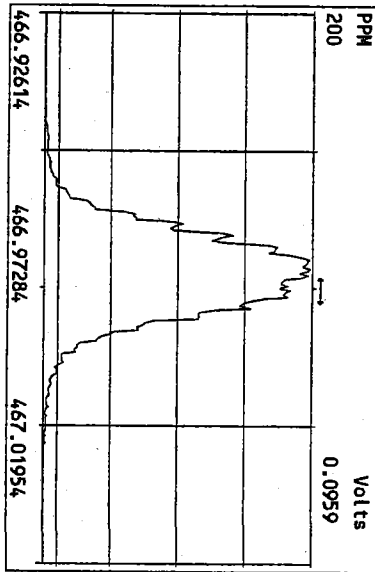
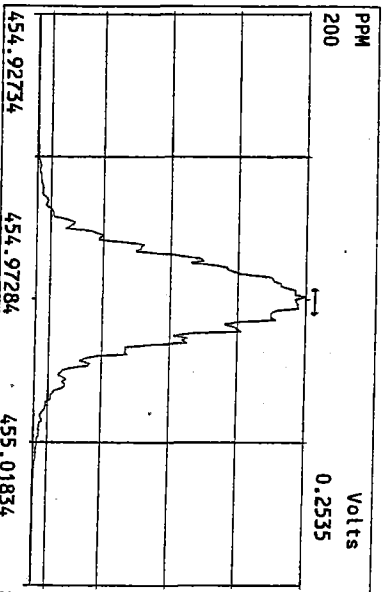
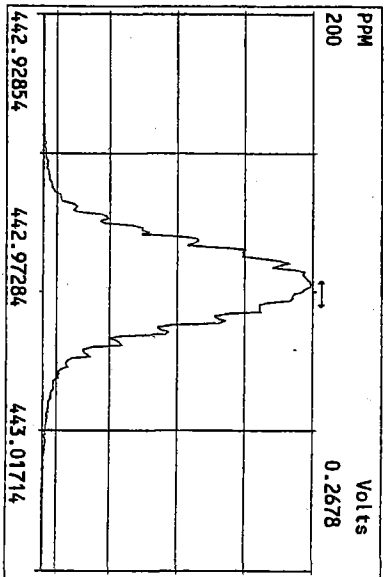
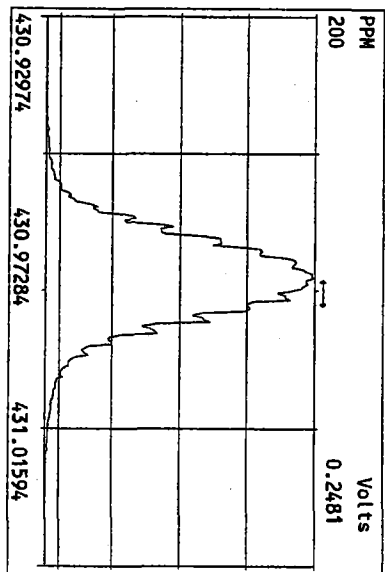




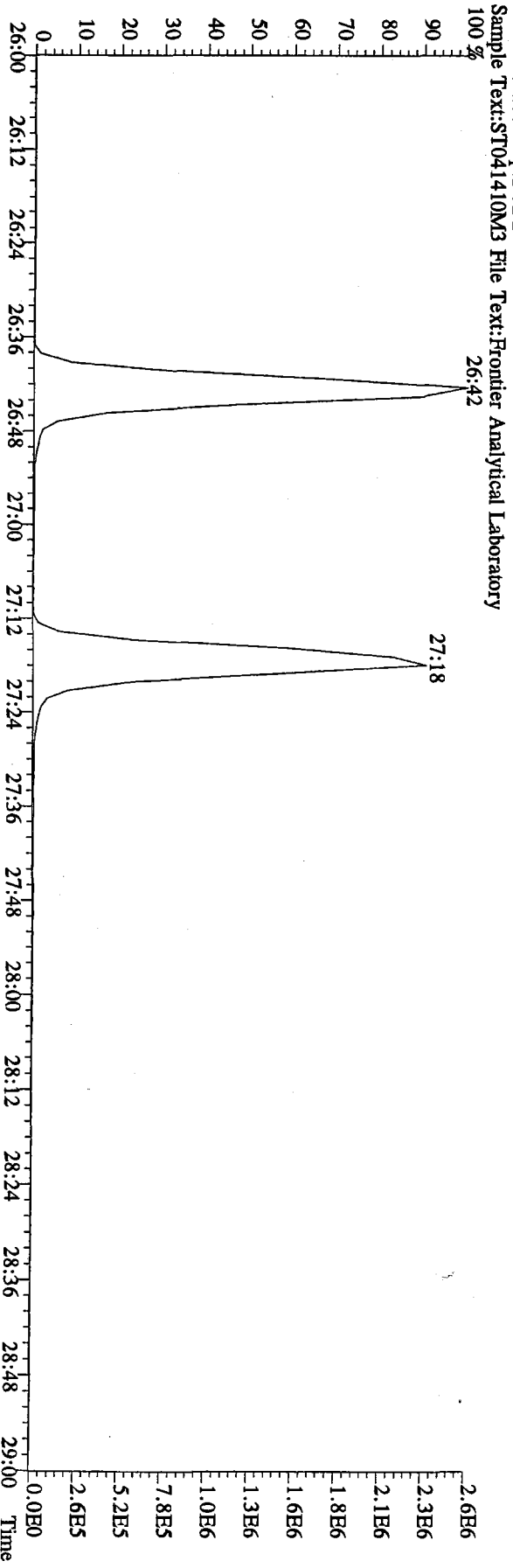
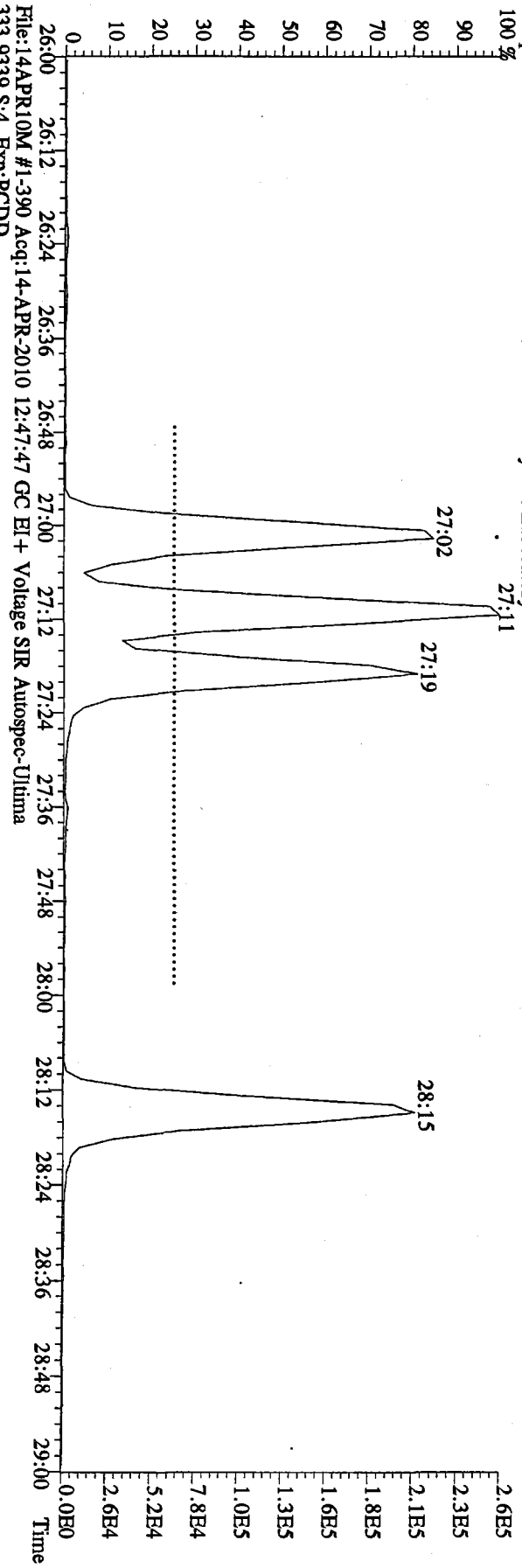
Peak Locate Examination: 14-APR-2010:10:01 File: 14APR10M
 Experiment: PCDD Function: 4 Reference: PK



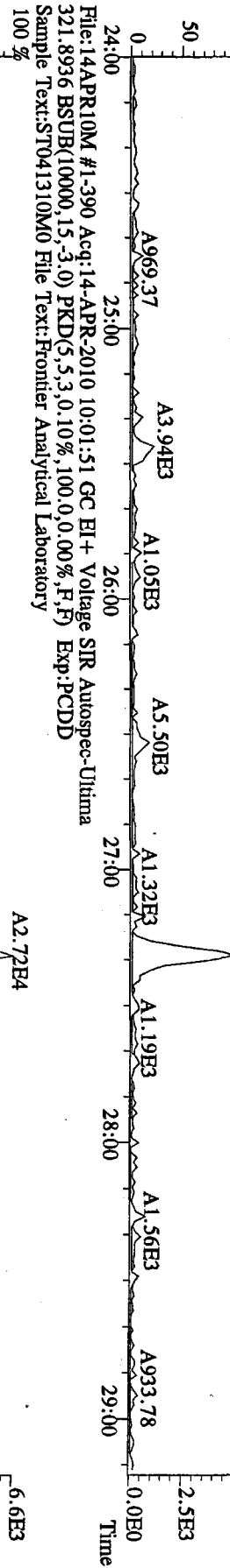
Peak Locate Examination:14-APR-2010:10:01 File:14APR10M
 Experiment:PCDD Function:5 Reference:PFK



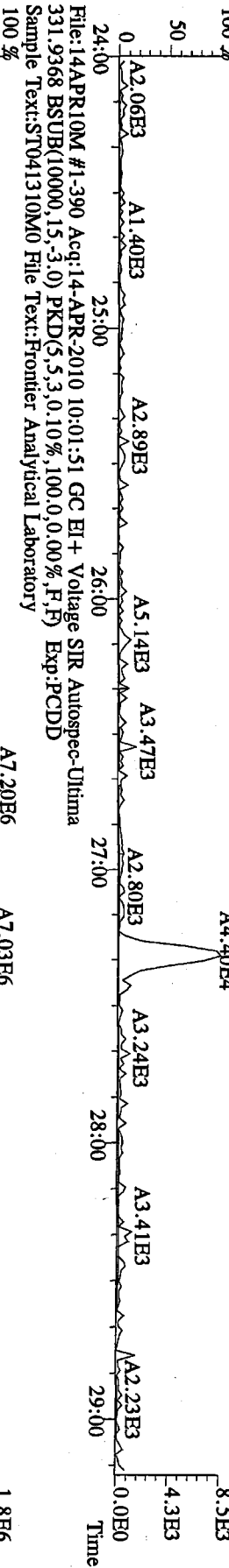
File:14APR10M #1-390 Acq:14-APR-2010 12:47:47 GC EI + Voltage SIR Autospec-Ultima
319.8965 S:4 Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



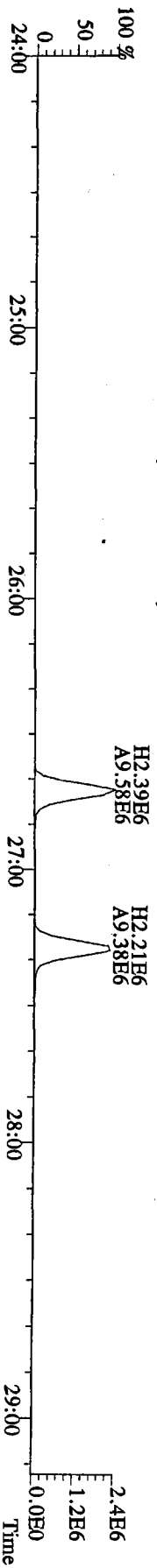
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Fronter Analytical Laboratory
 100 %



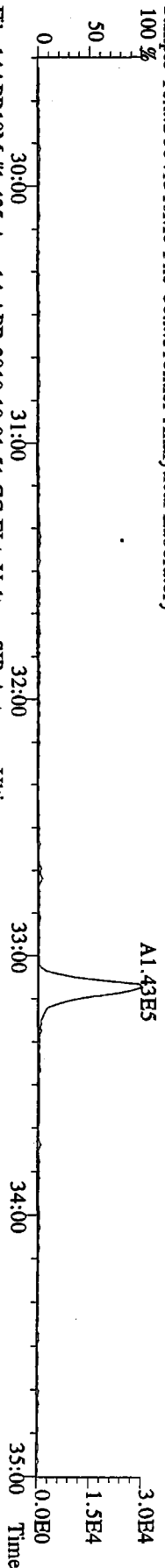
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Fronter Analytical Laboratory
 100 %



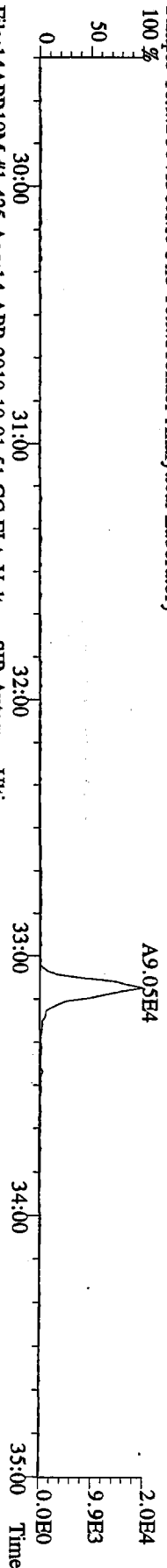
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Fronter Analytical Laboratory
 100 %



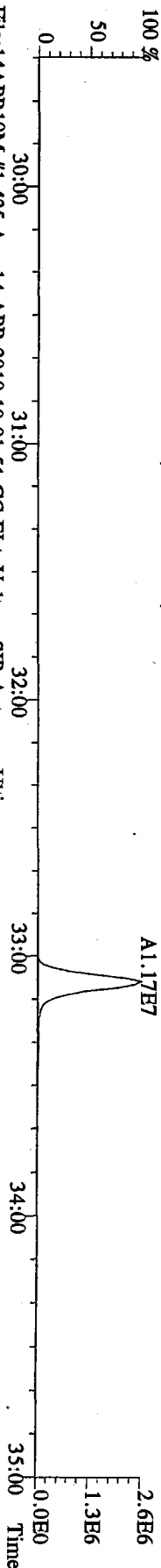
File:14APR10M #1-425 Acq:14-APR-2010 10:01:51 GC EI + Voltage SIR Autospec-Ultima
355.8546 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



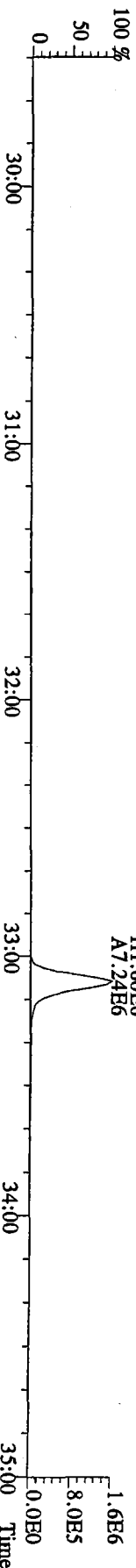
File:14APR10M #1-425 Acq:14-APR-2010 10:01:51 GC EI + Voltage SIR Autospec-Ultima
357.8517 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



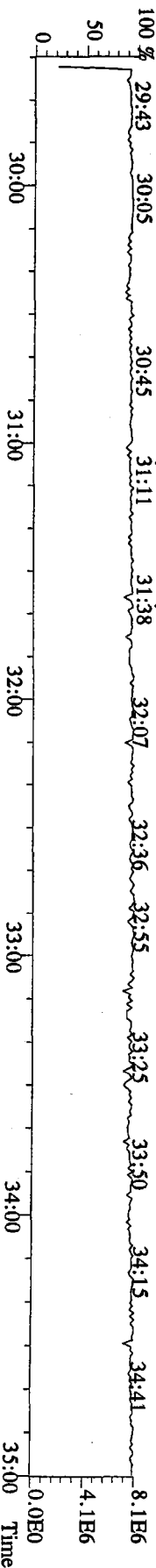
File:14APR10M #1-425 Acq:14-APR-2010 10:01:51 GC EI + Voltage SIR Autospec-Ultima
367.8949 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



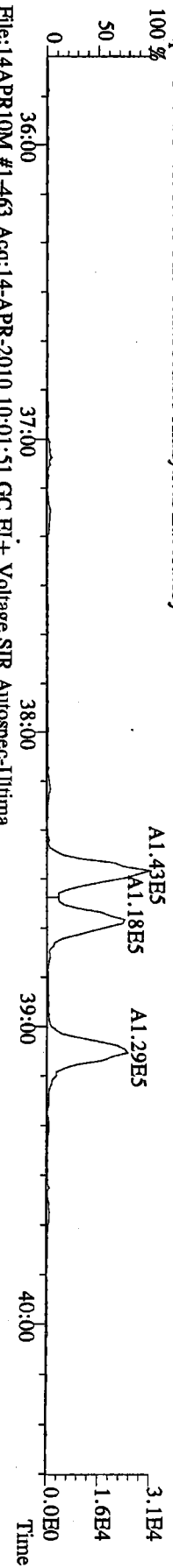
File:14APR10M #1-425 Acq:14-APR-2010 10:01:51 GC EI + Voltage SIR Autospec-Ultima
369.8919 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



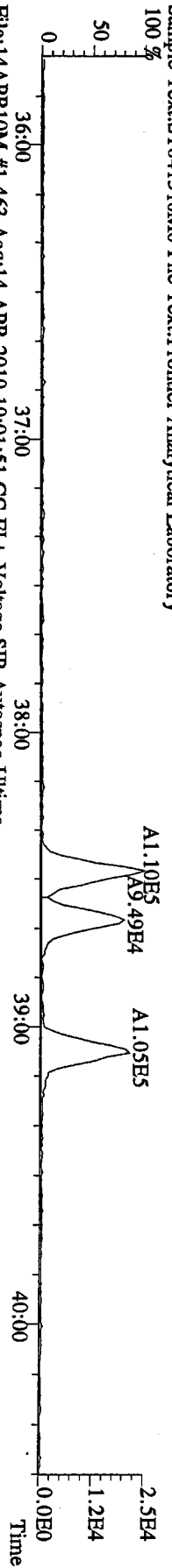
File:14APR10M #1-425 Acq:14-APR-2010 10:01:51 GC EI + Voltage SIR Autospec-Ultima
366.9792 F:2 Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



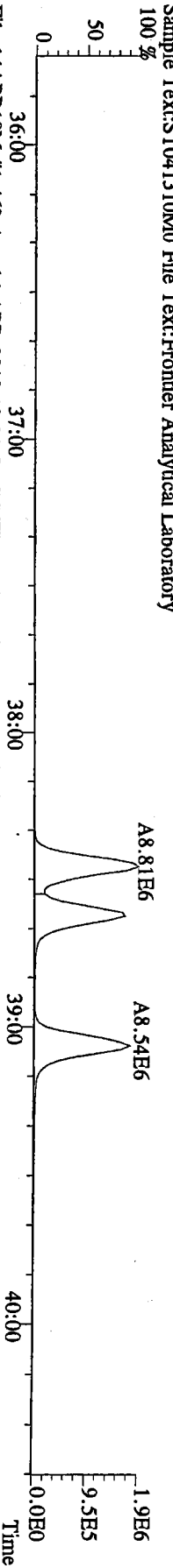
File:14APR10M #1-463 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory
 100 %



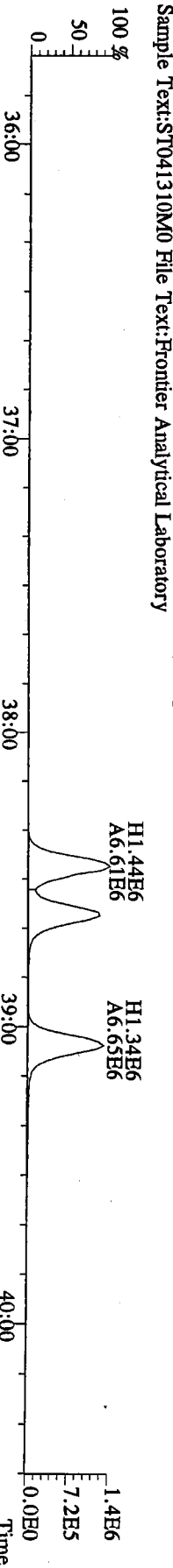
File:14APR10M #1-463 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory
 100 %



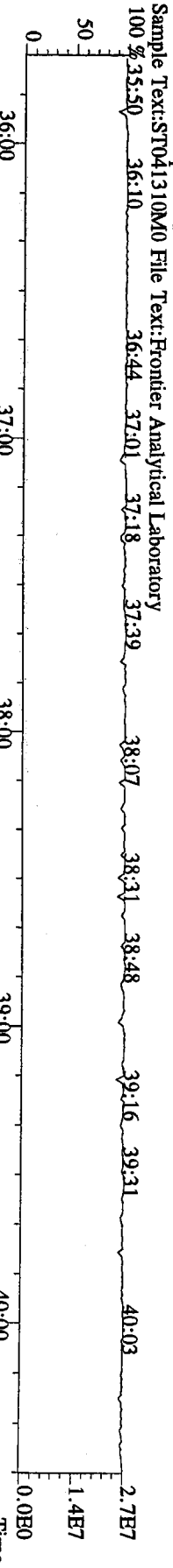
File:14APR10M #1-463 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory
 100 %



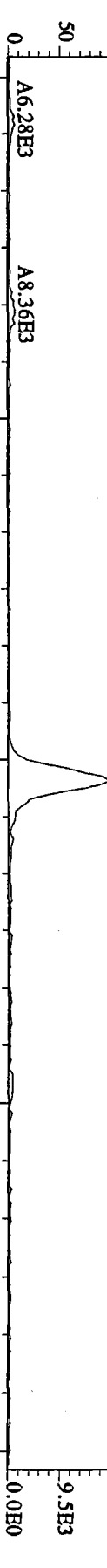
File:14APR10M #1-463 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 380.9760 F:3 Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory
 100 %



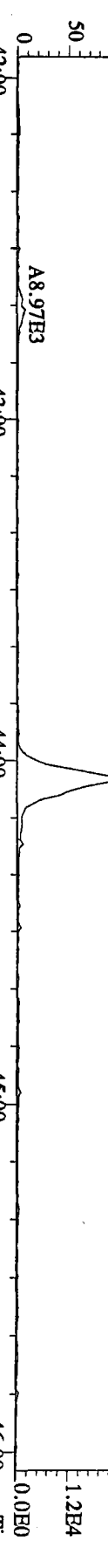
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 380.9760 F:3 Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory
 100 %



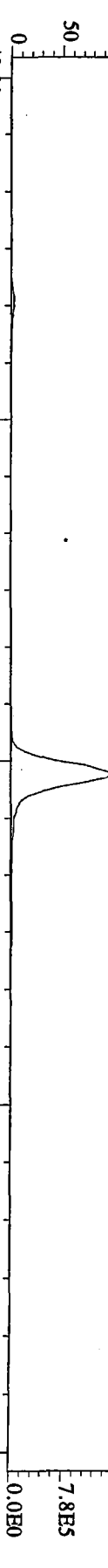
File:14APR10M #1-542 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



File:14APR10M #1-542 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



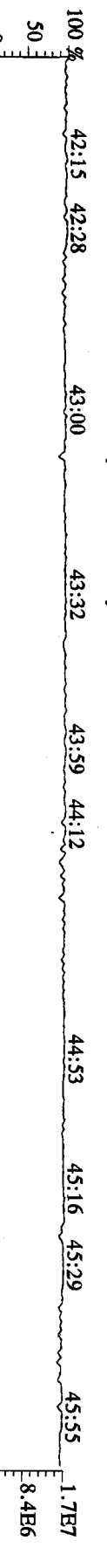
File:14APR10M #1-542 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



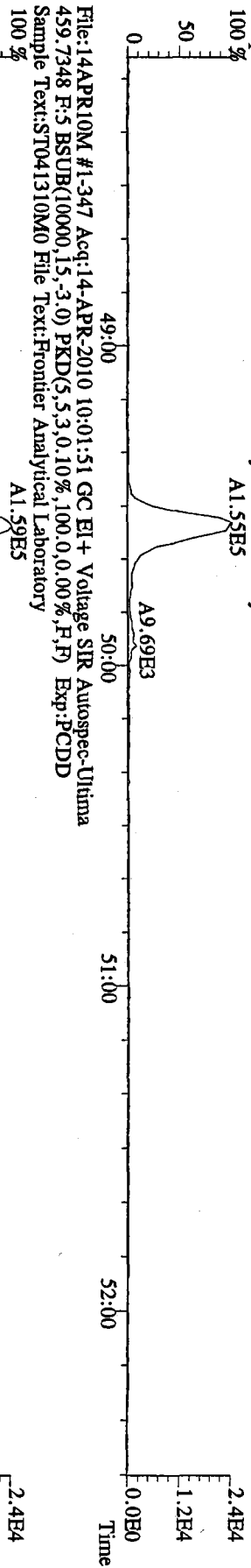
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 437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



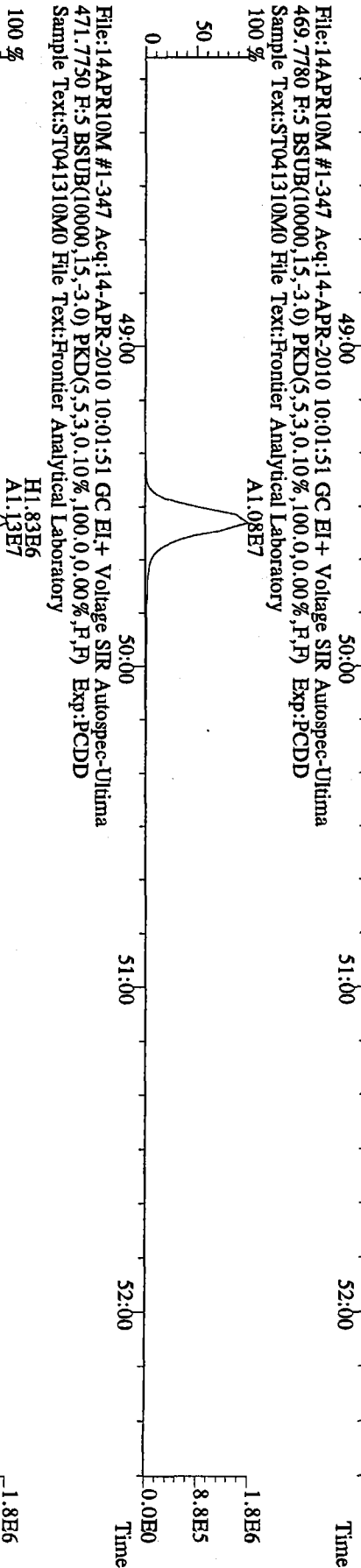
File:14APR10M #1-542 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 430.9728 F:4 Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



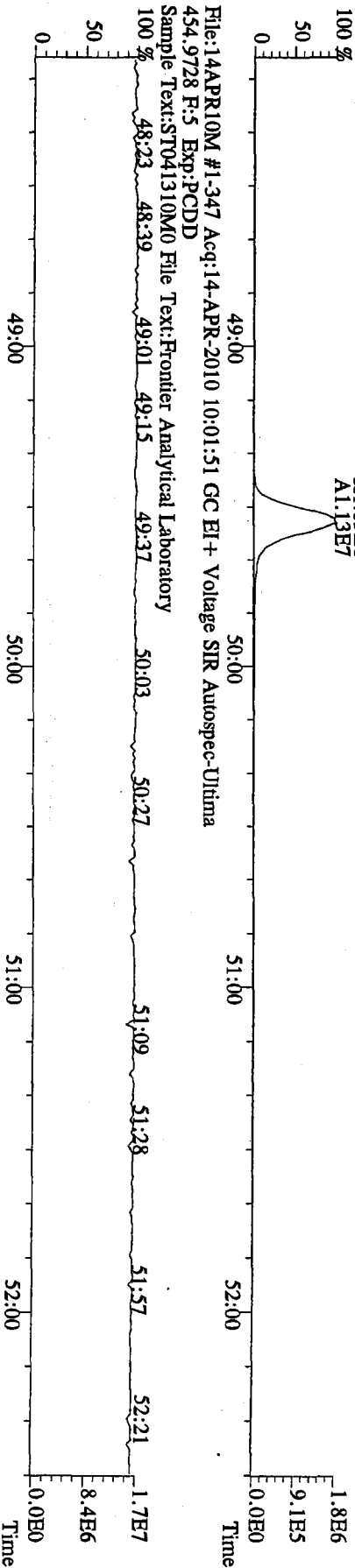
File:14APR10M #1-347 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory
100 % A1.59E5



File:14APR10M #1-347 Acq:14-APR-2010 10:01:51 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:ST041310M0 File Text:Frontier Analytical Laboratory
100 % A1.08E7

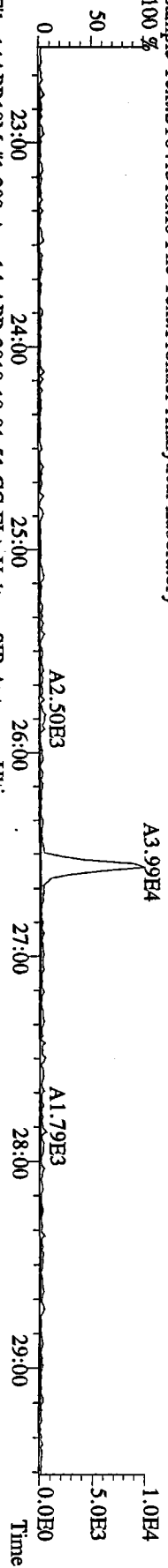


File:14APR10M #1-347 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory
100 % H1.83E6
A1.13E7

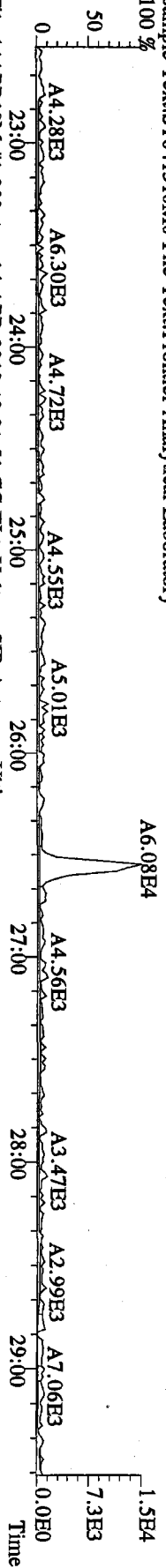


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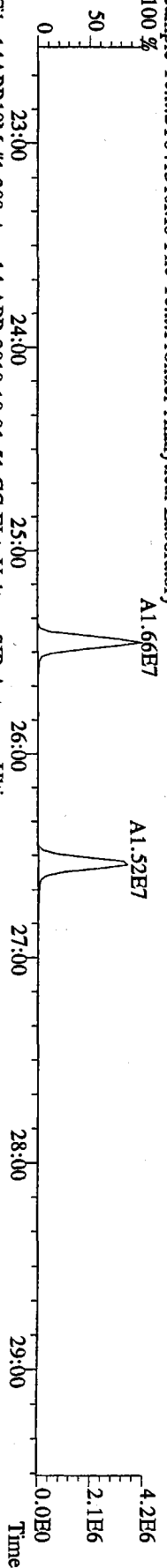
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
303.9016 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



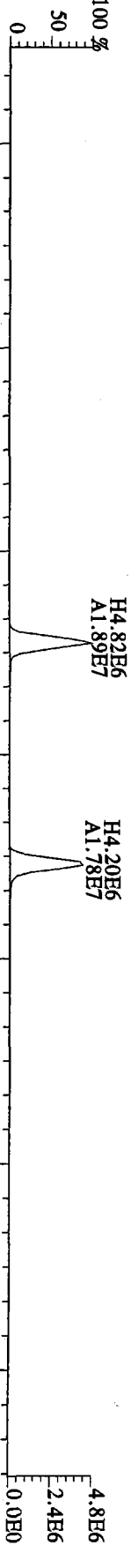
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
305.8987 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



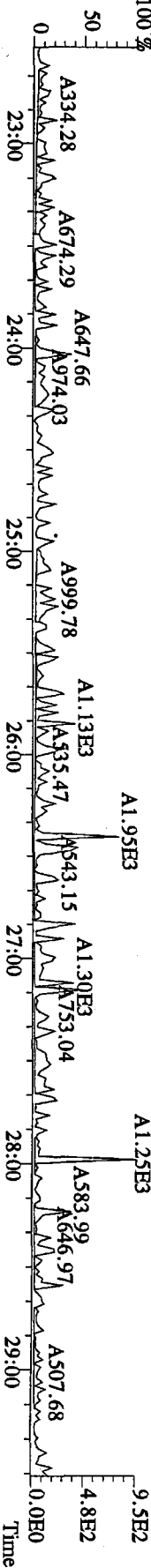
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
315.9419 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



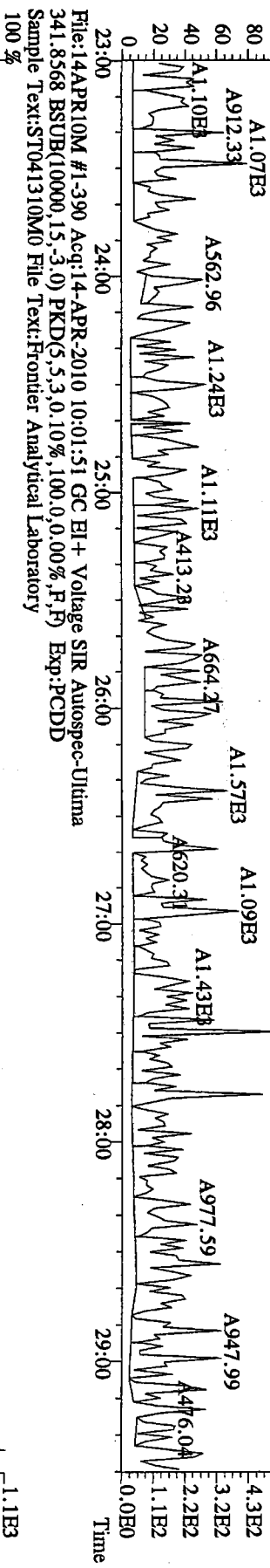
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
317.9389 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



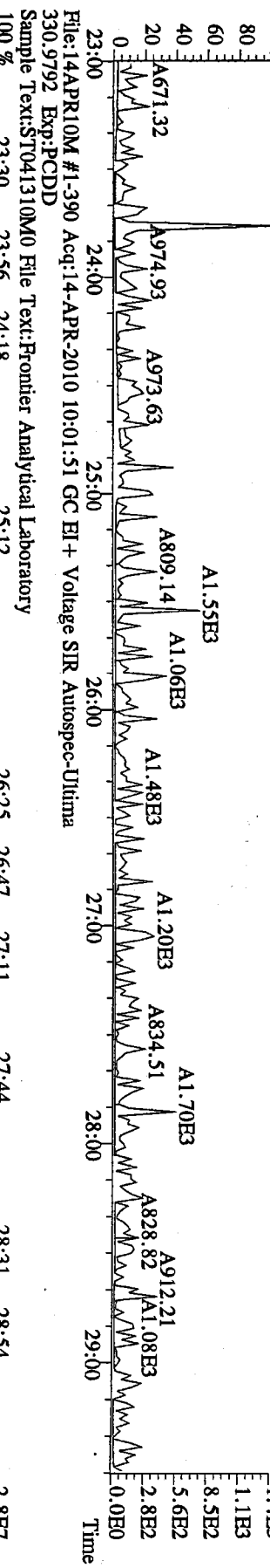
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
375.8364 BSUB(10000,15,-3.0) PKD(5.5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



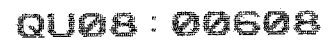
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



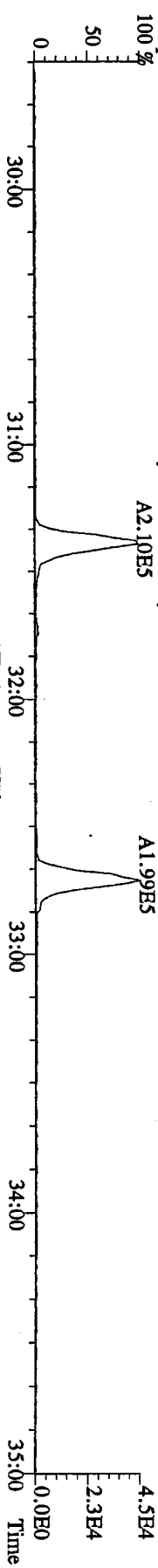
File:14APR10M #1-390 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



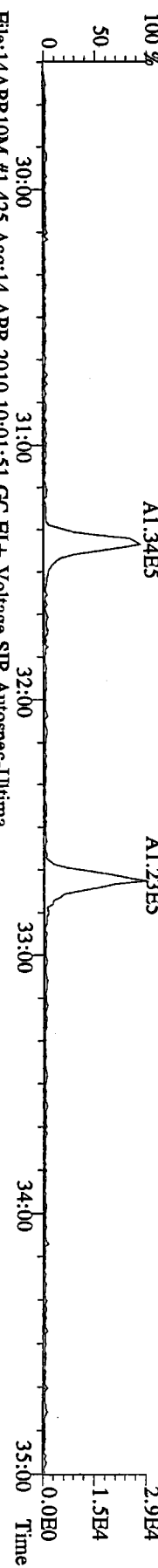
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 330.9792 Exp:PCDD
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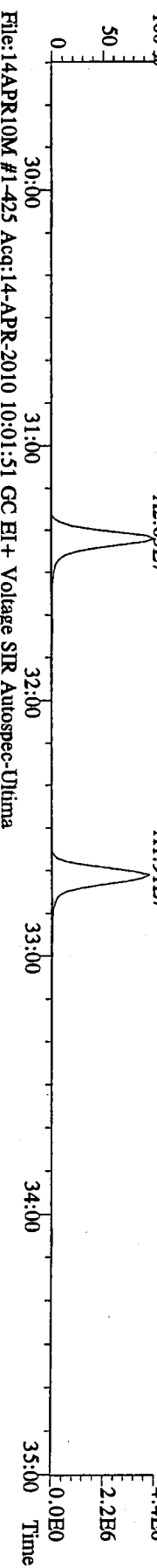
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339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



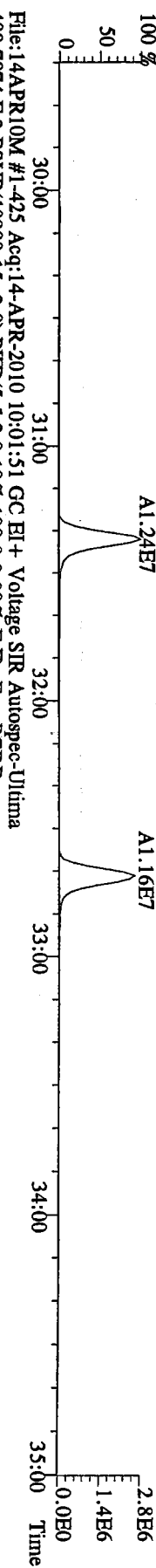
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341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



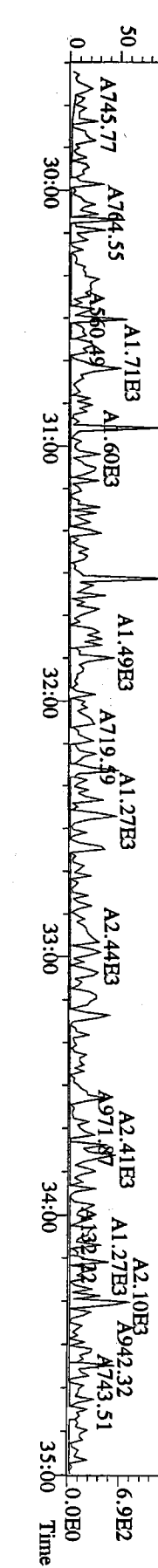
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351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



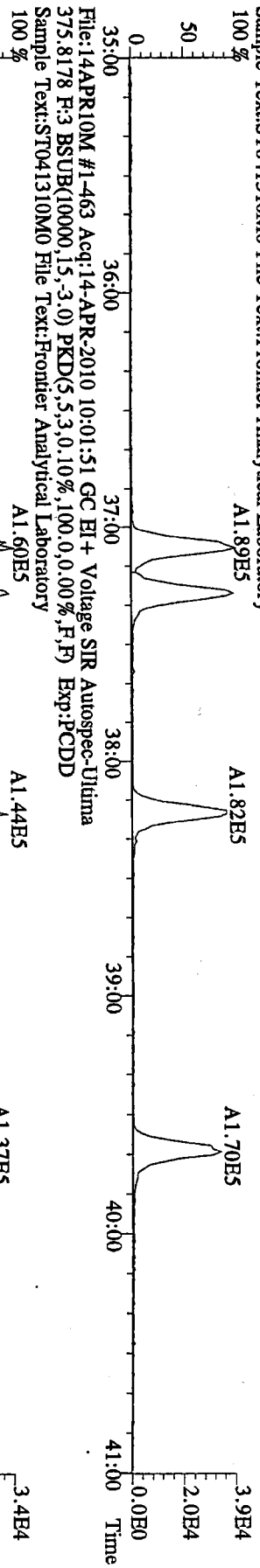
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333.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



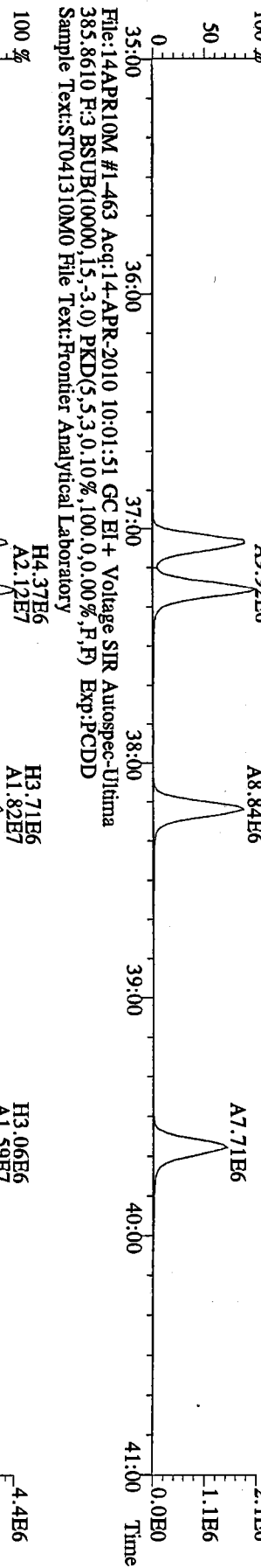
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Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



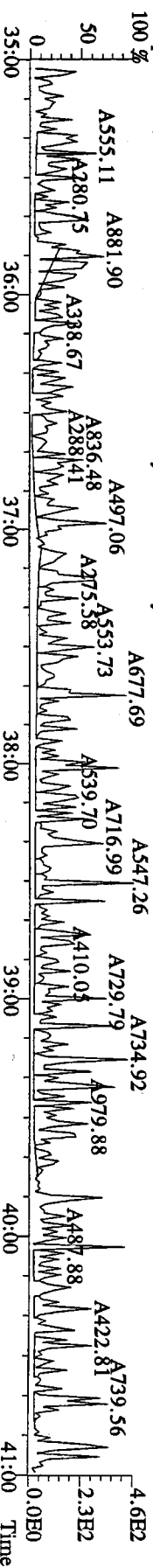
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 373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



File:14APR10M #1-463 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
 383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory

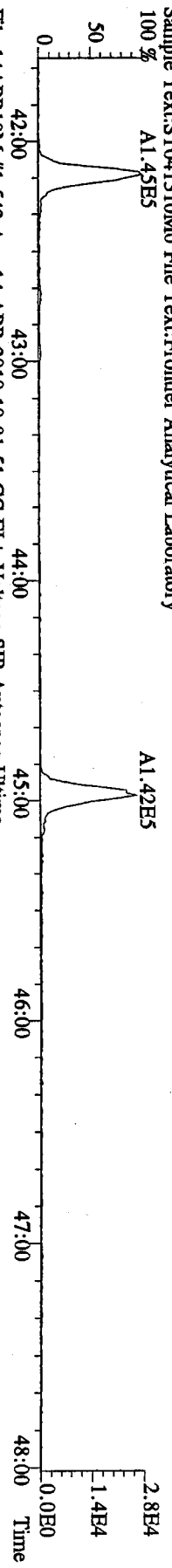


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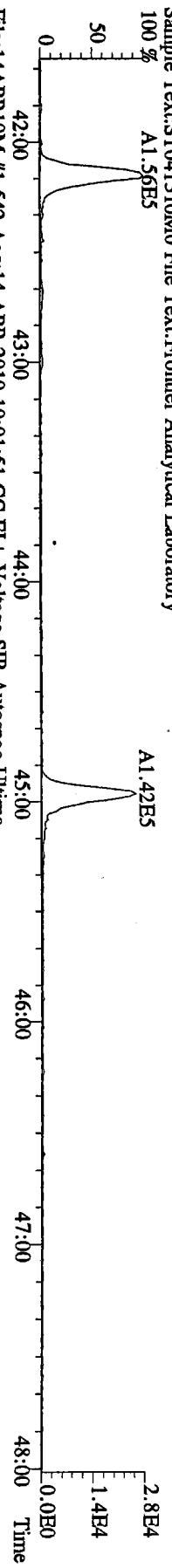


0008 : 0010

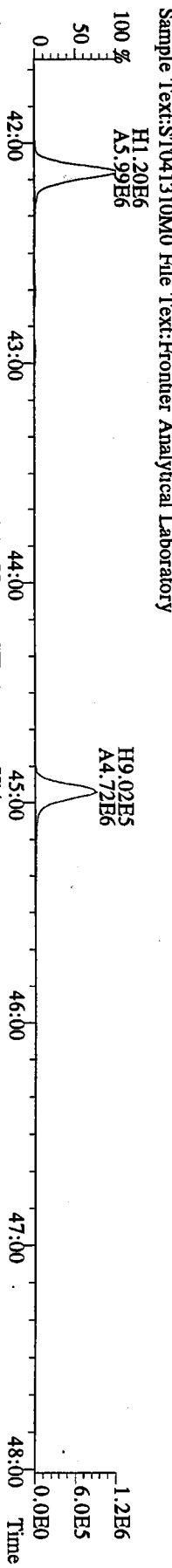
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 407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



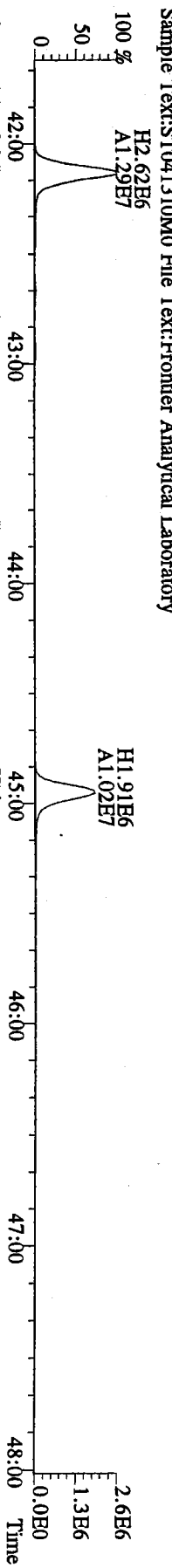
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 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



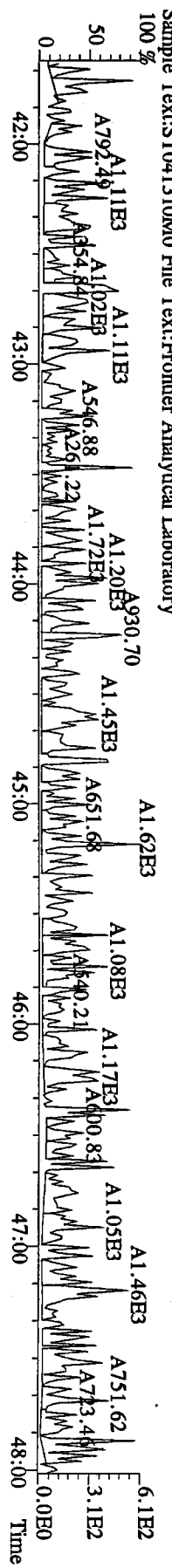
File:14APR10M #1-542 Acq:14-APR-2010 10:01:51 GC EI + Voltage SIR Autospec-Ultima
 417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



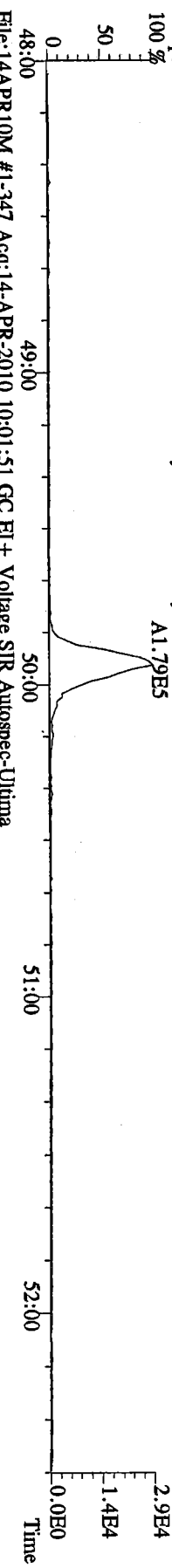
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 419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



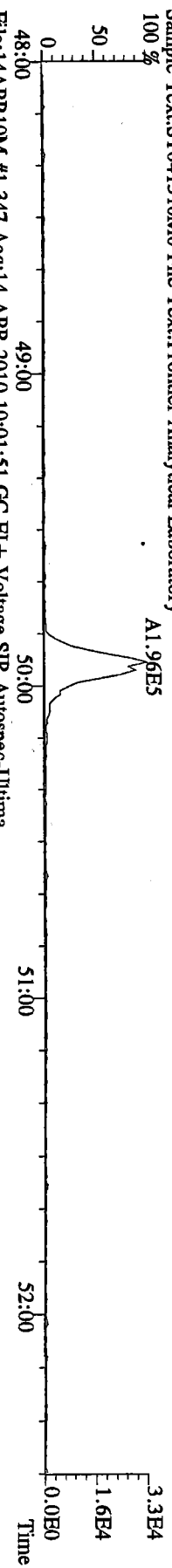
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 Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



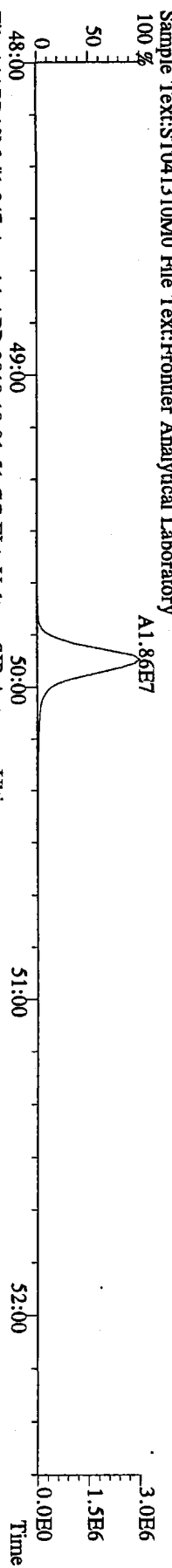
File:14APR10M #1-347 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



File:14APR10M #1-347 Acq:14-APR-2010 10:01:51 GC EI+ Voltage SIR Autospec-Ultima
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



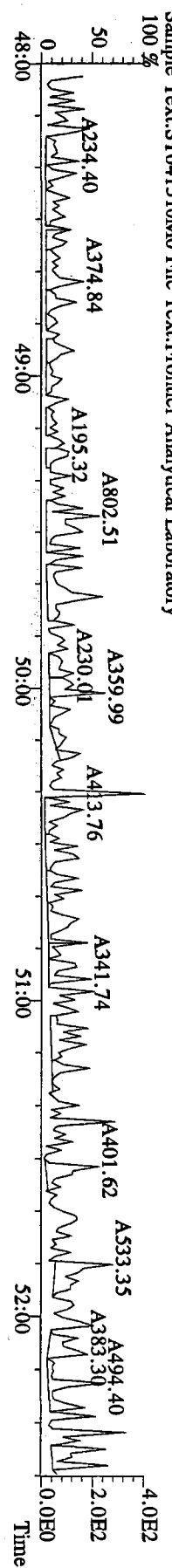
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453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



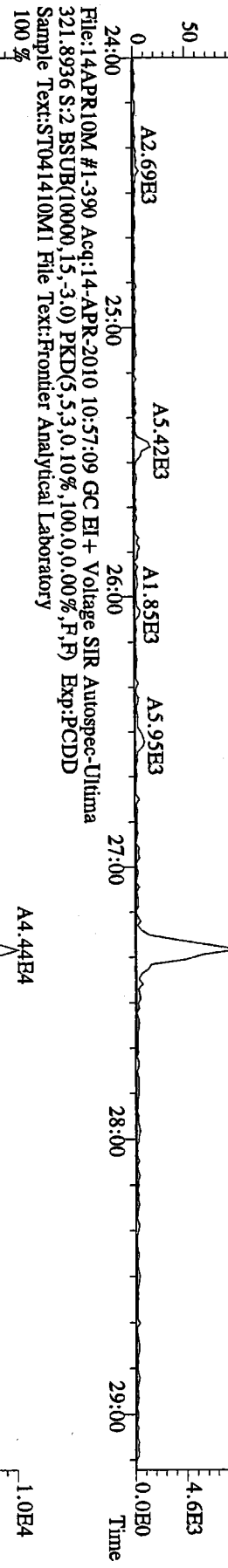
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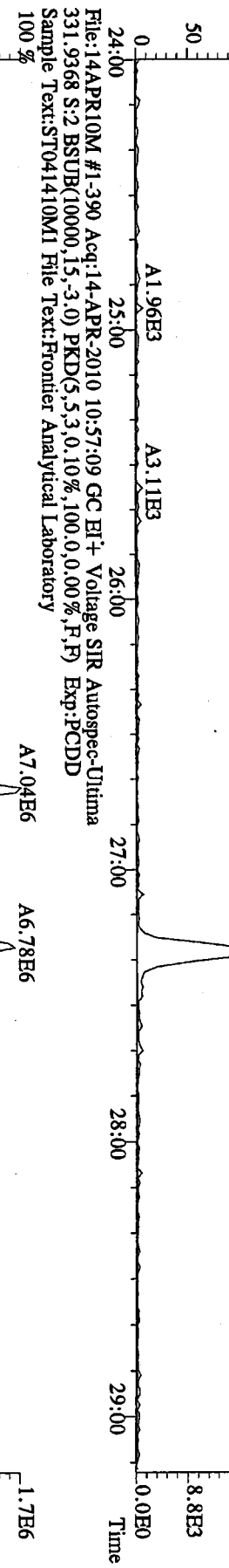
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Sample Text:ST041310M0 File Text:Frontier Analytical Laboratory



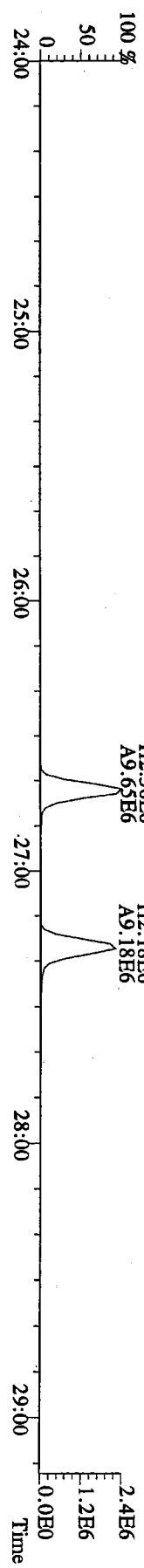
File:14APR10M #1-390 Acq:14-APR-2010 10:57:09 GC EI+ Voltage SIR Autospec-Ultima
 319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



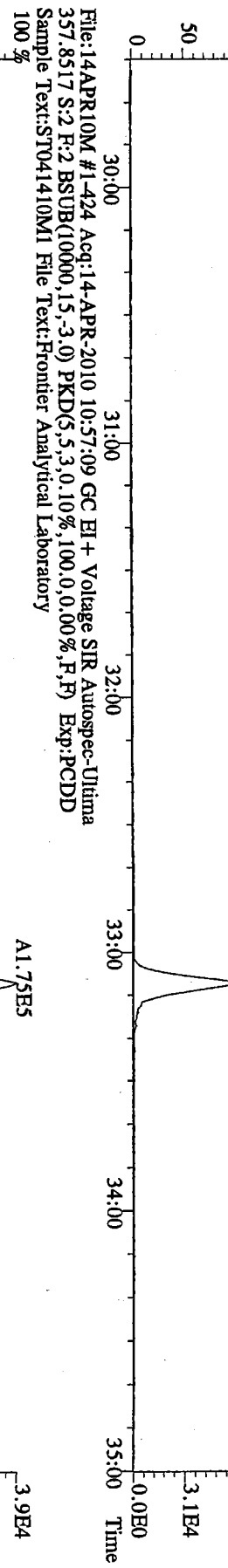
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 327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



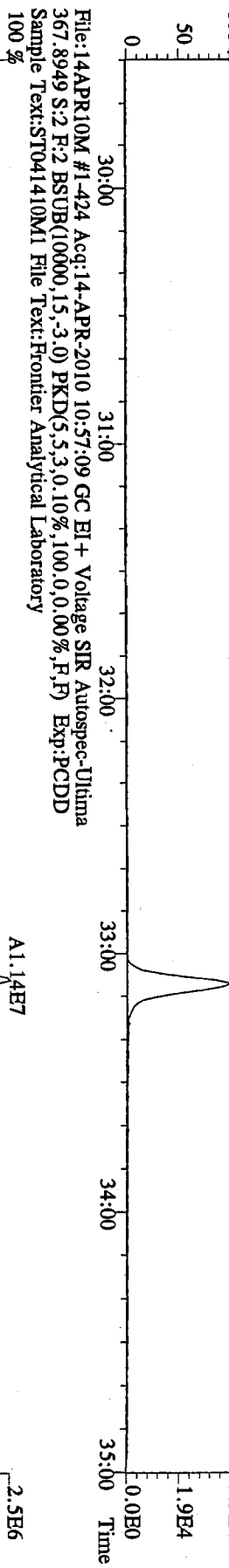
File:14APR10M #1-390 Acq:14-APR-2010 10:57:09 GC EI+ Voltage SIR Autospec-Ultima
 333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



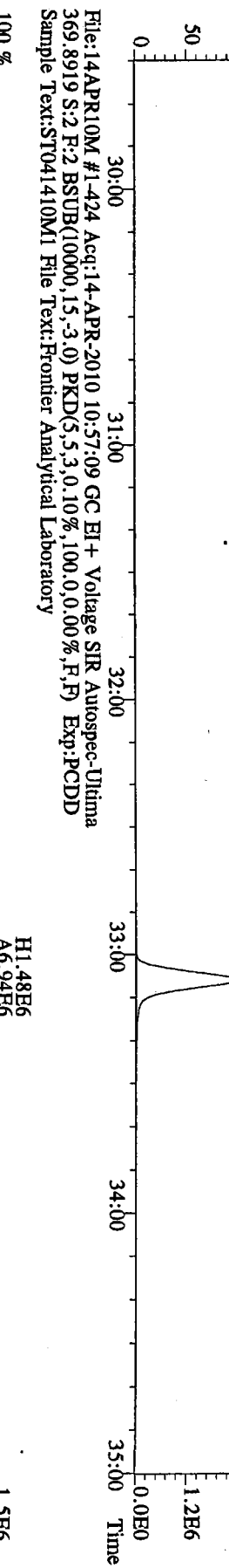
File:14APR10M #1-424 Acq:14-APR-2010 10:57:09 GC EI + Voltage SIR Autospec-Ultima
 355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



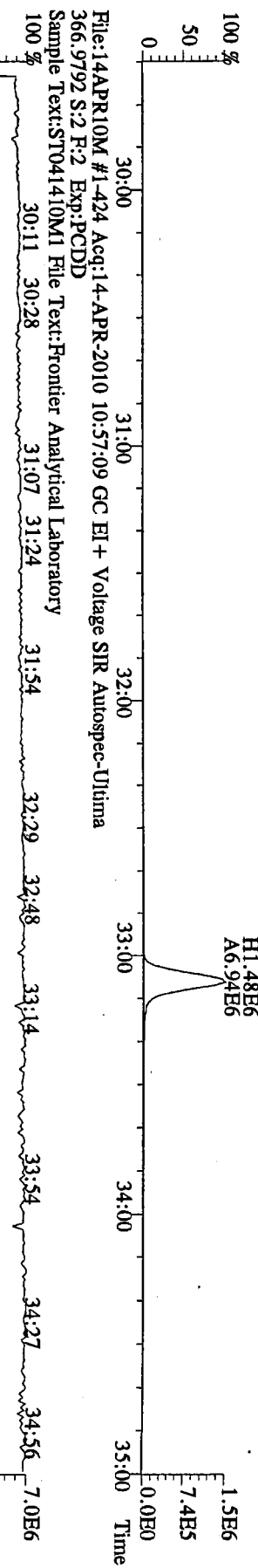
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 357.8517 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



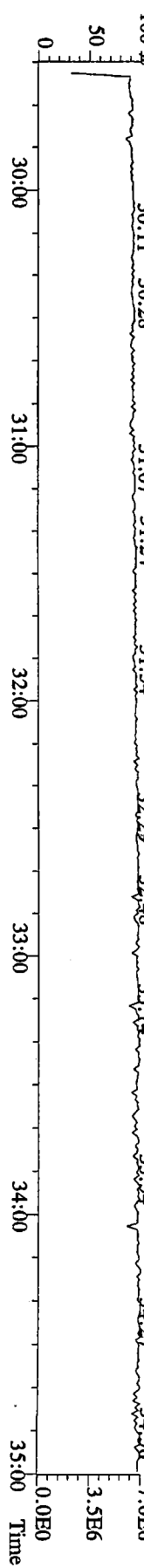
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 367.8949 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



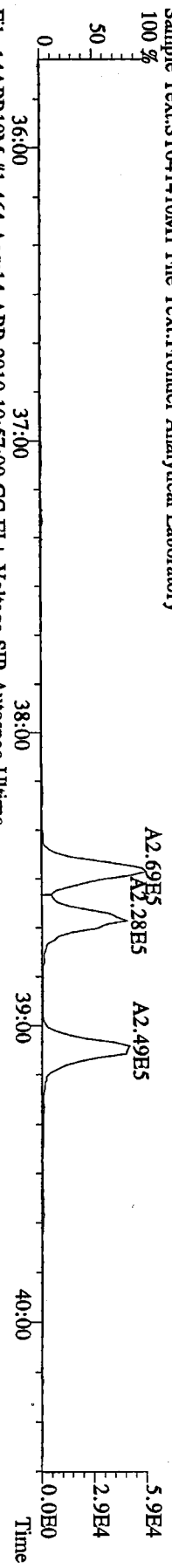
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 369.8919 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



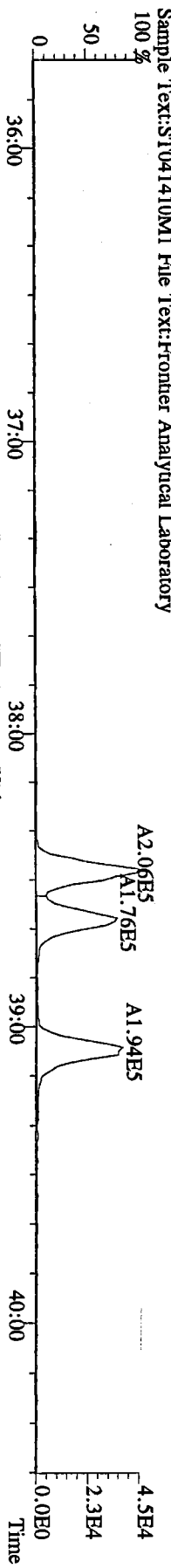
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 366.9792 S:2 F:2 Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



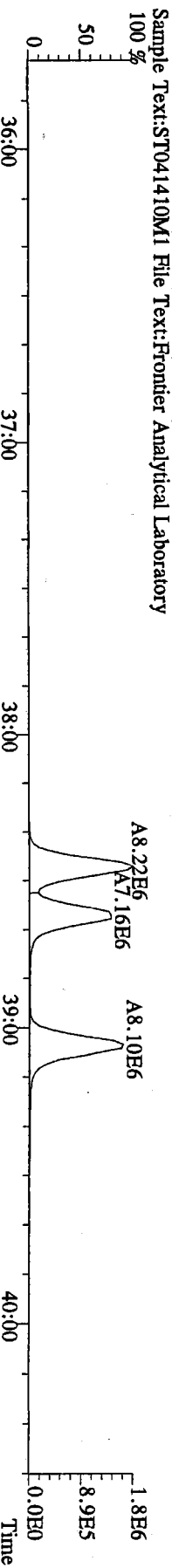
File:14APR10M #1-464 Acq:14-APR-2010 10:57:09 GC EI+ Voltage SIR Autospec-Ultima
 389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



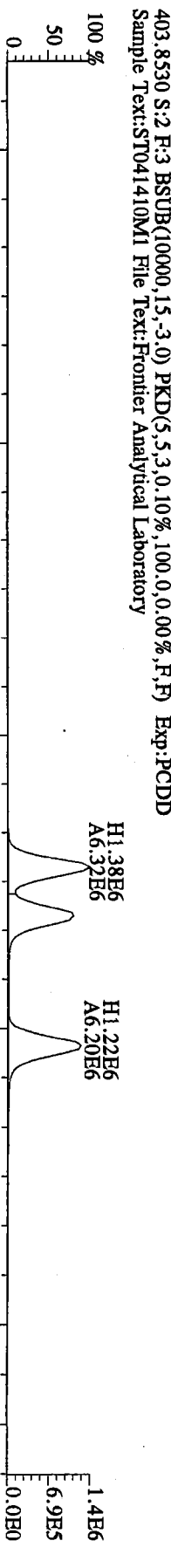
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 391.8127 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



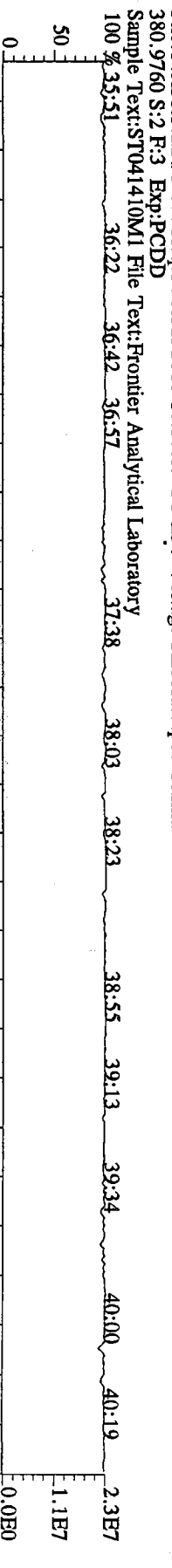
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 401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



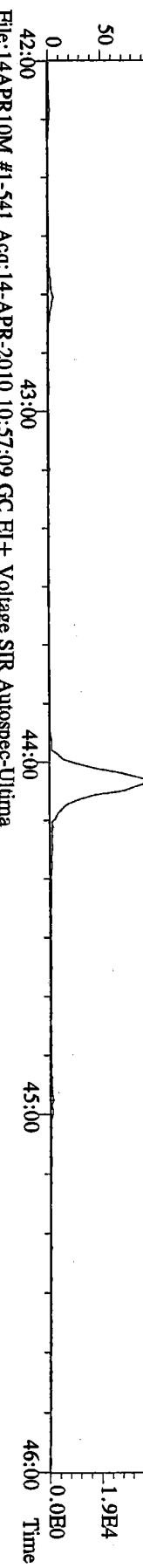
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 403.8530 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



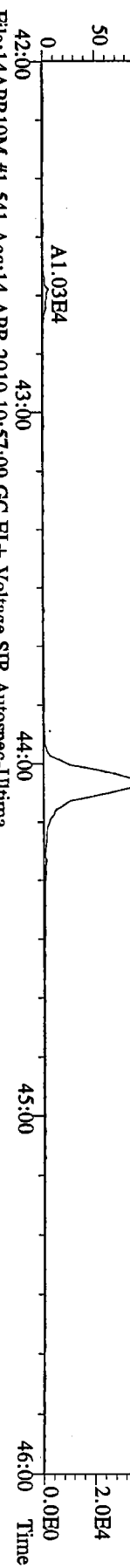
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 380.9760 S:2 F:3 Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



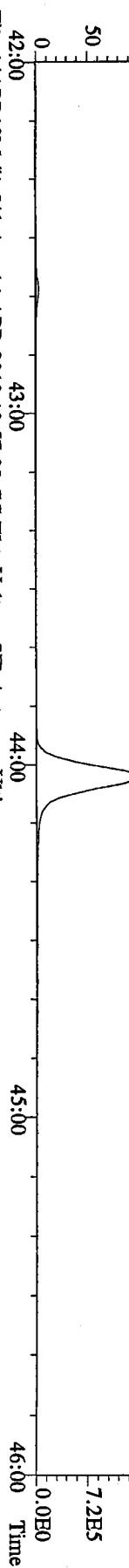
File:14APR10M #1-541 Acq:14-APR-2010 10:57:09 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



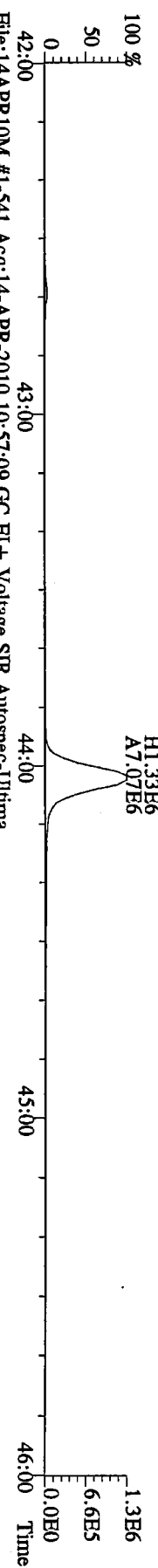
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425.7737 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



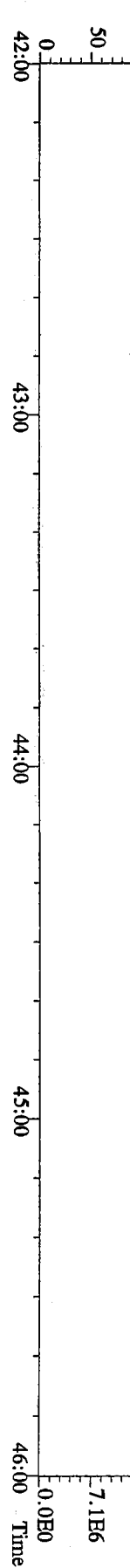
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435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



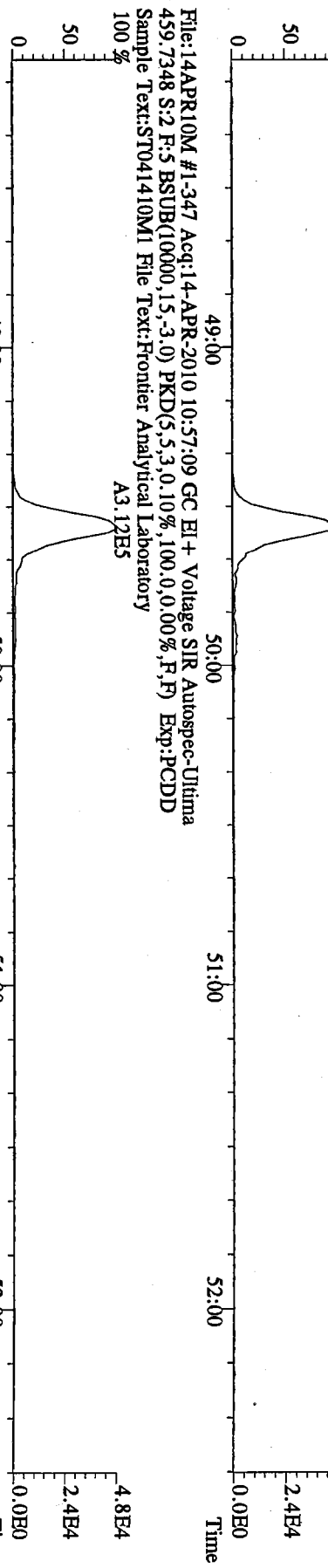
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437.8140 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



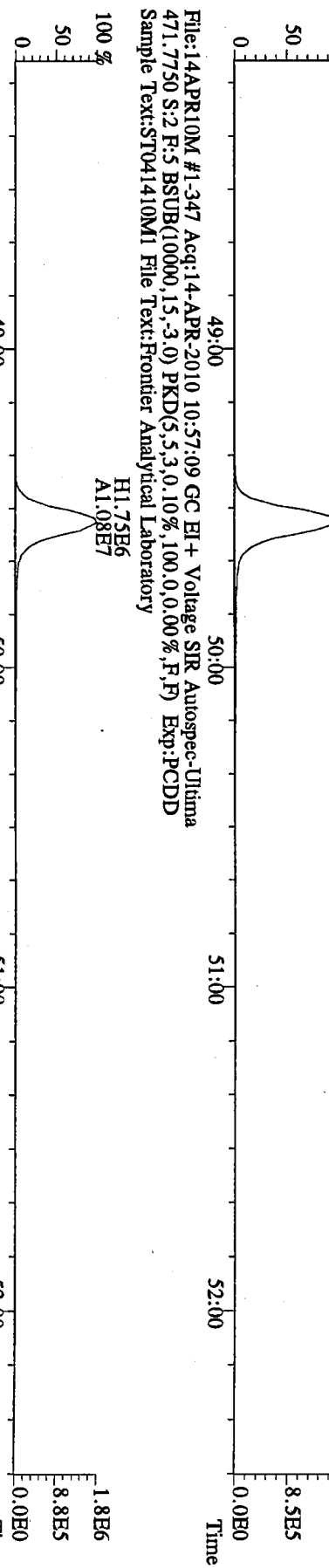
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430.9728 S:2 F:4 Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



File:14APR10M #1-347 Acq:14-APR-2010 10:57:09 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



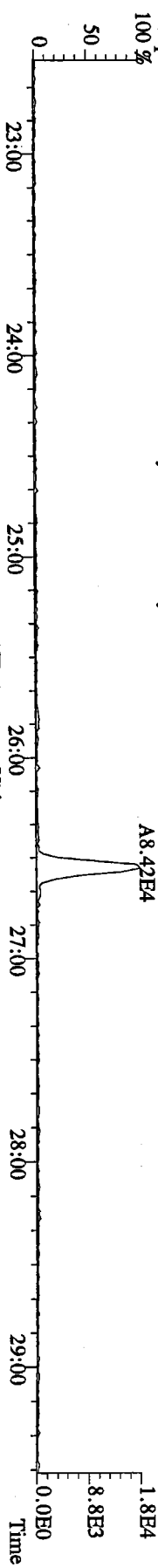
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469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



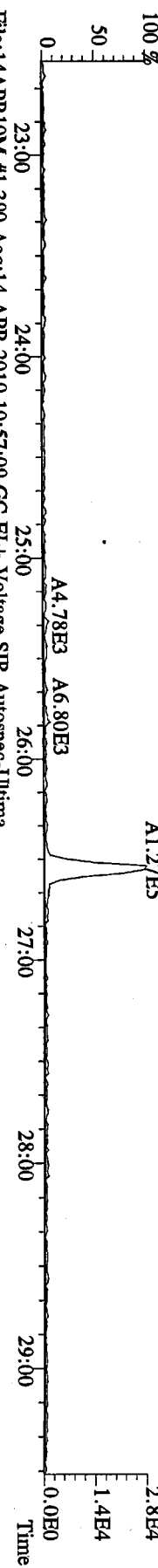
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471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



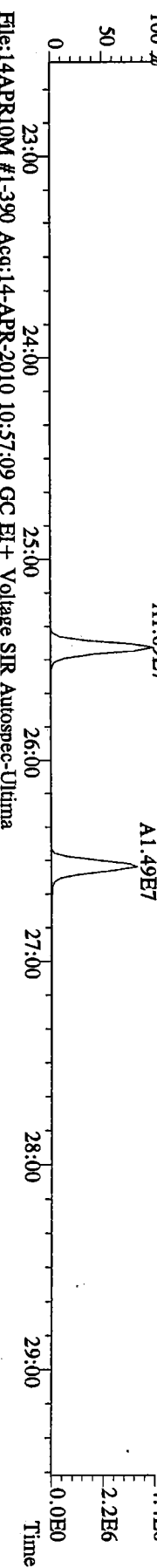
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 303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



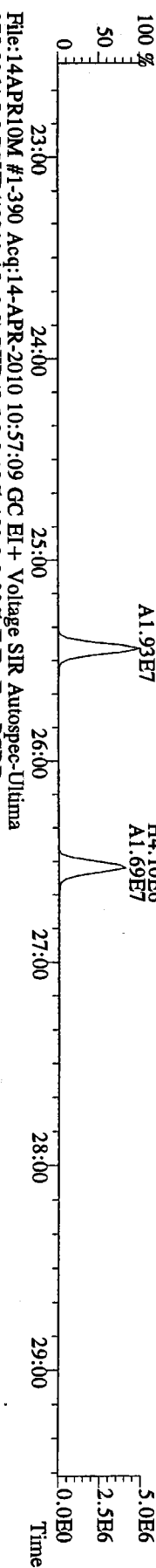
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 305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



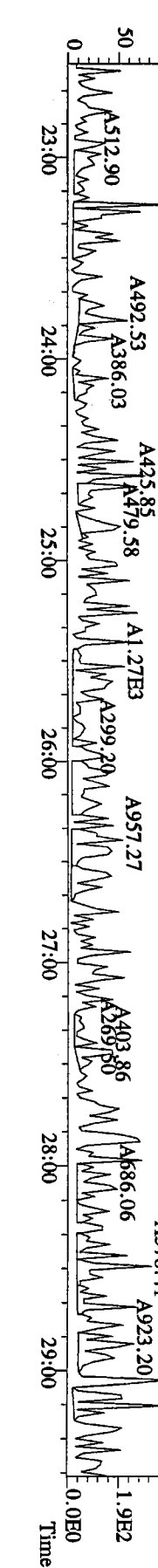
File:14APR10M #1-390 Acq:14-APR-2010 10:57:09 GC EI+ Voltage SIR Autospec-Ultima
 315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



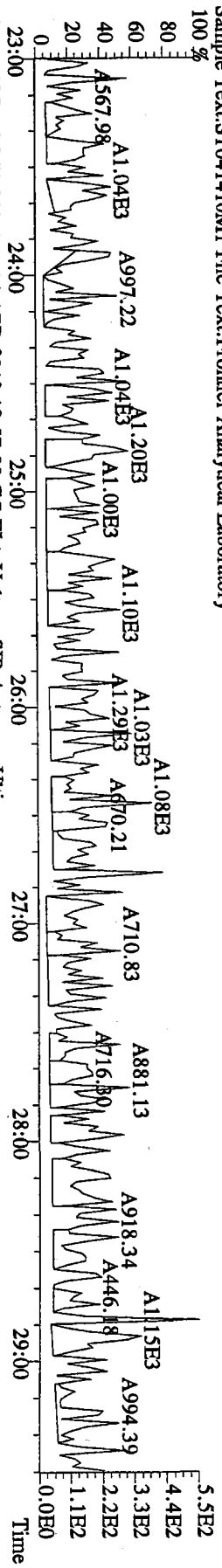
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 317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



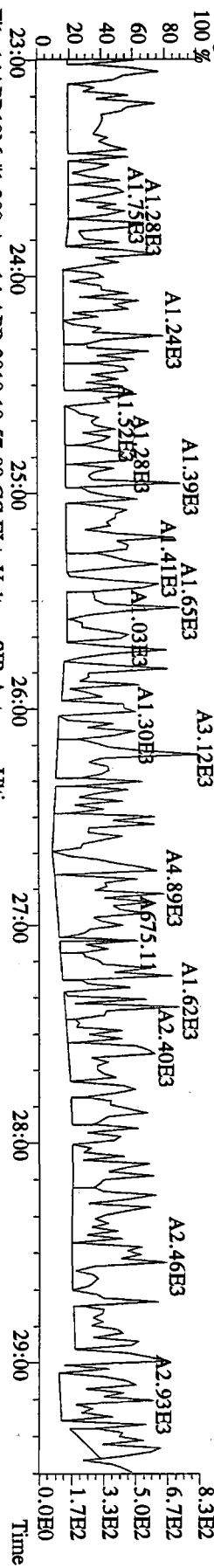
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 375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



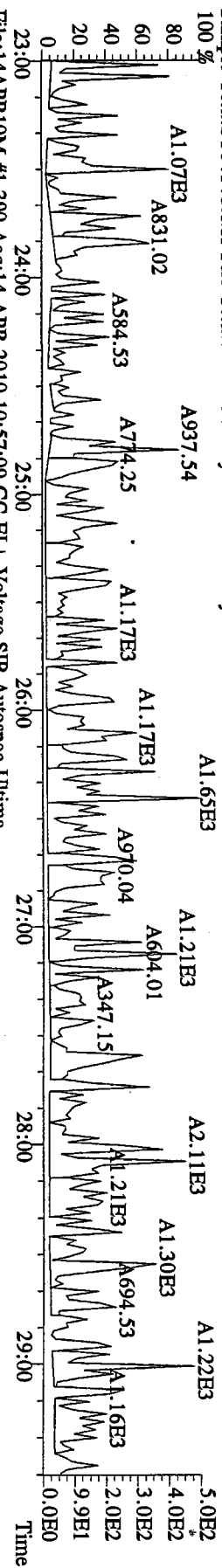
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 339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



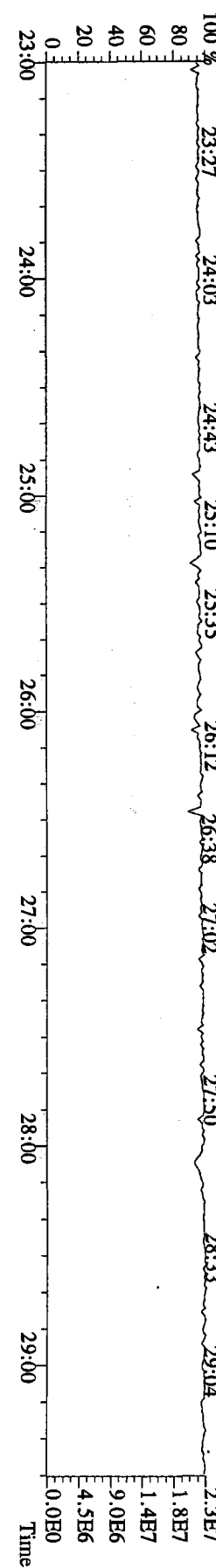
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 341.8568 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



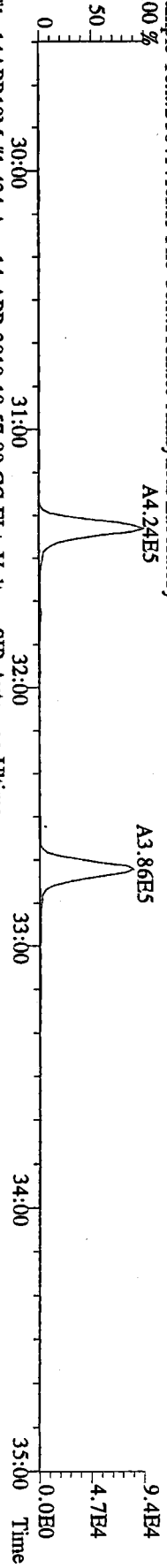
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 409.7974 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



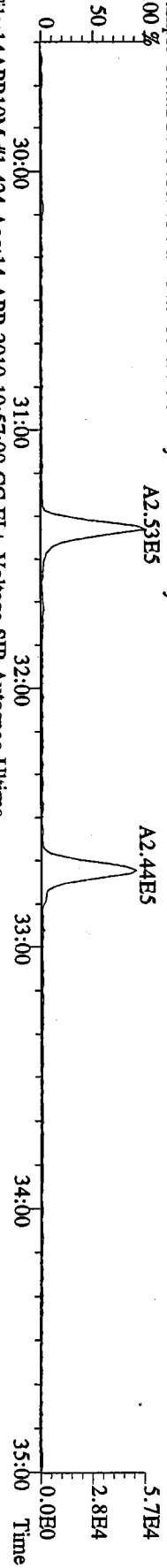
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 330.9792 S:2 Exp:PCDD
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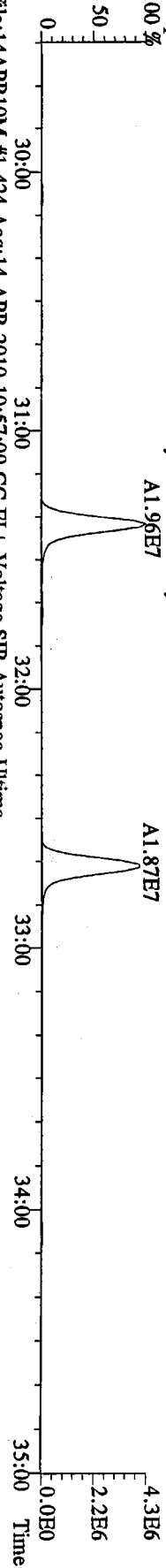
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 339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



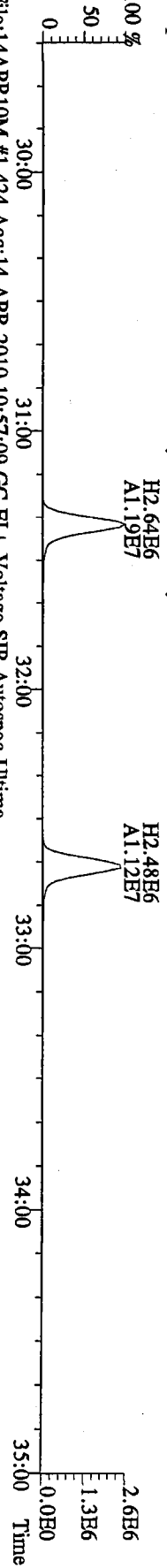
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 341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



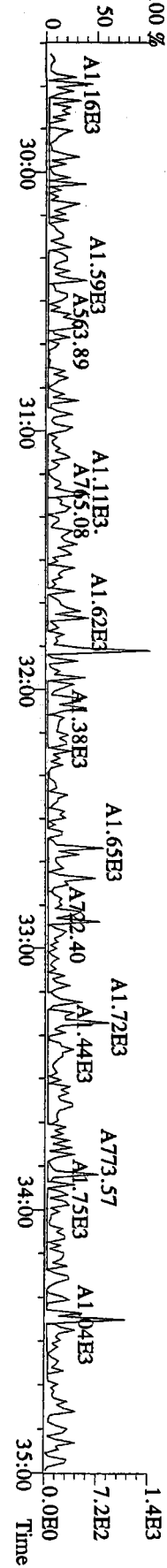
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 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



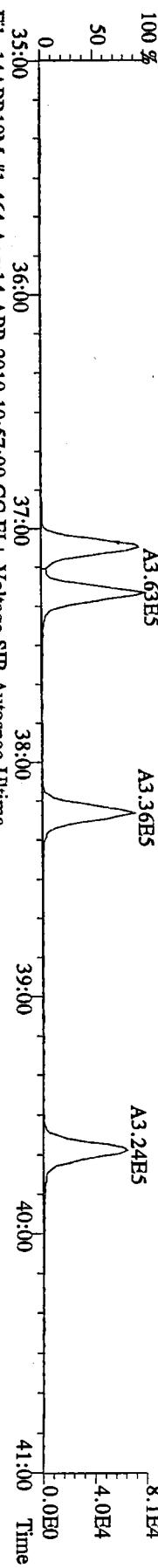
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 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



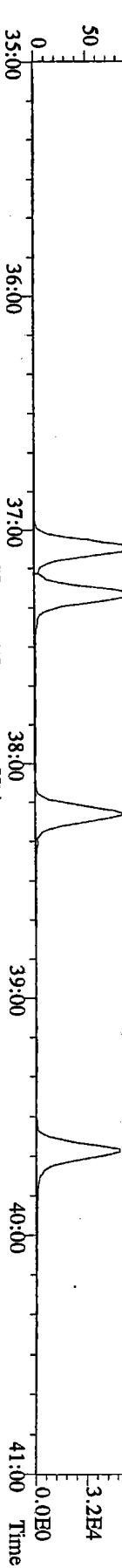
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 Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



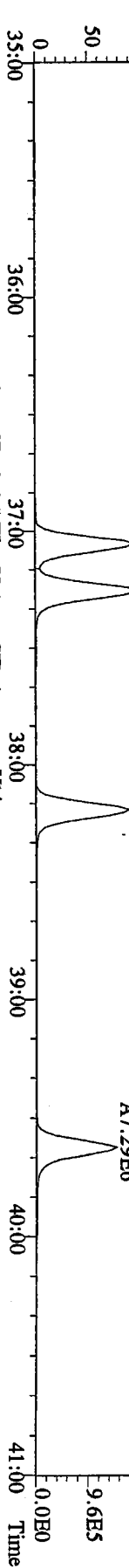
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373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



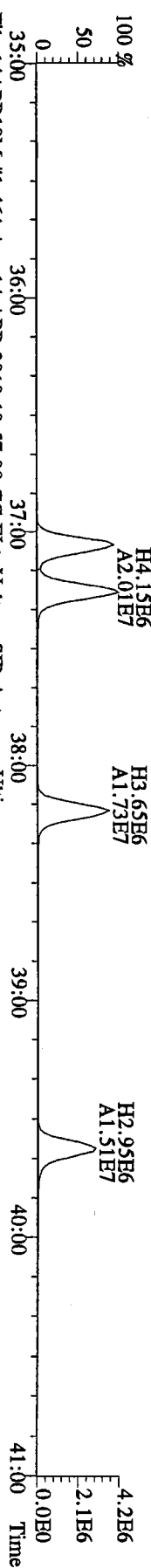
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375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



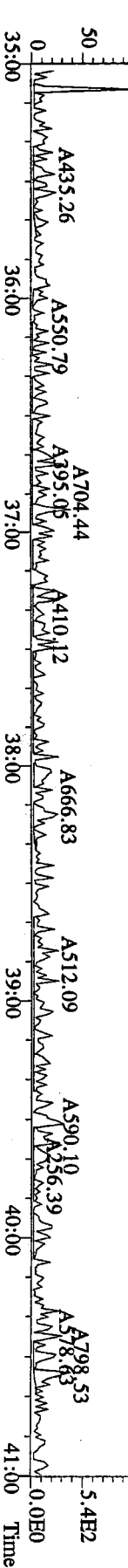
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383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



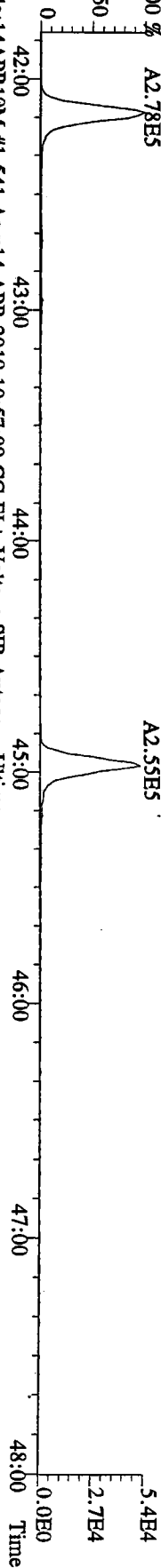
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385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



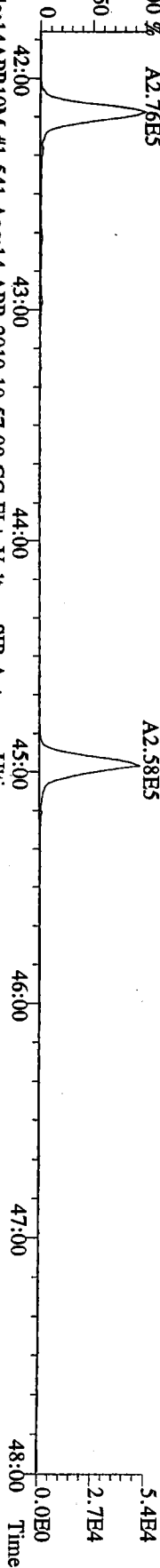
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445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



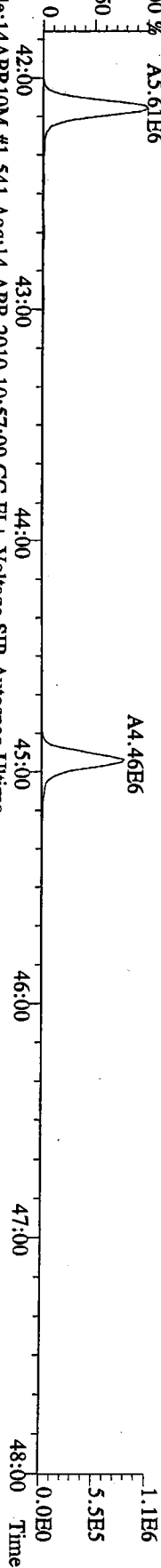
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407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory
100 % A2.78E5



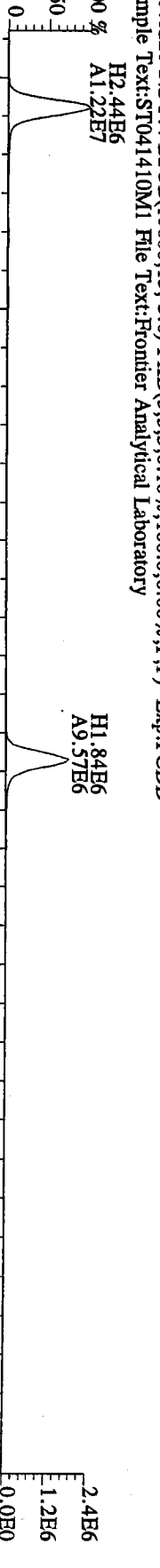
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409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory
100 % A2.76E5



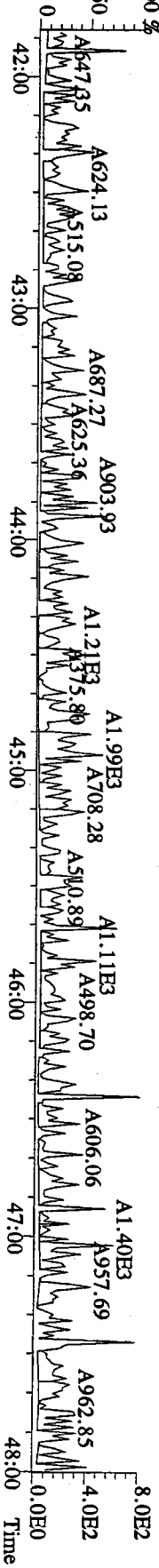
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417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory
100 % A5.61E6



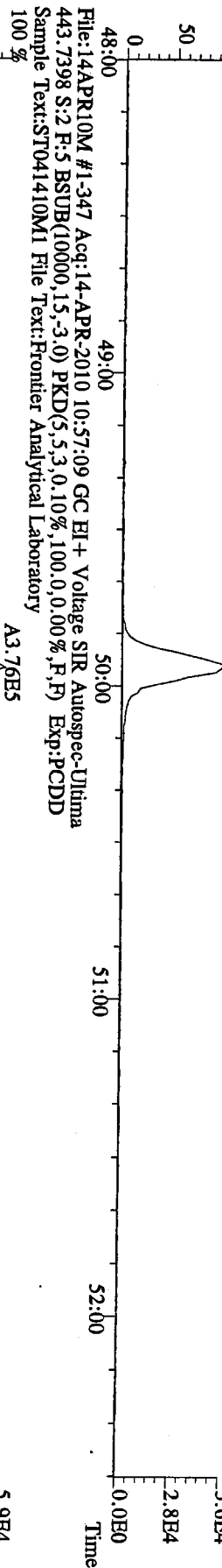
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419.8220 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



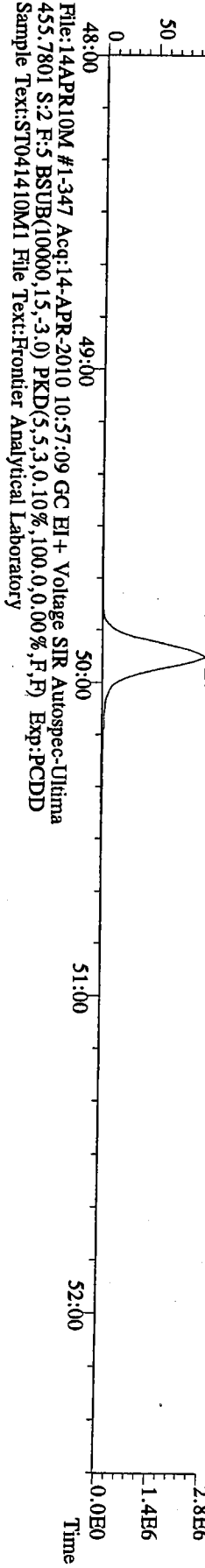
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479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory



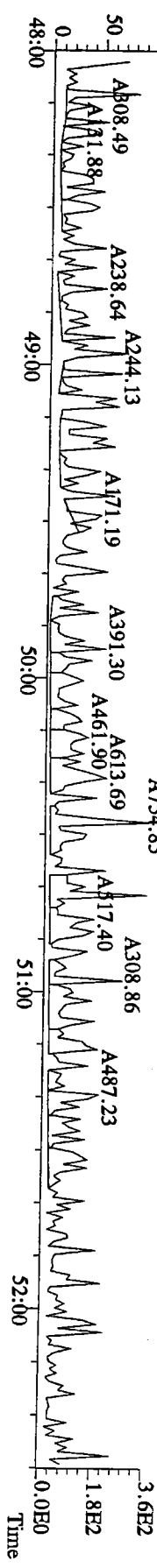
File:14APR10M #1-347 Acq:14-APR-2010 10:57:09 GC EI+ Voltage SIR Autospec-Utima
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory
100 %



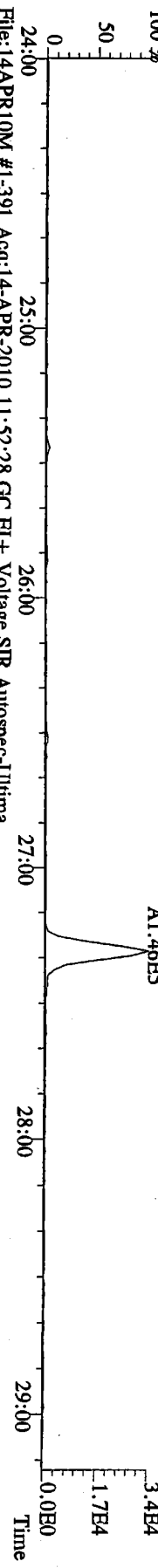
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453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory
100 %



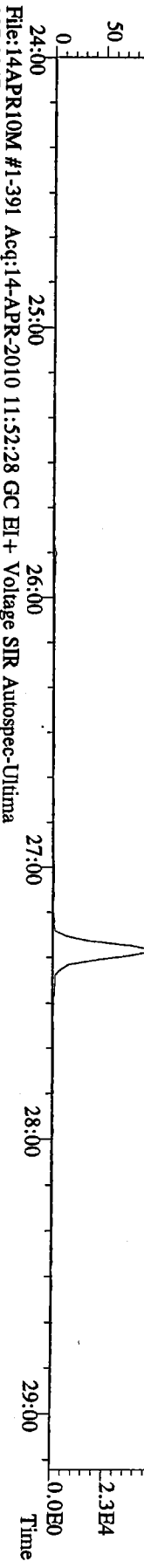
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513.6775 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M1 File Text:Frontier Analytical Laboratory
100 %



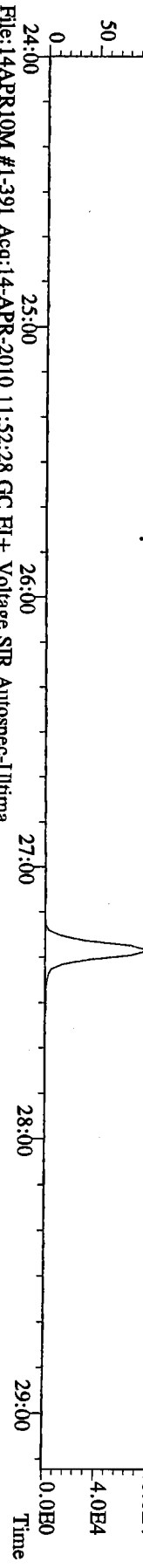
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319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



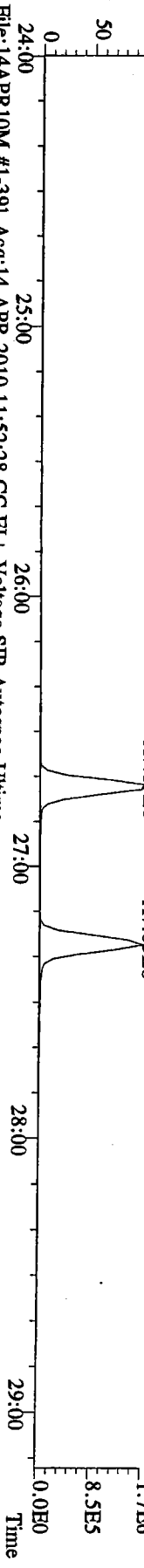
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321.8936 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



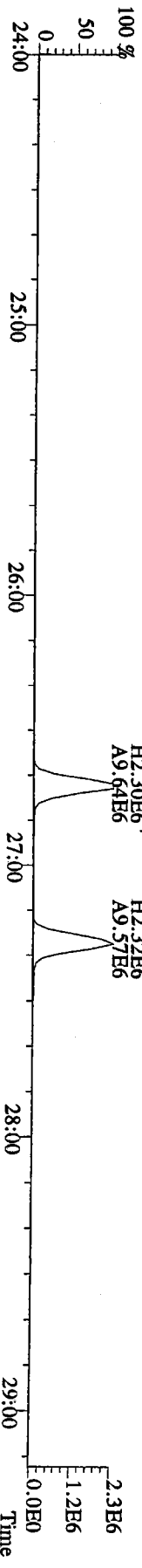
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327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



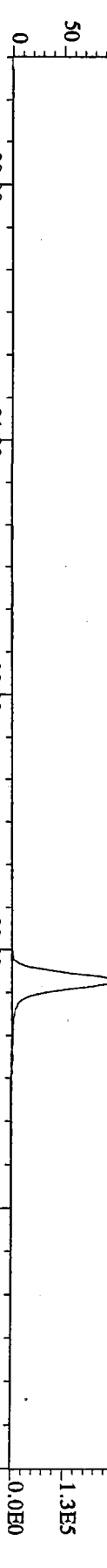
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331.9368 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



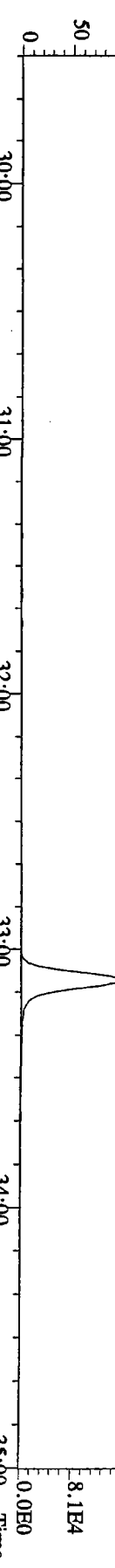
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333.9339 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
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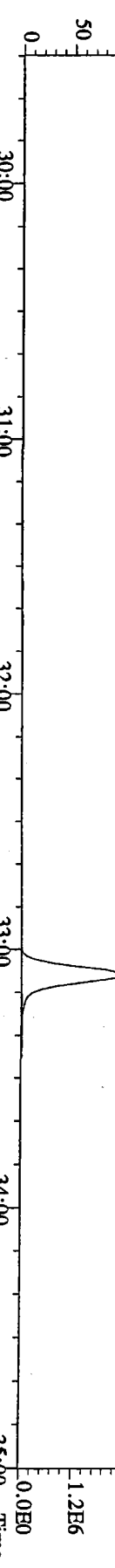
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355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



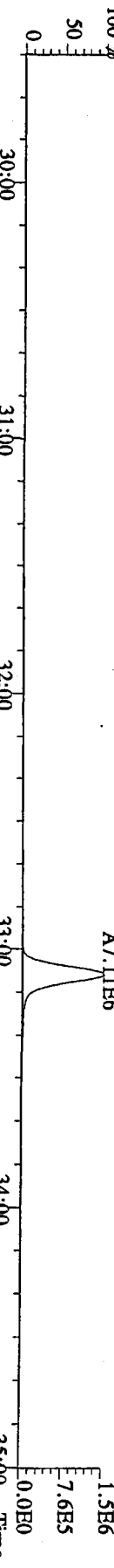
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357.8517 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



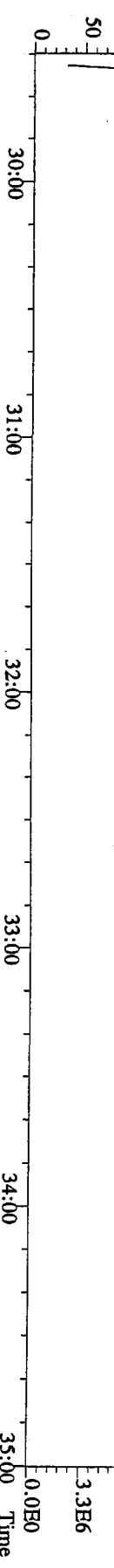
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367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



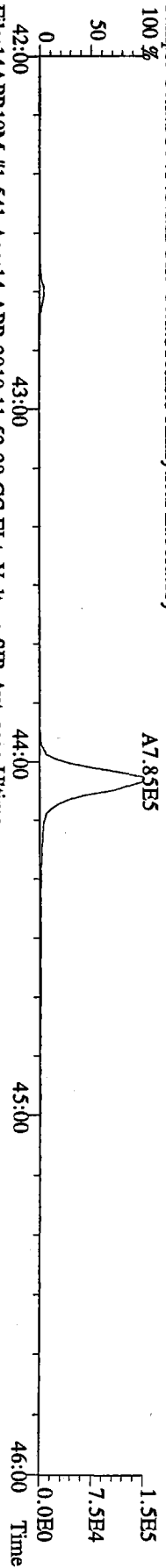
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Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



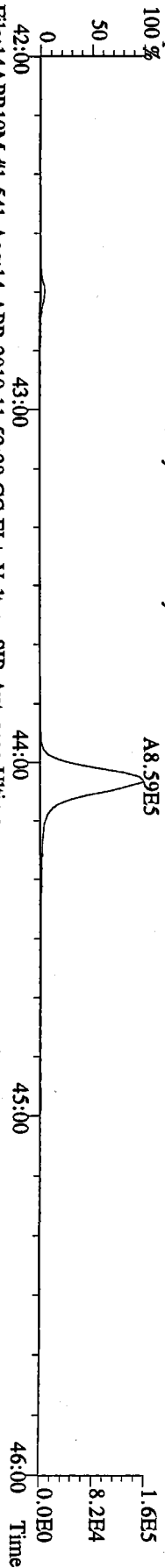
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366.9792 S:3 F:2 Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



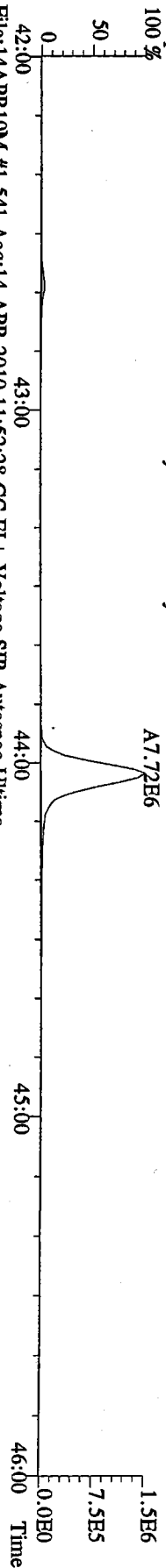
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423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
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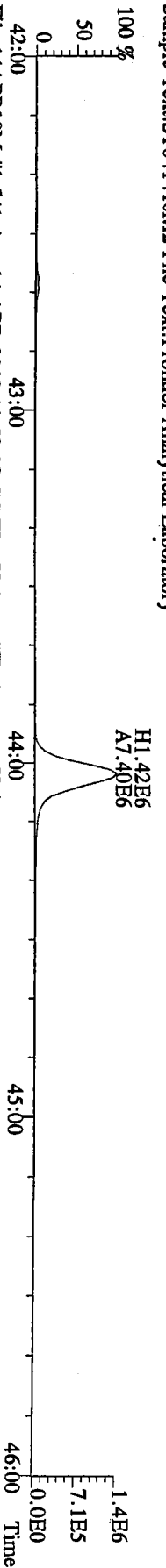
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425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



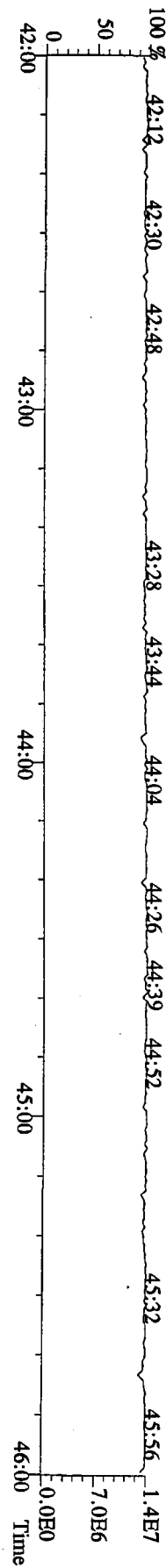
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435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



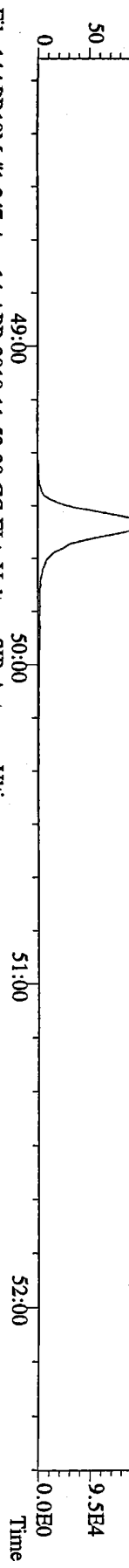
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437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
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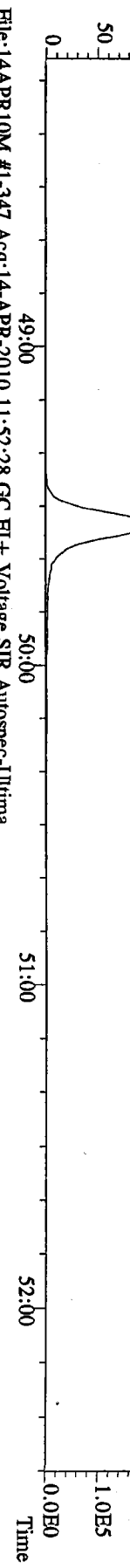
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430.9728 S:3 F:4 Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



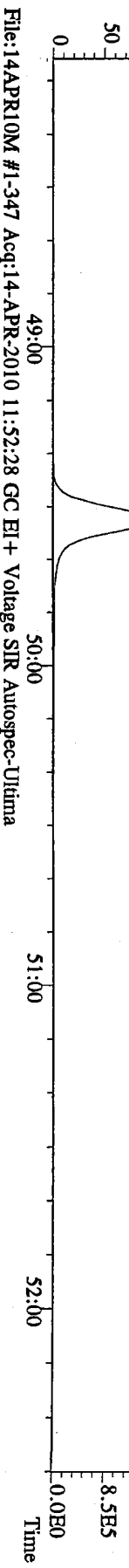
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457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



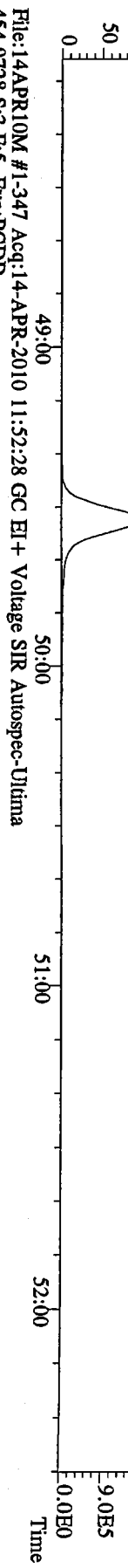
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459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



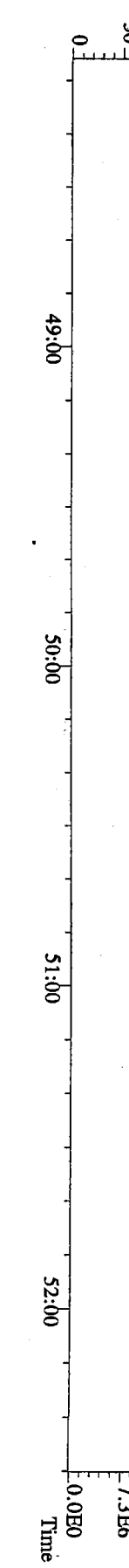
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Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



File:14APR10M #1-347 Acq:14-APR-2010 11:52:28 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:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



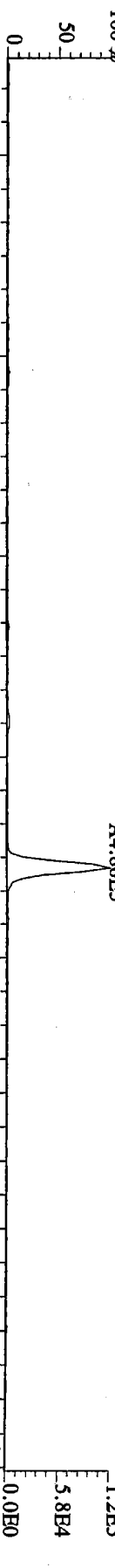
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454.9728 S:3 F:5 Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory
100 %



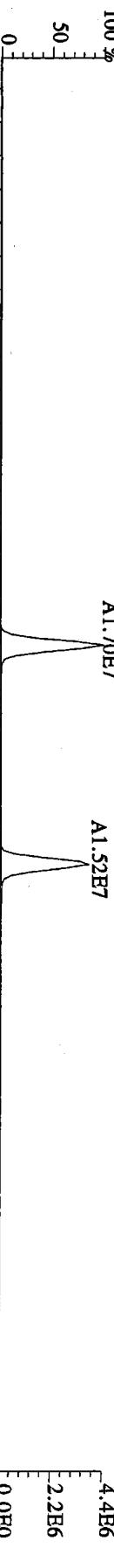
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 303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



File:14APR10M #1-391 Acq:14-APR-2010 11:52:28 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:ST041410M2 File Text:Frontier Analytical Laboratory



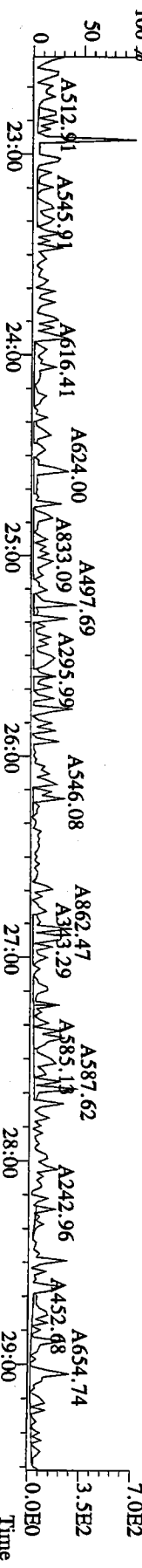
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 315.9419 S:3 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



File:14APR10M #1-391 Acq:14-APR-2010 11:52:28 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
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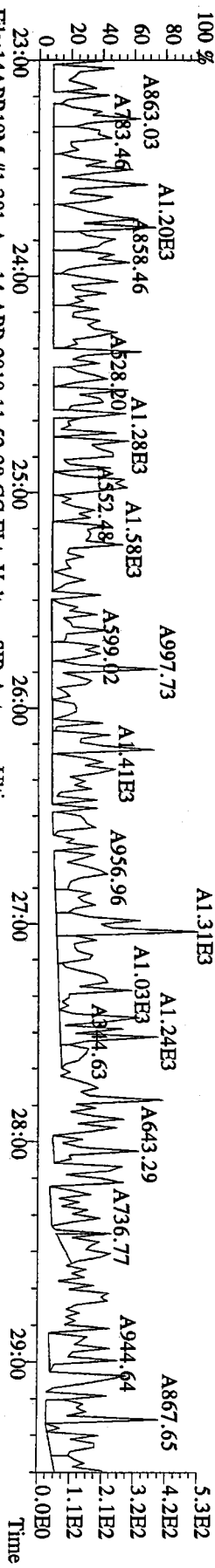


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 375.8364 S:3 BSUB(10000,15,-3.0) PKD(5,5,3.0,10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory

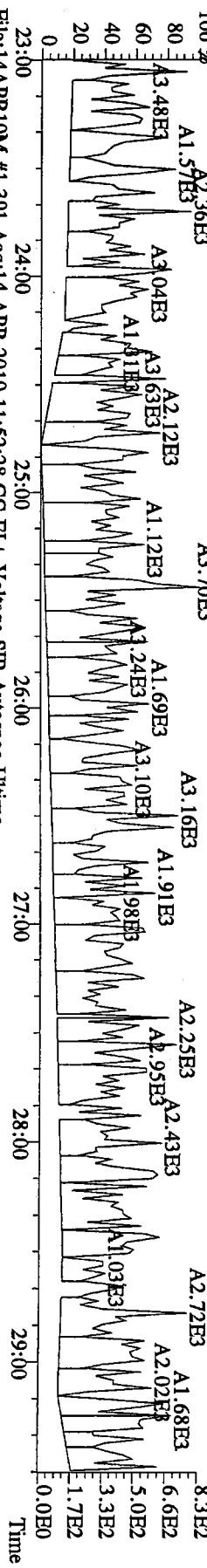


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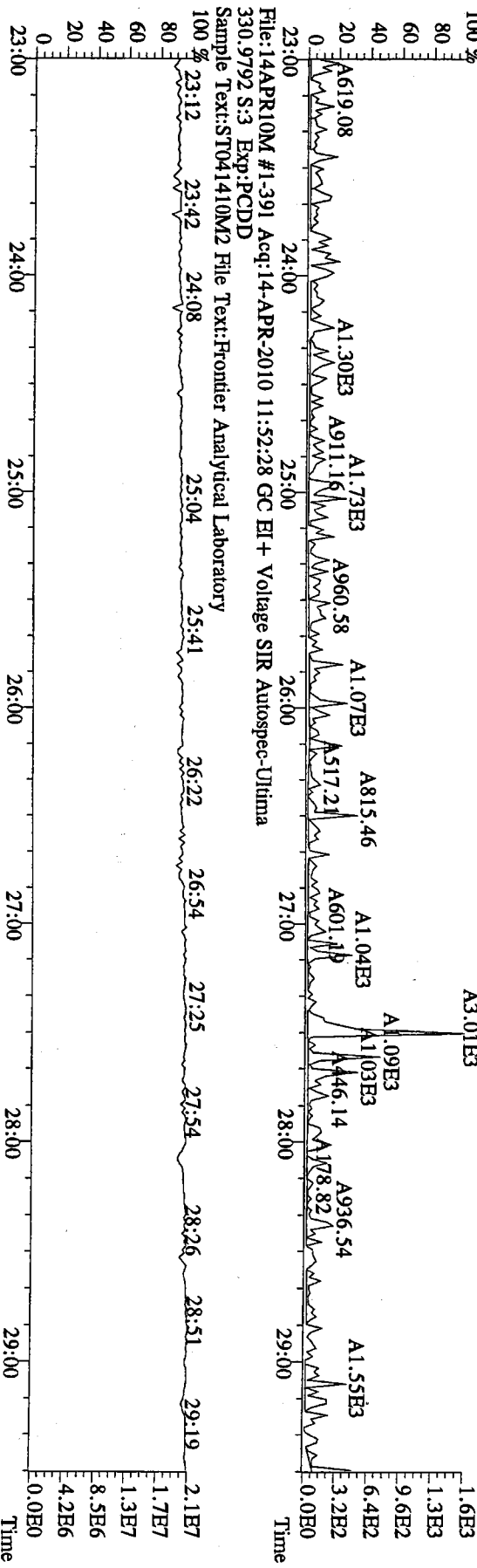
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 339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
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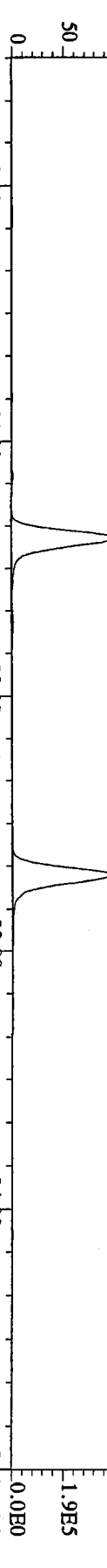
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 341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



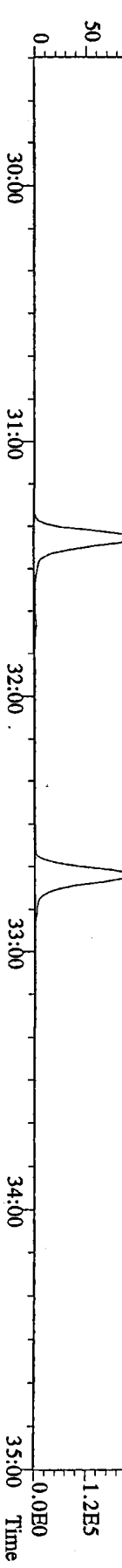
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 409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
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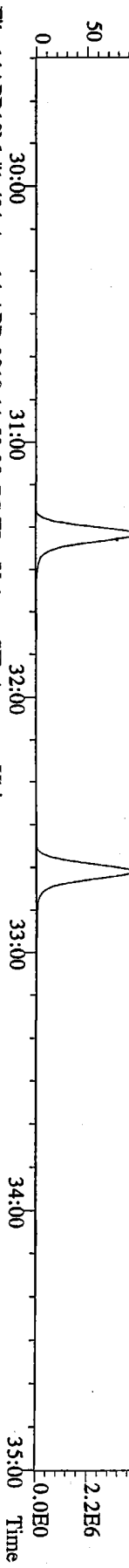
File:14APR10M #1-424 Acq:14-APR-2010 11:52:28 GC EI + Voltage SIR Autospec-Ultima
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



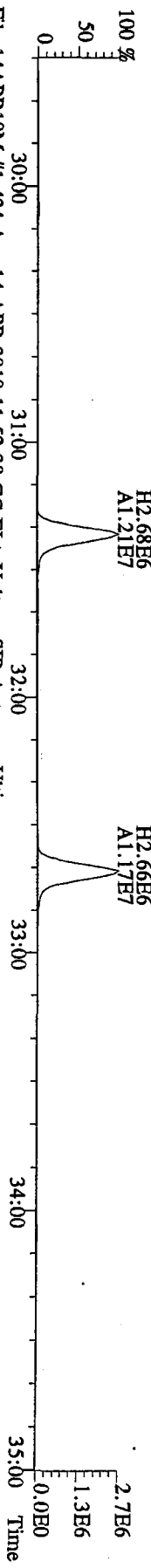
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341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



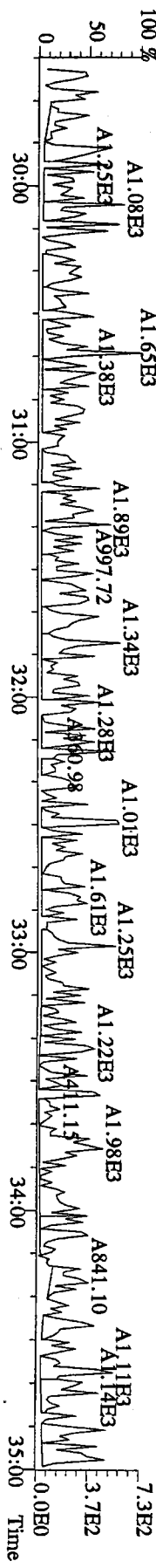
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351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



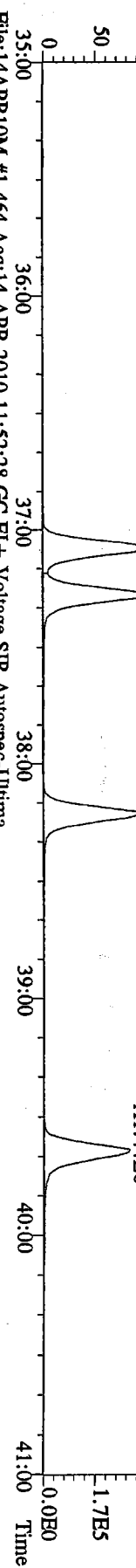
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353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



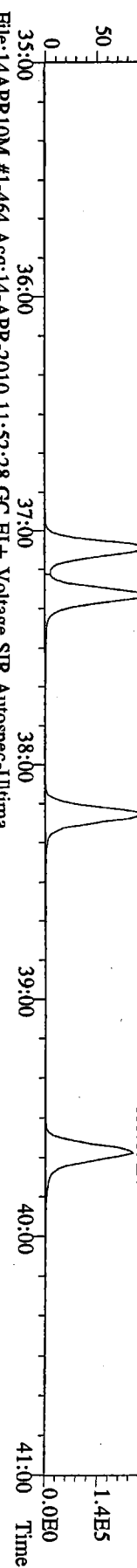
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409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



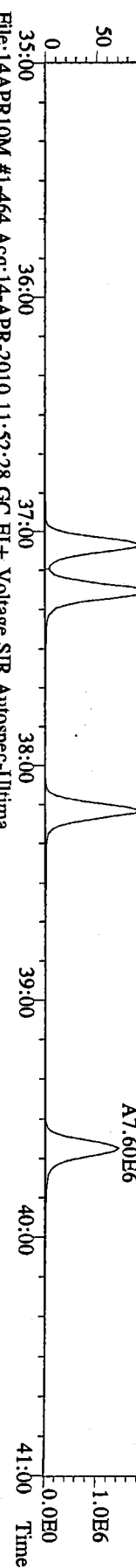
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 373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



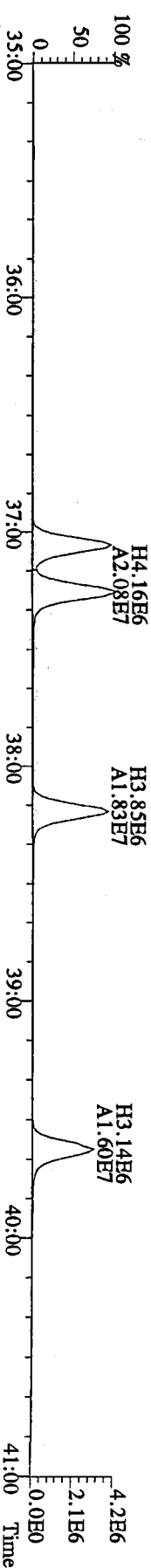
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 375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



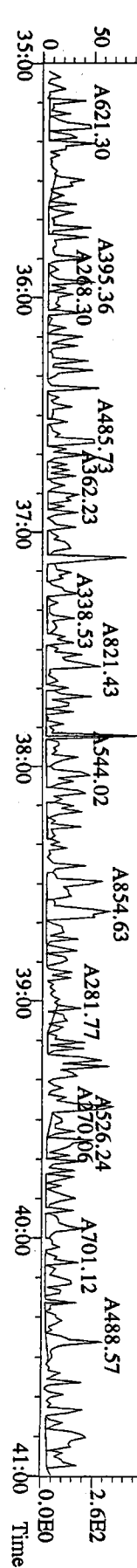
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 383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



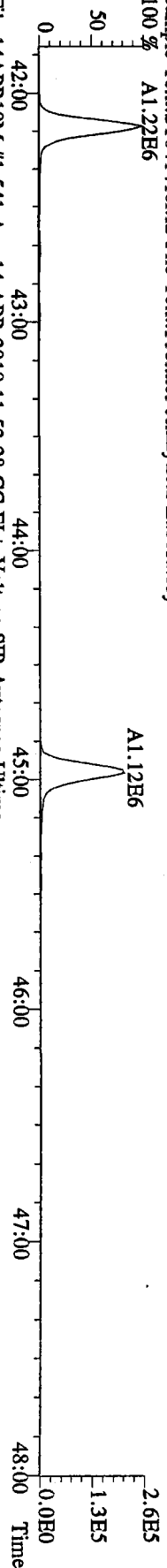
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 385.8610 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
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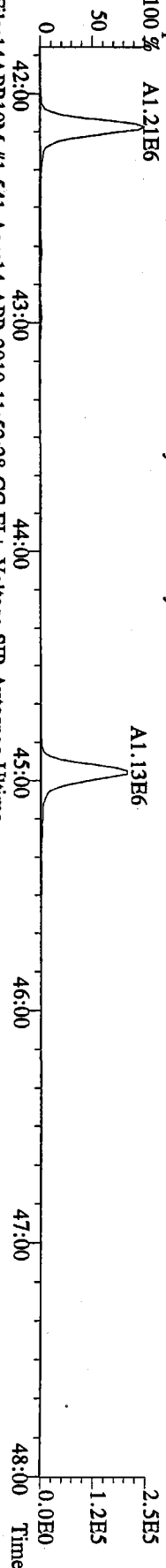
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 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



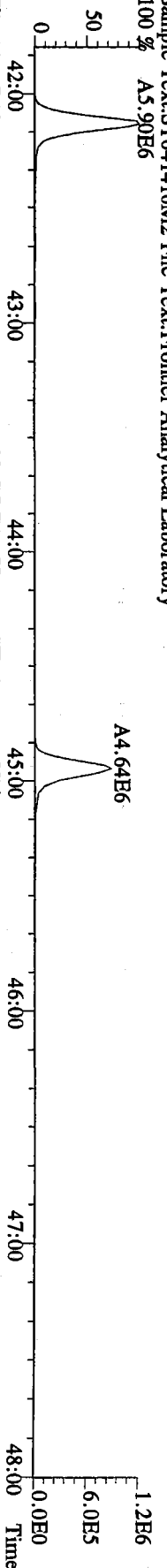
File:14APR10M #1-541 Acq:14-APR-2010 11:52:28 GC EI+ Voltage SIR Autospec-Ultima
 407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



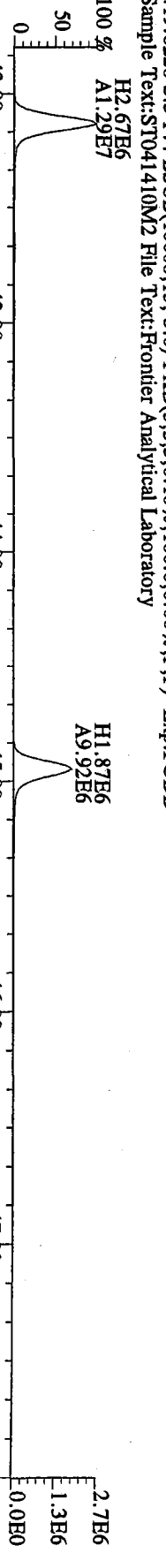
File:14APR10M #1-541 Acq:14-APR-2010 11:52:28 GC EI+ Voltage SIR Autospec-Ultima
 409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



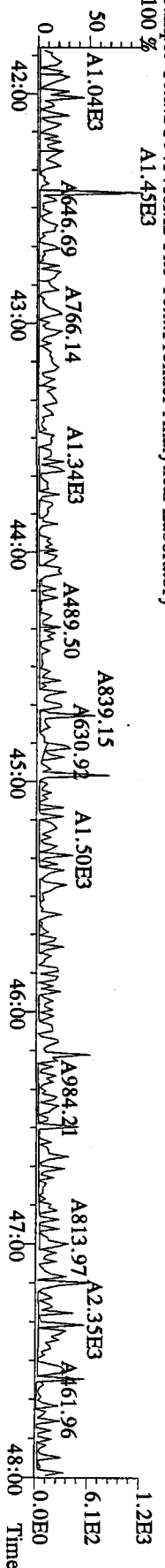
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 419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



File:14APR10M #1-541 Acq:14-APR-2010 11:52:28 GC EI+ Voltage SIR Autospec-Ultima
 419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory

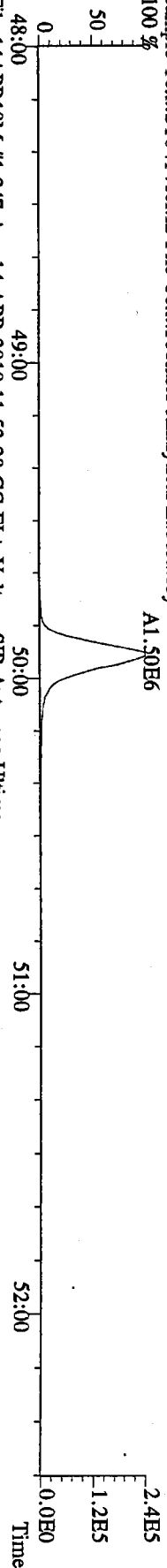


File:14APR10M #1-541 Acq:14-APR-2010 11:52:28 GC EI+ Voltage SIR Autospec-Ultima
 479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory

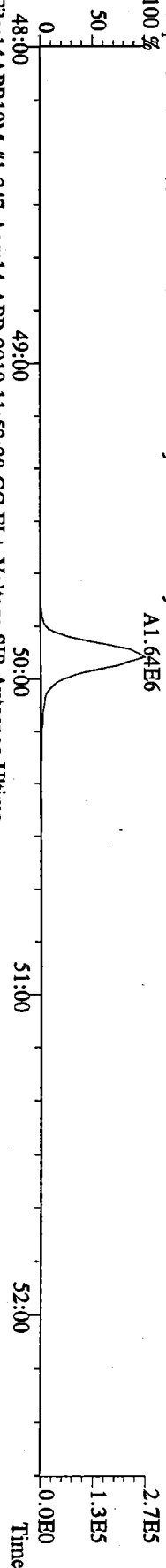


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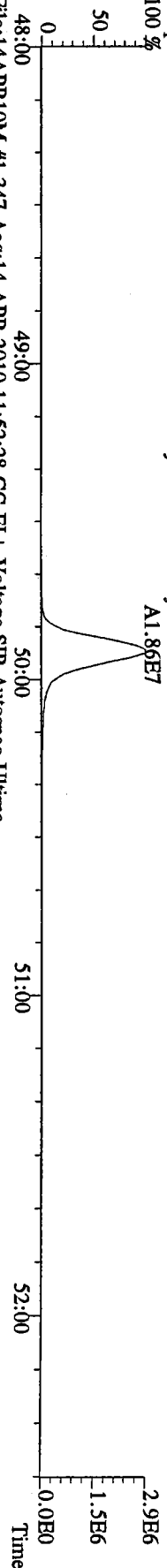
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 441.7428 S:3 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



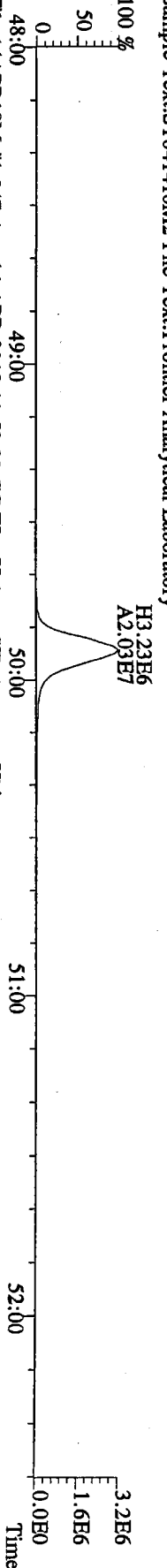
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 443.7398 S:3 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



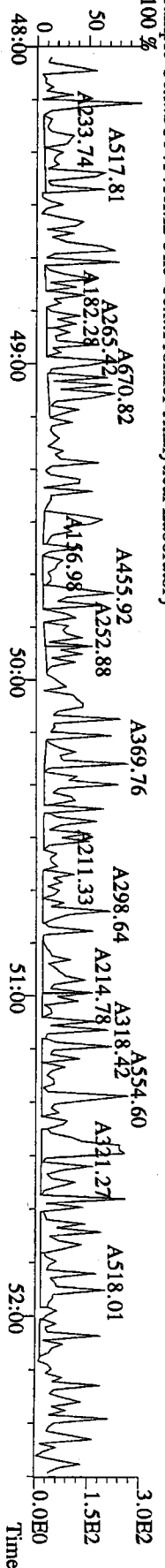
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 453.7831 S:3 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



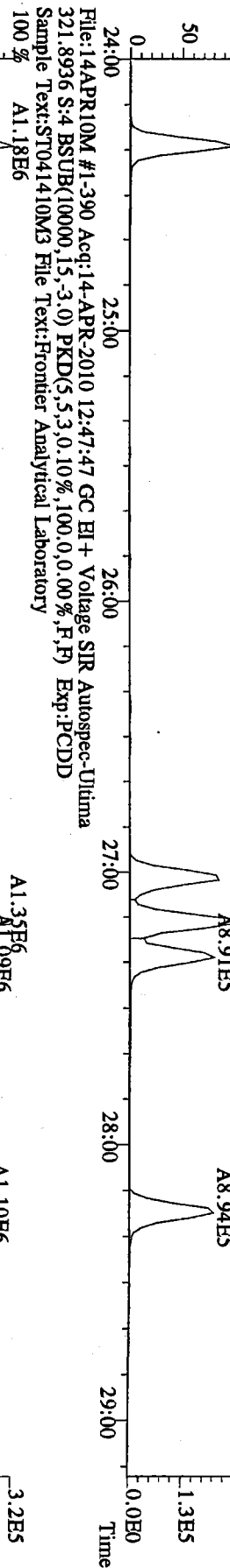
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 455.7801 S:3 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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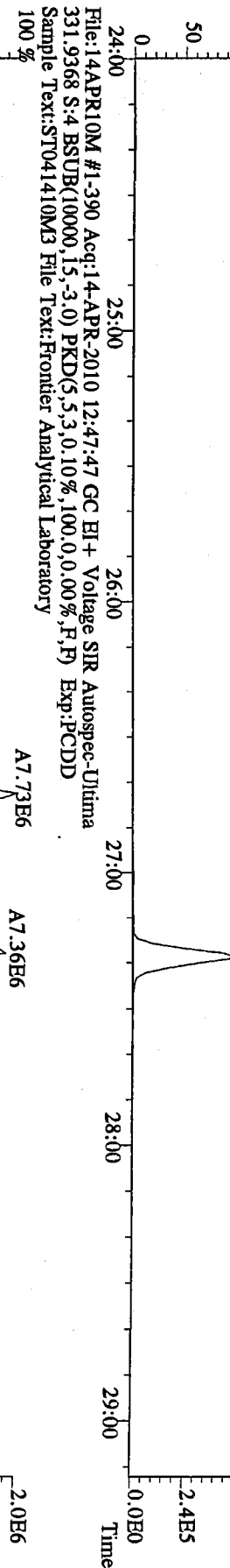
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 513.6775 S:3 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M2 File Text:Frontier Analytical Laboratory



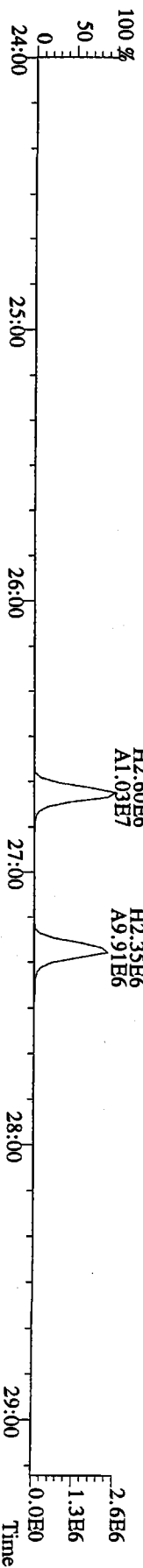
File:14APR10M #1-390 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Utima
 319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
 100 % A9.57E5



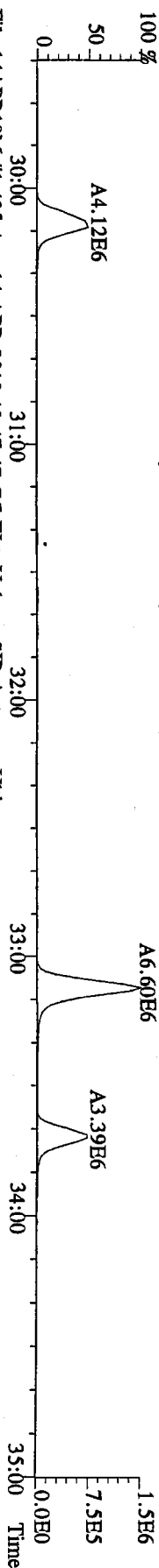
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 327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
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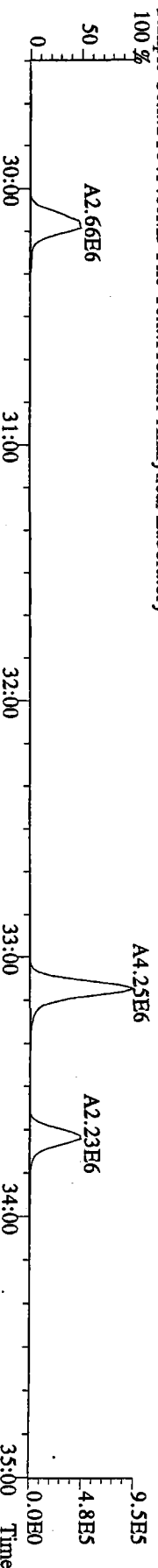
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 331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
 100 % A7.73E6



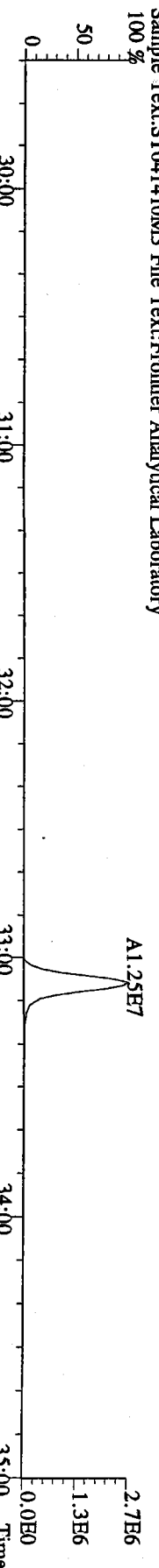
File:14APR10M #1-425 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



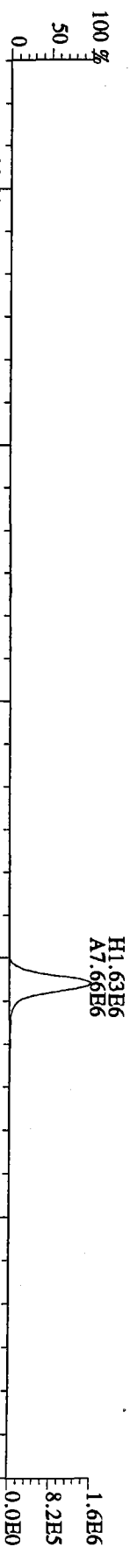
File:14APR10M #1-425 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



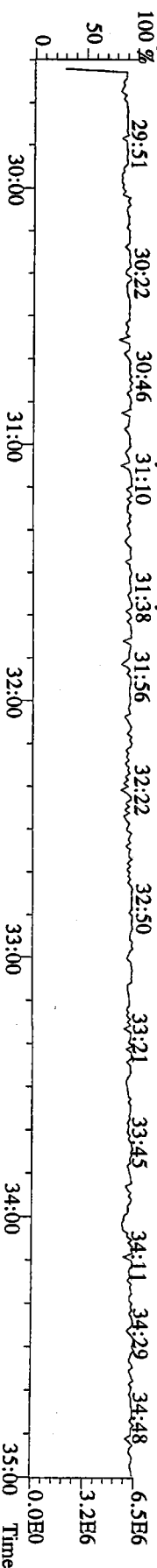
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367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



File:14APR10M #1-425 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



File:14APR10M #1-425 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:4 F:2 Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



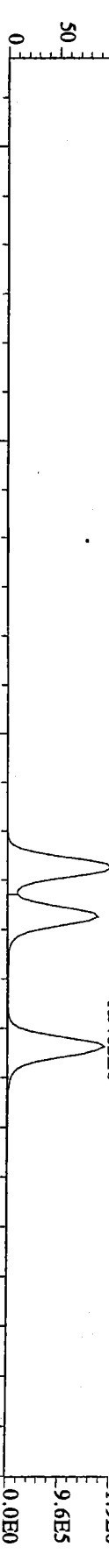
File:14APR10M #1-464 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Utima
 389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



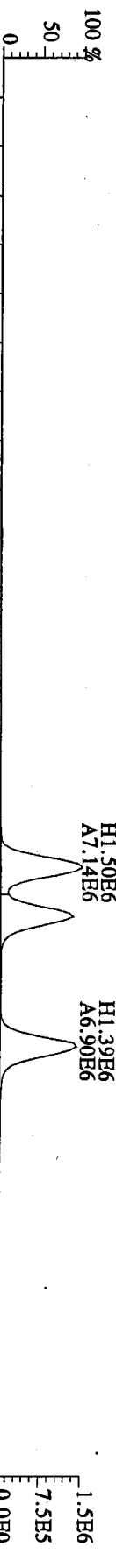
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 391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



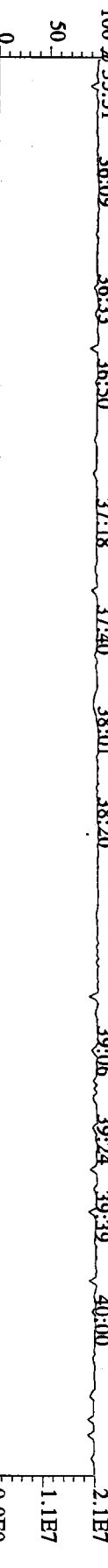
File:14APR10M #1-464 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Utima
 401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



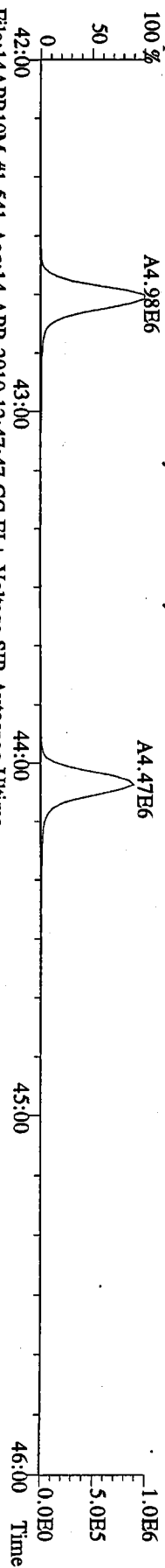
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 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



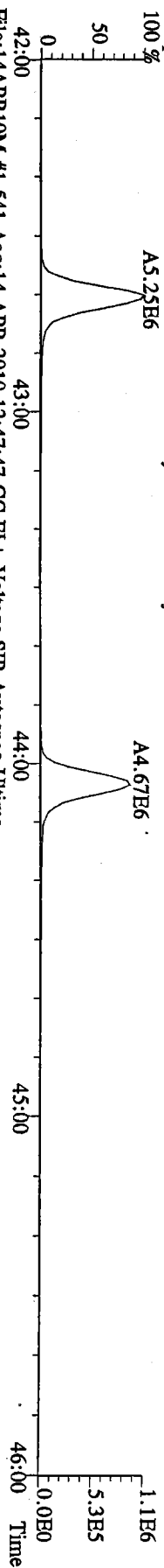
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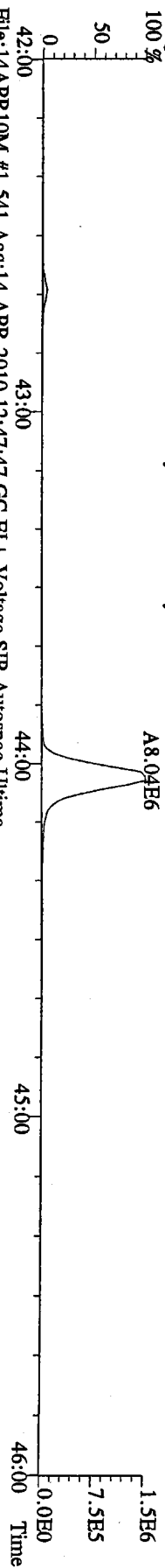
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423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



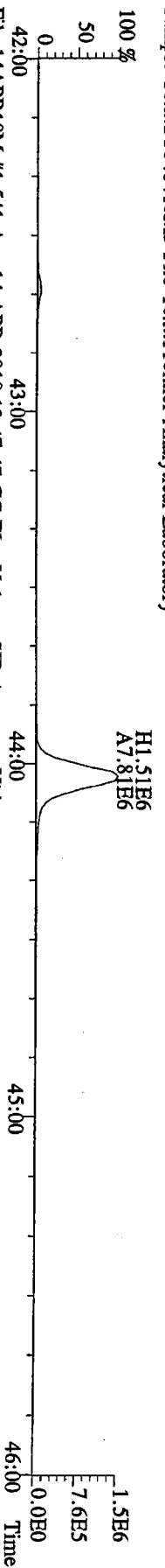
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Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



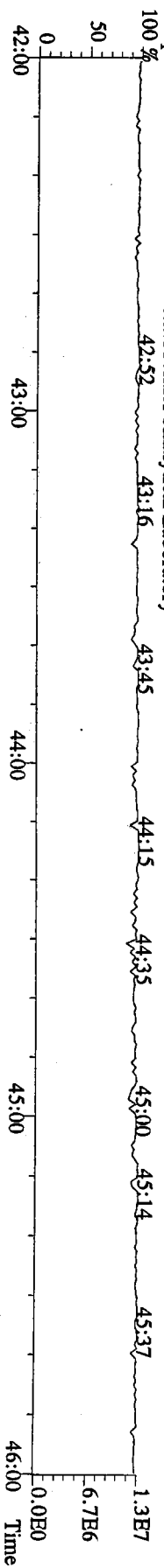
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Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



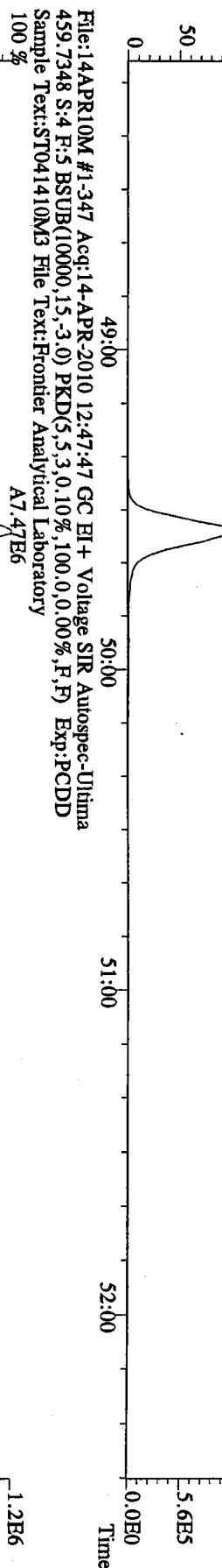
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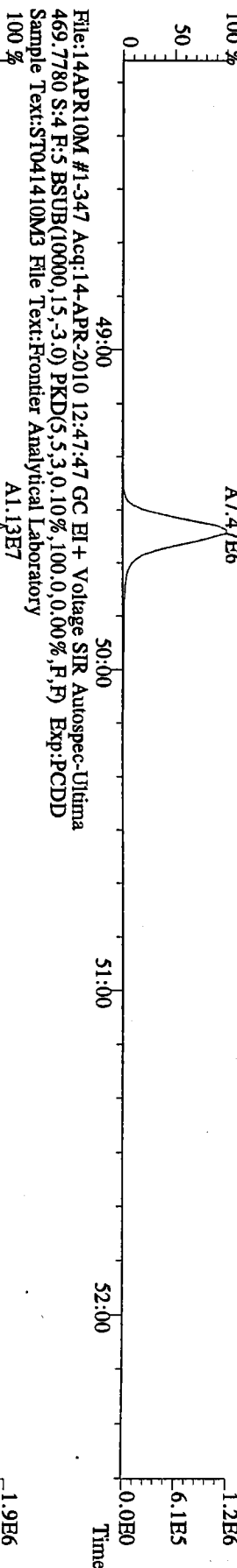
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Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



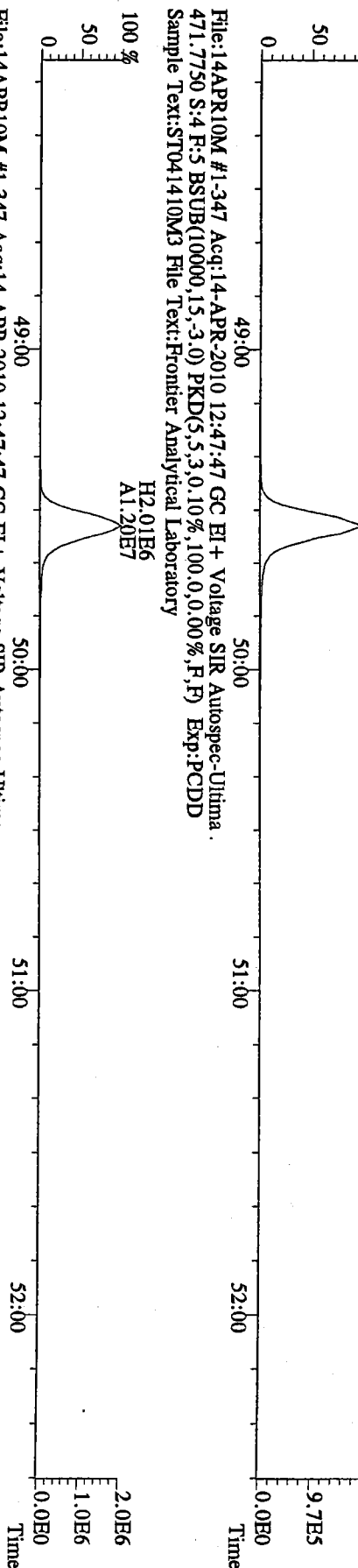
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457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



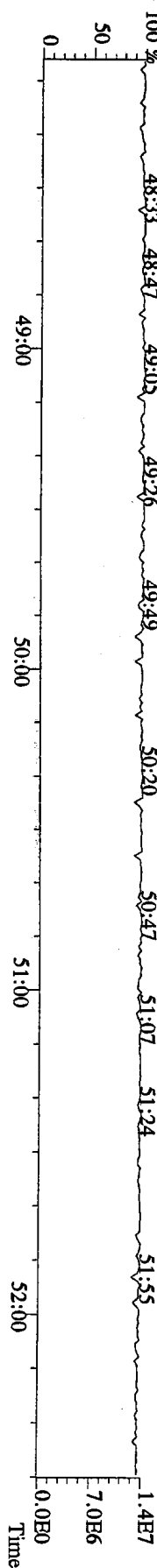
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Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



File:14APR10M #1-347 Acq:14-APR-2010 12:47:47 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:ST041410M3 File Text:Frontier Analytical Laboratory

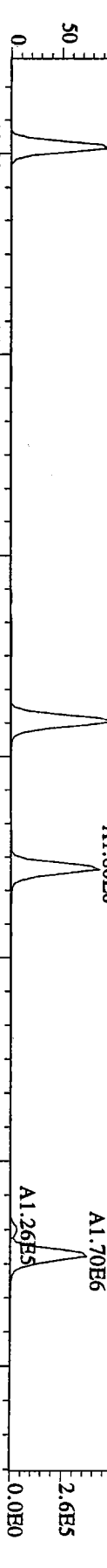


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454.9728 S:4 F:5 Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory

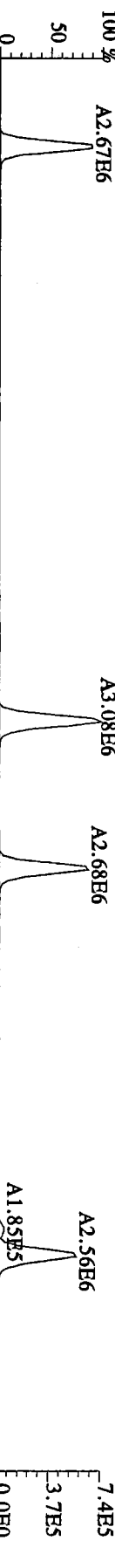


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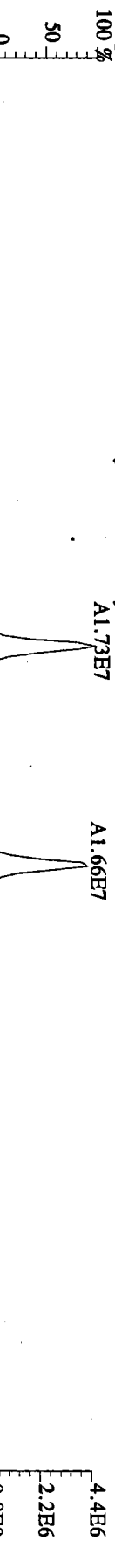
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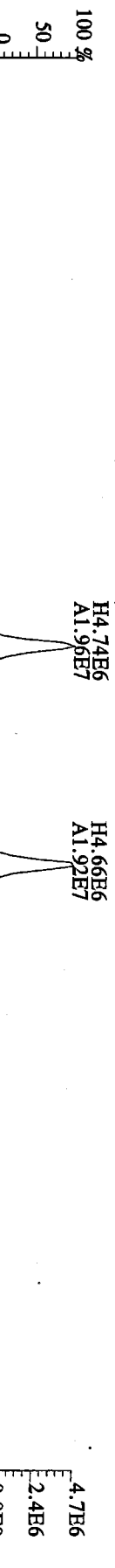
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 305.987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



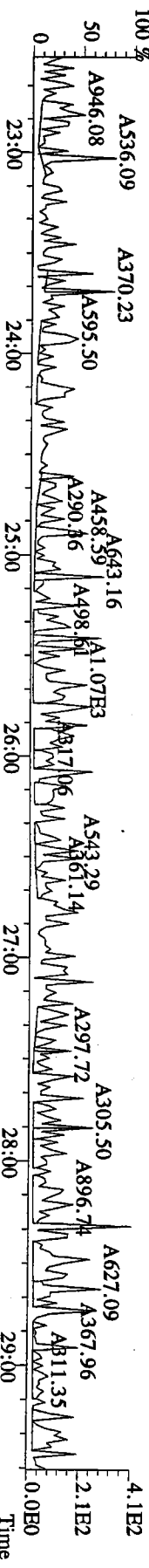
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 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



File:14APR10M #1-390 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Ultima
 317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory

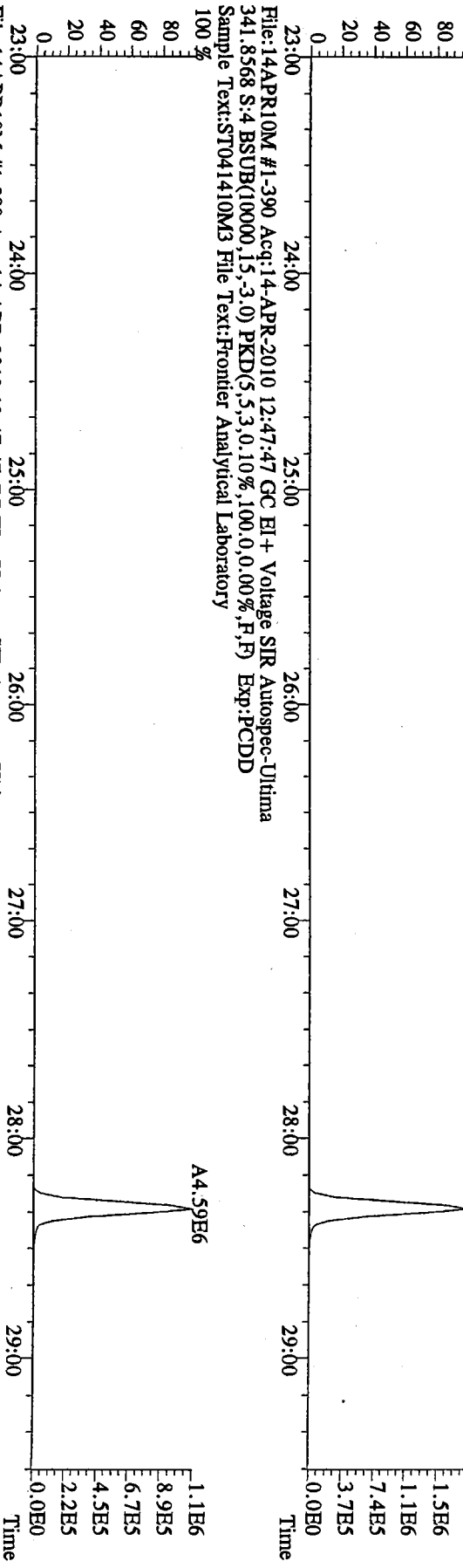


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 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory

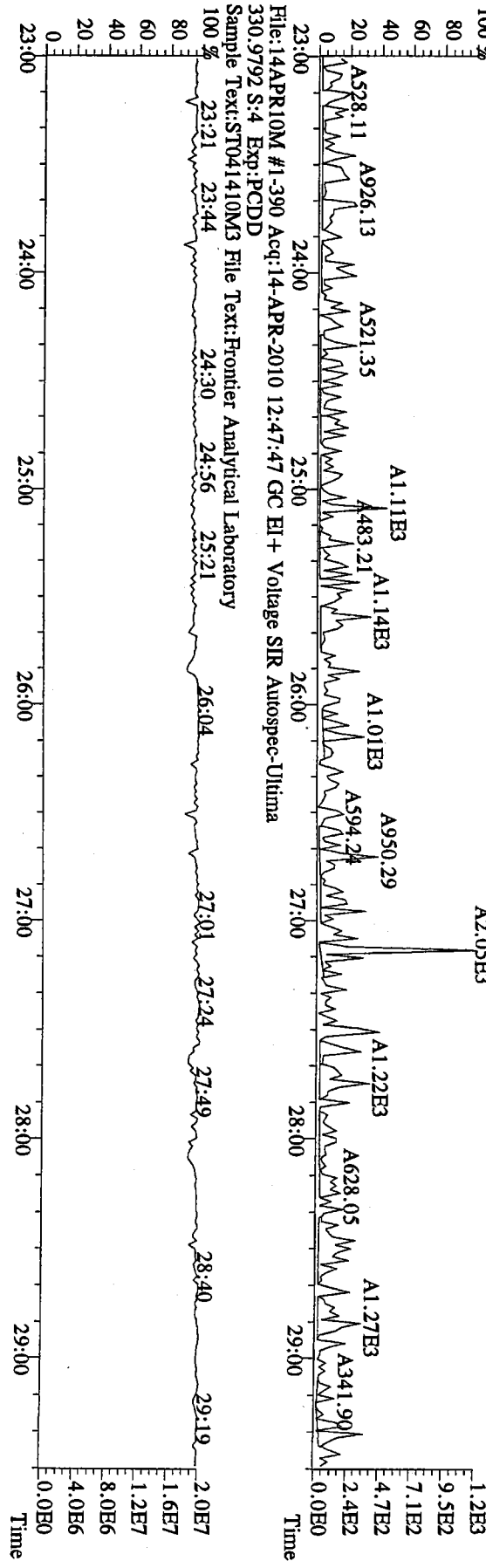


01999 : 8972

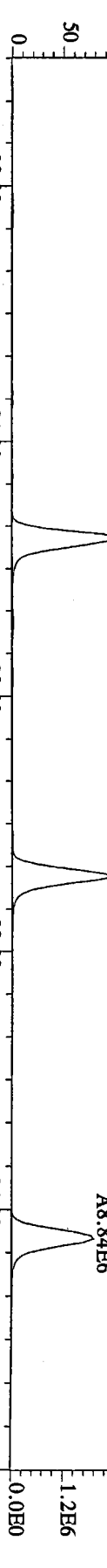
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 339.8597 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
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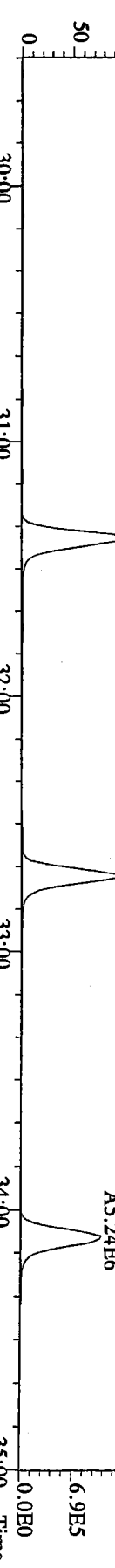
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 409.7974 S:4 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



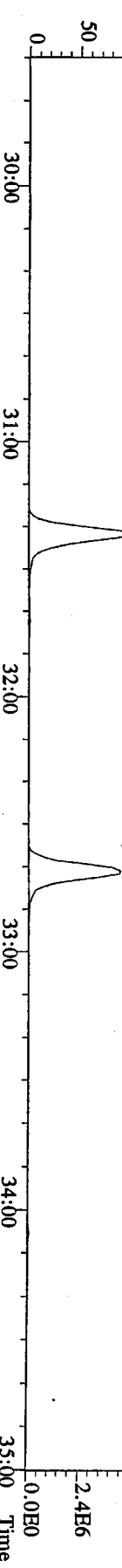
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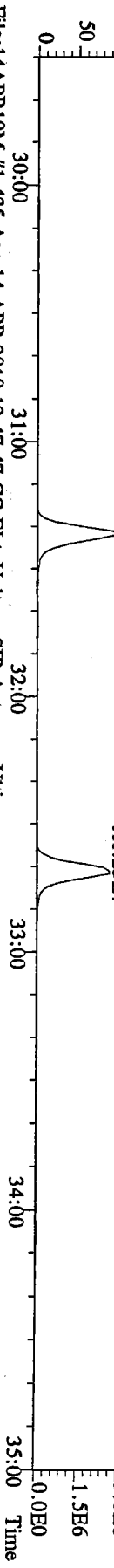
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 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



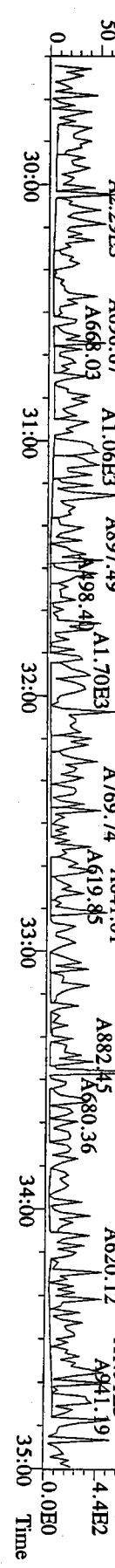
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 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



File:14APR10M #1-425 Acq:14-APR-2010 12:47:47 GC EI+ Voltage SIR Autospec-Ultima
 353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5.5,3.0,100.0,0.00%,F,F) Exp:PCDD
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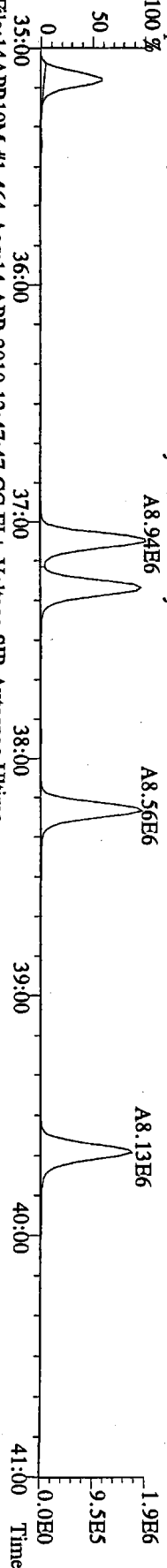


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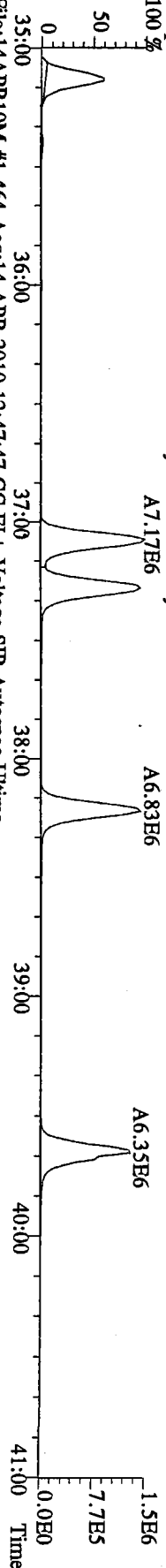


27598 : 00042

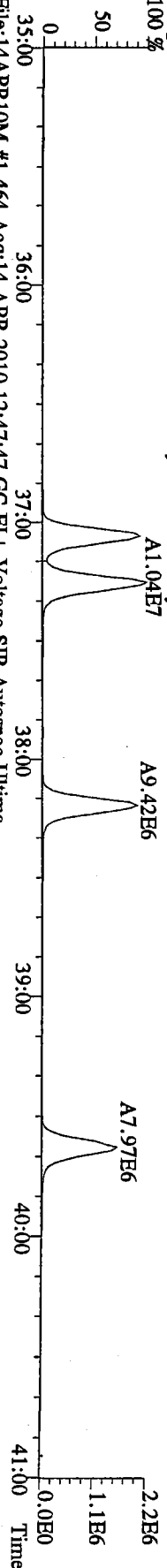
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 373.8207 S:4 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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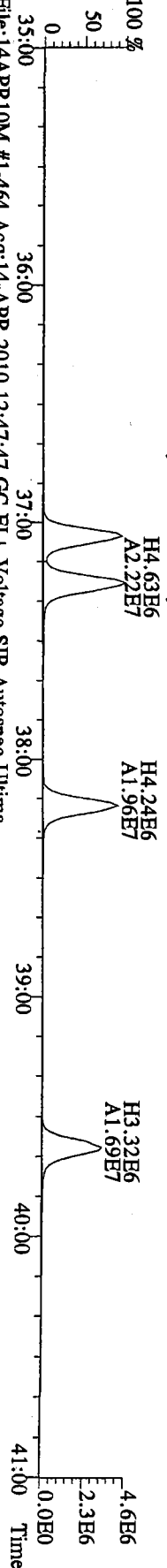
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 375.8178 S:4 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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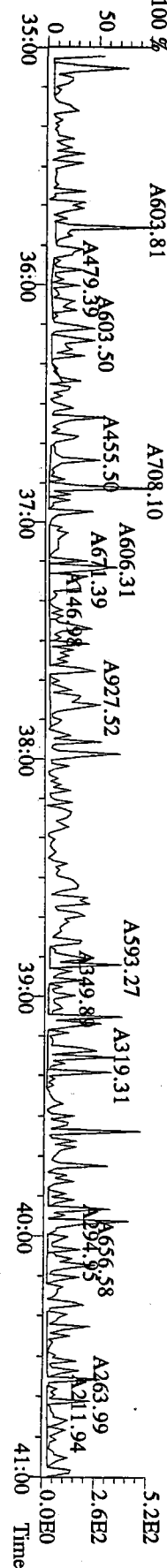
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 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



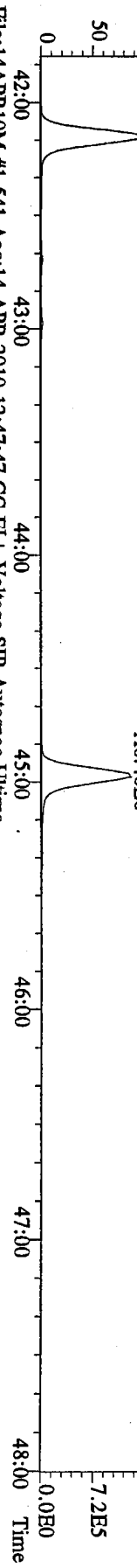
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 445.7555 S:4 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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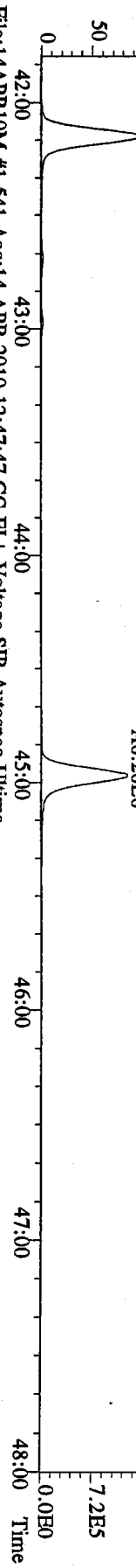
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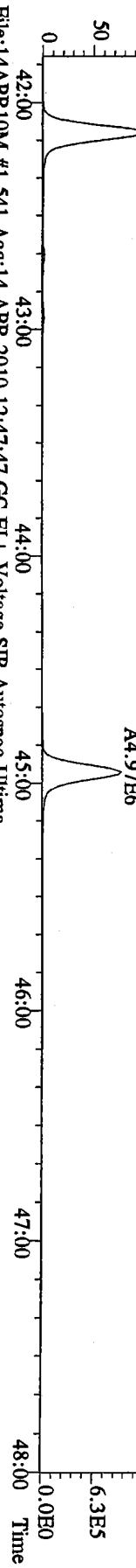
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 407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
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 100 % A6.96E6



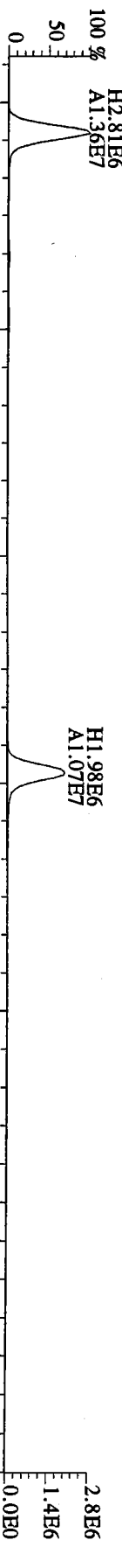
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 100 % A6.91E6



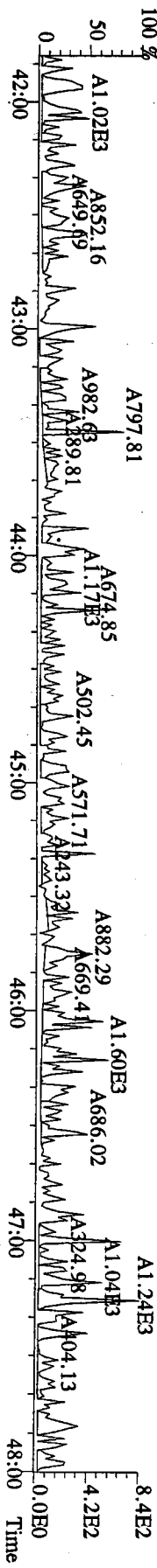
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 417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
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 100 % A6.23E6



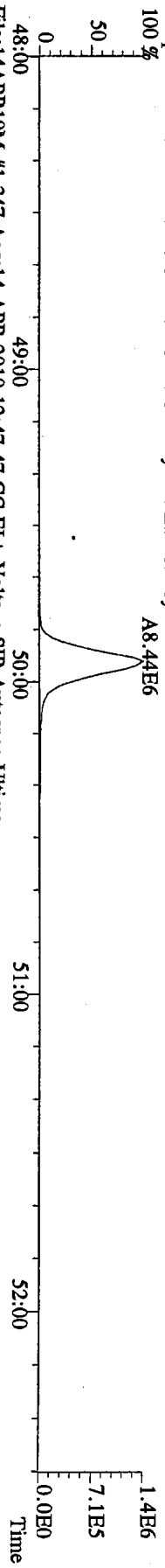
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 419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
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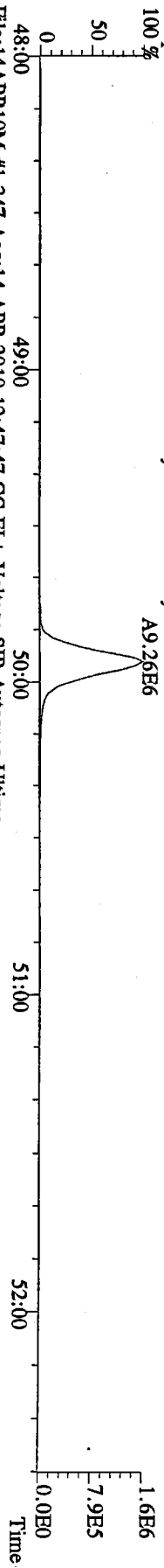
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 479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory



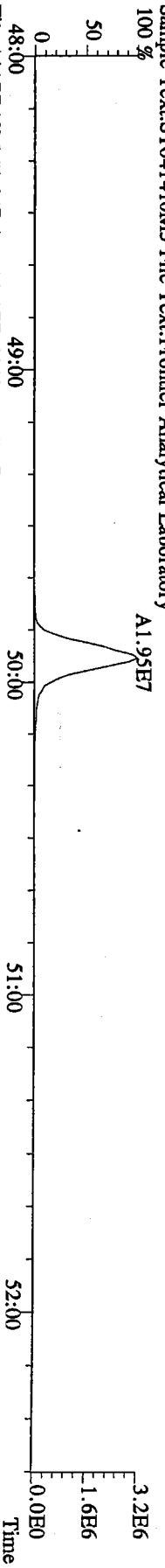
File:14APR10M #1-347 Acq:14-APR-2010 12:47:47 GC EI + Voltage SIR Autospec-Ultima
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



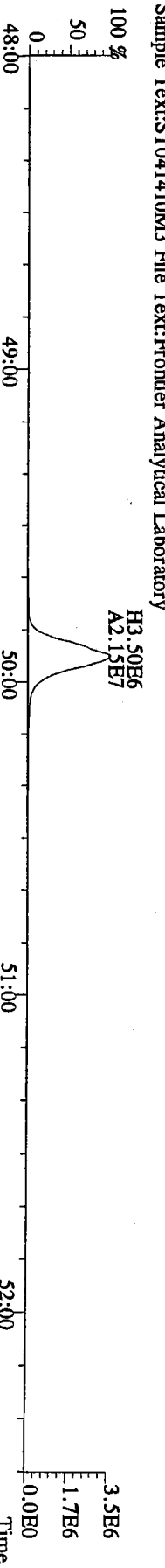
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443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



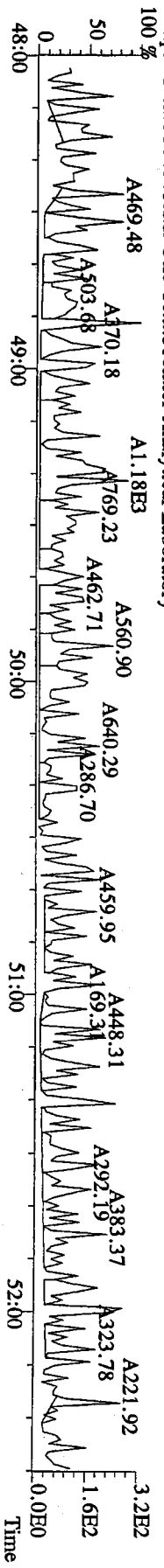
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453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M3 File Text:Frontier Analytical Laboratory
100 %



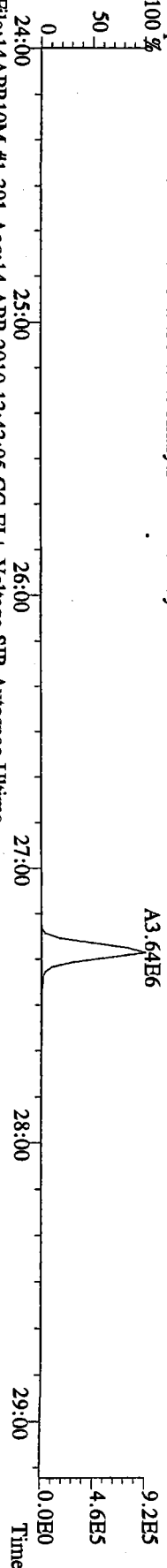
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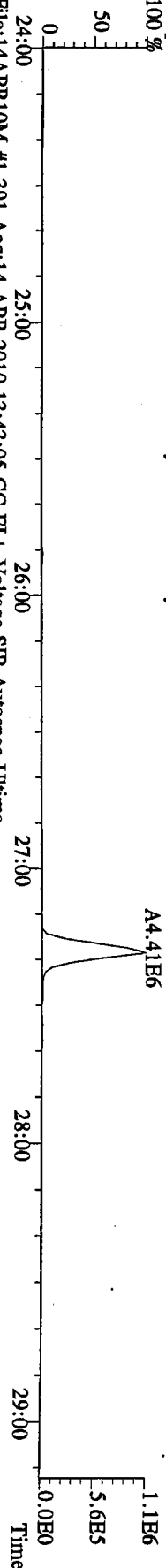
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513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,100,0,0,00%,F,F) Exp:PCDD
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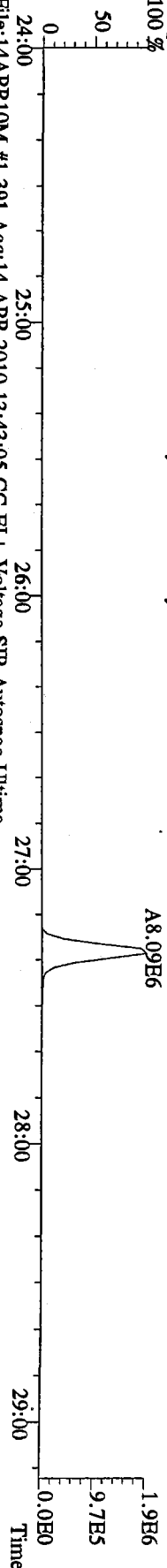
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319.8965 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory
100 %



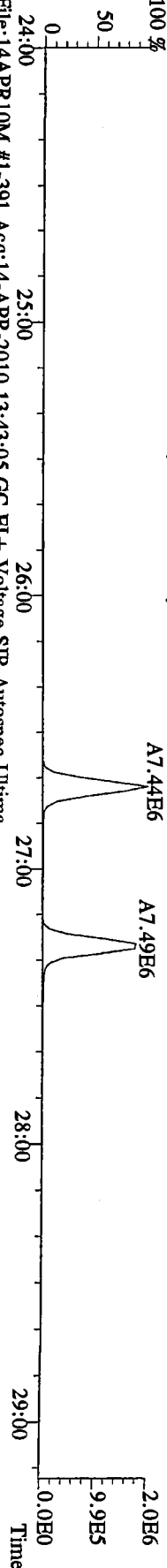
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321.8936 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory
100 %



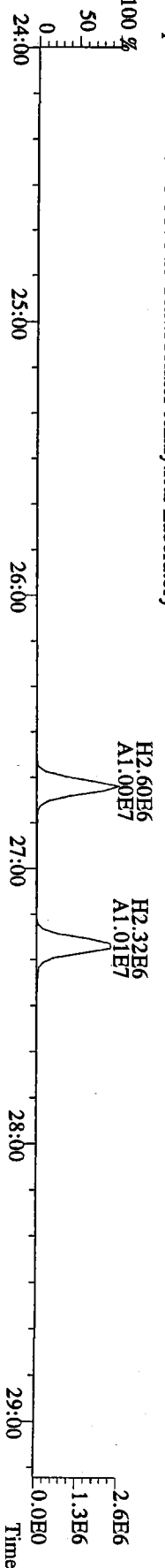
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327.8847 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory
100 %



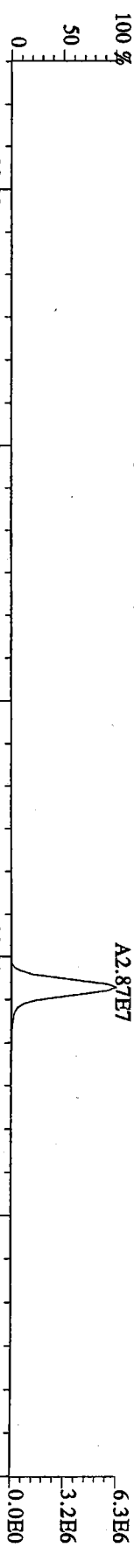
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331.9368 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory
100 %



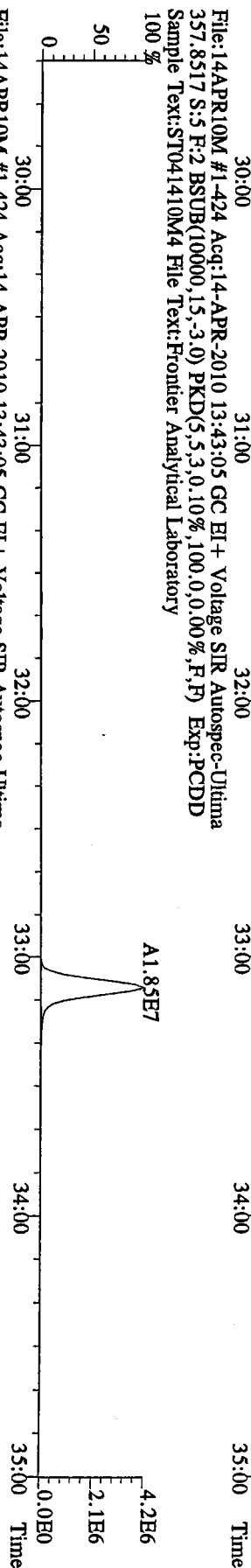
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333.9339 S:5 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



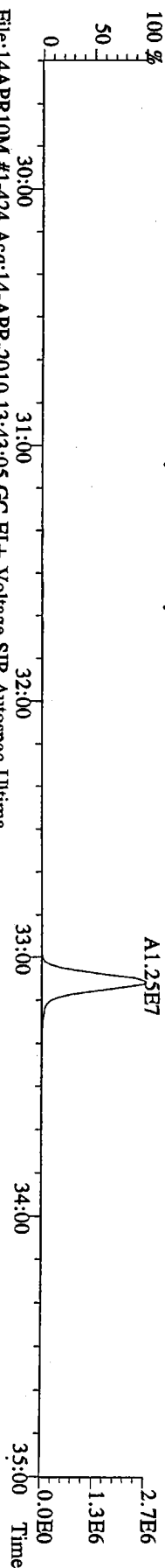
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 355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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 100 %



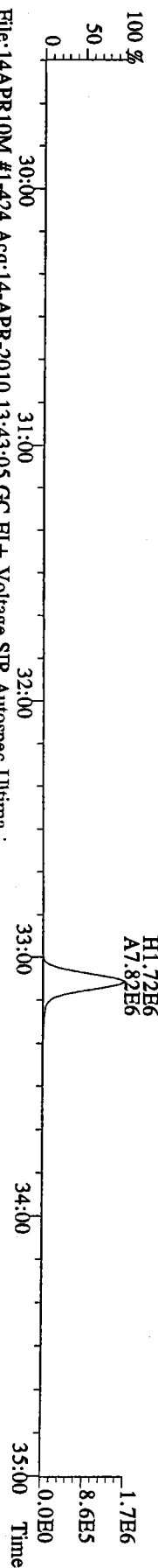
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 357.8517 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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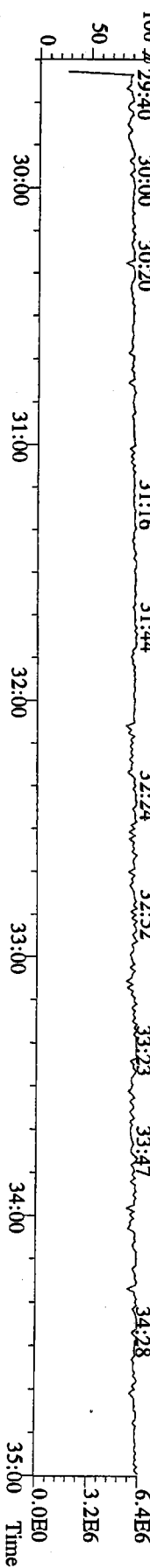
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 367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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 100 %



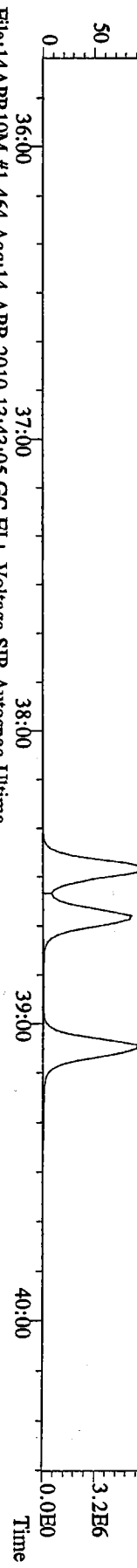
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 369.8919 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



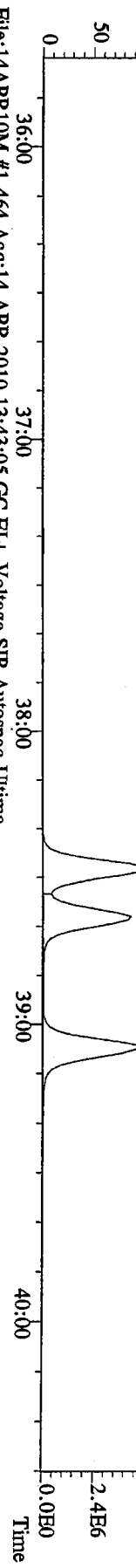
File:14APR10M #1-424 Acq:14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Ultima
 366.9792 S:5 F:2 Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory
 100 %



File:14APR10M #1-464 Acq:14-APR-2010 13:43:05 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%) Exp:PCDD
 100 % Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



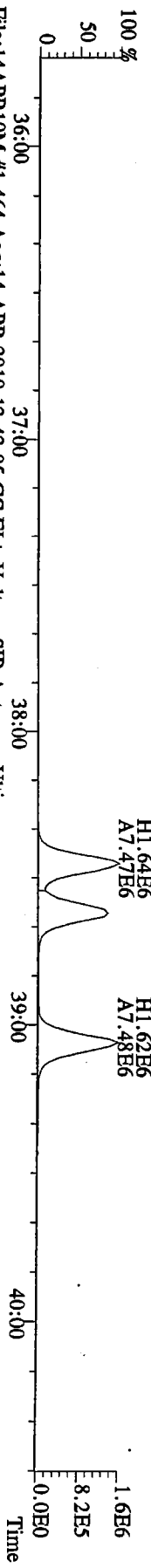
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 100 % Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



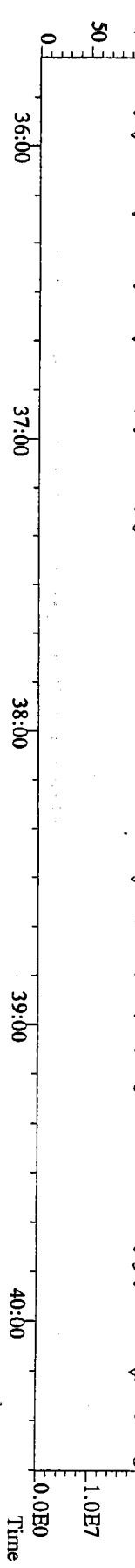
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 401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD
 100 % Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



File:14APR10M #1-464 Acq:14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Ultima
 403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%) Exp:PCDD
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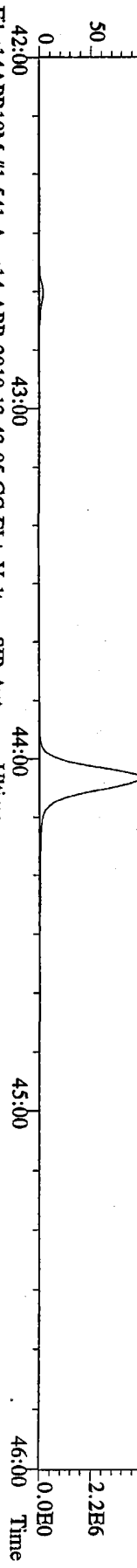


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 380.9760 S:5 F:3 Exp:PCDD
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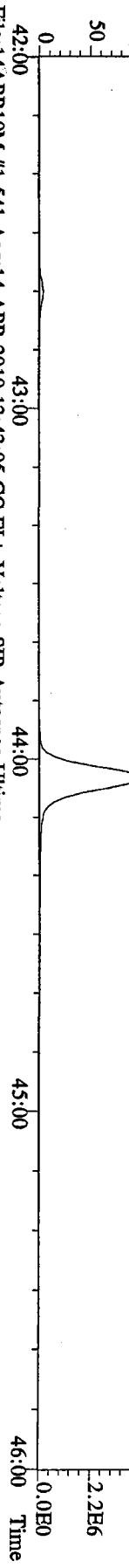


87955 : 8570

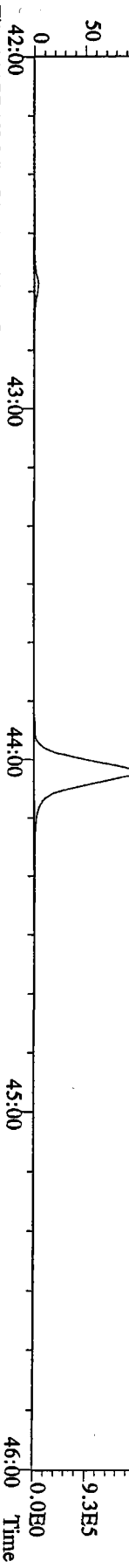
File:14APR10M #1-541 Acq:14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:5 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory
100 %



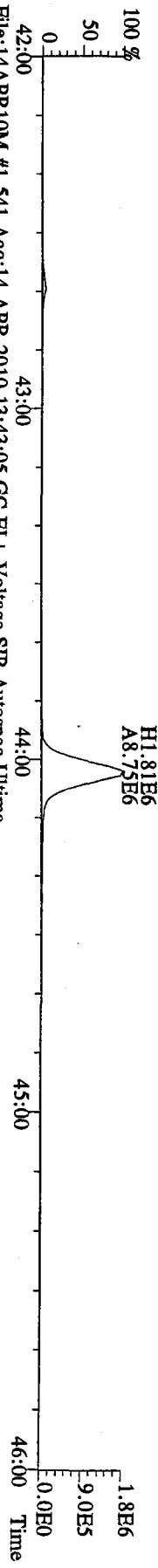
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425.7737 S:5 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory
100 %



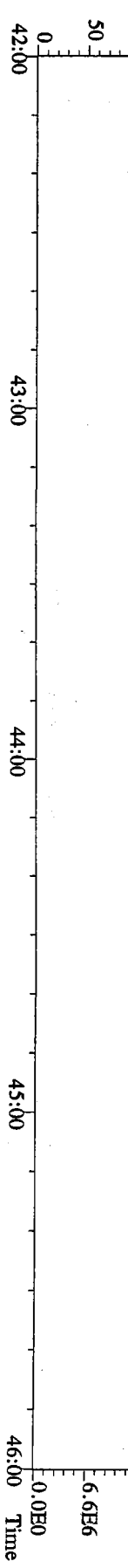
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435.8169 S:5 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory
100 %



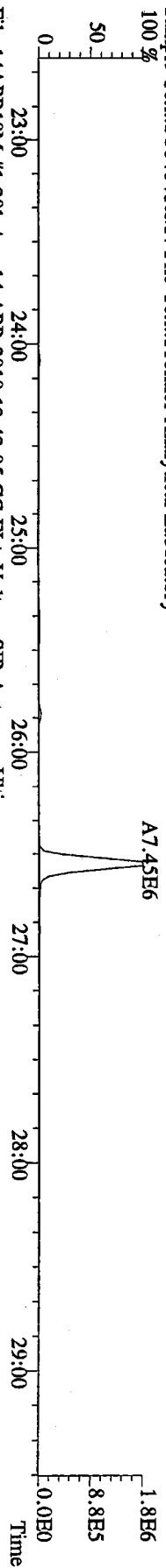
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437.8140 S:5 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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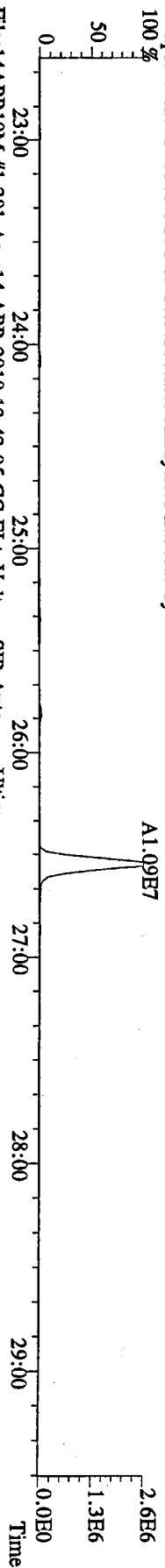
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430.9728 S:5 F:4 Exp:PCDD
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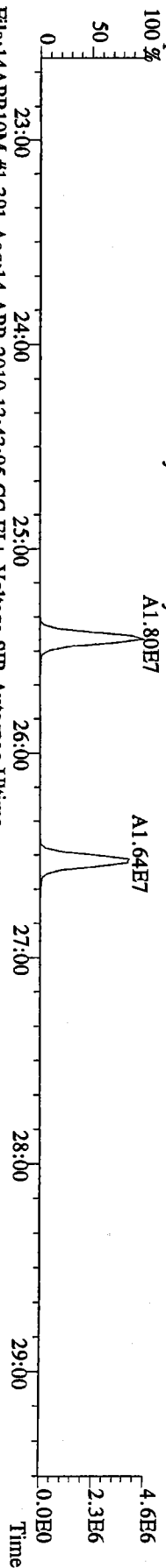
File: 14APR10M #1-391 Acq: 14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



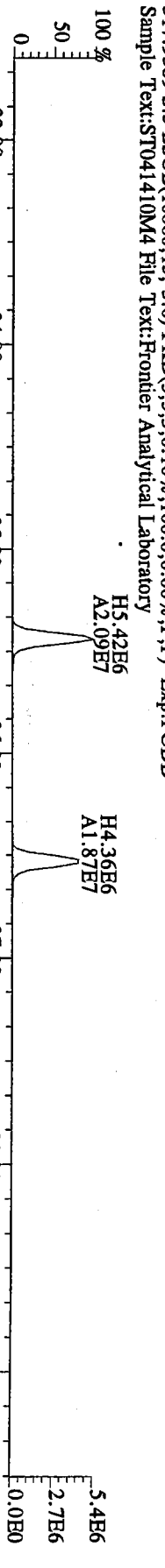
File: 14APR10M #1-391 Acq: 14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



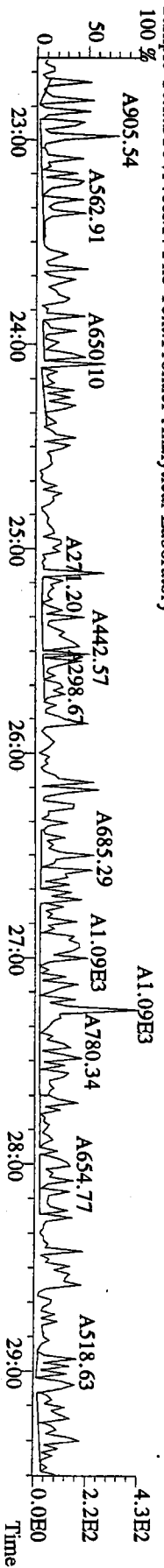
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315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



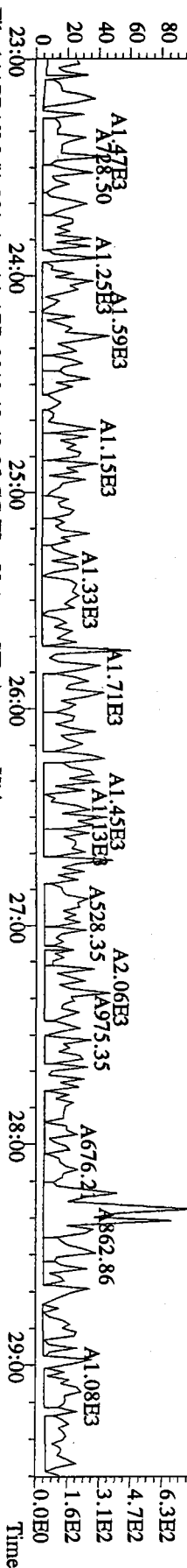
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317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



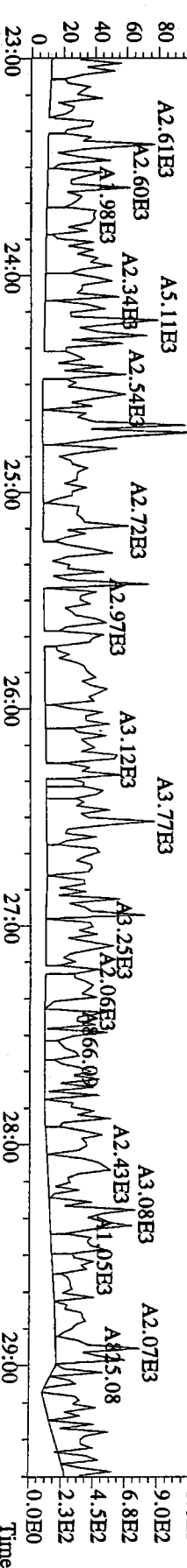
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375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



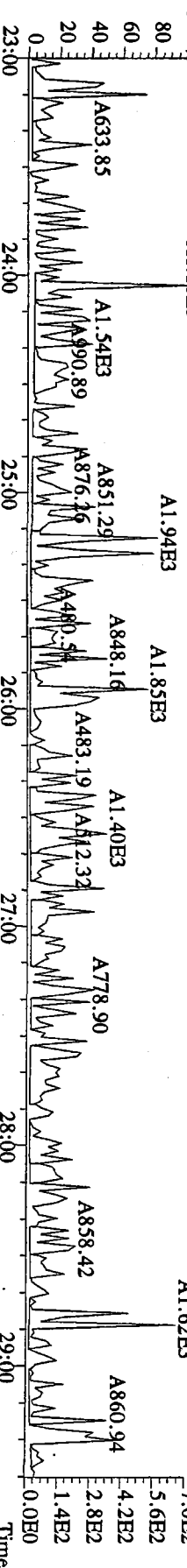
File:14APR10M #1-391 Acq:14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Utima
 339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



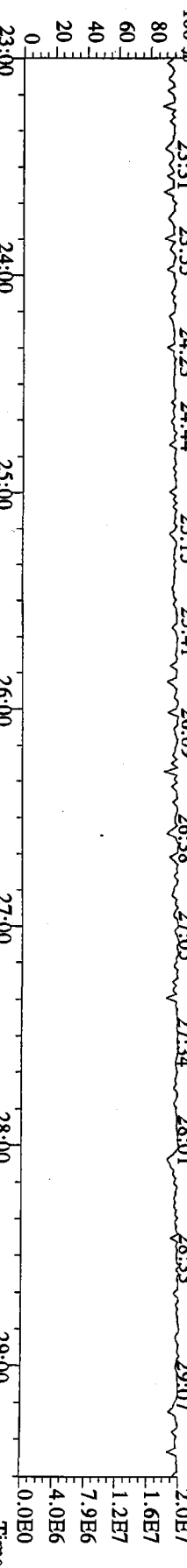
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 341.8568 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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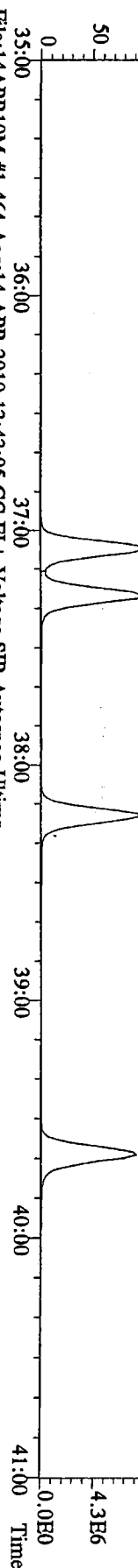
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 409.7974 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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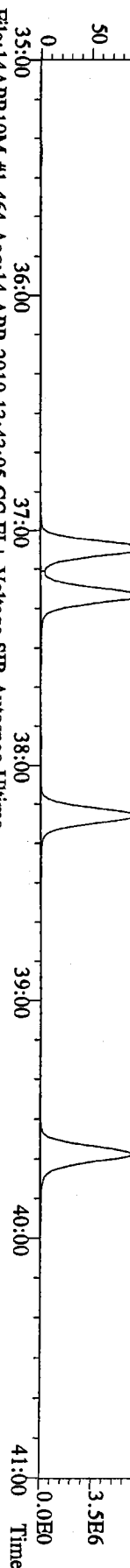
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 330.9792 S:5 Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



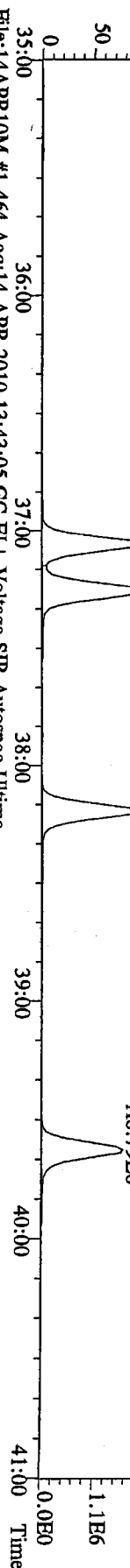
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 373.8207 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



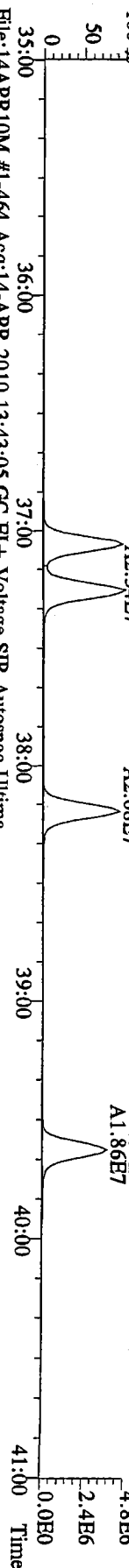
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 375.8178 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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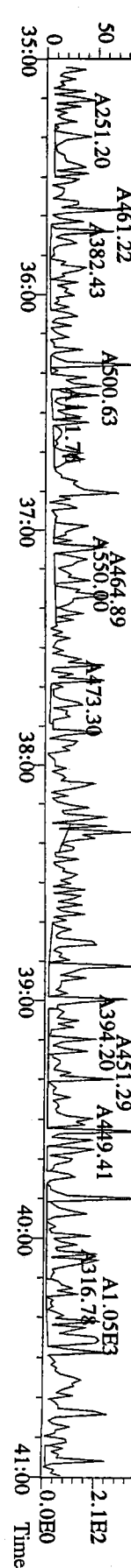
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 383.8639 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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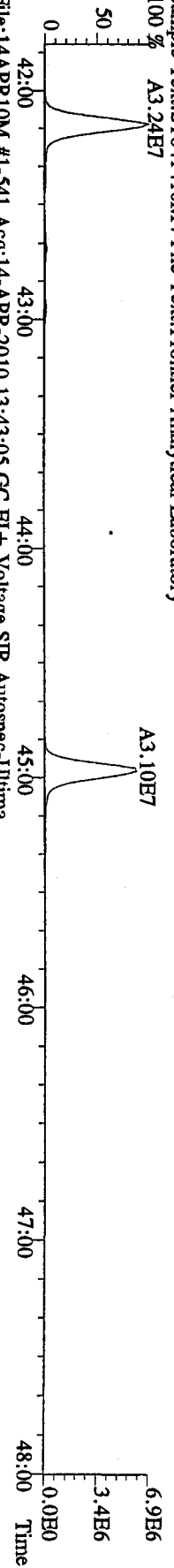
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 385.8610 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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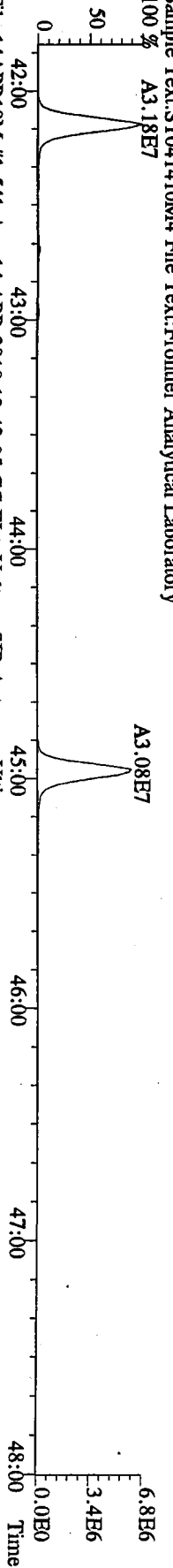
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 445.7555 S:5 F:3 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



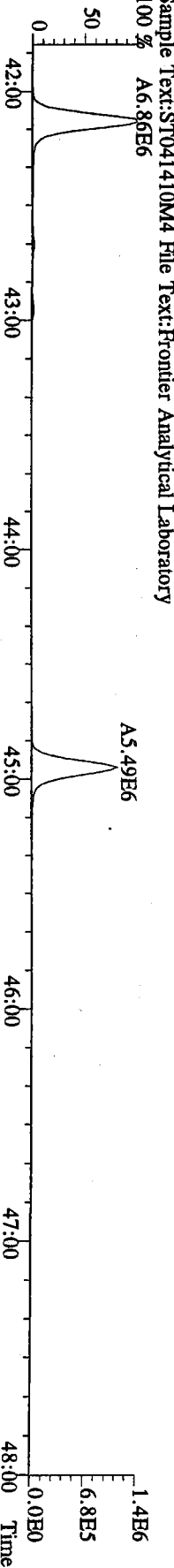
File:14APR10M #1-541 Acq:14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Utima
 407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



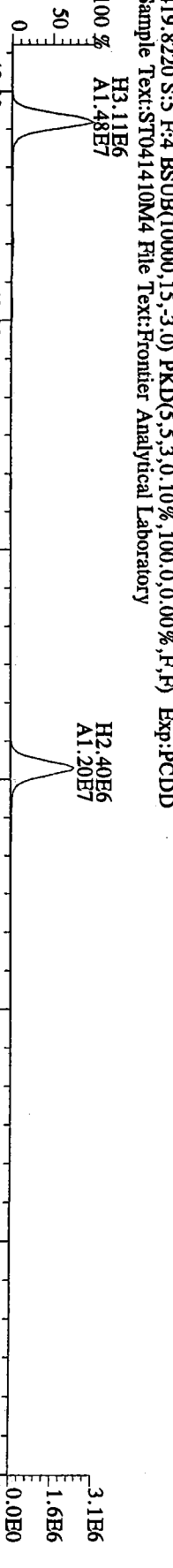
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 409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



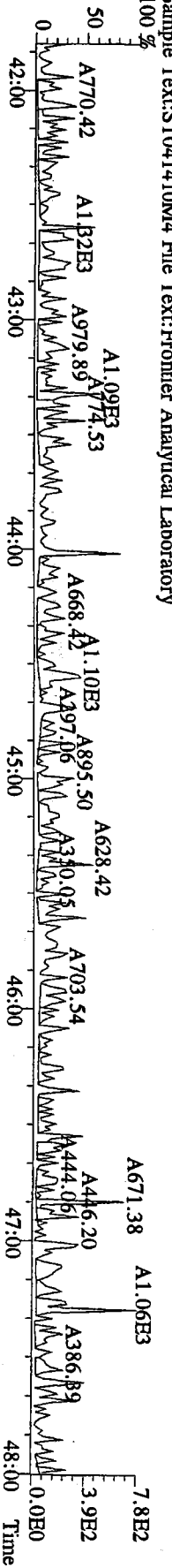
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 411.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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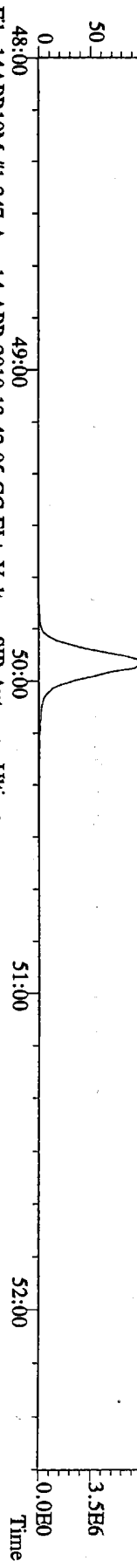
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 419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



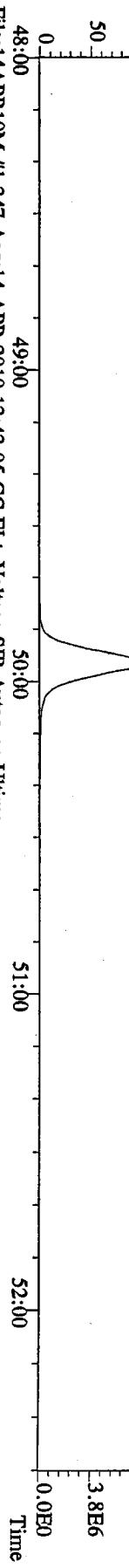
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 479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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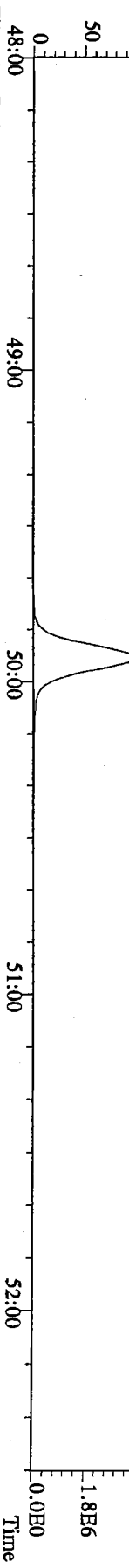
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 441.7428 S:5 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



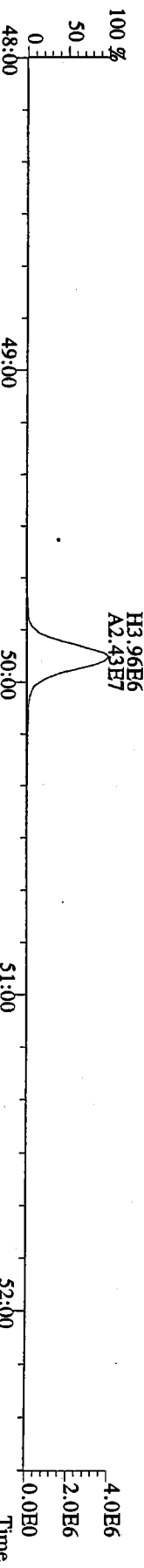
File:14APR10M #1-347 Acq:14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Ultima
 443.7398 S:5 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



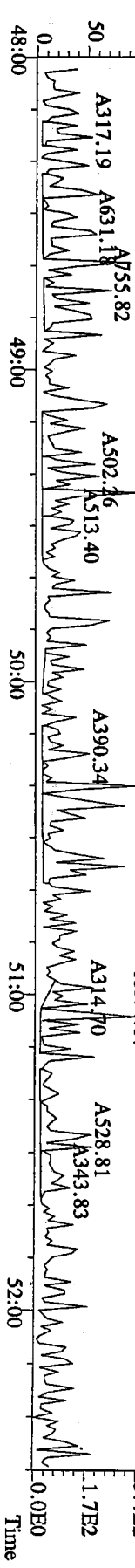
File:14APR10M #1-347 Acq:14-APR-2010 13:43:05 GC EI+ Voltage SIR Autospec-Ultima
 453.7831 S:5 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST041410M4 File Text:Frontier Analytical Laboratory



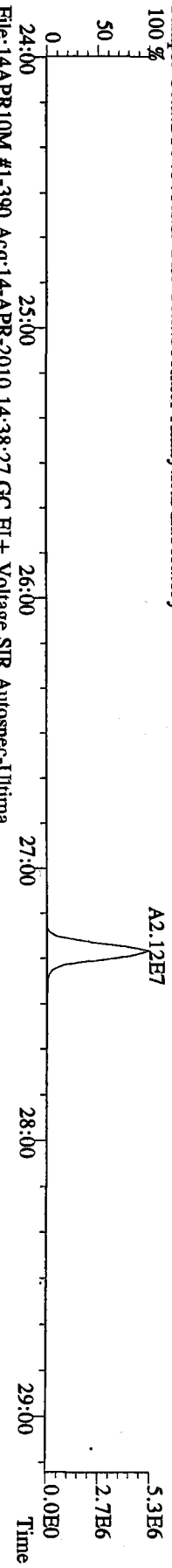
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 455.7801 S:5 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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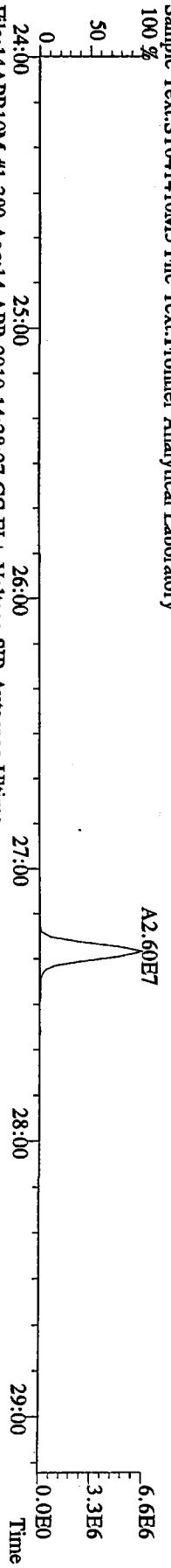
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 513.6775 S:5 F:5 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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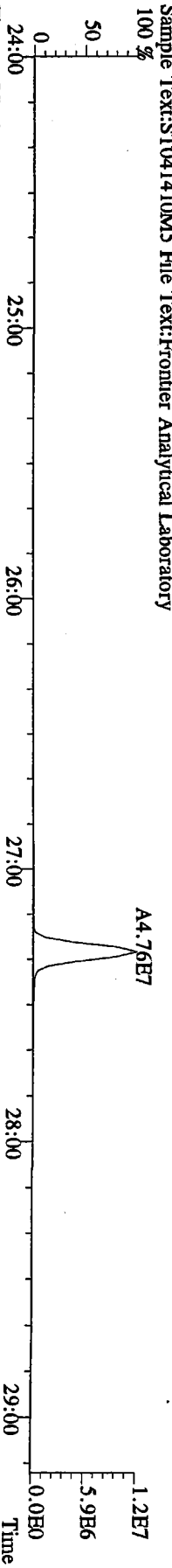
File:14APR10M #1-390 Acq:14-APR-2010 14:38:27 GC EI + Voltage SIR Autospec-Ultima
319.8965 S:6 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %



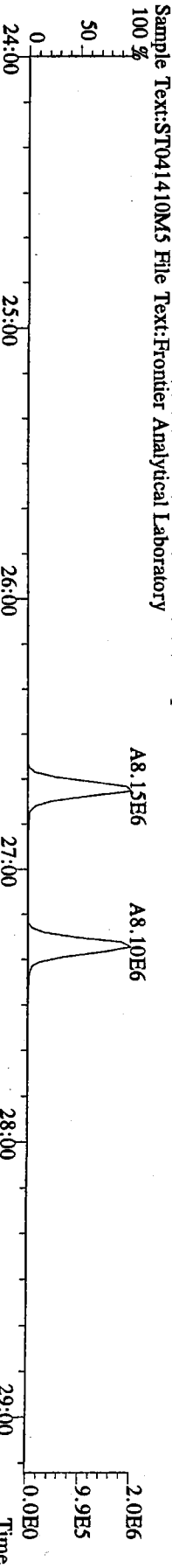
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321.8936 S:6 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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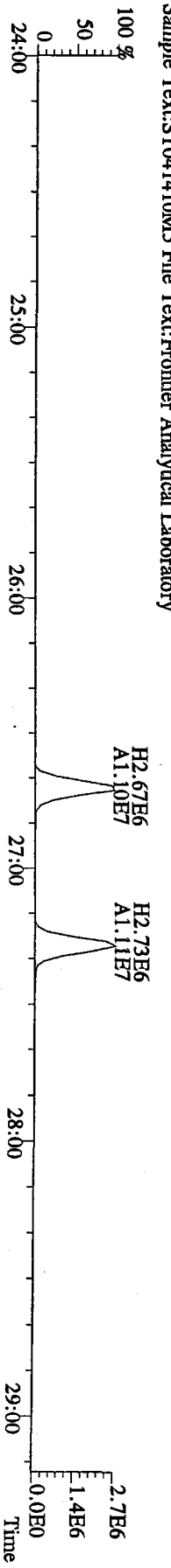
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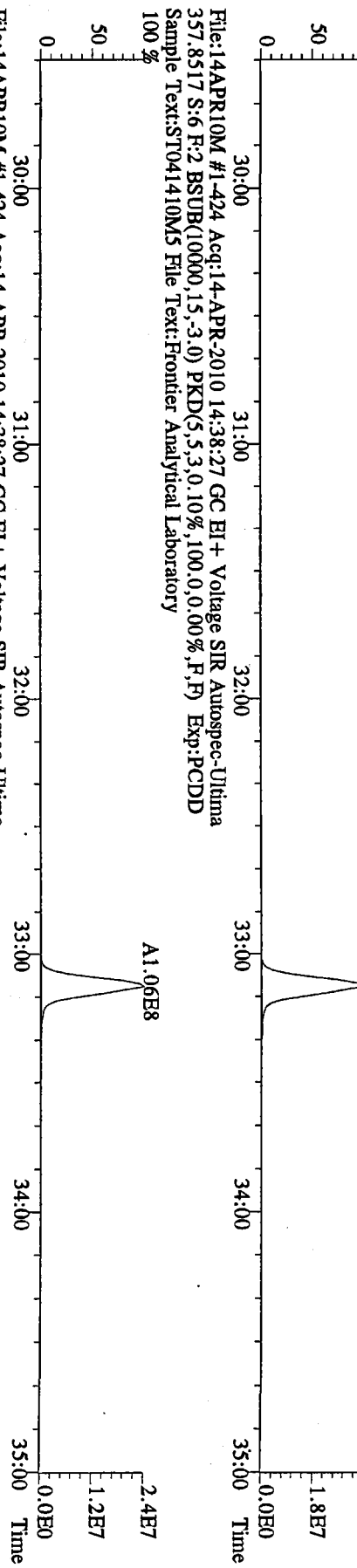
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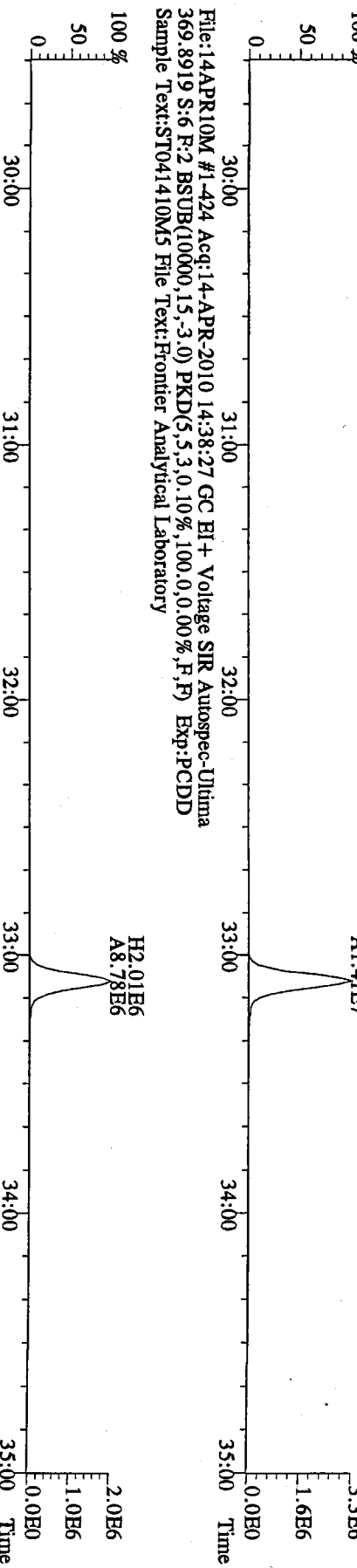
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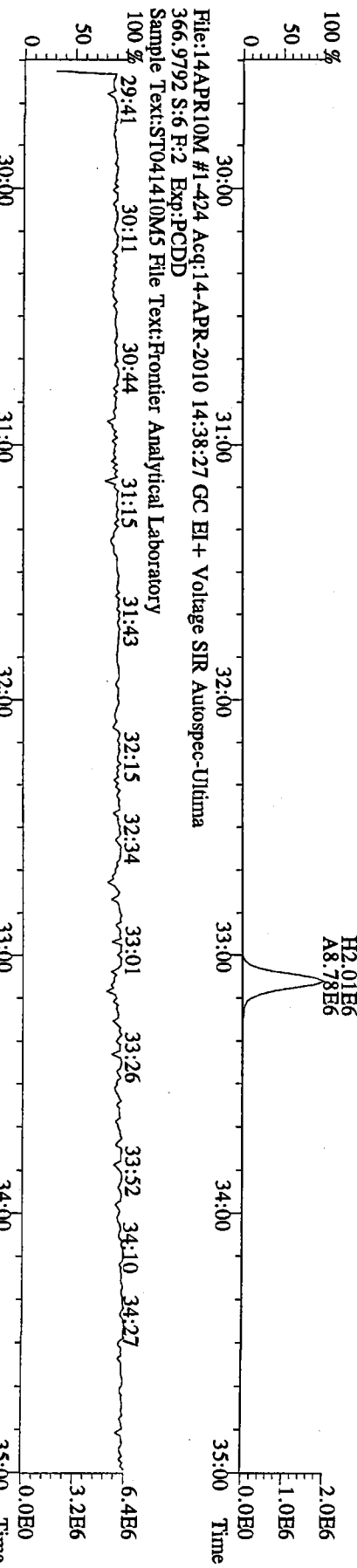
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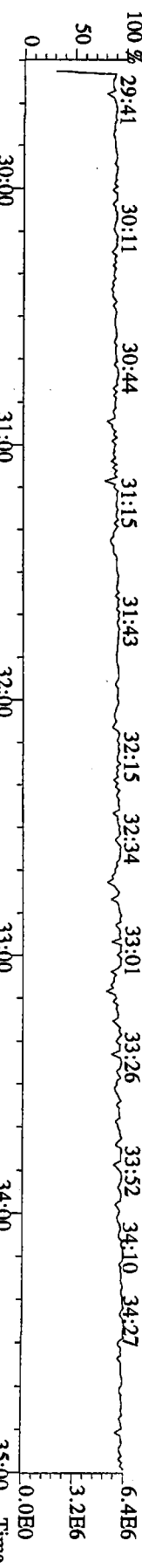
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Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %



File:14APR10M #1-424 Acq:14-APR-2010 14:38:27 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0,0,0) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %

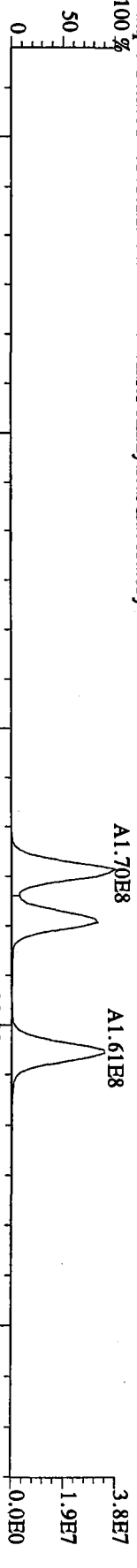


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100 %

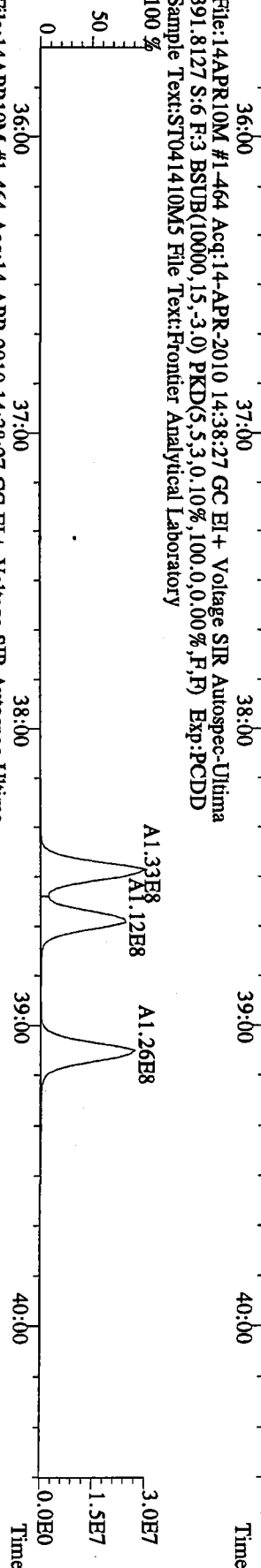


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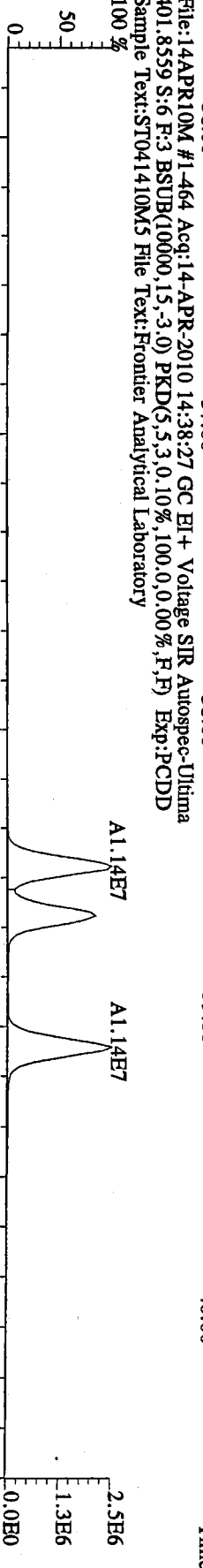
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Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100%



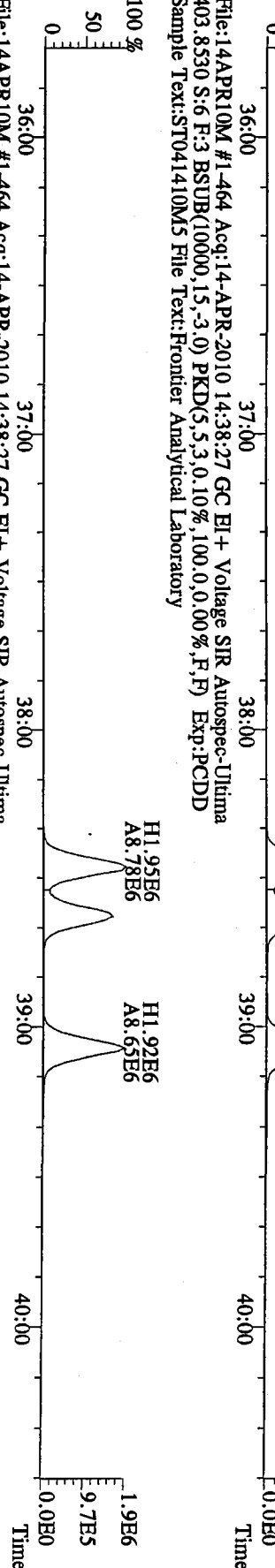
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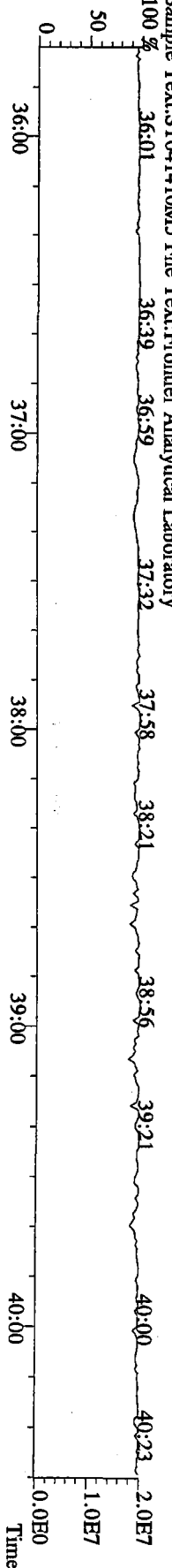
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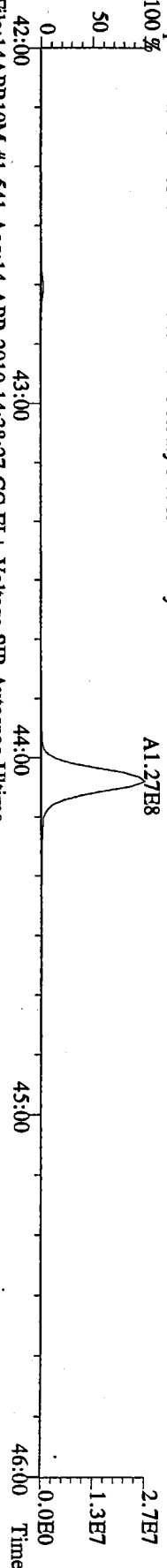
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Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100%



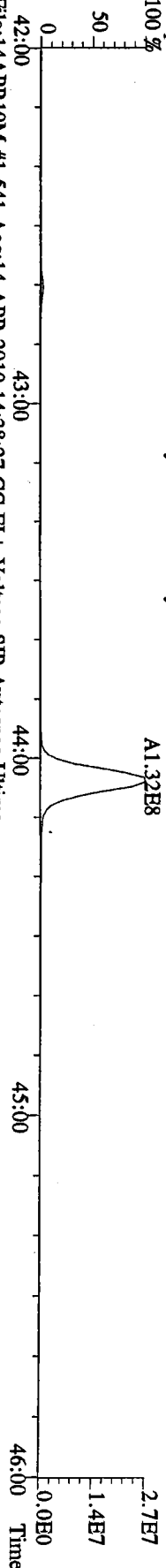
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Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100%



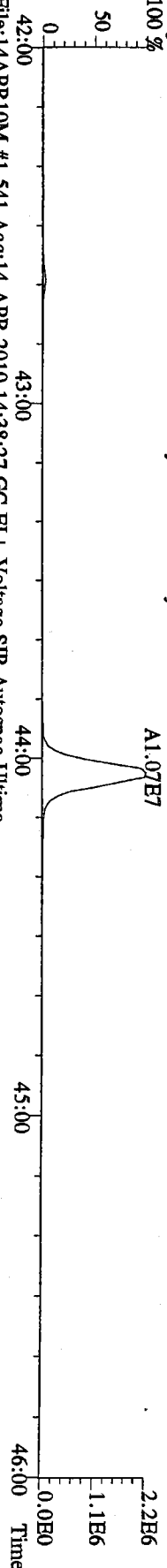
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Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %



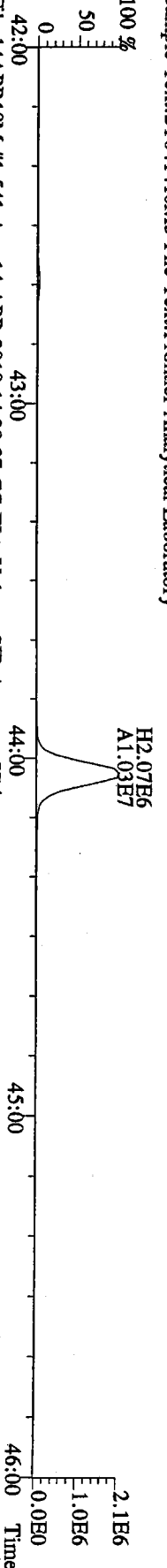
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100 %



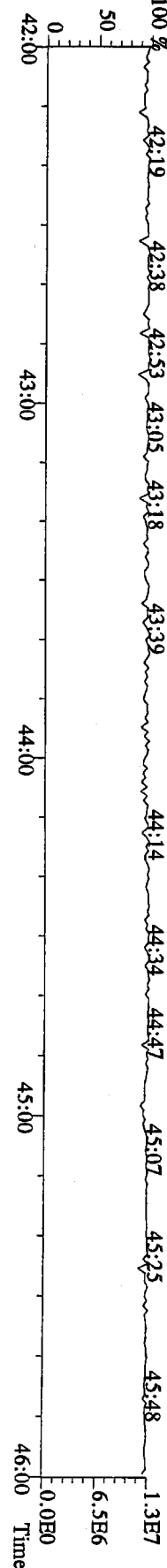
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Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %



File:14APR10M #1-541 Acq:14-APR-2010 14:38:27 GC EI+ Voltage SIR Autospec-Ultima
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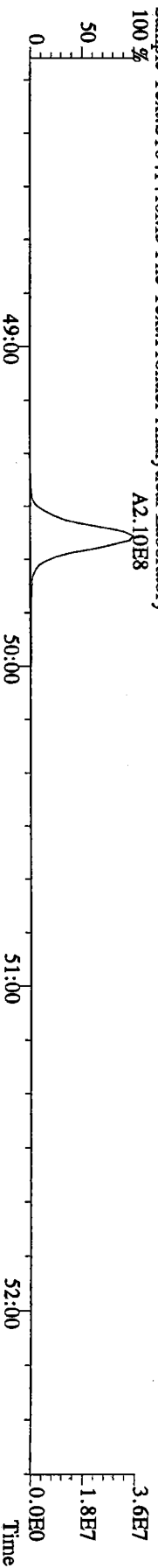


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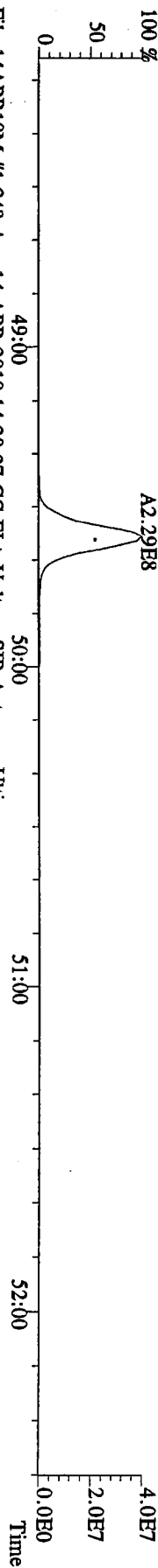


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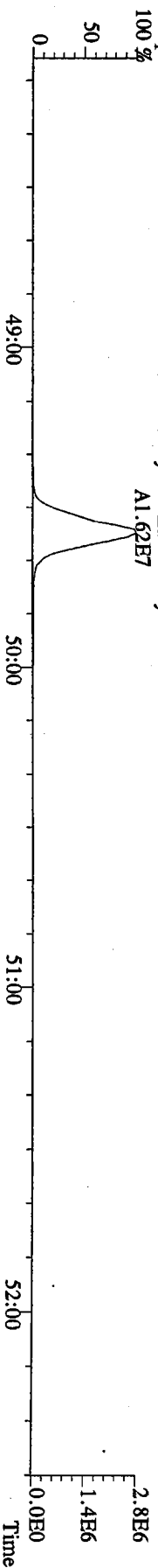
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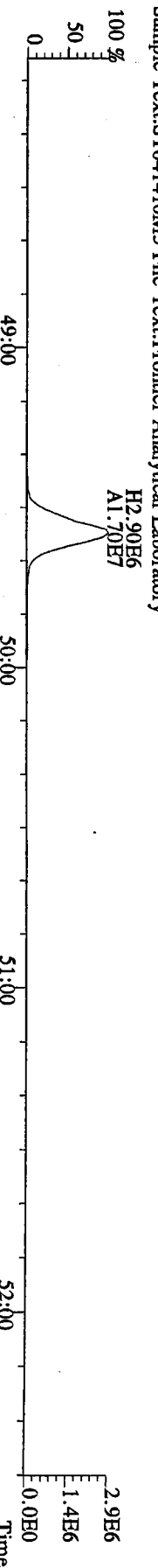
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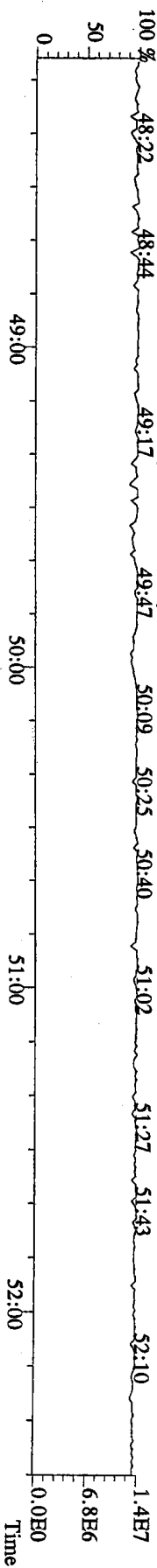
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 471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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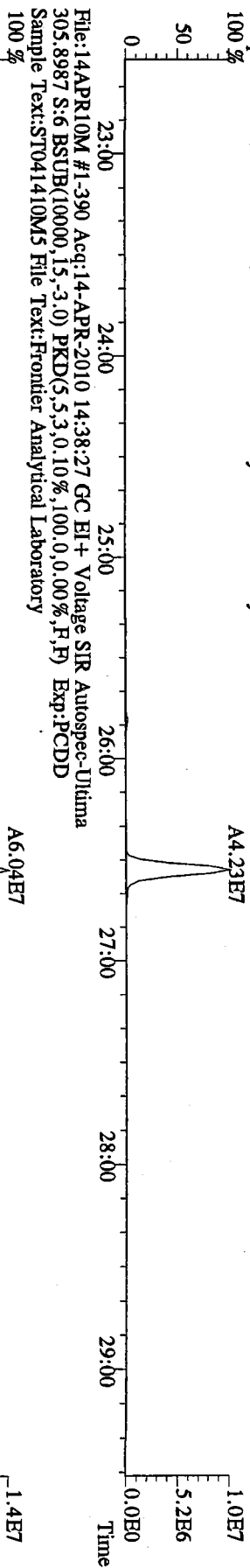


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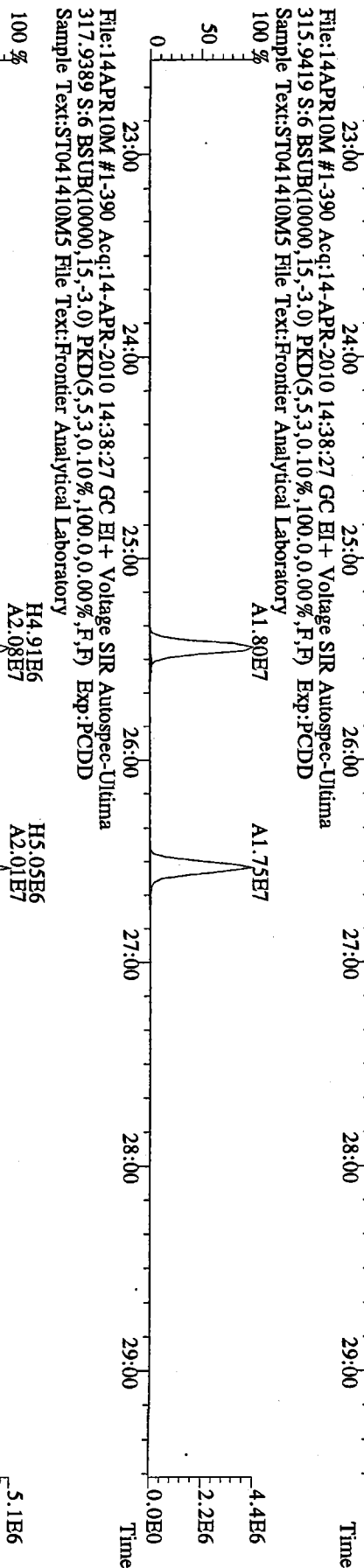


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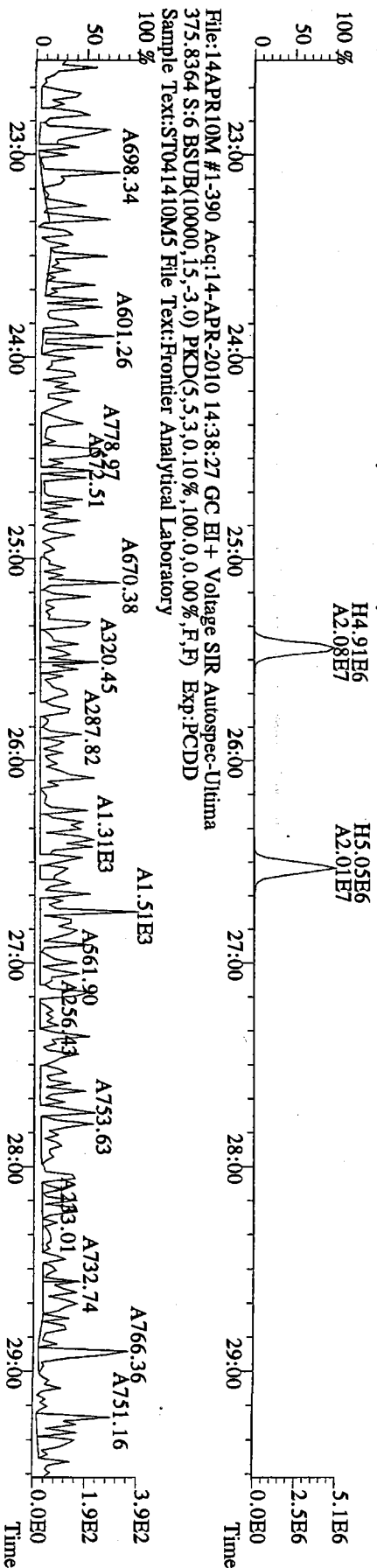
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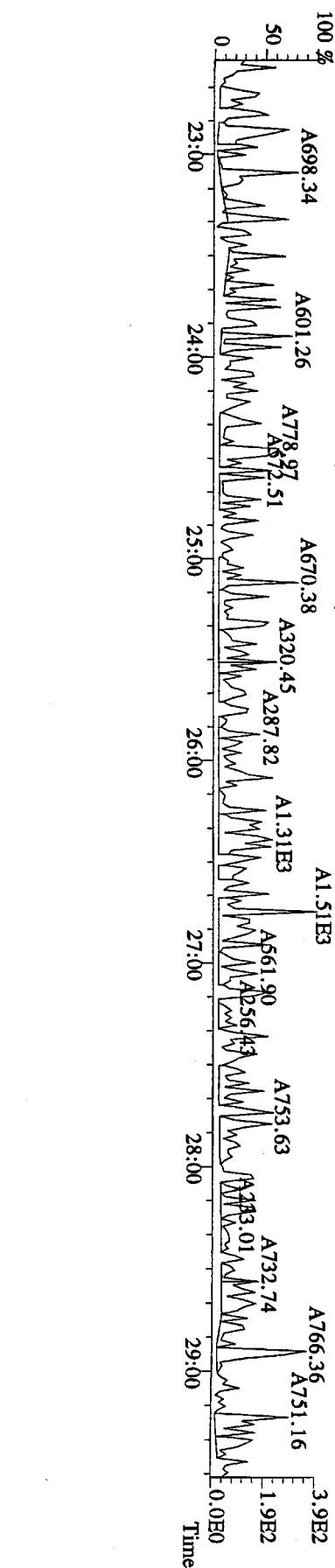
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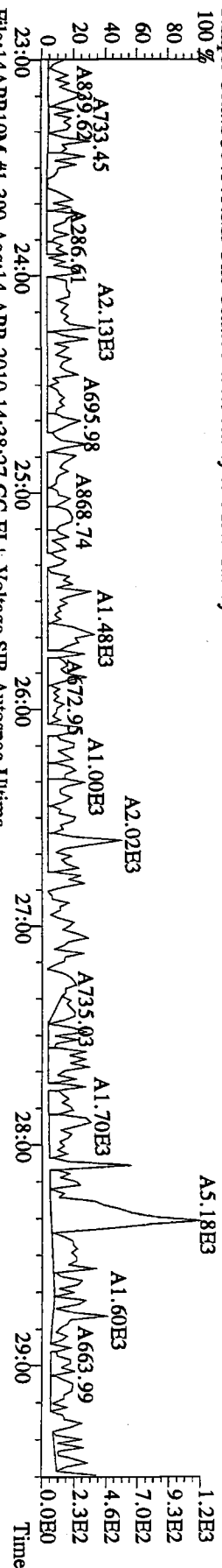
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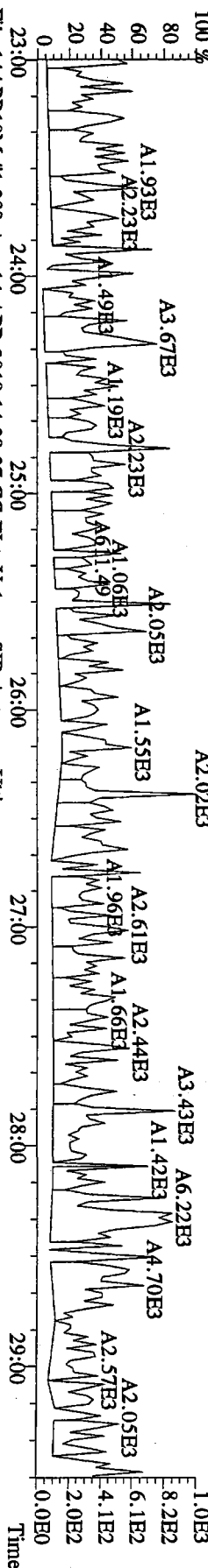
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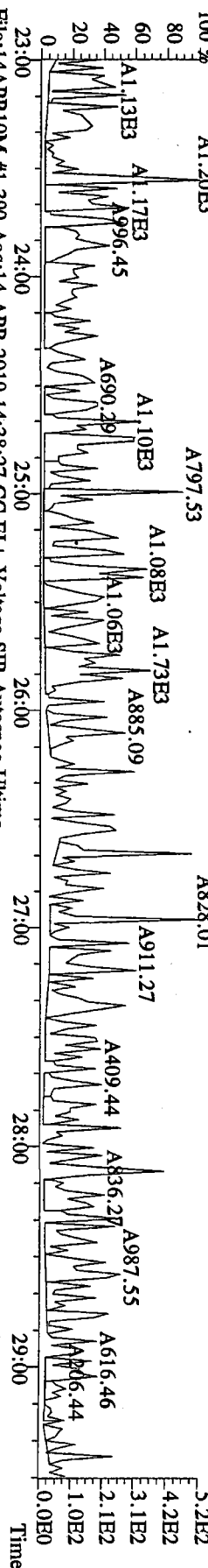
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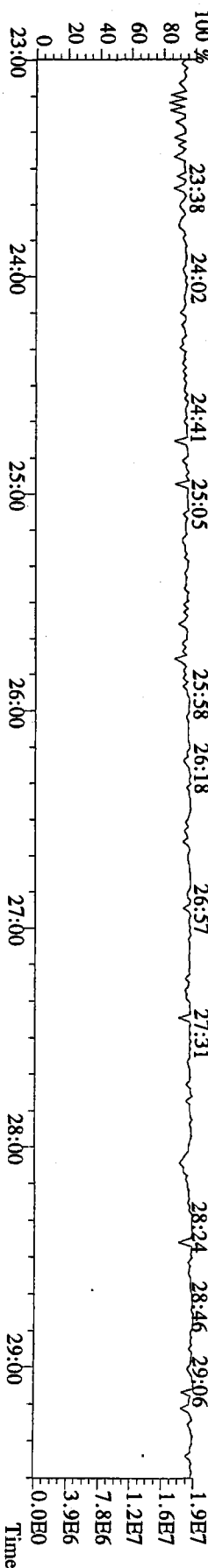
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 Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory



File:14APR10M #1-390 Acq:14-APR-2010 14:38:27 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
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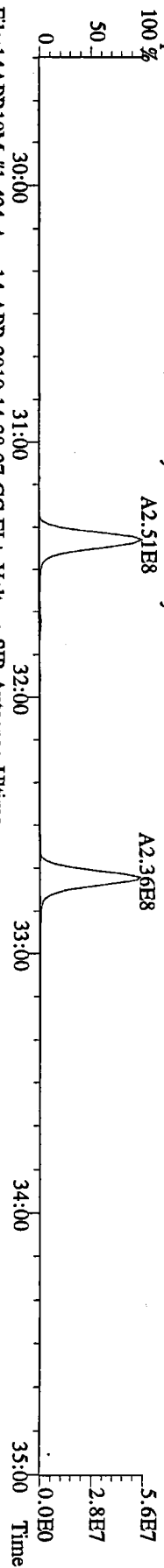


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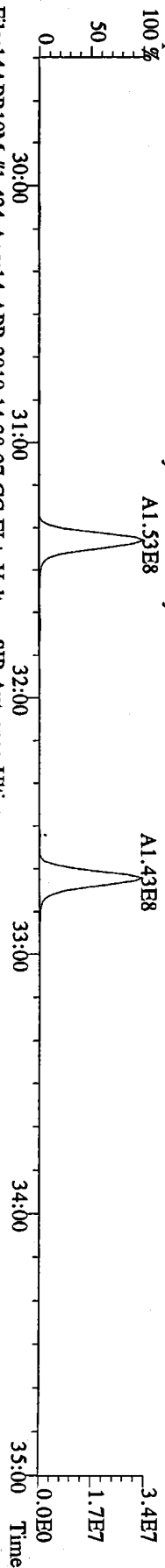


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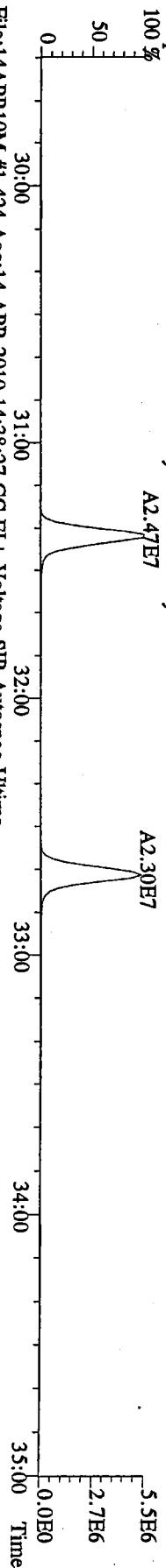
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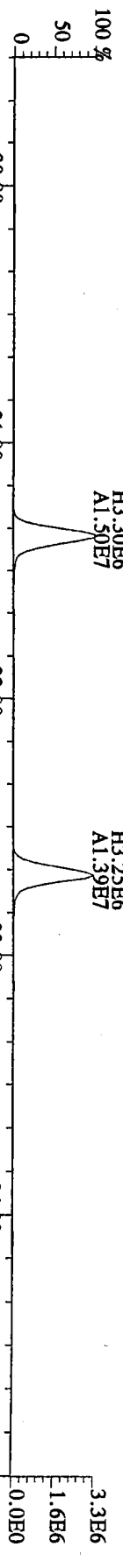
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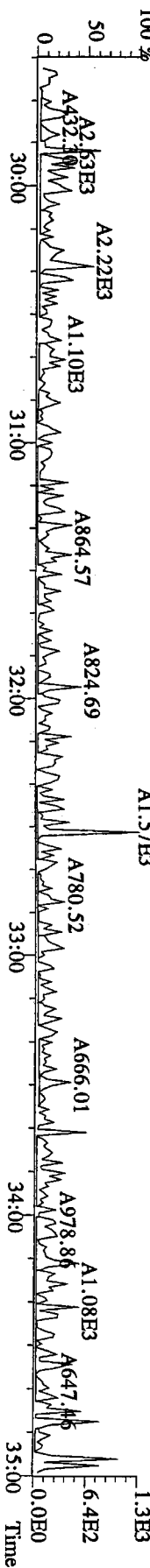
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351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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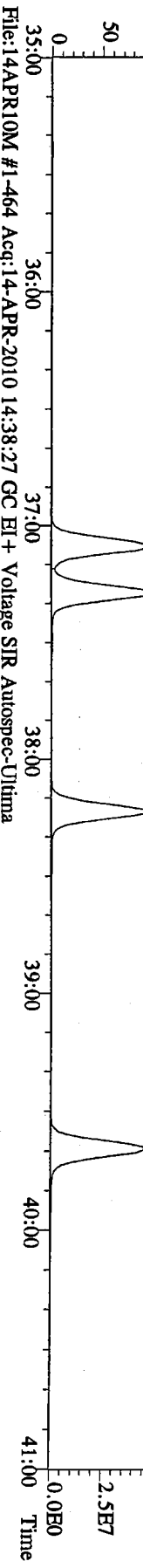
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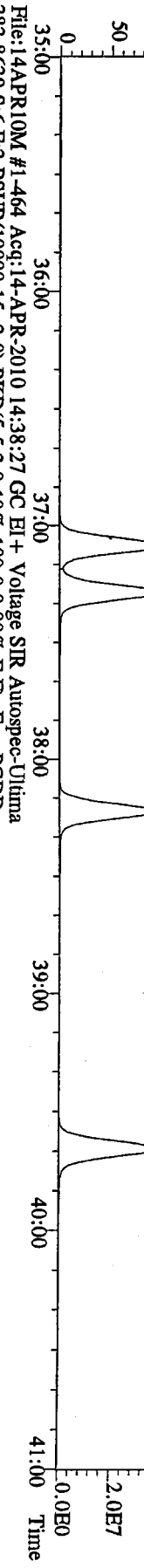
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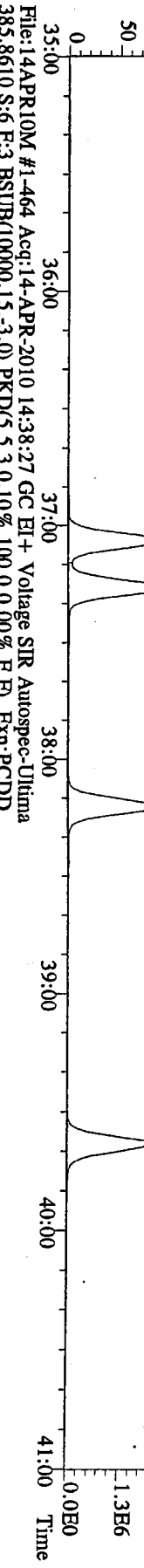
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 373.8207 S:6 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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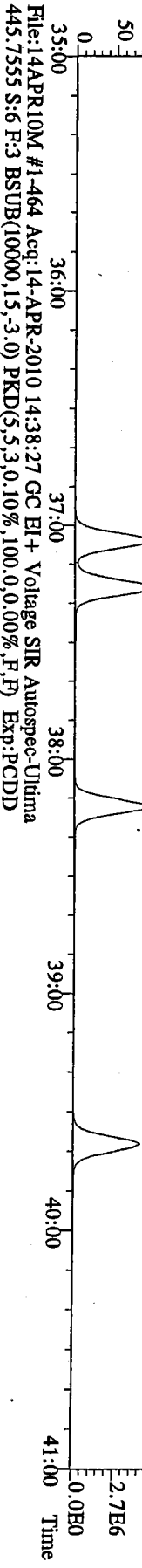
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 385.8639 S:6 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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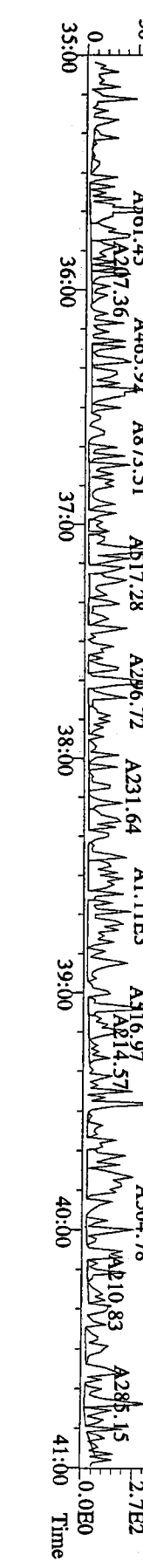
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 445.7555 S:6 F:3 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
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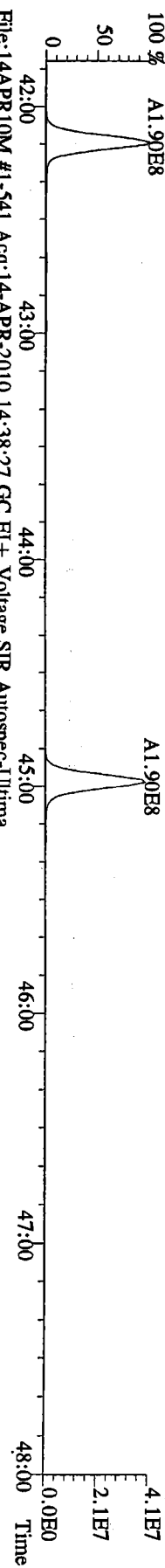


