Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem2/fid9.i/20091217.B/1217A007.D
Method: /chem2/fid9.i/20091217.B/ftphfid9a.m
Instrument: fid9.i
Operator: MS
Report Date: 12/18/2009
Macro: 10-DEC-2009
Calibration Dates: Gas:01-OCT-2009 Diesel:10-DEC-2009 M.Oil:10-DEC-2009

ARI ID: QB53LCSW1
Client ID: QB53LCSW1
Injection: 17-DEC-2009 15:26
Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.791	-0.001	2779	3410	GAS (Tol-C12)	2532329	196
C8	1.989	0.013	4006	4114	DIESEL (C12-C24)	20749536	1134
C10	2.615	0.012	17583	13287	M.OIL (C24-C38)	357611	26
C12	3.191	-0.008	230072	181232	AK-102 (C10-C25)	22777858	1063
C14	3.725	-0.003	496154	290206	AK-103 (C25-C36)	276076	29
C16	4.201	0.001	1012079	743373	OR.DIES (C10-C28)	22964911	1533
C18	4.671	0.006	759512	588755	OR.MOIL (C28-C40)	102365	15
C20	5.212	0.006	479242	404801			
C22	5.687	0.004	257621	199799			
C24	6.092	0.001	85345	60271			
C25	6.275	-0.003	38012	43491			
C26	6.447	-0.003	16568	12972			
C28	6.766	-0.002	3009	2983			
C32	7.359	0.000	2800	2235			
C34	7.700	0.000	380	439	CREOSOT (C12-C22)	19939464	4780
Filter Peak	9.144	-0.002	86	40			
C36	8.097	-0.026	49383	52355			
C38	8.663	-0.002	314	249			
C40	9.387	0.004	79	54			
o-terph	4.898	0.003	1155907	849966	JET-A (C10-C18)	16001907	939
Triacon Surr	7.074	0.003	1330777	936969			

Range Times: NW Diesel(3.199 - 6.091) AK102(2.60 - 6.28) Jet A(2.60 - 4.66)
NW M.Oil(6.09 - 8.66) AK103(6.28 - 8.12) OR Diesel(2.60 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	849966	33.7	75.0
Triacontane	936969	35.4	78.7

Analyte	RF	Curve Date
o-Terph Surr	25193.6	10-DEC-2009
Triacon Surr	26454.2	11-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	18303.2	10-DEC-2009
Motor Oil	13915.4	10-DEC-2009
AK102	21427.7	10-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

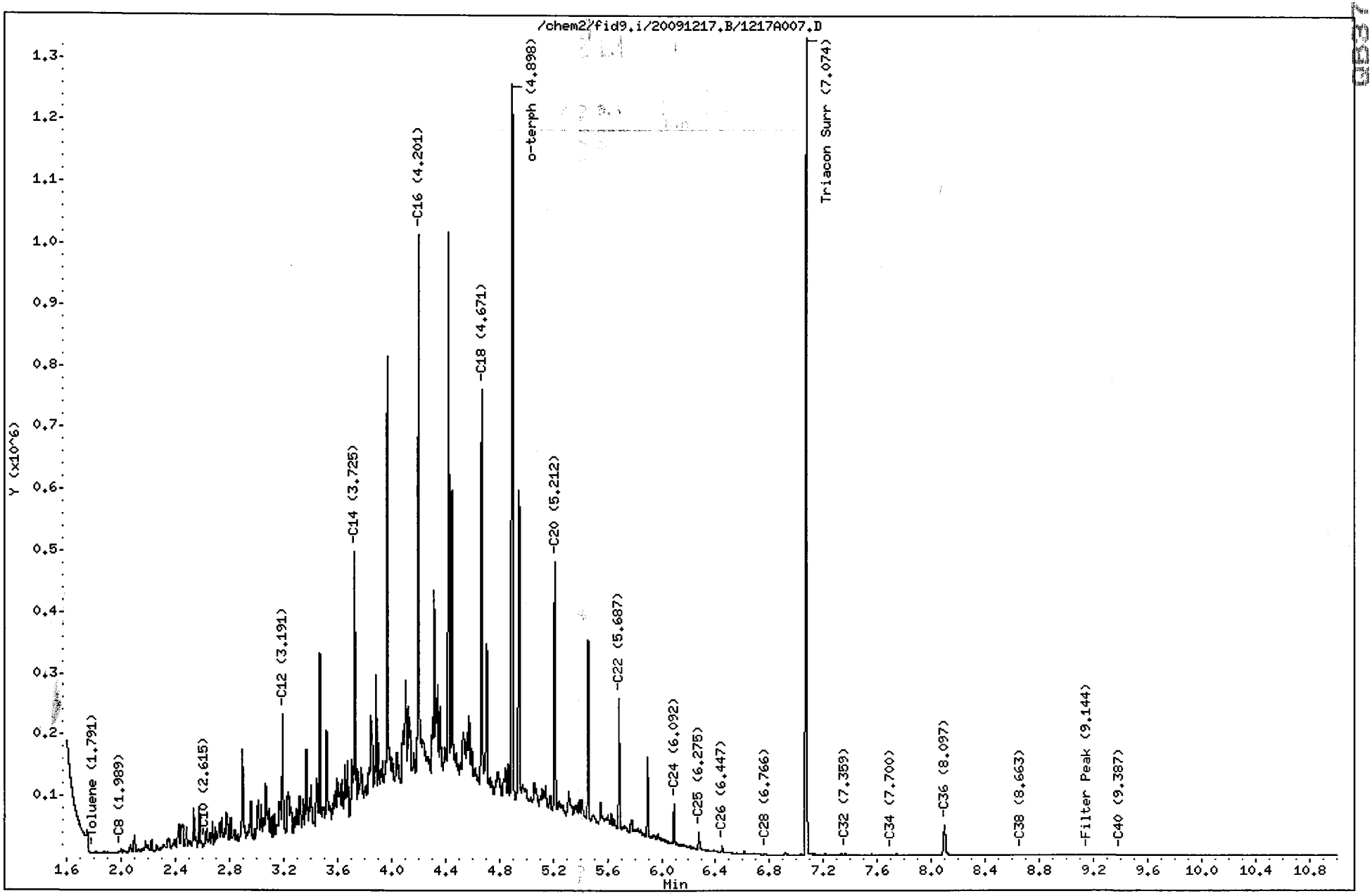
Data File: /chem2/fid9.i/20091217.B/1217A007.D
Date : 17-DEC-2009 15:26
Client ID: QB53LCSW1
Sample Info: QB53LCSW1

Column phase: RTX-1

Instrument: fid9.i

Operator: MS
Column diameter: 0.25

QB53-052217



MS 12/18/09

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem2/fid9.i/20091217.B/1217A008.D
Method: /chem2/fid9.i/20091217.B/ftphfid9a.m
Instrument: fid9.i
Operator: MS
Report Date: 12/18/2009
Macro: 10-DEC-2009
Calibration Dates: Gas:01-OCT-2009 Diesel:10-DEC-2009 M.Oil:10-DEC-2009

ARI ID: QB53LCSDW1
Client ID: QB53LCSDW1
Injection: 17-DEC-2009 15:45

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.789	-0.003	2941	3483	GAS (Tol-C12)	2433406	188
C8	2.001	0.025	8801	12477	DIESEL (C12-C24)	19426829	1061
C10	2.615	0.012	17105	12833	M.OIL (C24-C38)	317665	23
C12	3.191	-0.009	220472	173843	AK-102 (C10-C25)	21348248	996
C14	3.725	-0.003	460314	278011	AK-103 (C25-C36)	232650	25
C16	4.202	0.002	924109	665997	OR.DIES (C10-C28)	21501316	1435
C18	4.671	0.006	686240	560062	OR.MOIL (C28-C40)	92437	13
C20	5.212	0.006	455667	379989			
C22	5.685	0.003	234206	175410			
C24	6.091	0.000	79443	54532			
C25	6.275	-0.003	34331	47480			
C26	6.447	-0.003	15056	11716			
C28	6.768	0.000	2449	2375			
C32	7.366	0.007	2298	1768			
C34	7.705	0.005	221	213	CREOSOT (C12-C22)	18664538	4474
Filter Peak	9.145	-0.001	71	25			
C36	8.106	-0.016	49034	52441			
C38	8.663	-0.002	209	79			
C40	9.384	0.001	73	30			
o-terph	4.897	0.003	1096947	777454	JET-A (C10-C18)	14985256	880
Triacon Surr	7.079	0.009	1204662	859206			

Range Times: NW Diesel(3.199 - 6.091) AK102(2.60 - 6.28) Jet A(2.60 - 4.66)
NW M.Oil(6.09 - 8.66) AK103(6.28 - 8.12) OR Diesel(2.60 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	777454	30.9	68.6
Triacontane	859206	32.5	72.2

Analyte	RF	Curve Date
o-Terph Surr	25193.6	10-DEC-2009
Triacon Surr	26454.2	11-DEC-2009
Gas	12943.2	01-OCT-2009
Diesel	18303.2	10-DEC-2009
Motor Oil	13915.4	10-DEC-2009
AK102	21427.7	10-DEC-2009
AK103	9457.0	10-DEC-2009
JetA	17037.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4171.8	22-AUG-2009

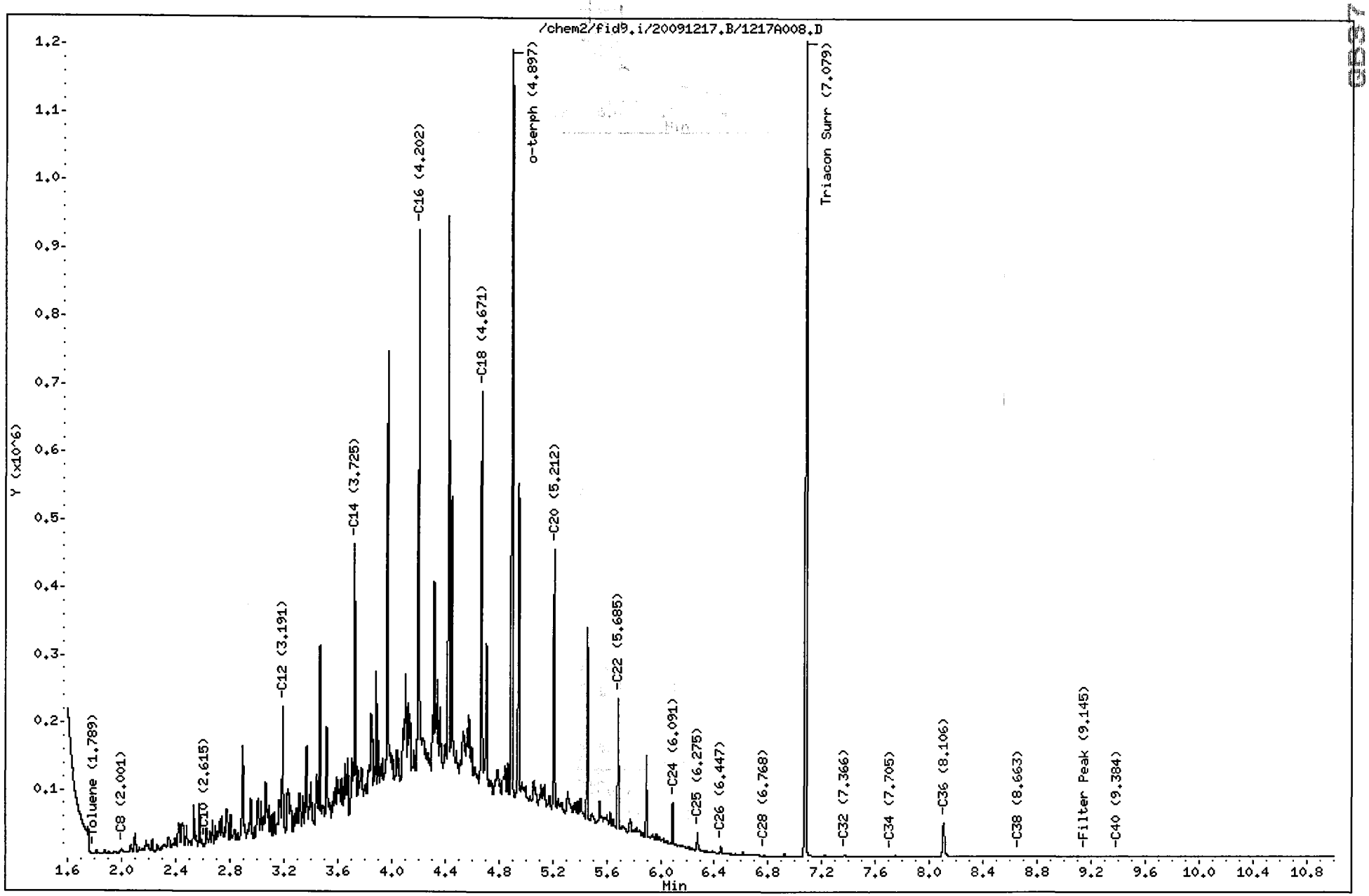
Data File: /chem2/fid9.i/20091217.B/1217A008.D
Date : 17-DEC-2009 15:45
Client ID: QB53LCSDW1
Sample Info: QB53LCSDW1

Column phase: RTX-1

Instrument: fid9.i

Operator: MS
Column diameter: 0.25

GC87:05223



TPHD Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd/Snider

Project: LORA LAKE APARTMENTS, POS-LLA

ARI JOB NO: QB37

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

(NWTPHD) / NWHCID –Water

Separatory Funnel (3510C) (SOP # 308S)

Preparation Test (TPHD)/HCID # 1 In-House

ARI Job No(s) QB53, QB37 Batch set up by: TH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	DryVap Or KD (No drying column)	Turbo Vap (1) 2 3	Acid/Silica Clean (1:1) (Y) N	Final Effective Volume	Volume to Lab	Comments
	QB53 MBW	Date 12/16/09	500mL			1mL	1mL	1mL	
	SBW	↓	↓			↓	↓	↓	
	SBW Dup.	↓	↓			↓	↓	↓	
6	H	Verified	500mL						
4	QB37 A								
	B								
↓	C	↓	↓	↓	↓	↓	↓	↓	
					CJZ				
Analyst/Date:	PD 12-16-09			RR 12/16/09	12/16/09				

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	**O_2**	**100µL**	7/2/10	PD	SP
Spike	**11**	**100µL**	9/7/10	PD	SP
Extraction Time:	0955				

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. 9. Archive (Y) N Both jobs

3014F

Revision 11

QB37 : 09062009

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: QB37 Client ID: Floyd/Snider

Parameter: TPHD w/Acid Client Project: Lora Lake Apartments

SOP Number(s): 3585 No Anomalies:

List problems, concerns, corrective actions and any other pertinent information
Sample A is black and turbid, B is gray and turbid, C has a light tan color, an emulsion formed on A, B, C, used centerfuge to break up. PD 12-16-09

Analyst Initials:	PD	Date:	12-16-09

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: QB37 Client ID: Floyd/ Shidler

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

Parameter(s): Diesel, Moil, oTeph.

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 (FID9)
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/07/05 Analysis Start: 12/17/05

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

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

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

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

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

Additional Details on Reverse: Yes (No)

Analyst Signature: [signature] Date: 12/18/05

Reviewer's Signature: [signature] Date: 12.19.2005

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 7, 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: QB72

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 QB72

SD/co

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody
Documentation

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

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: 0972	Turn-around Requested: Standard
ARI Client Company: Floyd / Snider	Phone: 206-292-2078
Client Contact: Jessi Massingale / Matt Woltman	
Client Project Name: Lora Lake Apts.	
Client Project #: POS-LLA	Samplers: D. Metallo, C. Nickerson, B. Kwasnowski

Date: 12-16-09
Page: 1 of 1
No. of Coolers: 2 Cooler Temps: 2.9, 1.2

Sample ID	Date	Time	Matrix	No. Containers	PAH 8270D-SIM low level	PCP 8041	Arsenic TotaDiss 200.8	Dioxin / Furans 1613	TSS SM2540D				Notes/Comments
CB31A121509COMP	12.15.09	0235	W	1	X	X	X	X	X				Storm Lab meas'ed pH (see attached sheet) 6.73
CB4857121509COMP	12.15.09	0335	W	1	X	X	X	X	X				6.67
CB1121409COMP	12.14.09	2345	W	1	X	X	X	X	X				6.73

Comments/Special Instructions
- See pH Measurements in comments

	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
Printed Name:	Brad Kwasnowski	Jonathon Walter		
Company:	Tamon Associates	ARI		
Date & Time:	12/16/09 @ 15:10	12/16/09 1510		

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.

0972 : 09052

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Floyd Snider
Project Name: Lora Lakes
COC No(s): _____ (NA)
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Assigned ARI Job No: QB72
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)	2.9 1.2 ___ ___ ___ ___	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	90941619

Cooler Accepted by: JW Date: 12/16/09 Time: 1510

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)		

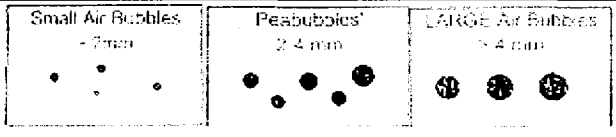
Samples Logged by: AV Date: 12/17/09 Time: 851

***** 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"

QB72 : 00004

PRESERVATION VERIFICATION 12/17/09
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **QB72**

Inquiry Number: NONE
Analysis Requested: 12/17/09
Contact: Massingale, Jessi
Client: Floyd-Snider
Logged by: AV
Sample Set Used: Yes-481
Validatable Package: ~~No~~ Yes
Deliverables:

PC: Sue D.
VTSR: 12/16/09

Project #: POS-LLA
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	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
09-30991 QB72A	CB31A121509COMP						DIS *									Y						
09-30992 QB72B	CB4857121509COMP						DIS *									Y						
09-30993 QB72C	CB1121409COMP						DIS *									Y						
09-30994 QB72D	CB31A121509COMP						TOT															
09-30995 QB72E	CB4857121509COMP						TOT															
09-30996 QB72F	CB1121409COMP						TOT															

* DIS. = ~~filter into preserved~~
filtered into preserved bottles and del. by Conventionals

QB72 09995

Checked By AV Date 12/17/09

Case Narrative

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

Case Narrative

Client: Floyd Snider
Project: Lora Lake Apartments, POS-LLA
Matrix: Water
ARI Job No.: QB72

Sample receipt

Analytical Resources, Inc. (ARI) accepted three water samples on December 16, 2009 under ARI job QB72. The cooler temperatures measured by IR thermometer following ARI SOP were 1.2 and 2.9°C. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

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

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.

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 and LCSD percent recoveries were within control limits.

Pentachlorophenol by SW8041

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 and LCSD percent recoveries were within control limits.

Total and Dissolved Arsenic by 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.

Total Suspended Solids by EPA 160.2

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 control limits.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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 ≥ 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

QB72:00009

Data Reporting Qualifiers

Effective 7/10/2009

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥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

QB72 : 00010

LCS SOLUTIONS

12/02/09

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1677-2	PCB 1660	20	ACETONE	09/01/10
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1620-4	PEST	02/04/20	ACETONE	06/26/10
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1655-3	PCP	12.5/125	ACETONE	09/24/10
7	1677-3	ABN	100	ACETONE	07/01/10
8	1681-4	TBT	2.5	MECL2	12/01/10
9	1682-2	PORE TBT	.125/.25	MECL2	12/01/10
10	1621-4	ABN ACID	100/200	MEOH	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1622-2	ABN BASE	200	ACETONE	02/05/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15*	1591-3	SIM PNA	15/75	MEOH	08/28/10
16	1602-3	DIOXANE	100	MEOH	03/20/10
17	1644-1	1248 PCB	10	ACETONE	09/10/10
18*	1591-4	LOW SIM PNA	1.5	ACETONE	08/28/10
19	1574-4	AK103	7500	MECL2	12/02/09
20	1572-2	PNA	100	ACETONE	12/26/09
21	1593-3	SKY/BHT	100	MEOH	03/31/10
22	1675-1	HERB	12.5/12500	MEOH	02/19/10
23*	1505-1	LW ABN BASE	20	MEOH	03/20/10
24	1613-2	LOW ABN	10	ACETONE	02/28/10
25#	1481-1	DIPHENYL	100	MEOH	NA
26*	1545-2	OP-PEST	25	MEOH	02/16/10
27	1668-3	STEROLS	200	MEOH	10/30/10
28#	1595-1	ADD. PEST	4	ACETONE	NA
29#	1496-3	DECANES	100	MEOH	NA
30	1620-1	EDB/DBCP	0.2	MEOH	06/22/10
31	1596-1	TERPINEOL	100	MEOH	04/03/10

QB72:00011

LCS SOLUTIONS

12/02/09

32	1619-3	GUAIACOL	50-200	ACETONE	04/30/10
33	1639-3	RETENE	100	MEOH	09/03/10
34	1633-1	CONGENERS	2.5	ACETONE	08/11/10
35	1674-3	ALKYL PNA A	10	MEOH	10/28/10
36	1601-3	ALKYL PNA B	10	MEOH	05/13/10
50	1617-1	FULL RESIN	250	ACETONE	06/17/10
51	1611-3	DDTS	2.5	ACETONE	06/04/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
	*=REVERIFIED SOLUTION				
	#=PROJECT SPECIFIC SOLUTION				

QB72:00012

SURR SOLUTIONS

12/02/2009

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1662-3	ABN	100/150	MEOH	10/08/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C*	1559-1	SIM ABN	25/37.5	MEOH	03/13/10
D	1635-2	LOW PCB	0.2	ACETONE	05/29/10
E	1661-2	HERB	62.5	MEOH	10/02/10
F	1574-3	PCP	12.5	ACETONE	01/06/10
G*	1534-1	1,4DIOXANE	100	MEOH	02/20/10
H	1594-1	OP-PEST	25	MEOH	04/01/10
I	1634-1	LOW S. PNA	1.5	MEOH	08/12/10
J	1681-2	TBT-PORE	0.125	MECL2	12/01/10
K	1612-1	MED PCB	20	ACETONE	05/29/10
L	1681-1	TBT	2.5	MECL2	12/01/10
M	1578-1	EPH	1500	MECL2	12/09/09
N	1612-2	PCB	2	ACETONE	05/29/10
O	1647-2	TPH	450	MECL2	07/02/10
P	1666-3	HCID	2250	MECL2	05/06/10
Q	1620-2	EDB	1	MEOH	06/22/10
R	1615-1	RESIN ACID	250	ACETONE	06/17/10
S#	1568-5	PBDE	.25	MEOH	NA
T	1674-2	ALKYL PNA	10	MEOH	07/30/10
U	1633-1	CONGENER	2.5	ACETONE	08/11/10
V					
*reverified solution					
#project specific					
Y					
Z					

QB72:00013

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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
Acenapthene	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.

QB72:0014

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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

	ARI's Calculated Control Limits	
Sample Matrix:	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.

QB72:00015

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%

QB72:00016

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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%

QB72 : 00017

Data Summary Package

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

SIM SEMIVOLATILE ANALYSIS

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS **Sample ID: CB31A121509COMP**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted: 12/17/09
Date Analyzed: 12/28/09 12:55
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**	**0.052**
91-57-6	**2-Methylnaphthalene**	**0.010**	**0.034**
90-12-0	**1-Methylnaphthalene**	**0.010**	**0.018**
208-96-8	**Acenaphthylene**	**0.010**	**0.013**
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	**Fluorene**	**0.010**	**0.015**
85-01-8	**Phenanthrene**	**0.010**	**0.12**
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	**Fluoranthene**	**0.010**	**0.13**
129-00-0	**Pyrene**	**0.010**	**0.14**
56-55-3	**Benzo(a)anthracene**	**0.010**	**0.027**
218-01-9	**Chrysene**	**0.010**	**0.074**
205-99-2	**Benzo(b)fluoranthene**	**0.010**	**0.048**
207-08-9	**Benzo(k)fluoranthene**	**0.010**	**0.030**
50-32-8	**Benzo(a)pyrene**	**0.010**	**0.036**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**0.010**	**0.030**
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	**Benzo(g,h,i)perylene**	**0.010**	**0.066**
132-64-9	**Dibenzofuran**	**0.010**	**0.010**

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	70.3%
d14-Dibenzo(a,h)anthracene	50.7%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB4857121509COMP
SAMPLE

Lab Sample ID: QB72B
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted: 12/17/09
Date Analyzed: 12/28/09 13:19
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**	**0.048**
91-57-6	**2-Methylnaphthalene**	**0.010**	**0.032**
90-12-0	**1-Methylnaphthalene**	**0.010**	**0.016**
208-96-8	**Acenaphthylene**	**0.010**	**0.012**
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	**Fluorene**	**0.010**	**0.012**
85-01-8	**Phenanthrene**	**0.010**	**0.10**
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	**Fluoranthene**	**0.010**	**0.11**
129-00-0	**Pyrene**	**0.010**	**0.13**
56-55-3	**Benzo(a)anthracene**	**0.010**	**0.025**
218-01-9	**Chrysene**	**0.010**	**0.073**
205-99-2	**Benzo(b)fluoranthene**	**0.010**	**0.048**
207-08-9	**Benzo(k)fluoranthene**	**0.010**	**0.029**
50-32-8	**Benzo(a)pyrene**	**0.010**	**0.032**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**0.010**	**0.027**
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	**Benzo(g,h,i)perylene**	**0.010**	**0.063**
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	71.7%
d14-Dibenzo(a,h)anthracene	57.3%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB1121409COMP
SAMPLE

Lab Sample ID: QB72C
LIMS ID: 09-30993
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Date Extracted: 12/17/09
Date Analyzed: 12/28/09 13:44
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**	**0.026**
91-57-6	**2-Methylnaphthalene**	**0.010**	**0.010**
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**
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	68.3%
d14-Dibenzo(a,h)anthracene	68.3%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA

Client ID	MNP	DBA	TOT OUT
MB-121709	78.7%	77.0%	0
LCS-121709	80.0%	92.0%	0
LCSD-121709	69.7%	88.7%	0
CB31A121509COMP	70.3%	50.7%	0
CB4857121509COMP	71.7%	57.3%	0
CB1121409COMP	68.3%	68.3%	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: 09-30991 to 09-30993

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-121709
LAB CONTROL SAMPLE

Lab Sample ID: LCS-121709
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 12/17/09

Date Analyzed LCS: 12/28/09 12:06
LCSD: 12/28/09 12:30
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	0.213	0.300	71.0%	0.196	0.300	65.3%	8.3%
2-Methylnaphthalene	0.221	0.300	73.7%	0.199	0.300	66.3%	10.5%
1-Methylnaphthalene	0.208	0.300	69.3%	0.195	0.300	65.0%	6.5%
Acenaphthylene	0.193	0.300	64.3%	0.183	0.300	61.0%	5.3%
Acenaphthene	0.226	0.300	75.3%	0.216	0.300	72.0%	4.5%
Fluorene	0.250	0.300	83.3%	0.243	0.300	81.0%	2.8%
Phenanthrene	0.292	0.300	97.3%	0.281	0.300	93.7%	3.8%
Anthracene	0.208	0.300	69.3%	0.216	0.300	72.0%	3.8%
Fluoranthene	0.258	0.300	86.0%	0.258	0.300	86.0%	0.0%
Pyrene	0.247	0.300	82.3%	0.245	0.300	81.7%	0.8%
Benzo(a)anthracene	0.240	0.300	80.0%	0.232	0.300	77.3%	3.4%
Chrysene	0.291	0.300	97.0%	0.287	0.300	95.7%	1.4%
Benzo(b)fluoranthene	0.266	0.300	88.7%	0.262	0.300	87.3%	1.5%
Benzo(k)fluoranthene	0.270	0.300	90.0%	0.270	0.300	90.0%	0.0%
Benzo(a)pyrene	0.170	0.300	56.7%	0.172	0.300	57.3%	1.2%
Indeno(1,2,3-cd)pyrene	0.234	0.300	78.0%	0.240	0.300	80.0%	2.5%
Dibenz(a,h)anthracene	0.268	0.300	89.3%	0.266	0.300	88.7%	0.7%
Benzo(g,h,i)perylene	0.226	0.300	75.3%	0.227	0.300	75.7%	0.4%
Dibenzofuran	0.263	0.300	87.7%	0.255	0.300	85.0%	3.1%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
d10-2-Methylnaphthalene	80.0%	69.7%
d14-Dibenzo(a,h)anthracene	92.0%	88.7%

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QB72MBW1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD-SNIDER

ARI Job No: QB72

Project: LORA LAKE APTS.

Lab File ID: 122801

Date Extracted: 12/17/09

Instrument ID: NT2

Date Analyzed: 12/28/09

Matrix: LIQUID

Time Analyzed: 1141

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	QB72LCSW1	QB72LCSW1	122802	12/28/09
02	QB72LCSDW1	QB72LCSDW1	122803	12/28/09
03	CB31A121509COMP	QB72A	122804	12/28/09
04	CB4857121509COMP	QB72B	122805	12/28/09
05	CB1121409COMP	QB72C	122806	12/28/09
06				
07				
08				
09				
10				
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12				
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30				

COMMENTS:

FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MB-121709
METHOD BLANK

Lab Sample ID: MB-121709
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Extracted: 12/17/09
Date Analyzed: 12/28/09 11:41
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	78.7%
d14-Dibenzo(a,h)anthracene	77.0%

PCP/CHLOROPHENOLS ANALYSIS

QB72 : 00027

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB31A121509COMP
SAMPLE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted: 12/18/09
Date Analyzed: 12/29/09 20:41
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**	**0.82**

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	85.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB4857121509COMP
SAMPLE

Lab Sample ID: QB72B
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted: 12/18/09
Date Analyzed: 12/29/09 21:00
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	80.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB1121409COMP
SAMPLE

Lab Sample ID: QB72C
LIMS ID: 09-30993
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Date Extracted: 12/18/09
Date Analyzed: 12/29/09 21:20
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	73.2%

QB72:00030

ANALYTICAL RESOURCES INCORPORATED

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA

Client ID	TBP	TOT OUT
MB-121809	82.8%	0
LCS-121809	69.0%	0
LCSD-121809	70.8%	0
CB31A121509COMP	85.2%	0
CB4857121509COMP	80.0%	0
CB1121409COMP	73.2%	0

	LCS/MB LIMITS	QC LIMITS
(TBP) = 2,4,6-Tribromophenol	(40-130)	(11-156)

Prep Method: SW3510C
Log Number Range: 09-30991 to 09-30993

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-121809
LCS/LCSD

Lab Sample ID: LCS-121809
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted LCS/LCSD: 12/18/09

Date Analyzed LCS: 12/29/09 20:01
LCSD: 12/29/09 20:21
Instrument/Analyst LCS: ECD1/AAR
LCSD: ECD1/AAR

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Pentachlorophenol	1.86	2.50	74.4%	1.90	2.50	76.0%	2.1%

Chlorophenols Surrogate Recovery

	LCS	LCSD
2,4,6-Tribromophenol	69.0%	70.8%

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

CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QB72MBW1

Lab Name: ANALYTICAL RESOURCES, INC
Client: FLOYD-SNIDER

ARI Job No.: QB72
Project: LORA LAKE APTS.

Lab Sample ID: QB72MBW1
Lab File ID: 1229A005

Matrix (soil/water) LIQUID
Extraction:(SepF/Cont/Sonc) SW3510C

Sulfur Cleanup (Y/N) Y
Date Extracted: 12/18/09

Date Analyzed (1): 12/29/09
Date Analyzed (2): 12/29/09

Time Analyzed (1): 1941
Time Analyzed (2): 1941

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	QB72LCSW1	QB72LCSW1	12/29/09	12/29/09
02	QB72LCSDW1	QB72LCSDW1	12/29/09	12/29/09
03	CB31A121509C	QB72A	12/29/09	12/29/09
04	CB4857121509	QB72B	12/29/09	12/29/09
05	CB1121409COM	QB72C	12/29/09	12/29/09

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041

Sample ID: MB-121809
METHOD BLANK

Lab Sample ID: MB-121809
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

Date Extracted: 12/18/09
Date Analyzed: 12/29/09 19:41
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	82.8%

METALS ANALYSIS

QB72 : 00035

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB31A121509COMP
SAMPLE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/28/09	7440-38-2	Arsenic	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

FORM-I

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB4857121509COMP
SAMPLE

Lab Sample ID: QB72B
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/29/09	**7440-38-2**	**Arsenic**	0.2	**0.5**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB1121409COMP
SAMPLE

Lab Sample ID: QB72C
LIMS ID: 09-30993
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/29/09	**7440-38-2**	**Arsenic**	0.2	**0.3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB31A121509COMP
MATRIX SPIKE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.500 U	26.7	25.0	107%	

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%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB31A121509COMP DUPLICATE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS **Sample ID: LAB CONTROL**

Lab Sample ID: QB72LCS
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

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

Reported in µg/L

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QB72MB
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/28/09	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB31A121509COMP
SAMPLE

Lab Sample ID: QB72D
LIMS ID: 09-30994
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/28/09	**7440-38-2**	**Arsenic**	0.2	**1.1**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB4857121509COMP
SAMPLE

Lab Sample ID: QB72E
LIMS ID: 09-30995
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/29/09	**7440-38-2**	**Arsenic**	0.2	**1.0**	

U-Analyte undetected at given RL
RL-Reporting Limit

QB72:00044

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB1121409COMP
SAMPLE

Lab Sample ID: QB72F
LIMS ID: 09-30996
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/29/09	**7440-38-2**	**Arsenic**	0.2	**0.4**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB31A121509COMP
MATRIX SPIKE

Lab Sample ID: QB72D
LIMS ID: 09-30994
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	1.09	26.5	25.0	102%	

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%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB31A121509COMP
DUPLICATE

Lab Sample ID: QB72D
LIMS ID: 09-30994
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	1.1	1.1	0.0%	+/- 20%	

Reported in µg/L

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QB72LCS
LIMS ID: 09-30995
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.4	25.0	102%	

Reported in µg/L

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: QB72MB
LIMS ID: 09-30995
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/28/09	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

GENERAL CHEMISTRY ANALYSIS

QB72 : 00050

SAMPLE RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/28/09

Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Client ID: CB31A121509COMP
ARI ID: 09-30991 QB72A

Analyte	Date Batch	Method	Units	RL	Sample
Total Suspended Solids	12/18/09 121809#1	EPA 160.2	mg/L	2.6	43.9

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/28/09

Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Client ID: CB4857121509COMP
ARI ID: 09-30992 QB72B

Analyte	Date Batch	Method	Units	RL	Sample
Total Suspended Solids	12/18/09 121809#1	EPA 160.2	mg/L	2.5	36.5

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/28/09

Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Client ID: CB1121409COMP
ARI ID: 09-30993 QB72C

Analyte	Date Batch	Method	Units	RL	Sample
Total Suspended Solids	12/18/09 121809#1	EPA 160.2	mg/L	3.3	4.3

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: MR
Reported: 12/28/09

Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QB72A Client ID: CB31A121509COMP						
Total Suspended Solids	EPA 160.2	12/18/09	mg/L	43.9	46.1	4.9%

LAB CONTROL RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: MP
Reported: 12/28/09

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

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Suspended Solids EPA 160.2	ICVL	12/18/09	mg/L	49.5	50.0	99.0%

METHOD BLANK RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/28/09

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

Analyte	Method	Date	Units	Blank	ID
Total Suspended Solids	EPA 160.2	12/18/09	mg/L	< 1.0 U	

SUBCONTRACTED ANALYSIS

QB72 : 00057

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **5881**

Received on: **12/18/2009** Project Due: **01/13/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5881-001-SA	0	QB72	CB31A121509COMP	EPA 1613 D/F	Aqueous	12/15/2009	02:35 am	12/15/2010
5881-002-SA	0	QB72	CB4857121509COMP	EPA 1613 D/F	Aqueous	12/15/2009	03:35 am	12/15/2010
5881-003-SA	0	QB72	CB1121409COMP	EPA 1613 D/F	Aqueous	12/14/2009	11:45 pm	12/14/2010

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QB72 : 00058

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.670		-	0.320				
1,2,3,7,8-PeCDD	ND	1.01		-	0.491				
1,2,3,4,7,8-HxCDD	ND	1.38		-	0.483				
1,2,3,6,7,8-HxCDD	ND	1.73		-	0.665	Total TCDD	ND	0.670	
1,2,3,7,8,9-HxCDD	ND	1.54		-	0.650	Total PeCDD	ND	1.01	
1,2,3,4,6,7,8-HpCDD	ND	2.64		-	0.985	Total HxCDD	ND	1.73	
OCDD	ND	7.13		-	1.93	Total HpCDD	ND	2.64	
2,3,7,8-TCDF	ND	0.457		-	0.305				
1,2,3,7,8-PeCDF	ND	0.715		-	0.340				
2,3,4,7,8-PeCDF	ND	0.764		-	0.441				
1,2,3,4,7,8-HxCDF	ND	1.52		-	0.317				
1,2,3,6,7,8-HxCDF	ND	1.48		-	0.346				
2,3,4,6,7,8-HxCDF	ND	1.54		-	0.292				
1,2,3,7,8,9-HxCDF	ND	1.89		-	0.474	Total TCDF	ND	0.457	
1,2,3,4,6,7,8-HpCDF	ND	1.61		-	0.497	Total PeCDF	ND	0.764	
1,2,3,4,7,8,9-HpCDF	ND	1.91		-	0.587	Total HxCDF	ND	1.89	
OCDF	ND	4.47		-	1.32	Total HpCDF	ND	1.91	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	67.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	79.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	79.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	77.3	23.0 - 140	
13C-OCDD	76.3	17.0 - 157	
13C-2,3,7,8-TCDF	81.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	69.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	69.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	75.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	78.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	77.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	72.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	76.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	75.9	26.0 - 138	
13C-OCDF	70.4	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	94.1	35.0 - 197	

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

Analyst: _____
Date: 12/23/09

Reviewed By: DNJ
Date: 12/23/09

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QB72 : 00059

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: ng/ml

Acquired: 12-22-2009
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.55	6.70 - 15.8	
1,2,3,7,8-PeCDD	49.3	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	50.0	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	48.1	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	50.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.9	35.0 - 70.0	
OCDD	104	78.0 - 144	
2,3,7,8-TCDF	9.85	7.50 - 15.8	
1,2,3,7,8-PeCDF	53.7	40.0 - 67.0	
2,3,4,7,8-PeCDF	53.3	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	51.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	51.5	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	52.5	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50.9	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.9	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	51.7	39.0 - 69.0	
OCDF	106	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.8	20.0 - 175	
13C-1,2,3,7,8-PeCDD	65.2	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	74.7	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	74.4	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	71.7	26.0 - 166	
13C-OCDD	69.5	13.0 - 198	
13C-2,3,7,8-TCDF	85.3	22.0 - 152	
13C-1,2,3,7,8-PeCDF	64.8	21.0 - 192	
13C-2,3,4,7,8-PeCDF	66.3	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	70.7	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	73.8	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	73.4	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	68.7	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	70.5	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	70.4	20.0 - 186	
13C-OCDF	65.3	13.0 - 198	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	97.4	31.0 - 191

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

Analyst: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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QB72 : 00056

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-SA
Client ID: CB31A121509COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.042 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 18.7

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.674		-	0.320				
1,2,3,7,8-PeCDD	2.86	-	J	2.86	0.491				
1,2,3,4,7,8-HxCDD	5.16	-	J	0.516	0.483				
1,2,3,6,7,8-HxCDD	16.3	-	J	1.63	0.665	Total TCDD	ND	0.674	
1,2,3,7,8,9-HxCDD	9.82	-	J	0.982	0.650	Total PeCDD	7.65	-	J
1,2,3,4,6,7,8-HpCDD	515	-		5.15	0.985	Total HxCDD	77.9	-	
OCDD	4880	-		1.46	1.93	Total HpCDD	852	-	
2,3,7,8-TCDF	ND	0.530		-	0.305				
1,2,3,7,8-PeCDF	ND	0.997		-	0.340				
2,3,4,7,8-PeCDF	2.75	-	J	0.825	0.441				
1,2,3,4,7,8-HxCDF	19.1	-	J	1.91	0.317				
1,2,3,6,7,8-HxCDF	10.2	-	J	1.02	0.346				
2,3,4,6,7,8-HxCDF	7.78	-	J	0.778	0.292				
1,2,3,7,8,9-HxCDF	2.25	-	J	0.225	0.474	Total TCDF	25.5	-	D,M
1,2,3,4,6,7,8-HpCDF	111	-		1.11	0.497	Total PeCDF	70.6	-	D,M
1,2,3,4,7,8,9-HpCDF	10.9	-	J	0.109	0.587	Total HxCDF	280	-	D,M
OCDF	359	-		0.108	1.32	Total HpCDF	382	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.5	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	83.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	83.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	86.4	23.0 - 140	
13C-OCDD	88.6	17.0 - 157	
13C-2,3,7,8-TCDF	87.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	77.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	76.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	78.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	79.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	77.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	83.2	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	83.4	26.0 - 138	
13C-OCDF	80.7	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	98.1	35.0 - 197	

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

Analyst: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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QB72 : 00051

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-002-SA
Client ID: CB4857121509COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 14.7

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.697		-	0.320				
1,2,3,7,8-PeCDD	2.89	-	J	2.89	0.491				
1,2,3,4,7,8-HxCDD	4.59	-	J	0.459	0.483				
1,2,3,6,7,8-HxCDD	12.0	-	J	1.20	0.665	Total TCDD	ND	0.697	
1,2,3,7,8,9-HxCDD	8.43	-	J	0.843	0.650	Total PeCDD	5.29	-	J
1,2,3,4,6,7,8-HpCDD	363	-		3.63	0.985	Total HxCDD	63.9	-	
OCDD	3580	-		1.07	1.93	Total HpCDD	605	-	
2,3,7,8-TCDF	ND	0.621		-	0.305				
1,2,3,7,8-PeCDF	ND	0.887		-	0.340				
2,3,4,7,8-PeCDF	2.17	-	J	0.651	0.441				
1,2,3,4,7,8-HxCDF	14.5	-	J	1.45	0.317				
1,2,3,6,7,8-HxCDF	7.92	-	J	0.792	0.346				
2,3,4,6,7,8-HxCDF	5.36	-	J	0.536	0.292				
1,2,3,7,8,9-HxCDF	1.75	-	J	0.175	0.474	Total TCDF	19.6	-	D,M
1,2,3,4,6,7,8-HpCDF	89.0	-		0.890	0.497	Total PeCDF	52.8	-	D,M
1,2,3,4,7,8,9-HpCDF	8.29	-	J	0.0829	0.587	Total HxCDF	198	-	D,M
OCDF	234	-		0.0702	1.32	Total HpCDF	278	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	75.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	86.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	85.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	88.4	23.0 - 140	
13C-OCDD	83.9	17.0 - 157	
13C-2,3,7,8-TCDF	85.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	75.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	78.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	80.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	83.7	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	82.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.3	26.0 - 138	
13C-OCDF	77.1	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	89.3	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: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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QB72 : 00062

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-003-SA
Client ID: CB1121409COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.009 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 0.145

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.594		-	0.320				
1,2,3,7,8-PeCDD	ND	0.808		-	0.491				
1,2,3,4,7,8-HxCDD	ND	1.65		-	0.483				
1,2,3,6,7,8-HxCDD	ND	1.87		-	0.665	Total TCDD	ND	0.594	
1,2,3,7,8,9-HxCDD	ND	1.74		-	0.650	Total PeCDD	ND	0.808	
1,2,3,4,6,7,8-HpCDD	10.2	-	J	0.102	0.985	Total HxCDD	ND	1.87	
OCDD	56.9	-		0.0171	1.93	Total HpCDD	20.4	-	J
2,3,7,8-TCDF	ND	0.352		-	0.305				
1,2,3,7,8-PeCDF	ND	0.689		-	0.340				
2,3,4,7,8-PeCDF	ND	0.732		-	0.441				
1,2,3,4,7,8-HxCDF	ND	1.47		-	0.317				
1,2,3,6,7,8-HxCDF	ND	1.46		-	0.346				
2,3,4,6,7,8-HxCDF	ND	1.50		-	0.292				
1,2,3,7,8,9-HxCDF	ND	1.76		-	0.474	Total TCDF	ND	0.352	
1,2,3,4,6,7,8-HpCDF	2.56	-	J	0.0256	0.497	Total PeCDF	ND	0.732	
1,2,3,4,7,8,9-HpCDF	ND	0.746		-	0.587	Total HxCDF	ND	1.76	
OCDF	ND	3.84		-	1.32	Total HpCDF	4.95	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	79.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	87.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.4	23.0 - 140	
13C-OCDD	93.1	17.0 - 157	
13C-2,3,7,8-TCDF	89.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	77.3	24.0 - 185	
13C-2,3,4,7,8-PeCDF	79.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	83.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	82.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	84.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	83.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	86.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	89.5	26.0 - 138	
13C-OCDF	85.0	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	95.8	35.0 - 197

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

Analyst: _____
Date: 12/22/09

Reviewed By: DN
Date: 12/23/09

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QB72: 00063

Laboratory Data Package

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

SIM Semivolatile Analysis
QC Summary Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA

Client ID	MNP	DBA	TOT OUT
MB-121709	78.7%	77.0%	0
LCS-121709	80.0%	92.0%	0
LCSD-121709	69.7%	88.7%	0
CB31A121509COMP	70.3%	50.7%	0
CB4857121509COMP	71.7%	57.3%	0
CB1121409COMP	68.3%	68.3%	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: 09-30991 to 09-30993

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-121709
LAB CONTROL SAMPLE

Lab Sample ID: LCS-121709
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 12/17/09

Date Analyzed LCS: 12/28/09 12:06
LCSD: 12/28/09 12:30
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	0.213	0.300	71.0%	0.196	0.300	65.3%	8.3%
2-Methylnaphthalene	0.221	0.300	73.7%	0.199	0.300	66.3%	10.5%
1-Methylnaphthalene	0.208	0.300	69.3%	0.195	0.300	65.0%	6.5%
Acenaphthylene	0.193	0.300	64.3%	0.183	0.300	61.0%	5.3%
Acenaphthene	0.226	0.300	75.3%	0.216	0.300	72.0%	4.5%
Fluorene	0.250	0.300	83.3%	0.243	0.300	81.0%	2.8%
Phenanthrene	0.292	0.300	97.3%	0.281	0.300	93.7%	3.8%
Anthracene	0.208	0.300	69.3%	0.216	0.300	72.0%	3.8%
Fluoranthene	0.258	0.300	86.0%	0.258	0.300	86.0%	0.0%
Pyrene	0.247	0.300	82.3%	0.245	0.300	81.7%	0.8%
Benzo(a)anthracene	0.240	0.300	80.0%	0.232	0.300	77.3%	3.4%
Chrysene	0.291	0.300	97.0%	0.287	0.300	95.7%	1.4%
Benzo(b)fluoranthene	0.266	0.300	88.7%	0.262	0.300	87.3%	1.5%
Benzo(k)fluoranthene	0.270	0.300	90.0%	0.270	0.300	90.0%	0.0%
Benzo(a)pyrene	0.170	0.300	56.7%	0.172	0.300	57.3%	1.2%
Indeno(1,2,3-cd)pyrene	0.234	0.300	78.0%	0.240	0.300	80.0%	2.5%
Dibenz(a,h)anthracene	0.268	0.300	89.3%	0.266	0.300	88.7%	0.7%
Benzo(g,h,i)perylene	0.226	0.300	75.3%	0.227	0.300	75.7%	0.4%
Dibenzofuran	0.263	0.300	87.7%	0.255	0.300	85.0%	3.1%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
d10-2-Methylnaphthalene	80.0%	69.7%
d14-Dibenzo(a,h)anthracene	92.0%	88.7%

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QB72MBW1

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No: QB72 Project: LORA LAKE APTS.

Lab File ID: 122801 Date Extracted: 12/17/09

Instrument ID: NT2 Date Analyzed: 12/28/09

Matrix: LIQUID Time Analyzed: 1141

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	QB72LCSW1	QB72LCSW1	122802	12/28/09
02	QB72LCSDW1	QB72LCSDW1	122803	12/28/09
03	CB31A121509COMP	QB72A	122804	12/28/09
04	CB4857121509COMP	QB72B	122805	12/28/09
05	CB1121409COMP	QB72C	122806	12/28/09
06				
07				
08				
09				
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30				

COMMENTS:

FORM IV SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

Instrument ID: NT2 Project: LORA LAKE APTS.

DFTPP Injection Date: 10/21/09 DFTPP Injection Time: 1055

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	61.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	75.3
70	Less than 2.0% of mass 69	0.2 (0.2)1
127	25.0 - 75.0% of mass 198	61.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	20.6
365	Greater than 0.75% of mass 198	3.13
441	Present, but less than mass 443	8.4
442	40.0 - 110.0% of mass 198	59.0
443	15.0 - 24.0% of mass 442	11.6 (19.6)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	IC102101	10/21/09	1137
02		PNA 1000	IC102102	10/21/09	1200
03		PNA 10	IC102103	10/21/09	1222
04		PNA 500	IC102104	10/21/09	1245
05		PNA 50	IC102105	10/21/09	1307
06		PNA 100	IC102106	10/21/09	1330
07					
08					
09					
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22					

FORM V SV

QB72:00069

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

Instrument ID: NT2 Project: LORA LAKE APTS.

DFTPP Injection Date: 12/28/09 DFTPP Injection Time: 1015

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	68.8
68	Less than 2.0% of mass 69	0.0 (0.1)1
69	Mass 69 relative abundance	85.6
70	Less than 2.0% of mass 69	0.4 (0.5)1
127	25.0 - 75.0% of mass 198	64.4
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	24.1
365	Greater than 0.75% of mass 198	3.75
441	Present, but less than mass 443	10.6
442	40.0 - 110.0% of mass 198	74.8
443	15.0 - 24.0% of mass 442	15.4 (20.5)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	CC1228	12/28/09	1114
02	QB72MBW1	QB72MBW1	122801	12/28/09	1141
03	QB72LCSW1	QB72LCSW1	122802	12/28/09	1206
04	QB72LCSDW1	QB72LCSDW1	122803	12/28/09	1230
05	CB31A121509COMP	QB72A	122804	12/28/09	1255
06	CB4857121509COMP	QB72B	122805	12/28/09	1319
07	CB1121409COMP	QB72C	122806	12/28/09	1344
08					
09					
10					
11					
12					
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19					
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21					
22					

FORM V SV

QB72:00070

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No: QB72 Project: LORA LAKE APTS.

Ical Midpoint ID: IC102101 Ical Date: 10/21/09

Instrument ID: NT2 Cont. Cal Date: 12/28/09

		IS1(NPT) AREA	#	RT	#	IS2(ANT) AREA	#	RT	#	IS3(PHN) AREA	#	RT	#
	ICAL MIDPT	173109		6.23		96677		8.42		147750		10.21	
	UPPER LIMIT	346218				193354				295500			
	LOWER LIMIT	86554				48338				73875			
	CCAL	240597		7.38		121450		9.60		179345		11.45	
	UPPER LIMIT			7.88				10.10				11.95	
	LOWER LIMIT			6.88				9.10				10.95	
01	QB72MBW1	191877		7.37		97185		9.59		140358		11.43	
02	QB72LCSW1	184419		7.38		94393		9.59		138026		11.43	
03	QB72LCSDW1	178940		7.36		92214		9.59		132800		11.43	
04	CB31A121509C	183511		7.36		94055		9.59		132710		11.43	
05	CB4857121509	180798		7.36		94425		9.59		133295		11.43	
06	CB1121409COM	181813		7.36		98259		9.59		141071		11.43	
07													
08													
09													
10													
11													
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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.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No: QB72 Project: LORA LAKE APTS.

Ical Midpoint ID: IC102101 Ical Date: 10/21/09

Instrument ID: NT2 Cont. Cal Date: 12/28/09

		IS4(CRY) AREA #	RT #	IS5(PRY) AREA #	RT #	AREA #	RT #
	ICAL MIDPT	135219	13.47	125815	15.11		
	UPPER LIMIT	270438		251630			
	LOWER LIMIT	67610		62908			
	CCAL	157552	14.74	124758	16.75		
	UPPER LIMIT		15.24		17.25		
	LOWER LIMIT		14.24		16.25		
01	QB72MBW1	107926	14.74	89647	16.75		
02	QB72LCSW1	105354	14.74	89406	16.75		
03	QB72LCSDW1	102151	14.74	88706	16.75		
04	CB31A121509C	103757	14.74	98432	16.75		
05	CB4857121509	103241	14.74	100768	16.75		
06	CB1121409COM	103509	14.74	94917	16.74		
07							
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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.

FORM VIII SV-2

SIM Semivolatile Analysis
Sample Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB31A121509COMP
SAMPLE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted: 12/17/09
Date Analyzed: 12/28/09 12:55
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**	**0.052**
91-57-6	**2-Methylnaphthalene**	**0.010**	**0.034**
90-12-0	**1-Methylnaphthalene**	**0.010**	**0.018**
208-96-8	**Acenaphthylene**	**0.010**	**0.013**
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	**Fluorene**	**0.010**	**0.015**
85-01-8	**Phenanthrene**	**0.010**	**0.12**
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	**Fluoranthene**	**0.010**	**0.13**
129-00-0	**Pyrene**	**0.010**	**0.14**
56-55-3	**Benzo(a)anthracene**	**0.010**	**0.027**
218-01-9	**Chrysene**	**0.010**	**0.074**
205-99-2	**Benzo(b)fluoranthene**	**0.010**	**0.048**
207-08-9	**Benzo(k)fluoranthene**	**0.010**	**0.030**
50-32-8	**Benzo(a)pyrene**	**0.010**	**0.036**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**0.010**	**0.030**
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	**Benzo(g,h,i)perylene**	**0.010**	**0.066**
132-64-9	**Dibenzofuran**	**0.010**	**0.010**

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	70.3%
d14-Dibenzo(a,h)anthracene	50.7%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20091228.b/122804.d
Lab Smp Id: QB72A Client Smp ID: CB31A121509COMP
Inj Date : 28-DEC-2009 12:55
Operator : VTS Inst ID: nt2.i
Smp Info : QB72A
Misc Info : 09-30991
Comment :
Method : /chem3/nt2.i/20091228.b/lowsim.m
Meth Date : 28-Dec-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 4
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	7.363	7.378	(1.000)	183511	200.000	
	5 Naphthalene	128	7.394	7.409	(1.004)	45903	51.9464	51.9
$	6 2-Methylnaphthalene-d10	152	8.225	8.225	(1.117)	99876	211.307	211(R)
	7 2-Methylnaphthalene	142	8.256	8.271	(1.121)	17639	34.2292	34.2
	8 1-Methylnaphthalene	142	8.394	8.409	(1.140)	9401	17.5277	17.5
	10 Acenaphthylene	152	9.393	9.406	(0.980)	9736	13.0803	13.1
*	11 Acenaphthene-d10	164	9.587	9.599	(1.000)	94055	200.000	
	12 Acenaphthene	153	9.625	9.625	(1.004)	2794	6.04909	6.05
	14 Dibenzofuran	168	9.831	9.831	(1.026)	6173	10.2585	10.3
	15 Fluorene	166	10.246	10.260	(1.069)	7284	14.6427	14.6
*	18 Phenanthrene-d10	188	11.430	11.445	(1.000)	132710	200.000	
	19 Phenanthrene	178	11.461	11.461	(1.003)	76833	116.480	116
	20 Anthracene	178	11.523	11.522	(1.008)	5635	8.36009	8.36
	24 Fluoranthene	202	12.937	12.936	(1.132)	90686	126.225	126
	25 Pyrene	202	13.222	13.221	(1.157)	104142	142.798	143

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	14.715	14.714	(0.998)	13806	26.6599	26.7
*	29 Chrysene-d12	240	14.737	14.736	(1.000)	103757	200.000	
	30 Chrysene	228	14.769	14.769	(1.002)	38059	74.4901	74.5
	32 Benzo(b)fluoranthene	252	16.142	16.141	(0.963)	27184	48.2033	48.2
	33 Benzo(k)fluoranthene	252	16.165	16.172	(0.965)	18618	30.4066	30.4(M)
	34 Benzo(a)pyrene	252	16.652	16.660	(0.994)	15955	36.1080	36.1
*	35 Perylene-d12	264	16.753	16.753	(1.000)	98432	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	18.860	18.860	(1.126)	15254	29.7901	29.8
$	36 Dibenzo(a,h)anthracene-d14	292	18.793	18.792	(1.122)	45394	152.146	152(R)
	38 Dibenzo(a,h)anthracene	278	18.860	18.873	(1.126)	3477	8.68134	8.68(M)
	39 Benzo(g,h,i)perylene	276	19.481	19.494	(1.163)	29035	65.7592	65.8

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt2.i
Lab File ID: 122804.d
Lab Smp Id: QB72A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30991

Calibration Date: 28-DEC-2009
Calibration Time: 11:14
Client Smp ID: CB31A121509COMP
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	183511	6.01
11 Acenaphthene-d10	96677	48338	193354	94055	-2.71
18 Phenanthrene-d10	147750	73875	295500	132710	-10.18
29 Chrysene-d12	135219	67610	270438	103757	-23.27
35 Perylene-d12	125815	62908	251630	98432	-21.76

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	7.38	6.88	7.88	7.36	-0.21
11 Acenaphthene-d10	9.60	9.10	10.10	9.59	-0.13
18 Phenanthrene-d10	11.45	10.95	11.95	11.43	-0.13
29 Chrysene-d12	14.74	14.24	15.24	14.74	0.01
35 Perylene-d12	16.75	16.25	17.25	16.75	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: QB72A
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30991

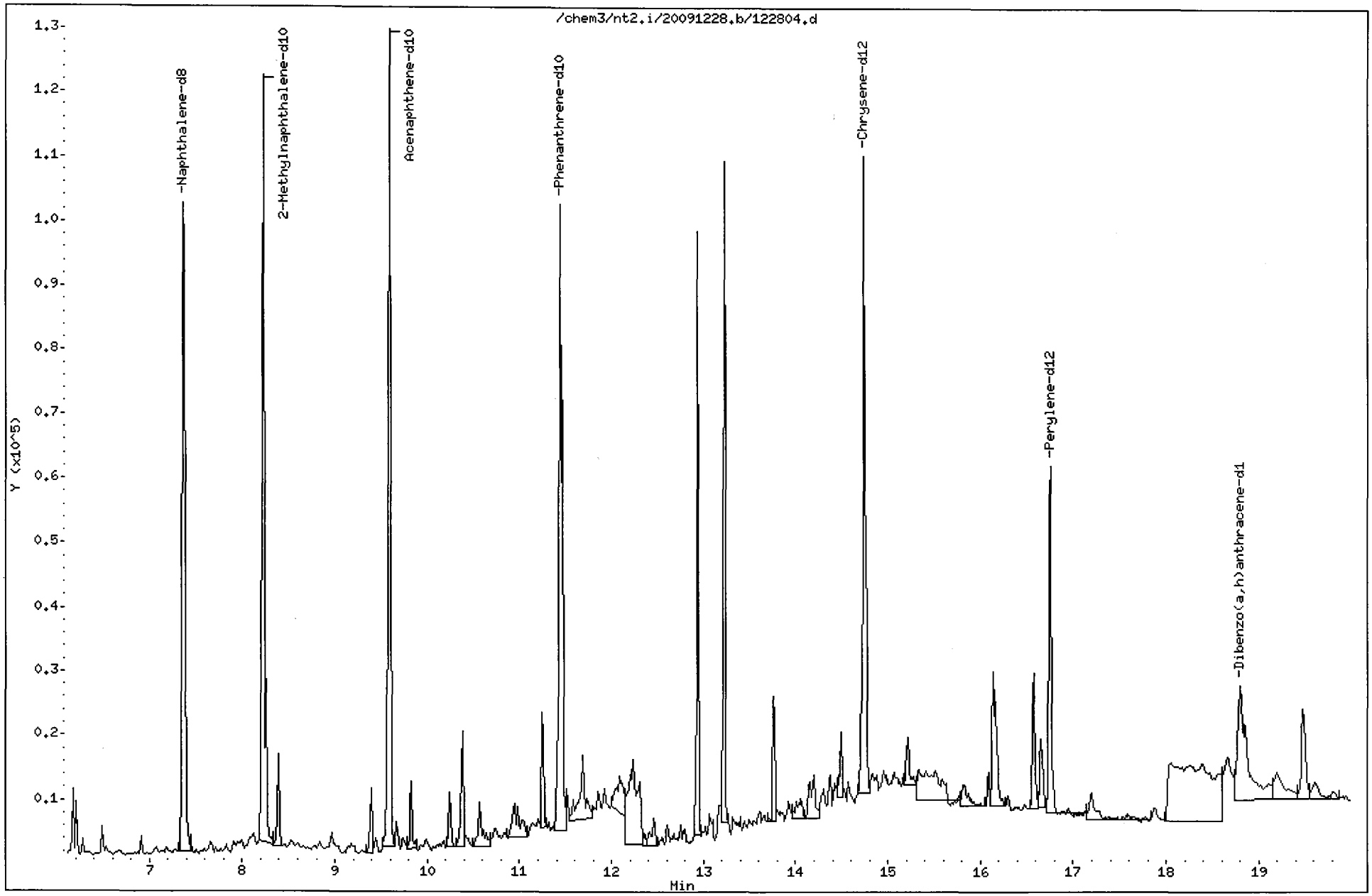
Client SDG: QB72
Fraction: SV
Client Smp ID: CB31A121509COMP
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	211	70.44	31-109
$ 36 Dibenzo(a,h)anthra	300	152	50.72	10-133

Data File: /chem3/nt2.i/20091228.b/122804.d
Date : 28-DEC-2009 12:55
Client ID: CB31A121509COMP
Sample Info: QB72A
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72:00079

Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

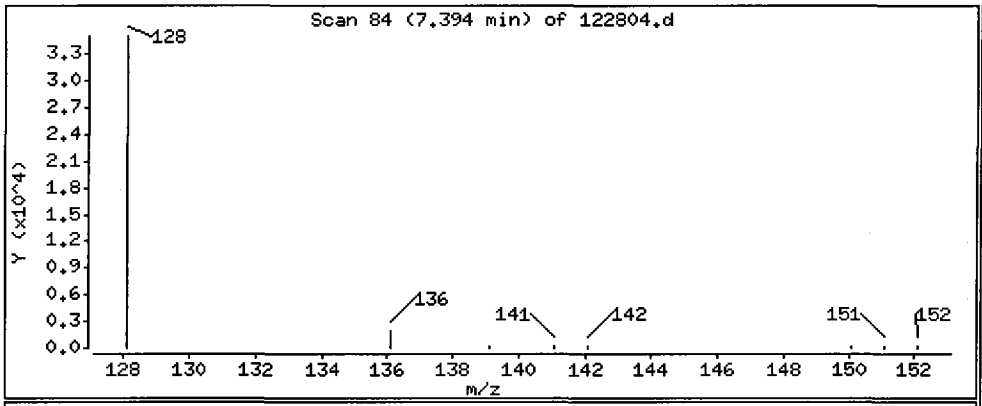
Operator: VTS

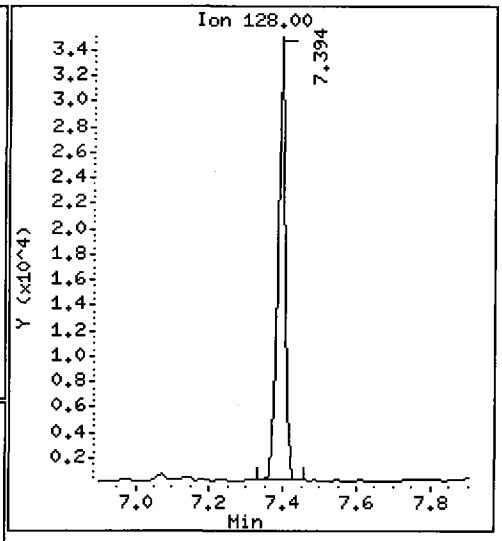
Column phase: ZB-5

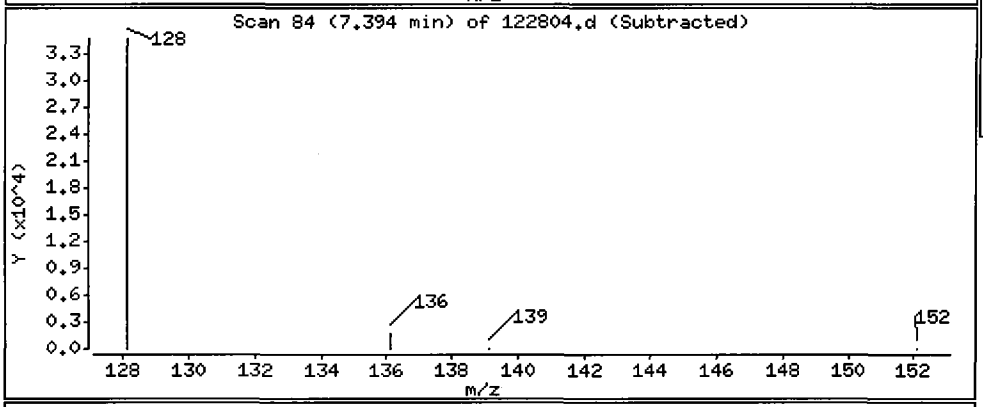
Column diameter: 0.25

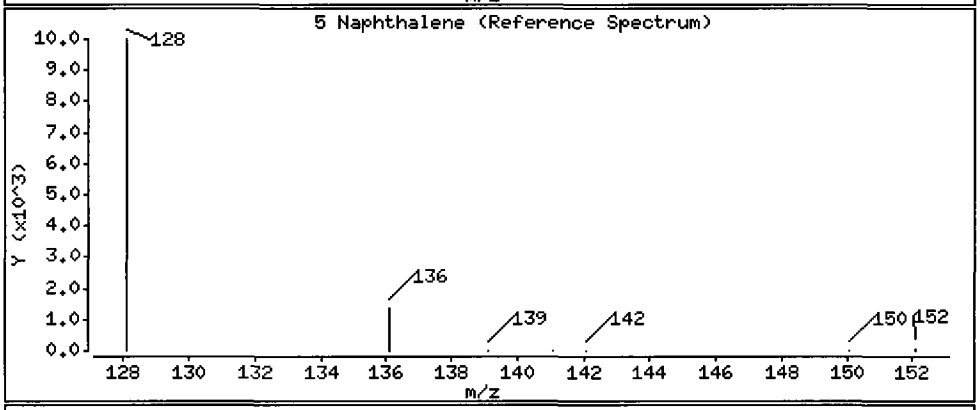
5 Naphthalene

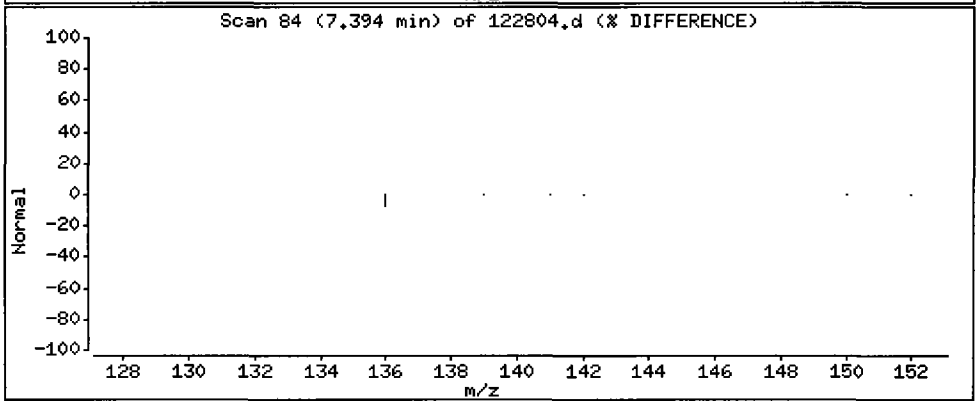
Concentration: 51.9 ug/L











Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

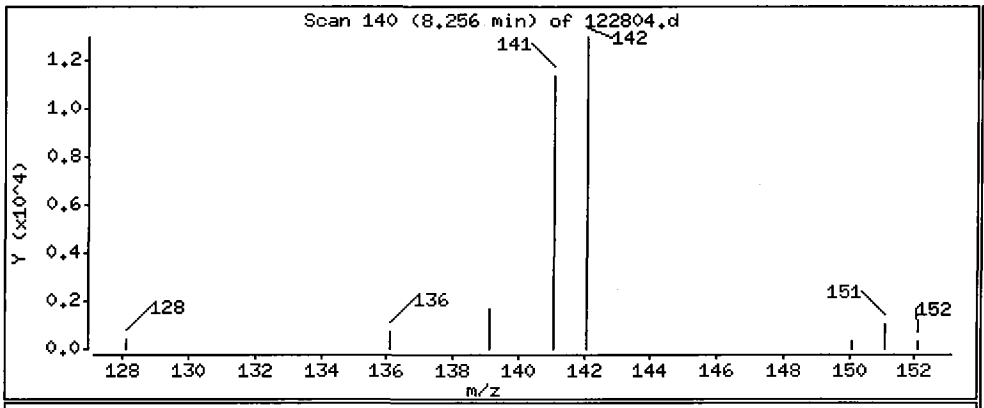
Operator: VTS

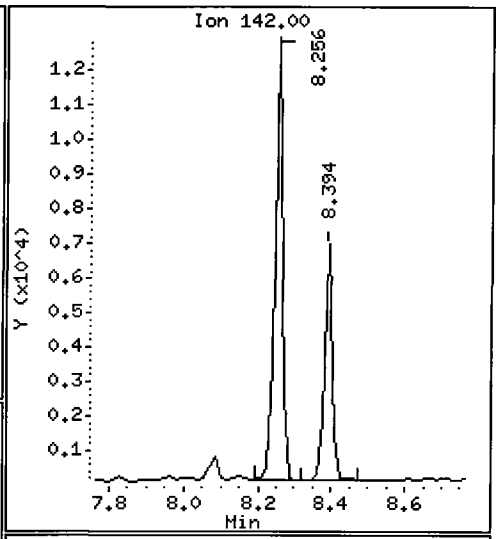
Column phase: ZB-5

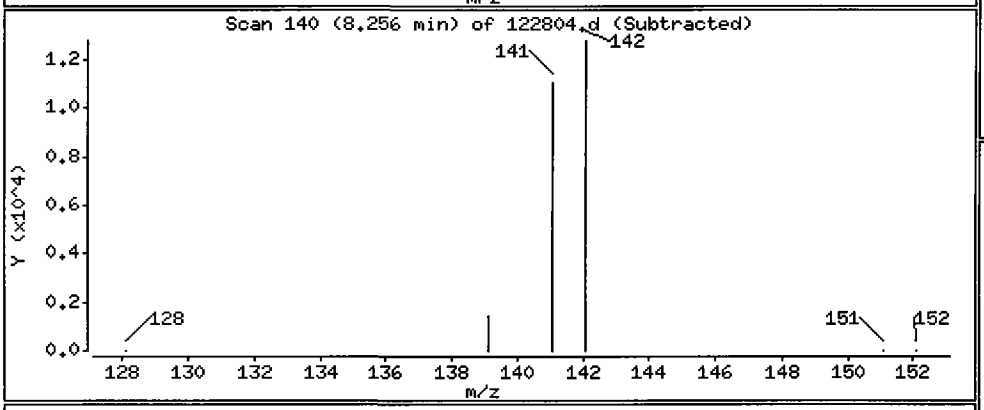
Column diameter: 0.25

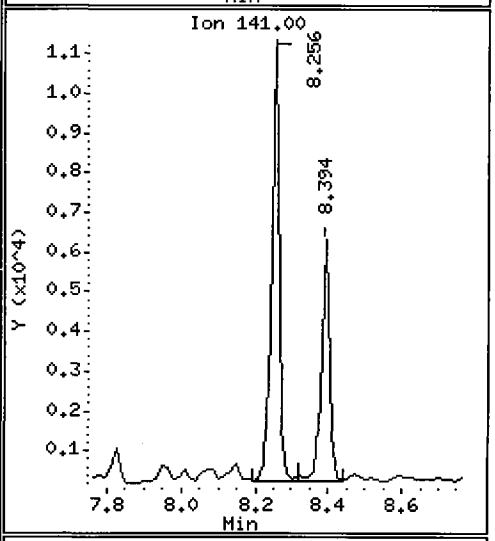
7 2-Methylnaphthalene

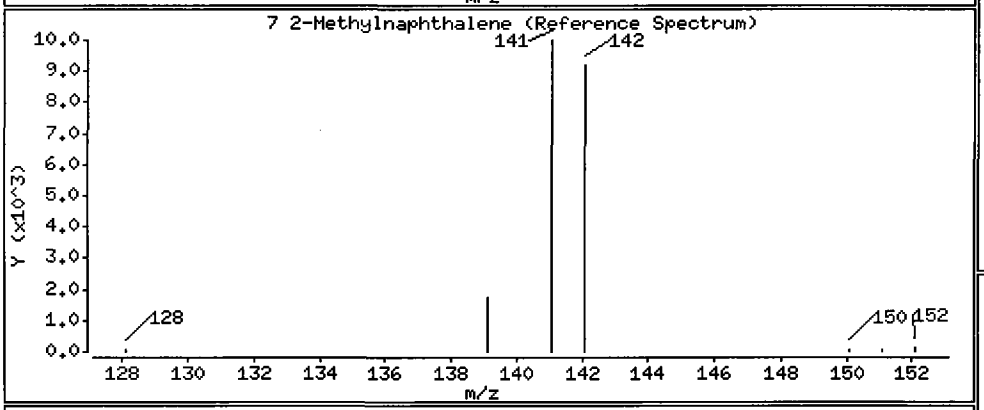
Concentration: 34.2 ug/L

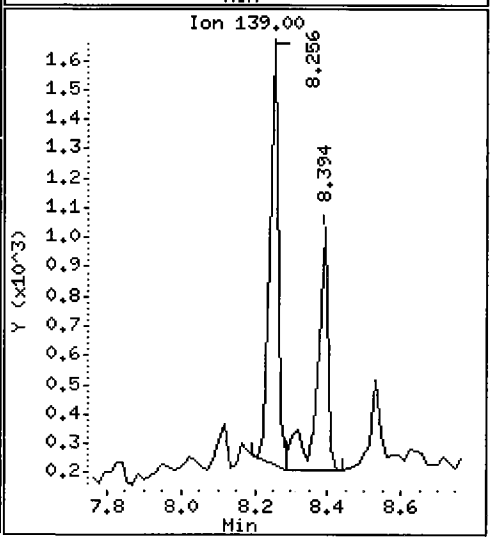


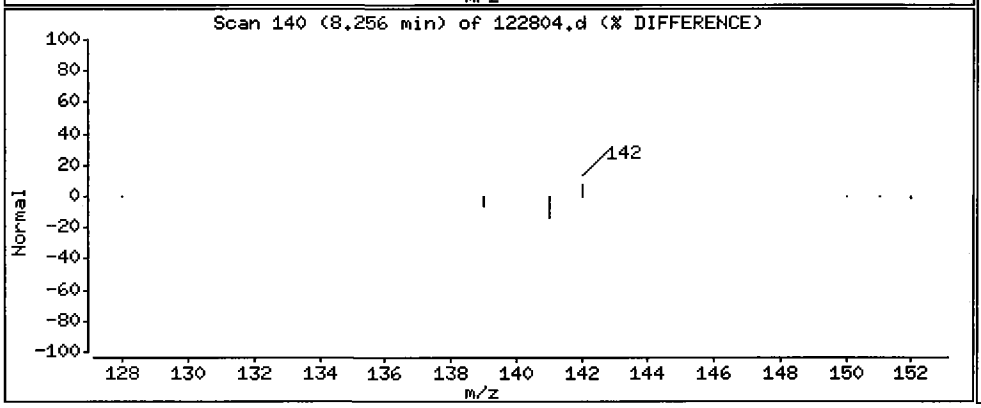












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

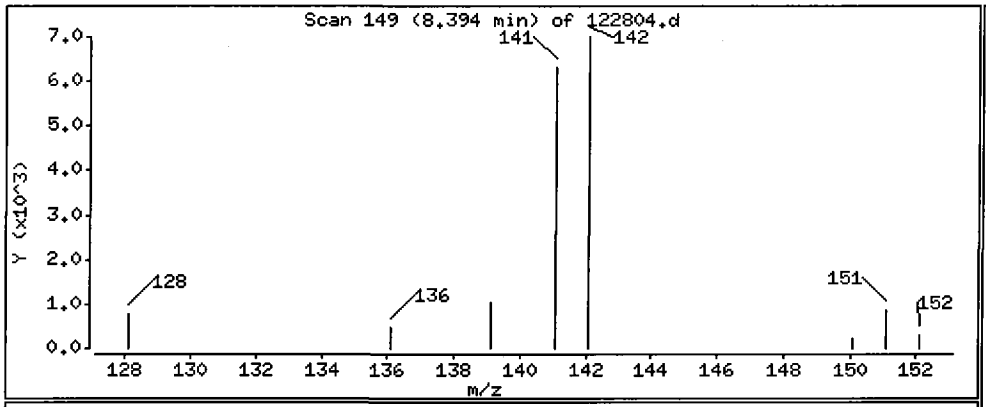
Operator: VTS

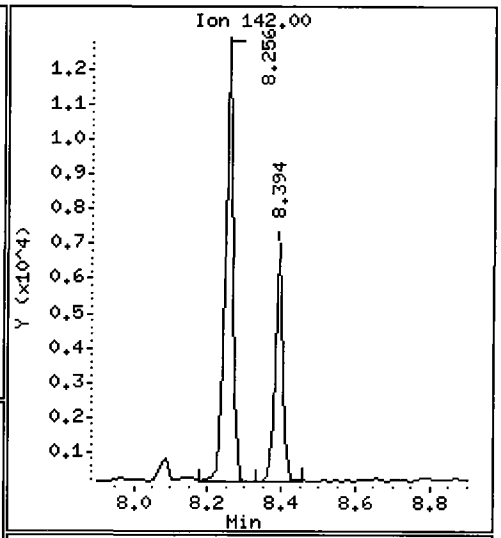
Column phase: ZB-5

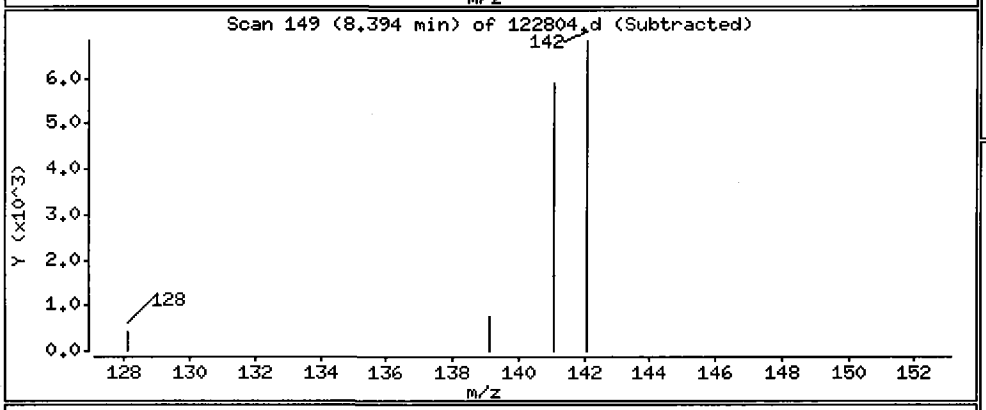
Column diameter: 0.25

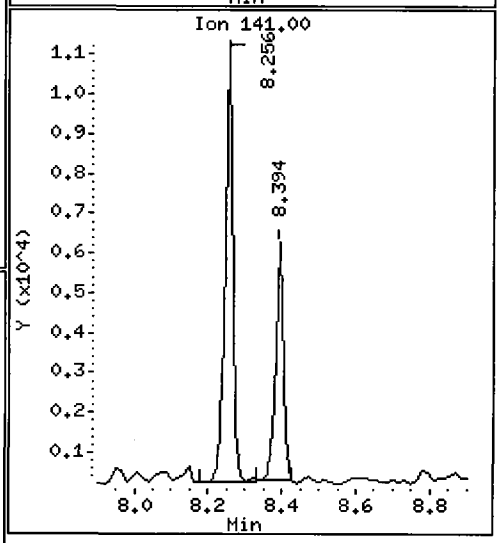
8 1-Methylnaphthalene

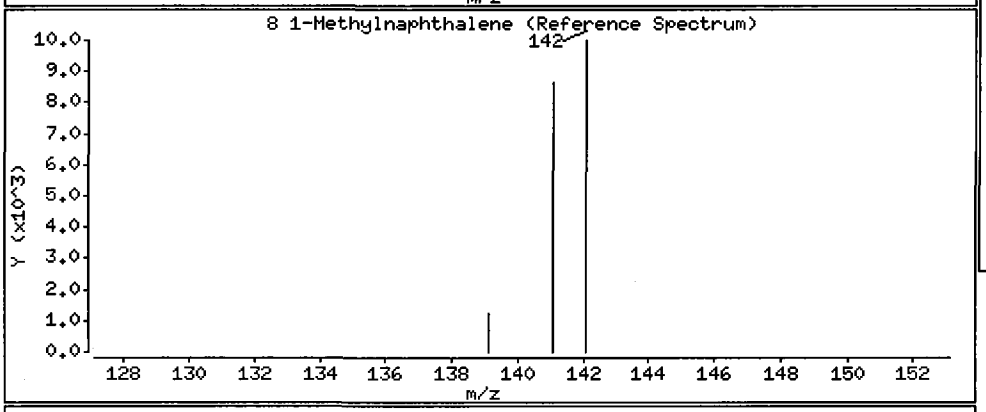
Concentration: 17.5 ug/L

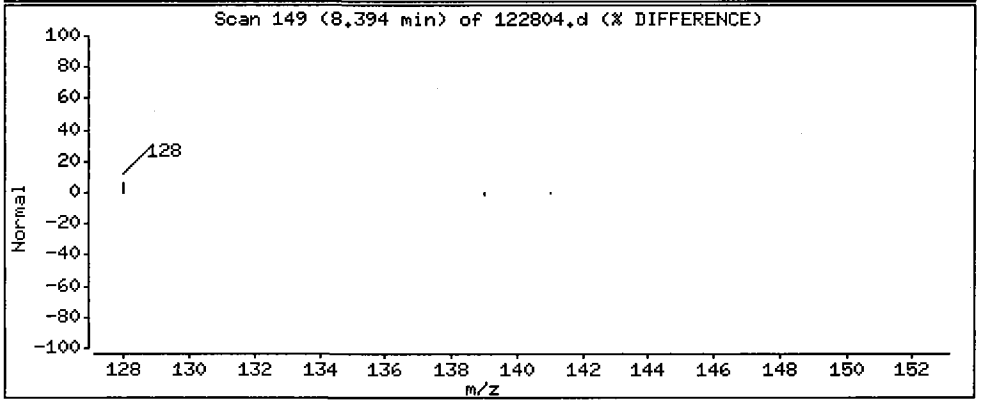












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

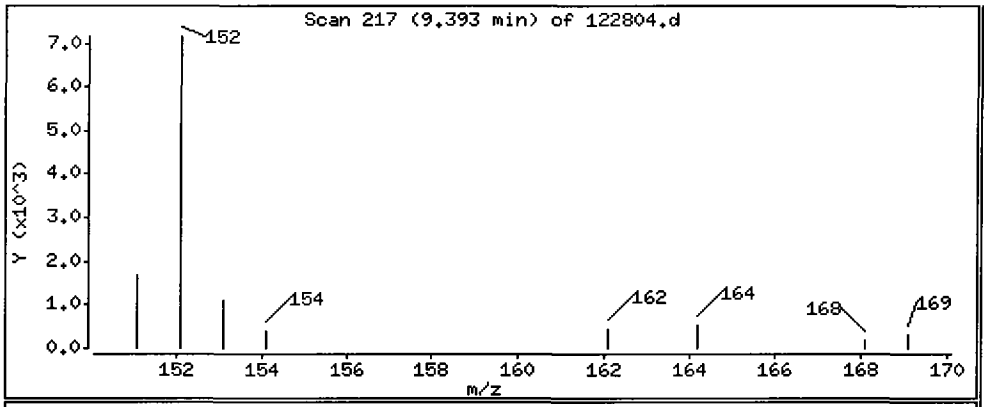
Operator: VTS

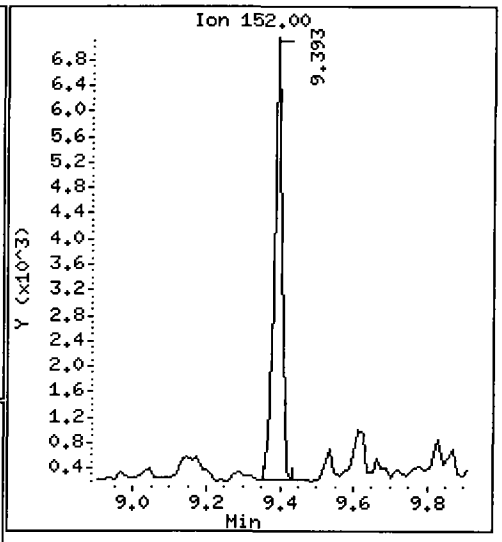
Column phase: ZB-5

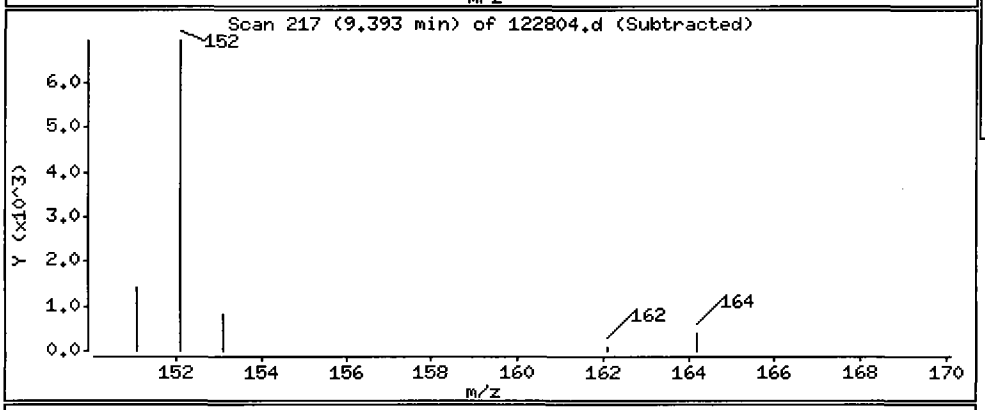
Column diameter: 0.25

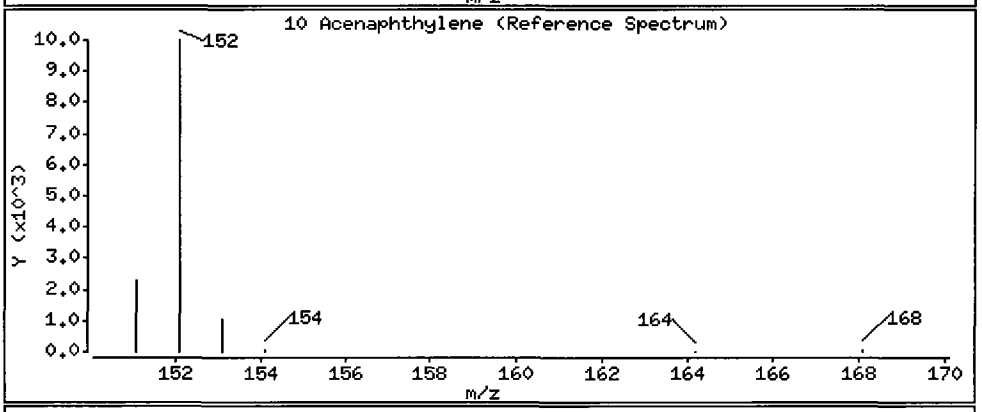
10 Acenaphthylene

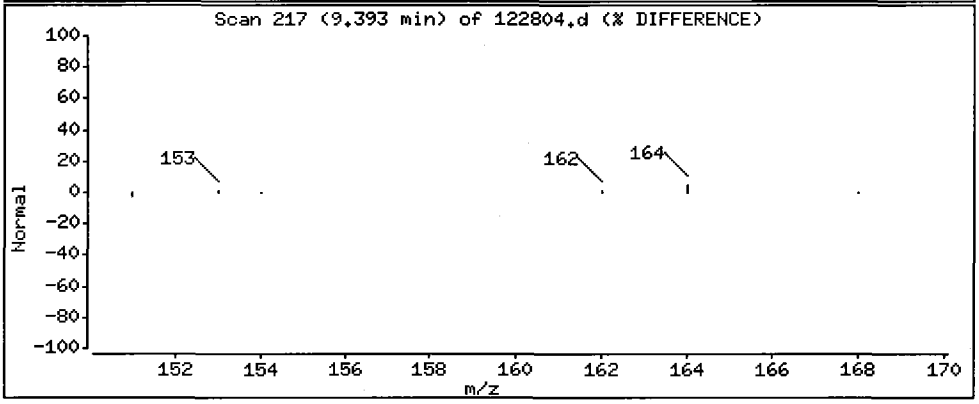
Concentration: 13.1 ug/L











Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

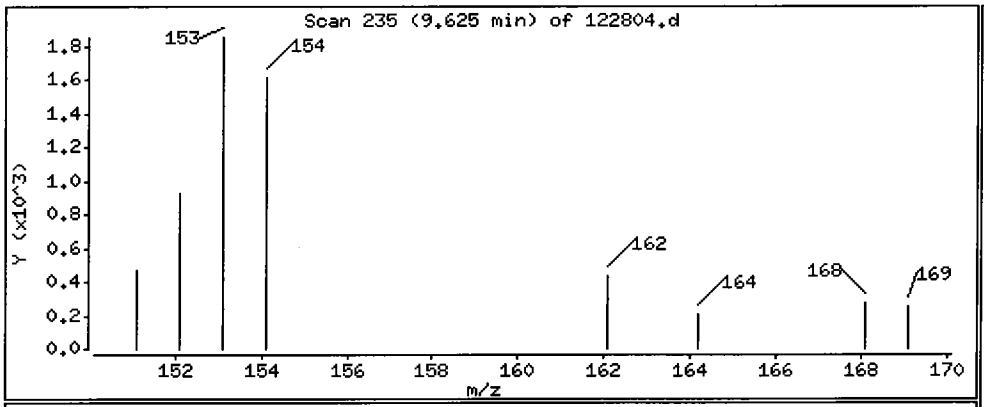
Operator: VTS

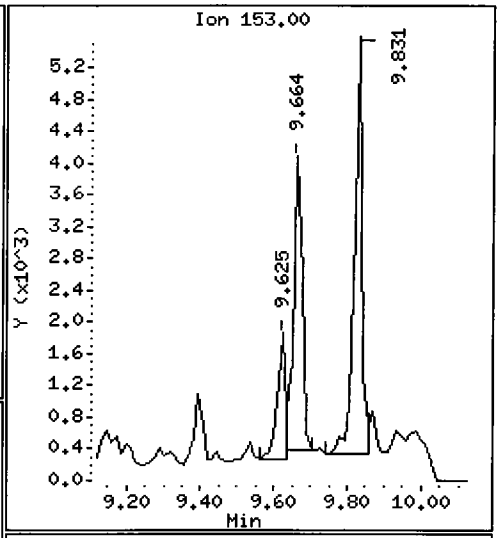
Column phase: ZB-5

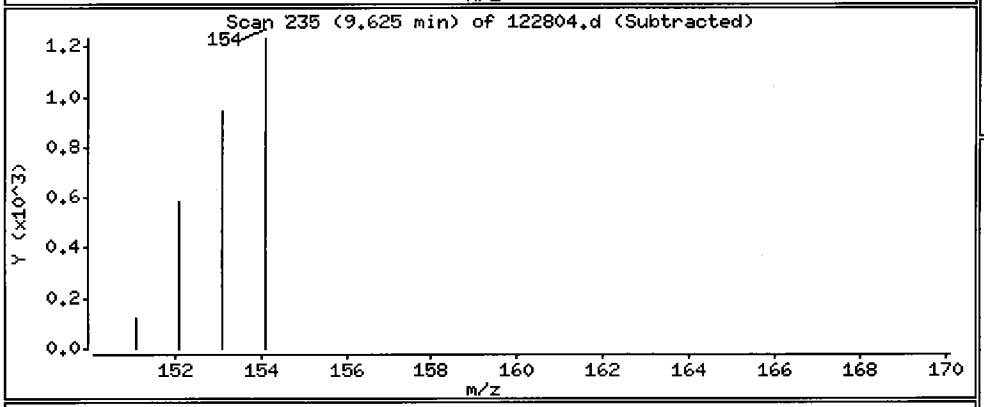
Column diameter: 0.25

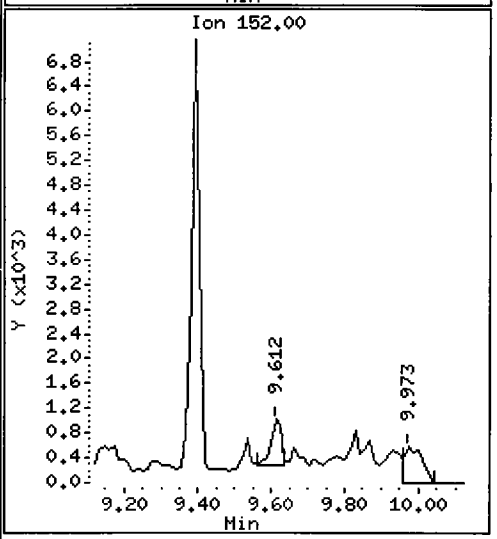
12 Acenaphthene

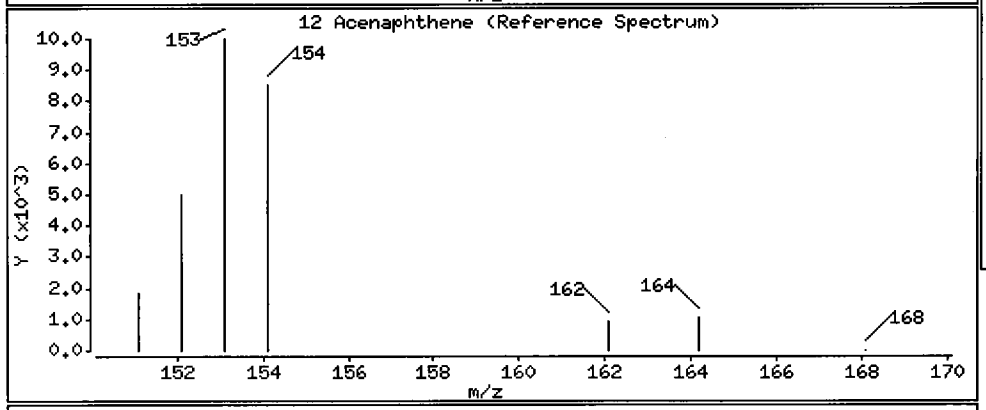
Concentration: 6.05 ug/L

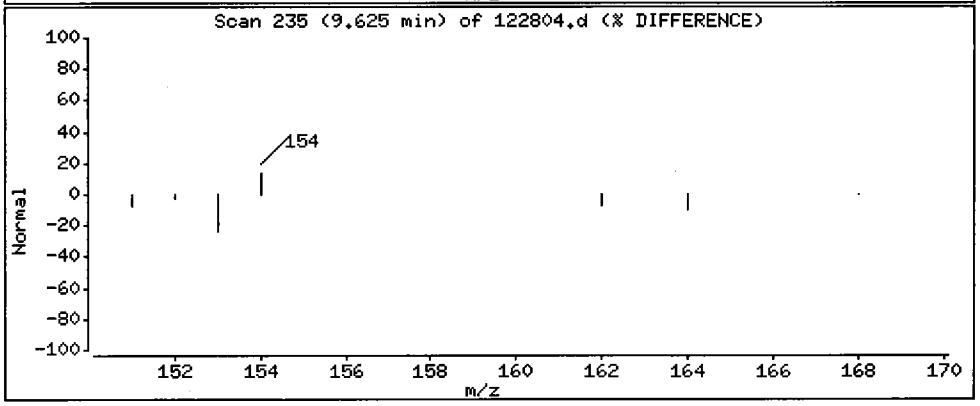












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

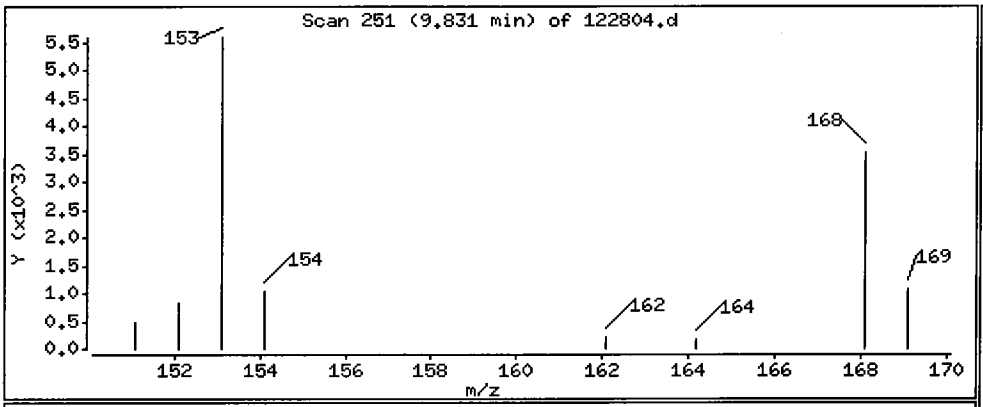
Operator: VTS

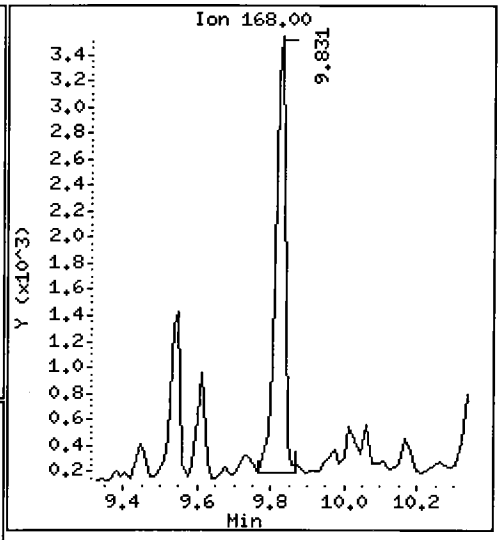
Column phase: ZB-5

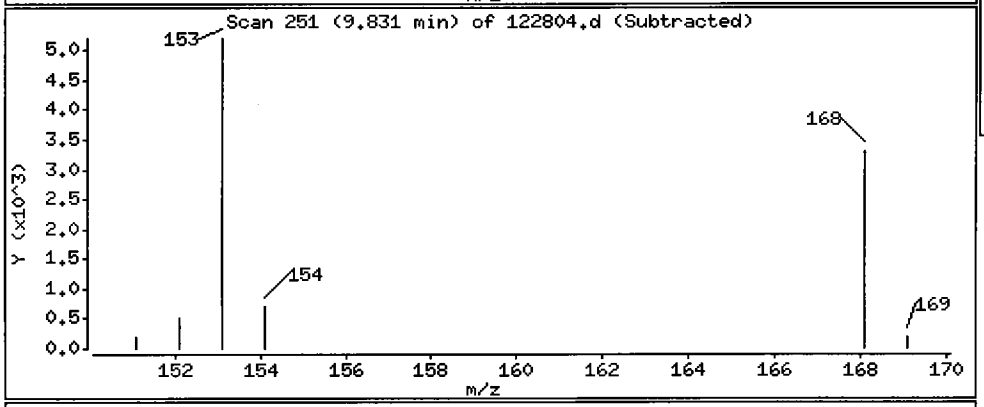
Column diameter: 0.25

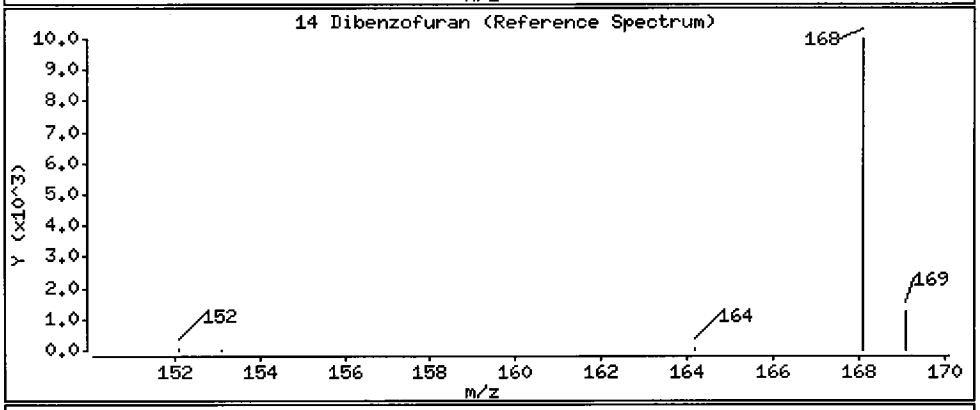
14 Dibenzofuran

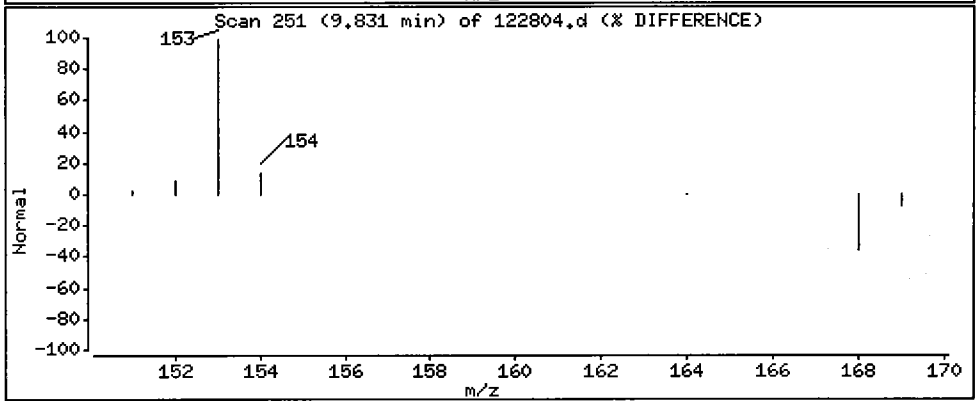
Concentration: 10.3 ug/L











Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

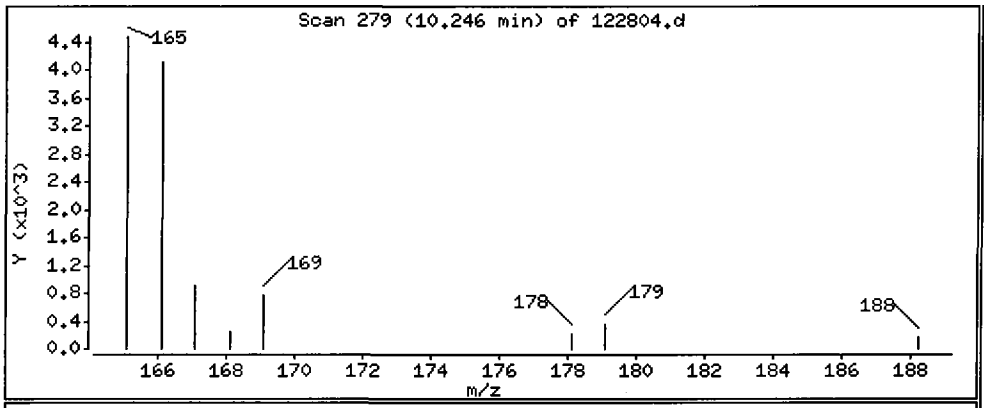
Operator: VTS

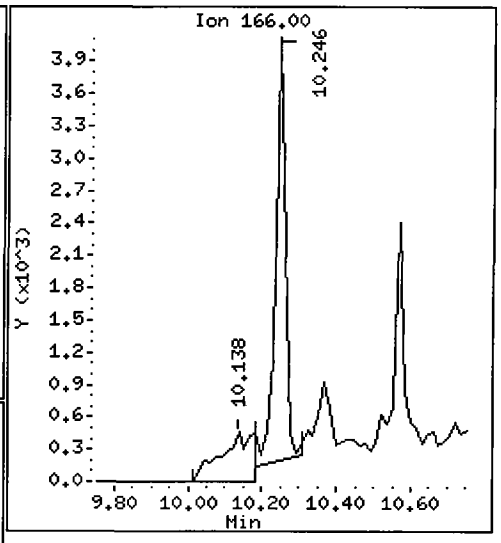
Column phase: ZB-5

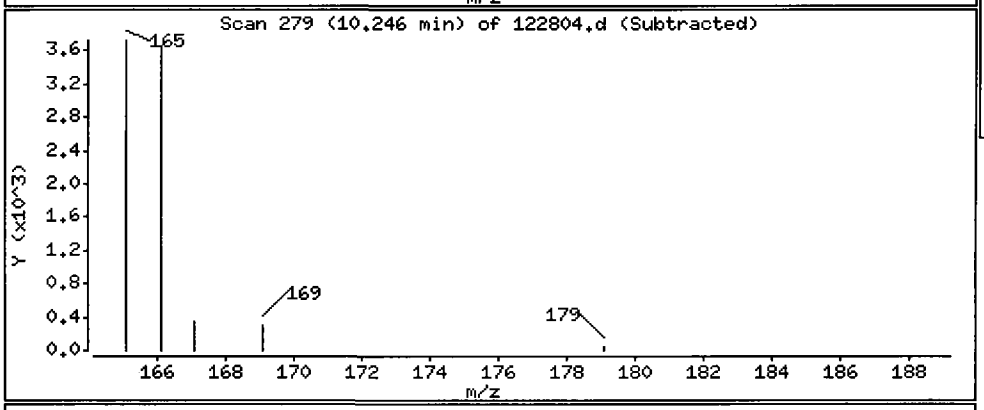
Column diameter: 0.25

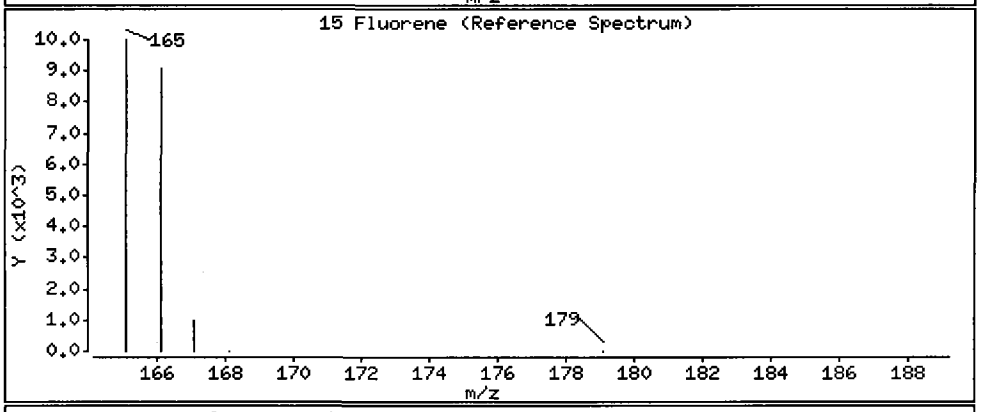
15 Fluorene

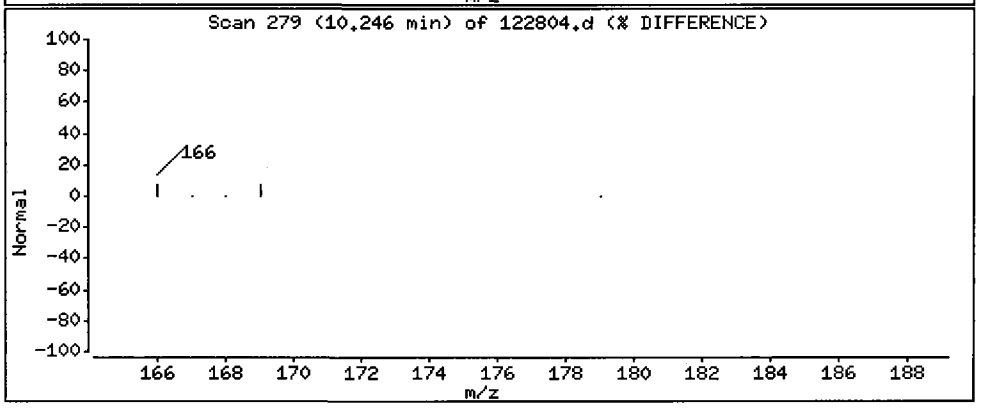
Concentration: 14.6 ug/L











Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

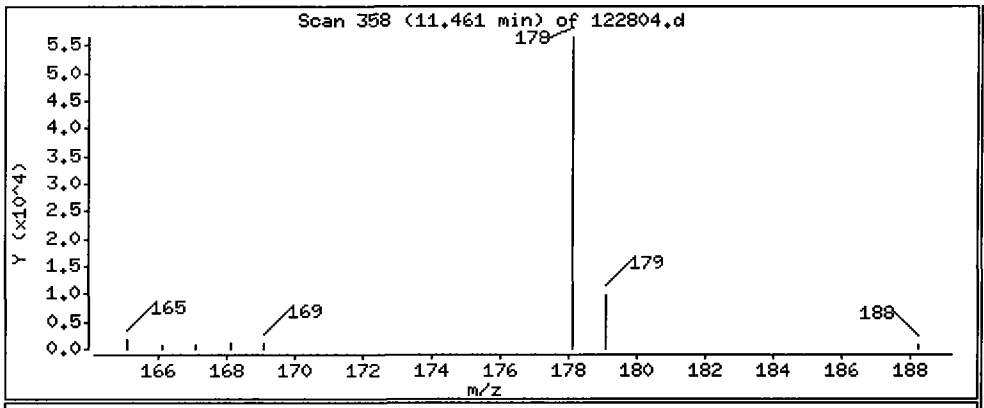
Operator: VTS

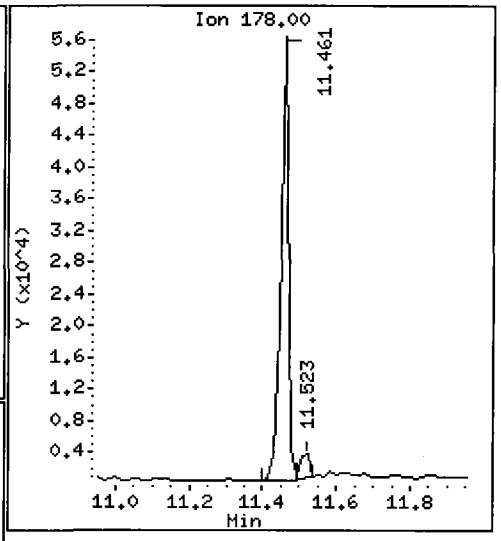
Column phase: ZB-5

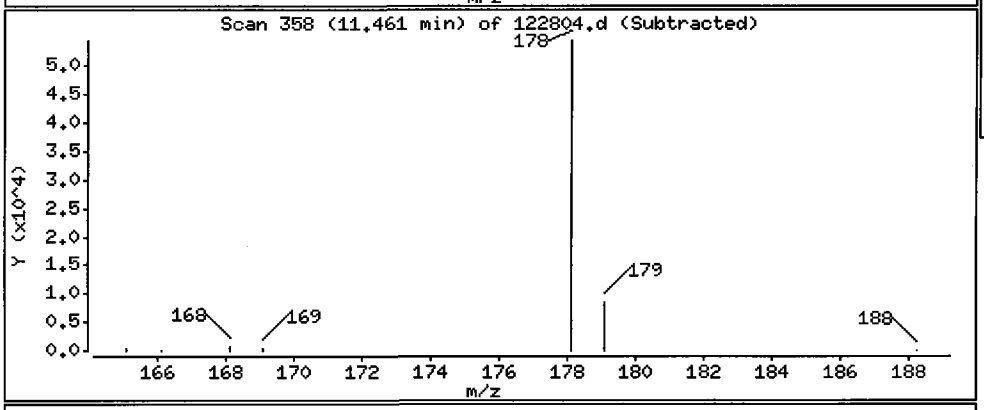
Column diameter: 0.25

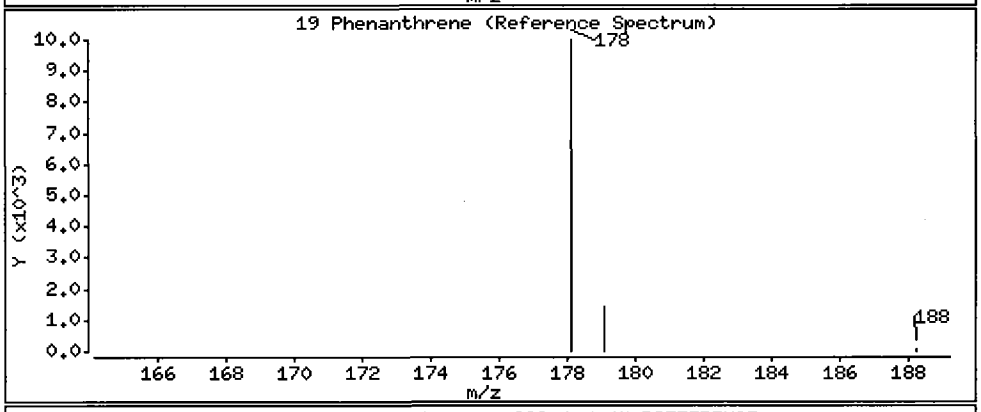
19 Phenanthrene

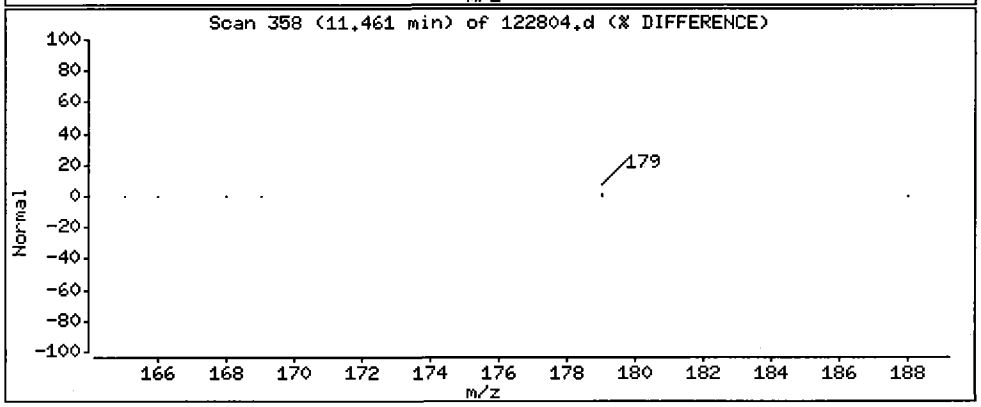
Concentration: 116 ug/L











Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

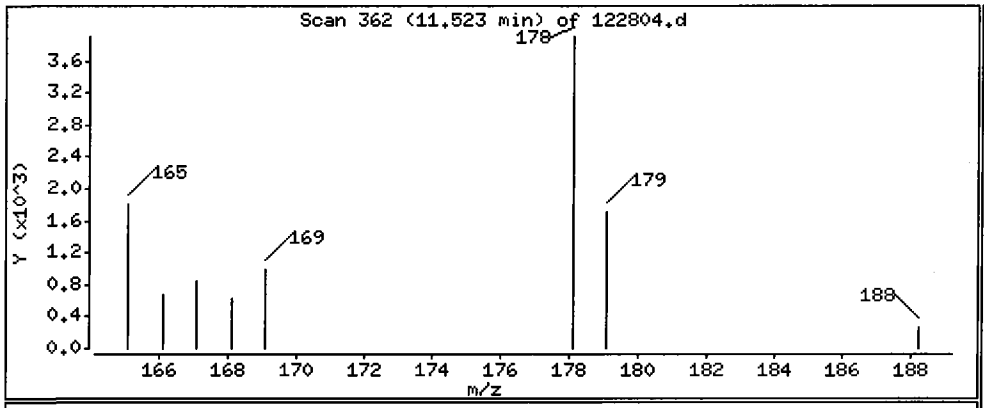
Operator: VTS

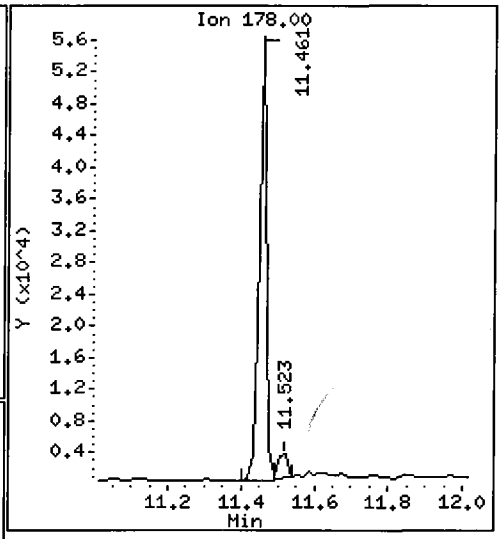
Column phase: ZB-5

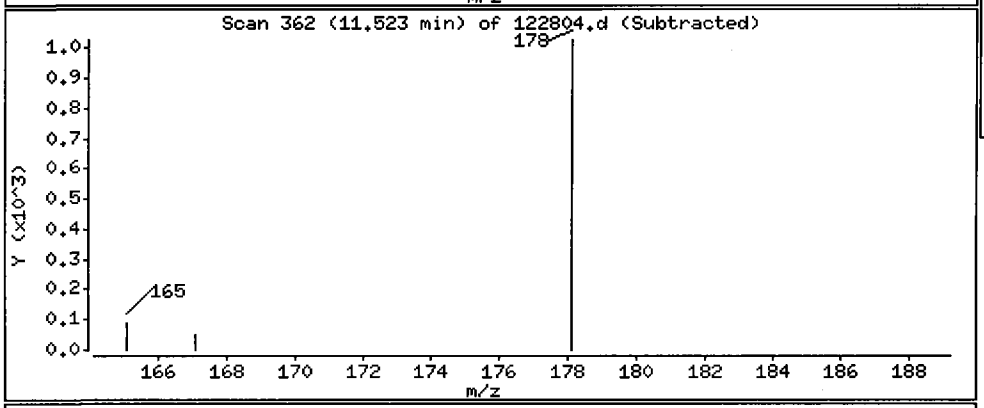
Column diameter: 0.25

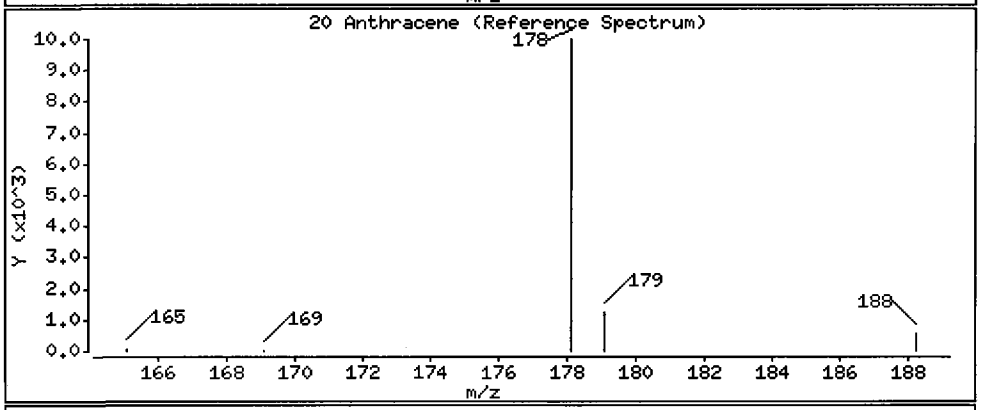
20 Anthracene

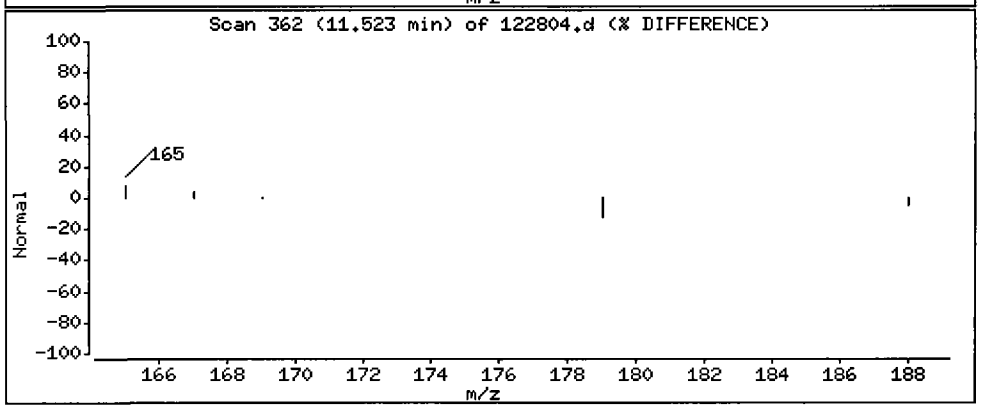
Concentration: 8.36 ug/L











Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

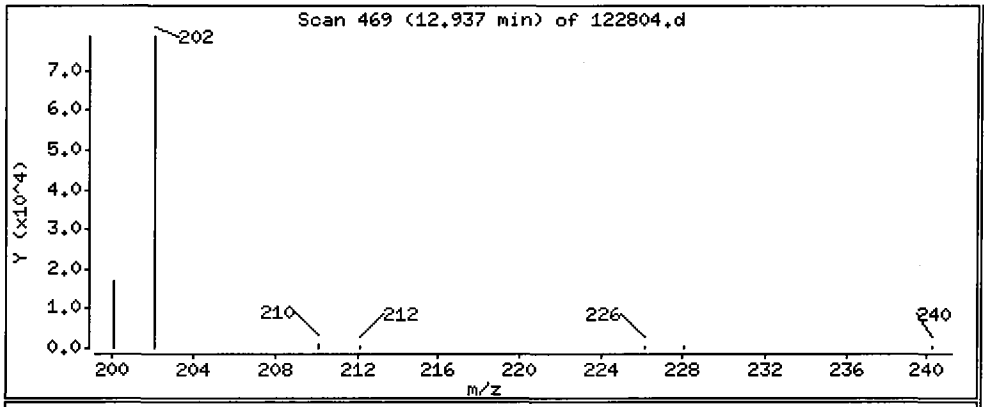
Operator: VTS

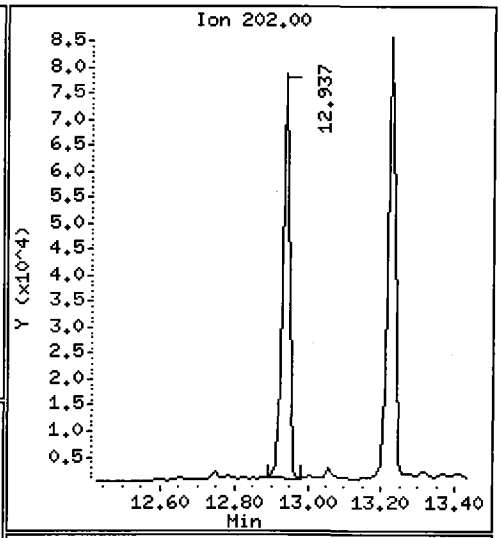
Column phase: ZB-5

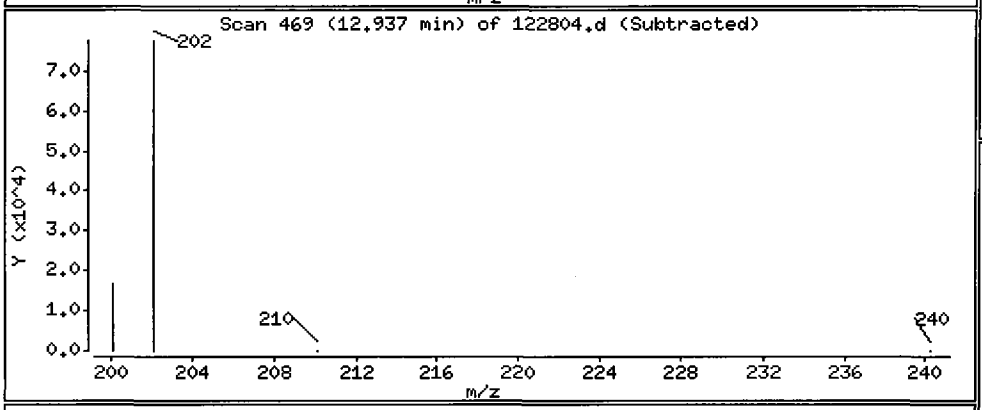
Column diameter: 0.25

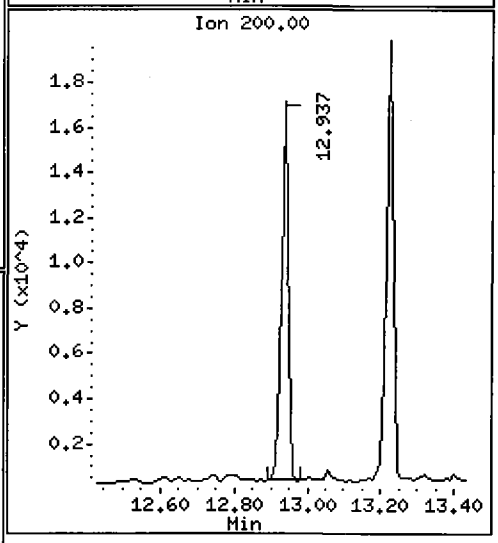
24 Fluoranthene

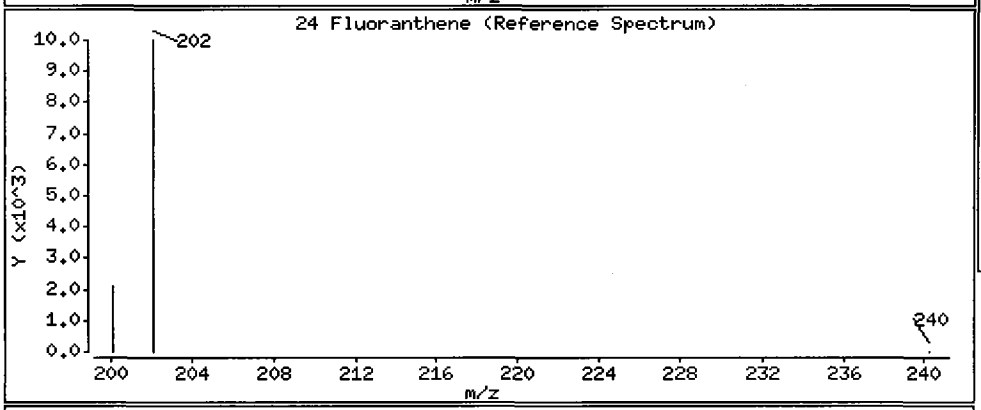
Concentration: 126 ug/L

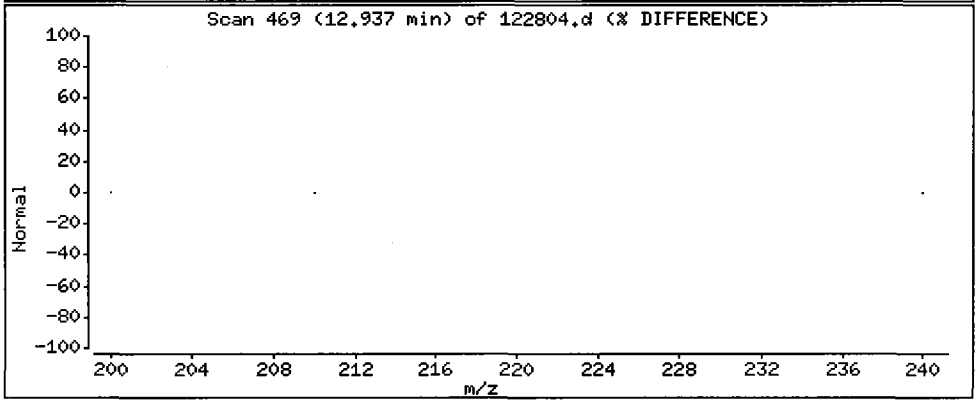












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

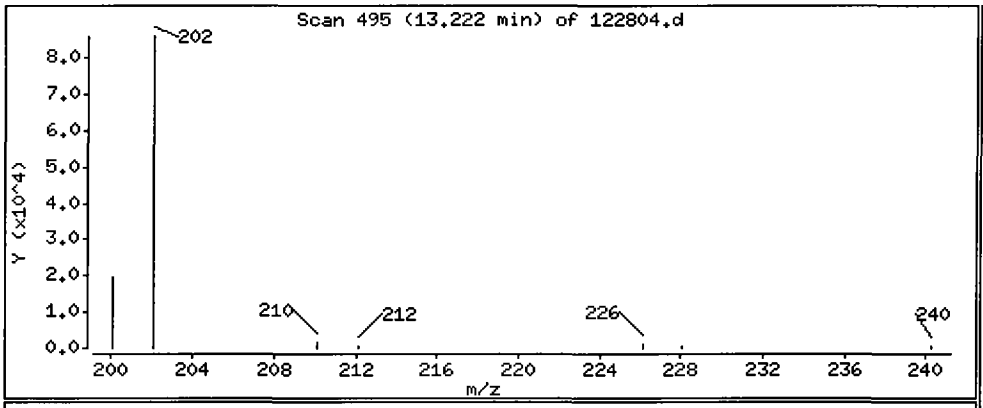
Operator: VTS

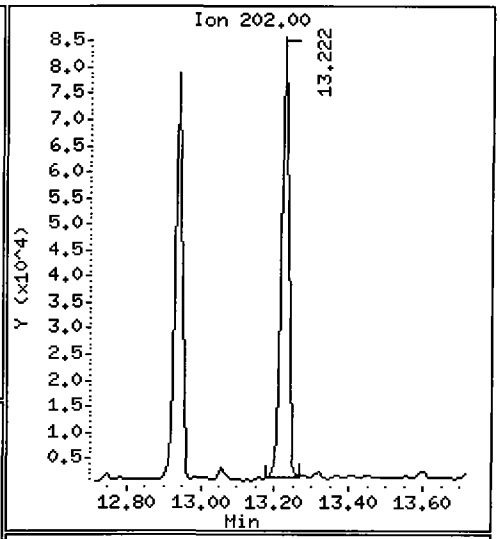
Column phase: ZB-5

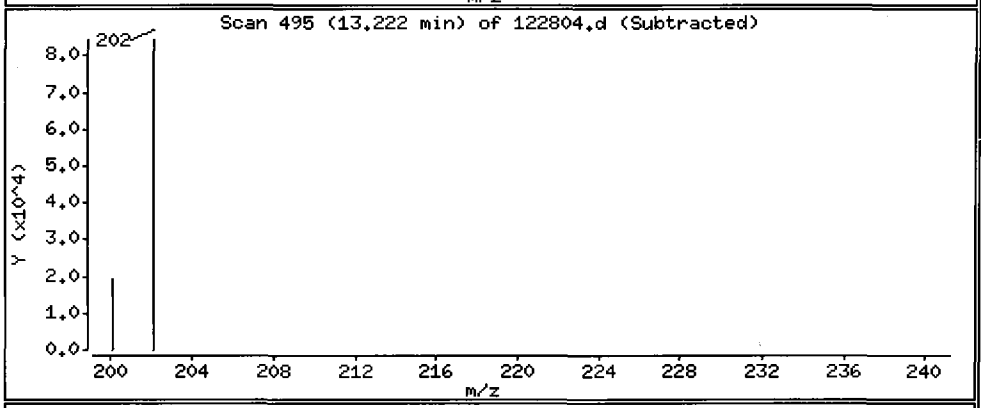
Column diameter: 0.25

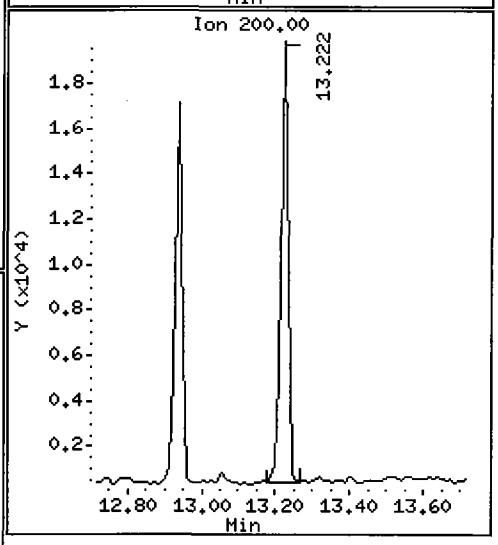
25 Pyrene

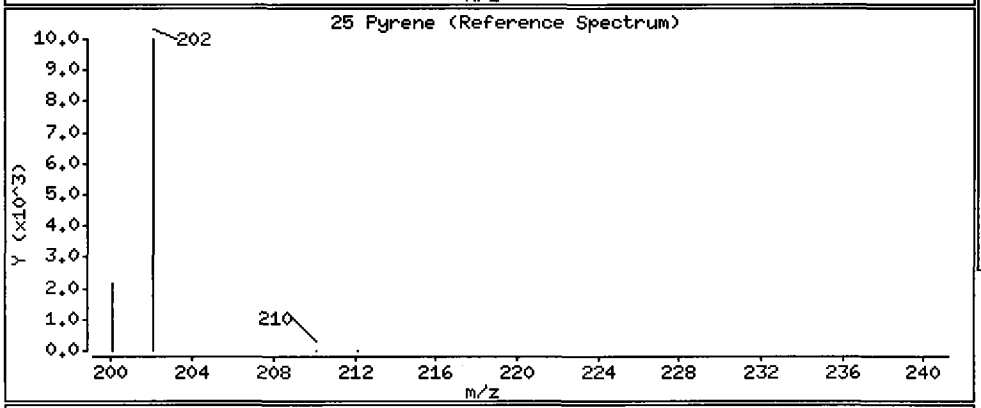
Concentration: 143 ug/L

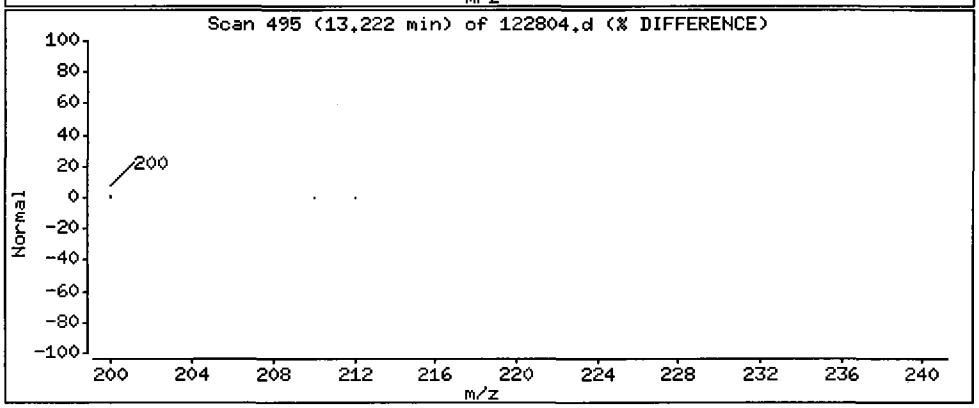












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

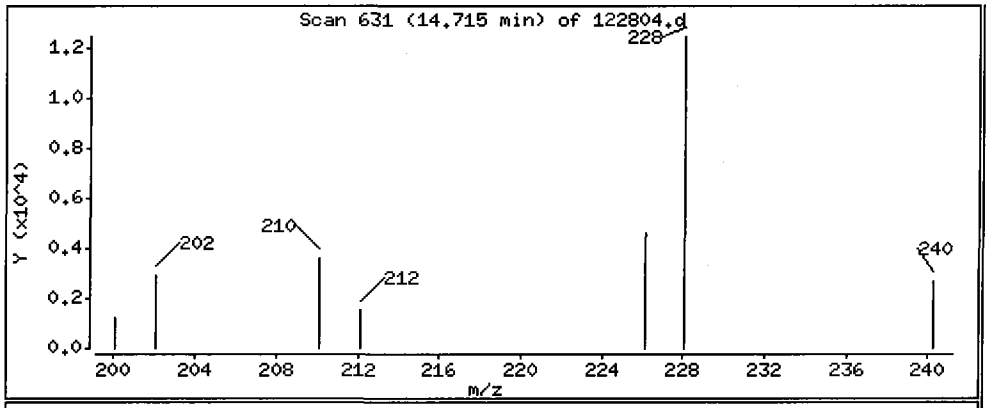
Operator: VTS

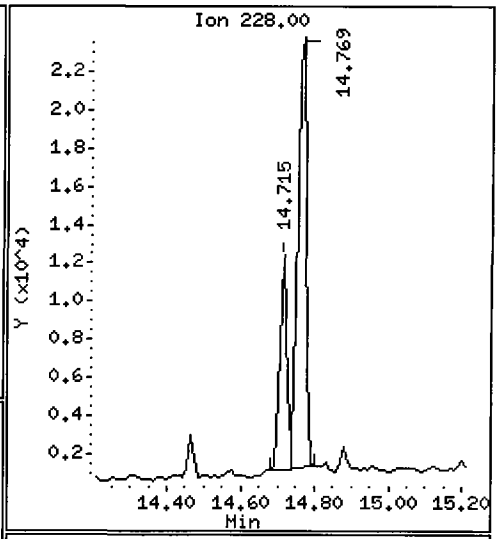
Column phase: ZB-5

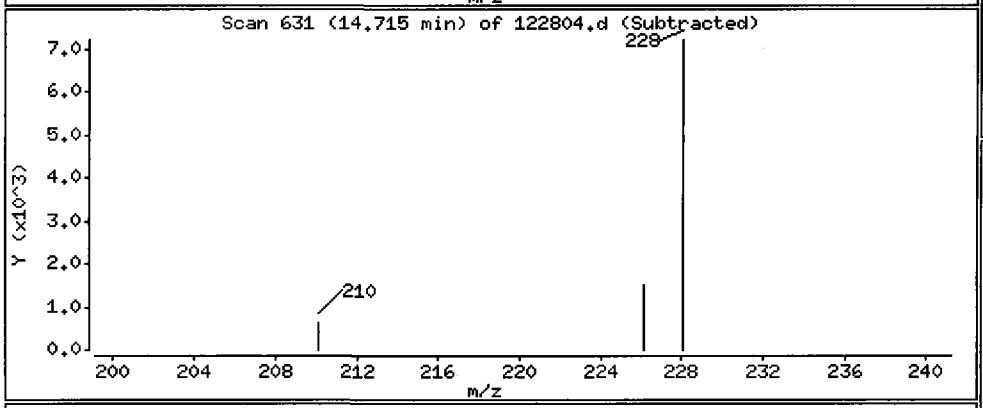
Column diameter: 0.25

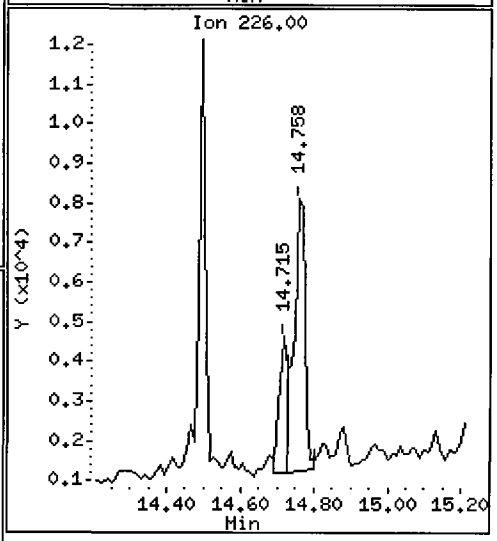
28 Benzo(a)anthracene

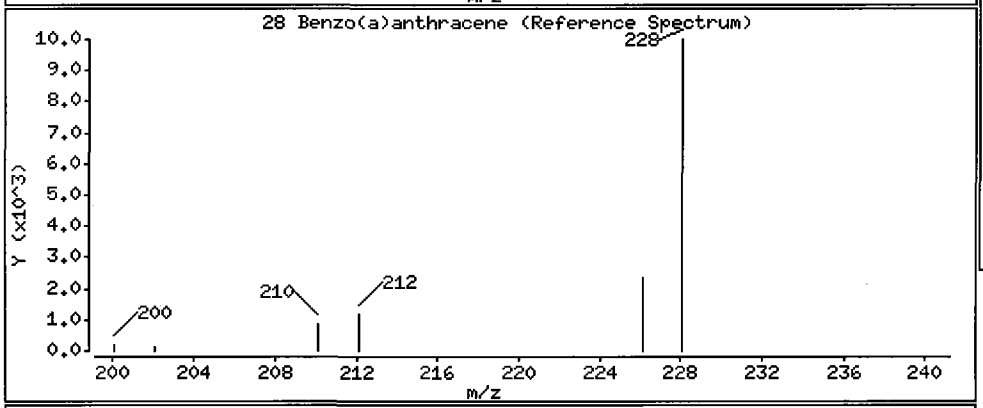
Concentration: 26.7 ug/L

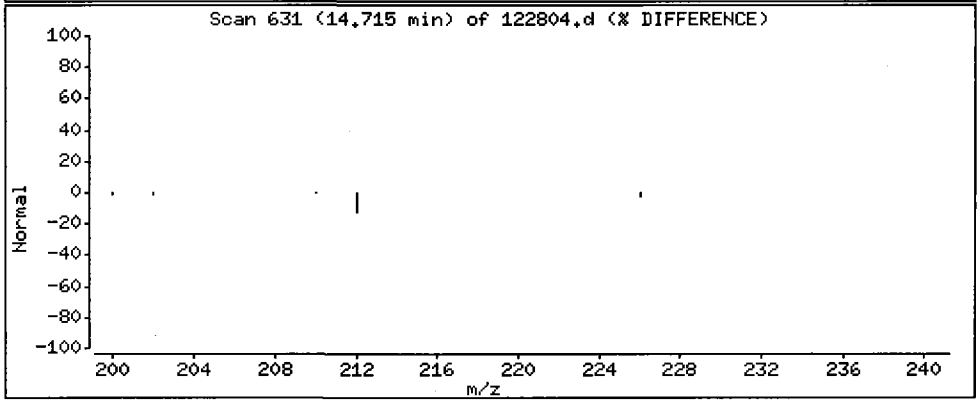












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

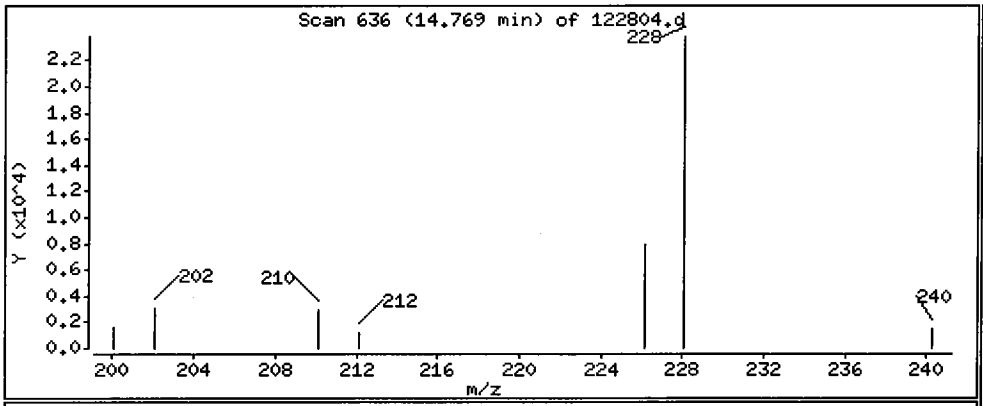
Operator: VTS

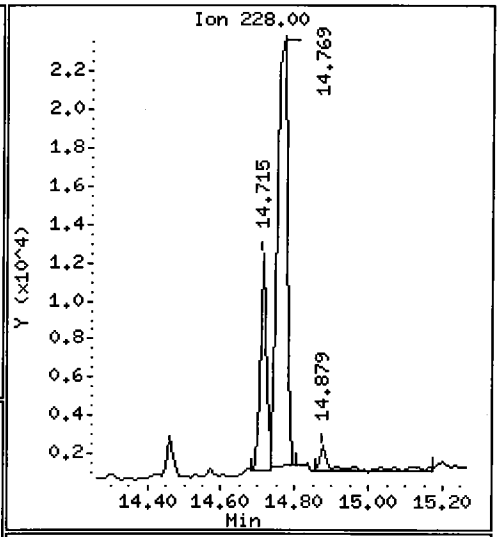
Column phase: ZB-5

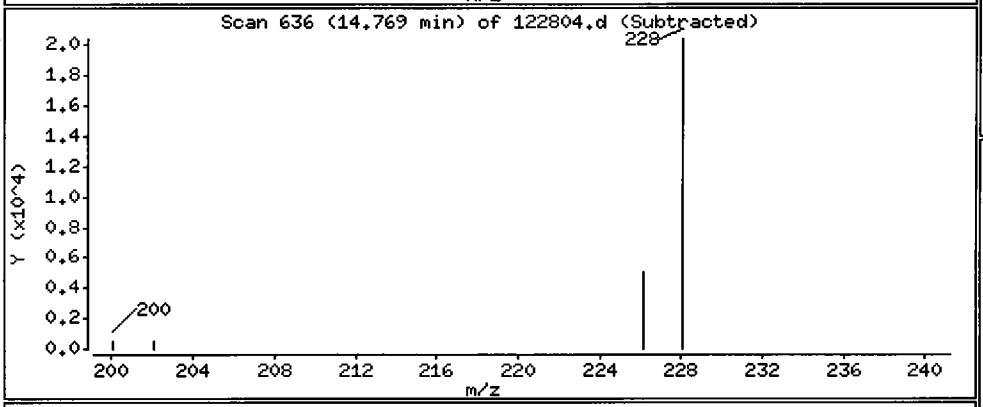
Column diameter: 0.25

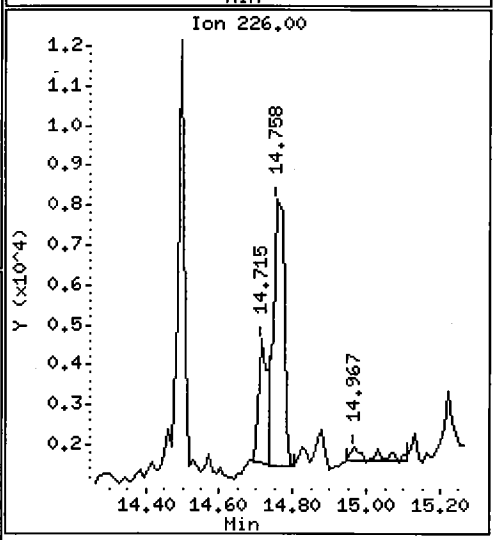
30 Chrysene

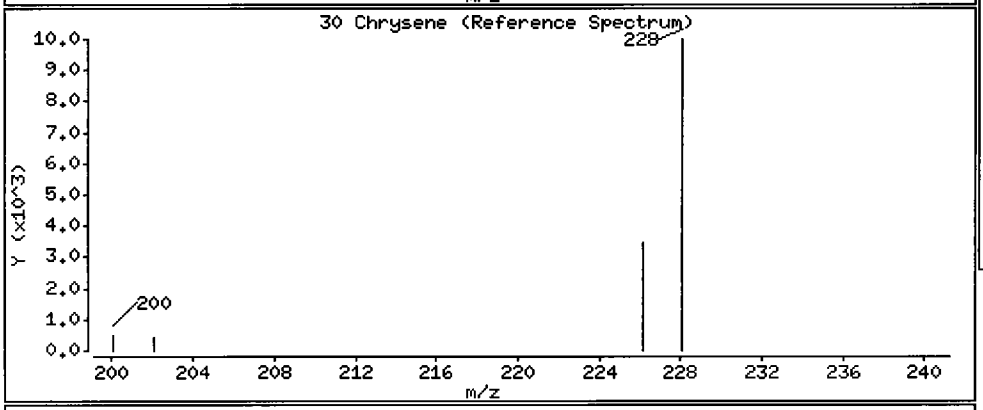
Concentration: 74.5 ug/L

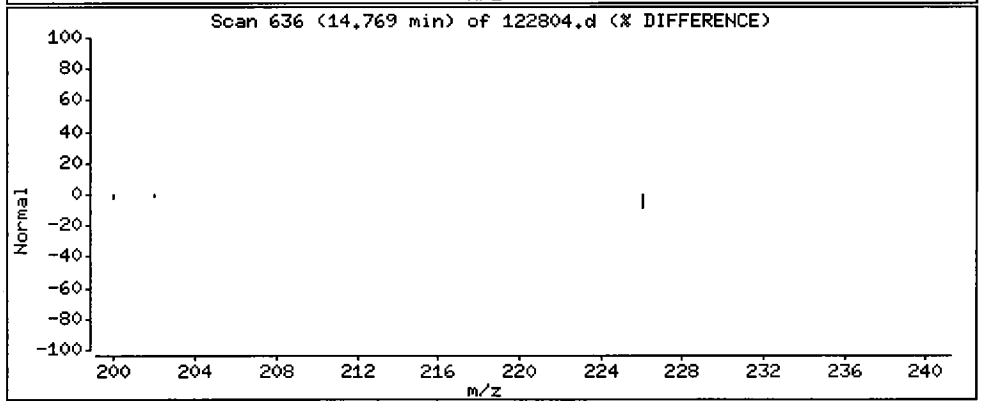












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

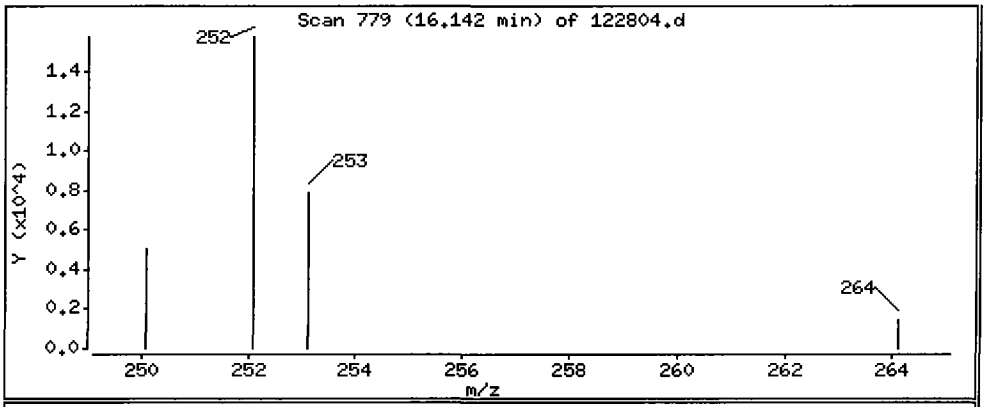
Operator: VTS

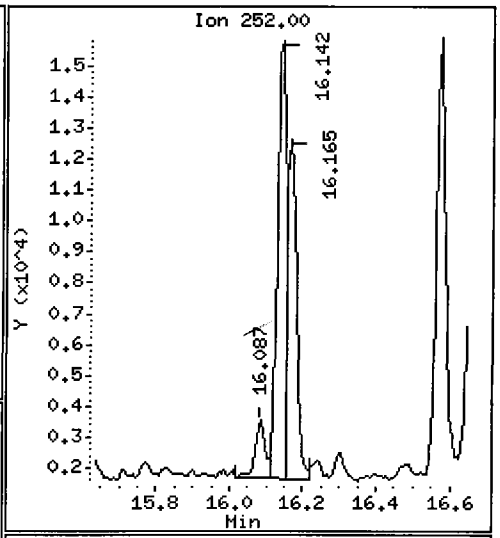
Column phase: ZB-5

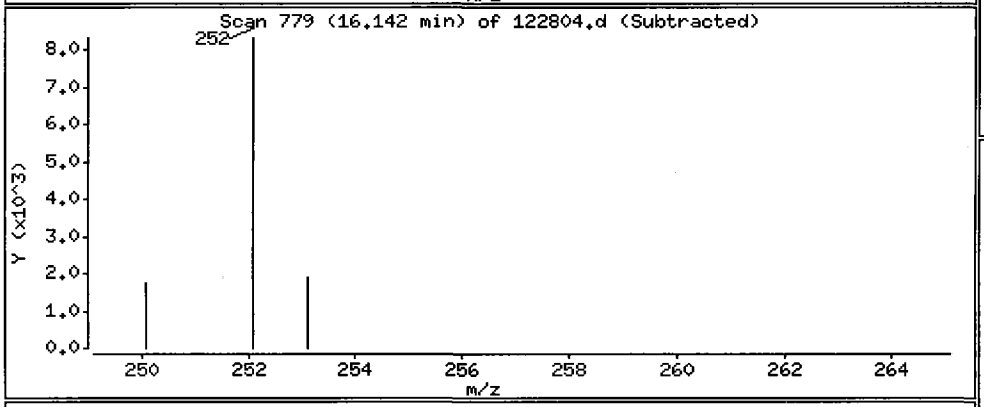
Column diameter: 0.25

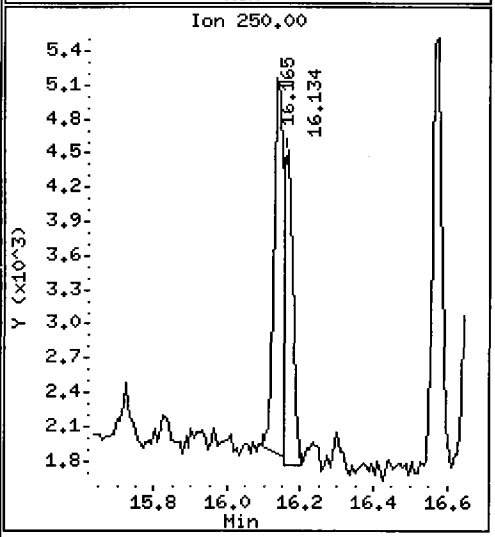
32 Benzo(b)fluoranthene

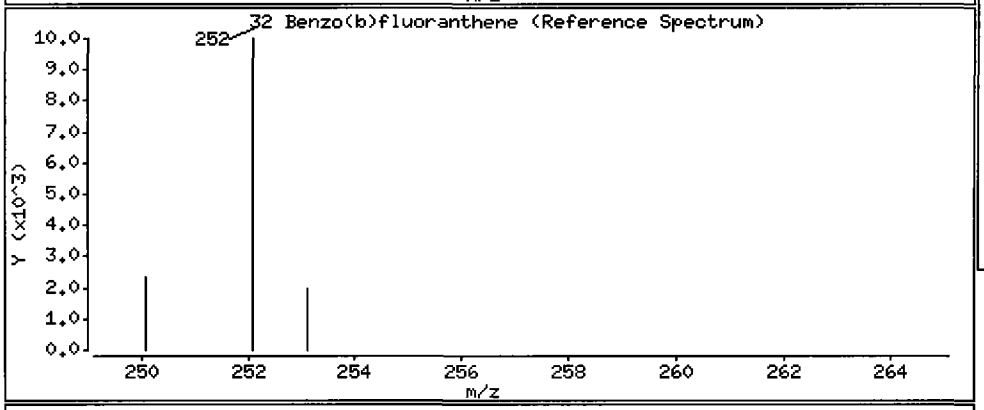
Concentration: 48.2 ug/L

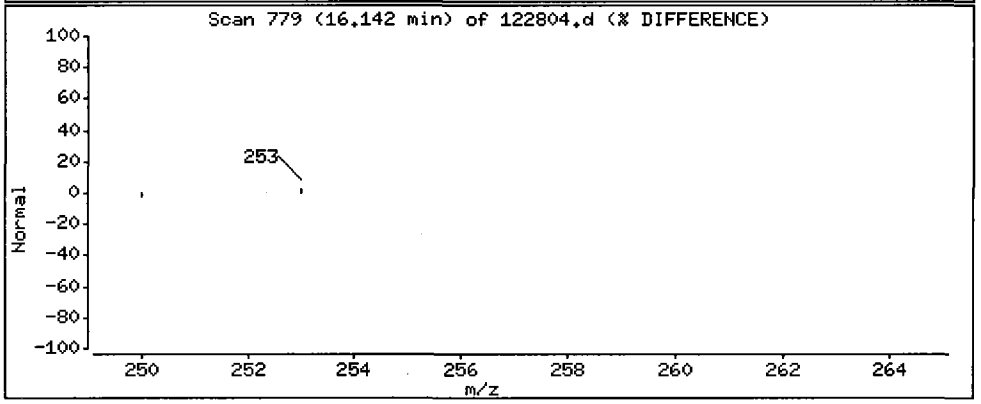












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

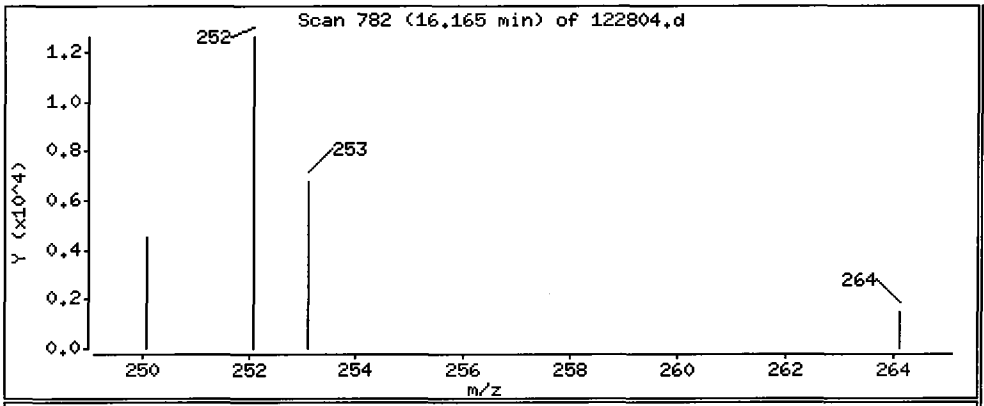
Operator: VTS

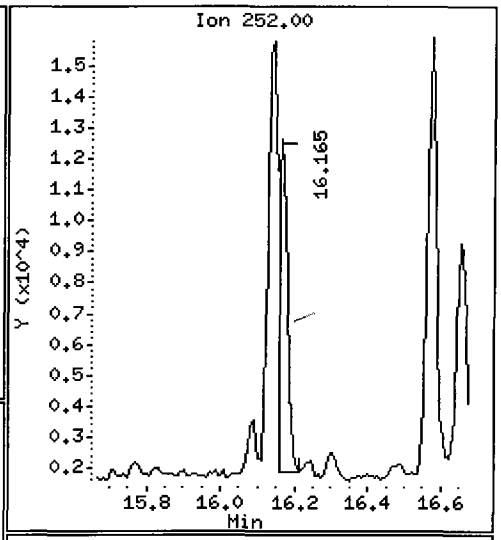
Column phase: ZB-5

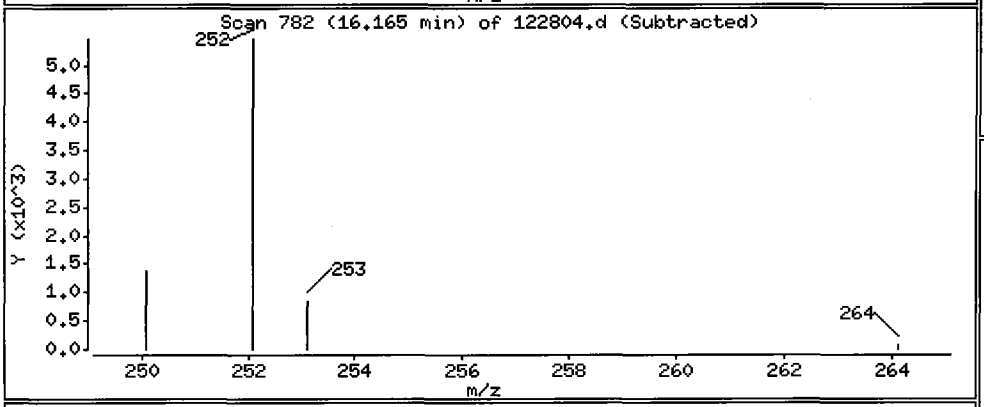
Column diameter: 0.25

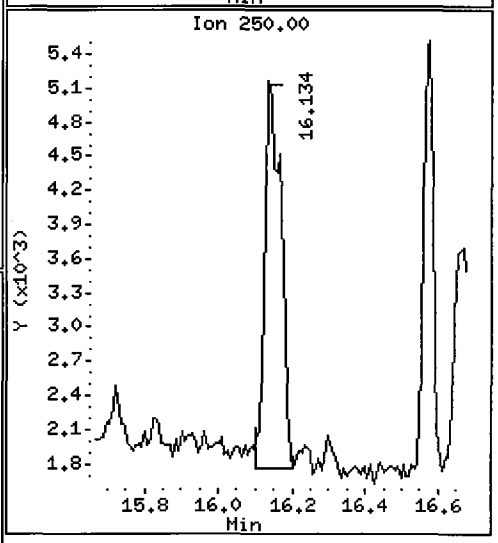
33 Benzo(k)fluoranthene

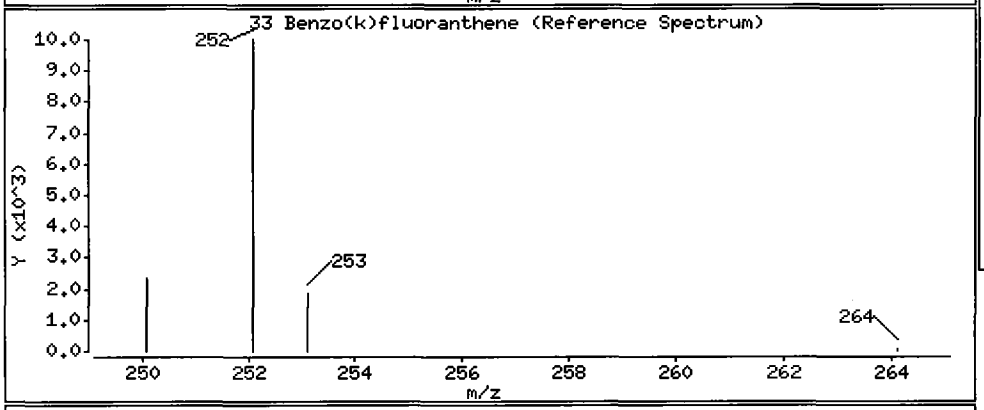
Concentration: 30.4 ug/L

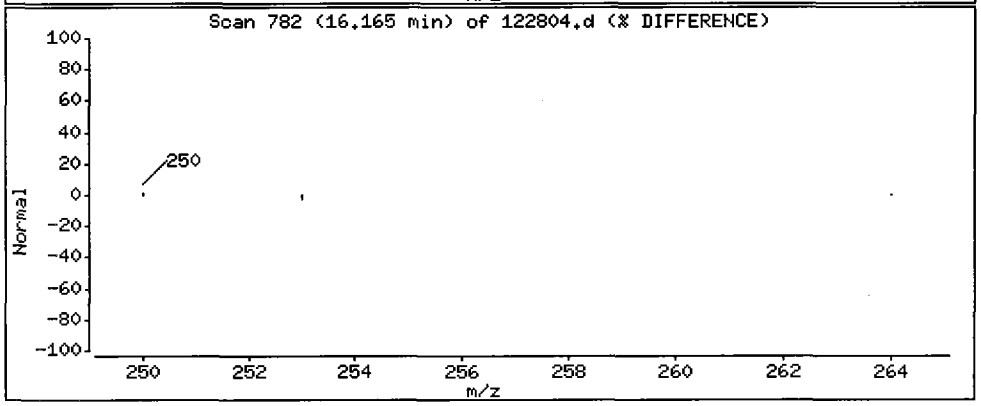












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

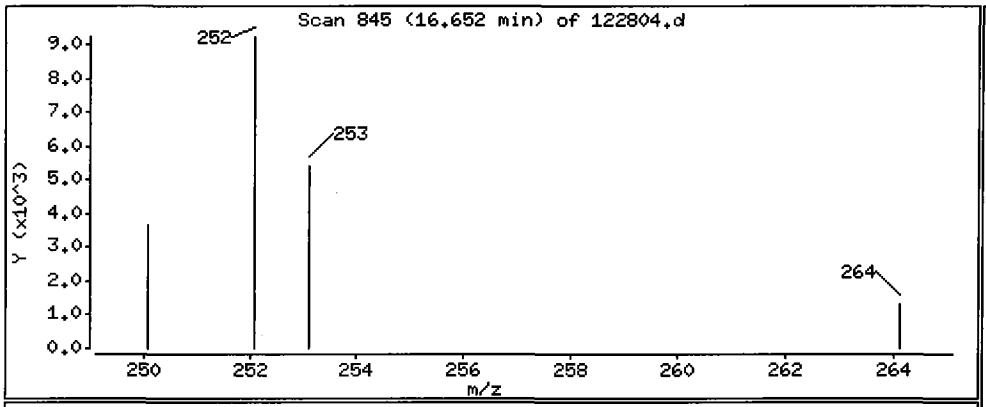
Operator: VTS

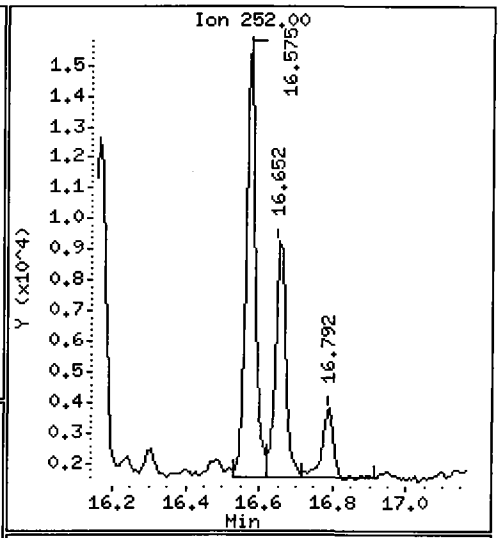
Column phase: ZB-5

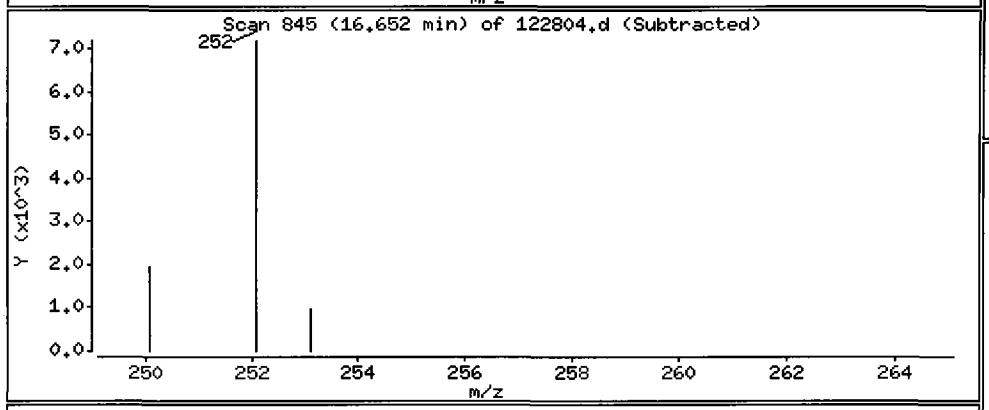
Column diameter: 0.25

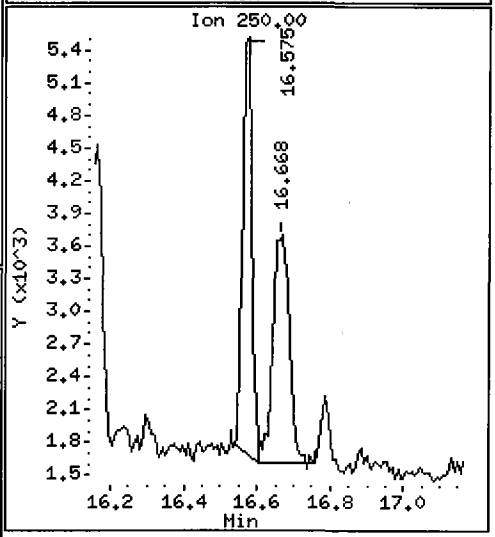
34 Benzo(a)pyrene

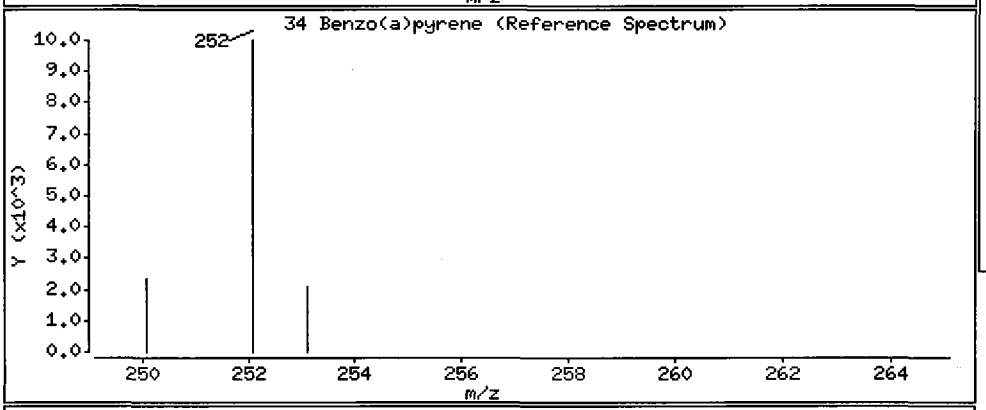
Concentration: 36.1 ug/L

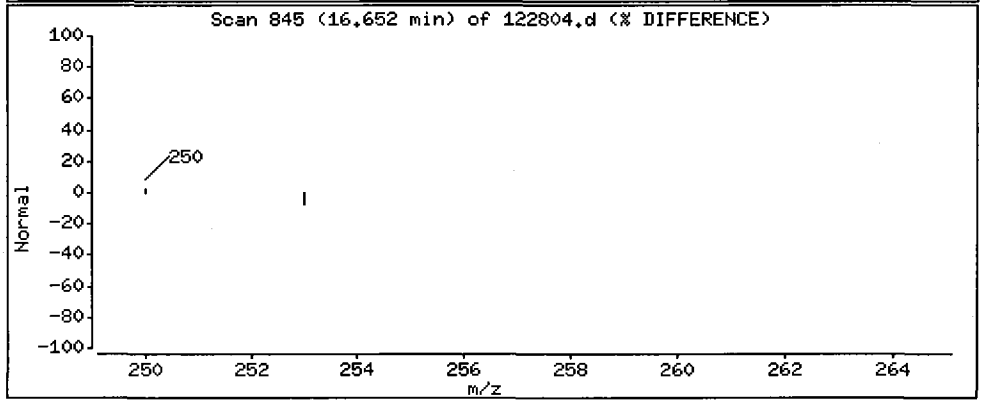












Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

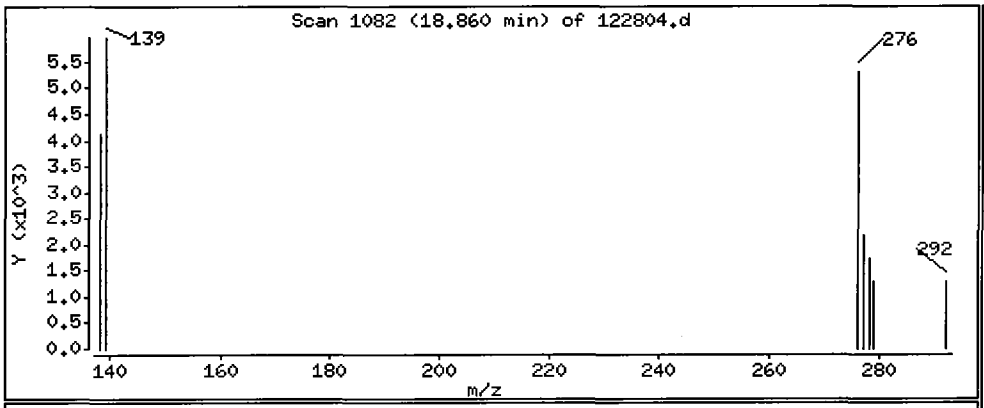
Operator: VTS

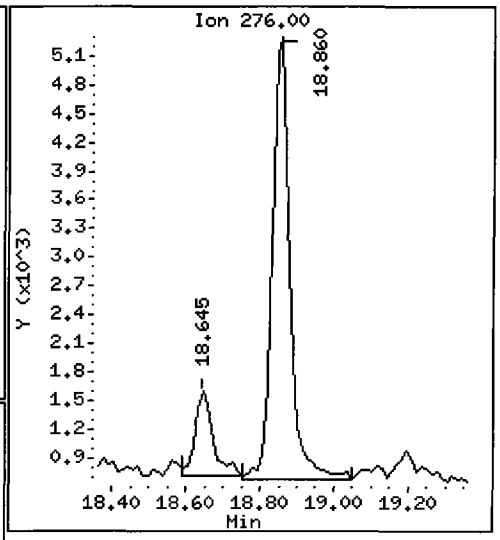
Column phase: ZB-5

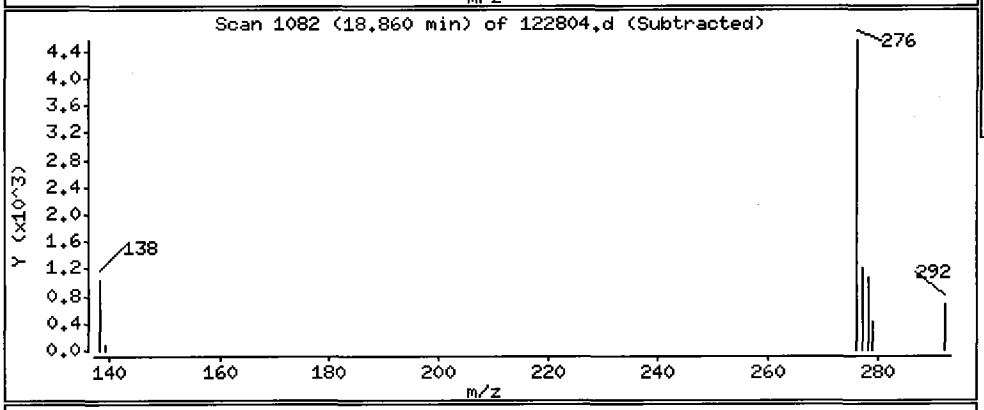
Column diameter: 0.25

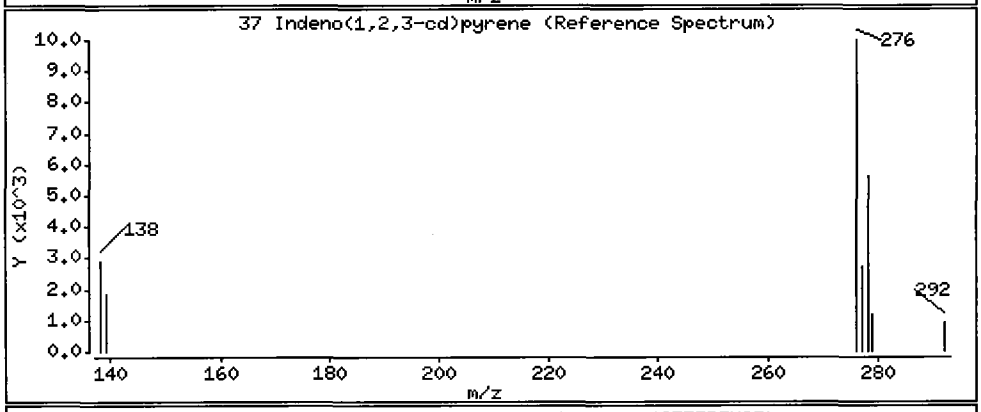
37 Indeno(1,2,3-cd)pyrene

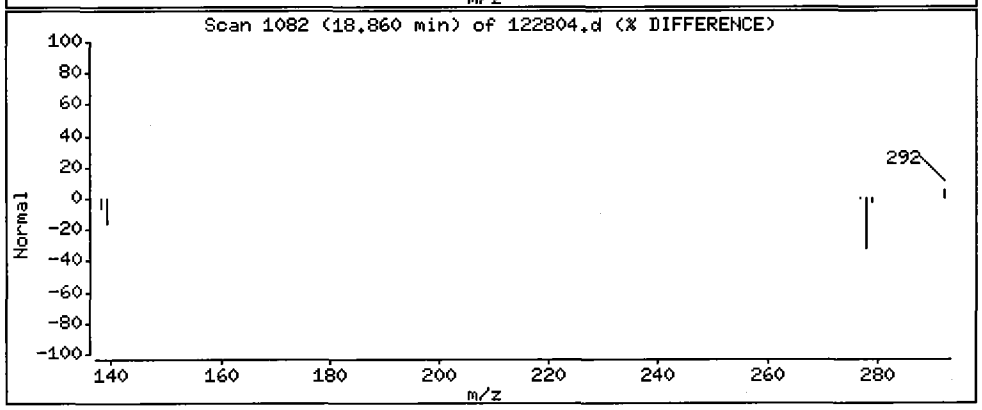
Concentration: 29.8 ug/L











Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

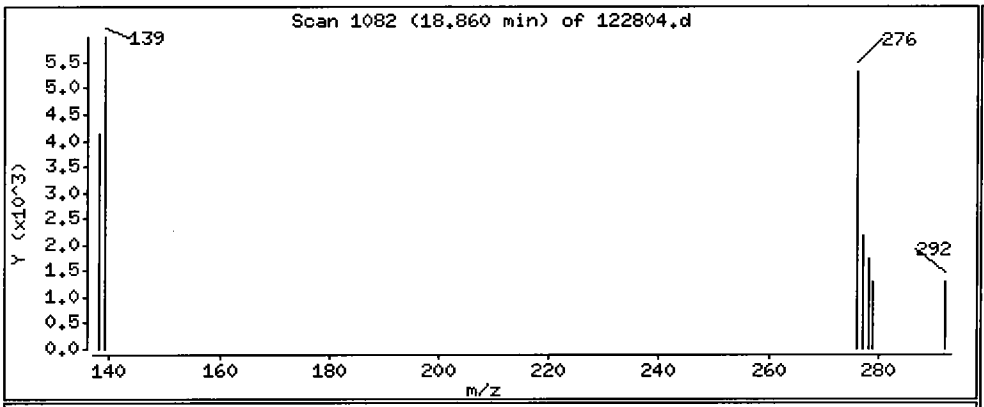
Operator: VTS

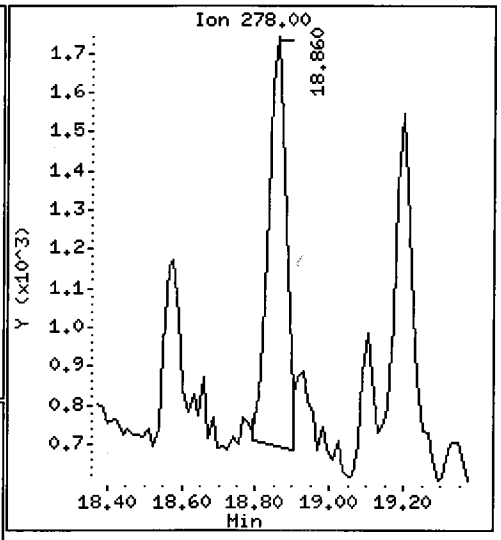
Column phase: ZB-5

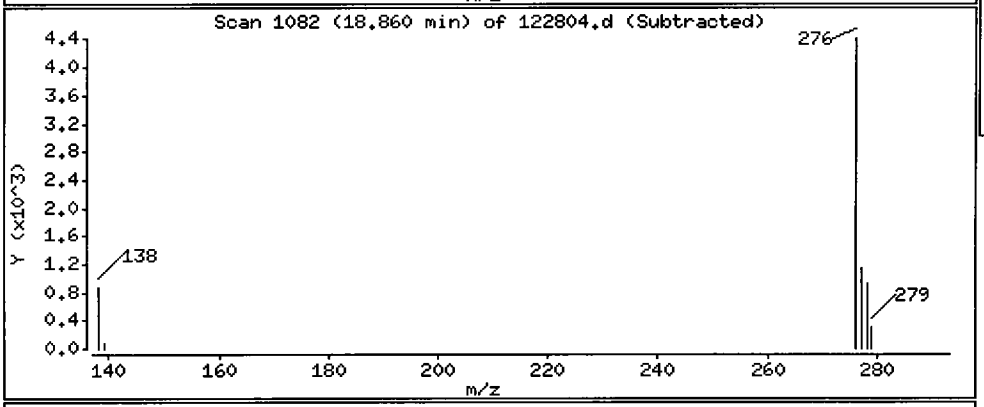
Column diameter: 0.25

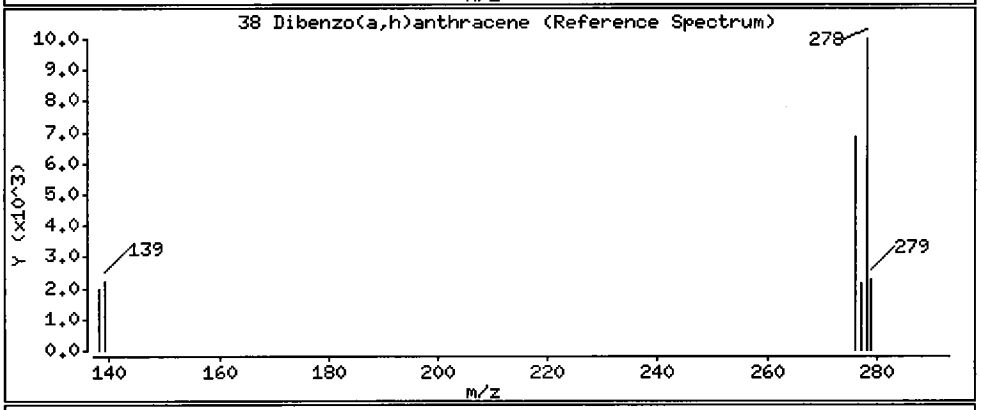
38 Dibenzo(a,h)anthracene

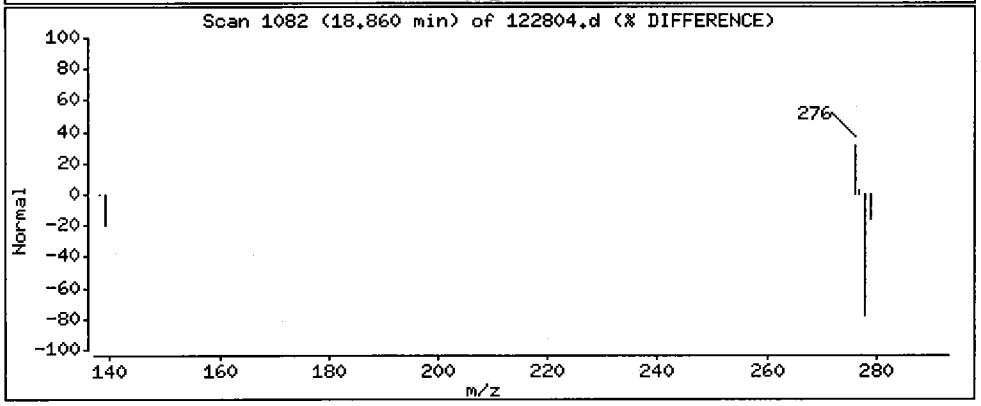
Concentration: 8.68 ug/L











Data File: /chem3/nt2.i/20091228.b/122804.d

Date : 28-DEC-2009 12:55

Client ID: CB31A121509COMP

Instrument: nt2.i

Sample Info: QB72A

Volume Injected (uL): 2.0

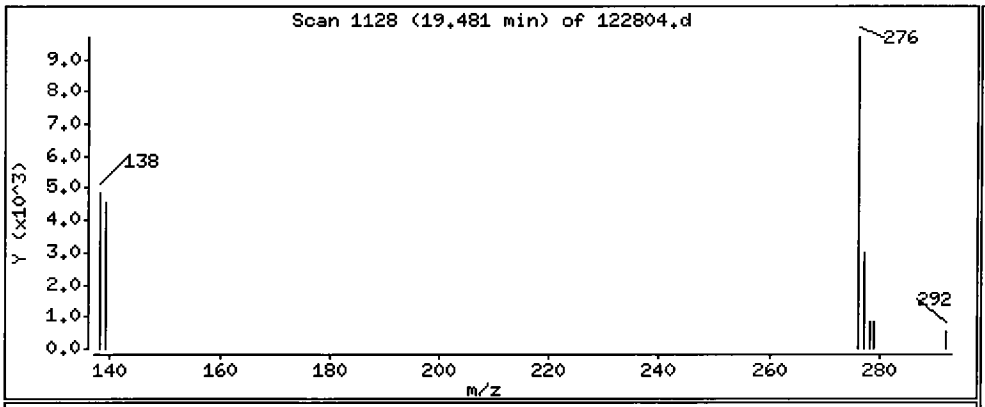
Operator: VTS

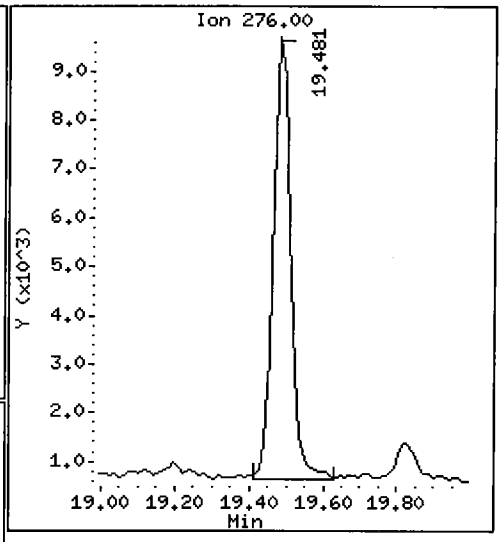
Column phase: ZB-5

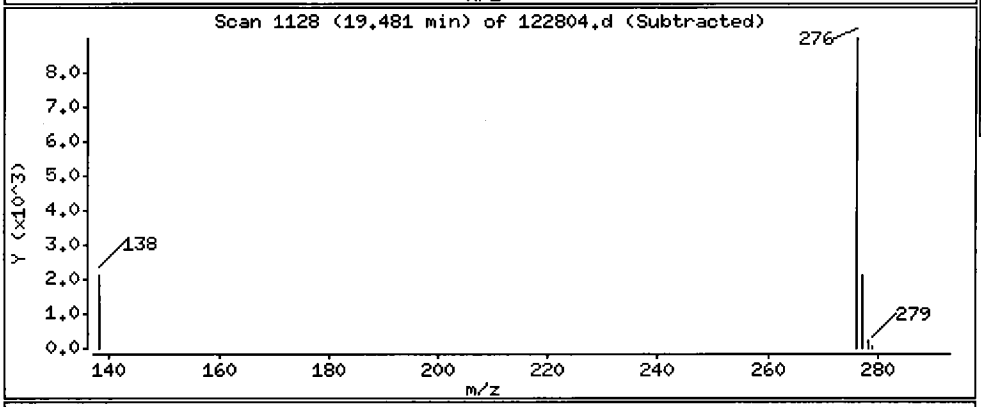
Column diameter: 0.25

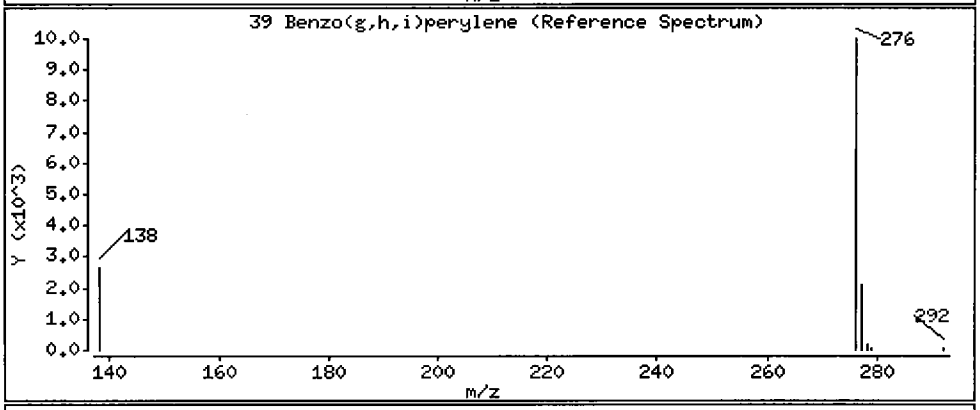
39 Benzo(g,h,i)perylene

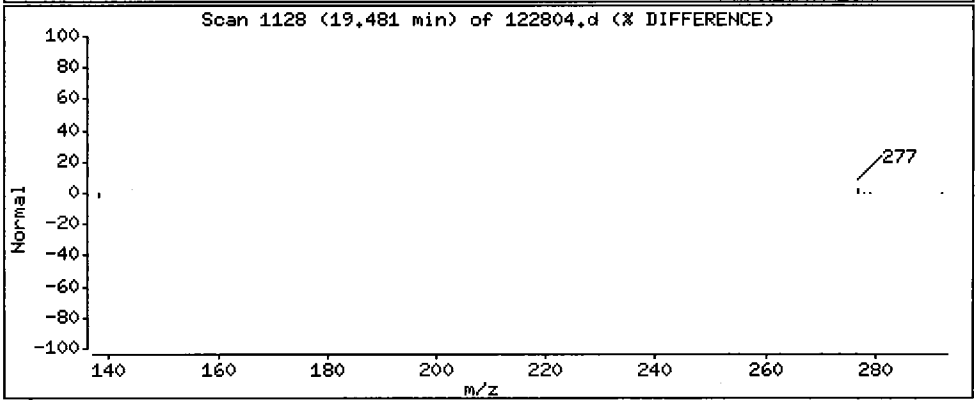
Concentration: 65.8 ug/L











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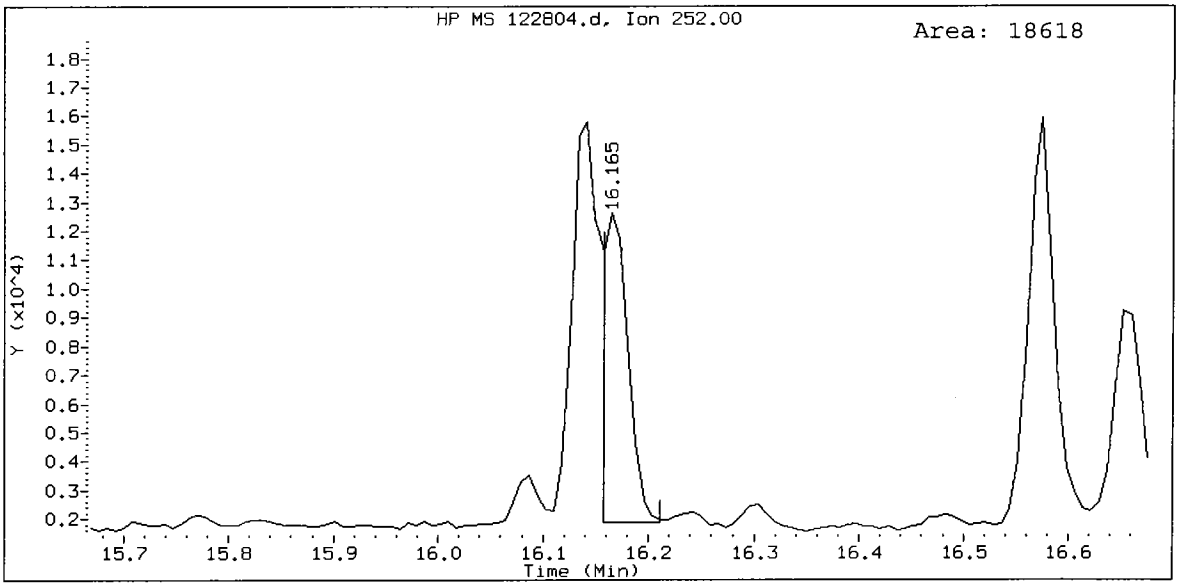
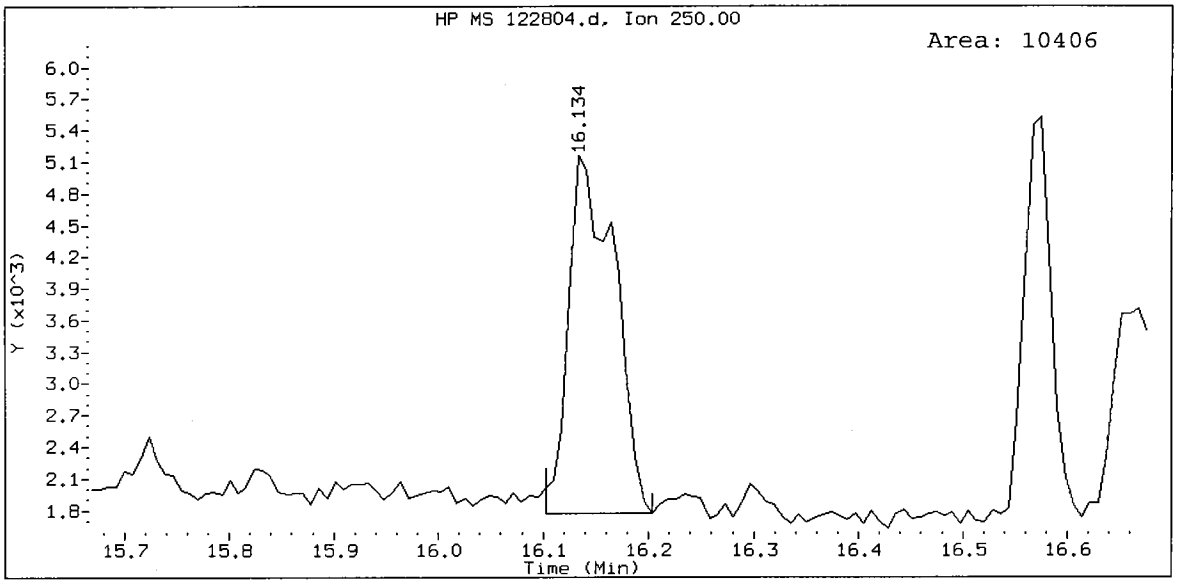
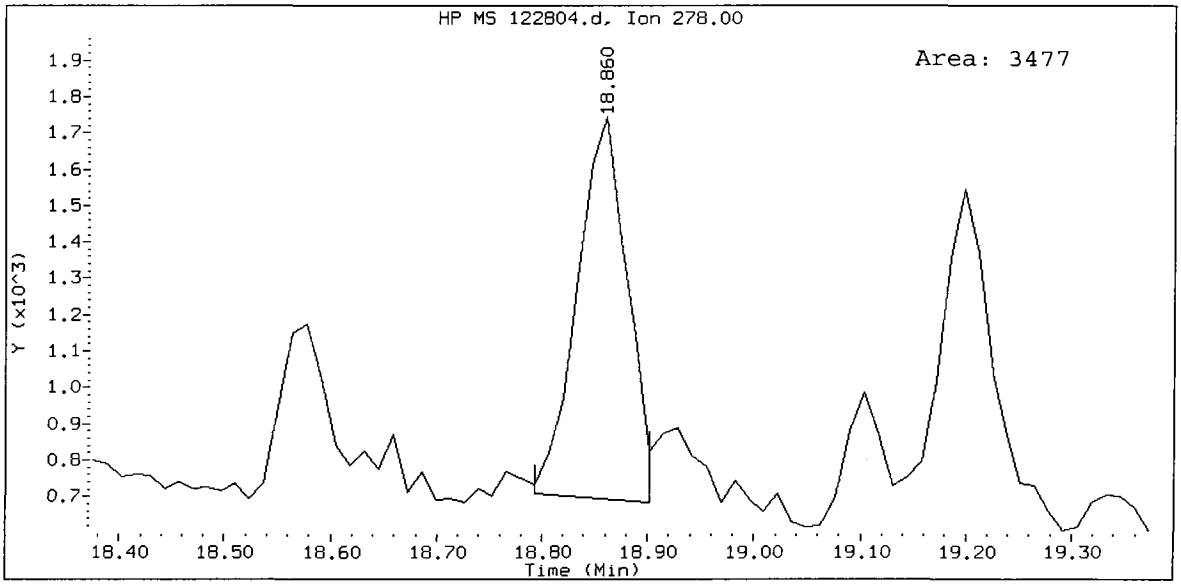
Benzo(k)fluoranthene Amount: 30.41