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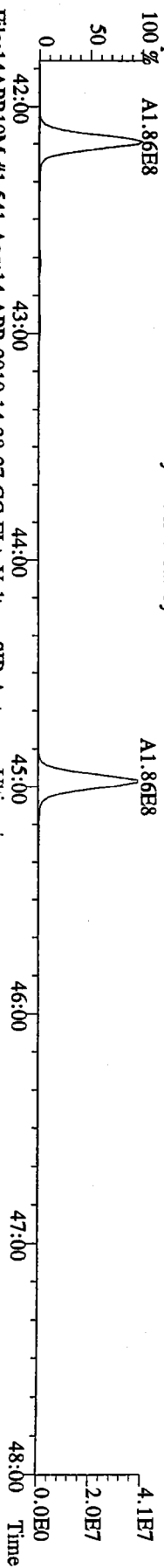


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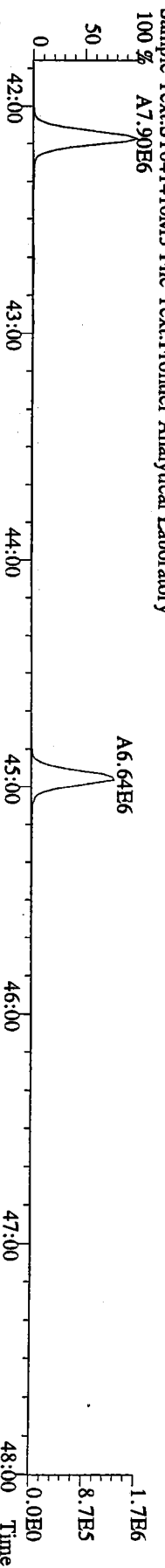
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407.7818 S:6 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 % A1.90E8



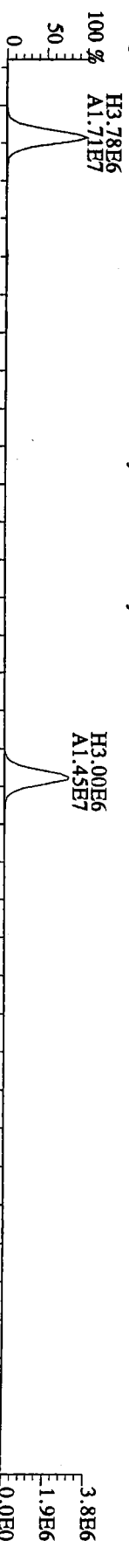
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409.7788 S:6 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 % A1.86E8



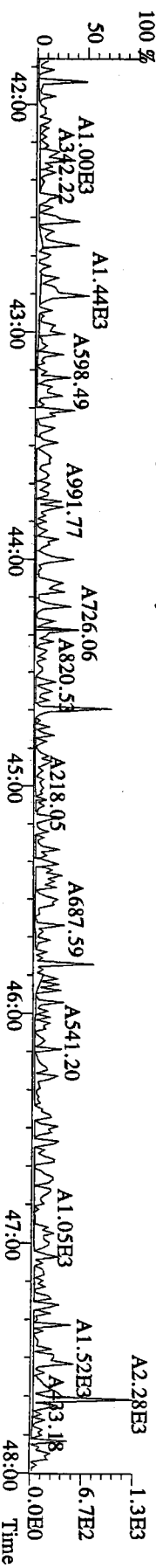
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417.8253 S:6 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 % A7.90E6



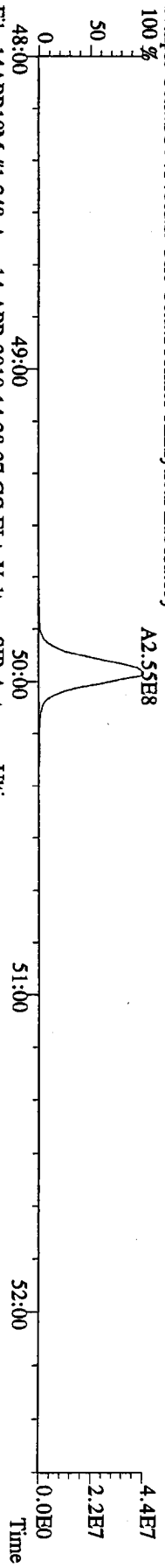
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419.8220 S:6 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory



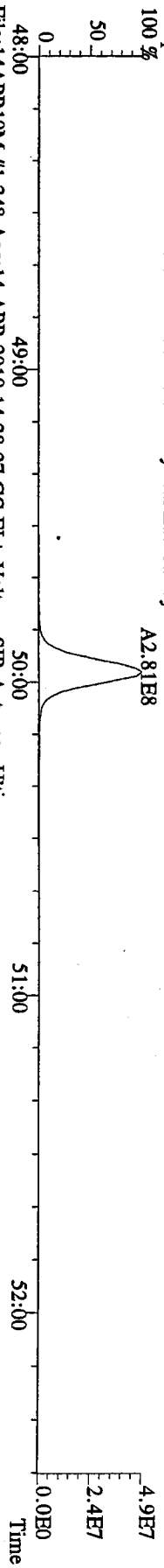
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479.7165 S:6 F:4 BSUB(10000,15,3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory



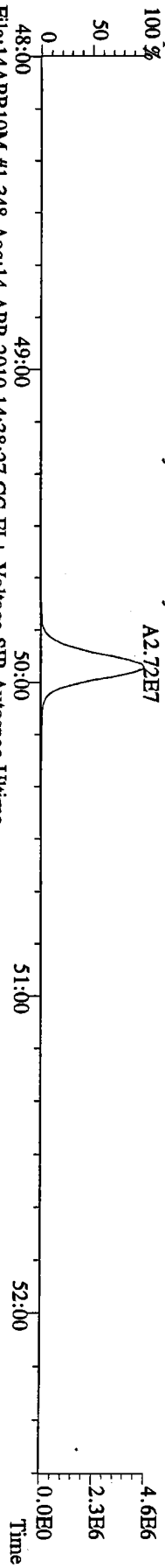
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441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %



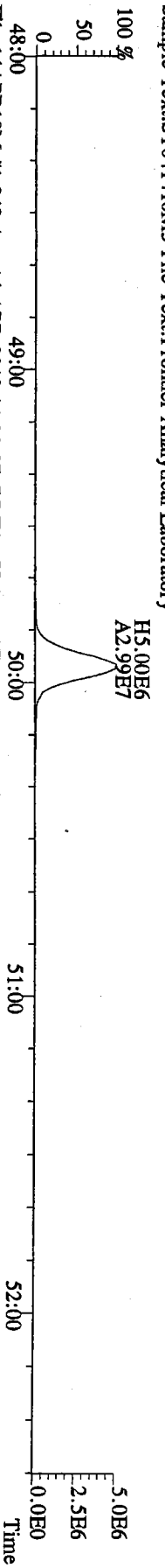
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443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %



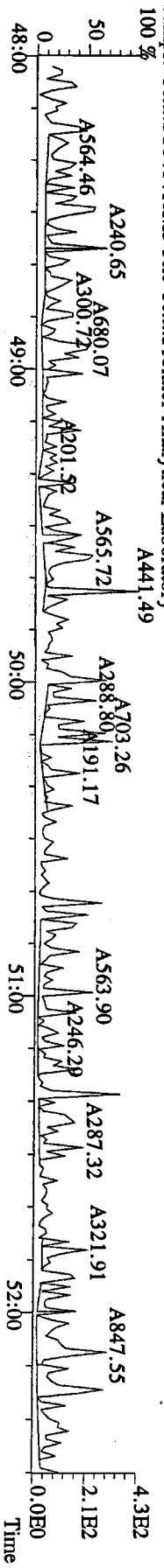
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453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %



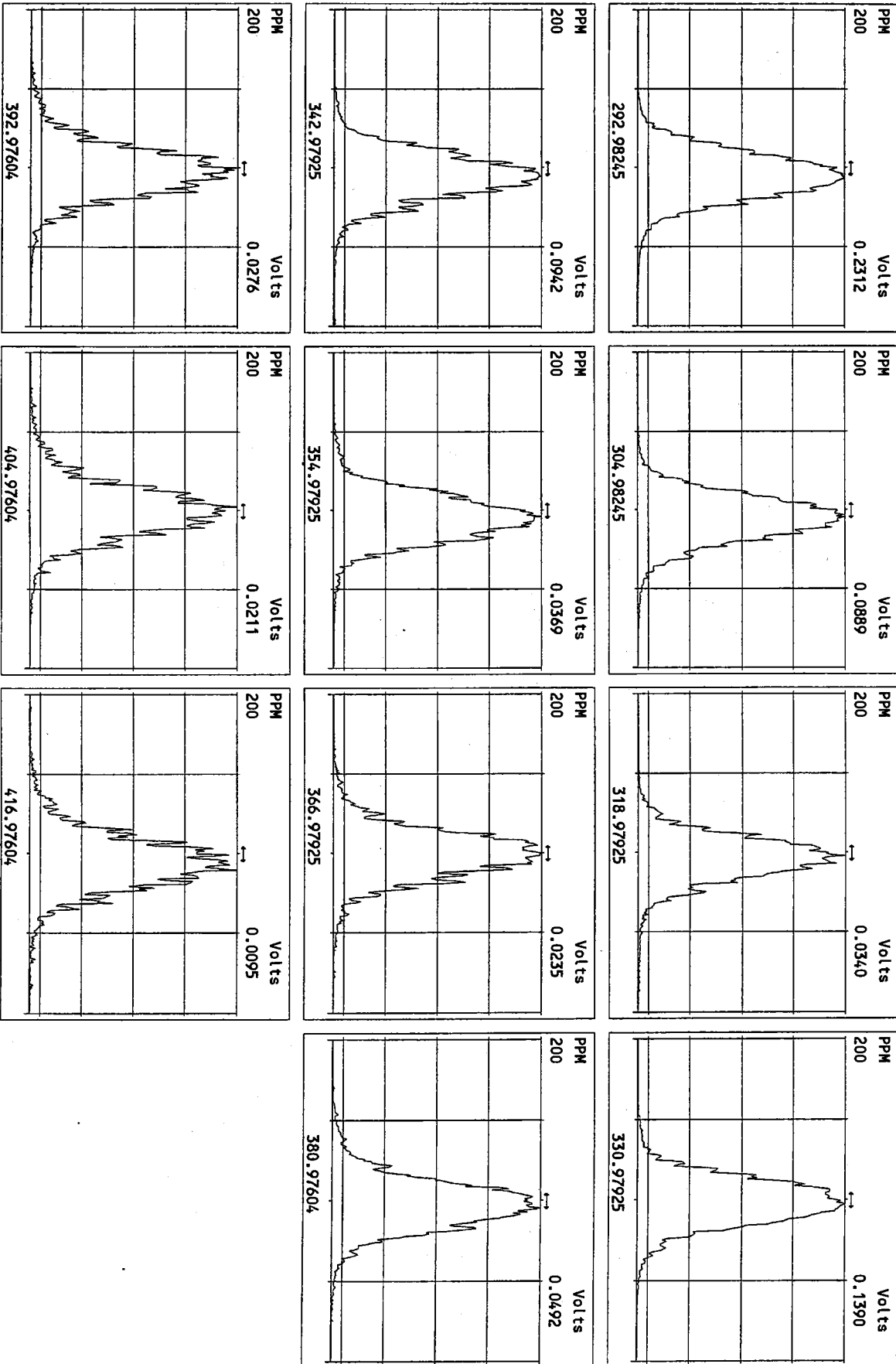
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Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory

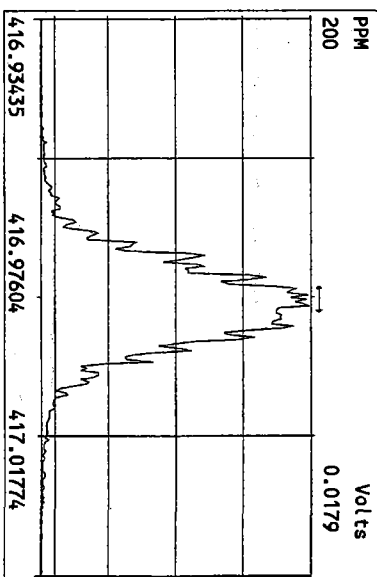
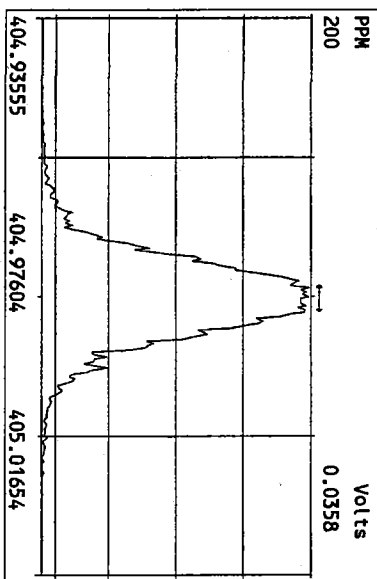
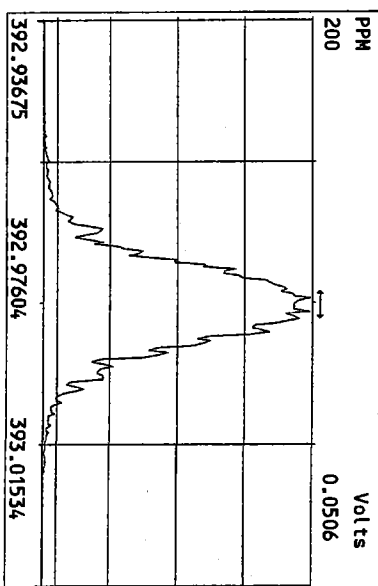
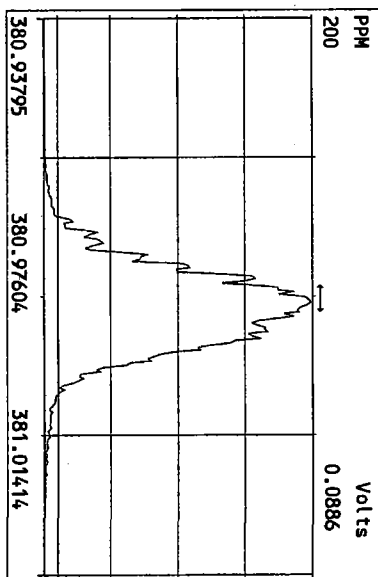
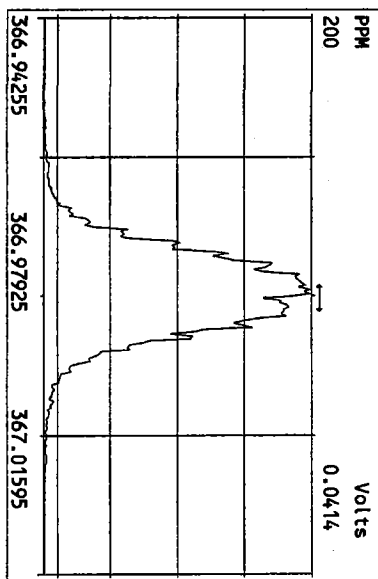
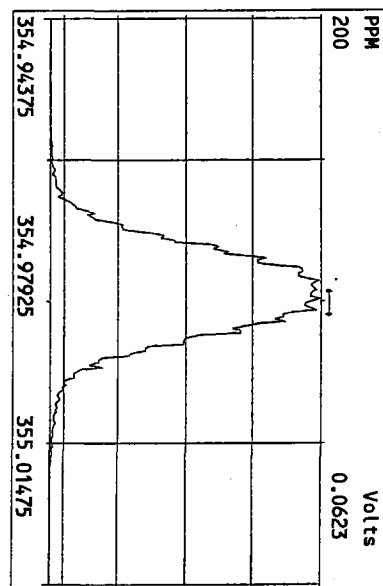
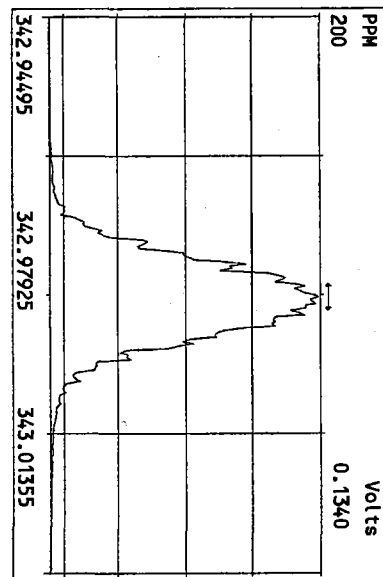
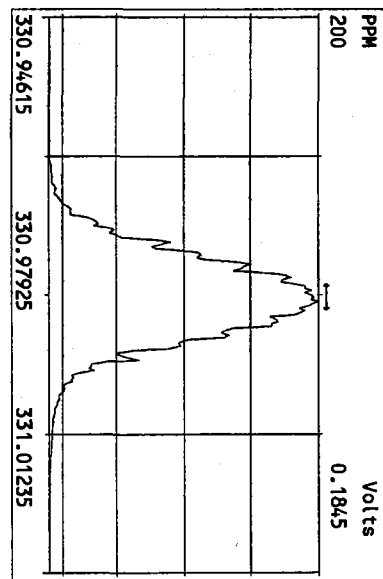


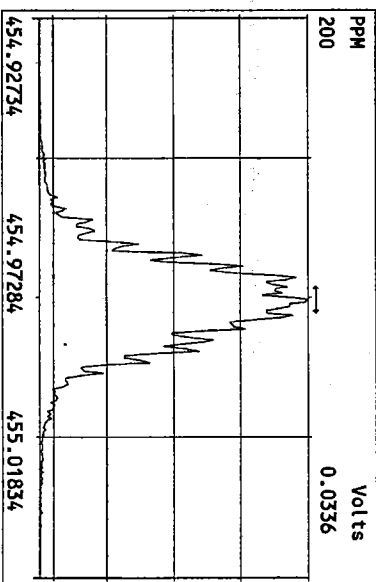
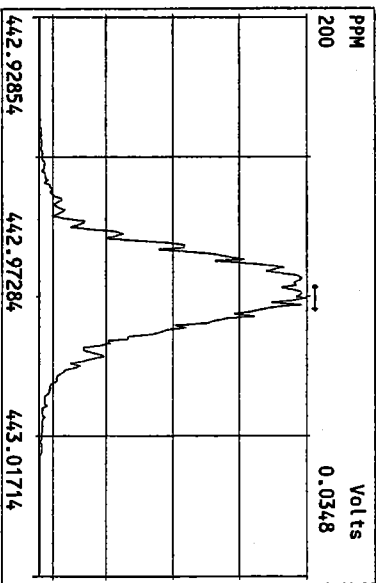
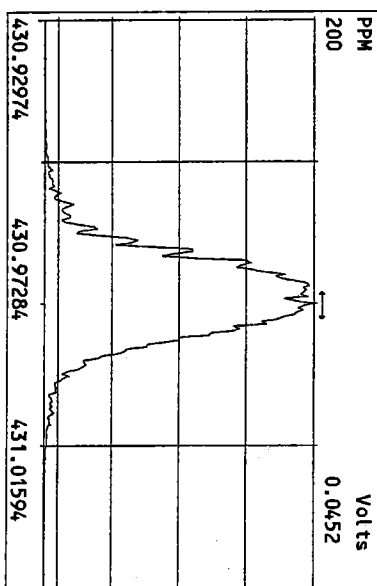
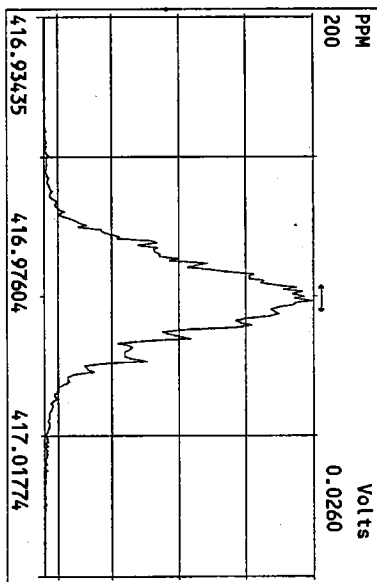
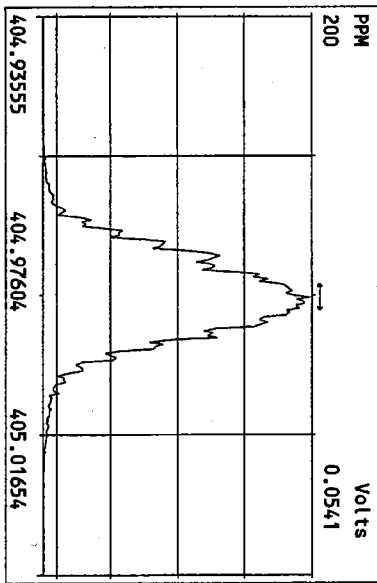
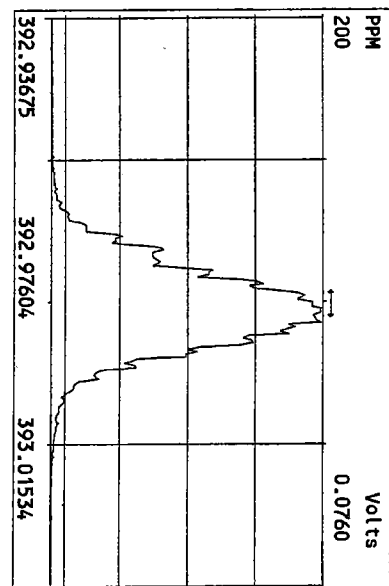
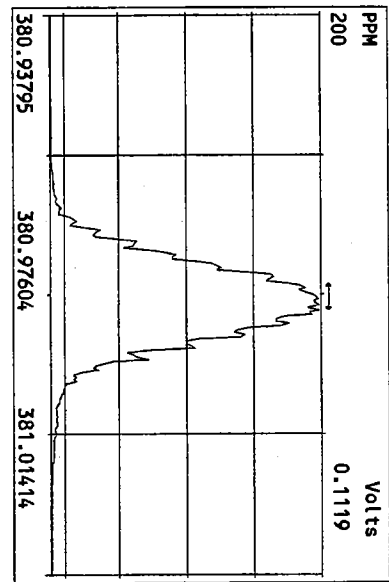
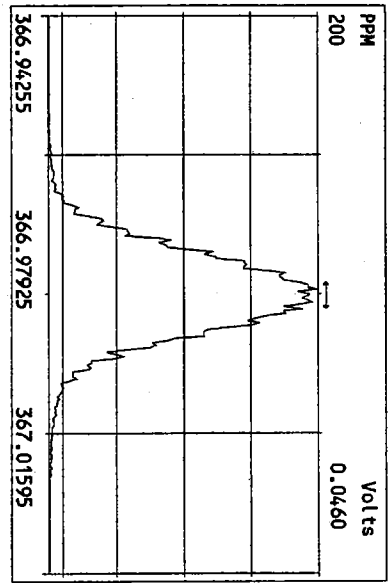
File:14APR10M #1-348 Acq:14-APR-2010 14:38:27 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST041410M5 File Text:Frontier Analytical Laboratory
100 %



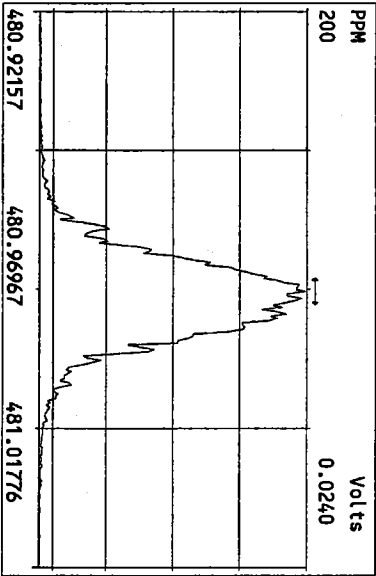
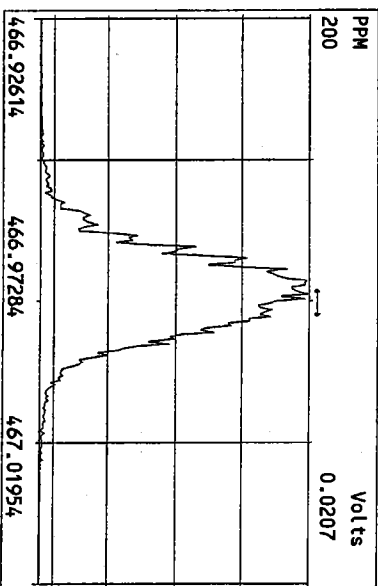
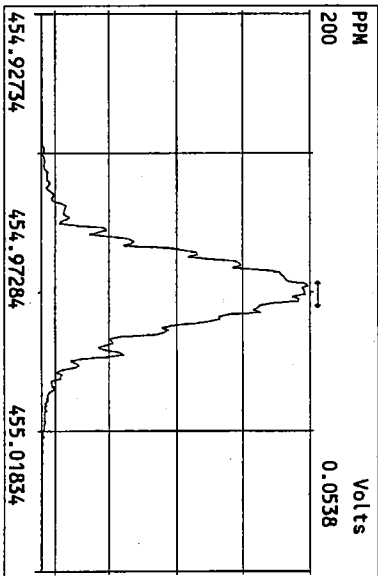
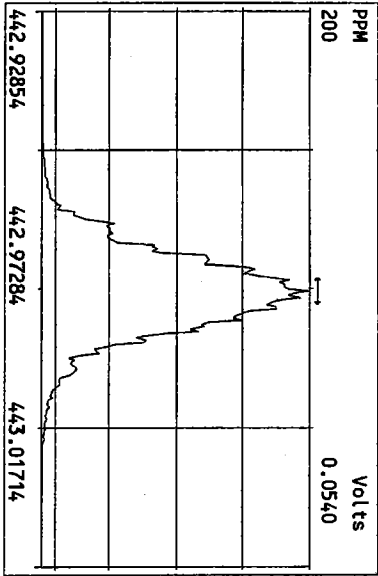
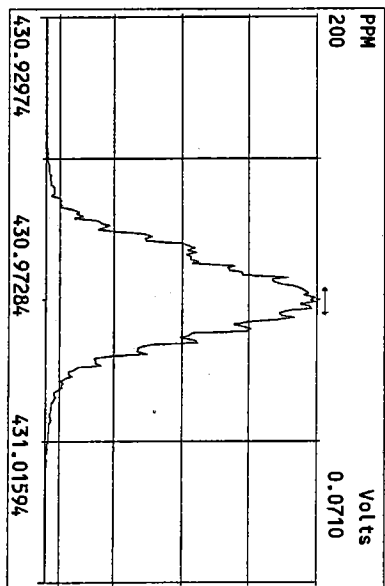
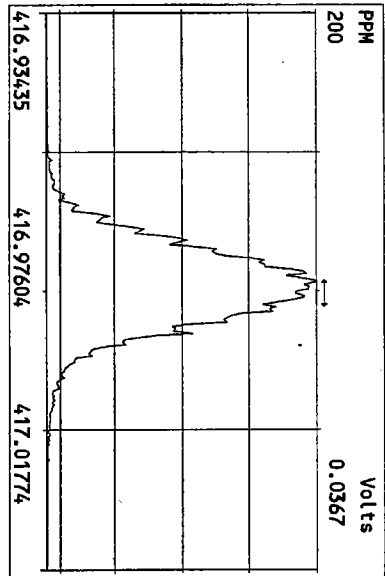
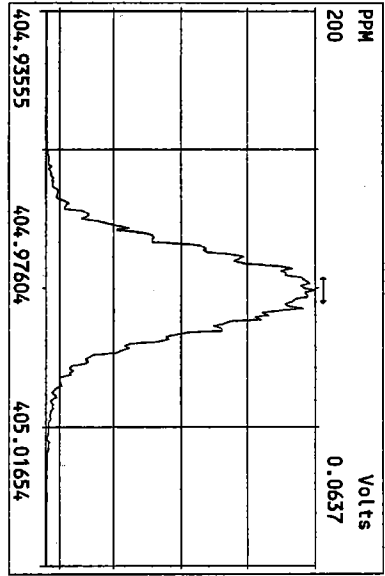
Peak Locate Examination: 15-APR-2010:02:40 File: 14APR10M_RES_CHECK
Experiment: PDD Function: 1 Reference: PK

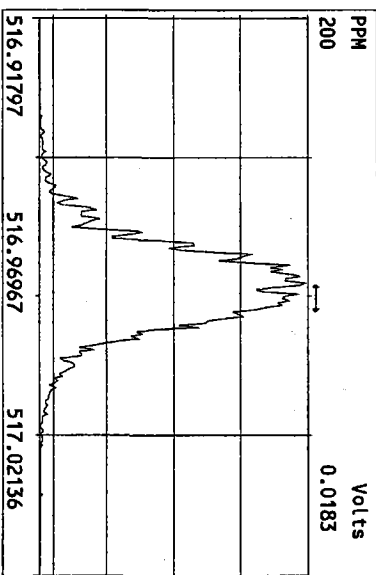
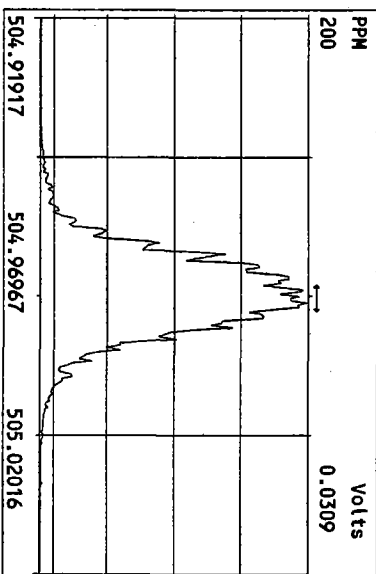
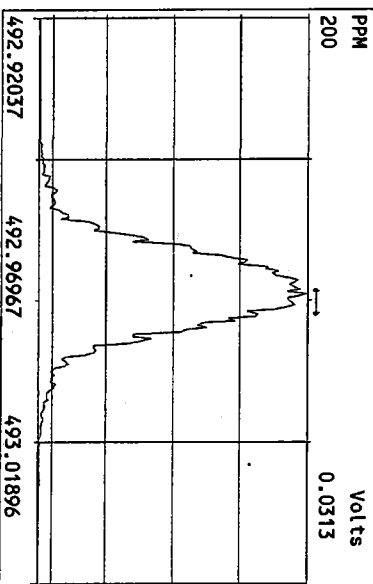
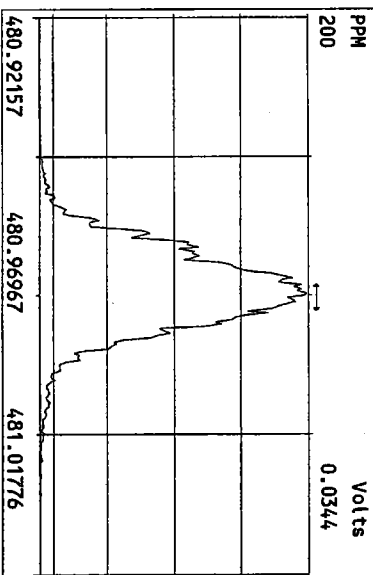
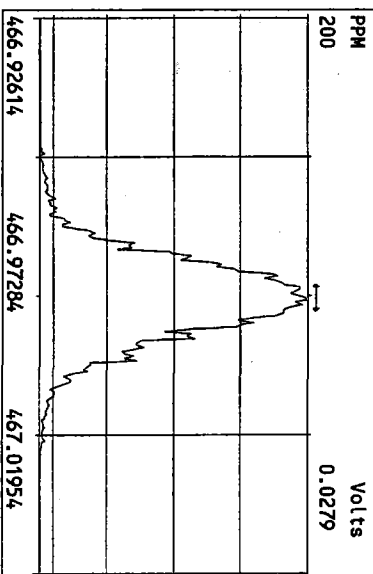
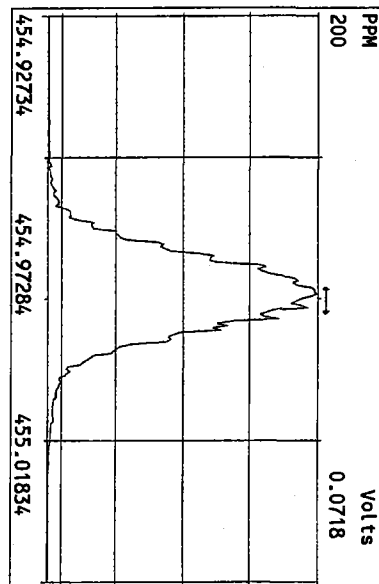
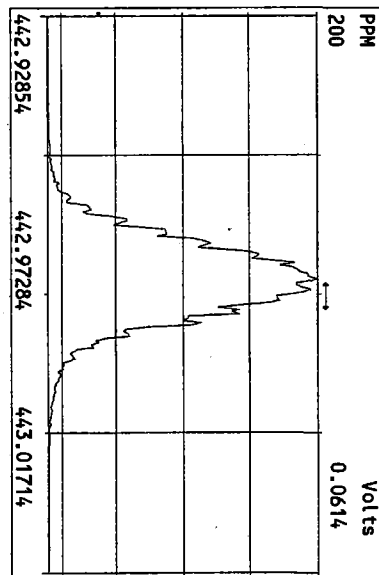
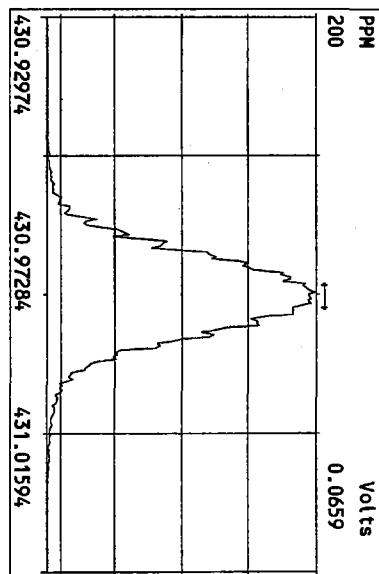






Peak Locate Examination:15-APR-2010:02:46 File:14APR10M_RES.CHECK
Experiment:PCDD Function:4 Reference:PFK





Continuing/Ending Calibration Results

USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4/14/10

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 06MAY10M Sam:1

Analysis Date: 6-MAY-10 12:55:24

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.82	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.59	1.32-1.78	y	47.1	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.32	1.05-1.43	y	45.0	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	46.2	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.33	1.05-1.43	y	44.2	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.95	0.88-1.20	y	54.1	43.0 - 58.0
OCDD	M+2/M+4	0.92	0.76-1.02	y	101	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.66	0.65-0.89	y	10.6	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	49.6	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	y	48.5	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.20	1.05-1.43	y	45.5	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	44.6	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	44.2	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	y	47.7	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88-1.20	y	47.9	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	46.0	43.0 - 58.0
OCDF	M+2/M+4	0.89	0.76-1.02	y	89.6	63.0 - 159

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

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

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

Analyst: Date: 5/7/10

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 4/14/10

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 06MAY10M Sam:1

Analysis Date: 6-MAY-10 12:55:24

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	0.77	0.65-0.89	y	98.1	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.67	1.32-1.78	y	85.6	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	98.4	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.32	1.05-1.43	y	110	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	y	86.8	72.0 - 138
13C-OCDD	M+2/M+4	0.97	0.76-1.02	y	170	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.84	0.65-0.89	y	94.9	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	84.6	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	84.9	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.45	0.43-0.59	y	91.8	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.46	0.43-0.59	y	100	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.47	0.43-0.59	y	97.4	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.43-0.59	y	86.3	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	85.3	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.43	0.37-0.51	y	78.0	77.0 - 129
13C-OCDF	M+2/M+4	0.96	0.76-1.02	y	173	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					8.96	7.80 - 12.8

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

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

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

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

Analyst: 

Date: 5/7/10

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: 4/14/10

RT Window Data Filename: 06MAY10M Sam:1 Analysis Date: 6-MAY-10 Time: 12:55:24

DB-5 IS Data Filename: 06MAY10M Sam:1 Analysis Date: 6-MAY-10 Time: 12:55:24

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)	28:25	1,2,8,9-TCDF (L)	28:39
1,2,4,7,9-PeCDD (F)	30:19	1,3,4,6,8-PeCDF (F)	28:30
1,2,3,8,9-PeCDD (L)	33:53	1,2,3,8,9-PeCDF (L)	34:18
1,2,4,6,7,9-HxCDD (F)	36:11	1,2,3,4,6,8-HxCDF (F)	35:19
1,2,3,7,8,9-HxCDD (L)	39:16	1,2,3,7,8,9-HxCDF (L)	39:50
1,2,3,4,6,7,9-HpCDD (F)	42:53	1,2,3,4,6,7,8-HpCDF (F)	42:21
1,2,3,4,6,7,8-HpCDD (L)	44:15	1,2,3,4,7,8,9-HpCDF (L)	45:10

(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: *LC* Date: 5/7/10

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:
Contract No.: SAS No.: Init. Cal. Date: 4/14/10
Instrument ID: FAL3 GC Column ID: DB5
Analysis Date: 6-MAY-10 12:55:24 CS3 or VER Data Filename: 06MAY10M Sam:1

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.001	0.999-1.002
LABELED COMPOUNDS			
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989-1.052
13C-2,3,7,8-TCDD		1.021	0.976-1.043
13C-2,3,7,8-TCDF		0.993	0.923-1.103
13C-1,2,3,7,8-PeCDD		1.238	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: *S* Date: 5/7/10

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 4/14/10

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 6-MAY-10 12:55:24 CS3 or VER Data Filename: 06MAY10M 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	1.000	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	1.000	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	1.000	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	1.001	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.001	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		0.988	0.981-1.003
13C-1,2,3,4,7,8-HxCDF		0.949	0.944-0.970
13C-1,2,3,6,7,8-HxCDF		0.954	0.949-0.975
13C-2,3,4,6,7,8-HxCDF		0.978	0.959-1.021
13C-1,2,3,7,8,9-HxCDF		1.015	0.977-1.047
13C-1,2,3,4,6,7,8-HpCDD		1.127	1.086-1.130
13C-1,2,3,4,6,7,8-HpCDF		1.078	1.043-1.085
13C-1,2,3,4,7,8,9-HpCDF		1.150	1.057-1.154
13C-OCDD		1.268	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: 

Date: 5/7/10

FAL ID: ST050610M1

Filename: 06MAY10M

Sam:1

Acquired: 6-MAY-10 12:55:24

ICal: PCDDFAL3-4-14-10

Client ID: 1613 CS3 090918J

ConCal: ST050610M1

EndCal: ST050610M2

Results:

GC Column: DB5

Amount: 1.000

NATO 1989 Tox: 94.6

WHO 1989 Tox: 118

WHO 2005 Tox:

107

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	#Com
2,3,7,8-TCDD	1.31e+06	0.79 y	27:29	1.12	9.82	2.50	-	-	*	
1,2,3,7,8-PeCDD	6.08e+06	1.59 y	33:18	1.07	47.1	2.50	-	-	*	
1,2,3,4,7,8-HxCDD	5.82e+06	1.32 y	38:39	1.39	45.0	2.50	-	-	*	
1,2,3,6,7,8-HxCDD	5.79e+06	1.30 y	38:49	1.36	46.2	2.50	-	-	*	
1,2,3,7,8,9-HxCDD	5.75e+06	1.33 y	39:16	1.40	44.2	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	5.08e+06	0.95 y	44:15	1.14	54.1	2.50	-	-	*	
OCDD	7.40e+06	0.92 y	49:49	1.22	101	2.50	-	-	*	
Rec										
2,3,7,8-TCDF	2.87e+06	0.66 y	26:44	1.29	10.6	2.50	-	-	*	98.1
1,2,3,7,8-PeCDF	8.61e+06	1.61 y	31:34	0.93	49.6	2.50	-	-	*	85.6
2,3,4,7,8-PeCDF	8.00e+06	1.60 y	32:54	0.93	48.5	2.50	-	-	*	98.4
1,2,3,4,7,8-HxCDF	7.63e+06	1.20 y	37:15	1.07	45.5	2.50	-	-	*	110
1,2,3,6,7,8-HxCDF	8.20e+06	1.22 y	37:28	0.97	44.6	2.50	-	-	*	86.8
2,3,4,6,7,8-HxCDF	7.50e+06	1.23 y	38:24	1.04	44.2	2.50	-	-	*	85.2
1,2,3,7,8,9-HxCDF	6.96e+06	1.23 y	39:50	1.15	47.7	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	6.52e+06	1.04 y	42:21	1.37	47.9	2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	5.42e+06	1.02 y	45:10	1.62	46.0	2.50	-	-	*	
OCDF	8.15e+06	0.89 y	50:11	0.85	89.6	2.50	-	-	*	
13C-2,3,7,8-TCDD	1.19e+07	0.77 y	27:28	0.98	98.1					94.9
13C-1,2,3,7,8-PeCDD	1.21e+07	1.67 y	33:17	1.14	85.6					84.6
13C-1,2,3,4,7,8-HxCDD	9.29e+06	1.30 y	38:38	1.00	98.4					84.9
13C-1,2,3,6,7,8-HxCDD	9.25e+06	1.32 y	38:48	0.89	110					91.8
13C-1,2,3,4,6,7,8-HpCDD	8.26e+06	1.04 y	44:14	1.01	86.8					100
13C-OCDD	1.20e+07	0.97 y	49:47	0.75	170					97.4
13C-2,3,7,8-TCDF	2.10e+07	0.84 y	26:42	0.93	94.9					86.3
13C-1,2,3,7,8-PeCDF	1.87e+07	1.65 y	31:33	0.93	84.6					85.3
13C-2,3,4,7,8-PeCDF	1.77e+07	1.65 y	32:52	0.87	84.9					78.0
13C-1,2,3,4,7,8-HxCDF	1.57e+07	0.45 y	37:15	1.82	91.8					86.7
13C-1,2,3,6,7,8-HxCDF	1.89e+07	0.46 y	37:27	2.01	100					
13C-2,3,4,6,7,8-HxCDF	1.62e+07	0.47 y	38:24	1.77	97.4					
13C-1,2,3,7,8,9-HxCDF	1.27e+07	0.49 y	39:50	1.57	86.3					
13C-1,2,3,4,6,7,8-HpCDF	9.97e+06	0.45 y	42:19	1.24	85.3					
13C-1,2,3,4,7,8,9-HpCDF	7.29e+06	0.43 y	45:09	0.99	78.0					
13C-OCDF	2.15e+07	0.96 y	50:10	1.32	173					
37Cl-2,3,7,8-TCDD	1.23e+06		27:29	1.10	8.96					89.6
13C-1,2,3,4-TCDD	1.24e+07	0.78 y	26:53	-	71.0					
13C-1,2,3,4-TCDF	2.39e+07	0.84 y	25:38	-	64.5					
13C-1,2,3,7,8,9-HxCDD	9.40e+06	1.33 y	39:16	-	57.5					
							Fac Noise-1	Noise-2	DL	#Com
Total Tetra-Dioxins	7.20e+06		22:60	1.12	53.8	2.50	-	-	*	27
Total Penta-Dioxins	1.30e+07		30:19	1.07	101	2.50	-	-	*	15
Total Hexa-Dioxins	1.98e+07		36:11	1.38	155	2.50	-	-	*	21
Total Hepta-Dioxins	1.12e+07		42:53	1.14	119	2.50	-	-	*	23
Total Tetra-Furans	1.20e+07		22:57	1.29	44.3	2.50	-	-	*	20
1st Fn. Tot Penta-Furans	8.46e+06		28:30	0.93	50.0	2.50	-	-	*	2
Total Penta-Furans	2.39e+07		30:16	0.93	141	2.50	-	-	*	191
Total Hexa-Furans	3.48e+07		35:19	1.05	209	2.50	-	-	*	5
Total Hepta-Furans	1.20e+07		42:21	1.48	94.5	2.50	-	-	*	12

Analyst: 

Date: 5/7/10

Frontier Analytical Laboratory - Acquisition Log

Run Name:06MAY10M

Instrument: FAL3

GC: DB5

Experiment:PCDD

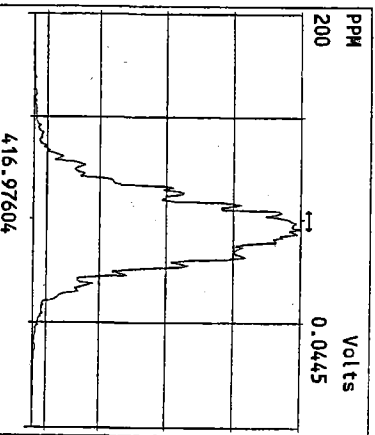
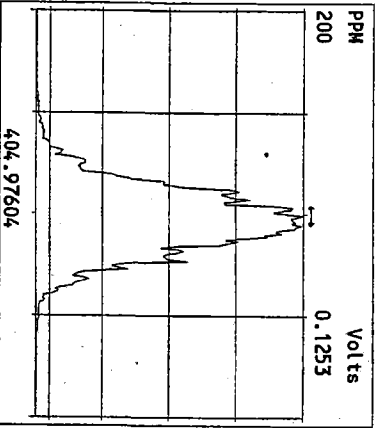
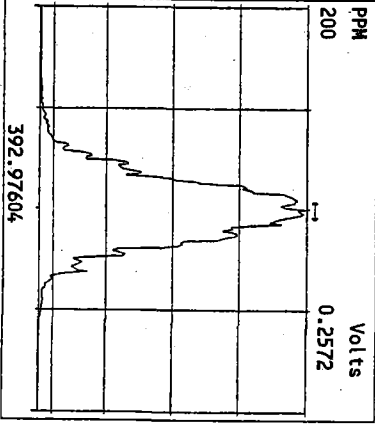
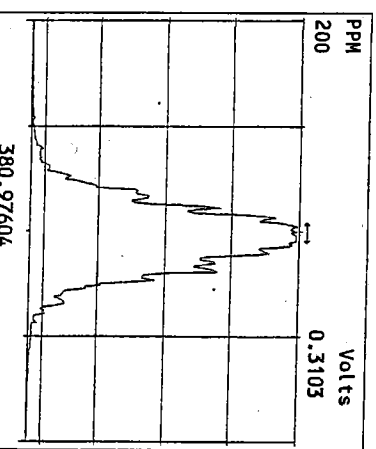
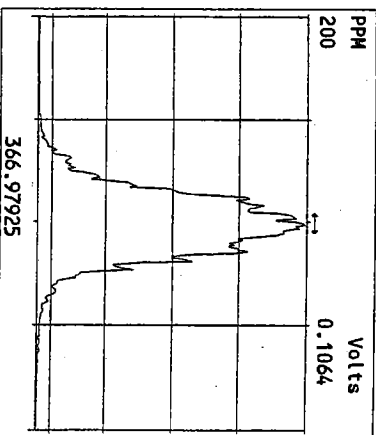
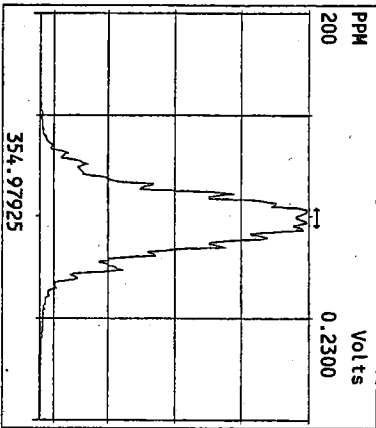
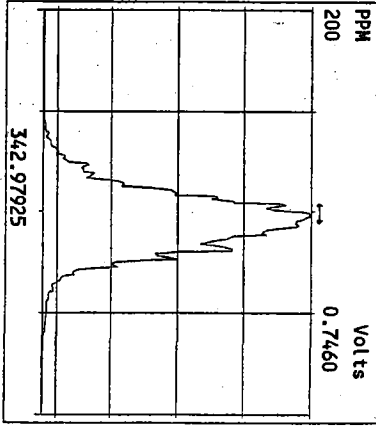
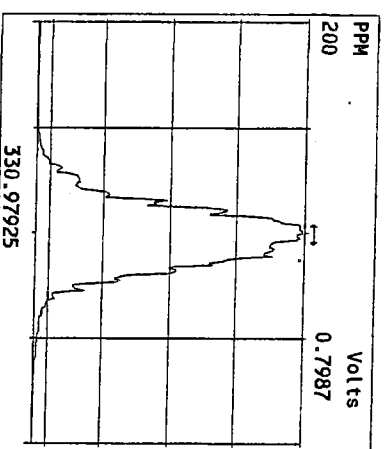
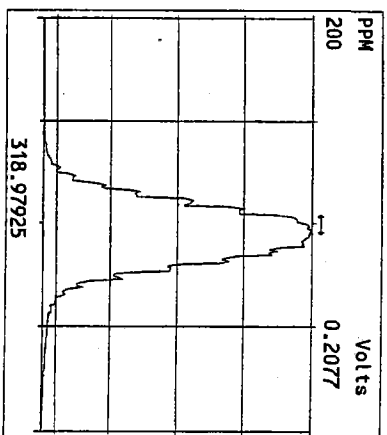
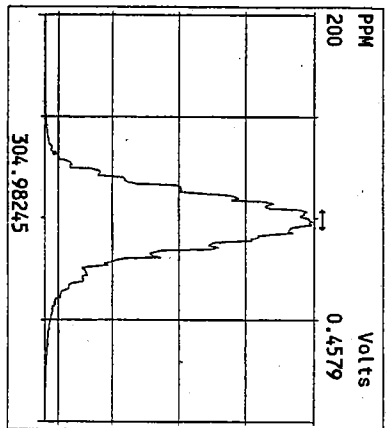
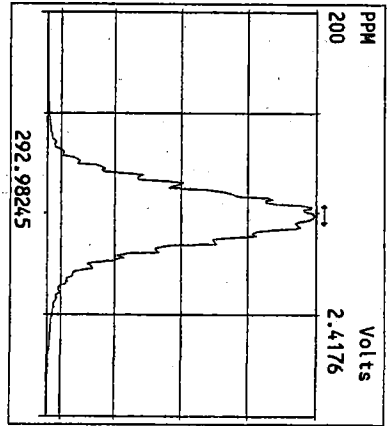
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06MAY10M 3	2005-001-0001-OPR	OPR	6-MAY-10 14:46:01	ST050610M1	ST050610M2	BS
06MAY10M 4	2005-001-0001-MB	Method Blank	6-MAY-10 15:41:23	ST050610M1	ST050610M2	BS
06MAY10M 5	6109-001-0001-SA	Cell-T7104-042010	6-MAY-10 16:36:42	ST050610M1	ST050610M2	BS
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06MAY10M 13	SB050610M2	Solvent Blank	6-MAY-10 23:59:25	ST050610M1	ST050610M2	BS
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C 5/7/10

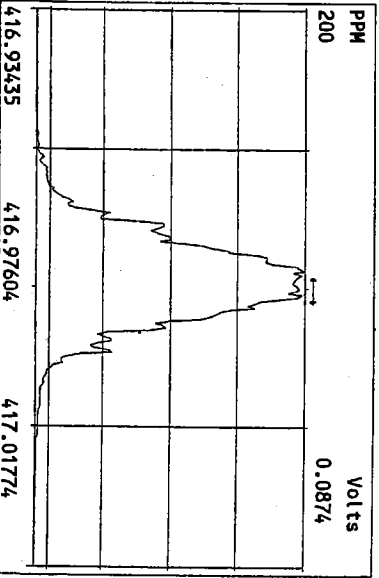
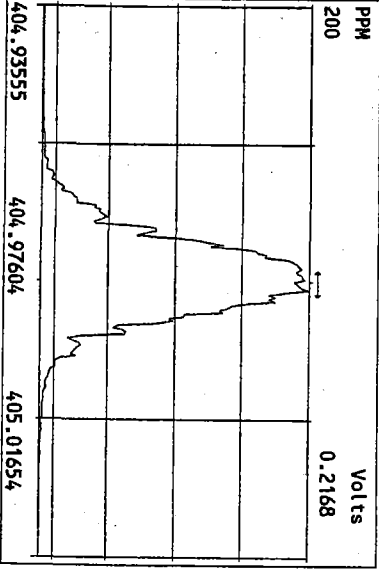
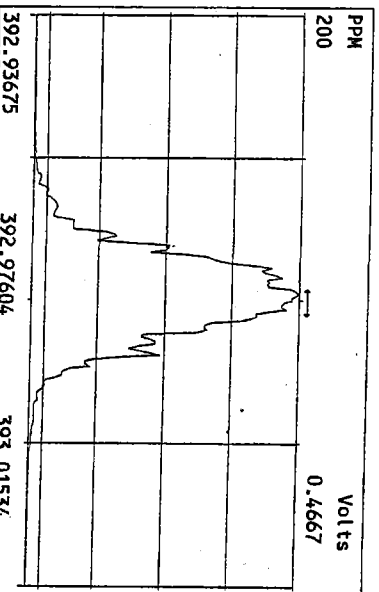
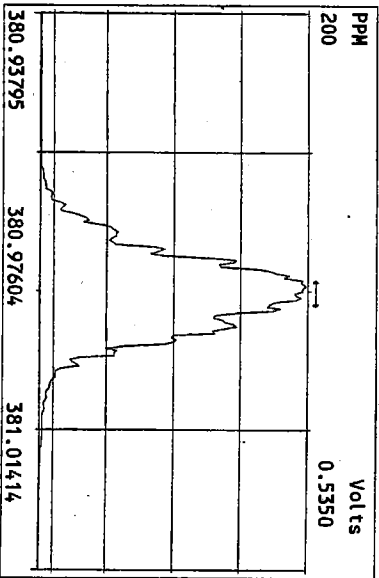
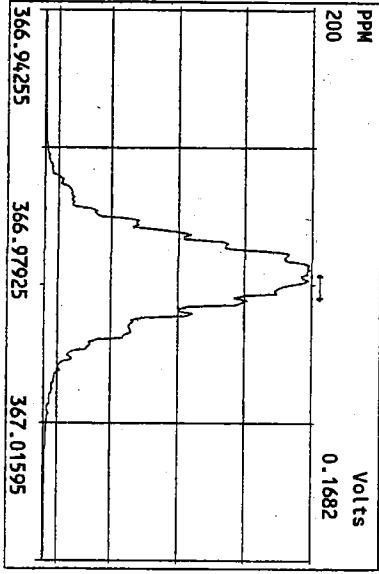
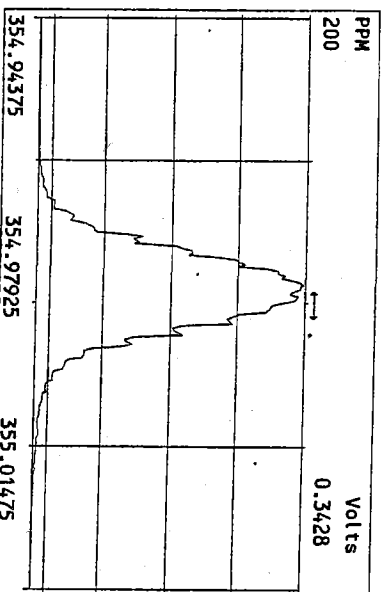
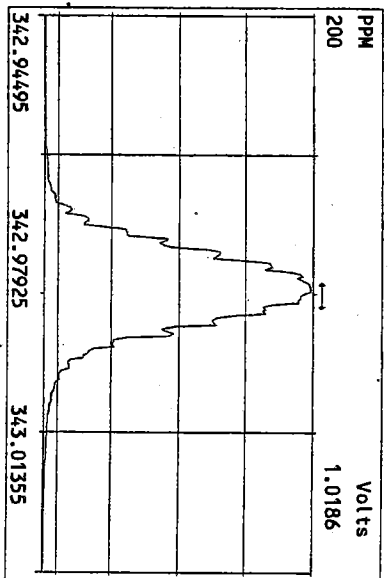
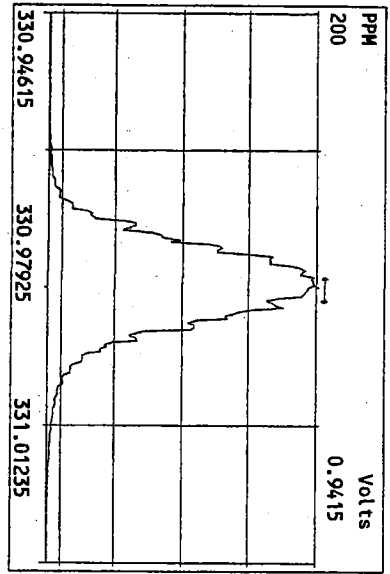
Data Backed Up: _____

Date: _____

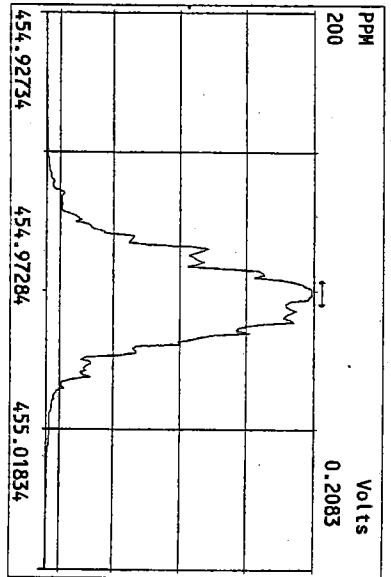
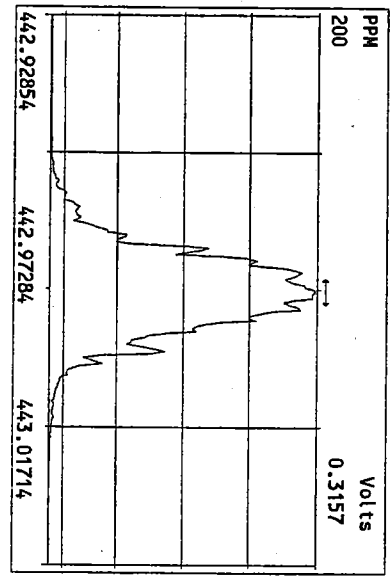
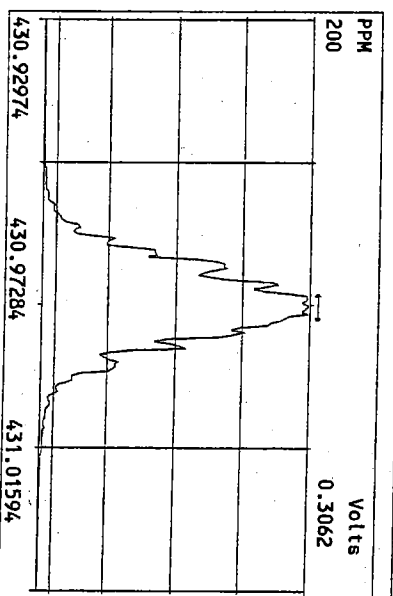
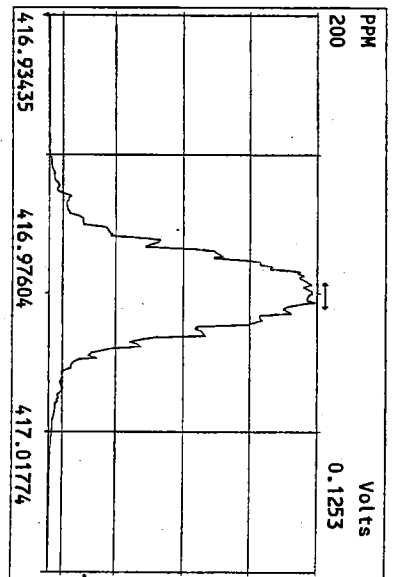
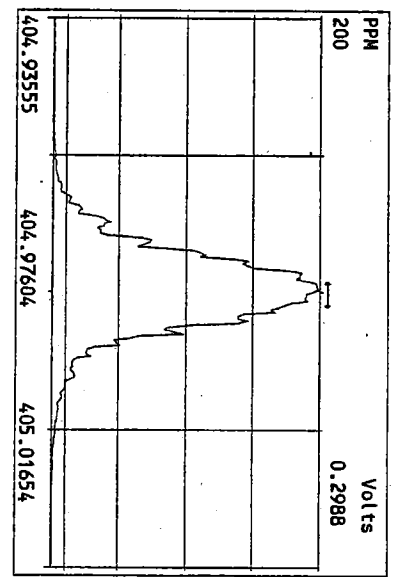
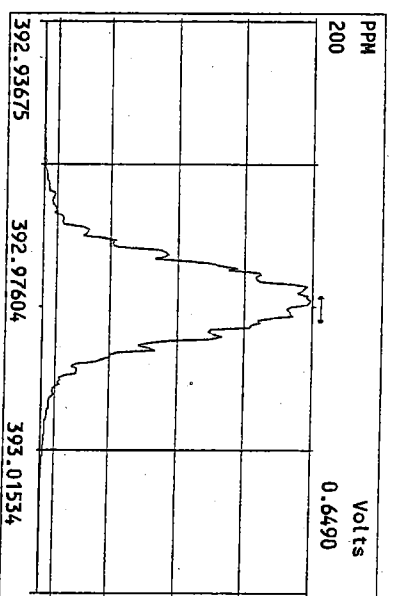
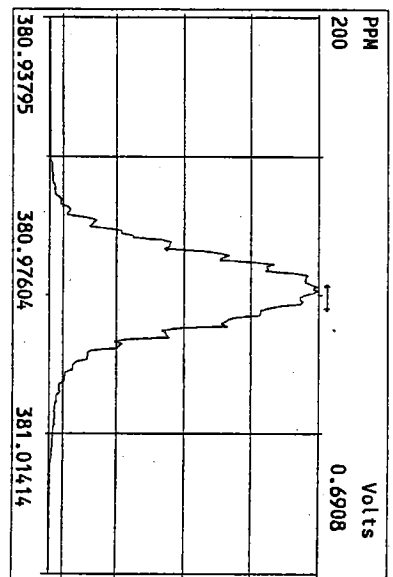
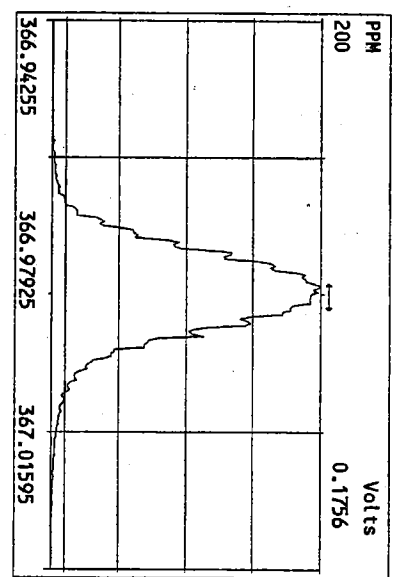
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Experiment:PCDD Function:1 Reference:PKF



Peak Locate Examination: 6-MAY-2010:12:53 File:06MAY10M
Experiment:PCDD Function:2 Reference:PFK

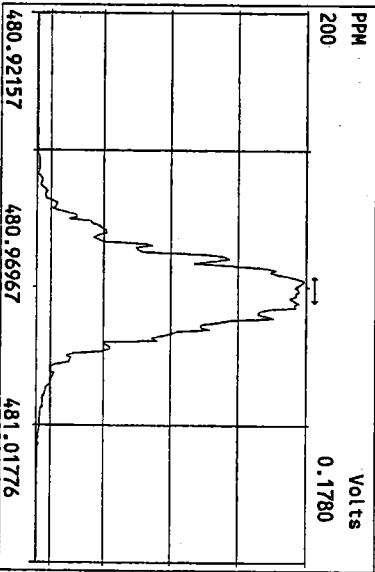
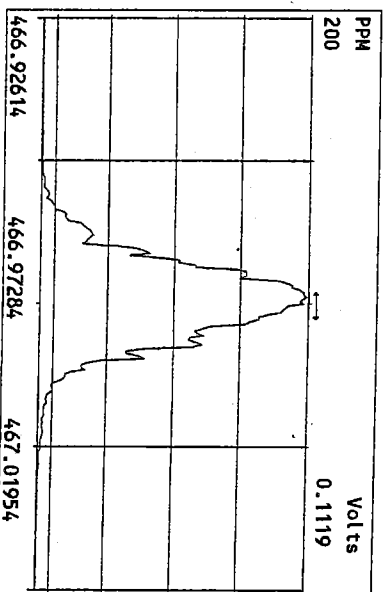
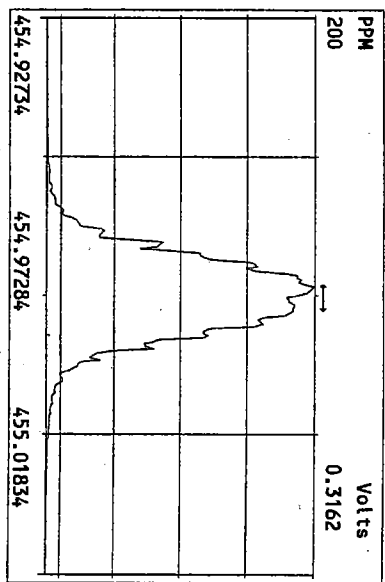
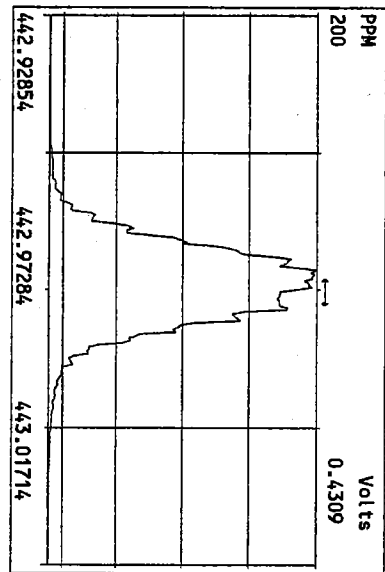
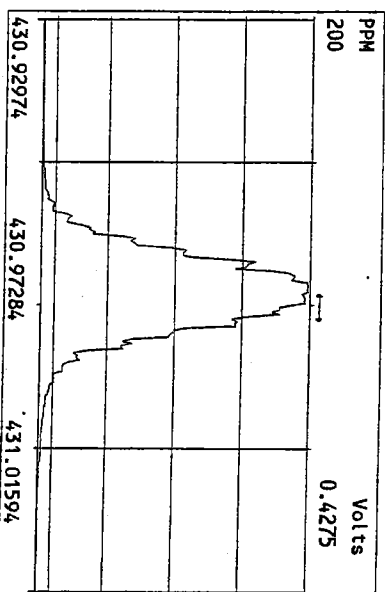
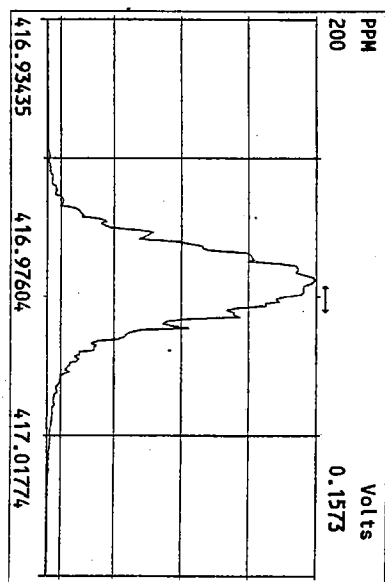
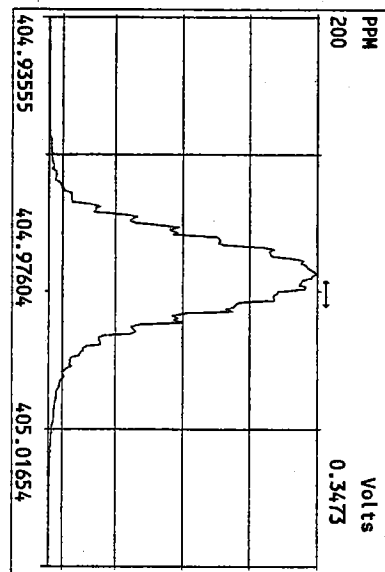


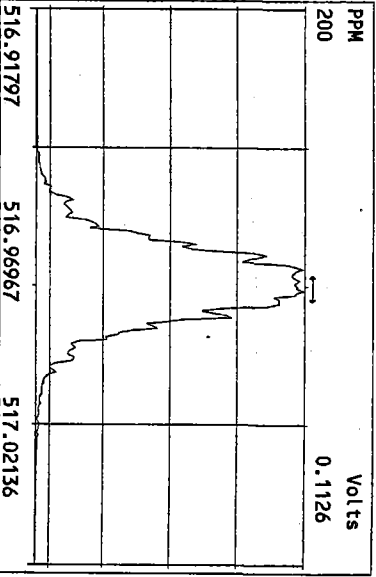
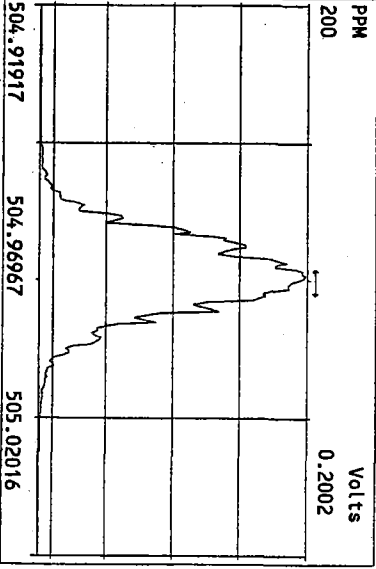
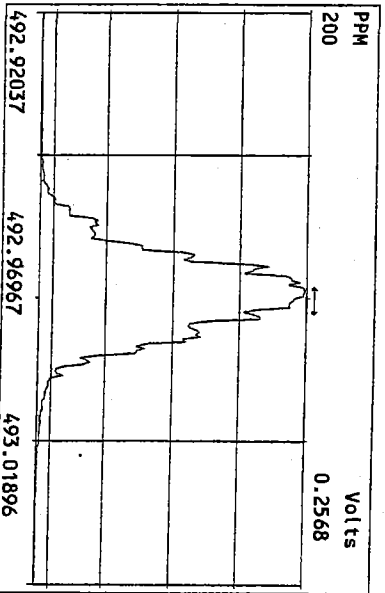
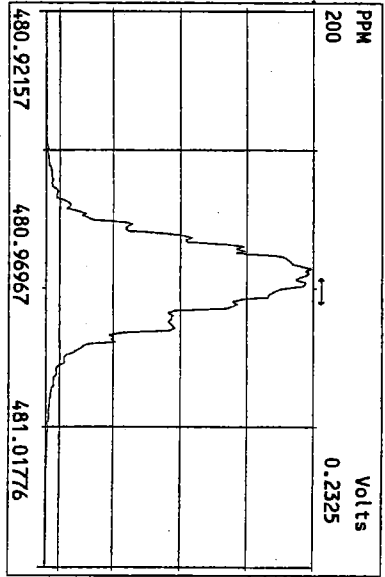
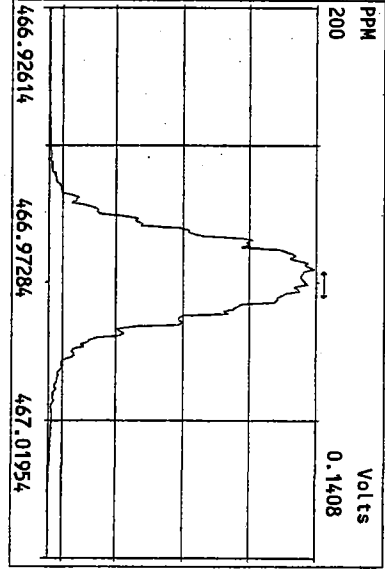
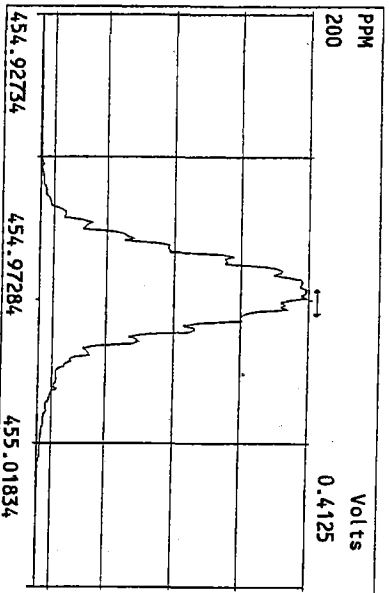
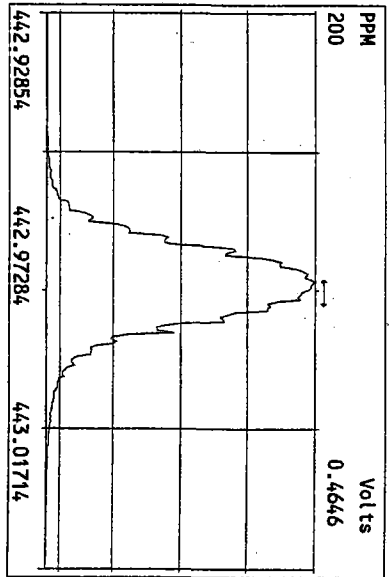
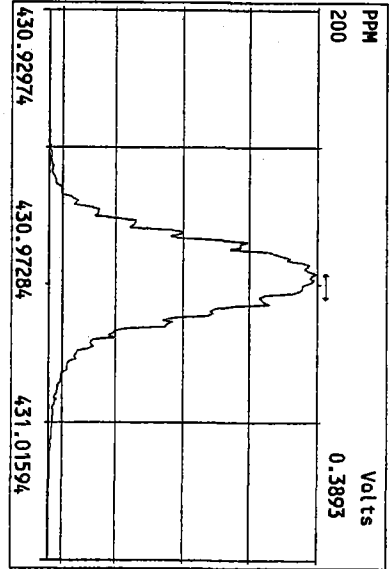
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 Experiment:PCDD Function:3 Reference:PFK



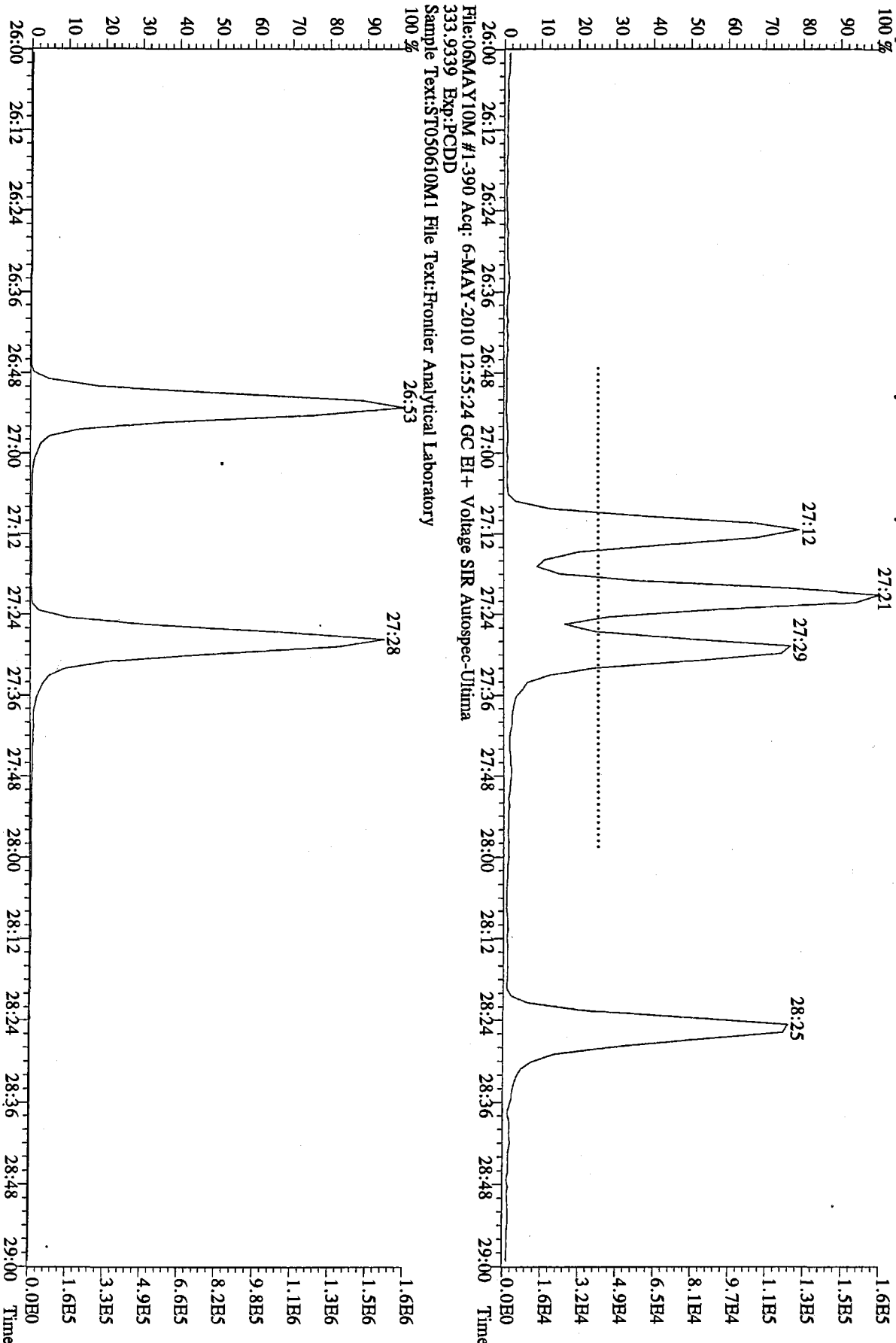
0008 : 00583

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Experiment:PCDD Function:4 Reference:PK

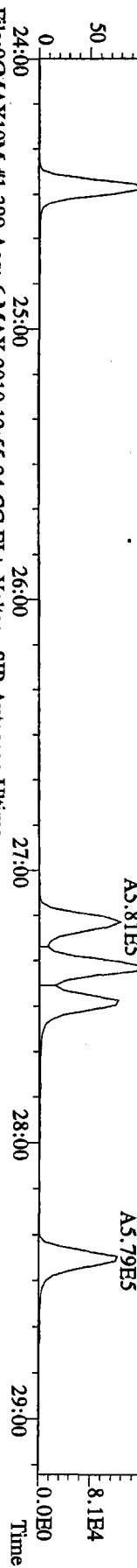




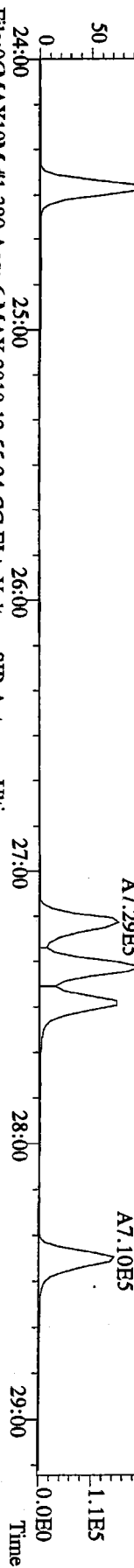
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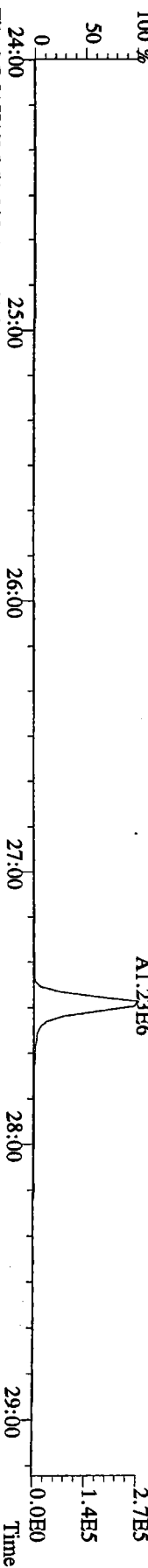
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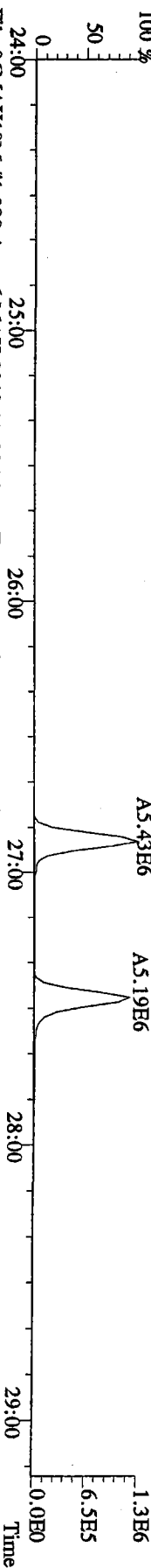
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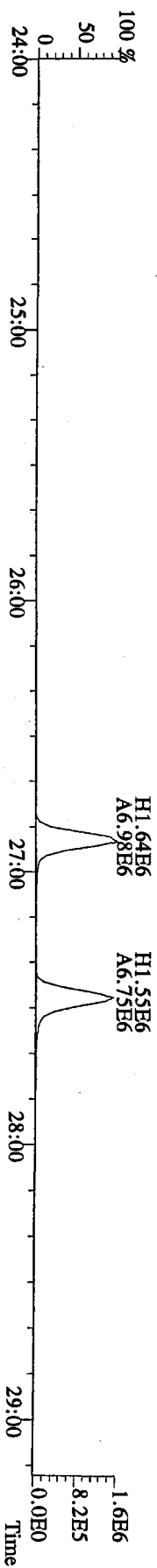
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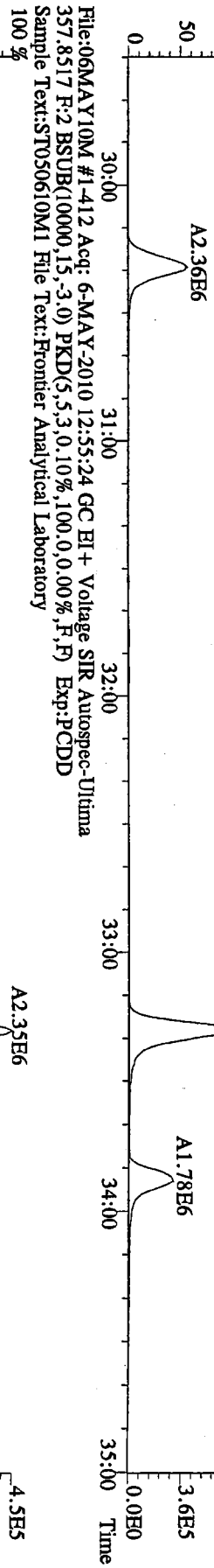
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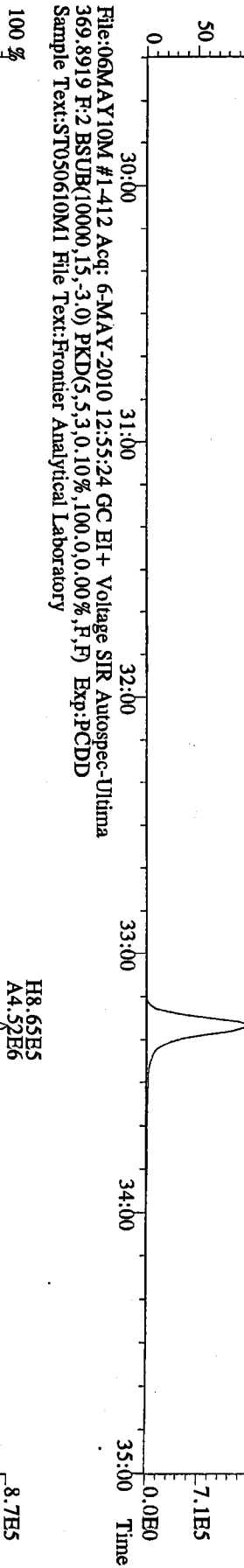
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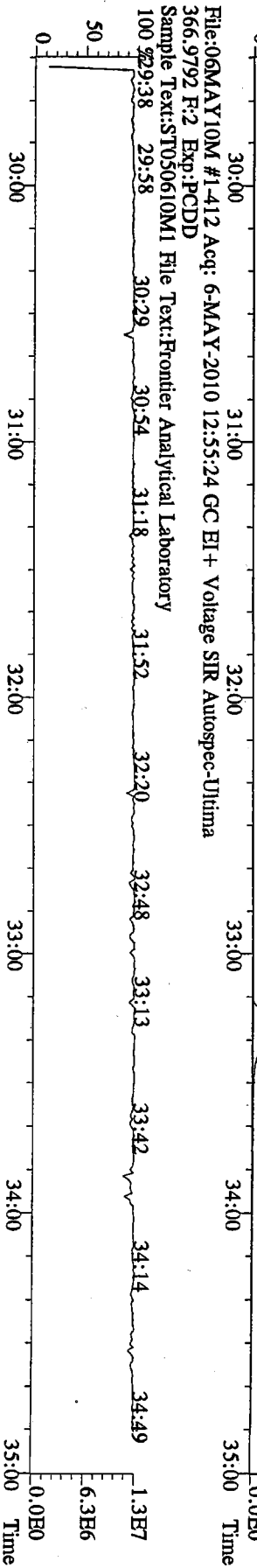
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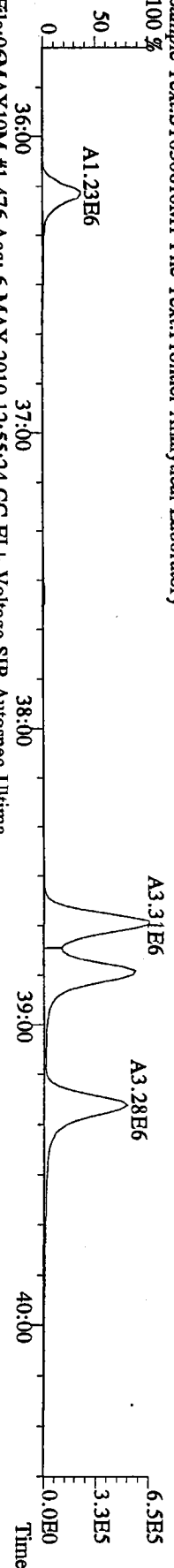
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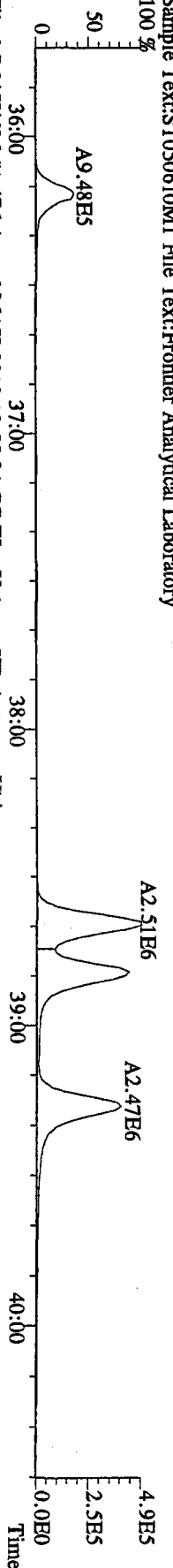
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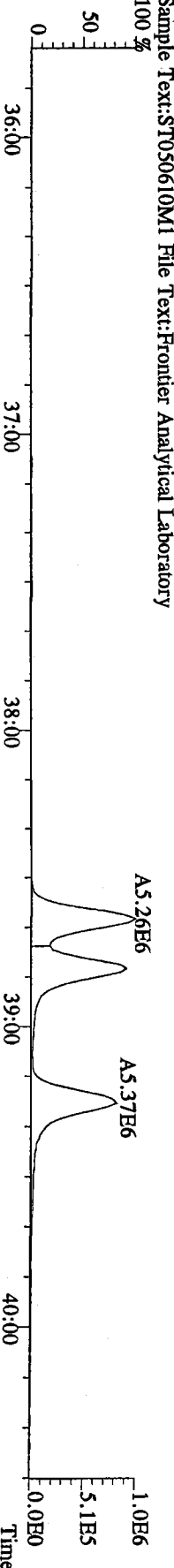
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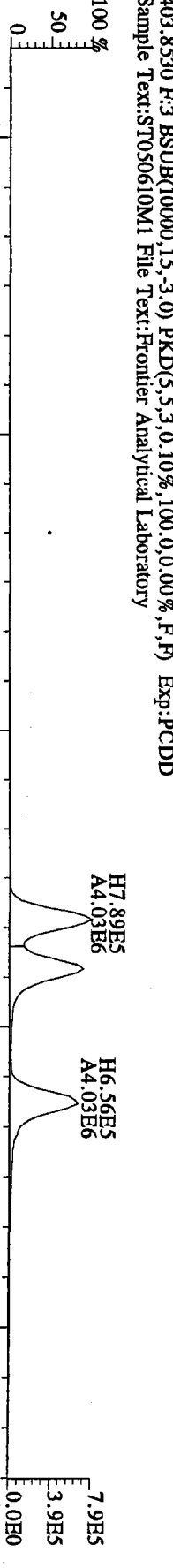
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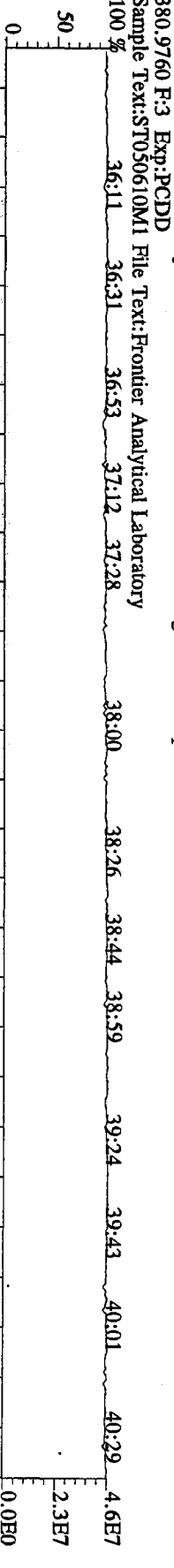
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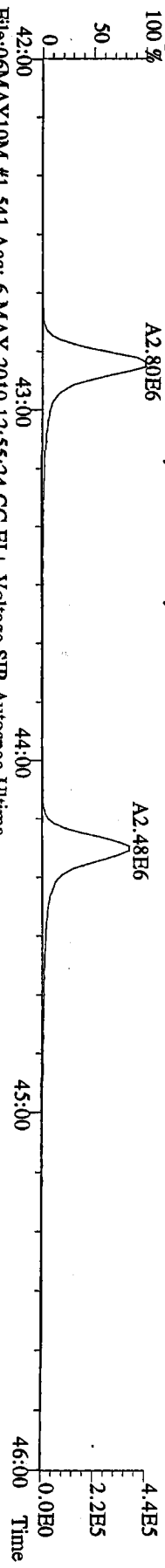
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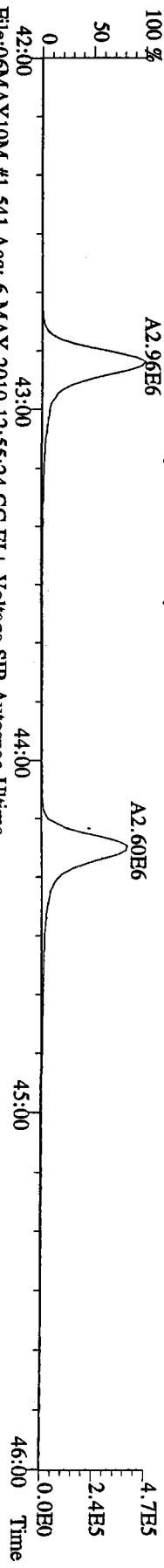
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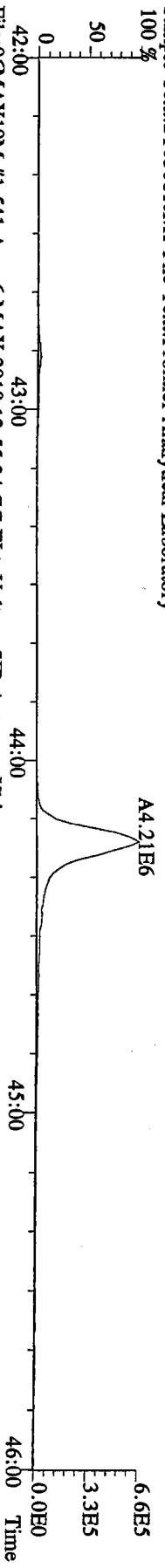
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Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



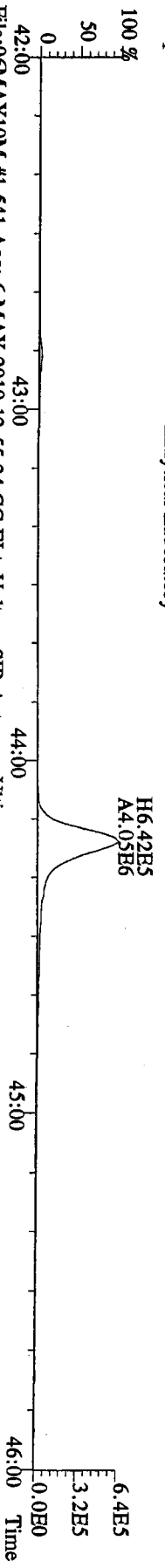
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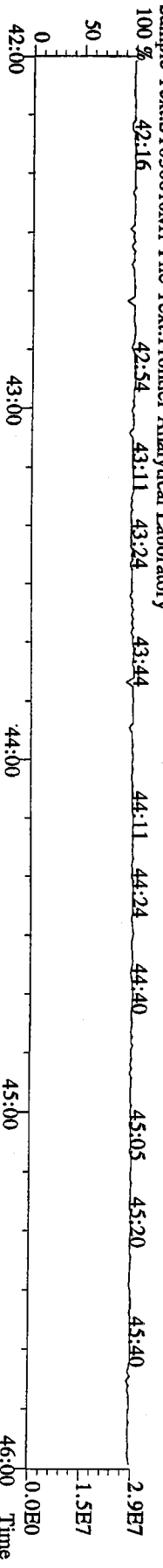
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Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



File:06MAY10M #1-541 Acq: 6-MAY-2010 12:55:24 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
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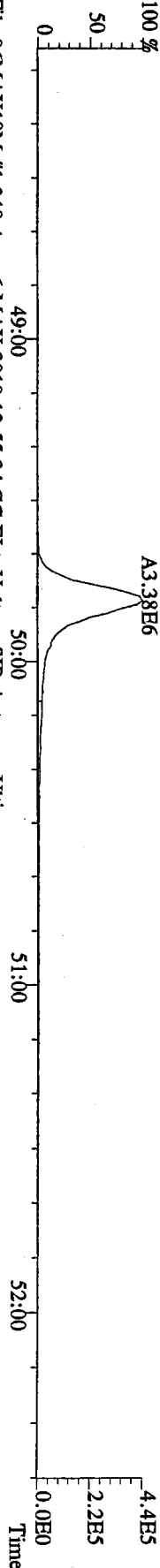


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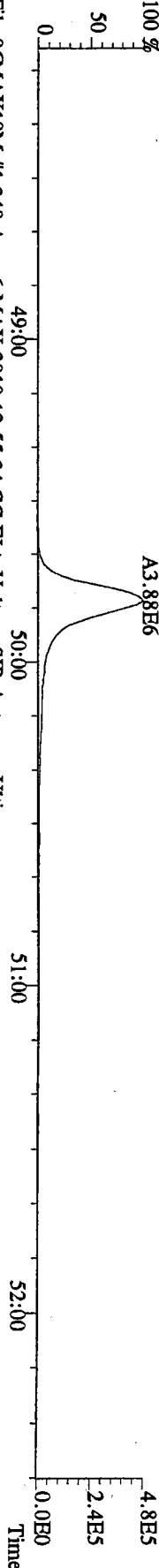


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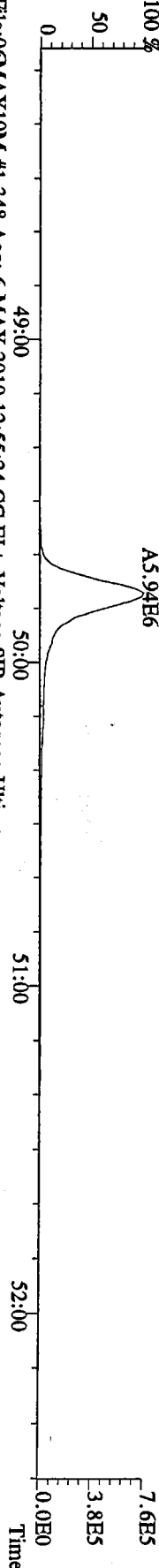
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457.7377 F:5 BSUB(10000,15,-3,0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



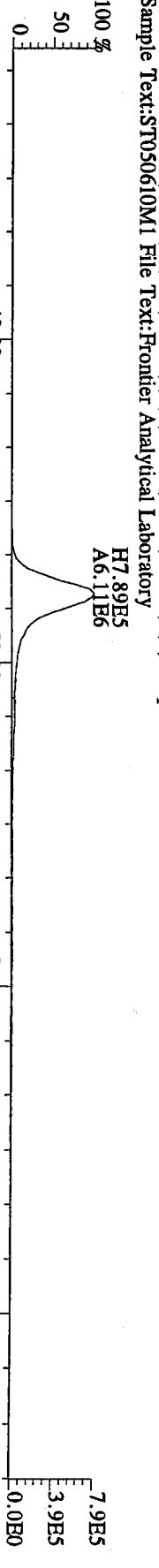
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Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



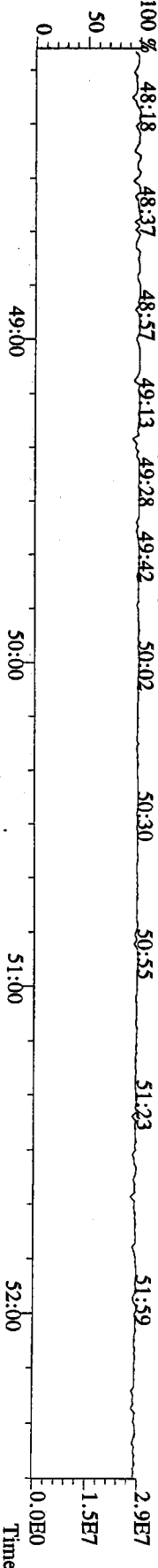
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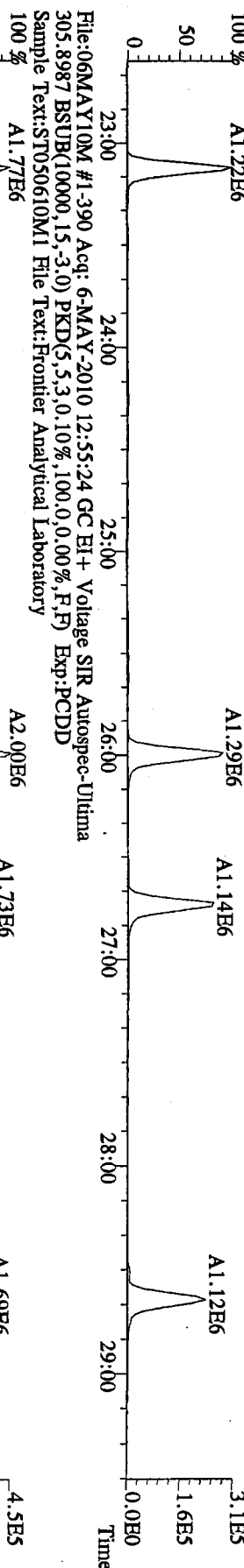
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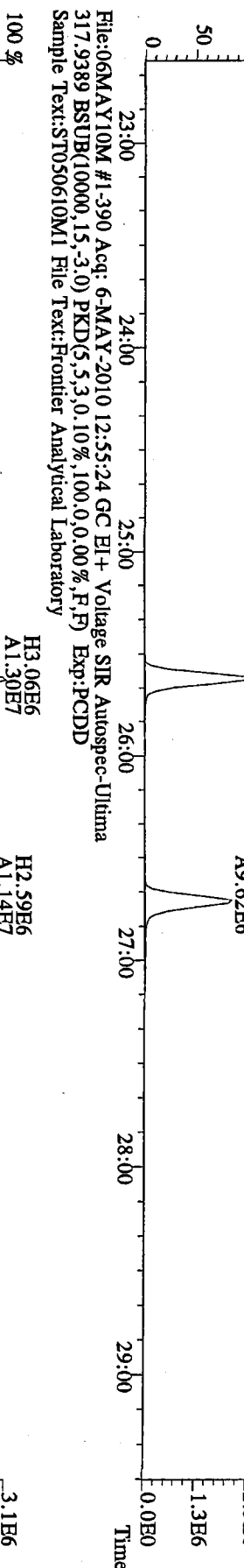
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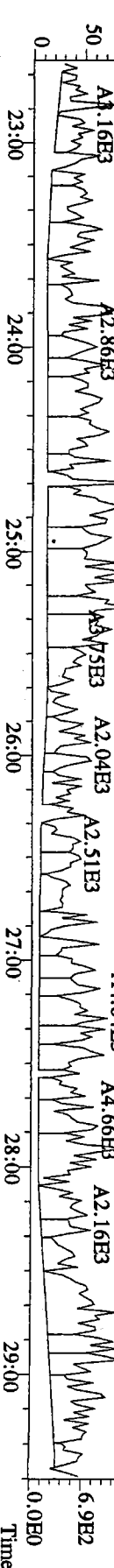
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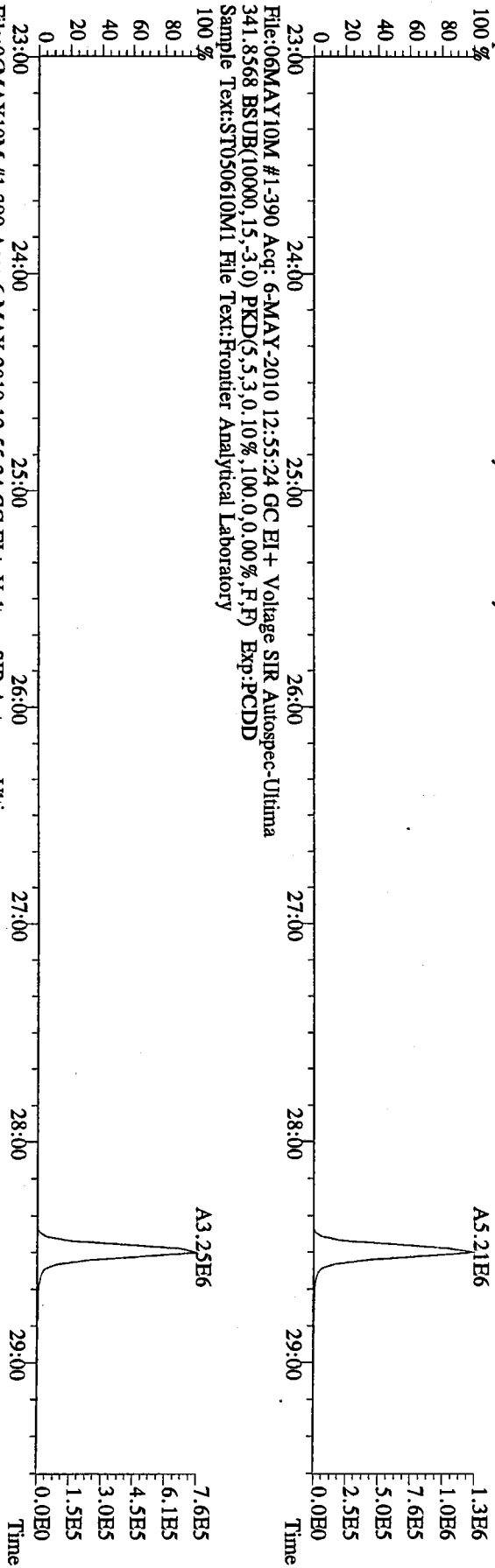
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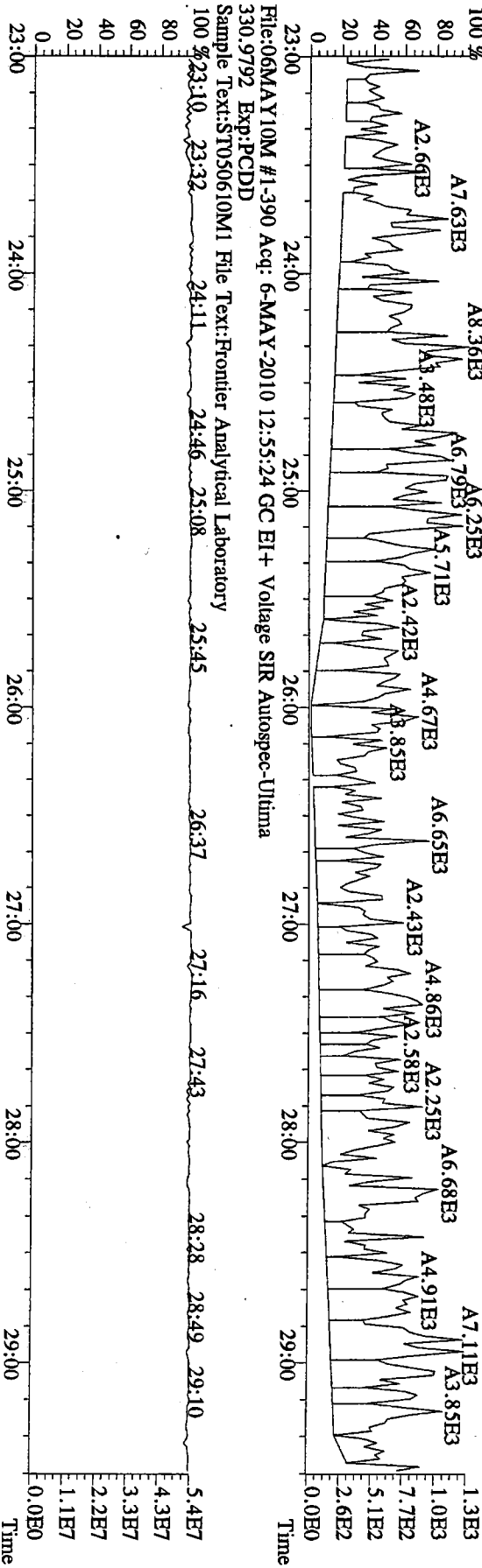
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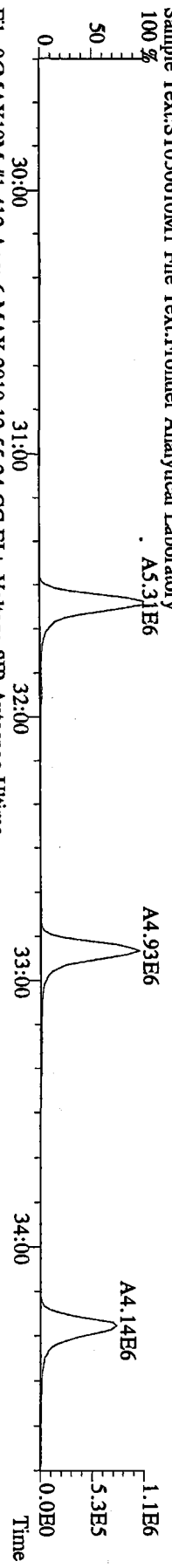
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 Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



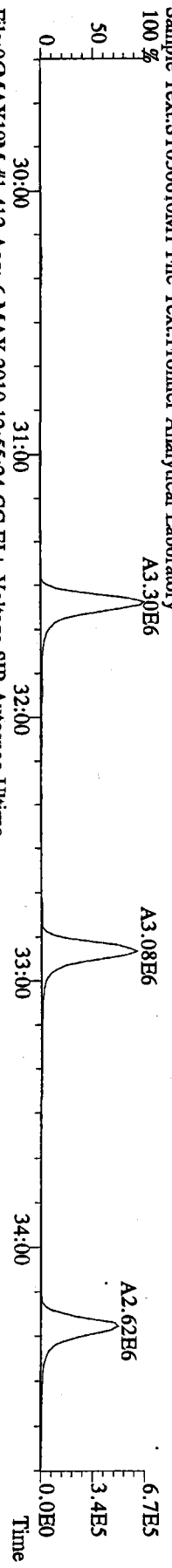
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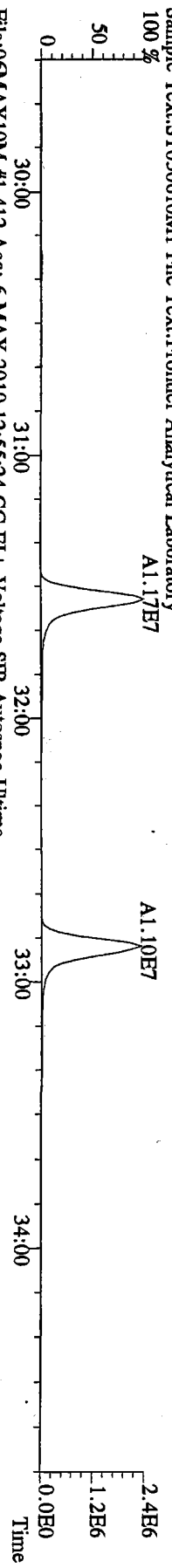
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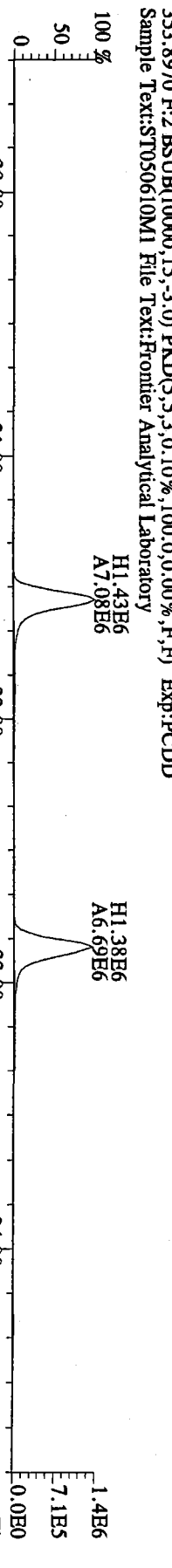
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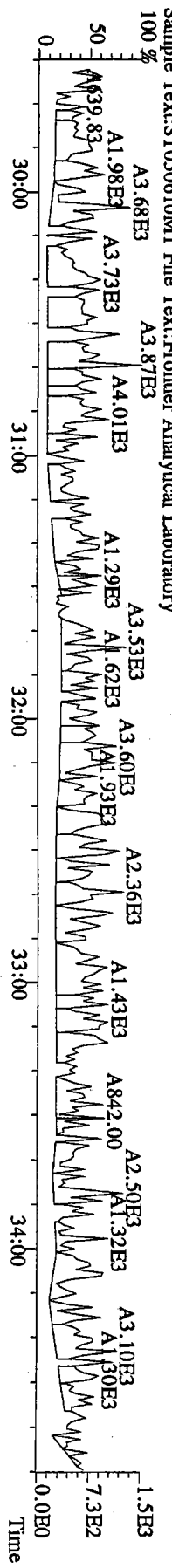
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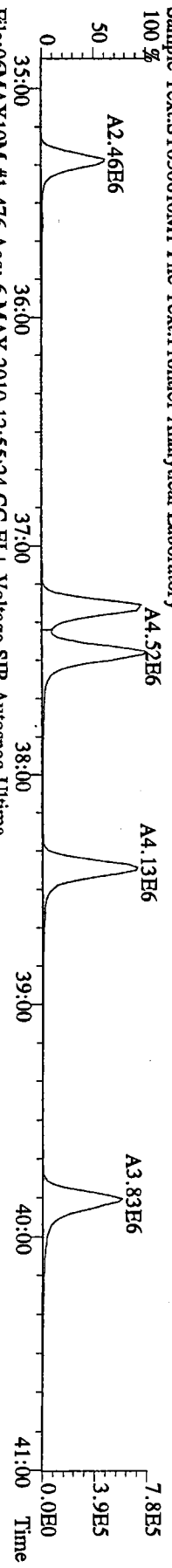
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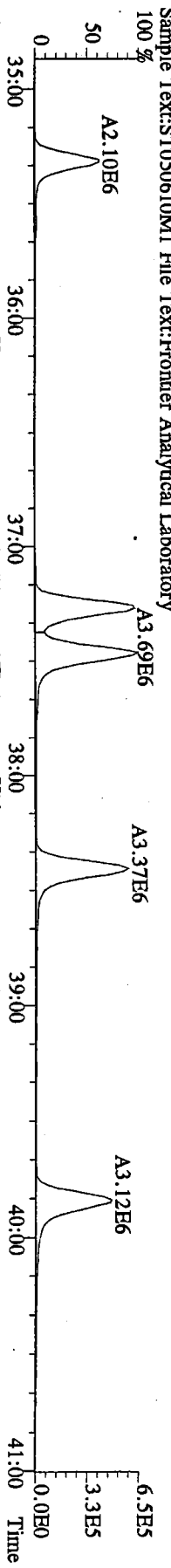
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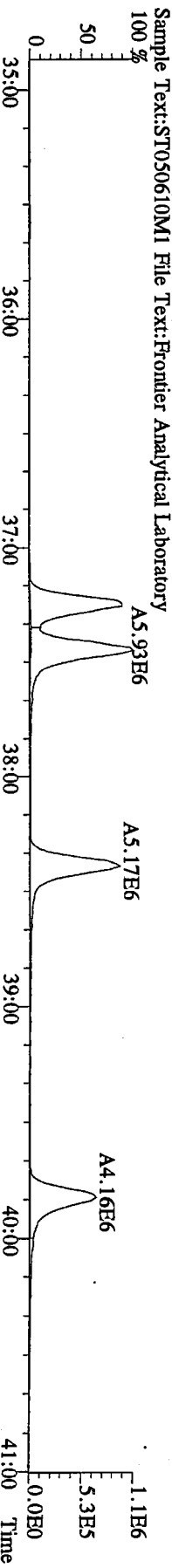
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373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



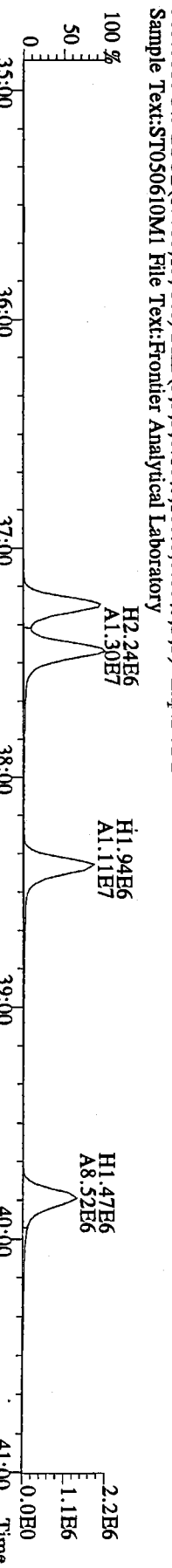
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375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



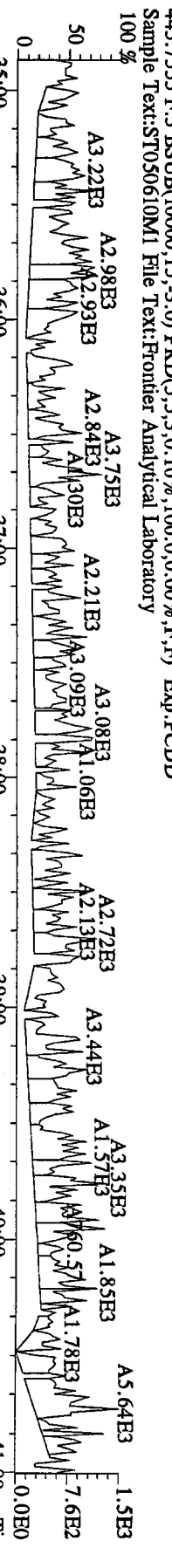
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383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



File:06MAY10M #1-476 Acq: 6-MAY-2010 12:55:24 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
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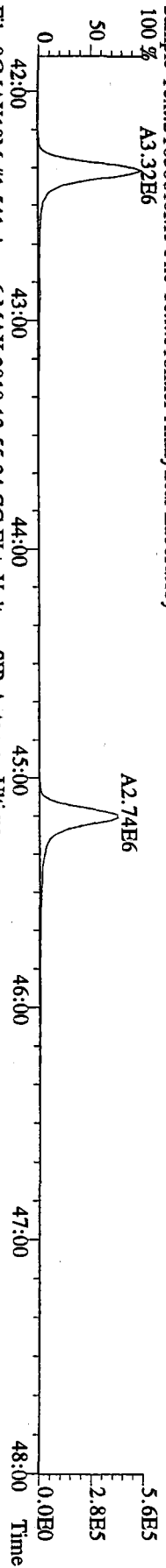


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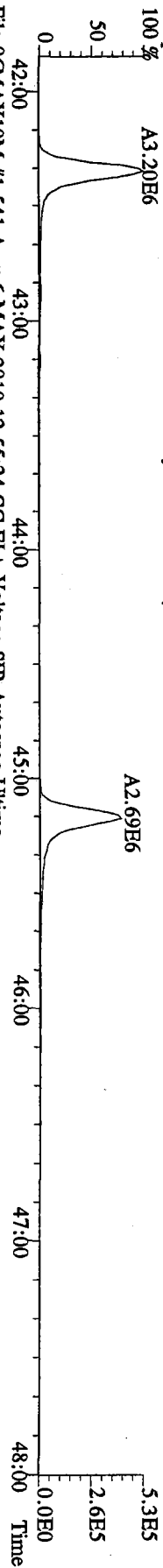


ST050610M1

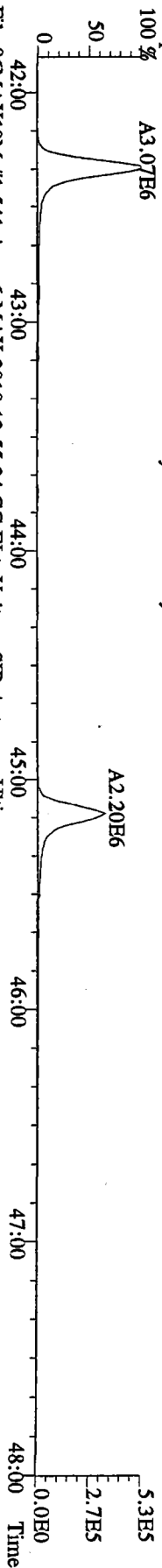
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 407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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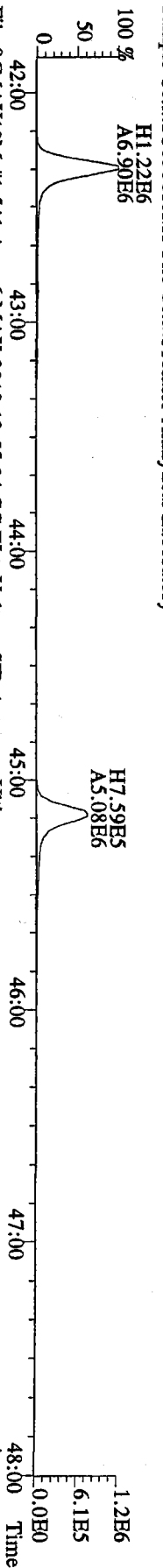
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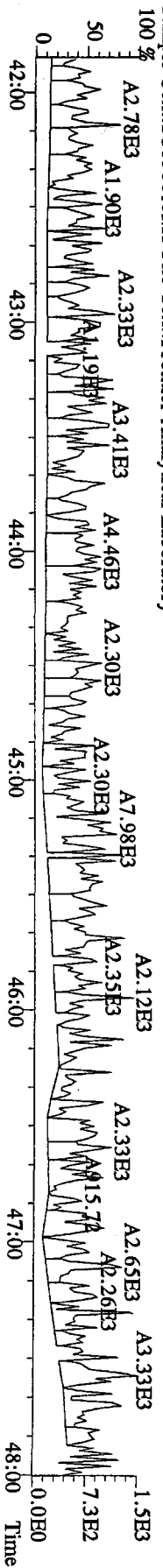
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 Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



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 419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
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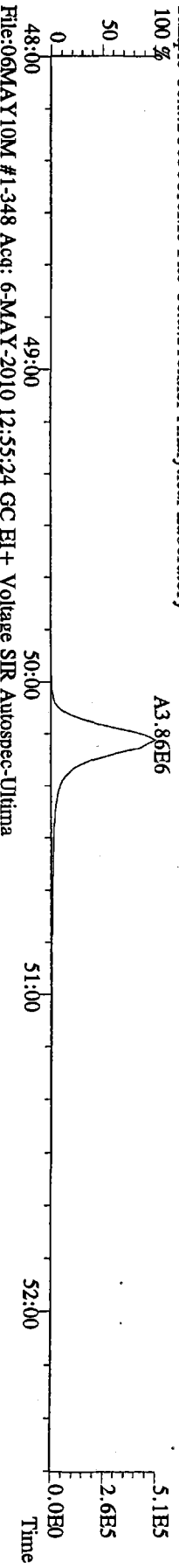


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 479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
 Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory

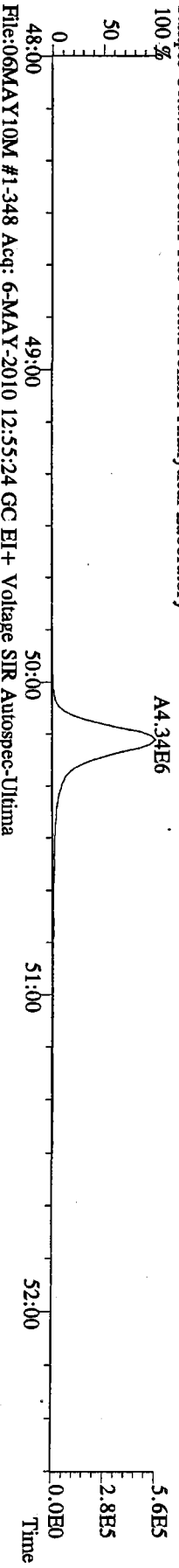


000000 : 000000

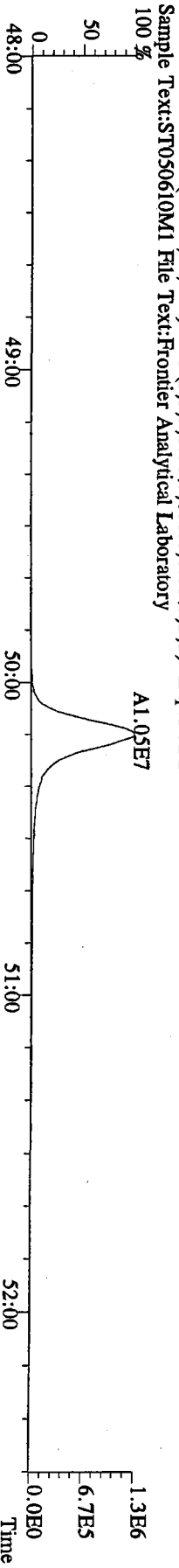
File:06MAY10M #1-348 Acq: 6-MAY-2010 12:55:24 GC EI+ Voltage SIR Autospec-Ultima
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



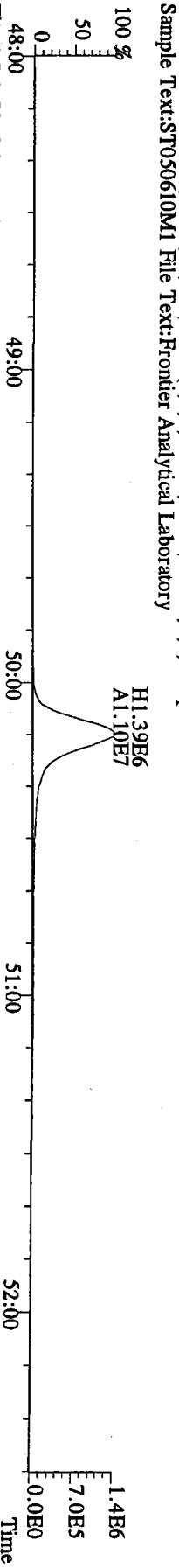
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443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



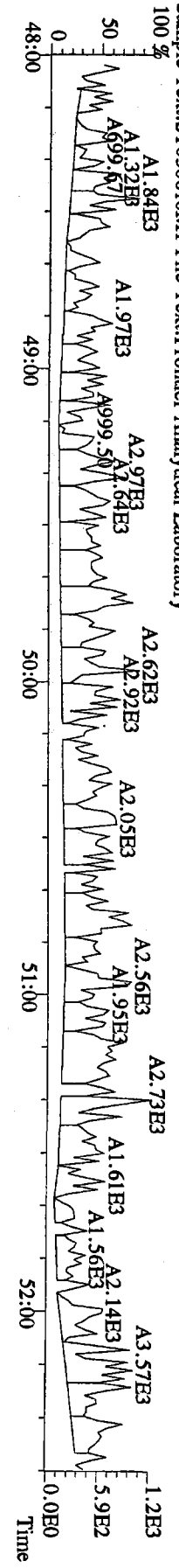
File:06MAY10M #1-348 Acq: 6-MAY-2010 12:55:24 GC EI+ Voltage SIR Autospec-Ultima
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory



File:06MAY10M #1-348 Acq: 6-MAY-2010 12:55:24 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:ST050610M1 File Text:Frontier Analytical Laboratory

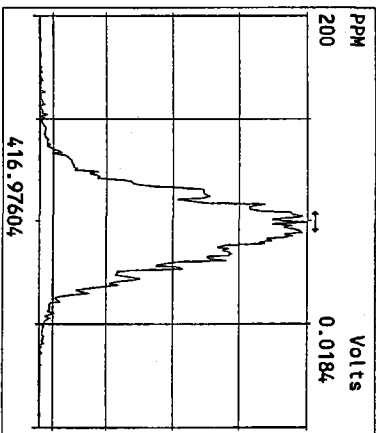
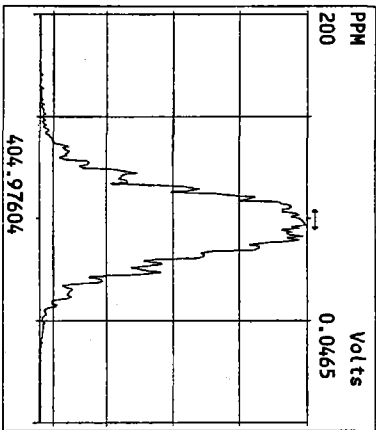
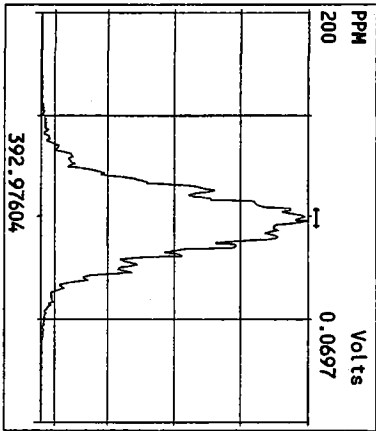
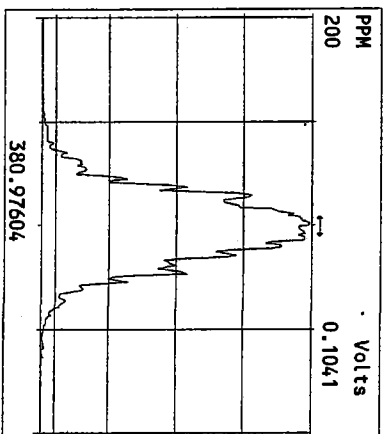
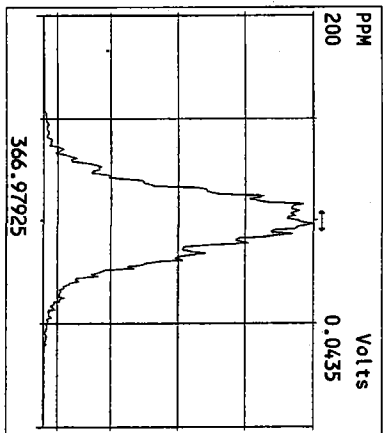
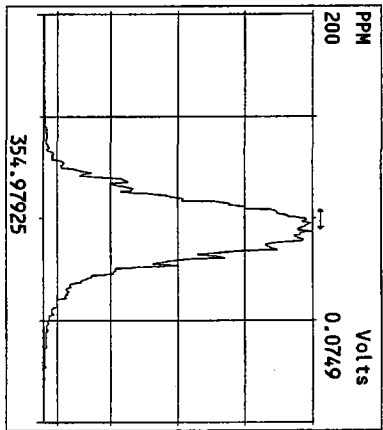
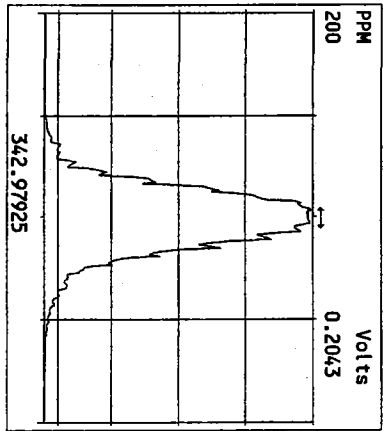
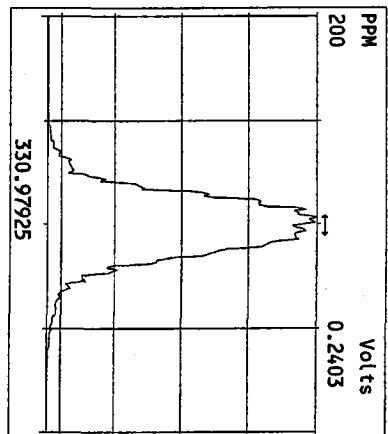
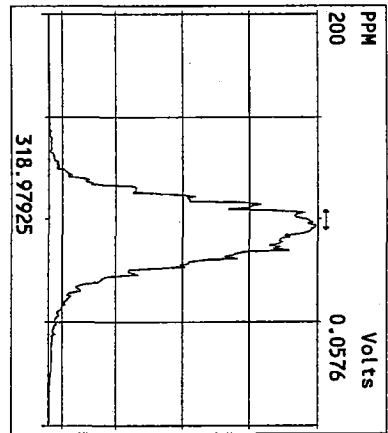
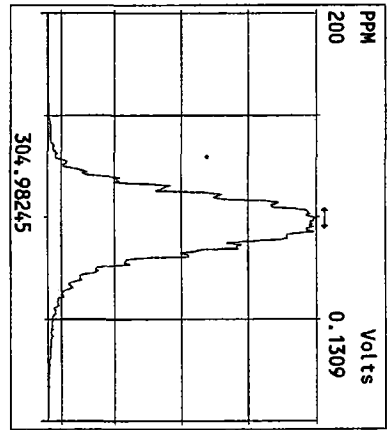
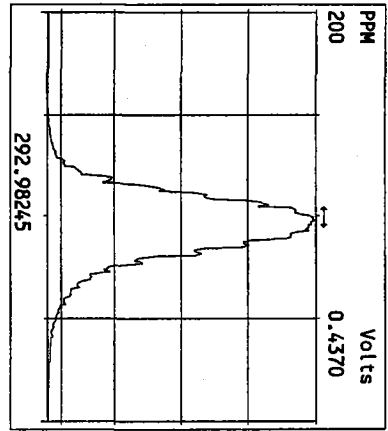


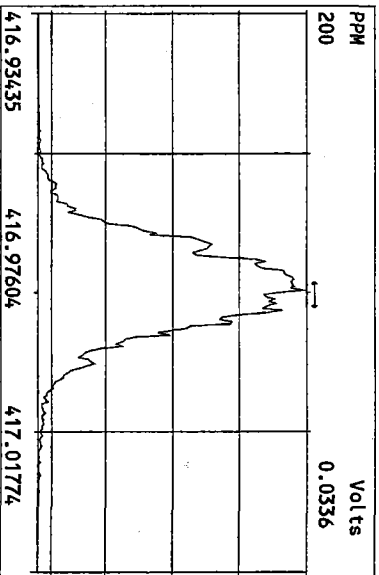
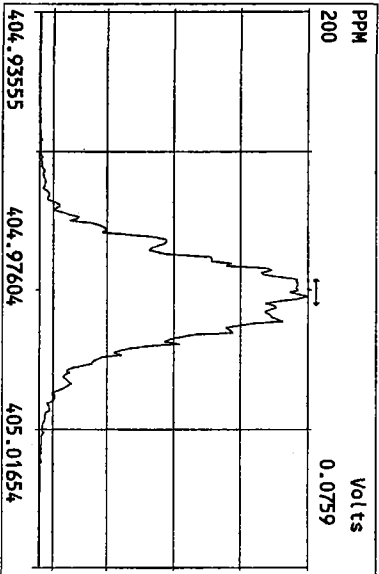
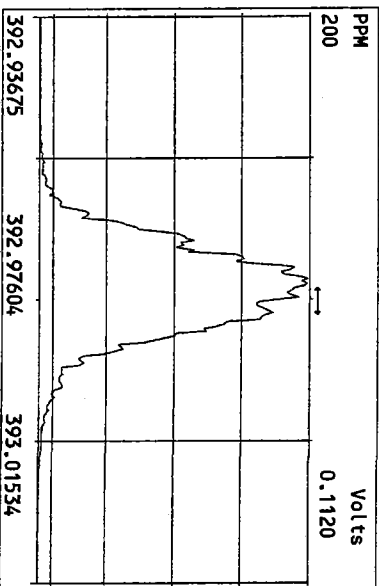
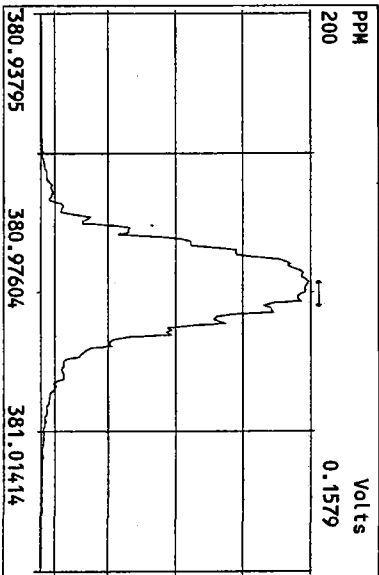
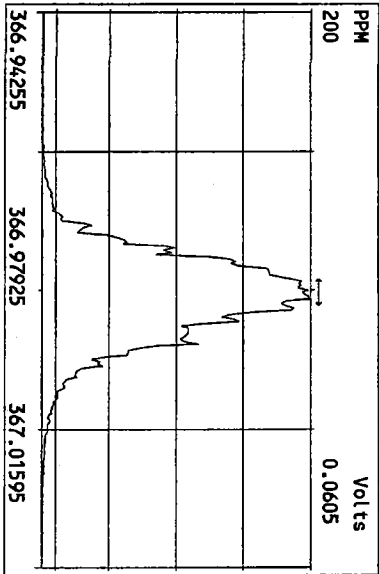
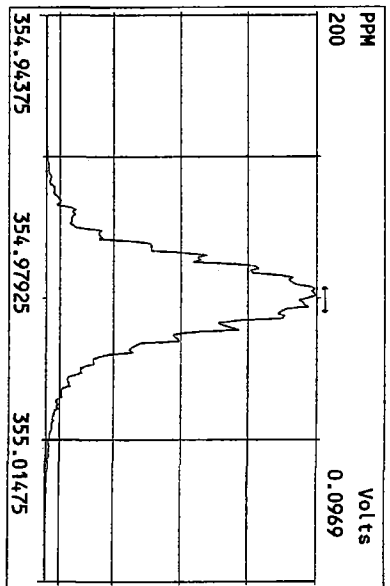
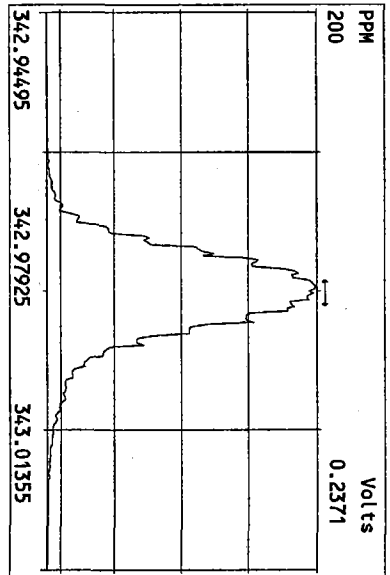
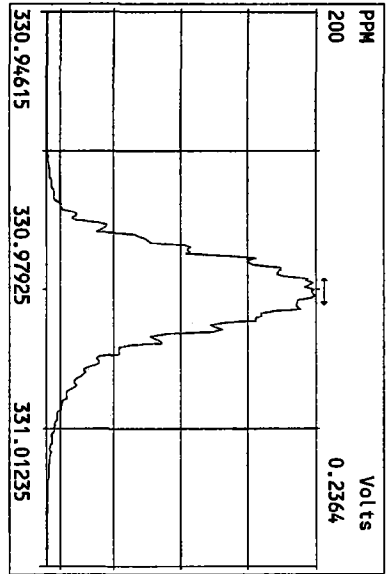
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513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,0,0%,F,F) Exp:PCDD
Sample Text:ST050610M1 File Text:Frontier Analytical Laboratory

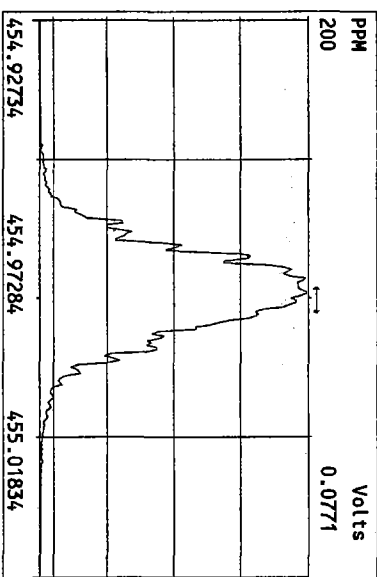
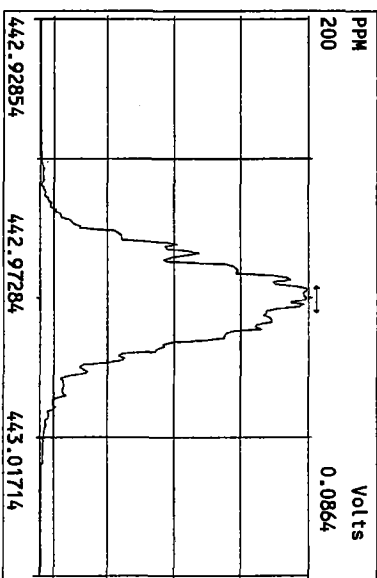
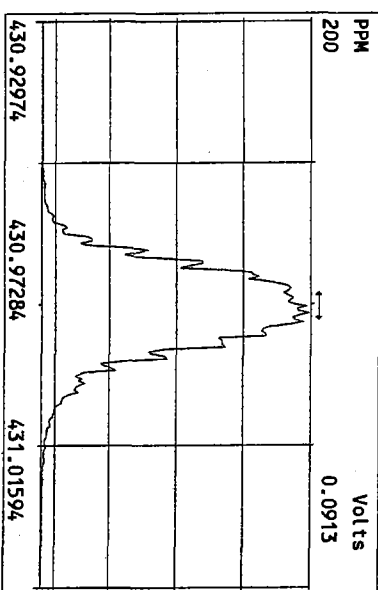
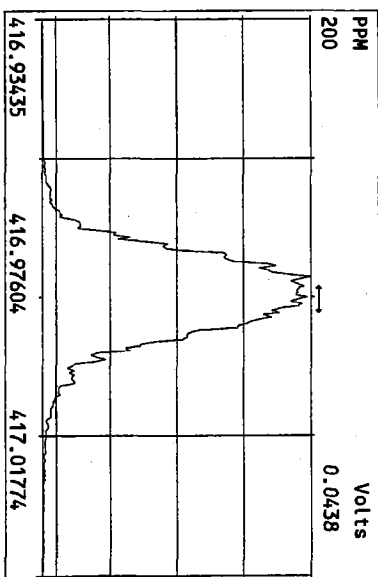
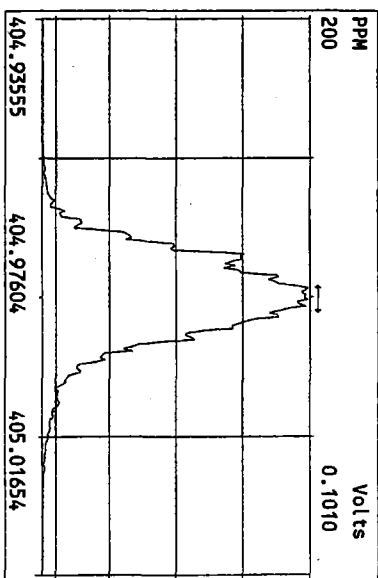
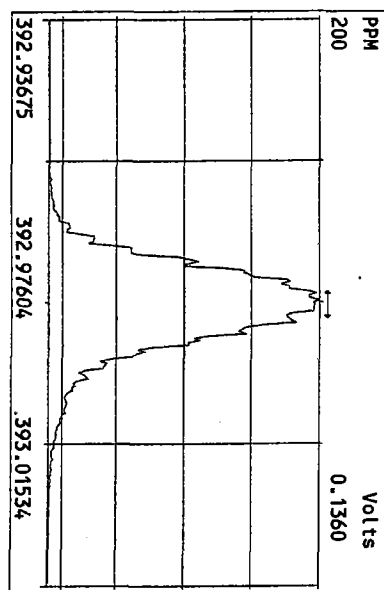
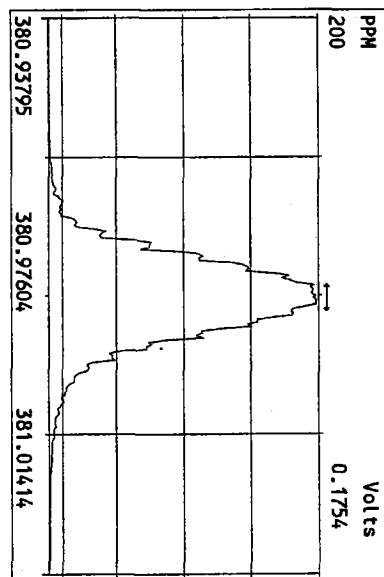
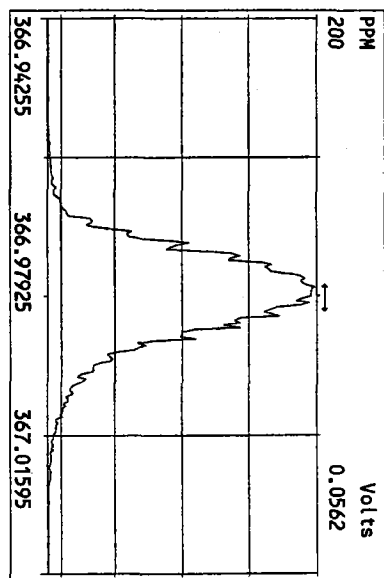


0008:0007

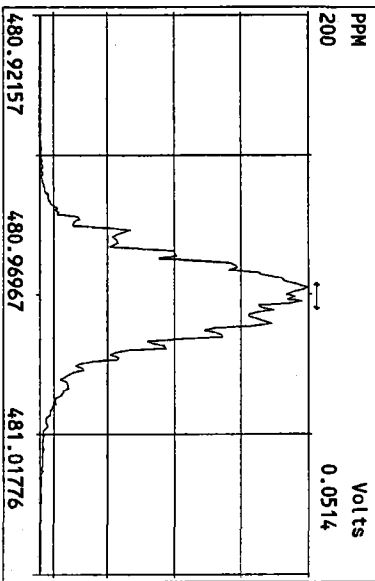
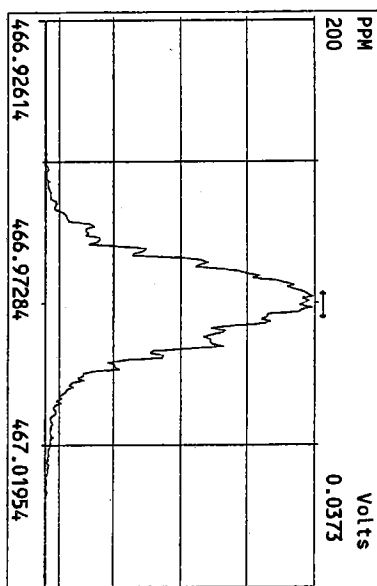
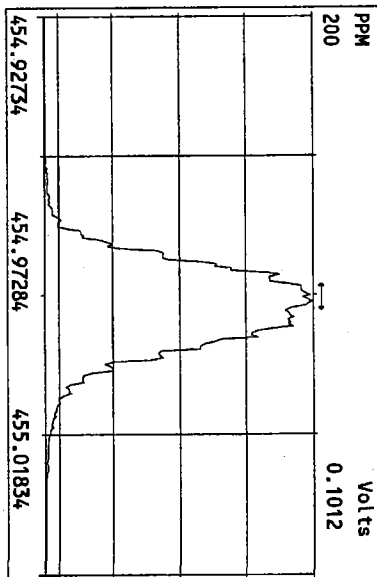
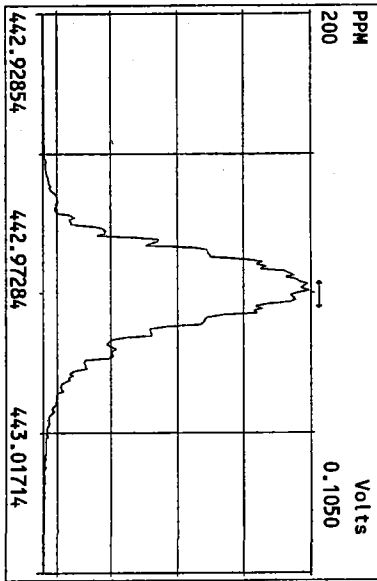
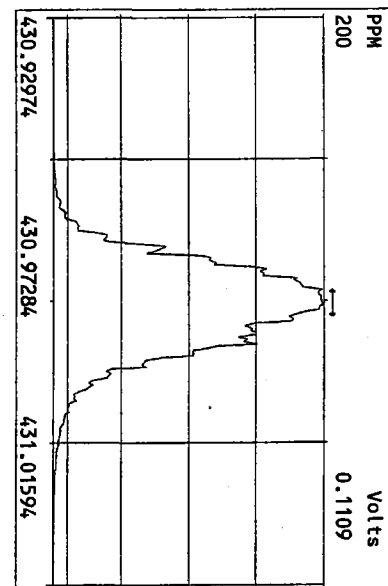
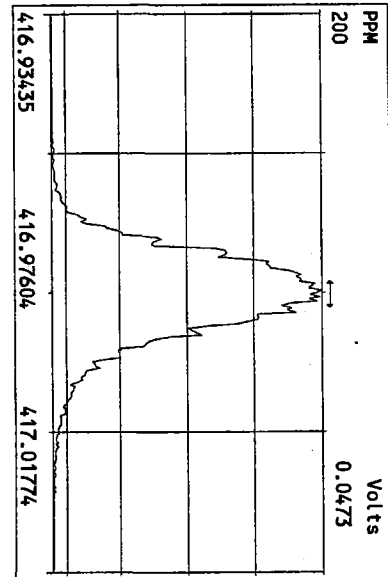
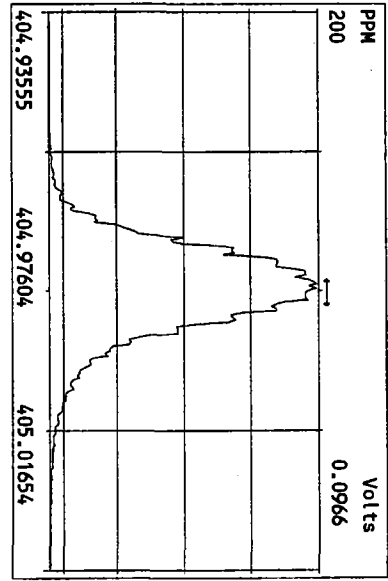
Peak Locate Examination: 7-MAY-2010:01:52 File:06MAY10M_RES_CHECK
Experiment:PCDD Function:1 Reference:PFK

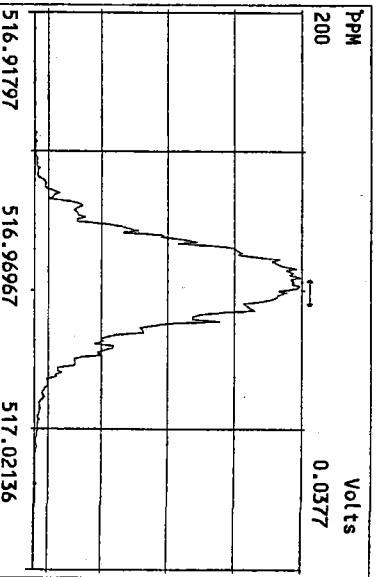
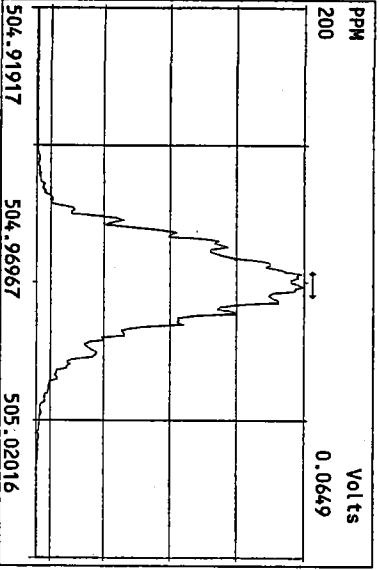
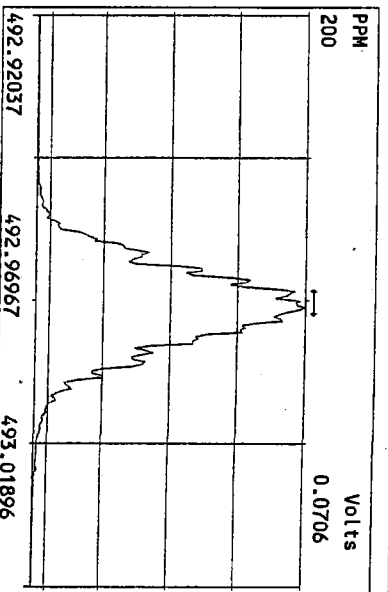
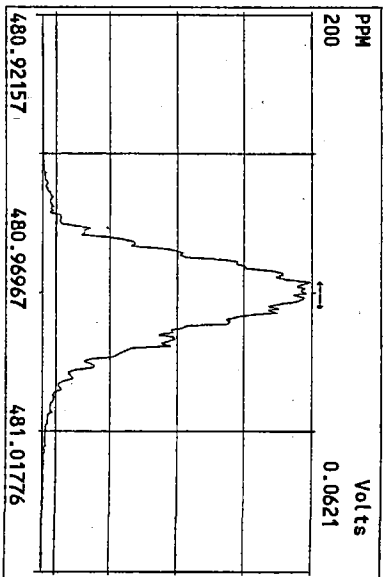
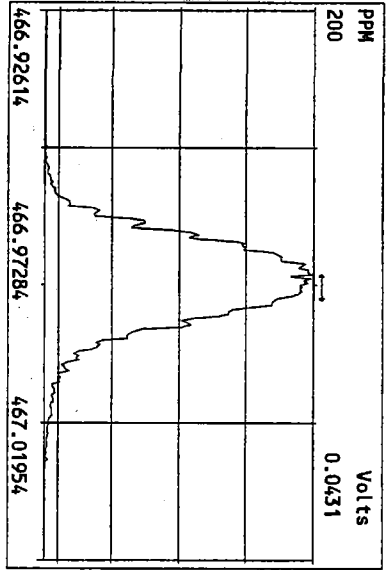
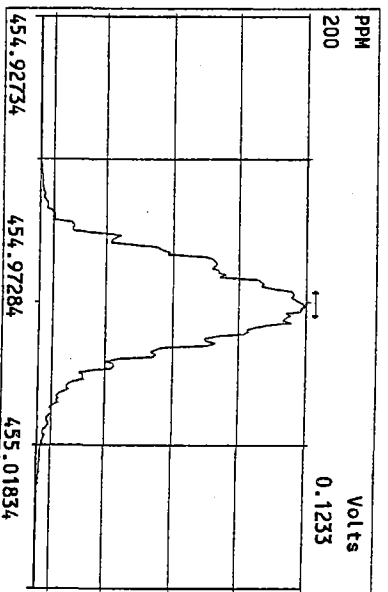
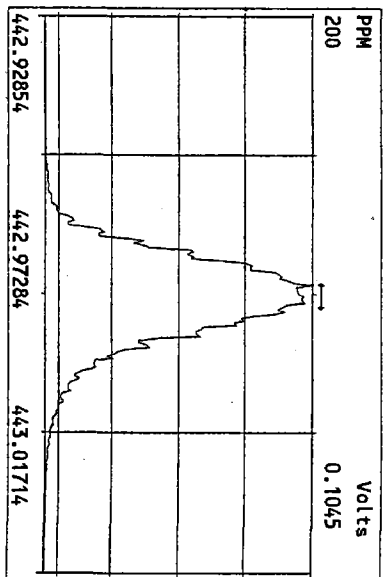
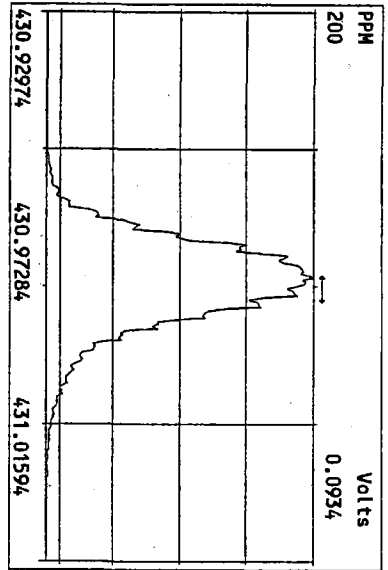






Peak Locate Examination: 7-MAY-2010:01:58 File:06MAY10M_RES_CHECK
Experiment:PCDD Function:4 Reference:PFK





USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4/14/10

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 06MAY10M Sam:14

Analysis Date: 7-MAY-10 00:54:44

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	9.11	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.32-1.78	y	45.0	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.32	1.05-1.43	y	43.2	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	44.3	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.31	1.05-1.43	y	42.9	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.92	0.88-1.20	y	52.5	43.0 - 58.0
OCDD	M+2/M+4	0.90	0.76-1.02	y	94.8	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.66	0.65-0.89	y	9.99	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	47.7	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	45.7	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	45.1	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.20	1.05-1.43	y	44.5	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	46.1	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	y	45.7	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88-1.20	y	45.8	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	43.2	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	85.3	63.0 - 159

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

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

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

Analyst: Date: 5/7/10

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Initial Calibration Date: 4/14/10

Instrument ID: FAL3

GC Column ID: DB5

VER Data Filename: 06MAY10M Sam:14

Analysis Date: 7-MAY-10 00:54:44

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	0.77	0.65-0.89	y	94.1	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.66	1.32-1.78	y	73.2	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	107	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	114	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.02	0.88-1.20	y	81.0	72.0 - 138
13C-OCDD	M+2/M+4	1.01	0.76-1.02	y	157	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.85	0.65-0.89	y	90.6	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.67	1.32-1.78	y	76.7	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.63	1.32-1.78	y	77.7	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.46	0.43-0.59	y	96.7	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.45	0.43-0.59	y	100	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.47	0.43-0.59	y	95.3	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.47	0.43-0.59	y	87.8	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	80.3	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	80.7	77.0 - 129
13C-OCDF	M+2/M+4	0.93	0.76-1.02	y	159	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					8.31	7.80 - 12.8

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

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

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

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

Analyst: Date: 5/7/10

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: 4/14/10
RT Window Data Filename: 06MAY10M Sam:14 Analysis Date: 7-MAY-10 Time: 00:54:44
DB-5 IS Data Filename: 06MAY10M Sam:14 Analysis Date: 7-MAY-10 Time: 00:54:44
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)	30:20	1,3,4,6,8-PeCDF (F)	28:30
1,2,3,8,9-PeCDD (L)	33:53	1,2,3,8,9-PeCDF (L)	34:19
1,2,4,6,7,9-HxCDD (F)	36:12	1,2,3,4,6,8-HxCDF (F)	35:19
1,2,3,7,8,9-HxCDD (L)	39:16	1,2,3,7,8,9-HxCDF (L)	39:51
1,2,3,4,6,7,9-HpCDD (F)	42:52	1,2,3,4,6,7,8-HpCDF (F)	42:21
1,2,3,4,6,7,8-HpCDD (L)	44:15	1,2,3,4,7,8,9-HpCDF (L)	45:10

(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: 

Date: 5/7/10

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory

Episode No.:

Contract No.:

SAS No.:

Init. Cal. Date: 4/14/10

Instrument ID: FAL3

GC Column ID: DB5

Analysis Date: 7-MAY-10 00:54:44

CS3 or VER Data Filename: 06MAY10M

Sam:14

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	1.002	0.999-1.003
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	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: *C* Date: 5/7/10

USEPA - ITD

FORM 68
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:
 Contract No.: SAS No.: Init. Cal. Date: 4/14/10
 Instrument ID: FAL3 GC Column ID: DB5
 Analysis Date: 7-MAY-10 00:54:44 CS3 or VER Data Filename: 06MAY10M Sam:14

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.001	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.001	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.012	1.000-1.019
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	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	1.000	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	1.000	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		1.015	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		1.150	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: Date: 5/7/10

FAL ID: ST050610M2 Filename: 06MAY10M Sam:14 Acquired: 7-MAY-10 00:54:44 ICal: PCDDFAL3-4-14-10
 Client ID: 1613 CS3 090918J ConCal: ST050610M1 EndCal: ST050610M2

Results: GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 90.6 WHO 1998 Tox: 113 WHO 2005 Tox: 103

Name	Resp	RA	RT	RRF	Conc	Qual	Fac Noise-1	Noise-2	DL	103
2,3,7,8-TCDD	1.52e+06	0.80 y	27:30	1.12	9.11	2.50	-	-	*	
1,2,3,7,8-PeCDD	6.45e+06	1.56 y	33:18	1.07	45.0	2.50	-	-	*	
1,2,3,4,7,8-HxCDD	6.07e+06	1.32 y	38:40	1.39	43.2	2.50	-	-	*	
1,2,3,6,7,8-HxCDD	5.76e+06	1.26 y	38:50	1.36	44.3	2.50	-	-	*	
1,2,3,7,8,9-HxCDD	5.90e+06	1.31 y	39:16	1.40	42.9	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDD	4.61e+06	0.92 y	44:15	1.14	52.5	2.50	-	-	*	
OCDD	6.41e+06	0.90 y	49:48	1.22	94.8	2.50	-	-	*	
2,3,7,8-TCDF	3.14e+06	0.66 y	26:45	1.29	9.99	2.50	-	-	*	
1,2,3,7,8-PeCDF	9.15e+06	1.59 y	31:34	0.93	47.7	2.50	-	-	*	
2,3,4,7,8-PeCDF	8.42e+06	1.58 y	32:53	0.93	45.7	2.50	-	-	*	
1,2,3,4,7,8-HxCDF	7.97e+06	1.23 y	37:16	1.07	45.1	2.50	-	-	*	
1,2,3,6,7,8-HxCDF	8.19e+06	1.20 y	37:28	0.97	44.5	2.50	-	-	*	
2,3,4,6,7,8-HxCDF	7.66e+06	1.23 y	38:25	1.04	46.1	2.50	-	-	*	
1,2,3,7,8,9-HxCDF	6.79e+06	1.24 y	39:51	1.15	45.7	2.50	-	-	*	
1,2,3,4,6,7,8-HpCDF	5.88e+06	1.04 y	42:21	1.37	45.8	2.50	-	-	*	
1,2,3,4,7,8,9-HpCDF	5.26e+06	1.02 y	45:10	1.62	43.2	2.50	-	-	*	
OCDF	7.11e+06	0.90 y	50:11	0.85	85.3	2.50	-	-	*	
										Rec
13C-2,3,7,8-TCDD	1.49e+07	0.77 y	27:28	0.98	94.1					94.1
13C-1,2,3,7,8-PeCDD	1.34e+07	1.66 y	33:17	1.14	73.2					73.2
13C-1,2,3,4,7,8-HxCDD	1.01e+07	1.29 y	38:38	1.00	107					107
13C-1,2,3,6,7,8-HxCDD	9.58e+06	1.30 y	38:48	0.89	114					114
13C-1,2,3,4,6,7,8-HpCDD	7.73e+06	1.02 y	44:14	1.01	81.0					81.0
13C-OCDD	1.11e+07	1.01 y	49:48	0.75	157					78.7
13C-2,3,7,8-TCDF	2.44e+07	0.85 y	26:42	0.93	90.6					90.6
13C-1,2,3,7,8-PeCDF	2.07e+07	1.67 y	31:33	0.93	76.7					76.7
13C-2,3,4,7,8-PeCDF	1.98e+07	1.63 y	32:52	0.87	77.7					77.7
13C-1,2,3,4,7,8-HxCDF	1.66e+07	0.46 y	37:15	1.82	96.7					96.7
13C-1,2,3,6,7,8-HxCDF	1.90e+07	0.45 y	37:27	2.01	100					100
13C-2,3,4,6,7,8-HxCDF	1.59e+07	0.47 y	38:23	1.77	95.3					95.3
13C-1,2,3,7,8,9-HxCDF	1.29e+07	0.47 y	39:50	1.57	87.8					87.8
13C-1,2,3,4,6,7,8-HpCDF	9.39e+06	0.45 y	42:20	1.24	80.3					80.3
13C-1,2,3,4,7,8,9-HpCDF	7.54e+06	0.45 y	45:09	0.99	80.7					80.7
13C-OCDF	1.97e+07	0.93 y	50:10	1.32	159					79.5
37Cl-2,3,7,8-TCDD	1.47e+06		27:29	1.10	8.31					83.1
13C-1,2,3,4-TCDD	1.61e+07	0.77 y	26:53	-	92.1					
13C-1,2,3,4-TCDF	2.92e+07	0.84 y	25:38	-	78.6					
13C-1,2,3,7,8,9-HxCDD	9.41e+06	1.29 y	39:15	-	57.5					
Total Tetra-Dioxins	8.30e+06		24:29	1.12	49.8	2.50	312	376	0.0450	15
Total Penta-Dioxins	1.38e+07		30:20	1.07	96.7	2.50	640	224	0.0764	7
Total Hexa-Dioxins	2.02e+07		36:12	1.38	149	2.50	688	456	0.114	7
Total Hepta-Dioxins	1.03e+07		42:52	1.14	117	2.50	424	296	0.130	16
Total Tetra-Furans	1.27e+07		23:07	1.29	40.4	2.50	384	892	0.0430	18
1st Fn. Tot Penta-Furans	1.09e+07		28:30	0.93	57.9	2.50	172	456	0.0427	PeCDF 1
Total Penta-Furans	2.45e+07		30:15	0.93	130	2.50	528	856	0.0940	188 4
Total Hexa-Furans	3.55e+07		35:19	1.05	211	2.50	992	828	0.147	5
Total Hepta-Furans	1.11e+07		42:21	1.48	89.0	2.50	-	-	*	2

Analyst: 

Date: 5/7/10

Frontier Analytical Laboratory - Acquisition Log

Run Name:06MAY10M

Instrument: FAL3

GC: DB5

Experiment:PCDD

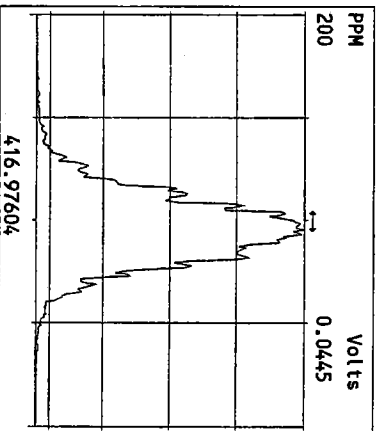
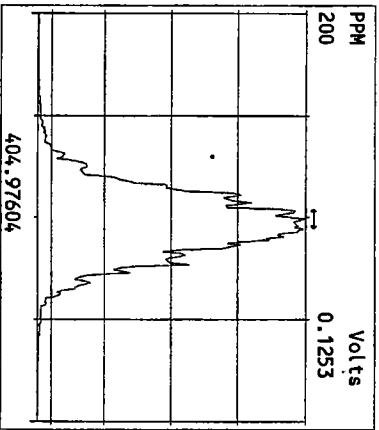
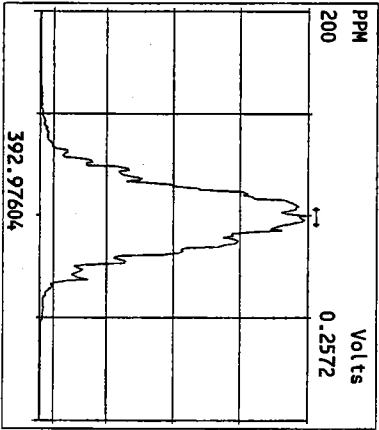
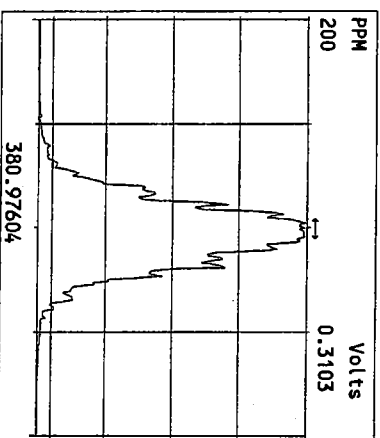
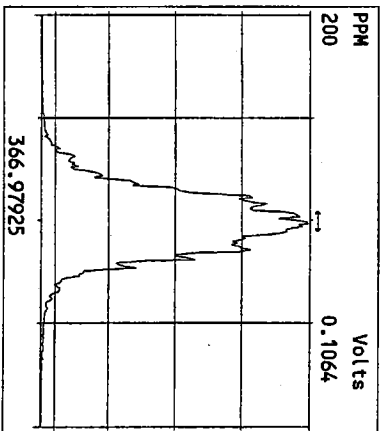
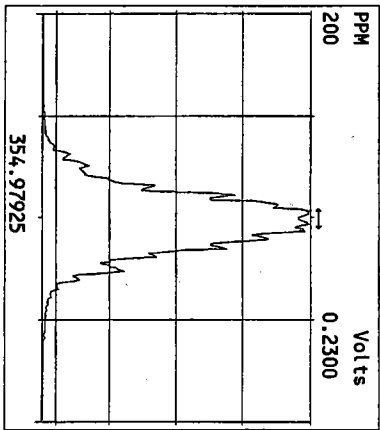
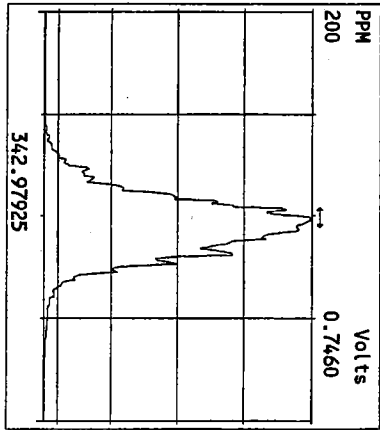
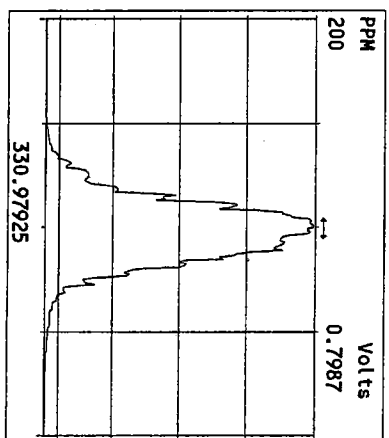
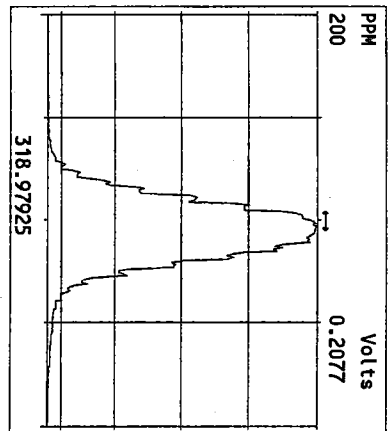
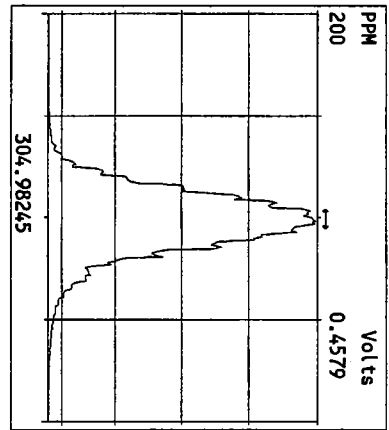
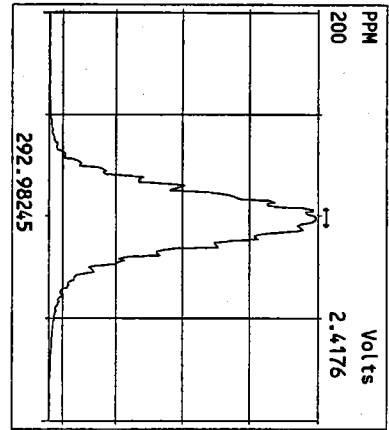
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06MAY10M 2	SB050610M1	Solvent Blank	6-MAY-10 13:50:42	ST050610M1	ST050610M2	BS
06MAY10M 3	2005-001-0001-OPR	OPR	6-MAY-10 14:46:01	ST050610M1	ST050610M2	BS
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06MAY10M 5	6109-001-0001-SA	Cell-T7104-042010	6-MAY-10 16:36:42	ST050610M1	ST050610M2	BS
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06MAY10M 13	SB050610M2	Solvent Blank	6-MAY-10 23:59:25	ST050610M1	ST050610M2	BS
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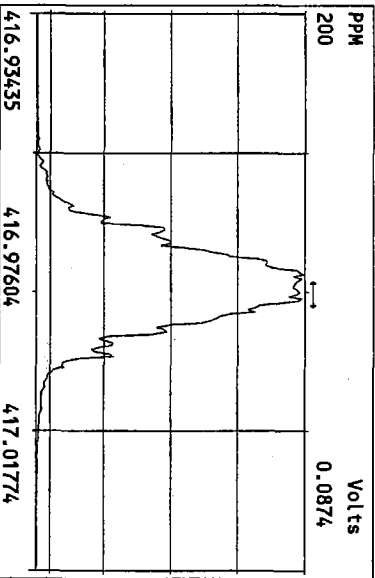
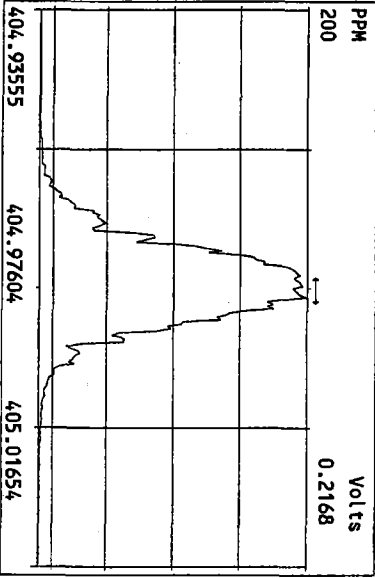
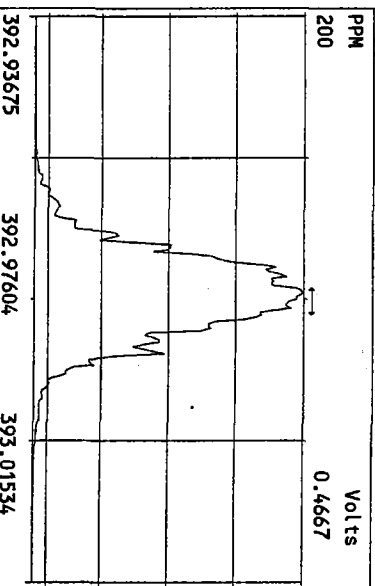
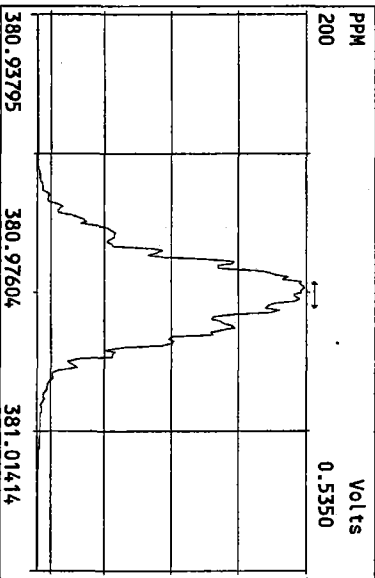
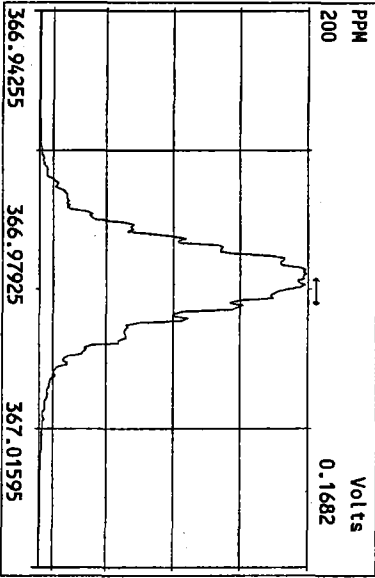
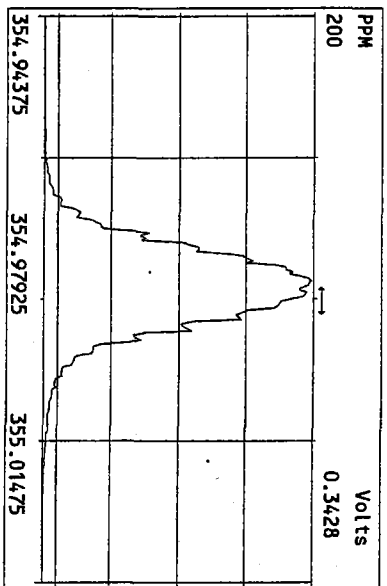
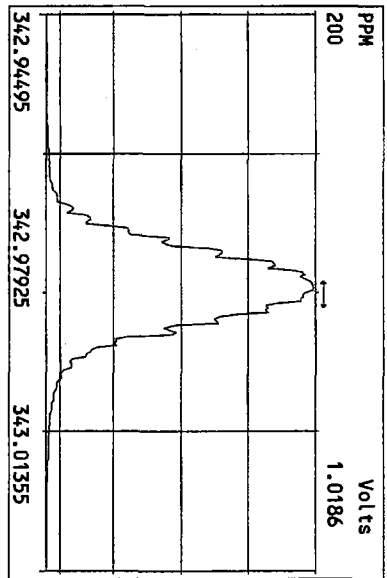
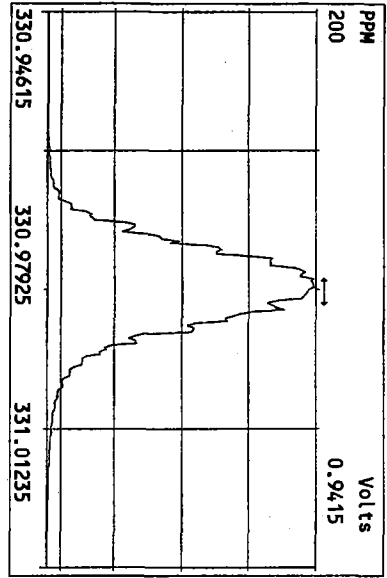
5/7/10

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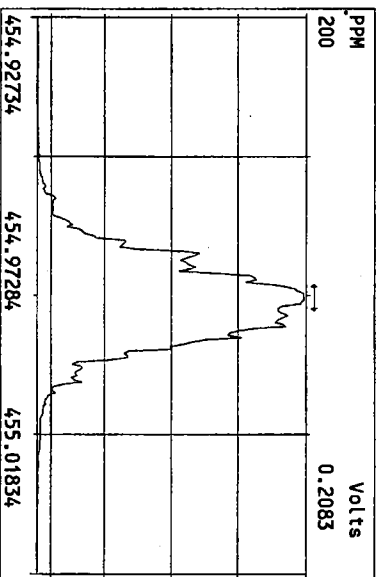
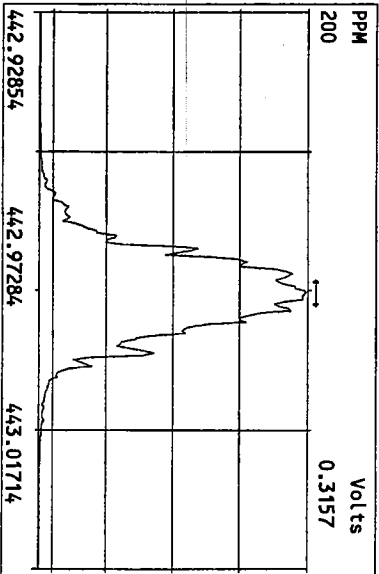
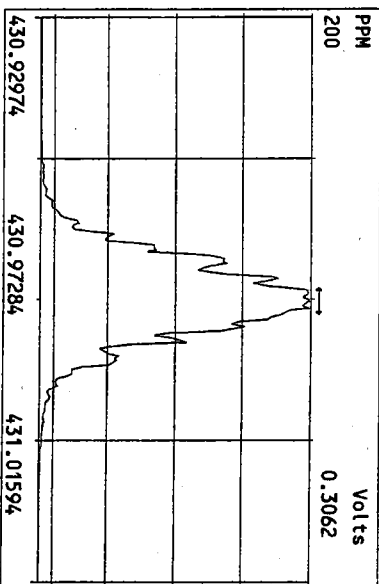
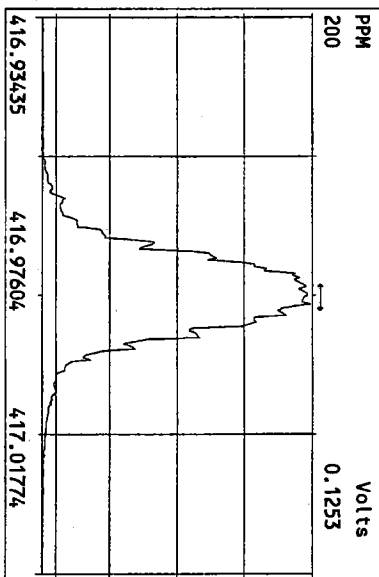
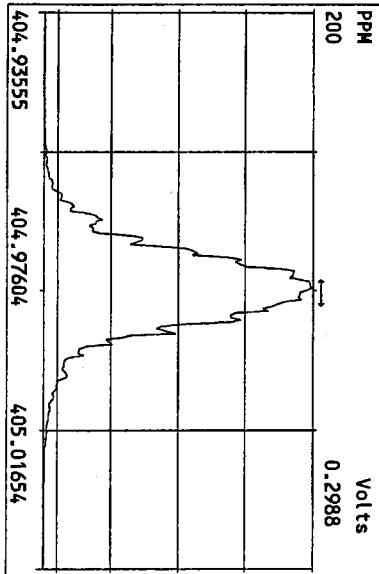
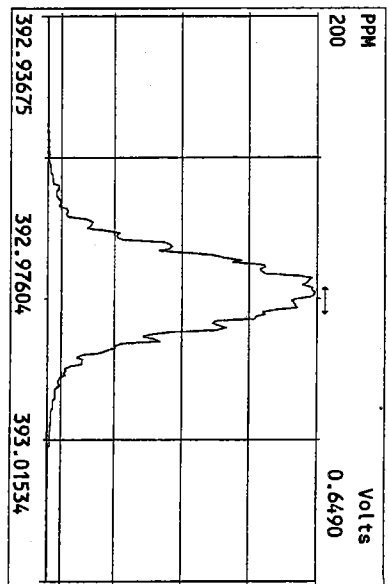
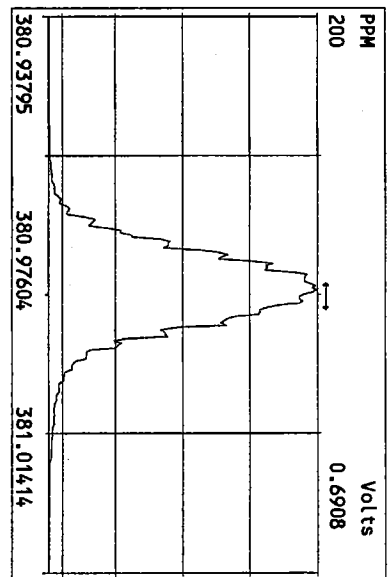
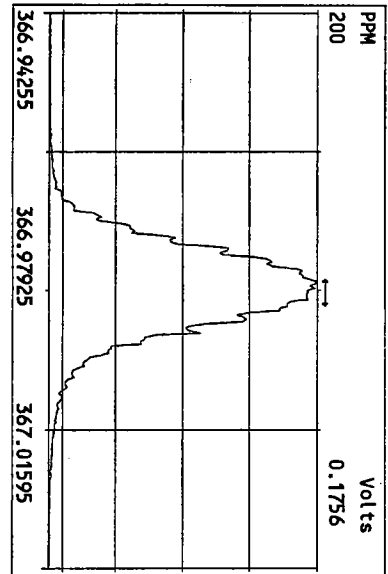
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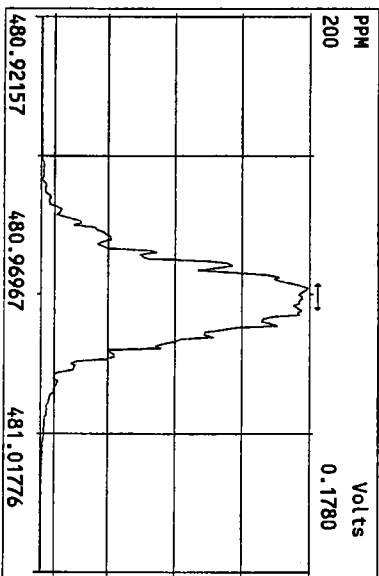
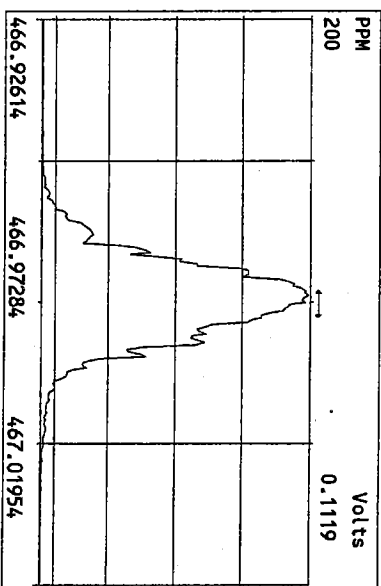
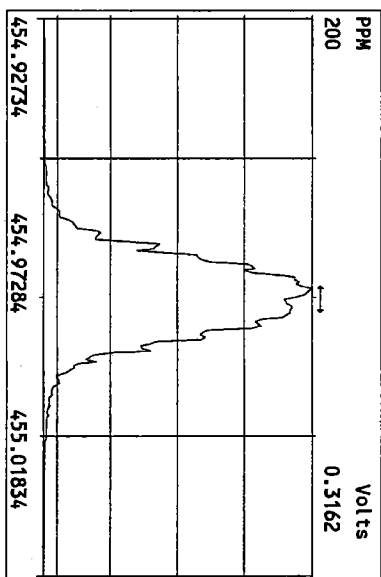
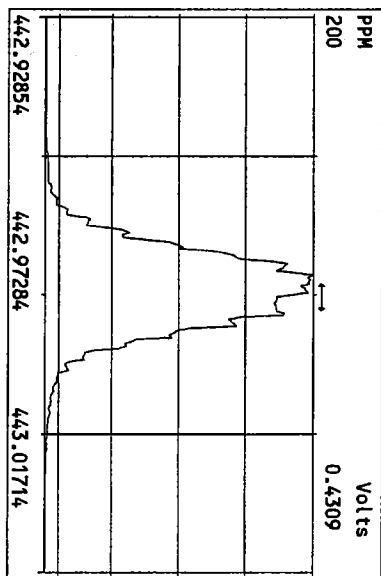
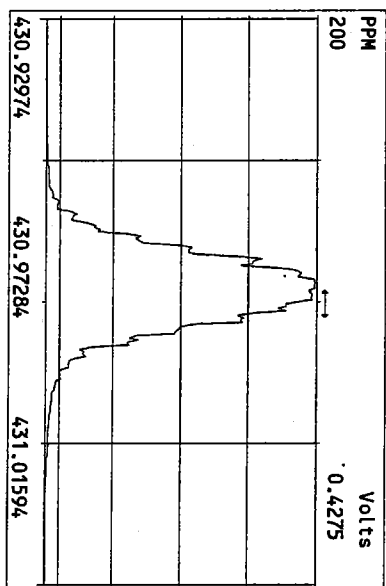
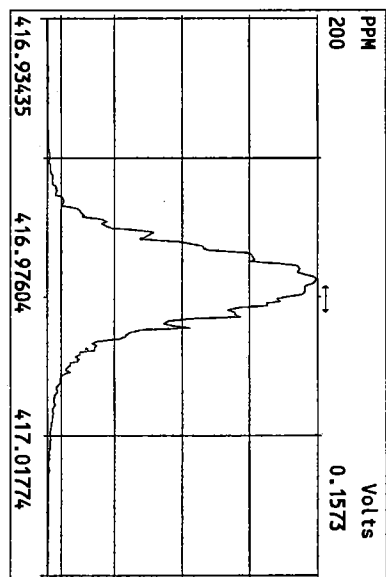
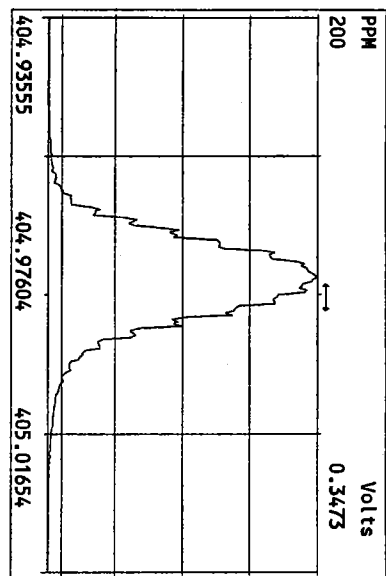
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Experiment:PCDD Function:2 Reference:PKK



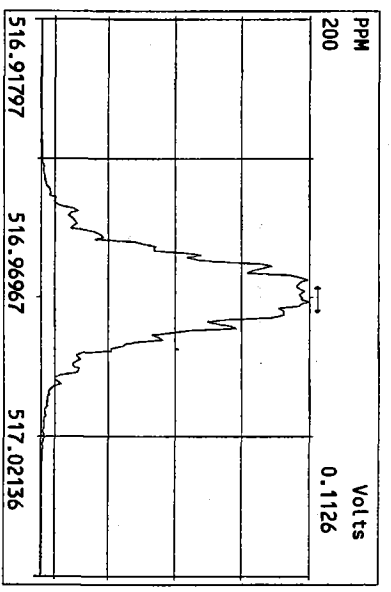
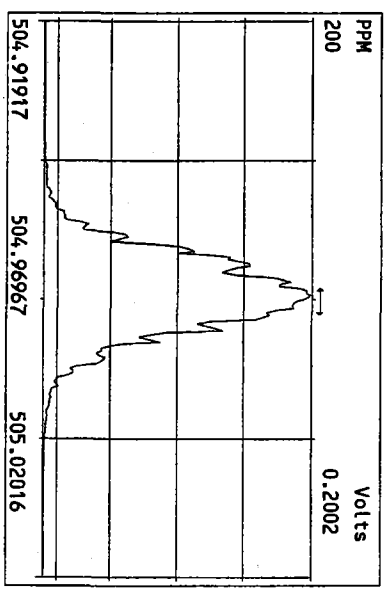
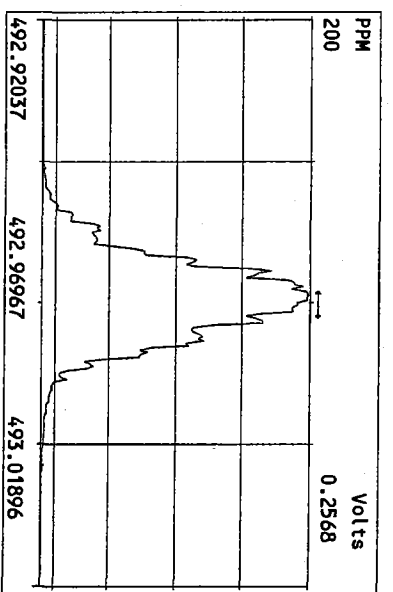
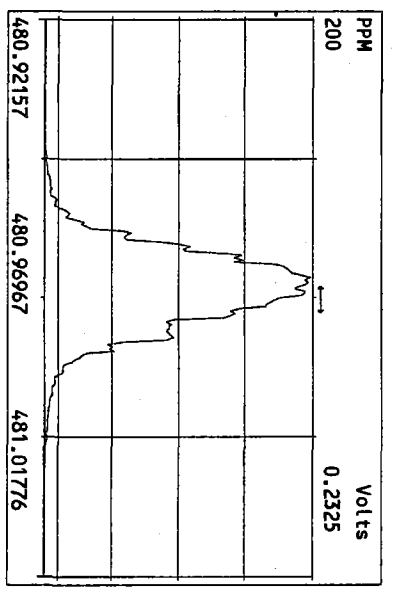
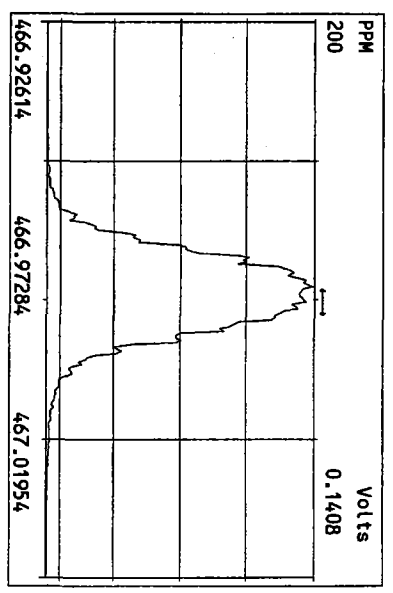
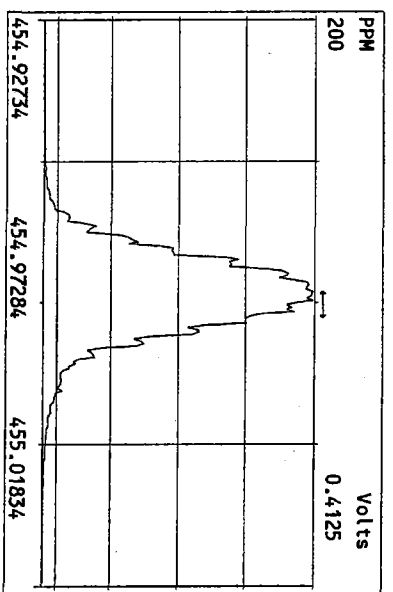
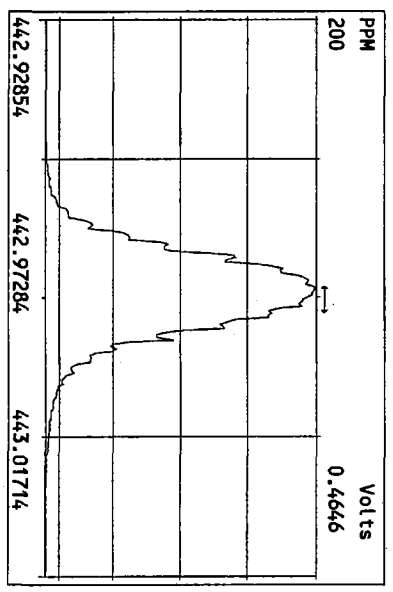
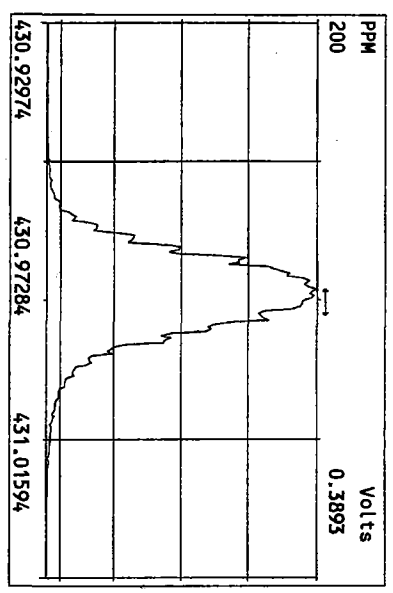
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Experiment:PCDD Function:3 Reference:PFK



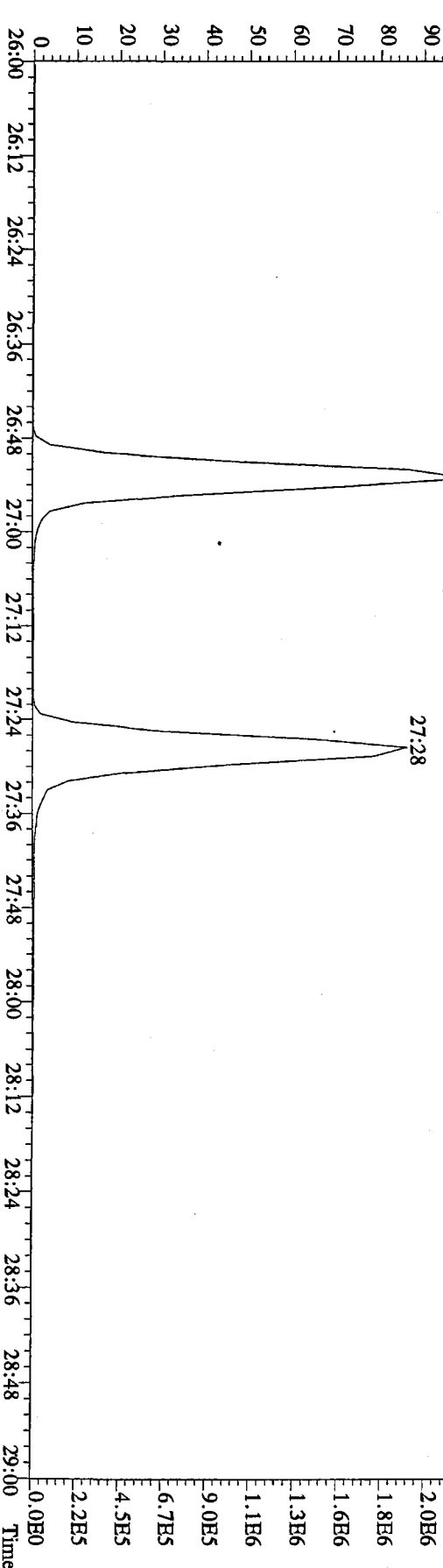
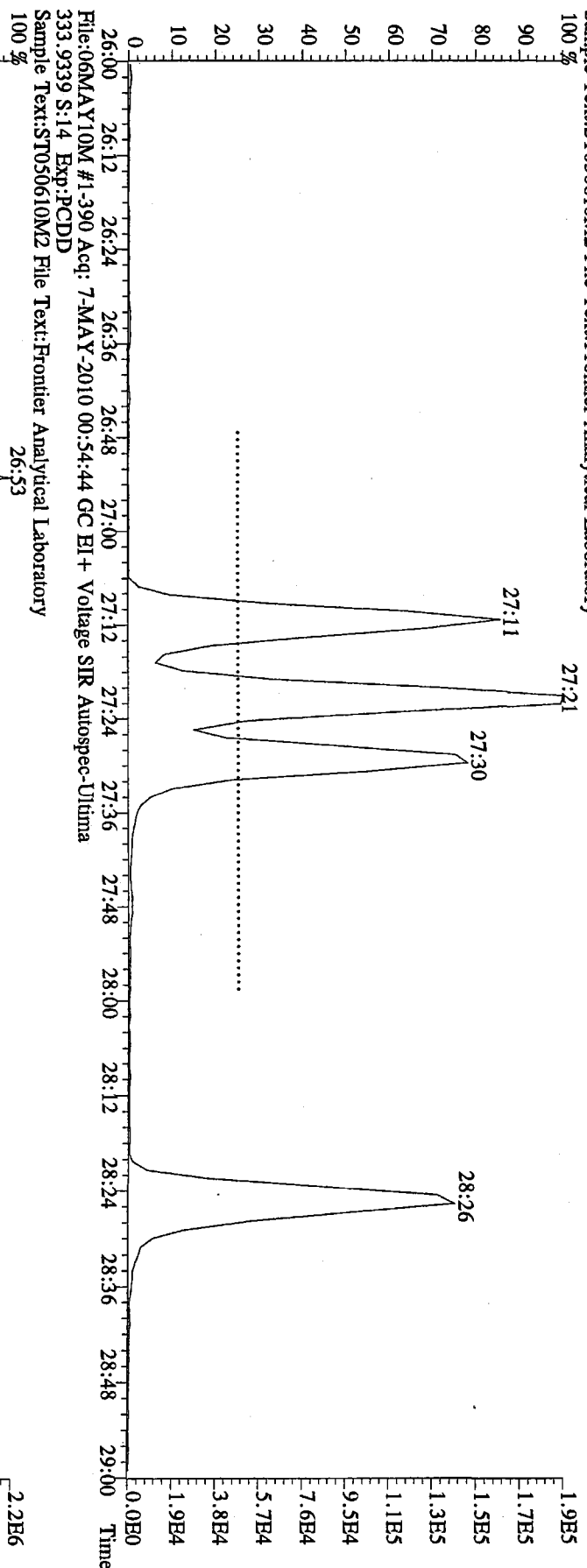
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Experiment:PCDD Function:4 Reference:PPK



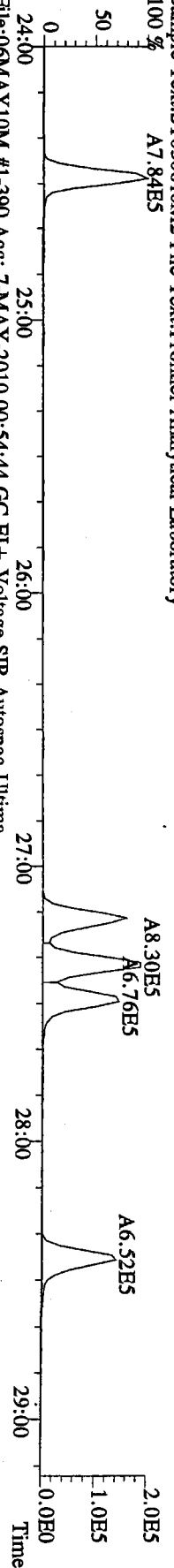
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 Experiment:PCDD Function:5 Reference:PK



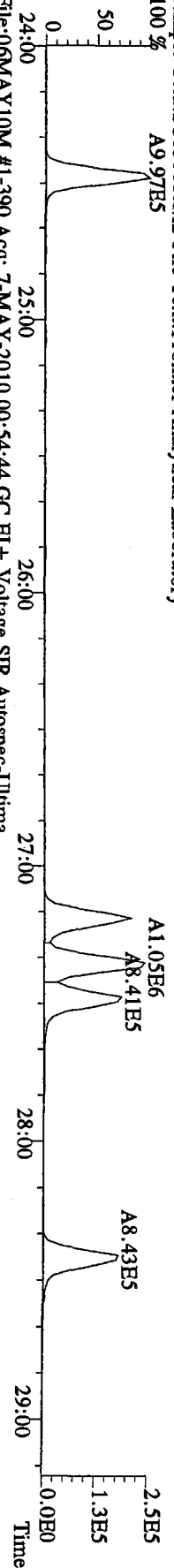
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319.8965 S:14 Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



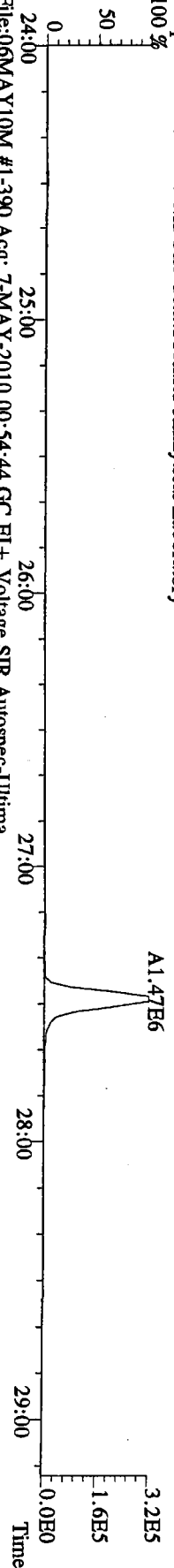
File:06MAY10M #1-390 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
319.8965 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



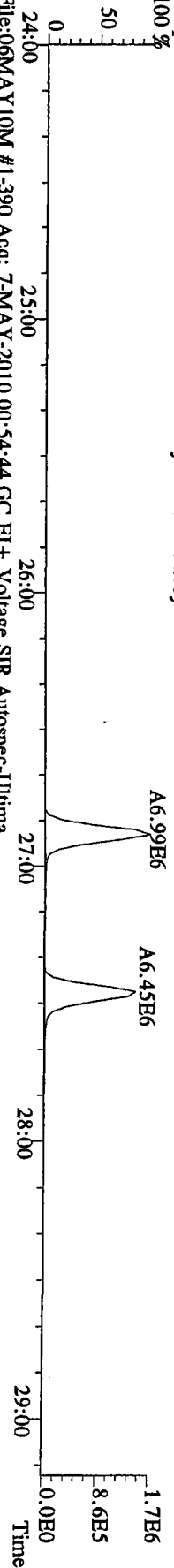
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321.8936 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



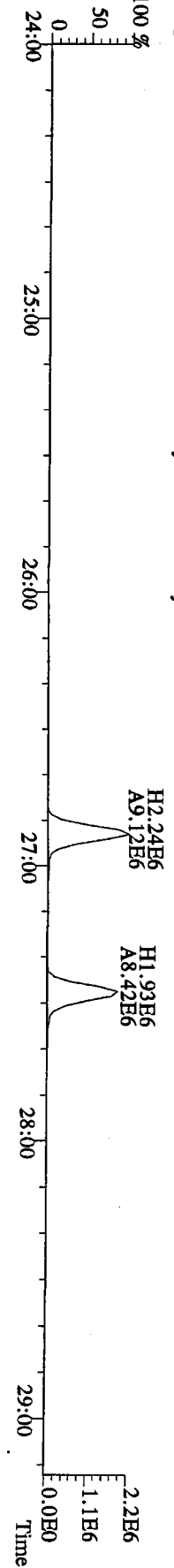
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327.8847 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



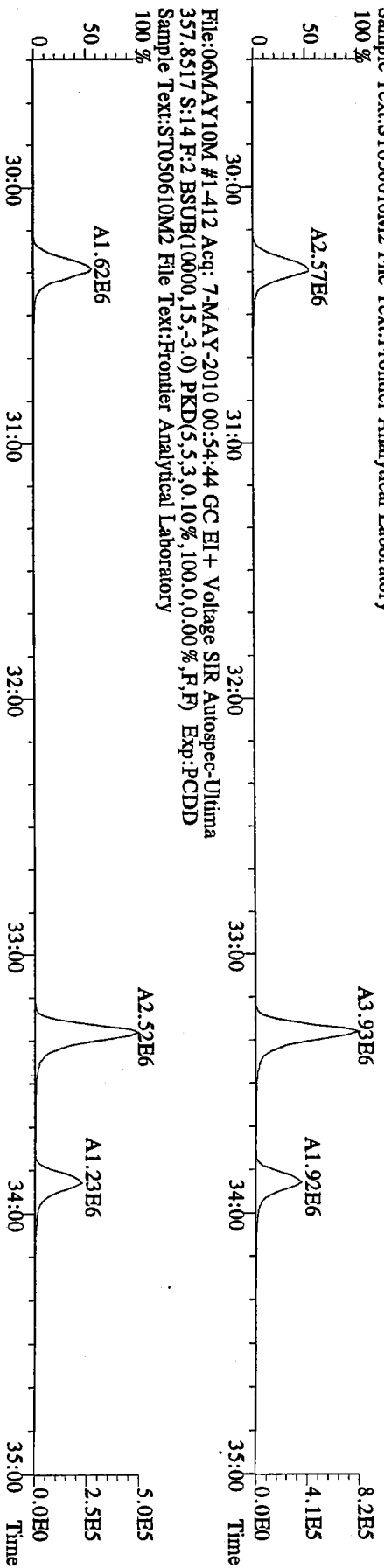
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331.9368 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



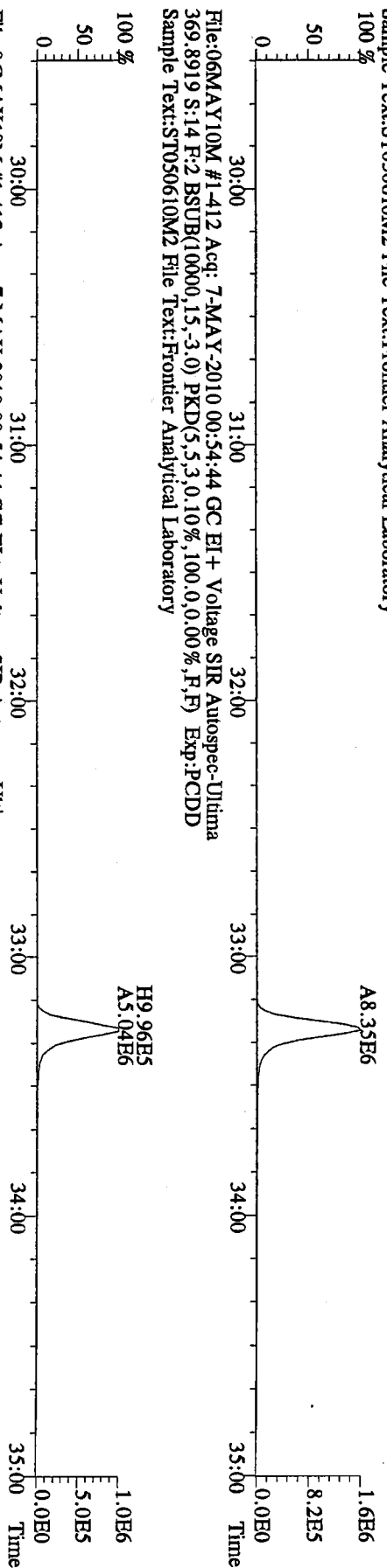
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333.9339 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



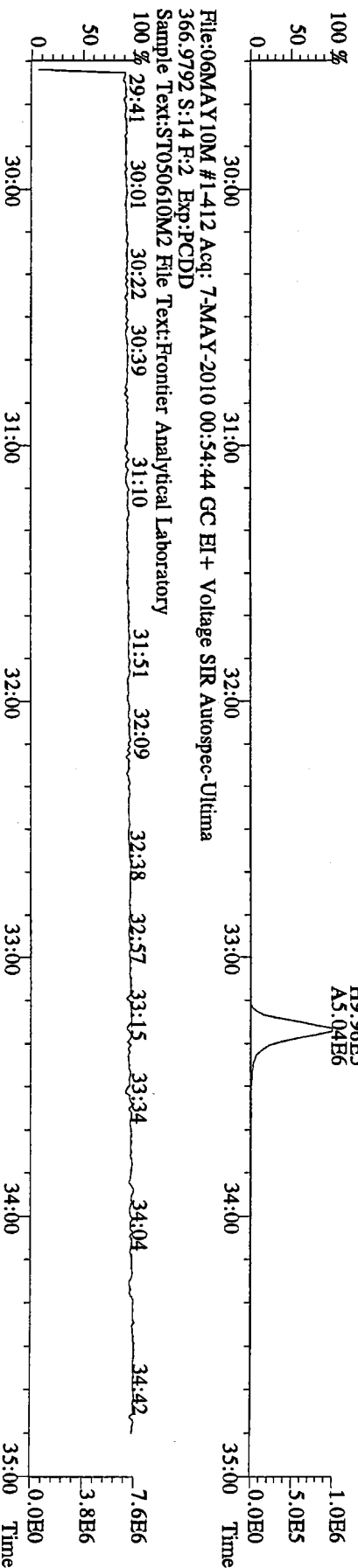
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 355.8546 S:14 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



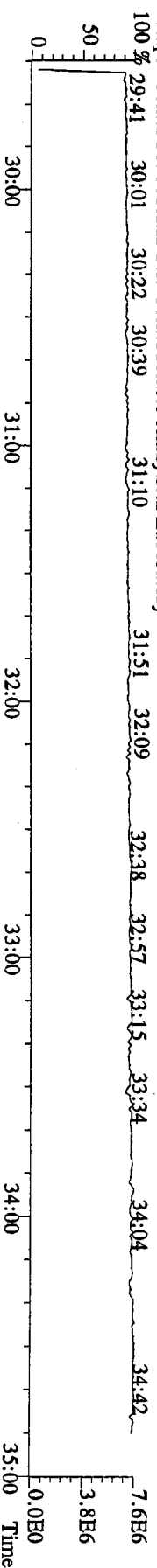
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 367.8949 S:14 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



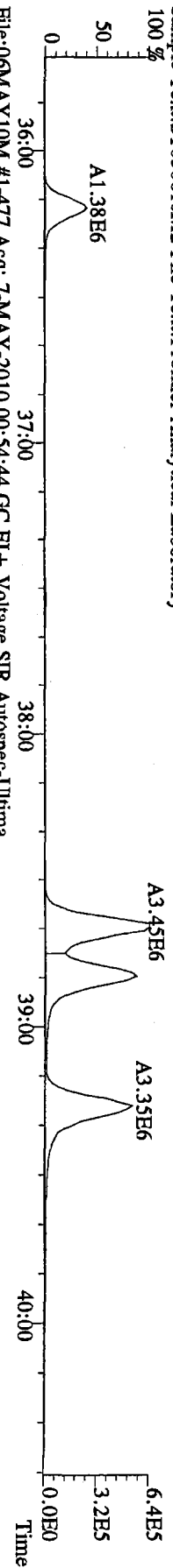
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 369.8919 S:14 F:2 BSUB(10000,15,-3,0) PKD(5,5,3,0.10%,100,0,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



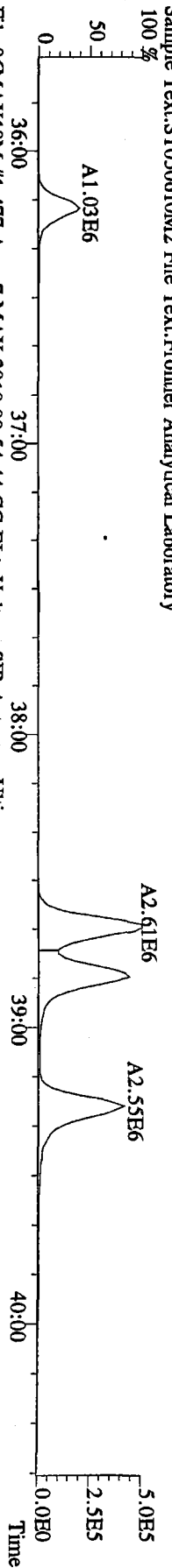
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 366.9792 S:14 F:2 Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



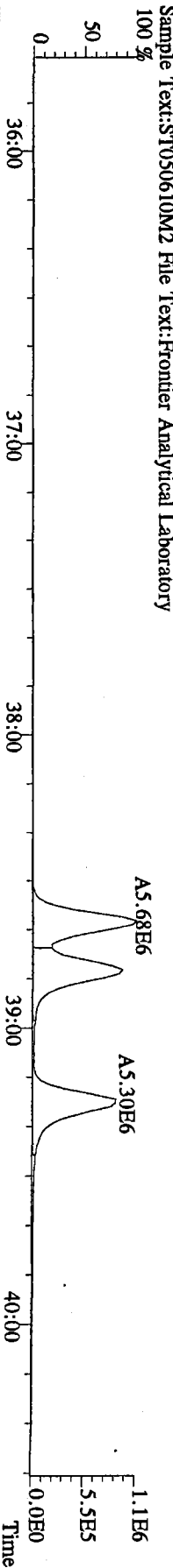
File:06MAY10M #1-477 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



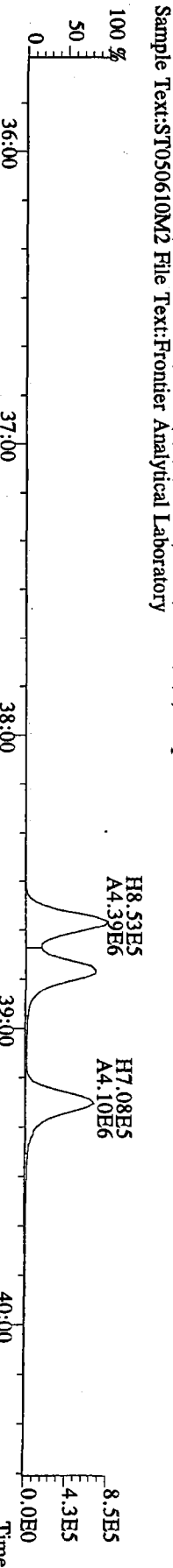
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391.8127 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



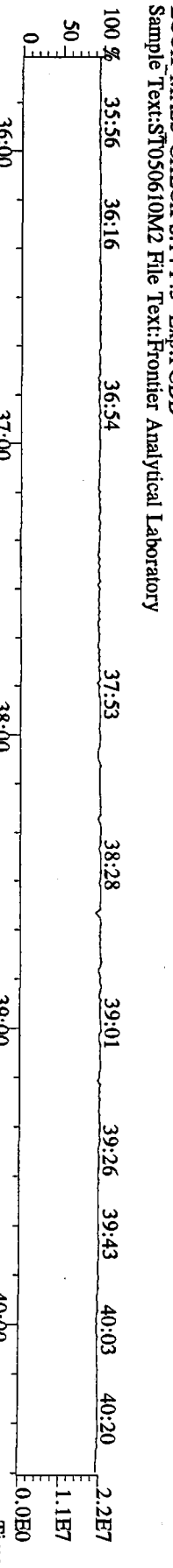
File:06MAY10M #1-477 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



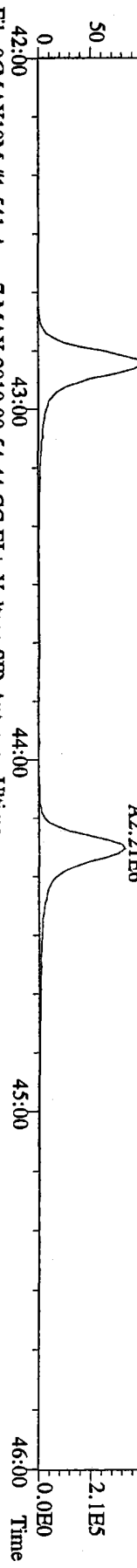
File:06MAY10M #1-477 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



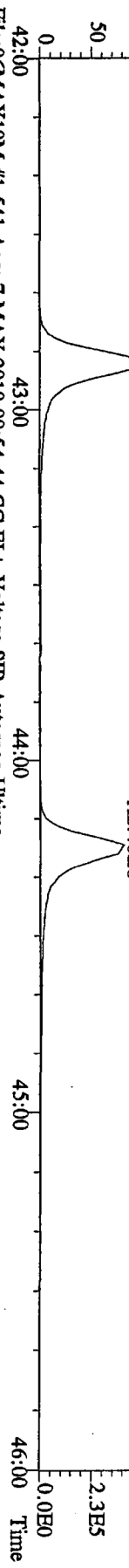
File:06MAY10M #1-477 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
LOCK MASS CHECK S:14 F:3 Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



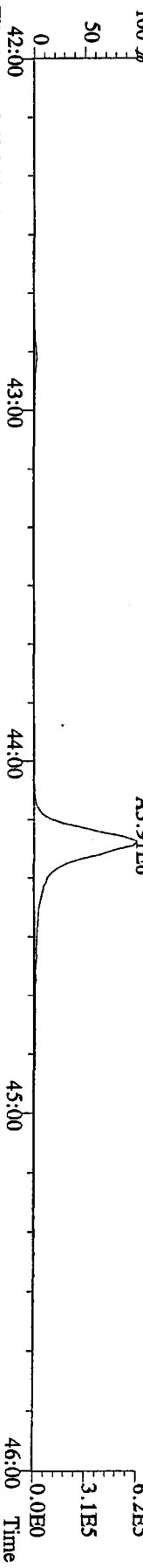
File:06MAY10M #1-541 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



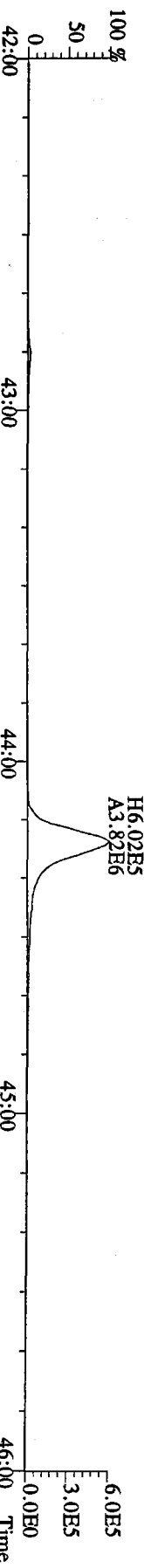
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425.7737 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



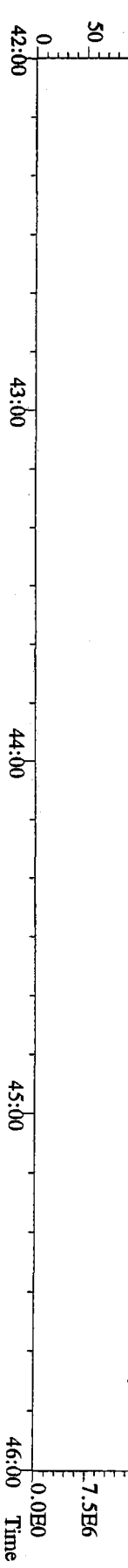
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435.8169 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



File:06MAY10M #1-541 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



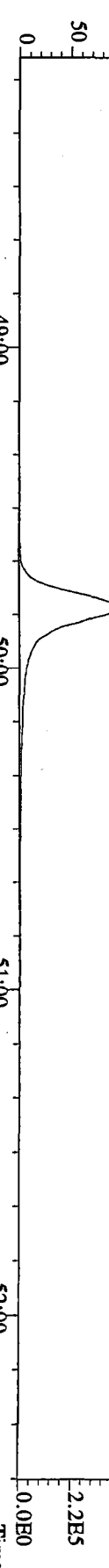
File:06MAY10M #1-541 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:14 F:4 Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



File:06MAY10M #1-347 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 457.7377 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory
 100 %



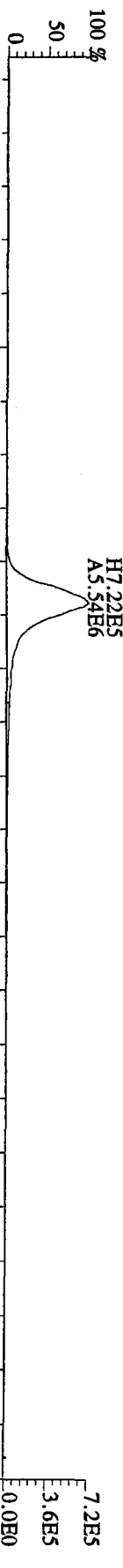
File:06MAY10M #1-347 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 459.7348 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory
 100 %



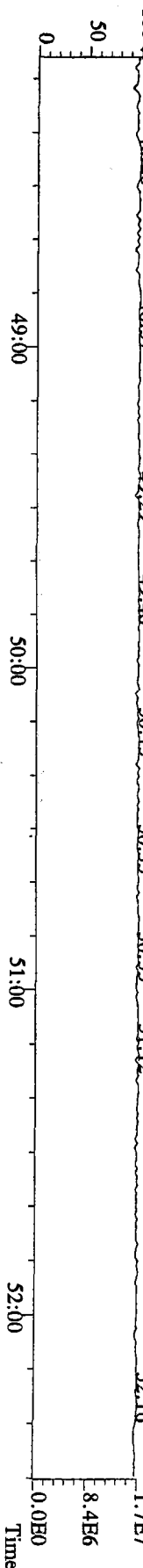
File:06MAY10M #1-347 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 469.7780 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory
 100 %



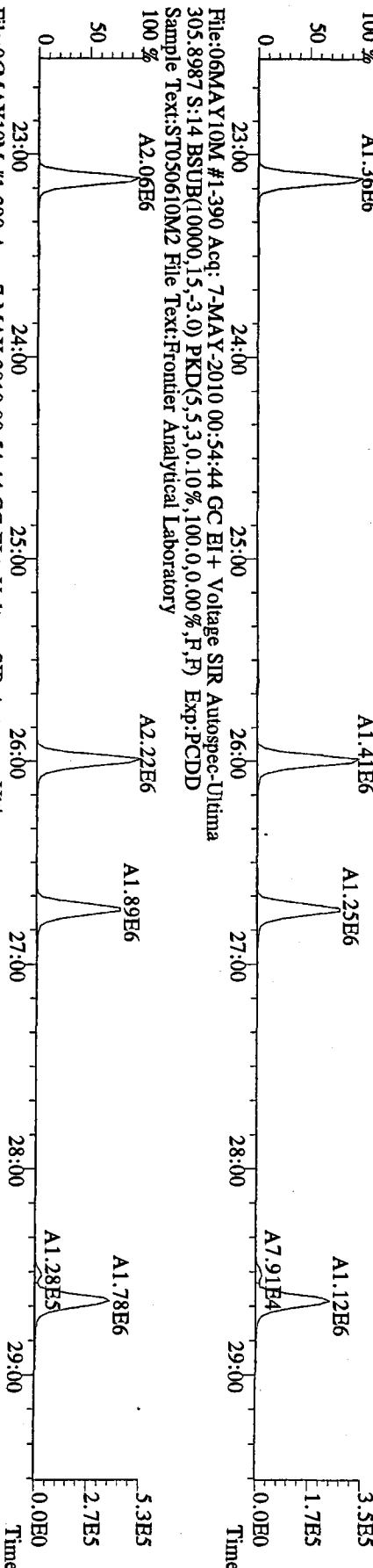
File:06MAY10M #1-347 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 471.7750 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory
 100 %



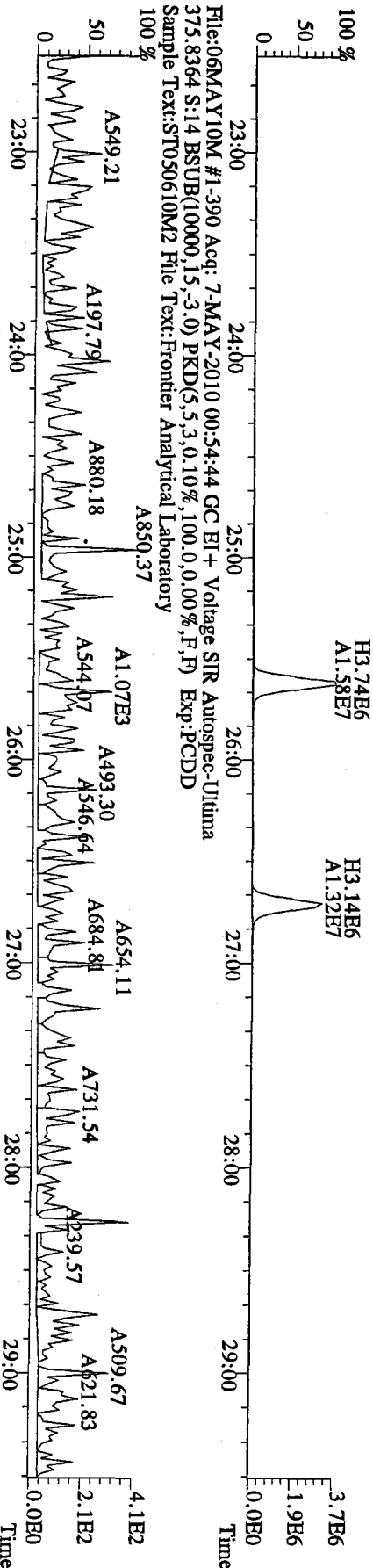
File:06MAY10M #1-347 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 454.9728 S:14 F:5 Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory
 100 %



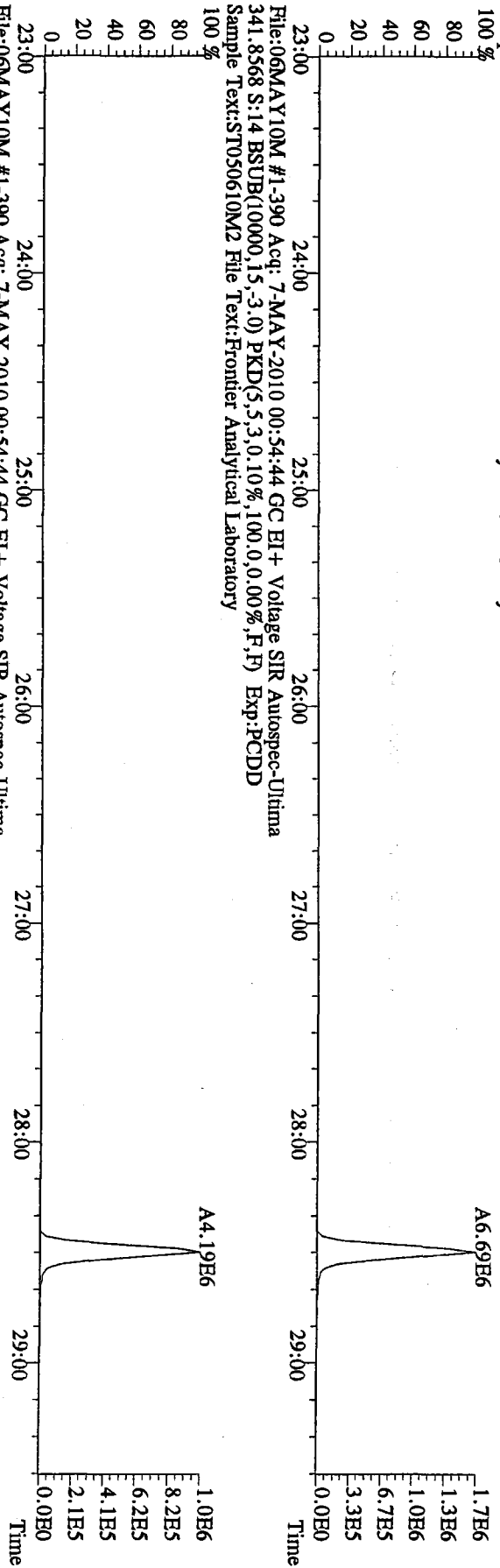
File:06MAY10M #1-390 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utlima
 303.9016 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



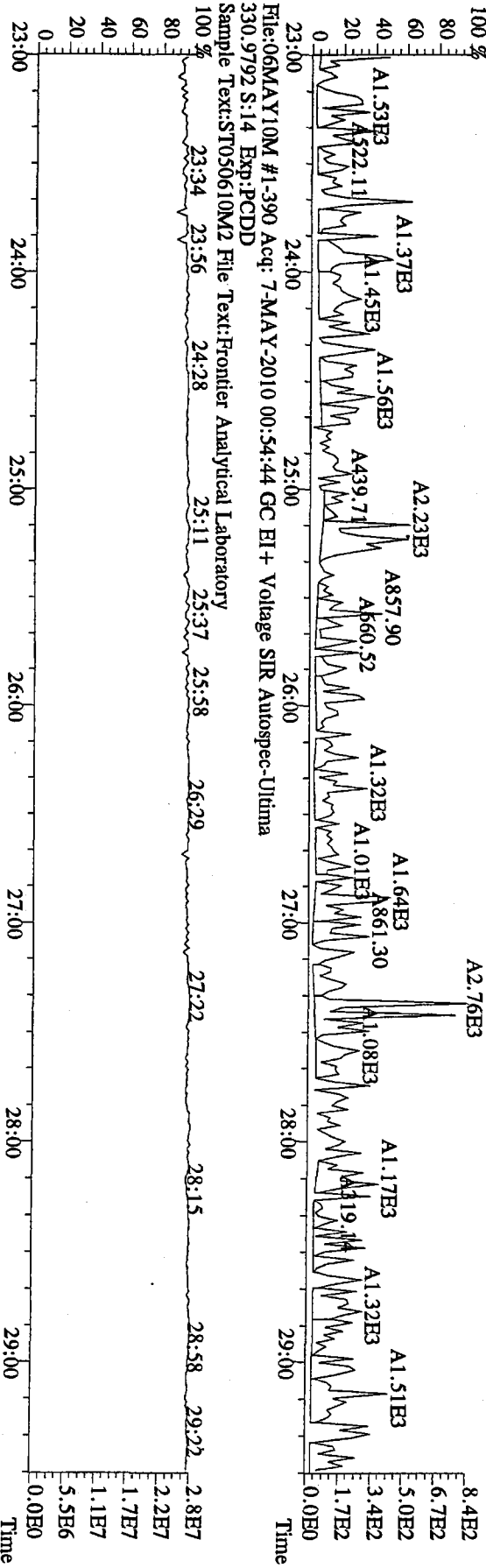
File:06MAY10M #1-390 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utlima
 317.9389 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



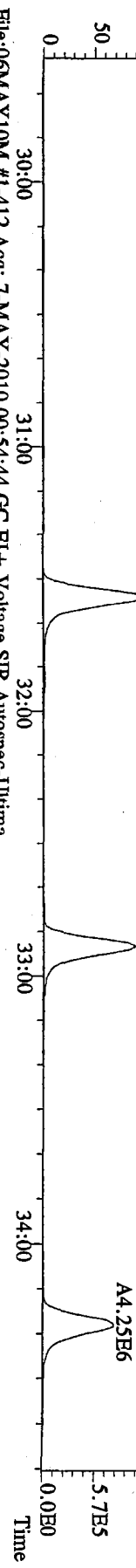
File:06MAY10M #1-390 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utlima
 339.8597 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



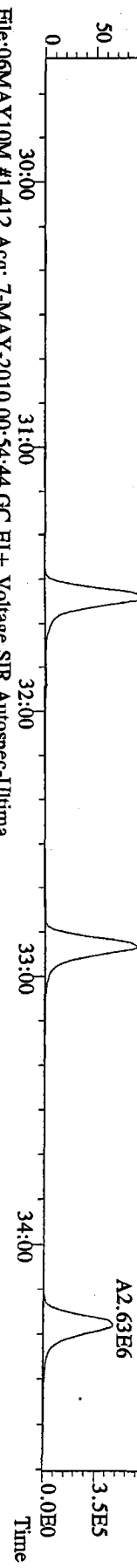
File:06MAY10M #1-390 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utlima
 409.7974 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



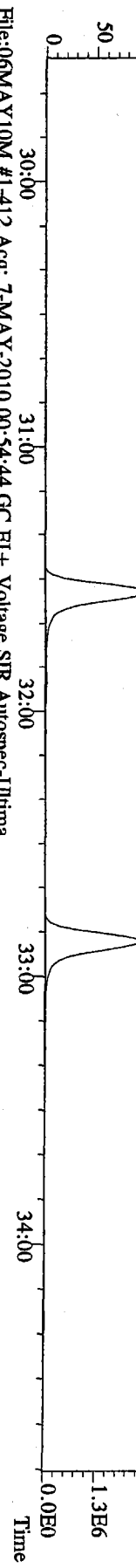
File:06MAY10M #1-412 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 339.8597 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



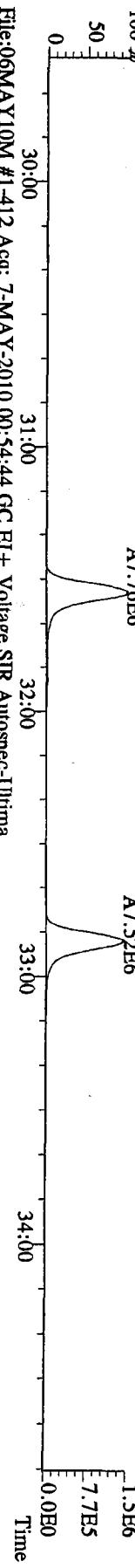
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 341.8568 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



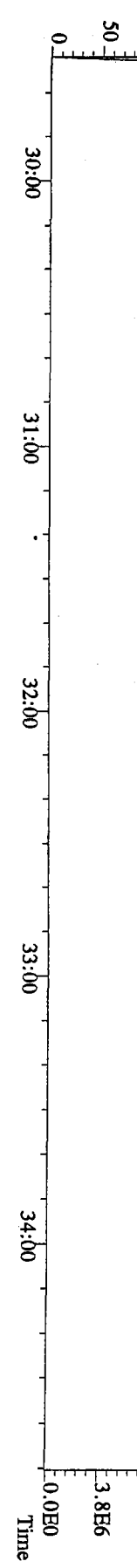
File:06MAY10M #1-412 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 351.9000 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



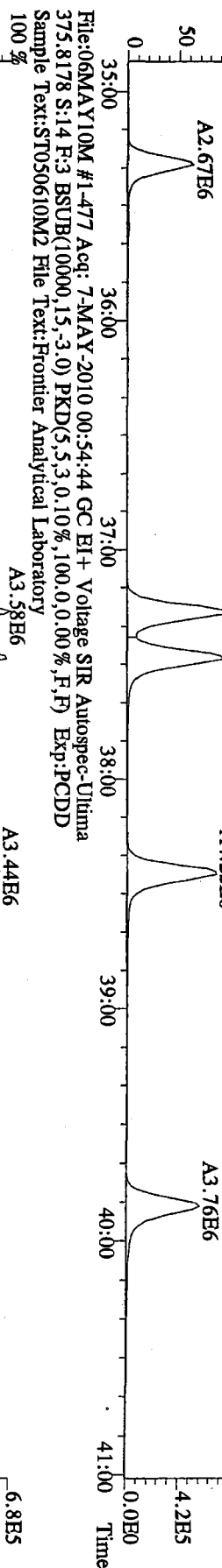
File:06MAY10M #1-412 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 353.8970 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100,0,0,00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



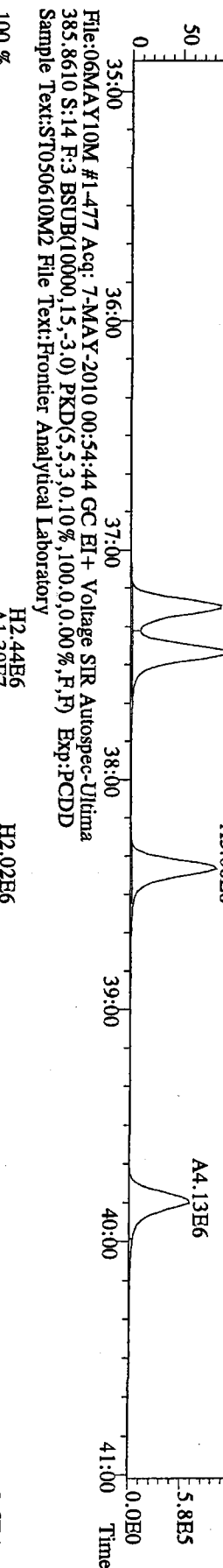
File:06MAY10M #1-412 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
 LOCK MASS CHECK S:14 F:2 Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



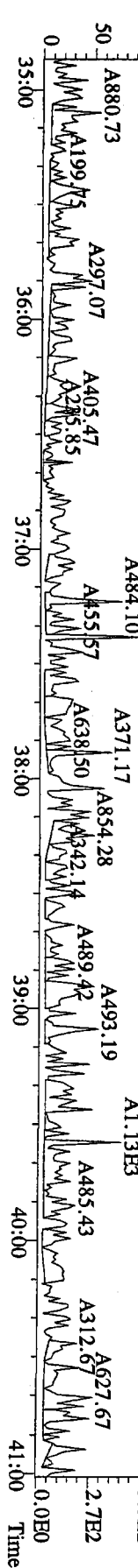
File:06MAY10M #1-477 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
 373.8207 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



File:06MAY10M #1-477 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
 383.8639 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory

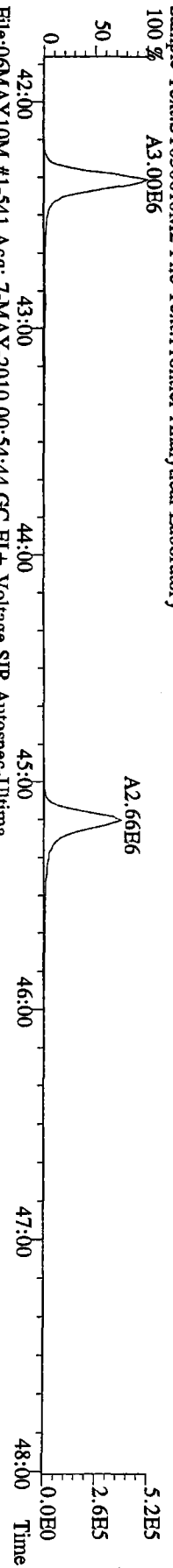


File:06MAY10M #1-477 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
 445.7555 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
 Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory

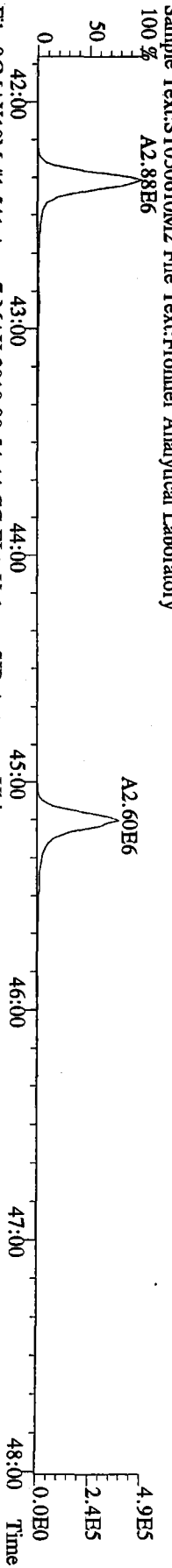


0008:00724

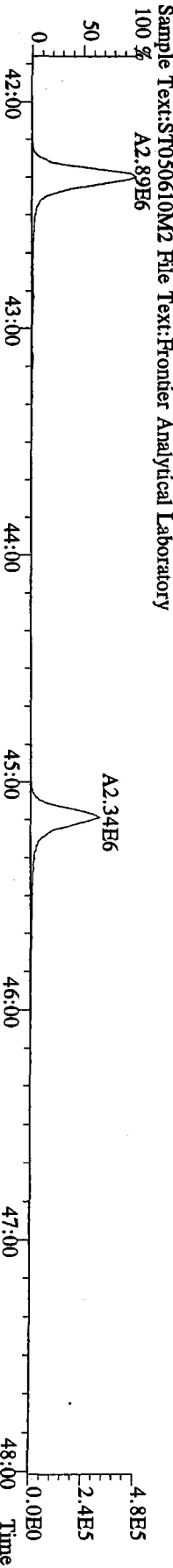
File:06MAY10M #1-541 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
407.7818 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



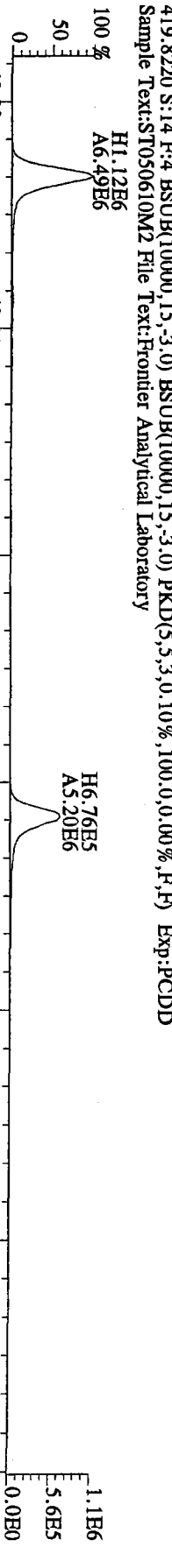
File:06MAY10M #1-541 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
409.7788 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



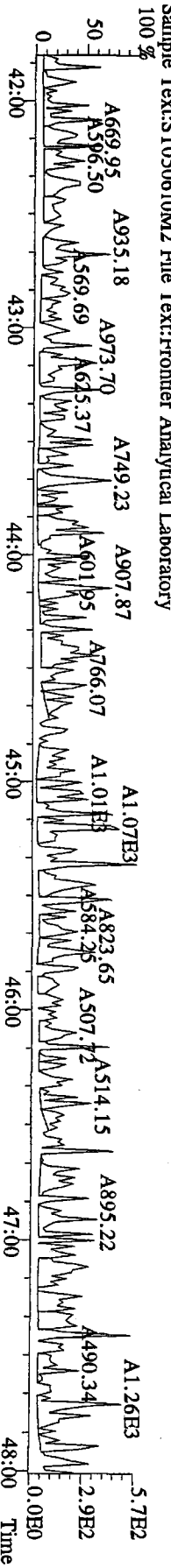
File:06MAY10M #1-541 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
417.8253 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



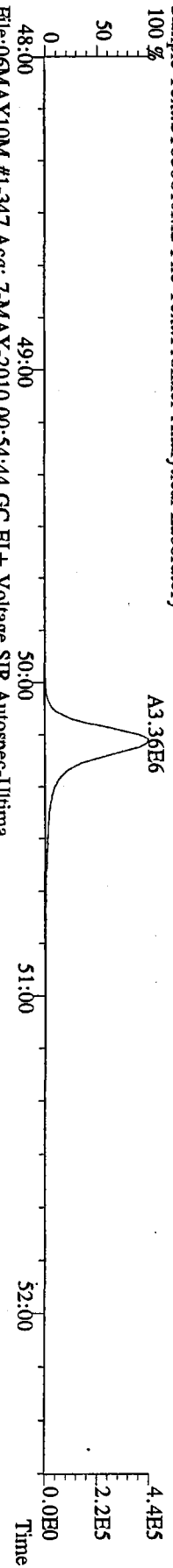
File:06MAY10M #1-541 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
419.8220 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



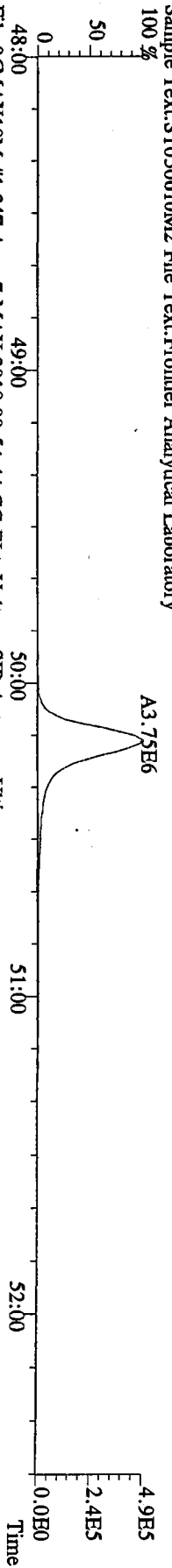
File:06MAY10M #1-541 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Utima
419.8220 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0.0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



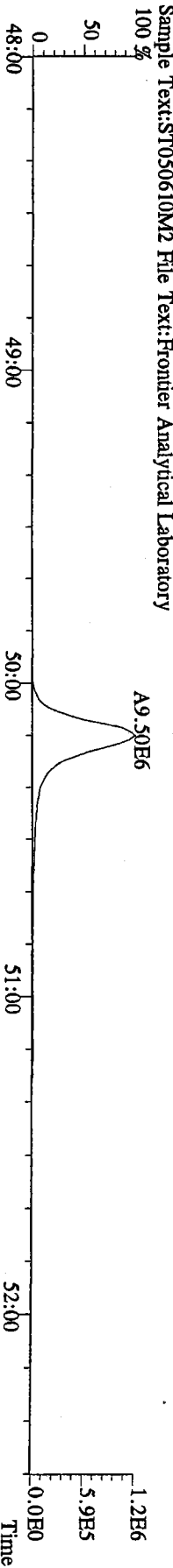
File:06MAY10M #1-347 Acq: 7-MAY-2010 00:54:44 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



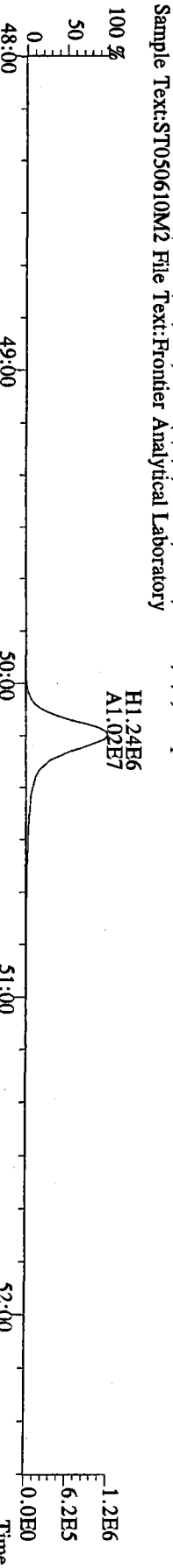
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443.7398 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



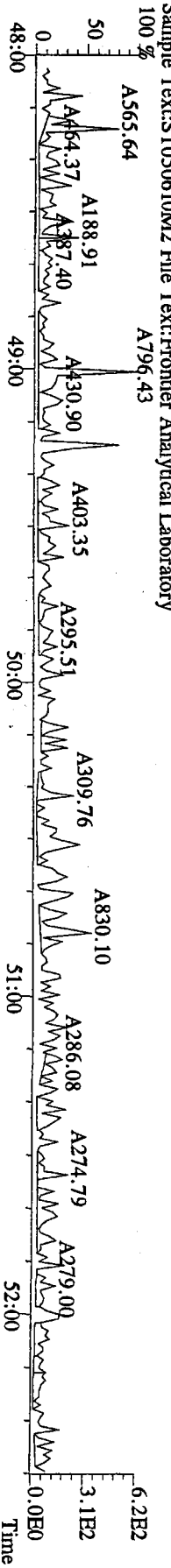
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453.7831 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory



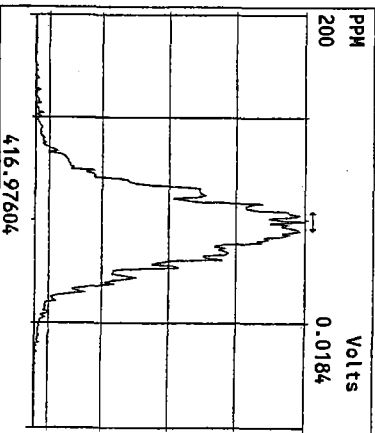
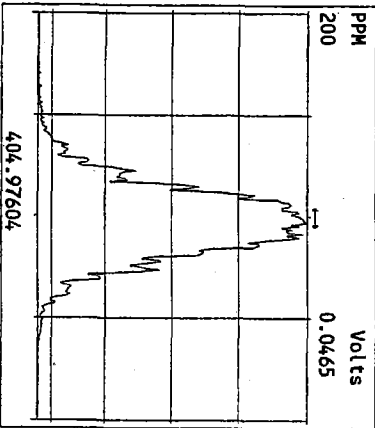
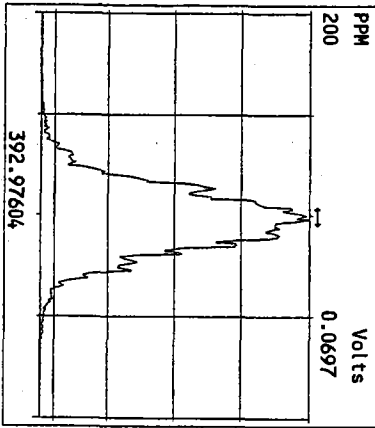
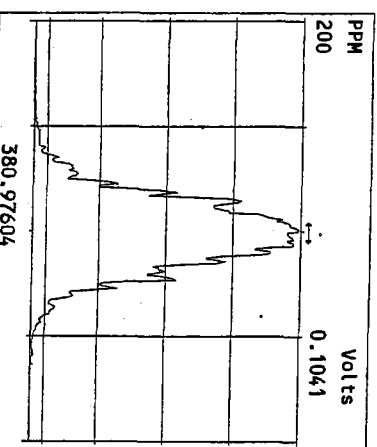
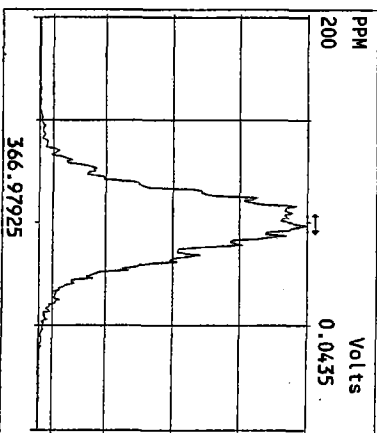
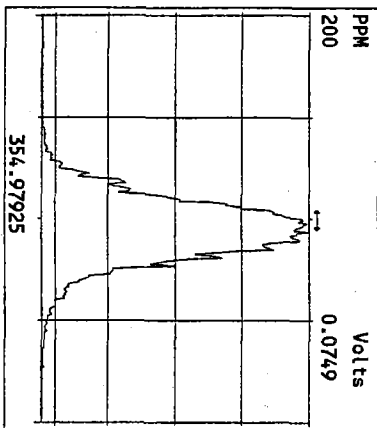
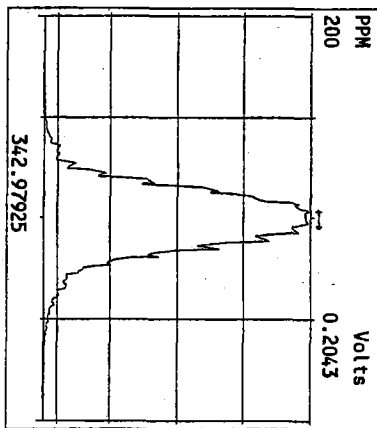
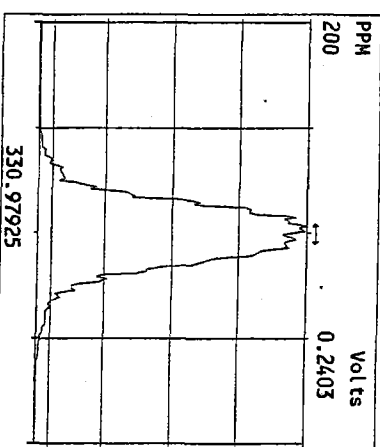
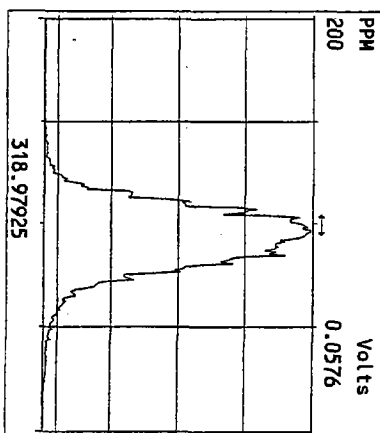
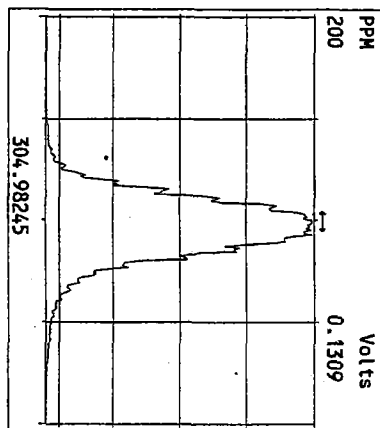
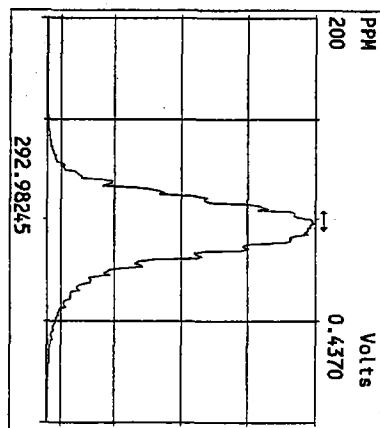
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455.7801 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F) Exp:PCDD
Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory

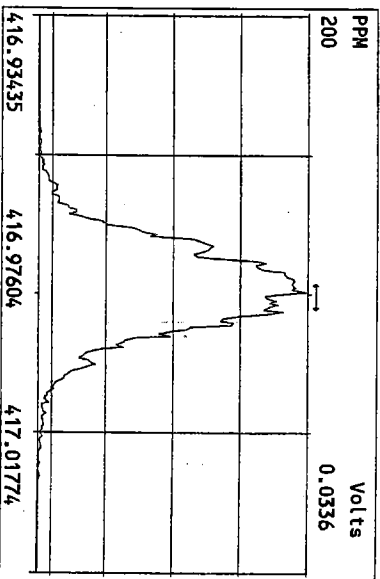
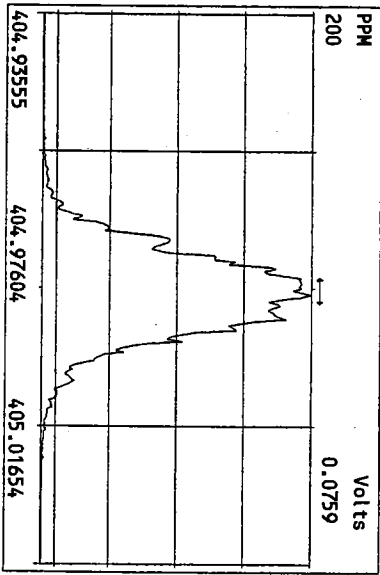
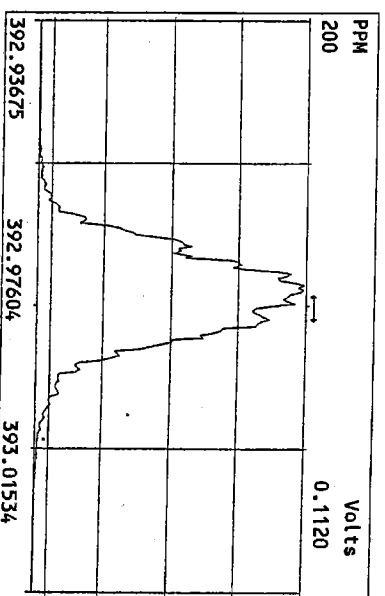
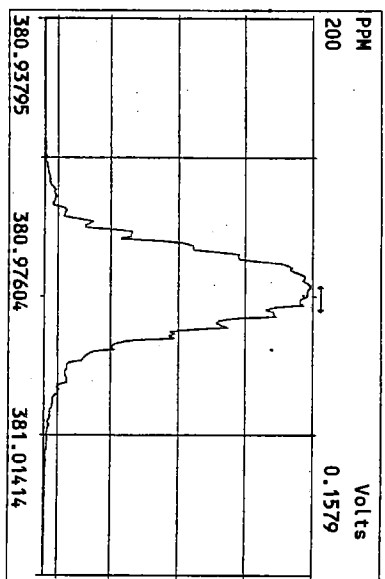
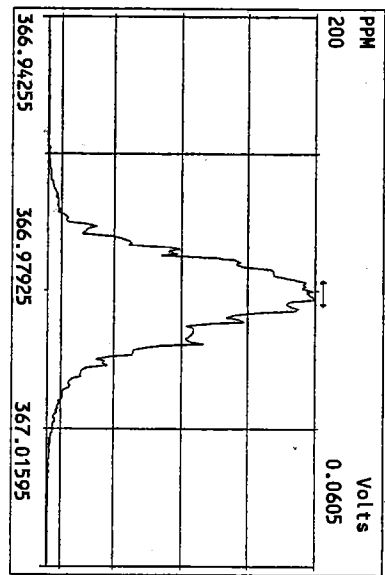
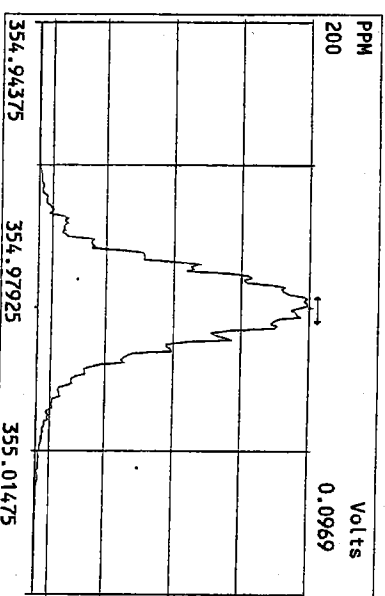
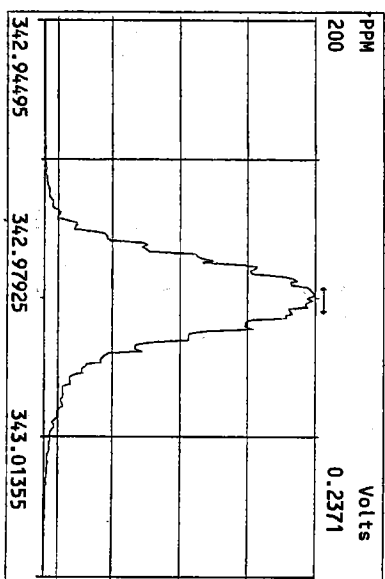
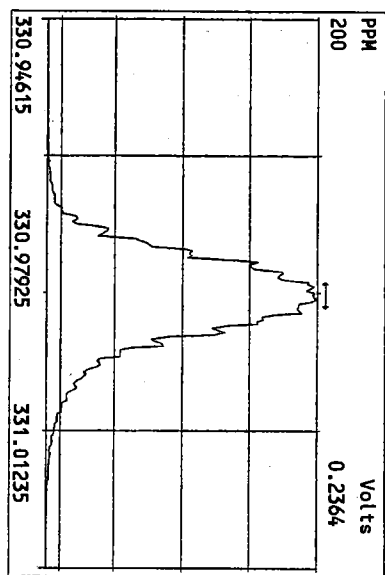


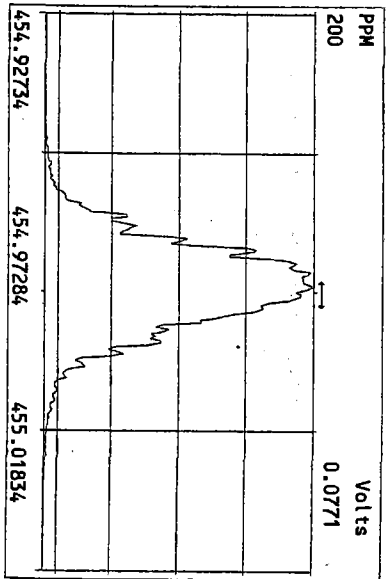
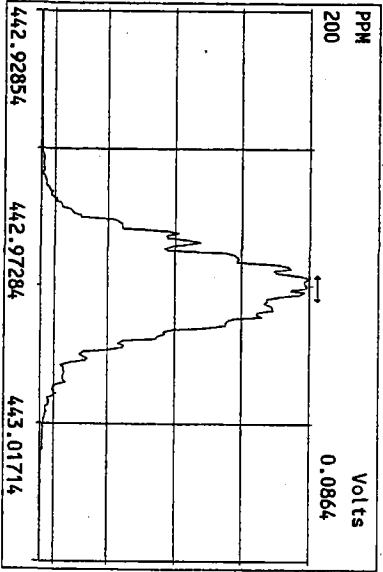
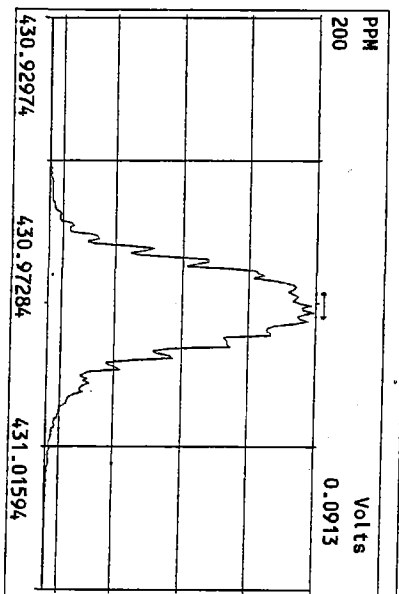
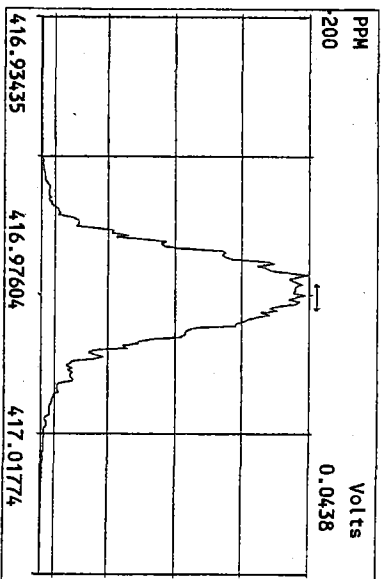
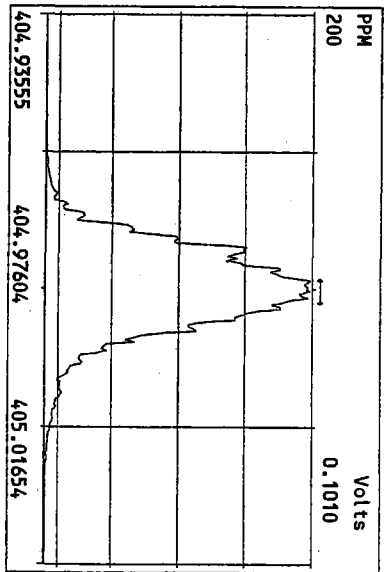
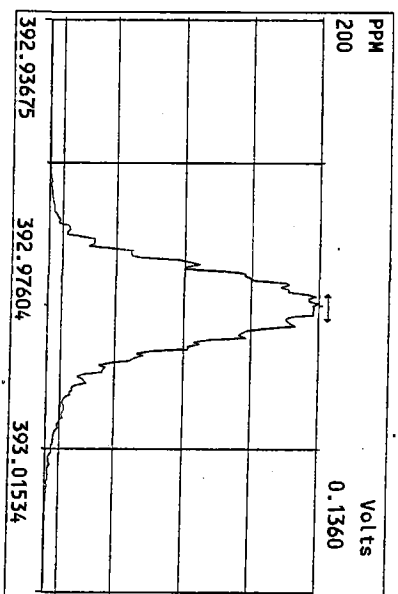
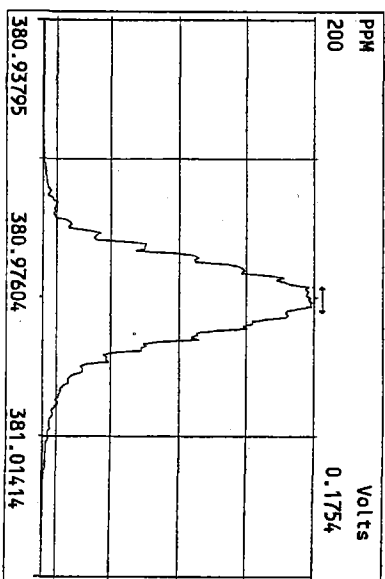
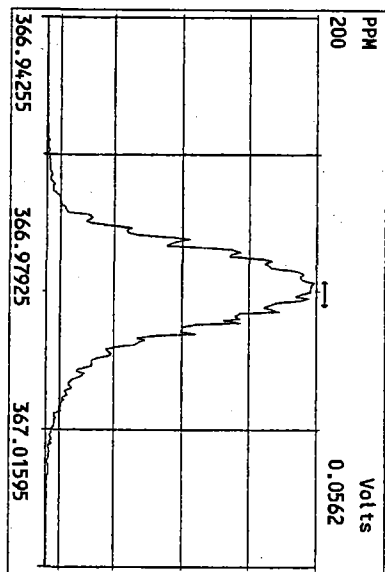
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Sample Text:ST050610M2 File Text:Frontier Analytical Laboratory

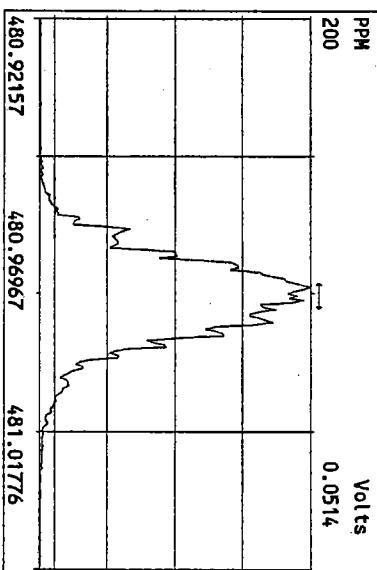
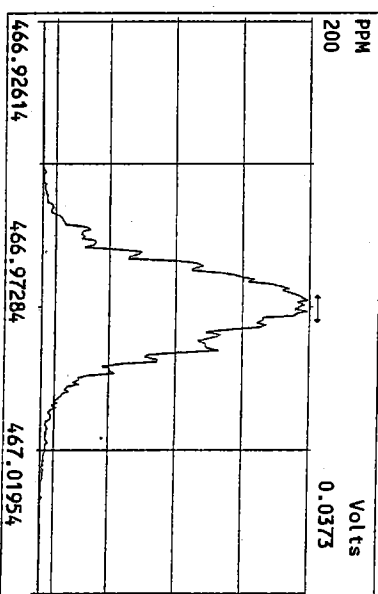
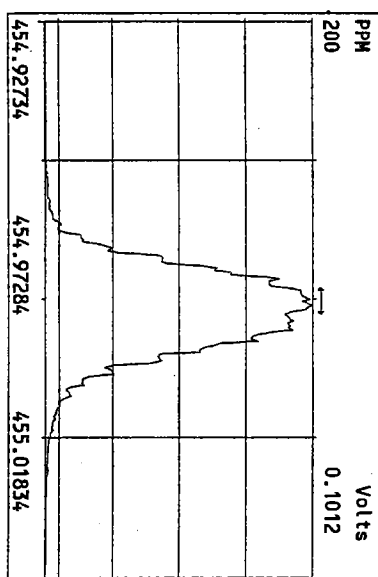
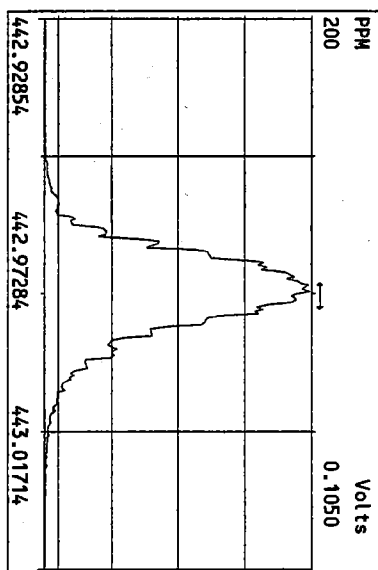
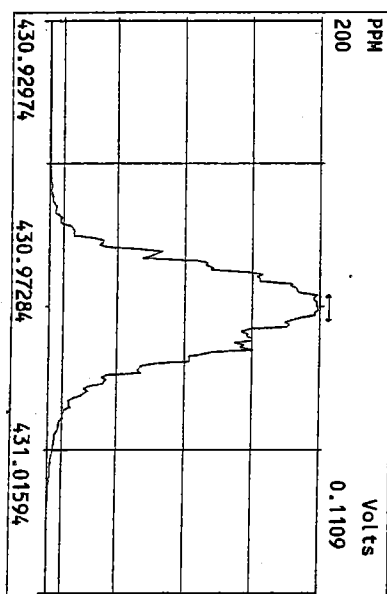
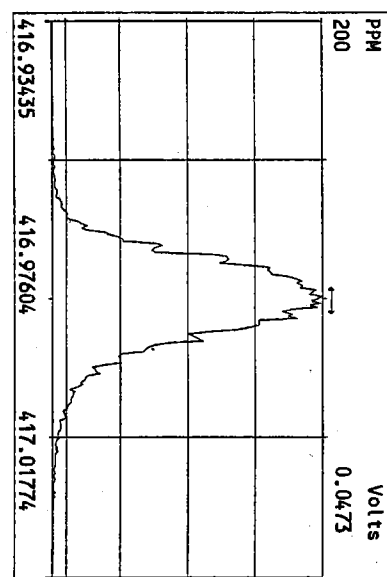
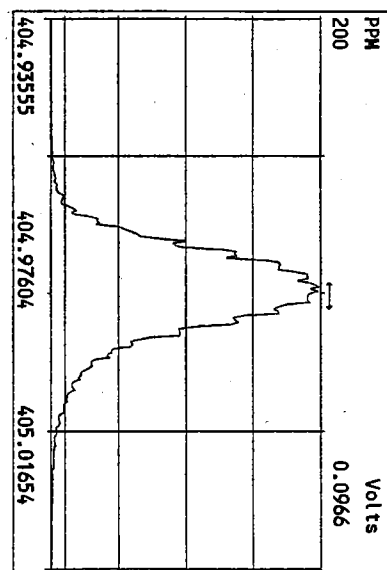


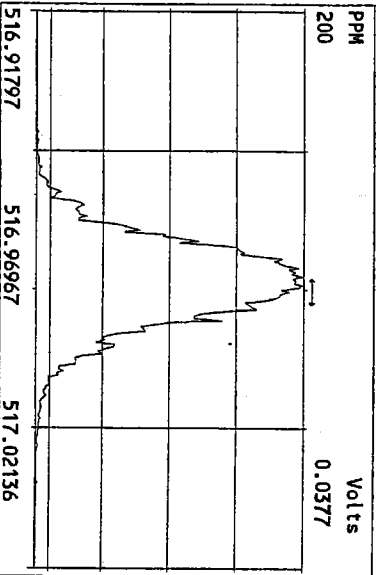
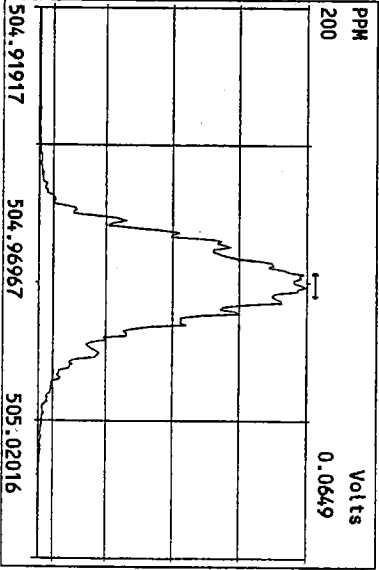
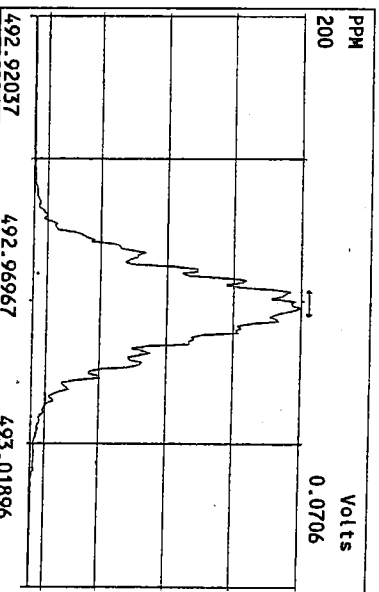
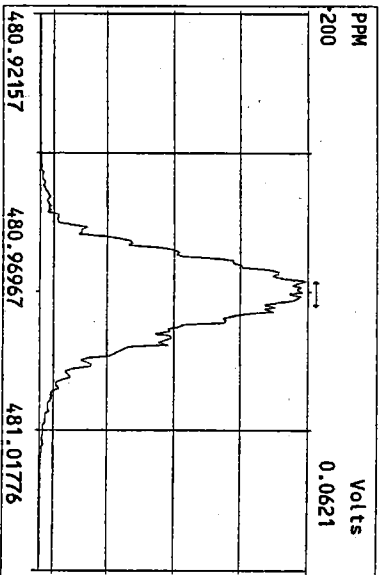
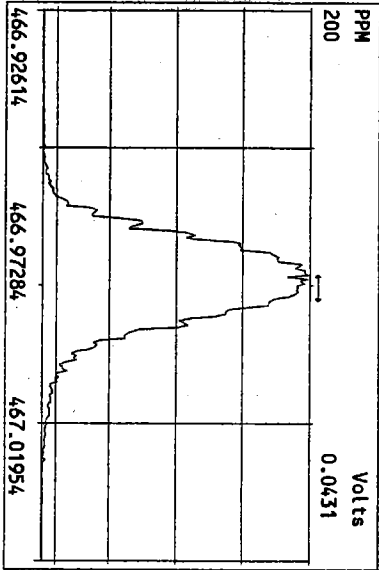
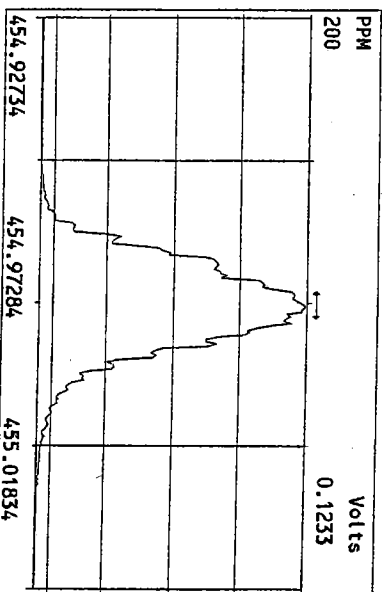
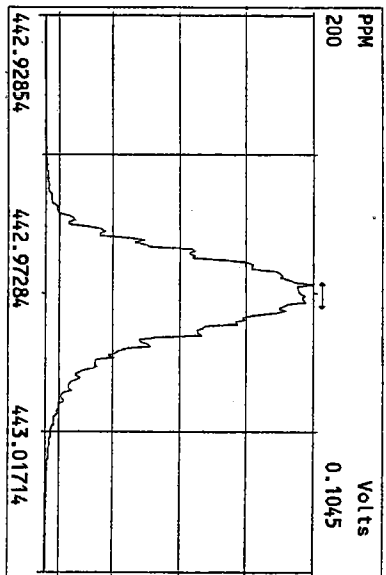
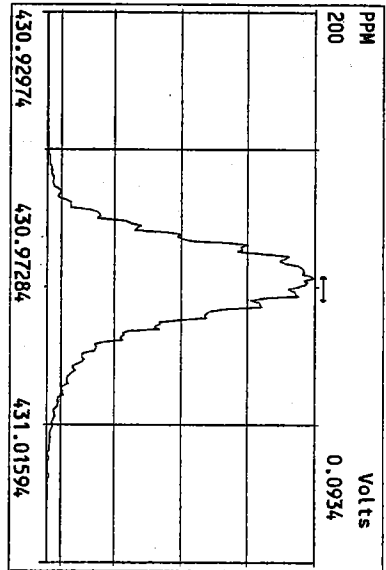
Peak Locate Examination: 7-MAY-2010:01:52 File:06MAY10M_RES_CHECK
Experiment:PCDD Function:1 Reference:PFK













Analytical Resources, Incorporated
Analytical Chemists and Consultants

April 20, 2010

Jessie Massingale
Floyd-Snider Inc.
601 Union Street, Suite 600
Seattle, WA 98101-2341

RE: Client Project: Lora Lake Apartments, POS-LLA
ARI Job No: QT81

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.

A handwritten signature in black ink, appearing to read "Susan D. Dunnihoo".

Susan D. Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QT81

SD/sdrd

**Chain of Custody
Documentation**

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

prepared
by

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

Port of Seattle

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)



Date: 04/21/10
Page: 1 of 1
No. of Coolers: 1
Cooler Temps: 20

ARI Assigned Number: Q781
Turn-around Requested: STANDARD
ARI Client Company: Phone:
FLOYD/SNIIDER (206) 292-2078
Client Contact: MEGAN McCULLOUGH/MATT NEETMAN
Client Project Name: LORD LAKES APARTMENTS

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested	Notes/Comments	Relinquished by:		Received by:		
							(Signature)	Printed Name	(Signature)	Printed Name	
CB31A04210GRAB	04/21/10	08:55	W	5	VOC B260C-SIM X						
CB1042110GRAB	04/21/10	09:13	W	5	X						
CB4857042110GRAB	04/21/10	09:23	W	13	X	RUN MS/MSD					
CB101042110GRAB	04/21/10	10:23	W	5	X						
TB042110	04/21/10	8:30	W	3	X	TRIP BLANK					
Comments/Special Instructions * ACID/SILICA GEL CLEAN-UP FOR NNTPH-Dx											
Relinquished by: [Signature] Printed Name: BRAD KAWASZKOWSKI Company: TAPCO ASSOCIATES Date & Time: 04/21/10 16:18											
Received by: [Signature] Printed Name: A. Volgardsen Company: ART Date & Time: 4/21/10 1618											

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: Unless specified by workorder or contract, all water/sediment samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



Cooler Receipt Form

ARI Client: Flourd Snider

Project Name: Lora Lakes Apart.

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____

Assigned ARI Job No: QT81

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)..... 2.4
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 909411619

Cooler Accepted by: AV Date: 4/21/10 Time: 1618

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 4/1/10
 Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JLW Date: 4/22/10 Time: 0920

**** 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:

Trip Blank (TB 042110) 3 of 3 vials "pb"

By: JLW Date: 4/22/10

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Case Narrative

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.



Case Narrative

Client: Floyd Snider

Project: Lora Lake Apartments, POS-LLA

Matrix: Water

ARI Job No.: QT81

Sample receipt

Analytical Resources, Inc. (ARI) accepted four water samples and a trip blank on April 21, 2010 under ARI job QT81. The cooler temperature measured by IR thermometer following ARI SOP was 2.4°C. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

SIM Volatiles by SW8260C

The samples were analyzed within the method recommended holding time for preserved samples. Sample preservation was confirmed as acceptable after analysis.

Initial calibrations and continuing calibrations were within limits for all target compounds. 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 and RPD were within control limits.

The matrix spike had recoveries high of limits for Tetrachloroethene at 121% (limit 120%). The matrix spike duplicate recoveries and RPDs were within limits. No action is required for matrix QC.

NWTPH-Dx

The samples were extracted and analyzed within the method recommended holding time.

Initial calibrations and continuing calibrations were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS percent recovery of diesel was within limits.

The MS/MSD had recovery and RPD within limits.



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 ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 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



- 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

SURR SOLUTIONS

4/3/2010

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1706-2	ABN	100/150	MEOH	07/30/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C	1705-4	SIM ABN	25/37.5	MEOH	03/08/11
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	1707-2	1,4DIOXANE	100	MEOH	03/19/11
H	1723-2	OP-PEST	25	MEOH	04/02/11
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	1699-1	TPH	450	MECL2	07/02/10
P	1707-4	HCID	2250	MECL2	07/02/10
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	01/13/11
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					

LCS SOLUTIONS

4/3/2010

LABL SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1716-1	PCB 1660	20	ACETONE 03/30/11
2#	1472-3	BCOC PEST	10	ACETONE NA
3	1705-3	PEST	02/04/20	ACETONE 03/08/11
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE 06/26/10
5	1677-1	EPH	1500	MECL2 11/12/10
6	1702-2	PCP	12.5/125	ACETONE 02/18/11
7	1705-1	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	1698-2	ABN ACID	100/200	MECL2 07/14/10
11	1642-2	TPHD	15000	ACETONE 09/07/10
12	1698-1	ABN BASE	200	MEOH 07/24/10
13	1613-1	LOW PCB	2	ACETONE 06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH 04/10/10
15	1716-2	SIM PNA	15/75	MEOH 03/30/11
16	1707-1	DIOXANE	100	MEOH 11/05/10
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	1702-4	HERB	12.5/12500	MEOH 04/17/10
23	1706-1	LW ABN BASE	20	MEOH 03/08/11
24	1696-1	LOW ABN	10	ACETONE 01/13/11
25#	1481-1	DIPHENYL	100	MEOH NA
26	1723-3	OP-PEST	25	MEOH 11/20/10
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

LCS SOLUTIONS

4/3/2010

31	1707-3	TERPINEOL	100	MEOH	03/19/11
32	1619-3	GUAIACOL	50-200	ACETONE	04/30/10
33	1639-3	RETENE	100	MEOH	09/03/10
34	1633-1	CONGENERES	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	1696-3	DDTS	2.5	ACETONE	06/03/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
53	1703-3	DALAPON	50	MEOH	09/11/10
54	1701-2	PBDE	0.5	ACETONE	02/10/11
#=PROJECT SPECIFIC SOLUTION					
*=REVERIFIED SOLUTION					



**Spike Recovery Control Limits for Analysis of Aqueous Samples
Volatile Organic Compounds (VOA) EPA SW-846 Methods 8260C
10 mL Purge Volume ^(1,7)**

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 Control Limits	ARI ME Control Limits ⁽²⁾
LCS Spike Recovery ⁽⁶⁾		
<i>tert</i> -Butanol	49 - 150	32 - 167
Metyl- <i>tert</i> -butylether	47 - 154	29 - 172
Di- <i>iso</i> -propylether	43 - 149	25 - 167
Ethyl- <i>tert</i> -butylether	45 - 155	27 - 173
<i>tert</i> -Amyl methylether	52 - 151	35 - 168
Dichlorodifluoromethane	59 - 129	47 - 141
Chloromethane	66 - 123	57 - 133
Vinyl Chloride	68 - 121	59 - 130
Bromomethane	55 - 148	40 - 164
Chloroethane	47 - 155	29 - 173
1,1,2-Trichloro-1,2,2-trifluoroethane	70 - 129	60 - 139
Acrolein	24 - 170	10 - 194
Trichlorotrifluoroethane	74 - 127	65 - 136
Acetone	70 - 130	60 - 140
1,1-Dichloroethene	72 - 120	64 - 127
Bromoethane	73 - 131	63 - 141
Methyl Iodide	34 - 183	10 - 208
Methylene Chloride	70 - 124	61 - 133
Acrylonitrile	71 - 135	60 - 146
Methyl <i>tert</i> -Butyl Ether	78 - 120	72 - 122
Carbon Disulfide	66 - 129	56 - 140
<i>trans</i> -1,2-Dichloroethene	76 - 120	70 - 120
Vinyl Acetate	49 - 134	35 - 148
1,1-Dichloroethane	75 - 120	68 - 124
2-Butanone	78 - 131	69 - 140
2,2-Dichloropropane	68 - 121	59 - 130
<i>cis</i> -1,2-Dichloroethene	80 - 120	75 - 120
Chloroform	78 - 120	72 - 121
Bromodichloromethane	79 - 120	73 - 120
1,1,1-Trichloroethane	76 - 120	69 - 123
1,1-Dichloropropene	78 - 120	72 - 120
Carbon Tetrachloride	70 - 126	61 - 135
1,2-Dichloroethane	78 - 120	72 - 120
Benzene	79 - 120	73 - 120
Trichloroethene	78 - 120	72 - 122
1,2-Dichloropropane	80 - 120	75 - 120
Bromochloromethane	78 - 120	72 - 124



Dibromomethane	80 - 120	75 - 120
2-Chloroethylvinylether	68 - 134	57 - 145
4-Methyl-2-Pentanone	73 - 131	63 - 141
cis-1,3-Dichloropropene	78 - 120	72 - 121
Toluene	79 - 120	74 - 120
trans-1,3-Dichloropropene	75 - 120	68 - 124
2-Hexanone	75 - 130	66 - 139
1,1,2-Trichloroethane	79 - 120	74 - 120
1,3-Dichloropropane	78 - 120	72 - 120
Tetrachloroethene	72 - 120	65 - 125
Dibromochloromethane	78 - 120	71 - 125
Ethylene Dibromide	75 - 120	68 - 125
Chlorobenzene	79 - 120	73 - 120
Ethylbenzene	78 - 121	71 - 128
1,1,2,2-Tetrachloroethane	72 - 120	64 - 127
m,p-Xylene	65 - 129	54 - 140
o-Xylene	76 - 120	69 - 127
Styrene	74 - 121	66 - 129
Isopropylbenzene	74 - 120	66 - 128
Bromoform	71 - 120	63 - 128
1,1,1,2-Tetrachloroethane	75 - 120	68 - 126
1,2,3-Trichloropropane	73 - 120	65 - 128
trans-1,4-Dichloro-2-butene	65 - 135	53 - 147
n-Propylbenzene	76 - 121	69 - 129
Bromobenzene	72 - 120	64 - 126
1,3,5-Trimethylbenzene	74 - 123	66 - 131
2-Chlorotoluene	74 - 120	67 - 127
4-Chlorotoluene	75 - 120	68 - 125
tert-Butylbenzene	73 - 121	65 - 129
1,2,4-Trimethylbenzene	73 - 124	65 - 133
sec-Butylbenzene	75 - 123	67 - 131
4-Isopropyltoluene	71 - 125	62 - 134
1,3-Dichlorobenzene	72 - 120	64 - 127
1,4-Dichlorobenzene	76 - 120	69 - 123
n-Butylbenzene	72 - 124	63 - 133
1,2-Dichlorobenzene	75 - 120	68 - 124
1,2-Dibromo-3-chloropropane	67 - 121	58 - 130
1,2,4-Trichlorobenzene	71 - 120	63 - 128
Hexachloro-1,3-butadiene	67 - 124	58 - 134
Naphthalene	71 - 125	62 - 134
1,2,3-Trichlorobenzene	61 - 134	49 - 146
MB/LCS Surrogate Recovery		
Dibromofluoromethane	64 - 133	(3)
d4-1,2-Dichloroethane	70 - 132	(3)
d8-Toluene	80 - 120	(3)



4-Bromofluorobenzene	80 - 120	(3)
d4-1,2-Dichlorobenzene	80 - 120	(3)
Sample Surrogate Recovery		
Dibromofluoromethane	30 - 160 ⁽⁵⁾	(3)
d4-1,2-Dichloroethane	80 - 143	(3)
d8-Toluene	80 - 120	(3)
4-Bromofluorobenzene	80 - 120	(3)
D4-1,2-Dichlorobenzene	80 - 120	(3)

(1) Control Limits calculated using all data generated 1/1/08 through 4/15/09.

(2) **ME = A marginal exceedance** defined in the NELAC Standard⁽⁴⁾ 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.

(3) Marginal Exceedances not allowed for surrogate standards.

(4) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.

(5) 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

(6) 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.

(7) Highlighted control limits (**bold font**) are adjusted from the calculated values as follows:

a) ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.

b) Control limits for analyzes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.



**Spike Recovery Control Limits Hydrocarbon Identification (NWTPH-HCID)
and Diesel Range Petroleum Hydrocarbons (NWTPH-D & AK-102) ⁽¹⁾**

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>

Method:	NWTPH-HCID ⁽²⁾	NWTPH-D		AK102 ⁽²⁾
Sample Matrix:	Water & Soil	Water	Soil	Water & Soil
Preparation:	500 to 1 mL	500 to 1 mL	10g to 1 mL	500 to 1 mL or 10g to 1 mL
LCS Spike Recovery ⁽³⁾				
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
Method Blank/LCS Surrogate Recovery				
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
Sample Surrogate Recovery				
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.

Data Summary Package

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

SIM VOLATILE ANALYSIS

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB31A042110GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QT81A
LIMS ID: 10-10138
Matrix: Water
Data Release Authorized: *AS*
Reported: 05/03/10

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 04/21/10
Date Received: 04/21/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/29/10 19:24

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	116%
d8-Toluene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB1042110GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QT81B

QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10139

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: *AS*

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 19:49

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	110%
d8-Toluene	102%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857042110GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QT81C


QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10140

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 20:15

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	113%
d8-Toluene	100%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB101042110GRAB
Page 1 of 1 **SAMPLE**

Lab Sample ID: QT81D

QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10141

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: *AS*

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 21:32

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	114%
d8-Toluene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: TB042110
Page 1 of 1 Trip Blank

Lab Sample ID: QT81E


QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10142

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 18:07

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	93.0%
d8-Toluene	99.4%

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

<u>Client ID</u>	<u>DCE</u>	<u>TOL</u>	<u>TOT OUT</u>
MB-042910	103%	100%	0
LCS-042910	93.4%	99.9%	0
LCSD-042910	88.4%	97.7%	0
CB31A042110GRAB	116%	101%	0
CB1042110GRAB	110%	102%	0
CB4857042110GRAB	113%	100%	0
CB4857042110GRAB-MS	96.7%	102%	0
CB4857042110GRAB-MSD	95.4%	101%	0
CB101042110GRAB	114%	101%	0
TB042110	93.0%	99.4%	0

	LCS/MB LIMITS	QC LIMITS
(DCE) = d4-1,2-Dichloroethane	(80-133)	(80-136)
(TOL) = d8-Toluene	(80-121)	(80-120)

Prep Method: SW5030
Log Number Range: 10-10138 to 10-10142

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857042110GRAB

Page 1 of 1

MATRIX SPIKE

Lab Sample ID: QT81C

QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10140

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: *RB*

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst MS: NT7/MH

Sample Amount MS: 10.0 mL

MSD: NT7/MH

MSD: 10.0 mL

Date Analyzed MS: 04/29/10 20:41

Purge Volume MS: 10.0 mL

MSD: 04/29/10 21:06

MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
1,2-Dichloroethane	< 0.020 U	1.04	1.00	104%	0.998	1.00	99.8%	4.1%
cis-1,2-Dichloroethene	< 0.020 U	0.973	1.00	97.3%	0.958	1.00	95.8%	1.6%
trans-1,2-Dichloroethene	< 0.020 U	1.04	1.00	104%	1.01	1.00	101%	2.9%
Trichloroethene	< 0.020 U	1.10	1.00	110%	1.06	1.00	106%	3.7%
Tetrachloroethene	< 0.020 U	1.21	1.00	121%	1.15	1.00	115%	5.1%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857042110GRAB
Page 1 of 1 MATRIX SPIKE

Lab Sample ID: QT81C


QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10140

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 20:41

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.7%
d8-Toluene	102%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857042110GRAB
Page 1 of 1 MATRIX SPIKE DUP

Lab Sample ID: QT81C


QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10140

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 21:06

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.4%
d8-Toluene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-042910
 Page 1 of 1 LAB CONTROL SAMPLE

Lab Sample ID: LCS-042910
 LIMS ID: 10-10138
 Matrix: Water
 Data Release Authorized: *[Signature]*
 Reported: 05/03/10

QC Report No: QT81-Floyd/Snider
 Project: Lora Lakes Apartments
 POS-LLA
 Date Sampled: NA
 Date Received: NA

Instrument/Analyst LCS: NT7/MH Sample Amount LCS: 10.0 mL
 LCSD: NT7/MH LCSD: 10.0 mL
 Date Analyzed LCS: 04/29/10 16:37 Purge Volume LCS: 10.0 mL
 LCSD: 04/29/10 17:02 LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,2-Dichloroethane	0.973	1.00	97.3%	0.953	1.00	95.3%	2.1%
cis-1,2-Dichloroethene	0.942	1.00	94.2%	0.928	1.00	92.8%	1.5%
trans-1,2-Dichloroethene	0.997	1.00	99.7%	0.983	1.00	98.3%	1.4%
Trichloroethene	1.04	1.00	104%	1.05	1.00	105%	1.0%
Tetrachloroethene	1.11	1.00	111%	1.11	1.00	111%	0.0%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	93.4%	88.4%
d8-Toluene	99.9%	97.7%

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QT81
 Lab File ID: 04291005
 Date Analyzed: 04/29/10
 Instrument ID: NT7

Client: FLOYD/SNIDER
 Project: POS-LLA
 Lab Sample ID: MB0429
 Time Analyzed: 1728
 Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01		LCS0429	04291003	1637
02		LCSD0429	04291004	1702
03	TB042110	QT81E	04291006	1807
04	CB31A042110G	QT81A	04291009	1924
05	CB1042110GRA	QT81B	04291010	1949
06	CB4857042110	QT81C	04291011	2015
07	CB4857042110	QT81CMS	04291012	2041
08	CB4857042110	QT81CMSD	04291013	2106
09	CB101042110G	QT81D	04291014	2132
10				
11				
12				
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30				

COMMENTS:

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: MB-042910
Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-042910
LIMS ID: 10-10138
Matrix: Water
Data Release Authorized: *AB*
Reported: 05/03/10

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/MH
Date Analyzed: 04/29/10 17:28

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	100%

TPHD ANALYSIS

ORGANICS ANALYSIS DATA SHEET

TOTAL DIESEL RANGE HYDROCARBONS

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Matrix: Water

QC Report No: QT81-Floyd/Snider

Project: Lora Lakes Apartments

POS-LLA

Data Release Authorized: **VTS**
Reported: 04/29/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
QT81A 10-10138	CB31A042110GRAB HC ID: MOTOR OIL	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U 0.50 63.2%
QT81B 10-10139	CB1042110GRAB HC ID: ---	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 69.5%
MB-042310 10-10140	Method Blank HC ID: ---	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 70.0%
QT81C 10-10140	CB4857042110GRAB HC ID: ---	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 68.7%
QT81D 10-10141	CB101042110GRAB HC ID: ---	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 68.1%

Reported in mg/L (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: Water

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
CB31A042110GRAB	63.2%	0
CB1042110GRAB	69.5%	0
MB-042310	70.0%	0
LCS-042310	72.1%	0
CB4857042110GRAB	68.7%	0
CB4857042110GRAB MS	71.2%	0
CB4857042110GRAB MSD	71.4%	0
CB101042110GRAB	68.1%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(51-120)

(41-121)

Prep Method: SW3510C
Log Number Range: 10-10138 to 10-10141

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: CB4857042110GRAB
MS/MSD

Lab Sample ID: QT81C
LIMS ID: 10-10140
Matrix: Water
Data Release Authorized: **VTS**
Reported: 04/29/10

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 04/21/10
Date Received: 04/21/10

Date Extracted MS/MSD: 04/23/10

Sample Amount MS: 500 mL

Date Analyzed MS: 04/26/10 20:14
MSD: 04/26/10 20:39

Final Extract Volume MS: 1.0 mL

Instrument/Analyst MS: FID/MS
MSD: FID/MS

Dilution Factor MS: 1.00

MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 0.25	1.99	3.00	66.3%	1.99	3.00	66.3%	0.0%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	71.2%	71.4%

Results reported in mg/L
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-042310

LAB CONTROL

Lab Sample ID: LCS-042310

LIMS ID: 10-10140

Matrix: Water

Data Release Authorized: **VIB**

Reported: 04/29/10

QC Report No: QT81-Floyd/Snider

Project: Lora Lakes Apartments

POS-LLA

Date Sampled: 04/21/10

Date Received: 04/21/10

Date Extracted: 04/23/10

Date Analyzed: 04/26/10 18:33

Instrument/Analyst: FID/MS

Sample Amount: 500 mL

Final Extract Volume: 1.0 mL

Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	2.09	3.00	69.7%

TPHD Surrogate Recovery

o-Terphenyl	72.1%
-------------	-------

Results reported in mg/L

4
TPH METHOD BLANK SUMMARY

BLANK NO.

QT81MBW1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

SDG No.: QT81

Project No.: LORA LAKES APT.

Date Extracted: 04/23/10

Matrix: LIQUID

Date Analyzed : 04/26/10

Instrument ID : FID4B

Time Analyzed : 1807

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
	=====	=====	=====
01	QT81LCSW1	QT81LCSW1	04/26/10
02	CB31A042110G	QT81A	04/26/10
03	CB1042110GRA	QT81B	04/26/10
04	CB4857042110	QT81C	04/26/10
05	CB4857042110	QT81CMS	04/26/10
06	CB4857042110	QT81CMSD	04/26/10
07	CB101042110G	QT81D	04/26/10
08			
09			
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30			

Laboratory Data Package

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

**SIM Volatile Analysis
QC Summary Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

<u>Client ID</u>	<u>DCE</u>	<u>TOL</u>	<u>TOT OUT</u>
MB-042910	103%	100%	0
LCS-042910	93.4%	99.9%	0
LCSD-042910	88.4%	97.7%	0
CB31A042110GRAB	116%	101%	0
CB1042110GRAB	110%	102%	0
CB4857042110GRAB	113%	100%	0
CB4857042110GRAB-MS	96.7%	102%	0
CB4857042110GRAB-MSD	95.4%	101%	0
CB101042110GRAB	114%	101%	0
TB042110	93.0%	99.4%	0

LCS/MB LIMITS QC LIMITS

(DCE) = d4-1,2-Dichloroethane (80-133) (80-136)
(TOL) = d8-Toluene (80-121) (80-120)

Prep Method: SW5030
Log Number Range: 10-10138 to 10-10142

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857042110GRAB
Page 1 of 1 MATRIX SPIKE

Lab Sample ID: QT81C
LIMS ID: 10-10140
Matrix: Water
Data Release Authorized: *B*
Reported: 05/03/10

QC Report No: QT81-Floyd/Snyder
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 04/21/10
Date Received: 04/21/10

Instrument/Analyst MS: NT7/MH
MSD: NT7/MH
Date Analyzed MS: 04/29/10 20:41
MSD: 04/29/10 21:06

Sample Amount MS: 10.0 mL
MSD: 10.0 mL
Purge Volume MS: 10.0 mL
MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
1,2-Dichloroethane	< 0.020 U	1.04	1.00	104%	0.998	1.00	99.8%	4.1%
cis-1,2-Dichloroethene	< 0.020 U	0.973	1.00	97.3%	0.958	1.00	95.8%	1.6%
trans-1,2-Dichloroethene	< 0.020 U	1.04	1.00	104%	1.01	1.00	101%	2.9%
Trichloroethene	< 0.020 U	1.10	1.00	110%	1.06	1.00	106%	3.7%
Tetrachloroethene	< 0.020 U	1.21	1.00	121%	1.15	1.00	115%	5.1%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-042910

Page 1 of 1

LAB CONTROL SAMPLE

Lab Sample ID: LCS-042910

LIMS ID: 10-10138

Matrix: Water

Data Release Authorized: 

Reported: 05/03/10

QC Report No: QT81-Floyd/Snider

Project: Lora Lakes Apartments

POS-LLA

Date Sampled: NA

Date Received: NA

Instrument/Analyst LCS: NT7/MH

LCSD: NT7/MH

Date Analyzed LCS: 04/29/10 16:37

LCSD: 04/29/10 17:02

Sample Amount LCS: 10.0 mL

LCSD: 10.0 mL

Purge Volume LCS: 10.0 mL

LCSD: 10.0 mL

Analyte	LCS	Spike	LCS	LCS	LCS	Spike	LCSD	RPD
		Added-LCS	Recovery			Added-LCS	Recovery	
1,2-Dichloroethane	0.973	1.00	97.3%	0.953	0.953	1.00	95.3%	2.1%
cis-1,2-Dichloroethene	0.942	1.00	94.2%	0.928	0.928	1.00	92.8%	1.5%
trans-1,2-Dichloroethene	0.997	1.00	99.7%	0.983	0.983	1.00	98.3%	1.4%
Trichloroethene	1.04	1.00	104%	1.05	1.05	1.00	105%	1.0%
Tetrachloroethene	1.11	1.00	111%	1.11	1.11	1.00	111%	0.0%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	93.4%	88.4%
d8-Toluene	99.9%	97.7%

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

Lab Name: ANALYTICAL RESOURCES, INC
ARI Job No: QT81
Lab File ID: 04291005
Date Analyzed: 04/29/10
Instrument ID: NT7

Client: FLOYD/SNIDER
Project: POS-LLA
Lab Sample ID: MB0429
Time Analyzed: 1728
Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	-----	-----	-----	-----
01		LCS0429	04291003	1637
02		LCSD0429	04291004	1702
03	TB042110	QT81E	04291006	1807
04	CB31A042110G	QT81A	04291009	1924
05	CB1042110GRA	QT81B	04291010	1949
06	CB4857042110	QT81C	04291011	2015
07	CB4857042110	QT81CMS	04291012	2041
08	CB4857042110	QT81CMSD	04291013	2106
09	CB101042110G	QT81D	04291014	2132
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30				

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD/SNIDER

Lab Code: ARI Case No.: POS-LLA SDG No.: QT81

Lab File ID: 04081001 BFB Injection Date: 04/07/10

Instrument ID: NT7 BFB Injection Time: 1326

GC Column: RTXVMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.8
75	30.0 - 66.0% of mass 95	44.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.3 (0.5)1
174	50.0 - 101.0% of mass 95	72.4
175	4.0 - 9.0% of mass 174	4.9 (6.7)1
176	93.0 - 101.0% of mass 174	67.7 (93.5)1
177	5.0 - 9.0% of mass 176	4.3 (6.3)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		00200408	04081002	04/07/10	1401
02		00500408	04081003	04/07/10	1427
03		01000408	04081004	04/07/10	1453
04		05000408	04081005	04/07/10	1518
05		10000408	04081006	04/07/10	1544
06		20000408	04081007	04/07/10	1610
07		40000408	04081008	04/07/10	1635
08		ICV0408	04081009	04/07/10	1701
09					
10					
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20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD/SNIDER

Lab Code: ARI Case No.: POS-LLA SDG No.: QT81

Lab File ID: 04291001 BFB Injection Date: 04/29/10

Instrument ID: NT7 BFB Injection Time: 1537

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	13.8
75	30.0 - 66.0% of mass 95	42.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 101.0% of mass 95	74.7
175	4.0 - 9.0% of mass 174	5.6 (7.4)1
176	93.0 - 101.0% of mass 174	73.0 (97.7)1
177	5.0 - 9.0% of mass 176	5.0 (6.8)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		CC0429	04291002	04/29/10	1611
02		LCS0429	04291003	04/29/10	1637
03		LCSD0429	04291004	04/29/10	1702
04		MB0429	04291005	04/29/10	1728
05	TB042110	QT81E	04291006	04/29/10	1807
06	CB31A042110GRAB	QT81A	04291009	04/29/10	1924
07	CB1042110GRAB	QT81B	04291010	04/29/10	1949
08	CB4857042110GRAB	QT81C	04291011	04/29/10	2015
09	CB4857042110GRA	QT81CMS	04291012	04/29/10	2041
10	CB4857042110GRA	QT81CMSD	04291013	04/29/10	2106
11	CB101042110GRAB	QT81D	04291014	04/29/10	2132
12					
13					
14					
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17					
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19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QT81

Project: POS-LLA

Ical Midpoint ID: 04081005

Ical Date: 04/07/10

Instrument ID: NT7

Project Run Date: 04/07/10

	IS1 (PFB) AREA #	RT #	IS2 (DFB) AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	488851	5.32	692622	5.75		
UPPER LIMIT	977702	5.82	1385244	6.25		
LOWER LIMIT	244426	4.82	346311	5.25		
=====	=====	=====	=====	=====	=====	=====
Sample ID						
01 ICV0408	512463	5.32	694540	5.75		
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene

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: QT81

Project: POS-LLA

Ical Midpoint ID: 04081005

Ical Date: 04/07/10

Instrument ID: NT7

Project Run Date: 04/29/10

	IS1 (PFB) AREA #	RT #	IS2 (DFB) AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	488851	5.32	692622	5.75		
UPPER LIMIT	977702	5.82	1385244	6.25		
LOWER LIMIT	244426	4.82	346311	5.25		
=====	=====	=====	=====	=====	=====	=====
Sample ID						
=====	=====	=====	=====	=====	=====	=====
01 LCS0429	414131	5.32	538295	5.75		
02 LCSD0429	417126	5.32	530633	5.75		
03 MB0429	403884	5.32	494186	5.75		
04 TB042110	418084	5.32	480941	5.75		
05 CB31A042110G	344049	5.33	448698	5.76		
06 CB1042110GRA	346855	5.33	447512	5.76		
07 CB4857042110	359436	5.33	445290	5.76		
08 CB4857042110	386232	5.33	492815	5.76		
09 CB4857042110	397000	5.33	514538	5.76		
10 CB101042110G	369429	5.33	487879	5.76		
11						
12						
13						
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16						
17						
18						
19						
20						
21						
22						

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene

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.

**SIM Volatile Analysis
Sample Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB31A042110GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QT81A

QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10138

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: *[Signature]*

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 19:24

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	116%
d8-Toluene	101%

5/3/10

Data File: /chem1/nt7.i/29apr2010.b/04291009.d
Report Date: 03-May-2010 09:30

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291009.d
Lab Smp Id: QT81A Client Smp ID: CB31A042110GRAB
Inj Date : 29-APR-2010 19:24
Operator : MH Inst ID: nt7.i
Smp Info : QT81A,10,10,0
Misc Info : 10-10138
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:29 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78		5.211	5.210	(0.905)	9492	14.5780	14.578
* 4 Pentafluorobenzene	168		5.329	5.316	(1.000)	344049	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.329	5.328	(1.000)	164641	1155.95	1155.9
176 1,2-Dichloroethane	62		5.387	5.375	(1.011)	399	2.09993	2.100(Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.758	5.745	(1.000)	448698	1000.00	
\$ 9 d8-Toluene	98		6.902	6.892	(1.199)	522786	1012.64	1012.6
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291009.d
Lab Smp Id: QT81A
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10138

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Client Smp ID: CB31A042110GRAB
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	344049	-31.44
7 1,4-Difluorobenze	711657	355828	1423314	448698	-36.95

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.33	0.23
7 1,4-Difluorobenze	5.75	5.25	6.25	5.76	0.22

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: QT81A
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10138

Client SDG: QT81
Fraction: VOA
Client Smp ID: CB31A042110GRAB
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1155.9	115.59	76-119
\$ 9 d8-Toluene	1000.0	1012.6	101.26	60-140

Data File: /chem1/ht7.1/29apr2010.b/04291009.d

Date : 29-APR-2010 19:24

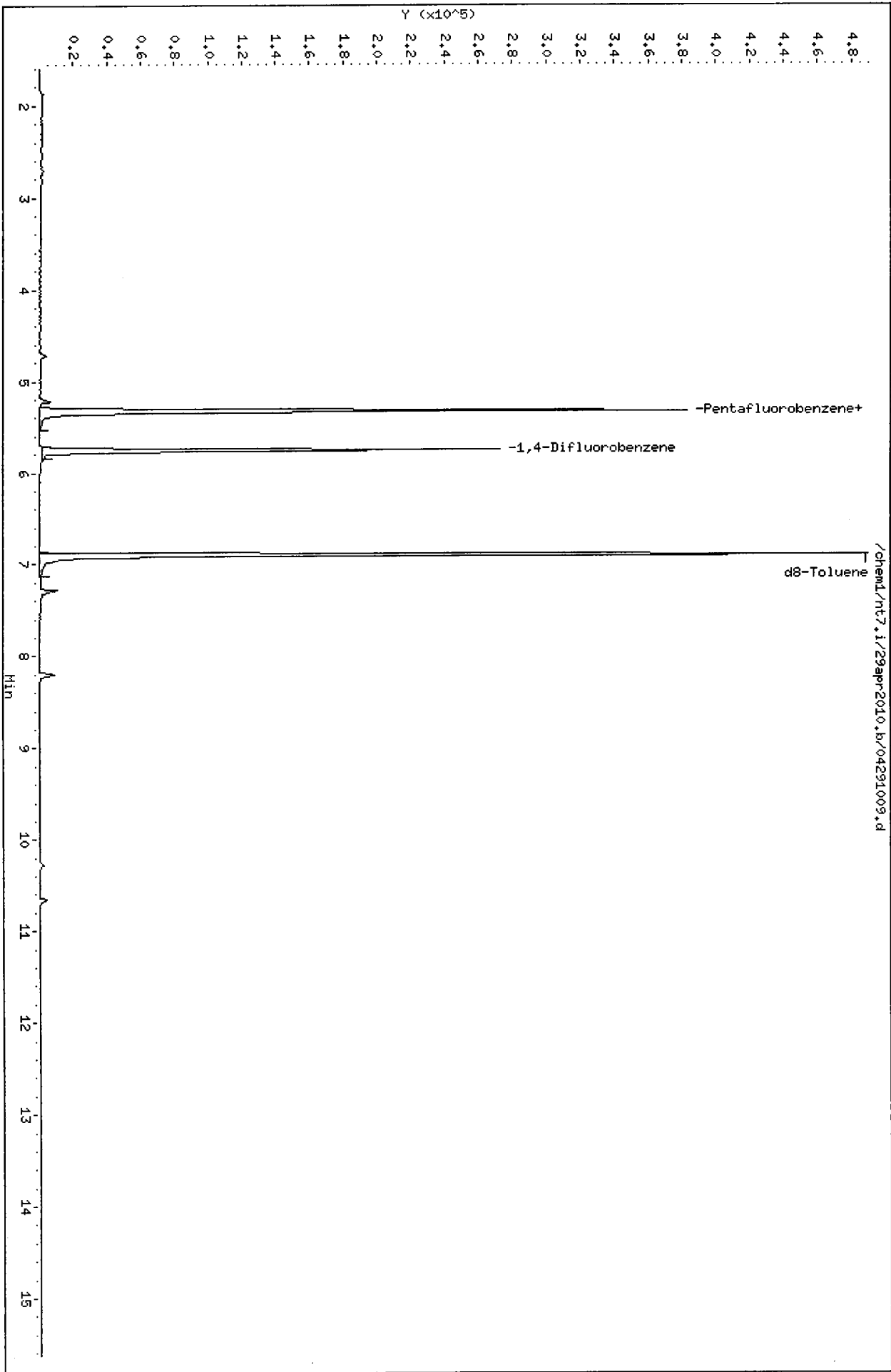
Client ID: CB31A042110GRAB

Sample Info: QT81A,10,10,0

Column phase: RTXVHS

Instrument: ht7.1

Operator: NH
Column diameter: 0.18



ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB1042110GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QT81B

QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10139

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: *[Signature]*

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 19:49

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	110%
d8-Toluene	102%

5/3/10

Data File: /chem1/nt7.i/29apr2010.b/04291010.d
Report Date: 03-May-2010 09:30

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291010.d
Lab Smp Id: QT81B Client Smp ID: CB1042110GRAB
Inj Date : 29-APR-2010 19:49
Operator : MH Inst ID: nt7.i
Smp Info : QT81B,10,10,0
Misc Info : 10-10139
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:29 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78		5.221	5.210	(0.907)	6777	10.4371	10.437
* 4 Pentafluorobenzene	168		5.327	5.316	(1.000)	346855	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.327	5.328	(1.000)	158275	1102.26	1102.3
176 1,2-Dichloroethane	62		5.386	5.375	(1.011)	358	1.86804	1.868(Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.756	5.745	(1.000)	447512	1000.00	
\$ 9 d8-Toluene	98		6.902	6.892	(1.199)	522938	1015.62	1015.6
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04291010.d
 Lab Smp Id: QT81B
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
 Misc Info: 10-10139

Calibration Date: 29-APR-2010
 Calibration Time: 16:11
 Client Smp ID: CB1042110GRAB
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	346855	-30.88
7 1,4-Difluorobenze	711657	355828	1423314	447512	-37.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.33	0.20
7 1,4-Difluorobenze	5.75	5.25	6.25	5.76	0.19

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: QT81B
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10139

Client SDG: QT81
Fraction: VOA
Client Smp ID: CB1042110GRAB
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1102.3	110.23	76-119
\$ 9 d8-Toluene	1000.0	1015.6	101.56	60-140

Data File: /chem1/nt7.1/29apr2010.b/04291010.d

Date: 29-APR-2010 19:49

Client ID: CB1042110GRAB

Sample Info: QT81B,10,10,0

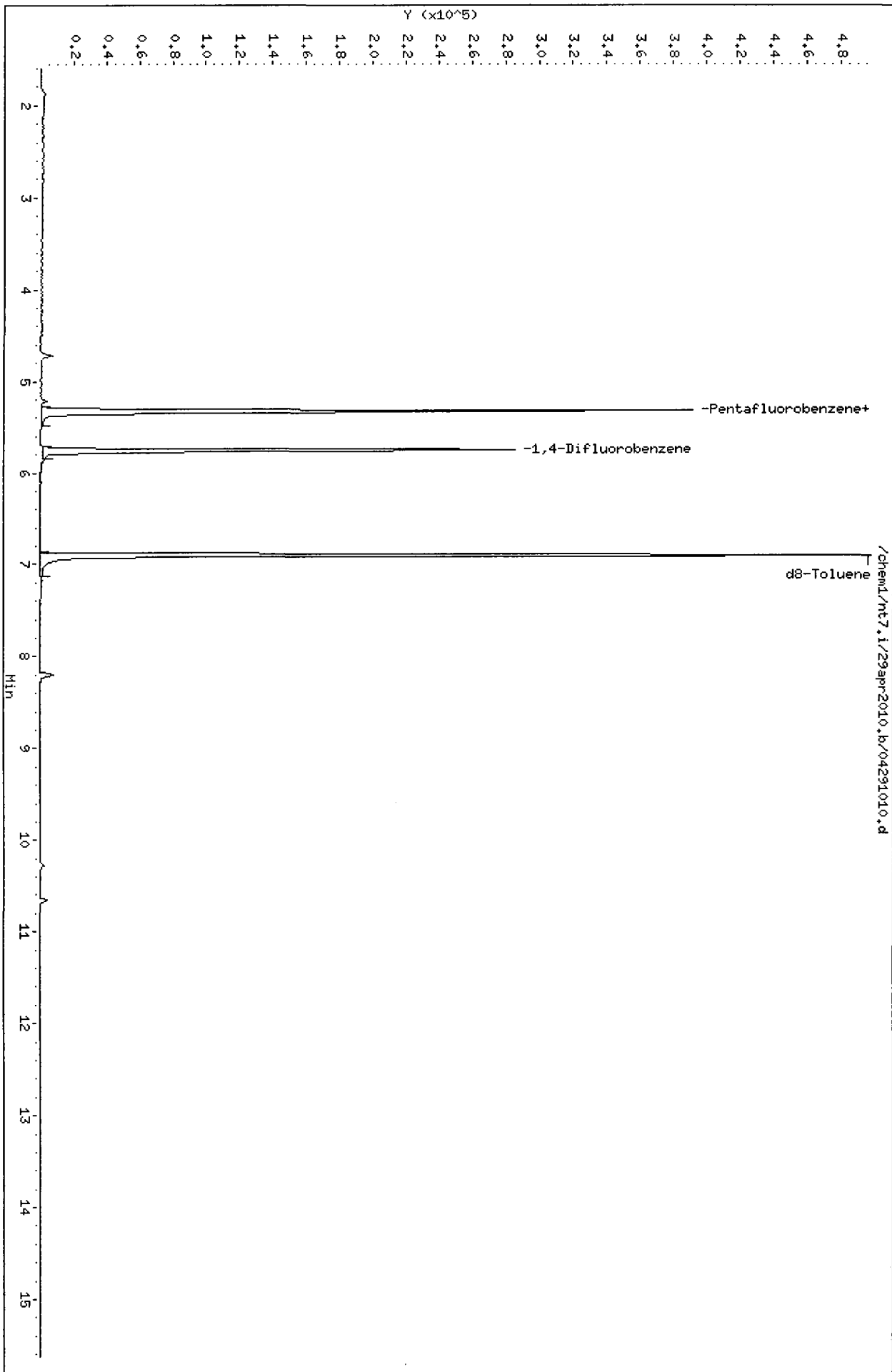
Page 5

Instrument: nt7.1

Operator: MH

Column diameter: 0.18

Column phase: RTXMS



QT81 : 00058

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857042110GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QT81C
LIMS ID: 10-10140
Matrix: Water
Data Release Authorized: *AS*
Reported: 05/03/10

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 04/21/10
Date Received: 04/21/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/29/10 20:15

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	113%
d8-Toluene	100%

M.
5/3/10

Data File: /chem1/nt7.i/29apr2010.b/04291011.d
Report Date: 03-May-2010 09:30

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291011.d
Lab Smp Id: QT81C Client Smp ID: CB4857042110GRAB
Inj Date : 29-APR-2010 20:15
Operator : MH Inst ID: nt7.i
Smp Info : QT81C,10,10,0
Misc Info : 10-10140
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:29 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78		5.222	5.210	(0.907)	7009	10.8480	10.848
* 4 Pentafluorobenzene	168		5.327	5.316	(1.000)	359436	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.327	5.328	(1.000)	167489	1125.60	1125.6
176 1,2-Dichloroethane	62		5.386	5.375	(1.011)	421	2.11816	2.118(Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.757	5.745	(1.000)	445290	1000.00	
\$ 9 d8-Toluene	98		6.903	6.892	(1.199)	513907	1003.06	1003.1
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291011.d
Lab Smp Id: QT81C
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10140

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Client Smp ID: CB4857042110GRAB
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	359436	-28.37
7 1,4-Difluorobenze	711657	355828	1423314	445290	-37.43

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.33	0.21
7 1,4-Difluorobenze	5.75	5.25	6.25	5.76	0.20

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: QT81C
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10140

Client SDG: QT81
Fraction: VOA
Client Smp ID: CB4857042110GRAB
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1125.6	112.56	76-119
\$ 9 d8-Toluene	1000.0	1003.1	100.31	60-140

Data File: /chem1/nt7.1/29apr2010.b/04291011.d

Date : 29-APR-2010 20:15

Client ID: CB4857042110GRAB

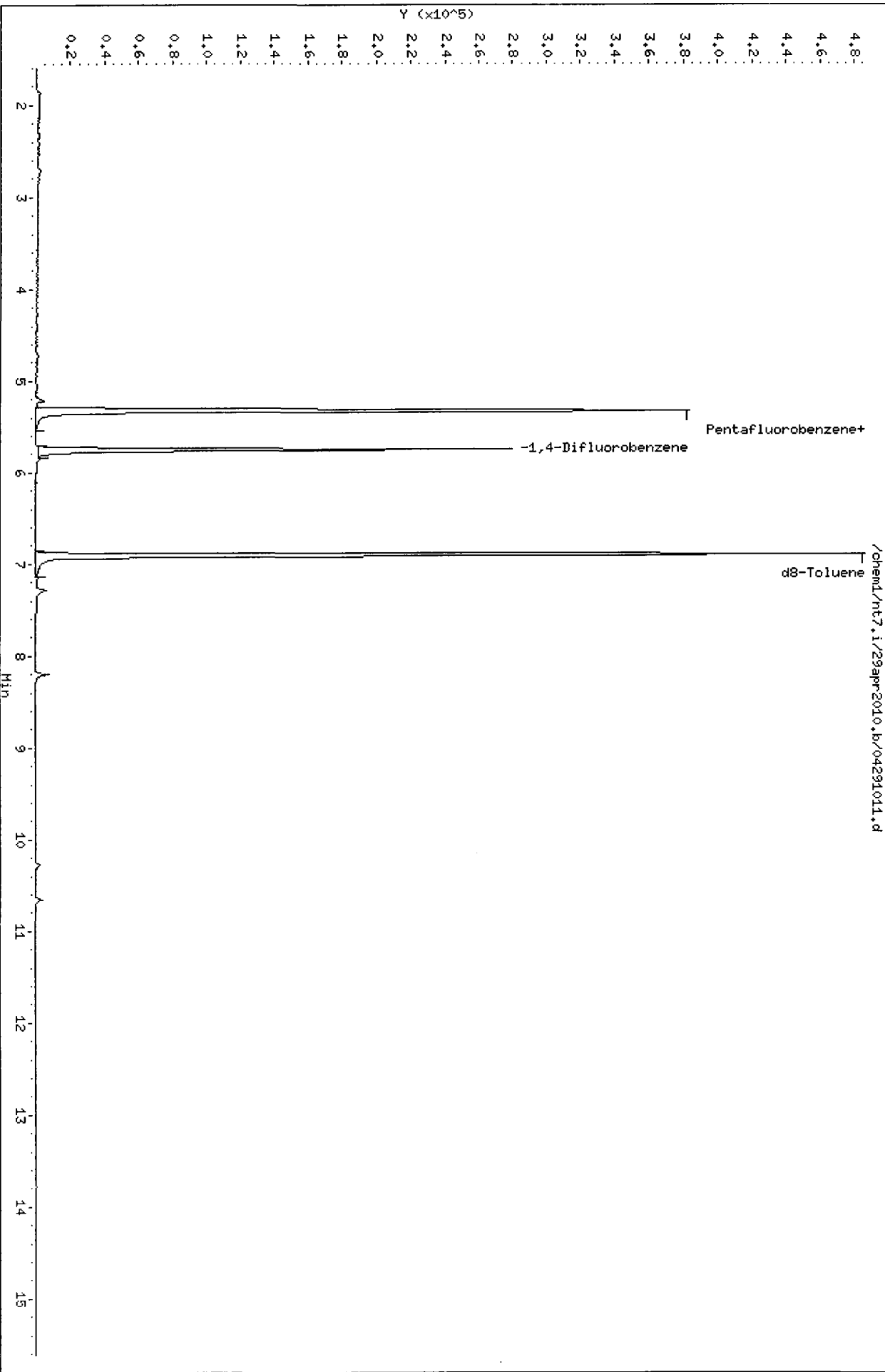
Sample Info: QT81C.10.10.0

Column phase: RTXVHS

Instrument: nt7.1

Operator: HH

Column diameter: 0.18



QT81 : 00064

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB101042110GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QT81D

QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10141

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: *AS*

Date Sampled: 04/21/10

Reported: 05/03/10

Date Received: 04/21/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/29/10 21:32

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	114%
d8-Toluene	101%

5/3/10

Data File: /chem1/nt7.i/29apr2010.b/04291014.d
Report Date: 03-May-2010 09:30

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291014.d
Lab Smp Id: QT81D Client Smp ID: CB101042110GRAB
Inj Date : 29-APR-2010 21:32
Operator : MH Inst ID: nt7.i
Smp Info : QT81D,10,10,0
Misc Info : 10-10141
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:29 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78		5.210	5.210	(0.905)	7841	11.0761	11.076
* 4 Pentafluorobenzene	168		5.327	5.316	(1.000)	369429	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.327	5.328	(1.000)	173832	1136.64	1136.6
176 1,2-Dichloroethane	62		5.386	5.375	(1.011)	413	2.02465	2.025(Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.757	5.745	(1.000)	487879	1000.00	
\$ 9 d8-Toluene	98		6.903	6.892	(1.199)	566130	1008.54	1008.5
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291014.d
Lab Smp Id: QT81D
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10141

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Client Smp ID: CB101042110GRAB
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	369429	-26.38
7 1,4-Difluorobenze	711657	355828	1423314	487879	-31.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.33	0.21
7 1,4-Difluorobenze	5.75	5.25	6.25	5.76	0.20

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: QT81

Sample Matrix: LIQUID

Fraction: VOA

Lab Smp Id: QT81D

Client Smp ID: CB101042110GRAB

Level: LOW

Operator: MH

Data Type: MS DATA

SampleType: SAMPLE

SpikeList File: special.spk

Quant Type: ISTD

Sublist File: all.sub

Method File: /chem1/nt7.i/29apr2010.b/sim040810.m

Misc Info: 10-10141

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1136.6	113.66	76-119
\$ 9 d8-Toluene	1000.0	1008.5	100.85	60-140

Data File: /chem1/nt7.i/29apr2010.b/04291014.d

Date : 29-APR-2010 21:32

Client ID: CB1010421106RAB

Sample Info: QT81D.10.10.0

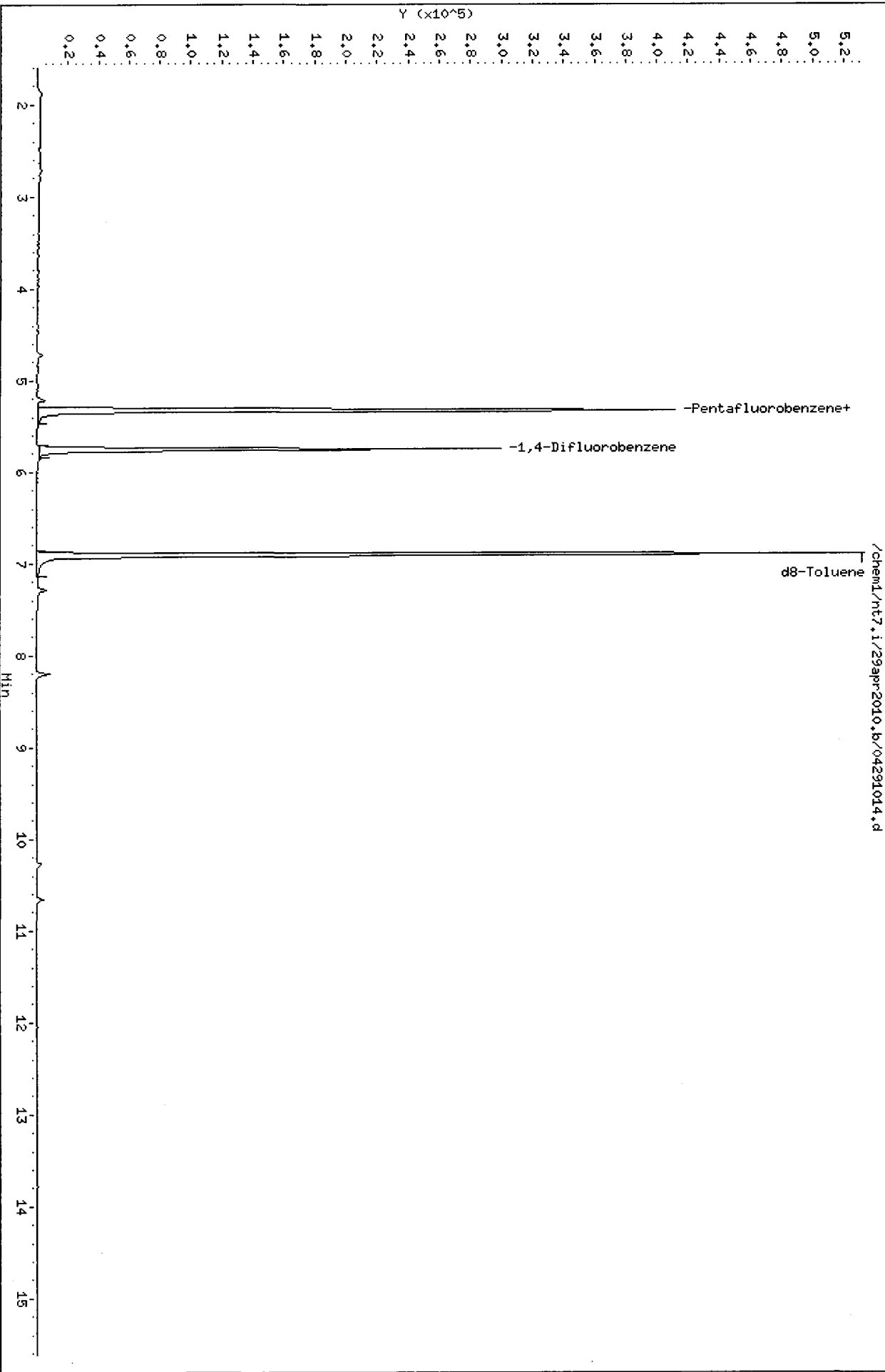
Column phase: RTXVMS

Page 5

Instrument: nt7.i

Operator: HH


Column diameter: 0.18



QT81 : 00070

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: TB042110
Page 1 of 1 Trip Blank

Lab Sample ID: QT81E
LIMS ID: 10-10142
Matrix: Water
Data Release Authorized: 
Reported: 05/03/10

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 04/21/10
Date Received: 04/21/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/29/10 18:07

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	93.0%
d8-Toluene	99.4%

5/3/10

Data File: /chem1/nt7.i/29apr2010.b/04291006.d
Report Date: 03-May-2010 09:30

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291006.d
Lab Smp Id: QT81E Client Smp ID: TB042110
Inj Date : 29-APR-2010 18:07
Operator : MH Inst ID: nt7.i
Smp Info : QT81E,10,10,0
Misc Info : 10-10142
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:29 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62						
2 1,1-Dichloroethene	96						
175 Trans-1,2-Dichloroethene	96						
3 cis-1,2-dichloroethene	96						
6 Benzene	78						
* 4 Pentafluorobenzene	168	5.315	5.316	(1.000)	418084	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.327	5.328	(1.002)	160943	929.891	929.89
176 1,2-Dichloroethane	62	5.315	5.375	(1.000)	957	4.14111	4.141(Q)
8 Trichloroethene	130	5.712	5.711	(0.994)	2257	12.3920	12.392(Q)
* 7 1,4-Difluorobenzene	114	5.746	5.745	(1.000)	480941	1000.00	
\$ 9 d8-Toluene	98	6.902	6.892	(1.201)	549850	993.663	993.66
10 Tetrachloroethene	166						
11 1,1,2,2-Tetrachloroethane	83						

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291006.d
Lab Smp Id: QT81E
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10142

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Client Smp ID: TB042110
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	418084	-16.68
7 1,4-Difluorobenze	711657	355828	1423314	480941	-32.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	0.02

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: QT81E
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10142

Client SDG: QT81
Fraction: VOA
Client Smp ID: TB042110
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	929.89	92.99	76-119
\$ 9 d8-Toluene	1000.0	993.66	99.37	60-140

Data File: /chem1/nt7.1/29apr2010.b/04291006.d

Date : 29-APR-2010 18:07

Client ID: TB042110

Sample Info: QT81E,10,10,0

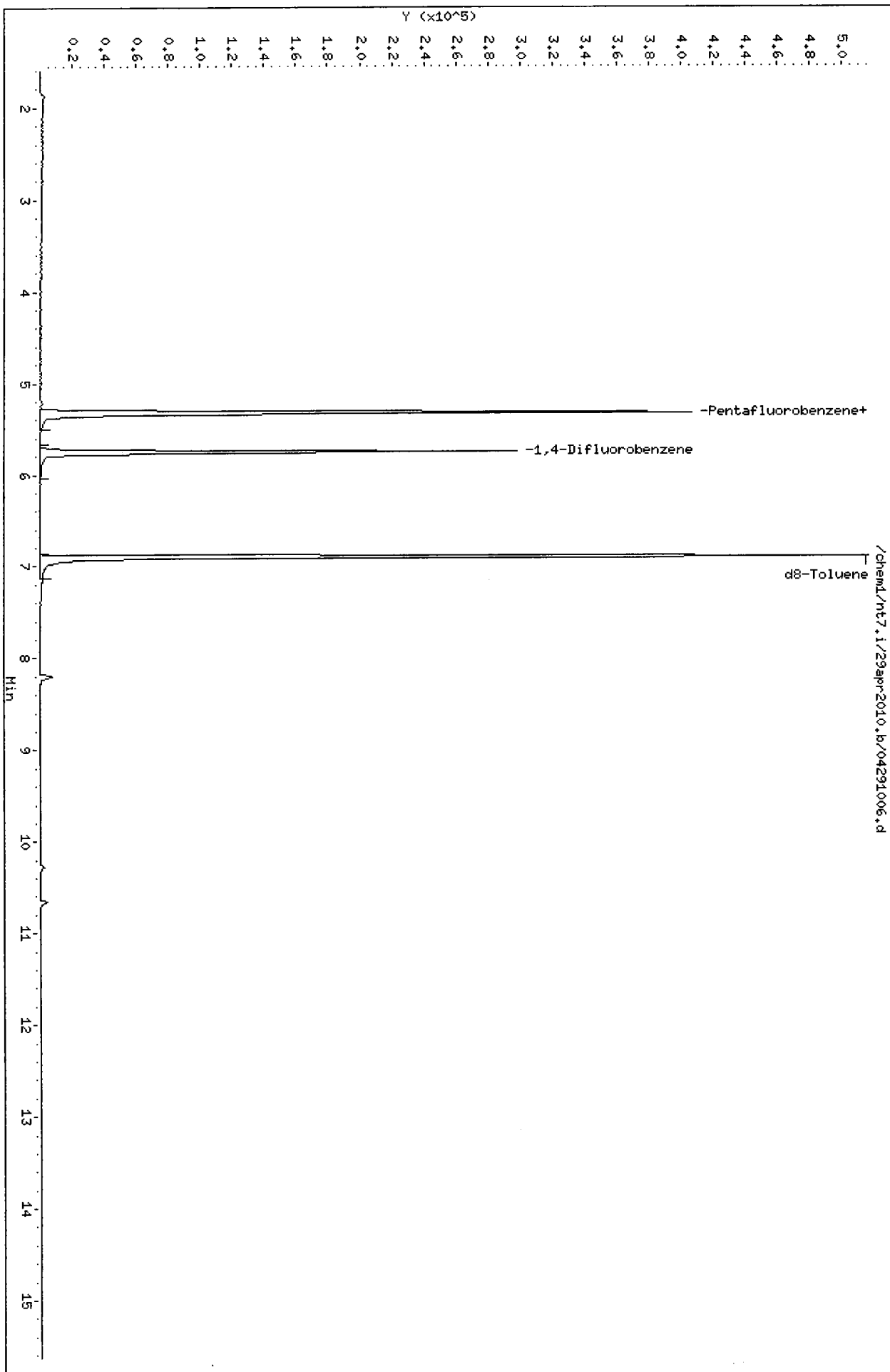
Column phase: RTXVMS

Page 5

Instrument: nt7.1

Operator: MH

Column diameter: 0.18



QT81 : 00076

**SIM Volatile Analysis
Standard Raw Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QT81

Project: POS-LLA

Instrument ID: NT7

Calibration Date: 04/07/10

LAB FILE ID: RF20: 04081002 RF50: 04081003 RF100: 04081004

RF500: 04081005 RF1000: 04081006

COMPOUND	RF20	RF50	RF100	RF500	RF1000
Vinyl Chloride	0.594	0.580	0.510	0.482	0.508
1,1-Dichloroethene	0.534	0.490	0.436	0.433	0.423
cis-1,2-dichloroethene	0.548	0.530	0.462	0.466	0.462
Benzene	1.766	1.646	1.385	1.377	1.346
Trichloroethene	0.468	0.418	0.364	0.358	0.350
Tetrachloroethene	0.424	0.412	0.348	0.353	0.342
1,1,2,2-Tetrachloroethane	0.231	0.208	0.191	0.222	0.228
Trans-1,2-Dichloroethene	0.541	0.537	0.475	0.468	0.460
1,2-Dichloroethane	0.586	0.594	0.551	0.561	0.543
d4-1,2-Dichloroethane	0.464	0.416	0.464	0.408	0.400
d8-Toluene	1.153	1.149	1.151	1.148	1.153

FORM VI VOA

QT81 : 00078

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QT81

Project: POS-LLA

Instrument ID: NT7

Calibration Date: 04/07/10

LAB FILE ID: RF2000: 04081007 RF4000: 04081008

COMPOUND	TYPE	RF	OR R ²	AVE	%RSD
Vinyl Chloride	0.454	0.469	AVRG	0.514	10.5
1,1-Dichloroethene	0.397	0.412	AVRG	0.446	10.9
cis-1,2-dichloroethene	0.435	0.457	AVRG	0.480	8.7
Benzene	1.337	1.301	AVRG	1.451	12.4
Trichloroethene	0.345	0.349	AVRG	0.379	12.3
Tetrachloroethene	0.336	0.331	AVRG	0.364	10.4
1,1,2,2-Tetrachloroethane	0.230	0.231	AVRG	0.220	7.0
Trans-1,2-Dichloroethene	0.431	0.452	AVRG	0.480	8.8
1,2-Dichloroethane	0.512	0.526	AVRG	0.553	5.4
d4-1,2-Dichloroethane	0.371	0.373	AVRG	0.414	9.2
d8-Toluene	1.149	1.150	AVRG	1.150	0.2

<- Indicates value outside QC limits:
(%RSD < 20% or R² > 0.990)

FORM VI VOA

QT81:00079

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07⁸ APR-2010 14:01
 End Cal Date : 07⁸ APR-2010 16:35
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem1/nt7.i/08apr2010.b/sim040810.m
 Cal Date : 08-Apr-2010 19:02 monicah
 Curve Type : Average

Calibration File Names:

Level 1: /chem1/nt7.i/08apr2010.b/04081002.d
 Level 2: /chem1/nt7.i/08apr2010.b/04081003.d
 Level 3: /chem1/nt7.i/08apr2010.b/04081004.d
 Level 4: /chem1/nt7.i/08apr2010.b/04081005.d
 Level 5: /chem1/nt7.i/08apr2010.b/04081006.d
 Level 6: /chem1/nt7.i/08apr2010.b/04081007.d
 Level 7: /chem1/nt7.i/08apr2010.b/04081008.d

Compound	20.000	50.000	100.000	500.000	1000.000	2000.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	4000.000							
	Level 7							
1 Vinyl Chloride	0.59435 0.46912	0.58024	0.51043	0.48239	0.50798	0.45374	0.51404	10.517
2 1,1-Dichloroethene	0.53459 0.41181	0.48993	0.43570	0.43325	0.42340	0.39691	0.44651	10.870
175 Trans-1,2-Dichloroethene	0.54062 0.45194	0.53660	0.47524	0.46823	0.45952	0.43104	0.48046	8.766
3 cis-1,2-dichloroethene	0.54859 0.45723	0.52964	0.46224	0.46597	0.46192	0.43512	0.48010	8.730
6 Benzene	1.76645 1.30069	1.64624	1.38476	1.37665	1.34634	1.33691	1.45115	12.395
176 1,2-Dichloroethane	0.58638 0.52596	0.59380	0.55120	0.56070	0.54279	0.51214	0.55328	5.395

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07^S-APR-2010 14:01
 End Cal Date : 07^S-APR-2010 16:35
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem1/nt7.i/08apr2010.b/sim040810.m
 Cal Date : 08-Apr-2010 19:02 monicah
 Curve Type : Average

Compound	20.000	50.000	100.000	500.000	1000.000	2000.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	4000.000							
	Level 7							
8 Trichloroethene	0.46851 0.34924	0.41802	0.36377	0.35758	0.34975	0.34512	0.37886	12.340
10 Tetrachloroethene	0.42425 0.33147	0.41222	0.34848	0.35312	0.34240	0.33571	0.36395	10.426
11 1,1,2,2-Tetrachloroethane	0.23133 0.23099	0.20834	0.19080	0.22161	0.22853	0.23059	0.22031	6.993
\$ 5 d4-1,2-Dichloroethane	0.46448 0.37311	0.41657	0.46400	0.40827	0.39994	0.37149	0.41398	9.233
\$ 9 d8-Toluene	1.15344 1.14954	1.14921	1.15141	1.14852	1.15321	1.14867	1.15057	0.183

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07⁸ APR-2010 14:01
End Cal Date : 07⁸ APR-2010 16:35
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt7.i/08apr2010.b/sim040810.m
Cal Date : 08-Apr-2010 19:02 monicah
Curve Type : Average

Average %RSD Results.	

Calculated Average %RSD =	8.71346
Maximum Average %RSD =	5.00000
* Failed Average %RSD Test.	

4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081002.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081002.d
Lab Smp Id: 00200408
Inj Date : 07-APR-2010 14:01
Operator : MH
Smp Info : 00200408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah
Cal Date : 07-APR-2010 14:01
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Inst ID: nt7.i
Quant Type: ISTD
Cal File: 04081002.d
Calibration Sample, Level: 1
Compound Sublist: all.sub

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.552	1.551	(0.292)	5819	20.0000	23.125 (M)
2 1,1-Dichloroethene	96	2.520	2.520	(0.474)	5234	20.0000	23.945
175 Trans-1,2-Dichloroethene	96	3.295	3.296	(0.620)	5293	20.0000	22.505
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	5371	20.0000	22.853
6 Benzene	78	5.211	5.211	(0.907)	24741	20.0000	24.346
* 4 Pentafluorobenzene	168	5.316	5.317	(1.000)	489530	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	227379	1000.00	1122.0
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	5741	20.0000	21.196
8 Trichloroethene	130	5.711	5.712	(0.994)	6562	20.0000	24.733
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	700302	1000.00	
\$ 9 d8-Toluene	98	6.890	6.902	(1.199)	807755	1000.00	1002.5
10 Tetrachloroethene	166	7.258	7.258	(1.263)	5942	20.0000	23.313
11 1,1,2,2-Tetrachloroethane	83	9.457	9.445	(1.646)	3240	20.0000	21.000

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04081002.d
Lab Smp Id: 00200408
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 07^{8 4A}-APR-2010
Calibration Time: 15:44
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	489530	-2.45
7 1,4-Difluorobenze	711657	355828	1423314	700302	-1.60

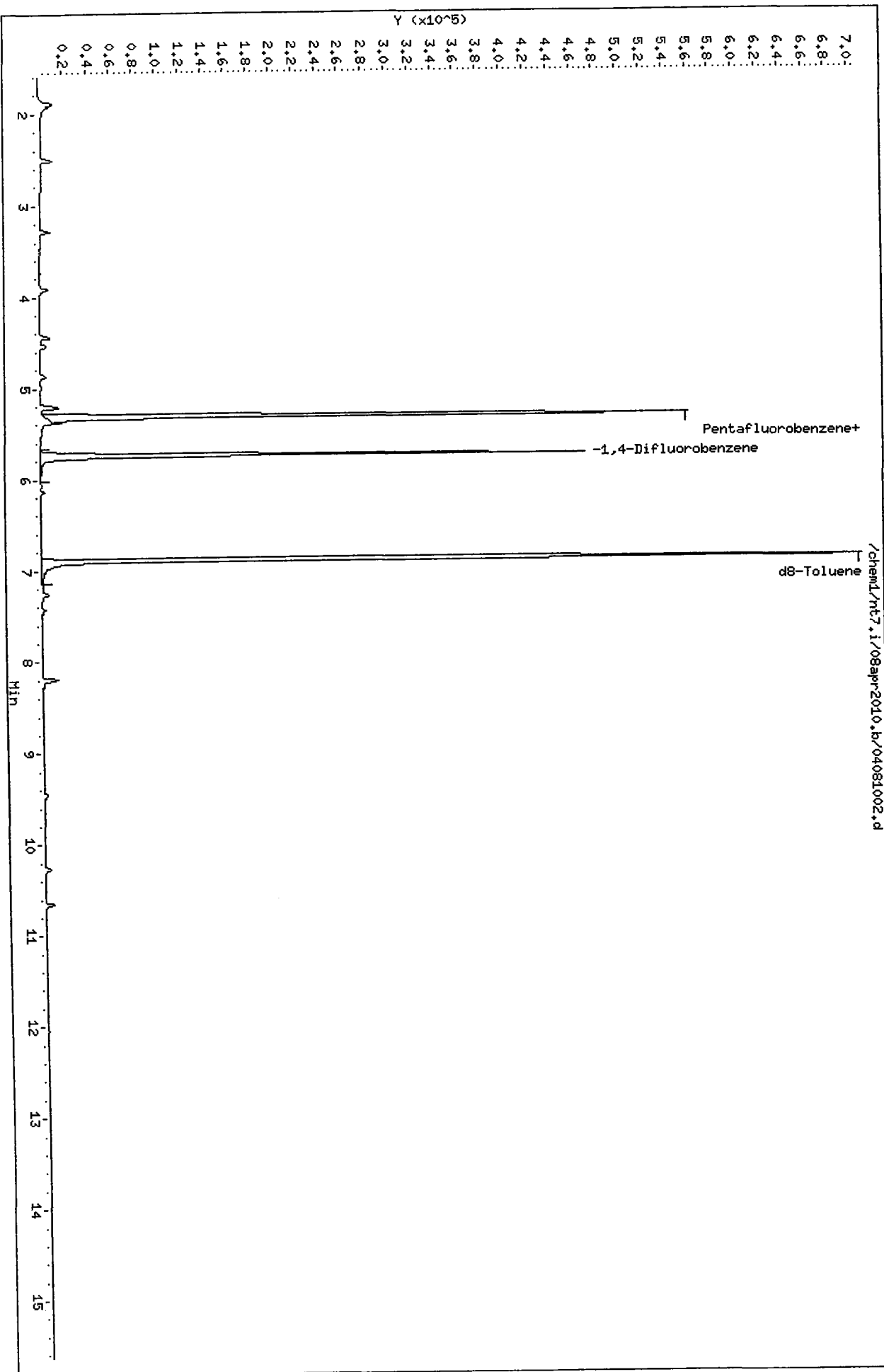
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-0.01

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.

Data File: /chem1/nt7.i/08apr2010.b/04081002.d
Date : 07-APR-2010 14:01
Client ID:
Sample Info: 00200408,10,10,0

Column phase: RTXVMS

Instrument: nt7.i
Operator: MH
Column diameter: 0.18



/chem1/nt7.i/08apr2010.b/04081002.d

4/13/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081003.d
Lab Smp Id: 00500408
Inj Date : 07⁸ APR-2010 14:27
Operator : MH^{MH} Inst ID: nt7.i
Smp Info : 00500408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:27 Cal File: 04081003.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.539	1.551	(0.289)	14932	50.0000	56.522 (M)
2 1,1-Dichloroethene	96	2.508	2.520	(0.472)	12608	50.0000	54.862
175 Trans-1,2-Dichloroethene	96	3.296	3.296	(0.620)	13809	50.0000	55.843
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	13630	50.0000	55.160
6 Benzene	78	5.211	5.211	(0.907)	57919	50.0000	56.722
* 4 Pentafluorobenzene	168	5.317	5.317	(1.000)	514685	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	214400	1000.00	1006.2
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	15281	50.0000	53.662
8 Trichloroethene	130	5.712	5.712	(0.994)	14707	50.0000	55.169
* 7 1,4-Difluorobenzene	114	5.747	5.746	(1.000)	703653	1000.00	
\$ 9 d8-Toluene	98	6.890	6.902	(1.199)	808643	1000.00	998.81
10 Tetrachloroethene	166	7.258	7.258	(1.263)	14503	50.0000	56.631
11 1,1,2,2-Tetrachloroethane	83	9.457	9.445	(1.646)	7330	50.0000	47.283

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04081003.d
Lab Smp Id: 00500408
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 07^{8 MH}-APR-2010
Calibration Time: 15:44
Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	514685	2.57
7 1,4-Difluorobenze	711657	355828	1423314	703653	-1.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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.

Data File: /chem1/nt7.i/08apr2010.b/04081003.d

Date: 07-APR-2010 14:27

Client ID: MH

Sample Info: 00500408,10,10.0

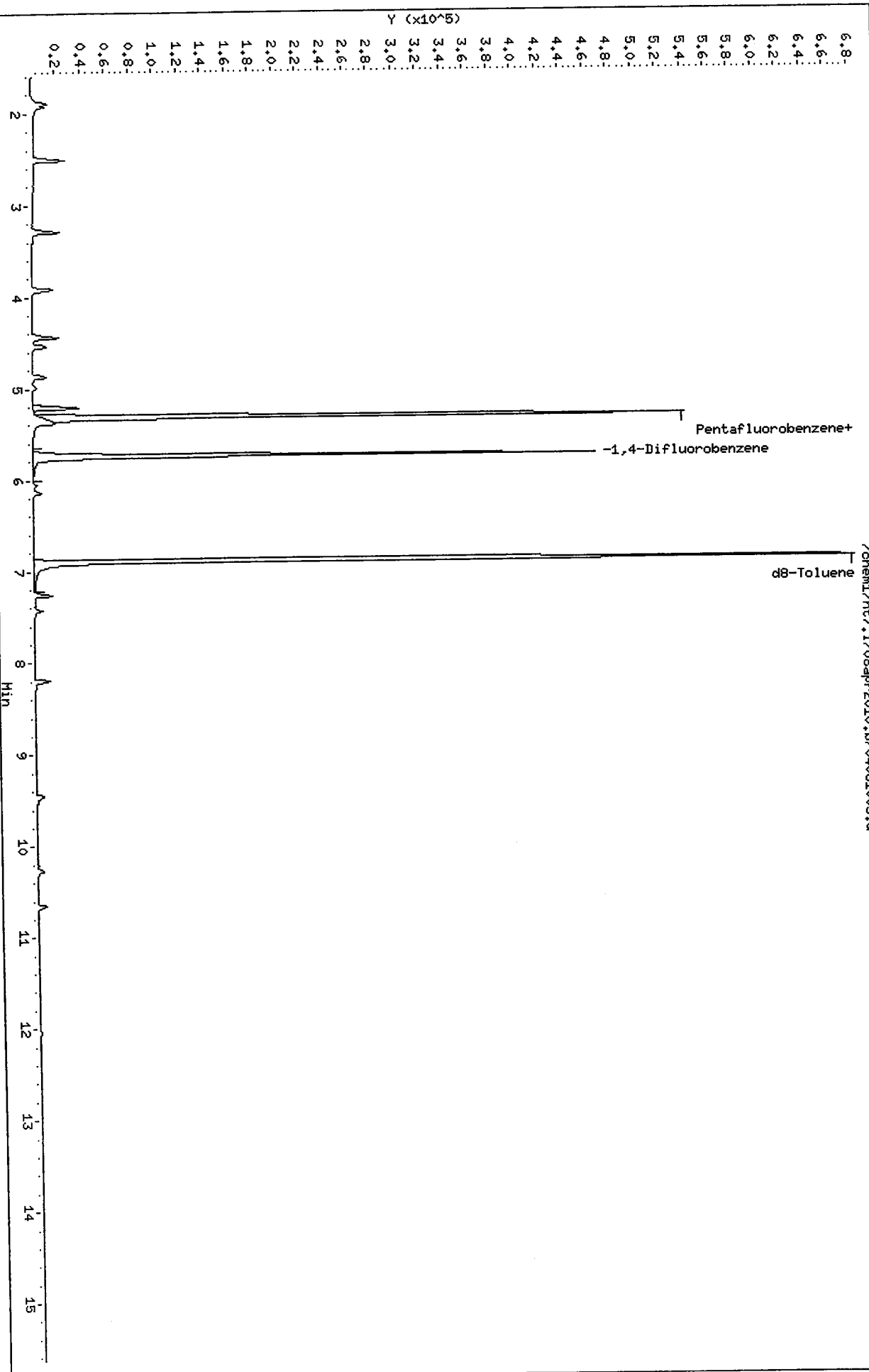
Column phase: RTXVMS

Instrument: nt7.1

Operator: MH

Column diameter: 0.18

/chem1/nt7.i/08apr2010.b/04081003.d



4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081004.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081004.d
Lab Smp Id: 01000408
Inj Date : 07-APR-2010 14:53
Operator : MH^{MH} Inst ID: nt7.i
Smp Info : 01000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:53 Cal File: 04081004.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.553	1.551	(0.292)	24888	100.000	93.203
2 1,1-Dichloroethene	96	2.518	2.520	(0.474)	21244	100.000	87.240
175 Trans-1,2-Dichloroethene	96	3.294	3.296	(0.620)	23172	100.000	88.343
3 cis-1,2-dichloroethene	96	4.445	4.447	(0.836)	22538	100.000	85.851
6 Benzene	78	5.209	5.211	(0.907)	96192	100.000	84.396
* 4 Pentafluorobenzene	168	5.315	5.317	(1.000)	487587	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.327	5.328	(1.002)	226239	1000.00	1210.3
176 1,2-Dichloroethane	62	5.385	5.375	(1.013)	26876	100.000	88.609
8 Trichloroethene	130	5.711	5.712	(0.994)	25269	100.000	85.095
* 7 1,4-Difluorobenzene	114	5.745	5.746	(1.000)	694647	1000.00	
\$ 9 d8-Toluene	98	6.903	6.902	(1.201)	799824	1000.00	1078.2
10 Tetrachloroethene	166	7.259	7.258	(1.264)	24207	100.000	84.800
11 1,1,2,2-Tetrachloroethane	83	9.446	9.445	(1.644)	13254	100.000	75.256

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081004.d
 Lab Smp Id: 01000408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07^{8:44}-APR-2010
 Calibration Time: 15:44
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	487587	-2.83
7 1,4-Difluorobenze	711657	355828	1423314	694647	-2.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.31	-0.03
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-0.02

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/nt7.1/08apr2010.b/04081004.d

Date: 07-APR-2010 14:53

Client ID: 5714

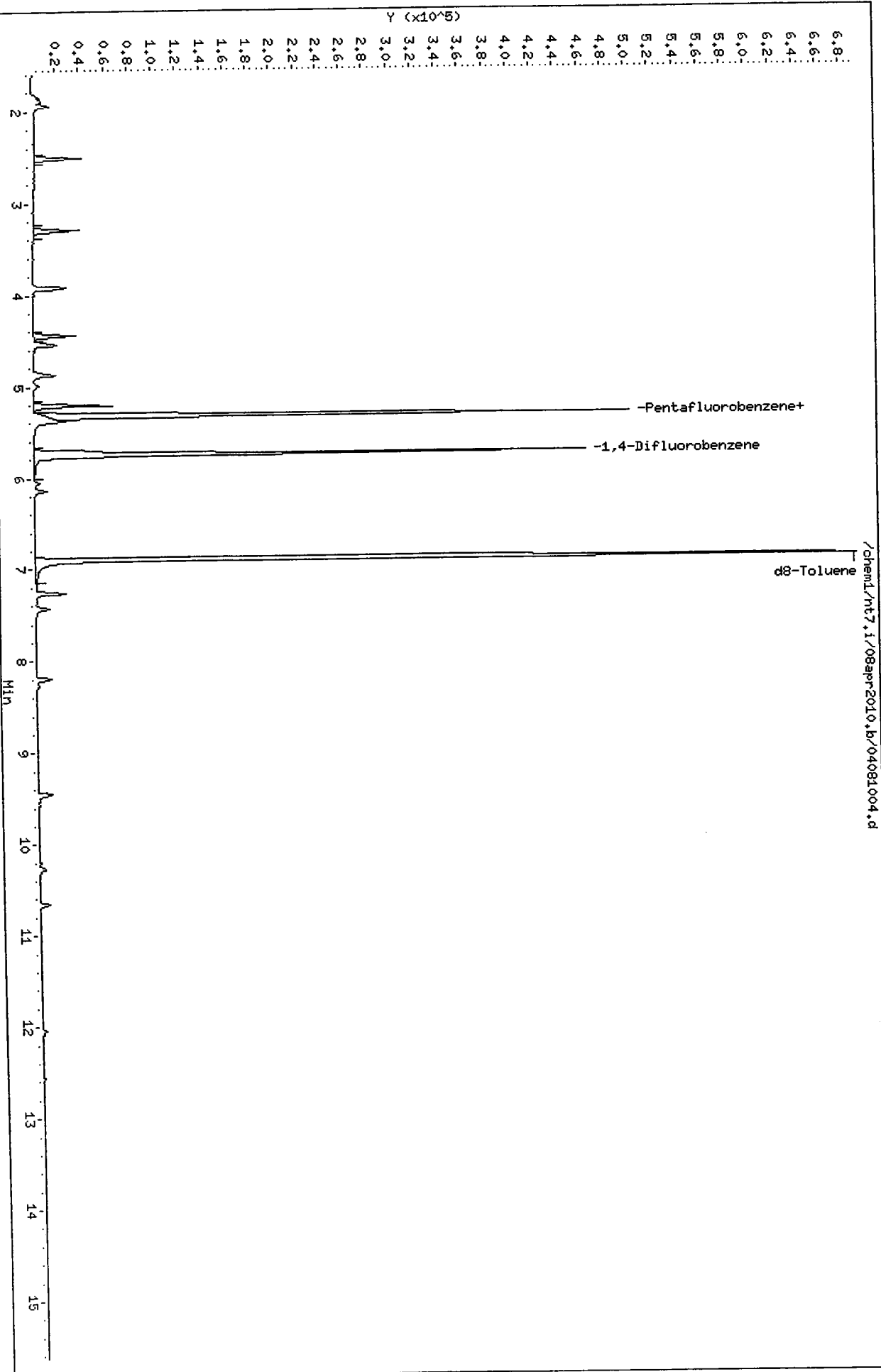
Sample Info: 01000408,10,10,0

Column phase: RTXVMS

Instrument: nt7.1

Operator: HH

Column diameter: 0.18



4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081005.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081005.d
Lab Smp Id: 05000408
Inj Date : 07~~8~~ APR-2010 15:18
Operator : MH⁸ ^{MH} Inst ID: nt7.i
Smp Info : 05000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 15:18 Cal File: 04081005.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62		1.552	1.551	(0.292)	117909	500.000	440.41
2 1,1-Dichloroethene	96		2.519	2.520	(0.474)	105898	500.000	433.75
175 Trans-1,2-Dichloroethene	96		3.295	3.296	(0.620)	114447	500.000	435.19
3 cis-1,2-dichloroethene	96		4.446	4.447	(0.836)	113896	500.000	432.72
6 Benzene	78		5.210	5.211	(0.907)	476748	500.000	419.51
* 4 Pentafluorobenzene	168		5.316	5.317	(1.000)	488851	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.002)	199584	1000.00	1064.9
176 1,2-Dichloroethane	62		5.375	5.375	(1.011)	137050	500.000	450.68
8 Trichloroethene	130		5.711	5.712	(0.994)	123835	500.000	418.23
* 7 1,4-Difluorobenzene	114		5.746	5.746	(1.000)	692622	1000.00	
\$ 9 d8-Toluene	98		6.892	6.902	(1.199)	795487	1000.00	1075.5
10 Tetrachloroethene	166		7.260	7.258	(1.264)	122291	500.000	429.64
11 1,1,2,2-Tetrachloroethane	83		9.447	9.445	(1.644)	76747	500.000	437.03

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081005.d
 Lab Smp Id: 05000408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07^{8MH}-APR-2010
 Calibration Time: 15:44

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	488851	-2.58
7 1,4-Difluorobenze	711657	355828	1423314	692622	-2.67

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

Data File: /chem1/nt7.i/08apr2010.b/04081005.d

Date : 07-APR-2010 15:18

Client ID: MH

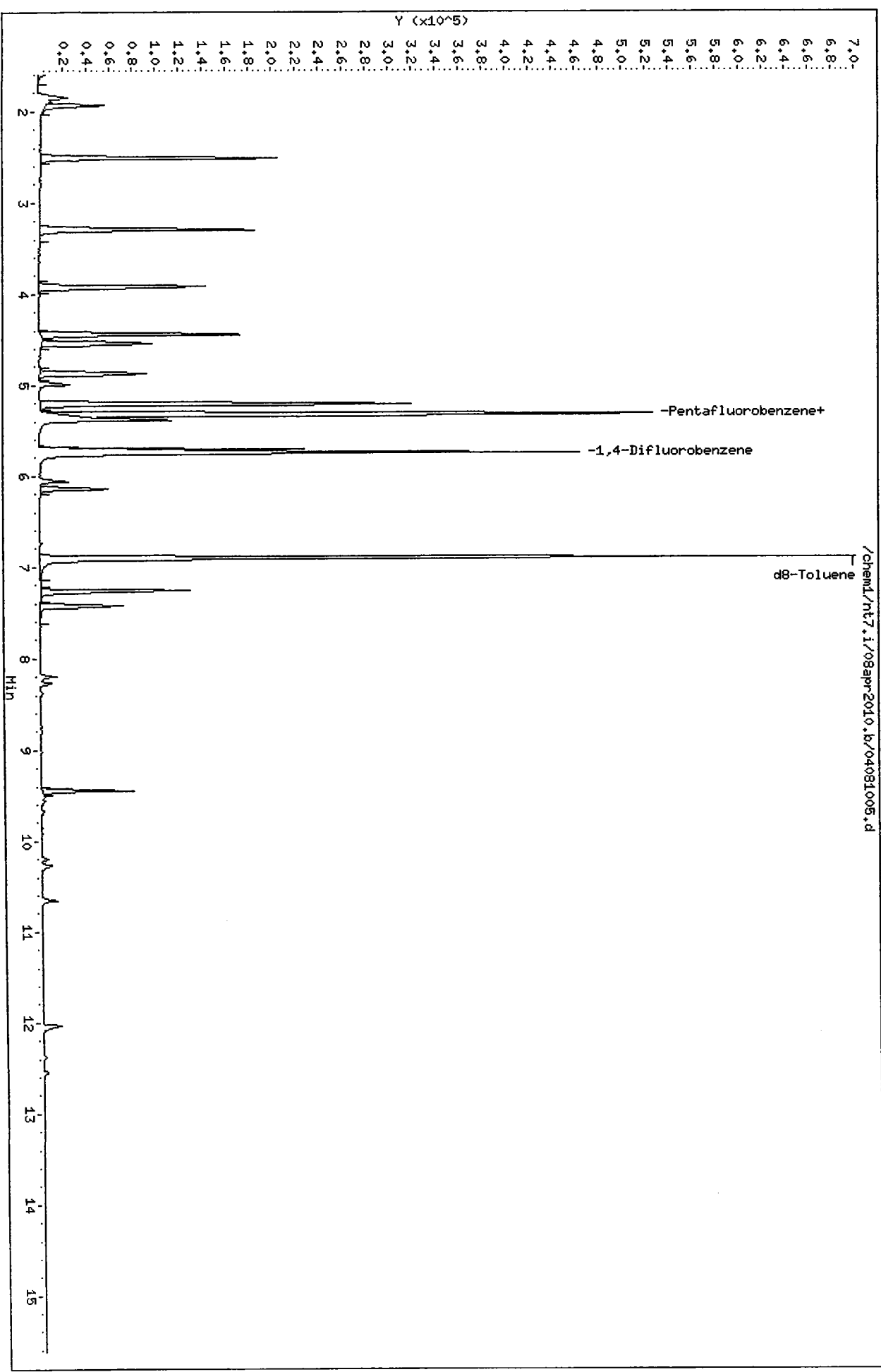
Sample Info: 05000408,10,10,0

Column phase: RTXWHS

Instrument: nt7.i

Operator: MH

Column diameter: 0.18



QT81 : 00096

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Data File: /chem1/nt7.i/08apr2010.b/04081006.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081006.d
Lab Smp Id: 10000408
Inj Date : 07-APR-2010 15:44
Operator : MH^{SMH} Inst ID: nt7.i
Smp Info : 10000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 15:44 Cal File: 04081006.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.551	1.551	(0.292)	254903	1000.00	1035.4 (M)
2 1,1-Dichloroethene	96	2.520	2.520	(0.474)	212463	1000.00	948.24
175 Trans-1,2-Dichloroethene	96	3.296	3.296	(0.620)	230587	1000.00	956.43
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	231792	1000.00	962.13
6 Benzene	78	5.211	5.211	(0.907)	958131	1000.00	927.77
* 4 Pentafluorobenzene	168	5.317	5.317	(1.000)	501800	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	200692	1000.00	966.10
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	272370	1000.00	981.03
8 Trichloroethene	130	5.712	5.712	(0.994)	248905	1000.00	923.18
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	711657	1000.00	
\$ 9 d8-Toluene	98	6.902	6.902	(1.201)	820691	1000.00	1002.3
10 Tetrachloroethene	166	7.258	7.258	(1.263)	243674	1000.00	940.80
11 1,1,2,2-Tetrachloroethane	83	9.445	9.445	(1.644)	162632	1000.00	1037.3

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081006.d
 Lab Smp Id: 10000408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07^{SMH}-APR-2010
 Calibration Time: 15:44

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	501800	0.00
7 1,4-Difluorobenze	711657	355828	1423314	711657	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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.

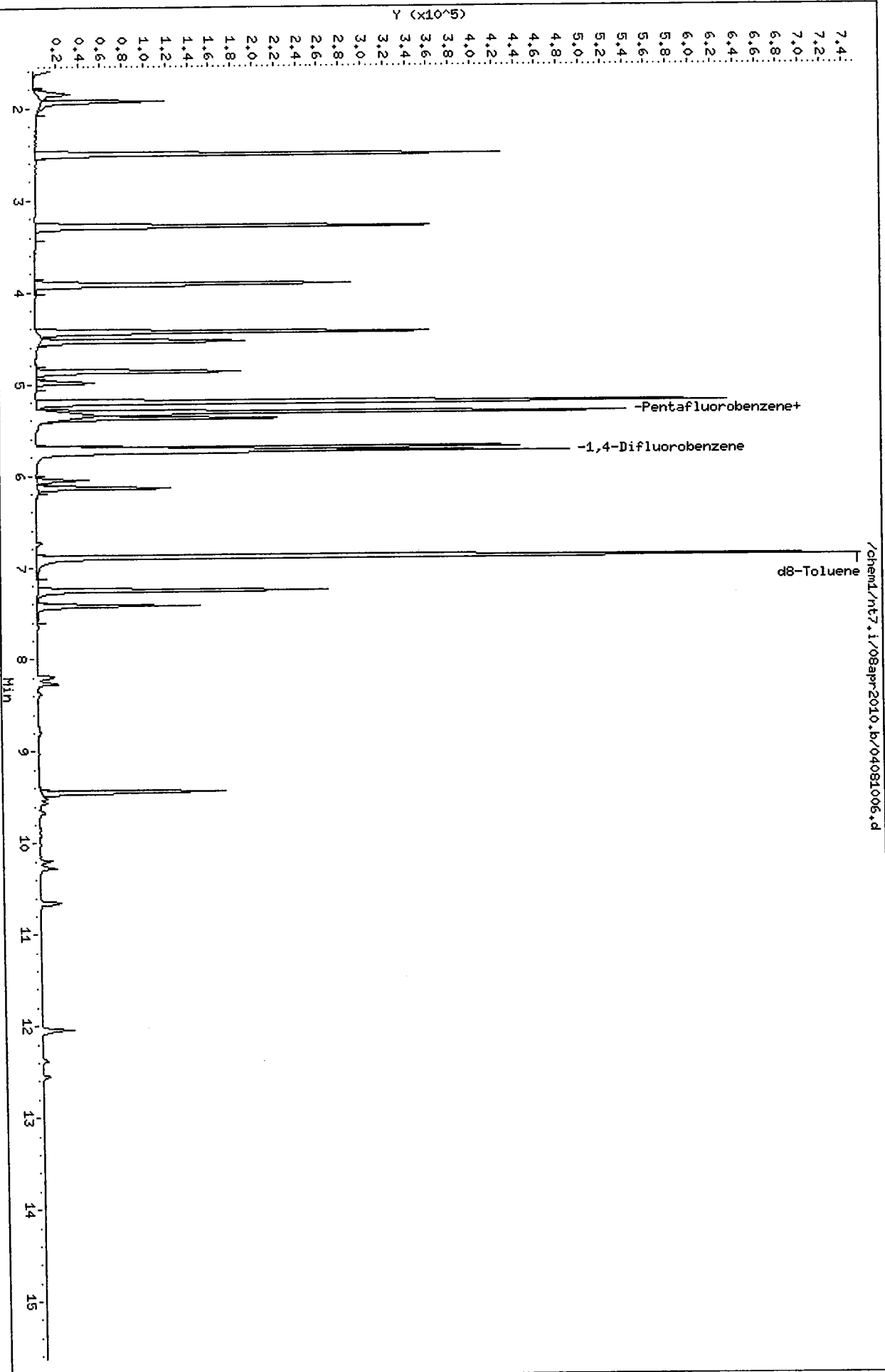
Data File: /chem1/nt7.1/08apr2010.b/04081006.d
Date : 07-APR-2010 15:44
Client ID: 8774
Sample Info: 10000408,10,10,0

Column phase: RTXVMS

Instrument: nt7.i

Operator: HH

Column diameter: 0.18



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Data File: /chem1/nt7.i/08apr2010.b/04081007.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081007.d
Lab Smp Id: 20000408
Inj Date : 07-APR-2010 16:10
Operator : MHSM Inst ID: nt7.i
Smp Info : 20000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 16:10 Cal File: 04081007.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.553	1.551	(0.292)	474724	2000.00	1925.9
2 1,1-Dichloroethene	96	2.519	2.520	(0.474)	415266	2000.00	1777.8
175 Trans-1,2-Dichloroethene	96	3.294	3.296	(0.620)	450970	2000.00	1794.3
3 cis-1,2-dichloroethene	96	4.446	4.447	(0.836)	455234	2000.00	1812.6
6 Benzene	78	5.210	5.211	(0.907)	1894280	2000.00	1842.6
* 4 Pentafluorobenzene	168	5.315	5.317	(1.000)	523118	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.327	5.328	(1.002)	194331	1000.00	958.81
176 1,2-Dichloroethane	62	5.386	5.375	(1.013)	535815	2000.00	1851.3
8 Trichloroethene	130	5.711	5.712	(0.994)	488996	2000.00	1821.9
* 7 1,4-Difluorobenzene	114	5.745	5.746	(1.000)	708452	1000.00	
\$ 9 d8-Toluene	98	6.903	6.902	(1.201)	813779	1000.00	1075.0
10 Tetrachloroethene	166	7.259	7.258	(1.264)	475672	2000.00	1844.8
11 1,1,2,2-Tetrachloroethane	83	9.446	9.445	(1.644)	326723	2000.00	2093.3

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081007.d
 Lab Smp Id: 20000408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07^{8^{MH}}-APR-2010
 Calibration Time: 15:44
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	523118	4.25
7 1,4-Difluorobenze	711657	355828	1423314	708452	-0.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-0.02

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/nt7.i/08apr2010.b/04081007.d

Date : 07-APR-2010 16:10

Client ID:

Sample Info: 20000408,10,10,0

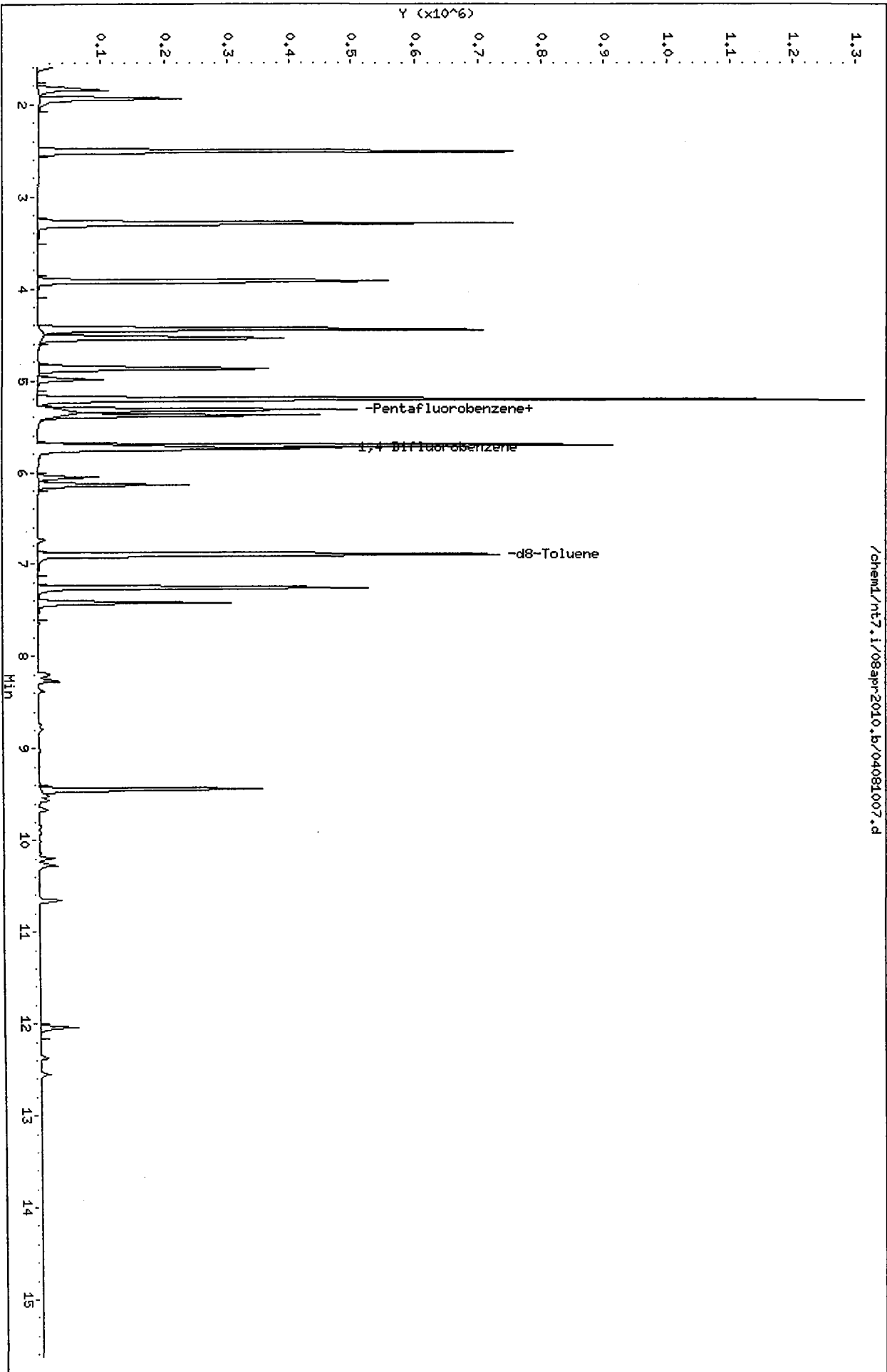
Column phase: RTXVMS

Instrument: nt7.i

Operator: MH

Column diameter: 0.18

/chem1/nt7.i/08apr-2010.b/04081007.d



MH
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Data File: /chem1/nt7.i/08apr2010.b/04081008.d
Report Date: 13-Apr-2010 16:19

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Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081008.d
Lab Smp Id: 40000408
Inj Date : 07-APR-2010 16:35
Operator : MH^g Inst ID: nt7.i
Smp Info : 40000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 16:35 Cal File: 04081008.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.552	1.551	(0.292)	956523	4000.00	3982.3
2 1,1-Dichloroethene	96	2.519	2.520	(0.474)	839656	4000.00	3689.1
175 Trans-1,2-Dichloroethene	96	3.295	3.296	(0.620)	921487	4000.00	3762.6
3 cis-1,2-dichloroethene	96	4.446	4.447	(0.836)	932278	4000.00	3809.5
6 Benzene	78	5.210	5.211	(0.907)	3790854	4000.00	3585.3
* 4 Pentafluorobenzene	168	5.316	5.317	(1.000)	509739	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	190187	1000.00	962.99
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	1072406	4000.00	3802.5
8 Trichloroethene	130	5.710	5.712	(0.994)	1017861	4000.00	3687.3
* 7 1,4-Difluorobenzene	114	5.745	5.746	(1.000)	728622	1000.00	
\$ 9 d8-Toluene	98	6.891	6.902	(1.200)	837580	1000.00	1075.8
10 Tetrachloroethene	166	7.260	7.258	(1.264)	966052	4000.00	3643.0
11 1,1,2,2-Tetrachloroethane	83	9.447	9.445	(1.644)	673218	4000.00	4193.9

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04081008.d
Lab Smp Id: 40000408
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 07^{SMH}-APR-2010
Calibration Time: 15:44
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	509739	1.58
7 1,4-Difluorobenze	711657	355828	1423314	728622	2.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.74	-0.02

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/nt7.1/08apr2010.b/04081008.d

Date : 07-APR-2010 16:35

Client ID: 374

Sample Info: 40000408.10.10.0

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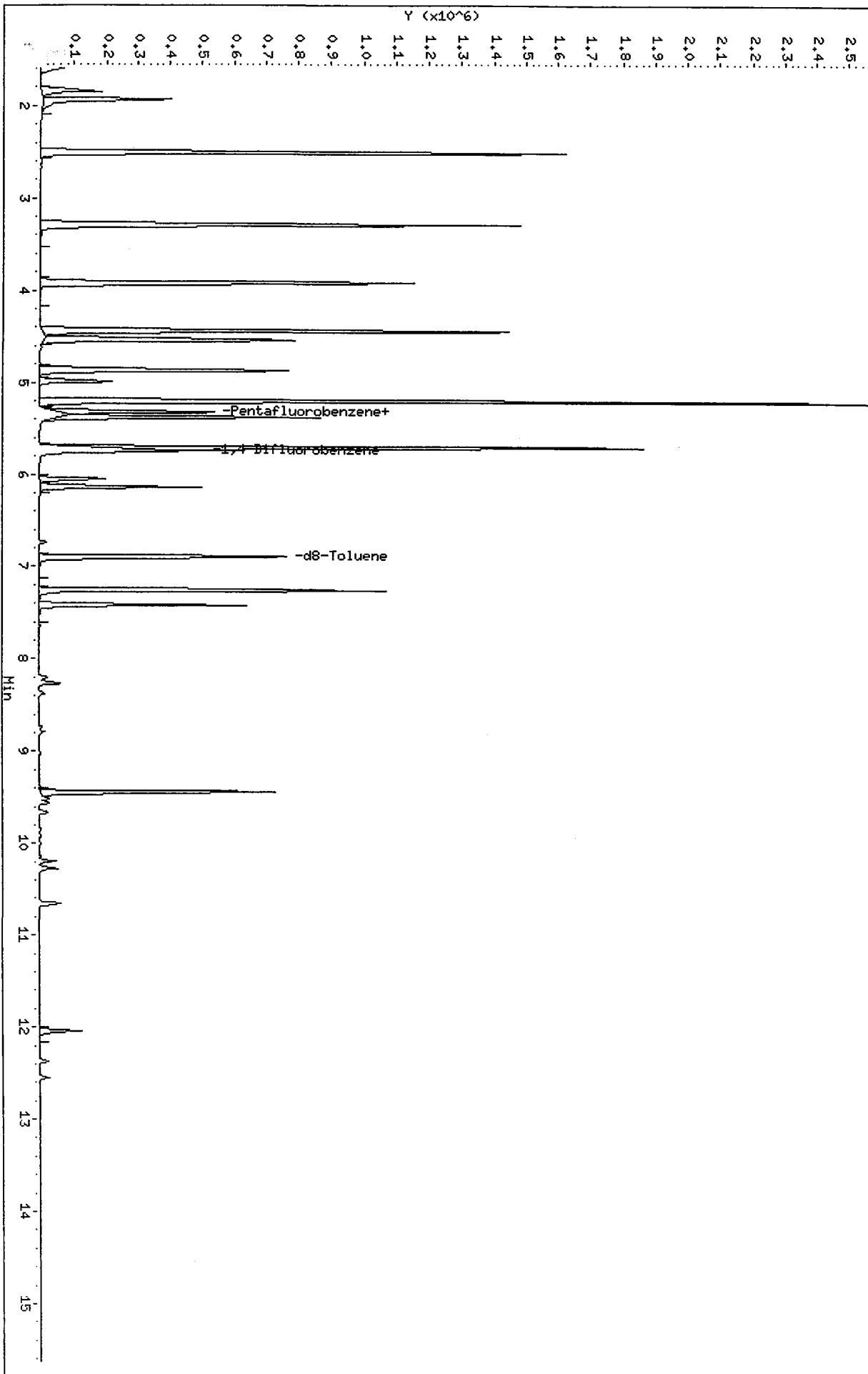
Instrument: nt7.1

Operator: MH

Column diameter: 0.18

Column phase: RTXVMS

/chem1/nt7.1/08apr2010.b/04081008.d



M
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Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081009.d
 Lab Smp Id: ICV0408
 Inj Date : 07-APR-2010 17:01
 Operator : MH^{MH} Inst ID: nt7.i
 Smp Info : ICV0408,10,10,0
 Misc Info : 10-
 Comment :
 Method : /chem1/nt7.i/08apr2010.b/sim040810.m
 Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
 Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
 Als bottle: 1 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62		1.540	1.551	(0.290)	225026	854.237	854.24 (M)
2 1,1-Dichloroethene	96		2.520	2.520	(0.474)	196977	860.831	860.83
175 Trans-1,2-Dichloroethene	96		3.295	3.296	(0.620)	223282	906.855	906.86
3 cis-1,2-dichloroethene	96		4.447	4.447	(0.836)	230847	938.271	938.27
6 Benzene	78		5.211	5.211	(0.907)	966100	958.546	958.55
* 4 Pentafluorobenzene	168		5.316	5.317	(1.000)	512463	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.002)	192453	907.159	907.16
176 1,2-Dichloroethane	62		5.375	5.375	(1.011)	271091	956.108	956.11
8 Trichloroethene	130		5.712	5.712	(0.994)	251375	955.324	955.32 (Q)
* 7 1,4-Difluorobenzene	114		5.746	5.746	(1.000)	694540	1000.00	
\$ 9 d8-Toluene	98		6.901	6.902	(1.201)	801460	1002.93	1002.9
10 Tetrachloroethene	166		7.258	7.258	(1.263)	244197	966.053	966.05
11 1,1,2,2-Tetrachloroethane	83		9.445	9.445	(1.644)	162191	1059.96	1060.0

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081009.d
 Lab Smp Id: ICV0408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07^{8^{PM}}-APR-2010
 Calibration Time: 15:44
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	512463	2.12
7 1,4-Difluorobenze	711657	355828	1423314	694540	-2.41

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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: 08apr2010
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: ICV0408 Operator: MH
 Level: LOW SampleType: LCS
 Data Type: MS DATA Quant Type: ISTD
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	854.24	85.42	76-120
176 1,2-Dichloroethane	1000.0	956.11	95.61	70-130
175 Trans-1,2-Dichloro	1000.0	906.86	90.69	70-130
2 1,1-Dichloroethene	1000.0	860.83	86.08	79-126
3 cis-1,2-dichloroet	1000.0	938.27	93.83	76-127
6 Benzene	1000.0	958.55	95.85	75-121
8 Trichloroethene	1000.0	955.32	95.53	79-120
10 Tetrachloroethene	1000.0	966.05	96.61	75-123
11 1,1,2,2-Tetrachlor	1000.0	1060.0	106.00	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	907.16	90.72	76-119
\$ 9 d8-Toluene	1000.0	1002.9	100.29	60-140

Data File: /chemd/nt7.i/08apr2010.b/04081009.d

Date: 07-APR-2010 17:01

Client ID:

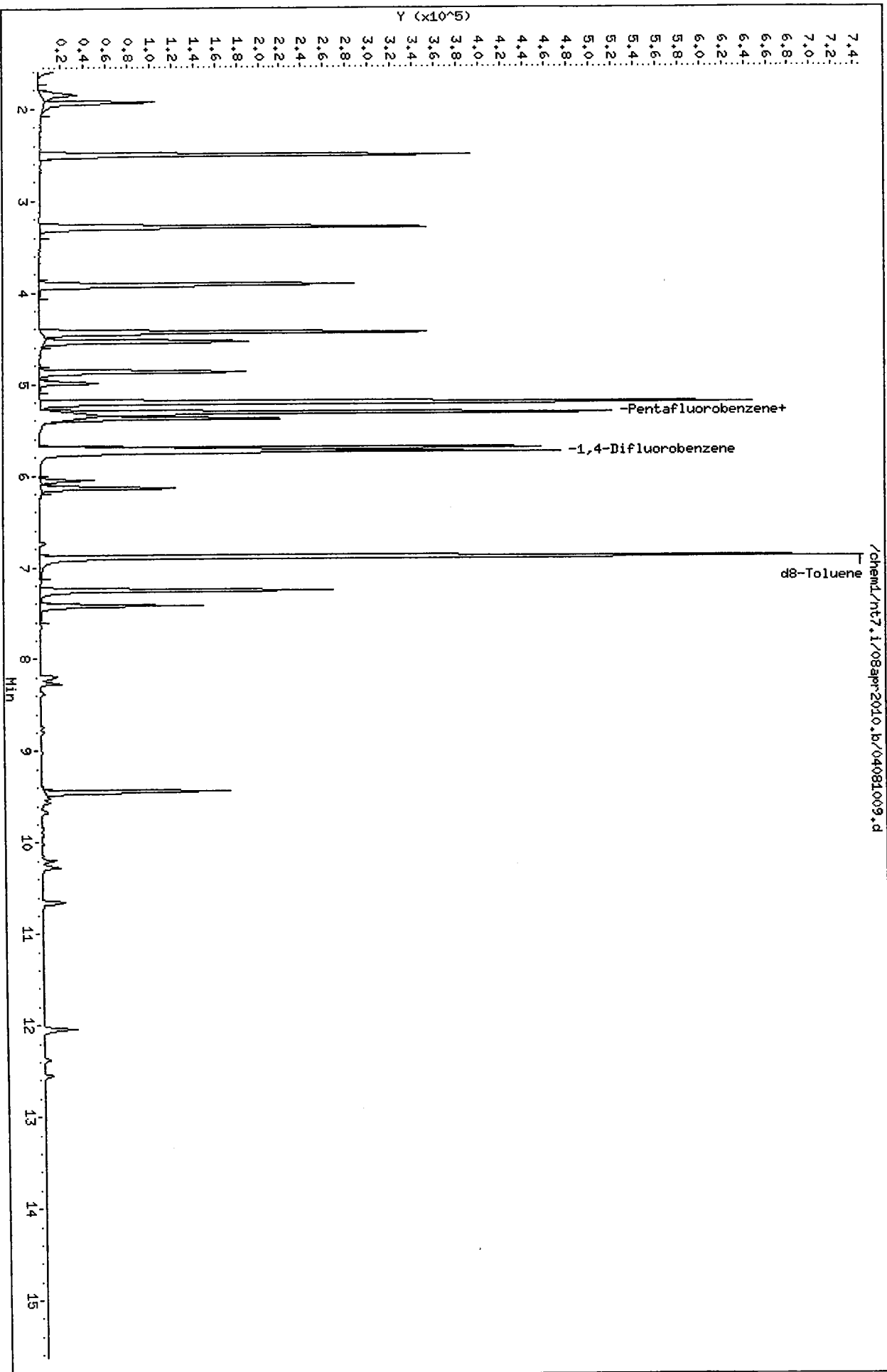
Sample Info: ICV0405,10,10,0

Column phase: RTXWMS

Instrument: nt7.1

Operator: HH

Column diameter: 0.18



Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Batch File: /chem1/nt7.i/08apr2010.b
Inst ID: nt7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Vinyl Chloride	1.552	1.539	1.553	1.552	1.551	1.553	1.552	1.551	1.338-1.763	1.550	0.005
2 1,1-Dichloroethene	2.520	2.508	2.518	2.519	2.520	2.519	2.519	2.520	2.307-2.733	2.518	0.004
175 Trans-1,2-Dichloroethene	3.295	3.296	3.294	3.295	3.296	3.294	3.295	3.296	3.083-3.508	3.295	0.001
3 cis-1,2-dichloroethene	4.447	4.447	4.445	4.446	4.447	4.446	4.446	4.447	4.234-4.660	4.446	0.001
6 Benzene	5.211	5.211	5.209	5.210	5.211	5.210	5.210	5.211	4.981-5.441	5.210	0.001
* 4 Pentafluorobenzene	5.316	5.317	5.315	5.316	5.317	5.315	5.316	5.317	5.104-5.529	5.316	0.001
\$ 5 d4-1,2-Dichloroethane	5.328	5.328	5.327	5.328	5.328	5.327	5.328	5.328	5.116-5.541	5.328	0.001
176 1,2-Dichloroethane	5.375	5.375	5.385	5.375	5.375	5.386	5.375	5.375	5.163-5.588	5.378	0.005
8 Trichloroethene	5.711	5.712	5.711	5.711	5.712	5.711	5.710	5.712	5.482-5.941	5.711	0.001
* 7 1,4-Difluorobenzene	5.746	5.747	5.745	5.746	5.746	5.745	5.745	5.746	5.516-5.976	5.746	0.001
\$ 9 d8-Toluene	6.890	6.890	6.903	6.892	6.902	6.903	6.891	6.902	6.672-7.131	6.896	0.006
10 Tetrachloroethene	7.258	7.258	7.259	7.260	7.258	7.259	7.260	7.258	7.029-7.488	7.259	0.001
11 1,1,2,2-Tetrachloroethane	9.457	9.457	9.446	9.447	9.445	9.446	9.447	9.445	9.215-9.675	9.449	0.005

Reviewer 1
Reviewer 2

Date:
Date:

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QT81

Project: POS-LLA

Instrument ID: NT7

Cont. Calib. Date: 04/29/10

Init. Calib. Date: 04/07/10

Cont. Calib. Time: 1611

COMPOUND	CalAmt or ARF	CC Amt 1000	MIN RRF	CURVE TYPE	%D or Drift
Vinyl Chloride	0.514	0.471	0.010	AVRG	-8.4
1,1-Dichloroethene	0.446	0.458	0.010	AVRG	2.7
cis-1,2-dichloroethene	0.480	0.450	0.010	AVRG	-6.2
Benzene	1.451	1.465	0.010	AVRG	1.0
Trichloroethene	0.379	0.396	0.010	AVRG	4.5
Tetrachloroethene	0.364	0.412	0.010	AVRG	13.2
1,1,2,2-Tetrachloroethane	0.220	0.285	0.300	AVRG	29.5
Trans-1,2-Dichloroethene	0.480	0.480	0.010	AVRG	0.0
1,2-Dichloroethane	0.553	0.539	0.010	AVRG	-2.5
d4-1,2-Dichloroethane	0.414	0.405	0.010	AVRG	-2.2
d8-Toluene	1.150	1.165	0.010	AVRG	1.3

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII VOA

QT81 : 00113

5/3/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291002.d
Lab Smp Id: CC0429
Inj Date : 29-APR-2010 16:11
Operator : MH
Smp Info : CC0429,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:28 monicah
Cal Date : 07-APR-2010 14:01
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Inst ID: nt7.i
Quant Type: ISTD
Cal File: 04081002.d
Continuing Calibration Sample
Compound Sublist: all.sub

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62		1.552	1.552	(0.292)	186193	1000.00	916.91
2 1,1-Dichloroethene	96		2.508	2.508	(0.472)	180797	1000.00	1025.0
175 Trans-1,2-Dichloroethene	96		3.295	3.295	(0.620)	189777	1000.00	999.88
3 cis-1,2-dichloroethene	96		4.447	4.447	(0.836)	177786	1000.00	937.40
6 Benzene	78		5.210	5.210	(0.907)	760987	1000.00	1009.4
* 4 Pentafluorobenzene	168		5.316	5.316	(1.000)	395041	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.002)	159892	1000.00	977.70
176 1,2-Dichloroethane	62		5.375	5.375	(1.011)	212835	1000.00	973.77
8 Trichloroethene	130		5.711	5.711	(0.994)	205511	1000.00	1044.1
* 7 1,4-Difluorobenzene	114		5.745	5.745	(1.000)	519542	1000.00	
\$ 9 d8-Toluene	98		6.892	6.892	(1.199)	605236	1000.00	1012.5
10 Tetrachloroethene	166		7.260	7.260	(1.264)	214066	1000.00	1132.1
11 1,1,2,2-Tetrachloroethane	83		9.447	9.447	(1.644)	147997	1000.00	1293.0

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291002.d
Lab Smp Id: CC0429
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	395041	-21.28
7 1,4-Difluorobenze	711657	355828	1423314	519542	-27.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt7.i Injection Date: 29-APR-2010 16:11
Lab File ID: 04291002.d Init. Cal. Date(s): 07-APR-2010 07-APR-2010
Analysis Type: WATER Init. Cal. Times: 14:01 16:35
Lab Sample ID: CC0429 Quant Type: ISTD
Method: /chem1/nt7.i/29apr2010.b/sim040810.m

COMPOUND	RRF / AMOUNT	RF1000	MIN		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
1 Vinyl Chloride	0.51404	0.47133	0.100	-8.30873	20.00000	Averaged	
2 1,1-Dichloroethene	0.44651	0.45767	0.100	2.49820	20.00000	Averaged	
175 Trans-1,2-Dichloroethene	0.48046	0.48040	0.100	-0.01165	20.00000	Averaged	
3 cis-1,2-dichloroethene	0.48010	0.45005	0.100	-6.26015	20.00000	Averaged	
6 Benzene	1.45115	1.46473	0.100	0.93563	20.00000	Averaged	
\$ 5 d4-1,2-Dichloroethane	0.41398	0.40475	0.100	-2.22960	20.00000	Averaged	
176 1,2-Dichloroethane	0.55328	0.53877	0.100	-2.62295	20.00000	Averaged	
8 Trichloroethene	0.37886	0.39556	0.100	4.40964	20.00000	Averaged	
\$ 9 d8-Toluene	1.15057	1.16494	0.100	1.24898	20.00000	Averaged	
10 Tetrachloroethene	0.36395	0.41203	0.100	13.21018	20.00000	Averaged	
11 1,1,2,2-Tetrachloroethane	0.22031	0.28486	0.100	29.29879	20.00000	Averaged <-	

Data File: /chem1/nt7.1/29apr2010.b/04291002.d

Date : 29-APR-2010 16:11

Client ID:

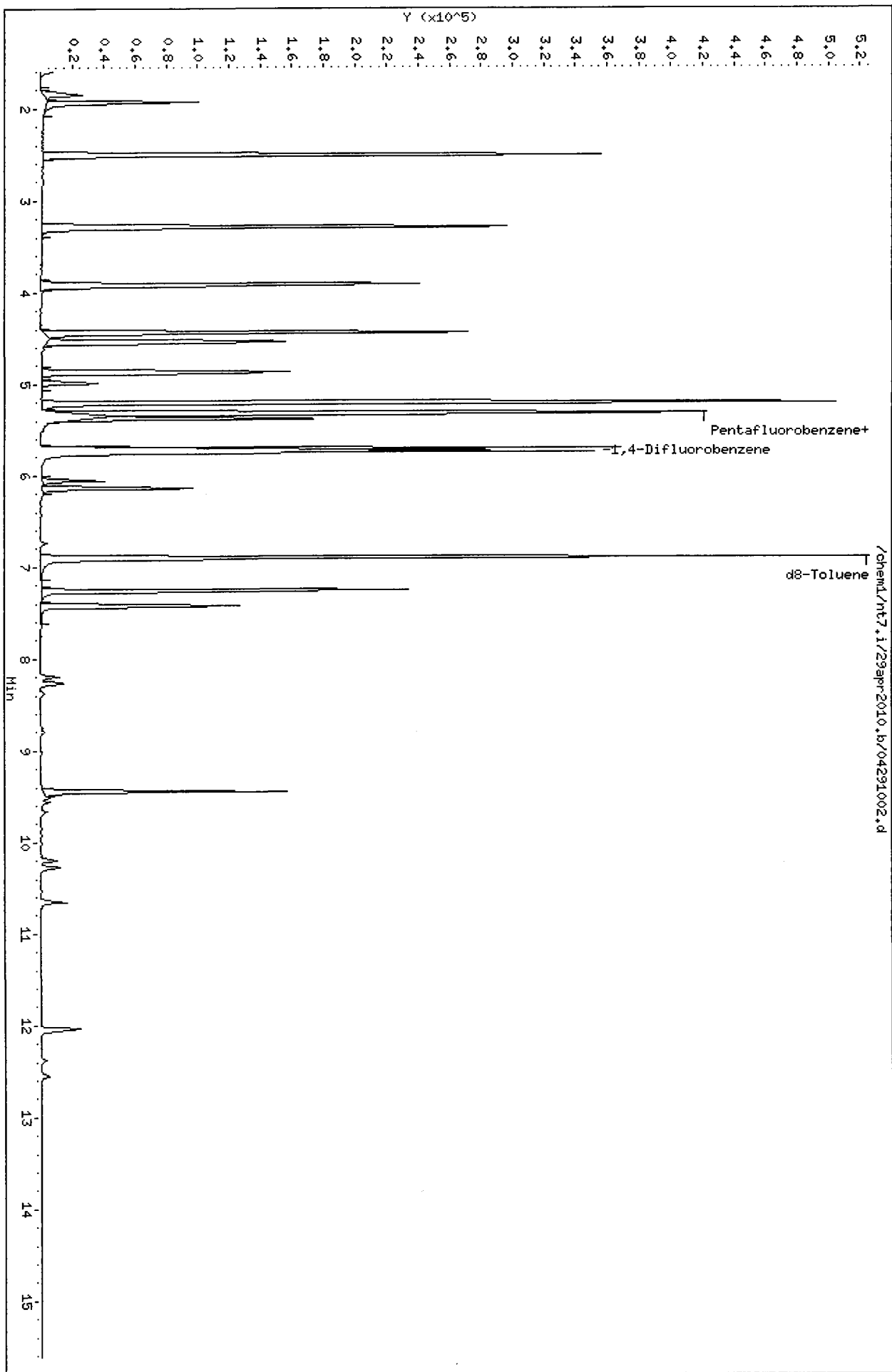
Sample Info: CC0429_10_10_0

Column phase: RTXVMS

Instrument: nt7.1

Operator: MH

Column diameter: 0.18



**SIM Volatile Analysis
QC Raw Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

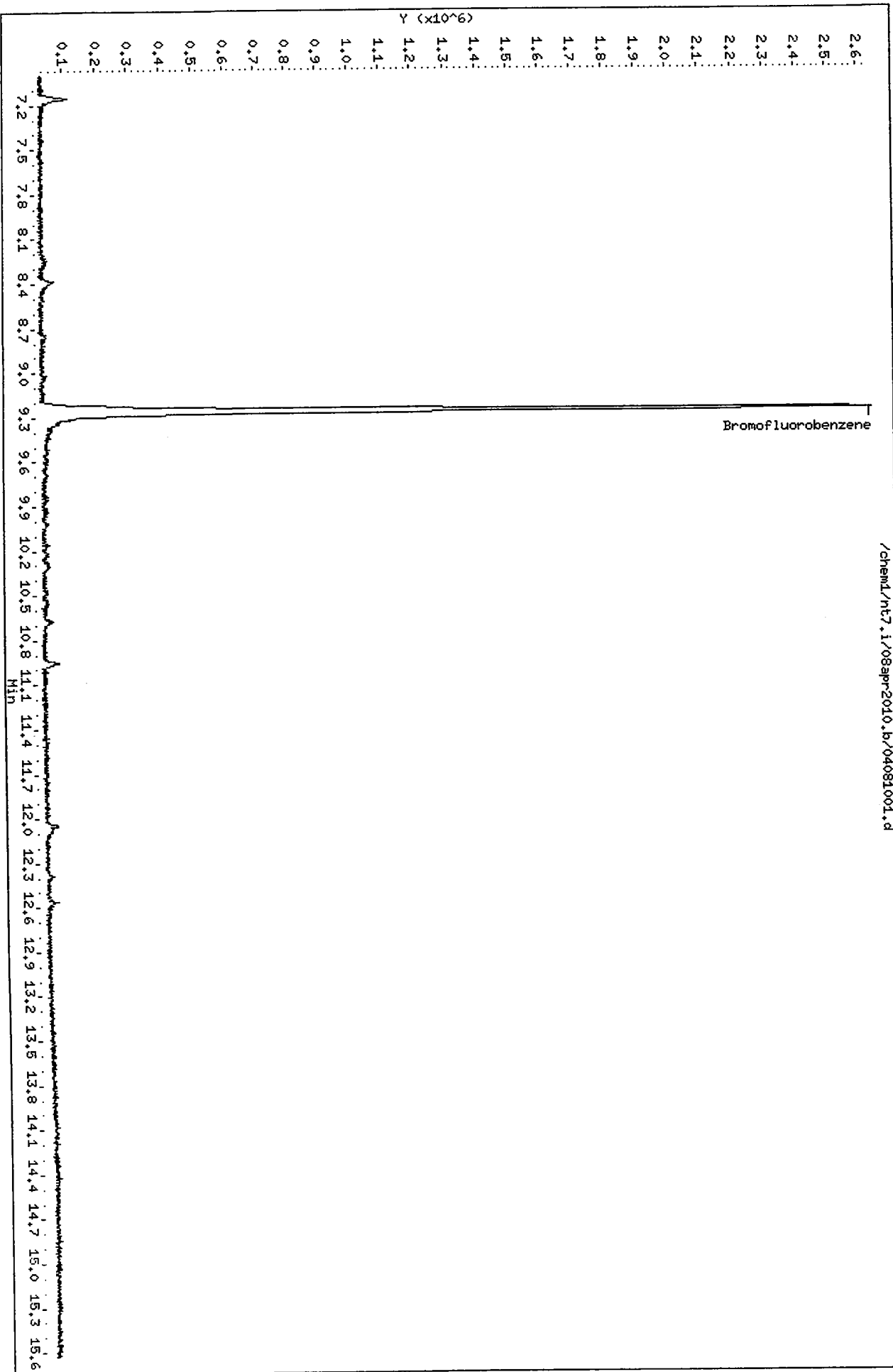
Mr.
4/13/10

Data File: /chem1/nt7.i/08apr-2010.b/04081001.d
Date : 07-APR-2010 13:26
Client ID: MH
Sample Info: BFB0408

Column phase: RTXVHS

Instrument: nt7.1
Operator: MH
Column diameter: 0.18

/chem1/nt7.i/08apr-2010.b/04081001.d



Date : 07-APR-2010 13:26
8 MH

Client ID:

Instrument: nt7.i

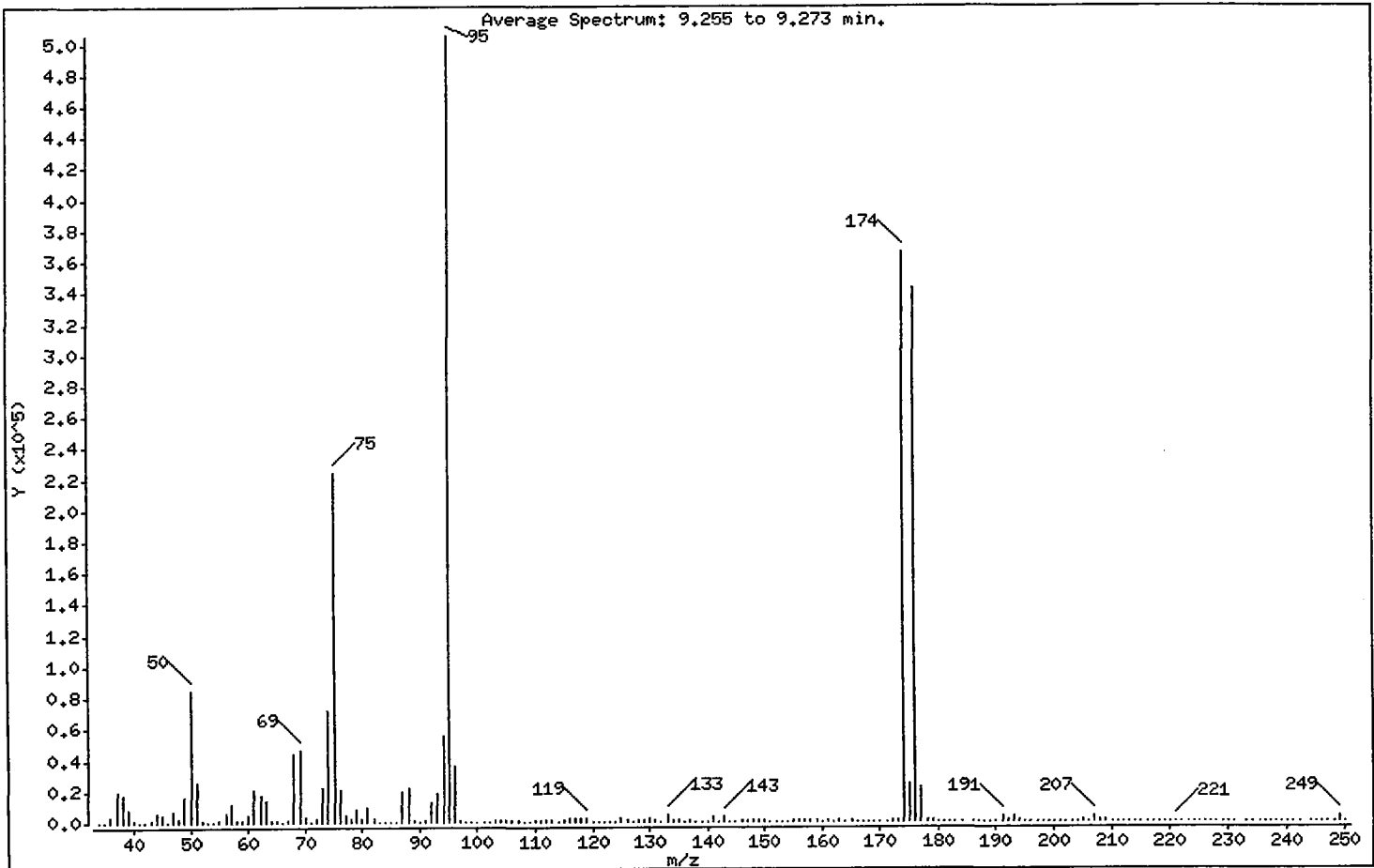
Sample Info: BFB0408

Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	16.76
75	30.00 - 66.00% of mass 95	44.39
96	5.00 - 9.00% of mass 95	7.09
173	Less than 2.00% of mass 174	0.33 (0.45)
174	50.00 - 101.00% of mass 95	72.40
175	4.00 - 9.00% of mass 174	4.86 (6.71)
176	93.00 - 101.00% of mass 174	67.72 (93.53)
177	5.00 - 9.00% of mass 176	4.28 (6.32)

Date : 08-APR-2010 13:26

Client ID:

Instrument: nt7.i

Sample Info: BFB0408

Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

Data File: 04081001.d

Spectrum: Average Spectrum: 9.255 to 9.273 min.

Location of Maximum: 95.00

Number of points: 214

m/z	Y	m/z	Y	m/z	Y	m/z	Y
34.00	98	88.00	21872	142.00	295	197.00	47
35.00	78	89.00	581	143.00	3891	198.00	138
36.00	3148	90.00	238	144.00	422	199.00	94
37.00	19952	91.00	1545	145.00	510	200.00	107
38.00	17816	92.00	12766	146.00	1025	201.00	95
39.00	7896	93.00	18024	147.00	983	202.00	64
40.00	1235	94.00	56040	148.00	1036	203.00	559
41.00	488	95.00	505344	149.00	807	204.00	277
42.00	268	96.00	35848	150.00	589	205.00	782
43.00	712	97.00	1254	151.00	174	206.00	182
44.00	5579	98.00	309	152.00	199	207.00	3234
45.00	4505	99.00	162	153.00	388	208.00	746
46.00	182	100.00	289	154.00	362	209.00	651
47.00	7507	101.00	186	155.00	1155	210.00	172
48.00	2404	102.00	173	156.00	903	211.00	130
49.00	16456	103.00	774	157.00	784	212.00	158
50.00	84712	104.00	1642	158.00	924	213.00	117
51.00	25968	105.00	896	159.00	781	214.00	114
52.00	1251	106.00	1667	160.00	57	215.00	182
53.00	566	107.00	593	161.00	881	216.00	152
54.00	257	108.00	264	162.00	211	217.00	252
55.00	1643	109.00	161	163.00	747	218.00	126
56.00	5408	110.00	975	164.00	283	219.00	286
57.00	11543	111.00	592	165.00	885	220.00	136
58.00	751	112.00	649	166.00	285	221.00	393
59.00	784	113.00	773	167.00	141	222.00	94
60.00	4073	114.00	163	168.00	175	223.00	114
61.00	20536	115.00	769	169.00	19	224.00	65
62.00	17992	116.00	1828	170.00	197	225.00	22
63.00	14177	117.00	2504	171.00	42	226.00	44
64.00	1634	118.00	1754	172.00	1007	227.00	77
65.00	973	119.00	2509	173.00	1656	228.00	55
66.00	191	120.00	325	174.00	365888	229.00	25
67.00	810	121.00	63	175.00	24544	230.00	103
68.00	44504	122.00	326	176.00	342208	231.00	126

Date : ^{MH} 07-APR-2010 13:26

Client ID:

Instrument: nt7.i

Sample Info: BFB0408

Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

Data File: 04081001.d

Spectrum: Average Spectrum: 9.255 to 9.273 min.

Location of Maximum: 95.00

Number of points: 214

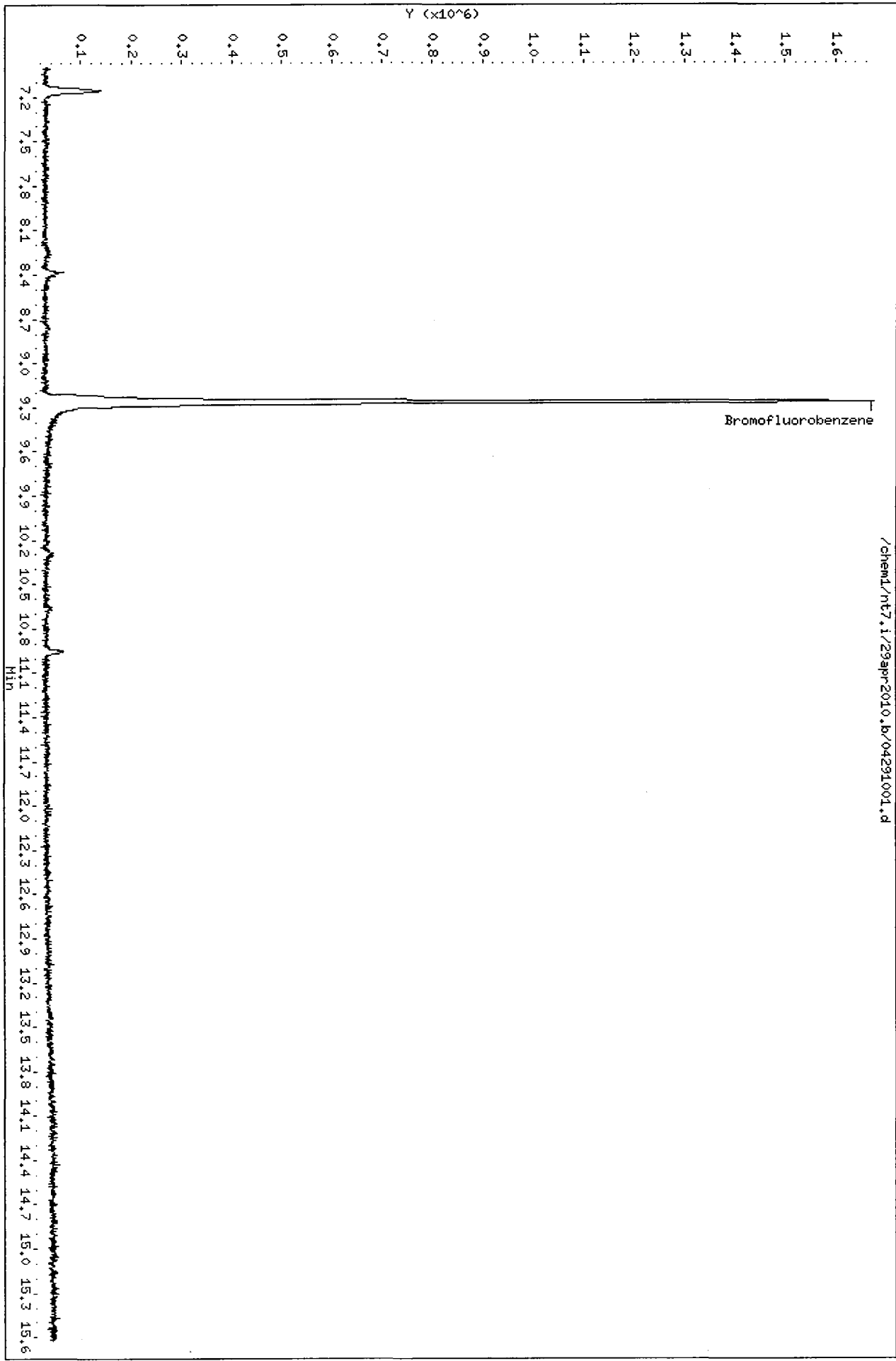
m/z	Y	m/z	Y	m/z	Y	m/z	Y
69.00	46536	123.00	418	177.00	21624	233.00	110
70.00	3595	124.00	329	178.00	897	234.00	103
71.00	310	125.00	1971	179.00	900	235.00	574
72.00	2661	126.00	899	180.00	363	236.00	47
73.00	22176	127.00	371	181.00	173	237.00	132
74.00	71728	128.00	1541	182.00	233	238.00	174
75.00	224320	129.00	1063	183.00	57	239.00	28
76.00	20704	130.00	1809	184.00	47	240.00	139
77.00	4780	131.00	975	186.00	113	241.00	44
78.00	2336	132.00	344	187.00	299	242.00	52
79.00	8635	133.00	4839	188.00	126	244.00	129
80.00	2695	134.00	1018	189.00	393	245.00	55
81.00	8742	135.00	1110	190.00	145	246.00	44
82.00	1878	136.00	290	191.00	4016	247.00	196
83.00	501	137.00	998	192.00	779	248.00	74
84.00	373	138.00	98	193.00	3502	249.00	3132
85.00	325	139.00	372	194.00	765	250.00	413
86.00	492	140.00	252	195.00	485		
87.00	20024	141.00	3532	196.00	85		

M.
5/3/10

Data File: /chem1/ht7.1/29apr2010.b/04291001.d
Date: 29-APR-2010 15:37
Client ID:
Sample Info: BFB0429
Column phase: RTX502.2

Instrument: ht7.1
Operator: NH
Column diameter: 0.18

/chem1/ht7.1/29apr2010.b/04291001.d



Date : 29-APR-2010 15:37

Client ID:

Instrument: nt7.i

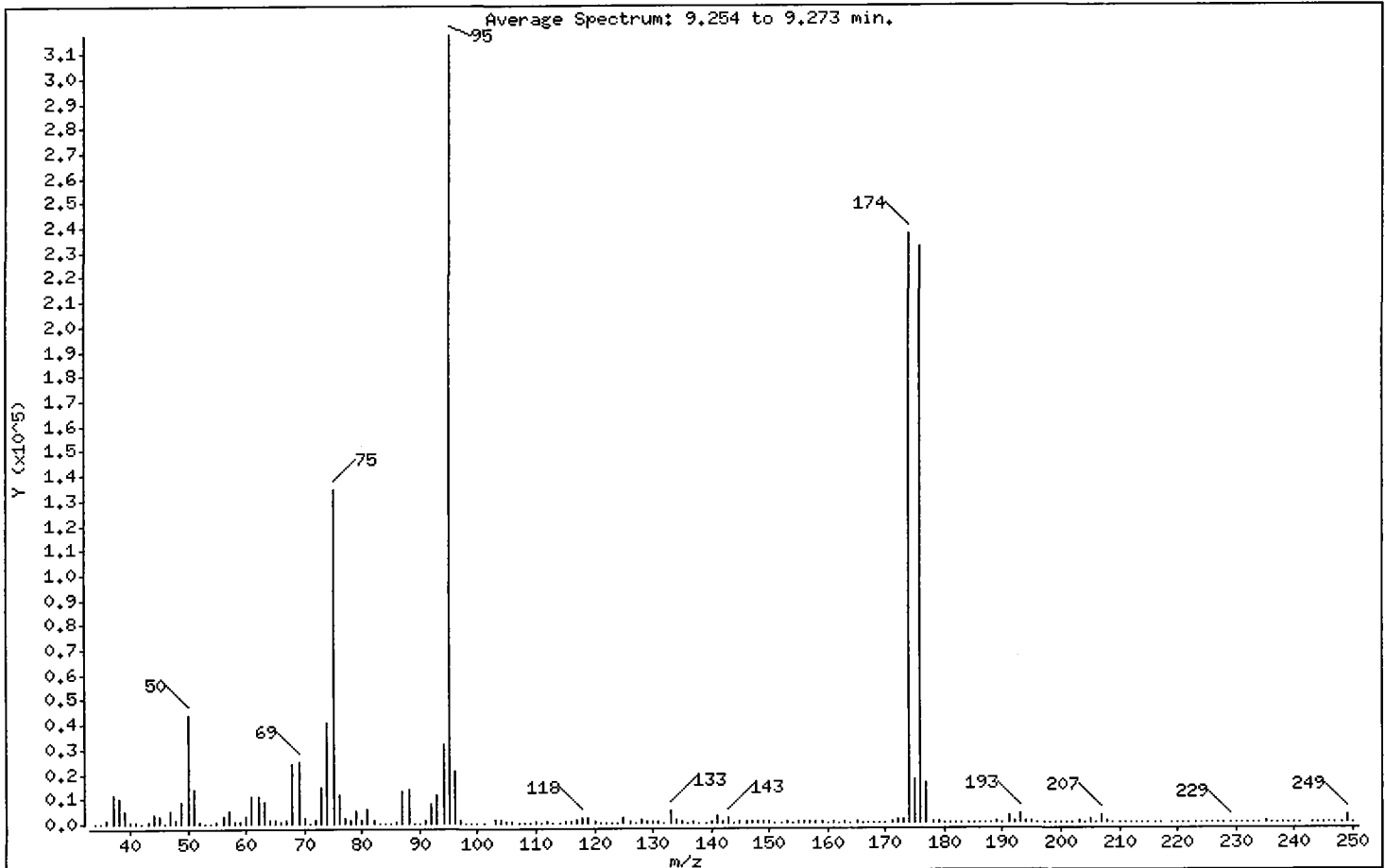
Sample Info: BFB0429

Operator: MH

Column phase: RTX502.2

Column diameter: 0,18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	13.79
75	30.00 - 66.00% of mass 95	42.22
96	5.00 - 9.00% of mass 95	6.58
173	Less than 2.00% of mass 174	0.40 (0.54)
174	50.00 - 101.00% of mass 95	74.73
175	4.00 - 9.00% of mass 174	5.55 (7.43)
176	93.00 - 101.00% of mass 174	73.01 (97.70)
177	5.00 - 9.00% of mass 176	4.97 (6.81)

Date : 29-APR-2010 15:37

Client ID:

Instrument: nt7.i

Sample Info: BFB0429

Operator: MH

Column phase: RTX502,2

Column diameter: 0,18

Data File: 04291001.d

Spectrum: Average Spectrum: 9,254 to 9,273 min.

Location of Maximum: 95,00

Number of points: 214

m/z	Y	m/z	Y	m/z	Y	m/z	Y
34,00	38	88,00	13544	143,00	2518	197,00	34
35,00	156	89,00	243	144,00	199	198,00	182
36,00	1493	90,00	150	145,00	893	199,00	103
37,00	11393	91,00	1297	146,00	542	200,00	63
38,00	10352	92,00	7684	147,00	991	201,00	71
39,00	5017	93,00	11588	148,00	841	202,00	162
40,00	633	94,00	32304	149,00	503	203,00	551
41,00	391	95,00	317376	150,00	431	204,00	127
42,00	192	96,00	20864	151,00	171	205,00	1206
43,00	678	97,00	1198	152,00	129	206,00	181
44,00	3977	98,00	70	153,00	499	207,00	3113
45,00	2902	99,00	102	154,00	364	208,00	474
46,00	353	100,00	294	155,00	864	209,00	331
47,00	5220	101,00	164	156,00	880	210,00	137
48,00	1274	103,00	1458	157,00	665	211,00	273
49,00	8559	104,00	1273	158,00	647	212,00	57
50,00	43760	105,00	735	159,00	438	213,00	112
51,00	13756	106,00	1066	160,00	119	214,00	47
52,00	629	107,00	142	161,00	837	215,00	72
53,00	91	108,00	172	162,00	205	216,00	88
54,00	236	109,00	21	163,00	790	217,00	120
55,00	688	110,00	714	164,00	171	219,00	155
56,00	3103	111,00	351	165,00	642	220,00	244
57,00	5293	112,00	566	166,00	152	221,00	249
58,00	369	113,00	298	167,00	281	222,00	132
59,00	784	114,00	285	168,00	185	223,00	168
60,00	2888	115,00	743	169,00	88	224,00	66
61,00	10700	116,00	786	170,00	30	225,00	58
62,00	10830	117,00	1813	171,00	449	226,00	143
63,00	8798	118,00	2315	172,00	1121	227,00	61
64,00	1177	119,00	1976	173,00	1279	228,00	57
65,00	1267	120,00	391	174,00	237184	229,00	256
66,00	402	121,00	328	175,00	17616	230,00	96
67,00	1195	122,00	306	176,00	231680	231,00	138
68,00	24376	123,00	319	177,00	15780	232,00	62

Date : 29-APR-2010 15:37

Client ID:

Instrument: nt7.i

Sample Info: BFB0429

Operator: MH

Column phase: RTX502.2

Column diameter: 0.18

Data File: 04291001.d

Spectrum: Average Spectrum: 9.254 to 9.273 min.


Location of Maximum: 95.00

Number of points: 214

m/z	Y	m/z	Y	m/z	Y	m/z	Y
69.00	24600	124.00	258	178.00	760	233.00	90
70.00	2104	125.00	2240	179.00	946	234.00	103
71.00	159	126.00	584	180.00	164	235.00	666
72.00	1625	127.00	234	181.00	268	236.00	215
73.00	14490	128.00	1113	182.00	108	237.00	91
74.00	40576	129.00	670	183.00	126	238.00	77
75.00	133952	130.00	1091	184.00	83	239.00	254
76.00	11551	131.00	408	185.00	155	240.00	237
77.00	2214	132.00	284	186.00	50	241.00	61
78.00	1621	133.00	5205	187.00	62	243.00	51
79.00	4864	134.00	1477	188.00	118	244.00	34
80.00	1509	135.00	639	189.00	630	245.00	119
81.00	5934	136.00	147	190.00	134	246.00	97
82.00	1578	137.00	443	191.00	3252	247.00	143
83.00	234	138.00	168	192.00	1048	248.00	95
84.00	299	139.00	67	193.00	3719	249.00	2905
85.00	183	140.00	392	194.00	756	250.00	313
86.00	549	141.00	2574	195.00	648		
87.00	13019	142.00	368	196.00	20		

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: MB-042910
 Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-042910
 LIMS ID: 10-10138
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/03/10

QC Report No: QT81-Floyd/Snider
 Project: Lora Lakes Apartments
 POS-LLA
 Date Sampled: NA
 Date Received: NA

Instrument/Analyst: NT7/MH
 Date Analyzed: 04/29/10 17:28

Sample Amount: 10.0 mL
 Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	100%

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291005.d
Lab Smp Id: MB0429
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	403884	-19.51
7 1,4-Difluorobenze	711657	355828	1423314	494186	-30.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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: 29apr2010
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: MB0429
Level: LOW Operator: MH
Data Type: MS DATA SampleType: BLANK
SpikeList File: special.spk Quant Type: ISTD
Sublist File: all.sub
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1033.7	103.37	76-119
\$ 9 d8-Toluene	1000.0	1002.5	100.25	60-140

Data File: /chem1/nt7.1/29apr2010.b/04291005.d

Date : 29-APR-2010 17:28

Client ID:

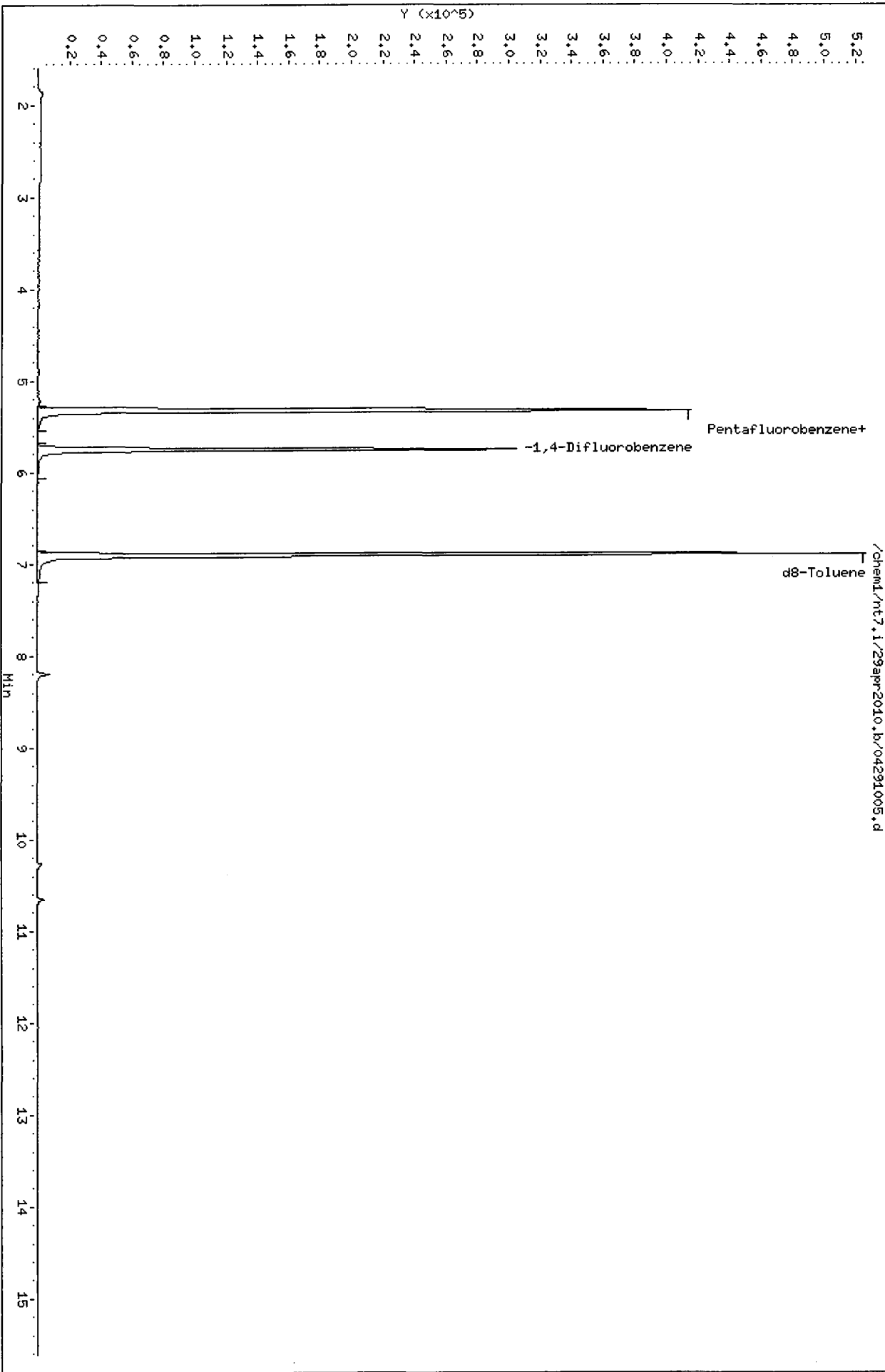
Sample Info: HB0429,10,10,0

Column phase: RTXVHS

Instrument: nt7.1

Operator: HH

Column diameter: 0.18



ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857042110GRAB
Page 1 of 1 MATRIX SPIKE

Lab Sample ID: QT81C
LIMS ID: 10-10140
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 05/03/10

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 04/21/10
Date Received: 04/21/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/29/10 20:41

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.7%
d8-Toluene	102%

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Data File: /chem1/nt7.i/29apr2010.b/04291012.d
Report Date: 03-May-2010 09:29

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291012.d
Lab Smp Id: QT81CMS Client Smp ID: CB4857042110GRA MS
Inj Date : 29-APR-2010 20:41
Operator : MH Inst ID: nt7.i
Smp Info : QT81CMS,10,10,0
Misc Info : 10-10140
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:29 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62		1.552	1.552	(0.291)	190680	960.425	960.43
2 1,1-Dichloroethene	96		2.520	2.508	(0.473)	182829	1060.13	1060.1
175 Trans-1,2-Dichloroethene	96		3.296	3.295	(0.618)	193102	1040.60	1040.6
3 cis-1,2-dichloroethene	96		4.447	4.447	(0.835)	180414	972.947	972.95
6 Benzene	78		5.211	5.210	(0.905)	793581	1109.67	1109.7
* 4 Pentafluorobenzene	168		5.328	5.316	(1.000)	386232	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.000)	154567	966.698	966.70
176 1,2-Dichloroethane	62		5.387	5.375	(1.011)	221120	1034.75	1034.7
8 Trichloroethene	130		5.711	5.711	(0.992)	206210	1104.46	1104.5
* 7 1,4-Difluorobenzene	114		5.757	5.745	(1.000)	492815	1000.00	
\$ 9 d8-Toluene	98		6.901	6.892	(1.199)	575559	1015.06	1015.1
10 Tetrachloroethene	166		7.270	7.260	(1.263)	216846	1209.00	1209.0
11 1,1,2,2-Tetrachloroethane	83		9.445	9.447	(1.640)	155844	1435.38	1435.4 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291012.d
Lab Smp Id: QT81CMS
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10140

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Client Smp ID: CB4857042110GRA MS
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	386232	-23.03
7 1,4-Difluorobenze	711657	355828	1423314	492815	-30.75

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.33	0.23
7 1,4-Difluorobenze	5.75	5.25	6.25	5.76	0.21

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: QT81CMS
 Level: LOW
 Data Type: MS DATA
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
 Misc Info: 10-10140

Client SDG: QT81
 Fraction: VOA
 Client Smp ID: CB4857042110GRA MS
 Operator: MH
 SampleType: MS
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	960.43	96.04	76-120
176 1,2-Dichloroethane	1000.0	1034.7	103.47	70-130
175 Trans-1,2-Dichloro	1000.0	1040.6	104.06	70-130
2 1,1-Dichloroethene	1000.0	1060.1	106.01	79-126
3 cis-1,2-dichloroet	1000.0	972.95	97.29	76-127
6 Benzene	1000.0	1109.7	110.97	75-121
8 Trichloroethene	1000.0	1104.5	110.45	79-120
10 Tetrachloroethene	1000.0	1209.0	120.90	75-123
11 1,1,2,2-Tetrachlor	1000.0	1435.4	143.54*	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	966.70	96.67	76-119
\$ 9 d8-Toluene	1000.0	1015.1	101.51	60-140

Data File: /chem1/nt7.1/29apr2010.b/04291012.d

Date : 29-APR-2010 20:41

Client ID: CE48570421100RA HS

Sample Info: Q781CMS,10,10,0

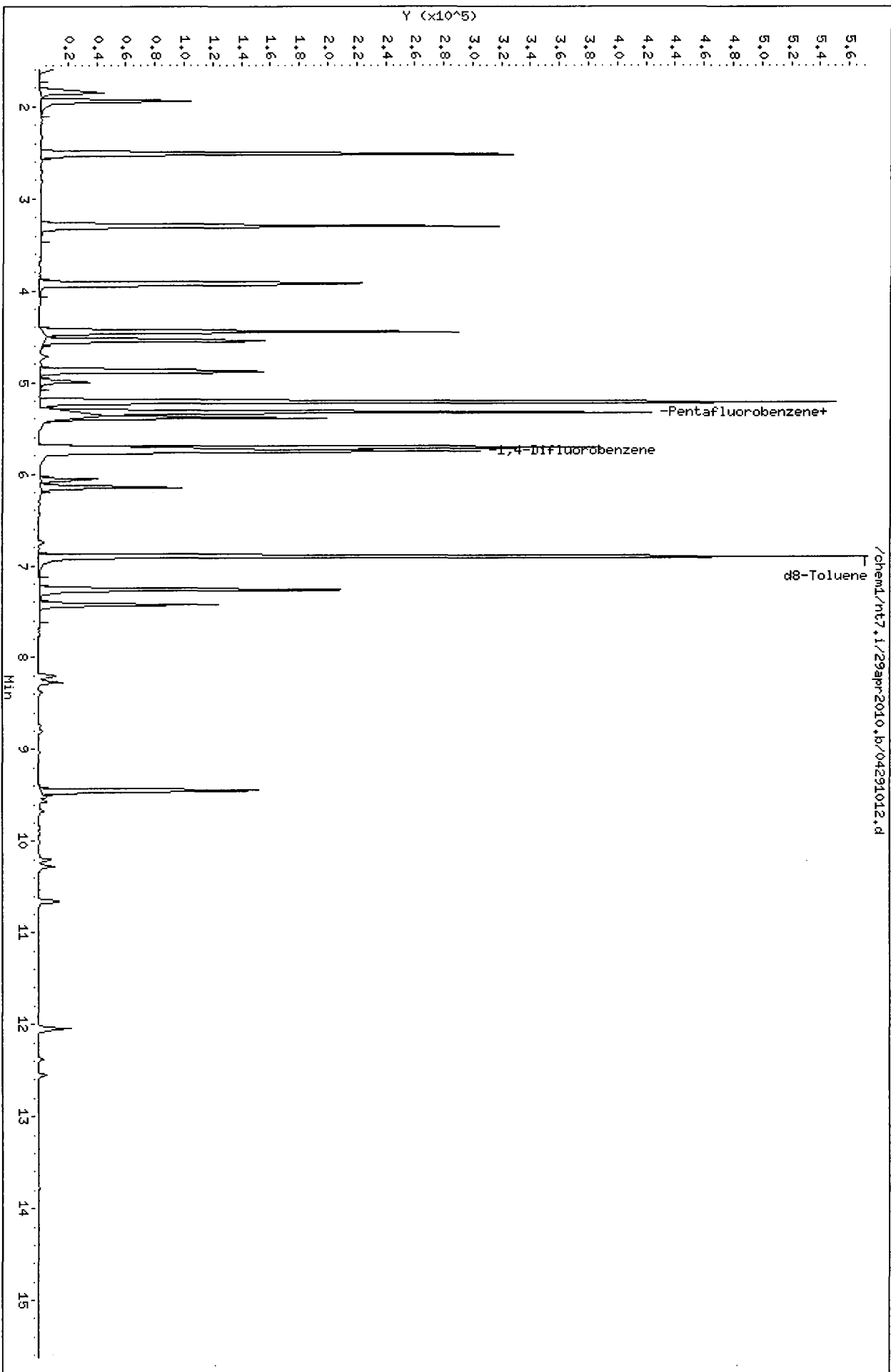
Column phase: RTXVHS

Instrument: nt7.1

Operator: HH

Column diameter: 0.18


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Q781 : 00138

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857042110GRAB
 Page 1 of 1 MATRIX SPIKE DUP

Lab Sample ID: QT81C
 LIMS ID: 10-10140
 Matrix: Water
 Data Release Authorized: 
 Reported: 05/03/10

QC Report No: QT81-Floyd/Snider
 Project: Lora Lakes Apartments
 POS-LLA
 Date Sampled: 04/21/10
 Date Received: 04/21/10

Instrument/Analyst: NT7/MH
 Date Analyzed: 04/29/10 21:06

Sample Amount: 10.0 mL
 Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.4%
d8-Toluene	101%

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Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291013.d
Lab Smp Id: QT81CMSD Client Smp ID: CB4857042110GRA MSD
Inj Date : 29-APR-2010 21:06
Operator : MH Inst ID: nt7.i
Smp Info : QT81CMSD,10,10,0
Misc Info : 10-10140
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:29 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62	1.552	1.552	(0.291)	192414	942.872	942.87
2 1,1-Dichloroethene	96	2.519	2.508	(0.473)	183521	1035.29	1035.3
175 Trans-1,2-Dichloroethene	96	3.306	3.295	(0.621)	193075	1012.24	1012.2
3 cis-1,2-dichloroethene	96	4.446	4.447	(0.835)	182587	957.957	957.96
6 Benzene	78	5.210	5.210	(0.905)	796571	1066.83	1066.8
* 4 Pentafluorobenzene	168	5.328	5.316	(1.000)	397000	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.000)	156875	954.523	954.52
176 1,2-Dichloroethane	62	5.386	5.375	(1.011)	219218	998.021	998.02
8 Trichloroethene	130	5.712	5.711	(0.992)	205765	1055.56	1055.6
* 7 1,4-Difluorobenzene	114	5.758	5.745	(1.000)	514538	1000.00	
\$ 9 d8-Toluene	98	6.902	6.892	(1.199)	596538	1007.65	1007.6
10 Tetrachloroethene	166	7.259	7.260	(1.261)	214940	1147.78	1147.8
11 1,1,2,2-Tetrachloroethane	83	9.446	9.447	(1.640)	152480	1345.10	1345.1(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291013.d
Lab Smp Id: QT81CMSD
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-10140

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Client Smp ID: CB4857042110GRA MSD
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	397000	-20.88
7 1,4-Difluorobenze	711657	355828	1423314	514538	-27.70

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.33	0.21
7 1,4-Difluorobenze	5.75	5.25	6.25	5.76	0.22

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.

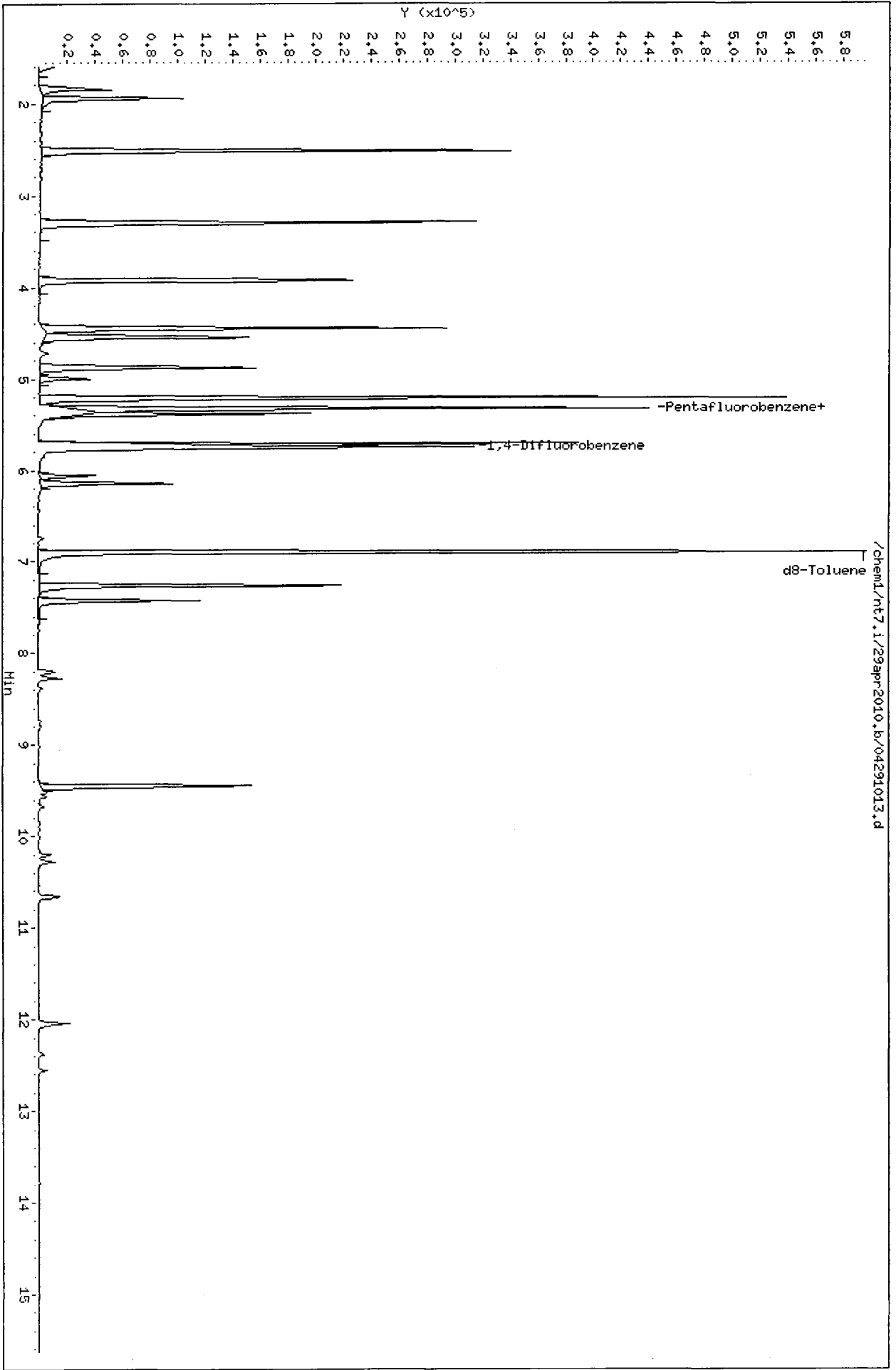
RECOVERY REPORT

Client Name: Floyd/Snider
 Sample Matrix: LIQUID
 Lab Smp Id: QT81CMSD
 Level: LOW
 Data Type: MS DATA
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
 Misc Info: 10-10140

Client SDG: QT81
 Fraction: VOA
 Client Smp ID: CB4857042110GRA MSD
 Operator: MH
 SampleType: MSD
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	942.87	94.29	76-120
176 1,2-Dichloroethane	1000.0	998.02	99.80	70-130
175 Trans-1,2-Dichloro	1000.0	1012.2	101.22	70-130
2 1,1-Dichloroethene	1000.0	1035.3	103.53	79-126
3 cis-1,2-dichloroet	1000.0	957.96	95.80	76-127
6 Benzene	1000.0	1066.8	106.68	75-121
8 Trichloroethene	1000.0	1055.6	105.56	79-120
10 Tetrachloroethene	1000.0	1147.8	114.78	75-123
11 1,1,2,2-Tetrachlor	1000.0	1345.1	134.51*	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	954.52	95.45	76-119
\$ 9 d8-Toluene	1000.0	1007.6	100.76	60-140



QT81 : 00144

4.
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Data File: /chem1/nt7.i/29apr2010.b/04291003.d
Report Date: 03-May-2010 09:28

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291003.d
Lab Smp Id: LCS0429
Inj Date : 29-APR-2010 16:37
Operator : MH
Smp Info : LCS0429,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/29apr2010.b/sim040810.m
Meth Date : 03-May-2010 09:28 monicah
Cal Date : 07-APR-2010 14:01
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Inst ID: nt7.i
Quant Type: ISTD
Cal File: 04081002.d
QC Sample: LCS
Compound Sublist: all.sub

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62		1.540	1.552	(0.290)	196862	924.763	924.76
2 1,1-Dichloroethene	96		2.520	2.508	(0.474)	187795	1015.58	1015.6
175 Trans-1,2-Dichloroethene	96		3.296	3.295	(0.620)	198415	997.206	997.21
3 cis-1,2-dichloroethene	96		4.447	4.447	(0.836)	187304	942.056	942.06
6 Benzene	78		5.211	5.210	(0.907)	802583	1027.44	1027.4
* 4 Pentafluorobenzene	168		5.317	5.316	(1.000)	414131	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.002)	160201	934.436	934.44
176 1,2-Dichloroethane	62		5.387	5.375	(1.013)	223028	973.367	973.37
8 Trichloroethene	130		5.712	5.711	(0.994)	212161	1040.33	1040.3
* 7 1,4-Difluorobenzene	114		5.746	5.745	(1.000)	538295	1000.00	
\$ 9 d8-Toluene	98		6.902	6.892	(1.201)	618897	999.276	999.28
10 Tetrachloroethene	166		7.258	7.260	(1.263)	216859	1106.92	1106.9
11 1,1,2,2-Tetrachloroethane	83		9.445	9.447	(1.644)	155629	1312.29	1312.3(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291003.d
Lab Smp Id: LCS0429
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 29-APR-2010
Calibration Time: 16:11

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	414131	-17.47
7 1,4-Difluorobenze	711657	355828	1423314	538295	-24.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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.

RECOVERY REPORT

Client Name: Client SDG: 29apr2010
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: LCS0429 Operator: MH
 Level: LOW SampleType: LCS
 Data Type: MS DATA Quant Type: ISTD
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
 Misc Info: 10-

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	924.76	92.48	76-120
176 1,2-Dichloroethane	1000.0	973.37	97.34	70-130
175 Trans-1,2-Dichloro	1000.0	997.21	99.72	70-130
2 1,1-Dichloroethene	1000.0	1015.6	101.56	79-126
3 cis-1,2-dichloroet	1000.0	942.06	94.21	76-127
6 Benzene	1000.0	1027.4	102.74	75-121
8 Trichloroethene	1000.0	1040.3	104.03	79-120
10 Tetrachloroethene	1000.0	1106.9	110.69	75-123
11 1,1,2,2-Tetrachlor	1000.0	1312.3	131.23*	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	934.44	93.44	76-119
\$ 9 d8-Toluene	1000.0	999.28	99.93	60-140

Data File: /chem1/nt7.1/29apr2010.1/04291003.d

Date: 29-APR-2010 16:37

Client ID:

Sample Info: LCS0429.10.10.0

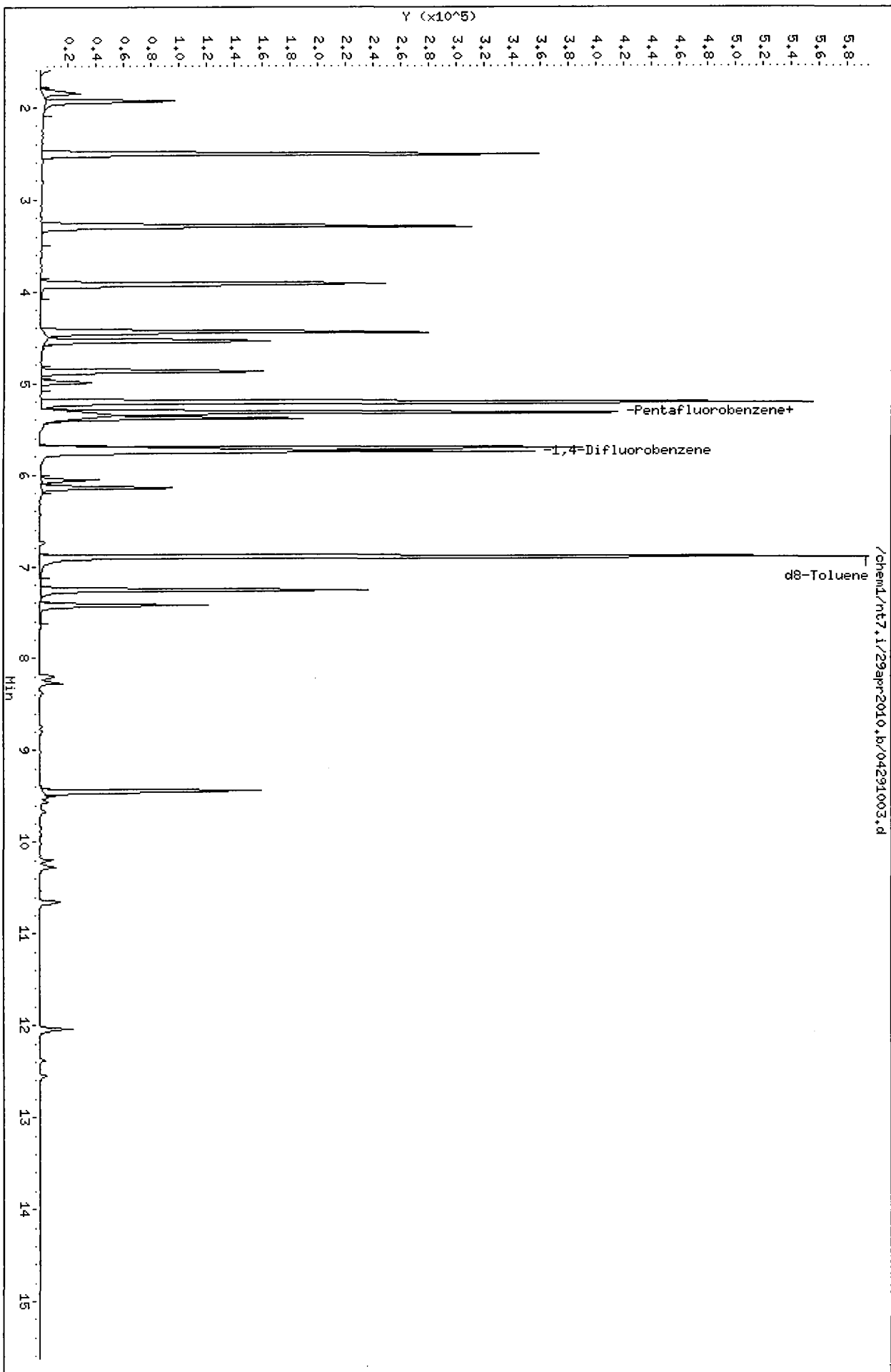
Column phase: RTXVMS

Instrument: nt7.1

Operator: HH

Column diameter: 0.18

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0181 : 00140

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Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/29apr2010.b/04291004.d
 Lab Smp Id: LCSD0429
 Inj Date : 29-APR-2010 17:02
 Operator : MH
 Smp Info : LCSD0429,10,10,0
 Misc Info : 10-
 Comment :
 Method : /chem1/nt7.i/29apr2010.b/sim040810.m
 Meth Date : 03-May-2010 09:28 monicah
 Cal Date : 07-APR-2010 14:01
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50

Inst ID: nt7.i
 Quant Type: ISTD
 Cal File: 04081002.d
 QC Sample: LCSD
 Compound Sublist: all.sub

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62		1.539	1.552	(0.289)	203561	949.369	949.37 (M)
2 1,1-Dichloroethene	96		2.519	2.508	(0.474)	188670	1012.98	1013.0
175 Trans-1,2-Dichloroethene	96		3.295	3.295	(0.620)	197033	983.147	983.15
3 cis-1,2-dichloroethene	96		4.446	4.447	(0.836)	185883	928.195	928.19
6 Benzene	78		5.210	5.210	(0.907)	798058	1036.40	1036.4
* 4 Pentafluorobenzene	168		5.316	5.316	(1.000)	417126	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.327	5.328	(1.002)	152733	884.478	884.48
176 1,2-Dichloroethane	62		5.386	5.375	(1.013)	220036	953.413	953.41
8 Trichloroethene	130		5.712	5.711	(0.994)	210532	1047.25	1047.2
* 7 1,4-Difluorobenzene	114		5.746	5.745	(1.000)	530633	1000.00	
\$ 9 d8-Toluene	98		6.903	6.892	(1.201)	596528	977.065	977.06
10 Tetrachloroethene	166		7.259	7.260	(1.263)	214500	1110.69	1110.7
11 1,1,2,2-Tetrachloroethane	83		9.446	9.447	(1.644)	144325	1234.55	1234.5

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04291004.d
Lab Smp Id: LCSD0429
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 29-APR-2010
Calibration Time: 16:11
Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	417126	-16.87
7 1,4-Difluorobenze	711657	355828	1423314	530633	-25.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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.

RECOVERY REPORT

Client Name: Client SDG: 29apr2010
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: LCSD0429 Operator: MH
 Level: LOW SampleType: LCSD
 Data Type: MS DATA Quant Type: ISTD
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/29apr2010.b/sim040810.m
 Misc Info: 10-

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	949.37	94.94	76-120
176 1,2-Dichloroethane	1000.0	953.41	95.34	70-130
175 Trans-1,2-Dichloro	1000.0	983.15	98.31	70-130
2 1,1-Dichloroethene	1000.0	1013.0	101.30	79-126
3 cis-1,2-dichloroet	1000.0	928.19	92.82	76-127
6 Benzene	1000.0	1036.4	103.64	75-121
8 Trichloroethene	1000.0	1047.2	104.72	79-120
10 Tetrachloroethene	1000.0	1110.7	111.07	75-123
11 1,1,2,2-Tetrachlor	1000.0	1234.5	123.45	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	884.48	88.45	76-119
\$ 9 d8-Toluene	1000.0	977.06	97.71	60-140

Data File: /chem/nt7,i/29apr2010,b/04291004.d

Date : 29-APR-2010 17:02

Client ID:

Sample Info: LCSD0429,10,10,0

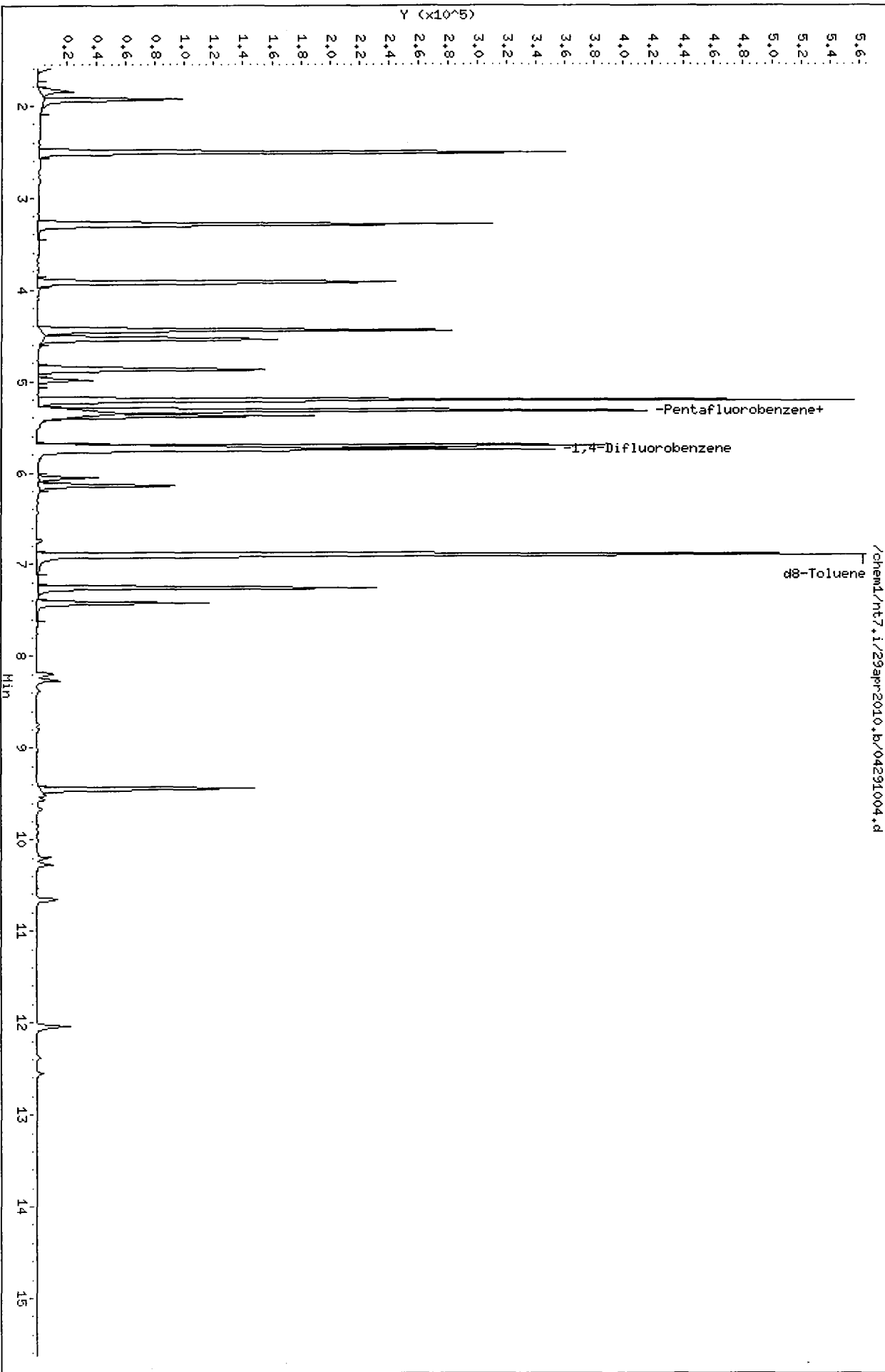
Page 5

Instrument: nt7.i

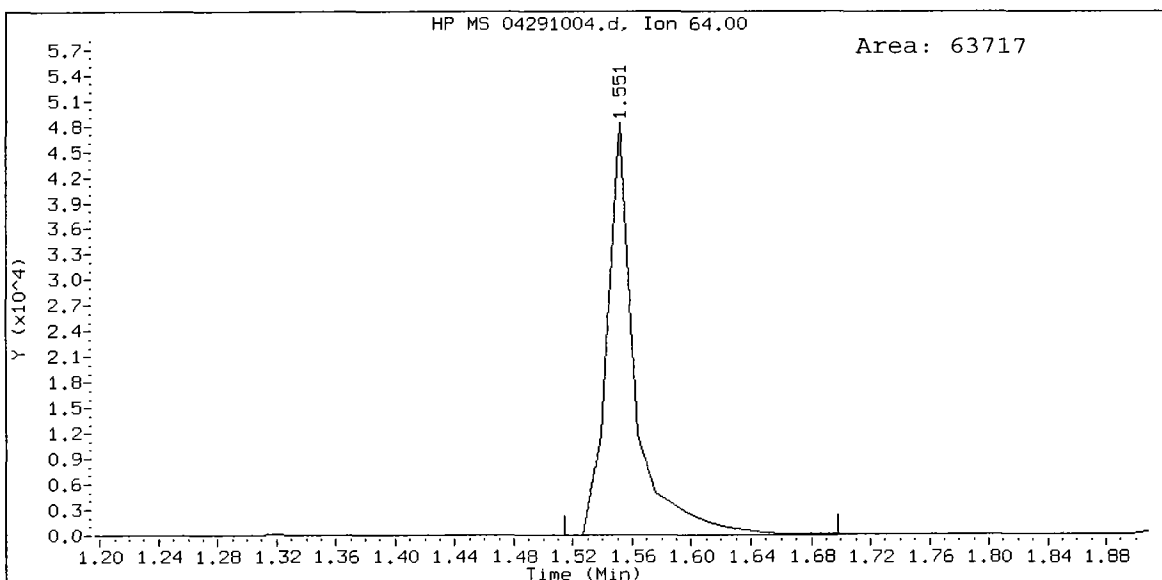
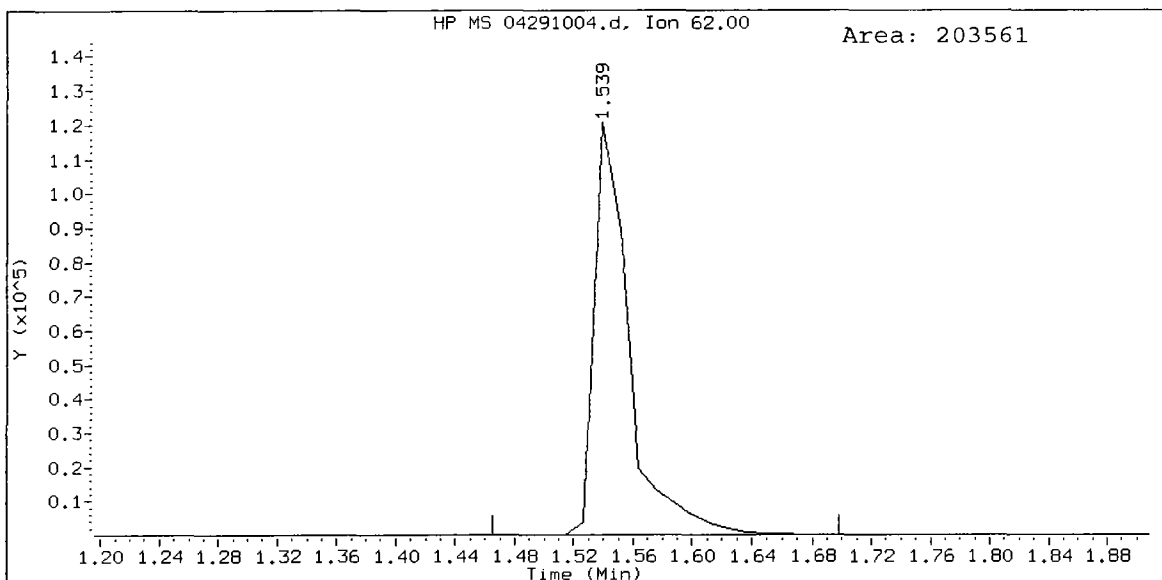
Operator: HH

Column diameter: 0.18

Column phase: RTXVHS



QT81 : 00154



MANUAL ADJUSTMENTS

- 1. Peak not found
 - 2. Poor Chromatography
 - 3. Baseline Correction
 - 4. Totals Calculation
 - 5. Other _____
- Analyst MH Date 5/3/10

**SIM Volatile Analysis
Run Logs**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

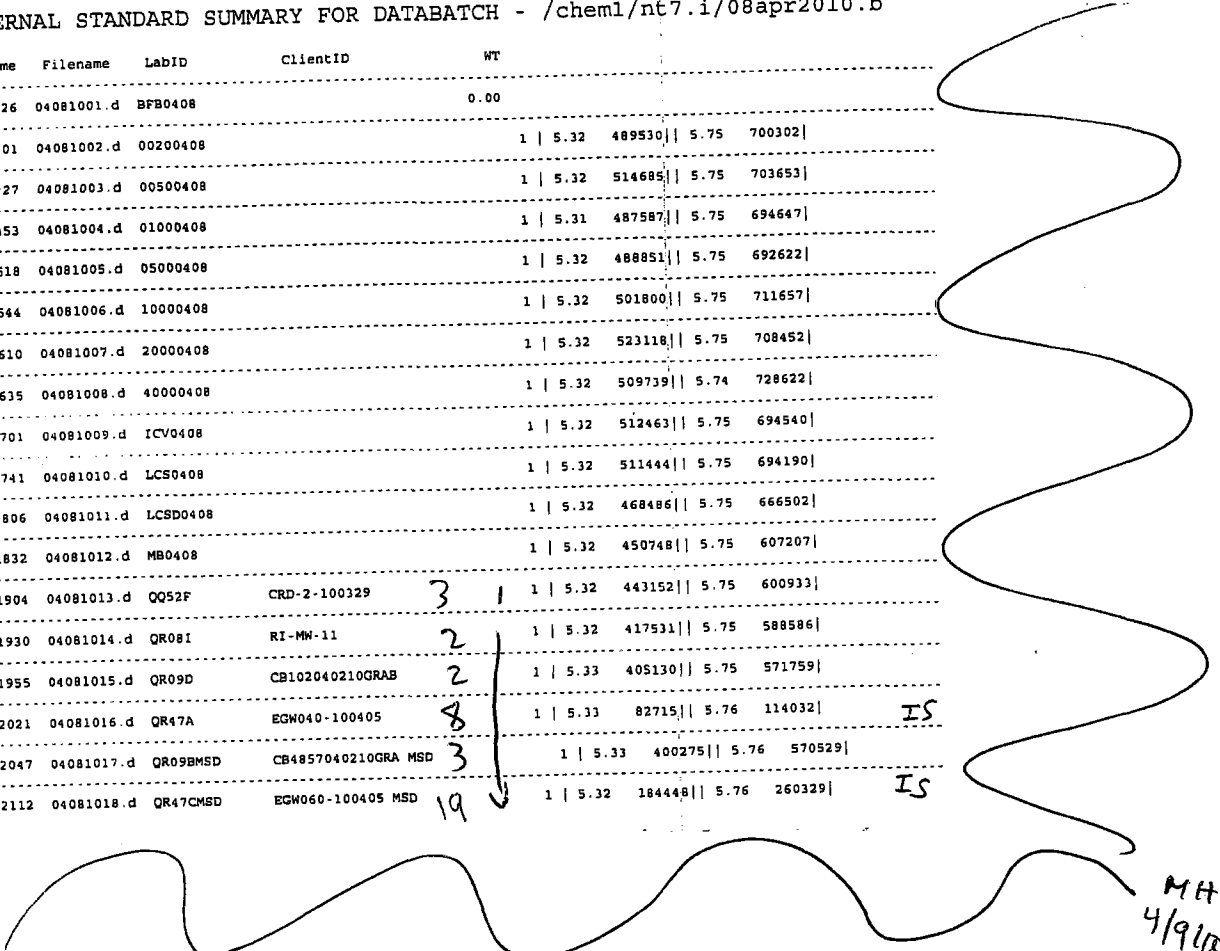
Analytical Resources Inc.: Volatile Organics Instrument Log
NT-7 Serial No.:GC=US00024417, MS=US72821196

Date: 4/8/10 Analysis: SIM VOA Analyst: MH
 GC Program: VC Column No: 850322 Column Type: RTXVMS
 Instrument Tune (.U or .CT.): 04081001 EM Voltage: 1906
 Calibration File: 04081006 Curve Date: 4/8/10

IS/SS	Ical/CCal	LCS/ICV
<u>VW 627-1</u>	<u>VW 624-4</u>	<u>VW 624-4</u>

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt7.i/08apr2010.b

Time	Filename	LabID	ClientID	WT		
1	1326	04081001.d	BFB0408	0.00		
2	1401	04081002.d	00200408	1 5.32	489530	5.75 700302
3	1427	04081003.d	00500408	1 5.32	514685	5.75 703653
4	1453	04081004.d	01000408	1 5.31	487587	5.75 694647
5	1518	04081005.d	05000408	1 5.32	488851	5.75 692622
6	1544	04081006.d	10000408	1 5.32	501800	5.75 711657
7	1610	04081007.d	20000408	1 5.32	523118	5.75 708452
8	1635	04081008.d	40000408	1 5.32	509739	5.74 728622
9	1701	04081009.d	ICV0408	1 5.32	512463	5.75 694540
10	1741	04081010.d	LCS0408	1 5.32	511444	5.75 694190
11	1806	04081011.d	LCS0408	1 5.32	468486	5.75 666502
12	1832	04081012.d	MB0408	1 5.32	450748	5.75 607207
13	1904	04081013.d	QQ52F	CRD-2-100329	3 1 5.32	443152 5.75 600933
14	1930	04081014.d	QR081	RI-MW-11	2 5.32	417531 5.75 588586
15	1955	04081015.d	QR09D	CB102040210GRAB	2 5.33	405130 5.75 571759
16	2021	04081016.d	QR47A	EGW040-100405	8 5.33	82715 5.76 114032
17	2047	04081017.d	QR09BMSD	CB4857040210GRA MSD	3 5.33	400275 5.76 570529
18	2112	04081018.d	QR47CMSD	EGW060-100405 MSD	19 ↓ 5.32	184448 5.76 260329



MH
4/9/10

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.



VOA Analyst Notes / Corrective Action Log

ARI Project ID: SIM Curve Client ID: _____

ARI SOP: 404S(Gas) 410S(BTEX) 430S(VPH) 703S(SIM) 706S(524.2) 708S(8260C) 710S(MME)

Parameter(s): SIM

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 10 Curve Date: 4/8/10 Analysis Start Date: _____

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):

Curve roned 4/8/10 Date on GC wrong 4/7/10 corrected.

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 4/13/10

Reviewer's Signature: [Signature] Date: 4/13/10

Analytical Resources Inc.: Volatile Organics Instrument Log
NT-7 Serial No.:GC=US00024417, MS=US72821196

Date: 4/29/10 Analysis: SIMVOA Analyst: MH
 GC Program: B VC Column No: 850322 Column Type: RTXVMS
 Instrument Tune (.U or .CT.): 04291001 EM Voltage: 2524
 Calibration File: 04291002 Curve Date: 4/8/10

IS/SS	Ical/Ccal	LCS/ICV
<u>VW 627-1</u>	<u>VW624-4</u>	<u>VW624-4</u>

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt7.i/29apr2010.b

Time	Filename	LabID	ClientID	WT
1	1537	04291001.d	BFB0429	0.00
2	1611	04291002.d	CC0429	1 5.32 395041 5.75 519542
3	1637	04291003.d	LCS0429	1 5.32 414131 5.75 538295
4	1702	04291004.d	LCSD0429	1 5.32 417126 5.75 530633
5	1728	04291005.d	MB0429	1 5.32 403884 5.75 494186
6	1807	04291006.d	QT81E	2 1 1 5.32 418084 5.75 480941
7	1832	04291007.d	QT69G	EGW168-100421 4 1 1 5.33 379889 5.76 451142
8	1858	04291008.d	QT22G	EGW166-100419 1 1 1 5.33 343446 5.76 445896
9	1924	04291009.d	QT81A	CB31A042110GRAB 1 1 1 5.33 344049 5.76 448698
10	1949	04291010.d	QT81B	CB1042110GRAB 1 1 1 5.33 346855 5.76 447512
11	2015	04291011.d	QT81C	CB4857042110GRAB 1 1 1 5.33 359436 5.76 445290
12	2041	04291012.d	QT81CMS	CB4857042110GRA MS 6 1 1 5.33 386232 5.76 492815
13	2106	04291013.d	QT81CMSD	CB4857042110GRA MSD 4 1 1 5.33 397000 5.76 514538
14	2132	04291014.d	QT81D	CB101042110GRAB 1 1 1 5.33 369429 5.76 487879
15	2157	04291015.d	QT42H	EGW141-100420 5 1 1 5.33 364645 5.75 685601
16	2223	04291016.d	QT42E	EGW145-100420 3 1 1 5.33 350756 5.75 671457
17	2249	04291017.d	QT42J	EGWDUP8-100420 3 1 1 5.33 362785 5.75 665852
18	2314	04291018.d	QT42D	EGW146-100420 1 1 1 5.33 330391 5.75 611950
19	2340	04291019.d	QT22D	EGM090-2-100419 2 1 1 5.32 301578 5.75 563015
20	0006	04291020.d	RB0429	1 5.33 291444 5.76 360193
21	0031	04291021.d	RB0429	1 5.33 278012 5.76 359762
22	0057	04291022.d	RB0429	1 5.32 277286 5.75 361729

MH
4/30/10

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.



VOA Analyst Notes / Corrective Action Log

ARI Project ID: QT81 Client ID: Floyd / Snider

ARI SOP: 404S(Gas) 410S(BTEX) 430S(VPH) 703S(SIM) 706S(524.2) 708S(8260C) 710S(MME)

Parameter(s): SIM

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 108^{2.0} Curve Date: 4/8/10 Analysis Start Date: 4/29/10

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):

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 5/2/10

Reviewer's Signature: [Signature] Date: 5/3/10

**TPHD Analysis
QC Summary Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
CB31A042110GRAB	63.2%	0
CB1042110GRAB	69.5%	0
MB-042310	70.0%	0
LCS-042310	72.1%	0
CB4857042110GRAB	68.7%	0
CB4857042110GRAB MS	71.2%	0
CB4857042110GRAB MSD	71.4%	0
CB101042110GRAB	68.1%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(51-120)

(41-121)

Prep Method: SW3510C
Log Number Range: 10-10138 to 10-10141

ORGANICS ANALYSIS DATA SHEET
 NWTPHD by GC/FID-Silica and Acid Cleaned
 Page 1 of 1

Sample ID: CB4857042110GRAB
 MS/MSD

Lab Sample ID: QT81C
 LIMS ID: 10-10140
 Matrix: Water
 Data Release Authorized: *VTS*
 Reported: 04/29/10

QC Report No: QT81-Floyd/Snider
 Project: Lora Lakes Apartments
 POS-LLA
 Date Sampled: 04/21/10
 Date Received: 04/21/10

Date Extracted MS/MSD: 04/23/10
 Date Analyzed MS: 04/26/10 20:14
 MSD: 04/26/10 20:39
 Instrument/Analyst MS: FID/MS
 MSD: FID/MS

Sample Amount MS: 500 mL
 MSD: 500 mL
 Final Extract Volume MS: 1.0 mL
 MSD: 1.0 mL
 Dilution Factor MS: 1.00
 MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 0.25	1.99	3.00	66.3%	1.99	3.00	66.3%	0.0%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	71.2%	71.4%

Results reported in mg/L
 RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Sample ID: LCS-042310

Page 1 of 1

LAB CONTROL

Lab Sample ID: LCS-042310

QC Report No: QT81-Floyd/Snider

LIMS ID: 10-10140

Project: Lora Lakes Apartments

Matrix: Water

POS-LLA

Data Release Authorized: **VB**

Date Sampled: 04/21/10

Reported: 04/29/10

Date Received: 04/21/10

Date Extracted: 04/23/10

Sample Amount: 500 mL

Date Analyzed: 04/26/10 18:33

Final Extract Volume: 1.0 mL

Instrument/Analyst: FID/MS

Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	2.09	3.00	69.7%

TPHD Surrogate Recovery

o-Terphenyl	72.1%
-------------	-------

Results reported in mg/L

4
TPH METHOD BLANK SUMMARY

BLANK NO.

QT81MBW1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

SDG No.: QT81

Project No.: LORA LAKES APT.

Date Extracted: 04/23/10

Matrix: LIQUID

Date Analyzed : 04/26/10

Instrument ID : FID4B

Time Analyzed : 1807

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
	=====	=====	=====
01	QT81LCSW1	QT81LCSW1	04/26/10
02	CB31A042110G	QT81A	04/26/10
03	CB1042110GRA	QT81B	04/26/10
04	CB4857042110	QT81C	04/26/10
05	CB4857042110	QT81CMS	04/26/10
06	CB4857042110	QT81CMSD	04/26/10
07	CB101042110G	QT81D	04/26/10
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
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26			
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28			
29			
30			

8
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER
 SDG No.: QT81 Project: LORA LAKES APT.
 Instrument ID: FID4B GC Column: RTX-1
 Run Date: 04/26/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,
 IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD						
			TERPH: 7.07		TRIAC: 10.07	
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #	

01	ZZZZZ	ZZZZZ	04/26/10	1447	7.06	10.08
02	RT	RT	04/26/10	1511	7.07	10.07
03	IB	IB	04/26/10	1536	7.07	10.07
04	ZZZZZ	ZZZZZ	04/26/10	1602	7.07	10.08
05	ZZZZZ	ZZZZZ	04/26/10	1627	7.08	10.07
06	ZZZZZ	ZZZZZ	04/26/10	1652	7.06	10.07
07	DIESEL#2	DIESEL#2	04/26/10	1717	7.07	10.07
08	MOIL#2	MOIL#2	04/26/10	1742	7.06	10.08
09	QT81MBW1	QT81MBW1	04/26/10	1807	7.06	10.07
10	QT81LCSW1	QT81LCSW1	04/26/10	1833	7.07	10.07
11	CB31A042110G	QT81A	04/26/10	1858	7.06	10.07
12	CB1042110GRA	QT81B	04/26/10	1923	7.06	10.07
13	CB4857042110	QT81C	04/26/10	1948	7.06	10.07
14	CB4857042110	QT81CMS	04/26/10	2014	7.07	10.07
15	CB4857042110	QT81CMSD	04/26/10	2039	7.07	10.07
16	CB101042110G	QT81D	04/26/10	2104	7.06	10.07
17	DIESEL#3	DIESEL#3	04/26/10	2130	7.07	10.07
18	MOIL#3	MOIL#3	04/26/10	2155	7.07	10.08

TERPH = o-terph QC LIMITS
 (+/- 0.05 MINUTES)
 TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

8
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

SDG No.: QT81

Project: LORA LAKES APT.

Instrument ID: FID4B

GC Column: RTX-1

Run Date: 04/20/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,
IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD						
			TERPH: 7.06		TRIAIC: 10.06	
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAIC RT #	
=====						
01	RT	RT	04/20/10	1411	7.06	10.06
02	IB	IB	04/20/10	1437	7.06	10.06
03	DIESEL 50	DIESEL 50	04/20/10	1733	7.05	10.06
04	DIESEL 100	DIESEL 100	04/20/10	1758	7.05	10.08
05	DIESEL 250	DIESEL 250	04/20/10	1824	7.06	10.07
06	DIESEL 500	DIESEL 500	04/20/10	1849	7.07	10.06
07	DIESEL 1000	DIESEL 1000	04/20/10	1914	7.08	10.07
08	DIESEL 2500	DIESEL 2500	04/20/10	1939	7.12*	10.06
09		DIESEL ICV	04/20/10	2004	7.06	10.06

TERPH = o-terph
TRIAIC = 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.: QT81

Project: LORA LAKES APT.

Instrument ID: FID4B

GC Column: RTX-1

Run Date: 03/31/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,
IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD					
			TERPH: 7.05		TRIAC: 10.06
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	RINSE	03/30/10	1722	7.07	10.04
02	RT	03/30/10	1750	7.05	10.06
03	IB	03/30/10	1818	7.06	10.07
04	DIESEL#1	03/30/10	1845	7.06	10.08
05	MOIL#1	03/30/10	1913	7.05	10.06
06	DIESEL#1	03/30/10	1941	7.07	10.05
07	MOIL#1	03/30/10	2008	7.05	10.08
08	BUNKER#1	03/30/10	2036	7.06	10.08
09	DIESEL#1	03/30/10	2104	7.04	10.05
10	RINSE	03/30/10	2131	7.02	10.08
11	DIESEL 50	03/30/10	2159	7.08	10.04
12	DIESEL 100	03/30/10	2226	7.08	10.06
13	DIESEL 250	03/30/10	2253	7.09	10.06
14	DIESEL 500	03/30/10	2321	7.10	10.05
15	DIESEL 1000	03/30/10	2348	7.11*	10.04
16	DIESEL 2500	03/31/10	0015	7.14*	10.06
17	DIESEL ICV	03/31/10	0042	7.09	10.07
18	RINSE	03/31/10	0110	7.04	10.08
19	MOIL 100	03/31/10	0137	7.05	10.07
20	MOIL 250	03/31/10	0204	7.04	10.08
21	MOIL 500	03/31/10	0231	7.06	10.09
22	MOIL 1000	03/31/10	0259	7.06	10.11
23	MOIL 2500	03/31/10	0326	7.05	10.14*
24	MOIL 5000	03/31/10	0353	7.05	10.19*
25	MOIL ICV	03/31/10	0420	7.06	10.09

TERPH = o-terph (+/- 0.05 MINUTES)
 TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

**TPHD Analysis
Sample Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**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: Water

QC Report No: QT81-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

Data Release Authorized: **VBS**
Reported: 04/29/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
QT81A 10-10138	CB31A042110GRAB HC ID: MOTOR OIL	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U 0.50 63.2%
QT81B 10-10139	CB1042110GRAB HC ID: ---	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 69.5%
MB-042310 10-10140	Method Blank HC ID: ---	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 70.0%
QT81C 10-10140	CB4857042110GRAB HC ID: ---	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 68.7%
QT81D 10-10141	CB101042110GRAB HC ID: ---	04/23/10	04/26/10 FID4B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 68.1%

Reported in mg/L (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.

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b011.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: QT81A
Client ID: CB31A042110GRAB
Injection: 26-APR-2010 18:58
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.593	-0.004	391	573	GAS (Tol-C12)	58132	5
C8	2.885	0.013	805	1136	DIESEL (C12-C24)	690462	50
C10	4.039	-0.002	313	345	M.OIL (C24-C38)	2347389	252
C12	4.930	0.008	653	1333	AK-102 (C10-C25)	843788	55
C14	5.656	0.012	196	181	AK-103 (C25-C36)	2060149	255
C16	6.284	-0.004	815	676	OR.DIES (C10-C28)	1608844	153
C18	6.894	0.000	3087	2772	OR.MOIL (C28-C40)	1559220	182
C20	7.476	-0.002	5825	7939			
C22	8.021	-0.005	8811	9730			
C24	8.534	-0.006	13993	19442			
C25	8.781	-0.008	19557	20579			
C26	9.030	-0.007	17359	23017			
C28	9.534	-0.009	20195	27361			
C32	10.568	-0.010	17368	24098			
C34	11.084	-0.004	15118	32972	CREOSOT (C12-C22)	374558	185
Filter Peak	13.935	0.001	3371	4882	HYDRAUL (C24-C38)	2347389	208
C36	11.579	-0.007	10572	26732			
C38	12.062	-0.006	6352	12361			
C40	12.526	-0.006	4252	11847			
o-terph	7.063	-0.002	635353	487778	JET-A (C10-C18)	123634	14
Triacon Surr	10.069	-0.003	501412	547511			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	487778	28.5	63.2
Triacontane	547511	37.6	83.6

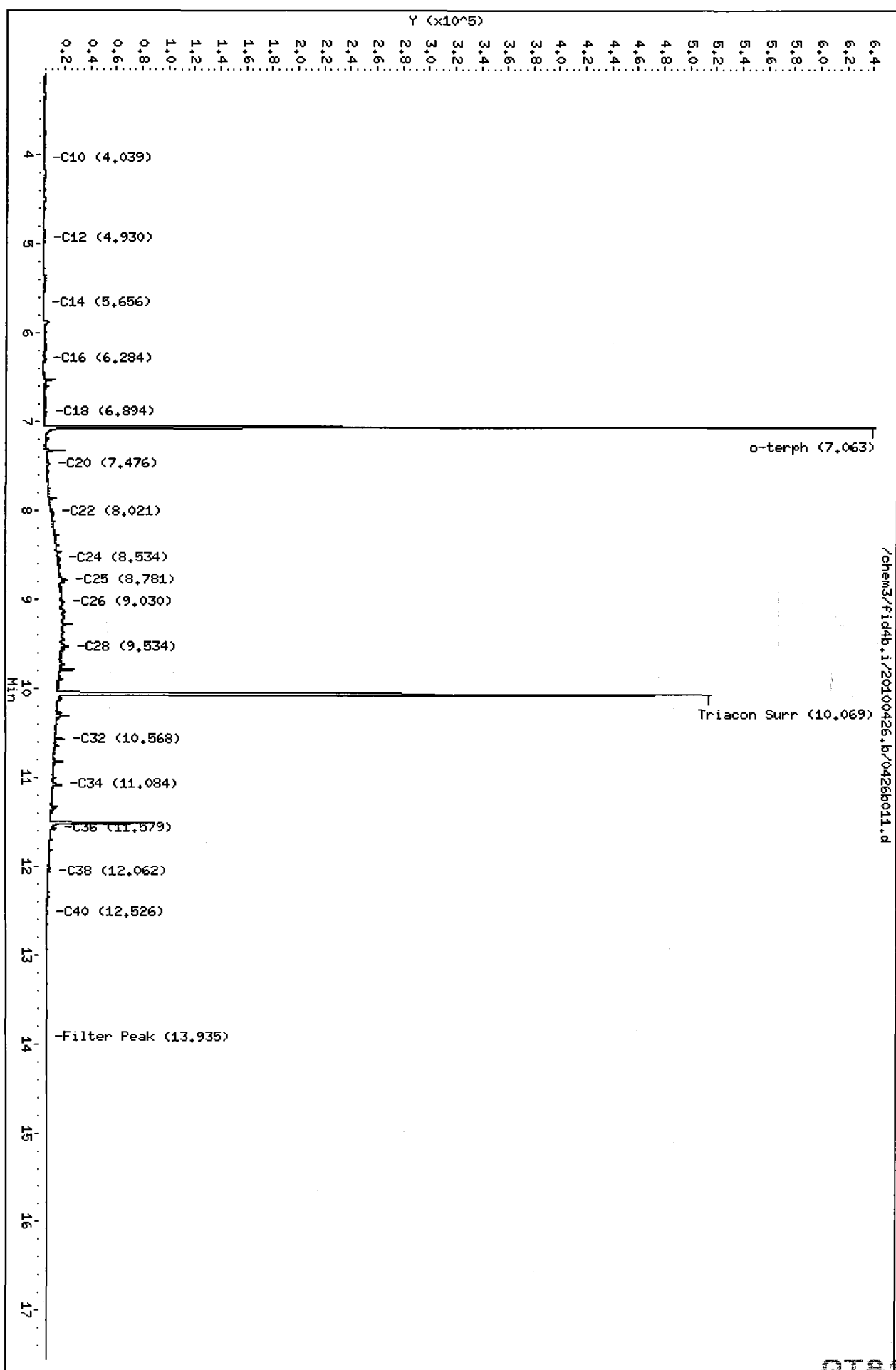
MANUAL ADJUSTMENTS

1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other *SKIM SURR*
- Analyst *MS* Date *4/28/10*

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100426.b/0426b011.d
 Date: 26-APR-2010 18:58
 Client ID: CE31A042110GRAB
 Sample Info: QT81A
 Column phase: RTX-1

Instrument: fid4b.i
 Operator: HS
 Column diameter: 0.25



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b012.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: QT81B
Client ID: CB1042110GRAB
Injection: 26-APR-2010 19:23
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.563	-0.034	375	650	GAS (Tol-C12)	26108	2
C8	2.868	-0.004	82	115	DIESEL (C12-C24)	140906	10
C10	4.036	-0.005	202	219	M.OIL (C24-C38)	342983	37
C12	4.919	-0.003	142	168	AK-102 (C10-C25)	169193	11
C14	5.664	0.021	114	99	AK-103 (C25-C36)	304693	38
C16	6.285	-0.003	752	599	OR.DIES (C10-C28)	260449	25
C18	6.900	0.006	613	523	OR.MOIL (C28-C40)	262937	31
C20	7.478	-0.001	861	996			
C22	8.036	0.010	1254	2062			
C24	8.527	-0.013	1272	1291			
C25	8.791	0.002	3716	4910			
C26	9.038	0.002	1721	2045			
C28	9.533	-0.011	4482	7271			
C32	10.576	-0.001	2190	3090			
C34	11.092	0.004	8942	9810	CREOSOT (C12-C22)	107288	53
Filter Peak	13.941	0.007	2617	2807	HYDRAUL (C24-C38)	342983	30
C36							
C38	12.075	0.008	873	1102			
C40	12.531	-0.001	1013	1361			
o-terph	7.064	-0.002	627305	535947	JET-A (C10-C18)	88933	10
Triacon Surr	10.072	-0.001	574806	590484			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	535947	31.3	69.5
Triacontane	590484	40.6	90.1

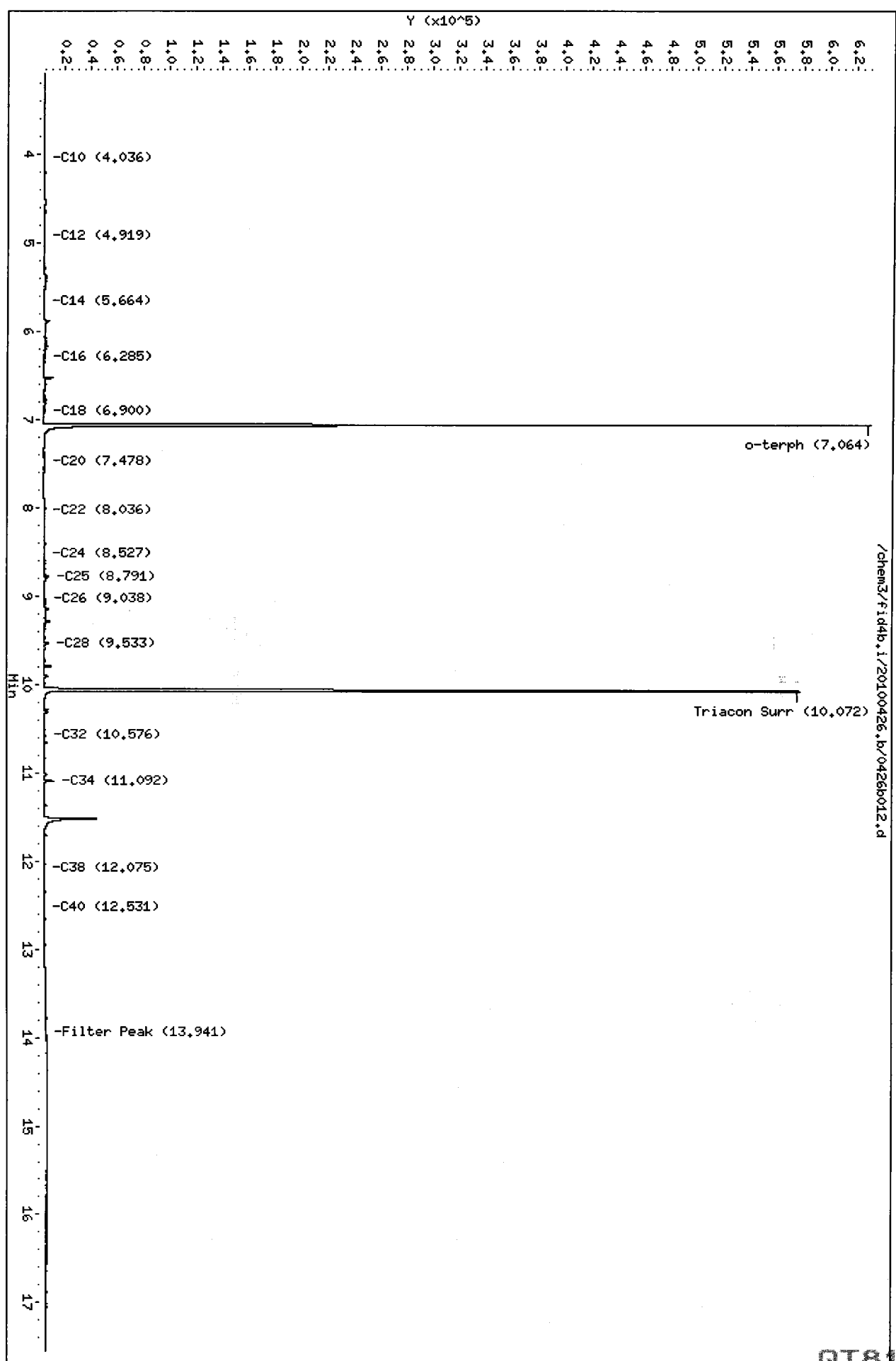
MANUAL ADJUSTMENTS

1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other Spk in Surr
- Analyst [Signature] Date 4/28/10

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100426.b/0426b012.d
Date: 26-APR-2010 19:23
Client ID: CB1042110GRAB
Sample Info: QT81B
Column phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b013.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: QT81C
Client ID: CB4857042110GRAB
Injection: 26-APR-2010 19:48

Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.605	0.008	455	486	GAS (Tol-C12)	29506	3
C8	2.861	-0.011	157	264	DIESEL (C12-C24)	387123	28
C10	4.032	-0.009	205	270	M.OIL (C24-C38)	1479257	159
C12	4.914	-0.008	78	56	AK-102 (C10-C25)	484934	32
C14	5.635	-0.009	52	37	AK-103 (C25-C36)	1305104	162
C16	6.285	-0.003	688	580	OR.DIES (C10-C28)	978061	93
C18	6.895	0.000	1265	1164	OR.MOIL (C28-C40)	961161	112
C20	7.481	0.002	2636	3910			
C22	8.025	-0.001	5095	9606			
C24	8.537	-0.003	8284	11512			
C25	8.782	-0.008	11426	13585			
C26	9.030	-0.007	10361	14037			
C28	9.530	-0.014	12732	31758			
C32	10.569	-0.009	10236	18386			
C34	11.088	0.000	14488	21706	CREOSOT (C12-C22)	202164	100
Filter Peak	13.929	-0.005	2668	2178	HYDRAUL (C24-C38)	1479257	131
C36	11.577	-0.009	6442	15430			
C38	12.064	-0.004	3253	6856			
C40	12.532	0.000	2304	7455			
o-terph	7.063	-0.002	640878	529753	JET-A (C10-C18)	88813	10
Triacon Surr	10.071	-0.002	566776	590141			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	529753	30.9	68.7
Triacontane	590141	40.5	90.1

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

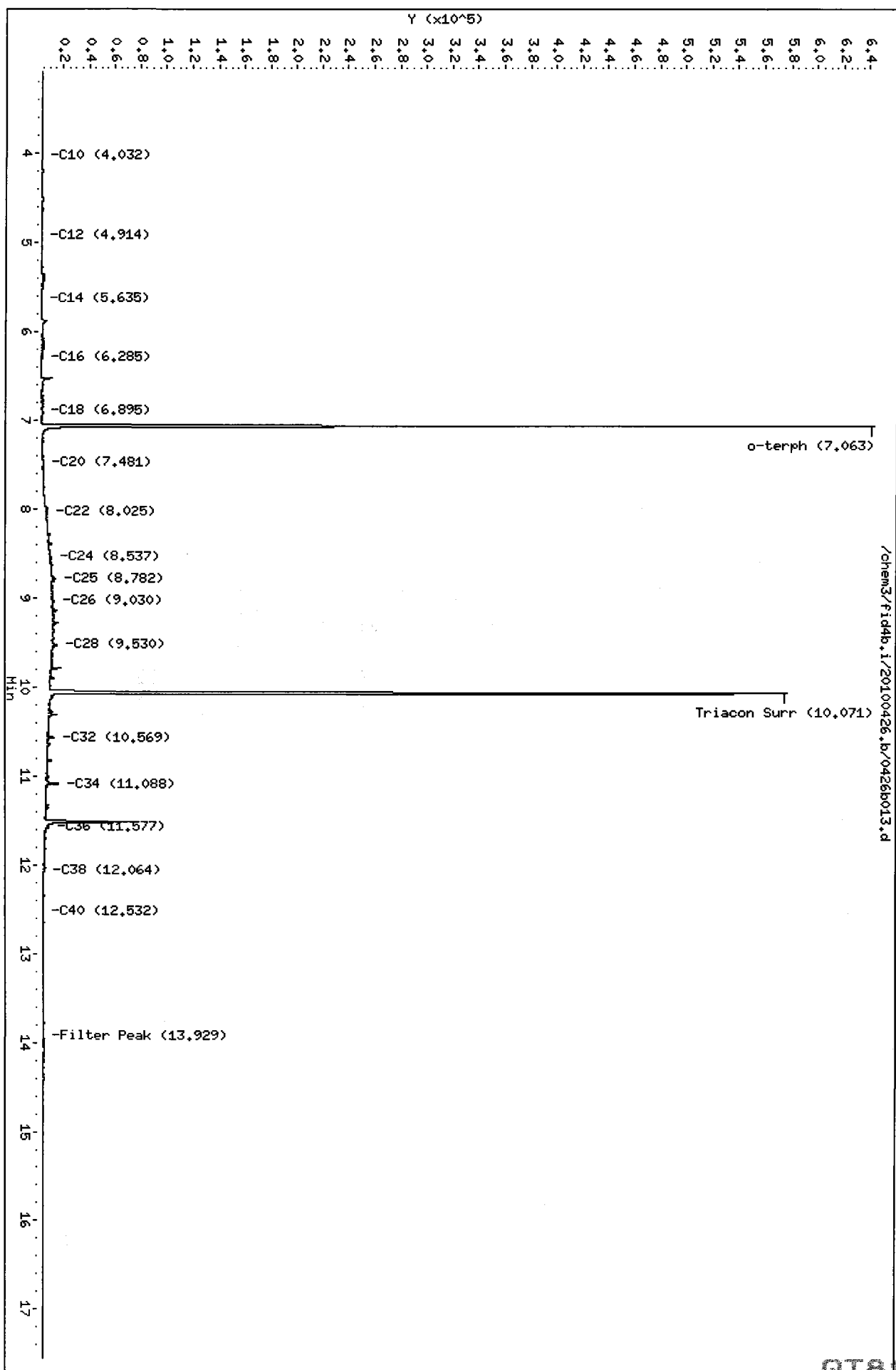
MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst SKM Date 4/28/10

Data File: /chem3/fid4b.i/20100426.b/0426b013.d
Date: 26-APR-2010 19:48
Client ID: CB4857042110GRAB
Sample Info: QT81C
Column phase: RTX-1

Instrument: fid4b.i
Operator: NS
Column diameter: 0.25



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b016.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: QT81D
Client ID: CB101042110GRAB
Injection: 26-APR-2010 21:04
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.589	-0.008	310	231	GAS (Tol-C12)	29939	3
C8	2.866	-0.005	129	334	DIESEL (C12-C24)	365650	27
C10	4.036	-0.006	221	224	M.OIL (C24-C38)	1357568	146
C12	4.923	0.001	146	144	AK-102 (C10-C25)	451493	29
C14	5.657	0.013	170	147	AK-103 (C25-C36)	1205755	149
C16	6.284	-0.003	790	644	OR.DIES (C10-C28)	898504	85
C18	6.895	0.001	1533	1400	OR.MOIL (C28-C40)	892514	104
C20	7.481	0.002	2513	3595			
C22	8.026	-0.001	4712	7499			
C24	8.536	-0.005	7413	6913			
C25	8.781	-0.009	9805	11928			
C26	9.031	-0.005	9178	11453			
C28	9.558	0.015	9086	9287			
C32	10.570	-0.007	8759	16025			
C34	11.089	0.001	11673	20716	CREOSOT (C12-C22)	196345	97
Filter Peak	13.939	0.005	2539	1212	HYDRAUL (C24-C38)	1357568	120
C36	11.578	-0.008	5972	13069			
C38	12.066	-0.002	2764	6289			
C40	12.534	0.002	2006	4988			
o-terph	7.063	-0.002	620941	525544	JET-A (C10-C18)	103843	12
Triacon Surr	10.071	-0.001	554606	575303			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	525544	30.7	68.1
Triacontane	575303	39.5	87.8

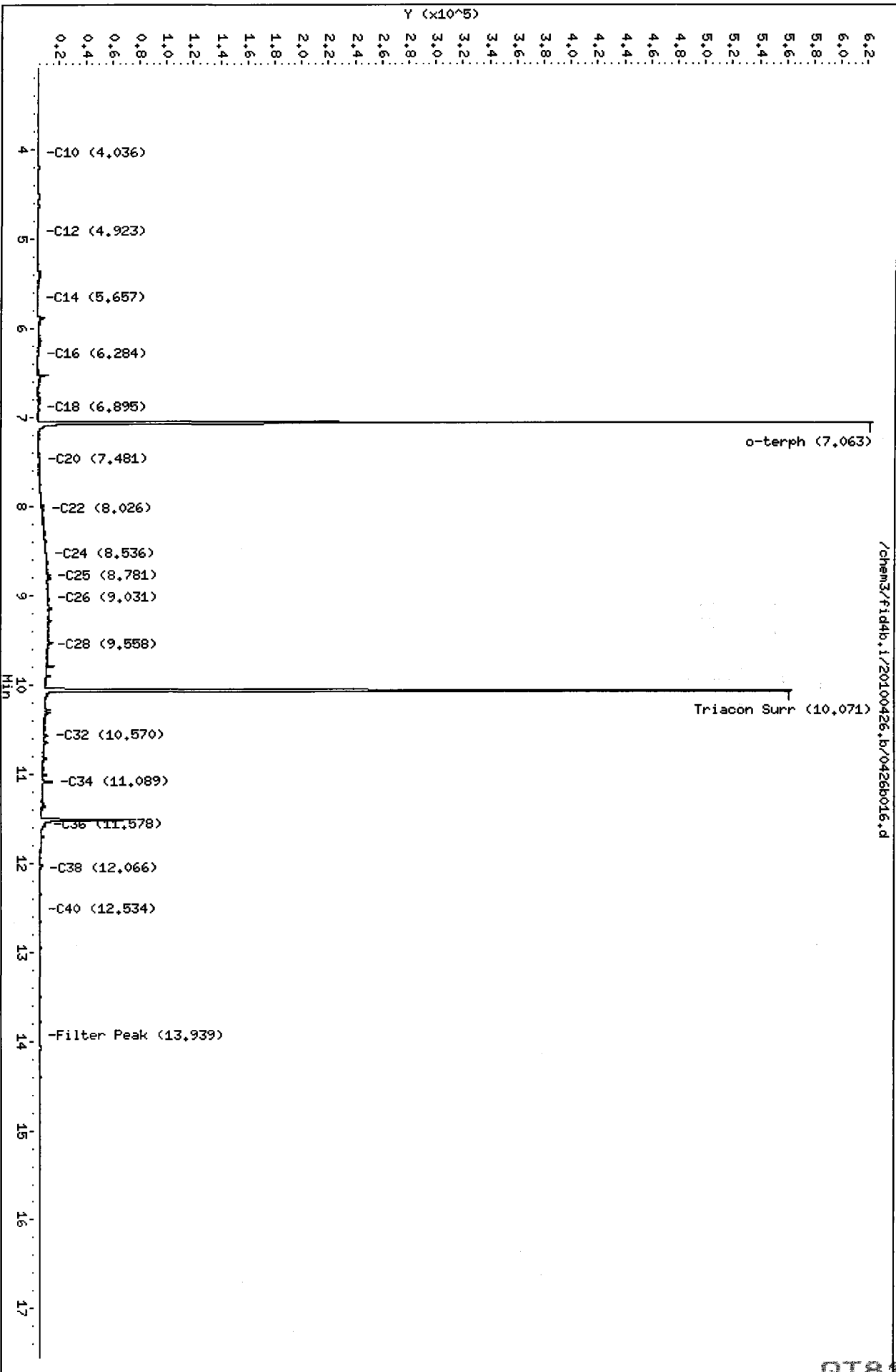
Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

- MANUAL ADJUSTMENTS
1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other

Analyst Jimis Date SKim Surr 4/28/10

Data File: /chem3/fid4b.i/20100426.b/0426b016.d
Date : 26-APR-2010 21:04
Client ID: CB101042110GRAB
Sample Info: QT81D
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 04/21/10

ARI Job: QT81
Project: Lora Lakes Apartments
POS-LLA

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
10-10138-QT81A	CB31A042110GRAB	500 mL	1.00 mL	04/23/10
10-10139-QT81B	CB1042110GRAB	500 mL	1.00 mL	04/23/10
10-10140-042310MB1	Method Blank	500 mL	1.00 mL	04/23/10
10-10140-042310LCS1	Lab Control	500 mL	1.00 mL	04/23/10
10-10140-QT81C	CB4857042110GRAB	500 mL	1.00 mL	04/23/10
10-10140-QT81CMS	CB4857042110GRAB	500 mL	1.00 mL	04/23/10
10-10140-QT81CMSD	CB4857042110GRAB	500 mL	1.00 mL	04/23/10
10-10141-QT81D	CB101042110GRAB	500 mL	1.00 mL	04/23/10

Diesel Extraction Report

**TPHD Analysis
Standard Raw Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

6a
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD/SNIDER

Instrument: FID4B.I

Project: LORA LAKES APT.