QB72A, /chem3/nt2.i/20091228.b/122804.d
Dibenzo(a,h)anthracene Amount: 8.68



ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB4857121509COMP
SAMPLE

Lab Sample ID: QB72B
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted: 12/17/09
Date Analyzed: 12/28/09 13:19
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**	**0.048**
91-57-6	**2-Methylnaphthalene**	**0.010**	**0.032**
90-12-0	**1-Methylnaphthalene**	**0.010**	**0.016**
208-96-8	**Acenaphthylene**	**0.010**	**0.012**
83-32-9	Acenaphthene	0.010	< 0.010 U
86-73-7	**Fluorene**	**0.010**	**0.012**
85-01-8	**Phenanthrene**	**0.010**	**0.10**
120-12-7	Anthracene	0.010	< 0.010 U
206-44-0	**Fluoranthene**	**0.010**	**0.11**
129-00-0	**Pyrene**	**0.010**	**0.13**
56-55-3	**Benzo(a)anthracene**	**0.010**	**0.025**
218-01-9	**Chrysene**	**0.010**	**0.073**
205-99-2	**Benzo(b)fluoranthene**	**0.010**	**0.048**
207-08-9	**Benzo(k)fluoranthene**	**0.010**	**0.029**
50-32-8	**Benzo(a)pyrene**	**0.010**	**0.032**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**0.010**	**0.027**
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U
191-24-2	**Benzo(g,h,i)perylene**	**0.010**	**0.063**
132-64-9	Dibenzofuran	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	71.7%
d14-Dibenzo(a,h)anthracene	57.3%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20091228.b/122805.d
Lab Smp Id: QB72B Client Smp ID: CB4857121509COMP
Inj Date : 28-DEC-2009 13:19
Operator : VTS Inst ID: nt2.i
Smp Info : QB72B
Misc Info : 09-30992
Comment :
Method : /chem3/nt2.i/20091228.b/lowsim.m
Meth Date : 28-Dec-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 5
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)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	7.363	7.378	(1.000)	180798	200.000	
	5 Naphthalene	128	7.394	7.409	(1.004)	41376	47.5260	47.5
$	6 2-Methylnaphthalene-d10	152	8.225	8.225	(1.117)	100265	215.313	215(R)
	7 2-Methylnaphthalene	142	8.256	8.271	(1.121)	15972	31.4594	31.5
	8 1-Methylnaphthalene	142	8.394	8.409	(1.140)	8503	16.0913	16.1
	10 Acenaphthylene	152	9.394	9.406	(0.980)	9080	12.1512	12.2
*	11 Acenaphthene-d10	164	9.587	9.599	(1.000)	94425	200.000	
	12 Acenaphthene	153	9.626	9.625	(1.004)	2917	6.29064	6.29
	14 Dibenzofuran	168	9.832	9.831	(1.026)	5582	9.24001	9.24
	15 Fluorene	166	10.244	10.260	(1.069)	5837	11.6879	11.7
*	18 Phenanthrene-d10	188	11.429	11.445	(1.000)	133295	200.000	
	19 Phenanthrene	178	11.460	11.461	(1.003)	67334	101.631	102
	20 Anthracene	178	11.521	11.522	(1.008)	5057	7.46964	7.47
	24 Fluoranthene	202	12.937	12.936	(1.132)	80647	111.759	112
	25 Pyrene	202	13.222	13.221	(1.157)	95857	130.861	131

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	14.715	14.714	(0.998)	12948	25.1280	25.1
*	29 Chrysene-d12	240	14.737	14.736	(1.000)	103241	200.000	
	30 Chrysene	228	14.770	14.769	(1.002)	37121	73.0173	73.0
	32 Benzo(b)fluoranthene	252	16.142	16.141	(0.963)	27414	47.4843	47.5
	33 Benzo(k)fluoranthene	252	16.165	16.172	(0.965)	17896	28.5499	28.5(M)
	34 Benzo(a)pyrene	252	16.652	16.660	(0.994)	14603	32.2821	32.3(M)
*	35 Perylene-d12	264	16.753	16.753	(1.000)	100768	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	18.847	18.860	(1.125)	14236	27.1575	27.2(M)
$	36 Dibenzo(a,h)anthracene-d14	292	18.793	18.792	(1.122)	52631	172.313	172(R)
	38 Dibenzo(a,h)anthracene	278	18.860	18.873	(1.126)	3402	8.29717	8.30(M)
	39 Benzo(g,h,i)perylene	276	19.481	19.494	(1.163)	28445	62.9295	62.9

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt2.i
Lab File ID: 122805.d
Lab Smp Id: QB72B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30992

Calibration Date: 28-DEC-2009
Calibration Time: 11:14
Client Smp ID: CB4857121509COMB
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	180798	4.44
11 Acenaphthene-d10	96677	48338	193354	94425	-2.33
18 Phenanthrene-d10	147750	73875	295500	133295	-9.78
29 Chrysene-d12	135219	67610	270438	103241	-23.65
35 Perylene-d12	125815	62908	251630	100768	-19.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	7.38	6.88	7.88	7.36	-0.20
11 Acenaphthene-d10	9.60	9.10	10.10	9.59	-0.13
18 Phenanthrene-d10	11.45	10.95	11.95	11.43	-0.14
29 Chrysene-d12	14.74	14.24	15.24	14.74	0.01
35 Perylene-d12	16.75	16.25	17.25	16.75	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: QB72B
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30992

Client SDG: QB72
Fraction: SV
Client Smp ID: CB4857121509COMP
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

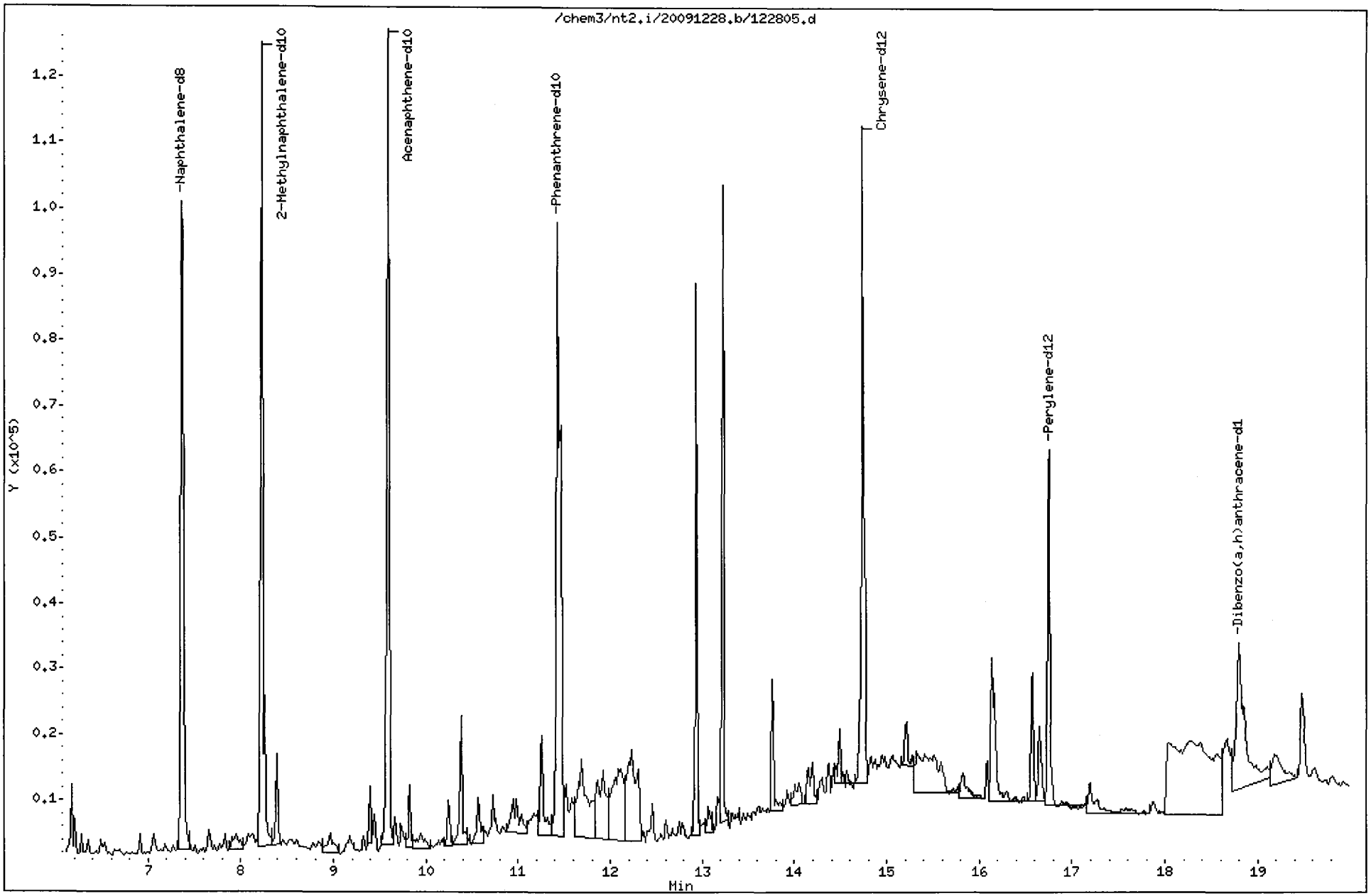
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	215	71.77	31-109
$ 36 Dibenzo(a,h)anthra	300	172	57.44	10-133

Data File: /chem3/nt2.i/20091228.b/122805.d
Date : 28-DEC-2009 13:19
Client ID: CB4857121509COMP
Sample Info: QB72B
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25

QB72:99196



Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

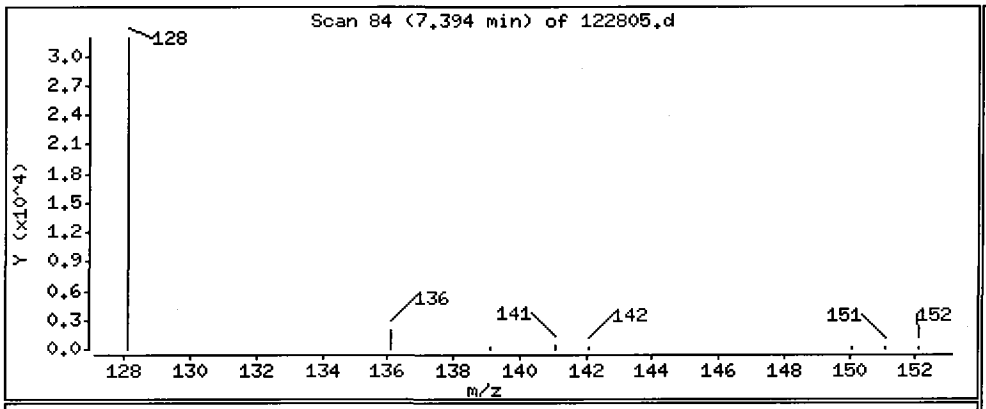
Operator: VTS

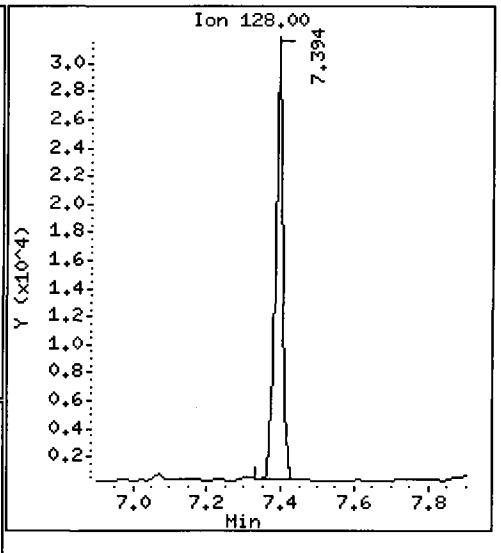
Column phase: ZB-5

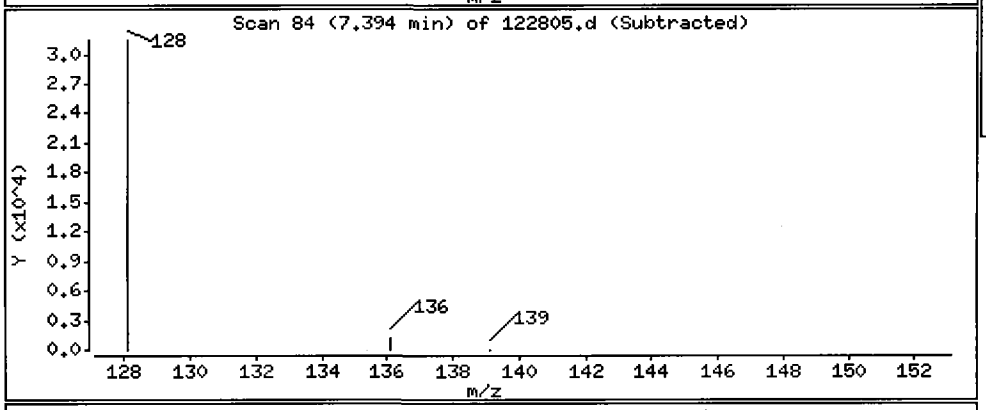
Column diameter: 0.25

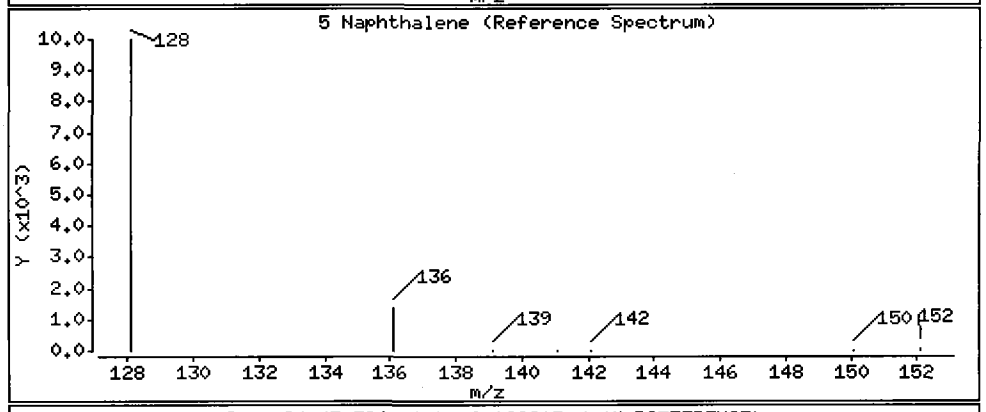
5 Naphthalene

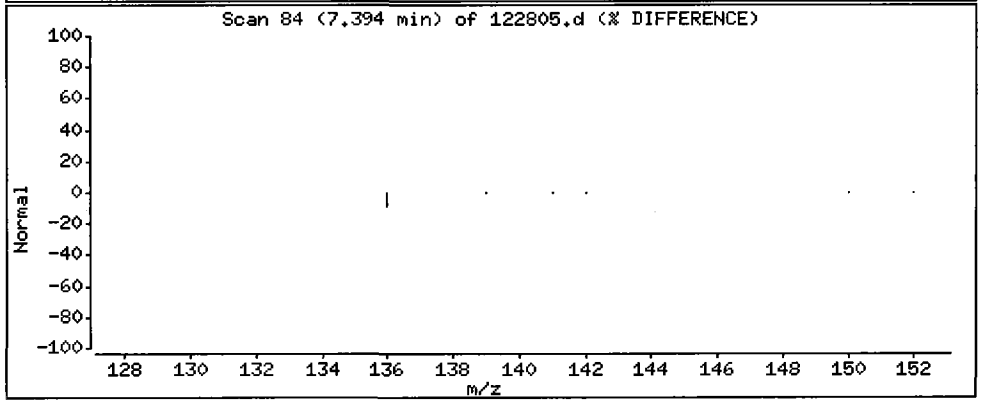
Concentration: 47.5 ug/L











Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

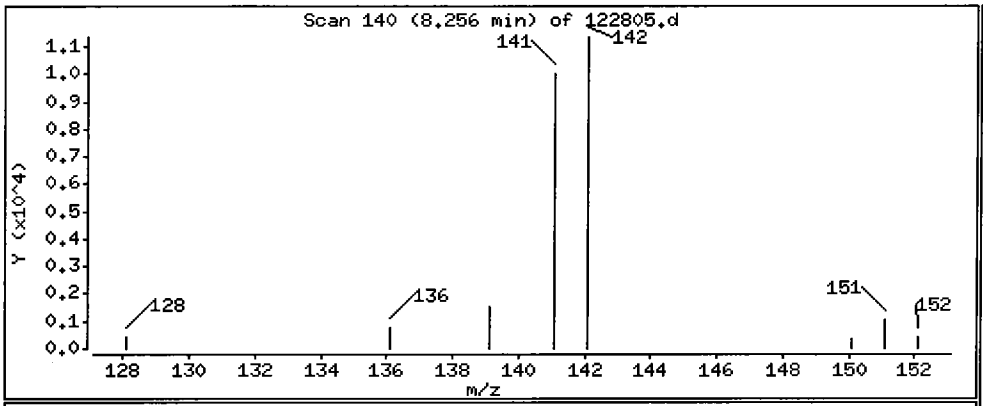
Operator: VTS

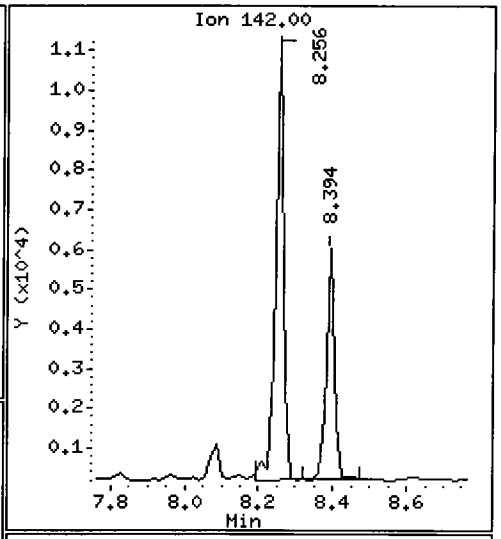
Column phase: ZB-5

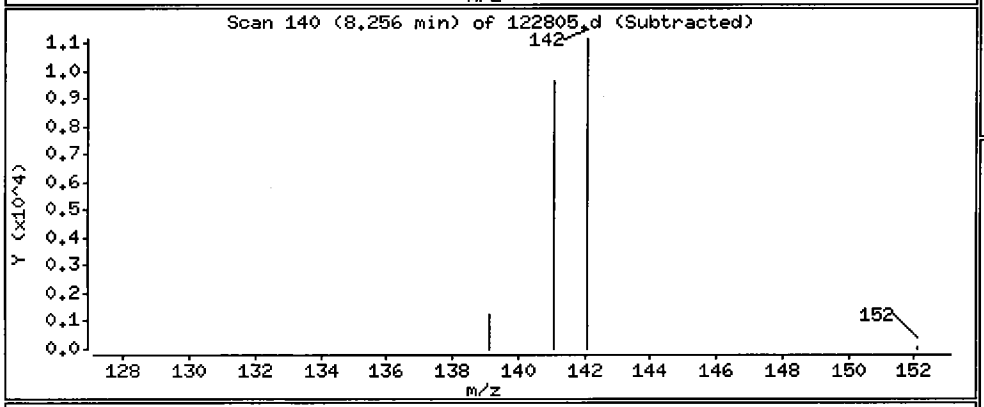
Column diameter: 0.25

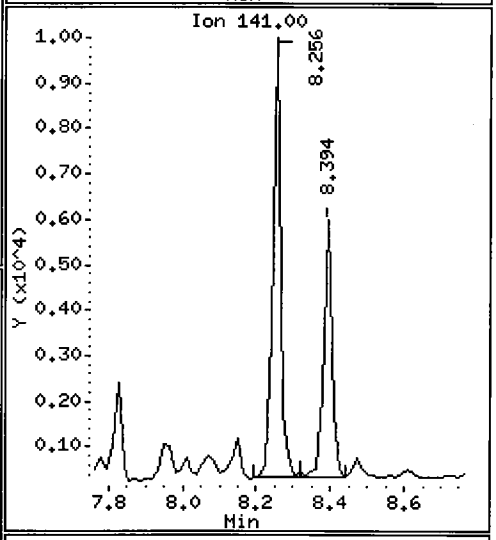
7 2-Methylnaphthalene

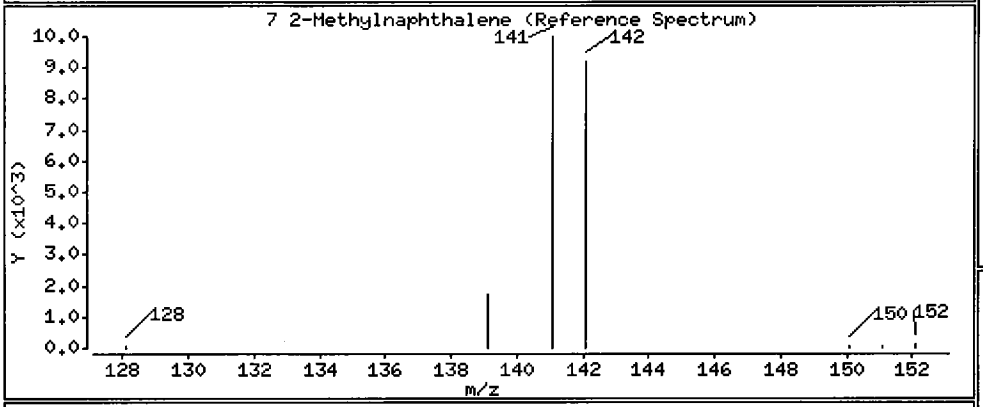
Concentration: 31.5 ug/L

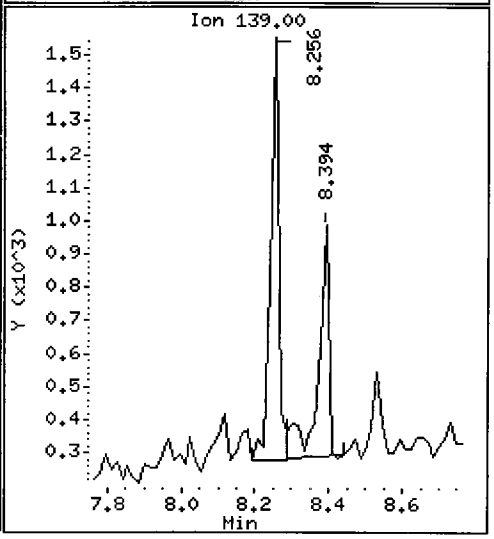


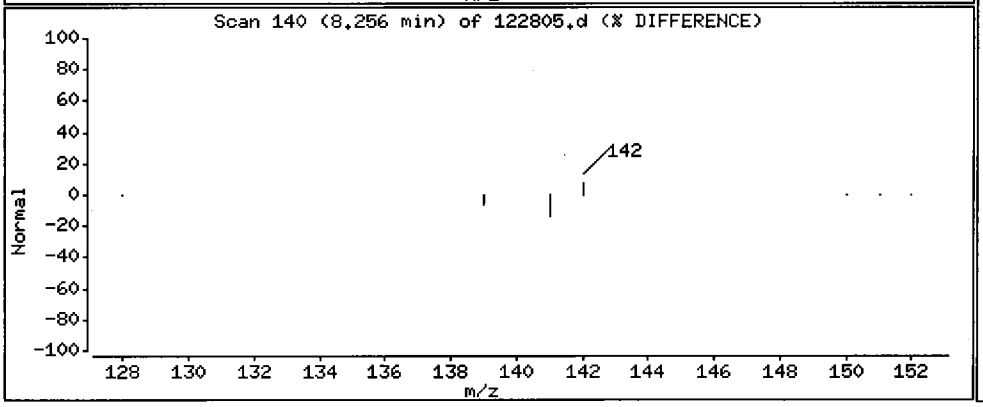












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

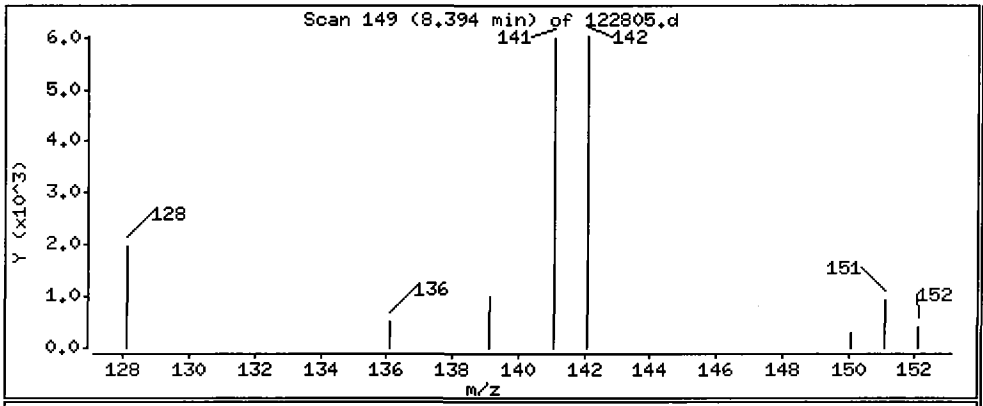
Operator: VTS

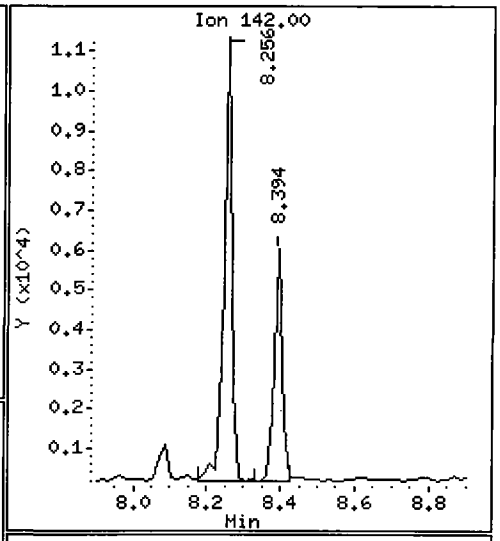
Column phase: ZB-5

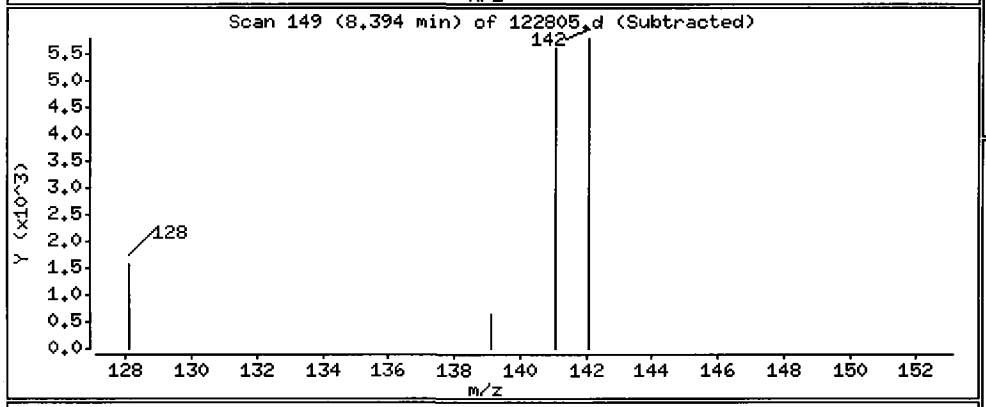
Column diameter: 0.25

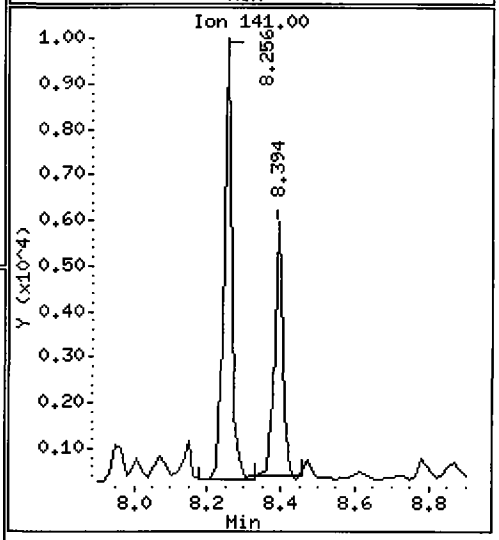
8 1-Methylnaphthalene

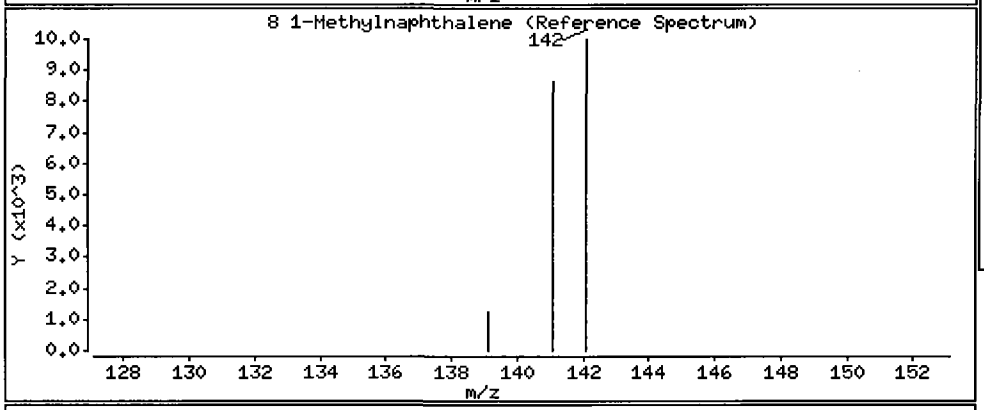
Concentration: 16.1 ug/L

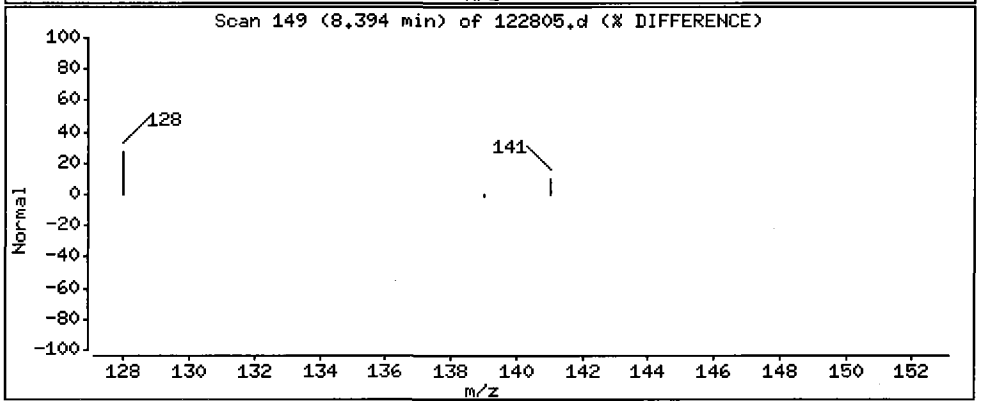












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

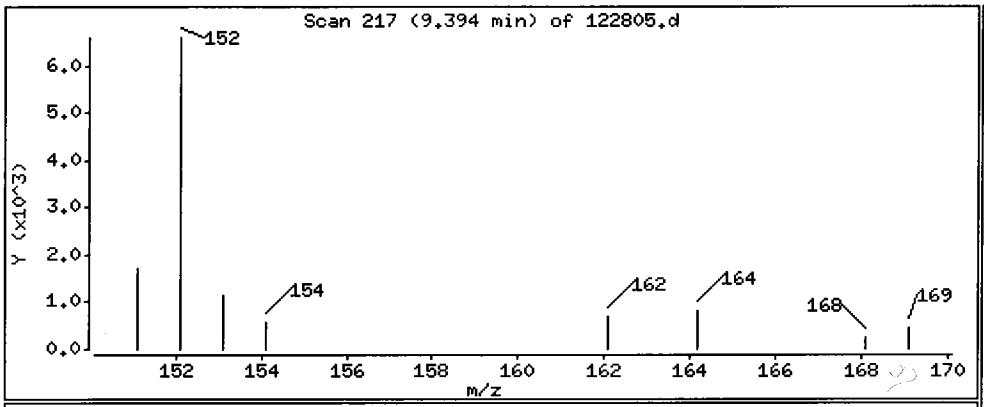
Operator: VTS

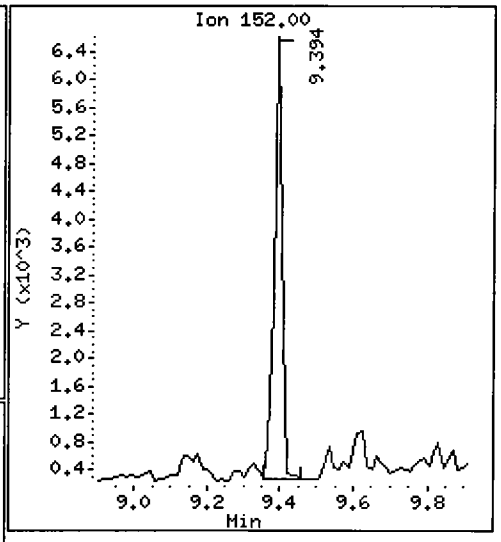
Column phase: ZB-5

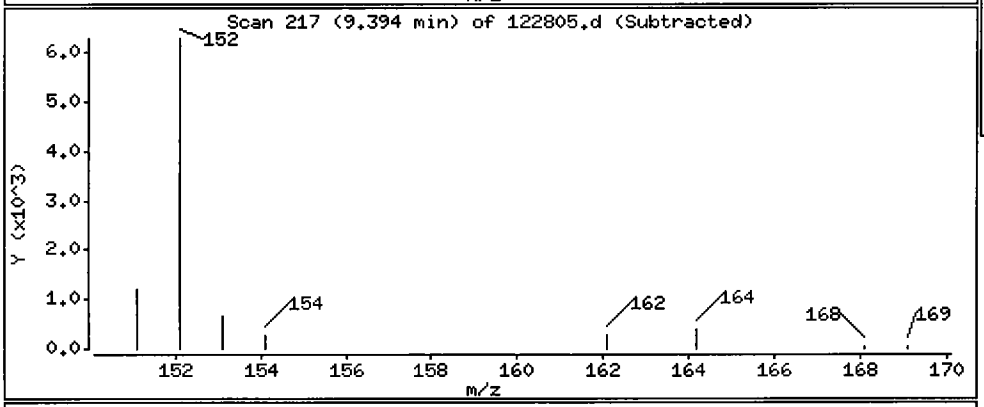
Column diameter: 0.25

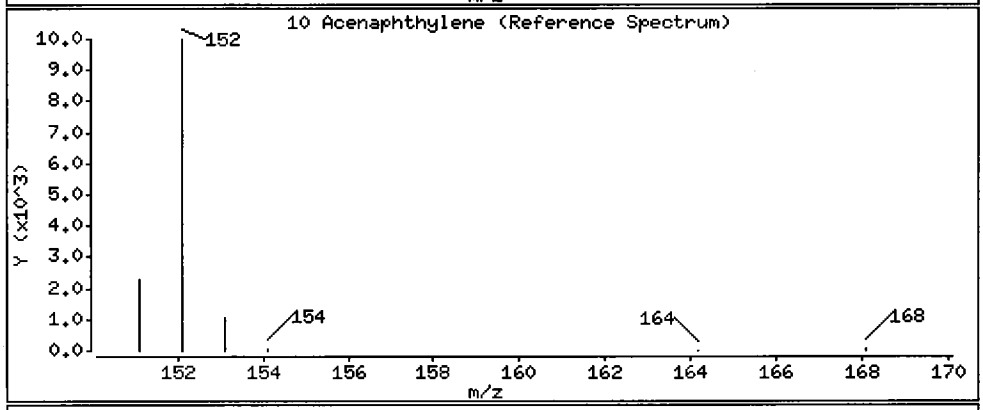
10 Acenaphthylene

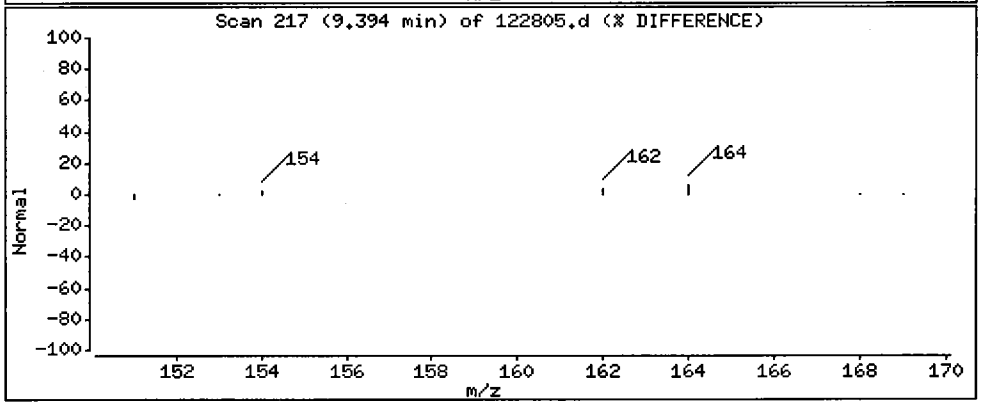
Concentration: 12.2 ug/L











Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

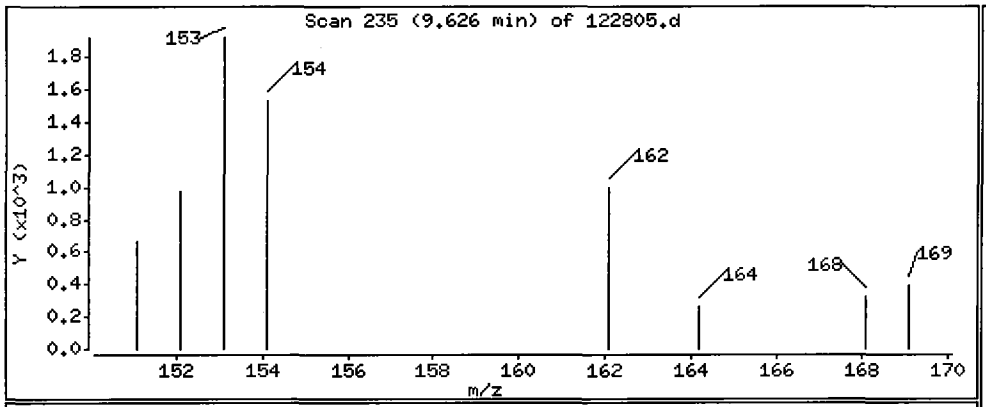
Operator: VTS

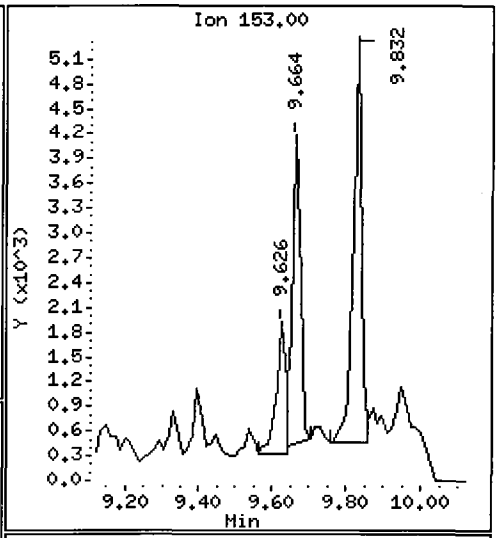
Column phase: ZB-5

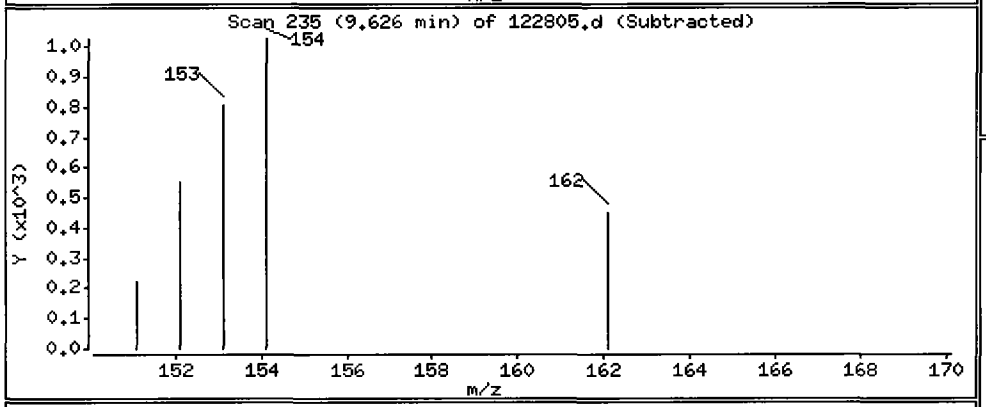
Column diameter: 0.25

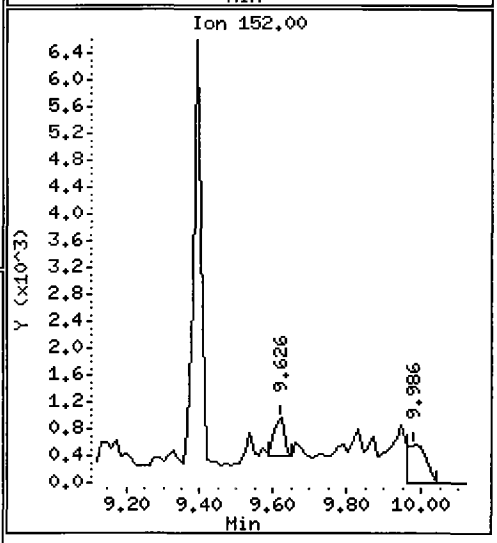
12 Acenaphthene

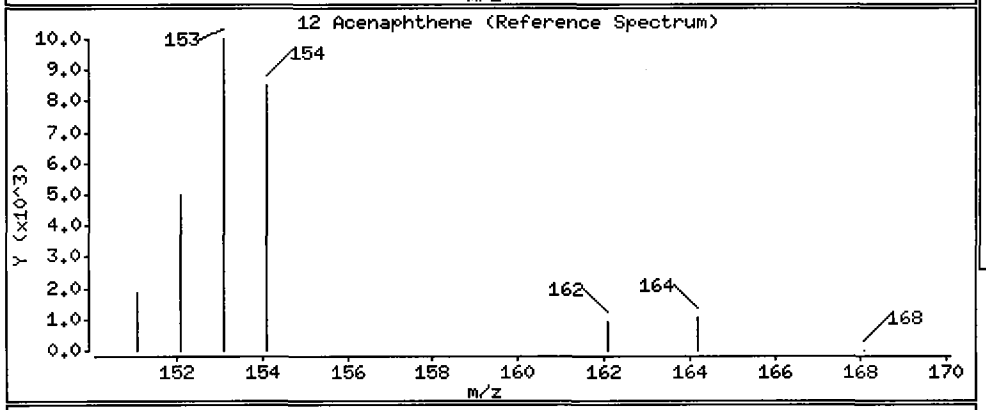
Concentration: 6.29 ug/L

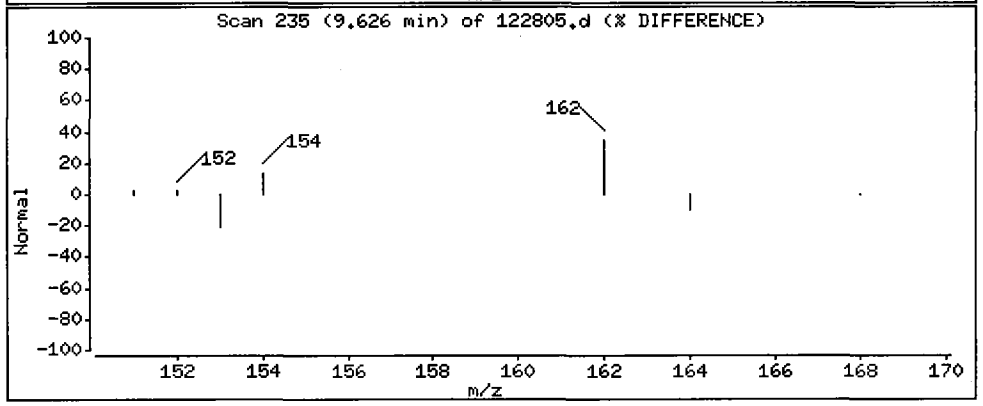












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

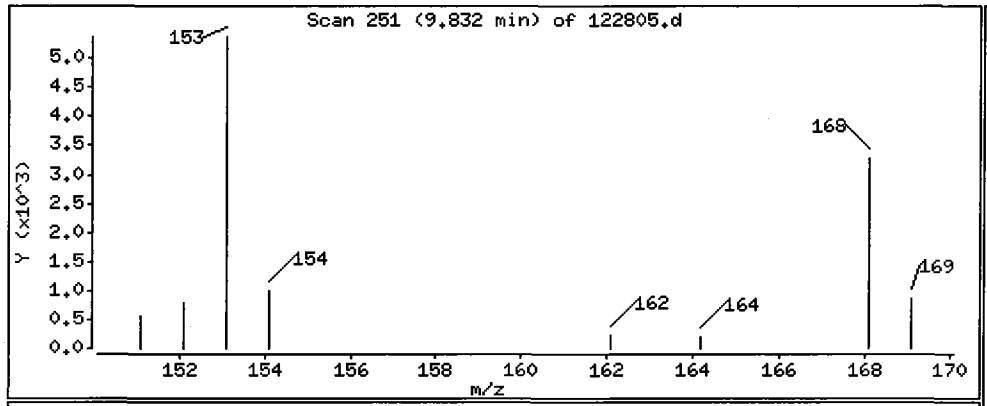
Operator: VTS

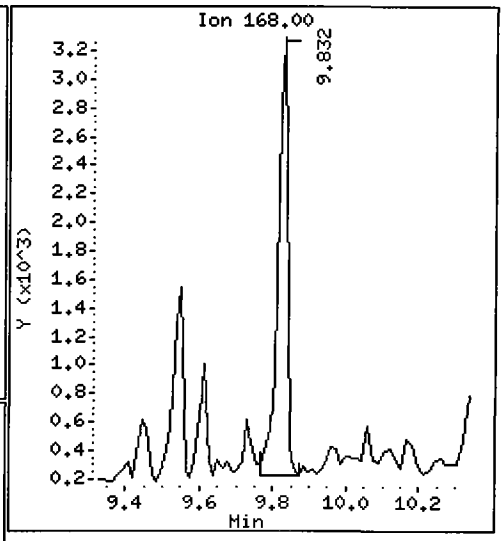
Column phase: ZB-5

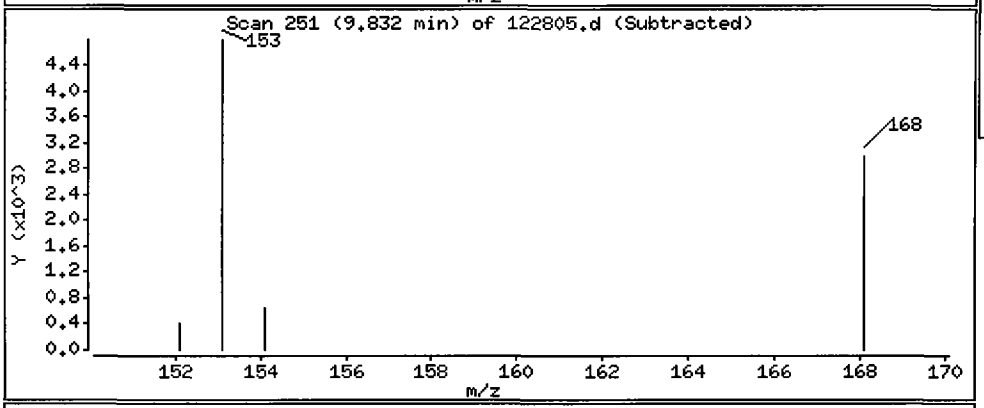
Column diameter: 0.25

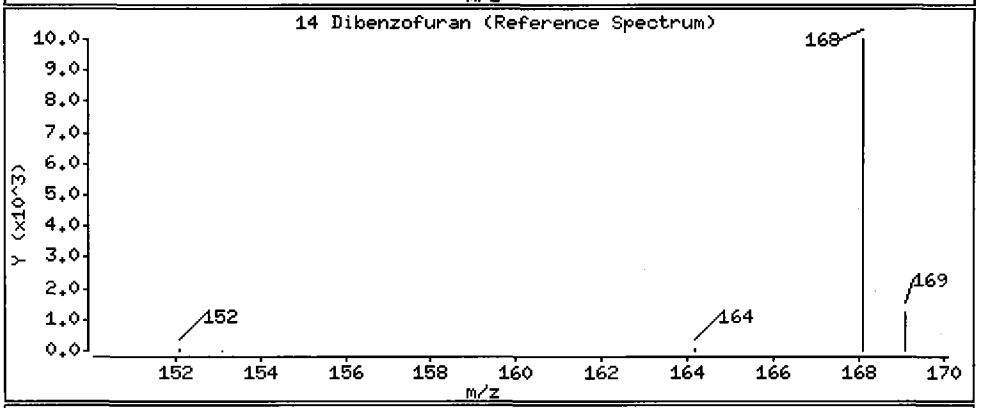
14 Dibenzofuran

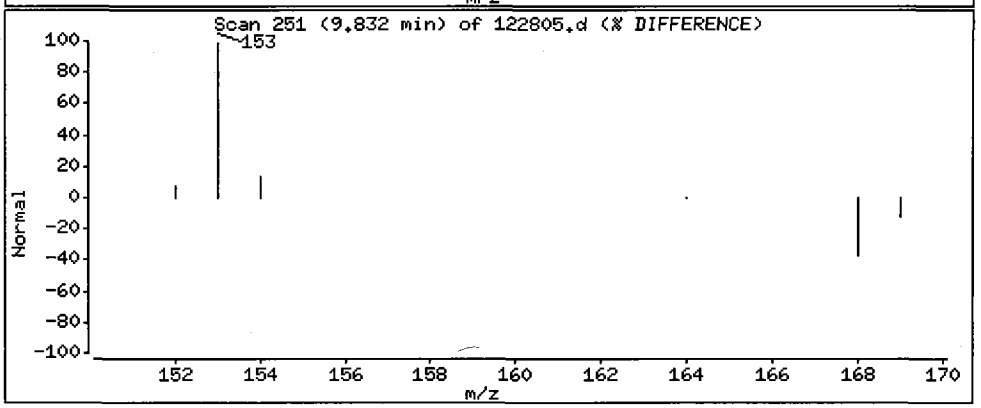
Concentration: 9.24 ug/L











Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

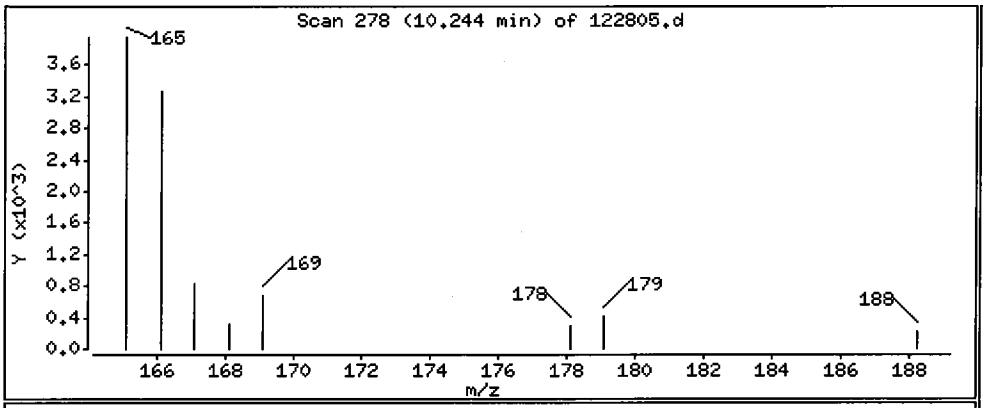
Operator: VTS

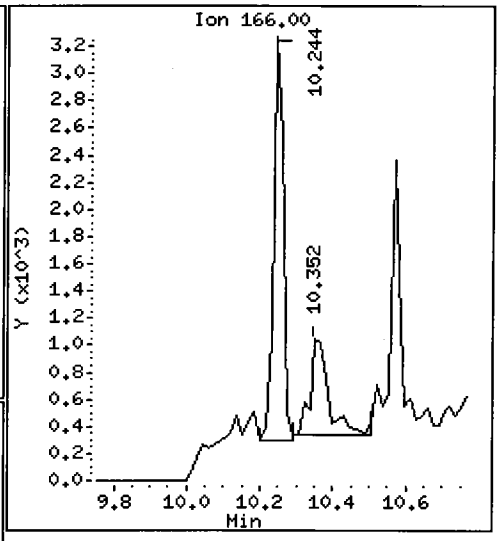
Column phase: ZB-5

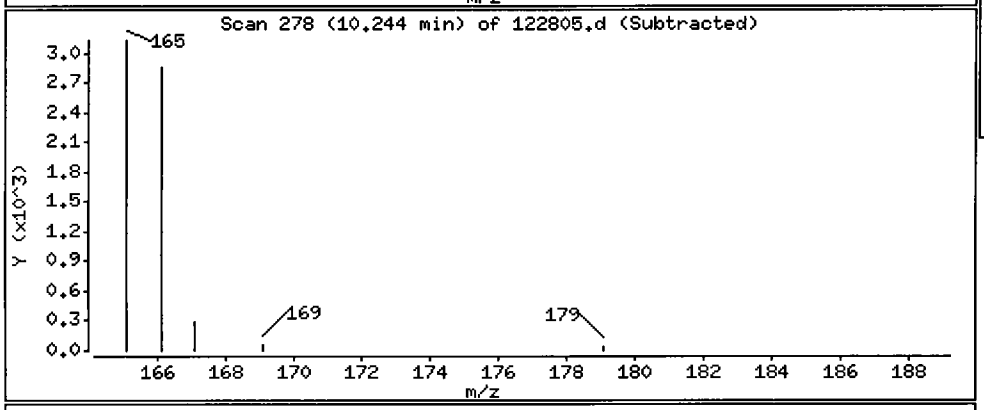
Column diameter: 0.25

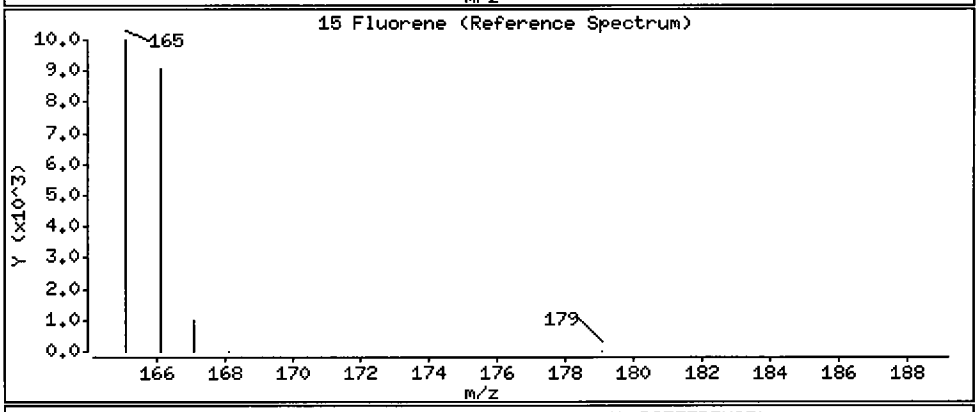
15 Fluorene

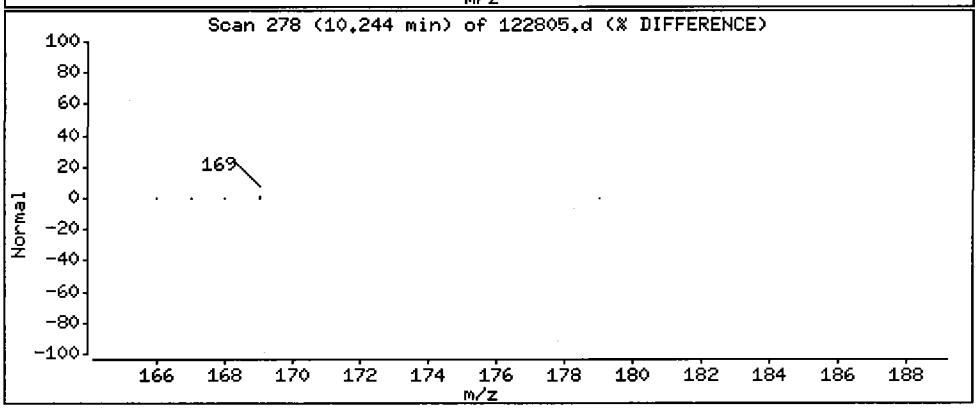
Concentration: 11.7 ug/L











Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

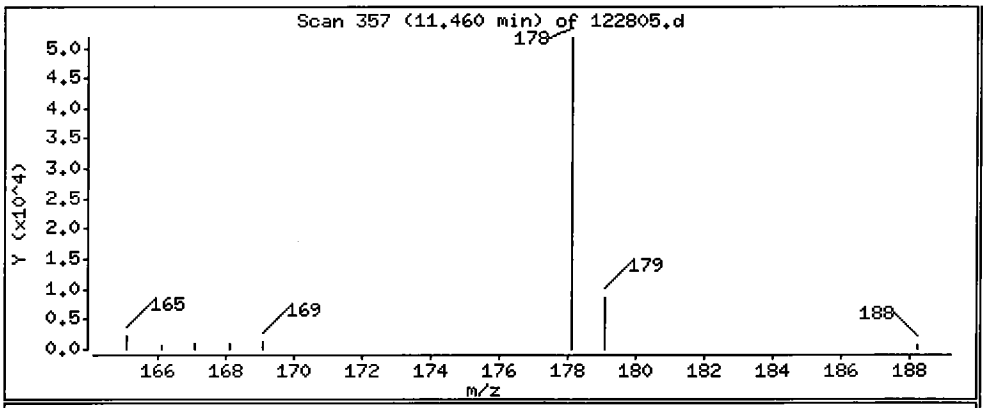
Operator: VTS

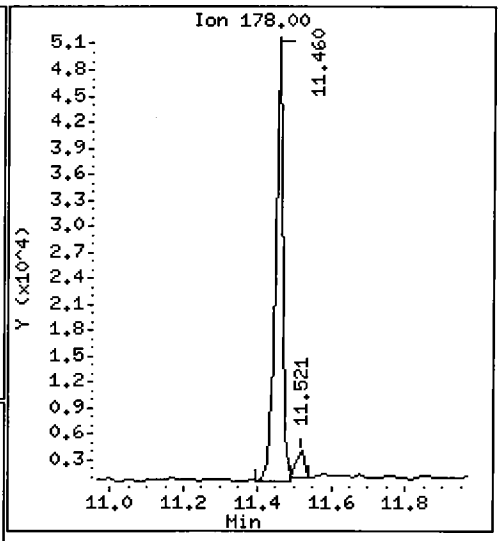
Column phase: ZB-5

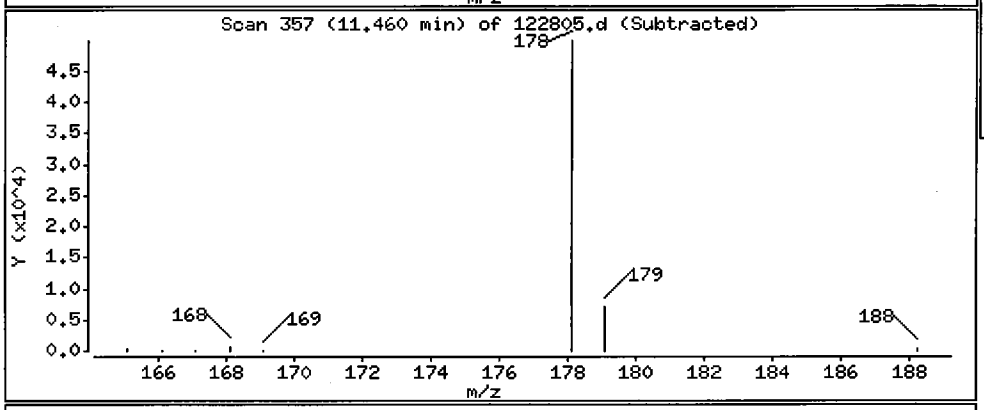
Column diameter: 0.25

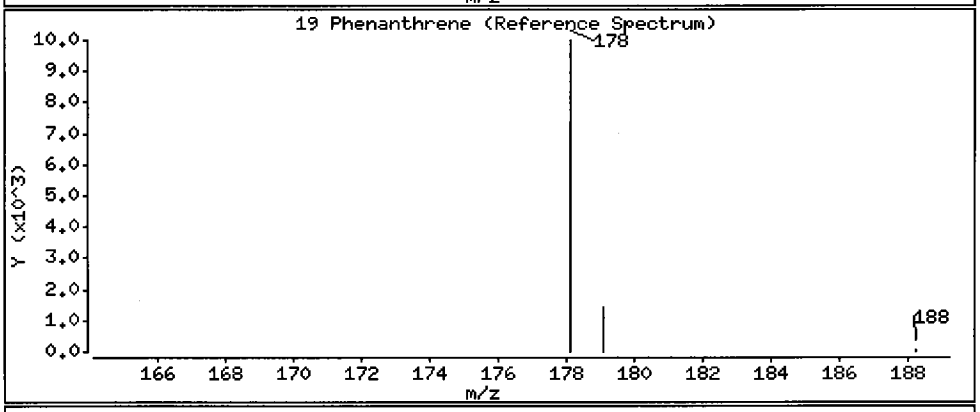
19 Phenanthrene

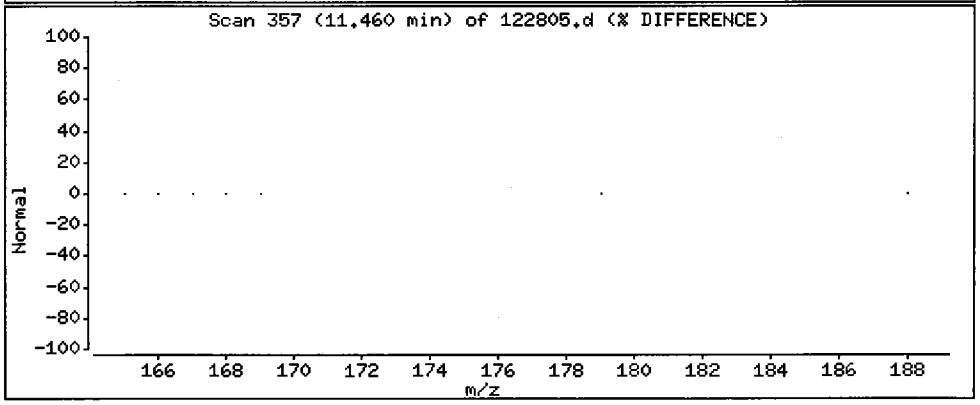
Concentration: 102 ug/L











Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

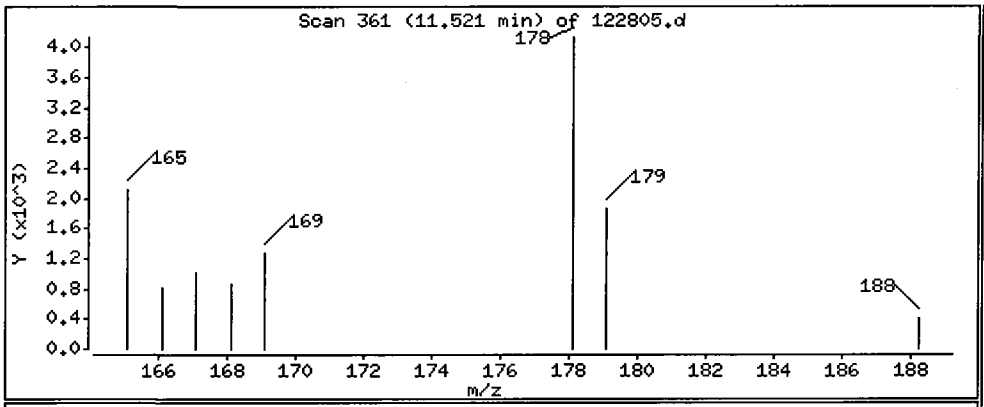
Operator: VTS

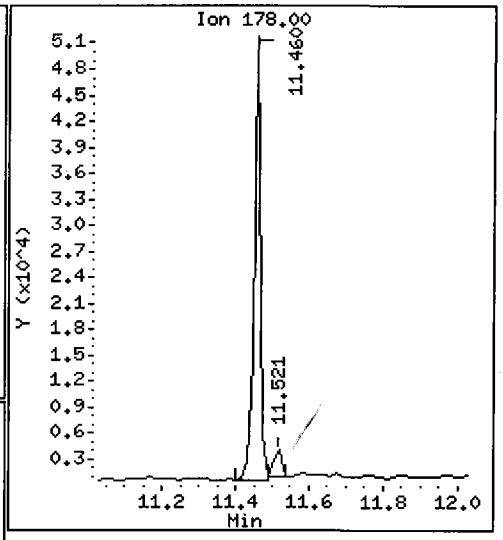
Column phase: ZB-5

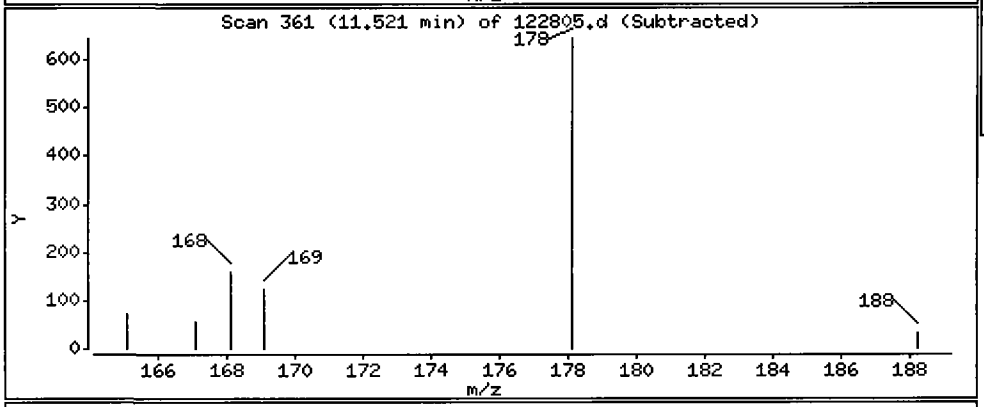
Column diameter: 0.25

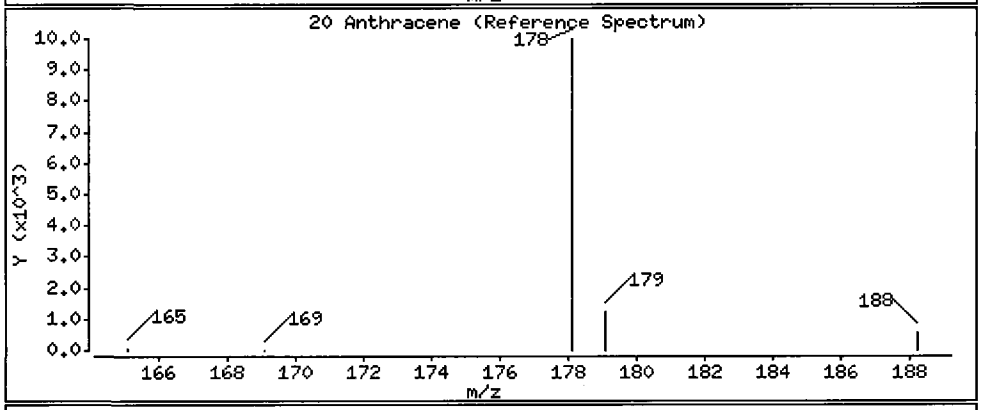
20 Anthracene

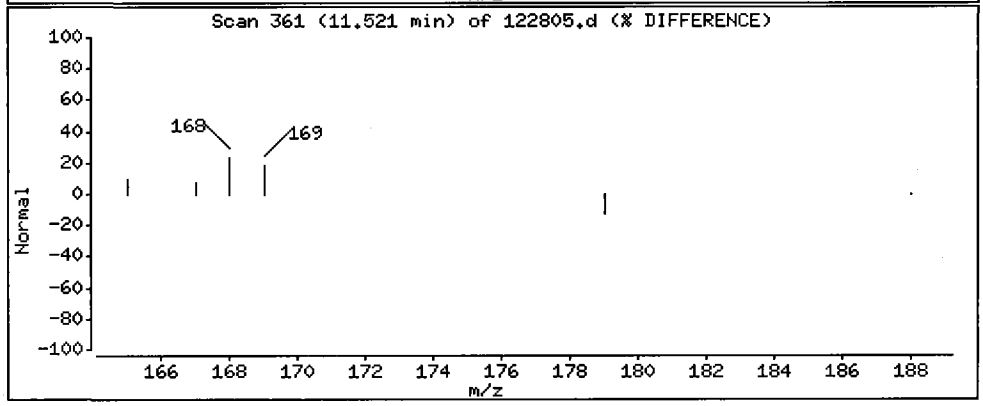
Concentration: 7.47 ug/L











Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

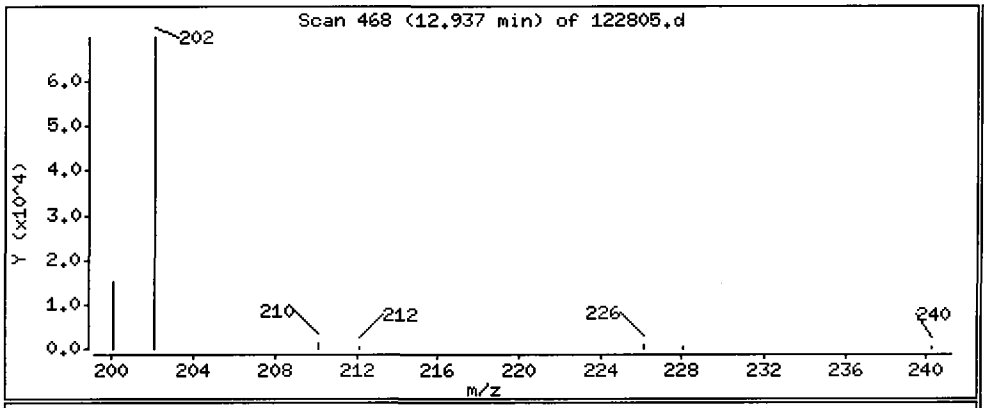
Operator: VTS

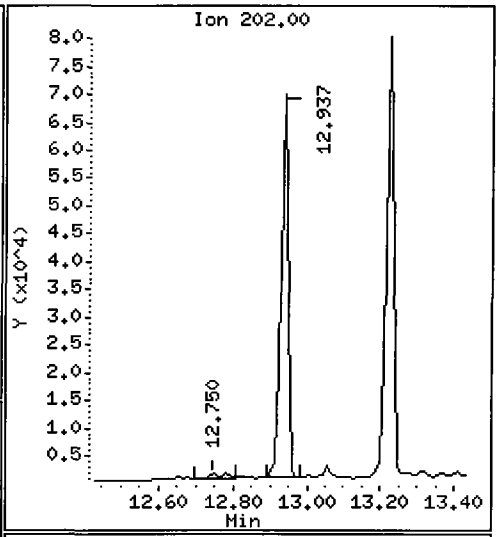
Column phase: ZB-5

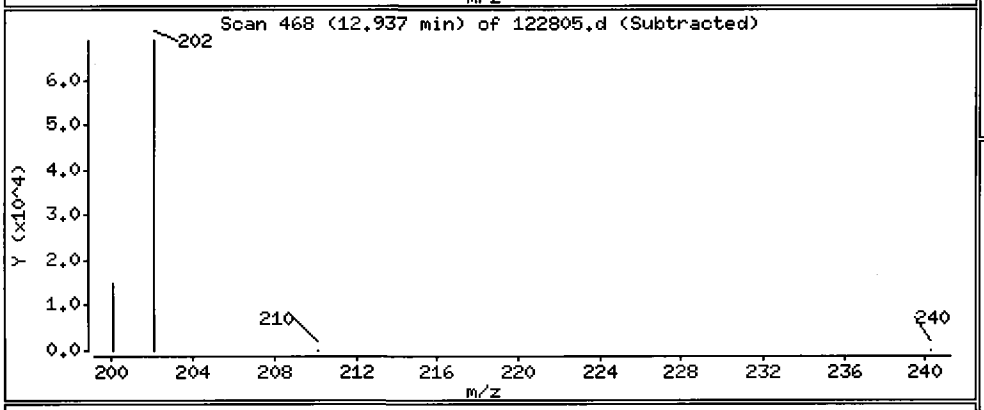
Column diameter: 0.25

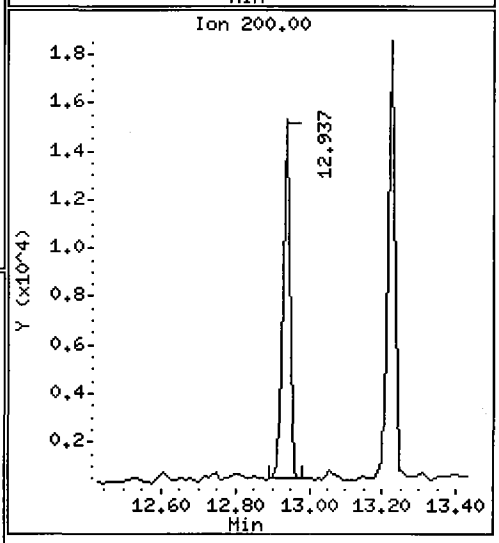
24 Fluoranthene

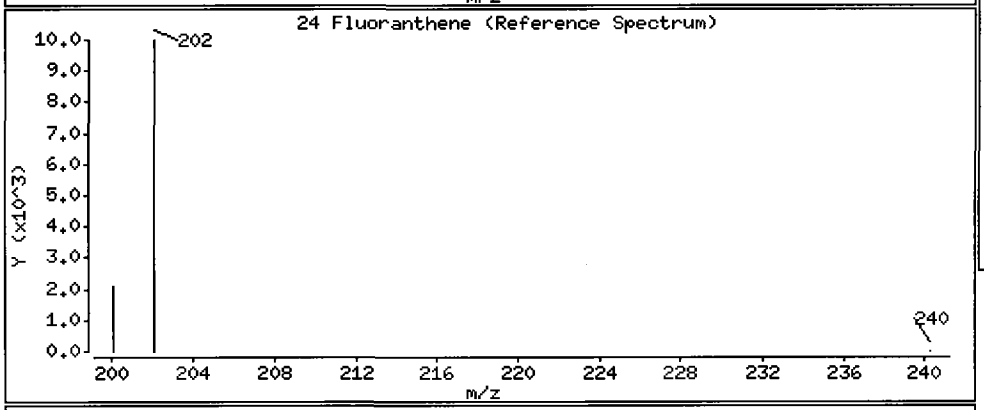
Concentration: 112 ug/L

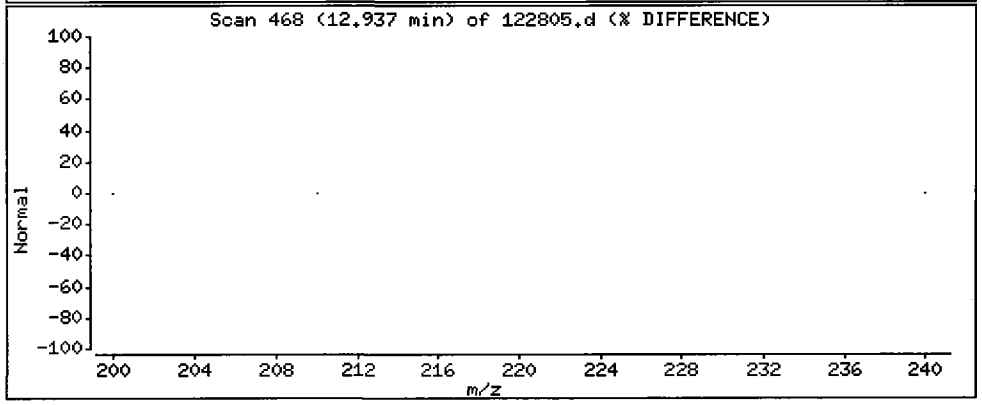












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

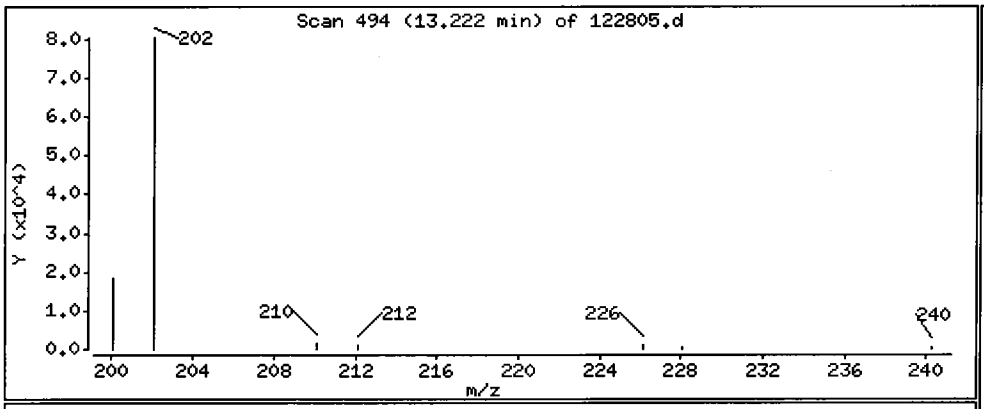
Operator: VTS

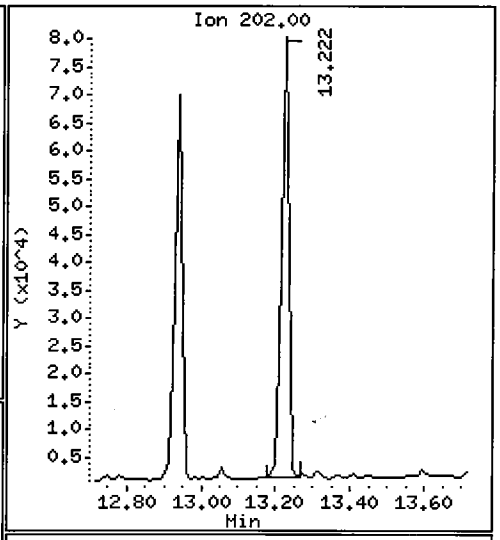
Column phase: ZB-5

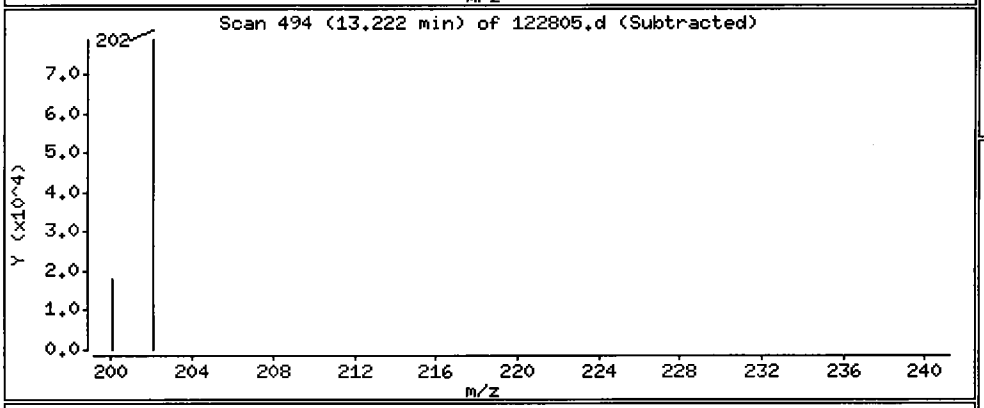
Column diameter: 0.25

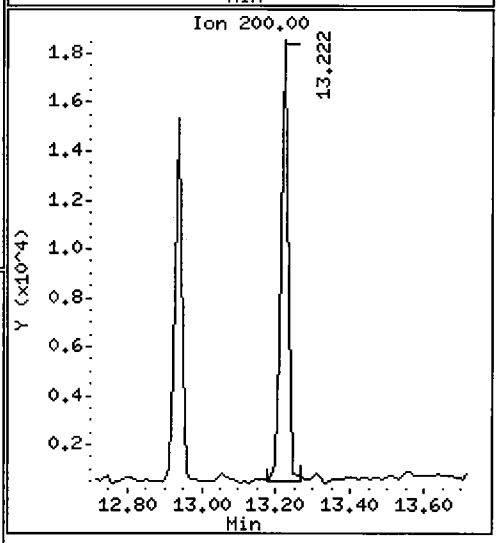
25 Pyrene

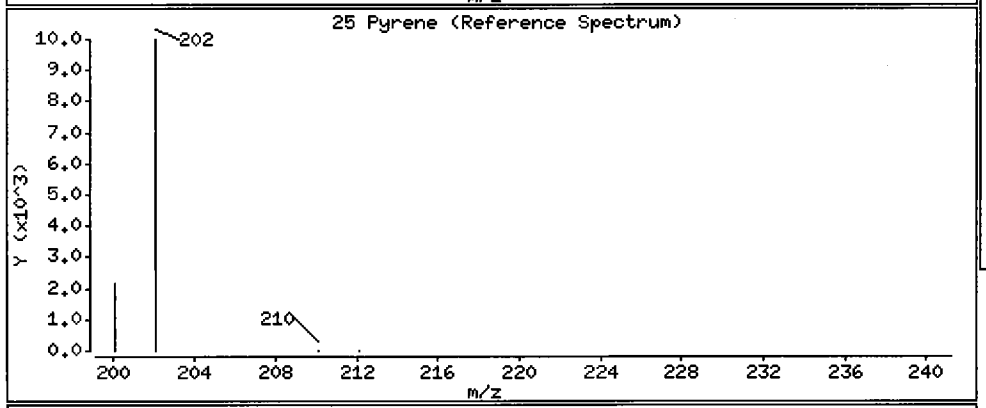
Concentration: 131 ug/L

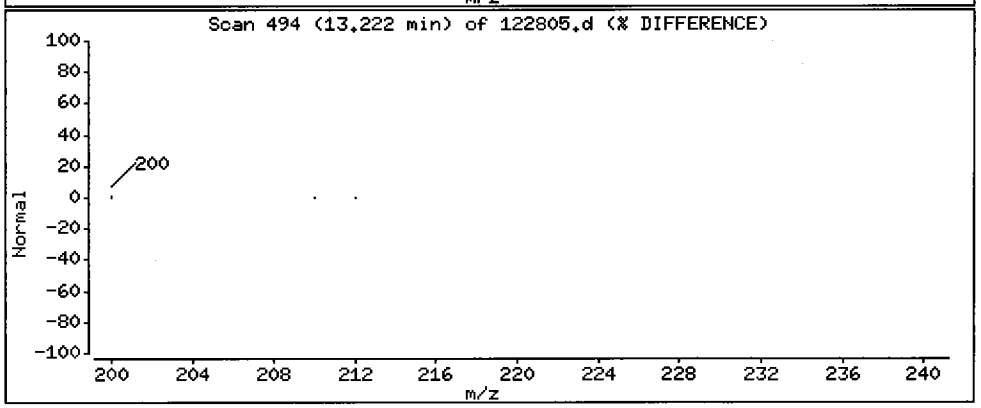












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

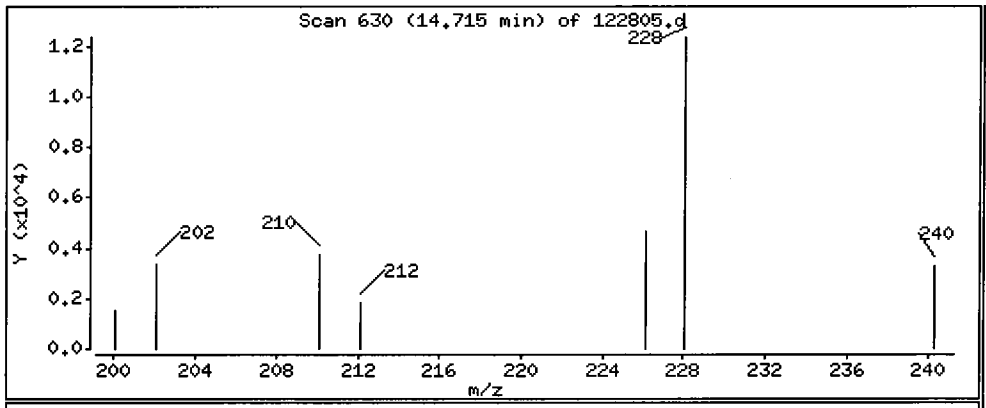
Operator: VTS

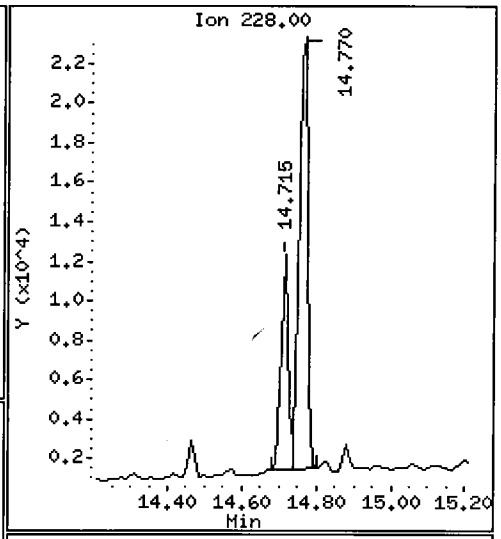
Column phase: ZB-5

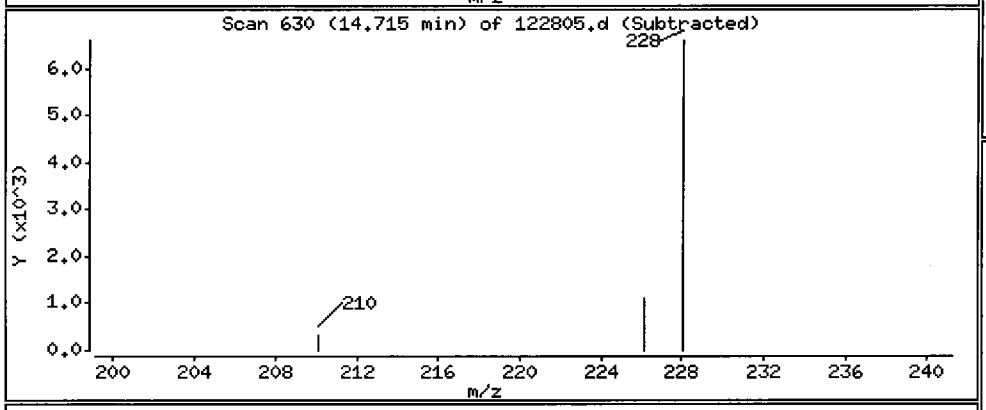
Column diameter: 0.25

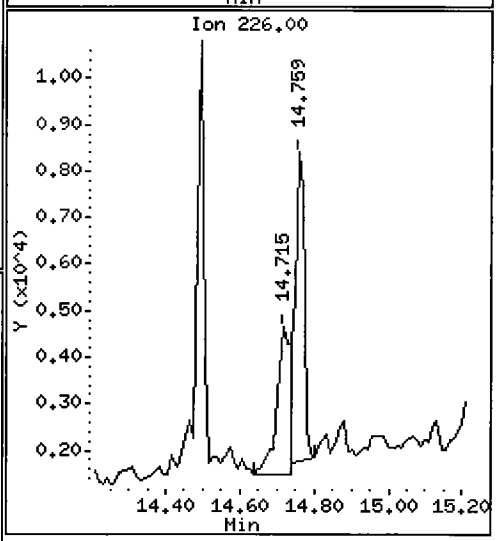
28 Benzo(a)anthracene

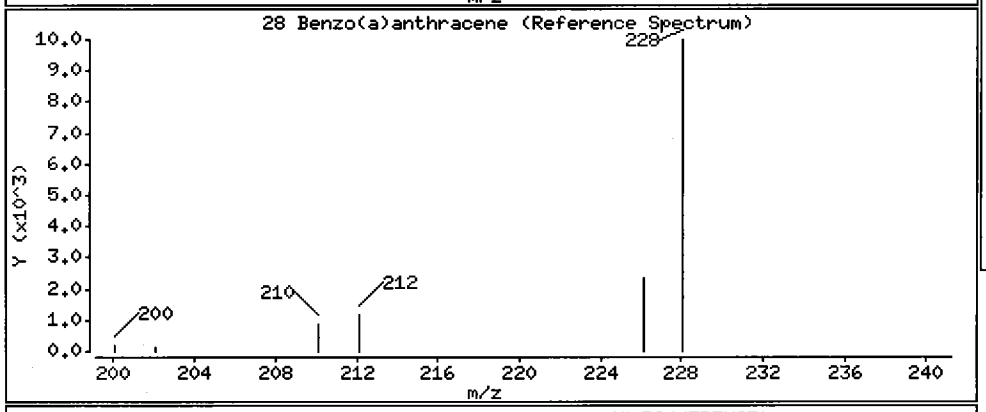
Concentration: 25.1 ug/L

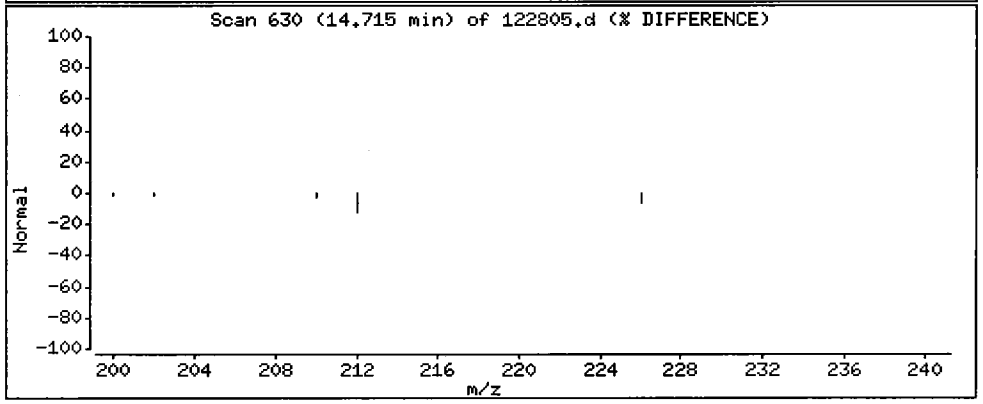












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

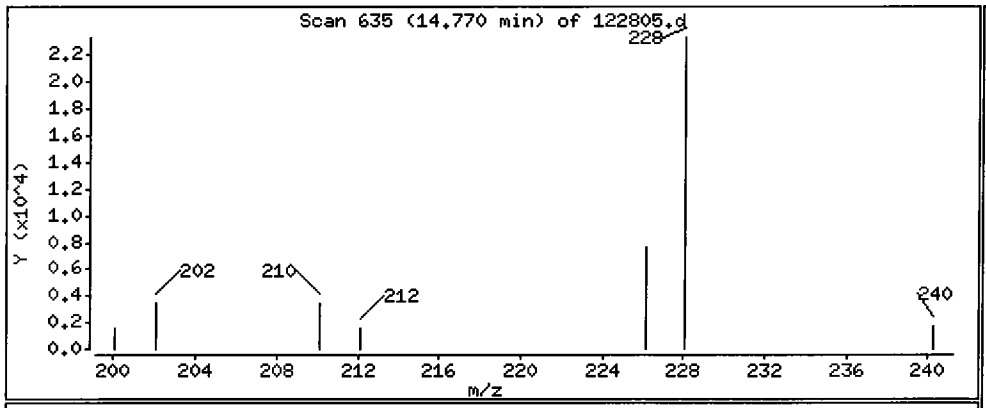
Operator: VTS

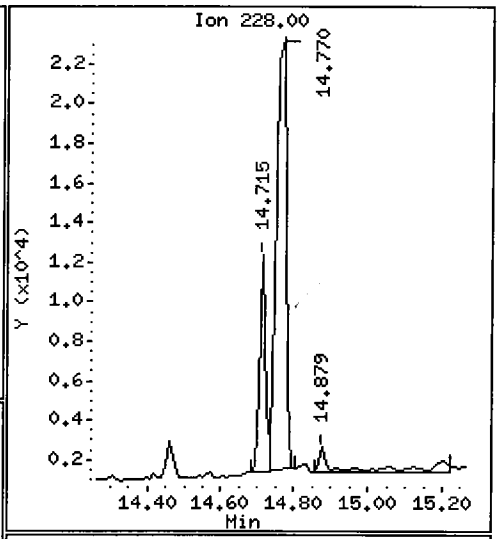
Column phase: ZB-5

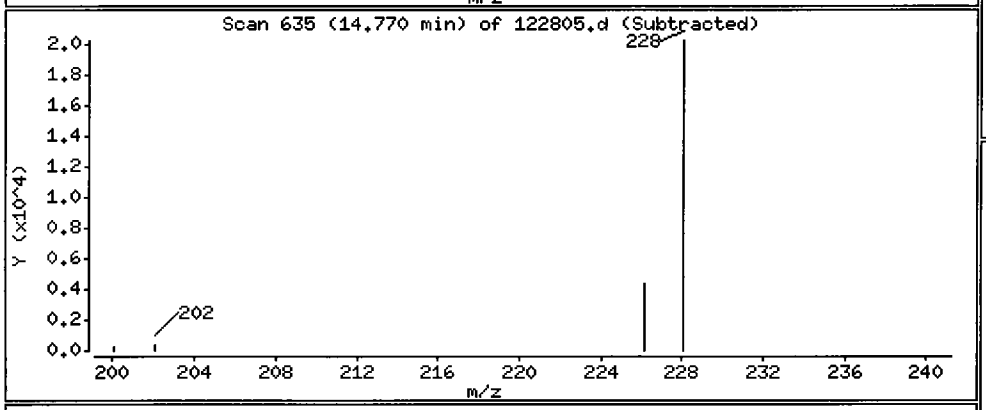
Column diameter: 0.25

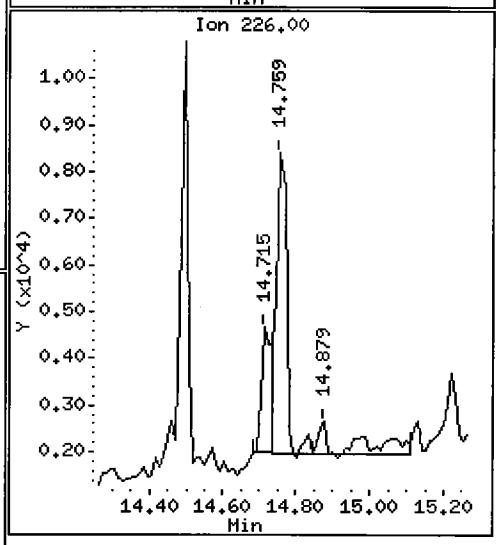
30 Chrysene

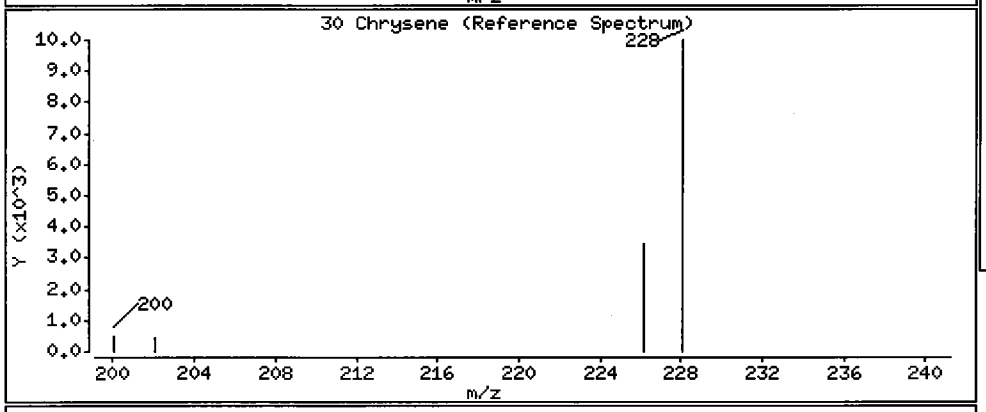
Concentration: 73.0 ug/L

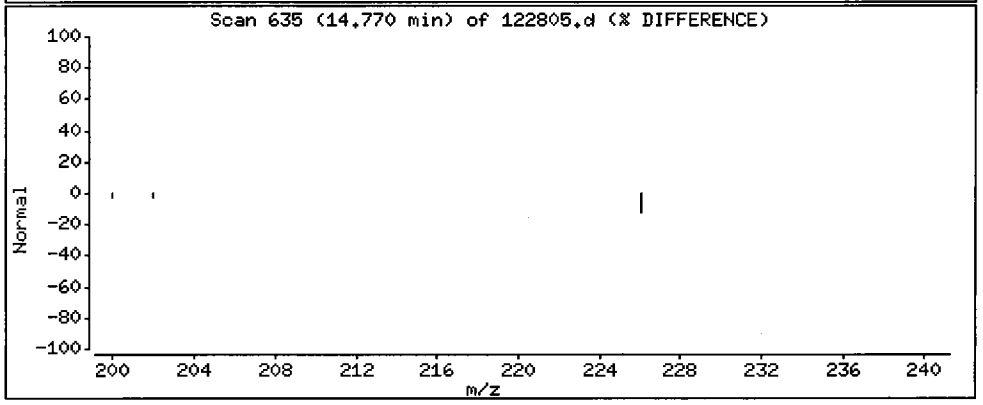












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

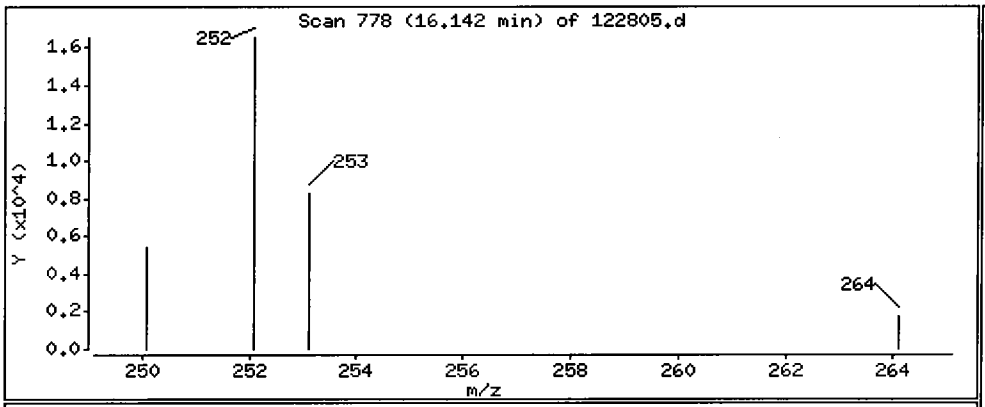
Operator: VTS

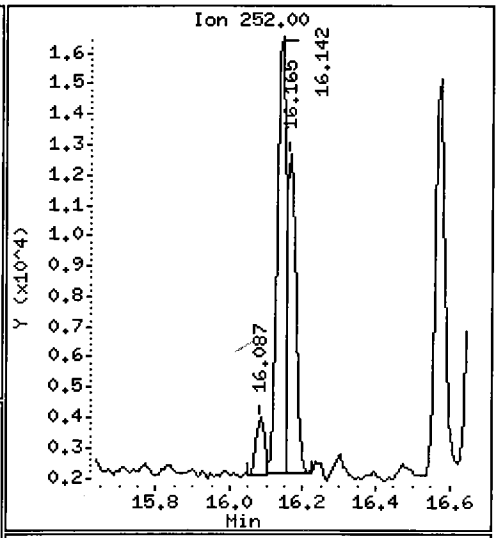
Column phase: ZB-5

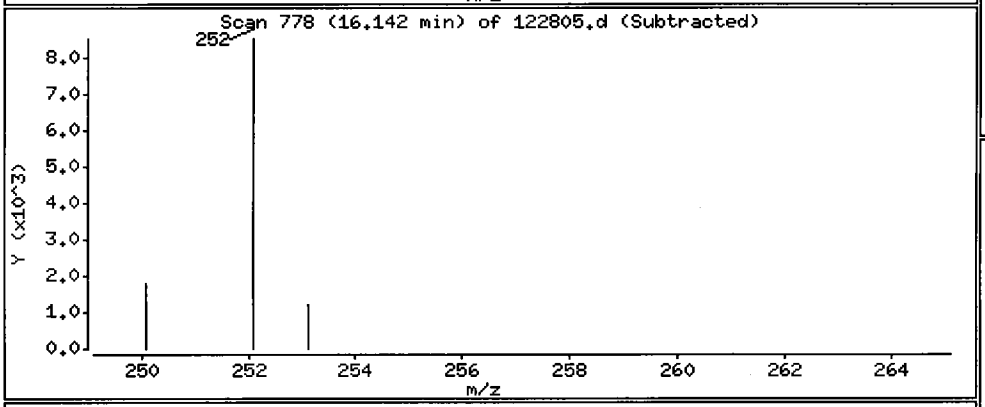
Column diameter: 0.25

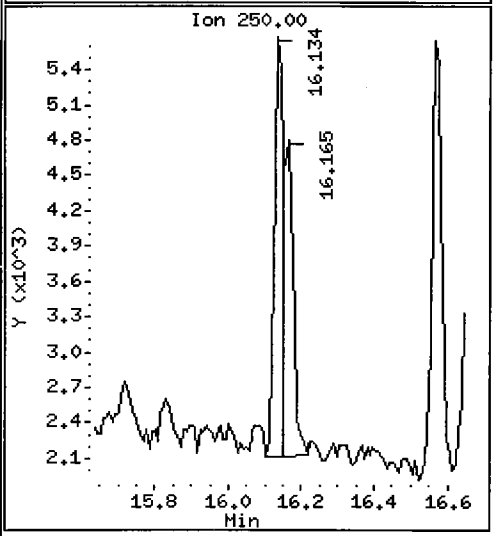
32 Benzo(b)fluoranthene

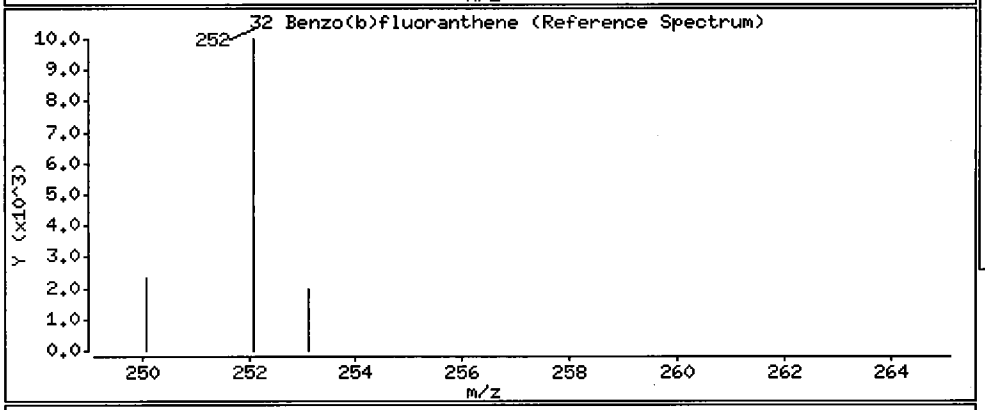
Concentration: 47.5 ug/L

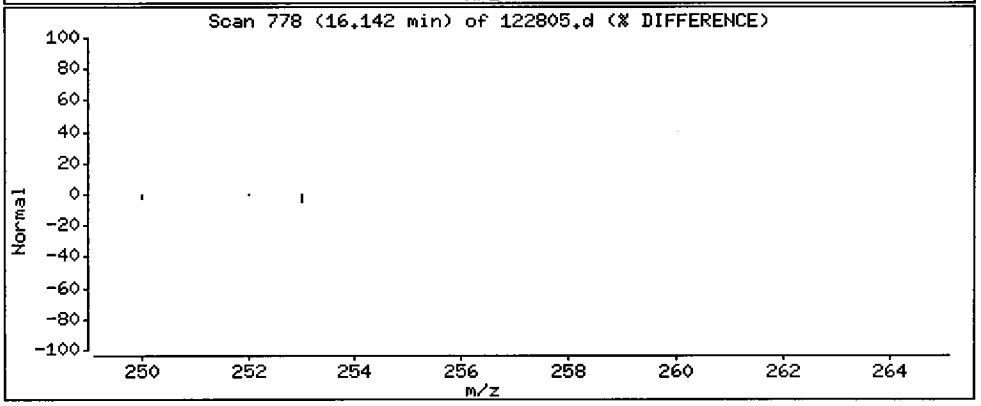












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

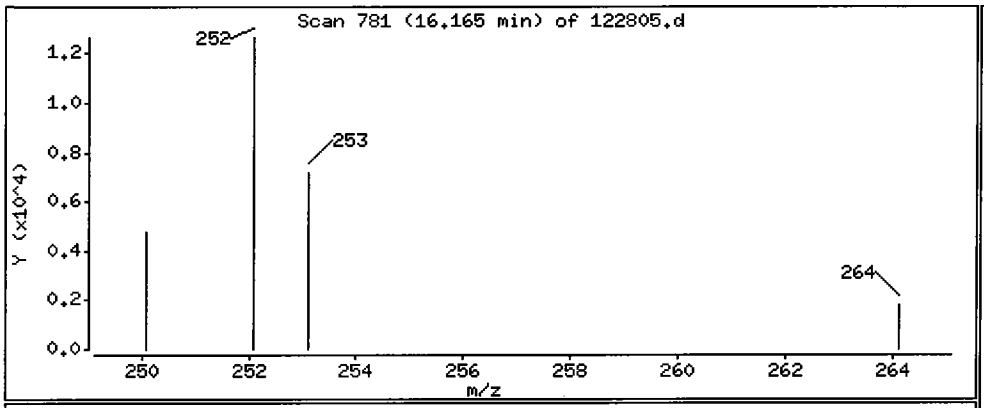
Operator: VTS

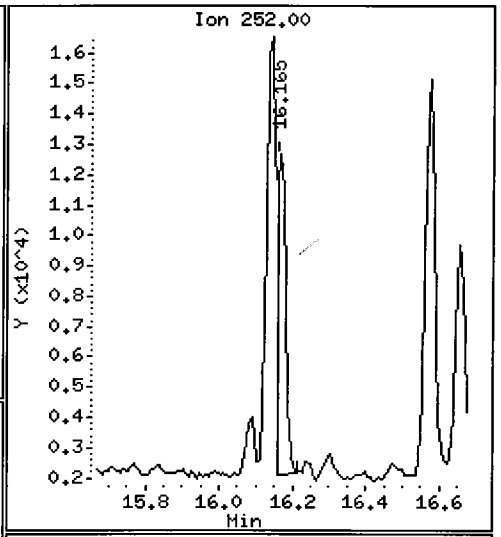
Column phase: ZB-5

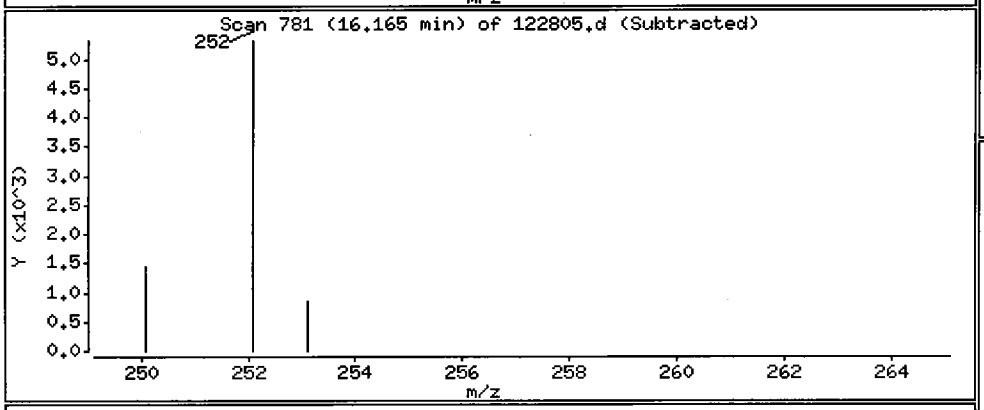
Column diameter: 0.25

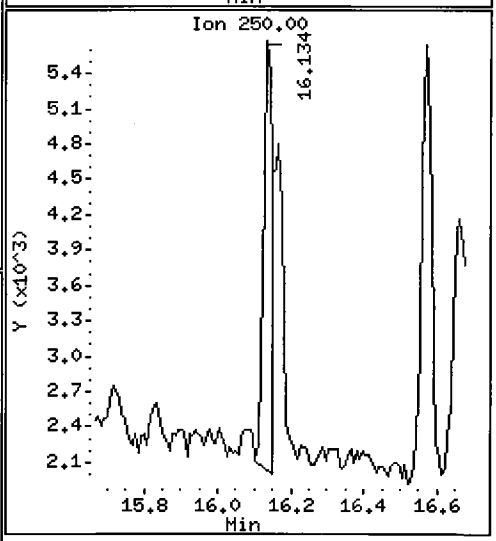
33 Benzo(k)fluoranthene

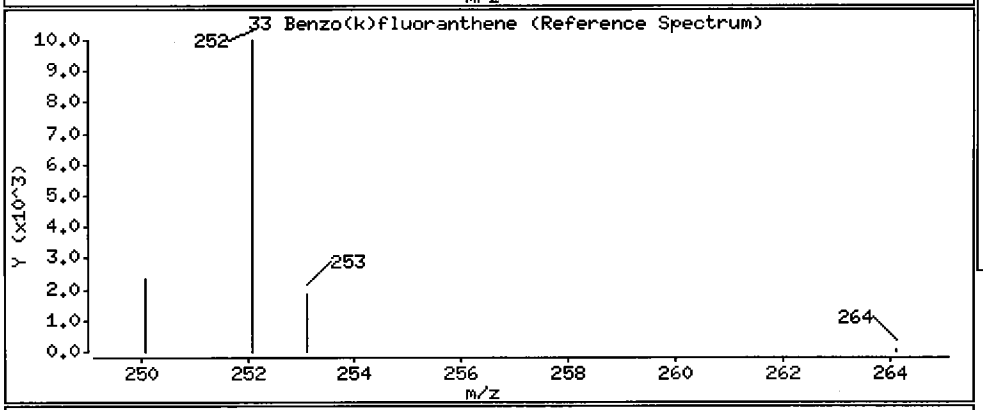
Concentration: 28.5 ug/L

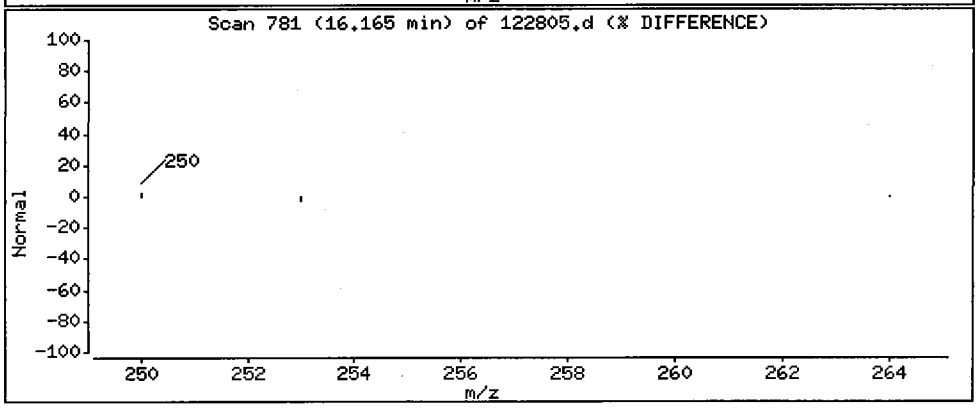












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

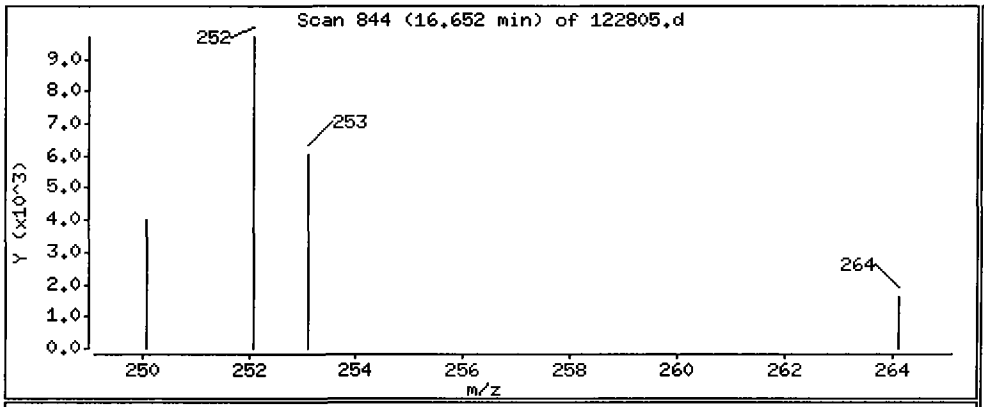
Operator: VTS

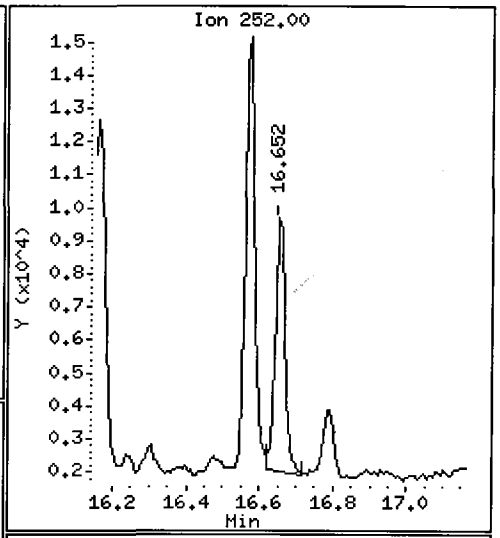
Column phase: ZB-5

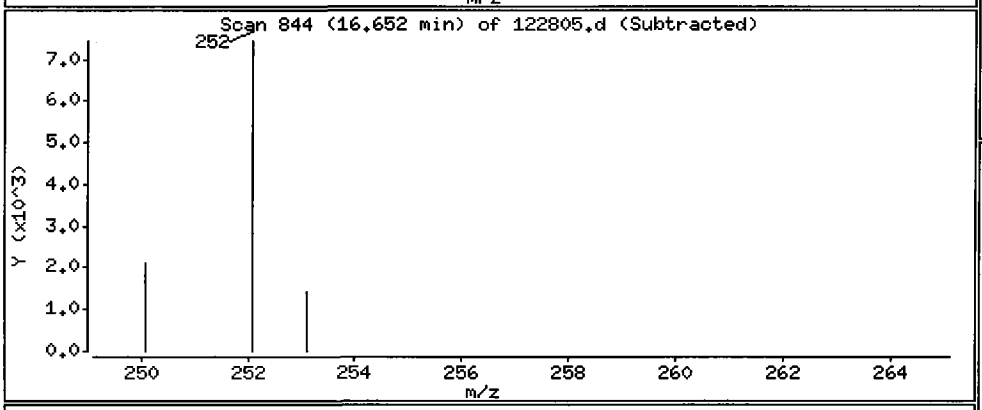
Column diameter: 0.25

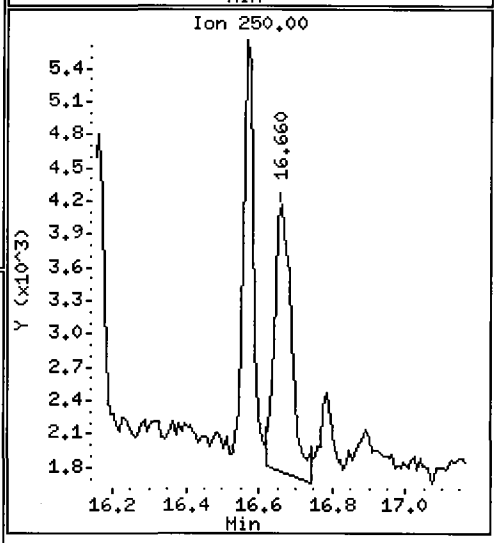
34 Benzo(a)pyrene

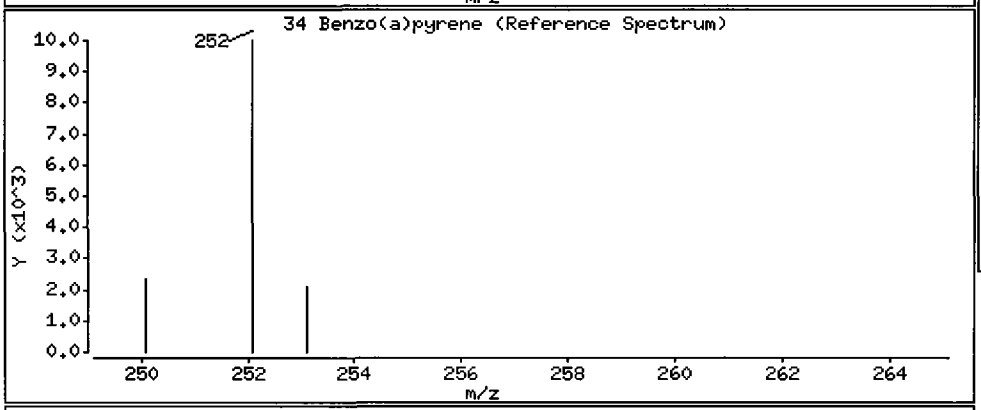
Concentration: 32.3 ug/L

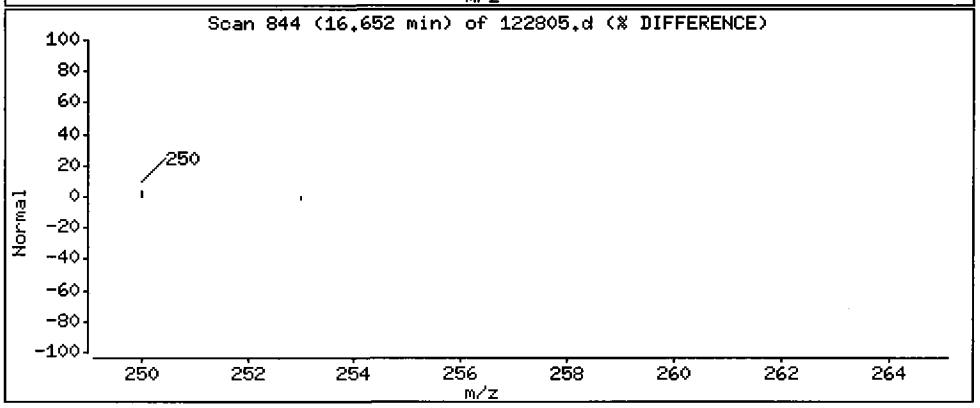












Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

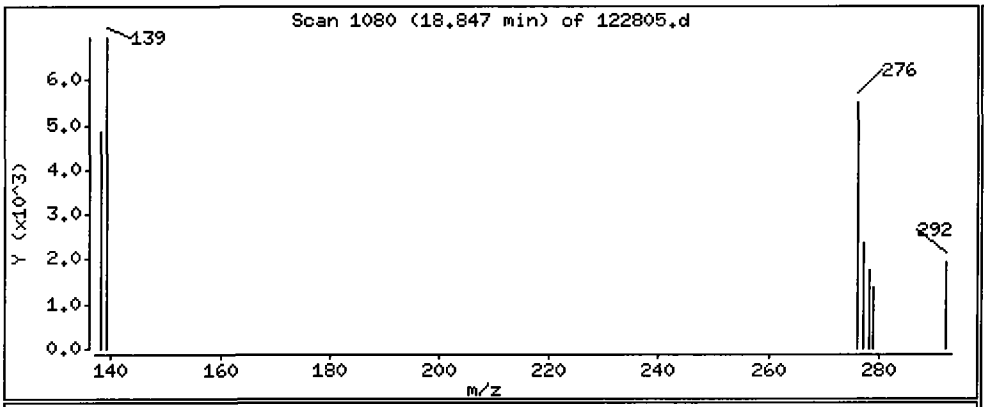
Operator: VTS

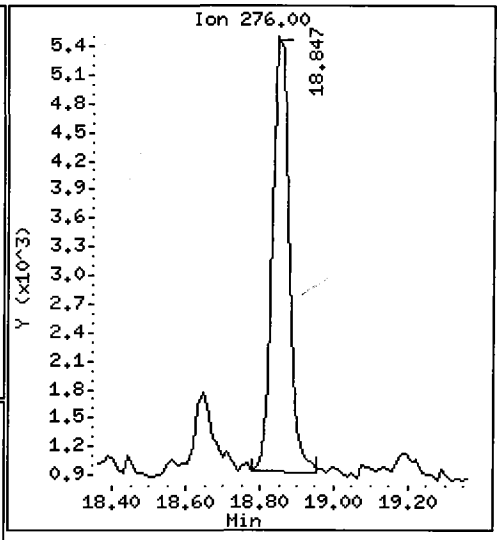
Column phase: ZB-5

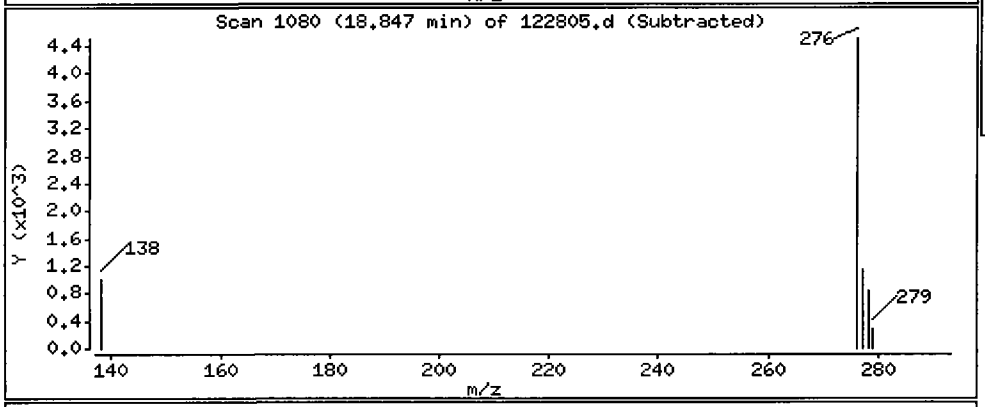
Column diameter: 0.25

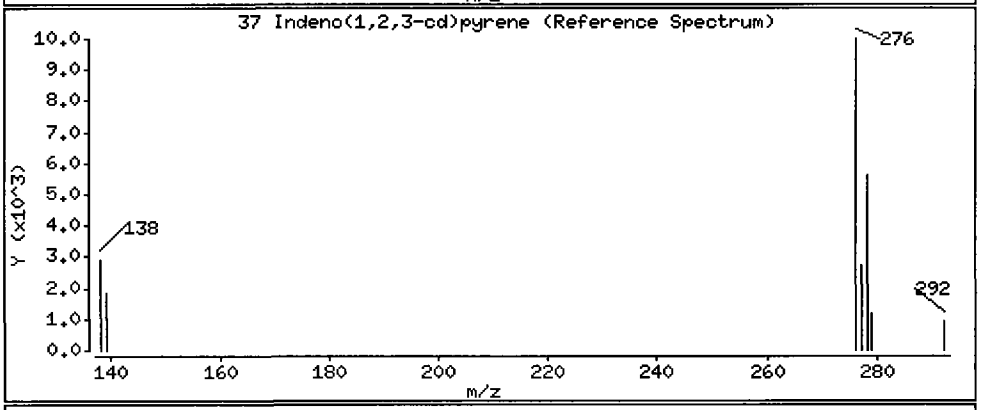
37 Indeno(1,2,3-cd)pyrene

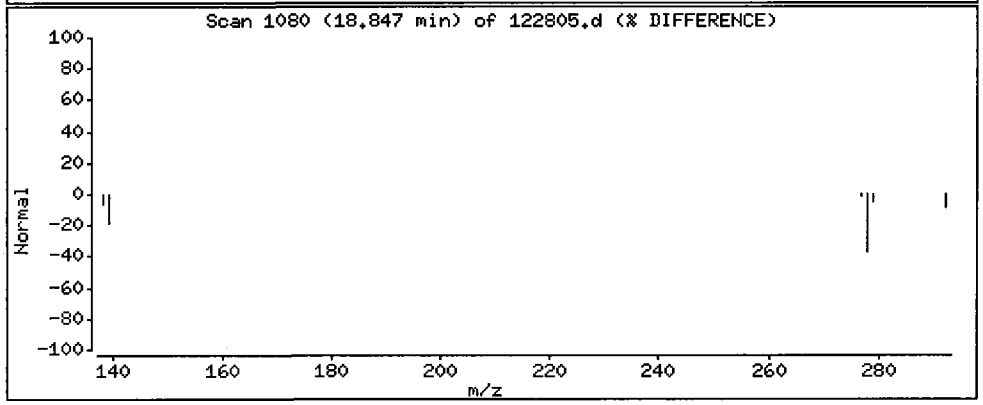
Concentration: 27.2 ug/L











Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

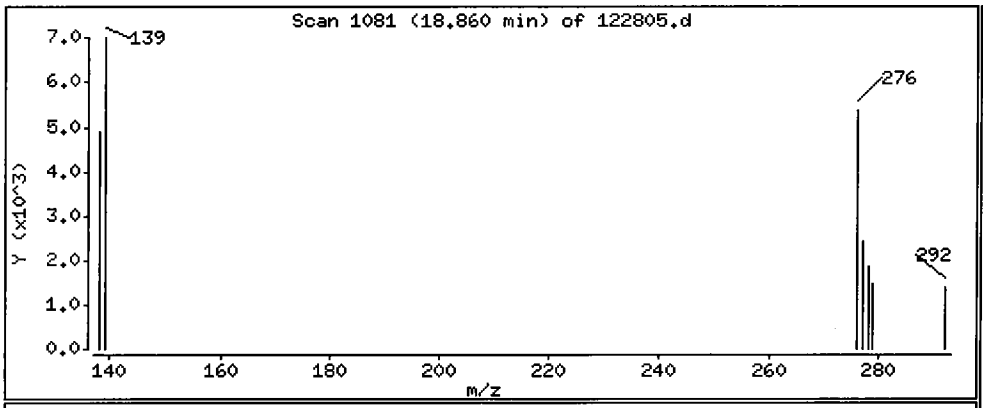
Operator: VTS

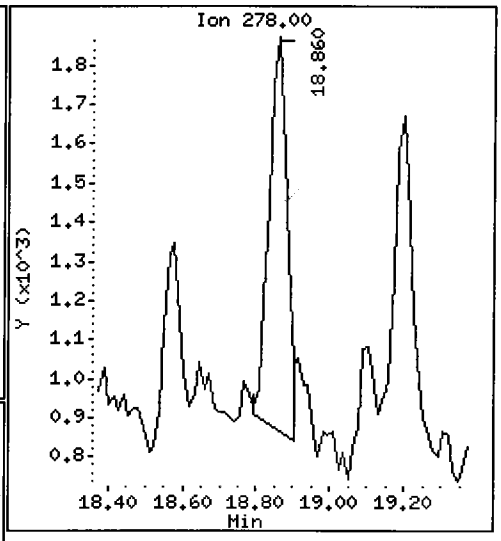
Column phase: ZB-5

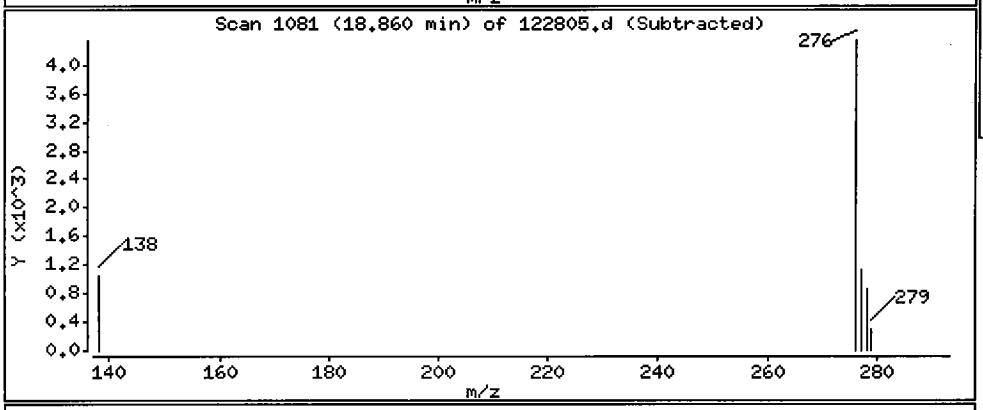
Column diameter: 0.25

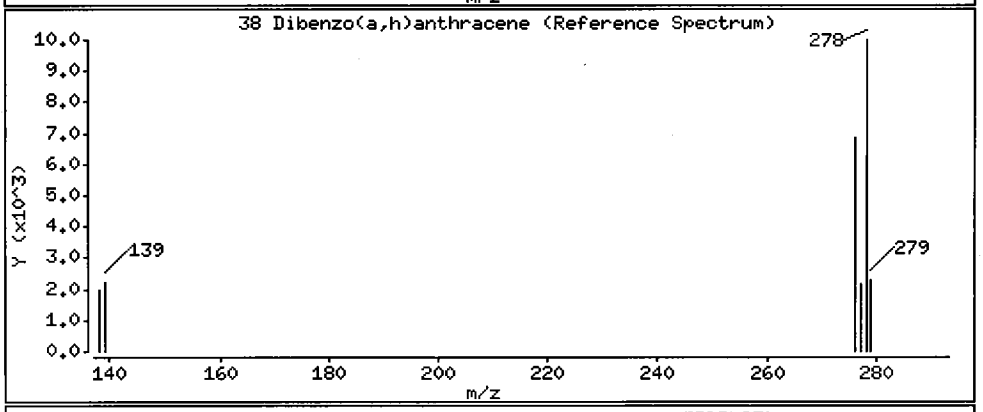
38 Dibenzo(a,h)anthracene

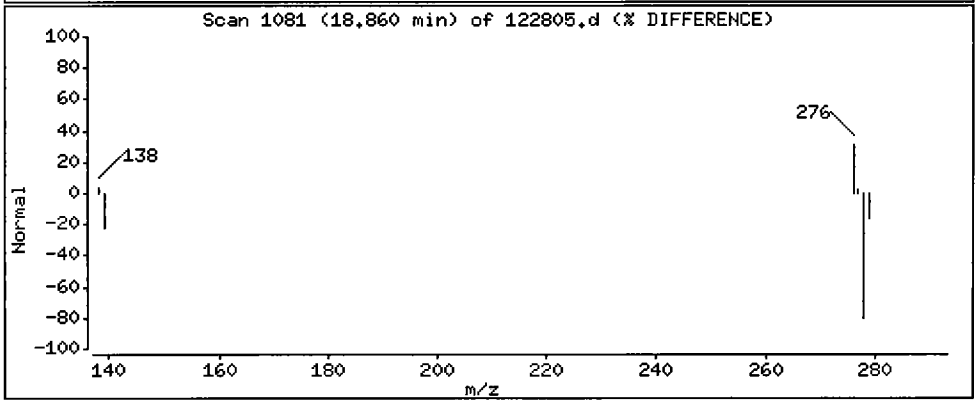
Concentration: 8.30 ug/L











Data File: /chem3/nt2.i/20091228.b/122805.d

Date : 28-DEC-2009 13:19

Client ID: CB4857121509COMP

Instrument: nt2.i

Sample Info: QB72B

Volume Injected (uL): 2.0

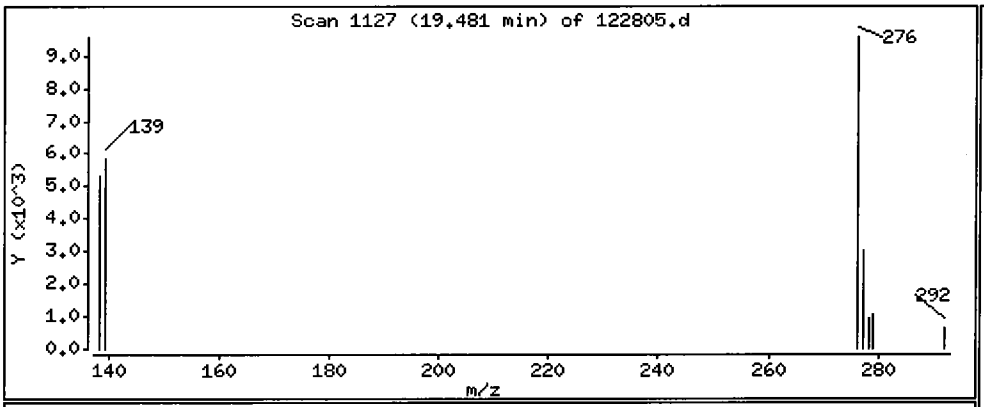
Operator: VTS

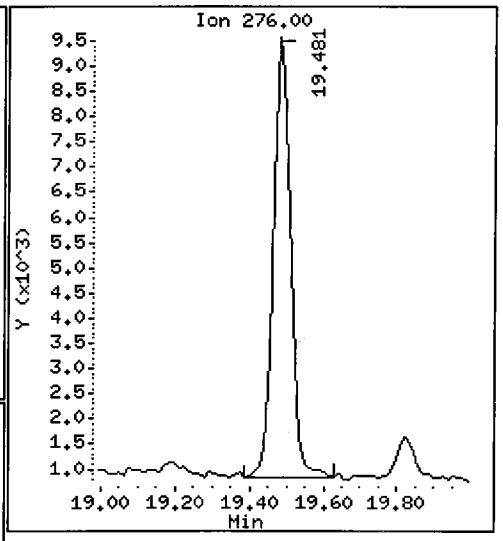
Column phase: ZB-5

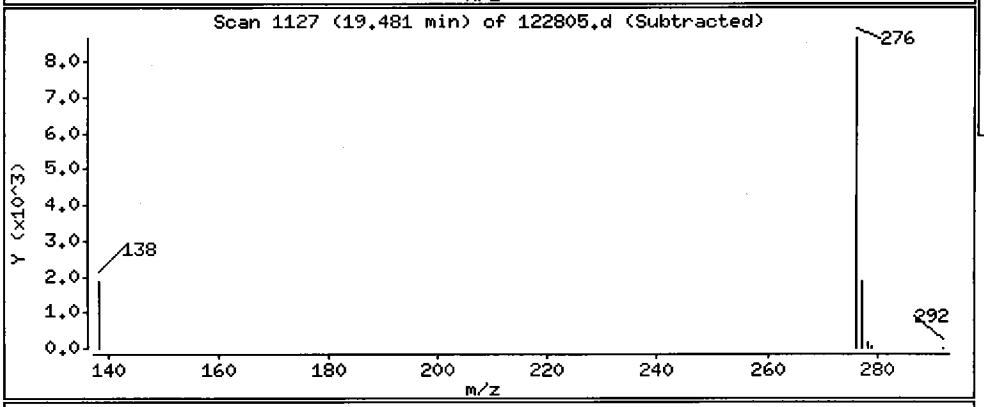
Column diameter: 0.25

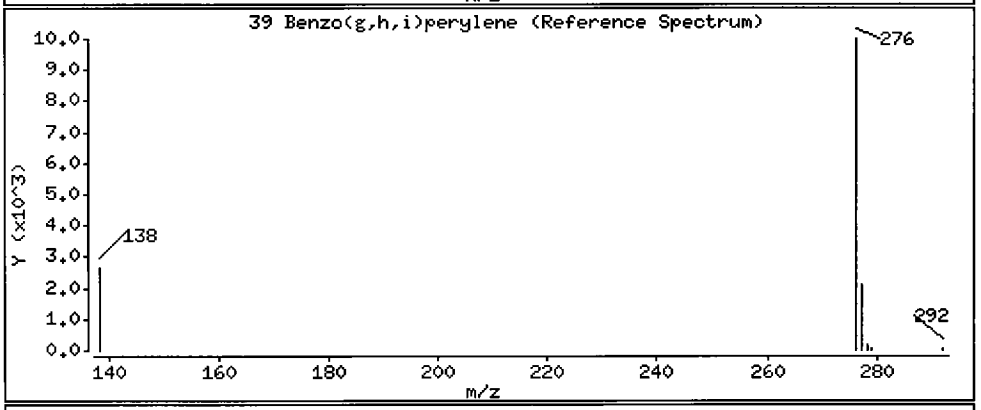
39 Benzo(g,h,i)perylene

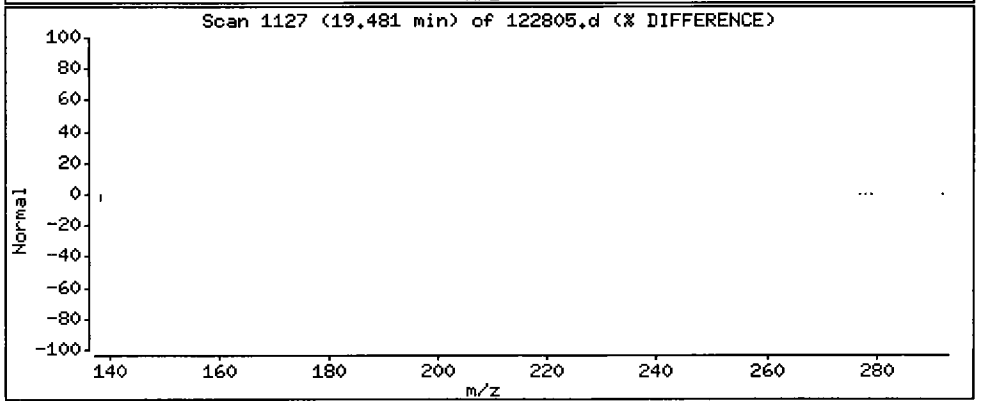
Concentration: 62.9 ug/L



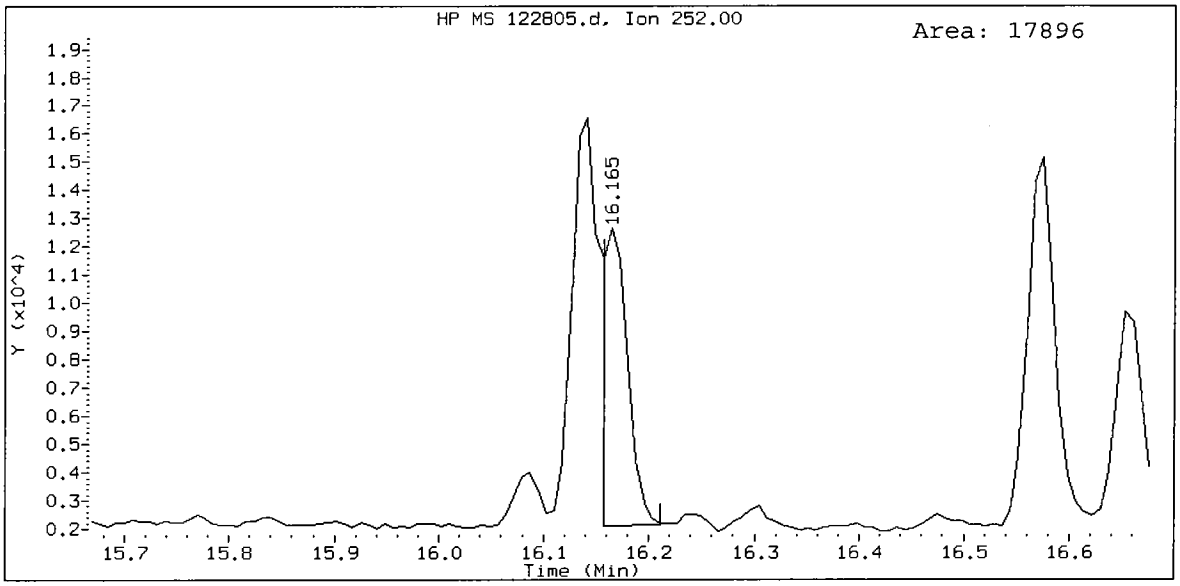


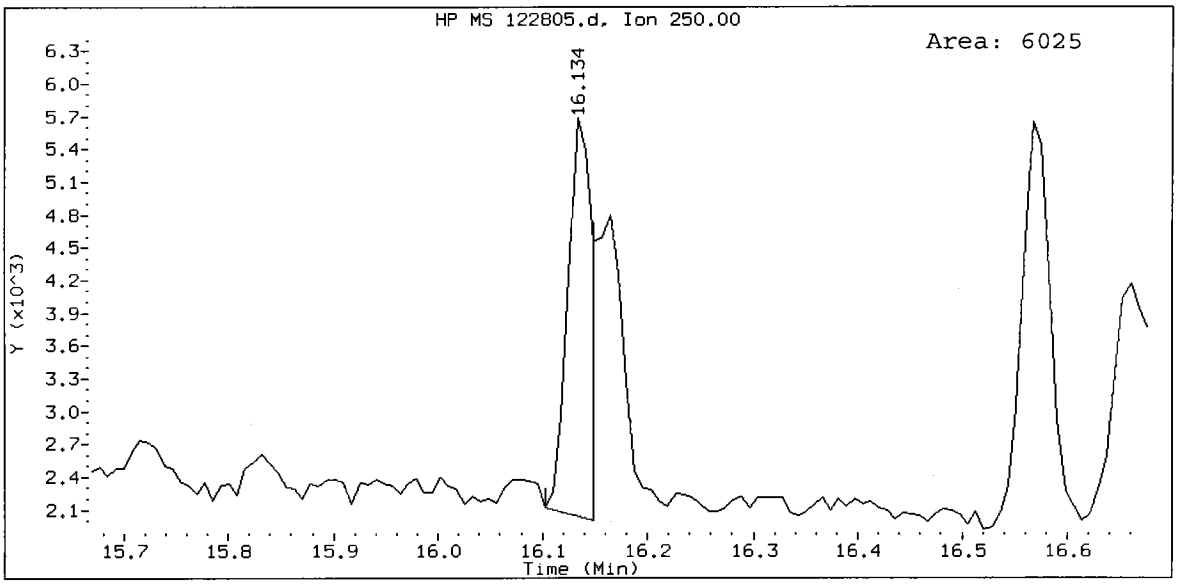




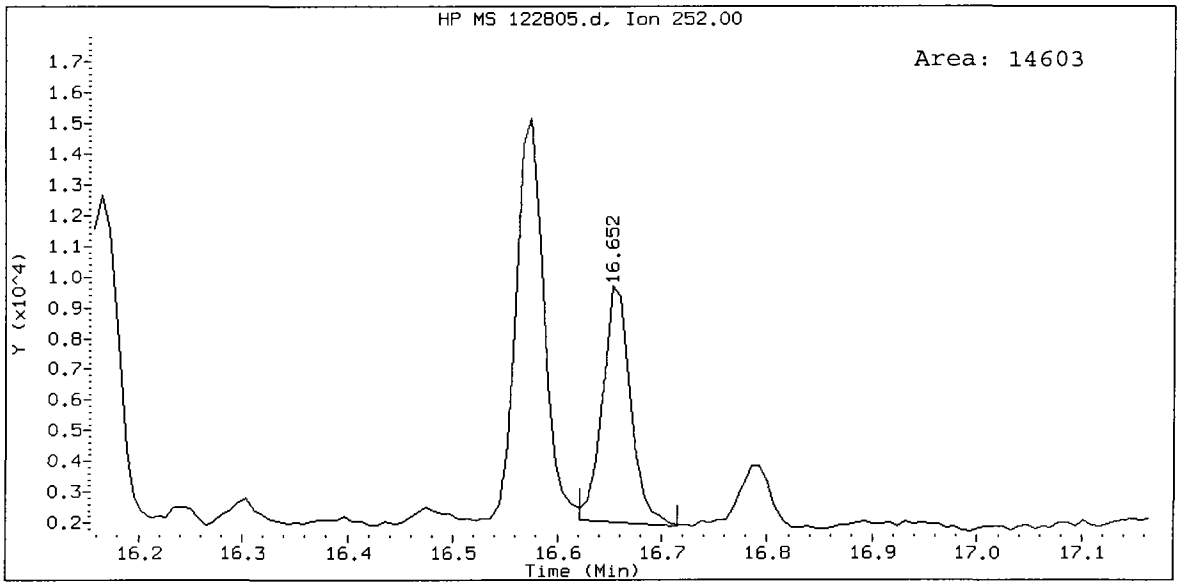


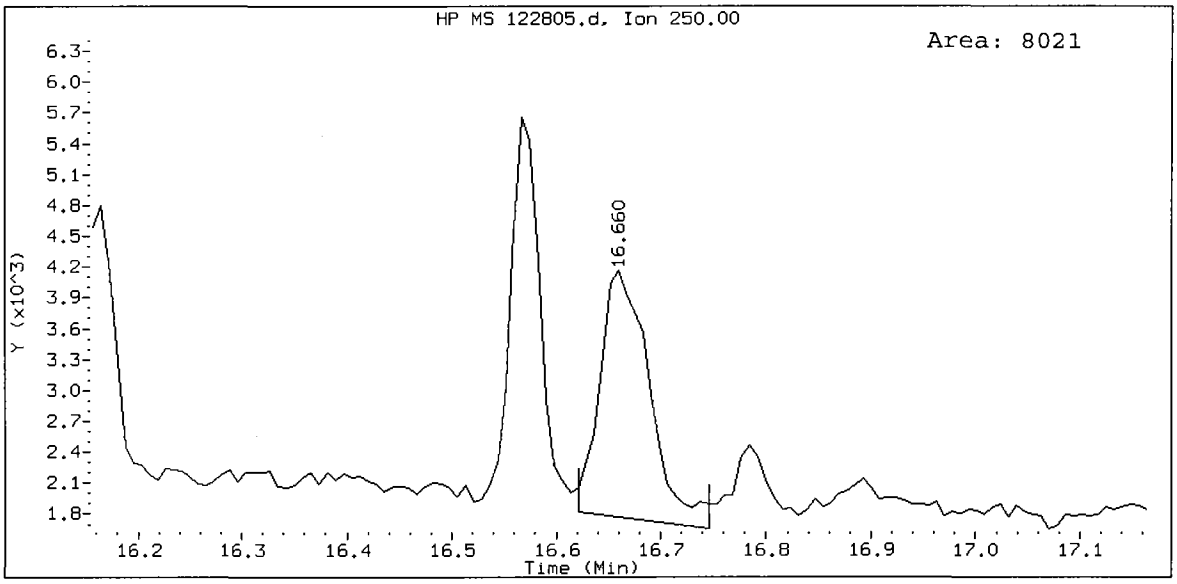
QB72B, /chem3/nt2.i/20091228.b/122805.d
Benzo(k)fluoranthene Amount: 28.55



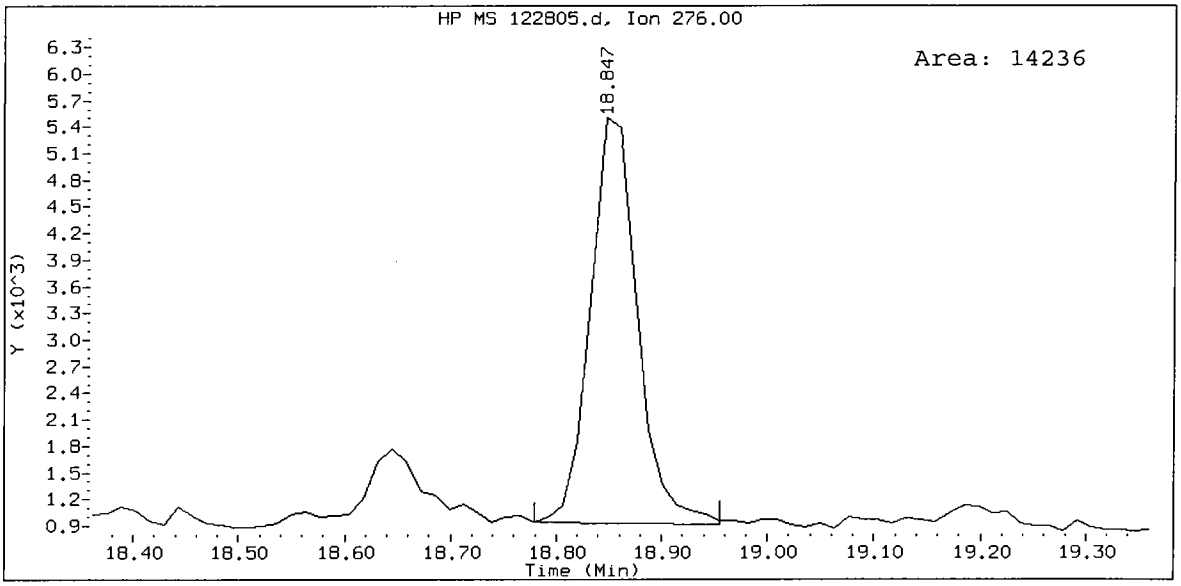


QB72B, /chem3/nt2.i/20091228.b/122805.d
Benzo(a)pyrene Amount: 32.28

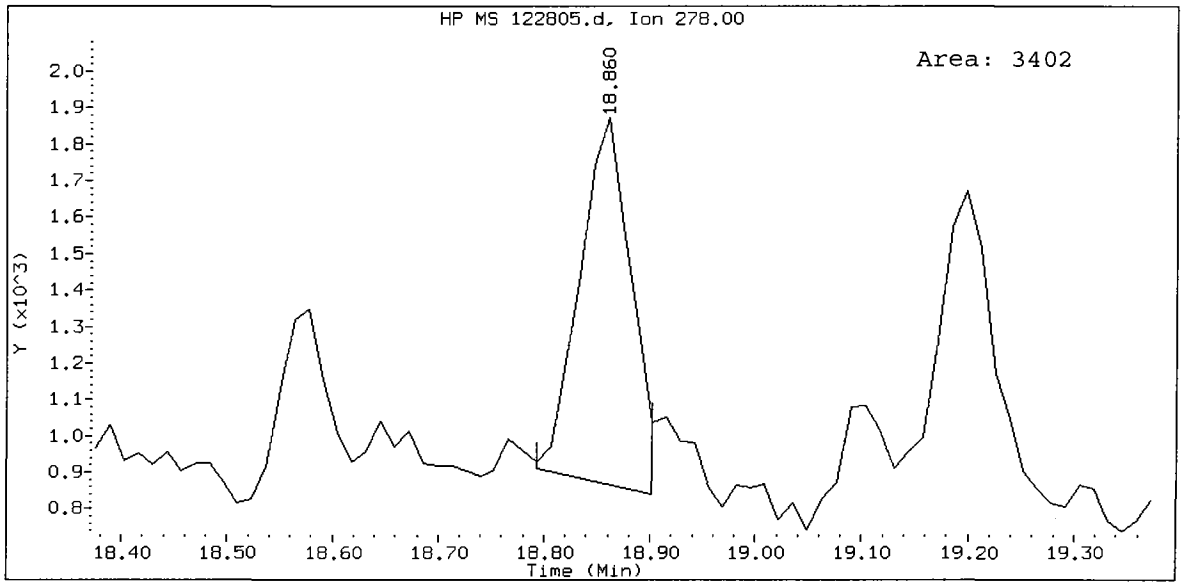




QB72B, /chem3/nt2.i/20091228.b/122805.d
Indeno(1,2,3-cd)pyrene Amount: 27.16



QB72B, /chem3/nt2.i/20091228.b/122805.d
Dibenzo(a,h)anthracene Amount: 8.30



ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB1121409COMP
SAMPLE

Lab Sample ID: QB72C
LIMS ID: 09-30993
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Date Extracted: 12/17/09
Date Analyzed: 12/28/09 13:44
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**	**0.026**
91-57-6	**2-Methylnaphthalene**	**0.010**	**0.010**
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**
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	68.3%
d14-Dibenzo(a,h)anthracene	68.3%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20091228.b/122806.d
Lab Smp Id: QB72C Client Smp ID: CB1121409COMP
Inj Date : 28-DEC-2009 13:44
Operator : VTS Inst ID: nt2.i
Smp Info : QB72C
Misc Info : 09-30993
Comment :
Method : /chem3/nt2.i/20091228.b/lowsim.m
Meth Date : 28-Dec-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 6
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)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	7.364	7.378	(1.000)	181813	200.000	
	5 Naphthalene	128	7.395	7.409	(1.004)	22810	26.0541	26.1
$	6 2-Methylnaphthalene-d10	152	8.225	8.225	(1.117)	95852	204.687	205(R)
	7 2-Methylnaphthalene	142	8.256	8.271	(1.121)	5281	10.3437	10.3(M)
	8 1-Methylnaphthalene	142	8.395	8.409	(1.140)	4294	8.08070	8.08
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	9.586	9.599	(1.000)	98259	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	11.430	11.445	(1.000)	141071	200.000	
	19 Phenanthrene	178	11.460	11.461	(1.003)	7276	10.3768	10.4
	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	14.735	14.736	(1.000)	103509	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	16.744	16.753	(1.000)	94917	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	18.792	18.792	(1.122)	59100	205.420	205(R)
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt2.i
Lab File ID: 122806.d
Lab Smp Id: QB72C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30993

Calibration Date: 28-DEC-2009
Calibration Time: 11:14
Client Smp ID: CB1121409COMP
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	181813	5.03
11 Acenaphthene-d10	96677	48338	193354	98259	1.64
18 Phenanthrene-d10	147750	73875	295500	141071	-4.52
29 Chrysene-d12	135219	67610	270438	103509	-23.45
35 Perylene-d12	125815	62908	251630	94917	-24.56

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	7.38	6.88	7.88	7.36	-0.20
11 Acenaphthene-d10	9.60	9.10	10.10	9.59	-0.14
18 Phenanthrene-d10	11.45	10.95	11.95	11.43	-0.14
29 Chrysene-d12	14.74	14.24	15.24	14.74	0.00
35 Perylene-d12	16.75	16.25	17.25	16.74	-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.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd-Snider
Sample Matrix: LIQUID
Lab Smp Id: QB72C
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30993

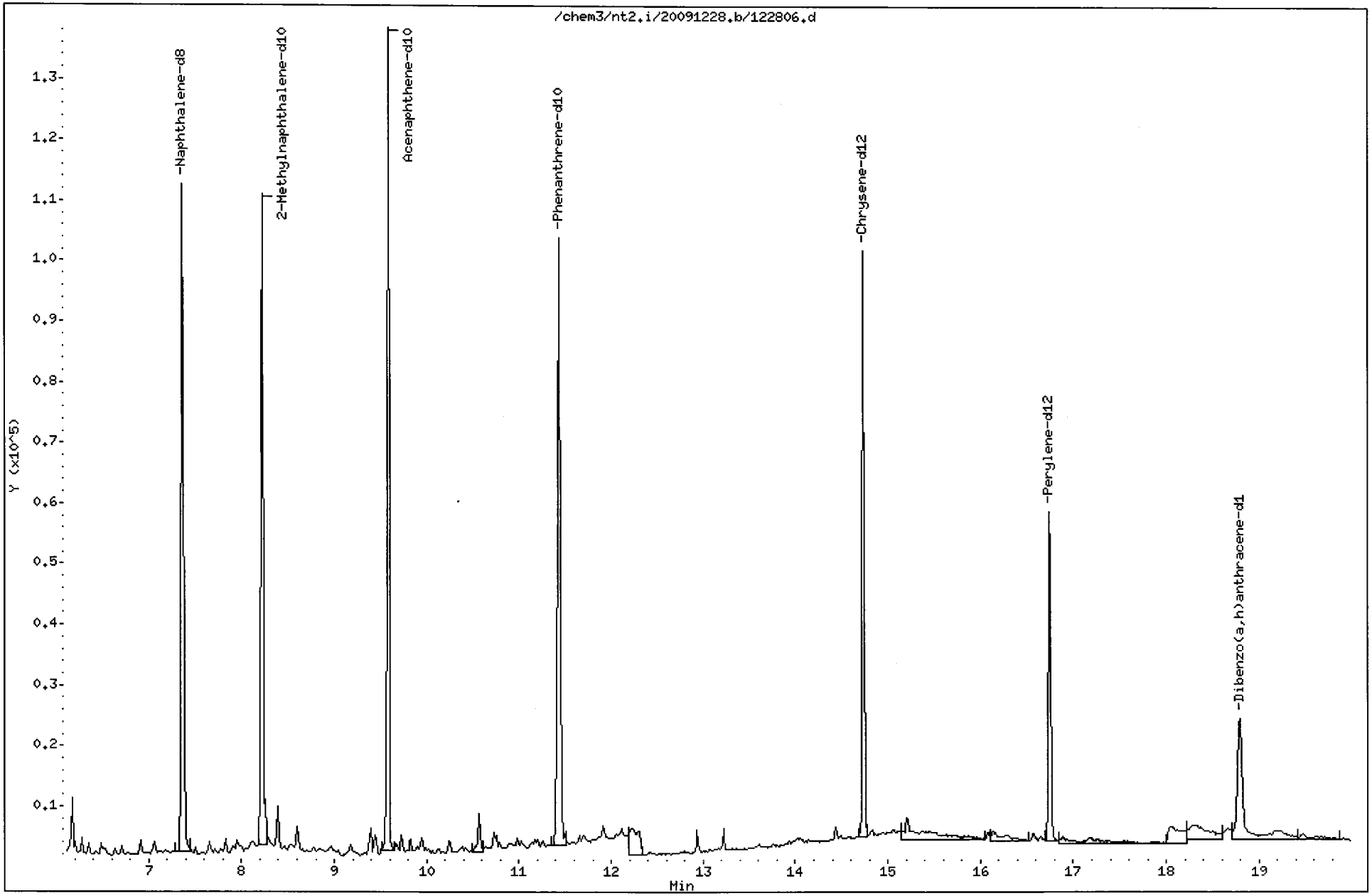
Client SDG: QB72
Fraction: SV
Client Smp ID: CB1121409COMP
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	205	68.23	31-109
$ 36 Dibenzo(a,h)anthra	300	205	68.47	10-133

Data File: /chem3/nt2.i/20091228.b/122806.d
Date : 28-DEC-2009 13:44
Client ID: CB1121409COMP
Sample Info: QB72C
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72-99135