Calibration Date: 20-APR-2010

SDG No.: QT81

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	14864	14257	13892	13660	12565	13454	13782	5.6
AK Diesel	16759	15928	15397	15149	13921	14881	15339	6.3
OR Diesel	17460	16156	15497	15238	14017	14984	15559	7.5
o-Terph	16509	16898	17198	17374	16675	18214	17145	3.6

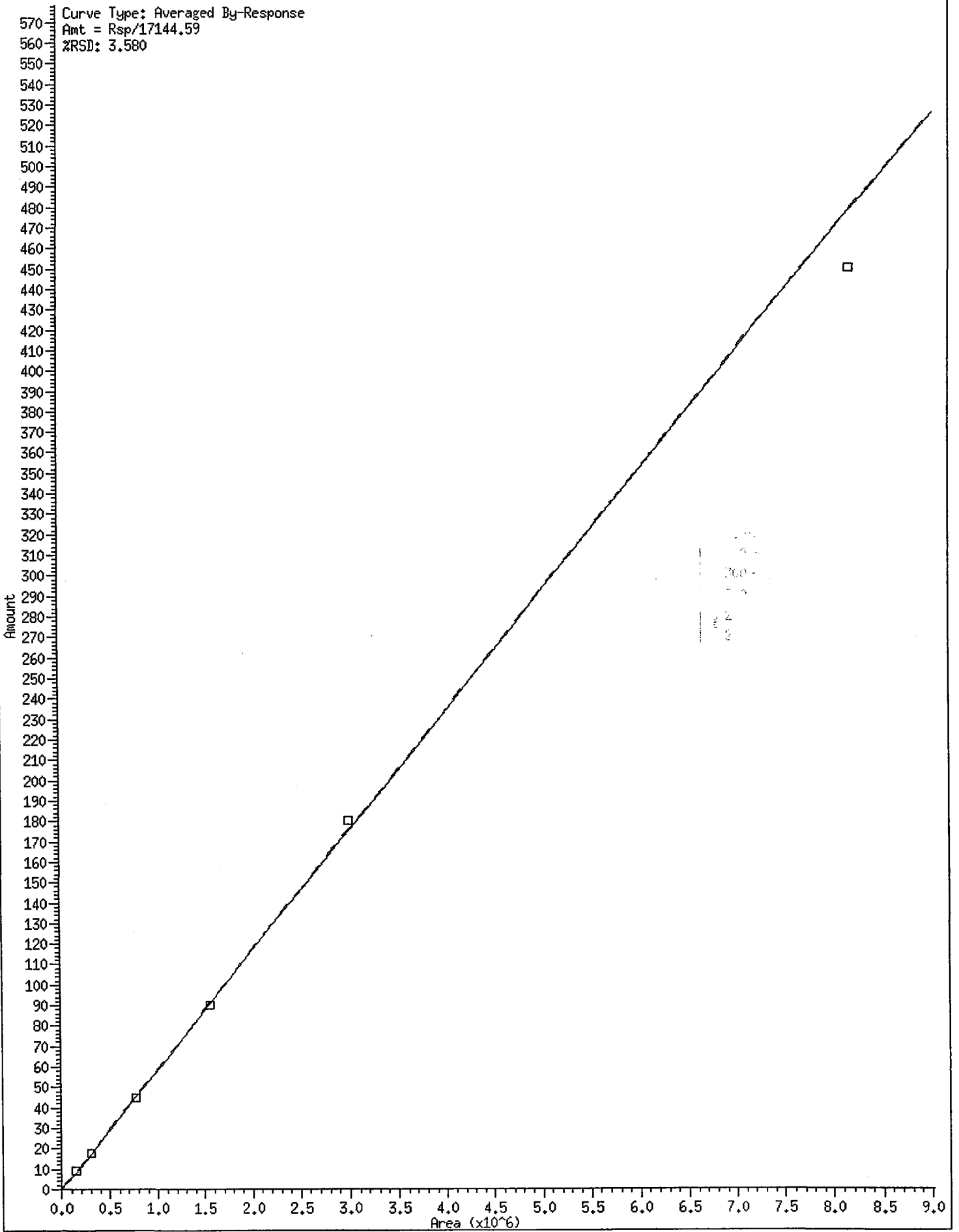
<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (4.914-8.533)
 AK Diesel C10-C25 (4.029-8.782)
 OR Diesel C10-C28 (4.029-9.535)

Calibration Files Analysis Time

0420b010.d	20-APR-2010 17:33
0420b011.d	20-APR-2010 17:58
0420b012.d	20-APR-2010 18:24
0420b013.d	20-APR-2010 18:49
0420b014.d	20-APR-2010 19:14
0420b015.d	20-APR-2010 19:39

* 8 o-terph



QT81 : 00182

Analytical Resources Inc.
407S TPH Quantitation Report

M-4/20/10

Data file: /chem3/fid4b.i/20100420.b/0420b002.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: RT
Client ID:
Injection: 20-APR-2010 14:11
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.574	0.000	293263	255589	GAS (Tol-C12)	875864	77
C8	2.851	0.000	169746	174669	DIESEL (C12-C24)	1103829	80
C10	4.029	0.000	163395	166780	M.OIL (C24-C38)	1347950	145
C12	4.914	0.000	119968	171333	AK-102 (C10-C25)	1470361	96
C14	5.635	0.000	206164	171186	AK-103 (C25-C36)	1161929	144
C16	6.279	0.000	242087	172489	OR.DIES (C10-C28)	2078885	198
C18	6.887	0.000	257197	174218	OR.MOIL (C28-C40)	919421	107
C20	7.472	0.000	261416	176214			
C22	8.020	0.000	267320	176413			
C24	8.533	0.000	283968	178495			
C25	8.782	0.000	356938	247593			
C26	9.030	0.000	236721	179333			
C28	9.535	0.000	229030	177867			
C32	10.568	0.000	201286	172999			
C34	11.081	0.000	190539	173984	CREOSOT (C12-C22)	920213	454
Filter Peak	13.925	0.000	2704	2482	HYDRAUL (C24-C38)	1347950	119
C36	11.582	0.000	194276	179701			
C38	12.065	0.000	175540	172153			
C40	12.530	0.000	144727	166024			
o-terph	7.057	0.000	766532	637359	JET-A (C10-C18)	916830	105
Triacon Surr	10.064	0.000	541670	598923			

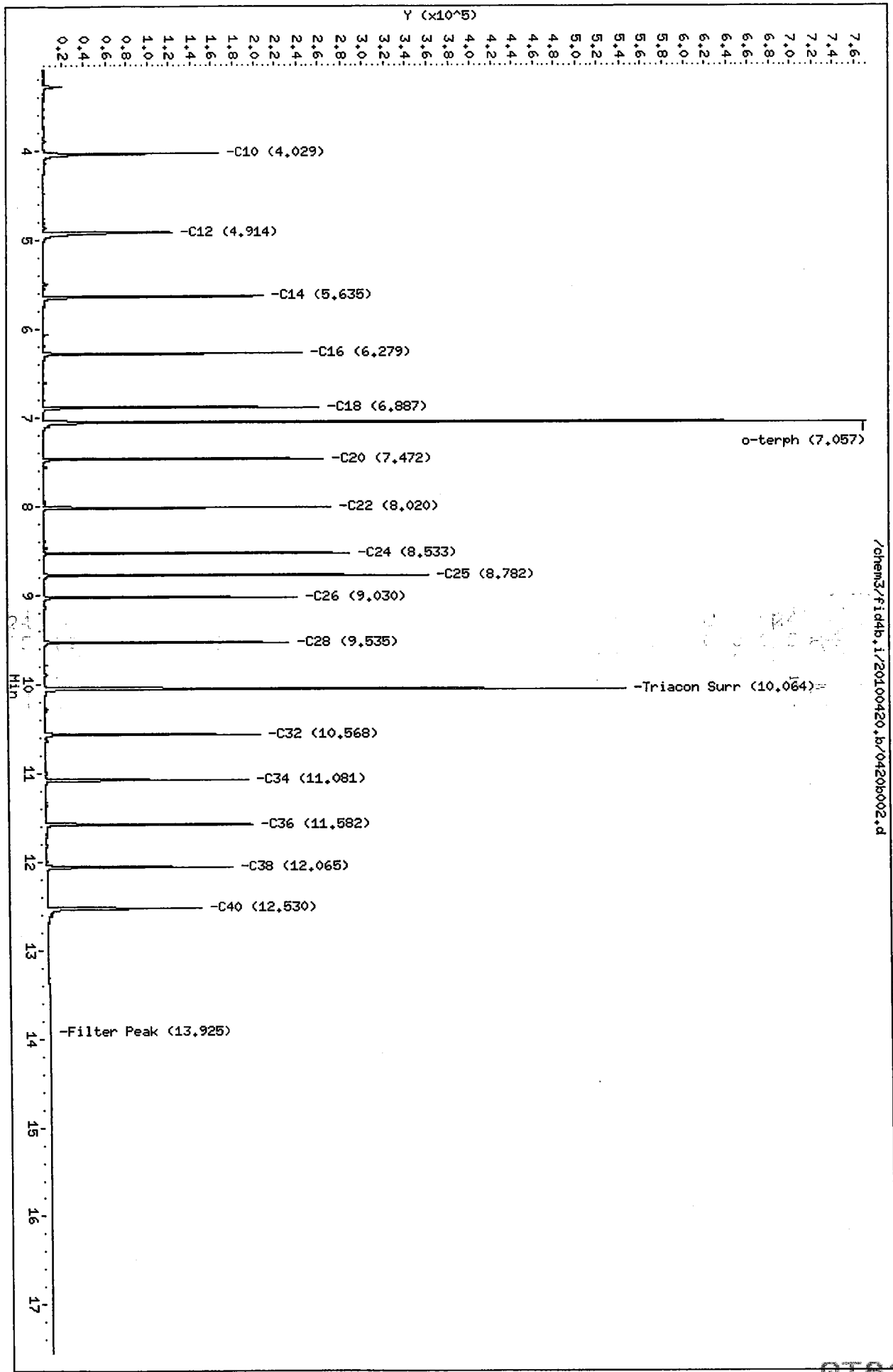
Range Times: NW Diesel(4.914 - 8.533) AK102(4.03 - 8.78) Jet A(4.03 - 6.89)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	637359	37.2	82.6
Triacotane	598923	41.1	91.4

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100420.b/0420b002.d
Date : 20-APR-2010 14:11
Client ID:
Sample Info: RT
Column phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25



Analytical Resources Inc.
407S TPH Quantitation Report

My 4/20/10

Data file: /chem3/fid4b.i/20100420.b/0420b003.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: IB
Client ID:
Injection: 20-APR-2010 14:37
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.559	-0.015	1844	3771	GAS (Tol-C12)	112444	10
C8	2.854	0.003	1030	1098	DIESEL (C12-C24)	55772	4
C10	4.028	0.000	697	205	M.OIL (C24-C38)	57607	6
C12	4.880	-0.034	1194	2992	AK-102 (C10-C25)	92569	6
C14	5.640	0.005	342	563	AK-103 (C25-C36)	41503	5
C16	6.276	-0.003	192	149	OR.DIES (C10-C28)	98323	9
C18	6.882	-0.005	119	162	OR.MOIL (C28-C40)	72836	8
C20	7.462	-0.010	132	166			
C22	8.018	-0.002	922	889			
C24	8.497	-0.037	2014	2669			
C25	8.793	0.011	56	59			
C26	9.023	-0.006	27	16			
C28	9.536	0.001	1449	1504			
C32	10.561	-0.008	442	859			
C34	11.073	-0.009	332	673	CREOSOT (C12-C22)	51238	25
Filter Peak	13.916	-0.009	2557	2039	HYDRAUL (C24-C38)	57607	5
C36	11.575	-0.007	422	709			
C38	12.063	-0.002	982	3427			
C40	12.524	-0.006	935	1572			
o-terph	7.059	0.001	844155	786931	JET-A (C10-C18)	71849	8
Triacon Surr	10.062	-0.002	540190	579384			

Range Times: NW Diesel (4.914 - 8.533) AK102 (4.03 - 8.78) Jet A (4.03 - 6.89)
NW M.Oil (8.53 - 12.06) AK103 (8.78 - 11.58) OR Diesel (4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	786931	45.9	102.0
Triacotane	579384	39.8	88.4

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100420.b/0420b003.d

Date: 20-APR-2010 14:37

Client ID:

Sample Info: IB

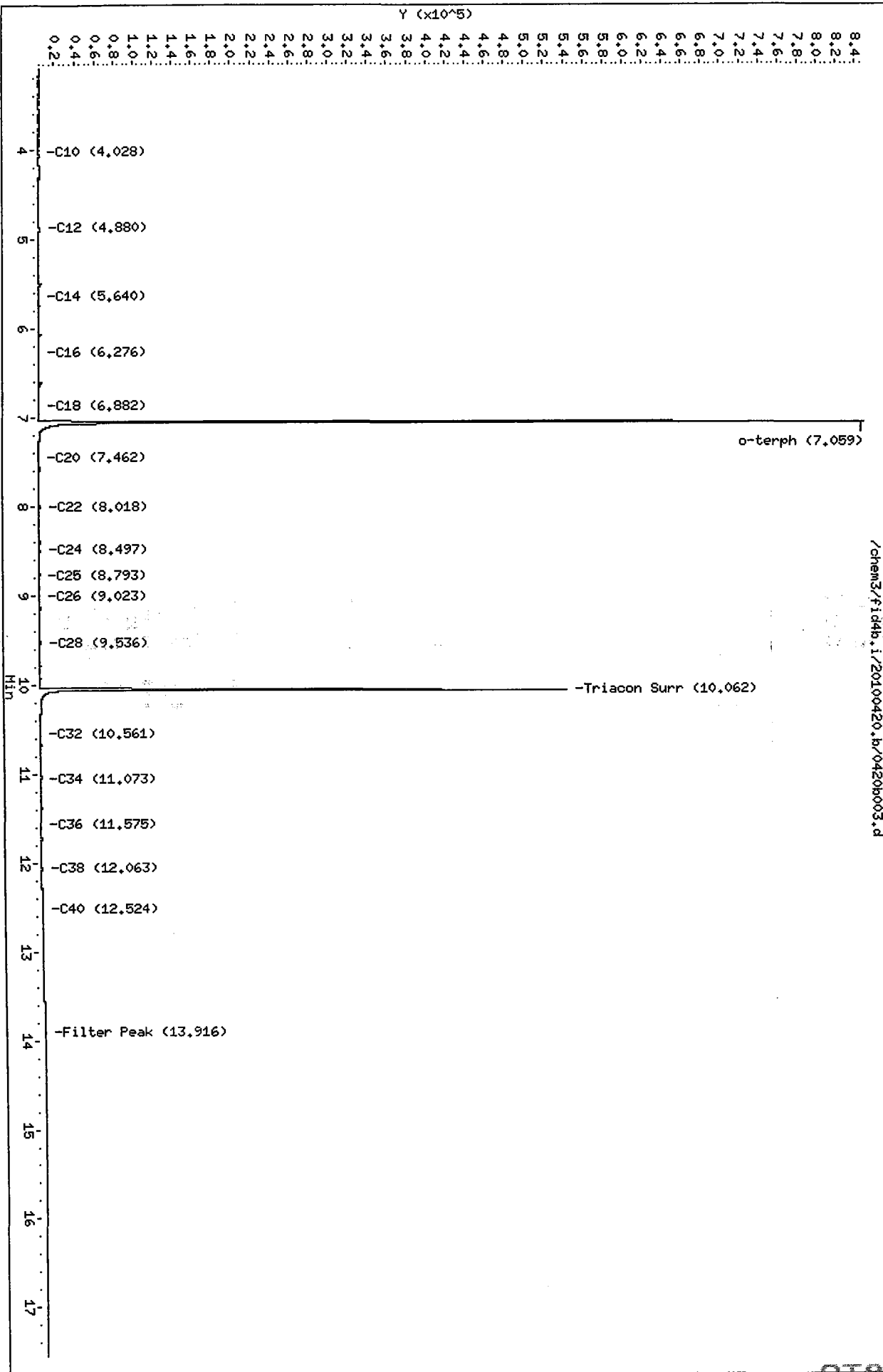
Column phase: RTX-1

Instrument: fid4b.i

Operator: HS

Column diameter: 0.25

/chem3/fid4b.i/20100420.b/0420b003.d



RT01 : 00180

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100420.b/0420b010.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: DIESEL 50
Client ID: DIESEL 50
Injection: 20-APR-2010 17:33
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.594	0.020	1337	2584	GAS (Tol-C12)	162239	14
C8	2.843	-0.008	1019	2468	DIESEL (C12-C24)	743222	54
C10	4.034	0.005	962	674	M.OIL (C24-C38)	152643	16
C12	4.920	0.006	1685	1158	AK-102 (C10-C25)	837947	55
C14	5.630	-0.006	3360	3022	AK-103 (C25-C36)	123191	15
C16	6.284	0.005	21253	19106	OR.DIES (C10-C28)	873010	83
C18	6.891	0.004	16183	19939	OR.MOIL (C28-C40)	129839	15
C20	7.482	0.010	7199	17091			
C22	8.005	-0.015	4675	6413			
C24	8.535	0.001	561	1247			
C25	8.775	-0.007	7009	7694			
C26	9.042	0.012	205	333			
C28	9.524	-0.011	13424	12598			
C32	10.577	0.008	54	71			
C34	11.080	-0.001	111	73	CREOSOT (C12-C22)	719498	355
Filter Peak	13.925	-0.001	1903	2616	HYDRAUL (C24-C38)	152643	14
C36	11.581	-0.001	205	322			
C38	12.096	0.032	362	544			
C40	12.530	-0.000	561	619			
o-terph	7.054	-0.003	172402	148580	JET-A (C10-C18)	608360	70
Triacon Surr	10.062	-0.002	20	6			

Range Times: NW Diesel (4.914 - 8.533) AK102 (4.03 - 8.78) Jet A (4.03 - 6.89)
NW M.Oil (8.53 - 12.06) AK103 (8.78 - 11.58) OR Diesel (4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	148580	8.7	19.3
Triacontane	6	0.0	0.0

MANUAL ADJUSTMENTS

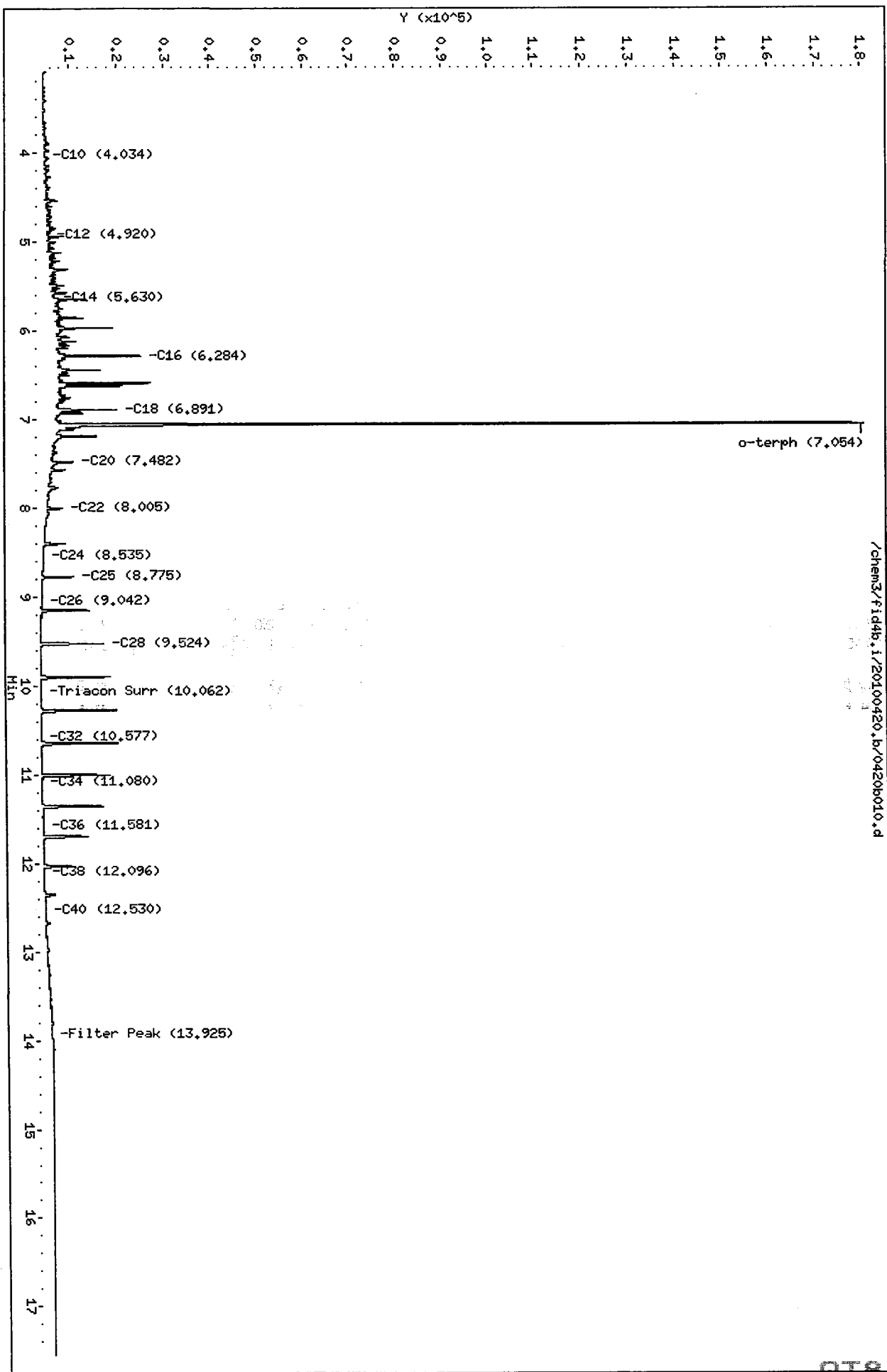
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other AK102 Surr

Analyst MS Date 4/20/10

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100420.b/0420b010.d
Date: 20-APR-2010 17:33
Client ID: DIESEL 50
Sample Info: DIESEL 50
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100420.b/0420b011.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: DIESEL 100
Client ID: DIESEL 100
Injection: 20-APR-2010 17:58
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.590	0.016	1156	2149	GAS (Tol-C12)	249334	22
C8	2.839	-0.012	1140	2579	DIESEL (C12-C24)	1425657	103
C10	4.025	-0.004	1527	1546	M.OIL (C24-C38)	84682	9
C12	4.929	0.016	11504	13880	AK-102 (C10-C25)	1592760	104
C14	5.638	0.002	23663	26118	AK-103 (C25-C36)	61635	8
C16	6.279	0.000	49076	39917	OR.DIES (C10-C28)	1615562	153
C18	6.886	0.000	42144	41762	OR.MOIL (C28-C40)	70810	8
C20	7.473	0.001	22475	24329			
C22	8.030	0.010	5986	19362			
C24	8.557	0.024	895	510			
C25	8.783	0.001	3198	4938			
C26	9.041	0.011	325	274			
C28	9.533	-0.002	4429	4749			
C32	10.574	0.006	37	19			
C34	11.082	0.000	87	86	CREOSOT (C12-C22)	1386045	683
Filter Peak	13.924	-0.002	1812	2377	HYDRAUL (C24-C38)	84682	8
C36	11.580	-0.002	178	128			
C38	12.090	0.025	328	242			
C40	12.536	0.006	531	613			
o-terph	7.053	-0.004	410543	304171	JET-A (C10-C18)	1159356	133
Triacon Surr	10.079	0.015	37	13			

Range Times: NW Diesel(4.914 - 8.533) AK102(4.03 - 8.78) Jet A(4.03 - 6.89)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	304171	17.7	39.4
Triacontane	13	0.0	0.0

MANUAL ADJUSTMENTS

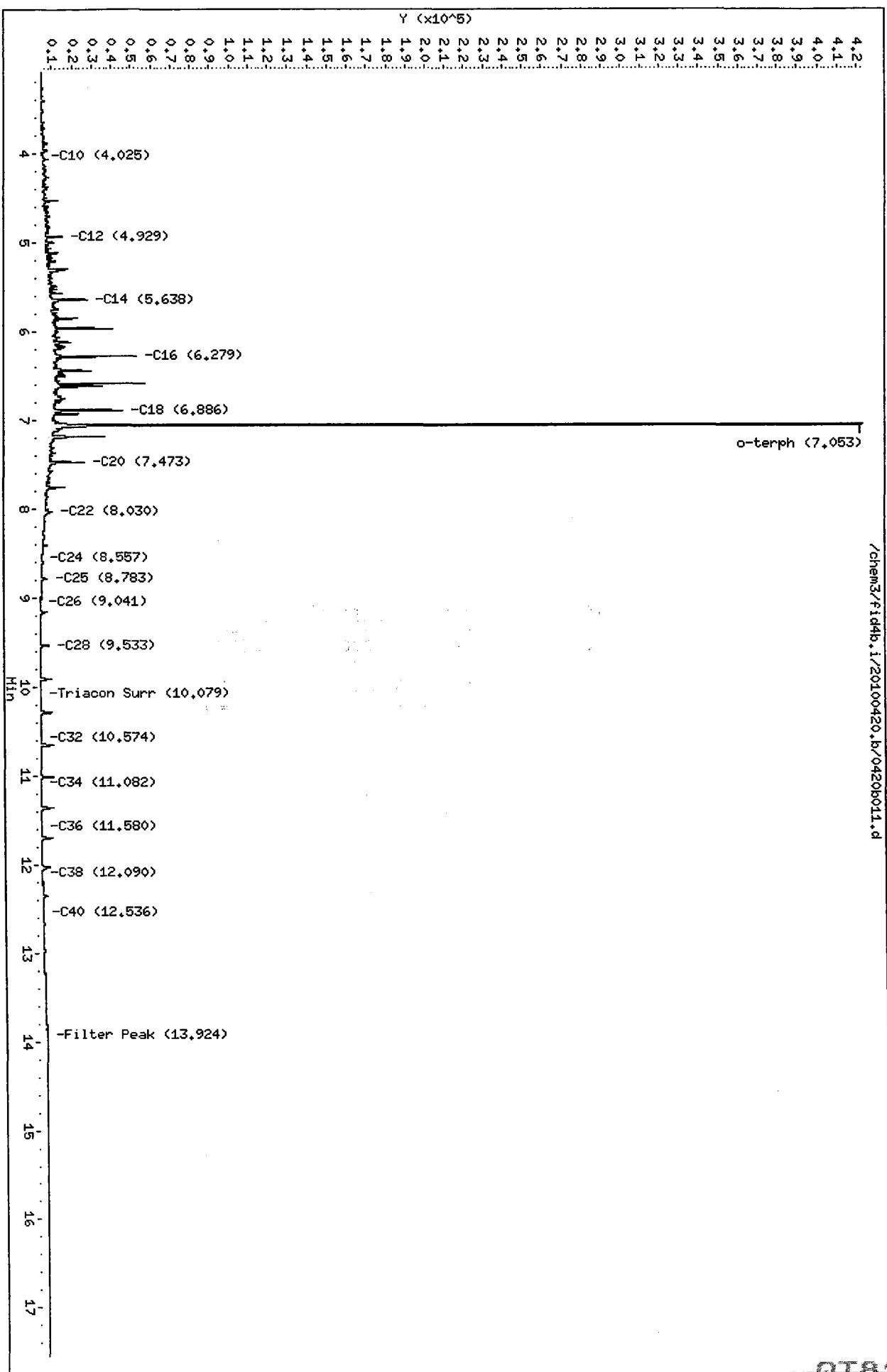
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst AKim Dur Date 4/20/10

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100420.b/0420b011.d
Date: 20-APR-2010 17:58
Client ID: DIESEL 100
Sample Info: DIESEL 100
Column phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100420.b/0420b012.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: DIESEL 250
Client ID: DIESEL 250
Injection: 20-APR-2010 18:24
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.560	-0.014	1517	2665	GAS (Tol-C12)	521145	46
C8	2.843	-0.008	1525	1856	DIESEL (C12-C24)	3473043	252
C10	4.017	-0.012	3399	3276	M.OIL (C24-C38)	62095	7
C12	4.914	0.000	32563	32741	AK-102 (C10-C25)	3849305	251
C14	5.632	-0.004	68749	63373	AK-103 (C25-C36)	42170	5
C16	6.277	-0.002	128724	97565	OR.DIES (C10-C28)	3874150	368
C18	6.886	-0.001	114276	100960	OR.MOIL (C28-C40)	39673	5
C20	7.470	-0.002	70102	59307			
C22	8.020	0.000	27322	31005			
C24	8.528	-0.005	2069	649			
C25	8.786	0.004	2844	4315			
C26	9.011	-0.019	672	1038			
C28	9.541	0.006	2047	2669			
C32	10.585	0.016	28	10			
C34	11.074	-0.007	77	64	CREOSOT (C12-C22)	3353921	1654
Filter Peak	13.929	0.004	2122	1979	HYDRAUL (C24-C38)	62095	6
C36	11.573	-0.009	156	133			
C38	12.042	-0.023	1547	2995			
C40	12.529	-0.001	531	320			
o-terph	7.061	0.004	920086	773904	JET-A (C10-C18)	2786471	320
Triacon Surr	10.067	0.004	40	26			

Range Times: NW Diesel(4.914 - 8.533) AK102(4.03 - 8.78) Jet A(4.03 - 6.89)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	773904	45.1	100.3
Triacotane	26	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

MANUAL ADJUSTMENTS

1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other o-Terph Surr
- Analyst ms Date 4/20/10

Data File: /chem3/fid4b.i/20100420.b/0420b012.d

Date: 20-APR-2010 18:24

Client ID: DIESEL 250

Sample Info: DIESEL 250

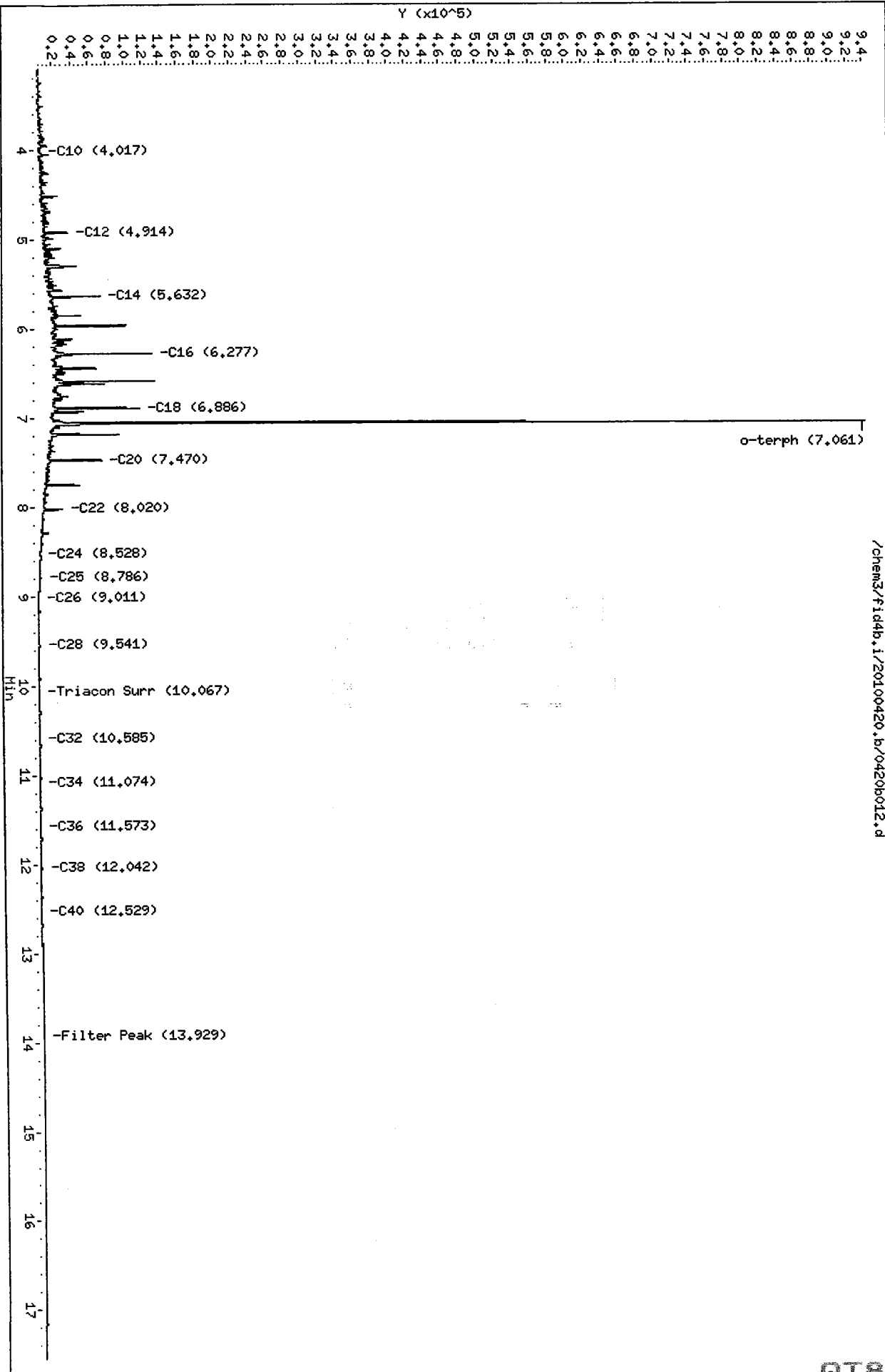
Column phase: RTX-1

Instrument: fid4b.i

Operator: MS

Column diameter: 0.25

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Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100420.b/0420b013.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: DIESEL 500
Client ID: DIESEL 500
Injection: 20-APR-2010 18:49
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.566	-0.008	1765	2886	GAS (Tol-C12)	993122	88
C8	2.846	-0.005	2300	2370	DIESEL (C12-C24)	6829757	496
C10	4.037	0.008	27099	24185	M.OIL (C24-C38)	91756	10
C12	4.909	-0.005	68076	61727	AK-102 (C10-C25)	7574432	494
C14	5.630	-0.005	142305	125652	AK-103 (C25-C36)	60008	7
C16	6.278	-0.001	254245	198468	OR.DIES (C10-C28)	7618881	724
C18	6.890	0.003	221342	203938	OR.MOIL (C28-C40)	33909	4
C20	7.471	-0.001	140978	134930			
C22	8.018	-0.002	65442	64438			
C24	8.537	0.003	13150	29064			
C25	8.785	0.003	4402	6921			
C26	9.045	0.015	1031	548			
C28	9.540	0.005	2036	3193			
C32	10.557	-0.011	35	43			
C34	11.085	0.004	58	42	CREOSOT (C12-C22)	6573804	3241
Filter Peak	13.928	0.002	1827	1702	HYDRAUL (C24-C38)	91756	8
C36	11.588	0.006	136	84			
C38	12.045	-0.019	1021	2467			
C40	12.527	-0.002	477	535			
o-terph	7.072	0.015	1458085	1563693	JET-A (C10-C18)	5471428	629
Triacon Surr	10.056	-0.008	56	60			

Range Times: NW Diesel(4.914 - 8.533) AK102(4.03 - 8.78) Jet A(4.03 - 6.89)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1563693	91.2	202.7
Triacontane	60	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

MANUAL ADJUSTMENTS

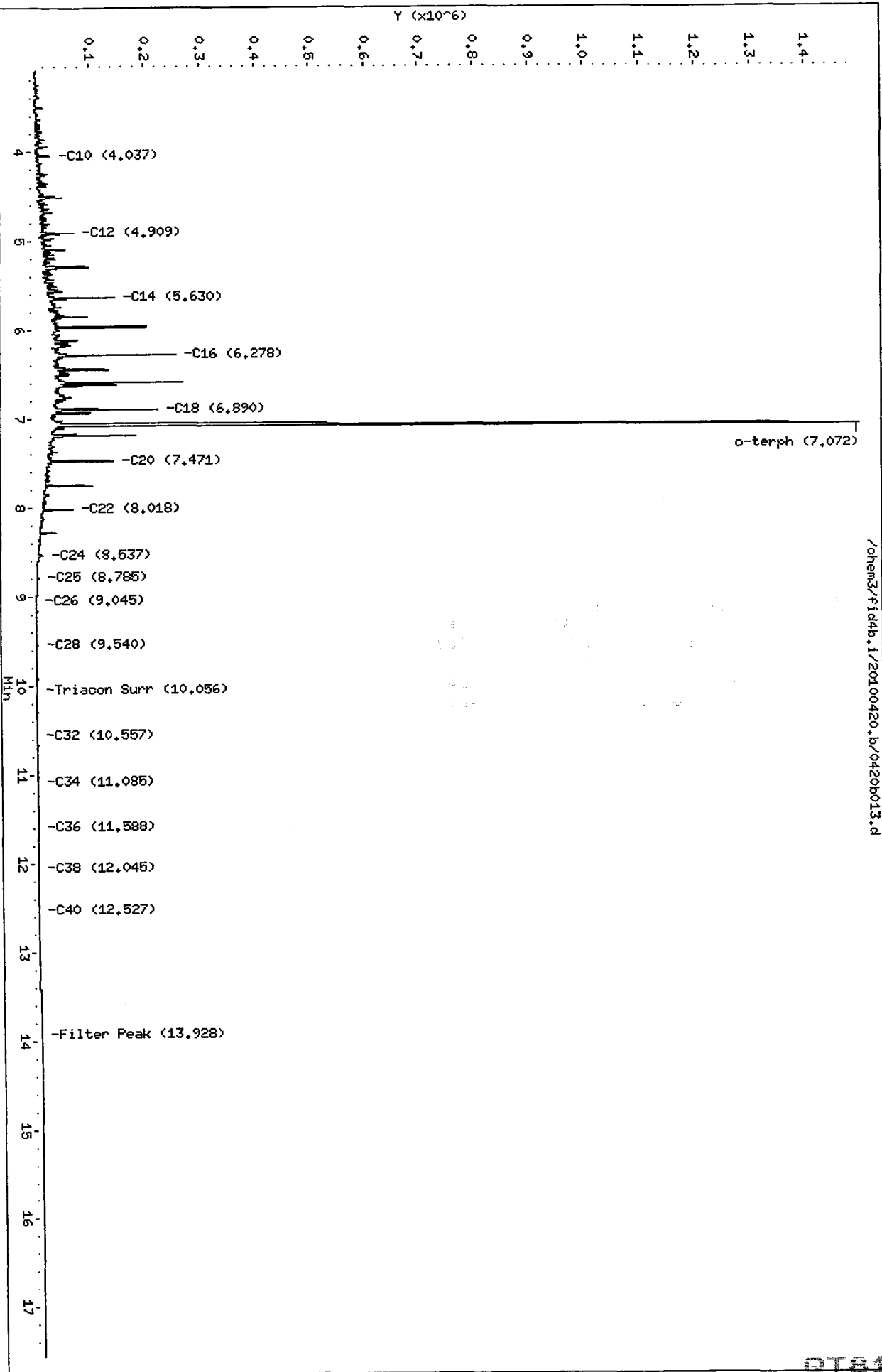
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst: MS Date: 4/20/10

Data File: /chem3/fid4b.i/20100420.b/0420b013.d
Date: 20-APR-2010 18:49
Client ID: DIESEL 500
Sample Info: DIESEL 500

Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



/chem3/fid4b.i/20100420.b/0420b013.d

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100420.b/0420b014.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: DIESEL 1000
Client ID: DIESEL 1000
Injection: 20-APR-2010 19:14
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.573	-0.001	1733	2834	GAS (Tol-C12)	1767401	156
C8	2.849	-0.002	3714	3257	DIESEL (C12-C24)	12565112	912
C10	4.034	0.006	53535	44263	M.OIL (C24-C38)	205467	22
C12	4.907	-0.006	128387	114810	AK-102 (C10-C25)	13920674	908
C14	5.631	-0.004	262455	229474	AK-103 (C25-C36)	151868	19
C16	6.281	0.002	442962	379992	OR.DIES (C10-C28)	14017393	1332
C18	6.895	0.009	365095	441696	OR.MOIL (C28-C40)	78147	9
C20	7.474	0.002	259807	239566			
C22	8.019	-0.001	126024	101185			
C24	8.532	-0.001	33691	49644			
C25	8.781	-0.001	13565	32245			
C26	9.013	-0.017	1915	1765			
C28	9.529	-0.006	8243	9101			
C32	10.575	0.007	33	5			
C34	11.083	0.002	56	51	CREOSOT (C12-C22)	12079829	5956
Filter Peak	13.924	-0.001	2176	2241	HYDRAUL (C24-C38)	205467	18
C36	11.579	-0.003	125	149			
C38	12.038	-0.027	1972	3383			
C40	12.536	0.006	471	258			
o-terph	7.084	0.027	2013170	3001416	JET-A (C10-C18)	10128818	1164
Triacon Surr	10.068	0.005	103	103			

Range Times: NW Diesel(4.914 - 8.533) AK102(4.03 - 8.78) Jet A(4.03 - 6.89)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3001416	175.1	389.0
Triacotane	103	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

MANUAL ADJUSTMENTS

1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other *skin sum*
- Analyst *Mr* Date *4/20/10*

Data File: /chem3/fid4b.i/20100420.b/0420b014.d

Date : 20-APR-2010 19:14

Client ID: DIESEL 1000

Sample Info: DIESEL 1000

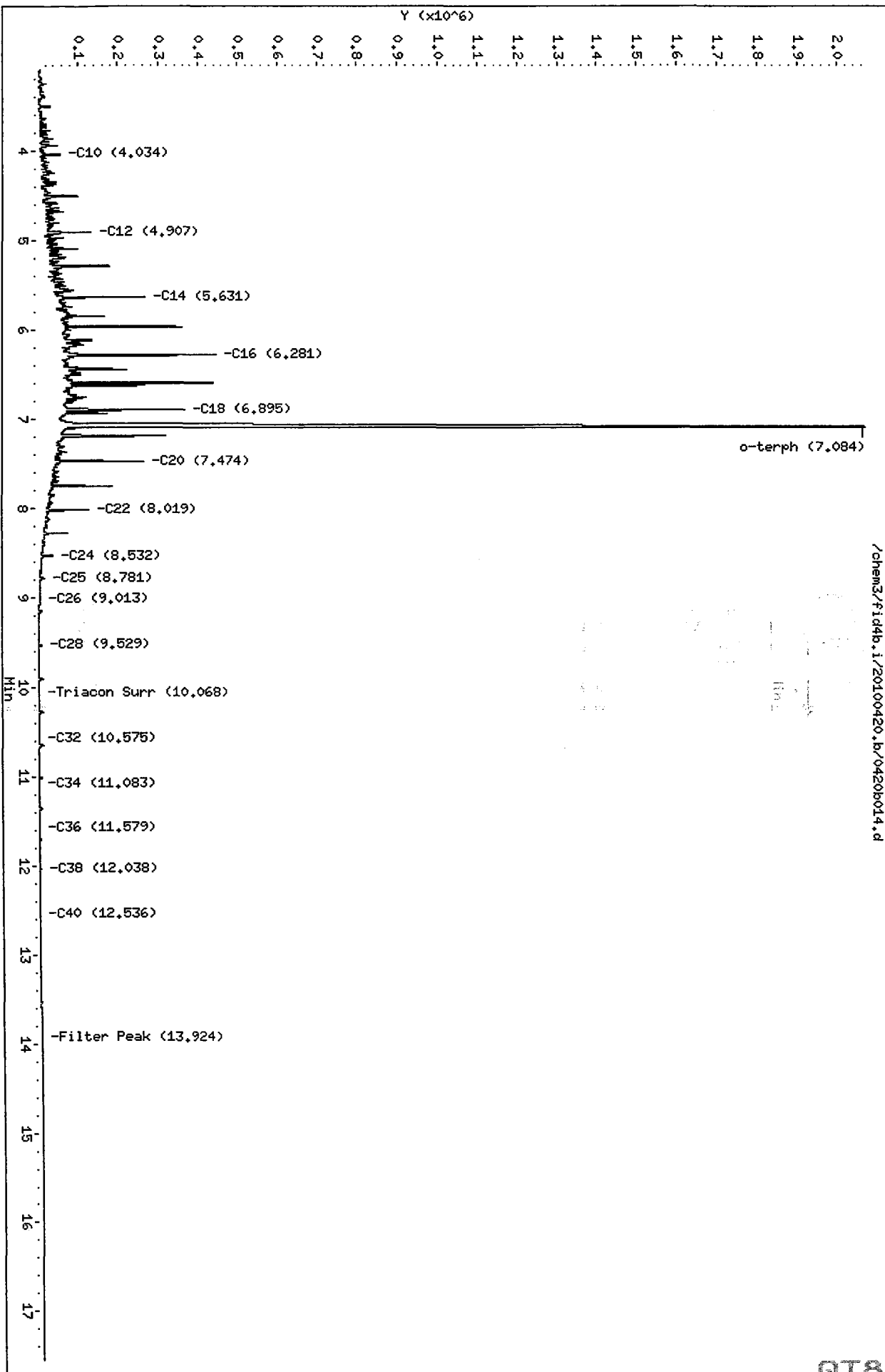
Column phase: RTX-1

Instrument: fid4b.i

Operator: MS

Column diameter: 0.25

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Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100420.b/0420b015.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: DIESEL 2500
Client ID: DIESEL 2500
Injection: 20-APR-2010 19:39
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.571	-0.003	2500	3585	GAS (Tol-C12)	4584708	406
C8	2.850	-0.001	5433	6563	DIESEL (C12-C24)	33635783	2441
C10	4.038	0.010	147815	116672	M.OIL (C24-C38)	426283	46
C12	4.910	-0.003	325708	305817	AK-102 (C10-C25)	37203383	2425
C14	5.638	0.003	539216	784032	AK-103 (C25-C36)	287413	36
C16	6.295	0.016	842852	1379276	OR.DIES (C10-C28)	37459937	3559
C18	6.915	0.028	729374	1225292	OR.MOIL (C28-C40)	48599	6
C20	7.490	0.018	589153	672549			
C22	8.028	0.008	315500	309553			
C24	8.534	0.001	101987	112346			
C25	8.779	-0.003	44095	58850			
C26	9.029	-0.001	13366	26985			
C28	9.535	0.000	3595	6295			
C32	10.575	0.007	74	64			
C34	11.074	-0.007	80	30	CREOSOT (C12-C22)	32376503	15962
Filter Peak	13.918	-0.007	1682	2034	HYDRAUL (C24-C38)	426283	38
C36	11.583	0.001	122	81			
C38	12.038	-0.026	1558	2689			
C40	12.535	0.005	408	390			
o-terph	7.120	0.062	3241606	8196080	JET-A (C10-C18)	26380277	3031
Triacon Surr	10.057	-0.006	224	71			

Range Times: NW Diesel(4.914 - 8.533) AK102(4.03 - 8.78) Jet A(4.03 - 6.89)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	8196080	478.1	1062.3
Triacontane	71	0.0	0.0

MANUAL ADJUSTMENTS

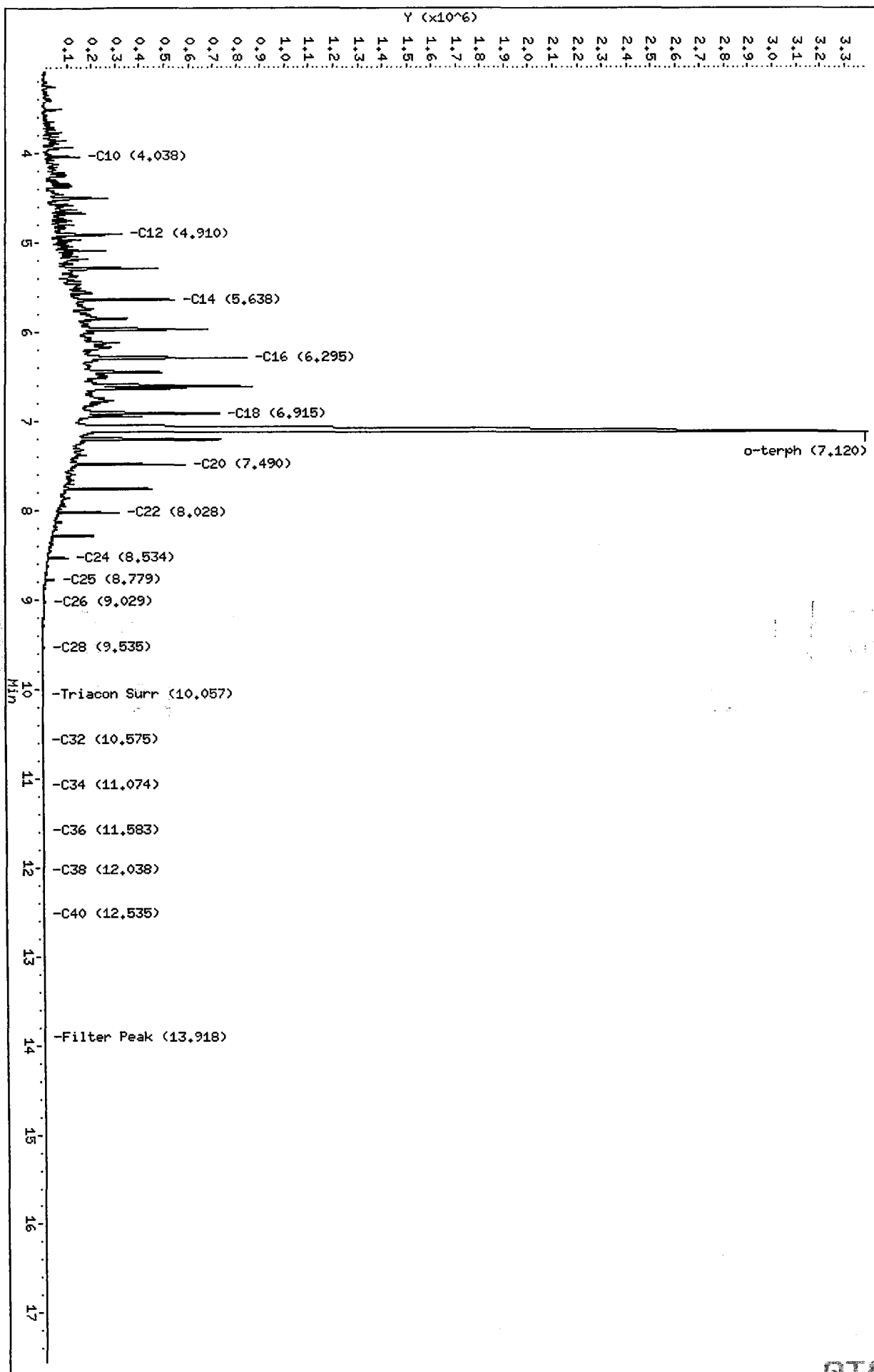
1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other Stim Surr
- Analyst ms Date 7/20/10

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100420.b/0420b015.d
Date: 20-APR-2010 19:39
Client ID: DIESEL 2500
Sample Info: DIESEL 2500
Column phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25

/chem3/fid4b.i/20100420.b/0420b015.d



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100420.b/0420b016.d
Method: /chem3/fid4b.i/20100420.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/20/2010
Macro: 20-APR-2010

ARI ID: DIESEL ICV
Client ID:
Injection: 20-APR-2010 20:04
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.562	-0.012	1331	1234	GAS (Tol-C12)	599514	53
C8	2.834	-0.017	2099	2096	DIESEL (C12-C24)	2733770	198
C10	4.017	-0.011	2556	2417	M.OIL (C24-C38)	67311	7
C12	4.912	-0.001	43732	41601	AK-102 (C10-C25)	3156797	206
C14	5.632	-0.003	77333	65050	AK-103 (C25-C36)	51290	6
C16	6.277	-0.002	82978	67051	OR.DIES (C10-C28)	3185079	303
C18	6.885	-0.001	64261	63386	OR.MOIL (C28-C40)	44540	5
C20	7.470	-0.002	40200	38416			
C22	8.023	0.003	13724	18369			
C24	8.528	-0.005	1424	817			
C25	8.784	0.002	3004	4076			
C26	9.038	0.008	500	868			
C28	9.536	0.001	3149	3875			
C32	10.572	0.004	28	13			
C34	11.101	0.020	51	21	CREOSOT (C12-C22)	2660213	1312
Filter Peak	13.920	-0.005	1669	1164	HYDRAUL (C24-C38)	67311	6
C36	11.580	-0.001	129	83			
C38	12.039	-0.026	2037	3643			
C40	12.526	-0.003	436	239			
o-terph	7.059	0.002	811554	668237	JET-A (C10-C18)	2421016	278
Triacon Surr	10.064	0.000	46	54			

79.2%
OK ✓

Range Times: NW Diesel(4.914 - 8.533) AK102(4.03 - 8.78) Jet A(4.03 - 6.89)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.03 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	668237	39.0	86.6
Triacontane	54	0.0	0.0

MANUAL ADJUSTMENTS

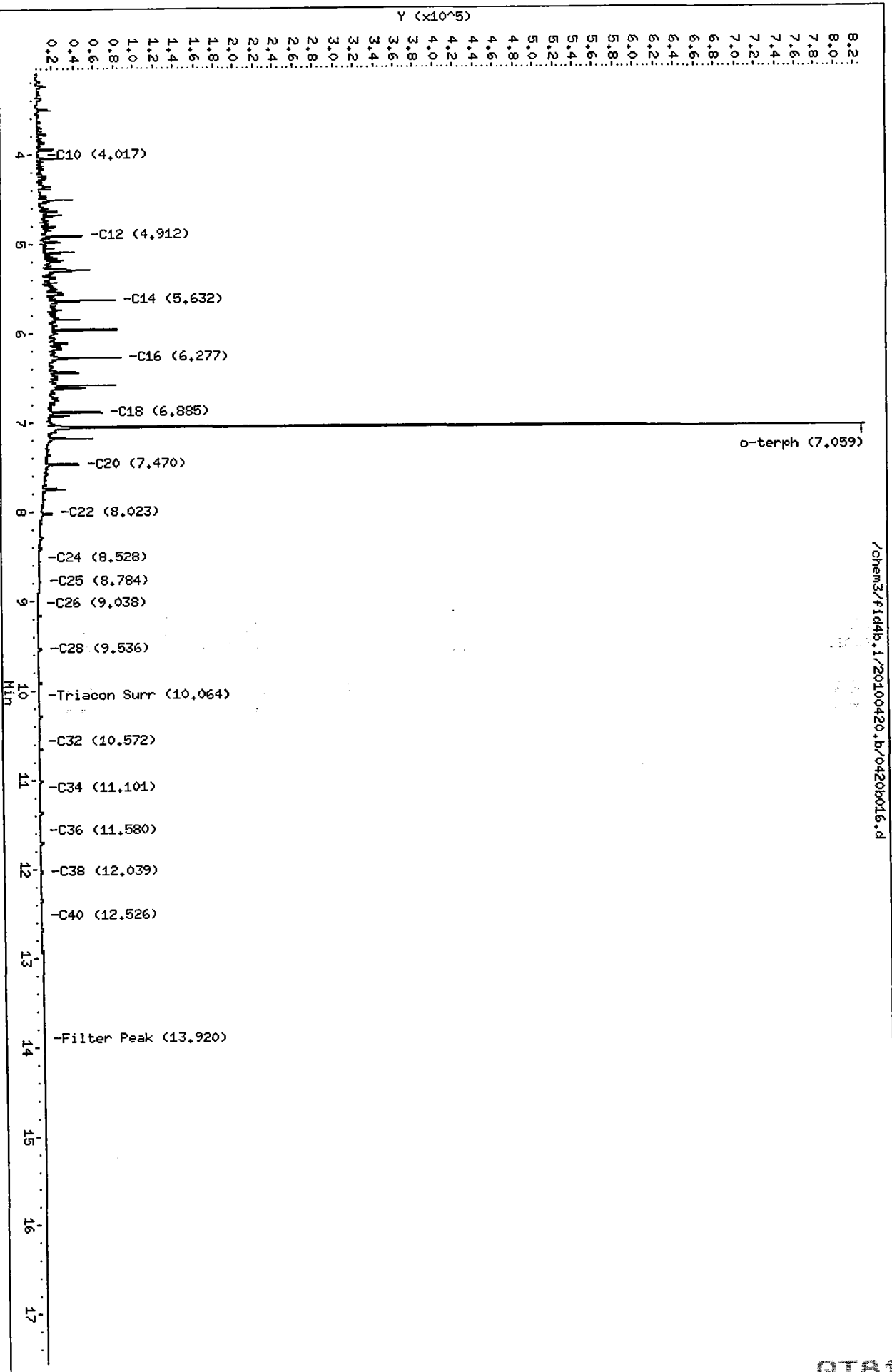
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst SKim Date 4/20/10

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100420.b/0420b016.d
Date: 20-APR-2010 20:04
Client ID:
Sample Info: DIESEL ICV
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



6a
NW MOTOR OIL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD/SNIDER

Instrument: FID4B.I

Project: LORA LAKES APT.

Calibration Date: 31-MAR-2010

SDG No.: QT81

Motor Oil Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil	10007	9579	8897	9450	9287	8716	9323	5.0
AK M.Oil	8315	8033	7426	7966	7813	7820	7896	3.7
OR M.Oil	8834	8530	7664	8095	7778	6641	7924	9.7
Triac Surr	13693	14142	13837	15037	15261	15380	14558	5.2

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

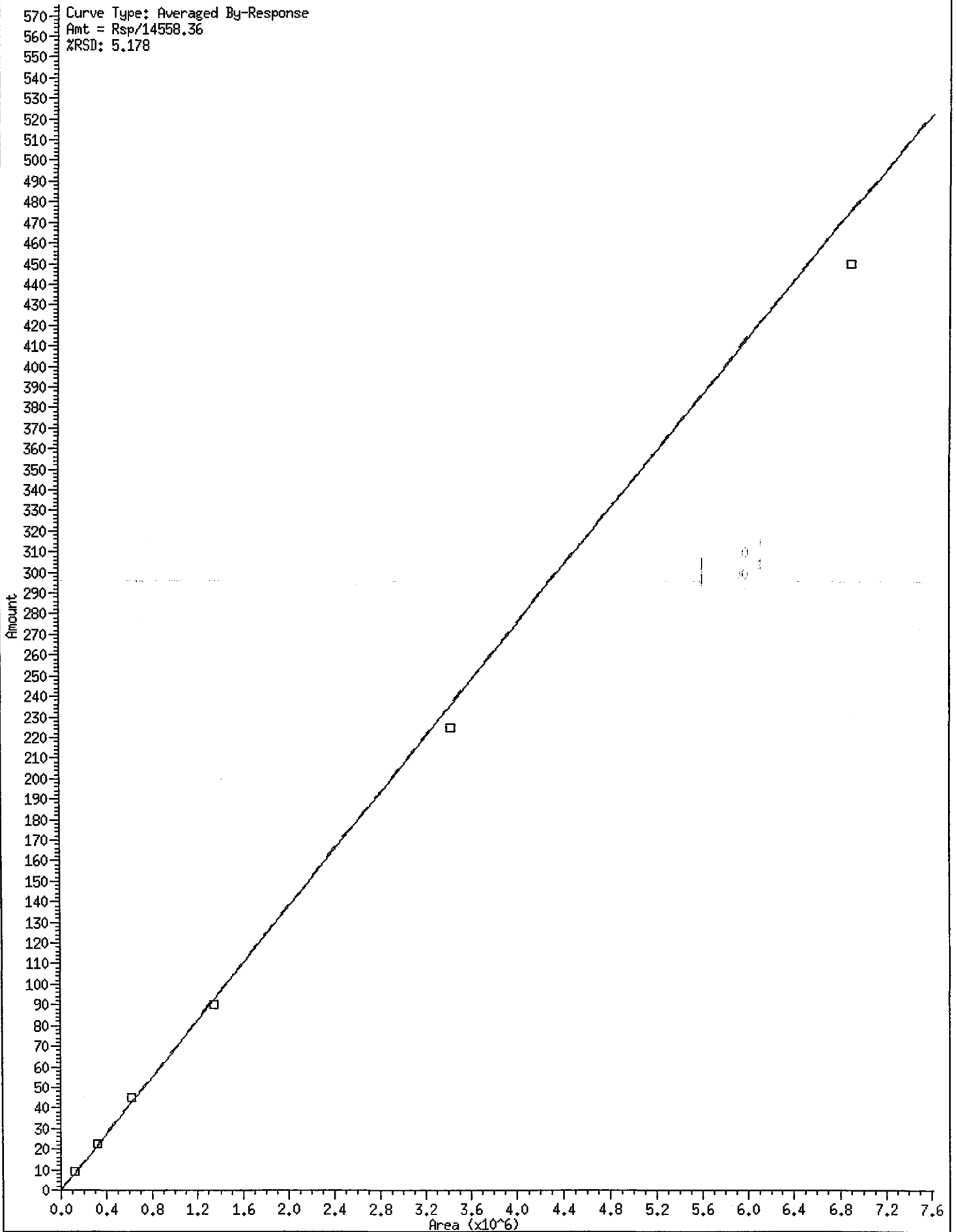
Quant Ranges : WA M.Oil C24-C38
 AK M.Oil C25-C36
 OR M.Oil C28-C40

Calibration Files Analysis Time

0330b019.d	31-MAR-2010 01:37
0330b020.d	31-MAR-2010 02:04
0330b021.d	31-MAR-2010 02:31
0330b022.d	31-MAR-2010 02:59
0330b023.d	31-MAR-2010 03:26
0330b024.d	31-MAR-2010 03:53

* 15 Triacon Surr

Curve Type: Averaged By-Response
Amt = Rsp/14558.36
%RSD: 5.178



QT81 : 00202

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b002.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: RT
Client ID:
Injection: 30-MAR-2010 17:50
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.577	0.000	330925	262936	GAS (Tol-C12)	881151	78
C8	2.852	0.000	193302	188502	DIESEL (C12-C24)	1108234	97
C10	4.018	0.000	177495	173520	M.OIL (C24-C38)	1337506	143
C12	4.899	0.000	161366	172333	AK-102 (C10-C25)	1472240	117
C14	5.624	0.000	225110	172463	AK-103 (C25-C36)	1149617	142
C16	6.271	0.000	267040	171608	OR.DIES (C10-C28)	2071432	197
C18	6.880	0.000	272858	176106	OR.MOIL (C28-C40)	927003	108
C20	7.464	0.000	261504	176534			
C22	8.014	0.000	274962	175326			
C24	8.529	0.000	283234	176113			
C25	8.777	0.000	347871	244140			
C26	9.024	0.000	246147	176505			
C28	9.531	0.000	239586	174549			
C32	10.567	0.000	208435	172581			
C34	11.079	0.000	197132	172191	BUNKERC (C10-C38)	2809099	807
Filter Peak	13.950	0.000	3038	5006	HYDRAUL (C24-C38)	1337506	118
C36	11.579	0.000	192982	178825			
C38	12.064	0.000	169928	173047			
C40	12.531	0.000	168972	171656			
o-terph	7.051	0.000	788758	644894	JET-A (C10-C18)	920742	106
Triacon Surr	10.059	0.000	563093	594119			

Range Times: NW Diesel(4.899 - 8.529) AK102(4.02 - 8.78) Jet A(4.02 - 6.88)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.02 - 9.53)

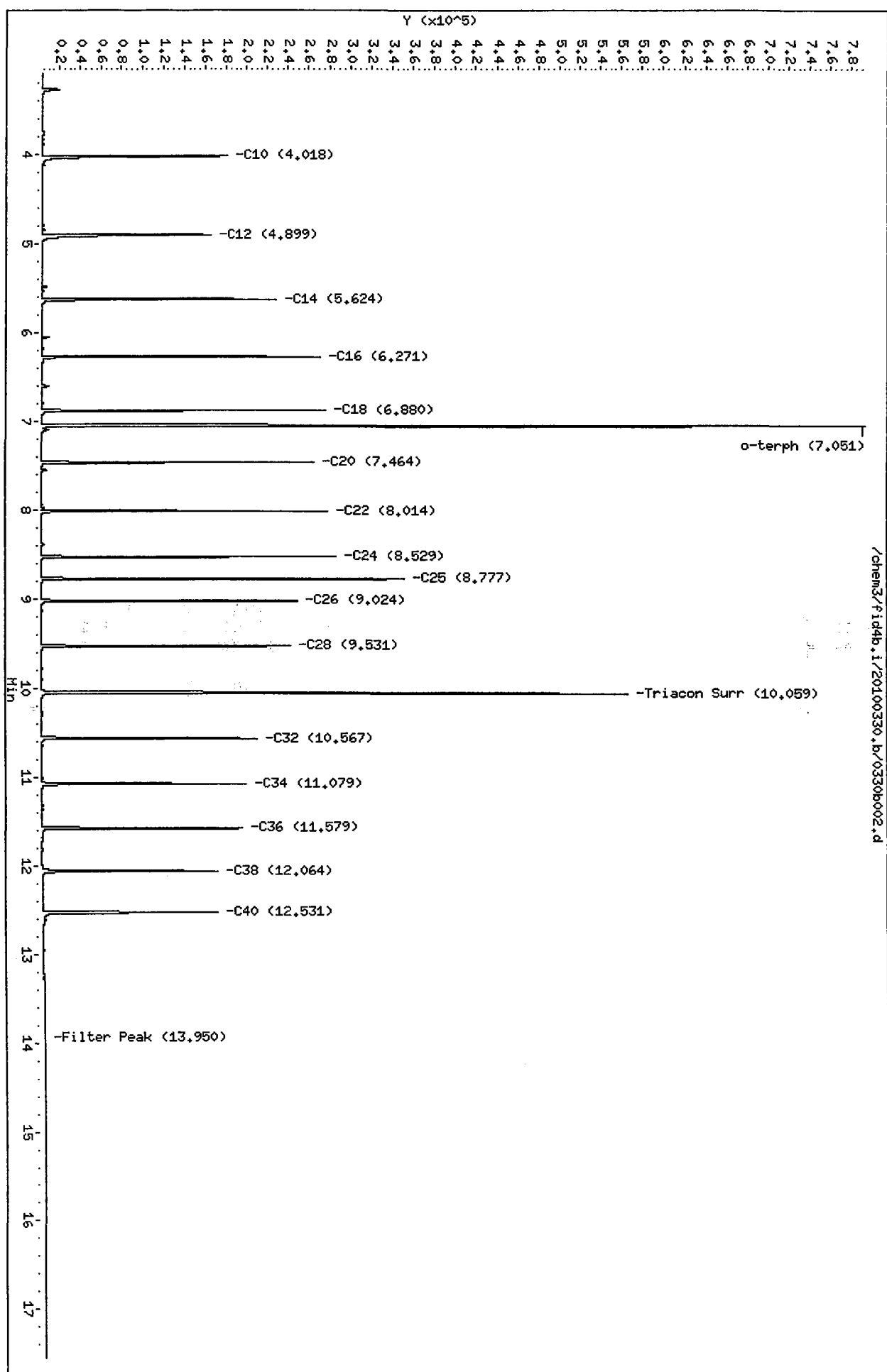
Surrogate	Area	Amount	%Rec
o-Terphenyl	644894	45.9	102.1
Triacontane	594119	40.8	90.7

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100330.b/0330b002.d
Date: 30-Mar-2010 17:50
Client ID:
Sample Info: RT
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25

/chem3/fid4b.i/20100330.b/0330b002.d



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b003.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: IB
Client ID:
Injection: 30-MAR-2010 18:18
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.562	-0.015	2295	4968	GAS (Tol-C12)	101114	9
C8	2.861	0.009	1276	1488	DIESEL (C12-C24)	54414	5
C10	4.035	0.017	465	425	M.OIL (C24-C38)	272370	29
C12	4.868	-0.031	927	1721	AK-102 (C10-C25)	77210	6
C14	5.624	0.000	129	144	AK-103 (C25-C36)	214311	27
C16	6.270	-0.001	96	37	OR.DIES (C10-C28)	117000	11
C18	6.884	0.005	92	151	OR.MOIL (C28-C40)	269543	31
C20	7.463	-0.001	109	115			
C22	8.004	-0.011	2858	2164			
C24	8.535	0.006	39	40			
C25	8.762	-0.015	10593	7461			
C26	9.023	-0.001	63	44			
C28	9.518	-0.013	18820	18275			
C32	10.557	-0.010	492	766			
C34	11.073	-0.006	359	683	BUNKERC (C10-C38)	349240	100
Filter Peak	13.951	0.000	2630	1045	HYDRAUL (C24-C38)	272370	24
C36	11.575	-0.004	483	926			
C38	12.064	-0.001	703	1174			
C40	12.529	-0.001	1070	3503			
o-terph	7.059	0.008	945619	945797	JET-A (C10-C18)	45324	5
Triacon Surr	10.065	0.006	638733	722291			

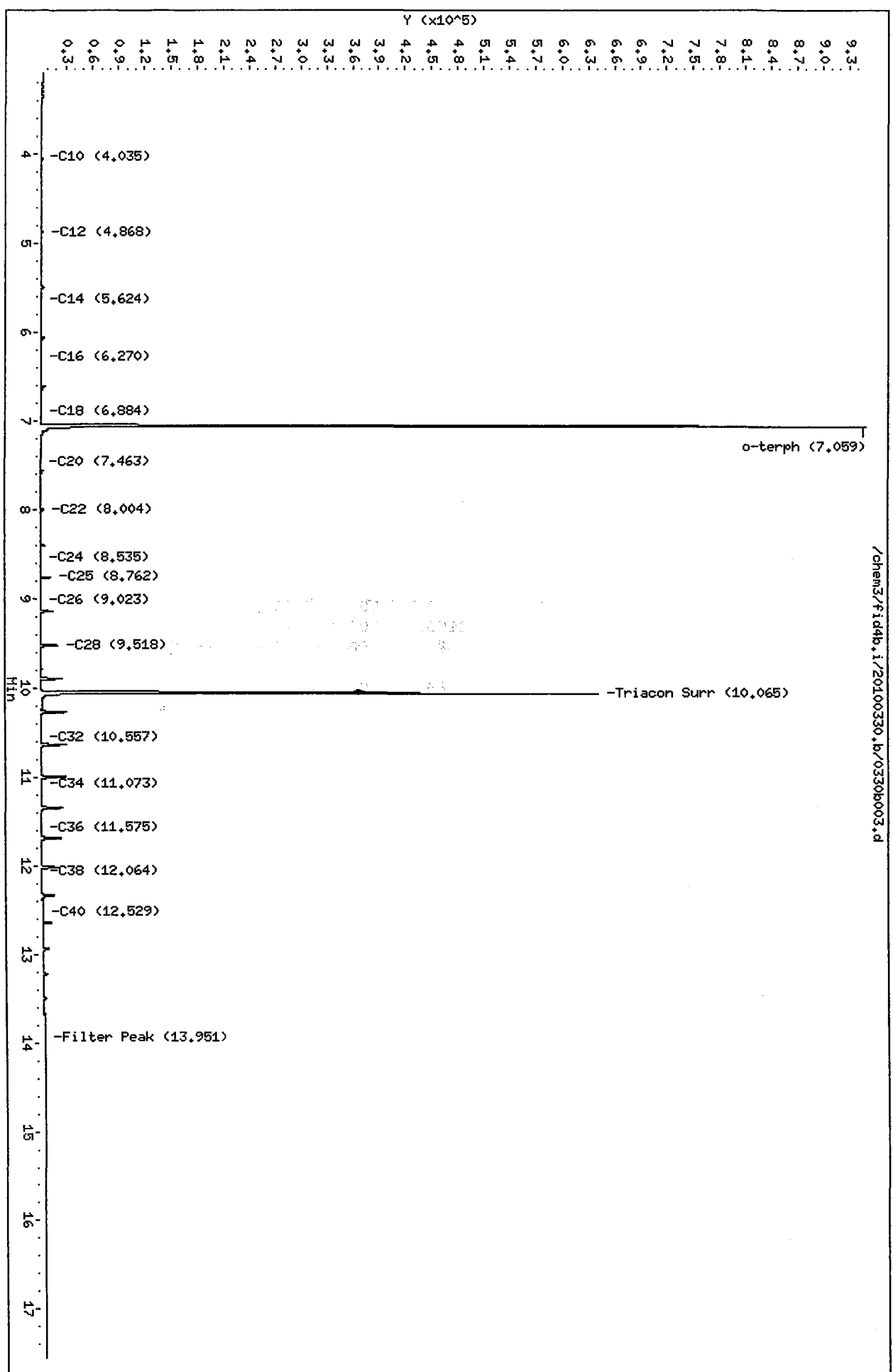
Range Times: NW Diesel(4.899 - 8.529) AK102(4.02 - 8.78) Jet A(4.02 - 6.88)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.02 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	945797	67.4	149.7
Triacontane	722291	49.6	110.3

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100330.b/0330b003.d
Date: 30-MAR-2010 18:18
Client ID:
Sample Info: 1B
Column Phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b019.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: MOIL 100
Client ID:
Injection: 31-MAR-2010 01:37
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.553	-0.024	791	2160	GAS (Tol-C12)	40579	4
C8	2.853	0.001	446	751	DIESEL (C12-C24)	112390	10
C10	4.014	-0.004	262	110	M.OIL (C24-C38)	1000720	107
C12	4.901	0.002	680	1496	AK-102 (C10-C25)	151794	12
C14	5.630	0.006	68	56	AK-103 (C25-C36)	831535	103
C16	6.265	-0.006	45	38	OR.DIES (C10-C28)	361152	34
C18	6.862	-0.018	1094	1099	OR.MOIL (C28-C40)	883418	103
C20	7.452	-0.013	282	271			
C22	8.011	-0.003	3079	4979			
C24	8.540	0.011	2806	3318			
C25	8.785	0.008	4763	6694			
C26	9.019	-0.005	3955	1391			
C28	9.543	0.012	5923	12743			
C32	10.566	-0.001	5443	5994			
C34	11.067	-0.012	5319	4382	BUNKERC (C10-C38)	1124911	323
Filter Peak	13.944	-0.006	2925	4446	HYDRAUL (C24-C38)	1000720	89
C36	11.585	0.005	5384	3839			
C38	12.072	0.007	4874	3633			
C40	12.526	-0.005	4271	3404			
o-terph	7.048	-0.003	49	53	JET-A (C10-C18)	24325	3
Triacon Surr	10.071	0.012	165476	123236			

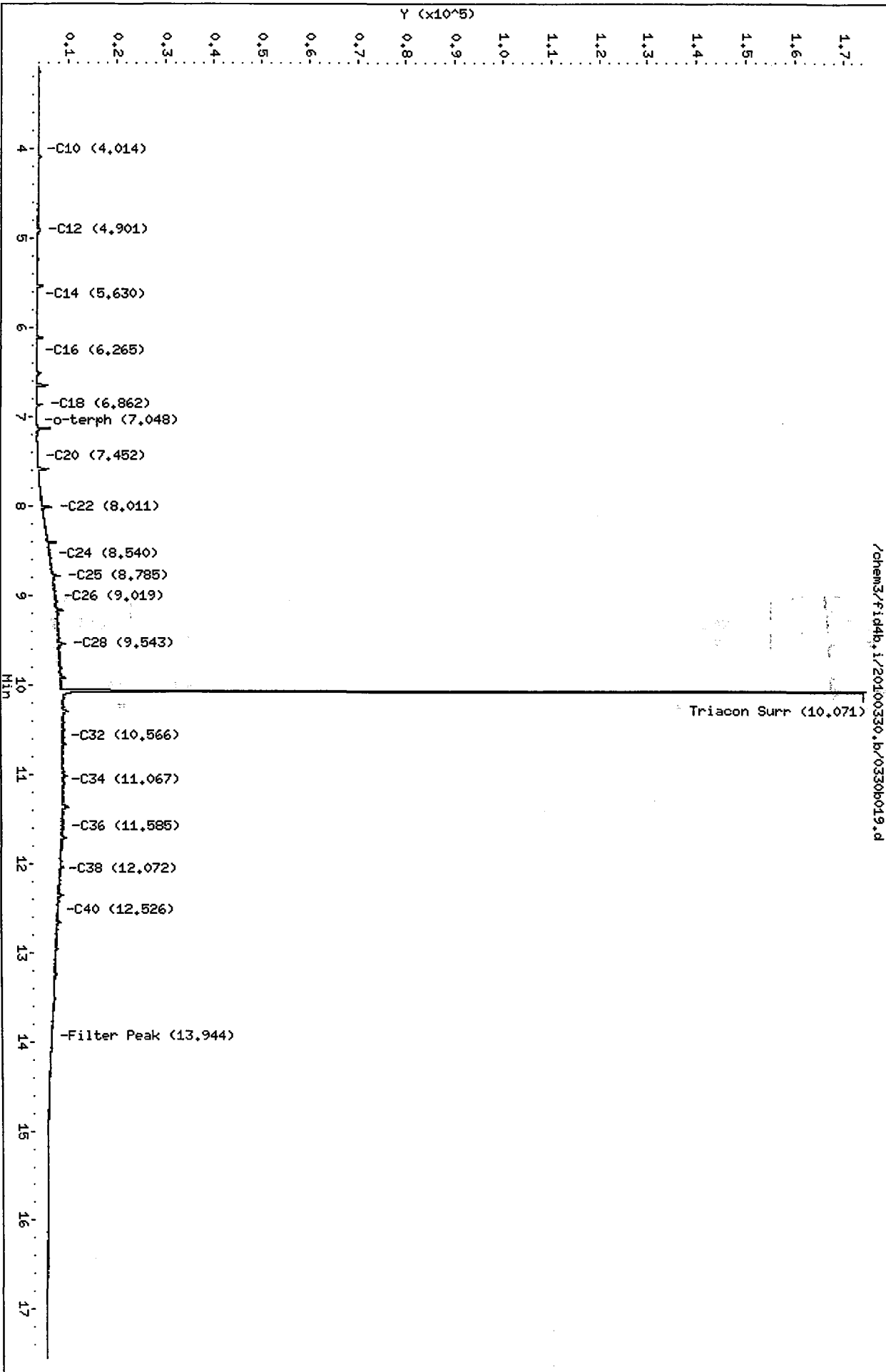
Range Times: NW Diesel(4.899 - 8.529) AK102(4.02 - 8.78) Jet A(4.02 - 6.88)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.02 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	53	0.0	0.0
Triacontane	123236	8.5	18.8

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b,i/20100330,b/0330b019.d
Date: 31-MAR-2010 01:37
Client ID:
Sample Info: M01L 100
Column phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b020.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: MOIL 250
Client ID:
Injection: 31-MAR-2010 02:04
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.586	0.009	863	908	GAS (Tol-C12)	41404	4
C8	2.845	-0.007	525	642	DIESEL (C12-C24)	255755	22
C10	4.024	0.006	267	190	M.OIL (C24-C38)	2394694	257
C12	4.895	-0.004	716	1469	AK-102 (C10-C25)	329136	26
C14	5.610	-0.013	75	116	AK-103 (C25-C36)	2008156	249
C16	6.279	0.008	42	9	OR.DIES (C10-C28)	813929	77
C18	6.900	0.021	121	142	OR.MOIL (C28-C40)	2132460	249
C20	7.468	0.004	745	917			
C22	8.006	-0.008	4991	9629			
C24	8.540	0.012	6728	4865			
C25	8.783	0.007	9602	13220			
C26	9.019	-0.005	9398	12435			
C28	9.540	0.009	13144	26382			
C32	10.563	-0.004	13229	18643			
C34	11.084	0.005	13383	17118	BUNKERC (C10-C38)	2661890	764
Filter Peak	13.944	-0.007	4542	7817	HYDRAUL (C24-C38)	2394694	212
C36	11.578	-0.002	12755	4259			
C38	12.061	-0.003	11631	16597			
C40	12.528	-0.003	9956	13153			
o-terph	7.042	-0.009	118	100	JET-A (C10-C18)	28378	3
Triacon Surr	10.080	0.021	355385	318190			

Range Times: NW Diesel(4.899 - 8.529) AK102(4.02 - 8.78) Jet A(4.02 - 6.88)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.02 - 9.53)

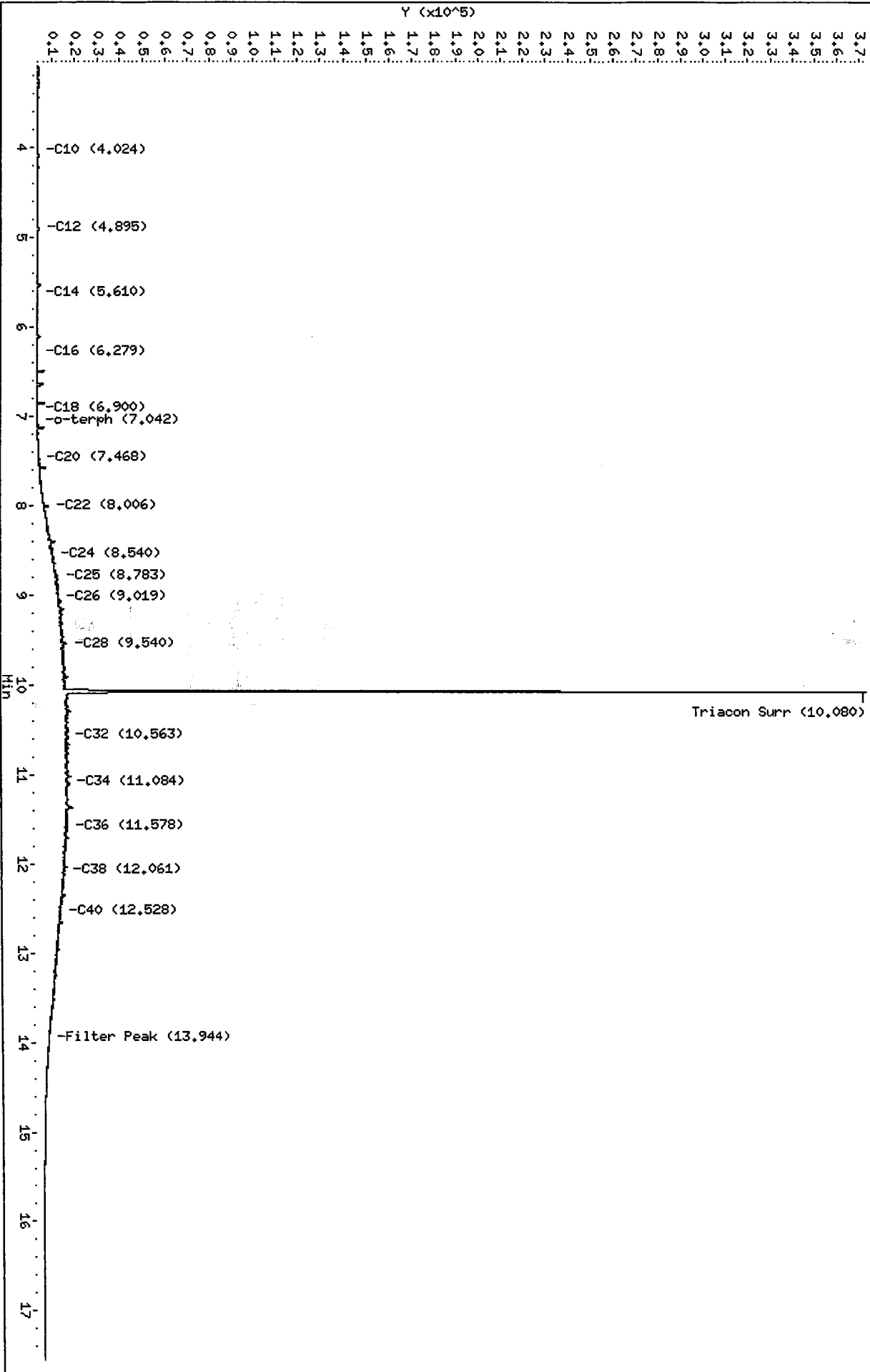
Surrogate	Area	Amount	%Rec
o-Terphenyl	100	0.0	0.0
Triacontane	318190	21.9	48.6

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100330.b/0330b020.d
Date: 31-MAR-2010 02:04
Client ID:
Sample Info: M01L 250
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25

/chem3/fid4b.i/20100330.b/0330b020.d



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b021.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: MOIL 500
Client ID:
Injection: 31-MAR-2010 02:31
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.579	0.002	1037	1661	GAS (Tol-C12)	51208	5
C8	2.860	0.009	1143	2071	DIESEL (C12-C24)	472177	41
C10	4.019	0.001	281	178	M.OIL (C24-C38)	4448601	477
C12	4.892	-0.007	796	1082	AK-102 (C10-C25)	624733	50
C14	5.628	0.005	84	108	AK-103 (C25-C36)	3712844	460
C16	6.275	0.005	58	47	OR.DIES (C10-C28)	1584219	151
C18	6.873	-0.007	475	565	OR.MOIL (C28-C40)	3831832	447
C20	7.463	-0.001	1448	1599			
C22	8.005	-0.010	7750	14619			
C24	8.540	0.011	12897	10385			
C25	8.782	0.005	16766	17153			
C26	9.027	0.003	18542	22255			
C28	9.536	0.005	23694	48087			
C32	10.570	0.004	25224	17695			
C34	11.082	0.003	24682	11554	BUNKERC (C10-C38)	4933898	1417
Filter Peak	13.947	-0.003	6280	10802	HYDRAUL (C24-C38)	4448601	394
C36	11.578	-0.001	23520	25453			
C38	12.061	-0.003	20942	11926			
C40	12.523	-0.008	17931	8403			
o-terph	7.060	0.009	349	453	JET-A (C10-C18)	36981	4
Triacon Surr	10.088	0.029	561316	622671			

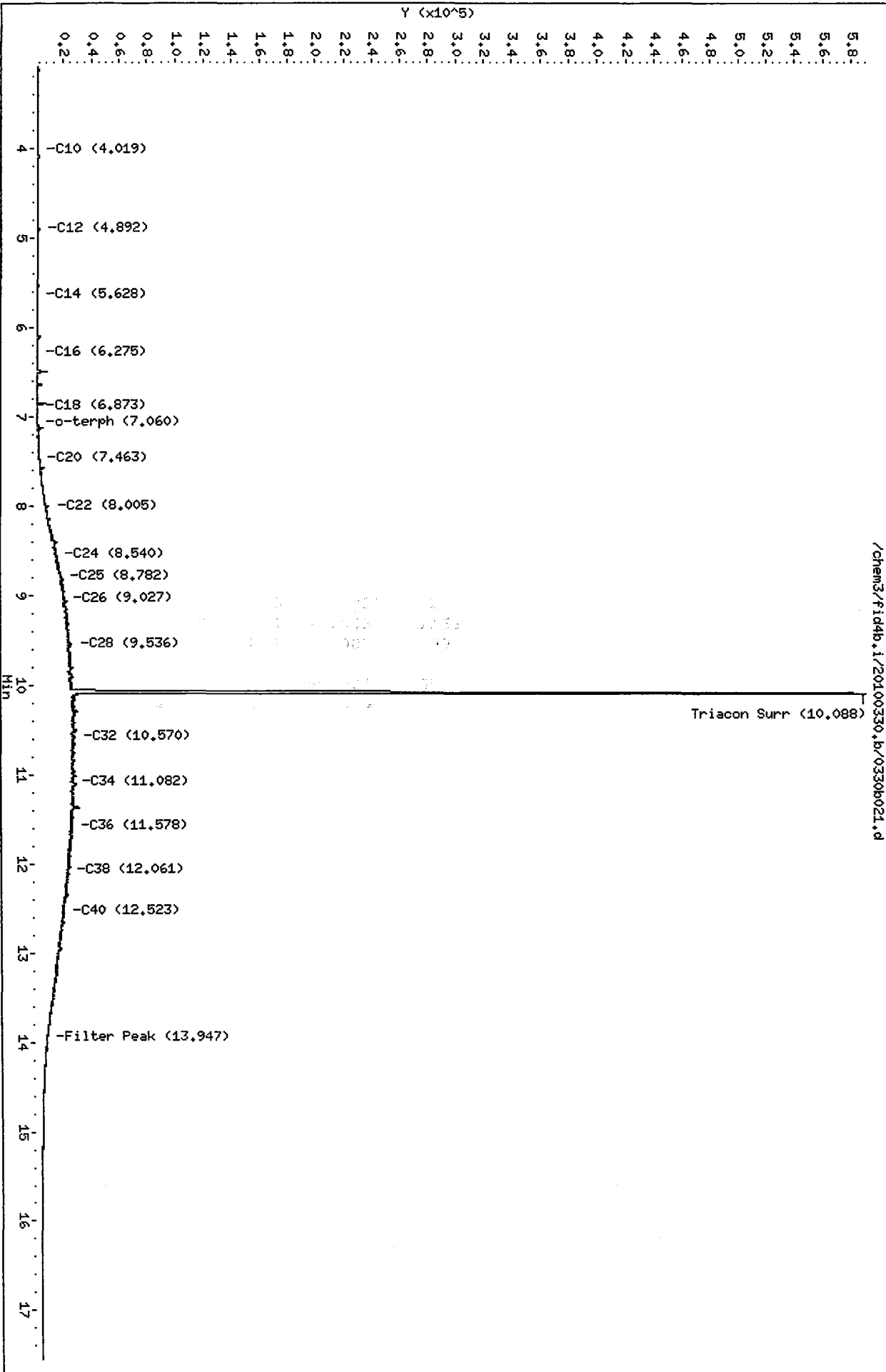
Range Times: NW Diesel(4.899 - 8.529) AK102(4.02 - 8.78) Jet A(4.02 - 6.88)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.02 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	453	0.0	0.1
Triacotane	622671	42.8	95.0

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100330.b/0330b021.d
Date: 31-MAR-2010 02:31
Client ID:
Sample Info: M01L 500
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b022.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: MOIL 1000
Client ID:
Injection: 31-MAR-2010 02:59
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.569	-0.008	972	1502	GAS (Tol-C12)	41951	4
C8	2.844	-0.008	1085	2130	DIESEL (C12-C24)	936364	82
C10	4.024	0.006	223	128	M.OIL (C24-C38)	9449509	1014
C12	4.900	0.001	501	593	AK-102 (C10-C25)	1237476	98
C14	5.622	-0.002	94	116	AK-103 (C25-C36)	7966206	986
C16	6.272	0.001	61	52	OR.DIES (C10-C28)	3283408	312
C18	6.870	-0.010	874	1287	OR.MOIL (C28-C40)	8094866	944
C20	7.461	-0.004	2943	2662			
C22	7.999	-0.015	14121	27054			
C24	8.524	-0.005	26508	21773			
C25	8.781	0.005	33711	29351			
C26	9.029	0.004	40057	59790			
C28	9.539	0.008	48017	92662			
C32	10.566	0.000	52493	46413			
C34	11.074	-0.006	49696	27600	BUNKERC (C10-C38)	10397873	2985
Filter Peak	13.948	-0.002	6366	9918	HYDRAUL (C24-C38)	9449509	837
C36	11.582	0.003	50084	30763			
C38	12.063	-0.002	42846	62278			
C40	12.533	0.003	34756	29891			
o-terph	7.057	0.006	654	1289	JET-A (C10-C18)	49904	6
Triacon Surr	10.106	0.047	895707	1353331			

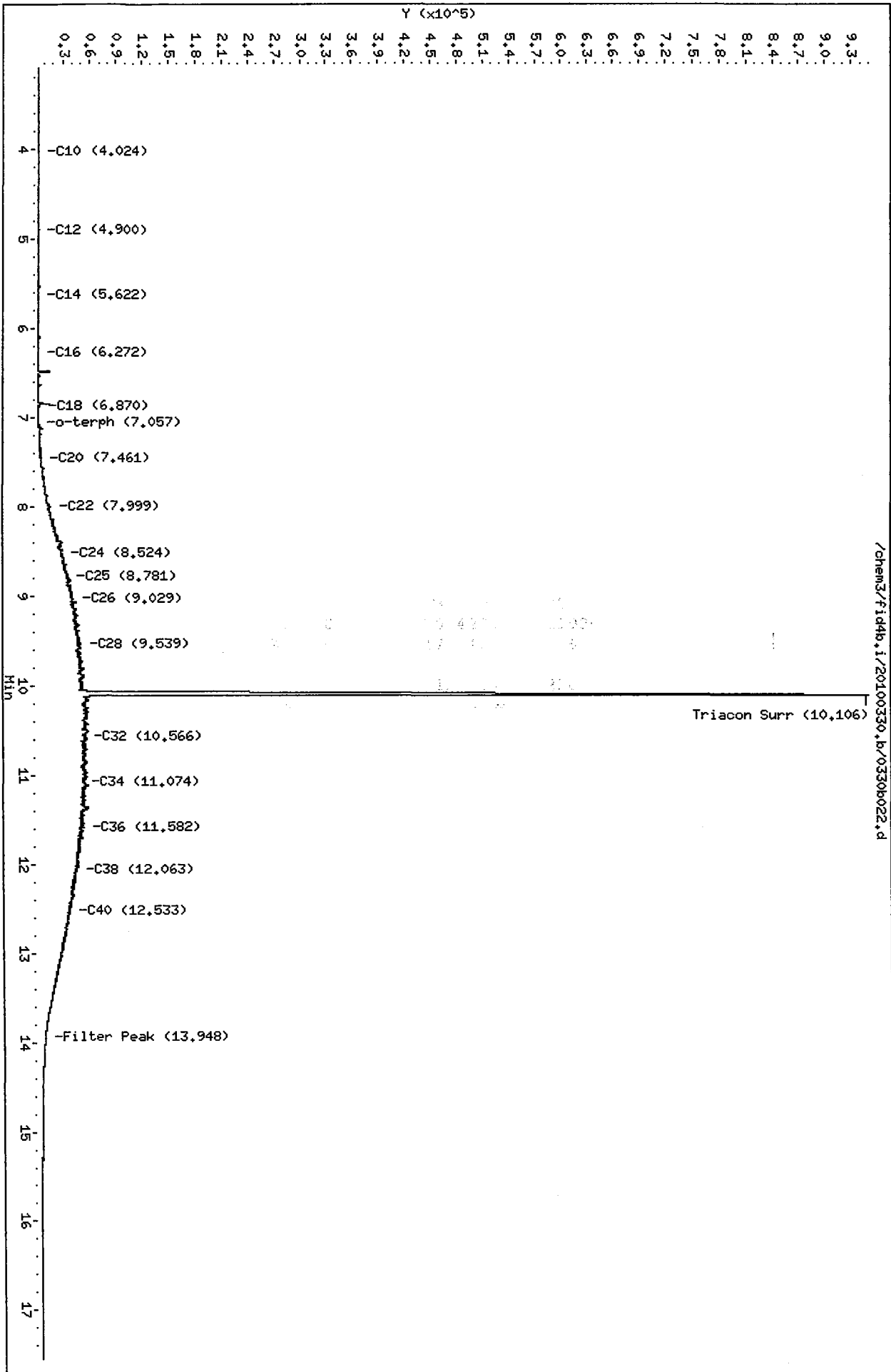
Range Times: NW Diesel(4.899 - 8.529) AK102(4.02 - 8.78) Jet A(4.02 - 6.88)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.02 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1289	0.1	0.2
Triacontane	1353331	93.0	206.6

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100330.b/0330b022.d
 Date: 31-MAR-2010 02:59
 Client ID:
 Sample Info: M01L 1000
 Column phase: RTX-1

Instrument: fid4b.i
 Operator: MS
 Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b023.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: MOIL 2500
Client ID:
Injection: 31-MAR-2010 03:26
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.580	0.003	1029	1509	GAS (Tol-C12)	39132	3
C8	2.855	0.003	1077	1845	DIESEL (C12-C24)	2208488	194
C10	4.018	0.000	215	387	M.OIL (C24-C38)	23217646	2490
C12	4.898	-0.001	453	595	AK-102 (C10-C25)	2898640	230
C14	5.612	-0.011	178	182	AK-103 (C25-C36)	19533495	2418
C16	6.266	-0.004	50	47	OR.DIES (C10-C28)	7673612	729
C18	6.867	-0.013	2014	2980	OR.MOIL (C28-C40)	19445429	2268
C20	7.462	-0.003	7277	8139			
C22	7.998	-0.017	31241	72085			
C24	8.519	-0.009	64363	30163			
C25	8.771	-0.006	82352	159200			
C26	9.029	0.004	106350	215983			
C28	9.522	-0.009	119964	143641			
C32	10.572	0.005	133437	93859			
C34	11.078	-0.002	131341	171069	BUNKERC (C10-C38)	25436597	7303
Filter Peak	13.956	0.006	4337	2573	HYDRAUL (C24-C38)	23217646	2057
C36	11.585	0.006	121679	47881			
C38	12.068	0.003	93132	80241			
C40	12.522	-0.009	51650	54260			
o-terph	7.054	0.003	1532	2698	JET-A (C10-C18)	85648	10
Triacon Surr	10.142	0.083	1537704	3433793			

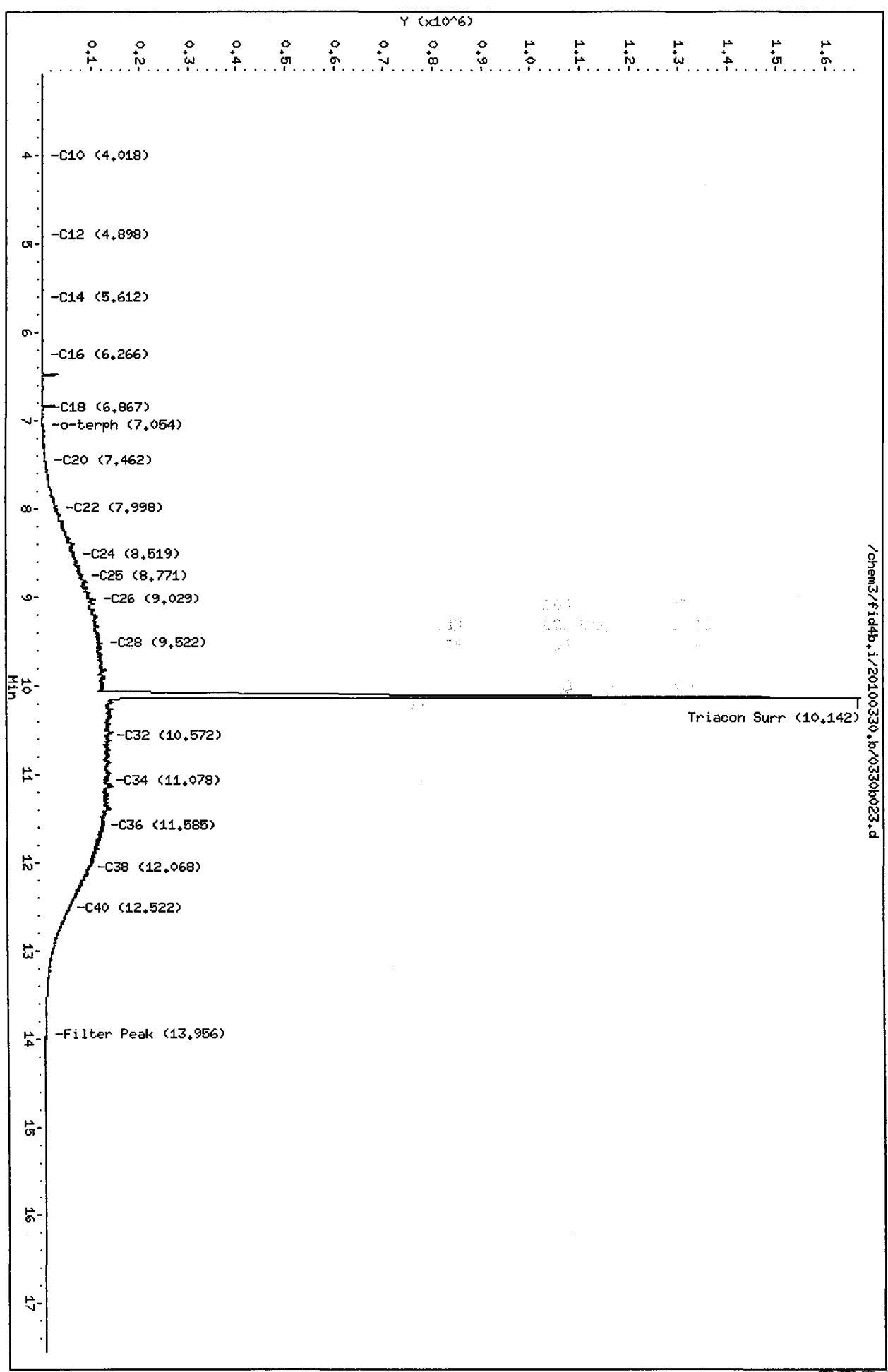
Range Times: NW Diesel(4.899 - 8.529) AK102(4.02 - 8.78) Jet A(4.02 - 6.88)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.02 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2698	0.2	0.4
Triacontane	3433793	235.9	524.1

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100330.b/0330b023.d
Date: 31-MAR-2010 03:26
Client ID:
Sample Info: MOIL 2500
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



/chem3/fid4b.i/20100330.b/0330b023.d

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b024.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: MOIL 5000
Client ID:
Injection: 31-MAR-2010 03:53
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.576	-0.001	5811	7500	GAS (Tol-C12)	193792	17
C8	2.862	0.011	438	449	DIESEL (C12-C24)	4734131	416
C10	4.023	0.005	198	344	M.OIL (C24-C38)	43579584	4674
C12	4.914	0.015	190	163	AK-102 (C10-C25)	5994849	475
C14	5.638	0.014	281	343	AK-103 (C25-C36)	39100509	4839
C16	6.278	0.007	182	125	OR.DIES (C10-C28)	16406034	1559
C18	6.887	0.007	1328	1055	OR.MOIL (C28-C40)	33204864	3873
C20	7.460	-0.004	14628	13355			
C22	8.006	-0.009	63411	150578			
C24	8.533	0.004	135868	166506			
C25	8.772	-0.005	169883	259428			
C26	9.024	-0.001	193227	110769			
C28	9.532	0.001	262520	621966			
C32	10.558	-0.008	282698	366545			
C34	11.083	0.004	248913	73381	BUNKERC (C10-C38)	48323519	13874
Filter Peak	13.956	0.005	5879	2682	HYDRAUL (C24-C38)	43579584	3860
C36	11.587	0.007	174334	131259			
C38	12.056	-0.008	87203	117728			
C40	12.534	0.004	32826	35204			
o-terph	7.054	0.003	3176	5646	JET-A (C10-C18)	152757	18
Triacon Surr	10.190	0.131	2246778	6921013			

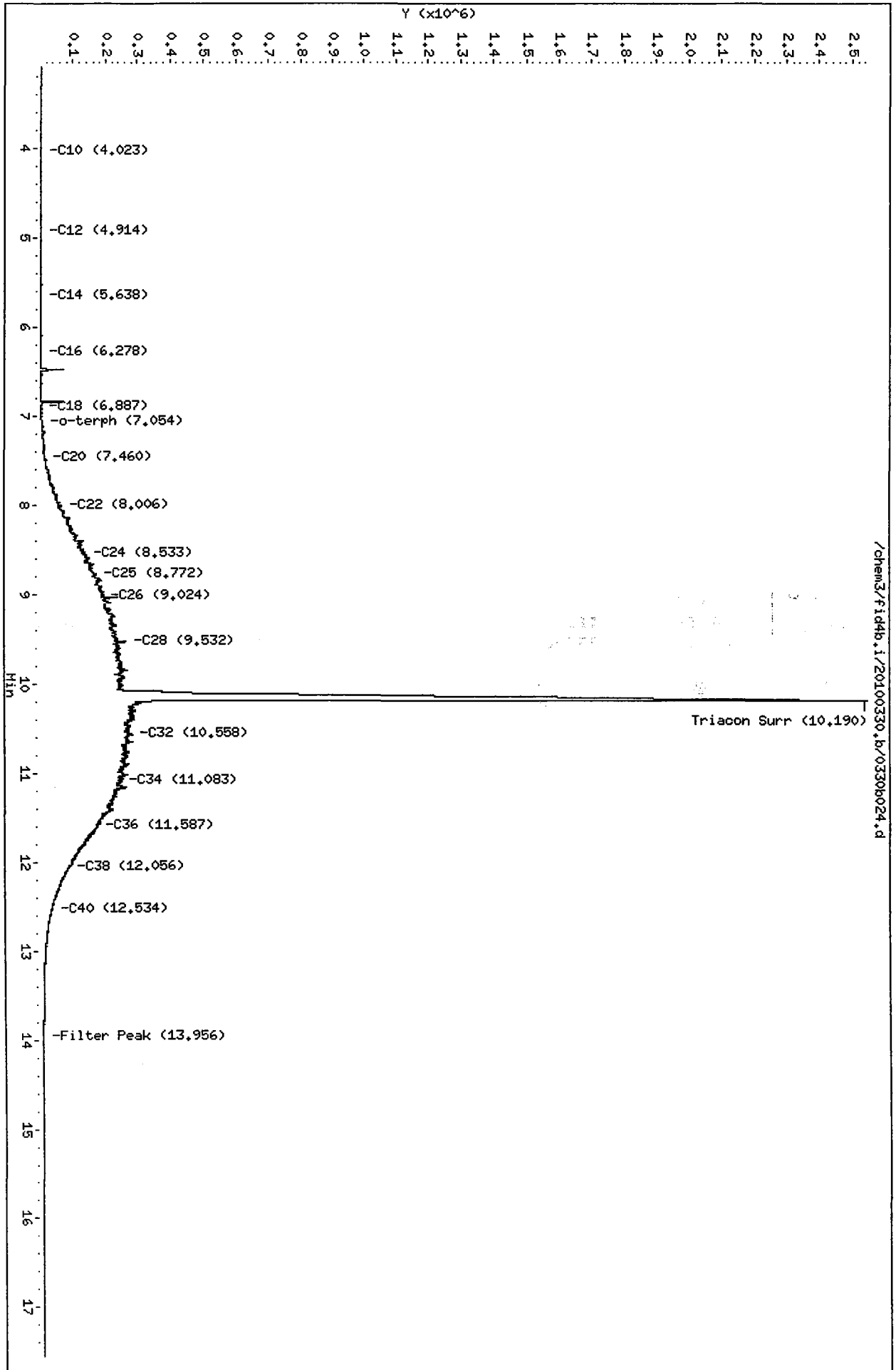
Range Times: NW Diesel (4.899 - 8.529) AK102 (4.02 - 8.78) Jet A (4.02 - 6.88)
NW M.Oil (8.53 - 12.06) AK103 (8.78 - 11.58) OR Diesel (4.02 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	5646	0.4	0.9
Triacotane	6921013	475.4	1056.4

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100330.b/03308024.d
Date: 31-MAR-2010 03:53
Client ID:
Sample Info: MOIL 5000
Column phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20100330.b/0330b025.d
Method: /chem3/fid4b.i/20100330.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 03/31/2010
Macro: 30-MAR-2010

ARI ID: MOIL ICV
Client ID:
Injection: 31-MAR-2010 04:20
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.577	0.000	891	1408	GAS (Tol-C12)	39298	3
C8	2.862	0.010	823	2486	DIESEL (C12-C24)	404144	36
C10	4.000	-0.018	206	274	M.OIL (C24-C38)	4175824	448
C12	4.889	-0.010	1008	1380	AK-102 (C10-C25)	495370	39
C14	5.631	0.007	63	49	AK-103 (C25-C36)	3388401	419
C16	6.284	0.013	63	73	OR.DIES (C10-C28)	1259017	120
C18	6.876	-0.004	558	684	OR.MOIL (C28-C40)	3895208	454
C20	7.465	0.001	1179	1380			
C22	8.024	0.010	4634	2555			
C24	8.534	0.005	10121	12920			
C25	8.771	-0.006	13283	11132			
C26	9.026	0.002	14008	6047			
C28	9.535	0.004	22754	52660			
C32	10.560	-0.007	22259	33708			
C34	11.082	0.002	24563	8162	BUNKERC (C10-C38)	4589748	1318
Filter Peak	13.957	0.007	6419	10743	HYDRAUL (C24-C38)	4175824	370
C36	11.579	-0.001	25751	17717			
C38	12.067	0.003	24406	19540			
C40	12.524	-0.006	21356	22294			
o-terph	7.058	0.007	431	702	JET-A (C10-C18)	28727	3
Triacon Surr	10.089	0.030	640776	685452			

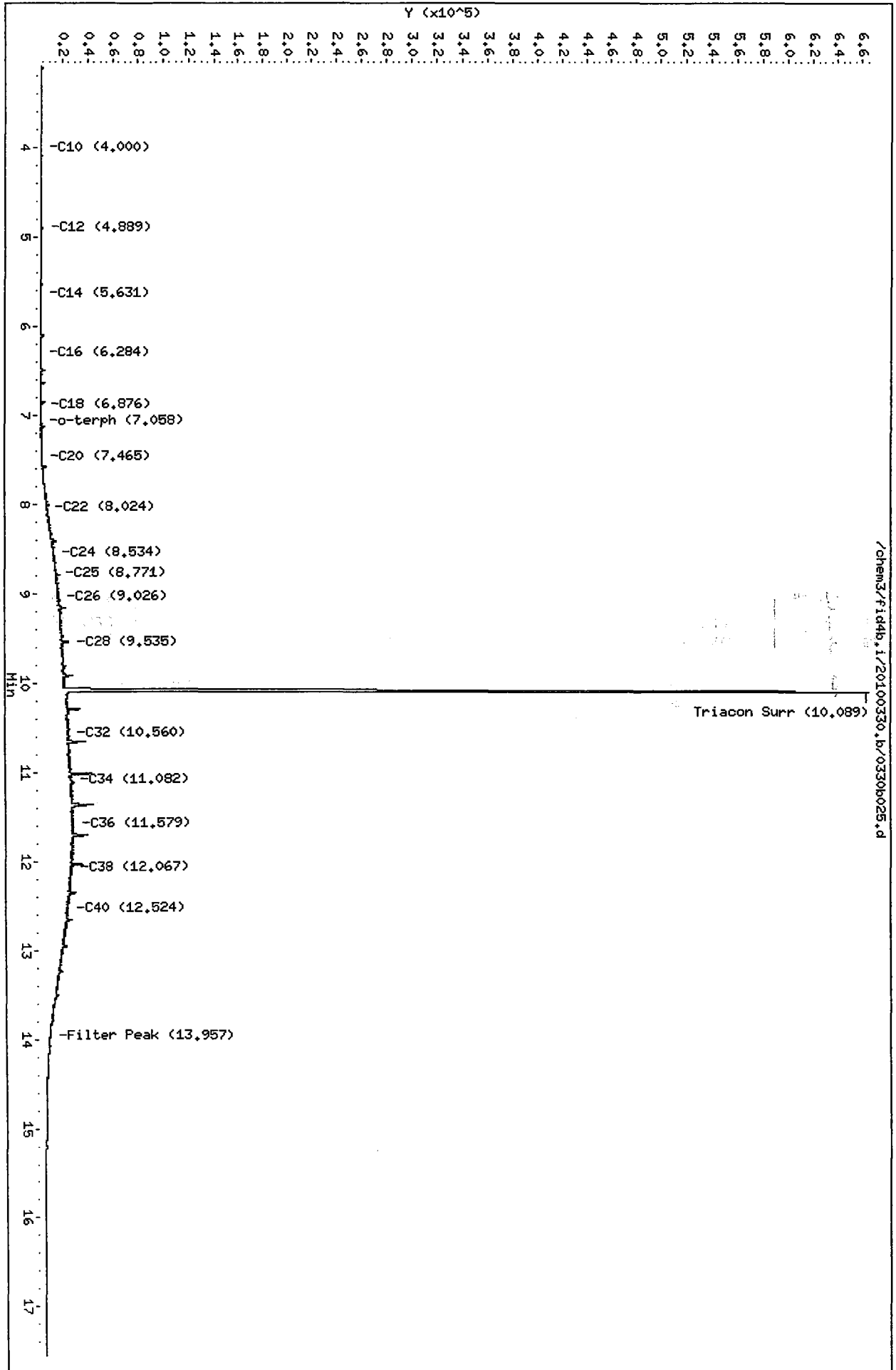
Range Times: NW Diesel(4.899 - 8.529) AK102(4.02 - 8.78) Jet A(4.02 - 6.88)
NW M.Oil(8.53 - 12.06) AK103(8.78 - 11.58) OR Diesel(4.02 - 9.53)

Surrogate	Area	Amount	%Rec
o-Terphenyl	702	0.1	0.1
Triacontane	685452	47.1	104.6

Analyte	RF	Curve Date
o-Terph Surr	14036.5	30-MAR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	11378.0	30-MAR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	12619.0	30-MAR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Bunker C	3482.9	24-MAR-2010
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100330.b/0330b025.d
Date: 31-MAR-2010 04:20
Client ID:
Sample Info: HOIL ICV
Column phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25



Analytical Resources Inc.
407S TPH Quantitation Report

W-4/2871

Data file: /chem3/fid4b.i/20100426.b/0426b002.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: RT
Client ID:
Injection: 26-APR-2010 15:11
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.598	0.000	281610	246339	GAS (Tol-C12)	797542	71
C8	2.872	0.000	145797	166605	DIESEL (C12-C24)	1086843	79
C10	4.041	0.000	156798	162501	M.OIL (C24-C38)	1425852	153
C12	4.922	0.000	136819	167077	AK-102 (C10-C25)	1429810	93
C14	5.644	0.000	201270	168216	AK-103 (C25-C36)	1263668	156
C16	6.288	0.000	236091	172127	OR.DIES (C10-C28)	2093379	199
C18	6.895	0.000	271315	175837	OR.MOIL (C28-C40)	889598	104
C20	7.479	0.000	258639	179625			
C22	8.026	0.000	266907	182758			
C24	8.540	0.000	301447	188215			
C25	8.790	0.000	366976	264488			
C26	9.037	0.000	268185	193501			
C28	9.544	0.000	250491	198150			
C32	10.577	0.000	214429	190641			
C34	11.088	0.000	195837	178138	CREOSOT (C12-C22)	895710	442
Filter Peak	13.934	0.000	5028	2104	HYDRAUL (C24-C38)	1425852	126
C36	11.586	0.000	171075	161287			
C38	12.068	0.000	131653	127209			
C40	12.532	0.000	72572	94922			
o-terph	7.066	0.000	763830	648966	JET-A (C10-C18)	870074	100
Triacon Surr	10.073	0.000	620688	667870			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	648966	37.9	84.1
Triacontane	667870	45.9	101.9

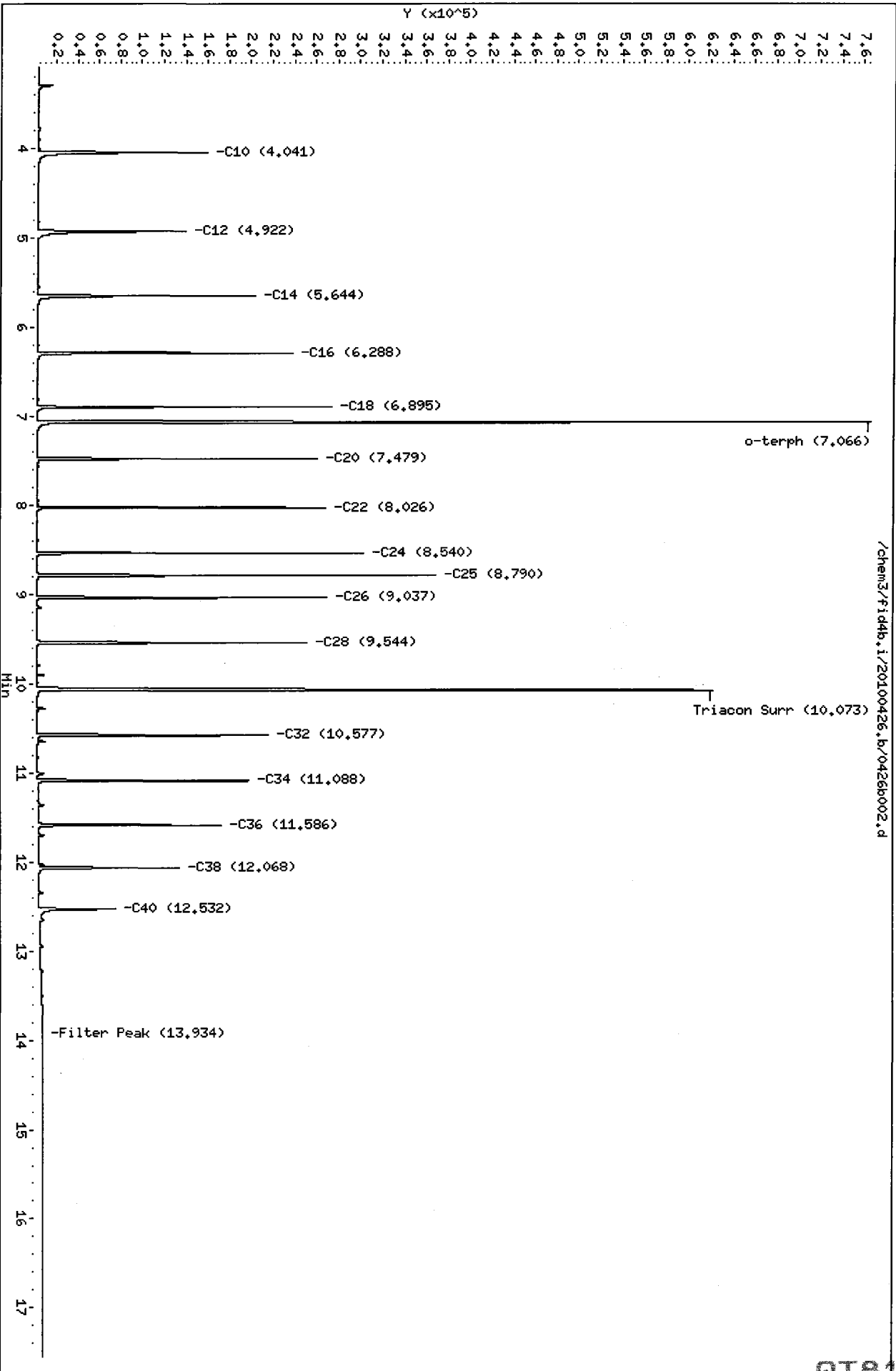
Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100426.b/0426002.d
Date: 26-APR-2010 15:11

Client ID:
Sample Info: RT

Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



Analytical Resources Inc.
407S TPH Quantitation Report

ms 4/20/10

Data file: /chem3/fid4b.i/20100426.b/0426b003.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: IB
Client ID:
Injection: 26-APR-2010 15:36
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.586	-0.012	812	1946	GAS (Tol-C12)	53709	5
C8	2.865	-0.007	446	713	DIESEL (C12-C24)	21942	2
C10	4.039	-0.003	411	119	M.OIL (C24-C38)	122795	13
C12	4.936	0.014	279	381	AK-102 (C10-C25)	42601	3
C14	5.632	-0.012	147	217	AK-103 (C25-C36)	92178	11
C16	6.292	0.004	68	49	OR.DIES (C10-C28)	56932	5
C18	6.892	-0.002	37	40	OR.MOIL (C28-C40)	140467	16
C20	7.486	0.007	123	132			
C22	8.023	-0.004	761	744			
C24	8.549	0.009	70	42			
C25	8.801	0.011	100	144			
C26	9.030	-0.007	81	82			
C28	9.533	-0.011	4627	5410			
C32	10.566	-0.011	511	1023			
C34	11.078	-0.010	513	1043	CREOSOT (C12-C22)	18947	9
Filter Peak	13.927	-0.007	4147	2811	HYDRAUL (C24-C38)	122795	11
C36	11.582	-0.004	670	236			
C38	12.067	0.000	1016	2394			
C40	12.543	0.011	1469	2278			
o-terph	7.068	0.003	877188	824100	JET-A (C10-C18)	32335	4
Triacon Surr	10.073	0.001	587990	681022			

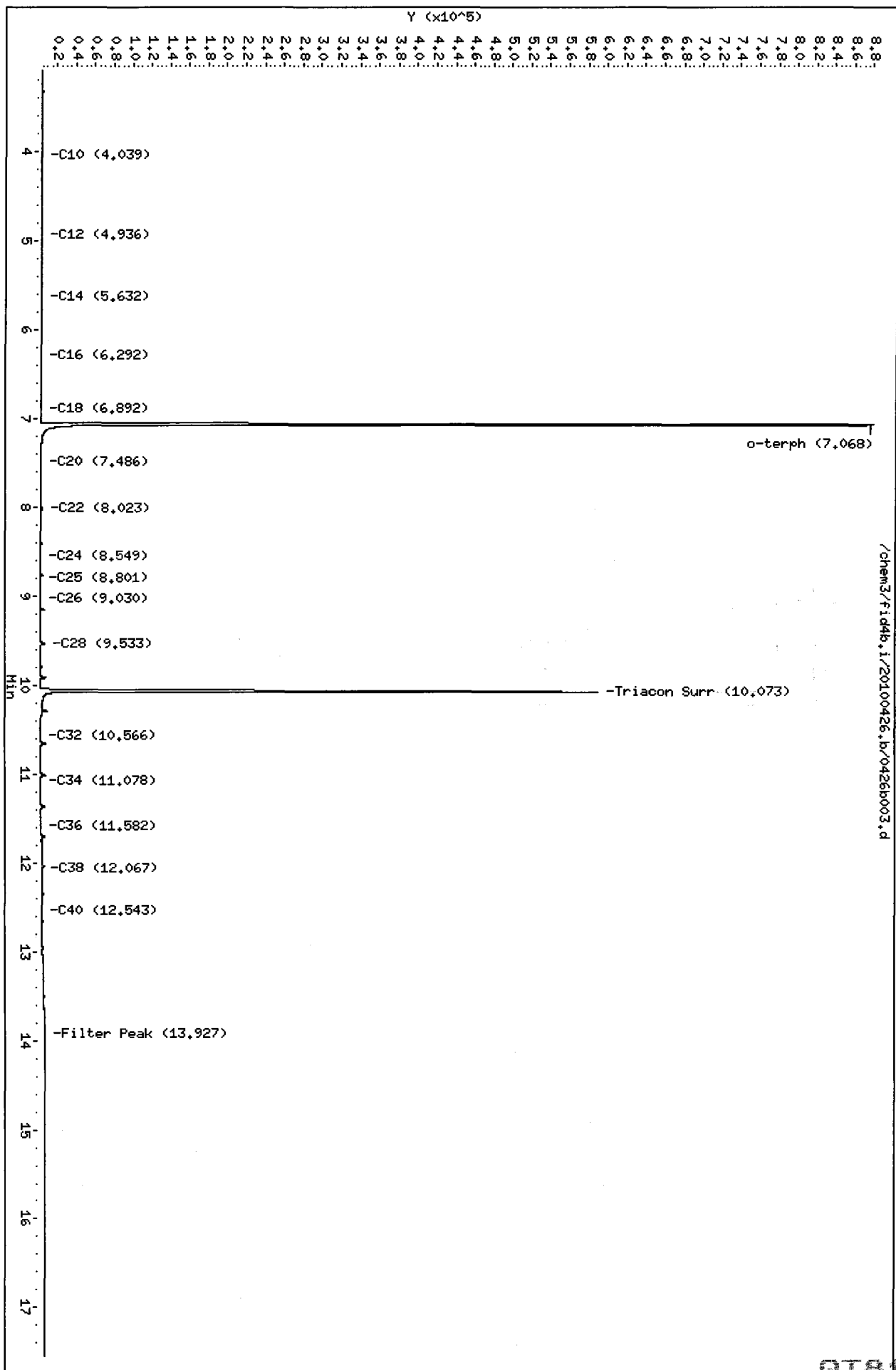
Range Times: NW Diesel(4.922 - 8.540) AK102(4.04 - 8.79) Jet A(4.04 - 6.89)
NW M.Oil(8.54 - 12.07) AK103(8.79 - 11.59) OR Diesel(4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	824100	48.1	106.8
Triacontane	681022	46.8	104.0

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100426.b/0426b003.d
Date: 26-APR-2010 15:36
Client ID:
Sample Info: IB
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



7a
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD/SNIDER

ICal Date: 20-APR-2010

Project: LORA LAKES APT.

CCal Date: 26-APR-2010

SDG No.: QT81

Analysis Time: 17:17

Lab ID: DIESEL#2

Instrument: FID4B.I

Lab File Name: 0426b007.d

Diesel Range	Area*	CalcAmt	NomAmt	% D
WADies (C12-C24)	3263365	236.8	250	-5.3
AK102 (C10-C25)	3604588	235.0	250	-6.0
Terphenyl	719632	42.0	45	-6.7

* 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.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b007.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: DIESEL#2
Client ID:
Injection: 26-APR-2010 17:17
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.609	0.011	336	499	GAS (Tol-C12)	444210	39
C8	2.854	-0.018	916	978	DIESEL (C12-C24)	3263365	237
C10	4.055	0.014	9888	10387	M.OIL (C24-C38)	64705	7
C12	4.925	0.002	30007	29931	AK-102 (C10-C25)	3604588	235
C14	5.641	-0.003	63394	59169	AK-103 (C25-C36)	39841	5
C16	6.285	-0.003	121109	95306	OR.DIES (C10-C28)	3626276	345
C18	6.893	-0.002	109003	96542	OR.MOIL (C28-C40)	51488	6
C20	7.475	-0.004	66082	58239			
C22	8.025	-0.001	27073	30656			
C24	8.552	0.012	3971	14457			
C25	8.786	-0.004	2906	3729			
C26	9.067	0.030	514	814			
C28	9.539	-0.005	2396	2351			
C32	10.582	0.005	47	25			
C34	11.093	0.005	138	217	CREOSOT (C12-C22)	3138856	1547
Filter Peak	13.931	-0.003	2848	1190	HYDRAUL (C24-C38)	64705	6
C36	11.584	-0.003	277	395			
C38	12.072	0.005	535	491			
C40	12.529	-0.003	851	998			
o-terph	7.068	0.003	871871	719632	JET-A (C10-C18)	2558869	294
Triacon Surr	10.066	-0.007	30	25			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	719632	42.0	93.3
Triacontane	25	0.0	0.0

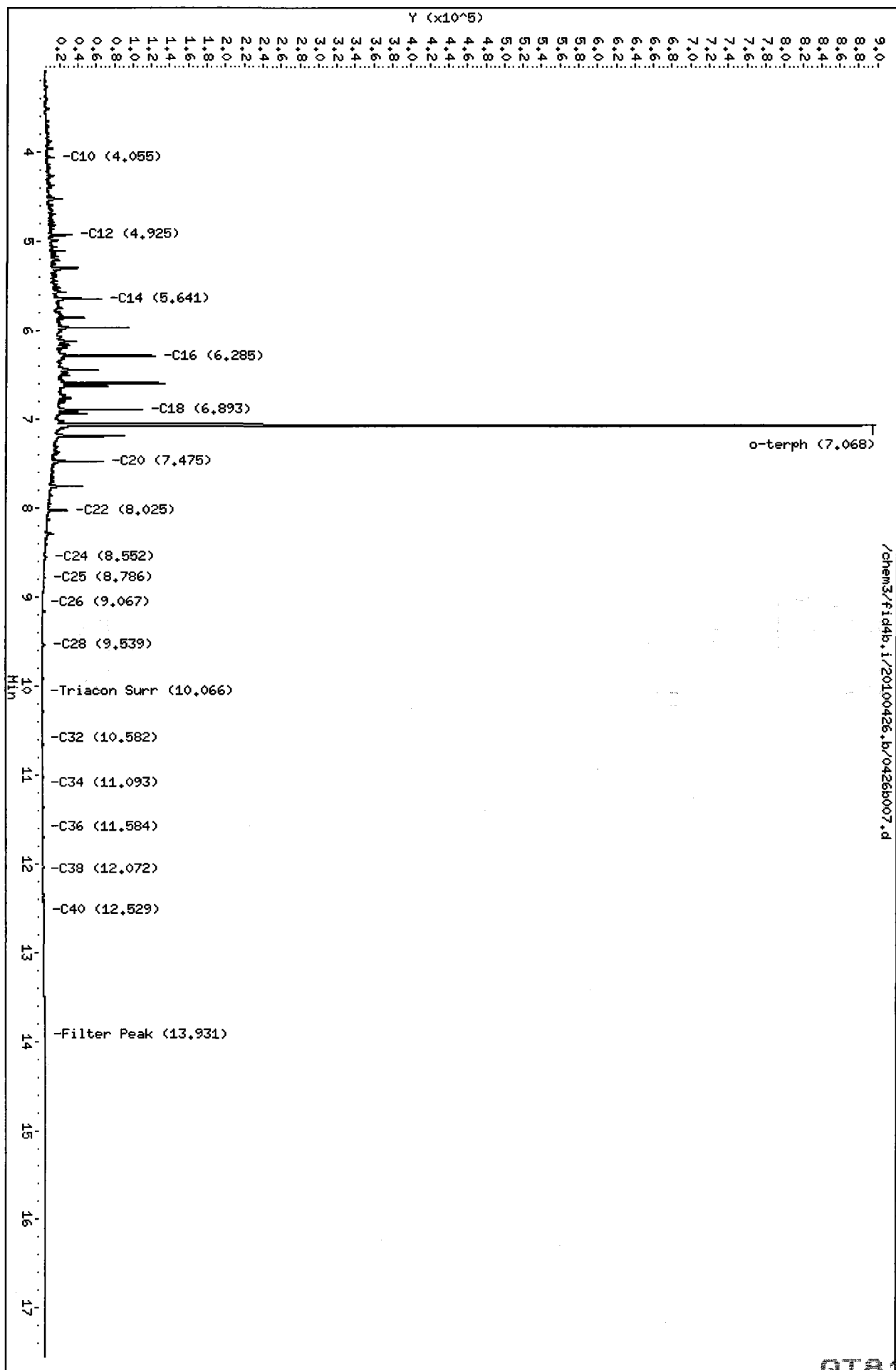
Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

- MANUAL ADJUSTMENTS
1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other

Analyst AK Date 4/26/10
SKIN SUR

Data File: /chem3/fid4b.i/20100426.b/0426b007.d
Date: 26-APR-2010 17:17
Client ID:
Sample Info: DIESEL#2
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



/chem3/fid4b.i/20100426.b/0426b007.d

7a
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER
 ICal Date: 30-MAR-2010 Project: LORA LAKES APT.
 CCal Date: 26-APR-2010 SDG No.: QT81
 Analysis Time: 17:42 Lab ID: MOIL#2
 Instrument: FID4B.I Lab File Name: 0426b008.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil (C24-C38)	4308997	462.2	500	-7.6
AK103 (C25-C36)	3689190	456.6	500	-8.7
n-Triacontane	654792	45.0	45	-0.1

* 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.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b008.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: MOIL#2
Client ID:
Injection: 26-APR-2010 17:42
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.617	0.020	777	1734	GAS (Tol-C12)	40675	4
C8	2.897	0.025	267	56	DIESEL (C12-C24)	491585	36
C10	4.036	-0.005	346	246	M.OIL (C24-C38)	4308997	462
C12	4.939	0.017	267	246	AK-102 (C10-C25)	643135	42
C14	5.644	0.001	123	202	AK-103 (C25-C36)	3689190	457
C16	6.292	0.004	40	35	OR.DIES (C10-C28)	1638351	156
C18	6.889	-0.006	171	241	OR.MOIL (C28-C40)	3458888	403
C20	7.463	-0.015	1857	1922			
C22	8.031	0.005	6554	11732			
C24	8.540	0.000	13570	12075			
C25	8.785	-0.004	17077	11124			
C26	9.027	-0.009	19178	15108			
C28	9.553	0.010	23220	42282			
C32	10.572	-0.005	25723	23420			
C34	11.082	-0.006	24076	12768	CREOSOT (C12-C22)	183516	90
Filter Peak	13.931	-0.002	4253	5825	HYDRAUL (C24-C38)	4308997	382
C36	11.584	-0.002	18934	26850			
C38	12.062	-0.006	14562	17918			
C40	12.545	0.013	9699	3836			
o-terph	7.062	-0.003	357	259	JET-A (C10-C18)	38509	4
Triacon Surr	10.075	0.003	587844	654792			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	259	0.0	0.0
Triacontane	654792	45.0	99.9

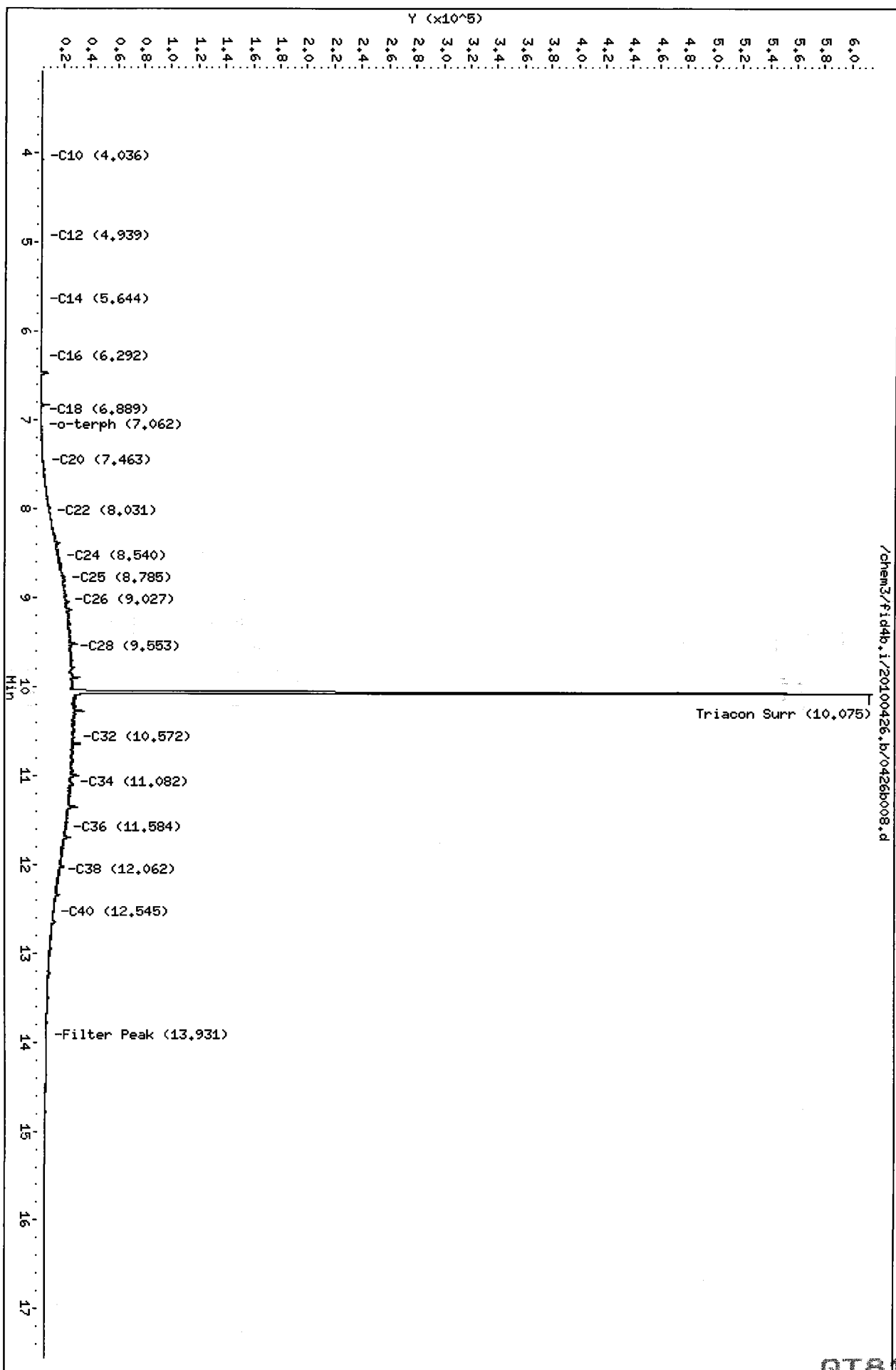
Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

- MANUAL ADJUSTMENTS
1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other

Analyst SKM Date 4/26/10
SKM SKM

Data File: /chem3/fid4b.i/20100426.b/0426b008.d
Date : 26-APR-2010 17:42
Client ID:
Sample Info: HOIL#2
Column phase: RTX-1

Instrument: fid4b.i
Operator: NS
Column diameter: 0.25



7a
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD/SNIDER

ICal Date: 20-APR-2010

Project: LORA LAKES APT.

CCal Date: 26-APR-2010

SDG No.: QT81

Analysis Time: 21:30

Lab ID: DIESEL#3

Instrument: FID4B.I

Lab File Name: 0426b017.d

Diesel Range	Area*	CalcAmt	NomAmt	% D
WADies (C12-C24)	3352054	243.2	250	-2.7
AK102 (C10-C25)	3702608	241.4	250	-3.4
Terphenyl	732990	42.8	45	-5.0

* 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.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b017.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: DIESEL#3
Client ID:
Injection: 26-APR-2010 21:30
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.612	0.014	444	695	GAS (Tol-C12)	461409	41
C8	2.856	-0.016	1024	1306	DIESEL (C12-C24)	3352054	243
C10	4.055	0.013	10645	10901	M.OIL (C24-C38)	73650	8
C12	4.924	0.002	30781	31021	AK-102 (C10-C25)	3702608	241
C14	5.641	-0.003	64408	61269	AK-103 (C25-C36)	52145	6
C16	6.284	-0.004	126121	96667	OR.DIES (C10-C28)	3730585	354
C18	6.893	-0.001	110053	97637	OR.MOIL (C28-C40)	50278	6
C20	7.476	-0.003	66743	64745			
C22	8.025	-0.001	27459	24736			
C24	8.552	0.012	3955	16740			
C25	8.785	-0.004	3451	4133			
C26	9.048	0.011	574	975			
C28	9.537	-0.006	3462	3825			
C32	10.573	-0.005	43	24			
C34	11.081	-0.007	110	207	CREOSOT (C12-C22)	3228103	1591
Filter Peak	13.938	0.004	2271	992	HYDRAUL (C24-C38)	73650	7
C36	11.590	0.004	200	89			
C38	12.084	0.017	409	290			
C40	12.533	0.001	643	530			
o-terph	7.069	0.003	876622	732990	JET-A (C10-C18)	2652173	305
Triacon Surr	10.073	0.000	39	29			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	732990	42.8	95.0
Triacontane	29	0.0	0.0

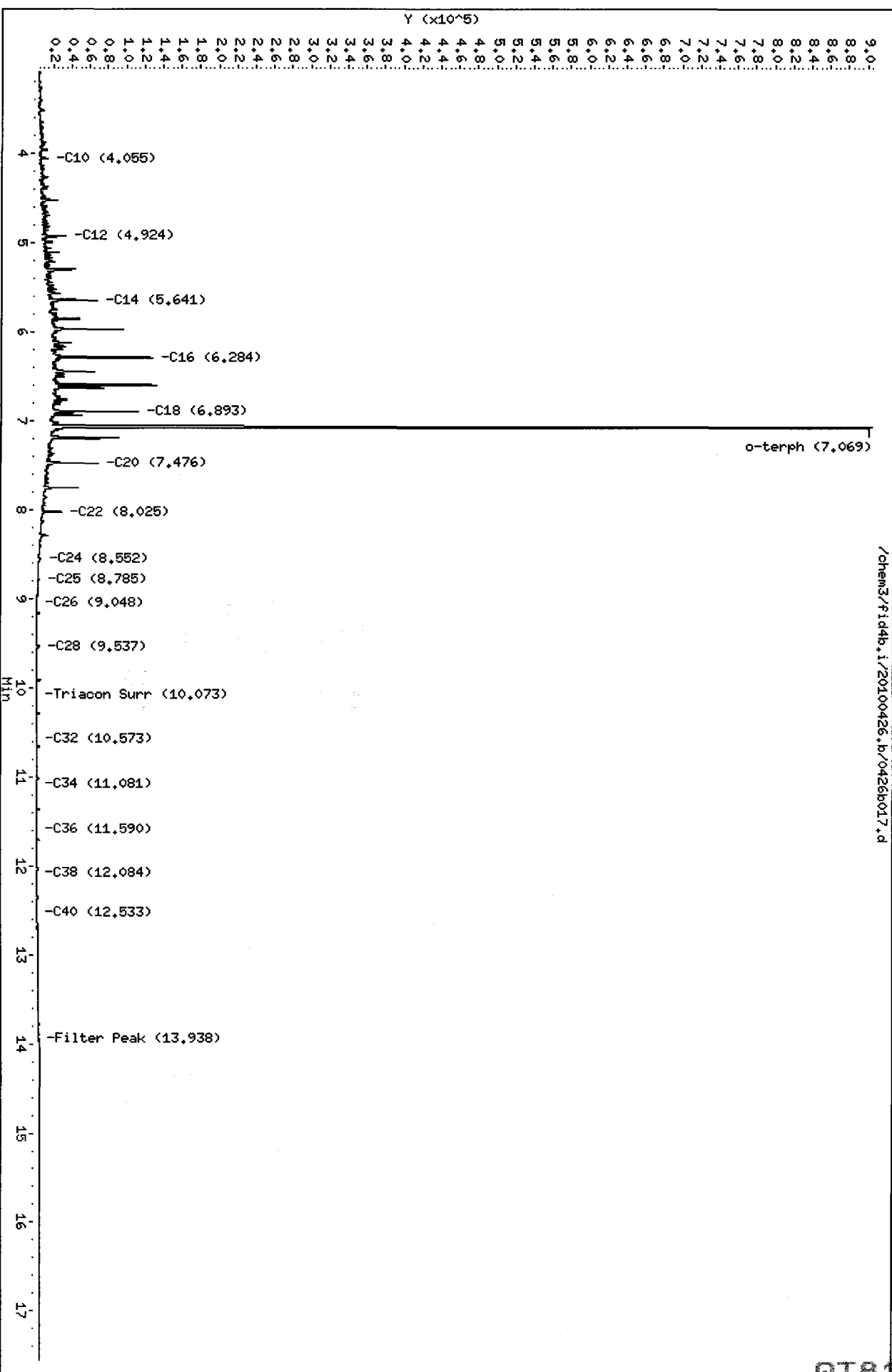
Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

MANUAL ADJUSTMENTS
 1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other
 Analyst MS Date 7/28/10

Data File: /chem3/fid4b.i/20100426.b/0426b017.d
Date: 26-APR-2010 21:30
Client ID:
Sample Info: DIESEL#3
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25

/chem3/fid4b.i/20100426.b/0426b017.d



7a
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER
 ICal Date: 30-MAR-2010 Project: LORA LAKES APT.
 CCal Date: 26-APR-2010 SDG No.: QT81
 Analysis Time: 21:55 Lab ID: MOIL#3
 Instrument: FID4B.I Lab File Name: 0426b018.d

M.oil Range	Area*	CalcAmt	NomAmt	% D
WAMoil (C24-C38)	4397286	471.7	500	-5.7
AK103 (C25-C36)	3821348	472.9	500	-5.4
n-Triacontane	664096	45.6	45	1.4

* 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.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b018.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: MOIL#3
Client ID:
Injection: 26-APR-2010 21:55
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.578	-0.019	656	1221	GAS (Tol-C12)	35948	3
C8	2.887	0.016	265	266	DIESEL (C12-C24)	520553	38
C10	4.036	-0.005	309	95	M.OIL (C24-C38)	4397286	472
C12	4.918	-0.004	261	436	AK-102 (C10-C25)	660002	43
C14	5.650	0.006	120	138	AK-103 (C25-C36)	3821348	473
C16	6.284	-0.003	47	35	OR.DIES (C10-C28)	1645464	156
C18	6.919	0.025	233	274	OR.MOIL (C28-C40)	3590041	419
C20	7.481	0.002	1772	2934			
C22	8.031	0.005	6800	7497			
C24	8.540	0.000	13911	7397			
C25	8.794	0.004	17895	15455			
C26	9.027	-0.009	19723	15519			
C28	9.548	0.004	23312	12381			
C32	10.571	-0.006	27023	32972			
C34	11.085	-0.003	24741	32910	CREOSOT (C12-C22)	184394	91
Filter Peak	13.944	0.010	3772	3346	HYDRAUL (C24-C38)	4397286	390
C36	11.586	0.000	19934	35394			
C38	12.066	-0.001	14851	11701			
C40	12.533	0.001	10366	19289			
o-terph	7.075	0.009	687	1159	JET-A (C10-C18)	36751	4
Triacon Surr	10.076	0.004	560436	664096			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1159	0.1	0.2
Triacontane	664096	45.6	101.4

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

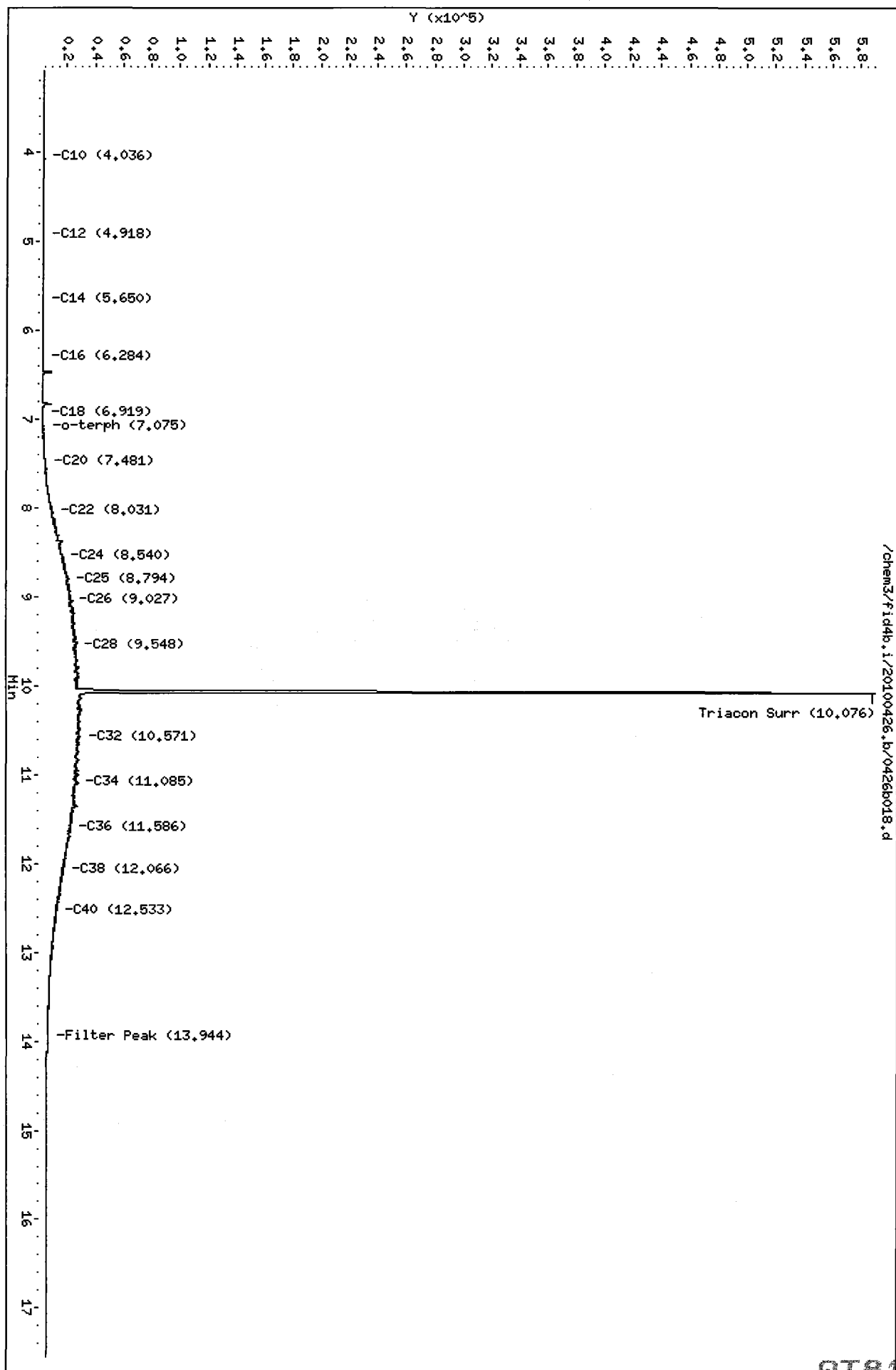
- MANUAL ADJUSTMENTS**
1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other

Analyst: SKim Sun Date: 4/28/10

Data File: /chem3/fid4b.i/20100426.b/0426b018.d
Date : 26-APR-2010 21:55
Client ID:
Sample Info: H01L#3
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25

/chem3/fid4b.i/20100426.b/0426b018.d



**TPHD Analysis
QC Raw Data**

**prepared
for**

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

**prepared
by**

Analytical Resources, Inc.

M 4/28/10

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b009.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: QT81MBW1
Client ID: QT81MBW1
Injection: 26-APR-2010 18:07
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.595	-0.002	471	339	GAS (Tol-C12)	34656	3
C8	2.867	-0.005	194	172	DIESEL (C12-C24)	83953	6
C10	4.040	-0.001	240	231	M.OIL (C24-C38)	144685	16
C12	4.919	-0.003	205	92	AK-102 (C10-C25)	102446	7
C14	5.650	0.006	123	57	AK-103 (C25-C36)	120297	15
C16	6.286	-0.001	649	558	OR.DIES (C10-C28)	119806	11
C18	6.901	0.007	462	393	OR.MOIL (C28-C40)	144324	17
C20	7.477	-0.002	501	136			
C22	8.012	-0.014	1314	1468			
C24	8.540	0.000	196	239			
C25	8.770	-0.020	3087	2139			
C26	9.028	-0.008	147	97			
C28	9.534	-0.009	3249	3538			
C32	10.585	0.008	1138	1830			
C34	11.092	0.005	4614	4454	CREOSOT (C12-C22)	75902	37
Filter Peak	13.948	0.014	2762	4634	HYDRAUL (C24-C38)	144685	13
C36	----						
C38	12.036	-0.032	2598	5261			
C40	12.537	0.005	876	829			
o-terph	7.064	-0.001	612256	540426	JET-A (C10-C18)	75447	9
Triacon Surr	10.070	-0.002	525320	599306			

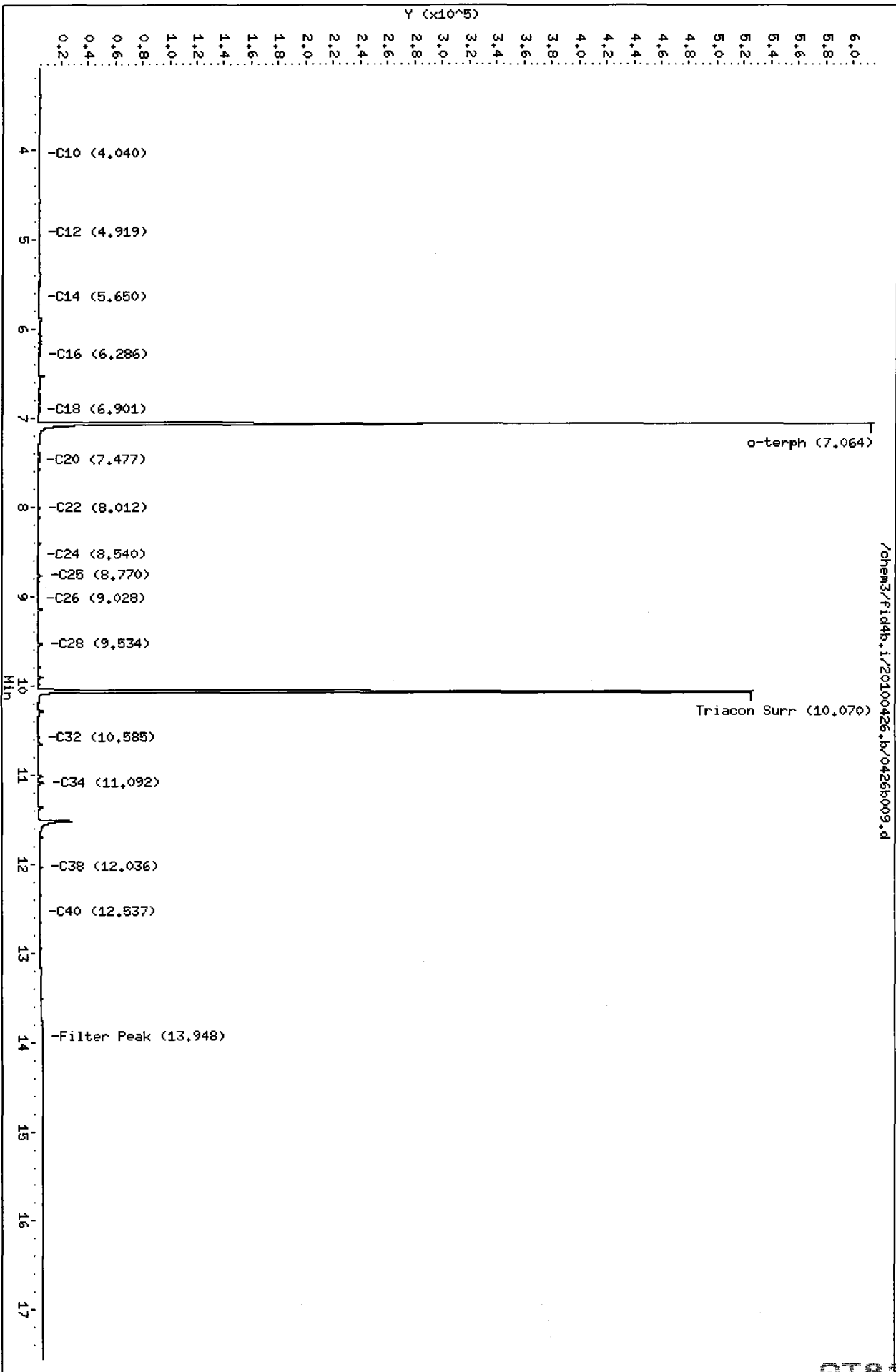
Range Times: NW Diesel(4.922 - 8.540) AK102(4.04 - 8.79) Jet A(4.04 - 6.89)
NW M.Oil(8.54 - 12.07) AK103(8.79 - 11.59) OR Diesel(4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	540426	31.5	70.0
Triacontane	599306	41.2	91.5

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

Data File: /chem3/fid4b.i/20100426.b/0426b009.d
Date : 26-APR-2010 18:07
Client ID: QT81MBM1
Sample Info: QT81MBM1
Column phase: RTX-1

Instrument: fid4b.i
Operator: MS
Column diameter: 0.25



msy/28/10

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b014.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: QT81CMS
Client ID: CB4857042110GRA MS
Injection: 26-APR-2010 20:14

Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.594	-0.003	346	420	GAS (Tol-C12)	1610233	142
C8	2.888	0.016	3959	4270	DIESEL (C12-C24)	13716808	995
C10	4.041	-0.001	51289	40417	M.OIL (C24-C38)	1660516	178
C12	4.915	-0.007	130511	114428	AK-102 (C10-C25)	15112438	985
C14	5.638	-0.006	273198	241294	AK-103 (C25-C36)	1434436	178
C16	6.288	0.000	457377	401999	OR.DIES (C10-C28)	15701243	1492
C18	6.902	0.007	391926	469923	OR.MOIL (C28-C40)	984921	115
C20	7.481	0.002	301794	277079			
C22	8.025	-0.001	150079	138822			
C24	8.536	-0.004	53436	56127			
C25	8.783	-0.007	31030	35318			
C26	9.031	-0.005	17937	25442			
C28	9.536	-0.008	13825	14553			
C32	10.569	-0.008	10292	18781			
C34	11.088	0.000	12051	20754	CREOSOT (C12-C22)	12981267	6400
Filter Peak	13.932	-0.002	2648	2420	HYDRAUL (C24-C38)	1660516	147
C36	11.578	-0.008	6450	15769			
C38	12.062	-0.006	3076	7784			
C40	12.528	-0.004	2166	4640			
o-terph	7.069	0.003	697306	549651	JET-A (C10-C18)	10457003	1201
Triacon Surr	10.072	-0.001	554117	596477			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	549651	32.1	71.2
Triacontane	596477	41.0	91.0

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

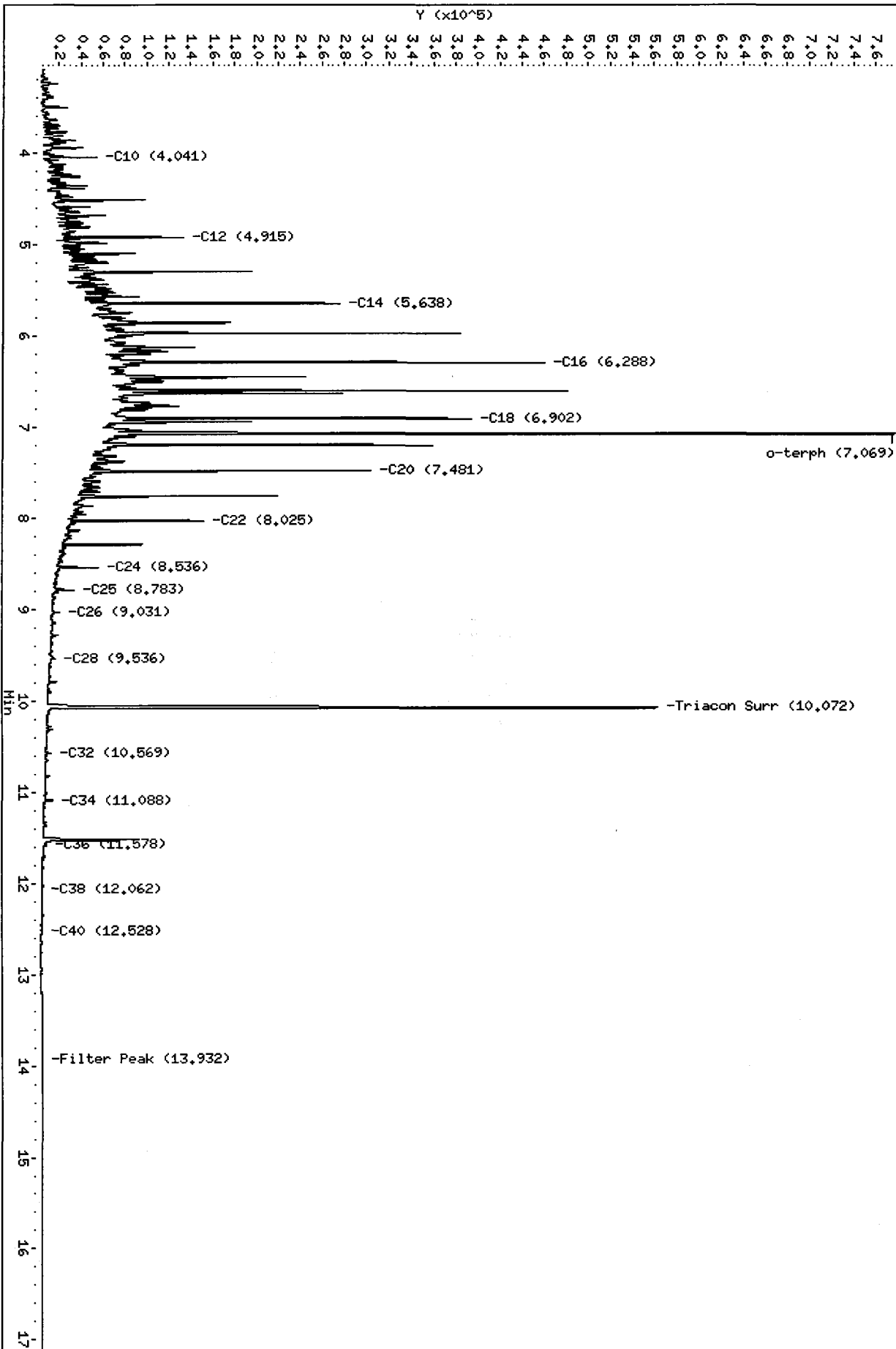
MANUAL ADJUSTMENTS

- Peak not found
- Poor Chromatography
- Baseline Correction
- Totals Calculation
- Other
- lyst

549651 Surr
Apr 27 2010

Data File: /chem3/fid4b.i/20100426.b/0426b014.d
Date: 26-APR-2010 20:14
Client ID: CB4857042110GRA HS
Sample Info: QT81CHS
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



/chem3/fid4b.i/20100426.b/0426b014.d

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b015.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: QT81CMSD
Client ID: CB4857042110GRA MSD
Injection: 26-APR-2010 20:39

Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.596	-0.001	343	383	GAS (Tol-C12)	1664506	147
C8	2.889	0.017	4024	4445	DIESEL (C12-C24)	13726851	996
C10	4.041	-0.001	53403	42507	M.OIL (C24-C38)	1661492	178
C12	4.916	-0.007	135614	116898	AK-102 (C10-C25)	15153279	988
C14	5.639	-0.005	274724	305534	AK-103 (C25-C36)	1437289	178
C16	6.289	0.001	462645	405631	OR.DIES (C10-C28)	15722870	1494
C18	6.903	0.008	407776	422887	OR.MOIL (C28-C40)	1016260	119
C20	7.481	0.002	293704	276161			
C22	8.025	-0.001	150989	135743			
C24	8.537	-0.003	53125	58155			
C25	8.783	-0.006	30509	35842			
C26	9.032	-0.005	17857	21150			
C28	9.528	-0.016	14426	36278			
C32	10.571	-0.006	10104	18005			
C34	11.091	0.003	12970	24493	CREOSOT (C12-C22)	13032051	6425
Filter Peak	13.940	0.006	2588	2575	HYDRAUL (C24-C38)	1661492	147
C36	11.578	-0.008	6463	9170			
C38	12.063	-0.004	3189	6324			
C40	12.533	0.001	2271	4311			
o-terph	7.069	0.003	694196	550599	JET-A (C10-C18)	10522661	1209
Triacon Surr	10.073	0.000	534065	596403			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

Surrogate	Area	Amount	%Rec
o-Terphenyl	550599	32.1	71.4
Triacontane	596403	41.0	91.0

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

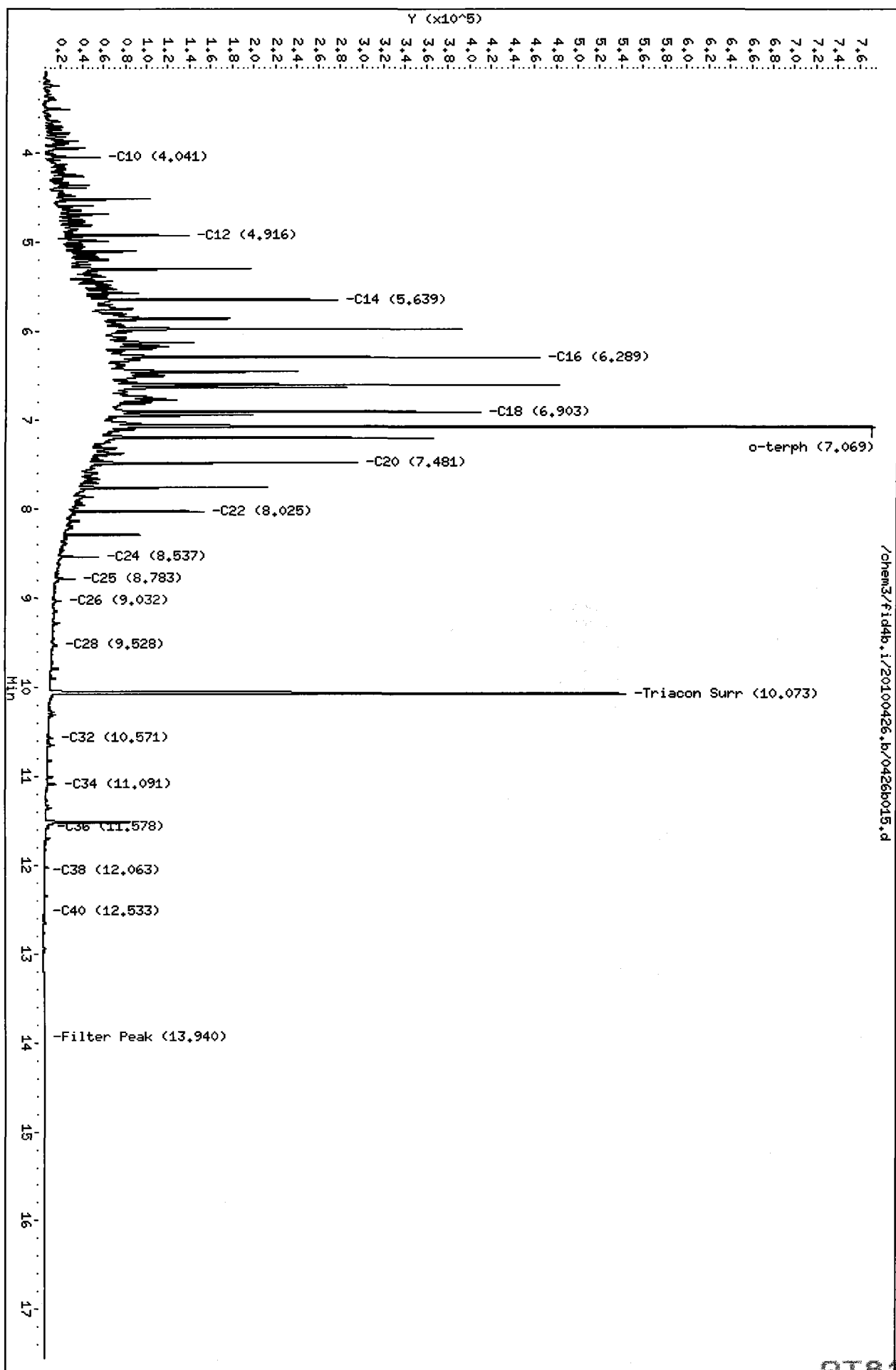
MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst SKIM Surr Date 4/28/10

Data File: /chem3/fid4b.i/20100426.b/0426b015.d
Date: 26-APR-2010 20:39
Client ID: CB4857042110GRA HSD
Sample Info: Q781CHSD
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



/chem3/fid4b.i/20100426.b/0426b015.d

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4b.i/20100426.b/0426b010.d
Method: /chem3/fid4b.i/20100426.b/ftphfid4b.m
Instrument: fid4b.i
Operator: MS
Report Date: 04/27/2010
Macro: 20-APR-2010

ARI ID: QT81LCSW1
Client ID: QT81LCSW1
Injection: 26-APR-2010 18:33
Dilution Factor: 1

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.596	-0.002	320	405	GAS (Tol-C12)	1572428	139
C8	2.889	0.017	4230	4214	DIESEL (C12-C24)	14430406	1047
C10	4.041	-0.001	49705	39432	M.OIL (C24-C38)	328521	35
C12	4.915	-0.007	130058	111759	AK-102 (C10-C25)	15716473	1025
C14	5.638	-0.006	284103	307337	AK-103 (C25-C36)	236929	29
C16	6.289	0.001	490419	589112	OR.DIES (C10-C28)	15840118	1505
C18	6.903	0.008	430832	556666	OR.MOIL (C28-C40)	159201	19
C20	7.481	0.002	321075	298659			
C22	8.025	-0.001	160251	129857			
C24	8.537	-0.004	45972	53765			
C25	8.786	-0.004	17953	26536			
C26	9.036	-0.001	7204	11340			
C28	9.535	-0.009	3846	4651			
C32	10.580	0.002	1269	1715			
C34	11.093	0.005	4226	3757	CREOSOT (C12-C22)	13841732	6824
Filter Peak	13.934	0.000	2558	1882	HYDRAUL (C24-C38)	328521	29
C36	----						
C38	12.079	0.012	501	602			
C40	12.538	0.006	729	1402			
o-terph	7.070	0.005	673370	556403	JET-A (C10-C18)	11073291	1272
Triacon Surr	10.072	-0.001	554233	623407			

Range Times: NW Diesel (4.922 - 8.540) AK102 (4.04 - 8.79) Jet A (4.04 - 6.89)
NW M.Oil (8.54 - 12.07) AK103 (8.79 - 11.59) OR Diesel (4.04 - 9.54)

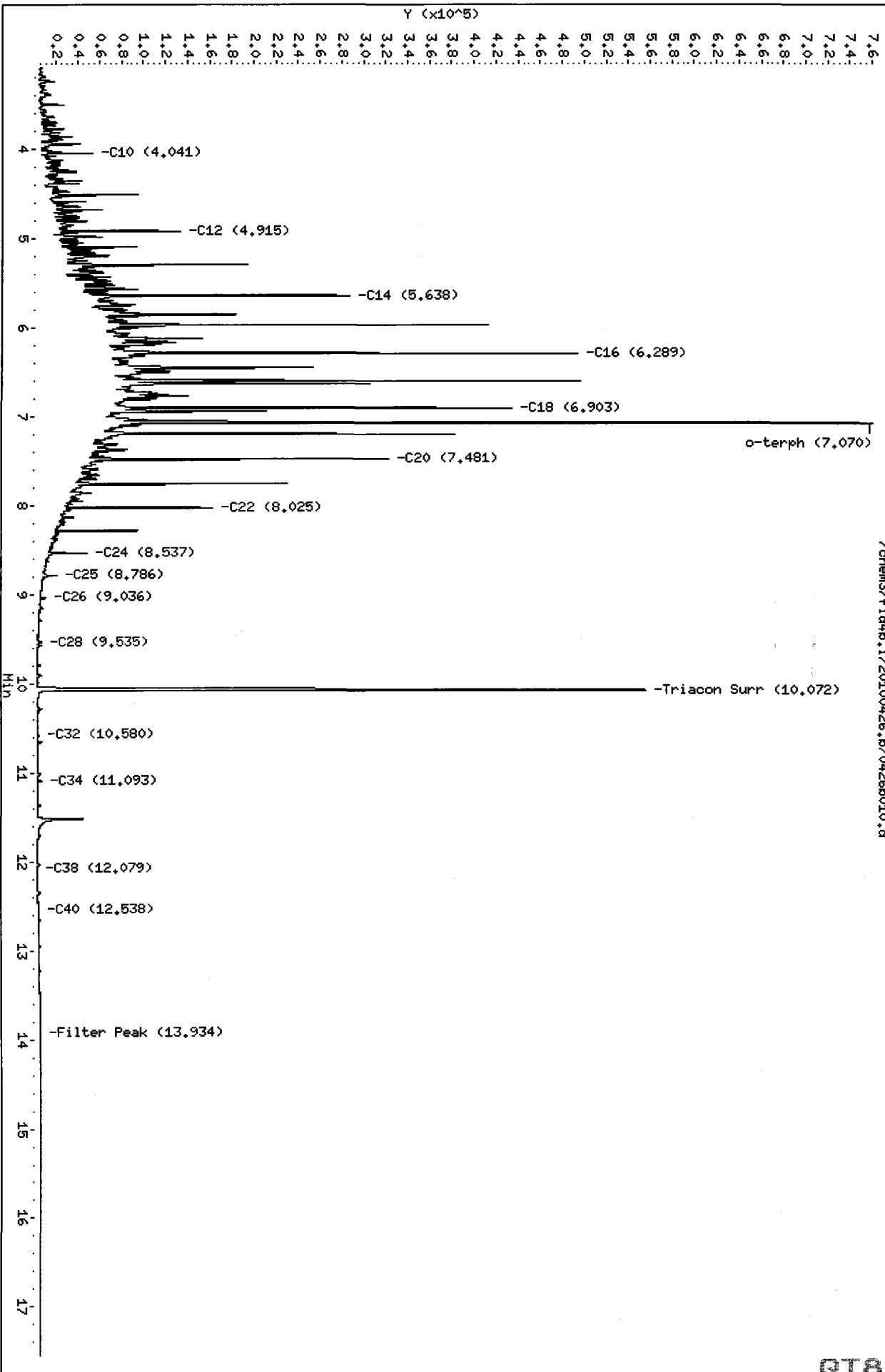
Surrogate	Area	Amount	%Rec
o-Terphenyl	556403	32.5	72.1
Triacontane	623407	42.8	95.2

Analyte	RF	Curve Date
o-Terph Surr	17144.6	20-APR-2010
Triacon Surr	14558.4	31-MAR-2010
Gas	11303.7	22-FEB-2010
Diesel	13782.0	20-APR-2010
Motor Oil	9323.0	30-MAR-2010
AK102	15339.0	20-APR-2010
AK103	8079.9	10-DEC-2009
JetA	8703.3	11-JAN-2010
OR Diesel	10525.0	
OR M.Oil	8574.0	
Creosote	2028.3	21-JAN-2009
Hydraulic	11288.8	11-JAN-2010

MANUAL ADJUSTMENTS
 1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other
 Analyst SKim Surr Date 4/28/10

Data File: /chem3/fid4b.i/20100426.b/0426b010.d
Date: 26-APR-2010 18:33
Client ID: QT81LCSM1
Sample Info: QT81LCSM1
Column phase: RTX-1

Instrument: fid4b.i
Operator: HS
Column diameter: 0.25



/chem3/fid4b.i/20100426.b/0426b010.d

TPHD Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QT81

prepared
by

Analytical Resources, Inc.



Preparation Test (TPHD/HCID) # 1

ARI Job No(s) QT81

In-House (0.25-0.50ppm)
Batch set up by: ST

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	DryVap Or (KD)	Turbo Vap ↑ 23	Acid/Silica Clean (1:1) (Y) N	Final Effective Volume	Volume to Lab	Comments
	QT81 MBW	Date 4/23/10	500mL			(Y) N	1mL	1mL	
	↓ SBW	↓	↓			↓	↓	↓	
	SBW Dup.		↓			↓	↓	↓	
3	QT81 A	checked							
4	B								
10, 11, 12	C								
↓	CMS								
↓	CMSH								
4	D								
Analyst/Date: WC 4/23/10 4-23-10 TS SR 4/26/10 →									

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	02	100µL	7/27/14	WC	W 04/23/10
Spike	11	100µL	9/27/14	WC	W 04/23/10

Extraction Time: 14:46

- SPECIAL INSTRUCTIONS: 1. Add Surr/Spk. 2. Acidify with 1 pipet of 1:1 Sulfuric Acid. 3. Check pH.
4. Extract 2X with 30mL DCM. 5. DryVap or (KD at 80°). 6. TurboVap if KD. 7. Acid/Silica Clean-ups? (Y) N.
8. Vial in DCM. 9. Archive (Y) N

Analytical Resources Inc.: Organics Instrument Log

FID-4B Serial No.: US00003247

Date: 4/20/10

Analysis: TPM

Analyst: ms

GC Program: TPM

Column No: 910208

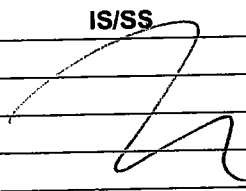
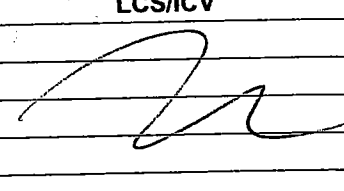
Column Type: RTX-1

Instrument Tune (.U or .CT.): _____

EM Voltage: _____

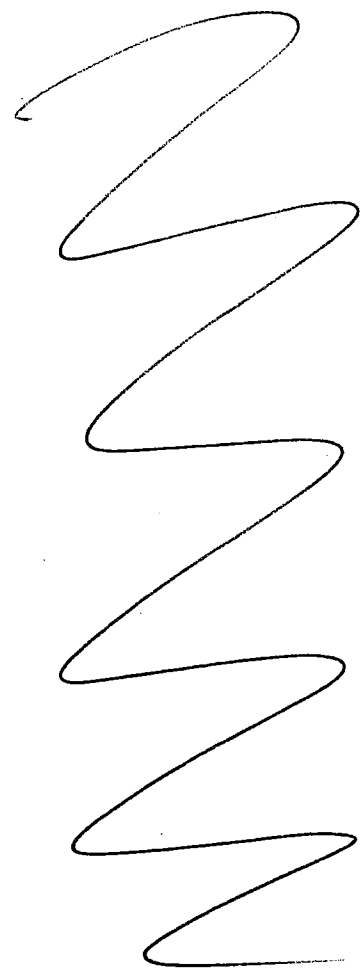
Calibration File: _____

Curve Date: 4/20/10, 3/30/10

IS/SS	Ical/Ccal	LCS/ICV
	<u>700-1</u> <u>1606-3</u> <u>1607-3</u> <u>1604-1</u>	

Time	Filename	LabID	ClientID	DF
1	1346	0420b001.d	RINSE	1 N
2	1411	0420b002.d	RT	1 N
3	1437	0420b003.d	IS	1 N
4	1502	0420b004.d	DIESEL#1	1 N
5	1527	0420b005.d	MOIL#1	1 N
6	1553	0420b006.d	CRESOXYEN1	1 N
7	1618	0420b007.d	DIESEL SPKE VER	
8	1643	0420b008.d	DIESEL#2	1 N
9	1708	0420b009.d	MOIL#2	1 N
10	1733	0420b010.d	DIESEL 50 DIESEL 50	1 N
11	1758	0420b011.d	DIESEL 100 DIESEL 100	1 N
12	1824	0420b012.d	DIESEL 250 DIESEL 250	1 N
13	1849	0420b013.d	DIESEL 500 DIESEL 500	1 N
14	1914	0420b014.d	DIESEL 1000 DIESEL 1000	1 N
15	1939	0420b015.d	DIESEL 2500 DIESEL 2500	1 N
16	2004	0420b016.d	DIESEL ICV	1 N
17	2030	0420b017.d	DIESEL#1	1 N
18	2055	0420b018.d	MOIL#1	1 N
19	2120	0420b019.d	RINSE	1 N
20	2145	0420b020.d	RINSE	1 N
21	2210	0420b021.d	QT47B 042010-FLD11	1 NO
22	2235	0420b022.d	QT47A 042010-FLD11	1 NO

Time	Filename	LabID	ClientID	DF
23	2300	0420b023.d	QT47C 042010-FLD11	1 N
24	2325	0420b024.d	QT47D 042010-FLD11	1 N
25	2350	0420b025.d	QT47LCSS1 QT47LCSS1	1 N
26	0015	0420b026.d	QT47LCSDS1 QT47LCSDS1	1 N
27	0040	0420b027.d	QT47HBS1 QT47HBS1	1 N
28	0105	0420b028.d	DIESEL#2	1 N
29	0130	0420b029.d	MOIL#2	1 N
30	0155	0420b030.d	RINSE	1 N
31	0220	0420b031.d	RINSE	1 N
32	0245	0420b032.d	RINSE	1 N
33	0310	0420b033.d	RINSE	1 N
34	0335	0420b034.d	RINSE	1 N
35	0400	0420b035.d	RINSE	1 N
36	0425	0420b036.d	RINSE	1 N
37	0450	0420b037.d	RINSE	1 N
38	0515	0420b038.d	RINSE	1 N
39	0540	0420b039.d	RINSE	1 N
40	0605	0420b040.d	RINSE	1 N



ms *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: Diesel, AK102 Client ID: AKI
graph curve

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	<u>FID-4B</u>	FID-7	FID-8
	ECD-1	ECD-3	ECD-4	ECD-5	ECD-6	ECD-7

Dates: Curve: 4/20/10 Analysis Start: 4/20/10

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	<u>YES</u> / NO
ICal Meets RF & %RSD Criteria?	<u>YES</u> / NO	LCS/LCSD Recovery In Control?	YES / NO
CCal Meets RF & %RSD Criteria	<u>YES</u> / 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 No

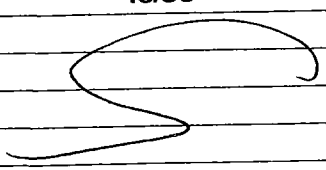
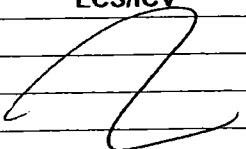
Analyst Signature: Mo Date: 4/20/10

Reviewer's Signature: [Signature] Date: 4/21/10

Analytical Resources Inc.: Organics Instrument Log

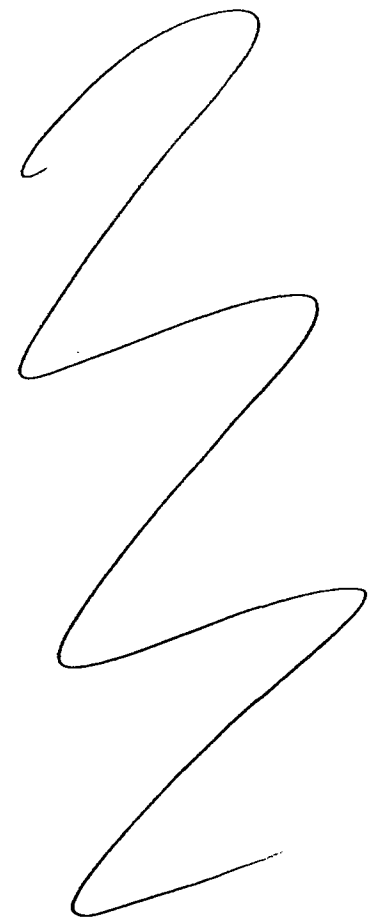
FID-4B Serial No.: US00003247

Date: 3/30/10 Analysis: TPHD Analyst: M
 GC Program: TDH Column No: 910208 Column Type: RTX-1
 Instrument Tune (.U or .CT.): _____ EM Voltage: _____
 Calibration File: _____ Curve Date: 3/30/10

IS/SS	Ical/Ccal	LCS/ICV
	1700- 1680-3 1689-3 1694-1	

Time	Filename	LabID	ClientID	DF
1	1722	0330b001.d	RINSE	1
2	1750	0330b002.d	RT	1
3	1818	0330b003.d	IB	1
4	1845	0330b004.d	DIESEL#1	1
5	1913	0330b005.d	MOIL#1	1
6	1941	0330b006.d	DIESEL#1	1
7	2008	0330b007.d	MOIL#1	1
8	2036	0330b008.d	BUNKER#1	1
9	2104	0330b009.d	DIESEL#1	1
10	2131	0330b010.d	RINSE	1
11	2159	0330b011.d	DIESEL 50	1
12	2226	0330b012.d	DIESEL 100	1
13	2253	0330b013.d	DIESEL 250	1
14	2321	0330b014.d	DIESEL 500	1
15	2348	0330b015.d	DIESEL 1000	1
16	0015	0330b016.d	DIESEL 2500	1
17	0042	0330b017.d	DIESEL ICV	1
18	0110	0330b018.d	RINSE	1
19	0137	0330b019.d	MOIL 100	1
20	0204	0330b020.d	MOIL 250	1
21	0231	0330b021.d	MOIL 500	1
22	0259	0330b022.d	MOIL 1000	1

Time	Filename	LabID	ClientID	DF
23	0326	0330b023.d	MOIL 2500	1
24	0353	0330b024.d	MOIL 5000	1
25	0420	0330b025.d	MOIL ICV	1



M *M*

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: MOil. Curve Client ID: ARI

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	<u>FID-4B</u>	FID-7	FID-8
	ECD-1	ECD-3	ECD-4	ECD-5	ECD-6	ECD-7

Dates: Curve: 3/30/10 - 3/31/10 Analysis Start: 3/30/10

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

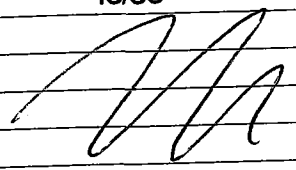
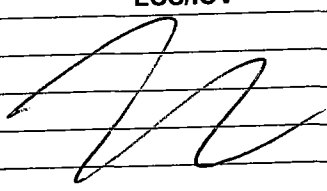
Analyst Signature: [Signature] Date: 3/31/10

Reviewer's Signature: [Signature] Date: 3/31/10

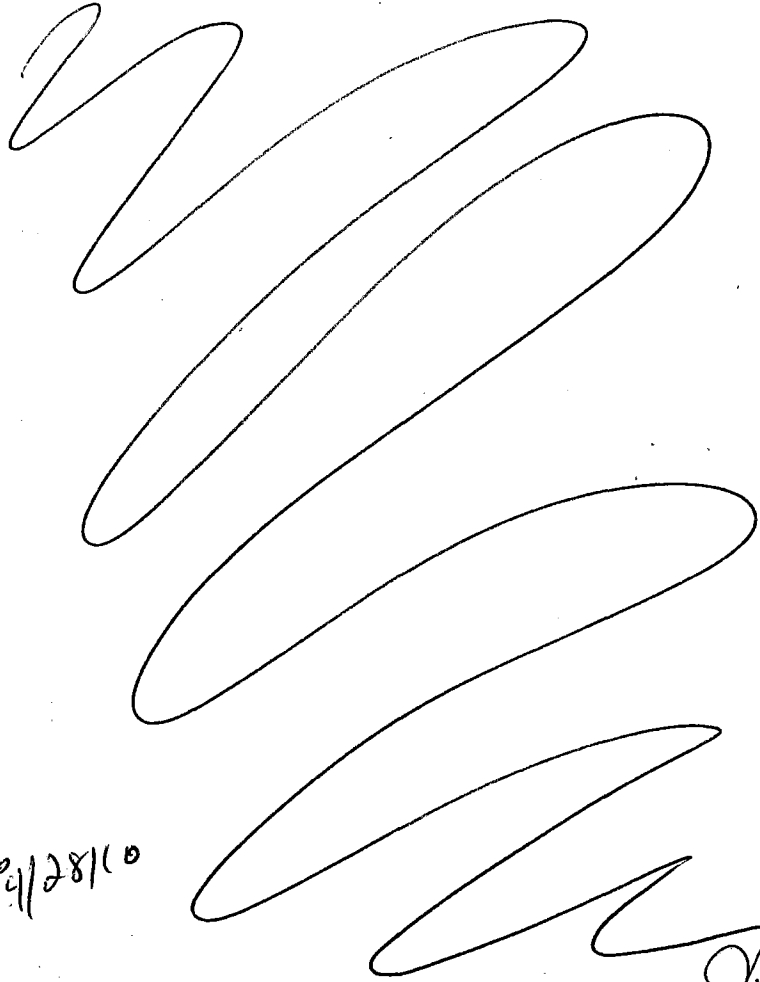
Analytical Resources Inc.: Organics Instrument Log

FID-4B Serial No.: US00003247

Date: 4/26/10 Analysis: TPHD Analyst: ms
 GC Program: TPH Column No: 910208 Column Type: RTX-1
 Instrument Tune (.U or .CT.): _____ EM Voltage: _____
 Calibration File: _____ Curve Date: 3/30/10, 4/20/10

IS/SS	Ical/Ccal	LCS/ICV
	1700-1 1686-3 1687-3 1694-1	

Time	Filename	LabID	ClientId	DF	
1	1447	0426b001.d	RINSE	1	
2	1511	0426b002.d	RT	1	
3	1536	0426b003.d	IB	1	
4	1602	0426b004.d	DIESEL#1	1	
5	1627	0426b005.d	MOIL#1	1	
6	1652	0426b006.d	DIESEL SPIKE VER		
7	1717	0426b007.d	DIESEL#2	1	
8	1742	0426b008.d	MOIL#2	1	
9	1807	0426b009.d	QT81MBW1	QT81MBW1	1
10	1833	0426b010.d	QT81LCSW1	QT81LCSW1	1
11	1858	0426b011.d	QT81A	CB31A042110G	1
12	1923	0426b012.d	QT81B	CB1042110GRA	1
13	1948	0426b013.d	QT81C	CB4857042110	1
14	2014	0426b014.d	QT81CMS	CB4857042110	1
15	2039	0426b015.d	QT81CMSD	CB4857042110	1
16	2104	0426b016.d	QT81D	CB101042110G	1
17	2130	0426b017.d	DIESEL#3		1
18	2155	0426b018.d	MOIL#3		



ms 4/28/10

ms 4/28/10

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: QT81 Client ID: FLOYD/SNIDER-LL APTS

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

Parameter(s): Diesel, MOI, Steph

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: 3/30/10, 4/29/10 Analysis Start: 4/26/10

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	<u>YES</u> / NO
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> / NO	Surrogate Recovery In Control?	<u>YES</u> / NO
Internal Standard Meets Criteria?	YES / NO / NA	Special Analysis Criteria Met?	YES / NO / <u>NA</u>

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: 4/28/10

Reviewer's Signature: [Signature] Date: 4/29/2010



Analytical Resources, Incorporated
Analytical Chemists and Consultants

April 20, 2010

Jessie Massingale
Floyd-Snider Inc.
601 Union Street, Suite 600
Seattle, WA 98101-2341

RE: Client Project: Lora Lake Apartments, POS-LLA
ARI Job No: QR09

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.

A handwritten signature in black ink, appearing to read "Susan D. Dunning".

Susan D. Dunning
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QR09

SD/sdrd

Chain of Custody
Documentation

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: Standard
 Turn-around Requested: Standard
 ARI Client Company: Floyd/Snyder Phone: 206-292-2078
 Client Contact: Matt Weitman / Megan McCullough
 Client Project Name: Lora Lake Apartments
 Client Project #: POS-LLA Samplers: D. Metallo / P. Heltzel

Date: 4-2-2010
 Page: 1 of 1
 No. of Coolers: 1
 Cooler Temps: 310

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)



Port of Seattle

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested	Notes/Comments
CB31A040210GRAB	4-2-10	0840	W	5	X	
CB4857040210GRAB	4-2-10	0935	W	13	X	run MS/MSD
CB1040210GRAB	4-2-10	0905	W	5	X	
CB102040210GRAB	4-2-10	0805	W	5	X	
TB040210	4-2-10	0815	W	3	X	Trip blank

Comments/Special Instructions
 ① Acid/silica gel clean up for NWTPH-Dx

Relinquished by: [Signature] Date & Time: 4/2/10 1155
 Printed Name: Dave Metallo Company: Taylor-Assoc. Inc.

Received by: [Signature] Date & Time: 4/2/10 1155
 Printed Name: A. Vokardsen Company: ARI

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: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSD/DAPSE/SMS protocol will be stored frozen for up to one year and then discarded.



Cooler Receipt Form

ARI Client: Floyd Snider
 COC No(s): _____ (NA)
 Assigned ARI Job No: _____

Project Name: Idle Lakes Apartment
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of 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) 3.6
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952

Cooler Accepted by: AV Date: 4/2/10 Time: 1155
 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 YES NO
 Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____
 Samples Logged by: [Signature] Date: 4/2/10 Time: 1400

**** 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:

By: _____ Date: _____

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Case Narrative

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.



Case Narrative

Client: Floyd Snider
Project: Lora Lake Apartments, POS-LLA
Matrix: Water
ARI Job No.: QR09

Sample receipt

Analytical Resources, Inc. (ARI) accepted four water samples and a trip blank on April 2, 2010 under ARI job QR09. The cooler temperature measured by IR thermometer following ARI SOP was 3.6°C. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

SIM Volatiles by SW8260C

The samples were analyzed within the method recommended holding time for preserved samples. Please note that the computer date was set incorrectly on 4/6 and 4/7. Dates have been hand corrected on the raw data for this report and are reported correctly on forms.

Initial calibrations and continuing calibrations were within limits for all target compounds. 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 and RPD were within control limits.

The matrix spike had recoveries high of limits for cis-1,2-Dichloroethene and Tetrachloroethene. The matrix spike duplicate recoveries and RPDs were within limits. No action is required for matrix QC.

NWTPH-Dx

The samples were extracted and analyzed within the method recommended holding time.

Initial calibrations and continuing calibrations were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS percent recovery of diesel was within limits.

The MS/MSD had recovery and RPD within limits.



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 ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 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



- 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

SURR SOLUTIONS

4/3/2010

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1706-2	ABN	100/150	MEOH	07/30/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C	1705-4	SIM ABN	25/37.5	MEOH	03/08/11
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	1707-2	1,4DIOXANE	100	MEOH	03/19/11
H	1723-2	OP-PEST	25	MEOH	04/02/11
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	1699-1	TPH	450	MECL2	07/02/10
P	1707-4	HCID	2250	MECL2	07/02/10
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	01/13/11
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					

LCS SOLUTIONS

4/3/2010

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1716-1	PCB 1660	20	ACETONE	03/30/11
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1705-3	PEST	02/04/20	ACETONE	03/08/11
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1702-2	PCP	12.5/125	ACETONE	02/18/11
7	1705-1	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	1698-2	ABN ACID	100/200	MECL2	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1698-1	ABN BASE	200	MEOH	07/24/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15	1716-2	SIM PNA	15/75	MEOH	03/30/11
16	1707-1	DIOXANE	100	MEOH	11/05/10
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	1702-4	HERB	12.5/12500	MEOH	04/17/10
23	1706-1	LW ABN BASE	20	MEOH	03/08/11
24	1696-1	LOW ABN	10	ACETONE	01/13/11
25#	1481-1	DIPHENYL	100	MEOH	NA
26	1723-3	OP-PEST	25	MEOH	11/20/10
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

LCS SOLUTIONS

4/3/2010

31	1707-3	TERPINEOL	100	MEOH	03/19/11
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	1696-3	DDTS	2.5	ACETONE	06/03/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
53	1703-3	DALAPON	50	MEOH	09/11/10
54	1701-2	PBDE	0.5	ACETONE	02/10/11
	#=PROJECT SPECIFIC SOLUTION				
	*=REVERIFIED SOLUTION				



Summary of Laboratory Control Limits

Default limits of 30-160% recovery and 30% RPD apply for all organic analytes when laboratory generated control limits are not available on ARI's web site. Default limits for all inorganic analytes are 75-125% recovery and 25% RPD.

ARI's laboratory generated Quality Control Limits may be superseded by project specific data quality objectives (DQO) provided by ARI's clients. The use of project specific DQO must be approved by ARI's Laboratory and QA Program Managers.



Spike Recovery Control Limits for SIM VOA EPA Method SW-846-8260C ^(1,2) Effective 12/24/07	
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	
Sample Matrix:	Water
Purge Volume:	10 mL
LCS Spike Recovery ⁽³⁾	
Vinyl Chloride	76 - 120
1,1-Dichloroethene	79 - 126
<i>cis</i> -1,2-Dichloroethene	76 - 127
Trichloroethene	79 - 120
Benzene	75 - 121
Tetrachloroethene	75 - 123
1,1,2,2-Tetrachloroethane	72 - 129
Method Blank/LCS Surrogate Recovery	
d4-1,2-Dichloroethane	80 - 133
d8-Toluene	80 - 121
Sample Surrogate Recovery	
d4-1,2-Dichloroethane	80 - 136
d8-Toluene	80 - 120

(1) Control limits calculated using historic data collected from 4/1/05 to 11/15/07

(2) Highlighted control limits (**bold font**) adjusted from the calculated values as follows:

- a) ARI does not use control limits < 10
- b) Control limits for analyzes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.

(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.



Spike Recovery Control Limits Hydrocarbon Identification (NWTPH-HCID) and Diesel Range Petroleum Hydrocarbons (NWTPH-D & AK-102) ⁽¹⁾ 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				
Method:	NWTPH-HCID ⁽²⁾	NWTPH-D		AK102 ⁽²⁾
Sample Matrix:	Water & Soil	Water	Soil	Water & Soil
Preparation:	500 to 1 mL	500 to 1 mL	10g to 1 mL	500 to 1 mL or 10g to 1 mL
LCS Spike Recovery ⁽³⁾				
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
Method Blank/LCS Surrogate Recovery				
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
Sample Surrogate Recovery				
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.

Data Summary Package

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09


prepared
by

Analytical Resources, Inc.

SIM VOLATILE ANALYSIS

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB31A040210GRAB
Page 1 of 1 **SAMPLE**

Lab Sample ID: QR09A
LIMS ID: 10-8553
Matrix: Water
Data Release Authorized: 
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 12:42

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	135%
d8-Toluene	104%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040210GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QR09B
LIMS ID: 10-8554
Matrix: Water
Data Release Authorized: *AS*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 13:07

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U


Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	134%
d8-Toluene	104%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB1040210GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QR09C
LIMS ID: 10-8555
Matrix: Water
Data Release Authorized: 
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 14:24

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U


Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	131%
d8-Toluene	105%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB102040210GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QR09D
LIMS ID: 10-8556
Matrix: Water
Data Release Authorized: 
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/08/10 19:55

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	113%
d8-Toluene	99.9%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: TB040210
Page 1 of 1 SAMPLE

Lab Sample ID: QR09E
LIMS ID: 10-8557
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 10:33

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	126%
d8-Toluene	103%

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA

<u>Client ID</u>	<u>DCE</u>	<u>TOL</u>	<u>TOT OUT</u>
MB-040710	128%	103%	0
LCS-040710	117%	102%	0
LCSD-040710	115%	103%	0
CB31A040210GRAB	135%	104%	0
CB4857040210GRAB	134%	104%	0
CB4857040210GRAB-MS	125%	104%	0
CB4857040210GRAB-MSD	98.7%	99.6%	0
CB1040210GRAB	131%	105%	0
MB-040810	100%	100%	0
LCS-040810	90.8%	99.2%	0
LCSD-040810	96.0%	100%	0
CB102040210GRAB	113%	99.9%	0
TB040210	126%	103%	0


	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(DCE) = d4-1,2-Dichloroethane	(80-133)	(80-136)
(TOL) = d8-Toluene	(80-121)	(80-120)

Prep Method: SW5030
Log Number Range: 10-8553 to 10-8557

FORM-II SW8260-SIM

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040210GRAB
Page 1 of 1 MATRIX SPIKE

Lab Sample ID: QR09B
LIMS ID: 10-8554
Matrix: Water
Data Release Authorized: 
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst MS: NT7/MH
MSD: NT7/MH
Date Analyzed MS: 04/07/10 13:58
MSD: 04/08/10 20:47

Sample Amount MS: 10.0 mL
MSD: 10.0 mL
Purge Volume MS: 10.0 mL
MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
1,2-Dichloroethane	< 0.020 U	1.56	1.00	156%	1.18	1.00	118%	27.7%
cis-1,2-Dichloroethene	< 0.020 U	1.30	1.00	130%	1.12	1.00	112%	14.9%
trans-1,2-Dichloroethene	< 0.020 U	1.29	1.00	129%	1.12	1.00	112%	14.1%
Trichloroethene	< 0.020 U	1.20	1.00	120%	1.09	1.00	109%	9.6%
Tetrachloroethene	< 0.020 U	1.28	1.00	128%	1.12	1.00	112%	13.3%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040210GRAB
Page 1 of 1 MATRIX SPIKE

Lab Sample ID: QR09B
LIMS ID: 10-8554
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 13:58

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	125%
d8-Toluene	104%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040210GRAB
 Page 1 of 1 MATRIX SPIKE DUP

Lab Sample ID: QR09B
 LIMS ID: 10-8554
 Matrix: Water
 Data Release Authorized: *[Signature]*
 Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
 Project: Lora Lake Apartments
 POS-LLA
 Date Sampled: 04/02/10
 Date Received: 04/02/10

Instrument/Analyst: NT7/MH
 Date Analyzed: 04/08/10 20:47

Sample Amount: 10.0 mL
 Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.7%
d8-Toluene	99.6%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-040710
 Page 1 of 1 LAB CONTROL SAMPLE

Lab Sample ID: LCS-040710
 LIMS ID: 10-8553
 Matrix: Water
 Data Release Authorized: *[Signature]*
 Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
 Project: Lora Lake Apartments
 POS-LLA
 Date Sampled: NA
 Date Received: NA

Instrument/Analyst LCS: NT7/MH
 LCSD: NT7/MH
 Date Analyzed LCS: 04/07/10 07:14
 LCSD: 04/07/10 07:40

Sample Amount LCS: 10.0 mL
 LCSD: 10.0 mL
 Purge Volume LCS: 10.0 mL
 LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,2-Dichloroethane	1.29	1.00	129%	1.28	1.00	128%	0.8%
cis-1,2-Dichloroethene	1.04	1.00	104%	1.03	1.00	103%	1.0%
trans-1,2-Dichloroethene	1.05	1.00	105%	1.03	1.00	103%	1.9%
Trichloroethene	1.06	1.00	106%	1.05	1.00	105%	0.9%
Tetrachloroethene	1.15	1.00	115%	1.14	1.00	114%	0.9%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	117%	115%
d8-Toluene	102%	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-040810
Page 1 of 1 LAB CONTROL SAMPLE

Lab Sample ID: LCS-040810
LIMS ID: 10-8556
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snyder
Project: Lora Lake Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT7/MH
LCS: NT7/MH
Date Analyzed LCS: 04/08/10 17:41
LCS: 04/08/10 18:06

Sample Amount LCS: 10.0 mL
LCS: 10.0 mL
Purge Volume LCS: 10.0 mL
LCS: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCS	LCS Recovery	RPD
1,2-Dichloroethane	0.944	1.00	94.4%	0.980	1.00	98.0%	3.7%
cis-1,2-Dichloroethene	0.934	1.00	93.4%	0.962	1.00	96.2%	3.0%
trans-1,2-Dichloroethene	0.923	1.00	92.3%	0.954	1.00	95.4%	3.3%
Trichloroethene	0.941	1.00	94.1%	0.936	1.00	93.6%	0.5%
Tetrachloroethene	0.976	1.00	97.6%	0.954	1.00	95.4%	2.3%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCS
d4-1,2-Dichloroethane	90.8%	96.0%
d8-Toluene	99.2%	100%

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QR09
 Lab File ID: 04071008
 Date Analyzed: ~~04/06/10~~ 4/7/10 9:41/10
 Instrument ID: NT7

Client: FLOYD/SNIDER
 Project: POS-LLA
 Lab Sample ID: MB0407
 Time Analyzed: 0957
 Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LCS0407	LCS0407	04071003	0714
02	LCSD0407	LCSD0407	04071004	0740
03	TB040210	QR09E	04071009	1033
04	CB31A040210G	QR09A	04071014	1242
05	CB4857040210	QR09B	04071015	1307
06	CB4857040210	QR09BMSD	04071017	1358
07	CB1040210GRA	QR09C	04071018	1424
08				
09				
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COMMENTS:

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: MB-040710
Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-040710
LIMS ID: 10-8553
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 09:57

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	128%
d8-Toluene	103%

VOLATILE METHOD BLANK SUMMARY

[Empty box for Method Blank ID]

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QR09

Project: POS-LLA

Lab File ID: 04081012

Lab Sample ID: MB0408

Date Analyzed: ~~04/07/10~~ 4/8/10
2-2/16/10

Time Analyzed: 1832

Instrument ID: NT7

Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01		LCS0408	04081010	1741
02		LCSD0408	04081011	1806
03	CB102040210G	QR09D	04081015	1955
04	CB4857040210	QR09BMSD	04081017	2047
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COMMENTS:

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: MB-040810
Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-040810
LIMS ID: 10-8556
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/MH
Date Analyzed: 04/08/10 18:32

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	100%
d8-Toluene	100%

TPHD ANALYSIS

ORGANICS ANALYSIS DATA SHEET

TOTAL DIESEL RANGE HYDROCARBONS

NWTPHD by GC/FID-Silica and Acid Cleaned


Page 1 of 1

Matrix: Water

QC Report No: QR09-Floyd/Snider

Project: Lora Lake Apartments

POS-LLA

Data Release Authorized: 

Reported: 04/08/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
QR09A 10-8553	CB31A040210GRAB HC ID: MOTOR OIL	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U 0.55 62.5%
MB-040510 10-8554	Method Blank HC ID: ---	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 64.0%
QR09B 10-8554	CB4857040210GRAB HC ID: ---	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 63.8%
QR09C 10-8555	CB1040210GRAB HC ID: ---	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 64.5%
QR09D 10-8556	CB102040210GRAB HC ID: ---	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 68.4%

Reported in mg/L (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: Water

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
CB31A040210GRAB	62.5%	0
MB-040510	64.0%	0
LCS-040510	73.4%	0
CB4857040210GRAB	63.8%	0
CB4857040210GRAB MS	74.7%	0
CB4857040210GRAB MSD	68.8%	0
CB1040210GRAB	64.5%	0
CB102040210GRAB	68.4%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(OTER) = o-Terphenyl	(51-120)	(41-121)

Prep Method: SW3510C
Log Number Range: 10-8553 to 10-8556

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: CB4857040210GRAB
MS/MSD

Lab Sample ID: QR09B
LIMS ID: 10-8554
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/08/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LIA
Date Sampled: 04/02/10
Date Received: 04/02/10

Date Extracted MS/MSD: 04/05/10

Sample Amount MS: 500 mL
MSD: 500 mL

Date Analyzed MS: 04/06/10 20:22
MSD: 04/06/10 20:39

Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL

Instrument/Analyst MS: FID/MS
MSD: FID/MS

Dilution Factor MS: 1.00
MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 0.25	1.96	3.00	65.3%	1.86	3.00	62.0%	5.2%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	74.7%	68.8%

Results reported in mg/L
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Sample ID: LCS-040510

Page 1 of 1

LAB CONTROL

Lab Sample ID: LCS-040510


QC Report No: QR09-Floyd/Snider

LIMS ID: 10-8554

Project: Lora Lake Apartments

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: 04/02/10

Reported: 04/08/10

Date Received: 04/02/10

Date Extracted: 04/05/10

Sample Amount: 500 mL

Date Analyzed: 04/06/10 19:31

Final Extract Volume: 1.0 mL

Instrument/Analyst: FID/MS

Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	1.82	3.00	60.7%

TPHD Surrogate Recovery

o-Terphenyl 73.4%

Results reported in mg/L

4
TPH METHOD BLANK SUMMARY

BLANK NO.

QR09MBW1

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER
SDG No.: QR09 Project No.: LLA
Date Extracted: 04/05/10 Matrix: LIQUID
Date Analyzed : 04/06/10 Instrument ID : FID3A
Time Analyzed : 1914

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QR09LCSW1	QR09LCSW1	04/06/10
02	CB31A040210G	QR09A	04/06/10
03	CB4857040210	QR09B	04/06/10
04	CB4857040210	QR09BMS	04/06/10
05	CB4857040210	QR09BMSD	04/06/10
06	CB1040210GRA	QR09C	04/06/10
07	CB102040210G	QR09D	04/06/10

Laboratory Data Package

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

SIM Volatile Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA

<u>Client ID</u>	<u>DCE</u>	<u>TOL</u>	<u>TOT OUT</u>
MB-040710	128%	103%	0
LCS-040710	117%	102%	0
LCSD-040710	115%	103%	0
CB31A040210GRAB	135%	104%	0
CB4857040210GRAB	134%	104%	0
CB4857040210GRAB-MS	125%	104%	0
CB4857040210GRAB-MSD	98.7%	99.6%	0
CB1040210GRAB	131%	105%	0
MB-040810	100%	100%	0
LCS-040810	90.8%	99.2%	0
LCSD-040810	96.0%	100%	0
CB102040210GRAB	113%	99.9%	0
TB040210	126%	103%	0

	LCS/MB LIMITS	QC LIMITS
(DCE) = d4-1,2-Dichloroethane	(80-133)	(80-136)
(TOL) = d8-Toluene	(80-121)	(80-120)

Prep Method: SW5030
Log Number Range: 10-8553 to 10-8557

FORM-II SW8260-SIM

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040210GRAB
Page 1 of 1 MATRIX SPIKE

Lab Sample ID: QR09B
LIMS ID: 10-8554
Matrix: Water
Data Release Authorized: *RS*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst MS: NT7/MH
MSD: NT7/MH
Date Analyzed MS: 04/07/10 13:58
MSD: 04/08/10 20:47

Sample Amount MS: 10.0 mL
MSD: 10.0 mL
Purge Volume MS: 10.0 mL
MSD: 10.0 mL


Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
1,2-Dichloroethane	< 0.020 U	1.56	1.00	156%	1.18	1.00	118%	27.7%
cis-1,2-Dichloroethene	< 0.020 U	1.30	1.00	130%	1.12	1.00	112%	14.9%
trans-1,2-Dichloroethene	< 0.020 U	1.29	1.00	129%	1.12	1.00	112%	14.1%
Trichloroethene	< 0.020 U	1.20	1.00	120%	1.09	1.00	109%	9.6%
Tetrachloroethene	< 0.020 U	1.28	1.00	128%	1.12	1.00	112%	13.3%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-040710
 Page 1 of 1 LAB CONTROL SAMPLE

Lab Sample ID: LCS-040710
 LIMS ID: 10-8553
 Matrix: Water
 Data Release Authorized: 
 Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
 Project: Lora Lake Apartments
 POS-LLA
 Date Sampled: NA
 Date Received: NA

Instrument/Analyst LCS: NT7/MH
 LCSD: NT7/MH
 Date Analyzed LCS: 04/07/10 07:14
 LCSD: 04/07/10 07:40

Sample Amount LCS: 10.0 mL
 LCSD: 10.0 mL
 Purge Volume LCS: 10.0 mL
 LCSD: 10.0 mL

Analyte	LCS	Spike	LCS	LCS	Spike	LCS	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	
1,2-Dichloroethane	1.29	1.00	129%	1.28	1.00	128%	0.8%
cis-1,2-Dichloroethene	1.04	1.00	104%	1.03	1.00	103%	1.0%
trans-1,2-Dichloroethene	1.05	1.00	105%	1.03	1.00	103%	1.9%
Trichloroethene	1.06	1.00	106%	1.05	1.00	105%	0.9%
Tetrachloroethene	1.15	1.00	115%	1.14	1.00	114%	0.9%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	117%	115%
d8-Toluene	102%	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-040810

Page 1 of 1

LAB CONTROL SAMPLE

Lab Sample ID: LCS-040810


QC Report No: QR09-Floyd/Snider

LIMS ID: 10-8556

Project: Lora Lake Apartments

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 04/16/10

Date Received: NA

Instrument/Analyst LCS: NT7/MH

Sample Amount LCS: 10.0 mL

LCS: NT7/MH

LCS: 10.0 mL

Date Analyzed LCS: 04/08/10 17:41

Purge Volume LCS: 10.0 mL

LCS: 04/08/10 18:06

LCS: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
1,2-Dichloroethane	0.944	1.00	94.4%	0.980	0.980	1.00	98.0%	3.7%
cis-1,2-Dichloroethene	0.934	1.00	93.4%	0.962	0.962	1.00	96.2%	3.0%
trans-1,2-Dichloroethene	0.923	1.00	92.3%	0.954	0.954	1.00	95.4%	3.3%
Trichloroethene	0.941	1.00	94.1%	0.936	0.936	1.00	93.6%	0.5%
Tetrachloroethene	0.976	1.00	97.6%	0.954	0.954	1.00	95.4%	2.3%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	90.8%	96.0%
d8-Toluene	99.2%	100%

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QR09
 Lab File ID: 04071008
 Date Analyzed: ~~04/06/10~~ 4/7/10 *24/10/10*
 Instrument ID: NT7

Client: FLOYD/SNIDER
 Project: POS-LLA
 Lab Sample ID: MB0407
 Time Analyzed: 0957
 Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LCS0407	LCS0407	04071003	0714
02	LCSD0407	LCSD0407	04071004	0740
03	TB040210	QR09E	04071009	1033
04	CB31A040210G	QR09A	04071014	1242
05	CB4857040210	QR09B	04071015	1307
06	CB4857040210	QR09BMSD	04071017	1358
07	CB1040210GRA	QR09C	04071018	1424
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
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28				
29				
30				

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QR09

Project: POS-LLA

Lab File ID: 04081012

Lab Sample ID: MB0408

Date Analyzed: ~~04/07/10~~ 4/8/10

Time Analyzed: 1832

Instrument ID: NT7

Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01		LCS0408	04081010	1741
02		LCSD0408	04081011	1806
03	CB102040210G	QR09D	04081015	1955
04	CB4857040210	QR09BMSD	04081017	2047
05				
06				
07				
08				
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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.: POS-LLA SDG No.: QR09

Lab File ID: 04071001

BFB Injection Date: ~~04/06/10~~ 4/7/10

Instrument ID: NT7

BFB Injection Time: 0610

GC Column: RTXVMS ID: 0.18 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.1
75	30.0 - 66.0% of mass 95	44.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	50.0 - 101.0% of mass 95	69.4
175	4.0 - 9.0% of mass 174	5.1 (7.3)1
176	93.0 - 101.0% of mass 174	67.6 (97.3)1
177	5.0 - 9.0% of mass 176	4.9 (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	CC0407	CC0407	04071002	04/06/10	0640
02	LCS0407	LCS0407	04071003	04/06/10	0714
03	LCSD0407	LCSD0407	04071004	04/06/10	0740
04	MB0407	MB0407	04071008	04/06/10	0957
05	TB040210	QR09E	04071009	04/06/10	1033
06	CB31A040210GRAB	QR09A	04071014	04/06/10	1242
07	CB4857040210GRAB	QR09B	04071015	04/06/10	1307
08	CB4857040210GRA	QR09BMSD	04071017	04/06/10	1358
09	CB1040210GRAB	QR09C	04071018	04/06/10	1424
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.: POS-LLA SDG No.: QR09

Lab File ID: 04081001

BFB Injection Date: ~~04/07/10~~ 4/8/10

Instrument ID: NT7

BFB Injection Time: 1326

GC Column: RTXVMS ID: 0.18 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.8
75	30.0 - 66.0% of mass 95	44.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.3 (0.5)1
174	50.0 - 101.0% of mass 95	72.4
175	4.0 - 9.0% of mass 174	4.9 (6.7)1
176	93.0 - 101.0% of mass 174	67.7 (93.5)1
177	5.0 - 9.0% of mass 176	4.3 (6.3)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	20 PPT	00200408	04081002	04/08/10	1401
02	50 PPT	00500408	04081003	04/08/10	1427
03	100 PPT	01000408	04081004	04/08/10	1453
04	500 PPT	05000408	04081005	04/08/10	1518
05	1 PPB	10000408	04081006	04/08/10	1544
06	2 PPB	20000408	04081007	04/08/10	1610
07	4 PPB	40000408	04081008	04/08/10	1635
08	ICV0408	ICV0408	04081009	04/08/10	1701
09	LCS0408	LCS0408	04081010	04/08/10	1741
10	LCSD0408	LCSD0408	04081011	04/08/10	1806
11	MB0408	MB0408	04081012	04/08/10	1832
12	CB102040210GRAB	QR09D	04081015	04/08/10	1955
13	CB4857040210GRA	QR09BMSD	04081017	04/08/10	2047
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC
ARI Job No: QR09
Ical Midpoint ID: 03181012
Instrument ID: NT7

Client: FLOYD/SNIDER
Project: POS-LLA
Ical Date: 03/18/10
Project Run Date: ^{4/7/10}~~04/06/10~~

	IS1 (PFB) AREA #	RT #	IS2 (DFB) AREA #	RT #	AREA #	RT #
ICAL MIDPT	415601	5.32	615588	5.75		
UPPER LIMIT	831202	5.82	1231176	6.25		
LOWER LIMIT	207800	4.82	307794	5.25		
Sample ID						
01 LCS0407	488132	5.32	720131	5.75		
02 LCSD0407	481497	5.32	706343	5.75		
03 MB0407	444935	5.32	671015	5.75		
04 TB040210	451842	5.32	680239	5.75		
05 CB31A040210G	399209	5.32	622746	5.75		
06 CB4857040210	409009	5.32	638734	5.75		
07 CB4857040210	417536	5.32	664673	5.75		
08 CB1040210GRA	409944	5.32	647623	5.74		
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene

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
ARI Job No: QR09
Ical Midpoint ID: 04081005
Instrument ID: NT7

Client: FLOYD/SNIDER
Project: POS-LLA
Ical Date: ~~04/07/10~~ ^{4/8/10}
Project Run Date: ~~04/07/10~~ ^{4/8/10}

	IS1 (PFB) AREA #	RT #	IS2 (DFB) AREA #	RT #	AREA #	RT #
ICAL MIDPT	488851	5.32	692622	5.75		
UPPER LIMIT	977702	5.82	1385244	6.25		
LOWER LIMIT	244426	4.82	346311	5.25		
Sample ID						
01 ICV0408	512463	5.32	694540	5.75		
02 LCS0408	511444	5.32	694190	5.75		
03 LCSD0408	468486	5.32	666502	5.75		
04 MB0408	450748	5.32	607207	5.75		
05 CB102040210G	405130	5.33	571759	5.75		
06 CB4857040210	400275	5.33	570529	5.76		
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene

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.

SIM Volatile Analysis
Sample Data

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA


ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB31A040210GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QR09A
LIMS ID: 10-8553
Matrix: Water
Data Release Authorized: 
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 12:42

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	135%
d8-Toluene	104%

MH
4/14/10

Data File: /chem1/nt7.i/07apr2010.b/04071014.d
Report Date: 14-Apr-2010 14:54

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/07apr2010.b/04071014.d
Lab Smp Id: QR09A Client Smp ID: CB31A040210GRAB
Inj Date : 06-APR-2010 12:42
Operator : MH Inst ID: nt7.i
Smp Info : QR09A,10,10,0
Misc Info : 10-8553
Comment :
Method : /chem1/nt7.i/07apr2010.b/sim031810.m
Meth Date : 14-Apr-2010 14:53 monicah Quant Type: ISTD
Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62						
2 1,1-Dichloroethene	96						
175 Trans-1,2-Dichloroethene	96						
3 cis-1,2-dichloroethene	96						
6 Benzene	78	5.209	5.211	(0.907)	15110	17.9540	17.954
* 4 Pentafluorobenzene	168	5.315	5.317	(1.000)	399209	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.327	5.328	(1.002)	195730	1353.20	1353.2(R)
176 1,2-Dichloroethane	62	5.386	5.375	(1.013)	722	3.81968	3.820(Q)
8 Trichloroethene	130						
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	622746	1000.00	
\$ 9 d8-Toluene	98	6.902	6.902	(1.201)	733207	1035.17	1035.2
10 Tetrachloroethene	166						
11 1,1,2,2-Tetrachloroethane	83						

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: nt7.i
Lab File ID: 04071014.d
Lab Smp Id: QR09A
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-8553

Calibration Date: 07^{7 MH 4/21}-APR-2010
Calibration Time: 06:40
Client Smp ID: CB31A040210GRAB
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	399209	-8.59
7 1,4-Difluorobenze	618992	309496	1237984	622746	0.61

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.03
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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: LIQUID
Lab Smp Id: QR09A
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-8553

Client SDG: QR09
Fraction: VOA
Client Smp ID: CB31A040210GRAB
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1353.2	135.32*	76-119
\$ 9 d8-Toluene	1000.0	1035.2	103.52	60-140

Data File: /chem1/nt7.1/07apr2010.b/04071014.d

Date : 05-APR-2010 12:42

Client ID: CB3160402100RAB

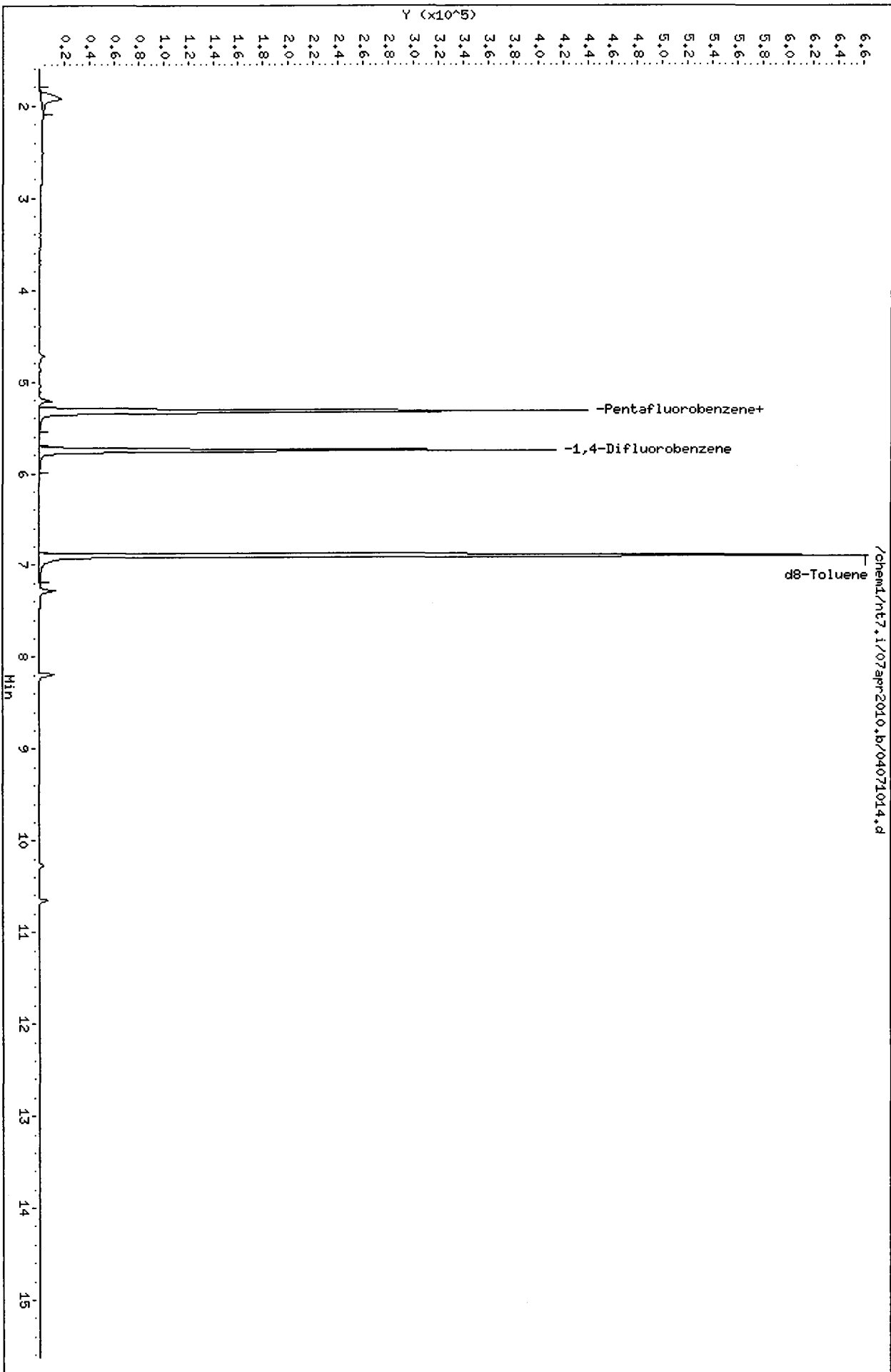
Sample Info: QR09A,10,10,0

Column phase: RTXVMS

Instrument: nt7.1

Operator: HH

Column diameter: 0.18



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ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040210GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QR09B
LIMS ID: 10-8554
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 13:07

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	134%
d8-Toluene	104%

4/14/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/07apr2010.b/04071015.d
 Lab Smp Id: QR09B Client Smp ID: CB4857040210GRAB
 Inj Date : 07-APR-2010 13:07
 Operator : MH^{4/14/10} Inst ID: nt7.i
 Smp Info : QR09B,10,10,0
 Misc Info : 10-8554
 Comment :
 Method : /chem1/nt7.i/07apr2010.b/sim031810.m
 Meth Date : 14-Apr-2010 14:53 monicah Quant Type: ISTD
 Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78		5.210	5.211	(0.907)	10594	12.2728	12.273
* 4 Pentafluorobenzene	168		5.316	5.317	(1.000)	409009	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.002)	198713	1340.90	1340.9(R)
176 1,2-Dichloroethane	62		5.387	5.375	(1.013)	754	3.89295	3.893(Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.745	5.746	(1.000)	638734	1000.00	
\$ 9 d8-Toluene	98		6.891	6.902	(1.199)	759300	1045.18	1045.2
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

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: nt7.i
Lab File ID: 04071015.d
Lab Smp Id: QR09B
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-8554

Calibration Date: 07^{7 MH 4/21}-APR-2010
Calibration Time: 06:40
Client Smp ID: CB4857040210GRAB
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	409009	-6.34
7 1,4-Difluorobenze	618992	309496	1237984	638734	3.19

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

RECOVERY REPORT

Client Name: Floyd/Snider
Sample Matrix: LIQUID
Lab Smp Id: QR09B
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-8554

Client SDG: QR09
Fraction: VOA
Client Smp ID: CB4857040210GRAB
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1340.9	134.09*	76-119
\$ 9 d8-Toluene	1000.0	1045.2	104.52	60-140

Data File: /chem/nt7.1/07apr2010.b/04071015.d

Date: 06-APR-2010 13:07

Client ID: CB4857040210GRAB

Sample Info: QRO9B.10.10.0

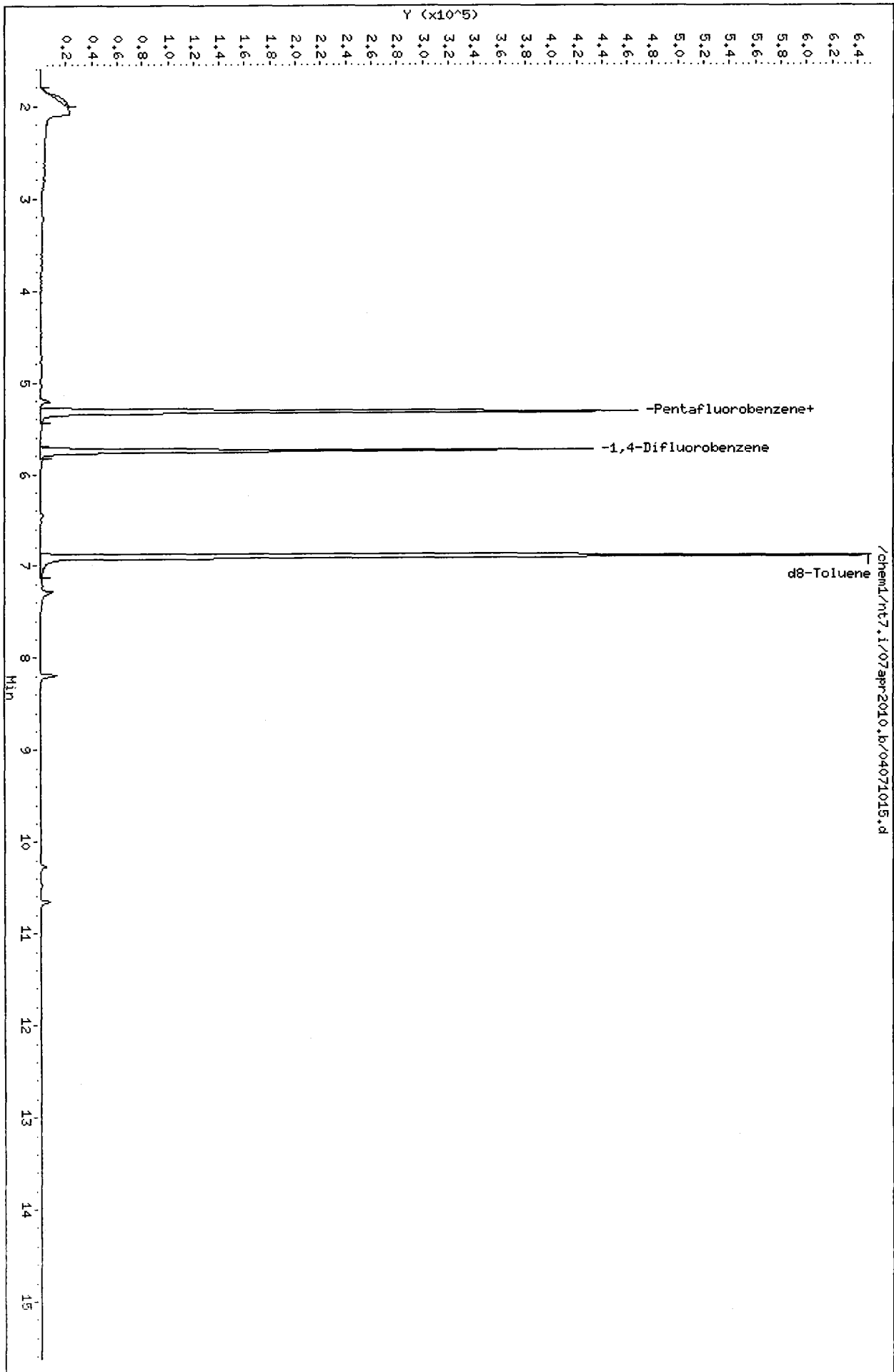
Column phase: RTXWHS

Page 5

Instrument: nt7.i

Operator: HH

Column diameter: 0.18



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ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB1040210GRAB
Page 1 of 1 SAMPLE

Lab Sample ID: QR09C
LIMS ID: 10-8555
Matrix: Water
Data Release Authorized: *AS*
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/07/10 14:24

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	131%
d8-Toluene	105%

Mt.
4/14/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/07apr2010.b/04071018.d
 Lab Smp Id: QR09C Client Smp ID: CB1040210GRAB
 Inj Date : 06-APR-2010 14:24
 Operator : MH Inst ID: nt7.i
 Smp Info : QR09C,10,10,0
 Misc Info : 10-8555
 Comment :
 Method : /chem1/nt7.i/07apr2010.b/sim031810.m
 Meth Date : 14-Apr-2010 14:53 monicah Quant Type: ISTD
 Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78		5.210	5.211	(0.907)	10974	12.5385	12.538
* 4 Pentafluorobenzene	168		5.316	5.317	(1.000)	409944	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.327	5.328	(1.002)	194929	1312.36	1312.4(R)
176 1,2-Dichloroethane	62		5.374	5.375	(1.011)	869	4.47730	4.477(Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.745	5.746	(1.000)	647623	1000.00	
\$ 9 d8-Toluene	98		6.891	6.902	(1.200)	772535	1048.80	1048.8
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83		9.469	9.445	(1.648)	1498	10.4196	10.420

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: nt7.i
Lab File ID: 04071018.d
Lab Smp Id: QR09C
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-8555

Calibration Date: ^{07 MH 4/1} ~~06~~-APR-2010
Calibration Time: 06:40
Client Smp ID: CB1040210GRAB
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	409944	-6.13
7 1,4-Difluorobenze	618992	309496	1237984	647623	4.63

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.74	-0.02

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: QR09C
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-8555

Client SDG: QR09
Fraction: VOA
Client Smp ID: CB1040210GRAB
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1312.4	131.24*	76-119
\$ 9 d8-Toluene	1000.0	1048.8	104.88	60-140

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB102040210GRAB

Page 1 of 1

SAMPLE

Lab Sample ID: QR09D


QC Report No: QR09-Floyd/Snider

LIMS ID: 10-8556

Project: Lora Lake Apartments

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: 04/02/10

Reported: 04/16/10

Date Received: 04/02/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/08/10 19:55

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	113%
d8-Toluene	99.9%

M
4/14/10

Analytical Resources, Inc.

SW8260C SIM
 Data file : /chem1/nt7.i/08apr2010.b/04081015.d
 Lab Smp Id: QR09D Client Smp ID: CB102040210GRAB
 Inj Date : 07-APR-2010 19:55
 Operator : MH ^{MH 4/21} Inst ID: nt7.i
 Smp Info : QR09D,10,10,0
 Misc Info : 10-8556
 Comment :
 Method : /chem1/nt7.i/08apr2010.b/sim040810.m
 Meth Date : 14-Apr-2010 14:57 monicah Quant Type: ISTD
 Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78							
* 4 Pentafluorobenzene	168		5.328	5.317	(1.000)	405130	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.000)	189407	1129.34	1129.3
176 1,2-Dichloroethane	62		5.387	5.375	(1.011)	614	2.73947	2.739(Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.746	5.746	(1.000)	571759	1000.00	
\$ 9 d8-Toluene	98		6.901	6.902	(1.201)	657139	998.920	998.92
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081015.d
 Lab Smp Id: QR09D
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-8556

Calibration Date: ^{8 MH 4/6/}07-APR-2010
 Calibration Time: 15:44
 Client Smp ID: CB102040210GRAB
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	405130	-19.26
7 1,4-Difluorobenze	711657	355828	1423314	571759	-19.66

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.33	0.21
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

RECOVERY REPORT

Client Name: Floyd/Snider
Sample Matrix: LIQUID
Lab Smp Id: QR09D
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-8556

Client SDG: QR09
Fraction: VOA
Client Smp ID: CB102040210GRAB
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1129.3	112.93	76-119
\$ 9 d8-Toluene	1000.0	998.92	99.89	60-140

Data File: /chem1/nt7.1/08apr2010.b/04081015.d

Date : 07-APR-2010 19:55

Client ID: CB1020402106RA8

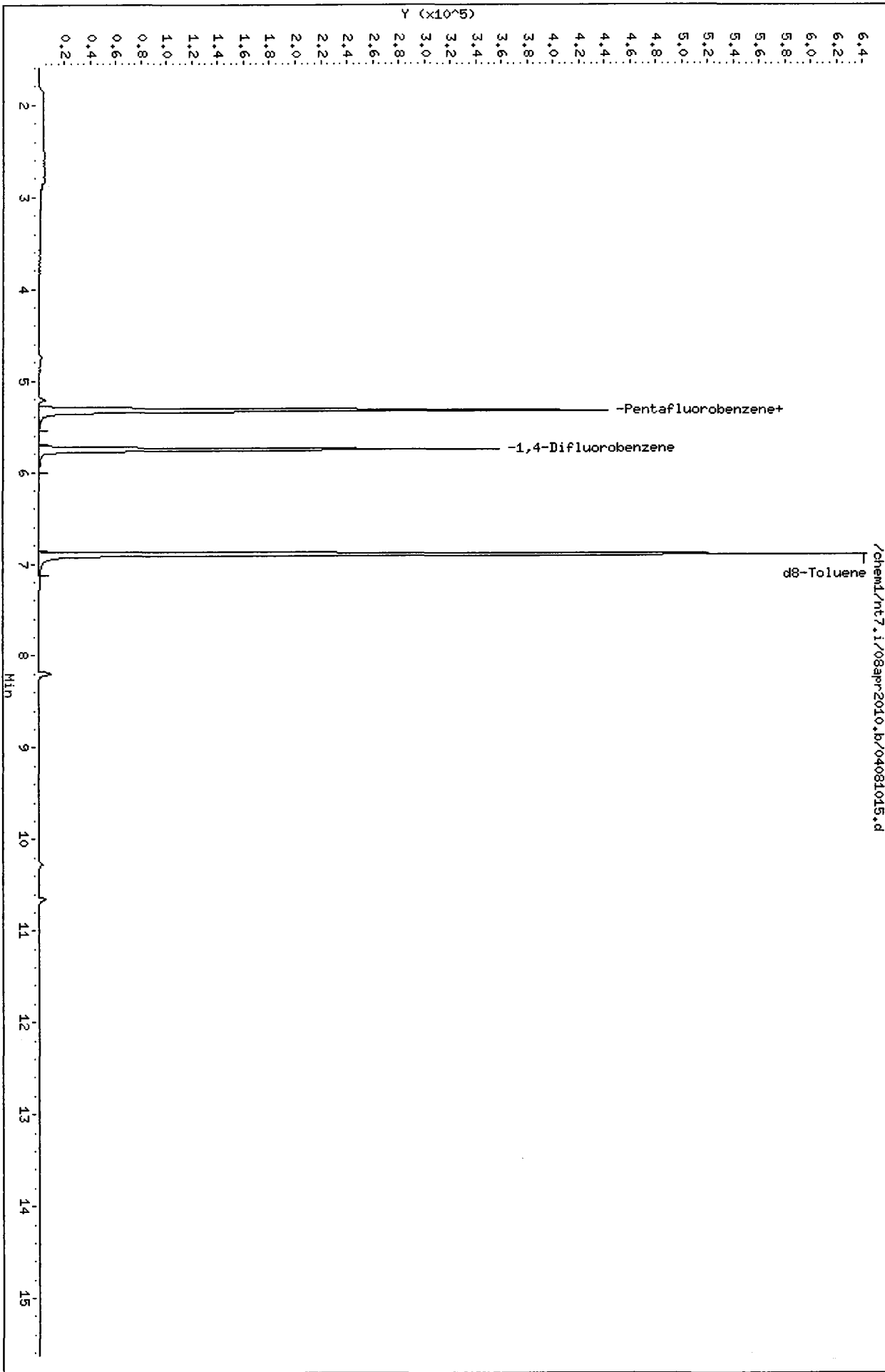
Sample Info: DR09D.10.10.0

Column phase: RTXVHS

Instrument: nt7.1

Operator: NH

Column diameter: 0.18



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ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: TB040210
Page 1 of 1 SAMPLE

Lab Sample ID: QR09E

LIMS ID: 10-8557

Matrix: Water

Data Release Authorized: 

Reported: 04/16/10

QC Report No: QR09-Floyd/Snider

Project: Lora Lake Apartments

POS-LLA

Date Sampled: 04/02/10

Date Received: 04/02/10

Instrument/Analyst: NT7/MH

Date Analyzed: 04/07/10 10:33

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	126%
d8-Toluene	103%

M.
4/14/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/07apr2010.b/04071009.d
 Lab Smp Id: QR09E Client Smp ID: TB040210
 Inj Date : 07-APR-2010 10:33
 Operator : MH ^{7/4/2r} Inst ID: nt7.i
 Smp Info : QR09E,10,10,0
 Misc Info : 10-8557
 Comment :
 Method : /chem1/nt7.i/07apr2010.b/sim031810.m
 Meth Date : 14-Apr-2010 14:53 monicah Quant Type: ISTD
 Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78							
* 4 Pentafluorobenzene	168		5.316	5.317	(1.000)	451842	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.002)	205860	1257.45	1257.4 (R)
176 1,2-Dichloroethane	62		5.375	5.375	(1.011)	211	0.98755	0.9876 (Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.746	5.746	(1.000)	680239	1000.00	
\$ 9 d8-Toluene	98		6.891	6.902	(1.199)	798659	1032.28	1032.3
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

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: nt7.i
Lab File ID: 04071009.d
Lab Smp Id: QR09E
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-8557

Calibration Date: 08-APR-2010 ^{7 MH 4/21}
Calibration Time: 06:40
Client Smp ID: TB040210
Level: LOW
Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	451842	3.46
7 1,4-Difluorobenze	618992	309496	1237984	680239	9.89

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

RECOVERY REPORT

Client Name: Floyd/Snider
Sample Matrix: LIQUID
Lab Smp Id: QR09E
Level: LOW
Data Type: MS DATA
SpikeList File: special.spk
Sublist File: all.sub
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-8557

Client SDG: QR09
Fraction: VOA
Client Smp ID: TB040210
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1257.4	125.74*	76-119
\$ 9 d8-Toluene	1000.0	1032.3	103.23	60-140

Data File: /chem1/nt7.i/07apr2010.b/04071009.d

Date : 07-PPF-2010 10:33

Client ID: TB040216

Sample Info: QRO9E.10.10.0

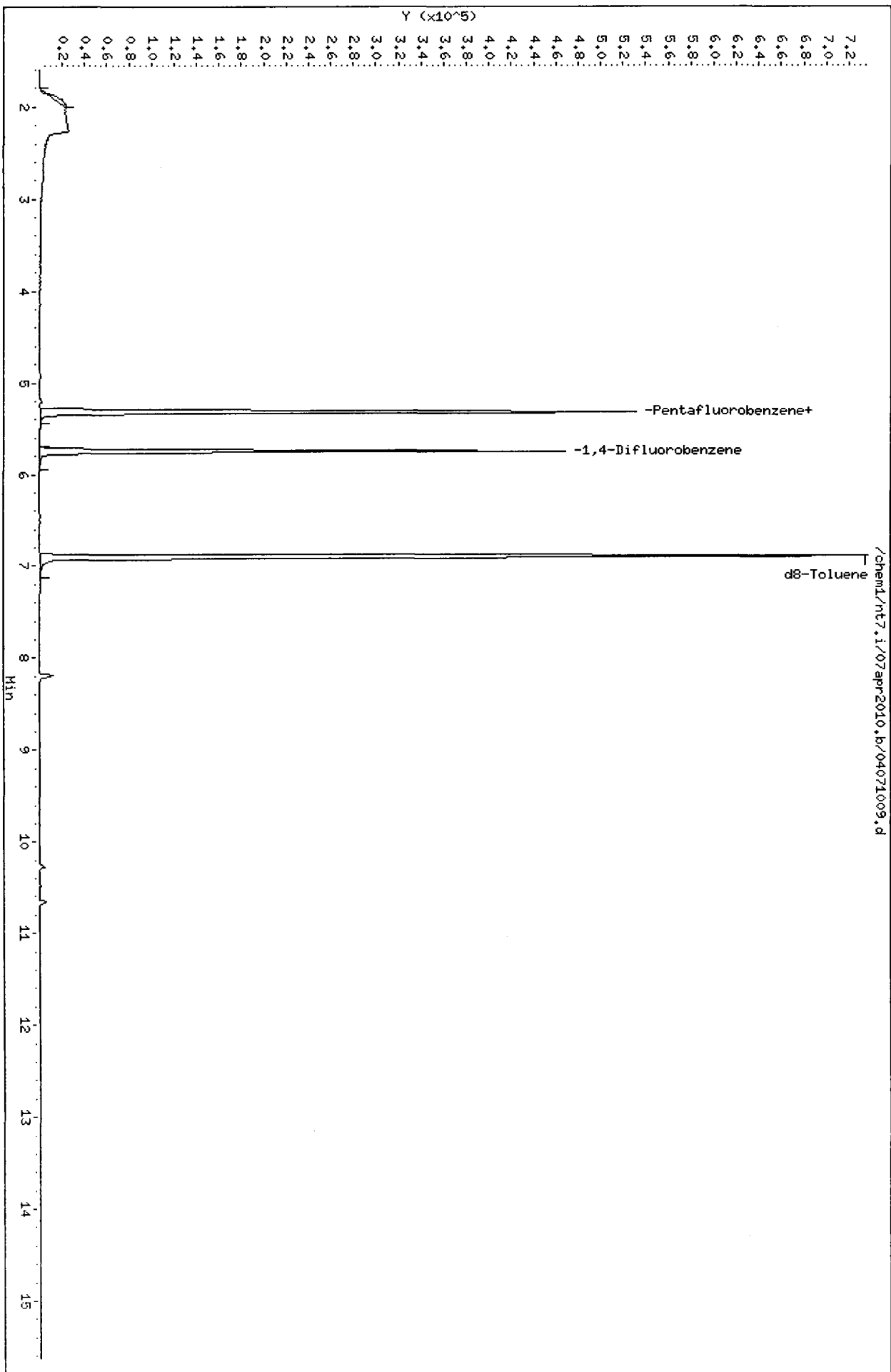
Column phase: RTXVMS

Instrument: nt7.i

Operator: HH

Column diameter: 0.18

Page 5



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Date : 06-APR-2010 10:33

Client ID: TB040210

Instrument: nt7.i

Sample Info: QR09E,10,10,0

Operator: MH

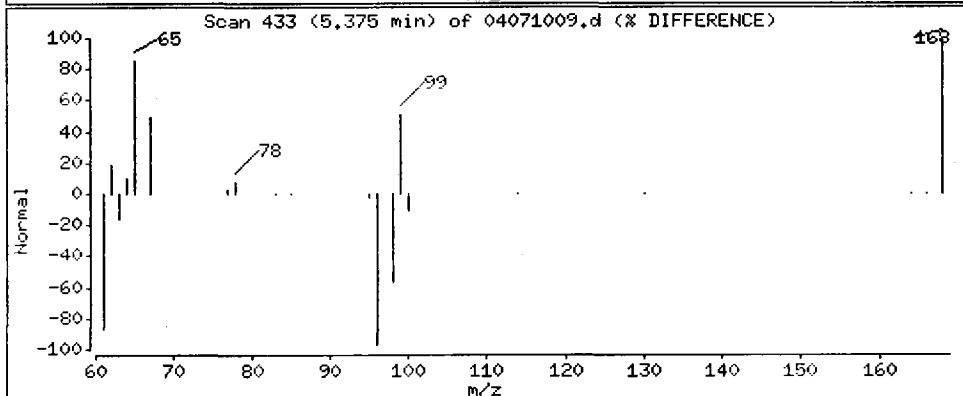
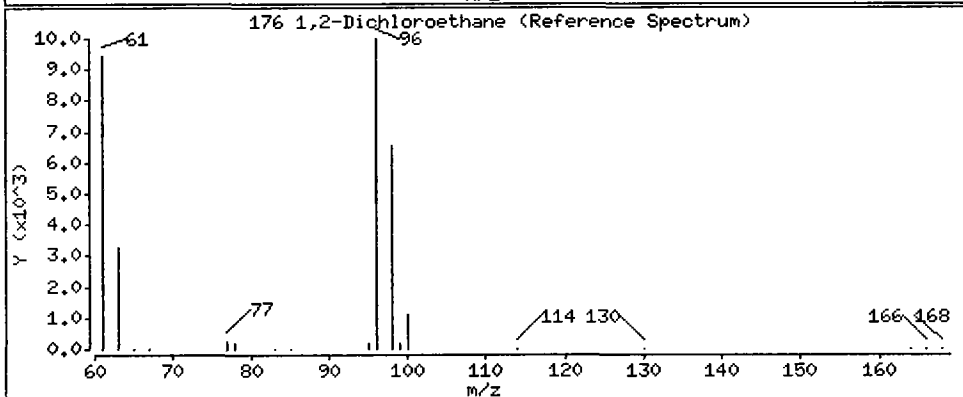
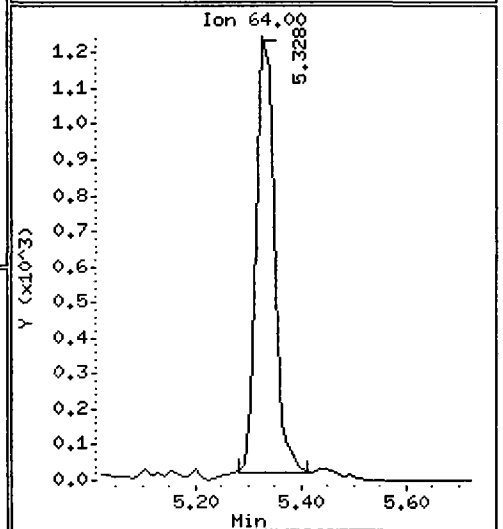
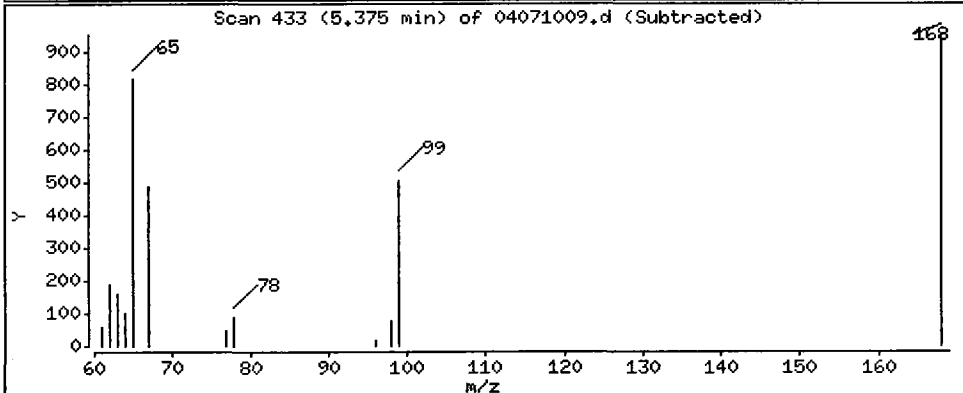
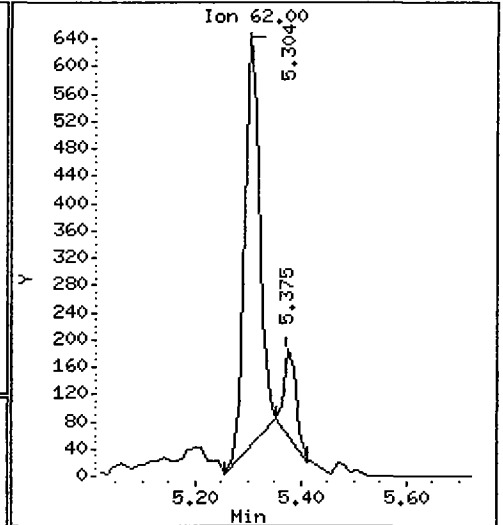
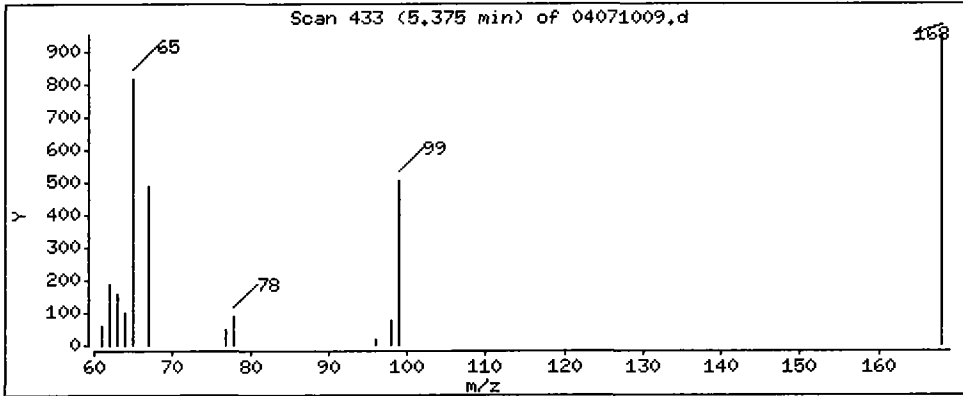
Column phase: RTXVMS

Column diameter: 0.18

176 1,2-Dichloroethane

Concentration: 0.9876 ug/L

MH



SIM Volatile Analysis
Standard Raw Data

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QR09

Project: POS-LLA

Instrument ID: NT7

Calibration Date: 03/18/10

LAB FILE ID: RF20: 03181008 RF50: 03181007 RF100: 03181006
RF500: 03181012 RF1000: 03181011

COMPOUND	RF20	RF50	RF100	RF500	RF1000
Vinyl Chloride	0.484		0.508	0.544	0.538
1,1-Dichloroethene	0.425		0.408	0.446	0.435
cis-1,2-dichloroethene	0.457		0.456	0.498	0.496
Benzene	1.396		1.302	1.367	1.405
Trichloroethene	0.356		0.334	0.350	0.363
Tetrachloroethene	0.307		0.309	0.333	0.346
1,1,2,2-Tetrachloroethane	0.180		0.197	0.224	0.245
Trans-1,2-Dichloroethene	0.466		0.433	0.491	0.485
1,2-Dichloroethane	0.379		0.425	0.512	0.506
d4-1,2-Dichloroethane	0.379		0.393	0.362	0.340
d8-Toluene	1.141		1.146	1.135	1.134

FORM VI VOA

QR09: 00003

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QR09

Project: POS-LLA

Instrument ID: NT7

Calibration Date: 03/18/10

LAB FILE ID: RF2000: 03181010 RF4000: 03181009

COMPOUND	TYPE	RF	CURVE OR R ²	AVE	%RSD
Vinyl Chloride	0.557	0.522	AVRG	0.525	5.1
1,1-Dichloroethene	0.451	0.422	AVRG	0.431	3.8
cis-1,2-dichloroethene	0.513	0.479	AVRG	0.483	4.8
Benzene	1.375	1.263	AVRG	1.351	4.2
Trichloroethene	0.360	0.337	AVRG	0.350	3.4
Tetrachloroethene	0.339	0.320	AVRG	0.326	5.0
1,1,2,2-Tetrachloroethane	0.251	0.235	AVRG	0.222	12.7
Trans-1,2-Dichloroethene	0.497	0.466	AVRG	0.473	4.9
1,2-Dichloroethane	0.532	0.490	AVRG	0.474	12.4
d4-1,2-Dichloroethane	0.354	0.346	AVRG	0.362	5.7
d8-Toluene	1.138	1.130	AVRG	1.137	0.5

<- Indicates value outside QC limits:
(%RSD < 20% or R² > 0.990)

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-MAR-2010 04:07
 End Cal Date : 18-MAR-2010 06:47
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Cal Date : 19-Mar-2010 09:31 paul
 Curve Type : Average

Calibration File Names:

Level 1: /chem1/nt7.i/18MARCH2010.b/03181008.d
 Level 2: /chem1/nt7.i/18MARCH2010.b/03181007.d
 Level 3: /chem1/nt7.i/18MARCH2010.b/03181006.d
 Level 4: /chem1/nt7.i/18MARCH2010.b/03181012.d
 Level 5: /chem1/nt7.i/18MARCH2010.b/03181011.d
 Level 6: /chem1/nt7.i/18MARCH2010.b/03181010.d
 Level 7: /chem1/nt7.i/18MARCH2010.b/03181009.d

Compound	20.000	50.000	100.000	500.000	1000.000	2000.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	4000.000							
	Level 7							
1 Vinyl Chloride	0.48376 0.52179	+++++	0.50774	0.54359	0.53814	0.55692	0.52532	5.069
2 1,1-Dichloroethene	0.42537 0.42152	+++++	0.40807	0.44646	0.43475	0.45126	0.43124	3.754
175 Trans-1,2-Dichloroethene	0.46650 0.46660	+++++	0.43332	0.49097	0.48515	0.49691	0.47324	4.910
3 cis-1,2-dichloroethene	0.45730 0.47881	+++++	0.45609	0.49779	0.49618	0.51299	0.48319	4.804
6 Benzene	1.39651 1.26302	+++++	1.30166	1.36727	1.40479	1.37544	1.35145	4.186
176 1,2-Dichloroethane	0.37907 0.49034	+++++	0.42523	0.51151	0.50624	0.53152	0.47398	12.450

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-MAR-2010 04:07
 End Cal Date : 18-MAR-2010 06:47
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Cal Date : 19-Mar-2010 09:31 paul
 Curve Type : Average

Compound	20.000	50.000	100.000	500.000	1000.000	2000.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	4000.000							
	Level 7							
8 Trichloroethene	0.35651 0.33729	+++++	0.33408	0.34966	0.36312	0.36008	0.35012	3.454
10 Tetrachloroethene	0.30707 0.31987	+++++	0.30885	0.33278	0.34616	0.33903	0.32563	4.973
11 1,1,2,2-Tetrachloroethane	0.17951 0.23538	+++++	0.19690	0.22438	0.24462	0.25117	0.22199	12.714
\$ 5 d4-1,2-Dichloroethane	0.37943 0.34550	+++++	0.39306	0.36247	0.33968	0.35381	0.36232	5.664
\$ 9 d8-Toluene	1.14117 1.12969	+++++	1.14584	1.13501	1.13444	1.13810	1.13737	0.497

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-MAR-2010 04:07
End Cal Date : 18-MAR-2010 06:47
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt7.i/18MARCH2010.b/sim031810.m
Cal Date : 19-Mar-2010 09:31 paul
Curve Type : Average

Average %RSD Results.

=====
Calculated Average %RSD = 5.67955
Maximun Average %RSD = 5.00000
* Failed Average %RSD Test.

Report Date : 19-Mar-2010 09:56

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
Batch File: /chem1/nt7.i/18MARCH2010.b
Inst ID: nt7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Vinyl Chloride	1.554	1.553	1.550	1.551	1.554	1.553	1.554	1.341-1.766	1.553	0.001
2 1,1-Dichloroethene	2.519	2.519	2.520	2.519	2.519	2.520	2.519	2.307-2.732	2.519	0.000
175 Trans-1,2-Dichloroethene	3.295	3.295	3.296	3.295	3.295	3.296	3.295	3.082-3.507	3.295	0.000
3 cis-1,2-dichloroethene	4.446	4.446	4.447	4.446	4.446	4.447	4.446	4.234-4.659	4.446	0.000
6 Benzene	5.210	5.210	5.211	5.210	5.210	5.211	5.210	4.980-5.440	5.210	0.000
* 4 Pentafluorobenzene	5.316	5.316	5.317	5.316	5.316	5.317	5.316	5.103-5.528	5.316	0.000
\$ 5 d4-1,2-Dichloroethane	5.328	5.327	5.328	5.327	5.328	5.328	5.328	5.115-5.540	5.328	0.000
176 1,2-Dichloroethane	5.386	5.386	5.375	5.386	5.386	5.387	5.386	5.174-5.599	5.385	0.005
8 Trichloroethene	5.711	5.711	5.711	5.712	5.710	5.712	5.710	5.481-5.940	5.711	0.001
* 7 1,4-Difluorobenzene	5.746	5.745	5.745	5.747	5.745	5.746	5.745	5.515-5.975	5.746	0.001
\$ 9 d8-Toluene	6.902	6.902	6.902	6.902	6.903	6.902	6.903	6.673-7.133	6.902	0.000
10 Tetrachloroethene	7.259	7.259	7.258	7.259	7.260	7.258	7.260	7.030-7.489	7.259	0.000
11 1,1,2,2-Tetrachloroethane	9.446	9.458	9.445	9.446	9.447	9.445	9.447	9.217-9.676	9.448	0.005

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

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PC
3/19/10

Data File: /chem1/nt7.i/18MARCH2010.b/03181006.d
Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/18MARCH2010.b/03181006.d
Lab Smp Id: 01000318 Client Smp ID: 100 PPT
Inj Date : 18-MAR-2010 04:07
Operator : PC Inst ID: nt7.i
Smp Info : 01000318,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/18MARCH2010.b/sim031810.m
Meth Date : 19-Mar-2010 10:16 paul Quant Type: ISTD
Cal Date : 18-MAR-2010 04:07 Cal File: 03181006.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62			1.554	1.554	(0.292)	24712	100.000	96.653
2 1,1-Dichloroethene	96			2.519	2.519	(0.474)	19861	100.000	94.627
175 Trans-1,2-Dichloroethene	96			3.295	3.295	(0.620)	21090	100.000	91.564
3 cis-1,2-dichloroethene	96			4.446	4.446	(0.836)	22198	100.000	94.390
6 Benzene	78			5.210	5.210	(0.907)	92044	100.000	96.316
* 4 Pentafluorobenzene	168			5.316	5.316	(1.000)	486706	1000.00	
\$ 5 d4-1,2-Dichloroethane	65			5.328	5.328	(1.002)	191304	1000.00	1084.8
176 1,2-Dichloroethane	62			5.386	5.386	(1.013)	20696	100.000	89.713
8 Trichloroethene	130			5.711	5.710	(0.994)	23624	100.000	95.419
* 7 1,4-Difluorobenzene	114			5.746	5.745	(1.000)	707128	1000.00	
\$ 9 d8-Toluene	98			6.902	6.903	(1.201)	810254	1000.00	1007.4
10 Tetrachloroethene	166			7.259	7.260	(1.263)	21840	100.000	94.849
11 1,1,2,2-Tetrachloroethane	83			9.446	9.447	(1.644)	13923	100.000	88.694

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 03181006.d
 Lab Smp Id: 01000318
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: PC
 Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Misc Info: 10-

Calibration Date: 18-MAR-2010
 Calibration Time: 06:21
 Client Smp ID: 100 PPT
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	486706	11.45
7 1,4-Difluorobenze	618992	309496	1237984	707128	14.24

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	0.01

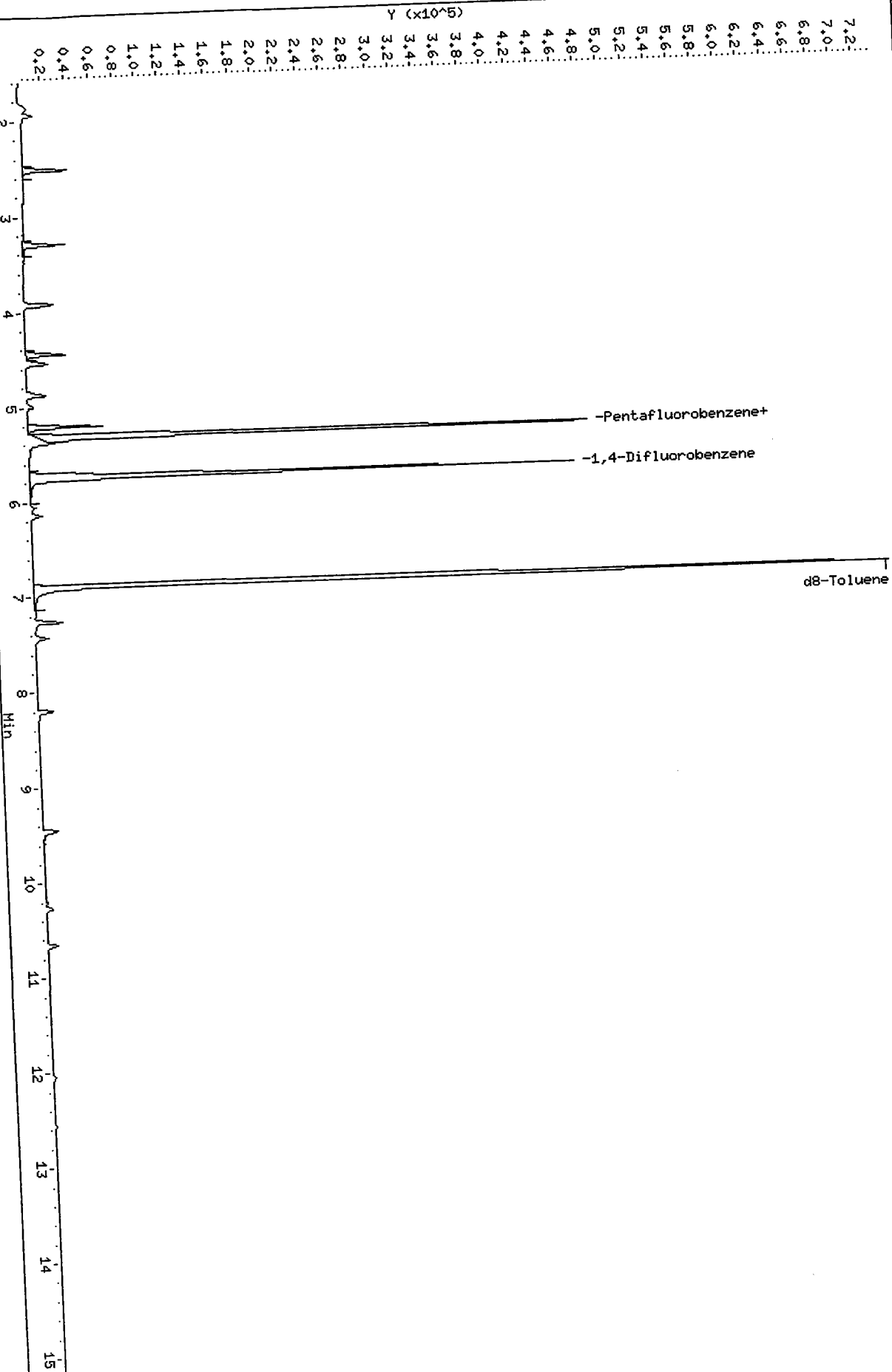
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt7.i/18MARCH2010.b/03181006.d
Date: 18-MAR-2010 04:07
Client ID: 100 PPT
Sample Info: 01000318,10,10,0

Instrument: nt7.i
Operator: PC
Column diameter: 0.18

Column phase: RTXWMS

/chem1/nt7.i/18MARCH2010.b/03181006.d



PS
3/19/10

Data File: /chem1/nt7.i/18MARCH2010.b/03181008.d
Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

SW8260C SIM
Data file : /chem1/nt7.i/18MARCH2010.b/03181008.d Client Smp ID: 20 PPT
Lab Smp Id: 00200318
Inj Date : 18-MAR-2010 05:01 Inst ID: nt7.i
Operator : PC
Smp Info : 00200318,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/18MARCH2010.b/sim031810.m
Meth Date : 19-Mar-2010 10:16 paul Quant Type: ISTD
Cal Date : 18-MAR-2010 05:01 Cal File: 03181008.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	====	1.553	1.554	(0.292)	4681	20.0000	18.418
2 1,1-Dichloroethene	96	====	2.519	2.519	(0.474)	4116	20.0000	19.728
175 Trans-1,2-Dichloroethene	96	====	3.295	3.295	(0.620)	4514	20.0000	19.715
3 cis-1,2-dichloroethene	96	====	4.446	4.446	(0.836)	4425	20.0000	18.928
6 Benzene	78	====	5.210	5.210	(0.907)	18928	20.0000	20.667
* 4 Pentafluorobenzene	168	====	5.316	5.316	(1.000)	483815	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	====	5.327	5.328	(1.002)	183573	1000.00	1047.2
176 1,2-Dichloroethane	62	====	5.386	5.386	(1.013)	3668	20.0000	15.995
8 Trichloroethene	130	====	5.711	5.710	(0.994)	4832	20.0000	20.365
* 7 1,4-Difluorobenzene	114	====	5.745	5.745	(1.000)	677688	1000.00	
\$ 9 d8-Toluene	98	====	6.902	6.903	(1.201)	773355	1000.00	1003.3
10 Tetrachloroethene	166	====	7.259	7.260	(1.263)	4162	20.0000	18.860
11 1,1,2,2-Tetrachloroethane	83	====	9.458	9.447	(1.646)	2433	20.0000	16.172

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 03181008.d
Lab Smp Id: 00200318
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
Misc Info: 10-

Calibration Date: 18-MAR-2010
Calibration Time: 06:21
Client Smp ID: 20 PPT
Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	483815	10.79
7 1,4-Difluorobenze	618992	309496	1237984	677688	9.48

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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/nt7.i/18MARCH2010.b/03181008.d

Date: 18-MAR-2010 05:01

Client ID: 20 PPT

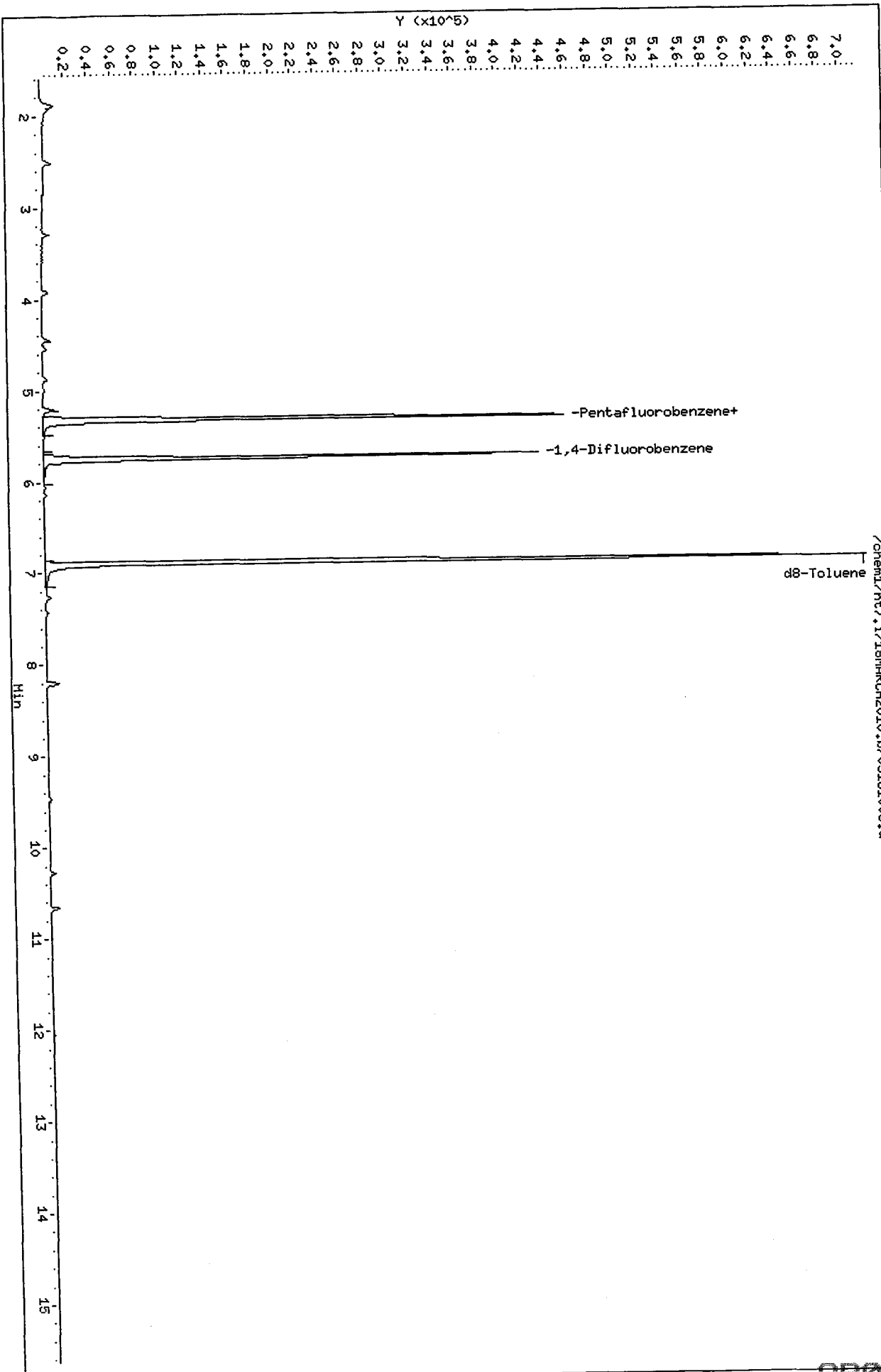
Sample Info: 00200318,10,10,0

Column phase: RTXVMS

Instrument: nt7.i

Operator: PC

Column diameter: 0.18



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Data File: /chem1/nt7.i/18MARCH2010.b/03181009.d
Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/18MARCH2010.b/03181009.d
Lab Smp Id: 40000318 Client Smp ID: 4 PPB
Inj Date : 18-MAR-2010 05:27 Inst ID: nt7.i
Operator : PC
Smp Info : 40000318,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/18MARCH2010.b/sim031810.m
Meth Date : 19-Mar-2010 10:16 paul Quant Type: ISTD
Cal Date : 18-MAR-2010 05:27 Cal File: 03181009.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.550	1.554	(0.292)	976919	4000.00	3973.1
2 1,1-Dichloroethene	96	2.520	2.519	(0.474)	789181	4000.00	3909.8
175 Trans-1,2-Dichloroethene	96	3.296	3.295	(0.620)	873583	4000.00	3943.9
3 cis-1,2-dichloroethene	96	4.447	4.446	(0.836)	896442	4000.00	3963.7
6 Benzene	78	5.211	5.210	(0.907)	3489674	4000.00	3738.3
* 4 Pentafluorobenzene	168	5.317	5.316	(1.000)	468059	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	161716	1000.00	953.58
176 1,2-Dichloroethane	62	5.375	5.386	(1.011)	918031	4000.00	4138.0
8 Trichloroethene	130	5.711	5.710	(0.994)	931919	4000.00	3853.4
* 7 1,4-Difluorobenzene	114	5.745	5.745	(1.000)	690741	1000.00	
\$ 9 d8-Toluene	98	6.902	6.903	(1.201)	780321	1000.00	993.24
10 Tetrachloroethene	166	7.258	7.260	(1.263)	883796	4000.00	3929.3
11 1,1,2,2-Tetrachloroethane	83	9.445	9.447	(1.644)	650351	4000.00	4241.2

Data File: /chem1/nt7.i/18MARCH2010.b/03181009.d
 Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 03181009.d
 Lab Smp Id: 40000318
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: PC
 Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Misc Info: 10-

Calibration Date: 18-MAR-2010
 Calibration Time: 06:21
 Client Smp ID: 4 PPB
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	468059	7.18
7 1,4-Difluorobenze	618992	309496	1237984	690741	11.59

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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.

Data File: /chem1/nt7.i/18MARCH2010.b/03181009.d

Date: 18-MAR-2010 05:27

Client ID: 4 PPB

Sample Info: 40000318,10,10,0

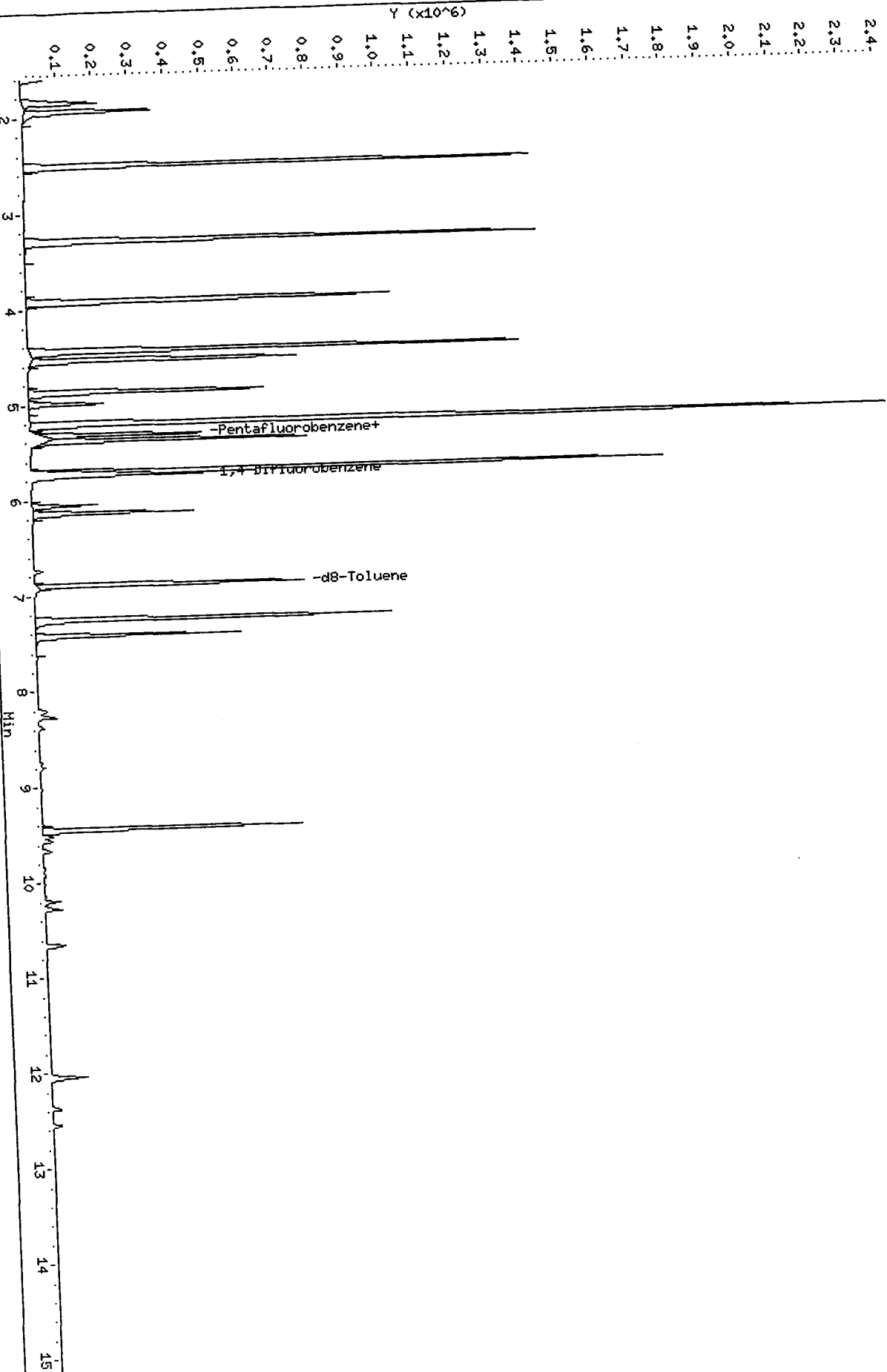
Column phase: RTXVHS

Instrument: nt7.i

Operator: PC

Column diameter: 0.18

/chem1/nt7.i/18MARCH2010.b/03181009.d



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PC
3/19/10

Data File: /chem1/nt7.i/18MARCH2010.b/03181010.d
Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

SW8260C SIM
Data file : /chem1/nt7.i/18MARCH2010.b/03181010.d Client Smp ID: 2 PPB
Lab Smp Id: 20000318
Inj Date : 18-MAR-2010 05:54 Inst ID: nt7.i
Operator : PC
Smp Info : 20000318,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/18MARCH2010.b/sim031810.m
Meth Date : 19-Mar-2010 10:16 paul Quant Type: ISTD
Cal Date : 18-MAR-2010 05:54 Cal File: 03181010.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.551	1.554	(0.292)	493762	2000.00	2120.3
2 1,1-Dichloroethene	96	2.519	2.519	(0.474)	400081	2000.00	2092.8
175 Trans-1,2-Dichloroethene	96	3.295	3.295	(0.620)	440559	2000.00	2100.0
3 cis-1,2-dichloroethene	96	4.446	4.446	(0.836)	454814	2000.00	2123.3
6 Benzene	78	5.210	5.210	(0.907)	1807019	2000.00	2035.5
* 4 Pentafluorobenzene	168	5.316	5.316	(1.000)	443296	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.327	5.328	(1.002)	156841	1000.00	976.49
176 1,2-Dichloroethane	62	5.386	5.386	(1.013)	471238	2000.00	2242.8
8 Trichloroethene	130	5.712	5.710	(0.994)	473069	2000.00	2056.9
* 7 1,4-Difluorobenzene	114	5.747	5.745	(1.000)	656889	1000.00	
\$ 9 d8-Toluene	98	6.902	6.903	(1.201)	747607	1000.00	1000.6
10 Tetrachloroethene	166	7.259	7.260	(1.263)	445404	2000.00	2082.3
11 1,1,2,2-Tetrachloroethane	83	9.446	9.447	(1.644)	329981	2000.00	2262.9

Data File: /chem1/nt7.i/18MARCH2010.b/03181010.d
 Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 03181010.d
 Lab Smp Id: 20000318
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: PC
 Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Misc Info: 10-

Calibration Date: 18-MAR-2010
 Calibration Time: 06:21
 Client Smp ID: 2 PPB
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	443296	1.51
7 1,4-Difluorobenze	618992	309496	1237984	656889	6.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	0.03

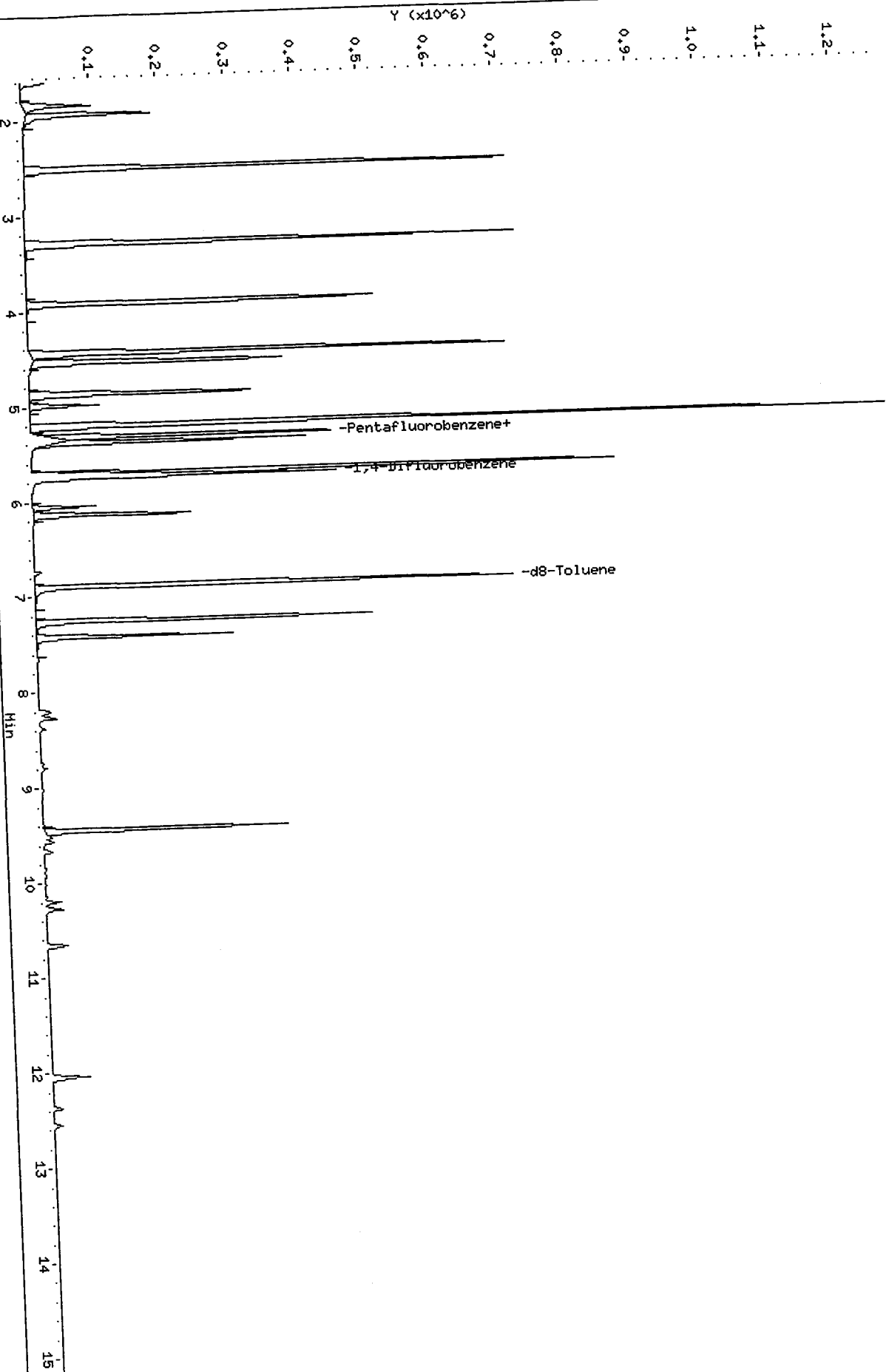
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt7.1/18MARCH2010.b/03181010.d
Date: 18-MAR-2010 05:54
Client ID: 2 PPB
Sample Info: 20000318.10.10.0

Instrument: nt7.1
Operator: PC
Column diameter: 0.18

Column phase: RTXVHS

/chem1/nt7.1/18MARCH2010.b/03181010.d



RS 3/19/10

Data File: /chem1/nt7.i/18MARCH2010.b/03181011.d
Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

SW8260C SIM
Data file : /chem1/nt7.i/18MARCH2010.b/03181011.d Client Smp ID: 1 PPB
Lab Smp Id: 10000318
Inj Date : 18-MAR-2010 06:21 Inst ID: nt7.i
Operator : PC
Smp Info : 10000318,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/18MARCH2010.b/sim031810.m
Meth Date : 19-Mar-2010 10:16 paul Quant Type: ISTD
Cal Date : 18-MAR-2010 06:21 Cal File: 03181011.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.554	1.554	(0.292)	235013	1000.00	1024.4
2 1,1-Dichloroethene	96	2.519	2.519	(0.474)	189863	1000.00	1008.2
175 Trans-1,2-Dichloroethene	96	3.295	3.295	(0.620)	211872	1000.00	1025.2
3 cis-1,2-dichloroethene	96	4.446	4.446	(0.836)	216688	1000.00	1026.9
6 Benzene	78	5.210	5.210	(0.907)	869551	1000.00	1039.5
* 4 Pentafluorobenzene	168	5.316	5.316	(1.000)	436713	1000.00	937.49
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	148341	1000.00	1068.1
176 1,2-Dichloroethane	62	5.386	5.386	(1.013)	221082	1000.00	1037.1
8 Trichloroethene	130	5.710	5.710	(0.994)	224768	1000.00	
* 7 1,4-Difluorobenzene	114	5.745	5.745	(1.000)	618992	1000.00	997.42
\$ 9 d8-Toluene	98	6.903	6.903	(1.202)	702212	1000.00	1063.1
10 Tetrachloroethene	166	7.260	7.260	(1.264)	214273	1000.00	1101.9
11 1,1,2,2-Tetrachloroethane	83	9.447	9.447	(1.644)	151420	1000.00	

Data File: /chem1/nt7.i/18MARCH2010.b/03181011.d
 Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 03181011.d
 Lab Smp Id: 10000318
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: PC
 Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Misc Info: 10-

Calibration Date: 18-MAR-2010
 Calibration Time: 06:21
 Client Smp ID: 1 PPB
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	436713	0.00
7 1,4-Difluorobenze	618992	309496	1237984	618992	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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/nt7.i/18MARCH2010.b/03181011.d

Date : 18-MAR-2010 06:21

Client ID: 1 PPB

Sample Info: 10000318,10,10,0

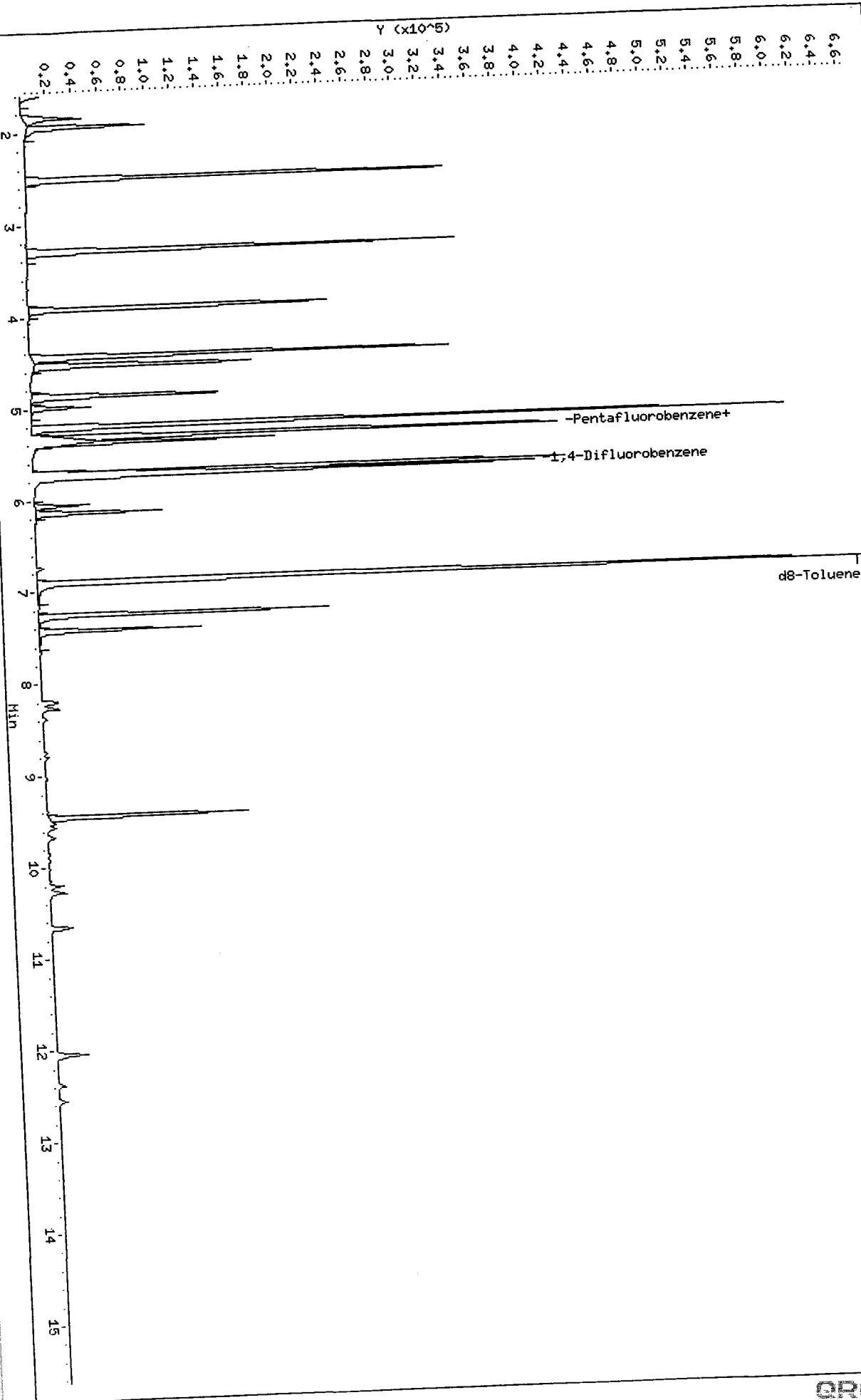
Column phase: RTXVHS

Instrument: nt7.i

Operator: PC

Column diameter: 0.18

/chem1/nt7.i/18MARCH2010.b/03181011.d



0000 : 00100

13/19/10

Data File: /chem1/nt7.i/18MARCH2010.b/03181012.d
Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

SW8260C SIM
Data file : /chem1/nt7.i/18MARCH2010.b/03181012.d Client Smp ID: 500 PPT
Lab Smp Id: 05000318
Inj Date : 18-MAR-2010 06:47 Inst ID: nt7.i
Operator : PC
Smp Info : 05000318,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/18MARCH2010.b/sim031810.m Quant Type: ISTD
Meth Date : 19-Mar-2010 10:16 paul Cal File: 03181012.d
Cal Date : 18-MAR-2010 06:47 Calibration Sample, Level: 4
Als bottle: 1
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.553	1.554	(0.292)	112959	500.000	517.39
2 1,1-Dichloroethene	96	2.520	2.519	(0.474)	92775	500.000	517.65
175 Trans-1,2-Dichloroethene	96	3.296	3.295	(0.620)	102023	500.000	518.73
3 cis-1,2-dichloroethene	96	4.447	4.446	(0.836)	103442	500.000	515.11
6 Benzene	78	5.211	5.210	(0.907)	420837	500.000	505.85
* 4 Pentafluorobenzene	168	5.317	5.316	(1.000)	415601	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	150644	1000.00	1000.4
176 1,2-Dichloroethane	62	5.387	5.386	(1.013)	106291	500.000	539.58
8 Trichloroethene	130	5.712	5.710	(0.994)	107622	500.000	499.33
* 7 1,4-Difluorobenzene	114	5.746	5.745	(1.000)	615588	1000.00	
\$ 9 d8-Toluene	98	6.902	6.903	(1.201)	698699	1000.00	997.92
10 Tetrachloroethene	166	7.258	7.260	(1.263)	102427	500.000	510.98
11 1,1,2,2-Tetrachloroethane	83	9.445	9.447	(1.644)	69063	500.000	505.38

Data File: /chem1/nt7.i/18MARCH2010.b/03181012.d
 Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 03181012.d
 Lab Smp Id: 05000318
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: PC
 Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Misc Info: 10-

Calibration Date: 18-MAR-2010
 Calibration Time: 06:21
 Client Smp ID: 500 PPT
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	415601	-4.83
7 1,4-Difluorobenze	618992	309496	1237984	615588	-0.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	0.02

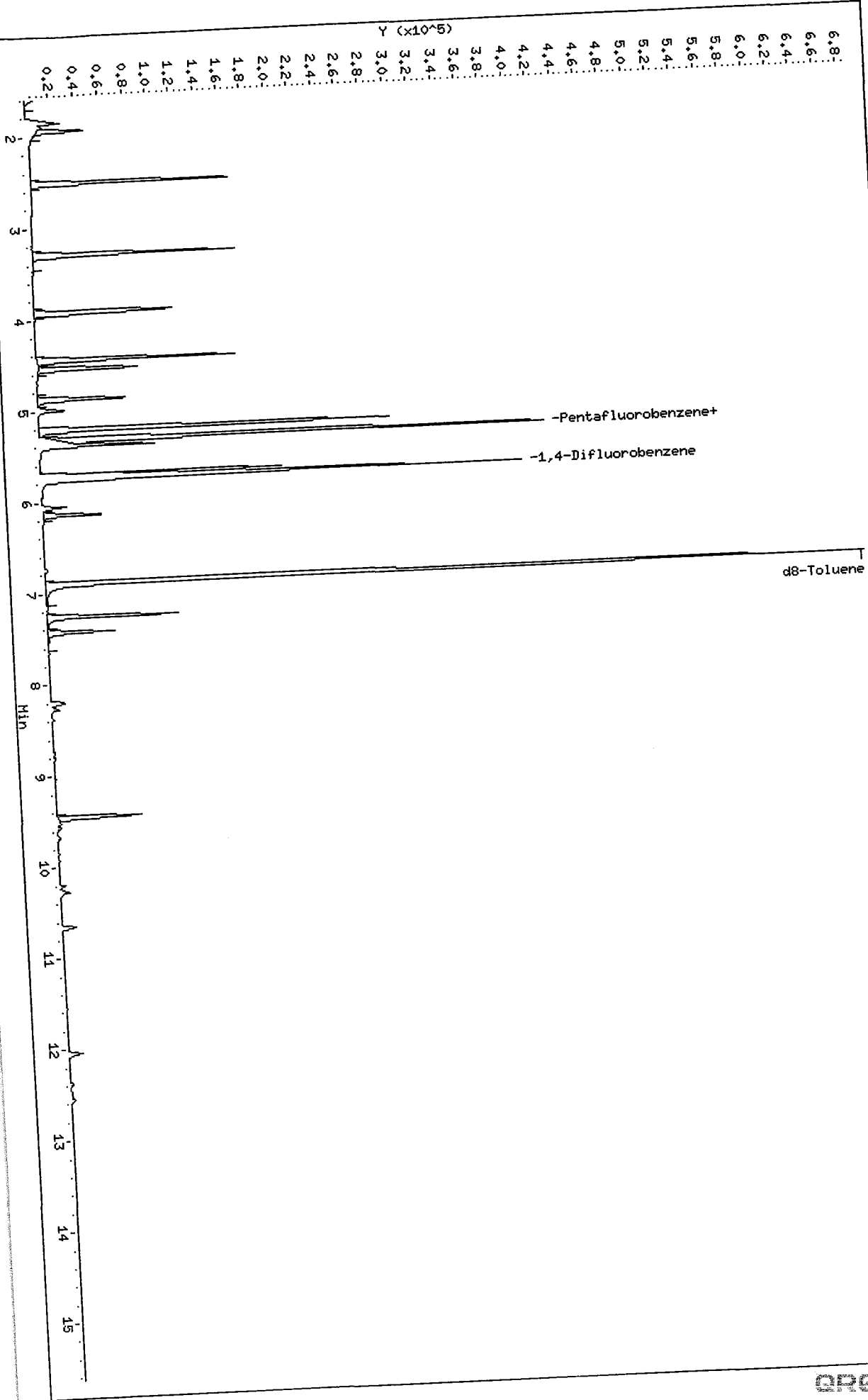
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt7.i/18MARCH2010.b/03181012.d
Date : 18-MAR-2010 06:47
Client ID: 500 PPT
Sample Info: 05000318,10,10,0

Instrument: nt7.i
Operator: PC
Column diameter: 0.18

Column phase: RTXWMS

/chem1/nt7.i/18MARCH2010.b/03181012.d



0000 : 0000

PC
3/19/10

Data File: /chem1/nt7.i/18MARCH2010.b/03181013.d
Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

SW8260C SIM
Data file : /chem1/nt7.i/18MARCH2010.b/03181013.d Client Smp ID: icv0318
Lab Smp Id: icv0318
Inj Date : 18-MAR-2010 07:14 Inst ID: nt7.i
Operator : PC
Smp Info : icv0318,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/18MARCH2010.b/sim031810.m
Meth Date : 19-Mar-2010 10:16 paul Quant Type: ISTD
Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62	1.552	1.554	(0.292)	217111	1008.81	1008.8
2 1,1-Dichloroethene	96	2.519	2.519	(0.474)	175819	995.184	995.18
175 Trans-1,2-Dichloroethene	96	3.295	3.295	(0.620)	201746	1040.58	1040.6
3 cis-1,2-dichloroethene	96	4.446	4.446	(0.836)	210840	1065.09	1065.1
6 Benzene	78	5.210	5.210	(0.907)	859471	1035.47	1035.5
* 4 Pentafluorobenzene	168	5.316	5.316	(1.000)	409680	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	146516	987.058	987.06
176 1,2-Dichloroethane	62	5.386	5.386	(1.013)	219876	1132.32	1132.3
8 Trichloroethene	130	5.712	5.710	(0.994)	224489	1043.95	1043.9
* 7 1,4-Difluorobenzene	114	5.746	5.745	(1.000)	614179	1000.00	
\$ 9 d8-Toluene	98	6.903	6.903	(1.201)	699132	1000.83	1000.8
10 Tetrachloroethene	166	7.260	7.260	(1.263)	213067	1065.37	1065.4
11 1,1,2,2-Tetrachloroethane	83	9.447	9.447	(1.644)	148477	1088.99	1089.0

Data File: /chem1/nt7.i/18MARCH2010.b/03181013.d
 Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 03181013.d
 Lab Smp Id: icv0318
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: PC
 Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Misc Info: 10-

Calibration Date: 18-MAR-2010
 Calibration Time: 06:21
 Client Smp ID: icv0318
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	409680	-6.19
7 1,4-Difluorobenze	618992	309496	1237984	614179	-0.78

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	0.02

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/nt7.i/18MARCH2010.b/03181013.d
 Report Date: 19-Mar-2010 10:17

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 18MARCH2010
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: icv0318 Client Smp ID: icv0318
 Level: LOW Operator: PC
 Data Type: MS DATA SampleType: LCS
 SpikeList File: special.spk Quant Type: ISTD
 Sublist File: all.sub
 Method File: /chem1/nt7.i/18MARCH2010.b/sim031810.m
 Misc Info: 10-

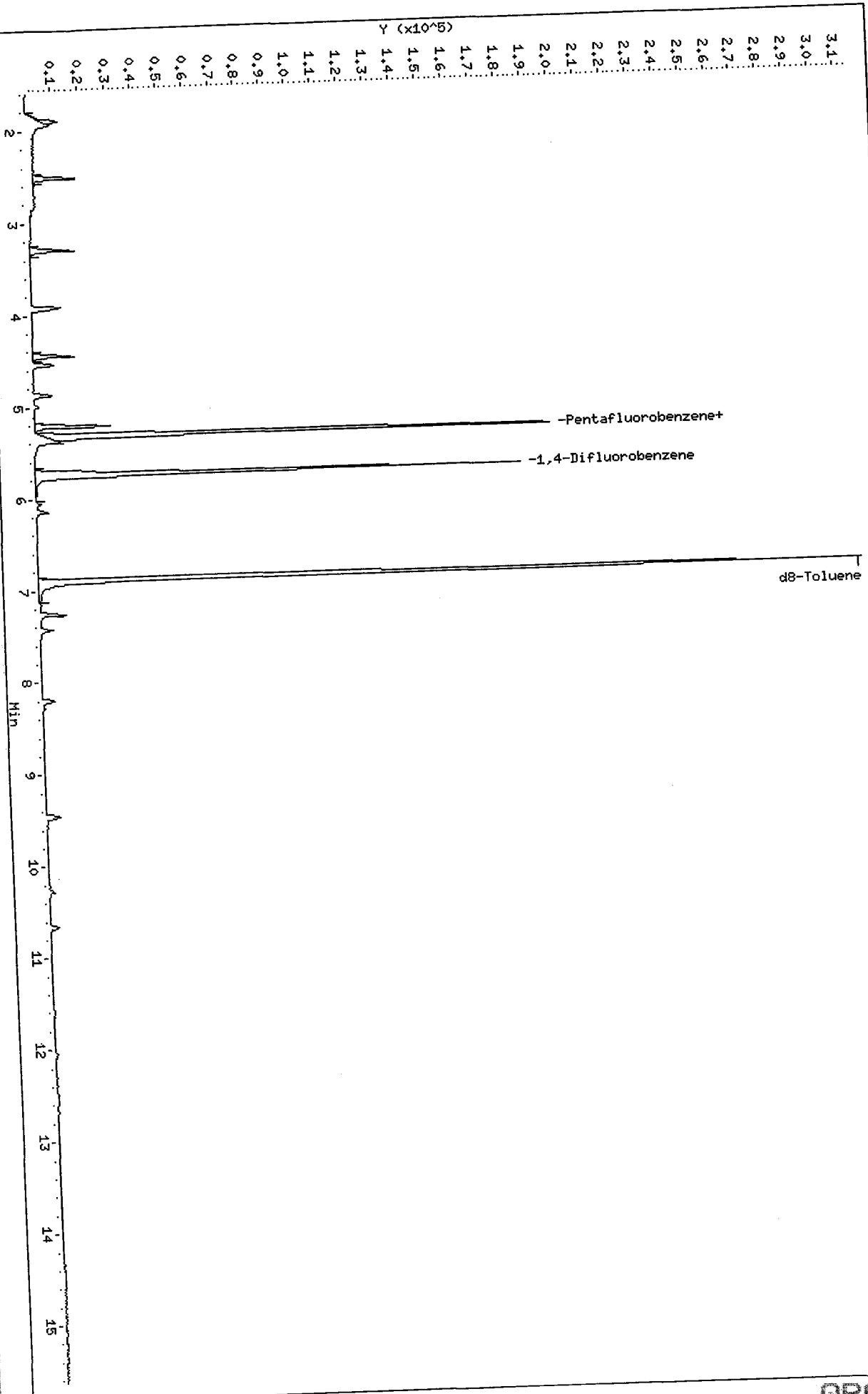
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	1008.8	100.88	76-120
176 1,2-Dichloroethane	1000.0	1132.3	113.23	70-130
175 Trans-1,2-Dichloro	1000.0	1040.6	104.06	70-130
2 1,1-Dichloroethene	1000.0	995.18	99.52	79-126
3 cis-1,2-dichloroet	1000.0	1065.1	106.51	76-127
6 Benzene	1000.0	1035.5	103.55	75-121
8 Trichloroethene	1000.0	1043.9	104.39	79-120
10 Tetrachloroethene	1000.0	1065.4	106.54	75-123
11 1,1,2,2-Tetrachlor	1000.0	1089.0	108.90	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 d4-1,2-Dichloroeth	1000.0	987.06	98.71	76-119
9 d8-Toluene	1000.0	1000.8	100.08	60-140

Data File: /chem1/nt7.1/18MARCH2010.b/03181007.d
Date : 18-MAR-2010 04:34
Client ID: 50 PPT
Sample Info: 00500318,10,10,0

Column phase: RTXVMS

Instrument: nt7.1
Operator: PC
Column diameter: 0.18



1100 : 0000

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QR09

Project: POS-LLA

Instrument ID: NT7

Calibration Date: ~~04/07/10~~

4/8/10 84/10/10

LAB FILE ID: RF20: 04081002 RF50: 04081003 RF100: 04081004
RF500: 04081005 RF1000: 04081006

COMPOUND	RF20	RF50	RF100	RF500	RF1000
Vinyl Chloride	0.594	0.580	0.510	0.482	0.508
1,1-Dichloroethene	0.534	0.490	0.436	0.433	0.423
cis-1,2-dichloroethene	0.548	0.530	0.462	0.466	0.462
Benzene	1.766	1.646	1.385	1.377	1.346
Trichloroethene	0.468	0.418	0.364	0.358	0.350
Tetrachloroethene	0.424	0.412	0.348	0.353	0.342
1,1,2,2-Tetrachloroethane	0.231	0.208	0.191	0.222	0.228
Trans-1,2-Dichloroethene	0.541	0.537	0.475	0.468	0.460
1,2-Dichloroethane	0.586	0.594	0.551	0.561	0.543
d4-1,2-Dichloroethane	0.464	0.416	0.464	0.408	0.400
d8-Toluene	1.153	1.149	1.151	1.148	1.153

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC
ARI Job No: QR09
Instrument ID: NT7

Client: FLOYD/SNIDER
Project: POS-LLA
Calibration Date: ~~04/07/10~~

7/8/10 to 7/16/10

LAB FILE ID: RF2000: 04081007 RF4000: 04081008

COMPOUND	TYPE	RF	OR R ²	AVE	%RSD
Vinyl Chloride	0.454	0.469	AVRG	0.514	10.5
1,1-Dichloroethene	0.397	0.412	AVRG	0.446	10.9
cis-1,2-dichloroethene	0.435	0.457	AVRG	0.480	8.7
Benzene	1.337	1.301	AVRG	1.451	12.4
Trichloroethene	0.345	0.349	AVRG	0.379	12.3
Tetrachloroethene	0.336	0.331	AVRG	0.364	10.4
1,1,2,2-Tetrachloroethane	0.230	0.231	AVRG	0.220	7.0
Trans-1,2-Dichloroethene	0.431	0.452	AVRG	0.480	8.8
1,2-Dichloroethane	0.512	0.526	AVRG	0.553	5.4
d4-1,2-Dichloroethane	0.371	0.373	AVRG	0.414	9.2
d8-Toluene	1.149	1.150	AVRG	1.150	0.2

<- Indicates value outside QC limits:
(%RSD < 20% or R² > 0.990)

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07^{8:14 4/13/10}-APR-2010 14:01
 End Cal Date : 07^{8:14 4/13/10}-APR-2010 16:35
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem1/nt7.i/08apr2010.b/sim040810.m
 Cal Date : 08-Apr-2010 19:02 monicah
 Curve Type : Average

Calibration File Names:

Level 1: /chem1/nt7.i/08apr2010.b/04081002.d
 Level 2: /chem1/nt7.i/08apr2010.b/04081003.d
 Level 3: /chem1/nt7.i/08apr2010.b/04081004.d
 Level 4: /chem1/nt7.i/08apr2010.b/04081005.d
 Level 5: /chem1/nt7.i/08apr2010.b/04081006.d
 Level 6: /chem1/nt7.i/08apr2010.b/04081007.d
 Level 7: /chem1/nt7.i/08apr2010.b/04081008.d

Compound	20.000	50.000	100.000	500.000	1000.000	2000.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	4000.000							
	Level 7							
1 Vinyl Chloride	0.59435 0.46912	0.58024	0.51043	0.48239	0.50798	0.45374	0.51404	10.517
2 1,1-Dichloroethene	0.53459 0.41181	0.48993	0.43570	0.43325	0.42340	0.39691	0.44651	10.870
175 Trans-1,2-Dichloroethene	0.54062 0.45194	0.53660	0.47524	0.46823	0.45952	0.43104	0.48046	8.766
3 cis-1,2-dichloroethene	0.54859 0.45723	0.52964	0.46224	0.46597	0.46192	0.43512	0.48010	8.730
6 Benzene	1.76645 1.30069	1.64624	1.38476	1.37665	1.34634	1.33691	1.45115	12.395
176 1,2-Dichloroethane	0.58638 0.52596	0.59380	0.55120	0.56070	0.54279	0.51214	0.55328	5.395

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07[§]-APR-2010 14:01
 End Cal Date : 07[§]-APR-2010 16:35
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem1/nt7.i/08apr2010.b/sim040810.m
 Cal Date : 08-Apr-2010 19:02 monicah
 Curve Type : Average

Compound	20.000	50.000	100.000	500.000	1000.000	2000.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	4000.000							
	Level 7							
8 Trichloroethene	0.46851 0.34924	0.41802	0.36377	0.35758	0.34975	0.34512	0.37886	12.340
10 Tetrachloroethene	0.42425 0.33147	0.41222	0.34848	0.35312	0.34240	0.33571	0.36395	10.426
11 1,1,2,2-Tetrachloroethane	0.23133 0.23099	0.20834	0.19080	0.22161	0.22853	0.23059	0.22031	6.993
§ 5 d4-1,2-Dichloroethane	0.46448 0.37311	0.41657	0.46400	0.40827	0.39994	0.37149	0.41398	9.233
§ 9 d8-Toluene	1.15344 1.14954	1.14921	1.15141	1.14852	1.15321	1.14867	1.15057	0.183

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07⁸ APR-2010 14:01
End Cal Date : 07⁸ APR-2010 16:35
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt7.i/08apr2010.b/sim040810.m
Cal Date : 08-Apr-2010 19:02 monicah
Curve Type : Average

Average %RSD Results.

=====
Calculated Average %RSD = 8.71346
Maximun Average %RSD = 5.00000
* Failed Average %RSD Test.

4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081002.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081002.d
Lab Smp Id: 00200408
Inj Date : 07-APR-2010 14:01 Inst ID: nt7.i
Operator : MH
Smp Info : 00200408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.552	1.551	(0.292)	5819	20.0000	23.125 (M)
2 1,1-Dichloroethene	96	2.520	2.520	(0.474)	5234	20.0000	23.945
175 Trans-1,2-Dichloroethene	96	3.295	3.296	(0.620)	5293	20.0000	22.505
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	5371	20.0000	22.853
6 Benzene	78	5.211	5.211	(0.907)	24741	20.0000	24.346
* 4 Pentafluorobenzene	168	5.316	5.317	(1.000)	489530	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	227379	1000.00	1122.0
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	5741	20.0000	21.196
8 Trichloroethene	130	5.711	5.712	(0.994)	6562	20.0000	24.733
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	700302	1000.00	
\$ 9 d8-Toluene	98	6.890	6.902	(1.199)	807755	1000.00	1002.5
10 Tetrachloroethene	166	7.258	7.258	(1.263)	5942	20.0000	23.313
11 1,1,2,2-Tetrachloroethane	83	9.457	9.445	(1.646)	3240	20.0000	21.000

Data File: /chem1/nt7.i/08apr2010.b/04081002.d
Report Date: 13-Apr-2010 16:19

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem1/nt7.i/08apr2010.b/04081002.d
 Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Calibration Date: 07^{5 14h}-APR-2010
 Calibration Time: 15:44

Instrument ID: nt7.i
 Lab File ID: 04081002.d
 Lab Smp Id: 00200408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	489530	-2.45
7 1,4-Difluorobenze	711657	355828	1423314	700302	-1.60

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

Data File: /chem1/nt7.i/08apr2010.b/04081002.d

Date: 07-APR-2010 14:01

Client ID:

Sample Info: 00200408,10,10,0

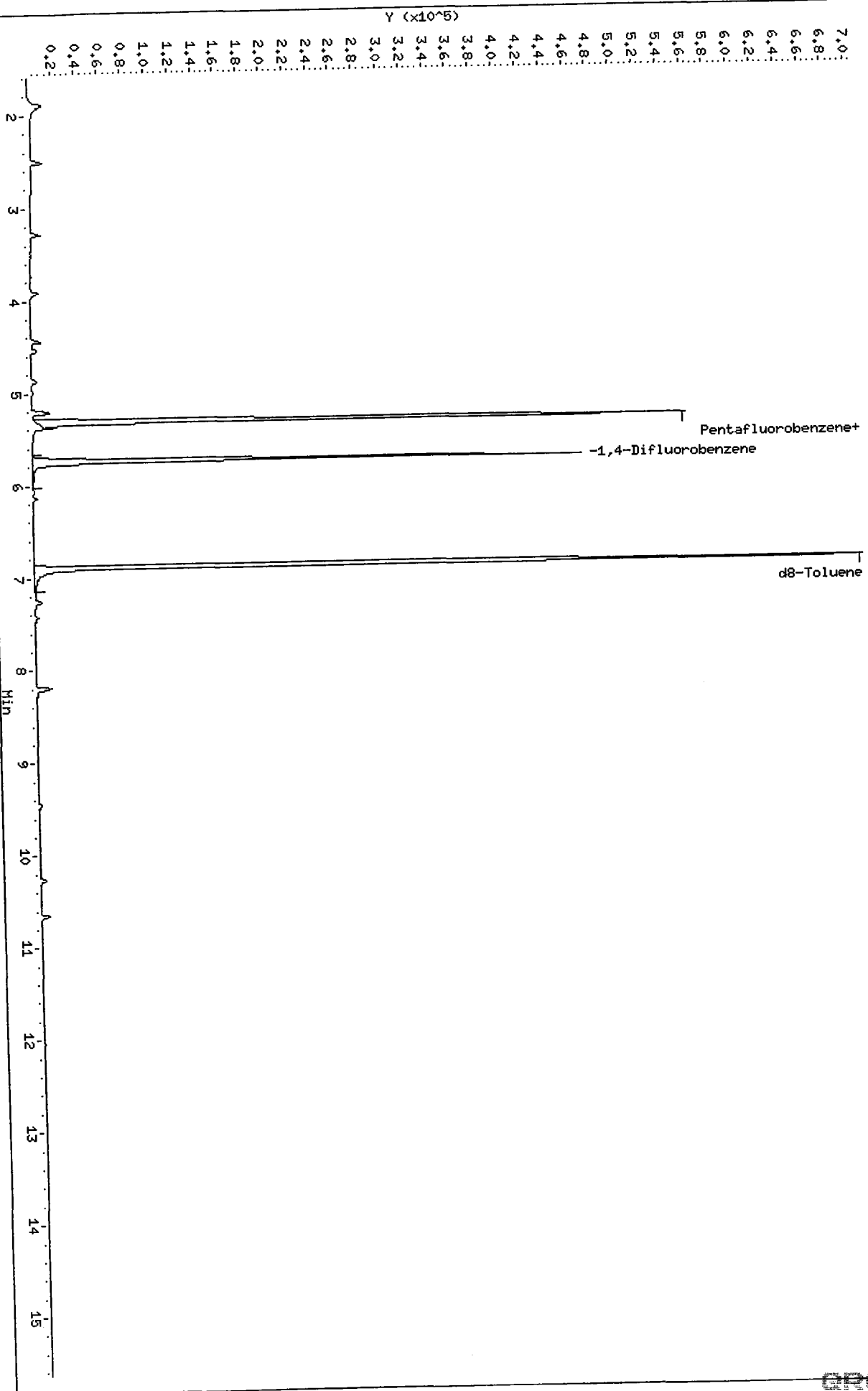
Column phase: RTXVHS

Instrument: nt7.i

Operator: HH

Column diameter: 0.18

/chem1/nt7.i/08apr2010.b/04081002.d



0000 001 00

4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081003.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081003.d

Lab Smp Id: 00500408

Inj Date : 07-APR-2010 14:27

Inst ID: nt7.i

Operator : MH

Smp Info : 00500408,10,10,0

Misc Info : 10-

Comment : /chem1/nt7.i/08apr2010.b/sim040810.m

Method : 13-Apr-2010 16:18 monicah

Quant Type: ISTD

Cal Date : 07-APR-2010 14:27

Cal File: 04081003.d
Calibration Sample, Level: 2

Als bottle: 1

Dil Factor: 1.00000

Compound Sublist: all.sub

Integrator: HP RTE

Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.539	1.551	(0.289)	14932	50.0000	56.522 (M)
2 1,1-Dichloroethene	96	2.508	2.520	(0.472)	12608	50.0000	54.862
175 Trans-1,2-Dichloroethene	96	3.296	3.296	(0.620)	13809	50.0000	55.843
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	13630	50.0000	55.160
6 Benzene	78	5.211	5.211	(0.907)	57919	50.0000	56.722
* 4 Pentafluorobenzene	168	5.317	5.317	(1.000)	514685	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	214400	1000.00	1006.2
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	15281	50.0000	53.662
8 Trichloroethene	130	5.712	5.712	(0.994)	14707	50.0000	55.169
* 7 1,4-Difluorobenzene	114	5.747	5.746	(1.000)	703653	1000.00	
\$ 9 d8-Toluene	98	6.890	6.902	(1.199)	808643	1000.00	998.81
10 Tetrachloroethene	166	7.258	7.258	(1.263)	14503	50.0000	56.631
11 1,1,2,2-Tetrachloroethane	83	9.457	9.445	(1.646)	7330	50.0000	47.283

Data File: /chem1/nt7.i/08apr2010.b/04081003.d
Report Date: 13-Apr-2010 16:19

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081003.d
 Lab Smp Id: 00500408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07^{8 MH}-APR-2010
 Calibration Time: 15:44

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	514685	2.57
7 1,4-Difluorobenze	711657	355828	1423314	703653	-1.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	0.01

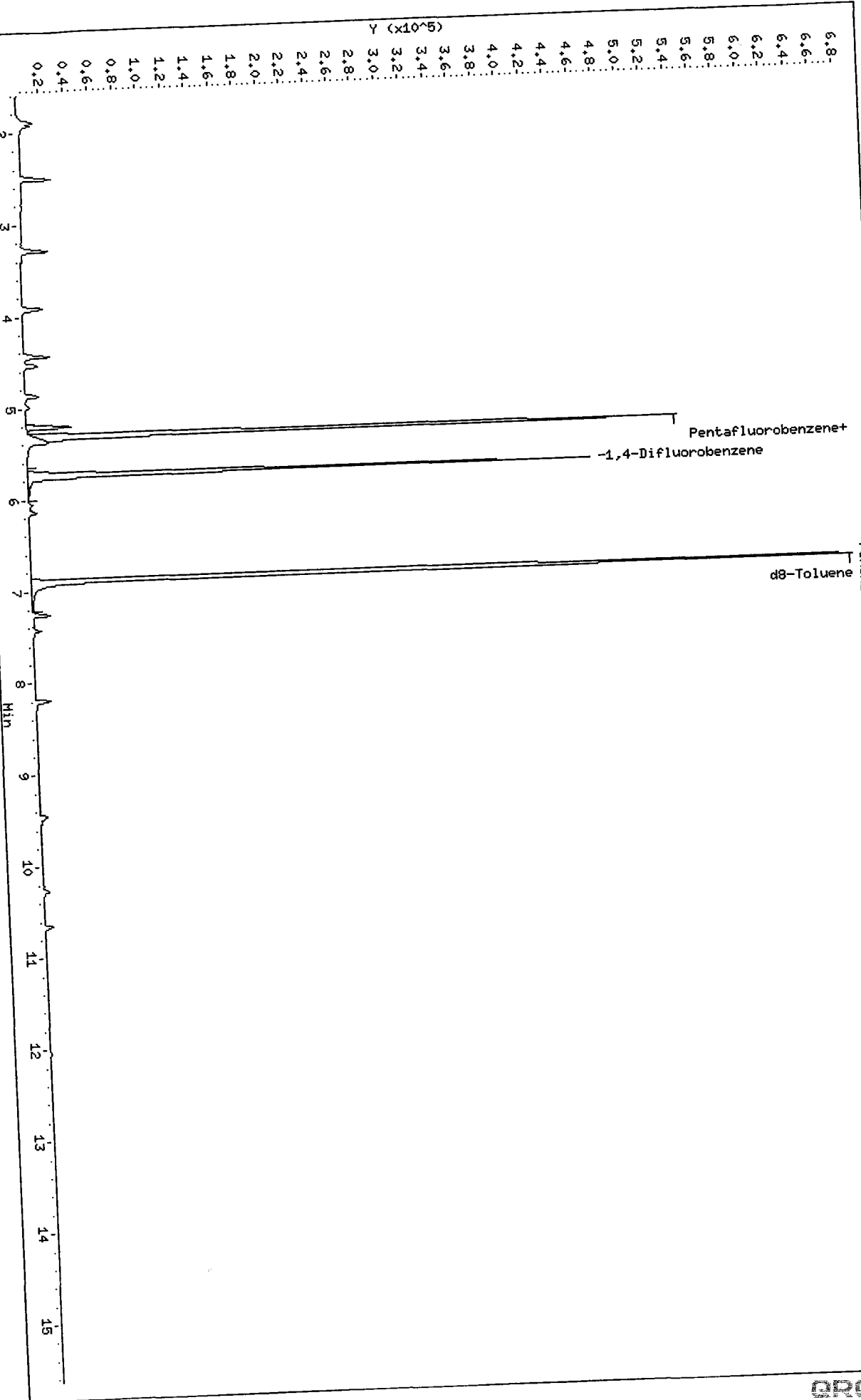
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt7.i/08apr2010.b/04081003.d
Date : 07-APR-2010 14:27
Client ID: 5 MH
Sample Info: 00500408,10,10,0

Instrument: nt7.i
Operator: MH
Column diameter: 0.18

Column phase: RTXMS

/chem1/nt7.i/08apr2010.b/04081003.d



0009 : 001 24

4/13/10 14

Data File: /chem1/nt7.i/08apr2010.b/04081004.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081004.d
Lab Smp Id: 01000408
Inj Date : 07-APR-2010 14:53
Operator : MH
Smp Info : 01000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah
Cal Date : 07-APR-2010 14:53
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Inst ID: nt7.i
Quant Type: ISTD
Cal File: 04081004.d
Calibration Sample, Level: 3
Compound Sublist: all.sub

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.553	1.551	(0.292)	24888	100.000	93.203
2 1,1-Dichloroethene	96	2.518	2.520	(0.474)	21244	100.000	87.240
175 Trans-1,2-Dichloroethene	96	3.294	3.296	(0.620)	23172	100.000	88.343
3 cis-1,2-dichloroethene	96	4.445	4.447	(0.836)	22538	100.000	85.851
6 Benzene	78	5.209	5.211	(0.907)	96192	100.000	84.396
* 4 Pentafluorobenzene	168	5.315	5.317	(1.000)	487587	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.327	5.328	(1.002)	226239	1000.00	1210.3
176 1,2-Dichloroethane	62	5.385	5.375	(1.013)	26876	100.000	88.609
8 Trichloroethene	130	5.711	5.712	(0.994)	25269	100.000	85.095
* 7 1,4-Difluorobenzene	114	5.745	5.746	(1.000)	694647	1000.00	
\$ 9 d8-Toluene	98	6.903	6.902	(1.201)	799824	1000.00	1078.2
10 Tetrachloroethene	166	7.259	7.258	(1.264)	24207	100.000	84.800
11 1,1,2,2-Tetrachloroethane	83	9.446	9.445	(1.644)	13254	100.000	75.256

Data File: /chem1/nt7.i/08apr2010.b/04081004.d
 Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Calibration Date: 07^{8:44}-APR-2010
 Calibration Time: 15:44

Instrument ID: nt7.i
 Lab File ID: 04081004.d
 Lab Smp Id: 01000408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	487587	-2.83
7 1,4-Difluorobenze	711657	355828	1423314	694647	-2.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.31	-0.03
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-0.02

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/nt7.i/08apr2010.b/04081004.d

Date: 07-APR-2010 14:53

Client ID: 5114

Sample Info: 01000408,10,10,0

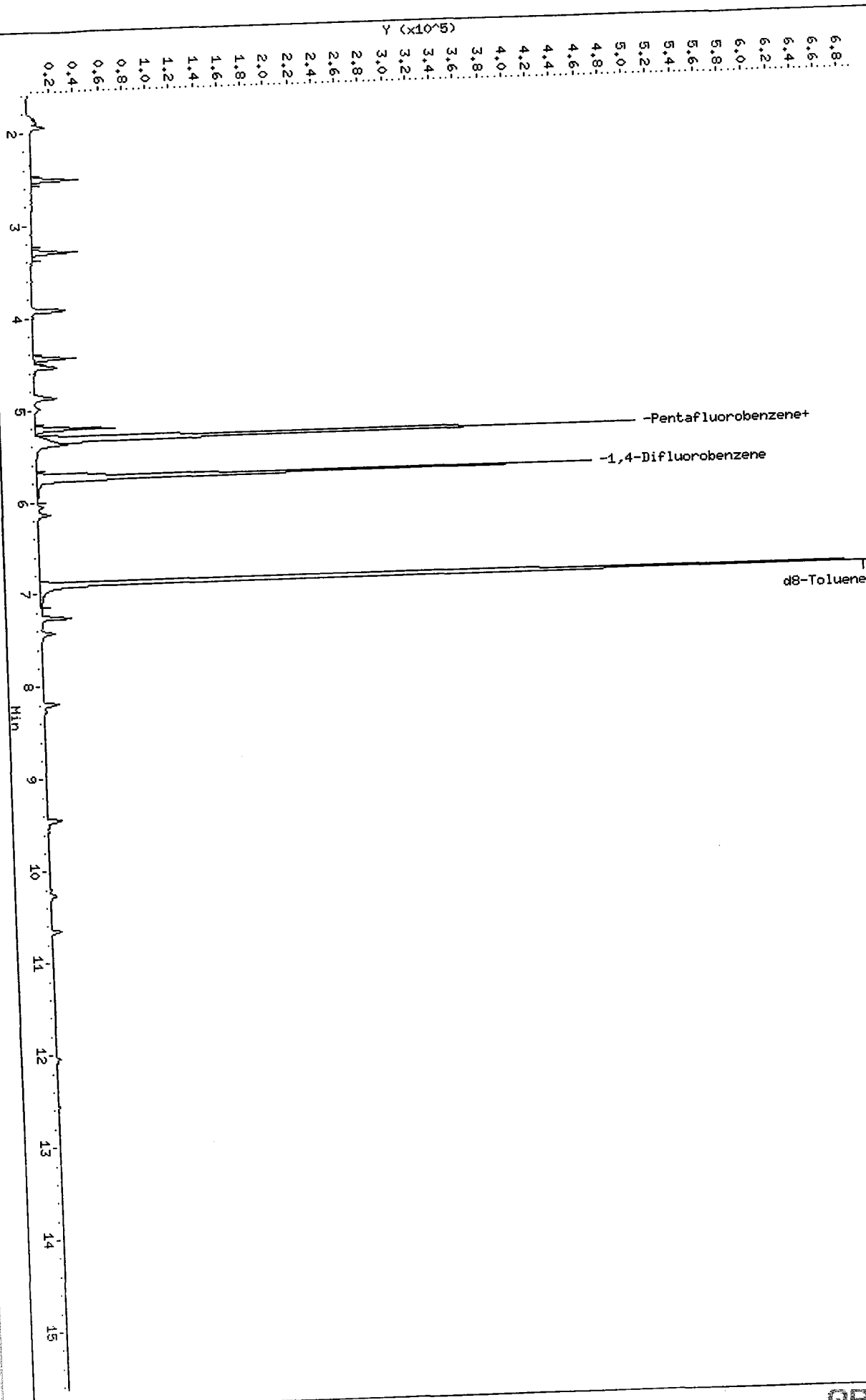
Column phase: RTXVHS

Instrument: nt7.i

Operator: MH

Column diameter: 0.18

/chem1/nt7.i/08apr2010.b/04081004.d



4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081005.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081005.d
Lab Smp Id: 05000408
Inj Date : 07-APR-2010 15:18
Operator : MH³ MH Inst ID: nt7.i
Smp Info : 05000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 15:18 Cal File: 04081005.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.552	1.551	(0.292)	117909	500.000	440.41
2 1,1-Dichloroethene	96	2.519	2.520	(0.474)	105898	500.000	433.75
175 Trans-1,2-Dichloroethene	96	3.295	3.296	(0.620)	114447	500.000	435.19
3 cis-1,2-dichloroethene	96	4.446	4.447	(0.836)	113896	500.000	432.72
6 Benzene	78	5.210	5.211	(0.907)	476748	500.000	419.51
* 4 Pentafluorobenzene	168	5.316	5.317	(1.000)	488851	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	199584	1000.00	1064.9
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	137050	500.000	450.68
8 Trichloroethene	130	5.711	5.712	(0.994)	123835	500.000	418.23
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	692622	1000.00	
\$ 9 d8-Toluene	98	6.892	6.902	(1.199)	795487	1000.00	1075.5
10 Tetrachloroethene	166	7.260	7.258	(1.264)	122291	500.000	429.64
11 1,1,2,2-Tetrachloroethane	83	9.447	9.445	(1.644)	76747	500.000	437.03

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081005.d
 Lab Smp Id: 05000408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07-APR-2010 ^{SMH}
 Calibration Time: 15:44

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	488851	-2.58
7 1,4-Difluorobenze	711657	355828	1423314	692622	-2.67

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

Data File: /chem1/nt7.1/08apr2010.b/04081005.d

Date : 07 APR 2010 15:18

Client ID: 874

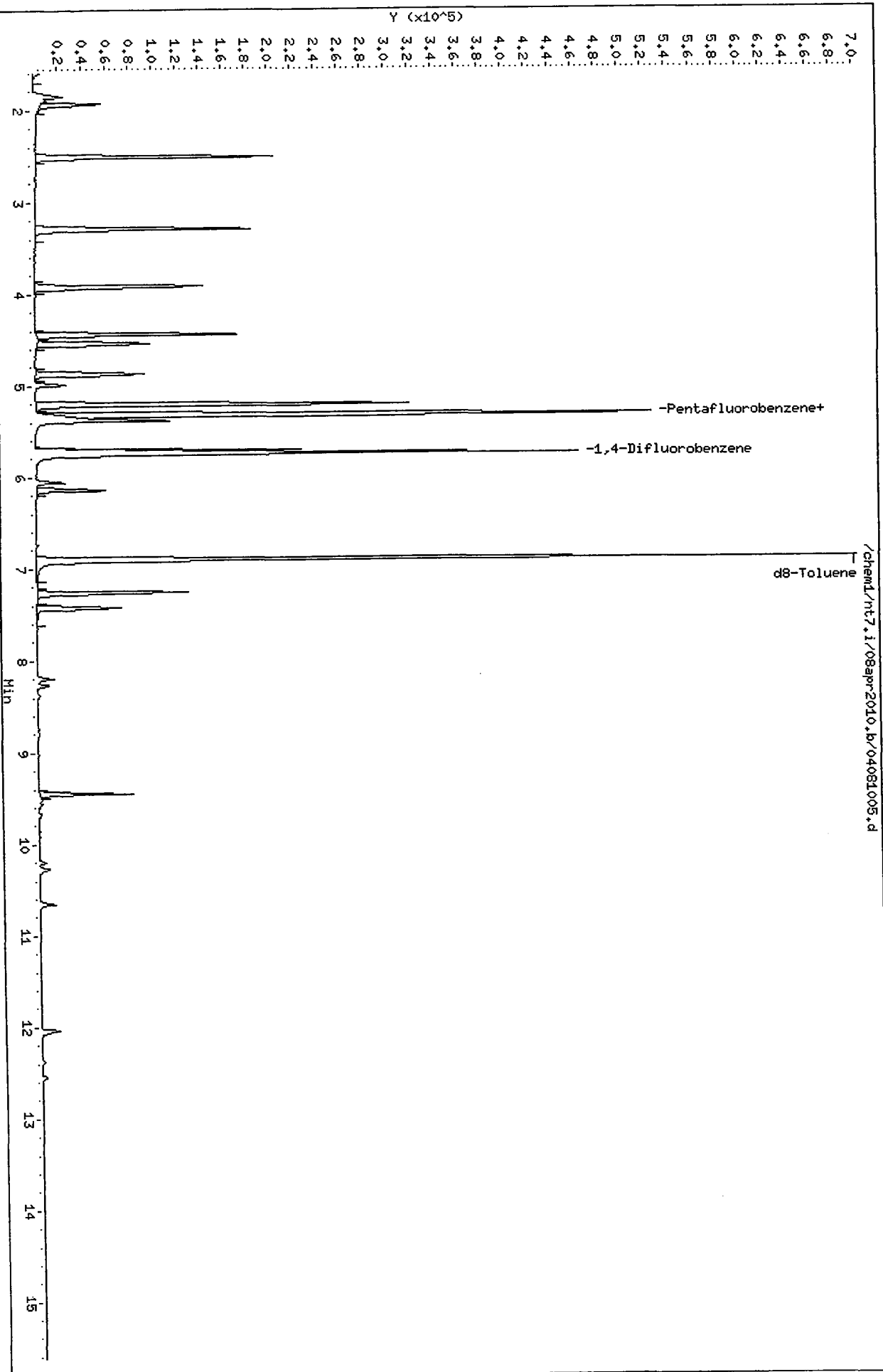
Sample Info: 05000408,10,10,0

Column phase: RTXVHS

Instrument: nt7.i

Operator: NH

Column diameter: 0.18



0000 : 00100

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QR09

Project: POS-LLA

Instrument ID: NT7

Cont. Calib. Date: ~~04/07/10~~ 4/8/10Init. Calib. Date: ~~04/07/10~~ 4/8/10

Cont. Calib. Time: 1544

8/4/10

COMPOUND	CalAmt or ARF	CC Amt 1000	MIN RRF	CURVE TYPE	%D or Drift
Vinyl Chloride	0.514	0.508	0.010	AVRG	-1.2
1,1-Dichloroethene	0.446	0.423	0.010	AVRG	-5.2
cis-1,2-dichloroethene	0.480	0.462	0.010	AVRG	-3.8
Benzene	1.451	1.346	0.010	AVRG	-7.2
Trichloroethene	0.379	0.350	0.010	AVRG	-7.6
Tetrachloroethene	0.364	0.342	0.010	AVRG	-6.0
1,1,2,2-Tetrachloroethane	0.220	0.228	0.300	AVRG	3.6 *
Trans-1,2-Dichloroethene	0.480	0.460	0.010	AVRG	-4.2
1,2-Dichloroethane	0.553	0.543	0.010	AVRG	-1.8
d4-1,2-Dichloroethane	0.414	0.400	0.010	AVRG	-3.4
d8-Toluene	1.150	1.153	0.010	AVRG	0.3

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII VOA

QR09: 00121

4
7/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081006.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM
Data file : /chem1/nt7.i/08apr2010.b/04081006.d
Lab Smp Id: 10000408
Inj Date : 07-APR-2010 15:44 Inst ID: nt7.i
Operator : MH^{SMH}
Smp Info : 10000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 15:44 Cal File: 04081006.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.551	1.551	(0.292)	254903	1000.00	1035.4 (M)
2 1,1-Dichloroethene	96	2.520	2.520	(0.474)	212463	1000.00	948.24
175 Trans-1,2-Dichloroethene	96	3.296	3.296	(0.620)	230587	1000.00	956.43
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	231792	1000.00	962.13
6 Benzene	78	5.211	5.211	(0.907)	958131	1000.00	927.77
* 4 Pentafluorobenzene	168	5.317	5.317	(1.000)	501800	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	200692	1000.00	966.10
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	272370	1000.00	981.03
8 Trichloroethene	130	5.712	5.712	(0.994)	248905	1000.00	923.18
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	711657	1000.00	
\$ 9 d8-Toluene	98	6.902	6.902	(1.201)	820691	1000.00	1002.3
10 Tetrachloroethene	166	7.258	7.258	(1.263)	243674	1000.00	940.80
11 1,1,2,2-Tetrachloroethane	83	9.445	9.445	(1.644)	162632	1000.00	1037.3

Data File: /chem1/nt7.i/08apr2010.b/04081006.d
Report Date: 13-Apr-2010 16:19

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04081006.d
Lab Smp Id: 10000408
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 07^{SMH}-APR-2010
Calibration Time: 15:44

Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	501800	0.00
7 1,4-Difluorobenze	711657	355828	1423314	711657	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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/nt7.i/08apr2010.b/04081006.d

Date : 07-APR-2010 15:44

Client ID: 574

Sample Info: 10000408,10,10,0

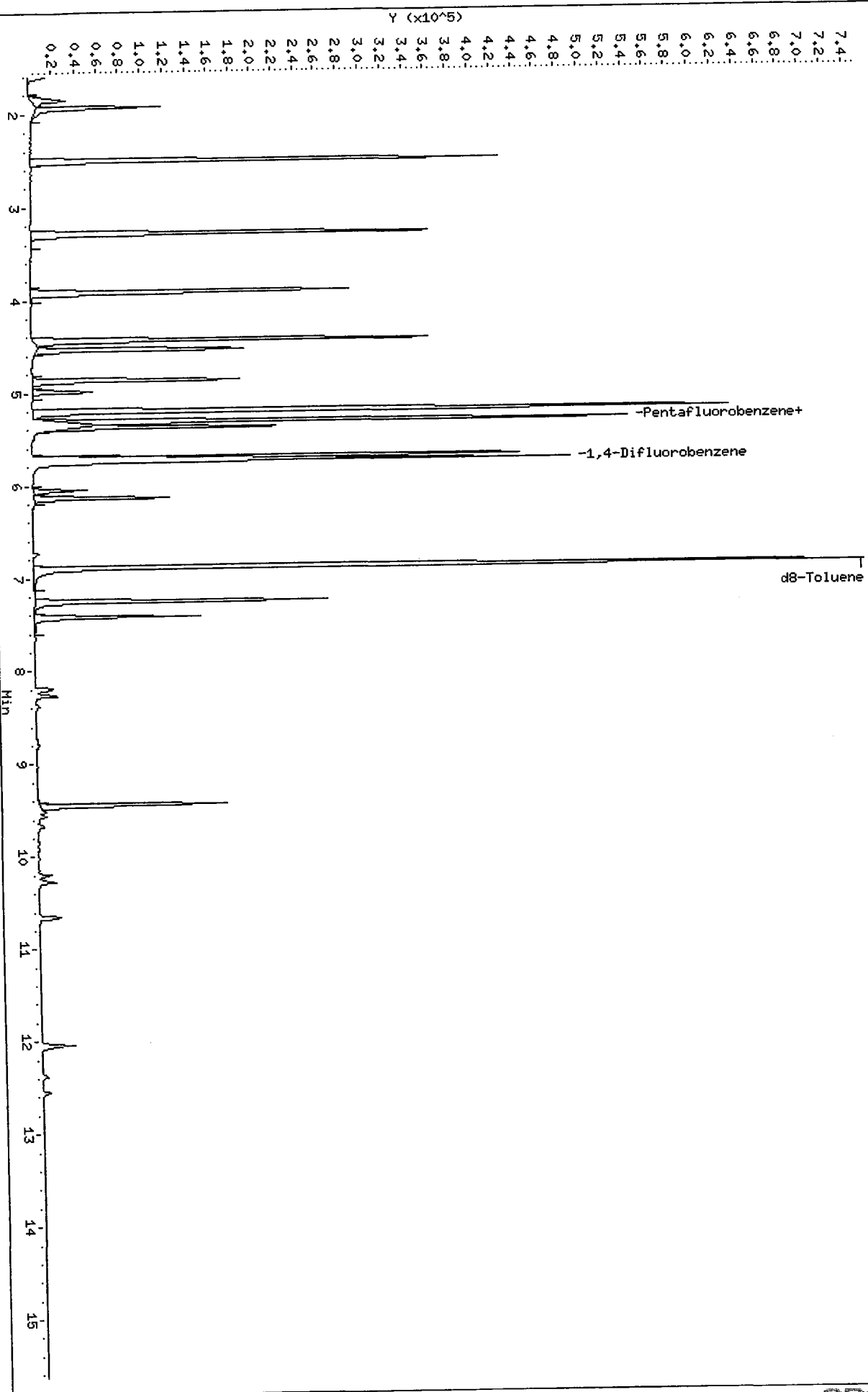
Column phase: RTXVHS

Instrument: nt7.i

Operator: MH

Column diameter: 0.18

/chem1/nt7.i/08apr2010.b/04081006.d



4
4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081007.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM
Data file : /chem1/nt7.i/08apr2010.b/04081007.d
Lab Smp Id: 20000408
Inj Date : 07-APR-2010 16:10 Inst ID: nt7.i
Operator : MH^{SMH}
Smp Info : 20000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 16:10 Cal File: 04081007.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	==	1.553	1.551	(0.292)	474724	2000.00	1925.9
2 1,1-Dichloroethene	96	==	2.519	2.520	(0.474)	415266	2000.00	1777.8
175 Trans-1,2-Dichloroethene	96	==	3.294	3.296	(0.620)	450970	2000.00	1794.3
3 cis-1,2-dichloroethene	96	==	4.446	4.447	(0.836)	455234	2000.00	1812.6
6 Benzene	78	==	5.210	5.211	(0.907)	1894280	2000.00	1842.6
* 4 Pentafluorobenzene	168	==	5.315	5.317	(1.000)	523118	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	==	5.327	5.328	(1.002)	194331	1000.00	958.81
176 1,2-Dichloroethane	62	==	5.386	5.375	(1.013)	535815	2000.00	1851.3
8 Trichloroethene	130	==	5.711	5.712	(0.994)	488996	2000.00	1821.9
* 7 1,4-Difluorobenzene	114	==	5.745	5.746	(1.000)	708452	1000.00	
\$ 9 d8-Toluene	98	==	6.903	6.902	(1.201)	813779	1000.00	1075.0
10 Tetrachloroethene	166	==	7.259	7.258	(1.264)	475672	2000.00	1844.8
11 1,1,2,2-Tetrachloroethane	83	==	9.446	9.445	(1.644)	326723	2000.00	2093.3

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04081007.d
Lab Smp Id: 20000408
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 07^{8 MH}-APR-2010
Calibration Time: 15:44

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	523118	4.25
7 1,4-Difluorobenze	711657	355828	1423314	708452	-0.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-0.02

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/nt7.i/08apr2010.b/04081007.d

Date : 07/5 APR-2010 16:10

Client ID:

Sample Info: 20000408,10,10,0

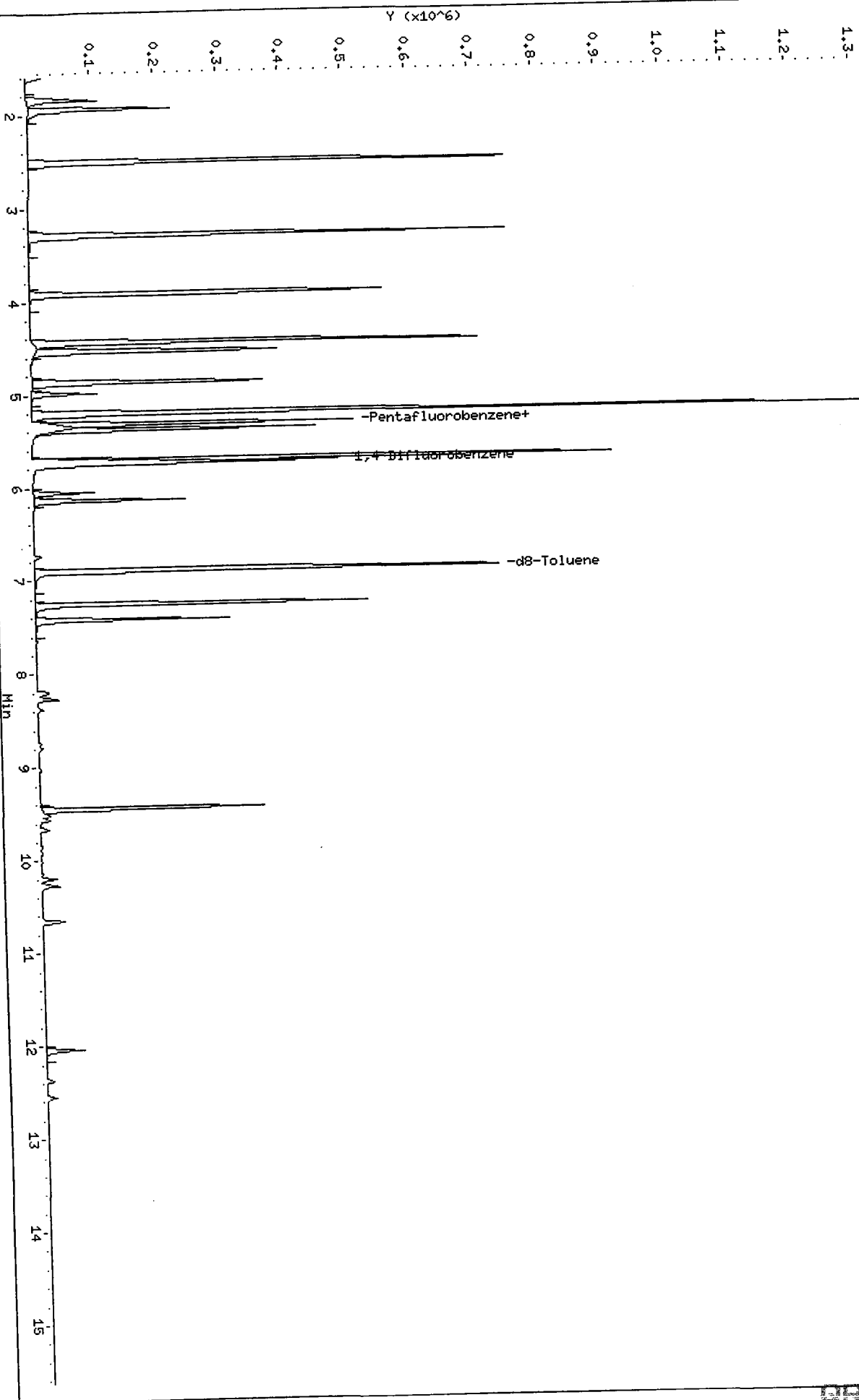
Column phase: RTXVMS

Instrument: nt7.i

Operator: KH

Column diameter: 0.18

/chem1/nt7.i/08apr2010.b/04081007.d



00100 : 00000

MH
4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081008.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081008.d
Lab Smp Id: 40000408
Inj Date : 07-APR-2010 16:35
Operator : MH⁸ Inst ID: nt7.i
Smp Info : 40000408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 16:35 Cal File: 04081008.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000 Compound Sublist: all.sub
Integrator: HP RTE
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.552	1.551	(0.292)	956523	4000.00	3982.3
2 1,1-Dichloroethene	96	2.519	2.520	(0.474)	839656	4000.00	3689.1
175 Trans-1,2-Dichloroethene	96	3.295	3.296	(0.620)	921487	4000.00	3762.6
3 cis-1,2-dichloroethene	96	4.446	4.447	(0.836)	932278	4000.00	3809.5
6 Benzene	78	5.210	5.211	(0.907)	3790854	4000.00	3585.3
* 4 Pentafluorobenzene	168	5.316	5.317	(1.000)	509739	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	190187	1000.00	962.99
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	1072406	4000.00	3802.5
8 Trichloroethene	130	5.710	5.712	(0.994)	1017861	4000.00	3687.3
* 7 1,4-Difluorobenzene	114	5.745	5.746	(1.000)	728622	1000.00	
\$ 9 d8-Toluene	98	6.891	6.902	(1.200)	837580	1000.00	1075.8
10 Tetrachloroethene	166	7.260	7.258	(1.264)	966052	4000.00	3643.0
11 1,1,2,2-Tetrachloroethane	83	9.447	9.445	(1.644)	673218	4000.00	4193.9

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04081008.d
Lab Smp Id: 40000408
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 07^{SMH}-APR-2010
Calibration Time: 15:44

Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	509739	1.58
7 1,4-Difluorobenze	711657	355828	1423314	728622	2.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.74	-0.02

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/nt7.1/08Apr2010.b/04081008.d

Date: 07-Apr-2010 16:35

Client ID: 2MH

Sample Info: 40000408.10.10.0

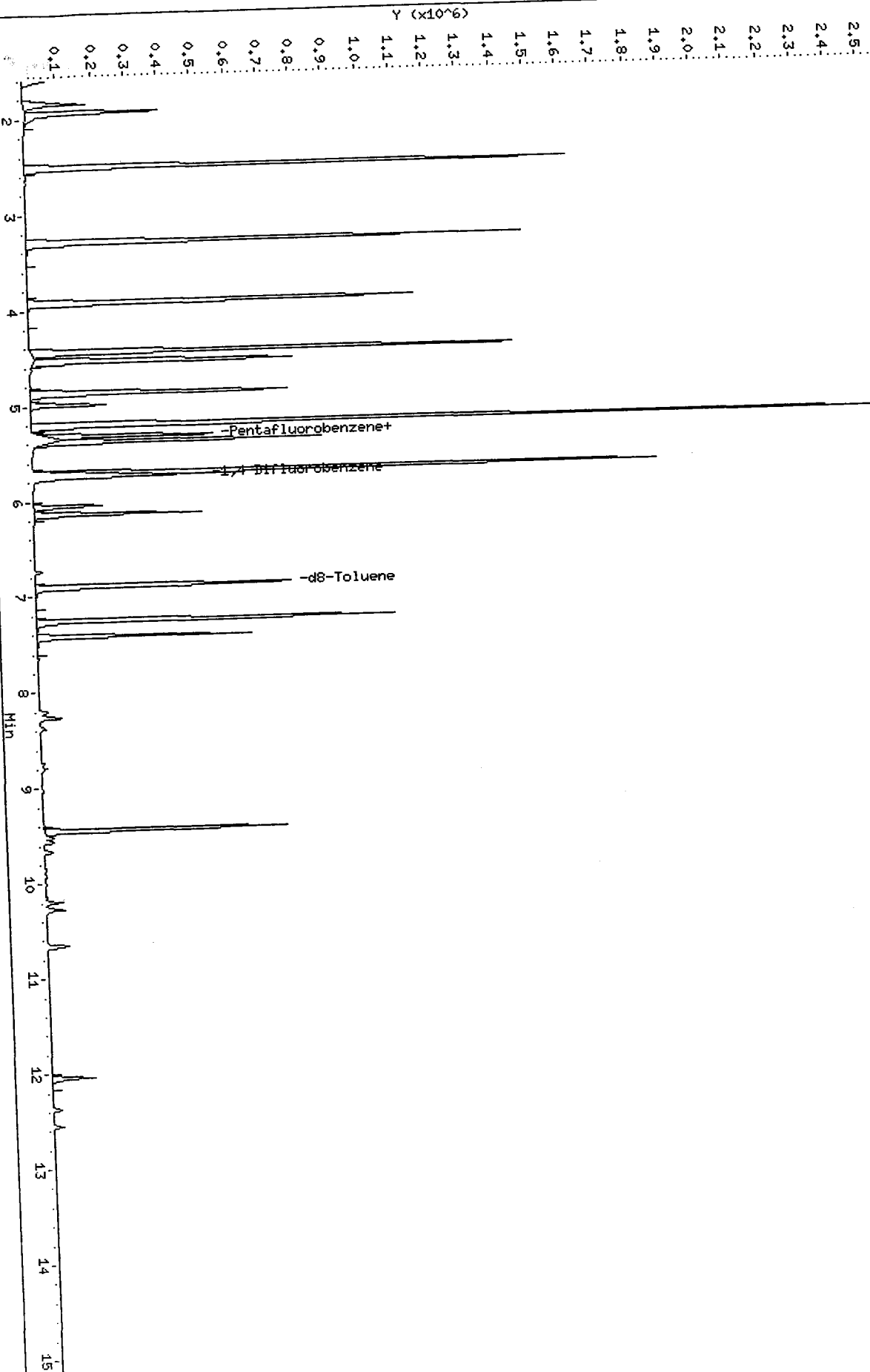
Column phase: RTXVMS

Instrument: nt7.i

Operator: MH

Column diameter: 0.18

/chem1/nt7.1/08Apr2010.b/04081008.d



MH
4/13/10

Data File: /chem1/nt7.i/08apr2010.b/04081009.d
Report Date: 13-Apr-2010 16:19

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081009.d
Lab Smp Id: ICV0408
Inj Date : 07-APR-2010 17:01
Operator : MH^{MH} Inst ID: nt7.i
Smp Info : ICV0408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 13-Apr-2010 16:18 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62		1.540	1.551	(0.290)	225026	854.237	854.24 (M)
2 1,1-Dichloroethene	96		2.520	2.520	(0.474)	196977	860.831	860.83
175 Trans-1,2-Dichloroethene	96		3.295	3.296	(0.620)	223282	906.855	906.86
3 cis-1,2-dichloroethene	96		4.447	4.447	(0.836)	230847	938.271	938.27
6 Benzene	78		5.211	5.211	(0.907)	966100	958.546	958.55
* 4 Pentafluorobenzene	168		5.316	5.317	(1.000)	512463	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.002)	192453	907.159	907.16
176 1,2-Dichloroethane	62		5.375	5.375	(1.011)	271091	956.108	956.11
8 Trichloroethene	130		5.712	5.712	(0.994)	251375	955.324	955.32 (Q)
* 7 1,4-Difluorobenzene	114		5.746	5.746	(1.000)	694540	1000.00	
\$ 9 d8-Toluene	98		6.901	6.902	(1.201)	801460	1002.93	1002.9
10 Tetrachloroethene	166		7.258	7.258	(1.263)	244197	966.053	966.05
11 1,1,2,2-Tetrachloroethane	83		9.445	9.445	(1.644)	162191	1059.96	1060.0

Data File: /chem1/nt7.i/08apr2010.b/04081009.d
Report Date: 13-Apr-2010 16:19

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081009.d
 Lab Smp Id: ICV0408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07SM-APR-2010
 Calibration Time: 15:44

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	512463	2.12
7 1,4-Difluorobenze	711657	355828	1423314	694540	-2.41

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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:
 Sample Matrix: LIQUID
 Lab Smp Id: ICV0408
 Level: LOW
 Data Type: MS DATA
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Client SDG: 08apr2010
 Fraction: VOA
 Operator: MH
 SampleType: LCS
 Quant Type: ISTD

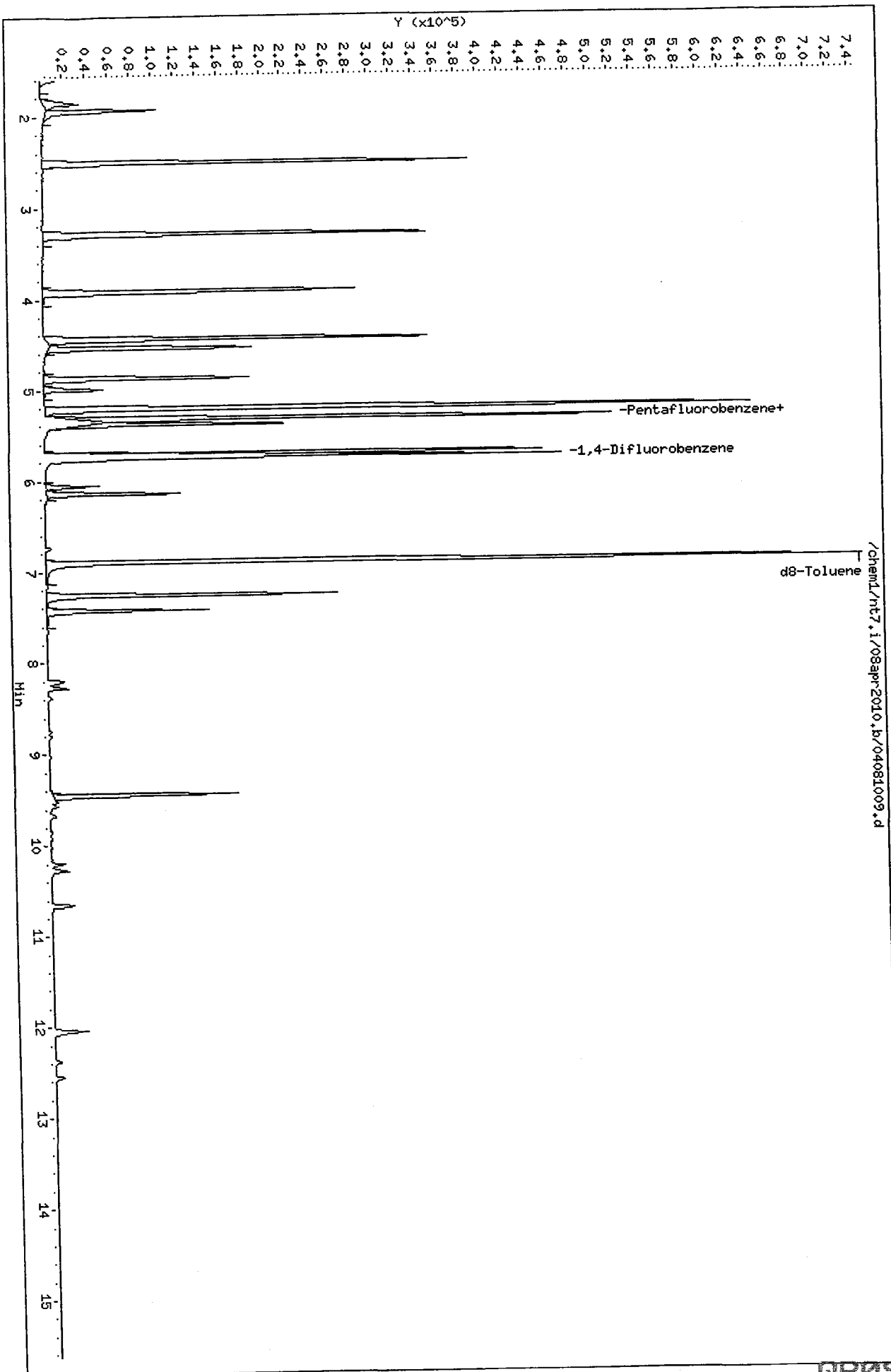
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	854.24	85.42	76-120
176 1,2-Dichloroethane	1000.0	956.11	95.61	70-130
175 Trans-1,2-Dichloro	1000.0	906.86	90.69	70-130
2 1,1-Dichloroethene	1000.0	860.83	86.08	79-126
3 cis-1,2-dichloroet	1000.0	938.27	93.83	76-127
6 Benzene	1000.0	958.55	95.85	75-121
8 Trichloroethene	1000.0	955.32	95.53	79-120
10 Tetrachloroethene	1000.0	966.05	96.61	75-123
11 1,1,2,2-Tetrachlor	1000.0	1060.0	106.00	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	907.16	90.72	76-119
\$ 9 d8-Toluene	1000.0	1002.9	100.29	60-140

Data File: /chem1/nt7.i/08apr2010.b/04081009.d
Date: 07-APR-2010 17:01
Client ID: 8
Sample Info: IC0408,10,10,0

Column phase: RTXVMS

Instrument: nt7.i
Operator: MH
Column diameter: 0.18



001 40 0000

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Batch File: /chem1/nt7.i/08apr2010.b
Inst ID: nt7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Vinyl Chloride	1.552	1.539	1.553	1.552	1.551	1.552	1.551	1.552	1.338-1.763	1.550	0.005
2 1,1-Dichloroethene	2.520	2.508	2.518	2.519	2.520	2.519	2.520	2.519	2.307-2.733	2.518	0.004
175 Trans-1,2-Dichloroethene	3.295	3.296	3.294	3.294	3.296	3.294	3.295	3.295	3.083-3.508	3.295	0.001
3 cis-1,2-dichloroethene	4.447	4.447	4.445	4.446	4.447	4.446	4.446	4.447	4.234-4.660	4.446	0.001
6 Benzene	5.211	5.211	5.209	5.210	5.211	5.210	5.210	5.211	4.981-5.441	5.210	0.001
* 4 Pentafluorobenzene	5.316	5.317	5.315	5.316	5.317	5.315	5.316	5.317	5.104-5.529	5.316	0.001
\$ 5 d4-1,2-Dichloroethane	5.328	5.328	5.327	5.328	5.328	5.327	5.328	5.328	5.116-5.541	5.328	0.001
176 1,2-Dichloroethane	5.375	5.375	5.385	5.375	5.375	5.386	5.375	5.375	5.163-5.588	5.378	0.005
8 Trichloroethene	5.711	5.712	5.711	5.711	5.712	5.711	5.710	5.712	5.482-5.941	5.711	0.001
* 7 1,4-Difluorobenzene	5.746	5.747	5.745	5.746	5.746	5.745	5.745	5.745	5.516-5.976	5.746	0.001
\$ 9 d8-Toluene	6.890	6.890	6.903	6.892	6.902	6.903	6.891	6.902	6.672-7.131	6.896	0.006
10 Tetrachloroethene	7.258	7.258	7.259	7.260	7.258	7.259	7.260	7.258	7.029-7.488	7.259	0.001
11 1,1,2,2-Tetrachloroethane	9.457	9.457	9.446	9.447	9.445	9.446	9.447	9.445	9.215-9.675	9.449	0.005

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

080810 : 081114

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: 07APR2010

Project: POS-LLA

Instrument ID: NT7

Cont. Calib. Date: ~~04/06/10~~ ^{4/7/10} 4/16/10

Init. Calib. Date: 03/18/10

Cont. Calib. Time: 0640

COMPOUND	CalAmt or ARF	CC Amt 1000	MIN RRF	CURVE TYPE	%D or Drift
Vinyl Chloride	0.526	0.466	0.010	AVRG	-11.4
1,1-Dichloroethene	0.431	0.442	0.010	AVRG	2.6
cis-1,2-dichloroethene	0.483	0.476	0.010	AVRG	-1.4
Benzene	1.351	1.356	0.010	AVRG	0.4
Trichloroethene	0.350	0.348	0.010	AVRG	-0.6
Tetrachloroethene	0.326	0.352	0.010	AVRG	8.0
1,1,2,2-Tetrachloroethane	0.222	0.248	0.300	AVRG	11.7 *
Trans-1,2-Dichloroethene	0.473	0.478	0.010	AVRG	1.0
1,2-Dichloroethane	0.474	0.542	0.010	AVRG	14.3
d4-1,2-Dichloroethane	0.362	0.428	0.010	AVRG	18.2
d8-Toluene	1.137	1.153	0.010	AVRG	1.4

<- Exceeds QC limit of 20% D
* RF less than minimum RF

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt7.i Injection Date: 06-APR-2010 06:40
Lab File ID: 04071002.d Init. Cal. Date(s): 18-MAR-2010 18-MAR-2010
Analysis Type: WATER Init. Cal. Times: 04:07 06:47
Lab Sample ID: CC0407 Quant Type: ISTD
Method: /chem1/nt7.i/07apr2010.b/sim031810.m

COMPOUND	RRF / AMOUNT	RF1000	MIN		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
1 Vinyl Chloride	0.52532	0.46553	0.100	-11.38263	20.00000	Averaged	
2 1,1-Dichloroethene	0.43124	0.44173	0.100	2.43299	20.00000	Averaged	
175 Trans-1,2-Dichloroethene	0.47324	0.47833	0.100	1.07589	20.00000	Averaged	
3 cis-1,2-dichloroethene	0.48319	0.47625	0.100	-1.43688	20.00000	Averaged	
6 Benzene	1.35145	1.35621	0.100	0.35251	20.00000	Averaged	
\$ 5 d4-1,2-Dichloroethane	0.36232	0.42763	0.100	18.02303	20.00000	Averaged	
176 1,2-Dichloroethane	0.47398	0.54255	0.100	14.46519	20.00000	Averaged	
8 Trichloroethene	0.35012	0.34805	0.100	-0.59178	20.00000	Averaged	
\$ 9 d8-Toluene	1.13737	1.15284	0.100	1.35979	20.00000	Averaged	
10 Tetrachloroethene	0.32563	0.35197	0.100	8.09070	20.00000	Averaged	
11 1,1,2,2-Tetrachloroethane	0.22199	0.24791	0.100	11.67361	20.00000	Averaged	

4/14/11

Data File: /chem1/nt7.1/07apr2010.b/04071001.d

Date: 06-APR-2010 06:10

Client ID:

Sample Info: BFB0407

Column phase: RTXVMS

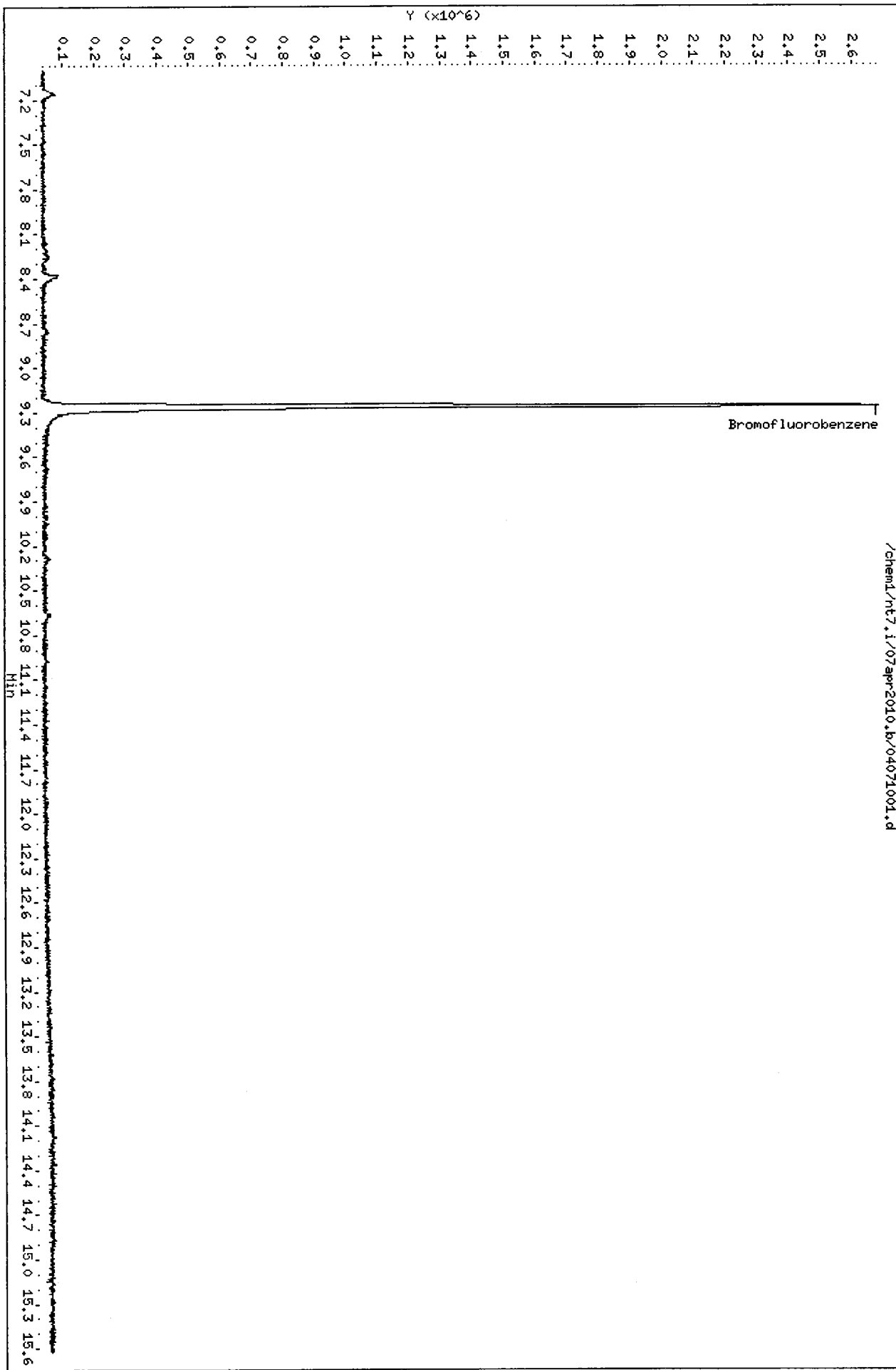
Page 1

Instrument: nt7.i

Operator: HH

Column diameter: 0.18

/chem1/nt7.1/07apr2010.b/04071001.d



0000 : 00150

4/14/10

Data File: /chem1/nt7.i/07apr2010.b/04071002.d
 Report Date: 14-Apr-2010 14:53

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/07apr2010.b/04071002.d
 Lab Smp Id: CC0407
 Inj Date : 06-APR-2010 06:40
 Operator : MH Inst ID: nt7.i
 Smp Info : CC0407,10,10,0
 Misc Info : 10-
 Comment :
 Method : /chem1/nt7.i/07apr2010.b/sim031810.m
 Meth Date : 14-Apr-2010 14:52 monicah Quant Type: ISTD
 Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/L)	ON-COL (ng/L)
1 Vinyl Chloride	62	1.552	1.552	(0.292)	231372	1000.00	886.17
2 1,1-Dichloroethene	96	2.520	2.520	(0.474)	219544	1000.00	1024.3
175 Trans-1,2-Dichloroethene	96	3.295	3.295	(0.620)	237736	1000.00	1010.8
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	236701	1000.00	985.63
6 Benzene	78	5.211	5.211	(0.907)	995387	1000.00	1003.5
* 4 Pentafluorobenzene	168	5.317	5.317	(1.000)	497009	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	212534	1000.00	1180.2
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	269650	1000.00	1144.7(M)
8 Trichloroethene	130	5.712	5.712	(0.994)	255451	1000.00	994.08
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	733947	1000.00	
\$ 9 d8-Toluene	98	6.902	6.902	(1.201)	846124	1000.00	1013.6
10 Tetrachloroethene	166	7.258	7.258	(1.263)	258330	1000.00	1080.9
11 1,1,2,2-Tetrachloroethane	83	9.445	9.445	(1.644)	181951	1000.00	1116.7

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04071002.d
Lab Smp Id: CC0407
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-

Calibration Date: 06-APR-2010
Calibration Time: 06:40
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	497009	13.81
7 1,4-Difluorobenze	618992	309496	1237984	733947	18.57

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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/nt7.1/07apr2010.b/04071002.d

Date : 06-APR-2010 06:40

Client ID:

Sample Info: CC0407.10.10.0

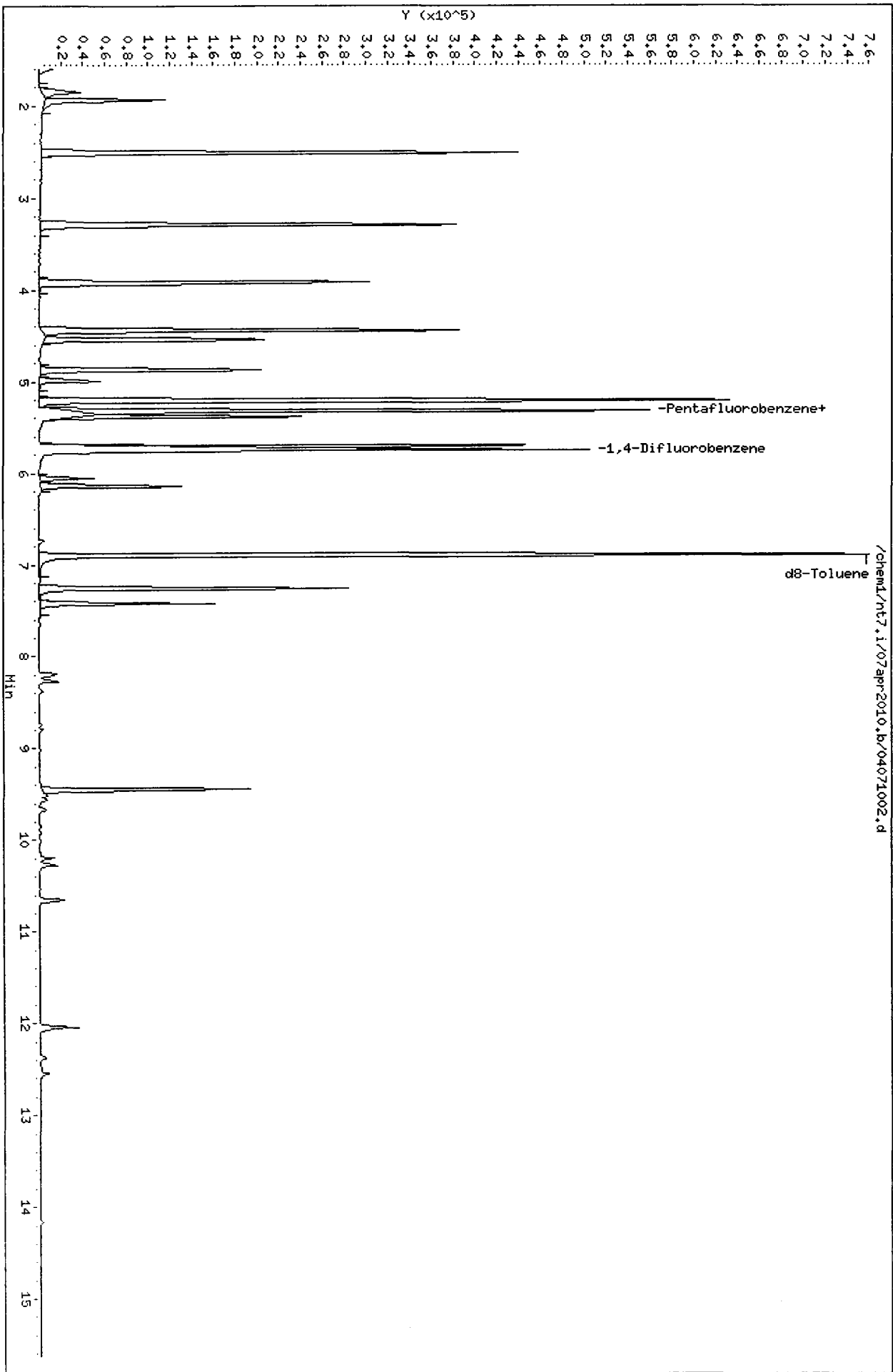
Column phase: RTXVMS

Instrument: nt7.1

Operator: HH

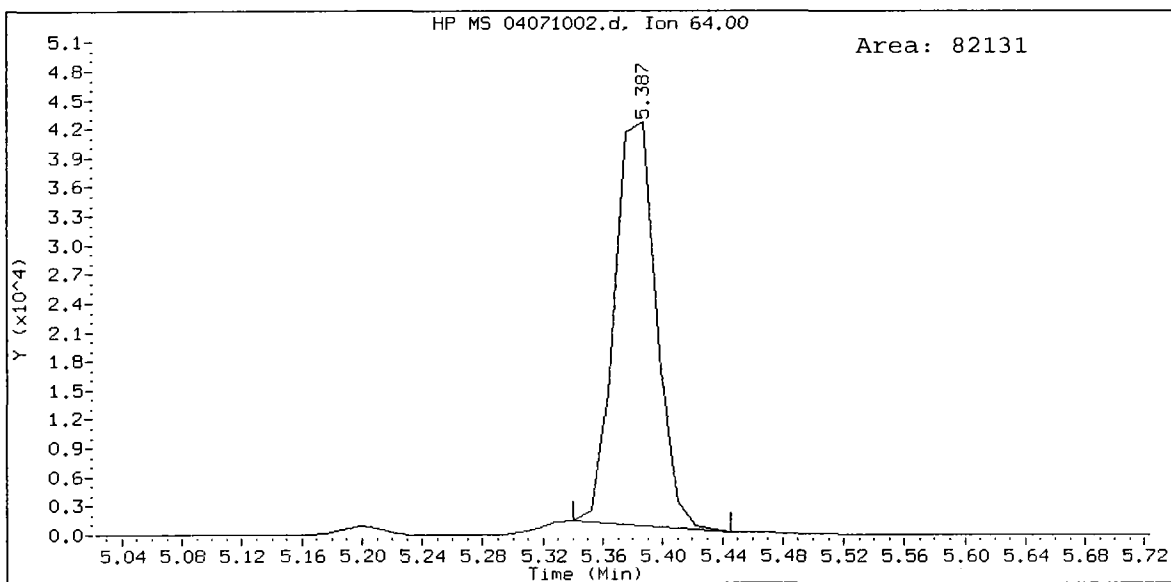
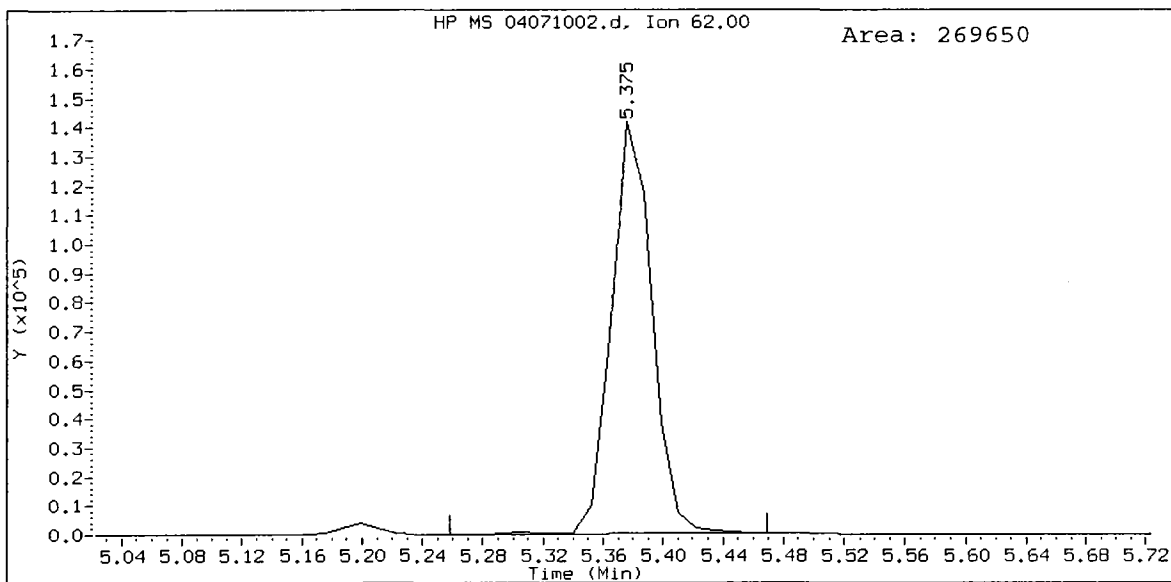
Column diameter: 0.18

Page 4



0009 : 0015H

CC0407, /chem1/nt7.i/07apr2010.b/04071002.d
1,2-Dichloroethane Amount: 1144.65



SIM Volatile Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

Data File: /chem1/nt7.i/18MARCH2010.b/03181001.d

Date : 18-MAR-2010 01:35

Client ID: BFB0318

Instrument: nt7.i

Sample Info: BFB0318

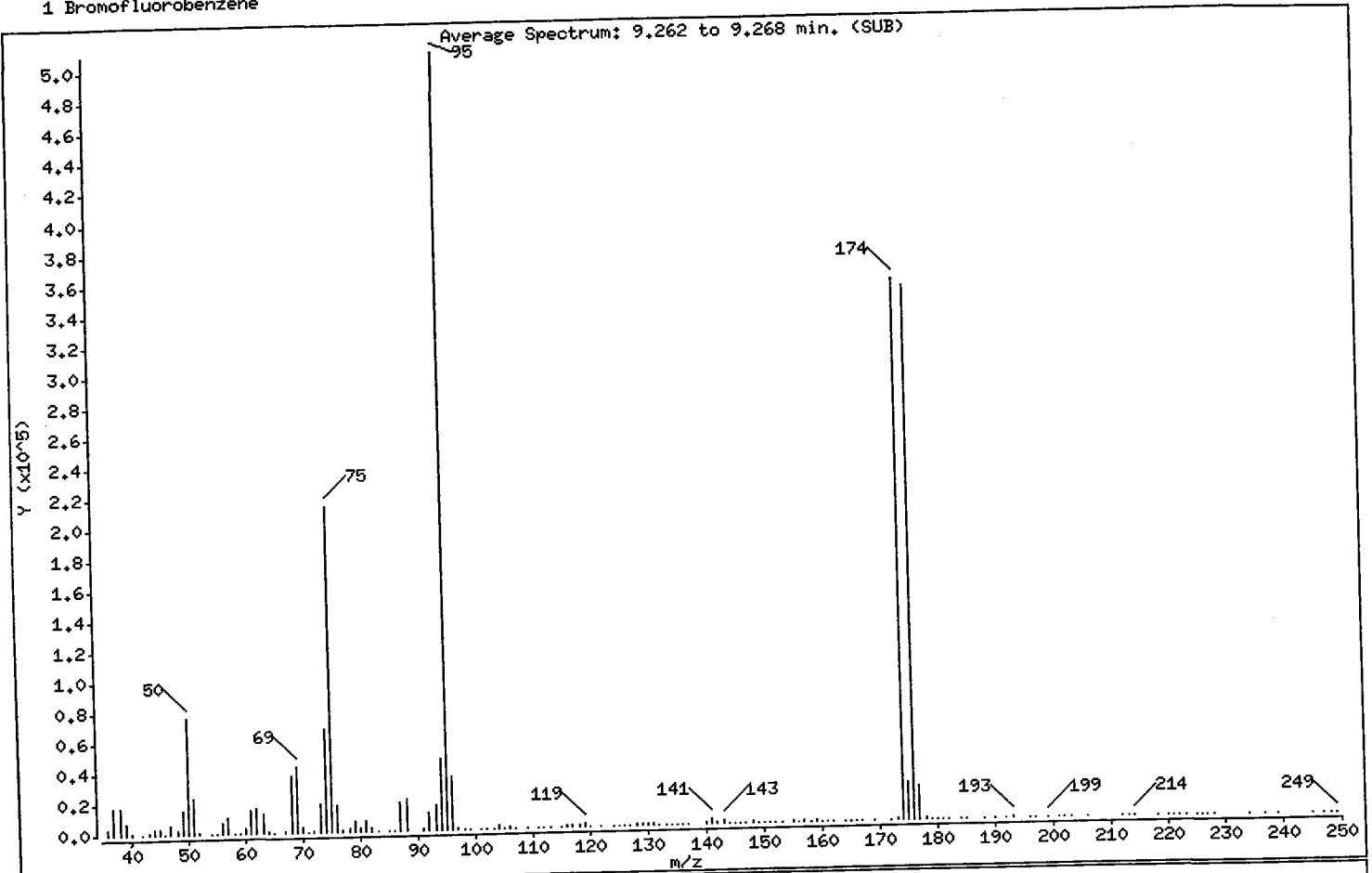
Purge Volume: 5.0

Operator: PC

Column phase: RTX502.2

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.00
75	30.00 - 66.00% of mass 95	41.84
96	5.00 - 9.00% of mass 95	6.87
173	Less than 2.00% of mass 174	0.23 (0.34)
174	50.00 - 101.00% of mass 95	69.56
175	4.00 - 9.00% of mass 174	4.94 (7.10)
176	93.00 - 101.00% of mass 174	68.65 (98.70)
177	5.00 - 9.00% of mass 176	4.38 (6.38)

Data File: /chem1/nt7.i/18MARCH2010.b/03181001.d

Date : 18-MAR-2010 01:35

Client ID: BFB0318

Instrument: nt7.i

Sample Info: BFB0318

Purge Volume: 5.0

Operator: PC

Column phase: RTX502.2

Column diameter: 0.18

Data File: 03181001.d

Spectrum: Average Spectrum: 9.262 to 9.268 min. (SUB)

Location of Maximum: 95.00

Number of points: 160

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3271	80.00	2333	130.00	1288	178.00	859
37.00	18080	81.00	7251	131.00	870	179.00	248
38.00	17640	82.00	1932	132.00	88	180.00	77
39.00	6485	83.00	485	133.00	190	181.00	63
40.00	760	85.00	146	134.00	197	182.00	61
42.00	479	86.00	445	135.00	489	184.00	185
43.00	635	87.00	18224	136.00	185	185.00	70
44.00	3064	88.00	21216	137.00	229	188.00	141
45.00	4085	91.00	750	140.00	726	190.00	223
46.00	192	92.00	11285	141.00	3175	192.00	75
47.00	5689	93.00	16285	142.00	665	193.00	895
48.00	2711	94.00	47400	143.00	2722	196.00	174
49.00	14921	95.00	511040	144.00	175	197.00	155
50.00	76672	96.00	35104	145.00	550	199.00	510
51.00	22936	97.00	1143	146.00	368	201.00	54
52.00	1001	98.00	226	147.00	353	202.00	72
54.00	165	99.00	123	148.00	1390	203.00	119
55.00	290	101.00	119	149.00	375	206.00	340
56.00	6704	102.00	95	150.00	77	212.00	242
57.00	10162	103.00	284	151.00	266	213.00	82
58.00	82	104.00	2356	152.00	515	214.00	292
59.00	488	105.00	238	153.00	522	218.00	57
60.00	3987	106.00	1148	155.00	1165	220.00	57
61.00	15800	107.00	289	156.00	195	221.00	67
62.00	16920	109.00	311	157.00	833	222.00	55
63.00	12379	111.00	472	158.00	129	223.00	55
64.00	1418	112.00	407	159.00	752	225.00	110
65.00	345	113.00	28	160.00	69	226.00	152
67.00	673	115.00	508	161.00	407	227.00	61
68.00	37824	116.00	1431	162.00	203	228.00	142
69.00	43080	117.00	1524	164.00	197	234.00	279
70.00	3943	118.00	927	165.00	168	237.00	237
71.00	319	119.00	2137	166.00	67	239.00	68
72.00	1575	120.00	135	167.00	140	245.00	242
73.00	18296	122.00	171	169.00	93	247.00	61

Data File: /chem1/nt7.i/18MARCH2010.b/03181001.d
Date : 18-MAR-2010 01:35
Client ID: BFB0318
Sample Info: BFB0318
Purge Volume: 5.0
Column phase: RTX502.2

Instrument: nt7.i
Operator: PC
Column diameter: 0.18

Data File: 03181001.d
Spectrum: Average Spectrum: 9.262 to 9.268 min. (SUB)
Location of Maximum: 95.00
Number of points: 160

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	68536	124.00	383	172.00	106	248.00	131
75.00	213760	125.00	237	173.00	1198	249.00	582
76.00	17832	126.00	502	174.00	355456		
77.00	1420	127.00	321	175.00	25232		
78.00	2052	128.00	1555	176.00	350848		
79.00	7375	129.00	662	177.00	22392		

Date : 06-APR-2010 06:10

Client ID:

Instrument: nt7.i

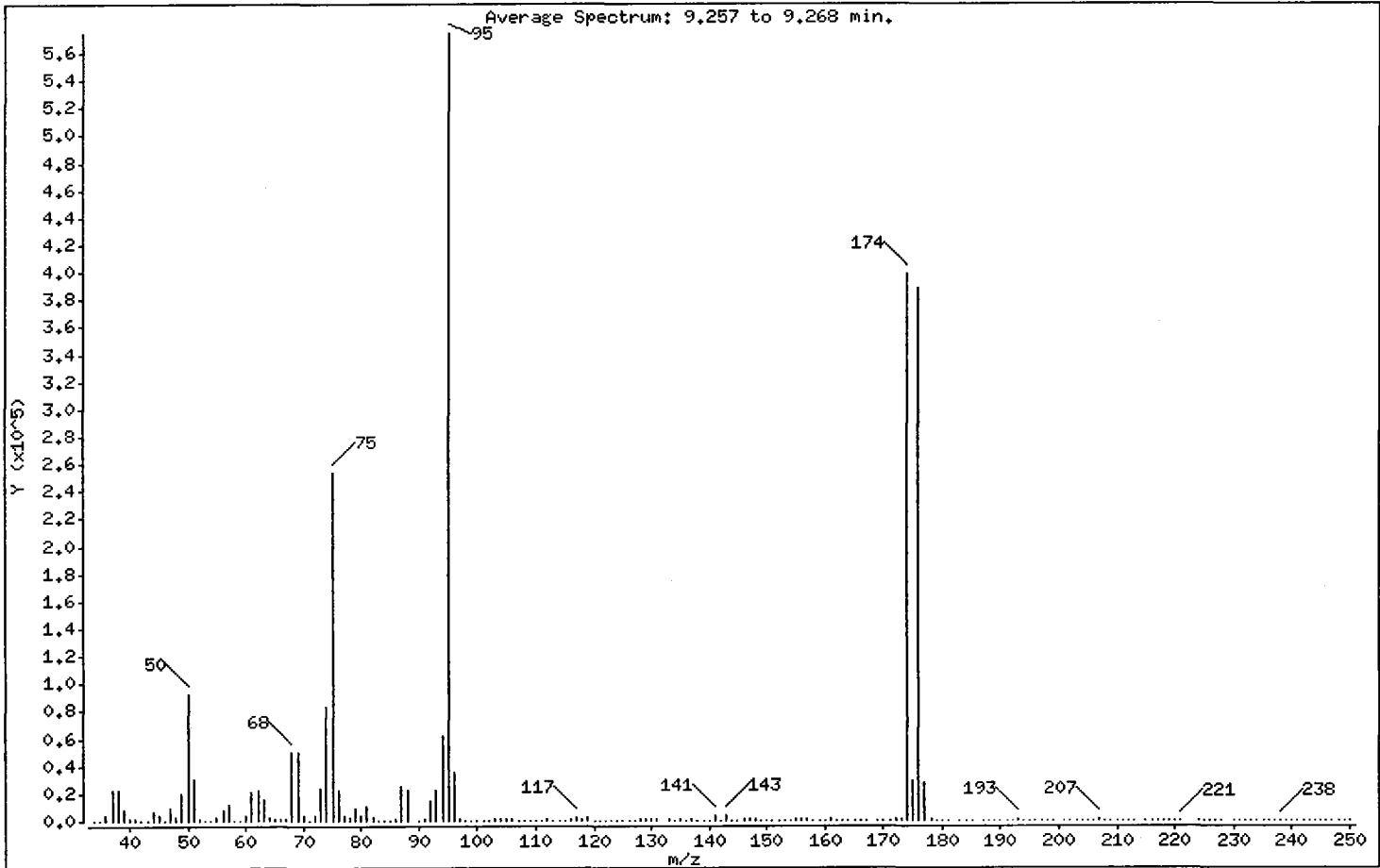
Sample Info: BFB0407

Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	16.15
75	30.00 - 66.00% of mass 95	44.06
96	5.00 - 9.00% of mass 95	6.32
173	Less than 2.00% of mass 174	0.27 (0.39)
174	50.00 - 101.00% of mass 95	69.43
175	4.00 - 9.00% of mass 174	5.09 (7.32)
176	93.00 - 101.00% of mass 174	67.57 (97.32)
177	5.00 - 9.00% of mass 176	4.86 (7.19)

Date : 06-APR-2010 06:10

Client ID: 7 MH 4/21

Instrument: nt7.i

Sample Info: BFB0407

Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

Data File: 04071001.d

Spectrum: Average Spectrum: 9.257 to 9.268 min.

Location of Maximum: 95.00

Number of points: 207

m/z	Y	m/z	Y	m/z	Y	m/z	Y
34.00	40	86.00	955	140.00	353	195.00	176
35.00	91	87.00	24536	141.00	4291	196.00	422
36.00	4353	88.00	22872	142.00	203	197.00	197
37.00	22432	90.00	66	143.00	4599	198.00	131
38.00	22008	91.00	1956	144.00	327	199.00	96
39.00	7926	92.00	14026	145.00	485	201.00	131
40.00	1512	93.00	21856	146.00	891	202.00	337
41.00	826	94.00	62072	147.00	1156	203.00	169
42.00	481	95.00	574528	148.00	934	204.00	52
43.00	384	96.00	36304	149.00	256	205.00	208
44.00	6487	97.00	1700	150.00	478	206.00	63
45.00	4582	98.00	157	151.00	242	207.00	900
46.00	458	99.00	125	152.00	203	208.00	227
47.00	8586	100.00	59	153.00	376	209.00	95
48.00	3125	101.00	40	154.00	491	210.00	175
49.00	19288	102.00	128	155.00	1177	211.00	142
50.00	92784	103.00	781	156.00	925	212.00	219
51.00	30184	104.00	1701	157.00	1006	213.00	67
52.00	1257	105.00	1146	158.00	287	215.00	156
53.00	321	106.00	1974	159.00	472	216.00	201
54.00	149	107.00	618	160.00	98	217.00	185
55.00	2017	108.00	121	161.00	704	218.00	171
56.00	7467	109.00	544	162.00	152	219.00	59
57.00	11815	110.00	452	163.00	73	220.00	209
58.00	364	111.00	357	164.00	114	221.00	214
59.00	167	112.00	703	165.00	319	224.00	65
60.00	4259	113.00	373	166.00	75	225.00	141
61.00	21528	114.00	346	167.00	182	226.00	149
62.00	21952	115.00	403	169.00	32	227.00	54
63.00	16400	116.00	1542	170.00	218	228.00	56
64.00	2061	117.00	2578	171.00	390	230.00	132
65.00	1287	118.00	1822	172.00	1410	231.00	113
66.00	739	119.00	2023	173.00	1557	232.00	121
67.00	801	120.00	35	174.00	398912	233.00	262
68.00	50848	121.00	255	175.00	29216	234.00	129

Date : 06-APR-2010 06:10

Client ID:

Instrument: nt7.i

Sample Info: BFB0407

Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

Data File: 04071001.d

Spectrum: Average Spectrum: 9.257 to 9.268 min.

Location of Maximum: 95.00

Number of points: 207

m/z	Y	m/z	Y	m/z	Y	m/z	Y
69.00	50608	122.00	454	176.00	388224	235.00	140
70.00	4608	123.00	46	177.00	27896	236.00	41
71.00	503	124.00	612	178.00	1057	237.00	224
72.00	3452	125.00	456	179.00	414	238.00	382
73.00	23264	126.00	516	180.00	93	239.00	120
74.00	83640	127.00	485	181.00	209	240.00	39
75.00	253120	128.00	1655	183.00	135	241.00	66
76.00	21984	129.00	1411	184.00	50	242.00	110
77.00	4039	130.00	1973	185.00	82	243.00	200
78.00	2063	131.00	705	187.00	98	244.00	86
79.00	9890	133.00	1551	188.00	140	245.00	147
80.00	3532	134.00	375	189.00	108	246.00	31
81.00	9910	135.00	1003	190.00	104	247.00	185
82.00	2238	136.00	271	191.00	503	248.00	270
83.00	502	137.00	857	192.00	593	249.00	305
84.00	365	138.00	234	193.00	996	250.00	303
85.00	56	139.00	241	194.00	238		

Data File: /chem1/nt7.i/08apr2010.b/04081001.d

Date : 07-APR-2010 13:26

Client ID:

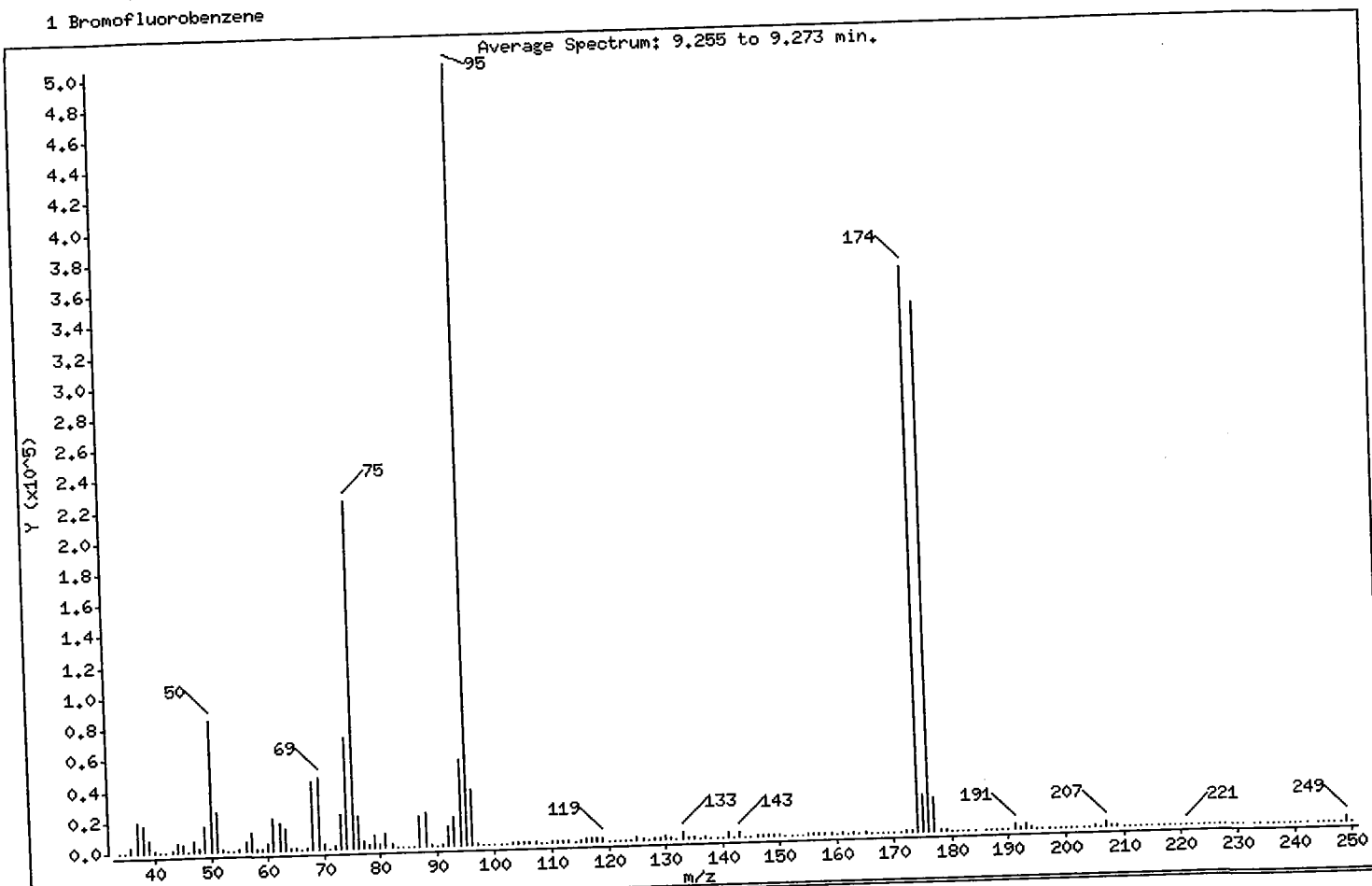
Instrument: nt7.i

Sample Info: BFB0408

Operator: MH

Column phase: RTXVMS
1 Bromofluorobenzene

Column diameter: 0.18



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	16.76
75	30.00 - 66.00% of mass 95	44.39
96	5.00 - 9.00% of mass 95	7.09
173	Less than 2.00% of mass 174	0.33 (0.45)
174	50.00 - 101.00% of mass 95	72.40
175	4.00 - 9.00% of mass 174	4.86 (6.71)
176	93.00 - 101.00% of mass 174	67.72 (93.53)
177	5.00 - 9.00% of mass 176	4.28 (6.32)

Data File: /chem1/nt7.i/08apr2010.b/04081001.d

Date : 08-APR-2010 13:26

Client ID:

Sample Info: BFB0408

Instrument: nt7.i

Operator: MH

Column diameter: 0.18

Column phase: RTXVMS

Data File: 04081001.d

Spectrum: Average Spectrum: 9.255 to 9.273 min.

Location of Maximum: 95.00

Number of points: 214

m/z	Y	m/z	Y	m/z	Y	m/z	Y
34.00	98	88.00	21872	142.00	295	197.00	47
35.00	78	89.00	581	143.00	3891	198.00	138
36.00	3148	90.00	238	144.00	422	199.00	94
37.00	19952	91.00	1545	145.00	510	200.00	107
38.00	17816	92.00	12766	146.00	1025	201.00	95
39.00	7896	93.00	18024	147.00	983	202.00	64
40.00	1235	94.00	56040	148.00	1036	203.00	559
41.00	488	95.00	505344	149.00	807	204.00	277
42.00	268	96.00	35848	150.00	589	205.00	782
43.00	712	97.00	1254	151.00	174	206.00	182
44.00	5579	98.00	309	152.00	199	207.00	3234
45.00	4505	99.00	162	153.00	388	208.00	746
46.00	182	100.00	289	154.00	362	209.00	651
47.00	7507	101.00	186	155.00	1155	210.00	172
48.00	2404	102.00	173	156.00	903	211.00	130
49.00	16456	103.00	774	157.00	784	212.00	158
50.00	84712	104.00	1642	158.00	924	213.00	117
51.00	25968	105.00	896	159.00	781	214.00	114
52.00	1251	106.00	1667	160.00	57	215.00	182
53.00	566	107.00	593	161.00	881	216.00	152
54.00	257	108.00	264	162.00	211	217.00	252
55.00	1643	109.00	161	163.00	747	218.00	126
56.00	5408	110.00	975	164.00	283	219.00	286
57.00	11543	111.00	592	165.00	885	220.00	136
58.00	751	112.00	649	166.00	285	221.00	393
59.00	784	113.00	773	167.00	141	222.00	94
60.00	4073	114.00	163	168.00	175	223.00	114
61.00	20536	115.00	769	169.00	19	224.00	65
62.00	17992	116.00	1828	170.00	197	225.00	22
63.00	14177	117.00	2504	171.00	42	226.00	44
64.00	1634	118.00	1754	172.00	1007	227.00	77
65.00	973	119.00	2509	173.00	1656	228.00	55
66.00	191	120.00	325	174.00	365888	229.00	25
67.00	810	121.00	63	175.00	24544	230.00	103
68.00	44504	122.00	326	176.00	342208	231.00	126

Date : 07-APR-2010 13:26

Client ID:

Instrument: nt7.i

Sample Info: BFB0408

Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

Data File: 04081001.d

Spectrum: Average Spectrum: 9.255 to 9.273 min.

Location of Maximum: 95.00

Number of points: 214

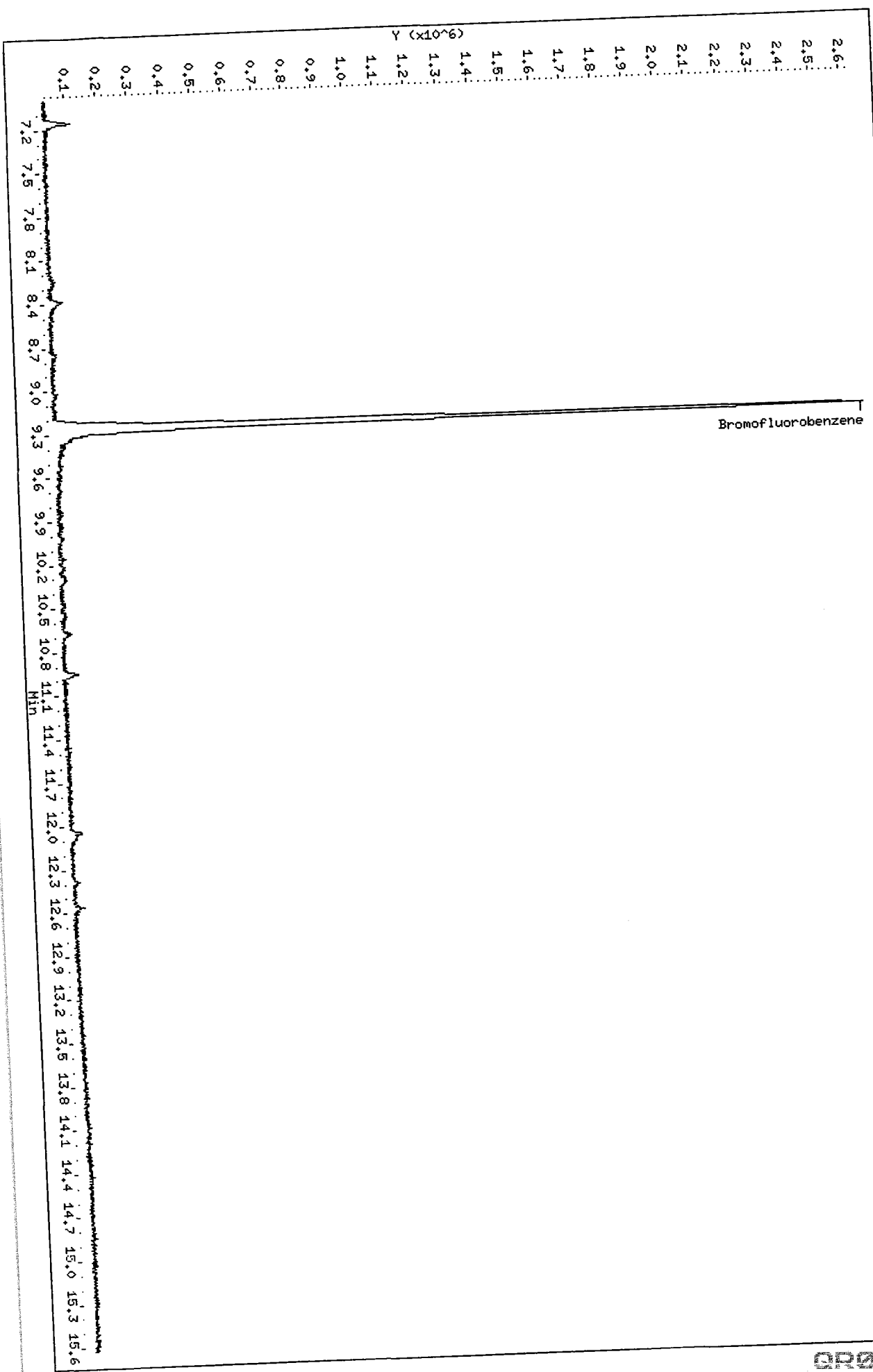
m/z	Y	m/z	Y	m/z	Y	m/z	Y
69.00	46536	123.00	418	177.00	21624	233.00	110
70.00	3595	124.00	329	178.00	897	234.00	103
71.00	310	125.00	1971	179.00	900	235.00	574
72.00	2661	126.00	899	180.00	363	236.00	47
73.00	22176	127.00	371	181.00	173	237.00	132
74.00	71728	128.00	1541	182.00	233	238.00	174
75.00	224320	129.00	1063	183.00	57	239.00	28
76.00	20704	130.00	1809	184.00	47	240.00	139
77.00	4780	131.00	975	186.00	113	241.00	44
78.00	2336	132.00	344	187.00	299	242.00	52
79.00	8635	133.00	4839	188.00	126	244.00	129
80.00	2695	134.00	1018	189.00	393	245.00	55
81.00	8742	135.00	1110	190.00	145	246.00	44
82.00	1878	136.00	290	191.00	4016	247.00	196
83.00	501	137.00	998	192.00	779	248.00	74
84.00	373	138.00	98	193.00	3502	249.00	3132
85.00	325	139.00	372	194.00	765	250.00	413
86.00	492	140.00	252	195.00	485		
87.00	20024	141.00	3532	196.00	85		

MH
4/13/10

Data File: /chem1/nt7.1/08apr2010.b/04081001.d
Date: 07-APR-2010 13:26
Client ID: MH
Sample Info: BFB0408

Instrument: nt7.i
Operator: MH
Column diameter: 0.18

Column phase: RTXVHS
/chem1/nt7.1/08apr2010.b/04081001.d



M.
4/14/10

Data File: /chem1/nt7.1/08sep2010.b/04081001.d

Date: 07-SEP-2010 13:26

Client ID: HH 4/2

Sample Info: BFB0408

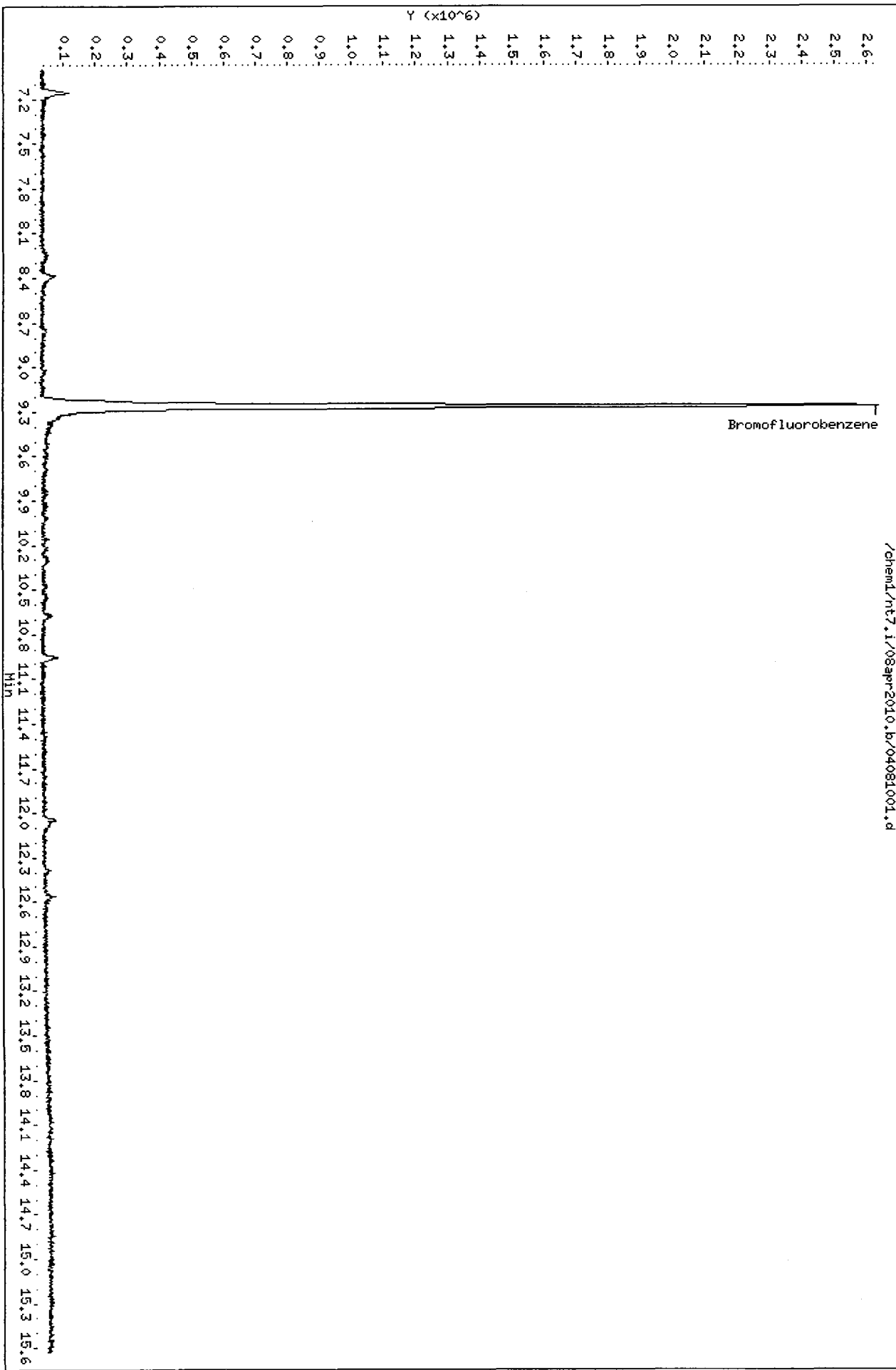
Instrument: nt7.1

Operator: HH

Column diameter: 0.18

Column phase: RTXVMS

/chem1/nt7.1/08sep2010.b/04081001.d



0000 : 0000

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: MB-040710

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-040710

LIMS ID: 10-8553

Matrix: Water

Data Release Authorized: *AB*

Reported: 04/16/10

QC Report No: QR09-Floyd/Snider

Project: Lora Lake Apartments

POS-LLA

Date Sampled: NA

Date Received: NA

Instrument/Analyst: NT7/MH

Date Analyzed: 04/07/10 09:57

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	128%
d8-Toluene	103%

MH
4/14/10

Data File: /chem1/nt7.i/07apr2010.b/04071008.d
Report Date: 14-Apr-2010 14:53

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/07apr2010.b/04071008.d
Lab Smp Id: MB0407
Inj Date : 08-APR-2010 09:57
Operator : MH⁷ MH 4/21 Inst ID: nt7.i
Smp Info : MB0407,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/07apr2010.b/sim031810.m
Meth Date : 14-Apr-2010 14:52 monicah Quant Type: ISTD
Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78							
* 4 Pentafluorobenzene	168		5.315	5.317	(1.000)	444935	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.327	5.328	(1.002)	206720	1282.30	1282.3 (R)
176 1,2-Dichloroethane	62		5.304	5.375	(0.998)	1335	6.33154	6.332 (Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.746	5.746	(1.000)	671015	1000.00	
\$ 9 d8-Toluene	98		6.891	6.902	(1.199)	788886	1033.66	1033.7
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

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: nt7.i
Lab File ID: 04071008.d
Lab Smp Id: MB0407
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-

Calibration Date: 07^{7 11/12}-APR-2010
Calibration Time: 06:40
Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	444935	1.88
7 1,4-Difluorobenze	618992	309496	1237984	671015	8.40

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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: 07apr2010
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: MB0407
Level: LOW Operator: MH
Data Type: MS DATA SampleType: BLANK
SpikeList File: special.spk Quant Type: ISTD
Sublist File: all.sub
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1282.3	128.23*	76-119
\$ 9 d8-Toluene	1000.0	1033.7	103.37	60-140

Data File: /chem1/nt7.1/07apr2010.b/04071008.d

Date : 07-APR-2010 09:57

Client ID: M# 4761

Sample Info: MB0407.10.10.0

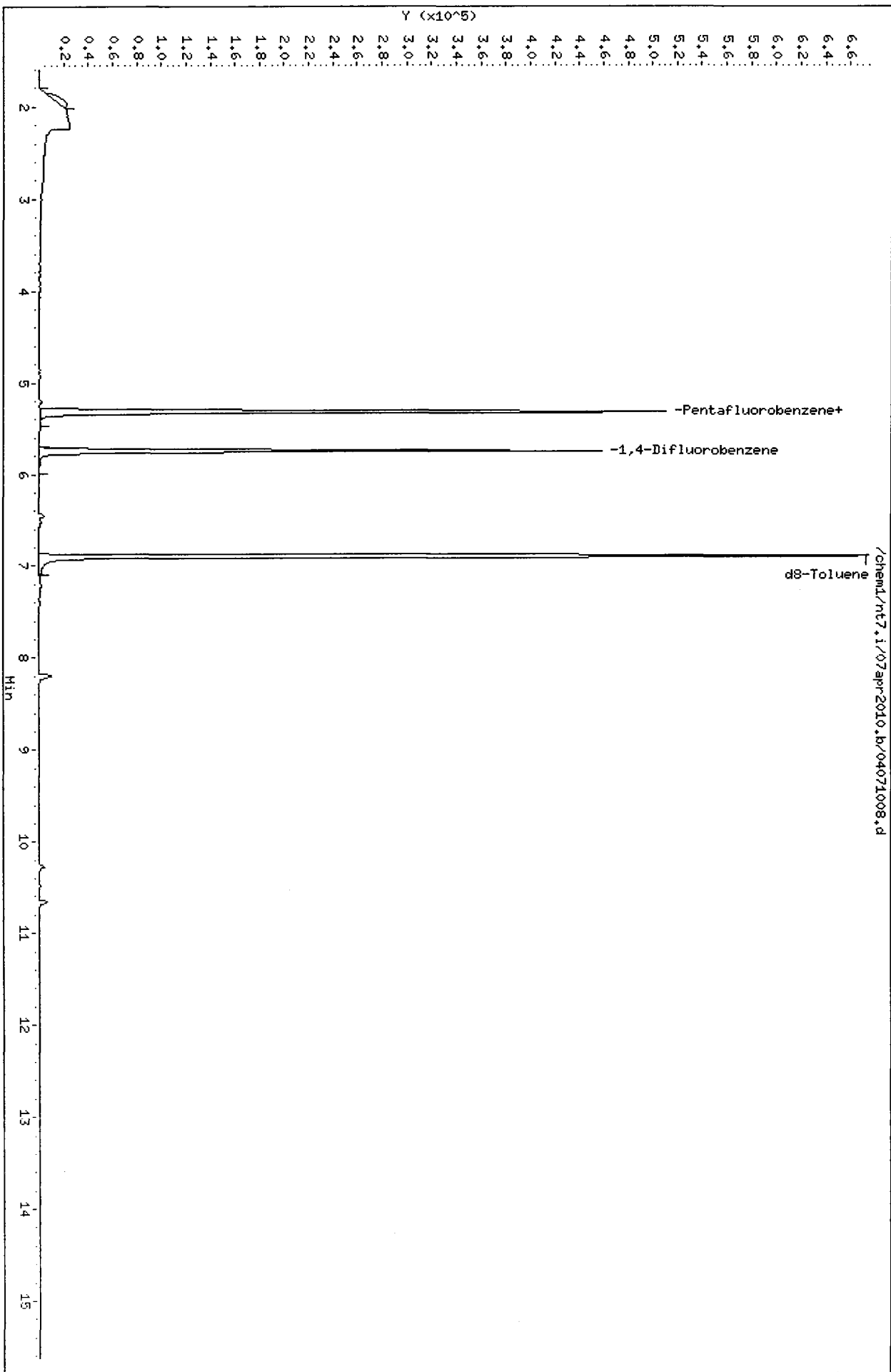
Column phase: RTXVMS

Instrument: nt7.1

Operator: HH

Column diameter: 0.18

Page 5



0000 : 00170

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040210GRAB
Page 1 of 1 MATRIX SPIKE

Lab Sample ID: QR09B

QC Report No: QR09-Floyd/Snider

LIMS ID: 10-8554

Project: Lora Lake Apartments

Matrix: Water

POS-LLA

Data Release Authorized: *[Signature]*

Date Sampled: 04/02/10

Reported: 04/16/10

Date Received: 04/02/10

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/07/10 13:58

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	125%
d8-Toluene	104%

M
4/14/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/07apr2010.b/04071017.d
 Lab Smp Id: QR09BMSD *Mon 4/14* Client Smp ID: CB4857040210GRA MSD
 Inj Date : 06-APR-2010 13:58
 Operator : MH Inst ID: nt7.i
 Smp Info : QR09BMSD,10,10,0
 Misc Info : 10-8554
 Comment :
 Method : /chem1/nt7.i/07apr2010.b/sim031810.m
 Meth Date : 14-Apr-2010 14:53 monicah Quant Type: ISTD
 Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
 Als bottle: 1 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62	1.553	1.552	(0.292)	245980	1121.45	1121.4
2 1,1-Dichloroethene	96	2.509	2.520	(0.472)	237379	1318.35	1318.3(R)
175 Trans-1,2-Dichloroethene	96	3.284	3.295	(0.618)	255305	1292.06	1292.1
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	261934	1298.31	1298.3(R)
6 Benzene	78	5.211	5.211	(0.907)	1099227	1223.72	1223.7(R)
* 4 Pentafluorobenzene	168	5.317	5.317	(1.000)	417536	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.329	5.328	(1.002)	188975	1249.15	1249.1(R)
176 1,2-Dichloroethane	62	5.376	5.375	(1.011)	308937	1561.03	1561.0(R)
8 Trichloroethene	130	5.712	5.712	(0.994)	278318	1195.95	1195.9
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	664673	1000.00	
\$ 9 d8-Toluene	98	6.902	6.902	(1.201)	788310	1042.76	1042.8
10 Tetrachloroethene	166	7.259	7.258	(1.263)	275911	1274.80	1274.8(R)
11 1,1,2,2-Tetrachloroethane	83	9.457	9.445	(1.646)	187932	1273.66	1273.7

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04071017.d
 Lab Smp Id: QR09BMSD
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
 Misc Info: 10-8554

Calibration Date: 07 APR 2010
 Calibration Time: 06:40
 Client Smp ID: CB4857040210GRA MSD
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	417536	-4.39
7 1,4-Difluorobenze	618992	309496	1237984	664673	7.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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: LIQUID
 Lab Smp Id: QR09BMSD
 Level: LOW
 Data Type: MS DATA
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
 Misc Info: 10-8554

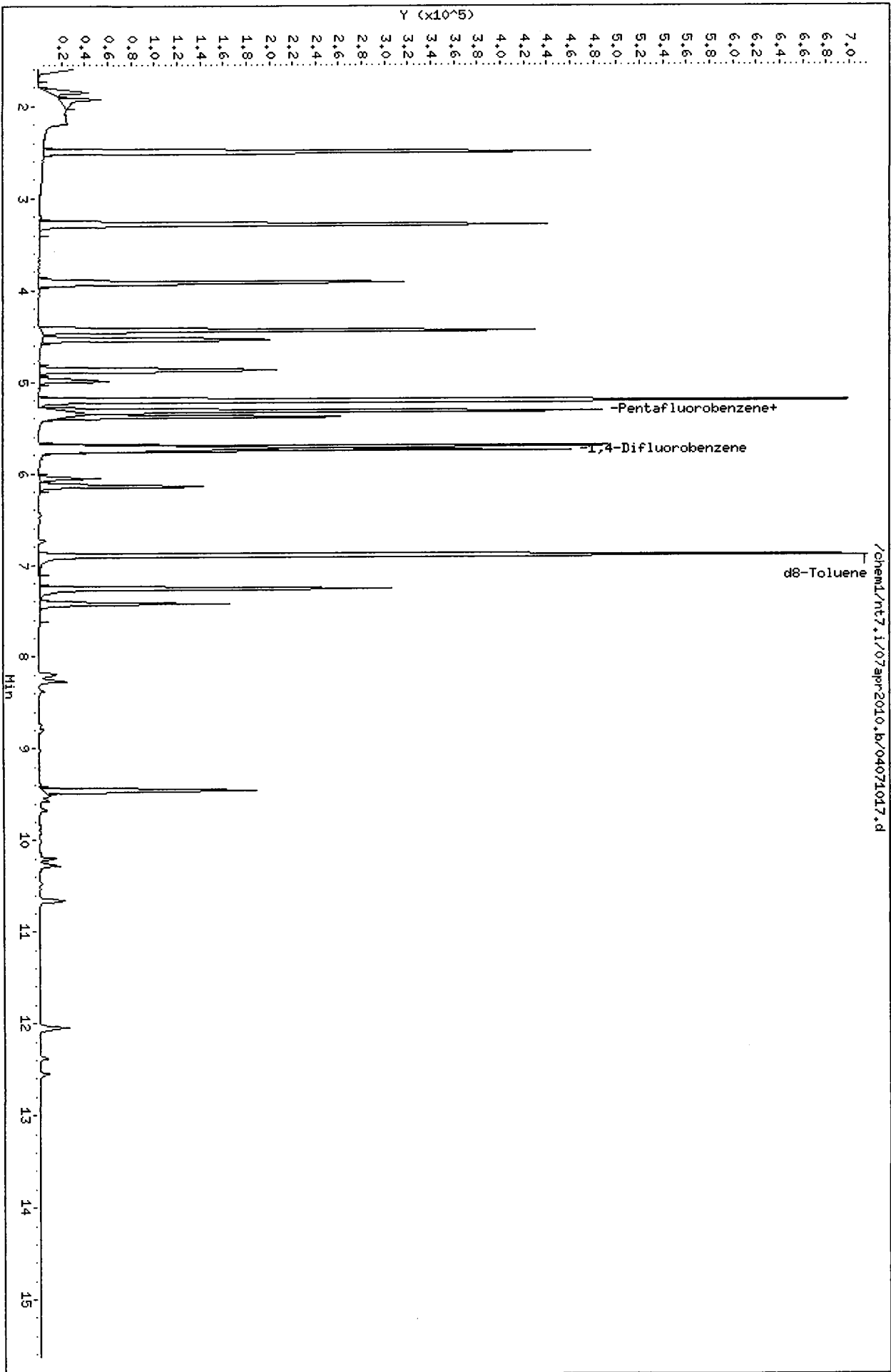
Client SDG: QR09
 Fraction: VOA
 Client Smp ID: CB4857040210GRA MSD
 Operator: MH
 SampleType: MSD
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	1121.4	112.14	76-120
176 1,2-Dichloroethane	1000.0	1561.0	156.10*	70-130
175 Trans-1,2-Dichloro	1000.0	1292.1	129.21	70-130
2 1,1-Dichloroethene	1000.0	1318.3	131.83*	79-126
3 cis-1,2-dichloroet	1000.0	1298.3	129.83*	76-127
6 Benzene	1000.0	1223.7	122.37*	75-121
8 Trichloroethene	1000.0	1195.9	119.59	79-120
10 Tetrachloroethene	1000.0	1274.8	127.48*	75-123
11 1,1,2,2-Tetrachlor	1000.0	1273.7	127.37	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1249.1	124.91*	76-119
\$ 9 d8-Toluene	1000.0	1042.8	104.28	60-140

Data File: /chemd/nt7.1/07apr2010.b/04071017.d
Date: 06-APR-2010 13:58
Client ID: CB4657040210GRA HSD
Sample Info: QR09BHSD,10,10,0
Column phase: RTXVHS

Instrument: nt7.1
Operator: HH
Column diameter: 0.18



Date : 07-APR-2010 13:58
7 APR 4/12

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BMSD,10,10,0

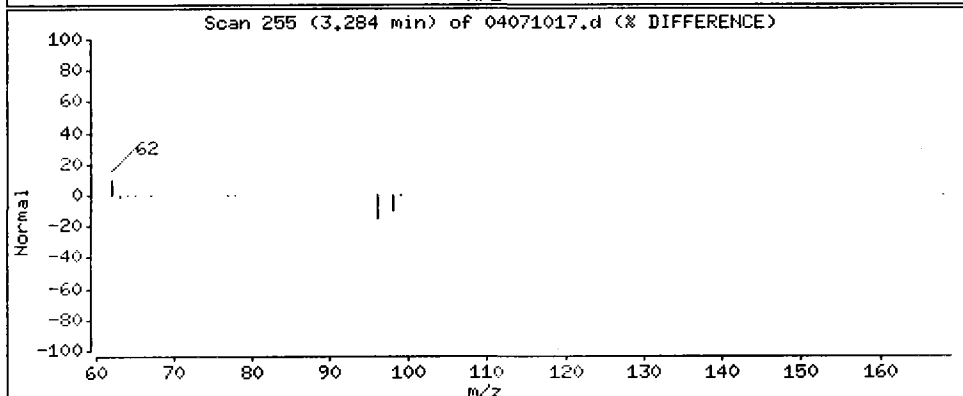
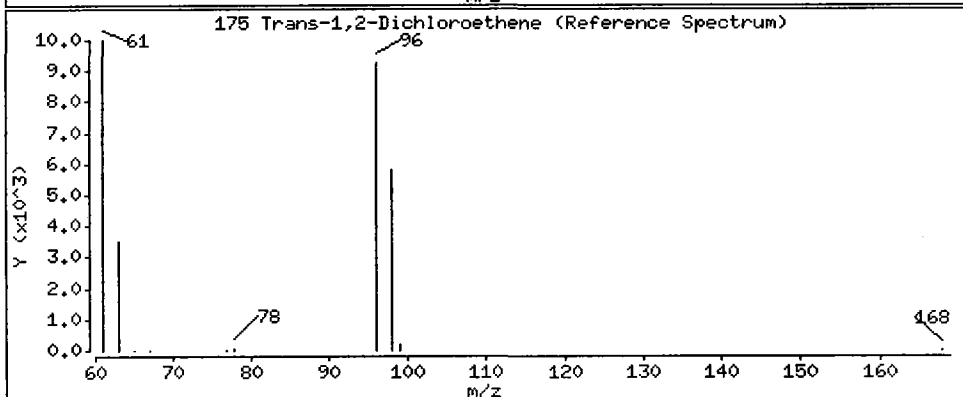
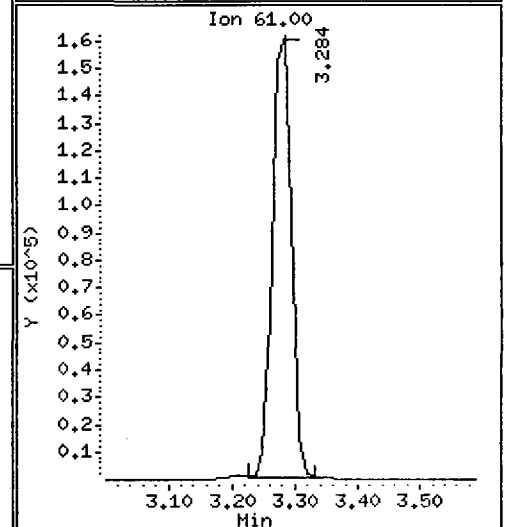
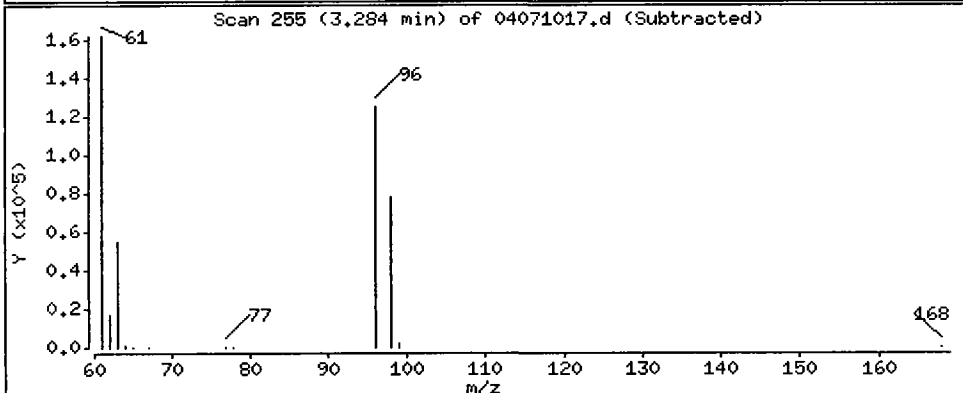
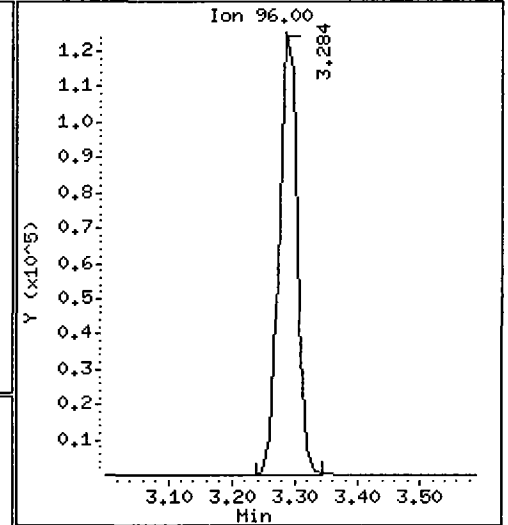
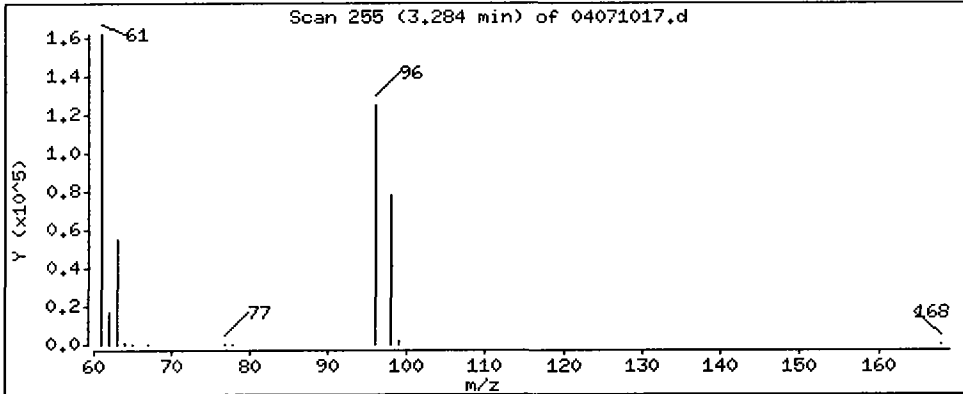
Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

175 Trans-1,2-Dichloroethene

Concentration: 1292.1 ug/L



Date : 06-APR-2010 13:58

MH 4/21

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BMSD,10,10,0

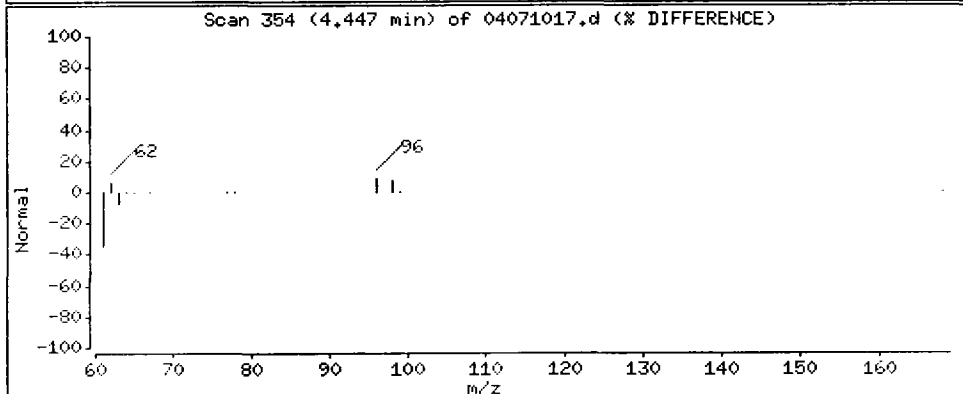
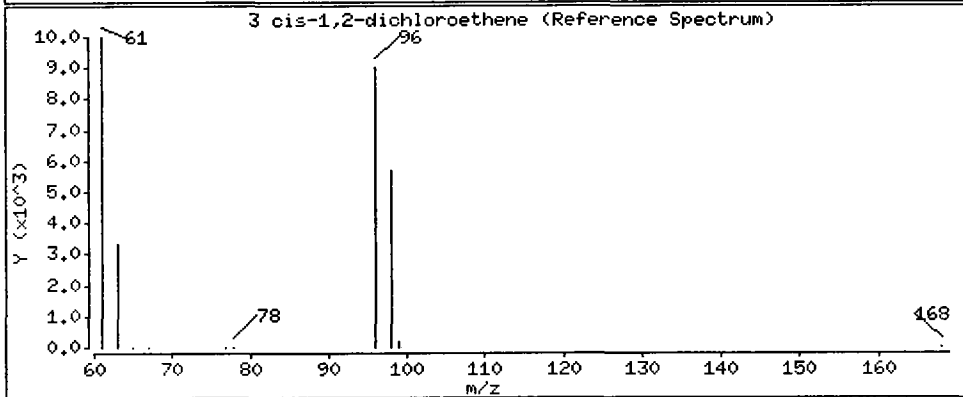
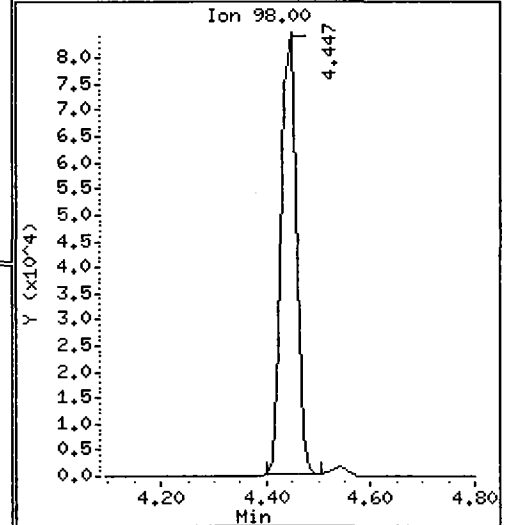
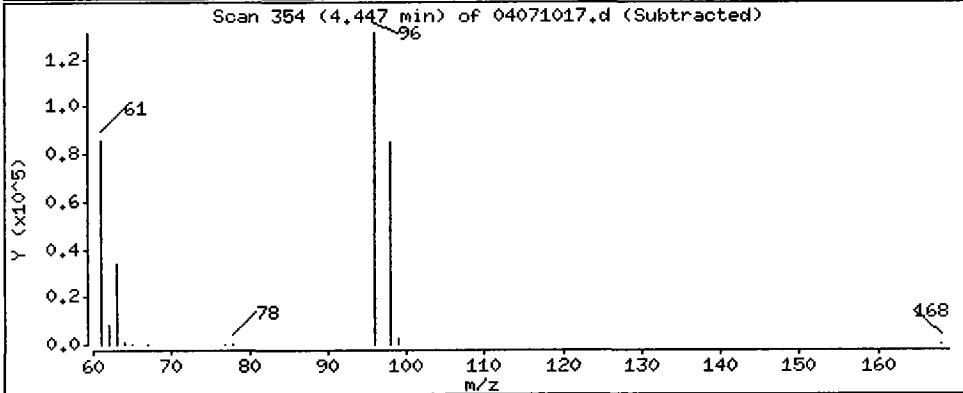
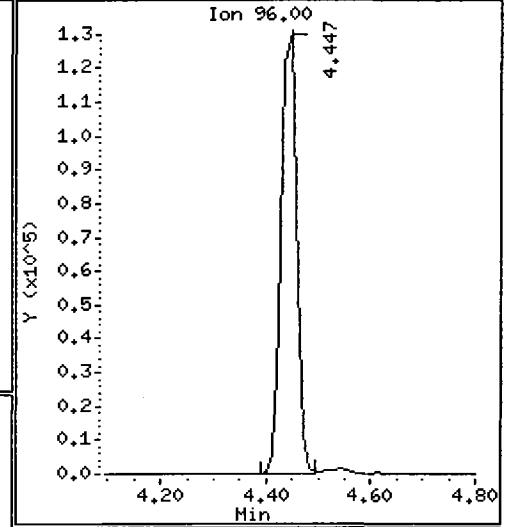
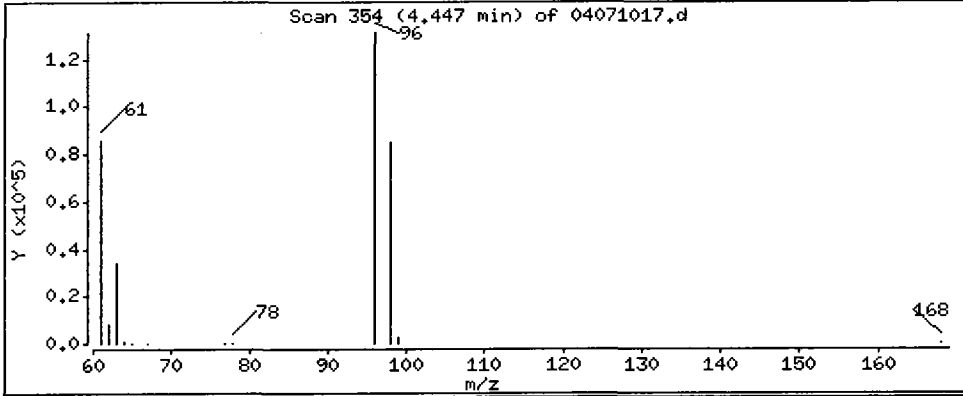
Operator: MH

Column phase: RTXVMS

Column diameter: 0,18

3 cis-1,2-dichloroethene

Concentration: 1298,3 ug/L



Date : 06-APR-2010 13:58
MH 4/21

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BMSD,10,10,0

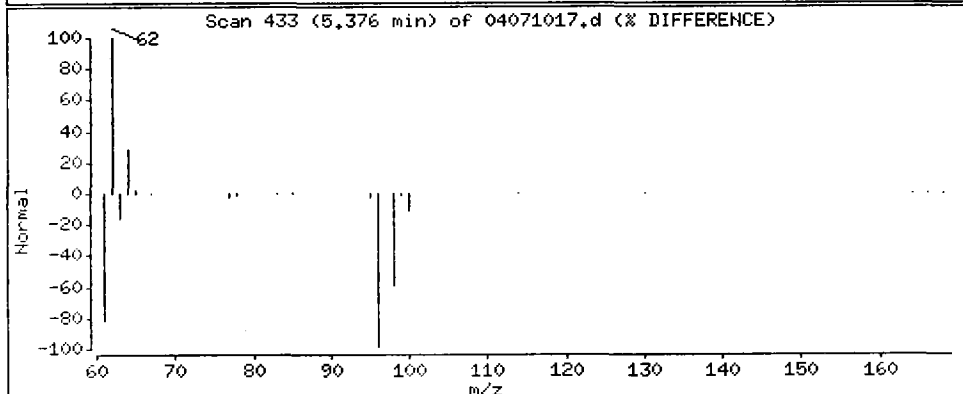
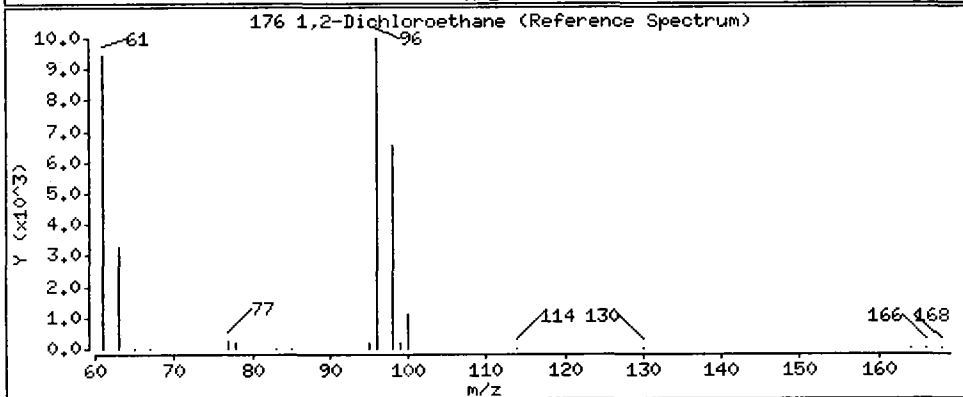
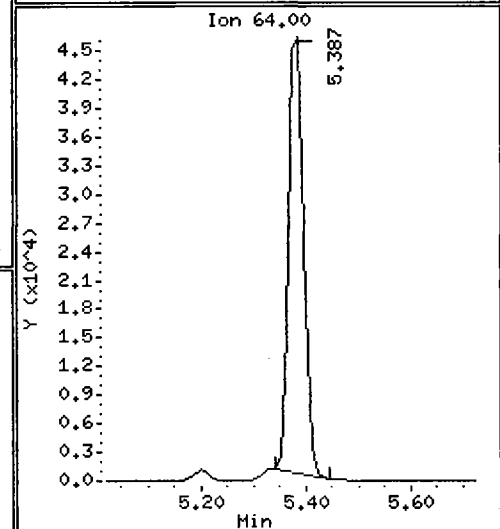
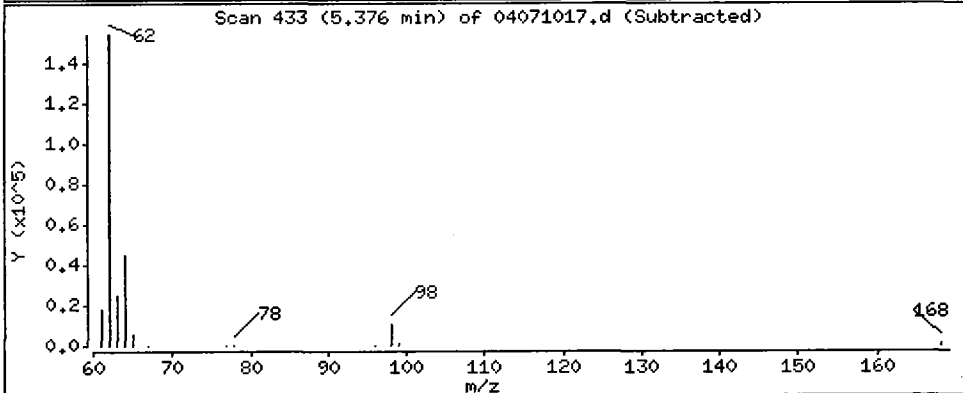
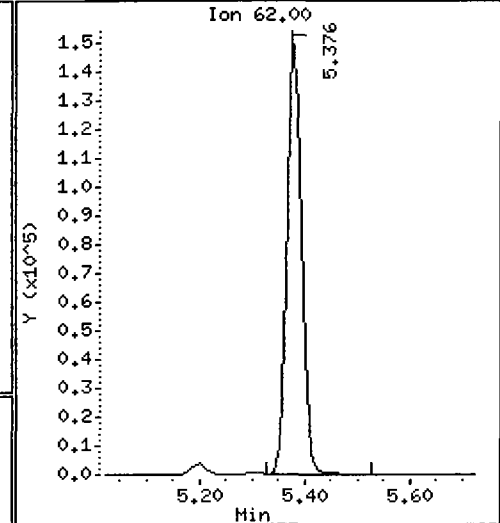
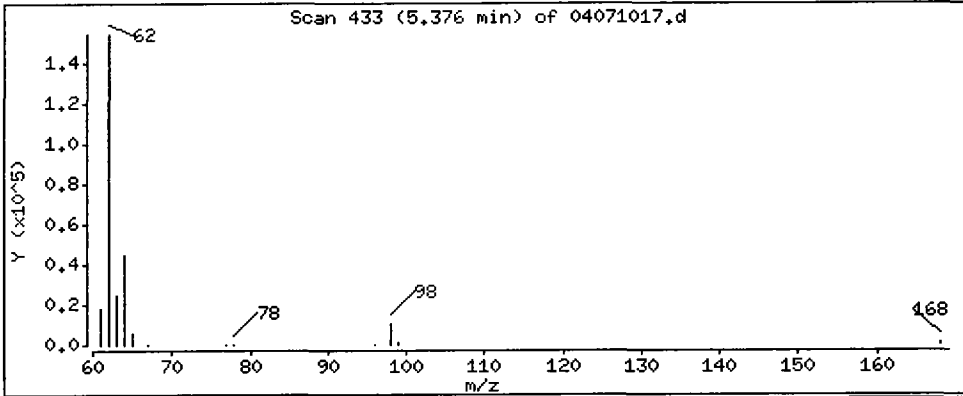
Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

176 1,2-Dichloroethane

Concentration: 1561.0 ug/L



Date : 06-APR-2010 13:58

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BMSD,10,10,0

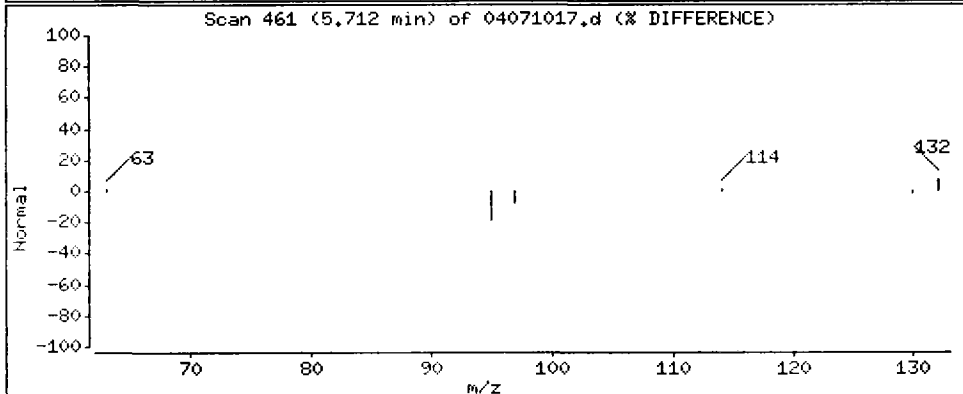
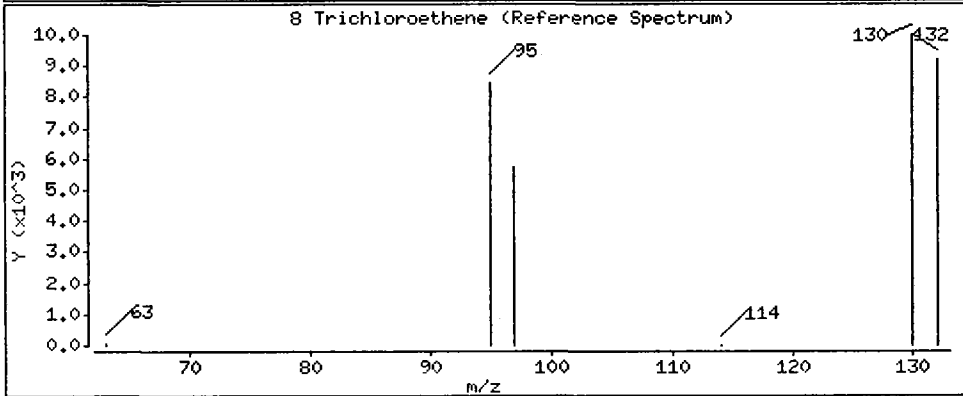
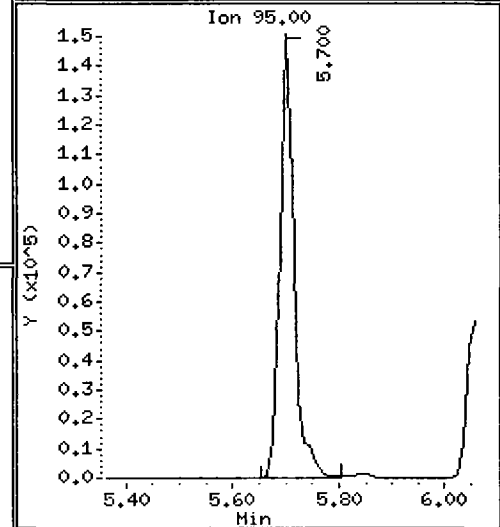
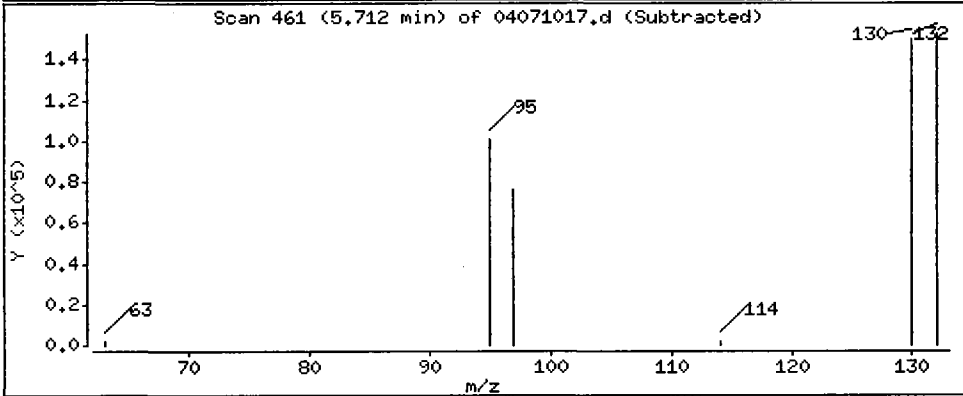
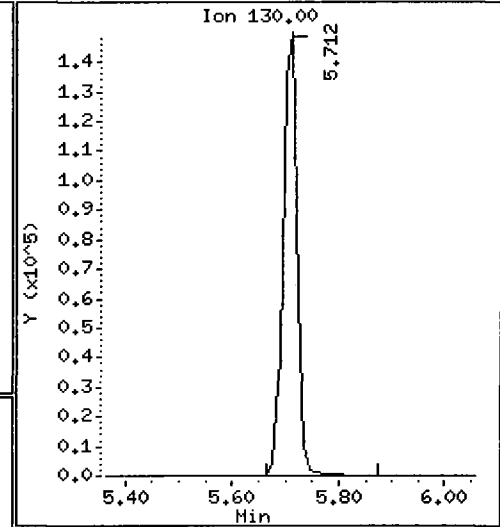
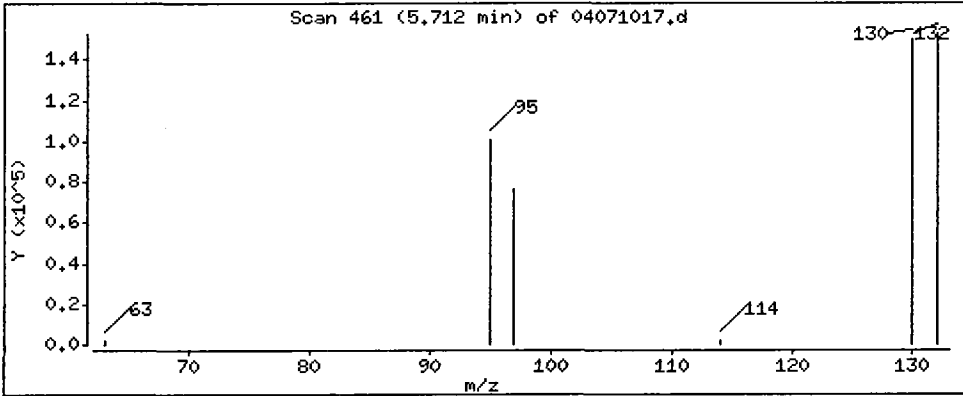
Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

8 Trichloroethene

Concentration: 1195.9 ug/L



Date : 04-APR-2010 13:58

Client ID: CB4857040210GRA HSD

Sample Info: QR09BMSD,10,10,0

Instrument: nt7.i

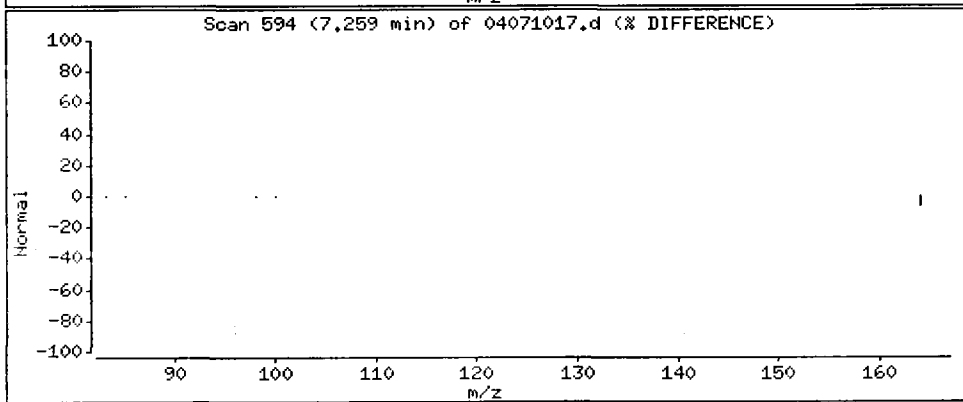
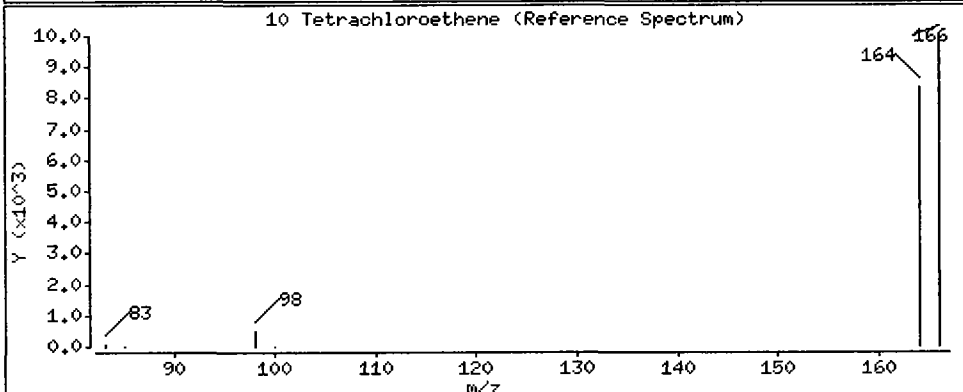
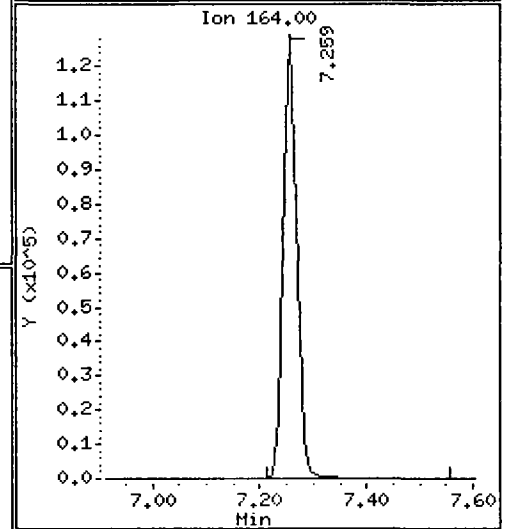
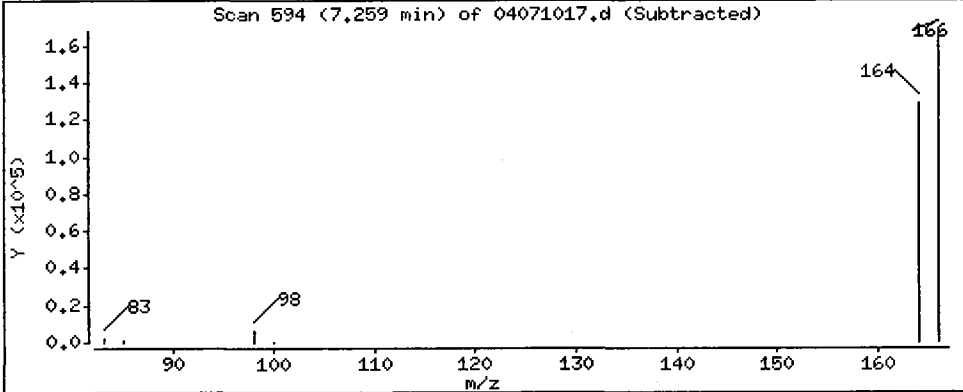
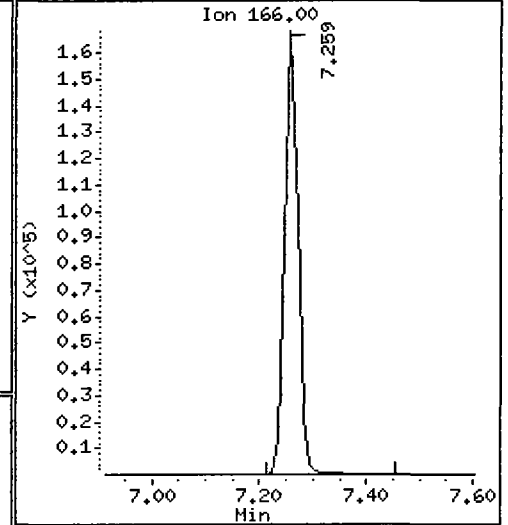
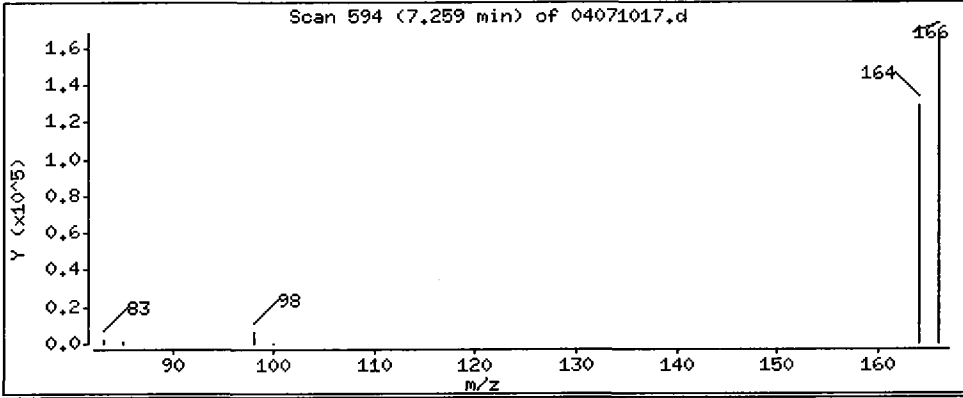
Operator: MH

Column phase: RTXVMS

Column diameter: 0.18


10 Tetrachloroethene

Concentration: 1274.8 ug/L



ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857040210GRAB
Page 1 of 1 MATRIX SPIKE DUP

Lab Sample ID: QR09B
LIMS ID: 10-8554
Matrix: Water
Data Release Authorized: 
Reported: 04/16/10

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA
Date Sampled: 04/02/10
Date Received: 04/02/10

Instrument/Analyst: NT7/MH
Date Analyzed: 04/08/10 20:47

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	---	
156-59-2	cis-1,2-Dichloroethene	0.020	---	
156-60-5	trans-1,2-Dichloroethene	0.020	---	
79-01-6	Trichloroethene	0.020	---	
127-18-4	Tetrachloroethene	0.020	---	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.7%
d8-Toluene	99.6%

M.
4/14/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081017.d
 Lab Smp Id: QR09BMSD Client Smp ID: CB4857040210GRA MSD
 Inj Date : 07-APR-2010 20:47
 Operator : MH ^{4/14/10} Inst ID: nt7.i
 Smp Info : QR09BMSD,10,10,0
 Misc Info : 10-8554
 Comment :
 Method : /chem1/nt7.i/08apr2010.b/sim040810.m
 Meth Date : 14-Apr-2010 14:57 monicah Quant Type: ISTD
 Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
 Als bottle: 1 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ng/L)	(ug/L)
1 Vinyl Chloride	62		1.553	1.551	(0.292)	215340	1046.58	1046.6
2 1,1-Dichloroethene	96		2.519	2.520	(0.473)	202584	1133.48	1133.5
175 Trans-1,2-Dichloroethene	96		3.295	3.296	(0.618)	216272	1124.58	1124.6
3 cis-1,2-dichloroethene	96		4.446	4.447	(0.835)	215937	1123.66	1123.7
6 Benzene	78		5.210	5.211	(0.905)	907201	1095.76	1095.8
* 4 Pentafluorobenzene	168		5.327	5.317	(1.000)	400275	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.327	5.328	(1.000)	163515	986.783	986.78
176 1,2-Dichloroethane	62		5.386	5.375	(1.011)	261592	1181.19	1181.2
8 Trichloroethene	130		5.711	5.712	(0.992)	236339	1093.41	1093.4(Q)
* 7 1,4-Difluorobenzene	114		5.757	5.746	(1.000)	570529	1000.00	
\$ 9 d8-Toluene	98		6.903	6.902	(1.199)	653906	996.150	996.15
10 Tetrachloroethene	166		7.260	7.258	(1.261)	233288	1123.50	1123.5
11 1,1,2,2-Tetrachloroethane	83		9.447	9.445	(1.641)	160955	1280.53	1280.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i	Calibration Date: 07-APR-2010 ^{8 11:41}
Lab File ID: 04081017.d	Calibration Time: 15:44
Lab Smp Id: QR09BMSD	Client Smp ID: CB4857040210GRA MSD
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: Water
Operator: MH	
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m	
Misc Info: 10-8554	

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	400275	-20.23
7 1,4-Difluorobenze	711657	355828	1423314	570529	-19.83

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.33	0.20
7 1,4-Difluorobenze	5.75	5.25	6.25	5.76	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: LIQUID
 Lab Smp Id: QR09BMSD
 Level: LOW
 Data Type: MS DATA
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-8554

Client SDG: QR09
 Fraction: VOA
 Client Smp ID: CB4857040210GRA MSD
 Operator: MH
 SampleType: MSD
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	1046.6	104.66	76-120
176 1,2-Dichloroethane	1000.0	1181.2	118.12	70-130
175 Trans-1,2-Dichloro	1000.0	1124.6	112.46	70-130
2 1,1-Dichloroethene	1000.0	1133.5	113.35	79-126
3 cis-1,2-dichloroet	1000.0	1123.7	112.37	76-127
6 Benzene	1000.0	1095.8	109.58	75-121
8 Trichloroethene	1000.0	1093.4	109.34	79-120
10 Tetrachloroethene	1000.0	1123.5	112.35	75-123
11 1,1,2,2-Tetrachlor	1000.0	1280.5	128.05	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	986.78	98.68	76-119
\$ 9 d8-Toluene	1000.0	996.15	99.62	60-140

Data File: /chem1/nt7.1/08apr2010.b/04081017.d

Date : 07-APR-2010 20:47

Client ID: CB4857040210GRA HSD

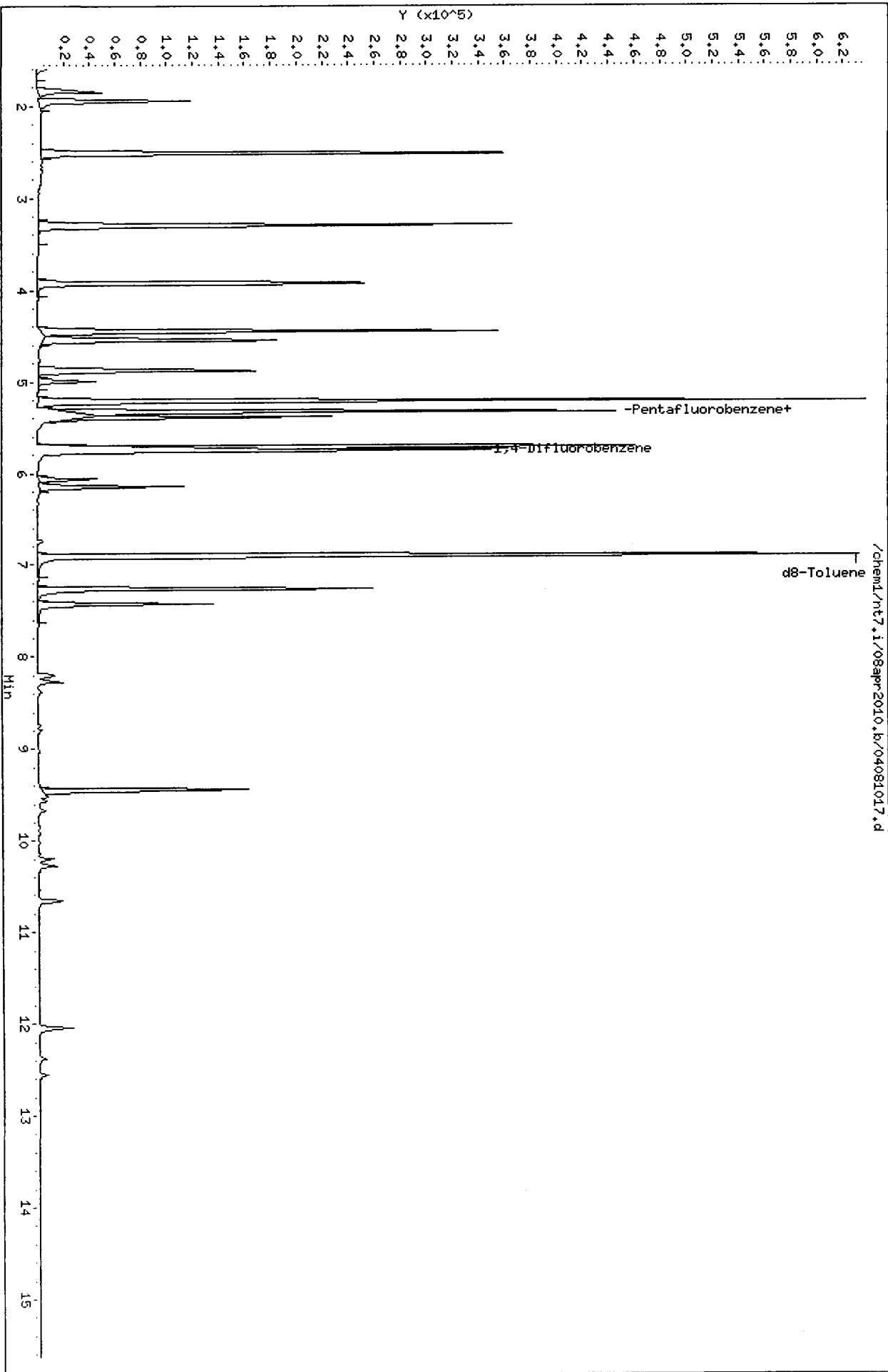
Sample Info: QR09BMSD.10.10.0

Column phase: RTXVHS

Instrument: nt7.1

Operator: NH

Column diameter: 0.18



Date : 08 APR 2010 20:47
11/4/21

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BMSD,10,10,0

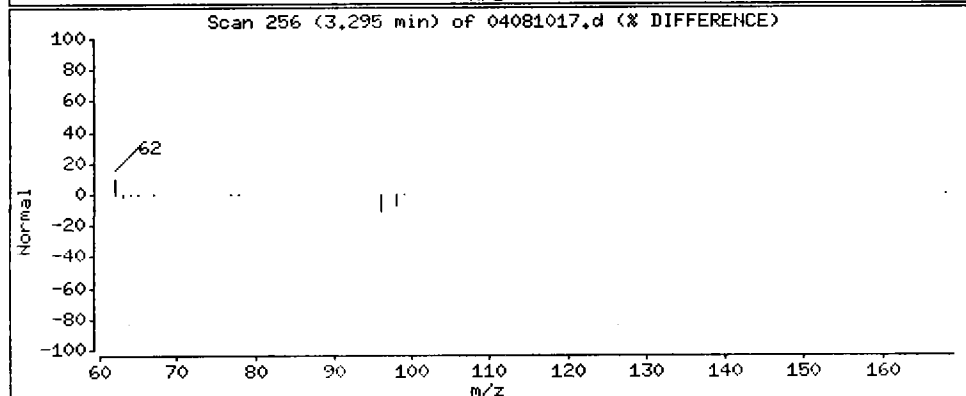
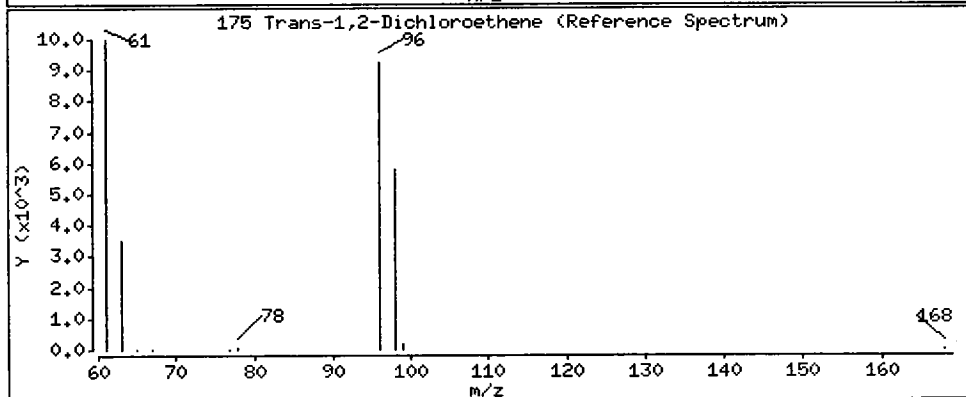
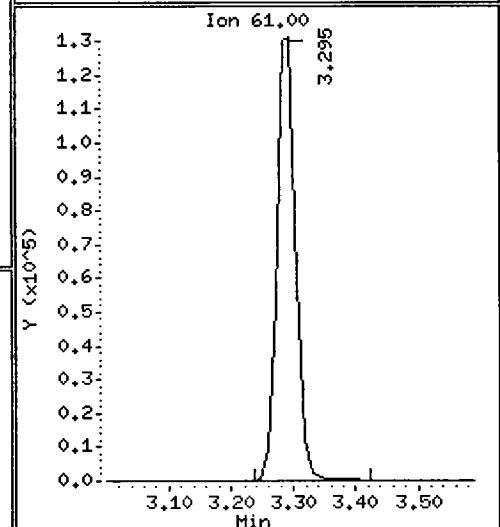
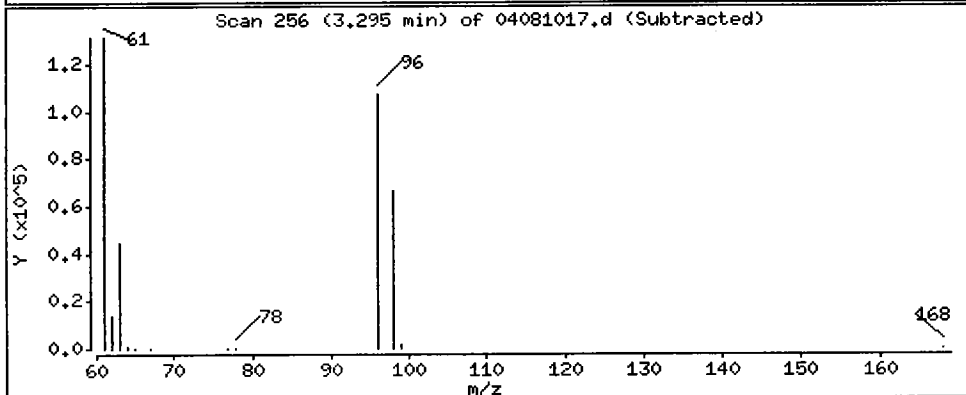
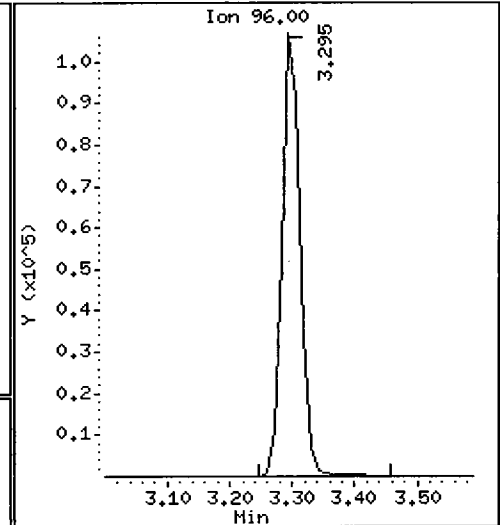
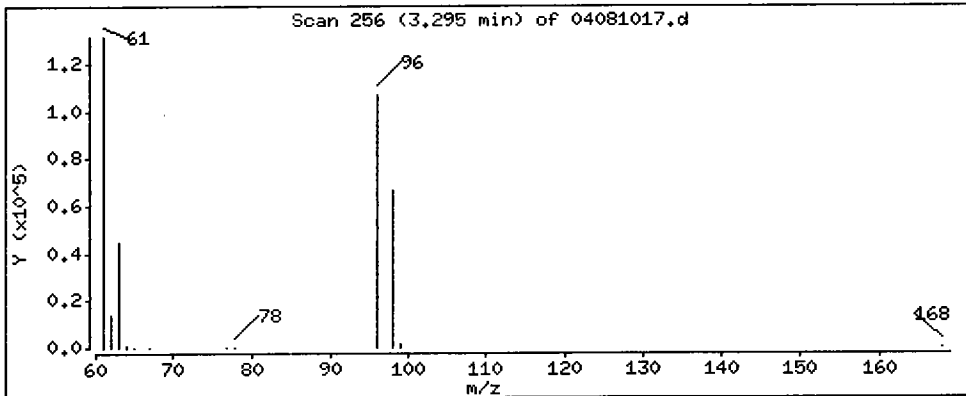
Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

175 Trans-1,2-Dichloroethene

Concentration: 1124.6 ug/L



Date : 08-APR-2010 20:47
8 11 4/21

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BMSD,10,10,0

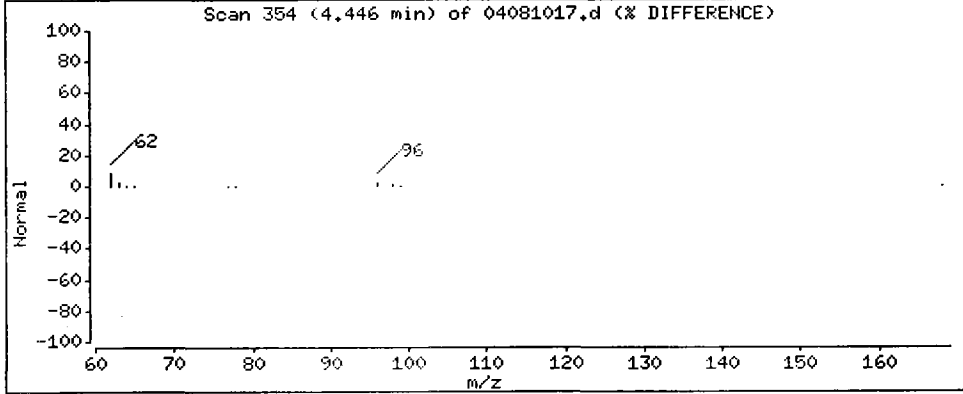
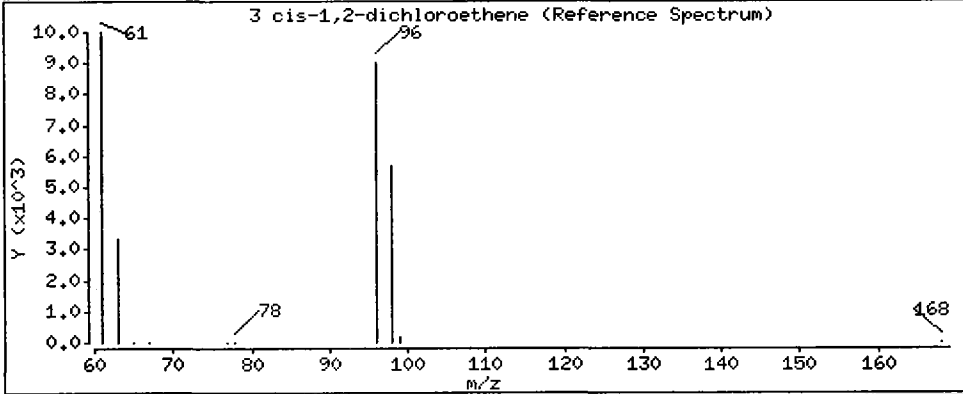
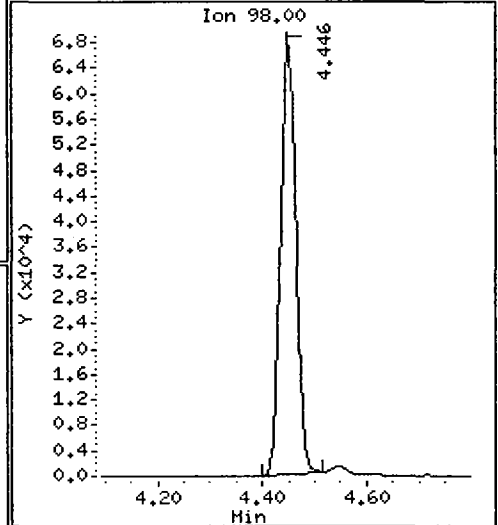
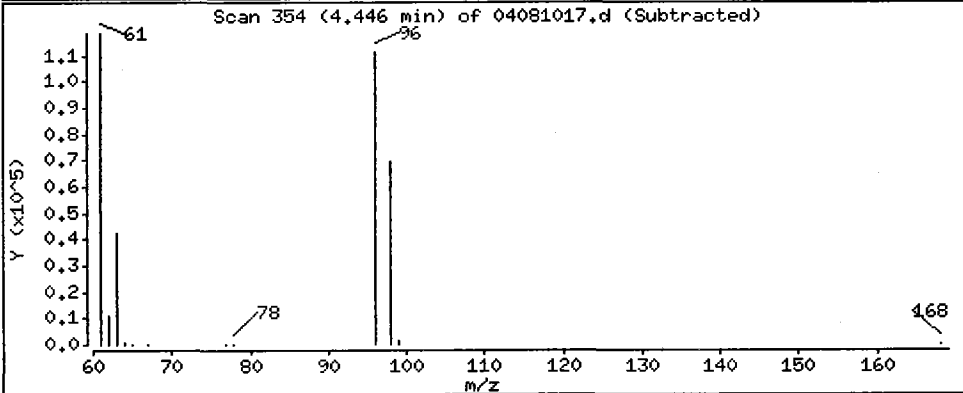
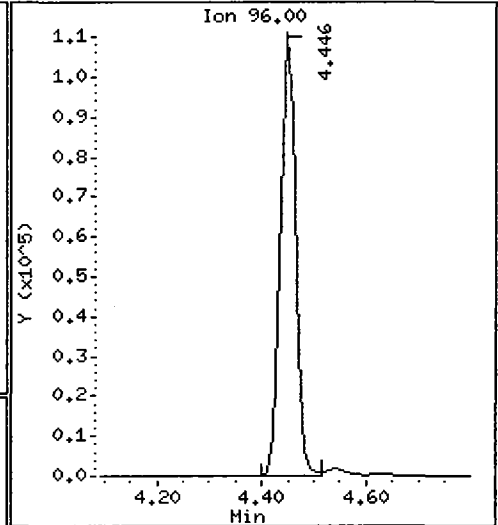
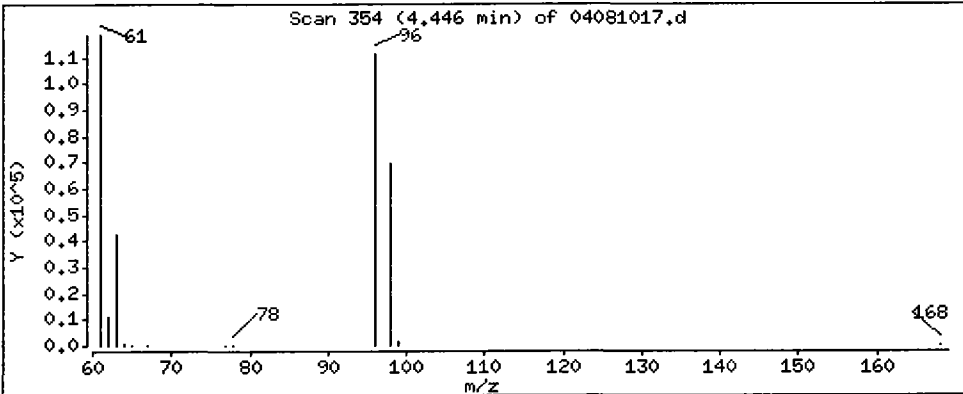
Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

3 cis-1,2-dichloroethene

Concentration: 1123.7 ug/L



Date : 08-APR-2010 20:47
MH 4/21

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BHSD,10,10,0

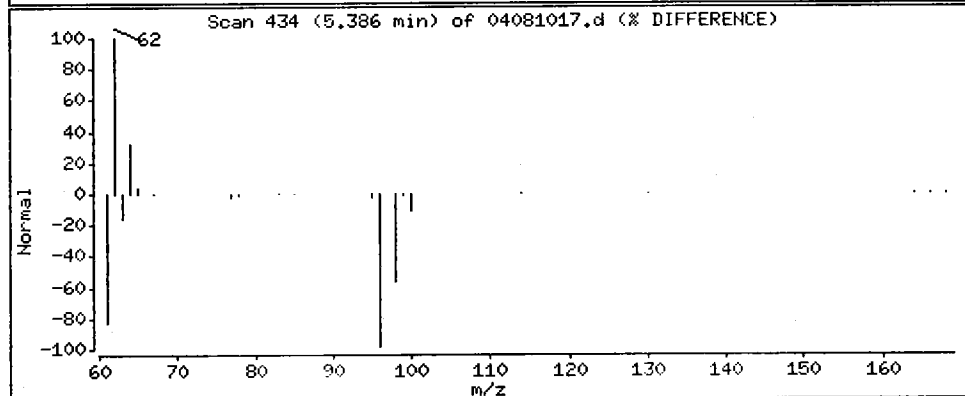
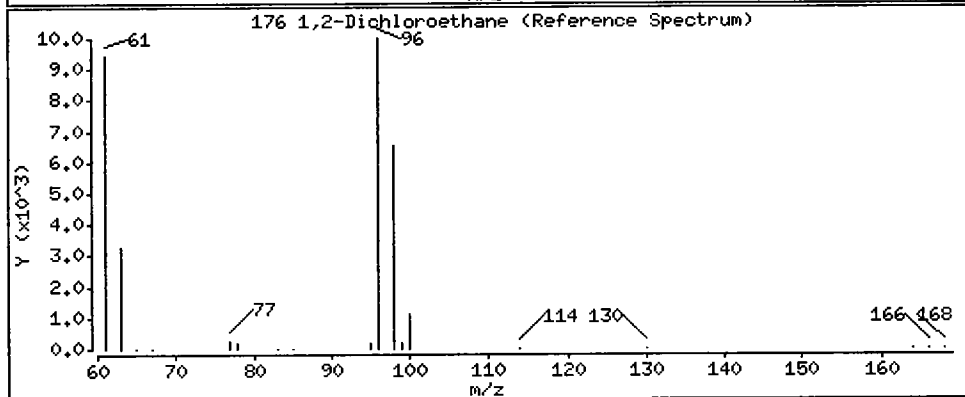
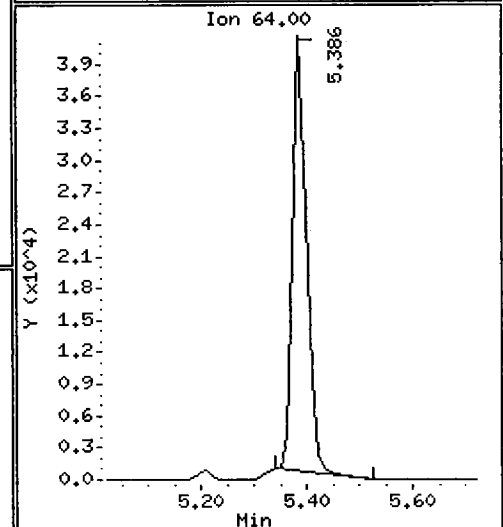
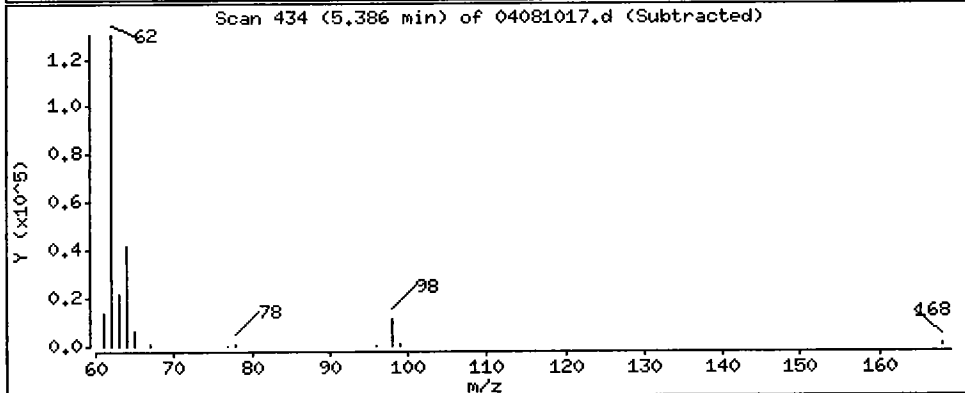
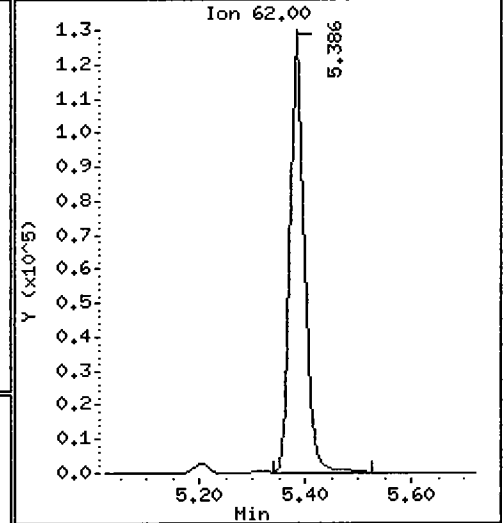
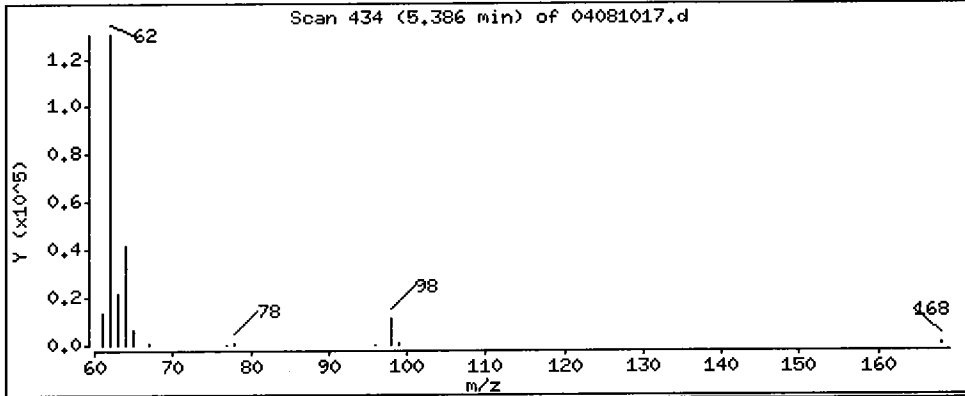
Operator: MH

Column phase: RTXVMS

Column diameter: 0,18

176 1,2-Dichloroethane

Concentration: 1181.2 ug/L



Date: 07-APR-2010 20:47
6 AM 4/21

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BMSD,10,10,0

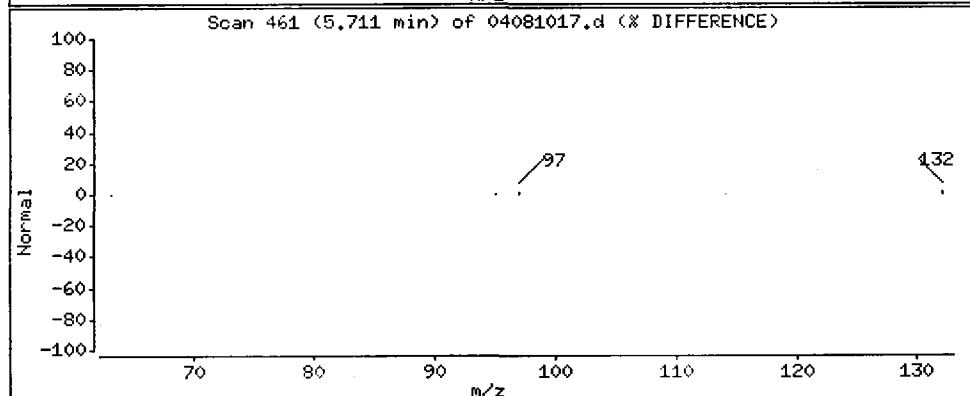
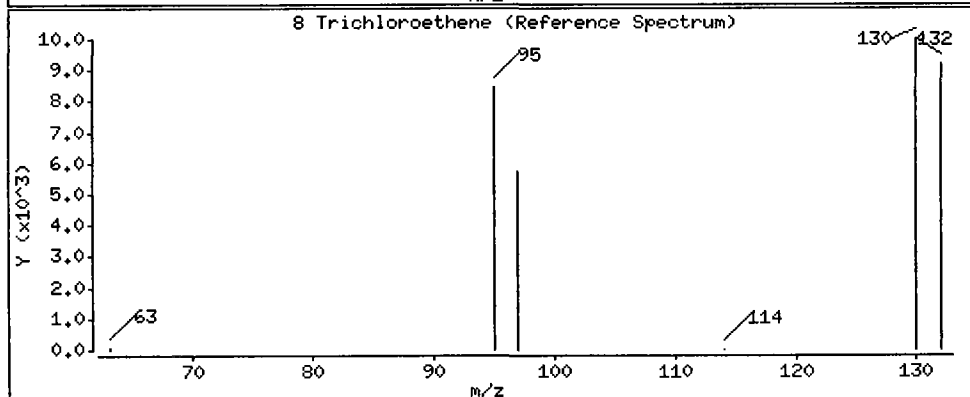
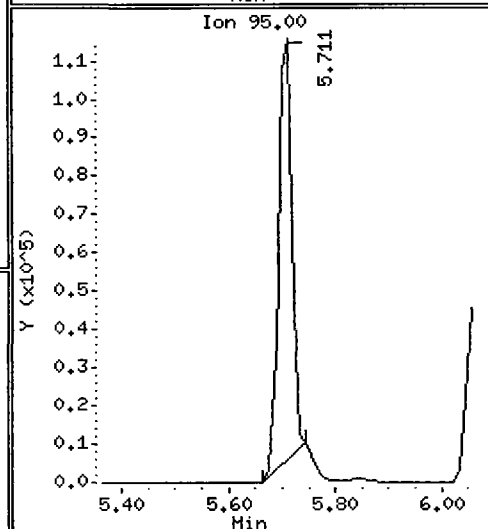
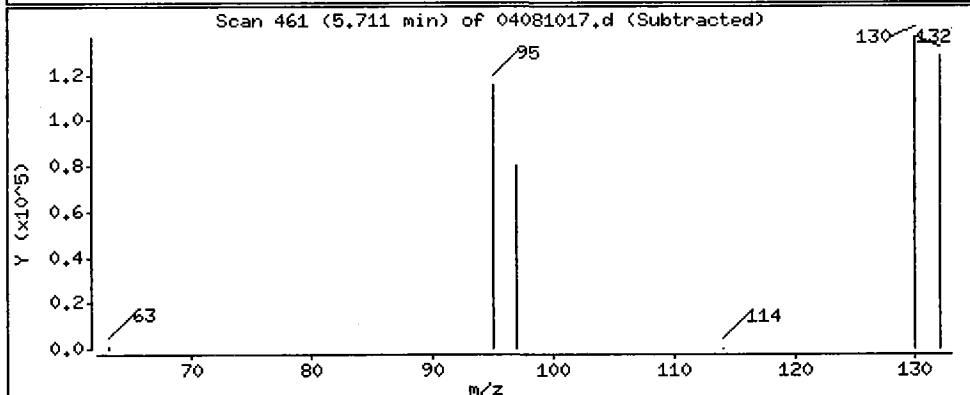
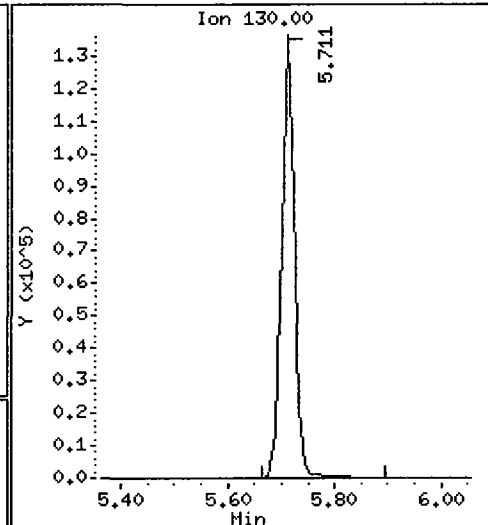
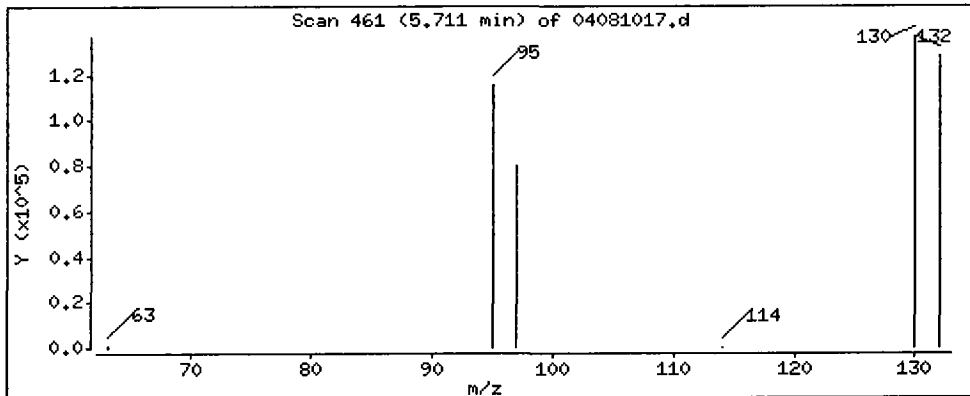
Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

8 Trichloroethene

Concentration: 1093.4 ug/L



Date : 08-APR-2010 20:47

Client ID: CB4857040210GRA MSD

Instrument: nt7.i

Sample Info: QR09BMSD,10,10,0

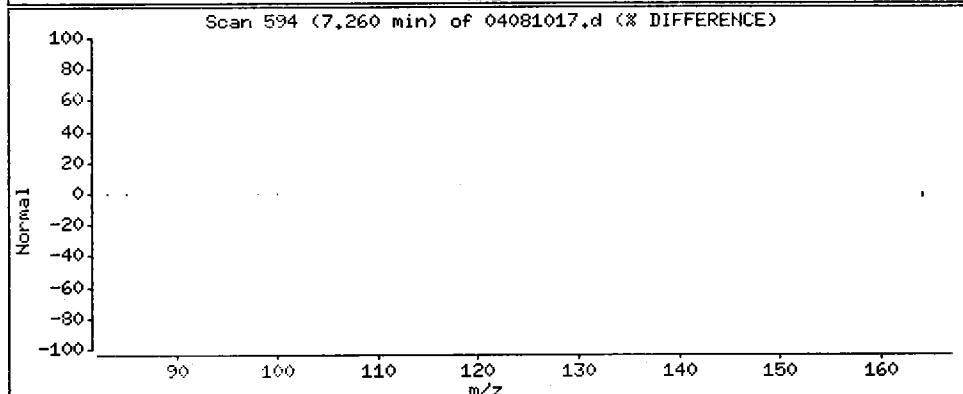
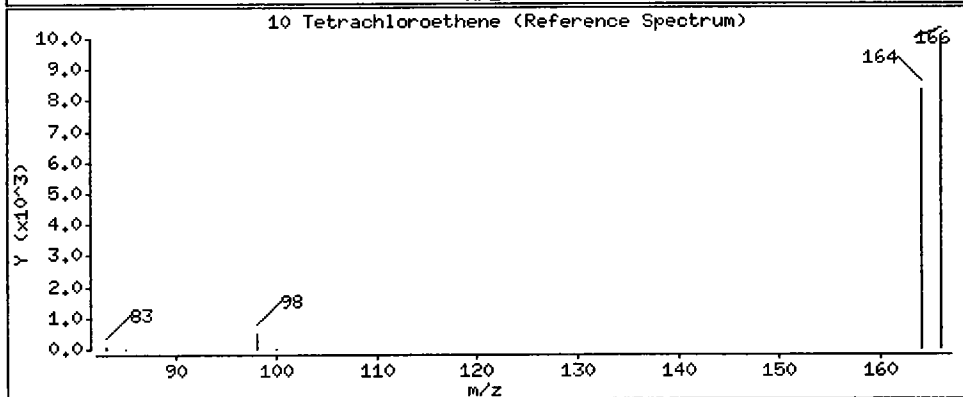
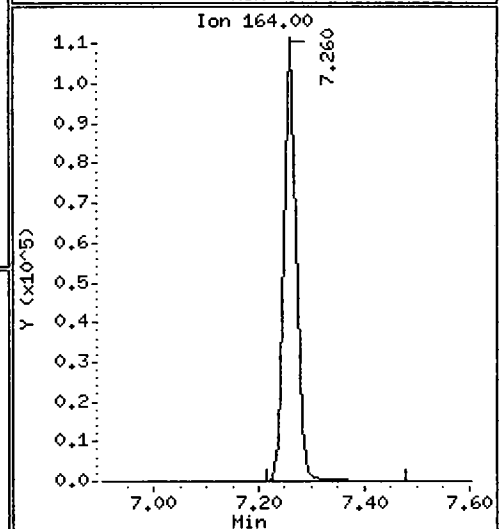
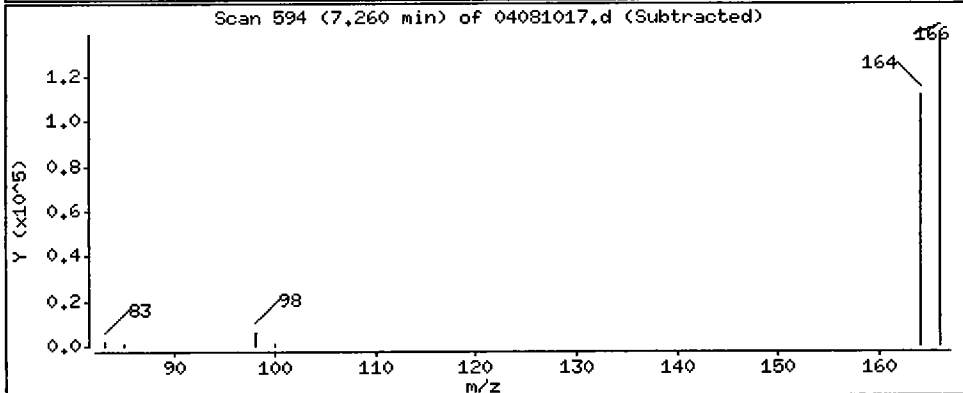
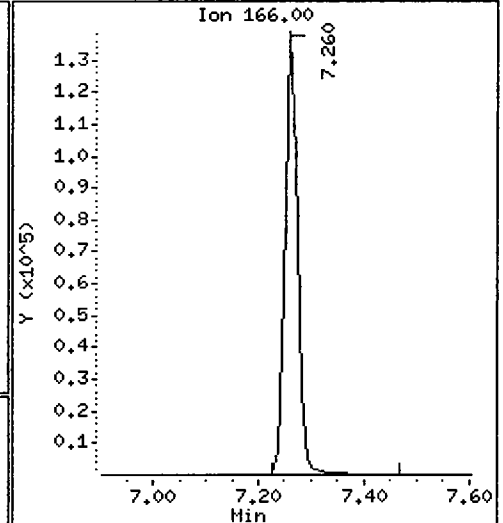
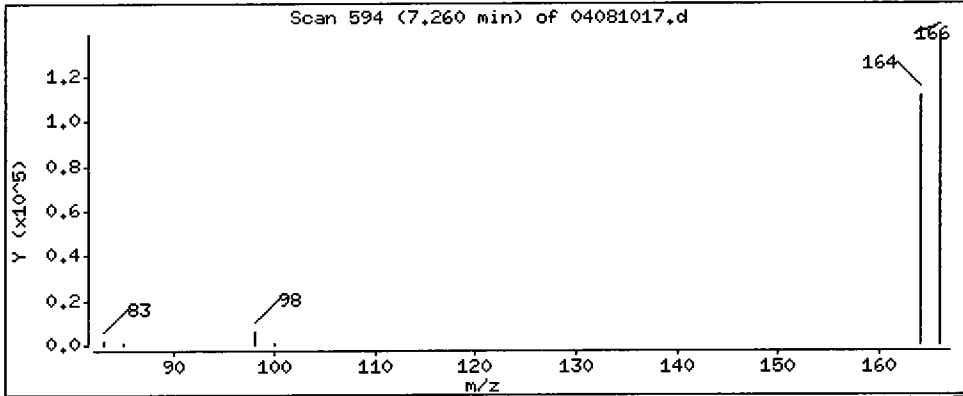
Operator: MH

Column phase: RTXVMS

Column diameter: 0.18

10 Tetrachloroethene

Concentration: 1123.5 ug/L



M.
4/14/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081010.d
 Lab Smp Id: LCS0408
 Inj Date : 07-APR-2010 17:41
 Operator : MH ^{4/21} Inst ID: nt7.i
 Smp Info : LCS0408,10,10,0
 Misc Info : 10-
 Comment :
 Method : /chem1/nt7.i/08apr2010.b/sim040810.m
 Meth Date : 14-Apr-2010 14:55 monicah Quant Type: ISTD
 Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
 Als bottle: 1 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62		1.553	1.551	(0.292)	231813	881.750	881.75
2 1,1-Dichloroethene	96		2.520	2.520	(0.474)	204882	897.164	897.16
175 Trans-1,2-Dichloroethene	96		3.296	3.296	(0.620)	226823	923.073	923.07
3 cis-1,2-dichloroethene	96		4.447	4.447	(0.836)	229331	933.967	933.97
6 Benzene	78		5.211	5.211	(0.907)	950253	943.298	943.30
* 4 Pentafluorobenzene	168		5.317	5.317	(1.000)	511444	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.329	5.328	(1.002)	192235	907.937	907.94
176 1,2-Dichloroethane	62		5.376	5.375	(1.011)	267111	943.947	943.95
8 Trichloroethene	130		5.712	5.712	(0.994)	247439	940.840	940.84 (Q)
* 7 1,4-Difluorobenzene	114		5.746	5.746	(1.000)	694190	1000.00	
\$ 9 d8-Toluene	98		6.891	6.902	(1.199)	792654	992.412	992.41
10 Tetrachloroethene	166		7.259	7.258	(1.263)	246455	975.477	975.48
11 1,1,2,2-Tetrachloroethane	83		9.446	9.445	(1.644)	160987	1052.62	1052.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt7.i
 Lab File ID: 04081010.d
 Lab Smp Id: LCS0408
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: MH
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

Calibration Date: 07^{5 MH 4/21}-APR-2010
 Calibration Time: 15:44
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	511444	1.92
7 1,4-Difluorobenze	711657	355828	1423314	694190	-2.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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: 08apr2010
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: LCS0408 Operator: MH
 Level: LOW SampleType: LCS
 Data Type: MS DATA Quant Type: ISTD
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	881.75	88.17	76-120
176 1,2-Dichloroethane	1000.0	943.95	94.39	70-130
175 Trans-1,2-Dichloro	1000.0	923.07	92.31	70-130
2 1,1-Dichloroethene	1000.0	897.16	89.72	79-126
3 cis-1,2-dichloroet	1000.0	933.97	93.40	76-127
6 Benzene	1000.0	943.30	94.33	75-121
8 Trichloroethene	1000.0	940.84	94.08	79-120
10 Tetrachloroethene	1000.0	975.48	97.55	75-123
11 1,1,2,2-Tetrachlor	1000.0	1052.6	105.26	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	907.94	90.79	76-119
\$ 9 d8-Toluene	1000.0	992.41	99.24	60-140

Data File: /chem1/nt7.1/08apr2010.b/04081010.d

Date: 07-APR-2010 17:41

Client ID: NY 4/21

Sample Info: LCS0408,10,10.0

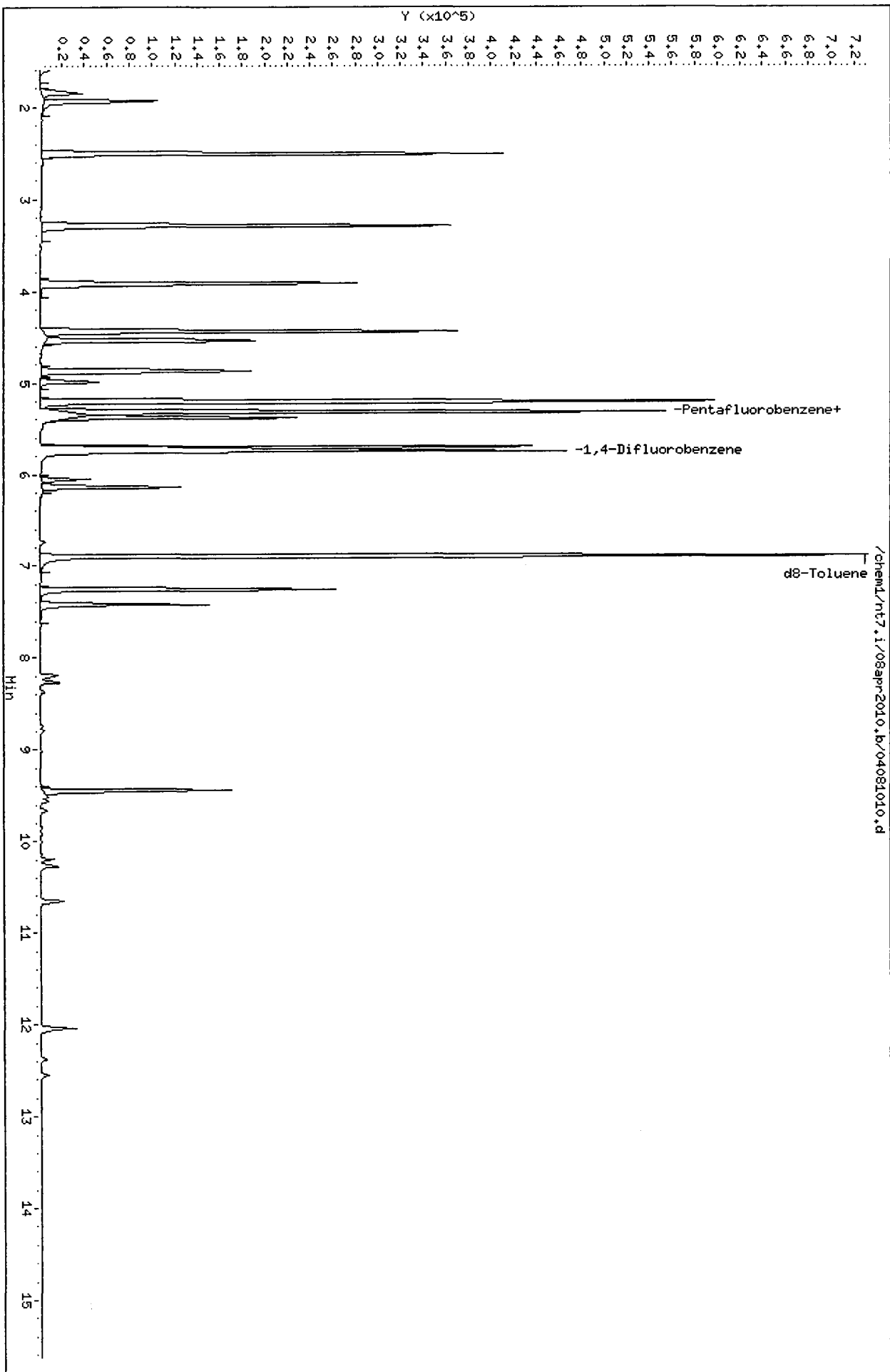
Page 5

Instrument: nt7.1

Operator: HH

Column diameter: 0.18

Column phase: RTXVHS



0000 : 00200

4/14/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081011.d
Lab Smp Id: LCSD0408
Inj Date : 07-APR-2010 18:06
Operator : MH ^{MH 4/21} Inst ID: nt7.i
Smp Info : LCSD0408,10,10,0
Misc Info : 10-
Comment :
Method : /chem1/nt7.i/08apr2010.b/sim040810.m
Meth Date : 14-Apr-2010 14:55 monicah Quant Type: ISTD
Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62	1.540	1.551	(0.290)	231729	962.256	962.26(M)
2 1,1-Dichloroethene	96	2.508	2.520	(0.472)	202487	967.978	967.98
175 Trans-1,2-Dichloroethene	96	3.295	3.296	(0.620)	214844	954.495	954.49
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	216315	961.738	961.74
6 Benzene	78	5.210	5.211	(0.907)	893518	923.825	923.83
* 4 Pentafluorobenzene	168	5.316	5.317	(1.000)	468486	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	186234	960.249	960.25
176 1,2-Dichloroethane	62	5.387	5.375	(1.013)	253955	979.748	979.75
8 Trichloroethene	130	5.711	5.712	(0.994)	236433	936.337	936.34(Q)
* 7 1,4-Difluorobenzene	114	5.745	5.746	(1.000)	666502	1000.00	
\$ 9 d8-Toluene	98	6.903	6.902	(1.201)	770197	1004.35	1004.4
10 Tetrachloroethene	166	7.260	7.258	(1.264)	231545	954.535	954.54
11 1,1,2,2-Tetrachloroethane	83	9.447	9.445	(1.644)	145285	989.417	989.42

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04081011.d
Lab Smp Id: LCSD0408
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 07² APR-2010
Calibration Time: 15:44
Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	468486	-6.64
7 1,4-Difluorobenze	711657	355828	1423314	666502	-6.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

RECOVERY REPORT

Client Name: Client SDG: 08apr2010
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: LCSD0408 Operator: MH
 Level: LOW SampleType: LCSD
 Data Type: MS DATA Quant Type: ISTD
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
 Misc Info: 10-

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	962.26	96.23	76-120
176 1,2-Dichloroethane	1000.0	979.75	97.97	70-130
175 Trans-1,2-Dichloro	1000.0	954.49	95.45	70-130
2 1,1-Dichloroethene	1000.0	967.98	96.80	79-126
3 cis-1,2-dichloroet	1000.0	961.74	96.17	76-127
6 Benzene	1000.0	923.83	92.38	75-121
8 Trichloroethene	1000.0	936.34	93.63	79-120
10 Tetrachloroethene	1000.0	954.54	95.45	75-123
11 1,1,2,2-Tetrachlor	1000.0	989.42	98.94	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	960.25	96.02	76-119
\$ 9 d8-Toluene	1000.0	1004.4	100.44	60-140

Data File: /chem/nt7.i/08apr2010.b/04081011.d

Date : 07-APR-2010 18:06

Client ID: NH 4/21

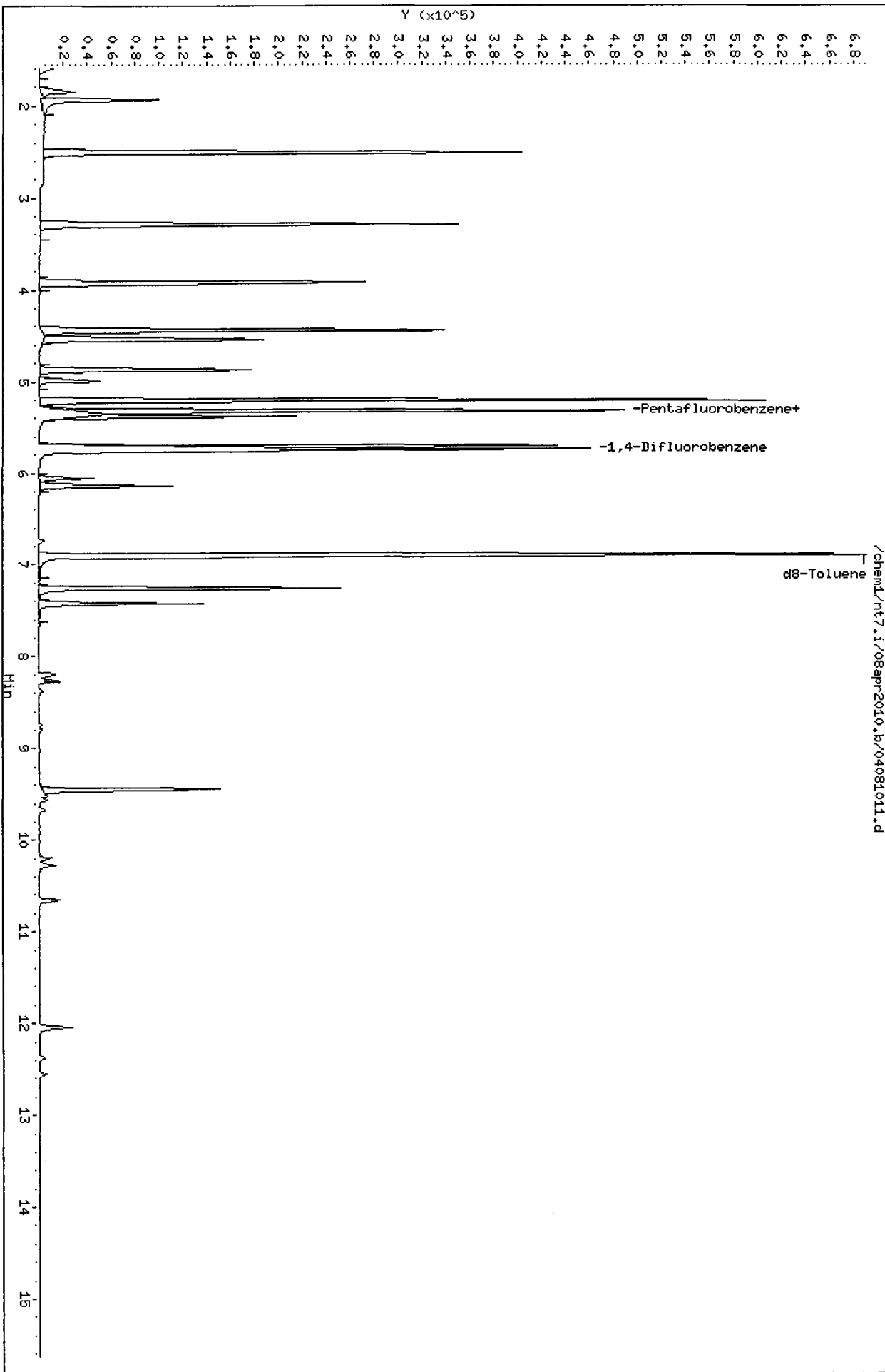
Sample Info: LCSD0408,10,10,0

Column phase: RTXVMS

Instrument: nt7.i

Operator: NH

Column diameter: 0.18



0009 : 00205

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: MB-040810

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-040810


QC Report No: QR09-Floyd/Snider

LIMS ID: 10-8556

Project: Lora Lake Apartments

Matrix: Water

POS-LLA

Data Release Authorized: 

Date Sampled: NA

Reported: 04/16/10

Date Received: NA

Instrument/Analyst: NT7/MH

Sample Amount: 10.0 mL

Date Analyzed: 04/08/10 18:32

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.020	< 0.020	U
156-59-2	cis-1,2-Dichloroethene	0.020	< 0.020	U
156-60-5	trans-1,2-Dichloroethene	0.020	< 0.020	U
79-01-6	Trichloroethene	0.020	< 0.020	U
127-18-4	Tetrachloroethene	0.020	< 0.020	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	100%
d8-Toluene	100%

11/14/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/08apr2010.b/04081012.d
 Lab Smp Id: MB0408
 Inj Date : 07-APR-2010 18:32
 Operator : MH ^{MH 4/21} Inst ID: nt7.i
 Smp Info : MB0408,10,10,0
 Misc Info : 10-
 Comment :
 Method : /chem1/nt7.i/08apr2010.b/sim040810.m
 Meth Date : 14-Apr-2010 14:55 monicah Quant Type: ISTD
 Cal Date : 07-APR-2010 14:01 Cal File: 04081002.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62							
2 1,1-Dichloroethene	96							
175 Trans-1,2-Dichloroethene	96							
3 cis-1,2-dichloroethene	96							
6 Benzene	78							
* 4 Pentafluorobenzene	168		5.317	5.317	(1.000)	450748	1000.00	
\$ 5 d4-1,2-Dichloroethane	65		5.328	5.328	(1.002)	187259	1003.53	1003.5
176 1,2-Dichloroethane	62		5.387	5.375	(1.013)	105	0.42121	0.4212(Q)
8 Trichloroethene	130							
* 7 1,4-Difluorobenzene	114		5.746	5.746	(1.000)	607207	1000.00	
\$ 9 d8-Toluene	98		6.901	6.902	(1.201)	699454	1001.17	1001.2
10 Tetrachloroethene	166							
11 1,1,2,2-Tetrachloroethane	83							

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04081012.d
Lab Smp Id: MB0408
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

Calibration Date: 07^{8 MH 4/21}-APR-2010
Calibration Time: 15:44
Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	501800	250900	1003600	450748	-10.17
7 1,4-Difluorobenze	711657	355828	1423314	607207	-14.68

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

RECOVERY REPORT

Client Name: Client SDG: 08apr2010
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: MB0408
Level: LOW Operator: MH
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: special.spk Quant Type: ISTD
Sublist File: all.sub
Method File: /chem1/nt7.i/08apr2010.b/sim040810.m
Misc Info: 10-

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1003.5	100.35	76-119
\$ 9 d8-Toluene	1000.0	1001.2	100.12	60-140

Data File: /chem/nt7.1/08apr2010.b/04081012.d

Date : 07 APR 2010 18:32

Client ID: MH 4/2/

Sample Info: HB0408.10.10.0

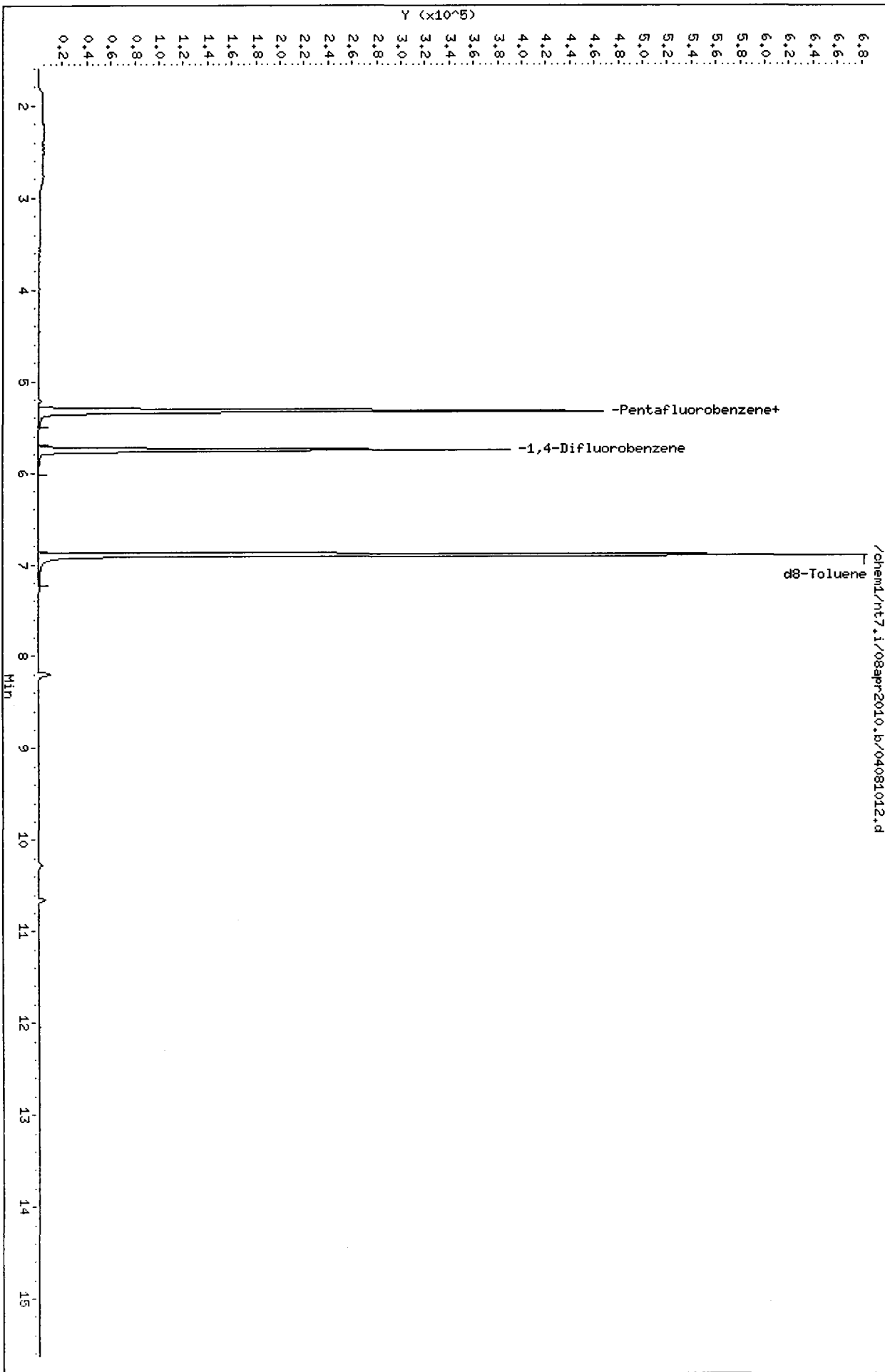
Column phase: RTXVHS

Instrument: nt7.1

Operator: MH

Column diameter: 0.18

Page 5



0000 : 0001 4

4/14/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/07apr2010.b/04071003.d
 Lab Smp Id: LCS0407
 Inj Date : 06-APR-2010 07:14
 Operator : MH⁷ ^{4/4/10} Inst ID: nt7.i
 Smp Info : LCS0407,10,10,0
 Misc Info : 10-
 Comment :
 Method : /chem1/nt7.i/07apr2010.b/sim031810.m
 Meth Date : 14-Apr-2010 14:52 monicah Quant Type: ISTD
 Cal Date : 18-MAR-2010 06:47 Cal File: 03181012.d
 Als bottle: 1 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/L)	FINAL (ug/L)
1 Vinyl Chloride	62	1.551	1.552	(0.292)	234932	916.174	916.17
2 1,1-Dichloroethene	96	2.520	2.520	(0.474)	221826	1053.80	1053.8
175 Trans-1,2-Dichloroethene	96	3.295	3.295	(0.620)	242338	1049.06	1049.1
3 cis-1,2-dichloroethene	96	4.447	4.447	(0.836)	245975	1042.87	1042.9
6 Benzene	78	5.211	5.211	(0.907)	1017620	1045.62	1045.6
* 4 Pentafluorobenzene	168	5.317	5.317	(1.000)	488132	1000.00	
\$ 5 d4-1,2-Dichloroethane	65	5.328	5.328	(1.002)	206444	1167.26	1167.3
176 1,2-Dichloroethane	62	5.375	5.375	(1.011)	297601	1286.28	1286.3
8 Trichloroethene	130	5.711	5.712	(0.994)	266290	1056.15	1056.1
* 7 1,4-Difluorobenzene	114	5.746	5.746	(1.000)	720131	1000.00	
\$ 9 d8-Toluene	98	6.902	6.902	(1.201)	834520	1018.88	1018.9
10 Tetrachloroethene	166	7.258	7.258	(1.263)	268678	1145.78	1145.8
11 1,1,2,2-Tetrachloroethane	83	9.445	9.445	(1.644)	187750	1174.44	1174.4

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04071003.d
Lab Smp Id: LCS0407
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-

Calibration Date: 06-APR-2010 ^{7 MH 4/21}
Calibration Time: 06:40
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	488132	11.77
7 1,4-Difluorobenze	618992	309496	1237984	720131	16.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	-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.

RECOVERY REPORT

Client Name: Client SDG: 07apr2010
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: LCS0407 Operator: MH
 Level: LOW SampleType: LCS
 Data Type: MS DATA Quant Type: ISTD
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
 Misc Info: 10-

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	916.17	91.62	76-120
176 1,2-Dichloroethane	1000.0	1286.3	128.63	70-130
175 Trans-1,2-Dichloro	1000.0	1049.1	104.91	70-130
2 1,1-Dichloroethene	1000.0	1053.8	105.38	79-126
3 cis-1,2-dichloroet	1000.0	1042.9	104.29	76-127
6 Benzene	1000.0	1045.6	104.56	75-121
8 Trichloroethene	1000.0	1056.1	105.61	79-120
10 Tetrachloroethene	1000.0	1145.8	114.58	75-123
11 1,1,2,2-Tetrachlor	1000.0	1174.4	117.44	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1167.3	116.73	76-119
\$ 9 d8-Toluene	1000.0	1018.9	101.89	60-140

Data File: /chem1/nt7.1/07Apr2010.b/04071003.d

Date : 08-APR-2010 07:14

Client ID: MH 4/21

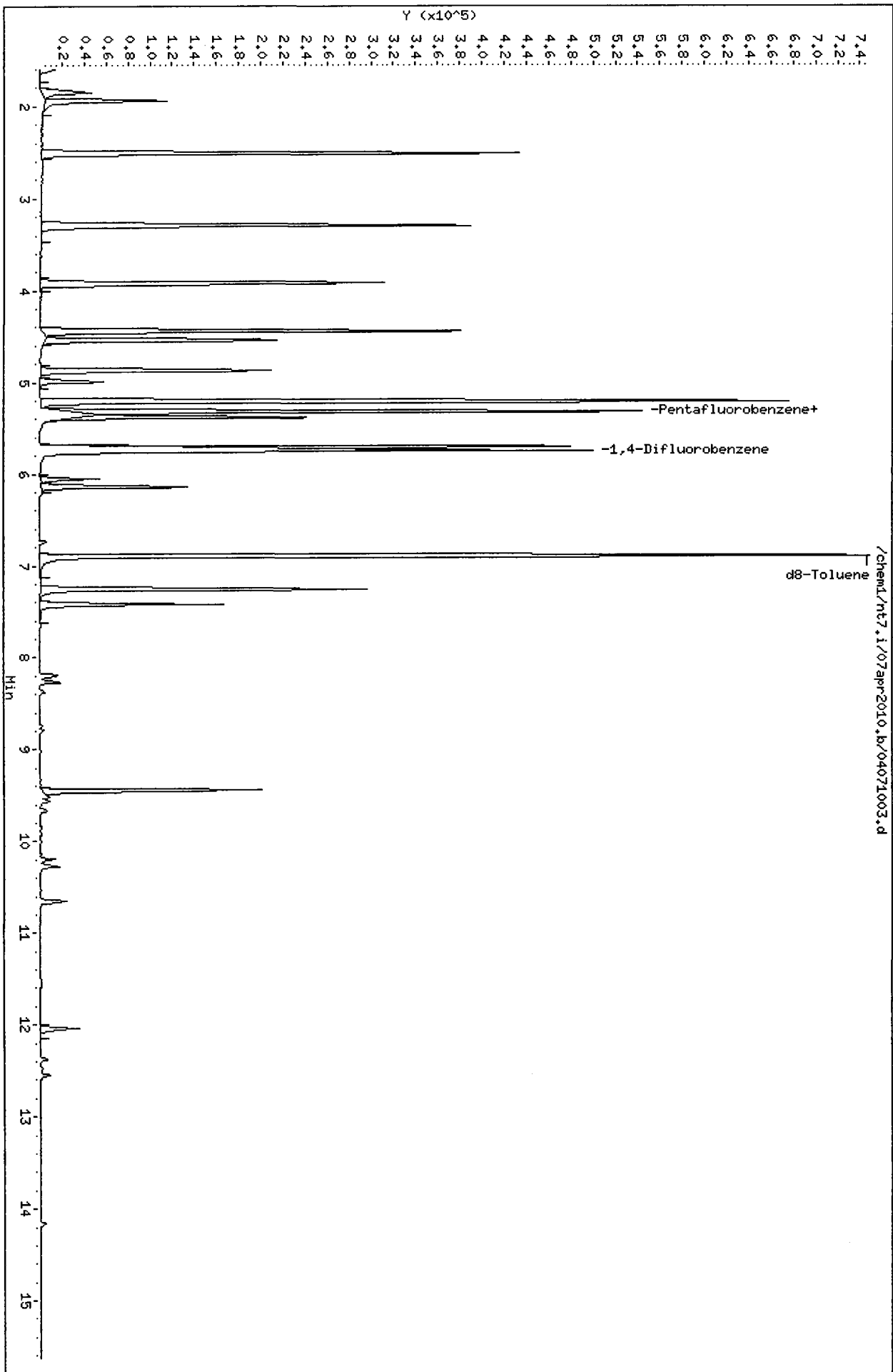
Sample Info: LCS0407,10,10,0

Column phase: RTXVMS

Instrument: nt7.1

Operator: MH

Column diameter: 0.18



Analytical Resources, Inc.
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 04071004.d
Lab Smp Id: LCSD0407
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
Misc Info: 10-

Calibration Date: 08-APR-2010
Calibration Time: 06:40
Level: LOW
Sample Type: WATER

Test Mode: Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	436713	218356	873426	481497	10.25
7 1,4-Difluorobenze	618992	309496	1237984	706343	14.11

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	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: 07apr2010
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: LCSD0407 Operator: MH
 Level: LOW SampleType: LCSD
 Data Type: MS DATA Quant Type: ISTD
 SpikeList File: special.spk
 Sublist File: all.sub
 Method File: /chem1/nt7.i/07apr2010.b/sim031810.m
 Misc Info: 10-

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Vinyl Chloride	1000.0	918.17	91.82	76-120
176 1,2-Dichloroethane	1000.0	1276.4	127.64	70-130
175 Trans-1,2-Dichloro	1000.0	1033.1	103.31	70-130
2 1,1-Dichloroethene	1000.0	1040.5	104.05	79-126
3 cis-1,2-dichloroet	1000.0	1033.0	103.30	76-127
6 Benzene	1000.0	1051.3	105.13	75-121
8 Trichloroethene	1000.0	1052.7	105.27	79-120
10 Tetrachloroethene	1000.0	1135.1	113.51	75-123
11 1,1,2,2-Tetrachlor	1000.0	1178.3	117.83	72-129

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 d4-1,2-Dichloroeth	1000.0	1154.4	115.44	76-119
\$ 9 d8-Toluene	1000.0	1027.2	102.72	60-140

SIM Volatile Analysis
Run Logs

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-7 Serial No.: GC=US00024417, MS=US72821196

Date: 3/18/10 Analysis: SIM VOA Analyst: PC
 GC Program: VC Column No: 850322 Column Type: R2XVMS
 Instrument Tune (.U or .CT.): 03181001 EM Voltage: 1835
 Calibration File: 03181011 Curve Date: 3/18/10

IS/SS	Ical/Ccal	LCS/ICV
<u>v46262</u>	<u>v46244</u>	<u>v46142</u>

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt7.i/18MARCH2010.b

Time	Filename	LabID	ClientID	Vial#	pH	DF
1 0135	03181001.d	BFB0318	BFB0318			1
2 0211	03181002.d	40000318				1 5.32 540461 5.75 751756
3 0218	03181003.d	20000318				1 5.32 517992 5.75 752079
4 0324	03181004.d	10000318				1 5.32 509267 5.75 701409
5 0531	03181005.d	5000318				1 5.32 485648 5.75 709951
6 0427	03181006.d	01000318	100 PPT			1 5.32 486706 5.75 707128
7 0434	03181007.d	00500318	50 PPT			1 5.32 210878 5.75 294252
8 0501	03181009.d	00200318	20 PPT			1 5.32 483815 5.75 677688
9 0527	03181009.d	40000318	4 PPB			1 5.32 466059 5.75 620741
10 0554	03181010.d	20000318	2 PPB			1 5.32 443296 5.75 656889
11 0621	03181011.d	10000318	1 PPB			1 5.32 436713 5.75 618992
12 0647	03181012.d	05000318	500 PPT			1 5.32 415601 5.75 615528
13 0714	03181013.d	1c40318	1c40318			1 5.32 409680 5.75 614179

PC 3/22/10

Maintenance / Comments 50 ppt paint misinjected - poor IS delivery

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: SIM ICAL Client ID: _____

ARI SOP: 404S(Gas) 410S(BTEX) 430S(VPH) 703S(SIM) 706S(524.2) 708S(8260C) 710S(MME)

Parameter(s): SIM VOA

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 10 Curve Date: 3/18/10 Analysis Start Date: _____

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):

*50 point not used due to mechanical failure - IS not delivered properly.
1,2 dichloroethane added to SIM method.*

Additional Details on Reverse: Yes / No

Analyst Signature: Paul Egan Date: 3/19/10

Reviewer's Signature: [Signature] Date: 3/19/10

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-7 Serial No.: GC=US00024417, MS=US72821196

Date: 4/7/10 Analysis: SIM VOA Analyst: MH

GC Program: VC Column No: 850322 Column Type: RTX5MS

Instrument Tune (.U or .CT.): 0407001 EM Voltage: 1906

Calibration File: 04071002 Curve Date: 3/18/10

IS/SS	Ical/Ccal	LCS/ICV
<u>VW627-1</u>	<u>VW624-4</u>	<u>VW624-4</u>

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt7.i/07apr2010.b

Time	Filename	LabID	ClientID	WT	
1	0610	04071001.d	BFB0407	0.00	
2	0640	04071002.d	CC0407		
3	0714	04071003.d	LCS0407	1 5.32	497009 5.75 733947
4	0740	04071004.d	LCS0407	1 5.32	488132 5.75 720131
5	0805	04071005.d	MB0407	1 5.32	481497 5.75 706343
6	0843	04071006.d	MB0407	1 5.33	73916 5.76 106337
7	0916	04071007.d	MB0407	1 5.32	437739 5.75 650839
8	0957	04071008.d	MB0407	1 5.32	427788 5.75 638339
9	1033	04071009.d	QR09E TB040210	1 5.32	444935 5.75 671015
10	1059	04071010.d	QR47D TRIP BLANK	1 5.32	451842 5.75 680239
11	1125	04071011.d	Q052F CRD-2-100329	3 5.32	431474 5.75 662834
12	1150	04071012.d	Q052E CRD-1-100329	3 5.32	40660 5.75 60756 IS
13	1216	04071013.d	QR08I RI-MW-11	3 5.32	441659 5.75 654777
14	1242	04071014.d	QR09A CB31A040210GRAB	3 5.32	418967 5.75 648968 SURY
15	1307	04071015.d	QR09B CB4857040210GRAB	4 5.32	399209 5.75 622746
16	1333	04071016.d	QR09BMS CB4857040210GRA MS	7 5.32	409009 5.75 638734
17	1358	04071017.d	QR09BMSD CB4857040210GRA MSD	8 5.32	86671 5.75 138321 IS
18	1424	04071018.d	QR09C CB1040210GRAB	8 5.32	417536 5.75 664673
19	1450	04071019.d	QR09D CB102040210GRAB	2 5.32	409944 5.74 647623
20	1515	04071020.d	QR47A EGW040-100405	1 5.32	302388 5.75 477246 SURY
21	1541	04071021.d	QR47B EGW061-100405	7 5.32	388224 5.75 623805 SURY
22	1607	04071022.d	QR47C EGW060-100405	6 5.32	395911 5.75 632225
23	1632	04071023.d	QR47CMS EGW060-100405 MS	9 5.32	408002 5.75 649866
24	1658	04071024.d	QR47CMSD EGW060-100405 MSD	8 5.32	414751 5.75 661544
				7 5.32	59606 5.75 93706 IS

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.

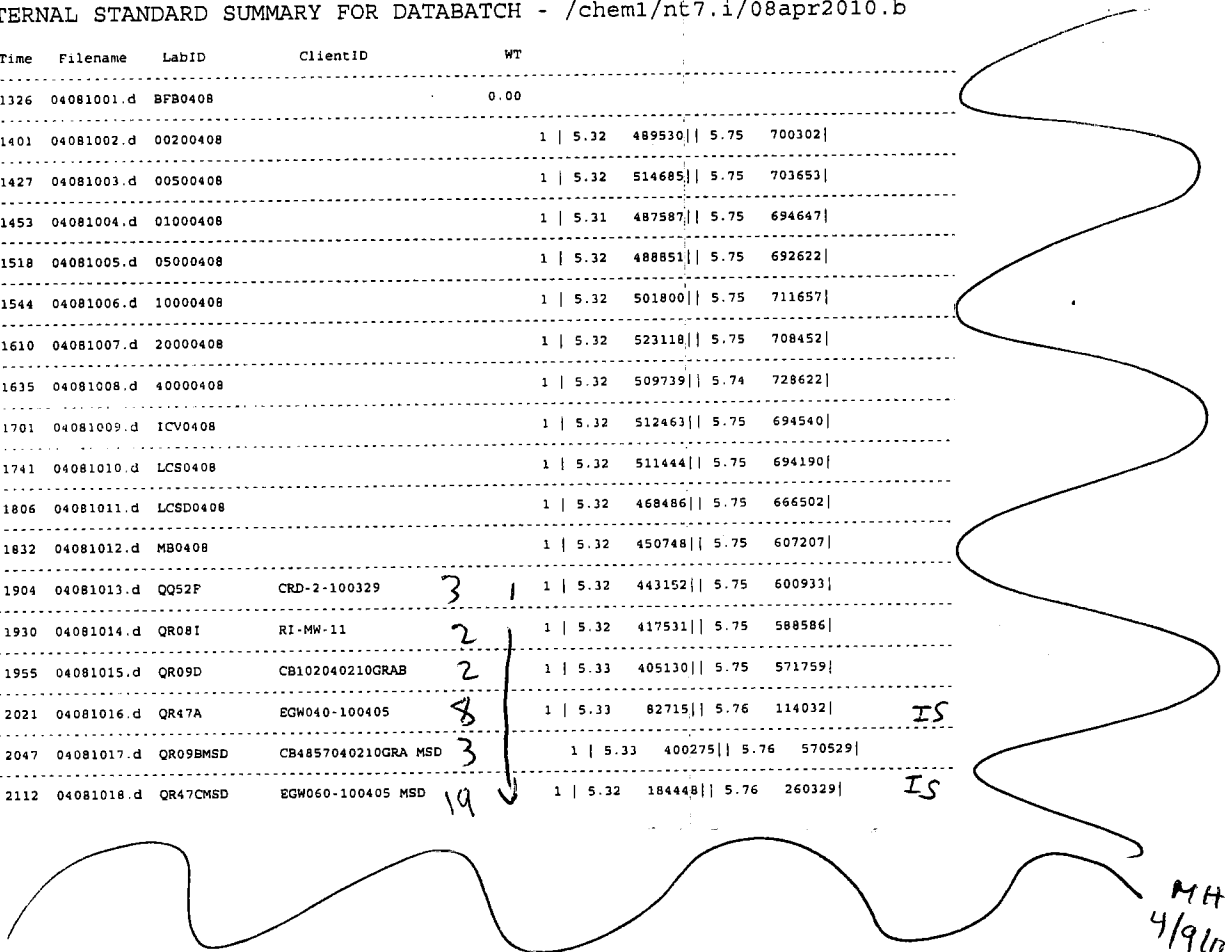
Analytical Resources Inc.: Volatile Organics Instrument Log
NT-7 Serial No.:GC=US00024417, MS=US72821196

Date: 4/8/10 Analysis: SIM VOA Analyst: MH
 GC Program: VC Column No: 850322 Column Type: RTXVMS
 Instrument Tune (.U or .CT.): 04081001 EM Voltage: 1906
 Calibration File: 04081006 Curve Date: 4/8/10

IS/SS	Ical/Ccal	LCS/ICV
VW 627 -1	VW 624-4	VW 624-4

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt7.i/08apr2010.b

Time	Filename	LabID	ClientID	WT							
1	1326	04081001.d	BFB0408						0.00		
2	1401	04081002.d	00200408		1	5.32	489530	5.75	700302		
3	1427	04081003.d	00500408		1	5.32	514685	5.75	703653		
4	1453	04081004.d	01000408		1	5.31	487587	5.75	694647		
5	1518	04081005.d	05000408		1	5.32	488851	5.75	692622		
6	1544	04081006.d	10000408		1	5.32	501800	5.75	711657		
7	1610	04081007.d	20000408		1	5.32	523118	5.75	708452		
8	1635	04081008.d	40000408		1	5.32	509739	5.74	728622		
9	1701	04081009.d	ICV0408		1	5.32	512463	5.75	694540		
10	1741	04081010.d	LCS0408		1	5.32	511444	5.75	694190		
11	1806	04081011.d	LCS0408		1	5.32	468486	5.75	666502		
12	1832	04081012.d	MB0408		1	5.32	450748	5.75	607207		
13	1904	04081013.d	QQ52F	CRD-2-100329	3	1	5.32	443152	5.75	600933	
14	1930	04081014.d	QR08I	RI-MW-11	2	1	5.32	417531	5.75	588586	
15	1955	04081015.d	QR09D	CB102040210GRAB	2	1	5.33	405130	5.75	571759	
16	2021	04081016.d	QR47A	EGW040-100405	8	1	5.33	82715	5.76	114032	IS
17	2047	04081017.d	QR09BMSD	CB4857040210GRA MSD	3	1	5.33	400275	5.76	570529	
18	2112	04081018.d	QR47CMSD	EGW060-100405 MSD	19	1	5.32	184448	5.76	260329	IS



MH
4/9/10

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.



VOA Analyst Notes / Corrective Action Log

ARI Project ID: QR09 Client ID: Floyd / Snider

ARI SOP: 404S(Gas) 410S(BTEX) 430S(VPH) 703S(SIM) 706S(524.2) 708S(8260C) 710S(MME)

Parameter(s): SIM

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 10 Curve Date: 3/18/10 Analysis Start Date: 4/7/10

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):

Run Date 4/7/10. Date on GC 4/6/10. (already fixed).
Samples E, A, B, C, Bms

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 4/14/10

Reviewer's Signature: [Signature] Date: 4/14/10



VOA Analyst Notes / Corrective Action Log

ARI Project ID: SIM Curve Client ID: _____

ARI SOP: 404S(Gas) 410S(BTEX) 430S(VPH) 703S(SIM) 706S(524.2) 708S(8260C) 710S(MME)

Parameter(s): SIM

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 10 Curve Date: 4/8/10 Analysis Start Date: _____

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):

Curve rerun 4/8/10 Date on GC wrong 4/7/10 corrected.

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 4/13/10

Reviewer's Signature: [Signature] Date: 4/13/10



VOA Analyst Notes / Corrective Action Log

ARI Project ID: QR09 Client ID: Floyd / Snider

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **703S(SIM)** **706S**(524.2) **708S**(8260C) **710S**(MME)

Parameter(s): SIM

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 10 Curve Date: 4/8/10 Analysis Start Date: 4/8/10

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):

*Samples Bmsd D.
run Date 4/8/10 GC Date 4/7/10 (problem already fixed)*

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 4/14/10

Reviewer's Signature: [Signature] Date: 4/14/10

TPHD Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QR09-Floyd/Snider
Project: Lora Lake Apartments
POS-LLA

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
CB31A040210GRAB	62.5%	0
MB-040510	64.0%	0
LCS-040510	73.4%	0
CB4857040210GRAB	63.8%	0
CB4857040210GRAB MS	74.7%	0
CB4857040210GRAB MSD	68.8%	0
CB1040210GRAB	64.5%	0
CB102040210GRAB	68.4%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(51-120)

(41-121)

Prep Method: SW3510C
Log Number Range: 10-8553 to 10-8556

ORGANICS ANALYSIS DATA SHEET
 NWTPHD by GC/FID-Silica and Acid Cleaned
 Page 1 of 1

Sample ID: CB4857040210GRAB
 MS/MSD

Lab Sample ID: QR09B
 LIMS ID: 10-8554
 Matrix: Water
 Data Release Authorized: *RB*
 Reported: 04/08/10

QC Report No: QR09-Floyd/Snider
 Project: Lora Lake Apartments
 POS-LLA
 Date Sampled: 04/02/10
 Date Received: 04/02/10

Date Extracted MS/MSD: 04/05/10
 Date Analyzed MS: 04/06/10 20:22
 MSD: 04/06/10 20:39
 Instrument/Analyst MS: FID/MS
 MSD: FID/MS

Sample Amount MS: 500 mL
 MSD: 500 mL
 Final Extract Volume MS: 1.0 mL
 MSD: 1.0 mL
 Dilution Factor MS: 1.00
 MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 0.25	1.96	3.00	65.3%	1.86	3.00	62.0%	5.2%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	74.7%	68.8%

Results reported in mg/L
 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-040510
 LAB CONTROL

Lab Sample ID: LCS-040510
 LIMS ID: 10-8554
 Matrix: Water
 Data Release Authorized: *[Signature]*
 Reported: 04/08/10

QC Report No: QR09-Floyd/Snider
 Project: Lora Lake Apartments
 POS-LLA
 Date Sampled: 04/02/10
 Date Received: 04/02/10

Date Extracted: 04/05/10
 Date Analyzed: 04/06/10 19:31
 Instrument/Analyst: FID/MS

Sample Amount: 500 mL
 Final Extract Volume: 1.0 mL
 Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	1.82	3.00	60.7%

TPHD Surrogate Recovery

o-Terphenyl	73.4%
-------------	-------

Results reported in mg/L

4
TPH METHOD BLANK SUMMARY

BLANK NO.