Data File: /chem3/nt2.i/20091228.b/122806.d

Date : 28-DEC-2009 13:44

Client ID: CB1121409COMP

Instrument: nt2.i

Sample Info: QB72C

Volume Injected (uL): 2.0

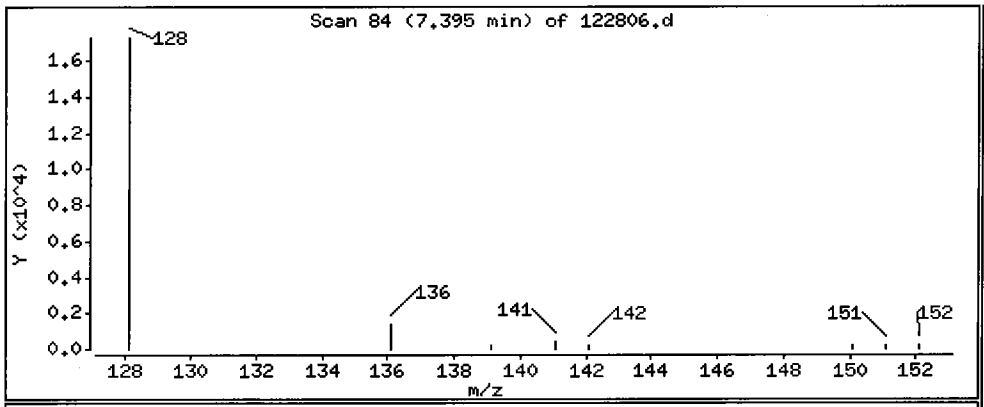
Operator: VTS

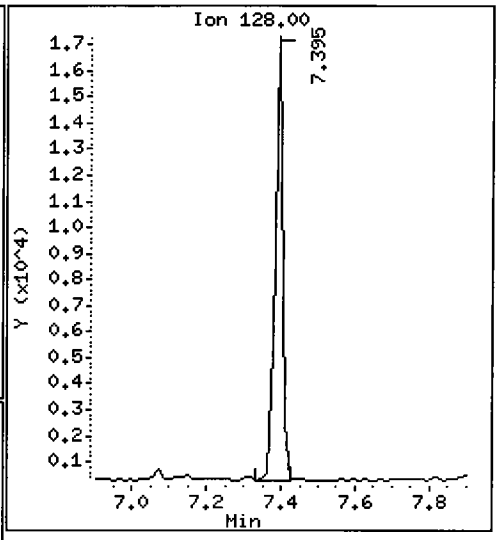
Column phase: ZB-5

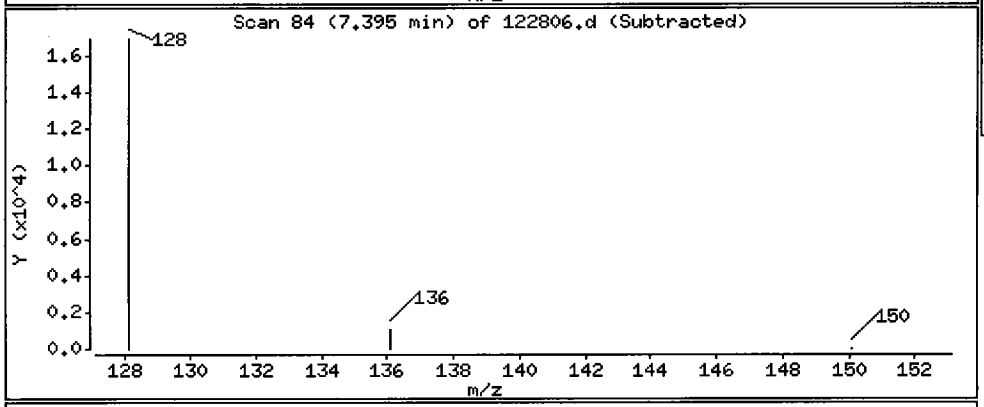
Column diameter: 0.25

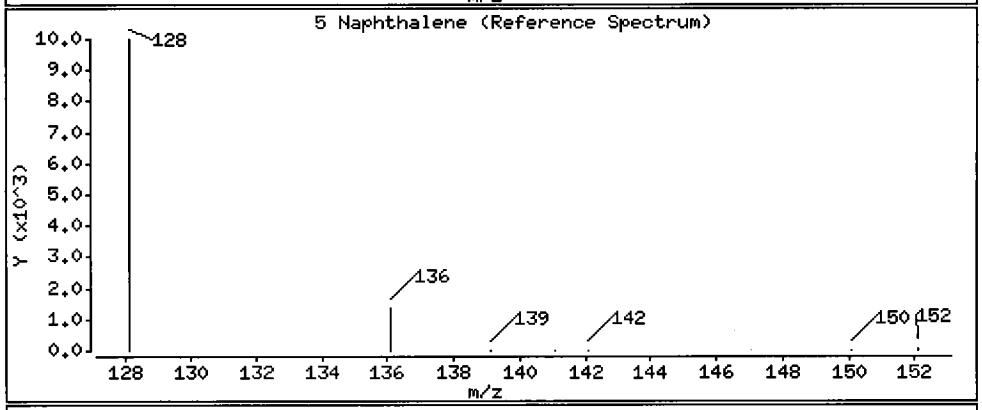
5 Naphthalene

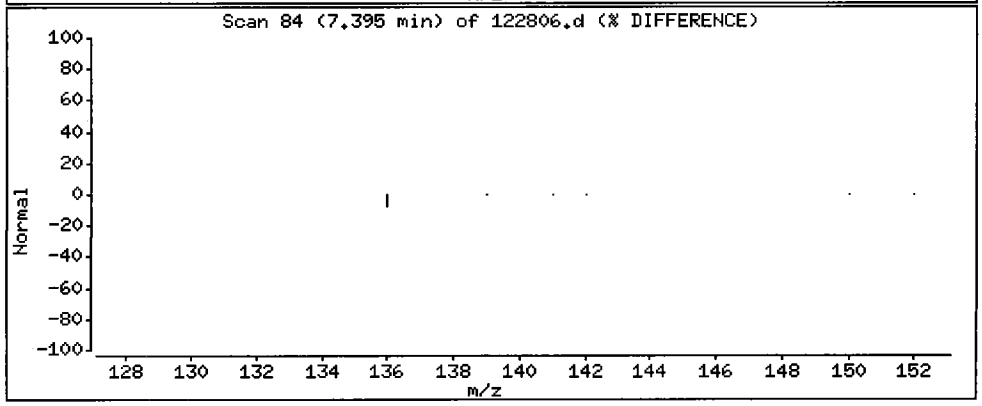
Concentration: 26.1 ug/L











Data File: /chem3/nt2.i/20091228.b/122806.d

Date : 28-DEC-2009 13:44

Client ID: CB1121409COMP

Instrument: nt2.i

Sample Info: QB72C

Volume Injected (uL): 2.0

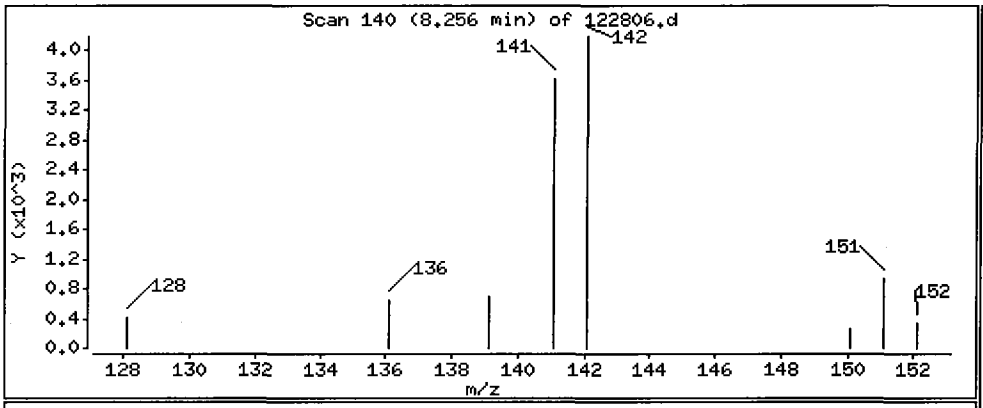
Operator: VTS

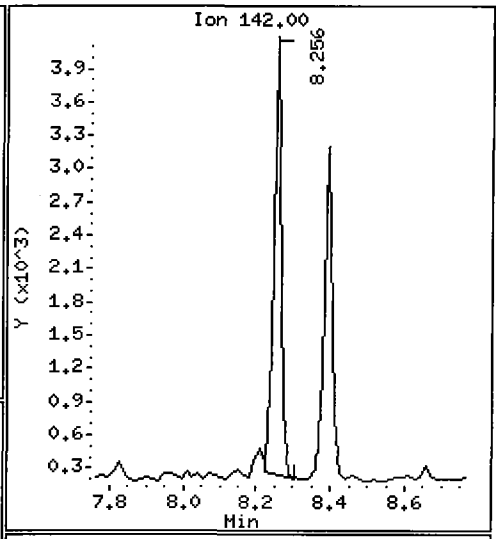
Column phase: ZB-5

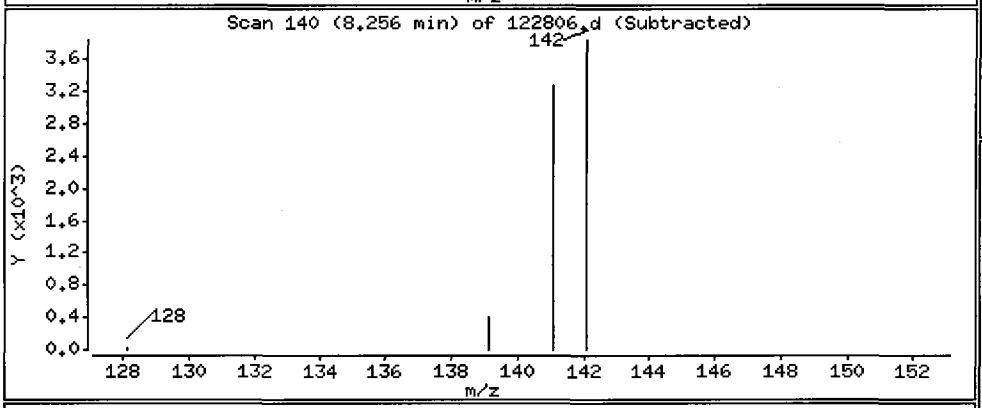
Column diameter: 0.25

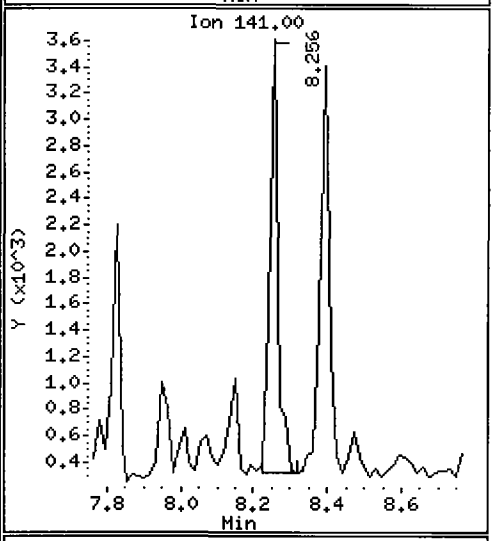
7 2-Methylnaphthalene

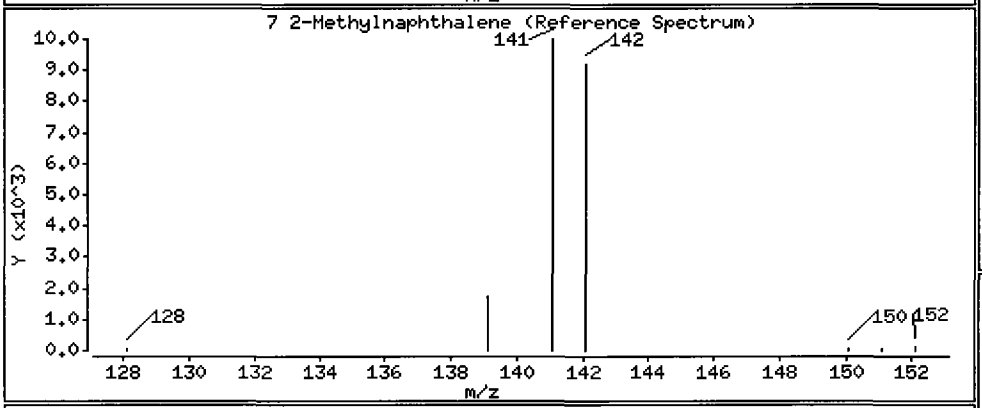
Concentration: 10.3 ug/L

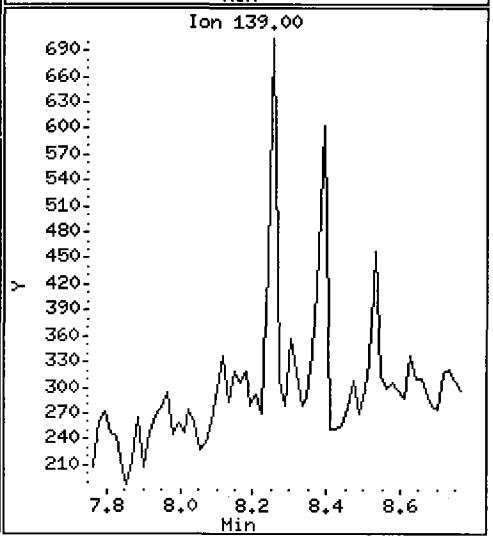


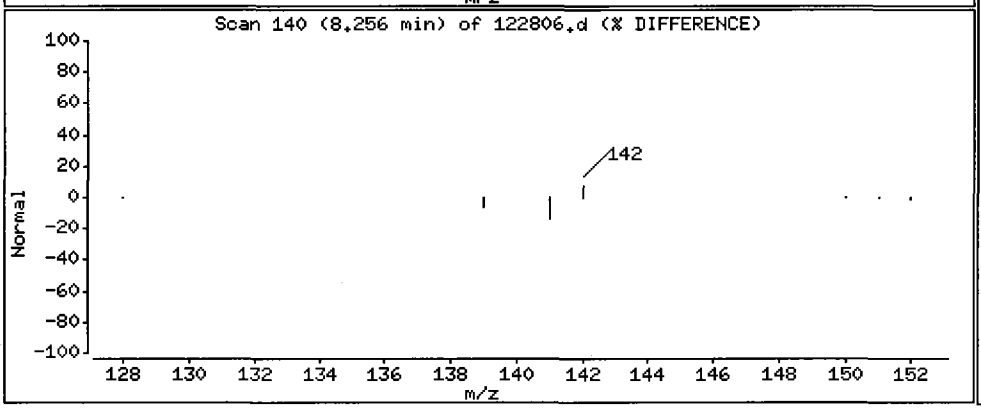












Data File: /chem3/nt2.i/20091228.b/122806.d

Date : 28-DEC-2009 13:44

Client ID: CB1121409COMP

Instrument: nt2.i

Sample Info: QB72C

Volume Injected (uL): 2.0

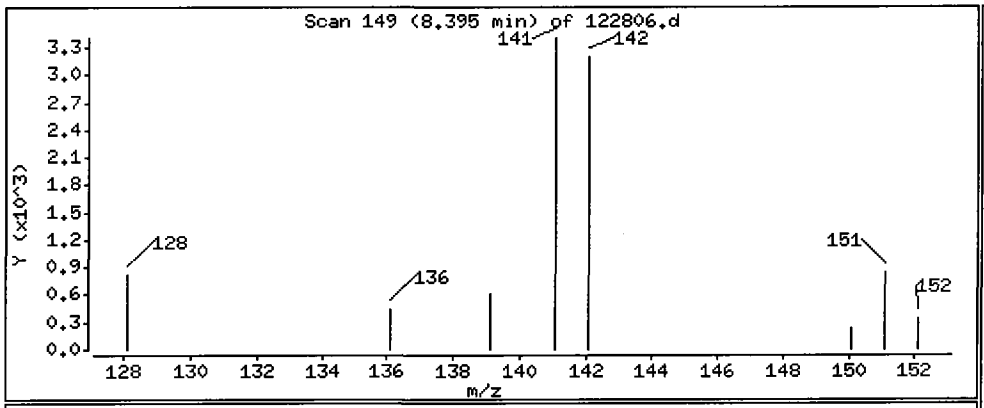
Operator: VTS

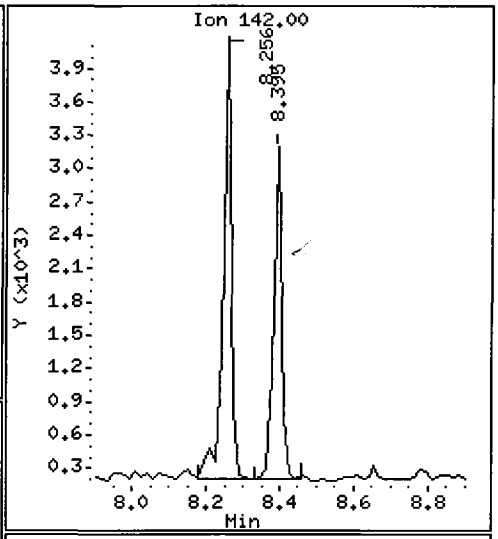
Column phase: ZB-5

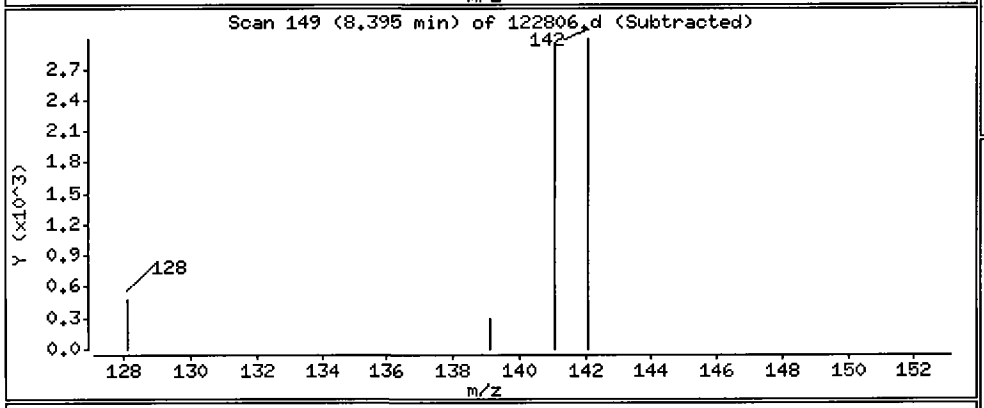
Column diameter: 0.25

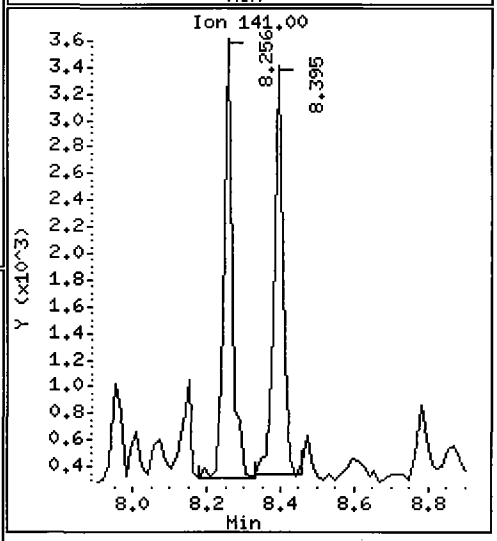
8 1-Methylnaphthalene

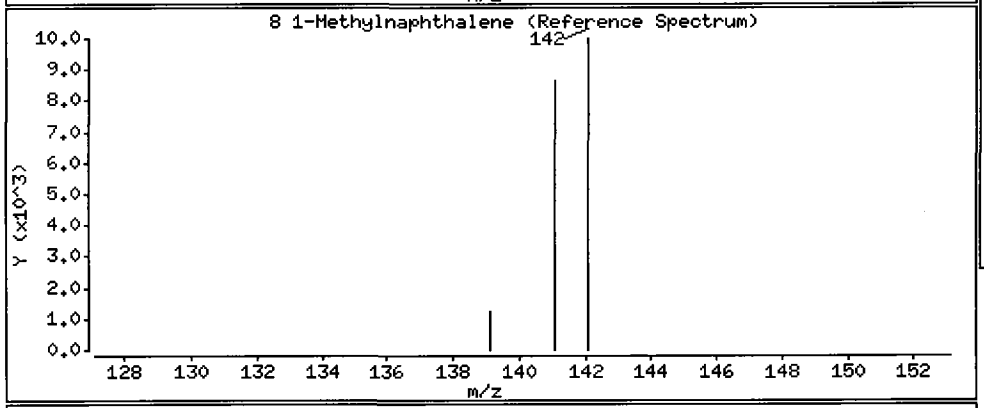
Concentration: 8.08 ug/L

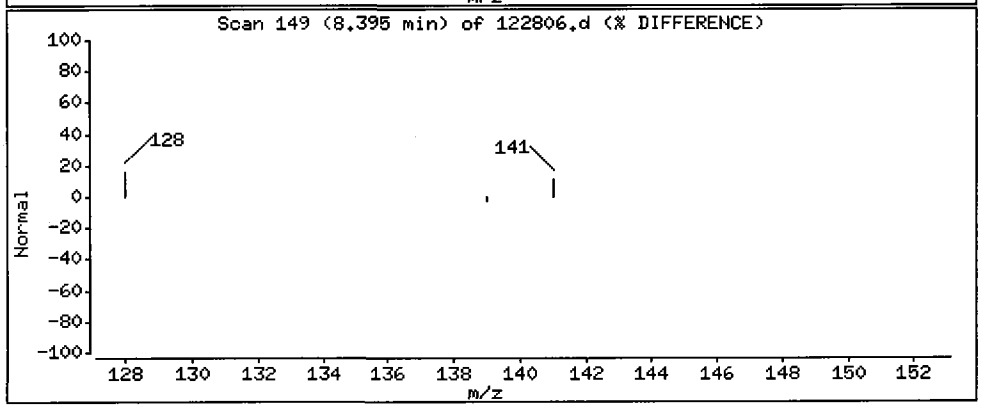












Data File: /chem3/nt2.i/20091228.b/122806.d

Date : 28-DEC-2009 13:44

Client ID: CB1121409COMP

Instrument: nt2.i

Sample Info: QB72C

Volume Injected (uL): 2.0

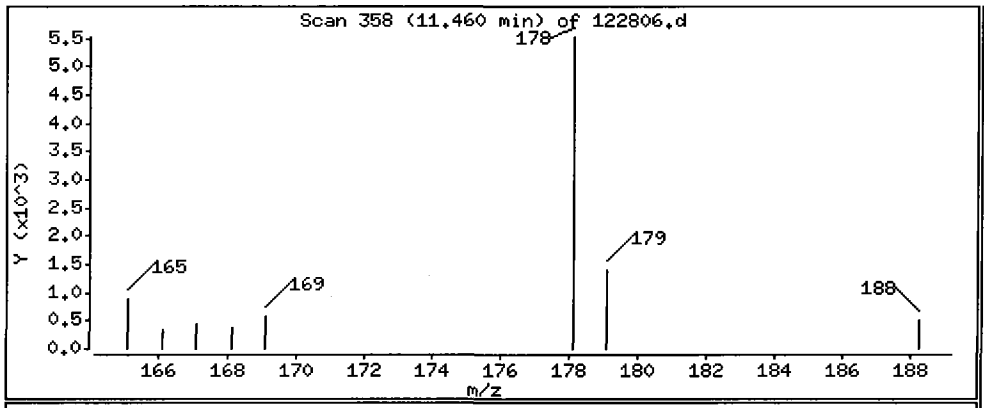
Operator: VTS

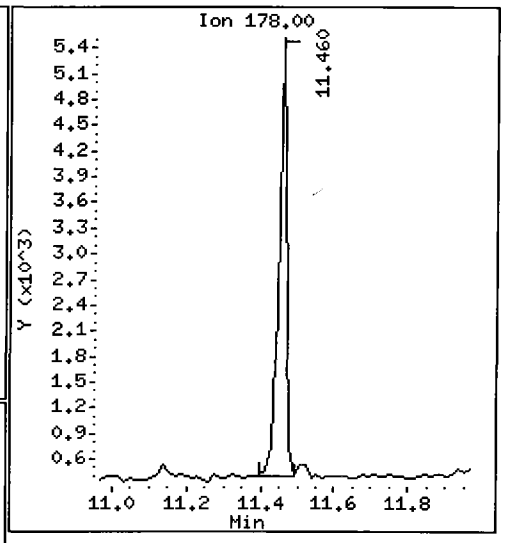
Column phase: ZB-5

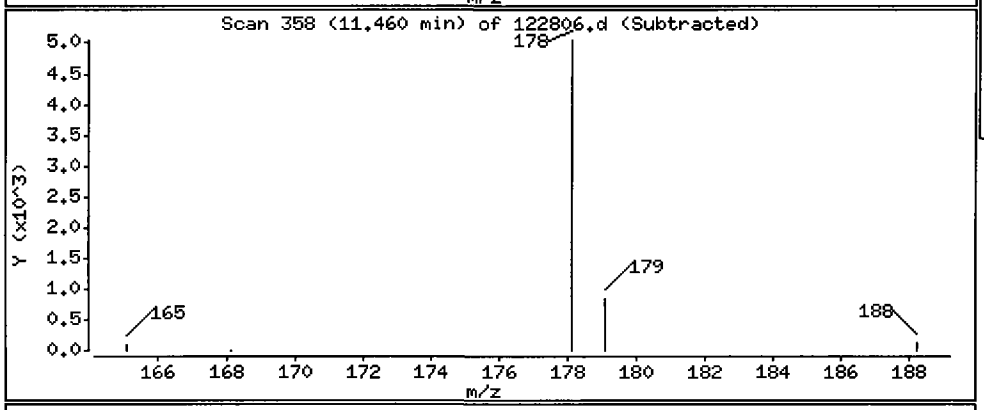
Column diameter: 0.25

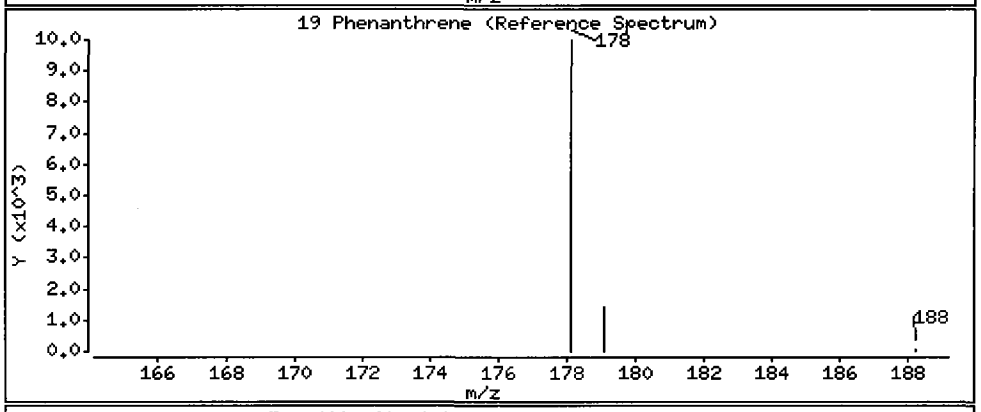
19 Phenanthrene

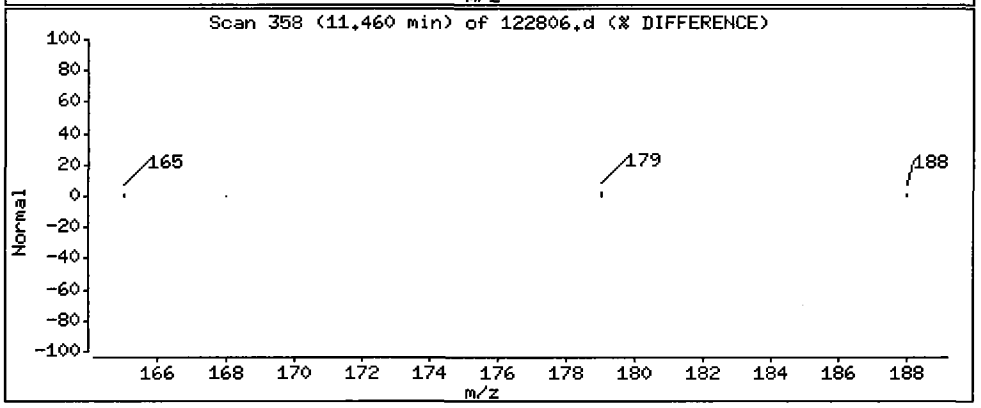
Concentration: 10.4 ug/L



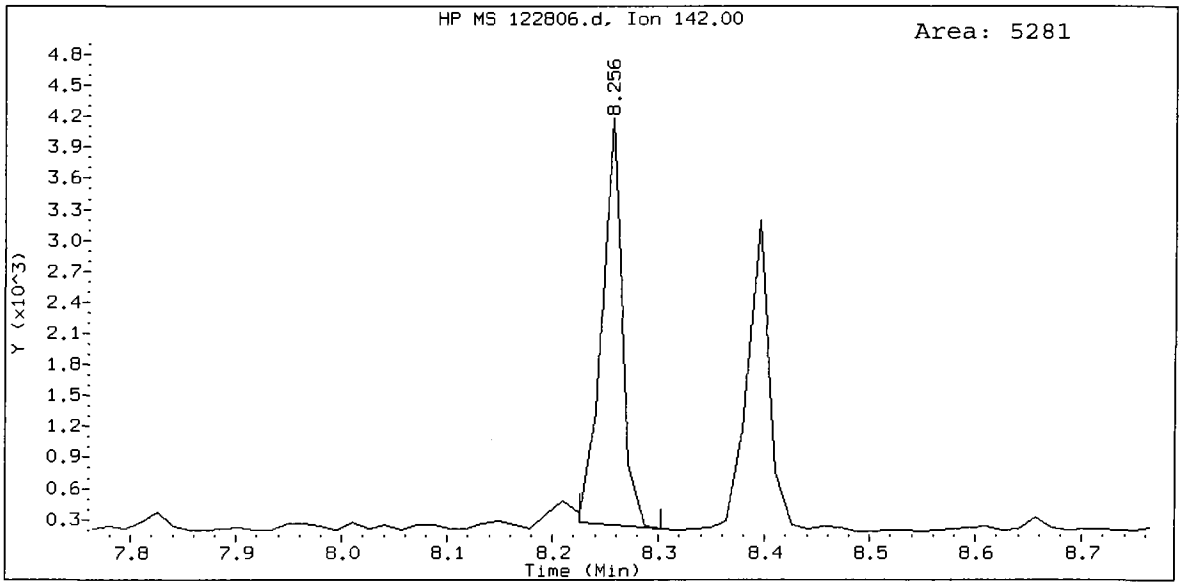


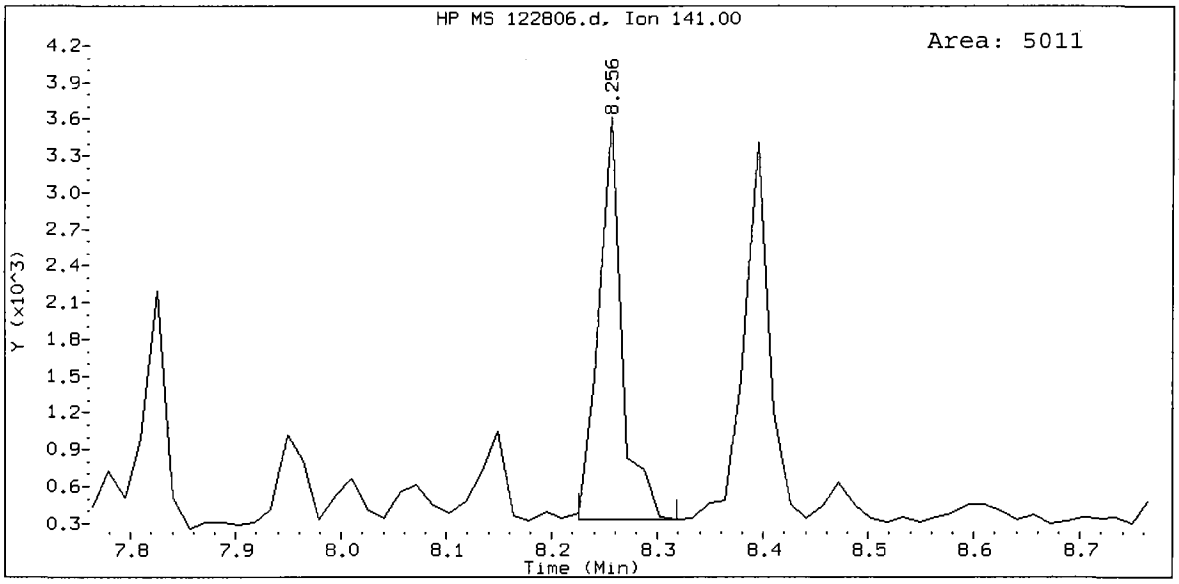


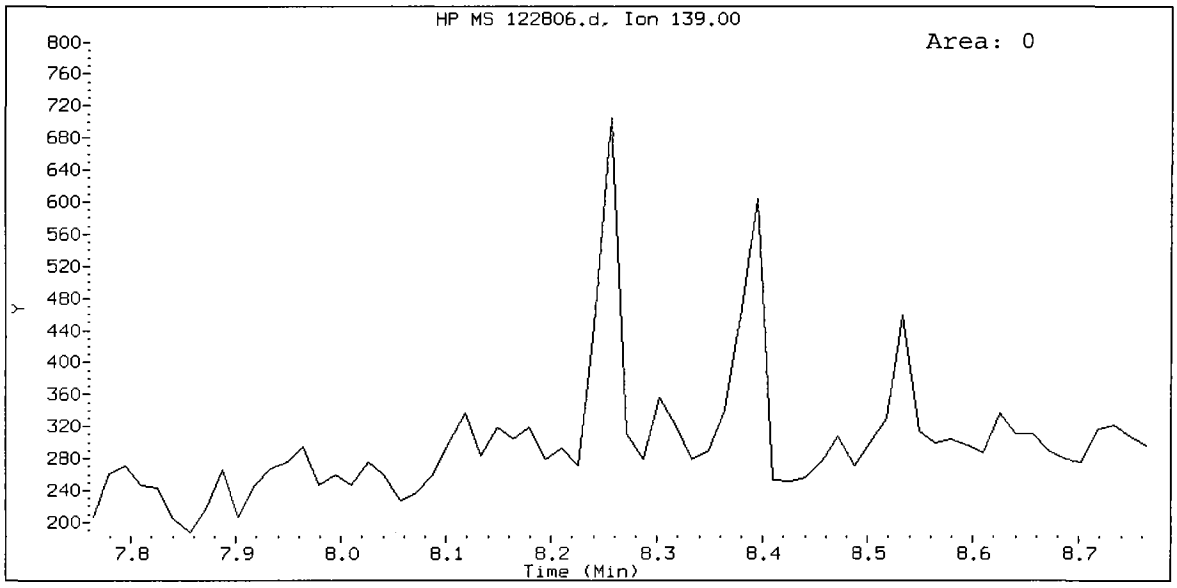




QB72C, /chem3/nt2.i/20091228.b/122806.d
2-Methylnaphthalene Amount: 10.34







SIM Semivolatile Analysis
Standard Raw Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No: QB72 Project: LORA LAKE APTS.

Instrument ID: NT2 Calibration Date: 10/21/09

LAB FILE ID: RRF10 =IC102103 RRF50 =IC102105 RRF100=IC102106
RRF250=IC102101 RRF500=IC102104 RRF1000=IC102102

COMPOUND	RRF 10	RRF 50	RRF 100	RRF 250	RRF 500	RRF 1000	___ RRF	%RSD /R^2
Naphthalene	1.084	0.955	0.972	1.010	0.883	0.874	0.963	8.2
2-Methylnaphthalene	0.590	0.570	0.562	0.595	0.531	0.522	0.562	5.3
Acenaphthylene	1.603	1.583	1.560	1.586	1.575	1.589	1.583	0.9
Acenaphthene	1.030	0.993	0.975	0.940	0.965	0.990	0.982	3.1
Dibenzofuran	1.235	1.216	1.228	1.351	1.300	1.347	1.280	4.8
Fluorene	1.006	1.012	1.050	1.078	1.095	1.106	1.058	4.0
Phenanthrene	1.054	0.992	0.942	1.032	0.946	0.999	0.994	4.5
Anthracene	1.118	1.018	0.976	0.992	1.015	0.976	1.016	5.3
Fluoranthene	1.270	1.069	1.046	1.064	1.015	1.032	1.083	8.7
Pyrene	1.277	1.095	1.056	1.076	1.037	1.053	1.099	8.1
Benzo(a)anthracene	1.127	0.985	0.976	0.993	0.967	0.941	0.998	6.6
Chrysene	1.169	0.975	0.947	0.951	0.942	0.925	0.985	9.3
Benzo(b)fluoranthene	1.481	1.062	1.044	1.097	1.028	1.162	1.146	14.9
Benzo(k)fluoranthene	1.213	1.296	1.295	1.206	1.319	1.136	1.244	5.7
Benzo(a)pyrene	0.995	0.868	0.870	0.894	0.888	0.872	0.898	5.5
Indeno(1,2,3-cd)pyrene	1.162	0.994	0.990	1.037	1.029	1.029	1.040	6.0
Dibenzo(a,h)anthracene	0.833	0.775	0.782	0.830	0.830	0.832	0.814	3.4
Benzo(g,h,i)perylene	1.025	0.868	0.868	0.881	0.874	0.867	0.897	7.0
1-Methylnaphthalene	0.617	0.603	0.580	0.592	0.564	0.549	0.584	4.3
2-Methylnaphthalene-d10		0.521	0.525	0.538	0.500	0.492	0.515	3.7
Dibenzo(a,h)anthracene-d14	0.607	0.583	0.587	0.623	0.614	0.623	0.606	2.9

<- Outside QC limits: %RSD <20% or R^2 > 0.990

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 11:37
End Cal Date : 21-OCT-2009 13:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt2.i/20091021.b/lowsim.m
Cal Date : 21-Oct-2009 14:43 peter
Curve Type : Average

Calibration File Names:
Level 1: /chem3/nt2.i/20091021.b/ic102103.d
Level 2: /chem3/nt2.i/20091021.b/ic102105.d
Level 3: /chem3/nt2.i/20091021.b/ic102106.d
Level 4: /chem3/nt2.i/20091021.b/ic102101.d
Level 5: /chem3/nt2.i/20091021.b/ic102104.d
Level 6: /chem3/nt2.i/20091021.b/ic102102.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	1.08422	0.95508	0.97248	1.00959	0.88269	0.87431	0.96306	8.220
7 2-Methylnaphthalene	0.58989	0.57001	0.56209	0.59473	0.53115	0.52188	0.56162	5.326
8 1-Methylnaphthalene	0.61739	0.60333	0.58036	0.59256	0.56451	0.54912	0.58455	4.307
9 Dimethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Acenaphthylene	1.60290	1.58341	1.55976	1.58640	1.57495	1.58903	1.58274	0.915
12 Acenaphthene	1.03007	0.99322	0.97471	0.93965	0.96490	0.99045	0.98217	3.104
13 Diethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Dibenzofuran	1.23504	1.21614	1.22851	1.35147	1.29957	1.34662	1.27956	4.777
15 Fluorene	1.00655	1.01160	1.04982	1.07858	1.09460	1.10554	1.05778	3.986
17 Pentachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Phenanthrene	1.05381	0.99175	0.94236	1.03155	0.94563	0.99939	0.99408	4.505
20 Anthracene	1.11827	1.01797	0.97565	0.99177	1.01513	0.97600	1.01580	5.261
21 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Fluoranthene	1.26962	1.06871	1.04646	1.06433	1.01541	1.03189	1.08274	8.654
25 Pyrene	1.27709	1.09496	1.05649	1.07591	1.03674	1.05327	1.09908	8.142
26 Butylbenzylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 Bis(2-Ethylhexyl)phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 Benzo(a)anthracene	1.12699	0.98509	0.97625	0.99322	0.96700	0.94072	0.99821	6.576

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 11:37
End Cal Date : 21-OCT-2009 13:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt2.i/20091021.b/lowsim.m
Cal Date : 21-Oct-2009 14:43 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	1.16905	0.97489	0.94660	0.95134	0.94178	0.92546	0.98485	9.306
31 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Benzo(b)fluoranthene	1.48132	1.06240	1.04439	1.09699	1.02765	1.16238	1.14586	14.935
33 Benzo(k)fluoranthene	1.21308	1.29612	1.29466	1.20580	1.31870	1.13631	1.24411	5.670
34 Benzo(a)pyrene	0.99543	0.86769	0.87028	0.89402	0.88788	0.87159	0.89782	5.456
37 Indeno(1,2,3-cd)pyrene	1.16231	0.99441	0.99043	1.03698	1.02944	1.02890	1.04041	6.039
38 Dibenzo(a,h)anthracene	0.83347	0.77488	0.78166	0.82992	0.83027	0.83253	0.81379	3.395
39 Benzo(g,h,i)perylene	1.02510	0.86831	0.86768	0.88079	0.87354	0.86741	0.89714	7.011
$ 1 D5-Phenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 6 2-Methylnaphthalene-d10	+++++	0.52084	0.52510	0.53838	0.49952	0.49180	0.51513	3.710
$ 16 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 23 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 36 Dibenzo(a,h)anthracene-d14	0.60727	0.58335	0.58716	0.62305	0.61361	0.62288	0.60622	2.860

Analytical Resources, Inc.

Data file : /chem3/nt2.i/20091021.b/ic102101.d
Lab Smp Id: PNA 250
Inj Date : 21-OCT-2009 11:37
Operator : VTS Inst ID: nt2.i
Smp Info : PNA 250
Misc Info :
Comment :
Method : /chem3/nt2.i/20091021.b/lowsim.m
Meth Date : 21-Oct-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 1 Calibration Sample, Level: 4
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	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.226	6.226	(1.000)	173109	200.000	
	5 Naphthalene	128	6.257	6.257	(1.005)	218461	250.000	262
$	6 2-Methylnaphthalene-d10	152	7.073	7.073	(1.136)	116499	250.000	261
	7 2-Methylnaphthalene	142	7.119	7.103	(1.143)	128691	250.000	265
	8 1-Methylnaphthalene	142	7.242	7.242	(1.163)	128222	250.000	253
	10 Acenaphthylene	152	8.224	8.211	(0.977)	191711	250.000	251
*	11 Acenaphthene-d10	164	8.418	8.417	(1.000)	96677	200.000	
	12 Acenaphthene	153	8.443	8.443	(1.003)	113553	250.000	239
	14 Dibenzofuran	168	8.650	8.649	(1.028)	163320	250.000	264
	15 Fluorene	166	9.069	9.054	(1.077)	130342	250.000	255
*	18 Phenanthrene-d10	188	10.208	10.208	(1.000)	147750	200.000	
	19 Phenanthrene	178	10.239	10.239	(1.003)	190515	250.000	259
	20 Anthracene	178	10.300	10.285	(1.009)	183168	250.000	244
	24 Fluoranthene	202	11.702	11.691	(1.146)	196568	250.000	246
	25 Pyrene	202	11.977	11.966	(1.173)	198708	250.000	245

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	28 Benzo(a)anthracene	228	13.447	13.447	(0.998)	167878	250.000	249
*	29 Chrysene-d12	240	13.469	13.469	(1.000)	135219	200.000	
	30 Chrysene	228	13.502	13.491	(1.002)	160799	250.000	241
	32 Benzo(b)fluoranthene	252	14.702	14.695	(0.973)	172523	250.000	239
	33 Benzo(k)fluoranthene	252	14.726	14.718	(0.975)	189635	250.000	242
	34 Benzo(a)pyrene	252	15.043	15.036	(0.996)	140601	250.000	249
*	35 Perylene-d12	264	15.105	15.098	(1.000)	125815	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	16.399	16.399	(1.086)	163084	250.000	249
$	36 Dibenzo(a,h)anthracene-d14	292	16.372	16.372	(1.084)	97986	250.000	257
	38 Dibenzo(a,h)anthracene	278	16.412	16.413	(1.087)	130520	250.000	255
	39 Benzo(g,h,i)perylene	276	16.777	16.763	(1.111)	138520	250.000	245

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt2.i
Lab File ID: ic102101.d
Lab Smp Id: PNA 250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091021.b/lowsim.m
Misc Info:

Calibration Date: 21-OCT-2009
Calibration Time: 11:37

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	173109	0.00
11 Acenaphthene-d10	96677	48338	193354	96677	0.00
18 Phenanthrene-d10	147750	73875	295500	147750	0.00
29 Chrysene-d12	135219	67610	270438	135219	0.00
35 Perylene-d12	125815	62908	251630	125815	0.00

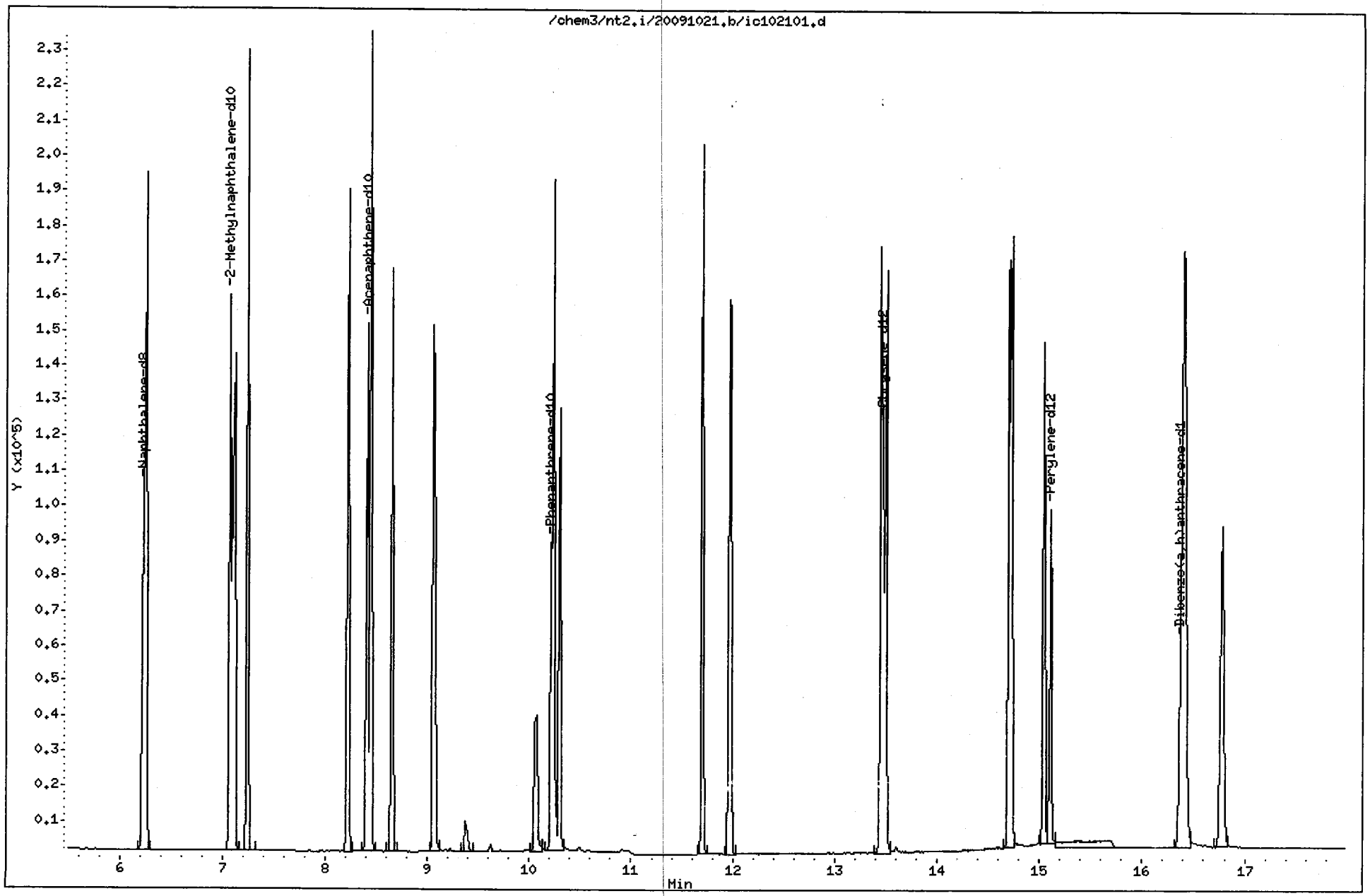
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.23	5.73	6.73	6.23	0.00
11 Acenaphthene-d10	8.42	7.92	8.92	8.42	0.00
18 Phenanthrene-d10	10.21	9.71	10.71	10.21	0.00
29 Chrysene-d12	13.47	12.97	13.97	13.47	0.00
35 Perylene-d12	15.11	14.61	15.61	15.11	0.00

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/20091021.b/ic102101.d
Date : 21-OCT-2009 11:37
Client ID:
Sample Info: PNA 250
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72 09119

Analytical Resources, Inc.

Data file : /chem3/nt2.i/20091021.b/ic102102.d
Lab Smp Id: PNA 1000
Inj Date : 21-OCT-2009 12:00
Operator : VTS Inst ID: nt2.i
Smp Info : PNA 1000
Misc Info :
Comment :
Method : /chem3/nt2.i/20091021.b/lowsim.m
Meth Date : 21-Oct-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 2 Calibration Sample, Level: 6
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	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.227	6.226	(1.000)	188814	200.000	
	5 Naphthalene	128	6.258	6.257	(1.005)	825414	1000.00	908
$	6 2-Methylnaphthalene-d10	152	7.074	7.073	(1.136)	464298	1000.00	955
	7 2-Methylnaphthalene	142	7.104	7.103	(1.141)	492692	1000.00	929
	8 1-Methylnaphthalene	142	7.243	7.242	(1.163)	518412	1000.00	939
	10 Acenaphthylene	152	8.211	8.211	(0.976)	734789	1000.00	1000(A)
*	11 Acenaphthene-d10	164	8.417	8.417	(1.000)	92483	200.000	
	12 Acenaphthene	153	8.443	8.443	(1.003)	457997	1000.00	1010(A)
	14 Dibenzofuran	168	8.649	8.649	(1.028)	622698	1000.00	1050(A)
	15 Fluorene	166	9.054	9.054	(1.076)	511218	1000.00	1050(A)
*	18 Phenanthrene-d10	188	10.208	10.208	(1.000)	148959	200.000	
	19 Phenanthrene	178	10.238	10.239	(1.003)	744342	1000.00	1010(A)
	20 Anthracene	178	10.285	10.285	(1.008)	726921	1000.00	961
	24 Fluoranthene	202	11.702	11.691	(1.146)	768544	1000.00	953
	25 Pyrene	202	11.965	11.966	(1.172)	784471	1000.00	958

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	28 Benzo(a)anthracene	228	13.447	13.447	(0.998)	651296	1000.00	942
*	29 Chrysene-d12	240	13.469	13.469	(1.000)	138468	200.000	
	30 Chrysene	228	13.491	13.491	(1.002)	640733	1000.00	940
	32 Benzo(b)fluoranthene	252	14.694	14.695	(0.973)	727721	1000.00	1010(A)
	33 Benzo(k)fluoranthene	252	14.717	14.718	(0.974)	711396	1000.00	913
	34 Benzo(a)pyrene	252	15.035	15.036	(0.995)	545669	1000.00	971
*	35 Perylene-d12	264	15.104	15.098	(1.000)	125212	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	16.399	16.399	(1.086)	644155	1000.00	989
$	36 Dibenzo(a,h)anthracene-d14	292	16.372	16.372	(1.084)	389963	1000.00	1030(A)
	38 Dibenzo(a,h)anthracene	278	16.412	16.413	(1.087)	521214	1000.00	1020(A)
	39 Benzo(g,h,i)perylene	276	16.776	16.763	(1.111)	543050	1000.00	967

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: ic102102.d
Lab Smp Id: PNA 1000
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091021.b/lowsim.m
Misc Info:

Calibration Date: 21-OCT-2009
Calibration Time: 11:37

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	188814	9.07
11 Acenaphthene-d10	96677	48338	193354	92483	-4.34
18 Phenanthrene-d10	147750	73875	295500	148959	0.82
29 Chrysene-d12	135219	67610	270438	138468	2.40
35 Perylene-d12	125815	62908	251630	125212	-0.48

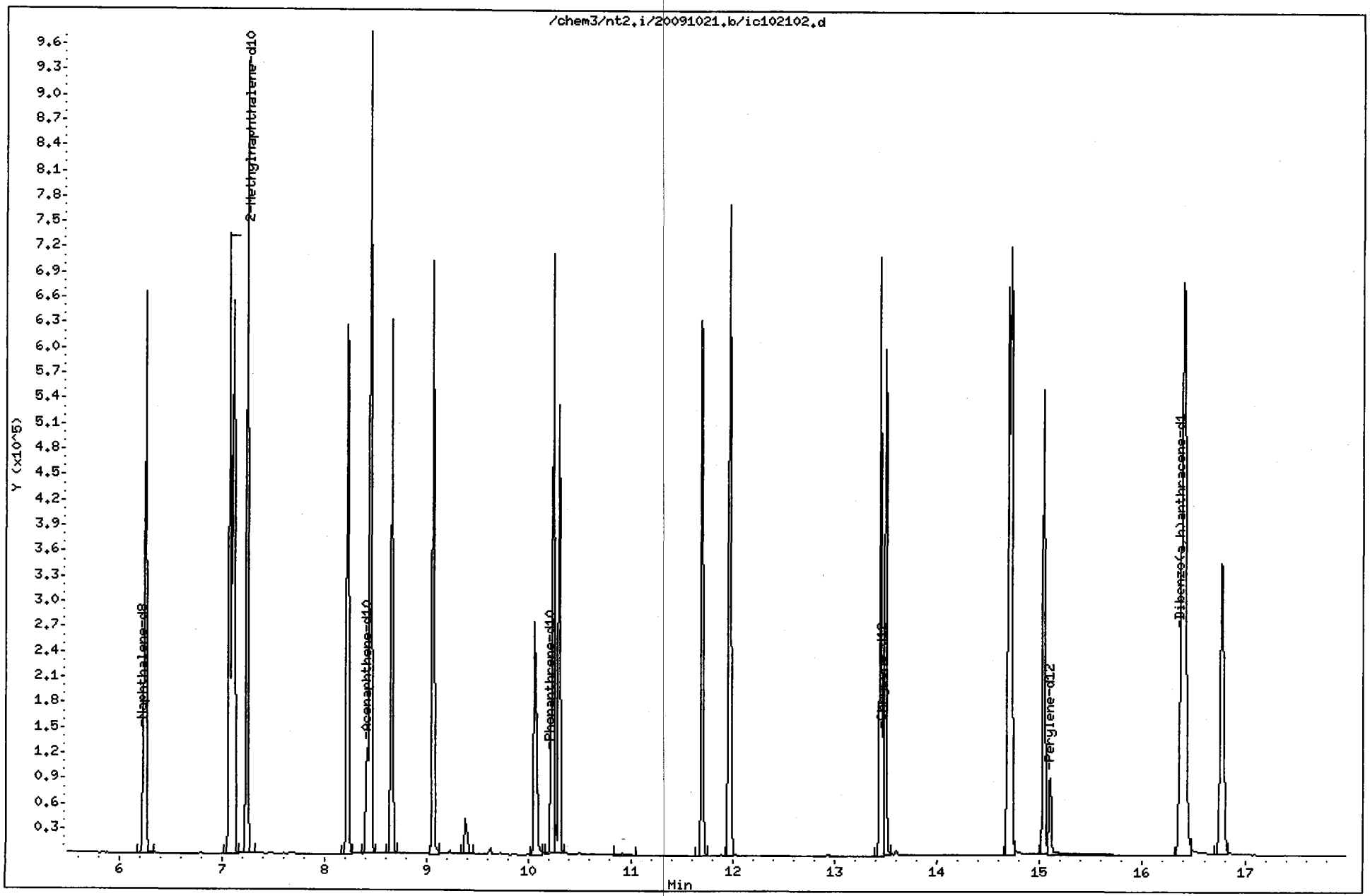
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.23	5.73	6.73	6.23	0.02
11 Acenaphthene-d10	8.42	7.92	8.92	8.42	-0.01
18 Phenanthrene-d10	10.21	9.71	10.71	10.21	0.00
29 Chrysene-d12	13.47	12.97	13.97	13.47	0.00
35 Perylene-d12	15.11	14.61	15.61	15.10	0.00

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/20091021.b/ic102102.d
Date : 21-OCT-2009 12:00
Client ID:
Sample Info: PNA 1000
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72:9915

Analytical Resources, Inc.

Data file : /chem3/nt2.i/20091021.b/ic102103.d
Lab Smp Id: PNA 10
Inj Date : 21-OCT-2009 12:22
Operator : VTS Inst ID: nt2.i
Smp Info : PNA 10
Misc Info :
Comment :
Method : /chem3/nt2.i/20091021.b/lowsim.m
Meth Date : 21-Oct-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 3 Calibration Sample, Level: 1
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	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.226	6.226	(1.000)	163657	200.000	
	5 Naphthalene	128	6.257	6.257	(1.005)	8872	10.0000	11.3
$	6 2-Methylnaphthalene-d10	152	7.073	7.073	(1.136)	4462	10.0000	10.6
	7 2-Methylnaphthalene	142	7.103	7.103	(1.141)	4827	10.0000	10.5
	8 1-Methylnaphthalene	142	7.242	7.242	(1.163)	5052	10.0000	10.6
	10 Acenaphthylene	152	8.211	8.211	(0.976)	6475	10.0000	10.1
*	11 Acenaphthene-d10	164	8.417	8.417	(1.000)	80791	200.000	
	12 Acenaphthene	153	8.443	8.443	(1.003)	4161	10.0000	10.5
	14 Dibenzofuran	168	8.649	8.649	(1.028)	4989	10.0000	9.65
	15 Fluorene	166	9.055	9.054	(1.076)	4066	10.0000	9.52
*	18 Phenanthrene-d10	188	10.208	10.208	(1.000)	128448	200.000	
	19 Phenanthrene	178	10.239	10.239	(1.003)	6768	10.0000	10.6
	20 Anthracene	178	10.285	10.285	(1.008)	7182	10.0000	11.0(M)
	24 Fluoranthene	202	11.691	11.691	(1.145)	8154	10.0000	11.7
	25 Pyrene	202	11.965	11.966	(1.172)	8202	10.0000	11.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	28 Benzo(a)anthracene	228	13.447	13.447	(0.998)	6672	10.0000	11.3
*	29 Chrysene-d12	240	13.469	13.469	(1.000)	118404	200.000	
	30 Chrysene	228	13.491	13.491	(1.002)	6921	10.0000	11.9
	32 Benzo(b)fluoranthene	252	14.695	14.695	(0.973)	8140	10.0000	12.9
	33 Benzo(k)fluoranthene	252	14.718	14.718	(0.975)	6666	10.0000	9.75
	34 Benzo(a)pyrene	252	15.036	15.036	(0.996)	5470	10.0000	11.1
*	35 Perylene-d12	264	15.097	15.098	(1.000)	109902	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	16.399	16.399	(1.086)	6387	10.0000	11.2
$	36 Dibenzo(a,h)anthracene-d14	292	16.372	16.372	(1.084)	3337	10.0000	10.0
	38 Dibenzo(a,h)anthracene	278	16.413	16.413	(1.087)	4580	10.0000	10.2
	39 Benzo(g,h,i)perylene	276	16.763	16.763	(1.110)	5633	10.0000	11.4

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: ic102103.d
Lab Smp Id: PNA 10
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091021.b/lowsim.m
Misc Info:

Calibration Date: 21-OCT-2009
Calibration Time: 11:37

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	163657	-5.46
11 Acenaphthene-d10	96677	48338	193354	80791	-16.43
18 Phenanthrene-d10	147750	73875	295500	128448	-13.06
29 Chrysene-d12	135219	67610	270438	118404	-12.44
35 Perylene-d12	125815	62908	251630	109902	-12.65

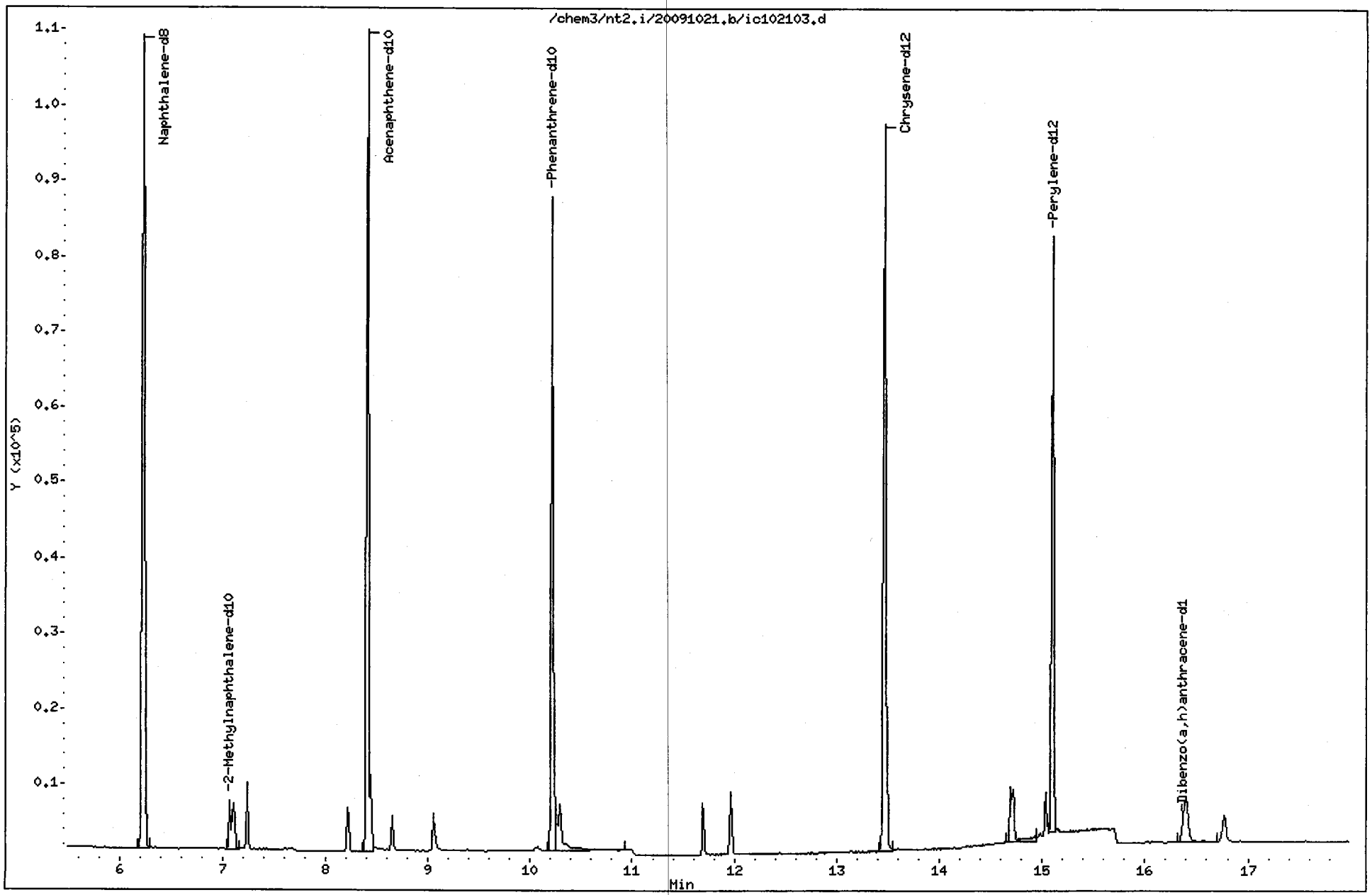
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.23	5.73	6.73	6.23	0.00
11 Acenaphthene-d10	8.42	7.92	8.92	8.42	0.00
18 Phenanthrene-d10	10.21	9.71	10.71	10.21	0.00
29 Chrysene-d12	13.47	12.97	13.97	13.47	0.00
35 Perylene-d12	15.11	14.61	15.61	15.10	-0.05

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/20091021.b/ic102103.d
Date : 21-OCT-2009 12:22
Client ID:
Sample Info: PNA 10
Volume Injected (uL): 2.0
Column phase: ZB-5

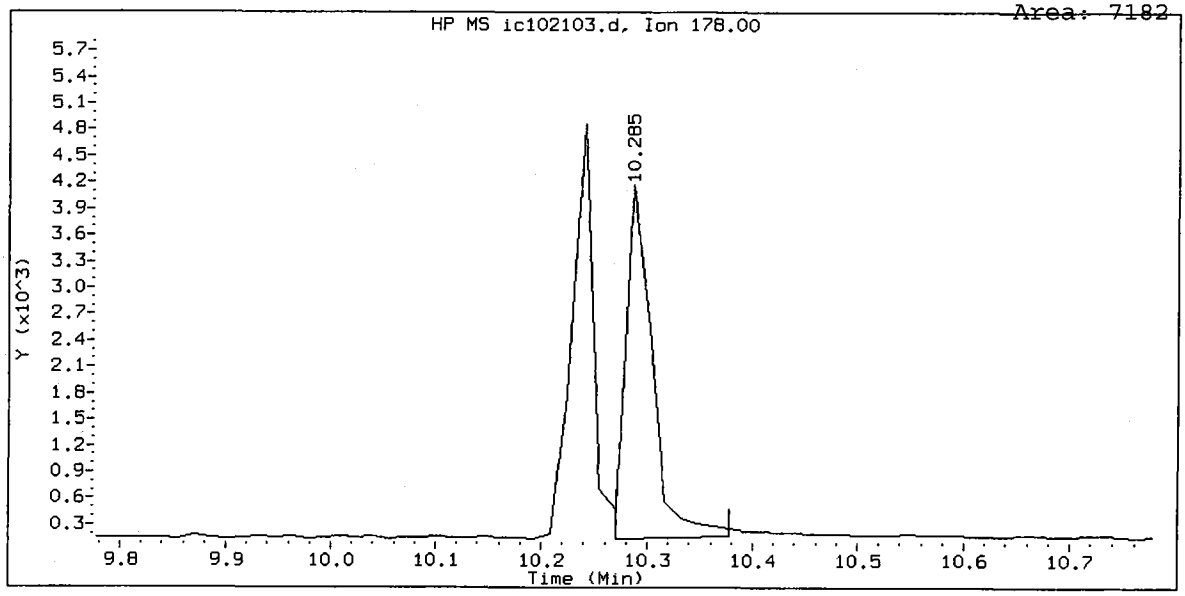
Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72:00156

PNA 10, /chem3/nt2.i/20091021.b/ic102103.d
Anthracene Amount: 11.01



Analytical Resources, Inc.

Data file : /chem3/nt2.i/20091021.b/ic102104.d
Lab Smp Id: PNA 500
Inj Date : 21-OCT-2009 12:45
Operator : VTS Inst ID: nt2.i
Smp Info : PNA 500
Misc Info :
Comment :
Method : /chem3/nt2.i/20091021.b/lowsim.m
Meth Date : 21-Oct-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 4 Calibration Sample, Level: 5
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	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.227	6.226	(1.000)	177186	200.000	
	5 Naphthalene	128	6.258	6.257	(1.005)	390999	500.000	458
$	6 2-Methylnaphthalene-d10	152	7.073	7.073	(1.136)	221268	500.000	485
	7 2-Methylnaphthalene	142	7.104	7.103	(1.141)	235281	500.000	473
	8 1-Methylnaphthalene	142	7.243	7.242	(1.163)	250059	500.000	483
	10 Acenaphthylene	152	8.223	8.211	(0.977)	349646	500.000	498
*	11 Acenaphthene-d10	164	8.417	8.417	(1.000)	88802	200.000	
	12 Acenaphthene	153	8.442	8.443	(1.003)	214213	500.000	491
	14 Dibenzofuran	168	8.649	8.649	(1.028)	288512	500.000	508
	15 Fluorene	166	9.055	9.054	(1.076)	243007	500.000	517
*	18 Phenanthrene-d10	188	10.209	10.208	(1.000)	144260	200.000	
	19 Phenanthrene	178	10.240	10.239	(1.003)	341043	500.000	476
	20 Anthracene	178	10.286	10.285	(1.008)	366108	500.000	500
	24 Fluoranthene	202	11.691	11.691	(1.145)	366209	500.000	469
	25 Pyrene	202	11.965	11.966	(1.172)	373900	500.000	472

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	28 Benzo(a)anthracene	228	13.447	13.447	(0.998)	308003	500.000	484
*	29 Chrysene-d12	240	13.469	13.469	(1.000)	127406	200.000	
	30 Chrysene	228	13.491	13.491	(1.002)	299970	500.000	478
	32 Benzo(b)fluoranthene	252	14.696	14.695	(0.973)	299055	500.000	448
	33 Benzo(k)fluoranthene	252	14.719	14.718	(0.975)	383753	500.000	530
	34 Benzo(a)pyrene	252	15.036	15.036	(0.996)	258381	500.000	494
*	35 Perylene-d12	264	15.098	15.098	(1.000)	116403	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	16.398	16.399	(1.086)	299575	500.000	495
$	36 Dibenzo(a,h)anthracene-d14	292	16.371	16.372	(1.084)	178564	500.000	506
	38 Dibenzo(a,h)anthracene	278	16.412	16.413	(1.087)	241614	500.000	510
	39 Benzo(g,h,i)perylene	276	16.762	16.763	(1.110)	254207	500.000	487

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt2.i
Lab File ID: ic102104.d
Lab Smp Id: PNA 500
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091021.b/lowsim.m
Misc Info:

Calibration Date: 21-OCT-2009
Calibration Time: 11:37

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	177186	2.36
11 Acenaphthene-d10	96677	48338	193354	88802	-8.15
18 Phenanthrene-d10	147750	73875	295500	144260	-2.36
29 Chrysene-d12	135219	67610	270438	127406	-5.78
35 Perylene-d12	125815	62908	251630	116403	-7.48

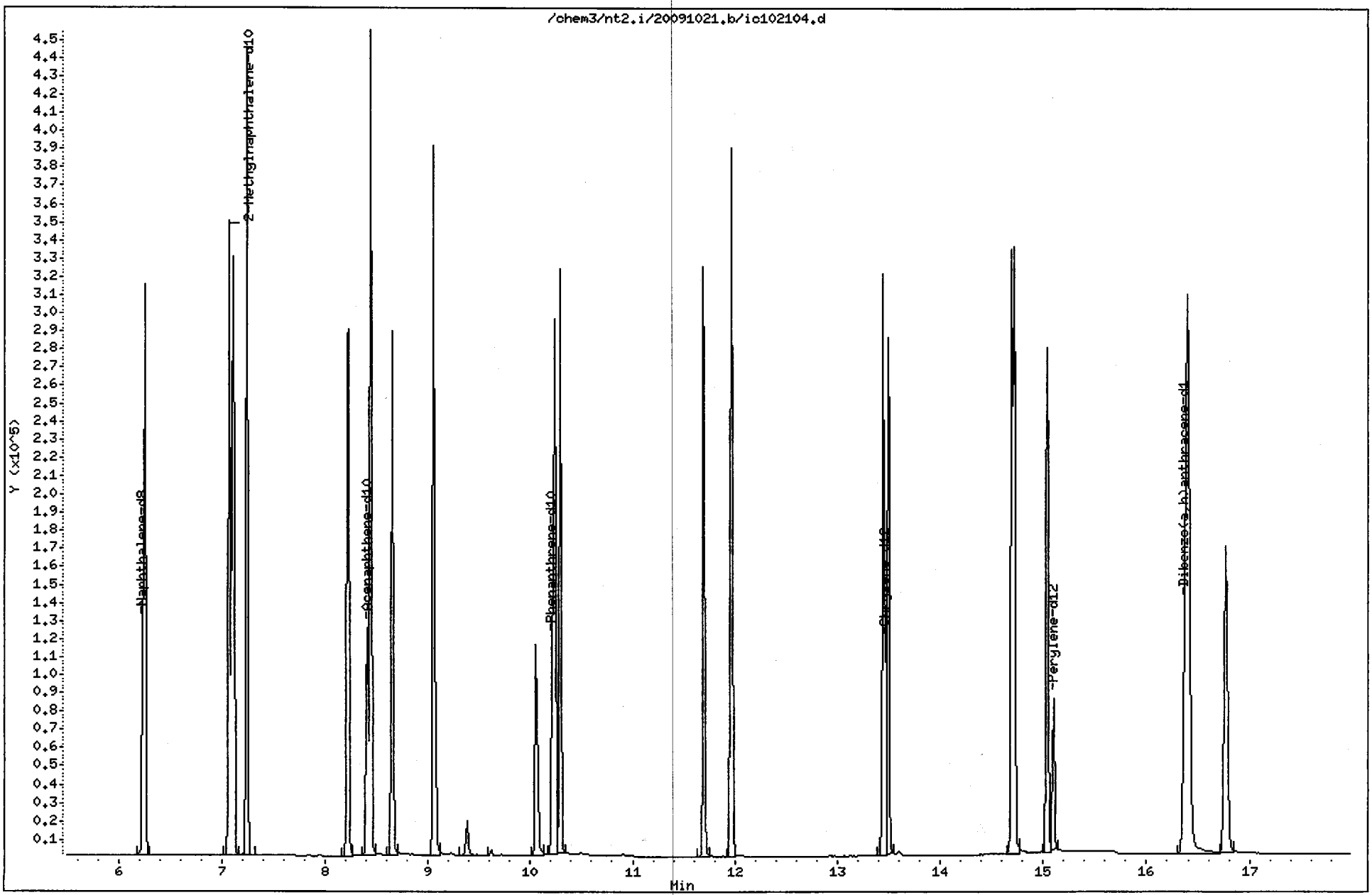
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.23	5.73	6.73	6.23	0.02
11 Acenaphthene-d10	8.42	7.92	8.92	8.42	-0.01
18 Phenanthrene-d10	10.21	9.71	10.71	10.21	0.01
29 Chrysene-d12	13.47	12.97	13.97	13.47	0.00
35 Perylene-d12	15.11	14.61	15.61	15.10	-0.04

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/20091021.b/ic102104.d
Date : 21-OCT-2009 12:45
Client ID:
Sample Info: PNA 500
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72:09161

Analytical Resources, Inc.

Data file : /chem3/nt2.i/20091021.b/ic102105.d
Lab Smp Id: PNA 50
Inj Date : 21-OCT-2009 13:07
Operator : VTS Inst ID: nt2.i
Smp Info : PNA 50
Misc Info :
Comment :
Method : /chem3/nt2.i/20091021.b/lowsim.m
Meth Date : 21-Oct-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 5 Calibration Sample, Level: 2
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	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.227	6.226	(1.000)	163275	200.000	
	5 Naphthalene	128	6.258	6.257	(1.005)	38985	50.0000	49.6
$	6 2-Methylnaphthalene-d10	152	7.073	7.073	(1.136)	21260	50.0000	50.6
	7 2-Methylnaphthalene	142	7.104	7.103	(1.141)	23267	50.0000	50.7
	8 1-Methylnaphthalene	142	7.243	7.242	(1.163)	24627	50.0000	51.6
	10 Acenaphthylene	152	8.223	8.211	(0.977)	31701	50.0000	50.0
*	11 Acenaphthene-d10	164	8.416	8.417	(1.000)	80083	200.000	
	12 Acenaphthene	153	8.442	8.443	(1.003)	19885	50.0000	50.6
	14 Dibenzofuran	168	8.648	8.649	(1.028)	24348	50.0000	47.5
	15 Fluorene	166	9.055	9.054	(1.076)	20253	50.0000	47.8
*	18 Phenanthrene-d10	188	10.209	10.208	(1.000)	130872	200.000	
	19 Phenanthrene	178	10.240	10.239	(1.003)	32448	50.0000	49.9
	20 Anthracene	178	10.286	10.285	(1.008)	33306	50.0000	50.1(M)
	24 Fluoranthene	202	11.690	11.691	(1.145)	34966	50.0000	49.4
	25 Pyrene	202	11.965	11.966	(1.172)	35825	50.0000	49.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	28 Benzo(a)anthracene	228	13.446	13.447	(0.998)	29378	50.0000	49.3
*	29 Chrysene-d12	240	13.468	13.469	(1.000)	119291	200.000	
	30 Chrysene	228	13.490	13.491	(1.002)	29074	50.0000	49.5
	32 Benzo(b)fluoranthene	252	14.696	14.695	(0.973)	29110	50.0000	46.4
	33 Benzo(k)fluoranthene	252	14.719	14.718	(0.975)	35514	50.0000	52.1
	34 Benzo(a)pyrene	252	15.036	15.036	(0.996)	23775	50.0000	48.3
*	35 Perylene-d12	264	15.098	15.098	(1.000)	109601	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	16.398	16.399	(1.086)	27247	50.0000	47.8
$	36 Dibenzo(a,h)anthracene-d14	292	16.371	16.372	(1.084)	15984	50.0000	48.1
	38 Dibenzo(a,h)anthracene	278	16.411	16.413	(1.087)	21232	50.0000	47.6
	39 Benzo(g,h,i)perylene	276	16.762	16.763	(1.110)	23792	50.0000	48.4

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: ic102105.d
Lab Smp Id: PNA 50
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091021.b/lowsim.m
Misc Info:

Calibration Date: 21-OCT-2009
Calibration Time: 11:37

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	163275	-5.68
11 Acenaphthene-d10	96677	48338	193354	80083	-17.16
18 Phenanthrene-d10	147750	73875	295500	130872	-11.42
29 Chrysene-d12	135219	67610	270438	119291	-11.78
35 Perylene-d12	125815	62908	251630	109601	-12.89

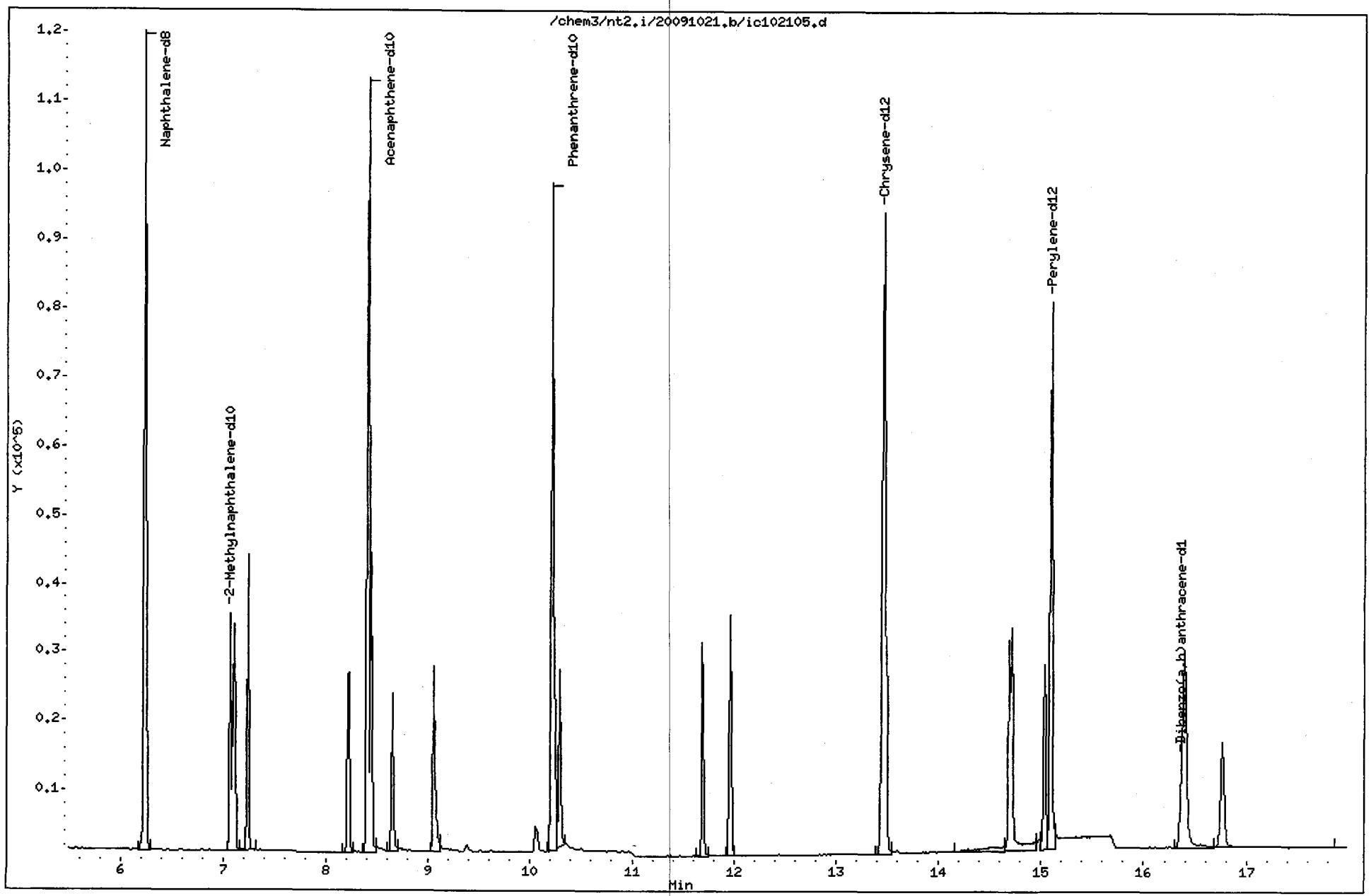
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.23	5.73	6.73	6.23	0.01
11 Acenaphthene-d10	8.42	7.92	8.92	8.42	-0.01
18 Phenanthrene-d10	10.21	9.71	10.71	10.21	0.01
29 Chrysene-d12	13.47	12.97	13.97	13.47	-0.01
35 Perylene-d12	15.11	14.61	15.61	15.10	-0.05

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/20091021.b/ic102105.d
Date : 21-OCT-2009 13:07
Client ID:
Sample Info: PNA 50
Volume Injected (uL): 2.0
Column phase: ZB-5

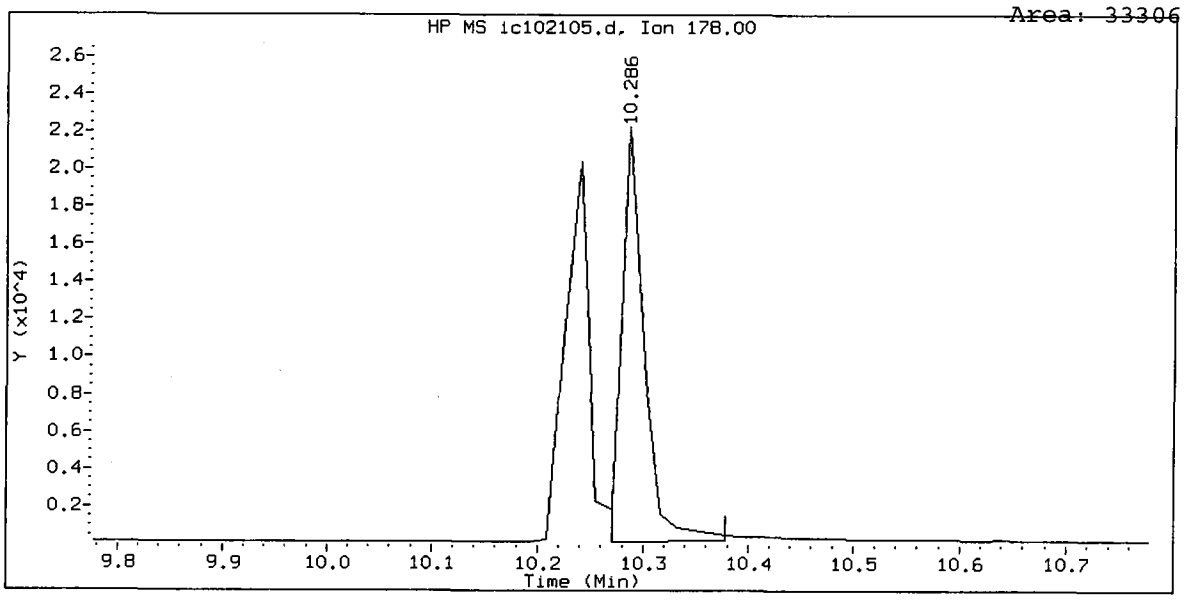
Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72:00165

PNA 50, /chem3/nt2.i/20091021.b/ic102105.d
Anthracene Amount: 50.11



Analytical Resources, Inc.

Data file : /chem3/nt2.i/20091021.b/ic102106.d
Lab Smp Id: PNA 100
Inj Date : 21-OCT-2009 13:30
Operator : VTS Inst ID: nt2.i
Smp Info : PNA 100
Misc Info :
Comment :
Method : /chem3/nt2.i/20091021.b/lowsim.m
Meth Date : 21-Oct-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 6 Calibration Sample, Level: 3
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	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.226	6.226	(1.000)	164822	200.000	
	5 Naphthalene	128	6.257	6.257	(1.005)	80143	100.000	101
$	6 2-Methylnaphthalene-d10	152	7.073	7.073	(1.136)	43274	100.000	102
	7 2-Methylnaphthalene	142	7.103	7.103	(1.141)	46322	100.000	100
	8 1-Methylnaphthalene	142	7.242	7.242	(1.163)	47828	100.000	99.3
	10 Acenaphthylene	152	8.211	8.211	(0.976)	64025	100.000	98.5
*	11 Acenaphthene-d10	164	8.417	8.417	(1.000)	82096	200.000	
	12 Acenaphthene	153	8.443	8.443	(1.003)	40010	100.000	99.2
	14 Dibenzofuran	168	8.649	8.649	(1.028)	50428	100.000	96.0
	15 Fluorene	166	9.054	9.054	(1.076)	43093	100.000	99.2
*	18 Phenanthrene-d10	188	10.208	10.208	(1.000)	134536	200.000	
	19 Phenanthrene	178	10.239	10.239	(1.003)	63391	100.000	94.8
	20 Anthracene	178	10.285	10.285	(1.008)	65630	100.000	96.0(M)
	24 Fluoranthene	202	11.691	11.691	(1.145)	70393	100.000	96.6
	25 Pyrene	202	11.966	11.966	(1.172)	71068	100.000	96.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	28 Benzo(a)anthracene	228	13.447	13.447	(0.998)	59894	100.000	97.8
*	29 Chrysene-d12	240	13.469	13.469	(1.000)	122702	200.000	
	30 Chrysene	228	13.491	13.491	(1.002)	58075	100.000	96.1
	32 Benzo(b)fluoranthene	252	14.695	14.695	(0.973)	58281	100.000	91.1
	33 Benzo(k)fluoranthene	252	14.718	14.718	(0.975)	72247	100.000	104
	34 Benzo(a)pyrene	252	15.036	15.036	(0.996)	48565	100.000	96.9
*	35 Perylene-d12	264	15.098	15.098	(1.000)	111608	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	16.399	16.399	(1.086)	55270	100.000	95.2
$	36 Dibenzo(a,h)anthracene-d14	292	16.372	16.372	(1.084)	32766	100.000	96.9
	38 Dibenzo(a,h)anthracene	278	16.413	16.413	(1.087)	43620	100.000	96.1
	39 Benzo(g,h,i)perylene	276	16.763	16.763	(1.110)	48420	100.000	96.7

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: ic102106.d
Lab Smp Id: PNA 100
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091021.b/lowsim.m
Misc Info:

Calibration Date: 21-OCT-2009
Calibration Time: 11:37

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	164822	-4.79
11 Acenaphthene-d10	96677	48338	193354	82096	-15.08
18 Phenanthrene-d10	147750	73875	295500	134536	-8.94
29 Chrysene-d12	135219	67610	270438	122702	-9.26
35 Perylene-d12	125815	62908	251630	111608	-11.29

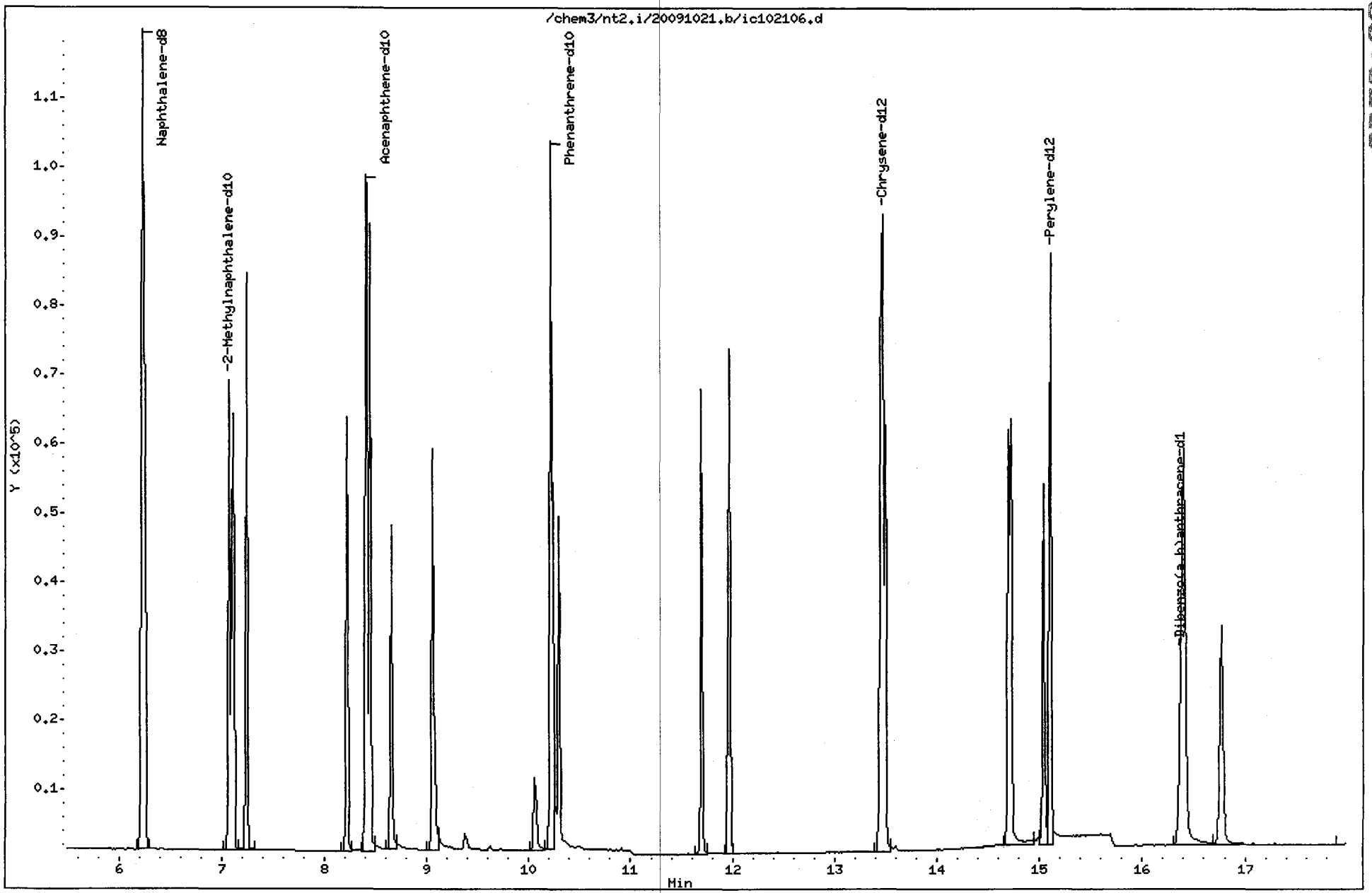
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.23	5.73	6.73	6.23	0.00
11 Acenaphthene-d10	8.42	7.92	8.92	8.42	0.00
18 Phenanthrene-d10	10.21	9.71	10.71	10.21	0.00
29 Chrysene-d12	13.47	12.97	13.97	13.47	0.00
35 Perylene-d12	15.11	14.61	15.61	15.10	-0.05

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/20091021.b/ic102106.d
Date : 21-OCT-2009 13:30
Client ID:
Sample Info: PNA 100
Volume Injected (uL): 2.0
Column phase: ZB-5

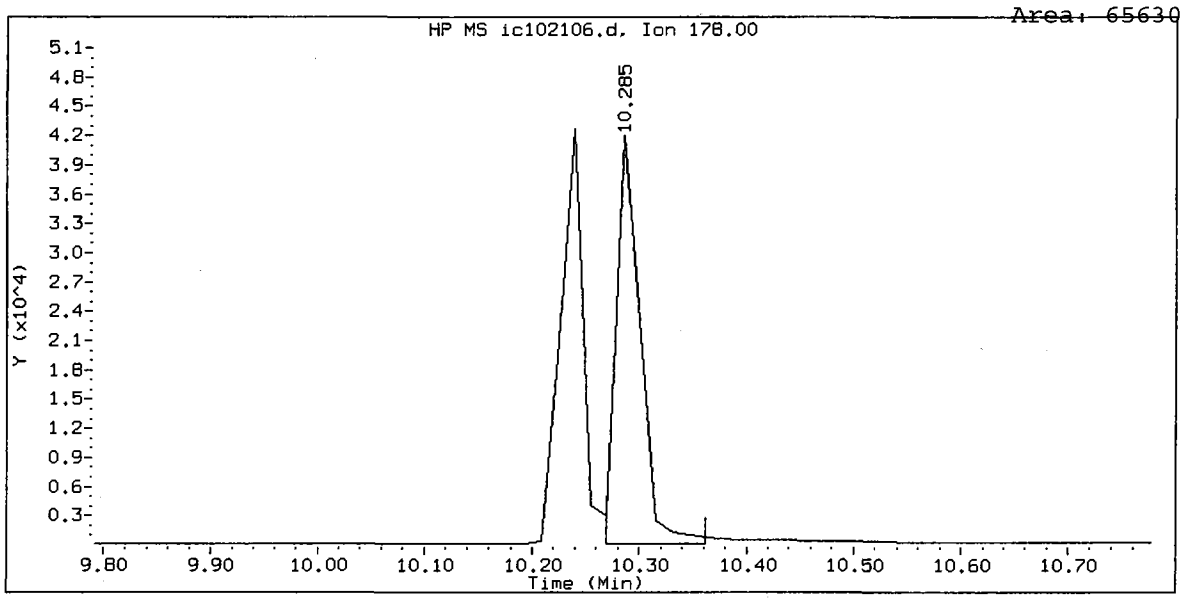
Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72:00178

PNA 100, /chem3/nt2.i/20091021.b/ic102106.d
Anthracene Amount: 96.05



Analytical Resources, Inc.

Data file : /chem3/nt2.i/20091021.b/ic102107.d
Lab Smp Id: ICV
Inj Date : 21-OCT-2009 13:52
Operator : VTS Inst ID: nt2.i
Smp Info : ICV
Misc Info :
Comment :
Method : /chem3/nt2.i/20091021.b/lowsim.m
Meth Date : 21-Oct-2009 14:46 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 7 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 (ng/L)
* 4 Naphthalene-d8	136	6.227	6.226	(1.000)	158208	200.000	
5 Naphthalene	128	6.258	6.257	(1.005)	212775	279.299	279
$ 6 2-Methylnaphthalene-d10	152	Compound Not Detected.					
7 2-Methylnaphthalene	142	7.104	7.103	(1.141)	127290	286.517	287
8 1-Methylnaphthalene	142	7.243	7.242	(1.163)	127749	276.275	276
10 Acenaphthylene	152	8.210	8.211	(0.976)	188049	288.176	288
* 11 Acenaphthene-d10	164	8.417	8.417	(1.000)	82458	200.000	
12 Acenaphthene	153	8.442	8.443	(1.003)	111957	276.480	276
14 Dibenzofuran	168	8.649	8.649	(1.028)	166353	315.332	315(R)
15 Fluorene	166	9.055	9.054	(1.076)	131841	302.310	302
* 18 Phenanthrene-d10	188	10.209	10.208	(1.000)	134236	200.000	
19 Phenanthrene	178	10.240	10.239	(1.003)	174636	261.741	262
20 Anthracene	178	10.286	10.285	(1.008)	182670	267.928	268
24 Fluoranthene	202	11.691	11.691	(1.145)	190861	262.637	263
25 Pyrene	202	11.965	11.966	(1.172)	194465	263.617	264

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/L)
	28 Benzo(a)anthracene	228	13.447	13.447	(0.998)	160274	276.584	277
*	29 Chrysene-d12	240	13.469	13.469	(1.000)	116103	200.000	
	30 Chrysene	228	13.490	13.491	(1.002)	165864	290.113	290
	32 Benzo(b)fluoranthene	252	14.694	14.695	(0.973)	151948	250.880	251
	33 Benzo(k)fluoranthene	252	14.717	14.718	(0.975)	202487	307.921	308
	34 Benzo(a)pyrene	252	15.035	15.036	(0.996)	138813	292.512	293
*	35 Perylene-d12	264	15.097	15.098	(1.000)	105713	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	16.399	16.399	(1.086)	153123	278.443	278
$	36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	38 Dibenzo(a,h)anthracene	278	16.412	16.413	(1.087)	120941	281.166	281
	39 Benzo(g,h,i)perylene	276	16.763	16.763	(1.110)	129353	272.784	273

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: ic102107.d
Lab Smp Id: ICV
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091021.b/lowsim.m
Misc Info:

Calibration Date: 21-OCT-2009
Calibration Time: 11:37

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	158208	-8.61
11 Acenaphthene-d10	96677	48338	193354	82458	-14.71
18 Phenanthrene-d10	147750	73875	295500	134236	-9.15
29 Chrysene-d12	135219	67610	270438	116103	-14.14
35 Perylene-d12	125815	62908	251630	105713	-15.98

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.23	5.73	6.73	6.23	0.02
11 Acenaphthene-d10	8.42	7.92	8.92	8.42	-0.01
18 Phenanthrene-d10	10.21	9.71	10.71	10.21	0.01
29 Chrysene-d12	13.47	12.97	13.97	13.47	-0.01
35 Perylene-d12	15.11	14.61	15.61	15.10	-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:
Client SDG: 20091021
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: ICV
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: LCS
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt2.i/20091021.b/lowsim.m
Misc Info:

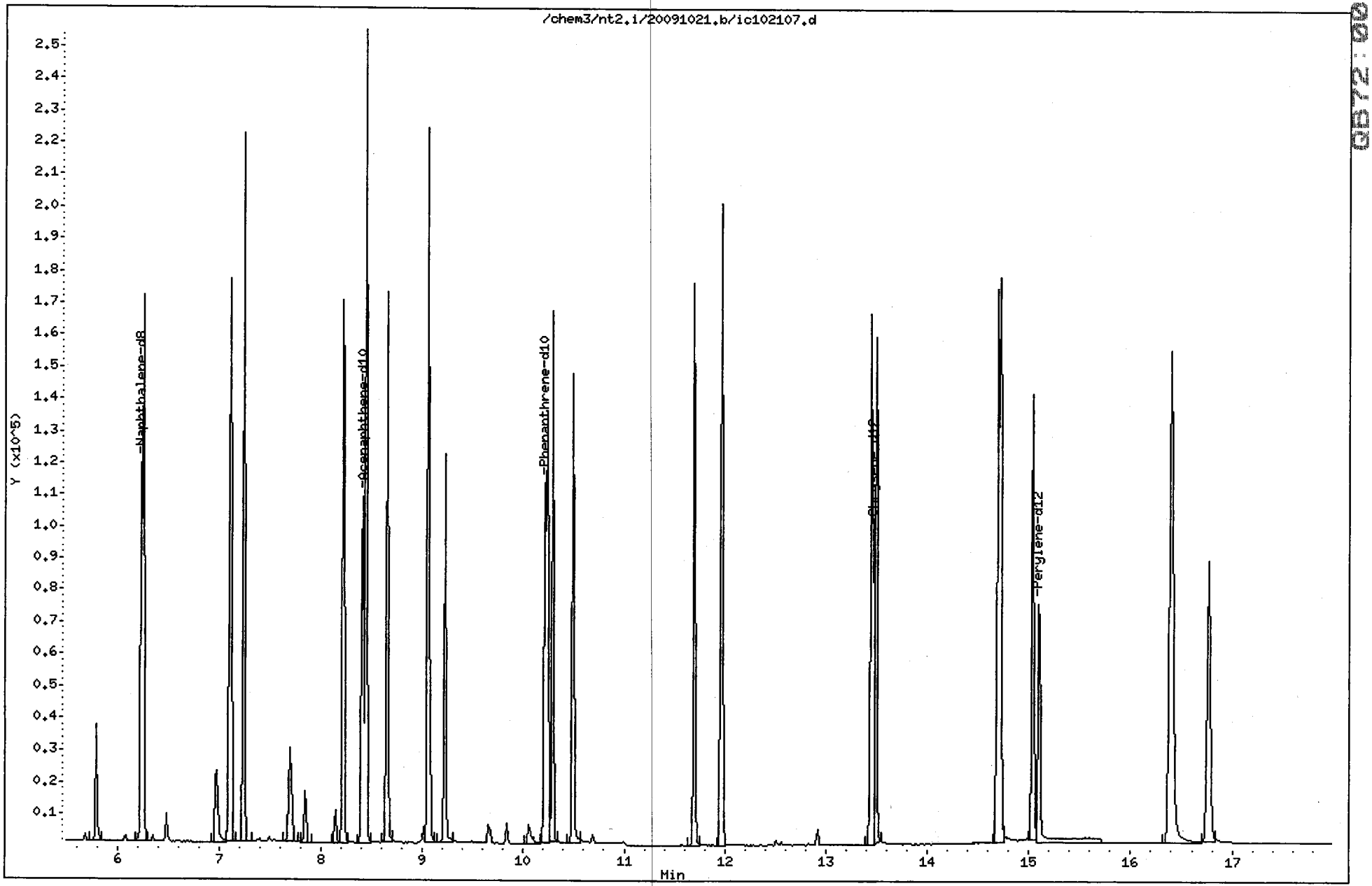
SPIKE COMPOUND	CONC ADDED ng/L	CONC RECOVERED ng/L	% RECOVERED	LIMITS
5 Naphthalene	300	279	93.10	41-101
7 2-Methylnaphthalen	300	287	95.51	47-100
8 1-Methylnaphthalen	300	276	92.09	30-160
10 Acenaphthylene	300	288	96.06	35-100
12 Acenaphthene	300	276	92.16	43-104
14 Dibenzofuran	300	315	105.11*	37-100
15 Fluorene	300	302	100.77	51-103
19 Phenanthrene	300	262	87.25	55-109
20 Anthracene	300	268	89.31	30-101
24 Fluoranthene	300	263	87.55	49-123
25 Pyrene	300	264	87.87	48-120
28 Benzo(a)anthracene	300	277	92.19	43-113
30 Chrysene	300	290	96.70	59-112
32 Benzo(b)fluoranthe	300	251	83.63	44-121
33 Benzo(k)fluoranthe	300	308	102.64	50-117
34 Benzo(a)pyrene	300	293	97.50	10-100
37 Indeno(1,2,3-cd)py	300	278	92.81	43-112
38 Dibenzo(a,h)anthra	300	281	93.72	42-114
39 Benzo(g,h,i)peryle	300	273	90.93	31-118

SURROGATE COMPOUND	CONC ADDED ng/L	CONC RECOVERED ng/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthale	300	0.00	*	31-109
$ 36 Dibenzo(a,h)anthr	300	0.00	*	10-133

Data File: /chem3/nt2.i/20091021.b/ic102107.d
Date : 21-OCT-2009 13:52
Client ID:
Sample Info: ICV
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72:004176

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No: QB72 Project: LORA LAKE APTS.

Instrument ID: NT2 Cont. Calib. Date: 12/28/09

Init. Calib. Date: 10/21/09 Cont. Calib. Time: 1114

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Naphthalene	0.963	0.881	0.700	AVRG	-8.5
2-Methylnaphthalene	0.562	0.537	0.400	AVRG	-4.4
Acenaphthylene	1.583	1.443	0.900	AVRG	-8.8
Acenaphthene	0.982	0.944	0.900	AVRG	-3.9
Dibenzofuran	1.280	1.374	0.800	AVRG	7.3
Fluorene	1.058	1.098	0.900	AVRG	3.8
Phenanthrene	0.994	1.026	0.700	AVRG	3.2
Anthracene	1.016	0.957	0.700	AVRG	-5.8
Fluoranthene	1.083	1.017	0.600	AVRG	-6.1
Pyrene	1.099	1.042	0.600	AVRG	-5.2
Benzo(a)anthracene	0.998	0.934	0.800	AVRG	-6.4
Chrysene	0.985	0.954	0.700	AVRG	-3.1
Benzo(b)fluoranthene	1.146	1.159	0.700	AVRG	1.1
Benzo(k)fluoranthene	1.244	1.206	0.700	AVRG	-3.0
Benzo(a)pyrene	0.898	0.814	0.700	AVRG	-9.4
Indeno(1,2,3-cd)pyrene	1.040	1.018	0.500	AVRG	-2.1
Dibenzo(a,h)anthracene	0.814	0.836	0.400	AVRG	2.7
Benzo(g,h,i)perylene	0.897	0.890	0.500	AVRG	-0.8
1-Methylnaphthalene	0.584	0.520	0.010	AVRG	-11.0
2-Methylnaphthalene-d10	0.515	0.490	0.010	AVRG	-4.8
Dibenzo(a,h)anthracene-d14	0.606	0.595	0.010	AVRG	-1.8

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt2.i Injection Date: 28-DEC-2009 11:14
Lab File ID: cc1228.d Init. Cal. Date(s): 21-OCT-2009 21-OCT-2009
Analysis Type: SOIL Init. Cal. Times: 11:37 13:30
Lab Sample ID: PNA 250 Quant Type: ISTD
Method: /chem3/nt2.i/20091228.b/lowsim.m

COMPOUND	RRF / AMOUNT	RF250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
5 Naphthalene	0.96306	0.88127	0.010	-8.49258	20.00000	Averaged
$ 6 2-Methylnaphthalene-d10	0.51513	0.48978	0.010	-4.92075	20.00000	Averaged
7 2-Methylnaphthalene	0.56162	0.53675	0.010	-4.42936	20.00000	Averaged
8 1-Methylnaphthalene	0.58455	0.52046	0.010	-10.96302	20.00000	Averaged
10 Acenaphthylene	1.58274	1.44315	0.010	-8.81972	20.00000	Averaged
12 Acenaphthene	0.98217	0.94367	0.010	-3.91982	20.00000	Averaged
14 Dibenzofuran	1.27956	1.37440	0.010	7.41171	20.00000	Averaged
15 Fluorene	1.05778	1.09845	0.010	3.84442	20.00000	Averaged
19 Phenanthrene	0.99408	1.02620	0.010	3.23113	20.00000	Averaged
20 Anthracene	1.01580	0.95690	0.010	-5.79849	20.00000	Averaged
24 Fluoranthene	1.08274	1.01729	0.010	-6.04403	20.00000	Averaged
25 Pyrene	1.09908	1.04180	0.010	-5.21117	20.00000	Averaged
28 Benzo(a)anthracene	0.99821	0.93353	0.010	-6.47962	20.00000	Averaged
30 Chrysene	0.98485	0.95427	0.010	-3.10519	20.00000	Averaged
32 Benzo(b)fluoranthene	1.14586	1.15882	0.010	1.13094	20.00000	Averaged
33 Benzo(k)fluoranthene	1.24411	1.20635	0.010	-3.03502	20.00000	Averaged
34 Benzo(a)pyrene	0.89782	0.81372	0.010	-9.36632	20.00000	Averaged
37 Indeno(1,2,3-cd)pyrene	1.04041	1.01848	0.010	-2.10814	20.00000	Averaged
$ 36 Dibenzo(a,h)anthracene-d14	0.60622	0.59545	0.010	-1.77649	20.00000	Averaged
38 Dibenzo(a,h)anthracene	0.81379	0.83597	0.010	2.72536	20.00000	Averaged
39 Benzo(g,h,i)perylene	0.89714	0.88992	0.010	-0.80464	20.00000	Averaged

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20091228.b/cc1228.d
Lab Smp Id: PNA 250
Inj Date : 28-DEC-2009 11:14
Operator : VTS Inst ID: nt2.i
Smp Info : PNA 250
Misc Info :
Comment :
Method : /chem3/nt2.i/20091228.b/lowsim.m
Meth Date : 28-Dec-2009 12:01 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Ws * (100-M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	7.378	7.378	(1.000)	240597	200.000	
	5 Naphthalene	128	7.409	7.409	(1.004)	265039	250.000	229
$	6 2-Methylnaphthalene-d10	152	8.225	8.225	(1.115)	147299	250.000	238
	7 2-Methylnaphthalene	142	8.271	8.271	(1.121)	161424	250.000	239
	8 1-Methylnaphthalene	142	8.409	8.409	(1.140)	156526	250.000	223
	10 Acenaphthylene	152	9.406	9.406	(0.980)	219089	250.000	228
*	11 Acenaphthene-d10	164	9.599	9.599	(1.000)	121450	200.000	
	12 Acenaphthene	153	9.625	9.625	(1.003)	143261	250.000	240
	14 Dibenzofuran	168	9.831	9.831	(1.024)	208652	250.000	269
	15 Fluorene	166	10.260	10.260	(1.069)	166759	250.000	260
*	18 Phenanthrene-d10	188	11.445	11.445	(1.000)	179345	200.000	
	19 Phenanthrene	178	11.461	11.461	(1.001)	230056	250.000	258
	20 Anthracene	178	11.522	11.522	(1.007)	214519	250.000	236
	24 Fluoranthene	202	12.936	12.936	(1.130)	228058	250.000	235
	25 Pyrene	202	13.221	13.221	(1.155)	233553	250.000	237

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	28 Benzo(a)anthracene	228	14.714	14.714	(0.998)	183850	250.000	234
*	29 Chrysene-d12	240	14.736	14.736	(1.000)	157552	200.000	
	30 Chrysene	228	14.769	14.769	(1.002)	187935	250.000	242
	32 Benzo(b)fluoranthene	252	16.141	16.141	(0.963)	180715	250.000	253
	33 Benzo(k)fluoranthene	252	16.172	16.172	(0.965)	188128	250.000	242
	34 Benzo(a)pyrene	252	16.660	16.660	(0.994)	126899	250.000	227
*	35 Perylene-d12	264	16.753	16.753	(1.000)	124758	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	18.860	18.860	(1.126)	158830	250.000	245
$	36 Dibenzo(a,h)anthracene-d14	292	18.792	18.792	(1.122)	92859	250.000	246
	38 Dibenzo(a,h)anthracene	278	18.873	18.873	(1.127)	130367	250.000	257
	39 Benzo(g,h,i)perylene	276	19.494	19.494	(1.164)	138781	250.000	248

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt2.i
Lab File ID: cc1228.d
Lab Smp Id: PNA 250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info:

Calibration Date: 28-DEC-2009
Calibration Time: 10:37

Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	240597	38.99
11 Acenaphthene-d10	96677	48338	193354	121450	25.62
18 Phenanthrene-d10	147750	73875	295500	179345	21.38
29 Chrysene-d12	135219	67610	270438	157552	16.52
35 Perylene-d12	125815	62908	251630	124758	-0.84

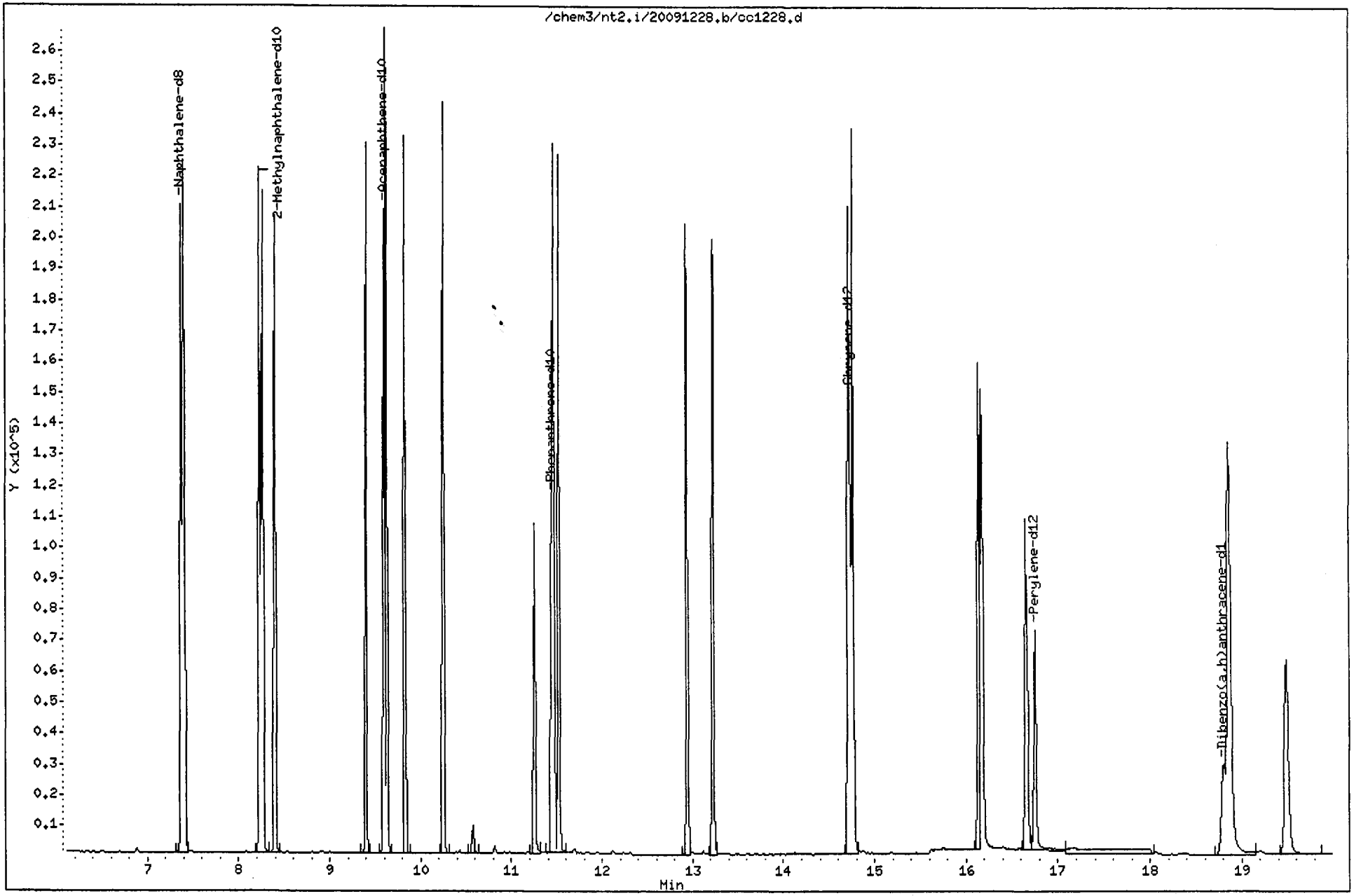
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	7.38	6.88	7.88	7.38	0.00
11 Acenaphthene-d10	9.60	9.10	10.10	9.60	0.00
18 Phenanthrene-d10	11.45	10.95	11.95	11.45	0.00
29 Chrysene-d12	14.74	14.24	15.24	14.74	0.00
35 Perylene-d12	16.75	16.25	17.25	16.75	0.00

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: /chem3/nt2.i/20091228.b/cc1228.d
Date : 28-DEC-2009 11:14
Client ID:
Sample Info: PNA 250
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72:66182

SIM Semivolatile Analysis
QC Raw Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

Data File: /chem3/nt2.i/20091021.b/df1021.d

Date : 21-OCT-2009 10:55

Client ID:

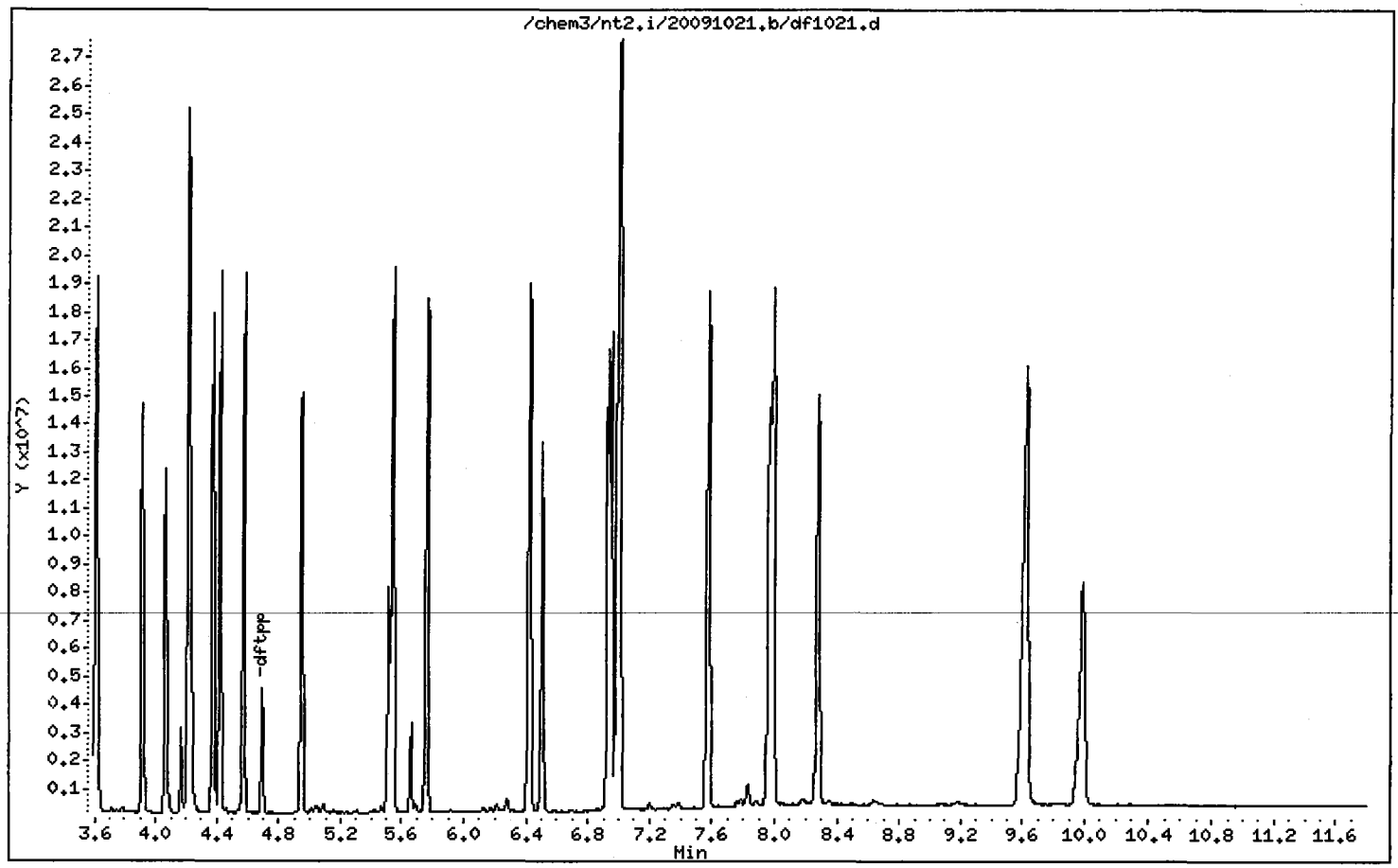
Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase:

Column diameter: 0.25



QB72:00184

Data File: /chem3/nt2.i/20091021.b/df1021.d

Date : 21-OCT-2009 10:55

Client ID:

Instrument: nt2.i

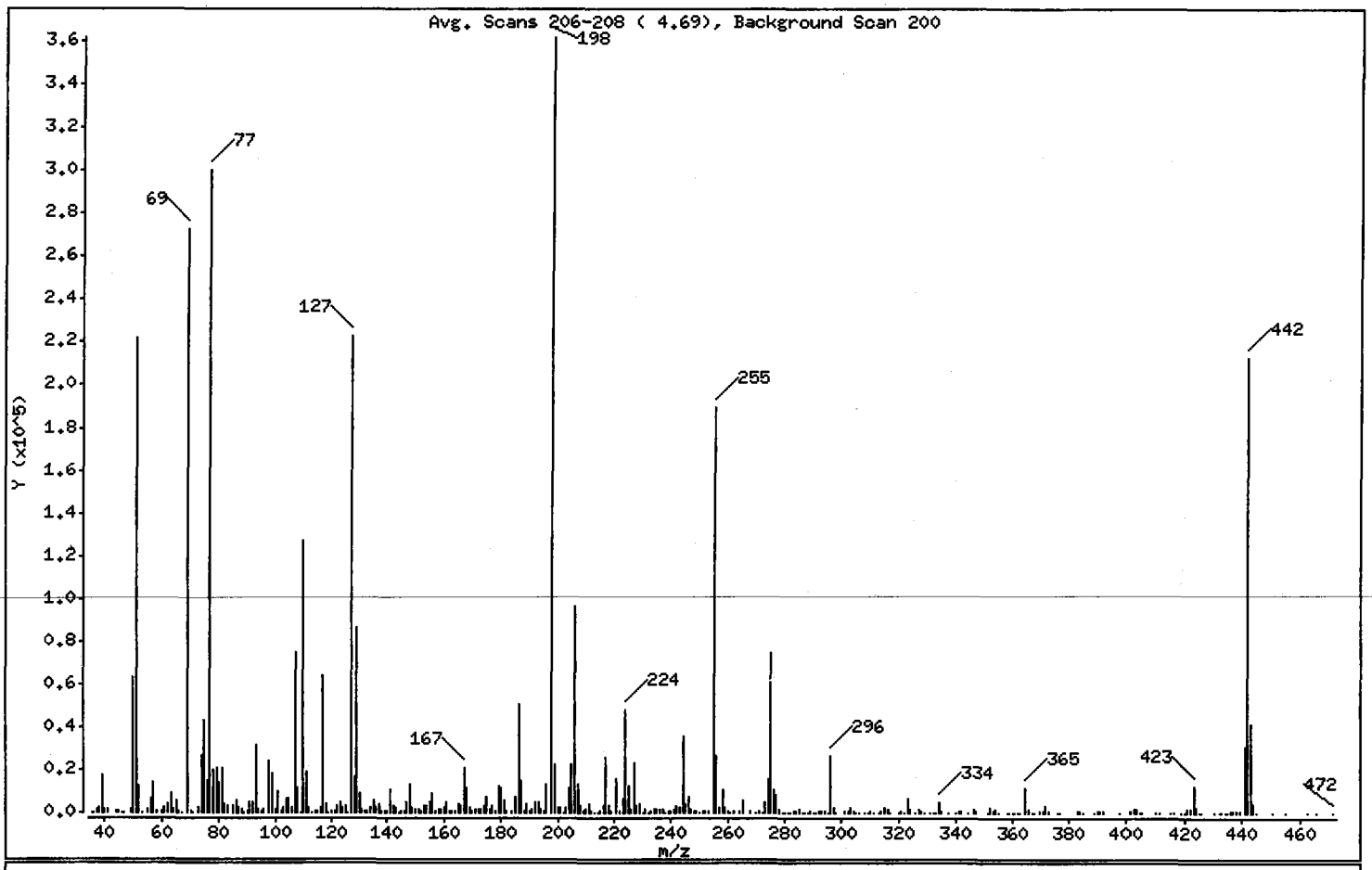
Sample Info: DFTPP

Operator: VTS

Column phase:

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	61.33
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	75.33
70	Less than 2.00% of mass 69	0.18 (0.24)
127	25.00 - 75.00% of mass 198	61.72
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.29
275	10.00 - 30.00% of mass 198	20.60
365	Greater than 0.75% of mass 198	3.13
441	Present, but less than mass 443	8.44
442	40.00 - 110.00% of mass 198	58.96
443	15.00 - 24.00% of mass 442	11.55 (19.59)

Data File: /chem3/nt2.i/20091021.b/df1021.d

Date : 21-OCT-2009 10:55

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase:

Column diameter: 0.25

Data File: df1021.d

Spectrum: Avg. Scans 206-208 (4.69), Background Scan 200

Location of Maximum: 198.00

Number of points: 348

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	140	132.00	786	223.00	6281	322.00	387
36.00	258	133.00	482	224.00	48560	323.00	6932
37.00	1821	134.00	2296	225.00	12858	324.00	1682
38.00	2438	135.00	5831	226.00	1903	326.00	155
39.00	17824	136.00	2234	227.00	23440	327.00	1583
40.00	1467	137.00	4331	228.00	3110	328.00	718
41.00	1352	138.00	603	229.00	4228	329.00	89
44.00	525	139.00	507	230.00	274	331.00	203
45.00	920	140.00	831	231.00	1708	332.00	398
46.00	24	141.00	10585	232.00	197	333.00	301
47.00	298	142.00	3242	233.00	613	334.00	5004
49.00	1814	143.00	2107	234.00	1567	335.00	1226
50.00	62832	144.00	129	235.00	1387	337.00	126
51.00	221824	145.00	688	236.00	1573	340.00	217
52.00	12724	146.00	1174	237.00	1725	341.00	844
53.00	7	147.00	4765	238.00	343	342.00	438
55.00	1535	148.00	13285	239.00	963	344.00	93
56.00	6834	149.00	2419	240.00	787	346.00	1313
57.00	14117	150.00	1311	241.00	1253	347.00	605
58.00	526	151.00	1877	242.00	3340	351.00	188
60.00	1001	152.00	1053	243.00	2777	352.00	2123
61.00	2642	153.00	3601	244.00	35712	353.00	1231
62.00	3819	154.00	3395	245.00	4511	354.00	1740
63.00	8786	155.00	5170	246.00	7834	355.00	292
64.00	2038	156.00	8906	247.00	1485	358.00	192
65.00	6216	157.00	1127	248.00	534	359.00	79
66.00	672	158.00	1932	249.00	1246	360.00	71
67.00	277	159.00	1570	250.00	244	361.00	91
69.00	272448	160.00	2848	251.00	616	362.00	93
70.00	647	161.00	4617	252.00	465	363.00	194
71.00	304	162.00	868	253.00	809	365.00	11331
73.00	2649	163.00	497	255.00	189888	366.00	1793
74.00	26440	164.00	518	256.00	26896	367.00	89
75.00	43000	165.00	3954	257.00	2712	368.00	180
76.00	15032	166.00	3273	258.00	11027	370.00	437

Data File: /chem3/nt2.i/20091021.b/df1021.d

Date : 21-OCT-2009 10:55

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase:

Column diameter: 0.25

Data File: df1021.d

Spectrum: Avg. Scans 206-208 (4.69), Background Scan 200

Location of Maximum: 198.00

Number of points: 348

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	300480	167.00	20824	259.00	2690	371.00	980
78.00	19760	168.00	11796	260.00	640	372.00	3121
79.00	20416	169.00	2158	261.00	163	373.00	892
80.00	14353	170.00	782	262.00	453	376.00	93
81.00	20928	171.00	1266	264.00	614	377.00	67
82.00	4155	172.00	1541	265.00	6019	383.00	1241
83.00	3230	173.00	1703	268.00	581	384.00	436
85.00	2923	174.00	3645	270.00	389	385.00	86
86.00	6074	175.00	7459	271.00	781	389.00	74
87.00	2086	176.00	1832	272.00	120	390.00	445
88.00	1441	177.00	3007	273.00	5054	391.00	439
89.00	373	178.00	820	274.00	15967	392.00	473
90.00	474	179.00	12695	275.00	74520	398.00	104
91.00	5085	180.00	11643	276.00	10855	401.00	437
92.00	4813	181.00	5504	277.00	7917	402.00	1671
93.00	31840	182.00	1101	278.00	1413	403.00	2024
94.00	2029	184.00	1174	279.00	256	404.00	344
95.00	1016	185.00	7381	280.00	141	405.00	115
96.00	1253	186.00	50960	281.00	66	410.00	72
98.00	23928	187.00	15206	282.00	230	411.00	102
99.00	18344	188.00	643	283.00	726	415.00	104
100.00	1339	189.00	3765	284.00	890	416.00	67
101.00	10129	190.00	965	285.00	1307	419.00	83
102.00	1054	191.00	1539	286.00	342	420.00	298
103.00	2753	192.00	5162	287.00	95	421.00	1670
104.00	6614	193.00	5083	288.00	326	422.00	1737
105.00	6470	194.00	1511	289.00	483	423.00	12293
106.00	2642	195.00	1119	290.00	161	424.00	2904
107.00	74992	196.00	13307	291.00	281	425.00	238
108.00	11892	198.00	361664	292.00	709	426.00	226
109.00	413	199.00	22752	293.00	1121	430.00	336
110.00	126888	200.00	2477	294.00	826	432.00	132
111.00	18896	201.00	2343	295.00	231	433.00	247
112.00	2347	202.00	253	296.00	26512	434.00	234
113.00	374	203.00	2834	297.00	2694	435.00	199

QB72:00187

Data File: /chem3/nt2.i/20091021.b/df1021.d

Date : 21-OCT-2009 10:55

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase:

Column diameter: 0.25

Data File: df1021.d

Spectrum: Avg. Scans 206-208 (4.69), Background Scan 200

Location of Maximum: 198.00

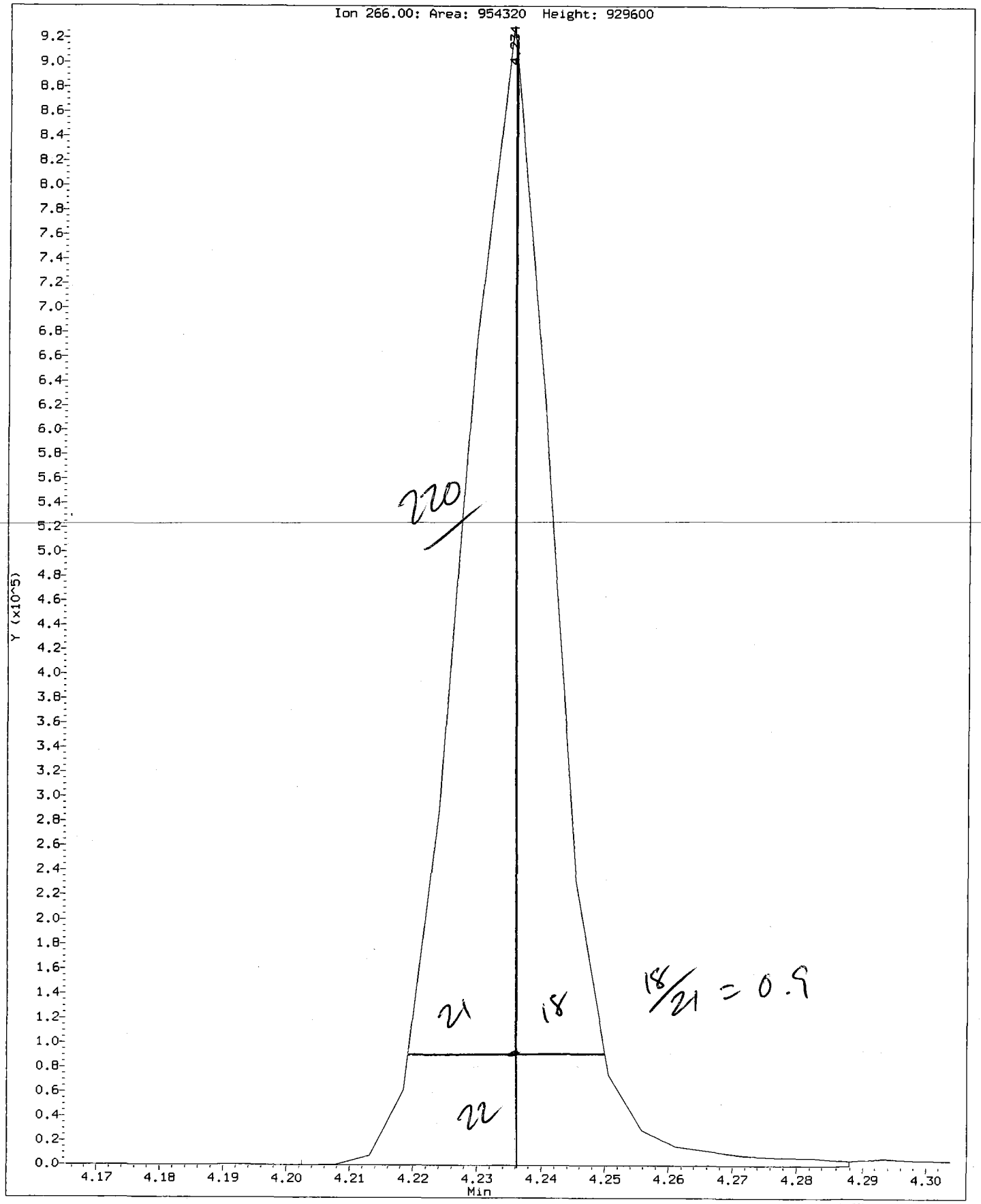
Number of points: 348

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	686	204.00	11882	298.00	249	436.00	432
115.00	521	205.00	22336	301.00	520	437.00	706
116.00	2168	206.00	96336	302.00	539	438.00	1172
117.00	64256	207.00	12897	303.00	2585	439.00	1058
118.00	4114	208.00	3501	304.00	818	441.00	30512
119.00	285	209.00	906	305.00	70	442.00	213248
120.00	1227	210.00	1952	306.00	92	443.00	41784
121.00	744	211.00	4438	308.00	165	444.00	3786
122.00	3733	212.00	985	309.00	222	445.00	390
123.00	5140	213.00	69	310.00	546	451.00	71
124.00	2736	214.00	396	311.00	396	455.00	83
125.00	3032	215.00	843	313.00	381	463.00	76
126.00	194	216.00	2913	314.00	507	466.00	84
127.00	223232	217.00	25872	315.00	2667	472.00	160
128.00	16688	218.00	3337	316.00	1363		
129.00	86640	219.00	534	317.00	126		
130.00	8941	221.00	15590	320.00	170		
131.00	2045	222.00	1145	321.00	1067		

QB72:00188

Data File: /chem3/nt2.i/20091021.b/ddt.b/df1021.d
Injection Date: 21-OCT-2009 10:55
Instrument: nt2.i
Client Sample ID:

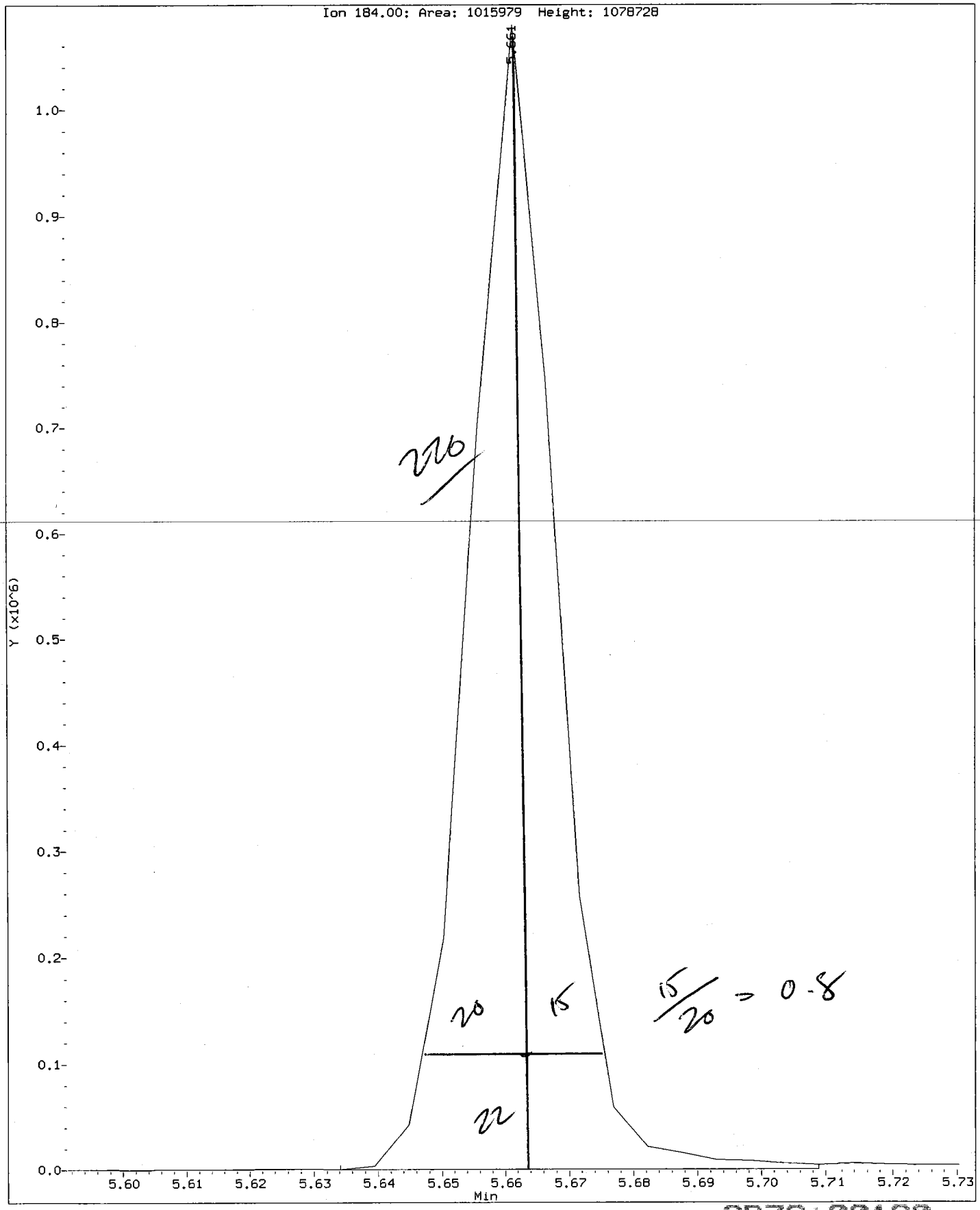
Compound: Pentachlorophenol
CAS Number: 87-86-5



QB72:00189

Data File: /chem3/nt2.i/20091021.b/ddt.b/df1021.d
Injection Date: 21-OCT-2009 10:55
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/20091021.b/ddt.b/df1021.d
Method: /chem3/nt2.i/20091021.b/ddt.b/sw846ddt.m
Analysis Date: 21-OCT-2009 10:55

ARI ID: DFTPP
Misc:
Instrument: nt2.i

COMPOUND	RT	AREA
Pentachlorophenol	4.234	954320
Benzidine	5.661	1015979
4,4'-DDE	5.885	3029
4,4'-DDD	6.211	41668
4,4'-DDT	6.505	2284724

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(3029 + 41668) * 100}{(3029 + 41668 + 2284724)}$$

DDT Percent Breakdown = 1.9 %

QB72:00191

Data File: /chem3/nt2.i/20091228.b/df1228.d

Date : 28-DEC-2009 10:15

Client ID:

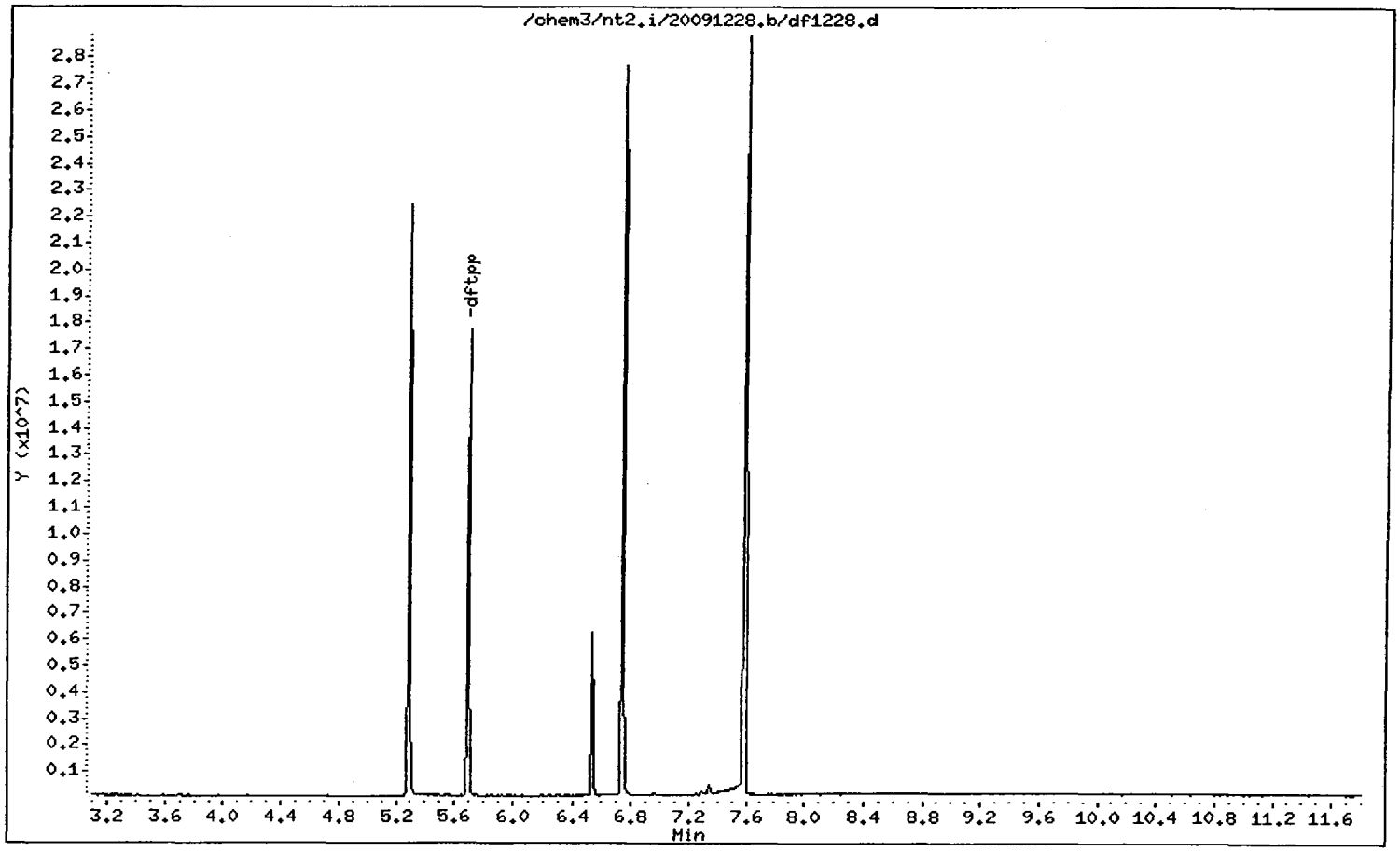
Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem3/nt2.i/20091228.b/df1228.d

Date : 28-DEC-2009 10:15

Client ID:

Instrument: nt2.i

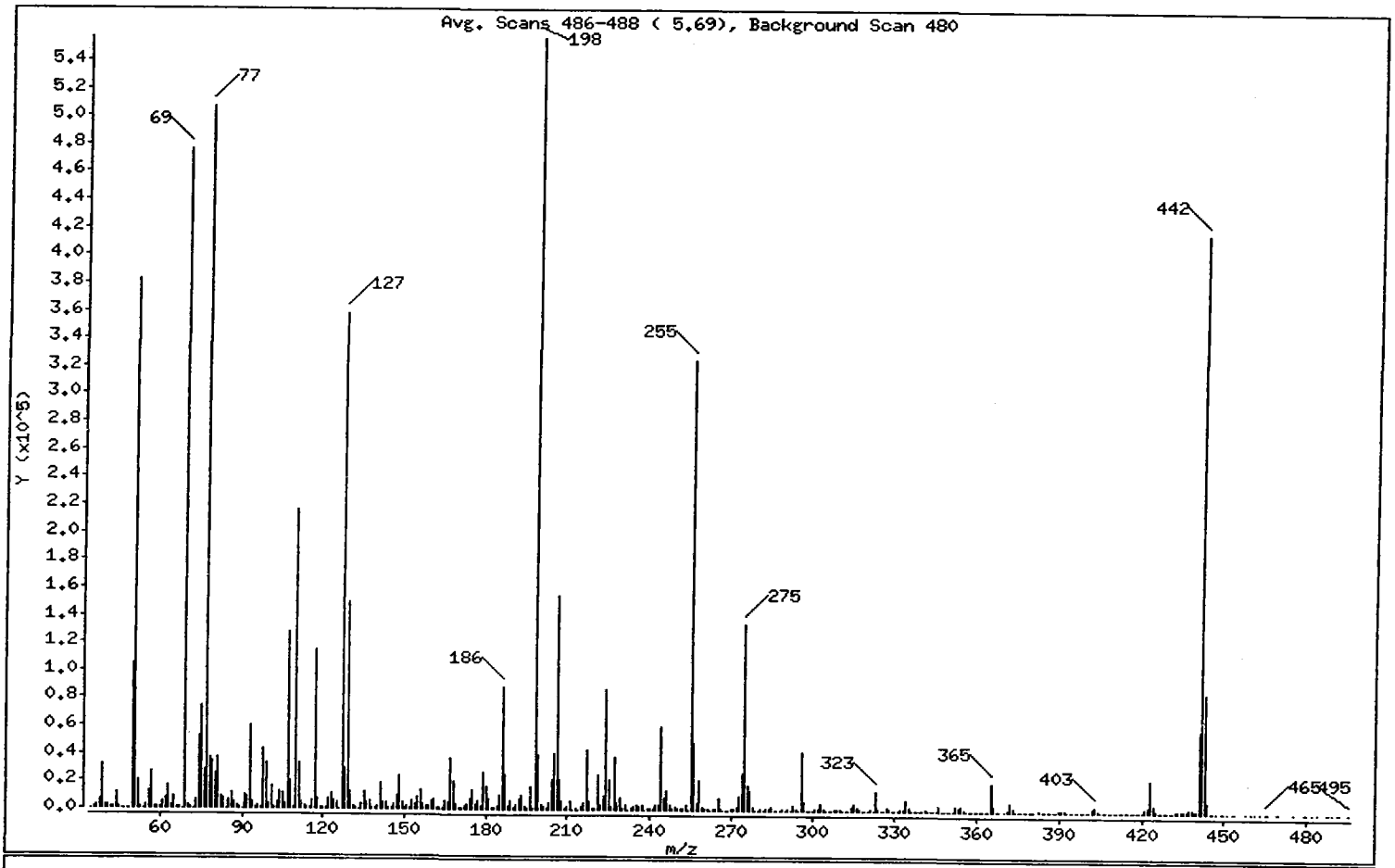
Sample Info: DFTPP

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	30.00 - 80.00% of mass 198	68.84
68	Less than 2.00% of mass 69	0.04 (0.05)
69	Mass 69 relative abundance	85.58
70	Less than 2.00% of mass 69	0.40 (0.47)
127	25.00 - 75.00% of mass 198	64.43
197	Less than 1.00% of mass 198	0.29
199	5.00 - 9.00% of mass 198	7.03
275	10.00 - 30.00% of mass 198	24.11
365	Greater than 0.75% of mass 198	3.75
441	Present, but less than mass 443	10.63
442	40.00 - 110.00% of mass 198	74.84
443	15.00 - 24.00% of mass 442	15.36 (20.52)

Data File: /chem3/nt2.i/20091228.b/df1228.d

Date : 28-DEC-2009 10:15

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1228.d

Spectrum: Avg. Scans 486-488 (5.69), Background Scan 480

Location of Maximum: 198.00

Number of points: 435

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	277	144.00	1158	253.00	3257	362.00	208
36.00	1269	145.00	1427	254.00	150	363.00	299
37.00	2777	146.00	3868	255.00	324480	364.00	296
38.00	6149	147.00	9847	256.00	48848	365.00	20856
39.00	32216	148.00	24136	257.00	4521	366.00	3284
40.00	2802	149.00	5485	258.00	22104	367.00	313
41.00	2166	150.00	1608	259.00	3002	368.00	49
42.00	839	151.00	3096	260.00	666	370.00	554
43.00	1443	152.00	1892	261.00	717	371.00	1275
44.00	12119	153.00	6116	262.00	278	372.00	6289
45.00	916	154.00	4407	263.00	642	373.00	2231
46.00	155	155.00	9566	264.00	1238	374.00	125
47.00	194	156.00	14708	265.00	9175	375.00	41
48.00	211	157.00	3641	266.00	1556	376.00	113
49.00	492	158.00	2997	267.00	575	377.00	267
50.00	104344	159.00	2345	268.00	539	378.00	165
51.00	383104	160.00	5858	269.00	255	379.00	102
52.00	21056	161.00	8243	270.00	851	380.00	148
53.00	1376	162.00	1874	271.00	1026	381.00	76
54.00	450	163.00	887	272.00	2042	383.00	1594
55.00	3085	164.00	818	273.00	10098	384.00	471
56.00	12379	165.00	6376	274.00	26760	385.00	178
57.00	27488	166.00	4949	275.00	134144	386.00	80
58.00	1074	167.00	37400	276.00	17416	387.00	89
59.00	866	168.00	20352	277.00	13832	388.00	66
60.00	714	169.00	3254	278.00	2308	389.00	82
61.00	5480	170.00	1453	279.00	605	390.00	1251
62.00	7097	171.00	1634	280.00	26	391.00	1058
63.00	16226	172.00	3107	281.00	753	392.00	686
64.00	3181	173.00	3766	282.00	579	393.00	253
65.00	9192	174.00	7850	283.00	1436	394.00	82
66.00	1329	175.00	13647	284.00	1374	395.00	25
67.00	1698	176.00	3232	285.00	2167	396.00	159
68.00	241	177.00	6922	286.00	409	397.00	112
69.00	476224	178.00	2312	287.00	175	398.00	47

Data File: /chem3/nt2.i/20091228.b/df1228.d

Date : 28-DEC-2009 10:15

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1228.d

Spectrum: Avg. Scans 486-488 (5.69), Background Scan 480

Location of Maximum: 198.00

Number of points: 435

m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.00	2250	179.00	27056	288.00	354	399.00	153
71.00	655	180.00	16273	289.00	762	400.00	207
72.00	367	181.00	7277	290.00	609	401.00	623
73.00	5854	182.00	1786	291.00	729	402.00	3149
74.00	52232	183.00	975	292.00	619	403.00	3337
75.00	74408	184.00	2227	293.00	3426	404.00	1783
76.00	28176	185.00	10395	294.00	1427	405.00	264
77.00	506624	186.00	87760	295.00	71	406.00	71
78.00	36816	187.00	25640	296.00	42520	407.00	63
79.00	34064	188.00	2960	297.00	6243	408.00	78
80.00	25536	189.00	6574	298.00	526	409.00	164
81.00	36840	190.00	1132	299.00	165	410.00	169
82.00	9275	191.00	3324	300.00	183	411.00	74
83.00	7702	192.00	8010	301.00	948	412.00	59
84.00	474	193.00	9712	302.00	843	413.00	153
85.00	5954	194.00	2108	303.00	5019	414.00	58
86.00	11010	195.00	1532	304.00	1443	415.00	240
87.00	5353	196.00	16536	305.00	333	416.00	364
88.00	2020	197.00	1629	306.00	151	417.00	184
89.00	1217	198.00	556480	307.00	308	418.00	226
90.00	174	199.00	39136	308.00	731	419.00	428
91.00	10069	200.00	4272	309.00	714	420.00	449
92.00	8690	201.00	2899	310.00	754	421.00	2589
93.00	60152	202.00	655	311.00	399	422.00	3813
94.00	4675	203.00	5163	312.00	175	423.00	22672
95.00	1613	204.00	21864	313.00	477	424.00	5659
96.00	2663	205.00	41208	314.00	2819	425.00	728
97.00	1317	206.00	154688	315.00	5096	426.00	317
98.00	43144	207.00	22208	316.00	2627	427.00	270
99.00	33800	208.00	6154	317.00	753	428.00	535
100.00	3199	209.00	1689	318.00	45	429.00	141
101.00	17096	210.00	2901	319.00	437	430.00	636
102.00	1446	211.00	5799	320.00	533	431.00	489
103.00	5470	212.00	514	321.00	1496	432.00	905
104.00	13374	213.00	684	322.00	478	433.00	936

Data File: /chem3/nt2.i/20091228.b/df1228.d

Date : 28-DEC-2009 10:15

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1228.d
Spectrum: Avg. Scans 486-488 (5.69), Background Scan 480
Location of Maximum: 198.00
Number of points: 435

m/z	Y	m/z	Y	m/z	Y	m/z	Y
105.00	10965	214.00	516	323.00	13566	434.00	1657
106.00	3885	215.00	2281	324.00	1820	435.00	1695
107.00	128528	216.00	4970	325.00	396	436.00	1458
108.00	20696	217.00	43944	326.00	433	437.00	2998
109.00	1425	218.00	5935	327.00	2910	438.00	2696
110.00	215616	219.00	989	328.00	1479	439.00	1718
111.00	33640	220.00	1279	329.00	326	440.00	1110
112.00	4936	221.00	25216	330.00	229	441.00	59176
113.00	2050	222.00	4038	331.00	275	442.00	416448
114.00	723	223.00	10218	332.00	1338	443.00	85464
115.00	1001	224.00	87504	333.00	1541	444.00	7144
116.00	6770	225.00	21888	334.00	8030	445.00	577
117.00	115616	226.00	2699	335.00	2298	446.00	108
118.00	7799	227.00	38112	336.00	224	447.00	43
119.00	1678	228.00	5138	337.00	246	449.00	68
120.00	1830	229.00	8553	338.00	148	450.00	65
121.00	887	230.00	1345	339.00	361	451.00	90
122.00	7774	231.00	3433	340.00	360	453.00	117
123.00	11589	232.00	566	341.00	1182	454.00	85
124.00	6105	233.00	1141	342.00	637	458.00	91
125.00	5674	234.00	2393	343.00	286	460.00	78
126.00	304	235.00	3200	344.00	40	461.00	32
127.00	358528	236.00	2176	345.00	124	463.00	86
128.00	29080	237.00	3467	346.00	3325	465.00	236
129.00	150272	238.00	610	347.00	308	466.00	35
130.00	12829	239.00	1785	348.00	25	469.00	33
131.00	2245	240.00	1537	349.00	125	470.00	33
132.00	1478	241.00	1897	350.00	27	475.00	103
133.00	609	242.00	3613	351.00	275	479.00	33
134.00	4165	243.00	3878	352.00	4149	480.00	31
135.00	13048	244.00	60688	353.00	2764	482.00	124
136.00	4876	245.00	9103	354.00	3442	484.00	79
137.00	6981	246.00	13441	355.00	993	487.00	56
138.00	1440	247.00	3419	356.00	358	488.00	56
139.00	742	248.00	917	357.00	116	489.00	135

QB72:00196

Date : 28-DEC-2009 10:15

Client ID:

Instrument: nt2.i

Sample Info: DFTPP

Operator: VTS

Column phase: ZB-5msi

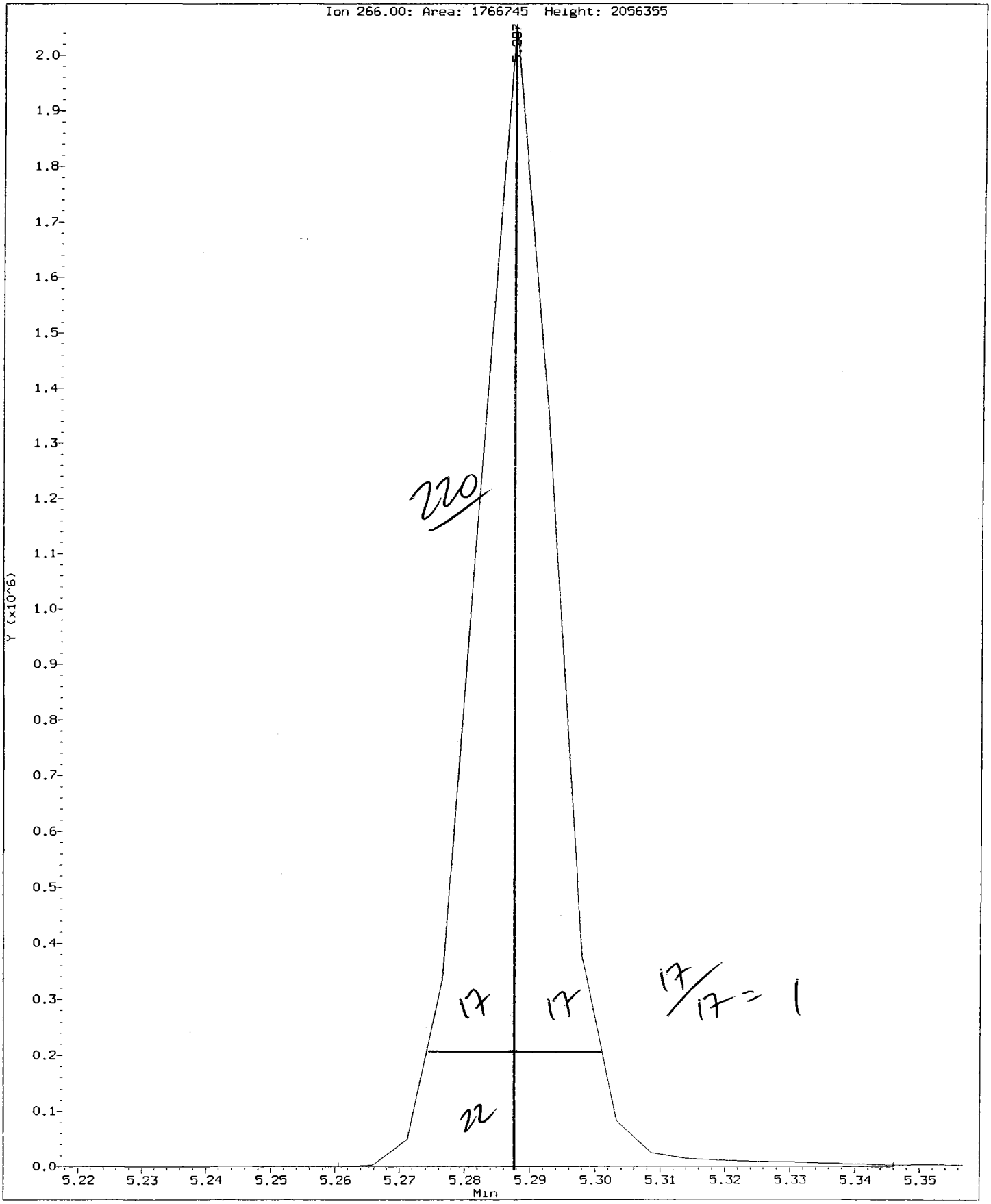
Column diameter: 0.25

Data File: df1228.d
Spectrum: Avg. Scans 486-488 (5.69), Background Scan 480
Location of Maximum: 198.00
Number of points: 435

m/z	Y	m/z	Y	m/z	Y	m/z	Y
140.00	2196	249.00	2115	358.00	381	491.00	80
141.00	19760	250.00	750	359.00	276	492.00	41
142.00	5420	251.00	1213	360.00	136	495.00	88
143.00	4721	252.00	1708	361.00	335		

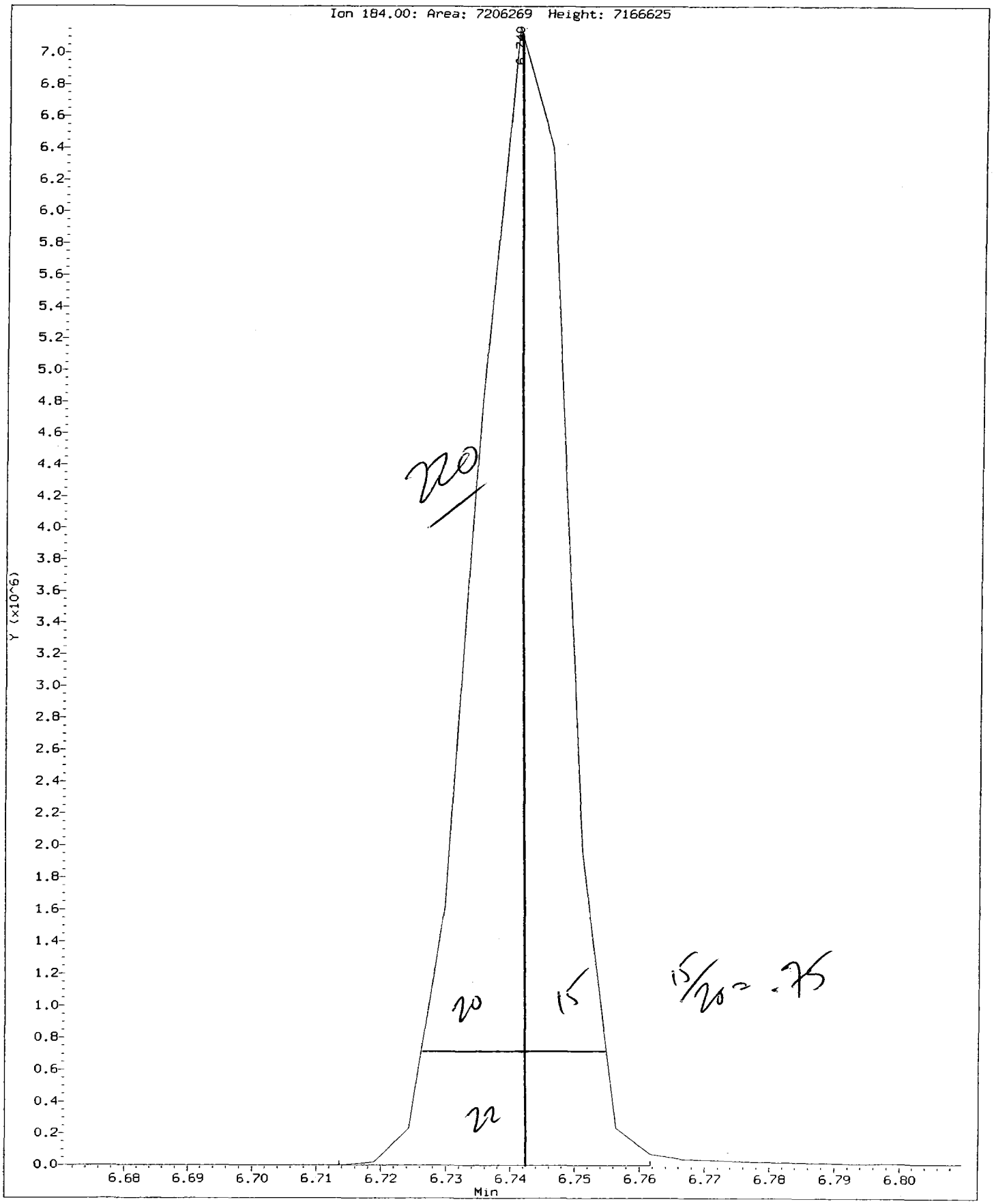
Data File: /chem3/nt2.i/20091228.b/ddt.b/df1228.d
Injection Date: 28-DEC-2009 10:15
Instrument: nt2.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt2.i/20091228.b/ddt.b/df1228.d
Injection Date: 28-DEC-2009 10:15
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/20091228.b/ddt.b/df1228.d
Method: /chem3/nt2.i/20091228.b/ddt.b/sw846ddt.m
Analysis Date: 28-DEC-2009 10:15

ARI ID: DFTPP
Misc:
Instrument: nt2.i

COMPOUND	RT	AREA
Pentachlorophenol	5.287	1766745
Benzidine	6.740	7206268
4,4'-DDE	6.959	8627
4,4'-DDD	7.344	46987
4,4'-DDT	7.590	3811498

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 8627 + 46987) * 100}{(\ 8627 + 46987 + 3811498)}$$

DDT Percent Breakdown = 1.4 %

QB72:00200

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MB-121709
METHOD BLANK

Lab Sample ID: MB-121709
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/28/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Extracted: 12/17/09
Date Analyzed: 12/28/09 11:41
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	78.7%
d14-Dibenzo(a,h)anthracene	77.0%

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20091228.b/122801.d
Lab Smp Id: QB72MBW1 Client Smp ID: QB72MBW1
Inj Date : 28-DEC-2009 11:41
Operator : VTS Inst ID: nt2.i
Smp Info : QB72MBW1
Misc Info : 09-30991
Comment :
Method : /chem3/nt2.i/20091228.b/lowsim.m
Meth Date : 28-Dec-2009 14:44 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 1 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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	7.366	7.378	(1.000)	191877	200.000	
	5 Naphthalene	128	7.397	7.409	(1.004)	5613	6.07503	6.08(R)
$	6 2-Methylnaphthalene-d10	152	8.228	8.225	(1.117)	116828	236.395	236(R)
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	9.586	9.599	(1.000)	97185	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	11.429	11.445	(1.000)	140358	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	14.736	14.736	(1.000)	107926	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	16.752	16.753	(1.000)	89647	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	18.792	18.792	(1.122)	62689	230.704	231(R)
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

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: 122801.d
Lab Smp Id: QB72MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30991

Calibration Date: 28-DEC-2009
Calibration Time: 11:14
Client Smp ID: QB72MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	191877	10.84
11 Acenaphthene-d10	96677	48338	193354	97185	0.53
18 Phenanthrene-d10	147750	73875	295500	140358	-5.00
29 Chrysene-d12	135219	67610	270438	107926	-20.18
35 Perylene-d12	125815	62908	251630	89647	-28.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	7.38	6.88	7.88	7.37	-0.16
11 Acenaphthene-d10	9.60	9.10	10.10	9.59	-0.14
18 Phenanthrene-d10	11.45	10.95	11.95	11.43	-0.14
29 Chrysene-d12	14.74	14.24	15.24	14.74	0.00
35 Perylene-d12	16.75	16.25	17.25	16.75	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: QB72MBW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30991

Client SDG: QB72
Fraction: SV
Client Smp ID: QB72MBW1
Operator: VTS
SampleType: BLANK
Quant Type: ISTD

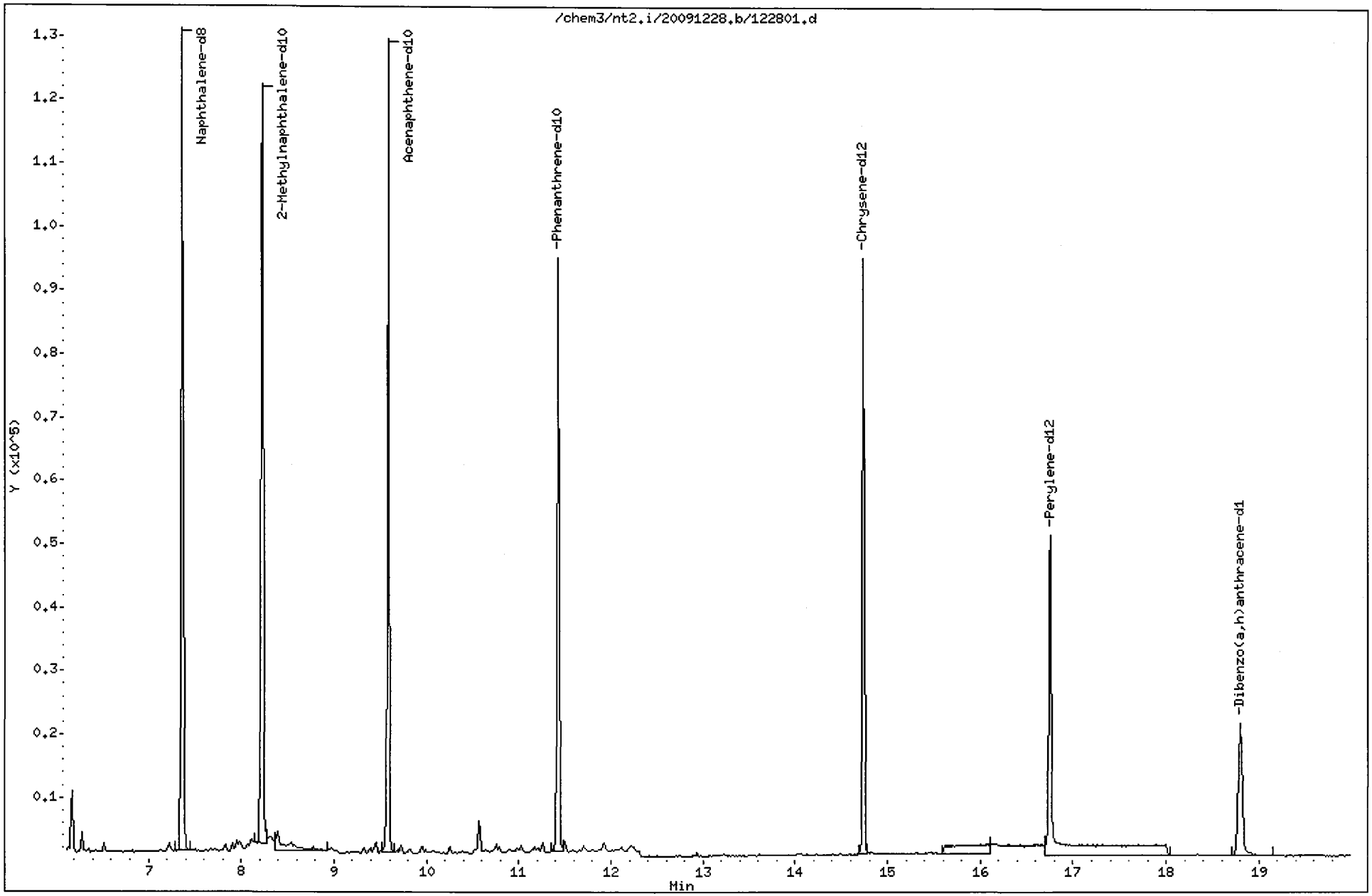
	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5	Naphthalene	300	6.08	2.03*	41-101
7	2-Methylnaphthale	300	0.00	*	47-100
8	1-Methylnaphthale	300	0.00	*	30-160
10	Acenaphthylene	300	0.00	*	35-100
12	Acenaphthene	300	0.00	*	43-104
14	Dibenzofuran	300	0.00	*	37-100
15	Fluorene	300	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	236	78.80	31-109
$ 36	Dibenzo(a,h)anthra	300	231	76.90	10-133

Data File: /chem3/nt2.i/20091228.b/122801.d
Date : 28-DEC-2009 11:41
Client ID: QB72MBW1
Sample Info: QB72MBW1
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



Data File: /chem3/nt2.i/20091228.b/122801.d

Date : 28-DEC-2009 11:41

Client ID: QB72MBW1

Instrument: nt2.i

Sample Info: QB72MBW1

Volume Injected (uL): 2.0

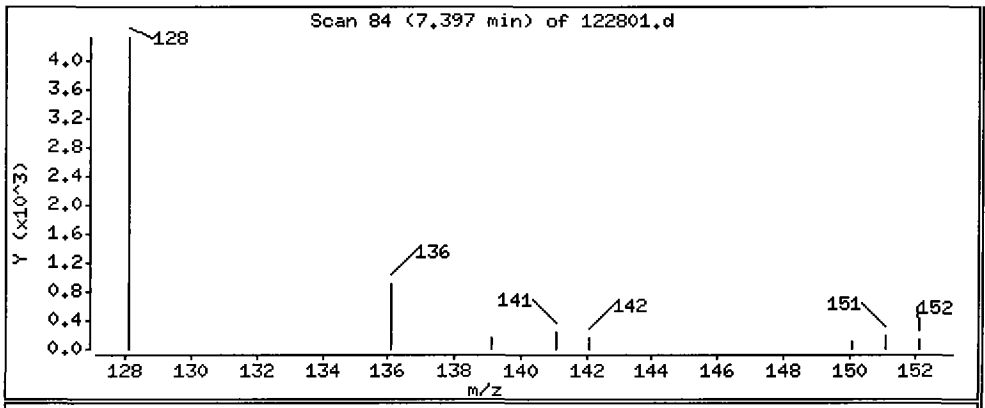
Operator: VTS

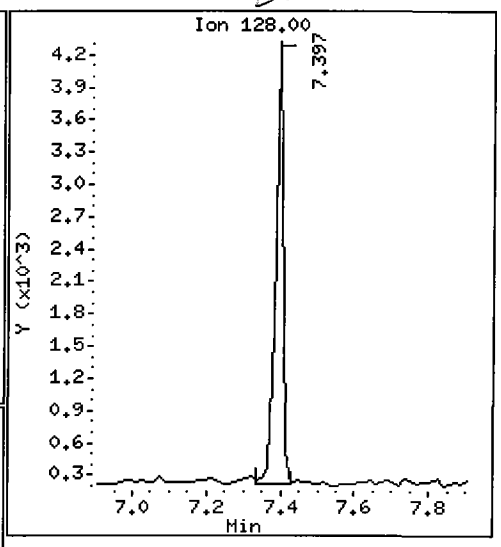
Column phase: ZB-5

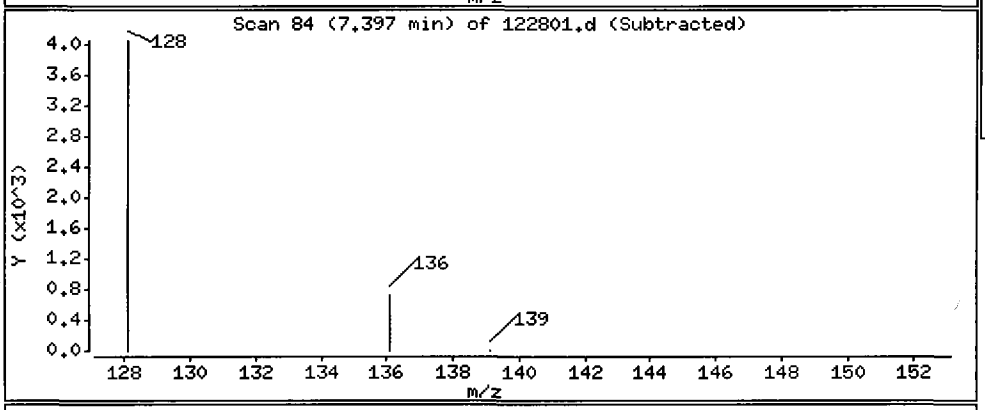
Column diameter: 0.25

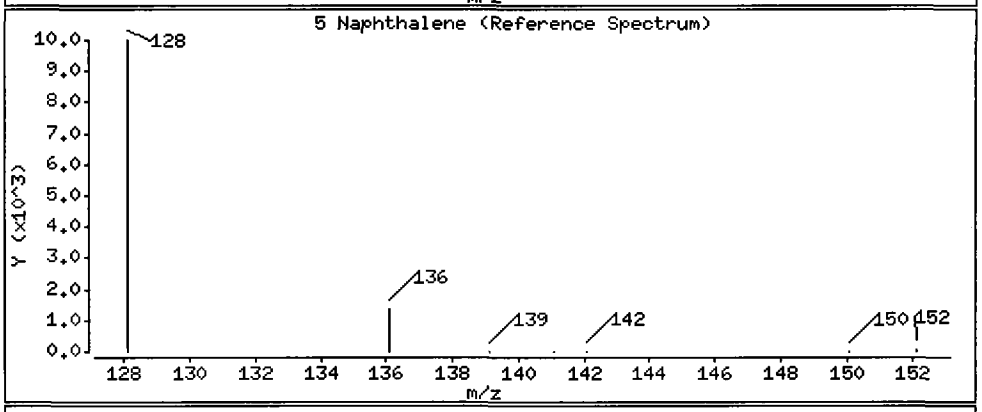
5 Naphthalene

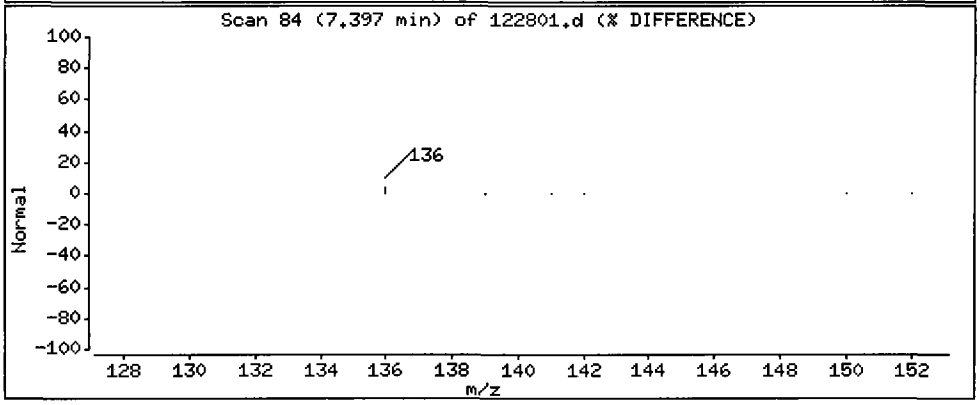
Concentration: 6.08 ug/L











Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20091228.b/122802.d
Lab Smp Id: QB72LCSW1 Client Smp ID: QB72LCSW1
Inj Date : 28-DEC-2009 12:06
Operator : VTS Inst ID: nt2.i
Smp Info : QB72LCSW1
Misc Info : 09-30991
Comment :
Method : /chem3/nt2.i/20091228.b/lowsim.m
Meth Date : 28-Dec-2009 12:01 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 2 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)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	7.378	7.378	(1.000)	184419	200.000	
	5 Naphthalene	128	7.393	7.409	(1.002)	189164	213.015	213
$	6 2-Methylnaphthalene-d10	152	8.224	8.225	(1.115)	113945	239.885	240(R)
	7 2-Methylnaphthalene	142	8.255	8.271	(1.119)	114559	221.212	221
	8 1-Methylnaphthalene	142	8.394	8.409	(1.138)	111997	207.784	208
	10 Acenaphthylene	152	9.393	9.406	(0.980)	144321	193.201	193
*	11 Acenaphthene-d10	164	9.586	9.599	(1.000)	94393	200.000	
	12 Acenaphthene	153	9.625	9.625	(1.004)	104958	226.423	226
	14 Dibenzofuran	168	9.831	9.831	(1.026)	159096	263.444	263
	15 Fluorene	166	10.245	10.260	(1.069)	124830	250.042	250
*	18 Phenanthrene-d10	188	11.430	11.445	(1.000)	138026	200.000	
	19 Phenanthrene	178	11.461	11.461	(1.003)	200654	292.478	292
	20 Anthracene	178	11.522	11.522	(1.008)	146029	208.305	208
	24 Fluoranthene	202	12.935	12.936	(1.132)	193068	258.379	258
	25 Pyrene	202	13.221	13.221	(1.157)	187458	247.141	247

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	14.713	14.714	(0.998)	125945	239.518	240
*	29 Chrysene-d12	240	14.735	14.736	(1.000)	105354	200.000	
	30 Chrysene	228	14.768	14.769	(1.002)	150788	290.653	291
	32 Benzo(b)fluoranthene	252	16.134	16.141	(0.963)	136066	265.633	266
	33 Benzo(k)fluoranthene	252	16.172	16.172	(0.966)	150449	270.516	271
	34 Benzo(a)pyrene	252	16.652	16.660	(0.994)	68264	170.086	170
*	35 Perylene-d12	264	16.745	16.753	(1.000)	89406	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	18.847	18.860	(1.125)	108815	233.963	234
$	36 Dibenzo(a,h)anthracene-d14	292	18.793	18.792	(1.122)	74915	276.441	276(R)
	38 Dibenzo(a,h)anthracene	278	18.860	18.873	(1.126)	97355	267.615	268
	39 Benzo(g,h,i)perylene	276	19.481	19.494	(1.163)	90781	226.360	226

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: 122802.d
Lab Smp Id: QB72LCSW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30991

Calibration Date: 28-DEC-2009
Calibration Time: 11:14
Client Smp ID: QB72LCSW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	184419	6.53
11 Acenaphthene-d10	96677	48338	193354	94393	-2.36
18 Phenanthrene-d10	147750	73875	295500	138026	-6.58
29 Chrysene-d12	135219	67610	270438	105354	-22.09
35 Perylene-d12	125815	62908	251630	89406	-28.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	7.38	6.88	7.88	7.38	0.00
11 Acenaphthene-d10	9.60	9.10	10.10	9.59	-0.13
18 Phenanthrene-d10	11.45	10.95	11.95	11.43	-0.13
29 Chrysene-d12	14.74	14.24	15.24	14.74	0.00
35 Perylene-d12	16.75	16.25	17.25	16.75	-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
Sample Matrix: LIQUID
Lab Smp Id: QB72LCSW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30991

Client SDG: QB72
Fraction: SV
Client Smp ID: QB72LCSW1
Operator: VTS
SampleType: LCS
Quant Type: ISTD

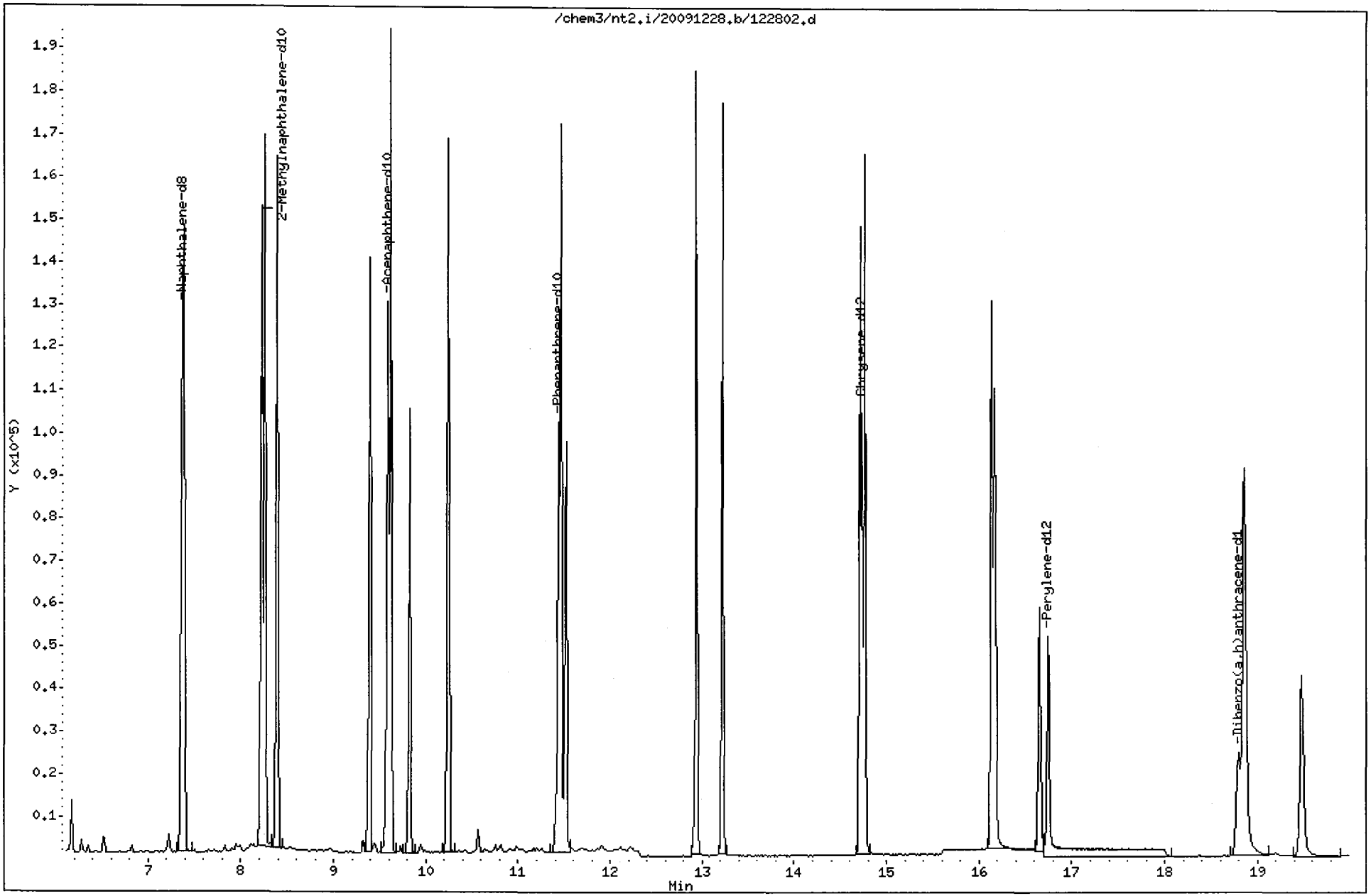
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	213	71.00	41-101
7 2-Methylnaphthalen	300	221	73.74	47-100
8 1-Methylnaphthalen	300	208	69.26	30-160
10 Acenaphthylene	300	193	64.40	35-100
12 Acenaphthene	300	226	75.47	43-104
14 Dibenzofuran	300	263	87.81	37-100
15 Fluorene	300	250	83.35	51-103
19 Phenanthrene	300	292	97.49	55-109
20 Anthracene	300	208	69.43	30-101
24 Fluoranthene	300	258	86.13	49-123
25 Pyrene	300	247	82.38	48-120
28 Benzo(a)anthracene	300	240	79.84	43-113
30 Chrysene	300	291	96.88	59-112
32 Benzo(b)fluoranthe	300	266	88.54	44-121
33 Benzo(k)fluoranthe	300	271	90.17	50-117
34 Benzo(a)pyrene	300	170	56.70	10-100
37 Indeno(1,2,3-cd)py	300	234	77.99	43-112
38 Dibenzo(a,h)anthra	300	268	89.20	42-114
39 Benzo(g,h,i)peryle	300	226	75.45	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	240	79.96	31-109
$ 36 Dibenzo(a,h)anthra	300	276	92.15	10-133

Data File: /chem3/nt2.i/20091228.b/122802.d
Date : 28-DEC-2009 12:06
Client ID: QB72LCSW1
Sample Info: QB72LCSW1
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



QB72 : 002112

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt2.i/20091228.b/122803.d
Lab Smp Id: QB72LCSDW1 Client Smp ID: QB72LCSDW1
Inj Date : 28-DEC-2009 12:30
Operator : VTS Inst ID: nt2.i
Smp Info : QB72LCSDW1
Misc Info : 09-30991
Comment :
Method : /chem3/nt2.i/20091228.b/lowsim.m
Meth Date : 28-Dec-2009 12:01 peter Quant Type: ISTD
Cal Date : 21-OCT-2009 13:30 Cal File: ic102106.d
Als bottle: 3 QC Sample: LCSD
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	7.364	7.378	(1.000)	178940	200.000	
	5 Naphthalene	128	7.394	7.409	(1.004)	169135	196.292	196
$	6 2-Methylnaphthalene-d10	152	8.225	8.225	(1.117)	96281	208.904	209(R)
	7 2-Methylnaphthalene	142	8.256	8.271	(1.121)	100147	199.303	199
	8 1-Methylnaphthalene	142	8.395	8.409	(1.140)	102156	195.330	195
	10 Acenaphthylene	152	9.393	9.406	(0.980)	133300	182.664	183
*	11 Acenaphthene-d10	164	9.587	9.599	(1.000)	92214	200.000	
	12 Acenaphthene	153	9.625	9.625	(1.004)	97672	215.684	216
	14 Dibenzofuran	168	9.832	9.831	(1.026)	150317	254.789	255
	15 Fluorene	166	10.246	10.260	(1.069)	118389	242.744	243
*	18 Phenanthrene-d10	188	11.431	11.445	(1.000)	132800	200.000	
	19 Phenanthrene	178	11.461	11.461	(1.003)	185265	280.674	281
	20 Anthracene	178	11.523	11.522	(1.008)	145744	216.079	216
	24 Fluoranthene	202	12.937	12.936	(1.132)	185712	258.315	258
	25 Pyrene	202	13.222	13.221	(1.157)	179112	245.430	245

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	14.715	14.714	(0.998)	118274	231.982	232
*	29 Chrysene-d12	240	14.737	14.736	(1.000)	102151	200.000	
	30 Chrysene	228	14.770	14.769	(1.002)	144351	286.969	287
	32 Benzo(b)fluoranthene	252	16.134	16.141	(0.963)	133079	261.852	262
	33 Benzo(k)fluoranthene	252	16.165	16.172	(0.965)	148901	269.846	270
	34 Benzo(a)pyrene	252	16.653	16.660	(0.994)	68578	172.216	172
*	35 Perylene-d12	264	16.746	16.753	(1.000)	88706	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	18.847	18.860	(1.125)	110826	240.167	240
$	36 Dibenzo(a,h)anthracene-d14	292	18.793	18.792	(1.122)	71461	265.776	266(R)
	38 Dibenzo(a,h)anthracene	278	18.861	18.873	(1.126)	96052	266.116	266
	39 Benzo(g,h,i)perylene	276	19.481	19.494	(1.163)	90476	227.380	227

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: 122803.d
Lab Smp Id: QB72LCSDW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30991

Calibration Date: 28-DEC-2009
Calibration Time: 11:14
Client Smp ID: QB72LCSDW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	173109	86554	346218	178940	3.37
11 Acenaphthene-d10	96677	48338	193354	92214	-4.62
18 Phenanthrene-d10	147750	73875	295500	132800	-10.12
29 Chrysene-d12	135219	67610	270438	102151	-24.46
35 Perylene-d12	125815	62908	251630	88706	-29.49

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	7.38	6.88	7.88	7.36	-0.20
11 Acenaphthene-d10	9.60	9.10	10.10	9.59	-0.13
18 Phenanthrene-d10	11.45	10.95	11.95	11.43	-0.13
29 Chrysene-d12	14.74	14.24	15.24	14.74	0.01
35 Perylene-d12	16.75	16.25	17.25	16.75	-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
Sample Matrix: LIQUID
Lab Smp Id: QB72LCSDW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt2.i/20091228.b/lowsim.m
Misc Info: 09-30991

Client SDG: QB72
Fraction: SV
Client Smp ID: QB72LCSDW1
Operator: VTS
SampleType: LCSD
Quant Type: ISTD

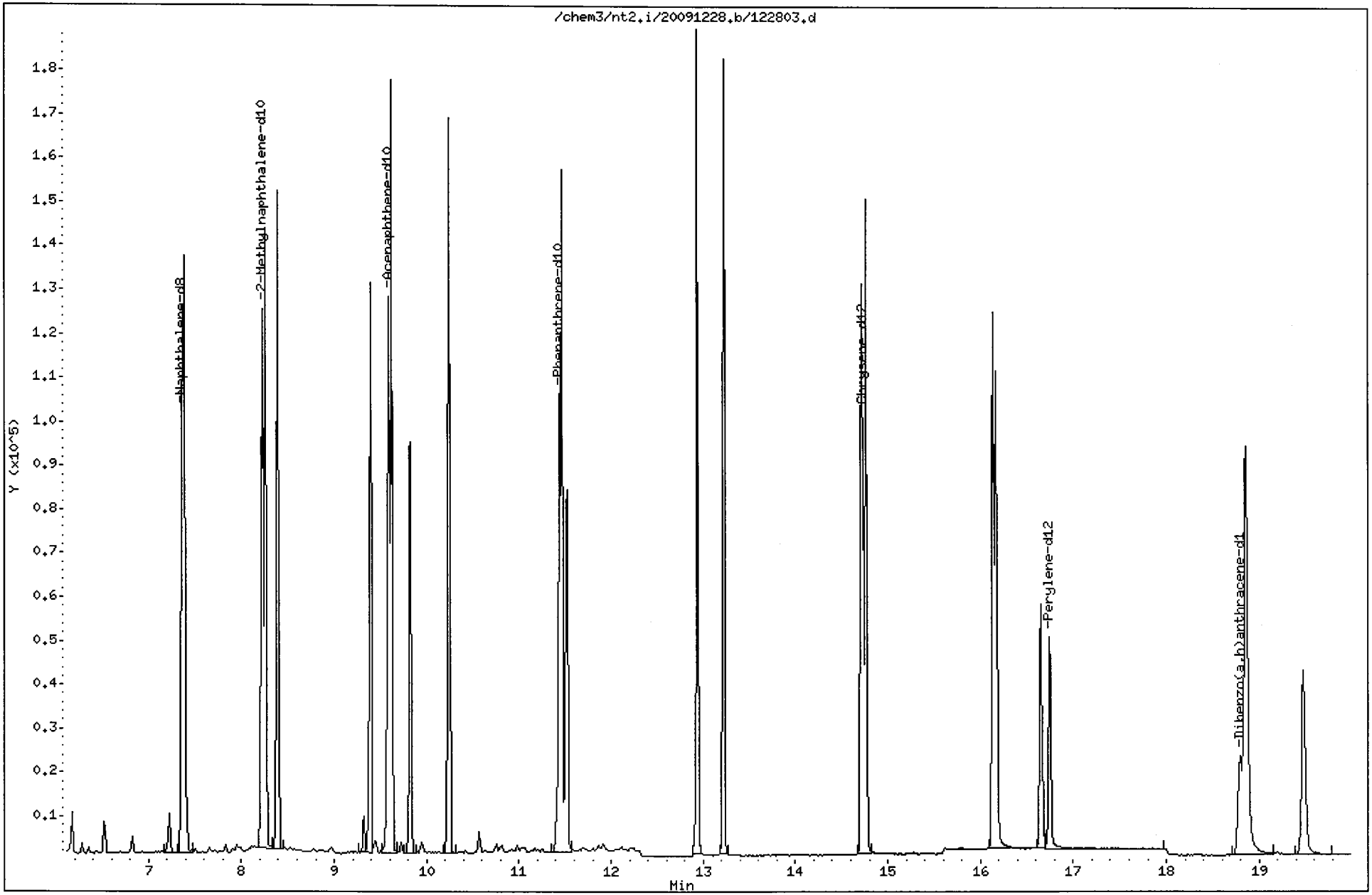
	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5	Naphthalene	300	196	65.43	41-101
7	2-Methylnaphthalen	300	199	66.43	47-100
8	1-Methylnaphthalen	300	195	65.11	30-160
10	Acenaphthylene	300	183	60.89	35-100
12	Acenaphthene	300	216	71.89	43-104
14	Dibenzofuran	300	255	84.93	37-100
15	Fluorene	300	243	80.91	51-103
19	Phenanthrene	300	281	93.56	55-109
20	Anthracene	300	216	72.03	30-101
24	Fluoranthene	300	258	86.11	49-123
25	Pyrene	300	245	81.81	48-120
28	Benzo(a)anthracene	300	232	77.33	43-113
30	Chrysene	300	287	95.66	59-112
32	Benzo(b)fluoranthe	300	262	87.28	44-121
33	Benzo(k)fluoranthe	300	270	89.95	50-117
34	Benzo(a)pyrene	300	172	57.41	10-100
37	Indeno(1,2,3-cd)py	300	240	80.06	43-112
38	Dibenzo(a,h)anthra	300	266	88.71	42-114
39	Benzo(g,h,i)peryle	300	227	75.79	31-118

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6	2-Methylnaphthalen	300	209	69.63	31-109
$ 36	Dibenzo(a,h)anthra	300	266	88.59	10-133

Data File: /chem3/nt2.i/20091228.b/122803.d
Date : 28-DEC-2009 12:30
Client ID: QB72LCSDW1
Sample Info: QB72LCSDW1
Volume Injected (uL): 2.0
Column phase: ZB-5

Instrument: nt2.i

Operator: VTS
Column diameter: 0.25



SIM Semivolatile Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

SIM PNA-Water
Liquid/Liquid (3520C) (SOP # 341S)

Preparation Test SIM PNA # 4
ARI Job No(s) QB72, QB41

Low Level (0.01ppb)
Batch set up by: ~~SB~~

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	Disassemble Liq/Liq	KD	TurboVap 1 2 3	(REQ) Silica Gel Clean (1:1)	TurboVap 1 2 3	Final Effective Volume	Volume to Lab	Comments
	QB72 MBW	Date 12/17/09	500mL						0.5mL	0.5mL	
	SBW	↓	↓						↓	↓	
	SBW Dup.	↓	↓						↓	↓	
2	A	checked									
2	B										
3	C										
12	QB41 C										
7	↓ E	↓	↓	↓	↓	↓	↓	↓	↓	↓	
				12/18/09							
Analyst/Date:	WC 12/17/09			AR	PR 12/21/09	TA # 12/22/09	→	→	→		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	I	100µL	8/12/10	WC	WW
Spike	18_B	100µL	8/28/10	WC	WW
Extraction Time: 14:10		Liq/Liq Start: 14:15		Liq/Liq Stop: 06:05	

SPECIAL INSTRUCTIONS: 1. Rinse all glassware with Low Level DCM. 2. Add 20-25mL Low Level Hexane. ~~5mL~~ Aliquot bodies ow
3. Add ~200mL Low Level DCM to Liq/Liq. 4. Add surr/spike. 5. Extract minimum 8 hrs.
6. KD (no drying column) to ~8mL at 80°. 7. Exchange (2 X with 10mL) to Low Level Hexane at 100°. 8. TurboVap.
9. Silica Clean-up=REQUIRED. 10. TurboVap. 11. Vial in Low Level DCM.
12. Post Screen extracts with any color prior to Silica Gel Clean-up.