QR09MBW1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

SDG No.: QR09

Project No.: LLA

Date Extracted: 04/05/10

Matrix: LIQUID

Date Analyzed : 04/06/10

Instrument ID : FID3A

Time Analyzed : 1914

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QR09LCSW1	QR09LCSW1	04/06/10
02	CB31A040210G	QR09A	04/06/10
03	CB4857040210	QR09B	04/06/10
04	CB4857040210	QR09BMS	04/06/10
05	CB4857040210	QR09BMSD	04/06/10
06	CB1040210GRA	QR09C	04/06/10
07	CB102040210G	QR09D	04/06/10

8
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

SDG No.: QR09

Project: LLA

Instrument ID: FID3A

GC Column: ZB1-HT

Run Date: 04/02/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,
IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD					
		TERPH: 5.08		TRIAC: 6.96	
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
=====					
01	RT	04/02/10	1743	5.08	6.96
02	IB	04/02/10	1801	5.08	6.96
03	DIESEL 50	04/02/10	1818	5.08	6.96
04	DIESEL 100	04/02/10	1835	5.08	6.96
05	DIESEL 250	04/02/10	1852	5.08	6.96
06	DIESEL 500	04/02/10	1910	5.09	6.96
07	DIESEL 1000	04/02/10	1927	5.09	6.96
08	DIESEL 2500	04/02/10	1944	5.11	6.96
09	DIESEL ICV	04/02/10	2002	5.08	6.96
10	RINSE	04/02/10	2019	5.08	6.96
11	MOIL 100	04/02/10	2036	5.09	6.95
12	MOIL 250	04/02/10	2054	5.08	6.96
13	MOIL 500	04/02/10	2111	5.08	6.96
14	MOIL 1000	04/02/10	2128	5.08	6.97
15	MOIL 2500	04/02/10	2146	5.07	6.98
16	MOIL 5000	04/02/10	2203	5.08	7.00
17	MOIL ICV	04/02/10	2220	5.08	6.96

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.: QR09

Project: LLA

Instrument ID: FID3A

GC Column: ZB1-HT

Run Date: 04/06/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS,
IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD						
			TERPH: 5.08		TRIAc: 6.95	
CLIENT	LAB	DATE	TIME	TERPH	TRIAc	
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT #	RT #	
=====	=====	=====	=====	=====	=====	=====
01 RT	RT	04/06/10	1655	5.08	6.95	
02 IB	IB	04/06/10	1713	5.08	6.95	
03 DIESEL#1	DIESEL#1	04/06/10	1730	5.08	6.95	
04 MOIL#1	MOIL#1	04/06/10	1747	5.08	6.95	
05 ZZZZZ	ZZZZZ	04/06/10	1805	5.08	6.95	
06 ZZZZZ	ZZZZZ	04/06/10	1822	5.08	6.95	
07 ZZZZZ	ZZZZZ	04/06/10	1839	5.08	6.95	
08 ZZZZZ	ZZZZZ	04/06/10	1856	5.08	6.95	
09 QR09MBW1	QR09MBW1	04/06/10	1914	5.08	6.95	
10 QR09LCSW1	QR09LCSW1	04/06/10	1931	5.08	6.95	
11 CB31A040210G	QR09A	04/06/10	1948	5.08	6.95	
12 CB4857040210	QR09B	04/06/10	2005	5.08	6.95	
13 CB4857040210	QR09BMS	04/06/10	2022	5.08	6.95	
14 CB4857040210	QR09BMSD	04/06/10	2039	5.08	6.95	
15 CB1040210GRA	QR09C	04/06/10	2056	5.08	6.95	
16 CB102040210G	QR09D	04/06/10	2113	5.08	6.95	
17 DIESEL#2	DIESEL#2	04/06/10	2130	5.08	6.95	
18 MOIL#2	MOIL#2	04/06/10	2147	5.08	6.96	

TERPH = o-terph (+/- 0.05 MINUTES)
 TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPHD Analysis
Sample Data

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

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: Water

QC Report No: QR09-Floyd/Snider

Project: Lora Lake Apartments

POS-LLA

Data Release Authorized: *[Signature]*

Reported: 04/08/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
QR09A 10-8553	CB31A040210GRAB HC ID: MOTOR OIL	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U 0.55 62.5%
MB-040510 10-8554	Method Blank HC ID: ---	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 64.0%
QR09B 10-8554	CB4857040210GRAB HC ID: ---	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 63.8%
QR09C 10-8555	CB1040210GRAB HC ID: ---	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 64.5%
QR09D 10-8556	CB102040210GRAB HC ID: ---	04/05/10	04/06/10 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 68.4%

Reported in mg/L (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.

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 04/02/10

ARI Job: QR09
Project: Lora Lake Apartments
POS-LLA

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
10-8553-QR09A	CB31A040210GRAB	500 mL	1.00 mL	04/05/10
10-8554-040510MB1	Method Blank	500 mL	1.00 mL	04/05/10
10-8554-040510LCS1	Lab Control	500 mL	1.00 mL	04/05/10
10-8554-QR09B	CB4857040210GRAB	500 mL	1.00 mL	04/05/10
10-8554-QR09BMS	CB4857040210GRAB	500 mL	1.00 mL	04/05/10
10-8554-QR09BMSD	CB4857040210GRAB	500 mL	1.00 mL	04/05/10
10-8555-QR09C	CB1040210GRAB	500 mL	1.00 mL	04/05/10
10-8556-QR09D	CB102040210GRAB	500 mL	1.00 mL	04/05/10

Analytical Resources Inc.
TPH Quantitation Report

24/01/10

Data file: /chem3/fid3a.i/20100406.b/0406a012.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: QR09A
Client ID: CB31A040210GRAB
Injection: 06-APR-2010 19:48
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.942	0.008	7641	9053	GAS (Tol-C12)	309103	11
C8	2.321	0.004	5482	6516	DIESEL (C12-C24)	1504087	46
C10	3.231	0.000	3209	1504	M.OIL (C24-C38)	4874538	274
C12	3.784	0.003	1751	1162	AK-102 (C10-C25)	1769973	48
C14	4.227	0.002	1908	1122	AK-103 (C25-C36)	4345321	486
C16	4.613	-0.005	3196	2125	OR.DIES (C10-C28)	3427071	162
C18	4.967	0.000	10457	10477	OR.MOIL (C28-C40)	3283311	291
C20	5.291	0.000	18016	16958	JET-A (C10-C18)	314518	20
C22	5.622	-0.001	26204	25779			
C24	5.960	-0.001	39693	36046	STODDARD (C8-C12)	242763	9
C25	6.130	-0.002	55297	41797			
C26	6.301	0.000	49380	24133			
C28	6.628	-0.002	56353	76560			
C32	7.248	-0.002	48186	71059			
C34	7.532	-0.005	42113	59357			
Filter Peak	7.607	-0.001	28860	11359			
C36	7.805	-0.004	36529	46666	CREOSOT (C8-C22)	1081406	169
C38	8.063	-0.004	25500	28948			
C40	8.313	-0.002	18119	13650	BUNKERC (C10-C38)	6465784	748

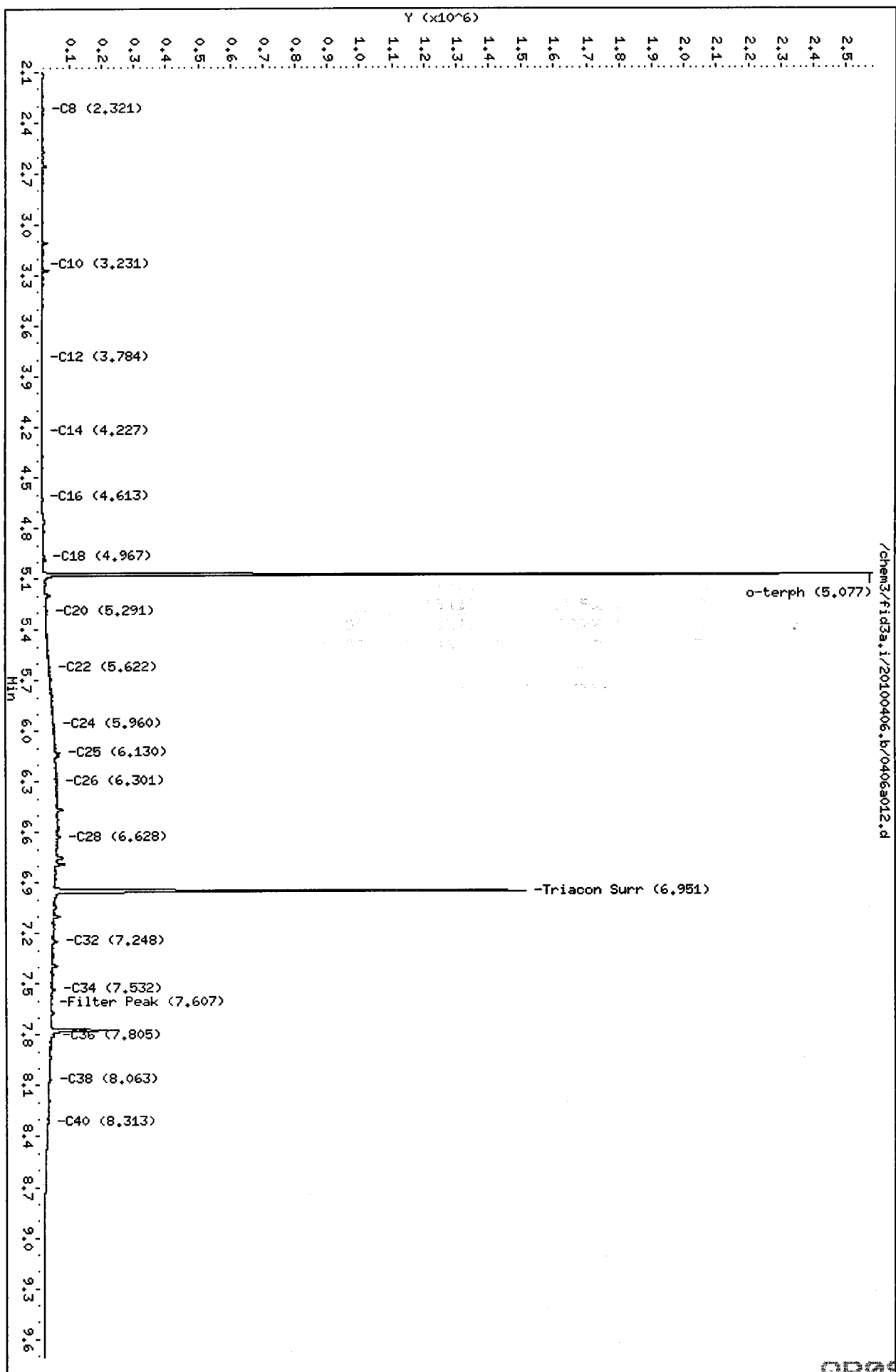
Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1219422	28.1	62.5
Triacontane	1017468	36.1	80.3

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a012.d
Date: 06-APR-2010 19:48
Client ID: CB31A040210CRAB
Sample Info: QR09a
Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



24/8/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a013.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: QR09B
Client ID: CB4857040210GRAB
Injection: 06-APR-2010 20:05
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.940	0.006	7223	8334	GAS (Tol-C12)	271307	10
C8	2.322	0.005	4497	3940	DIESEL (C12-C24)	1224708	37
C10	3.231	-0.001	3114	1712	M.OIL (C24-C38)	3815150	215
C12	3.782	0.000	1619	373	AK-102 (C10-C25)	1446653	39
C14	4.225	0.000	1563	363	AK-103 (C25-C36)	3412953	382
C16	4.615	-0.003	2729	1615	OR.DIES (C10-C28)	2854484	135
C18	4.967	0.001	7950	8518	OR.MOIL (C28-C40)	2437372	216
C20	5.292	0.002	12958	14234	JET-A (C10-C18)	256653	16
C22	5.624	0.001	22109	3085			
C24	5.961	0.000	35024	9015	STODDARD (C8-C12)	212683	8
C25	6.131	-0.001	43838	16345			
C26	6.299	-0.001	42105	29522			
C28	6.630	-0.001	43948	30955			
C32	7.250	0.000	35861	63297			
C34	7.537	0.000	30443	41065			
Filter Peak	7.606	-0.003	21767	13197			
C36	7.809	0.000	27428	18552	CREOSOT (C8-C22)	833220	130
C38	8.069	0.002	17547	17784			
C40	8.318	0.002	12752	8918	BUNKERC (C10-C38)	5114427	592

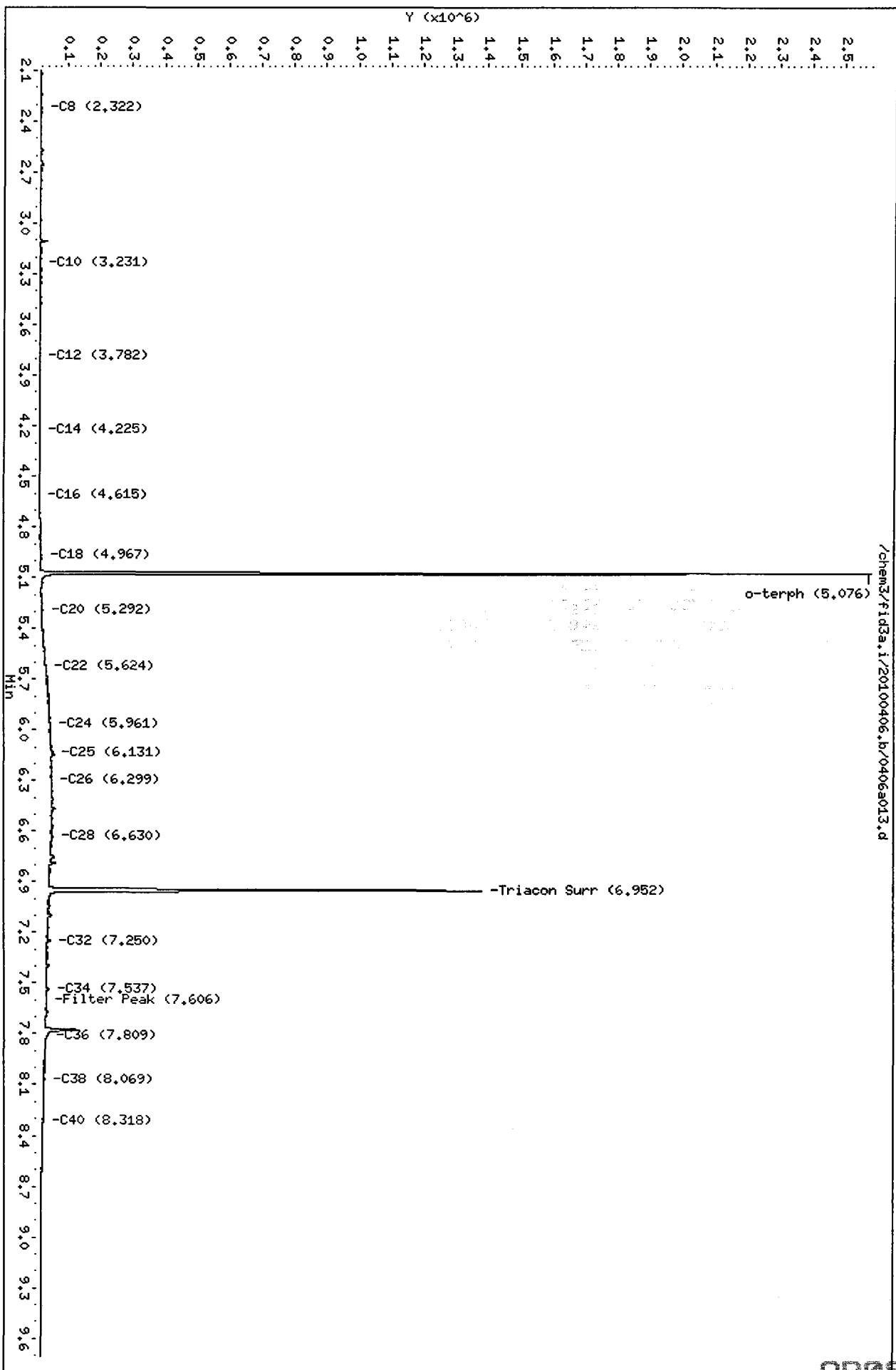
Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1244764	28.7	63.8
Triacontane	1013914	36.0	80.0

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a013.d
Date: 06-APR-2010 20:05
Client ID: CB4857040210CRAB
Sample Info: QR09B
Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

u 4/11/10

Data file: /chem3/fid3a.i/20100406.b/0406a016.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: QR09C
Client ID: CB1040210GRAB
Injection: 06-APR-2010 20:56
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.940	0.007	7396	8730	GAS (Tol-C12)	258013	9
C8	2.321	0.005	4125	4905	DIESEL (C12-C24)	234496	7
C10	3.231	0.000	3073	1460	M.OIL (C24-C38)	486049	27
C12	3.781	0.000	1518	119	AK-102 (C10-C25)	319260	9
C14	4.226	0.001	1181	185	AK-103 (C25-C36)	418116	47
C16	4.615	-0.003	1494	401	OR.DIES (C10-C28)	464211	22
C18	4.964	-0.003	2119	1094	OR.MOIL (C28-C40)	385442	34
C20	5.291	0.000	1505	119	JET-A (C10-C18)	175717	11
C22	5.624	0.001	2065	205			
C24	5.961	0.000	3175	1439	STODDARD (C8-C12)	205123	7
C25	6.138	0.006	14988	16063			
C26	6.303	0.002	4430	2878			
C28	6.631	0.001	5124	5992			
C32	7.250	0.000	5032	3346			
C34	7.543	0.006	4273	3325			
Filter Peak	7.608	0.000	2940	645			
C36	7.812	0.003	13014	13837	CREOSOT (C8-C22)	386801	60
C38	8.069	0.002	3737	445			
C40	8.314	-0.001	4282	341	BUNKERC (C10-C38)	792214	92

Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

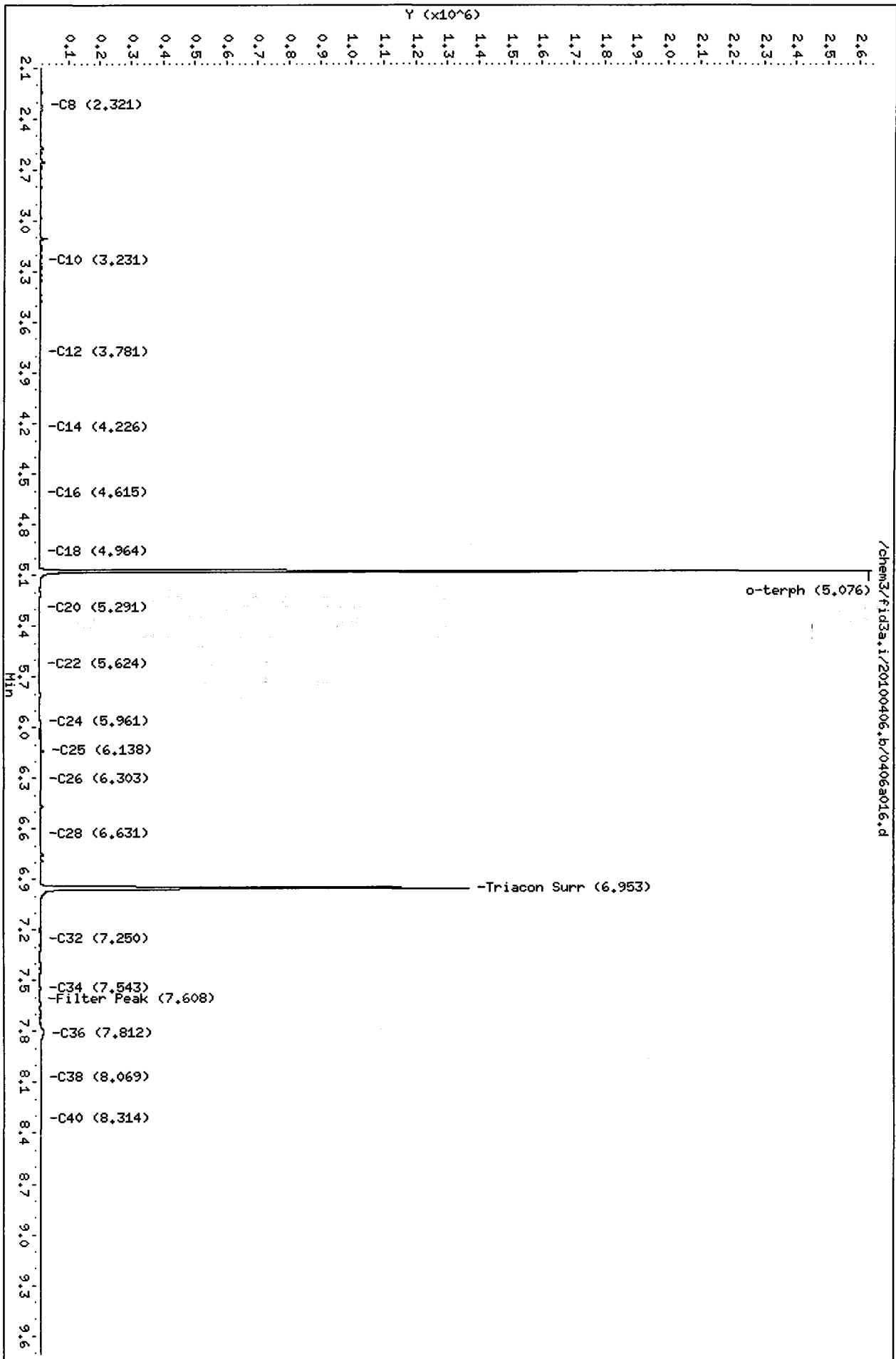
Surrogate	Area	Amount	%Rec
o-Terphenyl	1257583	29.0	64.5
Triacontane	1065262	37.8	84.1

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a016.d
Date: 06-APR-2010 20:56
Client ID: CE1040210GRAB
Sample Info: QR09C

Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



24/8/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a017.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: QR09D
Client ID: CB102040210GRAB
Injection: 06-APR-2010 21:13
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.941	0.007	7339	8522	GAS (Tol-C12)	253894	9
C8	2.311	-0.006	2554	203	DIESEL (C12-C24)	219762	7
C10	3.231	0.000	3006	1523	M.OIL (C24-C38)	475838	27
C12	3.782	0.001	1374	109	AK-102 (C10-C25)	302408	8
C14	4.224	-0.001	1002	59	AK-103 (C25-C36)	407638	46
C16	4.622	0.003	1109	88	OR.DIES (C10-C28)	447486	21
C18	4.964	-0.002	1856	951	OR.MOIL (C28-C40)	372216	33
C20	5.291	0.000	1440	86	JET-A (C10-C18)	167253	11
C22	5.623	0.000	2109	335			
C24	5.962	0.001	3303	1323	STODDARD (C8-C12)	197657	7
C25	6.140	0.007	18215	19055			
C26	6.305	0.004	5579	5301			
C28	6.629	-0.002	5552	6616			
C32	7.255	0.005	4621	4661			
C34	7.542	0.005	4558	6007			
Filter Peak	7.608	-0.001	2845	622			
C36	7.804	-0.006	13915	12205	CREOSOT (C8-C22)	362816	57
C38	8.067	0.000	3478	624			
C40	8.315	-0.001	4023	480	BUNKERC (C10-C38)	764939	89

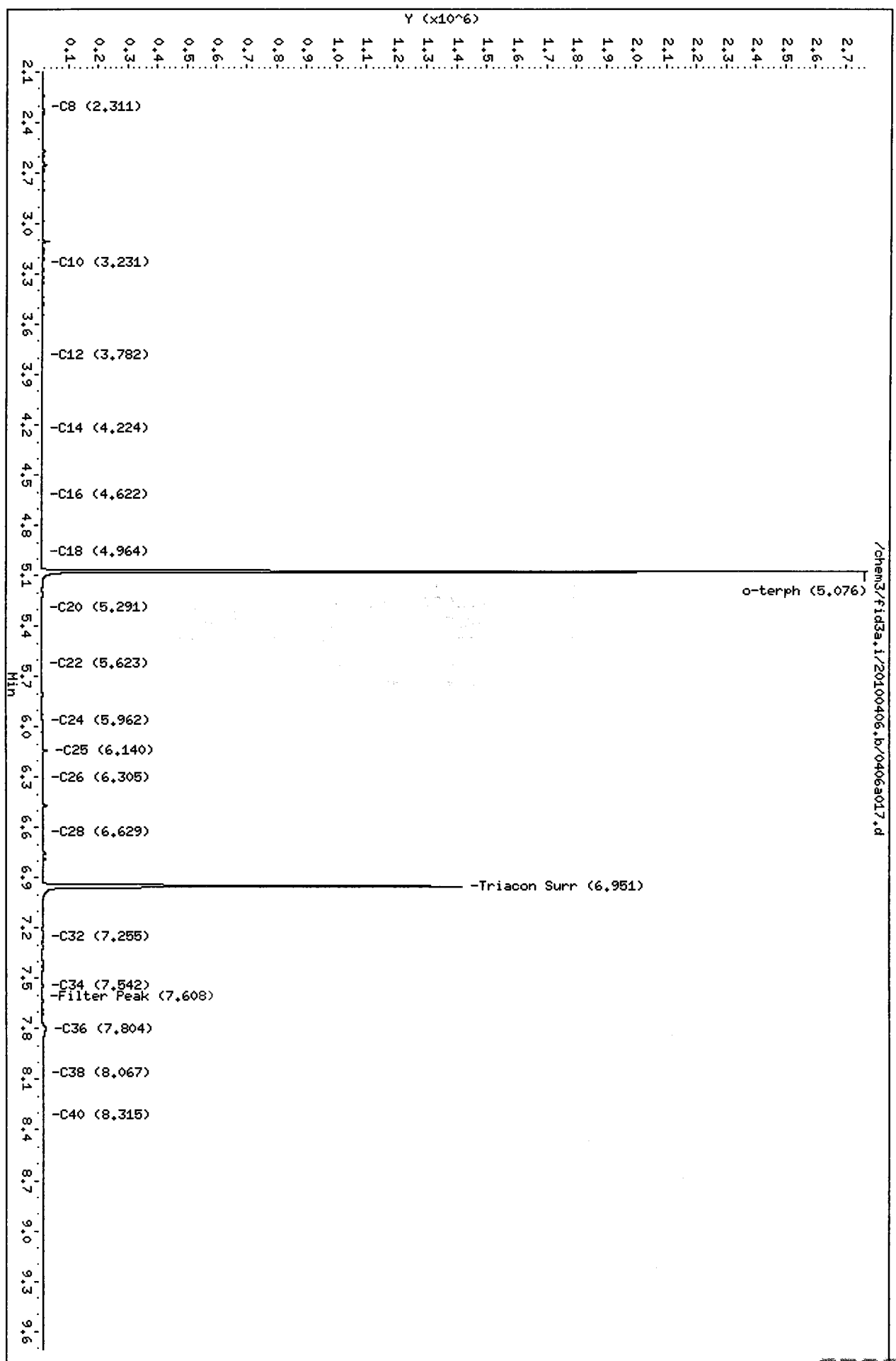
Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1333638	30.8	68.4
Triacontane	1125348	40.0	88.8

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a017.d
Date: 06-APR-2010 21:13
Client ID: CB102040210GRAB
Sample Info: QR09D
Column phase: ZBI-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



0000 : 00245

TPHD Analysis
Standard Raw Data

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

6a
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD/SNIDER

Instrument: FID3A.I

Project: LLA

Calibration Date: 02-APR-2010

SDG No.: QR09

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	35087	31513	32744	33129	32655	32241	32895	3.7
AK Diesel	39874	35520	36582	36975	36491	36076	36920	4.1
OR Diesel	40719	36080	36930	37280	36769	36346	37354	4.6
o-Terph	44166	39973	42711	44291	44211	44625	43329	4.1

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

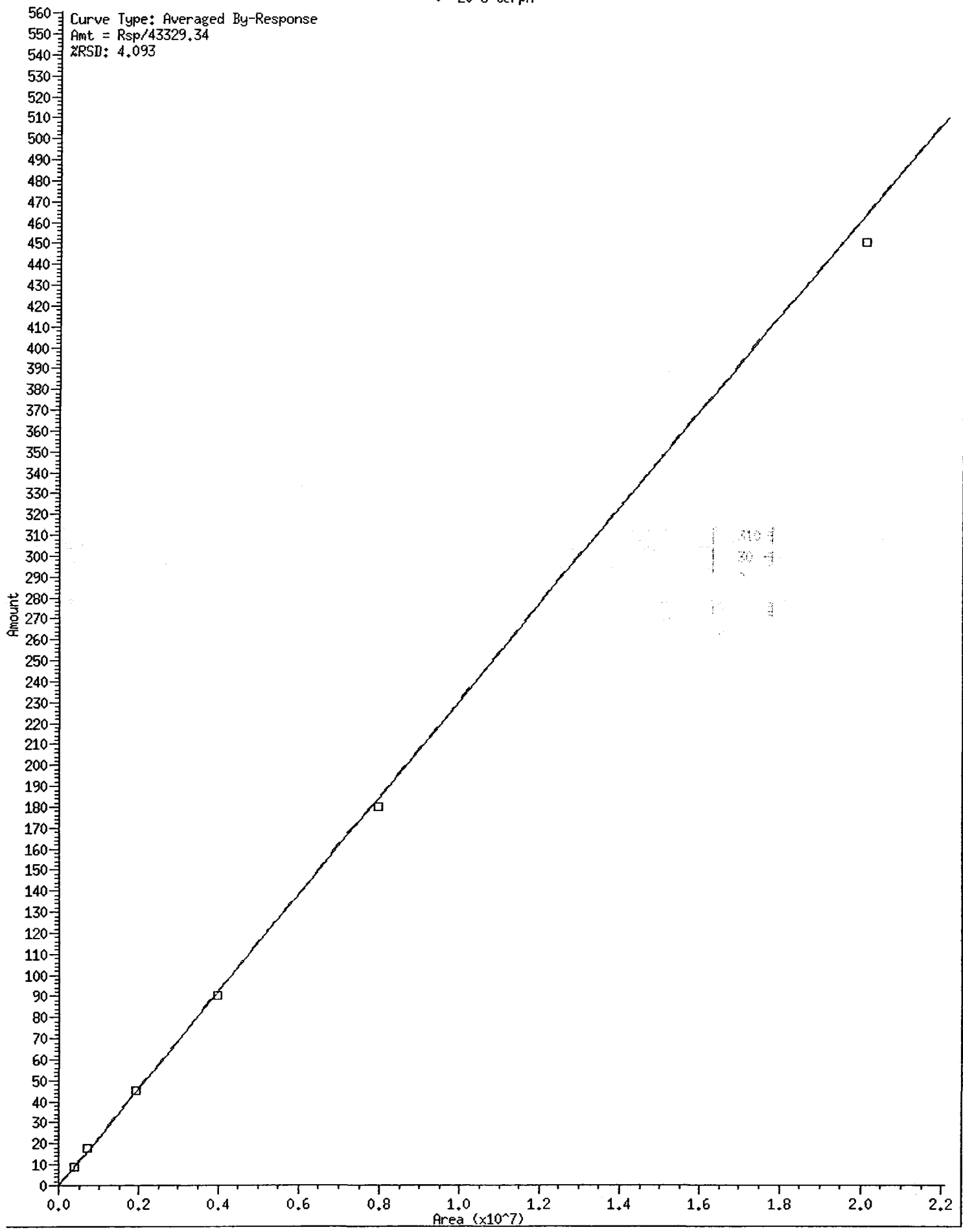
Quant Ranges : WA Diesel C12-C24 (3.783-5.966)
 AK Diesel C10-C25 (3.233-6.137)
 OR Diesel C10-C28 (3.233-6.636)

Calibration Files Analysis Time

0402a005.d	02-APR-2010 18:18
0402a006.d	02-APR-2010 18:35
0402a007.d	02-APR-2010 18:52
0402a008.d	02-APR-2010 19:10
0402a009.d	02-APR-2010 19:27
0402a010.d	02-APR-2010 19:44

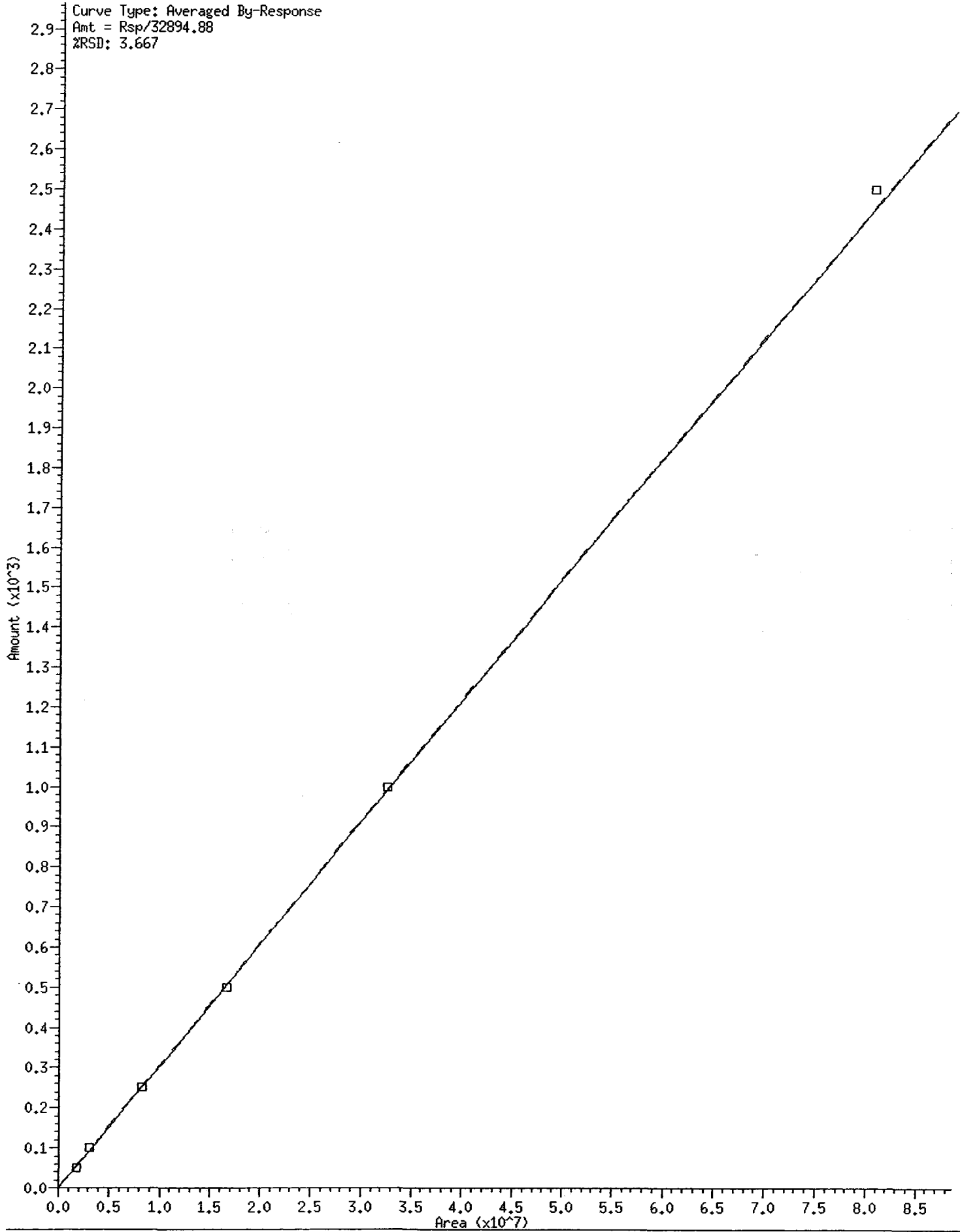
* 20 o-terph

Curve Type: Averaged By-Response
Amt = Rsp/43329.34
%RSD: 4.093

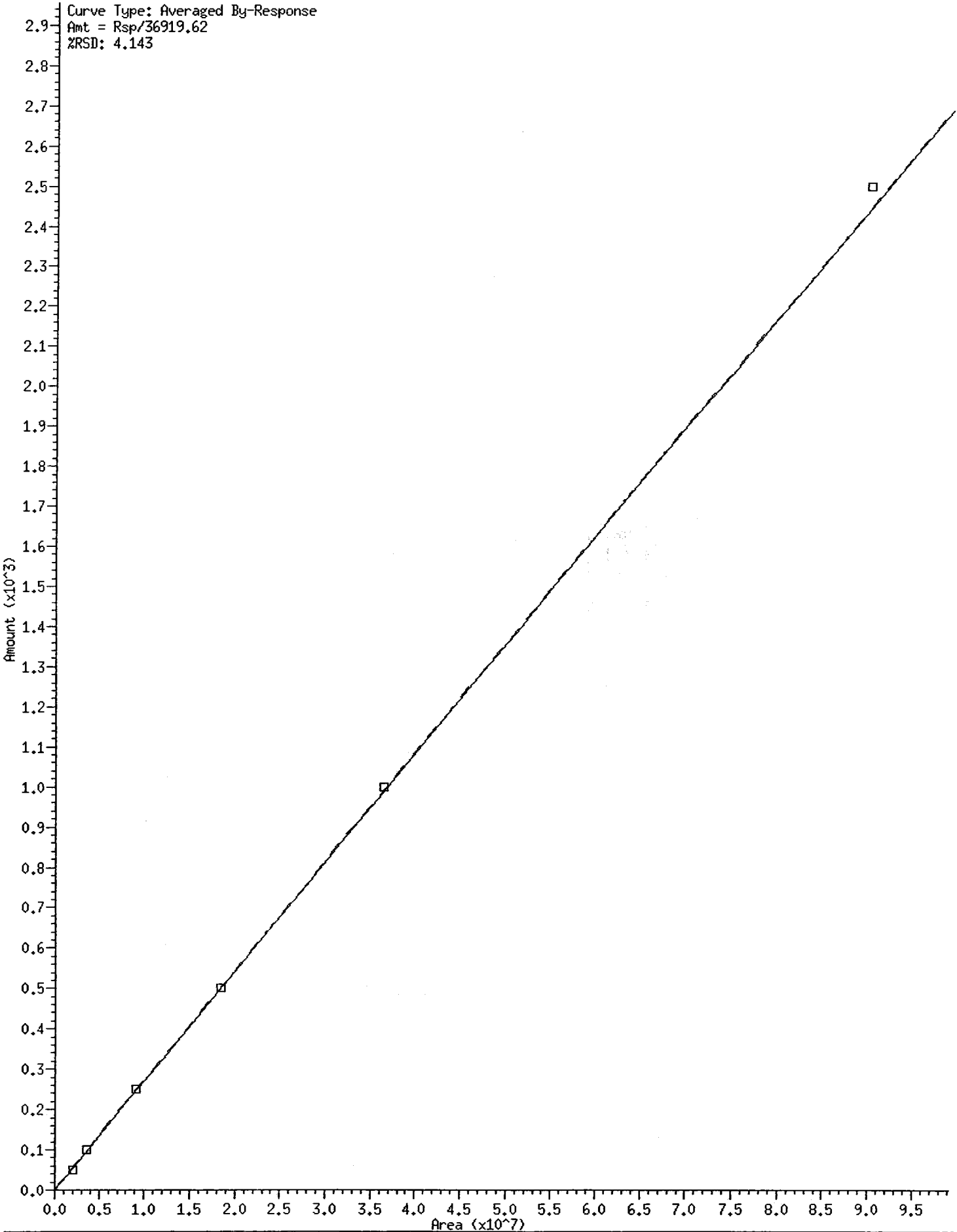


22 NW Diesel

Curve Type: Averaged By-Response
Amt = Rsp/32894.88
%RSD: 3.667



Curve Type: Averaged By-Response
Amt = Rsp/36919.62
%RSD: 4.143



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a003.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: RT
Client ID:
Injection: 02-APR-2010 17:43
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.941	0.000	934729	894441	GAS (Tol-C12)	2793026	102
C8	2.320	0.000	627857	490451	DIESEL (C12-C24)	3413772	104
C10	3.233	0.000	1380435	556769	M.OIL (C24-C38)	3846083	216
C12	3.783	0.000	817087	470158	AK-102 (C10-C25)	4586792	124
C14	4.231	0.000	535778	291369	AK-103 (C25-C36)	3354186	376
C16	4.619	0.000	759959	490094	OR.DIES (C10-C28)	6352376	301
C18	4.970	0.000	1007501	529814	OR.MOIL (C28-C40)	2494311	221
C20	5.294	0.000	872790	535702	JET-A (C10-C18)	2911525	184
C22	5.626	0.000	885314	530081			
C24	5.966	0.000	881536	530281	STODDARD (C8-C12)	1844992	67
C25	6.137	0.000	1119929	722540			
C26	6.305	0.000	780189	517230			
C28	6.636	0.000	745138	495756			
C32	7.255	0.000	682477	485664			
C34	7.543	0.000	654940	487580			
Filter Peak	7.610	0.000	2349	187			
C36	7.816	0.000	682790	505661	CREOSOT (C8-C22)	4711640	737
C38	8.075	0.000	596538	448027			
C40	8.325	0.000	342415	372834	BUNKERC (C10-C38)	8428711	975

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2145271	49.5	110.0
Triacontane	1662574	59.1	131.2

04/02/10

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

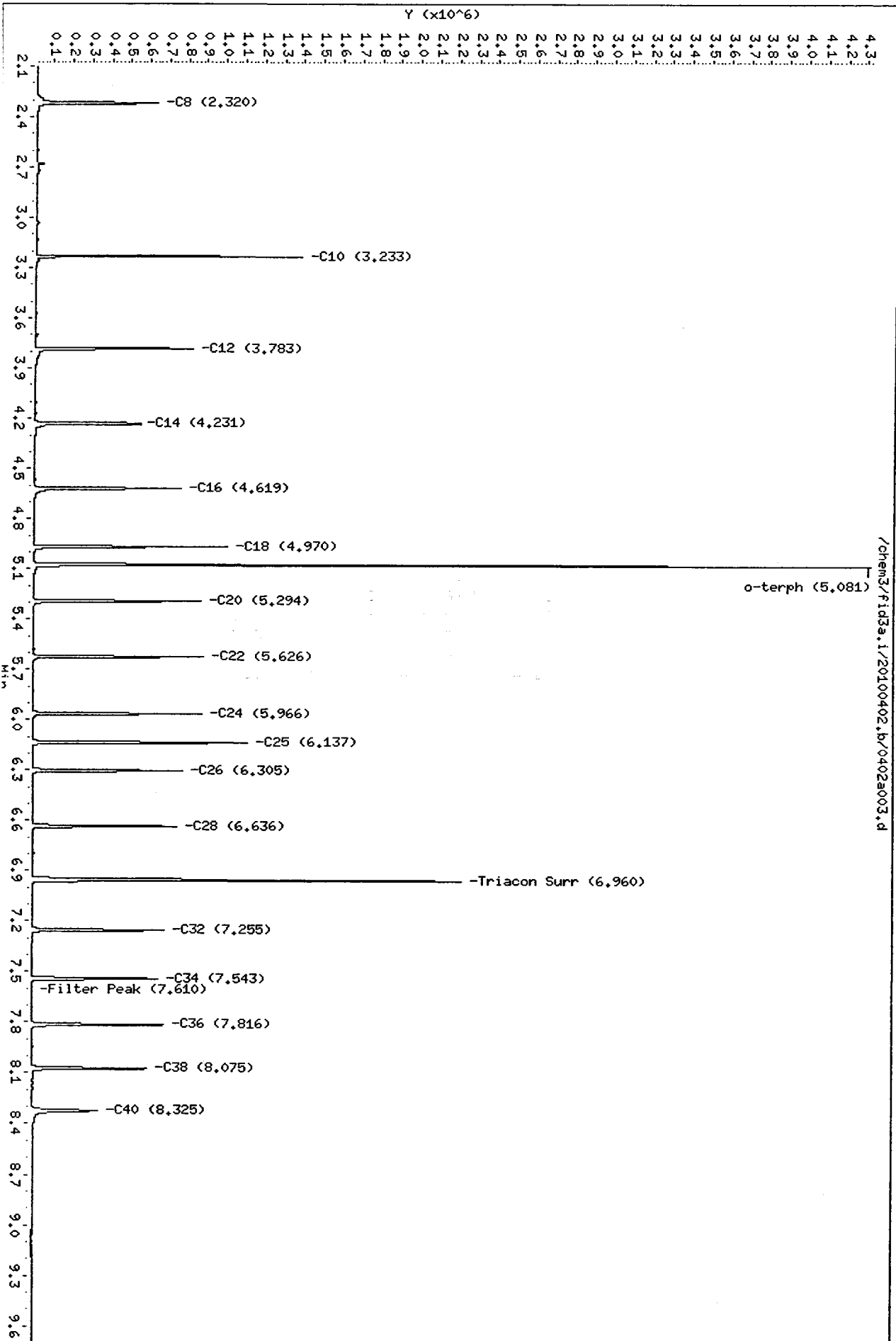
Data File: /chem3/fid3a.i/20100402.b/0402a003.d
Date: 02-APR-2010 17:43

Client ID:
Sample Info: RT

Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms
Column diameter: 0.25



020250 : 020250

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a004.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: IB
Client ID:
Injection: 02-APR-2010 18:01
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.943	0.002	4595	5807	GAS (Tol-C12)	221025	8
C8	2.323	0.003	4672	4859	DIESEL (C12-C24)	193658	6
C10	3.232	-0.001	6687	4535	M.OIL (C24-C38)	243715	14
C12	3.784	0.001	2330	2022	AK-102 (C10-C25)	275970	7
C14	4.231	0.000	1469	721	AK-103 (C25-C36)	196399	22
C16	4.619	0.000	1278	127	OR.DIES (C10-C28)	317907	15
C18	4.968	-0.002	1745	1416	OR.MOIL (C28-C40)	251280	22
C20	5.297	0.004	1078	106	JET-A (C10-C18)	167455	11
C22	5.617	-0.009	2470	2598			
C24	5.966	-0.001	772	137	STODDARD (C8-C12)	186753	7
C25	6.135	-0.002	813	156			
C26	6.311	0.005	3632	2991			
C28	6.635	-0.001	4307	3799			
C32	7.253	-0.002	6359	7488			
C34	7.544	0.001	1792	285			
Filter Peak	7.610	0.001	1799	321			
C36	7.822	0.006	5259	7427	CREOSOT (C8-C22)	361946	57
C38	8.074	-0.001	3206	576			
C40	8.318	-0.007	4862	4479	BUNKERC (C10-C38)	517296	60

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2614731	60.3	134.1
Triacontane	1615650	57.4	127.5

04/02/10

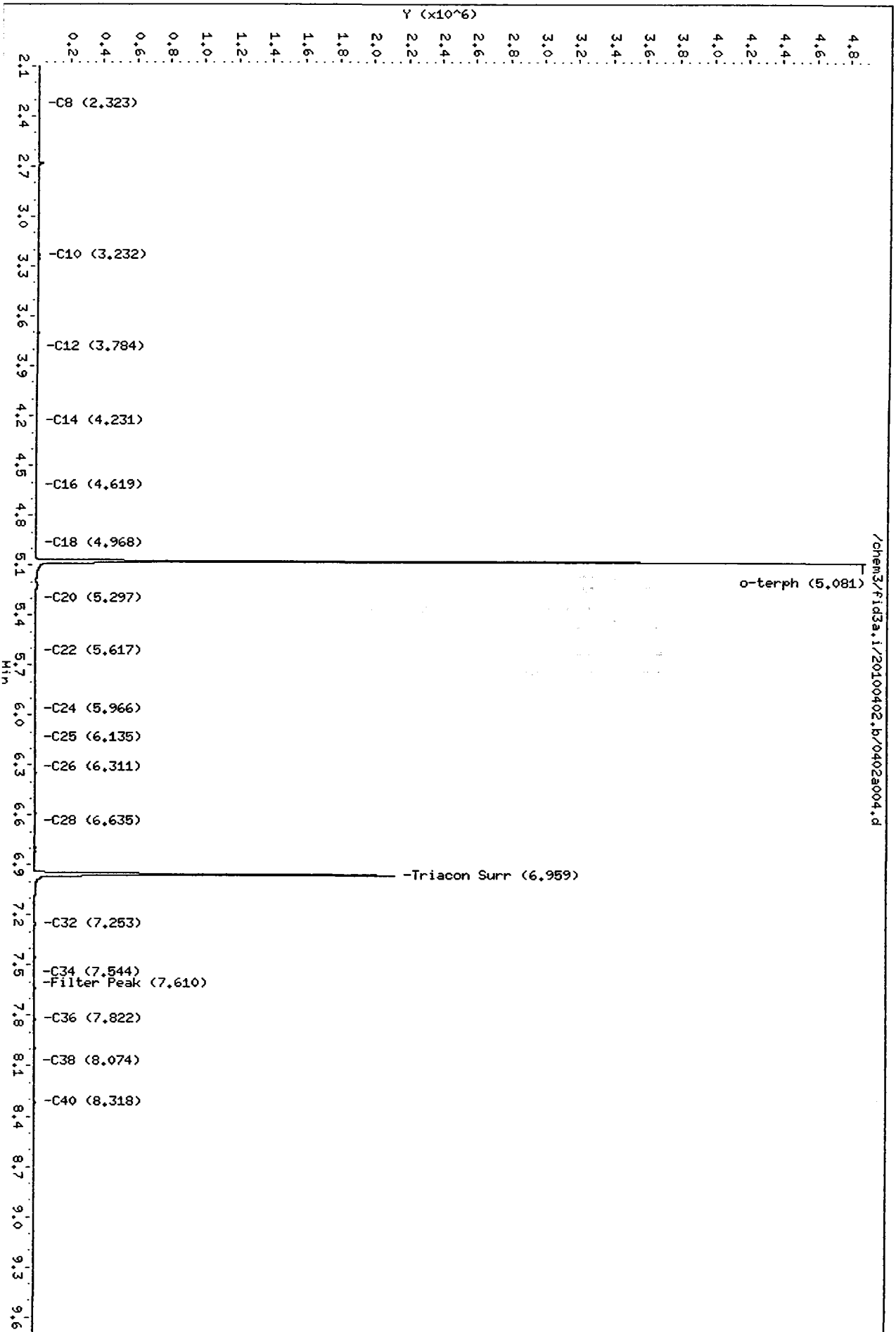
Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100402.b/0402a004.d
Date : 02-APR-2010 18:01

Client ID:
Sample Info: IB

Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



0009 : 50255

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a005.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: DIESEL 50
Client ID:
Injection: 02-APR-2010 18:18
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.947	0.006	4233	5499	GAS (Tol-C12)	437688	16
C8	2.325	0.005	4845	6320	DIESEL (C12-C24)	1754338	53
C10	3.232	0.000	13042	9771	M.OIL (C24-C38)	179870	10
C12	3.783	0.000	15083	12131	AK-102 (C10-C25)	1993675	54
C14	4.234	0.003	26393	18652	AK-103 (C25-C36)	135171	15
C16	4.620	0.001	58021	68488	OR.DIES (C10-C28)	2038924	97
C18	4.968	-0.002	59201	49092	OR.MOIL (C28-C40)	172415	15
C20	5.298	0.004	20896	26632	JET-A (C10-C18)	1483871	94
C22	5.622	-0.004	6097	3300			
C24	5.967	0.001	2571	410	STODDARD (C8-C12)	396223	14
C25	6.138	0.001	1879	409			
C26	6.305	-0.001	1346	107			
C28	6.636	0.000	978	231			
C32	7.255	0.000	1556	338			
C34	7.542	-0.002	1443	399			
Filter Peak	7.610	0.001	1535	271			
C36	7.814	-0.002	1994	314	CREOSOT (C8-C22)	2084909	326
C38	8.075	0.000	2606	259			
C40	8.325	0.001	3705	1024	BUNKERC (C10-C38)	2164375	250

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	397490	9.2	20.4
Triacontane	172	0.0	0.0

Analyte	RF	Curve Date
✓ o-Terph Surr	43329.3	02-APR-2010
✓ Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
✓ Diesel	32894.9	02-APR-2010
✓ Motor Oil	17767.6	02-APR-2010
✓ AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Analyst: *[Signature]*
Date: 04/03/10

- MANUAL ADJUSTMENTS**
1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other

Data File: /chem3/fid3a.i/20100402.b/0402a005.d

Date : 02-APR-2010 18:18

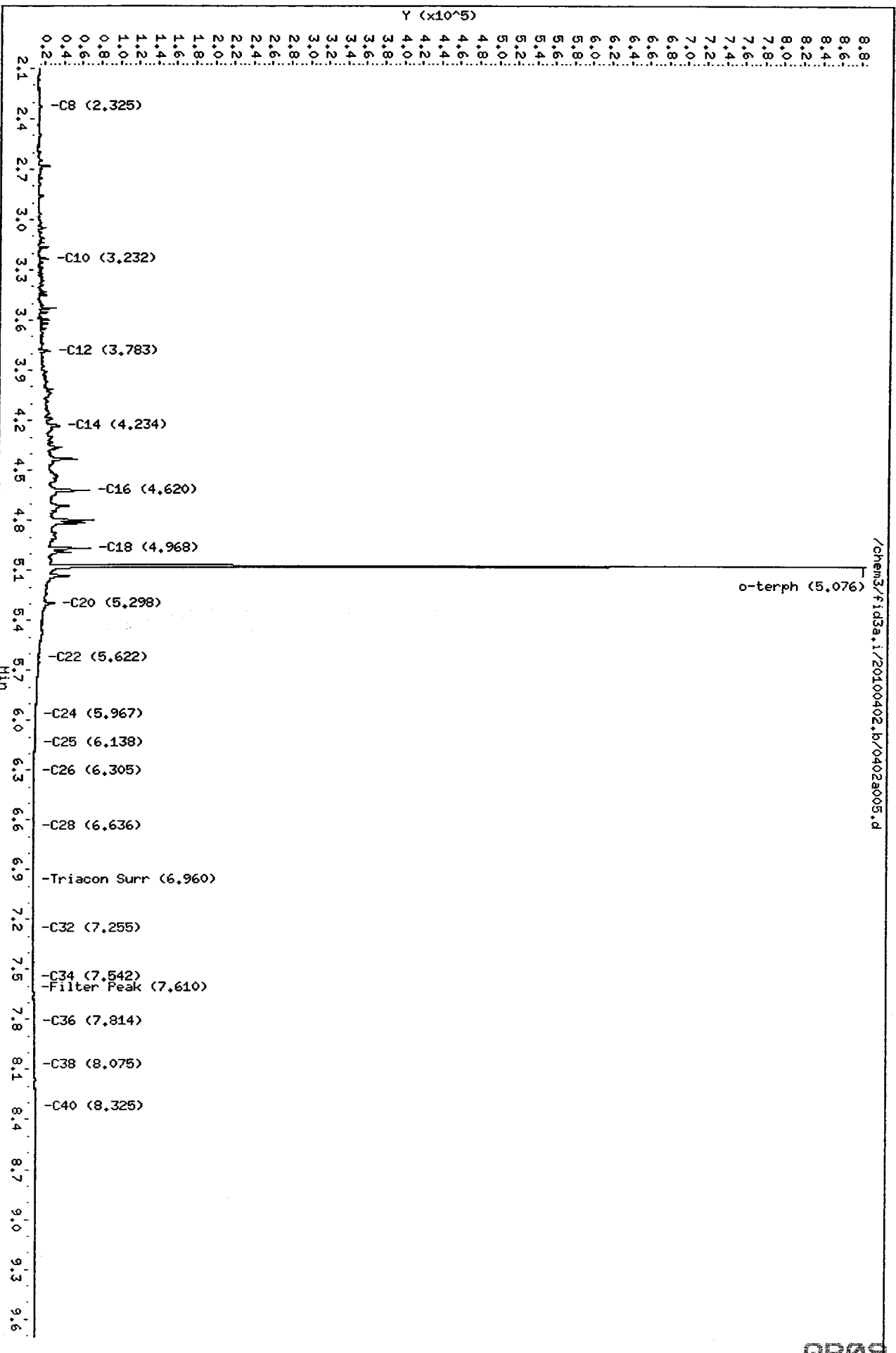
Client ID:

Sample Info: DIESEL 50

Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms
Column diameter: 0.25



0000 : 0025

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a006.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: DIESEL 100
Client ID:
Injection: 02-APR-2010 18:35
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.953	0.012	6451	8537	GAS (Tol-C12)	656700	24
C8	2.327	0.007	6397	7995	DIESEL (C12-C24)	3151349	96
C10	3.233	0.000	22775	15341	M.OIL (C24-C38)	191082	11
C12	3.783	0.000	31151	24416	AK-102 (C10-C25)	3552002	96
C14	4.230	-0.001	57549	57064	AK-103 (C25-C36)	143620	16
C16	4.620	0.001	121873	98519	OR.DIES (C10-C28)	3608041	171
C18	4.968	-0.001	118023	86356	OR.MOIL (C28-C40)	169890	15
C20	5.295	0.001	51859	59028	JET-A (C10-C18)	2659619	168
C22	5.625	-0.001	10091	1409			
C24	5.969	0.003	3697	1018	STODDARD (C8-C12)	612398	22
C25	6.137	0.000	2481	778			
C26	6.306	0.001	1722	409			
C28	6.637	0.001	1103	195			
C32	7.255	-0.001	1617	1097			
C34	7.545	0.002	1412	279			
Filter Peak	7.610	0.001	1469	117			
C36	7.814	-0.002	1943	420	CREOSOT (C8-C22)	3658769	572
C38	8.074	0.000	2538	253			
C40	8.325	0.000	3664	799	BUNKERC (C10-C38)	3729877	432

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	719511	16.6	36.9
Triacontane	79	0.0	0.0

MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other SKIM SURR
Analyst JR Date 04/03/10

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100402.b/0402a006.d

Date: 02-APR-2010 18:35

Client ID:

Sample Info: DIESEL 100

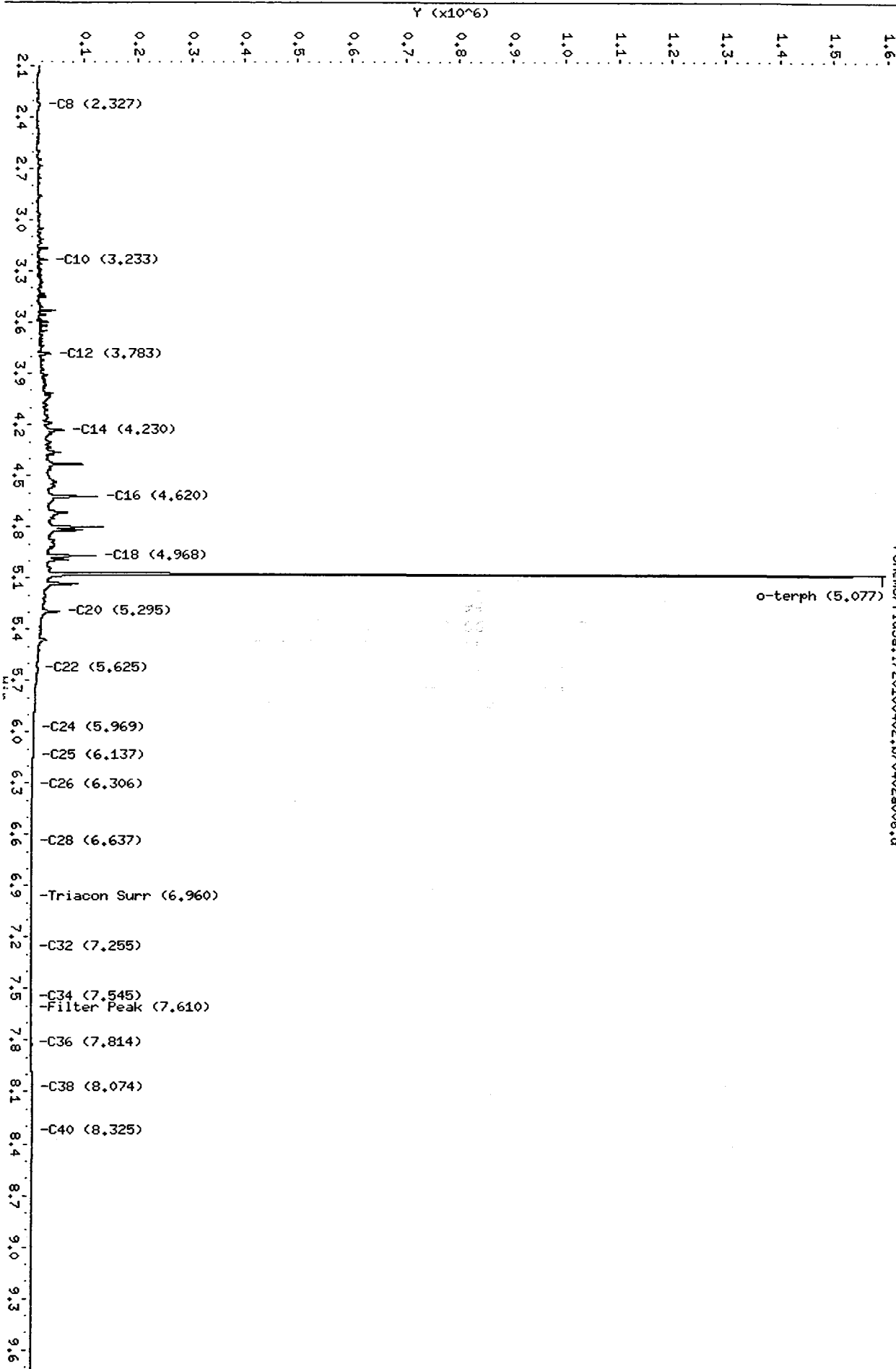
Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

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0000 : 00250

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a007.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: DIESEL 250
Client ID:
Injection: 02-APR-2010 18:52
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.930	-0.010	2903	1365	GAS (Tol-C12)	1393705	51
C8	2.328	0.009	9341	12113	DIESEL (C12-C24)	8186089	249
C10	3.235	0.002	53799	35733	M.OIL (C24-C38)	232965	13
C12	3.785	0.002	97032	72031	AK-102 (C10-C25)	9145526	248
C14	4.229	-0.002	202401	125417	AK-103 (C25-C36)	176963	20
C16	4.619	0.000	385435	237886	OR.DIES (C10-C28)	9232607	438
C18	4.969	-0.001	335113	236152	OR.MOIL (C28-C40)	168224	15
C20	5.293	-0.001	187791	127109	JET-A (C10-C18)	6786444	428
C22	5.627	0.001	60978	64643			
C24	5.970	0.003	8652	2520	STODDARD (C8-C12)	1328300	48
C25	6.137	0.000	4626	1870			
C26	6.306	0.001	2813	836			
C28	6.636	0.000	1428	225			
C32	7.255	-0.001	1601	254			
C34	7.543	0.000	1387	192			
Filter Peak	7.610	0.000	1451	115			
C36	7.815	-0.001	2061	733	CREOSOT (C8-C22)	9244698	1445
C38	8.074	-0.001	2432	337			
C40	8.325	0.001	3440	818	BUNKERC (C10-C38)	9356461	1083

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1921998	44.4	98.6
Triacontane	107	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

MANUAL ADJUSTMENTS

1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other skim surr
- Analyst J Date 04/03/10

Data File: /chem3/fid3a.i/20100402.b/0402a007.d
Date: 02-APR-2010 18:52

Client ID:

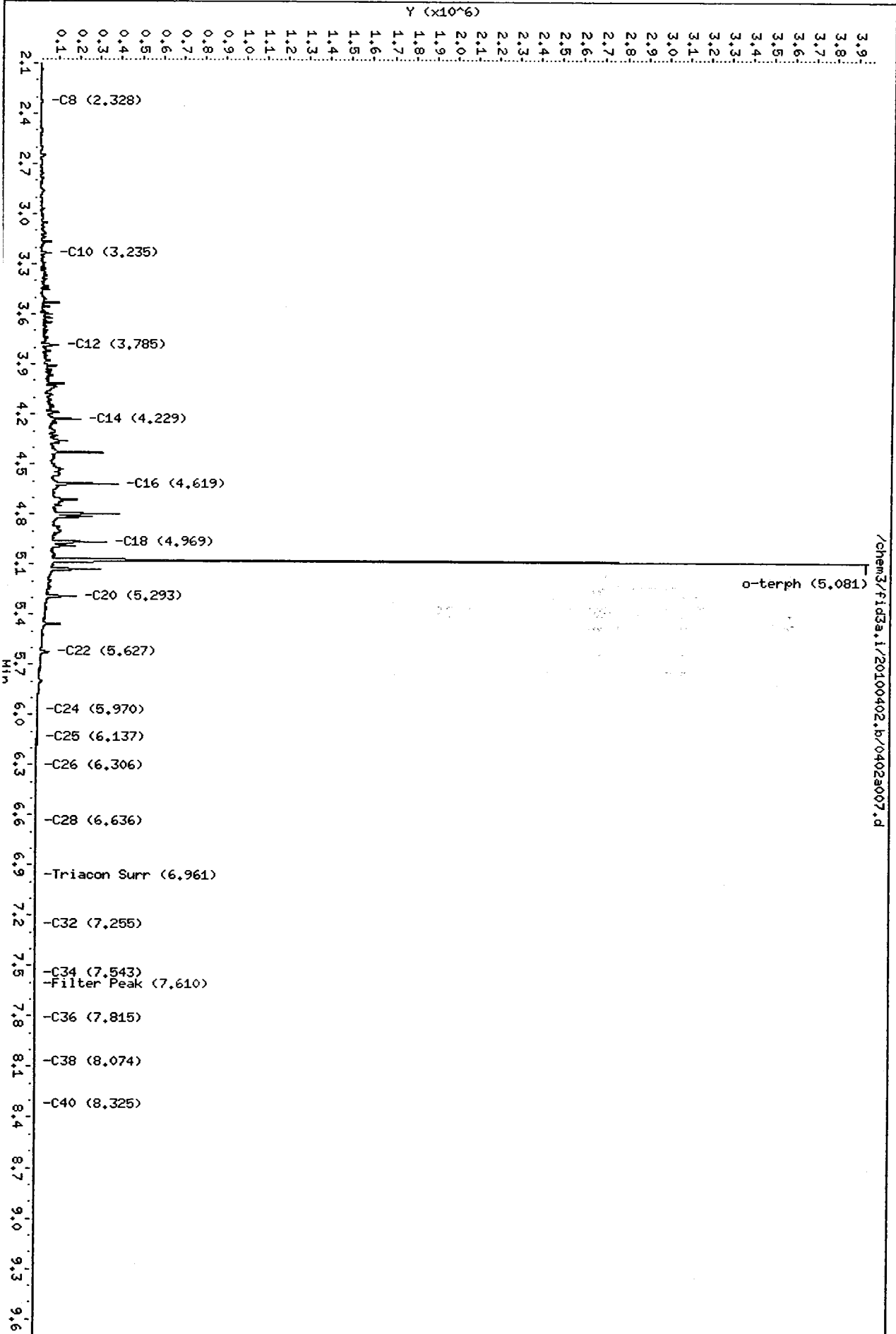
Sample Info: DIESEL 250

Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



0209 : 00250

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a008.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: DIESEL 500
Client ID:
Injection: 02-APR-2010 19:10
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.937	-0.004	3308	1645	GAS (Tol-C12)	2645014	97
C8	2.311	-0.009	2610	257	DIESEL (C12-C24)	16564630	504
C10	3.235	0.003	109131	68411	M.OIL (C24-C38)	330641	19
C12	3.785	0.002	231929	156808	AK-102 (C10-C25)	18487604	501
C14	4.230	-0.001	460170	246639	AK-103 (C25-C36)	256942	29
C16	4.621	0.001	860154	499660	OR.DIES (C10-C28)	18640081	884
C18	4.970	0.001	744566	478169	OR.MOIL (C28-C40)	182926	16
C20	5.294	0.001	406757	270637	JET-A (C10-C18)	13703337	865
C22	5.626	0.000	159359	138441			
C24	5.968	0.002	30403	46776	STODDARD (C8-C12)	2563474	93
C25	6.132	-0.005	8570	1874			
C26	6.309	0.003	4575	1449			
C28	6.635	-0.001	2029	519			
C32	7.255	-0.001	1949	1075			
C34	7.543	0.000	1514	120			
Filter Peak	7.610	0.000	1591	346			
C36	7.813	-0.003	1949	231	CREOSOT (C8-C22)	18563550	2902
C38	8.076	0.001	2470	295			
C40	8.324	-0.001	3544	1059	BUNKERC (C10-C38)	18778383	2173

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3986209	92.0	204.4
Triacontane	355	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

MANUAL ADJUSTMENTS

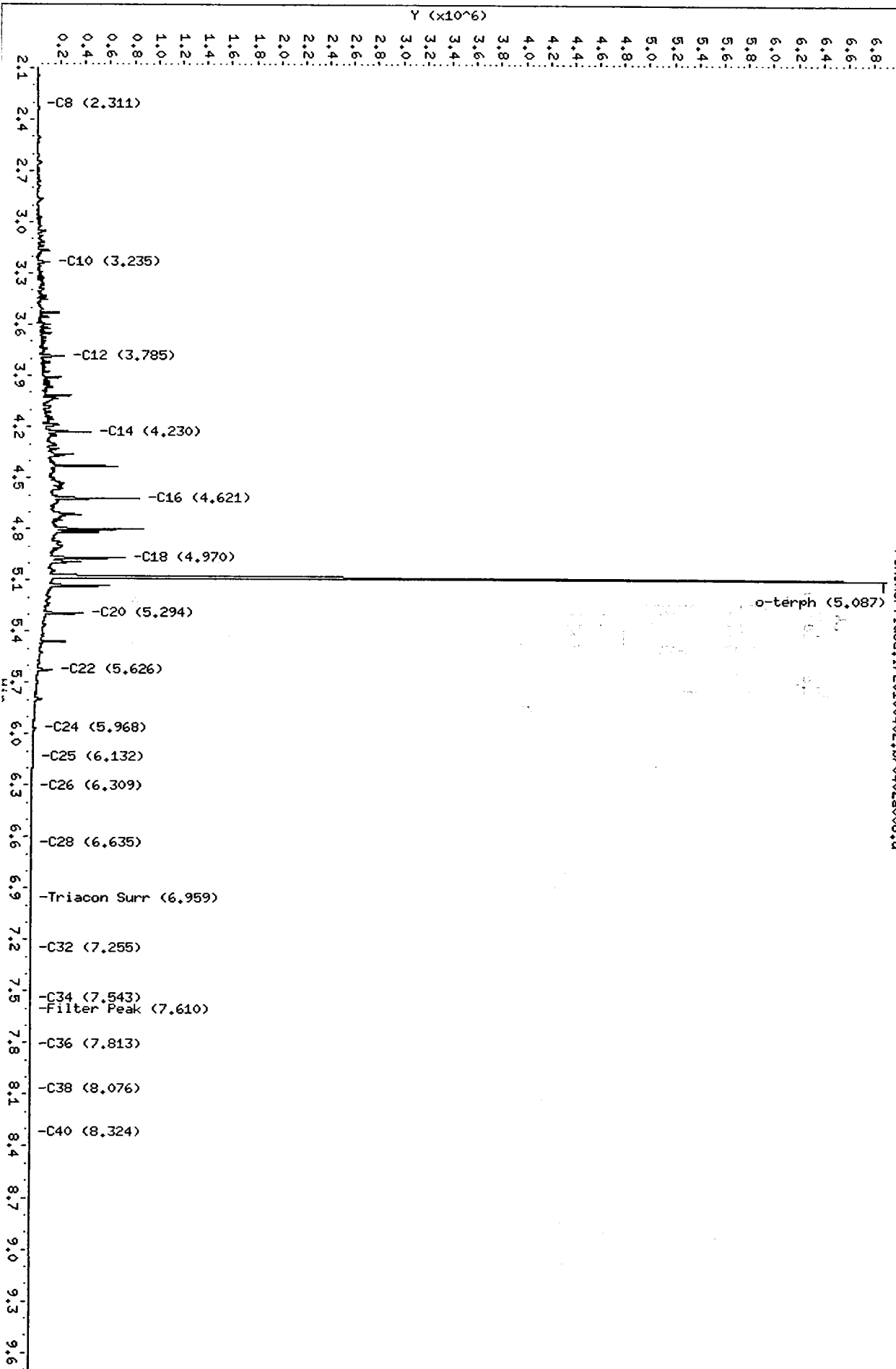
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 3. Baseline Correction
 4. Totals Calculation
 5. Other SKIM SURF
- Analyst JE Date 04/03/10

Data File: /chem3/fid3a.i/20100402.b/0402a008.d
Date: 02-APR-2010 19:10
Client ID:
Sample Info: DIESEL 500

Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25

/chem3/fid3a.i/20100402.b/0402a008.d



0000 : 000000

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a009.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: DIESEL 1000
Client ID:
Injection: 02-APR-2010 19:27
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.946	0.005	3760	5748	GAS (Tol-C12)	5107140	187
C8	2.313	-0.007	3087	488	DIESEL (C12-C24)	32654886	993
C10	3.237	0.004	204315	133413	M.OIL (C24-C38)	526639	30
C12	3.787	0.004	515820	338243	AK-102 (C10-C25)	36491005	988
C14	4.232	0.001	920623	486596	AK-103 (C25-C36)	406448	46
C16	4.623	0.003	1694888	1015011	OR.DIES (C10-C28)	36769243	1743
C18	4.973	0.003	1523310	954657	OR.MOIL (C28-C40)	208537	18
C20	5.295	0.002	813858	552937	JET-A (C10-C18)	26922902	1699
C22	5.627	0.001	348766	280939			
C24	5.967	0.000	87912	93236	STODDARD (C8-C12)	4985529	180
C25	6.139	0.002	29099	55815			
C26	6.298	-0.007	8429	4466			
C28	6.638	0.002	2905	863			
C32	7.255	0.000	2596	3170			
C34	7.544	0.000	1739	277			
Filter Peak	7.611	0.002	1821	398			
C36	7.823	0.007	2954	2343	CREOSOT (C8-C22)	36518194	5710
C38	8.075	0.000	2609	259			
C40	8.324	-0.001	3648	724	BUNKERC (C10-C38)	36933174	4273

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	7957907	183.7	408.1
Triacontane	358	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

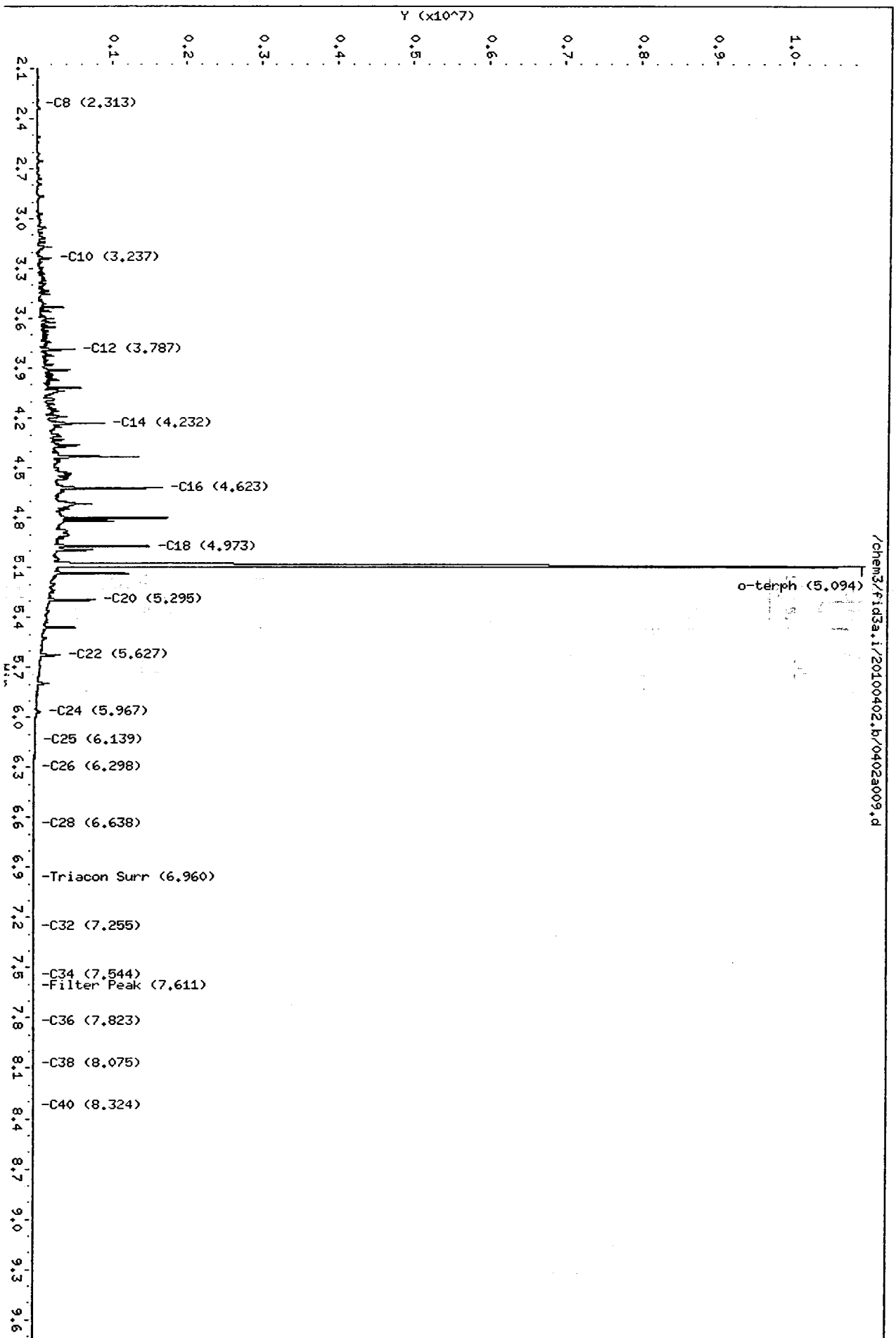
MANUAL ADJUSTMENTS
 1. Peak not found
 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other 2 Kim Surr
 Analyst JZ Date 04/03/10

Data File: /chem3/fid3a.i/20100402.b/0402a009.d
Date : 02-APR-2010 19:27

Client ID:
Sample Info: DIESEL 1000

Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



/chem3/fid3a.i/20100402.b/0402a009.d

0000 : 0026

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a010.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: DIESEL 2500
Client ID:
Injection: 02-APR-2010 19:44
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.936	-0.004	3532	352	GAS (Tol-C12)	12371336	452
C8	2.313	-0.007	24722	23490	DIESEL (C12-C24)	80601295	2450
C10	3.241	0.008	494247	318330	M.OIL (C24-C38)	1136342	64
C12	3.789	0.006	1321643	845361	AK-102 (C10-C25)	90189741	2443
C14	4.235	0.004	2129180	1199571	AK-103 (C25-C36)	873031	98
C16	4.612	-0.007	885598	485110	OR.DIES (C10-C28)	90866004	4308
C18	4.978	0.009	3280299	2384986	OR.MOIL (C28-C40)	293793	26
C20	5.300	0.006	2118187	1338258	JET-A (C10-C18)	66129551	4173
C22	5.629	0.003	877336	668513			
C24	5.966	0.000	246937	233014	STODDARD (C8-C12)	12146726	439
C25	6.136	-0.001	102584	127653			
C26	6.307	0.002	35683	56251			
C28	6.634	-0.002	5570	1986			
C32	7.253	-0.002	4211	3585			
C34	7.543	0.000	2471	245			
Filter Peak	7.610	0.000	2590	514			
C36	7.821	0.005	3936	2593	CREOSOT (C8-C22)	89871028	14051
C38	8.075	0.000	3102	309			
C40	8.323	-0.002	4049	1750	BUNKERC (C10-C38)	91109496	10541

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	20081162	463.5	1029.9
Triacontane	179	0.0	0.0

JK 04/03/10
JK 04/03/10

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other *skin surr*

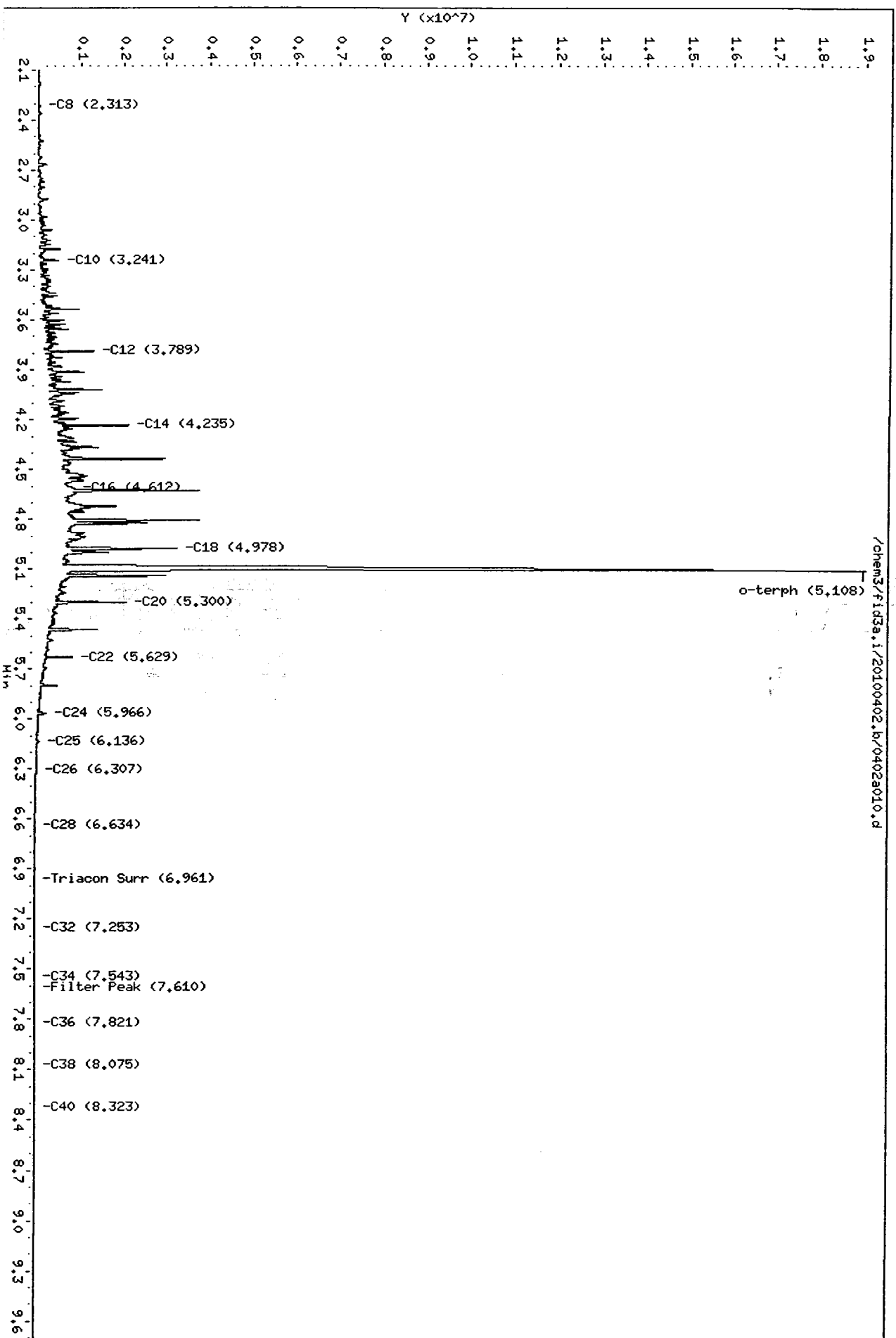
Analyst *JK* Date *04/03/10*

Data File: /chem3/fid3a.i/20100402.b/0402a010.d
Date: 02-APR-2010 19:44

Client ID:
Sample Info: DIESEL 2500

Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a011.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/12/2010
Macro: FID:3A040210

ARI ID: DIESEL ICV
Client ID:
Injection: 02-APR-2010 20:02
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.949	0.008	20042	23856	GAS (Tol-C12)	1676528	61
C8	2.325	0.005	29018	26715	DIESEL (C12-C24)	6744991	205
C10	3.234	0.001	97308	48987	M.OIL (C24-C38)	195574	11
C12	3.785	0.002	129178	98612	AK-102 (C10-C25)	7854707	213
C14	4.230	-0.001	223269	133859	AK-103 (C25-C36)	149221	17
C16	4.619	0.000	257709	172832	OR.DIES (C10-C28)	7928314	376
C18	4.969	-0.001	205513	148779	OR.MOIL (C28-C40)	144543	13
C20	5.293	0.000	113673	85839	JET-A (C10-C18)	6169519	389
C22	5.628	0.002	33616	41983			
C24	5.962	-0.004	6008	3535	STODDARD (C8-C12)	1581355	57
C25	6.139	0.002	3446	344			
C26	6.305	-0.001	2350	373			
C28	6.638	0.002	1212	72			
C32	7.255	0.000	1658	740			
C34	7.542	-0.002	1186	255			
Filter Peak	7.608	-0.001	1270	299			
C36	7.813	-0.003	1662	386	CREOSOT (C8-C22)	8149788	1274
C38	8.074	-0.001	2169	345			
C40	8.324	0.000	3349	333	BUNKERC (C10-C38)	8033472	929

82% 7%
OK

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1734067	40.0	88.9
Triacontane	72	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100402.b/0402a011.d

Date: 02-APR-2010 20:02

Client ID:

Sample Info: DIESEL ICV

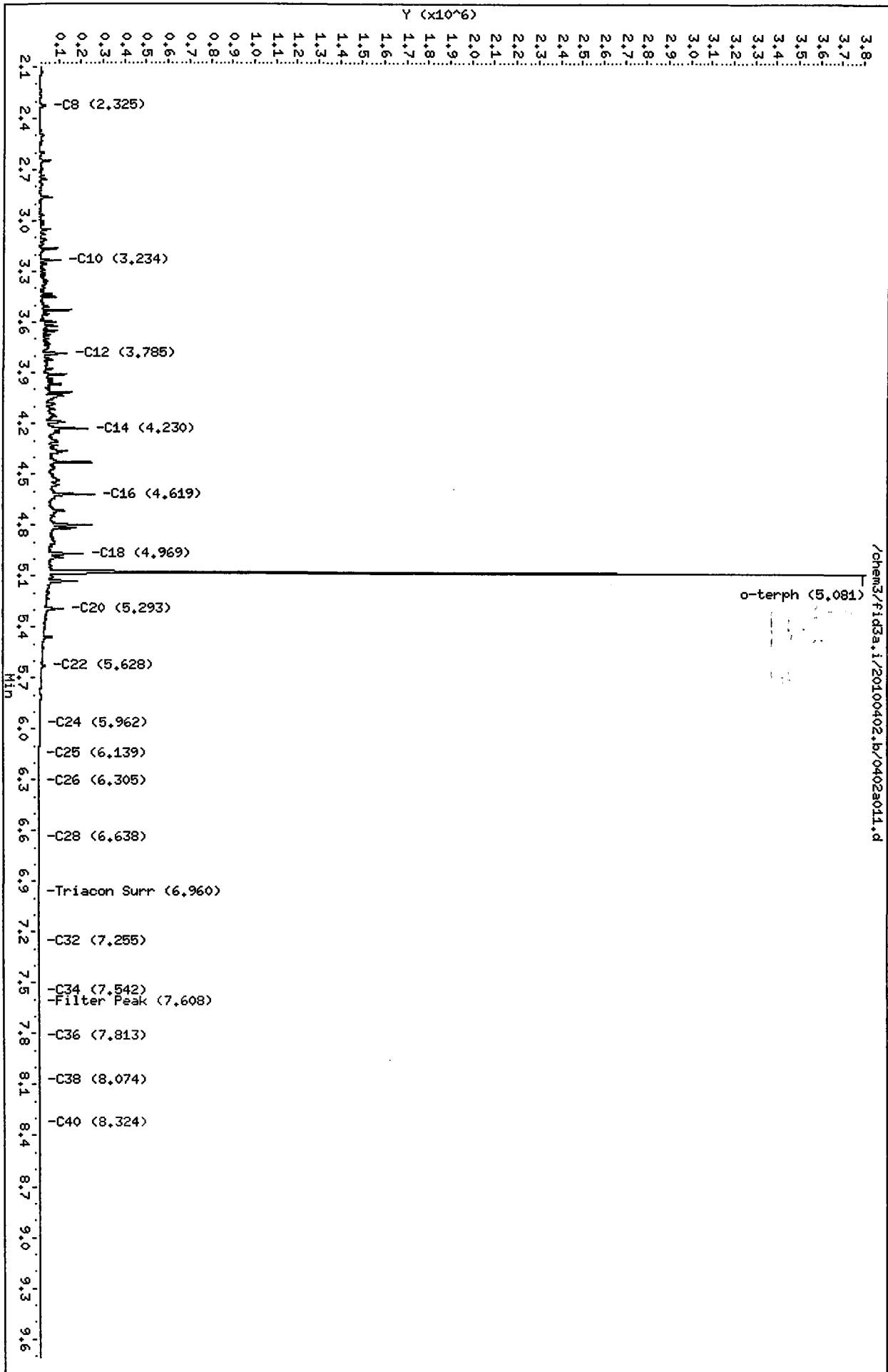
Column phase: ZBI-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Page 1



0209 : 002008

6a
NW MOTOR OIL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD/SNIDER

Instrument: FID3A.I

Project: LLA

Calibration Date: 02-APR-2010

SDG No.: QR09

Motor Oil Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil	20498	19151	18262	18295	16368	14031	17768	12.8
Triac Surr	27517	27410	27721	28854	29002	28394	28150	2.5

<- 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

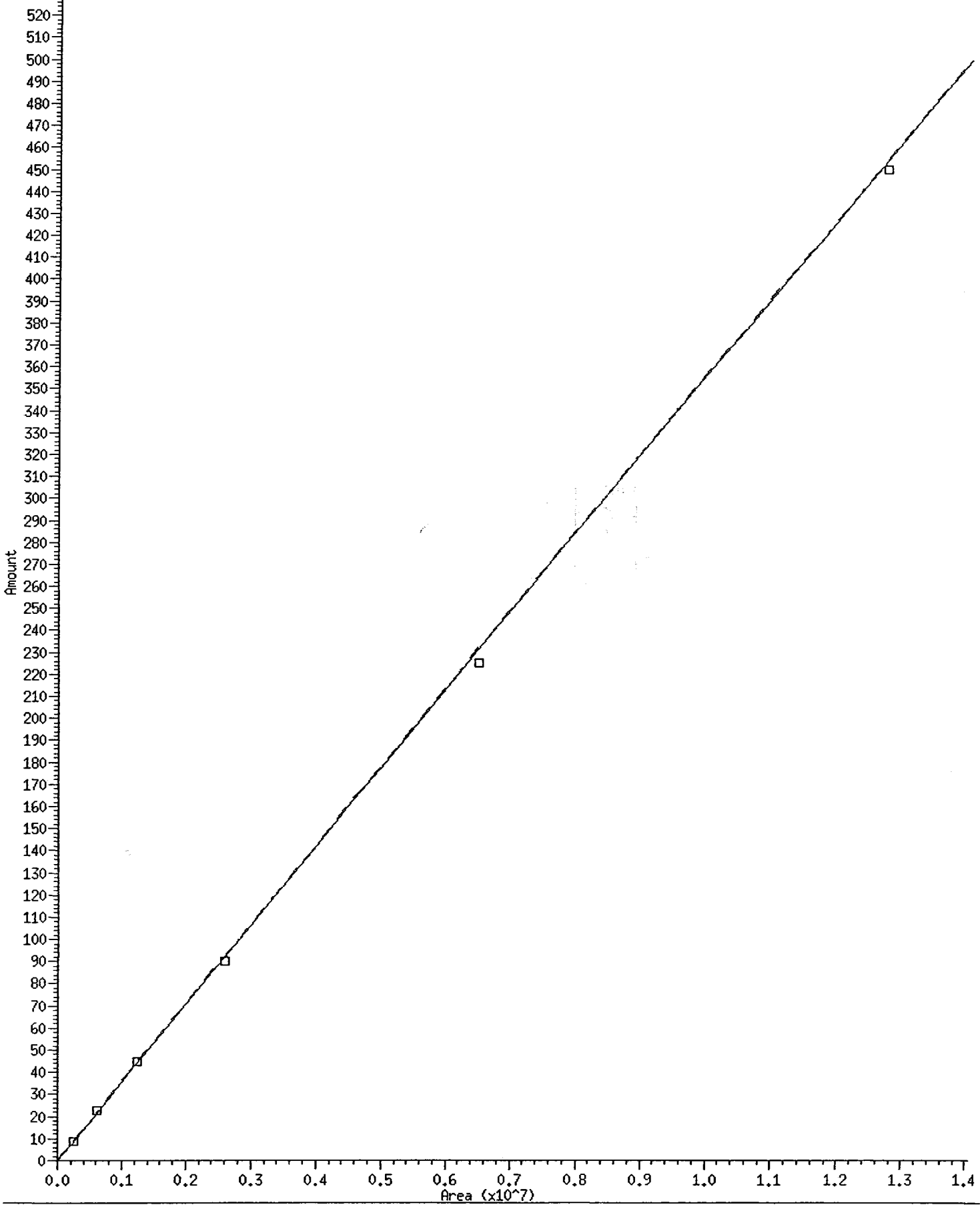
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0402a014.d	02-APR-2010 20:54
0402a015.d	02-APR-2010 21:11
0402a016.d	02-APR-2010 21:28
0402a017.d	02-APR-2010 21:46
0402a018.d	02-APR-2010 22:03

* 21 Triacon Surr

Curve Type: Averaged By-Response

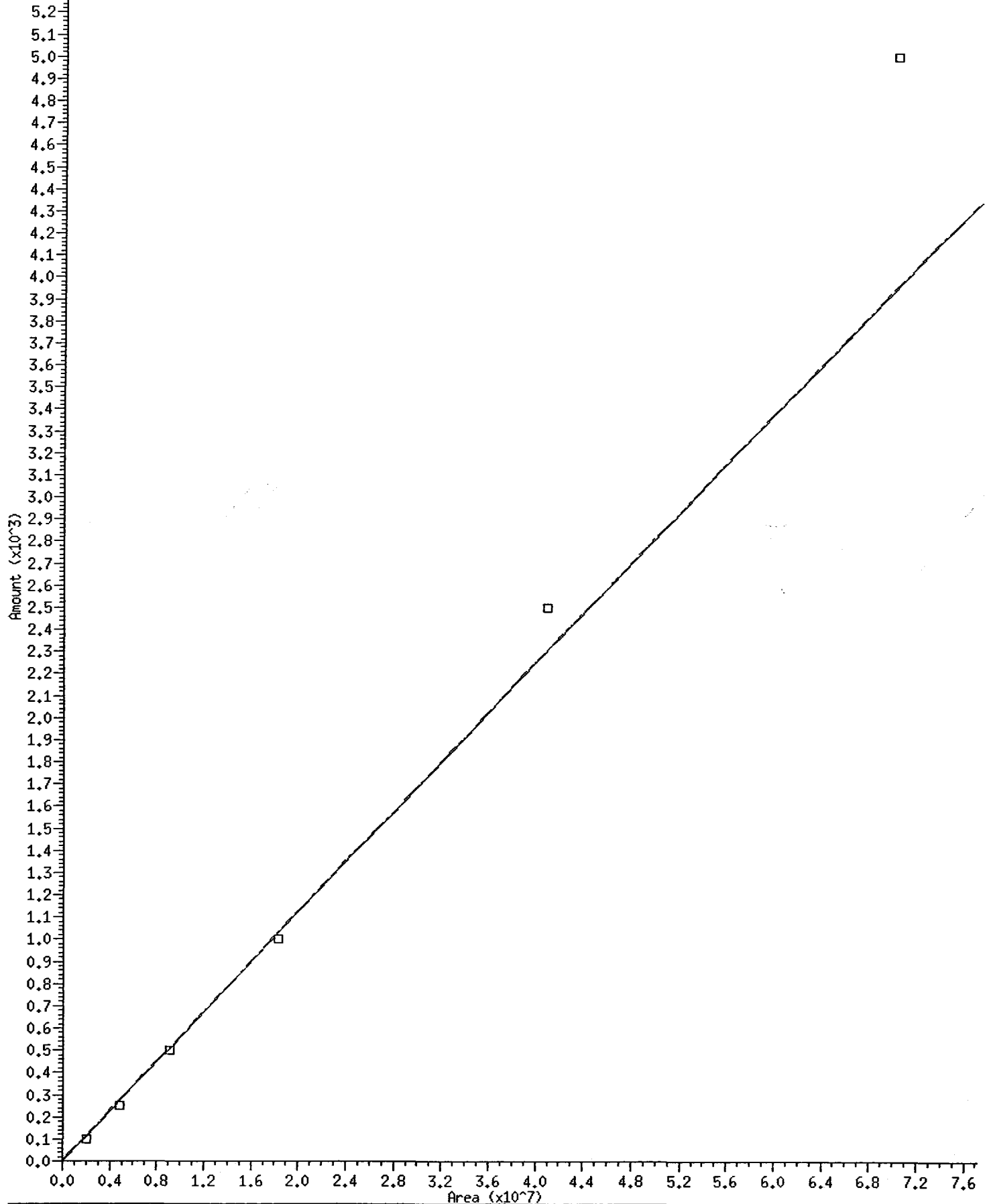
Amt = Rsp/28149.64

%RSD: 2.468



25 NW Motor Oil

Curve Type: Averaged By-Response
Amt = Rsp/17767.61
%RSD: 12.787



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-APR-2010 17:43
 End Cal Date : 02-APR-2010 22:03
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /chem3/fid3a.i/20100402.b/ftphfid3a.m
 Cal Date : 03-Apr-2010 09:07 j rains
 Curve Type : Average

Compound	0.000e+00	0.000e+00	0.000e+00	0.000e+00	0.000e+00	0.000e+00	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	0.000e+00	0.000e+00	0.000e+00	0.000e+00	0.000e+00	0.000e+00		
	Level 7	Level 8	Level 9	Level 10	Level 11	Level 12		
	0.000e+00							
	Level 13							
45 ak 103	++++	0.14000	0.01200	0.00600	0.00600	0.00120		
	0.00080	++++	++++	++++	++++	++++		
	++++						0.02767	199.454 <-
46 azdiesel	++++	0.06000	0.04000	0.01200	0.00800	0.00300		
	0.00120	++++	++++	++++	++++	++++		
	++++						0.02070	115.286 <-
\$ 20 o-terph	++++	44166	39973	42711	44291	44211		
	44625	++++	++++	++++	++++	++++		
	++++						43329	4.093
\$ 21 Triacon Surr	++++	++++	++++	++++	++++	++++		
	++++	27517	27410	27721	28854	29002		
	28394						28150	2.468

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a013.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: MOIL 100
Client ID:
Injection: 02-APR-2010 20:36
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.947	0.006	5088	6324	GAS (Tol-C12)	199075	7
C8	2.315	-0.004	2411	520	DIESEL (C12-C24)	281738	9
C10	3.234	0.001	2058	1092	M.OIL (C24-C38)	2049781	115
C12	3.782	-0.001	1125	201	AK-102 (C10-C25)	374166	10
C14	4.231	0.000	823	113	AK-103 (C25-C36)	1742701	195
C16	4.620	0.001	588	92	OR.DIES (C10-C28)	846514	40
C18	4.968	-0.001	695	197	OR.MOIL (C28-C40)	1750189	155
C20	5.293	0.000	1251	173	JET-A (C10-C18)	105502	7
C22	5.628	0.002	4618	1004			
C24	5.965	-0.001	8849	2110	STODDARD (C8-C12)	146876	5
C25	6.140	0.003	11016	2834			
C26	6.306	0.001	12926	5618			
C28	6.635	0.000	15558	4286			
C32	7.255	0.000	19308	9157			
C34	7.544	0.001	19724	8781			
Filter Peak	7.612	0.003	19914	7833			
C36	7.817	0.002	18893	3005	CREOSOT (C8-C22)	279406	44
C38	8.073	-0.001	17088	8417			
C40	8.321	-0.004	14125	7253	BUNKERC (C10-C38)	2384942	276

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3955	0.1	0.2
Triacontane	247656	8.8	19.6

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation

5. Other SKIM SURF
Analyst JR Date 04/03/10

Data File: /chem3/fid3a,1/20100402,b/0402a013,d
Date : 02-APR-2010 20:36

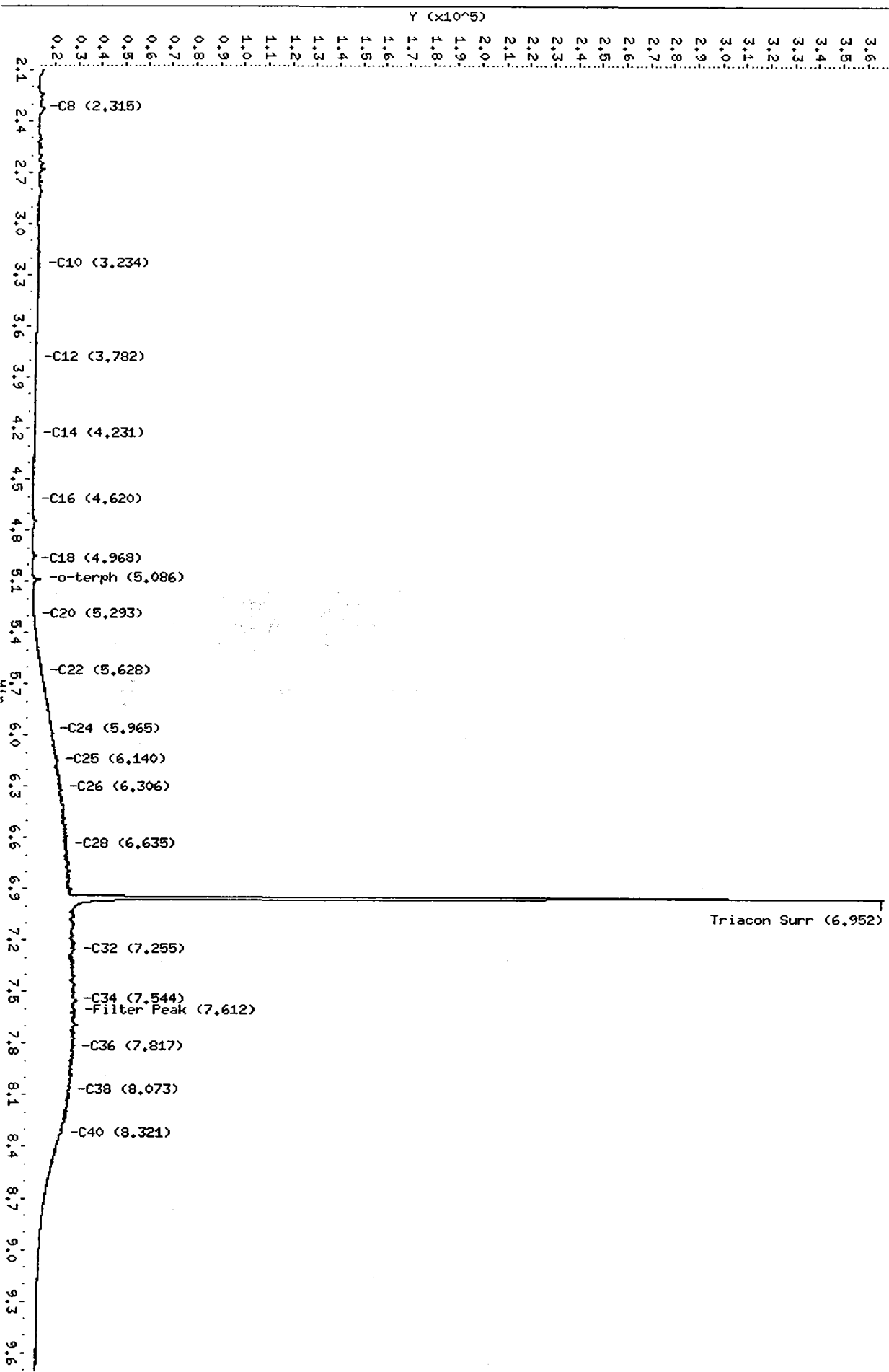
Client ID:
Sample Info: HDIL 100

Column phase: ZB1-HT

Instrument: fid3a,1

Operator: ms
Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a014.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: MOIL 250
Client ID:
Injection: 02-APR-2010 20:54
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.948	0.007	5211	6692	GAS (Tol-C12)	205044	7
C8	2.318	-0.002	2460	244	DIESEL (C12-C24)	619372	19
C10	3.234	0.002	2502	2108	M.OIL (C24-C38)	4787753	269
C12	3.782	-0.001	1281	152	AK-102 (C10-C25)	770974	21
C14	4.231	0.000	1081	149	AK-103 (C25-C36)	4102602	459
C16	4.620	0.001	703	151	OR.DIES (C10-C28)	1888013	90
C18	4.975	0.005	862	204	OR.MOIL (C28-C40)	4035518	358
C20	5.298	0.004	3098	2039	JET-A (C10-C18)	132076	8
C22	5.626	0.000	10827	1507			
C24	5.964	-0.002	21032	7076	STODDARD (C8-C12)	154211	6
C25	6.136	-0.001	26733	10468			
C26	6.304	-0.002	30813	12136			
C28	6.634	-0.002	36097	2884			
C32	7.257	0.002	46596	26086			
C34	7.540	-0.003	44343	20894			
Filter Peak	7.610	0.001	43767	17329			
C36	7.817	0.001	43532	21459	CREOSOT (C8-C22)	415811	65
C38	8.074	-0.001	38503	24944			
C40	8.321	-0.004	29702	19129	BUNKERC (C10-C38)	5465016	632

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1654	0.0	0.1
Triacontane	616726	21.9	48.7

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst: SKM SWCC Date: 04/03/10

Data File: /chem3/fid3a.i/20100402.b/0402a014.d

Date: 02-APR-2010 20:54

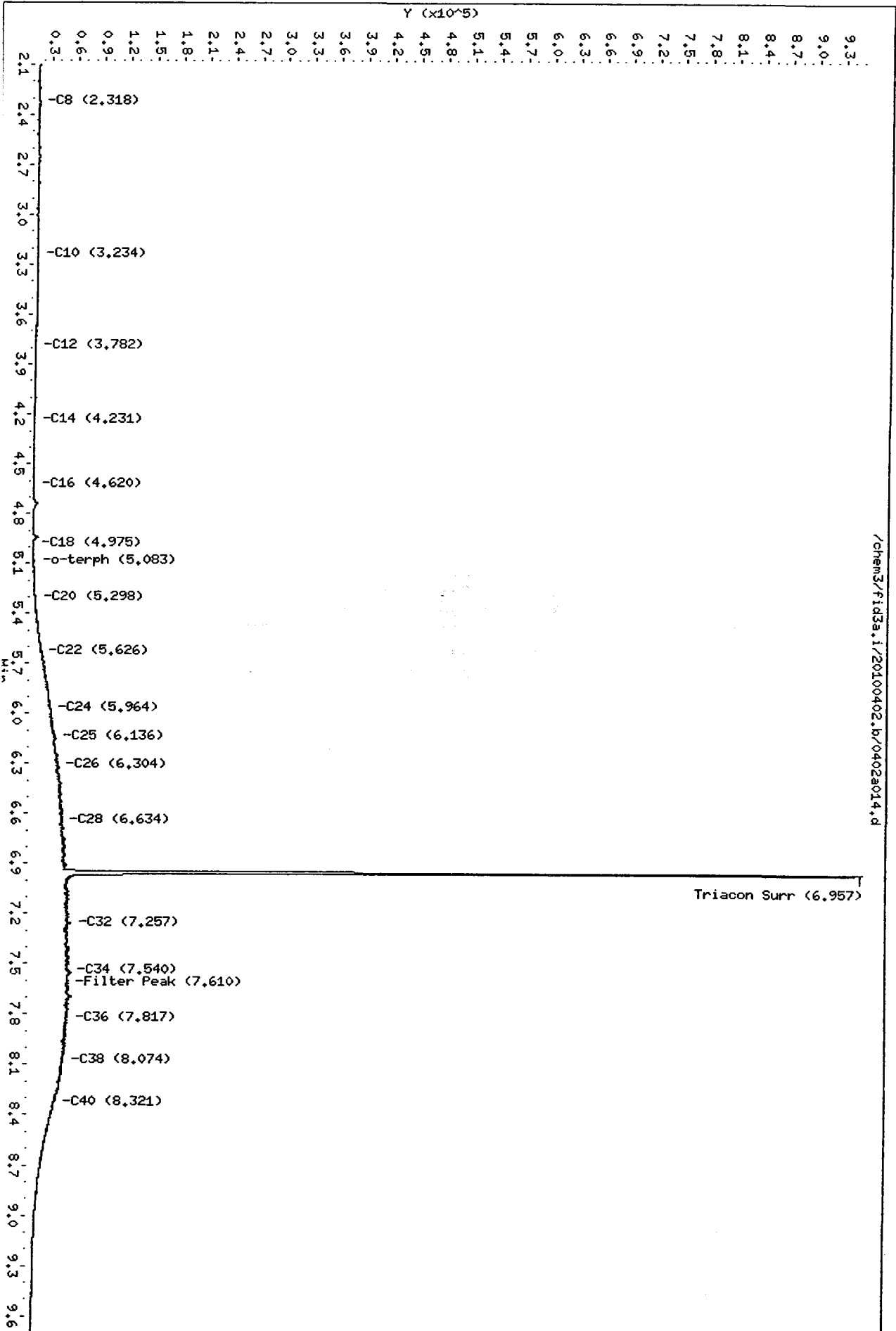
Client ID:

Instrument: fid3a.i

Sample Info: H01L 250

Column phase: ZB1-HT

Operator: ms
Column diameter: 0.25



0000 : 00276

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a015.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: MOIL 500
Client ID:
Injection: 02-APR-2010 21:11
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.948	0.007	5499	6689	GAS (Tol-C12)	227635	8
C8	2.313	-0.007	2579	461	DIESEL (C12-C24)	1185643	36
C10	3.233	0.000	3259	2691	M.OIL (C24-C38)	9130982	514
C12	3.784	0.001	1566	550	AK-102 (C10-C25)	1438866	39
C14	4.230	-0.001	1233	122	AK-103 (C25-C36)	7847337	879
C16	4.619	0.000	789	140	OR.DIES (C10-C28)	3614130	171
C18	4.971	0.001	1191	118	OR.MOIL (C28-C40)	7615697	676
C20	5.297	0.003	5863	3304	JET-A (C10-C18)	167393	11
C22	5.630	0.004	22427	18403			
C24	5.966	-0.001	42226	16661	STODDARD (C8-C12)	174110	6
C25	6.135	-0.002	51268	24969			
C26	6.305	0.000	59298	24606			
C28	6.638	0.002	72465	32574			
C32	7.255	0.000	86283	57291			
C34	7.547	0.003	88639	46118			
Filter Peak	7.608	-0.001	85123	35092			
C36	7.813	-0.003	81786	57380	CREOSOT (C8-C22)	638268	100
C38	8.078	0.004	70867	30377			
C40	8.321	-0.003	49960	34088	BUNKERC (C10-C38)	10384703	1201

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2145	0.0	0.1
Triacontane	1247441	44.3	98.5

MANUAL ADJUSTMENTS

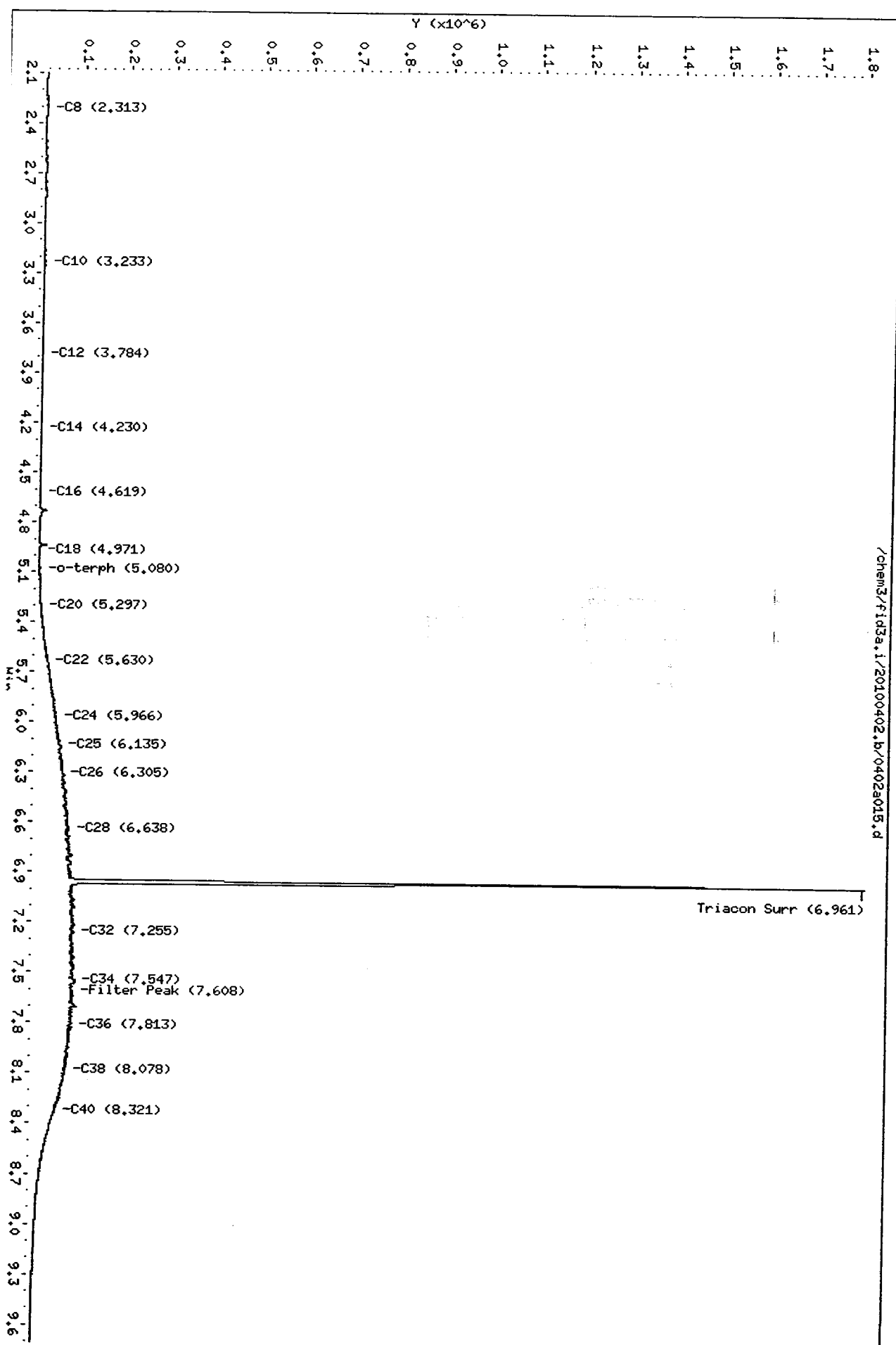
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 2. Poor Chromatography
 3. Baseline Correction
 4. Totals Calculation
 5. Other *2/10/10 stim surr*
- Analyst *[Signature]* Date *04/03/10*

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.1/20100402.b/0402a015.d
Date: 02-APR-2010 21:11
Client ID:
Sample Info: MOIL 500

Column phase: ZB1-HT

Instrument: fid3a.1
Operator: ms
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a016.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: MOIL 1000
Client ID:
Injection: 02-APR-2010 21:28
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.951	0.011	6121	7773	GAS (Tol-C12)	249519	9
C8	2.318	-0.002	2819	279	DIESEL (C12-C24)	2362642	72
C10	3.233	0.001	4724	3672	M.OIL (C24-C38)	18295430	1030
C12	3.783	0.000	1940	264	AK-102 (C10-C25)	2827980	77
C14	4.232	0.001	1688	459	AK-103 (C25-C36)	15919597	1782
C16	4.617	-0.002	1203	308	OR.DIES (C10-C28)	7262502	344
C18	4.967	-0.002	2007	238	OR.MOIL (C28-C40)	14448800	1282
C20	5.299	0.005	12693	12432	JET-A (C10-C18)	231162	15
C22	5.626	0.000	43838	9521			
C24	5.964	-0.002	84233	39963	STODDARD (C8-C12)	192218	7
C25	6.135	-0.002	103579	36916			
C26	6.308	0.003	118309	21236			
C28	6.635	-0.001	149310	101618			
C32	7.253	-0.003	171738	54045			
C34	7.544	0.001	170623	90793			
Filter Peak	7.611	0.002	165597	36297			
C36	7.814	-0.002	159914	110341	CREOSOT (C8-C22)	1100257	172
C38	8.079	0.005	109347	19631			
C40	8.323	-0.002	50972	32531	BUNKERC (C10-C38)	20732933	2399

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3571	0.1	0.2
Triacontane	2596888	92.3	205.0

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

MANUAL ADJUSTMENTS

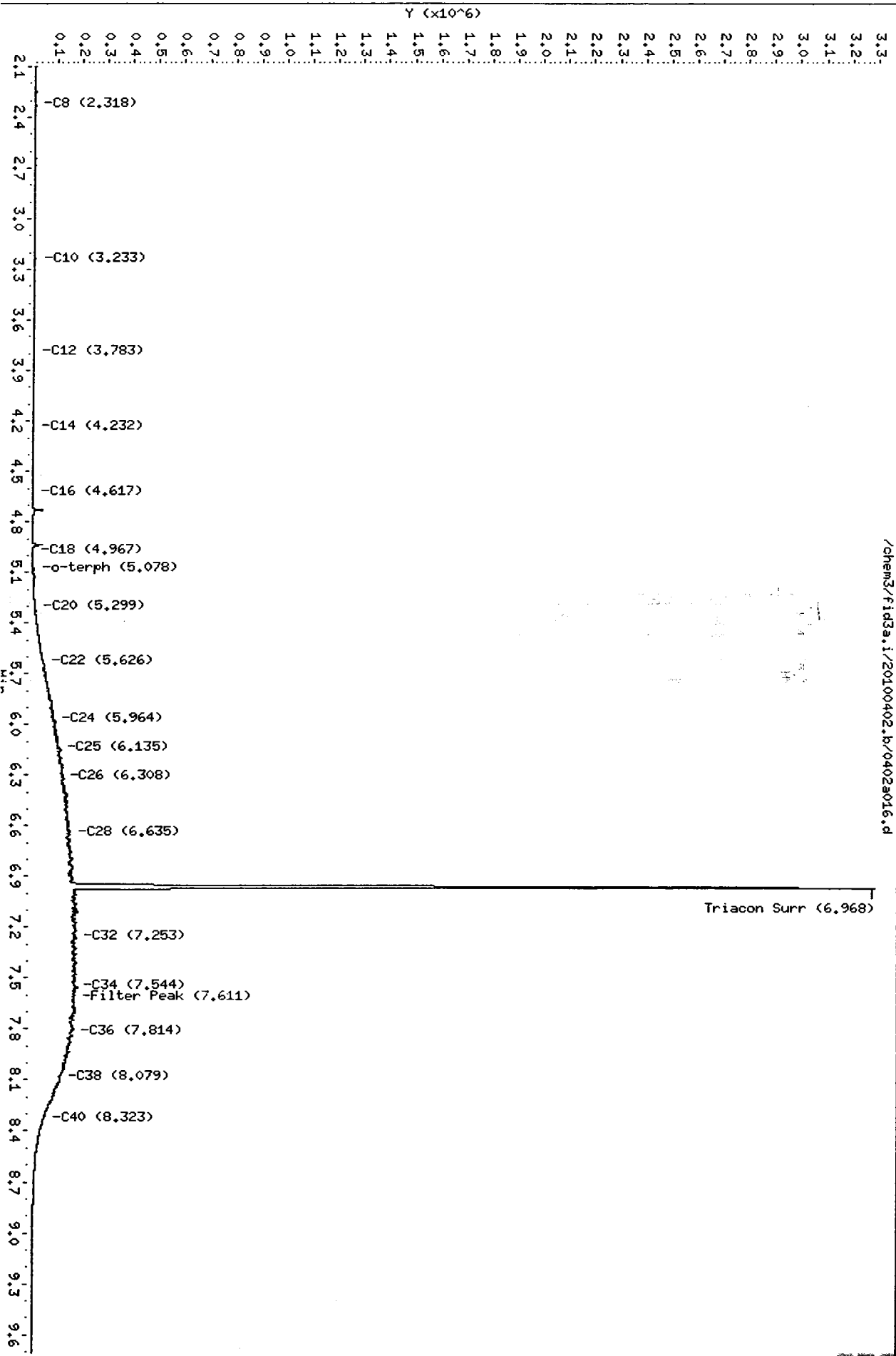
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2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst JK Date 04/03/10
skin surf

Data File: /chem3/fid3a.i/20100402.b/0402a016.d
Date: 02-APR-2010 21:28
Client ID:
Sample Info: MOIL 1000
Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25

/chem3/fid3a.i/20100402.b/0402a016.d



0000 : 00280

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a017.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: MOIL 2500
Client ID:
Injection: 02-APR-2010 21:46
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.943	0.003	6687	4953	GAS (Tol-C12)	323858	12
C8	2.321	0.002	3154	1694	DIESEL (C12-C24)	6015342	183
C10	3.236	0.003	9216	6636	M.OIL (C24-C38)	40920782	2303
C12	3.783	0.000	3872	308	AK-102 (C10-C25)	7080753	192
C14	4.231	0.000	4231	1656	AK-103 (C25-C36)	37973363	4251
C16	4.619	0.000	2854	563	OR.DIES (C10-C28)	18316464	868
C18	4.973	0.004	5612	5988	OR.MOIL (C28-C40)	29487446	2616
C20	5.295	0.001	32204	27343	JET-A (C10-C18)	507003	32
C22	5.625	-0.001	108928	45293			
C24	5.966	0.000	213132	46528	STODDARD (C8-C12)	264627	10
C25	6.133	-0.004	258524	102528			
C26	6.308	0.002	311169	91419			
C28	6.638	0.002	365875	58269			
C32	7.255	0.000	421601	124859			
C34	7.542	-0.001	382217	38134			
Filter Peak	7.606	-0.003	377399	325011			
C36	7.820	0.004	252411	103771	CREOSOT (C8-C22)	2559020	400
C38	8.083	0.009	87472	29577			
C40	8.324	-0.001	37790	12058	BUNKERC (C10-C38)	47071033	5446

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	7286	0.2	0.4
Triacontane	6525383	231.8	515.1

MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst Jim Surr Date 04/03/10

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

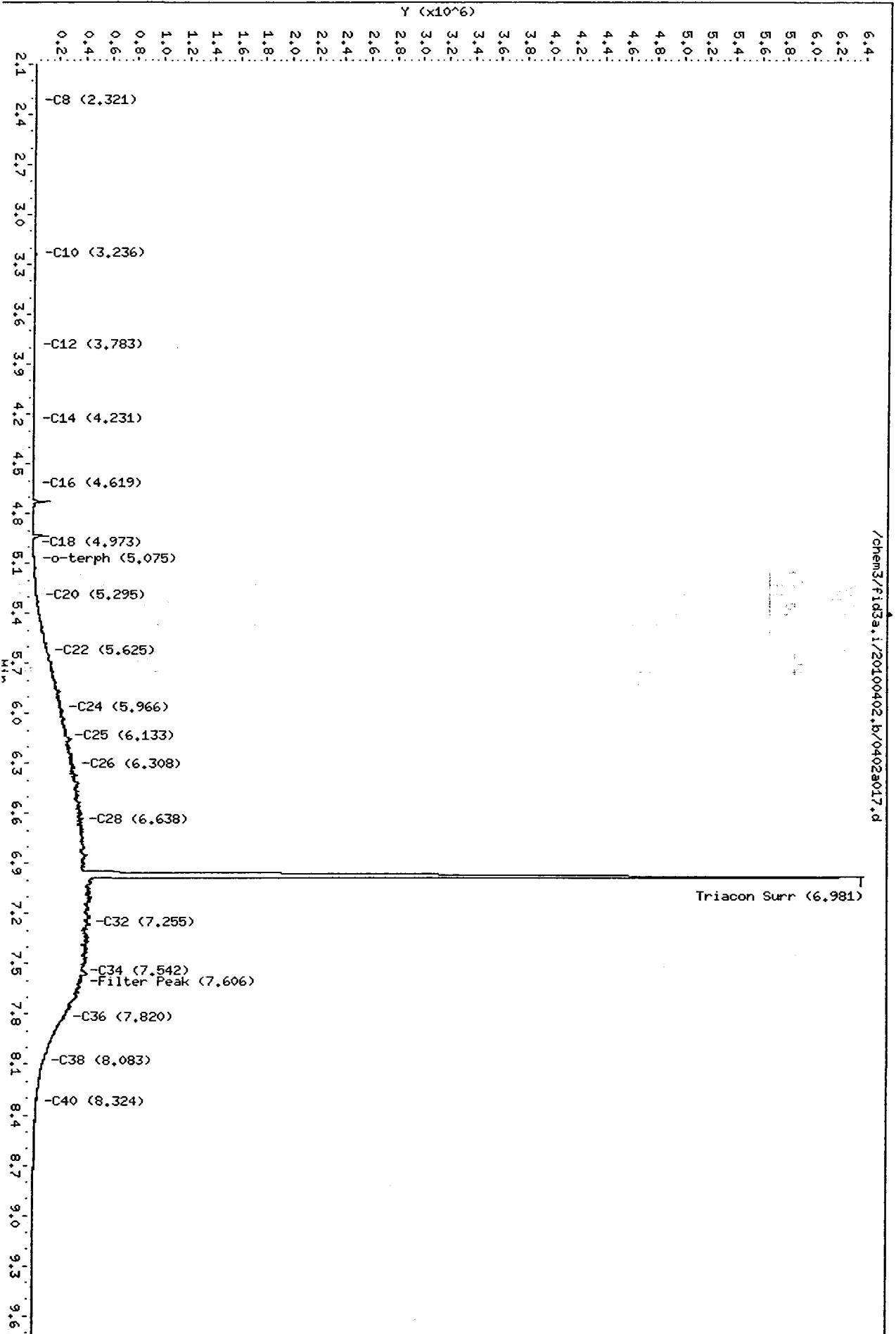
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Date : 02-APR-2010 21:46

Client ID:
Sample Info: MOIL 2500

Column phase: ZBI-HT

Instrument: fid3a.i

Operator: ms
Column diameter: 0.25



0000 : 00200

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a018.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: MOIL 5000
Client ID:
Injection: 02-APR-2010 22:03
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.945	0.004	3731	1381	GAS (Tol-C12)	425136	16
C8	2.320	0.001	3281	1025	DIESEL (C12-C24)	12155872	370
C10	3.239	0.006	15420	11373	M.OIL (C24-C38)	70155711	3949
C12	3.782	-0.001	4838	962	AK-102 (C10-C25)	14484015	392
C14	4.231	0.000	5061	705	AK-103 (C25-C36)	66361370	7429
C16	4.623	0.004	4785	4283	OR.DIES (C10-C28)	37515663	1779
C18	4.971	0.001	11348	11373	OR.MOIL (C28-C40)	46020122	4082
C20	5.295	0.001	68869	49693	JET-A (C10-C18)	771737	49
C22	5.629	0.003	234215	117887			
C24	5.964	-0.002	437334	95146	STODDARD (C8-C12)	344362	12
C25	6.139	0.002	557036	165337			
C26	6.306	0.001	629831	298382			
C28	6.633	-0.003	716695	311128			
C32	7.255	0.000	769566	359097			
C34	7.543	0.000	469735	121209			
Filter Peak	7.609	-0.001	386998	158708			
C36	7.820	0.004	177414	28326	CREOSOT (C8-C22)	4957727	775
C38	8.071	-0.004	91501	74562			
C40	8.325	0.000	60902	14571	BUNKERC (C10-C38)	82488476	9544

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	14043	0.3	0.7
Triacontane	12777082	453.9	1008.7

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other SKIM SURR

Analyst JK Date 04/03/10

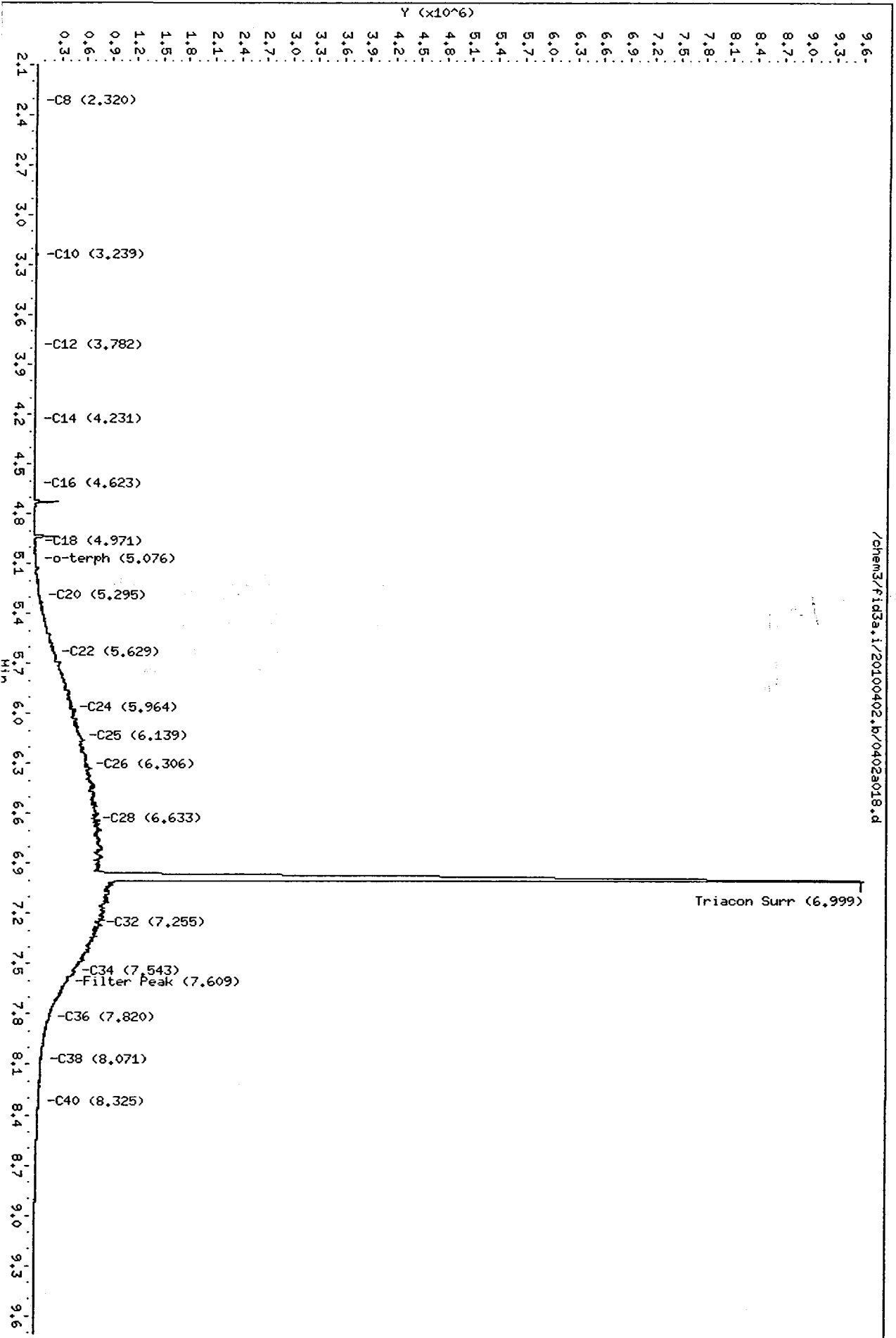
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Date: 02-APR-2010 22:03

Client ID:
Sample Info: M01L 5000

Column phase: ZB1-HT

Instrument: fid3a.1
Operator: ms
Column diameter: 0.25

/chem3/fid3a.1/20100402.b/0402a018.d



0209 : 002011

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100402.b/0402a019.d
Method: /chem3/fid3a.i/20100402.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/03/2010
Macro: FID:3A040210

ARI ID: MOIL ICV
Client ID:
Injection: 02-APR-2010 22:20
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.945	0.005	6011	7449	GAS (Tol-C12)	222127	8
C8	2.327	0.007	3650	4608	DIESEL (C12-C24)	980153	30
C10	3.233	0.000	3568	2876	M.OIL (C24-C38)	8949893	504
C12	3.784	0.001	1584	468	AK-102 (C10-C25)	1208348	33
C14	4.231	0.000	1247	248	AK-103 (C25-C36)	7457834	835
C16	4.619	0.000	819	113	OR.DIES (C10-C28)	3019338	143
C18	4.967	-0.002	1263	416	OR.MOIL (C28-C40)	8022691	712
C20	5.297	0.003	5190	2301	JET-A (C10-C18)	163108	10
C22	5.631	0.005	17772	8729			
C24	5.962	-0.004	33081	8589	STODDARD (C8-C12)	170261	6
C25	6.138	0.001	42640	18927			
C26	6.304	-0.001	48848	14530			
C28	6.639	0.003	59136	18704			
C32	7.257	0.002	84226	60648			
C34	7.548	0.004	93234	47093			
Filter Peak	7.609	0.000	88690	24620			
C36	7.816	0.000	96382	26590	CREOSOT (C8-C22)	572350	89
C38	8.073	-0.001	88571	52072			
C40	8.323	-0.002	61855	54001	BUNKERC (C10-C38)	9999790	1157

Range Times: NW Diesel(3.833 - 6.016) NW Gas(1.891 - 3.833) NW M.Oil(6.016 - 8.125)
AK102(3.183 - 6.087) AK103(6.087 - 7.866) Jet A(3.183 - 5.020)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1925	0.0	0.1
Triacontane	964410	34.3	76.1

low 89% ok has +30% not ± 15% 4/03/10

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

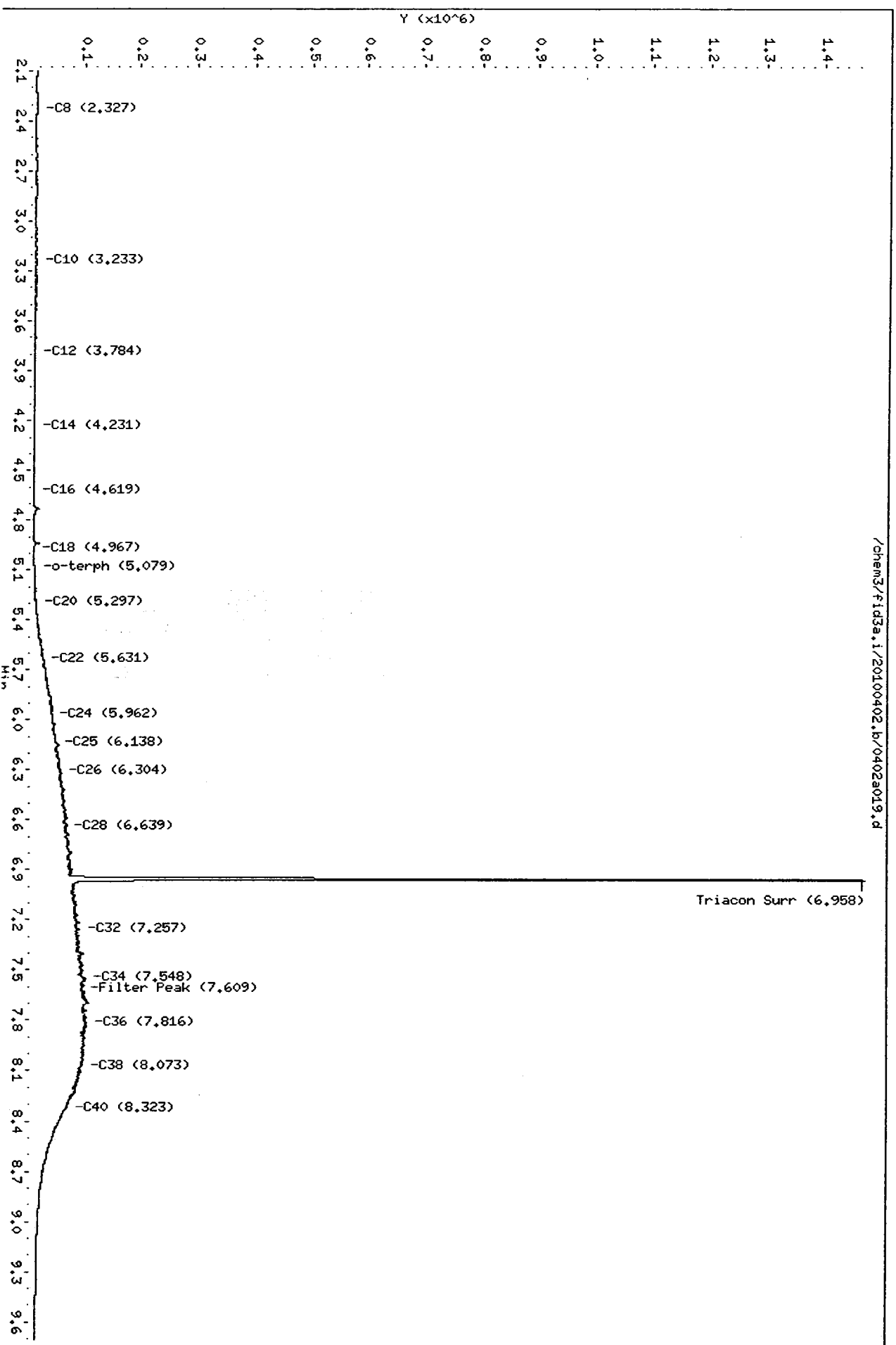
MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other *skim surr*

Analyst *[Signature]* Date *04/03/10*

Data File: /chem3/fid3a.i/20100402.b/0402a019.d
Date: 02-APR-2010 22:20
Client ID:
Sample Info: MOIL ICV
Column phase: ZBL-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



me 4/8/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a002.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: RT
Client ID:
Injection: 06-APR-2010 16:55
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.934	0.000	709392	671455	GAS (Tol-C12)	2197020	80
C8	2.317	0.000	438434	340834	DIESEL (C12-C24)	2958797	90
C10	3.231	0.000	1131917	459005	M.OIL (C24-C38)	3397055	191
C12	3.781	0.000	650369	379819	AK-102 (C10-C25)	3934996	107
C14	4.225	0.000	372827	163396	AK-103 (C25-C36)	2963694	332
C16	4.618	0.000	573599	398968	OR.DIES (C10-C28)	5445041	258
C18	4.966	0.000	834900	439394	OR.MOIL (C28-C40)	2212363	196
C20	5.290	0.000	765562	451656	JET-A (C10-C18)	2458783	155
C22	5.623	0.000	708590	447239			
C24	5.961	0.000	734987	446972	STODDARD (C8-C12)	1472656	53
C25	6.133	0.000	968725	609008			
C26	6.300	0.000	620292	435631			
C28	6.630	0.000	628890	421238			
C32	7.250	0.000	566059	419891			
C34	7.537	0.000	581122	418405			
Filter Peak	7.609	0.000	3638	435			
C36	7.809	0.000	596044	431683	CREOSOT (C8-C22)	3952491	618
C38	8.067	0.000	465236	370954			
C40	8.316	0.000	218114	254470	BUNKERC (C10-C38)	7325867	848

Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1776549	41.0	91.1
Triacontane	1419436	50.4	112.1

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a002.d
Date: 06-APR-2010 16:56

Client ID:

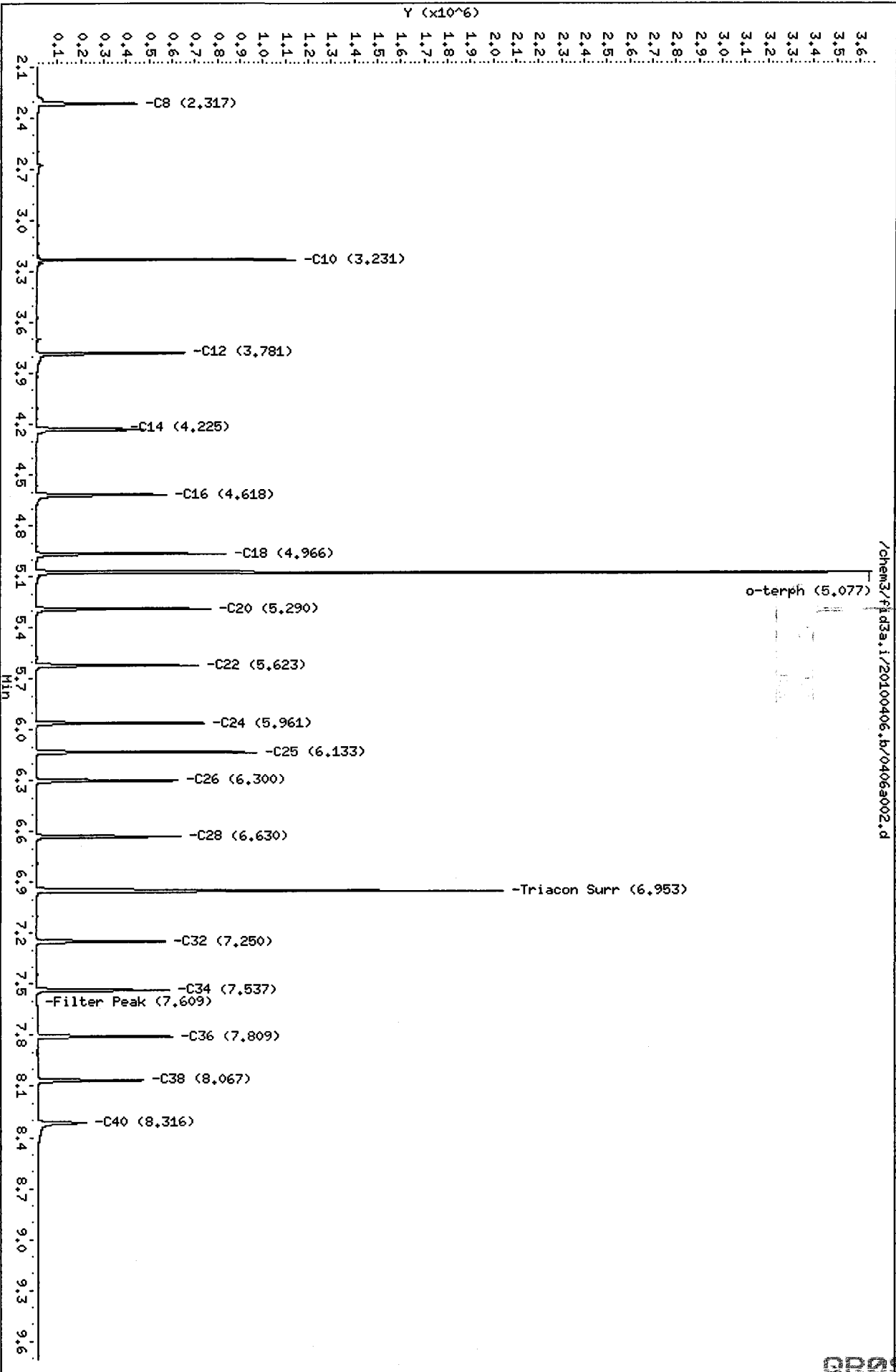
Sample Info: RT

Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



00200 : 00200

M 4/21/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a003.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: IB
Client ID:
Injection: 06-APR-2010 17:13
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.938	0.004	4855	7262	GAS (Tol-C12)	239522	9
C8	2.319	0.003	4775	3543	DIESEL (C12-C24)	213279	6
C10	3.230	-0.001	5810	3844	M.OIL (C24-C38)	292073	16
C12	3.783	0.001	2157	1256	AK-102 (C10-C25)	301967	8
C14	4.225	0.000	1371	108	AK-103 (C25-C36)	237001	27
C16	4.618	0.000	1242	148	OR.DIES (C10-C28)	348552	17
C18	4.966	0.000	1447	1306	OR.MOIL (C28-C40)	312218	28
C20	5.287	-0.003	1404	821	JET-A (C10-C18)	175836	11
C22	5.631	0.008	922	215			
C24	5.960	-0.001	911	162	STODDARD (C8-C12)	195210	7
C25	6.129	-0.004	917	72			
C26	6.305	0.005	2851	2432			
C28	6.631	0.000	3547	3407			
C32	7.249	-0.001	6542	8541			
C34	7.537	0.000	2289	409			
Filter Peak	7.608	-0.001	2336	232			
C36	7.801	-0.008	2884	287	CREOSOT (C8-C22)	388570	61
C38	8.069	0.002	3726	297			
C40	8.316	0.000	5739	4541	BUNKERC (C10-C38)	591052	68

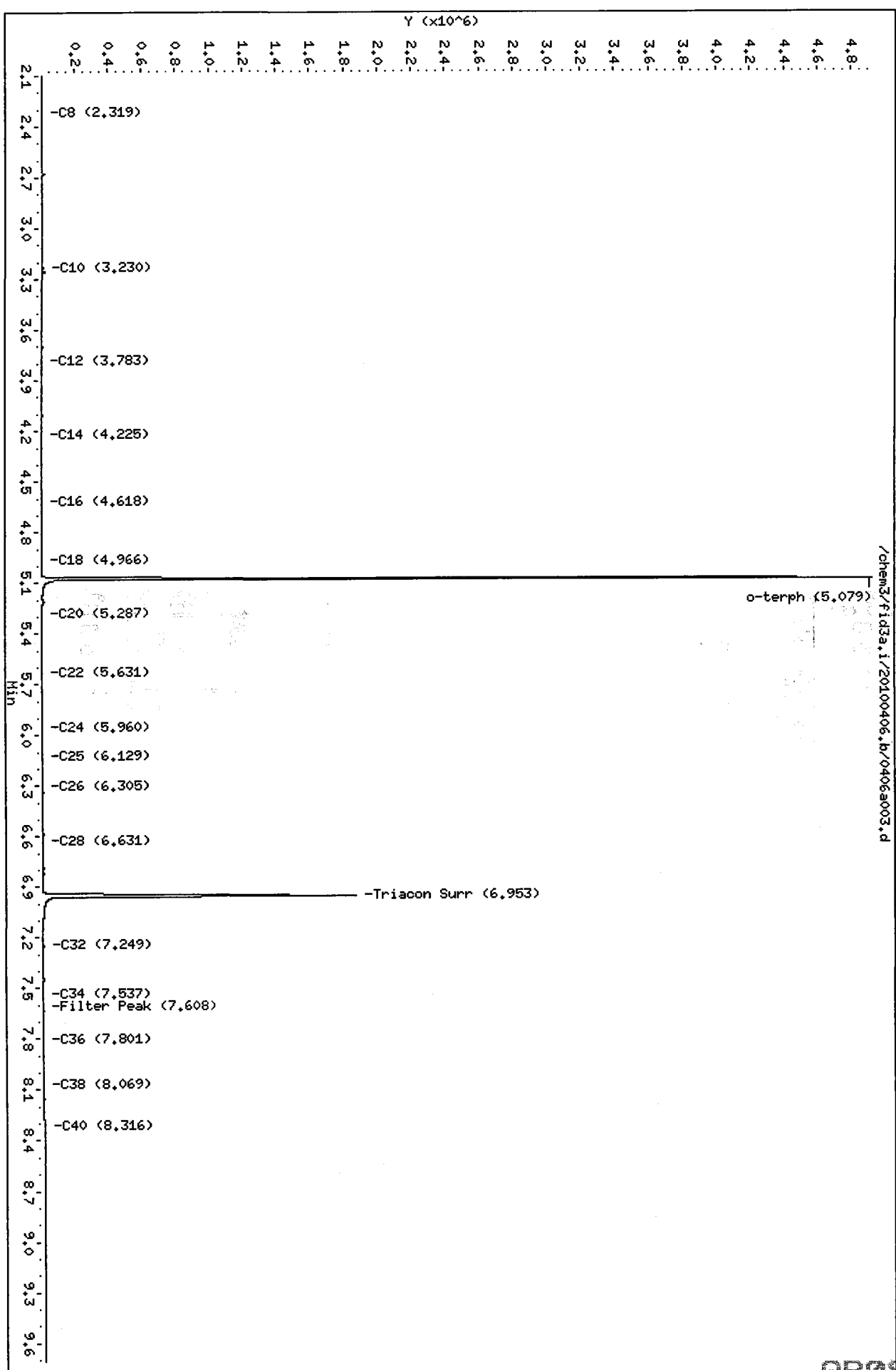
Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2371866	54.7	121.6
Triacontane	1477098	52.5	116.6

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a003.d
 Date: 06-APR-2010 17:13
 Client ID:
 Sample Info: IB
 Column Phase: ZB1-HT

Instrument: fid3a.i
 Operator: ms
 Column diameter: 0.25



0000 : 00205

7a
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER
 ICal Date: 02-APR-2010 Project: LLA
 CCal Date: 06-APR-2010 SDG No.: QR09
 Analysis Time: 17:30 Lab ID: DIESEL#1
 Instrument: FID3A.I Lab File Name: 0406a004.d

Diesel Range	Area*	CalcAmt	NomAmt	% D
WADies (C12-C24)	8184729	248.8	250	-0.5
AK102 (C10-C25)	9145596	247.7	250	-0.9
Terphenyl	1889595	43.6	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

me/8/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a004.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: DIESEL#1
Client ID:
Injection: 06-APR-2010 17:30
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.930	-0.004	2530	202	GAS (Tol-C12)	1396670	51
C8	2.324	0.007	9390	12613	DIESEL (C12-C24)	8184729	249
C10	3.231	0.000	54989	35702	M.OIL (C24-C38)	308363	17
C12	3.784	0.002	89575	69471	AK-102 (C10-C25)	9145596	248
C14	4.228	0.003	206897	124098	AK-103 (C25-C36)	232128	26
C16	4.617	-0.001	402776	248666	OR.DIES (C10-C28)	9247651	438
C18	4.966	0.000	335690	221173	OR.MOIL (C28-C40)	245104	22
C20	5.290	-0.001	186704	136170	JET-A (C10-C18)	6766883	427
C22	5.623	0.000	67180	68065			
C24	5.959	-0.002	8191	654	STODDARD (C8-C12)	1341955	49
C25	6.134	0.001	4952	1361			
C26	6.303	0.002	3173	1119			
C28	6.630	0.000	1751	139			
C32	7.250	0.000	2791	3506			
C34	7.536	-0.001	1944	155			
Filter Peak	7.609	0.000	2095	456			
C36	7.804	-0.005	2540	553	CREOSOT (C8-C22)	9265828	1449
C38	8.067	0.000	4137	329			
C40	8.315	-0.001	4870	1713	BUNKERC (C10-C38)	9430783	1091

Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1889595	43.6	96.9
Triacontane	183	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a004.d
Date : 06-APR-2010 17:30

Client ID:

Sample Info: DIESEL#1

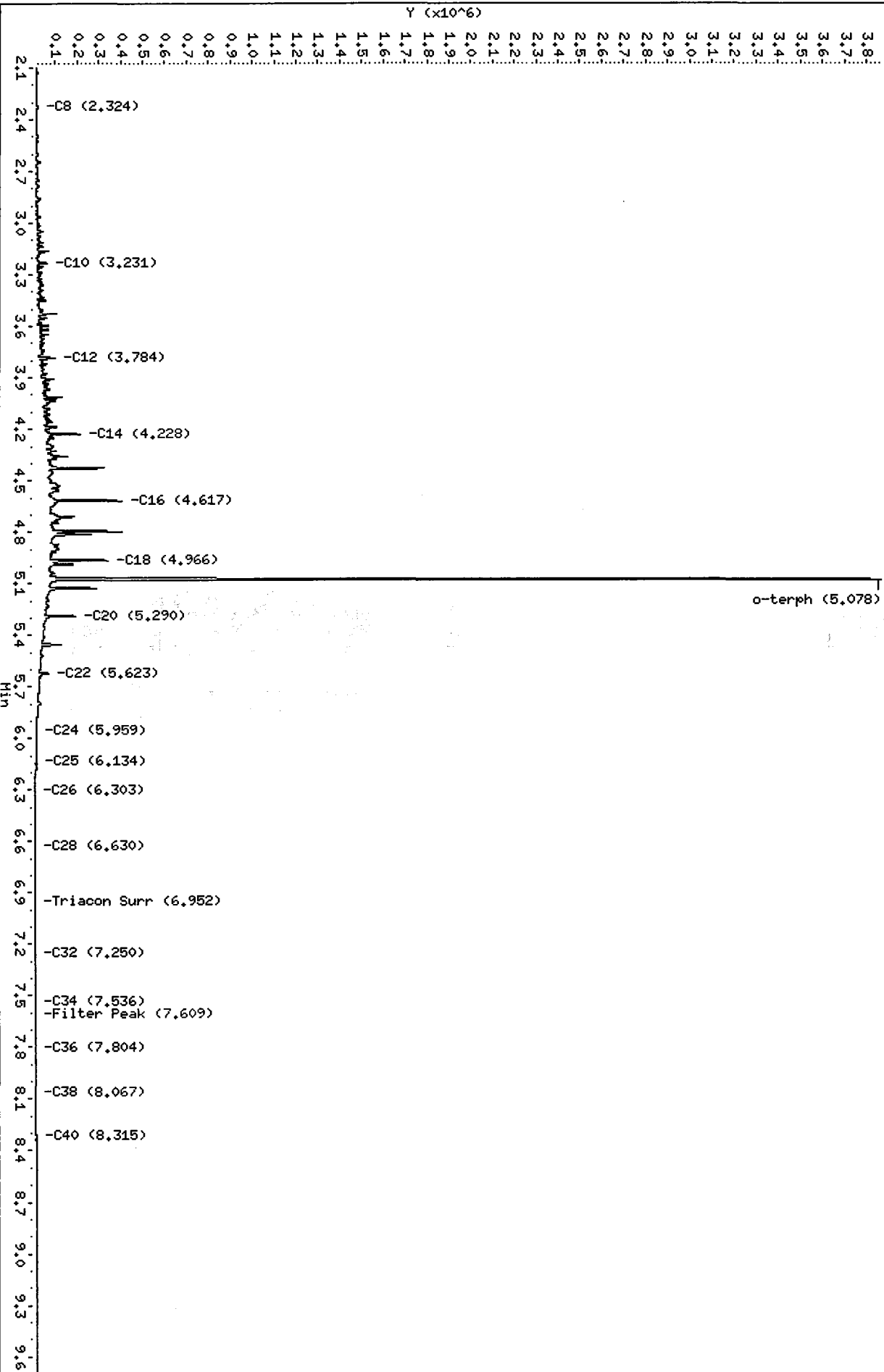
Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

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MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD/SNIDER

ICal Date: 02-APR-2010

Project: LLA

CCal Date: 06-APR-2010

SDG No.: QR09

Analysis Time: 17:47

Lab ID: MOIL#1

Instrument: FID3A.I

Lab File Name: 0406a005.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil (C24-C38)	8919867	502.0	500	0.4
AK103 (C25-C36)	7656711	857.2	500	71.4
n-Triacontane	1193241	42.4	45	-5.8

<-

* 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

4/8/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a005.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: MOIL#1
Client ID:
Injection: 06-APR-2010 17:47
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.931	-0.003	2658	159	GAS (Tol-C12)	234666	9
C8	2.309	-0.007	2233	267	DIESEL (C12-C24)	1171620	36
C10	3.231	0.000	3344	3206	M.OIL (C24-C38)	8919867	502
C12	3.782	0.001	1744	483	AK-102 (C10-C25)	1430610	39
C14	4.224	-0.001	1445	229	AK-103 (C25-C36)	7656711	857
C16	4.618	0.000	1161	231	OR.DIES (C10-C28)	3578609	170
C18	4.968	0.002	1578	156	OR.MOIL (C28-C40)	7428780	659
C20	5.288	-0.002	5642	779	JET-A (C10-C18)	189063	12
C22	5.623	0.000	21430	8039			
C24	5.961	0.000	41012	16775	STODDARD (C8-C12)	185207	7
C25	6.134	0.001	52603	18403			
C26	6.299	-0.001	58259	16021			
C28	6.628	-0.003	69961	33202			
C32	7.253	0.003	83628	21508			
C34	7.534	-0.003	83651	39126			
Filter Peak	7.607	-0.002	80904	38365			
C36	7.810	0.001	77814	29275	CREOSOT (C8-C22)	669097	105
C38	8.067	0.000	70614	44174			
C40	8.313	-0.002	49555	29250	BUNKERC (C10-C38)	10166632	1176

Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	6017	0.1	0.3
Triacotane	1193241	42.4	94.2

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a005.d
Date: 06-APR-2010 17:47

Client ID:
Sample Info: MDIL#1

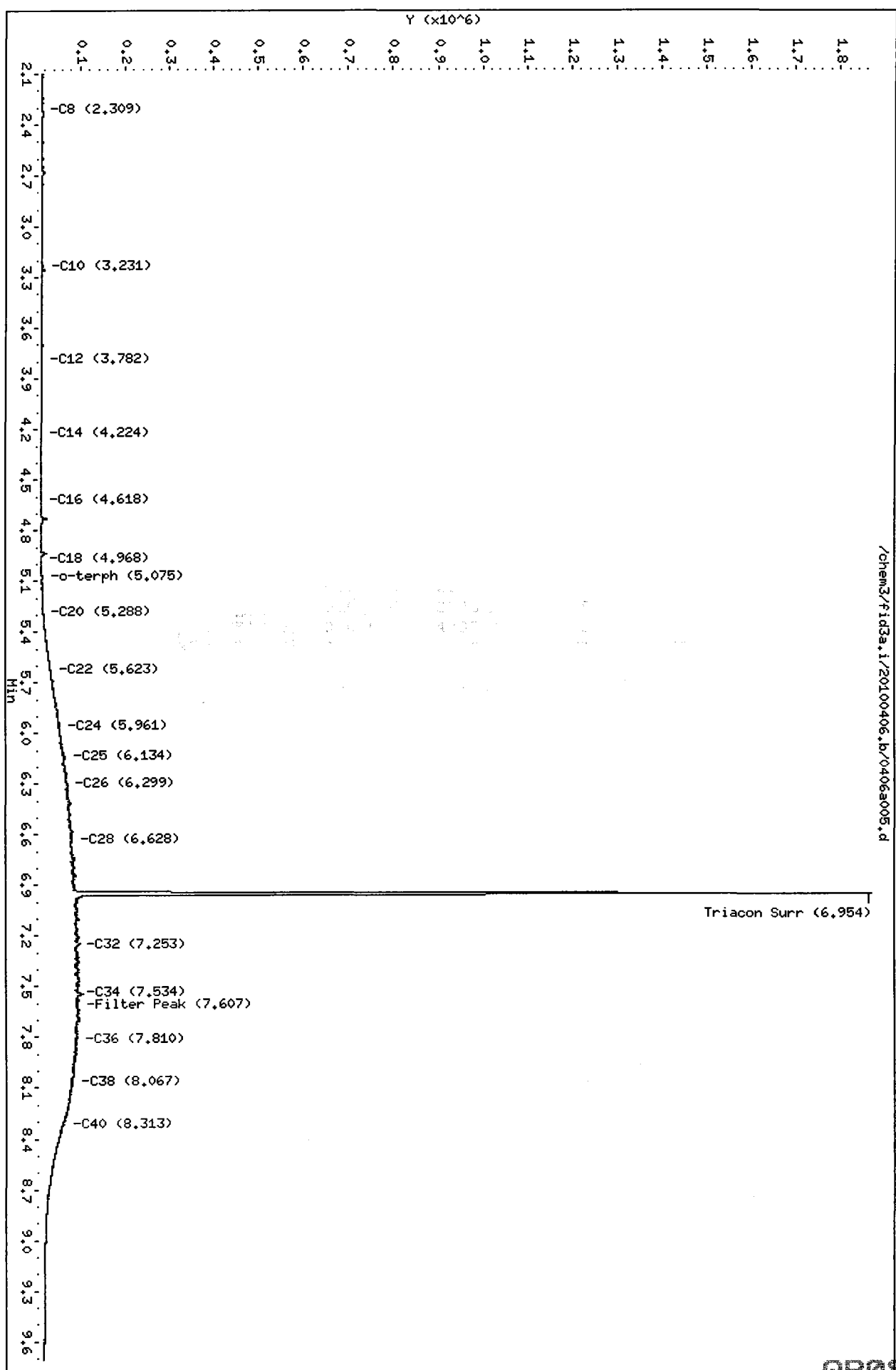
Column Phase: ZB1-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

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0000 : 00205

7a
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER
 ICal Date: 02-APR-2010 Project: LLA
 CCal Date: 06-APR-2010 SDG No.: QR09
 Analysis Time: 21:30 Lab ID: DIESEL#2
 Instrument: FID3A.I Lab File Name: 0406a018.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies (C12-C24)	8160755	248.1	250	-0.8
AK102 (C10-C25)	9126904	247.2	250	-1.1
Terphenyl	1930118	44.5	45	-1.0

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

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

2/4/8/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a018.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: DIESEL#2
Client ID:
Injection: 06-APR-2010 21:30
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.920	-0.014	3781	2814	GAS (Tol-C12)	1419474	52
C8	2.324	0.008	9900	7539	DIESEL (C12-C24)	8160755	248
C10	3.232	0.000	53385	35982	M.OIL (C24-C38)	216795	12
C12	3.784	0.002	96002	72260	AK-102 (C10-C25)	9126904	247
C14	4.227	0.002	213925	126279	AK-103 (C25-C36)	164072	18
C16	4.617	-0.001	394372	248145	OR.DIES (C10-C28)	9210279	437
C18	4.966	0.000	352589	228434	OR.MOIL (C28-C40)	157387	14
C20	5.290	0.000	181774	131928	JET-A (C10-C18)	6774936	427
C22	5.624	0.001	62931	65719			
C24	5.960	-0.001	7847	1254	STODDARD (C8-C12)	1349632	49
C25	6.128	-0.005	4684	2539			
C26	6.298	-0.002	2684	633			
C28	6.631	0.001	1202	118			
C32	7.250	0.000	1716	1392			
C34	7.537	0.000	1230	73			
Filter Peak	7.607	-0.001	1323	210			
C36	7.809	0.000	1814	286	CREOSOT (C8-C22)	9247557	1446
C38	8.068	0.001	2376	330			
C40	8.316	0.000	3394	270	BUNKERC (C10-C38)	9323893	1079

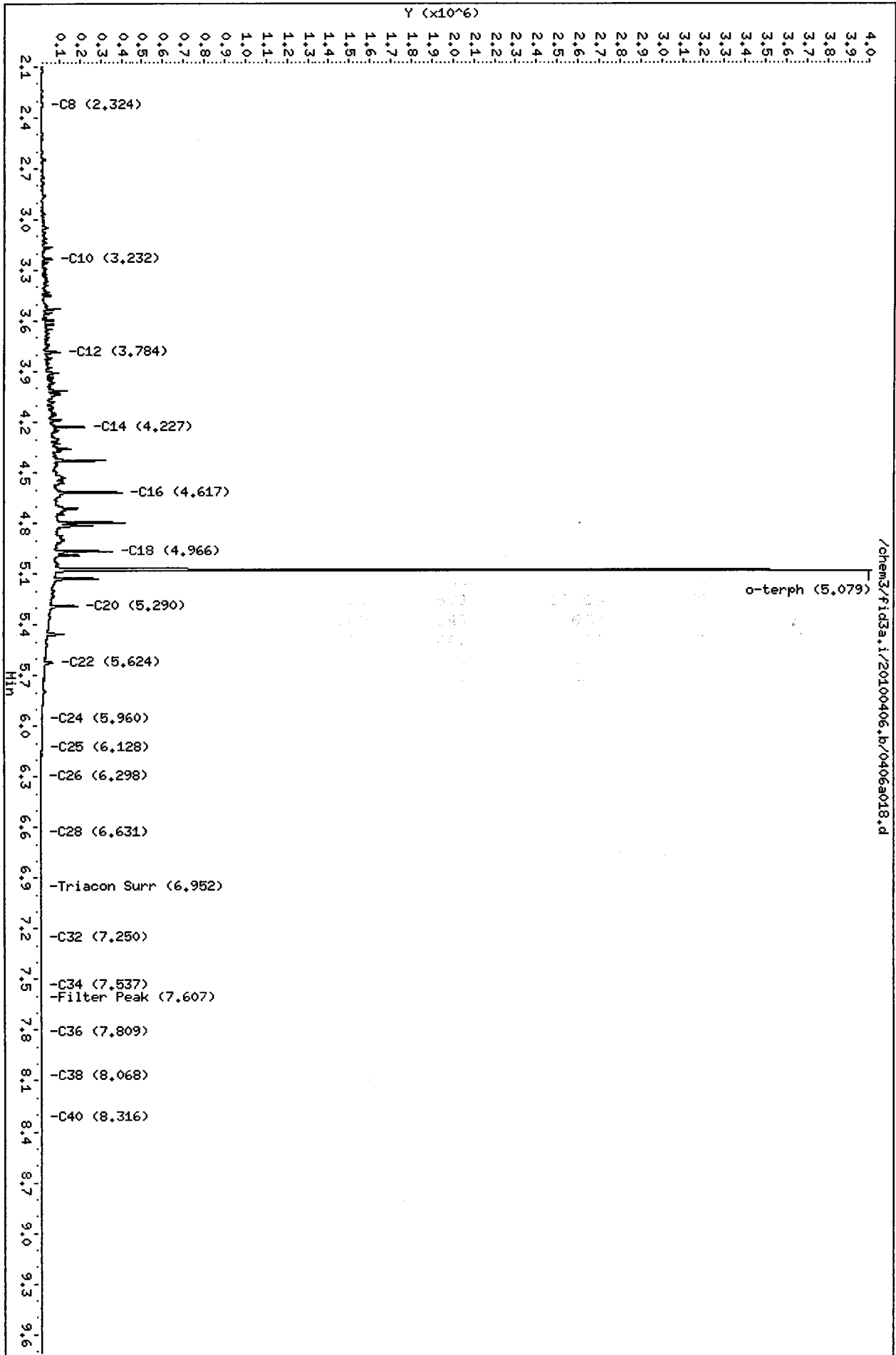
Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1930118	44.5	99.0
Triacontane	143	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a018.d
Date: 06-APR-2010 21:30
Client ID:
Sample Info: DIESEL#2
Column phase: ZBI-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



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00200 : 0000

7a
MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER
 ICal Date: 02-APR-2010 Project: LLA
 CCal Date: 06-APR-2010 SDG No.: QR09
 Analysis Time: 21:47 Lab ID: MOIL#2
 Instrument: FID3A.I Lab File Name: 0406a019.d

M.oil Range	Area*	CalcAmt	NomAmt	% D
WAMoil (C24-C38)	8948399	503.6	500	0.7
AK103 (C25-C36)	7676233	859.4	500	71.9
n-Triacontane	1202019	42.7	45	-5.1

<-

* 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

M4/8/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a019.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: MOIL#2
Client ID:
Injection: 06-APR-2010 21:47
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.941	0.007	6547	7410	GAS (Tol-C12)	234117	9
C8	2.312	-0.005	2830	835	DIESEL (C12-C24)	1127833	34
C10	3.231	0.000	3174	3066	M.OIL (C24-C38)	8948399	504
C12	3.781	0.000	1562	244	AK-102 (C10-C25)	1370046	37
C14	4.224	0.000	1219	72	AK-103 (C25-C36)	7676233	859
C16	4.618	0.000	875	155	OR.DIES (C10-C28)	3486669	165
C18	4.969	0.003	1196	118	OR.MOIL (C28-C40)	7487060	664
C20	5.287	-0.003	5211	1800	JET-A (C10-C18)	166723	11
C22	5.619	-0.003	19992	4772			
C24	5.962	0.001	40511	10434	STODDARD (C8-C12)	172043	6
C25	6.134	0.001	51326	21441			
C26	6.302	0.002	56928	17983			
C28	6.629	-0.001	68642	16330			
C32	7.250	0.001	82575	4953			
C34	7.538	0.001	85258	21958			
Filter Peak	7.610	0.002	81464	35498			
C36	7.809	0.000	78877	20329	CREOSOT (C8-C22)	617690	97
C38	8.063	-0.004	68166	45613			
C40	8.315	0.000	47261	14998	BUNKERC (C10-C38)	10145104	1174

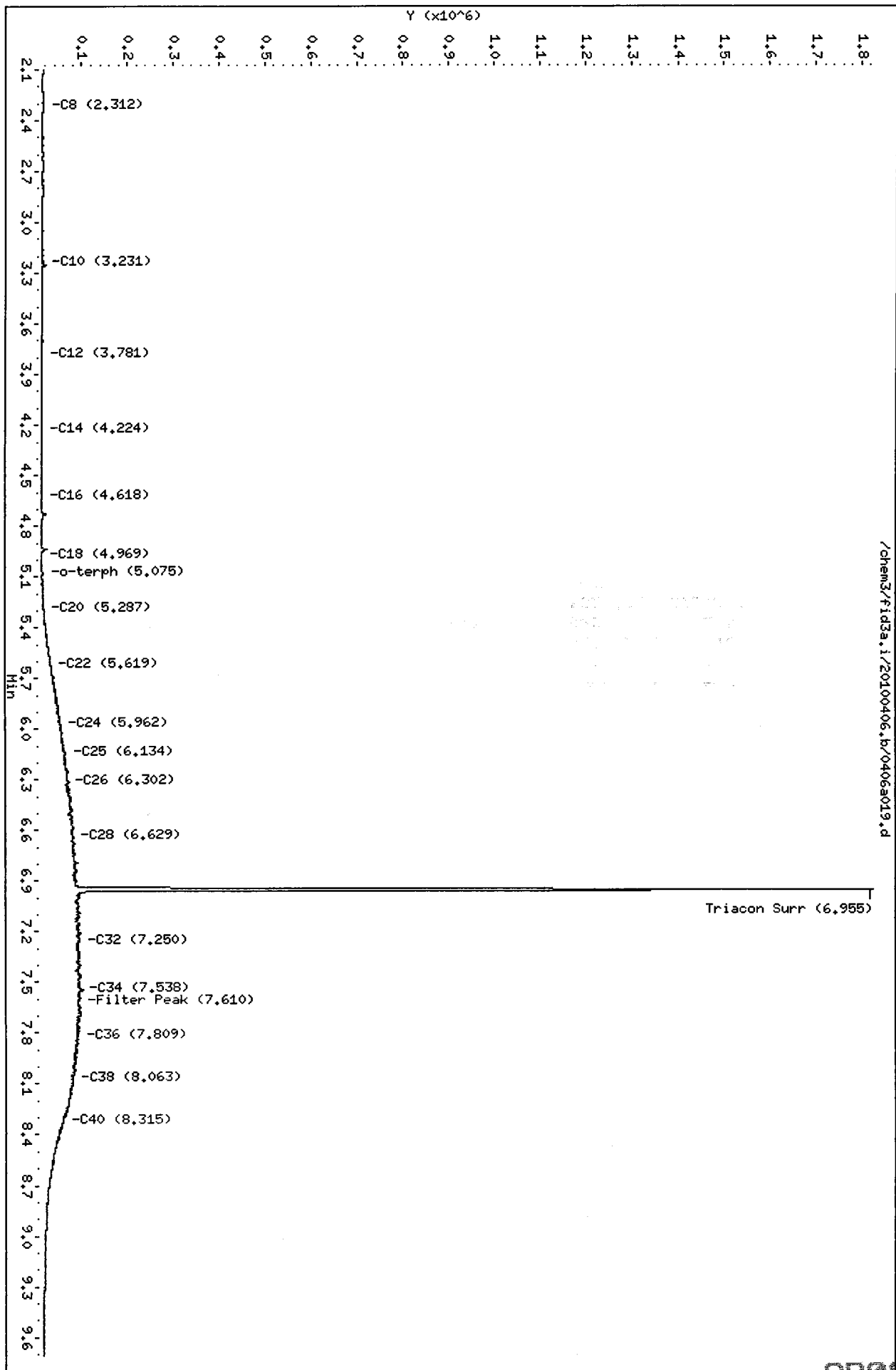
Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	5429	0.1	0.3
Triacontane	1202019	42.7	94.9

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a019.d
Date : 06-APR-2010 21:47
Client ID:
Sample Info: H0IL#2
Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



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TPHD Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.

04/18/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a010.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: QR09MBW1
Client ID: QR09MBW1
Injection: 06-APR-2010 19:14
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.942	0.009	5824	7236	GAS (Tol-C12)	254049	9
C8	2.310	-0.006	2425	385	DIESEL (C12-C24)	201983	6
C10	3.232	0.001	2996	1525	M.OIL (C24-C38)	270169	15
C12	3.781	0.000	1463	289	AK-102 (C10-C25)	276139	7
C14	4.224	-0.001	998	99	AK-103 (C25-C36)	214417	24
C16	4.615	-0.003	1321	539	OR.DIES (C10-C28)	303077	14
C18	4.964	-0.002	2473	1698	OR.MOIL (C28-C40)	287732	26
C20	5.291	0.001	1096	251	JET-A (C10-C18)	197767	12
C22	5.622	-0.001	821	128			
C24	5.962	0.000	617	73	STODDARD (C8-C12)	201491	7
C25	6.133	0.001	843	98			
C26	6.301	0.001	654	117			
C28	6.632	0.002	1216	599			
C32	7.258	0.008	2810	2330			
C34	7.532	-0.005	1412	84			
Filter Peak	7.610	0.001	1510	418			
C36	7.813	0.004	17071	22612	CREOSOT (C8-C22)	387000	61
C38	8.065	-0.002	3046	1090			
C40	8.316	0.000	3590	499	BUNKERC (C10-C38)	543233	63

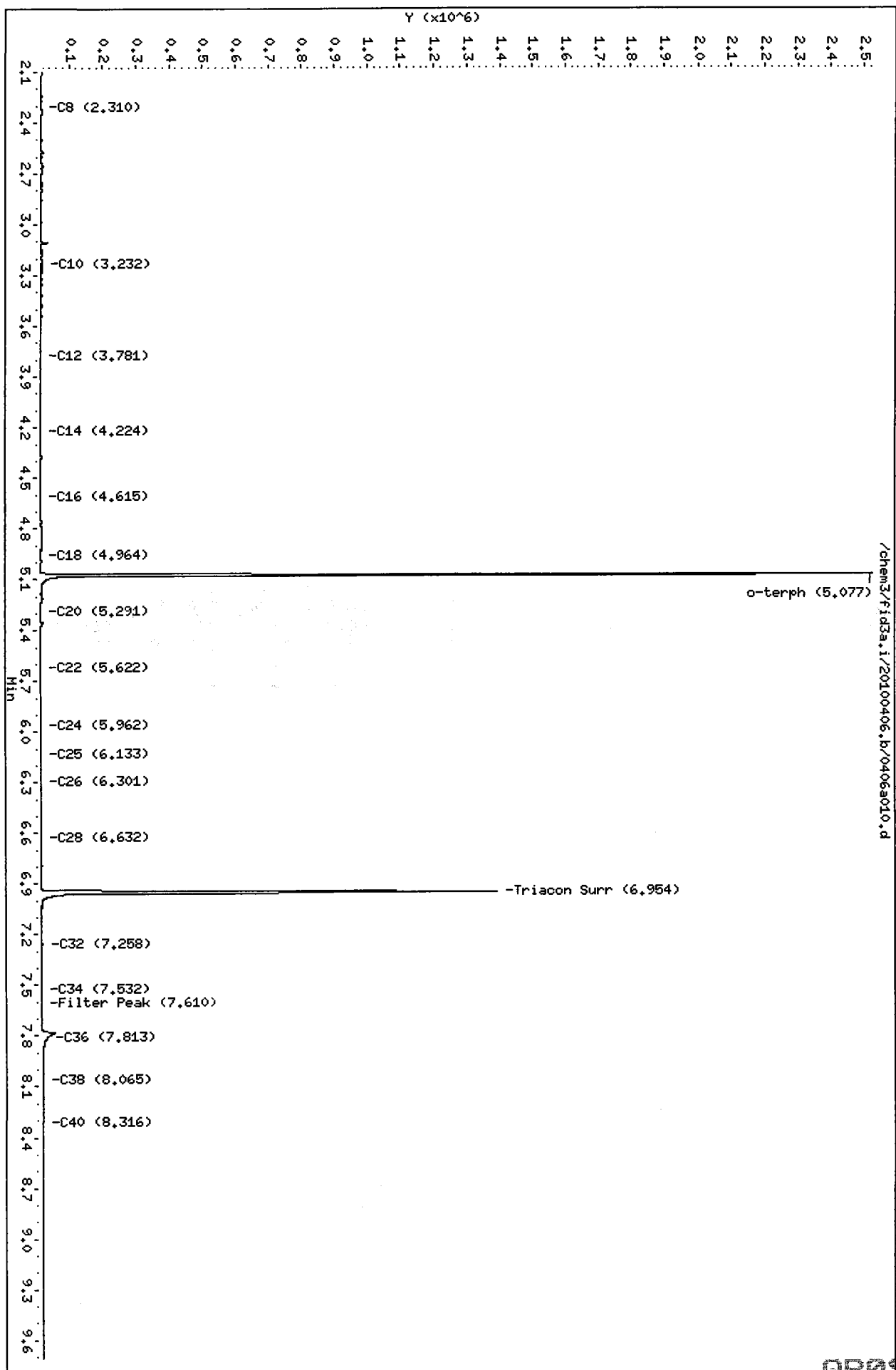
Range Times: NW Diesel (3.831 - 6.011) NW Gas (1.884 - 3.831) NW M.Oil (6.011 - 8.117)
AK102 (3.181 - 6.083) AK103 (6.083 - 7.859) Jet A (3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1247687	28.8	64.0
Triacontane	1047382	37.2	82.7

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a010.d
Date: 06-APR-2010 19:14
Client ID: QRO9HBM4
Sample Info: QRO9HBM4
Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



24/011

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20100406.b/0406a011.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: QR09LCSW1
Client ID: QR09LCSW1
Injection: 06-APR-2010 19:31
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.942	0.009	27055	27155	GAS (Tol-C12)	4189189	153
C8	2.321	0.004	19035	19161	DIESEL (C12-C24)	29967557	911
C10	3.231	0.000	179975	117340	M.OIL (C24-C38)	557997	31
C12	3.784	0.002	427025	292672	AK-102 (C10-C25)	33153944	898
C14	4.229	0.004	828304	470697	AK-103 (C25-C36)	421864	47
C16	4.620	0.002	1619373	969683	OR.DIES (C10-C28)	33405824	1584
C18	4.969	0.003	1428065	893181	OR.MOIL (C28-C40)	272510	24
C20	5.291	0.001	797301	533359	JET-A (C10-C18)	24212838	1528
C22	5.622	-0.001	354368	263663			
C24	5.961	0.000	83472	70827	STODDARD (C8-C12)	4095280	148
C25	6.138	0.005	34607	46920			
C26	6.305	0.004	18022	15541			
C28	6.630	0.000	3740	4342			
C32	7.249	-0.001	2836	2114			
C34	7.531	-0.006	1695	168			
Filter Peak	7.608	-0.001	1795	214			
C36	7.813	0.004	15430	14459	CREOSOT (C8-C22)	32994534	5159
C38	8.066	-0.001	3140	1118			
C40	8.315	0.000	3656	291	BUNKERC (C10-C38)	33629985	3891

Range Times: NW Diesel (3.831 - 6.011) NW Gas (1.884 - 3.831) NW M.Oil (6.011 - 8.117)
AK102 (3.181 - 6.083) AK103 (6.083 - 7.859) Jet A (3.181 - 5.016)

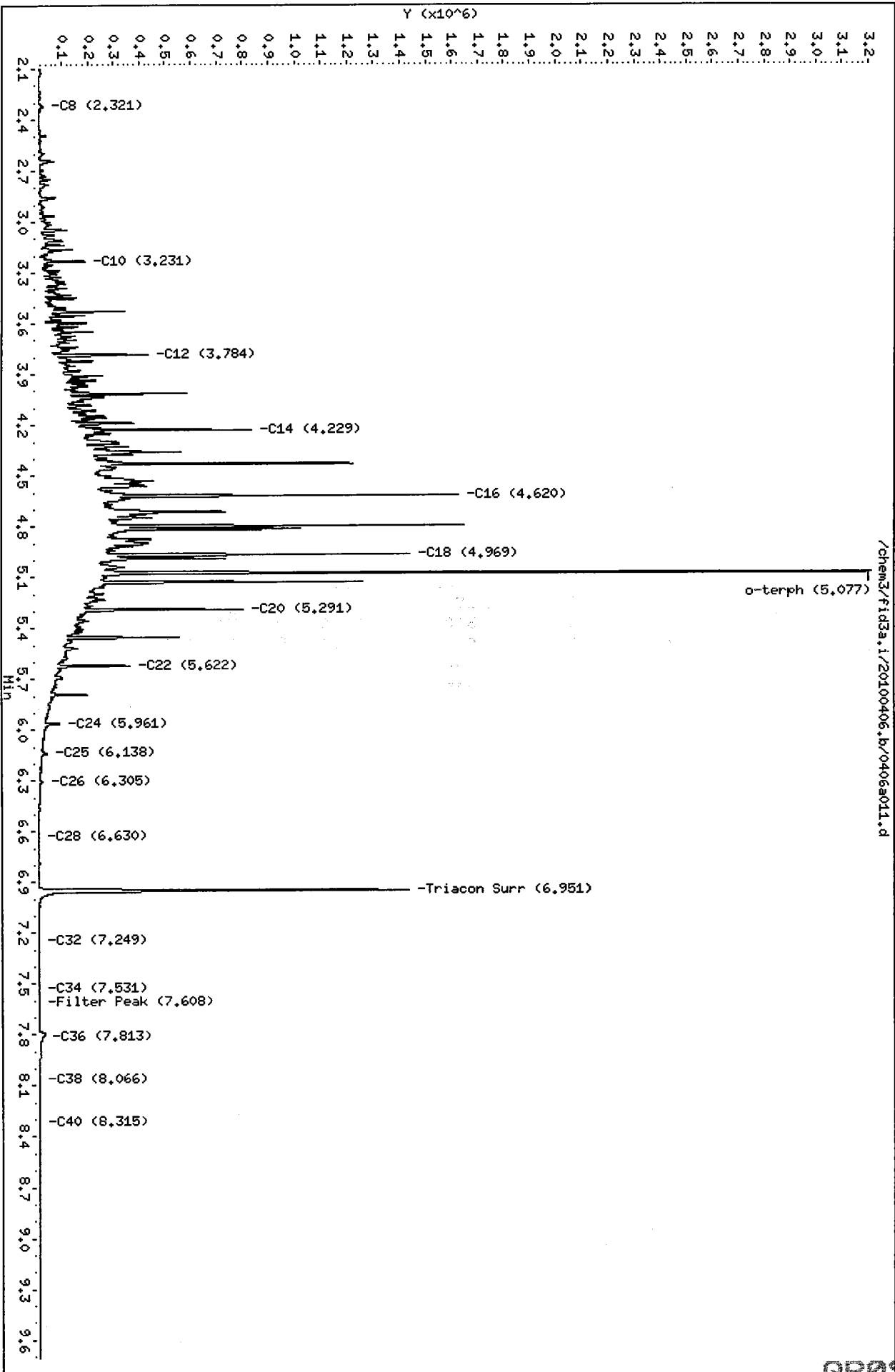
Surrogate	Area	Amount	%Rec
o-Terphenyl	1430465	33.0	73.4
Triacontane	1097884	39.0	86.7

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a011.d
Date: 06-APR-2010 19:34
Client ID: QR09LCSM4
Sample Info: QR09LCSM4

Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

2/4/8110

Data file: /chem3/fid3a.i/20100406.b/0406a014.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: QR09BMS
Client ID: CB4857040210GRA MS
Injection: 06-APR-2010 20:22
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.940	0.007	26904	27539	GAS (Tol-C12)	4300218	157
C8	2.320	0.003	18917	20235	DIESEL (C12-C24)	32277319	981
C10	3.232	0.000	181420	113644	M.OIL (C24-C38)	4526432	255
C12	3.784	0.003	450235	295212	AK-102 (C10-C25)	35731470	968
C14	4.229	0.004	842926	489023	AK-103 (C25-C36)	4008926	449
C16	4.619	0.001	1668938	978419	OR.DIES (C10-C28)	37470179	1777
C18	4.969	0.003	1514152	924620	OR.MOIL (C28-C40)	2733616	242
C20	5.292	0.001	877853	582064	JET-A (C10-C18)	25113937	1585
C22	5.622	-0.001	386431	312892			
C24	5.961	0.000	138430	138490	STODDARD (C8-C12)	4202570	152
C25	6.131	-0.002	93705	96309			
C26	6.300	-0.001	63784	72950			
C28	6.629	-0.001	51627	49147			
C32	7.248	-0.002	40191	59427			
C34	7.535	-0.002	32054	50755			
Filter Peak	7.607	-0.002	22939	7289			
C36	7.803	-0.006	31616	39690	CREOSOT (C8-C22)	34725091	5429
C38	8.066	-0.001	18576	11433			
C40	8.315	-0.001	14025	16143	BUNKERC (C10-C38)	40000379	4628

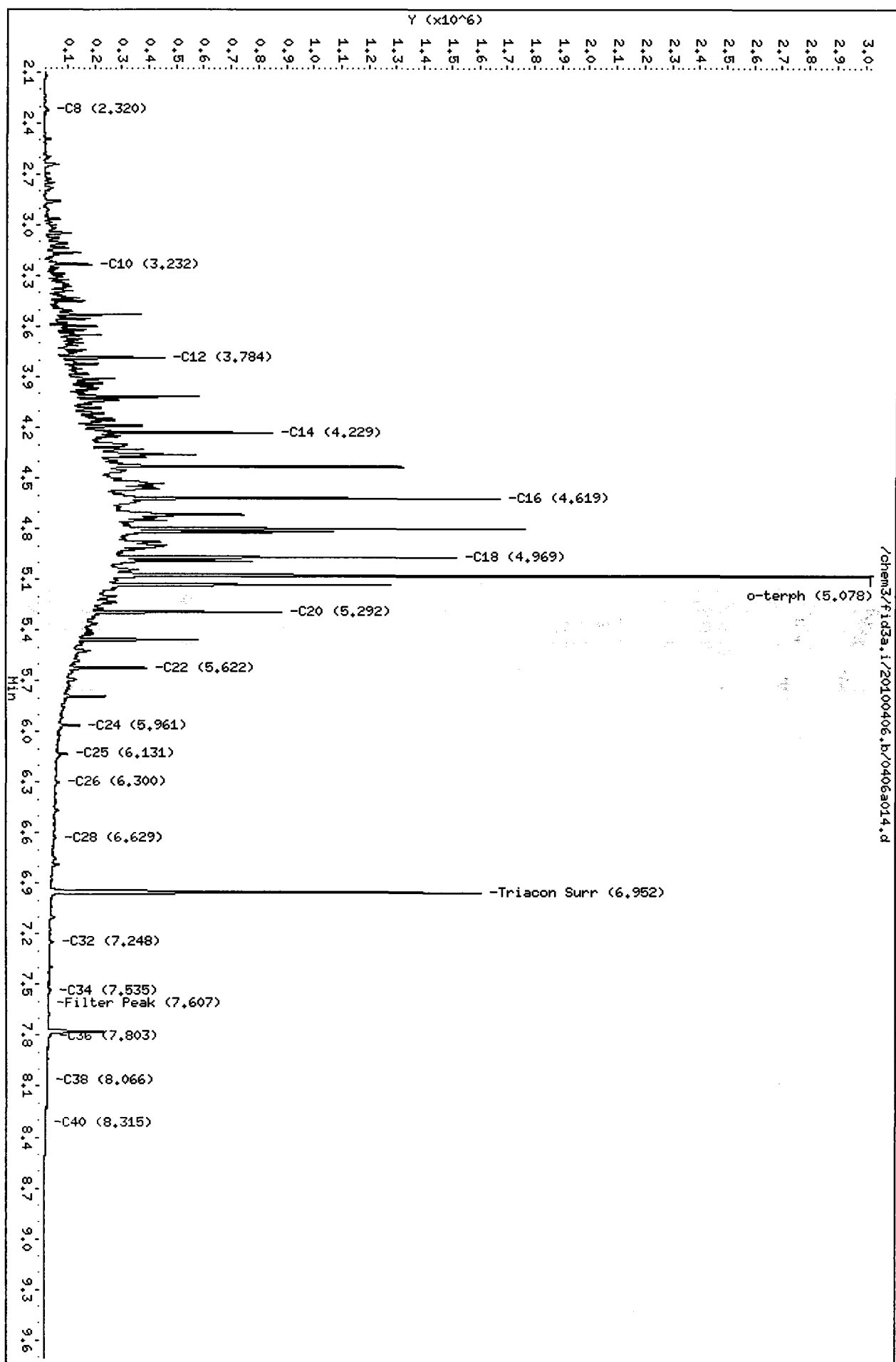
Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1456706	33.6	74.7
Triacontane	1131403	40.2	89.3

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a014.d
Date: 06-APR-2010 20:22
Client ID: CR4857040210GRA MS
Sample Info: QR03BHS
Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



000300 : 0009

Analytical Resources Inc.
TPH Quantitation Report

u 4/8/10

Data file: /chem3/fid3a.i/20100406.b/0406a015.d
Method: /chem3/fid3a.i/20100406.b/ftphfid3a.m
Instrument: fid3a.i
Operator: ms
Report Date: 04/07/2010
Macro: FID:3A040210

ARI ID: QR09BMSD
Client ID: CB4857040210GRA MSD
Injection: 06-APR-2010 20:39
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.939	0.005	26714	28090	GAS (Tol-C12)	4304120	157
C8	2.319	0.002	19252	21162	DIESEL (C12-C24)	30540734	928
C10	3.232	0.001	180058	120752	M.OIL (C24-C38)	4009416	226
C12	3.784	0.003	425760	291499	AK-102 (C10-C25)	33922555	919
C14	4.229	0.004	772328	456783	AK-103 (C25-C36)	3558627	398
C16	4.619	0.001	1549925	948505	OR.DIES (C10-C28)	35523616	1684
C18	4.968	0.002	1390825	908928	OR.MOIL (C28-C40)	2384747	212
C20	5.291	0.000	864235	534871	JET-A (C10-C18)	23829093	1504
C22	5.622	-0.001	360243	304783			
C24	5.961	-0.001	123806	122444	STODDARD (C8-C12)	4203230	152
C25	6.130	-0.003	87557	92995			
C26	6.299	-0.002	56631	59086			
C28	6.630	0.000	43492	23021			
C32	7.249	-0.001	35732	51583			
C34	7.536	-0.001	28804	36556			
Filter Peak	7.611	0.002	20572	4904			
C36	7.806	-0.004	28249	29729	CREOSOT (C8-C22)	33099897	5175
C38	8.067	0.000	16688	11466			
C40	8.314	-0.002	12444	3696	BUNKERC (C10-C38)	37728868	4365

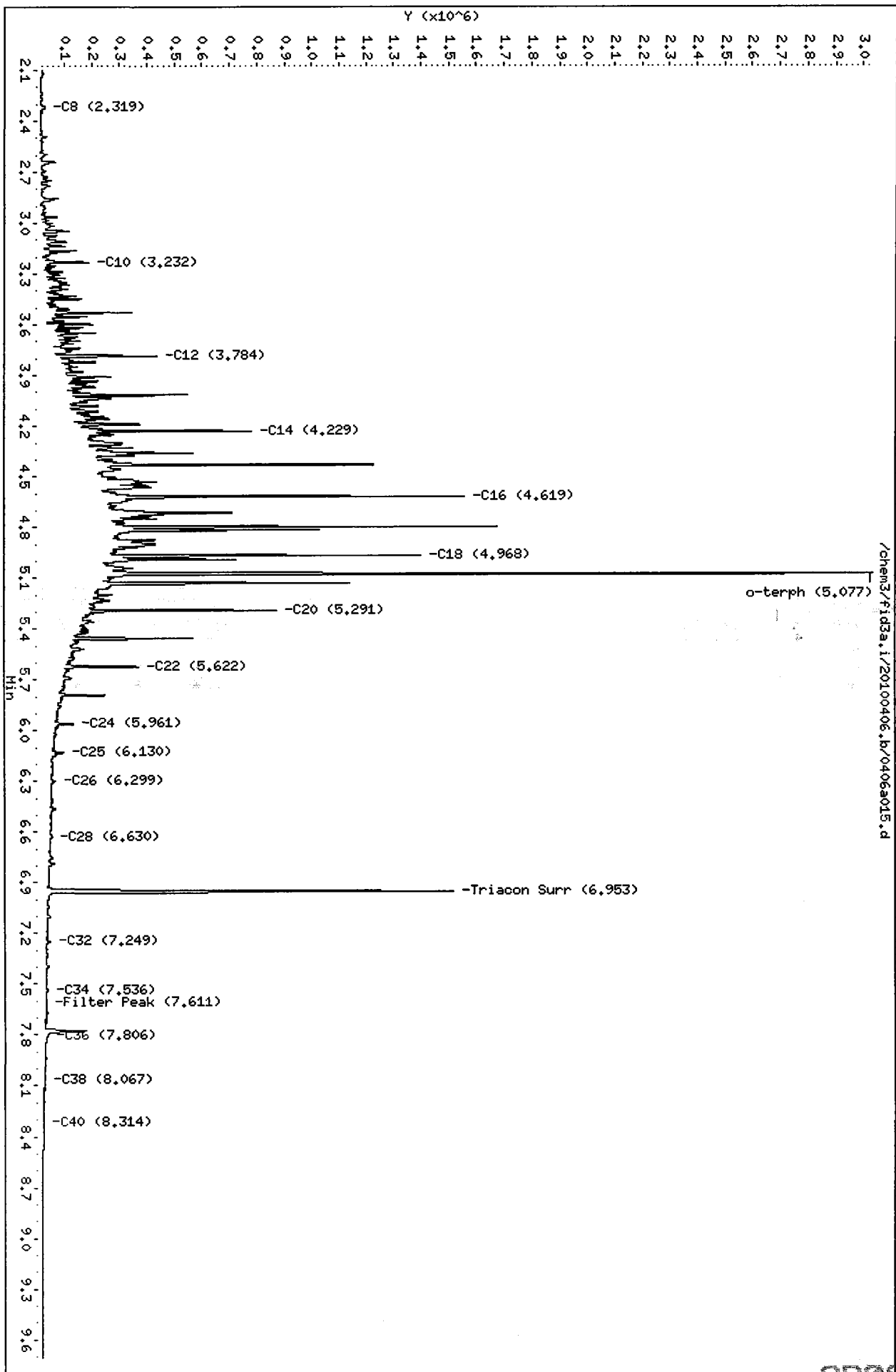
Range Times: NW Diesel(3.831 - 6.011) NW Gas(1.884 - 3.831) NW M.Oil(6.011 - 8.117)
AK102(3.181 - 6.083) AK103(6.083 - 7.859) Jet A(3.181 - 5.016)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1341210	31.0	68.8
Triacontane	1053393	37.4	83.2

Analyte	RF	Curve Date
o-Terph Surr	43329.3	02-APR-2010
Triacon Surr	28149.6	02-APR-2010
Gas	27357.0	16-MAR-2010
Diesel	32894.9	02-APR-2010
Motor Oil	17767.6	02-APR-2010
AK102	36919.6	02-APR-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3a.i/20100406.b/0406a015.d
Date : 06-APR-2010 20:39
Client ID: CB4857040210GR4 MSD
Sample Info: QR09BHSD
Column phase: ZB1-HT

Instrument: fid3a.i
Operator: ms
Column diameter: 0.25



TPHD Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd/Snider

Project: Lora Lake Apartments, POS-LLA

ARI JOB NO: QR09

prepared
by

Analytical Resources, Inc.



Preparation Test **TPHD**/HCID # 1

ARI Job No(s) QR09

In-House (0.25-0.50ppm)

Batch set up by: SA

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	DryVap Or <u>KD</u>	Turbo Vap <u>1/3</u>	Acid/Silica Clean (1:1) <u>Y</u> N	Final Effective Volume	Volume to Lab	Comments
	<u>QR09</u> MBW	Date <u>4/5/10</u>	500mL			1mL	1mL	1mL	
	↓ SBW	↓	↓			↓	↓	↓	
	SBW Dup.								
4	<u>QR09</u> A	checked							
10, 11, 12	B								
	Bms								
	Bmsd								
5	C								
5	D								
Analyst/Date: <u>WC 4/5/10</u> <u>4-6-10</u> ^{CSZ} <u>4/6/10</u> →									

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	<u>02</u>	100µL	<u>7/22/10</u>	<u>WC</u>	<u>WW</u>
Spike	<u>11</u>	100µL	<u>9/27/10</u>	<u>WC</u>	<u>WW</u>

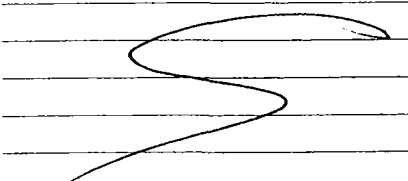
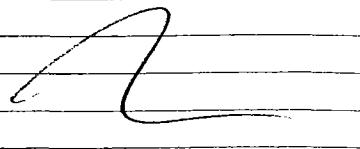
Extraction Time: 19:20

- SPECIAL INSTRUCTIONS: 1. Add Surr/Spk. 2. Acidify with 1 pipet of 1:1 Sulfuric Acid. 3. Check pH.
 4. Extract 2X with 30mL DCM. 5. DryVap or KD at 80° 6. TurboVap if KD. 7. Acid/Silica Clean-ups? Y N.
 8. Vial in DCM. Archive Y N

Analytical Resources Inc.: Organics Instrument Log

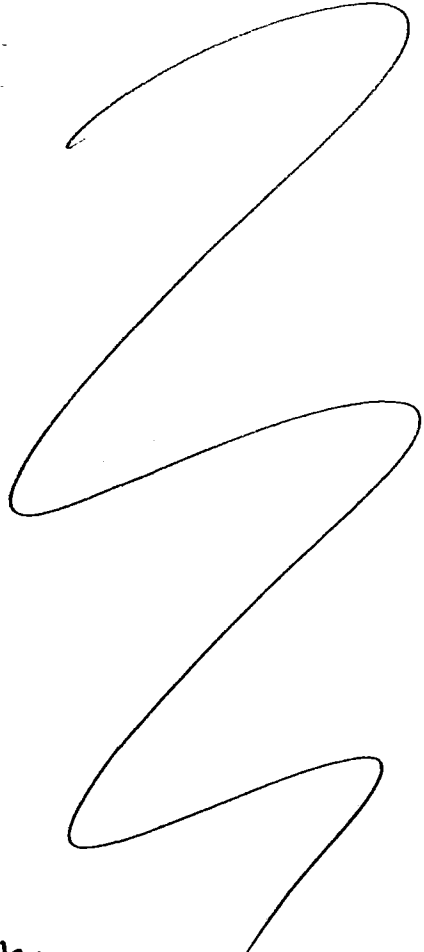
FID-3A Serial No.: US00003232

Date: 4/2/10 Analysis: TPHD Analyst: M
 GC Program: TPH Column No: 101712 Column Type: 2B1HJ
 Instrument Tune (.U or .CT.): _____ EM Voltage: _____
 Calibration File: _____ Curve Date: 4/2/10

IS/SS	Ical/Ccal	LCS/ICV
	1700-1 1686-3 1687-3 1694-1	

Time	Filename	LabID	ClientId	DF
1	1709	0402a001.d	RINSE	1
2	1726	0402a002.d	RINSE	1
3	1743	0402a003.d	RT	1
4	1801	0402a004.d	IS	1
5	1818	0402a005.d	DIESEL 50	1
6	1835	0402a006.d	DIESEL 100	1
7	1852	0402a007.d	DIESEL 250	1
8	1910	0402a008.d	DIESEL 500	1
9	1927	0402a009.d	DIESEL 1000	1
10	1944	0402a010.d	DIESEL 2500	1
11	2002	0402a011.d	DIESEL ICV	1
12	2019	0402a012.d	RINSE	1
13	2036	0402a013.d	MOIL 100	1
14	2054	0402a014.d	MOIL 250	1
15	2111	0402a015.d	MOIL 500	1
16	2128	0402a016.d	MOIL 1000	1
17	2146	0402a017.d	MOIL 2500	1
18	2203	0402a018.d	MOIL 5000	1
19	2220	0402a019.d	MOIL ICV	1
20	2237	0402a020.d	RINSE	1
21	2255	0402a021.d	DIESEL 250	1
22	2312	0402a022.d	MOIL 500	1

Time	Filename	LabID	ClientId	DF
23	2329	0402a023.d	RINSE	1



M

M 4/7/10

Maintenance / Comments

Curved diesel + moil.

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/moil/AK102 ^{curves} Client ID: _____

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

Parameter(s): Diesel, moil(30w), o-terph, n-friac, AK102

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: 04/02/10 Analysis Start: 04/02/10

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

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary): A friac rec. low - 8.9% for moil ICD O.K. 4/03/10
ICD best 30% not 15%

Additional Details on Reverse: Yes / No

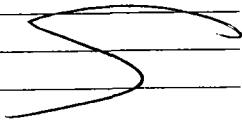
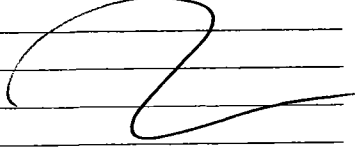
Analyst Signature: _____ Date: 04/03/10

Reviewer's Signature: V. Q Date: 4.3.2010

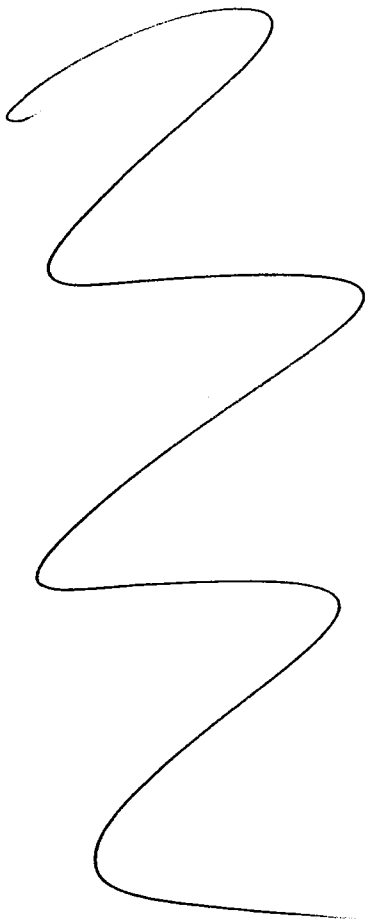
Analytical Resources Inc.: Organics Instrument Log

FID-3A Serial No.: US00003232

Date: 4/6/10 Analysis: TPH Analyst: ms
 GC Program: TPH Column No: 151712 Column Type: ZBHT
 Instrument Tune (.U or .CT.): _____ EM Voltage: _____
 Calibration File: _____ Curve Date: 4/2/10

IS/SS	Ical/Ccal	LCS/ICV
	<u>1686-3</u> <u>1687-3</u> <u>1694-1</u>	

Time	Filename	LabID	ClientId	DF	Time	Filename	LabID	ClientId	DF	
1	1639	0406a001.d	RINSE	1	23	2255	0406a023.d	QR02A	6057040210GR	1
2	1655	0406a002.d	RT	1	24	2312	0406a024.d	QR10F	KW-Tank	1
3	1713	0406a003.d	IB	1	25	2329	0406a025.d	DIESEL#3		1
4	1730	0406a004.d	DIESEL#1	1	26	2346	0406a026.d	MOIL#3		1
5	1747	0406a005.d	MOIL#1	1						
6	1805	0406a006.d	QR08MBW1	QR08MBW1	1					
7	1822	0406a007.d	QR08LCSW1	QR08LCSW1	1					
8	1839	0406a008.d	QR08LCSW1	QR08LCSW1	1					
9	1856	0406a009.d	QR08C	RI-MW-7	1					
10	1914	0406a010.d	QR09MBW1	QR09MBW1	1					
11	1931	0406a011.d	QR09LCSW1	QR09LCSW1	1					
12	1948	0406a012.d	QR09A	CB31A040210G	1					
13	2005	0406a013.d	QR09B	CB4857040210	1					
14	2022	0406a014.d	QR09BMS	CB4857040210	1					
15	2039	0406a015.d	QR09BMSD	CB4857040210	1					
16	2056	0406a016.d	QR09C	CB1040210GRA	1					
17	2113	0406a017.d	QR09D	CB102040210G	1					
18	2130	0406a018.d	DIESEL#2							
19	2147	0406a019.d	MOIL#2							
20	2204	0406a020.d	QR02MBW1	QR02MBW1						
21	2221	0406a021.d	QR02LCSW1	QR02LCSW1						
22	2238	0406a022.d	QR02LCSW1	QR02LCSW1						



ms 4/7/10

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: QRO9 Client ID: LLA - Floyd/SNIOSK

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

Parameter(s): Diesel, MOI, Steph.

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: 4/2/10 Analysis Start: 4/6/10

- 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):

Additional Details on Reverse: Yes / No

Analyst Signature: [Signature] Date: 4/8/10

Reviewer's Signature: [Signature] Date: 4/8/10



Analytical Resources, Incorporated
Analytical Chemists and Consultants

April 30, 2010

Jessi Massingale
Floyd-Snyder Inc.
601 Union Street, Suite 600
Seattle, WA 98101-2341

RE: Client Project: Lora Lake Apartments, POS-LLA
ARI Job No: QQ59

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.



Susan D. Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QQ59

SD/sdrd

Chain of Custody
Documentation

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.



Cooler Receipt Form

ARI Client: Floyd Spider
 COC No(s): _____ (NA)
 Assigned ARI Job No: QQ59

Project Name: Lora Lakes Apart.
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 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)..... 4.6 29
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 96877959

Cooler Accepted by: AV Date: 3/30/10 Time: 1444

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)
 Was Sample Split by ARI: NA YES Date/Time: 3/30/10 1530 Equipment: Teflon churn Split by: AV/JW

Samples Logged by: AV Date: 3/30/10 Time: 11028

**** 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:

By: _____ Date: _____

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

PRESERVATION VERIFICATION 03/30/10

Page 1 of 1



ARI Job No: Q059

PC: Sue D.
VTSR: 03/30/10

Inquiry Number: NONE
Analysis Requested: 03/30/10
Contact: Woltman, Matt
Client: Floyd/Snyder
Logged by: AV
Sample Set Used: Yes-481
Validatable Package: Yes
Deliverables:

Project #:
Project: Lora Lakes Apartments
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/ BY
10-8212 Q059A	CB31A032910COMP						TOT <2														
10-8213 Q059B	CB4857032910COMP						TOT <2														
10-8214 Q059C	CB1032910COMP						TOT <2														
10-8215 Q059D	CB100032910COMP						TOT <2														
10-8216 Q059E	CB31A032910COMP						DIS <2														
10-8217 Q059F	CB4857032910COMP						DIS <2														
10-8218 Q059G	CB1032910COMP						DIS <2														
10-8219 Q059H	CB100032910COMP						DIS <2														

NP = Not preserved or filtered

Q059 : 000005

Checked By AV Date 3/30/10

Case Narrative

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.



Case Narrative

Client: Floyd Snider
Project: Lora Lake Apartments, POS-LLA
Matrix: Water
ARI Job No.: QQ59

Sample receipt

Analytical Resources, Inc. (ARI) accepted four water samples on March 30, 2010 under ARI job QQ59. The cooler temperatures measured by IR thermometer following ARI SOP were 2.9 and 4.6°C . For details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

Samples were split for each laboratory using a Teflon churn splitter. The churn splitter was cleaned between each sample using the QAPP protocol.

Dioxin/Furan analyses were subcontracted to Frontier Analytical Laboratory in El Dorado Hills, CA. The Frontier report is included here in its entirety.

SIM Semivolatiles by SW8270

The samples were extracted and analyzed within the method recommended holding times.

Initial calibrations 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 percent recoveries were within control limits.

The matrix spike/matrix spike duplicate had recoveries and RPD within limits.

Pentachlorophenol by SW8041

The samples were extracted and analyzed within the method recommended holding times.

Initial calibrations and continuing calibrations were within limits for the target compound.

The surrogate percent recoveries were within control limits.



The method blank was clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike/matrix spike duplicate had recoveries and RPD within limits.

Total and Dissolved Arsenic by EPA 200.8

The samples were digested and analyzed within the method recommended holding time.

The method blanks were clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries were within limits. Duplicate RPDs were within control limits.

General Chemistry (TSS)

The samples were prepared and analyzed within the method recommended holding time.

The method blank was clean at the reporting limit. The LCS percent recovery was within control limits.

The replicate RPD was within the control limit.



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 ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 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



- 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

SURR SOLUTIONS

4/3/2010

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1706-2	ABN	100/150	MEOH	07/30/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C	1705-4	SIM ABN	25/37.5	MEOH	03/08/11
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	1707-2	1,4DIOXANE	100	MEOH	03/19/11
H	1723-2	OP-PEST	25	MEOH	04/02/11
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	1699-1	TPH	450	MECL2	07/02/10
P	1707-4	HCID	2250	MECL2	07/02/10
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	01/13/11
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					

LCS SOLUTIONS

4/3/2010

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1716-1	PCB 1660	20	ACETONE	03/30/11
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1705-3	PEST	02/04/20	ACETONE	03/08/11
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1702-2	PCP	12.5/125	ACETONE	02/18/11
7	1705-1	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	1698-2	ABN ACID	100/200	MECL2	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1698-1	ABN BASE	200	MEOH	07/24/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15	1716-2	SIM PNA	15/75	MEOH	03/30/11
16	1707-1	DIOXANE	100	MEOH	11/05/10
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	1702-4	HERB	12.5/12500	MEOH	04/17/10
23	1706-1	LW ABN BASE	20	MEOH	03/08/11
24	1696-1	LOW ABN	10	ACETONE	01/13/11
25#	1481-1	DIPHENYL	100	MEOH	NA
26	1723-3	OP-PEST	25	MEOH	11/20/10
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

LCS SOLUTIONS

4/3/2010

31	1707-3	TERPINEOL	100	MEOH	03/19/11
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	1696-3	DDTS	2.5	ACETONE	06/03/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
53	1703-3	DALAPON	50	MEOH	09/11/10
54	1701-2	PBDE	0.5	ACETONE	02/10/11
	#=PROJECT SPECIFIC SOLUTION				
	*=REVERIFIED SOLUTION				



**Spike Recovery Control Limits for Polycyclic Aromatic Hydrocarbons
Selected Ion Monitoring (SIM) EPA Method SW-846-8270D-Modified
Low Level Aqueous Samples^(1,7)
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>

Sample Volume / Final Volume	500 mL to 0.5 mL	
	Control Limits	ME Limits ⁽²⁾
LCS Spike Recovery ⁽⁶⁾		
Napthalene	41 - 101	31 - 111
2-Methylnapthalene	47 - 100	39 - 103
1-Methylnapthalene	30 - 160 ⁽³⁾	30 - 160 ⁽³⁾
Acenaphthylene	35 - 100	25 - 104
Acenaphthene	43 - 104	33 - 114
Dibenzofuran	37 - 100	27 - 108
Fluorene	51 - 103	42 - 112
Phenanthrene	55 - 109	46 - 118
Anthracene	30 - 101	18 - 113
Fluoranthene	49 - 123	37 - 135
Pyrene	48 - 120	36 - 132
Benz(a)anthracene	43 - 113	31 - 125
Chrysene	59 - 112	50 - 121
Benzo(b)fluoranthene	44 - 121	31 - 134
Benzo(k)fluoranthene	50 - 117	39 - 128
Benzo(a)pyrene	10 - 100	10 - 109
Indeno(1,2,3-cd)pyrene	43 - 112	32 - 124
Dibenzo(a,h)anthracene	42 - 114	30 - 126
Benzo(g,h,i)perylene	31 - 118	17 - 133
MB / LCS Surrogate Recovery		
d10-2-Methylnapthalene	42 - 100	(4)
d14-Dibenzo(a,h)anthracene	40 - 125	(4)
Sample Surrogate Recovery		
d10-2-Methylnapthalene	31 - 109	(4)
d14-Dibenzo(a,h)anthracene	10 - 133	(4)

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 through 12/1/08.

(2) **ME = A marginal exceedance** defined in the NELAC Standard ⁽⁵⁾ 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 one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.

(3) 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.

(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) 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.

(7) 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.



Spike Recovery Control Limits for Chlorinated Phenols

EPA Method SW-846-8041^(1,2)

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>

Sample Matrix:	ARI's Calculated Control Limits	
	Water	Soil / Sediment
Sample Amount / Final Volume:	500 / 50 mL	10 g / 25 mL
LCS Spike Recovery ⁽³⁾		
Pentachlorophenol	27 - 115	10 - 162
Method Blank/LCS Surrogate Recovery		
2,4,6-Tribromophenol	40 - 130	50 - 115
Sample Surrogate Recovery		
2,4,6-Tribromophenol	11 - 156	10 - 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.



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%



Spike Recovery Control Limits for Conventional Wet Chemistry		
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		
Sample Matrix:	ARI's Control Limits	
	Water	Soil / Sediment
Matrix Spike Recoveries	% 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
Duplicate RPDs		
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: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by


Analytical Resources, Inc.

SIM SEMIVOLATILE ANALYSIS

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB31A032910COMP
SAMPLE

Lab Sample ID: QQ59A
LIMS ID: 10-8212
Matrix: Water
Data Release Authorized: 
Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Event: NA
Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 04/01/10
Date Analyzed: 04/06/10 18:30
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.014
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.036
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.059
129-00-0	Pyrene	0.010	0.062
56-55-3	Benzo (a) anthracene	0.010	0.014
218-01-9	Chrysene	0.010	0.038
205-99-2	Benzo (b) fluoranthene	0.010	0.019
207-08-9	Benzo (k) fluoranthene	0.010	0.019
50-32-8	Benzo (a) pyrene	0.010	0.015
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.014
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.027
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 58.3%
d14-Dibenzo (a,h) anthracene 44.0%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB4857032910COMP

SAMPLE

Lab Sample ID: QQ59B

LIMS ID: 10-8213

Matrix: Water

Data Release Authorized: 

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 18:54

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.014
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.029
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.058
129-00-0	Pyrene	0.010	0.060
56-55-3	Benzo (a) anthracene	0.010	0.016
218-01-9	Chrysene	0.010	0.041
205-99-2	Benzo (b) fluoranthene	0.010	0.022
207-08-9	Benzo (k) fluoranthene	0.010	0.022
50-32-8	Benzo (a) pyrene	0.010	0.020
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.017
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.032
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 62.7%
d14-Dibenzo (a,h) anthracene 46.0%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: CB1032910COMP

SAMPLE

Lab Sample ID: QQ59C

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: *AB*

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 19:19

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo (b) fluoranthene	0.010	< 0.010 U
207-08-9	Benzo (k) fluoranthene	0.010	< 0.010 U
50-32-8	Benzo (a) pyrene	0.010	< 0.010 U
193-39-5	Indeno (1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in $\mu\text{g/L}$ (ppb)


SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 60.7%
d14-Dibenzo (a,h) anthracene 65.7%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB100032910COMP
SAMPLE

Lab Sample ID: QQ59D
LIMS ID: 10-8215
Matrix: Water
Data Release Authorized: 
Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Event: NA
Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 04/01/10
Date Analyzed: 04/06/10 20:33
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.015
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.033
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.066
129-00-0	Pyrene	0.010	0.064
56-55-3	Benzo (a) anthracene	0.010	0.016
218-01-9	Chrysene	0.010	0.044
205-99-2	Benzo (b) fluoranthene	0.010	0.021
207-08-9	Benzo (k) fluoranthene	0.010	0.021
50-32-8	Benzo (a) pyrene	0.010	0.018
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.016
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.028
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	56.7%
d14-Dibenzo (a,h) anthracene	43.0%

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
CB31A032910COMP	58.3%	44.0%	0
CB4857032910COMP	62.7%	46.0%	0
MB-040110	58.3%	69.0%	0
LCS-040110	67.3%	90.3%	0
CB1032910COMP	60.7%	65.7%	0
CB1032910COMP MS	58.0%	60.0%	0
CB1032910COMP MSD	59.7%	49.7%	0
CB100032910COMP	56.7%	43.0%	0

LCS/MB LIMITS QC LIMITS

(MNP) = d10-2-Methylnaphthalene (42-100) (31-109)
(DBA) = d14-Dibenzo(a,h)anthracene (40-125) (10-133)

Prep Method: SW3520C
Log Number Range: 10-8212 to 10-8215

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB1032910COMP

MATRIX SPIKE

Lab Sample ID: QQ59C

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: 

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted MS/MSD: 04/01/10

Sample Amount MS: 475 mL

MSD: 475 mL

Date Analyzed MS: 04/06/10 19:43

Final Extract Volume MS: 0.50 mL

MSD: 04/06/10 20:08

MSD: 0.50 mL

Instrument/Analyst MS: NT2/PK

Dilution Factor MS: 1.00

MSD: NT2/PK

MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	< 0.0100 U	0.179	0.316	56.6%	0.171	0.316	54.1%	4.6%
2-Methylnaphthalene	< 0.0100 U	0.186	0.316	58.9%	0.179	0.316	56.6%	3.8%
1-Methylnaphthalene	< 0.0100 U	0.182	0.316	57.6%	0.184	0.316	58.2%	1.1%
Acenaphthylene	< 0.0100 U	0.206	0.316	65.2%	0.217	0.316	68.7%	5.2%
Acenaphthene	< 0.0100 U	0.209	0.316	66.1%	0.221	0.316	69.9%	5.6%
Fluorene	< 0.0100 U	0.224	0.316	70.9%	0.242	0.316	76.6%	7.7%
Phenanthrene	< 0.0100 U	0.247	0.316	78.2%	0.267	0.316	84.5%	7.8%
Anthracene	< 0.0100 U	0.235	0.316	74.4%	0.253	0.316	80.1%	7.4%
Fluoranthene	< 0.0100 U	0.253	0.316	80.1%	0.280	0.316	88.6%	10.1%
Pyrene	< 0.0100 U	0.249	0.316	78.8%	0.276	0.316	87.3%	10.3%
Benzo(a)anthracene	< 0.0100 U	0.254	0.316	80.4%	0.253	0.316	80.1%	0.4%
Chrysene	< 0.0100 U	0.253	0.316	80.1%	0.272	0.316	86.1%	7.2%
Benzo(b)fluoranthene	< 0.0100 U	0.220	0.316	69.6%	0.201	0.316	63.6%	9.0%
Benzo(k)fluoranthene	< 0.0100 U	0.204	0.316	64.6%	0.191	0.316	60.4%	6.6%
Benzo(a)pyrene	< 0.0100 U	0.202	0.316	63.9%	0.193	0.316	61.1%	4.6%
Indeno(1,2,3-cd)pyrene	< 0.0100 U	0.177	0.316	56.0%	0.150	0.316	47.5%	16.5%
Dibenz(a,h)anthracene	< 0.0100 U	0.185	0.316	58.5%	0.150	0.316	47.5%	20.9%
Benzo(g,h,i)perylene	< 0.0100 U	0.182	0.316	57.6%	0.156	0.316	49.4%	15.4%
Dibenzofuran	< 0.0100 U	0.228	0.316	72.2%	0.241	0.316	76.3%	5.5%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: CB1032910COMP

MATRIX SPIKE

Lab Sample ID: QQ59C

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: *AB*

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 19:43

Instrument/Analyst: NT2/PK

Sample Amount: 475 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	---
91-57-6	2-Methylnaphthalene	0.010	---
90-12-0	1-Methylnaphthalene	0.010	---
208-96-8	Acenaphthylene	0.010	---
83-32-9	Acenaphthene	0.010	---
86-73-7	Fluorene	0.010	---
85-01-8	Phenanthrene	0.010	---
120-12-7	Anthracene	0.010	---
206-44-0	Fluoranthene	0.010	---
129-00-0	Pyrene	0.010	---
56-55-3	Benzo(a)anthracene	0.010	---
218-01-9	Chrysene	0.010	---
205-99-2	Benzo(b)fluoranthene	0.010	---
207-08-9	Benzo(k)fluoranthene	0.010	---
50-32-8	Benzo(a)pyrene	0.010	---
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	---
53-70-3	Dibenz(a,h)anthracene	0.010	---
191-24-2	Benzo(g,h,i)perylene	0.010	---
132-64-9	Dibenzofuran	0.010	---

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 58.0%
d14-Dibenzo(a,h)anthracene 60.0%

ORGANICS ANALYSIS DATA SHEET

PNA's by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB1032910COMP

MATRIX SPIKE DUPLICATE

Lab Sample ID: QQ59C

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: 

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 20:08

Instrument/Analyst: NT2/PK

Sample Amount: 475 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	---
91-57-6	2-Methylnaphthalene	0.010	---
90-12-0	1-Methylnaphthalene	0.010	---
208-96-8	Acenaphthylene	0.010	---
83-32-9	Acenaphthene	0.010	---
86-73-7	Fluorene	0.010	---
85-01-8	Phenanthrene	0.010	---
120-12-7	Anthracene	0.010	---
206-44-0	Fluoranthene	0.010	---
129-00-0	Pyrene	0.010	---
56-55-3	Benzo (a) anthracene	0.010	---
218-01-9	Chrysene	0.010	---
205-99-2	Benzo (b) fluoranthene	0.010	---
207-08-9	Benzo (k) fluoranthene	0.010	---
50-32-8	Benzo (a) pyrene	0.010	---
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	---
53-70-3	Dibenz (a,h) anthracene	0.010	---
191-24-2	Benzo (g,h,i) perylene	0.010	---
132-64-9	Dibenzofuran	0.010	---

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 59.7%
d14-Dibenzo (a,h) anthracene 49.7%

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-040110

LAB CONTROL SAMPLE

Lab Sample ID: LCS-040110

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: *AB*

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 04/01/10

Date Analyzed LCS: 04/06/10 18:05

Instrument/Analyst LCS: NT2/PK

Sample Amount LCS: 500 mL

Final Extract Volume LCS: 0.50 mL

Dilution Factor LCS: 1.00

Analyte	LCS	Spike Added	Recovery
Naphthalene	0.186	0.300	62.0%
2-Methylnaphthalene	0.196	0.300	65.3%
1-Methylnaphthalene	0.197	0.300	65.7%
Acenaphthylene	0.211	0.300	70.3%
Acenaphthene	0.221	0.300	73.7%
Fluorene	0.239	0.300	79.7%
Phenanthrene	0.257	0.300	85.7%
Anthracene	0.210	0.300	70.0%
Fluoranthene	0.270	0.300	90.0%
Pyrene	0.233	0.300	77.7%
Benzo(a)anthracene	0.245	0.300	81.7%
Chrysene	0.270	0.300	90.0%
Benzo(b)fluoranthene	0.259	0.300	86.3%
Benzo(k)fluoranthene	0.265	0.300	88.3%
Benzo(a)pyrene	0.240	0.300	80.0%
Indeno(1,2,3-cd)pyrene	0.266	0.300	88.7%
Dibenz(a,h)anthracene	0.276	0.300	92.0%
Benzo(g,h,i)perylene	0.263	0.300	87.7%
Dibenzofuran	0.245	0.300	81.7%

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	67.3%
d14-Dibenzo(a,h)anthracene	90.3%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QQ59MBW1

Lab Name: ANALYTICAL RESOURCES, INC
 ARI Job No: QQ59
 Lab File ID: 040601
 Instrument ID: NT2
 Matrix: LIQUID

Client: FLOYD/SNIDER
 Project: LORA LAKES APARTMENT
 Date Extracted: 04/01/10
 Date Analyzed: 04/06/10
 Time Analyzed: 1741

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	QQ59LCSW1	QQ59LCSW1	040602	04/06/10
02	CB31A032910COMP	QQ59A	040603	04/06/10
03	CB4857032910COMP	QQ59B	040604	04/06/10
04	CB1032910COMP	QQ59C	040605	04/06/10
05	CB1032910COMP MS	QQ59CMS	040606	04/06/10
06	CB1032910COMP MS	QQ59CMSD	040607	04/06/10
07	CB100032910COMP	QQ59D	040608	04/06/10
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: MB-040110

METHOD BLANK

Lab Sample ID: MB-040110

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: 

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: NA

Date Received: NA

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 17:41

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 58.3%
d14-Dibenzo(a,h)anthracene 69.0%

PCP/CHLOROPHENOLS ANALYSIS

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB31A032910COMP
SAMPLE

Lab Sample ID: QQ59A
LIMS ID: 10-8212
Matrix: Water
Data Release Authorized: *MW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 03/31/10
Date Analyzed: 04/03/10 01:09
Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	1.4

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	66.8%
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ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB4857032910COMP
SAMPLE

Lab Sample ID: QQ59B
LIMS ID: 10-8213
Matrix: Water
Data Release Authorized: *MW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 03/31/10
Date Analyzed: 04/03/10 01:29
Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	1.3

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	68.4%
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ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB1032910COMP

SAMPLE

Lab Sample ID: QQ59C

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: *MW*

Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 03/31/10

Date Analyzed: 04/03/10 01:49

Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	63.6%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB100032910COMP
SAMPLE

Lab Sample ID: QQ59D
LIMS ID: 10-8215
Matrix: Water
Data Release Authorized: *MW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 03/31/10
Date Analyzed: 04/03/10 02:48
Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	1.5

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	69.2%
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SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
CB31A032910COMP	66.8%	0
CB4857032910COMP	68.4%	0
MB-033110	75.6%	0
LCS-033110	77.2%	0
CB1032910COMP	63.6%	0
CB1032910COMP MS	69.0%	0
CB1032910COMP MSD	64.8%	0
CB100032910COMP	69.2%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol

(40-130)

(11-156)

Prep Method: SW3510C
Log Number Range: 10-8212 to 10-8215

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1032910COMP
MS/MSD

Lab Sample ID: QQ59C
LIMS ID: 10-8214
Matrix: Water
Data Release Authorized: *MW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted MS/MSD: 03/31/10

Sample Amount MS: 500 mL
MSD: 500 mL

Date Analyzed MS: 04/03/10 02:09
MSD: 04/03/10 02:29

Final Extract Volume MS: 50 mL
MSD: 50 mL

Instrument/Analyst MS: ECD1/JGR
MSD: ECD1/JGR

Dilution Factor MS: 1.00
MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Pentachlorophenol	< 0.25 U	2.41	2.50	96.4%	2.39	2.50	95.6%	0.8%

Results reported in $\mu\text{g/L}$
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1032910COMP
MATRIX SPIKE

Lab Sample ID: QQ59C
LIMS ID: 10-8214
Matrix: Water
Data Release Authorized: *MW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 03/31/10
Date Analyzed: 04/03/10 02:09
Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---
Reported in $\mu\text{g/L}$ (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	69.0%	

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1032910COMP
MATRIX SPIKE DUP

Lab Sample ID: QQ59C
LIMS ID: 10-8214
Matrix: Water
Data Release Authorized: *MW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 03/31/10
Date Analyzed: 04/03/10 02:29
Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	---

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	64.8%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: LCS-033110
LAB CONTROL

Lab Sample ID: LCS-033110
LIMS ID: 10-8214
Matrix: Water
Data Release Authorized: *MMW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 03/31/10
Date Analyzed: 04/03/10 00:49
Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	2.23	2.50	89.2%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol	77.2%
----------------------	-------

Results reported in $\mu\text{g/L}$

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QQ59MBW1

Lab Name: ANALYTICAL RESOURCES, INC	Client: FLOYD/SNIDER
ARI Job No.: QQ59	Project: LORA LAKE APTS
Lab Sample ID: QQ59MBW1	Lab File ID: 0402A034
Matrix (soil/water) LIQUID	Extraction: (SepF/Cont/Sonc) SW3510C
Sulfur Cleanup (Y/N) Y	Date Extracted: 03/31/10
Date Analyzed (1): 04/03/10	Date Analyzed (2): 04/03/10
Time Analyzed (1): 0029	Time Analyzed (2): 0029
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	QQ59LCSW1	QQ59LCSW1	04/03/10	04/03/10
02	CB31A032910C	QQ59A	04/03/10	04/03/10
03	CB4857032910	QQ59B	04/03/10	04/03/10
04	CB1032910COM	QQ59C	04/03/10	04/03/10
05	CB1032910COM	QQ59CMS	04/03/10	04/03/10
06	CB1032910COM	QQ59CMSD	04/03/10	04/03/10
07	CB100032910C	QQ59D	04/03/10	04/03/10

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: MB-033110
METHOD BLANK

Lab Sample ID: MB-033110

QC Report No: QQ59-Floyd/Snider

LIMS ID: 10-8214

Project: Lora Lakes Apartments

Matrix: Water

Data Release Authorized: *mmj*

Date Sampled: NA

Reported: 04/12/10

Date Received: NA

Date Extracted: 03/31/10

Sample Amount: 500 mL

Date Analyzed: 04/03/10 00:29

Final Extract Volume: 50 mL

Instrument/Analyst: ECD1/JGR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	75.6%
----------------------	-------

METALS ANALYSIS

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

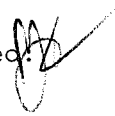
Page 1 of 1

Sample ID: CB31A032910COMP
SAMPLE

Lab Sample ID: QQ59A

LIMS ID: 10-8212

Matrix: Water

Data Release Authorized: 

Reported: 04/20/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Date Sampled: 03/29/10

Date Received: 03/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.2	0.6	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB4857032910COMP

SAMPLE

Lab Sample ID: QQ59B

QC Report No: QQ59-Floyd/Snider

LIMS ID: 10-8213

Project: Lora Lakes Apartments

Matrix: Water

Data Release Authorized: *[Signature]*

Date Sampled: 03/29/10

Reported: 04/20/10

Date Received: 03/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.2	0.6	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB1032910COMP
SAMPLE


Lab Sample ID: QQ59C

QC Report No: QQ59-Floyd/Snider

LIMS ID: 10-8214

Project: Lora Lakes Apartments

Matrix: Water

Data Release Authorized: 

Date Sampled: 03/29/10

Reported: 04/20/10


Date Received: 03/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB1032910COMP
DUPLICATE

Lab Sample ID: QQ59C
LIMS ID: 10-8214
Matrix: Water
Data Release Authorized: 
Reported: 04/20/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Date Sampled: 03/29/10
Date Received: 03/30/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: CB1032910COMP

MATRIX SPIKE


Lab Sample ID: QQ59C

QC Report No: QQ59-Floyd/Snider

LIMS ID: 10-8214

Project: Lora Lakes Apartments

Matrix: Water

Data Release Authorized: 

Date Sampled: 03/29/10

Reported: 04/20/10

Date Received: 03/30/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.500 U	25.3	25.0	101%	

Reported in µg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

NR-Not Recovered

Percent Recovery Limits: 75-125%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

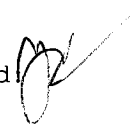
Page 1 of 1

Sample ID: CB100032910COMP
SAMPLE

Lab Sample ID: QQ59D

LIMS ID: 10-8215

Matrix: Water

Data Release Authorized 

Reported: 04/20/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Date Sampled: 03/29/10

Date Received: 03/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.2	0.8	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Sample ID: METHOD BLANK

Page 1 of 1


Lab Sample ID: QQ59MB

QC Report No: QQ59-Floyd/Snider

LIMS ID: 10-8212

Project: Lora Lakes Apartments

Matrix: Water

Data Release Authorized: 

Date Sampled: NA

Reported: 04/20/10

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.2	0.2	U

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: QQ59LCS

QC Report No: QQ59-Floyd/Snider

LIMS ID: 10-8212

Project: Lora Lakes Apartments

Matrix: Water

Data Release Authorized: 

Date Sampled: NA

Reported: 04/20/10

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	24.9	25.0	99.6%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1


Sample ID: CB31A032910COMP

SAMPLE

Lab Sample ID: QQ59E

LIMS ID: 10-8216

Matrix: Water

Data Release Authorized: 

Reported: 04/20/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Date Sampled: 03/29/10

Date Received: 03/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.2	0.4	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1


Sample ID: CB4857032910COMP

SAMPLE

Lab Sample ID: QQ59F

LIMS ID: 10-8217

Matrix: Water

Data Release Authorized 

Reported: 04/20/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Date Sampled: 03/29/10

Date Received: 03/30/10


Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB1032910COMP
SAMPLE

Lab Sample ID: QQ59G
LIMS ID: 10-8218
Matrix: Water
Data Release Authorized 
Reported: 04/20/10

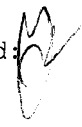
QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Date Sampled: 03/29/10
Date Received: 03/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB1032910COMP
 DUPLICATE

Lab Sample ID: QQ59G
 LIMS ID: 10-8218
 Matrix: Water
 Data Release Authorized: 
 Reported: 04/20/10

QC Report No: QQ59-Floyd/Snider
 Project: Lora Lakes Apartments
 Date Sampled: 03/29/10
 Date Received: 03/30/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L

Reported in µg/L

*-Control Limit Not Met
 L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Sample ID: CB1032910COMP

MATRIX SPIKE


Lab Sample ID: QQ59G

QC Report No: QQ59-Floyd/Snider

LIMS ID: 10-8218

Project: Lora Lakes Apartments

Matrix: Water

Data Release Authorized: 

Date Sampled: 03/29/10

Reported: 04/20/10

Date Received: 03/30/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.500 U	22.9	25.0	91.6%	

Reported in µg/L

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
DISSOLVED METALS
 Page 1 of 1

Sample ID: CB100032910COMP
SAMPLE

Lab Sample ID: QQ59H
 LIMS ID: 10-8219
 Matrix: Water
 Data Release Authorized: 
 Reported: 04/20/10


QC Report No: QQ59-Floyd/Snider
 Project: Lora Lakes Apartments
 Date Sampled: 03/29/10
 Date Received: 03/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.2	0.4	

U-Analyte undetected at given RL
 RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS**
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QQ59MB
LIMS ID: 10-8216
Matrix: Water
Data Release Authorized 
Reported: 04/20/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	04/02/10	200.8	04/19/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Sample ID: LAB CONTROL

Page 1 of 1


Lab Sample ID: QQ59LCS

QC Report No: QQ59-Floyd/Snider

LIMS ID: 10-8216

Project: Lora Lakes Apartments

Matrix: Water

Data Release Authorized: 

Date Sampled: NA

Reported: 04/20/10

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	23.6	25.0	94.4%	

Reported in µg/L


N-Control limit not met

Control Limits: 80-120%

GENERAL CHEMISTRY ANALYSIS

INORGANICS ANALYSIS DATA SHEET
Total Suspended Solids by Method EPA 160.2



Data Release Authorized: 
Reported: 04/02/10
Date Received: 03/30/10
Page 1 of 1

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments


Client/ ARI ID	Date Sampled	Matrix	Analysis Date & Batch	RL	Result
CB31A032910COMP QQ59A 10-8212	03/29/10	Water	03/31/10 14:32 033110#1	3.0	44.5
CB4857032910COMP QQ59B 10-8213	03/29/10	Water	03/31/10 14:32 033110#1	2.2	48.5
CB1032910COMP QQ59C 10-8214	03/29/10	Water	03/31/10 14:32 033110#1	1.0	15.4
CB100032910COMP QQ59D 10-8215	03/29/10	Water	03/31/10 14:32 033110#1	2.3	51.9

Reported in mg/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QQ59-Floyd/Snider




Matrix: Water
Data Release Authorized: 
Reported: 04/02/10

Project: Lora Lakes Apartments
Event: NA
Date Sampled: 03/29/10
Date Received: 03/30/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QQ59C Client ID: CB1032910COMP					
Total Suspended Solids	03/31/10	mg/L	15.4	15.3	0.7%

LAB CONTROL RESULTS-CONVENTIONALS
QQ59-Floyd/Snider




Matrix: Water
Data Release Authorized: 
Reported: 04/02/10

Project: Lora Lakes Apartments
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	LCS	Spike Added	Recovery
Total Suspended Solids	03/31/10 14:32	mg/L	49.2	50.0	98.4%

METHOD BLANK RESULTS-CONVENTIONALS
QQ59-Floyd/Snider



Matrix: Water
Data Release Authorized: 
Reported: 04/02/10

Project: Lora Lakes Apartments
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	Blank
Total Suspended Solids	03/31/10 14:32	mg/L	< 1.0 U

SUBCONTRACTED ANALYSIS

EPA Method 1613
PCDD/F



FAL ID: 6076-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.982		-	0.212				
1,2,3,7,8-PeCDD	ND	0.720		-	0.302				
1,2,3,4,7,8-HxCDD	ND	0.990		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.16		-	0.381	Total TCDD	ND	0.982	
1,2,3,7,8,9-HxCDD	ND	1.05		-	0.351	Total PeCDD	ND	0.720	
1,2,3,4,6,7,8-HpCDD	ND	1.53		-	0.495	Total HxCDD	ND	1.16	
OCDD	ND	2.95		-	1.02	Total HpCDD	ND	1.53	
2,3,7,8-TCDF	ND	0.445		-	0.112				
1,2,3,7,8-PeCDF	ND	0.658		-	0.219				
2,3,4,7,8-PeCDF	ND	0.712		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.612		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.634		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.639		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.696		-	0.185	Total TCDF	ND	0.445	
1,2,3,4,6,7,8-HpCDF	ND	0.866		-	0.251	Total PeCDF	ND	0.712	
1,2,3,4,7,8,9-HpCDF	ND	0.913		-	0.280	Total HxCDF	ND	0.696	
OCDF	ND	1.64		-	0.451	Total HpCDF	ND	0.913	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	83.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	81.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.4	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	79.1	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	75.4	23.0 - 140	
13C-OCDD	77.0	17.0 - 157	
13C-2,3,7,8-TCDF	82.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	79.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	81.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	77.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	76.5	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	79.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	80.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	75.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	79.9	26.0 - 138	
13C-OCDF	79.6	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 85.4 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: 4/15/10

Reviewed By: DN
Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: ng/ml

Acquired: 04-14-2010
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	49.8	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	51.1	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	50.2	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	51.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.2	35.0 - 70.0	
OCDD	103	78.0 - 144	
2,3,7,8-TCDF	9.48	7.50 - 15.8	
1,2,3,7,8-PeCDF	50.4	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.2	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	50.6	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50.7	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	50.2	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	50.7	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	50.6	39.0 - 69.0	
OCDF	101	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	79.9	20.0 - 175	
13C-1,2,3,7,8-PeCDD	73.9	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	68.6	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	69.1	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	66.9	26.0 - 166	
13C-OCDD	68.2	13.0 - 198	
13C-2,3,7,8-TCDF	80.6	22.0 - 152	
13C-1,2,3,7,8-PeCDF	70.8	21.0 - 192	
13C-2,3,4,7,8-PeCDF	73.8	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	68.1	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	68.2	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	70.2	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	71.7	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	64.4	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	70.5	20.0 - 186	
13C-OCDF	70.6	13.0 - 198	

- 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	95.5	31.0 - 191	
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Analyst:

Date: 4/15/10

Reviewed By: DN

Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-001-SA
Client ID: CB31A032910COMP
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: 04-01-2010
Amount: 1.041 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 30.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.09		-	0.212				
1,2,3,7,8-PeCDD	3.70	-	J	3.70	0.302				
1,2,3,4,7,8-HxCDD	9.09	-	J	0.909	0.328				
1,2,3,6,7,8-HxCDD	26.3	-		2.63	0.381	Total TCDD	ND	1.09	
1,2,3,7,8,9-HxCDD	17.4	-	J	1.74	0.351	Total PeCDD	12.3	-	J
1,2,3,4,6,7,8-HpCDD	897	-		8.97	0.495	Total HxCDD	134	-	
OCDD	10800	-		3.24	1.02	Total HpCDD	1500	-	
2,3,7,8-TCDF	ND	0.549		-	0.112				
1,2,3,7,8-PeCDF	ND	1.54		-	0.219				
2,3,4,7,8-PeCDF	2.23	-	J	0.669	0.232				
1,2,3,4,7,8-HxCDF	32.5	-		3.25	0.162				
1,2,3,6,7,8-HxCDF	16.0	-	J	1.60	0.167	Total TCDF	34.0	-	D,M
2,3,4,6,7,8-HxCDF	11.4	-	J	1.14	0.167	Total PeCDF	94.8	-	D,M
1,2,3,7,8,9-HxCDF	3.06	-	J	0.306	0.185	Total HxCDF	442	-	D,M
1,2,3,4,6,7,8-HpCDF	202	-		2.02	0.251	Total HpCDF	656	-	
1,2,3,4,7,8,9-HpCDF	17.9	-	J	0.179	0.280				
OCDF	578	-		0.173	0.451				

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	92.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	95.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	91.5	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	90.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	96.8	23.0 - 140	
13C-OCDD	97.7	17.0 - 157	
13C-2,3,7,8-TCDF	90.0	24.0 - 169	
13C-1,2,3,7,8-PeCDF	97.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	97.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	85.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	86.6	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	90.3	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	93.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	89.4	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	95.2	26.0 - 138	
13C-OCDF	94.8	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 99.3 35.0 - 197

Analyst: [Signature]

Date: 4/15/10

Reviewed By: DPJ

Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-002-SA
Client ID: CB4857032910COMP
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: 04-01-2010
Amount: 1.029 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 29.2

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.18		-	0.212				
1,2,3,7,8-PeCDD	3.85	-	J	3.85	0.302				
1,2,3,4,7,8-HxCDD	9.07	-	J	0.907	0.328				
1,2,3,6,7,8-HxCDD	24.6	-		2.46	0.381	Total TCDD	ND	1.18	
1,2,3,7,8,9-HxCDD	16.4	-	J	1.64	0.351	Total PeCDD	12.4	-	J
1,2,3,4,6,7,8-HpCDD	855	-		8.55	0.495	Total HxCDD	133	-	
OCDD	10900	-		3.27	1.02	Total HpCDD	1460	-	
2,3,7,8-TCDF	ND	0.654		-	0.112				
1,2,3,7,8-PeCDF	ND	1.36		-	0.219				
2,3,4,7,8-PeCDF	1.89	-	J	0.567	0.232				
1,2,3,4,7,8-HxCDF	28.7	-		2.87	0.162				
1,2,3,6,7,8-HxCDF	14.5	-	J	1.45	0.167				
2,3,4,6,7,8-HxCDF	10.9	-	J	1.09	0.167				
1,2,3,7,8,9-HxCDF	3.26	-	J	0.326	0.185	Total TCDF	29.5	-	D,M
1,2,3,4,6,7,8-HpCDF	186	-		1.86	0.251	Total PeCDF	85.1	-	D,M
1,2,3,4,7,8,9-HpCDF	16.8	-	J	0.168	0.280	Total HxCDF	396	-	D,M
OCDF	500	-		0.150	0.451	Total HpCDF	590	-	

Internal Standards	% Rec.	QC Limits	Qual
13C-2,3,7,8-TCDD	85.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	82.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	83.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	80.8	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	86.9	23.0 - 140	
13C-OCDD	92.1	17.0 - 157	
13C-2,3,7,8-TCDF	89.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	89.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	90.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	78.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	78.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	86.2	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	81.7	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	87.9	26.0 - 138	
13C-OCDF	88.1	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 86.5 35.0 - 197

Analyst: [Signature]
Date: 4/15/10

Reviewed By: [Signature]
Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-003-SA
Client ID: CB1032910COMP
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: 04-01-2010
Amount: 1.023 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 0.375

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.888		-	0.212				
1,2,3,7,8-PeCDD	ND	0.889		-	0.302				
1,2,3,4,7,8-HxCDD	ND	1.53		-	0.328				
1,2,3,6,7,8-HxCDD	ND	1.79		-	0.381	Total TCDD	ND	0.888	
1,2,3,7,8,9-HxCDD	ND	1.62		-	0.351	Total PeCDD	ND	0.889	
1,2,3,4,6,7,8-HpCDD	26.0	-		0.260	0.495	Total HxCDD	8.32	-	J
OCDD	196	-		0.0588	1.02	Total HpCDD	52.9	-	
2,3,7,8-TCDF	ND	0.859		-	0.112				
1,2,3,7,8-PeCDF	ND	0.498		-	0.219				
2,3,4,7,8-PeCDF	ND	0.489		-	0.232				
1,2,3,4,7,8-HxCDF	ND	0.771		-	0.162				
1,2,3,6,7,8-HxCDF	ND	0.785		-	0.167				
2,3,4,6,7,8-HxCDF	ND	0.820		-	0.167				
1,2,3,7,8,9-HxCDF	ND	0.838		-	0.185	Total TCDF	ND	0.859	
1,2,3,4,6,7,8-HpCDF	5.20	-	J	0.0520	0.251	Total PeCDF	ND	1.53	
1,2,3,4,7,8,9-HpCDF	ND	0.650		-	0.280	Total HxCDF	6.84	-	J
OCDF	13.1	-	J	0.00393	0.451	Total HpCDF	12.4	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	91.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	85.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	84.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	82.6	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	85.5	23.0 - 140	
13C-OCDD	83.3	17.0 - 157	
13C-2,3,7,8-TCDF	88.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	89.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	89.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	81.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	85.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	81.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.4	26.0 - 138	
13C-OCDF	84.8	17.0 - 157	

Cleanup Surrogate

37Cl-2,3,7,8-TCDD 88.5 35.0 - 197

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

Analyst: [Signature]

Date: 4/15/10

Reviewed By: BN

Date: 4/15/10

EPA Method 1613
PCDD/F



FAL ID: 6076-004-SA
Client ID: CB100032910COMP
Matrix: Aqueous
Batch No: X1987

Date Extracted: 04-13-2010
Date Received: 04-01-2010
Amount: 1.028 L

ICal: PCDDFAL3-4-14-10
GC Column: DB5
Units: pg/L

Acquired: 04-14-2010
2005 WHO TEQ: 36.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	1.22		-	0.212				
1,2,3,7,8-PeCDD	5.83	-	J	5.83	0.302				
1,2,3,4,7,8-HxCDD	11.1	-	J	1.11	0.328				
1,2,3,6,7,8-HxCDD	32.0	-		3.20	0.381	Total TCDD	ND	1.22	
1,2,3,7,8,9-HxCDD	21.4	-	J	2.14	0.351	Total PeCDD	16.2	-	J
1,2,3,4,6,7,8-HpCDD	1030	-		10.3	0.495	Total HxCDD	170	-	
OCDD	9960	-		2.99	1.02	Total HpCDD	1730	-	
2,3,7,8-TCDF	ND	0.588		-	0.112				
1,2,3,7,8-PeCDF	1.90	-	J	0.0570	0.219				
2,3,4,7,8-PeCDF	3.14	-	J	0.942	0.232				
1,2,3,4,7,8-HxCDF	38.1	-		3.81	0.162				
1,2,3,6,7,8-HxCDF	16.3	-	J	1.63	0.167				
2,3,4,6,7,8-HxCDF	14.4	-	J	1.44	0.167				
1,2,3,7,8,9-HxCDF	3.67	-	J	0.367	0.185	Total TCDF	35.8	-	D,M
1,2,3,4,6,7,8-HpCDF	231	-		2.31	0.251	Total PeCDF	105	-	D,M
1,2,3,4,7,8,9-HpCDF	20.8	-	J	0.208	0.280	Total HxCDF	488	-	D,M
OCDF	642	-		0.193	0.451	Total HpCDF	733	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.8	25.0 - 164	
13C-1,2,3,7,8-PeCDD	83.5	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	85.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	80.2	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	85.0	23.0 - 140	
13C-OCDD	89.2	17.0 - 157	
13C-2,3,7,8-TCDF	87.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	86.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	86.3	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	80.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	79.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.6	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	84.2	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	80.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.6	26.0 - 138	
13C-OCDF	85.5	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 94.0 35.0 - 197

Analyst: [Signature]
Date: 4/15/10

Reviewed By: DN
Date: 4/15/10

Laboratory Data Package

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.

SIM Semivolatile Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
CB31A032910COMP	58.3%	44.0%	0
CB4857032910COMP	62.7%	46.0%	0
MB-040110	58.3%	69.0%	0
LCS-040110	67.3%	90.3%	0
CB1032910COMP	60.7%	65.7%	0
CB1032910COMP MS	58.0%	60.0%	0
CB1032910COMP MSD	59.7%	49.7%	0
CB100032910COMP	56.7%	43.0%	0

	LCS/MB LIMITS	QC LIMITS
(MNP) = d10-2-Methylnaphthalene	(42-100)	(31-109)
(DBA) = d14-Dibenzo(a,h)anthracene	(40-125)	(10-133)

Prep Method: SW3520C
Log Number Range: 10-8212 to 10-8215

ORGANICS ANALYSIS DATA SHEET

PNA's by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: CB1032910COMP

MATRIX SPIKE

Lab Sample ID: QQ59C

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized:

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted MS/MSD: 04/01/10

Sample Amount MS: 475 mL

MSD: 475 mL

Date Analyzed MS: 04/06/10 19:43

Final Extract Volume MS: 0.50 mL

MSD: 04/06/10 20:08

MSD: 0.50 mL

Instrument/Analyst MS: NT2/PK

Dilution Factor MS: 1.00

MSD: NT2/PK

MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	< 0.0100 U	0.179	0.316	56.6%	0.171	0.316	54.1%	4.6%
2-Methylnaphthalene	< 0.0100 U	0.186	0.316	58.9%	0.179	0.316	56.6%	3.8%
1-Methylnaphthalene	< 0.0100 U	0.182	0.316	57.6%	0.184	0.316	58.2%	1.1%
Acenaphthylene	< 0.0100 U	0.206	0.316	65.2%	0.217	0.316	68.7%	5.2%
Acenaphthene	< 0.0100 U	0.209	0.316	66.1%	0.221	0.316	69.9%	5.6%
Fluorene	< 0.0100 U	0.224	0.316	70.9%	0.242	0.316	76.6%	7.7%
Phenanthrene	< 0.0100 U	0.247	0.316	78.2%	0.267	0.316	84.5%	7.8%
Anthracene	< 0.0100 U	0.235	0.316	74.4%	0.253	0.316	80.1%	7.4%
Fluoranthene	< 0.0100 U	0.253	0.316	80.1%	0.280	0.316	88.6%	10.1%
Pyrene	< 0.0100 U	0.249	0.316	78.8%	0.276	0.316	87.3%	10.3%
Benzo(a)anthracene	< 0.0100 U	0.254	0.316	80.4%	0.253	0.316	80.1%	0.4%
Chrysene	< 0.0100 U	0.253	0.316	80.1%	0.272	0.316	86.1%	7.2%
Benzo(b)fluoranthene	< 0.0100 U	0.220	0.316	69.6%	0.201	0.316	63.6%	9.0%
Benzo(k)fluoranthene	< 0.0100 U	0.204	0.316	64.6%	0.191	0.316	60.4%	6.6%
Benzo(a)pyrene	< 0.0100 U	0.202	0.316	63.9%	0.193	0.316	61.1%	4.6%
Indeno(1,2,3-cd)pyrene	< 0.0100 U	0.177	0.316	56.0%	0.150	0.316	47.5%	16.5%
Dibenz(a,h)anthracene	< 0.0100 U	0.185	0.316	58.5%	0.150	0.316	47.5%	20.9%
Benzo(g,h,i)perylene	< 0.0100 U	0.182	0.316	57.6%	0.156	0.316	49.4%	15.4%
Dibenzofuran	< 0.0100 U	0.228	0.316	72.2%	0.241	0.316	76.3%	5.5%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-040110

LAB CONTROL SAMPLE

Lab Sample ID: LCS-040110

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: *AS*

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 04/01/10

Date Analyzed LCS: 04/06/10 18:05

Instrument/Analyst LCS: NT2/PK

Sample Amount LCS: 500 mL

Final Extract Volume LCS: 0.50 mL

Dilution Factor LCS: 1.00

Analyte	LCS	Spike Added	Recovery
Naphthalene	0.186	0.300	62.0%
2-Methylnaphthalene	0.196	0.300	65.3%
1-Methylnaphthalene	0.197	0.300	65.7%
Acenaphthylene	0.211	0.300	70.3%
Acenaphthene	0.221	0.300	73.7%
Fluorene	0.239	0.300	79.7%
Phenanthrene	0.257	0.300	85.7%
Anthracene	0.210	0.300	70.0%
Fluoranthene	0.270	0.300	90.0%
Pyrene	0.233	0.300	77.7%
Benzo(a)anthracene	0.245	0.300	81.7%
Chrysene	0.270	0.300	90.0%
Benzo(b)fluoranthene	0.259	0.300	86.3%
Benzo(k)fluoranthene	0.265	0.300	88.3%
Benzo(a)pyrene	0.240	0.300	80.0%
Indeno(1,2,3-cd)pyrene	0.266	0.300	88.7%
Dibenz(a,h)anthracene	0.276	0.300	92.0%
Benzo(g,h,i)perylene	0.263	0.300	87.7%
Dibenzofuran	0.245	0.300	81.7%

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	67.3%
d14-Dibenzo(a,h)anthracene	90.3%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QQ59MBW1

Lab Name: ANALYTICAL RESOURCES, INC
ARI Job No: QQ59
Lab File ID: 040601
Instrument ID: NT2
Matrix: LIQUID

Client: FLOYD/SNIDER
Project: LORA LAKES APARTMENT
Date Extracted: 04/01/10
Date Analyzed: 04/06/10
Time Analyzed: 1741

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	QQ59LCSW1	QQ59LCSW1	040602	04/06/10
02	CB31A032910COMP	QQ59A	040603	04/06/10
03	CB4857032910COMP	QQ59B	040604	04/06/10
04	CB1032910COMP	QQ59C	040605	04/06/10
05	CB1032910COMP MS	QQ59CMS	040606	04/06/10
06	CB1032910COMP MS	QQ59CMSD	040607	04/06/10
07	CB100032910COMP	QQ59D	040608	04/06/10
08				
09				
10				
11				
12				
13				
14				
15				
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25				
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27				
28				
29				
30				

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC

Client: SLOYD/SNIDER

Instrument ID: NT2

Project: LORA LAKES APARTMENT

DFTPP Injection Date: 04/06/10

DFTPP Injection Time: 1359

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	64.8
68	Less than 2.0% of mass 69	0.6 (0.8)1
69	Mass 69 relative abundance	78.4
70	Less than 2.0% of mass 69	0.5 (0.7)1
127	10.0 - 80.0% of mass 198	65.3
197	Less than 2.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 60.0% of mass 198	23.7
365	Greater than 1.0% of mass 198	4.58
441	0.0 - 24.0% of mass 442	9.6 (13.3)2
442	50.0 - 200.0% of mass 198	71.9
443	15.0 - 24.0% of mass 442	13.6 (19.0)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		PNA 250	IC040601	04/06/10	1424
02		PNA 1000	IC040603	04/06/10	1514
03		PNA 50	IC040604	04/06/10	1538
04		PNA 500	IC040605	04/06/10	1603
05		PNA 100	IC040606	04/06/10	1627
06		PNA 10	IC040607	04/06/10	1652
07	QQ59MBW1	QQ59MBW1	040601	04/06/10	1741
08	QQ59LCSW1	QQ59LCSW1	040602	04/06/10	1805
09	CB31A032910COMP	QQ59A	040603	04/06/10	1830
10	CB4857032910COMP	QQ59B	040604	04/06/10	1854
11	CB1032910COMP	QQ59C	040605	04/06/10	1919
12	CB1032910COMP MS	QQ59CMS	040606	04/06/10	1943
13	CB1032910COMP MS	QQ59CMSD	040607	04/06/10	2008
14	CB100032910COMP	QQ59D	040608	04/06/10	2033
15					
16					
17					
18					
19					
20					
21					
22					

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC

Client: SLOYD/SNIDER

ARI Job No: QQ59

Project: LORA LAKES APARTMENT

Ical Midpoint ID: IC040601

Ical Date: 04/06/10

Instrument ID: NT2

Cont. Cal Date: 04/06/10

	IS1 (NPT) AREA #	RT #	IS2 (ANT) AREA #	RT #	IS3 (PHN) AREA #	RT #
ICAL MIDPT	120808	6.63	72668	8.83	112603	10.65
UPPER LIMIT	241616		145336		225206	
LOWER LIMIT	60404		36334		56302	
CCAL	120808	6.63	72668	8.83	112603	10.65
UPPER LIMIT		7.13		9.33		11.15
LOWER LIMIT		6.13		8.33		10.15
01 QQ59MBW1	120433	6.63	65049	8.82	94000	10.63
02 QQ59LCSW1	116104	6.63	62535	8.82	88946	10.63
03 CB31A032910C	118060	6.63	63953	8.82	91404	10.63
04 CB4857032910	119671	6.64	65242	8.82	93212	10.63
05 CB1032910COM	119448	6.63	65127	8.83	93812	10.63
06 CB1032910COM	117118	6.63	64035	8.82	93403	10.63
07 CB1032910COM	117675	6.63	63340	8.82	92362	10.63
08 CB100032910C	117582	6.64	63208	8.82	92068	10.63
09						
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IS1 = Naphthalene-d8
IS2 = Acenaphthene-d10
IS3 = Phenanthrene-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: SLOYD/SNIDER

ARI Job No: QQ59

Project: LORA LAKES APARTMENT

Ical Midpoint ID: IC040601

Ical Date: 04/06/10

Instrument ID: NT2

Cont. Cal Date: 04/06/10

	IS4 (CRY) AREA #	RT #	IS5 (PRY) AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
ICAL MIDPT	101702	13.91	87112	15.60		
UPPER LIMIT	203404		174224			
LOWER LIMIT	50851		43556			
=====	=====	=====	=====	=====	=====	=====
CCAL	101702	13.91	87112	15.60		
UPPER LIMIT		14.41		16.10		
LOWER LIMIT		13.41		15.10		
01 QQ59MBW1	72845	13.90	69772	15.59		
02 QQ59LCSW1	72936	13.90	69164	15.60		
03 CB31A032910C	66602	13.91	63422	15.60		
04 CB4857032910	69641	13.91	67328	15.60		
05 CB1032910COM	71172	13.91	66808	15.60		
06 CB1032910COM	68447	13.90	65246	15.60		
07 CB1032910COM	71484	13.91	69033	15.60		
08 CB100032910C	66940	13.90	65541	15.60		
09						
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IS4 = Chrysene-d12
IS5 = 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.

SIM Semivolatile Analysis
Sample Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: CB31A032910COMP

SAMPLE

Lab Sample ID: QQ59A

LIMS ID: 10-8212

Matrix: Water

Data Release Authorized: 

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 18:30

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.014
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.036
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.059
129-00-0	Pyrene	0.010	0.062
56-55-3	Benzo (a) anthracene	0.010	0.014
218-01-9	Chrysene	0.010	0.038
205-99-2	Benzo (b) fluoranthene	0.010	0.019
207-08-9	Benzo (k) fluoranthene	0.010	0.019
50-32-8	Benzo (a) pyrene	0.010	0.015
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.014
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.027
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in $\mu\text{g/L}$ (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 58.3%
d14-Dibenzo (a,h) anthracene 44.0%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/040603.d
 Lab Smp Id: QQ59A Client Smp ID: CB31A032910COMP
 Inj Date : 06-APR-2010 18:30
 Operator : VTS Inst ID: nt2.i
 Smp Info : QQ59A
 Misc Info : 10-8212
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 10:26 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnalmn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.634	6.635	(1.000)	118060	200.000		
5 Naphthalene	128	6.665	6.666	(1.005)	9095	13.5097	13.5	
\$ 6 2-Methylnaphthalene-d10	152	7.480	7.481	(1.128)	70446	174.850	175	
7 2-Methylnaphthalene	142	7.511	7.512	(1.132)	2881	6.91064	6.91 (M)	
8 1-Methylnaphthalene	142				Compound Not Detected.			
10 Acenaphthylene	152				Compound Not Detected.			
* 11 Acenaphthene-d10	164	8.820	8.833	(1.000)	63953	200.000		
12 Acenaphthene	153				Compound Not Detected.			
14 Dibenzofuran	168				Compound Not Detected.			
15 Fluorene	166				Compound Not Detected.			
* 18 Phenanthrene-d10	188	10.632	10.647	(1.000)	91404	200.000		
19 Phenanthrene	178	10.663	10.662	(1.003)	20738	35.4956	35.5	
20 Anthracene	178				Compound Not Detected.			
24 Fluoranthene	202	12.125	12.136	(1.140)	36247	59.4389	59.4	
25 Pyrene	202	12.411	12.410	(1.167)	38234	61.8963	61.9	

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	6112	14.3972	14.4
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	66602	200.000	
30 Chrysene	228	13.936	13.946	(1.002)	15722	37.6583	37.7
32 Benzo(b)fluoranthene	252	15.148	15.147	(0.971)	18302	40.8317	40.8
33 Benzo(k)fluoranthene	252	15.148	15.170	(0.971)	18302	34.2412	34.2
34 Benzo(a)pyrene	252	15.527	15.526	(0.996)	5397	15.0712	15.1
* 35 Perylene-d12	264	15.597	15.603	(1.000)	63422	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.145	(1.098)	5756	14.0557	14.1
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.105	(1.096)	32231	132.240	132
38 Dibenzo(a,h)anthracene	278	17.144	17.145	(1.099)	2024	6.28998	6.29
39 Benzo(g,h,i)perylene	276	17.576	17.590	(1.127)	9554	27.0634	27.1

18.8

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 040603.d
 Lab Smp Id: QQ59A
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info: 10-8212

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Client Smp ID: CB31A032910COMP
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	118060	-2.27
11 Acenaphthene-d10	72668	36334	145336	63953	-11.99
18 Phenanthrene-d10	112603	56302	225206	91404	18.83
29 Chrysene-d12	101702	50851	203404	66602	-34.51
35 Perylene-d12	87112	43556	174224	63422	-27.19

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	-0.01
11 Acenaphthene-d10	8.83	8.33	9.33	8.82	-0.15
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	-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.

Analytical Resources, Inc.

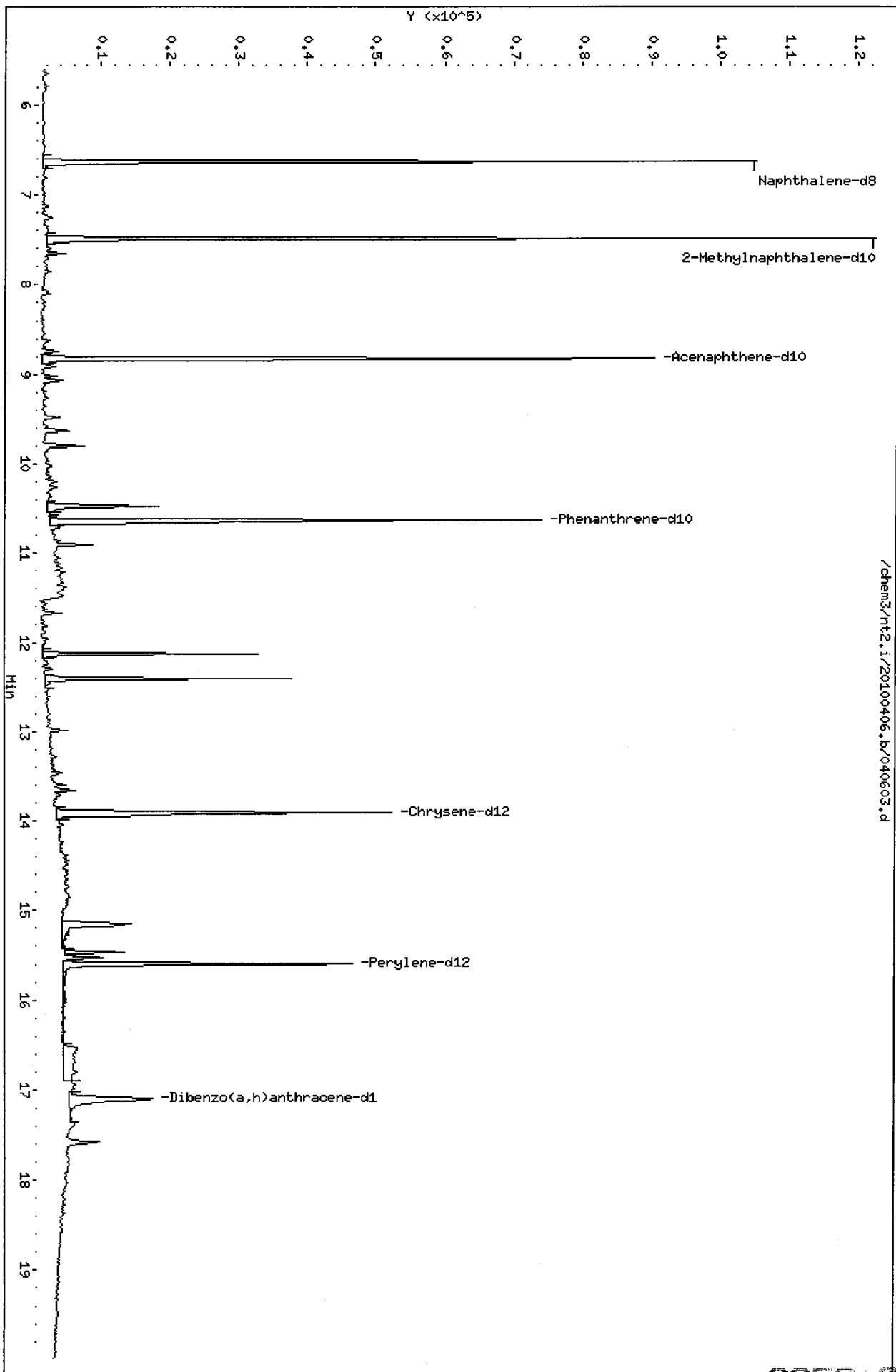
RECOVERY REPORT

Client Name: Floyd/Snider	Client SDG: QQ59
Sample Matrix: LIQUID	Fraction: SV
Lab Smp Id: QQ59A	Client Smp ID: CB31A032910COMP
Level: LOW	Operator: VTS
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File: waterlcs.spk	Quant Type: ISTD
Sublist File: pnalmn.sub	
Method File: /chem3/nt2.i/20100406.b/lowsim.m	
Misc Info: 10-8212	

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	175	58.28	31-109
\$ 36 Dibenzo(a,h) anthra	300	132	44.08	10-133

Data File: /chem3/nt2.1/20100406.b/040603.d
Date: 06-APR-2010 18:30
Client ID: CB31A0329100COMP
Sample Info: Q059A
Volume Injected (µL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25



0059:00087

Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: Q059A

Volume Injected (uL): 2.0

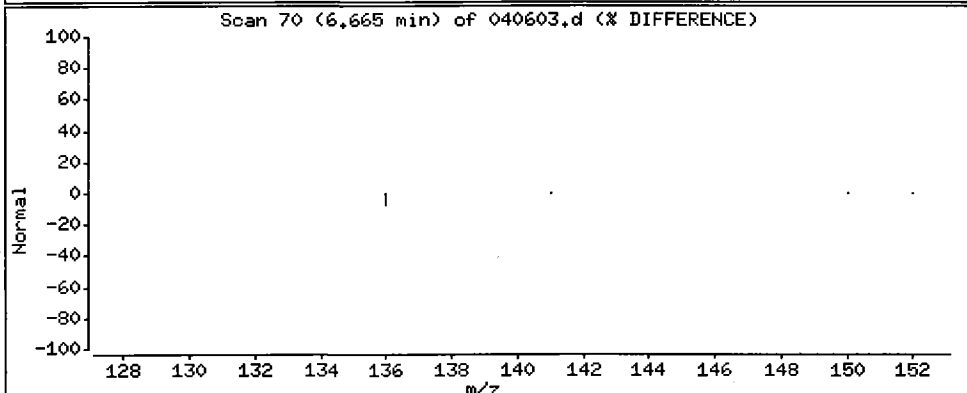
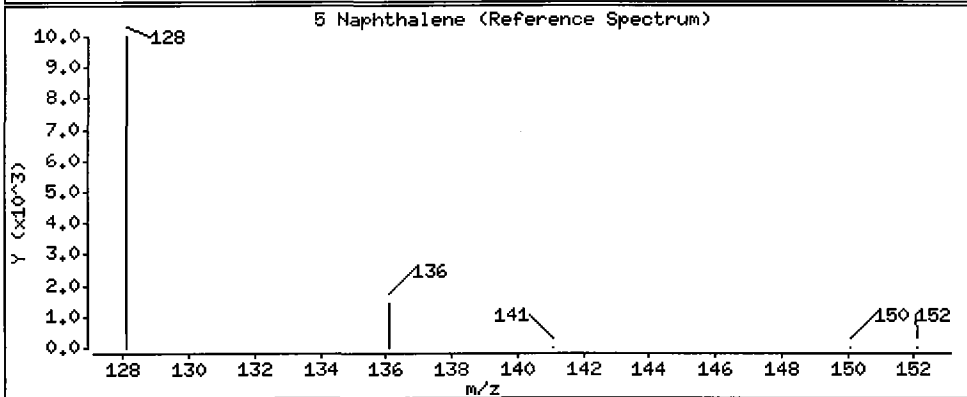
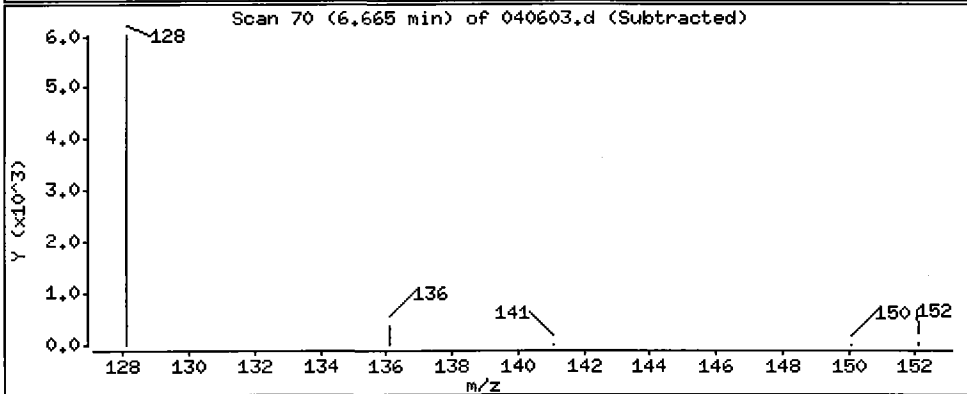
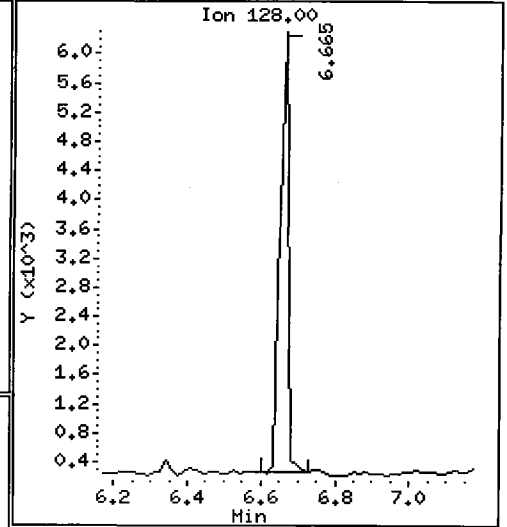
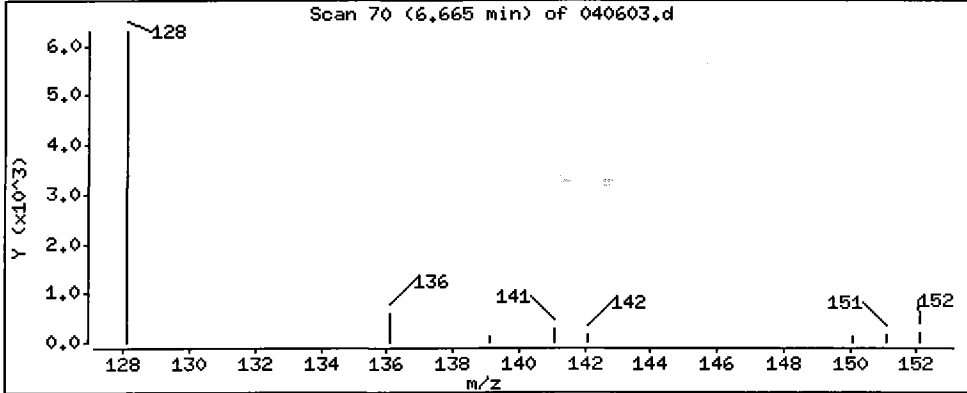
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

5 Naphthalene

Concentration: 13.5 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

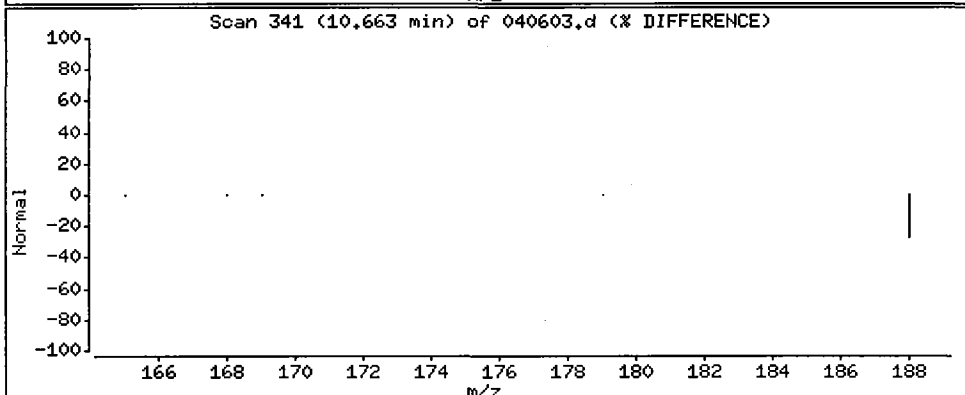
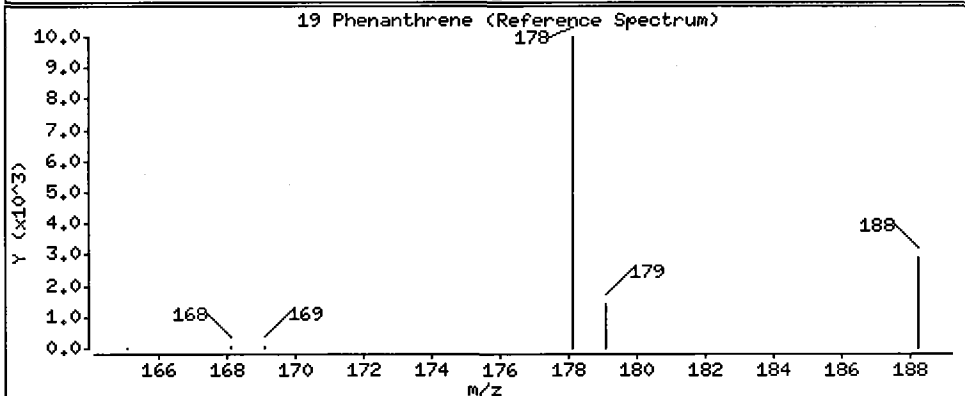
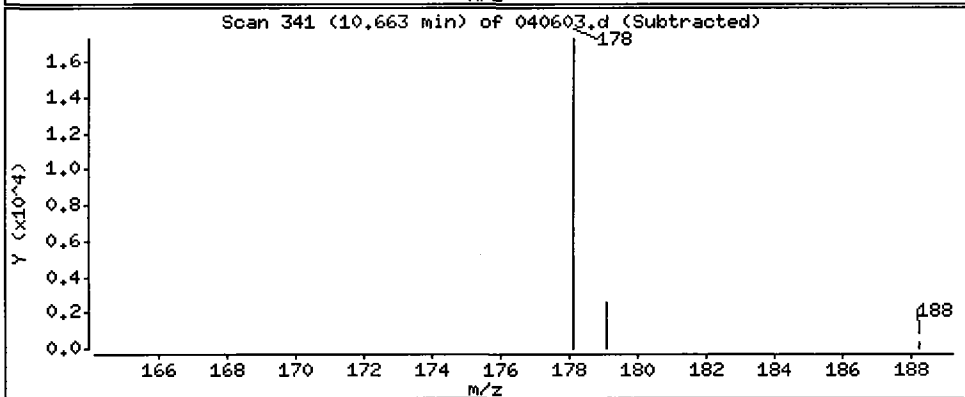
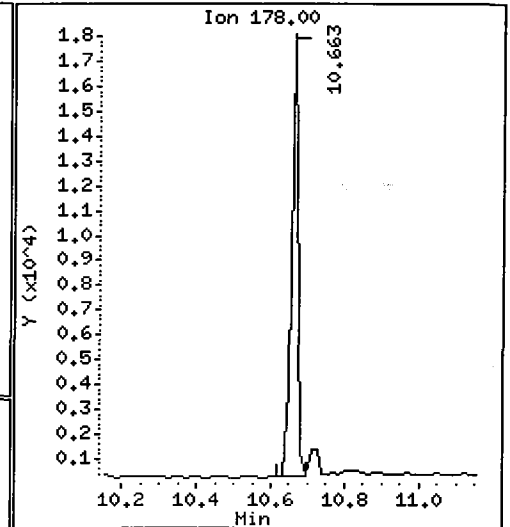
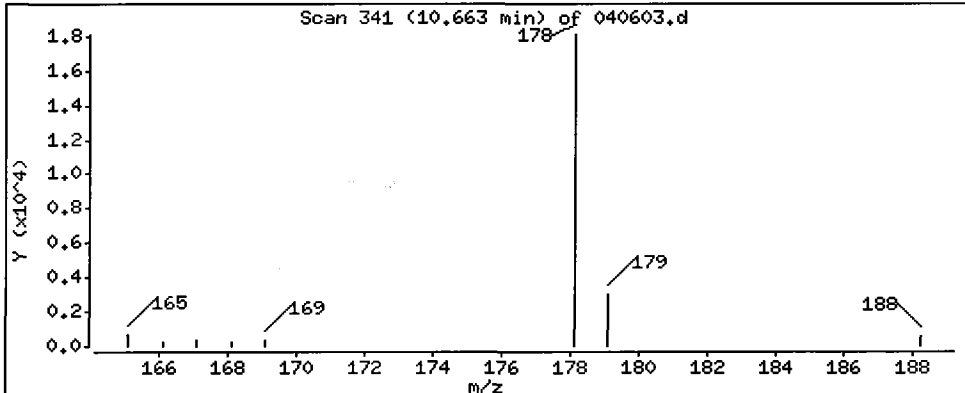
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

19 Phenanthrene

Concentration: 35.5 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

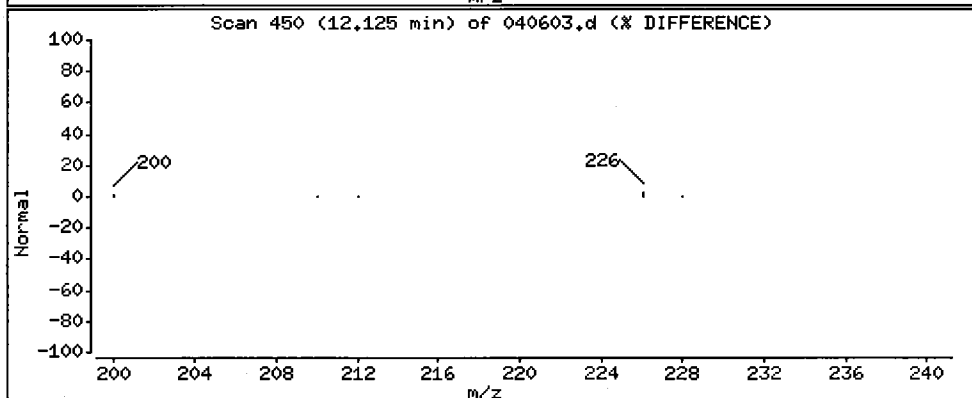
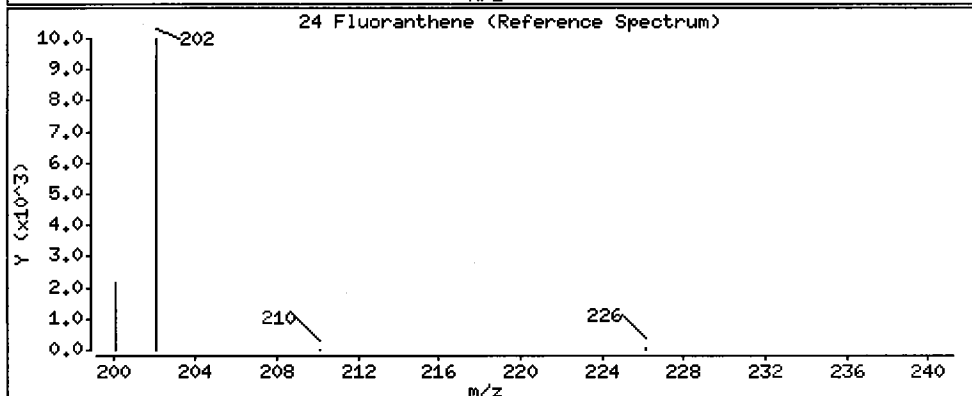
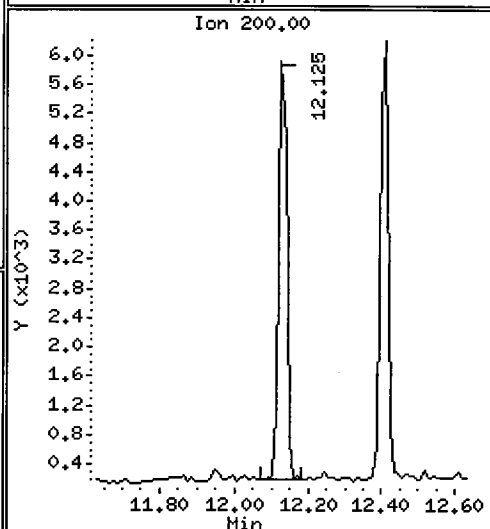
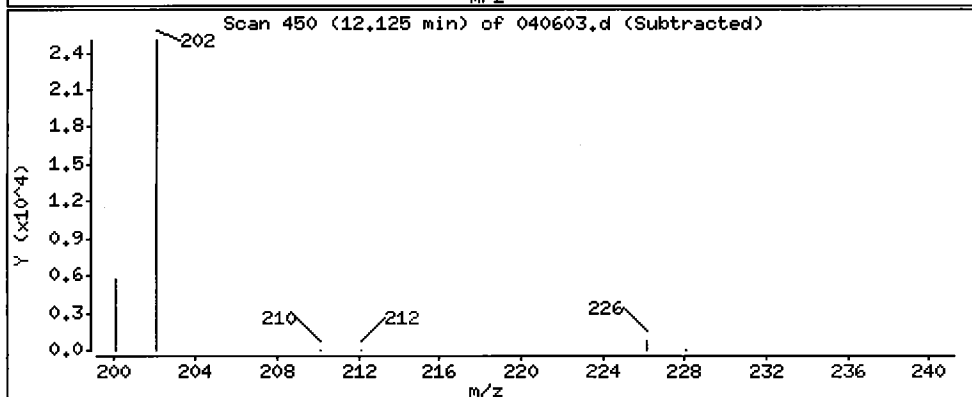
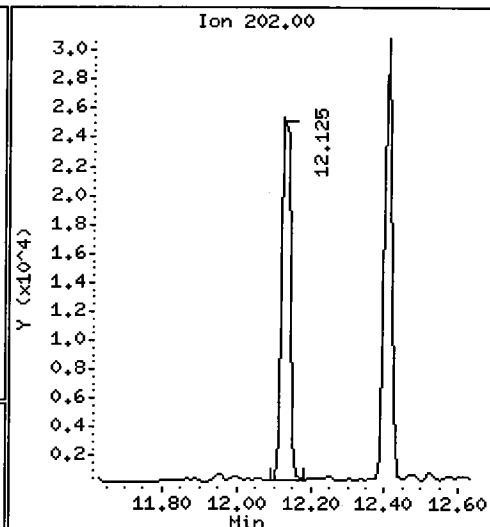
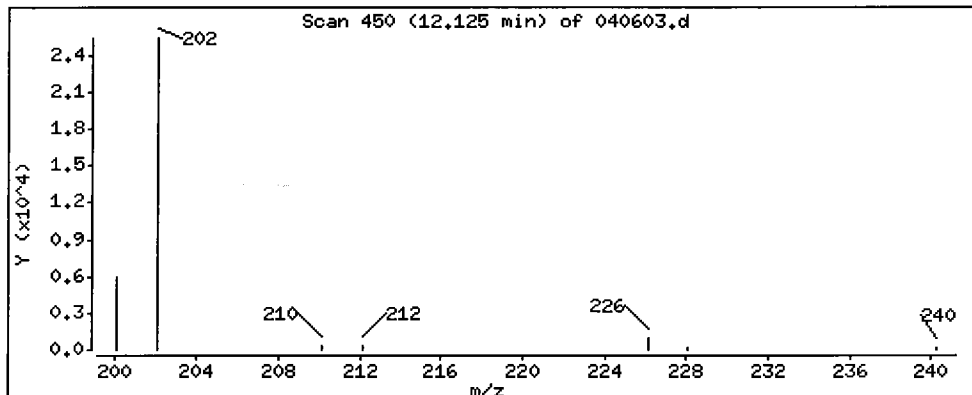
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

24 Fluoranthene

Concentration: 59.4 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

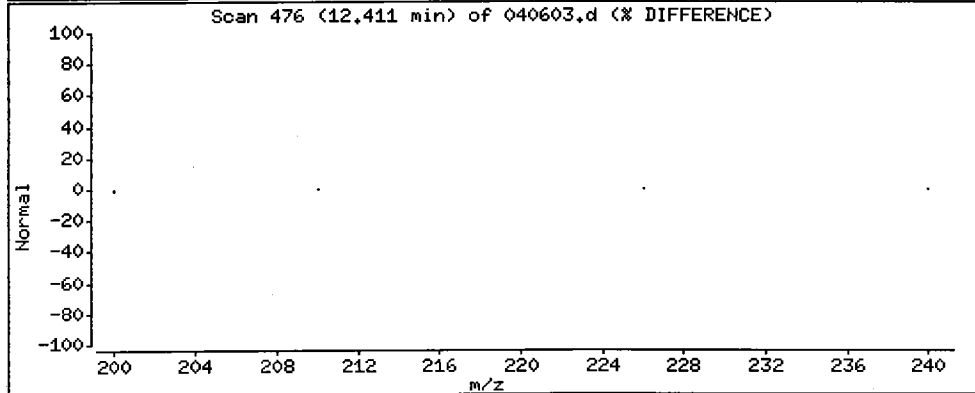
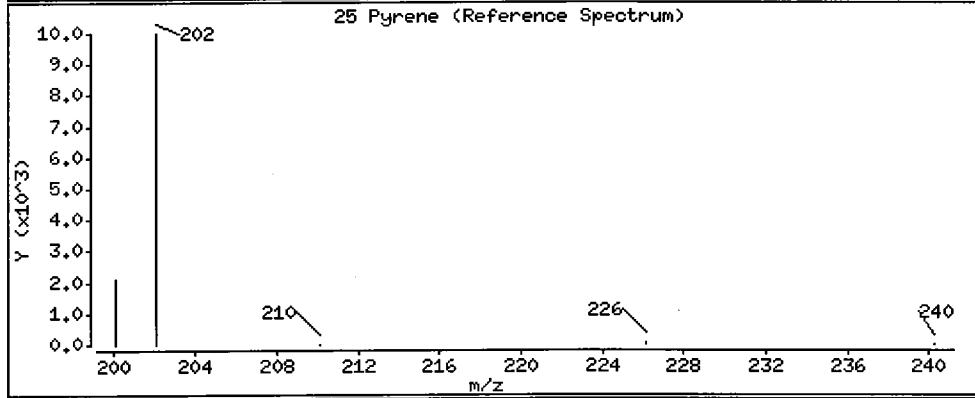
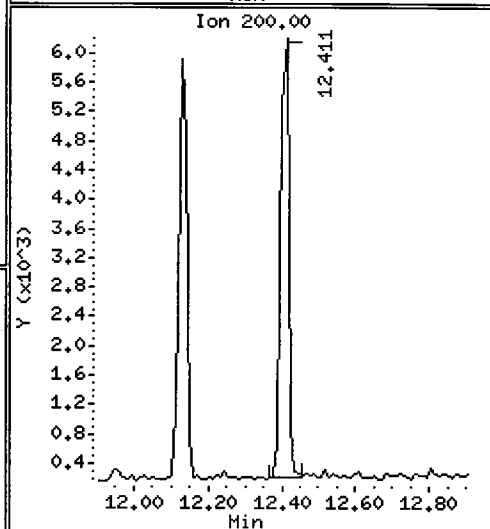
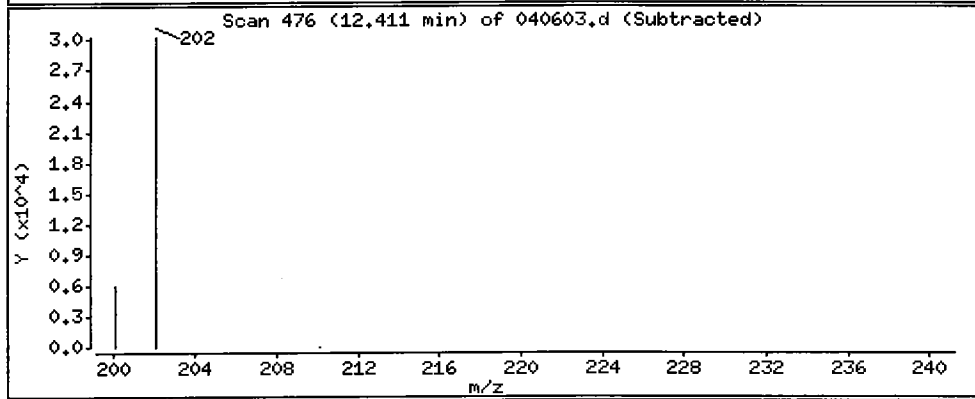
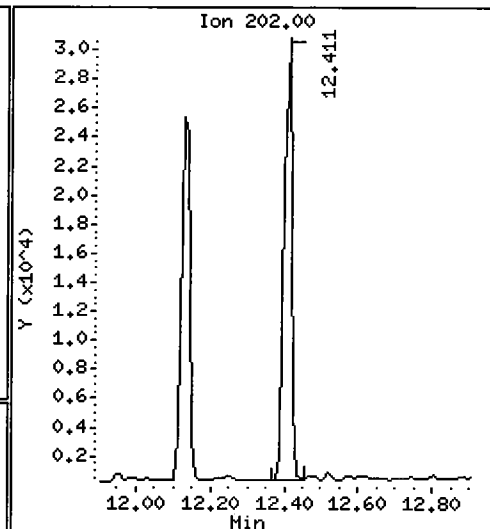
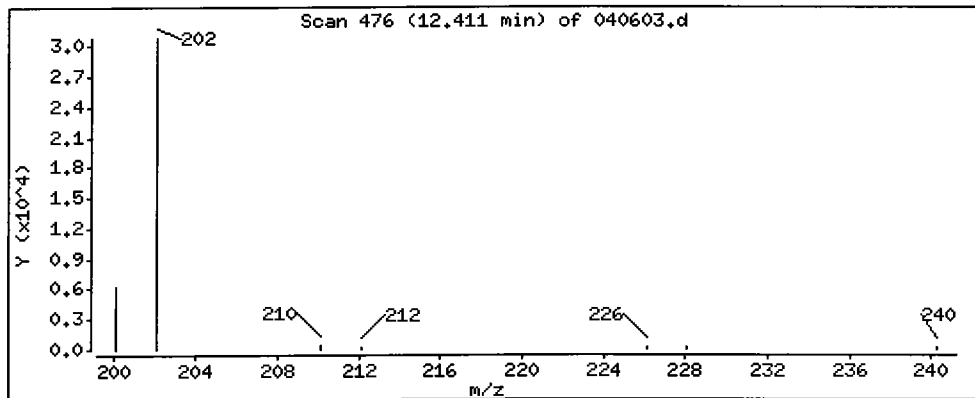
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

25 Pyrene

Concentration: 61.9 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

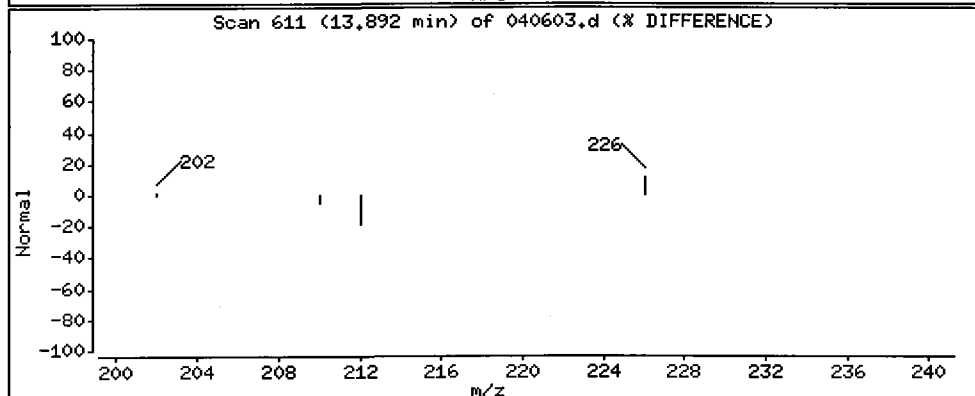
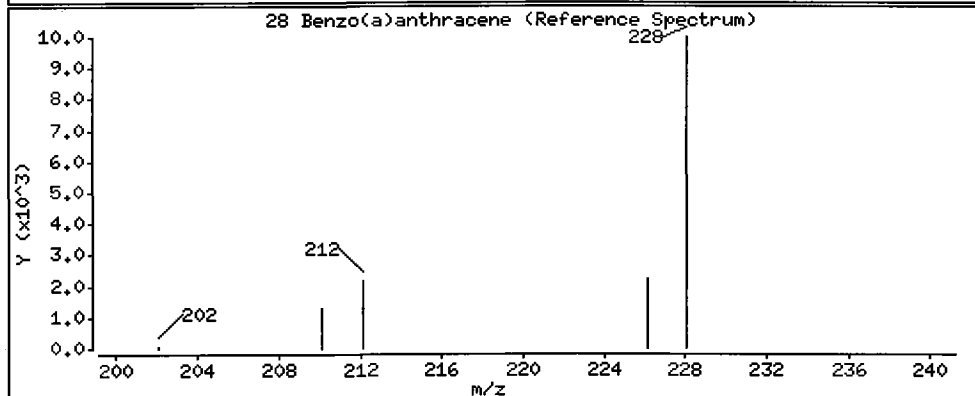
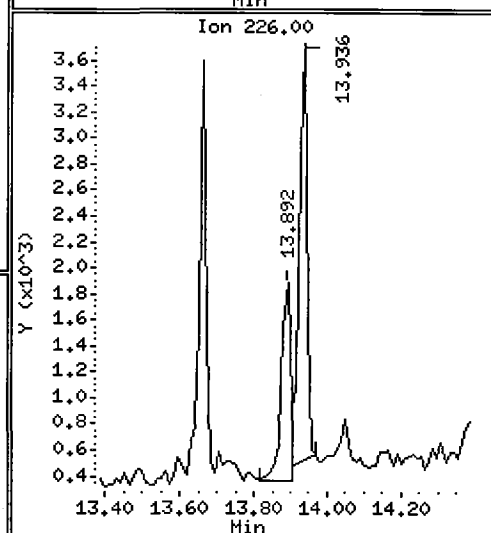
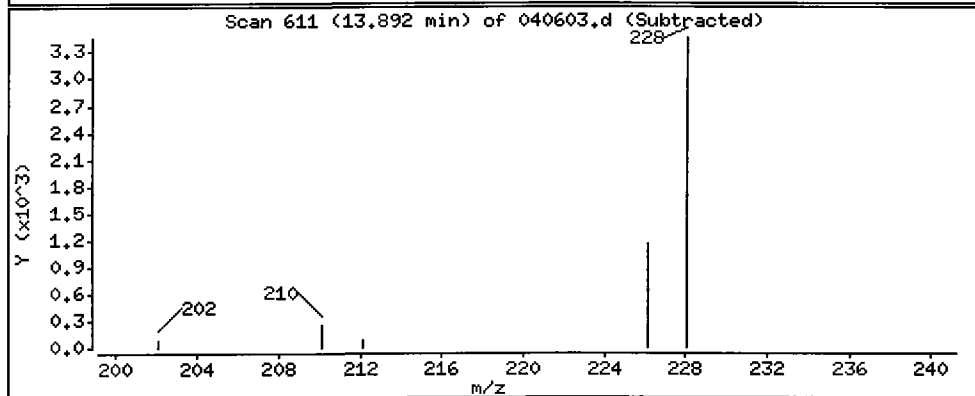
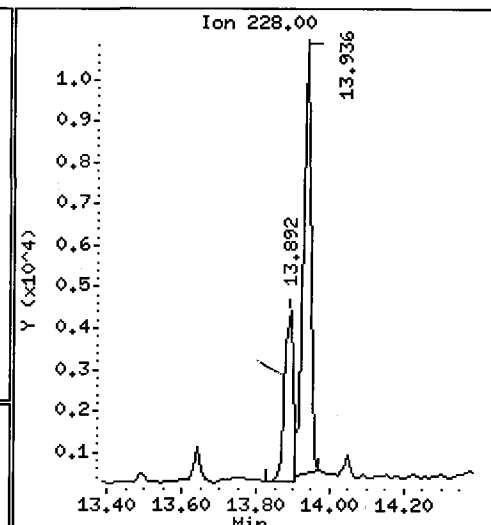
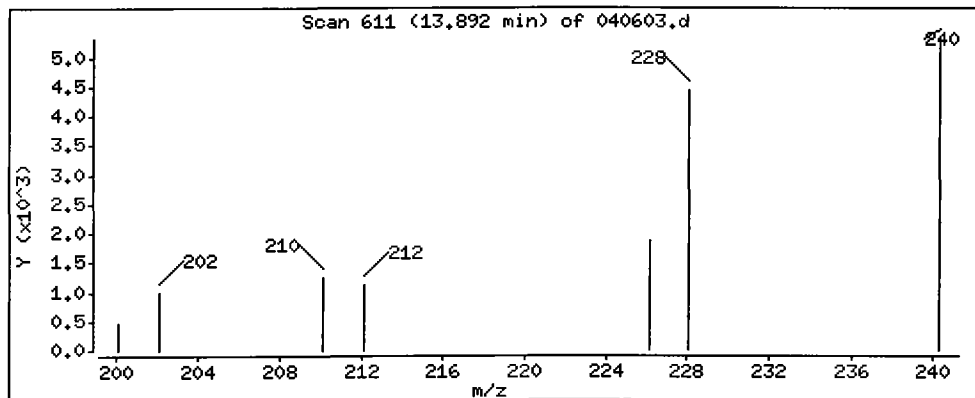
Operator: VTS

Column phase: ZB-5

Column diameter: 0,25

28 Benzo(a)anthracene

Concentration: 14,4 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

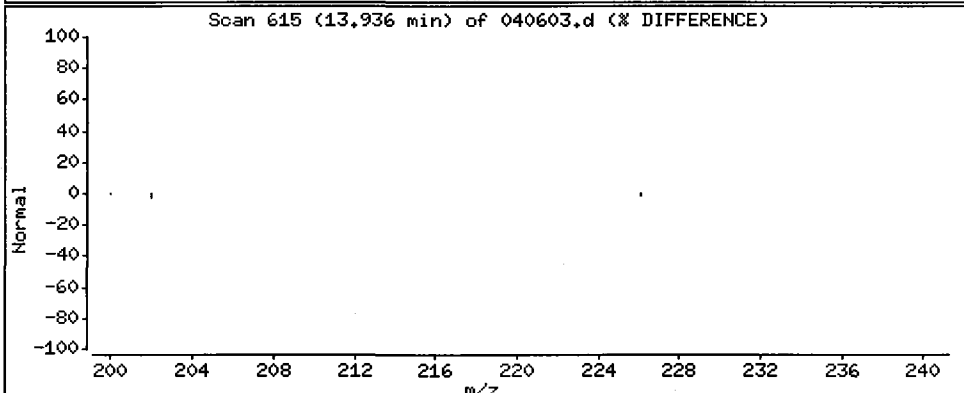
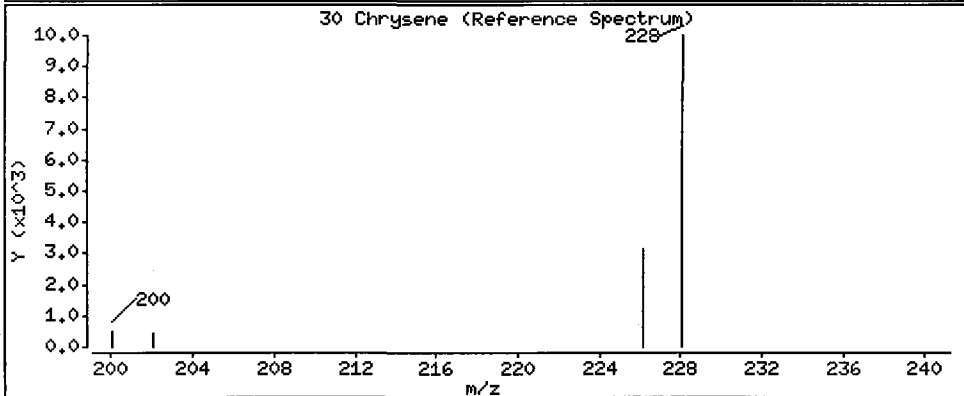
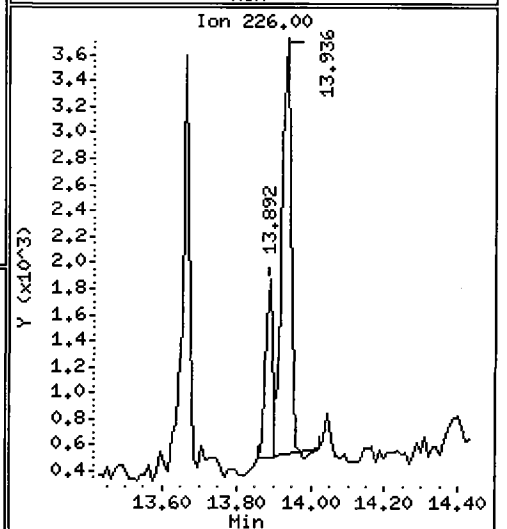
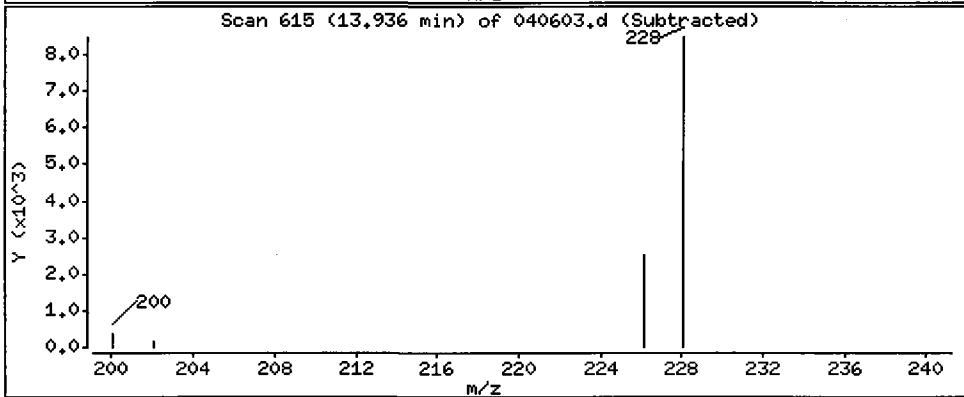
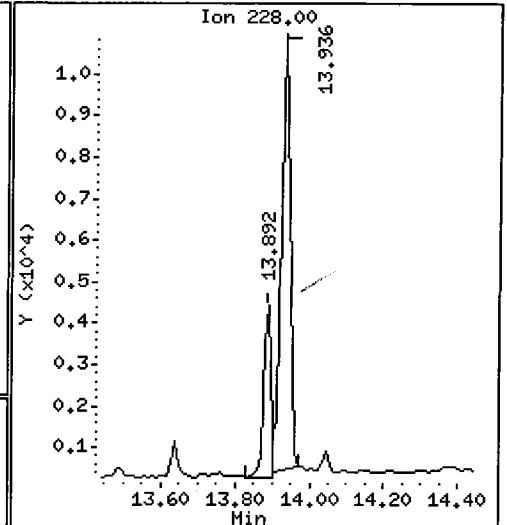
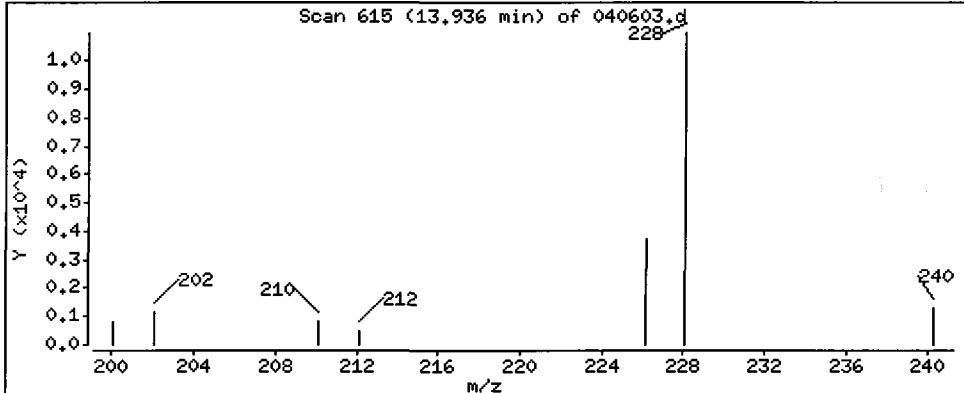
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

30 Chrysene

Concentration: 37.7 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

Operator: VTS

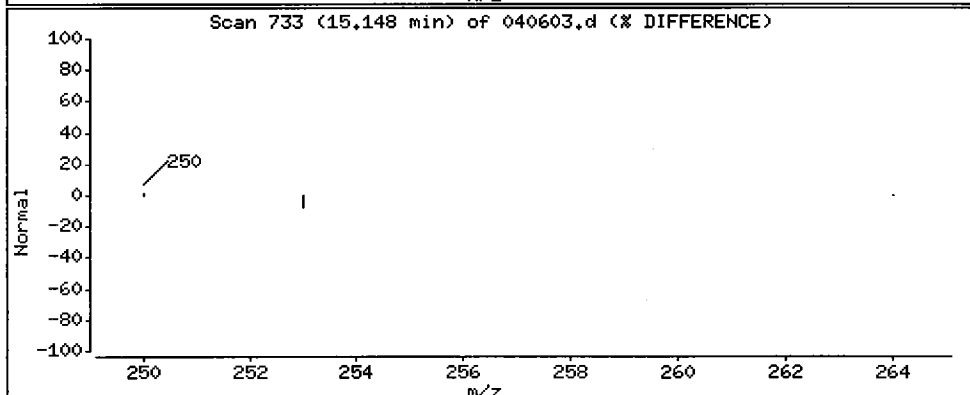
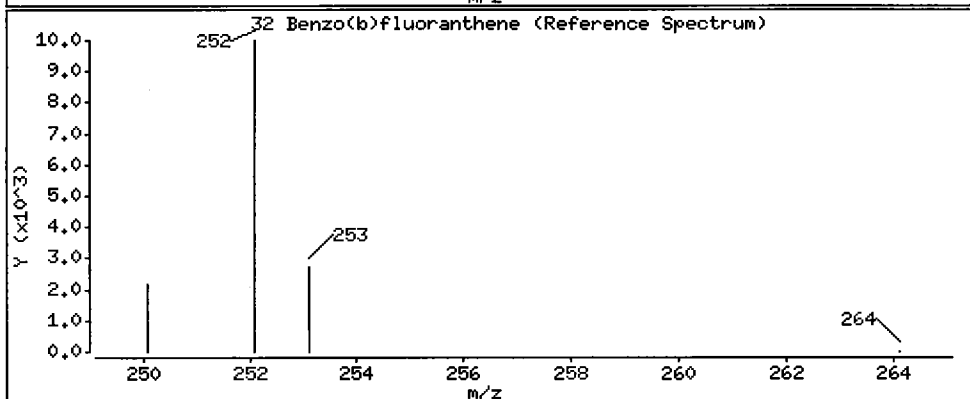
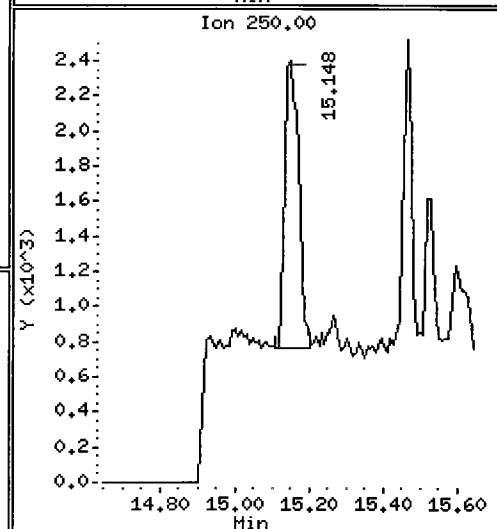
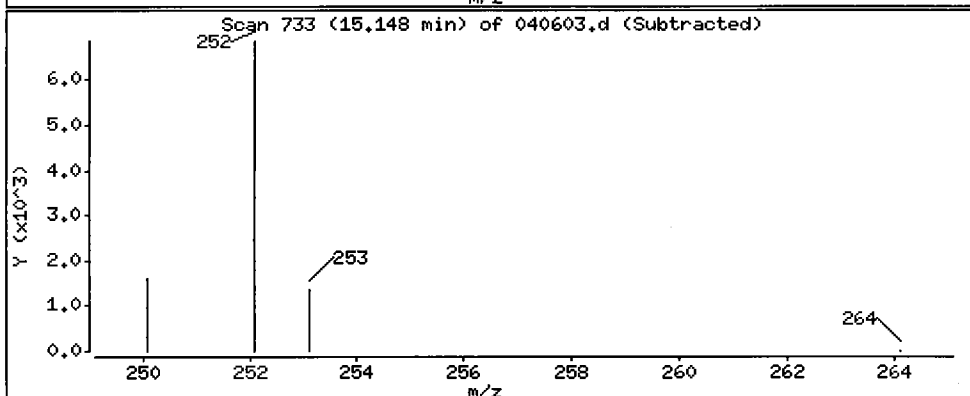
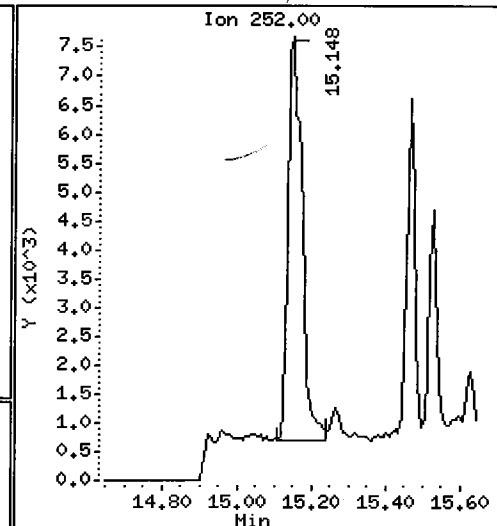
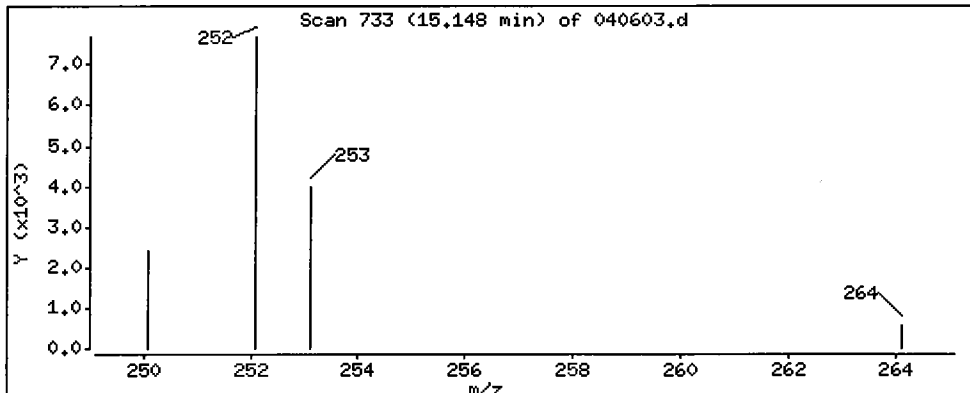
Column phase: ZB-5

Column diameter: 0.25

32 Benzo(b)fluoranthene

Concentration: 40.8 ug/L

1/2



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

Operator: VTS

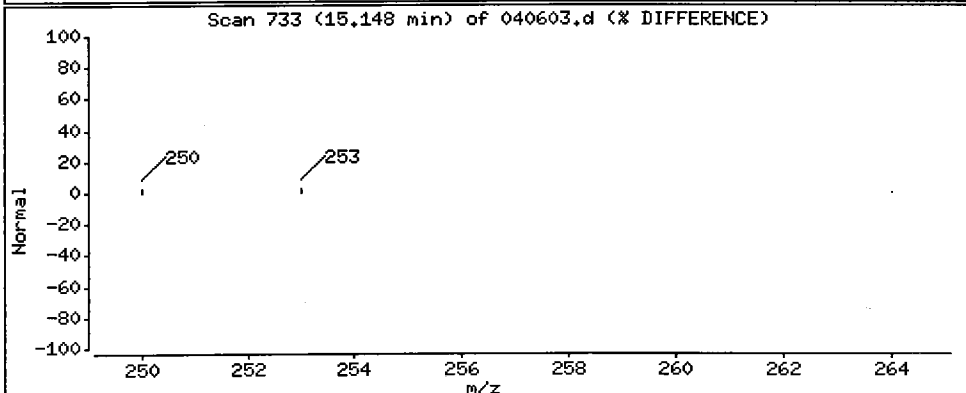
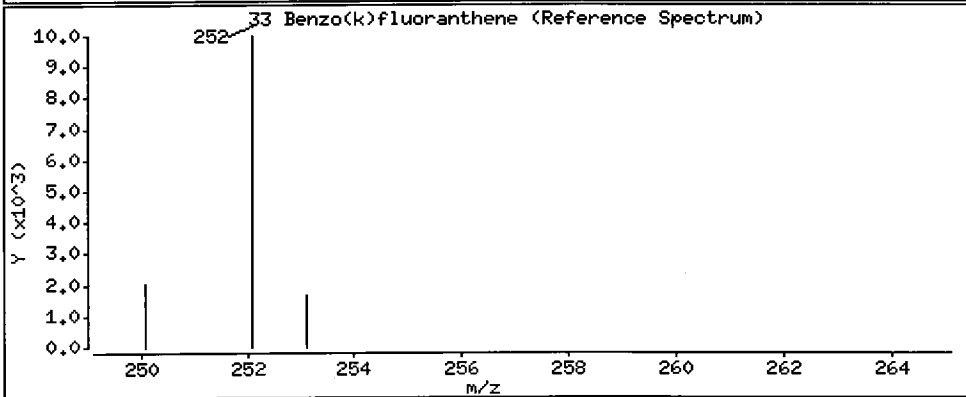
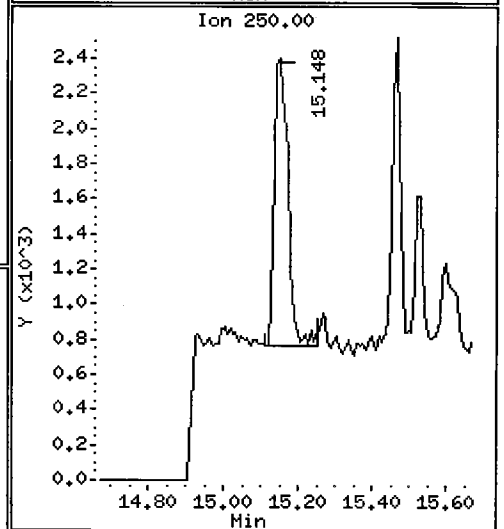
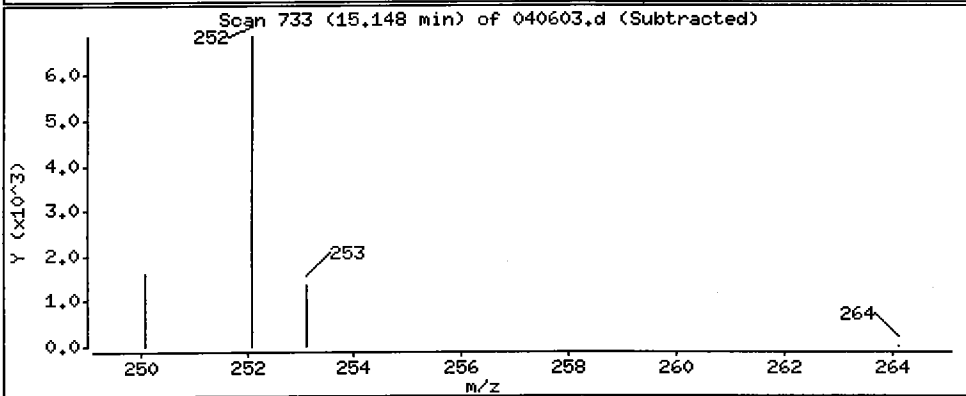
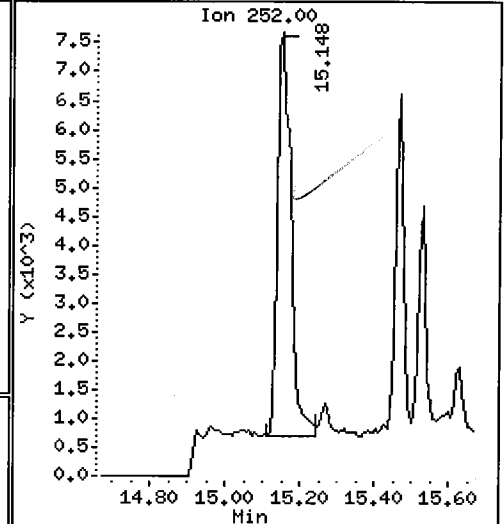
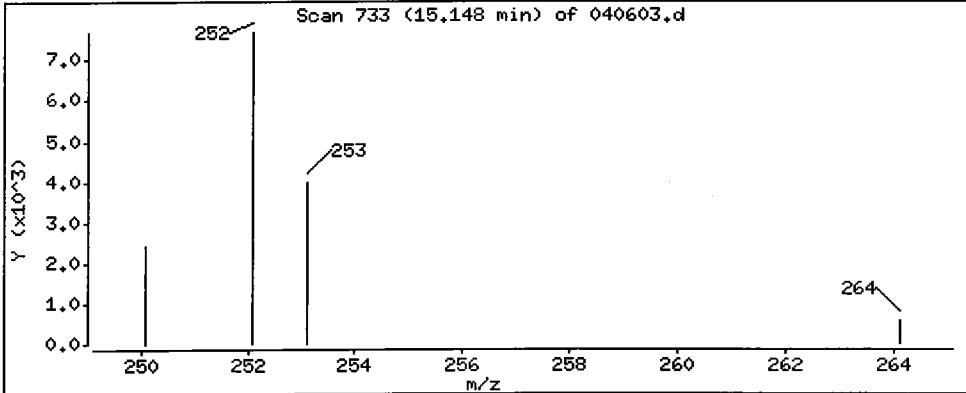
Column phase: ZB-5

Column diameter: 0.25

12

33 Benzo(k)fluoranthene

Concentration: 34.2 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

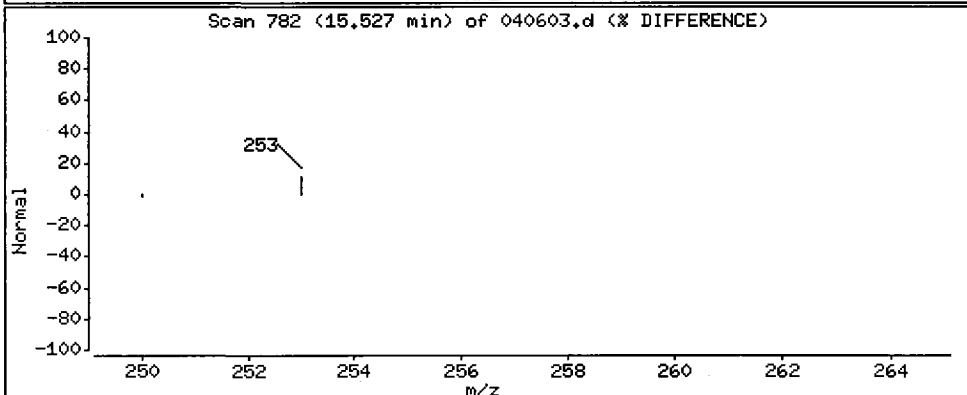
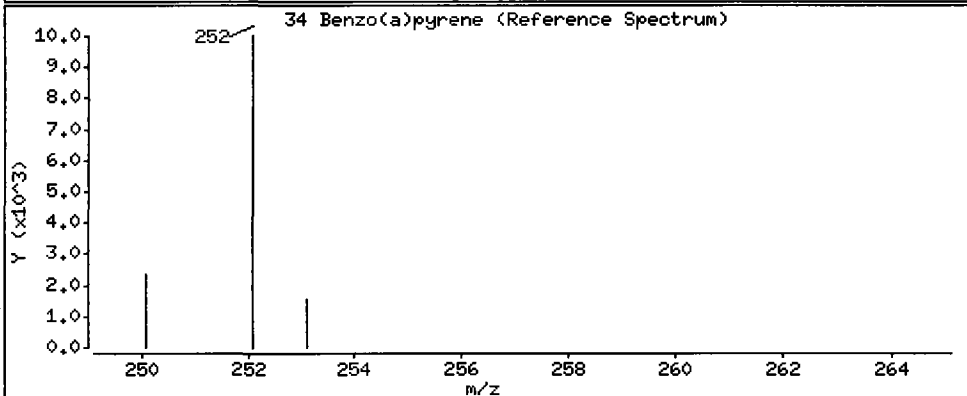
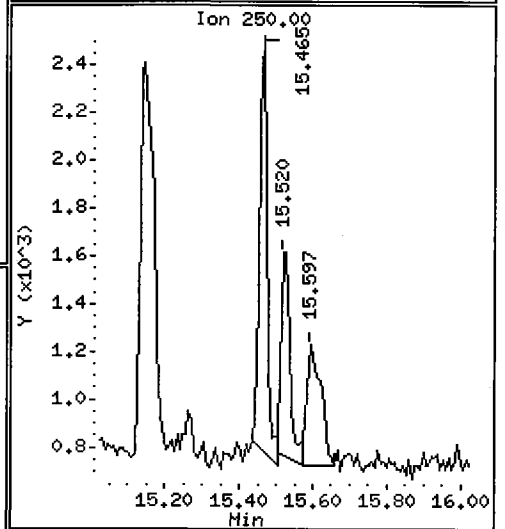
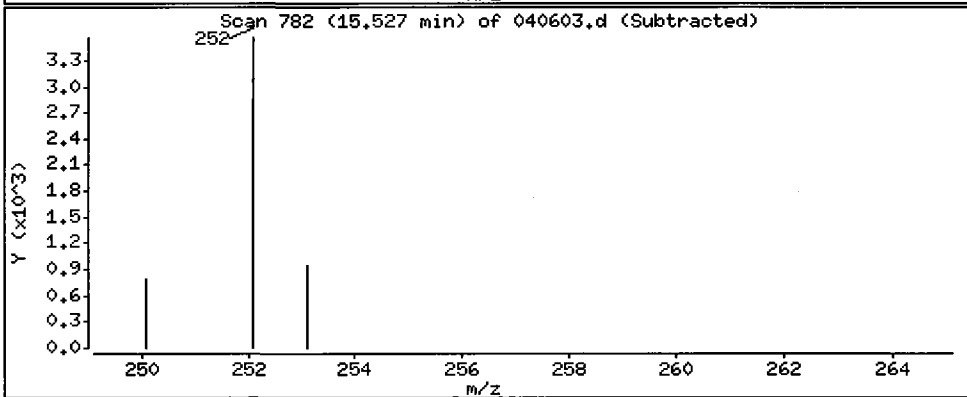
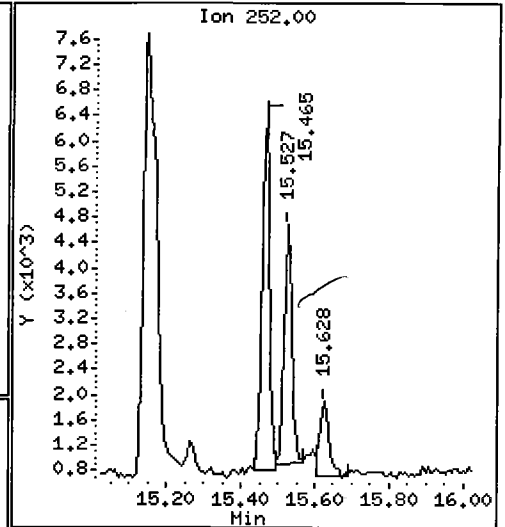
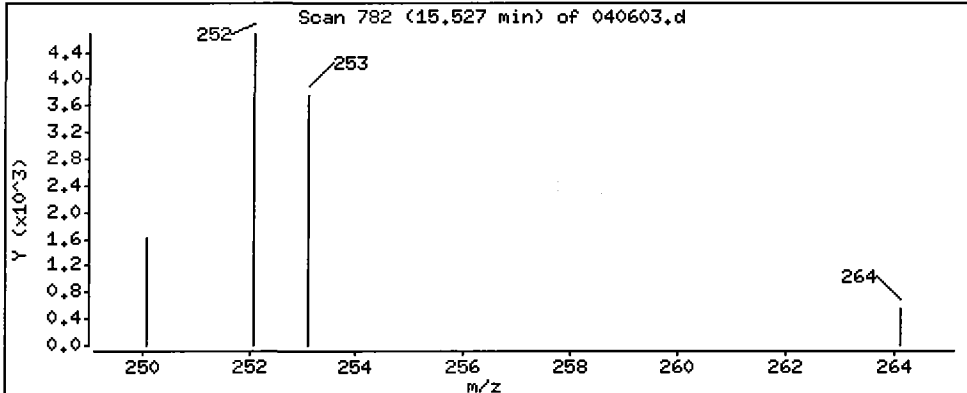
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

34 Benzo(a)pyrene

Concentration: 15.1 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

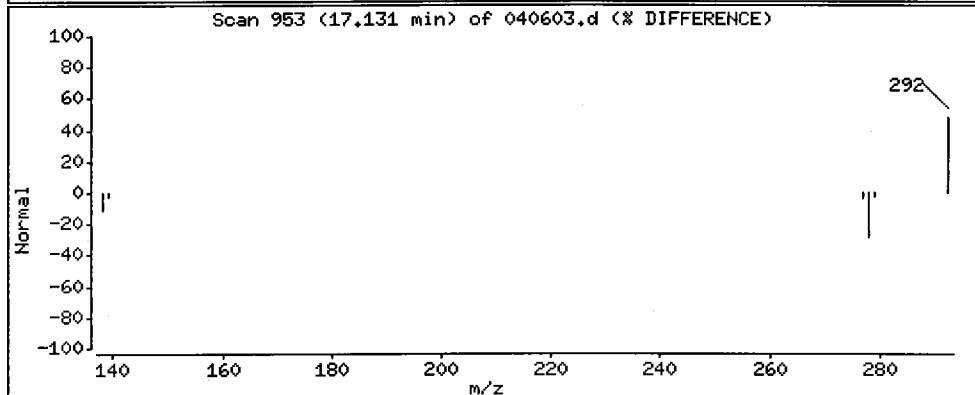
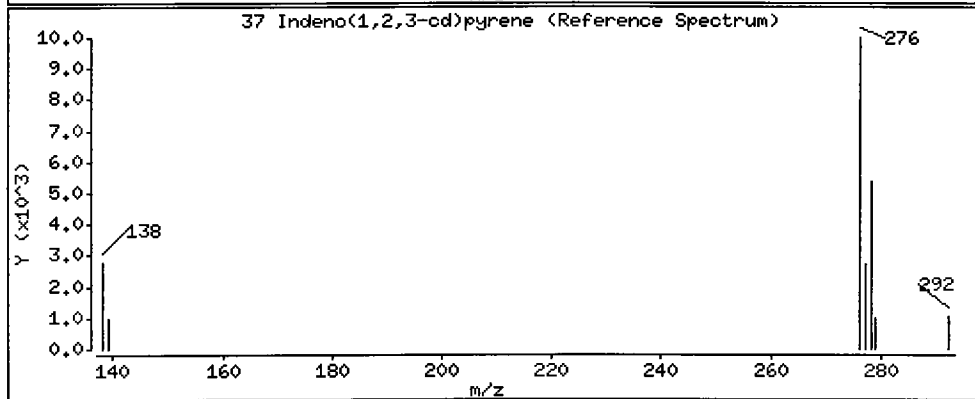
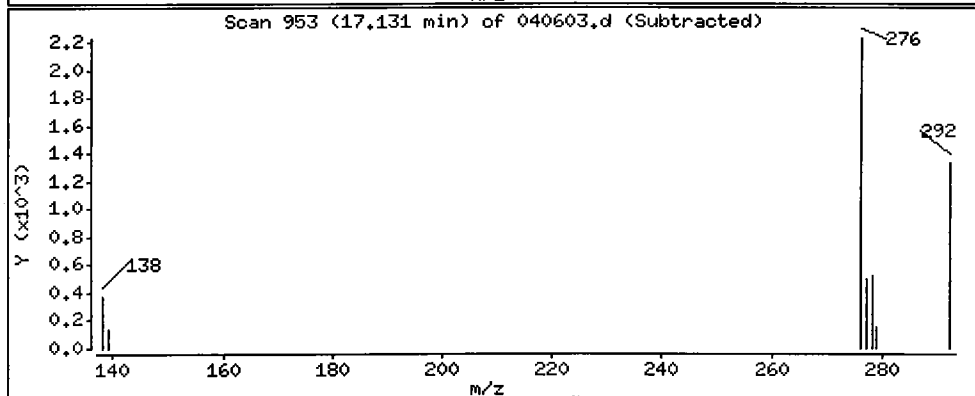
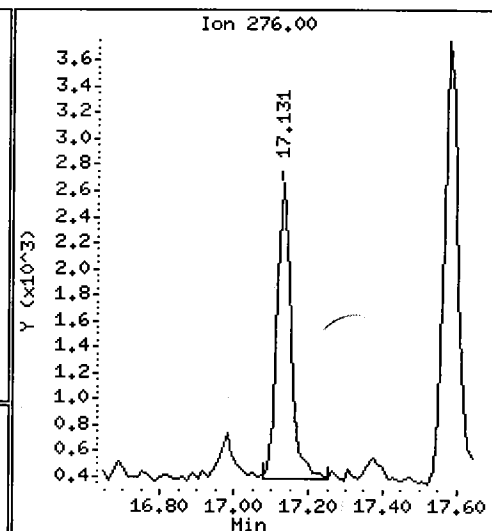
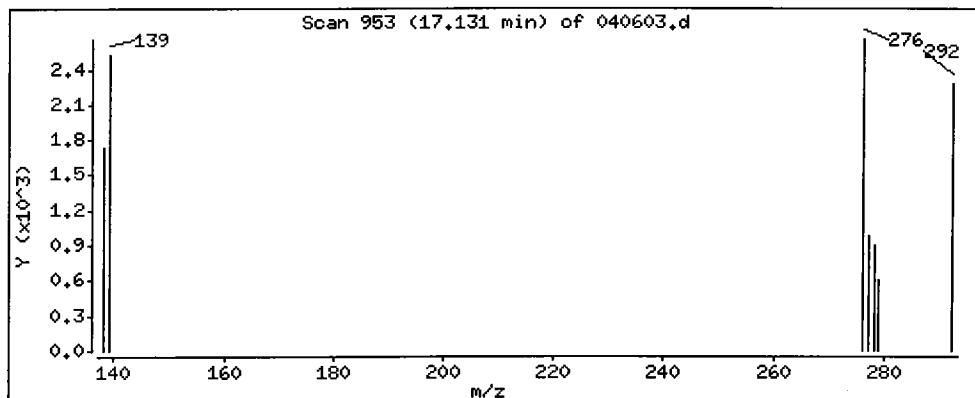
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

37 Indeno(1,2,3-cd)pyrene

Concentration: 14.1 ug/L



Date : 06-APR-2010 18:30

Client ID: CB31A032910COMP

Instrument: nt2.i

Sample Info: QQ59A

Volume Injected (uL): 2.0

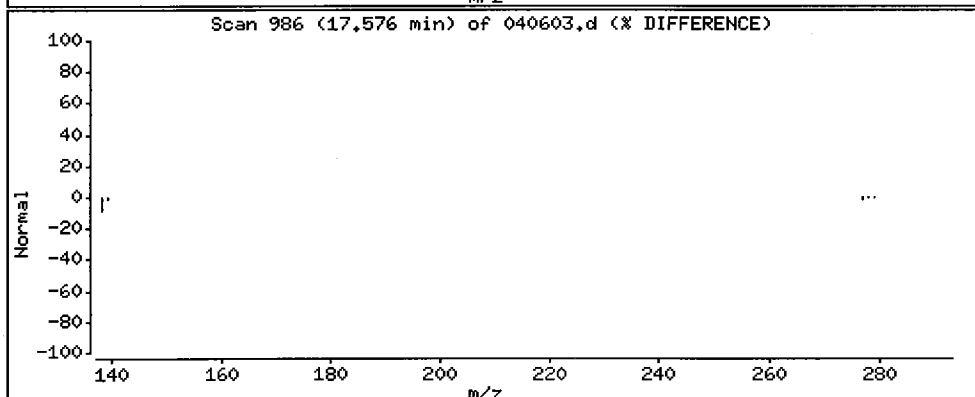
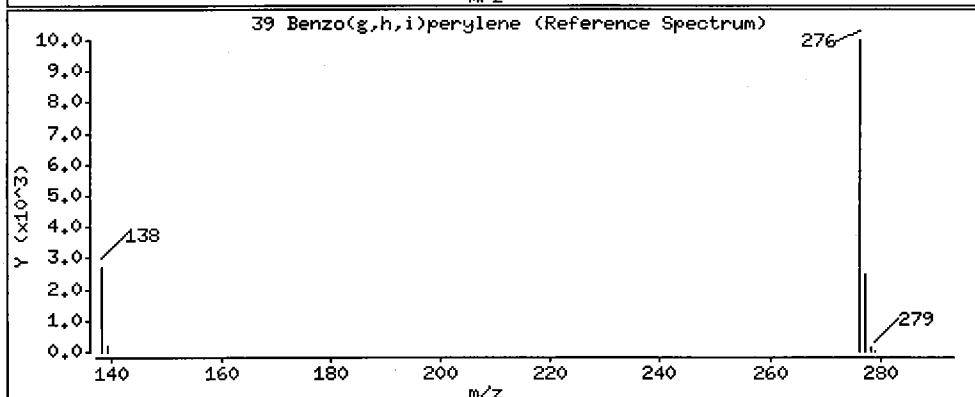
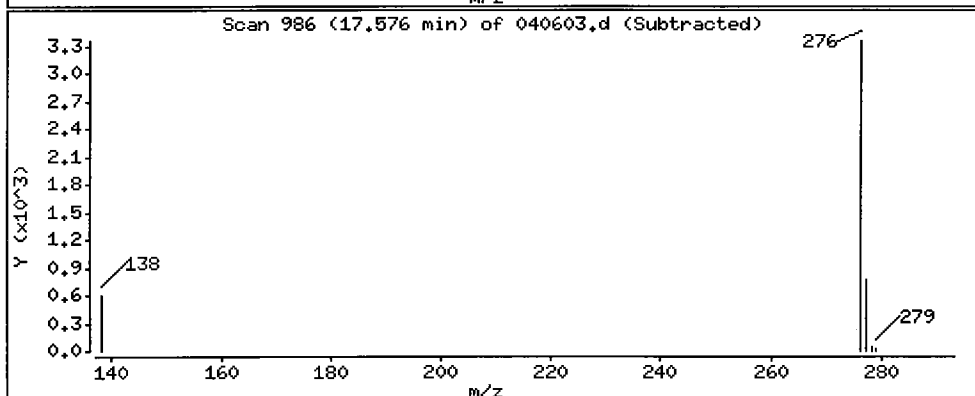
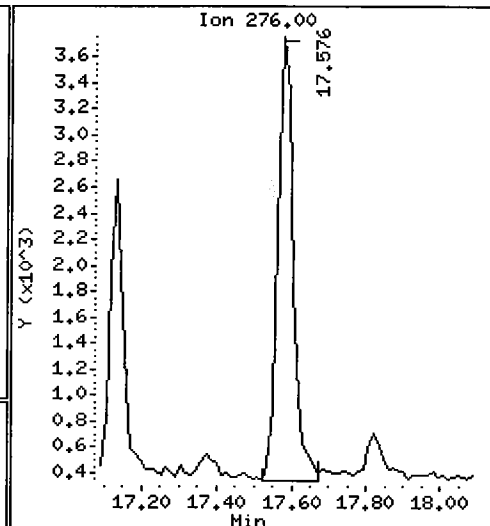
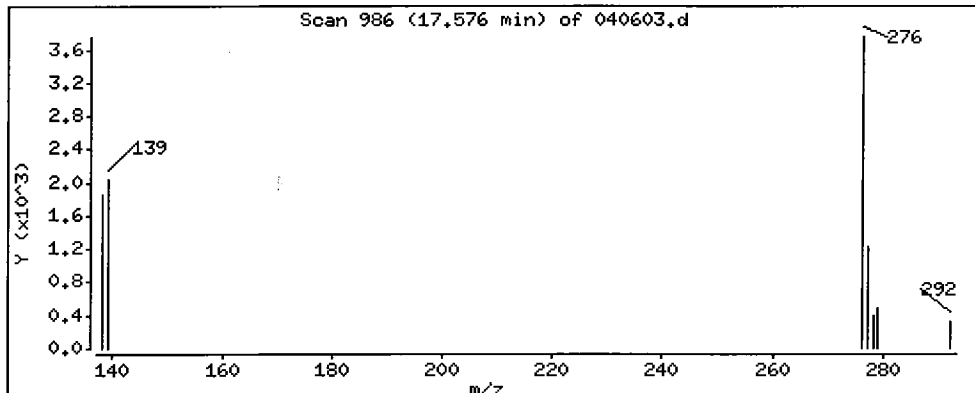
Operator: VTS

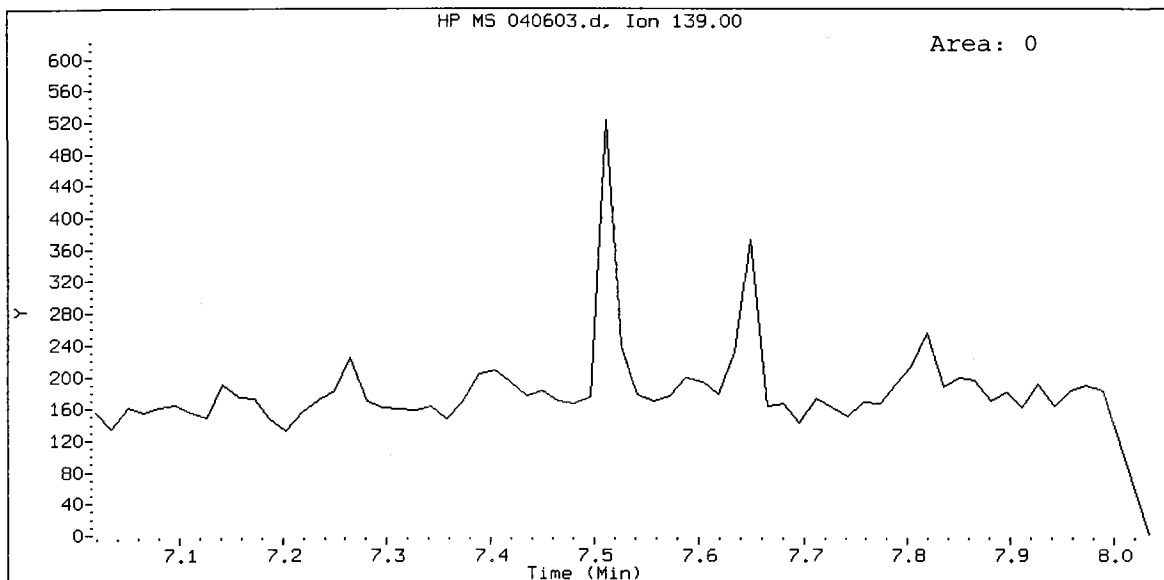
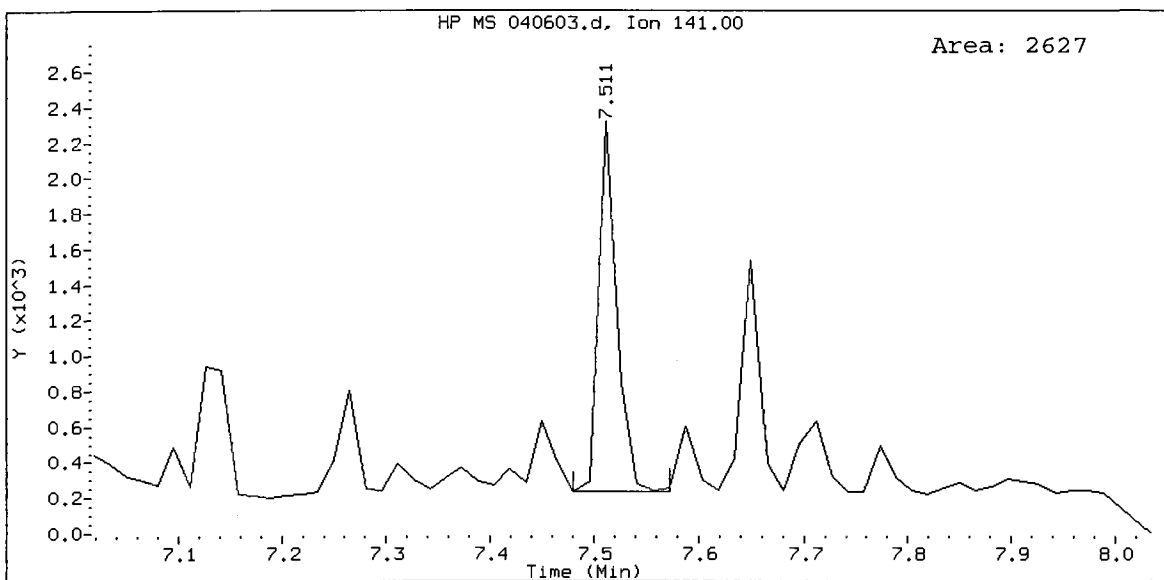
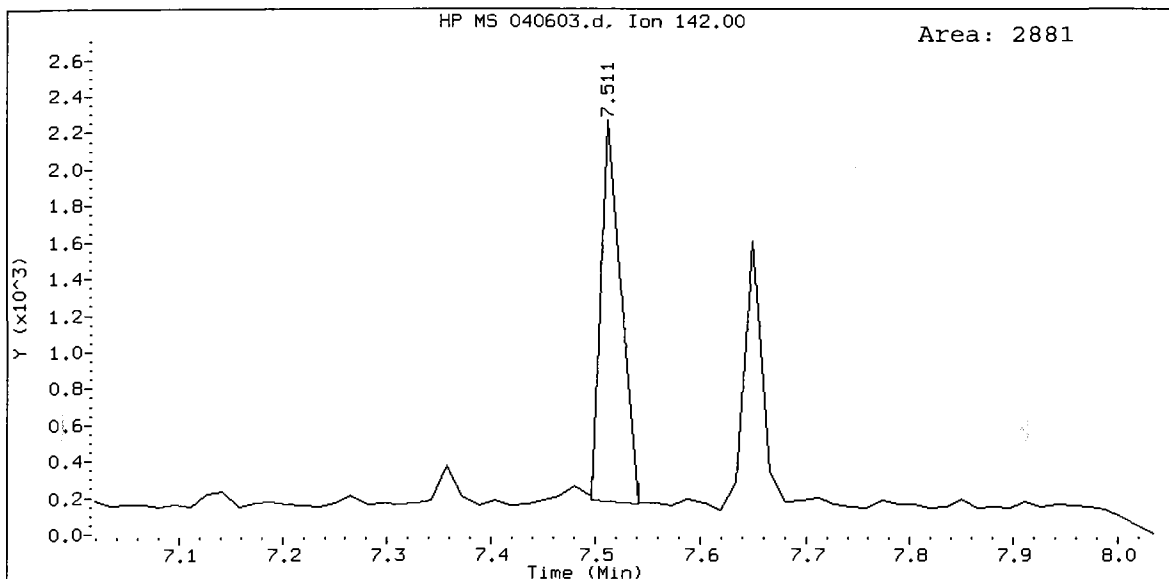
Column phase: ZB-5

Column diameter: 0.25

39 Benzo(g,h,i)perylene

Concentration: 27.1 ug/L





ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB4857032910COMP

SAMPLE

Lab Sample ID: QQ59B

LIMS ID: 10-8213

Matrix: Water

Data Release Authorized: 

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 18:54

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.014
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.029
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.058
129-00-0	Pyrene	0.010	0.060
56-55-3	Benzo (a) anthracene	0.010	0.016
218-01-9	Chrysene	0.010	0.041
205-99-2	Benzo (b) fluoranthene	0.010	0.022
207-08-9	Benzo (k) fluoranthene	0.010	0.022
50-32-8	Benzo (a) pyrene	0.010	0.020
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.017
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.032
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 62.7%
d14-Dibenzo(a,h)anthracene 46.0%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/040604.d
 Lab Smp Id: QQ59B Client Smp ID: CB4857032910COMP
 Inj Date : 06-APR-2010 18:54
 Operator : VTS Inst ID: nt2.i
 Smp Info : QQ59B
 Misc Info : 10-8213
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 10:26 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pna1mn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8		136	6.636	6.635	(1.000)	119671	200.000	
5 Naphthalene		128	6.651	6.666	(1.002)	9511	13.9375	13.9
\$ 6 2-Methylnaphthalene-d10		152	7.482	7.481	(1.128)	76602	187.570	188
7 2-Methylnaphthalene		142	7.513	7.512	(1.132)	3292	7.79020	7.79
8 1-Methylnaphthalene		142	Compound Not Detected.					
10 Acenaphthylene		152	Compound Not Detected.					
* 11 Acenaphthene-d10		164	8.820	8.833	(1.000)	65242	200.000	
12 Acenaphthene		153	Compound Not Detected.					
14 Dibenzofuran		168	Compound Not Detected.					
15 Fluorene		166	Compound Not Detected.					
* 18 Phenanthrene-d10		188	10.632	10.647	(1.000)	93212	200.000	
19 Phenanthrene		178	10.663	10.662	(1.003)	17139	28.7665	28.8
20 Anthracene		178	Compound Not Detected.					
24 Fluoranthene		202	12.136	12.136	(1.141)	36052	57.9724	58.0
25 Pyrene		202	12.410	12.410	(1.167)	37903	60.1703	60.2

Compounds	QUANT SIG			CONCENTRATIONS			
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	6908	15.5622	15.6
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	69641	200.000	
30 Chrysene	228	13.936	13.946	(1.002)	17743	40.6445	40.6(M)
32 Benzo(b)fluoranthene	252	15.148	15.147	(0.971)	22510	47.3063	47.3
33 Benzo(k)fluoranthene	252	15.148	15.170	(0.971)	22510	39.6707	39.7
34 Benzo(a)pyrene	252	15.527	15.526	(0.996)	7516	19.7709	19.8
* 35 Perylene-d12	264	15.597	15.603	(1.000)	67328	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.145	(1.098)	7378	16.9712	17.0
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.105	(1.096)	35740	138.130	138(M)
38 Dibenzo(a,h)anthracene	278	17.144	17.145	(1.099)	1812	5.30446	5.30
39 Benzo(g,h,i)perylene	276	17.576	17.590	(1.127)	11810	31.5131	31.5(M)

21.8

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 040604.d
 Lab Smp Id: QQ59B
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info: 10-8213

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Client Smp ID: CB4857032910COMI
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	119671	-0.94
11 Acenaphthene-d10	72668	36334	145336	65242	-10.22
18 Phenanthrene-d10	112603	56302	225206	93212	17.22
29 Chrysene-d12	101702	50851	203404	69641	-31.52
35 Perylene-d12	87112	43556	174224	67328	-22.71

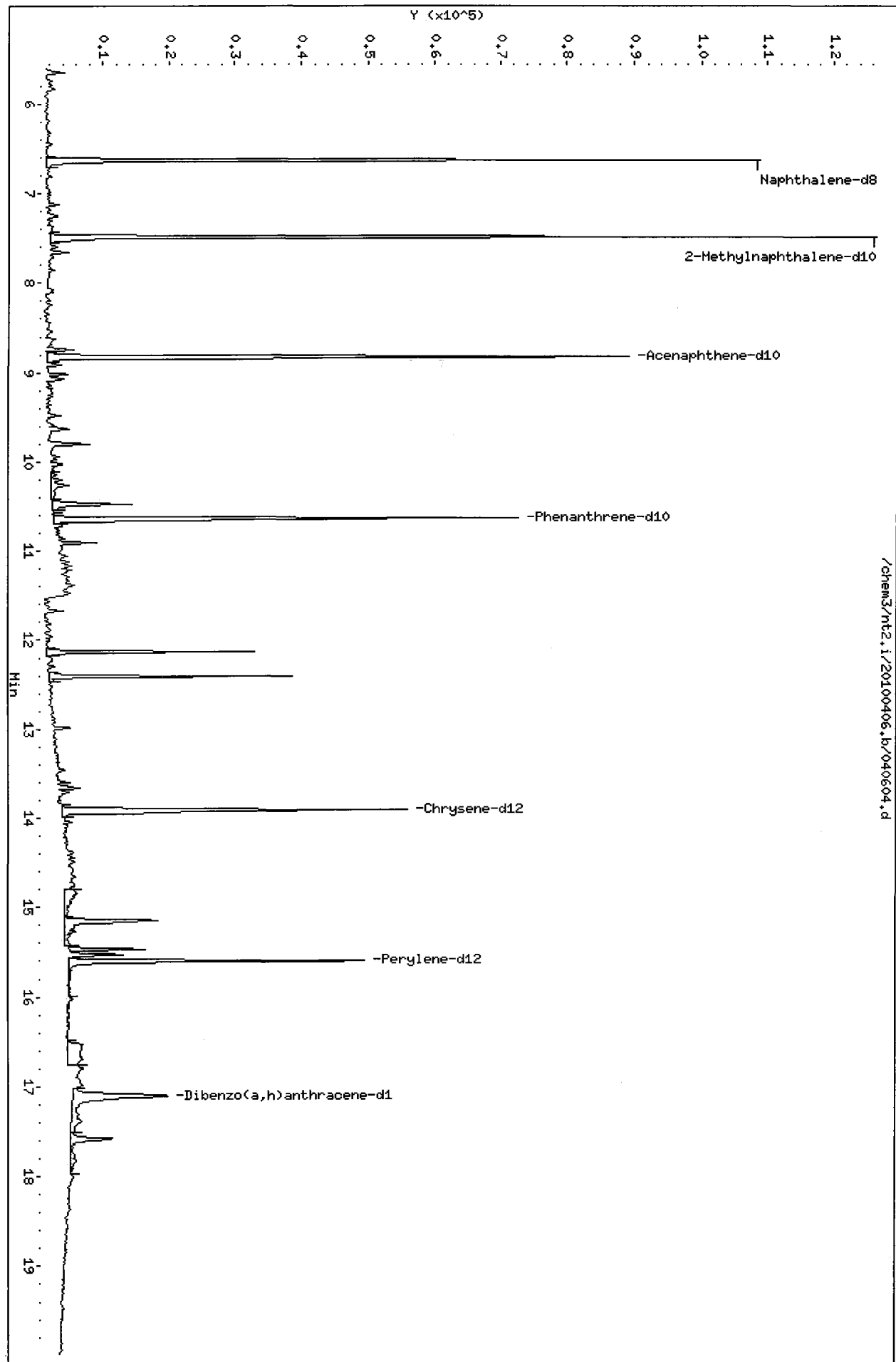
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.02
11 Acenaphthene-d10	8.83	8.33	9.33	8.82	-0.16
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.04

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: /chem3/nt2.i/20100406.b/040604.d
Date : 06-APR-2010 18:54
Client ID: CB486703291000MP
Sample Info: Q059B
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25

/chem3/nt2.i/20100406.b/040604.d



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: Q059B

Volume Injected (uL): 2.0

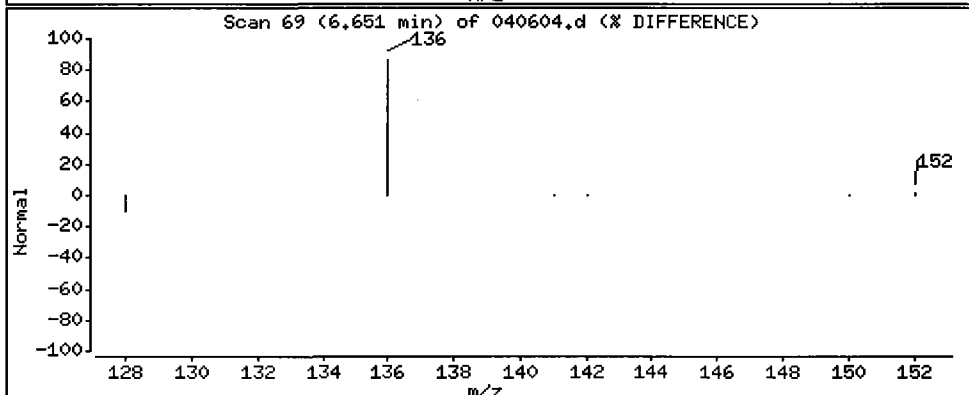
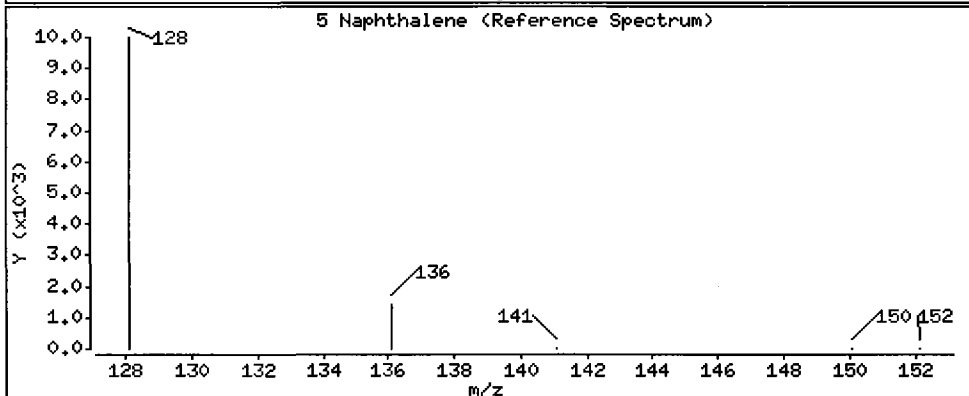
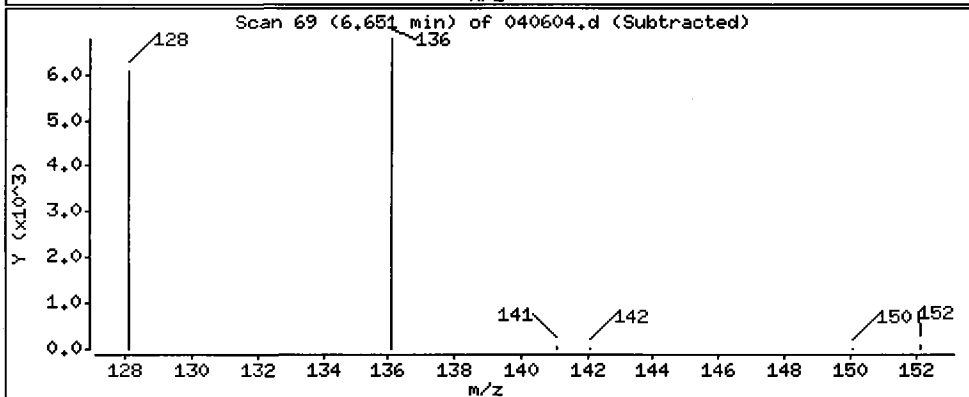
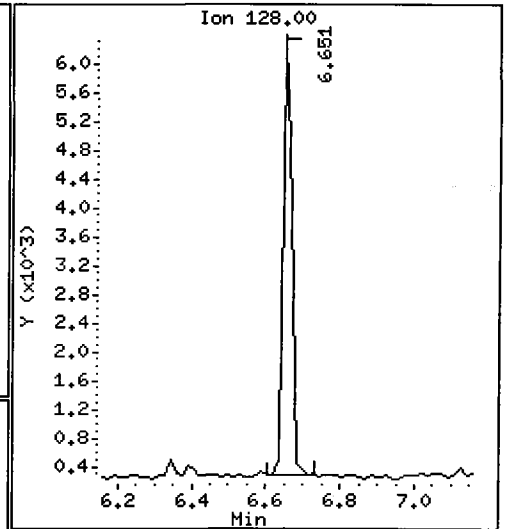
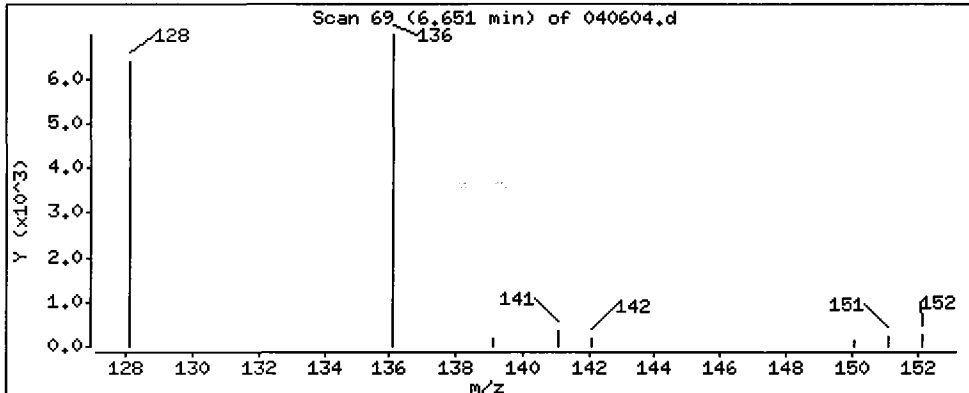
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

5 Naphthalene

Concentration: 13.9 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

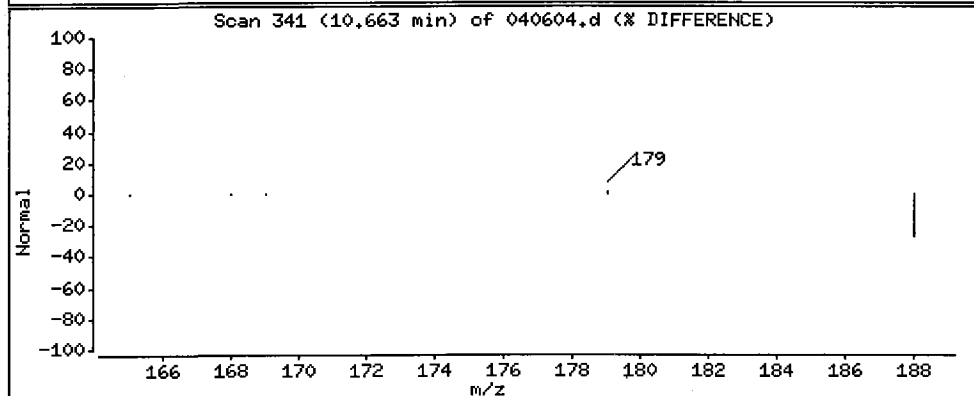
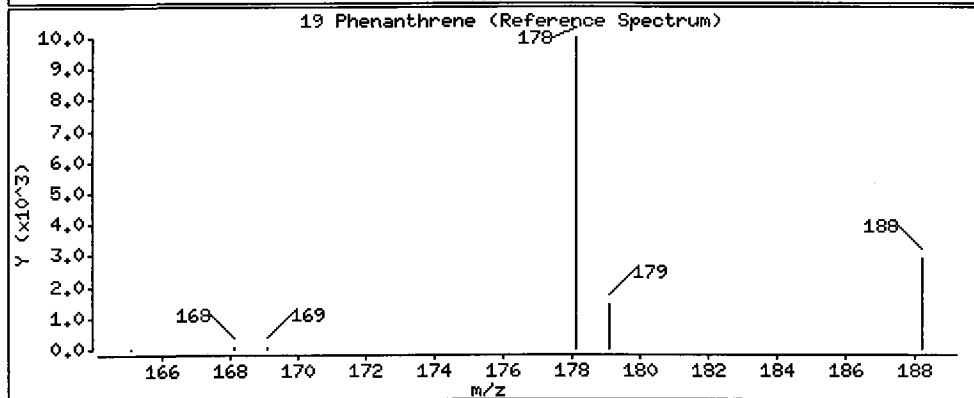
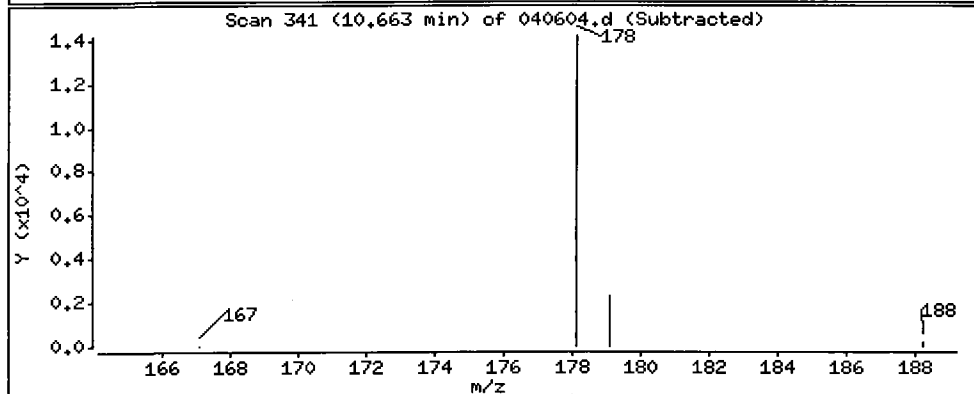
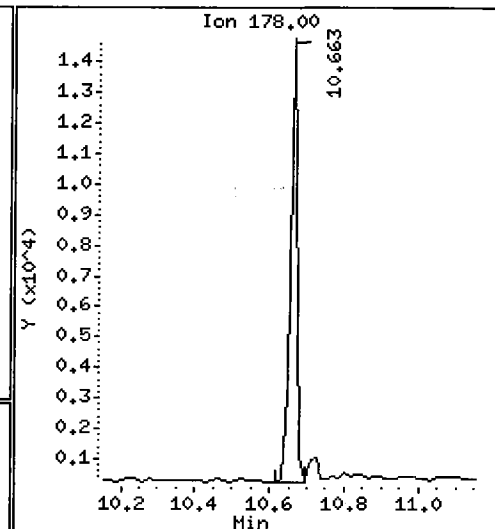
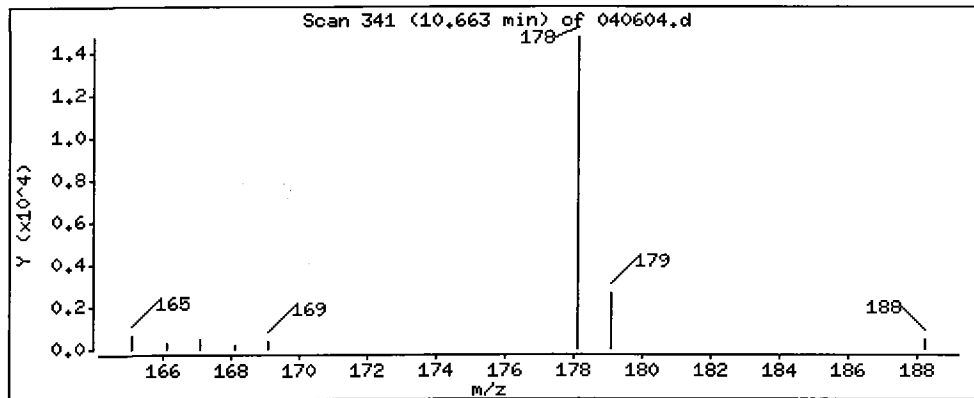
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

19 Phenanthrene

Concentration: 28.8 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

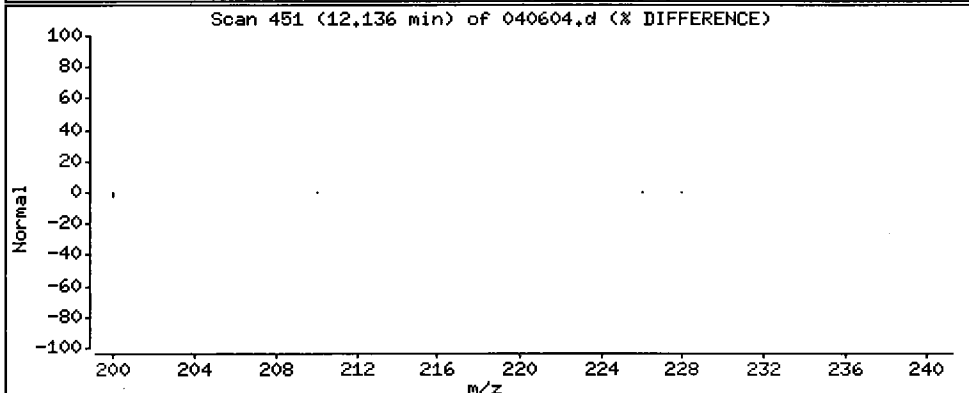
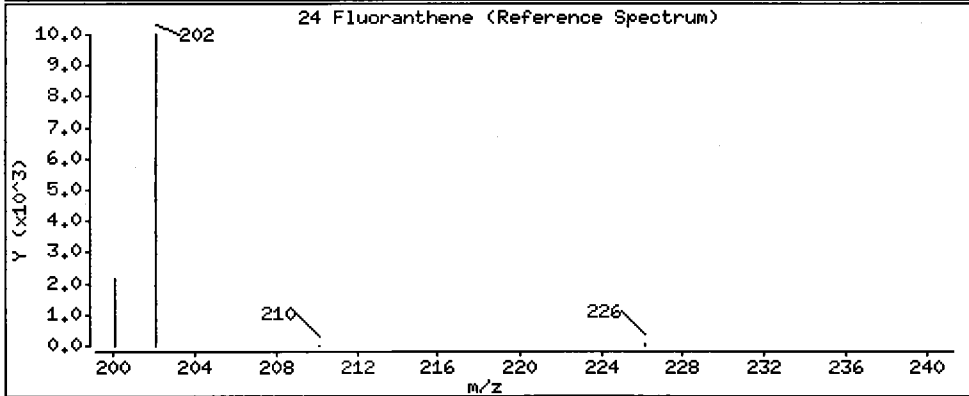
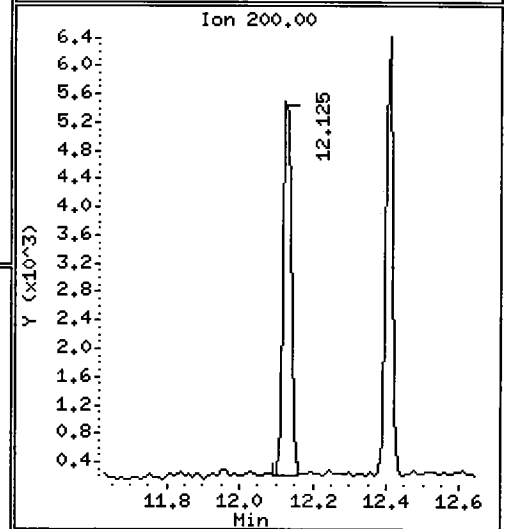
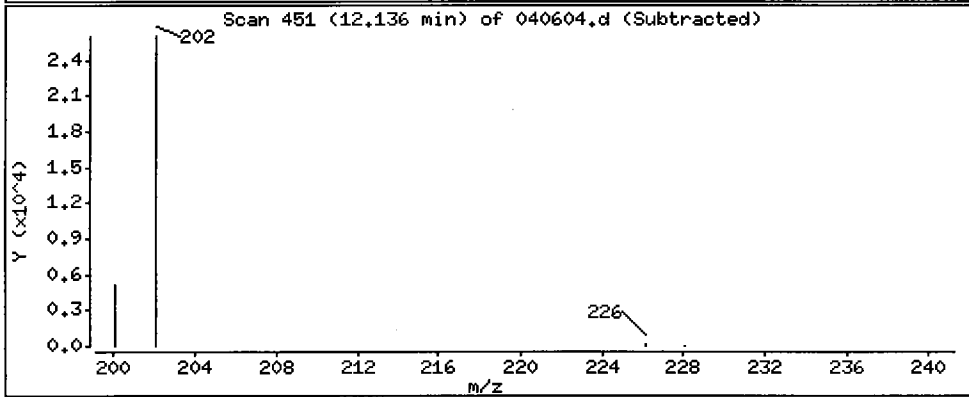
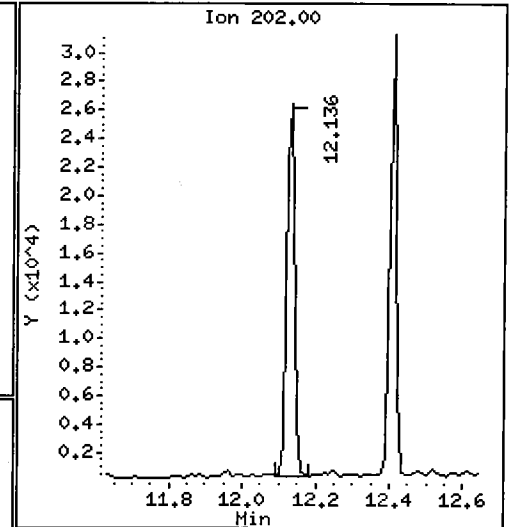
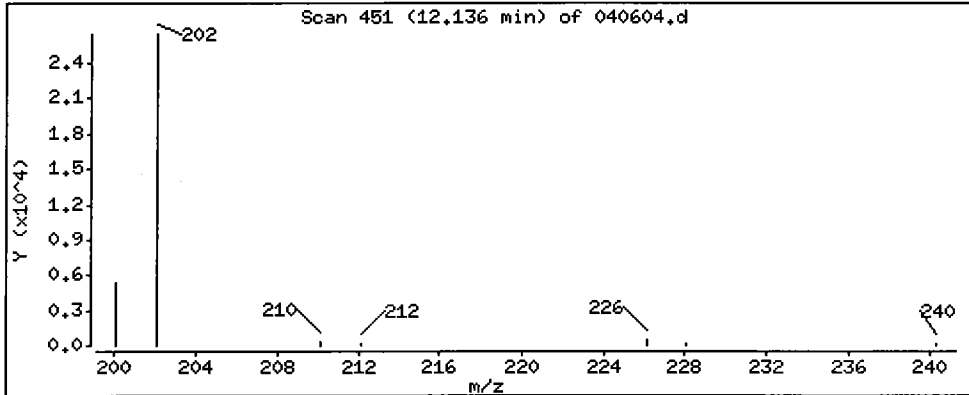
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

24 Fluoranthene

Concentration: 58.0 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

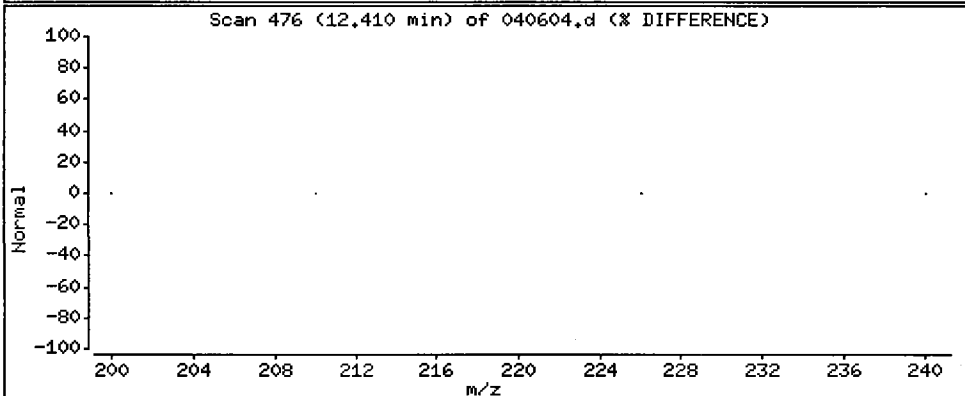
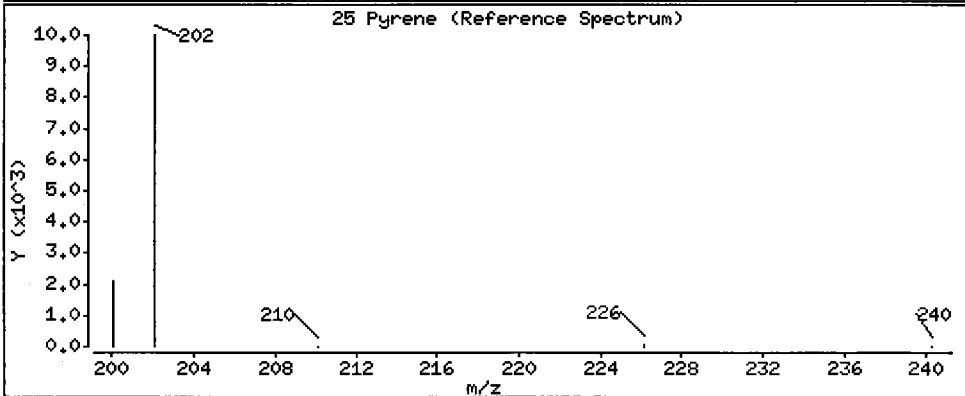
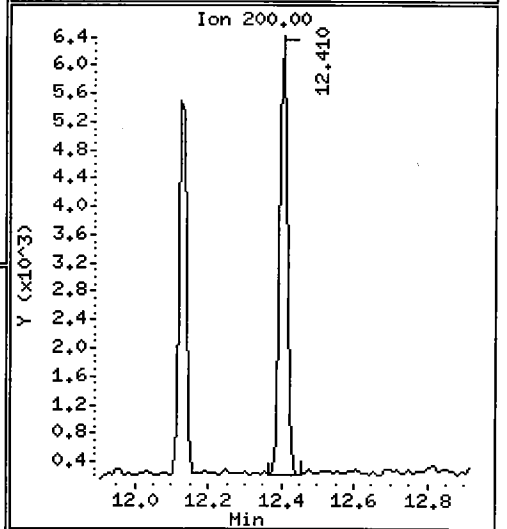
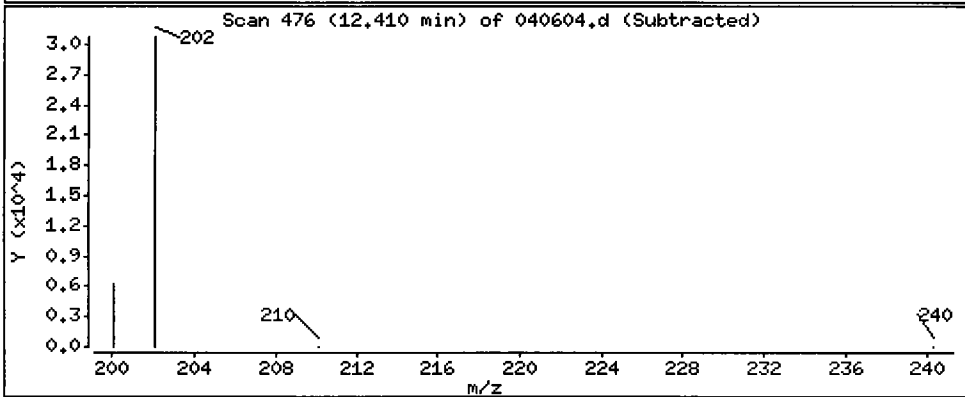
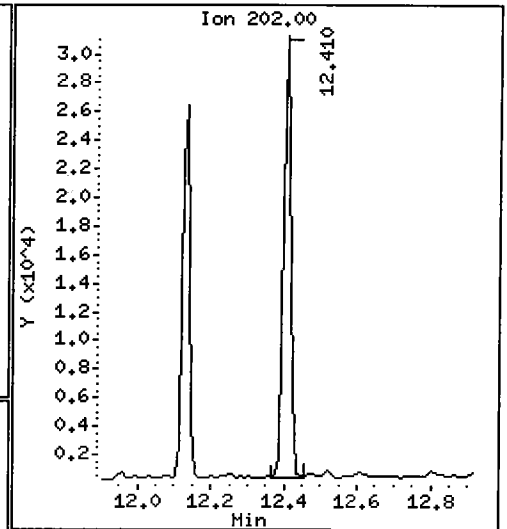
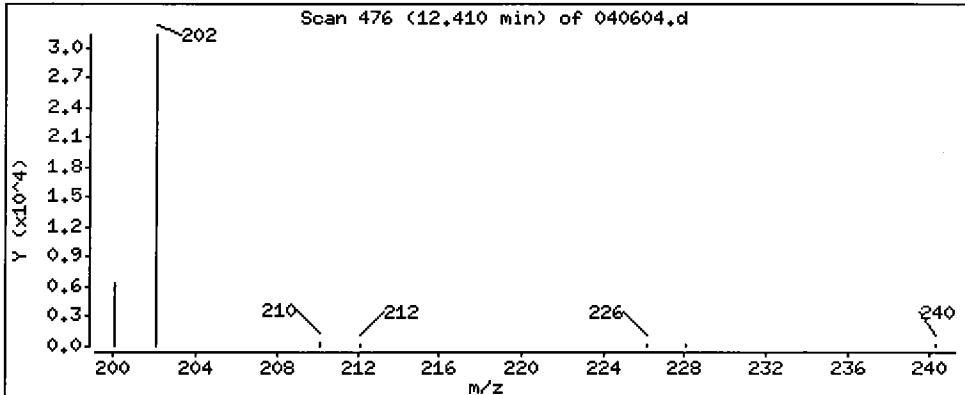
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

25 Pyrene

Concentration: 60.2 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

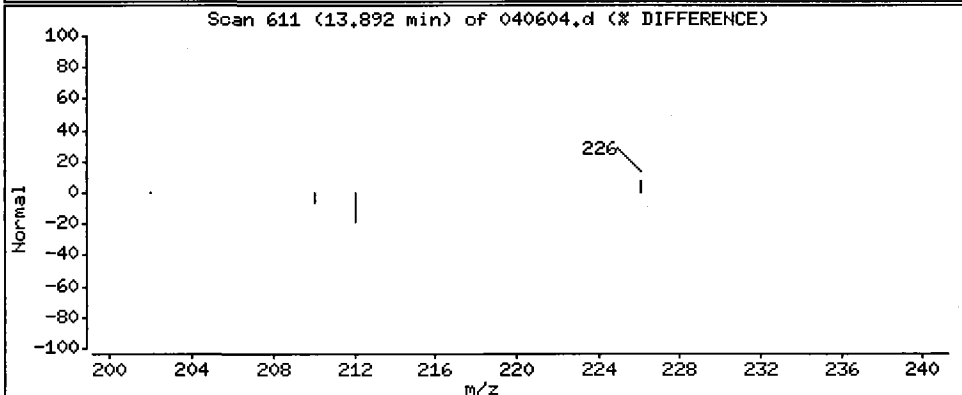
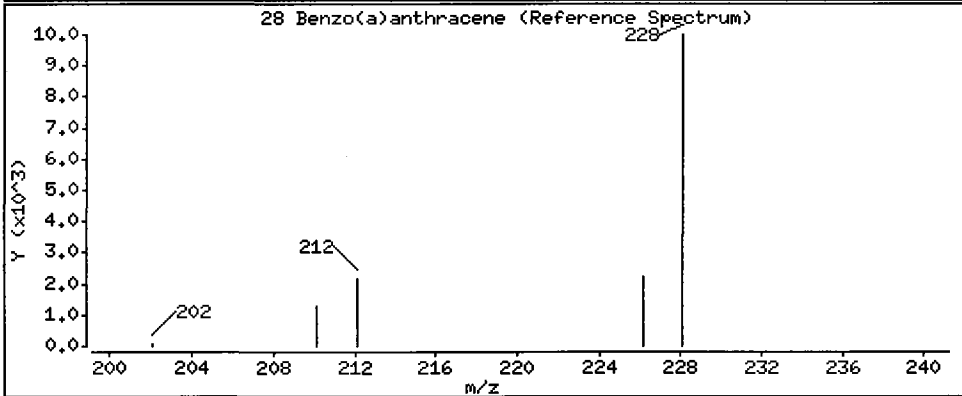
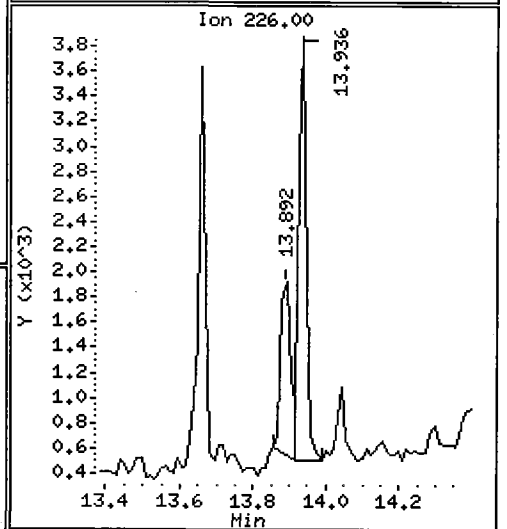
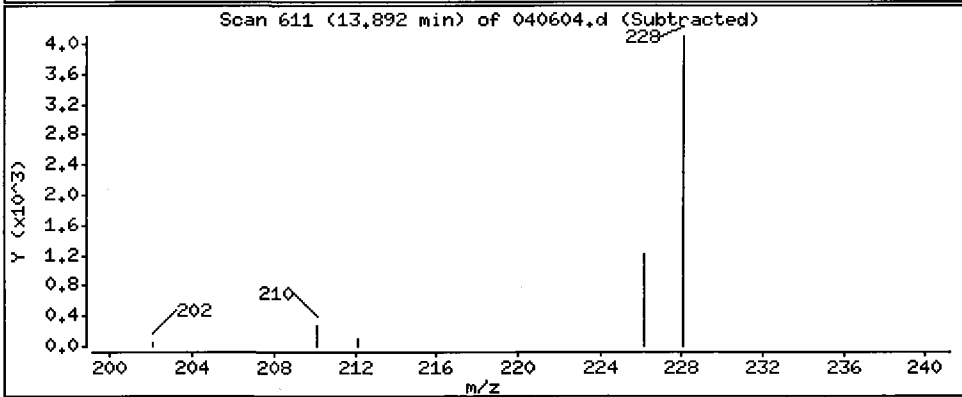
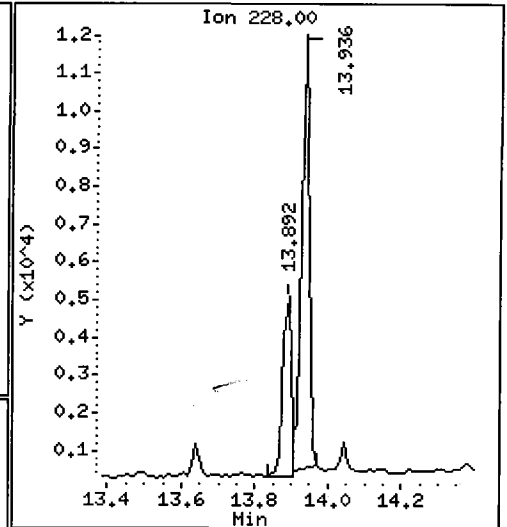
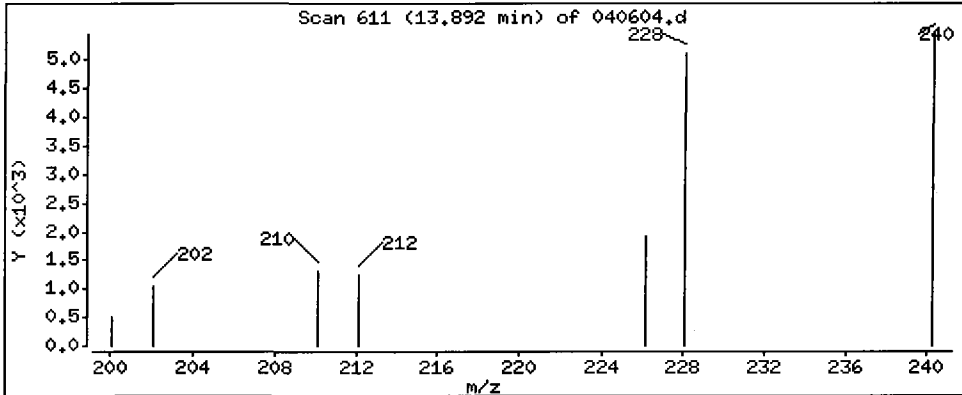
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

28 Benzo(a)anthracene

Concentration: 15.6 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

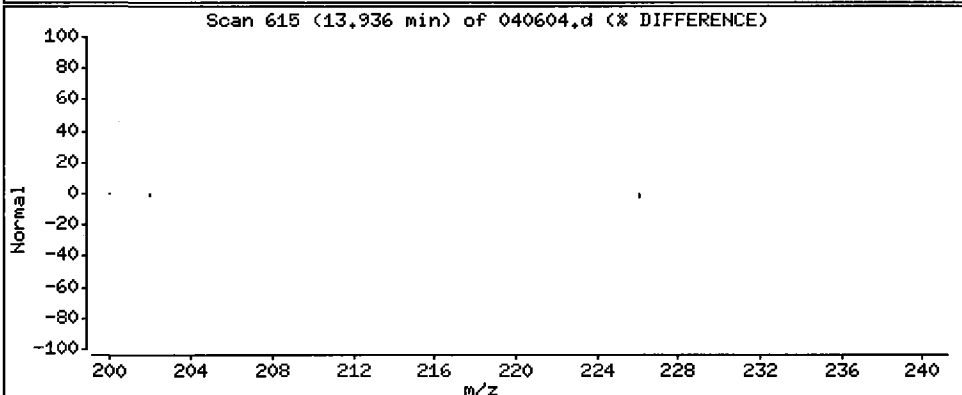
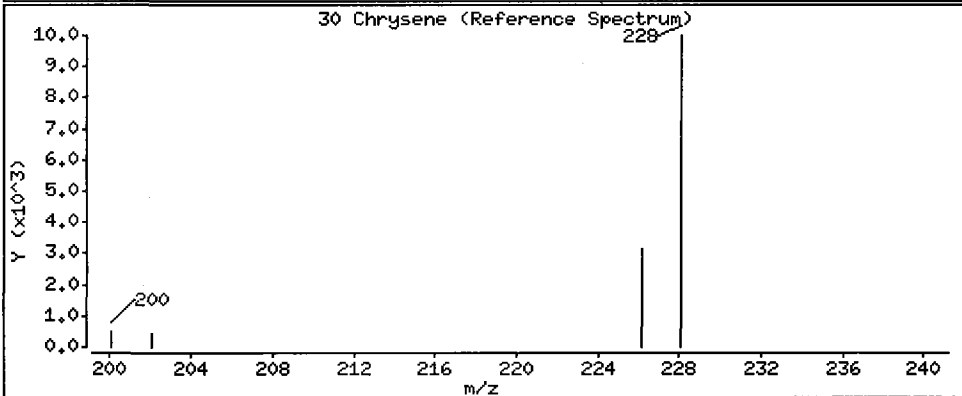
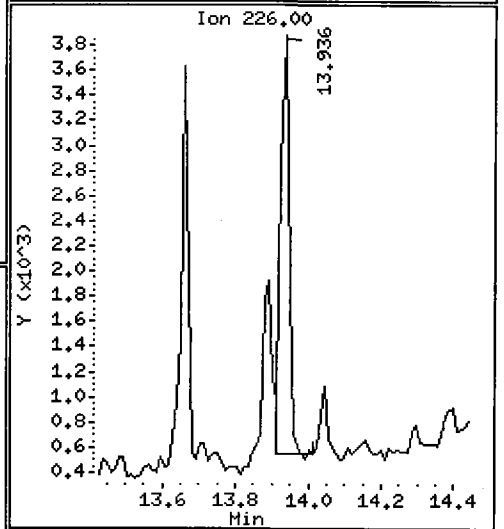
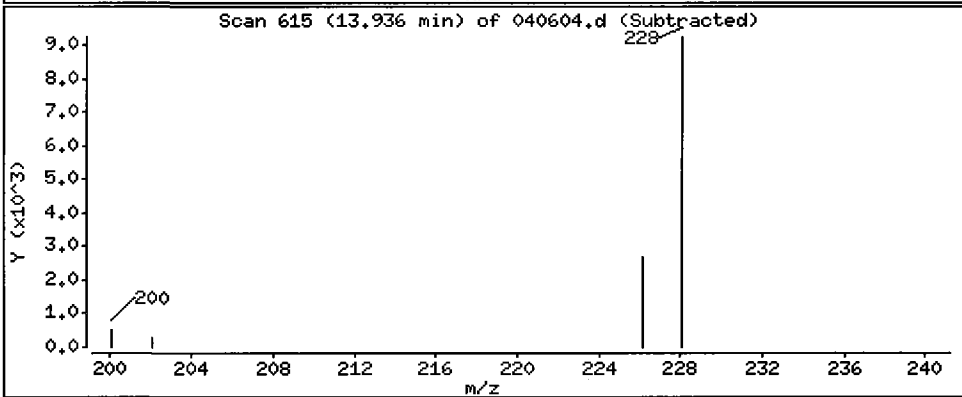
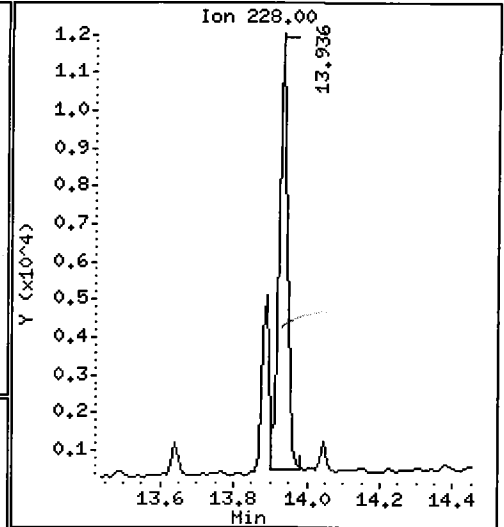
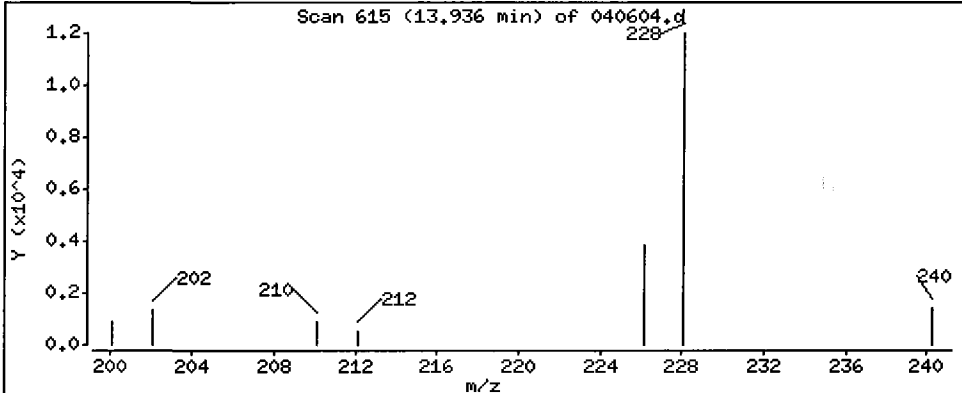
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

30 Chrysene

Concentration: 40.6 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

Operator: VTS

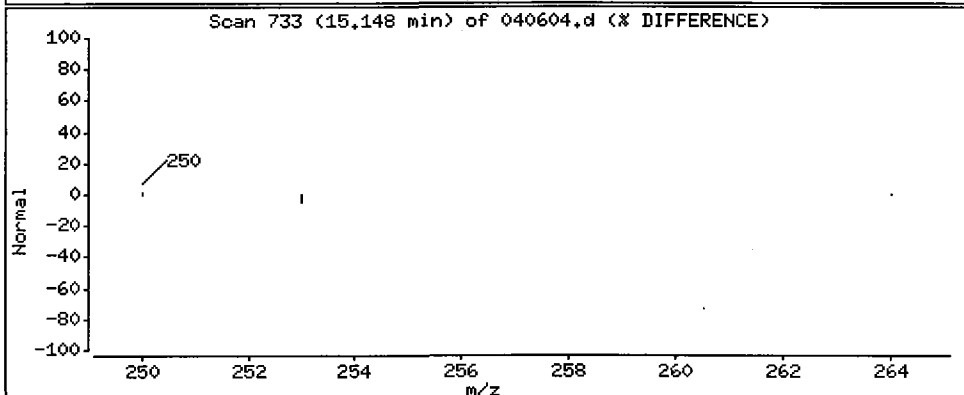
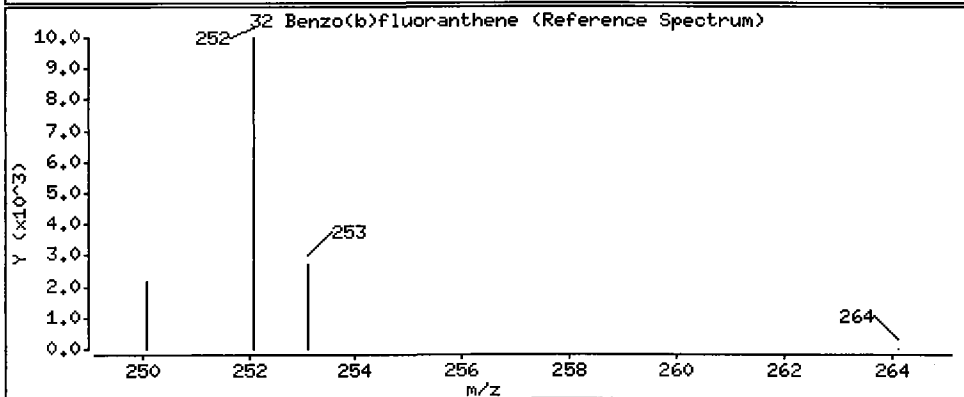
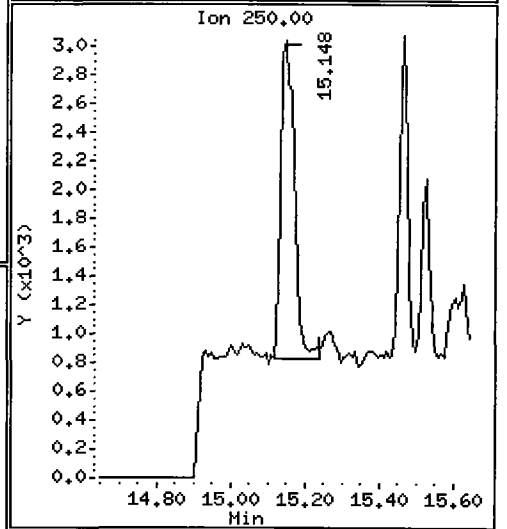
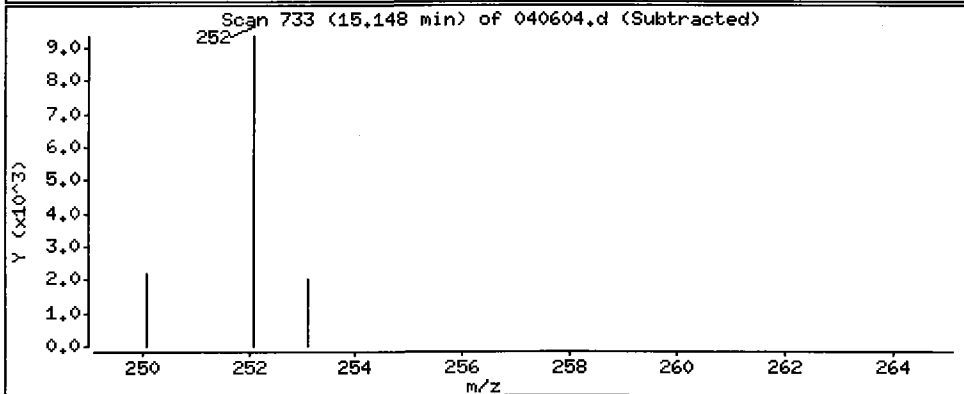
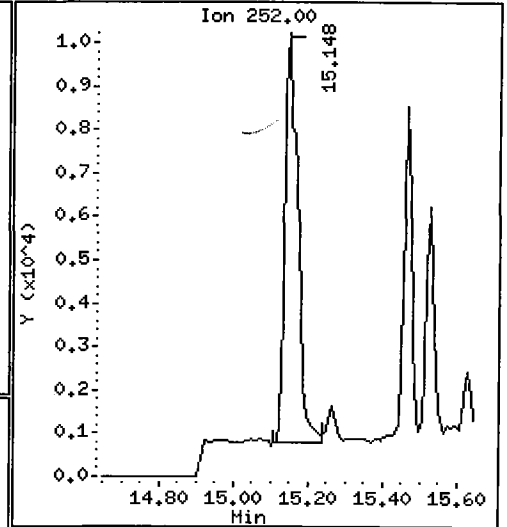
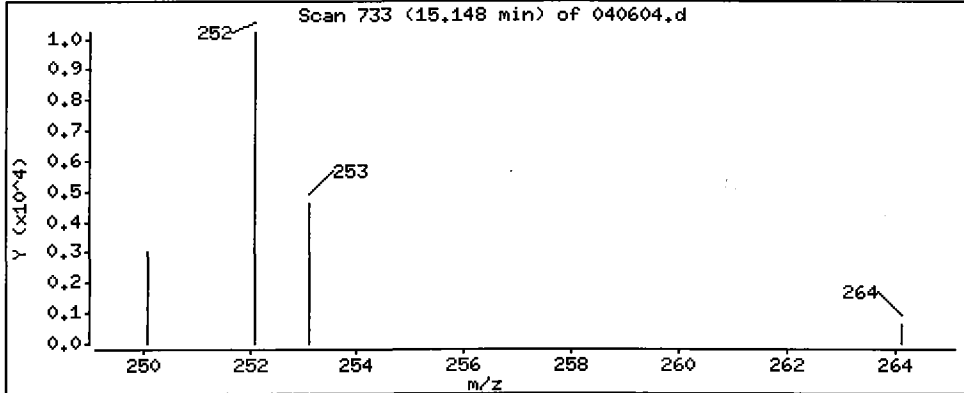
Column phase: ZB-5

Column diameter: 0.25

112

32 Benzo(b)fluoranthene

Concentration: 47.3 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

Operator: VTS

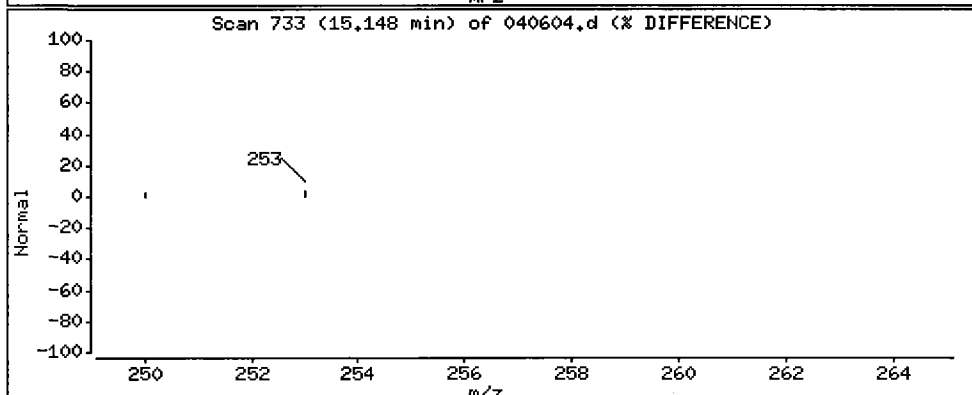
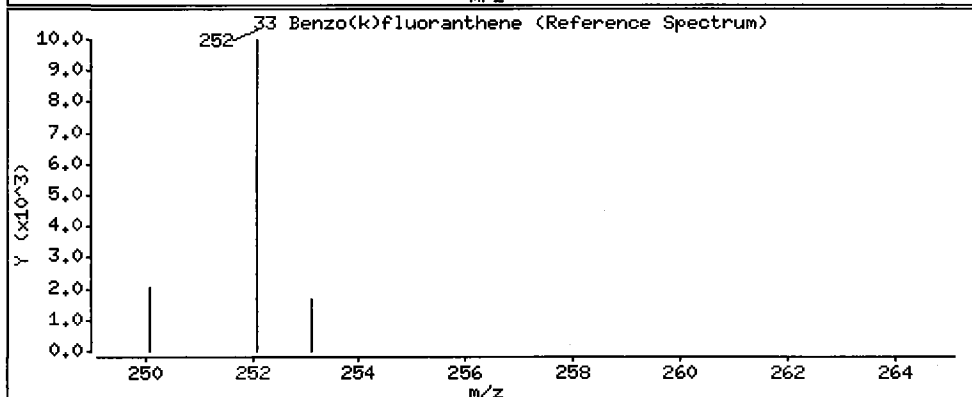
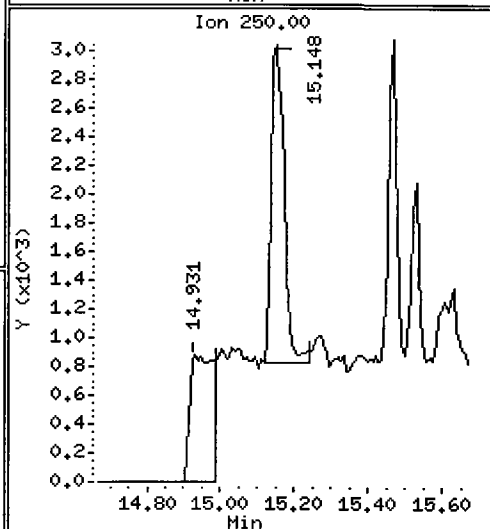
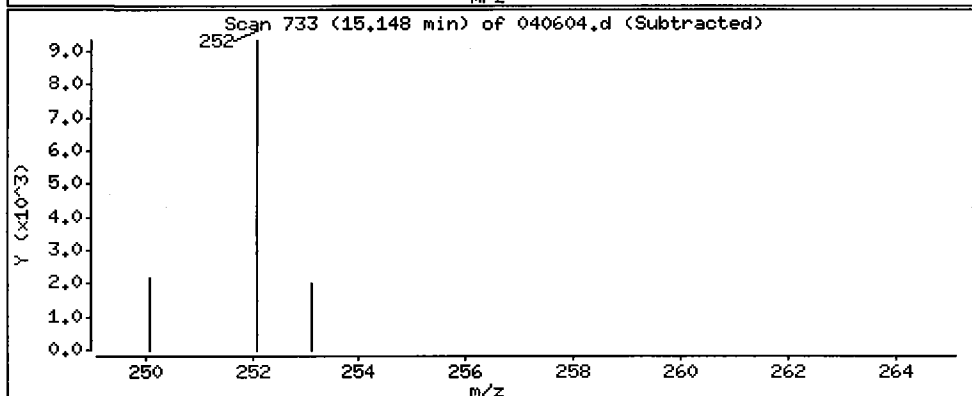
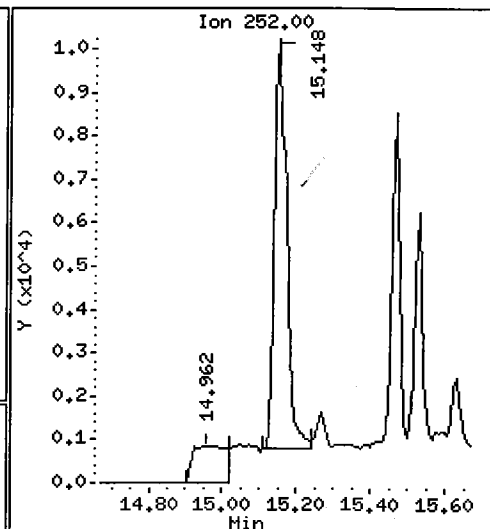
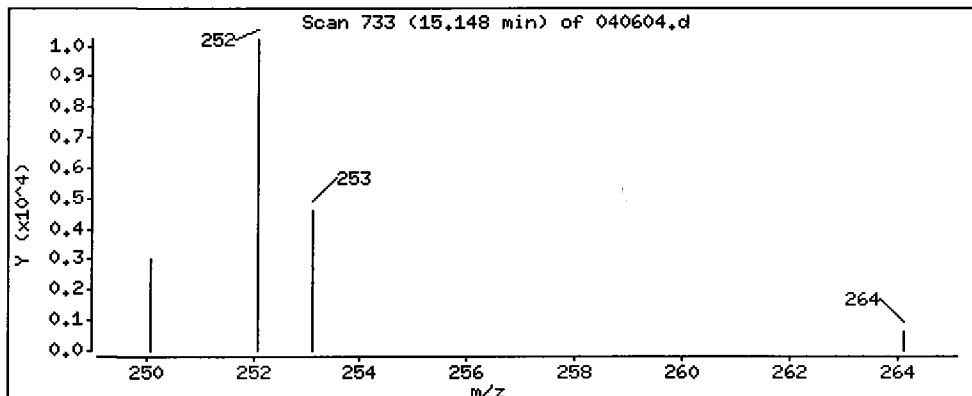
Column phase: ZB-5

Column diameter: 0.25

112

33 Benzo(k)fluoranthene

Concentration: 39.7 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

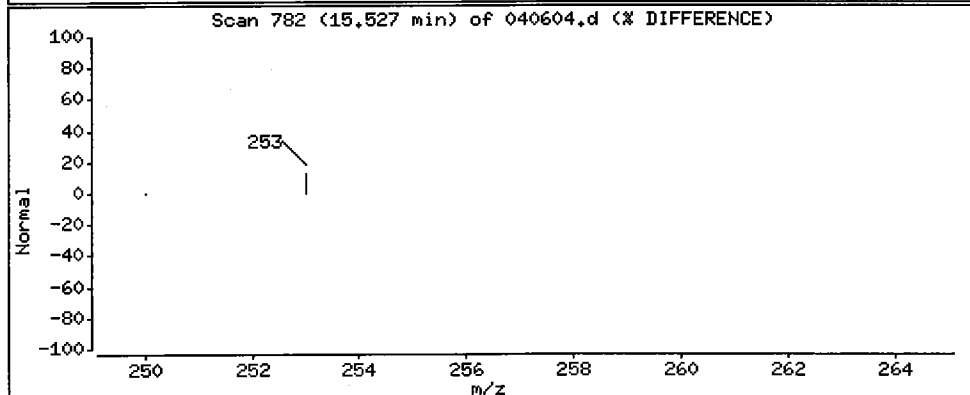
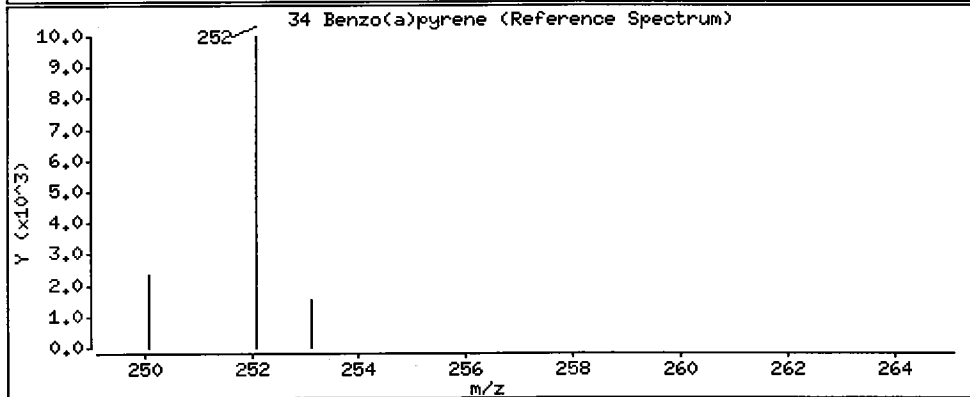
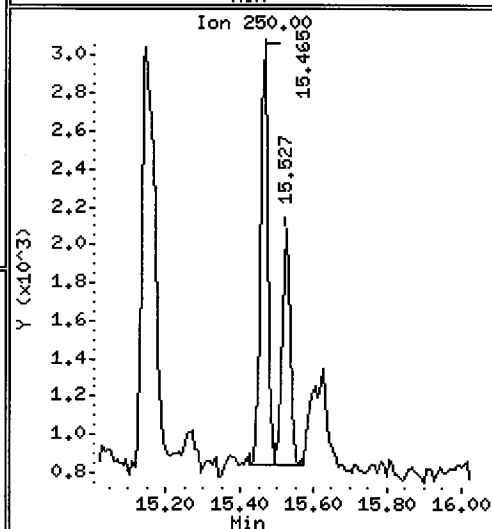
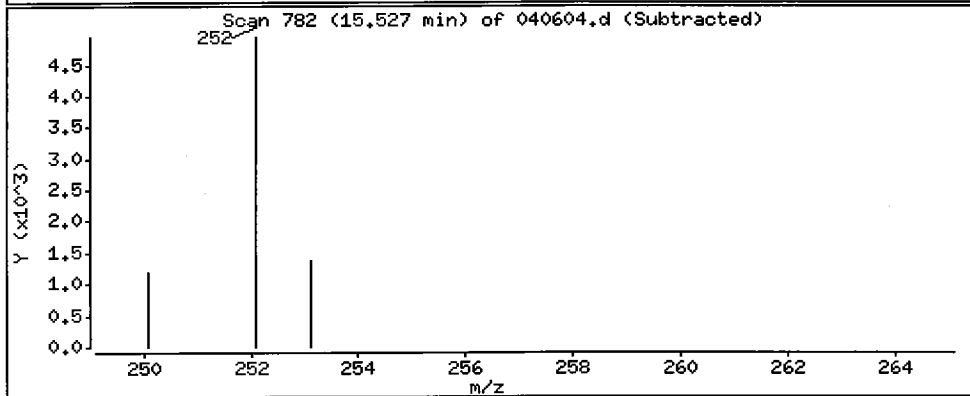
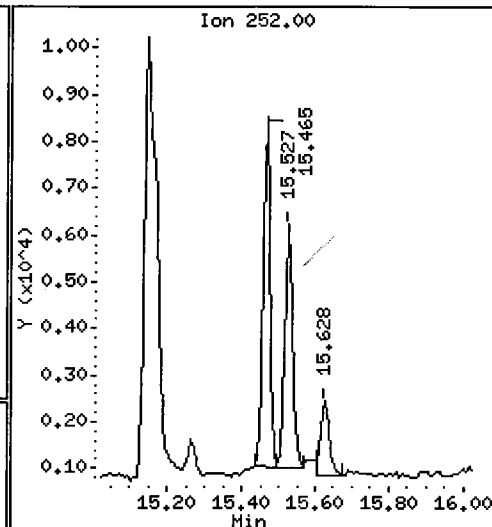
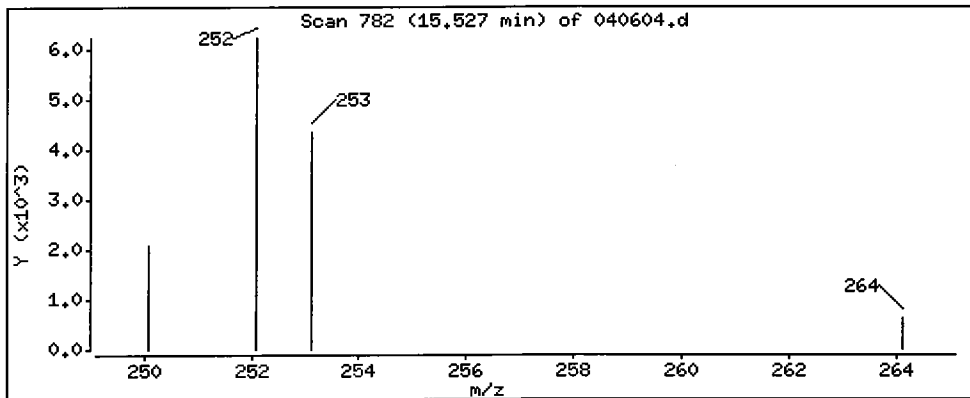
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

34 Benzo(a)pyrene

Concentration: 19.8 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

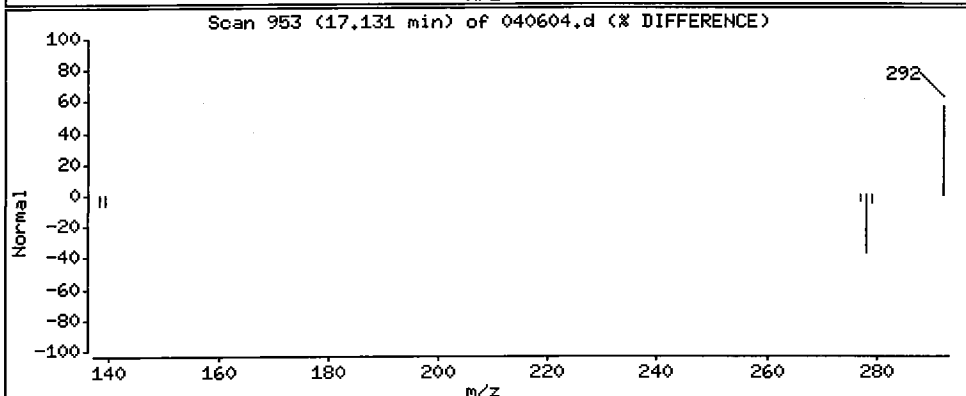
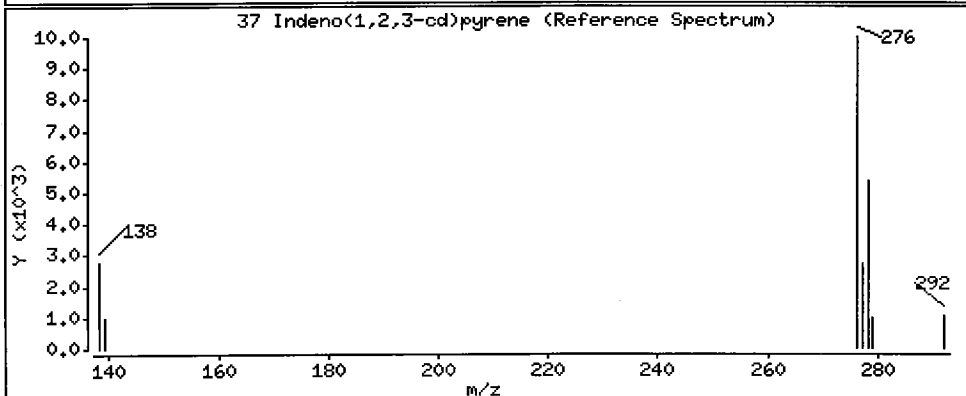
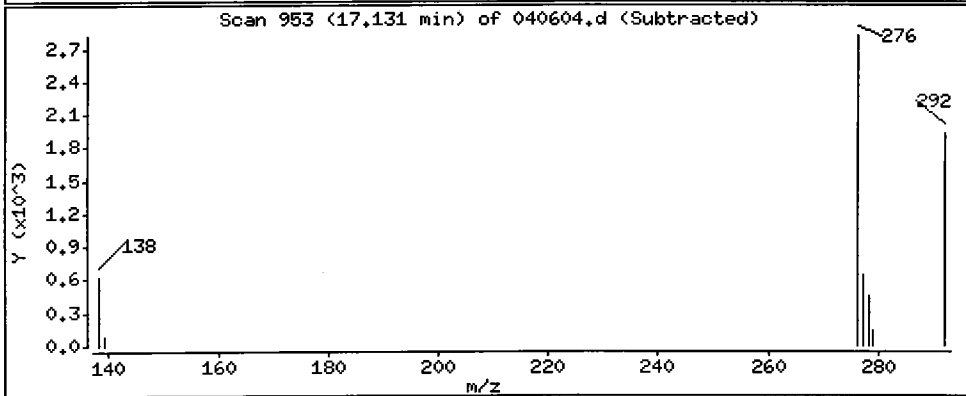
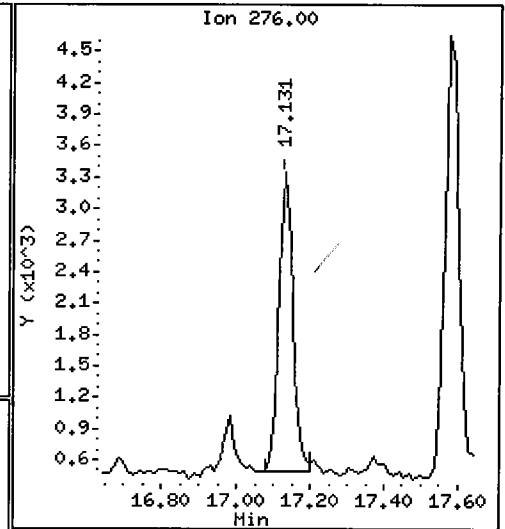
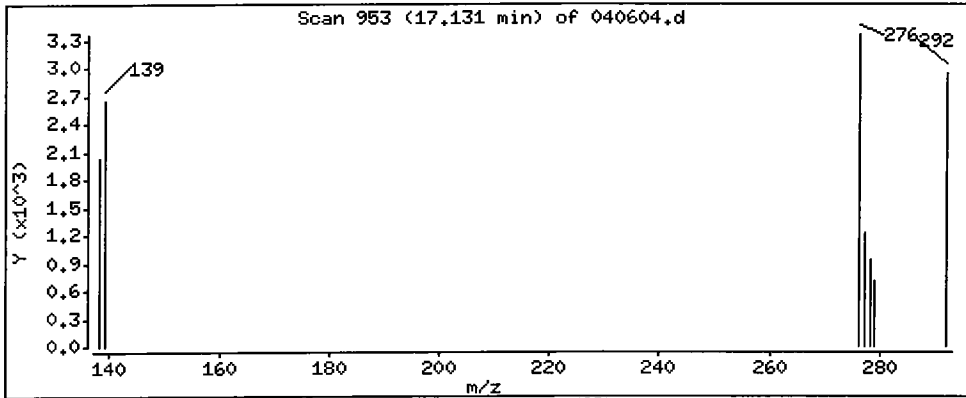
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

37 Indeno(1,2,3-cd)pyrene

Concentration: 17.0 ug/L



Date : 06-APR-2010 18:54

Client ID: CB4857032910COMP

Instrument: nt2.i

Sample Info: QQ59B

Volume Injected (uL): 2.0

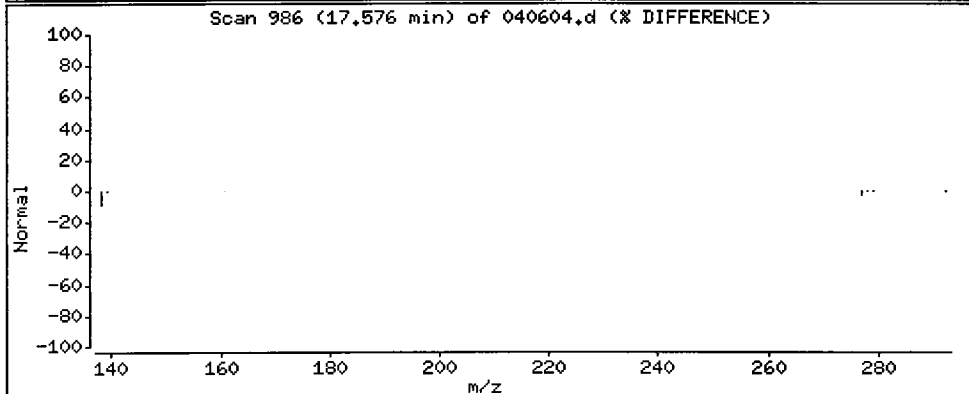
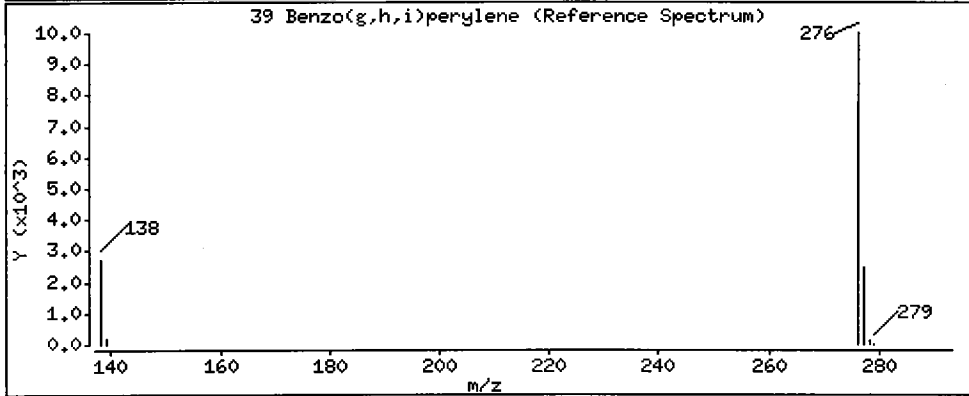
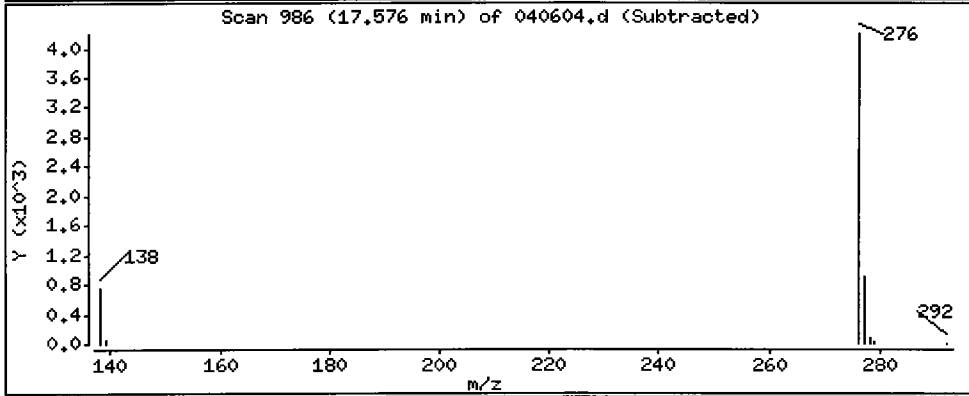
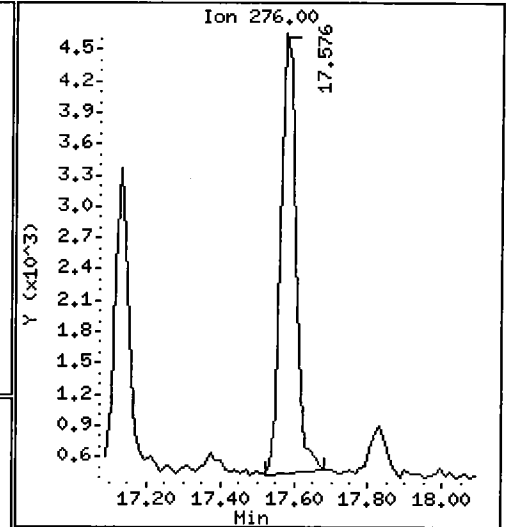
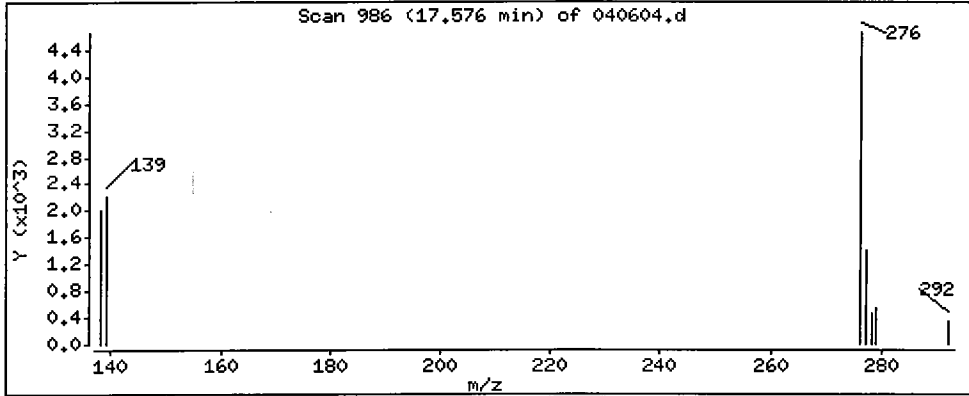
Operator: VTS

Column phase: ZB-5

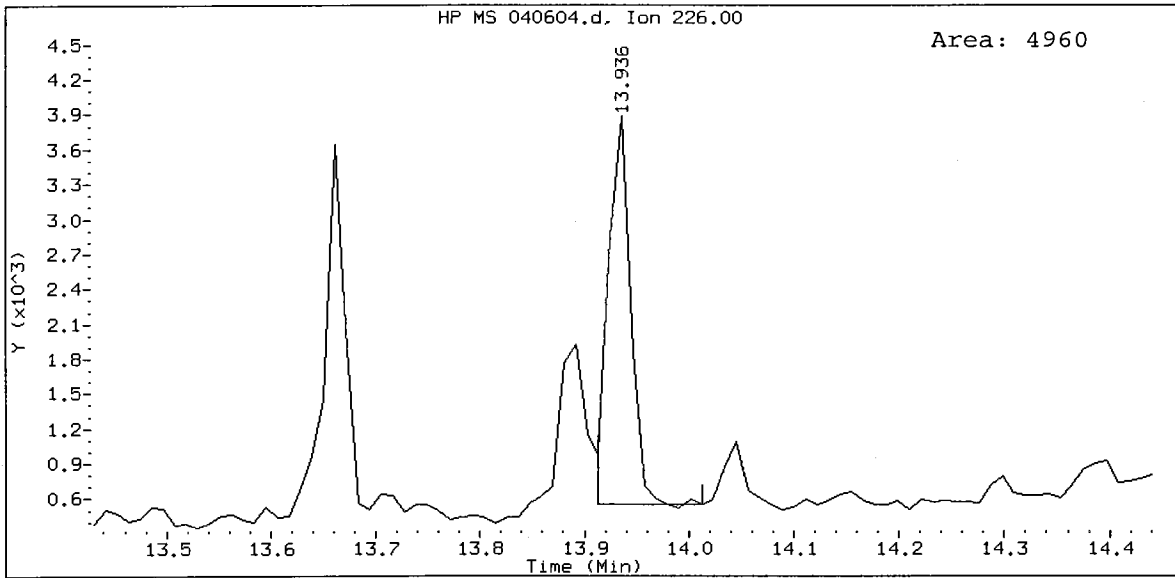
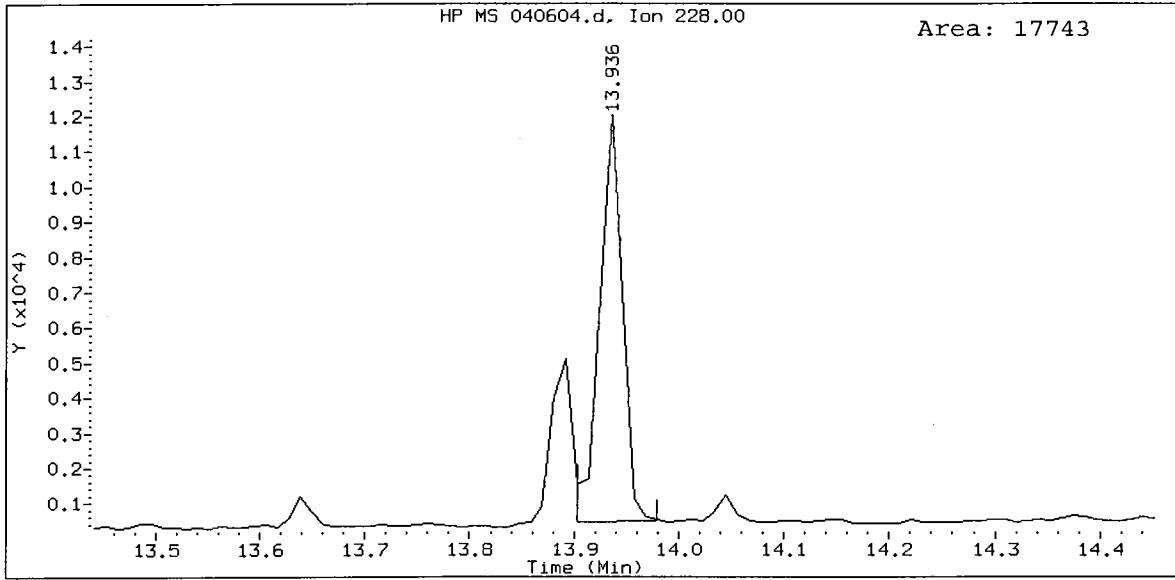
Column diameter: 0.25

39 Benzo(g,h,i)perylene

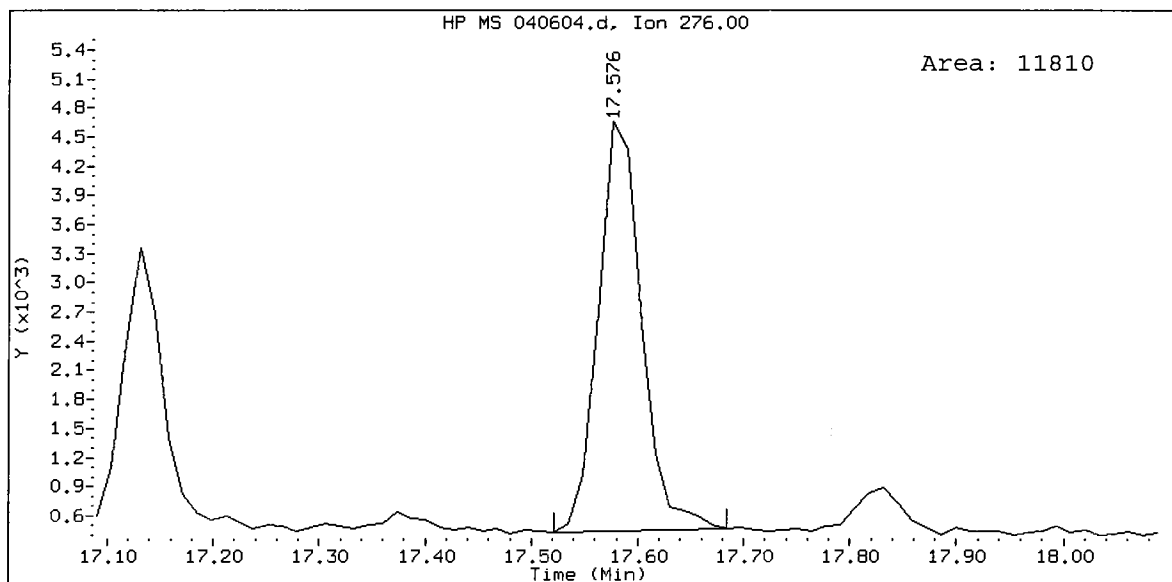
Concentration: 31.5 ug/L



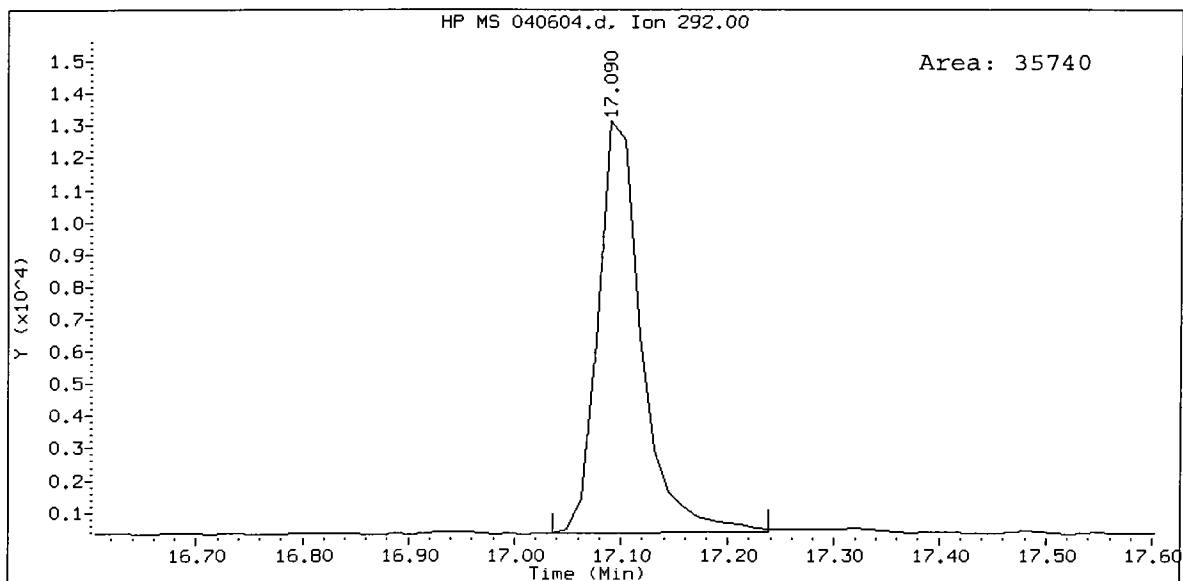
QQ59B, /chem3/nt2.i/20100406.b/040604.d
Chrysene Amount: 40.64



QQ59B, /chem3/nt2.i/20100406.b/040604.d
Benzo(g,h,i)perylene Amount: 31.51



QQ59B, /chem3/nt2.i/20100406.b/040604.d
Dibenzo(a,h)anthracene-d14 Amount: 138.13



ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: CB1032910COMP

SAMPLE

Lab Sample ID: QQ59C

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: *AS*

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 19:19

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo (a) anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo (b) fluoranthene	0.010	< 0.010 U
207-08-9	Benzo (k) fluoranthene	0.010	< 0.010 U
50-32-8	Benzo (a) pyrene	0.010	< 0.010 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	< 0.010 U
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 60.7%
d14-Dibenzo (a,h) anthracene 65.7%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/040605.d
 Lab Smp Id: QQ59C Client Smp ID: CB1032910COMP
 Inj Date : 06-APR-2010 19:19
 Operator : VTS Inst ID: nt2.i
 Smp Info : QQ59C
 Misc Info : 10-8214
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 10:26 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pna1mn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.634	6.635	(1.000)	119448	200.000	
5 Naphthalene	128	6.665	6.666	(1.005)	5958	8.74719	8.75
\$ 6 2-Methylnaphthalene-d10	152	7.481	7.481	(1.128)	74354	182.406	182
7 2-Methylnaphthalene	142	Compound Not Detected.					
8 1-Methylnaphthalene	142	Compound Not Detected.					
10 Acenaphthylene	152	Compound Not Detected.					
* 11 Acenaphthene-d10	164	8.832	8.833	(1.000)	65127	200.000	
12 Acenaphthene	153	Compound Not Detected.					
14 Dibenzofuran	168	Compound Not Detected.					
15 Fluorene	166	Compound Not Detected.					
* 18 Phenanthrene-d10	188	10.632	10.647	(1.000)	93812	200.000	
19 Phenanthrene	178	10.663	10.662	(1.003)	5442	9.07555	9.08
20 Anthracene	178	Compound Not Detected.					
24 Fluoranthene	202	12.126	12.136	(1.140)	5760	9.20296	9.20
25 Pyrene	202	12.411	12.410	(1.167)	4634	7.30933	7.31
28 Benzo(a)anthracene	228	Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	71172	200.000	
30 Chrysene	228	13.936	13.946	(1.002)	3381	7.57837	7.58
32 Benzo(b)fluoranthene	252				Compound Not Detected.		
33 Benzo(k)fluoranthene	252				Compound Not Detected.		
34 Benzo(a)pyrene	252				Compound Not Detected.		
* 35 Perylene-d12	264	15.597	15.603	(1.000)	66808	200.000	
37 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.		
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.091	17.105	(1.096)	50545	196.869	197
38 Dibenzo(a,h)anthracene	278				Compound Not Detected.		
39 Benzo(g,h,i)perylene	276				Compound Not Detected.		

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 040605.d
 Lab Smp Id: QQ59C
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info: 10-8214

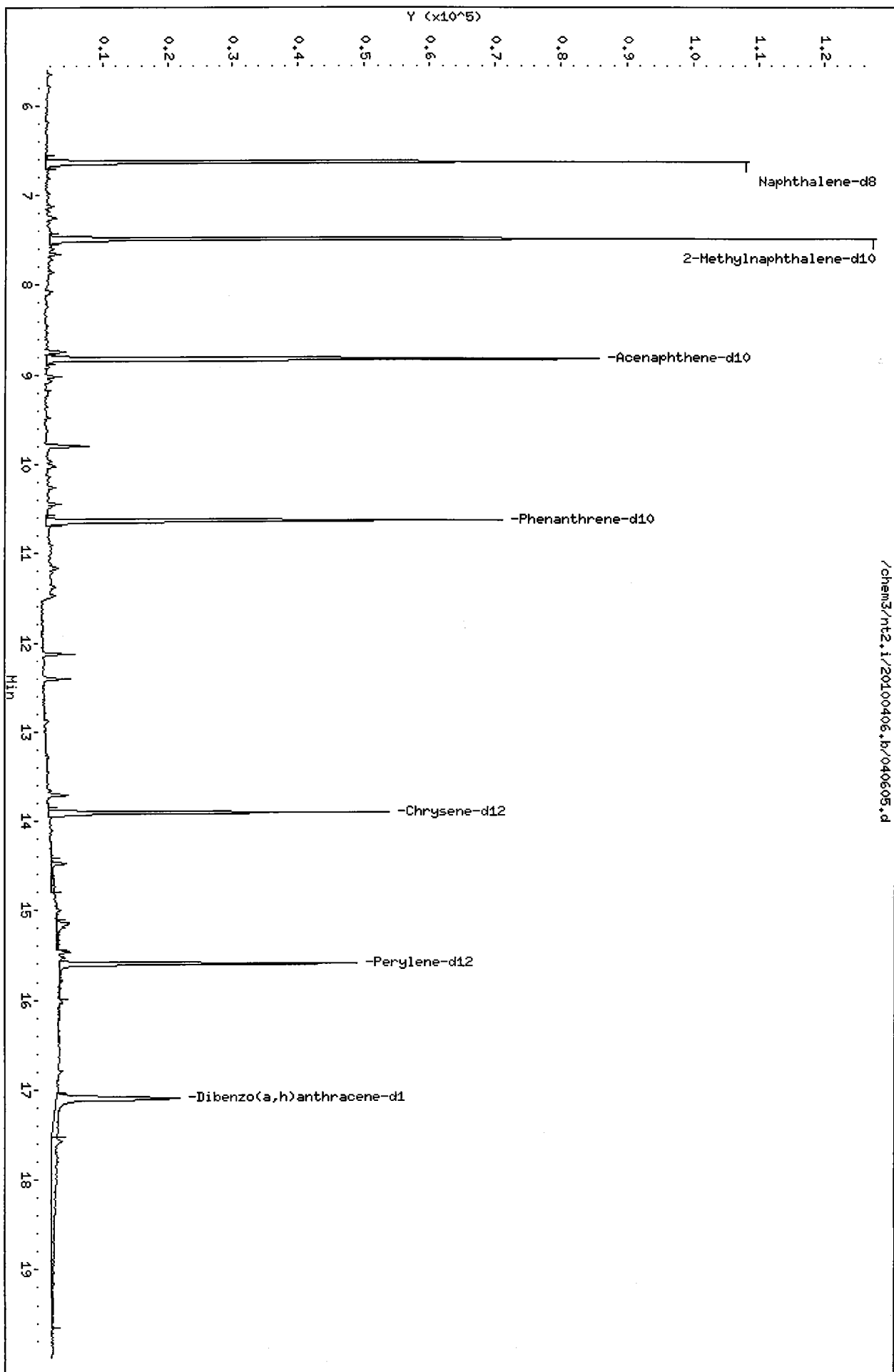
Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Client Smp ID: CB1032910COMP
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	119448	-1.13
11 Acenaphthene-d10	72668	36334	145336	65127	-10.38
18 Phenanthrene-d10	112603	56302	225206	93812	-16.69
29 Chrysene-d12	101702	50851	203404	71172	-30.02
35 Perylene-d12	87112	43556	174224	66808	-23.31

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	-0.01
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.01
35 Perylene-d12	15.60	15.10	16.10	15.60	-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.



ORGANICS ANALYSIS DATA SHEET

PNAs by Low Level SW8270D-SIM GC/MS

Page 1 of 1


Sample ID: CB100032910COMP

SAMPLE

Lab Sample ID: QQ59D

LIMS ID: 10-8215

Matrix: Water

Data Release Authorized: 

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 20:33

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	0.015
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	0.033
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	0.066
129-00-0	Pyrene	0.010	0.064
56-55-3	Benzo (a) anthracene	0.010	0.016
218-01-9	Chrysene	0.010	0.044
205-99-2	Benzo (b) fluoranthene	0.010	0.021
207-08-9	Benzo (k) fluoranthene	0.010	0.021
50-32-8	Benzo (a) pyrene	0.010	0.018
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	0.016
53-70-3	Dibenz (a,h) anthracene	0.010	< 0.010 U
191-24-2	Benzo (g,h,i) perylene	0.010	0.028
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 56.7%
d14-Dibenzo(a,h)anthracene 43.0%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/040608.d
 Lab Smp Id: QQ59D Client Smp ID: CB100032910COMP
 Inj Date : 06-APR-2010 20:33
 Operator : VTS Inst ID: nt2.i
 Smp Info : QQ59D
 Misc Info : 10-8215
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 10:26 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 15
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pna1mn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.637	6.635	(1.000)	117582	200.000	
5 Naphthalene	128	6.652	6.666	(1.002)	10333	15.4111	15.4
\$ 6 2-Methylnaphthalene-d10	152	7.483	7.481	(1.127)	68330	170.288	170
7 2-Methylnaphthalene	142	7.514	7.512	(1.132)	3567	8.59093	8.59(M)
8 1-Methylnaphthalene	142	7.652	7.650	(1.153)	2178	5.01185	5.01
10 Acenaphthylene	152	Compound Not Detected.					
* 11 Acenaphthene-d10	164	8.820	8.833	(1.000)	63208	200.000	
12 Acenaphthene	153	Compound Not Detected.					
14 Dibenzofuran	168	Compound Not Detected.					
15 Fluorene	166	Compound Not Detected.					
* 18 Phenanthrene-d10	188	10.632	10.647	(1.000)	92068	200.000	
19 Phenanthrene	178	10.663	10.662	(1.003)	19373	32.9201	32.9
20 Anthracene	178	Compound Not Detected.					
24 Fluoranthene	202	12.125	12.136	(1.140)	40660	66.1946	66.2
25 Pyrene	202	12.411	12.410	(1.167)	40091	64.4345	64.4

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN (ng/mL)	FINAL (ug/L)
28 Benzo(a)anthracene	228	13.892	13.892	(0.999)	7020	16.4526	16.5
* 29 Chrysene-d12	240	13.903	13.914	(1.000)	66940	200.000	
30 Chrysene	228	13.936	13.946	(1.002)	18248	43.4880	43.5
32 Benzo(b)fluoranthene	252	15.148	15.147	(0.971)	21175	45.7140	45.7
33 Benzo(k)fluoranthene	252	15.148	15.170	(0.971)	21175	38.3355	38.3
34 Benzo(a)pyrene	252	15.527	15.526	(0.996)	6742	18.2184	18.2 (M)
* 35 Perylene-d12	264	15.597	15.603	(1.000)	65541	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.145	(1.098)	6588	15.5672	15.6
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.105	(1.096)	32498	129.025	129 (M)
38 Dibenzo(a,h)anthracene	278	17.144	17.145	(1.099)	1773	5.33181	5.33 (M)
39 Benzo(g,h,i)perylene	276	17.576	17.590	(1.127)	10065	27.5891	27.6

21.0

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 040608.d
 Lab Smp Id: QQ59D
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info: 10-8215

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Client Smp ID: CB100032910COMP
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	117582	-2.67
11 Acenaphthene-d10	72668	36334	145336	63208	-13.02
18 Phenanthrene-d10	112603	56302	225206	92068	-18.24
29 Chrysene-d12	101702	50851	203404	66940	-34.18
35 Perylene-d12	87112	43556	174224	65541	-24.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.03
11 Acenaphthene-d10	8.83	8.33	9.33	8.82	-0.16
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.90	-0.07
35 Perylene-d12	15.60	15.10	16.10	15.60	-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.

Analytical Resources, Inc.

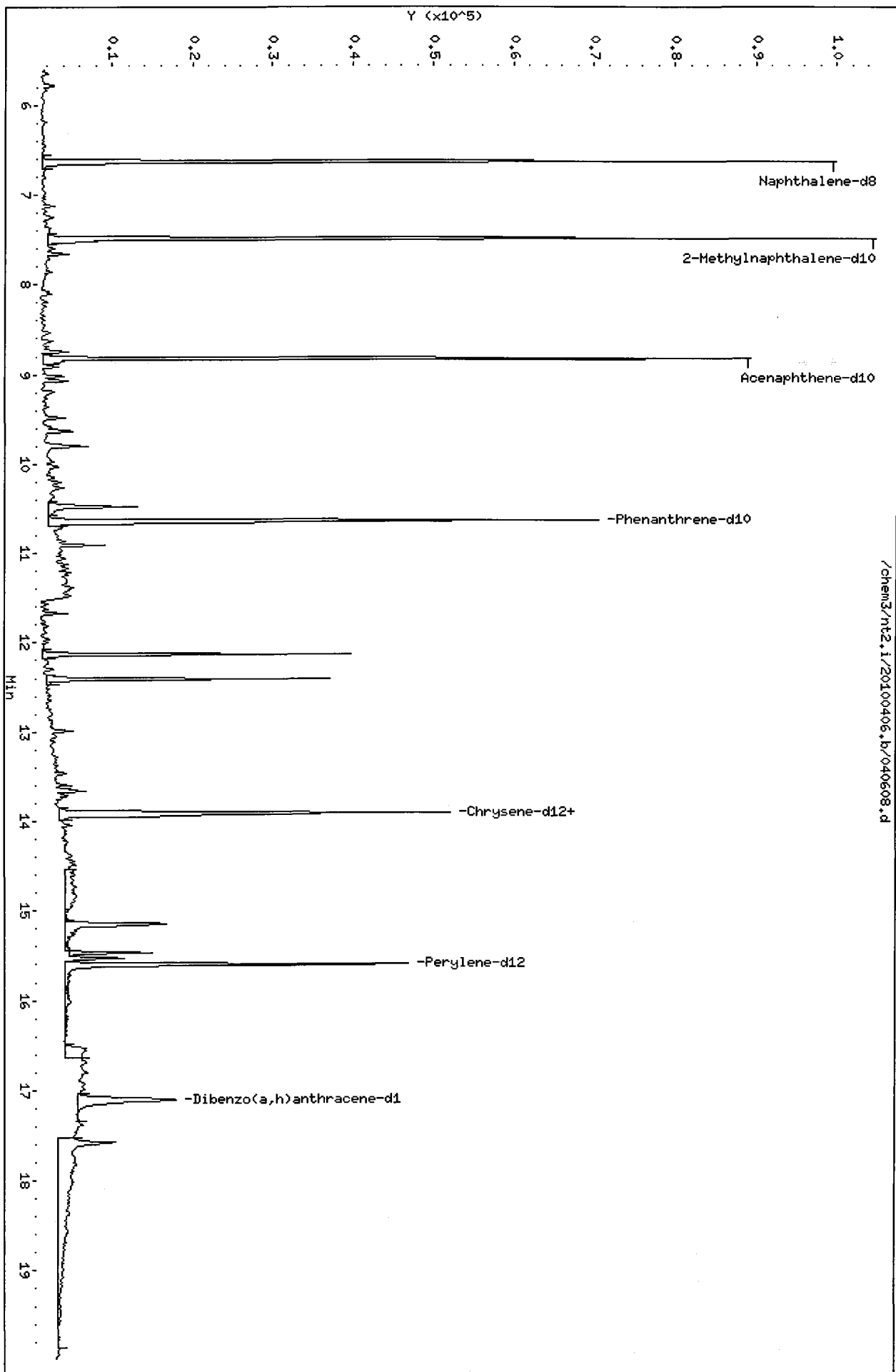
RECOVERY REPORT

Client Name: Floyd/Snider	Client SDG: QQ59
Sample Matrix: LIQUID	Fraction: SV
Lab Smp Id: QQ59D	Client Smp ID: CB100032910COMP
Level: LOW	Operator: VTS
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File: waterlcs.spk	Quant Type: ISTD
Sublist File: pnalmn.sub	
Method File: /chem3/nt2.i/20100406.b/lowsim.m	
Misc Info: 10-8215	

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	170	56.76	31-109
\$ 36 Dibenzo(a,h) anthra	300	129	43.01	10-133

Data File: /chem3/nt2,i/20100406,b/040608.d
Date : 06-APR-2010 20:33
Client ID: CB10003291000MP
Sample Info: Q059D
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2,i
Operator: VTS
Column diameter: 0.25



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

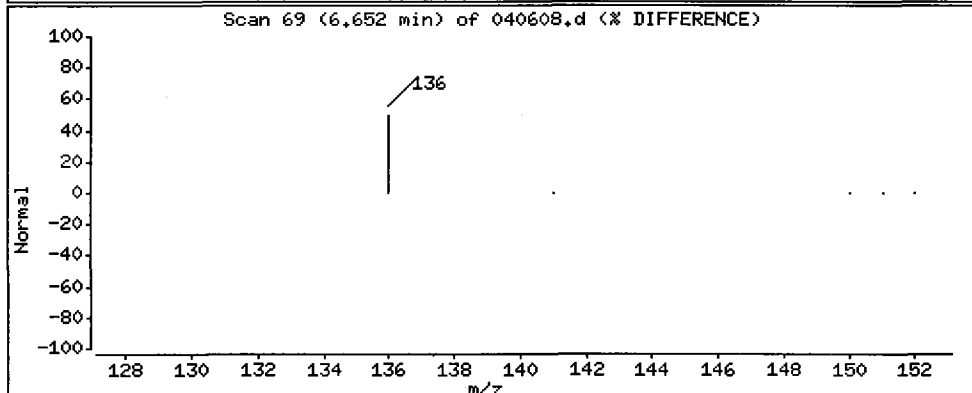
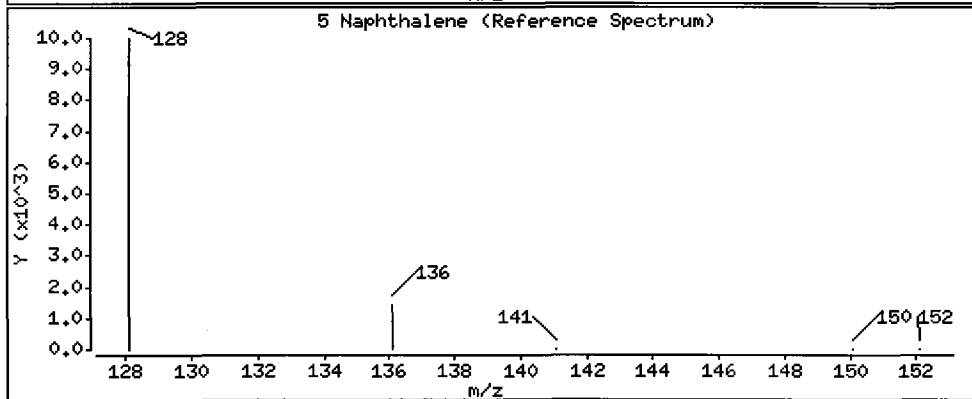
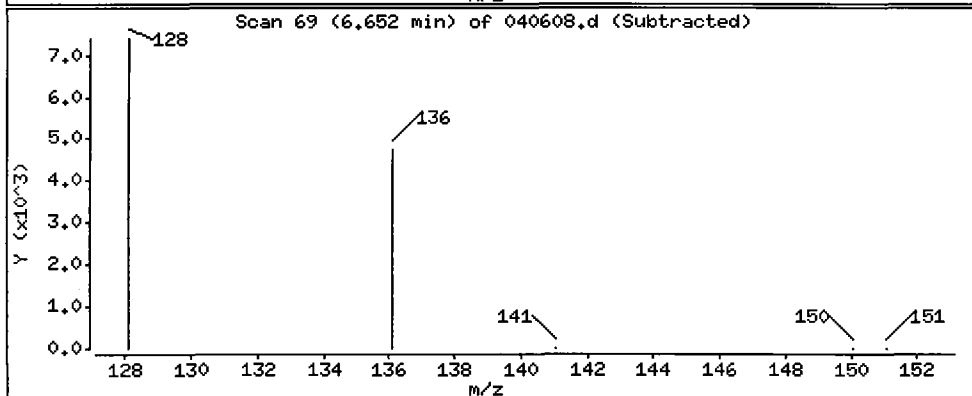
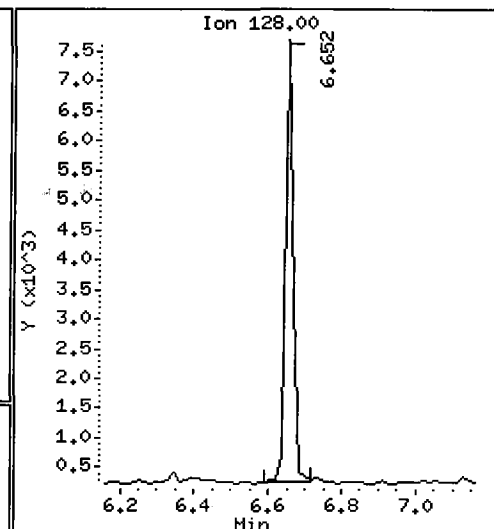
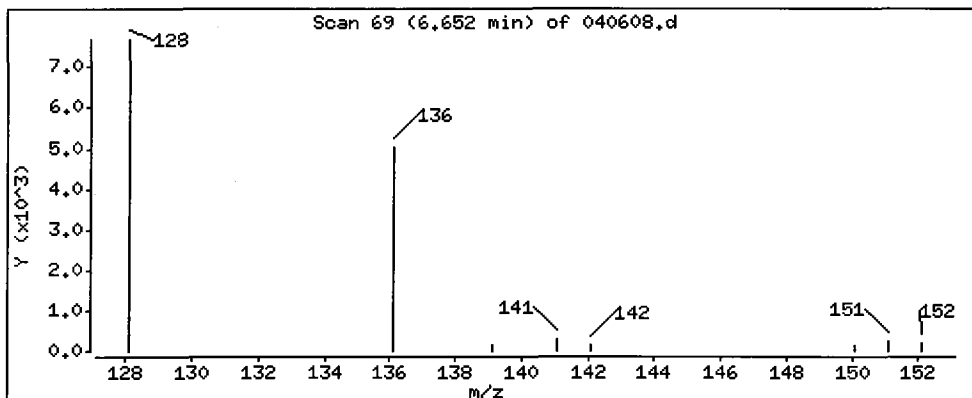
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

5 Naphthalene

Concentration: 15.4 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: Q059D

Volume Injected (uL): 2.0

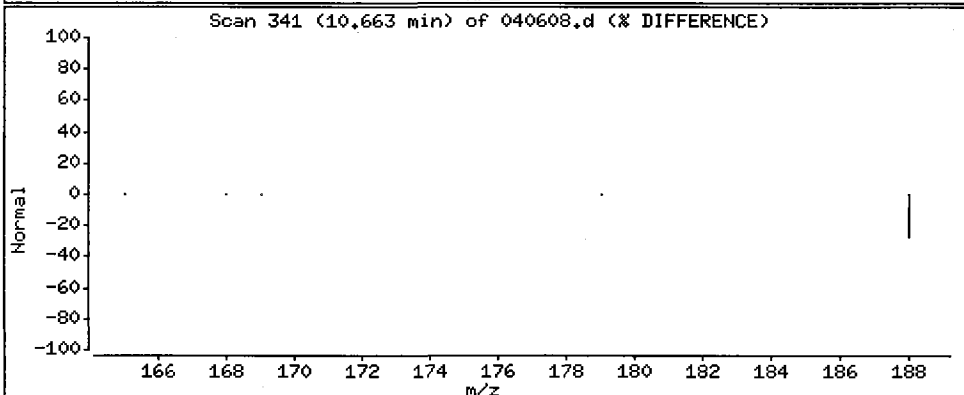
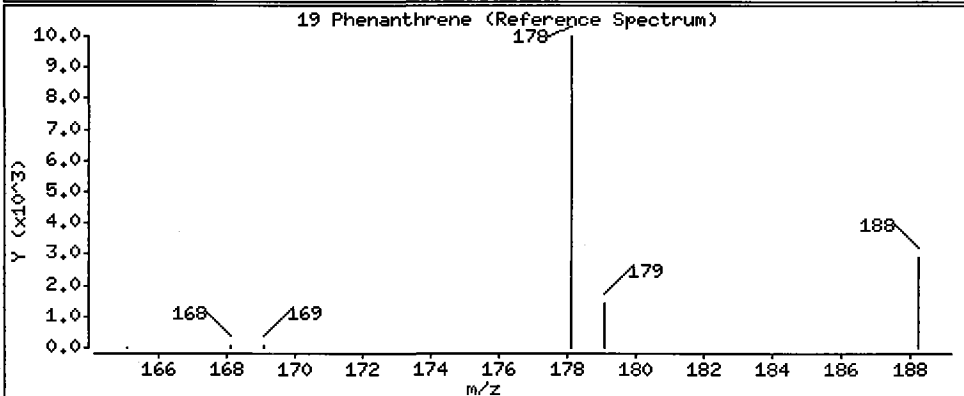
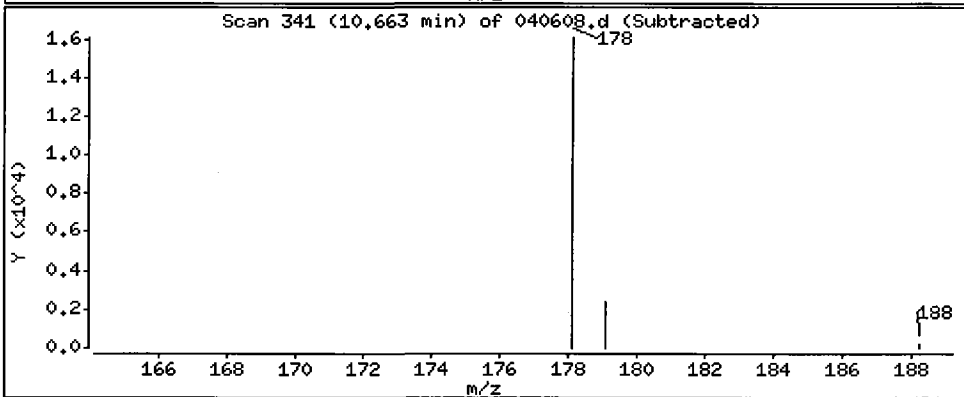
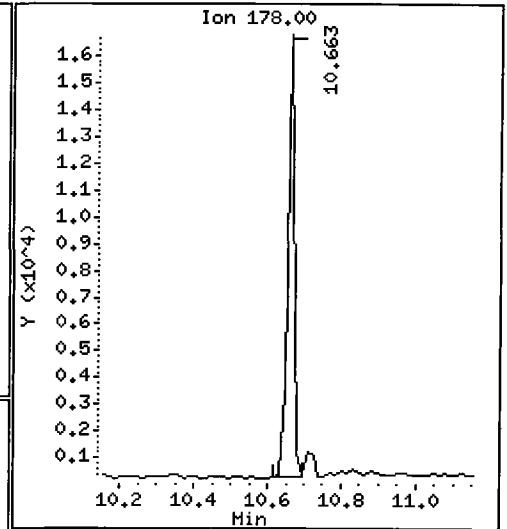
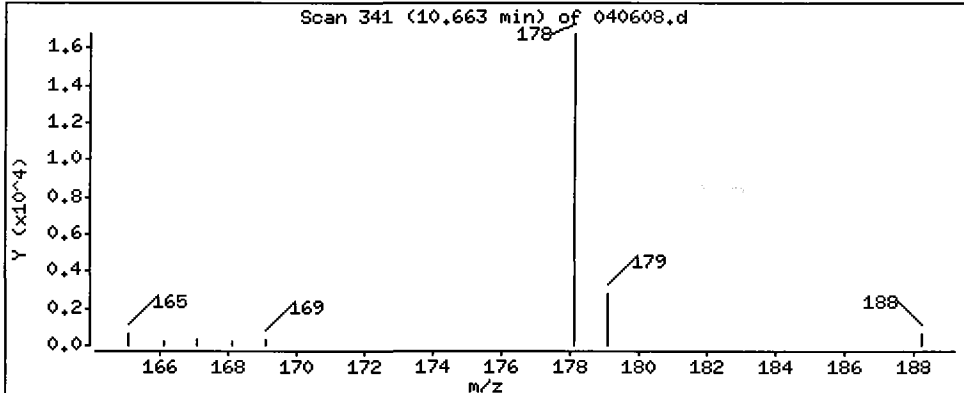
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

19 Phenanthrene

Concentration: 32.9 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

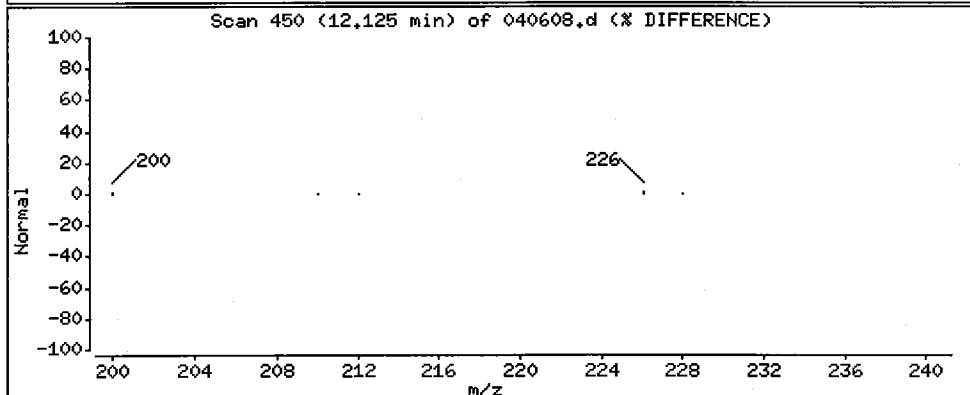
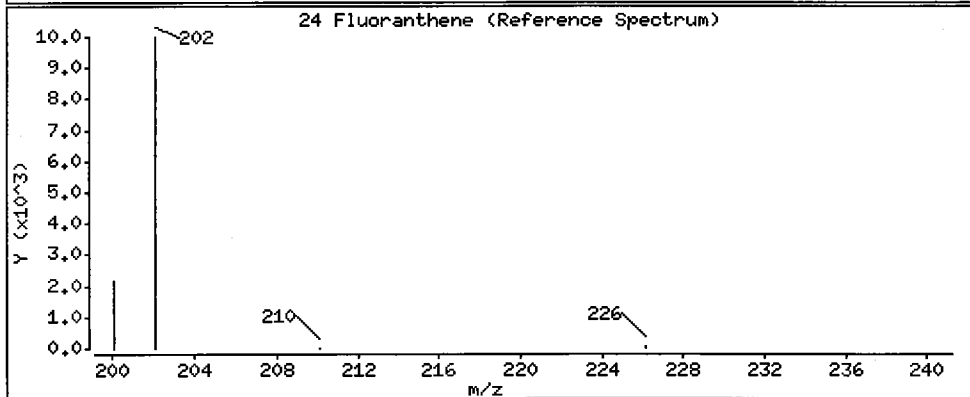
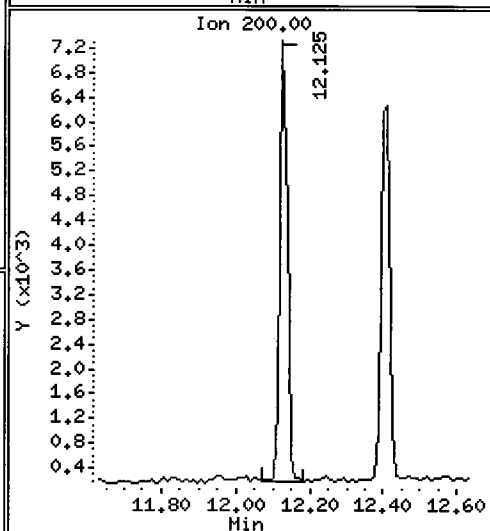
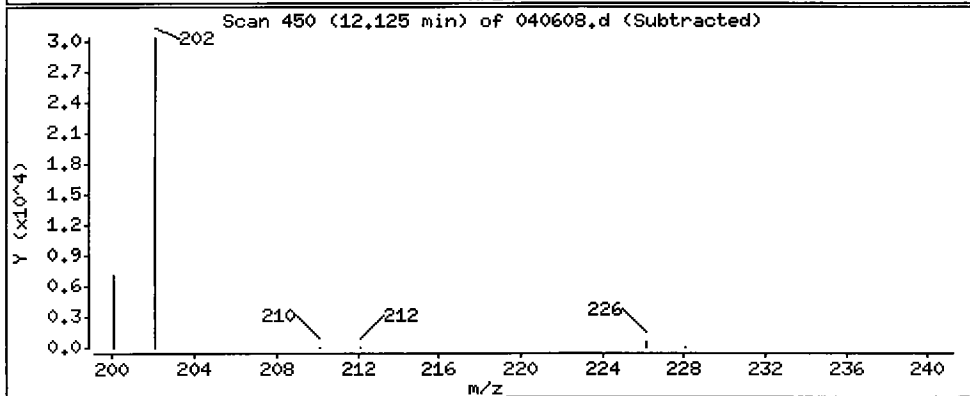
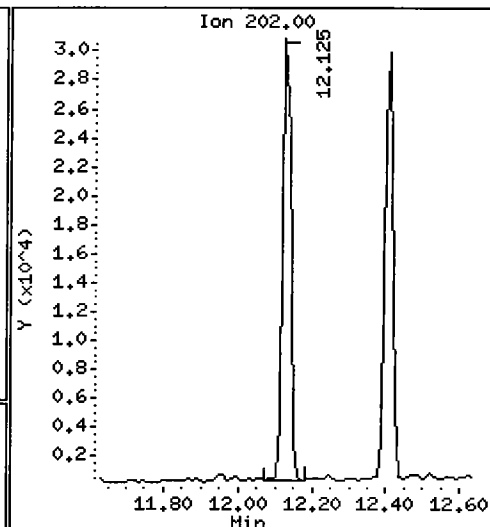
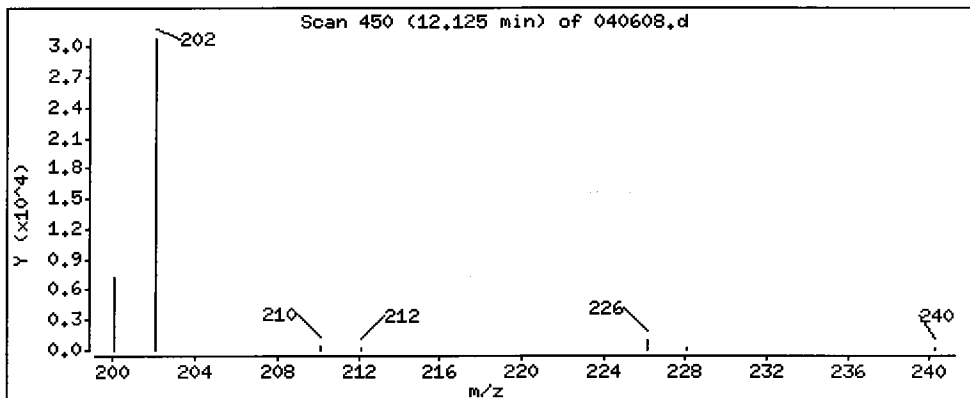
Operator: VTS

Column phase: ZB-5

Column diameter: 0,25

24 Fluoranthene

Concentration: 66,2 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

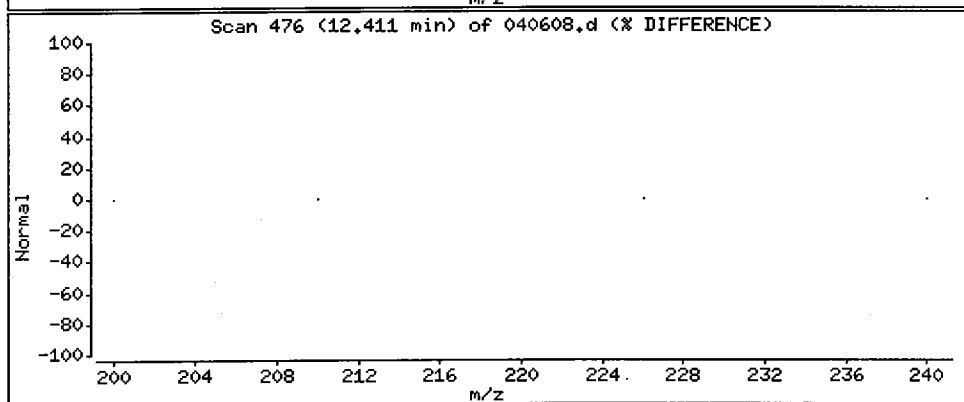
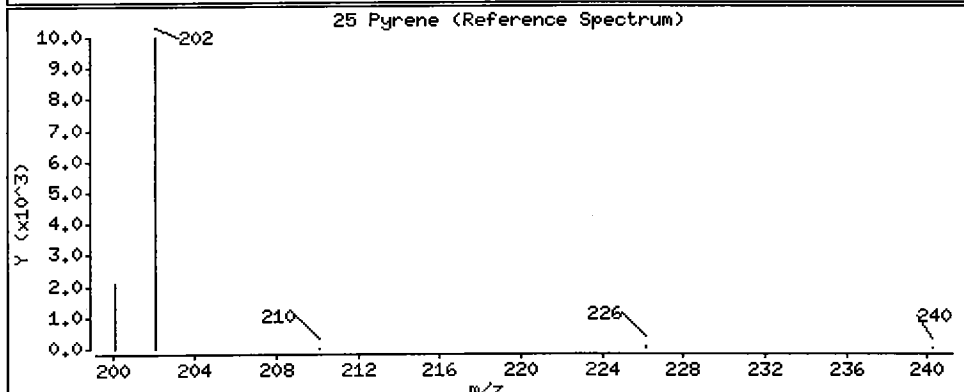
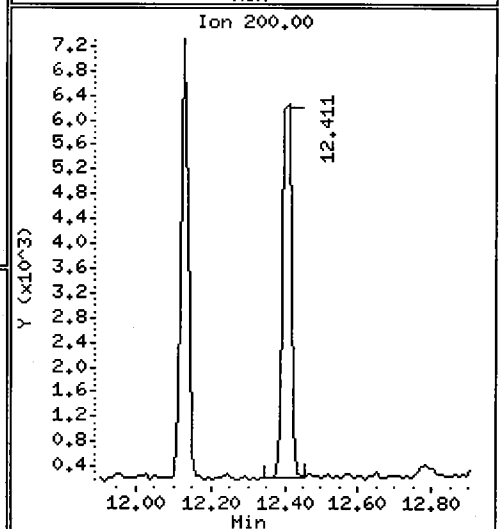
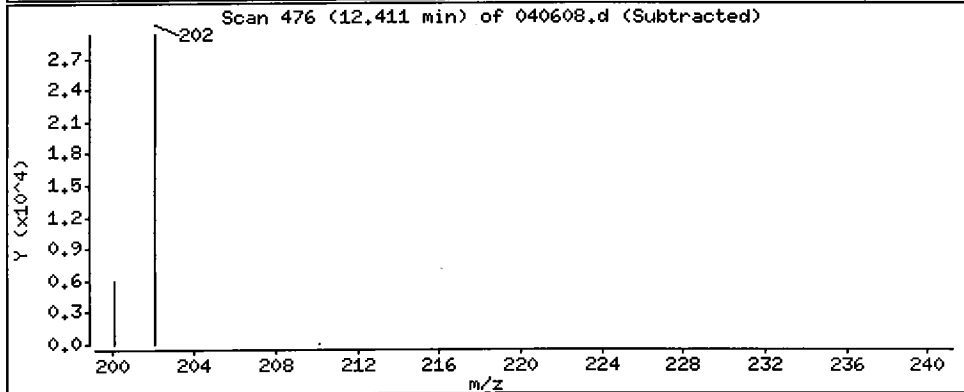
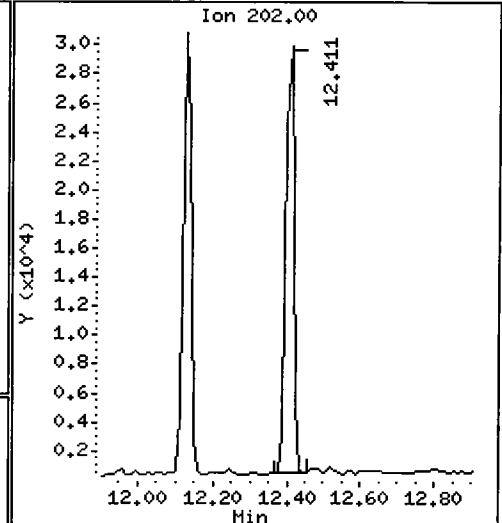
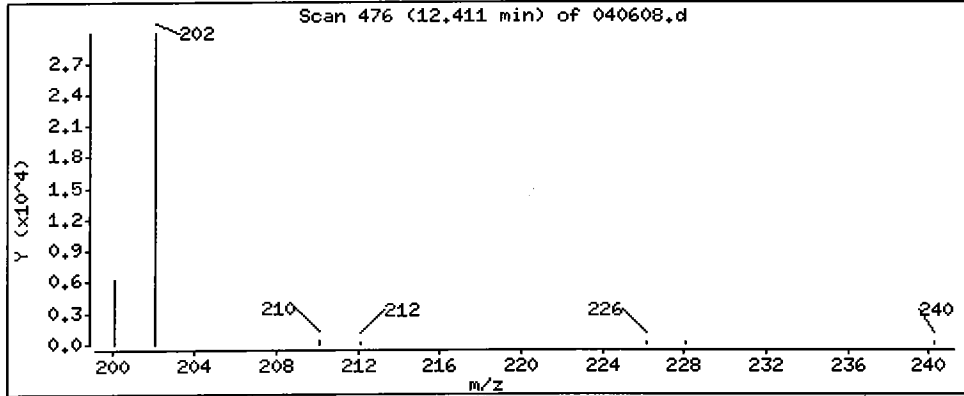
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

25 Pyrene

Concentration: 64.4 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

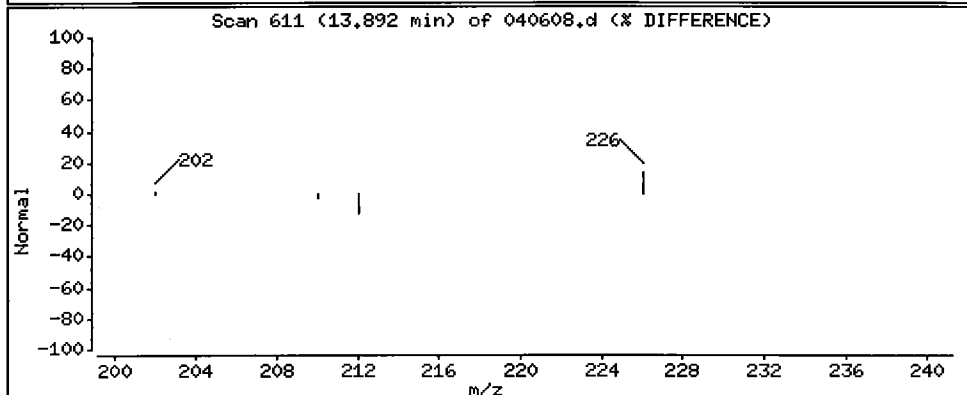
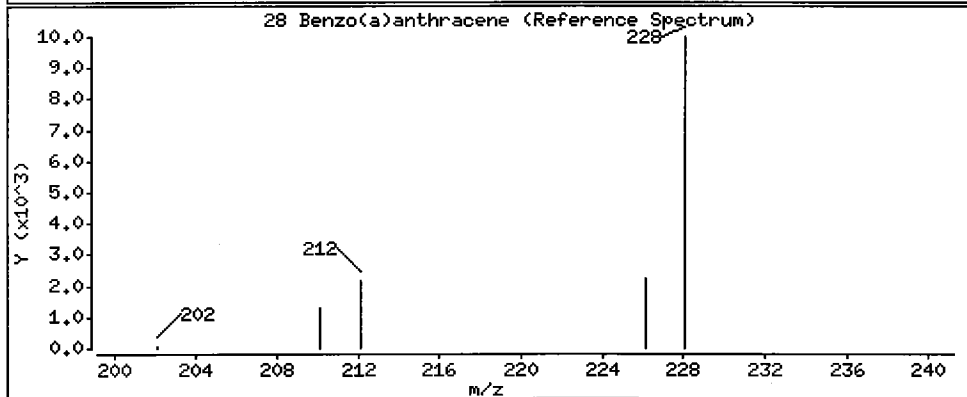
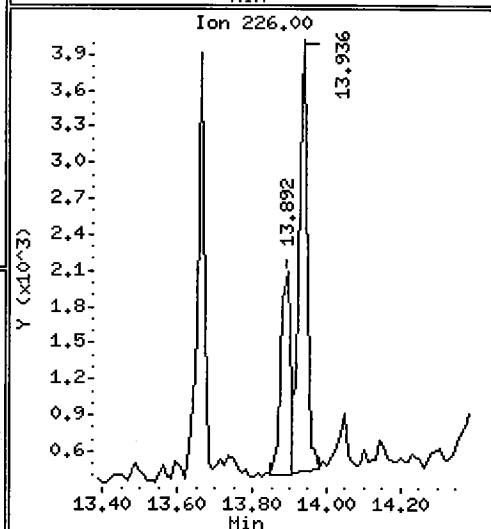
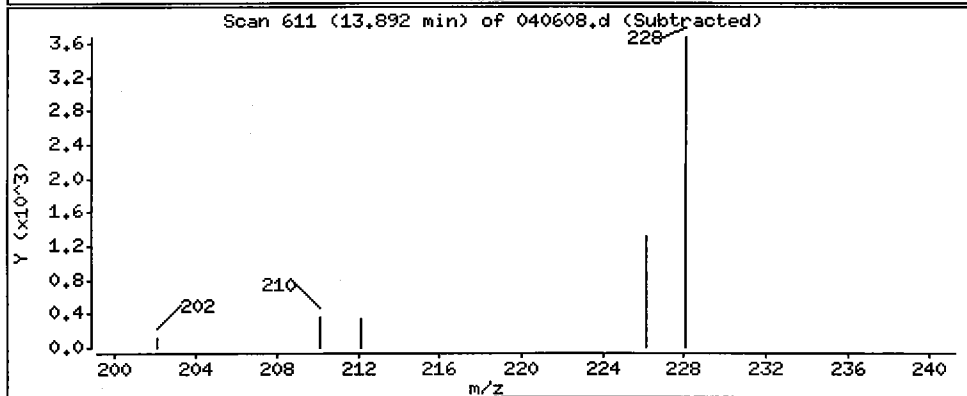
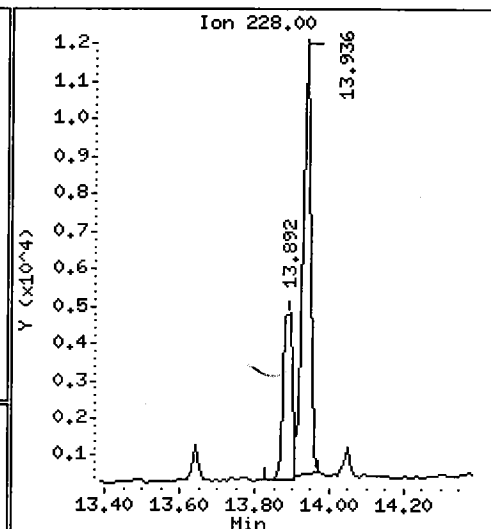
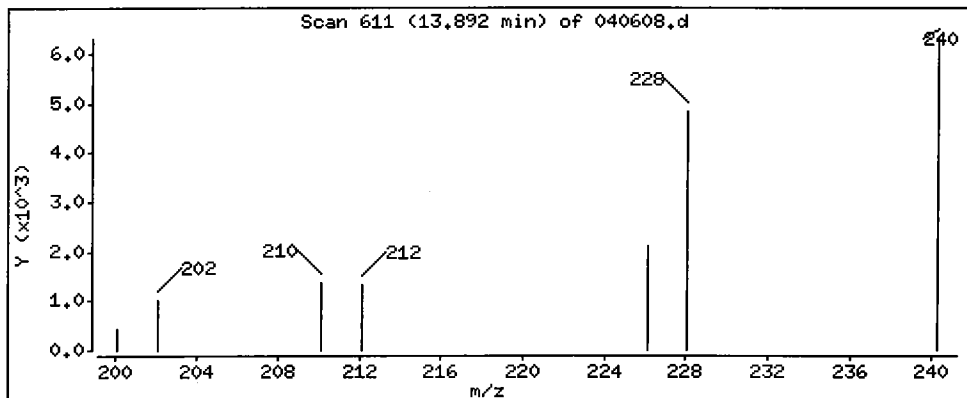
Operator: VTS

Column phase: ZB-5

Column diameter: 0,25

28 Benzo(a)anthracene

Concentration: 16,5 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

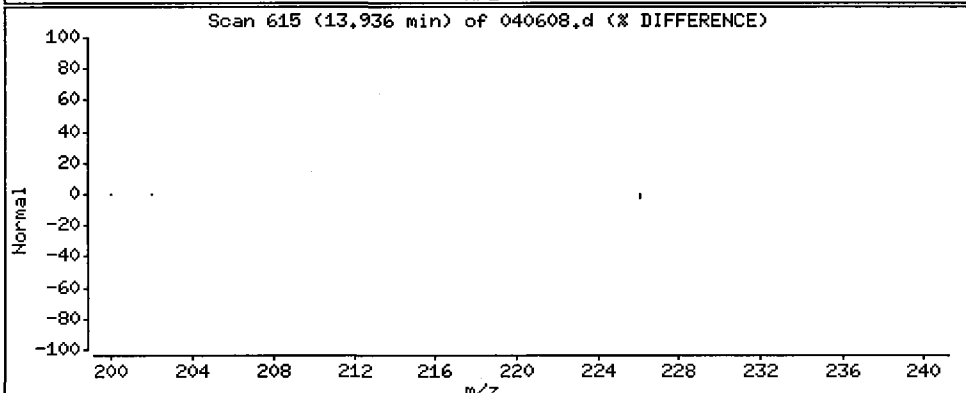
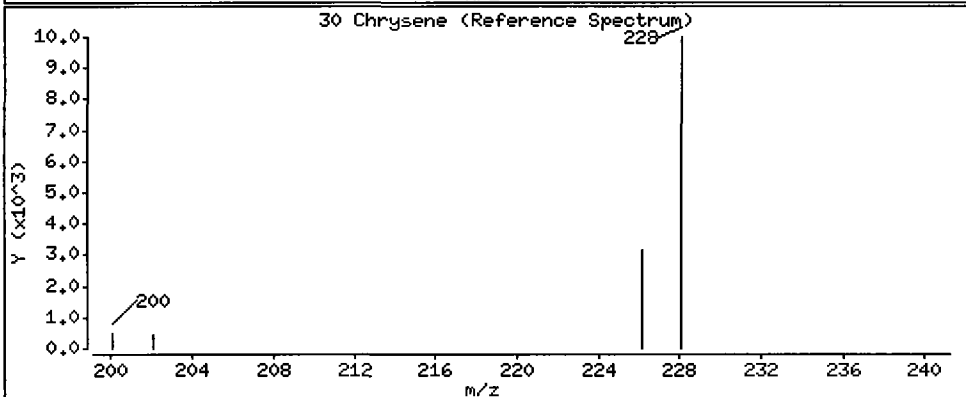
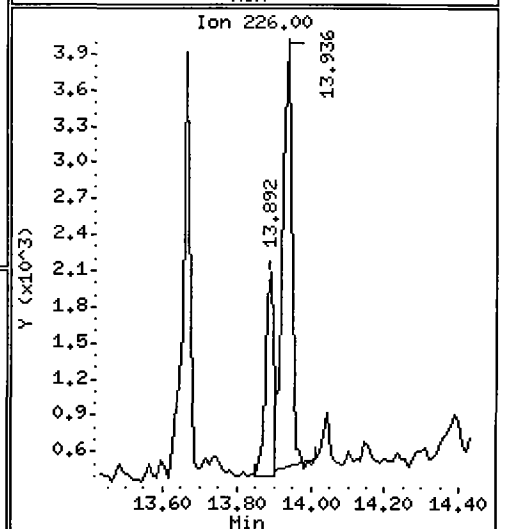
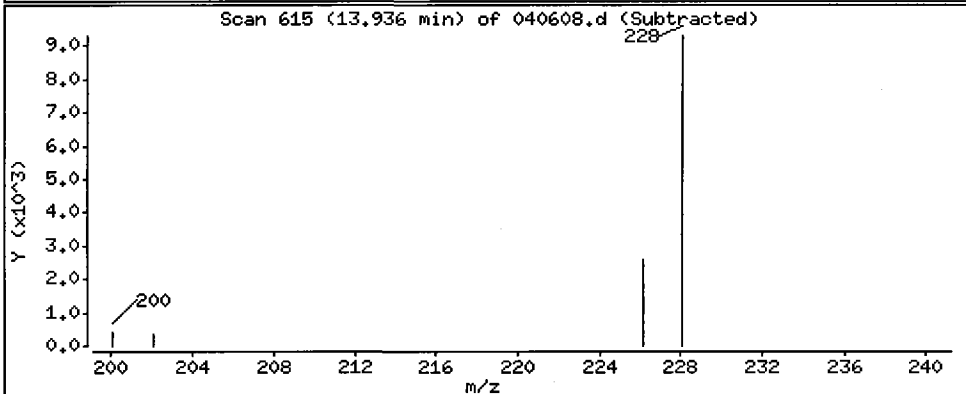
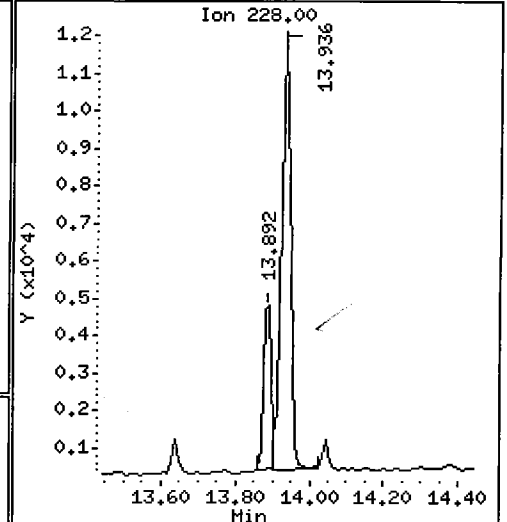
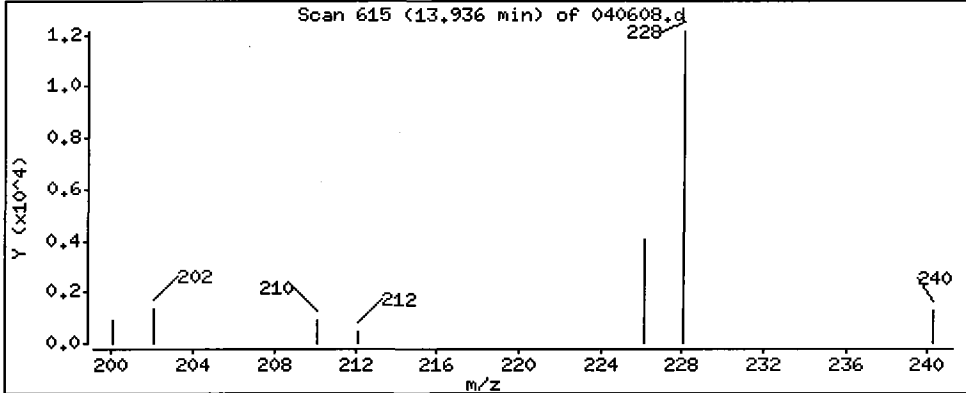
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

30 Chrysene

Concentration: 43,5 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

Operator: VTS

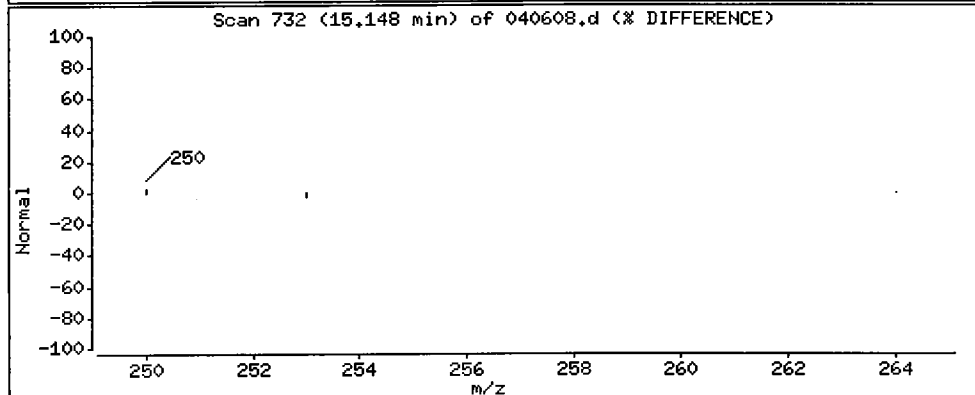
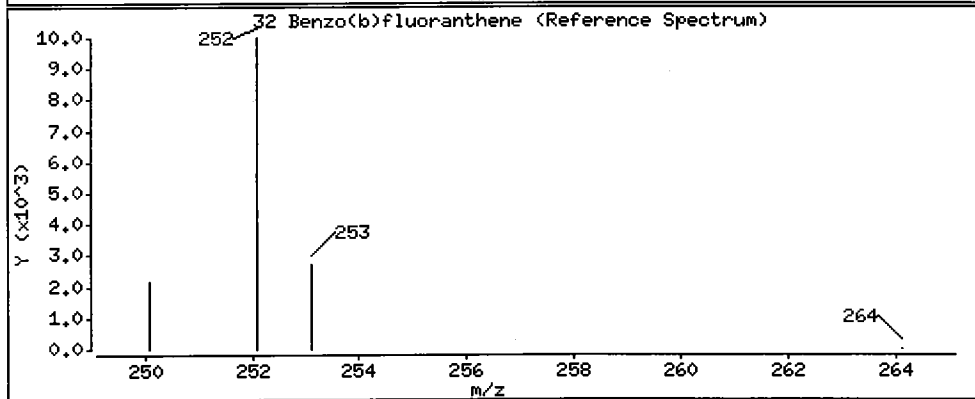
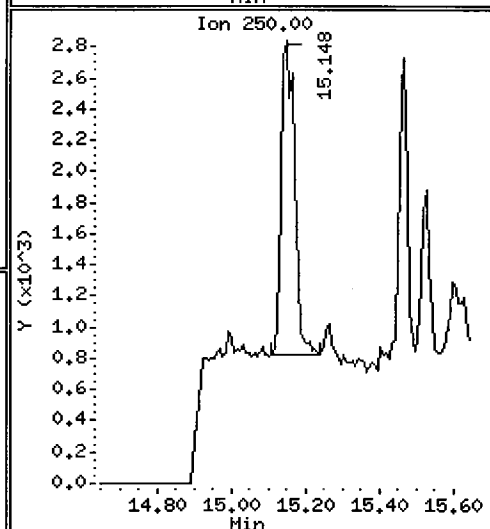
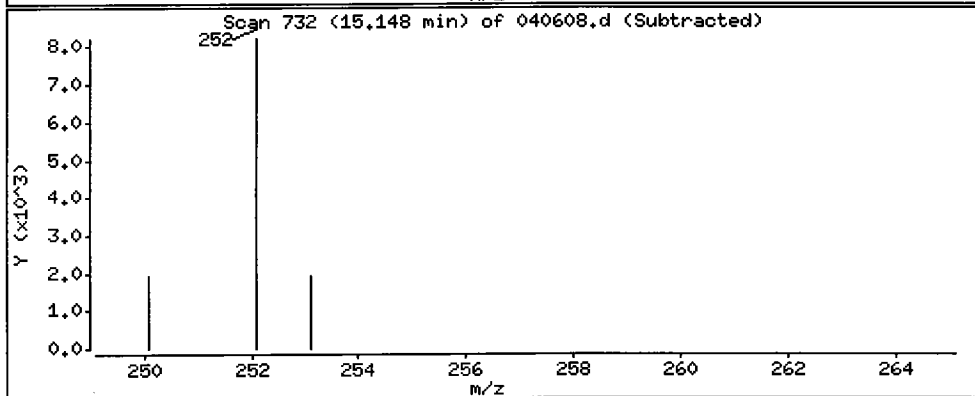
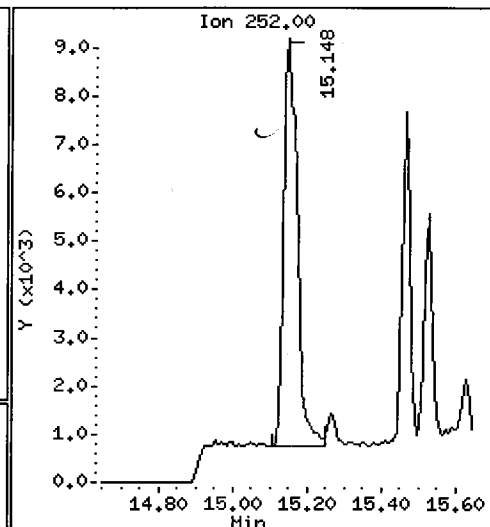
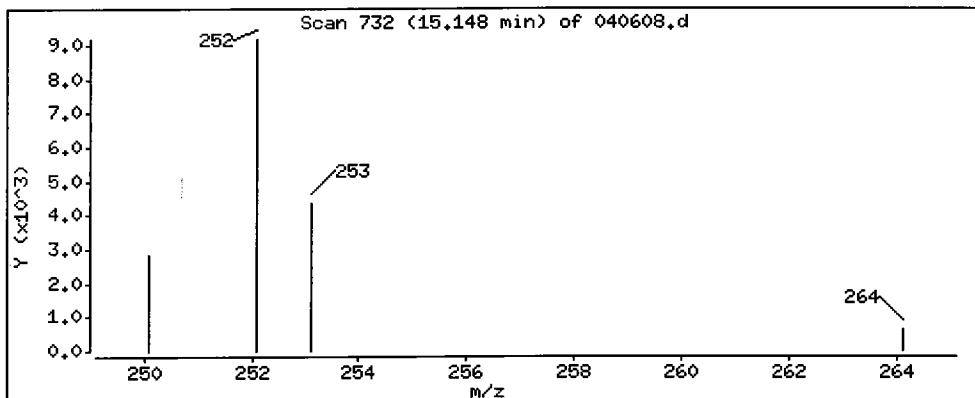
Column phase: ZB-5

Column diameter: 0,25

Handwritten mark

32 Benzo(b)fluoranthene

Concentration: 45,7 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

Operator: VTS

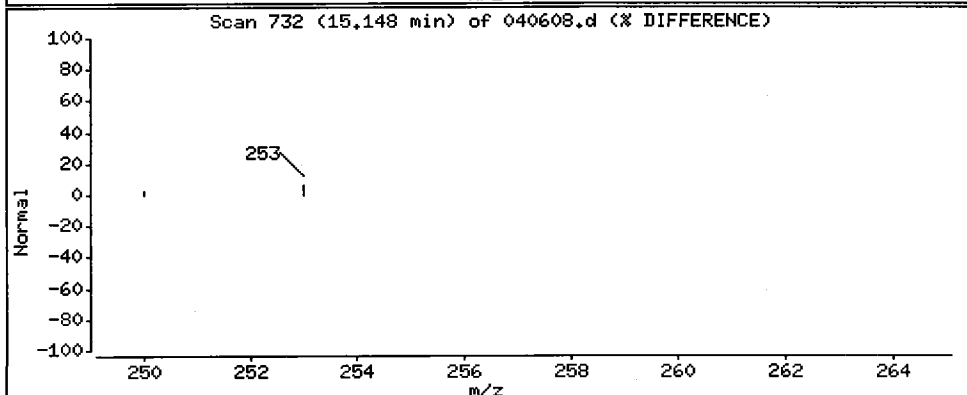
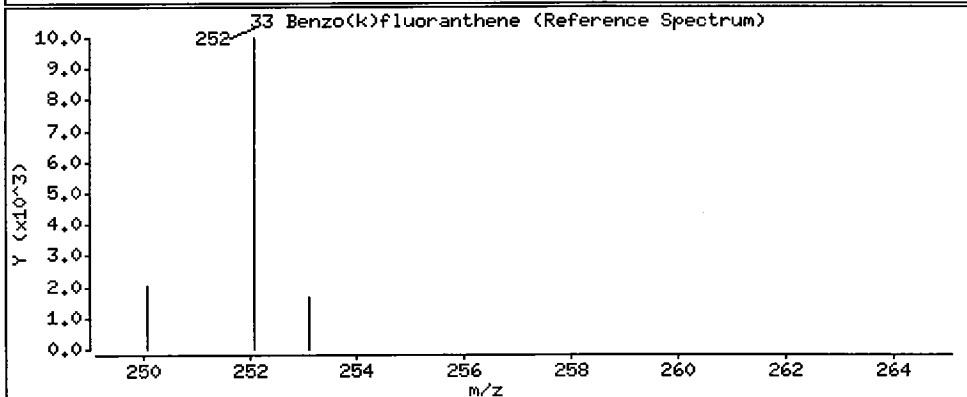
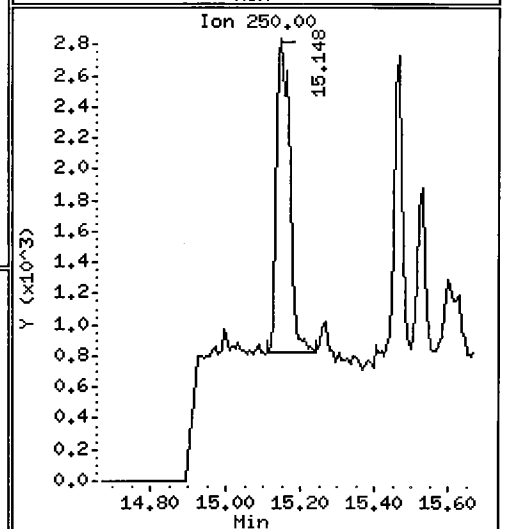
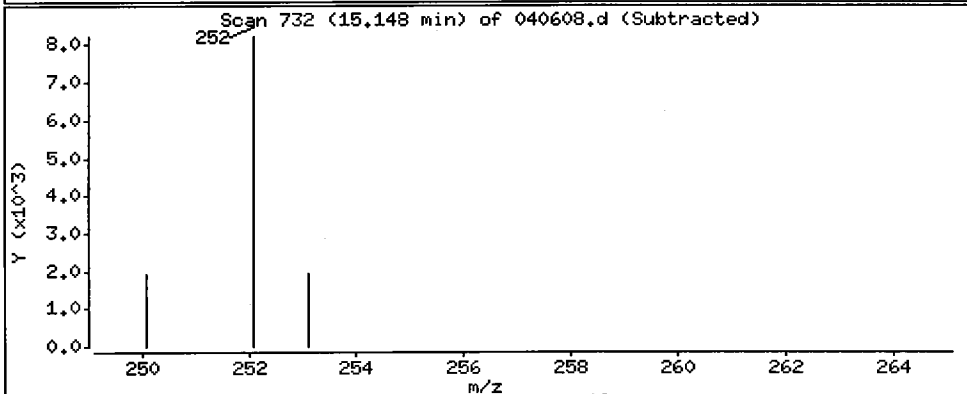
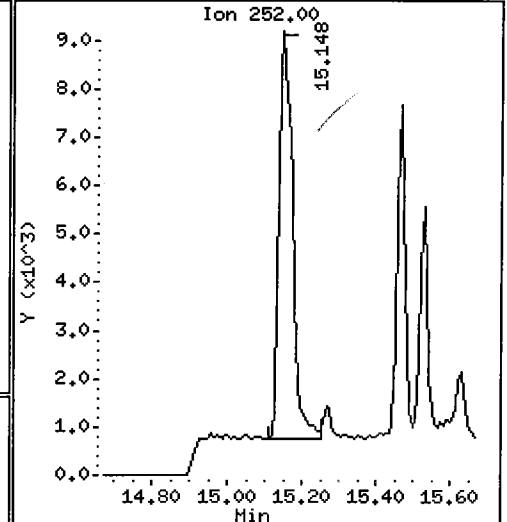
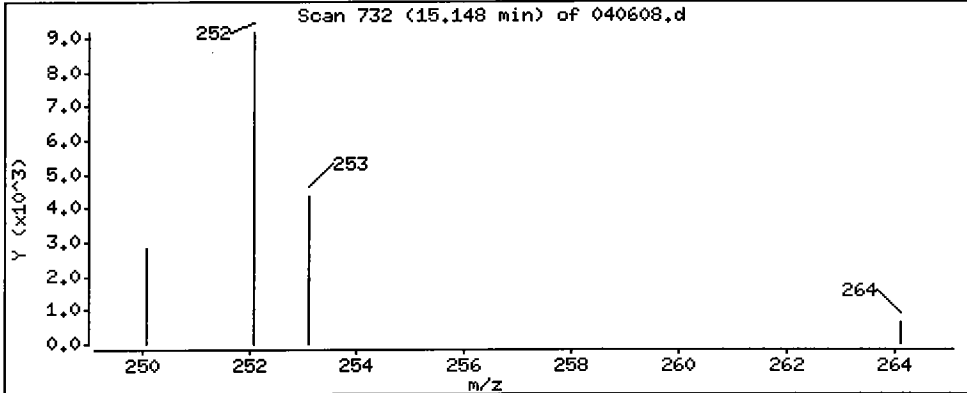
Column phase: ZB-5

Column diameter: 0.25

Handwritten signature

33 Benzo(k)fluoranthene

Concentration: 38,3 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

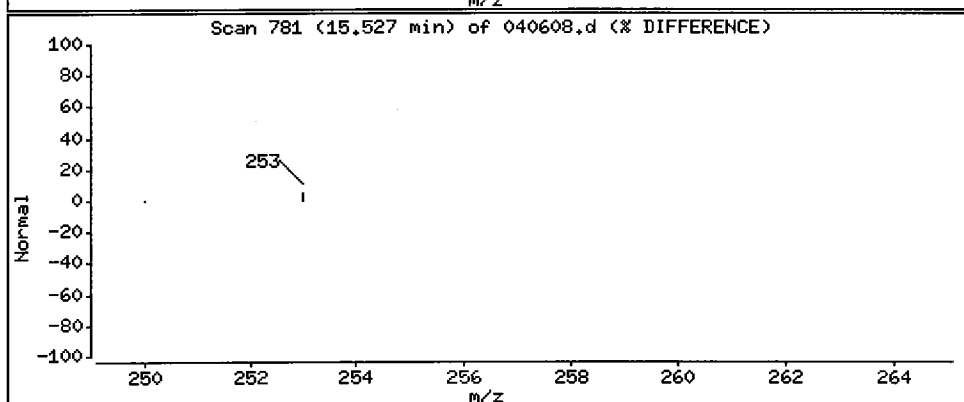
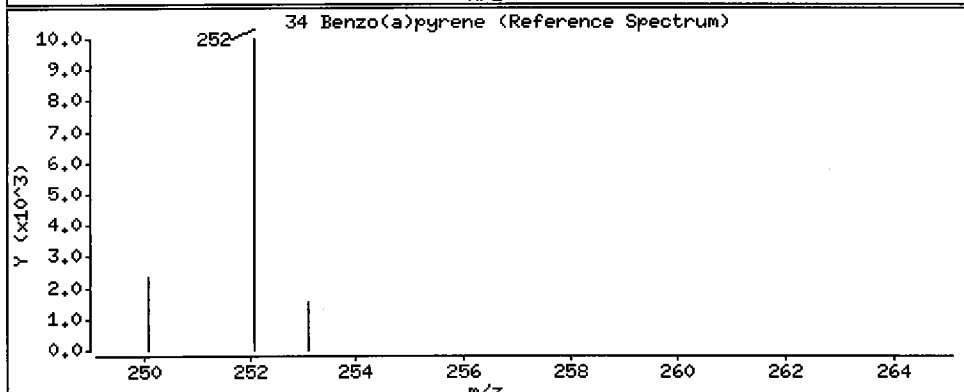
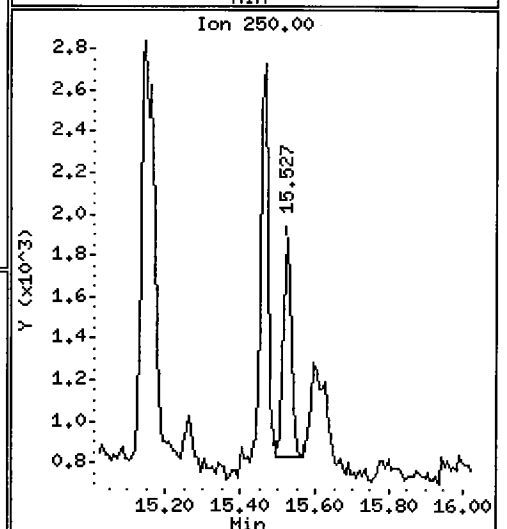
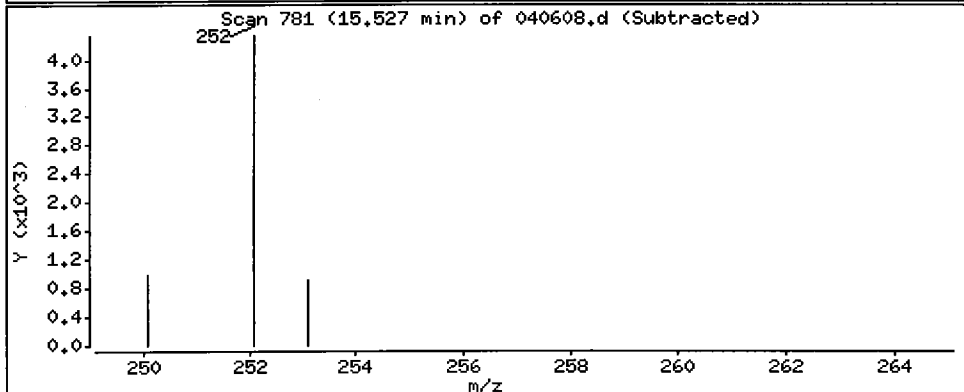
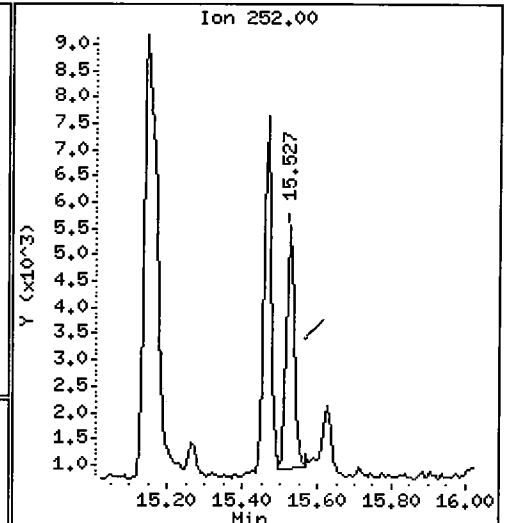
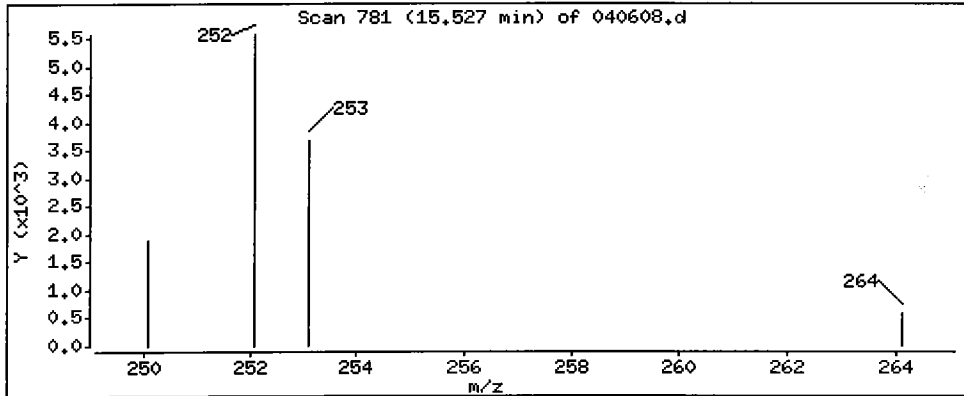
Operator: VTS

Column phase: ZB-5

Column diameter: 0.25

34 Benzo(a)pyrene

Concentration: 18.2 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

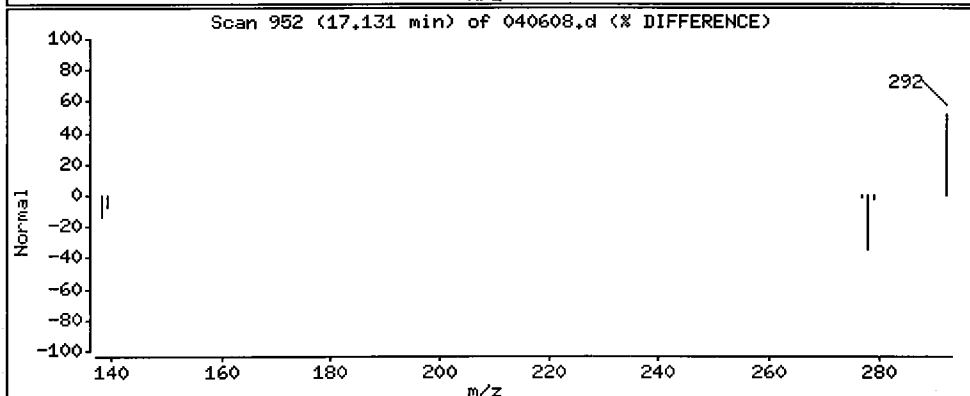
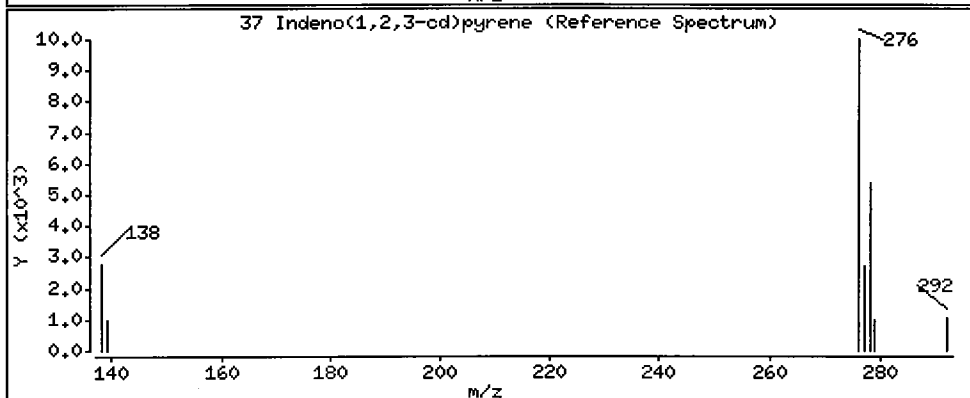
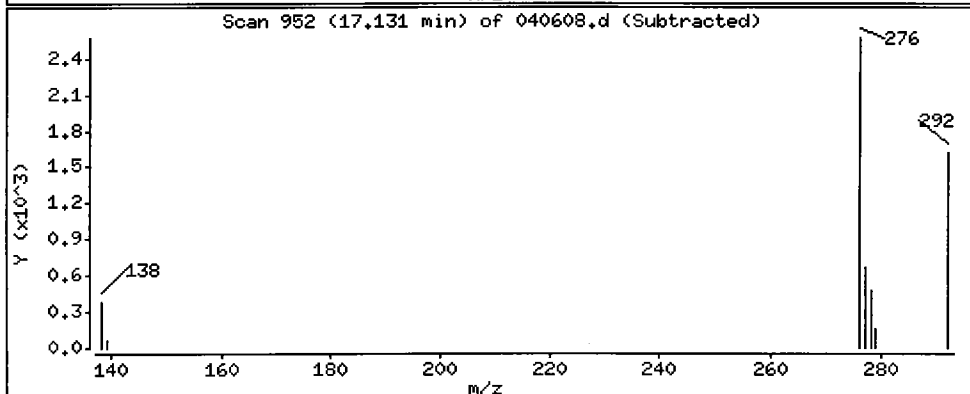
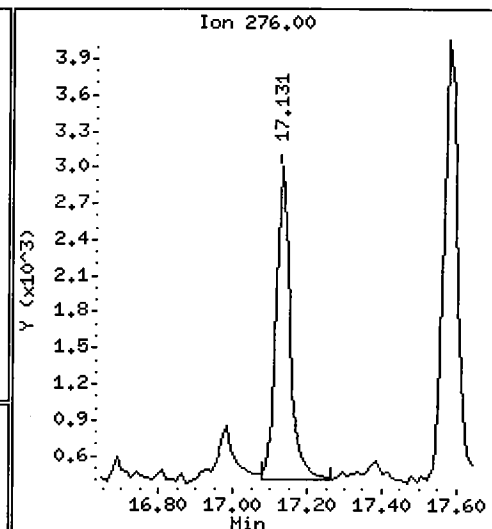
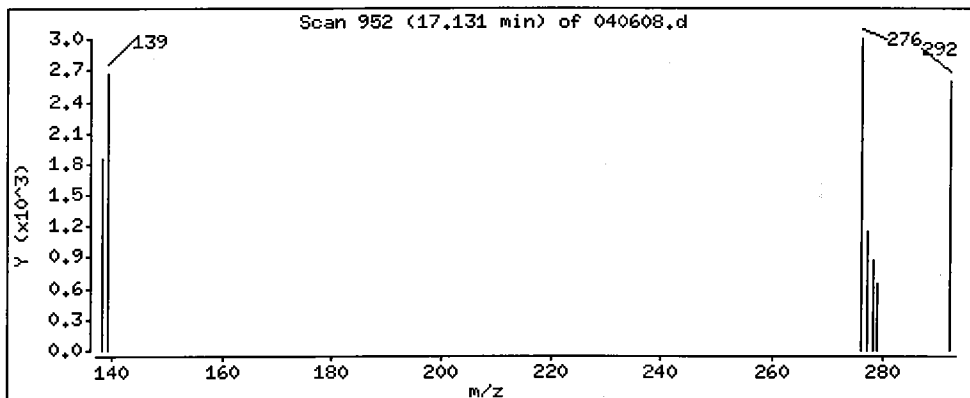
Operator: VTS

Column phase: ZB-5

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 15,6 ug/L



Date : 06-APR-2010 20:33

Client ID: CB100032910COMP

Instrument: nt2.i

Sample Info: QQ59D

Volume Injected (uL): 2.0

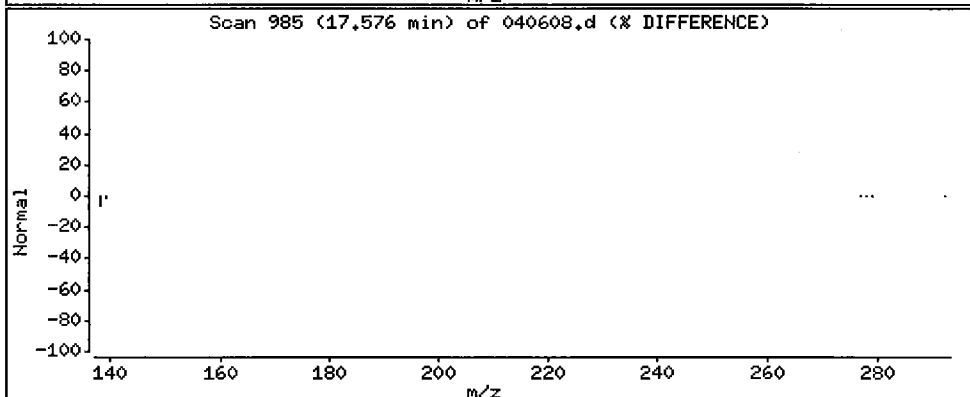
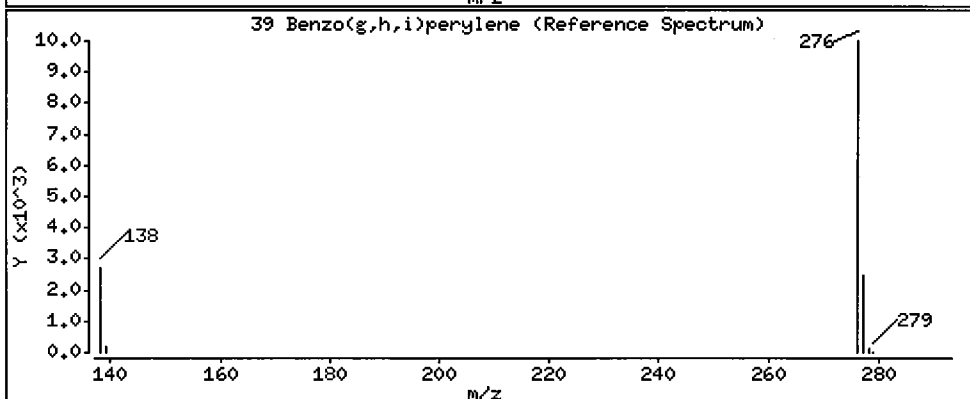
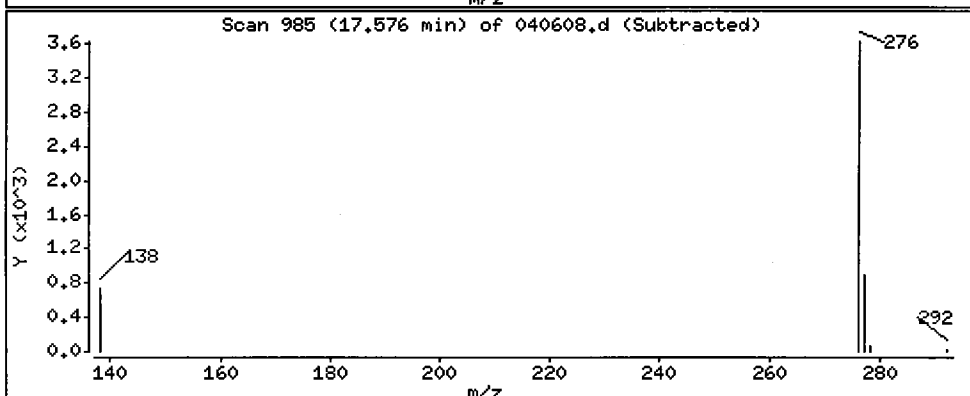
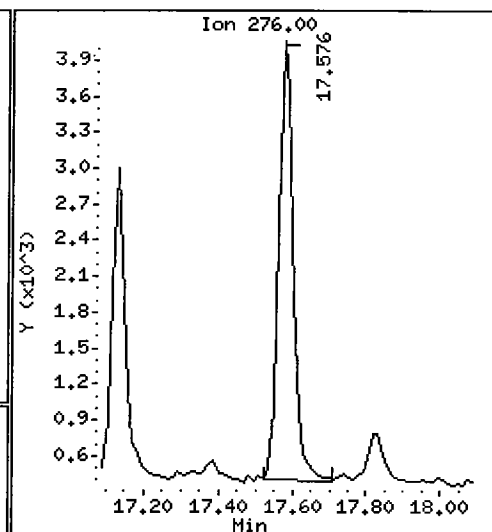
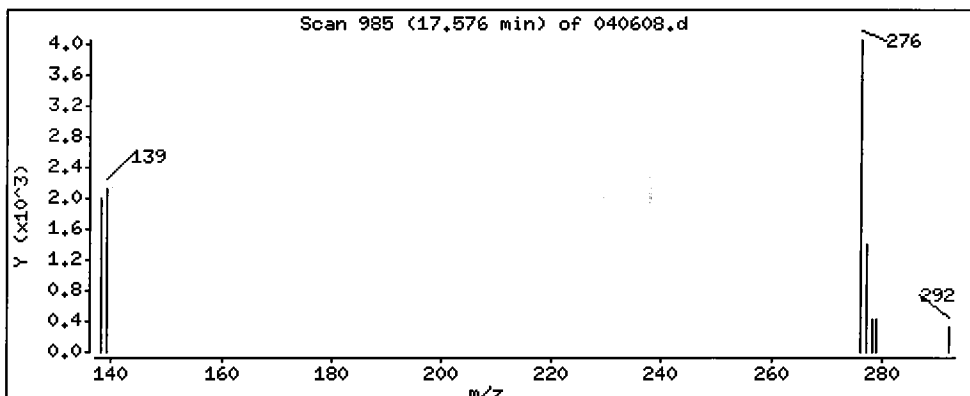
Operator: VTS

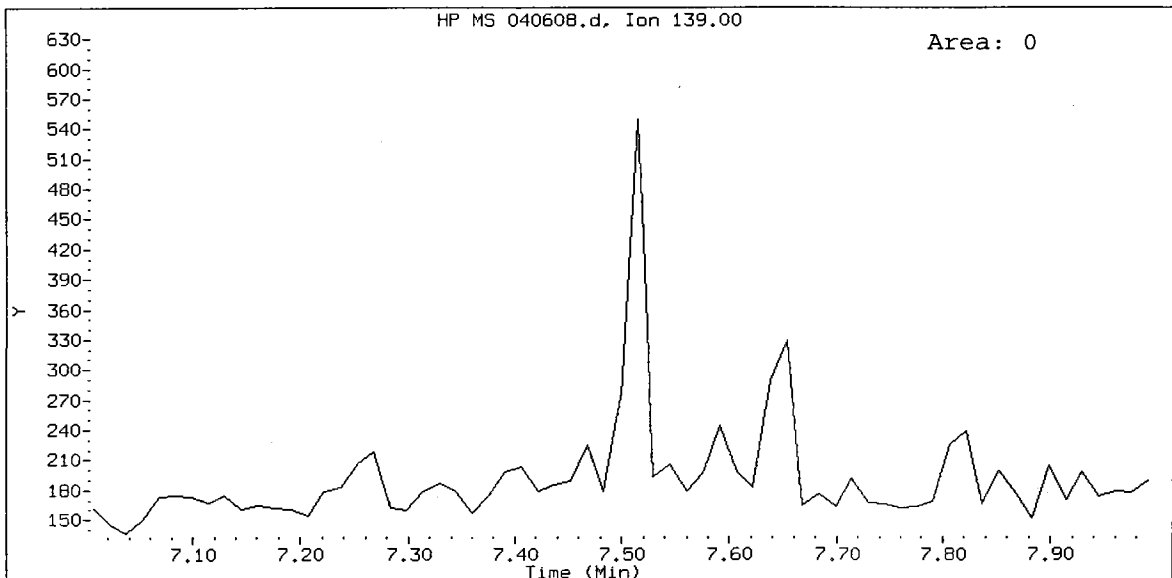
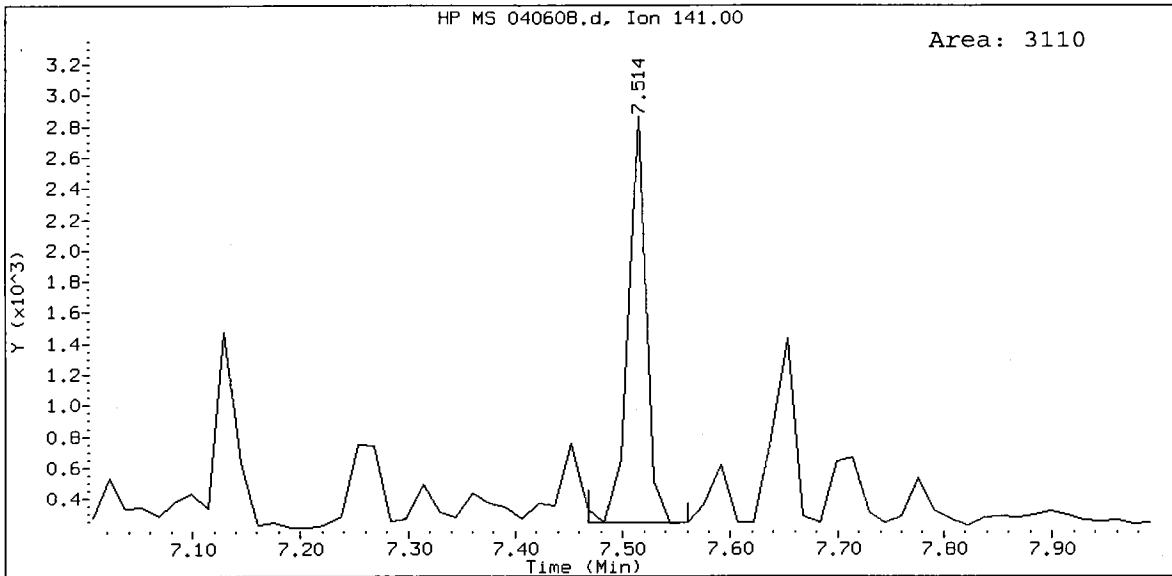
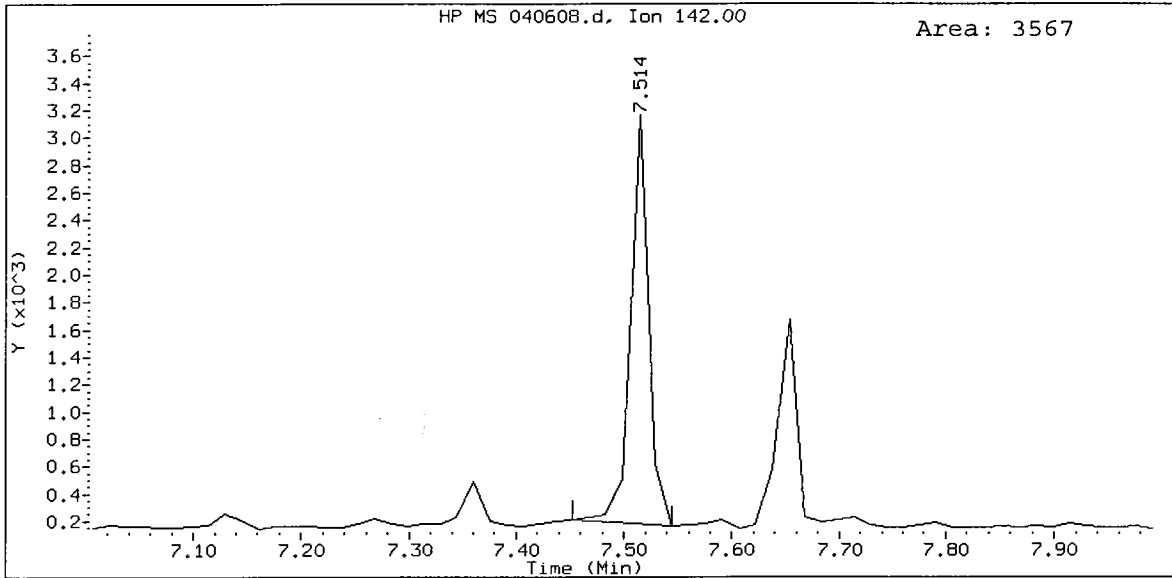
Column phase: ZB-5

Column diameter: 0.25

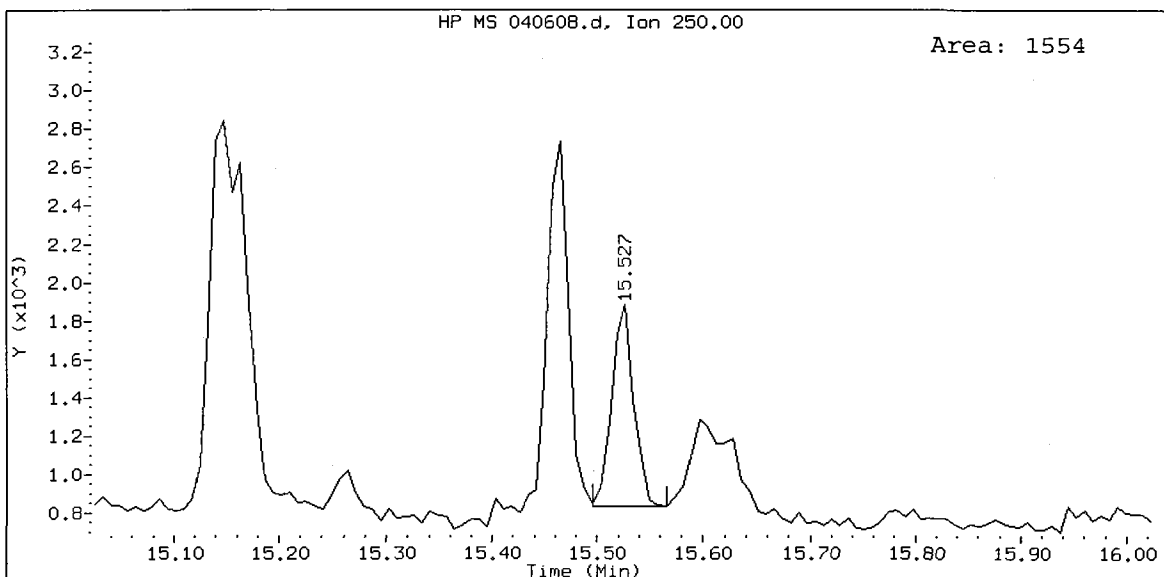
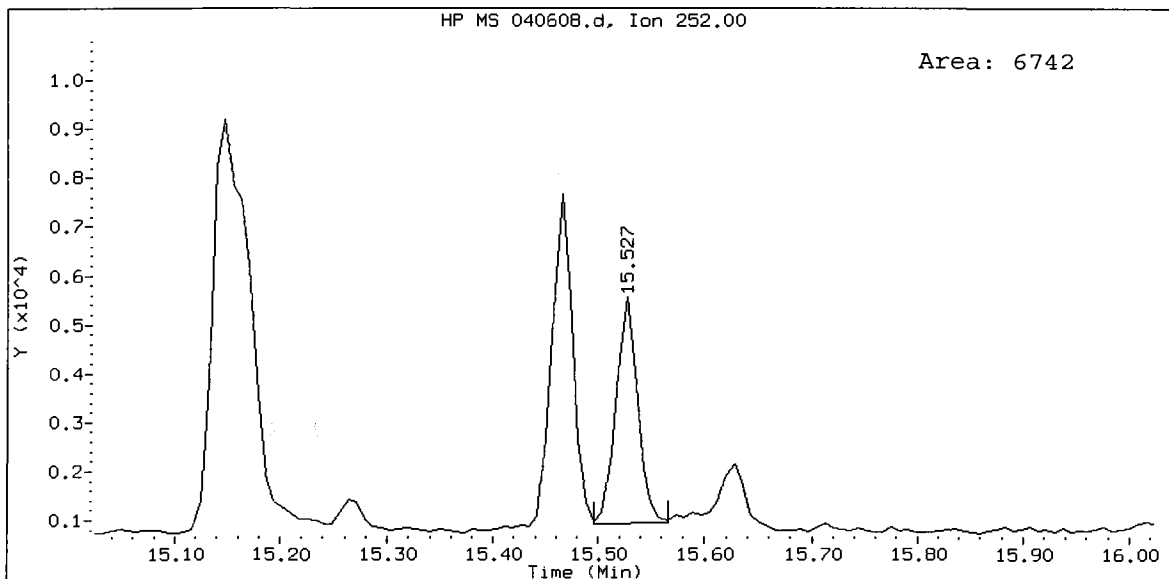
39 Benzo(g,h,i)perylene

Concentration: 27.6 ug/L

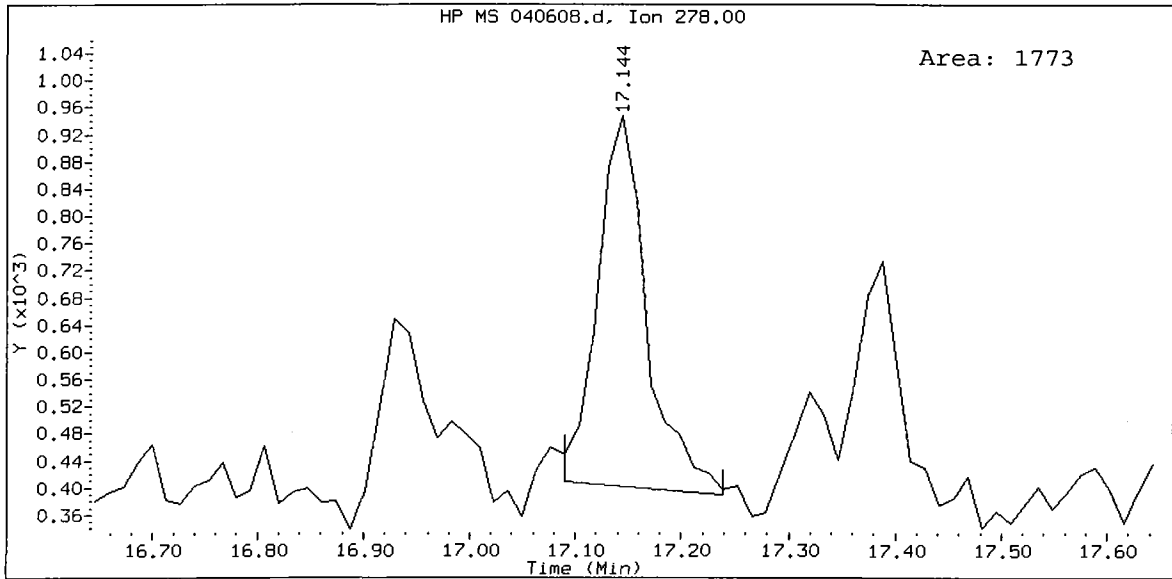




QQ59D, /chem3/nt2.i/20100406.b/040608.d
Benzo(a)pyrene Amount: 18.22

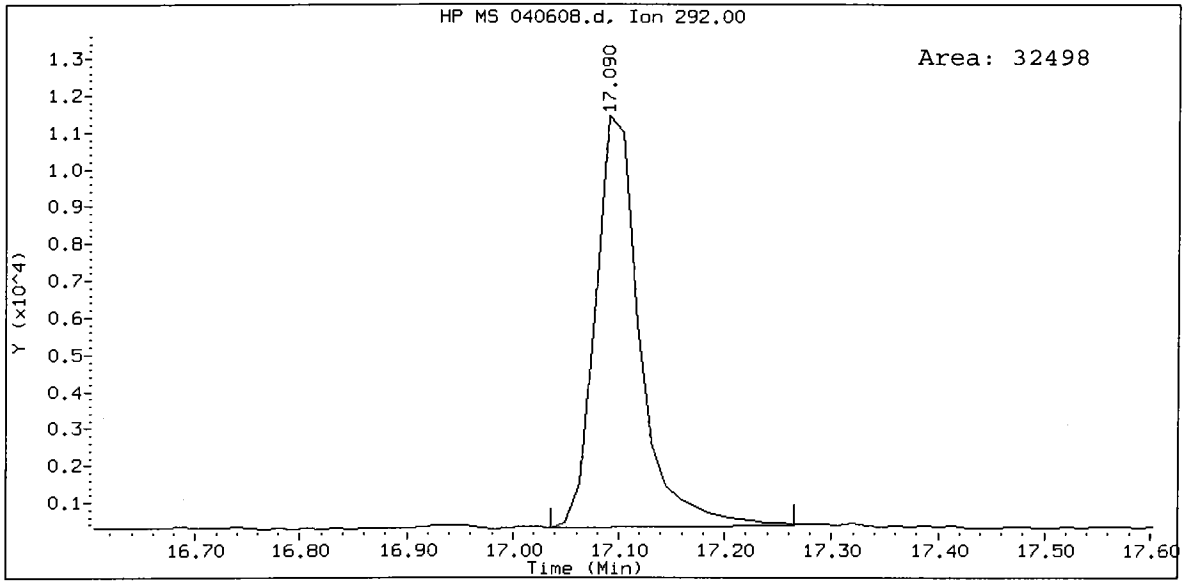


QQ59D, /chem3/nt2.i/20100406.b/040608.d
Dibenzo(a,h)anthracene Amount: 5.33



QQ59:00145

QQ59D, /chem3/nt2.i/20100406.b/040608.d
Dibenzo(a,h)anthracene-d14 Amount: 129.02



SIM Semivolatile Analysis
Standard Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.