A. Archive Y / N
QB72 only

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: QB72 Client ID: Floyd - Snider

Parameter: SIM PNA low level Client Project: Loon Lake Apts.

SOP Number(s): 3415 No Anomalies:

List problems, concerns, corrective actions and any other pertinent information
Samples A and B were gray and slightly turbid. WC 12/17/09

Analyst Initials:		Date:	

Analytical Resources Inc.: Organics Instrument Log

NT-2 Serial No.: 82321977

Date: 10/21/09 Analysis: LOWSIM PNA Analyst: JM

GC Program: LOWSIM Column No: 165239 Column Type: 5% MSi

Instrument Tune (.U or .CT.): 091028.U EM Voltage: 2424

Calibration File: df1021 Curve Date: 10/21/09

IS/SS	Ical/Ccal	LCS/ICV
1584-1	1665-3	

	Time	Filename	LabID	ClientId	DF									
1	1055	df1021.d	DFTPP		1	NO ISTDS FOUND								
2	1137	ic102101.d	PNA 250		1	6.23	173109	8.42	96677	10.21	147750	13.47	135219	15.11	125815
3	1200	ic102102.d	PNA 1000		1	6.23	188814	8.42	92483	10.21	148959	13.47	138468	15.10	125212
4	1222	ic102103.d	PNA 10		1	6.23	163657	8.42	80791	10.21	128448	13.47	118404	15.10	109902
5	1245	ic102104.d	PNA 500		1	6.23	177186	8.42	88802	10.21	144260	13.47	127406	15.10	116403
6	1307	ic102105.d	PNA 50		1	6.23	163275	8.42	80083	10.21	130872	13.47	119291	15.10	109601
7	1330	ic102106.d	PNA 100		1	6.23	164822	8.42	82096	10.21	134536	13.47	122702	15.10	111608
8	1352	ic102107.d	ICV		1	6.23	158208	8.42	82458	10.21	134236	13.47	116103	15.10	105713
9	1417	102101.d	PS52MBW1	PS52MBW1	1	6.23	175904	8.40	90261	10.21	137446	13.47	111636	15.10	103842
10	1440	102102.d	PS52LCSW1	PS52LCSW1	1	6.23	170961	8.42	90143	10.21	140571	13.47	114001	15.10	104592
11	1502	102103.d	PS52A	1009PSR02	1	6.24	174532	8.42	91014	10.21	138793	13.47	109311	15.10	100596
12	1525	102104.d	PS52B	1009PSR06	1	6.23	163118	8.42	88047	10.21	136570	13.48	128420	15.11	114082
13	1547	102105.d	PS52BMS	1009PSR06 MS	1	6.23	154113	8.40	86094	10.21	135585	13.47	122604	15.11	111870
14	1610	102106.d	PS52BMSD	1009PSR06 MS	1	6.23	157767	8.42	82085	10.21	132819	13.48	119576	15.10	107998
15	1633	102107.d	PS52C	1009PSR07	1	6.23	151004	8.40	83049	10.21	127310	13.48	115567	15.11	104650
16	1655	102108.d	PS52D	1009PSR08	1	6.23	145328	8.40	80578	10.21	126441	13.47	100861	15.10	94111
17	1718	102109.d	PS52E	1009PSR14	1	6.23	146730	8.40	78729	10.21	123966	13.47	99070	15.10	92085
18	1740	102110.d	PS52F	1009PSR09	1	6.23	148145	8.40	78140	10.21	120480	13.47	98501	15.10	89598
19	1803	102111.d	PS52G	1009PSR10	1	6.23	147860	8.40	76083	10.21	119300	13.46	95412	15.10	87073
20	1825	102112.d	PS52H	1009PSR11	1	6.38	3459916	8.43	138220	10.22	89906	13.47	67099	15.10	60014
21	1848	102113.d	PS52I	1009PSR12	1	6.24	144978	8.43	62601	10.22	69842	13.47	56461	15.10	50520
22	1910	102114.d	PS52J	SSV0378	1	6.23	70474	8.40	37554	10.21	58704	13.46	48381	15.10	44905
23	1933	102115.d	PS67A	1009PSR05	1	6.23	69936	8.40	36758	10.21	60869	13.47	48300	15.10	44710
24	1955	102116.d	PS67B	1009PSR13	1	6.23	66573	8.40	36261	10.21	55494	13.46	46657	15.10	42199
25	2018	102117.d	PS67C		1	6.23	67515	8.40	34507	10.21	55245	13.46	44617	15.10	40086
26	2040	102118.d	PS67D	1009PSR01	1	6.23	65209	8.40	34329	10.21	53352	13.46	42240	15.10	39135
27	2103	102119.d	PS67E	1009PSR03	1	6.23	76319	8.42	39233	10.22	59390	13.47	69138	15.10	45582
28	2125	102120.d	PS67F	1009PSR04	1	6.23	67640	8.42	37153	10.21	57142	13.47	50757	15.10	46670

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

Form 7042F
NT2 Daily Run Log

New liner, clip col IC102101

Revision 001
1/16/06

QB72:00221

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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): NPL Low Sim PNA CURVE 10/21/09

Instrument: NT-1 (NT-2) NT-4 NT-6 NT-8

Curve Date: 10/21/09 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 cmpds < 20% RSD

Additional Details on Reverse: Yes / No

Analyst Signature: Phyllis **Date:** 10/22/09

Reviewer's Signature: J. S. **Date:** 11.21.2009

QB72:00222

Analytical Resources Inc.: Organics Instrument Log

NT-2 Serial No.: 82321977

Date: 12/28/09 Analysis: LOW Sim PNA Analyst: MK

GC Program: LOWSIM Column No: 171137 Column Type: 2x5 Rtx5

Instrument Tune (.U or .CT.): 090928.U EM Voltage: 2694

Calibration File: df1228 Curve Date: 10/21/09

IS/SS	Ical/Ccal	LCS/ICV
1584-1	1665-3	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt2.i/20091228.b

	Time	Filename	LabID	ClientId	DF								
1	1015	df1228.d	DFTPP		1	NO ISTDS FOUND							
2	1114	cc1228.d	PNA 250		1	7.38	240597	9.60	121450	11.45	179345	14.74	157552	16.75	124758
3	1141	122801.d	QB41MBW1	QB41MBW1	1	7.37	191877	9.59	97185	11.43	140358	14.74	107926	16.75	89647
4	1206	122802.d	QB41LCSW1	QB41LCSW1	1	7.38	184419	9.59	94393	11.43	136026	14.74	105354	16.75	89406
5	1230	122803.d	QB41LCSDW1	QB41LCSDW1	1	7.36	178940	9.59	92214	11.43	132800	14.74	102151	16.75	88706
6	1255	122804.d	QB72A	CB31A121509C	1	7.36	183511	9.59	94055	11.43	132710	14.74	103757	16.75	98432
7	1319	122805.d	QB72B	CB4857121509	1	7.36	180798	9.59	94425	11.43	133295	14.74	103241	16.75	100768
8	1344	122806.d	QB72C	CB1121409COM	1	7.36	181813	9.59	98259	11.43	141071	14.74	103509	16.74	94917
9	1409	122807.d	QB41C	LS431-121509	1	7.36	177164	9.59	93211	11.43	132666	14.74	97820	16.74	92845
10	1433	122808.d	QB41E	MH108-121509	1	7.36	176722	9.59	94433	11.43	136331	14.74	100045	16.74	91520

MK 12/28/09

Maintenance / Comments

New liner, ~~clip col~~ New Inj. Heater, New Column

MK 12/28/09

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control): CC1228

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: QB72 Client ID: Floyd-Snider

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: _____ 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):

- Naphthalene in MB @ J level. Samples NOT "B" flagged.

~~No logbook yet done~~

Additional Details on Reverse: Yes / No

Analyst Signature: _____ **Date:** 12/28/09

Reviewer's Signature: _____ **Date:** 12/29/09

PCP Analysis
QC Summary Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA

Client ID	TBP	TOT OUT
MB-121809	82.8%	0
LCS-121809	69.0%	0
LCSD-121809	70.8%	0
CB31A121509COMP	85.2%	0
CB4857121509COMP	80.0%	0
CB1121409COMP	73.2%	0

	LCS/MB LIMITS	QC LIMITS
(TBP) = 2,4,6-Tribromophenol	(40-130)	(11-156)

Prep Method: SW3510C
Log Number Range: 09-30991 to 09-30993

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041

Sample ID: LCS-121809
LCS/LCSD

Lab Sample ID: LCS-121809
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized: B
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted LCS/LCSD: 12/18/09

Date Analyzed LCS: 12/29/09 20:01
LCSD: 12/29/09 20:21
Instrument/Analyst LCS: ECD1/AAR
LCSD: ECD1/AAR

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Pentachlorophenol	1.86	2.50	74.4%	1.90	2.50	76.0%	2.1%

Chlorophenols Surrogate Recovery

	LCS	LCSD
2,4,6-Tribromophenol	69.0%	70.8%

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

CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QB72MBW1

Lab Name: ANALYTICAL RESOURCES, INC — Client: FLOYD-SNIDER

ARI Job No.: QB72 — Project: LORA LAKE APTS.

Lab Sample ID: QB72MBW1 — Lab File ID: 1229A005

Matrix (soil/water) LIQUID — Extraction:(SepF/Cont/Sonc) SW3510C

Sulfur Cleanup (Y/N) Y — Date Extracted: 12/18/09

Date Analyzed (1): 12/29/09 — Date Analyzed (2): 12/29/09

Time Analyzed (1): 1941 — Time Analyzed (2): 1941

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	QB72LCSW1	QB72LCSW1	12/29/09	12/29/09
02	QB72LCSDW1	QB72LCSDW1	12/29/09	12/29/09
03	CB31A121509C	QB72A	12/29/09	12/29/09
04	CB4857121509	QB72B	12/29/09	12/29/09
05	CB1121409COM	QB72C	12/29/09	12/29/09

CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Init. Calib. Date(s): 10/21/09 10/21/09

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.05

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01		PCP D	10/21/09	1633	10.05
02		PCP A	10/21/09	1653	10.06
03		PCP B	10/21/09	1713	10.05
04		PCP C	10/21/09	1733	10.05
05		PCP E	10/21/09	1753	10.04
06		PCP F	10/21/09	1812	10.04
07		PCP CCAL	12/29/09	1921	10.06
08	QB72MBW1	QB72MBW1	12/29/09	1941	10.08
09	QB72LCSW1	QB72LCSW1	12/29/09	2001	10.07
10	QB72LCSDW1	QB72LCSDW1	12/29/09	2021	10.07
11	CB31A121509C	QB72A	12/29/09	2041	10.06
12	CB4857121509	QB72B	12/29/09	2100	10.06
13	CB1121409COM	QB72C	12/29/09	2120	10.06
14	ZZZZZ	ZZZZZ	12/29/09	2140	10.06
15		PCP CCAL	12/29/09	2200	10.06

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII PCP

CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Init. Calib. Date(s): 10/21/09 10/21/09

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.68

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01		PCP D	10/21/09	1633	10.68
02		PCP A	10/21/09	1653	10.69
03		PCP B	10/21/09	1713	10.68
04		PCP C	10/21/09	1733	10.68
05		PCP E	10/21/09	1753	10.68
06		PCP F	10/21/09	1812	10.67
07		PCP CCAL	12/29/09	1921	10.69
08	QB72MBW1	QB72MBW1	12/29/09	1941	10.70
09	QB72LCSW1	QB72LCSW1	12/29/09	2001	10.70
10	QB72LCSDW1	QB72LCSDW1	12/29/09	2021	10.70
11	CB31A121509C	QB72A	12/29/09	2041	10.69
12	CB4857121509	QB72B	12/29/09	2100	10.69
13	CB1121409COM	QB72C	12/29/09	2120	10.69
14	ZZZZZ	ZZZZZ	12/29/09	2140	10.69
15		PCP CCAL	12/29/09	2200	10.69

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII PCP

CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Init. Calib. Date(s): 10/21/09 10/21/09

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.05

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	ZZZZZ	ZZZZZ	10/21/09	1832	10.03

QC LIMITS
S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII PCP

CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Init. Calib. Date(s): 10/21/09 10/21/09

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.68

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	ZZZZZ	ZZZZZ	10/21/09	1832	10.67

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII PCP

PCP Analysis
Sample Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041

Sample ID: CB31A121509COMP
SAMPLE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted: 12/18/09
Date Analyzed: 12/29/09 20:41
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	0.82

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	85.2%

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

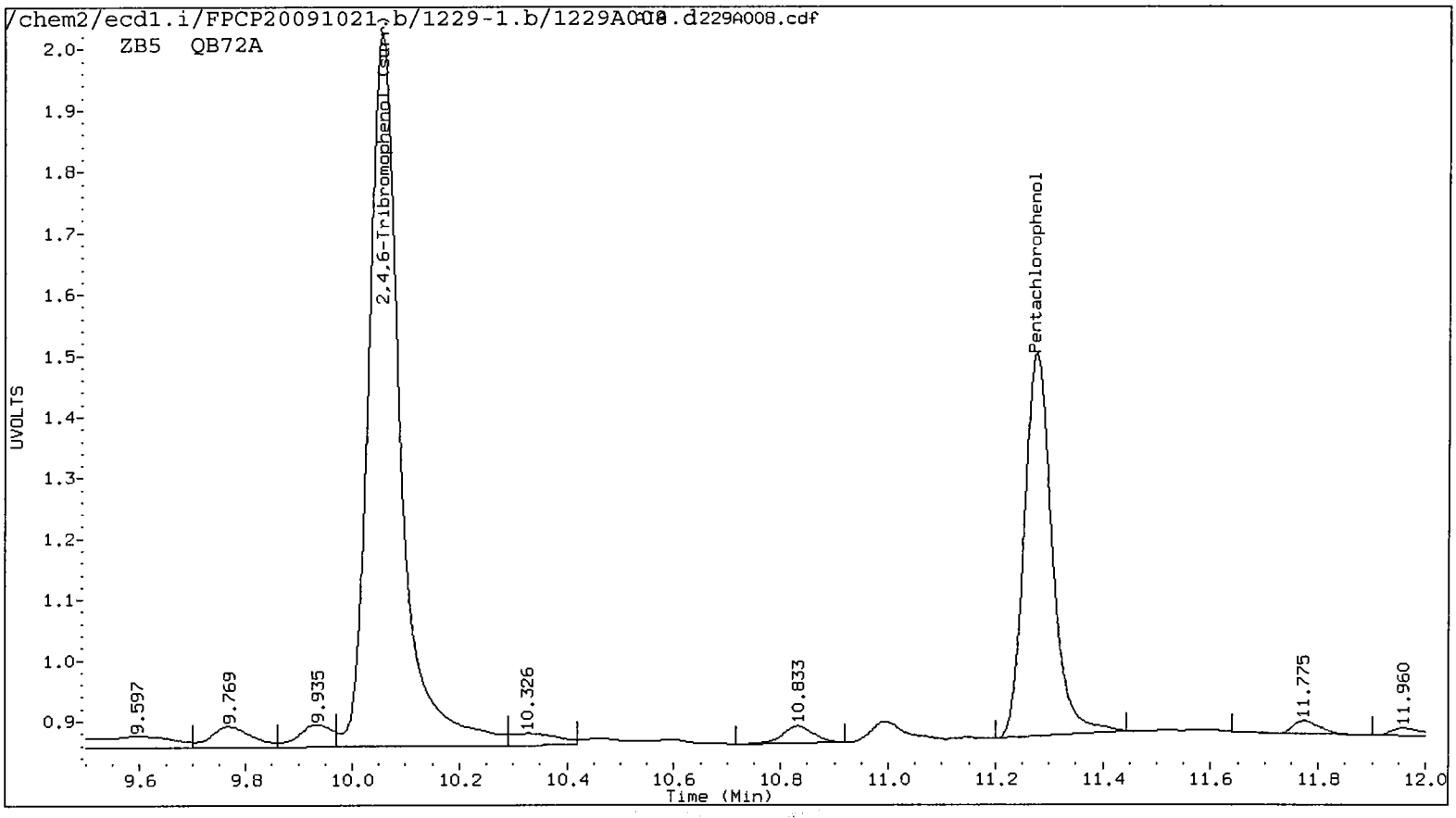
AR 1/6/2010

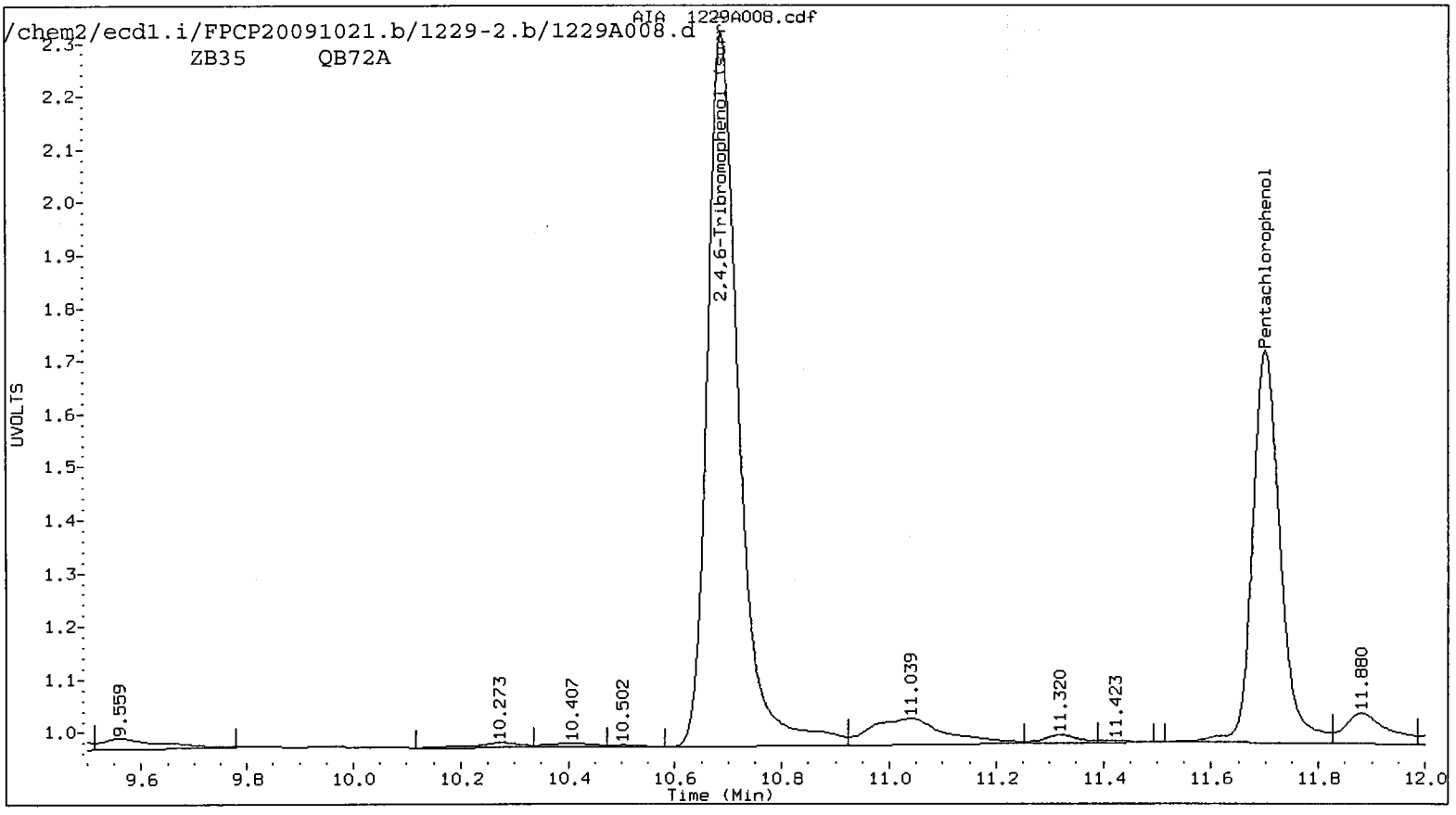
Data file 1: /chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A008.d ARI ID: QB72A
Data file 2: /chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A008.d Client ID: CB31A121509COMP
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 29-DEC-2009 20:41
Compound Sublist: all Report Date: 01/06/2010 12:25
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.277	0.005	113154	11.701	0.006	132849	7.2818	8.1984	11.8	Pentachlorophenol
7.281	-0.012	9769	----			1.2856	0.0000	---	2,4,6-Trichlorophenol
7.587	-0.061	2353	7.879	-0.003	681	0.2682	0.0737	113.8*	2,3,6-Trichlorophenol
8.308	0.049	2713	8.655	0.035	1222	0.5002	0.2048	83.8*	2,4,5-Trichlorophenol
8.787	-0.039	2623	----			0.4317	0.0000	---	2,3,4-Trichlorophenol
9.082	0.044	8257	9.325	0.030	4541	0.6253	0.3391	59.3*	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
6.942	0.024	3540	7.183	0.006	1523	6.3752	2.8033	77.8*	2,4-Dichlorophenol
10.056	0.006	240109	10.688	0.008	274332	19.9	21.31	6.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	79.5	85.1


/chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A008.d
AIA 1229A008.cdf
ZB5 QB72A
2,4,6-Tribromophenol (surr)
Pentachlorophenol
9.597
9.769
9.935
10.326
10.833
11.775
11.960
UVOLTS
Time (Min)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AIA 1229A008.cdf
ZB35 QB72A
2,4,6-Tribromophenol (surr)
Pentachlorophenol
9.559
10.273
10.407
10.502
11.039
11.320
11.423
11.880
UVOLTS
Time (Min)

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB4857121509COMP
SAMPLE

Lab Sample ID: QB72B
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Date Extracted: 12/18/09
Date Analyzed: 12/29/09 21:00
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	80.0%

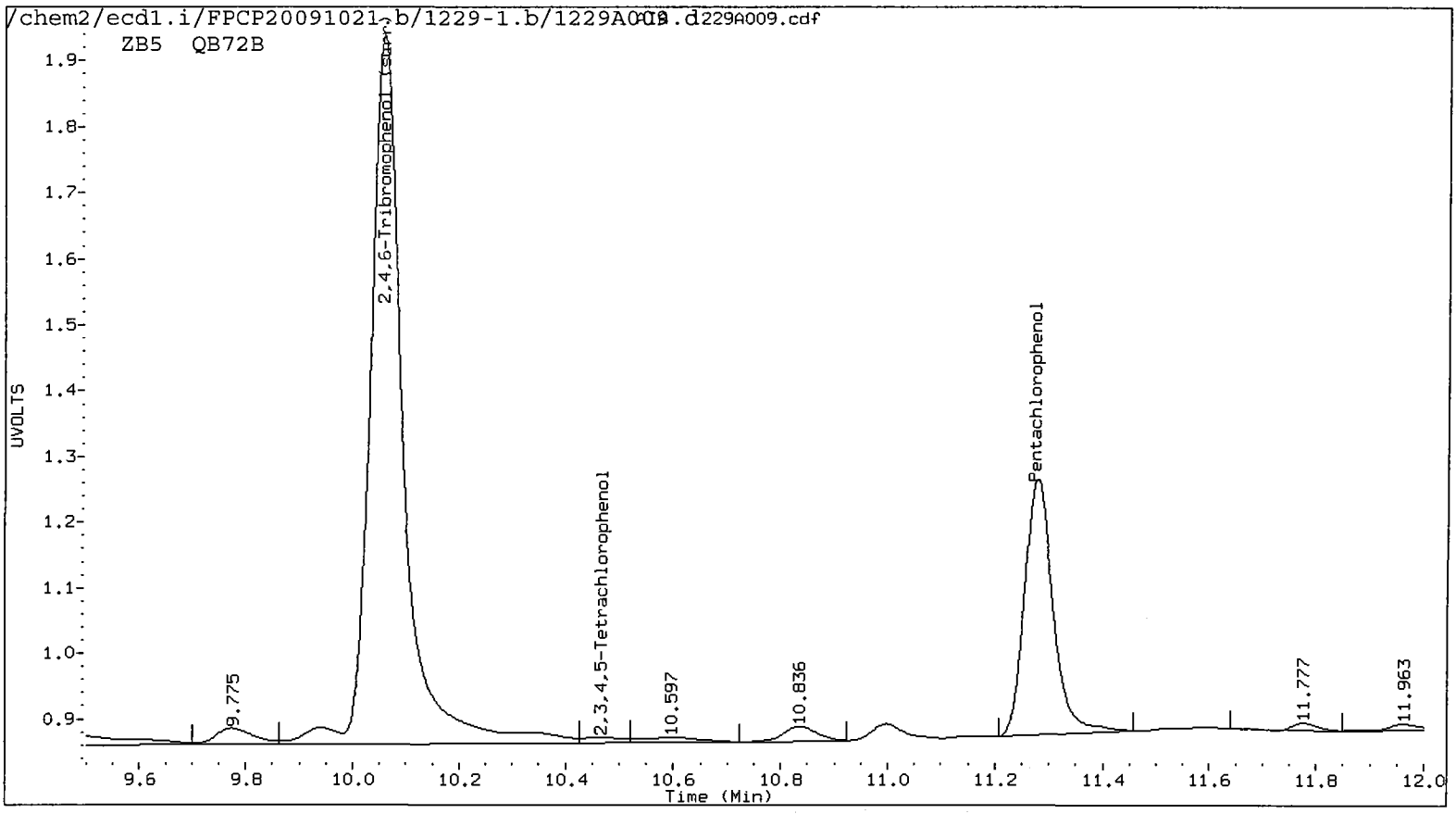
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

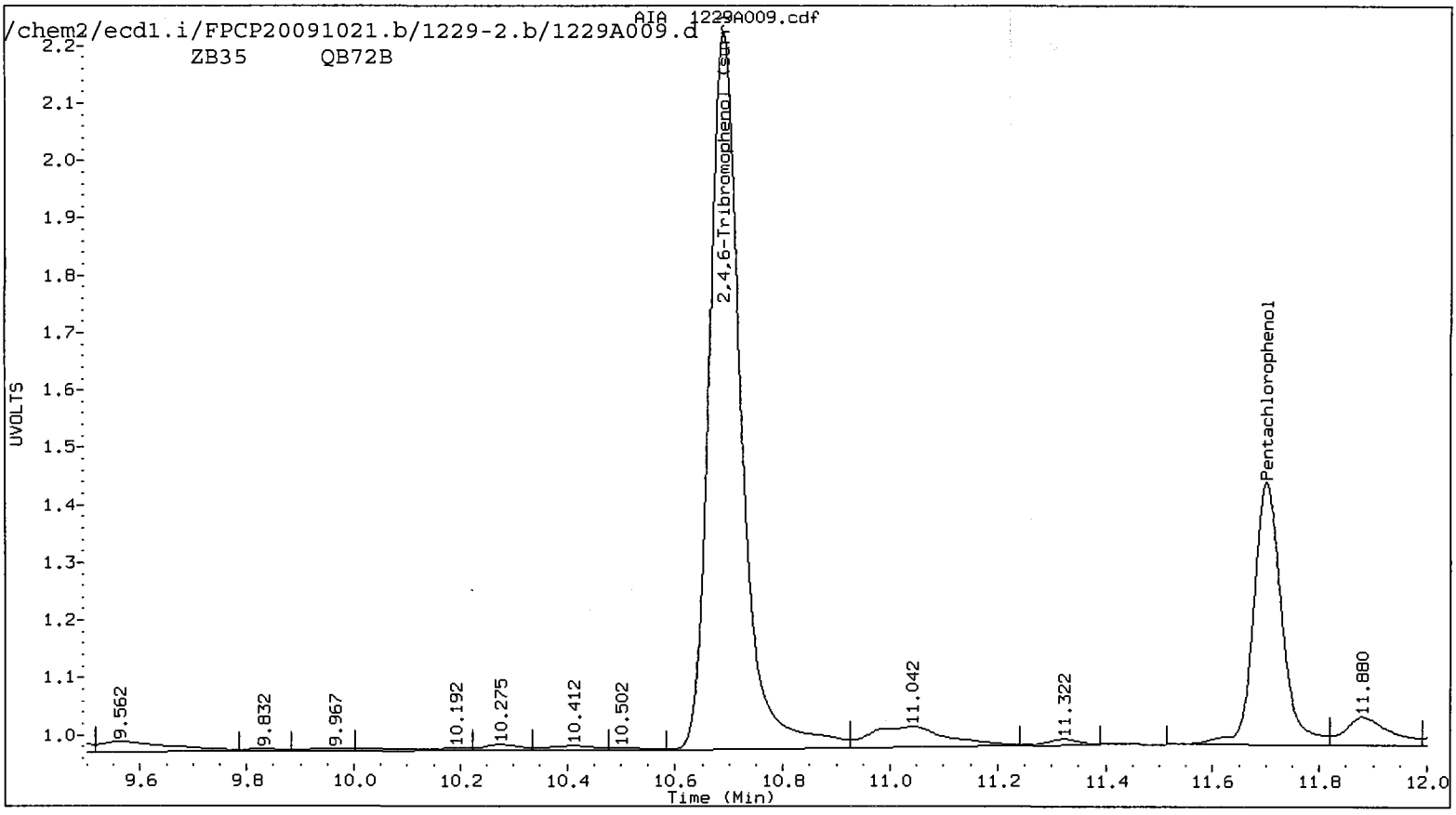
Data file 1: /chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A009.d ARI ID: QB72B
Data file 2: /chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A009.d Client ID: CB4857121509COMP
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 29-DEC-2009 21:00
Compound Sublist: all Report Date: 01/06/2010 12:25
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.277	0.005	71284	11.702	0.007	83251	4.5873	5.1377	11.3	Pentachlorophenol
7.298	0.005	21588	7.358	0.006	12799	2.8409	1.3430	71.6*	2,4,6-Trichlorophenol
7.588	-0.061	2254	7.868	-0.014	593	0.2569	0.0641	120.1*	2,3,6-Trichlorophenol
8.308	0.050	1435	8.652	0.032	1030	0.2643	0.1725	42.0*	2,4,5-Trichlorophenol
8.791	-0.035	1816	----			0.2990	0.0000	---	2,3,4-Trichlorophenol
----			9.325	0.030	3289	0.0000	0.2457	---	2,3,5,6-Tetrachlorophenol
10.465	0.003	1948	----			0.1899	0.0000	---	2,3,4,5-Tetrachlorophenol
6.941	0.023	2924	7.182	0.005	1672	5.2601	3.0799	52.3*	2,4-Dichlorophenol
10.057	0.007	235552	10.688	0.009	257367	19.5	20.0	2.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	78.0	79.8


/chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A009.d
AIA 1229A009.cdf
ZB5 QB72B
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.775
10.597
10.836
11.777
11.963
Time (Min)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AIA 1229A009.cdf
ZB35 QB72B
UVOLTS
2,4,6-Tribromophenol (surr)
Pentachlorophenol
9.562
9.832
9.967
10.192
10.275
10.412
10.502
11.042
11.322
11.880
Time (Min)

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB1121409COMP
SAMPLE

Lab Sample ID: QB72C
LIMS ID: 09-30993
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Date Extracted: 12/18/09
Date Analyzed: 12/29/09 21:20
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	73.2%

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

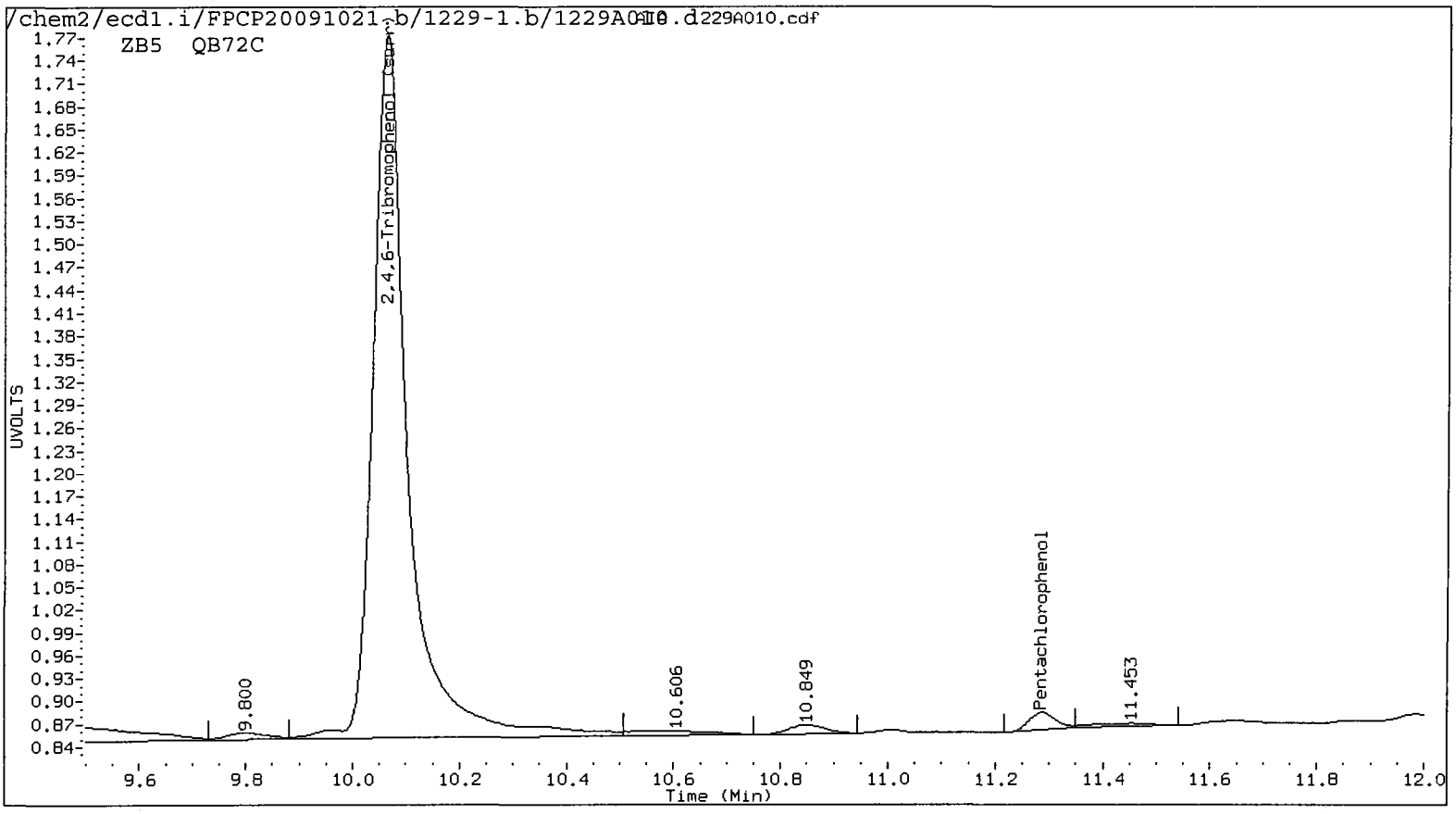
AR 1/6/2010

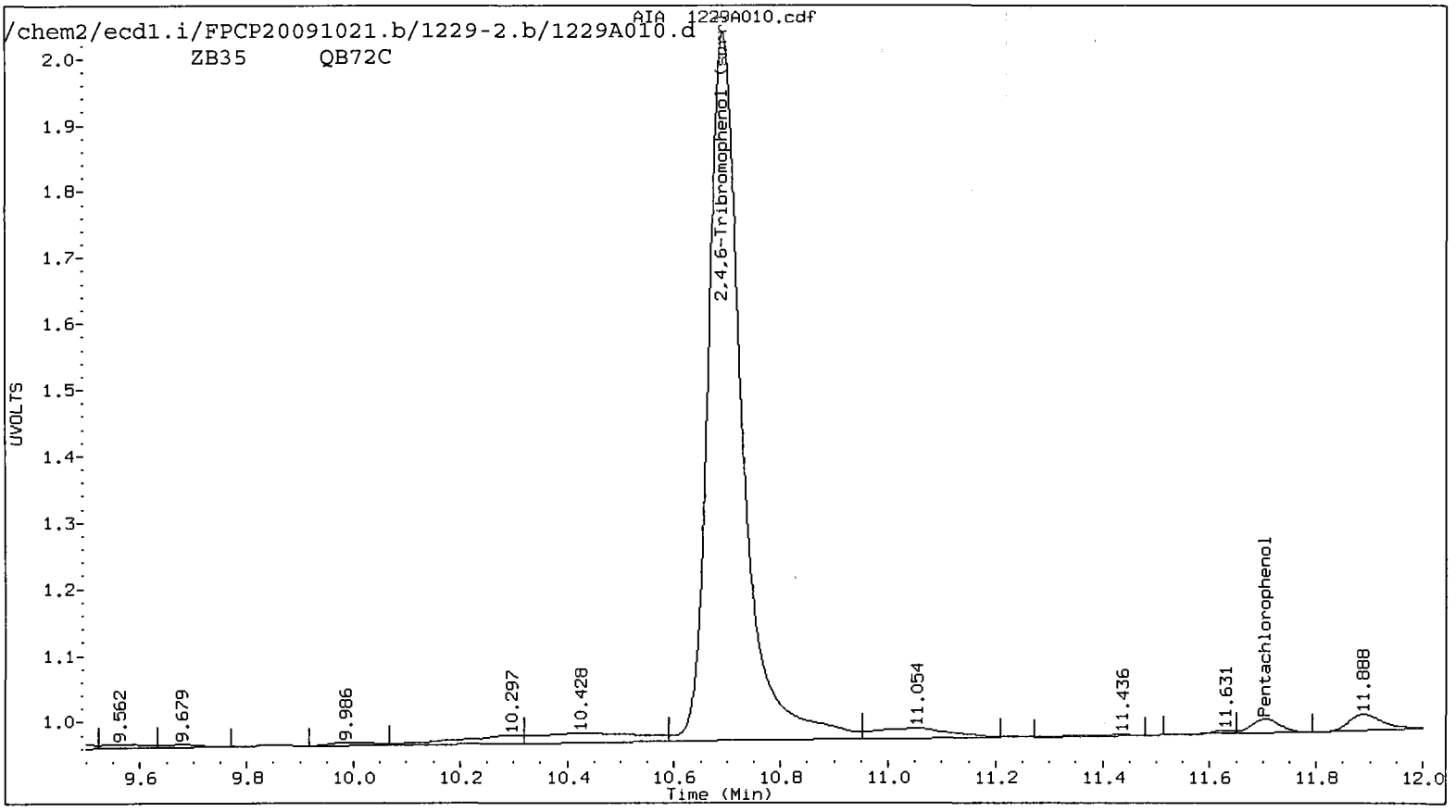
Data file 1: /chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A010.d ARI ID: QB72C
Data file 2: /chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A010.d Client ID: CB1121409COMP
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 29-DEC-2009 21:20
Compound Sublist: all Report Date: 01/06/2010 12:25
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.287	0.015	3821	11.704	0.010	4015	0.2459	0.2478	0.8	Pentachlorophenol
7.297	0.004	7840	----			1.0317	0.0000	---	2,4,6-Trichlorophenol
7.587	-0.062	1812	----			0.2066	0.0000	---	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			9.325	0.029	774	0.0000	0.0578	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
6.938	0.020	2719	----			4.8905	0.0000	---	2,4-Dichlorophenol
10.063	0.014	211984	10.692	0.012	236472	17.6	18.3	4.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	70.2	73.3


/chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A010.d
AIA 1229A010.cdf
ZB5 QB72C
UVOLTS
2,4,6-Tribromophenol (surr)
9.800
10.606
10.849
Pentachlorophenol
11.453
Time (Min)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AIA 1229A010.cdf
ZB35 QB72C
UVOLTS
2,4,6-Tribromophenol (surr)
9.562
9.679
9.986
10.297
10.428
11.054
11.436
11.631
Pentachlorophenol
11.888
Time (Min)

PCP Analysis
Standard Raw Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

6D
CHLOROPHENOL INITIAL CALIBRATION
RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 10/21/09

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT	FROM	TO
Pentachlorophenol	11.28	11.28	11.27	11.27	11.27	11.27	11.20	11.34
2,4,6-Trichloropheno	7.29	7.29	7.29	7.29	7.29	7.29	7.22	7.36
2,3,6-Trichloropheno	7.65	7.65	7.64	7.65	7.64	7.64	7.58	7.72
2,4,5-Trichloropheno	8.27	8.26	8.26	8.26	8.25	8.26	8.19	8.33
2,3,4-Trichloropheno	8.85	8.84	8.83	8.83	8.81	8.83	8.76	8.90
2,3,5,6-Tetrachlorop	9.04	9.04	9.04	9.04	9.03	9.04	8.97	9.11
2,3,4,5-Tetrachlorop	10.48	10.47	10.46	10.46	10.45	10.46	10.39	10.53
2,4-Dichlorophenol	6.92	6.91	6.91	6.92	6.91	6.91	6.85	6.99
2,4,6-Tribromophenol	10.06	10.05	10.05	10.05	10.04	10.05	9.98	10.12

6D
CHLOROPHENOL INITIAL CALIBRATION
RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 10/21/09

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT	FROM	TO
Pentachlorophenol___	11.70	11.70	11.70	11.69	11.69	11.70	11.62	11.76
2,4,6-Trichloropheno	7.35	7.35	7.35	7.35	7.35	7.35	7.28	7.42
2,3,6-Trichloropheno	7.88	7.88	7.88	7.88	7.88	7.88	7.81	7.95
2,4,5-Trichloropheno	8.63	8.62	8.62	8.62	8.62	8.62	8.55	8.69
2,3,4-Trichloropheno	9.41	9.40	9.40	9.40	9.39	9.40	9.33	9.47
2,3,5,6-Tetrachlorop	9.30	9.30	9.30	9.30	9.29	9.30	9.23	9.37
2,3,4,5-Tetrachlorop	11.17	11.16	11.16	11.16	11.16	11.16	11.09	11.23
2,4-Dichlorophenol__	7.18	7.18	7.18	7.18	7.17	7.18	7.11	7.25
2,4,6-Tribromophenol	10.69	10.68	10.68	10.68	10.68	10.68	10.61	10.75

6E
CHLOROPHENOL INITIAL CALIBRATION
CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 10/21/09

COMPOUND	CALIBRATION FACTORS LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	R^2/ %RSD	CT
Pentachlorophenol	18833	17561	16239	14693	13334	12576	15.7	A
2,4,6-Trichlorophenol	12707	11050	9817	8689	7872	7374	0.9929	L
2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	16.6	A
2,4,5-Trichlorophenol	6561	5514	5743	4686	4241	3750	0.9994	Q
2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	16.4	A
2,3,5,6-Tetrachloroph	15518	14554	13607	12505	11993	11056	12.6	A
2,3,4,5-Tetrachloroph	12818	11723	10909	9693	8548	7877	18.5	A
2,4-Dichlorophenol	673	644	558	469	404	353	0.9991	Q
2,4,6-Tribromophenol	13920	13228	12506	11556	10717	10527	11.4	A
						AVE RSD	17.6	

CT stands for Curve Types:
- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

LVL 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A010.d
LVL 2: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A011.d
LVL 3: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A012.d
LVL 4: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A009.d
LVL 5: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A013.d
LVL 6: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A014.d

6E
CHLOROPHENOL INITIAL CALIBRATION
CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 10/21/09

COMPOUND	CALIBRATION FACTORS LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	R^2/ %RSD	CT
Pentachlorophenol	19304	17945	16707	15360	14237	13672	13.5	A
2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	16.4	A
2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	12.6	A
2,4,5-Trichlorophenol	7804	6975	6158	5032	4549	4003	0.9992	Q
2,3,4-Trichlorophenol	9692	9054	8149	7049	6270	5605	0.9995	Q
2,3,5,6-Tetrachloroph	15877	14658	13700	12697	11907	11504	12.6	A
2,3,4,5-Tetrachloroph	12083	11690	10825	9751	8980	8440	14.3	A
2,4-Dichlorophenol	708	628	548	468	404	358	0.9992	Q
2,4,6-Tribromophenol	14709	13981	13233	12347	11640	11484	10.1	A
						AVE RSD	16.9	

CT stands for Curve Types:
- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

LVL 1: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A010.d
LVL 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d
LVL 3: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A012.d
LVL 4: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A009.d
LVL 5: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A013.d
LVL 6: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A014.d

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCPB.m
Cal Date : 22-Oct-2009 10:50 aron
Curve Type : Average

Rename batch 10/21

Calibration File Names:
Level 1: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A010.d
Level 2: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A011.d
Level 3: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A012.d
Level 4: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A009.d
Level 5: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A013.d
Level 6: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A014.d

	Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD	
1	2,4-Dichlorophenol	708	628	548	468	405	358	519	25.855	<-
2	2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	9531	16.459	
3	2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	9255	12.610	
4	2,4,5-Trichlorophenol	7804	6975	6158	5032	4549	4003	5754	25.652	<-
5	2,3,5,6-Tetrachlorophenol	15877	14658	13700	12697	11907	11504	13390	12.553	
6	2,3,4-Trichlorophenol	9692	9054	8149	7049	6270	5605	7637	20.983	<-
8	2,3,4,5-Tetrachlorophenol	12083	11690	10825	9751	8980	8440	10295	14.335	
9	Pentachlorophenol	19304	17945	16707	15360	14237	13672	16204	13.488	
$ 7	2,4,6-Tribromophenol (surr)	14709	13981	13233	12347	11640	11484	12899	10.079	

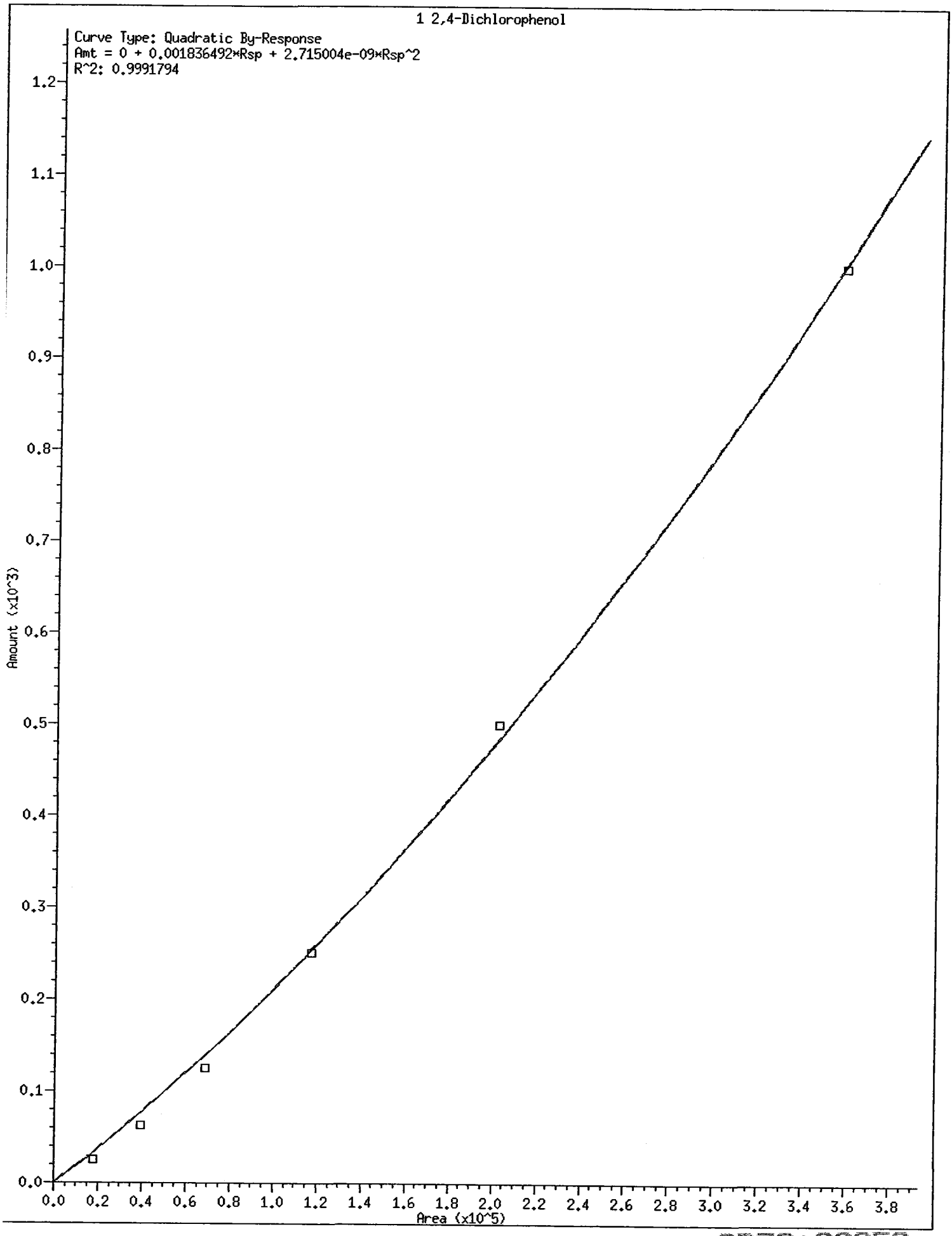
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

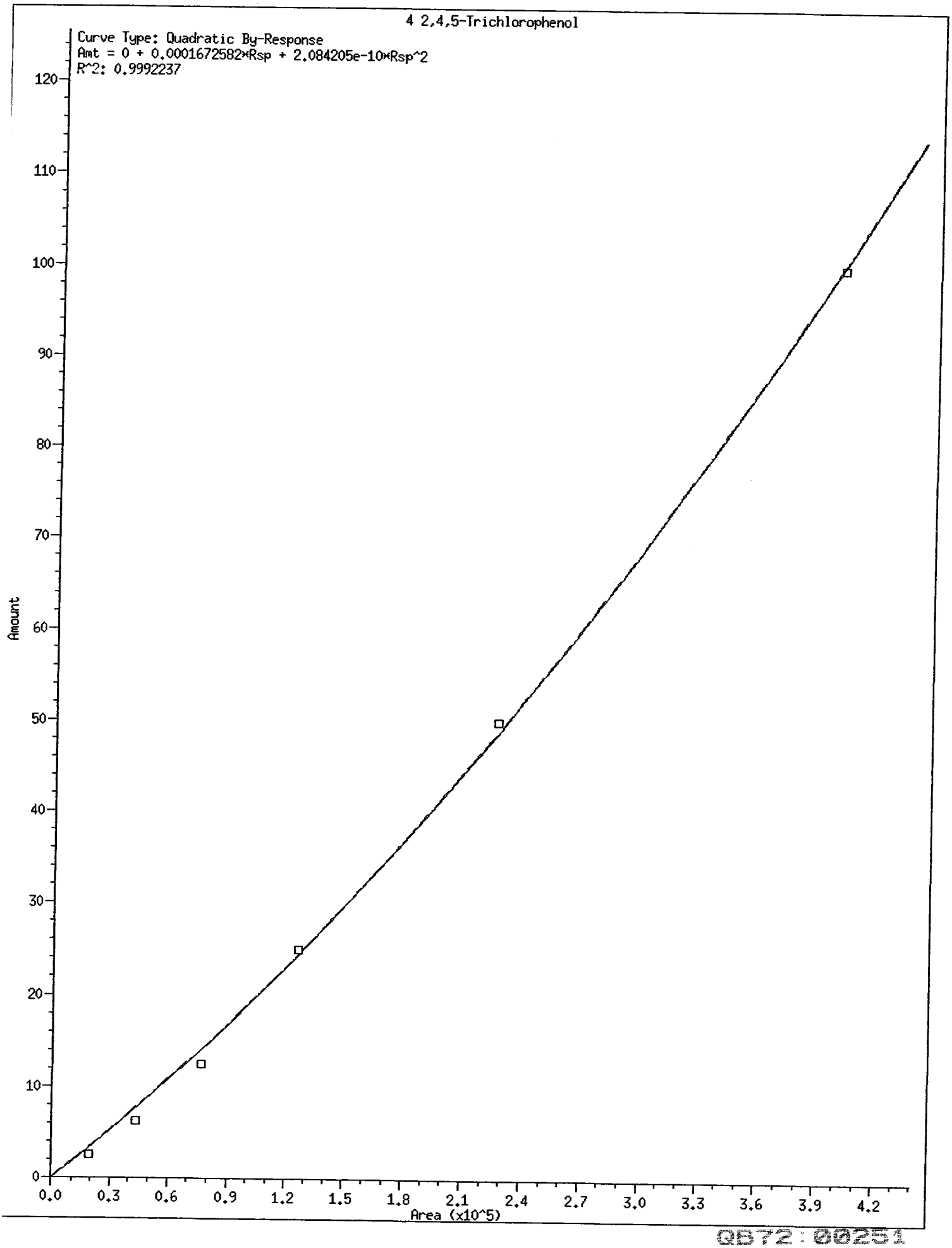
Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCPB.m
Cal Date : 22-Oct-2009 10:50 aron
Curve Type : Average

Average %RSD Results.

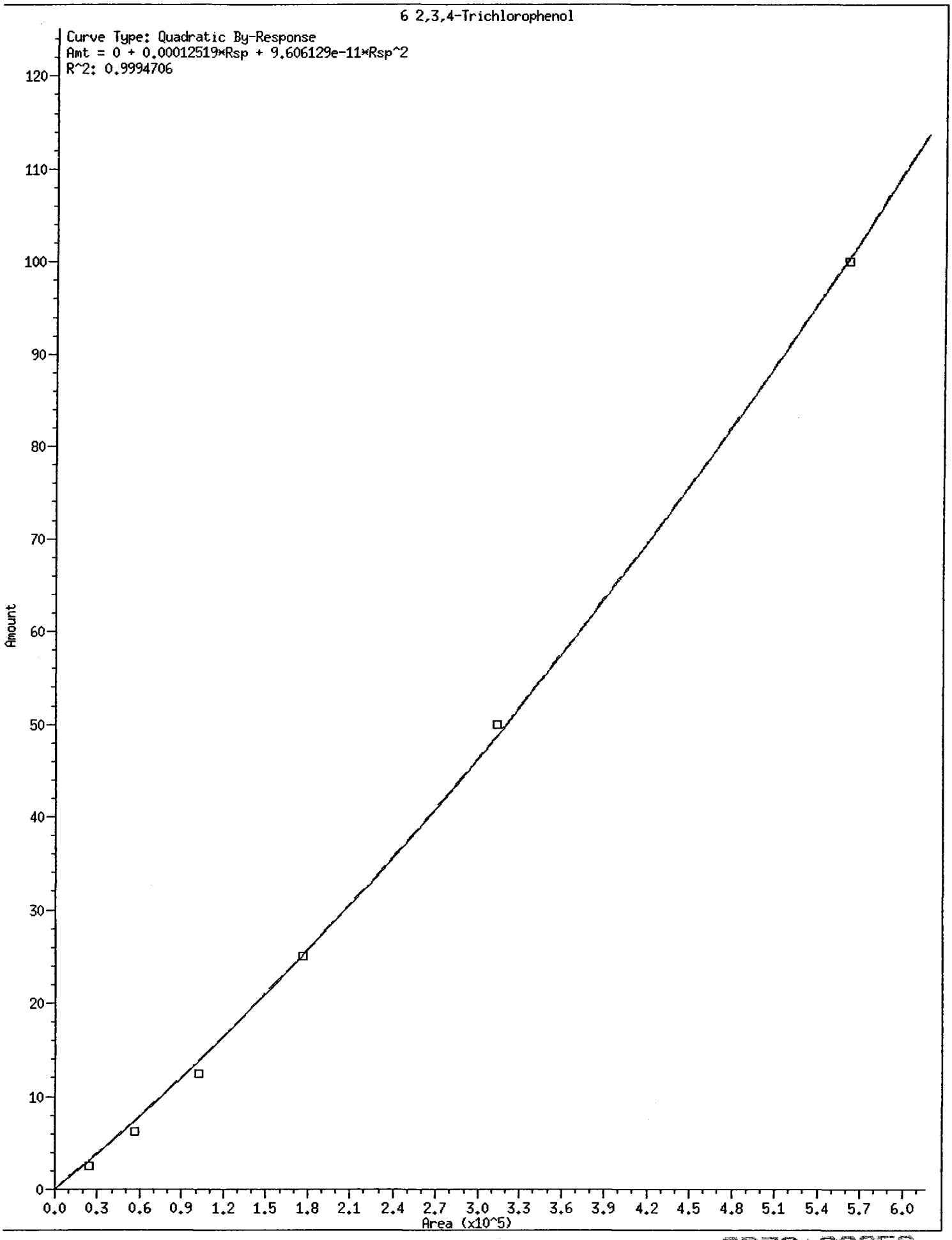
Calculated Average %RSD = 16.89042
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.


1 2,4-Dichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.001836492*Rsp + 2.715004e-09*Rsp^2
R^2: 0.9991794
Amount (x10^3)
Area (x10^5)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8

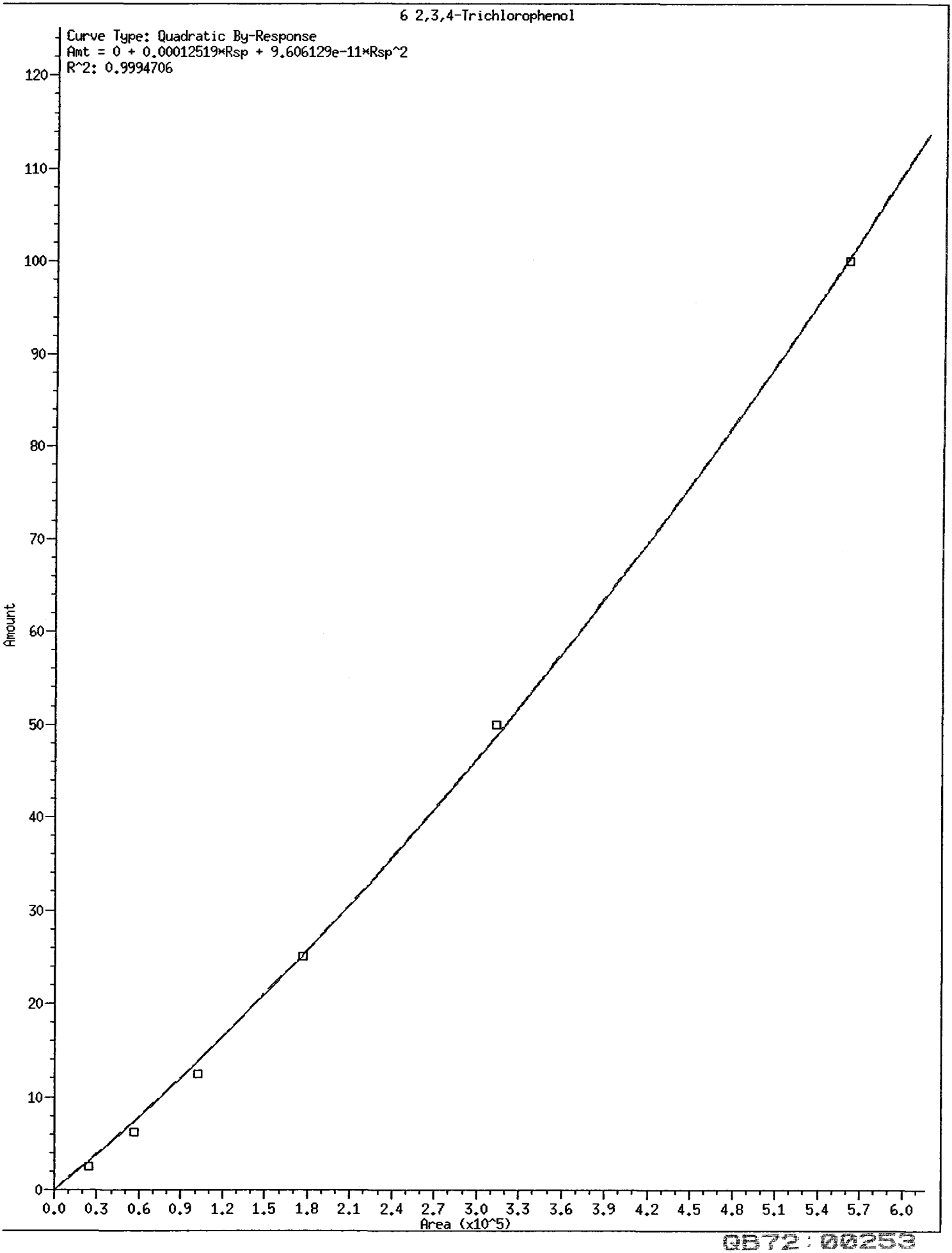
QB72:00250


4 2,4,5-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.0001672582*Rsp + 2.084205e-10*Rsp^2
R^2: 0.9992237
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2

QB72:00251


6 2,3,4-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.00012519*Rsp + 9.606129e-11*Rsp^2
R^2: 0.9994706
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0

QB72:00252


6 2,3,4-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.00012519*Rsp + 9.606129e-11*Rsp^2
R^2: 0.9994706
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0

QB72:00253

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091021.b/FPCPB.m
Cal Date : 23-Oct-2009 11:17 aron

Calibration File Names:
Level 1: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A010.d
Level 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d
Level 3: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A012.d
Level 4: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A009.d
Level 5: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A013.d
Level 6: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A014.d

Compound	2 Level 1	6 Level 2	12 Level 3	25 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 2,4-Dichlorophenol	17700	39225	68497	117023	202273	357799	QUAD	0.000e+00	0.00184	2.715e-09	0.99918
2 2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	AVRG		9531		16.45945
3 2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	AVRG		9255		12.60997
4 2,4,5-Trichlorophenol	19509	43595	76979	125809	227473	400339	QUAD	0.000e+00	0.00017	2.084e-10	0.99922
5 2,3,5,6-Tetrachlorophenol	15877	14658	13700	12697	11907	11504	AVRG		13390		12.55347
6 2,3,4-Trichlorophenol	24231	56589	101861	176218	313504	560518	QUAD	0.000e+00	0.00013	9.606e-11	0.99947
8 2,3,4,5-Tetrachlorophenol	12083	11690	10825	9751	8980	8440	AVRG		10295		14.33482
9 Pentachlorophenol	19304	17945	16707	15360	14237	13672	AVRG		16204		13.48754
7 2,4,6-Tribromophenol (surr)	14709	13981	13233	12347	11640	11484	AVRG		12899		10.07874

0052509

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091021.b/FPCPB.m
Cal Date : 23-Oct-2009 11:17 aron

Average %RSD Results.
Calculated Average %RSD = 13.25400
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

GDJ2 09255

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCP.m
Cal Date : 22-Oct-2009 11:10 aron
Curve Type : Average

Rename Batch 10121

Calibration File Names:
Level 1: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A010.d
Level 2: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A011.d
Level 3: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A012.d
Level 4: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A009.d
Level 5: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A013.d
Level 6: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A014.d

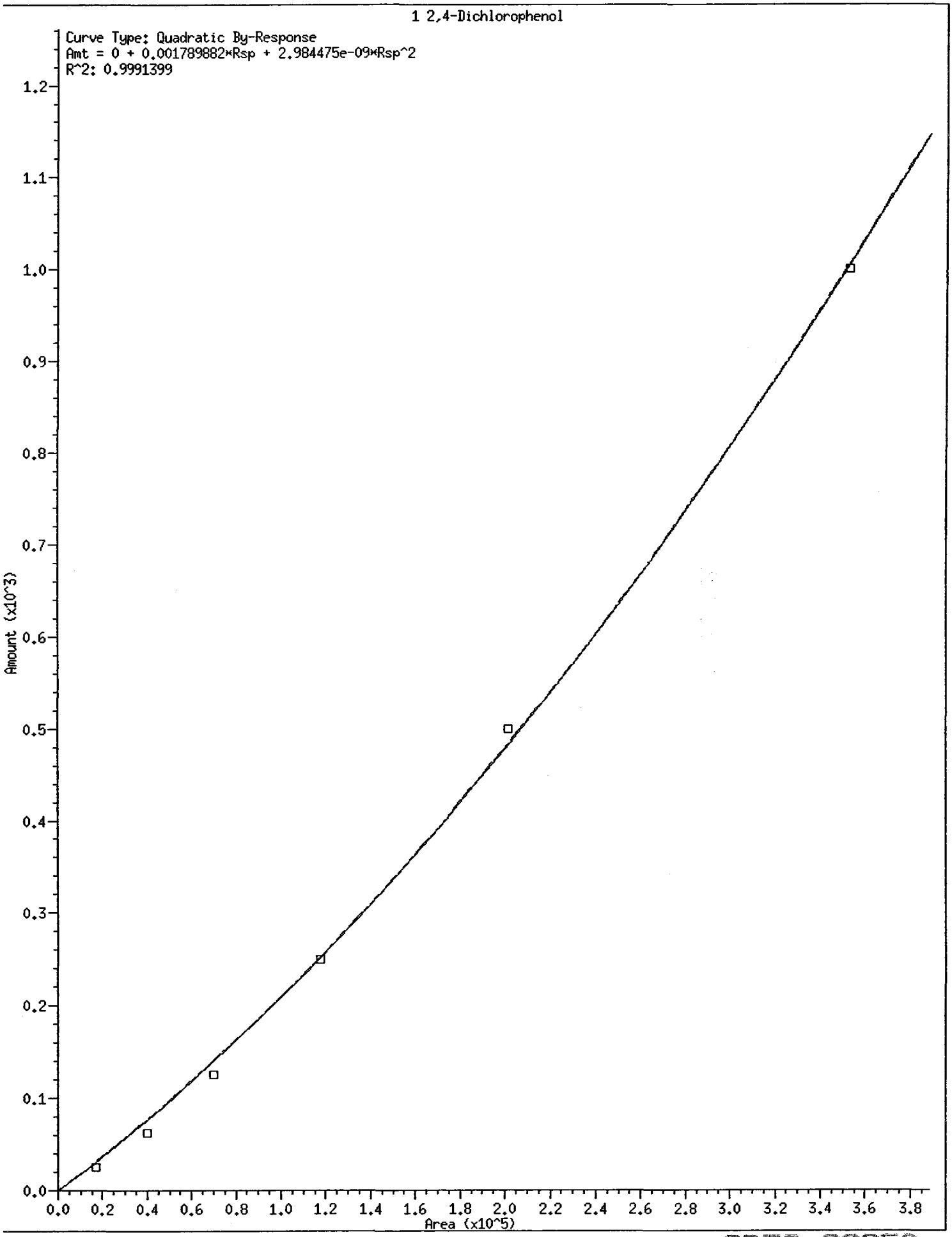
	Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
1	2,4-Dichlorophenol	673	644	558	469	404	353	517	25.095	<-
2	2,4,6-Trichlorophenol	12707	11051	9817	8689	7872	7374	9585	21.163	<-
3	2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	8776	16.599	
4	2,4,5-Trichlorophenol	6561	5514	5743	4686	4241	3751	5082	20.536	<-
5	2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	6077	16.433	
6	2,3,5,6-Tetrachlorophenol	15518	14554	13607	12505	11993	11056	13206	12.631	
8	2,3,4,5-Tetrachlorophenol	12818	11723	10909	9693	8548	7877	10261	18.508	
9	Pentachlorophenol	18833	17561	16239	14693	13334	12576	15539	15.706	
$ 7	2,4,6-Tribromophenol (surr)	13920	13228	12507	11556	10717	10527	12076	11.373	

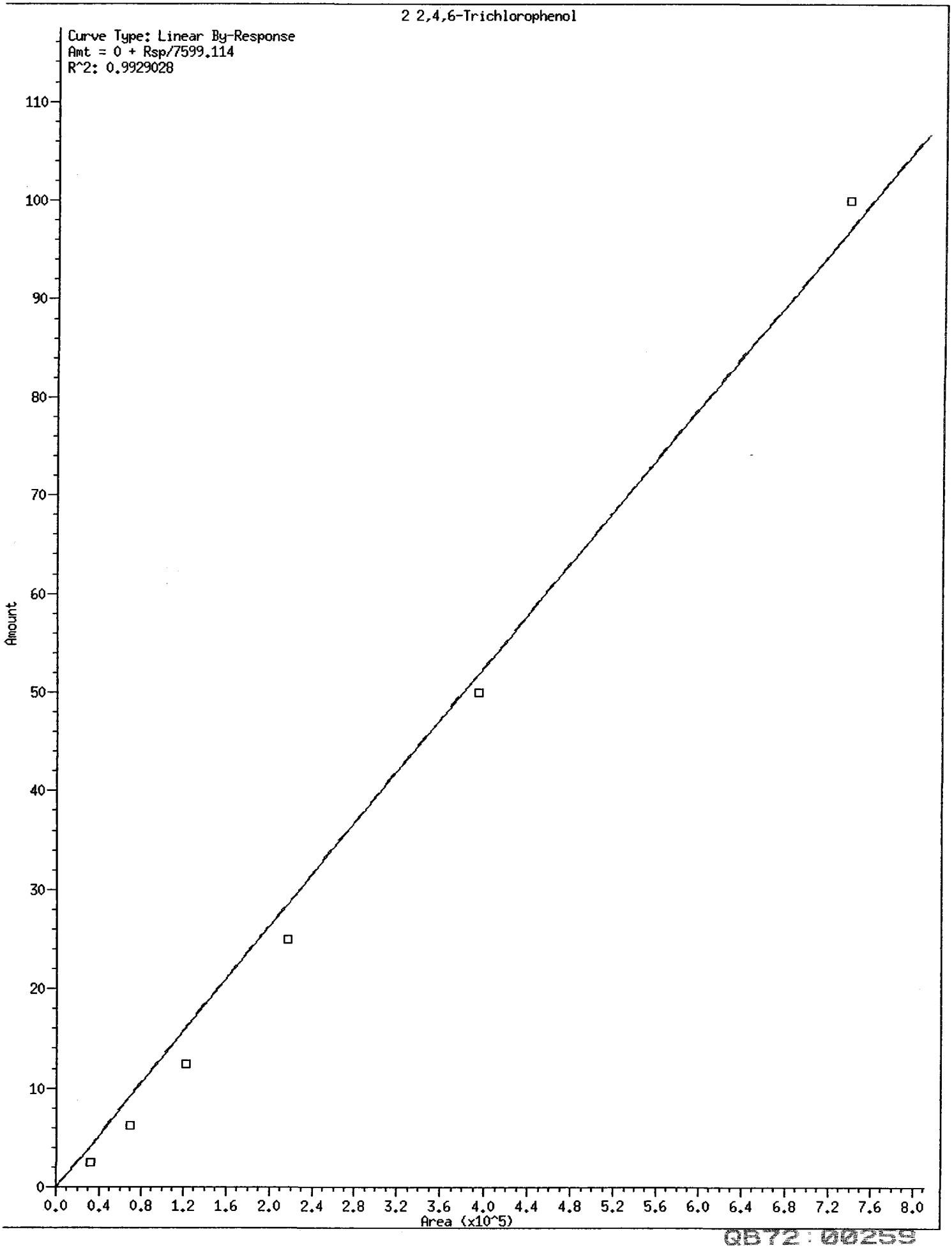
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

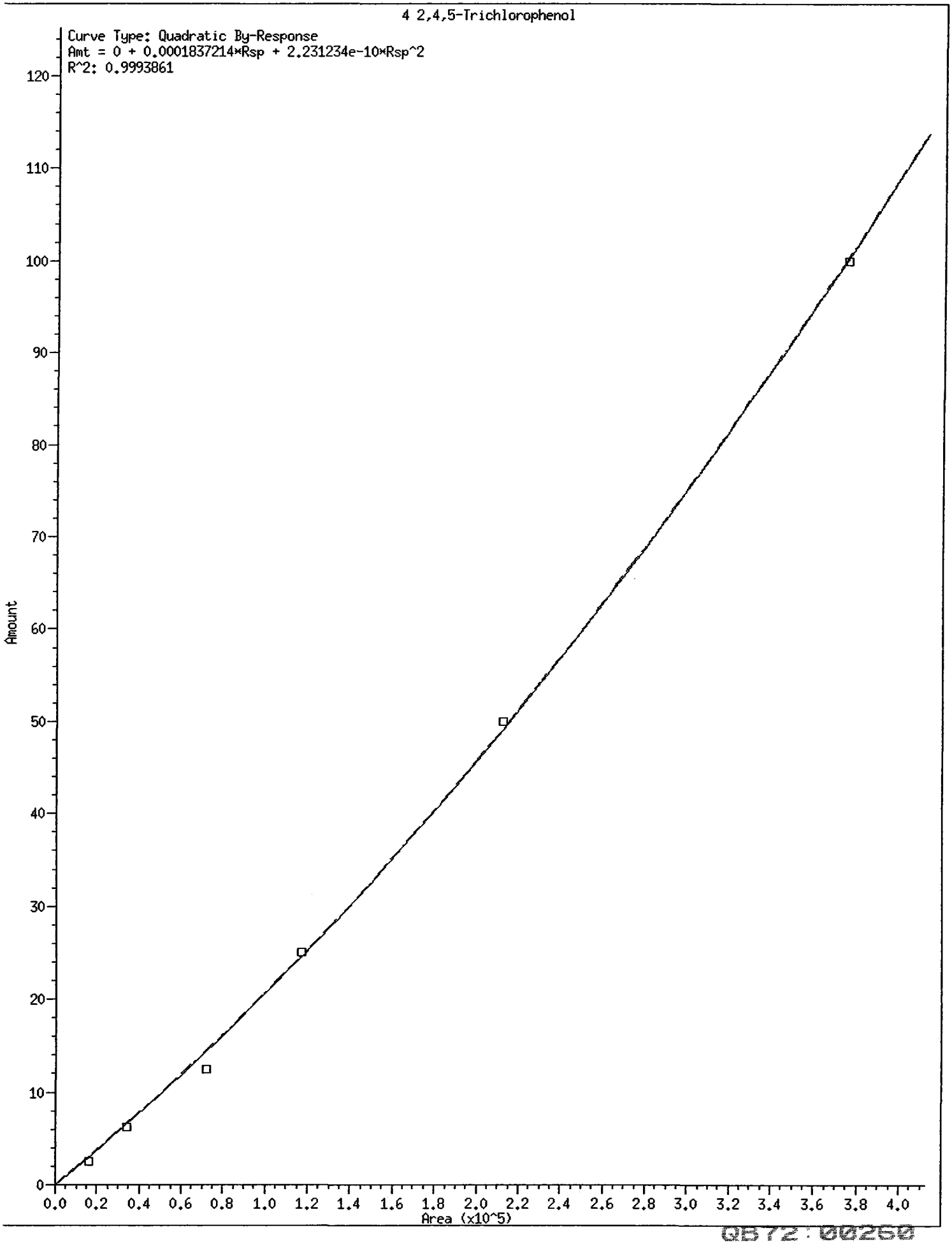
Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCP.m
Cal Date : 22-Oct-2009 11:10 aron
Curve Type : Average

Average %RSD Results.
Calculated Average %RSD = 17.56055
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.


1 2,4-Dichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.001789882*Rsp + 2.984475e-09*Rsp^2
R^2: 0.9991399
Amount (x10^3)
Area (x10^5)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8


2 2,4,6-Trichlorophenol
Curve Type: Linear By-Response
Amt = 0 + Rsp/7599.114
R^2: 0.9929028
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
0.0
0.4
0.8
1.2
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8
7.2
7.6
8.0

GB72:00259


4 2,4,5-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.0001837214*Rsp + 2.231234e-10*Rsp^2
R^2: 0.9993861
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0

QB72:00260

0972:0025

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091021.b/FPCP.m
Cal Date : 23-Oct-2009 11:18 aron

Calibration File Names:
Level 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A010.d
Level 2: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A011.d
Level 3: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A012.d
Level 4: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A009.d
Level 5: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A013.d
Level 6: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A014.d

	Compound	2 Level 1	6 Level 2	12 Level 3	25 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1	2,4-Dichlorophenol	16819	40263	69803	117243	201819	353265	QUAD	0.000e+00	0.00179	2.984e-09	0.99914
2	2,4,6-Trichlorophenol	31767	69066	122711	217230	393586	737425	LINR	0.000e+00	7599		0.99290
3	2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	AVRG		8776		16.59946
4	2,4,5-Trichlorophenol	16402	34462	71784	117139	212054	375055	QUAD	0.000e+00	0.00018	2.231e-10	0.99939
5	2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	AVRG		6077		16.43273
6	2,3,5,6-Tetrachlorophenol	15518	14554	13607	12505	11993	11056	AVRG		13206		12.63104
8	2,3,4,5-Tetrachlorophenol	12818	11723	10909	9693	8548	7877	AVRG		10261		18.50805
9	Pentachlorophenol	18833	17561	16239	14693	13334	12576	AVRG		15539		15.70600
$ 7	2,4,6-Tribromophenol (surr)	13920	13228	12507	11556	10717	10527	AVRG		12076		11.37346

GBT2 09292

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091021.b/FPCP.m
Cal Date : 23-Oct-2009 11:18 aron

Average %RSD Results.
Calculated Average %RSD = 15.20846
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

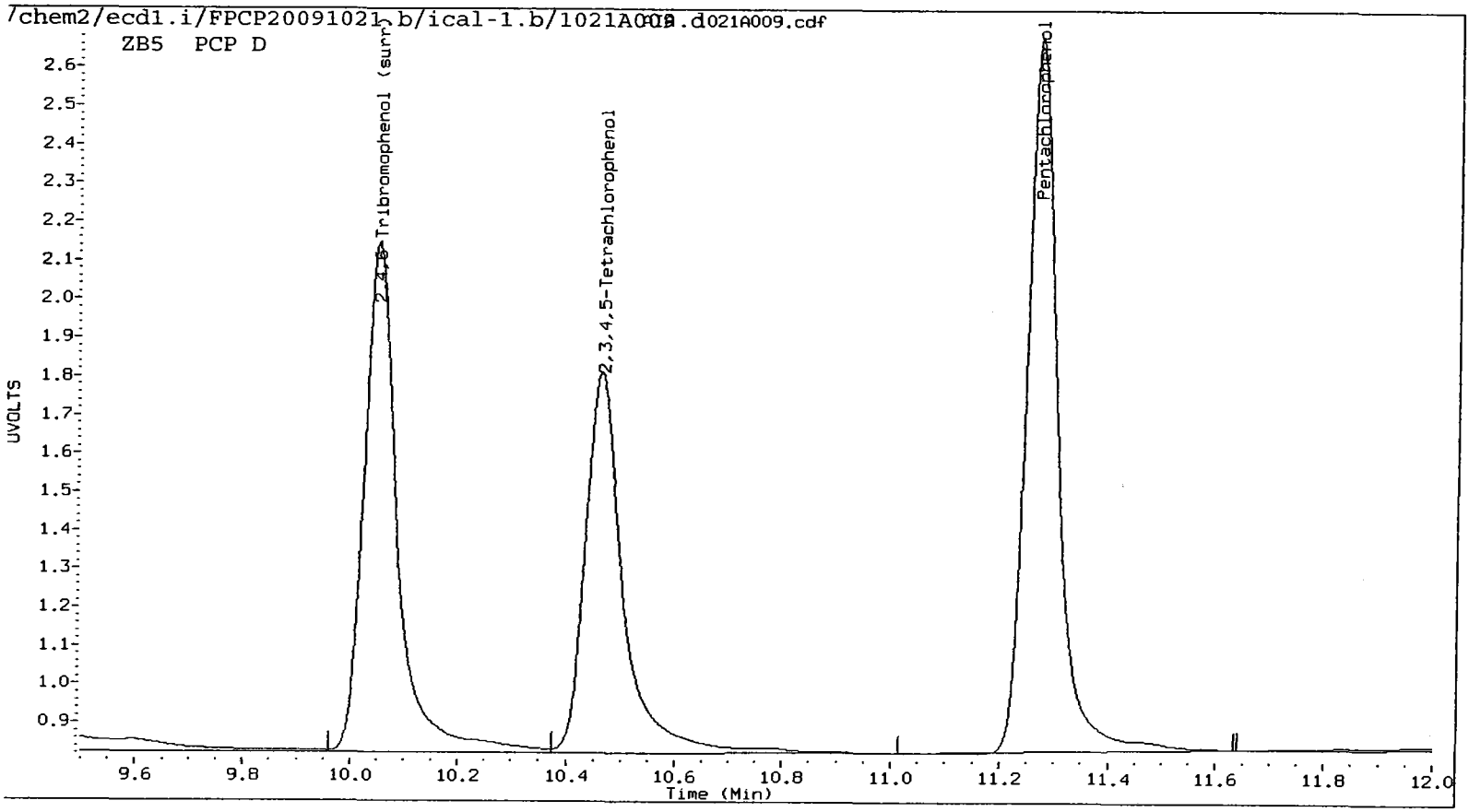
Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A009.d ARI ID: PCP D
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A009.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 16:33
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.271	0.000	367330	11.695	0.000	383997	23.6387	23.6974	0.2	Pentachlorophenol
7.293	0.000	217230	7.352	0.000	222315	28.5862	23.3266	20.3	2,4,6-Trichlorophenol
7.648	0.000	205876	7.883	0.000	230697	23.4592	24.9272	6.1	2,3,6-Trichlorophenol
8.258	0.000	117139	8.620	0.000	125809	24.5825	24.3414	1.0	2,4,5-Trichlorophenol
8.826	0.000	142230	9.398	0.000	176218	23.4058	25.0437	6.8	2,3,4-Trichlorophenol
9.038	0.000	312635	9.295	0.000	317417	23.6744	23.7047	0.1	2,3,5,6-Tetrachlorophenol
10.462	0.000	242318	11.159	0.000	243787	23.6148	23.6808	0.3	2,3,4,5-Tetrachlorophenol
6.917	0.000	117243	7.177	0.000	117023	250.8755	252.0921	0.5	2,4-Dichlorophenol
10.050	0.000	288892	10.680	0.000	308677	23.9	23.9	0.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	95.7	95.7

QB72:00263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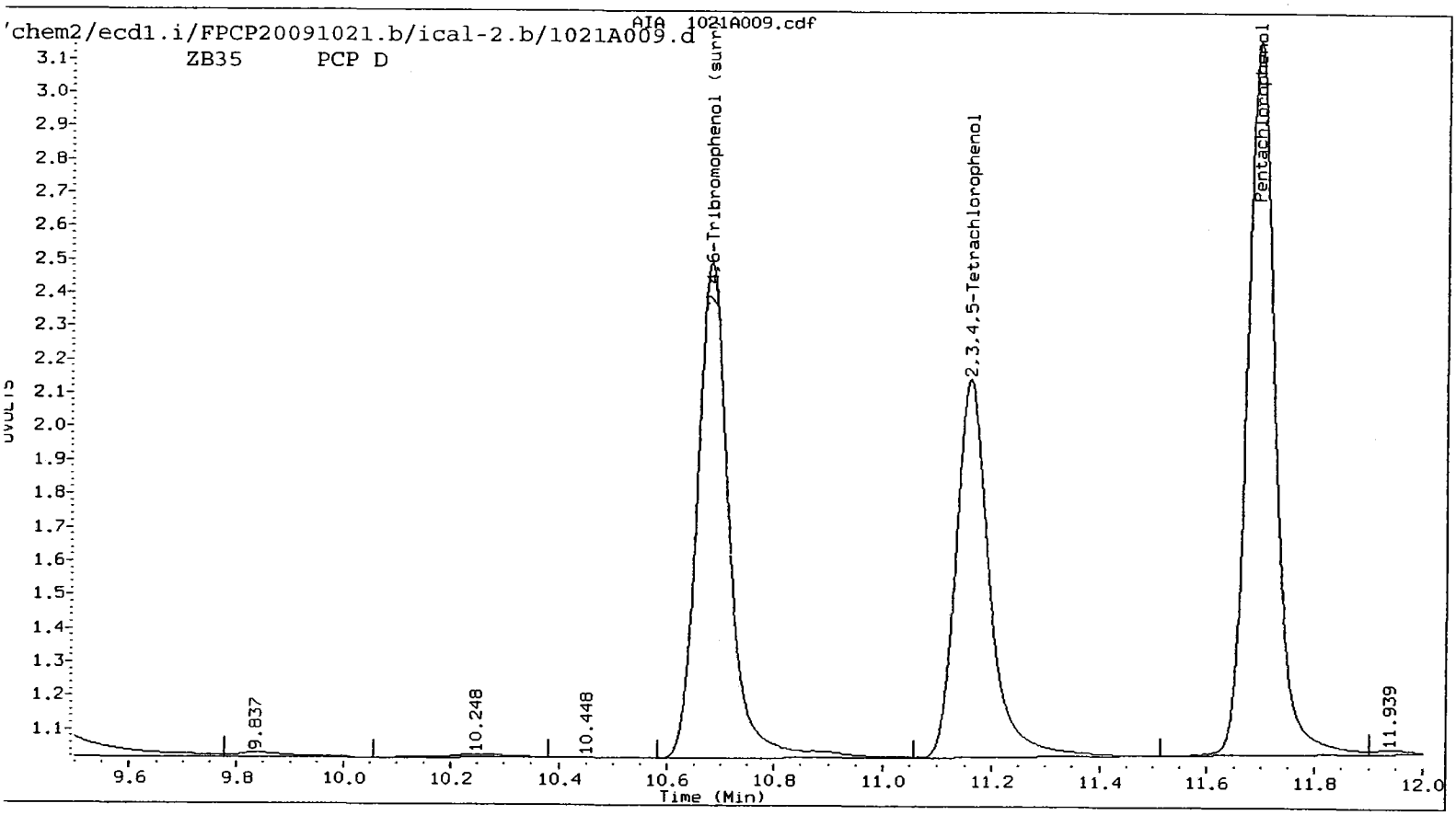
ZB5 PCP D
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVOLTS
Time (Min)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AIA 1021A009.cdf
ZB35 PCP D
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.837
10.248
10.448
11.939
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

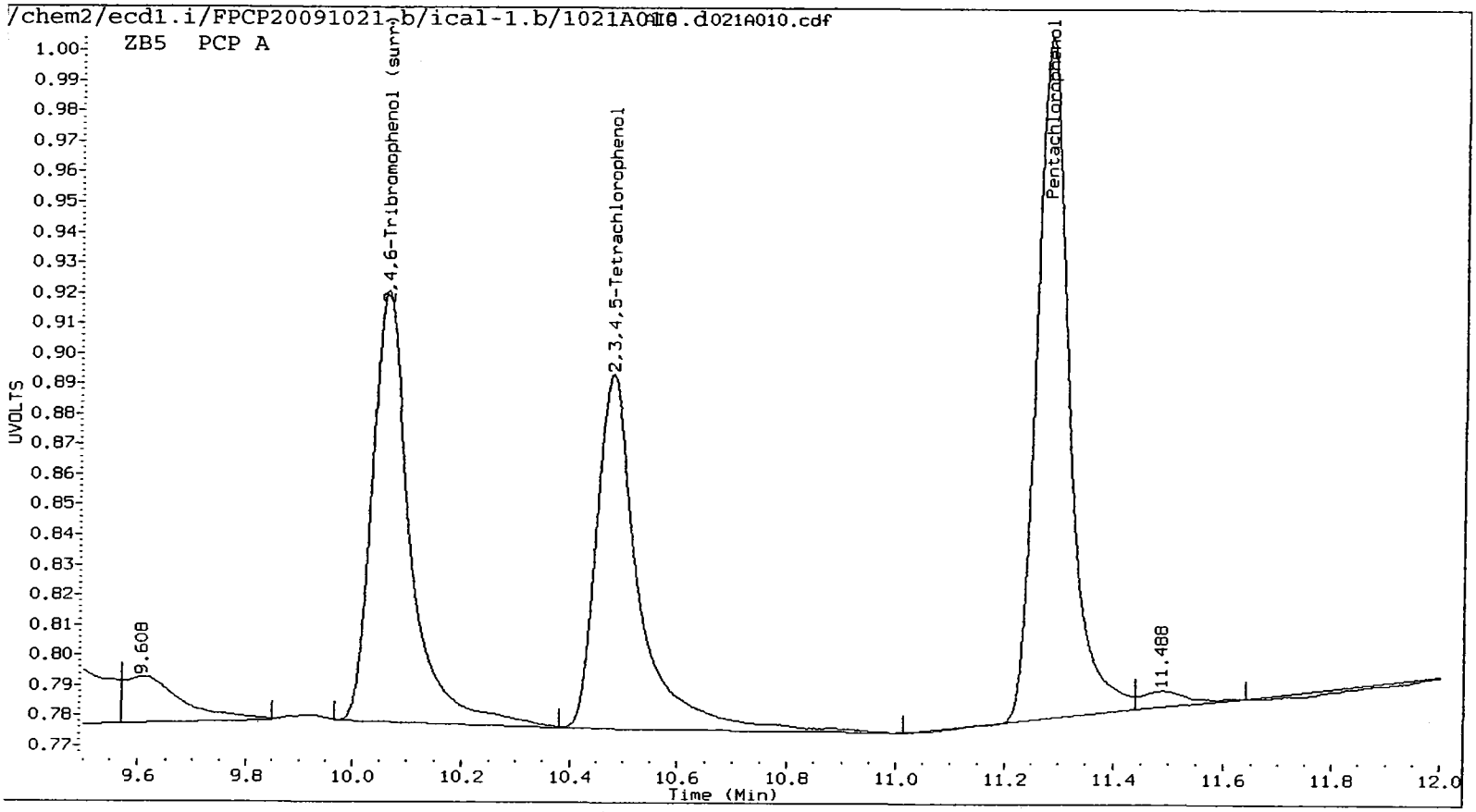
Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A010.d ARI ID: PCP A
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A010.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 16:53
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.279	0.008	47083	11.699	0.004	48259	2.8087	2.7844	0.9	Pentachlorophenol
7.292	-0.001	31767	7.351	-0.001	29494	3.6317	2.8510	24.1	2,4,6-Trichlorophenol
7.647	-0.002	27047	7.882	-0.001	27277	2.8390	2.7089	4.7	2,3,6-Trichlorophenol
8.270	0.012	16402	8.626	0.006	19509	3.4813	3.8444	9.9	2,4,5-Trichlorophenol
8.845	0.020	18180	9.410	0.011	24231	2.8053	3.4202	19.8	2,3,4-Trichlorophenol
9.041	0.002	38795	9.296	0.001	39693	2.7688	2.7783	0.3	2,3,5,6-Tetrachlorophenol
10.478	0.015	32044	11.168	0.009	30207	2.8470	2.7669	2.9	2,3,4,5-Tetrachlorophenol
6.917	-0.001	16819	7.177	0.000	17700	35.6445	37.5265	5.1	2,4-Dichlorophenol
10.061	0.011	34800	10.686	0.006	36772	2.7	2.7	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	10.9	10.9

QB72:00265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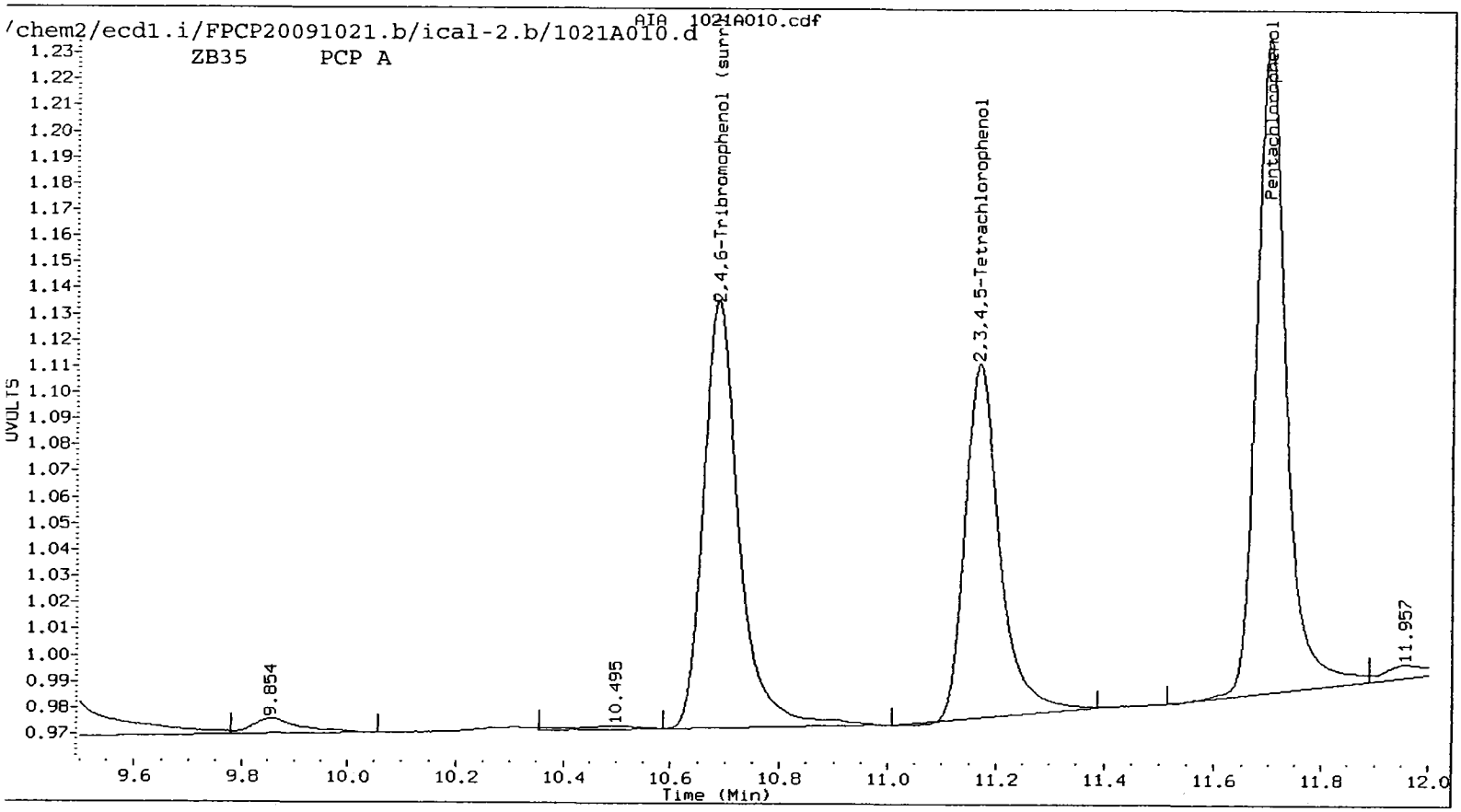
1021A010.cdf
ZB5 PCP A
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.608
11.488
UVOLTS
Time (Min)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AIA 1021A010.cdf
ZB35 PCP A
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.854
10.495
11.957
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

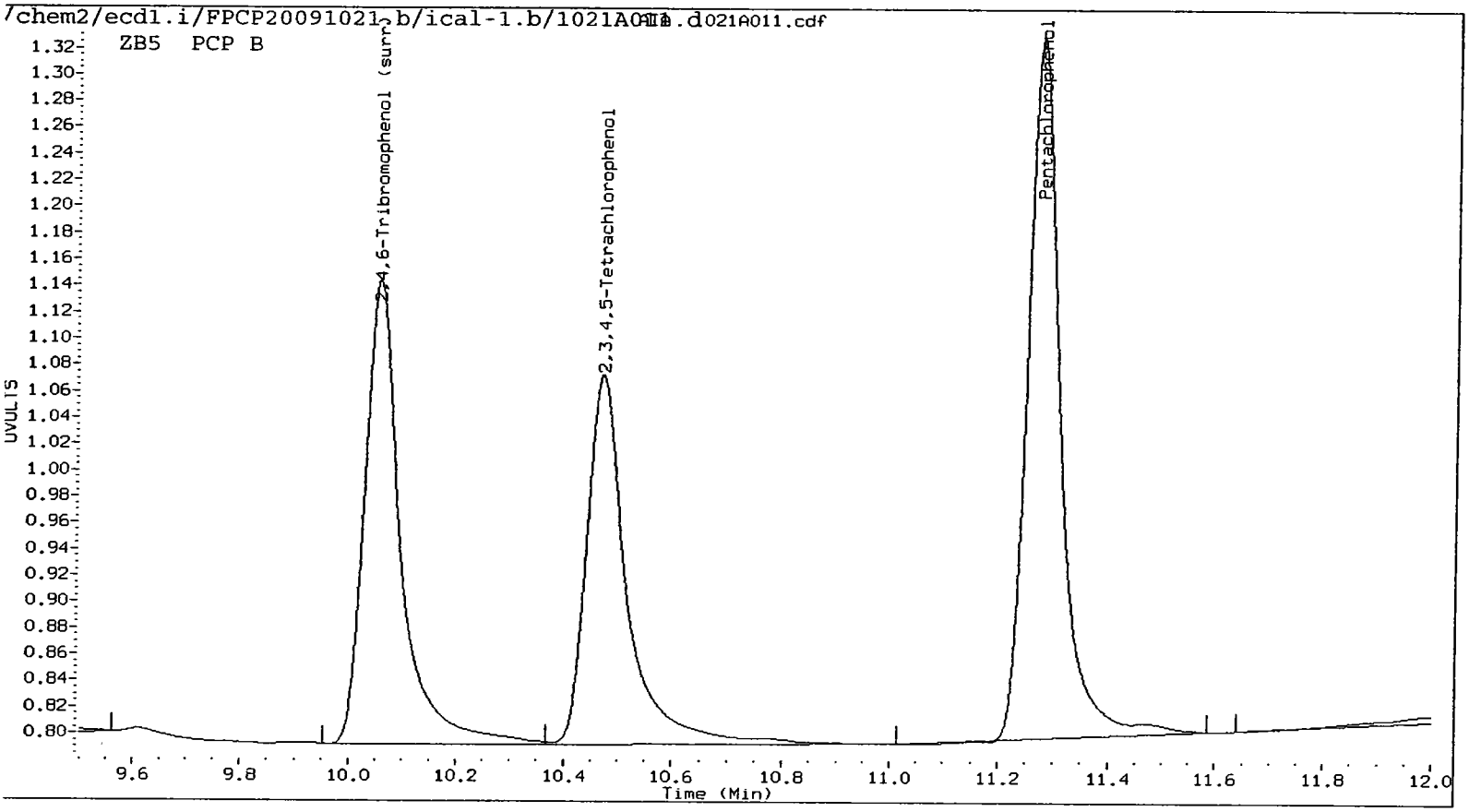
Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A011.d ARI ID: PCP B
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 17:13
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.275	0.004	109754	11.696	0.001	112156	6.4451	6.3957	0.8	Pentachlorophenol
7.291	-0.002	69066	7.350	-0.002	67317	7.7476	6.4191	18.8	2,4,6-Trichlorophenol
7.645	-0.003	62285	7.881	-0.002	63108	6.4390	6.2616	2.8	2,3,6-Trichlorophenol
8.262	0.004	34462	8.623	0.003	43595	6.0940	6.2584	2.7	2,4,5-Trichlorophenol
8.837	0.012	44152	9.404	0.006	56589	6.6144	6.2625	5.5	2,3,4-Trichlorophenol
9.038	-0.001	90965	9.295	0.000	91612	6.4093	6.3573	0.8	2,3,5,6-Tetrachlorophenol
10.470	0.007	73270	11.164	0.005	73060	6.4209	6.5380	1.8	2,3,4,5-Tetrachlorophenol
6.915	-0.002	40263	7.176	-0.001	39225	63.2816	62.2651	1.6	2,4-Dichlorophenol
10.054	0.005	82674	10.682	0.002	87382	6.4	6.4	0.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	25.6	25.6

QB72:00267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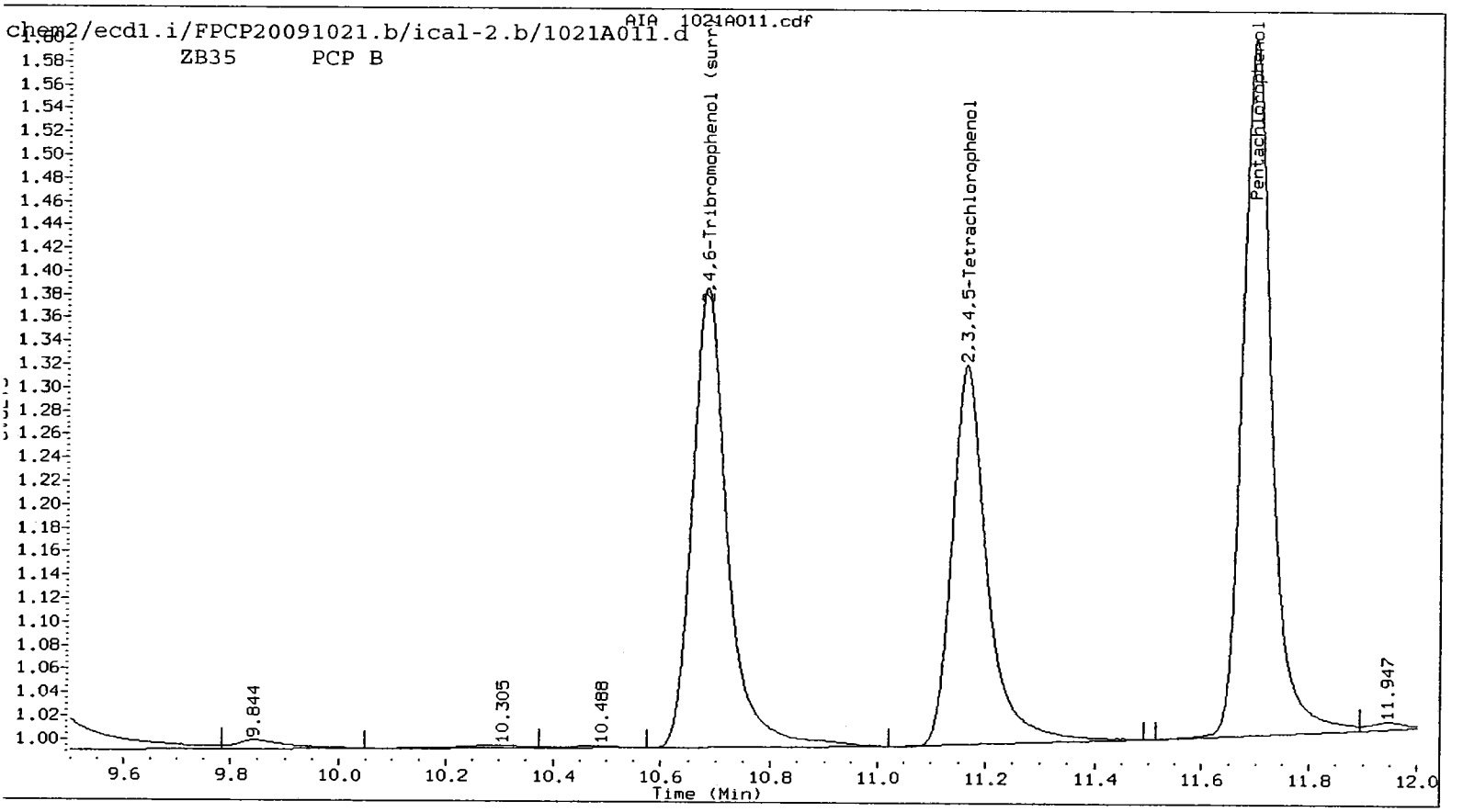
AIA 1021A011.cdf
ZB5 PCP B
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVVOLTS
Time (Min)


chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d
AIA 1021A011.cdf
ZB35 PCP B
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.844
10.305
10.488
11.947
Time (Min)

QB72:00268

Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

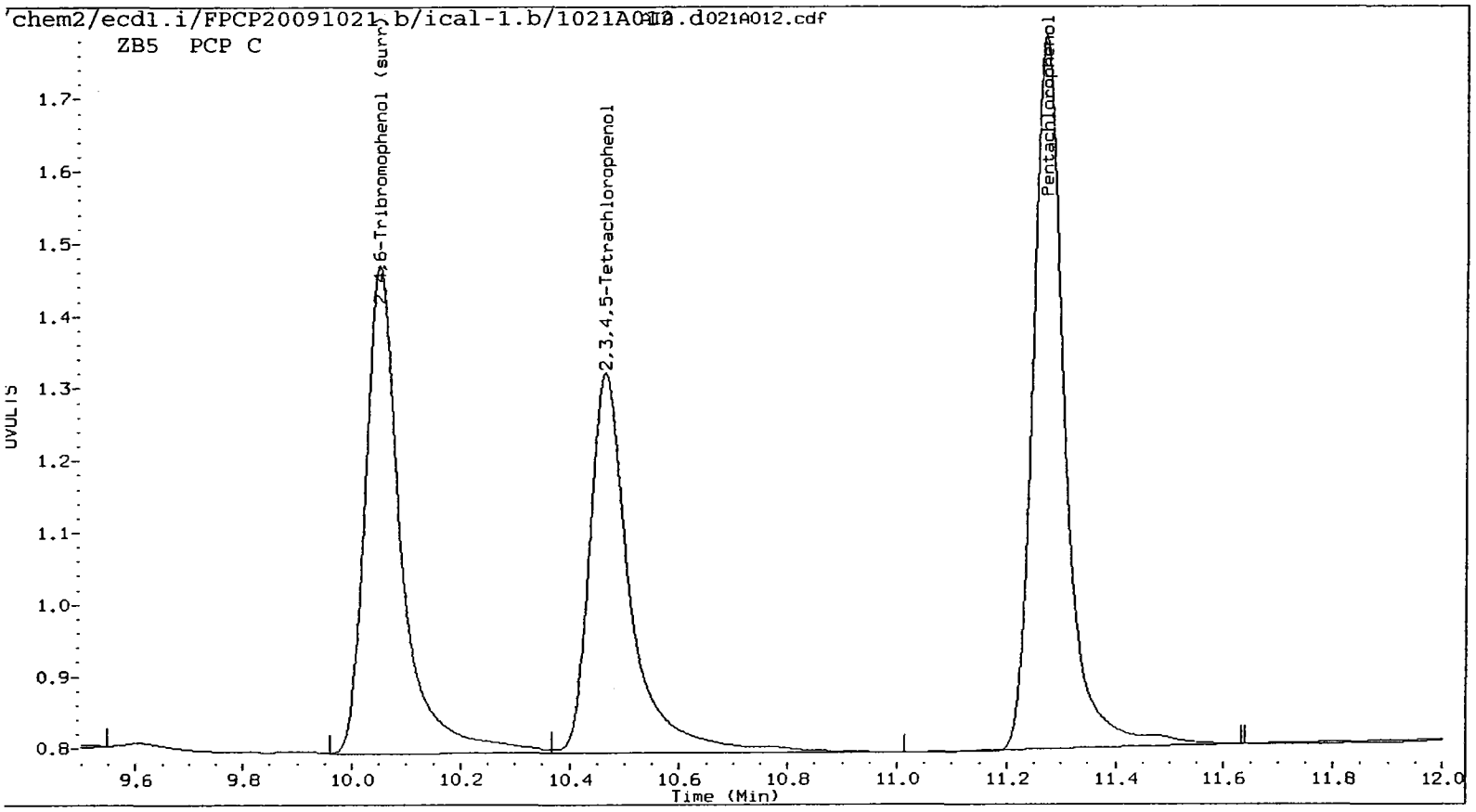
Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A012.d ARI ID: PCP C
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A012.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 17:33
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.272	0.001	202983	11.696	0.001	208842	12.0598	12.0516	0.1	Pentachlorophenol
7.290	-0.003	122711	7.351	-0.001	122881	13.4853	11.9038	12.5	2,4,6-Trichlorophenol
7.645	-0.003	113716	7.882	-0.001	116643	11.9335	11.7918	1.2	2,3,6-Trichlorophenol
8.258	-0.001	71784	8.622	0.002	76979	13.1700	12.6449	4.1	2,4,5-Trichlorophenol
8.830	0.004	80139	9.401	0.003	101861	12.1254	12.4877	2.9	2,3,4-Trichlorophenol
9.037	-0.002	170093	9.295	0.000	171254	12.1094	12.0322	0.6	2,3,5,6-Tetrachlorophenol
10.465	0.002	136364	11.163	0.003	135310	12.0829	12.2042	1.0	2,3,4,5-Tetrachlorophenol
6.914	-0.004	69803	7.176	-0.001	68497	124.8517	123.9132	0.8	2,4-Dichlorophenol
10.051	0.001	156332	10.682	0.002	165413	12.2	12.2	0.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	48.8	48.8

QB72:00269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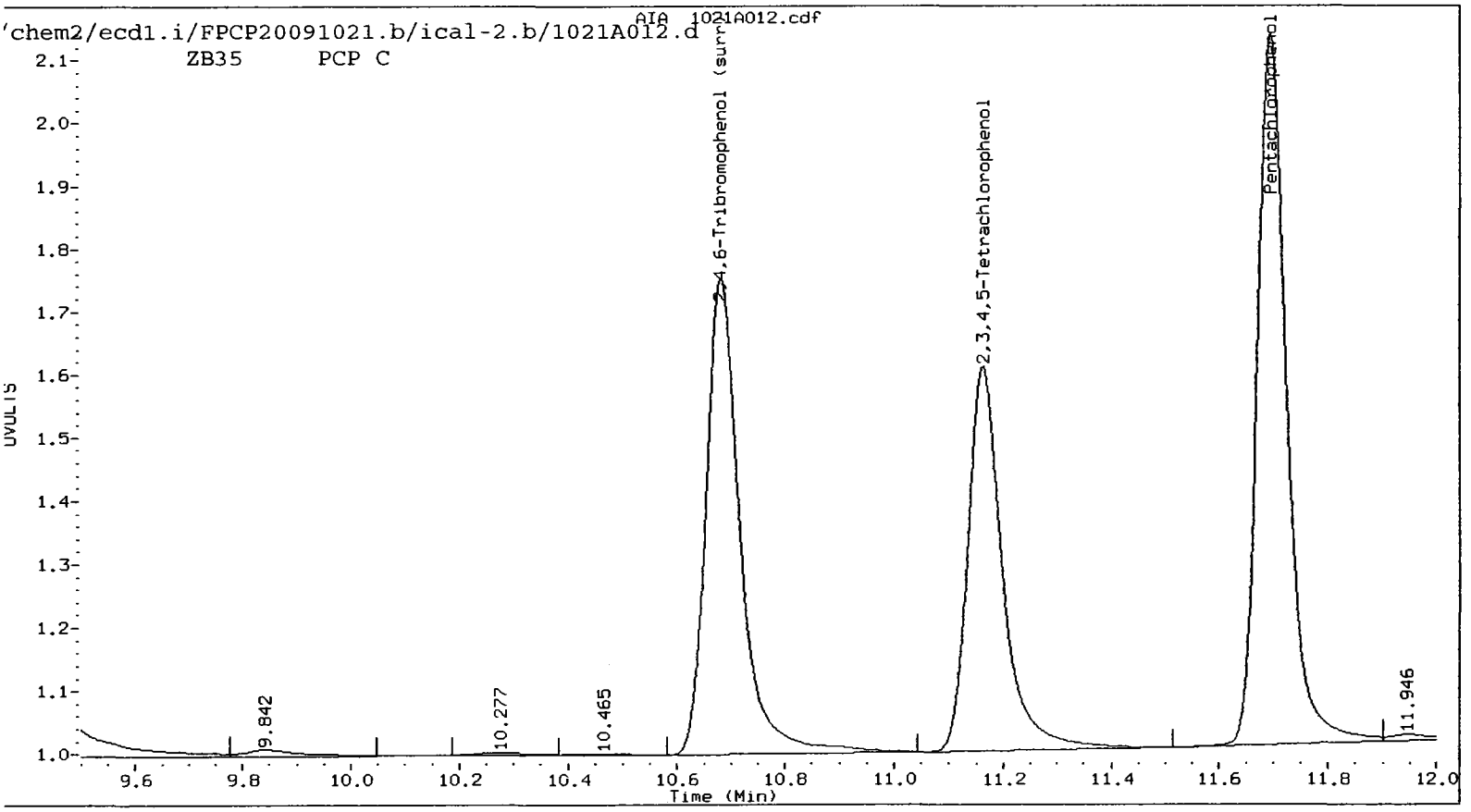
AIA 1021A012.cdf
ZB5 PCP C
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVUL IS
Time (Min)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AIA 1021A012.cdf
ZB35 PCP C
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.842
10.277
10.465
11.946
UVUL IS
Time (Min)

Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

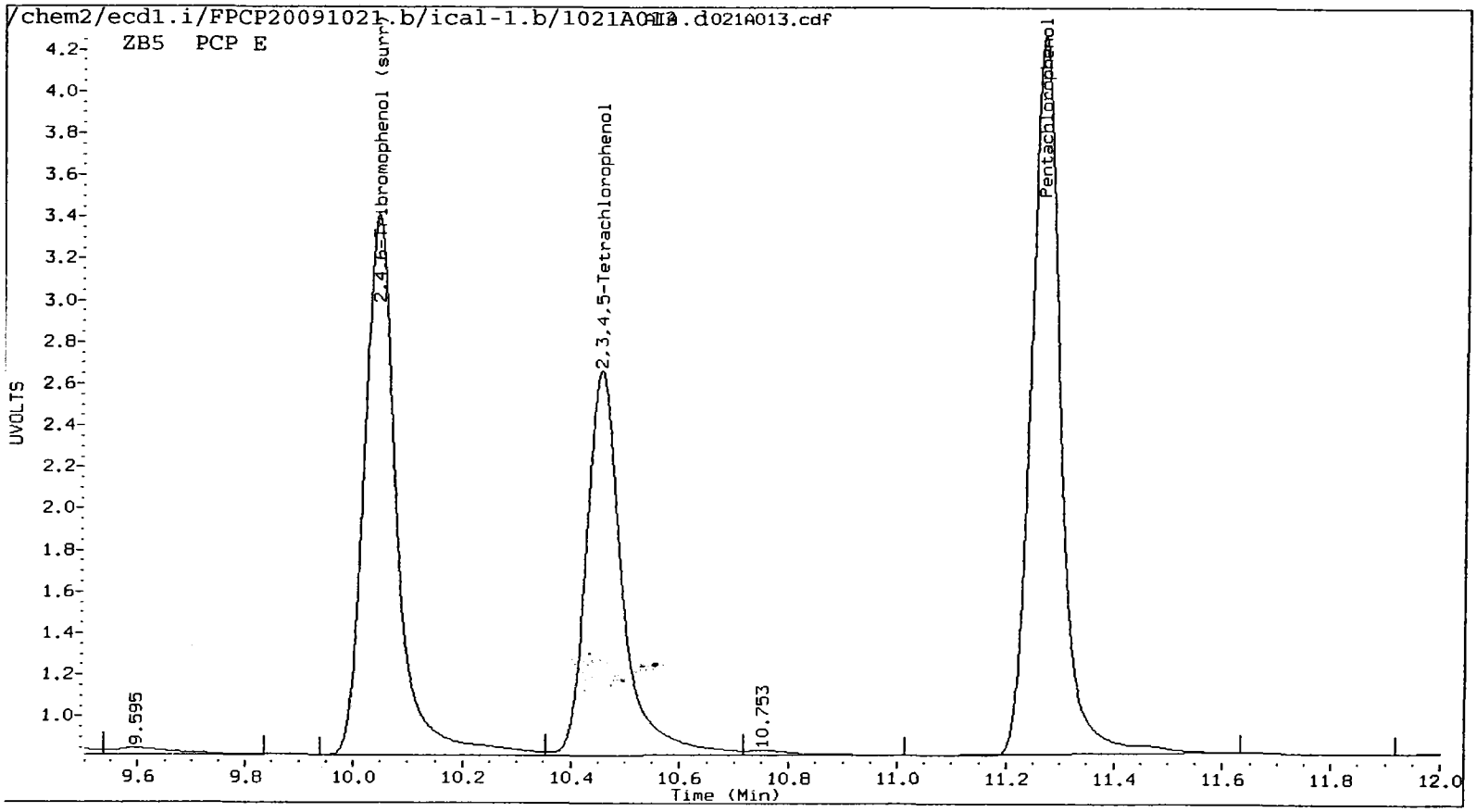
Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A013.d ARI ID: PCP E
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A013.d Client ID:
Method: /chem2/ecd1.i/FPCP.m Injection Date: 21-OCT-2009 17:53
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.266	-0.005	666704	11.691	-0.003	711873	41.3282	42.6000	3.0	Pentachlorophenol
7.290	-0.003	393586	7.350	-0.002	408854	47.9413	41.3247	14.8	2,4,6-Trichlorophenol
7.645	-0.004	373912	7.881	-0.002	410494	41.0037	42.9591	4.7	2,3,6-Trichlorophenol
8.251	-0.008	212054	8.617	-0.003	227473	50.1833	50.2897	0.2	2,4,5-Trichlorophenol
8.814	-0.012	258615	9.393	-0.005	313504	40.9085	50.1589	20.3	2,3,4-Trichlorophenol
9.034	-0.004	599646	9.293	-0.002	595350	43.9764	43.2421	1.7	2,3,5,6-Tetrachlorophenol
10.454	-0.008	427389	11.156	-0.004	448986	39.8012	42.0963	5.6	2,3,4,5-Tetrachlorophenol
6.913	-0.005	201819	7.174	-0.003	202273	501.8098	501.6570	0.0	2,4-Dichlorophenol
10.042	-0.008	535832	10.676	-0.004	581984	43.3	44.2	2.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	173.1	176.6

QB72:00271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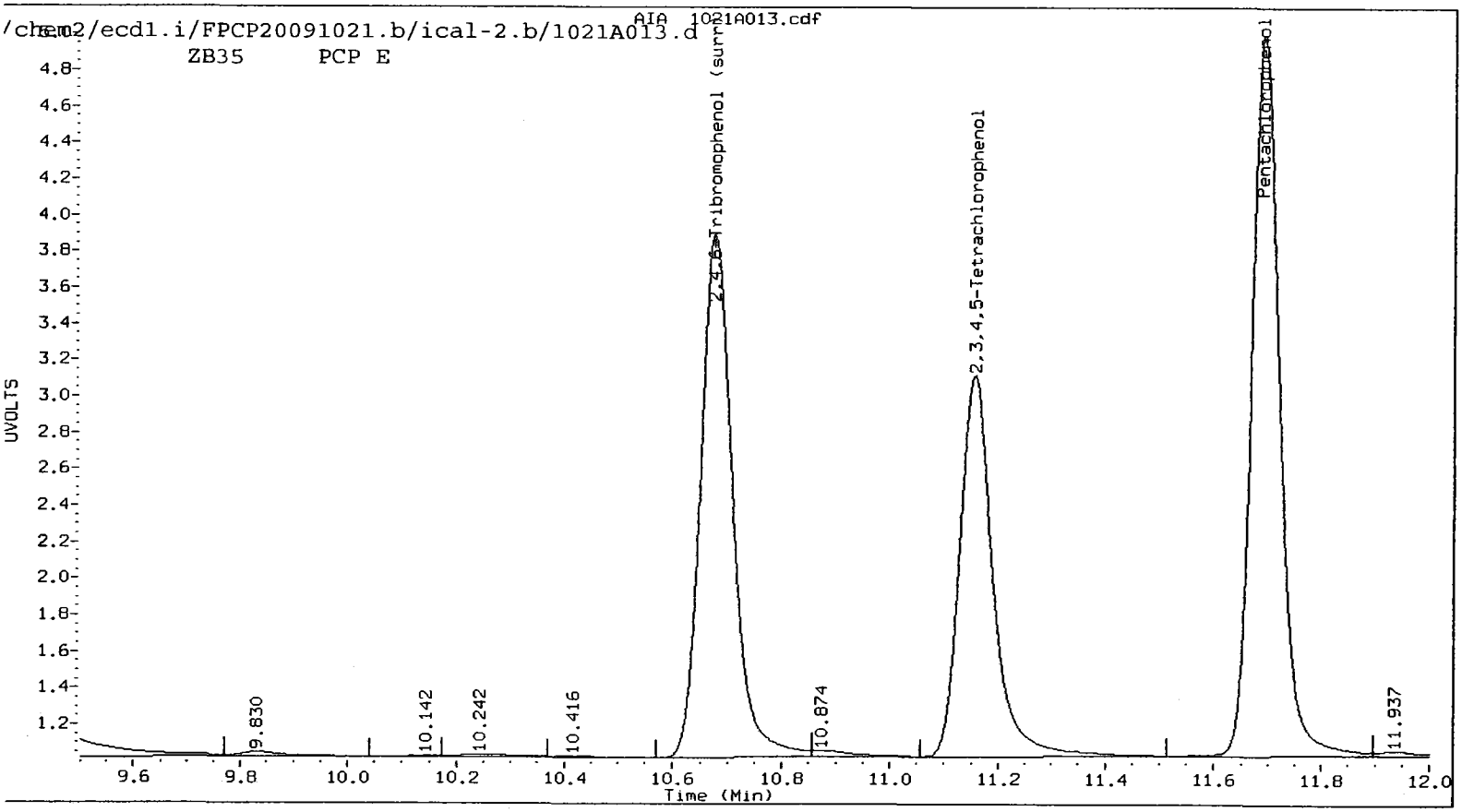
AIA 1021A013.cdf
ZB5 PCP E
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.595
10.753
UVOLTS
Time (Min)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AIA 1021A013.cdf
ZB35 PCP E
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.830
10.142
10.242
10.416
10.874
11.937
UVOLTS
Time (Min)

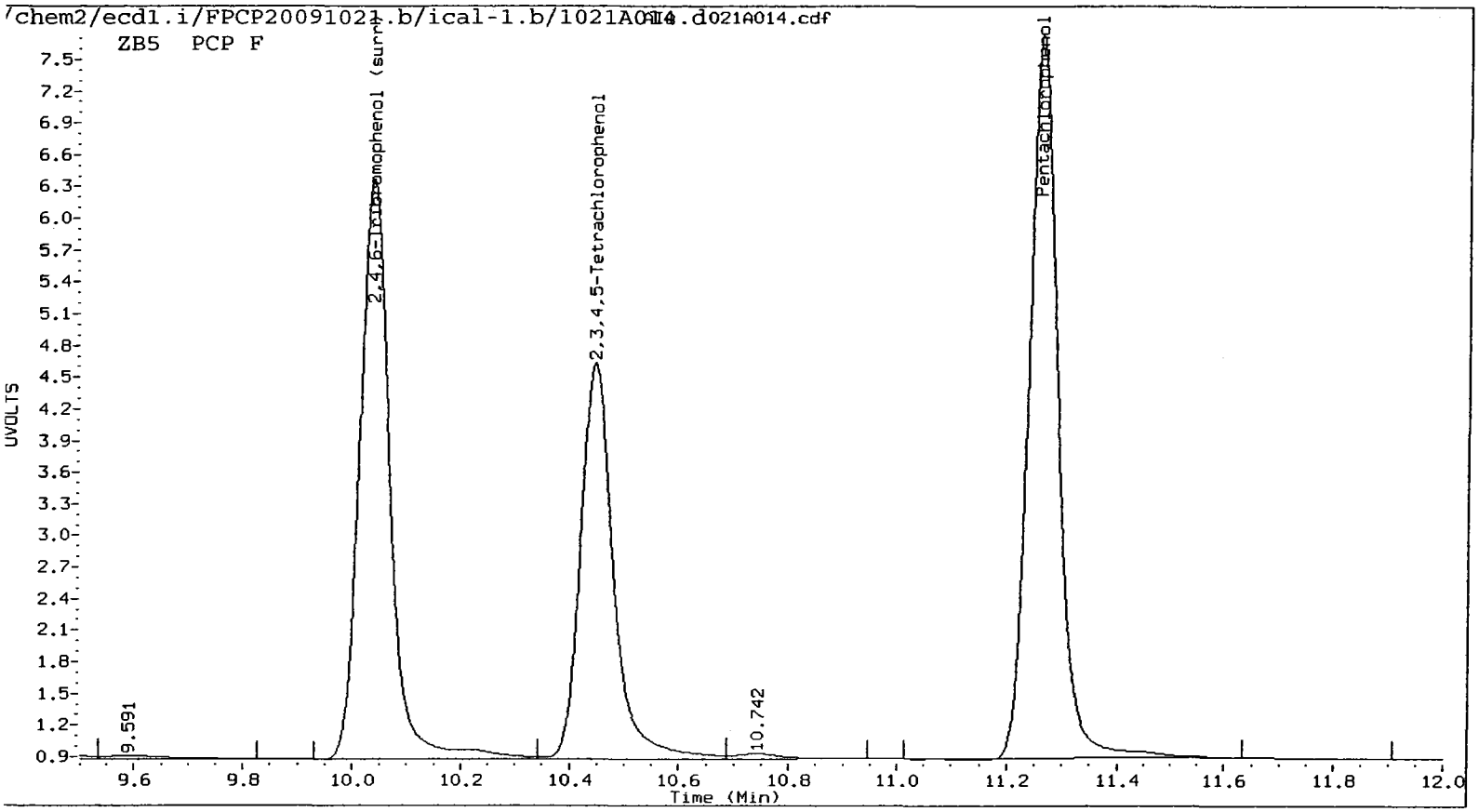
Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A014.d ARI ID: PCP F
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A014.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 18:12
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.261	-0.010	1257631	11.688	-0.007	1367192	80.9320	84.3727	4.2	Pentachlorophenol
7.289	-0.004	737425	7.349	-0.003	771470	97.0409	80.9472	18.1	2,4,6-Trichlorophenol
7.643	-0.005	706063	7.880	-0.003	775172	80.4545	83.7586	4.0	2,3,6-Trichlorophenol
8.246	-0.013	375055	8.613	-0.007	400339	100.2916	100.3638	0.1	2,4,5-Trichlorophenol
8.803	-0.022	485129	9.386	-0.012	560518	79.8342	100.3518	22.8	2,3,4-Trichlorophenol
9.031	-0.007	1105561	9.291	-0.004	1150368	83.7189	85.9095	2.6	2,3,5,6-Tetrachloropheno
10.444	-0.018	787735	11.149	-0.010	843983	76.7676	81.9822	6.6	2,3,4,5-Tetrachlorophenol
6.911	-0.007	353265	7.172	-0.004	357799	1004.7537	1004.6702	0.0	2,4-Dichlorophenol
10.036	-0.013	1052673	10.672	-0.008	1148400	87.2	89.0	2.1	2,4,6-Tribromophenol (sur

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	348.7	356.1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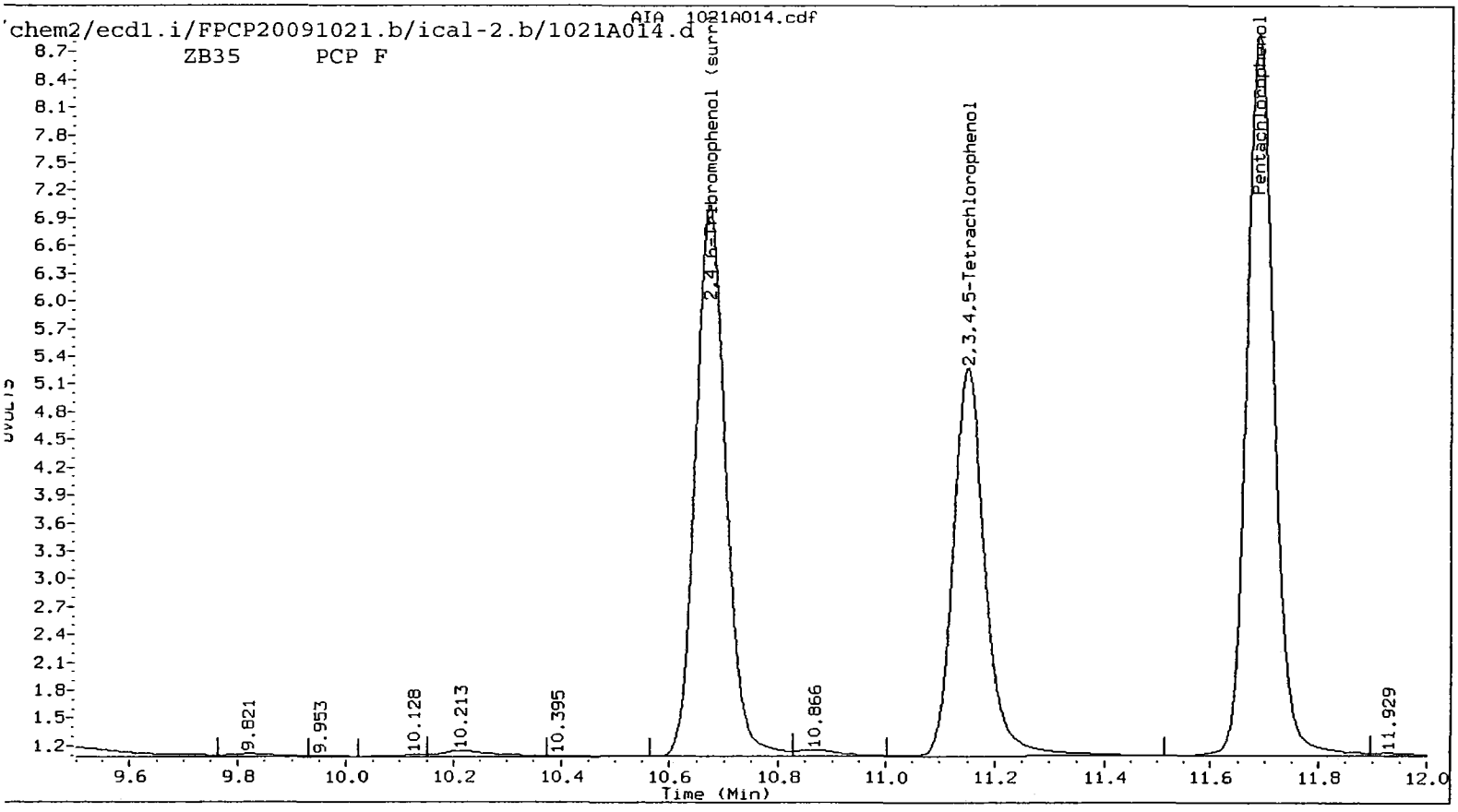
AIA 1021A014.cdf
ZB5 PCP F
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.591
10.742
UVOLTS
Time (Min)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AIA 1021A014.cdf
ZB35 PCP F
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.821
9.953
10.128
10.213
10.395
10.866
11.929
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

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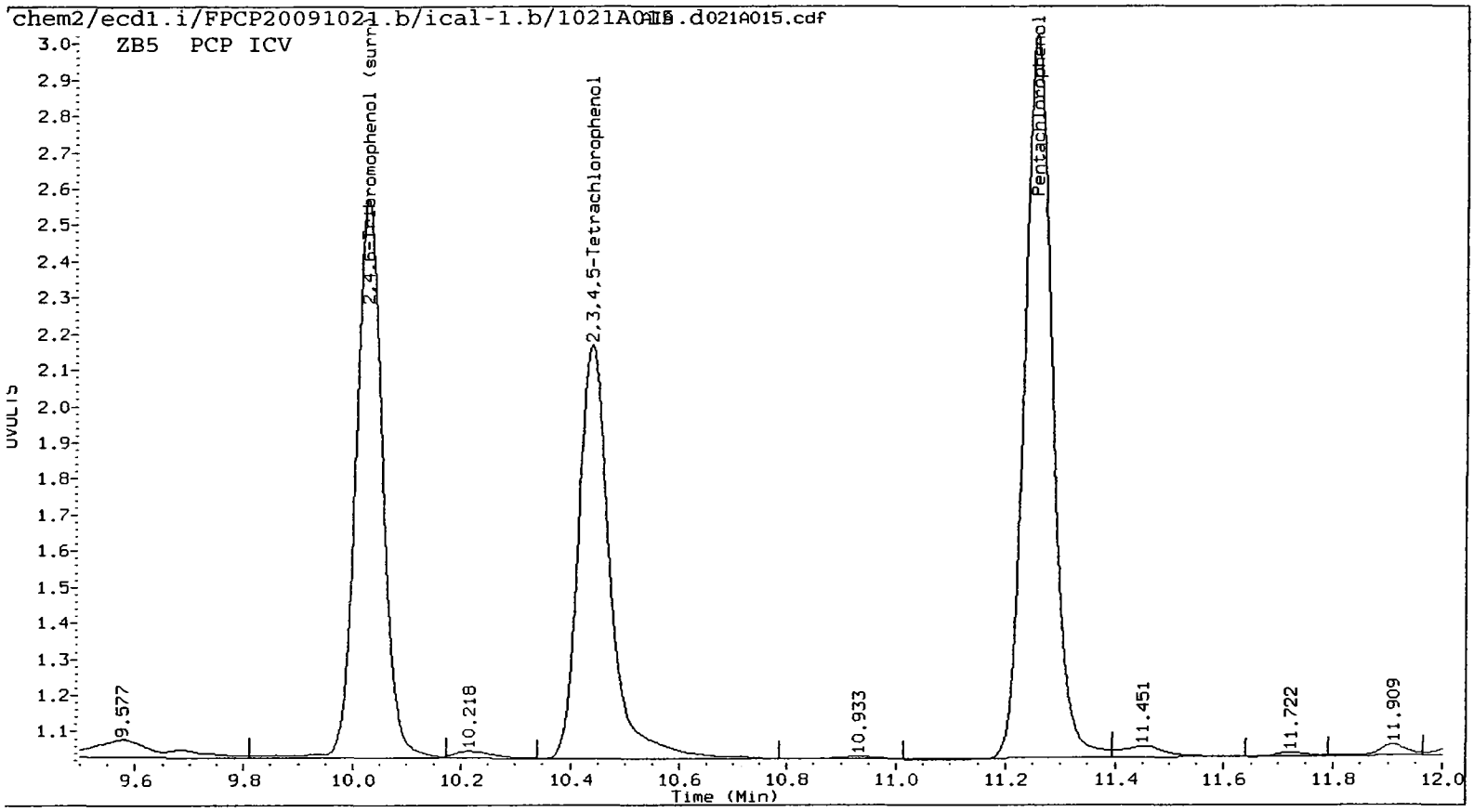
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 18:32
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.257	-0.015	352965	11.686	-0.009	385654	22.7143	23.7996	4.7	Pentachlorophenol
7.287	-0.007	214813	7.348	-0.003	229189	28.2682	24.0479	16.1	2,4,6-Trichlorophenol
7.640	-0.008	205185	7.879	-0.004	209509	23.3804	22.6378	3.2	2,3,6-Trichlorophenol
8.241	-0.018	118561	8.611	-0.009	121192	24.9186	23.3315	6.6	2,4,5-Trichlorophenol
8.795	-0.030	136414	9.382	-0.016	145492	22.4487	20.2476	10.3	2,3,4-Trichlorophenol
9.027	-0.011	286061	9.289	-0.006	314482	21.6621	23.4855	8.1	2,3,5,6-Tetrachlorophenol
10.439	-0.023	229183	11.146	-0.014	236673	22.3347	22.9898	2.9	2,3,4,5-Tetrachlorophenol
6.909	-0.009	111314	7.172	-0.005	109143	236.2190	232.7819	1.5	2,4-Dichlorophenol
10.028	-0.022	264698	10.667	-0.012	309286	21.9	24.0	9.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	90.9	95.2
2,4,6-Trichlorophenol	113.1	96.2
2,3,6-Trichlorophenol	93.5	90.6
2,4,5-Trichlorophenol	99.7	93.3
2,3,4-Trichlorophenol	89.8	81.0
2,3,5,6-Tetrachlorophenol	86.6	93.9
2,3,4,5-Tetrachlorophenol	89.3	92.0
2,4-Dichlorophenol	94.5	93.1
2,4,6-TBP (surr)	43.8	48.0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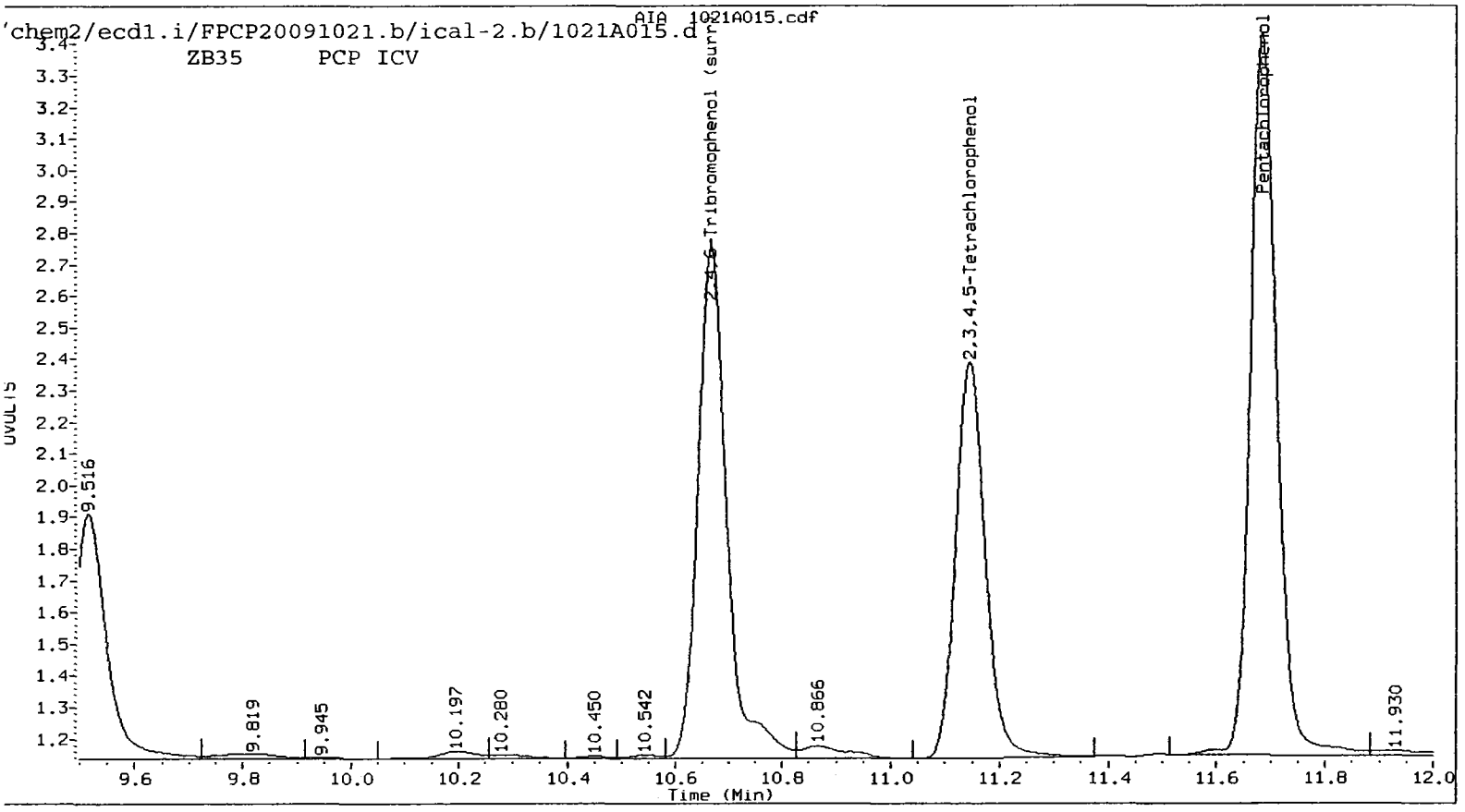
AIA 1021A015.cdf
ZB5 PCP ICV
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.577
10.218
10.933
11.451
11.722
11.909
UVUL1S
Time (Min)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ZB35 PCP ICV
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.516
9.819
9.945
10.197
10.280
10.450
10.542
10.866
11.930
UVUL1S
Time (Min)

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP): Date Analyzed :12/29/09

Lab Sample ID (PCP): PCP CCAL Time Analyzed :1921

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.28	11.20	11.34	22.9	25.0	-8.4
2,4,6-Trichlorophenol	7.30	7.22	7.36	26.2	25.0	4.8
2,3,6-Trichlorophenol	7.66	7.58	7.72	21.1	25.0	-15.6
2,4,5-Trichlorophenol	8.27	8.19	8.33	21.2	25.0	-15.2
2,3,4-Trichlorophenol	8.84	8.76	8.90	21.0	25.0	-16.0
2,3,5,6-Tetrachlorophenol	9.05	8.97	9.11	22.3	25.0	-10.8
2,3,4,5-Tetrachlorophenol	10.48	10.39	10.53	22.9	25.0	-8.4
2,4-Dichlorophenol	6.92	6.85	6.99	235	250	-6.0
2,4,6-Tribromophenol (surr	10.06	9.98	10.12	23.2	25.0	-7.2

AVERAGE %D = 10.3

FORM VII PCP

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP): Date Analyzed :12/29/09

Lab Sample ID (PCP): PCP CCAL Time Analyzed :1921

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.70	11.62	11.76	24.7	25.0	-1.2
2,4,6-Trichlorophenol	7.36	7.28	7.42	22.8	25.0	-8.8
2,3,6-Trichlorophenol	7.89	7.81	7.95	23.0	25.0	-8.0
2,4,5-Trichlorophenol	8.63	8.55	8.69	23.2	25.0	-7.2
2,3,4-Trichlorophenol	9.41	9.33	9.47	21.6	25.0	-13.6
2,3,5,6-Tetrachlorophenol	9.31	9.23	9.37	23.2	25.0	-7.2
2,3,4,5-Tetrachlorophenol	11.17	11.09	11.23	24.2	25.0	-3.2
2,4-Dichlorophenol	7.18	7.11	7.25	249	250	-0.4
2,4,6-Tribromophenol (surr	10.69	10.61	10.75	24.8	25.0	-0.8

AVERAGE %D = 5.6

FORM VII PCP

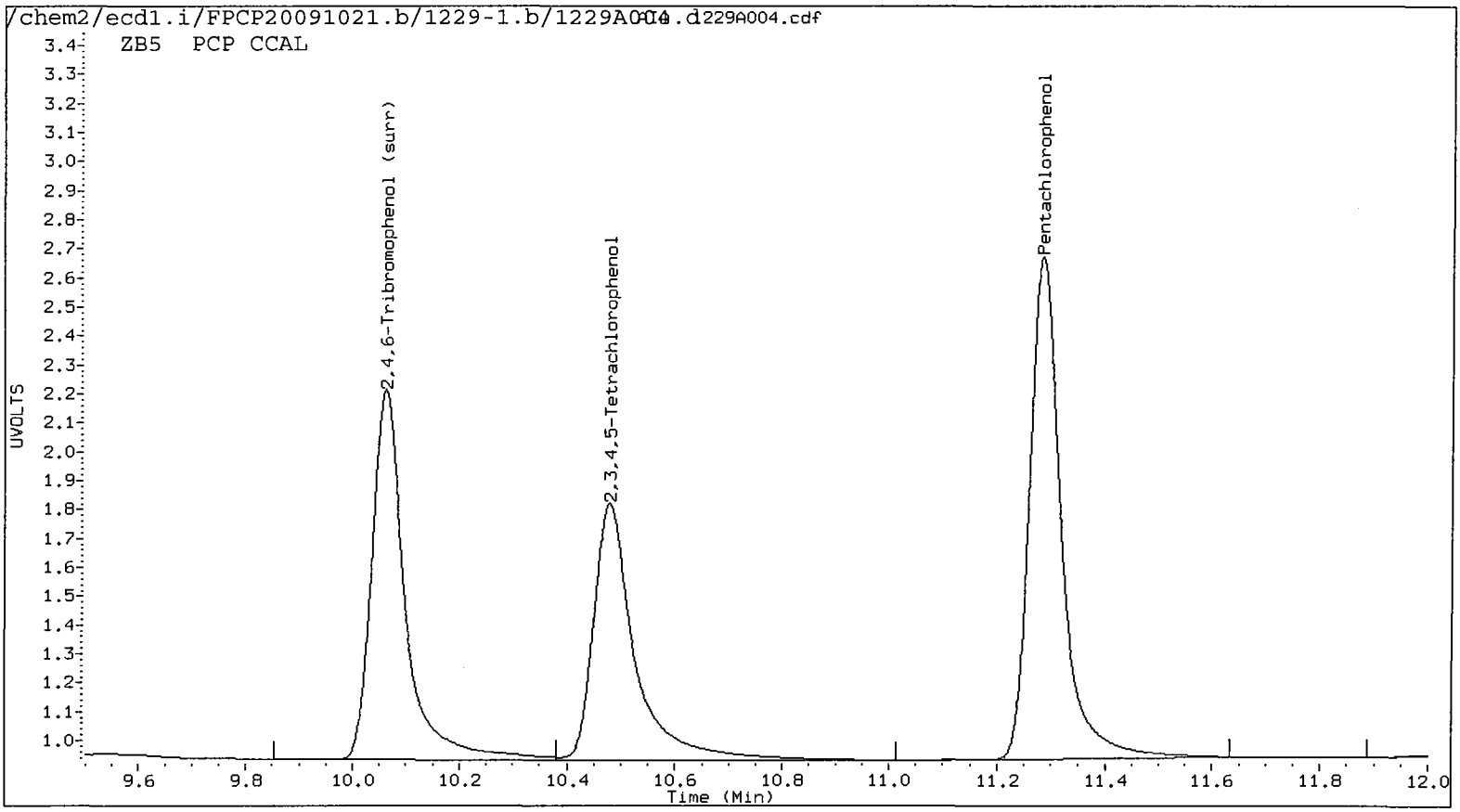
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A004.d ARI ID: PCP CCAL
Data file 2: /chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A004.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 29-DEC-2009 19:21
Compound Sublist: all Report Date: 01/06/2010 09:35
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.284	0.013	356278	11.705	0.010	400786	22.9275	24.7335	7.6	Pentachlorophenol
7.300	0.007	198751	7.358	0.007	217377	26.1546	22.8085	13.7	2,4,6-Trichlorophenol
7.655	0.007	184966	7.890	0.007	213058	21.0766	23.0213	8.8	2,3,6-Trichlorophenol
8.270	0.012	102595	8.631	0.012	120673	21.1977	23.2187	9.1	2,4,5-Trichlorophenol
8.836	0.010	127413	9.409	0.011	154309	20.9675	21.6053	3.0	2,3,4-Trichlorophenol
9.050	0.011	294671	9.306	0.010	310008	22.3141	23.1514	3.7	2,3,5,6-Tetrachlorophenol
10.479	0.016	235196	11.173	0.014	248915	22.9208	24.1790	5.3	2,3,4,5-Tetrachlorophenol
6.923	0.005	110657	7.184	0.007	115969	234.6099	249.4919	6.1	2,4-Dichlorophenol
10.062	0.012	280131	10.692	0.012	320376	23.2	24.8	6.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	91.7	98.9
2,4,6-Trichlorophenol	104.6	91.2
2,3,6-Trichlorophenol	84.3	92.1
2,4,5-Trichlorophenol	84.8	92.9
2,3,4-Trichlorophenol	83.9	86.4
2,3,5,6-Tetrachlorophenol	89.3	92.6
2,3,4,5-Tetrachlorophenol	91.7	96.7
2,4-Dichlorophenol	93.8	99.8
2,4,6-TBP (surr)	92.8	99.3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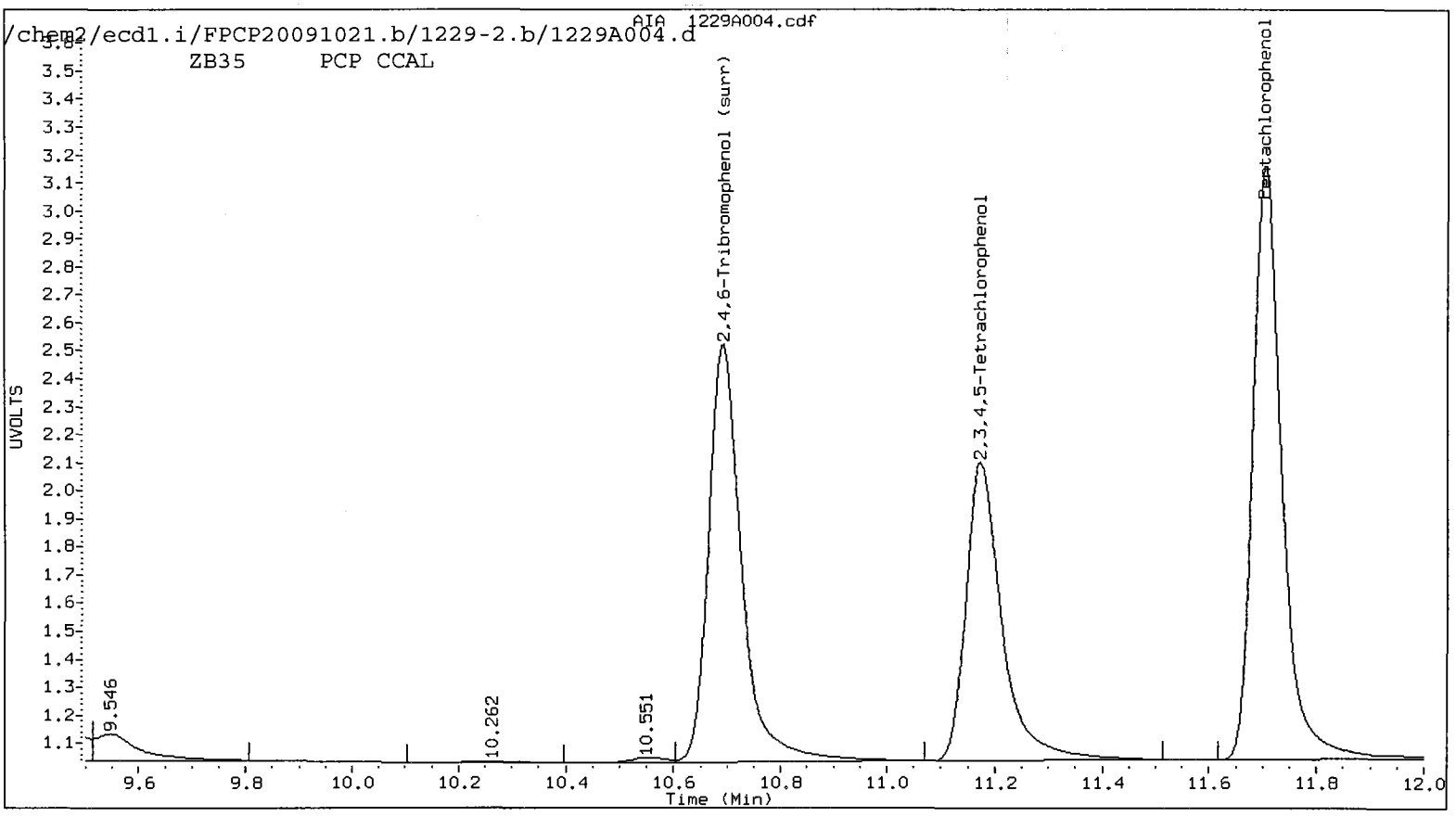
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVOLTS
Time (Min)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ZB35 PCP CCAL
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.546
10.262
10.551
UVOLTS
Time (Min)

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP): Date Analyzed :12/29/09

Lab Sample ID (PCP): PCP CCAL Time Analyzed :2200

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.28	11.20	11.34	23.2	25.0	-7.2
2,4,6-Trichlorophenol	7.30	7.22	7.36	26.4	25.0	5.6
2,3,6-Trichlorophenol	7.65	7.58	7.72	21.3	25.0	-14.8
2,4,5-Trichlorophenol	8.27	8.19	8.33	20.6	25.0	-17.6
2,3,4-Trichlorophenol	8.83	8.76	8.90	21.1	25.0	-15.6
2,3,5,6-Tetrachlorophenol	9.05	8.97	9.11	22.6	25.0	-9.6
2,3,4,5-Tetrachlorophenol	10.47	10.39	10.53	22.9	25.0	-8.4
2,4-Dichlorophenol	6.92	6.85	6.99	235	250	-6.0
2,4,6-Tribromophenol (surr	10.06	9.98	10.12	23.4	25.0	-6.4

AVERAGE %D = 10.1

FORM VII PCP

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD-SNIDER

ARI Job No.: QB72 Project: LORA LAKE APTS.

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP): Date Analyzed :12/29/09

Lab Sample ID (PCP): PCP CCAL Time Analyzed :2200

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.70	11.62	11.76	25.3	25.0	1.2
2,4,6-Trichlorophenol	7.36	7.28	7.42	23.4	25.0	-6.4
2,3,6-Trichlorophenol	7.89	7.81	7.95	23.7	25.0	-5.2
2,4,5-Trichlorophenol	8.63	8.55	8.69	23.7	25.0	-5.2
2,3,4-Trichlorophenol	9.41	9.33	9.47	21.9	25.0	-12.4
2,3,5,6-Tetrachlorophenol	9.30	9.23	9.37	23.9	25.0	-4.4
2,3,4,5-Tetrachlorophenol	11.17	11.09	11.23	24.6	25.0	-1.6
2,4-Dichlorophenol	7.18	7.11	7.25	257	250	2.8
2,4,6-Tribromophenol (surr	10.69	10.61	10.75	25.6	25.0	2.4

AVERAGE %D = 4.6

FORM VII PCP

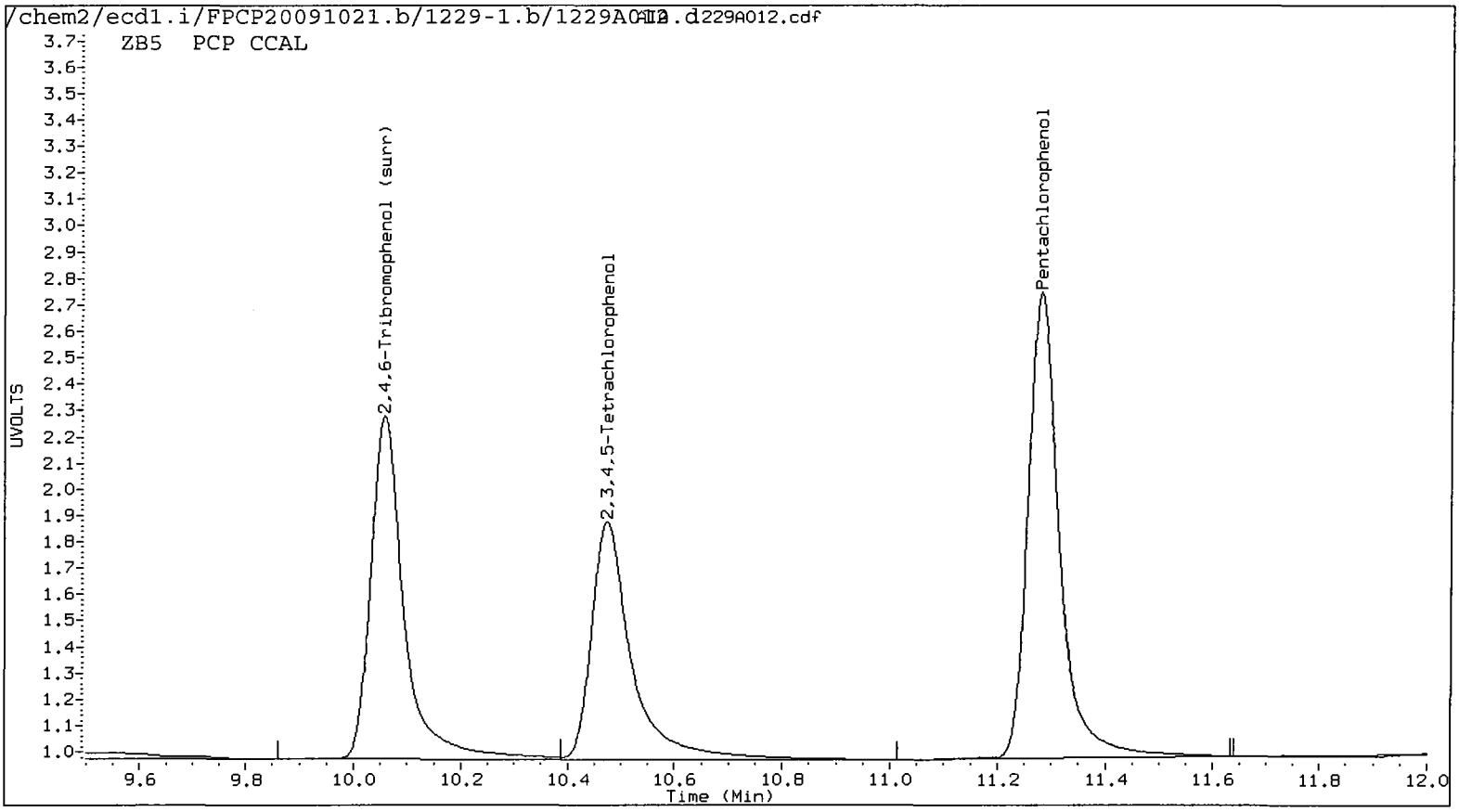
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A012.d ARI ID: PCP CCAL
Data file 2: /chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A012.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 29-DEC-2009 22:00
Compound Sublist: all Report Date: 01/06/2010 09:35
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.281	0.009	360821	11.703	0.009	410684	23.2199	25.3444	8.7	Pentachlorophenol
7.298	0.004	201033	7.357	0.005	222844	26.4548	23.3822	12.3	2,4,6-Trichlorophenol
7.653	0.005	187211	7.889	0.006	219127	21.3324	23.6771	10.4	2,3,6-Trichlorophenol
8.266	0.008	99849	8.629	0.009	123051	20.5691	23.7371	14.3	2,4,5-Trichlorophenol
8.831	0.005	128238	9.406	0.008	156221	21.1033	21.9017	3.7	2,3,4-Trichlorophenol
9.046	0.008	298461	9.304	0.009	319568	22.6011	23.8654	5.4	2,3,5,6-Tetrachlorophenol
10.474	0.012	235184	11.170	0.011	253230	22.9196	24.5981	7.1	2,3,4,5-Tetrachlorophenol
6.921	0.003	110933	7.182	0.006	118990	235.2857	256.9667	8.8	2,4-Dichlorophenol
10.058	0.008	282208	10.689	0.009	330175	23.4	25.6	9.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	92.9	101.4
2,4,6-Trichlorophenol	105.8	93.5
2,3,6-Trichlorophenol	85.3	94.7
2,4,5-Trichlorophenol	82.3	94.9
2,3,4-Trichlorophenol	84.4	87.6
2,3,5,6-Tetrachlorophenol	90.4	95.5
2,3,4,5-Tetrachlorophenol	91.7	98.4
2,4-Dichlorophenol	94.1	102.8
2,4,6-TBP (surr)	93.5	102.4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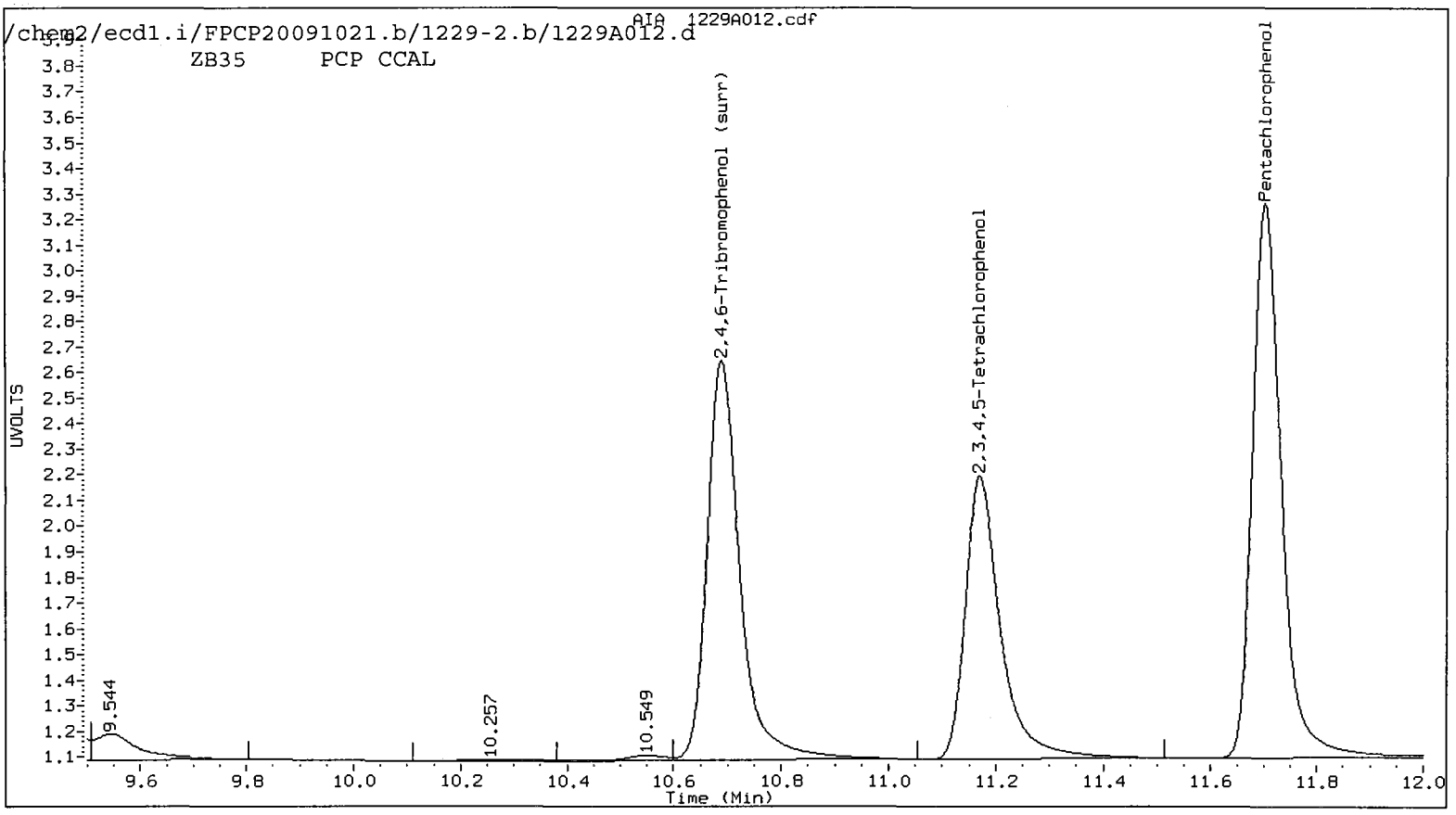
ZB5 PCP CCAL
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
Time (Min)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ZB35 PCP CCAL
UVOLTS
9.544
10.257
10.549
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
Time (Min)

PCP Analysis
QC Raw Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041

Sample ID: MB-121809
METHOD BLANK

Lab Sample ID: MB-121809
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

Date Extracted: 12/18/09
Date Analyzed: 12/29/09 19:41
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	82.8%

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

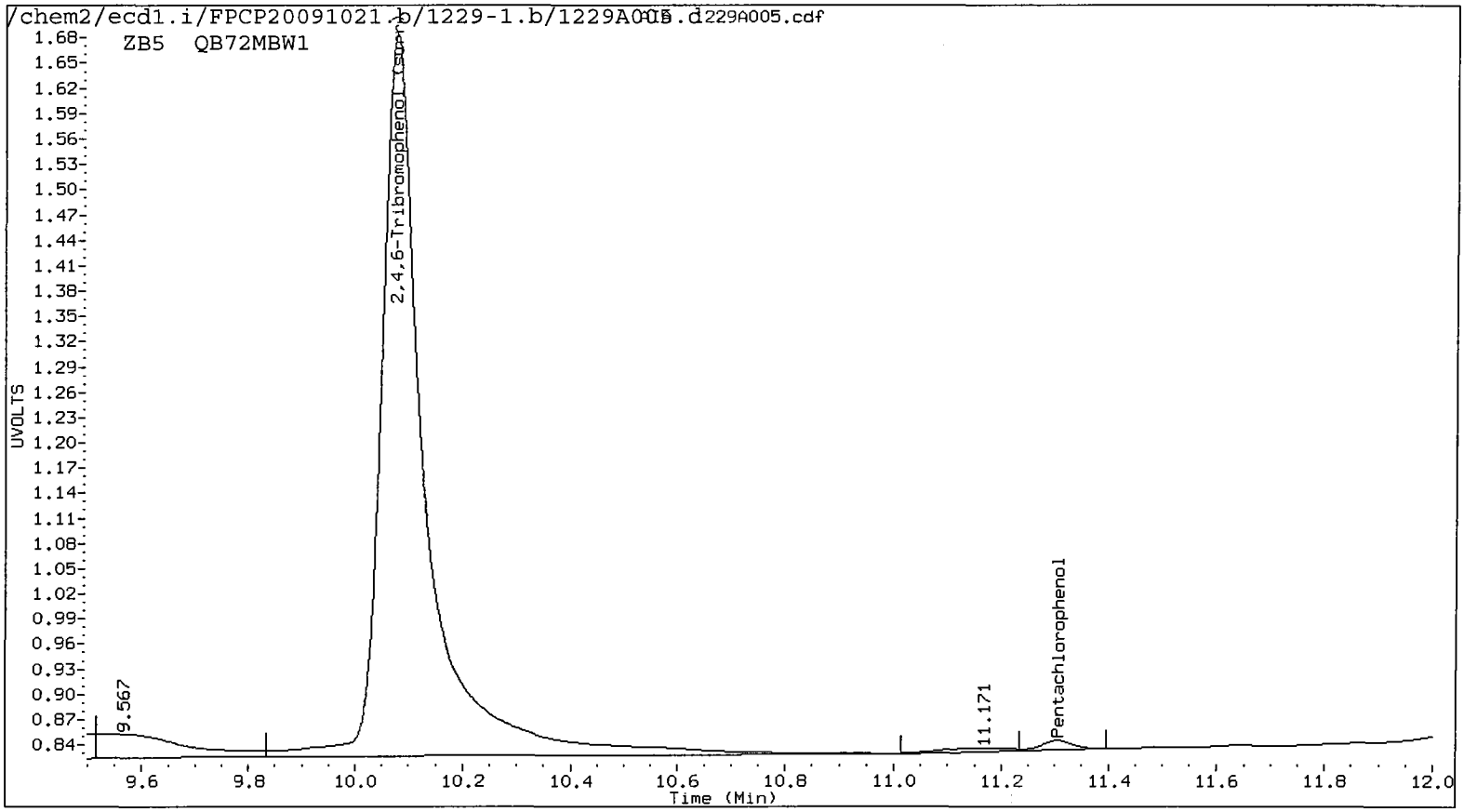
AR 1/6/2010

Data file 1: /chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A005.d ARI ID: QB72MBW1
Data file 2: /chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A005.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 29-DEC-2009 19:41
Compound Sublist: all Report Date: 01/06/2010 09:35
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col RT	ZB-5 Col Shift	ZB-5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB-5 on col	ZB35 on col	RPD	Compound
11.305	0.034	2365	11.716	0.021	1385	0.1522	0.0855	56.2*	Pentachlorophenol
7.300	0.007	8234	7.357	0.005	4682	1.0836	0.4913	75.2*	2,4,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			9.313	0.018	714	0.0000	0.0534	---	2,3,5,6-Tetrachlorophenol
----			11.090	-0.070	6947	0.0000	0.6749	---	2,3,4,5-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,4-Dichlorophenol
10.078	0.028	249951	10.703	0.023	255099	20.7	19.8	4.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	82.8	79.1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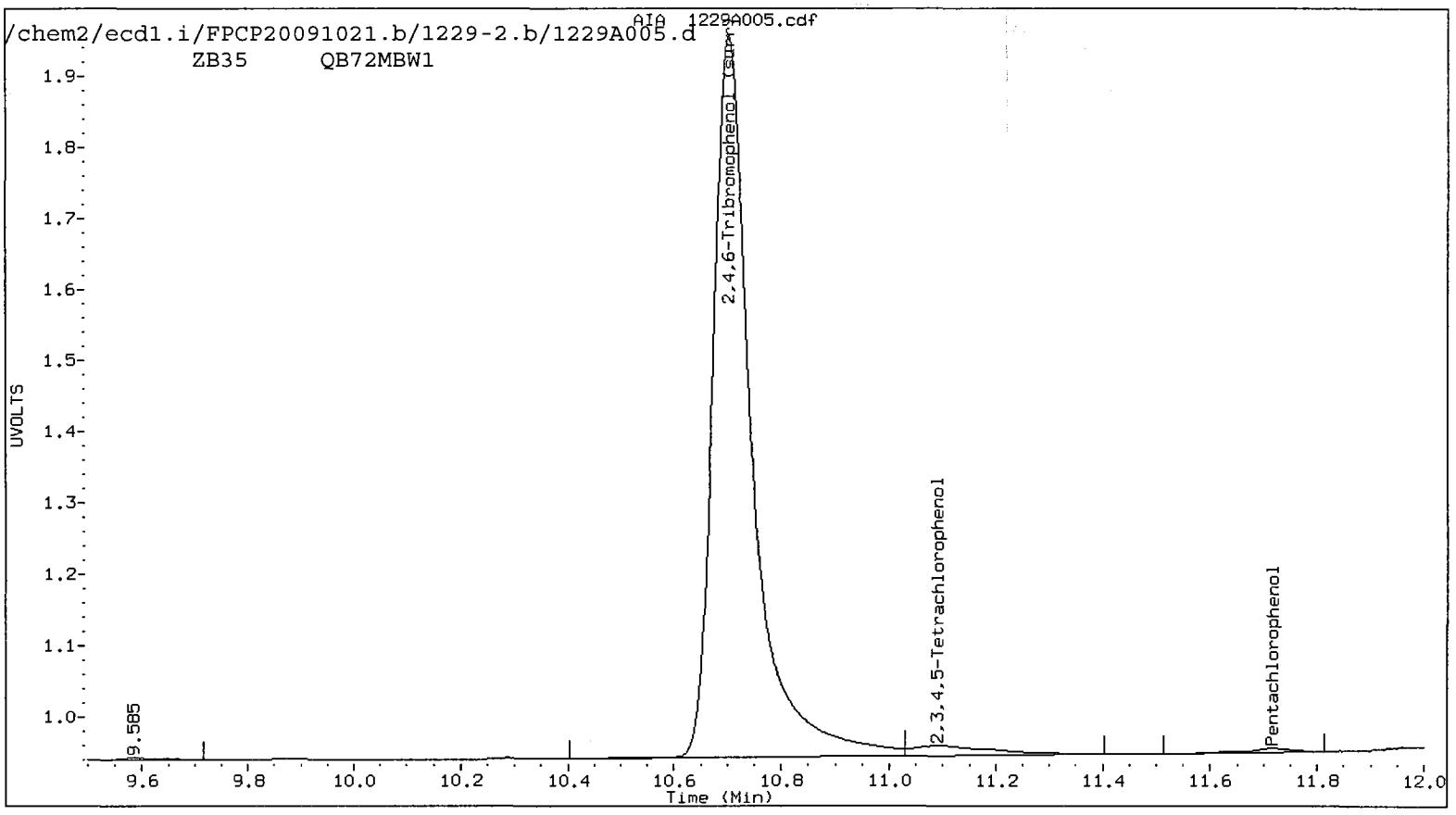
AIA 1229A005.cdf
ZB5 QB72MBW1
2,4,6-Tribromophenol (surr)
9.567
11.171
Pentachlorophenol
UVOLTS
Time (Min)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AIA 1229A005.cdf
ZB35 QB72MBW1
2,4,6-Tribromophenol (surr)
9.585
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVOLTS
Time (Min)

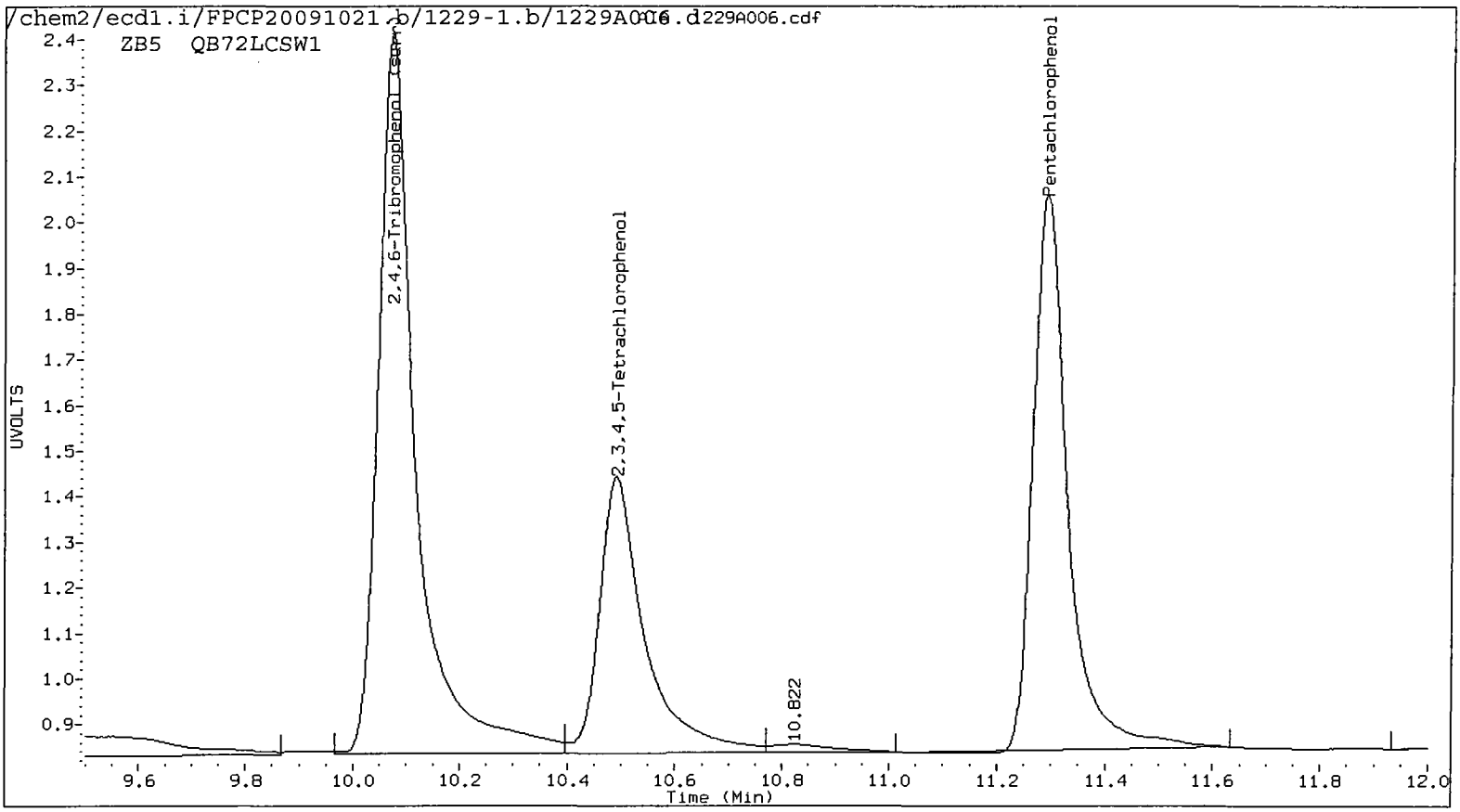
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A006.d ARI ID: QB72LCSW1
Data file 2: /chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A006.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 29-DEC-2009 20:01
Compound Sublist: all Report Date: 01/06/2010 09:35
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.292	0.021	270455	11.711	0.016	301463	17.4046	18.6040	6.7	Pentachlorophenol
7.300	0.007	142417	7.359	0.007	155213	18.7414	16.2859	14.0	2,4,6-Trichlorophenol
7.655	0.007	139491	7.891	0.008	160912	15.8948	17.3868	9.0	2,3,6-Trichlorophenol
8.284	0.026	81913	8.639	0.019	91309	16.5463	17.0099	2.8	2,4,5-Trichlorophenol
8.856	0.030	92945	9.422	0.024	143405	15.2954	19.9285	26.3	2,3,4-Trichlorophenol
9.054	0.016	227310	9.310	0.014	229538	17.2132	17.1420	0.4	2,3,5,6-Tetrachlorophenol
10.492	0.030	176831	11.183	0.024	187568	17.2329	18.2199	5.6	2,3,4,5-Tetrachlorophenol
6.923	0.006	66530	7.185	0.008	68939	132.2915	139.5112	5.3	2,4-Dichlorophenol
10.074	0.024	389737	10.700	0.020	444792	32.3	34.5	6.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	69.6	74.4
2,4,6-Trichlorophenol	75.0	65.1
2,3,6-Trichlorophenol	63.6	69.5
2,4,5-Trichlorophenol	66.2	68.0
2,3,4-Trichlorophenol	61.2	79.7
2,3,5,6-Tetrachlorophenol	68.9	68.6
2,3,4,5-Tetrachlorophenol	68.9	72.9
2,4-Dichlorophenol	52.9	55.8
2,4,6-TBP (surr)	64.5	69.0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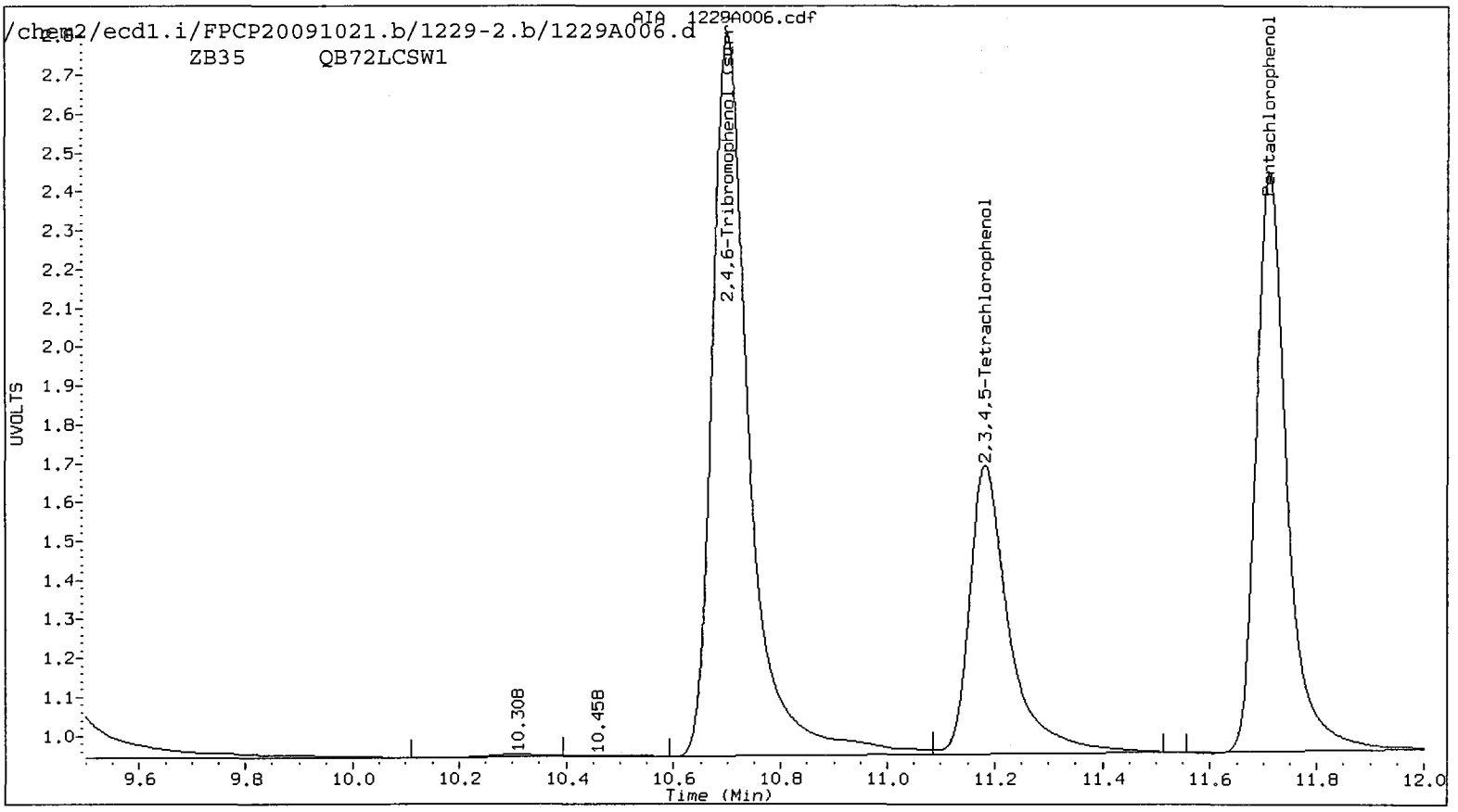
1229A006.cdf
ZB5 QB72LCSW1
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
10.822
Pentachlorophenol
UVOLTS
Time (Min)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AIA 1229A006.cdf
ZB35 QB72LCSW1
10.308
10.458
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVOLTS
Time (Min)

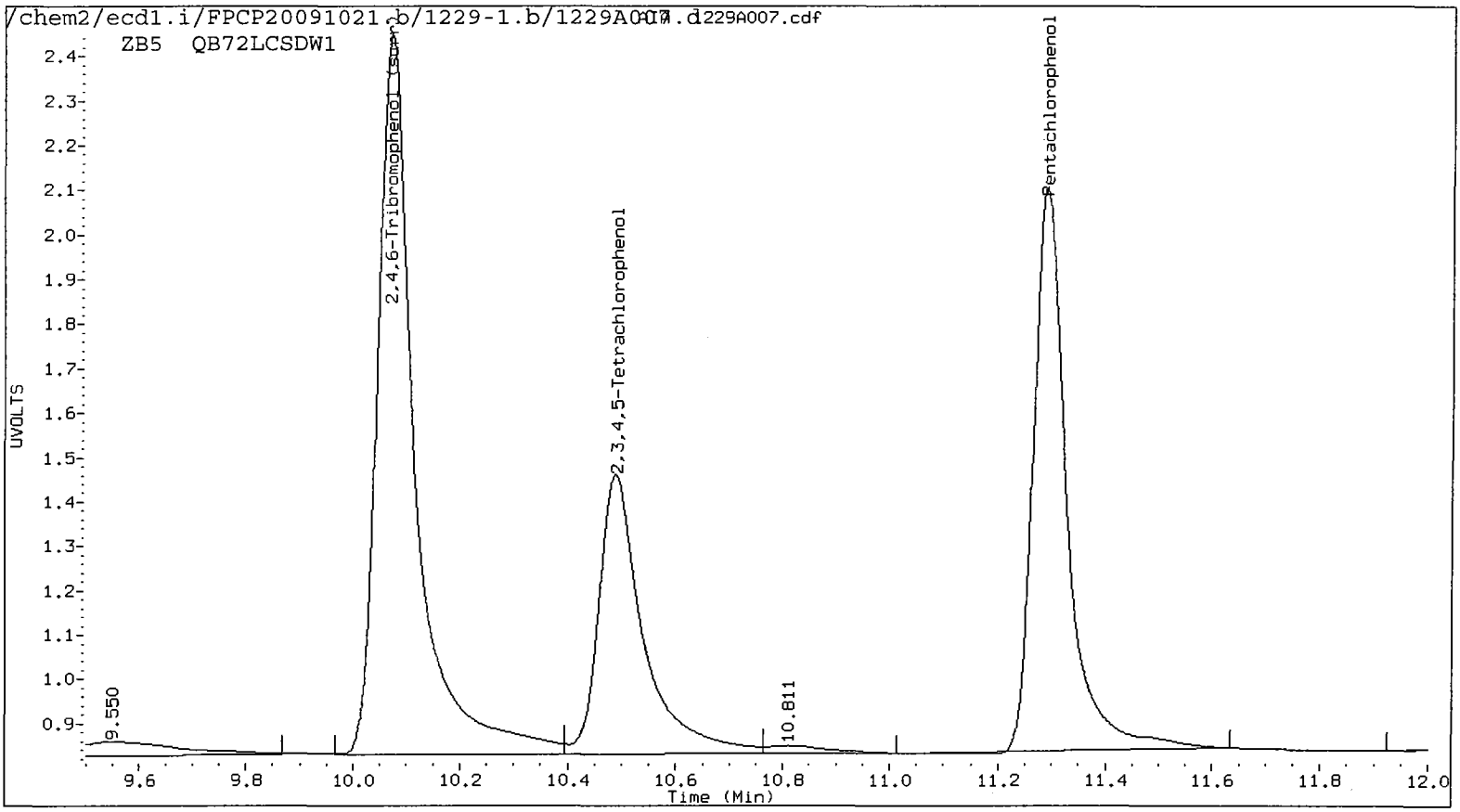
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

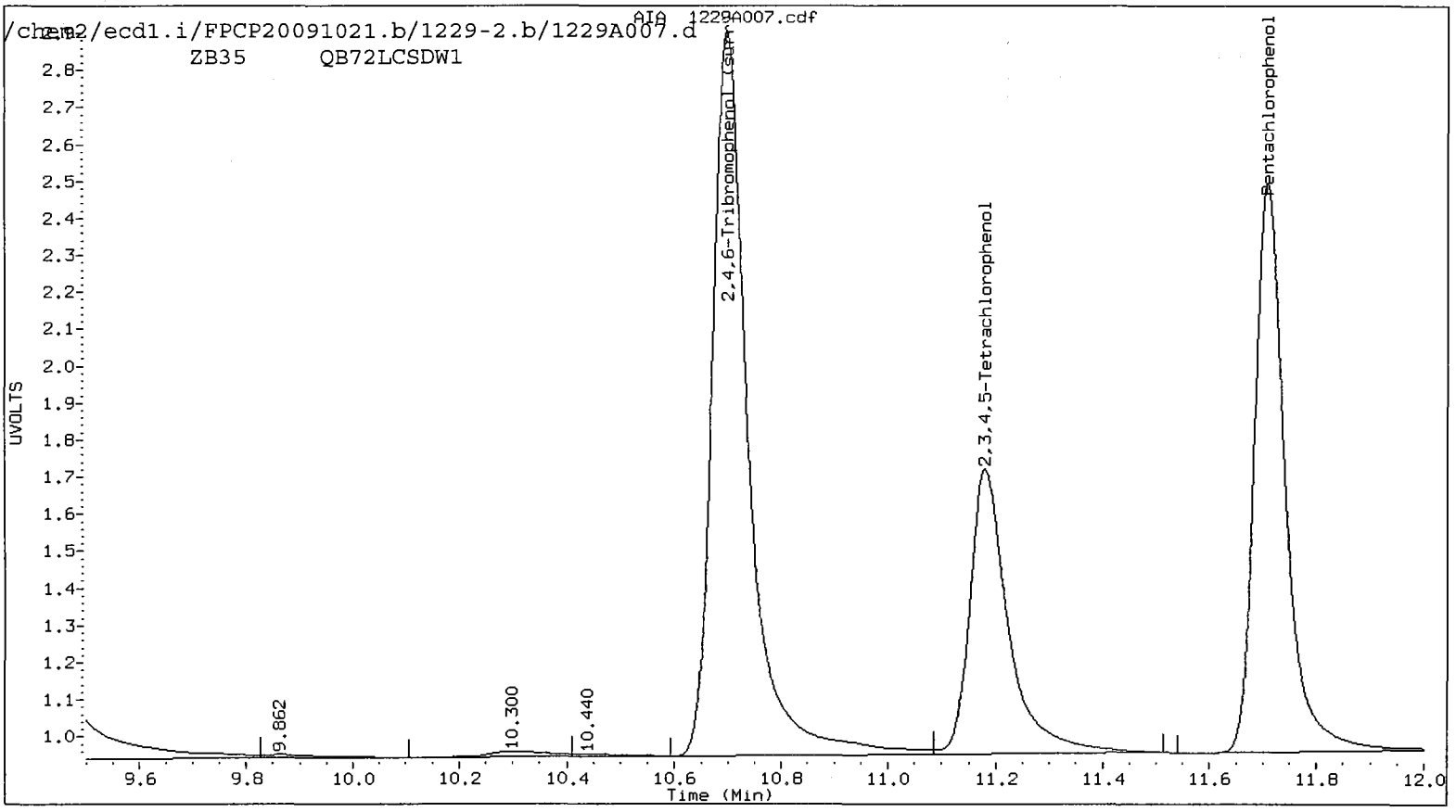
Data file 1: /chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A007.d ARI ID: QB72LCSDW1
Data file 2: /chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A007.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 29-DEC-2009 20:21
Compound Sublist: all Report Date: 01/06/2010 09:35
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.291	0.019	276197	11.709	0.015	307186	17.7741	18.9572	6.4	Pentachlorophenol
7.299	0.006	144647	7.358	0.006	156597	19.0348	16.4311	14.7	2,4,6-Trichlorophenol
7.654	0.006	140888	7.890	0.007	162437	16.0540	17.5516	8.9	2,3,6-Trichlorophenol
8.284	0.026	83110	8.638	0.018	91872	16.8103	17.1256	1.9	2,4,5-Trichlorophenol
8.855	0.029	94561	9.420	0.022	140955	15.5613	19.5547	22.7	2,3,4-Trichlorophenol
9.053	0.014	236152	9.309	0.013	233795	17.8827	17.4599	2.4	2,3,5,6-Tetrachlorophenol
10.489	0.027	179739	11.180	0.021	191550	17.5163	18.6067	6.0	2,3,4,5-Tetrachlorophenol
6.923	0.005	63243	7.184	0.008	65587	125.1346	132.1299	5.4	2,4-Dichlorophenol
10.071	0.022	399037	10.699	0.019	456822	33.0	35.4	6.9	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	71.1	75.8
2,4,6-Trichlorophenol	76.1	65.7
2,3,6-Trichlorophenol	64.2	70.2
2,4,5-Trichlorophenol	67.2	68.5
2,3,4-Trichlorophenol	62.2	78.2
2,3,5,6-Tetrachlorophenol	71.5	69.8
2,3,4,5-Tetrachlorophenol	70.1	74.4
2,4-Dichlorophenol	50.1	52.9
2,4,6-TBP (surr)	66.1	70.8


/chem2/ecd1.i/FPCP20091021.b/1229-1.b/1229A007.d
1229A007.cdf
ZB5 QB72LCSDW1
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.550
10.811
UVOLTS
Time (Min)


/chem2/ecd1.i/FPCP20091021.b/1229-2.b/1229A007.d
AIA 1229A007.cdf
ZB35 QB72LCSDW1
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.862
10.300
10.440
UVOLTS
Time (Min)

PCP Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8041 PCP – Water
Separatory Funnel (3510C) (SOP # 328S)

Preparation Test PCP # 1

ARI Job No(s) QB72

In-House
Batch set up by: ~~JH~~

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD **Exchange To Hexane (X 2)**	Turbo Vap 1 (2) 3	Final Effective Volume	Volume to Lab	Derivitize	Comments
	QB72 MB	Date 12-18-09	500mL			50mL	1-2mL		
	SB	↓	↓			↓	↓		
	SB Dup.	↓	↓			↓	↓		
3	A	Verified	500 mL						
2	B								
3	C	↓	↓	↓	↓	↓	↓		
Analyst/Date: PM 12-18-09				RF 12/19/09	TA H 12/22/09	→	→		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1574+3	**100**µL	11/06/10	PM	WP 12/18/09
Spike	6 1655+3	**100**µL	9/24/10	PM	WP 12/18/09
Extraction Time: 11:55					

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 1mL

7. Pipet using Hexane into Herb Tubes. 8. GC Analyst to Derivitize. A. Archive Y (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: QB72 Client ID: Floyd-Snider

Parameter: PCP Client Project: Lora Lake Apts.