QQ59:00147

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 14:24
 End Cal Date : 06-APR-2010 16:52
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem3/nt2.i/20100406.b/lowsim.m
 Cal Date : 07-Apr-2010 09:48 peter
 Curve Type : Average

Calibration File Names:

Level 1: /chem3/nt2.i/20100406.b/ic040607.d
 Level 2: /chem3/nt2.i/20100406.b/ic040604.d
 Level 3: /chem3/nt2.i/20100406.b/ic040606.d
 Level 4: /chem3/nt2.i/20100406.b/ic040601.d
 Level 5: /chem3/nt2.i/20100406.b/ic040605.d
 Level 6: /chem3/nt2.i/20100406.b/ic040603.d

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRE	% RSD
2 Phenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Naphthalene	1.14667	1.19857	1.19769	1.10315	1.08746	1.10926	1.14047	4.271
7 2-Methylnaphthalene	0.72553	0.71853	0.72247	0.71363	0.69225	0.66504	0.70624	3.311
8 1-Methylnaphthalene	0.72907	0.75838	0.76583	0.74877	0.73962	0.69339	0.73918	3.512
9 Dimethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Acenaphthylene	1.69367	1.87440	1.88056	1.88660	1.94458	1.94358	1.87056	4.927
12 Acenaphthene	1.04930	1.18554	1.19107	1.14644	1.20244	1.18494	1.15996	4.949
13 Diethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Dibenzofuran	1.56510	1.58436	1.60824	1.63738	1.68179	1.66240	1.62321	2.793
15 Fluorene	1.21085	1.39257	1.35230	1.43440	1.43600	1.42511	1.37521	6.300
17 Pentachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Phenanthrene	1.28474	1.26181	1.28954	1.24991	1.27578	1.30845	1.27837	1.626
20 Anthracene	1.12423	1.12411	1.16073	1.22450	1.22521	1.24724	1.18437	4.627
21 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Fluoranthene	1.33984	1.32119	1.31606	1.36003	1.32120	1.34771	1.33434	1.319
25 Pyrene	1.32503	1.35816	1.34906	1.36476	1.33750	1.37513	1.35161	1.357
26 Butylbenzylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 Bis(2-Ethylhexyl)phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 Benzo(a)anthracene	1.28544	1.27592	1.28467	1.28790	1.27905	1.23590	1.27481	1.535

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 14:24
 End Cal Date : 06-APR-2010 16:52
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem3/nt2.i/20100406.b/lowsim.m
 Cal Date : 07-Apr-2010 09:48 peter
 Curve Type : Average

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
30 Chrysene	1.35665	1.18815	1.25036	1.26088	1.26027	1.20583	1.25369	4.691
31 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Benzo(b)fluoranthene	1.32284	1.38035	1.43929	1.57543	1.43066	1.33233	1.41348	6.567
33 Benzo(k)fluoranthene	1.84606	1.69401	1.62992	1.53380	1.69979	1.70953	1.68554	6.096
34 Benzo(a)pyrene	1.10319	1.11101	1.10718	1.16955	1.15815	1.12649	1.12926	2.494
37 Indeno(1,2,3-cd)pyrene	1.20963	1.28499	1.28348	1.30304	1.33850	1.32874	1.29140	3.555
38 Dibenzo(a,h)anthracene	0.91964	0.99720	1.00082	1.05707	1.06599	1.04768	1.01473	5.407
39 Benzo(g,h,i)perylene	1.10967	1.10066	1.11837	1.09844	1.14834	1.10402	1.11325	1.672
\$ 1 D5-Phenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 6 2-Methylnaphthalene-d10	+++++	0.69626	0.71356	0.68873	0.67700	0.63706	0.68252	4.200
\$ 16 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 23 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 36 Dibenzo(a,h)anthracene-d14	0.74194	0.74289	0.74849	0.79367	0.79589	0.78873	0.76860	3.469

Analytical Resources, Inc.

LOW LEVEL PNAS BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040601.d
 Lab Smp Id: PNA 250
 Inj Date : 06-APR-2010 14:24
 Operator : VTS
 Smp Info : PNA 250
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i

Quant Type: ISTD

Cal File: ic040607.d

Calibration Sample, Level: 4

Compound Sublist: pna1mn.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.635	6.636	(1.000)	120808	200.000	
5 Naphthalene	128	6.666	6.667	(1.005)	166587	250.000	242
\$ 6 2-Methylnaphthalene-d10	152	7.481	7.482	(1.128)	104005	250.000	252
7 2-Methylnaphthalene	142	7.512	7.513	(1.132)	107765	250.000	253
8 1-Methylnaphthalene	142	7.650	7.651	(1.153)	113072	250.000	253
10 Acenaphthylene	152	8.627	8.626	(0.977)	171369	250.000	252
* 11 Acenaphthene-d10	164	8.833	8.832	(1.000)	72668	200.000	
12 Acenaphthene	153	8.859	8.858	(1.003)	104137	250.000	247
14 Dibenzofuran	168	9.065	9.064	(1.026)	148731	250.000	252
15 Fluorene	166	9.477	9.478	(1.073)	130294	250.000	261
* 18 Phenanthrene-d10	188	10.647	10.632	(1.000)	112603	200.000	
19 Phenanthrene	178	10.662	10.662	(1.001)	175930	250.000	244
20 Anthracene	178	10.724	10.724	(1.007)	172353	250.000	258
24 Fluoranthene	202	12.136	12.136	(1.140)	191430	250.000	255
25 Pyrene	202	12.410	12.410	(1.166)	192095	250.000	252

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	====	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	163728	250.000	253
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	101702	200.000	
30 Chrysene	228	13.946	13.936	(1.002)	160293	250.000	251
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	171549	250.000	279
33 Benzo(k)fluoranthene	252	15.170	15.170	(0.972)	167016	250.000	227
34 Benzo(a)pyrene	252	15.526	15.527	(0.995)	127352	250.000	259
* 35 Perylene-d12	264	15.603	15.596	(1.000)	87112	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.145	17.132	(1.099)	141888	250.000	252
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.105	17.092	(1.096)	86423	250.000	258
38 Dibenzo(a,h)anthracene	278	17.145	17.146	(1.099)	115104	250.000	260
39 Benzo(g,h,i)perylene	276	17.590	17.577	(1.127)	119609	250.000	247

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040601.d
 Lab Smp Id: PNA 250
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

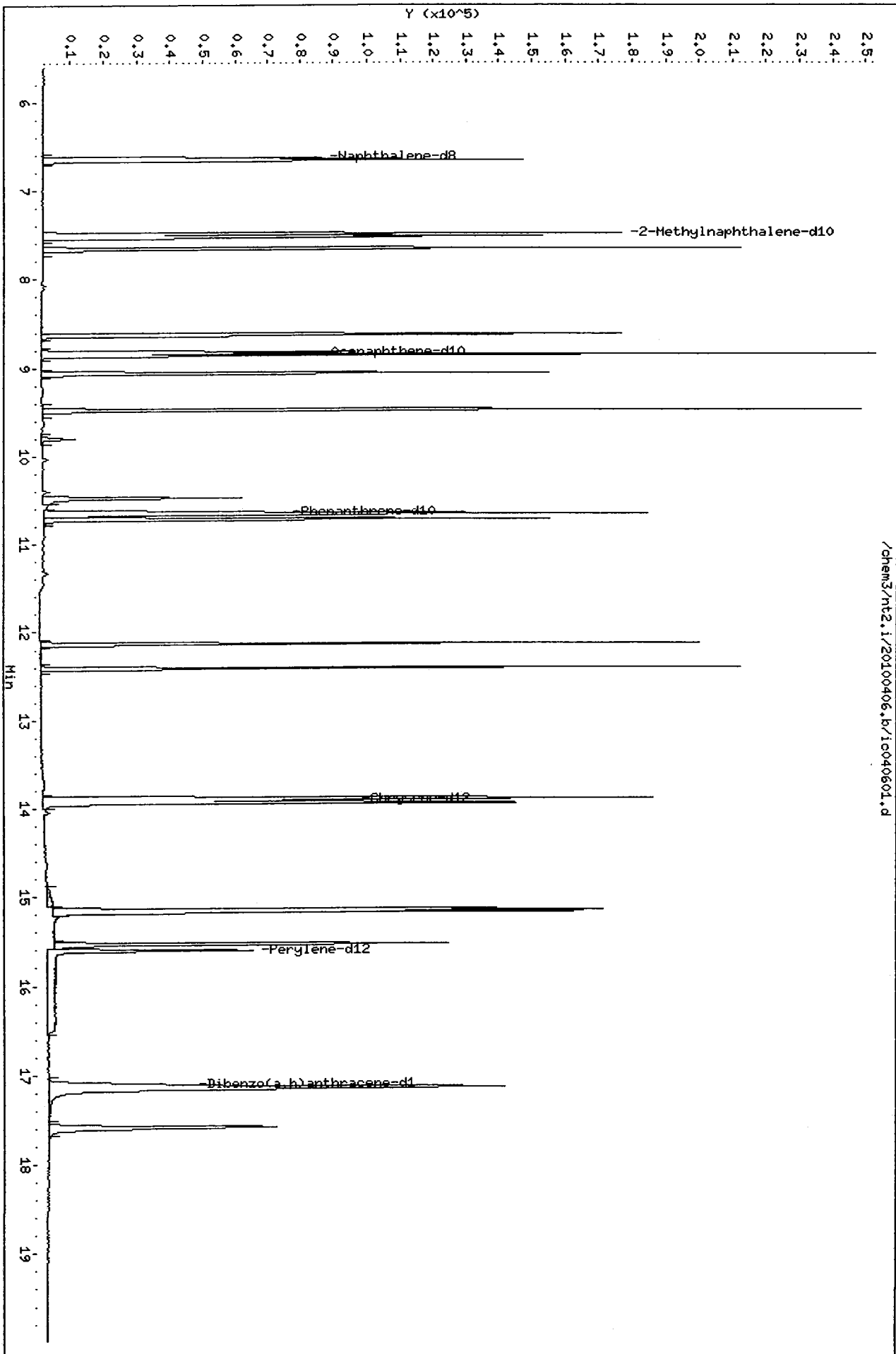
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	120808	0.00
11 Acenaphthene-d10	72668	36334	145336	72668	0.00
18 Phenanthrene-d10	112603	56302	225206	112603	0.00
29 Chrysene-d12	101702	50851	203404	101702	0.00
35 Perylene-d12	87112	43556	174224	87112	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	0.00
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	0.00
18 Phenanthrene-d10	10.65	10.15	11.15	10.65	0.00
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	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:
Sample Info: PNA 250
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040603.d
 Lab Smp Id: PNA 1000
 Inj Date : 06-APR-2010 15:14
 Operator : VTS
 Smp Info : PNA 1000
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i

Quant Type: ISTD

Cal File: ic040607.d

Calibration Sample, Level: 6

Compound Sublist: pnalnm.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136		6.635	6.636	(1.000)	124126	200.000	
5 Naphthalene	128		6.666	6.667	(1.005)	688442	1000.00	973
\$ 6 2-Methylnaphthalene-d10	152		7.481	7.482	(1.128)	395381	1000.00	933
7 2-Methylnaphthalene	142		7.527	7.513	(1.134)	412745	1000.00	942
8 1-Methylnaphthalene	142		7.650	7.651	(1.153)	430338	1000.00	938
10 Acenaphthylene	152		8.639	8.626	(0.978)	654753	1000.00	1040 (A)
* 11 Acenaphthene-d10	164		8.832	8.832	(1.000)	67376	200.000	
12 Acenaphthene	153		8.858	8.858	(1.003)	399183	1000.00	1020 (A)
14 Dibenzofuran	168		9.064	9.064	(1.026)	560030	1000.00	1020 (A)
15 Fluorene	166		9.478	9.478	(1.073)	480091	1000.00	1040 (A)
* 18 Phenanthrene-d10	188		10.632	10.632	(1.000)	101452	200.000	
19 Phenanthrene	178		10.662	10.662	(1.003)	663724	1000.00	1020 (A)
20 Anthracene	178		10.724	10.724	(1.009)	632676	1000.00	1050 (A)
24 Fluoranthene	202		12.136	12.136	(1.141)	683638	1000.00	1010 (A)
25 Pyrene	202		12.410	12.410	(1.167)	697546	1000.00	1020 (A)

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	====	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	566240	1000.00	969
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	91632	200.000	
30 Chrysene	228	13.936	13.936	(1.002)	552461	1000.00	962
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	544025	1000.00	943
33 Benzo(k)fluoranthene	252	15.170	15.170	(0.973)	698043	1000.00	1010 (A)
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	459976	1000.00	998
* 35 Perylene-d12	264	15.596	15.596	(1.000)	81665	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.132	(1.098)	542557	1000.00	1030 (A)
§ 36 Dibenzo(a,h)anthracene-d14	292	17.104	17.092	(1.097)	322058	1000.00	1030 (A)
38 Dibenzo(a,h)anthracene	278	17.144	17.146	(1.099)	427792	1000.00	1030 (A)
39 Benzo(g,h,i)perylene	276	17.576	17.577	(1.127)	450799	1000.00	992

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040603.d
 Lab Smp Id: PNA 1000
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24

Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	124126	2.75
11 Acenaphthene-d10	72668	36334	145336	67376	-7.28
18 Phenanthrene-d10	112603	56302	225206	101452	-9.90
29 Chrysene-d12	101702	50851	203404	91632	-9.90
35 Perylene-d12	87112	43556	174224	81665	-6.25

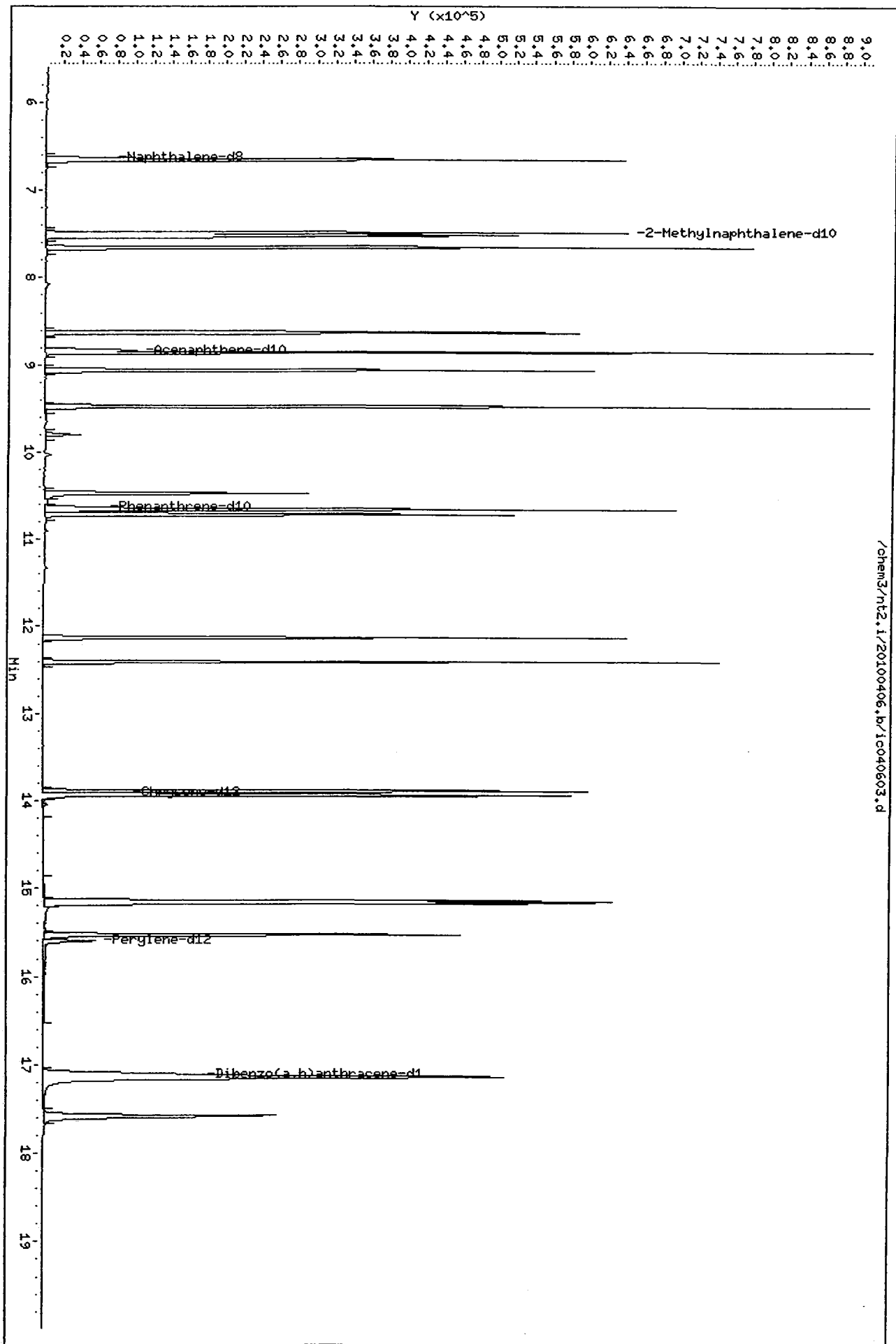
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	0.00
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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/nt2.1/20100406.b/1c040603.d
Date : 06-APR-2010 15:14

Client ID:
Sample Info: PNA 1000
Volume Injected (UL): 2.0
Column phase: ZB-5

Instrument: nt2.1
Operator: VTS
Column diameter: 0.25



/chem3/nt2.1/20100406.b/1c040603.d

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040604.d
 Lab Smp Id: PNA 50
 Inj Date : 06-APR-2010 15:38
 Operator : VTS
 Smp Info : PNA 50
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i

Quant Type: ISTD

Cal File: ic040607.d

Calibration Sample, Level: 2

Compound Sublist: pnalnm.sub

Concentration Formula: Amt * DF * Vt / Vo * CpdVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.636	6.636	(1.000)	111907	200.000	
5 Naphthalene	128	6.666	6.667	(1.005)	33532	50.0000	52.5
\$ 6 2-Methylnaphthalene-d10	152	7.482	7.482	(1.128)	19479	50.0000	51.0
7 2-Methylnaphthalene	142	7.513	7.513	(1.132)	20102	50.0000	50.9
8 1-Methylnaphthalene	142	7.651	7.651	(1.153)	21217	50.0000	51.3
10 Acenaphthylene	152	8.639	8.626	(0.978)	30122	50.0000	50.1
* 11 Acenaphthene-d10	164	8.832	8.832	(1.000)	64281	200.000	
12 Acenaphthene	153	8.858	8.858	(1.003)	19052	50.0000	51.1
14 Dibenzofuran	168	9.064	9.064	(1.026)	25461	50.0000	48.8
15 Fluorene	166	9.478	9.478	(1.073)	22379	50.0000	50.6
* 18 Phenanthrene-d10	188	10.632	10.632	(1.000)	94905	200.000	
19 Phenanthrene	178	10.663	10.662	(1.003)	29938	50.0000	49.4
20 Anthracene	178	10.724	10.724	(1.009)	26671	50.0000	47.5
24 Fluoranthene	202	12.137	12.136	(1.142)	31347	50.0000	49.5
25 Pyrene	202	12.411	12.410	(1.167)	32224	50.0000	50.2

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/mL)	ON-COL (ng/mL)
28 Benzo(a)anthracene	228	13.893	13.892	(0.998)	25817	50.0000	50.0
* 29 Chrysene-d12	240	13.915	13.914	(1.000)	80936	200.000	
30 Chrysene	228	13.937	13.936	(1.002)	24041	50.0000	47.4
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	25348	50.0000	48.8
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	31108	50.0000	50.3
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	20402	50.0000	49.2
* 35 Perylene-d12	264	15.596	15.596	(1.000)	73454	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.132	(1.098)	23597	50.0000	49.8
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.092	(1.096)	13642	50.0000	48.3
38 Dibenzo(a,h)anthracene	278	17.144	17.146	(1.099)	18312	50.0000	49.1
39 Benzo(g,h,i)perylene	276	17.575	17.577	(1.127)	20212	50.0000	49.4

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040604.d
 Lab Smp Id: PNA 50
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24

Level: LOW
 Sample Type: WATER

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	111907	-7.37
11 Acenaphthene-d10	72668	36334	145336	64281	-11.54
18 Phenanthrene-d10	112603	56302	225206	94905	-15.72
29 Chrysene-d12	101702	50851	203404	80936	-20.42
35 Perylene-d12	87112	43556	174224	73454	-15.68

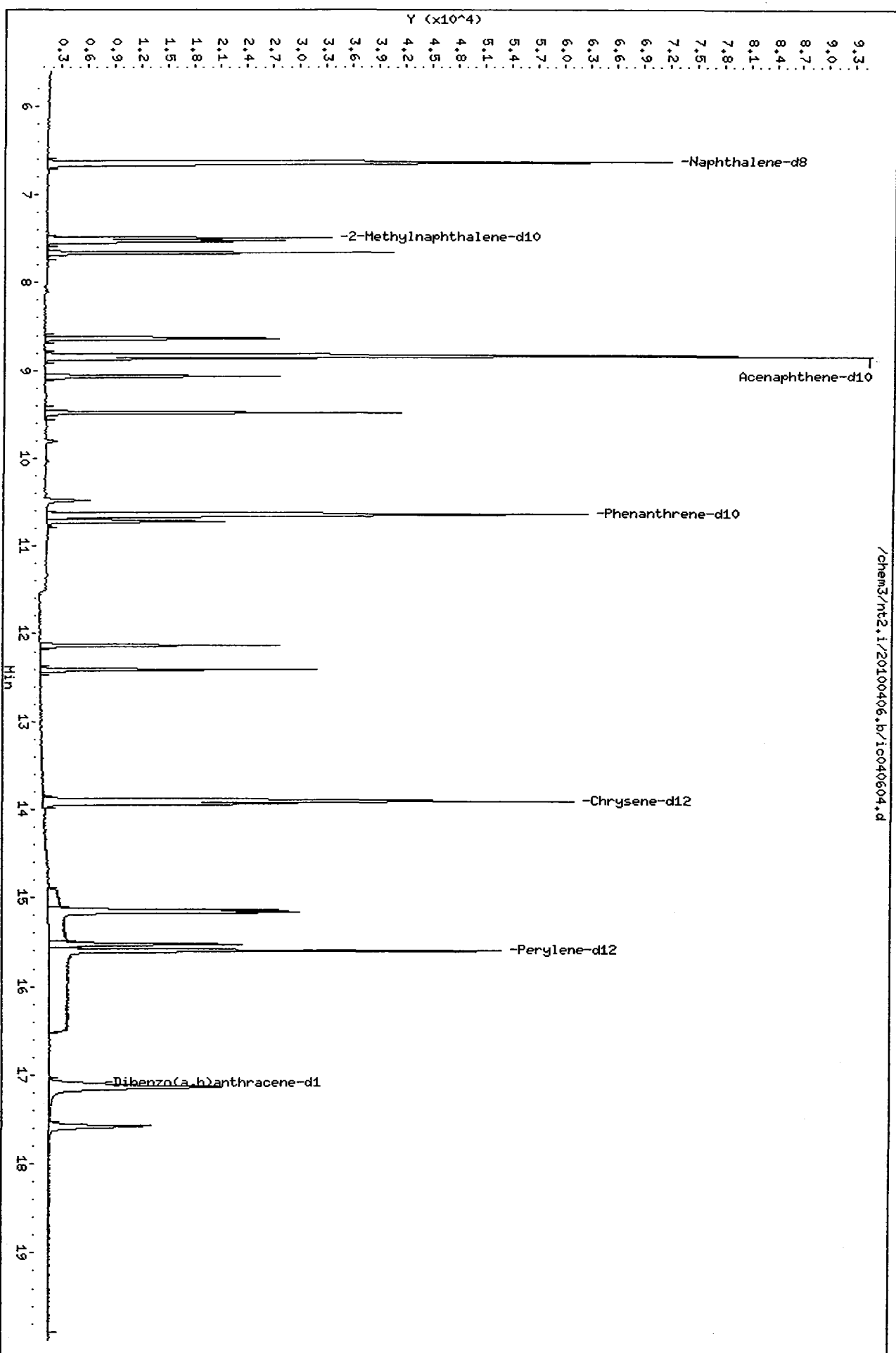
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.01
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.01
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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/nt2.i/20100406.b/ic040604.d
Date: 06-APR-2010 15:38

Client ID:
Sample Info: PNA 50
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040605.d
 Lab Smp Id: PNA 500
 Inj Date : 06-APR-2010 16:03
 Operator : VTS
 Smp Info : PNA 500
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Calibration Sample, Level: 5
 Compound Sublist: pnalmn.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.637	6.636	(1.000)	120735	200.000	
5 Naphthalene	128	6.668	6.667	(1.005)	328236	500.000	477
\$ 6 2-Methylnaphthalene-d10	152	7.483	7.482	(1.127)	204344	500.000	496
7 2-Methylnaphthalene	142	7.514	7.513	(1.132)	208946	500.000	490
8 1-Methylnaphthalene	142	7.653	7.651	(1.153)	223246	500.000	500
10 Acenaphthylene	152	8.626	8.626	(0.977)	315775	500.000	520
* 11 Acenaphthene-d10	164	8.832	8.832	(1.000)	64955	200.000	
12 Acenaphthene	153	8.858	8.858	(1.003)	195261	500.000	518
14 Dibenzofuran	168	9.064	9.064	(1.026)	273102	500.000	518
15 Fluorene	166	9.478	9.478	(1.073)	233188	500.000	522
* 18 Phenanthrene-d10	188	10.632	10.632	(1.000)	99310	200.000	
19 Phenanthrene	178	10.663	10.662	(1.003)	316745	500.000	499
20 Anthracene	178	10.724	10.724	(1.009)	304189	500.000	517
24 Fluoranthene	202	12.136	12.136	(1.141)	328022	500.000	495
25 Pyrene	202	12.411	12.410	(1.167)	332069	500.000	495

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/mL)	ON-COL (ng/mL)
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	257415	500.000	502
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	80502	200.000	
30 Chrysene	228	13.936	13.936	(1.002)	253635	500.000	503
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	254364	500.000	506
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	302214	500.000	504
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	205913	500.000	513
* 35 Perylene-d12	264	15.596	15.596	(1.000)	71118	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.130	17.132	(1.098)	237978	500.000	518
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.092	(1.096)	141506	500.000	518
38 Dibenzo(a,h)anthracene	278	17.144	17.146	(1.099)	189528	500.000	525
39 Benzo(g,h,i)perylene	276	17.575	17.577	(1.127)	204169	500.000	516

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040605.d
 Lab Smp Id: PNA 500
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24

Level: LOW
 Sample Type: WATER

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	120735	-0.06
11 Acenaphthene-d10	72668	36334	145336	64955	-10.61
18 Phenanthrene-d10	112603	56302	225206	99310	-11.81
29 Chrysene-d12	101702	50851	203404	80502	-20.85
35 Perylene-d12	87112	43556	174224	71118	-18.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.04
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.01
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.04

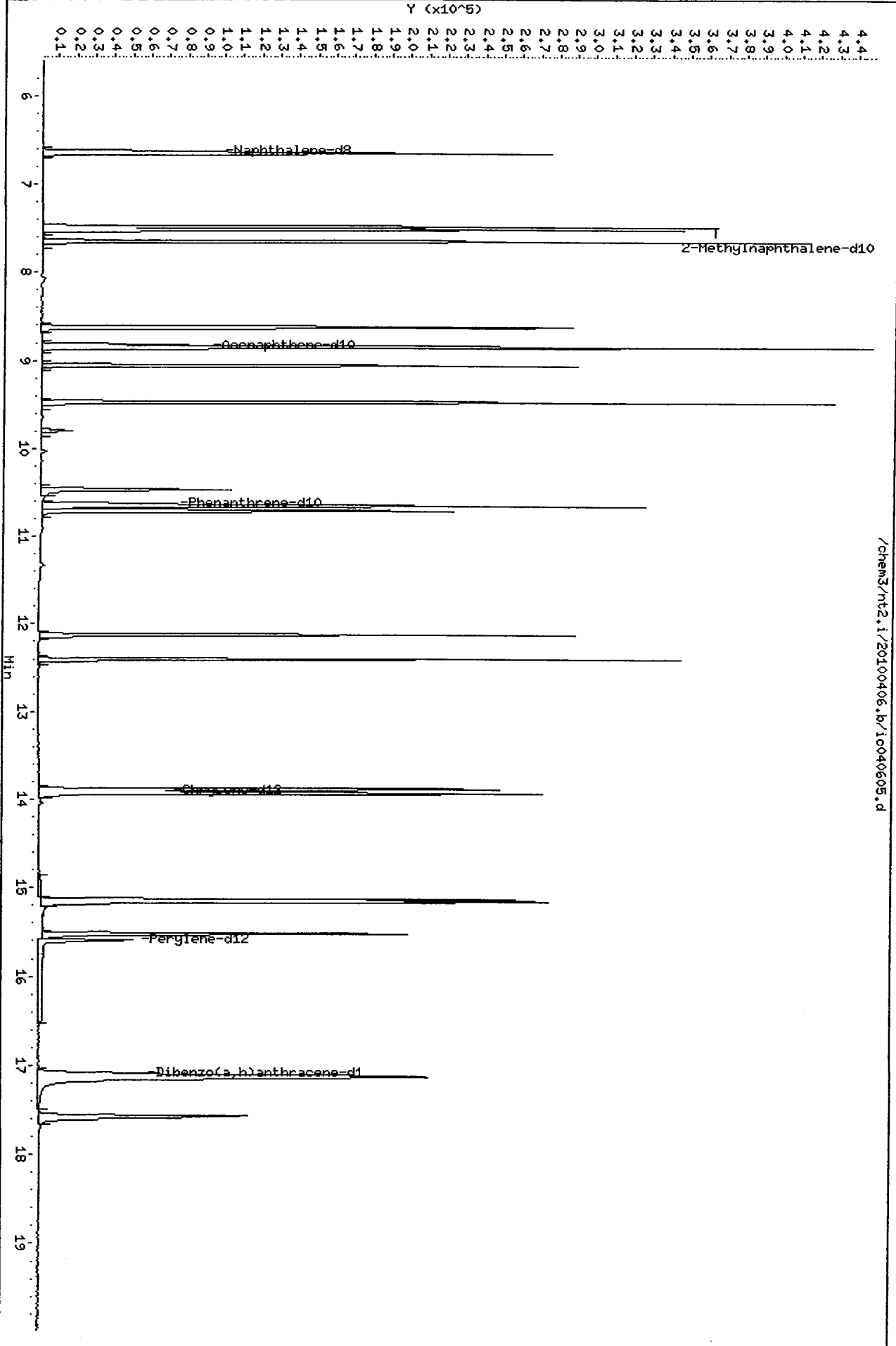
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt2.i/20100406.b/ic040605.d
Date : 06-APR-2010 16:03

Client ID:
Sample Info: PNA 500
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25

/chem3/nt2.i/20100406.b/ic040605.d



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040606.d
 Lab Smp Id: PNA 100
 Inj Date : 06-APR-2010 16:27
 Operator : VTS
 Smp Info : PNA 100
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Calibration Sample, Level: 3
 Compound Sublist: pnalmn.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136		6.635	6.636	(1.000)	112523	200.000		
5 Naphthalene	128		6.666	6.667	(1.005)	67384	100.000	105	
\$ 6 2-Methylnaphthalene-d10	152		7.481	7.482	(1.128)	40146	100.000	105	
7 2-Methylnaphthalene	142		7.512	7.513	(1.132)	40647	100.000	102	
8 1-Methylnaphthalene	142		7.651	7.651	(1.153)	43087	100.000	104	
10 Acenaphthylene	152		8.626	8.626	(0.977)	62317	100.000	101	
* 11 Acenaphthene-d10	164		8.833	8.832	(1.000)	66275	200.000		
12 Acenaphthene	153		8.858	8.858	(1.003)	39469	100.000	103	
14 Dibenzofuran	168		9.065	9.064	(1.026)	53293	100.000	99.1	
15 Fluorene	166		9.478	9.478	(1.073)	44812	100.000	98.3	
* 18 Phenanthrene-d10	188		10.632	10.632	(1.000)	95400	200.000		
19 Phenanthrene	178		10.663	10.662	(1.003)	61511	100.000	101	
20 Anthracene	178		10.724	10.724	(1.009)	55367	100.000	98.0	
24 Fluoranthene	202		12.125	12.136	(1.140)	62776	100.000	98.6	
25 Pyrene	202		12.410	12.410	(1.167)	64350	100.000	99.8	

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
===== 28 Benzo(a)anthracene	==== 228	== 13.892	===== 13.892	===== (0.998)	===== 48863	===== 100.000	===== 101
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	76071	200.000	
30 Chrysene	228	13.936	13.936	(1.002)	47558	100.000	99.7
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	49800	100.000	102
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	56396	100.000	96.7
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	38309	100.000	98.0
* 35 Perylene-d12	264	15.596	15.596	(1.000)	69201	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.130	17.132	(1.098)	44409	100.000	99.4
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.092	(1.096)	25898	100.000	97.4
38 Dibenzo(a,h)anthracene	278	17.144	17.146	(1.099)	34629	100.000	98.6
39 Benzo(g,h,i)perylene	276	17.575	17.577	(1.127)	38696	100.000	100

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040606.d
 Lab Smp Id: PNA 100
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	112523	-6.86
11 Acenaphthene-d10	72668	36334	145336	66275	-8.80
18 Phenanthrene-d10	112603	56302	225206	95400	-15.28
29 Chrysene-d12	101702	50851	203404	76071	-25.20
35 Perylene-d12	87112	43556	174224	69201	-20.56

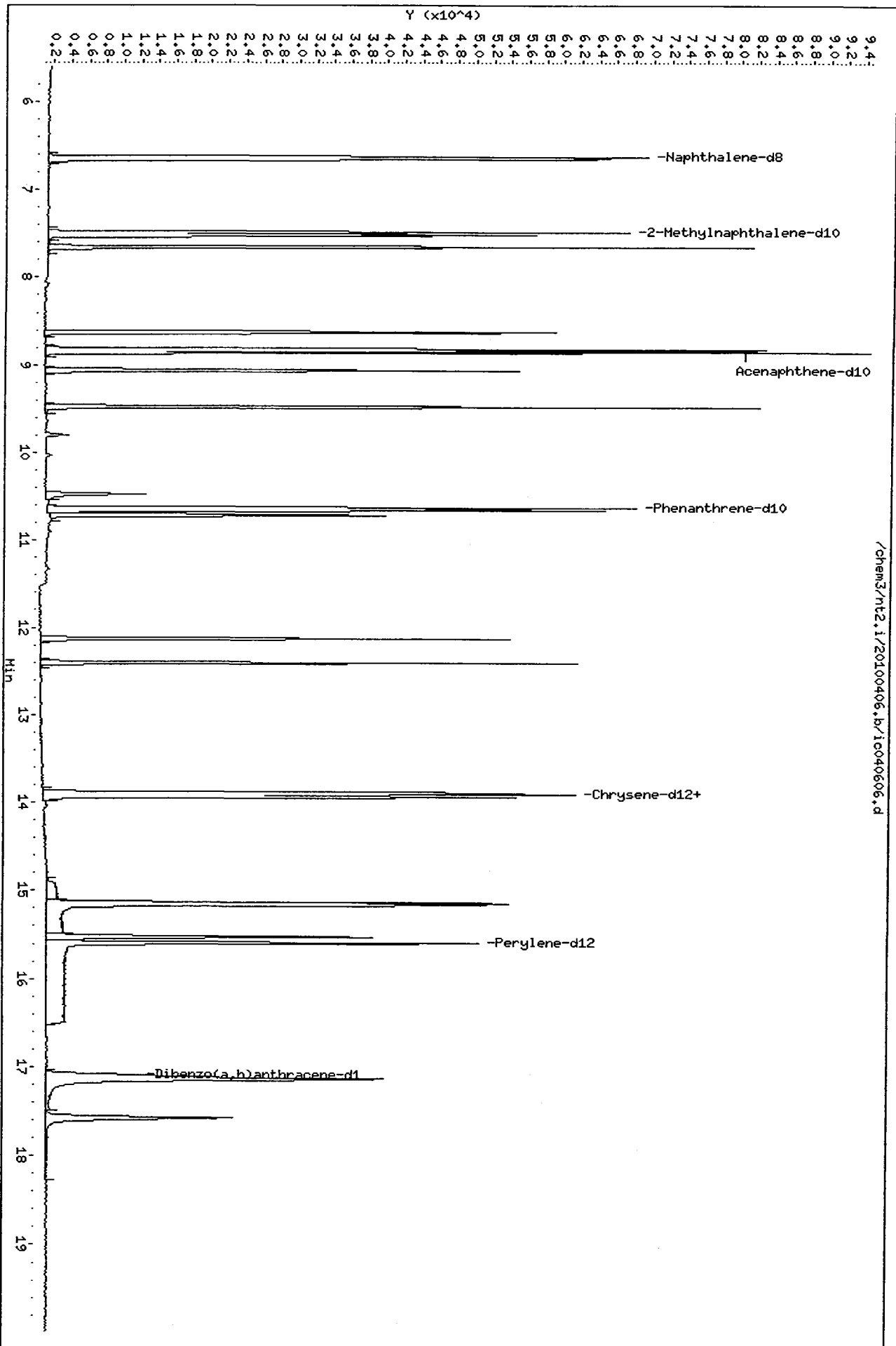
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.00
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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/nt2.i/20100406.b/1c040606.d
Date : 06-APR-2010 16:27

Client ID:
Sample Info: PNA 100
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM
 Data file : /chem3/nt2.i/20100406.b/ic040607.d
 Lab Smp Id: PNA 10
 Inj Date : 06-APR-2010 16:52
 Operator : VTS
 Smp Info : PNA 10
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 09:50 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Calibration Sample, Level: 1
 Compound Sublist: pnalmn.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136	6.636	6.636	(1.000)	112883	200.000	
5 Naphthalene	128	6.667	6.667	(1.005)	6472	10.0000	10.1
\$ 6 2-Methylnaphthalene-d10	152	7.482	7.482	(1.128)	3732	10.0000	9.69
7 2-Methylnaphthalene	142	7.513	7.513	(1.132)	4095	10.0000	10.3
8 1-Methylnaphthalene	142	7.651	7.651	(1.153)	4115	10.0000	9.86
10 Acenaphthylene	152	8.626	8.626	(0.977)	5546	10.0000	9.05
* 11 Acenaphthene-d10	164	8.832	8.832	(1.000)	65491	200.000	
12 Acenaphthene	153	8.858	8.858	(1.003)	3436	10.0000	9.05
14 Dibenzofuran	168	9.064	9.064	(1.026)	5125	10.0000	9.64
15 Fluorene	166	9.478	9.478	(1.073)	3965	10.0000	8.80
* 18 Phenanthrene-d10	188	10.632	10.632	(1.000)	91832	200.000	
19 Phenanthrene	178	10.662	10.662	(1.003)	5899	10.0000	10.0
20 Anthracene	178	10.724	10.724	(1.009)	5162	10.0000	9.49(M)
24 Fluoranthene	202	12.136	12.136	(1.141)	6152	10.0000	10.0
25 Pyrene	202	12.410	12.410	(1.167)	6084	10.0000	9.80

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/mL)	ON-COL (ng/mL)
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	4531	10.0000	10.1
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	70497	200.000	
30 Chrysene	228	13.936	13.936	(1.002)	4782	10.0000	10.8
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	4288	10.0000	9.36
33 Benzo(k)fluoranthene	252	15.170	15.170	(0.973)	5984	10.0000	11.0(M)
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	3576	10.0000	9.77
* 35 Perylene-d12	264	15.596	15.596	(1.000)	64830	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.132	17.132	(1.098)	3921	10.0000	9.37
§ 36 Dibenzo(a,h)anthracene-d14	292	17.092	17.092	(1.096)	2405	10.0000	9.65
38 Dibenzo(a,h)anthracene	278	17.146	17.146	(1.099)	2981	10.0000	9.06
39 Benzo(g,h,i)perylene	276	17.577	17.577	(1.127)	3597	10.0000	9.97

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040607.d
 Lab Smp Id: PNA 10
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	112883	-6.56
11 Acenaphthene-d10	72668	36334	145336	65491	-9.88
18 Phenanthrene-d10	112603	56302	225206	91832	-18.45
29 Chrysene-d12	101702	50851	203404	70497	-30.68
35 Perylene-d12	87112	43556	174224	64830	-25.58

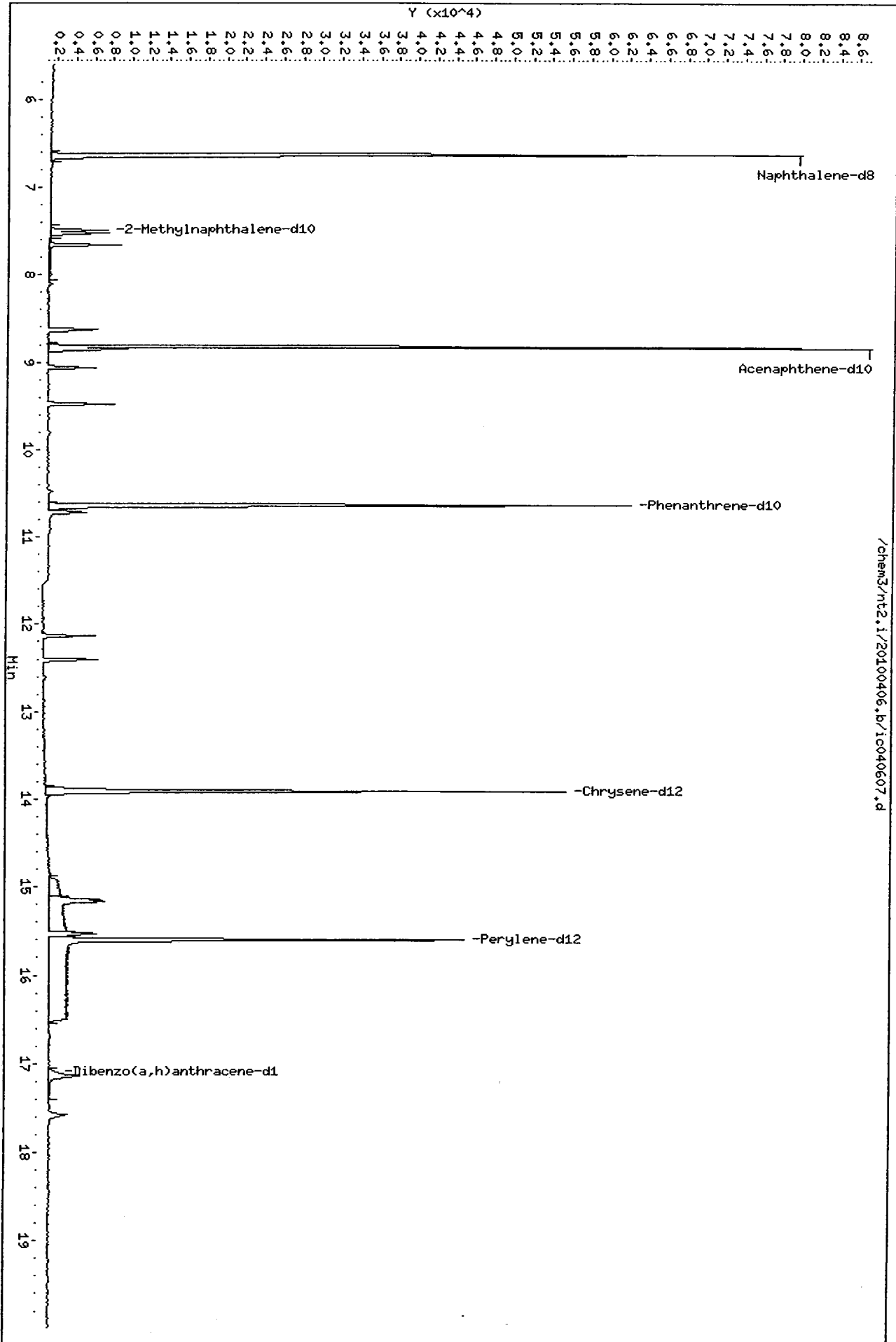
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.02
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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.

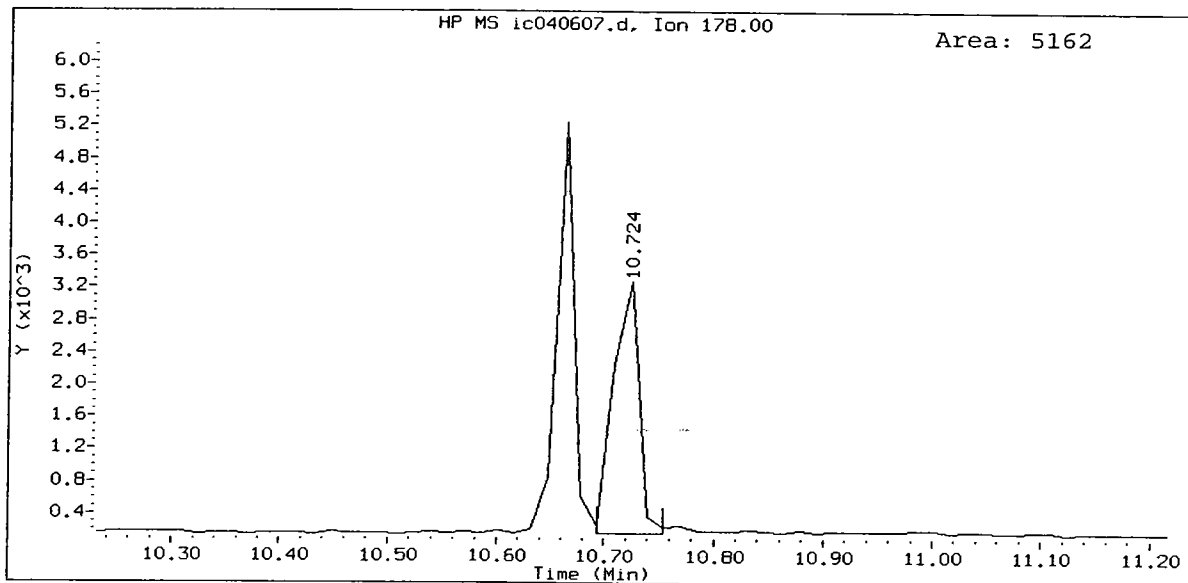
Data File: /chem3/nt2.i/20100406.b/ic040607.d
Date : 06-APR-2010 16:52

Client ID:
Sample Info: PNA 10
Volume Injected (UL): 2.0
Column phase: ZB-5

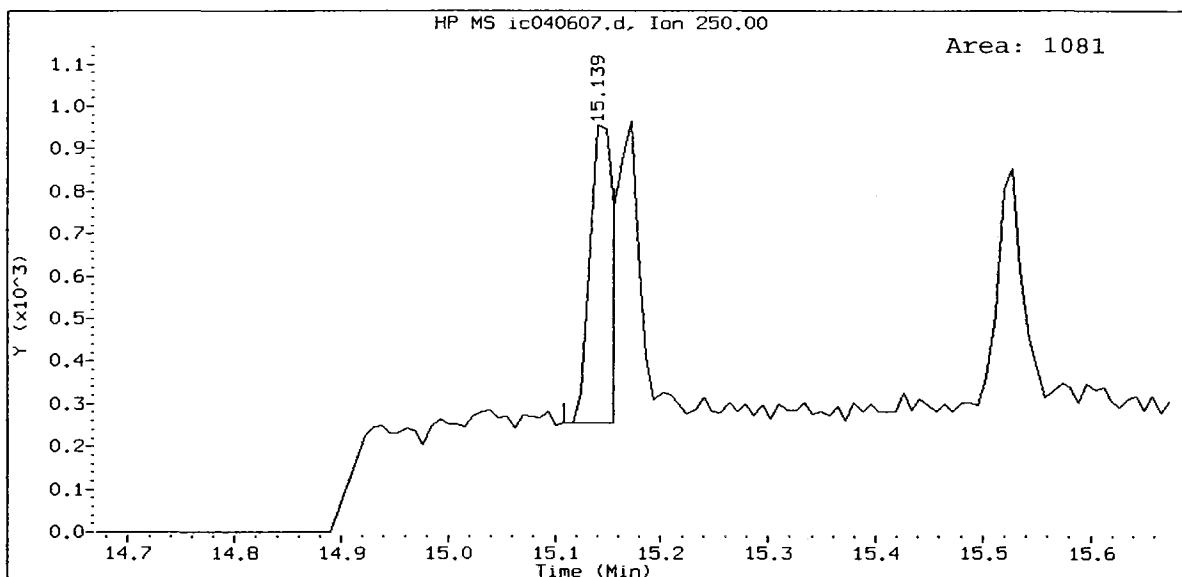
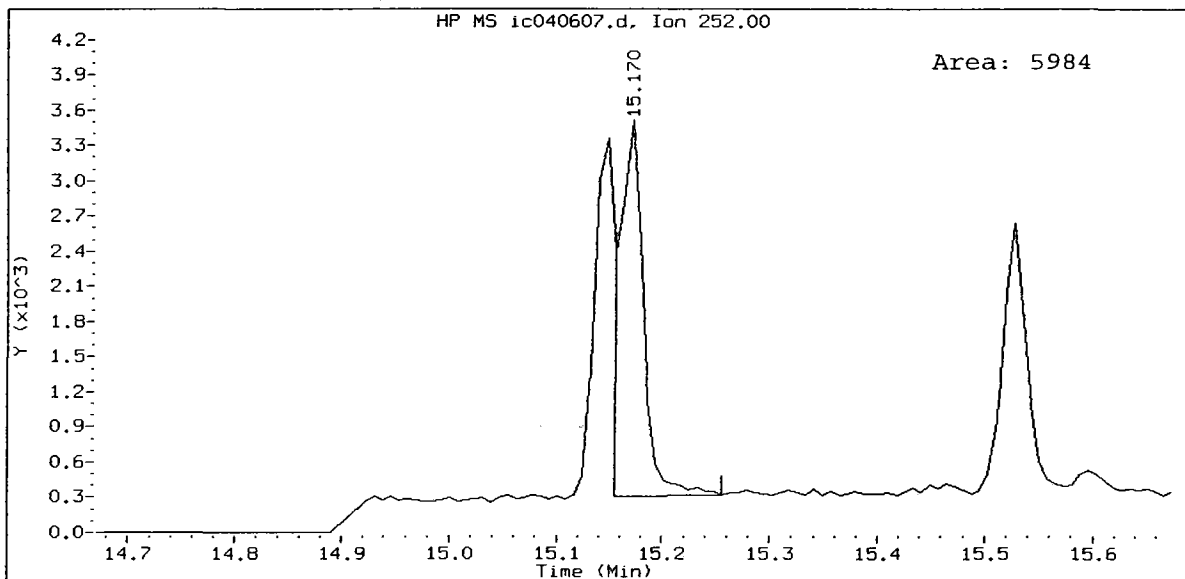
Instrument: nt2.i
Operator: VTS
Column diameter: 0.25



PNA 10, /chem3/nt2.i/20100406.b/ic040607.d
Anthracene Amount: 9.49



PNA 10, /chem3/nt2.i/20100406.b/ic040607.d
Benzo(k)fluoranthene Amount: 10.95



Compounds	QUANT SIG		CONCENTRATIONS					
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ng/L)	
=====	=====	==	=====	=====	=====	=====	=====	
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	125378	262.095	262	
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	75049	200.000		
30 Chrysene	228	13.936	13.936	(1.002)	124349	264.325	264	
32 Benzo(b)fluoranthene	252	15.148	15.147	(0.971)	126699	258.336	258	
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	151425	258.916	259	
34 Benzo(a)pyrene	252	15.527	15.527	(0.996)	101735	259.644	260 (R)	
* 35 Perylene-d12	264	15.597	15.596	(1.000)	69395	200.000		
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.132	(1.098)	118950	265.465	265	
\$ 36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
38 Dibenzo(a,h)anthracene	278	17.145	17.146	(1.099)	92425	262.507	263	
39 Benzo(g,h,i)perylene	276	17.576	17.577	(1.127)	103888	268.952	269	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040608.d
 Lab Smp Id: ICV
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	109275	-9.55
11 Acenaphthene-d10	72668	36334	145336	62617	-13.83
18 Phenanthrene-d10	112603	56302	225206	92425	-17.92
29 Chrysene-d12	101702	50851	203404	75049	-26.21
35 Perylene-d12	87112	43556	174224	69395	-20.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.64	0.02
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	-0.01
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.13
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.01
35 Perylene-d12	15.60	15.10	16.10	15.60	-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.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
 Sample Matrix: LIQUID
 Lab Smp Id: ICV
 Level: LOW
 Data Type: MS DATA
 SpikeList File: waterlcs.spk
 Sublist File: pnalnm.sub
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Client SDG: 20100406
 Fraction: SV
 Operator: VTS
 SampleType: LCS
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ng/L	CONC RECOVERED ng/L	% RECOVERED	LIMITS
5 Naphthalene	250	262	105.00*	41-101
7 2-Methylnaphthalen	250	264	105.50*	47-100
8 1-Methylnaphthalen	250	252	100.89	30-160
10 Acenaphthylene	250	263	105.13*	35-100
12 Acenaphthene	250	270	108.12*	43-104
14 Dibenzofuran	250	0.00	*	37-100
15 Fluorene	250	278	111.17*	51-103
19 Phenanthrene	250	263	105.39	55-109
20 Anthracene	250	260	104.22*	30-101
24 Fluoranthene	250	258	103.07	49-123
25 Pyrene	250	259	103.64	48-120
28 Benzo(a)anthracene	250	262	104.88	43-113
30 Chrysene	250	264	105.77	59-112
32 Benzo(b)fluoranthene	250	258	103.38	44-121
33 Benzo(k)fluoranthene	250	259	103.61	50-117
34 Benzo(a)pyrene	250	260	103.90*	10-100
37 Indeno(1,2,3-cd)py	250	265	106.23	43-112
38 Dibenzo(a,h)anthra	250	263	105.04	42-114
39 Benzo(g,h,i)perylene	250	269	107.62	31-118

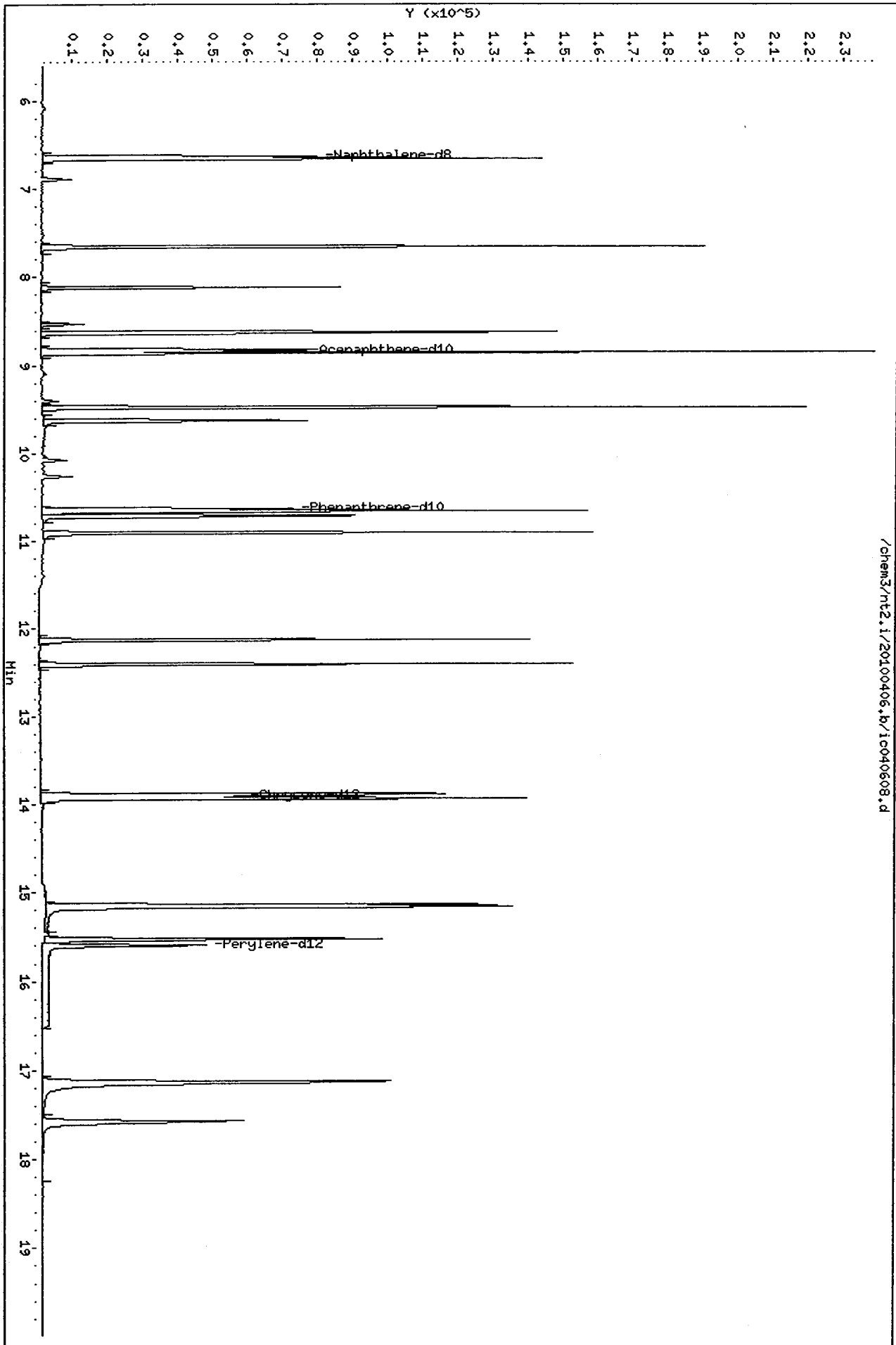
SURROGATE COMPOUND	CONC ADDED ng/L	CONC RECOVERED ng/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalene	300	0.00	*	31-109
\$ 36 Dibenzo(a,h)anthra	300	0.00	*	10-133

Data File: /chem3/nt2.i/20100406.b/1c040608.d
Date : 06-APR-2010 17:16

Client ID:
Sample Info: ICV
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25

/chem3/nt2.i/20100406.b/1c040608.d



SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC

Client: SLOYD/SNIDER

ARI Job No: QQ59

Project: LORA LAKES APARTMENT

Instrument ID: NT2

Cont. Calib. Date: 04/06/10

Init. Calib. Date: 04/06/10

Cont. Calib. Time: 1424

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
=====	=====	=====	=====	=====	=====
Naphthalene	1.140	1.103	0.700	AVRG	-3.2
2-Methylnaphthalene	0.706	0.714	0.400	AVRG	1.1
Acenaphthylene	1.870	1.886	0.900	AVRG	0.8
Acenaphthene	1.160	1.146	0.900	AVRG	-1.2
Dibenzofuran	1.623	1.637	0.800	AVRG	0.9
Fluorene	1.375	1.434	0.900	AVRG	4.3
Phenanthrene	1.278	1.250	0.700	AVRG	-2.2
Anthracene	1.184	1.224	0.700	AVRG	3.4
Fluoranthene	1.334	1.360	0.600	AVRG	1.9
Pyrene	1.352	1.365	0.600	AVRG	1.0
Benzo (a) anthracene	1.275	1.288	0.800	AVRG	1.0
Chrysene	1.254	1.261	0.700	AVRG	0.6
Benzo (b) fluoranthene	1.413	1.575	0.700	AVRG	11.5
Benzo (k) fluoranthene	1.686	1.534	0.700	AVRG	-9.0
Benzo (a) pyrene	1.129	1.170	0.700	AVRG	3.6
Indeno (1,2,3-cd) pyrene	1.291	1.303	0.500	AVRG	0.9
Dibenzo (a,h) anthracene	1.015	1.057	0.400	AVRG	4.1
Benzo (g,h,i) perylene	1.113	1.098	0.500	AVRG	-1.3
1-Methylnaphthalene	0.739	0.749	0.010	AVRG	1.4
=====	=====	=====	=====	=====	=====
2-Methylnaphthalene-d10	0.683	0.689	0.010	AVRG	0.9
Dibenzo (a,h) anthracene-d14	0.769	0.794	0.010	AVRG	3.2

<- Exceeds QC limit of 20% D

* RF less than minimum RF

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt2.i Injection Date: 06-APR-2010 14:24
 Lab File ID: ic040601.d Init. Cal. Date(s): 06-APR-2010 06-APR-2010
 Analysis Type: WATER Init. Cal. Times: 14:24 16:52
 Lab Sample ID: PNA 250 Quant Type: ISTD
 Method: /chem3/nt2.i/20100406.b/lowsim.m

COMPOUND	RRF / AMOUNT	RF250	MIN		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
5 Naphthalene	1.14047	1.10315	0.010	-3.27198	20.00000		Averaged
\$ 6 2-Methylnaphthalene-d10	0.68252	0.68873	0.010	0.90943	20.00000		Averaged
7 2-Methylnaphthalene	0.70624	0.71363	0.010	1.04619	20.00000		Averaged
8 1-Methylnaphthalene	0.73918	0.74877	0.010	1.29780	20.00000		Averaged
10 Acenaphthylene	1.87056	1.88660	0.010	0.85719	20.00000		Averaged
12 Acenaphthene	1.15996	1.14644	0.010	-1.16513	20.00000		Averaged
14 Dibenzofuran	1.62321	1.63738	0.010	0.87263	20.00000		Averaged
15 Fluorene	1.37521	1.43440	0.010	4.30452	20.00000		Averaged
19 Phenanthrene	1.27837	1.24991	0.010	-2.22615	20.00000		Averaged
20 Anthracene	1.18437	1.22450	0.010	3.38853	20.00000		Averaged
24 Fluoranthene	1.33434	1.36003	0.010	1.92568	20.00000		Averaged
25 Pyrene	1.35161	1.36476	0.010	0.97321	20.00000		Averaged
28 Benzo(a)anthracene	1.27481	1.28790	0.010	1.02676	20.00000		Averaged
30 Chrysene	1.25369	1.26088	0.010	0.57385	20.00000		Averaged
32 Benzo(b)fluoranthene	1.41348	1.57543	0.010	11.45751	20.00000		Averaged
33 Benzo(k)fluoranthene	1.68554	1.53380	0.010	-9.00232	20.00000		Averaged
34 Benzo(a)pyrene	1.12926	1.16955	0.010	3.56739	20.00000		Averaged
37 Indeno(1,2,3-cd)pyrene	1.29140	1.30304	0.010	0.90168	20.00000		Averaged
\$ 36 Dibenzo(a,h)anthracene-d14	0.76860	0.79367	0.010	3.26188	20.00000		Averaged
38 Dibenzo(a,h)anthracene	1.01473	1.05707	0.010	4.17207	20.00000		Averaged
39 Benzo(g,h,i)perylene	1.11325	1.09844	0.010	-1.33040	20.00000		Averaged

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/ic040601.d
 Lab Smp Id: PNA 250
 Inj Date : 06-APR-2010 14:24
 Operator : VTS
 Smp Info : PNA 250
 Misc Info :
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 10:26 peter
 Cal Date : 06-APR-2010 16:52
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 3.50
 Processing Host: cserv3

Inst ID: nt2.i
 Quant Type: ISTD
 Cal File: ic040607.d
 Continuing Calibration Sample
 Compound Sublist: pnalnm.sub

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 4 Naphthalene-d8	136		6.635	6.635	(1.000)	120808	200.000		
5 Naphthalene	128		6.666	6.666	(1.005)	166587	250.000	242	
\$ 6 2-Methylnaphthalene-d10	152		7.481	7.481	(1.128)	104005	250.000	252	
7 2-Methylnaphthalene	142		7.512	7.512	(1.132)	107765	250.000	253	
8 1-Methylnaphthalene	142		7.650	7.650	(1.153)	113072	250.000	253	
10 Acenaphthylene	152		8.627	8.627	(0.977)	171369	250.000	252	
* 11 Acenaphthene-d10	164		8.833	8.833	(1.000)	72668	200.000		
12 Acenaphthene	153		8.859	8.859	(1.003)	104137	250.000	247	
14 Dibenzofuran	168		9.065	9.065	(1.026)	148731	250.000	252	
15 Fluorene	166		9.477	9.477	(1.073)	130294	250.000	261	
* 18 Phenanthrene-d10	188		10.647	10.647	(1.000)	112603	200.000		
19 Phenanthrene	178		10.662	10.662	(1.001)	175930	250.000	244	
20 Anthracene	178		10.724	10.724	(1.007)	172353	250.000	258	
24 Fluoranthene	202		12.136	12.136	(1.140)	191430	250.000	255	
25 Pyrene	202		12.410	12.410	(1.166)	192095	250.000	252	

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/mL)	ON-COL (ng/mL)
28 Benzo(a)anthracene	228	13.892	13.892	(0.998)	163728	250.000	253
* 29 Chrysene-d12	240	13.914	13.914	(1.000)	101702	200.000	
30 Chrysene	228	13.946	13.946	(1.002)	160293	250.000	251
32 Benzo(b)fluoranthene	252	15.147	15.147	(0.971)	171549	250.000	279
33 Benzo(k)fluoranthene	252	15.170	15.170	(0.972)	167016	250.000	227
34 Benzo(a)pyrene	252	15.526	15.526	(0.995)	127352	250.000	259
* 35 Perylene-d12	264	15.603	15.603	(1.000)	87112	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.145	17.145	(1.099)	141888	250.000	252
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.105	17.105	(1.096)	86423	250.000	258
38 Dibenzo(a,h)anthracene	278	17.145	17.145	(1.099)	115104	250.000	260
39 Benzo(g,h,i)perylene	276	17.590	17.590	(1.127)	119609	250.000	247

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: ic040601.d
 Lab Smp Id: PNA 250
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info:

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Level: LOW
 Sample Type: WATER

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	120808	0.00
11 Acenaphthene-d10	72668	36334	145336	72668	0.00
18 Phenanthrene-d10	112603	56302	225206	112603	0.00
29 Chrysene-d12	101702	50851	203404	101702	0.00
35 Perylene-d12	87112	43556	174224	87112	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	0.00
11 Acenaphthene-d10	8.83	8.33	9.33	8.83	0.00
18 Phenanthrene-d10	10.65	10.15	11.15	10.65	0.00
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.00
35 Perylene-d12	15.60	15.10	16.10	15.60	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:

Sample Info: PNA 250

Volume Injected (uL): 2.0

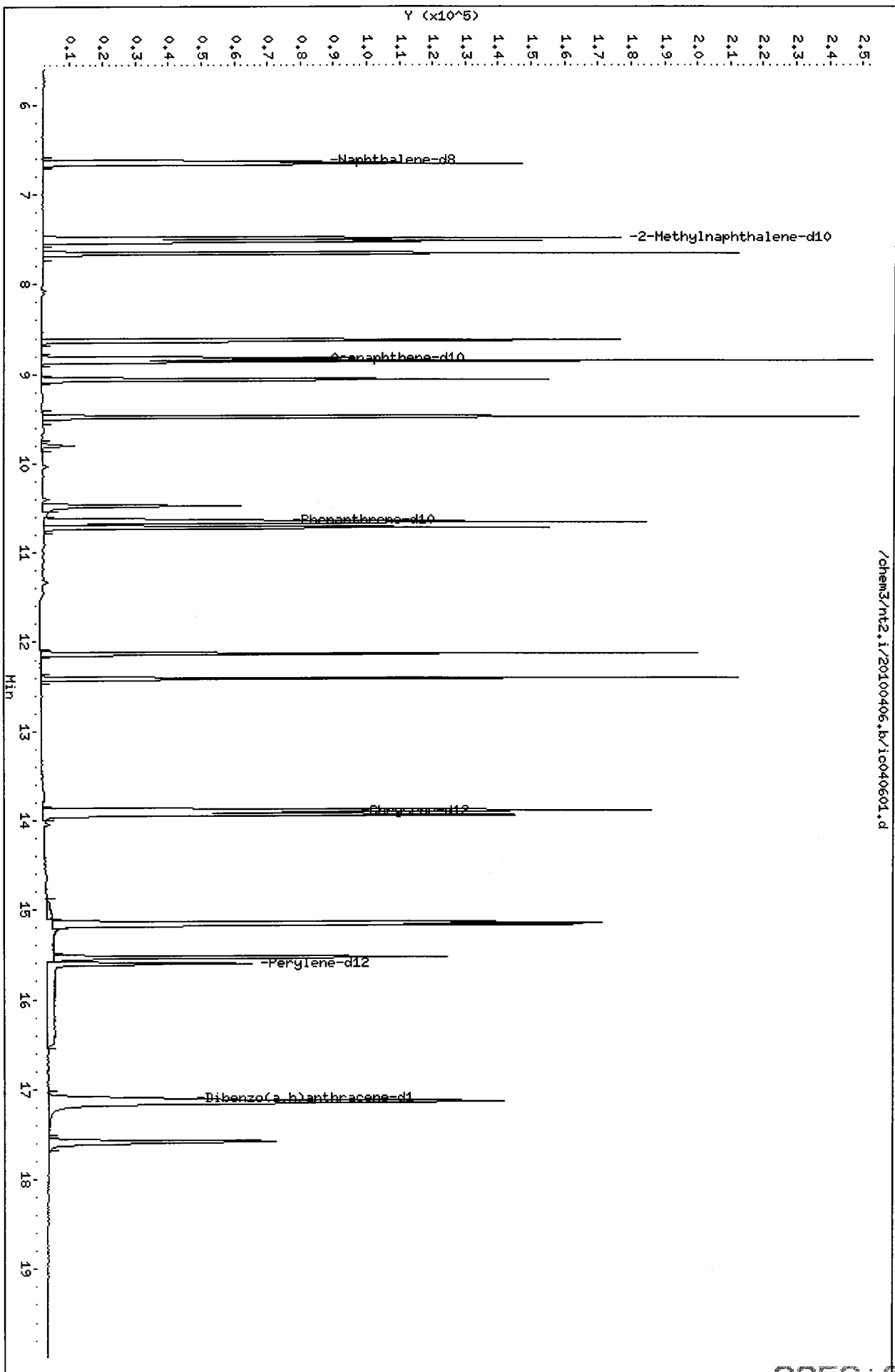
Column Phase: ZB-5

Instrument: nt2.i

Operator: VTS

Column diameter: 0.25

/chem3/nt2.i/20100406.b/ic040601.d



SIM Semivolatile Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.

Date : 06-APR-2010 13:59

Client ID:

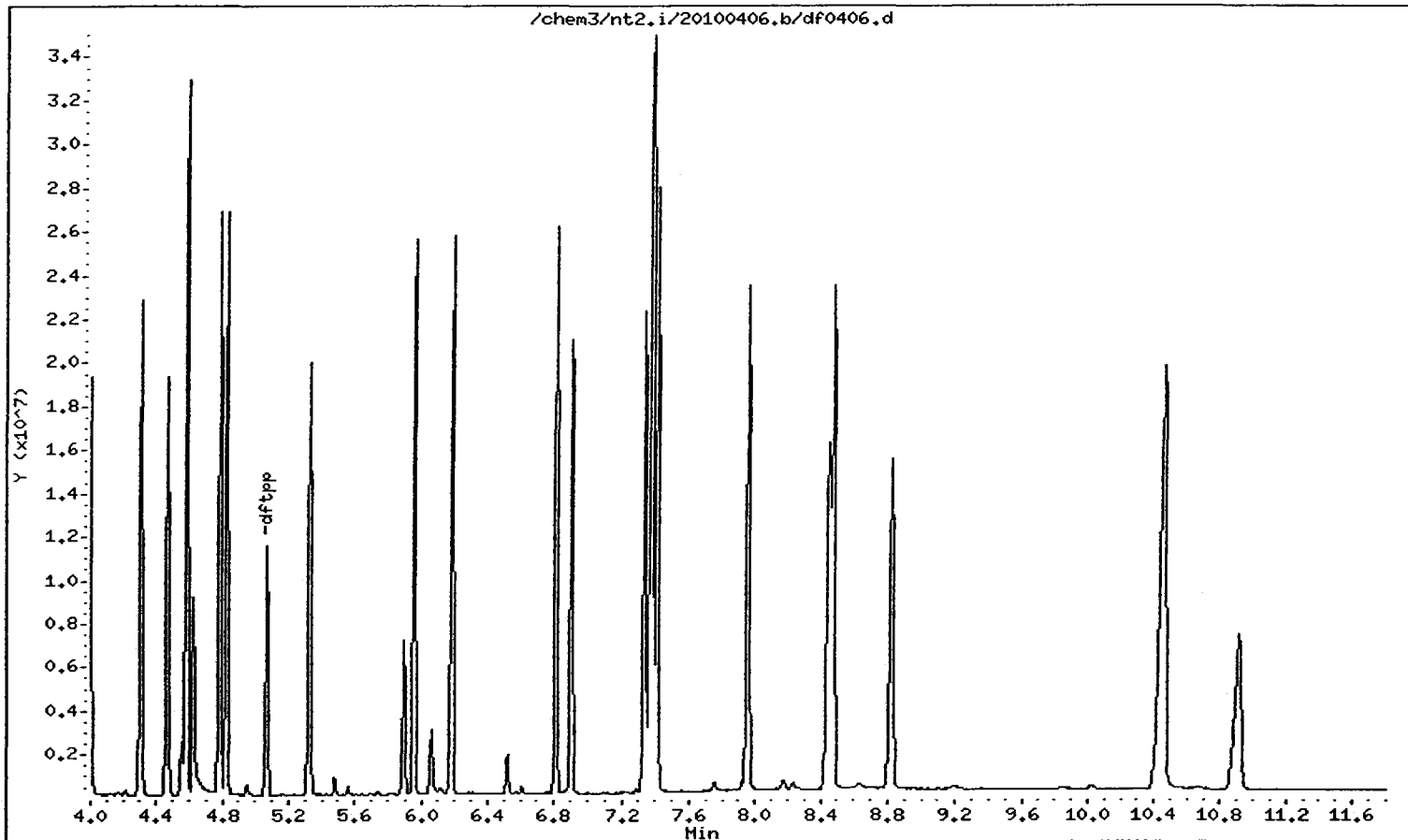
Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

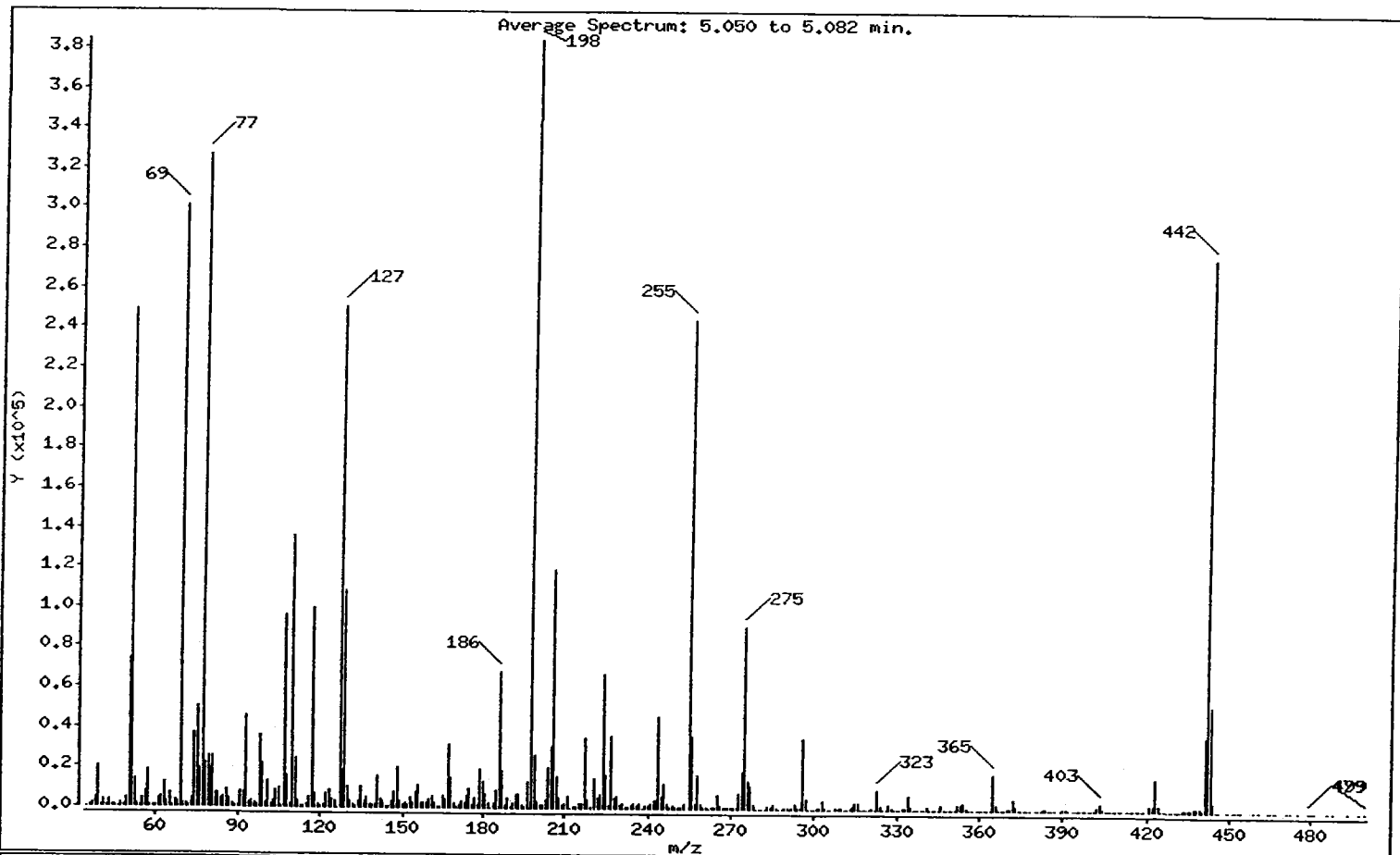
Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	64.75
68	Less than 2.00% of mass 69	0.61 (0.77)
69	Mass 69 relative abundance	78.43
70	Less than 2.00% of mass 69	0.55 (0.70)
127	10.00 - 80.00% of mass 198	65.26
197	Less than 2.00% of mass 198	0.09
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 60.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	4.58
441	0.01 - 24.00% of mass 442	9.58 (13.33)
442	50.00 - 200.00% of mass 198	71.90
443	15.00 - 24.00% of mass 442	13.64 (18.97)

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d
 Spectrum: Average Spectrum: 5.050 to 5.082 min.
 Location of Maximum: 198.00
 Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	416	142.00	4760	250.00	677	360.00	121
36.00	1002	143.00	3921	251.00	1008	361.00	287
37.00	2155	144.00	1109	252.00	1096	362.00	281
38.00	4395	145.00	888	253.00	2316	363.00	158
39.00	20424	146.00	3319	255.00	244480	364.00	43
40.00	1230	147.00	8205	256.00	36088	365.00	17600
41.00	3813	148.00	20008	257.00	3013	366.00	2806
42.00	1118	149.00	3712	258.00	16472	367.00	191
43.00	3495	150.00	1692	259.00	2825	368.00	66
44.00	1085	151.00	2357	260.00	590	369.00	270
45.00	1210	152.00	1758	261.00	574	370.00	551
46.00	269	153.00	5487	262.00	155	371.00	783
47.00	1520	154.00	2992	263.00	705	372.00	5254
48.00	779	155.00	7683	264.00	1191	373.00	1577
49.00	4201	156.00	11055	265.00	7045	374.00	232
50.00	74256	157.00	2318	266.00	1785	375.00	144
51.00	248896	158.00	2501	267.00	674	376.00	121
52.00	14238	159.00	2987	268.00	559	377.00	232
53.00	1993	160.00	4510	269.00	450	378.00	45
54.00	699	161.00	6592	270.00	573	380.00	99
55.00	4766	162.00	2357	271.00	986	381.00	32
56.00	7742	163.00	658	272.00	575	382.00	176
57.00	18208	164.00	784	273.00	7542	383.00	1295
58.00	886	165.00	5914	274.00	18488	384.00	504
59.00	454	166.00	4536	275.00	91008	385.00	285
60.00	1070	167.00	31712	276.00	14537	386.00	77
61.00	4542	168.00	14628	277.00	11371	387.00	111
62.00	4942	169.00	2984	278.00	2419	389.00	108
63.00	12346	170.00	1022	279.00	382	390.00	856
64.00	2598	171.00	1604	280.00	73	391.00	558
65.00	6976	172.00	3465	281.00	236	392.00	195
66.00	1109	173.00	2848	282.00	393	394.00	127
67.00	3298	174.00	6037	283.00	1354	395.00	37
68.00	2335	175.00	10146	284.00	1072	396.00	106
69.00	301440	176.00	2144	285.00	2289	397.00	65

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d
 Spectrum: Average Spectrum: 5.050 to 5.082 min.
 Location of Maximum: 198.00
 Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.00	2110	177.00	4897	286.00	588	398.00	178
71.00	2082	178.00	2070	287.00	374	399.00	180
72.00	620	179.00	19552	288.00	196	400.00	140
73.00	4300	180.00	13224	289.00	629	401.00	308
74.00	36768	181.00	6822	290.00	589	402.00	1826
75.00	50000	182.00	2393	291.00	435	403.00	3464
76.00	19336	183.00	346	292.00	552	404.00	1023
77.00	327360	184.00	2668	293.00	2391	405.00	291
78.00	22288	185.00	9268	294.00	935	406.00	109
79.00	25336	186.00	68232	295.00	1253	407.00	86
80.00	19528	187.00	18576	296.00	35736	408.00	74
81.00	25584	188.00	1935	297.00	5467	409.00	37
82.00	6741	189.00	5633	298.00	405	410.00	182
83.00	6784	190.00	758	299.00	236	411.00	101
84.00	4298	191.00	2867	300.00	189	413.00	31
85.00	5181	192.00	6876	301.00	595	414.00	235
86.00	8831	193.00	7238	302.00	487	415.00	174
87.00	4065	194.00	1815	303.00	4764	416.00	210
88.00	1753	195.00	1014	304.00	1297	417.00	59
89.00	1207	196.00	12894	305.00	104	418.00	124
90.00	465	197.00	354	306.00	129	419.00	271
91.00	7977	198.00	384384	308.00	531	421.00	2273
92.00	7665	199.00	26880	309.00	455	422.00	2902
93.00	45664	200.00	3438	310.00	652	423.00	15533
94.00	3087	201.00	1705	311.00	304	424.00	3000
95.00	3231	202.00	1478	312.00	187	425.00	408
96.00	2456	203.00	4259	313.00	639	426.00	261
97.00	2069	204.00	19968	314.00	1915	427.00	269
98.00	36488	205.00	31232	315.00	3802	428.00	289
99.00	21704	206.00	119128	316.00	3108	429.00	55
100.00	2251	207.00	16069	317.00	404	430.00	415
101.00	13543	208.00	5412	318.00	105	431.00	395
102.00	1728	209.00	1355	319.00	175	432.00	430
103.00	3911	210.00	2714	320.00	268	433.00	785
104.00	9027	211.00	5816	321.00	1026	434.00	1256

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Average Spectrum: 5.050 to 5.082 min.

Location of Maximum: 198.00

Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
105.00	9796	212.00	437	322.00	298	435.00	921
106.00	959	213.00	489	323.00	9745	436.00	988
107.00	96704	214.00	508	324.00	1952	437.00	1719
108.00	15501	215.00	2362	325.00	158	438.00	2203
109.00	1783	216.00	2854	326.00	179	439.00	1479
110.00	136448	217.00	35224	327.00	2324	440.00	1132
111.00	24928	218.00	4044	328.00	863	441.00	36832
112.00	3556	219.00	1052	329.00	420	442.00	276352
113.00	1133	221.00	14884	330.00	141	443.00	52424
114.00	603	222.00	5051	331.00	125	444.00	4496
115.00	1812	223.00	7321	332.00	893	445.00	141
116.00	4990	224.00	67384	333.00	1217	446.00	29
117.00	99632	225.00	16816	334.00	7045	449.00	196
118.00	7310	226.00	1610	335.00	1799	451.00	29
119.00	1942	227.00	36048	336.00	389	452.00	109
120.00	1242	228.00	5631	337.00	148	453.00	31
121.00	1553	229.00	6424	338.00	132	454.00	96
122.00	6968	230.00	1449	339.00	195	459.00	114
123.00	9049	231.00	2782	340.00	123	461.00	73
124.00	4450	232.00	523	341.00	1330	464.00	36
125.00	3651	233.00	779	342.00	358	465.00	33
126.00	192	234.00	2190	343.00	115	466.00	57
127.00	250880	235.00	2215	344.00	78	467.00	43
128.00	18840	236.00	2153	345.00	47	471.00	93
129.00	109032	237.00	2707	346.00	2380	472.00	83
130.00	10582	238.00	238	347.00	350	475.00	78
131.00	3101	239.00	1949	348.00	55	479.00	99
132.00	1831	240.00	1358	349.00	51	480.00	35
133.00	1093	241.00	2260	350.00	191	481.00	35
134.00	3510	242.00	4046	351.00	58	486.00	94
135.00	10859	243.00	4825	352.00	2884	488.00	78
136.00	3358	244.00	45824	353.00	2213	493.00	90
137.00	5416	245.00	6556	354.00	3619	497.00	32
138.00	1733	246.00	12563	355.00	1298	499.00	143
139.00	1456	247.00	2520	356.00	230		

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Average Spectrum: 5.050 to 5.082 min.

Location of Maximum: 198.00

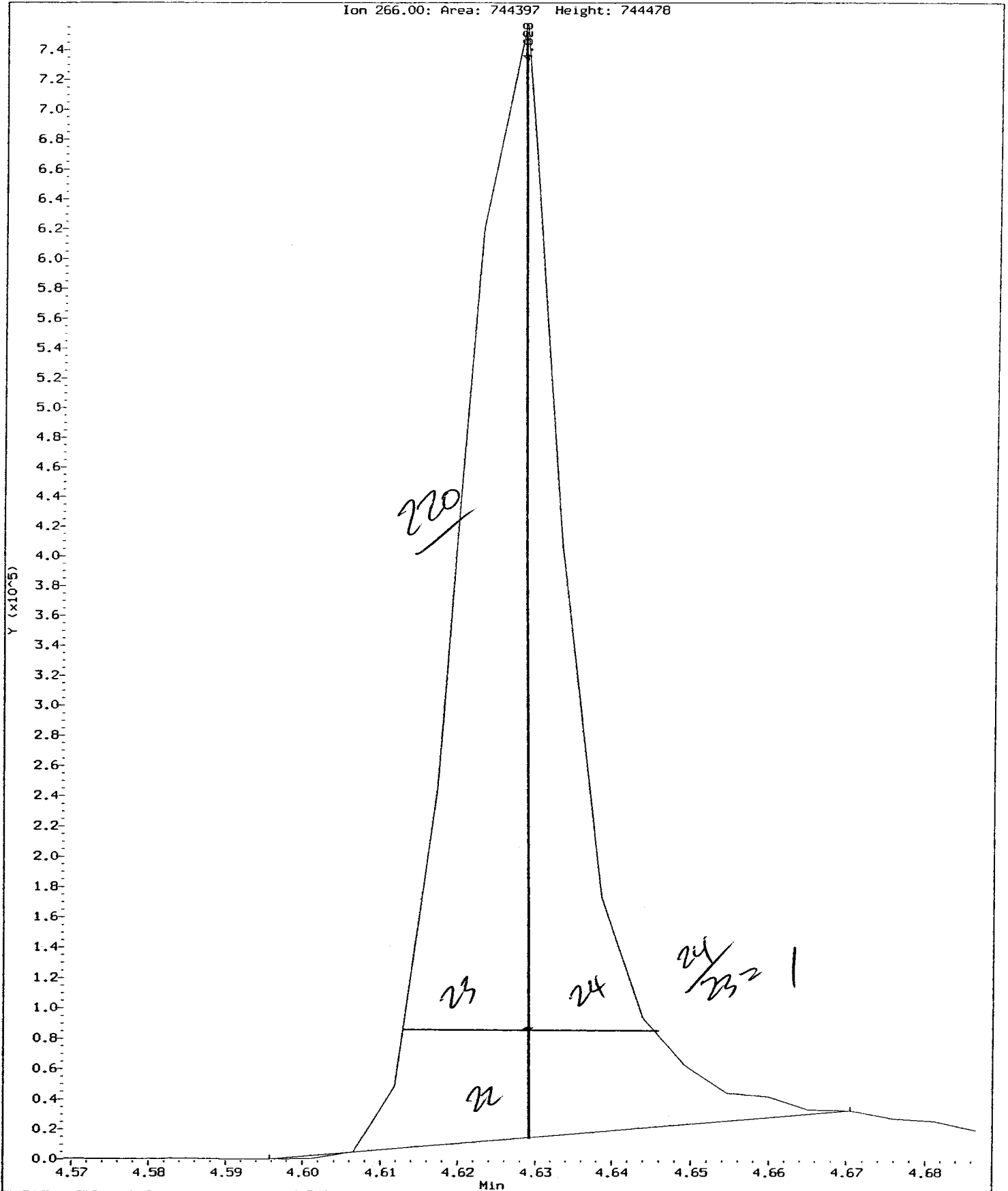
Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
140.00	1652	248.00	890	357.00	190		
141.00	15558	249.00	1907	359.00	359		

Data File: /chem3/nt2.i/20100406.b/ddt.b/df0406.d
Injection Date: 06-APR-2010 13:59
Instrument: nt2.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5

Ion 266.00: Area: 744397 Height: 744478

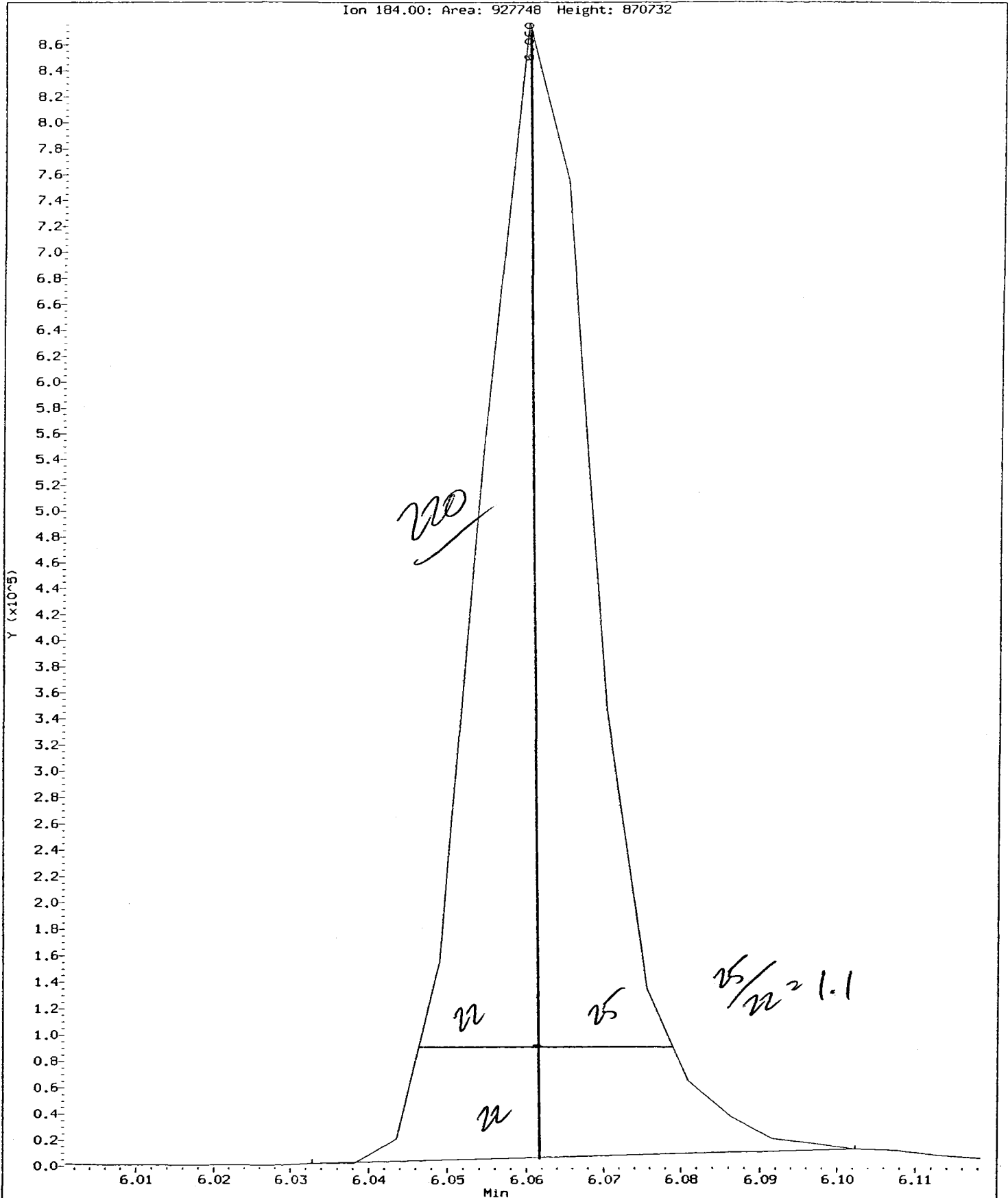


0059:00195

Data File: /chem3/nt2.i/20100406.b/ddt.b/df0406.d
Injection Date: 06-APR-2010 13:59
Instrument: nt2.i
Client Sample ID:

Compound: Benzidine
CAS Number:

Ion 184.00: Area: 927748 Height: 870732



QQ59:00196

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt2.i/20100406.b/ddt.b/df0406.d
Method: /chem3/nt2.i/20100406.b/ddt.b/sw846ddt.m
Analysis Date: 06-APR-2010 13:59

ARI ID: DFTPP
Misc:
Instrument: nt2.i

COMPOUND	RT	AREA
Pentachlorophenol	4.628	744396
Benzidine	6.060	927747
4,4'-DDE	6.284	7060
4,4'-DDD	6.610	41201
4,4'-DDT	6.909	2934000

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(7060 + 41201) * 100}{(7060 + 41201 + 2934000)}$$

$$\text{DDT Percent Breakdown} = 1.6 \%$$

Date : 06-APR-2010 13:59

Client ID:

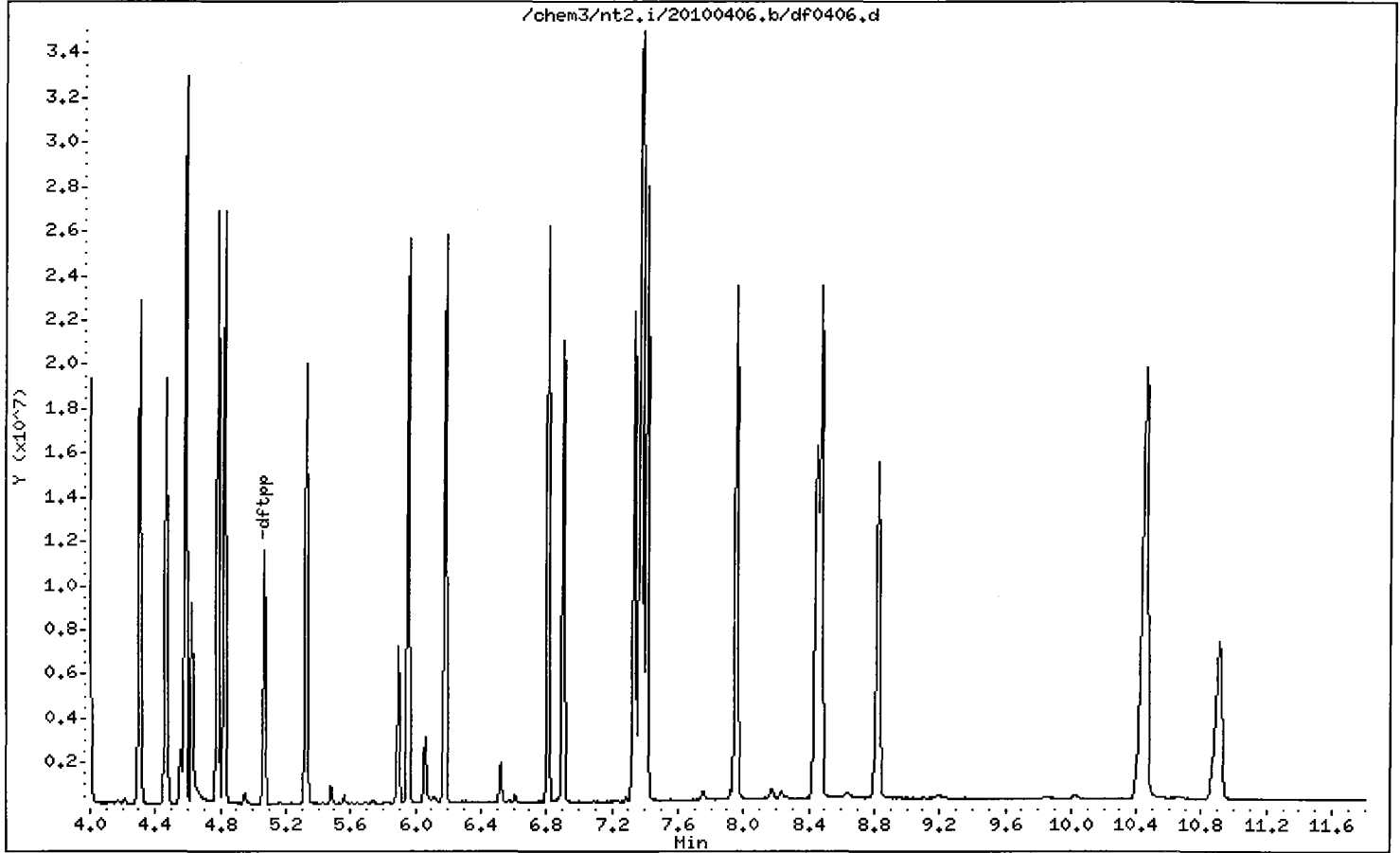
Instrument: nt2.i

Sample Info: DF TPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Date : 06-APR-2010 13:59

Client ID:

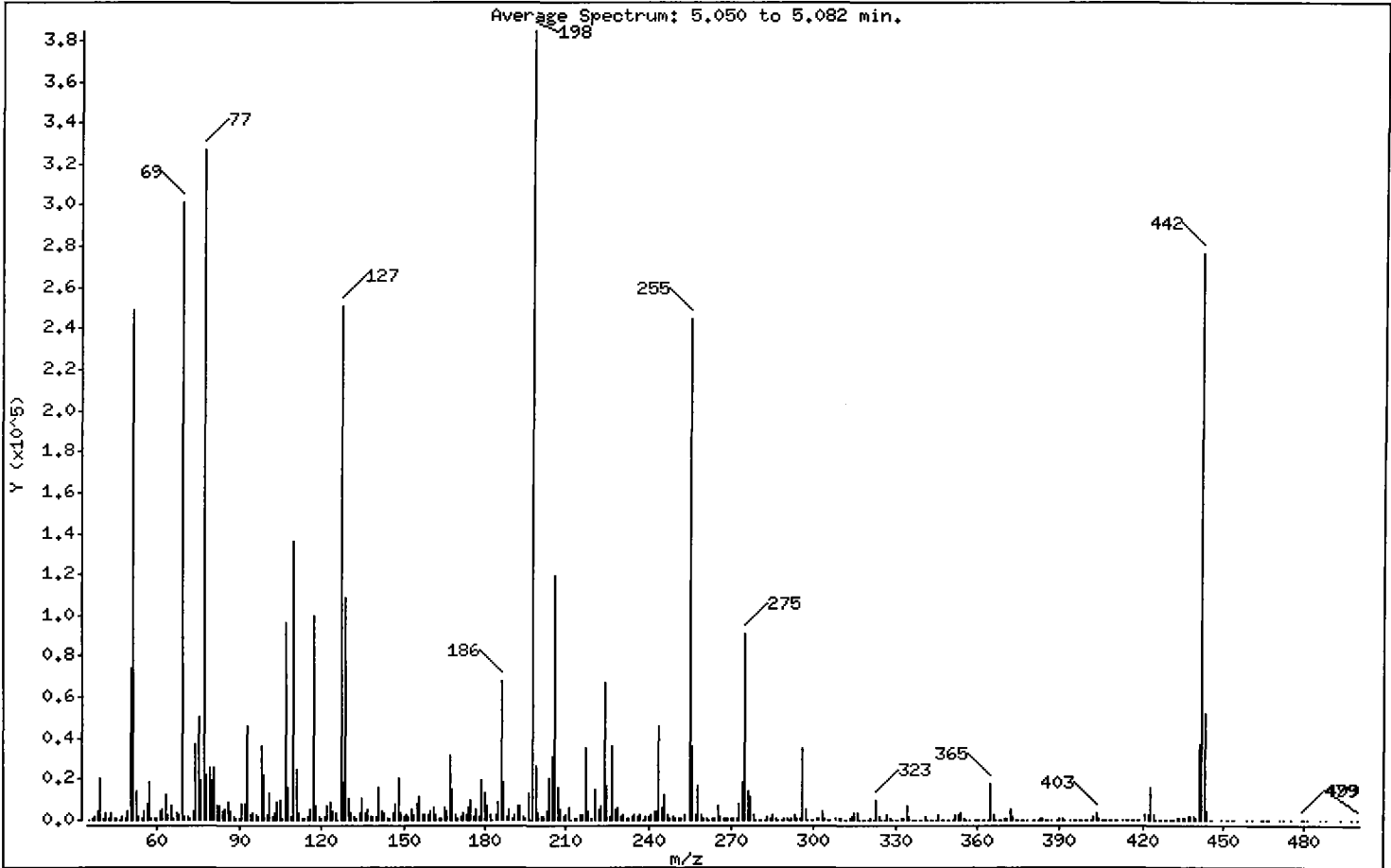
Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi
1 dftpp

Column diameter: 0.25



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	64.75
68	Less than 2.00% of mass 69	0.61 (0.77)
69	Mass 69 relative abundance	78.43
70	Less than 2.00% of mass 69	0.55 (0.70)
127	10.00 - 80.00% of mass 198	65.26
197	Less than 2.00% of mass 198	0.09
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 60.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	4.58
441	0.01 - 24.00% of mass 442	9.58 (13.33)
442	50.00 - 200.00% of mass 198	71.90
443	15.00 - 24.00% of mass 442	13.64 (18.97)

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d
 Spectrum: Average Spectrum; 5.050 to 5.082 min.
 Location of Maximum: 198.00
 Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	416	142.00	4760	250.00	677	360.00	121
36.00	1002	143.00	3921	251.00	1008	361.00	287
37.00	2155	144.00	1109	252.00	1096	362.00	281
38.00	4395	145.00	888	253.00	2316	363.00	158
39.00	20424	146.00	3319	255.00	244480	364.00	43
40.00	1230	147.00	8205	256.00	36088	365.00	17600
41.00	3813	148.00	20008	257.00	3013	366.00	2806
42.00	1118	149.00	3712	258.00	16472	367.00	191
43.00	3495	150.00	1692	259.00	2825	368.00	66
44.00	1085	151.00	2357	260.00	590	369.00	270
45.00	1210	152.00	1758	261.00	574	370.00	551
46.00	269	153.00	5487	262.00	155	371.00	783
47.00	1520	154.00	2992	263.00	705	372.00	5254
48.00	779	155.00	7683	264.00	1191	373.00	1577
49.00	4201	156.00	11055	265.00	7045	374.00	232
50.00	74256	157.00	2318	266.00	1785	375.00	144
51.00	248896	158.00	2501	267.00	674	376.00	121
52.00	14238	159.00	2987	268.00	559	377.00	232
53.00	1993	160.00	4510	269.00	450	378.00	45
54.00	699	161.00	6592	270.00	573	380.00	99
55.00	4766	162.00	2357	271.00	986	381.00	32
56.00	7742	163.00	658	272.00	575	382.00	176
57.00	18208	164.00	784	273.00	7542	383.00	1295
58.00	886	165.00	5914	274.00	18488	384.00	504
59.00	454	166.00	4536	275.00	91008	385.00	285
60.00	1070	167.00	31712	276.00	14537	386.00	77
61.00	4542	168.00	14628	277.00	11371	387.00	111
62.00	4942	169.00	2984	278.00	2419	389.00	108
63.00	12346	170.00	1022	279.00	382	390.00	856
64.00	2598	171.00	1604	280.00	73	391.00	558
65.00	6976	172.00	3465	281.00	236	392.00	195
66.00	1109	173.00	2848	282.00	393	394.00	127
67.00	3298	174.00	6037	283.00	1354	395.00	37
68.00	2335	175.00	10146	284.00	1072	396.00	106
69.00	301440	176.00	2144	285.00	2289	397.00	65

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Average Spectrum: 5.050 to 5.082 min.

Location of Maximum: 198.00

Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.00	2110	177.00	4897	286.00	588	398.00	178
71.00	2082	178.00	2070	287.00	374	399.00	180
72.00	620	179.00	19552	288.00	196	400.00	140
73.00	4300	180.00	13224	289.00	629	401.00	308
74.00	36768	181.00	6822	290.00	589	402.00	1826
75.00	50000	182.00	2393	291.00	435	403.00	3464
76.00	19336	183.00	346	292.00	552	404.00	1023
77.00	327360	184.00	2668	293.00	2391	405.00	291
78.00	22288	185.00	9268	294.00	935	406.00	109
79.00	25336	186.00	68232	295.00	1253	407.00	86
80.00	19528	187.00	18576	296.00	35736	408.00	74
81.00	25584	188.00	1935	297.00	5467	409.00	37
82.00	6741	189.00	5633	298.00	405	410.00	182
83.00	6784	190.00	758	299.00	236	411.00	101
84.00	4298	191.00	2867	300.00	189	413.00	31
85.00	5181	192.00	6876	301.00	595	414.00	235
86.00	8831	193.00	7238	302.00	487	415.00	174
87.00	4065	194.00	1815	303.00	4764	416.00	210
88.00	1753	195.00	1014	304.00	1297	417.00	59
89.00	1207	196.00	12894	305.00	104	418.00	124
90.00	465	197.00	354	306.00	129	419.00	271
91.00	7977	198.00	384384	308.00	531	421.00	2273
92.00	7665	199.00	26880	309.00	455	422.00	2902
93.00	45664	200.00	3438	310.00	652	423.00	15533
94.00	3087	201.00	1705	311.00	304	424.00	3000
95.00	3231	202.00	1478	312.00	187	425.00	408
96.00	2456	203.00	4259	313.00	639	426.00	261
97.00	2069	204.00	19968	314.00	1915	427.00	269
98.00	36488	205.00	31232	315.00	3802	428.00	289
99.00	21704	206.00	119128	316.00	3108	429.00	55
100.00	2251	207.00	16069	317.00	404	430.00	415
101.00	13543	208.00	5412	318.00	105	431.00	395
102.00	1728	209.00	1355	319.00	175	432.00	430
103.00	3911	210.00	2714	320.00	268	433.00	785
104.00	9027	211.00	5816	321.00	1026	434.00	1256

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d
 Spectrum: Average Spectrum: 5.050 to 5.082 min.
 Location of Maximum: 198.00
 Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
105.00	9796	212.00	437	322.00	298	435.00	921
106.00	959	213.00	489	323.00	9745	436.00	988
107.00	96704	214.00	508	324.00	1952	437.00	1719
108.00	15501	215.00	2362	325.00	158	438.00	2203
109.00	1783	216.00	2854	326.00	179	439.00	1479
110.00	136448	217.00	35224	327.00	2324	440.00	1132
111.00	24928	218.00	4044	328.00	863	441.00	36832
112.00	3556	219.00	1052	329.00	420	442.00	276352
113.00	1133	221.00	14884	330.00	141	443.00	52424
114.00	603	222.00	5051	331.00	125	444.00	4496
115.00	1812	223.00	7321	332.00	893	445.00	141
116.00	4990	224.00	67384	333.00	1217	446.00	29
117.00	99632	225.00	16816	334.00	7045	449.00	196
118.00	7310	226.00	1610	335.00	1799	451.00	29
119.00	1942	227.00	36048	336.00	389	452.00	109
120.00	1242	228.00	5631	337.00	148	453.00	31
121.00	1553	229.00	6424	338.00	132	454.00	96
122.00	6968	230.00	1449	339.00	195	459.00	114
123.00	9049	231.00	2782	340.00	123	461.00	73
124.00	4450	232.00	523	341.00	1330	464.00	36
125.00	3651	233.00	779	342.00	358	465.00	33
126.00	192	234.00	2190	343.00	115	466.00	57
127.00	250880	235.00	2215	344.00	78	467.00	43
128.00	18840	236.00	2153	345.00	47	471.00	93
129.00	109032	237.00	2707	346.00	2380	472.00	83
130.00	10582	238.00	238	347.00	350	475.00	78
131.00	3101	239.00	1949	348.00	55	479.00	99
132.00	1831	240.00	1358	349.00	51	480.00	35
133.00	1093	241.00	2260	350.00	191	481.00	35
134.00	3510	242.00	4046	351.00	58	486.00	94
135.00	10859	243.00	4825	352.00	2884	488.00	78
136.00	3358	244.00	45824	353.00	2213	493.00	90
137.00	5416	245.00	6556	354.00	3619	497.00	32
138.00	1733	246.00	12563	355.00	1298	499.00	143
139.00	1456	247.00	2520	356.00	230		

Date : 06-APR-2010 13:59

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Average Spectrum; 5.050 to 5.082 min.

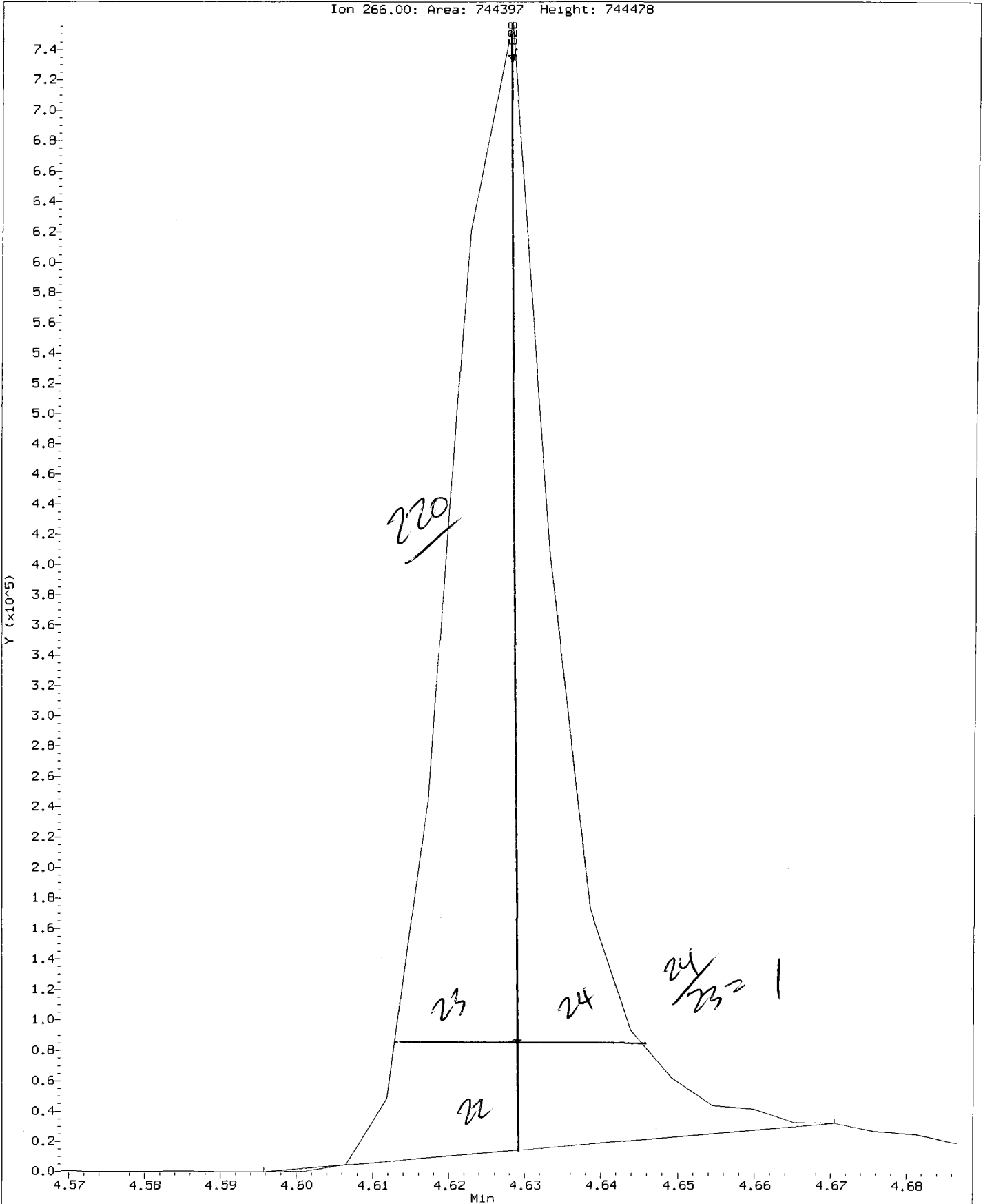
Location of Maximum: 198.00

Number of points: 425

m/z	Y	m/z	Y	m/z	Y	m/z	Y
140.00	1652	248.00	890	357.00	190		
141.00	15558	249.00	1907	359.00	359		

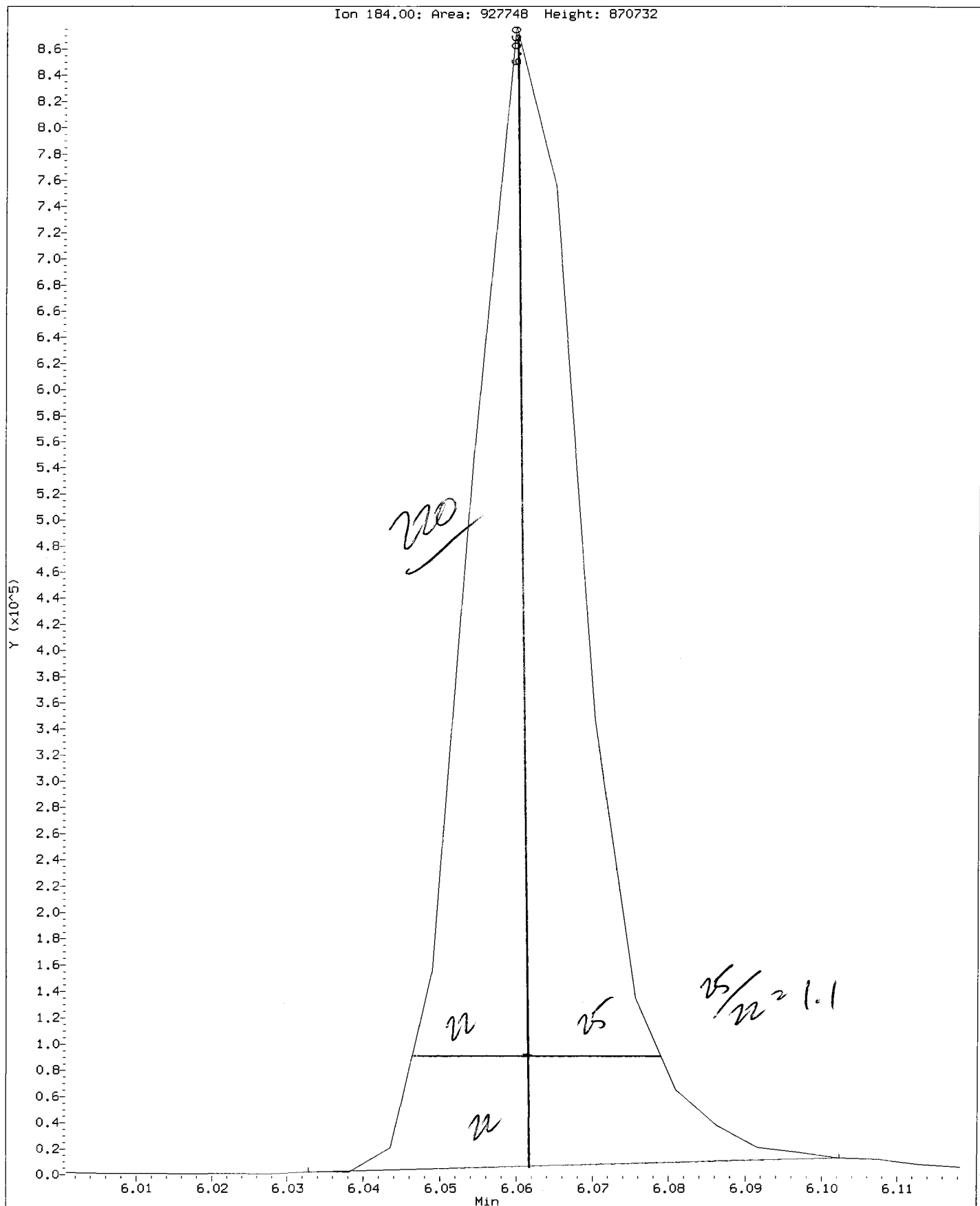
Data File: /chem3/nt2.1/20100406.b/ddt.b/df0406.d
Injection Date: 06-APR-2010 13:59
Instrument: nt2.1
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt2.1/20100406.b/ddt.b/df0406.d
Injection Date: 06-APR-2010 13:59
Instrument: nt2.i
Client Sample ID:

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt2.i/20100406.b/ddt.b/df0406.d ARI ID: DFTPP
Method: /chem3/nt2.i/20100406.b/ddt.b/sw846ddt.m Misc:
Analysis Date: 06-APR-2010 13:59 Instrument: nt2.i

COMPOUND	RT	AREA
Pentachlorophenol	4.628	744396
Benzidine	6.060	927747
4,4'-DDE	6.284	7060
4,4'-DDD	6.610	41201
4,4'-DDT	6.909	2934000

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(7060 + 41201) * 100}{(7060 + 41201 + 2934000)}$$

$$\text{DDT Percent Breakdown} = 1.6 \%$$

ORGANICS ANALYSIS DATA SHEET

PNA's by Low Level SW8270D-SIM GC/MS

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
Sample ID: MB-040110

METHOD BLANK

Lab Sample ID: MB-040110

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: 

Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Event: NA

Date Sampled: NA

Date Received: NA

Date Extracted: 04/01/10

Date Analyzed: 04/06/10 17:41

Instrument/Analyst: NT2/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	< 0.010 U
91-57-6	2-Methylnaphthalene	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.010	< 0.010 U
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	Fluorene	0.010	< 0.010 U
85-01-8	Phenanthrene	0.010	< 0.010 U
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	Fluoranthene	0.010	< 0.010 U
129-00-0	Pyrene	0.010	< 0.010 U
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 58.3%
d14-Dibenzo(a,h)anthracene 69.0%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/040601.d
 Lab Smp Id: QQ59MBW1 Client Smp ID: QQ59MBW1
 Inj Date : 06-APR-2010 17:41
 Operator : VTS Inst ID: nt2.i
 Smp Info : QQ59MBW1
 Misc Info : 10-8214
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 10:26 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 8 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pna1mn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.634	6.635	(1.000)	120433	200.000	
5 Naphthalene	128	Compound Not Detected.					
\$ 6 2-Methylnaphthalene-d10	152	7.480	7.481	(1.128)	72025	175.247	175
7 2-Methylnaphthalene	142	Compound Not Detected.					
8 1-Methylnaphthalene	142	Compound Not Detected.					
10 Acenaphthylene	152	Compound Not Detected.					
* 11 Acenaphthene-d10	164	8.820	8.833	(1.000)	65049	200.000	
12 Acenaphthene	153	Compound Not Detected.					
14 Dibenzofuran	168	Compound Not Detected.					
15 Fluorene	166	Compound Not Detected.					
* 18 Phenanthrene-d10	188	10.631	10.647	(1.000)	94000	200.000	
19 Phenanthrene	178	Compound Not Detected.					
20 Anthracene	178	Compound Not Detected.					
24 Fluoranthene	202	Compound Not Detected.					
25 Pyrene	202	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
28 Benzo(a)anthracene	228				Compound Not Detected.		
* 29 Chrysene-d12	240	13.904	13.914	(1.000)	72845	200.000	
30 Chrysene	228				Compound Not Detected.		
32 Benzo(b)fluoranthene	252				Compound Not Detected.		
33 Benzo(k)fluoranthene	252				Compound Not Detected.		
34 Benzo(a)pyrene	252				Compound Not Detected.		
* 35 Perylene-d12	264	15.595	15.603	(1.000)	69772	200.000	
37 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.		
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.091	17.105	(1.096)	55520	207.060	207
38 Dibenzo(a,h)anthracene	278				Compound Not Detected.		
39 Benzo(g,h,i)perylene	276				Compound Not Detected.		

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i	Calibration Date: 06-APR-2010
Lab File ID: 040601.d	Calibration Time: 14:24
Lab Smp Id: QQ59MBW1	Client Smp ID: QQ59MBW1
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Liquid
Operator: VTS	
Method File: /chem3/nt2.i/20100406.b/lowsim.m	
Misc Info: 10-8214	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	120433	-0.31
11 Acenaphthene-d10	72668	36334	145336	65049	-10.48
18 Phenanthrene-d10	112603	56302	225206	94000	-16.52
29 Chrysene-d12	101702	50851	203404	72845	-28.37
35 Perylene-d12	87112	43556	174224	69772	-19.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	-0.02
11 Acenaphthene-d10	8.83	8.33	9.33	8.82	-0.15
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.15
29 Chrysene-d12	13.91	13.41	14.41	13.90	-0.07
35 Perylene-d12	15.60	15.10	16.10	15.59	-0.06

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.

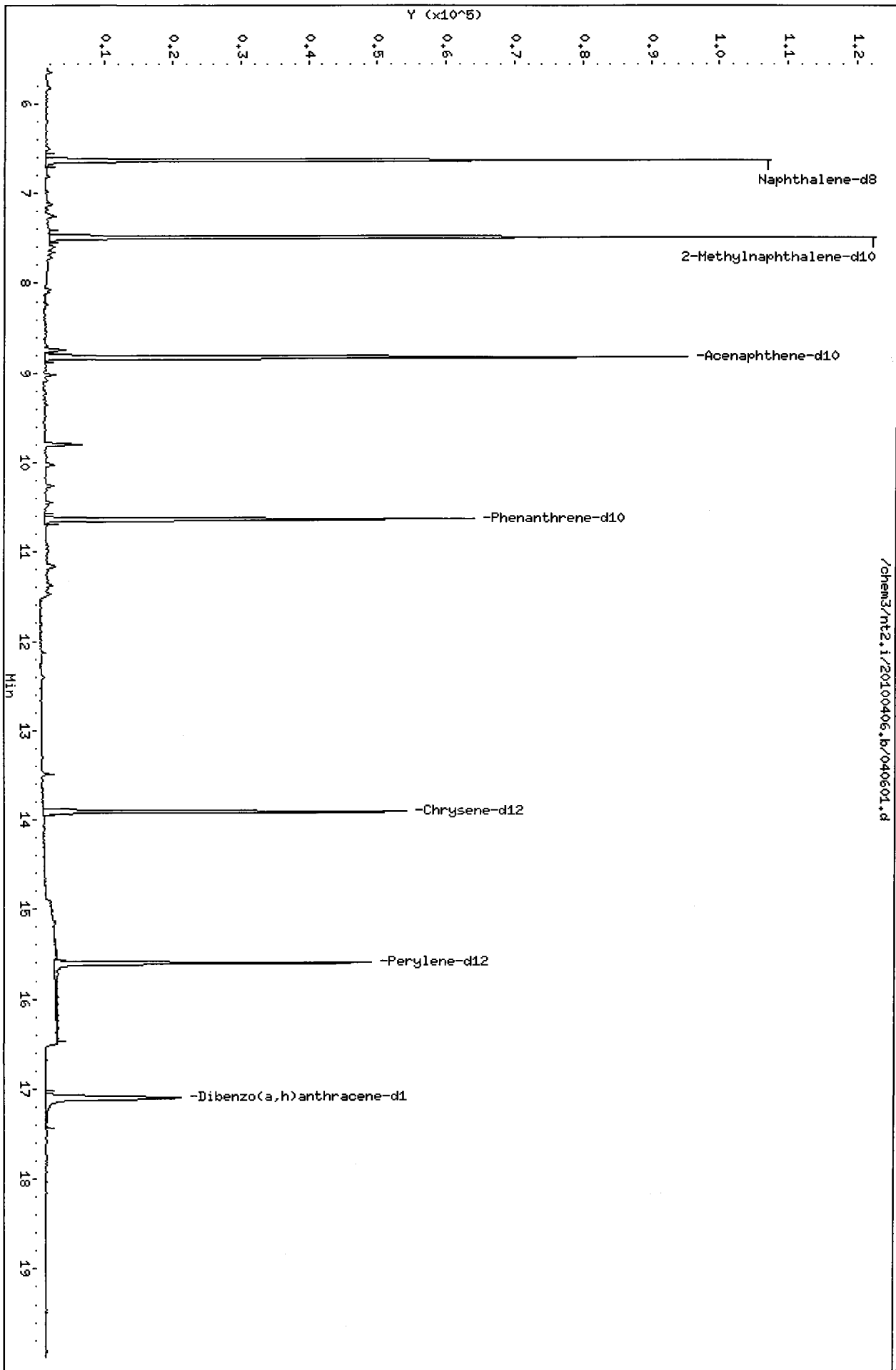
RECOVERY REPORT

Client Name: Floyd/Snider
 Sample Matrix: LIQUID
 Lab Smp Id: QQ59MBW1
 Level: LOW
 Data Type: MS DATA
 SpikeList File: waterlcs.spk
 Sublist File: pnalmn.sub
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info: 10-8214

Client SDG: QQ59
 Fraction: SV
 Client Smp ID: QQ59MBW1
 Operator: VTS
 SampleType: BLANK
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	0.00	*	41-101
7 2-Methylnaphthale	300	0.00	*	47-100
8 1-Methylnaphthale	300	0.00	*	30-160
10 Acenaphthylene	300	0.00	*	35-100
12 Acenaphthene	300	0.00	*	43-104
14 Dibenzofuran	300	0.00	*	37-100
15 Fluorene	300	0.00	*	51-103
19 Phenanthrene	300	0.00	*	55-109
20 Anthracene	300	0.00	*	30-101
24 Fluoranthene	300	0.00	*	49-123
25 Pyrene	300	0.00	*	48-120
28 Benzo(a) anthracene	300	0.00	*	43-113
30 Chrysene	300	0.00	*	59-112
32 Benzo(b) fluoranth	300	0.00	*	44-121
33 Benzo(k) fluoranth	300	0.00	*	50-117
34 Benzo(a) pyrene	300	0.00	*	10-100
37 Indeno(1,2,3-cd)p	300	0.00	*	43-112
38 Dibenzo(a,h) anthr	300	0.00	*	42-114
39 Benzo(g,h,i) peryl	300	0.00	*	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	300	175	58.42	31-109
\$ 36 Dibenzo(a,h) anthra	300	207	69.02	10-133



ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
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Sample ID: CB1032910COMP
MATRIX SPIKE

Lab Sample ID: QQ59C
 LIMS ID: 10-8214
 Matrix: Water
 Data Release Authorized: *AS*
 Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider
 Project: Lora Lakes Apartments
 Event: NA
 Date Sampled: 03/29/10
 Date Received: 03/30/10

Date Extracted: 04/01/10
 Date Analyzed: 04/06/10 19:43
 Instrument/Analyst: NT2/PK

Sample Amount: 475 mL
 Final Extract Volume: 0.5 mL
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	---
91-57-6	2-Methylnaphthalene	0.010	---
90-12-0	1-Methylnaphthalene	0.010	---
208-96-8	Acenaphthylene	0.010	---
83-32-9	Acenaphthene	0.010	---
86-73-7	Fluorene	0.010	---
85-01-8	Phenanthrene	0.010	---
120-12-7	Anthracene	0.010	---
206-44-0	Fluoranthene	0.010	---
129-00-0	Pyrene	0.010	---
56-55-3	Benzo(a)anthracene	0.010	---
218-01-9	Chrysene	0.010	---
205-99-2	Benzo(b)fluoranthene	0.010	---
207-08-9	Benzo(k)fluoranthene	0.010	---
50-32-8	Benzo(a)pyrene	0.010	---
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	---
53-70-3	Dibenz(a,h)anthracene	0.010	---
191-24-2	Benzo(g,h,i)perylene	0.010	---
132-64-9	Dibenzofuran	0.010	---

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	58.0%
d14-Dibenzo(a,h)anthracene	60.0%

Analytical Resources, Inc.

LOW LEVEL PNAS BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/040606.d
 Lab Smp Id: QQ59CMS Client Smp ID: CB1032910COMP MS
 Inj Date : 06-APR-2010 19:43
 Operator : VTS Inst ID: nt2.i
 Smp Info : QQ59CMS
 Misc Info : 10-8214
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 16:47 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 13 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pna1mn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	475.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.634	6.635	(1.000)	117118	200.000	
5 Naphthalene	128	6.664	6.666	(1.005)	113374	169.761	179
\$ 6 2-Methylnaphthalene-d10	152	7.480	7.481	(1.128)	69712	174.420	184
7 2-Methylnaphthalene	142	7.511	7.512	(1.132)	72980	176.465	186
8 1-Methylnaphthalene	142	7.649	7.650	(1.153)	74969	173.196	182
10 Acenaphthylene	152	8.626	8.627	(0.978)	117176	195.650	206
* 11 Acenaphthene-d10	164	8.820	8.833	(1.000)	64035	200.000	
12 Acenaphthene	153	8.858	8.859	(1.004)	73639	198.280	209
14 Dibenzofuran	168	9.065	9.065	(1.028)	112348	216.174	228
15 Fluorene	166	9.478	9.477	(1.075)	93613	212.609	224
* 18 Phenanthrene-d10	188	10.632	10.647	(1.000)	93403	200.000	
19 Phenanthrene	178	10.663	10.662	(1.003)	140177	234.795	247
20 Anthracene	178	10.709	10.724	(1.007)	123240	222.810	235
24 Fluoranthene	202	12.125	12.136	(1.140)	149646	240.142	253
25 Pyrene	202	12.411	12.410	(1.167)	149604	237.008	249

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
=====	=====	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.881	13.892	(0.998)	105267	241.280	254
* 29 Chrysene-d12	240	13.903	13.914	(1.000)	68447	200.000	
30 Chrysene	228	13.936	13.946	(1.002)	102984	240.024	253
32 Benzo(b)fluoranthene	252	15.140	15.147	(0.971)	96377	209.006	220
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	106484	193.651	204
34 Benzo(a)pyrene	252	15.527	15.526	(0.996)	70799	192.180	202
* 35 Perylene-d12	264	15.597	15.603	(1.000)	65246	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.145	(1.098)	70893	168.275	177
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.105	(1.096)	45161	180.110	190
38 Dibenzo(a,h)anthracene	278	17.144	17.145	(1.099)	58119	175.567	185
39 Benzo(g,h,i)perylene	276	17.576	17.590	(1.127)	62678	172.583	182

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i	Calibration Date: 06-APR-2010
Lab File ID: 040606.d	Calibration Time: 14:24
Lab Smp Id: QQ59CMS	Client Smp ID: CB1032910COMP MS
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Water
Operator: VTS	
Method File: /chem3/nt2.i/20100406.b/lowsim.m	
Misc Info: 10-8214	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	117118	-3.05
11 Acenaphthene-d10	72668	36334	145336	64035	-11.88
18 Phenanthrene-d10	112603	56302	225206	93403	-17.05
29 Chrysene-d12	101702	50851	203404	68447	-32.70
35 Perylene-d12	87112	43556	174224	65246	-25.10

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	-0.02
11 Acenaphthene-d10	8.83	8.33	9.33	8.82	-0.16
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.14
29 Chrysene-d12	13.91	13.41	14.41	13.90	-0.07
35 Perylene-d12	15.60	15.10	16.10	15.60	-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.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd/Snider	Client SDG: QQ59
Sample Matrix: LIQUID	Fraction: SV
Lab Smp Id: QQ59CMS	Client Smp ID: CB1032910COMP MS
Level: LOW	Operator: VTS
Data Type: MS DATA	SampleType: MS
SpikeList File: waterlcs.spk	Quant Type: ISTD
Sublist File: pnalnm.sub	
Method File: /chem3/nt2.i/20100406.b/lowsim.m	
Misc Info: 10-8214	

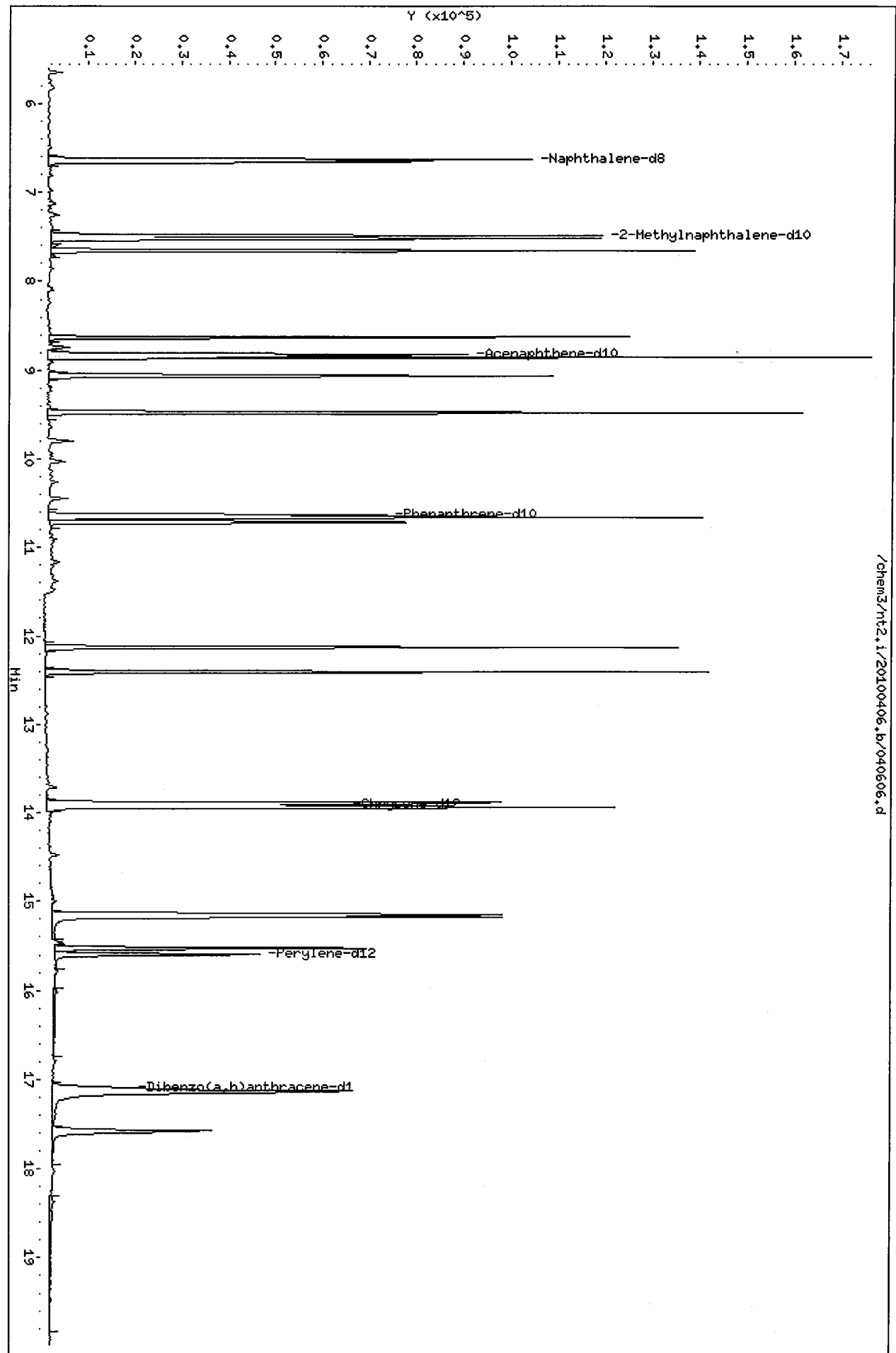
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	316	179	56.59	41-101
7 2-Methylnaphthalen	316	186	58.82	47-100
8 1-Methylnaphthalen	316	182	57.73	30-160
10 Acenaphthylene	316	206	65.22	35-100
12 Acenaphthene	316	209	66.09	43-104
14 Dibenzofuran	316	228	72.06	37-100
15 Fluorene	316	224	70.87	51-103
19 Phenanthrene	316	247	78.26	55-109
20 Anthracene	316	235	74.27	30-101
24 Fluoranthene	316	253	80.05	49-123
25 Pyrene	316	249	79.00	48-120
28 Benzo(a)anthracene	316	254	80.43	43-113
30 Chrysene	316	253	80.01	59-112
32 Benzo(b)fluoranthene	316	220	69.67	44-121
33 Benzo(k)fluoranthene	316	204	64.55	50-117
34 Benzo(a)pyrene	316	202	64.06	10-100
37 Indeno(1,2,3-cd)py	316	177	56.09	43-112
38 Dibenzo(a,h)anthra	316	185	58.52	42-114
39 Benzo(g,h,i)perylene	316	182	57.53	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 6 2-Methylnaphthalen	316	184	58.14	31-109
\$ 36 Dibenzo(a,h)anthra	316	190	60.04	10-133

Data File: /chem3/nt2.1/20100406.b/040606.d
Date: 06-APR-2010 19:43
Client ID: CB1032910CDMP HS
Sample Info: Q069CHS
Volume Injected (uL): 2.0
Column phase: ZB-5


Instrument: nt2.i
Operator: VTS
Column diameter: 0.25

/chem3/nt2.1/20100406.b/040606.d



ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS
Page 1 of 1

Sample ID: CB1032910COMP
MATRIX SPIKE DUPLICATE

Lab Sample ID: QQ59C
LIMS ID: 10-8214
Matrix: Water
Data Release Authorized: 
Reported: 04/08/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments
Event: NA
Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 04/01/10
Date Analyzed: 04/06/10 20:08
Instrument/Analyst: NT2/PK

Sample Amount: 475 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.010	---
91-57-6	2-Methylnaphthalene	0.010	---
90-12-0	1-Methylnaphthalene	0.010	---
208-96-8	Acenaphthylene	0.010	---
83-32-9	Acenaphthene	0.010	---
86-73-7	Fluorene	0.010	---
85-01-8	Phenanthrene	0.010	---
120-12-7	Anthracene	0.010	---
206-44-0	Fluoranthene	0.010	---
129-00-0	Pyrene	0.010	---
56-55-3	Benzo (a) anthracene	0.010	---
218-01-9	Chrysene	0.010	---
205-99-2	Benzo (b) fluoranthene	0.010	---
207-08-9	Benzo (k) fluoranthene	0.010	---
50-32-8	Benzo (a) pyrene	0.010	---
193-39-5	Indeno (1,2,3-cd) pyrene	0.010	---
53-70-3	Dibenz (a,h) anthracene	0.010	---
191-24-2	Benzo (g,h,i) perylene	0.010	---
132-64-9	Dibenzofuran	0.010	---

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	59.7%
d14-Dibenzo (a,h) anthracene	49.7%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/040607.d
 Lab Smp Id: QQ59CMSD Client Smp ID: CB1032910COMP MSD
 Inj Date : 06-APR-2010 20:08
 Operator : VTS Inst ID: nt2.i
 Smp Info : QQ59CMSD
 Misc Info : 10-8214
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 16:47 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 14 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pna1mn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	475.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.634	6.635	(1.000)	117675	200.000	
5 Naphthalene	128	6.665	6.666	(1.005)	108814	162.161	171
\$ 6 2-Methylnaphthalene-d10	152	7.480	7.481	(1.128)	71721	178.598	188
7 2-Methylnaphthalene	142	7.511	7.512	(1.132)	70619	169.948	179
8 1-Methylnaphthalene	142	7.649	7.650	(1.153)	76047	174.855	184
10 Acenaphthylene	152	8.627	8.627	(0.978)	122333	206.502	217
* 11 Acenaphthene-d10	164	8.820	8.833	(1.000)	63340	200.000	
12 Acenaphthene	153	8.859	8.859	(1.004)	77168	210.062	221
14 Dibenzofuran	168	9.065	9.065	(1.028)	117565	228.694	241
15 Fluorene	166	9.477	9.477	(1.074)	100006	229.620	242
* 18 Phenanthrene-d10	188	10.631	10.647	(1.000)	92362	200.000	
19 Phenanthrene	178	10.661	10.662	(1.003)	149615	253.428	267
20 Anthracene	178	10.723	10.724	(1.009)	131549	240.513	253
24 Fluoranthene	202	12.126	12.136	(1.141)	164029	266.189	280
25 Pyrene	202	12.411	12.410	(1.167)	163658	262.195	276

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
=====	====	==	=====	=====	=====	=====	=====
28 Benzo(a)anthracene	228	13.893	13.892	(0.998)	109645	240.637	253
* 29 Chrysene-d12	240	13.915	13.914	(1.000)	71484	200.000	
30 Chrysene	228	13.937	13.946	(1.002)	115640	258.071	272
32 Benzo(b)fluoranthene	252	15.148	15.147	(0.971)	93377	191.391	201
33 Benzo(k)fluoranthene	252	15.171	15.170	(0.973)	105602	181.512	191
34 Benzo(a)pyrene	252	15.527	15.526	(0.996)	71638	183.790	193
* 35 Perylene-d12	264	15.597	15.603	(1.000)	69033	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.145	(1.098)	63523	142.510	150
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.090	17.105	(1.096)	39480	148.816	157
38 Dibenzo(a,h)anthracene	278	17.144	17.145	(1.099)	49980	142.698	150
39 Benzo(g,h,i)perylene	276	17.576	17.590	(1.127)	56943	148.191	156

Analytical Resources, Inc.
 INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 040607.d
 Lab Smp Id: QQ59CMSD
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info: 10-8214

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Client Smp ID: CB1032910COMP MS
 Level: LOW
 Sample Type: Water

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	117675	-2.59
11 Acenaphthene-d10	72668	36334	145336	63340	-12.84
18 Phenanthrene-d10	112603	56302	225206	92362	-17.98
29 Chrysene-d12	101702	50851	203404	71484	-29.71
35 Perylene-d12	87112	43556	174224	69033	-20.75

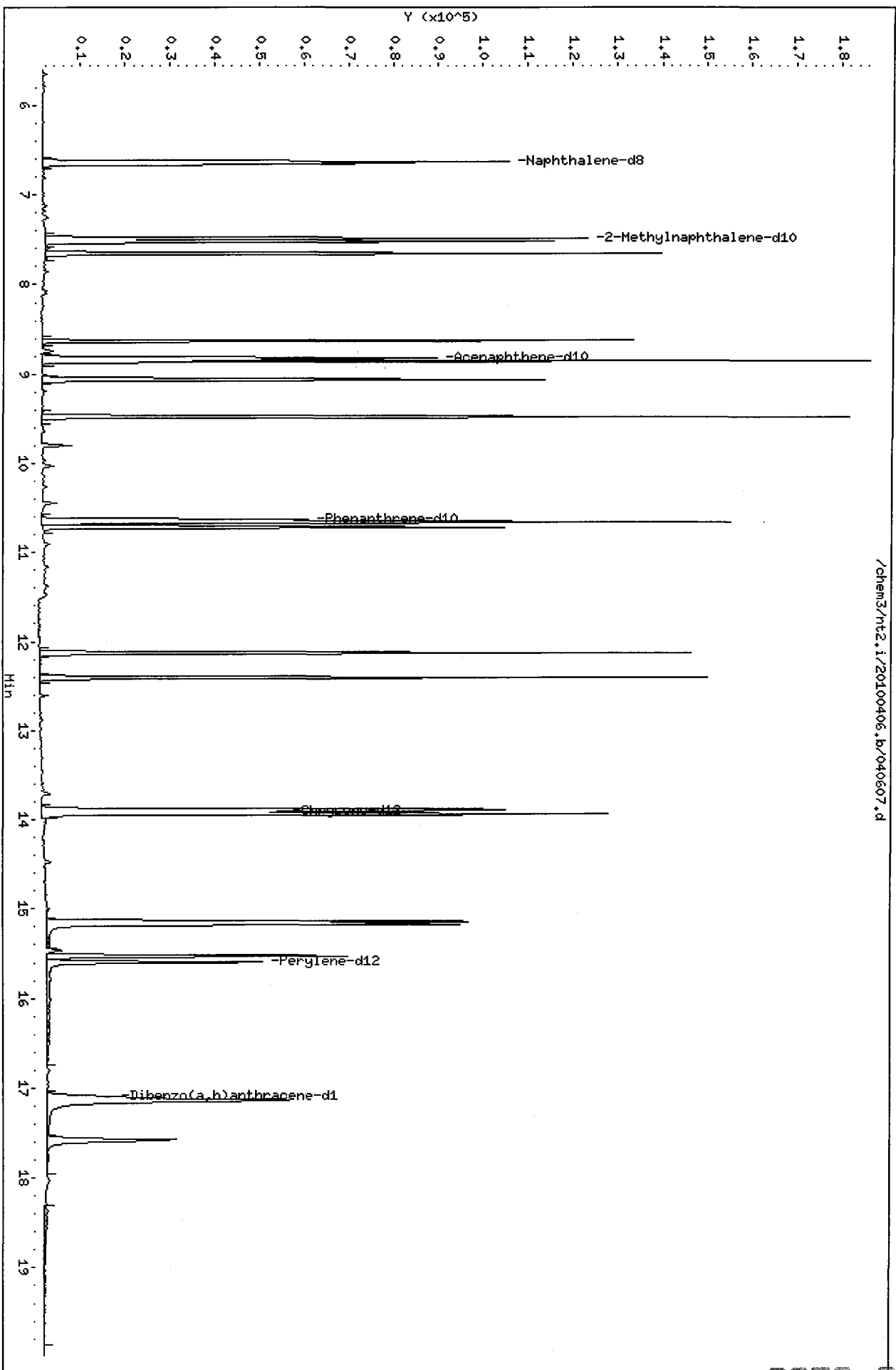
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	-0.01
11 Acenaphthene-d10	8.83	8.33	9.33	8.82	-0.15
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.15
29 Chrysene-d12	13.91	13.41	14.41	13.91	0.01
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.04

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: /chem3/nt2.i/20100406.b/040607.d
Date: 06-APR-2010 20:08
Client ID: CB103291000MP HSD
Sample Info: Q059CHSD
Volume Injected (µL): 2.0
Column phase: ZB-5

Instrument: nt2.i
Operator: VTS
Column diameter: 0.25

/chem3/nt2.i/20100406.b/040607.d



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20100406.b/040602.d
 Lab Smp Id: QQ59LCSW1 Client Smp ID: QQ59LCSW1
 Inj Date : 06-APR-2010 18:05
 Operator : VTS Inst ID: nt2.i
 Smp Info : QQ59LCSW1
 Misc Info : 10-8214
 Comment :
 Method : /chem3/nt2.i/20100406.b/lowsim.m
 Meth Date : 07-Apr-2010 16:47 peter Quant Type: ISTD
 Cal Date : 06-APR-2010 16:52 Cal File: ic040607.d
 Als bottle: 9 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pna1mn.sub
 Target Version: 3.50
 Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.634	6.635	(1.000)	116104	200.000		
5 Naphthalene	128	6.665	6.666	(1.005)	123501	186.539	187	
\$ 6 2-Methylnaphthalene-d10	152	7.480	7.481	(1.128)	79959	201.806	202	
7 2-Methylnaphthalene	142	7.511	7.512	(1.132)	80362	196.011	196	
8 1-Methylnaphthalene	142	7.650	7.650	(1.153)	84480	196.874	197	
10 Acenaphthylene	152	8.627	8.627	(0.978)	123171	210.593	211	
* 11 Acenaphthene-d10	164	8.820	8.833	(1.000)	62535	200.000		
12 Acenaphthene	153	8.859	8.859	(1.004)	80098	220.845	221	
14 Dibenzofuran	168	9.065	9.065	(1.028)	124369	245.044	245	
15 Fluorene	166	9.477	9.477	(1.074)	102612	238.637	239	
* 18 Phenanthrene-d10	188	10.631	10.647	(1.000)	88946	200.000		
19 Phenanthrene	178	10.662	10.662	(1.003)	146271	257.279	257	
20 Anthracene	178	10.723	10.724	(1.009)	110436	209.666	210	
24 Fluoranthene	202	12.126	12.136	(1.141)	159940	269.522	270	
25 Pyrene	202	12.411	12.410	(1.167)	140074	233.030	233	

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/L)
28 Benzo(a)anthracene	228	13.893	13.892	(0.999)	113867	244.928	245
* 29 Chrysene-d12	240	13.904	13.914	(1.000)	72936	200.000	
30 Chrysene	228	13.937	13.946	(1.002)	123625	270.399	270
32 Benzo(b)fluoranthene	252	15.146	15.147	(0.971)	126565	258.924	259
33 Benzo(k)fluoranthene	252	15.170	15.170	(0.973)	154614	265.252	265
34 Benzo(a)pyrene	252	15.526	15.526	(0.996)	93628	239.751	240
* 35 Perylene-d12	264	15.595	15.603	(1.000)	69164	200.000	
37 Indeno(1,2,3-cd)pyrene	276	17.131	17.145	(1.099)	118655	265.691	266
\$ 36 Dibenzo(a,h)anthracene-d14	292	17.091	17.105	(1.096)	71945	270.676	271
38 Dibenzo(a,h)anthracene	278	17.145	17.145	(1.099)	96921	276.196	276
39 Benzo(g,h,i)perylene	276	17.576	17.590	(1.127)	101119	262.658	263

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt2.i
 Lab File ID: 040602.d
 Lab Smp Id: QQ59LCSW1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: /chem3/nt2.i/20100406.b/lowsim.m
 Misc Info: 10-8214

Calibration Date: 06-APR-2010
 Calibration Time: 14:24
 Client Smp ID: QQ59LCSW1
 Level: LOW
 Sample Type: Liquid

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	120808	60404	241616	116104	-3.89
11 Acenaphthene-d10	72668	36334	145336	62535	-13.94
18 Phenanthrene-d10	112603	56302	225206	88946	21.01
29 Chrysene-d12	101702	50851	203404	72936	-28.28
35 Perylene-d12	87112	43556	174224	69164	-20.60

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
4 Naphthalene-d8	6.63	6.13	7.13	6.63	-0.01
11 Acenaphthene-d10	8.83	8.33	9.33	8.82	-0.15
18 Phenanthrene-d10	10.65	10.15	11.15	10.63	-0.15
29 Chrysene-d12	13.91	13.41	14.41	13.90	-0.07
35 Perylene-d12	15.60	15.10	16.10	15.60	-0.05

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/nt2.i/20100406.b/040602.d
Date : 06-APR-2010 18:05

Client ID: Q059LCSM1

Sample Info: Q059LCSM1

Volume Injected (uL): 2.0

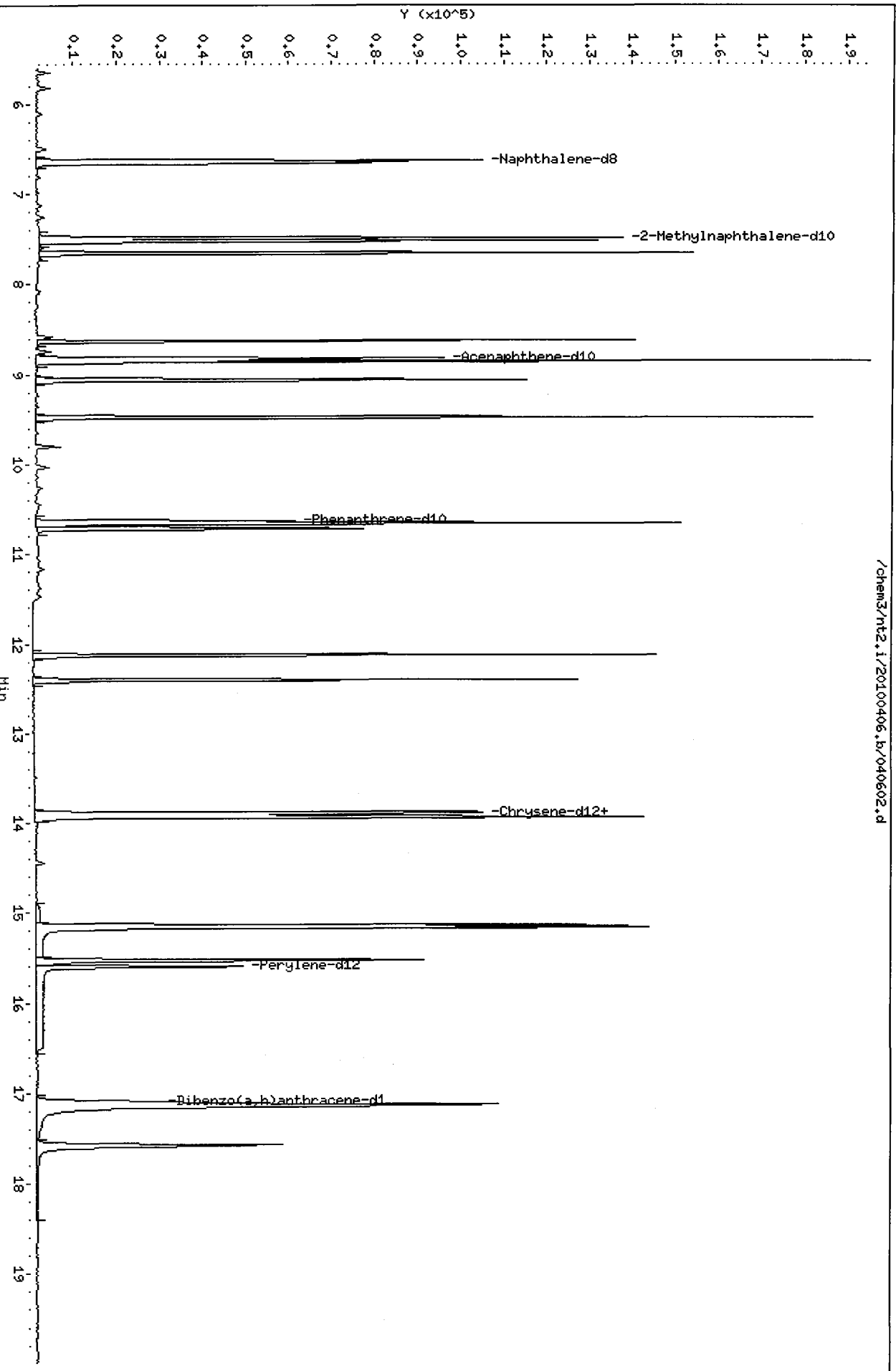
Column phase: ZB-5

Instrument: nt2.i

Operator: WTS

Column diameter: 0.25

/chem3/nt2.i/20100406.b/040602.d



SIM Semivolatile Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.



Preparation Test SIM PNA # 4

ARI Job No(s) QQ 59

Low Level (0.01ppb)

Batch set up by: SP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	Disassemble Liq/Liq	KD Hex X	TurboVap 1 2 3	(REQ) Silica Gel Clean (1:1)	TurboVap 1 2 3	Final Effective Volume	Volume to Lab	Comments
	QQ59 MBW	Date 4-4-10	500mL						0.5mL	0.5mL	
	↓ SBW	↓	↓								
	SBW Dup.										
2	QQ59 A	verified	↓								
↓	B		↓								
2-4	C		↓								
↓	CMS		474								
↓	CMSD		↓								
1	D	↓	500	↓	↓	↓	↓	↓	↓	↓	

Analyst/Date: AC 4-1-10 AB 04/02/10 4-2-10 04/05/10 04/05/10 04/05/10 04/05/10 04/05/10

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	I	100µL	8/12/10	AC 4-1-10	WW
Spike	18 β	100µL	8/28/10	AC	WW
Extraction Time: <u>19:30</u>		Liq/Liq Start: <u>19:45</u>		Liq/Liq Stop: <u>06:15</u>	

SPECIAL INSTRUCTIONS: 1. Rinse all glassware with Low Level DCM. 2. Use 500mL Liq/Liq Body
3. Add 20-25mL Low Level Hexane. 4. Add ~200mL Low Level DCM to Liq/Liq. 5. Add surr/spike.
6. Extract minimum 8 hrs. 7. KD (no drying column) to ~8mL at 80°. 8. Exchange (2 X with 10mL) to Low Level Hexane at 100°. 9. TurboVap. 10. Silica Clean-up=REQUIRED. 11. TurboVap. 12. Vial in Low Level DCM.
13. Post Screen extracts with any color noted for Silica Gel Clean-up.

A. Archive Y/N

Analytical Resources Inc.: Organics Instrument Log

NT-2 Serial No.: 82321977

Date: 4/6/10 Analysis: Low SIm PNA Analyst: pk

GC Program: Low SIm Column No: 71140 Column Type: 25um

Instrument Tune (.U or .CT.): 010928 EM Voltage: 2494

Calibration File: df0406 Curve Date: 4/6/10

IS/SS	Ical/Ccal	LCS/ICV
<u>1706-3 (10x)</u>	<u>1665-3</u>	<u>1713-1</u>

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt2.i/20100406.b

Time	Filename	LabID	ClientID	DF											
1	1359	df0406.d	DFTPP		1	NO ISTDs FOUND									
2	1424	ic040601.d	PNA 250		1	6.63	120808	8.83	72668	10.65	112603	13.91	101702	15.60	87112
3	1514	ic040603.d	PNA 1000		1	6.63	124126	8.83	67376	10.63	101452	13.91	91632	15.60	81665
4	1538	ic040604.d	PNA 50		1	6.64	111907	8.83	64281	10.63	94905	13.91	80936	15.60	73454
5	1603	ic040605.d	PNA 500		1	6.64	120735	8.83	64955	10.63	99310	13.91	80502	15.60	71118
6	1627	ic040606.d	PNA 100		1	6.64	112523	8.83	66275	10.63	95400	13.91	76071	15.60	69201
7	1652	ic040607.d	PNA 10		1	6.64	112883	8.83	65491	10.63	91832	13.91	70497	15.60	64830
8	1716	ic040608.d	ICV		1	6.64	109275	8.83	62617	10.63	92425	13.91	75049	15.60	69395
9	1741	040601.d	QQ59MBW1	QQ59MBW1	1	6.63	120433	8.82	65049	10.63	94000	13.90	72845	15.59	69772
10	1805	040602.d	QQ59LCSW1	QQ59LCSW1	1	6.63	116104	8.82	62535	10.63	88946	13.90	72936	15.60	69164
11	1830	040603.d	QQ59A	CB31A032910C	1	6.63	118060	8.82	63953	10.63	91404	13.91	66602	15.60	63422
12	1854	040604.d	QQ59B	CB4857032910	1	6.64	119671	8.82	65242	10.63	93212	13.91	69641	15.60	67328
13	1919	040605.d	QQ59C	CB1032910COM	1	6.63	119448	8.83	65127	10.63	93812	13.91	71172	15.60	66808
14	1943	040606.d	QQ59CMS	CB1032910COM	1	6.63	117118	8.82	64035	10.63	93403	13.90	68447	15.60	65246
15	2008	040607.d	QQ59CMSD	CB1032910COM	1	6.63	117675	8.82	63340	10.63	92362	13.91	71484	15.60	69033
16	2033	040608.d	QQ59D	CB100032910C	1	6.64	117582	8.82	63208	10.63	92068	13.90	66940	15.60	65541

pk 4/7/10

Maintenance / Comments

New timer, clip cal

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control): IC040601

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: _____ Client ID: _____

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): NT2 LowSim PNA Curve 4/6/10

Instrument: NT-1 **NT-2** NT-4 NT-6 NT-8

Curve Date: 4/6/10 Analysis Start Date: _____

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):

All cups < 20% RSD or R² > .990

Additional Details on Reverse: Yes / No

Analyst Signature: *Phyllis* Date: 4/7/10

Reviewer's Signature: _____ *B* Date: 4/8/10



GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: QQ59 Client ID: Floyd-Sneider

ARI SOP: **801S(SIM-PNA)** **802S(Butyl Tins)** **804S(SVOA-8270D)** **805S(op-Pest)**

Parameter(s): LOW SIM PNA

Instrument: NT-1 NT-2 NT-4 NT-6 NT-8

Curve Date: 4/6/10 Analysis Start Date: 4/6/10

DFTPP Tune Meets Criteria?	<u>YES</u> / NO	Internal Standard Meets Criteria?	<u>YES</u> / NO
DDT Breakdown <20%?	<u>YES</u> / NO / NA	Method Blank In Control?	<u>YES</u> / NO
Peak Tailing Factor ≤2?	<u>YES</u> / NO / NA	LCS / LCSD Recovery In Control?	<u>YES</u> / NO
ICal acceptable <u>YES</u> / NO; Q flag applied YES / <u>NO</u>		Surrogate Recovery In Control?	<u>YES</u> / NO
CCal acceptable <u>YES</u> / NO; Q flag applied YES / <u>NO</u>		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: 4/7/10

Reviewer's Signature: [Signature] Date: 7/8/10

PCP/Chlorophenols ANALYSIS
QC Summary Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
CB31A032910COMP	66.8%	0
CB4857032910COMP	68.4%	0
MB-033110	75.6%	0
LCS-033110	77.2%	0
CB1032910COMP	63.6%	0
CB1032910COMP MS	69.0%	0
CB1032910COMP MSD	64.8%	0
CB100032910COMP	69.2%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol

(40-130)

(11-156)

Prep Method: SW3510C
Log Number Range: 10-8212 to 10-8215

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB1032910COMP
MS/MSD

Lab Sample ID: QQ59C
LIMS ID: 10-8214
Matrix: Water
Data Release Authorized: *mmw*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted MS/MSD: 03/31/10
Date Analyzed MS: 04/03/10 02:09
MSD: 04/03/10 02:29
Instrument/Analyst MS: ECD1/JGR
MSD: ECD1/JGR

Sample Amount MS: 500 mL
MSD: 500 mL
Final Extract Volume MS: 50 mL
MSD: 50 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	< 0.25 U	2.41	2.50	96.4%	2.39	2.50	95.6%	0.8%

Results reported in $\mu\text{g/L}$
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: LCS-033110
LAB CONTROL

Lab Sample ID: LCS-033110
LIMS ID: 10-8214
Matrix: Water
Data Release Authorized: *MMW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 03/31/10
Date Analyzed: 04/03/10 00:49
Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	2.23	2.50	89.2%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol 77.2%

Results reported in $\mu\text{g/L}$

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QQ59MBW1

Lab Name: ANALYTICAL RESOURCES, INC	Client: FLOYD/SNIDER
ARI Job No.: QQ59	Project: LORA LAKE APTS
Lab Sample ID: QQ59MBW1	Lab File ID: 0402A034
Matrix (soil/water) LIQUID	Extraction: (SepF/Cont/Sonc) SW3510C
Sulfur Cleanup (Y/N) Y	Date Extracted: 03/31/10
Date Analyzed (1): 04/03/10	Date Analyzed (2): 04/03/10
Time Analyzed (1): 0029	Time Analyzed (2): 0029
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	QQ59LCSW1	QQ59LCSW1	04/03/10	04/03/10
02	CB31A032910C	QQ59A	04/03/10	04/03/10
03	CB4857032910	QQ59B	04/03/10	04/03/10
04	CB1032910COM	QQ59C	04/03/10	04/03/10
05	CB1032910COM	QQ59CMS	04/03/10	04/03/10
06	CB1032910COM	QQ59CMSD	04/03/10	04/03/10
07	CB100032910C	QQ59D	04/03/10	04/03/10

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER
 ARI Job No.: QQ59 Project: LORA LAKE APTS
 GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1
 Init. Calib. Date(s): 02/18/10 02/18/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
 SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 9.90					
CLIENT	LAB	DATE	TIME	S1	
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT	#
=====					
01	PCPD	02/18/10	2017	9.90	
02	PCPA	02/18/10	2037	9.91	
03	PCPB	02/18/10	2057	9.91	
04	PCPC	02/18/10	2117	9.90	
05	PCPE	02/18/10	2137	9.90	
06	PCPF	02/18/10	2156	9.90	
07	ZZZZZ	02/18/10	2216	9.90	
08	PCP CCAL	04/03/10	0010	9.91	
09	QQ59MBW1	04/03/10	0029	9.94	
10	QQ59LCSW1	04/03/10	0049	9.92	
11	CB31A032910C	04/03/10	0109	9.92	
12	CB4857032910	04/03/10	0129	9.92	
13	CB1032910COM	04/03/10	0149	9.92	
14	CB1032910COM	04/03/10	0209	9.92	
15	CB1032910COM	04/03/10	0229	9.92	
16	CB100032910C	04/03/10	0248	9.92	
17	PCP CCAL	04/03/10	0308	9.91	

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.: QQ59 Project: LORA LAKE APTS
 GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1
 Init. Calib. Date(s): 02/18/10 02/18/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
 SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 10.55					
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
	=====	=====	=====	=====	=====
01		PCPD	02/18/10	2017	10.54
02		PCPA	02/18/10	2037	10.55
03		PCPB	02/18/10	2057	10.55
04		PCPC	02/18/10	2117	10.54
05		PCPE	02/18/10	2137	10.54
06		PCPF	02/18/10	2156	10.54
07	ZZZZZ	ZZZZZ	02/18/10	2216	10.54
08		PCP CCAL	04/03/10	0010	10.55
09	QQ59MBW1	QQ59MBW1	04/03/10	0029	10.57
10	QQ59LCSW1	QQ59LCSW1	04/03/10	0049	10.56
11	CB31A032910C	QQ59A	04/03/10	0109	10.55
12	CB4857032910	QQ59B	04/03/10	0129	10.56
13	CB1032910COM	QQ59C	04/03/10	0149	10.56
14	CB1032910COM	QQ59CMS	04/03/10	0209	10.56
15	CB1032910COM	QQ59CMSD	04/03/10	0229	10.56
16	CB100032910C	QQ59D	04/03/10	0248	10.55
17		PCP CCAL	04/03/10	0308	10.55

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: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB31A032910COMP

SAMPLE

Lab Sample ID: QQ59A

LIMS ID: 10-8212

Matrix: Water

Data Release Authorized: *TTW*

Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 03/31/10

Date Analyzed: 04/03/10 01:09

Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	1.4

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	66.8%
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Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

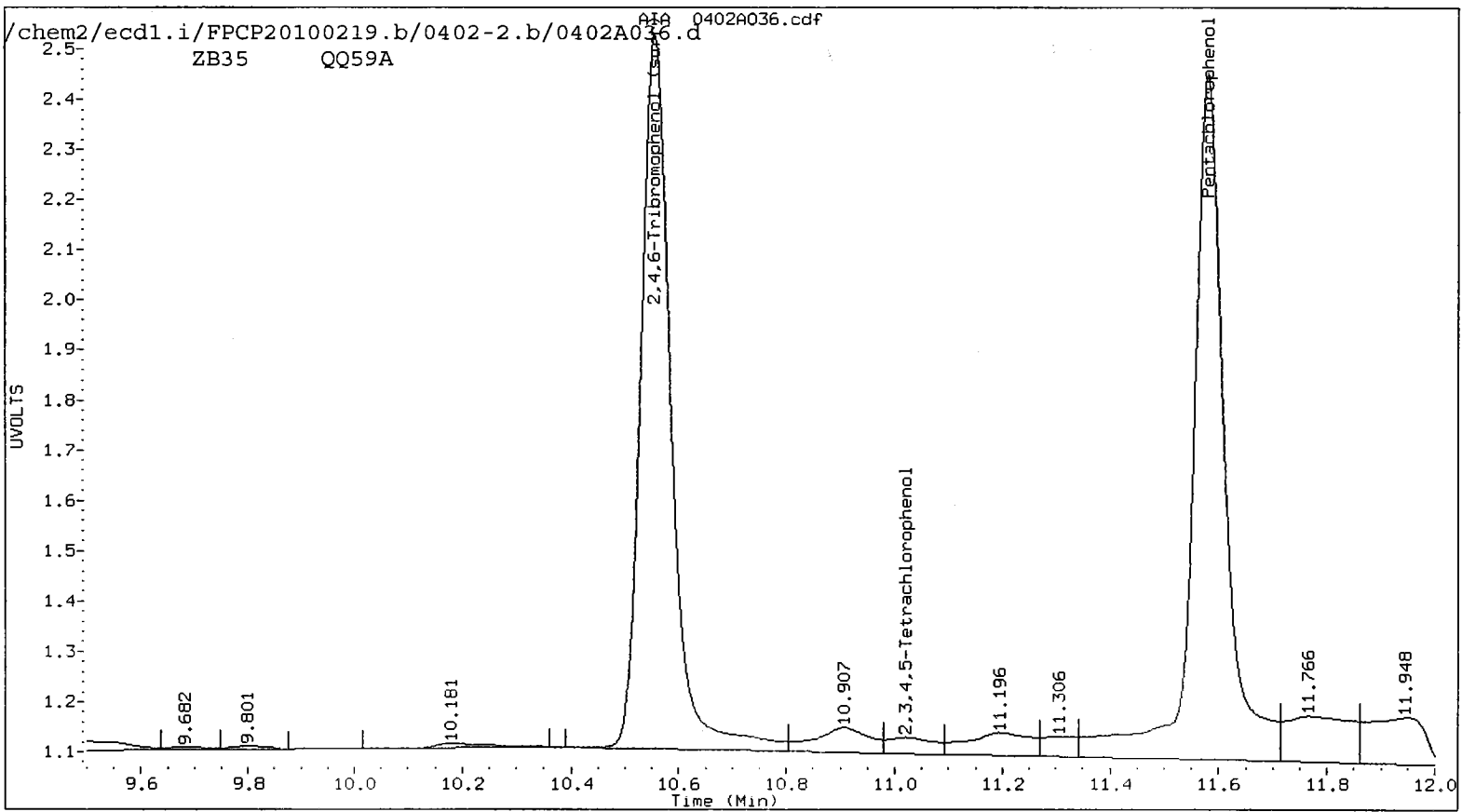
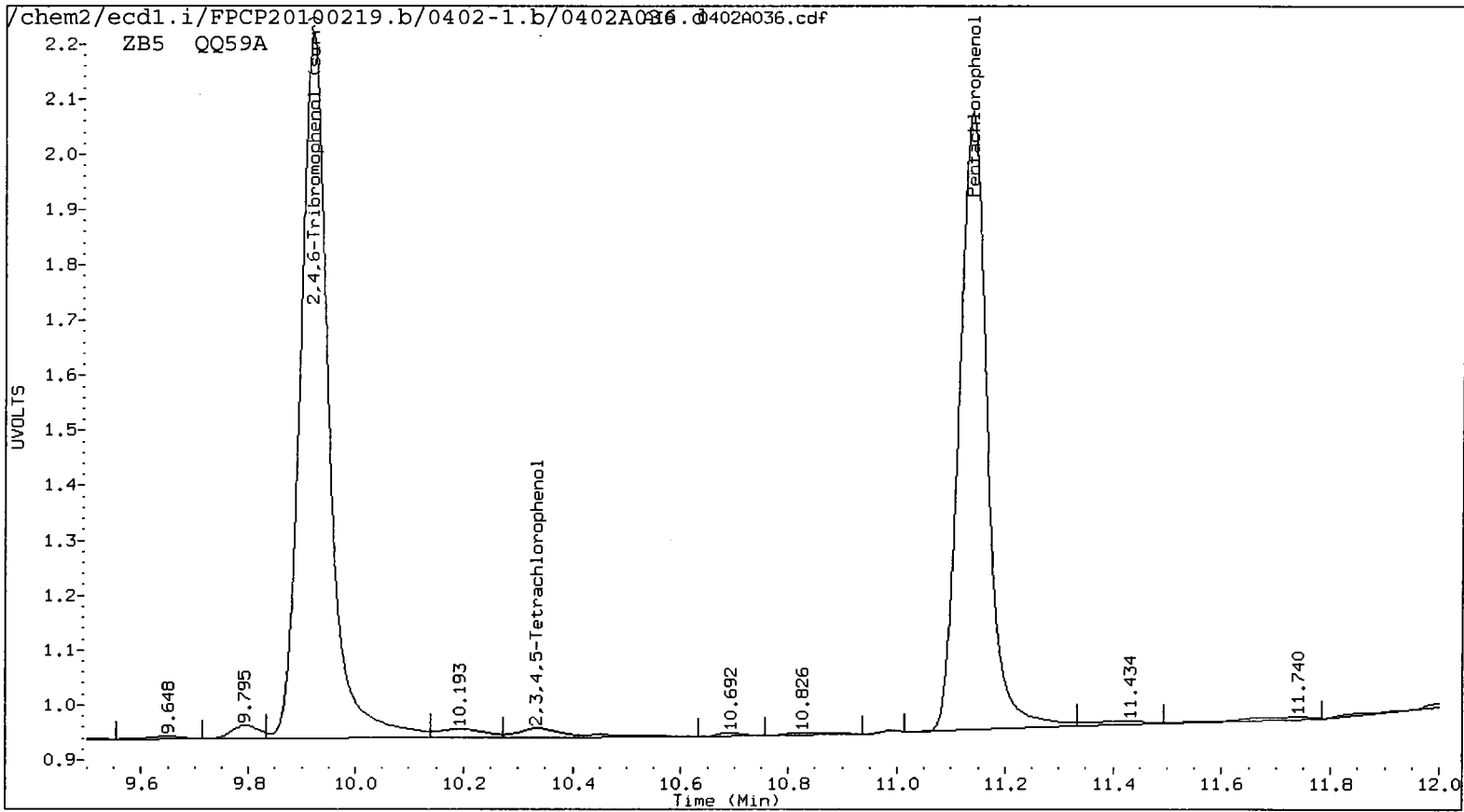
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 Data file 2: /chem2/ecdl.i/FPCP20100219.b/0402-2.b/0402A036.d Client ID: CB31A032910COMP
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 03-APR-2010 01:09
 Compound Sublist: all Report Date: 04/12/2010 10:32
 Instrument: ecdl.i Matrix: WATER
 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		
11.137	0.014	201145	11.581	0.005	284659	10.9854	13.8487	23.1	Pentachlorophenol
7.167	-0.023	17802	7.267	0.005	1569	1.7618	0.1380	170.9*	2,4,6-Trichlorophenol
7.583	0.043	2057	----			0.2053	0.0000	---	2,3,6-Trichlorophenol
8.202	0.065	22647	----			4.4746	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			9.213	0.030	4936	0.0000	0.2906	---	2,3,5,6-Tetrachlorophenol
10.335	0.033	6382	11.021	-0.003	9534	0.5435	0.7289	29.1	2,3,4,5-Tetrachlorophenol
6.846	0.029	2078	7.089	-0.001	2305	4.2227	4.0872	3.3	2,4-Dichlorophenol
9.919	0.020	237896	10.555	0.009	278301	16.3	16.7	2.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	65.2	66.6

04/12/10



ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB4857032910COMP

SAMPLE

Lab Sample ID: QQ59B

LIMS ID: 10-8213

Matrix: Water

Data Release Authorized: *mmw*

Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 03/31/10

Date Analyzed: 04/03/10 01:29

Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	1.3

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	68.4%
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Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

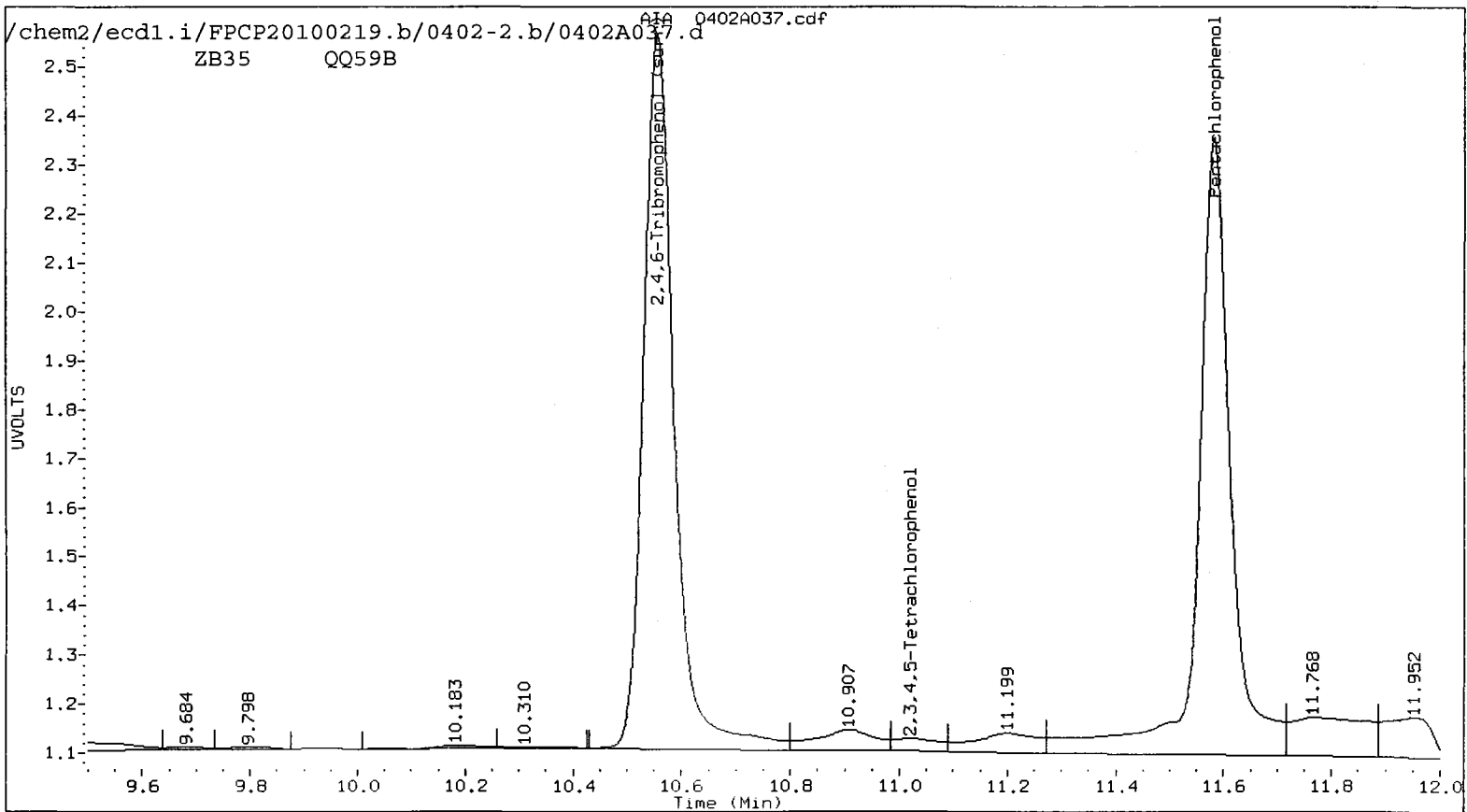
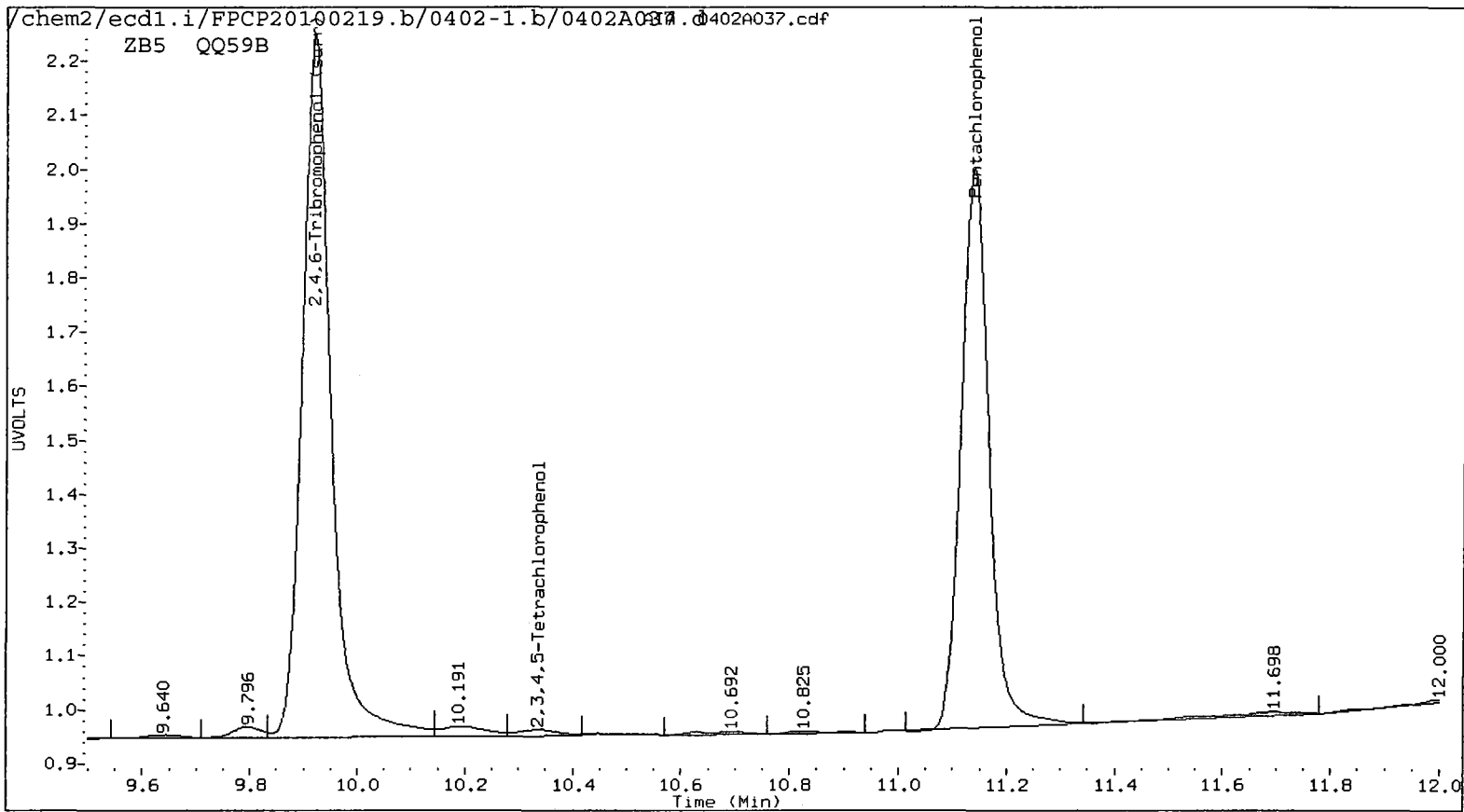
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 Data file 2: /chem2/ecdl.i/FPCP20100219.b/0402-2.b/0402A037.d Client ID: CB4857032910COMP
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 03-APR-2010 01:29
 Compound Sublist: all Report Date: 04/12/2010 10:32
 Instrument: ecdl.i Matrix: WATER
 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		
11.138	0.014	185645	11.582	0.006	268253	10.1389	13.0506	25.1	Pentachlorophenol
7.172	-0.018	15328	----			1.5169	0.0000	---	2,4,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,6-Trichlorophenol
----			8.464	-0.056	1164	0.0000	0.1974	---	2,4,5-Trichlorophenol
8.659	-0.022	8548	----			1.2087	0.0000	---	2,3,4-Trichlorophenol
8.970	0.057	10498	9.214	0.030	5080	0.6839	0.2991	78.3*	2,3,5,6-Tetrachlorophenol
10.337	0.034	2994	11.020	-0.003	7401	0.2550	0.5658	75.7*	2,3,4,5-Tetrachlorophenol
6.843	0.026	1615	7.090	0.000	1485	3.2809	2.6331	21.9	2,4-Dichlorophenol
9.919	0.020	244143	10.556	0.010	285339	16.7	17.1	2.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	66.9	68.3

pc 04/12/10



ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: CB1032910COMP
SAMPLE

Lab Sample ID: QQ59C

LIMS ID: 10-8214

Matrix: Water

Data Release Authorized: *MW*

Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider

Project: Lora Lakes Apartments

Date Sampled: 03/29/10

Date Received: 03/30/10

Date Extracted: 03/31/10

Date Analyzed: 04/03/10 01:49

Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	63.6%
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Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

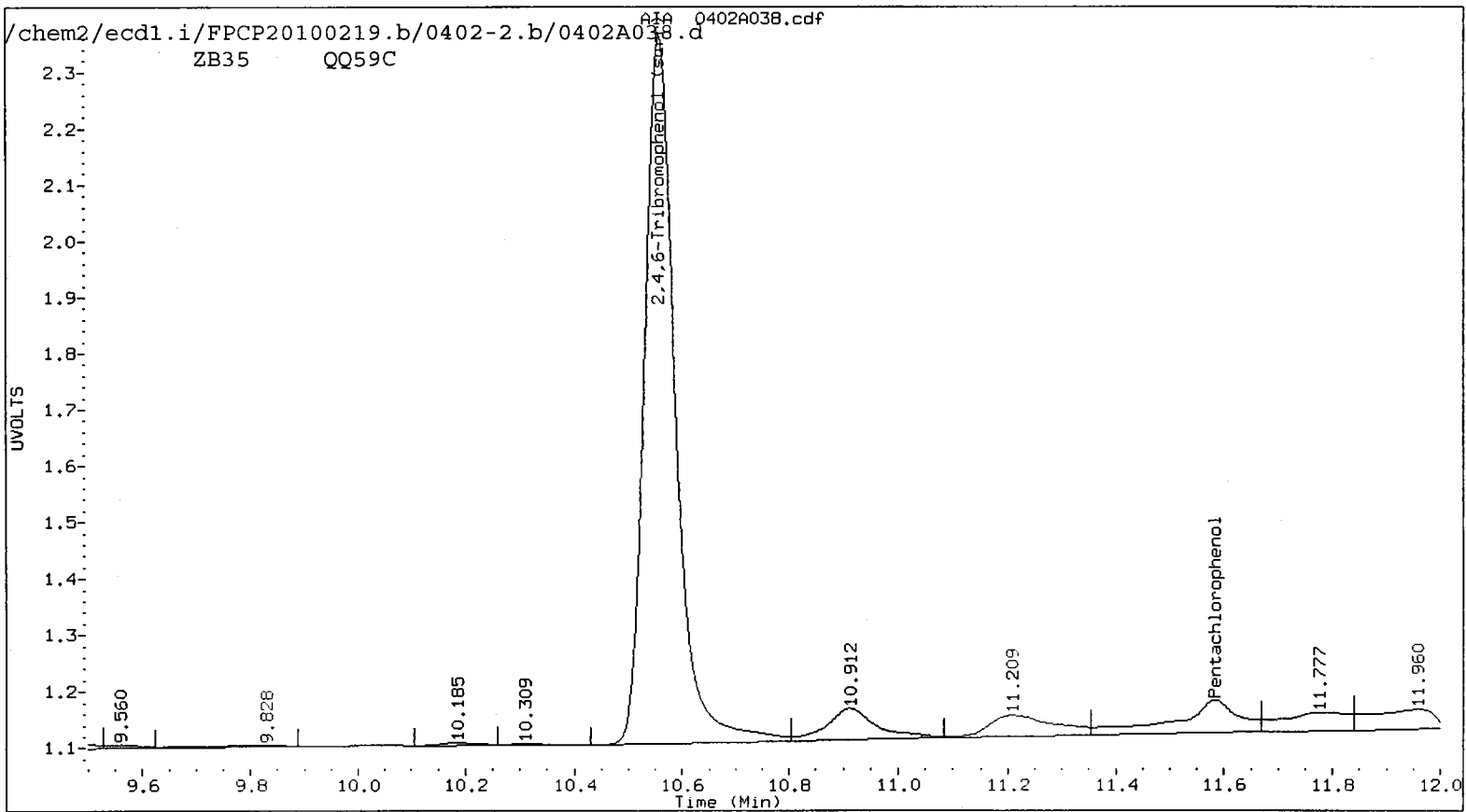
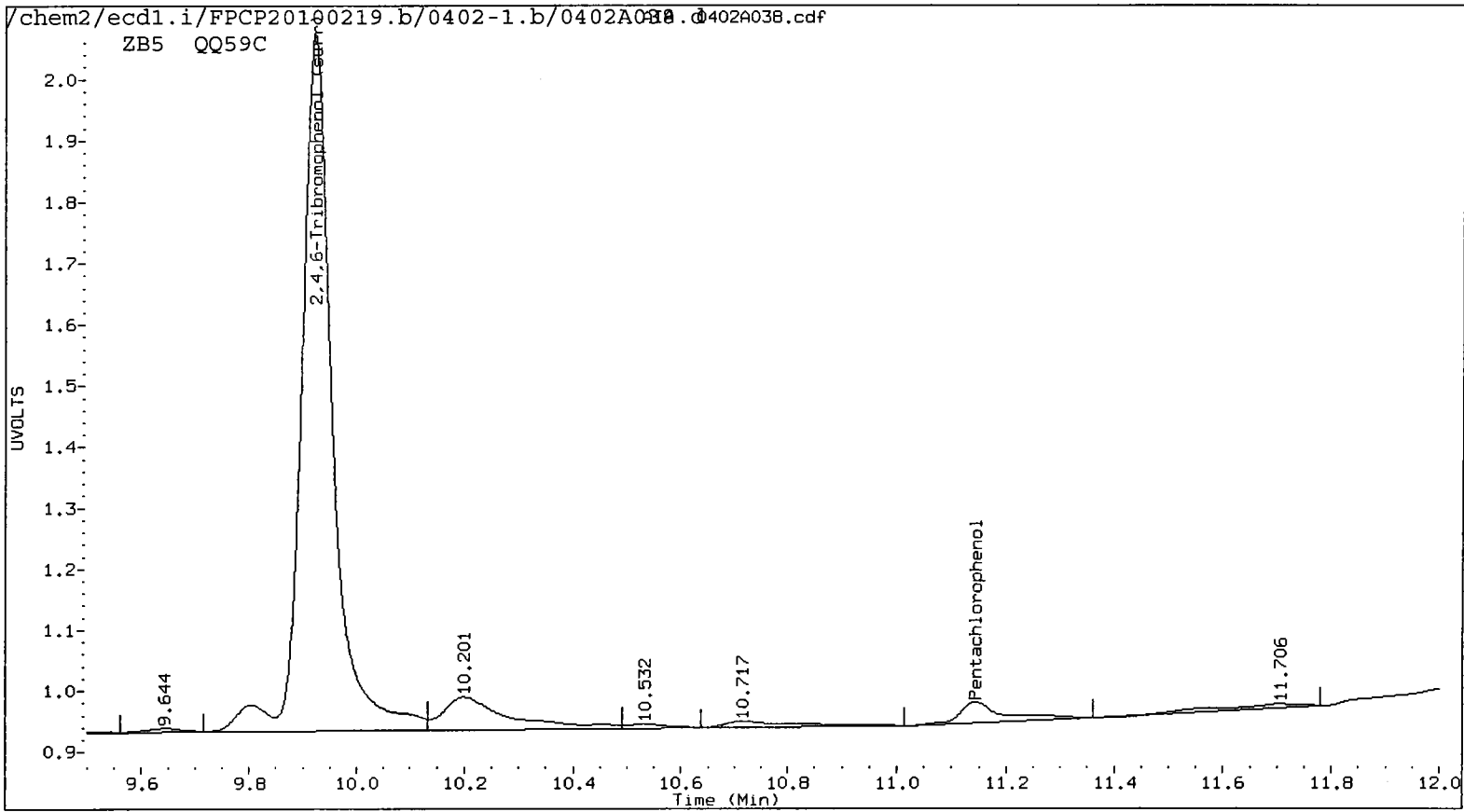
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 Data file 2: /chem2/ecdl.i/FPCP20100219.b/0402-2.b/0402A038.d Client ID: CB1032910COMP
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 03-APR-2010 01:49
 Compound Sublist: all Report Date: 04/12/2010 10:32
 Instrument: ecd1.i Matrix: WATER
 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		
11.144	0.021	9834	11.583	0.007	23690	0.5371	1.1525	72.8*	Pentachlorophenol
7.185	-0.005	17273	----			1.7094	0.0000	---	2,4,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,6-Trichlorophenol
8.197	0.059	3211	8.469	-0.051	3612	0.6344	0.6122	3.6	2,4,5-Trichlorophenol
8.667	-0.014	26208	----			3.7057	0.0000	---	2,3,4-Trichlorophenol
----			9.210	0.026	1003	0.0000	0.0591	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
6.846	0.029	4542	7.090	-0.001	1181	9.2269	2.0947	126.0*	2,4-Dichlorophenol
9.922	0.023	232462	10.557	0.011	251301	15.9	15.0	5.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	63.7	60.2

Handwritten signature
 04/12/10



ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: CB100032910COMP
SAMPLE

Lab Sample ID: QQ59D
LIMS ID: 10-8215
Matrix: Water
Data Release Authorized: *MW*
Reported: 04/12/10

QC Report No: QQ59-Floyd/Snider
Project: Lora Lakes Apartments

Date Sampled: 03/29/10
Date Received: 03/30/10

Date Extracted: 03/31/10
Date Analyzed: 04/03/10 02:48
Instrument/Analyst: ECD1/JGR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	1.5

Reported in $\mu\text{g/L}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	69.2%
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Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

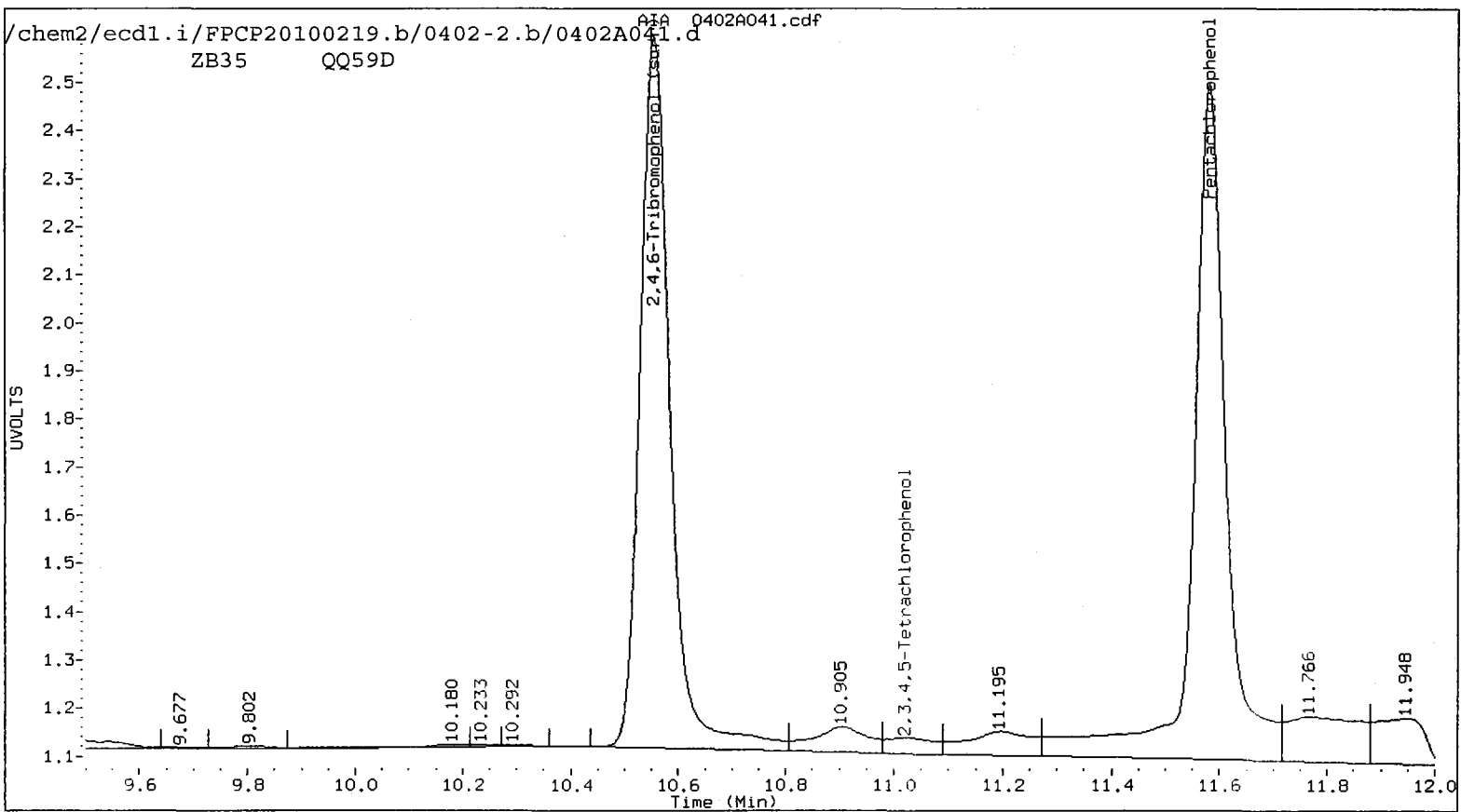
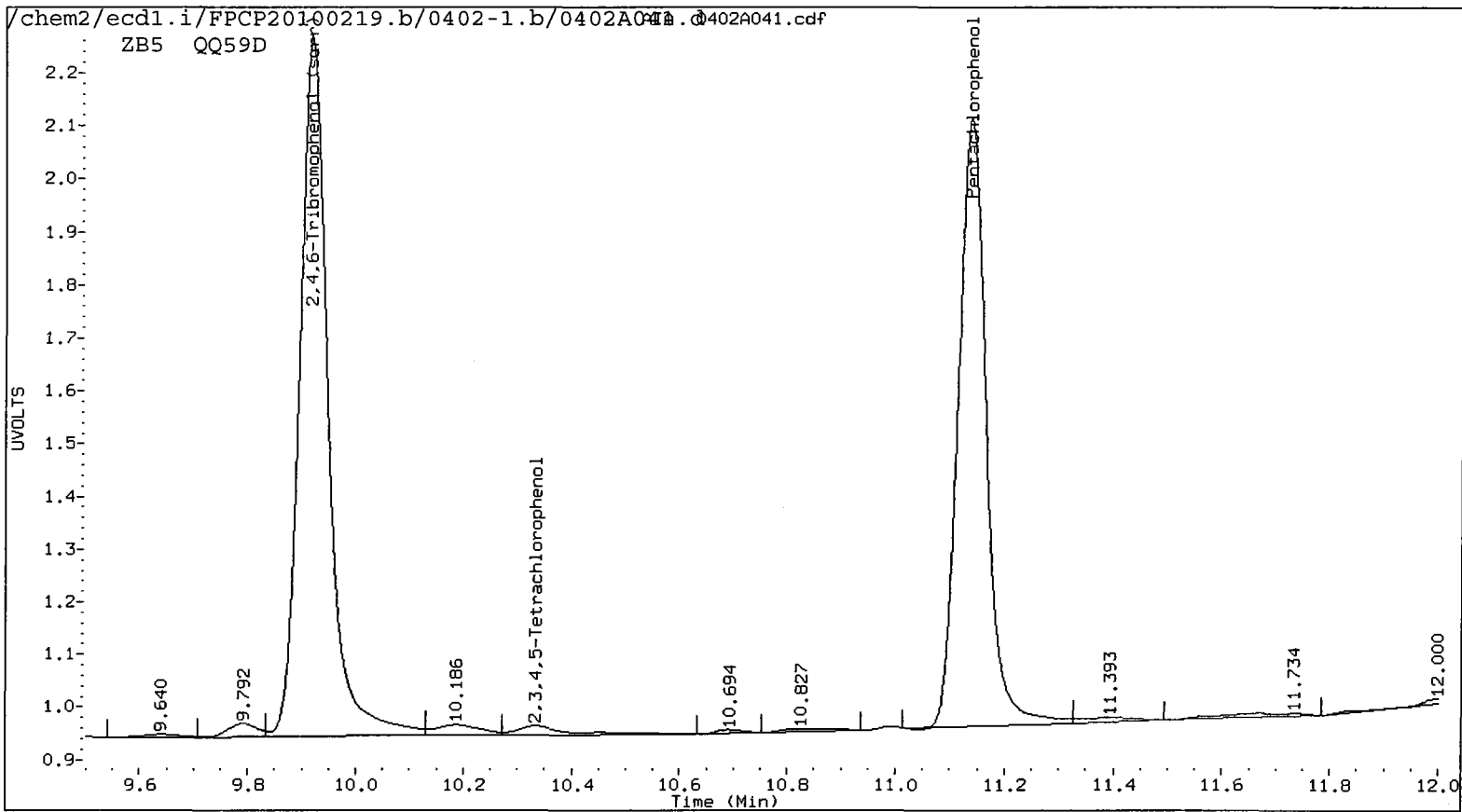
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 Data file 2: /chem2/ecdl.i/FPCP20100219.b/0402-2.b/0402A041.d Client ID: CB100032910COMP
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 03-APR-2010 02:48
 Compound Sublist: all Report Date: 04/12/2010 10:32
 Instrument: ecdl.i Matrix: WATER
 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		
11.137	0.014	204849	11.581	0.005	301808	17.1877	14.6831	27.0	Pentachlorophenol
7.164	-0.026	17784	7.272	0.010	1442	1.7599	0.1268	173.1*	2,4,6-Trichlorophenol
7.583	0.043	6079	----			0.6067	0.0000	---	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
8.741	0.060	26743	----			3.7812	0.0000	---	2,3,4-Trichlorophenol
8.965	0.053	13565	9.213	0.029	5117	0.8838	0.3013	98.3*	2,3,5,6-Tetrachlorophenol
10.333	0.031	5931	11.020	-0.003	9605	0.5051	0.7343	37.0	2,3,4,5-Tetrachlorophenol
6.845	0.028	1817	7.091	0.000	2578	3.6916	4.5695	21.3	2,4-Dichlorophenol
9.918	0.019	245509	10.554	0.008	289306	16.8	17.3	2.9	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	67.3	69.3

204/12/10



PCP/Chlorophenols ANALYSIS
Standard Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments

ARI JOB NO: QQ59

prepared
by

Analytical Resources, Inc.

6D
 CHLOROPHENOL INITIAL CALIBRATION
 RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QQ59

Project: LORA LAKE APTS

GC Column: ZB5 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 02/18/10

COMPOUND	RT OF STANDARDS					MEAN RT	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		FROM	TO
Pentachlorophenol	11.13	11.13	11.13	11.12	11.12	11.13	11.05	11.19
2,4,6-Trichloropheno	7.19	7.19	7.19	7.19	7.19	7.19	7.12	7.26
2,3,6-Trichloropheno	7.55	7.55	7.54	7.54	7.54	7.54	7.47	7.61
2,4,5-Trichloropheno	8.16	8.15	8.14	8.14	8.14	8.15	8.07	8.21
2,3,4-Trichloropheno	8.70	8.70	8.69	8.69	8.68	8.69	8.61	8.75
2,3,5,6-Tetrachlorop	8.92	8.92	8.92	8.91	8.91	8.92	8.84	8.98
2,3,4,5-Tetrachlorop	10.32	10.32	10.31	10.31	10.30	10.31	10.23	10.37
2,4-Dichlorophenol	6.82	6.82	6.82	6.82	6.82	6.82	6.75	6.89
2,4,6-Tribromophenol	9.91	9.91	9.90	9.90	9.90	9.90	9.83	9.97

6D
 CHLOROPHENOL INITIAL CALIBRATION
 RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QQ59

Project: LORA LAKE APTS

GC Column: ZB35 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 02/18/10

COMPOUND	RT OF STANDARDS					MEAN RT	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		FROM	TO
Pentachlorophenol	11.58	11.58	11.57	11.57	11.57	11.57	11.51	11.65
2,4,6-Trichloropheno	7.26	7.26	7.26	7.26	7.26	7.26	7.19	7.33
2,3,6-Trichloropheno	7.79	7.79	7.79	7.79	7.78	7.79	7.72	7.86
2,4,5-Trichloropheno	8.52	8.52	8.52	8.51	8.51	8.52	8.45	8.59
2,3,4-Trichloropheno	9.28	9.28	9.28	9.27	9.27	9.28	9.21	9.35
2,3,5,6-Tetrachlorop	9.19	9.18	9.18	9.18	9.18	9.18	9.11	9.25
2,3,4,5-Tetrachlorop	11.03	11.02	11.02	11.02	11.02	11.02	10.95	11.09
2,4-Dichlorophenol	7.09	7.09	7.09	7.09	7.09	7.09	7.02	7.16
2,4,6-Tribromophenol	10.55	10.55	10.54	10.54	10.54	10.54	10.48	10.62

6E
 CHLOROPHENOL INITIAL CALIBRATION
 CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QQ59

Project: LORA LAKE APTS

GC Column: ZB5 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 02/18/10

COMPOUND	CALIBRATION FACTORS						R ² / %RSD	CT
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		
Pentachlorophenol	19260	20286	19708	18632	16832	15143	10.7	A
2,4,6-Trichlorophenol	12690	11388	9439	10360	8705	8048	17.2	A
2,3,6-Trichlorophenol	11610	10956	10515	10092	8822	8128	13.1	A
2,4,5-Trichlorophenol	5557	5419	5418	5382	4505	4088	12.0	A
2,3,4-Trichlorophenol	8452	8484	7742	6654	5844	5260	19.3	A
2,3,5,6-Tetrachloroph	16891	16608	16259	15694	13938	12707	10.8	A
2,3,4,5-Tetrachloroph	14069	13078	12346	11471	10474	9024	15.5	A
2,4-Dichlorophenol	539	574	536	478	449	376	14.8	A
2,4,6-Tribromophenol	16092	15471	15178	14700	13698	12467	9.0	A
							AVE RSD	13.6

CT stands for Curve Types:

- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

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- LVL 2: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A013.d
- LVL 3: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A014.d
- LVL 4: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A011.d
- LVL 5: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A015.d
- LVL 6: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A016.d

6E
 CHLOROPHENOL INITIAL CALIBRATION
 CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No.: QQ59

Project: LORA LAKE APTS

GC Column: ZB35 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 02/18/10

COMPOUND	CALIBRATION FACTORS						R ² / %RSD	CT
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		
Pentachlorophenol	21892	22397	21863	20727	19095	17355	9.6	A
2,4,6-Trichlorophenol	12480	12200	12371	11514	10380	9304	11.2	A
2,3,6-Trichlorophenol	12934	12277	11772	11120	10187	9386	11.7	A
2,4,5-Trichlorophenol	6873	6583	6297	5844	5218	4589	14.7	A
2,3,4-Trichlorophenol	8997	8826	8328	7674	6874	6144	14.5	A
2,3,5,6-Tetrachloroph	18467	18264	17819	17161	15802	14414	9.3	A
2,3,4,5-Tetrachloroph	13447	14149	13746	14433	11943	10771	10.9	A
2,4-Dichlorophenol	664	633	639	562	478	409	18.0	A
2,4,6-Tribromophenol	17723	17320	17250	16916	16059	14968	6.1	A
AVE RSD							11.8	

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/ecdl.i/FPCP20100219.b/ical-2.b/0218A012.d/0218A012.cdf
- LVL 2: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A013.d/0218A013.cdf
- LVL 3: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A014.d/0218A014.cdf
- LVL 4: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A011.d/0218A011.cdf
- LVL 5: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A015.d/0218A015.cdf
- LVL 6: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A016.d/0218A016.cdf

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-FEB-2010 20:17
 End Cal Date : 18-FEB-2010 21:56
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl.i/FPCP20100219.b/FPCPB.m
 Cal Date : 19-Feb-2010 09:37 jrains
 Curve Type : Average

Calibration File Names:

Level 1: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A012.d/0218A012.cdf
 Level 2: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A013.d/0218A013.cdf
 Level 3: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A014.d/0218A014.cdf
 Level 4: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A011.d/0218A011.cdf
 Level 5: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A015.d/0218A015.cdf
 Level 6: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A016.d/0218A016.cdf

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	664	633	639	562	478	409	564	18.037
2 2,4,6-Trichlorophenol	12480	12200	12371	11514	10380	9304	11375	11.253
3 2,3,6-Trichlorophenol	12934	12277	11772	11120	10187	9386	11280	11.747
4 2,4,5-Trichlorophenol	6873	6583	6297	5844	5218	4589	5901	14.692
5 2,3,5,6-Tetrachlorophenol	18467	18264	17819	17161	15802	14414	16988	9.334
6 2,3,4-Trichlorophenol	8997	8826	8328	7674	6874	6144	7807	14.469
8 2,3,4,5-Tetrachlorophenol	13447	14149	13746	14433	11943	10771	13081	10.905
9 Pentachlorophenol	21892	22397	21863	20727	19095	17355	20555	9.557
\$ 7 2,4,6-Tribromophenol (surr)	17723	17320	17250	16917	16059	14968	16706	6.098

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-FEB-2010 20:17
End Cal Date : 18-FEB-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20100219.b/FPCPB.m
Cal Date : 19-Feb-2010 09:37 jrains
Curve Type : Average

Average %RSD Results.

Calculated Average %RSD = 11.78791
Maximum Average %RSD = 20.00000
* Passed Average %RSD Test.

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-FEB-2010 20:17
 End Cal Date : 18-FEB-2010 21:56
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl.i/FPCP20100219.b/FPCP.m
 Cal Date : 19-Feb-2010 09:46 j rains
 Curve Type : Average

Calibration File Names:

Level 1: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A012.d
 Level 2: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A013.d
 Level 3: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A014.d
 Level 4: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A011.d
 Level 5: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A015.d
 Level 6: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A016.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	539	575	536	479	449	376	492	14.760
2 2,4,6-Trichlorophenol	12690	11388	9439	10360	8705	8048	10105	17.155
3 2,3,6-Trichlorophenol	11610	10956	10515	10092	8822	8128	10020	13.139
4 2,4,5-Trichlorophenol	5557	5419	5418	5382	4505	4088	5061	12.056
5 2,3,4-Trichlorophenol	8452	8484	7742	6654	5844	5260	7073	19.296
6 2,3,5,6-Tetrachlorophenol	16891	16608	16259	15694	13938	12707	15349	10.856
8 2,3,4,5-Tetrachlorophenol	14069	13078	12346	11471	10474	9024	11744	15.530
9 Pentachlorophenol	19260	20286	19708	18632	16832	15143	18310	10.669
\$ 7 2,4,6-Tribromophenol (surr)	16092	15471	15178	14700	13698	12467	14601	9.030

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-FEB-2010 20:17
End Cal Date : 18-FEB-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20100219.b/FPCP.m
Cal Date : 19-Feb-2010 09:46 jrains
Curve Type : Average

Average %RSD Results.	
Calculated Average %RSD =	13.46642
Maximum Average %RSD =	20.00000
* Passed Average %RSD Test.	

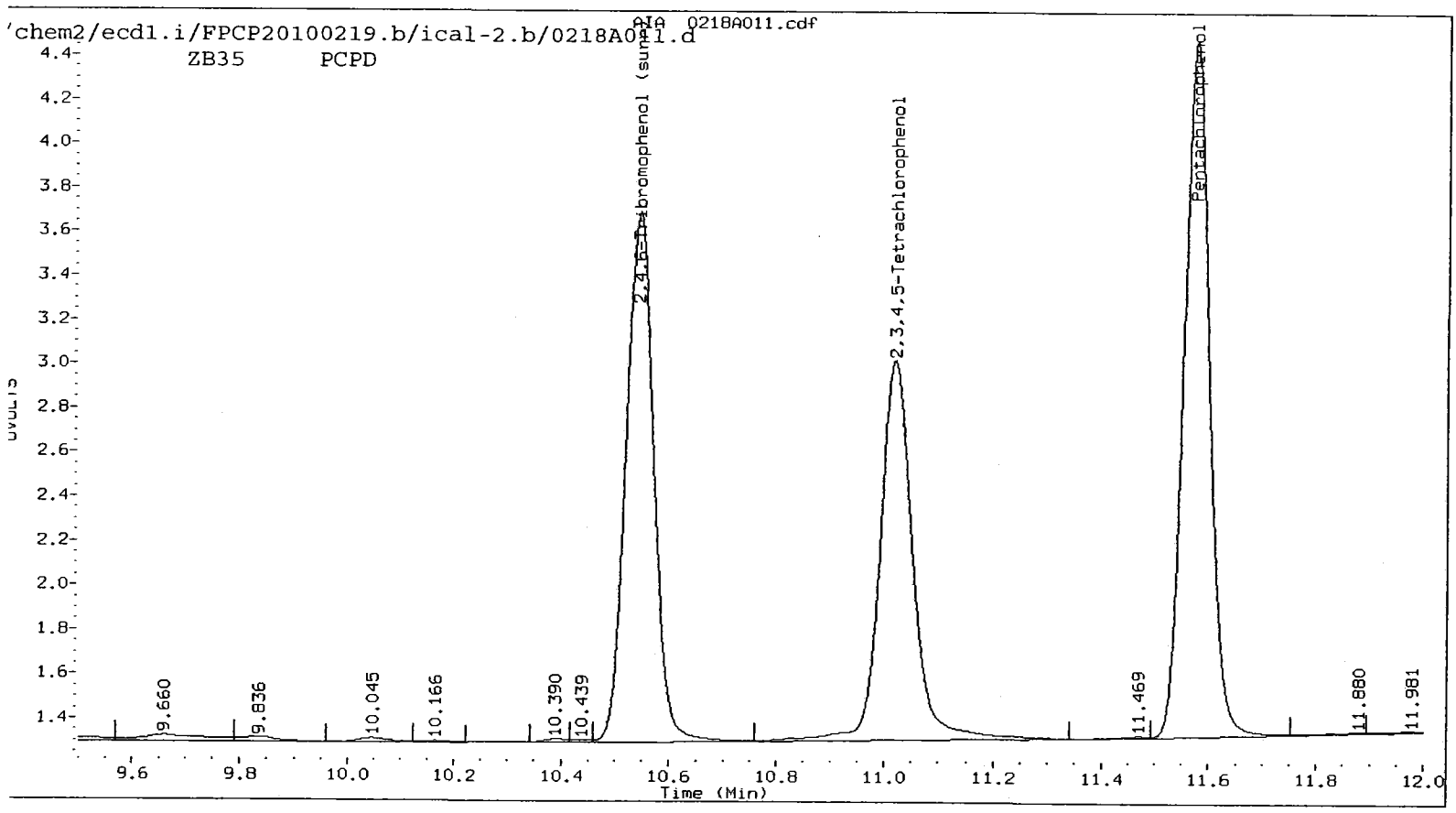
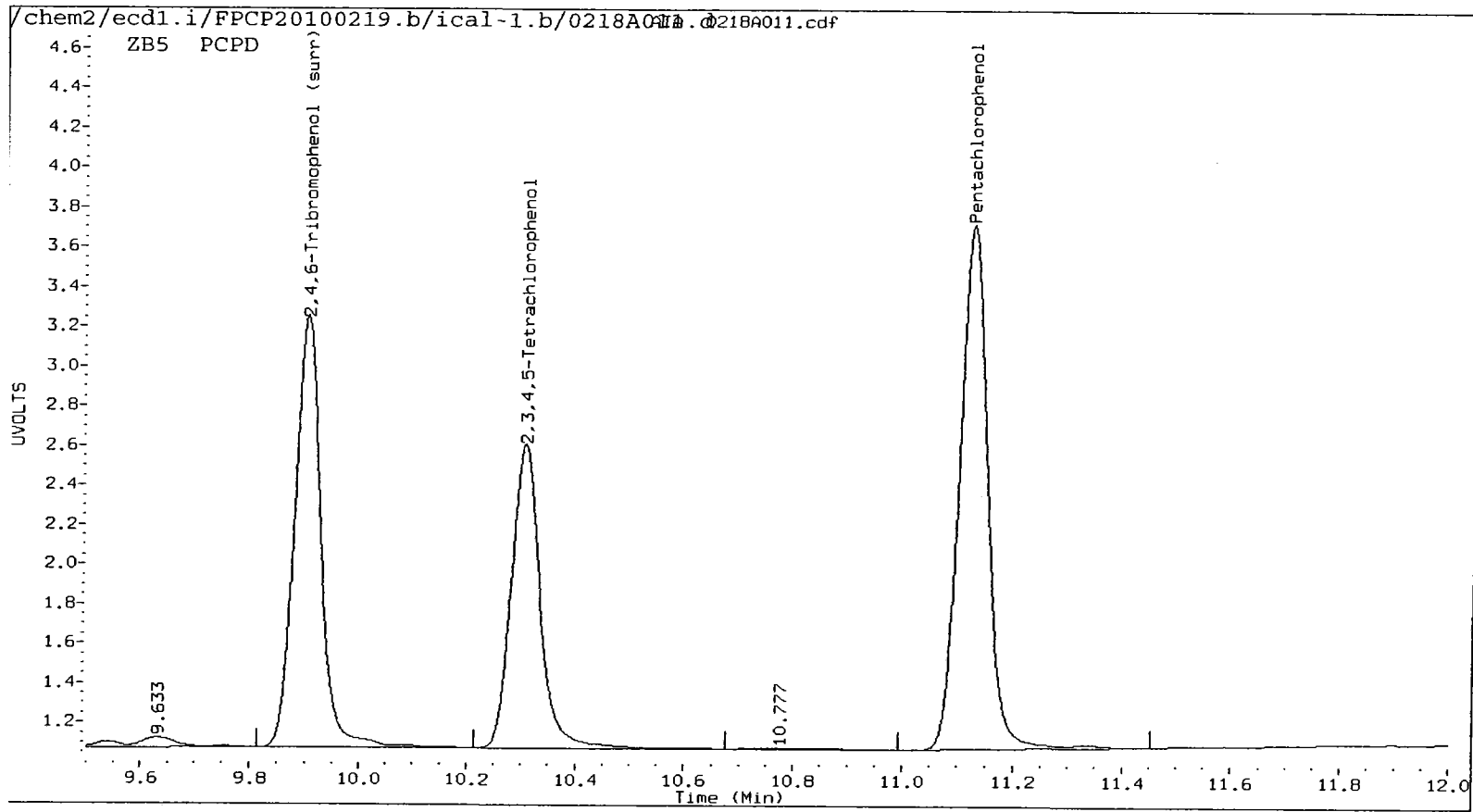
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A011.d ARI ID: PCPD
 Data file 2: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A011.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 18-FEB-2010 20:17
 Compound Sublist: all Report Date: 02/19/2010 10:00
 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		
11.125	0.002	465799	11.573	-0.003	518187	25.0000	25.2100	0.8	Pentachlorophenol
7.190	0.000	258988	7.261	-0.001	287844	25.0000	23.2129	7.4	2,4,6-Trichlorophenol
7.544	0.004	252304	7.785	-0.002	278010	25.0000	24.1939	3.3	2,3,6-Trichlorophenol
8.140	0.003	134543	8.513	-0.007	146106	25.0000	24.4528	2.2	2,4,5-Trichlorophenol
8.687	0.006	166342	9.273	-0.007	191858	25.0000	24.5746	1.7	2,3,4-Trichlorophenol
8.914	0.002	392346	9.180	-0.004	429030	25.0000	25.2550	1.0	2,3,5,6-Tetrachlorophenol
10.306	0.004	286776	11.019	-0.004	360825	25.0000	27.5833	9.8	2,3,4,5-Tetrachlorophenol
6.820	0.003	119627	7.088	-0.002	140384	250.0000	207.3163	18.7	2,4-Dichlorophenol
9.902	0.003	367511	10.543	-0.003	422914	25.0	25.3	1.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	100.0	101.3



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

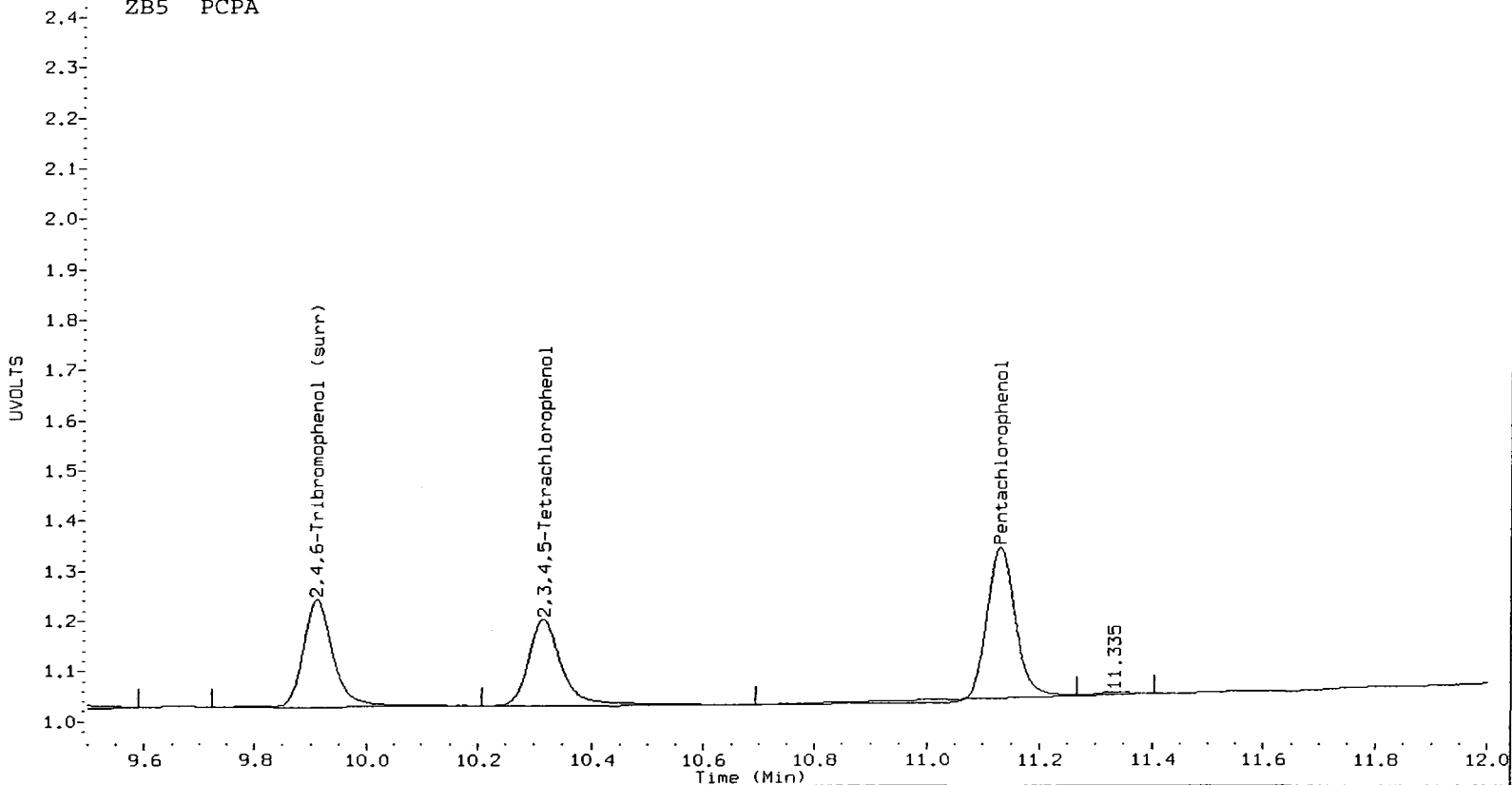
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 Data file 2: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A012.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 18-FEB-2010 20:37
 Compound Sublist: all Report Date: 02/19/2010 10:00
 Instrument: ecd1.i Matrix: NONE
 Operator: 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		
11.131	0.008	48151	11.577	0.001	54730	2.5415	2.6626	4.7	Pentachlorophenol
7.193	0.003	31724	7.262	0.000	31199	2.7527	2.6369	4.3	2,4,6-Trichlorophenol
7.546	0.006	29024	7.788	0.001	32334	2.6748	2.8423	6.1	2,3,6-Trichlorophenol
8.157	0.019	13893	8.523	0.003	17182	2.5401	2.8843	12.7	2,4,5-Trichlorophenol
8.700	0.019	21131	9.283	0.003	22492	2.7977	2.8810	2.9	2,3,4-Trichlorophenol
8.923	0.011	42228	9.185	0.002	46168	2.5919	2.7177	4.7	2,3,5,6-Tetrachlorophenol
10.316	0.014	35172	11.025	0.002	33617	2.7543	2.5699	6.9	2,3,4,5-Tetrachlorophenol
6.823	0.006	13475	7.092	0.001	16607	28.1209	27.1340	3.6	2,4-Dichlorophenol
9.911	0.012	40229	10.548	0.002	44308	2.6	2.7	1.5	2,4,6-Tribromophenol (surr)

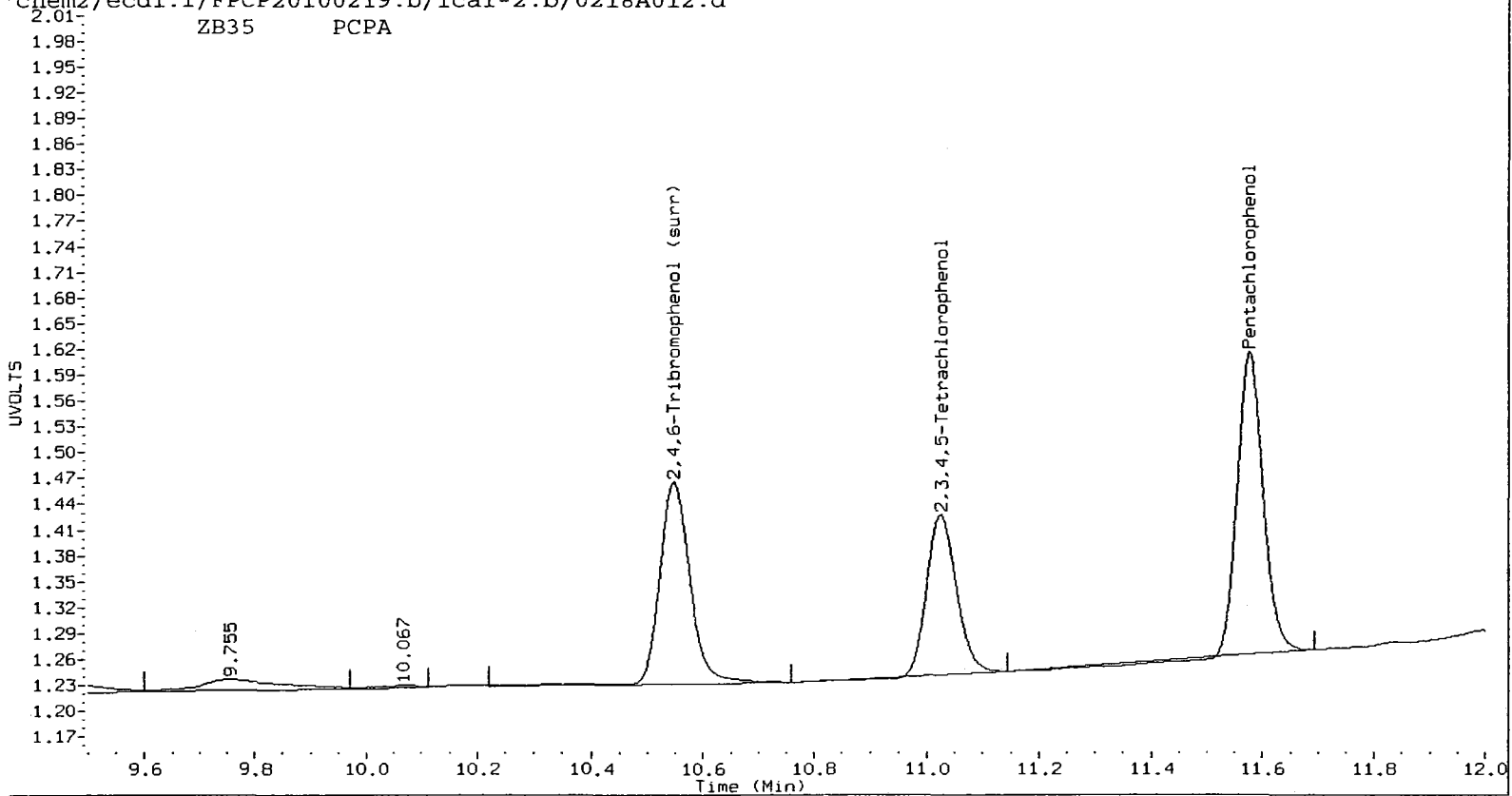
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	10.5	10.6

ZB5 PCPA



ZB35 PCPA



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

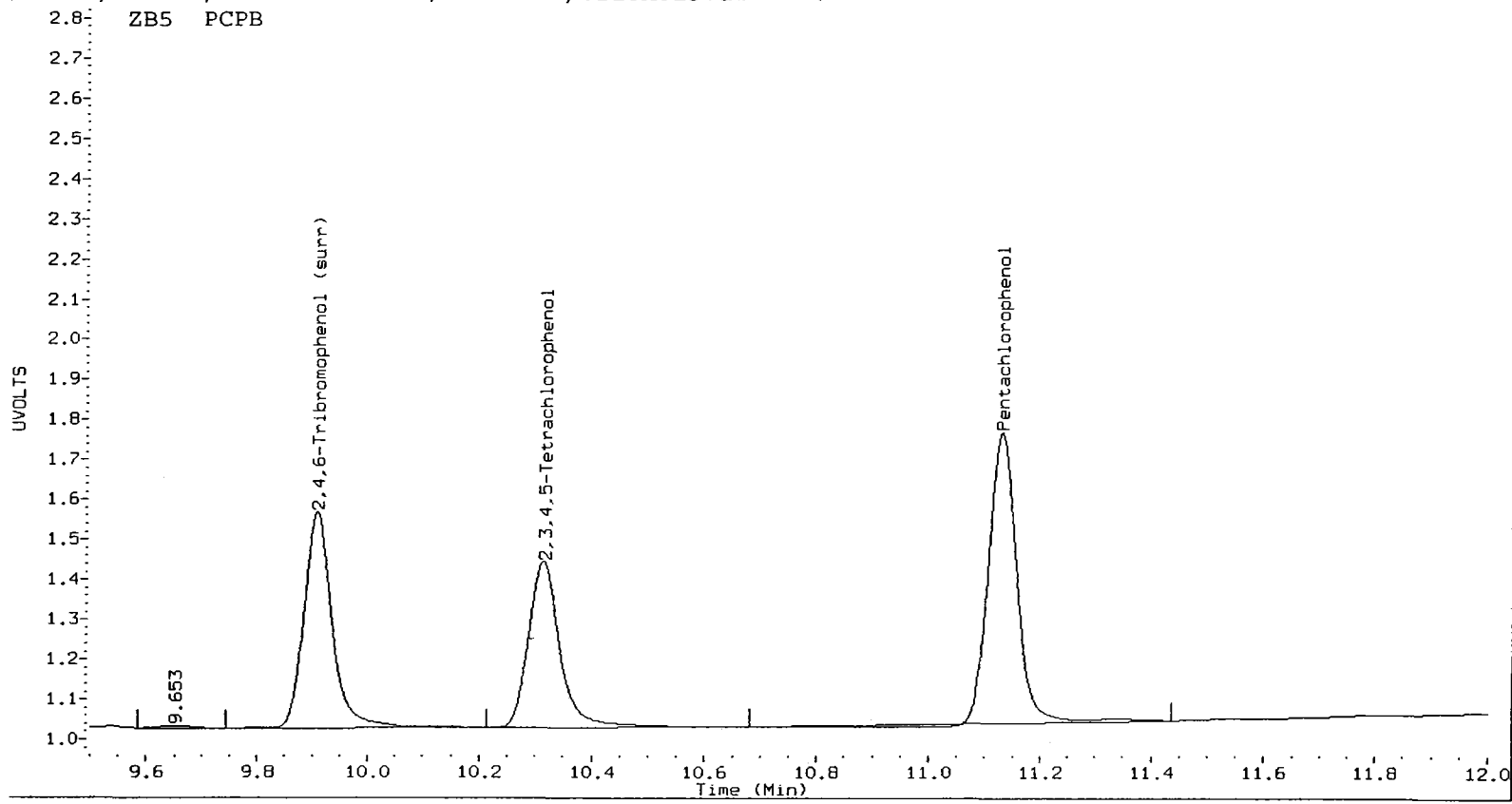
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 Data file 2: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A013.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 18-FEB-2010 20:57
 Compound Sublist: all Report Date: 02/19/2010 10:00
 Instrument: ecdl.i Matrix: NONE
 Operator: 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		
11.130	0.007	126786	11.576	0.000	139982	6.5378	6.8102	4.1	Pentachlorophenol
7.193	0.003	71176	7.262	0.000	76250	6.2005	6.7035	7.8	2,4,6-Trichlorophenol
7.547	0.007	68473	7.787	0.000	76734	6.2901	6.8029	7.8	2,3,6-Trichlorophenol
8.153	0.016	33871	8.520	0.000	41146	6.2117	6.9730	11.5	2,4,5-Trichlorophenol
8.697	0.016	53024	9.280	0.000	55164	6.7432	7.0658	4.7	2,3,4-Trichlorophenol
8.922	0.010	103801	9.184	0.000	114152	6.3302	6.7196	6.0	2,3,5,6-Tetrachlorophenol
10.315	0.013	81738	11.023	0.000	88429	6.3497	6.7600	6.3	2,3,4,5-Tetrachlorophenol
6.823	0.006	35911	7.091	0.000	39550	73.9256	70.1023	5.3	2,4-Dichlorophenol
9.909	0.010	96694	10.546	0.000	108248	6.3	6.5	3.3	2,4,6-Tribromophenol (surr)

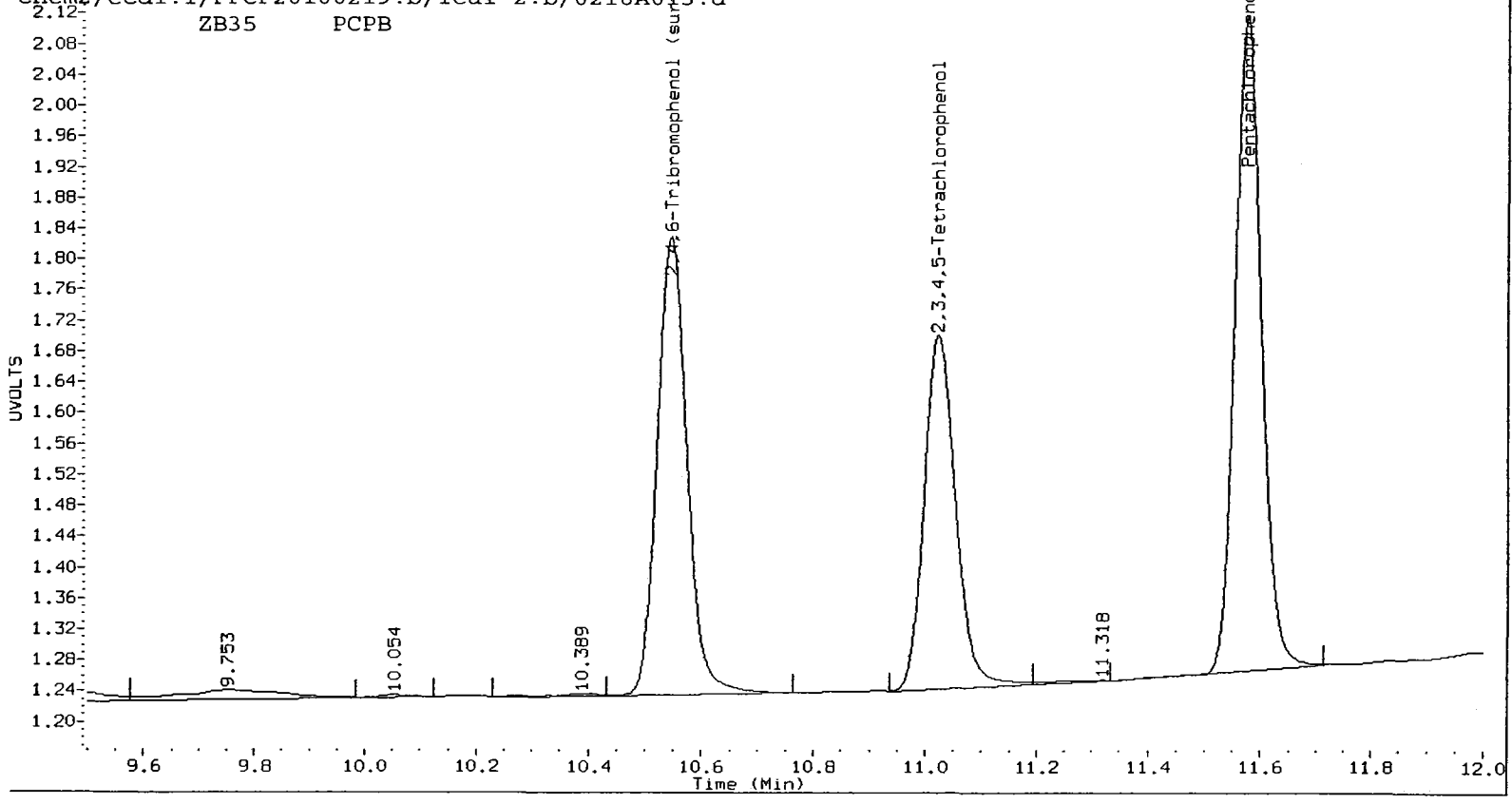
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	25.1	25.9

/chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A013.d



/chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A013.d



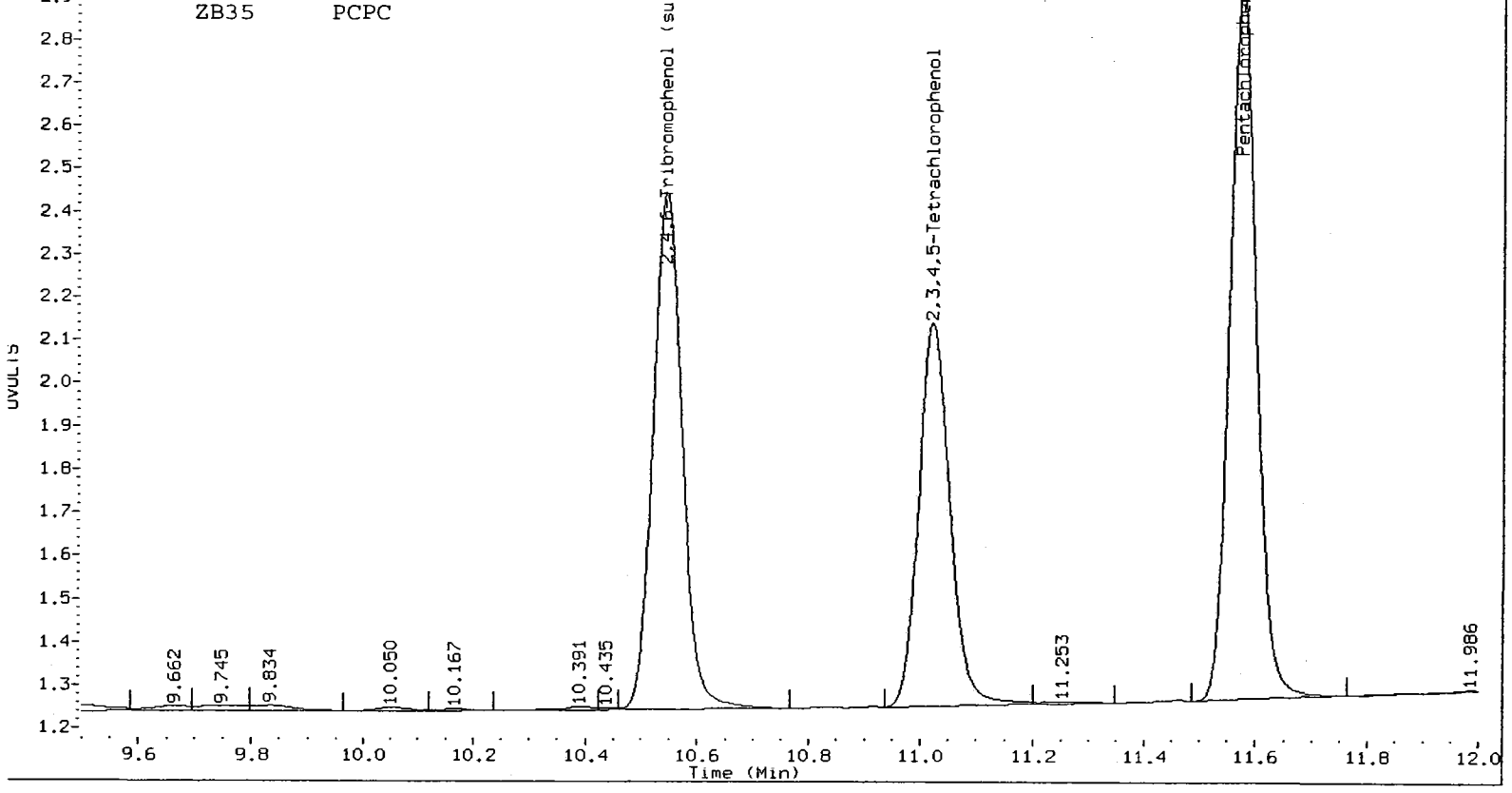
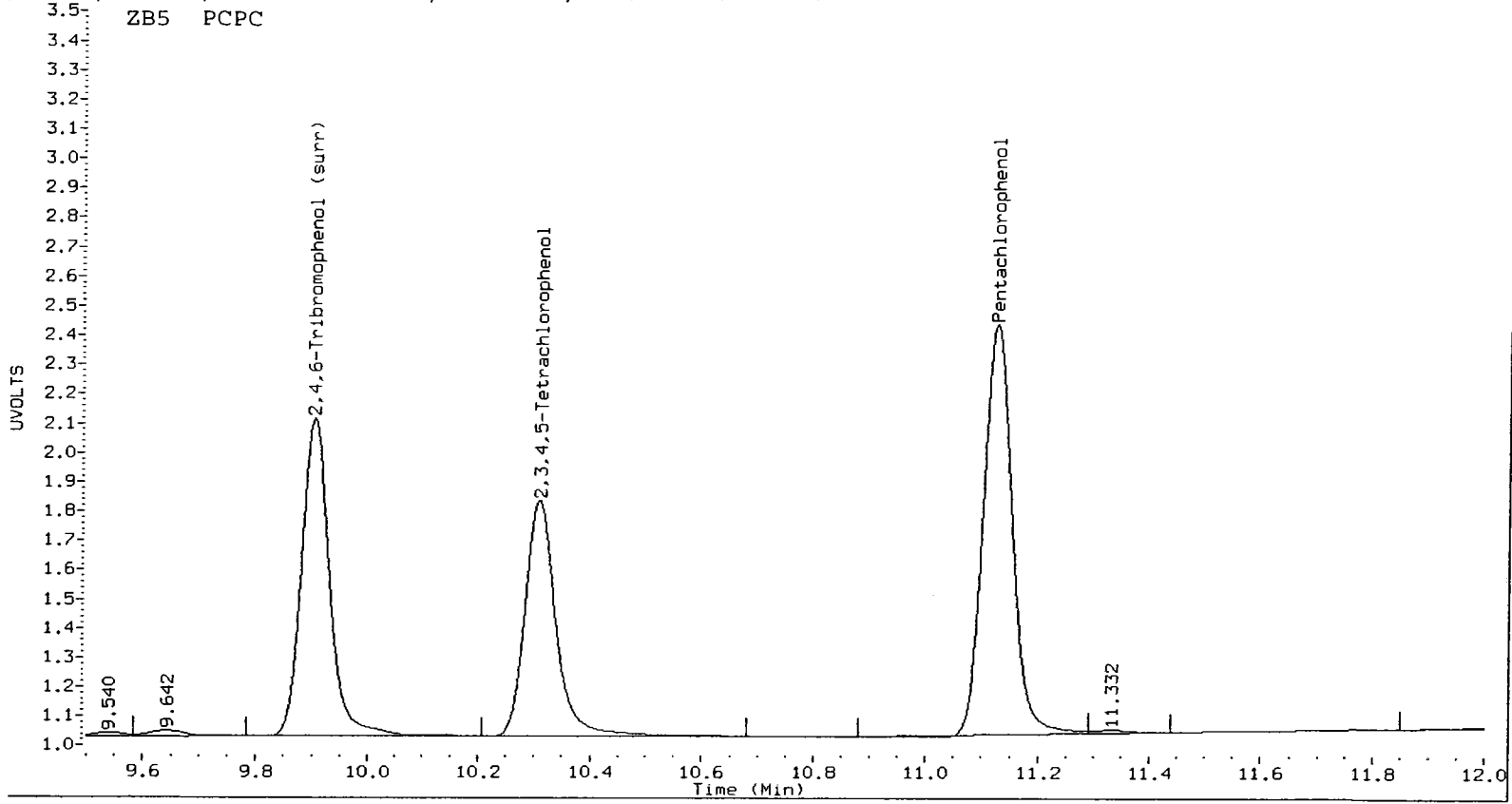
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A014.d ARI ID: PCPC
 Data file 2: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A014.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 18-FEB-2010 21:17
 Compound Sublist: all Report Date: 02/19/2010 10:00
 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		
11.126	0.003	246351	11.574	-0.002	273284	12.6518	13.2954	5.0	Pentachlorophenol
7.190	0.000	117988	7.262	0.000	154642	10.7564	13.3368	21.4	2,4,6-Trichlorophenol
7.544	0.004	131437	7.786	-0.001	147154	12.1779	13.0207	6.7	2,3,6-Trichlorophenol
8.143	0.006	67722	8.517	-0.003	78715	12.4397	13.3353	6.9	2,4,5-Trichlorophenol
8.690	0.009	96775	9.277	-0.004	104097	12.3548	13.3336	7.6	2,3,4-Trichlorophenol
8.916	0.004	203238	9.182	-0.002	222741	12.4205	13.1117	5.4	2,3,5,6-Tetrachlorophenol
10.309	0.006	154324	11.021	-0.002	171820	12.1124	13.1348	8.1	2,3,4,5-Tetrachlorophenol
6.820	0.003	67050	7.090	-0.001	79892	135.1393	135.7267	0.4	2,4-Dichlorophenol
9.904	0.005	189722	10.544	-0.002	215625	12.4	12.9	4.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	49.4	51.6



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/FPCP20100219.b/ical-1.b/0218A015.d ARI ID: PCPE
 Data file 2: /chem2/ecdl.i/FPCP20100219.b/ical-2.b/0218A015.d Client ID:
 Method: /chem2/ecdl.i/FPCP20100219.b/FPCP.m Injection Date: 18-FEB-2010 21:37
 Compound Sublist: all Report Date: 02/19/2010 10:00
 Instrument: ecd1.i Matrix: NONE
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col		RT	ZB35 Col		ZB-5 on col	ZB35 on col	RPD	Compound
	Shift	Response		Shift	Response				
11.124	0.001	841607	11.573	-0.003	954743	44.4268	46.4485	4.4	Pentachlorophenol
7.190	0.000	435261	7.260	-0.002	518978	41.3891	44.9202	8.2	2,4,6-Trichlorophenol
7.544	0.004	441107	7.785	-0.002	509370	42.4186	45.1632	6.3	2,3,6-Trichlorophenol
8.140	0.003	225240	8.511	-0.009	260911	42.8525	44.2164	3.1	2,4,5-Trichlorophenol
8.684	0.003	292192	9.271	-0.009	343721	39.2987	44.0264	11.3	2,3,4-Trichlorophenol
8.913	0.001	696892	9.179	-0.005	790093	43.8904	46.5091	5.8	2,3,5,6-Tetrachlorophenol
10.304	0.002	523702	11.017	-0.006	597151	42.6204	45.6492	6.9	2,3,4,5-Tetrachlorophenol
6.821	0.004	224635	7.088	-0.003	239032	486.4561	408.8435	17.3	2,4-Dichlorophenol
9.901	0.002	684881	10.541	-0.005	802969	45.6	48.1	5.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	182.3	192.3