SOP Number(s): 3285 No Anomalies:

List problems, concerns, corrective actions and any other pertinent information
Samples A, B, are cloudy, tan with Suspended Particulates. C, has a Light tan tint with very Little Suspended Particulates. A, B, C, had an emulsion form used centerfuge to break up. PD 12-18-09

Analyst Initials:	PD	Date:	12-18-09

056F

Revision 006
1/12/07

QB72 : 00295

Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 10/21/09 Analysis: PCP/Herb Analyst: AR

GC Program: PCPFAST.M Column No: 150608/148146 Column Type: ZB5/ZB35

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

Calibration File: FPCP20091021.b Curve Date: 10/21/09

IS/SS	Ical/Ccal	LCS/ICV
	1659-1 Herb	1353-2 Herb ICV
	1663-2 PCP	1324-1 PCP ICV

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd1.i/FPCP20091021.b/ical-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	21-OCT-2009 16:33	1021A009.d	1	PCP D	
2	21-OCT-2009 16:53	1021A010.d	1	PCP A	
3	21-OCT-2009 17:13	1021A011.d	1	PCP B	
4	21-OCT-2009 17:33	1021A012.d	1	PCP C	
5	21-OCT-2009 17:53	1021A013.d	1	PCP E	
6	21-OCT-2009 18:12	1021A014.d	1	PCP F	
7	21-OCT-2009 18:32	1021A015.d	1	PCP ICV	
8	21-OCT-2009 18:52	1021A016.d	1	PCP CCAL	
9	21-OCT-2009 19:12	1021A017.d	1	PS52MBW1	PS52MBW1
10	21-OCT-2009 19:32	1021A018.d	1	PS52LCSW1	PS52LCSW1
11	21-OCT-2009 19:52	1021A019.d	1	PS52A	1009PSR02
12	21-OCT-2009 20:12	1021A020.d	1	PS52B	1009PSR06
13	21-OCT-2009 20:32	1021A021.d	1	PS52D	1009PSR08
14	21-OCT-2009 20:52	1021A022.d	1	PS52F	1009PSR09
15	21-OCT-2009 21:12	1021A023.d	1	PS52G	1009PSR10
16	21-OCT-2009 21:32	1021A024.d	1	PS52H	1009PSR11
17	21-OCT-2009 21:52	1021A025.d	1	PS52HMS	1009PSR11 MS
18	21-OCT-2009 22:12	1021A026.d	1	PS52HMSD	1009PSR11 MSD
19	21-OCT-2009 22:32	1021A027.d	1	PCP	
20	21-OCT-2009 22:51	1021A028.d	1	PCP CCAL	
21	21-OCT-2009 23:11	1021A029.d	1	PS52I	1009PSR12
22	21-OCT-2009 23:31	1021A030.d	1	PS52K	SSV1068
23	21-OCT-2009 23:51	1021A031.d	1	PS67A	1009PSR05
24	22-OCT-2009 00:11	1021A032.d	1	PS67B	1009PSR13
25	22-OCT-2009 00:31	1021A033.d	1	PS67C	1009PSR15
26	22-OCT-2009 00:51	1021A034.d	1	PS67D	1009PSR01
27	22-OCT-2009 01:11	1021A035.d	1	PS67F	1009PSR04
28	22-OCT-2009 01:31	1021A036.d	1	PCP	
29	22-OCT-2009 01:51	1021A037.d	1	PCP CCAL	
30	22-OCT-2009 02:10	1021A038.d	1	PS67MBW1	PS67MBW1
31	22-OCT-2009 02:30	1021A039.d	1	PS67LCSW1	PS67LCSW1
32	22-OCT-2009 02:50	1021A040.d	1	PS67E	1009PSR03
33	22-OCT-2009 03:10	1021A041.d	1	PS67EMS	1009PSR03 MS
34	22-OCT-2009 03:30	1021A042.d	1	PS67EMSD	1009PSR03 MSD
35	22-OCT-2009 03:50	1021A043.d	1	PS95MBW1	PS95MBW1
36	22-OCT-2009 04:10	1021A044.d	1	PS95LCSW1	PS95LCSW1
37	22-OCT-2009 04:29	1021A045.d	1	PS95A	Batch 2# Third Pass
38	22-OCT-2009 04:49	1021A046.d	1	PCP	
39	22-OCT-2009 05:09	1021A047.d	1	PCP CCAL	

AR 10/26/09

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

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

QB72:00296

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: FPCP Curve Client ID: ~~ARI~~

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

Parameter(s): PCP & Tribromophenol (surr) only

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

Dates: Curve: AR 10/21/09 Analysis Start: 10/21/09

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

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

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

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

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

Additional Details on Reverse: Yes / (No)

Analyst Signature: _____ **Date:** 10/22/09

Reviewer's Signature: _____ **Date:** 10/22/09

QB72:00297

Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 12/29/09 Analysis: PCP/Herb Analyst: AR

GC Program: PCPFAST.M & Column No: 150608/148146 Column Type: ZB5/ZB35

Instrument Tune (.U or .CT.): HERB.M EM Voltage: N/A

Calibration File: FPCP20091021.b & HERB20091026.b Curve Date: 10/21/09 & 10/26/09

IS/SS	Ical/Ccal	LCS/ICV
	1659-1	1353-8
	1663-7	1324-1

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd1.i/FPCP20091021.b/1229-1.b

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1	29-DEC-2009 18:22	1229A001.d	1	PCP	
2	29-DEC-2009 18:42	1229A002.d	1	PCP	
3	29-DEC-2009 19:02	1229A003.d	1	PCP	
4	29-DEC-2009 19:21	1229A004.d	1	PCP CCAL	
5	29-DEC-2009 19:41	1229A005.d	1	QB72MBW1	QB72MBW1
6	29-DEC-2009 20:01	1229A006.d	1	QB72LCSW1	QB72LCSW1
7	29-DEC-2009 20:21	1229A007.d	1	QB72LCSDW1	QB72LCSDW1
8	29-DEC-2009 20:41	1229A008.d	1	QB72A	CB31A121509COMP
9	29-DEC-2009 21:00	1229A009.d	1	QB72B	CB4857121509COMP
10	29-DEC-2009 21:20	1229A010.d	1	QB72C	CB1121409COMP
11	29-DEC-2009 21:40	1229A011.d	1	PCP	
12	29-DEC-2009 22:00	1229A012.d	1	PCP CCAL	
13	29-DEC-2009 22:20	1229A013.d	1	QC28MBS1	QC28MBS1
14	29-DEC-2009 22:39	1229A014.d	1	QC28LCSS1	QC28LCSS1
15	29-DEC-2009 22:59	1229A015.d	1	QC28LCSDS1	QC28LCSDS1
16	29-DEC-2009 23:19	1229A016.d	1	QC28A	CB4857-121009-SED
17	29-DEC-2009 23:39	1229A017.d	1	PCP	
18	29-DEC-2009 23:59	1229A018.d	1	PCP CCAL	
19	30-DEC-2009 00:19	1229A019.d	1	DRVBLK 122809	
20	30-DEC-2009 00:38	1229A020.d	1	DRVBLK 122809	
21	30-DEC-2009 01:14	1229A021.d	1	HERB	
22	30-DEC-2009 01:50	1229A022.d	1	HERB CCAL	
23	30-DEC-2009 02:27	1229A023.d	1	QB35MBW1	QB35MBW1
24	30-DEC-2009 03:03	1229A024.d	1	QB35LCSW1	QB35LCSW1
25	30-DEC-2009 03:39	1229A025.d	1	QB35A	6057121509COMP
26	30-DEC-2009 04:15	1229A026.d	1	QB47C	C1
27	30-DEC-2009 04:51	1229A027.d	1	QB47D	I1
28	30-DEC-2009 05:27	1229A028.d	1	HERB	
29	30-DEC-2009 06:03	1229A029.d	1	HERB CCAL	

AR 1/6/2010

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.

QB72:00298

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: QB72 Client ID: Floyd-Snider

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

Parameter(s): Cl. Phenols

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: _____ Analysis Start: 12/29/09

Endrin/DDT Breakdown <15%? YES / NO / NA

Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO

LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria YES / NO

Surrogate Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA

Special Analysis Criteria Met? YES / NO / NA
VTA

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

Additional Details on Reverse: Yes / No

Analyst Signature: _____ **Date:** ~~12~~ 1/6/2010

Reviewer's Signature: _____ **Date:** 1/6/10

Metals Analysis
QC Summary Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

SDG: QB72

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
CB31A121509COMP	QB72A	09-30991	
CB31A121509COMPD	QB72ADUP	09-30991	
CB31A121509COMPS	QB72ASPK	09-30991	
CB4857121509COMP	QB72B	09-30992	
PBW	QB72MB1	09-30992	
LCSW	QB72MB1SPK	09-30992	
CB1121409COMP	QB72C	09-30993	
CB31A121509COMP	QB72D	09-30994	
CB31A121509COMPD	QB72DDUP	09-30994	
CB31A121509COMPS	QB72DSPK	09-30994	
CB4857121509COMP	QB72E	09-30995	
PBW	QB72MB2	09-30995	
LCSW	QB72MB2SPK	09-30995	
CB1121409COMP	QB72F	09-30996	

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: 12/30/09 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB31A121509COMP
MATRIX SPIKE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	0.500 U	26.7	25.0	107%	

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%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB31A121509COMP
DUPLICATE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QB72LCS
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

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

Reported in µg/L

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: QB72MB
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/28/09	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB31A121509COMP
MATRIX SPIKE

Lab Sample ID: QB72D
LIMS ID: 09-30994
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	1.09	26.5	25.0	102%	

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%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB31A121509COMP
DUPLICATE

Lab Sample ID: QB72D
LIMS ID: 09-30994
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	1.1	1.1	0.0%	+/- 20%	

Reported in µg/L

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: QB72LCS
LIMS ID: 09-30995
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.4	25.0	102%	

Reported in µg/L

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: QB72MB
LIMS ID: 09-30995
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/28/09	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

QB72:00309

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

UNITS: ug/L

SDG: QB72

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS122881	50.0	49.27	98.5	50.0	49.66	99.3	49.35	98.7	49.25	98.5	49.40	98.8		

QB72 : 903519

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

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

UNITS: ug/L

SDG: QB72

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS122981	50.0	48.80	97.6	50.0	49.58	99.2	48.97	97.9	49.17	98.3				

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

QB72 00514

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

SDG: QB72

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	PMS	MS122881	0.2	0.19	95.0										
Arsenic	AS	PMS	MS122981	0.2	0.17	85.0										

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

FORM II (2)

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

SDG: QB72

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	PMS	MS122881	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		

QB72.0021

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

UNITS: ug/L

SDG: QB72

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	PMS	MS122981	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

QB72 00211

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

SDG: QB72

ICS SOURCE: I.V.

RUNID: MS122881

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	20000	20000	20135.2	18000.7	**90.0**						
Arsenic		20	0.0	17.3	**86.5**						
Barium			0.3	0.2							
Cadmium		20	0.1	17.7	**88.5**						
Chromium		20	0.4	18.1	**90.5**						
Cobalt		20	0.0	17.2	**86.0**						
Copper		20	0.4	17.7	**88.5**						
Manganese		20	0.4	17.7	**88.5**						
Molybdenum	400	400	400.9	351.6	**87.9**						
Nickel		20	0.6	18.0	**90.0**						
Selenium			-0.1	-0.1							
Silver		20	0.0	16.4	**82.0**						
Vanadium			0.0	-0.3							
Zinc		20	1.4	19.0	**95.0**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

ICS SOURCE: I.V.

PROJECT: Lora Lake Apts.

RUNID: MS122981

SDG: QB72

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	19.0	**95.0**						
Barium			0.3	0.3							
Cadmium		20	0.1	19.2	**96.0**						
Chromium		20	0.4	19.3	**96.5**						
Cobalt		20	0.0	18.5	**92.5**						
Copper		20	0.4	19.6	**98.0**						
Manganese		20	0.4	19.1	**95.5**						
Molybdenum	400	400	386.5	380.1	**95.0**						
Nickel		20	0.5	20.1	**100.5**						
Selenium			-0.1	-0.1							
Silver		20	0.0	17.7	**88.5**						
Vanadium			-0.1	-0.3							
Zinc		20	1.3	21.0	**105.0**						

QB72 09315

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

SDG: QB72 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (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

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts.

SDG: QB72

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 12/18/2009

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
CB31A121509COMP	QB72A	0.000	50.0	25.0
CB31A121509COMPD	QB72ADUP	0.000	50.0	25.0
CB31A121509COMPS	QB72ASPK	0.000	50.0	25.0
CB4857121509COMP	QB72B	0.000	50.0	25.0
CB1121409COMP	QB72C	0.000	50.0	25.0
CB31A121509COMP	QB72D	0.000	50.0	25.0
CB31A121509COMPD	QB72DDUP	0.000	50.0	25.0
CB31A121509COMPS	QB72DSPK	0.000	50.0	25.0
CB4857121509COMP	QB72E	0.000	50.0	25.0
CB1121409COMP	QB72F	0.000	50.0	25.0
PBW	QB72MB1	0.000	50.0	25.0
LCSW	QB72MB1SPK	0.000	50.0	25.0
PBW	QB72MB2	0.000	50.0	25.0
LCSW	QB72MB2SPK	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts. INSTRUMENT ID: PE ELAN 6000 MS START DATE: 12/28/2009

SDG: QB72 RUNID: MS122881 METHOD: PMS END DATE: 12/28/2009

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09130				X																										
S1	S1	1.00	09200				X																										
S2	S2	1.00	09280				X																										
S3	S3	1.00	09350				X																										
S4	S4	1.00	09430				X																										
ZZZZZZ	Rinse Sampl	1.00	09510																														
S0	S0	1.00	10000				X																										
ICV	MICV	1.00	10080				X																										
ICB	ICB	1.00	10150				X																										
CCV	MCCV1	1.00	10230				X																										
CCB	CCB1	1.00	10300				X																										
ZZZZZZ	ZZZZZZ	1.00	10380																														
CRI	MCRI	1.00	10550				X																										
ICSA	ICSAI	1.00	11030				X																										
ICSAB	ICSABI	1.00	11100				X																										
ZZZZZZ	LR200	1.00	11180																														
ZZZZZZ	LR300	1.00	11250																														
CCV	MCCV2	1.00	11320				X																										
CCB	CCB2	1.00	11390				X																										
ZZZZZZ	QB41RMB1	2.00	11490																														
ZZZZZZ	DI CHECK	1.00	11560																														
ZZZZZZ	ERAP150	10.00	12030																														
ZZZZZZ	QB41RMB1SPK	2.00	12090																														
ZZZZZZ	QB05X	5.00	12160																														
ZZZZZZ	QB41RCDUP	2.00	12230																														
ZZZZZZ	QB41RC	2.00	12300																														
ZZZZZZ	QB41RCSPK	2.00	12370																														
ZZZZZZ	QB41RE	2.00	12440																														
CCV	MCCV3	1.00	12510				X																										
CCB	CCB3	1.00	12580				X																										
PBW	QB72MB1	2.00	13060				X																										
PBW	QB72MB2	2.00	13130				X																										
LCSW	QB72MB1SPK	2.00	13200				X																										
LCSW	QB72MB2SPK	2.00	13270				X																										
CB31A121509COMPD	QB72ADUP	2.00	13340				X																										

FORM XIV

QB72 12-28-09

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts. INSTRUMENT ID: PE ELAN 6000 MS START DATE: 12/28/2009

SDG: QB72 RUNID: MS122881 METHOD: PMS END DATE: 12/28/2009

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
CB31A121509COMP	QB72A	2.00	13400				X																										
CB31A121509COMPS	QB72ASPK	2.00	13470				X																										
CB31A121509COMPD	QB72DDUP	2.00	13540				X																										
CB31A121509COMP	QB72D	2.00	14010				X																										
CB31A121509COMPS	QB72DSPK	2.00	14080				X																										
CCV	MCCV4	1.00	14150				X																										
CCB	CCB4	1.00	14220				X																										

QB72 09226

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd-Snider

PROJECT: Lora Lake Apts. INSTRUMENT ID: PE ELAN 6000 MS START DATE: 12/29/2009

SDG: QB72 RUNID: MS122981 METHOD: PMS END DATE: 12/29/2009

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09040				X																										
S1	S1	1.00	09120				X																										
S2	S2	1.00	09200				X																										
S3	S3	1.00	09280				X																										
S4	S4	1.00	09400				X																										
ZZZZZZ	Rinse Sampl	1.00	09430																														
S0	S0	1.00	09540				X																										
ICV	MICV	1.00	10020				X																										
ICB	ICB	1.00	10100				X																										
CCV	MCCV1	1.00	10170				X																										
CCB	CCB1	1.00	10250				X																										
CRI	MCRI	1.00	10370				X																										
ICSA	ICSAI	1.00	10420				X																										
ICSAB	ICSABI	1.00	10470				X																										
ZZZZZZ	LR200	1.00	10550																														
ZZZZZZ	LR300	1.00	11020																														
CCV	MCCV2	1.00	11090				X																										
CCB	CCB2	1.00	11190				X																										
ZZZZZZ	QC19MB1	2.00	11260																														
ZZZZZZ	QC19MB1SPK	2.00	11380																														
ZZZZZZ	QC19HDUP	2.00	11420																														
ZZZZZZ	QC19H	2.00	11470																														
ZZZZZZ	QC19HSPK	2.00	11540																														
CB4857121509COMP	QB72B	2.00	12010				X																										
CB1121409COMP	QB72C	2.00	12070				X																										
CB4857121509COMP	QB72E	2.00	12140				X																										
CB1121409COMP	QB72F	2.00	12210				X																										
CCV	MCCV3	1.00	12280				X																										
CCB	CCB3	1.00	12400				X																										

QB72, QB22

Metals Analysis
Sample Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB31A121509COMP
SAMPLE

Lab Sample ID: QB72A
LIMS ID: 09-30991
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/28/09	7440-38-2	Arsenic	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: CB4857121509COMP
SAMPLE

Lab Sample ID: QB72B
LIMS ID: 09-30992
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/29/09	**7440-38-2**	**Arsenic**	0.2	**0.5**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: CB1121409COMP
SAMPLE

Lab Sample ID: QB72C
LIMS ID: 09-30993
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/29/09	**7440-38-2**	**Arsenic**	0.2	**0.3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB31A121509COMP
SAMPLE

Lab Sample ID: QB72D
LIMS ID: 09-30994
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/28/09	**7440-38-2**	**Arsenic**	0.2	**1.1**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB4857121509COMP
SAMPLE

Lab Sample ID: QB72E
LIMS ID: 09-30995
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/29/09	**7440-38-2**	**Arsenic**	0.2	**1.0**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB1121409COMP
SAMPLE

Lab Sample ID: QB72F
LIMS ID: 09-30996
Matrix: Water
Data Release Authorized:
Reported: 12/30/09

QC Report No: QB72-Floyd-Snider
Project: Lora Lake Apts.
POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	12/18/09	200.8	12/29/09	**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 Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12.28.09 **Analyst:** AA **Page:** 1 **of** 3

All corrections made by analyst unless otherwise noted. AA 12-28-09

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD0			26006-3
		1			26067-2
		2			↓ -3
		3			26066-8
		↓ 4			26067-4
		Rinse Sample			
		STD0			
		ICV			26012-4
		ICB			
		CCV1			
		CCB1			
ZZZ		~~Low check~~ ZZZZZZ			reprep
		Low check			
		ICSA			Li high
		ICSAB			↓
		LR200			
		LR300			
		CCV2			
		CCB2			Li high
		QB41R MB1	REN	2	
		DI Check		✓	Li high
		ERA PB50		10 ✓	↓ Al 110.62 within ERA range
		QB41R MB1SPK	REN	2 ✓	
		~~↓ CDup~~	↓	↓	
		QB05 X	REN	5	

QB72:00330

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12-28-09 **Analyst:** TR KA **Page:** 2 **of** 3

All corrections made by analyst unless otherwise noted. KA 12-28-09

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		QB41R CDup	REN	2 ✓	
		CSpk			
REN		CSpkB		✓	
		E			
		CCV3			Below Linear
		CCB3			
		QB72 MB1	REN	2	
		MB2			
		MB1Spk		✓	
		MB2Spk		✓	
		ADup		✓	
		A			
		ASpk			
		DDup		✓	
		D			
		DSpk		✓	
		CCV4			
		CCB4			
					Linear end Run
	✓	QB79 MB	REN	2	plasma out
		MBSpk			
		QB72 B			
		C			
TL		B			
		F			

QB72:00331

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA **Analysis Date:** 12-28-09

	Analyst 12-29	Peer 12.29.9	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	✓	✓	see log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	see log
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
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	—	—	

15

Instrument Tuning Report

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	9.075	2039	2165	0.717	
Mg	23.985	23.979	5659	2287	0.755	
Co	58.933	58.929	14132	2563	0.733	
In	114.904	114.879	27754	3032	0.728	
Pb	207.977	207.977	50378	3836	0.702	

QB72 : 00333

Instrument Tuning Report

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	8.974	2030	2165	0.744	
Mg	23.985	23.979	5657	2287	0.707	
Co	58.933	58.929	14130	2563	0.704	
In	114.904	114.929	27759	3032	0.725	
Pb	207.977	207.977	50377	3836	0.704	

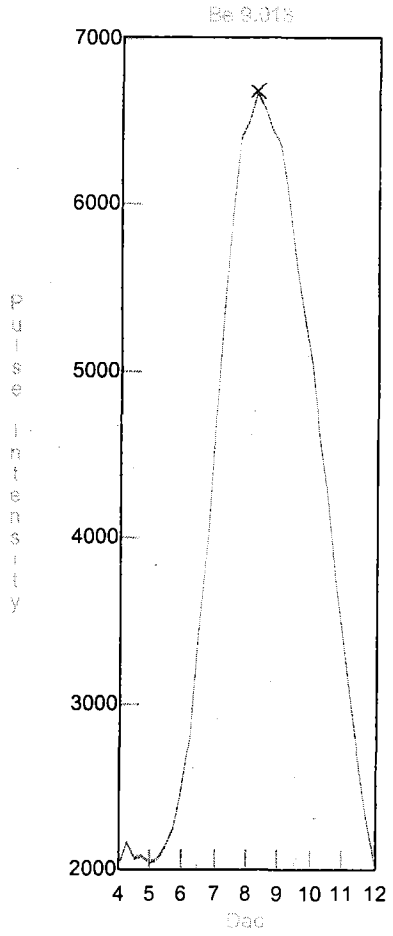
QB72 : 00334

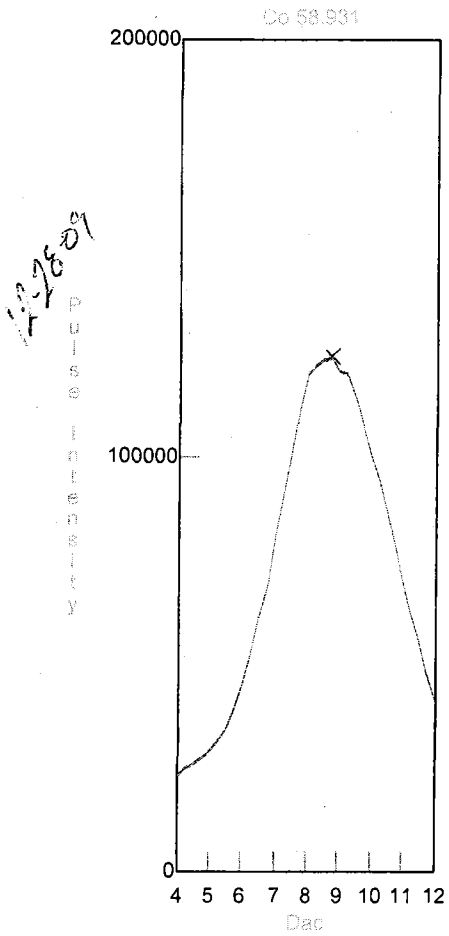
Instrument Tuning Report

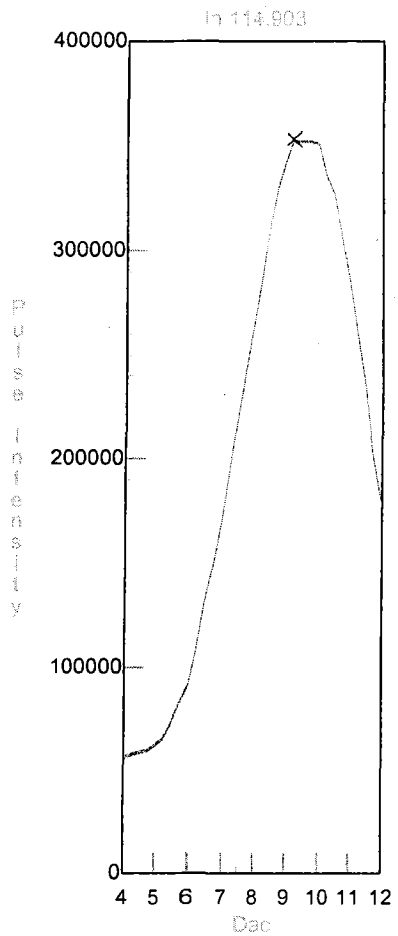
File Name: 2008.tun
File Path: c:\elandata\Tuning

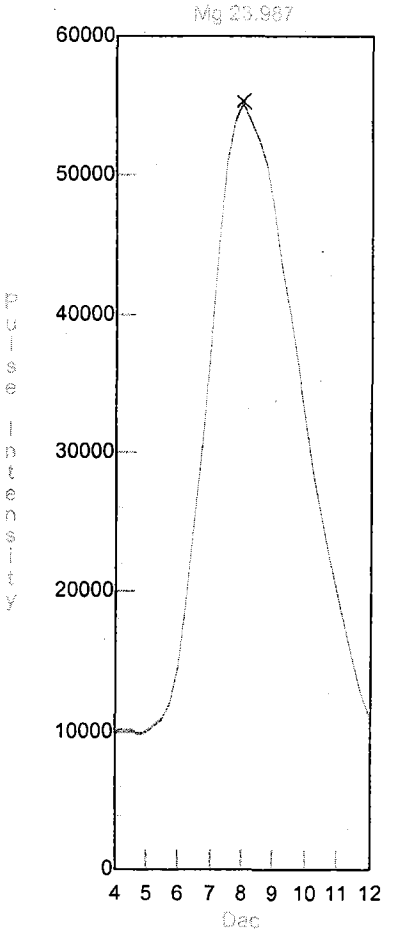
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.974	2030	2173	0.705	
Mg	23.985	23.979	5657	2287	0.693	
Co	58.933	58.929	14130	2563	0.700	
In	114.904	114.929	27759	3034	0.715	
Pb	207.977	207.977	50377	3836	0.706	

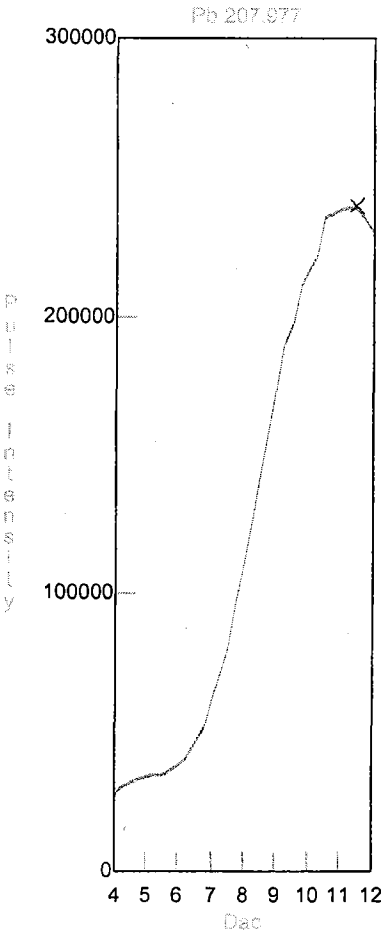
QB72 : 00335

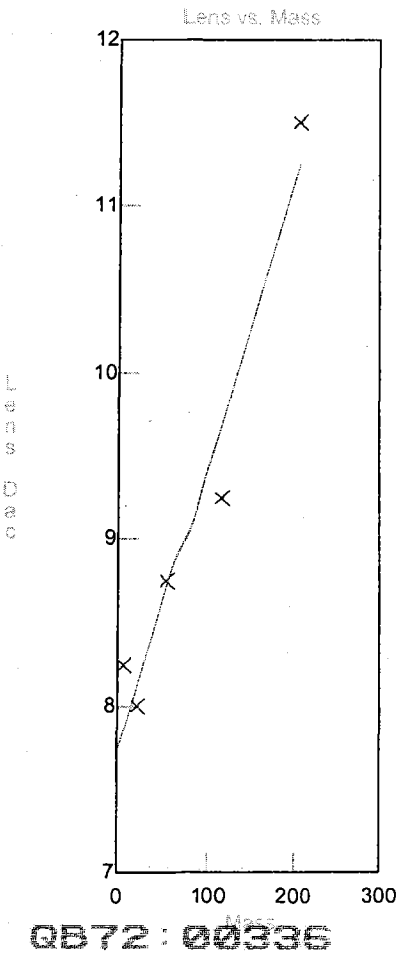

Be 9.012
Pulse Intensity
7000
6000
5000
4000
3000
2000
4 5 6 7 8 9 10 11 12
Dac


Co 58.931
Pulse Intensity
200000
100000
0
4 5 6 7 8 9 10 11 12
Dac


In 114.903
Pulse Intensity
400000
300000
200000
100000
0
4 5 6 7 8 9 10 11 12
Dac


Mg 23.987
Pulse Intensity
60000
50000
40000
30000
20000
10000
0
4 5 6 7 8 9 10 11 12
Dac


Pb 207.977
Pulse Intensity
300000
200000
100000
0
4 5 6 7 8 9 10 11 12
Dac


Lens vs. Mass
Lens Dac
12
11
10
9
8
7
0 100 200 300
Mass

QB72:00336

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, December 28, 2009 08:43:10
Sample Description:
Sample File: 1120.sam
Method File: c:\elandata\Method\aridailyperf.mth
Dataset File: c:\elandata\Dataset\daily performance\Sample.6164
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Number of Replicates: 5
Dual Detector Mode: Pulse

0.90

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	39302.009	1216.146	3.094
	In	115	344581.413	3821.086	1.109
	Pb	208	248166.314	2082.585	0.839
⌈>	Ba	138	293743.901	5137.809	1.749
⌊	Ba++	69	0.009	0.000	2.647
⌈>	Ce	140	357653.056	4497.306	1.257
⌊	CeO	156	0.026	0.001	3.290
	Bkgd	220	9.501	4.809	50.619

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, December 28, 2009 08:48:13
Sample Description:
Sample File: 1120.sam
Method File: c:\elandata\Method\aridailyperf.mth
Dataset File: c:\elandata\Dataset\daily performance\Sample.6168
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Number of Replicates: 5
Dual Detector Mode: Pulse

0.99

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	42996.493	584.526	1.359
	In	115	366203.126	4852.547	1.325
	Pb	208	257776.049	2690.321	1.044
⌈>	Ba	138	306456.458	3874.781	1.264
⌊	Ba++	69	0.010	0.000	3.057
⌈>	Ce	140	372122.560	3328.875	0.895
⌊	CeO	156	0.027	0.000	1.583
	Bkgd	220	9.501	3.491	36.748

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 09:13:24
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.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				664871	3
⌊	Be	9		ug/L				10	21
	C	13		mg/L				6781	2
	Cl	37		mg/L				3545281	0
⌈>	Sc	45		ug/L				258432	0
|	Al	27		ug/L				176594	29
|	V-1	51		ug/L				1340	12
|	V	51		ug/L				1110	6
|	Cr	52		ug/L				3586	1
|	Cr	53		ug/L				331	7
|	Mn	55		ug/L				2548	4
⌊	Co	59		ug/L				101	7
⌈>	Ge	72		ug/L				338883	1
|	Ni	60		ug/L				136	1
|	Ni	62		ug/L				150	5
|	Cu	63		ug/L				370	0
|	Cu	65		ug/L				175	3
|	Zn	66		ug/L				5960	23
|	Zn	67		ug/L				967	20
|	Zn	68		ug/L				6993	12
|	As-1	75		ug/L				104	34
|	As	75		ug/L				5003	0
|	Se	82		ug/L				-2	210
|	Se	78		ug/L				5072	0
⌊	Mo	98		ug/L				198	11
	Y	89		ug/L				282909	1
	Kr	83		ug/L				78	2
⌈>	In	115		ug/L				381360	0
|	Ag	107		ug/L				35	12
|	Cd	111		ug/L				406	5
|	Cd	114		ug/L				27	0
|	Sb	121		ug/L				64	5
|	Sb	123		ug/L				48	12
|	Ba	135		ug/L				84	24
⌊	Ba	137		ug/L				147	31
⌈>	Tb	159		ug/L				516640	0
|	Tl	205		ug/L				32	30
|	Pb	208		ug/L				820	12
|	Bi	209		ug/L				402482	0
|	Th	232		ug/L				237	10
⌊	U	238		ug/L				68	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 09:20:54
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.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			664871	650493	3
	Be	9	10.000	ug/L	0.390	3	10	6734	2
	C	13		mg/L			6781	3713	3
	Cl	37		mg/L			3545281	3528034	0
>	Sc	45		ug/L			258432	255000	0
	Al	27	1000.000	ug/L	4.106	0	176594	7028348	0
	V-1	51	10.000	ug/L	0.129	1	1340	110412	1
	V	51	10.000	ug/L	0.055	0	1110	112257	0
	Cr	52	10.000	ug/L	0.163	1	3586	100669	1
	Cr	53	10.000	ug/L	0.149	1	331	11965	1
	Mn	55	10.000	ug/L	0.180	1	2548	168733	1
	Co	59	10.000	ug/L	0.062	0	101	124747	0
>	Ge	72		ug/L			338883	337113	0
	Ni	60	10.000	ug/L	0.029	0	136	25963	0
	Ni	62	10.000	ug/L	0.317	3	150	4062	2
	Cu	63	10.000	ug/L	0.076	0	370	59266	0
	Cu	65	10.000	ug/L	0.130	1	175	27997	1
	Zn	66	10.000	ug/L	0.044	0	5960	21485	1
	Zn	67	10.000	ug/L	0.078	0	967	3709	0
	Zn	68	10.000	ug/L	0.169	1	6993	18077	0
	As-1	75	10.000	ug/L	0.224	2	104	19156	1
	As	75	10.000	ug/L	0.224	2	5003	23886	1
	Se	82	10.000	ug/L	0.172	1	-2	2147	1
	Se	78	10.000	ug/L	0.182	1	5072	10375	0
	Mo	98	10.000	ug/L	0.191	1	198	59455	1
	Y	89		ug/L			282909	278424	0
	Kr	83		ug/L			78	81	6
>	In	115		ug/L			381360	376054	1
	Ag	107	10.000	ug/L	0.053	0	35	114520	1
	Cd	111	10.000	ug/L	0.233	2	406	30794	1
	Cd	114	10.000	ug/L	0.059	0	27	72777	0
	Sb	121	10.000	ug/L	0.107	1	64	104820	1
	Sb	123	10.000	ug/L	0.105	1	48	81633	0
	Ba	135	10.000	ug/L	0.160	1	84	26871	0
	Ba	137	10.000	ug/L	0.210	2	147	46271	0
>	Tb	159		ug/L			516640	511201	0
	Tl	205	10.000	ug/L	0.026	0	32	343972	0
	Pb	208	10.000	ug/L	0.091	0	820	478637	0
	Bi	209		ug/L			402482	399786	0
	Th	232	10.000	ug/L	0.153	1	237	577041	0
	U	238	10.000	ug/L	0.110	1	68	666354	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 09:28:25
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.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			664871	640366	0
[	Be	9	20.133	ug/L	0.203	1	10	13710	1
	C	13		mg/L			6781	4589	2
	Cl	37		mg/L			3545281	3494509	0
[>	Sc	45		ug/L			258432	258820	0
|	Al	27	2004.735	ug/L	1.798	0	176594	14256719	0
|	V-1	51	19.981	ug/L	0.234	1	1340	221758	1
|	V	51	19.985	ug/L	0.263	1	1110	225919	1
|	Cr	52	20.020	ug/L	0.229	1	3586	201772	0
|	Cr	53	20.030	ug/L	0.465	2	331	24131	1
|	Mn	55	20.062	ug/L	0.346	1	2548	345260	0
[	Co	59	20.040	ug/L	0.091	0	101	255695	0
[>	Ge	72		ug/L			338883	344769	0
|	Ni	60	20.000	ug/L	0.136	0	136	52964	0
|	Ni	62	20.051	ug/L	0.310	1	150	8260	1
|	Cu	63	19.968	ug/L	0.159	0	370	119901	0
|	Cu	65	20.034	ug/L	0.129	0	175	57581	1
|	Zn	66	20.470	ug/L	0.335	1	5960	42006	1
|	Zn	67	20.454	ug/L	0.052	0	967	7305	0
|	Zn	68	20.475	ug/L	0.168	0	6993	32848	1
|	As-1	75	19.984	ug/L	0.109	0	104	38929	0
|	As	75	19.996	ug/L	0.132	0	5003	43731	0
|	Se	82	19.981	ug/L	0.212	1	-2	4375	0
|	Se	78	20.020	ug/L	0.382	1	5072	16117	0
[	Mo	98	19.995	ug/L	0.277	1	198	121251	0
	Y	89		ug/L			282909	280055	0
	Kr	83		ug/L			78	86	2
[>	In	115		ug/L			381360	383902	2
|	Ag	107	20.075	ug/L	0.585	2	35	238111	0
|	Cd	111	19.983	ug/L	0.630	3	406	62183	1
|	Cd	114	20.032	ug/L	0.259	1	27	149743	1
|	Sb	121	20.052	ug/L	0.496	2	64	216682	1
|	Sb	123	19.982	ug/L	0.368	1	48	165826	0
|	Ba	135	20.004	ug/L	0.744	3	84	54806	1
[	Ba	137	20.044	ug/L	0.468	2	147	95340	0
[>	Tb	159		ug/L			516640	524362	1
|	Tl	205	19.993	ug/L	0.190	0	32	704447	1
|	Pb	208	19.968	ug/L	0.382	1	820	973196	0
|	Bi	209		ug/L			402482	403053	0
|	Th	232	20.009	ug/L	0.164	0	237	1186361	1
[	U	238	19.974	ug/L	0.112	0	68	1358047	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 09:35:58
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.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			664871	612818	1
	Be	9	50.129	ug/L	1.486	2	10	33080	3
	C	13		mg/L			6781	7423	1
	Cl	37		mg/L			3545281	3469325	1
>	Sc	45		ug/L			258432	255529	0
	Al	27	5004.181	ug/L	100.740	2	176594	35016852	1
	V-1	51	50.076	ug/L	0.283	0	1340	550888	0
	V	51	50.067	ug/L	0.335	0	1110	560902	0
	Cr	52	50.015	ug/L	0.375	0	3586	493106	0
	Cr	53	49.991	ug/L	0.724	1	331	58923	0
	Mn	55	49.990	ug/L	0.711	1	2548	844842	1
	Co	59	49.926	ug/L	0.563	1	101	624102	0
>	Ge	72		ug/L			338883	344822	0
	Ni	60	49.787	ug/L	0.185	0	136	128923	0
	Ni	62	49.681	ug/L	0.948	1	150	19623	1
	Cu	63	49.758	ug/L	0.239	0	370	291238	0
	Cu	65	49.782	ug/L	0.235	0	175	139797	0
	Zn	66	50.520	ug/L	0.398	0	5960	99654	0
	Zn	67	50.211	ug/L	0.783	1	967	16838	1
	Zn	68	50.538	ug/L	0.329	0	6993	74252	0
	As-1	75	50.009	ug/L	0.421	0	104	97359	0
	As	75	50.008	ug/L	0.401	0	5003	101820	0
	Se	82	49.944	ug/L	0.479	0	-2	10882	0
	Se	78	49.930	ug/L	0.468	0	5072	32303	0
	Mo	98	49.981	ug/L	0.502	1	198	302268	1
	Y	89		ug/L			282909	282386	0
	Kr	83		ug/L			78	86	6
>	In	115		ug/L			381360	380255	0
	Ag	107	49.829	ug/L	0.634	1	35	575809	0
	Cd	111	49.976	ug/L	0.061	0	406	153130	0
	Cd	114	49.931	ug/L	0.427	0	27	367218	1
	Sb	121	50.179	ug/L	0.461	0	64	546957	0
	Sb	123	50.209	ug/L	0.359	0	48	421588	0
	Ba	135	50.183	ug/L	0.216	0	84	138671	1
	Ba	137	50.090	ug/L	0.647	1	147	238003	0
>	Tb	159		ug/L			516640	523346	0
	Tl	205	49.924	ug/L	0.635	1	32	1742267	1
	Pb	208	49.909	ug/L	0.763	1	820	2404680	0
	Bi	209		ug/L			402482	399396	1
	Th	232	50.064	ug/L	0.642	1	237	2981287	0
	U	238	50.052	ug/L	0.517	1	68	3414187	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 09:43:31
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.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			664871	590556	3
[	Be	9	100.253	ug/L	1.718	1	10	64275	2
	C	13		mg/L			6781	5173	1
	Cl	37		mg/L			3545281	3478286	0
[>	Sc	45		ug/L			258432	255740	0
[	Al	27	10053.589	ug/L	115.212	1	176594	71507257	0
[	V-1	51	100.385	ug/L	1.059	1	1340	1118269	1
[	V	51	100.459	ug/L	0.391	0	1110	1142780	1
[	Cr	52	100.210	ug/L	1.784	1	3586	992141	1
[	Cr	53	100.448	ug/L	1.220	1	331	119950	0
[	Mn	55	100.201	ug/L	1.319	1	2548	1703624	0
[	Co	59	100.371	ug/L	1.499	1	101	1271315	0
[>	Ge	72		ug/L			338883	344905	0
[	Ni	60	100.266	ug/L	1.091	1	136	261873	0
[	Ni	62	100.204	ug/L	0.738	0	150	39704	0
[	Cu	63	100.224	ug/L	1.657	1	370	590740	1
[	Cu	65	99.781	ug/L	0.641	0	175	278060	0
[	Zn	66	100.730	ug/L	0.541	0	5960	197378	1
[	Zn	67	101.066	ug/L	1.266	1	967	34079	1
[	Zn	68	100.694	ug/L	1.551	1	6993	144077	1
[	As-1	75	100.325	ug/L	1.039	1	104	197387	0
[	As	75	100.324	ug/L	1.334	1	5003	201301	0
[	Se	82	100.082	ug/L	0.620	0	-2	21875	0
[	Se	78	100.083	ug/L	1.184	1	5072	59729	0
[	Mo	98	100.143	ug/L	1.127	1	198	608431	0
	Y	89		ug/L			282909	277977	0
	Kr	83		ug/L			78	107	0
[>	In	115		ug/L			381360	387102	1
[	Ag	107	99.692	ug/L	1.498	1	35	1160750	0
[	Cd	111	99.855	ug/L	2.255	2	406	309513	1
[	Cd	114	99.759	ug/L	1.921	1	27	740773	0
[	Sb	121	99.998	ug/L	0.728	0	64	1109424	0
[	Sb	123	99.911	ug/L	0.968	0	48	851507	2
[	Ba	135	100.049	ug/L	1.381	1	84	281780	0
[	Ba	137	100.279	ug/L	0.834	0	147	489461	0
[>	Tb	159		ug/L			516640	530603	0
[	Tl	205	100.216	ug/L	0.480	0	32	3571731	0
[	Pb	208	100.180	ug/L	0.502	0	820	4922896	0
[	Bi	209		ug/L			402482	399446	0
[	Th	232	100.384	ug/L	0.754	0	237	6139331	0
[	U	238	100.469	ug/L	0.782	0	68	7058827	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 09:51:02
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.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			664871	610695	2
[	Be	9	-0.006	ug/L	0.002	27	10	5	25
	C	13		mg/L			6781	6324	2
	Cl	37		mg/L			3545281	3589388	0
[>	Sc	45		ug/L			258432	262535	1
[	Al	27	-23.093	ug/L	0.143	0	176594	11196	10
[	V-1	51	-0.028	ug/L	0.006	22	1340	1045	8
[	V	51	-0.038	ug/L	0.000	1	1110	683	0
[	Cr	52	-0.015	ug/L	0.005	35	3586	3490	0
[	Cr	53	-0.047	ug/L	0.024	51	331	278	9
[	Mn	55	-0.074	ug/L	0.004	5	2548	1299	4
[	Co	59	0.005	ug/L	0.001	12	101	171	3
[>	Ge	72		ug/L			338883	348969	0
[	Ni	60	-0.006	ug/L	0.003	54	136	125	7
[	Ni	62	-0.037	ug/L	0.020	54	150	140	5
[	Cu	63	-0.009	ug/L	0.002	28	370	330	3
[	Cu	65	-0.005	ug/L	0.003	63	175	167	5
[	Zn	66	-2.852	ug/L	0.011	0	5960	657	2
[	Zn	67	-2.492	ug/L	0.052	2	967	170	9
[	Zn	68	-2.815	ug/L	0.075	2	6993	3327	2
[	As-1	75	0.012	ug/L	0.009	70	104	131	12
[	As	75	0.046	ug/L	0.012	26	5003	5244	0
[	Se	82	-0.031	ug/L	0.016	53	-2	-9	37
[	Se	78	0.128	ug/L	0.044	34	5072	5293	0
[	Mo	98	0.005	ug/L	0.009	161	198	237	23
	Y	89		ug/L			282909	289112	0
	Kr	83		ug/L			78	88	2
[>	In	115		ug/L			381360	397906	0
[	Ag	107	0.017	ug/L	0.003	16	35	239	13
[	Cd	111	0.007	ug/L	0.004	49	406	447	3
[	Cd	114	0.002	ug/L	0.002	82	27	45	29
[	Sb	121	0.114	ug/L	0.023	20	64	1366	18
[	Sb	123	0.116	ug/L	0.024	20	48	1063	18
[	Ba	135	-0.018	ug/L	0.001	7	84	37	10
[	Ba	137	-0.017	ug/L	0.001	4	147	70	4
[>	Tb	159		ug/L			516640	540178	0
[	Tl	205	0.006	ug/L	0.001	17	32	237	14
[	Pb	208	0.001	ug/L	0.001	43	820	916	2
[	Bi	209		ug/L			402482	417917	1
[	Th	232	0.074	ug/L	0.007	9	237	4873	8
[	U	238	0.010	ug/L	0.002	18	68	799	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 10:00:30
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.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				604202	2
[	Be	9		ug/L				8	14
	C	13		mg/L				6358	1
	Cl	37		mg/L				3622439	0
[>	Sc	45		ug/L				263288	0
[	Al	27		ug/L				9729	9
[	V-1	51		ug/L				1044	7
[	V	51		ug/L				671	0
[	Cr	52		ug/L				3487	2
[	Cr	53		ug/L				275	9
[	Mn	55		ug/L				1311	1
[	Co	59		ug/L				110	3
[>	Ge	72		ug/L				351015	1
[	Ni	60		ug/L				117	7
[	Ni	62		ug/L				163	3
[	Cu	63		ug/L				292	3
[	Cu	65		ug/L				142	14
[	Zn	66		ug/L				710	7
[	Zn	67		ug/L				157	7
[	Zn	68		ug/L				3306	1
[	As-1	75		ug/L				97	19
[	As	75		ug/L				5265	0
[	Se	82		ug/L				-6	94
[	Se	78		ug/L				5339	0
[	Mo	98		ug/L				84	13
	Y	89		ug/L				287982	0
	Kr	83		ug/L				81	6
[>	In	115		ug/L				392550	0
[	Ag	107		ug/L				82	17
[	Cd	111		ug/L				442	7
[	Cd	114		ug/L				20	23
[	Sb	121		ug/L				339	4
[	Sb	123		ug/L				253	6
[	Ba	135		ug/L				30	20
[	Ba	137		ug/L				41	8
[>	Tb	159		ug/L				531801	0
[	Tl	205		ug/L				67	16
[	Pb	208		ug/L				662	1
[	Bi	209		ug/L				412309	1
[	Th	232		ug/L				1702	5
[	U	238		ug/L				152	7

Quantitative Analysis - Calibration Report

Sample Date/Time: Monday, December 28, 2009 10:00:30
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.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	0.0011	10	20	50	100	
C	13							
Cl	37							
Sc	45							
Al	27	1.0000	0.0277	1000	2000	5000	10000	
V-1	51	1.0000	0.0435	10	20	50	100	
V	51	1.0000	0.0444	10	20	50	100	
Cr	52	1.0000	0.0386	10	20	50	100	
Cr	53	1.0000	0.0047	10	20	50	100	
Mn	55	1.0000	0.0664	10	20	50	100	
Co	59	1.0000	0.0495	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0076	10	20	50	100	
Ni	62	1.0000	0.0011	10	20	50	100	
Cu	63	1.0000	0.0171	10	20	50	100	
Cu	65	1.0000	0.0081	10	20	50	100	
Zn	66	0.9998	0.0055	10	20	50	100	
Zn	67	0.9998	0.0009	10	20	50	100	
Zn	68	0.9998	0.0039	10	20	50	100	
As-1	75	1.0000	0.0057	10	20	50	100	
As	75	1.0000	0.0057	10	20	50	100	
Se	82	1.0000	0.0006	10	20	50	100	
Se	78	1.0000	0.0016	10	20	50	100	
Mo	98	1.0000	0.0176	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0301	10	20	50	100	
Cd	111	1.0000	0.0080	10	20	50	100	
Cd	114	1.0000	0.0192	10	20	50	100	
Sb	121	1.0000	0.0287	10	20	50	100	
Sb	123	1.0000	0.0220	10	20	50	100	
Ba	135	1.0000	0.0073	10	20	50	100	
Ba	137	1.0000	0.0126	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0672	10	20	50	100	
Pb	208	1.0000	0.0926	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1153	10	20	50	100	
U	238	1.0000	0.1324	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 10:08:20
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	612155	1
[	Be	9	48.976	ug/L	0.457	0	8	32561	2
	C	13		mg/L			6358	9612	1
	Cl	37		mg/L			3622439	3528974	0
[>	Sc	45		ug/L			263288	264034	0
[	Al	27	4853.381	ug/L	78.564	1	9729	35561476	0
[	V-1	51	48.884	ug/L	0.346	0	1044	562578	0
[	V	51	48.889	ug/L	0.279	0	671	574272	0
[	Cr	52	49.422	ug/L	0.279	0	3487	506902	1
[	Cr	53	49.401	ug/L	0.291	0	275	61019	1
[	Mn	55	51.039	ug/L	1.283	2	1311	895869	2
[	Co	59	49.621	ug/L	0.828	1	110	648949	0
[>	Ge	72		ug/L			351015	351885	0
[	Ni	60	51.219	ug/L	0.416	0	117	136529	0
[	Ni	62	50.621	ug/L	0.623	1	163	20549	1
[	Cu	63	50.160	ug/L	0.394	0	292	301756	0
[	Cu	65	51.178	ug/L	0.028	0	142	145555	0
[	Zn	66	53.230	ug/L	0.303	0	710	103853	0
[	Zn	67	52.938	ug/L	0.002	0	157	17843	0
[	Zn	68	53.192	ug/L	0.399	0	3306	77131	0
[	As-1	75	49.265	ug/L	0.232	0	97	98937	0
[	As	75	49.122	ug/L	0.479	0	5265	103298	0
[	Se	82	77.451	ug/L	0.080	0	-6	17266	0
[	Se	78	77.449	ug/L	0.884	1	5339	48435	1
[	Mo	98	49.790	ug/L	0.083	0	84	308627	0
	Y	89		ug/L			287982	288876	1
	Kr	83		ug/L			81	93	10
[>	In	115		ug/L			392550	396319	1
[	Ag	107	48.493	ug/L	1.380	2	82	578055	1
[	Cd	111	49.079	ug/L	0.521	1	442	155999	0
[	Cd	114	49.560	ug/L	0.958	1	20	376782	0
[	Sb	121	48.572	ug/L	0.639	1	339	551996	0
[	Sb	123	48.708	ug/L	0.592	1	253	425183	0
[	Ba	135	49.931	ug/L	0.683	1	30	143966	0
[	Ba	137	49.450	ug/L	0.710	1	41	247062	0
[>	Tb	159		ug/L			531801	541493	0
[	Tl	205	49.223	ug/L	0.368	0	67	1790318	0
[	Pb	208	50.598	ug/L	0.241	0	662	2537602	0
[	Bi	209		ug/L			412309	409592	0
[	Th	232	50.215	ug/L	0.327	0	1702	3135685	0
[	U	238	49.881	ug/L	0.932	1	152	3576230	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 10:15:53
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	604453	1
[	Be	9	0.000	ug/L	0.005	14421	8	8	37
	C	13		mg/L			6358	6464	0
	Cl	37		mg/L			3622439	3608711	0
[>	Sc	45		ug/L			263288	263246	1
[	Al	27	-0.043	ug/L	0.192	452	9729	9407	13
[	V-1	51	-0.004	ug/L	0.006	181	1044	1002	6
[	V	51	-0.004	ug/L	0.003	78	671	620	5
[	Cr	52	-0.003	ug/L	0.010	326	3487	3454	2
[	Cr	53	-0.006	ug/L	0.007	119	275	267	2
[	Mn	55	-0.007	ug/L	0.002	26	1311	1193	2
[	Co	59	0.002	ug/L	0.001	62	110	134	11
[>	Ge	72		ug/L			351015	352077	0
[	Ni	60	0.005	ug/L	0.003	53	117	130	5
[	Ni	62	-0.037	ug/L	0.026	70	163	149	6
[	Cu	63	0.002	ug/L	0.006	268	292	308	12
[	Cu	65	-0.002	ug/L	0.003	163	142	138	5
[	Zn	66	-0.056	ug/L	0.037	65	710	603	11
[	Zn	67	0.004	ug/L	0.093	2541	157	159	19
[	Zn	68	-0.032	ug/L	0.035	108	3306	3272	1
[	As-1	75	0.010	ug/L	0.010	101	97	118	17
[	As	75	-0.007	ug/L	0.017	222	5265	5267	0
[	Se	82	0.029	ug/L	0.011	39	-6	0	432
[	Se	78	-0.046	ug/L	0.040	87	5339	5330	0
[	Mo	98	0.008	ug/L	0.002	31	84	131	11
	Y	89		ug/L			287982	291860	0
	Kr	83		ug/L			81	79	1
[>	In	115		ug/L			392550	398893	0
[	Ag	107	0.006	ug/L	0.001	22	82	157	10
[	Cd	111	0.001	ug/L	0.003	492	442	451	1
[	Cd	114	0.001	ug/L	0.000	29	20	25	5
[	Sb	121	-0.002	ug/L	0.006	292	339	321	20
[	Sb	123	-0.003	ug/L	0.001	33	253	230	3
[	Ba	135	0.002	ug/L	0.005	258	30	36	37
[	Ba	137	0.003	ug/L	0.000	13	41	57	3
[>	Tb	159		ug/L			531801	549190	1
[	Tl	205	0.001	ug/L	0.001	48	67	122	20
[	Pb	208	0.002	ug/L	0.001	34	662	766	4
[	Bi	209		ug/L			412309	417996	1
[	Th	232	0.020	ug/L	0.005	23	1702	3056	10
[	U	238	0.004	ug/L	0.001	23	152	452	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 10:23:24
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	591647	1
[	Be	9	49.507	ug/L	0.468	0	8	31806	0
	C	13		mg/L			6358	7074	3
	Cl	37		mg/L			3622439	3564383	0
[>	Sc	45		ug/L			263288	260105	0
[	Al	27	4932.594	ug/L	59.708	1	9729	35606740	1
[	V-1	51	49.122	ug/L	0.205	0	1044	556905	0
[	V	51	49.033	ug/L	0.164	0	671	567404	0
[	Cr	52	49.529	ug/L	0.550	1	3487	500412	0
[	Cr	53	49.231	ug/L	0.637	1	275	59903	1
[	Mn	55	49.897	ug/L	0.779	1	1311	862856	1
[	Co	59	50.068	ug/L	0.691	1	110	645095	1
[>	Ge	72		ug/L			351015	350080	0
[	Ni	60	49.949	ug/L	0.833	1	117	132457	1
[	Ni	62	49.891	ug/L	0.857	1	163	20150	1
[	Cu	63	49.844	ug/L	0.678	1	292	298300	0
[	Cu	65	50.197	ug/L	0.292	0	142	142031	0
[	Zn	66	52.676	ug/L	0.362	0	710	102254	0
[	Zn	67	52.284	ug/L	0.760	1	157	17533	0
[	Zn	68	52.544	ug/L	0.439	0	3306	75839	0
[	As-1	75	49.657	ug/L	0.496	0	97	99211	1
[	As	75	49.666	ug/L	0.538	1	5265	103849	1
[	Se	82	50.165	ug/L	0.392	0	-6	11123	0
[	Se	78	50.210	ug/L	0.247	0	5339	33112	0
[	Mo	98	50.023	ug/L	0.167	0	84	308479	0
	Y	89		ug/L			287982	285555	1
	Kr	83		ug/L			81	94	3
[>	In	115		ug/L			392550	393658	0
[	Ag	107	49.829	ug/L	0.349	0	82	590129	0
[	Cd	111	49.914	ug/L	0.189	0	442	157595	0
[	Cd	114	49.917	ug/L	0.372	0	20	377006	0
[	Sb	121	49.253	ug/L	0.238	0	339	556033	0
[	Sb	123	49.596	ug/L	0.263	0	253	430055	0
[	Ba	135	49.421	ug/L	0.330	0	30	141552	0
[	Ba	137	49.373	ug/L	0.586	1	41	245048	1
[>	Tb	159		ug/L			531801	535451	1
[	Tl	205	49.874	ug/L	0.677	1	67	1793600	0
[	Pb	208	49.415	ug/L	0.651	1	662	2450384	0
[	Bi	209		ug/L			412309	409447	0
[	Th	232	49.920	ug/L	0.877	1	1702	3082025	0
[	U	238	50.439	ug/L	0.872	1	152	3575625	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 10:30:55
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	587586	3
[	Be	9	0.001	ug/L	0.002	247	8	9	20
	C	13		mg/L			6358	6286	2
	Cl	37		mg/L			3622439	3642058	0
[>	Sc	45		ug/L			263288	263597	1
|	Al	27	-0.062	ug/L	0.025	40	9729	9290	2
|	V-1	51	-0.001	ug/L	0.007	710	1044	1035	8
|	V	51	-0.005	ug/L	0.005	105	671	616	10
|	Cr	52	-0.001	ug/L	0.005	357	3487	3477	1
|	Cr	53	-0.013	ug/L	0.018	135	275	259	6
|	Mn	55	-0.016	ug/L	0.004	25	1311	1027	5
[	Co	59	0.000	ug/L	0.001	534	110	113	13
[>	Ge	72		ug/L			351015	350224	0
|	Ni	60	0.004	ug/L	0.006	133	117	127	10
|	Ni	62	-0.056	ug/L	0.015	27	163	140	3
|	Cu	63	-0.000	ug/L	0.002	513	292	289	5
|	Cu	65	0.004	ug/L	0.002	64	142	152	4
|	Zn	66	-0.073	ug/L	0.006	8	710	567	1
|	Zn	67	0.030	ug/L	0.031	104	157	167	6
|	Zn	68	0.013	ug/L	0.057	426	3306	3317	2
|	As-1	75	-0.000	ug/L	0.014	26816	97	97	28
|	As	75	0.001	ug/L	0.016	1202	5265	5256	0
|	Se	82	-0.015	ug/L	0.019	130	-6	-10	41
|	Se	78	-0.007	ug/L	0.065	875	5339	5323	0
[	Mo	98	0.014	ug/L	0.007	46	84	171	23
	Y	89		ug/L			287982	290324	0
	Kr	83		ug/L			81	82	8
[>	In	115		ug/L			392550	403133	0
|	Ag	107	0.007	ug/L	0.002	32	82	168	16
|	Cd	111	0.004	ug/L	0.005	112	442	468	2
|	Cd	114	0.001	ug/L	0.001	122	20	27	31
|	Sb	121	-0.005	ug/L	0.003	55	339	288	11
|	Sb	123	-0.002	ug/L	0.007	280	253	238	26
|	Ba	135	0.002	ug/L	0.001	45	30	35	5
[	Ba	137	0.003	ug/L	0.001	41	41	55	10
[>	Tb	159		ug/L			531801	545335	0
|	Tl	205	0.002	ug/L	0.001	56	67	141	28
|	Pb	208	0.002	ug/L	0.001	28	662	795	3
|	Bi	209		ug/L			412309	423435	0
|	Th	232	0.038	ug/L	0.009	23	1702	4116	13
[	U	238	0.005	ug/L	0.002	37	152	521	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~LOW CHECK~~ 222222
Sample Dil Factor:
Comments: KS 12-28-09
Sample Date/Time: Monday, December 28, 2009 10:38:25
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	**Li**	**6**		ug/L			604202	592147	5
⌊	**Be**	**9**	**3.491**	ug/L	0.123	3	8	2250	1
	C	**13**		mg/L			6358	5638	2
	Cl	**37**		mg/L			3622439	3613581	0
⌈>	**Sc**	**45**		ug/L			263288	264460	1
|	**Al**	**27**	**369.086**	ug/L	2.501	0	9729	2717960	1
|	**V-1**	**51**	**3.469**	ug/L	0.169	4	1044	40951	3
|	**V**	**51**	**3.616**	ug/L	0.129	3	671	43161	2
|	**Cr**	**52**	**9.241**	ug/L	0.185	1	3487	97767	0
|	**Cr**	**53**	**9.320**	ug/L	0.145	1	275	11754	1
|	**Mn**	**55**	**9.326**	ug/L	0.083	0	1311	165041	0
⌊	**Co**	**59**	**3.771**	ug/L	0.022	0	110	49504	0
⌈>	**Ge**	**72**		ug/L			351015	357008	0
|	**Ni**	**60**	**9.497**	ug/L	0.038	0	117	25779	0
|	**Ni**	**62**	**9.413**	ug/L	0.348	3	163	4012	4
|	**Cu**	**63**	**9.453**	ug/L	0.086	0	292	57938	0
|	**Cu**	**65**	**9.466**	ug/L	0.125	1	142	27431	0
|	**Zn**	**66**	**78.382**	ug/L	0.814	1	710	154816	1
|	**Zn**	**67**	**69.427**	ug/L	0.590	0	157	23693	1
|	**Zn**	**68**	**77.408**	ug/L	0.643	0	3306	112352	1
|	**As-1**	**75**	**3.773**	ug/L	0.017	0	97	7778	0
|	**As**	**75**	**3.756**	ug/L	0.040	1	5265	12959	0
|	**Se**	**82**	**9.402**	ug/L	0.044	0	-6	2120	1
|	**Se**	**78**	**9.422**	ug/L	0.088	0	5339	10748	0
⌊	**Mo**	**98**	**3.673**	ug/L	0.055	1	84	23173	0
	Y	**89**		ug/L			287982	295169	1
	Kr	**83**		ug/L			81	78	6
⌈>	**In**	**115**		ug/L			392550	403907	0
|	**Ag**	**107**	**3.702**	ug/L	0.059	1	82	45055	1
|	**Cd**	**111**	**3.704**	ug/L	0.092	2	442	12420	1
|	**Cd**	**114**	**3.751**	ug/L	0.014	0	20	29084	0
|	**Sb**	**121**	**3.613**	ug/L	0.017	0	339	42173	0
|	**Sb**	**123**	**3.611**	ug/L	0.030	0	253	32367	0
|	**Ba**	**135**	**9.247**	ug/L	0.080	0	30	27200	0
⌊	**Ba**	**137**	**9.104**	ug/L	0.251	2	41	46391	2
⌈>	**Tb**	**159**		ug/L			531801	550587	0
|	**Tl**	**205**	**3.823**	ug/L	0.044	1	67	141460	1
|	**Pb**	**208**	**18.206**	ug/L	0.136	0	662	928849	0
|	**Bi**	**209**		ug/L			412309	425198	0
|	**Th**	**232**	**3.576**	ug/L	0.012	0	1702	228705	0
⌊	**U**	**238**	**3.579**	ug/L	0.044	1	152	261077	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 10:55:31
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	623575	3
[	Be	9	0.197	ug/L	0.021	10	8	142	7
	C	13		mg/L			6358	4321	3
	Cl	37		mg/L			3622439	3686245	0
[>	Sc	45		ug/L			263288	278864	1
[	Al	27	18.789	ug/L	0.453	2	9729	155641	1
[	V-1	51	0.165	ug/L	0.004	2	1044	3110	3
[	V	51	0.174	ug/L	0.004	2	671	2865	0
[	Cr	52	0.460	ug/L	0.007	1	3487	8642	0
[	Cr	53	0.468	ug/L	0.028	5	275	898	2
[	Mn	55	0.461	ug/L	0.009	1	1311	9918	1
[	Co	59	0.195	ug/L	0.006	2	110	2805	2
[>	Ge	72		ug/L			351015	368714	0
[	Ni	60	0.555	ug/L	0.012	2	117	1670	1
[	Ni	62	0.499	ug/L	0.027	5	163	382	2
[	Cu	63	0.520	ug/L	0.005	1	292	3584	1
[	Cu	65	0.523	ug/L	0.016	2	142	1706	2
[	Zn	66	4.202	ug/L	0.076	1	710	9277	1
[	Zn	67	3.657	ug/L	0.286	7	157	1445	6
[	Zn	68	4.058	ug/L	0.039	0	3306	9374	1
[	As-1	75	0.193	ug/L	0.018	9	97	508	7
[	As	75	0.127	ug/L	0.023	18	5265	5797	0
[	Se	82	0.516	ug/L	0.043	8	-6	113	8
[	Se	78	0.252	ug/L	0.053	21	5339	5755	0
[	Mo	98	0.183	ug/L	0.003	1	84	1273	1
	Y	89		ug/L			287982	306947	2
	Kr	83		ug/L			81	78	4
[>	In	115		ug/L			392550	422113	1
[	Ag	107	0.195	ug/L	0.005	2	82	2567	1
[	Cd	111	0.199	ug/L	0.020	10	442	1148	4
[	Cd	114	0.194	ug/L	0.003	1	20	1593	2
[	Sb	121	0.159	ug/L	0.004	2	339	2291	2
[	Sb	123	0.163	ug/L	0.004	2	253	1783	1
[	Ba	135	0.469	ug/L	0.014	2	30	1471	1
[	Ba	137	0.476	ug/L	0.010	2	41	2575	0
[>	Tb	159		ug/L			531801	571549	0
[	Tl	205	0.202	ug/L	0.001	0	67	7837	0
[	Pb	208	0.951	ug/L	0.008	0	662	51047	0
[	Bi	209		ug/L			412309	440895	0
[	Th	232	0.172	ug/L	0.001	0	1702	13135	0
[	U	238	0.185	ug/L	0.003	1	152	14174	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 11:03:01
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	755541	1
[	Be	9	0.004	ug/L	0.007	196	8	13	39
	C	13		mg/L			6358	22849	1
	Cl	37		mg/L			3622439	4631475	2
[>	Sc	45		ug/L			263288	237696	1
|	Al	27	20135.187	ug/L	385.453	1	9729	132770907	0
|	V-1	51	-0.029	ug/L	0.021	71	1044	642	31
|	V	51	0.537	ug/L	0.041	7	671	6276	5
|	Cr	52	0.360	ug/L	0.008	2	3487	6446	0
|	Cr	53	2.062	ug/L	0.073	3	275	2530	2
|	Mn	55	0.390	ug/L	0.003	0	1311	7333	1
[	Co	59	0.036	ug/L	0.003	8	110	527	5
[>	Ge	72		ug/L			351015	307191	2
|	Ni	60	0.552	ug/L	0.006	1	117	1385	2
|	Ni	62	4.658	ug/L	0.096	2	163	1780	2
|	Cu	63	0.401	ug/L	0.006	1	292	2359	3
|	Cu	65	0.993	ug/L	0.047	4	142	2588	5
|	Zn	66	1.375	ug/L	0.021	1	710	2947	2
|	Zn	67	1.137	ug/L	0.211	18	157	468	11
|	Zn	68	0.435	ug/L	0.067	15	3306	3419	0
|	As-1	75	0.010	ug/L	0.005	50	97	103	9
|	As	75	-0.100	ug/L	0.026	25	5265	4434	2
|	Se	82	-0.093	ug/L	0.030	32	-6	-24	22
|	Se	78	-0.311	ug/L	0.064	20	5339	4521	2
[	Mo	98	400.885	ug/L	2.799	0	84	2168558	1
	Y	89		ug/L			287982	254289	2
	Kr	83		ug/L			81	105	3
[>	In	115		ug/L			392550	343219	2
|	Ag	107	0.018	ug/L	0.003	14	82	258	7
|	Cd	111	0.055	ug/L	0.028	50	442	536	14
|	Cd	114	0.683	ug/L	0.021	3	20	4517	4
|	Sb	121	0.026	ug/L	0.002	7	339	555	2
|	Sb	123	0.022	ug/L	0.004	16	253	384	8
|	Ba	135	0.287	ug/L	0.014	4	30	741	4
[	Ba	137	0.294	ug/L	0.005	1	41	1306	2
[>	Tb	159		ug/L			531801	479698	1
|	Tl	205	0.001	ug/L	0.000	22	67	102	10
|	Pb	208	0.019	ug/L	0.000	2	662	1433	2
|	Bi	209		ug/L			412309	358252	2
|	Th	232	0.033	ug/L	0.003	9	1702	3361	6
[	U	238	-0.001	ug/L	0.000	12	152	65	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 11:10:46
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	905843	1
[	Be	9	0.001	ug/L	0.001	63	8	14	5
	C	13		mg/L			6358	22358	0
	Cl	37		mg/L			3622439	4327551	0
[>	Sc	45		ug/L			263288	253915	0
|	Al	27	18000.716	ug/L	142.352	0	9729	126822968	0
|	V-1	51	-0.299	ug/L	0.117	39	1044	-2294	56
|	V	51	0.529	ug/L	0.047	8	671	6620	8
|	Cr	52	18.144	ug/L	0.135	0	3487	181090	0
|	Cr	53	19.493	ug/L	0.345	1	275	23314	1
|	Mn	55	17.683	ug/L	0.118	0	1311	299340	0
[	Co	59	17.166	ug/L	0.043	0	110	215979	0
[>	Ge	72		ug/L			351015	330920	0
|	Ni	60	18.042	ug/L	0.228	1	117	45300	1
|	Ni	62	21.630	ug/L	0.353	1	163	8345	1
|	Cu	63	17.717	ug/L	0.174	0	292	100409	0
|	Cu	65	18.435	ug/L	0.140	0	142	49394	0
|	Zn	66	18.963	ug/L	0.195	1	710	35224	1
|	Zn	67	16.641	ug/L	0.433	2	157	5376	2
|	Zn	68	17.880	ug/L	0.101	0	3306	26451	0
|	As-1	75	17.263	ug/L	0.050	0	97	32662	0
|	As	75	16.934	ug/L	0.068	0	5265	36741	0
|	Se	82	-0.107	ug/L	0.027	25	-6	-28	19
|	Se	78	-1.490	ug/L	0.096	6	5339	4254	1
[	Mo	98	351.610	ug/L	1.576	0	84	2049152	0
	Y	89		ug/L			287982	272468	0
	Kr	83		ug/L			81	103	4
[>	In	115		ug/L			392550	367654	0
|	Ag	107	16.355	ug/L	0.143	0	82	180947	1
|	Cd	111	17.679	ug/L	0.145	0	442	52396	0
|	Cd	114	18.342	ug/L	0.305	1	20	129386	1
|	Sb	121	0.022	ug/L	0.003	13	339	545	5
|	Sb	123	0.023	ug/L	0.003	11	253	426	4
|	Ba	135	0.246	ug/L	0.010	3	30	685	3
[	Ba	137	0.244	ug/L	0.005	2	41	1167	1
[>	Tb	159		ug/L			531801	512321	1
|	Tl	205	0.006	ug/L	0.000	6	67	258	6
|	Pb	208	0.021	ug/L	0.000	0	662	1612	1
|	Bi	209		ug/L			412309	385726	0
|	Th	232	0.004	ug/L	0.001	33	1702	1874	5
[	U	238	-0.001	ug/L	0.000	10	152	53	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 11:18:34
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	735458	1
[	Be	9	180.836	ug/L	3.058	1	8	144378	0
	C	13		mg/L			6358	8481	0
	Cl	37		mg/L			3622439	3109308	1
[>	Sc	45		ug/L			263288	241525	1
[	Al	27	20709.276	ug/L	438.219	2	9729	138793603	2
[	V-1	51	197.956	ug/L	1.251	0	1044	2081093	1
[	V	51	197.425	ug/L	1.343	0	671	2119588	1
[	Cr	52	199.135	ug/L	2.590	1	3487	1858500	1
[	Cr	53	197.437	ug/L	1.977	1	275	222321	1
[	Mn	55	195.508	ug/L	3.783	1	1311	3136007	2
[	Co	59	190.016	ug/L	2.568	1	110	2273096	1
[>	Ge	72		ug/L			351015	321754	1
[	Ni	60	192.284	ug/L	1.275	0	117	468375	1
[	Ni	62	189.642	ug/L	0.706	0	163	69978	0
[	Cu	63	188.634	ug/L	1.070	0	292	1036924	1
[	Cu	65	190.409	ug/L	2.034	1	142	494831	1
[	Zn	66	198.582	ug/L	2.093	1	710	352513	2
[	Zn	67	192.949	ug/L	0.475	0	157	59085	1
[	Zn	68	198.586	ug/L	0.888	0	3306	255024	1
[	As-1	75	192.551	ug/L	0.244	0	97	353321	1
[	As	75	191.862	ug/L	0.528	0	5265	354886	0
[	Se	82	193.635	ug/L	1.553	0	-6	39482	1
[	Se	78	191.206	ug/L	2.473	1	5339	102148	1
[	Mo	98	199.571	ug/L	1.236	0	84	1130849	0
	Y	89		ug/L			287982	261817	1
	Kr	83		ug/L			81	124	7
[>	In	115		ug/L			392550	358094	0
[	Ag	107	197.462	ug/L	2.566	1	82	2126979	0
[	Cd	111	197.849	ug/L	2.792	1	442	567023	0
[	Cd	114	195.706	ug/L	4.842	2	20	1344494	2
[	Sb	121	200.780	ug/L	2.730	1	339	2060879	1
[	Sb	123	200.470	ug/L	2.491	1	253	1580512	0
[	Ba	135	196.104	ug/L	2.606	1	30	510863	1
[	Ba	137	196.218	ug/L	2.878	1	41	885754	1
[>	Tb	159		ug/L			531801	501879	1
[	Tl	205	195.916	ug/L	1.927	0	67	6604568	1
[	Pb	208	197.594	ug/L	1.495	0	662	9183538	1
[	Bi	209		ug/L			412309	368121	1
[	Th	232	200.448	ug/L	1.857	0	1702	11597627	2
[	U	238	201.474	ug/L	1.252	0	152	13389663	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 11:25:21
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	685536	5
[	Be	9	280.309	ug/L	10.517	3	8	208377	1
	C	13		mg/L			6358	8672	0
	Cl	37		mg/L			3622439	3114662	1
[>	Sc	45		ug/L			263288	246079	1
[	Al	27	31739.156	ug/L	427.479	1	9729	216692091	0
[	V-1	51	297.179	ug/L	3.541	1	1044	3182392	0
[	V	51	297.966	ug/L	2.140	0	671	3258828	0
[	Cr	52	295.439	ug/L	4.403	1	3487	2807546	0
[	Cr	53	297.952	ug/L	1.173	0	275	341696	1
[	Mn	55	294.093	ug/L	4.176	1	1311	4805214	0
[	Co	59	290.037	ug/L	2.785	0	110	3534790	0
[>	Ge	72		ug/L			351015	330182	1
[	Ni	60	285.711	ug/L	4.219	1	117	714011	0
[	Ni	62	283.676	ug/L	6.055	2	163	107322	0
[	Cu	63	280.308	ug/L	5.896	2	292	1580700	0
[	Cu	65	282.524	ug/L	2.406	0	142	753294	0
[	Zn	66	292.303	ug/L	3.962	1	710	532063	0
[	Zn	67	289.382	ug/L	5.425	1	157	90845	0
[	Zn	68	291.270	ug/L	3.124	1	3306	382350	0
[	As-1	75	287.578	ug/L	3.611	1	97	541405	0
[	As	75	287.342	ug/L	3.945	1	5265	542888	0
[	Se	82	286.115	ug/L	3.098	1	-6	59863	0
[	Se	78	285.344	ug/L	4.289	1	5339	153940	0
[	Mo	98	302.171	ug/L	5.557	1	84	1756809	0
	Y	89		ug/L			287982	267908	0
	Kr	83		ug/L			81	167	6
[>	In	115		ug/L			392550	371685	1
[	Ag	107	291.528	ug/L	3.151	1	82	3259266	1
[	Cd	111	290.495	ug/L	1.096	0	442	863944	1
[	Cd	114	293.549	ug/L	4.371	1	20	2092898	0
[	Sb	121	300.261	ug/L	5.292	1	339	3198296	0
[	Sb	123	301.651	ug/L	1.942	0	253	2468271	1
[	Ba	135	296.435	ug/L	3.533	1	30	801427	0
[	Ba	137	295.196	ug/L	5.436	1	41	1383036	1
[>	Tb	159		ug/L			531801	516555	0
[	Tl	205	298.169	ug/L	0.968	0	67	10345354	0
[	Pb	208	297.981	ug/L	1.434	0	662	14253730	1
[	Bi	209		ug/L			412309	354497	0
[	Th	232	308.812	ug/L	2.292	0	1702	18387604	1
[	U	238	307.793	ug/L	1.888	0	152	21051895	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 11:32:11
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			604202	726948 ✓ 120-320	
	Be	9	47.401	ug/L	0.826	1	8	37420	1
	C	13		mg/L			6358	7763	0
	Cl	37		mg/L			3622439	3289467	0
>	Sc	45		ug/L			263288	255093	0
	Al	27	5261.847	ug/L	79.415	1	9729	37249957	1
	V-1	51	48.818	ug/L	0.841	1	1044	542837	2
	V	51	48.977	ug/L	0.609	1	671	555866	1
	Cr	52	48.911	ug/L	0.276	0	3487	484702	0
	Cr	53	49.391	ug/L	0.636	1	275	58937	0
	Mn	55	48.853	ug/L	0.793	1	1311	828600	1
	Co	59	48.273	ug/L	0.733	1	110	609971	1
>	Ge	72		ug/L			351015	328578	0
	Ni	60	50.806	ug/L	0.132	0	117	126459	0
	Ni	62	50.044	ug/L	0.613	1	163	18970	0
	Cu	63	50.779	ug/L	0.165	0	292	285248	0
	Cu	65	50.525	ug/L	0.311	0	142	134180	0
	Zn	66	53.172	ug/L	0.180	0	710	96867	0
	Zn	67	52.549	ug/L	0.183	0	157	16540	0
	Zn	68	52.706	ug/L	0.483	0	3306	71392	0
	As-1	75	49.352	ug/L	0.293	0	97	92547	0
	As	75	49.087	ug/L	0.312	0	5265	96389	0
	Se	82	50.911	ug/L	0.387	0	-6	10596	1
	Se	78	50.021	ug/L	0.389	0	5339	30980	0
	Mo	98	50.205	ug/L	0.327	0	84	290583	0
	Y	89		ug/L			287982	270596	1
	Kr	83		ug/L			81	94	3
>	In	115		ug/L			392550	372859	0
	Ag	107	48.912	ug/L	0.220	0	82	548661	0
	Cd	111	49.858	ug/L	0.335	0	442	149104	1
	Cd	114	50.121	ug/L	0.640	1	20	358541	1
	Sb	121	49.561	ug/L	0.220	0	339	529955	0
	Sb	123	49.697	ug/L	0.272	0	253	408153	0
	Ba	135	48.289	ug/L	0.227	0	30	131001	0
	Ba	137	48.292	ug/L	0.178	0	41	227022	0
>	Tb	159		ug/L			531801	520483	1
	Tl	205	48.714	ug/L	0.385	0	67	1703094	1
	Pb	208	48.820	ug/L	0.670	1	662	2353239	0
	Bi	209		ug/L			412309	391837	0
	Th	232	49.906	ug/L	0.684	1	1702	2995197	0
	U	238	49.796	ug/L	0.555	1	152	3431601	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 11:39:42
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			604202	742422	2
⌊	Be	9	0.002	ug/L	0.003	140	8	12	20
	C	13		mg/L			6358	6744	2
	Cl	37		mg/L			3622439	3379579	1
⌈>	Sc	45		ug/L			263288	254372	0
|	Al	27	0.210	ug/L	0.048	22	9729	10879	2
|	V-1	51	0.002	ug/L	0.008	402	1044	1031	8
|	V	51	0.036	ug/L	0.005	13	671	1056	4
|	Cr	52	-0.017	ug/L	0.004	25	3487	3200	0
|	Cr	53	0.088	ug/L	0.018	20	275	369	5
|	Mn	55	-0.021	ug/L	0.001	5	1311	910	1
⌊	Co	59	0.011	ug/L	0.002	13	110	249	7
⌈>	Ge	72		ug/L			351015	329522	0
|	Ni	60	0.008	ug/L	0.003	34	117	130	5
|	Ni	62	-0.059	ug/L	0.036	60	163	131	10
|	Cu	63	0.009	ug/L	0.008	87	292	325	13
|	Cu	65	0.004	ug/L	0.004	107	142	144	8
|	Zn	66	-0.065	ug/L	0.008	12	710	548	3
|	Zn	67	0.080	ug/L	0.072	89	157	172	12
|	Zn	68	-0.101	ug/L	0.086	85	3306	2973	3
|	As-1	75	0.020	ug/L	0.004	18	97	129	5
|	As	75	-0.088	ug/L	0.007	8	5265	4778	0
|	Se	82	0.011	ug/L	0.027	255	-6	-4	130
|	Se	78	-0.370	ug/L	0.032	8	5339	4819	0
⌊	Mo	98	0.034	ug/L	0.008	24	84	277	17
	Y	89		ug/L			287982	273989	1
	Kr	83		ug/L			81	78	0
⌈>	In	115		ug/L			392550	371517	0
|	Ag	107	0.018	ug/L	0.001	6	82	280	4
|	Cd	111	-0.012	ug/L	0.005	42	442	382	4
|	Cd	114	0.003	ug/L	0.002	61	20	40	32
|	Sb	121	0.023	ug/L	0.005	19	339	567	8
|	Sb	123	0.026	ug/L	0.010	41	253	448	18
|	Ba	135	0.006	ug/L	0.001	11	30	44	4
⌊	Ba	137	0.009	ug/L	0.002	23	41	79	11
⌈>	Tb	159		ug/L			531801	518967	1
|	Tl	205	0.006	ug/L	0.002	37	67	257	26
|	Pb	208	0.005	ug/L	0.002	40	662	869	9
|	Bi	209		ug/L			412309	395616	1
|	Th	232	0.079	ug/L	0.009	11	1702	6362	7
⌊	U	238	0.010	ug/L	0.003	31	152	819	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB41R MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 11:49:19
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	791673	2
[	Be	9	-0.007	ug/L	0.004	63	8	5	65
	C	13		mg/L			6358	9172	0
	Cl	37		mg/L			3622439	3362774	1
[>	Sc	45		ug/L			263288	265119	0
|	Al	27	0.827	ug/L	0.160	19	9729	15881	7
|	V-1	51	0.006	ug/L	0.015	228	1044	1124	14
|	V	51	0.027	ug/L	0.004	13	671	998	3
|	Cr	52	0.048	ug/L	0.008	17	3487	4000	1
|	Cr	53	0.109	ug/L	0.025	22	275	411	8
|	Mn	55	-0.023	ug/L	0.001	5	1311	908	3
[	Co	59	0.003	ug/L	0.001	21	110	157	5
[>	Ge	72		ug/L			351015	334242	0
|	Ni	60	-0.008	ug/L	0.003	44	117	91	9
|	Ni	62	-0.061	ug/L	0.025	40	163	132	7
|	Cu	63	0.338	ug/L	0.019	5	292	2210	4
|	Cu	65	0.326	ug/L	0.010	3	142	1015	2
|	Zn	66	0.738	ug/L	0.026	3	710	2035	2
|	Zn	67	0.750	ug/L	0.008	1	157	387	0
|	Zn	68	0.695	ug/L	0.107	15	3306	4065	3
|	As-1	75	0.018	ug/L	0.015	81	97	127	21
|	As	75	-0.107	ug/L	0.039	36	5265	4811	1
|	Se	82	0.012	ug/L	0.015	126	-6	-4	77
|	Se	78	-0.437	ug/L	0.089	20	5339	4853	0
[	Mo	98	0.040	ug/L	0.010	25	84	314	18
	Y	89		ug/L			287982	280313	1
	Kr	83		ug/L			81	77	4
[>	In	115		ug/L			392550	383244	0
|	Ag	107	0.009	ug/L	0.002	24	82	189	14
|	Cd	111	-0.013	ug/L	0.009	70	442	391	7
|	Cd	114	0.000	ug/L	0.001	2453	20	20	25
|	Sb	121	-0.006	ug/L	0.003	49	339	265	12
|	Sb	123	-0.005	ug/L	0.001	16	253	208	3
|	Ba	135	0.013	ug/L	0.002	15	30	67	8
[	Ba	137	0.011	ug/L	0.003	25	41	91	14
[>	Tb	159		ug/L			531801	529982	0
|	Tl	205	0.001	ug/L	0.000	12	67	116	5
|	Pb	208	-0.002	ug/L	0.000	27	662	582	3
|	Bi	209		ug/L			412309	405799	1
|	Th	232	0.073	ug/L	0.007	9	1702	6148	7
[	U	238	0.001	ug/L	0.000	32	152	255	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 11:56:10
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			604202	776092	5
	Be	9	-0.002	ug/L	0.002	95	8	9	15
	C	13		mg/L			6358	5700	1
	Cl	37		mg/L			3622439	3408802	0
>	Sc	45		ug/L			263288	256441	1
	Al	27	-0.150	ug/L	0.124	82	9729	8414	11
	V-1	51	-0.009	ug/L	0.004	41	1044	917	5
	V	51	0.024	ug/L	0.004	14	671	929	3
	Cr	52	-0.021	ug/L	0.008	39	3487	3192	1
	Cr	53	0.081	ug/L	0.024	29	275	364	6
	Mn	55	-0.002	ug/L	0.003	157	1311	1243	5
	Co	59	0.005	ug/L	0.000	2	110	173	0
>	Ge	72		ug/L			351015	330850	0
	Ni	60	0.001	ug/L	0.007	1222	117	111	14
	Ni	62	-0.040	ug/L	0.044	108	163	139	11
	Cu	63	0.021	ug/L	0.002	9	292	394	2
	Cu	65	0.014	ug/L	0.007	47	142	171	10
	Zn	66	0.187	ug/L	0.011	5	710	1010	1
	Zn	67	0.269	ug/L	0.035	13	157	232	4
	Zn	68	0.214	ug/L	0.036	16	3306	3395	1
	As-1	75	0.007	ug/L	0.013	189	97	104	22
	As	75	-0.087	ug/L	0.031	35	5265	4799	1
	Se	82	-0.022	ug/L	0.008	35	-6	-11	15
	Se	78	-0.324	ug/L	0.088	27	5339	4863	0
	Mo	98	-0.002	ug/L	0.001	70	84	68	11
	Y	89		ug/L			287982	277843	0
	Kr	83		ug/L			81	84	4
>	In	115		ug/L			392550	381479	0
	Ag	107	0.005	ug/L	0.001	18	82	138	8
	Cd	111	-0.010	ug/L	0.009	93	442	400	6
	Cd	114	0.001	ug/L	0.001	55	20	28	16
	Sb	121	-0.013	ug/L	0.003	21	339	190	15
	Sb	123	-0.013	ug/L	0.001	11	253	141	9
	Ba	135	0.012	ug/L	0.003	22	30	62	12
	Ba	137	0.014	ug/L	0.001	8	41	107	5
>	Tb	159		ug/L			531801	526268	1
	Tl	205	0.001	ug/L	0.000	20	67	100	7
	Pb	208	0.002	ug/L	0.001	28	662	765	3
	Bi	209		ug/L			412309	408129	0
	Th	232	-0.004	ug/L	0.002	48	1702	1472	7
	U	238	0.000	ug/L	0.000	217	152	154	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ERAP150
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, December 28, 2009 12:03:01
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	768542	1
[	Be	9	31.753	ug/L	0.397	1	8	26504	1
	C	13		mg/L			6358	9034	1
	Cl	37		mg/L			3622439	3396797	1
[>	Sc	45		ug/L			263288	253013	0
[	Al	27	78.603	ug/L	0.316	0	9729	561141	0
[	V-1	51	43.725	ug/L	0.558	1	1044	482319	1
[	V	51	43.699	ug/L	0.437	1	671	491975	1
[	Cr	52	48.952	ug/L	0.371	0	3487	481147	0
[	Cr	53	48.540	ug/L	0.187	0	275	57457	0
[	Mn	55	234.456	ug/L	3.042	1	1311	3939324	1
[	Co	59	13.377	ug/L	0.085	0	110	167737	0
[>	Ge	72		ug/L			351015	329271	0
[	Ni	60	32.538	ug/L	0.349	1	117	81194	0
[	Ni	62	32.284	ug/L	0.636	1	163	12317	1
[	Cu	63	11.426	ug/L	0.048	0	292	64533	1
[	Cu	65	11.525	ug/L	0.154	1	142	30772	0
[	Zn	66	94.995	ug/L	1.038	1	710	172911	1
[	Zn	67	88.313	ug/L	1.798	2	157	27752	1
[	Zn	68	94.061	ug/L	1.480	1	3306	125234	0
[	As-1	75	66.015	ug/L	0.775	1	97	124019	1
[	As	75	65.550	ug/L	0.668	1	5265	127331	0
[	Se	82	78.724	ug/L	1.472	1	-6	16421	1
[	Se	78	77.272	ug/L	1.029	1	5339	45228	0
[	Mo	98	24.455	ug/L	0.431	1	84	141872	1
	Y	89		ug/L			287982	273467	0
	Kr	83		ug/L			81	87	5
[>	In	115		ug/L			392550	376029	0
[	Ag	107	56.370	ug/L	0.160	0	82	637688	0
[	Cd	111	68.120	ug/L	0.510	0	442	205292	0
[	Cd	114	67.914	ug/L	0.383	0	20	489953	0
[	Sb	121	59.995	ug/L	0.651	1	339	646925	1
[	Sb	123	60.404	ug/L	0.034	0	253	500265	0
[	Ba	135	47.077	ug/L	0.151	0	30	128803	0
[	Ba	137	47.018	ug/L	0.447	0	41	222915	1
[>	Tb	159		ug/L			531801	519721	0
[	Tl	205	60.320	ug/L	0.589	0	67	2105703	0
[	Pb	208	75.065	ug/L	0.169	0	662	3613070	0
[	Bi	209		ug/L			412309	406051	0
[	Th	232	-0.001	ug/L	0.006	636	1702	1611	21
[	U	238	-0.000	ug/L	0.000	16	152	117	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB41R MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 12:09:53
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			604202	806965	2
	Be	9	23.109	ug/L	0.642	2	8	20249	1
	C	13		mg/L			6358	9729	1
	Cl	37		mg/L			3622439	3349524	0
>	Sc	45		ug/L			263288	259542	0
	Al	27	1.484	ug/L	0.033	2	9729	20278	1
	V-1	51	25.505	ug/L	0.313	1	1044	289022	0
	V	51	25.648	ug/L	0.417	1	671	296468	1
	Cr	52	25.666	ug/L	0.082	0	3487	260413	0
	Cr	53	26.092	ug/L	0.492	1	275	31807	1
	Mn	55	25.875	ug/L	0.311	1	1311	447124	0
	Co	59	25.496	ug/L	0.252	0	110	327849	1
>	Ge	72		ug/L			351015	329424	0
	Ni	60	27.206	ug/L	0.144	0	117	67942	0
	Ni	62	26.972	ug/L	0.394	1	163	10321	1
	Cu	63	27.590	ug/L	0.210	0	292	155505	0
	Cu	65	28.112	ug/L	0.329	1	142	74906	0
	Zn	66	85.922	ug/L	0.384	0	710	156525	0
	Zn	67	78.006	ug/L	0.912	1	157	24543	0
	Zn	68	84.459	ug/L	0.949	1	3306	112822	0
	As-1	75	25.664	ug/L	0.253	0	97	48293	0
	As	75	24.974	ug/L	0.333	1	5265	51594	1
	Se	82	79.847	ug/L	0.570	0	-6	16664	0
	Se	78	78.335	ug/L	0.078	0	5339	45805	0
	Mo	98	0.071	ug/L	0.006	8	84	489	7
	Y	89		ug/L			287982	279510	1
	Kr	83		ug/L			81	76	6
>	In	115		ug/L			392550	387289	0
	Ag	107	25.242	ug/L	0.363	1	82	294134	1
	Cd	111	25.160	ug/L	0.384	1	442	78368	1
	Cd	114	24.869	ug/L	0.460	1	20	184791	1
	Sb	121	0.056	ug/L	0.021	36	339	955	24
	Sb	123	0.057	ug/L	0.019	33	253	731	21
	Ba	135	24.763	ug/L	0.059	0	30	69794	0
	Ba	137	24.477	ug/L	0.161	0	41	119541	0
>	Tb	159		ug/L			531801	529824	1
	Tl	205	25.738	ug/L	0.117	0	67	916027	1
	Pb	208	25.878	ug/L	0.019	0	662	1270217	1
	Bi	209		ug/L			412309	417949	1
	Th	232	25.099	ug/L	0.291	1	1702	1534266	0
	U	238	25.179	ug/L	0.381	1	152	1766385	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB05 X REN
***Sample Dil Factor:* 5**
Comments:
Sample Date/Time: Monday, December 28, 2009 12:16:45
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			604202	818195	1
⌊	Be	9	0.088	ug/L	0.023	26	8	90	23
	C	13		mg/L			6358	8348	0
	Cl	37		mg/L			3622439	3277889	0
⌈>	Sc	45		ug/L			263288	260368	0
|	Al	27	703.500	ug/L	6.853	0	9729	5091492	0
|	V-1	51	0.066	ug/L	0.010	15	1044	1781	5
|	V	51	0.090	ug/L	0.004	3	671	1710	3
|	Cr	52	0.119	ug/L	0.011	8	3487	4647	2
|	Cr	53	0.190	ug/L	0.042	22	275	502	11
|	Mn	55	148.184	ug/L	1.016	0	1311	2562605	0
⌊	Co	59	3.689	ug/L	0.077	2	110	47673	1
⌈>	Ge	72		ug/L			351015	318240	0
|	Ni	60	11.949	ug/L	0.066	0	117	28886	0
|	Ni	62	11.901	ug/L	0.176	1	163	4482	0
|	Cu	63	5.736	ug/L	0.051	0	292	31442	0
|	Cu	65	5.969	ug/L	0.061	1	142	15467	1
|	Zn	66	65.404	ug/L	0.830	1	710	115249	0
|	Zn	67	57.267	ug/L	0.810	1	157	17444	0
|	Zn	68	64.822	ug/L	0.879	1	3306	84349	0
|	As-1	75	0.061	ug/L	0.007	10	97	199	6
|	As	75	-0.040	ug/L	0.034	85	5265	4701	2
|	Se	82	0.108	ug/L	0.029	26	-6	15	38
|	Se	78	-0.243	ug/L	0.117	48	5339	4719	1
⌊	Mo	98	0.011	ug/L	0.003	24	84	135	10
	Y	89		ug/L			287982	286707	0
	Kr	83		ug/L			81	76	3
⌈>	In	115		ug/L			392550	366710	0
|	Ag	107	0.046	ug/L	0.003	6	82	589	5
|	Cd	111	0.537	ug/L	0.026	4	442	1988	3
|	Cd	114	0.528	ug/L	0.003	0	20	3736	0
|	Sb	121	-0.002	ug/L	0.001	85	339	300	4
|	Sb	123	0.002	ug/L	0.001	69	253	253	4
|	Ba	135	6.046	ug/L	0.065	1	30	16155	0
⌊	Ba	137	6.024	ug/L	0.052	0	41	27886	0
⌈>	Tb	159		ug/L			531801	503303	0
|	Tl	205	0.024	ug/L	0.008	34	67	860	31
|	Pb	208	0.128	ug/L	0.010	8	662	6578	7
|	Bi	209		ug/L			412309	392323	0
|	Th	232	0.119	ug/L	0.020	16	1702	8526	13
⌊	U	238	0.029	ug/L	0.010	32	152	2100	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB41R CDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 12:23:38
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			604202	822823	1
[	**Be**	**9**	**0.001**	ug/L	0.002	155	8	12	11
	C	**13**		mg/L			6358	11045	0
	Cl	**37**		mg/L			3622439	3217540	0
[>	**Sc**	**45**		ug/L			263288	289788	1
[	**Al**	**27**	**4.922**	ug/L	0.145	2	9729	50271	1
[	**V-1**	**51**	**0.539**	ug/L	0.017	3	1044	7939	1
[	**V**	**51**	**0.559**	ug/L	0.018	3	671	7931	1
[	**Cr**	**52**	**0.228**	ug/L	0.011	4	3487	6385	2
[	**Cr**	**53**	**0.309**	ug/L	0.029	9	275	719	4
[	**Mn**	**55**	**119.124**	ug/L	1.536	1	1311	2292902	0
[	**Co**	**59**	**0.132**	ug/L	0.008	5	110	2015	4
[>	**Ge**	**72**		ug/L			351015	312786	1
[	**Ni**	**60**	**0.639**	ug/L	0.015	2	117	1617	2
[	**Ni**	**62**	**0.473**	ug/L	0.039	8	163	315	3
[	**Cu**	**63**	**2.411**	ug/L	0.014	0	292	13139	1
[	**Cu**	**65**	**2.468**	ug/L	0.033	1	142	6360	0
[	**Zn**	**66**	**21.919**	ug/L	0.283	1	710	38381	1
[	**Zn**	**67**	**19.177**	ug/L	0.205	1	157	5834	0
[	**Zn**	**68**	**21.494**	ug/L	0.397	1	3306	29455	0
[	**As-1**	**75**	**0.312**	ug/L	0.016	4	97	643	2
[	**As**	**75**	**0.207**	ug/L	0.056	26	5265	5058	0
[	**Se**	**82**	**0.151**	ug/L	0.038	25	-6	23	31
[	**Se**	**78**	**-0.234**	ug/L	0.159	68	5339	4641	0
[	**Mo**	**98**	**0.863**	ug/L	0.020	2	84	4829	0
	Y	**89**		ug/L			287982	266459	0
	Kr	**83**		ug/L			81	71	6
[>	**In**	**115**		ug/L			392550	360901	0
[	**Ag**	**107**	**0.013**	ug/L	0.002	15	82	219	10
[	**Cd**	**111**	**0.052**	ug/L	0.006	10	442	558	2
[	**Cd**	**114**	**0.064**	ug/L	0.002	2	20	458	2
[	**Sb**	**121**	**0.728**	ug/L	0.022	2	339	7842	2
[	**Sb**	**123**	**0.723**	ug/L	0.011	1	253	5980	1
[	**Ba**	**135**	**2.501**	ug/L	0.032	1	30	6592	1
[	**Ba**	**137**	**2.513**	ug/L	0.017	0	41	11471	0
[>	**Tb**	**159**		ug/L			531801	497754	0
[	**Tl**	**205**	**0.006**	ug/L	0.000	3	67	261	2
[	**Pb**	**208**	**0.094**	ug/L	0.003	2	662	4953	2
[	**Bi**	**209**		ug/L			412309	383191	0
[	**Th**	**232**	**0.062**	ug/L	0.003	4	1702	5157	3
[	**U**	**238**	**0.010**	ug/L	0.000	3	152	772	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB41R C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 12:30:31
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			604202	832472	1
⌊	Be	9	-0.005	ug/L	0.006	121	8	7	63
	C	13		mg/L			6358	11395	1
	Cl	37		mg/L			3622439	3190402	0
⌈>	Sc	45		ug/L			263288	283001	0
|	Al	27	4.553	ug/L	0.140	3	9729	46200	1
|	V-1	51	0.534	ug/L	0.007	1	1044	7696	1
|	V	51	0.553	ug/L	0.015	2	671	7676	1
|	Cr	52	0.237	ug/L	0.014	5	3487	6337	2
|	Cr	53	0.314	ug/L	0.023	7	275	709	3
|	Mn	55	118.264	ug/L	0.264	0	1311	2223321	0
⌊	Co	59	0.130	ug/L	0.003	2	110	1947	2
⌈>	Ge	72		ug/L			351015	310499	0
|	Ni	60	0.611	ug/L	0.002	0	117	1540	0
|	Ni	62	0.472	ug/L	0.099	20	163	312	11
|	Cu	63	2.341	ug/L	0.020	0	292	12673	0
|	Cu	65	2.380	ug/L	0.038	1	142	6091	1
|	Zn	66	21.149	ug/L	0.025	0	710	36788	0
|	Zn	67	18.395	ug/L	0.257	1	157	5561	1
|	Zn	68	20.910	ug/L	0.324	1	3306	28529	1
|	As-1	75	0.282	ug/L	0.015	5	97	586	4
|	As	75	0.181	ug/L	0.015	8	5265	4977	0
|	Se	82	0.134	ug/L	0.019	13	-6	20	17
|	Se	78	-0.239	ug/L	0.049	20	5339	4605	0
⌊	Mo	98	0.835	ug/L	0.019	2	84	4638	2
	Y	89		ug/L			287982	264934	1
	Kr	83		ug/L			81	70	1
⌈>	In	115		ug/L			392550	357496	0
|	Ag	107	0.008	ug/L	0.002	21	82	159	12
|	Cd	111	0.049	ug/L	0.004	9	442	543	3
|	Cd	114	0.062	ug/L	0.003	4	20	443	3
|	Sb	121	0.716	ug/L	0.010	1	339	7639	0
|	Sb	123	0.719	ug/L	0.026	3	253	5890	2
|	Ba	135	2.403	ug/L	0.020	0	30	6277	1
⌊	Ba	137	2.401	ug/L	0.021	0	41	10858	0
⌈>	Tb	159		ug/L			531801	494666	0
|	Tl	205	0.004	ug/L	0.000	10	67	197	7
|	Pb	208	0.088	ug/L	0.001	1	662	4626	0
|	Bi	209		ug/L			412309	380217	0
|	Th	232	0.026	ug/L	0.002	9	1702	3067	4
⌊	U	238	0.007	ug/L	0.001	8	152	628	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB41R CSPK ~~REEN~~ REN
Sample Dil Factor: 2 12-28-09
Comments:
Sample Date/Time: Monday, December 28, 2009 12:37:25
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	835953	2
[	Be	9	22.676	ug/L	0.466	2	8	20585	0
	C	13		mg/L			6358	10042	0
	Cl	37		mg/L			3622439	3178116	0
[>	Sc	45		ug/L			263288	281008	0
[	Al	27	4.310	ug/L	0.067	1	9729	43987	1
[	V-1	51	23.247	ug/L	0.237	1	1044	285328	0
[	V	51	23.170	ug/L	0.175	0	671	290044	0
[	Cr	52	22.982	ug/L	0.189	0	3487	252849	0
[	Cr	53	22.762	ug/L	0.178	0	275	30080	0
[	Mn	55	143.675	ug/L	2.491	1	1311	2681657	1
[	Co	59	22.086	ug/L	0.108	0	110	307500	0
[>	Ge	72		ug/L			351015	307958	0
[	Ni	60	27.496	ug/L	0.168	0	117	64189	0
[	Ni	62	27.349	ug/L	0.271	0	163	9782	0
[	Cu	63	29.396	ug/L	0.335	1	292	154871	1
[	Cu	65	29.817	ug/L	0.148	0	142	74268	0
[	Zn	66	106.685	ug/L	0.406	0	710	181535	0
[	Zn	67	95.149	ug/L	0.688	0	157	27956	0
[	Zn	68	105.132	ug/L	0.468	0	3306	130586	0
[	As-1	75	26.075	ug/L	0.092	0	97	45869	0
[	As	75	25.253	ug/L	0.060	0	5265	48719	0
[	Se	82	80.007	ug/L	0.312	0	-6	15610	0
[	Se	78	78.046	ug/L	0.119	0	5339	42680	0
[	Mo	98	0.889	ug/L	0.023	2	84	4894	2
	Y	89		ug/L			287982	261350	0
	Kr	83		ug/L			81	76	9
[>	In	115		ug/L			392550	348889	0
[	Ag	107	25.528	ug/L	0.196	0	82	267972	0
[	Cd	111	25.964	ug/L	0.222	0	442	72839	0
[	Cd	114	26.100	ug/L	0.321	1	20	174712	1
[	Sb	121	0.719	ug/L	0.005	0	339	7491	0
[	Sb	123	0.729	ug/L	0.019	2	253	5821	2
[	Ba	135	27.872	ug/L	0.404	1	30	70764	1
[	Ba	137	28.040	ug/L	0.462	1	41	123350	1
[>	Tb	159		ug/L			531801	490788	0
[	Tl	205	25.516	ug/L	0.316	1	67	841194	1
[	Pb	208	26.025	ug/L	0.018	0	662	1183329	0
[	Bi	209		ug/L			412309	375207	0
[	Th	232	25.497	ug/L	0.249	0	1702	1443861	0
[	U	238	25.554	ug/L	0.039	0	152	1660811	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB41R E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 12:44:19
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			604202	864186	1
⌊	Be	9	-0.002	ug/L	0.006	319	8	10	48
	C	13		mg/L			6358	9562	1
	Cl	37		mg/L			3622439	3099046	0
⌈>	Sc	45		ug/L			263288	266442	1
|	Al	27	4.162	ug/L	0.021	0	9729	40615	1
|	V-1	51	0.642	ug/L	0.013	2	1044	8496	1
|	V	51	0.649	ug/L	0.003	0	671	8365	0
|	Cr	52	0.147	ug/L	0.008	5	3487	5038	1
|	Cr	53	0.201	ug/L	0.033	16	275	527	8
|	Mn	55	44.334	ug/L	0.316	0	1311	785540	1
⌊	Co	59	0.233	ug/L	0.002	0	110	3190	1
⌈>	Ge	72		ug/L			351015	302941	0
|	Ni	60	0.950	ug/L	0.028	2	117	2278	3
|	Ni	62	0.747	ug/L	0.029	3	163	400	2
|	Cu	63	5.527	ug/L	0.070	1	292	28848	0
|	Cu	65	5.578	ug/L	0.072	1	142	13765	0
|	Zn	66	77.794	ug/L	0.606	0	710	130379	0
|	Zn	67	67.732	ug/L	0.910	1	157	19615	0
|	Zn	68	76.886	ug/L	0.907	1	3306	94707	0
|	As-1	75	0.330	ug/L	0.017	5	97	655	4
|	As	75	0.229	ug/L	0.030	13	5265	4938	1
|	Se	82	0.147	ug/L	0.029	20	-6	22	26
|	Se	78	-0.218	ug/L	0.049	22	5339	4503	1
⌊	Mo	98	0.781	ug/L	0.017	2	84	4237	2
	Y	89		ug/L			287982	259674	0
	Kr	83		ug/L			81	70	0
⌈>	In	115		ug/L			392550	353555	1
|	Ag	107	0.009	ug/L	0.003	27	82	171	14
|	Cd	111	0.126	ug/L	0.004	3	442	753	1
|	Cd	114	0.153	ug/L	0.012	7	20	1053	6
|	Sb	121	0.713	ug/L	0.010	1	339	7530	0
|	Sb	123	0.714	ug/L	0.011	1	253	5781	0
|	Ba	135	4.827	ug/L	0.023	0	30	12442	0
⌊	Ba	137	4.820	ug/L	0.120	2	41	21518	1
⌈>	Tb	159		ug/L			531801	488982	1
|	Tl	205	0.007	ug/L	0.000	4	67	288	5
|	Pb	208	0.131	ug/L	0.001	1	662	6525	1
|	Bi	209		ug/L			412309	374688	0
|	Th	232	0.053	ug/L	0.007	13	1702	4577	8
⌊	U	238	0.012	ug/L	0.001	9	152	907	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 12:51:13
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	842620	2
[	Be	9	44.328	ug/L	1.023	2	8	40552	0
	C	13		mg/L			6358	7432	2
	Cl	37		mg/L			3622439	3143731	0
[>	Sc	45		ug/L			263288	239742	0
[	Al	27	5303.464	ug/L	86.367	1	9729	35285806	1
[	V-1	51	49.626	ug/L	0.267	0	1044	518584	1
[	V	51	49.437	ug/L	0.153	0	671	527294	0
[	Cr	52	49.652	ug/L	0.333	0	3487	462399	1
[	Cr	53	49.074	ug/L	0.586	1	275	55036	0
[	Mn	55	48.581	ug/L	0.516	1	1311	774431	1
[	Co	59	47.723	ug/L	0.442	0	110	566726	0
[>	Ge	72		ug/L			351015	303047	0
[	Ni	60	51.229	ug/L	1.486	2	117	117590	2
[	Ni	62	50.137	ug/L	0.235	0	163	17529	0
[	Cu	63	51.289	ug/L	0.948	1	292	265692	1
[	Cu	65	51.025	ug/L	0.541	1	142	124970	0
[	Zn	66	53.644	ug/L	0.413	0	710	90126	0
[	Zn	67	52.789	ug/L	0.734	1	157	15323	0
[	Zn	68	52.949	ug/L	0.656	1	3306	66132	0
[	As-1	75	49.246	ug/L	0.552	1	97	85169	0
[	As	75	48.982	ug/L	0.717	1	5265	88717	1
[	Se	82	51.114	ug/L	0.296	0	-6	9811	0
[	Se	78	50.216	ug/L	0.742	1	5339	28665	0
[	Mo	98	51.399	ug/L	0.492	0	84	274364	0
	Y	89		ug/L			287982	255971	0
	Kr	83		ug/L			81	83	2
[>	In	115		ug/L			392550	347853	1
[	Ag	107	49.582	ug/L	0.264	0	82	518883	1
[	Cd	111	50.117	ug/L	1.094	2	442	139804	1
[	Cd	114	50.040	ug/L	0.580	1	20	333934	0
[	Sb	121	49.097	ug/L	0.794	1	339	489720	0
[	Sb	123	49.721	ug/L	0.596	1	253	380938	0
[	Ba	135	48.054	ug/L	0.881	1	30	121611	1
[	Ba	137	47.721	ug/L	0.885	1	41	209266	0
[>	Tb	159		ug/L			531801	484885	0
[	Tl	205	48.965	ug/L	0.330	0	67	1594813	0
[	Pb	208	49.861	ug/L	0.160	0	662	2239270	0
[	Bi	209		ug/L			412309	373457	1
[	Th	232	50.402	ug/L	0.116	0	1702	2818418	0
[	U	238	50.824	ug/L	0.183	0	152	3263248	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 12:58:44
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	813564	0
[	Be	9	-0.003	ug/L	0.004	122	8	8	42
	C	13		mg/L			6358	6678	1
	Cl	37		mg/L			3622439	3234064	1
[>	Sc	45		ug/L			263288	240606	0
|	Al	27	-0.472	ug/L	0.015	3	9729	5741	2
|	V-1	51	-0.002	ug/L	0.005	251	1044	932	6
|	V	51	0.012	ug/L	0.002	14	671	746	2
|	Cr	52	0.002	ug/L	0.002	154	3487	3201	1
|	Cr	53	0.045	ug/L	0.008	18	275	302	2
|	Mn	55	0.001	ug/L	0.003	218	1311	1220	4
[	Co	59	0.001	ug/L	0.001	79	110	117	10
[>	Ge	72		ug/L			351015	301471	0
|	Ni	60	-0.003	ug/L	0.006	233	117	94	14
|	Ni	62	-0.029	ug/L	0.038	129	163	130	9
|	Cu	63	-0.005	ug/L	0.003	49	292	224	5
|	Cu	65	-0.002	ug/L	0.004	172	142	117	8
|	Zn	66	-0.089	ug/L	0.010	11	710	462	3
|	Zn	67	-0.021	ug/L	0.028	131	157	129	5
|	Zn	68	0.008	ug/L	0.057	718	3306	2849	1
|	As-1	75	0.010	ug/L	0.014	133	97	101	22
|	As	75	0.007	ug/L	0.022	329	5265	4533	0
|	Se	82	0.026	ug/L	0.021	78	-6	0	416
|	Se	78	0.028	ug/L	0.032	115	5339	4599	0
[	Mo	98	0.010	ug/L	0.003	25	84	127	10
	Y	89		ug/L			287982	256990	0
	Kr	83		ug/L			81	72	3
[>	In	115		ug/L			392550	348918	0
|	Ag	107	0.009	ug/L	0.001	6	82	167	3
|	Cd	111	-0.008	ug/L	0.005	64	442	372	4
|	Cd	114	0.002	ug/L	0.001	51	20	29	19
|	Sb	121	-0.008	ug/L	0.003	41	339	217	16
|	Sb	123	-0.007	ug/L	0.005	65	253	168	22
|	Ba	135	0.002	ug/L	0.003	196	30	31	26
[	Ba	137	0.003	ug/L	0.001	38	41	48	9
[>	Tb	159		ug/L			531801	478295	0
|	Tl	205	0.002	ug/L	0.000	17	67	134	9
|	Pb	208	0.001	ug/L	0.000	23	662	649	1
|	Bi	209		ug/L			412309	375455	1
|	Th	232	0.041	ug/L	0.007	17	1702	3777	10
[	U	238	0.005	ug/L	0.001	28	152	443	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 13:06:39
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	908651	1
[	Be	9	-0.004	ug/L	0.003	72	8	9	31
	C	13		mg/L			6358	9097	1
	Cl	37		mg/L			3622439	3168807	0
[>	Sc	45		ug/L			263288	255299	0
[	Al	27	0.954	ug/L	0.023	2	9729	16188	1
[	V-1	51	0.007	ug/L	0.006	79	1044	1092	5
[	V	51	0.004	ug/L	0.004	90	671	698	6
[	Cr	52	0.035	ug/L	0.005	13	3487	3729	0
[	Cr	53	0.024	ug/L	0.026	105	275	295	10
[	Mn	55	-0.022	ug/L	0.002	8	1311	895	3
[	Co	59	0.000	ug/L	0.000	68	110	110	1
[>	Ge	72		ug/L			351015	314980	1
[	Ni	60	-0.006	ug/L	0.002	28	117	90	6
[	Ni	62	-0.021	ug/L	0.044	206	163	139	9
[	Cu	63	0.076	ug/L	0.010	12	292	673	6
[	Cu	65	0.080	ug/L	0.004	5	142	331	2
[	Zn	66	0.625	ug/L	0.042	6	710	1722	3
[	Zn	67	0.613	ug/L	0.052	8	157	324	4
[	Zn	68	0.615	ug/L	0.167	27	3306	3729	4
[	As-1	75	0.003	ug/L	0.015	568	97	92	27
[	As	75	-0.108	ug/L	0.075	69	5265	4532	1
[	Se	82	0.046	ug/L	0.052	112	-6	2	358
[	Se	78	-0.381	ug/L	0.267	70	5339	4600	1
[	Mo	98	0.007	ug/L	0.004	49	84	115	16
	Y	89		ug/L			287982	273200	0
	Kr	83		ug/L			81	66	1
[>	In	115		ug/L			392550	369577	0
[	Ag	107	0.002	ug/L	0.001	53	82	100	12
[	Cd	111	0.002	ug/L	0.002	85	442	422	0
[	Cd	114	-0.001	ug/L	0.001	242	20	15	56
[	Sb	121	-0.020	ug/L	0.001	5	339	102	12
[	Sb	123	-0.019	ug/L	0.002	8	253	80	15
[	Ba	135	0.008	ug/L	0.001	6	30	49	2
[	Ba	137	0.012	ug/L	0.001	6	41	96	4
[>	Tb	159		ug/L			531801	512598	0
[	Tl	205	-0.000	ug/L	0.000	310	67	62	15
[	Pb	208	0.001	ug/L	0.001	109	662	673	6
[	Bi	209		ug/L			412309	391083	0
[	Th	232	0.039	ug/L	0.007	16	1702	3968	10
[	U	238	-0.000	ug/L	0.000	54	152	124	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 13:13:34
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	891502	2
[	Be	9	-0.005	ug/L	0.001	11	8	7	9
	C	13		mg/L			6358	8948	0
	Cl	37		mg/L			3622439	3204760	1
[>	Sc	45		ug/L			263288	251078	0
[	Al	27	0.177	ug/L	0.057	32	9729	10508	3
[	V-1	51	0.012	ug/L	0.005	45	1044	1122	4
[	V	51	0.006	ug/L	0.001	12	671	710	1
[	Cr	52	0.036	ug/L	0.018	50	3487	3676	4
[	Cr	53	0.018	ug/L	0.014	77	275	283	5
[	Mn	55	0.810	ug/L	0.015	1	1311	14754	1
[	Co	59	-0.001	ug/L	0.001	82	110	89	14
[>	Ge	72		ug/L			351015	315206	0
[	Ni	60	-0.014	ug/L	0.007	50	117	72	23
[	Ni	62	-0.036	ug/L	0.064	176	163	134	17
[	Cu	63	0.036	ug/L	0.003	9	292	457	3
[	Cu	65	0.036	ug/L	0.010	27	142	220	12
[	Zn	66	0.662	ug/L	0.022	3	710	1786	1
[	Zn	67	0.577	ug/L	0.085	14	157	314	7
[	Zn	68	0.679	ug/L	0.104	15	3306	3813	3
[	As-1	75	0.012	ug/L	0.014	112	97	110	22
[	As	75	-0.118	ug/L	0.061	51	5265	4517	1
[	Se	82	0.081	ug/L	0.039	48	-6	9	78
[	Se	78	-0.409	ug/L	0.200	49	5339	4590	1
[	Mo	98	-0.001	ug/L	0.000	29	84	68	2
	Y	89		ug/L			287982	272591	1
	Kr	83		ug/L			81	68	2
[>	In	115		ug/L			392550	370294	1
[	Ag	107	0.001	ug/L	0.002	360	82	84	28
[	Cd	111	-0.006	ug/L	0.005	91	442	400	4
[	Cd	114	-0.000	ug/L	0.000	176	20	18	13
[	Sb	121	-0.022	ug/L	0.000	1	339	83	2
[	Sb	123	-0.022	ug/L	0.000	1	253	61	3
[	Ba	135	0.019	ug/L	0.002	8	30	79	5
[	Ba	137	0.021	ug/L	0.003	14	41	138	11
[>	Tb	159		ug/L			531801	501586	0
[	Tl	205	-0.000	ug/L	0.000	90	67	51	20
[	Pb	208	-0.004	ug/L	0.001	12	662	422	6
[	Bi	209		ug/L			412309	390880	0
[	Th	232	-0.002	ug/L	0.003	139	1702	1494	10
[	U	238	-0.001	ug/L	0.000	10	152	65	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 13:20:30
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			604202	894039	0
⌊	Be	9	22.815	ug/L	0.082	0	8	22158	0
	C	13		mg/L			6358	10099	1
	Cl	37		mg/L			3622439	3163598	0
⌈>	Sc	45		ug/L			263288	251730	1
|	Al	27	1.249	ug/L	0.060	4	9729	18021	1
|	V-1	51	26.359	ug/L	0.290	1	1044	289654	0
|	V	51	26.286	ug/L	0.349	1	671	294652	0
|	Cr	52	26.534	ug/L	0.089	0	3487	261001	1
|	Cr	53	26.301	ug/L	0.364	1	275	31091	0
|	Mn	55	25.990	ug/L	0.062	0	1311	435590	1
⌊	Co	59	25.931	ug/L	0.293	1	110	323359	0
⌈>	Ge	72		ug/L			351015	313747	0
|	Ni	60	28.238	ug/L	0.591	2	117	67157	1
|	Ni	62	27.851	ug/L	0.371	1	163	10146	1
|	Cu	63	28.513	ug/L	0.310	1	292	153047	0
|	Cu	65	28.914	ug/L	0.536	1	142	73372	1
|	Zn	66	87.210	ug/L	0.933	1	710	151301	1
|	Zn	67	78.657	ug/L	0.290	0	157	23570	0
|	Zn	68	85.261	ug/L	0.178	0	3306	108452	0
|	As-1	75	26.037	ug/L	0.303	1	97	46662	0
|	As	75	25.284	ug/L	0.214	0	5265	49690	0
|	Se	82	80.691	ug/L	0.773	0	-6	16039	0
|	Se	78	78.973	ug/L	0.460	0	5339	43942	0
⌊	Mo	98	0.008	ug/L	0.003	42	84	119	15
	Y	89		ug/L			287982	272257	0
	Kr	83		ug/L			81	74	2
⌈>	In	115		ug/L			392550	368685	0
|	Ag	107	26.180	ug/L	0.240	0	82	290408	0
|	Cd	111	25.587	ug/L	0.155	0	442	75863	0
|	Cd	114	25.665	ug/L	0.214	0	20	181548	0
|	Sb	121	-0.012	ug/L	0.001	8	339	190	5
|	Sb	123	-0.012	ug/L	0.000	2	253	137	1
|	Ba	135	25.063	ug/L	0.216	0	30	67243	0
⌊	Ba	137	24.969	ug/L	0.116	0	41	116082	0
⌈>	Tb	159		ug/L			531801	504889	0
|	Tl	205	26.274	ug/L	0.202	0	67	891063	0
|	Pb	208	26.757	ug/L	0.311	1	662	1251481	0
|	Bi	209		ug/L			412309	392319	0
|	Th	232	25.554	ug/L	0.471	1	1702	1488572	1
⌊	U	238	25.912	ug/L	0.209	0	152	1732407	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 13:27:22
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	870340	1
[	Be	9	22.303	ug/L	0.626	2	8	21081	1
	C	13		mg/L			6358	9755	1
	Cl	37		mg/L			3622439	3197988	1
[>	Sc	45		ug/L			263288	246335	0
[	Al	27	0.591	ug/L	0.071	11	9729	13144	3
[	V-1	51	25.374	ug/L	0.096	0	1044	272913	0
[	V	51	25.316	ug/L	0.077	0	671	277751	0
[	Cr	52	25.728	ug/L	0.076	0	3487	247753	0
[	Cr	53	25.529	ug/L	0.251	0	275	29543	1
[	Mn	55	25.422	ug/L	0.226	0	1311	416964	0
[	Co	59	25.314	ug/L	0.268	1	110	308935	1
[>	Ge	72		ug/L			351015	310624	1
[	Ni	60	27.020	ug/L	0.717	2	117	63613	1
[	Ni	62	26.776	ug/L	0.740	2	163	9660	1
[	Cu	63	27.765	ug/L	0.341	1	292	147541	0
[	Cu	65	27.970	ug/L	0.475	1	142	70266	0
[	Zn	66	87.001	ug/L	1.739	1	710	149408	0
[	Zn	67	77.389	ug/L	1.844	2	157	22956	0
[	Zn	68	85.192	ug/L	1.055	1	3306	107279	1
[	As-1	75	25.448	ug/L	0.268	1	97	45151	0
[	As	75	24.757	ug/L	0.154	0	5265	48266	1
[	Se	82	80.104	ug/L	1.180	1	-6	15762	0
[	Se	78	78.595	ug/L	0.808	1	5339	43315	0
[	Mo	98	0.004	ug/L	0.003	70	84	98	15
	Y	89		ug/L			287982	266686	0
	Kr	83		ug/L			81	71	8
[>	In	115		ug/L			392550	360146	0
[	Ag	107	25.475	ug/L	0.171	0	82	276052	0
[	Cd	111	25.434	ug/L	0.185	0	442	73663	0
[	Cd	114	25.406	ug/L	0.075	0	20	175558	0
[	Sb	121	-0.010	ug/L	0.002	23	339	204	11
[	Sb	123	-0.010	ug/L	0.002	18	253	153	8
[	Ba	135	24.333	ug/L	0.100	0	30	63775	0
[	Ba	137	24.252	ug/L	0.275	1	41	110134	0
[>	Tb	159		ug/L			531801	497595	0
[	Tl	205	25.677	ug/L	0.381	1	67	858212	0
[	Pb	208	25.763	ug/L	0.076	0	662	1187672	0
[	Bi	209		ug/L			412309	389861	0
[	Th	232	24.815	ug/L	0.386	1	1702	1424805	1
[	U	238	25.084	ug/L	0.205	0	152	1652796	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 13:34:10
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			604202	881928	1
[	**Be**	**9**	**-0.009**	ug/L	0.002	17	8	4	31
	C	**13**		mg/L			6358	11516	0
	Cl	**37**		mg/L			3622439	3493903	1
[>	**Sc**	**45**		ug/L			263288	255950	0
|	**Al**	**27**	**45.812**	ug/L	0.619	1	9729	334774	0
|	**V-1**	**51**	**0.396**	ug/L	0.019	4	1044	5421	3
|	**V**	**51**	**0.499**	ug/L	0.015	3	671	6330	2
|	**Cr**	**52**	**0.589**	ug/L	0.011	1	3487	9208	1
|	**Cr**	**53**	**0.893**	ug/L	0.012	1	275	1331	1
|	**Mn**	**55**	**42.019**	ug/L	0.099	0	1311	715263	0
[	**Co**	**59**	**0.350**	ug/L	0.005	1	110	4542	0
[>	**Ge**	**72**		ug/L			351015	310648	0
|	**Ni**	**60**	**2.431**	ug/L	0.042	1	117	5819	1
|	**Ni**	**62**	**2.190**	ug/L	0.024	1	163	923	1
|	**Cu**	**63**	**9.543**	ug/L	0.021	0	292	50890	0
|	**Cu**	**65**	**9.596**	ug/L	0.136	1	142	24194	1
|	**Zn**	**66**	**189.143**	ug/L	1.374	0	710	324166	0
|	**Zn**	**67**	**164.556**	ug/L	1.159	0	157	48670	0
|	**Zn**	**68**	**184.442**	ug/L	0.898	0	3306	228890	0
|	**As-1**	**75**	**0.568**	ug/L	0.013	2	97	1093	1
|	**As**	**75**	**0.378**	ug/L	0.032	8	5265	5325	1
|	**Se**	**82**	**0.429**	ug/L	0.053	12	-6	78	13
|	**Se**	**78**	**-0.236**	ug/L	0.108	45	5339	4610	1
[	**Mo**	**98**	**0.980**	ug/L	0.019	1	84	5433	2
	Y	**89**		ug/L			287982	271430	0
	Kr	**83**		ug/L			81	76	4
[>	**In**	**115**		ug/L			392550	366264	0
|	**Ag**	**107**	**0.011**	ug/L	0.002	21	82	198	14
|	**Cd**	**111**	**0.191**	ug/L	0.008	3	442	971	2
|	**Cd**	**114**	**0.185**	ug/L	0.007	3	20	1322	2
|	**Sb**	**121**	**0.865**	ug/L	0.020	2	339	9399	1
|	**Sb**	**123**	**0.867**	ug/L	0.016	1	253	7228	0
|	**Ba**	**135**	**36.352**	ug/L	0.356	0	30	96875	0
[	**Ba**	**137**	**36.269**	ug/L	0.494	1	41	167481	0
[>	**Tb**	**159**		ug/L			531801	502924	0
|	**Tl**	**205**	**0.009**	ug/L	0.000	5	67	367	4
|	**Pb**	**208**	**0.443**	ug/L	0.001	0	662	21241	0
|	**Bi**	**209**		ug/L			412309	382879	1
|	**Th**	**232**	**0.082**	ug/L	0.014	17	1702	6348	12
[	**U**	**238**	**0.008**	ug/L	0.001	14	152	708	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 13:40:59
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	877988	2
[	Be	9	-0.002	ug/L	0.001	85	8	11	11
	C	13		mg/L			6358	11691	0
	Cl	37		mg/L			3622439	3525461	0
[>	Sc	45		ug/L			263288	255892	0
[	Al	27	44.878	ug/L	0.646	1	9729	328085	1
[	V-1	51	0.385	ug/L	0.002	0	1044	5296	0
[	V	51	0.501	ug/L	0.011	2	671	6352	1
[	Cr	52	0.555	ug/L	0.025	4	3487	8871	1
[	Cr	53	0.900	ug/L	0.038	4	275	1340	2
[	Mn	55	42.068	ug/L	0.656	1	1311	715921	1
[	Co	59	0.347	ug/L	0.010	2	110	4499	2
[>	Ge	72		ug/L			351015	312965	0
[	Ni	60	2.361	ug/L	0.063	2	117	5696	2
[	Ni	62	2.134	ug/L	0.106	4	163	910	3
[	Cu	63	9.327	ug/L	0.058	0	292	50119	0
[	Cu	65	9.500	ug/L	0.106	1	142	24133	0
[	Zn	66	183.010	ug/L	2.913	1	710	316003	1
[	Zn	67	161.746	ug/L	0.747	0	157	48200	0
[	Zn	68	181.461	ug/L	2.353	1	3306	226911	1
[	As-1	75	0.581	ug/L	0.033	5	97	1124	4
[	As	75	0.379	ug/L	0.025	6	5265	5366	0
[	Se	82	0.476	ug/L	0.050	10	-6	88	10
[	Se	78	-0.271	ug/L	0.089	32	5339	4626	1
[	Mo	98	0.957	ug/L	0.003	0	84	5350	0
	Y	89		ug/L			287982	272717	0
	Kr	83		ug/L			81	69	12
[>	In	115		ug/L			392550	365858	0
[	Ag	107	0.012	ug/L	0.001	8	82	203	5
[	Cd	111	0.170	ug/L	0.007	4	442	909	2
[	Cd	114	0.182	ug/L	0.006	3	20	1292	2
[	Sb	121	0.858	ug/L	0.008	0	339	9309	1
[	Sb	123	0.870	ug/L	0.011	1	253	7245	1
[	Ba	135	36.548	ug/L	0.197	0	30	97297	1
[	Ba	137	36.131	ug/L	0.445	1	41	166668	0
[>	Tb	159		ug/L			531801	504486	1
[	Tl	205	0.006	ug/L	0.001	16	67	256	11
[	Pb	208	0.432	ug/L	0.004	1	662	20806	0
[	Bi	209		ug/L			412309	383496	0
[	Th	232	0.022	ug/L	0.005	24	1702	2884	9
[	U	238	0.004	ug/L	0.000	6	152	445	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 13:47:48
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			604202	835320	2
	Be	9	24.038	ug/L	0.825	3	8	21799	1
	C	13		mg/L			6358	11582	0
	Cl	37		mg/L			3622439	3555717	1
>	Sc	45		ug/L			263288	255659	0
	Al	27	45.120	ug/L	0.338	0	9729	329502	0
	V-1	51	27.084	ug/L	0.231	0	1044	302263	0
	V	51	27.262	ug/L	0.190	0	671	310374	0
	Cr	52	26.981	ug/L	0.349	1	3487	269473	0
	Cr	53	27.530	ug/L	0.261	0	275	33044	1
	Mn	55	68.834	ug/L	0.341	0	1311	1169579	0
	Co	59	26.365	ug/L	0.711	2	110	333913	2
>	Ge	72		ug/L			351015	313331	0
	Ni	60	30.731	ug/L	0.277	0	117	72983	0
	Ni	62	30.155	ug/L	0.484	1	163	10958	1
	Cu	63	37.984	ug/L	0.123	0	292	203533	0
	Cu	65	38.251	ug/L	0.444	1	142	96900	0
	Zn	66	278.112	ug/L	2.117	0	710	480475	0
	Zn	67	247.837	ug/L	1.621	0	157	73866	0
	Zn	68	273.037	ug/L	4.873	1	3306	340329	1
	As-1	75	27.674	ug/L	0.326	1	97	49526	1
	As	75	26.735	ug/L	0.262	0	5265	52203	1
	Se	82	84.073	ug/L	0.502	0	-6	16690	0
	Se	78	81.729	ug/L	0.234	0	5339	45249	0
	Mo	98	0.987	ug/L	0.015	1	84	5522	1
	Y	89		ug/L			287982	269449	0
	Kr	83		ug/L			81	76	4
>	In	115		ug/L			392550	361999	0
	Ag	107	16.105	ug/L	0.206	1	82	175451	1
	Cd	111	26.968	ug/L	0.585	2	442	78477	1
	Cd	114	26.916	ug/L	0.238	0	20	186945	0
	Sb	121	0.909	ug/L	0.014	1	339	9740	1
	Sb	123	0.920	ug/L	0.007	0	253	7567	0
	Ba	135	63.688	ug/L	0.596	0	30	167728	0
	Ba	137	63.896	ug/L	1.127	1	41	291586	0
>	Tb	159		ug/L			531801	500351	1
	Tl	205	26.720	ug/L	0.307	1	67	898000	0
	Pb	208	27.616	ug/L	0.286	1	662	1279983	0
	Bi	209		ug/L			412309	384698	0
	Th	232	26.083	ug/L	0.506	1	1702	1505612	0
	U	238	26.933	ug/L	0.354	1	152	1784392	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 DDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 13:54:38
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	809479	1
[	Be	9	0.024	ug/L	0.012	49	8	32	30
	C	13		mg/L			6358	11397	1
	Cl	37		mg/L			3622439	3496951	0
[>	Sc	45		ug/L			263288	270213	1
[	Al	27	1354.586	ug/L	17.799	1	9729	10164505	0
[	V-1	51	3.296	ug/L	0.041	1	1044	39815	0
[	V	51	3.411	ug/L	0.072	2	671	41637	0
[	Cr	52	3.708	ug/L	0.059	1	3487	42226	1
[	Cr	53	4.032	ug/L	0.118	2	275	5354	1
[	Mn	55	63.474	ug/L	0.702	1	1311	1139963	1
[	Co	59	0.911	ug/L	0.003	0	110	12310	1
[>	Ge	72		ug/L			351015	308869	0
[	Ni	60	4.921	ug/L	0.061	1	117	11605	1
[	Ni	62	5.332	ug/L	0.162	3	163	2029	3
[	Cu	63	21.079	ug/L	0.266	1	292	111454	0
[	Cu	65	21.380	ug/L	0.225	1	142	53449	1
[	Zn	66	286.559	ug/L	1.834	0	710	487990	0
[	Zn	67	251.951	ug/L	1.929	0	157	74020	0
[	Zn	68	279.839	ug/L	2.151	0	3306	343782	0
[	As-1	75	1.144	ug/L	0.006	0	97	2101	1
[	As	75	1.008	ug/L	0.015	1	5265	6399	0
[	Se	82	0.461	ug/L	0.005	1	-6	84	0
[	Se	78	-0.032	ug/L	0.074	229	5339	4682	0
[	Mo	98	1.443	ug/L	0.014	0	84	7924	0
	Y	89		ug/L			287982	275530	0
	Kr	83		ug/L			81	73	4
[>	In	115		ug/L			392550	354411	0
[	Ag	107	0.035	ug/L	0.005	14	82	451	11
[	Cd	111	0.295	ug/L	0.003	1	442	1236	0
[	Cd	114	0.273	ug/L	0.011	3	20	1872	3
[	Sb	121	2.195	ug/L	0.022	1	339	22600	0
[	Sb	123	2.163	ug/L	0.021	0	253	17103	0
[	Ba	135	53.105	ug/L	0.597	1	30	136934	0
[	Ba	137	52.862	ug/L	0.301	0	41	236206	0
[>	Tb	159		ug/L			531801	488998	0
[	Tl	205	0.015	ug/L	0.001	6	67	550	5
[	Pb	208	12.638	ug/L	0.025	0	662	572852	0
[	Bi	209		ug/L			412309	377827	0
[	Th	232	0.156	ug/L	0.009	5	1702	10366	5
[	U	238	0.036	ug/L	0.001	2	152	2470	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 14:01:29
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	814812	0
[	Be	9	0.011	ug/L	0.006	49	8	21	23
	C	13		mg/L			6358	11077	1
	Cl	37		mg/L			3622439	3460049	1
[>	Sc	45		ug/L			263288	267001	0
[	Al	27	1288.973	ug/L	15.119	1	9729	9558108	0
[	V-1	51	3.133	ug/L	0.050	1	1044	37449	0
[	V	51	3.253	ug/L	0.012	0	671	39271	0
[	Cr	52	3.557	ug/L	0.062	1	3487	40167	1
[	Cr	53	3.894	ug/L	0.081	2	275	5121	2
[	Mn	55	62.924	ug/L	0.462	0	1311	1116741	1
[	Co	59	0.874	ug/L	0.018	2	110	11667	1
[>	Ge	72		ug/L			351015	309342	0
[	Ni	60	4.714	ug/L	0.057	1	117	11140	0
[	Ni	62	5.124	ug/L	0.059	1	163	1958	1
[	Cu	63	20.295	ug/L	0.185	0	292	107482	0
[	Cu	65	20.600	ug/L	0.193	0	142	51579	0
[	Zn	66	235.082	ug/L	4.794	2	710	401030	1
[	Zn	67	207.097	ug/L	3.389	1	157	60958	1
[	Zn	68	231.412	ug/L	0.968	0	3306	285227	0
[	As-1	75	1.094	ug/L	0.013	1	97	2014	0
[	As	75	0.950	ug/L	0.007	0	5265	6306	0
[	Se	82	0.462	ug/L	0.048	10	-6	84	11
[	Se	78	-0.066	ug/L	0.056	85	5339	4673	1
[	Mo	98	1.356	ug/L	0.032	2	84	7459	2
	Y	89		ug/L			287982	274557	0
	Kr	83		ug/L			81	71	0
[>	In	115		ug/L			392550	357135	0
[	Ag	107	0.024	ug/L	0.002	7	82	335	5
[	Cd	111	0.287	ug/L	0.003	1	442	1222	1
[	Cd	114	0.267	ug/L	0.011	4	20	1844	3
[	Sb	121	2.083	ug/L	0.010	0	339	21631	0
[	Sb	123	2.066	ug/L	0.053	2	253	16474	1
[	Ba	135	51.196	ug/L	1.187	2	30	133017	1
[	Ba	137	50.797	ug/L	0.604	1	41	228713	0
[>	Tb	159		ug/L			531801	493602	1
[	Tl	205	0.011	ug/L	0.001	10	67	422	9
[	Pb	208	12.014	ug/L	0.113	0	662	549701	0
[	Bi	209		ug/L			412309	375947	0
[	Th	232	0.084	ug/L	0.002	1	1702	6375	0
[	U	238	0.027	ug/L	0.001	4	152	1927	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 DSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 28, 2009 14:08:20
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	810254	0
[	Be	9	22.860	ug/L	0.104	0	8	20121	0
	C	13		mg/L			6358	10779	1
	Cl	37		mg/L			3622439	3468982	0
[>	Sc	45		ug/L			263288	269573	1
[	Al	27	1282.396	ug/L	10.841	0	9729	9601218	1
[	V-1	51	26.029	ug/L	0.226	0	1044	306316	0
[	V	51	26.143	ug/L	0.200	0	671	313835	0
[	Cr	52	26.659	ug/L	0.205	0	3487	280781	0
[	Cr	53	26.966	ug/L	0.122	0	275	34132	1
[	Mn	55	84.398	ug/L	1.366	1	1311	1511535	0
[	Co	59	23.457	ug/L	0.366	1	110	313244	0
[>	Ge	72		ug/L			351015	308207	0
[	Ni	60	31.494	ug/L	0.194	0	117	73566	0
[	Ni	62	31.130	ug/L	0.546	1	163	11122	1
[	Cu	63	46.780	ug/L	0.075	0	292	246507	0
[	Cu	65	47.521	ug/L	0.388	0	142	118383	0
[	Zn	66	317.680	ug/L	3.221	1	710	539743	0
[	Zn	67	279.638	ug/L	3.278	1	157	81959	0
[	Zn	68	315.532	ug/L	3.149	0	3306	386411	0
[	As-1	75	26.457	ug/L	0.392	1	97	46573	0
[	As	75	25.846	ug/L	0.119	0	5265	49794	0
[	Se	82	78.744	ug/L	1.256	1	-6	15375	0
[	Se	78	77.523	ug/L	0.070	0	5339	42459	0
[	Mo	98	1.374	ug/L	0.019	1	84	7534	2
	Y	89		ug/L			287982	273260	0
	Kr	83		ug/L			81	79	3
[>	In	115		ug/L			392550	354441	0
[	Ag	107	15.714	ug/L	0.076	0	82	167608	0
[	Cd	111	25.294	ug/L	0.241	0	442	72102	1
[	Cd	114	25.505	ug/L	0.102	0	20	173451	0
[	Sb	121	2.097	ug/L	0.021	0	339	21612	1
[	Sb	123	2.087	ug/L	0.034	1	253	16515	1
[	Ba	135	75.651	ug/L	0.478	0	30	195079	0
[	Ba	137	75.456	ug/L	0.213	0	41	337178	0
[>	Tb	159		ug/L			531801	489467	0
[	Tl	205	25.234	ug/L	0.263	1	67	829664	0
[	Pb	208	37.622	ug/L	0.223	0	662	1705792	1
[	Bi	209		ug/L			412309	375740	0
[	Th	232	23.125	ug/L	0.047	0	1702	1306197	0
[	U	238	25.194	ug/L	0.205	0	152	1632976	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 14:15:11
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	750610	1
[	Be	9	46.844	ug/L	0.860	1	8	38189	2
	C	13		mg/L			6358	7148	2
	Cl	37		mg/L			3622439	3293915	0
[>	Sc	45		ug/L			263288	242202	1
[	Al	27	5192.712	ug/L	28.930	0	9729	34904131	1
[	V-1	51	49.541	ug/L	0.524	1	1044	523022	1
[	V	51	49.674	ug/L	0.416	0	671	535285	1
[	Cr	52	49.202	ug/L	0.349	0	3487	462908	0
[	Cr	53	49.632	ug/L	0.456	0	275	56230	0
[	Mn	55	48.832	ug/L	0.382	0	1311	786354	0
[	Co	59	48.202	ug/L	0.401	0	110	578301	0
[>	Ge	72		ug/L			351015	309965	0
[	Ni	60	50.573	ug/L	0.433	0	117	118746	0
[	Ni	62	50.208	ug/L	0.485	0	163	17954	0
[	Cu	63	50.417	ug/L	0.446	0	292	267165	0
[	Cu	65	51.464	ug/L	0.404	0	142	128932	1
[	Zn	66	53.683	ug/L	0.242	0	710	92254	0
[	Zn	67	52.704	ug/L	0.545	1	157	15648	0
[	Zn	68	52.584	ug/L	0.158	0	3306	67200	0
[	As-1	75	49.395	ug/L	0.414	0	97	87378	0
[	As	75	49.160	ug/L	0.392	0	5265	91057	0
[	Se	82	50.829	ug/L	0.852	1	-6	9979	1
[	Se	78	50.058	ug/L	0.670	1	5339	29243	0
[	Mo	98	51.218	ug/L	0.450	0	84	279648	0
	Y	89		ug/L			287982	259428	0
	Kr	83		ug/L			81	91	7
[>	In	115		ug/L			392550	352471	0
[	Ag	107	49.825	ug/L	0.397	0	82	528320	0
[	Cd	111	50.373	ug/L	0.502	0	442	142395	0
[	Cd	114	50.410	ug/L	0.663	1	20	340881	0
[	Sb	121	49.408	ug/L	0.681	1	339	499407	0
[	Sb	123	49.727	ug/L	1.022	2	253	386043	1
[	Ba	135	47.790	ug/L	1.011	2	30	122549	1
[	Ba	137	48.130	ug/L	1.198	2	41	213866	1
[>	Tb	159		ug/L			531801	487856	0
[	Tl	205	49.758	ug/L	0.383	0	67	1630474	0
[	Pb	208	49.874	ug/L	0.295	0	662	2253540	0
[	Bi	209		ug/L			412309	377242	1
[	Th	232	50.792	ug/L	0.591	1	1702	2857466	0
[	U	238	50.918	ug/L	0.325	0	152	3289294	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 28, 2009 14:22:42
Number of Replicates: 3
Method File: c:\elandata\Method\2008LoNoMinNoRhAL.mth
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Calibration File: C:\Elandata\Caldata\122809.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			604202	770076	1
[	Be	9	-0.005	ug/L	0.004	76	8	7	44
	C	13		mg/L			6358	6367	1
	Cl	37		mg/L			3622439	3313787	0
[>	Sc	45		ug/L			263288	241163	1
|	Al	27	-0.437	ug/L	0.048	11	9729	5984	4
|	V-1	51	0.009	ug/L	0.008	91	1044	1046	9
|	V	51	0.026	ug/L	0.003	10	671	898	1
|	Cr	52	0.005	ug/L	0.010	223	3487	3237	2
|	Cr	53	0.060	ug/L	0.035	59	275	318	10
|	Mn	55	0.003	ug/L	0.003	129	1311	1241	2
[	Co	59	0.001	ug/L	0.004	305	110	116	38
[>	Ge	72		ug/L			351015	306089	0
|	Ni	60	-0.000	ug/L	0.002	1040	117	101	4
|	Ni	62	-0.034	ug/L	0.016	47	163	130	4
|	Cu	63	-0.005	ug/L	0.004	76	292	227	9
|	Cu	65	-0.001	ug/L	0.004	582	142	122	7
|	Zn	66	-0.085	ug/L	0.028	32	710	475	9
|	Zn	67	-0.024	ug/L	0.023	96	157	130	5
|	Zn	68	0.086	ug/L	0.023	26	3306	2987	0
|	As-1	75	0.007	ug/L	0.009	137	97	96	16
|	As	75	0.023	ug/L	0.039	168	5265	4631	1
|	Se	82	0.014	ug/L	0.039	281	-6	-3	221
|	Se	78	0.107	ug/L	0.159	149	5339	4707	1
[	Mo	98	0.011	ug/L	0.006	57	84	130	24
	Y	89		ug/L			287982	261521	0
	Kr	83		ug/L			81	77	5
[>	In	115		ug/L			392550	356575	0
|	Ag	107	0.009	ug/L	0.001	15	82	173	8
|	Cd	111	-0.006	ug/L	0.002	35	442	385	1
|	Cd	114	0.001	ug/L	0.001	85	20	22	16
|	Sb	121	-0.013	ug/L	0.001	9	339	175	7
|	Sb	123	-0.010	ug/L	0.002	20	253	150	10
|	Ba	135	0.004	ug/L	0.004	120	30	37	30
[	Ba	137	0.004	ug/L	0.002	54	41	54	16
[>	Tb	159		ug/L			531801	487182	1
|	Tl	205	0.002	ug/L	0.001	44	67	138	24
|	Pb	208	0.001	ug/L	0.001	62	662	662	4
|	Bi	209		ug/L			412309	378563	0
|	Th	232	0.042	ug/L	0.009	21	1702	3896	12
[	U	238	0.005	ug/L	0.002	34	152	450	22

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12-29-09 **Analyst:** KT **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			26666-3
		1			26667-2
		2			↓ -X3 AT 12-30-09
		3			26666-8
		4			26667-4
		Rinse Soln			
		STD 0			
		ICV			2612-4
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			Lithoh
		ICSAB			↓
		LR200			↓
		LR300			
		CCV2			
		CCB2			
		QC19 MB1	REN	2	
		MB1sp1	↓	↓	✓
		HDup			✓
		H			
		Hsp1			✓
		QB72 B	↓	↓	

QB72:00382

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12-29-09 **Analyst:** AA **Page:** 2 **of** 6

All corrections made by analyst unless otherwise noted. AA 12-30-09

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		QB72 C	REN	2	
		E			
		F			
		CCV3			
		CCB3			end pkg
		QB68 MB1	REN	2	
		MB2			
		MB1spk		✓	
		MB2spk		✓	
		ADup		✓	
		A			
		Aspk		✓	
		EDup		✓	
		E			
		Espk		✓	
		CCV4			Lithium Be low
		CCB4			↓
	X	QC12 MB	REN	2	Cu 0.5 RR Cu
		QB79 MB			
		MBspk		✓	
		QC12 MBspk			
		QB68 B			
		C			
		D			

QB72:00383

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 12-29-09

	Analyst ~~AA~~ 12-30	Peer JW 1.1.09	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	✓	✓	See Log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See Log
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
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	✓	✓	A.N QB72, ~~QC12~~ CAF QC12

1ST

Instrument Tuning Report

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	9.026	2033	2173	0.694	
Mg	23.985	23.929	5643	2287	0.696	
Co	58.933	58.979	14140	2563	0.701	
In	114.904	114.879	27752	3034	0.723	
Pb	207.977	207.977	50376	3836	0.724	

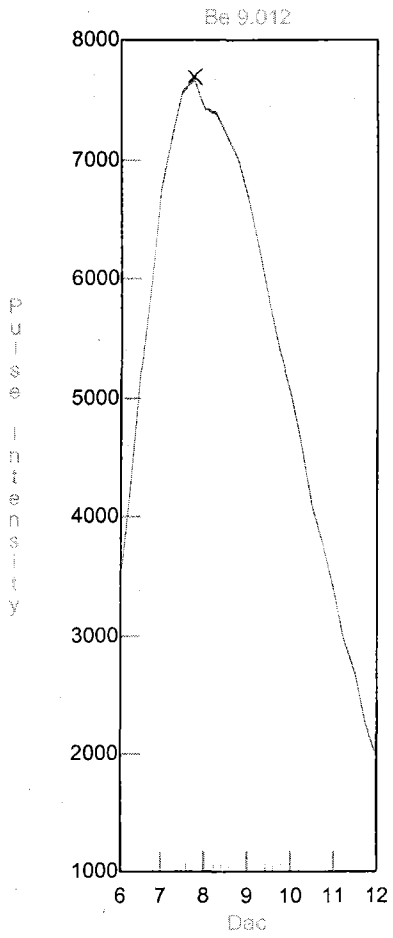
QB72:00385

Instrument Tuning Report

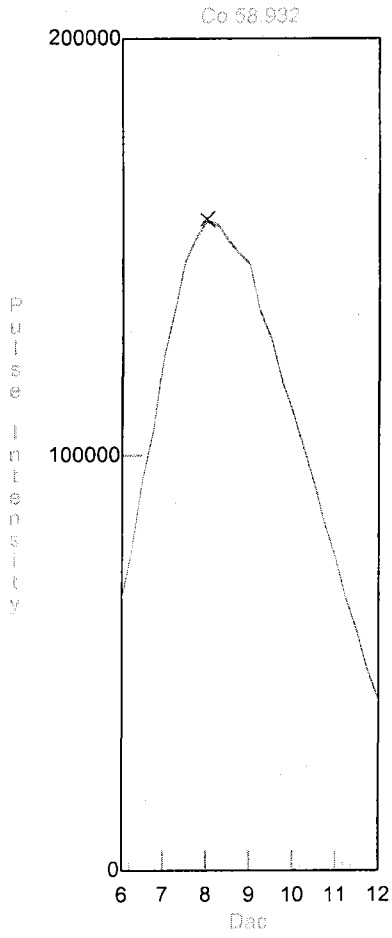
File Name: 2008.tun
File Path: c:\elandata\Tuning

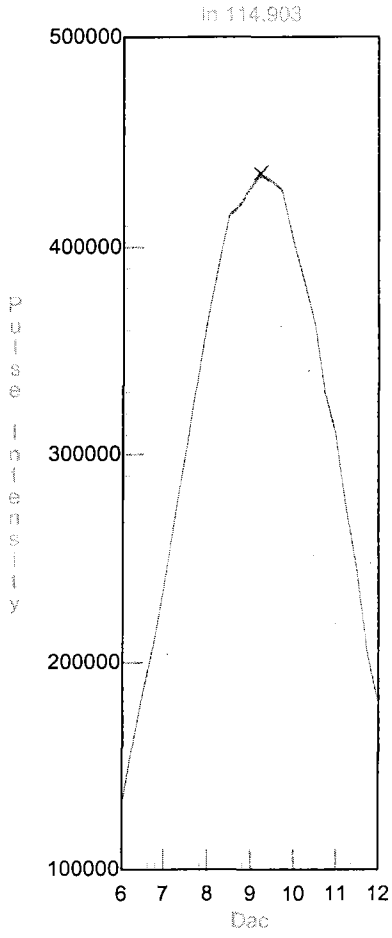
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.028	2036	2173	0.690	
Mg	23.985	24.029	5653	2287	0.685	
Co	58.933	58.929	14138	2563	0.713	
In	114.904	114.929	27757	3034	0.706	
Pb	207.977	207.977	50375	3836	0.723	

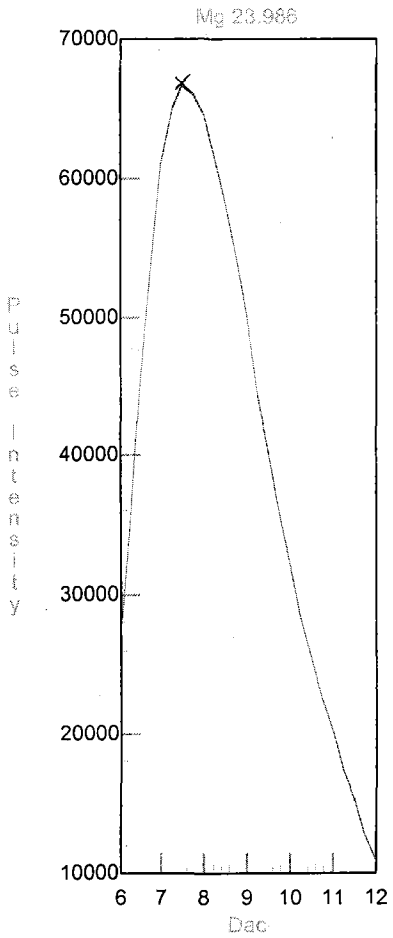
QB72 : 00386

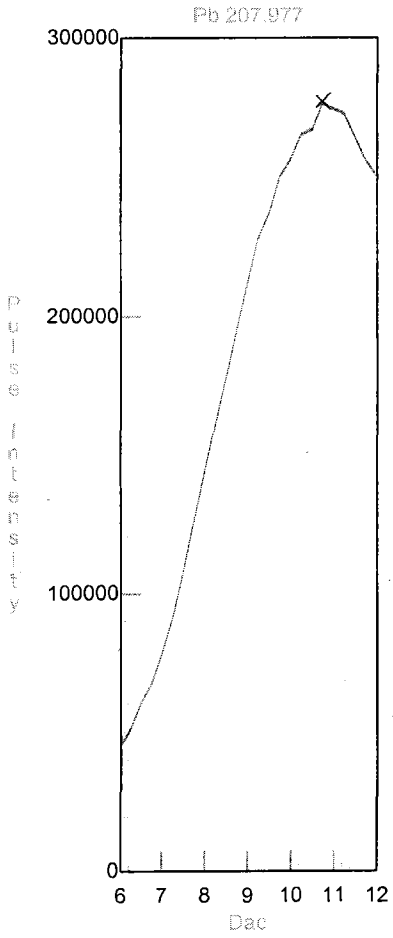


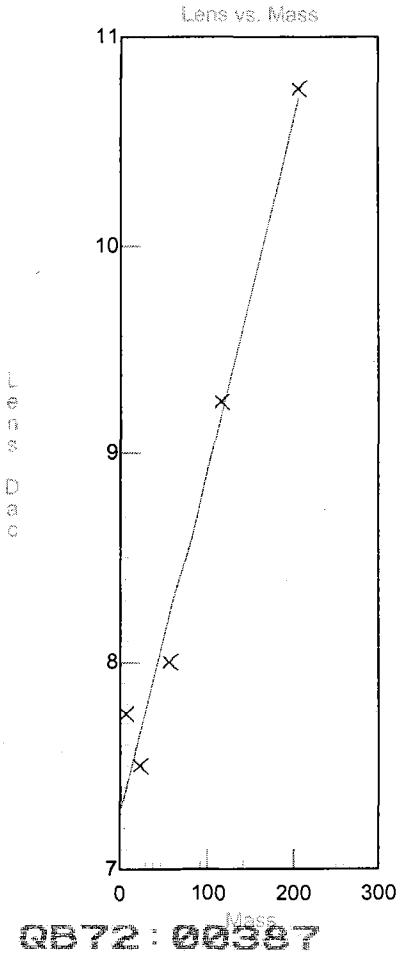
IZ-2909











QB72:00387

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, December 29, 2009 08:39:35
Sample Description:
Sample File: 1120.sam
Method File: c:\elandata\Method\aridailyperf.mth
Dataset File: c:\elandata\Dataset\daily performance\Sample.6169
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Number of Replicates: 5
Dual Detector Mode: Pulse

0.79

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	46108.578	1468.586	3.185
	In	115	412849.500	5537.012	1.341
	Pb	208	284436.944	4848.351	1.705
⌈>	Ba	138	343995.819	4419.575	1.285
⌊	Ba++	69	0.011	0.000	2.641
⌈>	Ce	140	416710.728	7556.550	1.813
⌊	CeO	156	0.026	0.000	1.013
	Bkgd	220	7.001	4.727	67.527

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, December 29, 2009 08:41:22
Sample Description:
Sample File: 1120.sam
Method File: c:\elandata\Method\aridailyperf.mth
Dataset File: c:\elandata\Dataset\daily performance\Sample.6171
Tuning File: c:\elandata\Tuning\2008.tun
Optimization File: c:\elandata\Optimize\arioptimize.dac
Number of Replicates: 5
Dual Detector Mode: Pulse

0.98

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	41426.319	530.588	1.281
	In	115	379560.889	5724.708	1.508
	Pb	208	261512.989	1855.137	0.709
⌈>	Ba	138	315357.956	5227.254	1.658
⌊	Ba++	69	0.011	0.000	3.716
⌈>	Ce	140	382896.072	2968.368	0.775
⌊	CeO	156	0.025	0.001	2.622
	Bkgd	220	6.751	2.592	38.401

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 09:04:59
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				580231	4
	Be	9		ug/L				8	14
	C	13		mg/L				6453	0
	Cl	37		mg/L				3645384	0
>	Sc	45		ug/L				271541	0
	V-1	51		ug/L				1331	8
	V	51		ug/L				1071	11
	Cr	52		ug/L				3840	0
	Cr	53		ug/L				350	1
	Mn	55		ug/L				1941	5
	Co	59		ug/L				95	15
>	Ge	72		ug/L				357642	1
	Ni	60		ug/L				125	13
	Ni	62		ug/L				156	8
	Cu	63		ug/L				384	1
	Cu	65		ug/L				153	13
	Zn	66		ug/L				5591	35
	Zn	67		ug/L				915	31
	Zn	68		ug/L				7441	18
	As-1	75		ug/L				137	10
	As	75		ug/L				5645	0
	Se	82		ug/L				-11	39
	Se	78		ug/L				5706	0
	Mo	98		ug/L				264	9
	Y	89		ug/L				293115	1
	Kr	83		ug/L				97	1
>	In	115		ug/L				395164	0
	Ag	107		ug/L				59	17
	Cd	111		ug/L				393	4
	Cd	114		ug/L				27	37
	Sb	121		ug/L				80	8
	Sb	123		ug/L				57	16
	Ba	135		ug/L				89	30
	Ba	137		ug/L				179	38
>	Tb	159		ug/L				507995	2
	Tl	205		ug/L				45	6
	Pb	208		ug/L				779	16
	Bi	209		ug/L				407349	0
	Th	232		ug/L				780	6
	U	238		ug/L				124	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 09:12:44
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			580231	574840	2
[	Be	9	10.000	ug/L	0.212	2	8	6285	2
	C	13		mg/L			6453	5669	0
	Cl	37		mg/L			3645384	3661019	0
[>	Sc	45		ug/L			271541	270058	0
[	V-1	51	10.000	ug/L	0.178	1	1331	117544	1
[	V	51	10.000	ug/L	0.153	1	1071	119675	0
[	Cr	52	10.000	ug/L	0.080	0	3840	107704	0
[	Cr	53	10.000	ug/L	0.034	0	350	12852	0
[	Mn	55	10.000	ug/L	0.053	0	1941	178490	0
[	Co	59	10.000	ug/L	0.081	0	95	134157	0
[>	Ge	72		ug/L			357642	358655	0
[	Ni	60	10.000	ug/L	0.128	1	125	27766	1
[	Ni	62	10.000	ug/L	0.031	0	156	4415	0
[	Cu	63	10.000	ug/L	0.159	1	384	63324	1
[	Cu	65	10.000	ug/L	0.048	0	153	30593	0
[	Zn	66	10.000	ug/L	0.115	1	5591	22554	1
[	Zn	67	10.000	ug/L	0.022	0	915	3836	0
[	Zn	68	10.000	ug/L	0.160	1	7441	19466	0
[	As-1	75	10.000	ug/L	0.052	0	137	20344	0
[	As	75	10.000	ug/L	0.030	0	5645	25735	0
[	Se	82	10.000	ug/L	0.141	1	-11	2202	1
[	Se	78	10.000	ug/L	0.080	0	5706	11220	0
[	Mo	98	10.000	ug/L	0.096	0	264	63422	1
	Y	89		ug/L			293115	292691	1
	Kr	83		ug/L			97	100	9
[>	In	115		ug/L			395164	396043	1
[	Ag	107	10.000	ug/L	0.190	1	59	121991	1
[	Cd	111	10.000	ug/L	0.026	0	393	32466	1
[	Cd	114	10.000	ug/L	0.082	0	27	76154	0
[	Sb	121	10.000	ug/L	0.230	2	80	109890	1
[	Sb	123	10.000	ug/L	0.179	1	57	83901	0
[	Ba	135	10.000	ug/L	0.089	0	89	27638	0
[	Ba	137	10.000	ug/L	0.183	1	179	48168	0
[>	Tb	159		ug/L			507995	511096	0
[	Tl	205	10.000	ug/L	0.044	0	45	352627	0
[	Pb	208	10.000	ug/L	0.037	0	779	485281	0
[	Bi	209		ug/L			407349	408879	0
[	Th	232	10.000	ug/L	0.090	0	780	597935	0
[	U	238	10.000	ug/L	0.066	0	124	674811	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 09:20:31
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			580231	551328	5
	Be	9	20.122	ug/L	0.696	3	8	12412	2
	C	13		mg/L			6453	5982	2
	Cl	37		mg/L			3645384	3653754	0
>	Sc	45		ug/L			271541	268775	0
	V-1	51	20.012	ug/L	0.254	1	1331	233370	1
	V	51	20.036	ug/L	0.259	1	1071	239321	1
	Cr	52	19.986	ug/L	0.162	0	3840	209882	0
	Cr	53	20.061	ug/L	0.340	1	350	25619	1
	Mn	55	20.057	ug/L	0.375	1	1941	358449	1
	Co	59	20.009	ug/L	0.070	0	95	267570	0
>	Ge	72		ug/L			357642	357236	0
	Ni	60	20.105	ug/L	0.300	1	125	56667	2
	Ni	62	19.962	ug/L	0.508	2	156	8559	2
	Cu	63	20.072	ug/L	0.203	1	384	128051	1
	Cu	65	20.025	ug/L	0.118	0	153	61175	0
	Zn	66	20.546	ug/L	0.359	1	5591	44514	1
	Zn	67	20.462	ug/L	0.283	1	915	7466	1
	Zn	68	20.564	ug/L	0.243	1	7441	35143	0
	As-1	75	20.064	ug/L	0.212	1	137	41041	0
	As	75	20.073	ug/L	0.252	1	5645	46368	0
	Se	82	20.064	ug/L	0.207	1	-11	4470	1
	Se	78	20.093	ug/L	0.187	0	5706	16909	0
	Mo	98	20.080	ug/L	0.369	1	264	128614	0
	Y	89		ug/L			293115	293738	0
	Kr	83		ug/L			97	97	2
>	In	115		ug/L			395164	395221	1
	Ag	107	20.052	ug/L	0.145	0	59	246607	0
	Cd	111	19.994	ug/L	0.366	1	393	64299	0
	Cd	114	20.034	ug/L	0.413	2	27	153264	1
	Sb	121	20.061	ug/L	0.463	2	80	222627	1
	Sb	123	20.109	ug/L	0.441	2	57	172041	0
	Ba	135	20.062	ug/L	0.392	1	89	55929	0
	Ba	137	20.060	ug/L	0.334	1	179	97415	0
>	Tb	159		ug/L			507995	511483	0
	Tl	205	20.046	ug/L	0.266	1	45	713895	0
	Pb	208	20.061	ug/L	0.075	0	779	985567	0
	Bi	209		ug/L			407349	415554	0
	Th	232	20.037	ug/L	0.374	1	780	1206902	1
	U	238	20.096	ug/L	0.112	0	124	1383617	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 09:28:20
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			580231	533575	3
[	Be	9	50.016	ug/L	0.917	1	8	29938	5
	C	13		mg/L			6453	5835	2
	Cl	37		mg/L			3645384	3626306	0
[>	Sc	45		ug/L			271541	267449	1
|	V-1	51	50.117	ug/L	0.920	1	1331	586364	1
|	V	51	50.081	ug/L	0.805	1	1071	598391	1
|	Cr	52	50.085	ug/L	0.731	1	3840	521993	1
|	Cr	53	49.975	ug/L	0.439	0	350	62831	1
|	Mn	55	50.082	ug/L	1.240	2	1941	894875	0
[	Co	59	50.022	ug/L	0.816	1	95	666872	1
[>	Ge	72		ug/L			357642	362084	0
|	Ni	60	49.663	ug/L	0.288	0	125	137077	1
|	Ni	62	49.732	ug/L	0.881	1	156	20822	1
|	Cu	63	49.761	ug/L	0.498	1	384	313704	0
|	Cu	65	49.786	ug/L	0.792	1	153	150705	1
|	Zn	66	50.300	ug/L	0.274	0	5591	105254	1
|	Zn	67	50.562	ug/L	0.631	1	915	18314	0
|	Zn	68	50.382	ug/L	0.921	1	7441	79081	1
|	As-1	75	49.930	ug/L	0.127	0	137	102600	0
|	As	75	49.886	ug/L	0.175	0	5645	107164	0
|	Se	82	49.935	ug/L	0.605	1	-11	11220	0
|	Se	78	49.778	ug/L	0.612	1	5706	33314	0
[	Mo	98	49.953	ug/L	0.246	0	264	322440	1
	Y	89		ug/L			293115	294176	0
	Kr	83		ug/L			97	106	4
[>	In	115		ug/L			395164	396780	0
|	Ag	107	49.892	ug/L	0.294	0	59	609350	0
|	Cd	111	49.984	ug/L	0.708	1	393	160566	1
|	Cd	114	49.989	ug/L	0.875	1	27	383482	0
|	Sb	121	50.158	ug/L	0.213	0	80	567751	0
|	Sb	123	50.098	ug/L	0.636	1	57	434525	0
|	Ba	135	50.055	ug/L	0.112	0	89	140750	0
[	Ba	137	49.961	ug/L	0.168	0	179	242393	0
[>	Tb	159		ug/L			507995	515877	0
|	Tl	205	49.833	ug/L	0.471	0	45	1760613	1
|	Pb	208	49.859	ug/L	0.261	0	779	2434878	0
|	Bi	209		ug/L			407349	411429	0
|	Th	232	50.245	ug/L	0.690	1	780	3127960	0
[	U	238	50.148	ug/L	0.602	1	124	3534241	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 09:40:00
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			580231	483627	3
└	Be	9	101.048	ug/L	2.196	2	8	56795	4
	C	13		mg/L			6453	5729	2
	Cl	37		mg/L			3645384	3553972	0
⌈>	Sc	45		ug/L			271541	262616	1
|	V-1	51	100.003	ug/L	1.234	1	1331	1147753	0
|	V	51	100.012	ug/L	1.130	1	1071	1172869	0
|	Cr	52	100.314	ug/L	0.667	0	3840	1033772	1
|	Cr	53	100.321	ug/L	0.942	0	350	124848	1
|	Mn	55	100.144	ug/L	1.686	1	1941	1763865	0
└	Co	59	100.196	ug/L	0.964	0	95	1320197	0
⌈>	Ge	72		ug/L			357642	355817	0
|	Ni	60	100.229	ug/L	1.543	1	125	273793	0
|	Ni	62	100.418	ug/L	2.219	2	156	41736	1
|	Cu	63	99.865	ug/L	0.839	0	384	615536	0
|	Cu	65	99.945	ug/L	1.482	1	153	296590	0
|	Zn	66	100.860	ug/L	0.340	0	5591	207588	0
|	Zn	67	100.741	ug/L	0.925	0	915	35817	0
|	Zn	68	100.876	ug/L	1.167	1	7441	152415	0
|	As-1	75	100.468	ug/L	0.459	0	137	205948	0
|	As	75	100.554	ug/L	0.410	0	5645	210340	0
|	Se	82	100.215	ug/L	1.186	1	-11	22299	1
|	Se	78	100.538	ug/L	0.422	0	5706	61331	0
└	Mo	98	100.593	ug/L	1.461	1	264	650592	0
	Y	89		ug/L			293115	293747	0
	Kr	83		ug/L			97	126	1
⌈>	In	115		ug/L			395164	398534	0
|	Ag	107	99.558	ug/L	0.825	0	59	1203576	1
|	Cd	111	99.795	ug/L	0.357	0	393	319414	0
|	Cd	114	99.769	ug/L	1.189	1	27	762903	1
|	Sb	121	99.880	ug/L	0.298	0	80	1130968	0
|	Sb	123	99.875	ug/L	1.103	1	57	866441	0
|	Ba	135	100.270	ug/L	0.982	0	89	285683	1
└	Ba	137	100.262	ug/L	0.344	0	179	492710	0
⌈>	Tb	159		ug/L			507995	515114	0
|	Tl	205	100.777	ug/L	0.771	0	45	3649535	0
|	Pb	208	100.445	ug/L	0.190	0	779	4971094	0
|	Bi	209		ug/L			407349	406171	0
|	Th	232	100.579	ug/L	1.155	1	780	6374827	1
└	U	238	100.372	ug/L	1.111	1	124	7152483	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 09:43:39
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			580231	495725	1
[	Be	9	0.006	ug/L	0.004	72	8	10	24
	C	13		mg/L			6453	5615	1
	Cl	37		mg/L			3645384	3662893	0
[>	Sc	45		ug/L			271541	268752	0
[	V-1	51	-0.015	ug/L	0.004	26	1331	1146	4
[	V	51	-0.028	ug/L	0.002	6	1071	729	2
[	Cr	52	-0.003	ug/L	0.011	341	3840	3768	3
[	Cr	53	-0.043	ug/L	0.010	22	350	292	3
[	Mn	55	-0.046	ug/L	0.001	3	1941	1088	2
[	Co	59	0.005	ug/L	0.001	15	95	165	7
[>	Ge	72		ug/L			357642	364437	0
[	Ni	60	-0.003	ug/L	0.007	202	125	117	16
[	Ni	62	0.005	ug/L	0.049	991	156	161	12
[	Cu	63	-0.009	ug/L	0.004	44	384	337	6
[	Cu	65	-0.004	ug/L	0.002	47	153	144	4
[	Zn	66	-2.438	ug/L	0.011	0	5591	696	3
[	Zn	67	-2.193	ug/L	0.045	2	915	154	10
[	Zn	68	-2.606	ug/L	0.020	0	7441	3746	1
[	As-1	75	0.007	ug/L	0.003	44	137	155	4
[	As	75	-0.026	ug/L	0.033	125	5645	5697	0
[	Se	82	0.045	ug/L	0.018	41	-11	-1	378
[	Se	78	-0.117	ug/L	0.115	98	5706	5748	0
[	Mo	98	0.001	ug/L	0.002	249	264	275	5
	Y	89		ug/L			293115	303594	0
	Kr	83		ug/L			97	90	3
[>	In	115		ug/L			395164	413913	0
[	Ag	107	0.015	ug/L	0.004	24	59	247	17
[	Cd	111	0.011	ug/L	0.006	54	393	450	5
[	Cd	114	0.001	ug/L	0.001	90	27	40	25
[	Sb	121	0.109	ug/L	0.022	20	80	1360	18
[	Sb	123	0.109	ug/L	0.015	13	57	1038	12
[	Ba	135	-0.017	ug/L	0.002	9	89	43	9
[	Ba	137	-0.022	ug/L	0.004	16	179	77	23
[>	Tb	159		ug/L			507995	529428	1
[	Tl	205	0.005	ug/L	0.001	26	45	224	20
[	Pb	208	-0.002	ug/L	0.001	29	779	696	3
[	Bi	209		ug/L			407349	419971	2
[	Th	232	0.070	ug/L	0.009	12	780	5391	11
[	U	238	0.008	ug/L	0.002	25	124	750	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 09:54:58
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				506724	1
[	Be	9		ug/L				7	39
	C	13		mg/L				5641	0
	Cl	37		mg/L				3689669	0
[>	Sc	45		ug/L				269435	1
|	V-1	51		ug/L				1126	9
|	V	51		ug/L				679	2
|	Cr	52		ug/L				3675	1
|	Cr	53		ug/L				272	11
|	Mn	55		ug/L				1031	2
[	Co	59		ug/L				110	9
[>	Ge	72		ug/L				364064	1
|	Ni	60		ug/L				109	4
|	Ni	62		ug/L				150	12
|	Cu	63		ug/L				285	4
|	Cu	65		ug/L				137	6
|	Zn	66		ug/L				713	9
|	Zn	67		ug/L				163	16
|	Zn	68		ug/L				3770	2
|	As-1	75		ug/L				132	21
|	As	75		ug/L				5680	0
|	Se	82		ug/L				-10	98
|	Se	78		ug/L				5741	0
[	Mo	98		ug/L				124	1
	Y	89		ug/L				301630	1
	Kr	83		ug/L				94	4
[>	In	115		ug/L				408129	0
|	Ag	107		ug/L				99	6
|	Cd	111		ug/L				451	6
|	Cd	114		ug/L				25	23
|	Sb	121		ug/L				352	6
|	Sb	123		ug/L				264	13
|	Ba	135		ug/L				28	11
[	Ba	137		ug/L				48	17
[>	Tb	159		ug/L				532797	0
|	Tl	205		ug/L				72	12
|	Pb	208		ug/L				514	2
|	Bi	209		ug/L				422271	0
|	Th	232		ug/L				2056	2
[	U	238		ug/L				175	11

Quantitative Analysis - Calibration Report

Sample Date/Time: Tuesday, December 29, 2009 09:54:58

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\122909.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	0.9998	0.0012	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V-1	51	1.0000	0.0437	10	20	50	100	
V	51	1.0000	0.0446	10	20	50	100	
Cr	52	1.0000	0.0391	10	20	50	100	
Cr	53	1.0000	0.0047	10	20	50	100	
Mn	55	1.0000	0.0670	10	20	50	100	
Co	59	1.0000	0.0502	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0077	10	20	50	100	
Ni	62	1.0000	0.0012	10	20	50	100	
Cu	63	1.0000	0.0173	10	20	50	100	
Cu	65	1.0000	0.0083	10	20	50	100	
Zn	66	0.9998	0.0056	10	20	50	100	
Zn	67	0.9998	0.0010	10	20	50	100	
Zn	68	0.9998	0.0040	10	20	50	100	
As-1	75	1.0000	0.0058	10	20	50	100	
As	75	0.9999	0.0057	10	20	50	100	
Se	82	1.0000	0.0006	10	20	50	100	
Se	78	0.9999	0.0016	10	20	50	100	
Mo	98	0.9999	0.0182	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0303	10	20	50	100	
Cd	111	1.0000	0.0080	10	20	50	100	
Cd	114	1.0000	0.0192	10	20	50	100	
Sb	121	1.0000	0.0284	10	20	50	100	
Sb	123	1.0000	0.0218	10	20	50	100	
Ba	135	1.0000	0.0071	10	20	50	100	
Ba	137	1.0000	0.0123	10	20	50	100	
Tb	159							
Tl	205	0.9999	0.0703	10	20	50	100	
Pb	208	1.0000	0.0961	10	20	50	100	
Bi	209							
Th	232	0.9999	0.1230	10	20	50	100	
U	238	1.0000	0.1383	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 10:02:48
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	495899	5
[	Be	9	49.422	ug/L	1.862	3	7	28441	1
	C	13		mg/L			5641	6891	1
	Cl	37		mg/L			3689669	3623751	0
[>	Sc	45		ug/L			269435	267274	0
|	V-1	51	48.822	ug/L	0.643	1	1126	570815	1
|	V	51	49.058	ug/L	0.358	0	679	585749	0
|	Cr	52	49.090	ug/L	0.474	0	3675	516674	1
|	Cr	53	49.787	ug/L	0.381	0	272	63159	0
|	Mn	55	50.471	ug/L	0.502	0	1031	904924	1
[	Co	59	49.418	ug/L	0.769	1	110	662800	1
[>	Ge	72		ug/L			364064	362545	0
|	Ni	60	50.723	ug/L	0.937	1	109	141225	1
|	Ni	62	50.890	ug/L	0.944	1	150	21622	1
|	Cu	63	50.673	ug/L	0.548	1	285	318322	0
|	Cu	65	50.448	ug/L	1.173	2	137	152598	2
|	Zn	66	51.032	ug/L	0.764	1	713	104860	1
|	Zn	67	50.174	ug/L	0.994	1	163	17876	1
|	Zn	68	50.644	ug/L	0.525	1	3770	77936	0
|	As-1	75	48.795	ug/L	0.501	1	132	101980	0
|	As	75	48.580	ug/L	0.524	1	5680	106434	0
|	Se	82	78.035	ug/L	0.883	1	-10	17690	1
|	Se	78	77.884	ug/L	1.037	1	5741	49646	1
[	Mo	98	48.798	ug/L	0.089	0	124	321595	0
	Y	89		ug/L			301630	298271	1
	Kr	83		ug/L			94	109	5
[>	In	115		ug/L			408129	404601	0
|	Ag	107	48.522	ug/L	0.349	0	99	595567	0
|	Cd	111	49.180	ug/L	0.676	1	451	160048	1
|	Cd	114	49.848	ug/L	0.549	1	25	387008	1
|	Sb	121	48.973	ug/L	0.138	0	352	563286	0
|	Sb	123	48.991	ug/L	0.165	0	264	431727	0
|	Ba	135	50.488	ug/L	0.638	1	28	146013	1
[	Ba	137	49.853	ug/L	0.604	1	48	248665	0
[>	Tb	159		ug/L			532797	524845	1
|	Tl	205	49.103	ug/L	0.771	1	72	1811577	0
|	Pb	208	50.469	ug/L	1.014	2	514	2544555	1
|	Bi	209		ug/L			422271	417223	0
|	Th	232	50.688	ug/L	0.642	1	2056	3274551	0
[	U	238	49.567	ug/L	0.869	1	175	3598177	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 10:10:17
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	493440	1
[	Be	9	-0.000	ug/L	0.004	1291	7	7	28
	C	13		mg/L			5641	5633	1
	Cl	37		mg/L			3689669	3726309	0
[>	Sc	45		ug/L			269435	265417	1
|	V-1	51	0.000	ug/L	0.008	3176	1126	1112	9
|	V	51	0.003	ug/L	0.002	86	679	702	4
|	Cr	52	0.007	ug/L	0.006	84	3675	3694	0
|	Cr	53	0.014	ug/L	0.031	216	272	286	12
|	Mn	55	-0.002	ug/L	0.001	38	1031	979	1
[	Co	59	0.003	ug/L	0.002	72	110	146	19
[>	Ge	72		ug/L			364064	363499	1
|	Ni	60	0.006	ug/L	0.001	10	109	125	0
|	Ni	62	0.047	ug/L	0.052	110	150	170	11
|	Cu	63	0.001	ug/L	0.002	149	285	291	2
|	Cu	65	0.005	ug/L	0.003	63	137	152	7
|	Zn	66	0.019	ug/L	0.013	66	713	751	4
|	Zn	67	-0.011	ug/L	0.039	352	163	159	9
|	Zn	68	-0.055	ug/L	0.055	99	3770	3683	1
|	As-1	75	0.002	ug/L	0.010	541	132	136	16
|	As	75	0.035	ug/L	0.046	133	5680	5742	0
|	Se	82	0.030	ug/L	0.070	231	-10	-3	429
|	Se	78	0.125	ug/L	0.191	153	5741	5802	0
[	Mo	98	0.009	ug/L	0.006	64	124	184	22
	Y	89		ug/L			301630	302753	1
	Kr	83		ug/L			94	88	14
[>	In	115		ug/L			408129	407143	1
|	Ag	107	0.006	ug/L	0.001	21	99	169	8
|	Cd	111	0.001	ug/L	0.008	1011	451	452	6
|	Cd	114	0.000	ug/L	0.000	57	25	27	4
|	Sb	121	0.003	ug/L	0.005	150	352	388	13
|	Sb	123	0.006	ug/L	0.002	42	264	313	5
|	Ba	135	0.004	ug/L	0.002	56	28	40	16
[	Ba	137	0.002	ug/L	0.001	69	48	56	8
[>	Tb	159		ug/L			532797	525396	0
|	Tl	205	0.002	ug/L	0.001	39	72	152	21
|	Pb	208	0.003	ug/L	0.001	37	514	650	8
|	Bi	209		ug/L			422271	426131	0
|	Th	232	0.028	ug/L	0.009	30	2056	3856	14
[	U	238	0.005	ug/L	0.003	49	175	547	34

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 10:17:45
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: C:\Elandata\Caldata\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	483355	1
[	Be	9	49.671	ug/L	0.222	0	7	27900	2
	C	13		mg/L			5641	5584	0
	Cl	37		mg/L			3689669	3634403	0
[>	Sc	45		ug/L			269435	264540	2
[	V-1	51	49.677	ug/L	0.605	1	1126	574811	1
[	V	51	49.511	ug/L	0.523	1	679	585052	1
[	Cr	52	49.782	ug/L	1.004	2	3675	518428	1
[	Cr	53	49.275	ug/L	0.972	1	272	61857	0
[	Mn	55	49.917	ug/L	0.907	1	1031	885669	1
[	Co	59	50.152	ug/L	0.887	1	110	665798	2
[>	Ge	72		ug/L			364064	361788	0
[	Ni	60	50.089	ug/L	0.606	1	109	139182	1
[	Ni	62	49.597	ug/L	0.257	0	150	21033	0
[	Cu	63	49.706	ug/L	0.554	1	285	311619	1
[	Cu	65	49.800	ug/L	0.361	0	137	150337	1
[	Zn	66	51.721	ug/L	0.376	0	713	106050	1
[	Zn	67	50.705	ug/L	0.840	1	163	18028	2
[	Zn	68	51.627	ug/L	0.231	0	3770	79211	0
[	As-1	75	49.575	ug/L	0.287	0	132	103395	1
[	As	75	49.532	ug/L	0.281	0	5680	108186	1
[	Se	82	50.123	ug/L	0.230	0	-10	11335	0
[	Se	78	49.983	ug/L	0.224	0	5741	33838	0
[	Mo	98	49.745	ug/L	0.144	0	124	327145	0
	Y	89		ug/L			301630	295889	1
	Kr	83		ug/L			94	108	0
[>	In	115		ug/L			408129	404856	1
[	Ag	107	50.093	ug/L	0.633	1	99	615191	0
[	Cd	111	49.722	ug/L	0.425	0	451	161916	1
[	Cd	114	49.873	ug/L	0.710	1	25	387407	1
[	Sb	121	49.871	ug/L	0.544	1	352	573943	0
[	Sb	123	50.065	ug/L	0.170	0	264	441478	1
[	Ba	135	49.780	ug/L	0.699	1	28	144054	1
[	Ba	137	49.547	ug/L	0.343	0	48	247307	1
[>	Tb	159		ug/L			532797	521726	1
[	Tl	205	48.991	ug/L	0.526	1	72	1796836	1
[	Pb	208	49.478	ug/L	0.557	1	514	2479926	0
[	Bi	209		ug/L			422271	421181	0
[	Th	232	49.614	ug/L	1.382	2	2056	3185616	1
[	U	238	49.715	ug/L	0.985	1	175	3587431	0

QB72 : 00400

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 10:25:13
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	487409	2
	Be	9	0.000	ug/L	0.007	1390	7	7	48
	C	13		mg/L			5641	5456	1
	Cl	37		mg/L			3689669	3722683	0
>	Sc	45		ug/L			269435	271982	1
	V-1	51	0.003	ug/L	0.001	32	1126	1174	2
	V	51	-0.002	ug/L	0.002	77	679	660	1
	Cr	52	-0.002	ug/L	0.004	181	3675	3688	0
	Cr	53	-0.017	ug/L	0.011	64	272	252	4
	Mn	55	-0.006	ug/L	0.003	44	1031	938	3
	Co	59	0.003	ug/L	0.003	82	110	155	22
>	Ge	72		ug/L			364064	365977	0
	Ni	60	-0.001	ug/L	0.002	149	109	106	5
	Ni	62	0.024	ug/L	0.032	136	150	161	7
	Cu	63	0.004	ug/L	0.002	52	285	309	3
	Cu	65	-0.006	ug/L	0.002	34	137	121	4
	Zn	66	0.018	ug/L	0.014	79	713	753	3
	Zn	67	0.029	ug/L	0.037	125	163	175	7
	Zn	68	-0.064	ug/L	0.066	102	3770	3695	2
	As-1	75	-0.001	ug/L	0.002	312	132	131	3
	As	75	0.007	ug/L	0.009	119	5680	5725	0
	Se	82	0.011	ug/L	0.015	132	-10	-8	43
	Se	78	0.020	ug/L	0.019	97	5741	5783	0
	Mo	98	0.008	ug/L	0.001	15	124	176	5
	Y	89		ug/L			301630	303107	1
	Kr	83		ug/L			94	90	1
>	In	115		ug/L			408129	414159	1
	Ag	107	0.008	ug/L	0.001	13	99	195	7
	Cd	111	0.001	ug/L	0.009	1725	451	459	6
	Cd	114	0.001	ug/L	0.001	143	25	33	33
	Sb	121	-0.000	ug/L	0.004	5873	352	357	12
	Sb	123	0.002	ug/L	0.004	180	264	289	13
	Ba	135	0.004	ug/L	0.002	40	28	40	12
	Ba	137	0.003	ug/L	0.001	27	48	63	5
>	Tb	159		ug/L			532797	533269	0
	Tl	205	0.003	ug/L	0.001	37	72	171	20
	Pb	208	0.003	ug/L	0.001	39	514	677	8
	Bi	209		ug/L			422271	427627	0
	Th	232	0.040	ug/L	0.012	29	2056	4707	16
	U	238	0.004	ug/L	0.002	47	175	497	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 10:37:46
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	519492	2
	Be	9	0.177	ug/L	0.020	11	7	114	8
	C	13		mg/L			5641	5097	1
	Cl	37		mg/L			3689669	3746960	0
>	Sc	45		ug/L			269435	287174	0
	V-1	51	0.173	ug/L	0.021	12	1126	3371	7
	V	51	0.180	ug/L	0.007	3	679	3036	2
	Cr	52	0.456	ug/L	0.019	4	3675	9041	2
	Cr	53	0.460	ug/L	0.042	9	272	914	5
	Mn	55	0.459	ug/L	0.002	0	1031	9929	0
	Co	59	0.195	ug/L	0.004	2	110	2923	2
>	Ge	72		ug/L			364064	388748	1
	Ni	60	0.523	ug/L	0.019	3	109	1677	4
	Ni	62	0.604	ug/L	0.032	5	150	433	3
	Cu	63	0.515	ug/L	0.007	1	285	3769	0
	Cu	65	0.523	ug/L	0.010	1	137	1840	0
	Zn	66	4.278	ug/L	0.060	1	713	10123	0
	Zn	67	3.804	ug/L	0.190	4	163	1614	4
	Zn	68	4.062	ug/L	0.027	0	3770	10406	1
	As-1	75	0.172	ug/L	0.014	8	132	526	5
	As	75	0.056	ug/L	0.028	49	5680	6189	1
	Se	82	0.455	ug/L	0.005	1	-10	99	2
	Se	78	-0.005	ug/L	0.062	1205	5741	6128	1
	Mo	98	0.185	ug/L	0.001	0	124	1441	1
	Y	89		ug/L			301630	323950	1
	Kr	83		ug/L			94	91	1
>	In	115		ug/L			408129	435289	0
	Ag	107	0.188	ug/L	0.002	1	99	2582	1
	Cd	111	0.198	ug/L	0.005	2	451	1171	1
	Cd	114	0.190	ug/L	0.003	1	25	1613	1
	Sb	121	0.168	ug/L	0.009	5	352	2459	4
	Sb	123	0.169	ug/L	0.001	0	264	1883	0
	Ba	135	0.476	ug/L	0.005	0	28	1512	0
	Ba	137	0.477	ug/L	0.012	2	48	2609	2
>	Tb	159		ug/L			532797	564629	0
	Tl	205	0.197	ug/L	0.004	1	72	7886	1
	Pb	208	0.943	ug/L	0.008	0	514	51717	0
	Bi	209		ug/L			422271	449566	0
	Th	232	0.175	ug/L	0.003	1	2056	14331	0
	U	238	0.180	ug/L	0.002	0	175	14268	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 10:42:01
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	655772	3
[	Be	9	-0.005	ug/L	0.001	20	7	6	10
	C	13		mg/L			5641	22879	2
	Cl	37		mg/L			3689669	5012268	1
[>	Sc	45		ug/L			269435	259454	0
[	V-1	51	-0.067	ug/L	0.034	51	1126	328	117
[	V	51	0.531	ug/L	0.024	4	679	6808	4
[	Cr	52	0.370	ug/L	0.028	7	3675	7287	3
[	Cr	53	2.147	ug/L	0.141	6	272	2895	6
[	Mn	55	0.396	ug/L	0.017	4	1031	7879	3
[	Co	59	0.035	ug/L	0.003	7	110	563	5
[>	Ge	72		ug/L			364064	339289	1
[	Ni	60	0.524	ug/L	0.039	7	109	1467	8
[	Ni	62	4.198	ug/L	0.146	3	150	1798	4
[	Cu	63	0.394	ug/L	0.011	2	285	2579	1
[	Cu	65	0.928	ug/L	0.015	1	137	2754	2
[	Zn	66	1.295	ug/L	0.006	0	713	3138	1
[	Zn	67	1.149	ug/L	0.092	8	163	532	4
[	Zn	68	0.304	ug/L	0.061	20	3770	3929	2
[	As-1	75	0.006	ug/L	0.020	356	132	134	28
[	As	75	-0.070	ug/L	0.032	45	5680	5157	2
[	Se	82	-0.123	ug/L	0.008	6	-10	-36	4
[	Se	78	-0.225	ug/L	0.185	82	5741	5233	2
[	Mo	98	386.464	ug/L	3.769	0	124	2382944	2
	Y	89		ug/L			301630	278378	1
	Kr	83		ug/L			94	125	2
[>	In	115		ug/L			408129	374122	1
[	Ag	107	0.018	ug/L	0.003	16	99	291	12
[	Cd	111	0.097	ug/L	0.009	9	451	704	3
[	Cd	114	0.676	ug/L	0.023	3	25	4878	4
[	Sb	121	0.027	ug/L	0.003	12	352	610	4
[	Sb	123	0.029	ug/L	0.002	7	264	479	4
[	Ba	135	0.303	ug/L	0.018	5	28	835	6
[	Ba	137	0.276	ug/L	0.009	3	48	1319	3
[>	Tb	159		ug/L			532797	497960	1
[	Tl	205	0.001	ug/L	0.001	38	72	113	14
[	Pb	208	0.023	ug/L	0.001	3	514	1557	3
[	Bi	209		ug/L			422271	389667	1
[	Th	232	0.070	ug/L	0.013	18	2056	6194	14
[	U	238	-0.001	ug/L	0.000	14	175	107	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 10:47:38
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	741258	1
[	Be	9	-0.001	ug/L	0.006	654	7	10	48
	C	13		mg/L			5641	22785	1
	Cl	37		mg/L			3689669	4764619	0
[>	Sc	45		ug/L			269435	266349	0
[	V-1	51	-0.342	ug/L	0.156	45	1126	-2860	63
[	V	51	0.580	ug/L	0.036	6	679	7565	4
[	Cr	52	19.316	ug/L	0.193	0	3675	204796	0
[	Cr	53	20.821	ug/L	0.466	2	272	26476	1
[	Mn	55	19.082	ug/L	0.173	0	1031	341564	0
[	Co	59	18.537	ug/L	0.078	0	110	247834	0
[>	Ge	72		ug/L			364064	335894	1
[	Ni	60	20.067	ug/L	0.443	2	109	51817	0
[	Ni	62	23.396	ug/L	0.649	2	150	9282	1
[	Cu	63	19.605	ug/L	0.302	1	285	114253	0
[	Cu	65	20.165	ug/L	0.319	1	137	56583	0
[	Zn	66	20.971	ug/L	0.452	2	713	40303	0
[	Zn	67	18.291	ug/L	0.618	3	163	6132	1
[	Zn	68	19.270	ug/L	0.397	2	3770	29624	0
[	As-1	75	18.972	ug/L	0.255	1	132	36806	0
[	As	75	18.885	ug/L	0.299	1	5680	41532	0
[	Se	82	-0.052	ug/L	0.039	75	-10	-20	38
[	Se	78	-0.660	ug/L	0.146	22	5741	4951	0
[	Mo	98	380.074	ug/L	8.836	2	124	2319306	0
	Y	89		ug/L			301630	280101	0
	Kr	83		ug/L			94	116	4
[>	In	115		ug/L			408129	376573	0
[	Ag	107	17.653	ug/L	0.158	0	99	201729	0
[	Cd	111	19.205	ug/L	0.243	1	451	58423	1
[	Cd	114	19.639	ug/L	0.208	1	25	141915	0
[	Sb	121	0.022	ug/L	0.003	12	352	562	5
[	Sb	123	0.025	ug/L	0.005	18	264	450	8
[	Ba	135	0.278	ug/L	0.018	6	28	773	6
[	Ba	137	0.284	ug/L	0.010	3	48	1363	3
[>	Tb	159		ug/L			532797	509500	1
[	Tl	205	0.006	ug/L	0.000	1	72	277	2
[	Pb	208	0.026	ug/L	0.001	3	514	1764	2
[	Bi	209		ug/L			422271	388021	0
[	Th	232	0.017	ug/L	0.002	14	2056	3034	4
[	U	238	-0.001	ug/L	0.000	4	175	86	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 10:55:34
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	636188	3
[	Be	9	180.195	ug/L	1.813	1	7	133161	2
	C	13		mg/L			5641	8118	1
	Cl	37		mg/L			3689669	3332093	1
[>	Sc	45		ug/L			269435	264256	0
[	V-1	51	192.010	ug/L	2.253	1	1126	2216337	1
[	V	51	192.840	ug/L	2.122	1	679	2274512	0
[	Cr	52	191.438	ug/L	1.606	0	3675	1981690	0
[	Cr	53	193.984	ug/L	1.359	0	272	242535	0
[	Mn	55	187.437	ug/L	1.166	0	1031	3319983	0
[	Co	59	186.303	ug/L	0.687	0	110	2470249	0
[>	Ge	72		ug/L			364064	341653	0
[	Ni	60	194.801	ug/L	1.092	0	109	510863	0
[	Ni	62	191.277	ug/L	3.030	1	150	76196	1
[	Cu	63	191.542	ug/L	2.011	1	285	1133181	1
[	Cu	65	190.384	ug/L	0.638	0	137	542371	0
[	Zn	66	199.315	ug/L	4.437	2	713	384011	2
[	Zn	67	195.534	ug/L	2.407	1	163	65210	1
[	Zn	68	197.032	ug/L	1.311	0	3770	275512	0
[	As-1	75	192.443	ug/L	0.655	0	132	378661	0
[	As	75	192.070	ug/L	0.714	0	5680	380816	0
[	Se	82	194.778	ug/L	1.159	0	-10	41627	0
[	Se	78	193.470	ug/L	1.497	0	5741	108222	0
[	Mo	98	199.997	ug/L	2.765	1	124	1241717	1
	Y	89		ug/L			301630	283647	0
	Kr	83		ug/L			94	139	4
[>	In	115		ug/L			408129	381295	1
[	Ag	107	197.735	ug/L	1.904	0	99	2286825	0
[	Cd	111	195.453	ug/L	3.394	1	451	598178	1
[	Cd	114	196.284	ug/L	0.811	0	25	1435965	0
[	Sb	121	202.661	ug/L	3.455	1	352	2195665	1
[	Sb	123	200.889	ug/L	1.384	0	264	1667536	0
[	Ba	135	197.483	ug/L	2.909	1	28	538119	0
[	Ba	137	197.320	ug/L	1.277	0	48	927464	1
[>	Tb	159		ug/L			532797	516963	2
[	Tl	205	192.264	ug/L	4.328	2	72	6985632	0
[	Pb	208	195.842	ug/L	3.909	1	514	9723453	0
[	Bi	209		ug/L			422271	389104	1
[	Th	232	195.873	ug/L	5.073	2	2056	12455389	1
[	U	238	197.296	ug/L	5.817	2	175	14103436	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 11:02:19
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	539692	3
	Be	9	285.495	ug/L	1.432	0	7	178994	3
	C	13		mg/L			5641	7994	3
	Cl	37		mg/L			3689669	3289621	0
>	Sc	45		ug/L			269435	259312	1
	V-1	51	292.141	ug/L	8.404	2	1126	3307685	1
	V	51	294.718	ug/L	7.695	2	679	3410022	1
	Cr	52	288.648	ug/L	4.623	1	3675	2929796	0
	Cr	53	296.658	ug/L	2.740	0	272	363793	0
	Mn	55	288.250	ug/L	5.663	1	1031	5008611	0
	Co	59	284.252	ug/L	5.815	2	110	3697640	0
>	Ge	72		ug/L			364064	351847	0
	Ni	60	285.582	ug/L	3.835	1	109	771192	0
	Ni	62	285.378	ug/L	0.495	0	150	117008	0
	Cu	63	279.940	ug/L	0.869	0	285	1705461	0
	Cu	65	277.783	ug/L	3.768	1	137	814874	0
	Zn	66	288.512	ug/L	2.968	1	713	572142	0
	Zn	67	285.845	ug/L	1.905	0	163	98099	0
	Zn	68	286.015	ug/L	1.905	0	3770	410244	1
	As-1	75	287.385	ug/L	0.524	0	132	582293	0
	As	75	287.023	ug/L	0.554	0	5680	583352	0
	Se	82	285.023	ug/L	1.832	0	-10	62738	1
	Se	78	283.651	ug/L	0.431	0	5741	160816	0
	Mo	98	298.203	ug/L	0.724	0	124	1906639	0
	Y	89		ug/L			301630	289489	0
	Kr	83		ug/L			94	166	5
>	In	115		ug/L			408129	391639	0
	Ag	107	291.890	ug/L	4.588	1	99	3467406	1
	Cd	111	289.206	ug/L	1.485	0	451	908964	1
	Cd	114	296.249	ug/L	2.473	0	25	2226092	0
	Sb	121	300.399	ug/L	1.999	0	352	3342884	1
	Sb	123	303.228	ug/L	0.205	0	264	2585258	0
	Ba	135	294.668	ug/L	1.975	0	28	824750	0
	Ba	137	296.735	ug/L	3.593	1	48	1432448	0
>	Tb	159		ug/L			532797	512826	0
	Tl	205	298.810	ug/L	1.201	0	72	10772998	0
	Pb	208	300.761	ug/L	1.550	0	514	14816633	0
	Bi	209		ug/L			422271	375648	0
	Th	232	307.249	ug/L	2.788	0	2056	19387169	1
	U	238	304.618	ug/L	2.358	0	175	21609562	0

QB72:00405

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 11:09:06
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	562301	0
	Be	9	48.219	ug/L	0.432	0	7	31508	0
	C	13		mg/L			5641	6095	1
	Cl	37		mg/L			3689669	3517455	0
>	Sc	45		ug/L			269435	275243	1
	V-1	51	49.175	ug/L	0.219	0	1126	592089	1
	V	51	49.260	ug/L	0.172	0	679	605682	1
	Cr	52	48.376	ug/L	0.340	0	3675	524373	0
	Cr	53	48.682	ug/L	0.582	1	272	63601	0
	Mn	55	49.000	ug/L	0.795	1	1031	904744	1
	Co	59	49.106	ug/L	0.824	1	110	678189	0
>	Ge	72		ug/L			364064	362044	0
	Ni	60	49.599	ug/L	1.105	2	109	137900	1
	Ni	62	49.533	ug/L	0.778	1	150	21020	1
	Cu	63	50.064	ug/L	0.320	0	285	314079	1
	Cu	65	49.674	ug/L	0.391	0	137	150054	0
	Zn	66	51.712	ug/L	0.241	0	713	106106	1
	Zn	67	50.485	ug/L	1.206	2	163	17960	1
	Zn	68	51.656	ug/L	0.475	0	3770	79308	0
	As-1	75	48.973	ug/L	0.633	1	132	102205	0
	As	75	48.732	ug/L	0.589	1	5680	106597	0
	Se	82	50.485	ug/L	0.658	1	-10	11424	0
	Se	78	49.606	ug/L	0.473	0	5741	33649	0
	Mo	98	49.783	ug/L	0.086	0	124	327625	0
	Y	89		ug/L			301630	300368	1
	Kr	83		ug/L			94	101	5
>	In	115		ug/L			408129	406676	1
	Ag	107	49.845	ug/L	0.805	1	99	614856	0
	Cd	111	49.520	ug/L	1.075	2	451	161946	0
	Cd	114	49.751	ug/L	0.988	1	25	388162	1
	Sb	121	49.715	ug/L	0.962	1	352	574629	0
	Sb	123	50.171	ug/L	0.543	1	264	444334	0
	Ba	135	49.021	ug/L	0.920	1	28	142473	0
	Ba	137	49.268	ug/L	1.110	2	48	246965	1
>	Tb	159		ug/L			532797	541556	0
	Tl	205	47.613	ug/L	0.395	0	72	1812743	0
	Pb	208	48.464	ug/L	0.324	0	514	2521649	0
	Bi	209		ug/L			422271	419951	0
	Th	232	49.330	ug/L	0.751	1	2056	3288476	0
	U	238	49.801	ug/L	0.515	1	175	3730828	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 11:19:33
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: C:\Elandata\Caldata\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	568965	1
	Be	9	0.002	ug/L	0.012	551	7	10	78
	C	13		mg/L			5641	6143	3
	Cl	37		mg/L			3689669	3655895	0
>	Sc	45		ug/L			269435	274208	1
	V-1	51	0.000	ug/L	0.007	1609	1126	1152	9
	V	51	0.032	ug/L	0.000	0	679	1077	1
	Cr	52	-0.003	ug/L	0.011	407	3675	3711	1
	Cr	53	0.091	ug/L	0.031	34	272	395	8
	Mn	55	-0.013	ug/L	0.002	17	1031	810	3
	Co	59	0.009	ug/L	0.002	18	110	239	8
>	Ge	72		ug/L			364064	359067	1
	Ni	60	0.002	ug/L	0.003	181	109	113	9
	Ni	62	0.008	ug/L	0.027	352	150	151	9
	Cu	63	0.005	ug/L	0.001	18	285	315	0
	Cu	65	0.002	ug/L	0.003	191	137	140	5
	Zn	66	-0.140	ug/L	0.006	4	713	421	4
	Zn	67	-0.036	ug/L	0.030	82	163	149	8
	Zn	68	-0.326	ug/L	0.095	29	3770	3244	2
	As-1	75	0.022	ug/L	0.013	58	132	176	13
	As	75	-0.073	ug/L	0.074	100	5680	5450	1
	Se	82	0.042	ug/L	0.045	106	-10	-1	921
	Se	78	-0.327	ug/L	0.253	77	5741	5479	1
	Mo	98	0.012	ug/L	0.005	36	124	203	16
	Y	89		ug/L			301630	302078	1
	Kr	83		ug/L			94	89	6
>	In	115		ug/L			408129	411235	1
	Ag	107	0.009	ug/L	0.002	19	99	217	9
	Cd	111	-0.010	ug/L	0.008	77	451	420	7
	Cd	114	0.000	ug/L	0.000	163	25	27	12
	Sb	121	0.009	ug/L	0.005	56	352	456	11
	Sb	123	0.010	ug/L	0.005	46	264	356	10
	Ba	135	0.004	ug/L	0.002	38	28	40	11
	Ba	137	0.001	ug/L	0.003	333	48	53	25
>	Tb	159		ug/L			532797	539219	1
	Tl	205	0.003	ug/L	0.000	4	72	185	4
	Pb	208	-0.000	ug/L	0.000	117	514	500	5
	Bi	209		ug/L			422271	432822	0
	Th	232	0.030	ug/L	0.003	10	2056	4052	5
	U	238	0.004	ug/L	0.001	18	175	471	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QC19 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 11:26:59
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	620541	3
	Be	9	0.004	ug/L	0.002	53	7	12	10
	C	13		mg/L			5641	8589	0
	Cl	37		mg/L			3689669	3664293	0
>	Sc	45		ug/L			269435	281581	0
	V-1	51	0.017	ug/L	0.003	18	1126	1384	2
	V	51	0.038	ug/L	0.002	5	679	1188	2
	Cr	52	0.058	ug/L	0.012	20	3675	4479	2
	Cr	53	0.119	ug/L	0.012	9	272	443	3
	Mn	55	0.019	ug/L	0.002	8	1031	1439	1
	Co	59	0.011	ug/L	0.001	10	110	270	5
>	Ge	72		ug/L			364064	365354	0
	Ni	60	0.010	ug/L	0.005	48	109	138	9
	Ni	62	0.043	ug/L	0.020	46	150	169	4
	Cu	63	0.052	ug/L	0.002	3	285	616	2
	Cu	65	0.049	ug/L	0.005	10	137	285	5
	Zn	66	0.632	ug/L	0.017	2	713	2014	1
	Zn	67	0.605	ug/L	0.029	4	163	379	2
	Zn	68	0.319	ug/L	0.072	22	3770	4255	2
	As-1	75	0.005	ug/L	0.004	84	132	142	5
	As	75	-0.123	ug/L	0.017	13	5680	5442	0
	Se	82	0.011	ug/L	0.027	254	-10	-8	76
	Se	78	-0.479	ug/L	0.046	9	5741	5489	0
	Mo	98	0.049	ug/L	0.008	16	124	450	12
	Y	89		ug/L			301630	309630	1
	Kr	83		ug/L			94	90	4
>	In	115		ug/L			408129	419826	2
	Ag	107	0.006	ug/L	0.003	45	99	176	17
	Cd	111	-0.009	ug/L	0.005	51	451	434	1
	Cd	114	0.000	ug/L	0.001	348	25	27	17
	Sb	121	-0.002	ug/L	0.001	33	352	335	3
	Sb	123	0.000	ug/L	0.002	1469	264	273	7
	Ba	135	0.014	ug/L	0.002	17	28	70	12
	Ba	137	0.017	ug/L	0.001	5	48	136	5
>	Tb	159		ug/L			532797	557286	2
	Tl	205	0.001	ug/L	0.000	26	72	120	9
	Pb	208	0.001	ug/L	0.001	41	514	606	6
	Bi	209		ug/L			422271	441190	0
	Th	232	0.031	ug/L	0.001	3	2056	4263	3
	U	238	0.001	ug/L	0.000	30	175	253	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QC19 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 11:38:52
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			506724	600578	2
⌊	Be	9	23.544	ug/L	0.526	2	7	16431	1
	C	13		mg/L			5641	9592	1
	Cl	37		mg/L			3689669	3631416	0
⌈>	Sc	45		ug/L			269435	280780	1
|	V-1	51	24.846	ug/L	0.640	2	1126	305707	1
|	V	51	24.880	ug/L	0.503	2	679	312394	1
|	Cr	52	24.851	ug/L	0.537	2	3675	276630	1
|	Cr	53	24.955	ug/L	0.181	0	272	33397	0
|	Mn	55	25.243	ug/L	0.311	1	1031	475976	0
⌊	Co	59	24.934	ug/L	0.400	1	110	351349	0
⌈>	Ge	72		ug/L			364064	361002	1
|	Ni	60	26.251	ug/L	0.191	0	109	72837	1
|	Ni	62	26.051	ug/L	0.252	0	150	11094	1
|	Cu	63	27.057	ug/L	0.427	1	285	169363	0
|	Cu	65	26.759	ug/L	0.416	1	137	80661	1
|	Zn	66	84.697	ug/L	0.575	0	713	172825	0
|	Zn	67	77.529	ug/L	1.441	1	163	27415	1
|	Zn	68	83.918	ug/L	1.186	1	3770	126125	0
|	As-1	75	25.328	ug/L	0.435	1	132	52767	0
|	As	75	24.778	ug/L	0.457	1	5680	56810	1
|	Se	82	80.101	ug/L	0.599	0	-10	18081	0
|	Se	78	79.246	ug/L	0.426	0	5741	50199	0
⌊	Mo	98	25.462	ug/L	0.183	0	124	167141	0
	Y	89		ug/L			301630	306832	0
	Kr	83		ug/L			94	97	5
⌈>	In	115		ug/L			408129	416216	0
|	Ag	107	25.033	ug/L	0.134	0	99	316132	0
|	Cd	111	25.035	ug/L	0.279	1	451	84039	0
|	Cd	114	25.132	ug/L	0.239	0	25	200721	0
|	Sb	121	24.687	ug/L	0.366	1	352	292271	1
|	Sb	123	24.641	ug/L	0.180	0	264	223514	1
|	Ba	135	25.263	ug/L	0.399	1	28	75172	1
⌊	Ba	137	25.157	ug/L	0.471	1	48	129112	1
⌈>	Tb	159		ug/L			532797	550774	1
|	Tl	205	24.650	ug/L	0.337	1	72	954435	0
|	Pb	208	24.953	ug/L	0.100	0	514	1320692	0
|	Bi	209		ug/L			422271	436877	2
|	Th	232	24.052	ug/L	0.245	1	2056	1631776	0
⌊	U	238	24.052	ug/L	0.474	1	175	1832451	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QC19 HDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 11:42:29
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	624060	2
[	Be	9	-0.005	ug/L	0.003	49	7	5	32
	C	13		mg/L			5641	9323	0
	Cl	37		mg/L			3689669	3639663	0
[>	Sc	45		ug/L			269435	283073	0
|	V-1	51	0.034	ug/L	0.008	22	1126	1598	5
|	V	51	0.042	ug/L	0.006	13	679	1248	5
|	Cr	52	0.082	ug/L	0.012	14	3675	4772	1
|	Cr	53	0.106	ug/L	0.029	27	272	427	9
|	Mn	55	0.141	ug/L	0.004	2	1031	3751	1
[	Co	59	0.009	ug/L	0.002	16	110	243	8
[>	Ge	72		ug/L			364064	368366	0
|	Ni	60	0.014	ug/L	0.007	47	109	150	13
|	Ni	62	0.024	ug/L	0.008	34	150	162	2
|	Cu	63	0.107	ug/L	0.009	8	285	972	5
|	Cu	65	0.108	ug/L	0.012	11	137	471	7
|	Zn	66	0.812	ug/L	0.008	1	713	2404	1
|	Zn	67	0.761	ug/L	0.074	9	163	438	6
|	Zn	68	0.551	ug/L	0.092	16	3770	4635	2
|	As-1	75	0.009	ug/L	0.009	103	132	152	11
|	As	75	-0.127	ug/L	0.045	35	5680	5479	1
|	Se	82	0.046	ug/L	0.028	60	-10	0	13003
|	Se	78	-0.478	ug/L	0.138	28	5741	5535	0
[	Mo	98	0.016	ug/L	0.002	15	124	233	6
	Y	89		ug/L			301630	312913	0
	Kr	83		ug/L			94	89	7
[>	In	115		ug/L			408129	421756	0
|	Ag	107	0.009	ug/L	0.002	19	99	218	10
|	Cd	111	-0.007	ug/L	0.007	101	451	442	5
|	Cd	114	0.002	ug/L	0.001	66	25	44	26
|	Sb	121	-0.002	ug/L	0.005	250	352	341	17
|	Sb	123	-0.004	ug/L	0.004	115	264	239	16
|	Ba	135	0.037	ug/L	0.004	10	28	140	8
[	Ba	137	0.038	ug/L	0.004	9	48	249	7
[>	Tb	159		ug/L			532797	556887	1
|	Tl	205	0.003	ug/L	0.001	17	72	209	11
|	Pb	208	0.040	ug/L	0.000	1	514	2660	0
|	Bi	209		ug/L			422271	437423	1
|	Th	232	0.083	ug/L	0.019	23	2056	7829	17
[	U	238	0.005	ug/L	0.001	23	175	581	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QC19 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 11:47:09
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	637850	1
	Be	9	0.002	ug/L	0.005	285	7	11	33
	C	13		mg/L			5641	9700	1
	Cl	37		mg/L			3689669	3658976	0
>	Sc	45		ug/L			269435	289623	1
	V-1	51	0.010	ug/L	0.008	80	1126	1341	7
	V	51	0.018	ug/L	0.002	12	679	962	2
	Cr	52	0.051	ug/L	0.006	12	3675	4528	1
	Cr	53	0.071	ug/L	0.012	17	272	390	5
	Mn	55	0.079	ug/L	0.003	3	1031	2640	2
	Co	59	0.005	ug/L	0.001	20	110	193	7
>	Ge	72		ug/L			364064	373465	1
	Ni	60	0.019	ug/L	0.000	2	109	166	1
	Ni	62	0.019	ug/L	0.017	90	150	162	5
	Cu	63	0.145	ug/L	0.007	4	285	1227	2
	Cu	65	0.141	ug/L	0.005	3	137	580	1
	Zn	66	1.016	ug/L	0.019	1	713	2867	1
	Zn	67	0.900	ug/L	0.017	1	163	495	1
	Zn	68	0.743	ug/L	0.040	5	3770	4989	1
	As-1	75	0.008	ug/L	0.006	73	132	153	9
	As	75	-0.155	ug/L	0.045	28	5680	5494	0
	Se	82	0.030	ug/L	0.034	111	-10	-3	208
	Se	78	-0.609	ug/L	0.170	27	5741	5535	0
	Mo	98	-0.005	ug/L	0.001	26	124	93	11
	Y	89		ug/L			301630	317827	1
	Kr	83		ug/L			94	87	2
>	In	115		ug/L			408129	427955	1
	Ag	107	0.002	ug/L	0.001	68	99	132	16
	Cd	111	-0.002	ug/L	0.006	264	451	465	4
	Cd	114	0.001	ug/L	0.001	53	25	38	17
	Sb	121	-0.012	ug/L	0.001	9	352	221	7
	Sb	123	-0.013	ug/L	0.000	3	264	157	4
	Ba	135	0.076	ug/L	0.004	5	28	263	3
	Ba	137	0.072	ug/L	0.005	7	48	432	7
>	Tb	159		ug/L			532797	563767	1
	Tl	205	0.000	ug/L	0.000	3482	72	77	20
	Pb	208	0.032	ug/L	0.001	2	514	2251	0
	Bi	209		ug/L			422271	450707	1
	Th	232	0.024	ug/L	0.003	13	2056	3847	6
	U	238	0.000	ug/L	0.000	301	175	188	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QC19 HSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 11:54:11
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: C:\Elandata\Caldata\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	630679	1
[	Be	9	22.076	ug/L	0.189	0	7	16186	2
	C	13		mg/L			5641	9876	1
	Cl	37		mg/L			3689669	3659390	0
[>	Sc	45		ug/L			269435	286627	0
[	V-1	51	24.132	ug/L	0.275	1	1126	303165	0
[	V	51	24.219	ug/L	0.348	1	679	310457	0
[	Cr	52	24.258	ug/L	0.175	0	3675	275780	1
[	Cr	53	24.514	ug/L	0.254	1	272	33494	0
[	Mn	55	24.625	ug/L	0.317	1	1031	474034	1
[	Co	59	24.236	ug/L	0.200	0	110	348640	0
[>	Ge	72		ug/L			364064	371297	1
[	Ni	60	25.562	ug/L	0.216	0	109	72945	0
[	Ni	62	25.320	ug/L	0.186	0	150	11095	1
[	Cu	63	26.136	ug/L	0.498	1	285	168283	1
[	Cu	65	25.888	ug/L	0.242	0	137	80267	0
[	Zn	66	78.790	ug/L	0.668	0	713	165405	0
[	Zn	67	72.260	ug/L	1.278	1	163	26296	2
[	Zn	68	77.315	ug/L	0.238	0	3770	119828	0
[	As-1	75	24.092	ug/L	0.140	0	132	51635	0
[	As	75	23.582	ug/L	0.008	0	5680	55896	1
[	Se	82	73.607	ug/L	0.625	0	-10	17088	0
[	Se	78	72.779	ug/L	0.332	0	5741	47896	0
[	Mo	98	25.178	ug/L	0.369	1	124	169981	0
	Y	89		ug/L			301630	313183	0
	Kr	83		ug/L			94	98	5
[>	In	115		ug/L			408129	425653	0
[	Ag	107	24.192	ug/L	0.139	0	99	312436	0
[	Cd	111	23.930	ug/L	0.156	0	451	82173	0
[	Cd	114	23.848	ug/L	0.415	1	25	194782	1
[	Sb	121	24.158	ug/L	0.135	0	352	292506	0
[	Sb	123	24.231	ug/L	0.197	0	264	224781	0
[	Ba	135	24.221	ug/L	0.169	0	28	73711	1
[	Ba	137	24.302	ug/L	0.301	1	48	127552	0
[>	Tb	159		ug/L			532797	566028	0
[	Tl	205	23.904	ug/L	0.249	1	72	951238	0
[	Pb	208	24.190	ug/L	0.251	1	514	1315787	0
[	Bi	209		ug/L			422271	449126	0
[	Th	232	23.221	ug/L	0.186	0	2056	1619218	1
[	U	238	23.401	ug/L	0.186	0	175	1832432	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 12:01:01
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	598176	2
	Be	9	-0.000	ug/L	0.003	1013	7	9	20
	C	13		mg/L			5641	11679	1
	Cl	37		mg/L			3689669	3870644	0
>	Sc	45		ug/L			269435	287517	0
	V-1	51	0.379	ug/L	0.008	1	1126	5964	1
	V	51	0.449	ug/L	0.004	0	679	6485	0
	Cr	52	0.504	ug/L	0.012	2	3675	9591	1
	Cr	53	0.706	ug/L	0.006	0	272	1250	1
	Mn	55	25.511	ug/L	0.237	0	1031	492583	0
	Co	59	0.209	ug/L	0.002	1	110	3139	1
>	Ge	72		ug/L			364064	365042	1
	Ni	60	1.721	ug/L	0.026	1	109	4929	0
	Ni	62	1.509	ug/L	0.180	11	150	791	9
	Cu	63	6.998	ug/L	0.088	1	285	44509	1
	Cu	65	6.873	ug/L	0.176	2	137	21050	1
	Zn	66	119.584	ug/L	1.061	0	713	246454	1
	Zn	67	105.436	ug/L	2.268	2	163	37642	1
	Zn	68	118.665	ug/L	0.617	0	3770	178794	0
	As-1	75	0.466	ug/L	0.014	2	132	1112	3
	As	75	0.350	ug/L	0.034	9	5680	6427	0
	Se	82	0.283	ug/L	0.018	6	-10	53	7
	Se	78	-0.151	ug/L	0.120	79	5741	5670	0
	Mo	98	0.647	ug/L	0.005	0	124	4414	0
	Y	89		ug/L			301630	310218	1
	Kr	83		ug/L			94	93	6
>	In	115		ug/L			408129	418631	1
	Ag	107	0.011	ug/L	0.002	16	99	238	8
	Cd	111	0.103	ug/L	0.006	5	451	808	3
	Cd	114	0.124	ug/L	0.008	6	25	1018	5
	Sb	121	0.657	ug/L	0.014	2	352	8177	1
	Sb	123	0.674	ug/L	0.006	0	264	6412	1
	Ba	135	25.955	ug/L	0.530	2	28	77665	0
	Ba	137	26.252	ug/L	0.444	1	48	135491	0
>	Tb	159		ug/L			532797	553148	1
	Tl	205	0.009	ug/L	0.001	7	72	416	6
	Pb	208	0.399	ug/L	0.011	2	514	21741	1
	Bi	209		ug/L			422271	436441	1
	Th	232	0.075	ug/L	0.023	29	2056	7278	22
	U	238	0.009	ug/L	0.002	20	175	887	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 12:07:51
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	615346	0
[	Be	9	-0.004	ug/L	0.002	47	7	6	21
	C	13		mg/L			5641	12195	0
	Cl	37		mg/L			3689669	3663852	0
[>	Sc	45		ug/L			269435	290694	0
[	V-1	51	0.311	ug/L	0.021	6	1126	5162	5
[	V	51	0.310	ug/L	0.005	1	679	4748	1
[	Cr	52	0.265	ug/L	0.010	3	3675	6972	1
[	Cr	53	0.263	ug/L	0.040	15	272	655	7
[	Mn	55	4.034	ug/L	0.112	2	1031	79684	2
[	Co	59	0.089	ug/L	0.002	1	110	1424	1
[>	Ge	72		ug/L			364064	370163	1
[	Ni	60	0.461	ug/L	0.006	1	109	1421	0
[	Ni	62	0.511	ug/L	0.037	7	150	373	5
[	Cu	63	2.235	ug/L	0.061	2	285	14609	1
[	Cu	65	2.214	ug/L	0.003	0	137	6972	1
[	Zn	66	27.578	ug/L	0.461	1	713	58183	0
[	Zn	67	23.818	ug/L	0.589	2	163	8750	0
[	Zn	68	26.821	ug/L	0.457	1	3770	43940	0
[	As-1	75	0.284	ug/L	0.022	7	132	739	7
[	As	75	0.170	ug/L	0.036	20	5680	6135	0
[	Se	82	0.094	ug/L	0.041	43	-10	11	85
[	Se	78	-0.362	ug/L	0.202	55	5741	5628	0
[	Mo	98	0.145	ug/L	0.005	3	124	1102	3
	Y	89		ug/L			301630	317535	0
	Kr	83		ug/L			94	88	4
[>	In	115		ug/L			408129	426350	1
[	Ag	107	0.004	ug/L	0.001	22	99	150	5
[	Cd	111	2.451	ug/L	0.127	5	451	8849	3
[	Cd	114	2.456	ug/L	0.042	1	25	20119	2
[	Sb	121	0.093	ug/L	0.003	3	352	1491	1
[	Sb	123	0.097	ug/L	0.003	2	264	1177	4
[	Ba	135	1.868	ug/L	0.059	3	28	5720	4
[	Ba	137	1.855	ug/L	0.050	2	48	9797	0
[>	Tb	159		ug/L			532797	557762	2
[	Tl	205	0.001	ug/L	0.000	21	72	122	7
[	Pb	208	0.179	ug/L	0.008	4	514	10125	2
[	Bi	209		ug/L			422271	444710	1
[	Th	232	0.025	ug/L	0.004	14	2056	3873	6
[	U	238	0.003	ug/L	0.000	6	175	426	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 12:14:41
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			506724	618373	0
[	**Be**	**9**	**0.012**	ug/L	0.003	22	7	18	10
	C	**13**		mg/L			5641	12107	1
	Cl	**37**		mg/L			3689669	3842299	0
[>	**Sc**	**45**		ug/L			269435	307525	1
[	**V-1**	**51**	**2.760**	ug/L	0.058	2	1126	38331	0
[	**V**	**51**	**2.845**	ug/L	0.066	2	679	39805	1
[	**Cr**	**52**	**3.138**	ug/L	0.062	1	3675	41915	0
[	**Cr**	**53**	**3.370**	ug/L	0.084	2	272	5207	1
[	**Mn**	**55**	**51.670**	ug/L	1.206	2	1031	1065656	0
[	**Co**	**59**	**0.716**	ug/L	0.002	0	110	11180	1
[>	**Ge**	**72**		ug/L			364064	366681	0
[	**Ni**	**60**	**3.784**	ug/L	0.087	2	109	10757	2
[	**Ni**	**62**	**4.121**	ug/L	0.123	2	150	1910	2
[	**Cu**	**63**	**16.459**	ug/L	0.140	0	285	104767	0
[	**Cu**	**65**	**16.323**	ug/L	0.109	0	137	50033	0
[	**Zn**	**66**	**172.144**	ug/L	2.186	1	713	356061	1
[	**Zn**	**67**	**151.217**	ug/L	1.916	1	163	54164	1
[	**Zn**	**68**	**169.352**	ug/L	0.882	0	3770	254693	0
[	**As-1**	**75**	**0.956**	ug/L	0.009	0	132	2151	0
[	**As**	**75**	**0.795**	ug/L	0.028	3	5680	7388	0
[	**Se**	**82**	**0.349**	ug/L	0.026	7	-10	69	8
[	**Se**	**78**	**-0.285**	ug/L	0.096	33	5741	5620	0
[	**Mo**	**98**	**1.021**	ug/L	0.023	2	124	6931	2
	Y	**89**		ug/L			301630	321796	0
	Kr	**83**		ug/L			94	89	1
[>	**In**	**115**		ug/L			408129	418791	1
[	**Ag**	**107**	**0.019**	ug/L	0.003	13	99	348	11
[	**Cd**	**111**	**0.233**	ug/L	0.009	3	451	1246	3
[	**Cd**	**114**	**0.202**	ug/L	0.011	5	25	1648	3
[	**Sb**	**121**	**1.658**	ug/L	0.012	0	352	20088	1
[	**Sb**	**123**	**1.653**	ug/L	0.027	1	264	15334	0
[	**Ba**	**135**	**41.016**	ug/L	0.492	1	28	122773	0
[	**Ba**	**137**	**40.609**	ug/L	0.682	1	48	209642	0
[>	**Tb**	**159**		ug/L			532797	550275	0
[	**Tl**	**205**	**0.010**	ug/L	0.001	13	72	475	12
[	**Pb**	**208**	**10.691**	ug/L	0.115	1	514	565610	0
[	**Bi**	**209**		ug/L			422271	439258	0
[	**Th**	**232**	**0.074**	ug/L	0.002	2	2056	7102	2
[	**U**	**238**	**0.024**	ug/L	0.001	2	175	1996	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: QB72 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, December 29, 2009 12:21:32
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	624548	2
[	Be	9	-0.002	ug/L	0.004	204	7	8	31
	C	13		mg/L			5641	12080	1
	Cl	37		mg/L			3689669	3625310	0
[>	Sc	45		ug/L			269435	297758	1
[	V-1	51	0.628	ug/L	0.002	0	1126	9407	1
[	V	51	0.626	ug/L	0.010	1	679	9069	1
[	Cr	52	0.743	ug/L	0.013	1	3675	12709	1
[	Cr	53	0.730	ug/L	0.033	4	272	1328	1
[	Mn	55	8.607	ug/L	0.054	0	1031	172880	2
[	Co	59	0.183	ug/L	0.001	0	110	2852	2
[>	Ge	72		ug/L			364064	369373	1
[	Ni	60	0.757	ug/L	0.026	3	109	2256	2
[	Ni	62	0.891	ug/L	0.079	8	150	535	5
[	Cu	63	3.353	ug/L	0.062	1	285	21723	0
[	Cu	65	3.342	ug/L	0.047	1	137	10432	3
[	Zn	66	37.798	ug/L	0.529	1	713	79308	0
[	Zn	67	33.024	ug/L	0.528	1	163	12044	1
[	Zn	68	36.513	ug/L	0.596	1	3770	58307	0
[	As-1	75	0.377	ug/L	0.021	5	132	935	3
[	As	75	0.314	ug/L	0.048	15	5680	6424	0
[	Se	82	0.064	ug/L	0.046	71	-10	3	278
[	Se	78	-0.201	ug/L	0.144	71	5741	5709	0
[	Mo	98	0.226	ug/L	0.006	2	124	1646	1
	Y	89		ug/L			301630	320798	1
	Kr	83		ug/L			94	90	2
[>	In	115		ug/L			408129	422472	0
[	Ag	107	0.009	ug/L	0.001	16	99	220	8
[	Cd	111	4.377	ug/L	0.062	1	451	15299	0
[	Cd	114	4.315	ug/L	0.041	0	25	34999	0
[	Sb	121	0.165	ug/L	0.001	0	352	2348	0
[	Sb	123	0.170	ug/L	0.006	3	264	1833	3
[	Ba	135	3.296	ug/L	0.035	1	28	9981	1
[	Ba	137	3.311	ug/L	0.032	0	48	17294	1
[>	Tb	159		ug/L			532797	564445	2
[	Tl	205	0.002	ug/L	0.000	7	72	162	4
[	Pb	208	1.113	ug/L	0.029	2	514	60880	0
[	Bi	209		ug/L			422271	445672	1
[	Th	232	0.027	ug/L	0.001	4	2056	4060	3
[	U	238	0.007	ug/L	0.000	7	175	720	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 12:28:22
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			506724	588819	1
	Be	9	46.702	ug/L	1.064	2	7	31947	0
	C	13		mg/L			5641	6971	1
	Cl	37		mg/L			3689669	3615978	0
>	Sc	45		ug/L			269435	270688	1
	V-1	51	49.631	ug/L	0.294	0	1126	587645	0
	V	51	49.782	ug/L	0.280	0	679	601941	0
	Cr	52	48.948	ug/L	0.535	1	3675	521720	0
	Cr	53	49.448	ug/L	0.590	1	272	63526	0
	Mn	55	49.631	ug/L	0.910	1	1031	901177	1
	Co	59	48.936	ug/L	0.631	1	110	664664	0
>	Ge	72		ug/L			364064	358517	1
	Ni	60	50.180	ug/L	1.249	2	109	138148	1
	Ni	62	49.721	ug/L	0.348	0	150	20894	0
	Cu	63	50.272	ug/L	0.264	0	285	312310	1
	Cu	65	49.800	ug/L	0.504	1	137	148971	0
	Zn	66	52.057	ug/L	0.878	1	713	105755	0
	Zn	67	51.085	ug/L	0.519	1	163	17997	1
	Zn	68	52.031	ug/L	0.854	1	3770	79077	1
	As-1	75	49.170	ug/L	0.426	0	132	101620	1
	As	75	49.008	ug/L	0.468	0	5680	106128	0
	Se	82	50.599	ug/L	0.320	0	-10	11340	1
	Se	78	50.014	ug/L	0.488	0	5741	33549	0
	Mo	98	49.419	ug/L	0.123	0	124	322064	0
	Y	89		ug/L			301630	299318	1
	Kr	83		ug/L			94	101	15
>	In	115		ug/L			408129	402408	0
	Ag	107	49.493	ug/L	0.603	1	99	604174	0
	Cd	111	50.627	ug/L	0.218	0	451	163857	1
	Cd	114	50.241	ug/L	0.591	1	25	387912	0
	Sb	121	49.976	ug/L	0.324	0	352	571687	0
	Sb	123	49.772	ug/L	0.481	0	264	436232	1
	Ba	135	48.976	ug/L	0.321	0	28	140875	0
	Ba	137	49.553	ug/L	0.879	1	48	245847	2
>	Tb	159		ug/L			532797	531286	0
	Tl	205	49.130	ug/L	0.118	0	72	1835088	0
	Pb	208	48.851	ug/L	0.629	1	514	2493529	0
	Bi	209		ug/L			422271	418061	0
	Th	232	49.615	ug/L	0.272	0	2056	3244946	0
	U	238	50.049	ug/L	0.902	1	175	3678243	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, December 29, 2009 12:40:09
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\122909.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			506724	588315	2
[	Be	9	-0.006	ug/L	0.002	30	7	5	25
	C	13		mg/L			5641	6296	1
	Cl	37		mg/L			3689669	3689904	0
[>	Sc	45		ug/L			269435	273408	1
|	V-1	51	0.004	ug/L	0.010	277	1126	1184	8
|	V	51	0.012	ug/L	0.007	59	679	836	8
|	Cr	52	0.007	ug/L	0.006	84	3675	3800	1
|	Cr	53	0.032	ug/L	0.006	18	272	318	3
|	Mn	55	0.007	ug/L	0.004	52	1031	1171	4
[	Co	59	0.003	ug/L	0.001	35	110	156	8
[>	Ge	72		ug/L			364064	359055	0
|	Ni	60	-0.005	ug/L	0.004	77	109	95	10
|	Ni	62	0.020	ug/L	0.032	159	150	156	8
|	Cu	63	-0.002	ug/L	0.001	53	285	267	2
|	Cu	65	-0.003	ug/L	0.003	105	137	126	7
|	Zn	66	-0.139	ug/L	0.004	3	713	422	1
|	Zn	67	-0.106	ug/L	0.020	18	163	124	5
|	Zn	68	-0.308	ug/L	0.092	29	3770	3270	3
|	As-1	75	0.002	ug/L	0.009	510	132	134	13
|	As	75	-0.021	ug/L	0.029	139	5680	5559	0
|	Se	82	0.030	ug/L	0.020	65	-10	-3	118
|	Se	78	-0.062	ug/L	0.136	219	5741	5628	0
[	Mo	98	0.003	ug/L	0.005	151	124	145	23
	Y	89		ug/L			301630	303002	0
	Kr	83		ug/L			94	91	3
[>	In	115		ug/L			408129	410060	0
|	Ag	107	0.006	ug/L	0.002	29	99	178	12
|	Cd	111	-0.011	ug/L	0.007	61	451	416	5
|	Cd	114	-0.000	ug/L	0.000	124	25	23	8
|	Sb	121	-0.008	ug/L	0.005	59	352	266	19
|	Sb	123	-0.008	ug/L	0.003	35	264	192	13
|	Ba	135	-0.001	ug/L	0.001	138	28	25	13
[	Ba	137	0.001	ug/L	0.001	61	48	55	7
[>	Tb	159		ug/L			532797	533878	0
|	Tl	205	0.002	ug/L	0.001	33	72	154	18
|	Pb	208	0.000	ug/L	0.001	251	514	530	7
|	Bi	209		ug/L			422271	427791	0
|	Th	232	0.027	ug/L	0.008	31	2056	3806	15
[	U	238	0.004	ug/L	0.002	39	175	481	25

Metals Analysis
Prep Logs

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: KM

Date: 12/18/09

Final Volume 25

Final Volume (Hg):

Sample ID QB72 ASPK, MB1SPK
" DSPK, MB2SPK

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

	REN		
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2645-4		
	0.05		
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

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

Additional Elements:

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

QB72 08122109

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: KM Date: 12/18/09

Matrix: Water Block Temp: 90°C

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial Wt (g) Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
QB72 A	1	✓	50.0	25.0			
" ADUP	1	✓					
" ASPK	1	✓					
" B	1	✓					
" C	1	✓					
" MB1	—	✓					
" MB1SPK	—	✓					
" D	1	✓					
" DDUP	1	✓					
" DSPK	1	✓					
" E	1	✓					
" F	1	✓					
" MB2	—	✓					
" MB2SPK	—	✓					
QB84 A	4	✓					
" MB	—	✓					
" MBSPK	—	✓					
QB79 A	1	✓					
" MB	—	✓					
" MBSPK	—	✓	50.0	25.0			
				KM 12/18/09			

Chemical/Reagent ID:

HNO_3: MP1797 HCl: — H_2O_2: I5135 Tube Lot #: A905LS269

QB72 : 00422

General Chemistry Analysis
QC Summary Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

REPLICATE RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: NR
Reported: 12/28/09

Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QB72A Client ID: CB31A121509COMP						
Total Suspended Solids	EPA 160.2	12/18/09	mg/L	43.9	46.1	4.9%

LAB CONTROL RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/28/09

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

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Suspended Solids EPA 160.2	ICVL	12/18/09	mg/L	49.5	50.0	99.0%

METHOD BLANK RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/28/09

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

Analyte	Method	Date	Units	Blank	ID
Total Suspended Solids	EPA 160.2	12/18/09	mg/L	< 1.0 U	

General Chemistry Analysis
Sample Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/28/09

Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Client ID: CB31A121509COMP
ARI ID: 09-30991 QB72A

Analyte	Date Batch	Method	Units	RL	Sample
Total Suspended Solids	12/18/09 121809#1	EPA 160.2	mg/L	2.6	43.9

RL Analytical reporting limit
U Undetected at reported detection limit

QB72:00428

SAMPLE RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: JW
Reported: 12/28/09

Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/15/09
Date Received: 12/16/09

Client ID: CB4857121509COMP
ARI ID: 09-30992 QB72B

Analyte	Date Batch	Method	Units	RL	Sample
Total Suspended Solids	12/18/09 121809#1	EPA 160.2	mg/L	2.5	36.5

RL Analytical reporting limit
U Undetected at reported detection limit

QB72 : 00429

SAMPLE RESULTS-CONVENTIONALS
QB72-Floyd-Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/28/09

Project: Lora Lake Apts.
Event: POS-LLA
Date Sampled: 12/14/09
Date Received: 12/16/09

Client ID: CB1121409COMP
ARI ID: 09-30993 QB72C

Analyte	Date Batch	Method	Units	RL	Sample
Total Suspended Solids	12/18/09 121809#1	EPA 160.2	mg/L	3.3	4.3

RL Analytical reporting limit
U Undetected at reported detection limit

QB72:00430

General Chemistry Analysis
Instrument Raw Data

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

12-18-09

TOTAL SUSPENDED SOLIDS / VOLATILE SUSPENDED SOLIDS (TSS / TVSS)

DATE: 12/18/2009
ANALYST: CDE 13:42

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597
Muffle Furnace: N/A

make no entries to shaded cells
they are calculated !!

TSS (mg/l) calculated as:
Final dry wt (mg) = (minimum Dry Wt - Tare Wt)*1000
TSS = [(Final Dry Wt)/ ml Sample] * 1000
if dy wt < 1mg, TSS = <1mg / mL sample * 1000
with "<" flag

Loss on ignition (LOI) = TVSS (mg/L) calculated as:
LOI (mg) = Dry wt(mg) -((min ash wt - tare wt) * 1000)
TVSS (mg/L) = LOI / mL sample * 1000
if LOI <1mg, TVSS = <1mg / mL sample * 1000
with "<" flag

LCS source: *Cellulose, MP Biomedicals Lot# 6399J* 0.05 grams to 1000 mL = **50** ***mg/L TSS***

SAMPLE ID	DISH #	filtered (mL)	TARE WT (grams)	DRY WT 104C (grams) 1	2	3	4	DryWT (mg)	TSS (mg/L)	ASH WT 550C (grams) 1	2	3	4	LOI (mg)	TVSS (mg/l)
Cal Weight ID			CV-02	CV-02	CV-02	CV-02	CV-02			CV-02	CV-02	CV-02	CV-02		
Date & Time				12/18/09 15:23	12/18/09 17:03										
Cal Wt (g) 10.0000				10.0000	10.0001										
record weights to 4 places				*Cal OK!*	*Cal OK!*										
BLANK		1000	0.1092	0.1092	0.1092	STOP		0.0	**< 1**						
LCS # 540-7		1000	0.1109	0.1606	0.1604	STOP		49.5	**49.5**	99.0%	% Recovery				
QB60 A1-2		400	0.1098	0.1294	0.1293	STOP		19.5	**48.8**						
QB60 A1-2 dup		400	0.1118	0.1316	0.1315	STOP		19.7	**49.3**						
								RPD =	*1.0%*					*RPD =*	*NA*
QB72 A5		380	0.1107	0.1275	0.1274	STOP		16.7	**43.9**						
QB72 A5 dup		380	0.1111	0.1287	0.1286	STOP		17.5	**46.1**						
								RPD =	*4.9%*					*RPD =*	*NA*
QB72 B4		400	0.1094	0.1240	0.1240	STOP		14.6	**36.5**						
QB72 C4		300	0.1109	0.1122	0.1122	STOP		1.3	**4.3**						
QB84 A11		470	0.1123	0.1133	0.1132	STOP		0.9	**< 2.1**						
QB84 A11 dup		470	0.1126	0.1136	0.1136	STOP		1.0	**2.1**						
								RPD =	*NA*					*RPD =*	*NA*
QC00 A2		460	0.1096	0.1110	0.1110	STOP		1.4	**3.0**						
QC00 A2 dup		460	0.1104	0.1117	0.1117	STOP		1.3	**2.8**						
								RPD =	*6.9%*					*RPD =*	*NA*
QC01 A2		250	0.1112	0.1152	0.1151	STOP		3.9	**15.6**						
QC04 A3		420	0.1100	0.1275	0.1274	STOP		17.4	**41.4**						
QC04 A3 dup		420	0.1120	0.1328	0.1327	STOP		20.7	**49.3**						
								RPD =	*17.4%*					*RPD =*	*NA*

QB72 00432

6/12/13/9 cwk

TOTAL SUSPENDED SOLIDS / VOLATILE SUSPENDED SOLIDS (TSS / TVSS)

DATE: 12/18/9 13:42
ANALYST: cwk

Instrumentation
Drying Ovens: 12
Muffle Furnace: N/A
Analytical Balance: 1123230597

make no entries to shaded cells
they are calculated !!

TSS (mg/l) calculated as:
Final dry wt (mg) = (minimum Dry Wt - Tare Wt)*1000
TSS = [(Final Dry Wt)/ ml Sample] * 1000
if dy wt < 1mg, TSS = <1mg / mL sample * 1000
with "<" flag

Loss on ignition (LOI) = TVSS (mg/L) calculated as:
LOI (mg) = Dry wt(mg) -((min ash wt - tare wt) * 1000)
TVSS (mg/L) = LOI / mL sample * 1000
If LOI <1mg, TVSS = <1mg / mL sample * 1000
with "<" flag

LCS source: *Cellulose, MP Biomedicals Lot# 6399J* | 0.0500 | grams to | 1000 | mL = | **50** ***mg/L TSS***

SAMPLE ID	DISH #	filtered (mL)	TARE WT (grams)	DRY WT 104C (grams) 1	2	3	4	DryWT (mg)	TSS (mg/L)	ASH WT 550C (grams) 1	2	3	4	LOI (mg)	TVSS (mg/l)
Cal Weight ID			CV-02	CV-02	CV-02	CV-02	CV-02			CV-02	CV-02	CV-02	CV-02		
Date & Time				12/18/9 cwk	12/18/9 cwk										
Cal Wt (g) 10.0000				10.0000	10.0001										
record weights to 4 places				15:23	17:03										
BLANK	P2953	1000	0.1092	0.1092	0.1092										
LCS #~~5940-7~~ ①	P2954	↓	0.1109	0.1606	0.1604					% Recovery					
QB60 A1-2	P2955	400	0.1098	0.1294	0.1293										
↓ DP A1-2	P2956	↓	0.1118	0.1316	0.1315										
QB72 A5	P2957	380	0.1107	0.1275	0.1274										
↓ DP A5	P2958	↓	0.1111	0.1287	0.1286										
↓ B4	P2959	400	0.1094	0.1240	0.1240										
↓ C4	P2960	300	0.1109	0.1122	0.1122										
QB84 A11	P2961	470	0.1123	0.1133	0.1132										
↓ DP A11	P2962	↓	0.1126	0.1136	0.1136										
QC00 A2	P2963	460	0.1096	0.1110	0.1110										
↓ DP A2	P2964	↓	0.1104	0.1117	0.1117										
QC01 A2	P2965	250	0.1112	0.1152	0.1151										
QC04 A3	P2966	420	0.1100	0.1275	0.1274										
↓ DP A3	P2967	↓	0.1120	0.1328	0.1327										

6054 TSS-VSS1

08455 :2T 8T

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES

ARI Job No: QB72

Client Name:

Parameter: diss. Metals

Client Project:

filtered samples for diss. Metals and delivered them to Metals cooler.

12-16-09 @ 17:35

Very limited volume delivered for B+C.

Analyst: W

Date Analyzed: 12-16-09

6147F

Rev. 7
06/3/04

QB72 : 00434

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

prepared
for

Floyd-Snider

Project: Lora Lake Apts., POS-LLA

ARI JOB NO: QB72

prepared
by

Analytical Resources, Inc.

FRONTIER
ANALYTICAL LABORATORY

December 28, 2009

FAL Project ID: 5881

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

Dear Ms. Dunnihoo,

Attached are the results for Frontier Analytical Laboratory project **5881**. This corresponds to your **Lora Lake Apts.** project under ARI project number **QB72**. Three aqueous samples were received on 12/18/2009 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 equivalents (TEQs) on your report. Analytical Resources Incorporated requested a turnaround time of fifteen business days for project **5881**.

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 has been sent to you via email. A hardcopy of the Level IV data package has been sent to you via OnTrac. The enclosed results are specifically for the samples referenced in this report only. These results meet all NELAC requirements and shall not be reproduced except in full.

If you have any questions regarding project **5881**, please contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush
Director of Operations

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
www.frontieranalytical.com

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **5881**

Received on: **12/18/2009** Project Due: **01/13/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5881-001-SA	0	QB72	CB31A121509COMP	EPA 1613 D/F	Aqueous	12/15/2009	02:35 am	12/15/2010
5881-002-SA	0	QB72	CB4857121509COMP	EPA 1613 D/F	Aqueous	12/15/2009	03:35 am	12/15/2010
5881-003-SA	0	QB72	CB1121409COMP	EPA 1613 D/F	Aqueous	12/14/2009	11:45 pm	12/14/2010

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.670		-	0.320				
1,2,3,7,8-PeCDD	ND	1.01		-	0.491				
1,2,3,4,7,8-HxCDD	ND	1.38		-	0.483				
1,2,3,6,7,8-HxCDD	ND	1.73		-	0.665	Total TCDD	ND	0.670	
1,2,3,7,8,9-HxCDD	ND	1.54		-	0.650	Total PeCDD	ND	1.01	
1,2,3,4,6,7,8-HpCDD	ND	2.64		-	0.985	Total HxCDD	ND	1.73	
OCDD	ND	7.13		-	1.93	Total HpCDD	ND	2.64	
2,3,7,8-TCDF	ND	0.457		-	0.305				
1,2,3,7,8-PeCDF	ND	0.715		-	0.340				
2,3,4,7,8-PeCDF	ND	0.764		-	0.441				
1,2,3,4,7,8-HxCDF	ND	1.52		-	0.317				
1,2,3,6,7,8-HxCDF	ND	1.48		-	0.346				
2,3,4,6,7,8-HxCDF	ND	1.54		-	0.292				
1,2,3,7,8,9-HxCDF	ND	1.89		-	0.474	Total TCDF	ND	0.457	
1,2,3,4,6,7,8-HpCDF	ND	1.61		-	0.497	Total PeCDF	ND	0.764	
1,2,3,4,7,8,9-HpCDF	ND	1.91		-	0.587	Total HxCDF	ND	1.89	
OCDF	ND	4.47		-	1.32	Total HpCDF	ND	1.91	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	67.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	79.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	79.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	77.3	23.0 - 140	
13C-OCDD	76.3	17.0 - 157	
13C-2,3,7,8-TCDF	81.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	69.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	69.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	75.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	78.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	77.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	72.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	76.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	75.9	26.0 - 138	
13C-OCDF	70.4	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	94.1	35.0 - 197	

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

Analyst: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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GB72-00138

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: ng/ml

Acquired: 12-22-2009
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.55	6.70 - 15.8	
1,2,3,7,8-PeCDD	49.3	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	50.0	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	48.1	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	50.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.9	35.0 - 70.0	
OCDD	104	78.0 - 144	
2,3,7,8-TCDF	9.85	7.50 - 15.8	
1,2,3,7,8-PeCDF	53.7	40.0 - 67.0	
2,3,4,7,8-PeCDF	53.3	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	51.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	51.5	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	52.5	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50.9	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.9	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	51.7	39.0 - 69.0	
OCDF	106	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.8	20.0 - 175	
13C-1,2,3,7,8-PeCDD	65.2	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	74.7	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	74.4	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	71.7	26.0 - 166	
13C-OCDD	69.5	13.0 - 198	
13C-2,3,7,8-TCDF	85.3	22.0 - 152	
13C-1,2,3,7,8-PeCDF	64.8	21.0 - 192	
13C-2,3,4,7,8-PeCDF	66.3	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	70.7	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	73.8	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	73.4	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	68.7	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	70.5	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	70.4	20.0 - 186	
13C-OCDF	65.3	13.0 - 198	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	97.4	31.0 - 191	

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

Analyst: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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GB72-00489

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-SA
Client ID: CB31A121509COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.042 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 18.7

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.674		-	0.320				
1,2,3,7,8-PeCDD	2.86	-	J	2.86	0.491				
1,2,3,4,7,8-HxCDD	5.16	-	J	0.516	0.483				
1,2,3,6,7,8-HxCDD	16.3	-	J	1.63	0.665	Total TCDD	ND	0.674	
1,2,3,7,8,9-HxCDD	9.82	-	J	0.982	0.650	Total PeCDD	7.65	-	J
1,2,3,4,6,7,8-HpCDD	515	-		5.15	0.985	Total HxCDD	77.9	-	
OCDD	4880	-		1.46	1.93	Total HpCDD	852	-	
2,3,7,8-TCDF	ND	0.530		-	0.305				
1,2,3,7,8-PeCDF	ND	0.997		-	0.340				
2,3,4,7,8-PeCDF	2.75	-	J	0.825	0.441				
1,2,3,4,7,8-HxCDF	19.1	-	J	1.91	0.317				
1,2,3,6,7,8-HxCDF	10.2	-	J	1.02	0.346				
2,3,4,6,7,8-HxCDF	7.78	-	J	0.778	0.292				
1,2,3,7,8,9-HxCDF	2.25	-	J	0.225	0.474	Total TCDF	25.5	-	D,M
1,2,3,4,6,7,8-HpCDF	111	-		1.11	0.497	Total PeCDF	70.6	-	D,M
1,2,3,4,7,8,9-HpCDF	10.9	-	J	0.109	0.587	Total HxCDF	280	-	D,M
OCDF	359	-		0.108	1.32	Total HpCDF	382	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.5	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	83.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	83.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	86.4	23.0 - 140	
13C-OCDD	88.6	17.0 - 157	
13C-2,3,7,8-TCDF	87.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	77.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	76.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	78.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	79.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	77.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	83.2	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	83.4	26.0 - 138	
13C-OCDF	80.7	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	98.1	35.0 - 197

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

Analyst: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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QB72-000416

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-002-SA
Client ID: CB4857121509COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 14.7

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.697		-	0.320				
1,2,3,7,8-PeCDD	2.89	-	J	2.89	0.491				
1,2,3,4,7,8-HxCDD	4.59	-	J	0.459	0.483				
1,2,3,6,7,8-HxCDD	12.0	-	J	1.20	0.665	Total TCDD	ND	0.697	
1,2,3,7,8,9-HxCDD	8.43	-	J	0.843	0.650	Total PeCDD	5.29	-	J
1,2,3,4,6,7,8-HpCDD	363	-		3.63	0.985	Total HxCDD	63.9	-	
OCDD	3580	-		1.07	1.93	Total HpCDD	605	-	
2,3,7,8-TCDF	ND	0.621		-	0.305				
1,2,3,7,8-PeCDF	ND	0.887		-	0.340				
2,3,4,7,8-PeCDF	2.17	-	J	0.651	0.441				
1,2,3,4,7,8-HxCDF	14.5	-	J	1.45	0.317				
1,2,3,6,7,8-HxCDF	7.92	-	J	0.792	0.346				
2,3,4,6,7,8-HxCDF	5.36	-	J	0.536	0.292				
1,2,3,7,8,9-HxCDF	1.75	-	J	0.175	0.474	Total TCDF	19.6	-	D,M
1,2,3,4,6,7,8-HpCDF	89.0	-		0.890	0.497	Total PeCDF	52.8	-	D,M
1,2,3,4,7,8,9-HpCDF	8.29	-	J	0.0829	0.587	Total HxCDF	198	-	D,M
OCDF	234	-		0.0702	1.32	Total HpCDF	278	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	75.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	86.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	85.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	88.4	23.0 - 140	
13C-OCDD	83.9	17.0 - 157	
13C-2,3,7,8-TCDF	85.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	75.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	78.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	80.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	83.7	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	82.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.3	26.0 - 138	
13C-OCDF	77.1	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	89.3	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: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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GB72-00441

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-003-SA
Client ID: CB1121409COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.009 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 0.145

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.594		-	0.320				
1,2,3,7,8-PeCDD	ND	0.808		-	0.491				
1,2,3,4,7,8-HxCDD	ND	1.65		-	0.483				
1,2,3,6,7,8-HxCDD	ND	1.87		-	0.665	Total TCDD	ND	0.594	
1,2,3,7,8,9-HxCDD	ND	1.74		-	0.650	Total PeCDD	ND	0.808	
1,2,3,4,6,7,8-HpCDD	10.2	-	J	0.102	0.985	Total HxCDD	ND	1.87	
OCDD	56.9	-		0.0171	1.93	Total HpCDD	20.4	-	J
2,3,7,8-TCDF	ND	0.352		-	0.305				
1,2,3,7,8-PeCDF	ND	0.689		-	0.340				
2,3,4,7,8-PeCDF	ND	0.732		-	0.441				
1,2,3,4,7,8-HxCDF	ND	1.47		-	0.317				
1,2,3,6,7,8-HxCDF	ND	1.46		-	0.346				
2,3,4,6,7,8-HxCDF	ND	1.50		-	0.292				
1,2,3,7,8,9-HxCDF	ND	1.76		-	0.474	Total TCDF	ND	0.352	
1,2,3,4,6,7,8-HpCDF	2.56	-	J	0.0256	0.497	Total PeCDF	ND	0.732	
1,2,3,4,7,8,9-HpCDF	ND	0.746		-	0.587	Total HxCDF	ND	1.76	
OCDF	ND	3.84		-	1.32	Total HpCDF	4.95	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	79.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	87.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.4	23.0 - 140	
13C-OCDD	93.1	17.0 - 157	
13C-2,3,7,8-TCDF	89.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	77.3	24.0 - 185	
13C-2,3,4,7,8-PeCDF	79.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	83.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	82.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	84.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	83.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	86.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	89.5	26.0 - 138	
13C-OCDF	85.0	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	95.8	35.0 - 197

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

Analyst: _____
Date: 12/22/09

Reviewed By: DN
Date: 12/23/09

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GBY2-00442

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 12/17/09

ANALYTICAL RESOURCES INCORPORATED

5681 0°C

ARI Project: QB72

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

ARI Client: Floyd-Snider
Project ID: Lora Lake Apts.
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
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 sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
09-30991-QB72A	CB31A121509COMP	12/15/09 02:35	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
09-30992-QB72B	CB4857121509COMP	12/15/09 03:35	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
09-30993-QB72C	CB1121409COMP	12/14/09 23:45	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					

Carrier	Airbill	Date
UPS	1Z8326950143907247	12/17/09

Relinquished by	Company	Date	Time
	ARI	12/17/09	1442
Received by	**Company**	**Date**	**Time**
	FAL	12/18/09	1015

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **5881**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QB72
Date Received:	12/18/2009
Time Received:	10:15 am
Received By:	GN
Logged In By:	KZ
# of Samples Received:	3
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950143907247
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	12/14/2010
Adequate Sample Volume	Yes
Anomalies or additional comments:	

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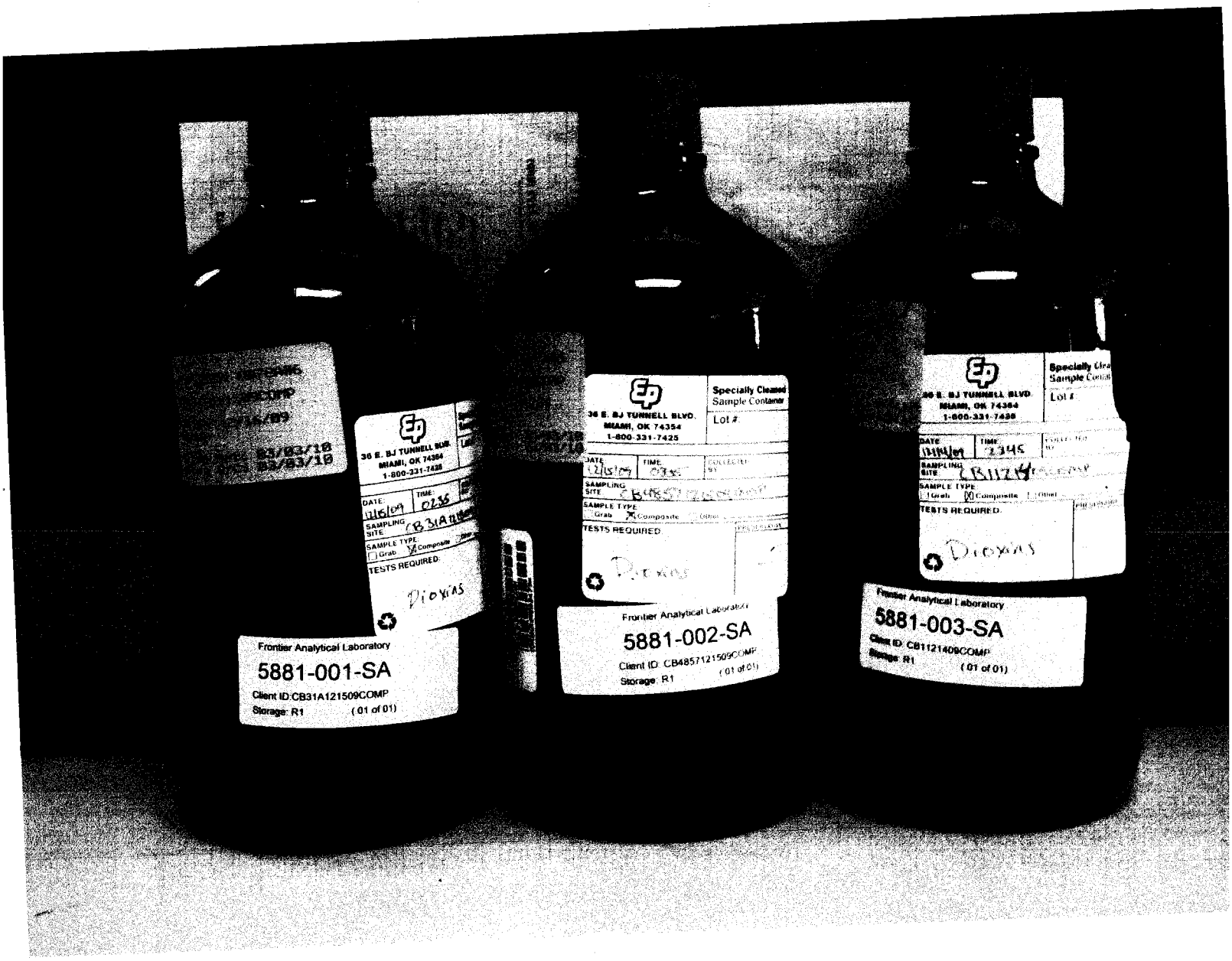
QB72 080444



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Frontier Analytical Laboratory

PROJECT REQUEST SHEET

Project #:	5881	Sample #:	1 - 3	Client Manager:	BS
Client:	Analytical Resources Inc. Sue Dunnihoo			Hold Time:	12/14/2010
Matrix:	Aqueous	Extraction Batch:	1905	Due Date:	01/13/2010
Method:	EPA 1613 D/F			Storage:	R1
SOP:	SOPs: EP2A Rev.7 IP2A Rev.8				

COMMENTS/INSTRUCTIONS:

Sample	Full Weight (g)	Empty Weight (g)
5881-001-0001-SA	1537.6	495.50
5881-002-0001-SA	1496.1	496.08
5881-003-0001-SA	1505.0	496.12

Results: 5881

Extract/s located in box: Blue Monday

Standards: 5881

Instrument:
DB5 FAL-3
DB225 ____
DB1 ____
Other ____

QB72:00447

Frontier Analytical Laboratory
Percent Solids

FAL Project: 5881

	Sample ID	Chemist	Date	Wet Sample Weight (g)	Dry Sample Weight (g)	% Solids	10g Equiv
1.32	5881-001-0001-SA	GG	12/21/09	13.17	0.00	0.00	
1.34	5881-002-0001-SA	↓	↓	13.37	0.00	0.00	
1.32	5881-003-0001-SA	↓	↓	11.90	0.00	0.00	

% Solids Summary:

Non-Filtered Determination

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

Filtered Determination

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

% Solids calculation

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

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

EXTRACTION SHEET

Project #: 5881 Extraction Date: 2009-12-21 Extraction Chemist: GG

Method/Analysis: EPA 1613 D/F

Procedure: SPE/SOX Solvent: Toluene

Sample ID	Wet wt. (g/L)	Dry wt. (g/L)	IS Amt: 10.0uL ID: 090918A Vial: 4 Chemist/Witness/Date	NS Amt: 10.0uL ID: 090918B Vial: 4 Chemist/Witness/Date	CSS Amt: 10.0uL ID: 090918C Vial: 4 Chemist/Witness/Date
1905-001-0001-MB					
1905-001-0001-OPR					
5881-001-0001-SA	1.042L		GG DN 12/21/09	NA	GG GN 12/22/09
5881-002-0001-SA	1.000L		↓	↓	↓
5881-003-0001-SA	1.009L		↓	↓	↓

5877

AX-21 Charcoal Cleaned	083109	Acetone	49226	Acid Alumina	08623DJ	Hexane	49272
Hydrochloric Acid	B08505	Methanol	094346	Methylene Chloride (DCM)	49268	Silica Gel	TA1593034
Sodium Hydroxide	9145	Sodium Sulfate	48273845	Sulfuric Acid	093621	Tetradecane	081394
Toluene	49068	Water	49242	C-18 Empore Discs	320469	Cyclohexane	48149

Comments:

QB72 : 00449

CLEANUP SHEET

Project #: 5881

Method/Analysis: EPA 1613 D/F

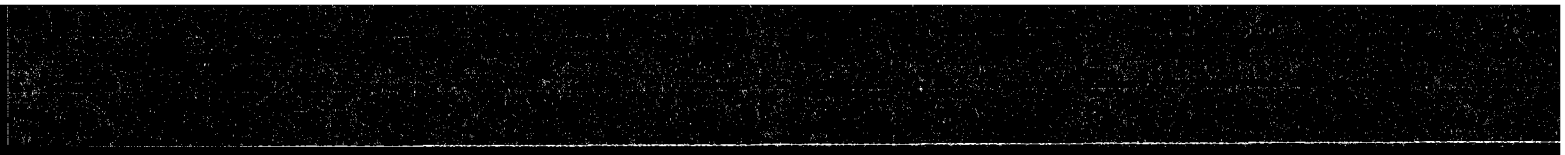
Splits: 0 Split Date: N/A Final Volume: 20.0uL

Sample ID	Cleanup 1 MSG/AA Chemist/Date	Cleanup 2 NA Chemist/Date	Cleanup 3 NA Chemist/Date	RS Amt: 10.0uL ID: 090918D Vial: 4 Chemist/Witness/Date
1905-001-0001-MB				
1905-001-0001-OPR				
5881-001-0001-SA	GG 12/22/09	NA	NA	GG GN 12/22/09
5881-002-0001-SA	↓	↓	↓	↓
5881-003-0001-SA	↓	↓	↓	↓

5877

Comments:

QB72:00450



Sample Results

FAL ID: 1905-001-0001-MB Filename: 22DEC09M Sam:3 Acquired: 22-DEC-09 15:37:57 ICal: PCDDFAL3-11-18-09
Client ID: Method Blank ConCal: ST122209M1 EndCal: ST122209M2
Results: 5879 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 0.00
WHO 1998 Tox: 0.00 WHO 2005 Tox: 0.00

Name	Resp	RA		RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	*	*	n	NotFnd	1.02	*		2.50	384	492	0.670
1,2,3,7,8-PeCDD	*	*	n	NotFnd	0.96	*		2.50	572	348	1.01
1,2,3,4,7,8-HxCDD	*	*	n	NotFnd	1.37	*		2.50	608	624	1.38
1,2,3,6,7,8-HxCDD	*	*	n	NotFnd	1.34	*		2.50	608	624	1.73
1,2,3,7,8,9-HxCDD	*	*	n	NotFnd	1.37	*		2.50	608	624	1.54
1,2,3,4,6,7,8-HpCDD	*	*	n	NotFnd	1.17	*		2.50	696	747	2.64
OCDD	*	*	n	NotFnd	1.21	*		2.50	1430	1040	7.13
2,3,7,8-TCDF	*	*	n	NotFnd	1.29	*		2.50	396	872	0.457
1,2,3,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	440	576	0.715
2,3,4,7,8-PeCDF	*	*	n	NotFnd	0.91	*		2.50	440	576	0.764
1,2,3,4,7,8-HxCDF	*	*	n	NotFnd	1.00	*		2.50	869	702	1.52
1,2,3,6,7,8-HxCDF	*	*	n	NotFnd	0.92	*		2.50	869	702	1.48
2,3,4,6,7,8-HxCDF	*	*	n	NotFnd	0.99	*		2.50	869	702	1.54
1,2,3,7,8,9-HxCDF	*	*	n	NotFnd	1.09	*		2.50	869	702	1.89
1,2,3,4,6,7,8-HpCDF	*	*	n	NotFnd	1.36	*		2.50	554	781	1.61
1,2,3,4,7,8,9-HpCDF	*	*	n	NotFnd	1.61	*		2.50	554	781	1.91
OCDF	*	*	n	NotFnd	0.84	*		2.50	806	908	4.47
											Rec
13C-2,3,7,8-TCDD	2.90e+07	0.71	y	27:30	0.94	1640					82.2
13C-1,2,3,7,8-PeCDD	2.56e+07	1.72	y	33:20	1.02	1340					67.1
13C-1,2,3,4,7,8-HxCDD	1.83e+07	1.28	y	38:42	0.98	1580					79.1
13C-1,2,3,6,7,8-HxCDD	1.75e+07	1.29	y	38:52	0.94	1580					79.0
13C-1,2,3,4,6,7,8-HpCDD	1.64e+07	1.04	y	44:19	0.90	1550					77.3
13C-OCDD	2.40e+07	0.96	y	49:55	0.67	3050					76.3
13C-2,3,7,8-TCDF	4.68e+07	0.85	y	26:45	0.88	1630					81.4
13C-1,2,3,7,8-PeCDF	3.97e+07	1.74	y	31:35	0.88	1380					69.1
13C-2,3,4,7,8-PeCDF	3.84e+07	1.70	y	32:54	0.85	1380					69.1
13C-1,2,3,4,7,8-HxCDF	3.06e+07	0.50	y	37:19	1.72	1510					75.5
13C-1,2,3,6,7,8-HxCDF	3.71e+07	0.50	y	37:30	2.00	1570					78.4
13C-2,3,4,6,7,8-HxCDF	3.17e+07	0.50	y	38:27	1.74	1550					77.5
13C-1,2,3,7,8,9-HxCDF	2.57e+07	0.50	y	39:53	1.51	1450					72.3
13C-1,2,3,4,6,7,8-HpCDF	1.98e+07	0.44	y	42:24	1.10	1530					76.5
13C-1,2,3,4,7,8,9-HpCDF	1.52e+07	0.44	y	45:13	0.85	1520					75.9
13C-OCDF	3.89e+07	0.94	y	50:16	1.17	2820					70.4
37Cl-2,3,7,8-TCDD	1.37e+07			27:32	0.97	753					94.1
13C-1,2,3,4-TCDD	3.74e+07	0.73	y	26:56	-	143					
13C-1,2,3,4-TCDF	6.55e+07	0.86	y	25:40	-	142					
13C-1,2,3,7,8,9-HxCDD	2.36e+07	1.30	y	39:19	-	115					

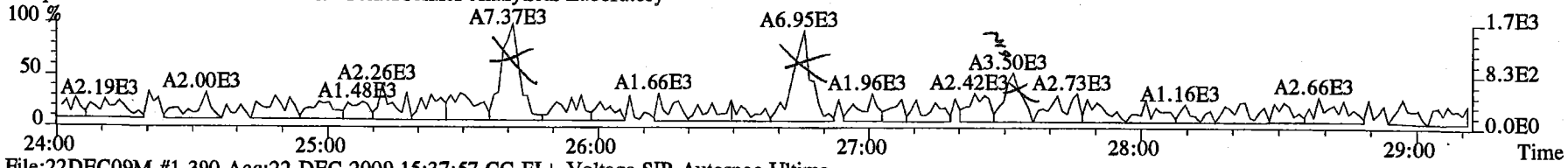
				Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	*	NotFnd	1.02	*	2.50	384	492	0.670		0
Total Penta-Dioxins	*	NotFnd	0.96	*	2.50	572	348	1.01		0
Total Hexa-Dioxins	*	NotFnd	1.36	*	2.50	608	624	1.73		0
Total Hepta-Dioxins	*	NotFnd	1.17	*	2.50	696	747	2.64		0
Total Tetra-Furans	*	NotFnd	1.29	*	2.50	396	872	0.457		0
1st Fn. Tot Penta-Furans	*	NotFnd	0.90	*	2.50	440	576	0.764	PeCDF	0
Total Penta-Furans	*	NotFnd	0.90	*	2.50	440	576	0.764	0.00	0
Total Hexa-Furans	*	NotFnd	0.99	*	2.50	869	702	1.89		0
Total Hepta-Furans	*	NotFnd	1.47	*	2.50	554	781	1.91		0

Analyst: _____ Date: 12/23/09

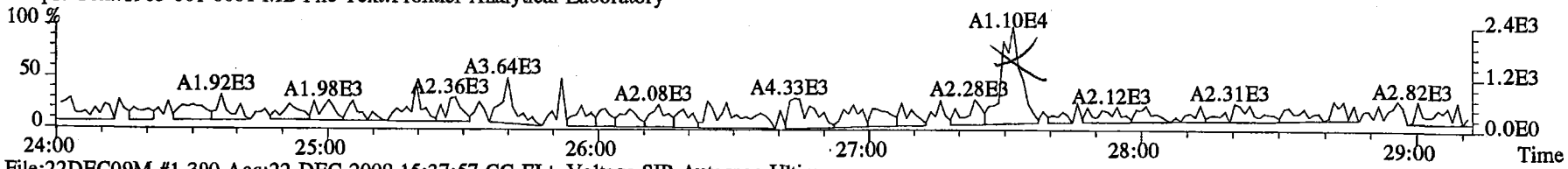
QB72 : 00453

QB72:0045H

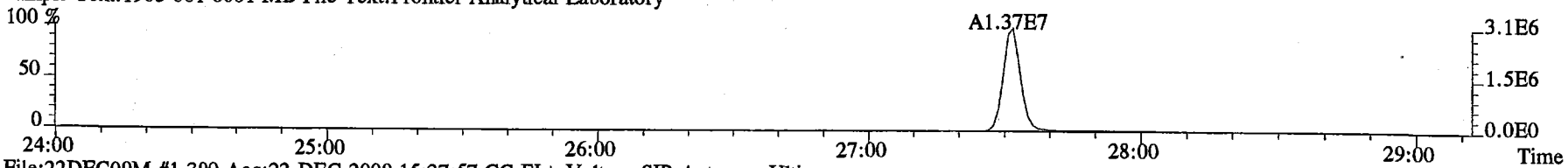
File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



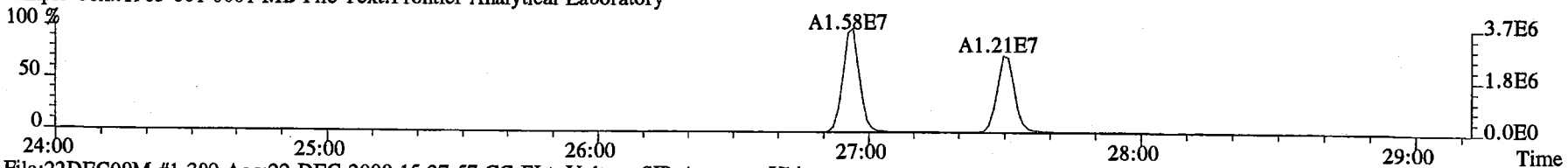
File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



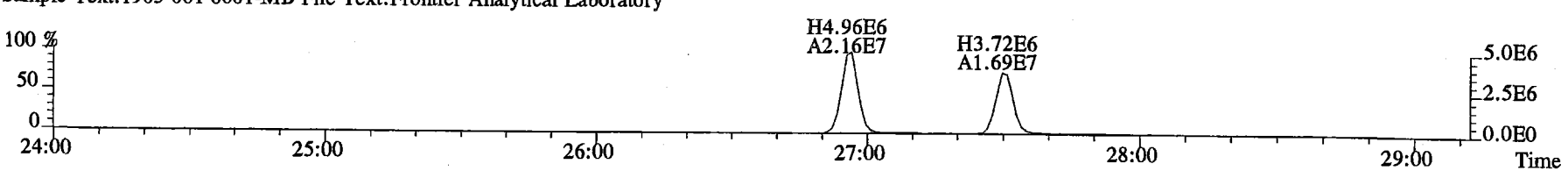
File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

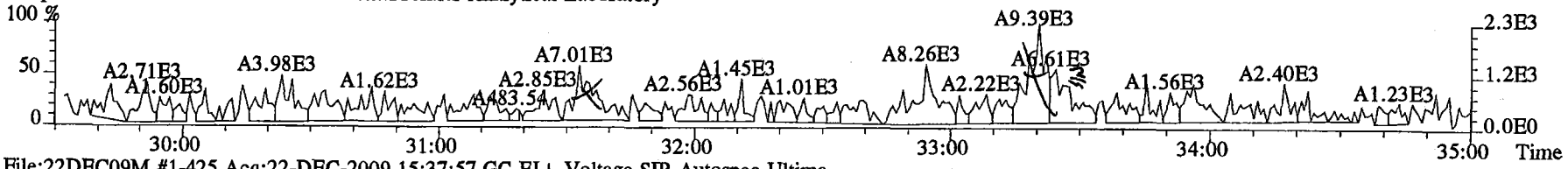


File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

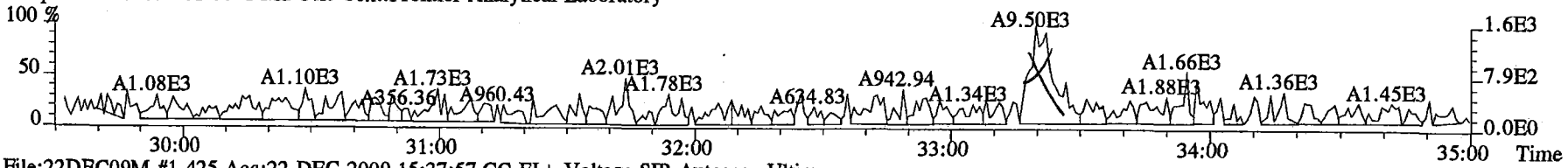


QB72:00455

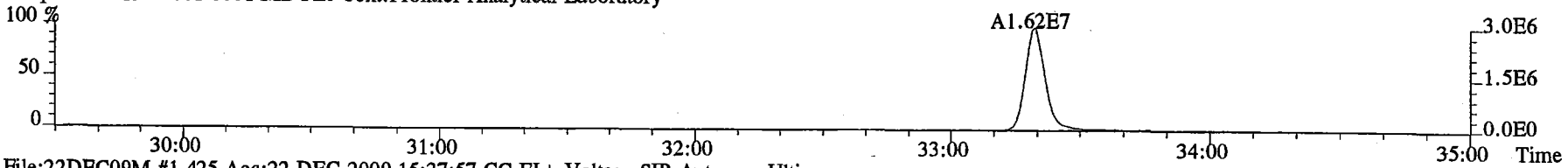
File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



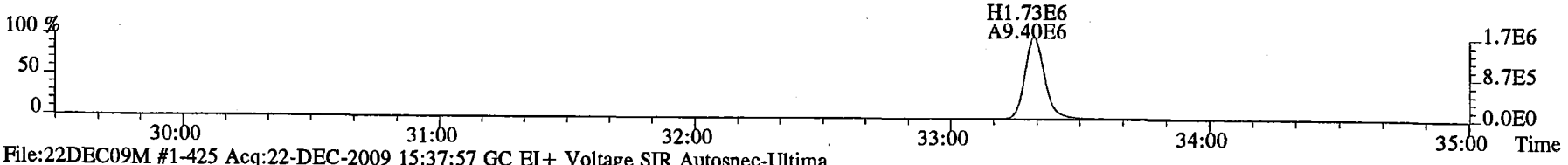
File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



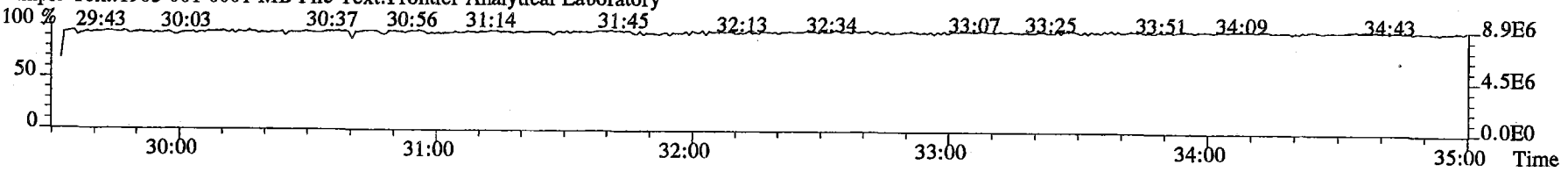
File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

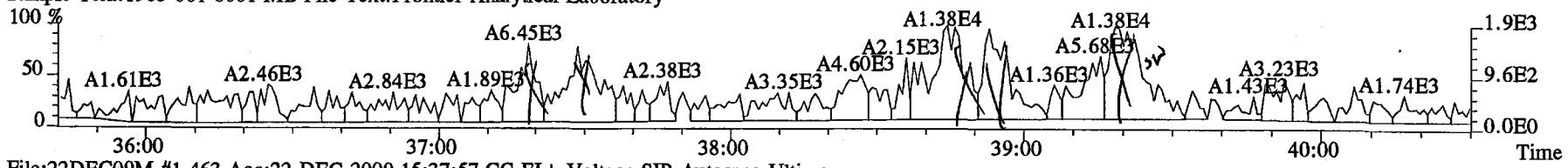


File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:3 F:2 Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

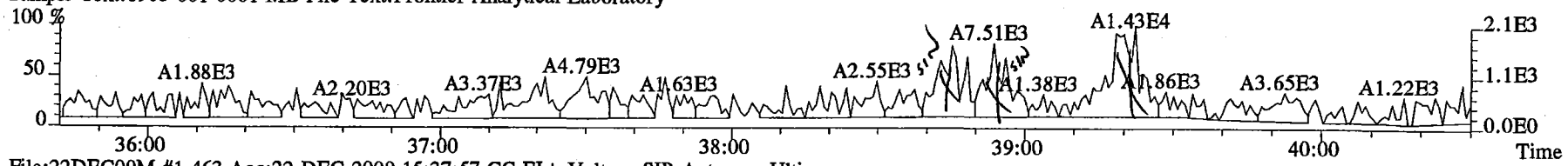


0872-09456

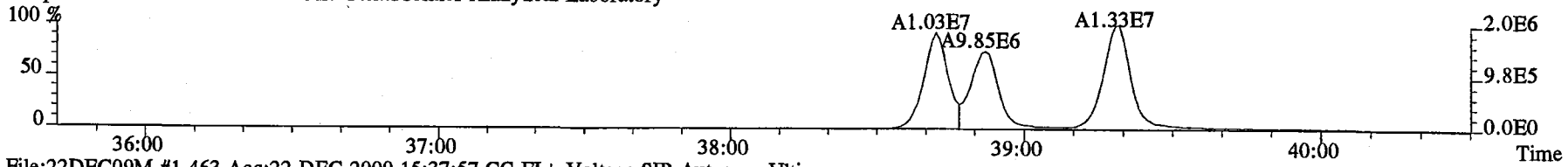
File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



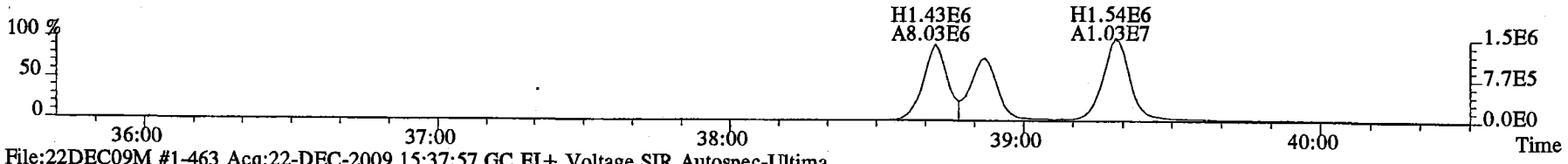
File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



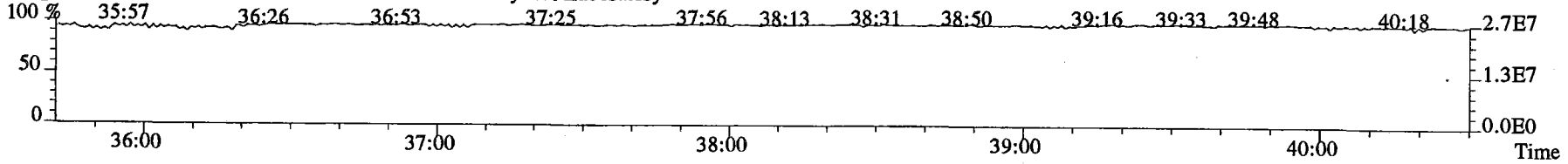
File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

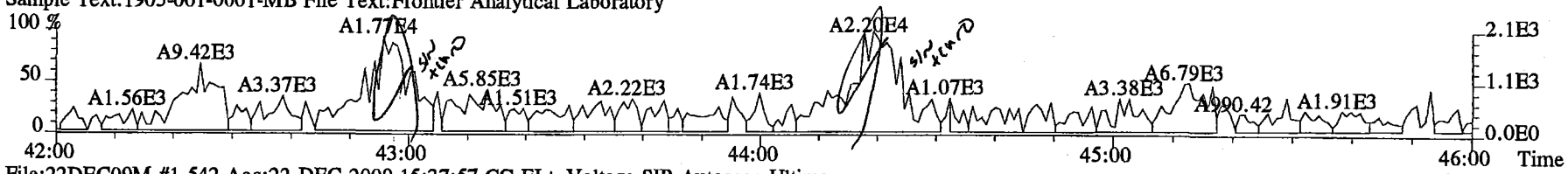


File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:3 F:3 Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

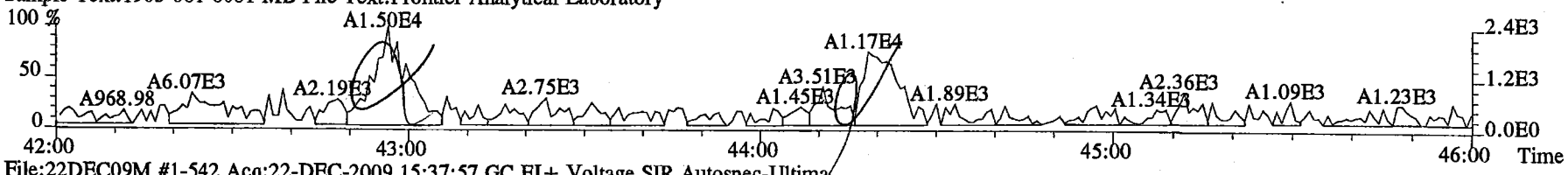


QB72:00457

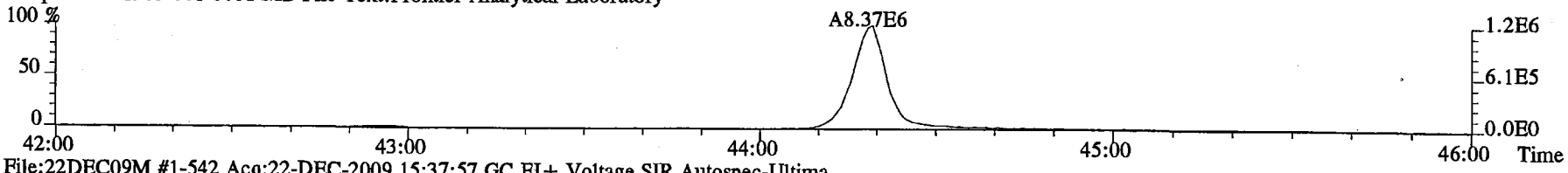
File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



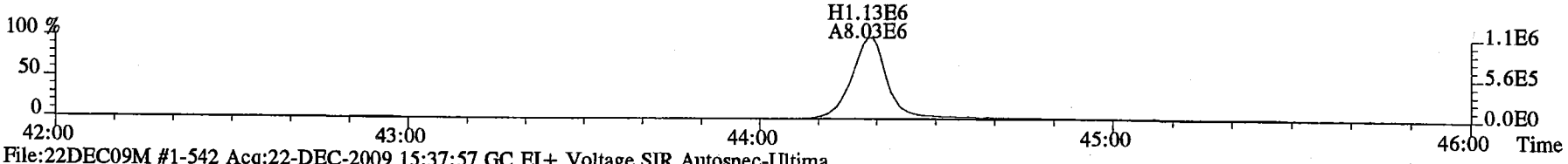
File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



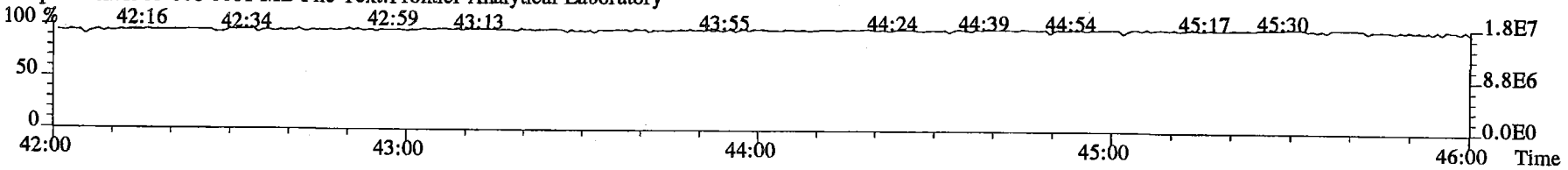
File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

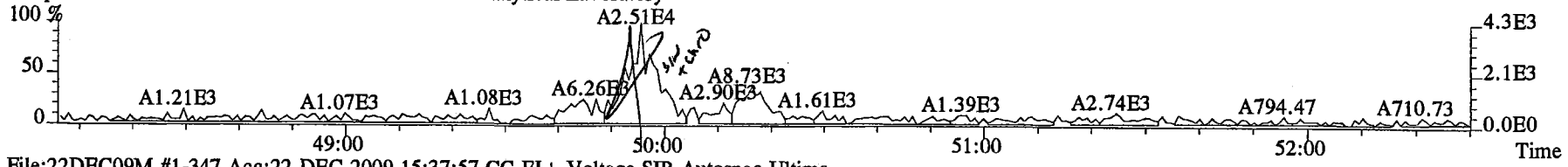


File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:3 F:4 Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

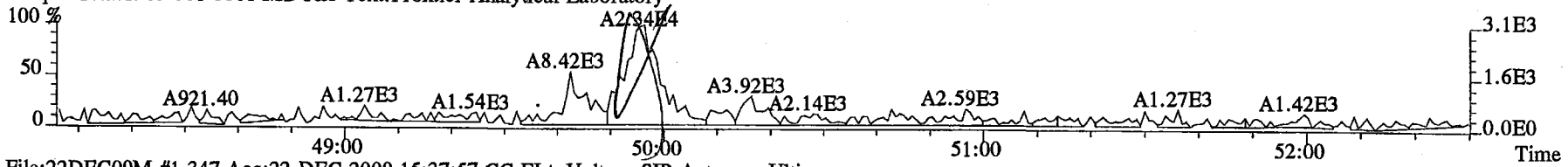


QB72:00458

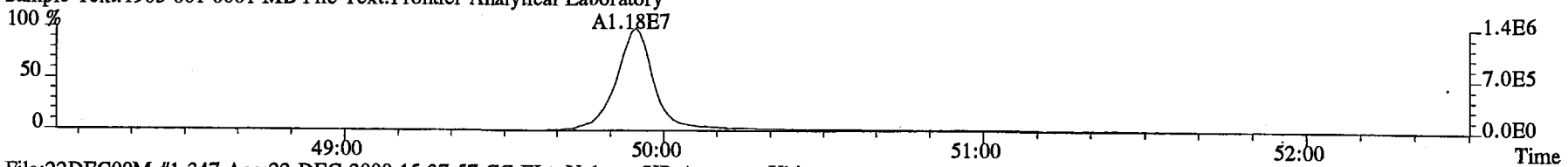
File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



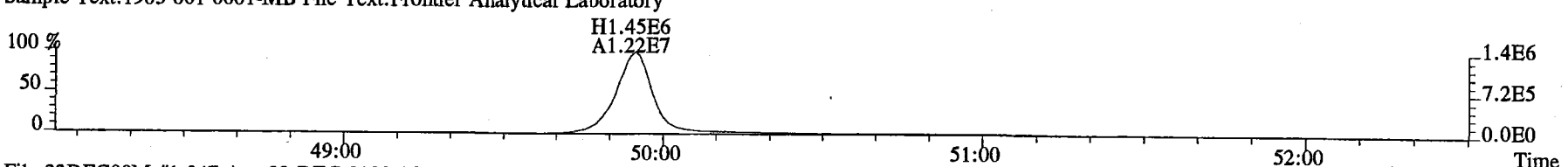
File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



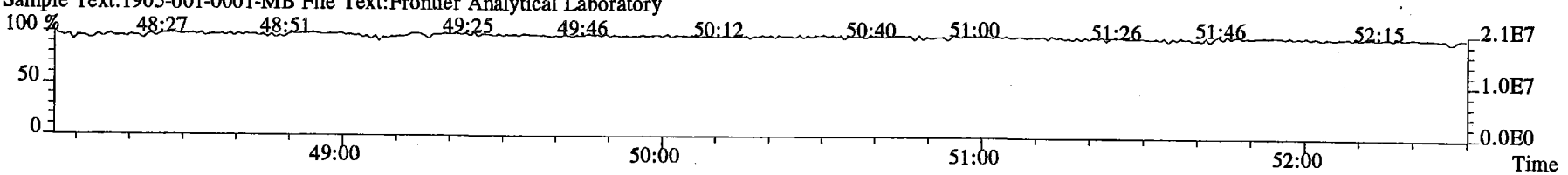
File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 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:1905-001-0001-MB File Text:Frontier Analytical Laboratory

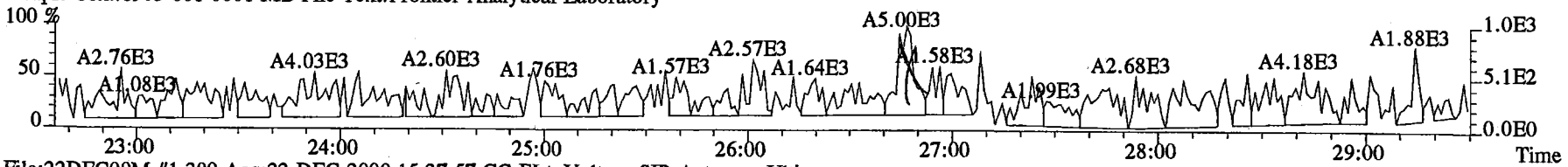


File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:3 F:5 Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

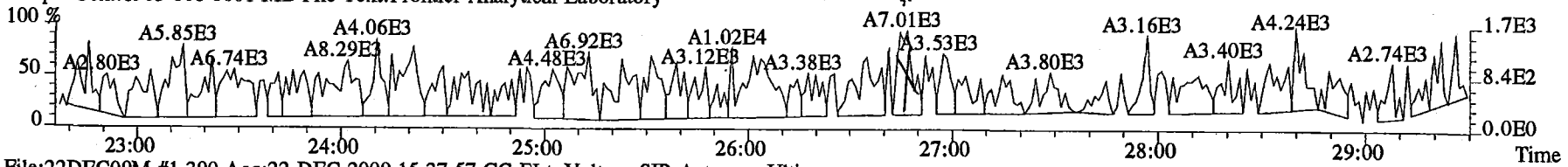


QB72:90459

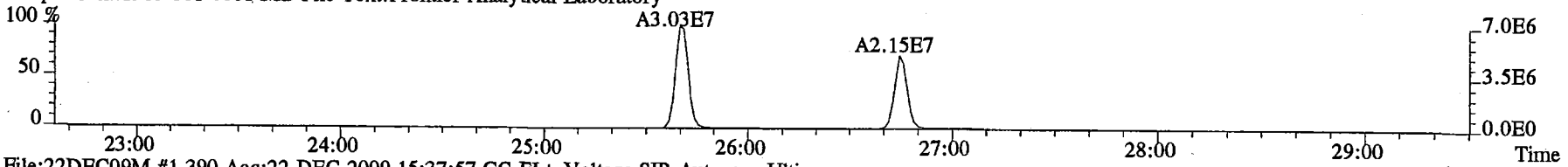
File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



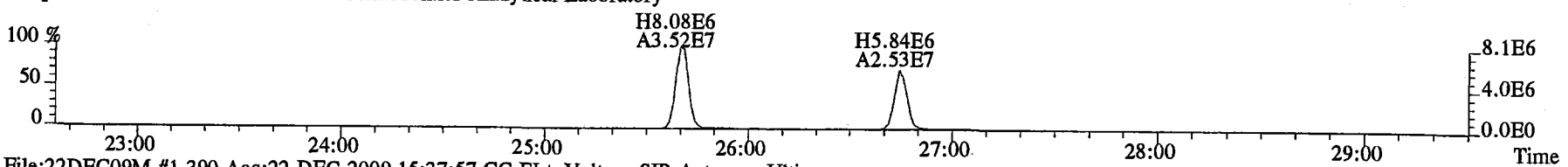
File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



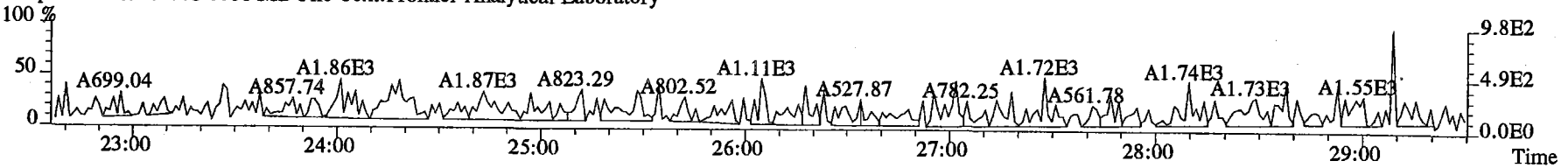
File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

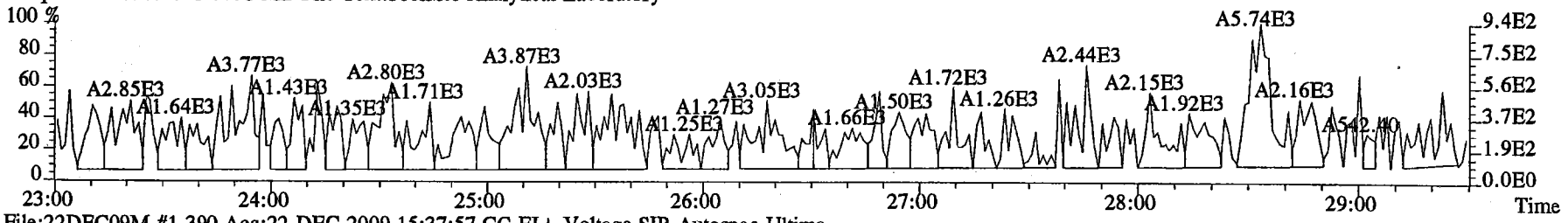


File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

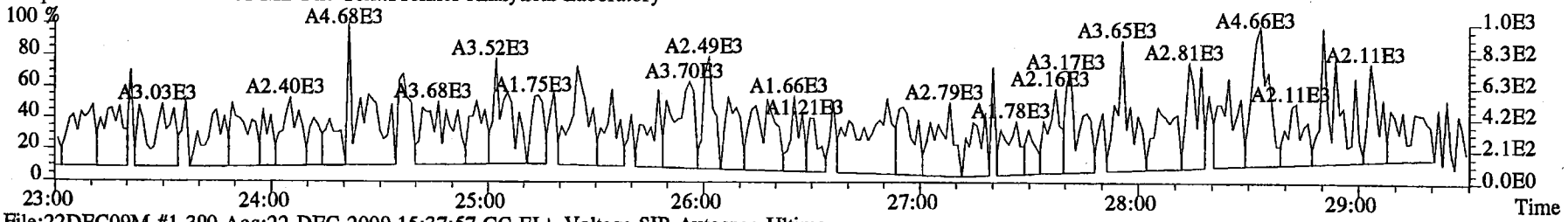


QB72:00469

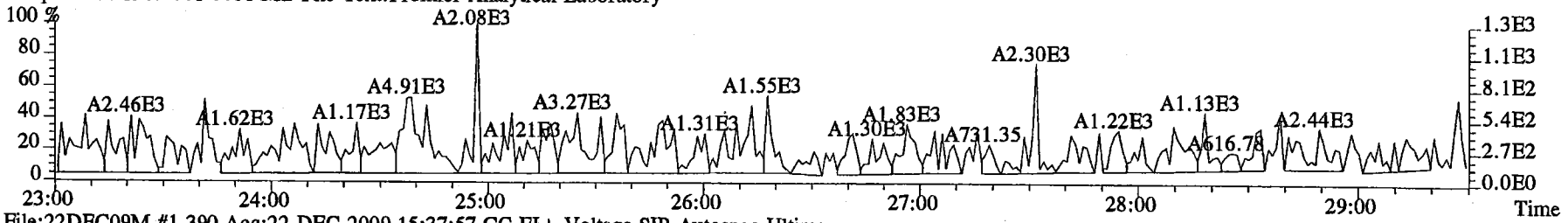
File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



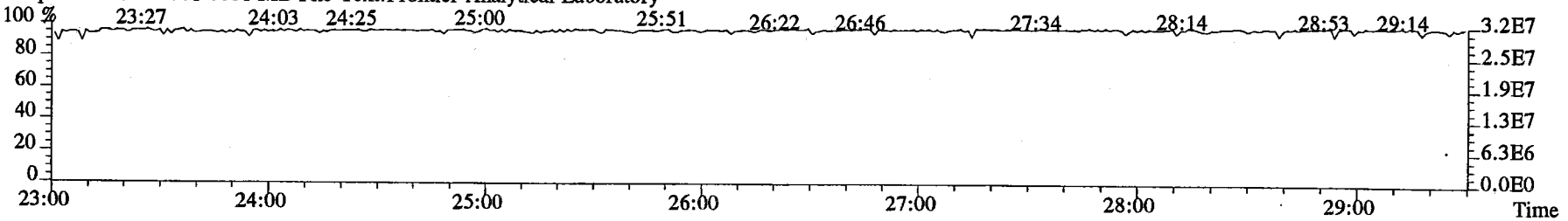
File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

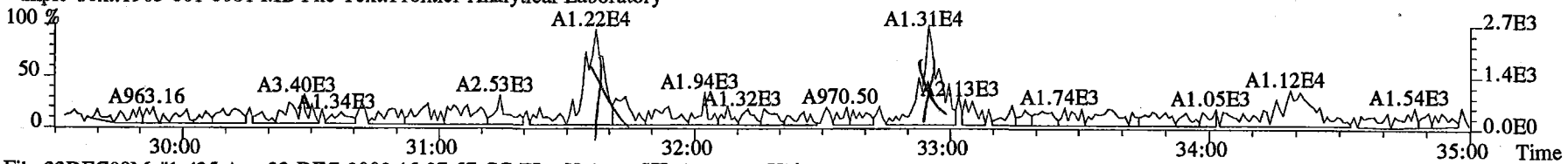


File:22DEC09M #1-390 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:3 Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

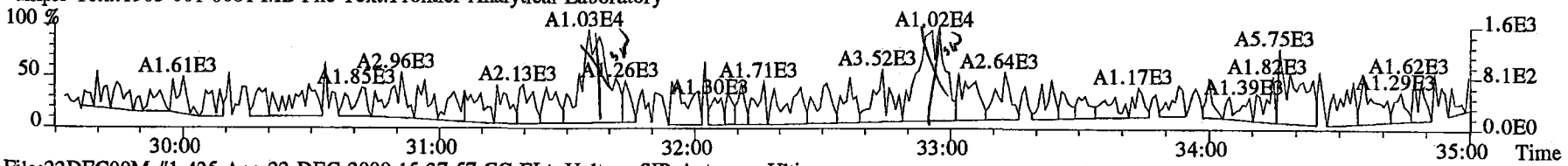


0872:00461

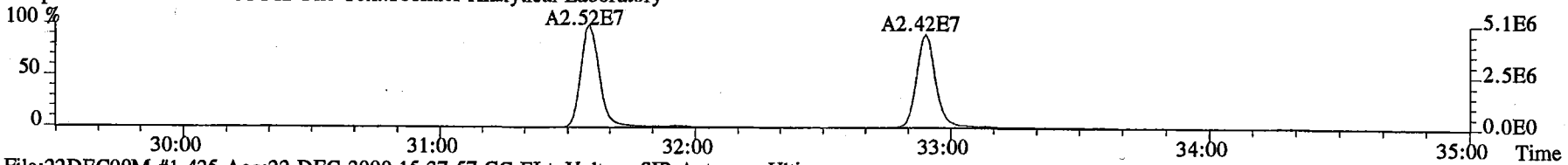
File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



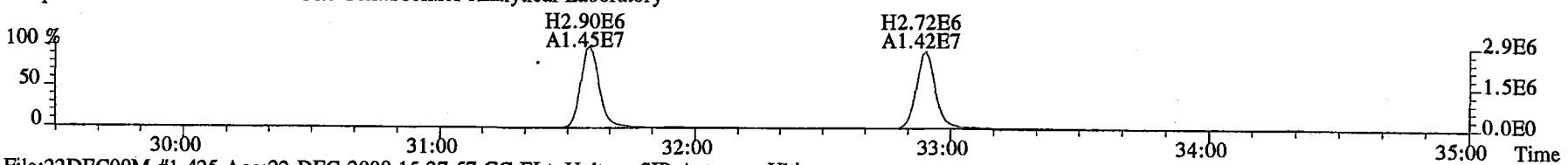
File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



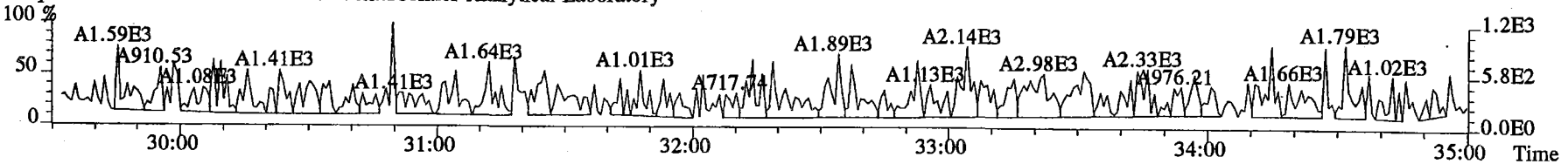
File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 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:1905-001-0001-MB File Text:Frontier Analytical Laboratory

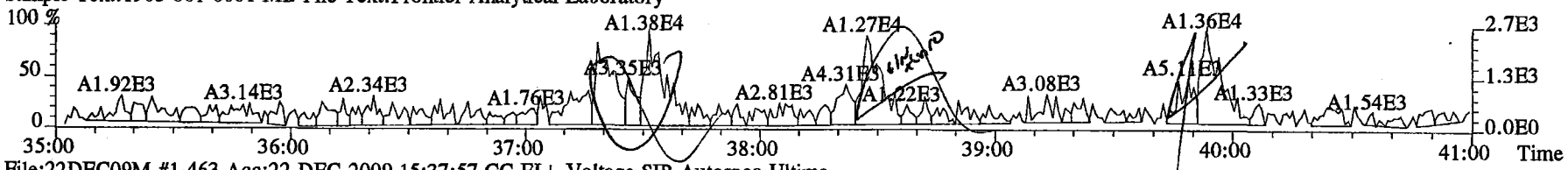


File:22DEC09M #1-425 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

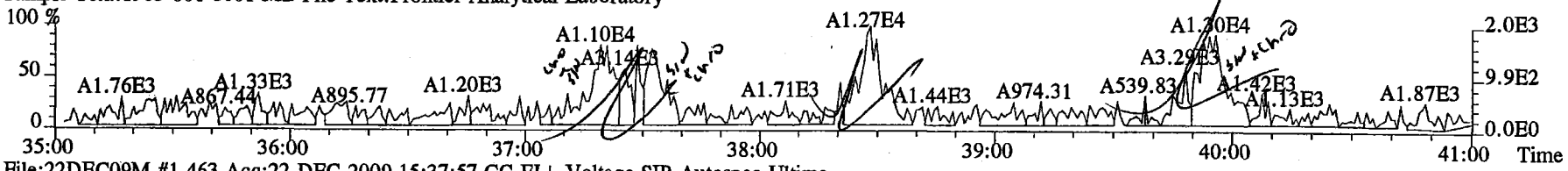


QB72-99462

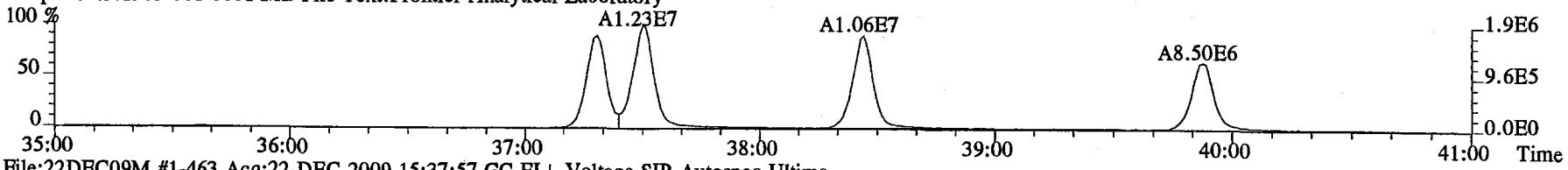
File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
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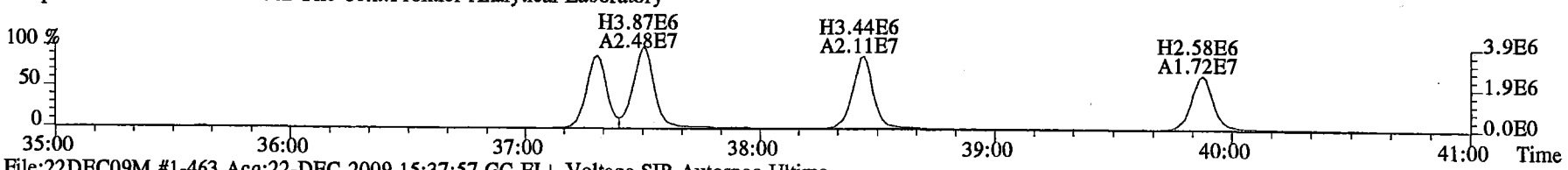

File:22DEC09M #1-463 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
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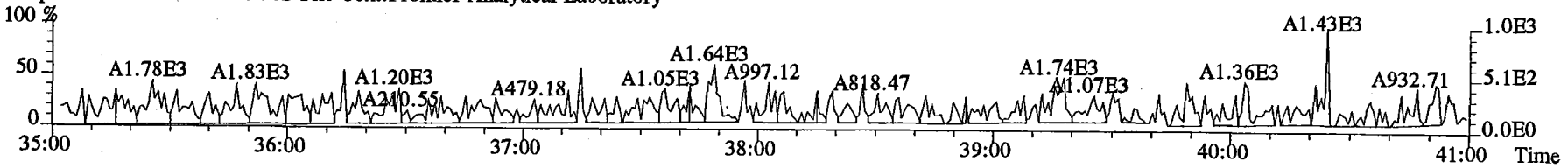
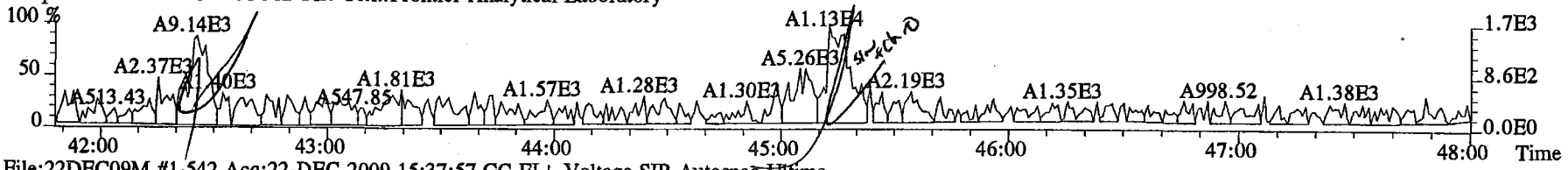
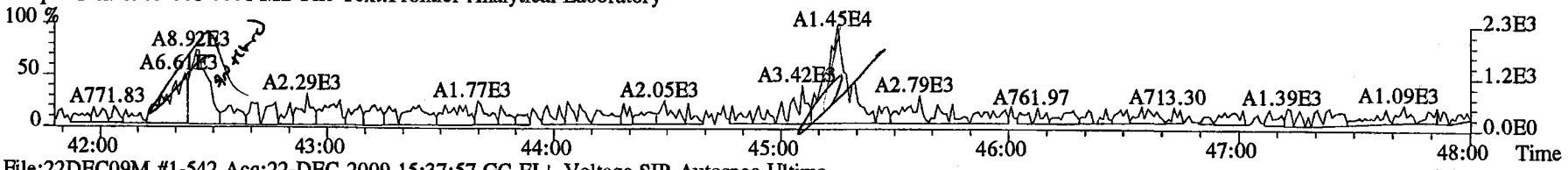


QB72:00463

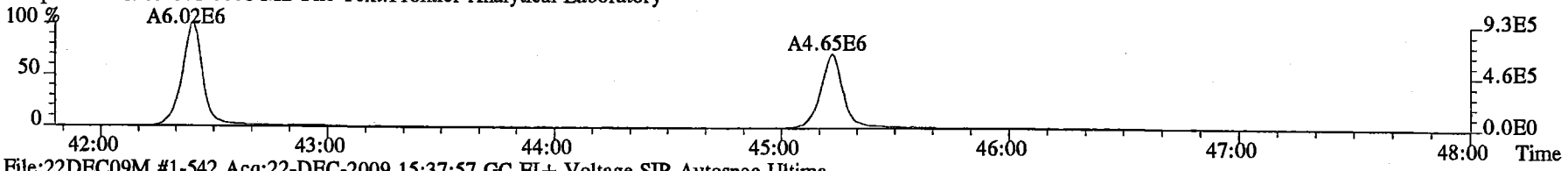
File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



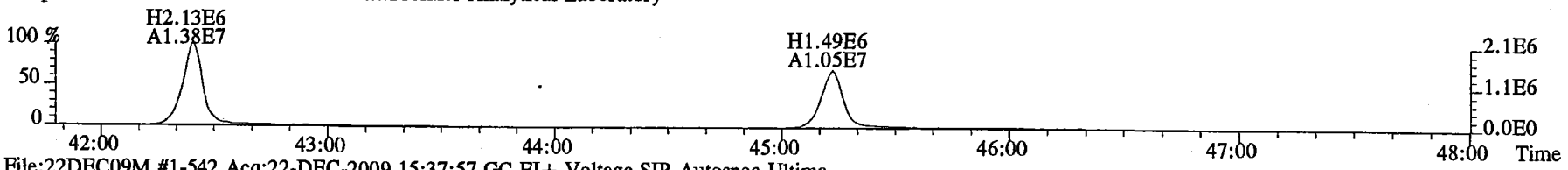
File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



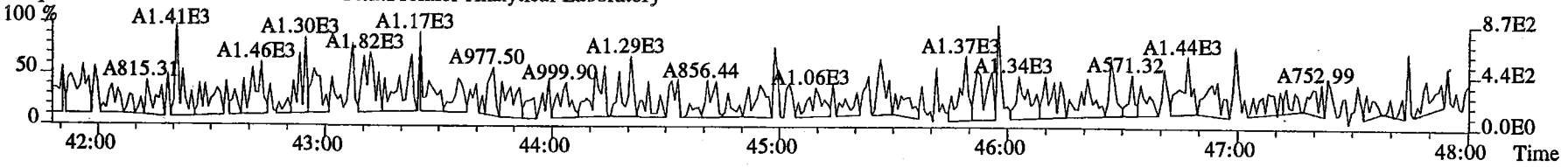
File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

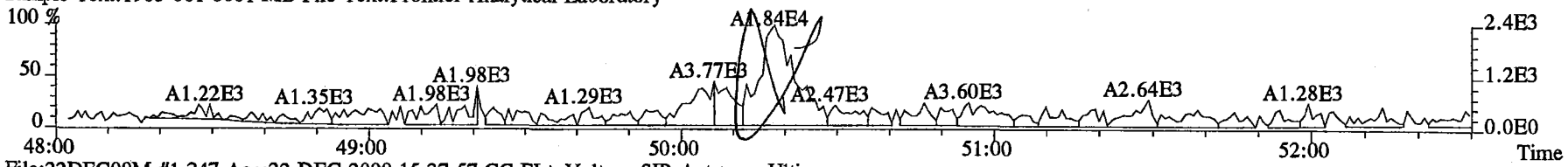


File:22DEC09M #1-542 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory

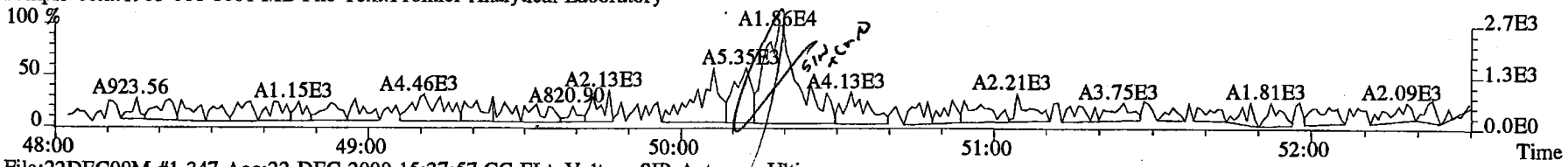


QB72:09461

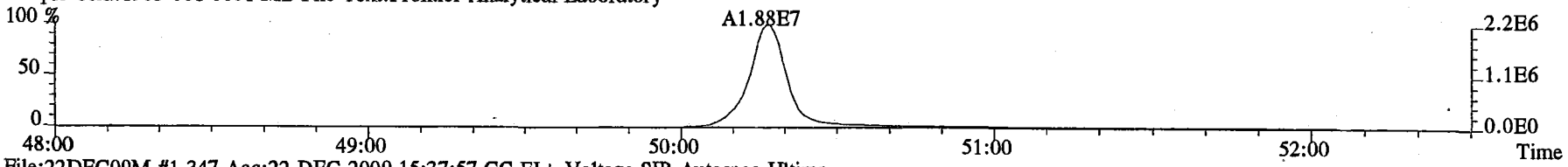
File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



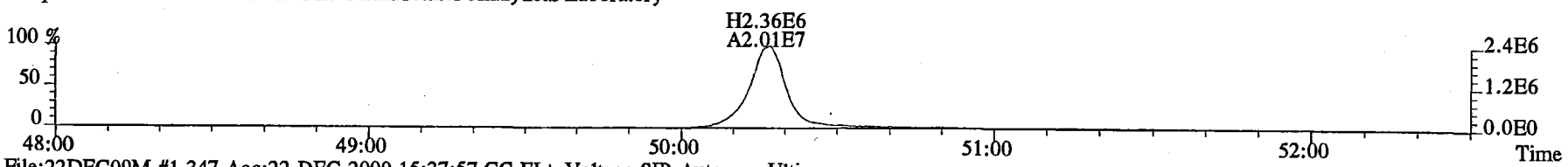
File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



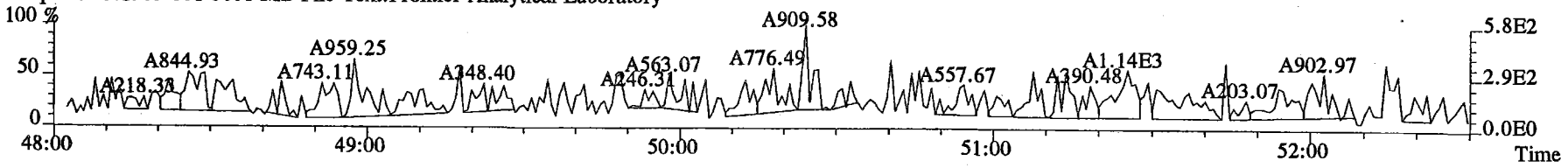
File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 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:1905-001-0001-MB File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 15:37:57 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:1905-001-0001-MB File Text:Frontier Analytical Laboratory



1905-001-0001-OPR

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: 22DEC09M Sam:2

Ext. Date: 12/21/09 Shift: Day Analysis Date: 22-DEC-09 14:42:38

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
NATIVE ANALYTES			
2,3,7,8-TCDD	10	9.55	6.70 - 15.8
1,2,3,7,8-PeCDD	50	49.3	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	50.0	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	48.1	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	50.4	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	50.9	35.0 - 70.0
OCDD	100	104	78.0 - 144
2,3,7,8-TCDF	10	9.85	7.50 - 15.8
1,2,3,7,8-PeCDF	50	53.7	40.0 - 67.0
2,3,4,7,8-PeCDF	50	53.3	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	51.9	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	51.5	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	52.5	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	50.9	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	51.9	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	51.7	39.0 - 69.0
OCDF	100	106	63.0 - 170

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

Analyst: _____ Date: 12/23/09

QB72:00465

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: 22DEC09M Sam:2

Ext. Date: 12/21/09 Shift: Day Analysis Date: 22-DEC-09 14:42:38

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	84.8	20.0 - 175
13C-1,2,3,7,8-PeCDD	100	65.2	21.0 - 227
13C-1,2,3,4,7,8-HxCDD	100	74.7	21.0 - 193
13C-1,2,3,6,7,8-HxCDD	100	74.4	25.0 - 163
13C-1,2,3,4,6,7,8-HpCDD	100	71.7	26.0 - 166
13C-OCDD	200	139	26.0 - 397
13C-2,3,7,8-TCDF	100	85.3	22.0 - 152
13C-1,2,3,7,8-PeCDF	100	64.8	21.0 - 192
13C-2,3,4,7,8-PeCDF	100	66.3	13.0 - 328
13C-1,2,3,4,7,8-HxCDF	100	70.7	19.0 - 202
13C-1,2,3,6,7,8-HxCDF	100	73.8	21.0 - 159
13C-2,3,4,6,7,8-HxCDF	100	73.4	22.0 - 176
13C-1,2,3,7,8,9-HxCDF	100	68.7	17.0 - 205
13C-1,2,3,4,6,7,8-HpCDF	100	70.5	21.0 - 158
13C-1,2,3,4,7,8,9-HpCDF	100	70.4	20.0 - 186
13C-OCDF	200	131	26.0 - 397
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	39.0	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: 12/23/09

QB72:00465

FAL ID: 1905-001-0001-OPR Filename: 22DEC09M Sam:2 Acquired: 22-DEC-09 14:42:38 ICal: PCDDFAL3-11-18-09
Client ID: OPR ConCal: ST122209M1 EndCal: ST122209M2
Results: GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 102
WHO 1998 Tox: 126 WHO 2005 Tox: 115

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.77e+06	0.83 y	27:32	1.02	9.55		2.50	-	-	*
1,2,3,7,8-PeCDD	1.12e+07	1.61 y	33:21	0.96	49.3		2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.13e+07	1.25 y	38:44	1.37	50.0		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.01e+07	1.26 y	38:53	1.34	48.1		2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.10e+07	1.24 y	39:20	1.37	50.4		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	8.55e+06	0.98 y	44:21	1.17	50.9		2.50	-	-	*
OCDD	1.30e+07	0.91 y	49:56	1.21	104		2.50	-	-	*
2,3,7,8-TCDF	5.93e+06	0.71 y	26:46	1.29	9.85		2.50	-	-	*
1,2,3,7,8-PeCDF	1.70e+07	1.66 y	31:37	0.89	53.7		2.50	-	-	*
2,3,4,7,8-PeCDF	1.70e+07	1.67 y	32:55	0.91	53.3		2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.41e+07	1.25 y	37:20	1.00	51.9		2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.56e+07	1.25 y	37:31	0.92	51.5		2.50	-	-	*
2,3,4,6,7,8-HxCDF	1.47e+07	1.25 y	38:28	0.99	52.5		2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.28e+07	1.26 y	39:55	1.09	50.9		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.22e+07	1.00 y	42:26	1.36	51.9		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.10e+07	1.01 y	45:15	1.61	51.7		2.50	-	-	*
OCDF	1.52e+07	0.93 y	50:19	0.84	106		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	2.86e+07	0.73 y	27:30	0.94	84.8					84.8
13C-1,2,3,7,8-PeCDD	2.37e+07	1.74 y	33:20	1.02	65.2					65.2
13C-1,2,3,4,7,8-HxCDD	1.64e+07	1.29 y	38:43	0.98	74.7					74.7
13C-1,2,3,6,7,8-HxCDD	1.56e+07	1.29 y	38:53	0.94	74.4					74.4
13C-1,2,3,4,6,7,8-HpCDD	1.44e+07	1.06 y	44:19	0.90	71.7					71.7
13C-OCDD	2.07e+07	0.97 y	49:55	0.67	139					69.5
13C-2,3,7,8-TCDF	4.68e+07	0.86 y	26:45	0.88	85.3					85.3
13C-1,2,3,7,8-PeCDF	3.56e+07	1.72 y	31:36	0.88	64.8					64.8
13C-2,3,4,7,8-PeCDF	3.52e+07	1.72 y	32:54	0.85	66.3					66.3
13C-1,2,3,4,7,8-HxCDF	2.71e+07	0.50 y	37:19	1.72	70.7					70.7
13C-1,2,3,6,7,8-HxCDF	3.30e+07	0.50 y	37:31	2.00	73.8					73.8
13C-2,3,4,6,7,8-HxCDF	2.84e+07	0.52 y	38:26	1.74	73.4					73.4
13C-1,2,3,7,8,9-HxCDF	2.31e+07	0.49 y	39:53	1.51	68.7					68.7
13C-1,2,3,4,6,7,8-HpCDF	1.73e+07	0.44 y	42:24	1.10	70.5					70.5
13C-1,2,3,4,7,8,9-HpCDF	1.33e+07	0.45 y	45:14	0.85	70.4					70.4
13C-OCDF	3.42e+07	0.94 y	50:17	1.17	131					65.3
37Cl-2,3,7,8-TCDD	1.36e+07		27:31	0.97	39.0					97.4
13C-1,2,3,4-TCDD	3.57e+07	0.74 y	26:56	-	137					
13C-1,2,3,4-TCDF	6.25e+07	0.85 y	25:41	-	135					
13C-1,2,3,7,8,9-HxCDD	2.23e+07	1.30 y	39:19	-	109					

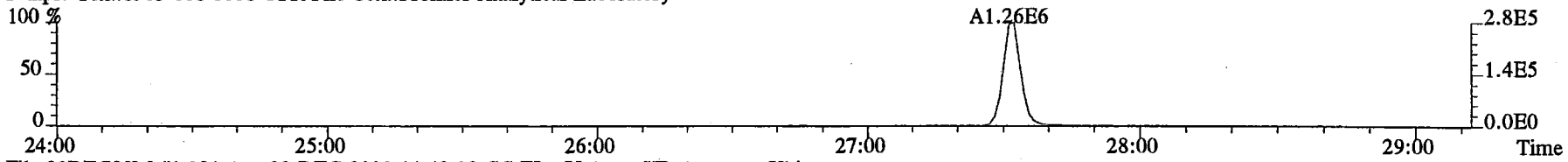
						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	2.89e+06		24:32	1.02	9.93	2.50	-	-	*		20
Total Penta-Dioxins	1.15e+07		31:50	0.96	50.3	2.50	-	-	*		11
Total Hexa-Dioxins	3.27e+07		38:44	1.36	150	2.50	-	-	*		12
Total Hepta-Dioxins	9.12e+06		42:58	1.17	54.3	2.50	-	-	*		28
Total Tetra-Furans	6.20e+06		24:20	1.29	10.3	2.50	-	-	*		14
1st Fn. Tot Penta-Furans	9.20e+04		23:00	0.90	0.290	2.50	-	-	*	PeCDF	25
Total Penta-Furans	3.50e+07		30:21	0.90	110	2.50	-	-	*	110	16
Total Hexa-Furans	5.80e+07		35:23	0.99	210	2.50	-	-	*		18
Total Hepta-Furans	2.39e+07		42:26	1.47	106	2.50	-	-	*		24

Analyst: _____ Date: 12/23/09

QB72:00467

QB72:00468

File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 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:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



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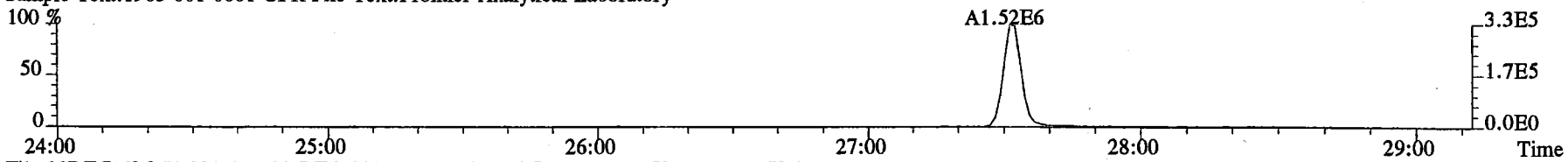
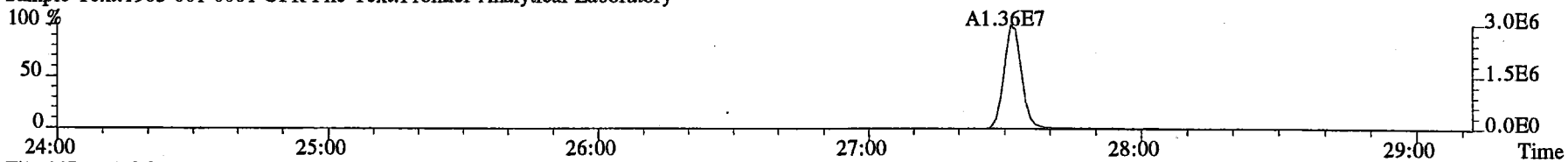


File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



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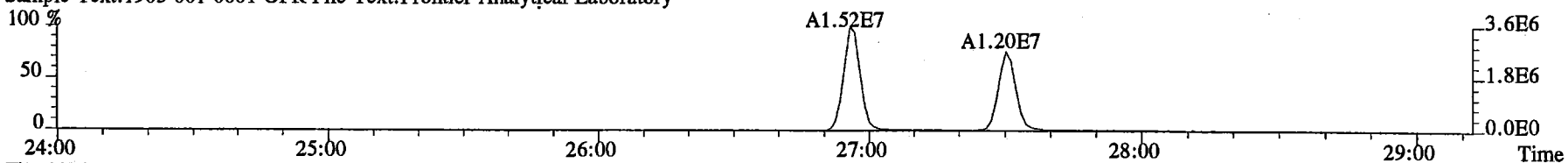
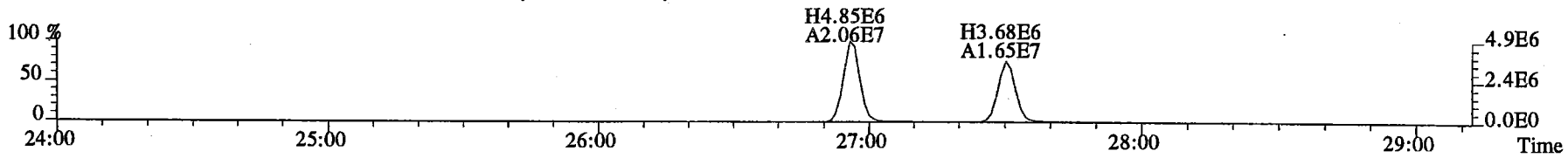
331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

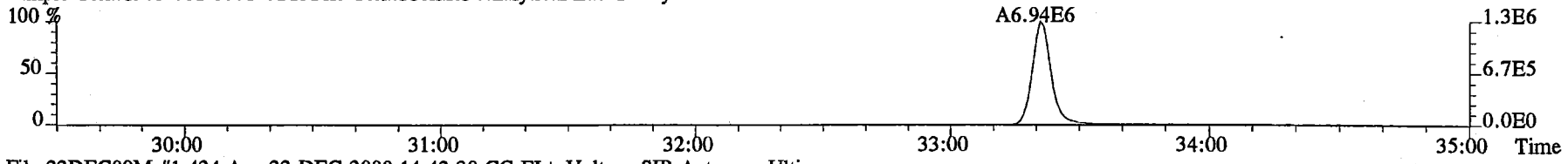


File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

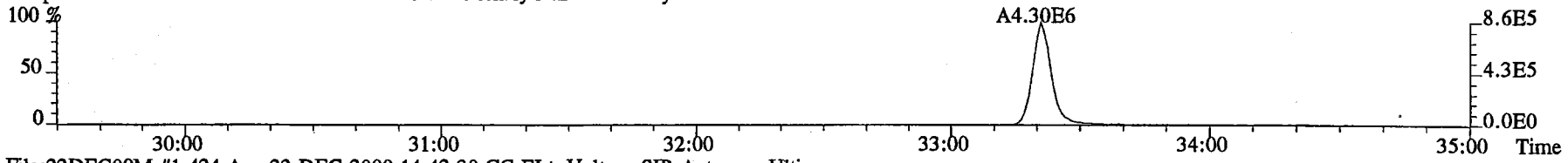


QB72:00459

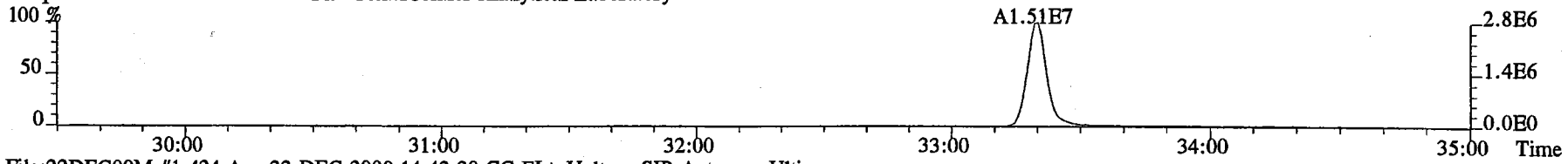
File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



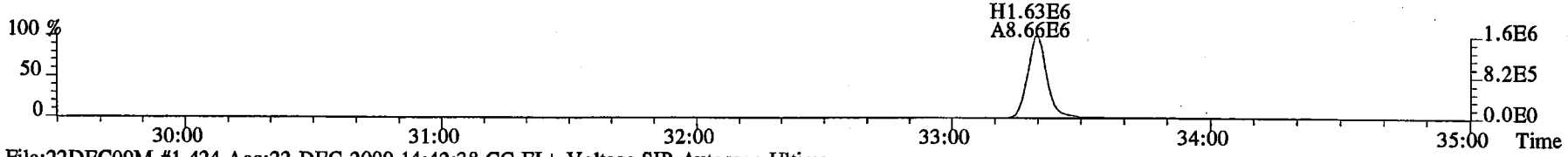
File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



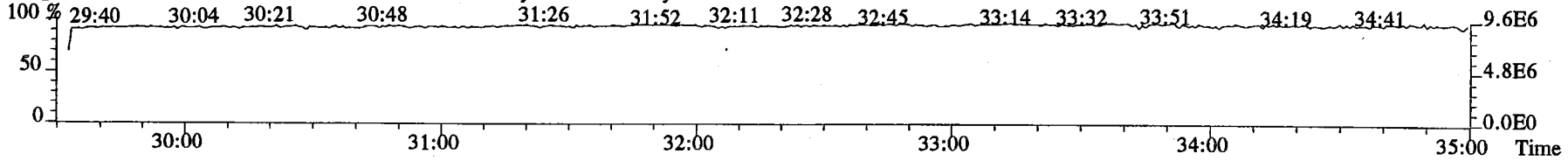
File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

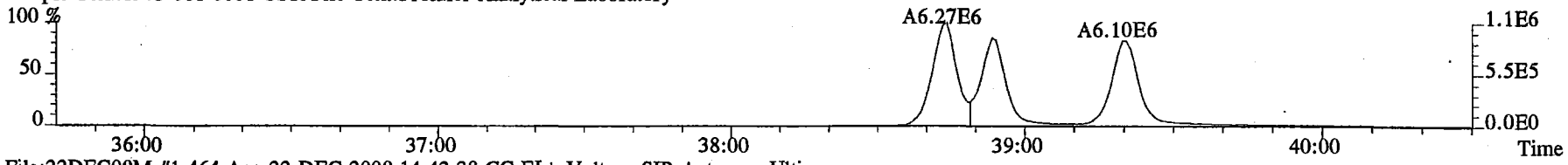


File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:2 F:2 Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

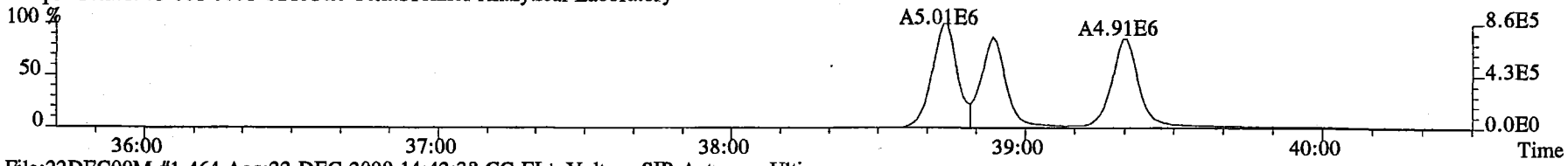


QB72:00178

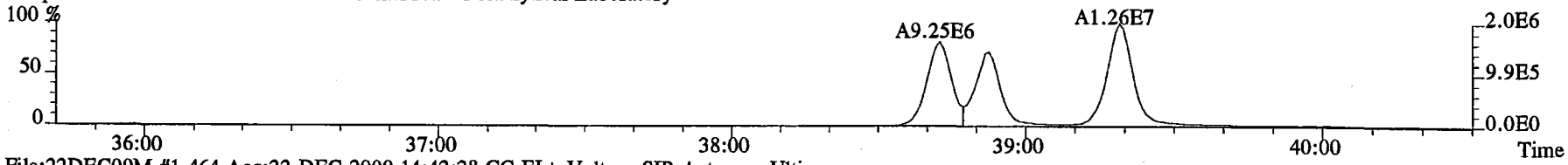
File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



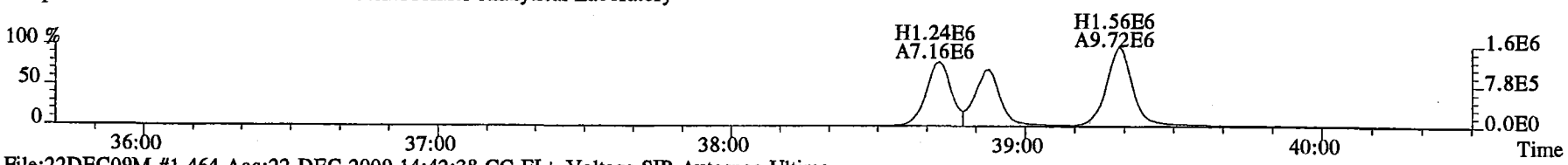
File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



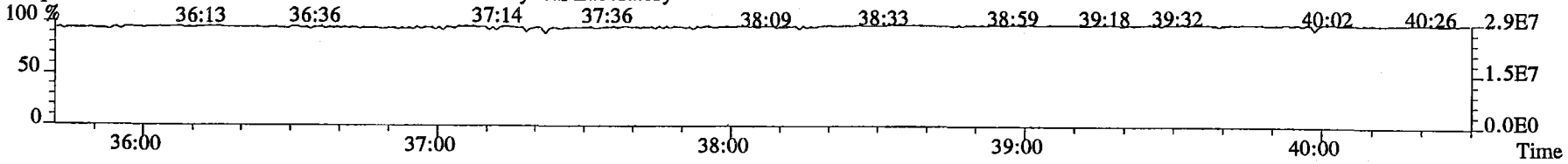
File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

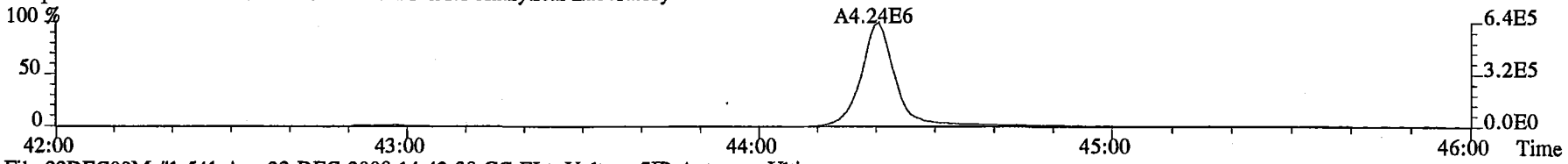


File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:2 F:3 Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

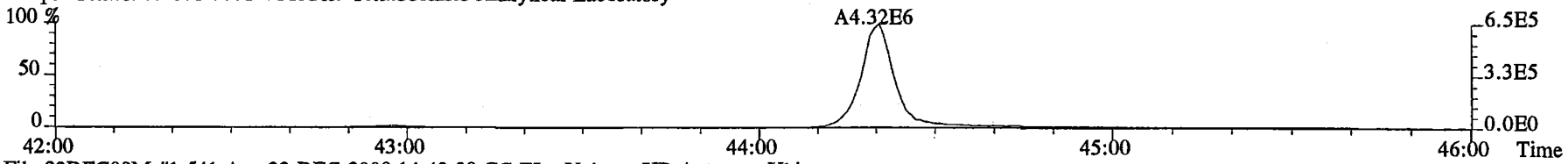


QB72:66171

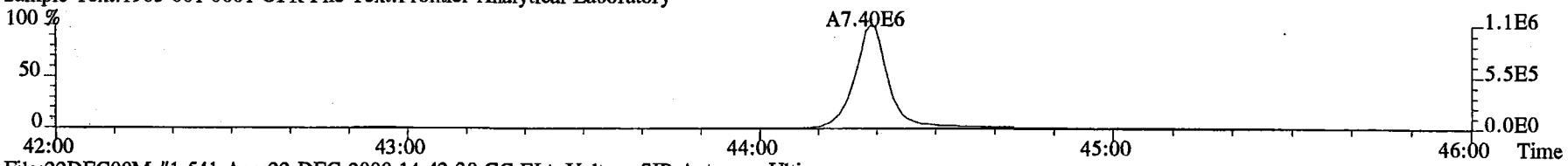
File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



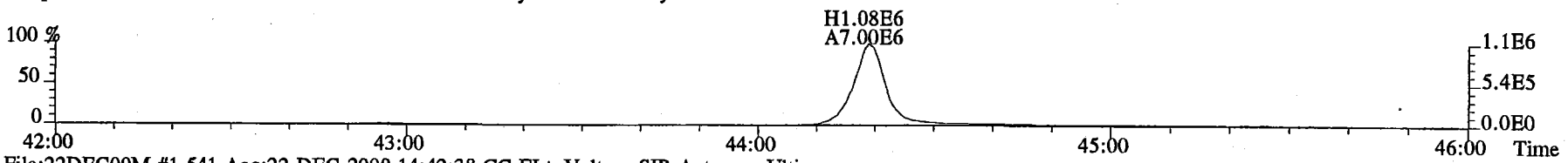
File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



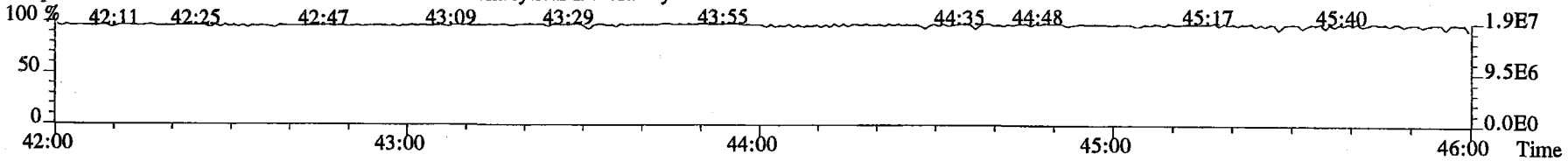
File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

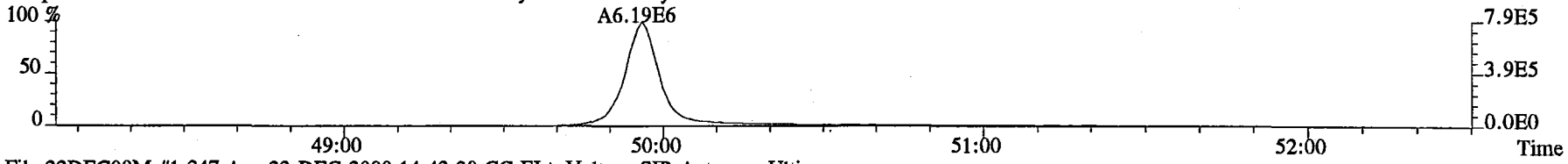


File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:2 F:4 Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

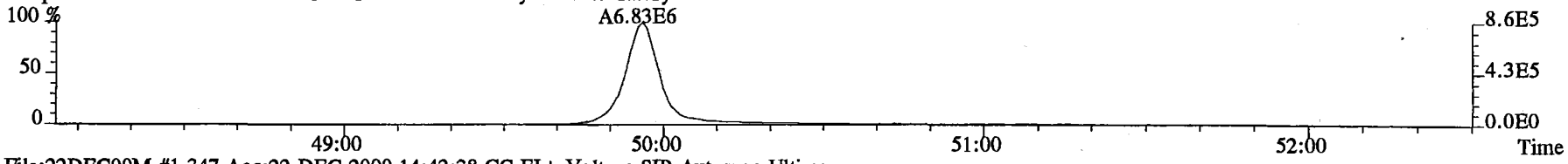


GB72:00172

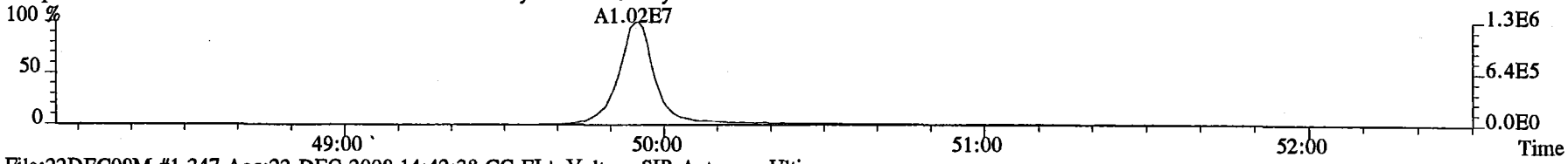
File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



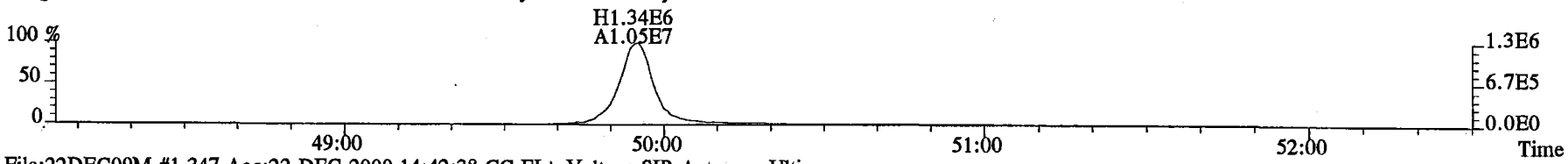
File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



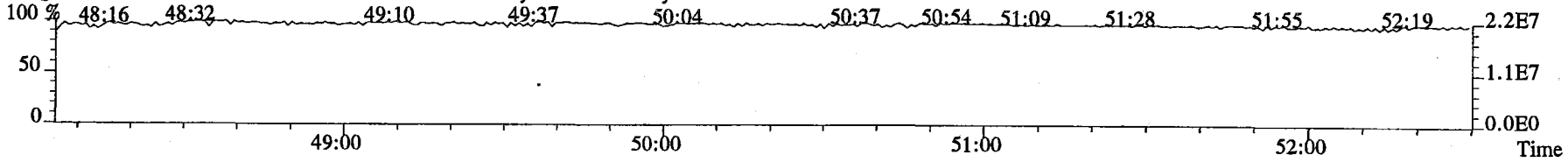
File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

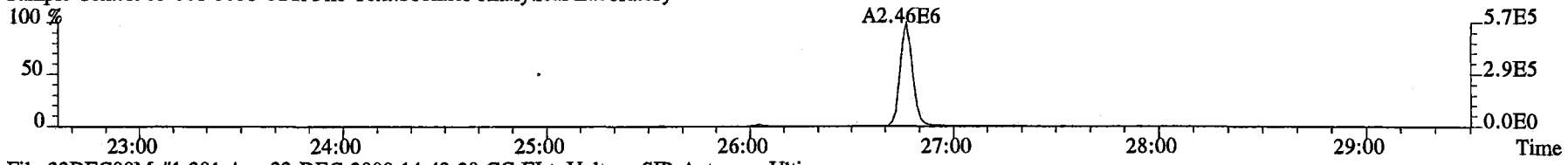


File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:2 F:5 Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

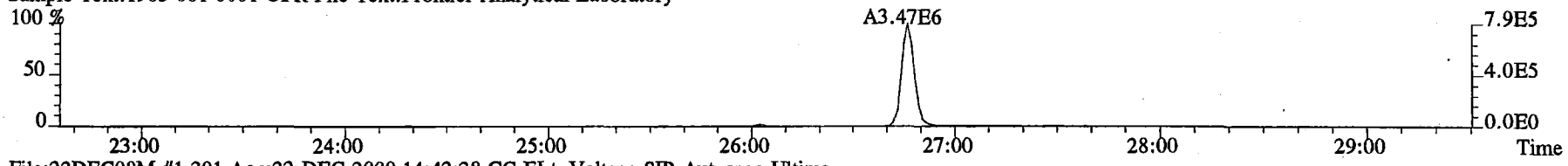


QB72:00179

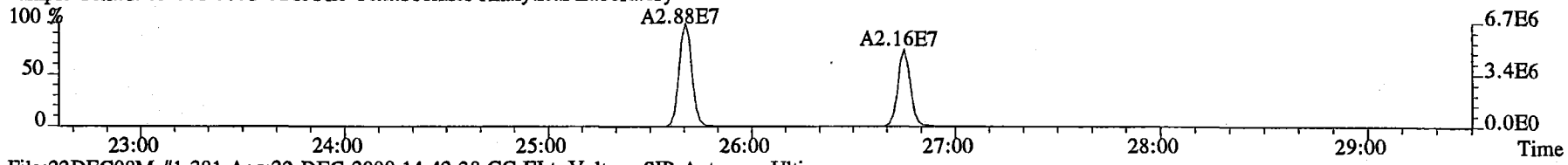
File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



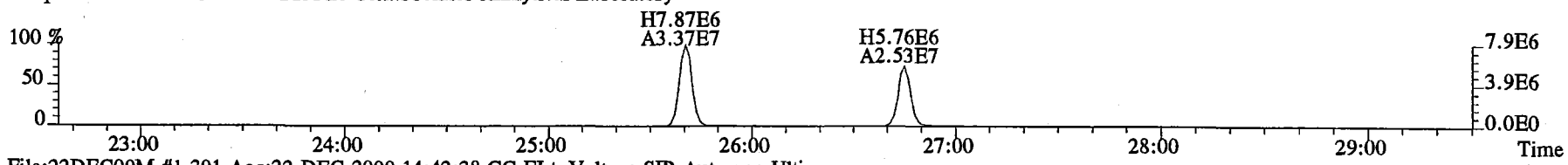
File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



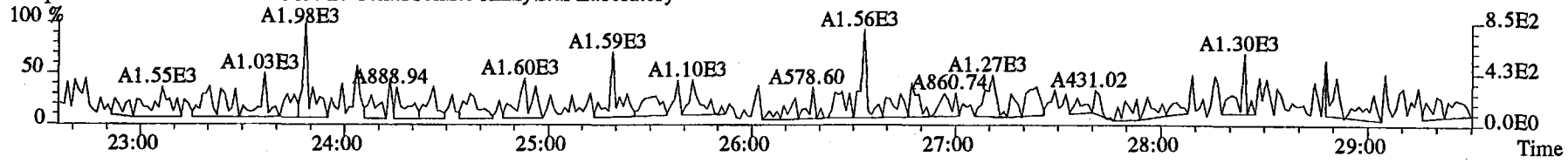
File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

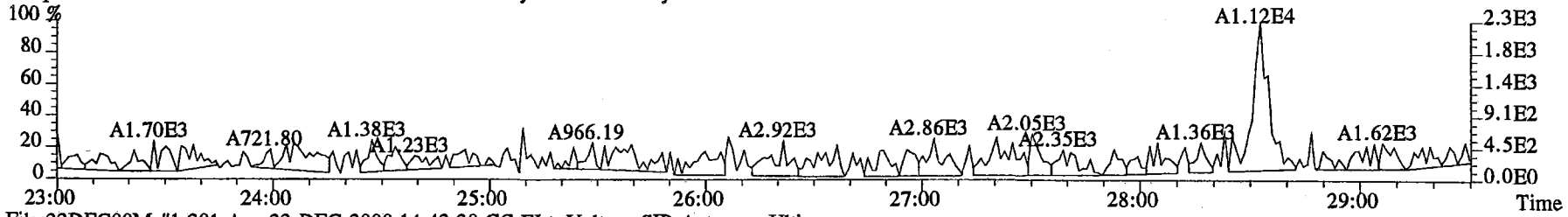


File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

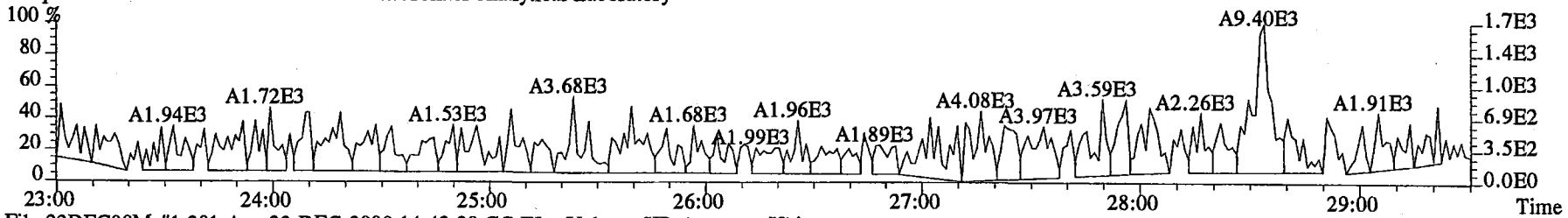


QB72:00171

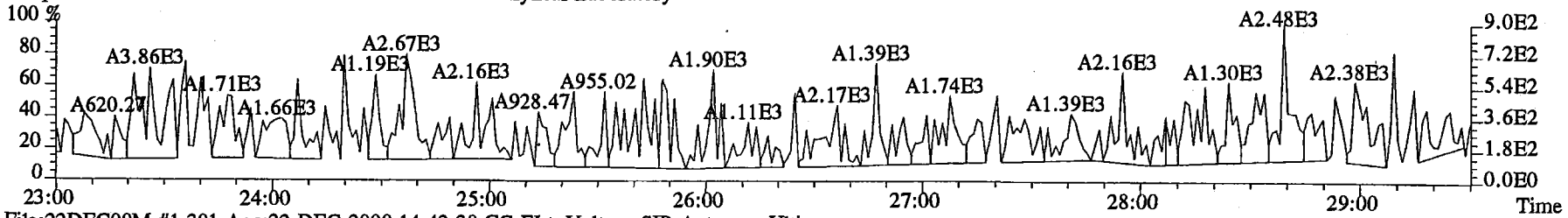
File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



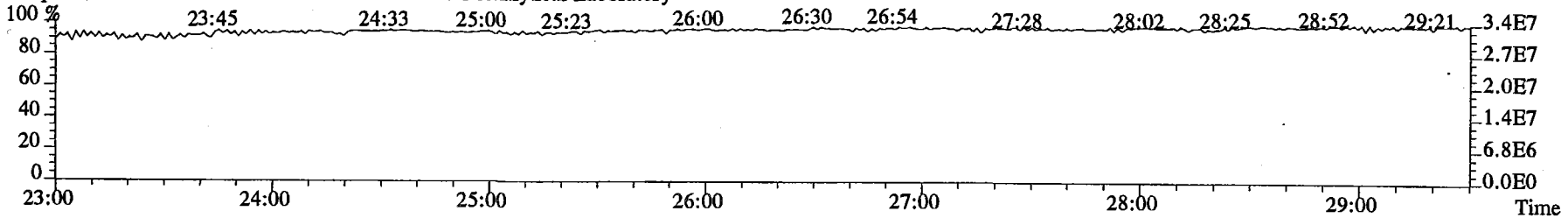
File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

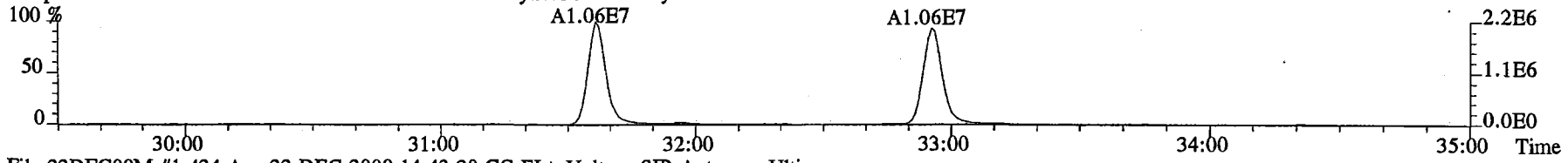


File:22DEC09M #1-391 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:2 Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

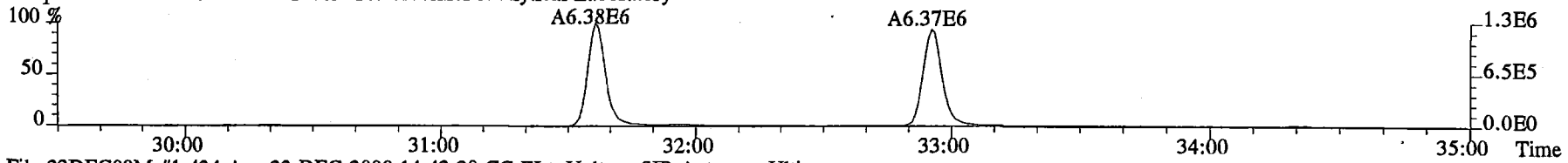


QB72:001475

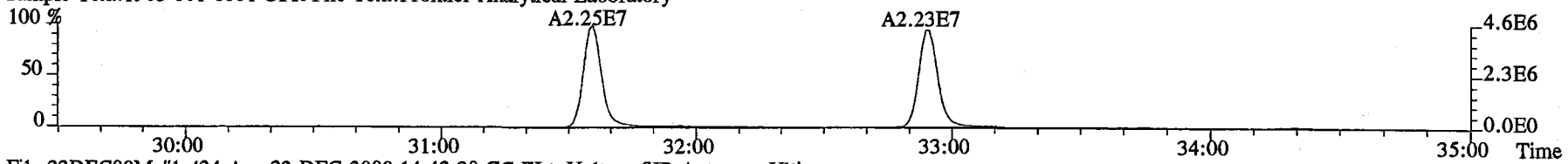
File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



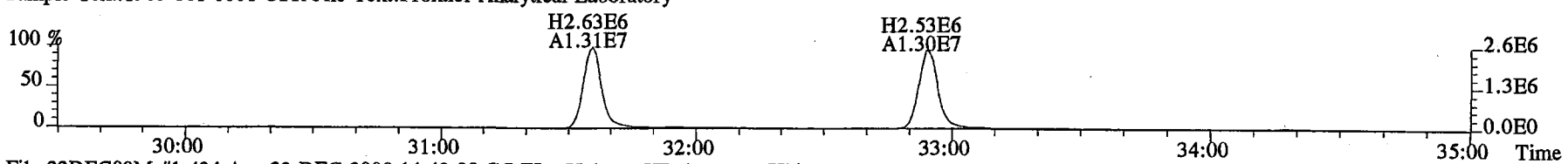
File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



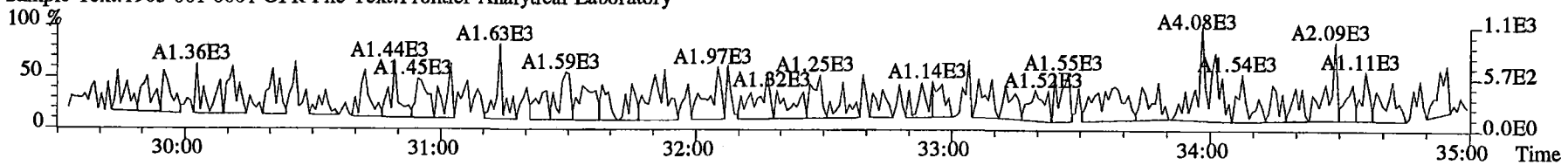
File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

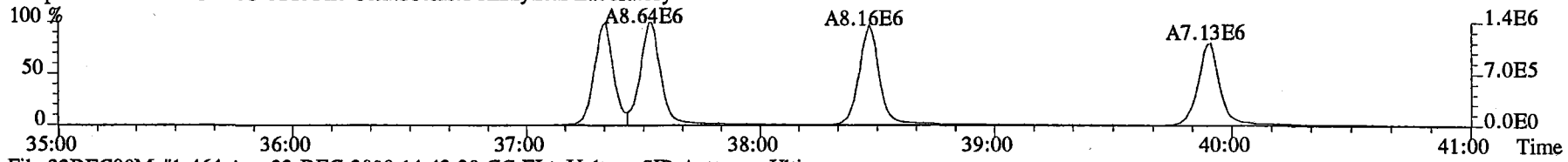


File:22DEC09M #1-424 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

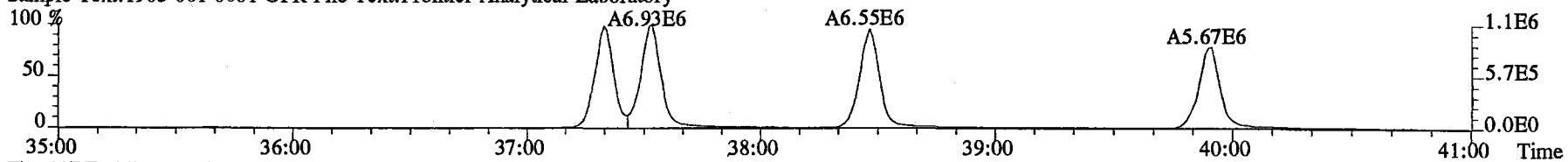


QB72:00475

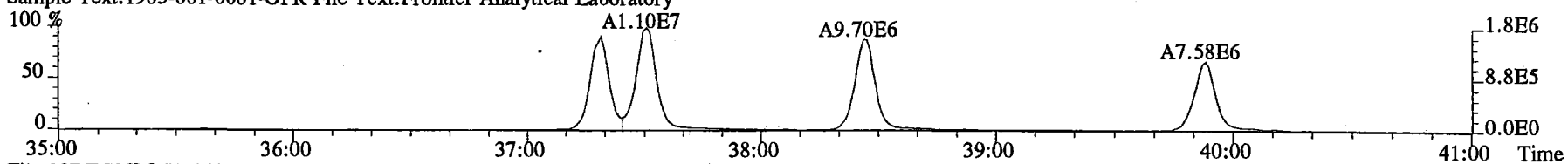
File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



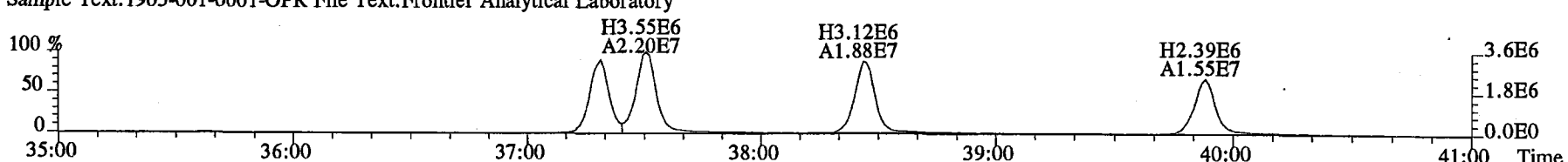
File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



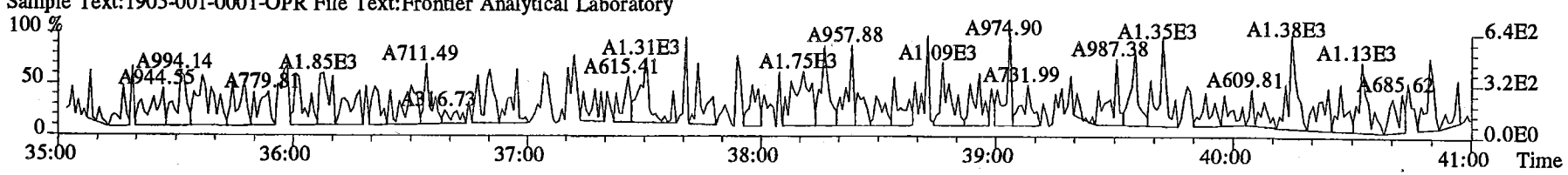
File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

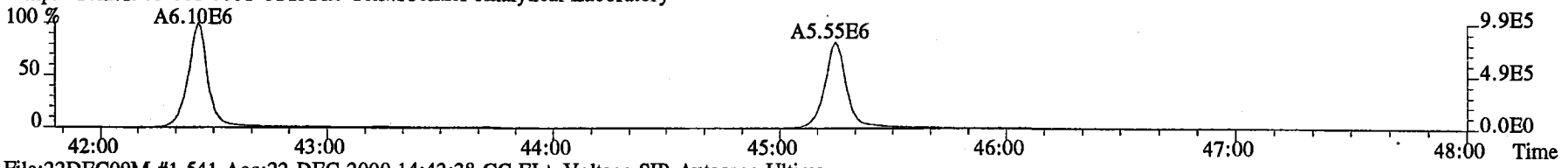


File:22DEC09M #1-464 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory

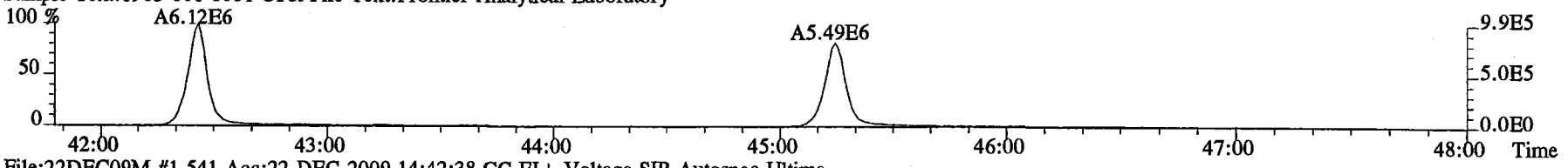


QB72:00177

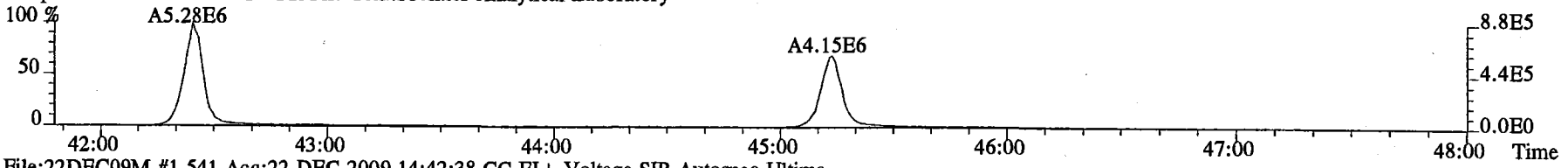
File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



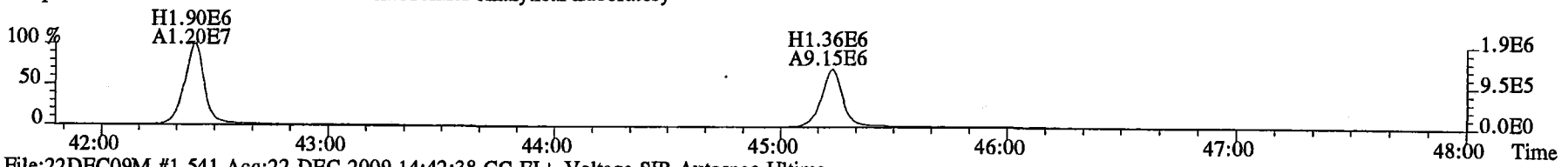
File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



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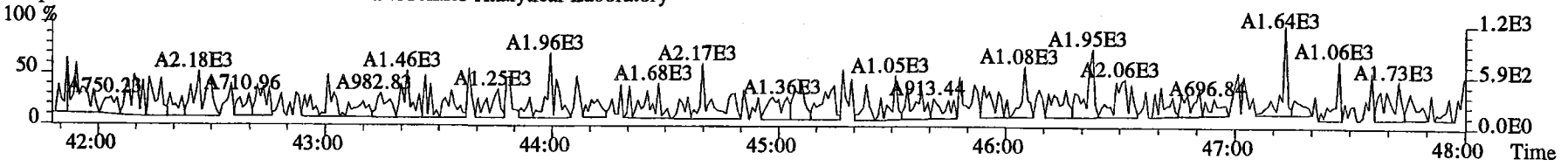
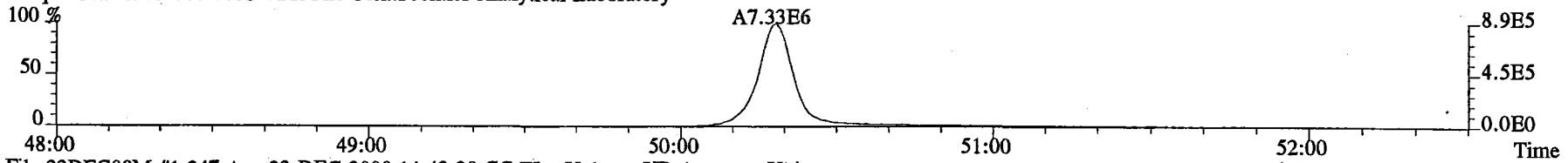
479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



GB72:00478

File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



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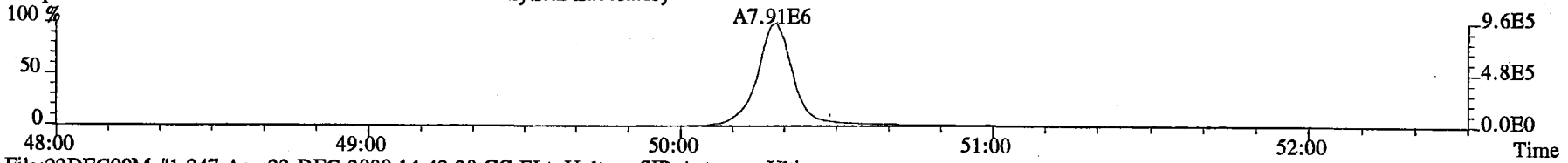
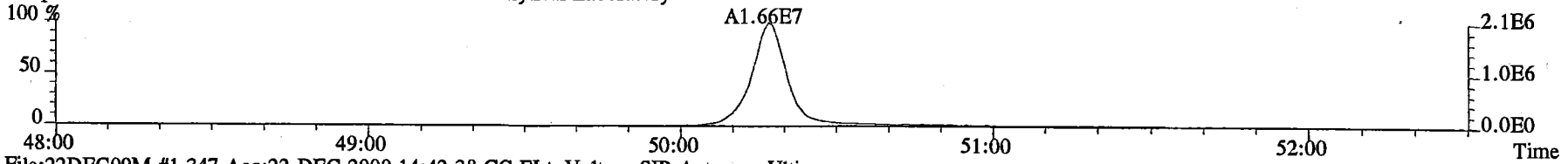
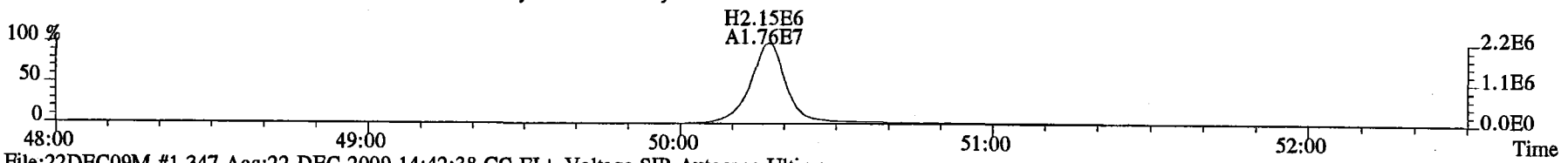
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



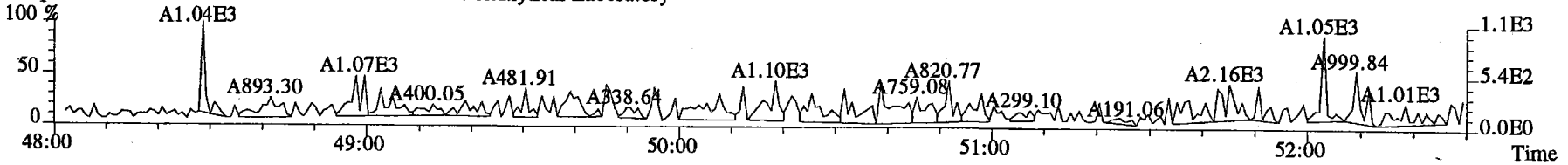
File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 14:42:38 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:1905-001-0001-OPR File Text:Frontier Analytical Laboratory



FAL ID: 5881-001-0001-SA Filename: 22DEC09M Sam:9 Acquired: 22-DEC-09 21:09:44 ICal: PCDDFAL3-11-18-09
Client ID: CB31A121509COMP ConCal: ST122209M1 EndCal: ST122209M2
Results: 5879 GC Column: DB5 Amount: 1.042 NATO 1989 Tox: 21.5
WHO 1998 Tox: 18.2 WHO 2005 Tox: 18.7

Name	Resp	RA		RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	*	*	n	NotFnd	1.02	*		2.50	400	500	0.674
1,2,3,7,8-PeCDD	3.80e+04	1.66	y	33:22	0.96	2.86	J	2.50	-	-	*
1,2,3,4,7,8-HxCDD	7.61e+04	1.10	y	38:44	1.37	5.16	J	2.50	-	-	*
1,2,3,6,7,8-HxCDD	2.24e+05	1.27	y	38:54	1.34	16.3	J	2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.40e+05	1.21	y	39:20	1.37	9.82	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	6.07e+06	0.95	y	44:20	1.17	515		2.50	-	-	*
OCDD	4.55e+07	0.89	y	49:57	1.21	4880		2.50	-	-	*
2,3,7,8-TCDF	*	*	n	NotFnd	1.29	*		2.50	544	976	0.530
1,2,3,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	833	677	0.997
2,3,4,7,8-PeCDF	5.19e+04	1.45	y	32:56	0.91	2.75	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	3.33e+05	1.14	y	37:20	1.00	19.1	J	2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.92e+05	1.26	y	37:31	0.92	10.2	J	2.50	-	-	*
2,3,4,6,7,8-HxCDF	1.42e+05	1.24	y	38:28	0.99	7.78	J	2.50	-	-	*
1,2,3,7,8,9-HxCDF	3.72e+04	1.35	y	39:58	1.09	2.25	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.80e+06	0.99	y	42:26	1.36	111		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.60e+05	1.04	y	45:14	1.61	10.9	J	2.50	-	-	*
OCDF	3.72e+06	0.92	y	50:18	0.84	359		2.50	-	-	*
											Rec
13C-2,3,7,8-TCDD	2.89e+07	0.73	y	27:30	0.94	1620					84.5
13C-1,2,3,7,8-PeCDD	2.66e+07	1.75	y	33:19	1.02	1380					71.9
13C-1,2,3,4,7,8-HxCDD	2.06e+07	1.28	y	38:42	0.98	1610					83.9
13C-1,2,3,6,7,8-HxCDD	1.96e+07	1.29	y	38:53	0.94	1610					83.7
13C-1,2,3,4,6,7,8-HpCDD	1.94e+07	1.06	y	44:19	0.90	1660					86.4
13C-OCDD	2.95e+07	0.93	y	49:55	0.67	3400					88.6
13C-2,3,7,8-TCDF	4.69e+07	0.85	y	26:44	0.88	1670					87.2
13C-1,2,3,7,8-PeCDF	4.17e+07	1.70	y	31:35	0.88	1490					77.6
13C-2,3,4,7,8-PeCDF	4.00e+07	1.73	y	32:54	0.85	1470					76.8
13C-1,2,3,4,7,8-HxCDF	3.35e+07	0.50	y	37:18	1.72	1500					78.3
13C-1,2,3,6,7,8-HxCDF	3.95e+07	0.51	y	37:30	2.00	1520					79.1
13C-2,3,4,6,7,8-HxCDF	3.55e+07	0.52	y	38:26	1.74	1580					82.1
13C-1,2,3,7,8,9-HxCDF	2.91e+07	0.50	y	39:53	1.51	1490					77.5
13C-1,2,3,4,6,7,8-HpCDF	2.28e+07	0.45	y	42:25	1.10	1600					83.2
13C-1,2,3,4,7,8,9-HpCDF	1.76e+07	0.44	y	45:14	0.85	1600					83.4
13C-OCDF	4.72e+07	0.94	y	50:18	1.17	3100					80.7
37Cl-2,3,7,8-TCDD	1.39e+07			27:31	0.97	753					98.1
13C-1,2,3,4-TCDD	3.63e+07	0.74	y	26:56	-	133					
13C-1,2,3,4-TCDF	6.13e+07	0.86	y	25:39	-	127					
13C-1,2,3,7,8,9-HxCDD	2.49e+07	1.26	y	39:19	-	117					

								Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	*			NotFnd	1.02	*		2.50	400	500	0.674		0
Total Penta-Dioxins	1.02e+05			30:21	0.96	7.65	J	2.50	-	-	*		3
Total Hexa-Dioxins	1.10e+06			36:17	1.36	77.9		2.50	-	-	*		6
Total Hepta-Dioxins	1.00e+07			42:58	1.17	852		2.50	-	-	*		2
Total Tetra-Furans	8.00e+05			25:55	1.29	25.5	D,M	2.50	-	-	*		3
1st Fn. Tot Penta-Furans	2.49e+05			28:34	0.90	13.0	D,M	2.50	-	-	*	PeCDF	1
Total Penta-Furans	1.10e+06			30:21	0.90	57.6	D,M	2.50	-	-	*	70.6	5
Total Hexa-Furans	4.98e+06			35:23	0.99	280	D,M	2.50	-	-	*		9
Total Hepta-Furans	5.97e+06			42:26	1.47	382		2.50	-	-	*		3

Analyst: _____ Date: 12/23/09

QB72:00479

Totals class: Total Penta-Dioxins Entry #: 39

Run: 16 File: 22DEC09M S: 9 I: 1 F: 2
Acquired: 22-DEC-09 21:09:44

Total Concentration: 7.65 Unnamed Concentration: 4.793

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:21	2.24e+04	1.43e+04	1.57	y	3.67e+04	2.75	
31:50	1.58e+04	1.14e+04	1.39	y	2.71e+04	2.04	
33:22	2.37e+04	1.43e+04	1.66	y	3.80e+04	2.86	1,2,3,7,8-PeCDD

QB72:00480

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 16 File: 22DEC09M S: 9 I: 1 F: 3
Acquired: 22-DEC-09 21:09:44

Total Concentration: 77.9 Unnamed Concentration: 46.540

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
36:17	1.10e+05	8.73e+04	1.26	y	1.97e+05	13.8	
37:12	2.75e+04	2.34e+04	1.18	y	5.09e+04	3.57	
37:37	2.35e+05	1.80e+05	1.31	y	4.15e+05	29.1	
38:44	3.99e+04	3.62e+04	1.10	y	7.61e+04	5.16	1,2,3,4,7,8-HxCDD
38:54	1.25e+05	9.84e+04	1.27	y	2.24e+05	16.3	1,2,3,6,7,8-HxCDD
39:20	7.70e+04	6.35e+04	1.21	y	1.40e+05	9.82	1,2,3,7,8,9-HxCDD

QB72:00481

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 16 File: 22DEC09M S: 9 I: 1 F: 4
Acquired: 22-DEC-09 21:09:44

Total Concentration: 852 Unnamed Concentration: 336.640

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:58	1.91e+06	2.06e+06	0.93 y	3.97e+06	337	
44:20	2.96e+06	3.11e+06	0.95 y	6.07e+06	515	1,2,3,4,6,7,8-HpCDD

QB72:00482

Totals class: Total Tetra-Furans Entry #: 42

Run: 16 File: 22DEC09M S: 9 I: 1 F: 1
Acquired: 22-DEC-09 21:09:44

Total Concentration: 25.5 Unnamed Concentration: 25.470

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
25:55	5.65e+04	8.02e+04	0.70 y	1.37e+05	4.35	
28:00	1.68e+05	2.54e+05	0.66 y	4.22e+05	13.4	
28:13	1.03e+05	1.39e+05	0.74 y	2.42e+05	7.69	

QB72:00483

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

Run: 16 File: 22DEC09M S: 9 I: 1 F: 1
Acquired: 22-DEC-09 21:09:44

Total Concentration: 13.0 Unnamed Concentration: 13.041

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
28:34	1.43e+05	1.06e+05	1.34	y	2.49e+05	13.0	

QB72:00484

Totals class: Total Penta-Furans Entry #: 44

Run: 16 File: 22DEC09M S: 9 I: 1 F: 2
Acquired: 22-DEC-09 21:09:44

Total Concentration: 57.6 Unnamed Concentration: 54.851

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:21	1.01e+05	6.45e+04	1.56	y	1.65e+05	8.66	
31:54	3.34e+05	1.99e+05	1.67	y	5.33e+05	27.9	
32:14	1.27e+05	7.90e+04	1.61	y	2.06e+05	10.8	
32:56	3.07e+04	2.12e+04	1.45	y	5.19e+04	2.75	2,3,4,7,8-PeCDF
34:16	8.78e+04	5.52e+04	1.59	y	1.43e+05	7.49	

QB72:00485

Totals class: Total Hexa-Furans Entry #: 45

Run: 16 File: 22DEC09M S: 9 I: 1 F: 3
Acquired: 22-DEC-09 21:09:44

Total Concentration: 280 Unnamed Concentration: 240.447

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
35:23	1.16e+05	9.44e+04	1.23	y	2.10e+05	11.8	
35:39	4.61e+05	3.71e+05	1.24	y	8.32e+05	46.8	
36:33	6.84e+05	5.43e+05	1.26	y	1.23e+06	69.0	
36:53	6.03e+04	4.55e+04	1.33	y	1.06e+05	5.95	
37:20	1.77e+05	1.55e+05	1.14	y	3.33e+05	19.1	1,2,3,4,7,8-HxCDF
37:31	1.07e+05	8.50e+04	1.26	y	1.92e+05	10.2	1,2,3,6,7,8-HxCDF
38:15	1.05e+06	8.50e+05	1.24	y	1.90e+06	107	
38:28	7.86e+04	6.33e+04	1.24	y	1.42e+05	7.78	2,3,4,6,7,8-HxCDF
39:58	2.13e+04	1.58e+04	1.35	y	3.72e+04	2.25	1,2,3,7,8,9-HxCDF

QB72:00486

Totals class: Total Hepta-Furans Entry #: 46

Run: 16 File: 22DEC09M S: 9 I: 1 F: 4
Acquired: 22-DEC-09 21:09:44

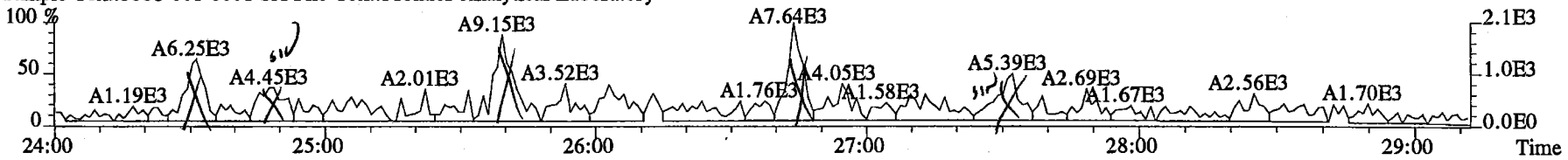
Total Concentration: 382 Unnamed Concentration: 259.744

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:26	8.94e+05	9.04e+05	0.99 y	1.80e+06	111	1,2,3,4,6,7,8-HpCDF
43:15	2.05e+06	1.96e+06	1.05 y	4.01e+06	260	
45:14	8.15e+04	7.85e+04	1.04 y	1.60e+05	10.9	1,2,3,4,7,8,9-HpCDF

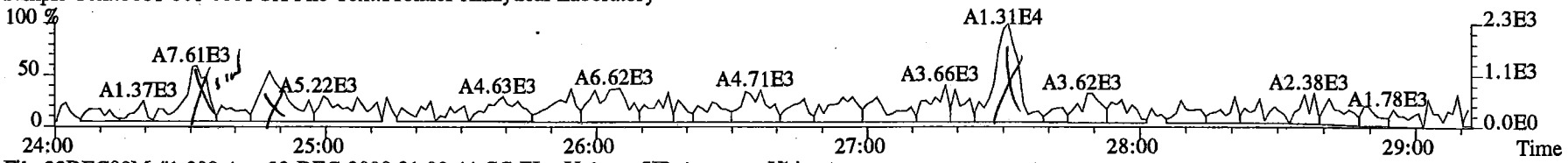
QB72:00487

GB72:S9488

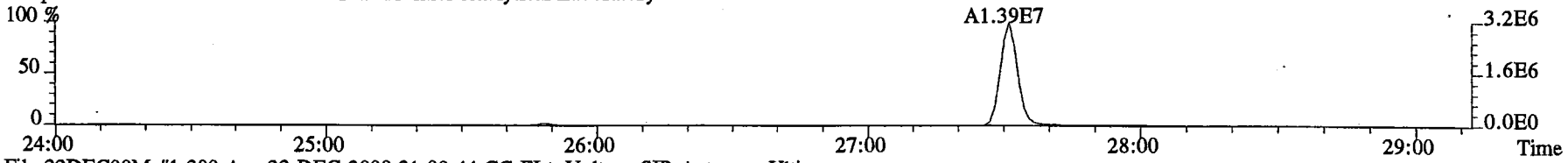
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



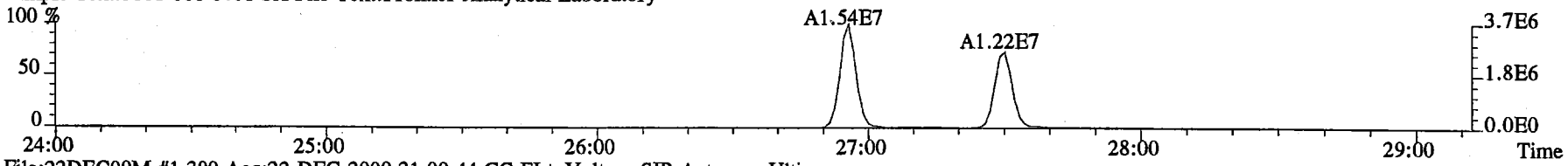
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



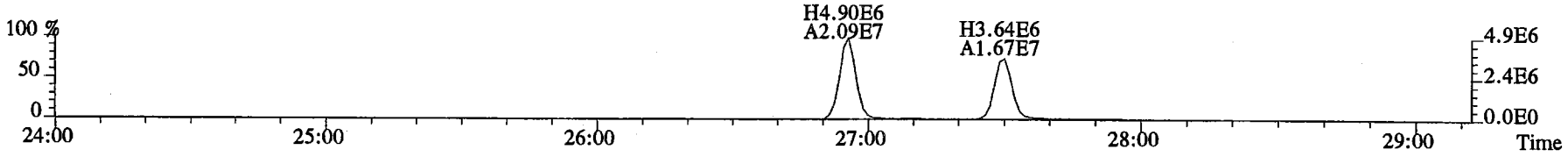
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



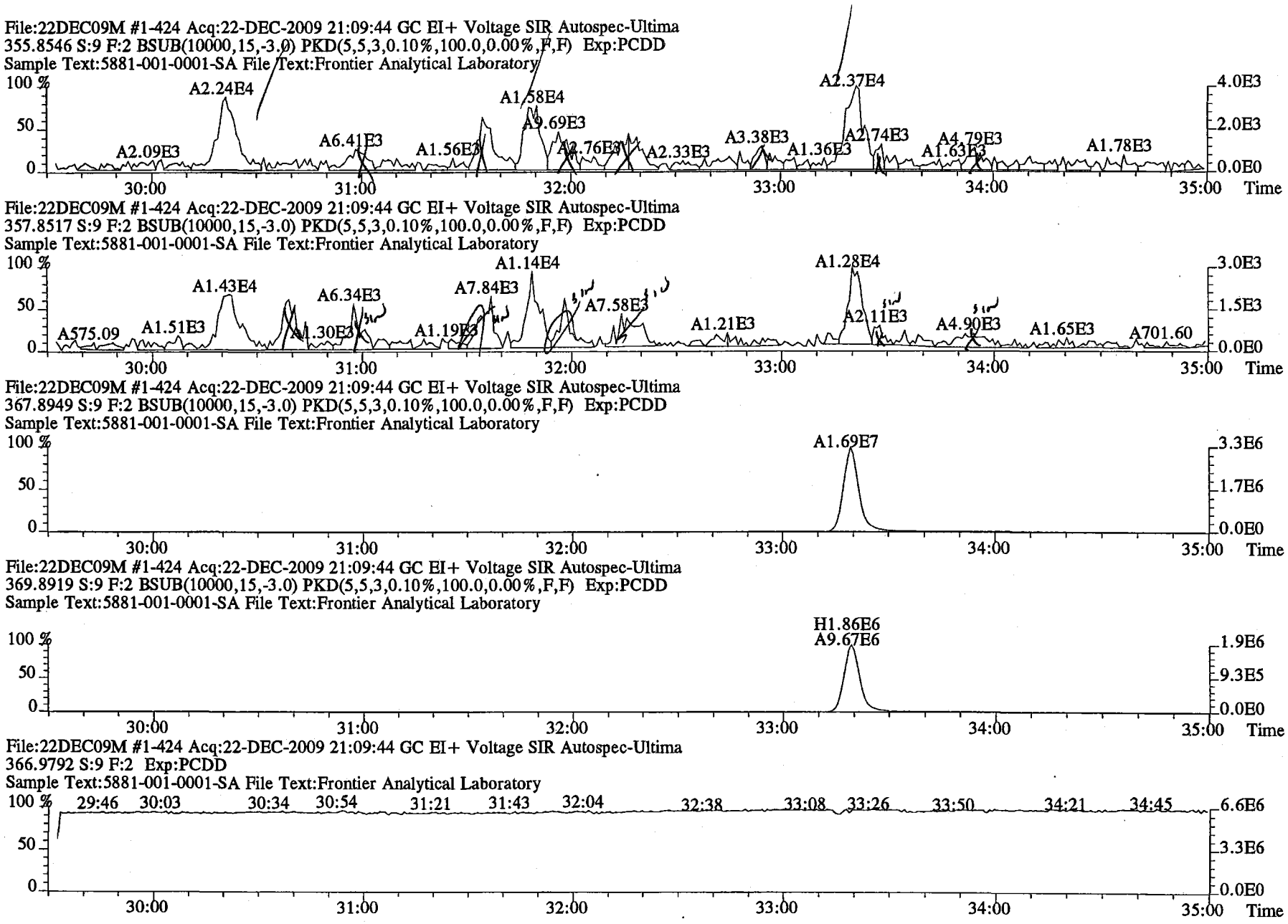
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

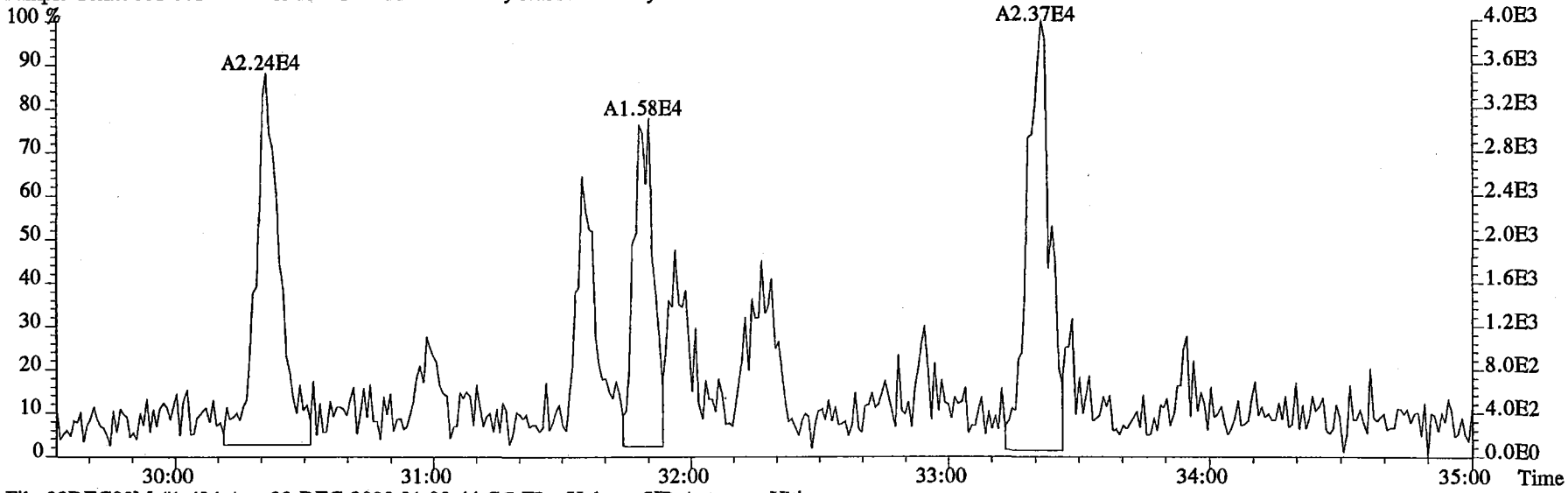


GB72:06489

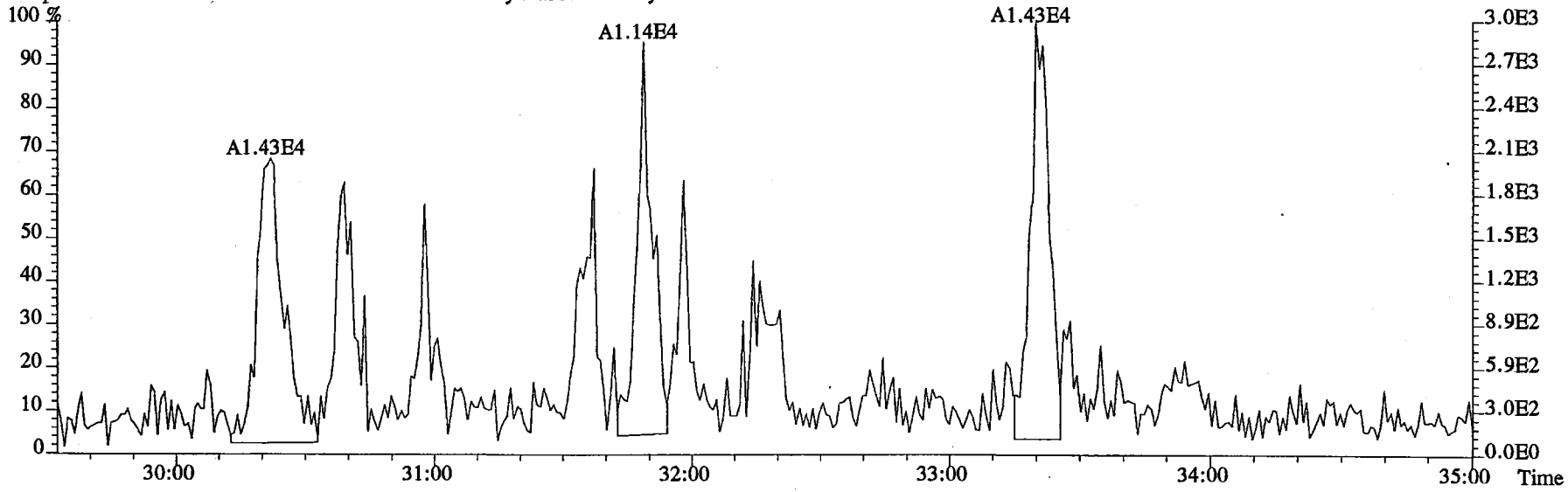

File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory
A2.24E4
A1.58E4
A2.37E4
A9.69E3
A6.41E3
A2.09E3
A1.56E3
A2.76E3
A2.33E3
A3.38E3
A1.36E3
A2.74E3
A4.79E3
A1.63E3
A1.78E3
File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
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:5881-001-0001-SA File Text:Frontier Analytical Laboratory
A1.14E4
A1.28E4
A1.43E4
A7.84E3
A6.34E3
A7.58E3
A575.09
A1.51E3
A1.30E3
A1.19E3
A1.21E3
A2.11E3
A4.90E3
A1.65E3
A701.60
File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
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:5881-001-0001-SA File Text:Frontier Analytical Laboratory
A1.69E7
File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 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
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory
H1.86E6
A9.67E6
File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:9 F:2 Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory
29:46
30:03
30:34
30:54
31:21
31:43
32:04
32:38
33:08
33:26
33:50
34:21
34:45
100 %
50
0
30:00
31:00
32:00
33:00
34:00
35:00
Time
4.0E3
2.0E3
0.0E0
3.0E3
1.5E3
3.3E6
1.7E6
1.9E6
9.3E5
6.6E6

QB72:004439

File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

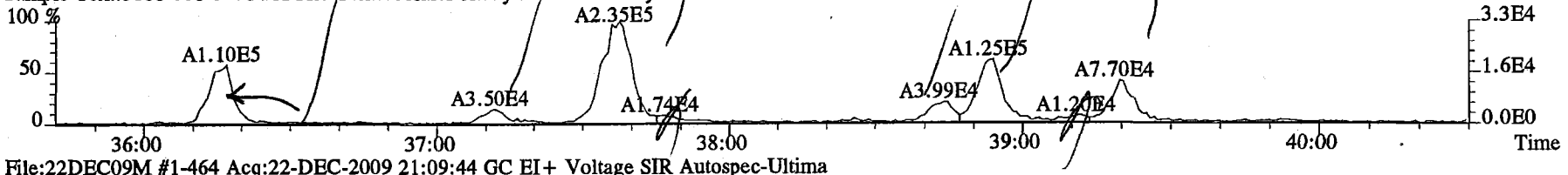


File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

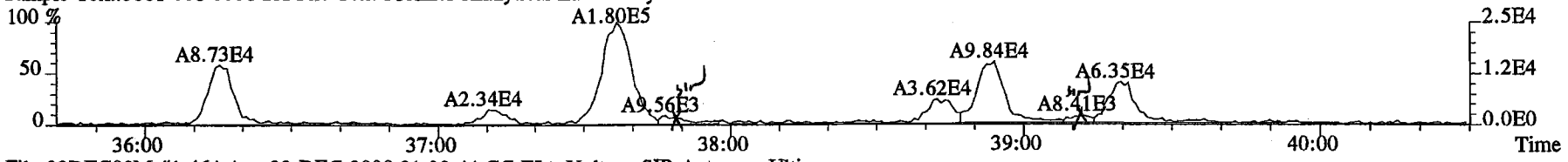


8872-00191

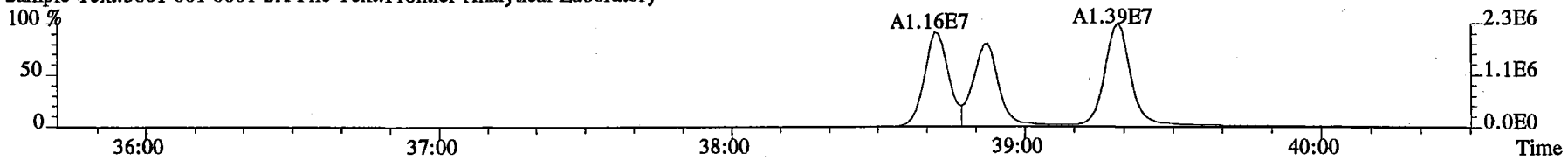
File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



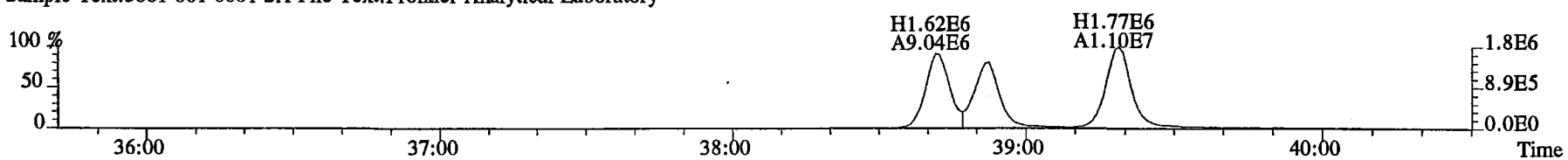
File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



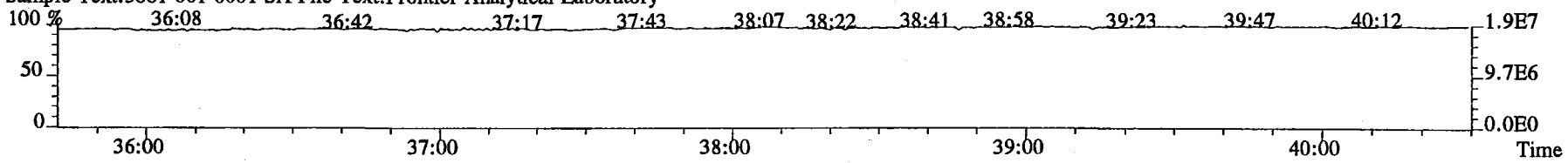
File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
403.8530 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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

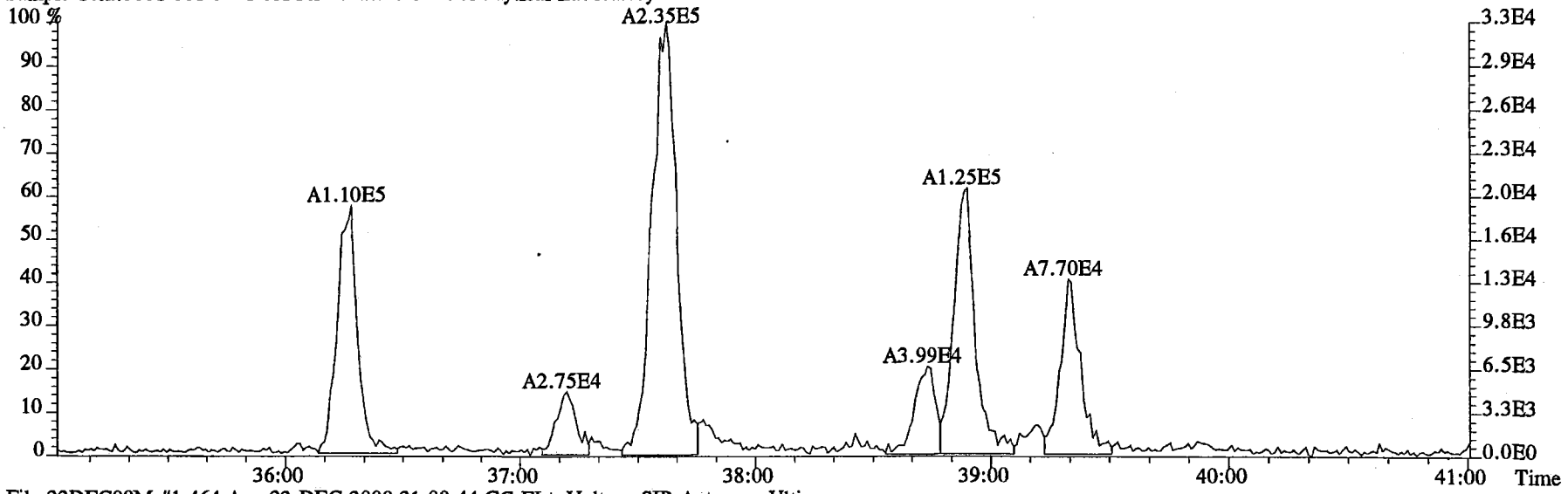


File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:9 F:3 Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

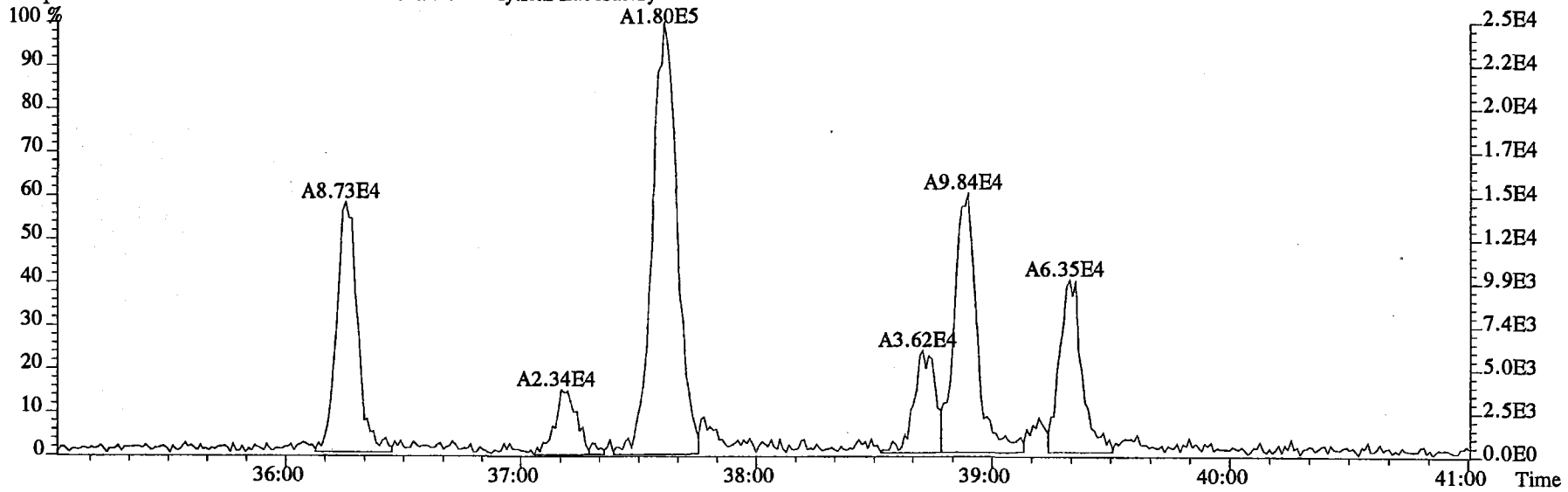


QB72:00492

File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

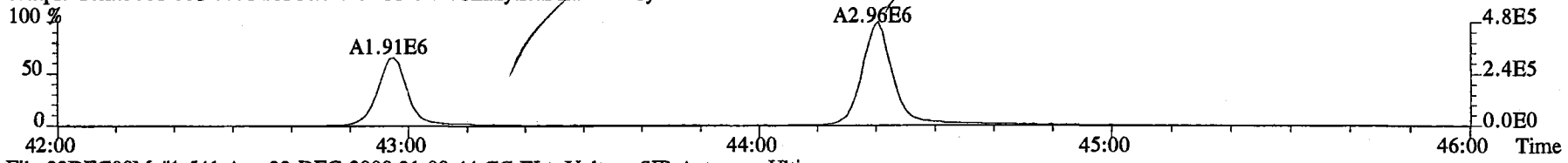


File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

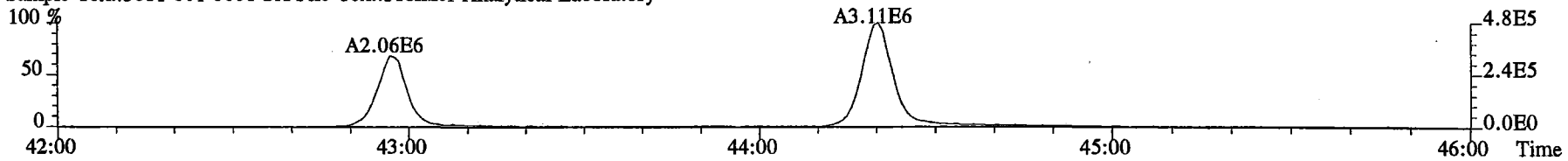


QB72:69433

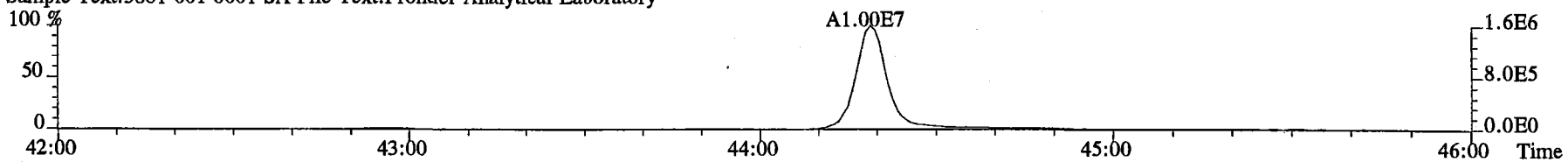
File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



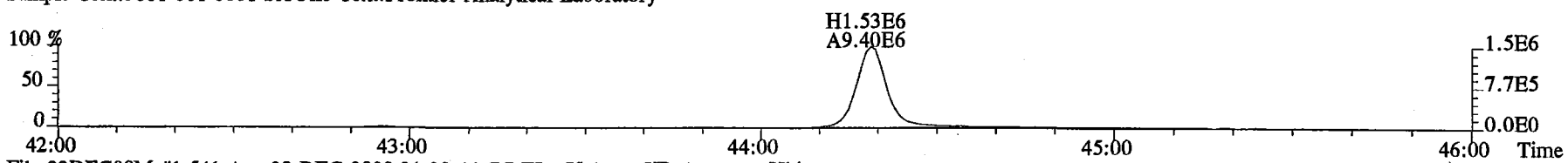
File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



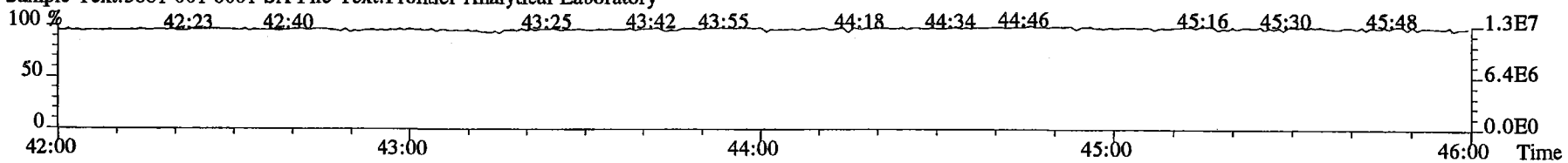
File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

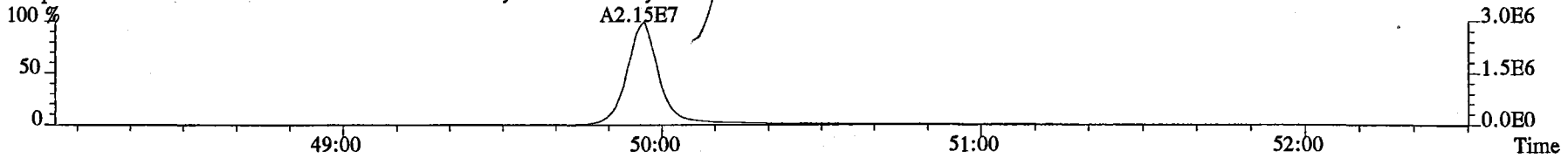


File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:9 F:4 Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



QB72:60191

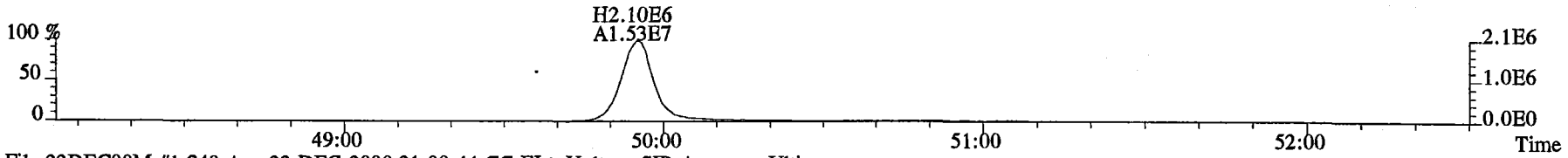
File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



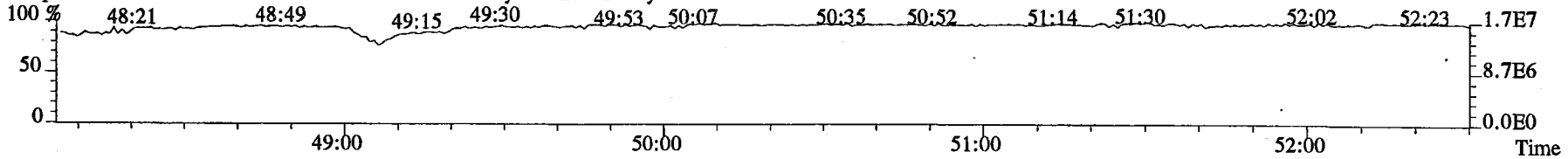
File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
469.7780 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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

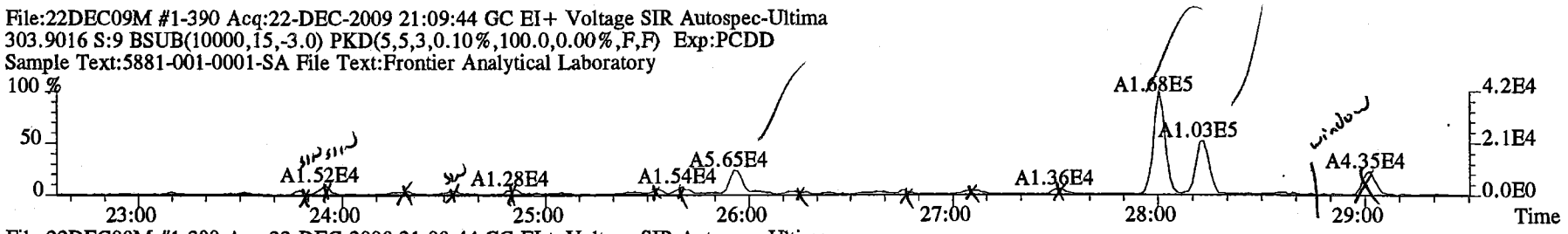


File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:9 F:5 Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

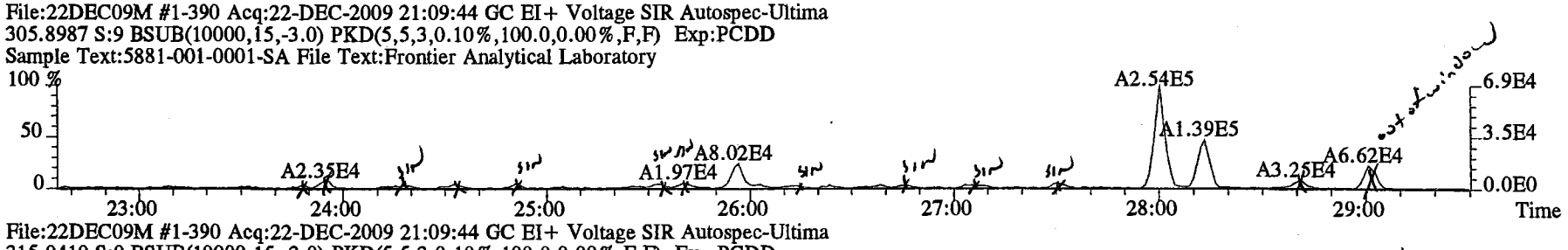


GB72:90195

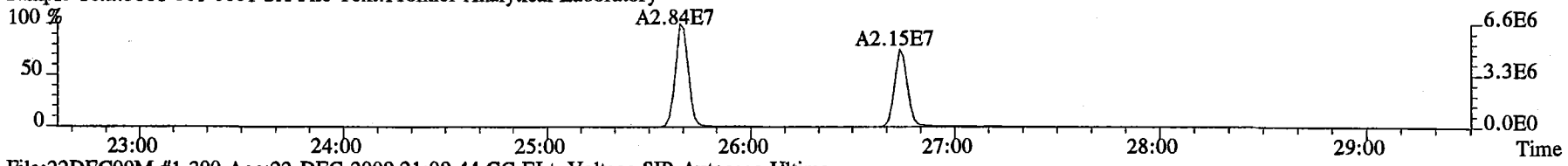
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



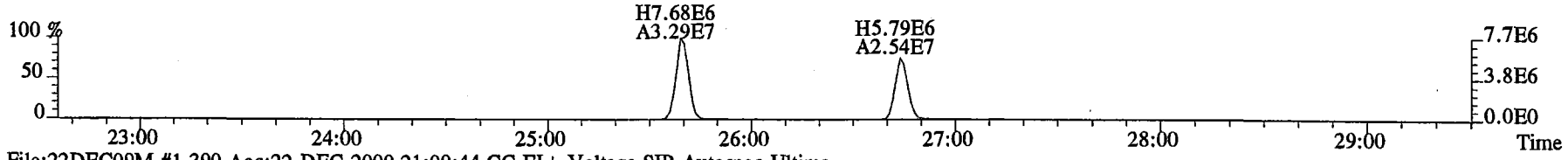
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



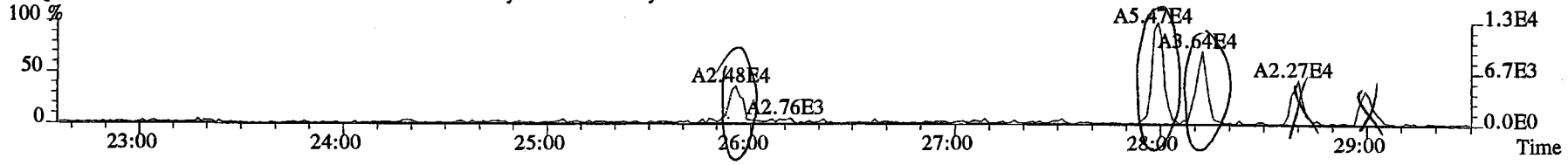
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

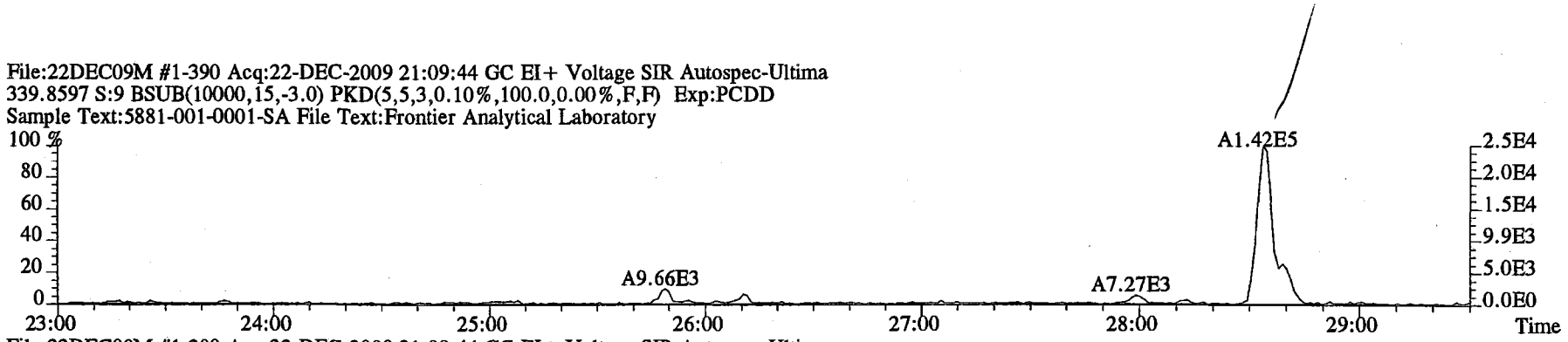


File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

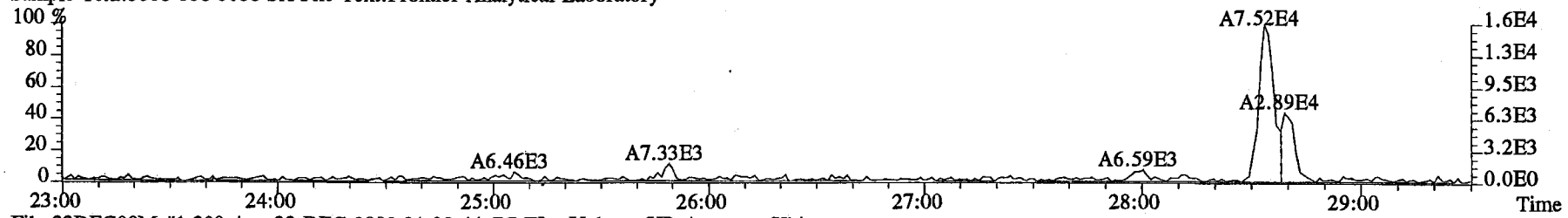


QB72:00496

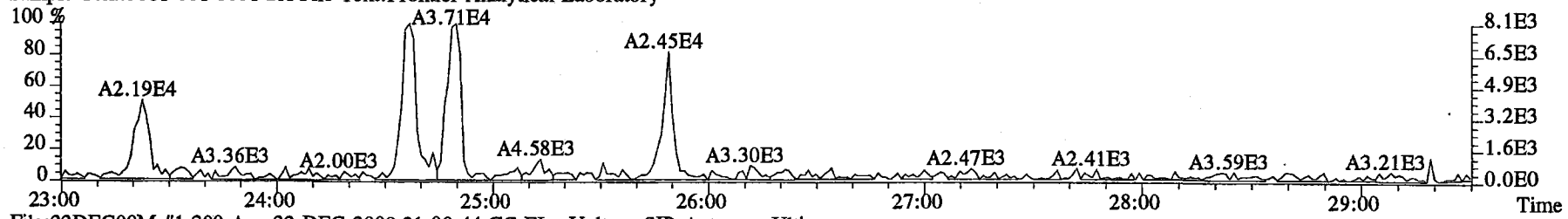
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



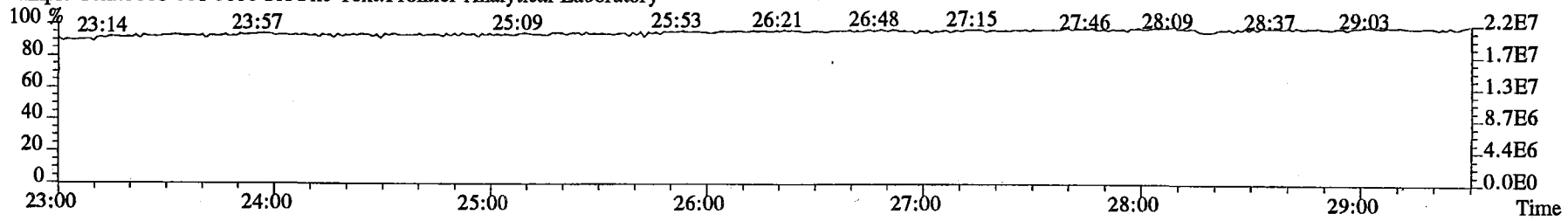
File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

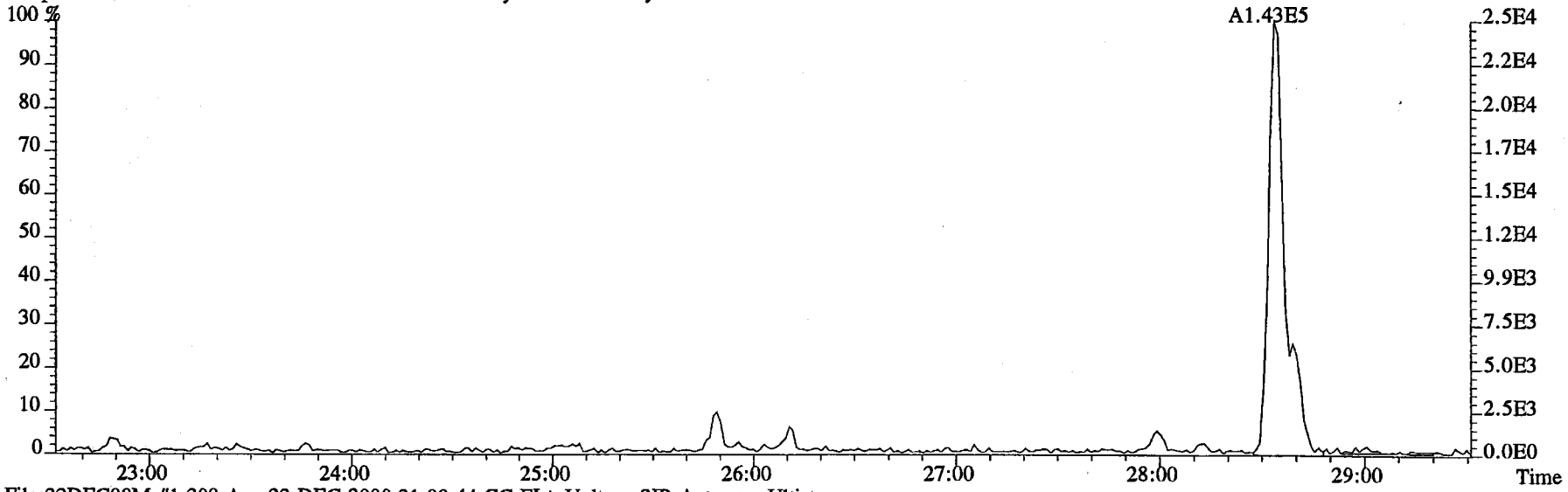


File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:9 Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

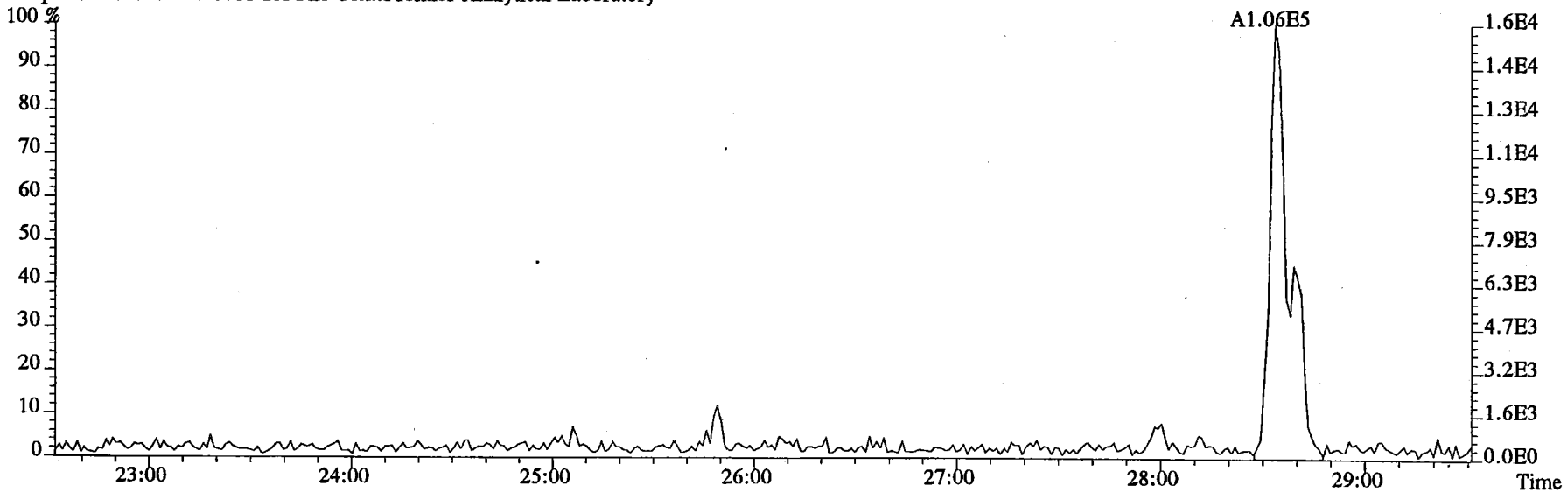


QB72:00197

File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

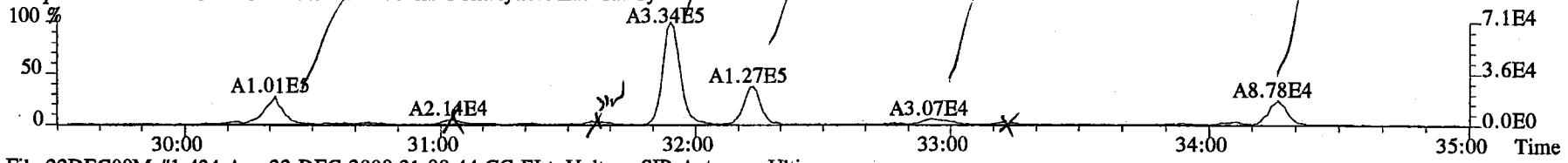


File:22DEC09M #1-390 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

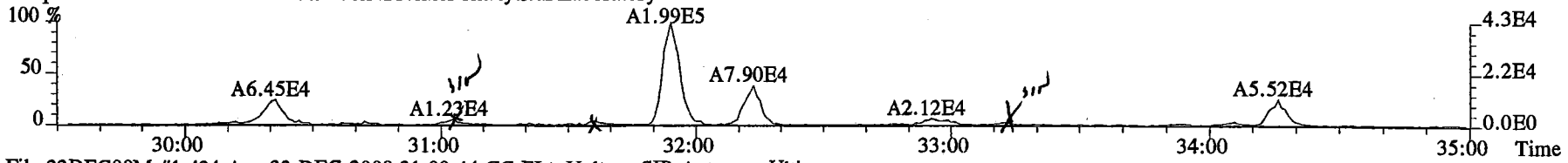


QB72:00499

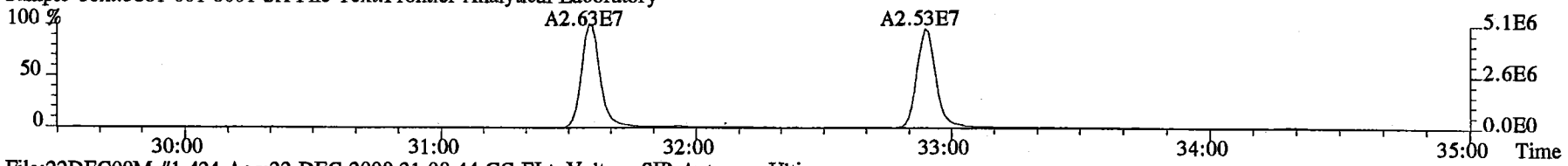
File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



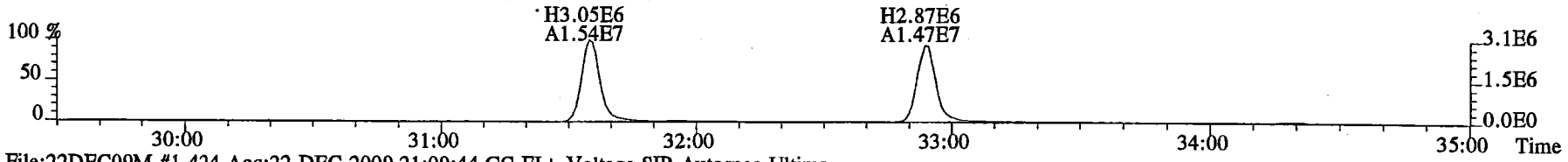
File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



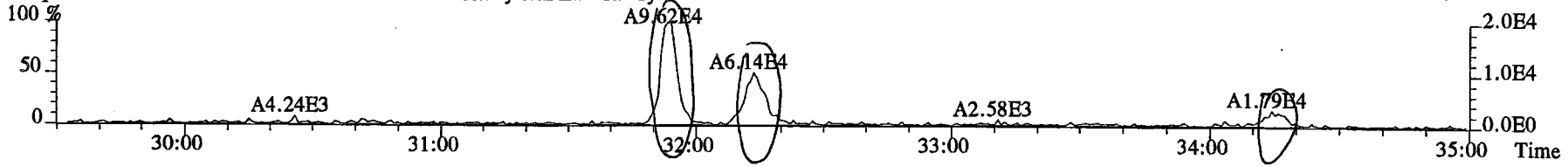
File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
353.8970 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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

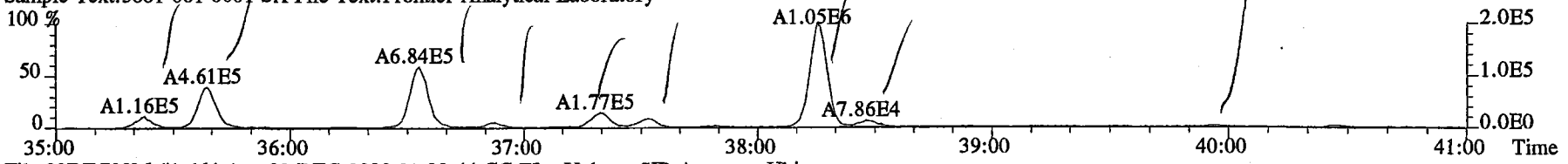


File:22DEC09M #1-424 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

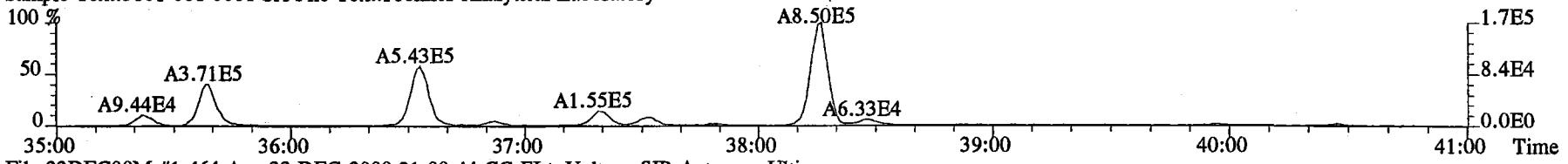


9B72:00199

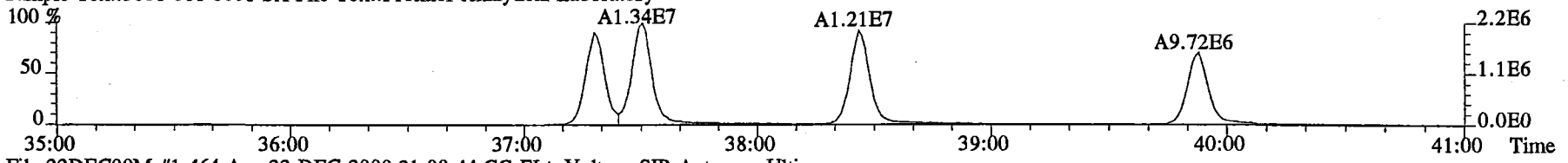
File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



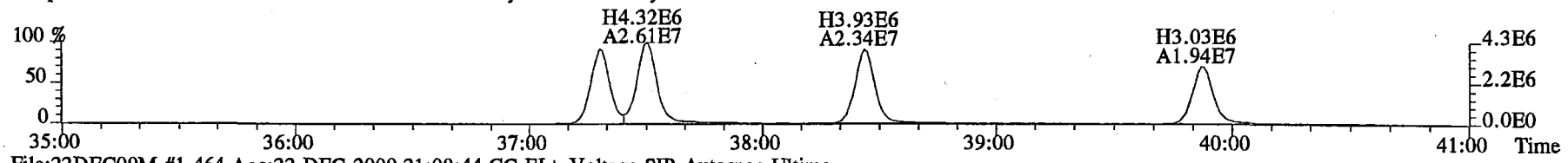
File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



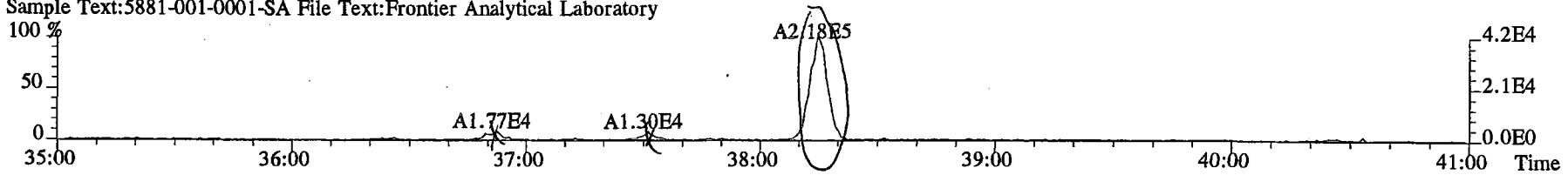
File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

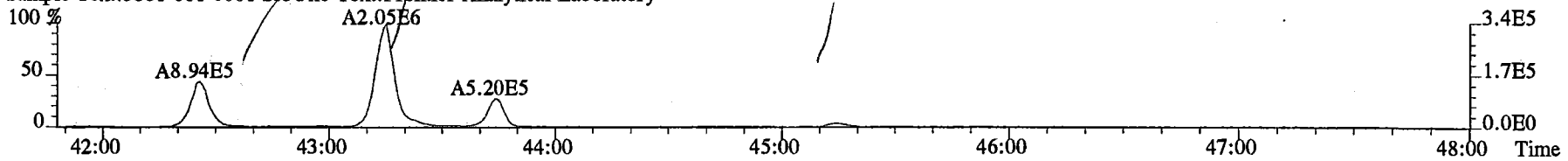


File:22DEC09M #1-464 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

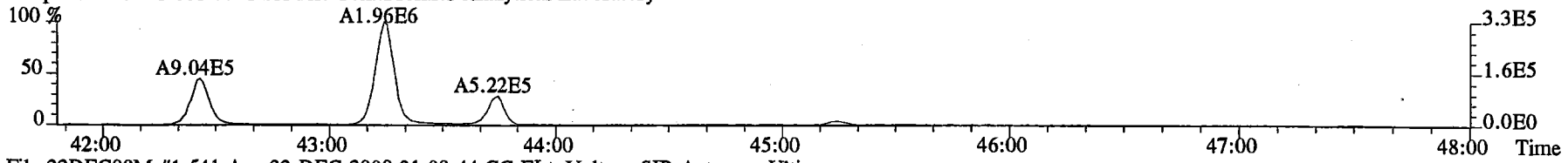


GB72:00589

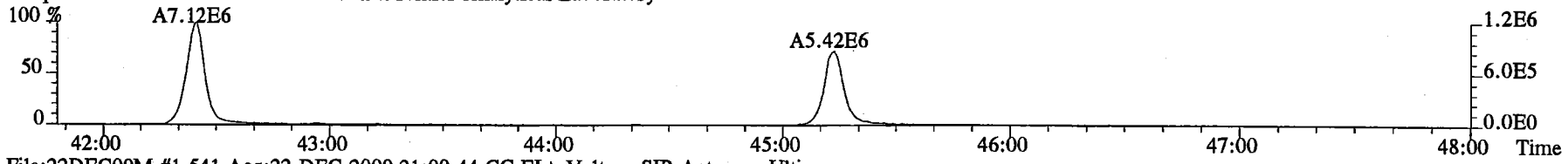
File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



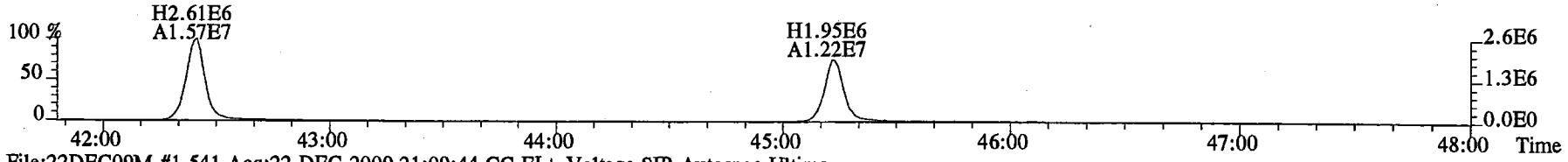
File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



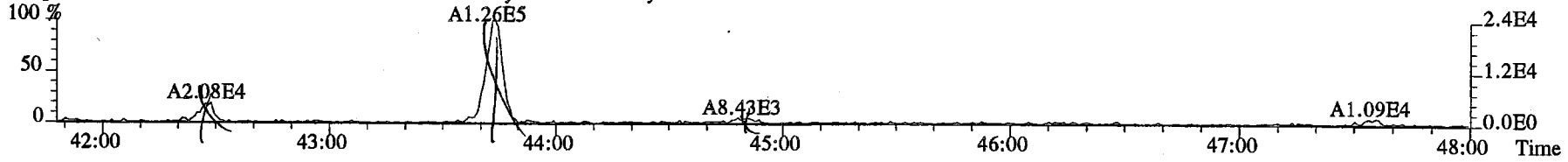
File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
419.8220 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:5881-001-0001-SA File Text:Frontier Analytical Laboratory

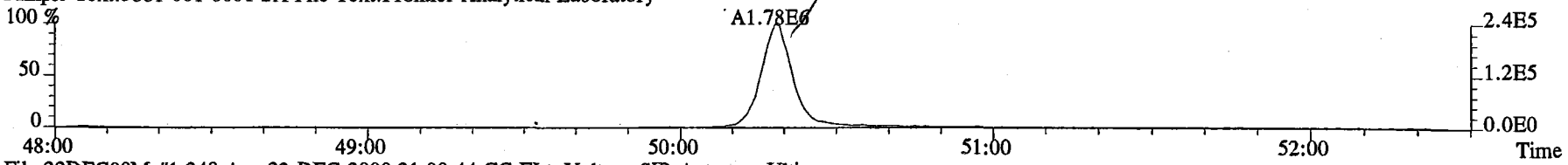


File:22DEC09M #1-541 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory

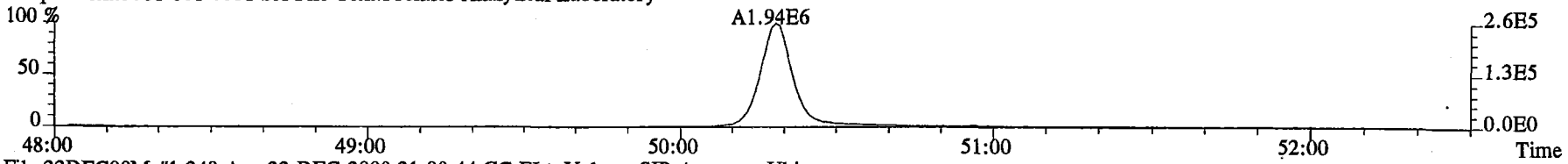


QB72-00561

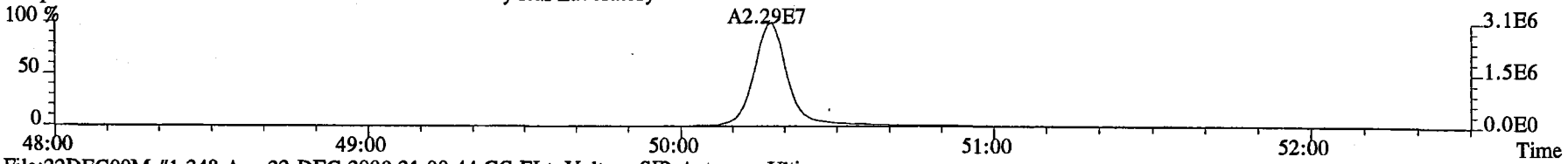
File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



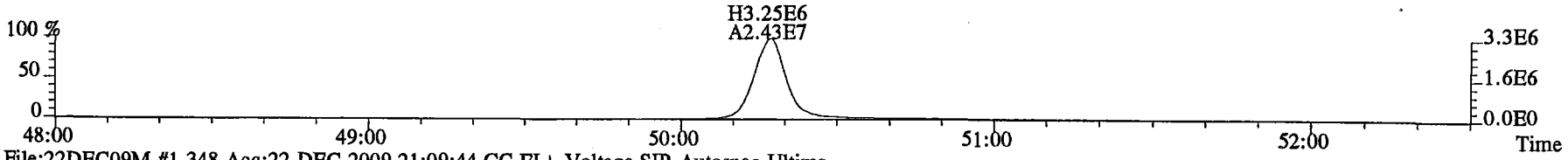
File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



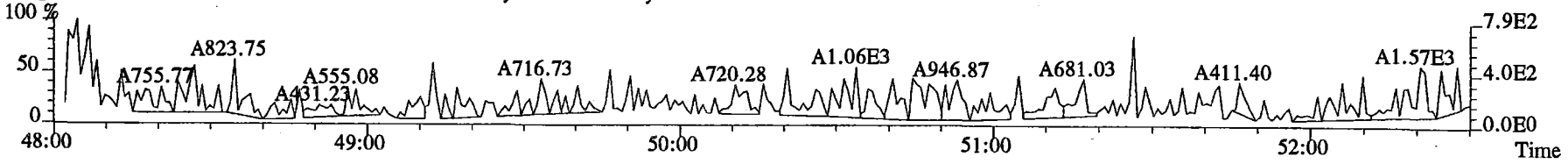
File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 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:5881-001-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-348 Acq:22-DEC-2009 21:09:44 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:5881-001-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 5881-002-0001-SA Filename: 22DEC09M Sam:10 Acquired: 22-DEC-09 22:04:59 ICal: PCDDFAL3-11-18-09
Client ID: CB4857121509COMP ConCal: ST122209M1 EndCal: ST122209M2
Results: 5879 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 16.4
WHO 1998 Tox: 14.4 WHO 2005 Tox: 14.7

Name	Resp	RA		RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	*	*	n	NotFnd	1.02	*		2.50	392	496	0.697
1,2,3,7,8-PeCDD	3.73e+04	1.62	y	33:21	0.96	2.89	J	2.50	-	-	*
1,2,3,4,7,8-HxCDD	6.39e+04	1.10	y	38:44	1.37	4.59	J	2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.53e+05	1.23	y	38:53	1.34	12.0	J	2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.13e+05	1.42	y	39:21	1.37	8.43	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	4.02e+06	0.99	y	44:20	1.17	363		2.50	-	-	*
OCDD	2.90e+07	0.90	y	49:56	1.21	3580		2.50	-	-	*
2,3,7,8-TCDF	*	*	n	NotFnd	1.29	*		2.50	648	956	0.621
1,2,3,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	564	660	0.887
2,3,4,7,8-PeCDF	3.89e+04	1.54	y	32:56	0.91	2.17	J	2.50	-	-	*
1,2,3,4,7,8-HxCDF	2.41e+05	1.18	y	37:19	1.00	14.5	J	2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.39e+05	1.37	y	37:32	0.92	7.92	J	2.50	-	-	*
2,3,4,6,7,8-HxCDF	9.16e+04	1.26	y	38:28	0.99	5.36	J	2.50	-	-	*
1,2,3,7,8,9-HxCDF	2.71e+04	1.34	y	39:57	1.09	1.75	J	2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.31e+06	0.99	y	42:26	1.36	89.0		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.13e+05	0.99	y	45:15	1.61	8.29	J	2.50	-	-	*
OCDF	2.13e+06	0.89	y	50:17	0.84	234		2.50	-	-	*
											Rec
13C-2,3,7,8-TCDD	2.77e+07	0.74	y	27:30	0.94	1680					84.0
13C-1,2,3,7,8-PeCDD	2.68e+07	1.74	y	33:19	1.02	1510					75.4
13C-1,2,3,4,7,8-HxCDD	2.03e+07	1.30	y	38:42	0.98	1730					86.3
13C-1,2,3,6,7,8-HxCDD	1.91e+07	1.28	y	38:52	0.94	1710					85.3
13C-1,2,3,4,6,7,8-HpCDD	1.90e+07	1.07	y	44:19	0.90	1770					88.4
13C-OCDD	2.67e+07	0.97	y	49:55	0.67	3360					83.9
13C-2,3,7,8-TCDF	4.50e+07	0.87	y	26:44	0.88	1710					85.7
13C-1,2,3,7,8-PeCDF	3.96e+07	1.75	y	31:35	0.88	1510					75.4
13C-2,3,4,7,8-PeCDF	3.97e+07	1.72	y	32:54	0.85	1560					78.1
13C-1,2,3,4,7,8-HxCDF	3.32e+07	0.50	y	37:18	1.72	1620					80.9
13C-1,2,3,6,7,8-HxCDF	3.84e+07	0.50	y	37:30	2.00	1610					80.4
13C-2,3,4,6,7,8-HxCDF	3.47e+07	0.51	y	38:26	1.74	1670					83.7
13C-1,2,3,7,8,9-HxCDF	2.85e+07	0.51	y	39:53	1.51	1590					79.3
13C-1,2,3,4,6,7,8-HpCDF	2.16e+07	0.45	y	42:25	1.10	1650					82.5
13C-1,2,3,4,7,8,9-HpCDF	1.70e+07	0.46	y	45:14	0.85	1690					84.3
13C-OCDF	4.31e+07	0.95	y	50:17	1.17	3080					77.1
37Cl-2,3,7,8-TCDD	1.22e+07			27:31	0.97	714					89.3
13C-1,2,3,4-TCDD	3.49e+07	0.74	y	26:56	-	134					
13C-1,2,3,4-TCDF	5.98e+07	0.86	y	25:40	-	130					
13C-1,2,3,7,8,9-HxCDD	2.39e+07	1.28	y	39:19	-	116					

								Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	*			NotFnd	1.02	*		2.50	392	496	0.697		0
Total Penta-Dioxins	6.83e+04			30:23	0.96	5.29	J	2.50	-	-	*		2
Total Hexa-Dioxins	8.51e+05			36:15	1.36	63.9		2.50	-	-	*		6
Total Hepta-Dioxins	6.70e+06			42:57	1.17	605		2.50	-	-	*		2
Total Tetra-Furans	5.68e+05			23:54	1.29	19.6	D,M	2.50	-	-	*		4
1st Fn. Tot Penta-Furans	1.88e+05			28:34	0.90	10.5	D,M	2.50	-	-	*	PeCDF	1
Total Penta-Furans	7.53e+05			30:20	0.90	42.3	D,M	2.50	-	-	*	~~52.9~~ 52.8	5
Total Hexa-Furans	3.31e+06			35:23	0.99	198	D,M	2.50	-	-	*	52.8	9
Total Hepta-Furans	3.99e+06			42:26	1.47	278		2.50	-	-	*		3

12/23/09

Analyst: _____ Date: 12/23/09

QB72:00502

Totals class: Total Penta-Dioxins Entry #: 39

Run: 17 File: 22DEC09M S: 10 I: 1 F: 2
Acquired: 22-DEC-09 22:04:59

Total Concentration: 5.29 Unnamed Concentration: 2.406

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
30:23	1.94e+04	1.16e+04	1.67 y	3.10e+04	2.41	
33:21	2.30e+04	1.42e+04	1.62 y	3.73e+04	2.89	1,2,3,7,8-PeCDD

QB72:00503

Totals class: Total Hexa-Dioxins Entry #: 40

Run: 17 File: 22DEC09M S: 10 I: 1 F: 3
Acquired: 22-DEC-09 22:04:59

Total Concentration: 63.9 Unnamed Concentration: 38.848

RT	m1 Resp	m2 Resp	RA		Resp	Concentration	Name
36:15	8.29e+04	6.64e+04	1.25	y	1.49e+05	11.1	
37:11	2.38e+04	2.22e+04	1.07	y	4.60e+04	3.44	
37:36	1.83e+05	1.42e+05	1.29	y	3.25e+05	24.3	
38:44	3.35e+04	3.03e+04	1.10	y	6.39e+04	4.59	1,2,3,4,7,8-HxCDD
38:53	8.45e+04	6.89e+04	1.23	y	1.53e+05	12.0	1,2,3,6,7,8-HxCDD
39:21	6.65e+04	4.68e+04	1.42	y	1.13e+05	8.43	1,2,3,7,8,9-HxCDD

QB72:00504

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 17 File: 22DEC09M S: 10 I: 1 F: 4
Acquired: 22-DEC-09 22:04:59

Total Concentration: 605 Unnamed Concentration: 242.085

RT	m1 Resp	m2 Resp	RA		Resp	Concentration	Name
42:57	1.32e+06	1.36e+06	0.97	y	2.68e+06	242	
44:20	2.00e+06	2.02e+06	0.99	y	4.02e+06	363	1,2,3,4,6,7,8-HpCDD

QB72:00505

Totals class: Total Tetra-Furans Entry #: 42

Run: 17 File: 22DEC09M S: 10 I: 1 F: 1
Acquired: 22-DEC-09 22:04:59

Total Concentration: 19.6 Unnamed Concentration: 19.620

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
23:54	1.47e+04	2.01e+04	0.73	y	3.48e+04	1.20	
25:56	4.41e+04	5.53e+04	0.80	y	9.95e+04	3.44	
28:00	1.12e+05	1.59e+05	0.71	y	2.70e+05	9.35	
28:13	6.49e+04	9.80e+04	0.66	y	1.63e+05	5.63	

QB72:00505

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

Run: 17 File: 22DEC09M S: 10 I: 1 F: 1
Acquired: 22-DEC-09 22:04:59

Total Concentration: 10.5 Unnamed Concentration: 10.547

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
28:34	1.07e+05	8.04e+04	1.33 y	1.88e+05	10.5	

QB72:00507

Totals class: Total Penta-Furans Entry #: 44

Run: 17 File: 22DEC09M S: 10 I: 1 F: 2
Acquired: 22-DEC-09 22:04:59

Total Concentration: 42.3 Unnamed Concentration: 40.150

RT	ml Resp	m2 Resp	RA		Resp	Concentration	Name
30:20	7.21e+04	4.47e+04	1.61	y	1.17e+05	6.57	
31:54	2.23e+05	1.36e+05	1.64	y	3.60e+05	20.2	
32:13	8.35e+04	5.52e+04	1.51	y	1.39e+05	7.80	
32:56	2.36e+04	1.53e+04	1.54	y	3.89e+04	2.17	2,3,4,7,8-PeCDF
34:16	6.01e+04	3.90e+04	1.54	y	9.90e+04	5.57	

QB72:00508

Totals class: Total Hexa-Furans Entry #: 45

Run: 17 File: 22DEC09M S: 10 I: 1 F: 3
Acquired: 22-DEC-09 22:04:59

Total Concentration: 198 Unnamed Concentration: 168.629

RT	m1 Resp	m2 Resp	RA		Resp	Concentration	Name
35:23	8.30e+04	6.59e+04	1.26	y	1.49e+05	8.92	
35:39	3.19e+05	2.64e+05	1.21	y	5.82e+05	34.9	
36:32	4.52e+05	3.81e+05	1.19	y	8.33e+05	49.9	
36:52	7.51e+04	5.52e+04	1.36	y	1.30e+05	7.81	
37:19	1.30e+05	1.10e+05	1.18	y	2.41e+05	14.5	1,2,3,4,7,8-HxCDF
37:32	8.06e+04	5.87e+04	1.37	y	1.39e+05	7.92	1,2,3,6,7,8-HxCDF
38:16	6.23e+05	4.96e+05	1.25	y	1.12e+06	67.1	
38:28	5.10e+04	4.06e+04	1.26	y	9.16e+04	5.36	2,3,4,6,7,8-HxCDF
39:57	1.55e+04	1.16e+04	1.34	y	2.71e+04	1.75	1,2,3,7,8,9-HxCDF

QB72:00509

Totals class: Total Hepta-Furans Entry #: 46

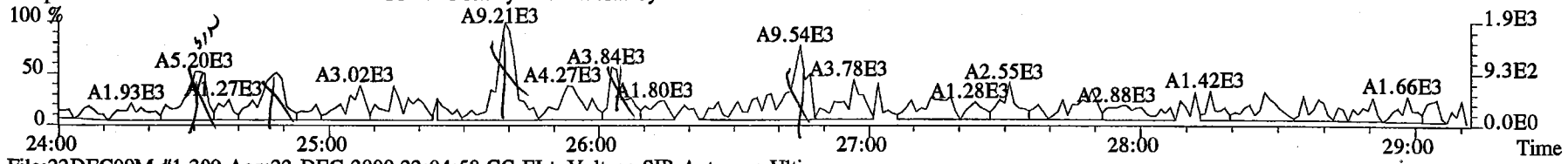
Run: 17 File: 22DEC09M S: 10 I: 1 F: 4
Acquired: 22-DEC-09 22:04:59

Total Concentration: 278 Unnamed Concentration: 180.971

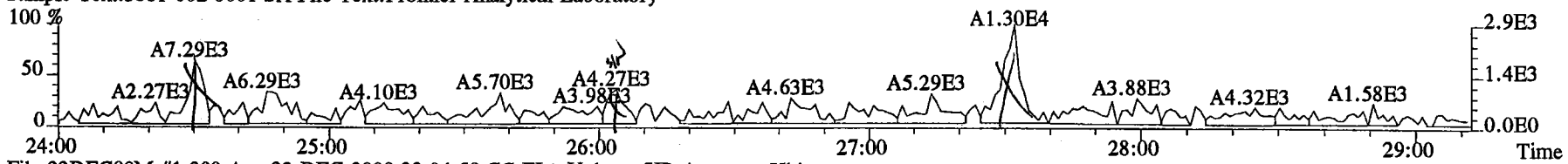
RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:26	6.49e+05	6.59e+05	0.99 y	1.31e+06	89.0	1,2,3,4,6,7,8-HpCDF
43:15	1.31e+06	1.25e+06	1.05 y	2.57e+06	181	
45:15	5.64e+04	5.70e+04	0.99 y	1.13e+05	8.29	1,2,3,4,7,8,9-HpCDF

QB72:00510

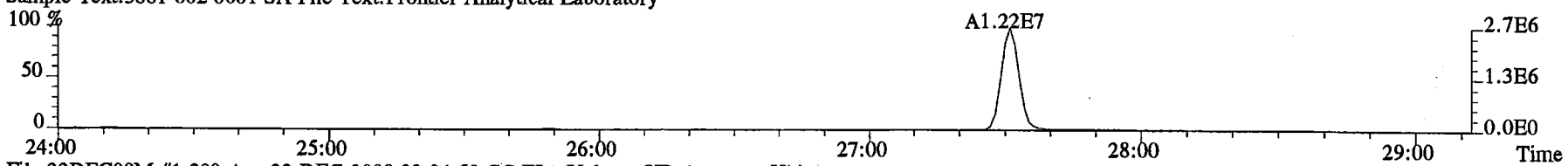
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



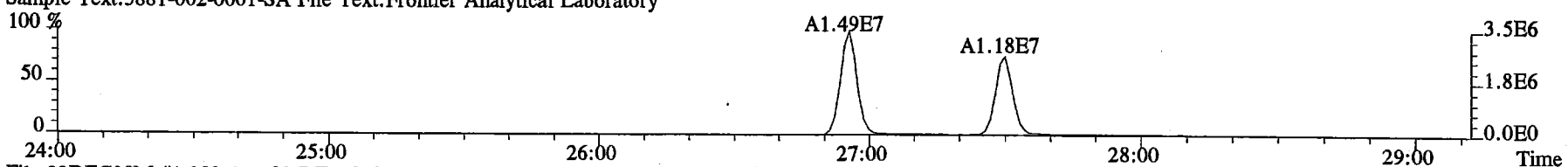
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



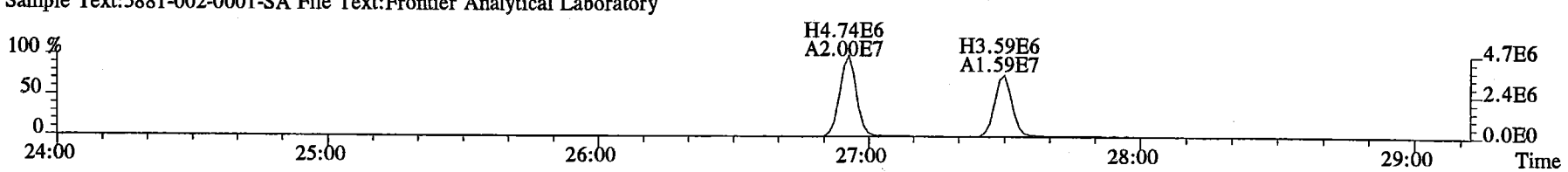
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

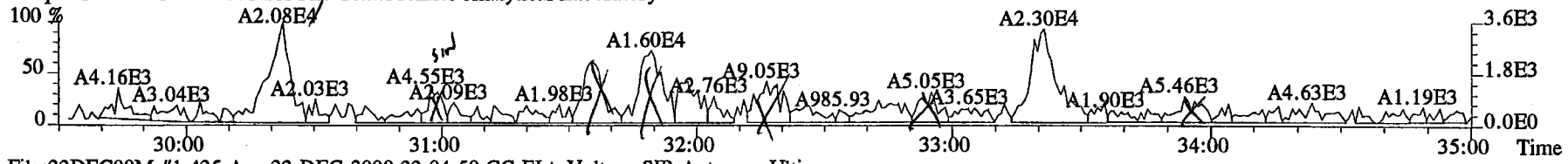


File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

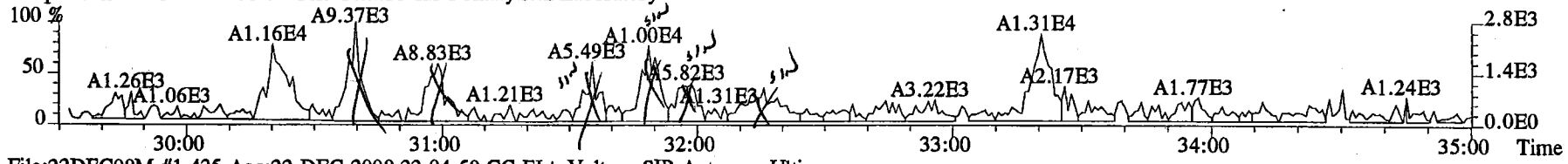


QB72:80512

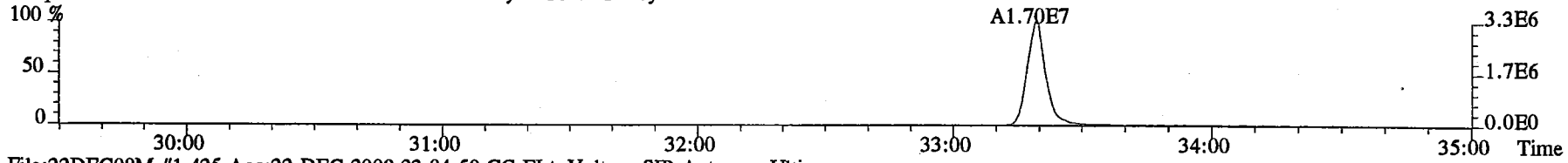
File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



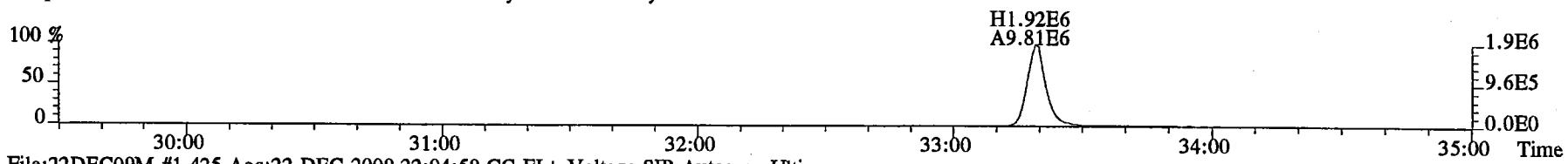
File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



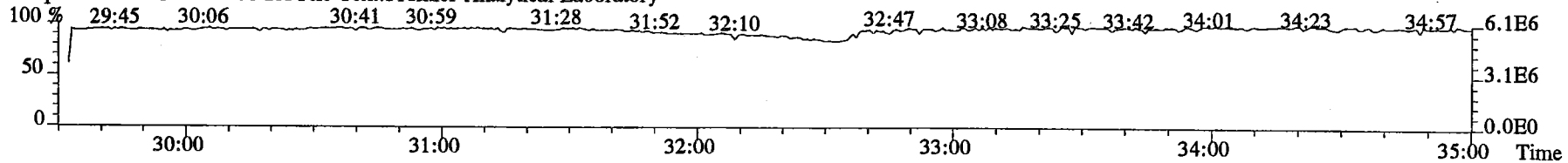
File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
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:5881-002-0001-SA File Text:Frontier Analytical Laboratory

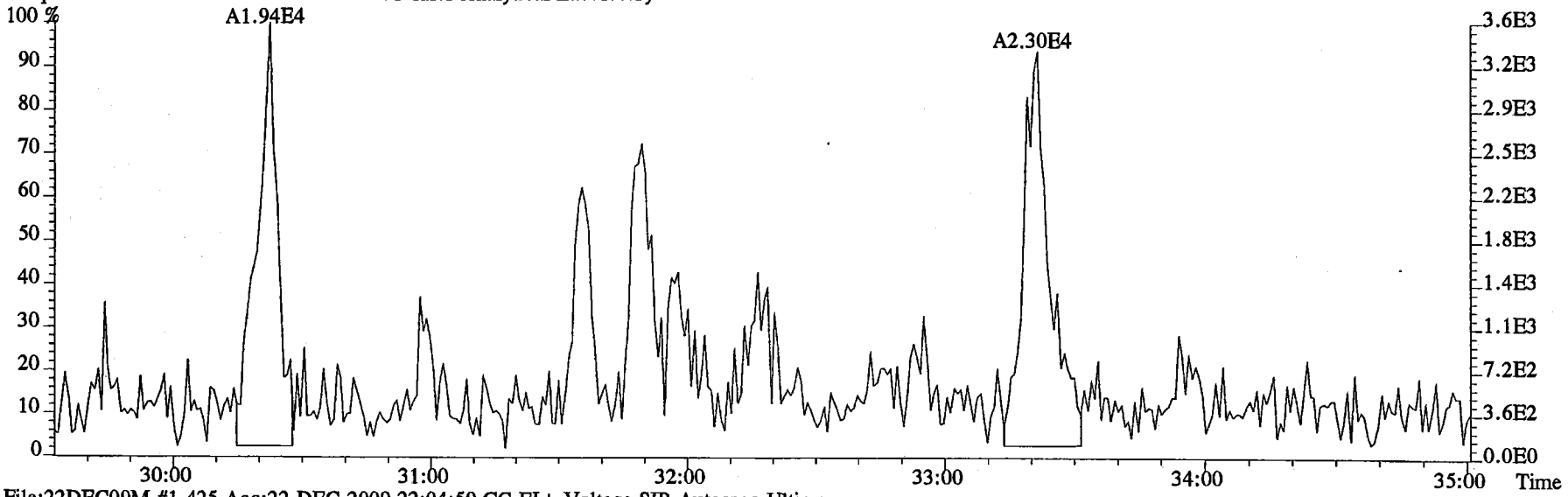


File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:10 F:2 Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

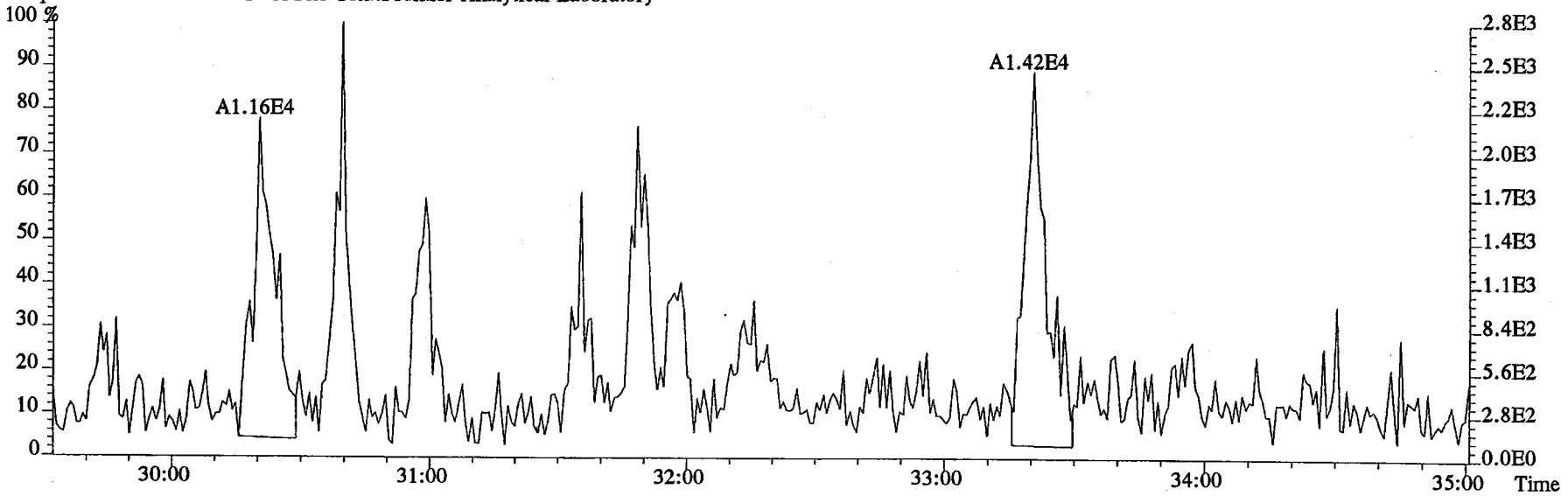


QB72:99513

File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 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:5881-002-0001-SA File Text:Frontier Analytical Laboratory

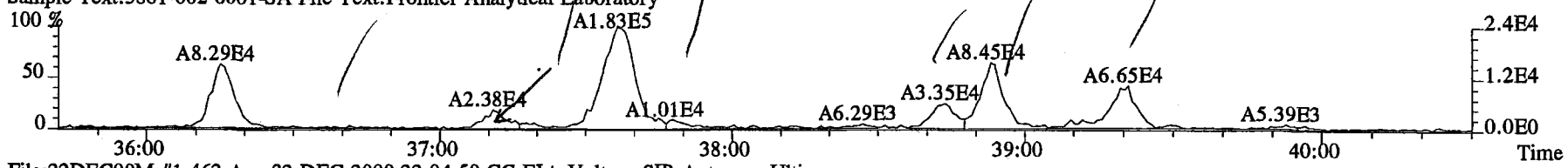


File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

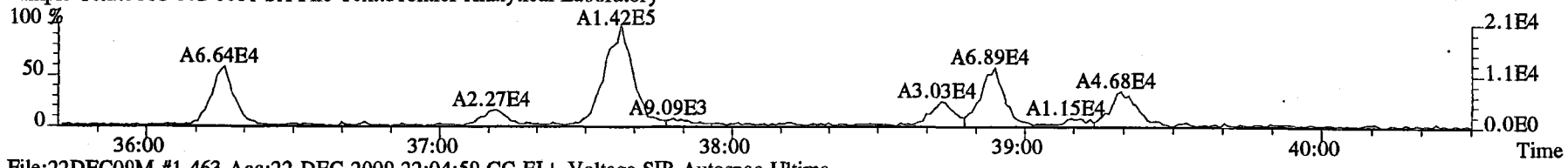


QB72-00514

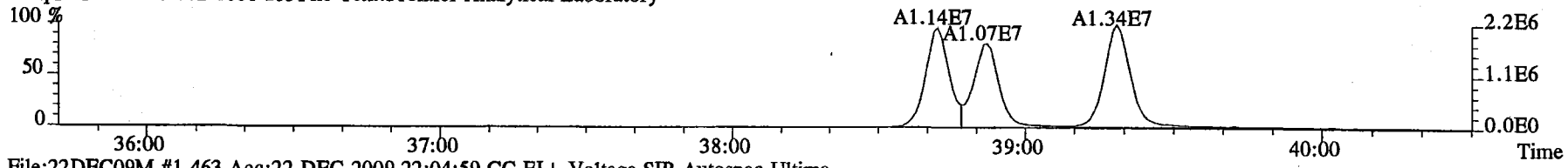
File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



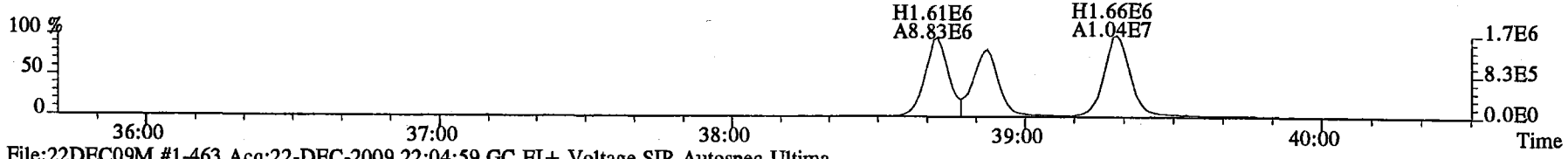
File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



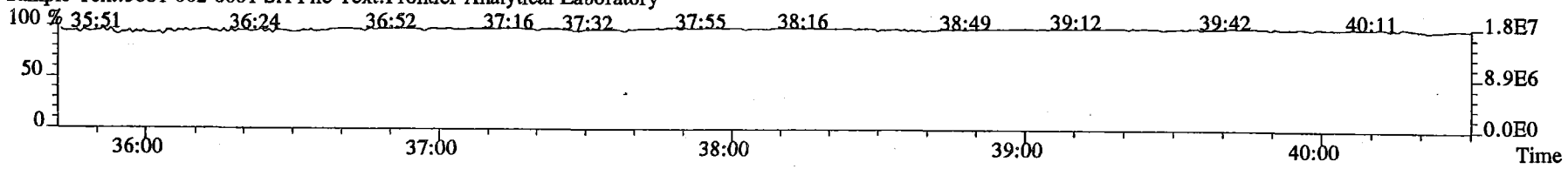
File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
403.8530 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:5881-002-0001-SA File Text:Frontier Analytical Laboratory

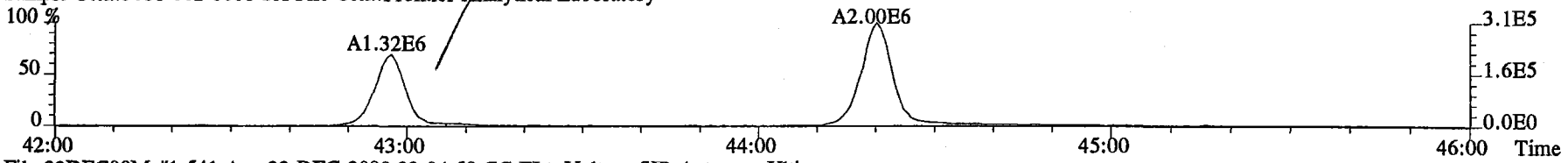


File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:10 F:3 Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

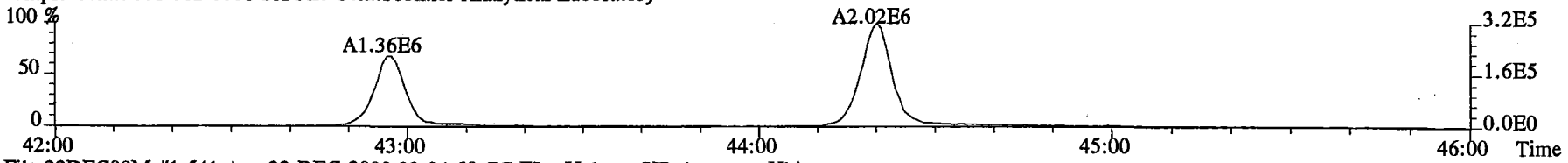


QB72:00515

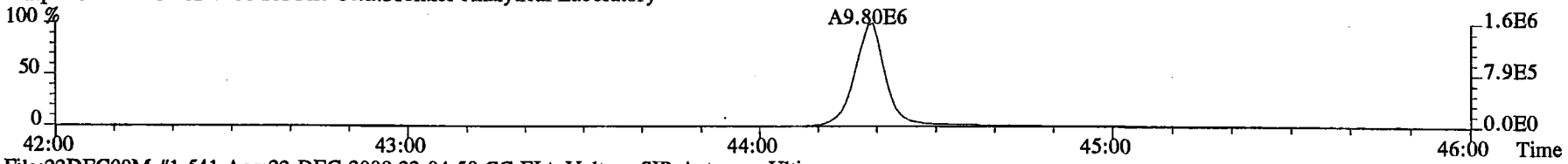
File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



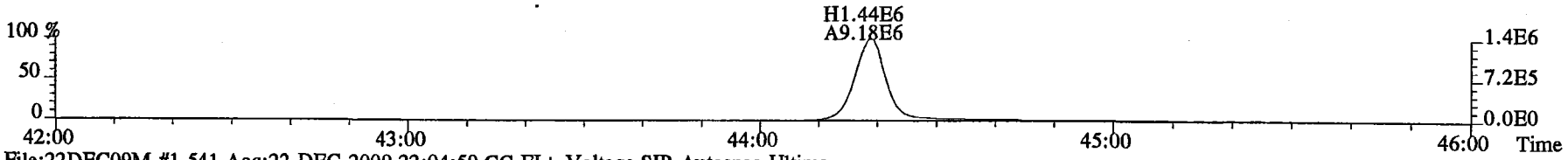
File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



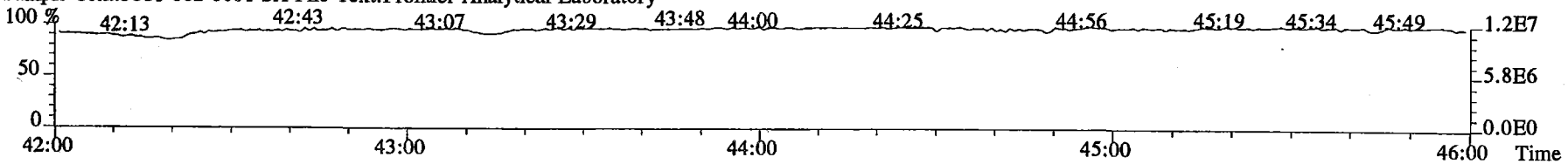
File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
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:5881-002-0001-SA File Text:Frontier Analytical Laboratory

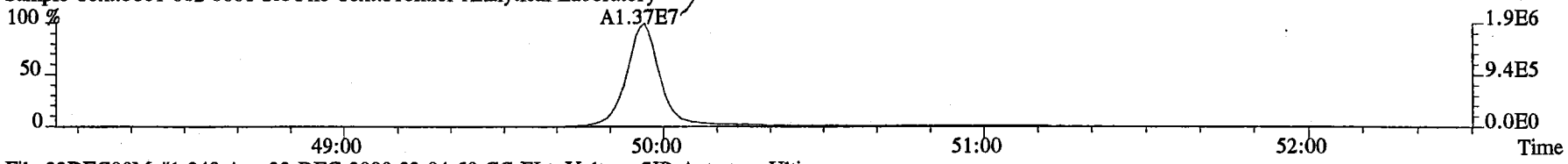


File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:10 F:4 Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

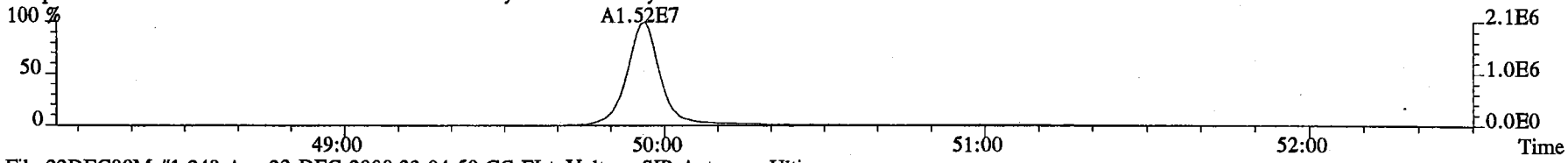


QB72:005515

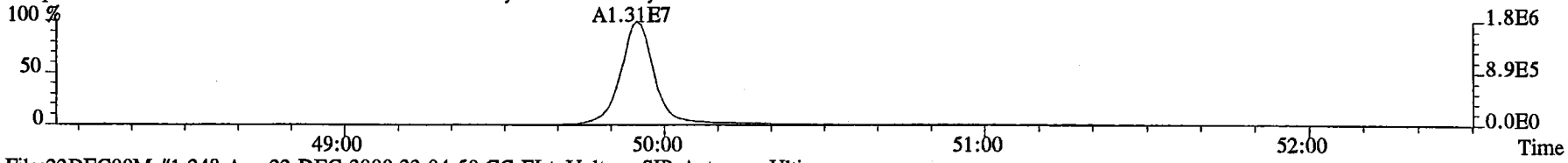
File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



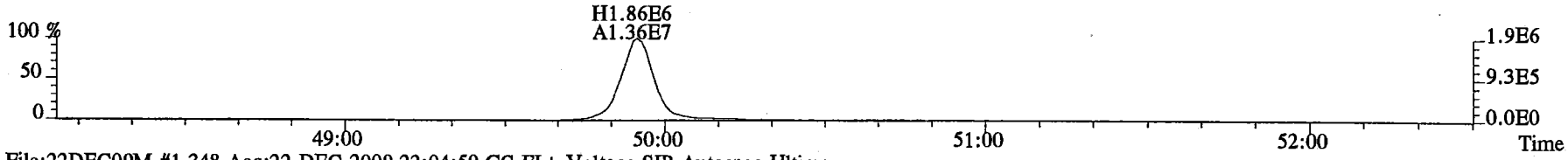
File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



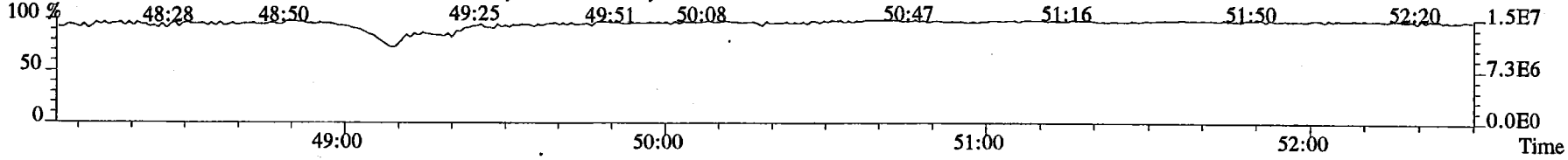
File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



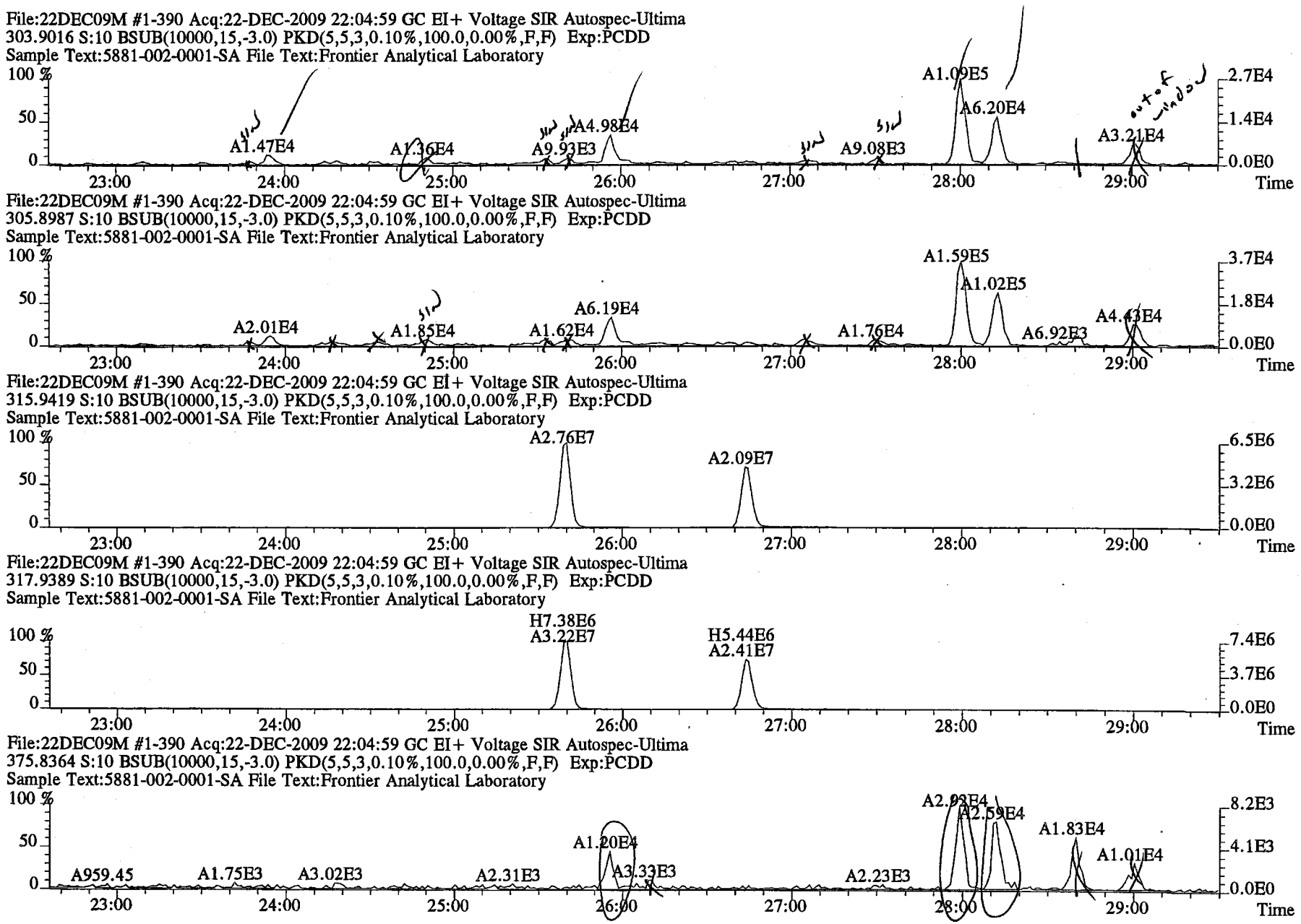
File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:10 F:5 Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

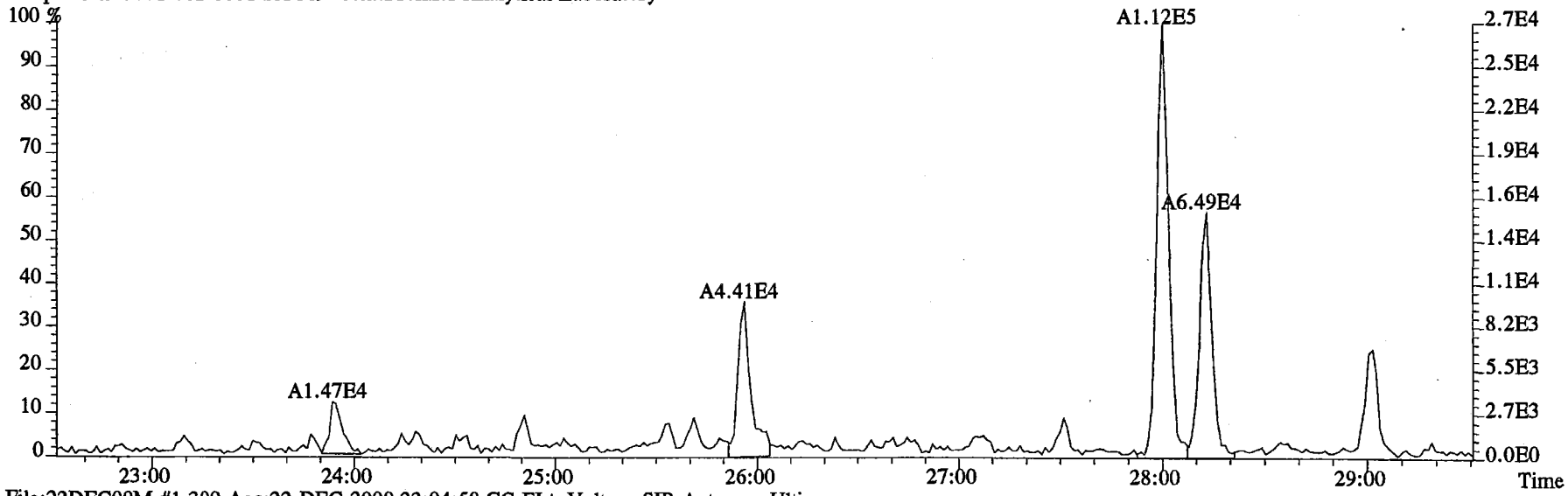


QB72:09517

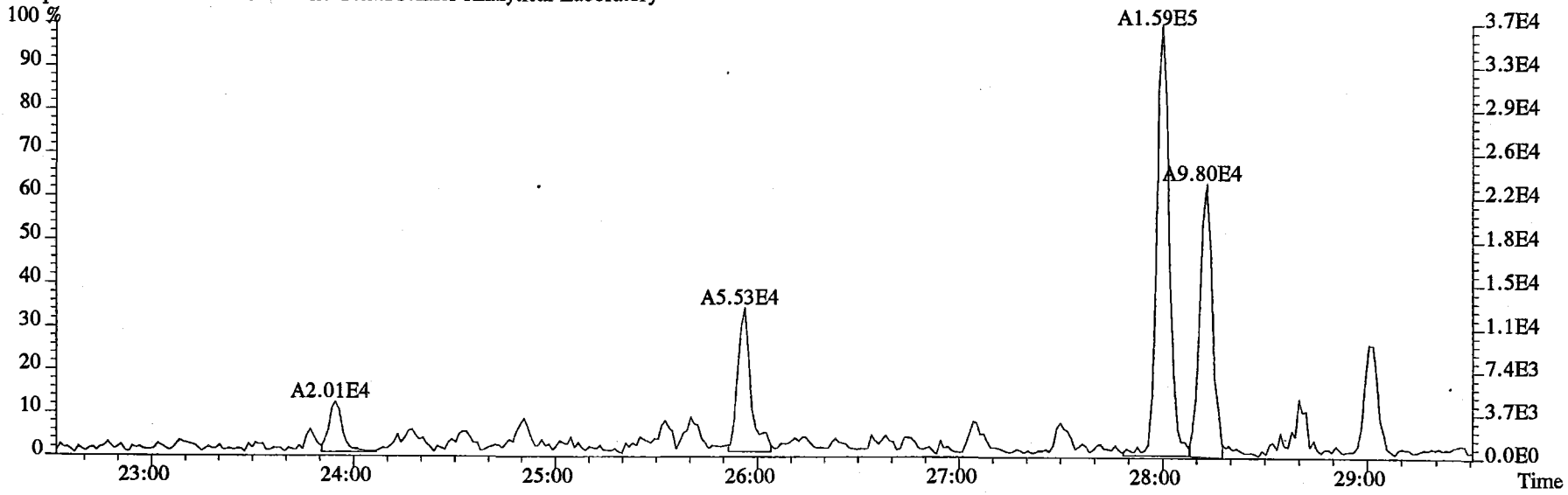

File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory
A1.47E4
A1.36E4
A9.93E3
A4.98E4
A9.08E3
A1.09E5
A6.20E4
A3.21E4
out of window
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory
A2.01E4
A1.85E4
A1.62E4
A6.19E4
A1.76E4
A1.59E5
A1.02E5
A6.92E3
A4.43E4
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory
A2.76E7
A2.09E7
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory
H7.38E6
A3.22E7
H5.44E6
A2.41E7
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory
A959.45
A1.75E3
A3.02E3
A2.31E3
A1.20E4
A3.33E3
A2.23E3
A2.59E4
A1.83E4
A1.01E4
100 %
50
0
23:00
24:00
25:00
26:00
27:00
28:00
29:00
Time
2.7E4
1.4E4
0.0E0
3.7E4
1.8E4
6.5E6
3.2E6
7.4E6
3.7E6
8.2E3
4.1E3

QB72:00518

File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

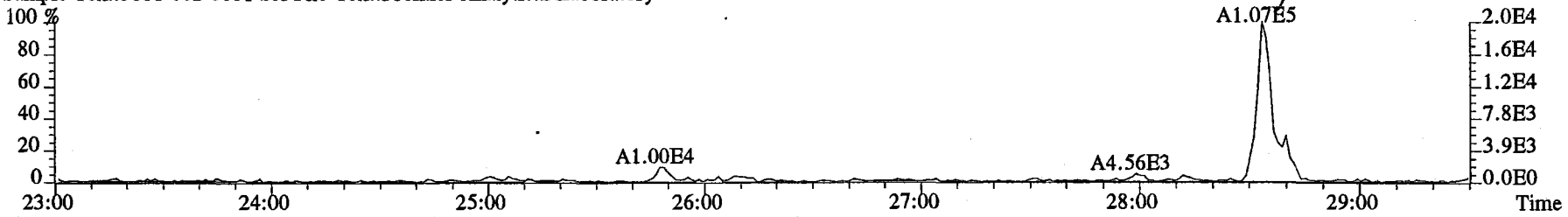


File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

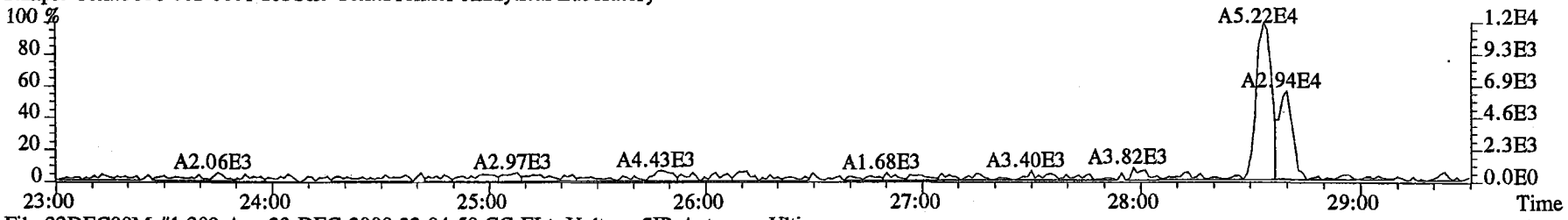


GB72:00519

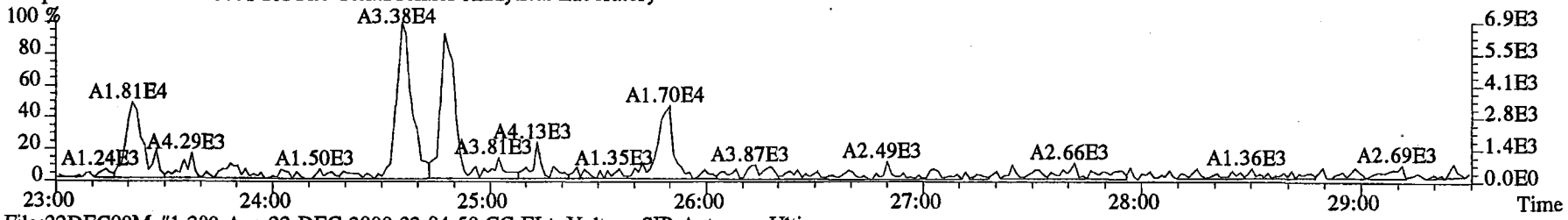
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



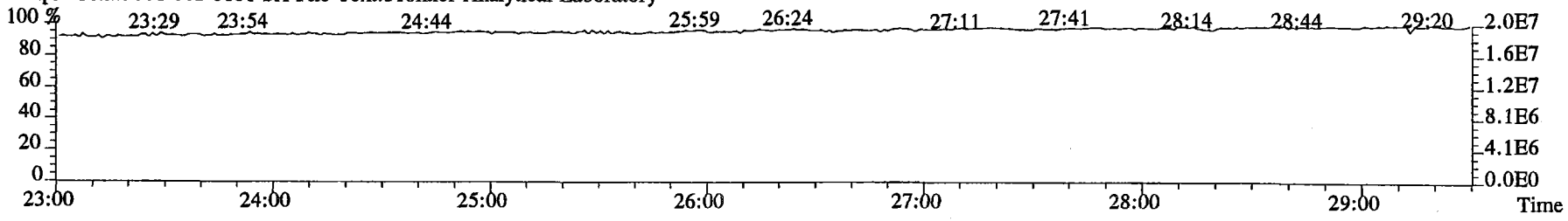
File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

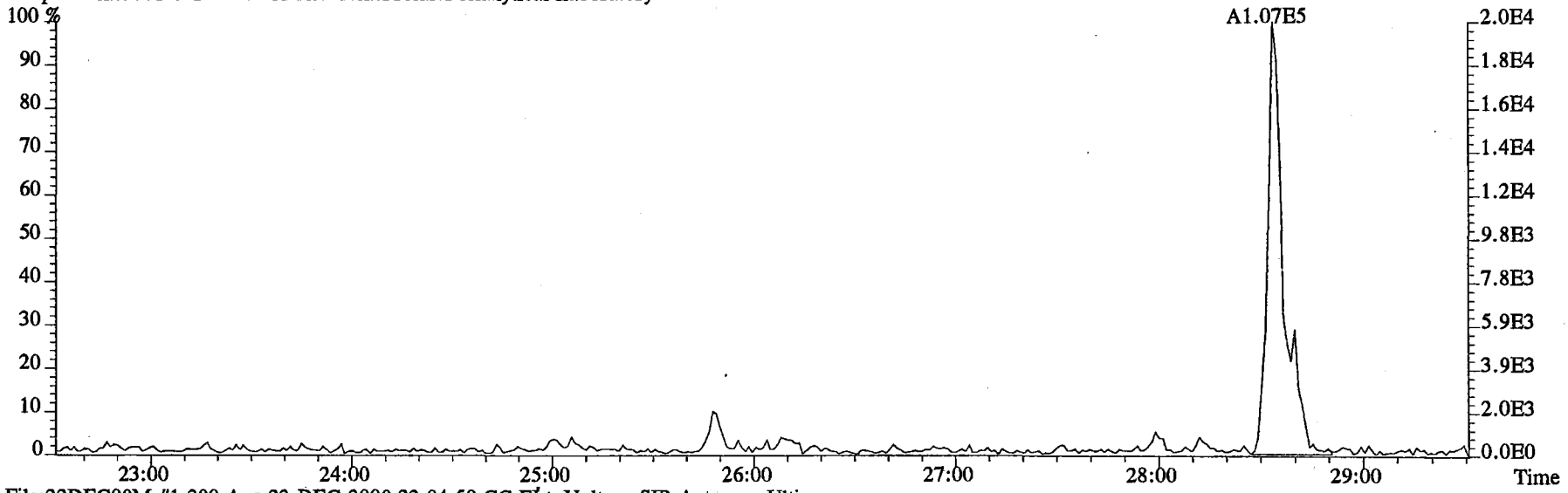


File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:10 Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

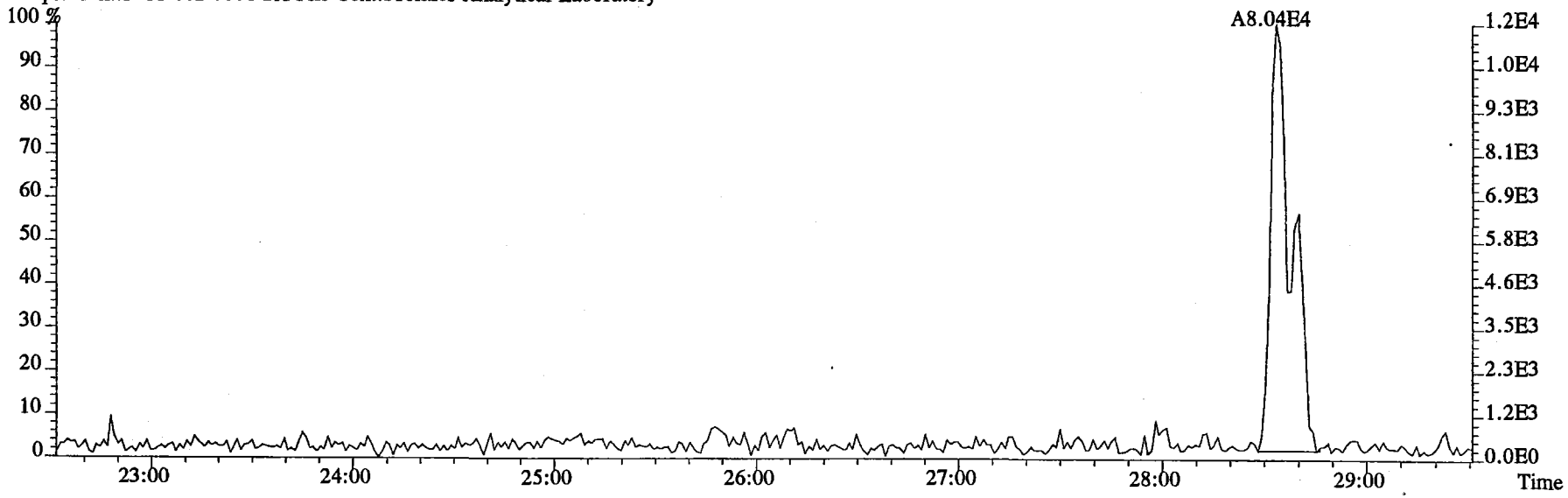


GB72:08529

File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

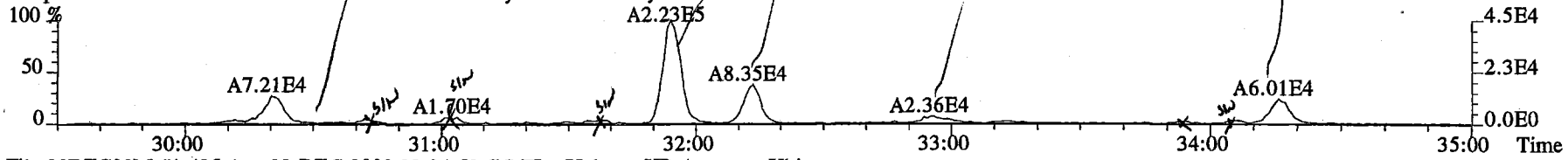


File:22DEC09M #1-390 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

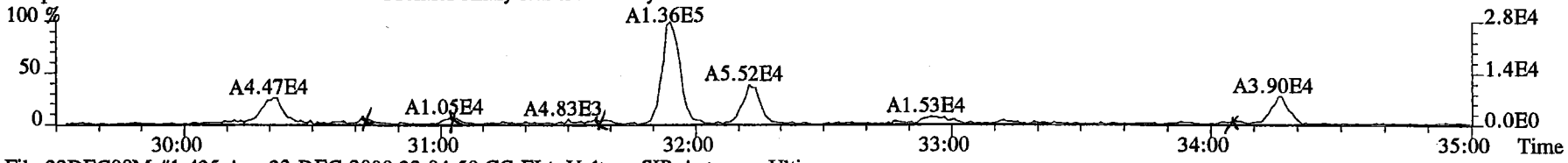


GB72:00521

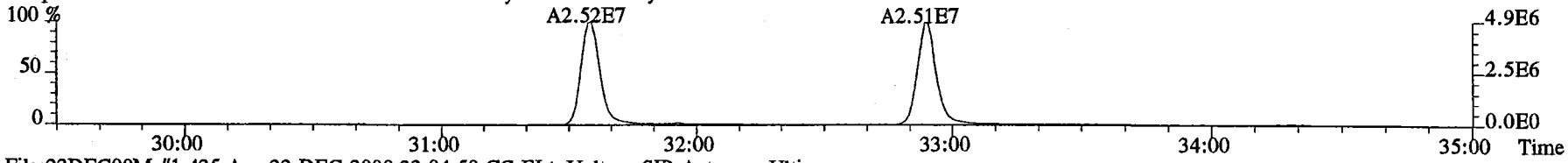
File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



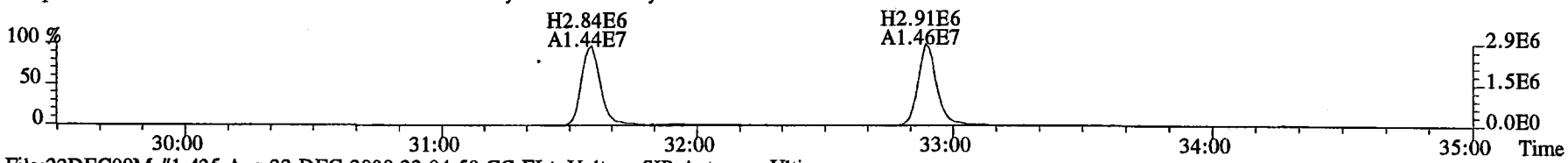
File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



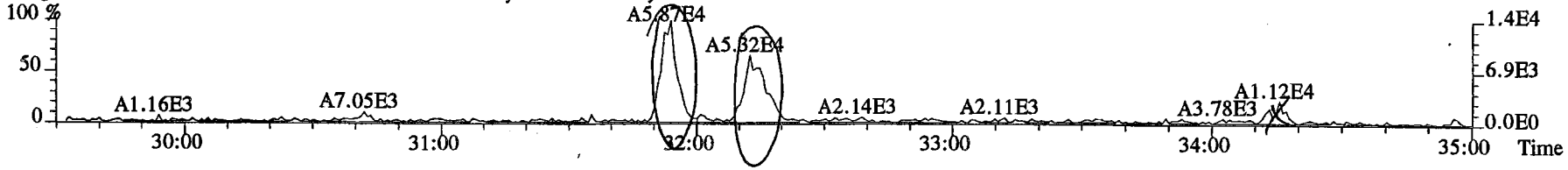
File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
353.8970 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:5881-002-0001-SA File Text:Frontier Analytical Laboratory

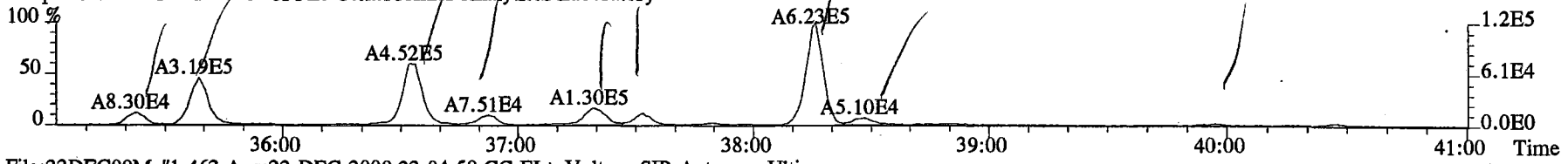


File:22DEC09M #1-425 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

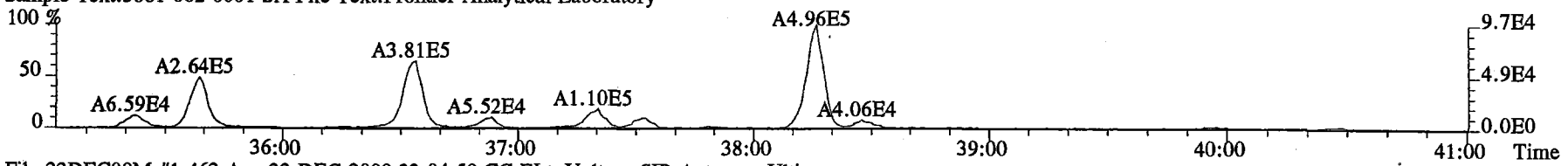


QB72:00522

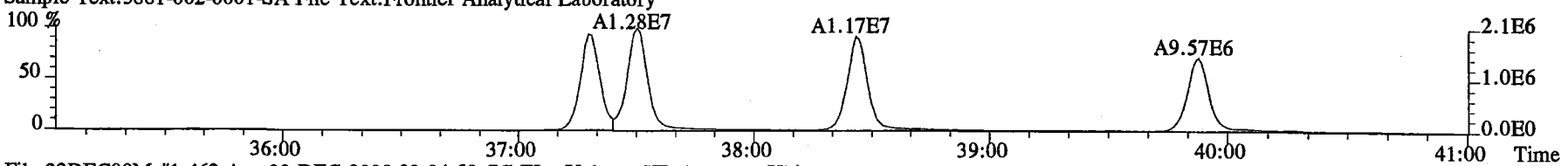
File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



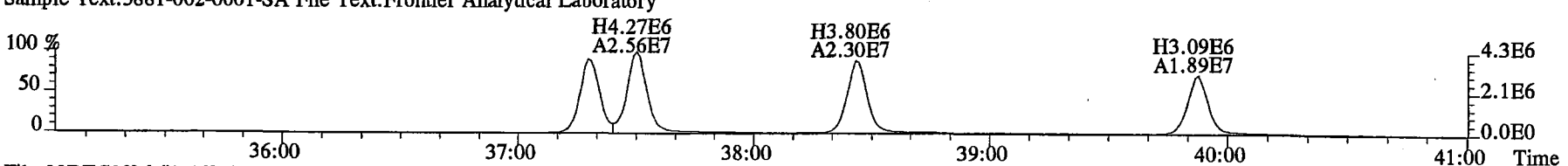
File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



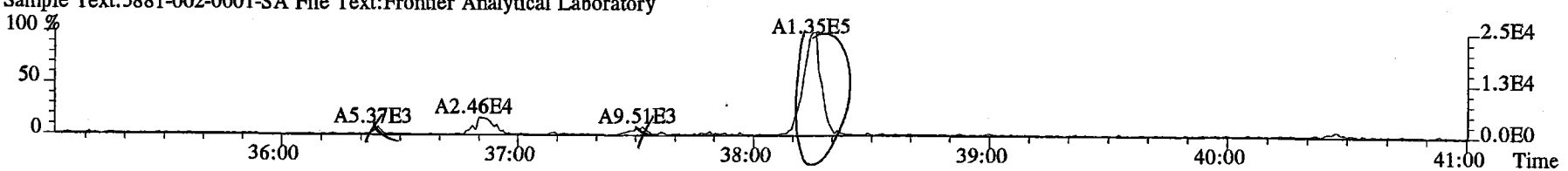
File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 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:5881-002-0001-SA File Text:Frontier Analytical Laboratory

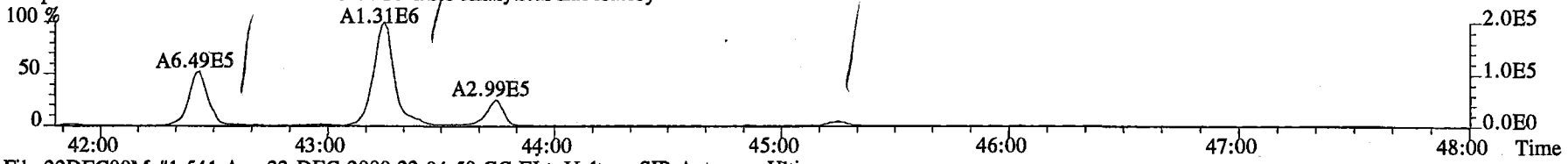


File:22DEC09M #1-463 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

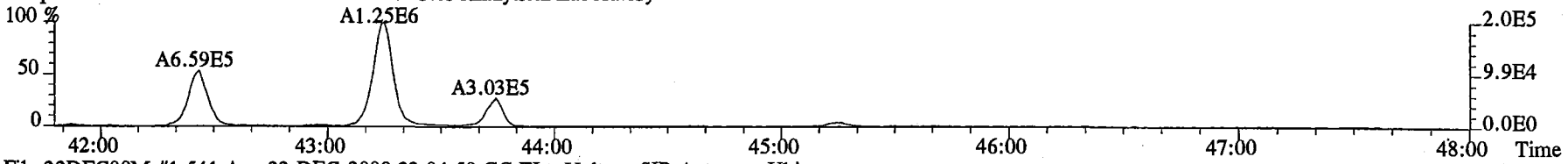


QB72:05522

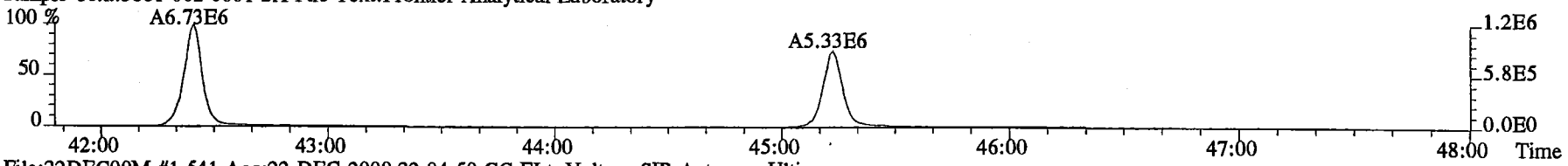
File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



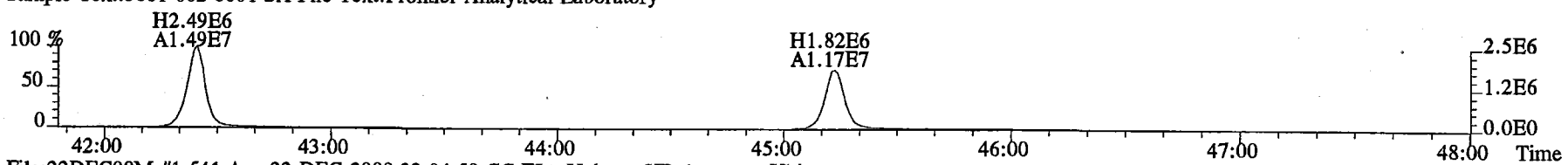
File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



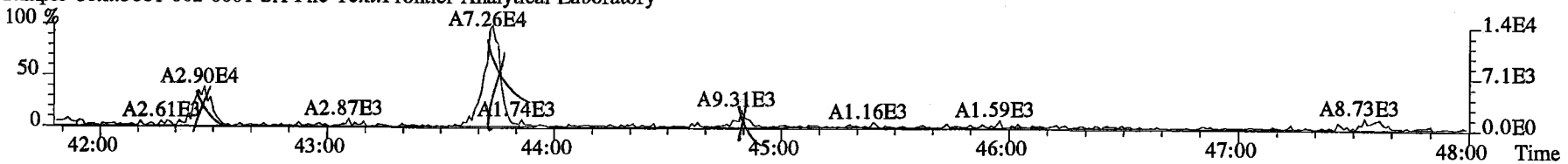
File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
419.8220 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:5881-002-0001-SA File Text:Frontier Analytical Laboratory

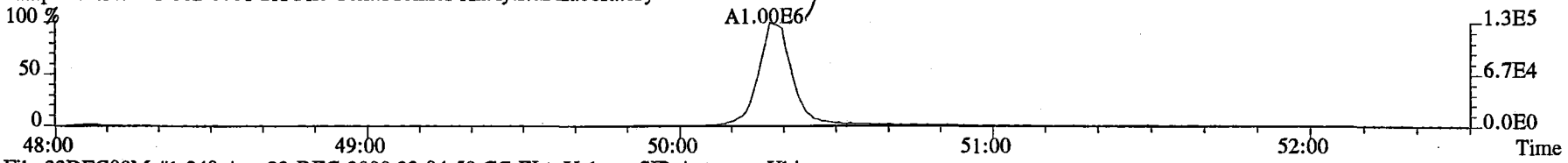


File:22DEC09M #1-541 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory

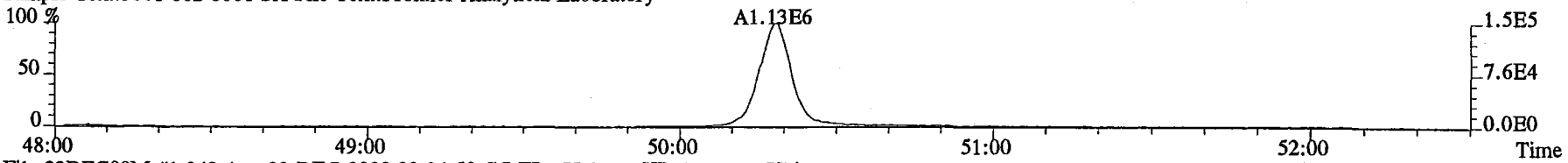


GB72:00524

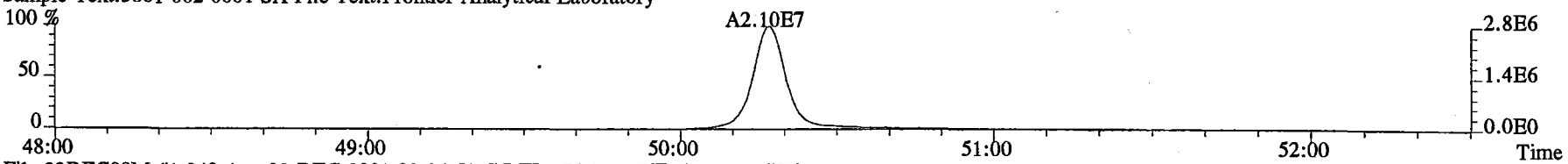
File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



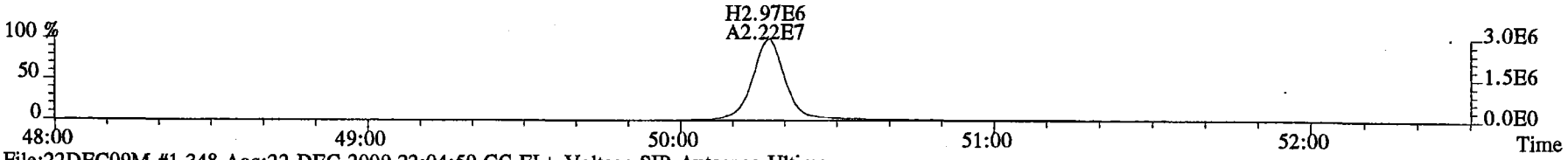
File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



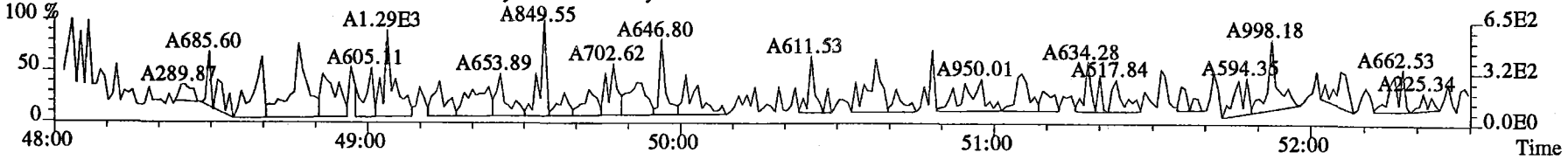
File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-348 Acq:22-DEC-2009 22:04:59 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-002-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 5881-003-0001-SA Filename: 22DEC09M Sam:11 Acquired: 22-DEC-09 23:00:14 ICal: PCDDFAL3-11-18-09
Client ID: CB1121409COMP ConCal: ST122209M1 EndCal: ST122209M2
Results: 5879 GC Column: DB5 Amount: 1.009

NATO 1989 Tox: 0.184
WHO 1998 Tox: 0.133 WHO 2005 Tox: ~~0.144~~ 0.145 DJN 12/22/09

Name	Resp	RA		RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	*	*	n	NotFnd	1.02	*		2.50	332	436	0.594
1,2,3,7,8-PeCDD	*	*	n	NotFnd	0.96	*		2.50	480	324	0.808
1,2,3,4,7,8-HxCDD	*	*	n	NotFnd	1.37	*		2.50	876	772	1.65
1,2,3,6,7,8-HxCDD	*	*	n	NotFnd	1.34	*		2.50	876	772	1.87
1,2,3,7,8,9-HxCDD	*	*	n	NotFnd	1.37	*		2.50	876	772	1.74
1,2,3,4,6,7,8-HpCDD	1.14e+05	0.89	y	44:19	1.17	10.2	J	2.50	-	-	*
OCDD	4.92e+05	0.90	y	49:54	1.21	56.9		2.50	-	-	*
2,3,7,8-TCDF	*	*	n	NotFnd	1.29	*		2.50	344	612	0.352
1,2,3,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	486	539	0.689
2,3,4,7,8-PeCDF	*	*	n	NotFnd	0.91	*		2.50	486	539	0.732
1,2,3,4,7,8-HxCDF	*	*	n	NotFnd	1.00	*		2.50	862	910	1.47
1,2,3,6,7,8-HxCDF	*	*	n	NotFnd	0.92	*		2.50	862	910	1.46
2,3,4,6,7,8-HxCDF	*	*	n	NotFnd	0.99	*		2.50	862	910	1.50
1,2,3,7,8,9-HxCDF	*	*	n	NotFnd	1.09	*		2.50	862	910	1.76
1,2,3,4,6,7,8-HpCDF	3.78e+04	1.17	y	42:26	1.36	2.56	J	2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	*	*	n	NotFnd	1.61	*		2.50	433	230	0.746
OCDF	*	*	n	NotFnd	0.84	*		2.50	860	1040	3.84
											Rec
13C-2,3,7,8-TCDD	2.74e+07	0.74	y	27:29	0.94	1750					88.2
13C-1,2,3,7,8-PeCDD	2.68e+07	1.78	y	33:19	1.02	1580					79.6
13C-1,2,3,4,7,8-HxCDD	1.99e+07	1.30	y	38:41	0.98	1770					89.1
13C-1,2,3,6,7,8-HxCDD	1.86e+07	1.31	y	38:52	0.94	1730					87.3
13C-1,2,3,4,6,7,8-HpCDD	1.91e+07	1.04	y	44:18	0.90	1850					93.4
13C-OCDD	2.82e+07	0.98	y	49:54	0.67	3690					93.1
13C-2,3,7,8-TCDF	4.52e+07	0.85	y	26:44	0.88	1770					89.2
13C-1,2,3,7,8-PeCDF	3.92e+07	1.71	y	31:35	0.88	1530					77.3
13C-2,3,4,7,8-PeCDF	3.89e+07	1.73	y	32:54	0.85	1570					79.4
13C-1,2,3,4,7,8-HxCDF	3.27e+07	0.50	y	37:18	1.72	1660					83.7
13C-1,2,3,6,7,8-HxCDF	3.78e+07	0.51	y	37:30	2.00	1640					82.8
13C-2,3,4,6,7,8-HxCDF	3.33e+07	0.50	y	38:26	1.74	1670					84.4
13C-1,2,3,7,8,9-HxCDF	2.84e+07	0.51	y	39:52	1.51	1650					83.0
13C-1,2,3,4,6,7,8-HpCDF	2.16e+07	0.45	y	42:24	1.10	1710					86.3
13C-1,2,3,4,7,8,9-HpCDF	1.72e+07	0.45	y	45:12	0.85	1770					89.5
13C-OCDF	4.54e+07	0.94	y	50:15	1.17	3370					85.0
37Cl-2,3,7,8-TCDD	1.23e+07			27:30	0.97	759					95.8
13C-1,2,3,4-TCDD	3.30e+07	0.74	y	26:55	-	125					
13C-1,2,3,4-TCDF	5.77e+07	0.87	y	25:39	-	124					
13C-1,2,3,7,8,9-HxCDD	2.28e+07	1.32	y	39:18	-	110					

				Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	*	NotFnd	1.02	*		2.50	332	436	0.594		0
Total Penta-Dioxins	*	NotFnd	0.96	*		2.50	480	324	0.808		0
Total Hexa-Dioxins	*	NotFnd	1.36	*		2.50	876	772	1.87		0
Total Hepta-Dioxins	2.29e+05	42:57	1.17	20.4	J	2.50	-	-	*		2
Total Tetra-Furans	*	NotFnd	1.29	*		2.50	344	612	0.352		0
1st Fn. Tot Penta-Furans	*	NotFnd	0.90	*		2.50	486	539	0.732	PeCDF	0
Total Penta-Furans	*	NotFnd	0.90	*		2.50	486	539	0.732	0.00	0
Total Hexa-Furans	*	NotFnd	0.99	*		2.50	862	910	1.76		0
Total Hepta-Furans	7.22e+04	42:26	1.47	4.95	J	2.50	-	-	*		2

Analyst: _____ Date: 12/23/09

QB72 : 00525

Totals class: Total Hepta-Dioxins Entry #: 41

Run: 18 File: 22DEC09M S: 11 I: 1 F: 4
Acquired: 22-DEC-09 23:00:14

Total Concentration: 20.4 Unnamed Concentration: 10.202

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
42:57	5.59e+04	5.89e+04	0.95 y	1.15e+05	10.2	
44:19	5.39e+04	6.05e+04	0.89 y	1.14e+05	10.2	1,2,3,4,6,7,8-HpCDD

QB72:00526

Totals class: Total Hepta-Furans Entry #: 46

Run: 18 File: 22DEC09M S: 11 I: 1 F: 4
Acquired: 22-DEC-09 23:00:14

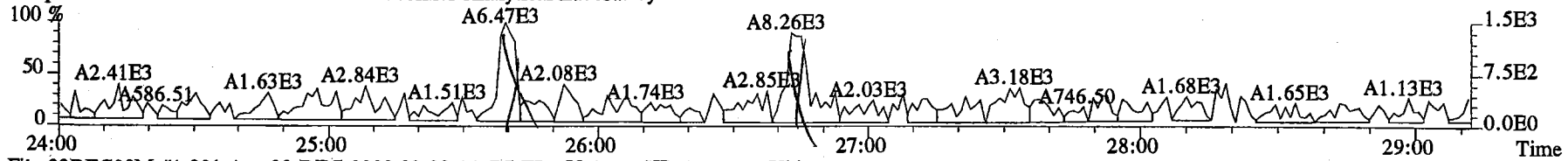
Total Concentration: 4.95 Unnamed Concentration: 2.392

RT	ml Resp	m2 Resp	RA	Resp	Concentration	Name
42:26	2.04e+04	1.74e+04	1.17 y	3.78e+04	2.56	1,2,3,4,6,7,8-HpCDF
43:15	1.68e+04	1.75e+04	0.96 y	3.44e+04	2.39	

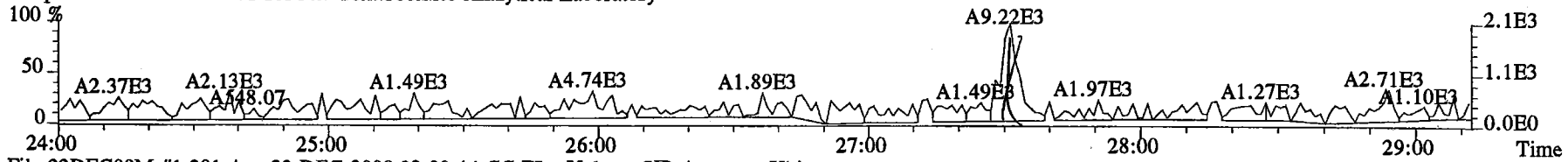
QB72:00527

QB72 : 99529

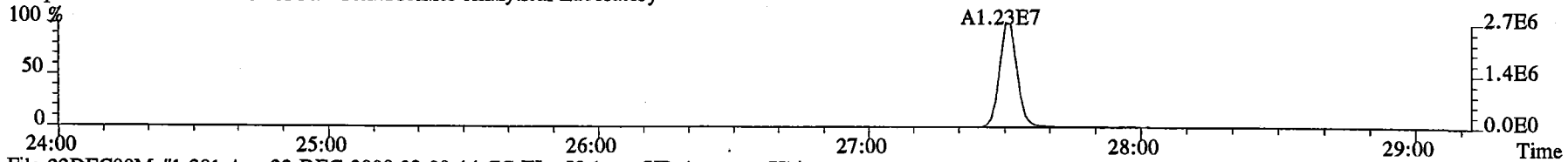
File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



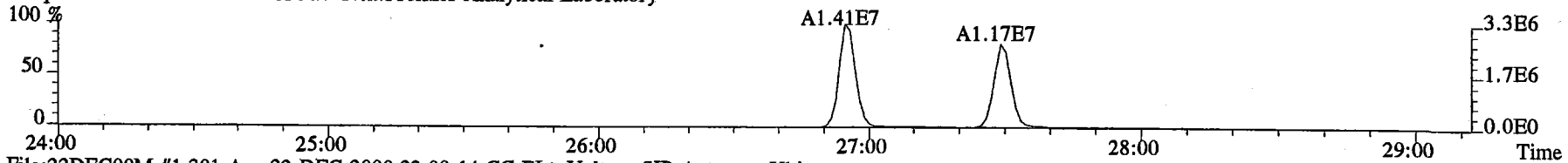
File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



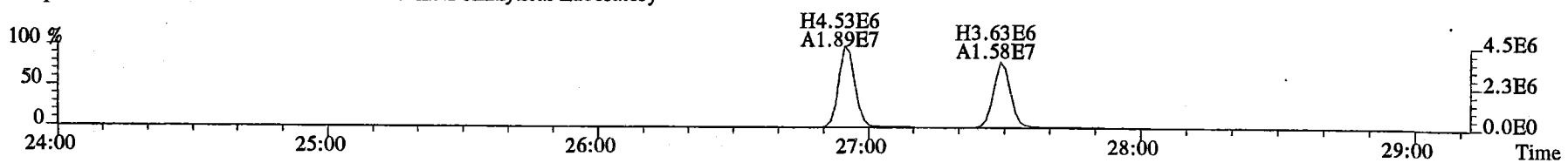
File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

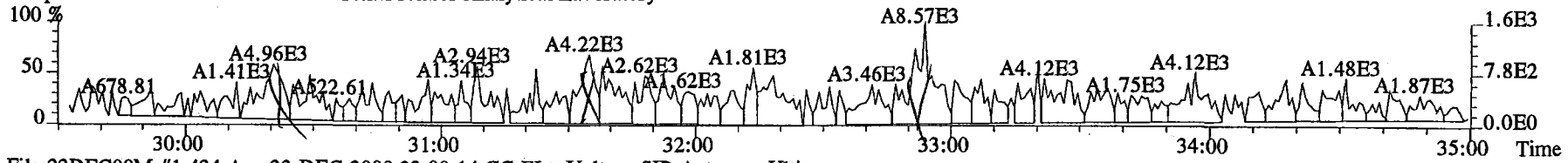


File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

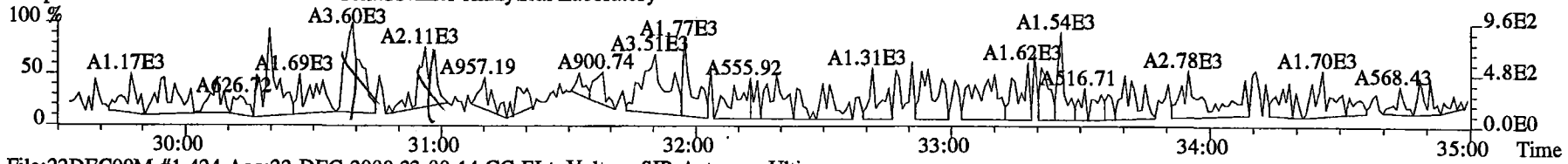


GB72-09529

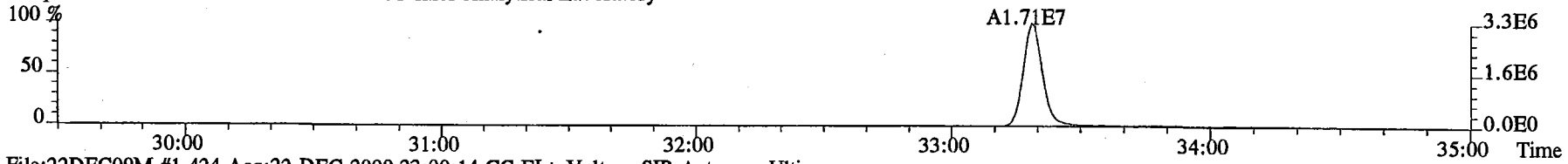
File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



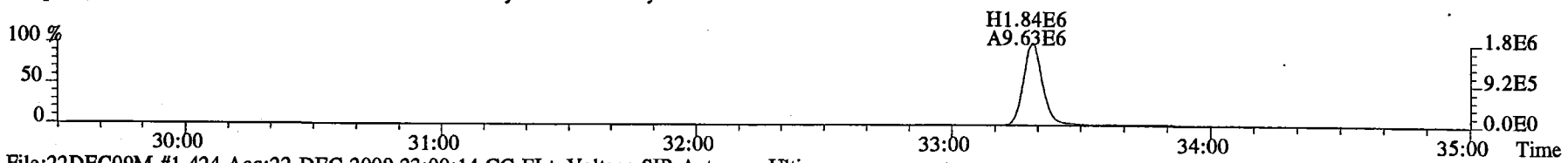
File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



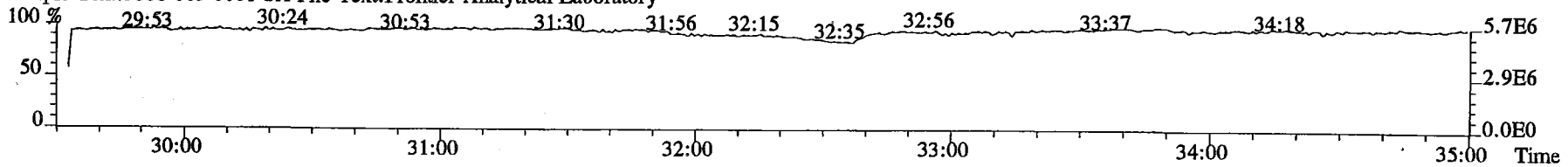
File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
369.8919 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:5881-003-0001-SA File Text:Frontier Analytical Laboratory

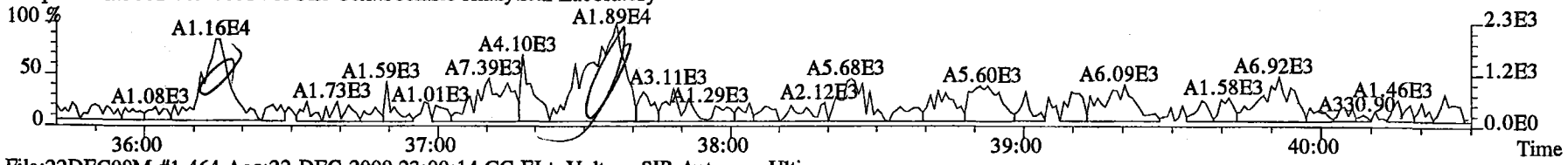


File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:11 F:2 Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

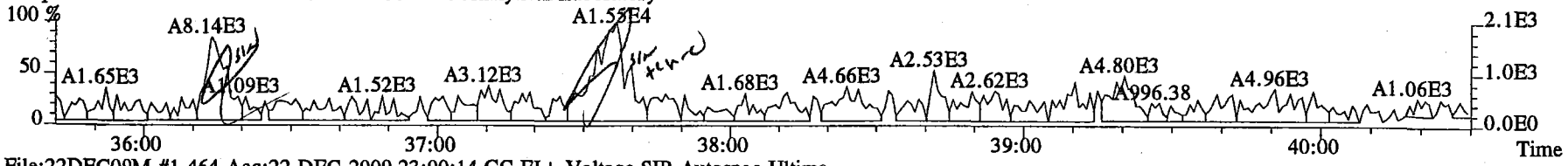


QB72:00536

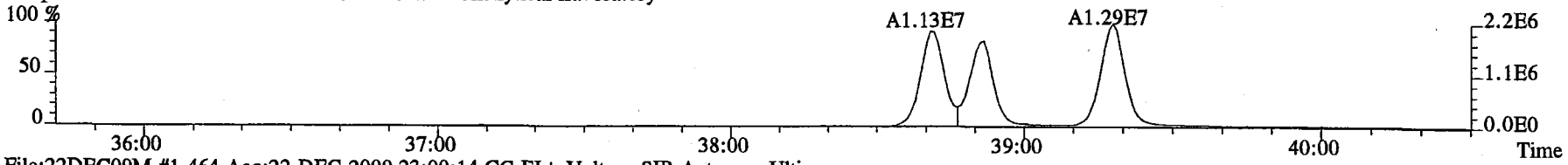
File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



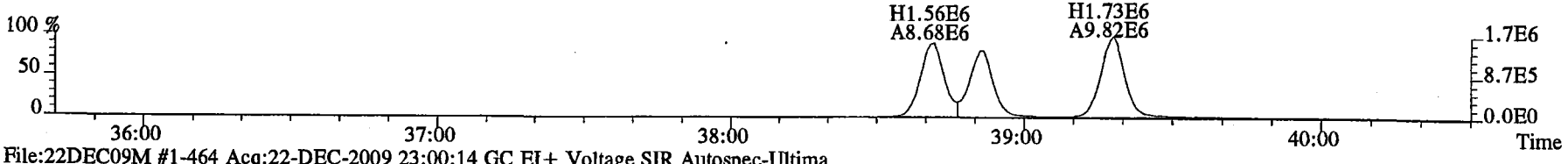
File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



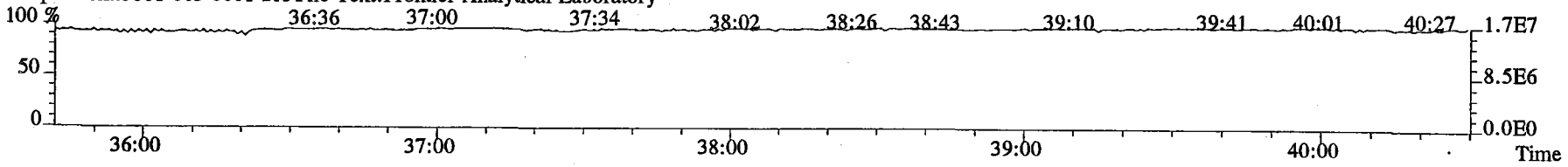
File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 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:5881-003-0001-SA File Text:Frontier Analytical Laboratory

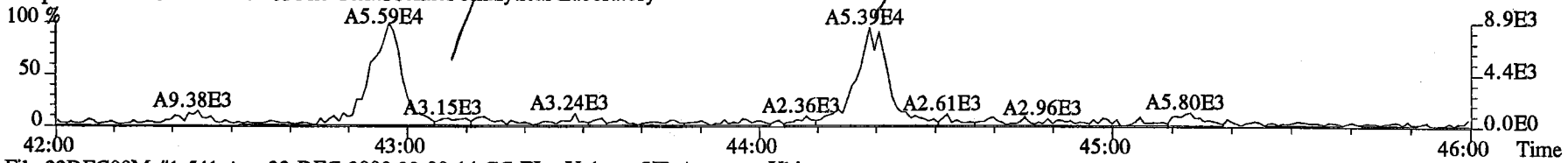


File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:11 F:3 Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

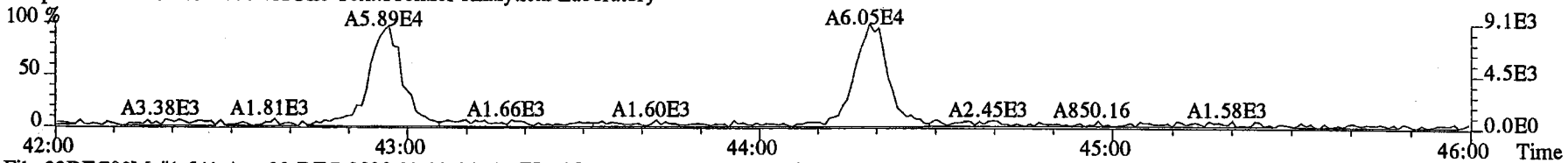


0672-00524

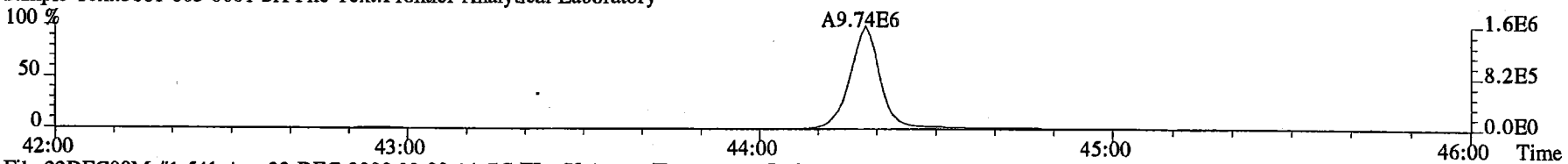
File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



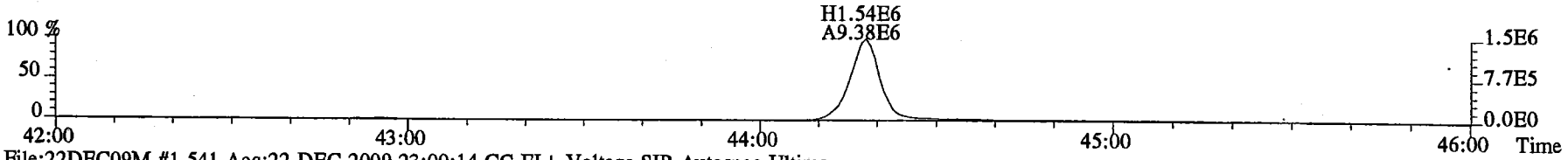
File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



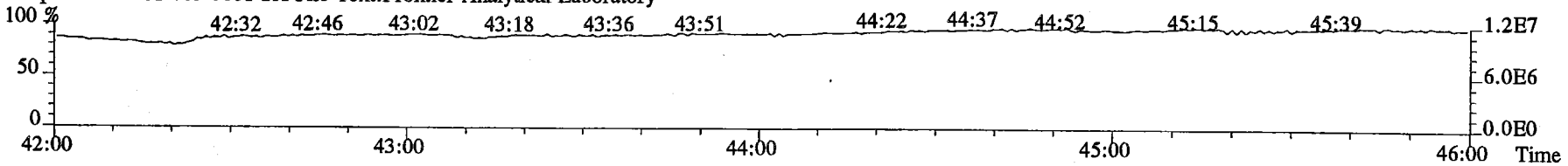
File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



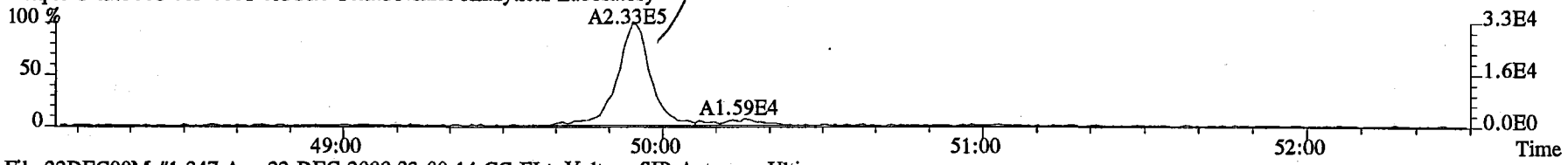
File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



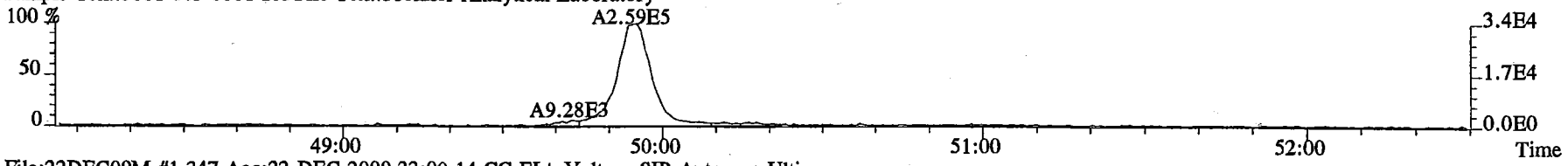
File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:11 F:4 Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



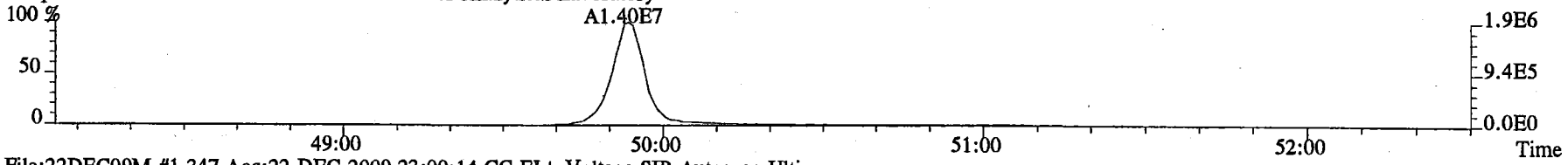
File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



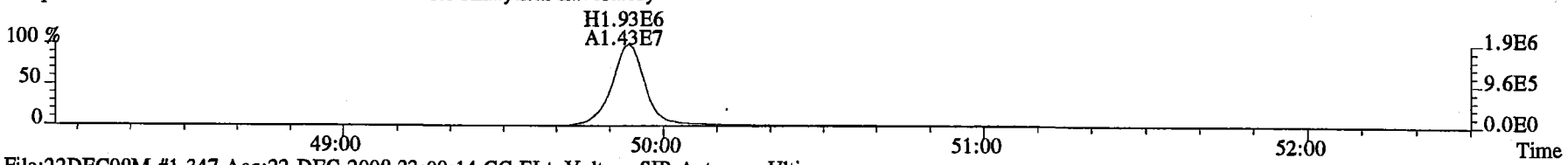
File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



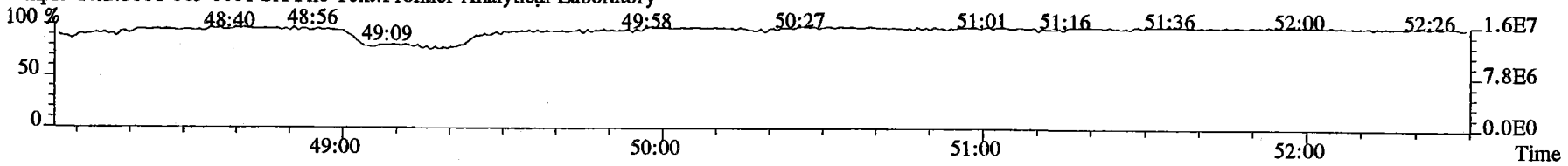
File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 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:5881-003-0001-SA File Text:Frontier Analytical Laboratory

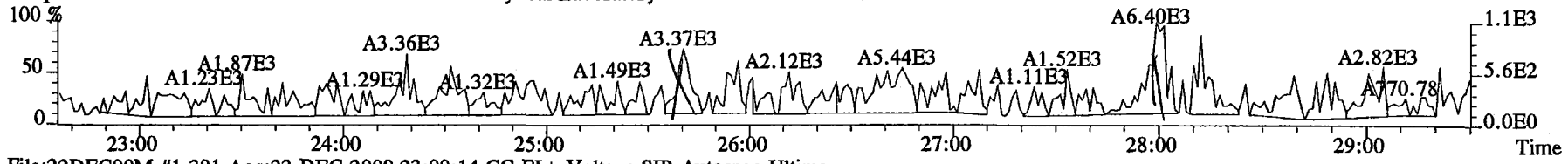


File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:11 F:5 Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

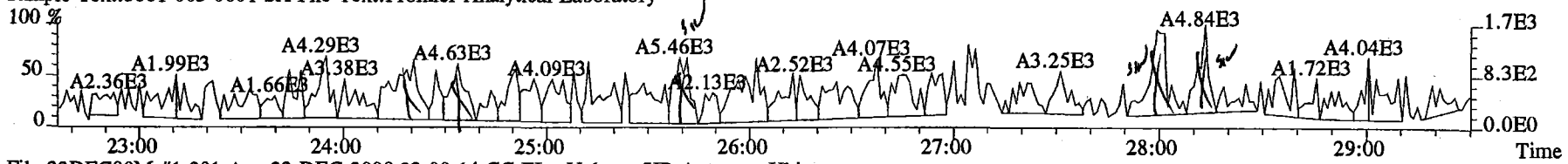


QB72:06533

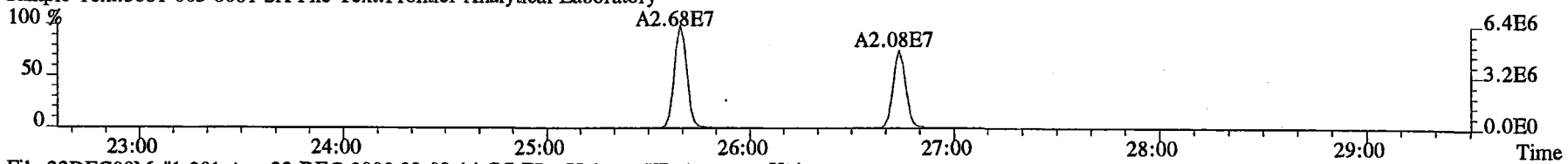
File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



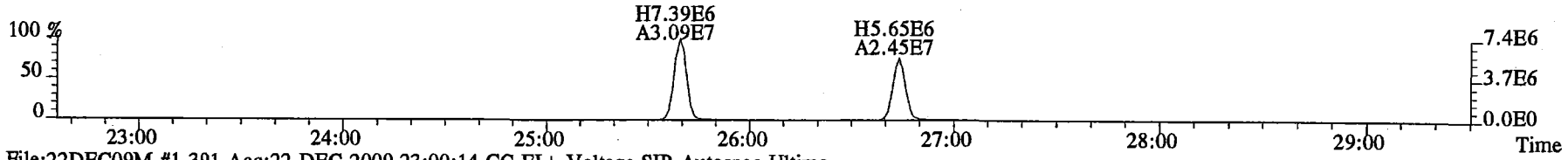
File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



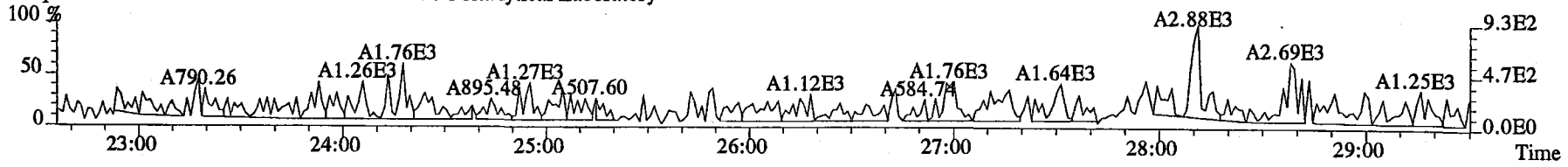
File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

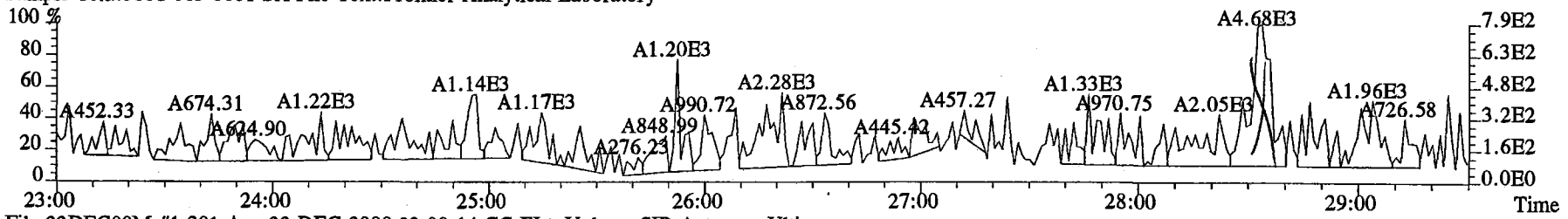


File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

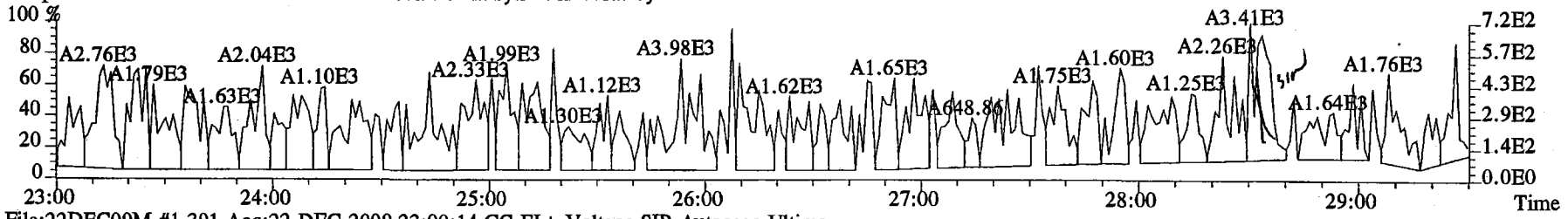


0872-00534

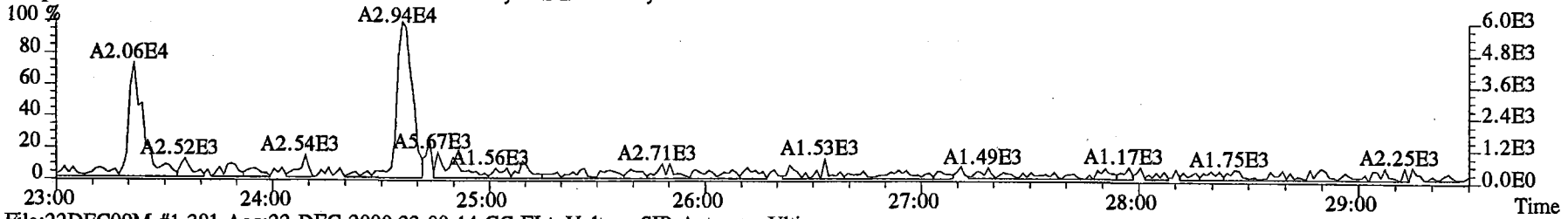
File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



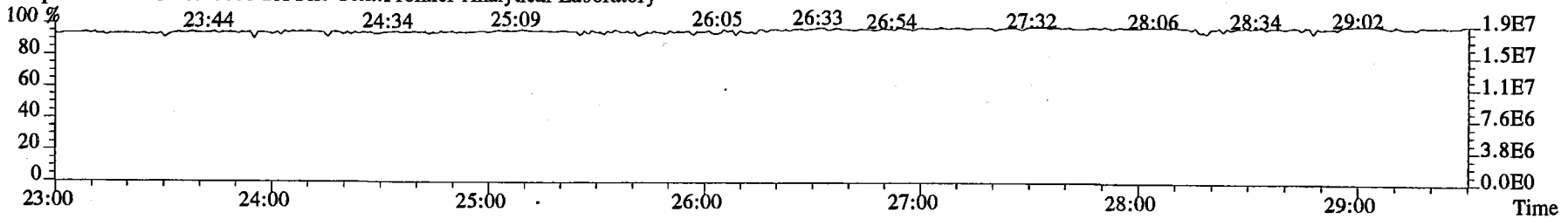
File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

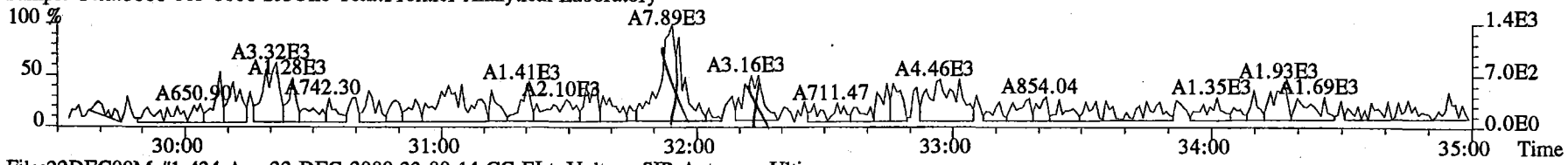


File:22DEC09M #1-391 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:11 Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

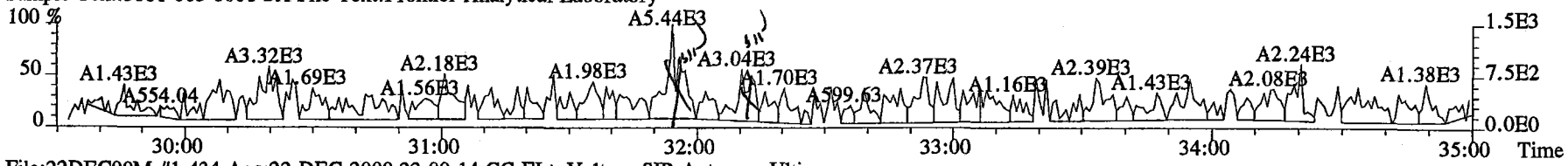


QB72:00535

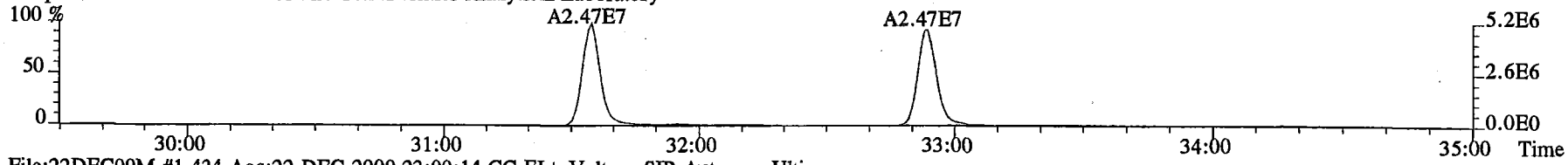
File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



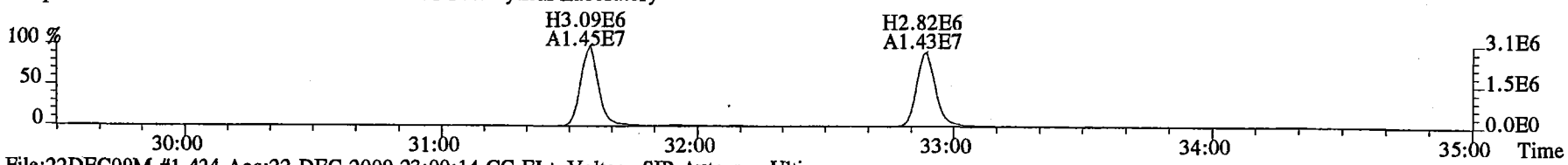
File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



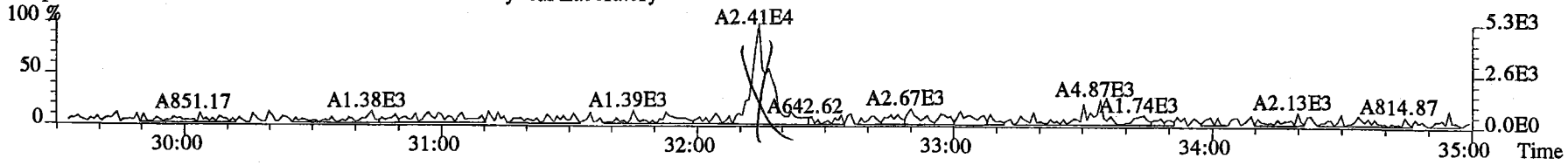
File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 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:5881-003-0001-SA File Text:Frontier Analytical Laboratory

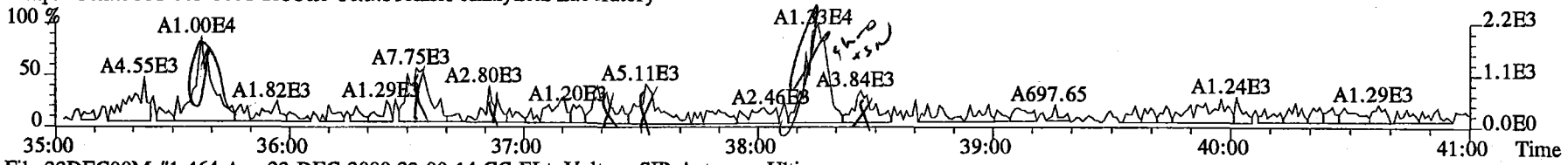


File:22DEC09M #1-424 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

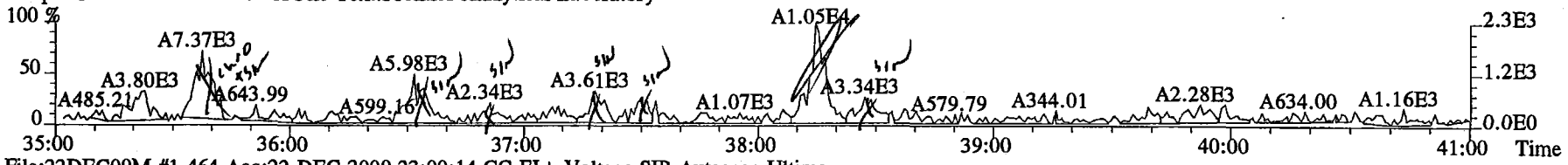


GB72:00536

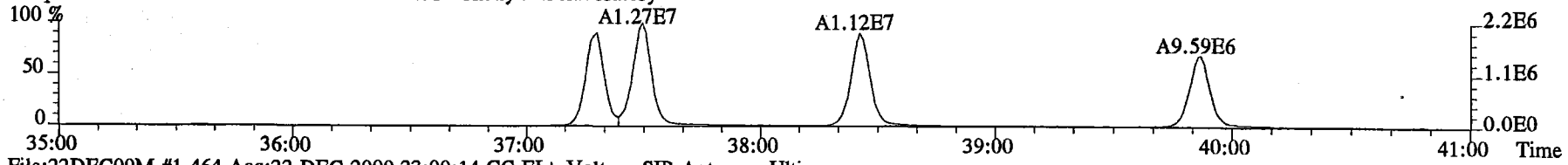
File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



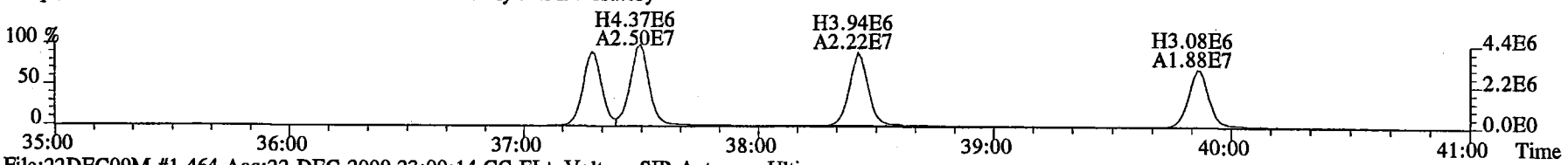
File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



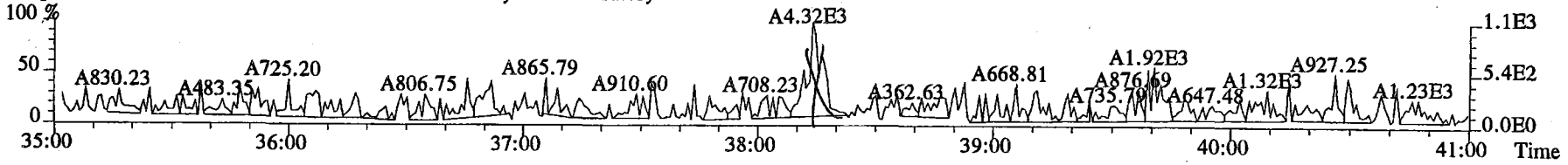
File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
385.8610 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:5881-003-0001-SA File Text:Frontier Analytical Laboratory

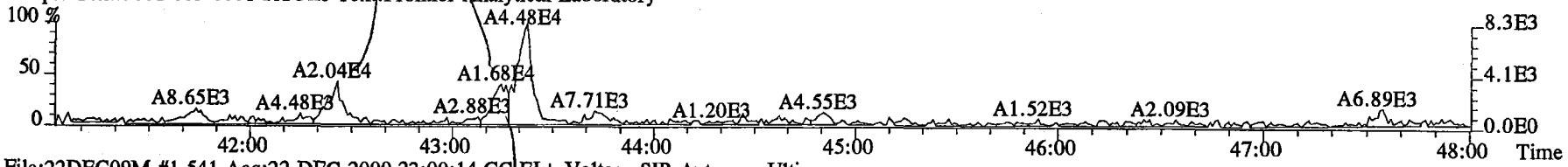


File:22DEC09M #1-464 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

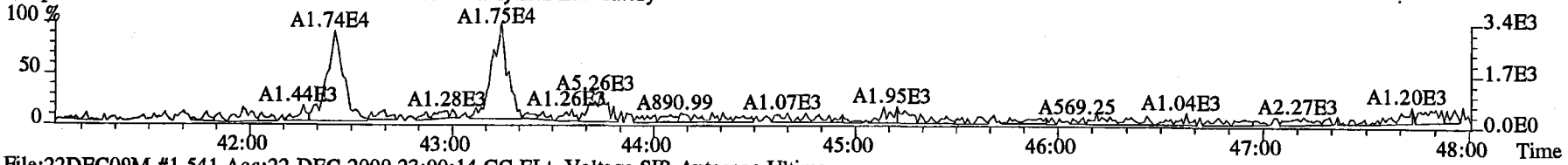


QB72:00537

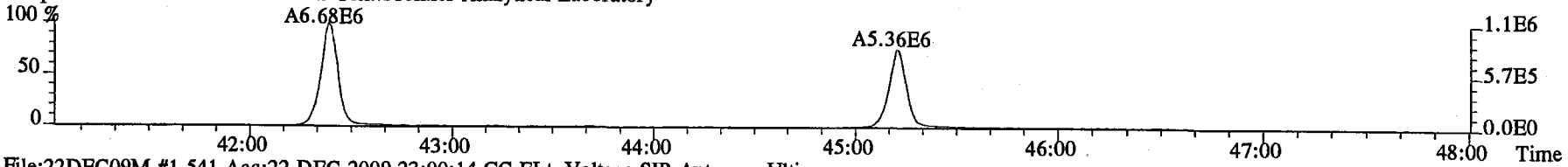
File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



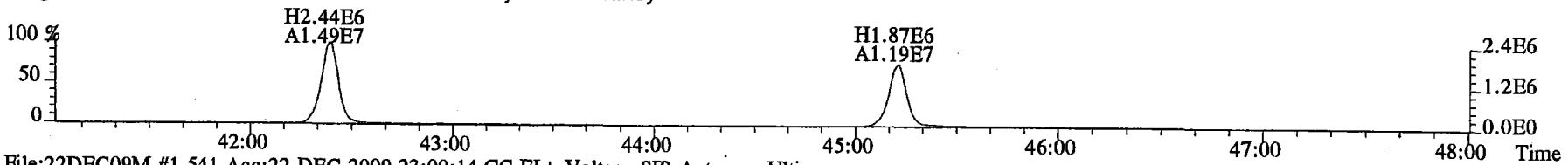
File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



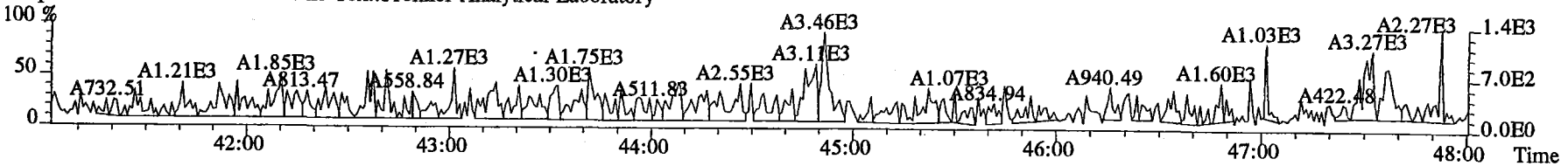
File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

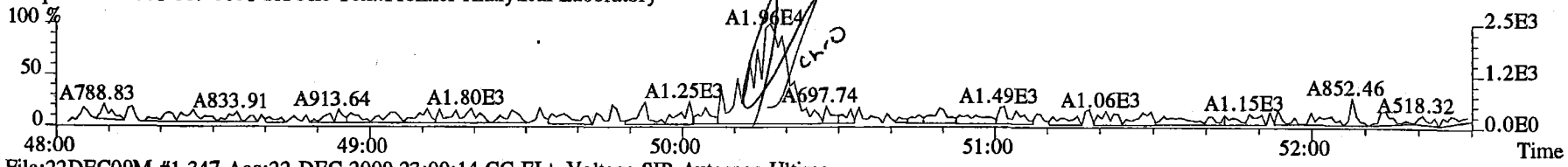


File:22DEC09M #1-541 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory

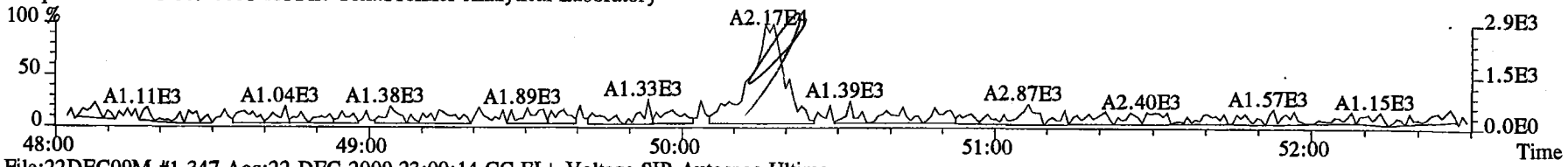


QB72:00538

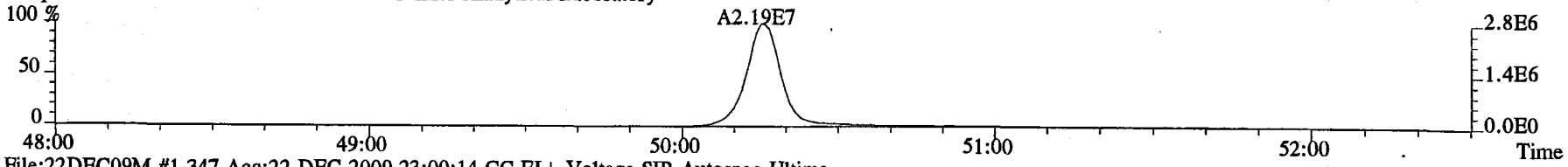
File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



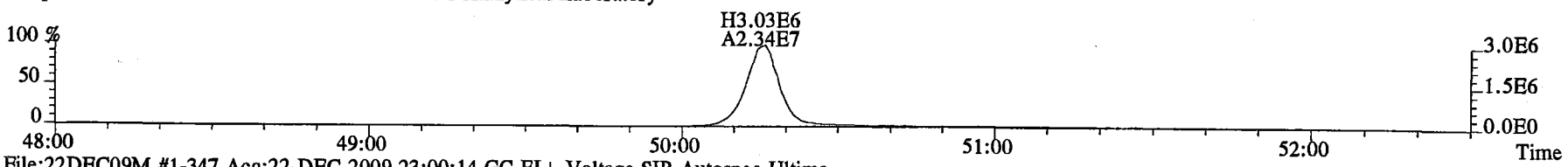
File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



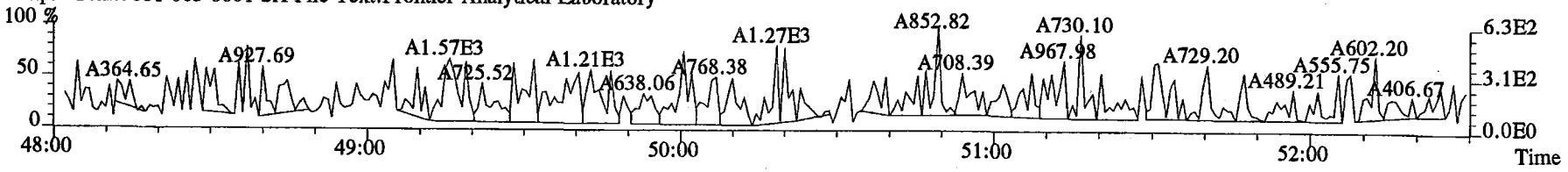
File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
455.7801 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:5881-003-0001-SA File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:22-DEC-2009 23:00:14 GC EI+ Voltage SIR Autospec-Ultima
513.6775 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:5881-003-0001-SA File Text:Frontier Analytical Laboratory



Initial Calibration Results

Frontier Analytical Laboratory

Data Filename: 18NOV09M

Analyte: PCDDFAL3-11-18-09 Cal: PCDDFAL3-11-18-09

Name	RRF	S. D.	%RSD	S2 RRF#1	S3 RRF#2	S4 RRF#3	S1 RRF#4	S5 RRF#5	S6 RRF#6
2,3,7,8-TCDD	1.02	0.0735	7.22 %	1.00	0.93	0.95	1.04	1.07	1.12
1,2,3,7,8-PeCDD	0.96	0.0778	8.09 %	0.88	0.88	0.93	0.99	1.02	1.07
1,2,3,4,7,8-HxCDD	1.37	0.110	8.00 %	1.26	1.27	1.31	1.41	1.48	1.52
1,2,3,6,7,8-HxCDD	1.34	0.0611	4.55 %	1.26	1.33	1.30	1.35	1.40	1.42
1,2,3,7,8,9-HxCDD	1.37	0.0751	5.49 %	1.32	1.27	1.32	1.40	1.43	1.47
1,2,3,4,6,7,8-HpCDD	1.17	0.0712	6.10 %	1.12	1.09	1.12	1.16	1.25	1.26
OCDD	1.21	0.113	9.27 %	1.09	1.11	1.17	1.23	1.34	1.35
2,3,7,8-TCDF	1.29	0.0564	4.39 %	1.22	1.28	1.25	1.26	1.31	1.38
1,2,3,7,8-PeCDF	0.89	0.0808	9.08 %	0.79	0.81	0.85	0.94	0.96	0.98
2,3,4,7,8-PeCDF	0.91	0.0710	7.85 %	0.83	0.84	0.87	0.92	0.98	1.00
1,2,3,4,7,8-HxCDF	1.00	0.0925	9.26 %	0.89	0.91	0.97	1.03	1.08	1.11
1,2,3,6,7,8-HxCDF	0.92	0.0747	8.16 %	0.82	0.86	0.88	0.93	0.99	1.01
2,3,4,6,7,8-HxCDF	0.99	0.0785	7.97 %	0.91	0.90	0.95	1.00	1.06	1.09
1,2,3,7,8,9-HxCDF	1.09	0.0901	8.28 %	0.98	1.01	1.06	1.11	1.17	1.20
1,2,3,4,6,7,8-HpCDF	1.36	0.131	9.61 %	1.22	1.22	1.31	1.39	1.50	1.51
1,2,3,4,7,8,9-HpCDF	1.61	0.159	9.90 %	1.49	1.44	1.50	1.62	1.77	1.82
OCDF	0.84	0.0791	9.39 %	0.75	0.76	0.81	0.86	0.93	0.93
13C-2,3,7,8-TCDD	0.94	0.0249	2.65 %	0.92	0.91	0.93	0.96	0.95	0.98
13C-1,2,3,7,8-PeCDD	1.02	0.0718	7.06 %	0.99	0.93	1.00	1.00	1.02	1.15
13C-1,2,3,4,7,8-HxCDD	0.98	0.0126	1.28 %	0.99	0.97	1.00	0.99	0.98	0.97
13C-1,2,3,6,7,8-HxCDD	0.94	0.0188	2.01 %	0.93	0.93	0.96	0.94	0.95	0.91
13C-1,2,3,4,6,7,8-HpCDD	0.90	0.0218	2.42 %	0.92	0.89	0.87	0.91	0.89	0.92
13C-OCDD	0.67	0.0306	4.59 %	0.69	0.66	0.62	0.69	0.64	0.70
13C-2,3,7,8-TCDF	0.88	0.0307	3.49 %	0.85	0.85	0.86	0.88	0.92	0.91
13C-1,2,3,7,8-PeCDF	0.88	0.0612	6.98 %	0.83	0.79	0.87	0.88	0.92	0.96
13C-2,3,4,7,8-PeCDF	0.85	0.0560	6.60 %	0.83	0.76	0.85	0.85	0.88	0.93
13C-1,2,3,4,7,8-HxCDF	1.72	0.0550	3.20 %	1.74	1.75	1.75	1.71	1.75	1.61
13C-1,2,3,6,7,8-HxCDF	2.00	0.0743	3.71 %	2.01	2.02	2.06	2.01	2.05	1.86
13C-2,3,4,6,7,8-HxCDF	1.74	0.0562	3.24 %	1.74	1.73	1.79	1.77	1.75	1.63
13C-1,2,3,7,8,9-HxCDF	1.51	0.0258	1.71 %	1.51	1.47	1.48	1.54	1.53	1.51
13C-1,2,3,4,6,7,8-HpCDF	1.10	0.0153	1.39 %	1.12	1.10	1.08	1.10	1.08	1.11
13C-1,2,3,4,7,8,9-HpCDF	0.85	0.0310	3.67 %	0.82	0.84	0.81	0.87	0.84	0.89
13C-OCDF	1.17	0.0555	4.73 %	1.18	1.15	1.10	1.21	1.14	1.26
37Cl-2,3,7,8-TCDD	0.97	0.0838	8.61 %	0.90	0.93	0.90	0.98	1.03	1.11
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-	-
13C-1,2,3,4-TCDF	-	-	- %	-	-	-	-	-	-
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-	-
Total Tetra-Dioxins	1.02	0.0735	7.22 %	1.00	0.93	0.95	1.04	1.07	1.12
Total Penta-Dioxins	0.96	0.0778	8.09 %	0.88	0.88	0.93	0.99	1.02	1.07
Total Hexa-Dioxins	1.36	0.0803	5.89 %	1.28	1.29	1.31	1.38	1.44	1.47
Total Hepta-Dioxins	1.17	0.0712	6.10 %	1.12	1.09	1.12	1.16	1.25	1.26
Total Tetra-Furans	1.29	0.0564	4.39 %	1.22	1.28	1.25	1.26	1.31	1.38
1st Fn. Tot Penta-Furans	0.90	0.0756	8.43 %	0.81	0.82	0.86	0.93	0.97	0.99
Total Penta-Furans	0.90	0.0756	8.43 %	0.81	0.82	0.86	0.93	0.97	0.99
Total Hexa-Furans	0.99	0.0838	8.45 %	0.89	0.91	0.96	1.01	1.07	1.10
Total Hepta-Furans	1.47	0.144	9.82 %	1.33	1.32	1.39	1.49	1.62	1.65

Analyst: _____ Date: 11/19/09

QB72:00540

Run #1 Filename 18NOV09M S: 2 Acquired: 18-NOV-09 14:40:53 Cal: PCDDFAL3-11-18-09
Client ID: ST111809M0 Analyte: FAL ID: 1613 CS0 090918G

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	0.25	6.29e+04	0.72	y	27:25	-	0.999	y
2	Unk	1,2,3,7,8-PeCDD	1.25	2.97e+05	1.58	y	33:14	-	0.878	y
3	Unk	1,2,3,4,7,8-HxCDD	1.25	3.17e+05	1.22	y	38:36	-	1.26	y
4	Unk	1,2,3,6,7,8-HxCDD	1.25	2.97e+05	1.25	y	38:46	-	1.26	y
5	Unk	1,2,3,7,8,9-HxCDD	1.25	3.23e+05	1.29	y	39:13	-	1.32	y
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	2.62e+05	0.93	y	44:14	-	1.12	y
7	Unk	OCDD	2.50	3.81e+05	0.92	y	49:49	-	1.09	y
8	Unk	2,3,7,8-TCDF	0.25	1.27e+05	0.69	y	26:39	-	1.22	y
9	Unk	1,2,3,7,8-PeCDF	1.25	4.03e+05	1.75	y	31:30	-	0.794	y
10	Unk	2,3,4,7,8-PeCDF	1.25	4.20e+05	1.65	y	32:49	-	0.830	y
11	Unk	1,2,3,4,7,8-HxCDF	1.25	3.91e+05	1.24	y	37:13	-	0.887	y
12	Unk	1,2,3,6,7,8-HxCDF	1.25	4.20e+05	1.21	y	37:26	-	0.822	y
13	Unk	2,3,4,6,7,8-HxCDF	1.25	4.00e+05	1.29	y	38:21	-	0.906	y
14	Unk	1,2,3,7,8,9-HxCDF	1.25	3.77e+05	1.28	y	39:47	-	0.981	y
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	3.46e+05	1.00	y	42:19	-	1.22	y
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	3.09e+05	1.00	y	45:08	-	1.49	y
17	Unk	OCDF	2.50	4.50e+05	0.88	y	50:10	-	0.754	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.52e+07	0.73	y	27:23	-	0.925	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.71e+07	1.63	y	33:13	-	0.994	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.02e+07	1.31	y	38:35	-	0.994	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.89e+07	1.33	y	38:45	-	0.930	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.87e+07	1.06	y	44:12	-	0.922	y
23	IS	13C-OCDD	200.00	2.79e+07	1.01	y	49:47	-	0.689	y
24	IS	13C-2,3,7,8-TCDF	100.00	4.15e+07	0.81	y	26:38	-	0.852	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	4.06e+07	1.67	y	31:28	-	0.835	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	4.04e+07	1.68	y	32:48	-	0.831	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.52e+07	0.48	y	37:12	-	1.74	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.09e+07	0.48	y	37:24	-	2.01	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.53e+07	0.49	y	38:20	-	1.74	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	3.07e+07	0.49	y	39:47	-	1.51	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.27e+07	0.46	y	42:18	-	1.12	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.66e+07	0.46	y	45:07	-	0.821	y
33	IS	13C-OCDF	200.00	4.77e+07	0.92	y	50:10	-	1.18	y
34	C/Up	37Cl-2,3,7,8-TCDD	0.25	6.12e+04			27:25	-	0.900	y
35	RS	13C-1,2,3,4-TCDD	100.00	2.72e+07	0.74	y	26:49	2.72e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	4.87e+07	0.81	y	25:33	4.87e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.03e+07	1.33	y	39:12	2.03e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	0.999	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	0.878	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.28	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.12	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.22	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.812	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.812	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	0.893	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.33	y

Analyst: _____ Date: 11/19/09

QB72:00541

Run #2 Filename 18NOV09M S: 3 Acquired: 18-NOV-09 15:36:11 Cal: PCDDFAL3-11-18-09
Client ID: ST111809M1 Analyte: FAL ID: 1613 CS1 090918H

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	0.50	1.11e+05	0.75	y	27:24	-	0.929	y
2	Unk	1,2,3,7,8-PeCDD	2.50	5.36e+05	1.55	y	33:13	-	0.880	y
3	Unk	1,2,3,4,7,8-HxCDD	2.50	5.91e+05	1.24	y	38:36	-	1.27	y
4	Unk	1,2,3,6,7,8-HxCDD	2.50	5.90e+05	1.34	y	38:46	-	1.33	y
5	Unk	1,2,3,7,8,9-HxCDD	2.50	5.76e+05	1.27	y	39:13	-	1.27	y
6	Unk	1,2,3,4,6,7,8-HpCDD	2.50	4.64e+05	0.91	y	44:14	-	1.09	y
7	Unk	OCDD	5.00	7.02e+05	0.93	y	49:48	-	1.11	y
8	Unk	2,3,7,8-TCDF	0.50	2.57e+05	0.66	y	26:38	-	1.28	y
9	Unk	1,2,3,7,8-PeCDF	2.50	7.54e+05	1.68	y	31:29	-	0.811	y
10	Unk	2,3,4,7,8-PeCDF	2.50	7.51e+05	1.69	y	32:48	-	0.839	y
11	Unk	1,2,3,4,7,8-HxCDF	2.50	7.60e+05	1.28	y	37:12	-	0.906	y
12	Unk	1,2,3,6,7,8-HxCDF	2.50	8.29e+05	1.28	y	37:25	-	0.857	y
13	Unk	2,3,4,6,7,8-HxCDF	2.50	7.51e+05	1.20	y	38:21	-	0.905	y
14	Unk	1,2,3,7,8,9-HxCDF	2.50	7.09e+05	1.26	y	39:47	-	1.01	y
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	6.45e+05	1.00	y	42:19	-	1.22	y
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	5.81e+05	0.96	y	45:08	-	1.44	y
17	Unk	OCDF	5.00	8.42e+05	0.93	y	50:11	-	0.763	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.38e+07	0.73	y	27:22	-	0.913	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.44e+07	1.69	y	33:12	-	0.934	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.86e+07	1.36	y	38:35	-	0.969	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.78e+07	1.31	y	38:44	-	0.928	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.70e+07	1.07	y	44:12	-	0.886	y
23	IS	13C-OCDD	200.00	2.54e+07	1.00	y	49:47	-	0.662	y
24	IS	13C-2,3,7,8-TCDF	100.00	4.01e+07	0.81	y	26:37	-	0.850	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	3.72e+07	1.68	y	31:28	-	0.790	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	3.58e+07	1.71	y	32:47	-	0.759	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.36e+07	0.48	y	37:11	-	1.75	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	3.87e+07	0.48	y	37:23	-	2.02	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.32e+07	0.49	y	38:20	-	1.73	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.82e+07	0.49	y	39:46	-	1.47	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.11e+07	0.45	y	42:17	-	1.10	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.61e+07	0.45	y	45:07	-	0.842	y
33	IS	13C-OCDF	200.00	4.41e+07	0.92	y	50:09	-	1.15	y
34	C/Up	37Cl-2,3,7,8-TCDD	0.50	1.21e+05			27:24	-	0.926	y
35	RS	13C-1,2,3,4-TCDD	100.00	2.61e+07	0.73	y	26:48	2.61e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	4.71e+07	0.81	y	25:32	4.71e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.92e+07	1.31	y	39:11	1.92e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	0.929	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	0.880	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.29	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.09	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.28	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.824	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.824	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	0.913	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.32	y

Analyst: _____ Date: 11/19/09

QB72 : 00542

Run #3 Filename 18NOV09M S: 4 Acquired: 18-NOV-09 16:31:26 Cal: PCDDFAL3-11-18-09
Client ID: ST111809M2 Analyte: FAL ID: 1613 CS2 090918I

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	2.00	4.69e+05	0.80 y	27:23	-	0.945	y
2	Unk	1,2,3,7,8-PeCDD	10.00	2.50e+06	1.55 y	33:13	-	0.933	y
3	Unk	1,2,3,4,7,8-HxCDD	10.00	2.60e+06	1.24 y	38:36	-	1.31	y
4	Unk	1,2,3,6,7,8-HxCDD	10.00	2.48e+06	1.24 y	38:46	-	1.30	y
5	Unk	1,2,3,7,8,9-HxCDD	10.00	2.57e+06	1.27 y	39:12	-	1.32	y
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	1.93e+06	0.91 y	44:13	-	1.12	y
7	Unk	OCDD	20.00	2.90e+06	0.92 y	49:48	-	1.17	y
8	Unk	2,3,7,8-TCDF	2.00	1.02e+06	0.66 y	26:38	-	1.25	y
9	Unk	1,2,3,7,8-PeCDF	10.00	3.54e+06	1.71 y	31:29	-	0.852	y
10	Unk	2,3,4,7,8-PeCDF	10.00	3.49e+06	1.69 y	32:48	-	0.868	y
11	Unk	1,2,3,4,7,8-HxCDF	10.00	3.37e+06	1.23 y	37:12	-	0.972	y
12	Unk	1,2,3,6,7,8-HxCDF	10.00	3.62e+06	1.22 y	37:25	-	0.884	y
13	Unk	2,3,4,6,7,8-HxCDF	10.00	3.37e+06	1.24 y	38:20	-	0.951	y
14	Unk	1,2,3,7,8,9-HxCDF	10.00	3.10e+06	1.21 y	39:47	-	1.06	y
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	2.82e+06	1.00 y	42:18	-	1.31	y
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	2.41e+06	1.01 y	45:08	-	1.50	y
17	Unk	OCDF	20.00	3.55e+06	0.91 y	50:10	-	0.813	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.48e+07	0.73 y	27:22	-	0.929	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.68e+07	1.66 y	33:12	-	1.00	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.99e+07	1.32 y	38:35	-	1.00	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.91e+07	1.31 y	38:44	-	0.964	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.73e+07	1.06 y	44:12	-	0.871	y
23	IS	13C-OCDD	200.00	2.47e+07	0.98 y	49:46	-	0.624	y
24	IS	13C-2,3,7,8-TCDF	100.00	4.07e+07	0.82 y	26:37	-	0.856	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	4.15e+07	1.68 y	31:28	-	0.873	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	4.02e+07	1.66 y	32:47	-	0.845	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.46e+07	0.49 y	37:11	-	1.75	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.09e+07	0.50 y	37:23	-	2.06	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.55e+07	0.50 y	38:19	-	1.79	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.93e+07	0.49 y	39:46	-	1.48	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.15e+07	0.46 y	42:18	-	1.08	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.60e+07	0.46 y	45:06	-	0.809	y
33	IS	13C-OCDF	200.00	4.36e+07	0.93 y	50:09	-	1.10	y
34	C/Up	37Cl-2,3,7,8-TCDD	2.00	4.80e+05		27:23	-	0.899	y
35	RS	13C-1,2,3,4-TCDD	100.00	2.67e+07	0.74 y	26:48	2.67e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	4.76e+07	0.81 y	25:31	4.76e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.98e+07	1.32 y	39:12	1.98e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	0.945	y
39	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	0.933	y
40	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.31	y
41	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.12	y
42	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.25	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.860	y
44	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.860	y
45	Tot	Total Hexa-Furans	0.00	-	- n	-	-	0.959	y
46	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.39	y

Analyst: _____ Date: 11/19/09

QB72:00543

Run #4 Filename 18NOV09M S: 1 Acquired: 18-NOV-09 13:45:10 Cal: PCDDFAL3-11-18-09
Client ID: ST111809M3 Analyte: FAL ID: 1613 CS3 090918J

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	10.00	2.56e+06	0.76 y	27:24	-	1.04	y
2	Unk	1,2,3,7,8-PeCDD	50.00	1.28e+07	1.56 y	33:14	-	0.993	y
3	Unk	1,2,3,4,7,8-HxCDD	50.00	1.38e+07	1.29 y	38:36	-	1.41	y
4	Unk	1,2,3,6,7,8-HxCDD	50.00	1.26e+07	1.28 y	38:47	-	1.35	y
5	Unk	1,2,3,7,8,9-HxCDD	50.00	1.34e+07	1.27 y	39:14	-	1.40	y
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	1.05e+07	0.95 y	44:14	-	1.16	y
7	Unk	OCDD	100.00	1.68e+07	0.91 y	49:49	-	1.23	y
8	Unk	2,3,7,8-TCDF	10.00	5.06e+06	0.66 y	26:38	-	1.26	y
9	Unk	1,2,3,7,8-PeCDF	50.00	1.89e+07	1.72 y	31:30	-	0.936	y
10	Unk	2,3,4,7,8-PeCDF	50.00	1.80e+07	1.72 y	32:49	-	0.923	y
11	Unk	1,2,3,4,7,8-HxCDF	50.00	1.75e+07	1.25 y	37:13	-	1.03	y
12	Unk	1,2,3,6,7,8-HxCDF	50.00	1.87e+07	1.25 y	37:25	-	0.930	y
13	Unk	2,3,4,6,7,8-HxCDF	50.00	1.77e+07	1.26 y	38:21	-	1.00	y
14	Unk	1,2,3,7,8,9-HxCDF	50.00	1.70e+07	1.24 y	39:48	-	1.11	y
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	1.53e+07	1.01 y	42:19	-	1.39	y
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	1.40e+07	0.99 y	45:09	-	1.62	y
17	Unk	OCDF	100.00	2.08e+07	0.92 y	50:11	-	0.863	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.46e+07	0.74 y	27:22	-	0.959	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.58e+07	1.60 y	33:13	-	1.00	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.96e+07	1.34 y	38:36	-	0.985	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.88e+07	1.34 y	38:45	-	0.943	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.81e+07	1.09 y	44:13	-	0.909	y
23	IS	13C-OCDD	200.00	2.74e+07	1.02 y	49:48	-	0.689	y
24	IS	13C-2,3,7,8-TCDF	100.00	4.03e+07	0.82 y	26:37	-	0.883	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	4.03e+07	1.68 y	31:28	-	0.884	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	3.90e+07	1.69 y	32:47	-	0.854	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.40e+07	0.49 y	37:11	-	1.71	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.01e+07	0.49 y	37:24	-	2.01	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.52e+07	0.49 y	38:20	-	1.77	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	3.06e+07	0.49 y	39:46	-	1.54	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.19e+07	0.46 y	42:18	-	1.10	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.74e+07	0.44 y	45:08	-	0.872	y
33	IS	13C-OCDF	200.00	4.82e+07	0.94 y	50:10	-	1.21	y
34	C/Up	37Cl-2,3,7,8-TCDD	10.00	2.51e+06		27:24	-	0.978	y
35	RS	13C-1,2,3,4-TCDD	100.00	2.57e+07	0.74 y	26:48	2.57e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	4.56e+07	0.81 y	25:32	4.56e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.99e+07	1.34 y	39:12	1.99e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.04	y
39	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	0.993	y
40	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.38	y
41	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.16	y
42	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.26	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.930	y
44	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.930	y
45	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.01	y
46	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.49	y

Analyst: _____ Date: 11/19/09

QB72 : 00544

Run #5 Filename 18NOV09M S: 5 Acquired: 18-NOV-09 17:26:40 Cal: PCDDFAL3-11-18-09
Client ID: ST111809M4 Analyte: FAL ID: 1613 CS4 090918K

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	40.00	1.15e+07	0.78 y	27:23	-	1.07	y
2	Unk	1,2,3,7,8-PeCDD	200.00	5.92e+07	1.60 y	33:13	-	1.02	y
3	Unk	1,2,3,4,7,8-HxCDD	200.00	6.29e+07	1.27 y	38:35	-	1.48	y
4	Unk	1,2,3,6,7,8-HxCDD	200.00	5.74e+07	1.28 y	38:46	-	1.40	y
5	Unk	1,2,3,7,8,9-HxCDD	200.00	5.95e+07	1.26 y	39:13	-	1.43	y
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	4.77e+07	0.95 y	44:13	-	1.25	y
7	Unk	OCDD	400.00	7.39e+07	0.92 y	49:48	-	1.34	y
8	Unk	2,3,7,8-TCDF	40.00	2.33e+07	0.66 y	26:37	-	1.31	y
9	Unk	1,2,3,7,8-PeCDF	200.00	8.59e+07	1.69 y	31:29	-	0.964	y
10	Unk	2,3,4,7,8-PeCDF	200.00	8.30e+07	1.71 y	32:48	-	0.978	y
11	Unk	1,2,3,4,7,8-HxCDF	200.00	8.21e+07	1.25 y	37:12	-	1.08	y
12	Unk	1,2,3,6,7,8-HxCDF	200.00	8.80e+07	1.25 y	37:24	-	0.991	y
13	Unk	2,3,4,6,7,8-HxCDF	200.00	8.00e+07	1.23 y	38:21	-	1.06	y
14	Unk	1,2,3,7,8,9-HxCDF	200.00	7.74e+07	1.25 y	39:47	-	1.17	y
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	7.01e+07	1.02 y	42:18	-	1.50	y
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	6.47e+07	1.02 y	45:08	-	1.77	y
17	Unk	OCDF	400.00	9.18e+07	0.92 y	50:11	-	0.930	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.70e+07	0.73 y	27:22	-	0.950	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.91e+07	1.73 y	33:12	-	1.02	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.13e+07	1.33 y	38:35	-	0.983	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.05e+07	1.33 y	38:44	-	0.946	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.91e+07	1.06 y	44:12	-	0.885	y
23	IS	13C-OCDD	200.00	2.76e+07	0.99 y	49:47	-	0.638	y
24	IS	13C-2,3,7,8-TCDF	100.00	4.44e+07	0.82 y	26:36	-	0.918	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	4.45e+07	1.70 y	31:27	-	0.921	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	4.24e+07	1.70 y	32:47	-	0.877	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.79e+07	0.50 y	37:11	-	1.75	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.44e+07	0.49 y	37:23	-	2.05	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.79e+07	0.49 y	38:19	-	1.75	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	3.30e+07	0.48 y	39:46	-	1.53	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.33e+07	0.47 y	42:17	-	1.08	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.82e+07	0.46 y	45:07	-	0.843	y
33	IS	13C-OCDF	200.00	4.94e+07	0.92 y	50:09	-	1.14	y
34	C/Up	37Cl-2,3,7,8-TCDD	40.00	1.17e+07		27:23	-	1.03	y
35	RS	13C-1,2,3,4-TCDD	100.00	2.85e+07	0.74 y	26:47	2.85e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	4.84e+07	0.82 y	25:32	4.84e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.16e+07	1.31 y	39:12	2.16e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.07	y
39	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.02	y
40	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.44	y
41	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.25	y
42	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.31	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.971	y
44	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.971	y
45	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.07	y
46	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.62	y

Analyst: _____ Date: 11/19/09

QB72:00545

Run #6 Filename 18NOV09M S: 6 Acquired: 18-NOV-09 18:21:58 Cal: PCDDFAL3-11-18-09
Client ID: ST111809M5 Analyte: PCDDFAL3-11-18-09 FAL ID: 1613 CS5 090918L

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	200.00	4.98e+07	0.78	y	27:23	-	1.12	y
2	Unk	1,2,3,7,8-PeCDD	1000.00	2.79e+08	1.55	y	33:13	-	1.07	y
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	3.29e+08	1.27	y	38:36	-	1.52	y
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	2.88e+08	1.27	y	38:46	-	1.42	y
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	3.07e+08	1.25	y	39:13	-	1.47	y
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	2.60e+08	0.97	y	44:13	-	1.26	y
7	Unk	OCDD	2000.00	4.20e+08	0.91	y	49:49	-	1.35	y
8	Unk	2,3,7,8-TCDF	200.00	1.00e+08	0.68	y	26:38	-	1.38	y
9	Unk	1,2,3,7,8-PeCDF	1000.00	3.75e+08	1.67	y	31:29	-	0.979	y
10	Unk	2,3,4,7,8-PeCDF	1000.00	3.68e+08	1.68	y	32:48	-	0.995	y
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	3.99e+08	1.26	y	37:12	-	1.11	y
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	4.18e+08	1.25	y	37:24	-	1.01	y
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	3.97e+08	1.25	y	38:20	-	1.09	y
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	4.04e+08	1.24	y	39:47	-	1.20	y
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	3.72e+08	1.01	y	42:18	-	1.51	y
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	3.62e+08	1.01	y	45:08	-	1.82	y
17	Unk	OCDF	2000.00	5.23e+08	0.93	y	50:12	-	0.933	y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.22e+07	0.74	y	27:22	-	0.980	y
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.61e+07	1.65	y	33:12	-	1.15	y
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.17e+07	1.33	y	38:35	-	0.972	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.02e+07	1.33	y	38:44	-	0.909	y
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	2.06e+07	1.07	y	44:12	-	0.923	y
23	IS	13C-OCDD	200.00	3.11e+07	1.02	y	49:48	-	0.698	y
24	IS	13C-2,3,7,8-TCDF	100.00	3.62e+07	0.83	y	26:37	-	0.911	y
25	IS	13C-1,2,3,7,8-PeCDF	100.00	3.83e+07	1.66	y	31:27	-	0.963	y
26	IS	13C-2,3,4,7,8-PeCDF	100.00	3.70e+07	1.70	y	32:46	-	0.930	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	3.59e+07	0.49	y	37:11	-	1.61	y
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	4.14e+07	0.50	y	37:23	-	1.86	y
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	3.63e+07	0.49	y	38:20	-	1.63	y
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	3.35e+07	0.48	y	39:46	-	1.51	y
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.47e+07	0.46	y	42:17	-	1.11	y
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.99e+07	0.47	y	45:06	-	0.892	y
33	IS	13C-OCDF	200.00	5.61e+07	0.94	y	50:10	-	1.26	y
34	C/Up	37Cl-2,3,7,8-TCDD	200.00	5.04e+07			27:23	-	1.11	y
35	RS	13C-1,2,3,4-TCDD	100.00	2.27e+07	0.74	y	26:47	2.27e+05	-	n
36	RS	13C-1,2,3,4-TCDF	100.00	3.98e+07	0.82	y	25:31	3.98e+05	-	n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	2.23e+07	1.31	y	39:11	2.23e+05	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.12	y
39	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.07	y
40	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.47	y
41	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.26	y
42	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.38	y
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	-	n	-	-	0.987	y
44	Tot	Total Penta-Furans	0.00	-	-	n	-	-	0.987	y
45	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.10	y
46	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.65	y

Analyst: _____ Date: 11/19/09

QB72:00546

USEPA - ITD

FORM 3A
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS3 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
NATIVE ANALYTES								
2,3,7,8-TCDD	1.00	0.93	0.95	1.04	1.07	1.12	1.02	7.22
1,2,3,7,8-PeCDD	0.88	0.88	0.93	0.99	1.02	1.07	0.96	8.09
1,2,3,4,7,8-HxCDD	1.26	1.27	1.31	1.41	1.48	1.52	1.37	8.00
1,2,3,6,7,8-HxCDD	1.26	1.33	1.30	1.35	1.40	1.42	1.34	4.55
1,2,3,7,8,9-HxCDD	1.32	1.27	1.32	1.40	1.43	1.47	1.37	5.49
1,2,3,4,6,7,8-HpCDD	1.12	1.09	1.12	1.16	1.25	1.26	1.17	6.10
OCDD	1.09	1.11	1.17	1.23	1.34	1.35	1.21	9.27
2,3,7,8-TCDF	1.22	1.28	1.25	1.26	1.31	1.38	1.29	4.39
1,2,3,7,8-PeCDF	0.79	0.81	0.85	0.94	0.96	0.98	0.89	9.08
2,3,4,7,8-PeCDF	0.83	0.84	0.87	0.92	0.98	1.00	0.91	7.85
1,2,3,4,7,8-HxCDF	0.89	0.91	0.97	1.03	1.08	1.11	1.00	9.26
1,2,3,6,7,8-HxCDF	0.82	0.86	0.88	0.93	0.99	1.01	0.92	8.16
2,3,4,6,7,8-HxCDF	0.91	0.90	0.95	1.00	1.06	1.09	0.99	7.97
1,2,3,7,8,9-HxCDF	0.98	1.01	1.06	1.11	1.17	1.20	1.09	8.28
1,2,3,4,6,7,8-HpCDF	1.22	1.22	1.31	1.39	1.50	1.51	1.36	9.61
1,2,3,4,7,8,9-HpCDF	1.49	1.44	1.50	1.62	1.77	1.82	1.61	9.90
OCDF	0.75	0.76	0.81	0.86	0.93	0.93	0.84	9.39

Analyst: _____ Date: 11/19/09

QB72:00547

USEPA - ITD

FORM 3B
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS4 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD)
	CS1	CS2	CS3	CS4	CS5	CS6		
LABELED COMPOUNDS								
13C-2,3,7,8-TCDD	0.92	0.91	0.93	0.96	0.95	0.98	0.94	2.65
13C-1,2,3,7,8-PeCDD	0.99	0.93	1.00	1.00	1.02	1.15	1.02	7.06
13C-1,2,3,4,7,8-HxCDD	0.99	0.97	1.00	0.99	0.98	0.97	0.98	1.28
13C-1,2,3,6,7,8-HxCDD	0.93	0.93	0.96	0.94	0.95	0.91	0.94	2.01
13C-1,2,3,4,6,7,8-HpCDD	0.92	0.89	0.87	0.91	0.89	0.92	0.90	2.42
13C-OCDD	0.69	0.66	0.62	0.69	0.64	0.70	0.67	4.59
13C-2,3,7,8-TCDF	0.85	0.85	0.86	0.88	0.92	0.91	0.88	3.49
13C-1,2,3,7,8-PeCDF	0.83	0.79	0.87	0.88	0.92	0.96	0.88	6.98
13C-2,3,4,7,8-PeCDF	0.83	0.76	0.85	0.85	0.88	0.93	0.85	6.60
13C-1,2,3,4,7,8-HxCDF	1.74	1.75	1.75	1.71	1.75	1.61	1.72	3.20
13C-1,2,3,6,7,8-HxCDF	2.01	2.02	2.06	2.01	2.05	1.86	2.00	3.71
13C-2,3,4,6,7,8-HxCDF	1.74	1.73	1.79	1.77	1.75	1.63	1.74	3.24
13C-1,2,3,7,8,9-HxCDF	1.51	1.47	1.48	1.54	1.53	1.51	1.51	1.71
13C-1,2,3,4,6,7,8-HpCDF	1.12	1.10	1.08	1.10	1.08	1.11	1.10	1.39
13C-1,2,3,4,7,8,9-HpCDF	0.82	0.84	0.81	0.87	0.84	0.89	0.85	3.67
13C-OCDF	1.18	1.15	1.10	1.21	1.14	1.26	1.17	4.73
CLEANUP STANDARD								
37Cl-2,3,7,8-TCDD	0.90	0.93	0.90	0.98	1.03	1.11	0.97	8.61

Analyst: _____ Date: 11/19/09

QB72:00548

USEPA - ITD

FORM 3C
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS3 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUNDANCE RATIOS CS1	CS2	CS3	CS4	CS5	CS6	QC LIMITS
2,3,7,8-TCDD	M/M+2	0.72	0.75	0.80	0.76	0.78	0.78	0.65-0.89
1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.55	1.55	1.56	1.60	1.55	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.24	1.24	1.29	1.27	1.27	1.05-1.43
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.34	1.24	1.28	1.28	1.27	1.05-1.43
1,2,3,7,8,9-HxCDD	M+2/M+4	1.29	1.27	1.27	1.27	1.26	1.25	1.05-1.43
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.93	0.91	0.91	0.95	0.95	0.97	0.88-1.20
OCDD	M+2/M+4	0.92	0.93	0.92	0.91	0.92	0.91	0.76-1.02
2,3,7,8-TCDF	M/M+2	0.69	0.66	0.66	0.66	0.66	0.68	0.65-0.89
1,2,3,7,8-PeCDF	M+2/M+4	1.75	1.68	1.71	1.72	1.69	1.67	1.32-1.78
2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.69	1.69	1.72	1.71	1.68	1.32-1.78
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.28	1.23	1.25	1.25	1.26	1.05-1.43
1,2,3,6,7,8-HxCDF	M+2/M+4	1.21	1.28	1.22	1.25	1.25	1.25	1.05-1.43
2,3,4,6,7,8-HxCDF	M+2/M+4	1.29	1.20	1.24	1.26	1.23	1.25	1.05-1.43
1,2,3,7,8,9-HxCDF	M+2/M+4	1.28	1.26	1.21	1.24	1.25	1.24	1.05-1.43
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.00	1.00	1.00	1.01	1.02	1.01	0.88-1.20
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.00	0.96	1.01	0.99	1.02	1.01	0.88-1.20
OCDF	M+2/M+4	0.88	0.93	0.91	0.92	0.92	0.93	0.76-1.02

Analyst: _____ Date: 11/19/09

QB72:00549

USEPA - ITD

FORM 3D
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

CS0 Data Filename: 18NOV09M S2 CS3 Data Filename: 18NOV09M S1

CS1 Data Filename: 18NOV09M S3 CS4 Data Filename: 18NOV09M S5

CS2 Data Filename: 18NOV09M S4 CS5 Data Filename: 18NOV09M S6

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUNDANCE RATIOS CS1	CS2	CS3	CS4	CS5	CS6	QC LIMITS
13C-2,3,7,8-TCDD	M/M+2	0.73	0.73	0.73	0.74	0.73	0.74	0.65-0.89
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.63	1.69	1.66	1.60	1.73	1.65	1.32-1.78
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.31	1.36	1.32	1.34	1.33	1.33	1.05-1.43
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.33	1.31	1.31	1.34	1.33	1.33	1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	1.07	1.06	1.09	1.06	1.07	0.88-1.20
13C-OCDD	M+2/M+4	1.01	1.00	0.98	1.02	0.99	1.02	0.76-1.02
13C-2,3,7,8-TCDF	M/M+2	0.81	0.81	0.82	0.82	0.82	0.83	0.65-0.89
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.67	1.68	1.68	1.68	1.70	1.66	1.32-1.78
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.68	1.71	1.66	1.69	1.70	1.70	1.32-1.78
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.48	0.49	0.49	0.50	0.49	0.43-0.59
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.48	0.48	0.50	0.49	0.49	0.50	0.43-0.59
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.49	0.50	0.49	0.49	0.49	0.43-0.59
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.49	0.49	0.49	0.48	0.48	0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.45	0.46	0.46	0.47	0.46	0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.45	0.46	0.44	0.46	0.47	0.37-0.51
13C-OCDF	M+2/M+4	0.92	0.92	0.93	0.94	0.92	0.94	0.76-1.02

Analyst: _____ Date: 11/19/09

QB72:00550

USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 18NOV09M Sam:1 Analysis Date: 18-NOV-09 13:45:10

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
2,3,7,8-TCDD	M/M+2	0.76	0.65-0.89	y	10.2	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.32-1.78	y	51.6	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	51.2	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	50.1	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.27	1.05-1.43	y	51.1	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.95	0.88-1.20	y	49.5	43.0 - 58.0
OCDD	M+2/M+4	0.91	0.76-1.02	y	101	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.66	0.65-0.89	y	9.77	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.72	1.32-1.78	y	52.6	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.72	1.32-1.78	y	50.9	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	51.5	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	50.8	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	y	50.9	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	y	51.1	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	51.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.99	0.88-1.20	y	50.3	43.0 - 58.0
OCDF	M+2/M+4	0.92	0.76-1.02	y	102	63.0 - 159

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

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

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

Analyst: _____ Date: 11/19/09

QB72:00551

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 18NOV09M Sam:1 Analysis Date: 18-NOV-09 13:45:10

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
LABELED COMPOUNDS						
13C-2,3,7,8-TCDD	M/M+2	0.74	0.65-0.89	y	.102	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	y	98.5	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.34	1.05-1.43	y	100	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.34	1.05-1.43	y	101	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.09	0.88-1.20	y	101	72.0 - 138
13C-OCDD	M+2/M+4	1.02	0.76-1.02	y	207	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.82	0.65-0.89	y	100	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.68	1.32-1.78	y	101	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	101	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	99.5	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	101	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	102	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.49	0.43-0.59	y	102	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.37-0.51	y	100	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	103	77.0 - 129
13C-OCDF	M+2/M+4	0.94	0.76-1.02	y	206	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					10.0	7.80 - 12.8

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

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

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

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

Analyst: _____ Date: 11/19/09

QB72:00552

FORM 5
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: FAL3 Initial Calibration Date: 11/18/09

RT Window Data Filename: 18NOV09M Sam:1 Analysis Date: 18-NOV-09 Time: 13:45:10

DB-5 IS Data Filename: 18NOV09M Sam:1 Analysis Date: 18-NOV-09 Time: 13:45:10

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

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	24:23	1,3,6,8-TCDF (F)	23:02
1,2,8,9-TCDD (L)	28:20	1,2,8,9-TCDF (L)	28:33
1,2,4,7,9-PeCDD (F)	30:15	1,3,4,6,8-PeCDF (F)	28:26
1,2,3,8,9-PeCDD (L)	33:49	1,2,3,8,9-PeCDF (L)	34:14
1,2,4,6,7,9-HxCDD (F)	36:09	1,2,3,4,6,8-HxCDF (F)	35:16
1,2,3,7,8,9-HxCDD (L)	39:14	1,2,3,7,8,9-HxCDF (L)	39:48
1,2,3,4,6,7,9-HpCDD (F)	42:51	1,2,3,4,6,7,8-HpCDF (F)	42:19
1,2,3,4,6,7,8-HpCDD (L)	44:14	1,2,3,4,7,8,9-HpCDF (L)	45:09

(F) = First eluting iosmer (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: 11/19/09

QB72:00553

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 18-NOV-09 13:45:10 CS3 or VER Data Filename: 18NOV09M Sam:1

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.001	0.999-1.002
LABELED COMPOUNDS			
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989-1.052
13C-2,3,7,8-TCDD		1.021	0.976-1.043
13C-2,3,7,8-TCDF		0.993	0.923-1.103
13C-1,2,3,7,8-PeCDD		1.239	1.000-1.567
13C-1,2,3,7,8-PeCDF		1.174	0.923-1.203
13C-2,3,4,7,8-PeCDF		1.224	0.923-1.303

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

Analyst: _____ Date: 11/19/09

QB72:00554

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 18-NOV-09 13:45:10 CS3 or VER Data Filename: 18NOV09M Sam:1

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.001	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.012	1.000-1.019
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.001	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.985	0.977-1.000
13C-1,2,3,6,7,8-HxCDD		0.988	0.981-1.003
13C-1,2,3,4,7,8-HxCDF		0.949	0.944-0.970
13C-1,2,3,6,7,8-HxCDF		0.954	0.949-0.975
13C-2,3,4,6,7,8-HxCDF		0.978	0.959-1.021
13C-1,2,3,7,8,9-HxCDF		1.014	0.977-1.047
13C-1,2,3,4,6,7,8-HpCDD		1.128	1.086-1.130
13C-1,2,3,4,6,7,8-HpCDF		1.079	1.043-1.085
13C-1,2,3,4,7,8,9-HpCDF		1.151	1.057-1.154
13C-OCDD		1.270	1.032-1.311
13C-OCDF		1.280	1.000-1.311

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

Analyst: _____ Date: 11/19/09

QB72 : 00555

FAL ID: ST111809M3 Filename: 18NOV09M Sam:1 Acquired: 18-NOV-09 13:45:10 ICal: PCDDFAL3-11-18-09
Client ID: 1613 CS3 090918J ConCal: ST111809M3 EndCal: ST111809M6
Results: GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 103
WHO 1998 Tox: 128 WHO 2005 Tox: 117

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	2.56e+06	0.76 y	27:24	1.02	10.2		2.50	-	-	*
1,2,3,7,8-PeCDD	1.28e+07	1.56 y	33:14	0.96	51.6		2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.38e+07	1.29 y	38:36	1.37	51.2		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.26e+07	1.28 y	38:47	1.34	50.1		2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.34e+07	1.27 y	39:14	1.37	51.1		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	1.05e+07	0.95 y	44:14	1.17	49.5		2.50	-	-	*
OCDD	1.68e+07	0.91 y	49:49	1.21	101		2.50	-	-	*
2,3,7,8-TCDF	5.06e+06	0.66 y	26:38	1.29	9.77		2.50	-	-	*
1,2,3,7,8-PeCDF	1.89e+07	1.72 y	31:30	0.89	52.6		2.50	-	-	*
2,3,4,7,8-PeCDF	1.80e+07	1.72 y	32:49	0.91	50.9		2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.75e+07	1.25 y	37:13	1.00	51.5		2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.87e+07	1.25 y	37:25	0.92	50.8		2.50	-	-	*
2,3,4,6,7,8-HxCDF	1.77e+07	1.26 y	38:21	0.99	50.9		2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.70e+07	1.24 y	39:48	1.09	51.1		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.53e+07	1.01 y	42:19	1.36	51.3		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.40e+07	0.99 y	45:09	1.61	50.3		2.50	-	-	*
OCDF	2.08e+07	0.92 y	50:11	0.84	102		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	2.46e+07	0.74 y	27:22	0.94	102					102
13C-1,2,3,7,8-PeCDD	2.58e+07	1.60 y	33:13	1.02	98.5					98.5
13C-1,2,3,4,7,8-HxCDD	1.96e+07	1.34 y	38:36	0.98	100					100
13C-1,2,3,6,7,8-HxCDD	1.88e+07	1.34 y	38:45	0.94	101					101
13C-1,2,3,4,6,7,8-HpCDD	1.81e+07	1.09 y	44:13	0.90	101					101
13C-OCDD	2.74e+07	1.02 y	49:48	0.67	207					103
13C-2,3,7,8-TCDF	4.03e+07	0.82 y	26:37	0.88	100					100
13C-1,2,3,7,8-PeCDF	4.03e+07	1.68 y	31:28	0.88	101					101
13C-2,3,4,7,8-PeCDF	3.90e+07	1.69 y	32:47	0.85	101					101
13C-1,2,3,4,7,8-HxCDF	3.40e+07	0.49 y	37:11	1.72	99.5					99.5
13C-1,2,3,6,7,8-HxCDF	4.01e+07	0.49 y	37:24	2.00	101					101
13C-2,3,4,6,7,8-HxCDF	3.52e+07	0.49 y	38:20	1.74	102					102
13C-1,2,3,7,8,9-HxCDF	3.06e+07	0.49 y	39:46	1.51	102					102
13C-1,2,3,4,6,7,8-HpCDF	2.19e+07	0.46 y	42:18	1.10	100					100
13C-1,2,3,4,7,8,9-HpCDF	1.74e+07	0.44 y	45:08	0.85	103					103
13C-OCDF	4.82e+07	0.94 y	50:10	1.17	206					103
37Cl-2,3,7,8-TCDD	2.51e+06		27:24	0.97	10.0					100
13C-1,2,3,4-TCDD	2.57e+07	0.74 y	26:48	-	98.3					
13C-1,2,3,4-TCDF	4.56e+07	0.81 y	25:32	-	98.8					
13C-1,2,3,7,8,9-HxCDD	1.99e+07	1.34 y	39:12	-	97.0					

						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	1.39e+07		24:23	1.02	55.3	2.50	-	-	*		20
Total Penta-Dioxins	2.72e+07		30:15	0.96	110	2.50	-	-	*		13
Total Hexa-Dioxins	4.52e+07		36:09	1.36	173	2.50	-	-	*		14
Total Hepta-Dioxins	2.21e+07		42:51	1.17	105	2.50	-	-	*		10
Total Tetra-Furans	2.16e+07		23:02	1.29	41.7	2.50	-	-	*		18
1st Fn. Tot Penta-Furans	1.85e+07		28:26	0.90	51.9	2.50	-	-	*	PeCDF	1
Total Penta-Furans	5.36e+07		30:11	0.90	151	2.50	-	-	*	203	9
Total Hexa-Furans	8.22e+07		35:16	0.99	237	2.50	-	-	*		15
Total Hepta-Furans	2.95e+07		42:19	1.47	102	2.50	-	-	*		4

Analyst: _____ Date: 11/19/09

QB72 : 00556

Frontier Analytical Laboratory - Acquisition Log

Run Name:18NOV09M Instrument: FAL3 GC: DB5 Experiment:PCDD

Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
18NOV09M	1	ST111809M3	1613 CS3 090918J	18-NOV-09 13:45:10	ST111809M3	ST111809M6	BS
18NOV09M	2	ST111809M0	1613 CS0 090918G	18-NOV-09 14:40:53	ST111809M3	ST111809M6	BS
18NOV09M	3	ST111809M1	1613 CS1 090918H	18-NOV-09 15:36:11	ST111809M3	ST111809M6	BS
18NOV09M	4	ST111809M2	1613 CS2 090918I	18-NOV-09 16:31:26	ST111809M3	ST111809M6	BS
18NOV09M	5	ST111809M4	1613 CS4 090918K	18-NOV-09 17:26:40	ST111809M3	ST111809M6	BS
18NOV09M	6	ST111809M5	1613 CS5 090918L	18-NOV-09 18:21:58	ST111809M3	ST111809M6	BS
18NOV09M	7	SB111809M1	Solvent Blank	18-NOV-09 19:17:18	ST111809M3	ST111809M6	BS
18NOV09M	8	1882-001-0001-OPR	OPR	18-NOV-09 20:12:37	ST111809M3	ST111809M6	BS
18NOV09M	9	1882-001-0001-MB	Method Blank	18-NOV-09 21:07:56	ST111809M3	ST111809M6	BS
18NOV09M	10	5820-009-0001-SA	EDS-114-106+69-C1-0.7	18-NOV-09 22:03:10	ST111809M3	ST111809M6	BS
18NOV09M	11	5820-014-0001-SA	EDS-116-105+86-W2-7.1	18-NOV-09 22:58:30	ST111809M3	ST111809M6	BS
18NOV09M	12	5820-002-0001-SA	EDS-119-106+09-W3-5.2	18-NOV-09 23:53:48	ST111809M3	ST111809M6	BS
18NOV09M	13	5820-011-0001-SA	EDS-105-106+69-W2-6.0	19-NOV-09 00:49:06	ST111809M3	ST111809M6	BS
18NOV09M	14	SB111809M2	Solvent Blank	19-NOV-09 01:44:25	ST111809M3	ST111809M6	BS
18NOV09M	15	SB111809M3	Solvent Blank	19-NOV-09 02:39:43	ST111809M3	ST111809M6	BS
18NOV09M	16	ST111809M6	1613 CS3 090918J	19-NOV-09 03:35:00	ST111809M6	ST111809M7	BS
18NOV09M	17	5820-003-0001-SA	EDS-117-105+86-W3-4.9	19-NOV-09 04:30:11	ST111809M6	ST111809M7	BS
18NOV09M	18	5820-006-0001-SA	EDS-118-106+09-W2-5.7	19-NOV-09 05:25:26	ST111809M6	ST111809M7	BS
18NOV09M	19	5820-010-0001-SA	EDS-104-106+69-W1-5.5	19-NOV-09 06:20:41	ST111809M6	ST111809M7	BS
18NOV09M	20	5820-008-0001-SA	EDS-120-106+09-W4-6.4	19-NOV-09 07:16:00	ST111809M6	ST111809M7	BS
18NOV09M	21	5820-007-0001-SA	EDS-113-106+44-W8-7.6	19-NOV-09 08:11:14	ST111809M6	ST111809M7	BS
18NOV09M	22	5820-004-0001-SA	EDS-107-106+69-W4-7.5	19-NOV-09 09:06:32	ST111809M6	ST111809M7	BS
18NOV09M	23	5820-001-0001-SA	EDS-115-105+86-W1-5.8	19-NOV-09 10:01:51	ST111809M6	ST111809M7	BS
18NOV09M	24	5820-005-0001-SA	EDS-106-106+69-W3-7.0	19-NOV-09 10:57:09	ST111809M6	ST111809M7	BS
18NOV09M	25	SB111809M4	Solvent Blank	19-NOV-09 11:52:24	ST111809M6	ST111809M7	BS
18NOV09M	26	SB111809M5	Solvent Blank	19-NOV-09 12:47:43	ST111809M6	ST111809M7	BS
18NOV09M	27	ST111809M7	1613 CS3 090918J	19-NOV-09 13:43:06	ST111809M6	ST111809M7	BS

DN 1/19/09

Data Backed Up:_____

Date:_____

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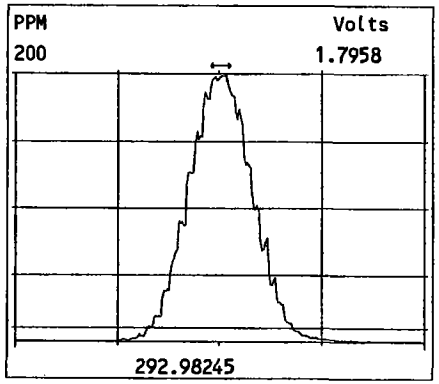
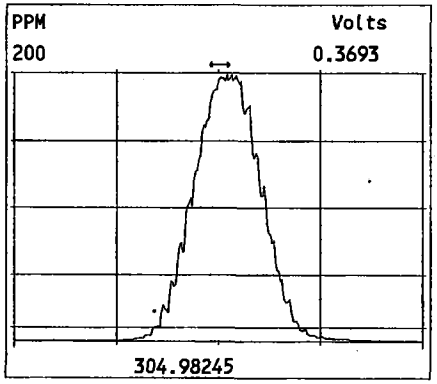
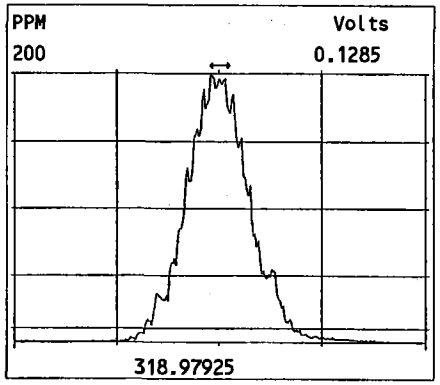
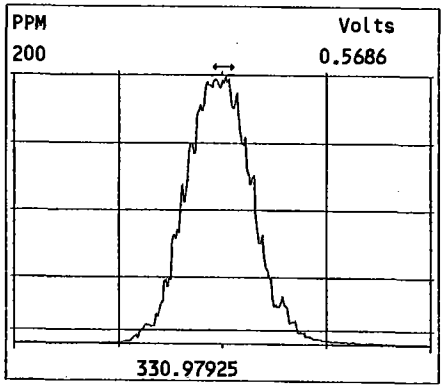
0872-00558

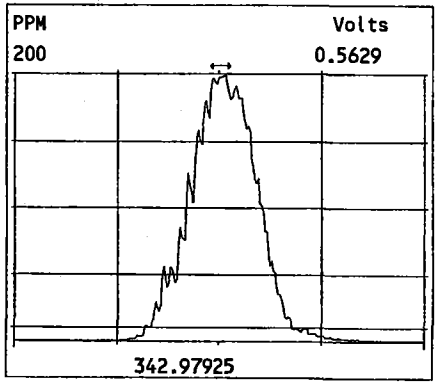
Peak Locate Examination:18-NOV-2009:13:42 File:18NOV09M
Experiment:PCDD Function:1 Reference:PFK

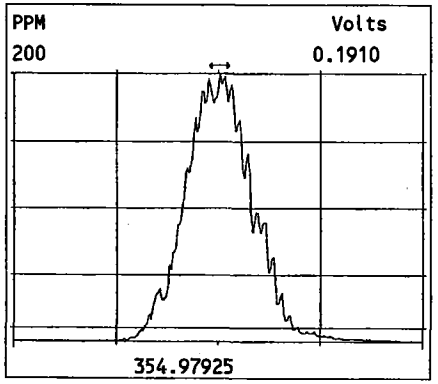


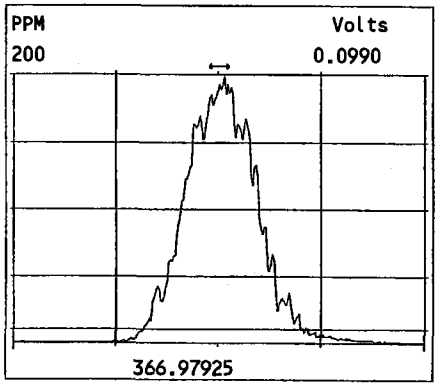


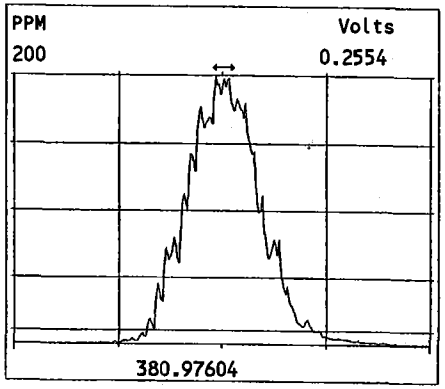


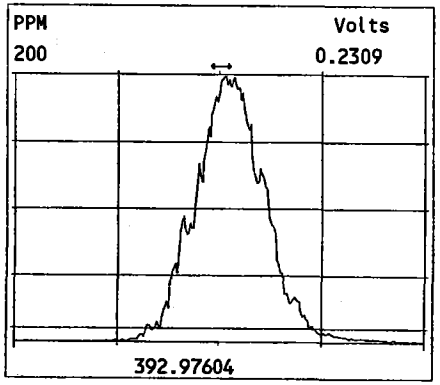


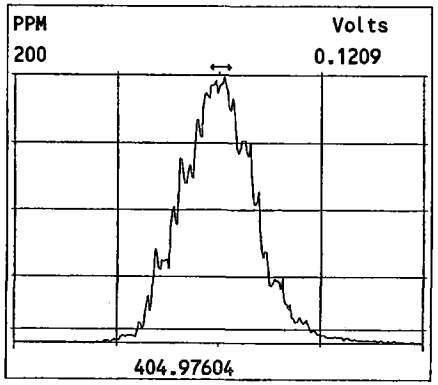


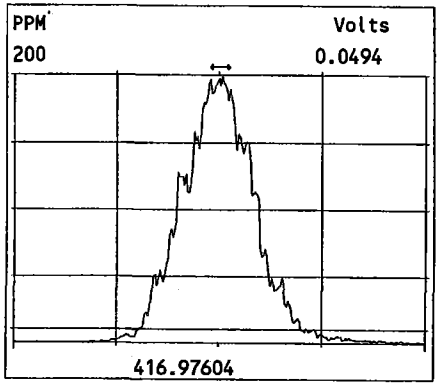






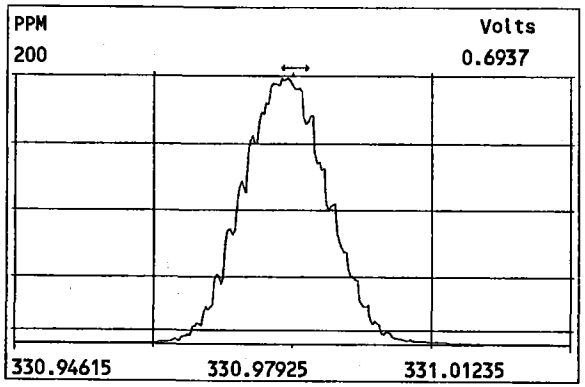


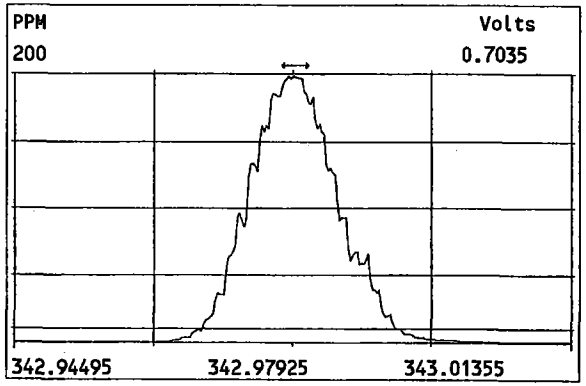


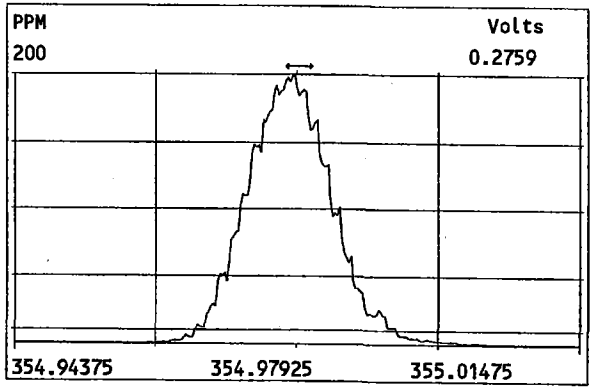


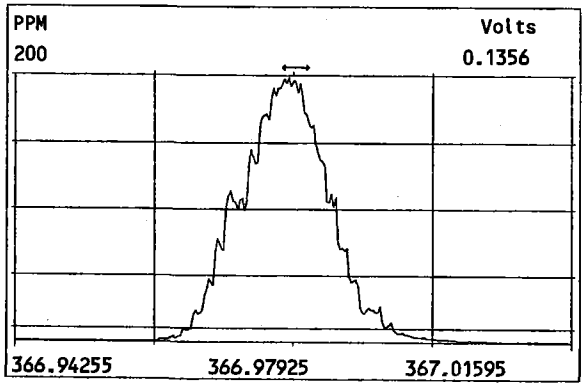
0872:0559

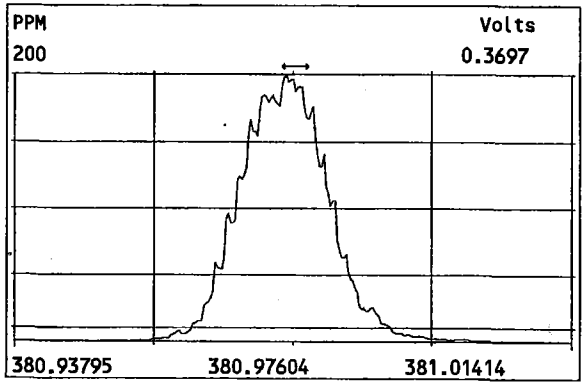
Peak Locate Examination:18-NOV-2009:13:43 File:18NOV09M
Experiment:PCDD Function:2 Reference:PFK

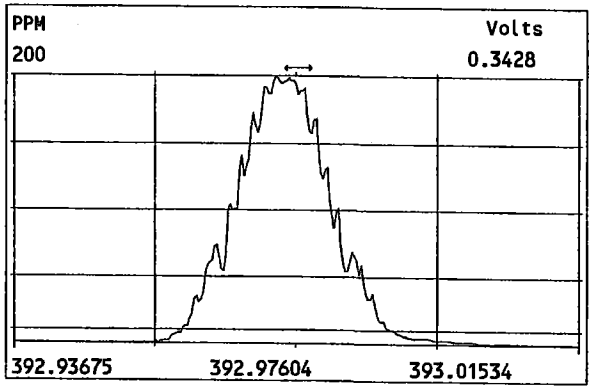


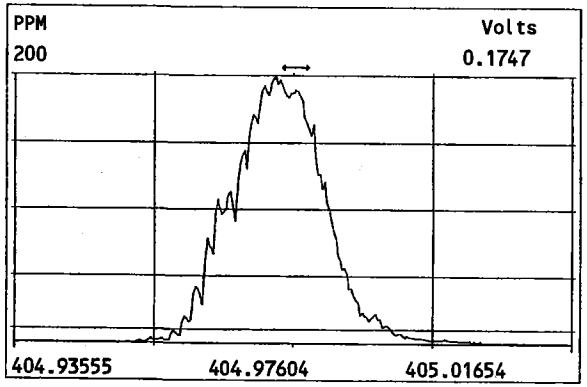


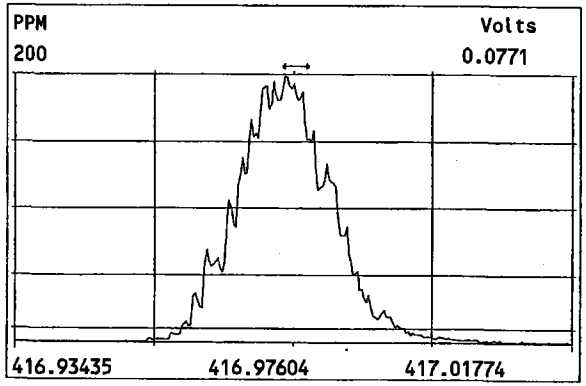






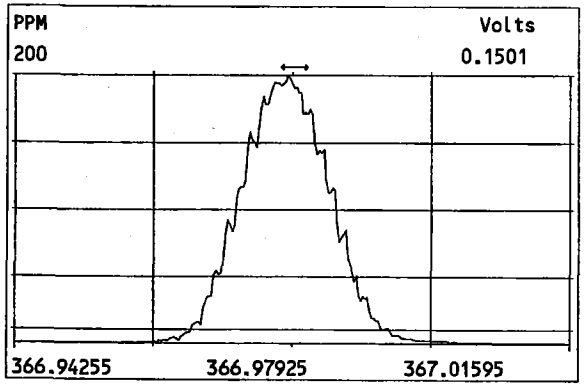


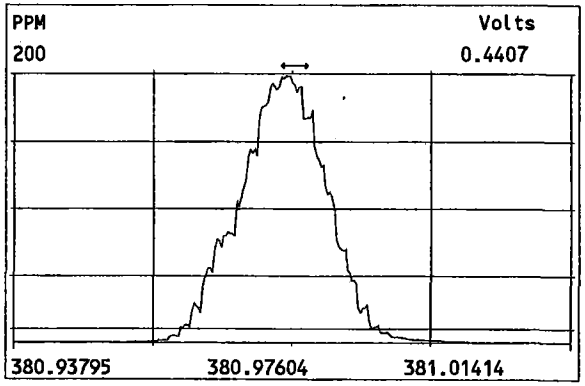


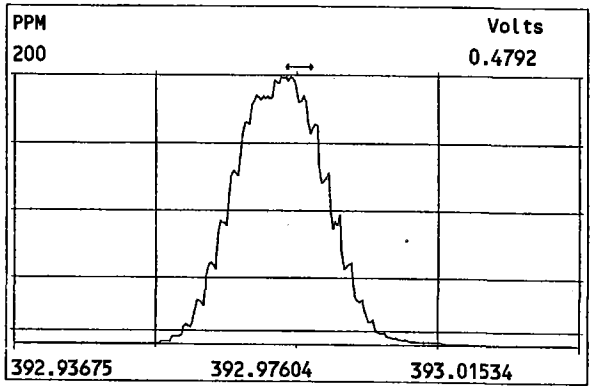


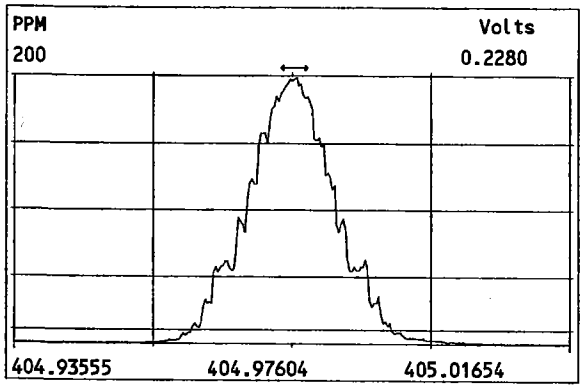
QB72:00559

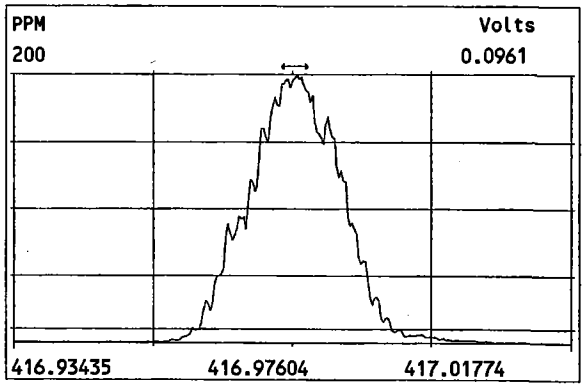
Peak Locate Examination:18-NOV-2009:13:43 File:18NOV09M
Experiment:PCDD Function:3 Reference:PFK

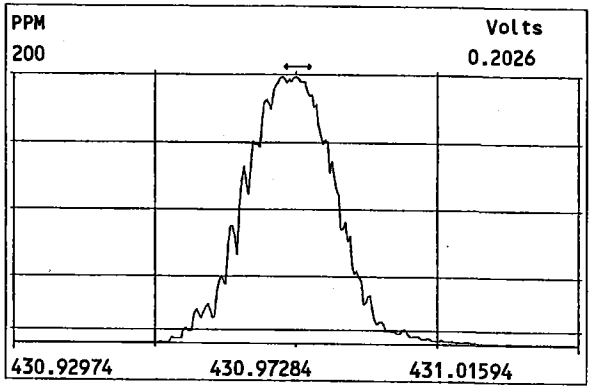


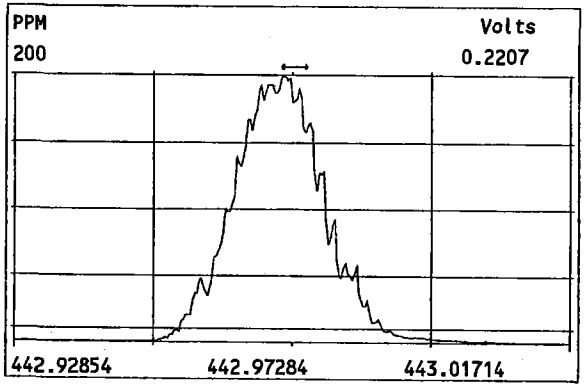


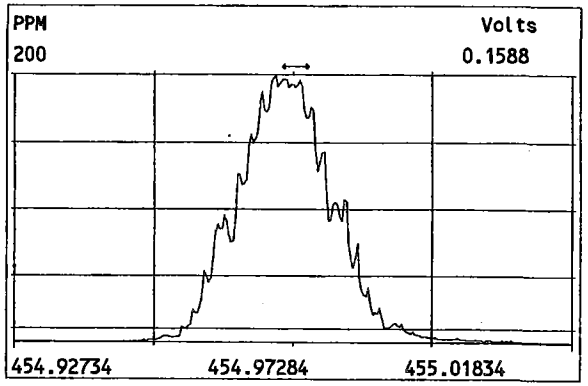






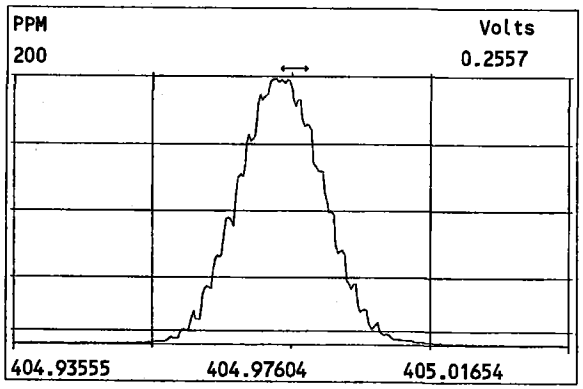


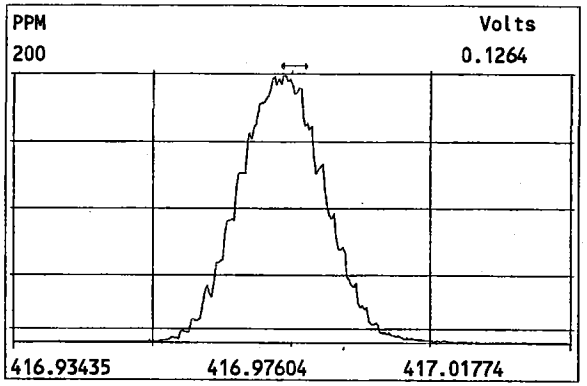


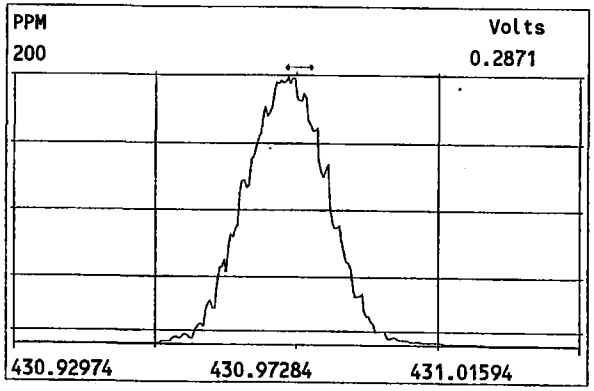


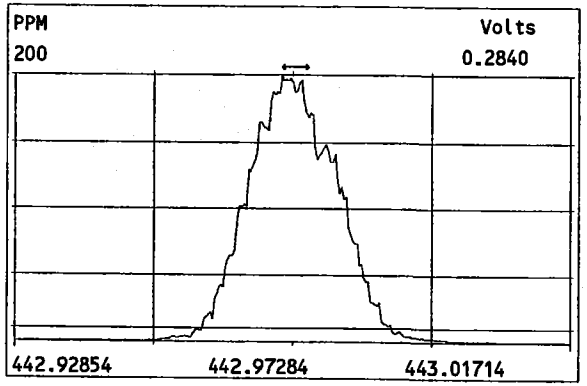
QB72:00564

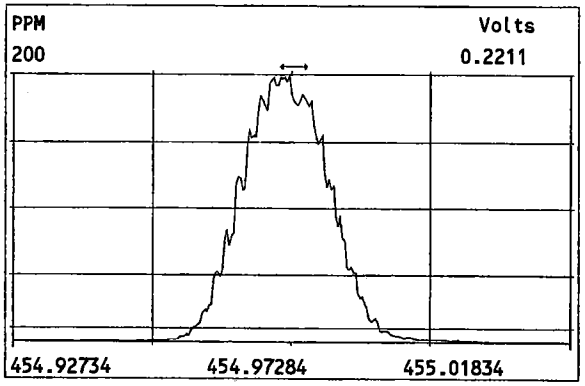
Peak Locate Examination:18-NOV-2009:13:44 File:18NOV09M
Experiment:PCDD Function:4 Reference:PFK

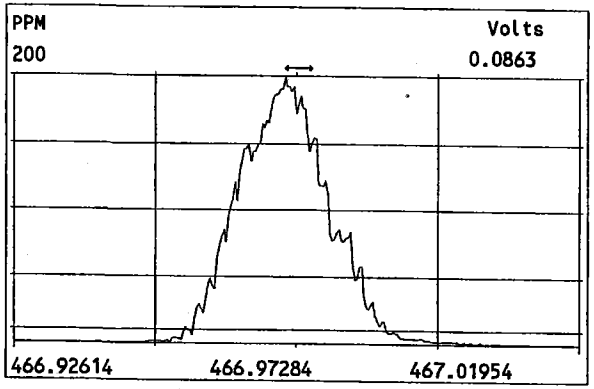


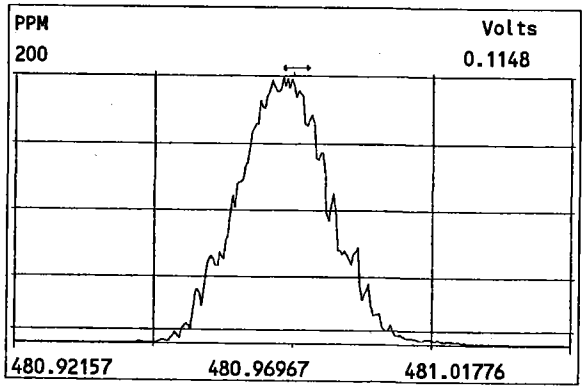






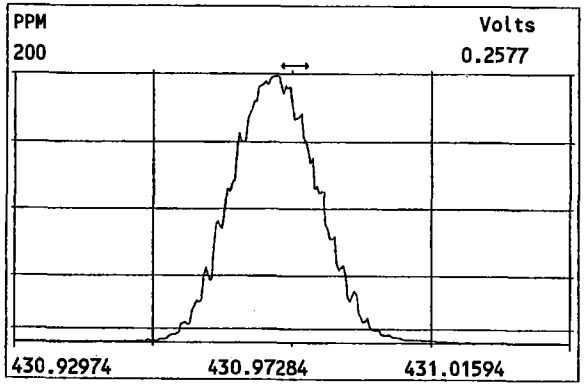


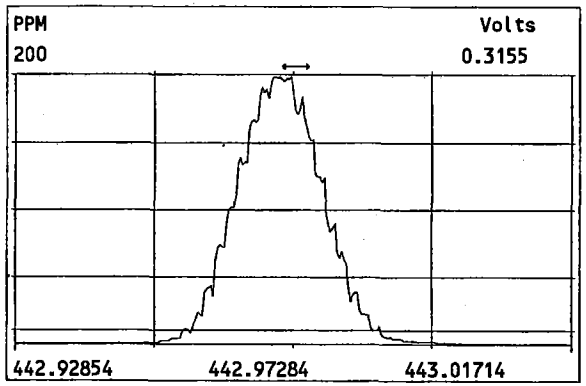


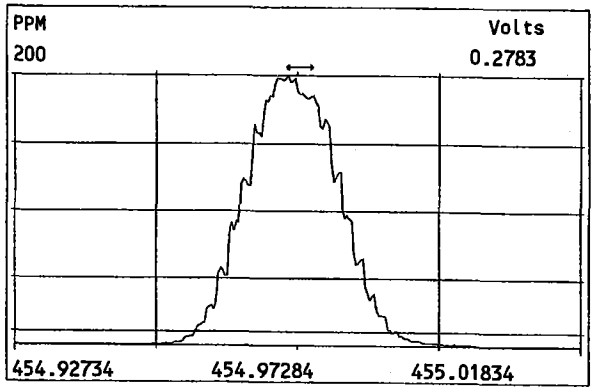


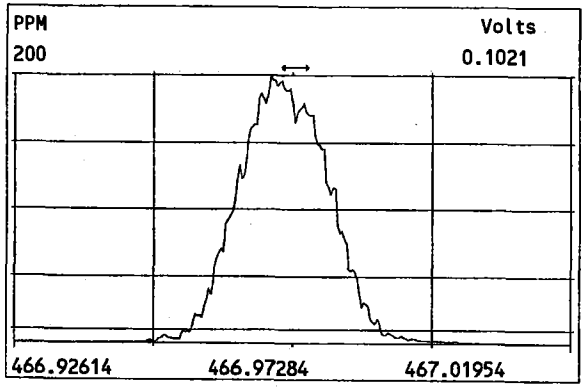
0872:00552

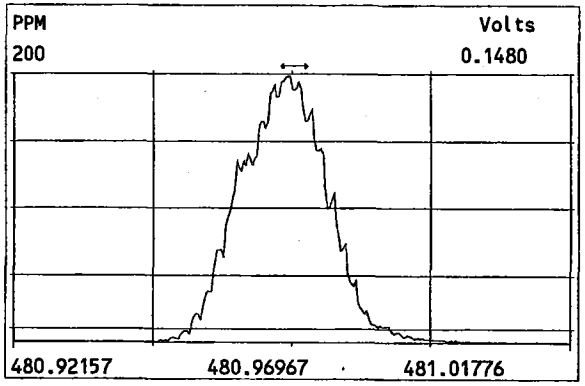
Peak Locate Examination:18-NOV-2009:13:44 File:18NOV09M
Experiment:PCDD Function:5 Reference:PFK

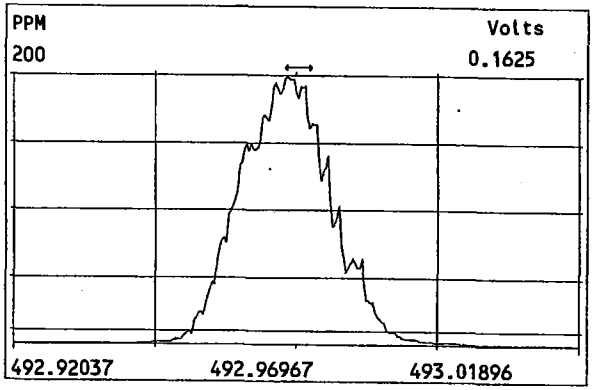


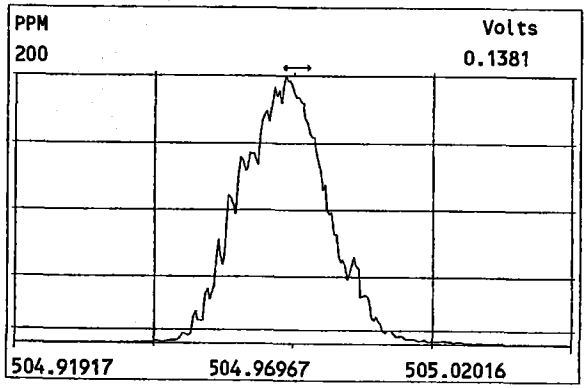


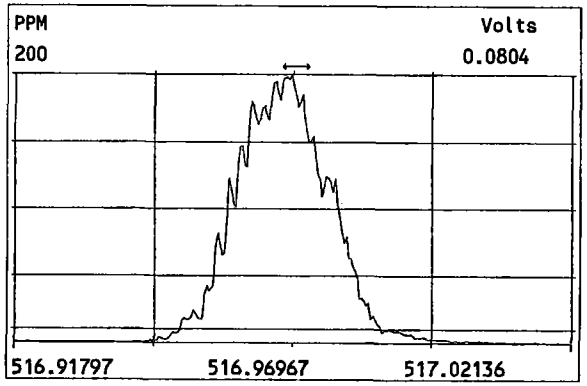












QB72:09563

File:18NOV09M #1-372 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
319.8965 Exp:PCDD
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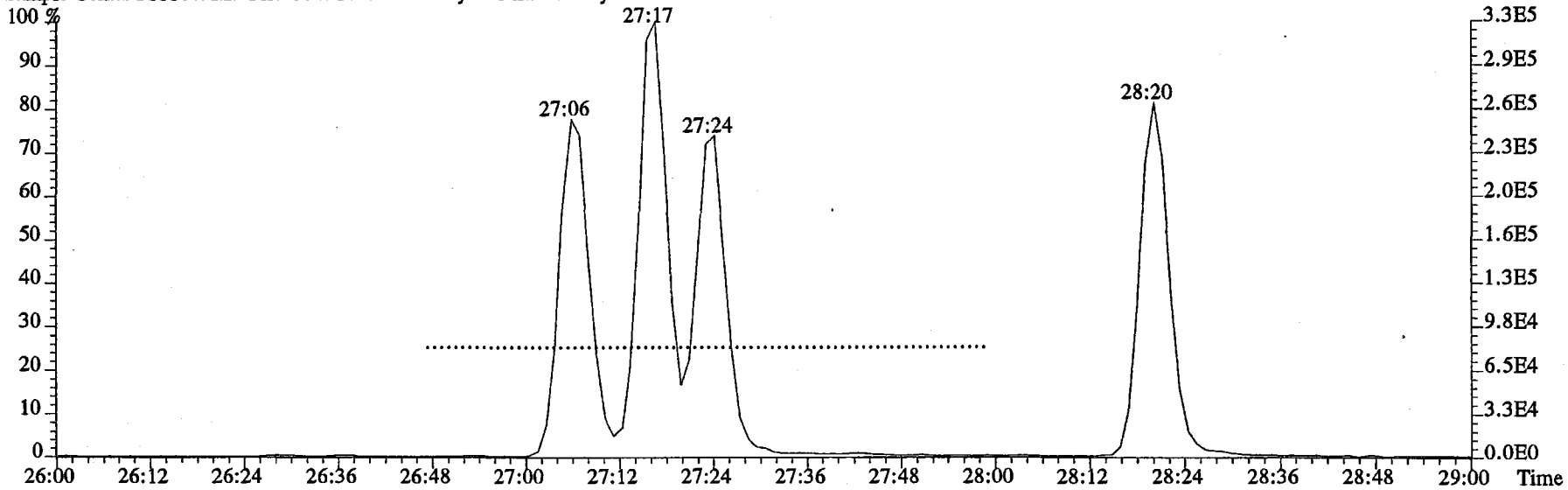

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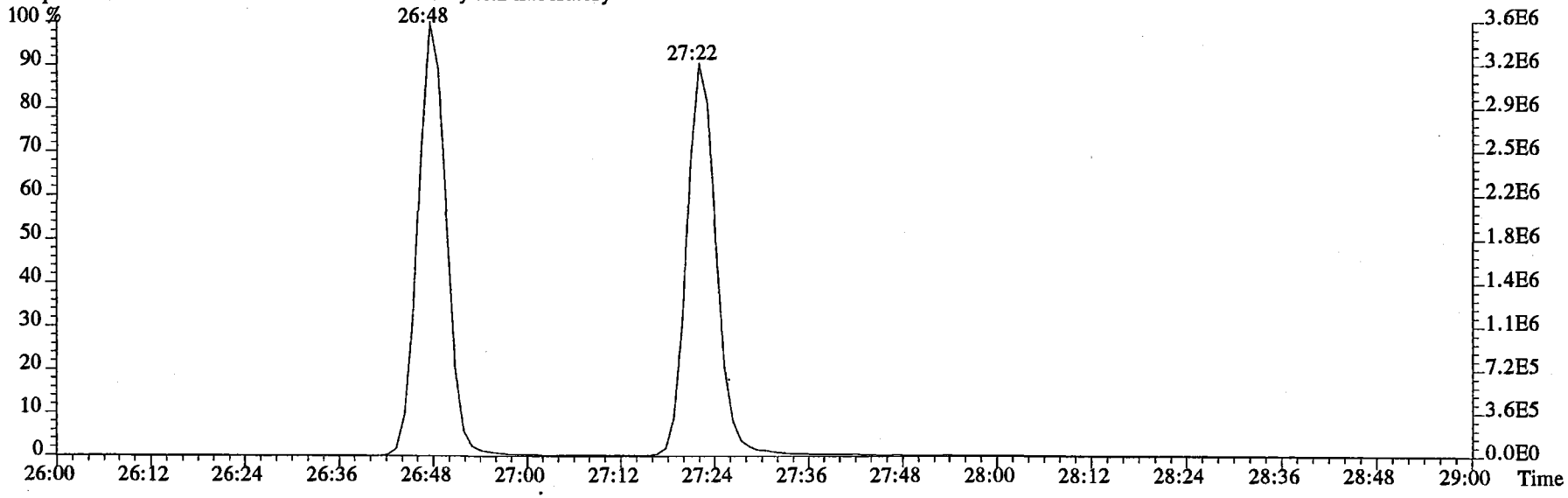
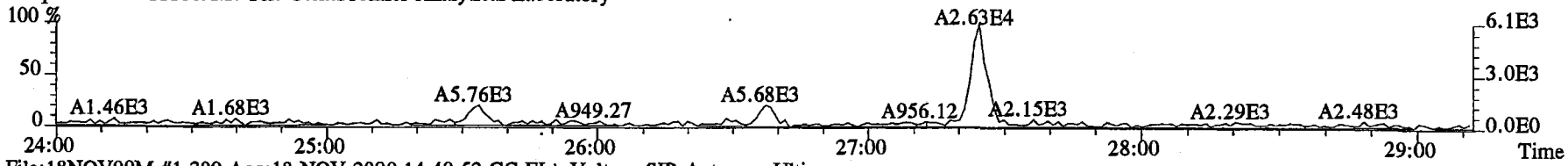
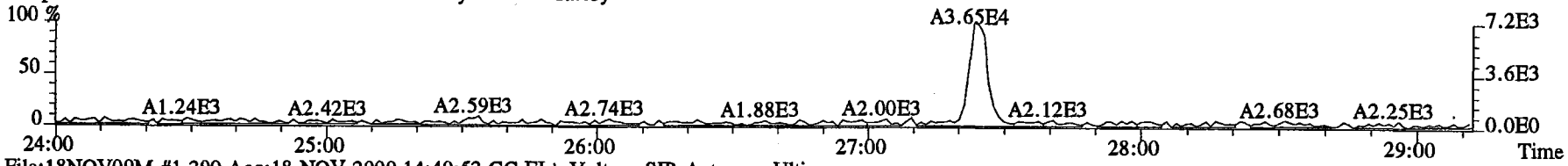


QB72:09551

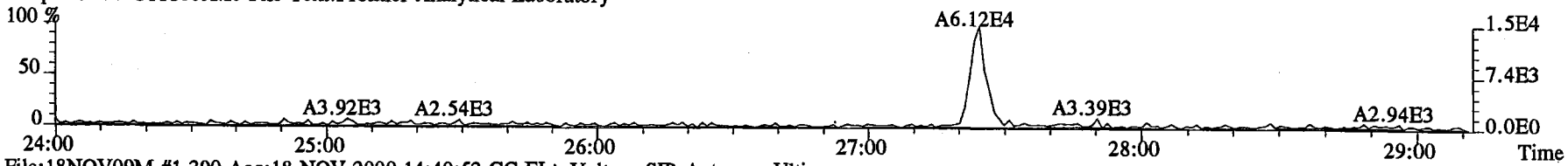
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



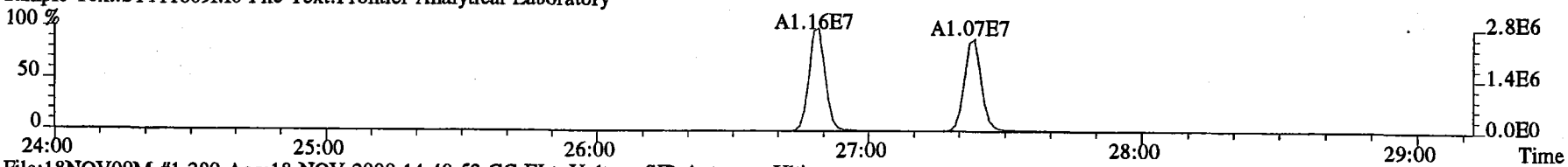
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



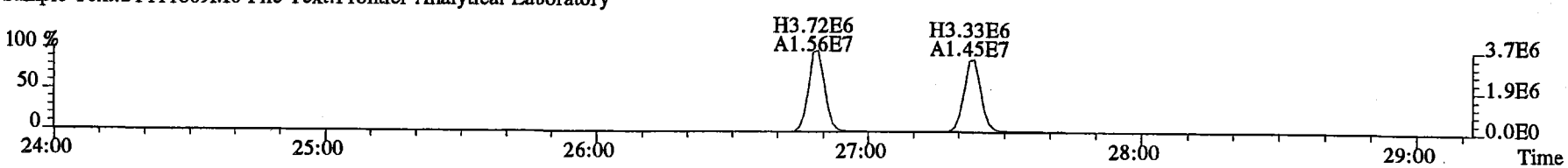
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

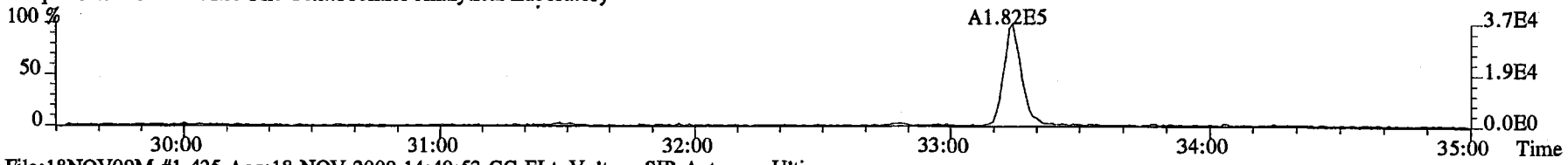


File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

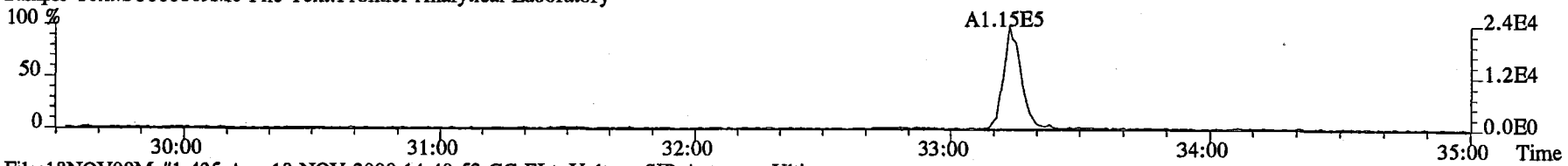


QB72:00565

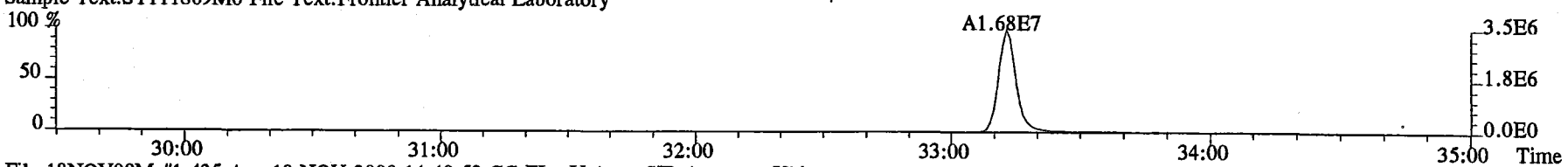
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



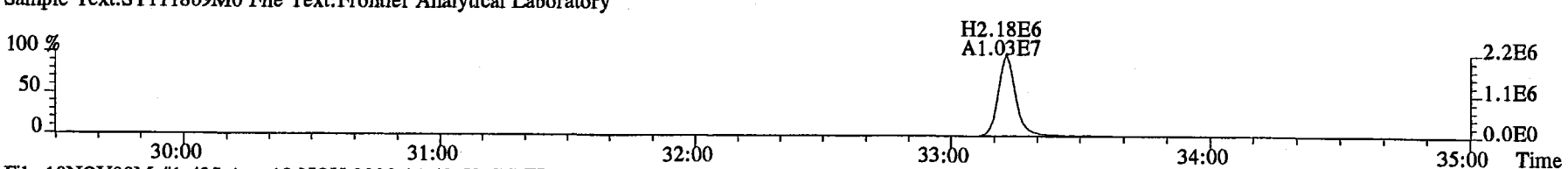
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



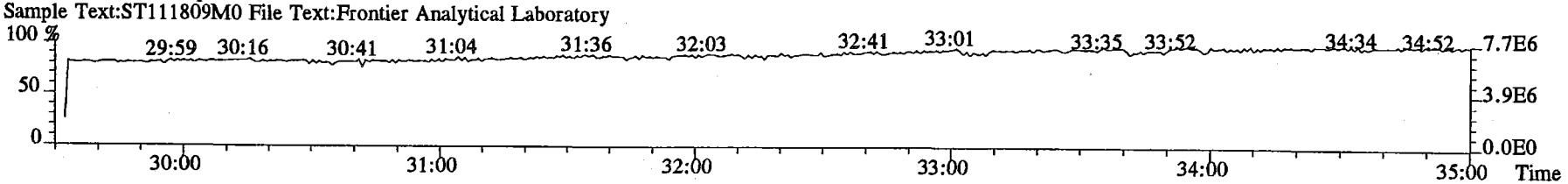
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

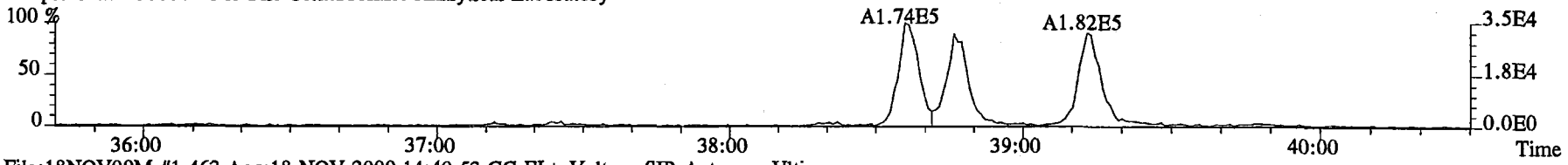


File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:2 F:2 Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

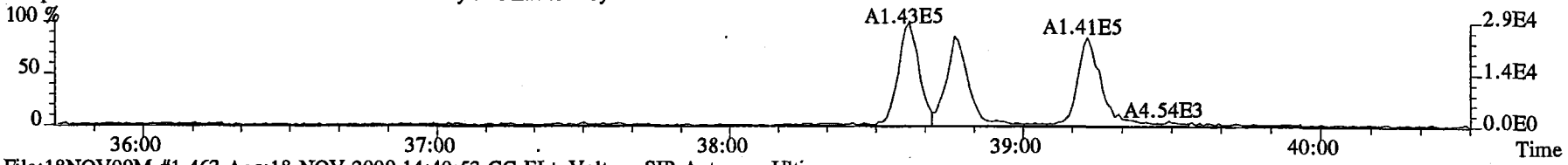


QB72:00566

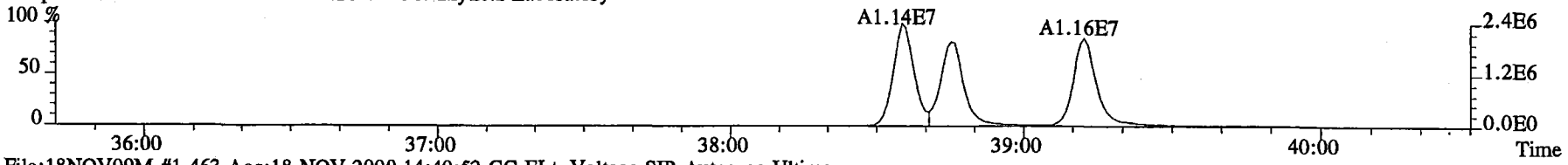
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



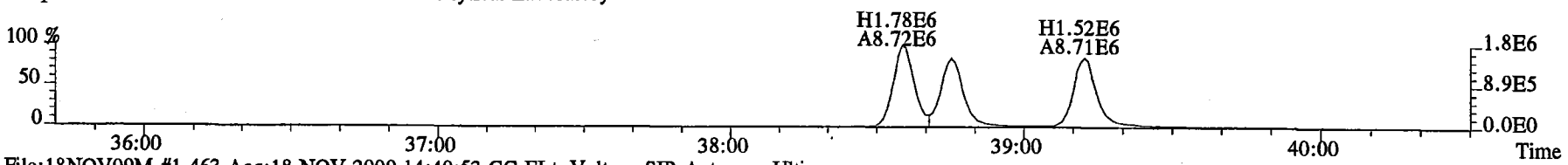
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



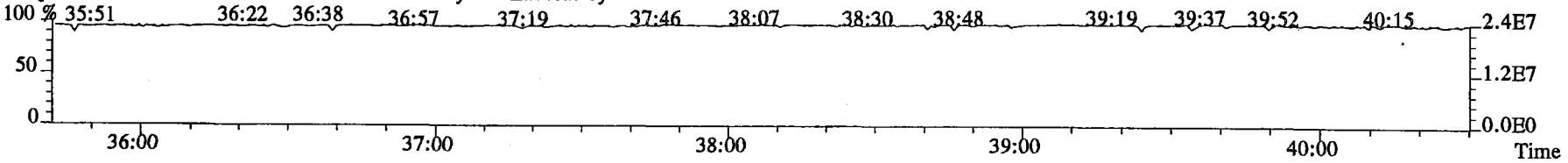
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

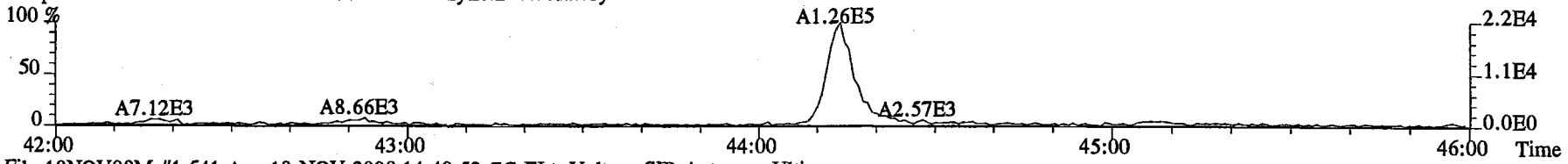


File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:2 F:3 Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

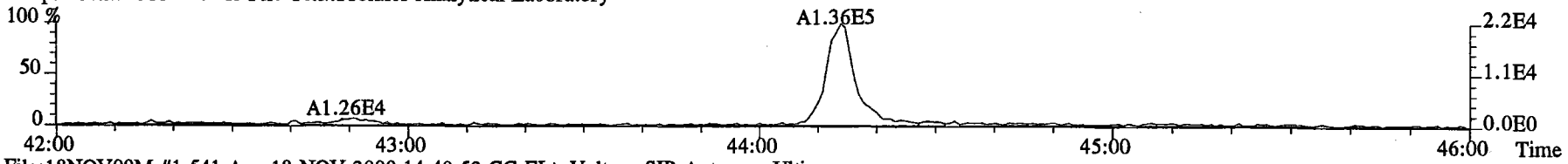


QB72:00567

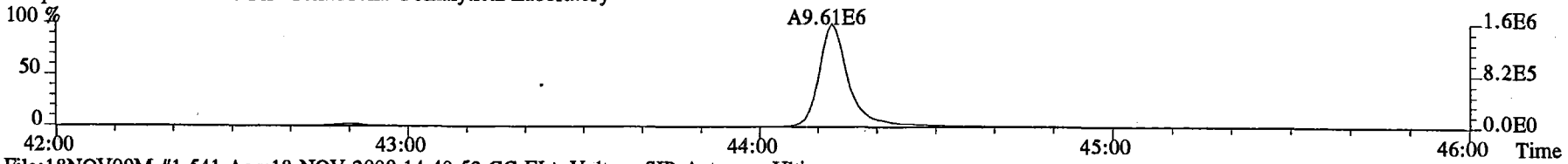
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



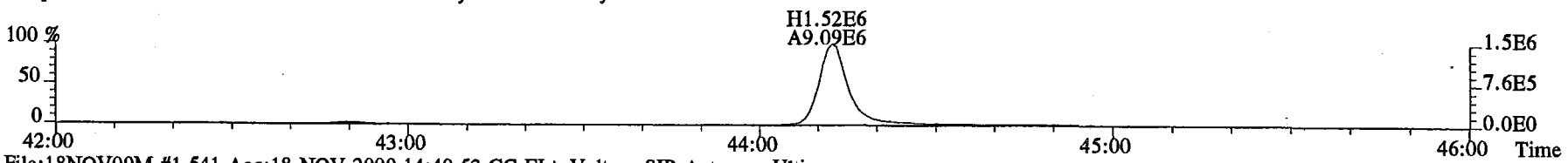
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



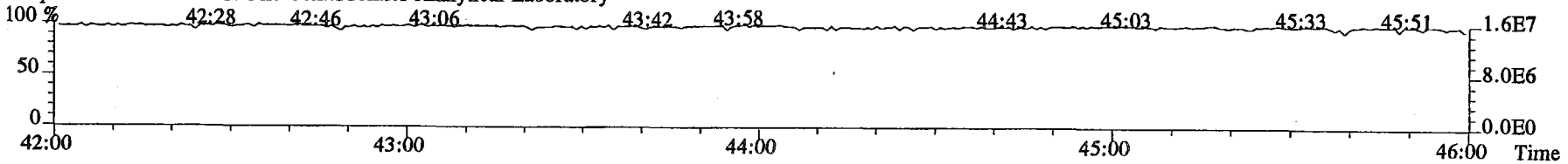
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
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:ST111809M0 File Text:Frontier Analytical Laboratory

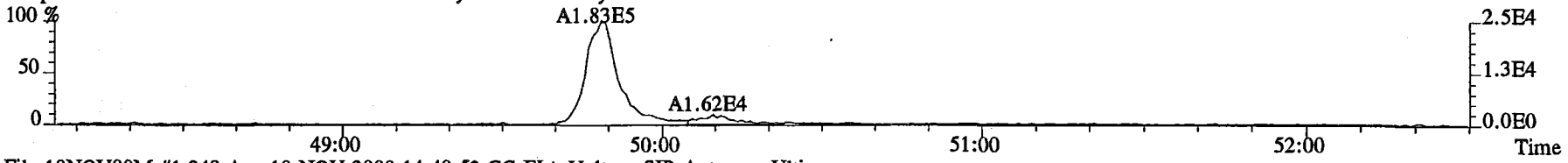


File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:2 F:4 Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



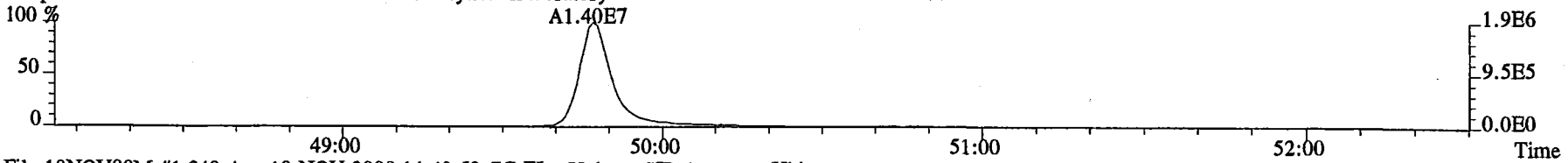
GB72:00558

File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

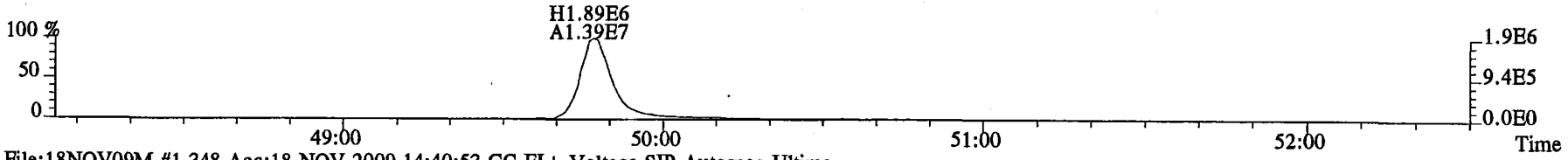


File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

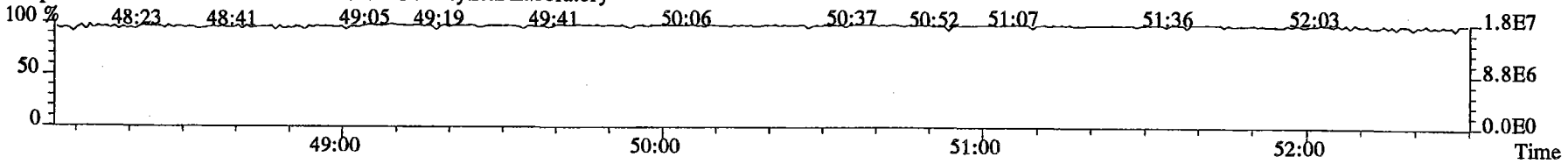
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
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:ST111809M0 File Text:Frontier Analytical Laboratory

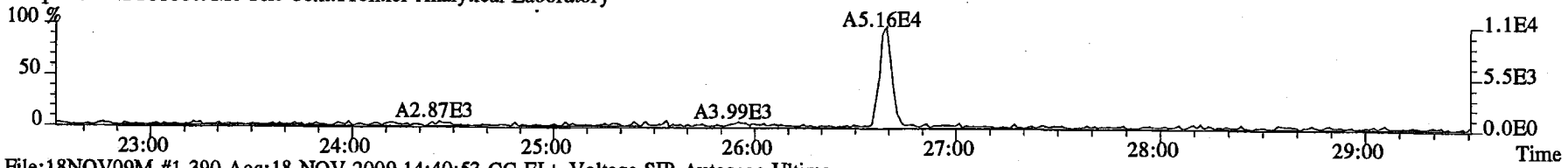


File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:2 F:5 Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

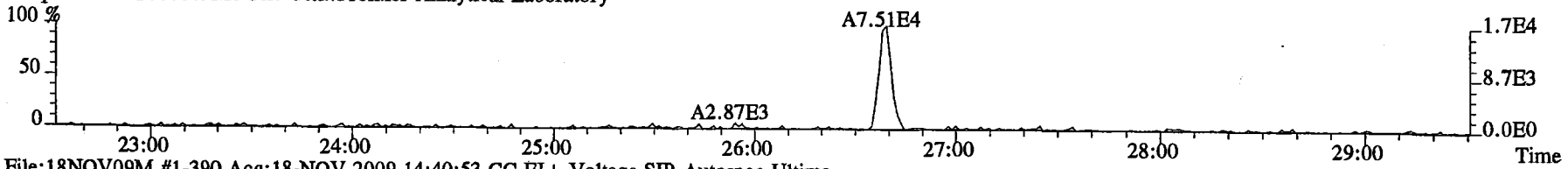


GB72:66559

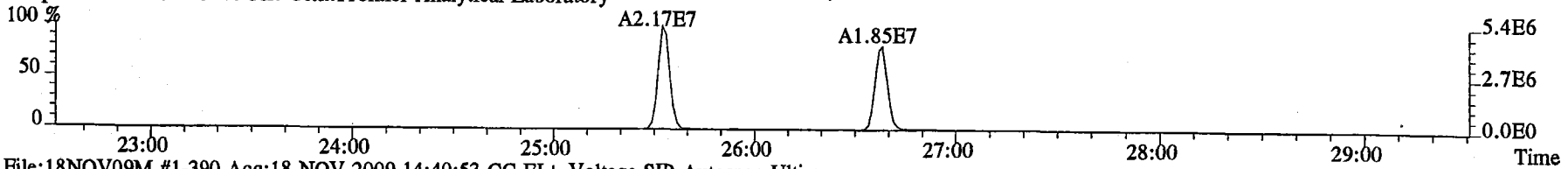
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



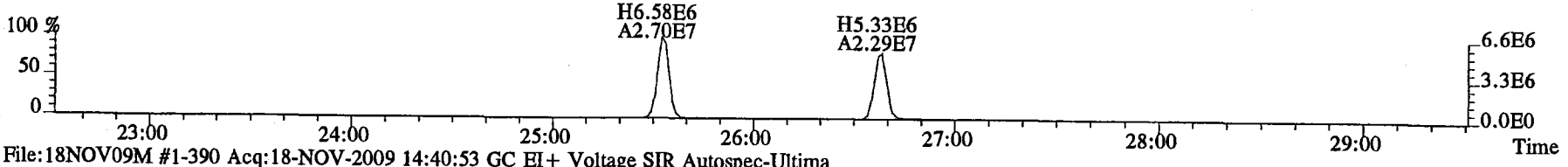
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:2 BSUB(10000,15,0.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



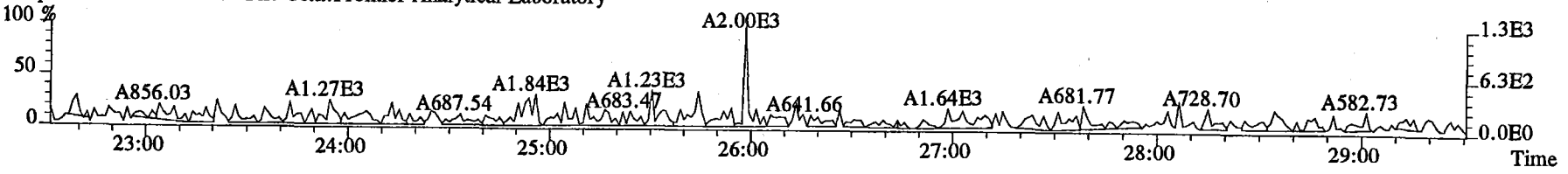
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

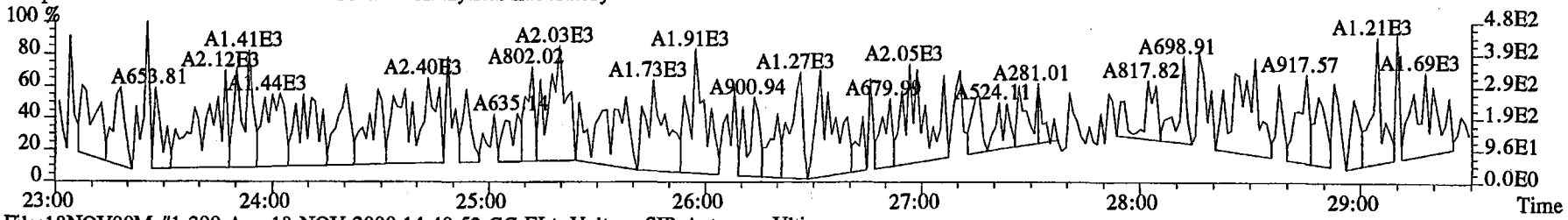


File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

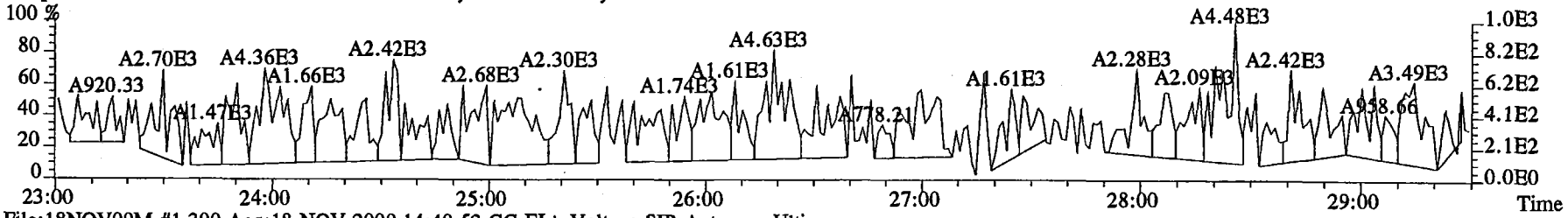


QB72:00578

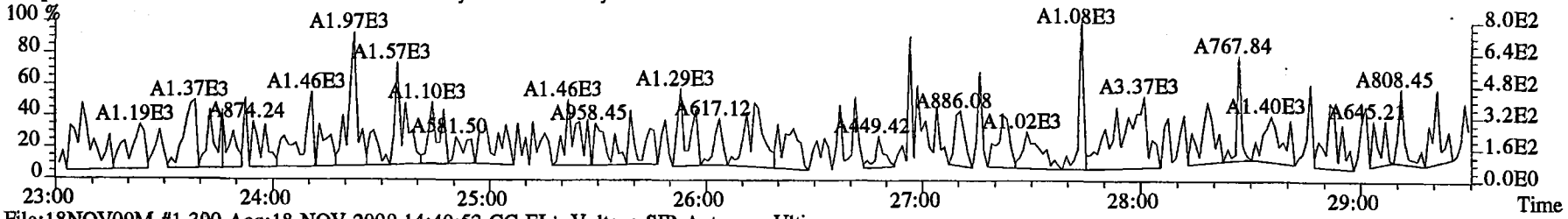
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



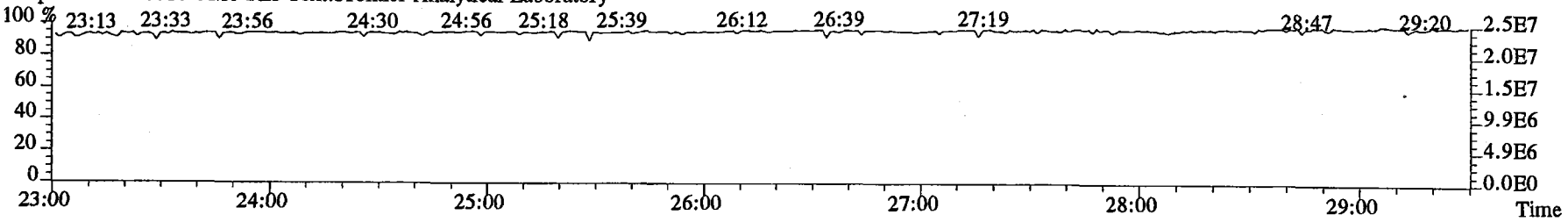
File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

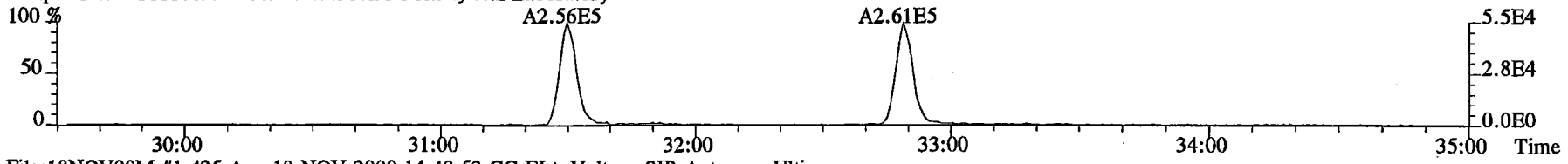


File:18NOV09M #1-390 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:2 Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

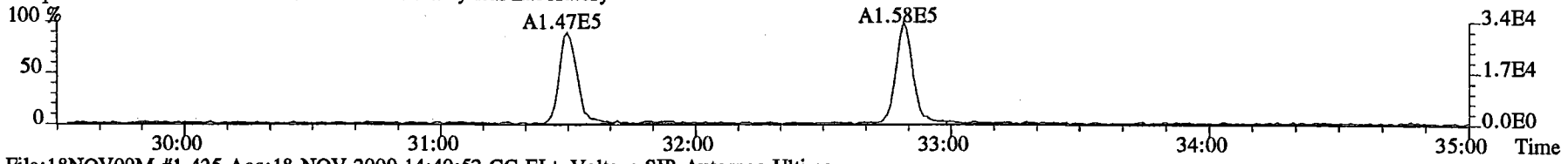


QB72:09571

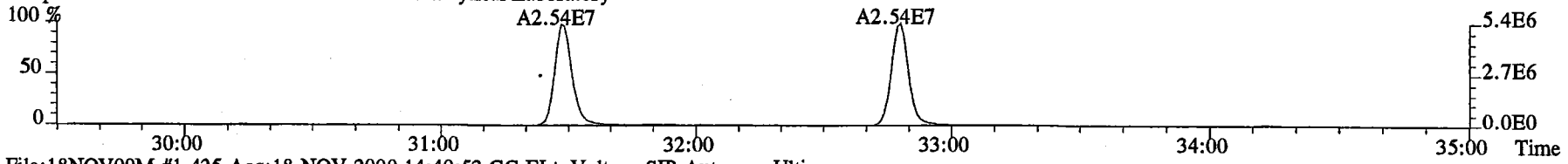
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



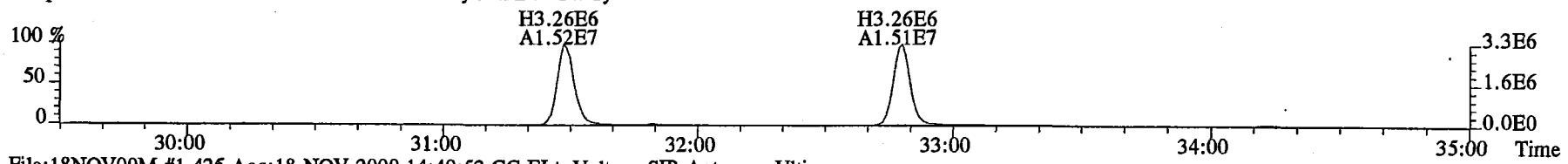
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



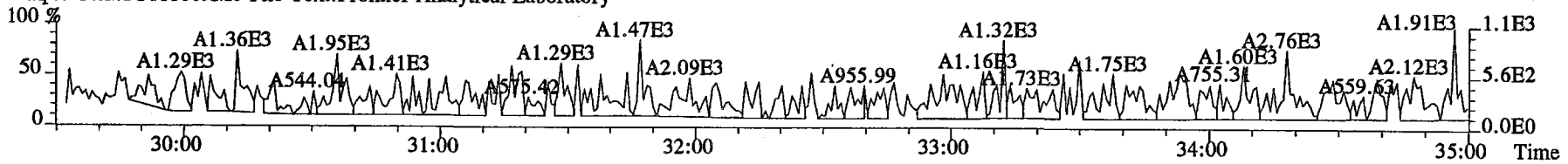
File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

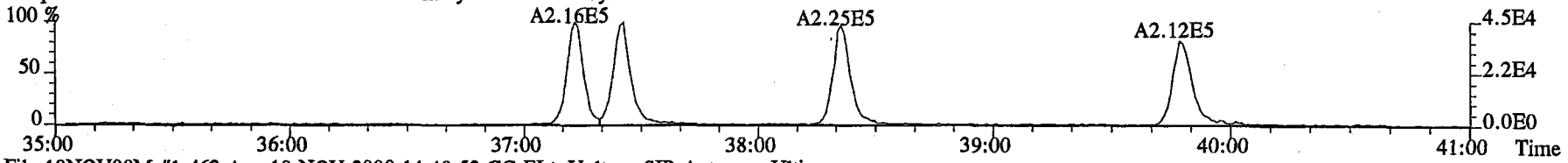


File:18NOV09M #1-425 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

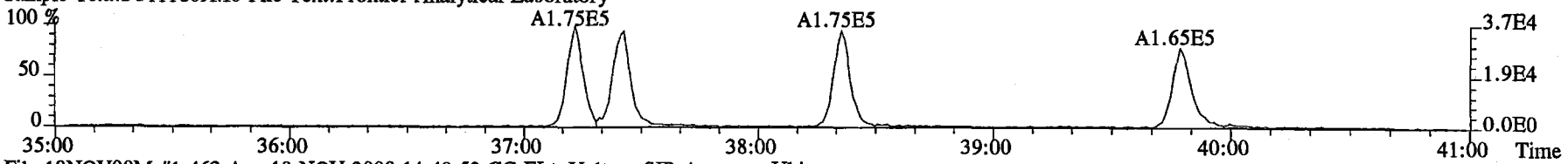


Q872:00572

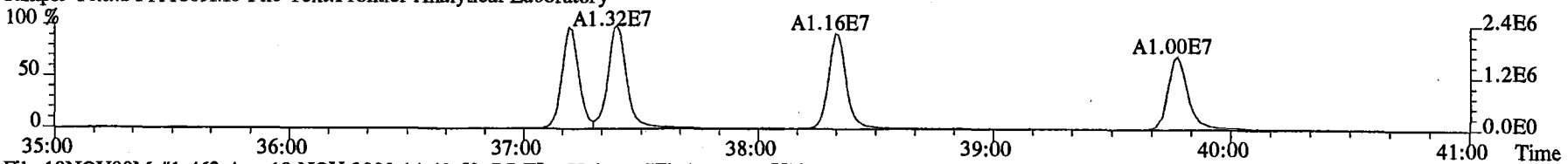
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



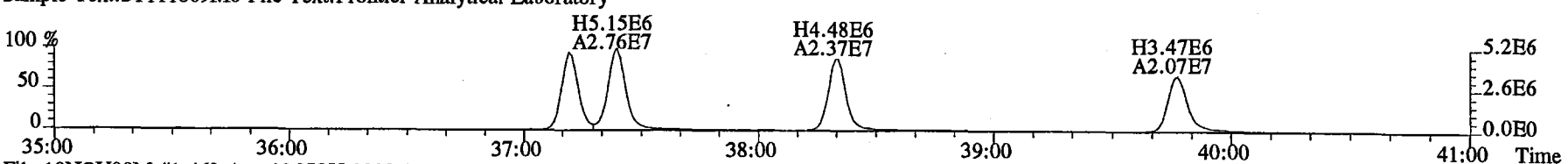
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



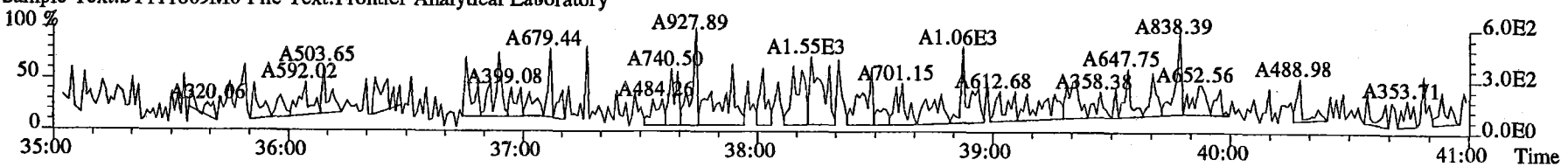
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



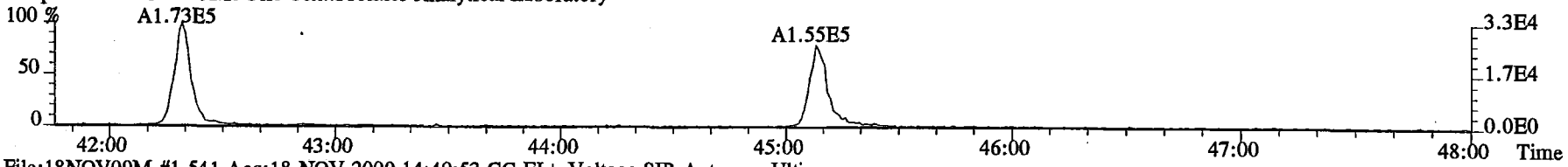
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



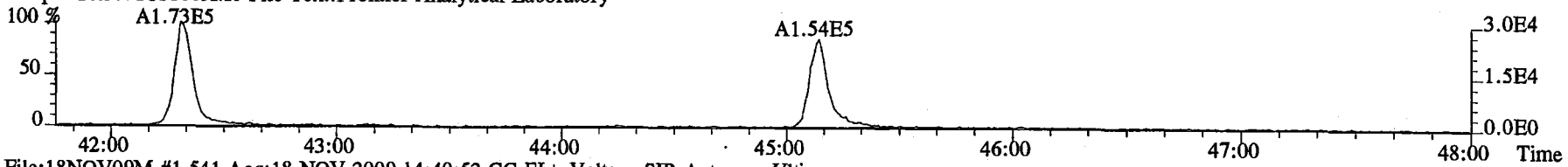
File:18NOV09M #1-463 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



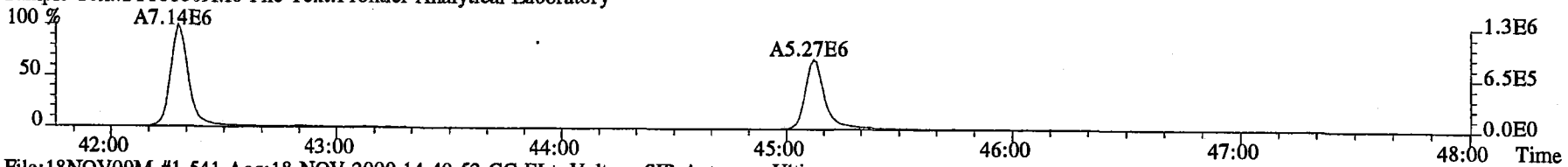
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



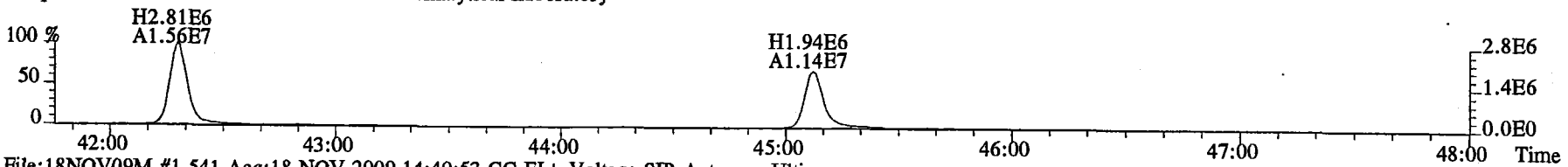
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



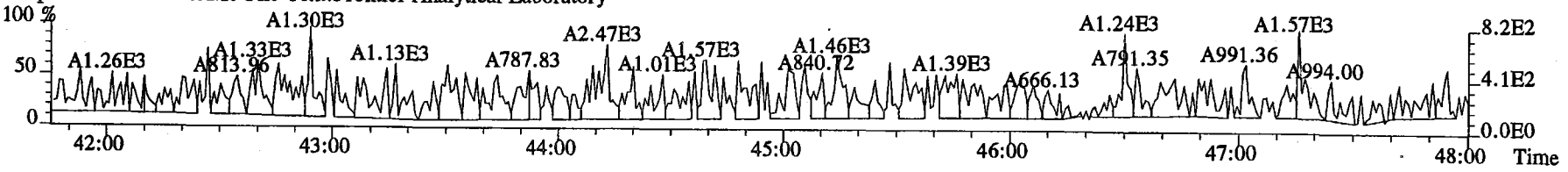
File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
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:ST111809M0 File Text:Frontier Analytical Laboratory

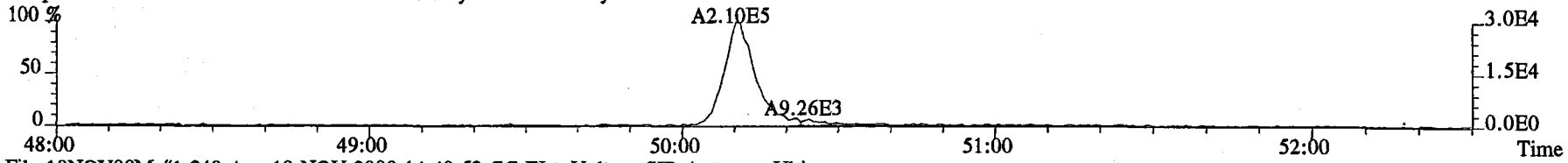


File:18NOV09M #1-541 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

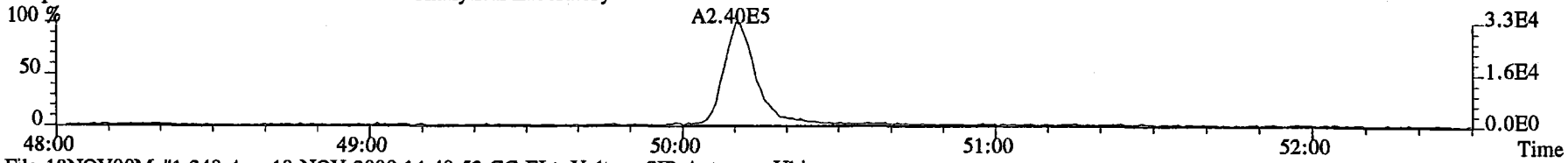


QB72:00574

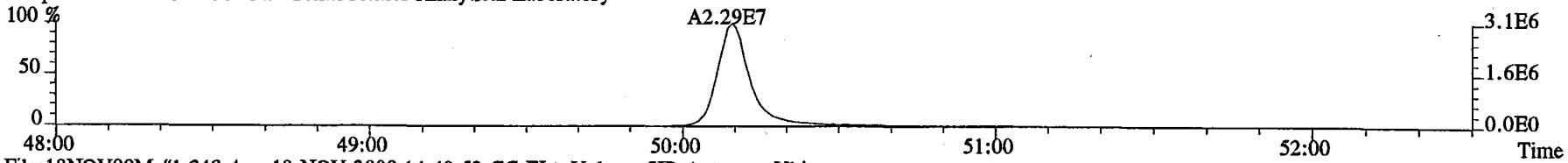
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



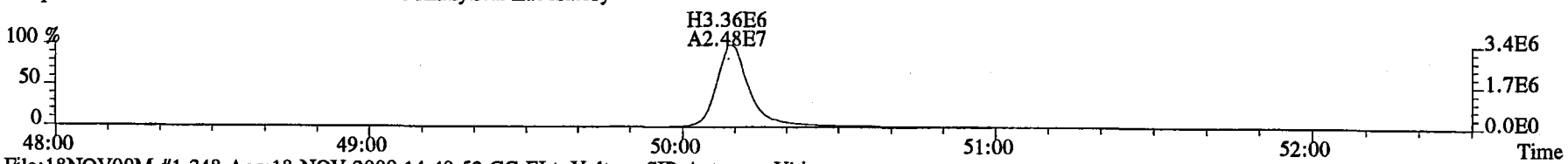
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



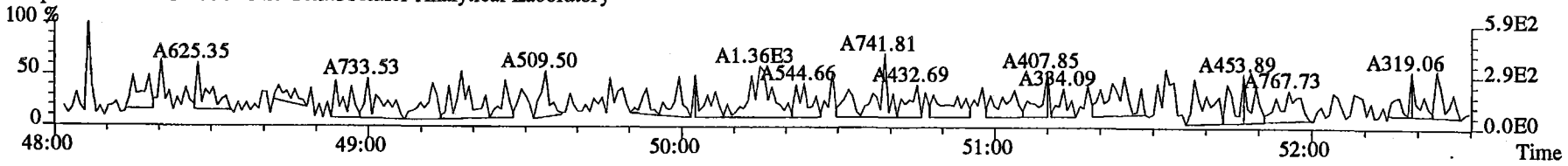
File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

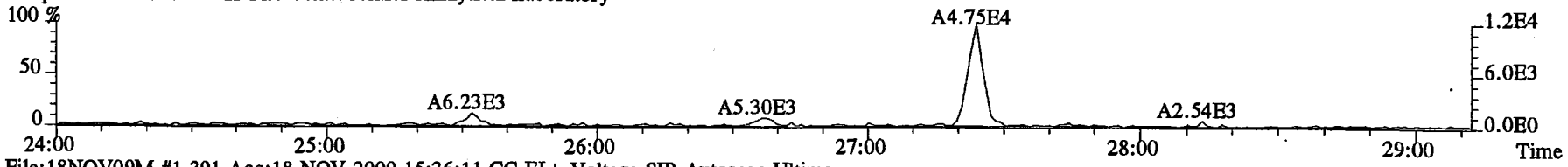


File:18NOV09M #1-348 Acq:18-NOV-2009 14:40:53 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M0 File Text:Frontier Analytical Laboratory

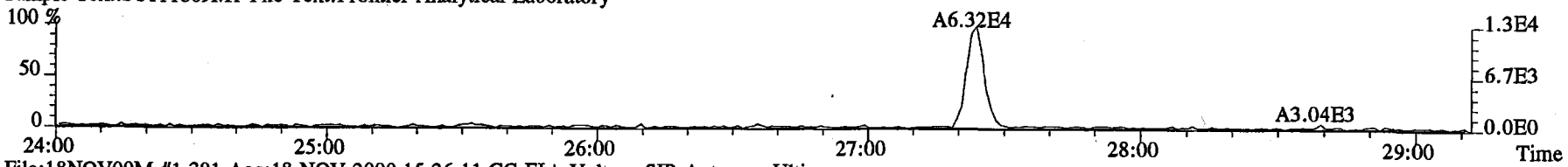


QB72:00575

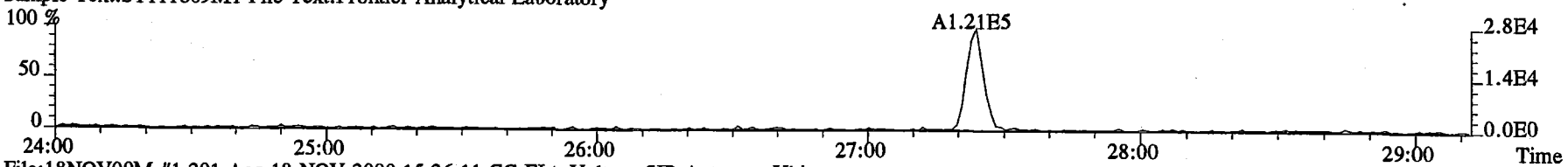
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



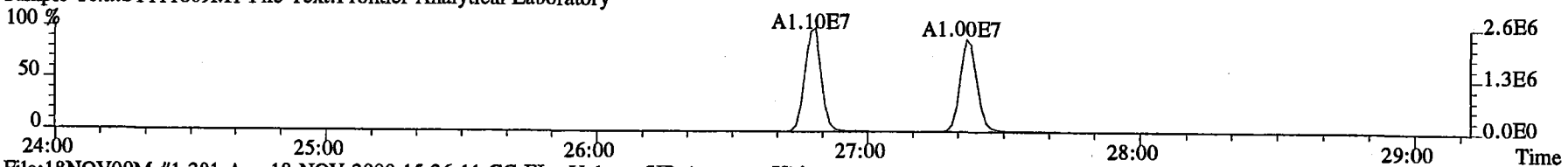
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



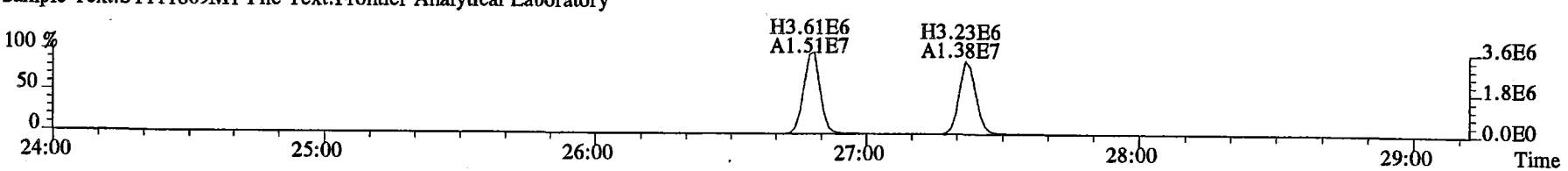
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

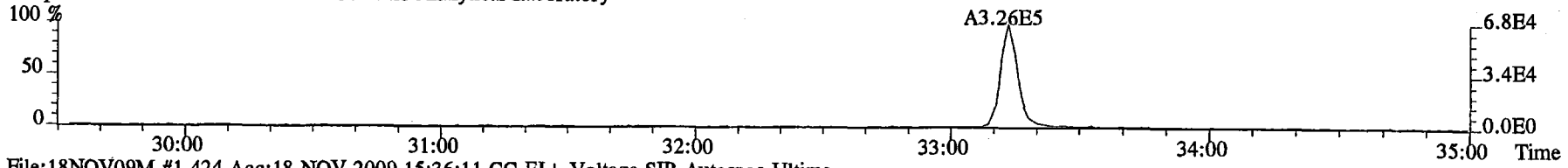


File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

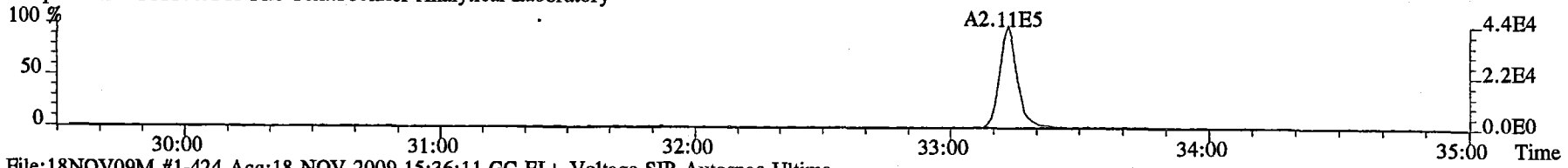


QB72:00576

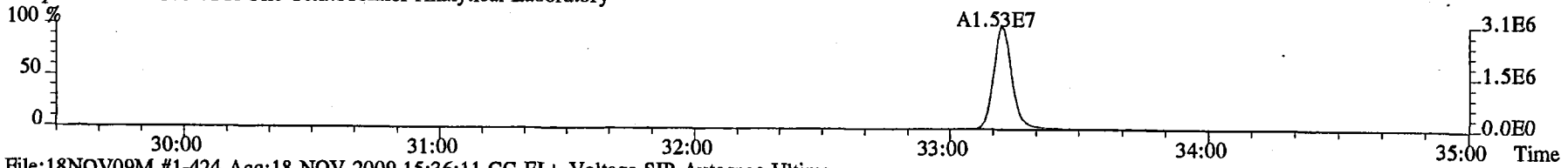
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



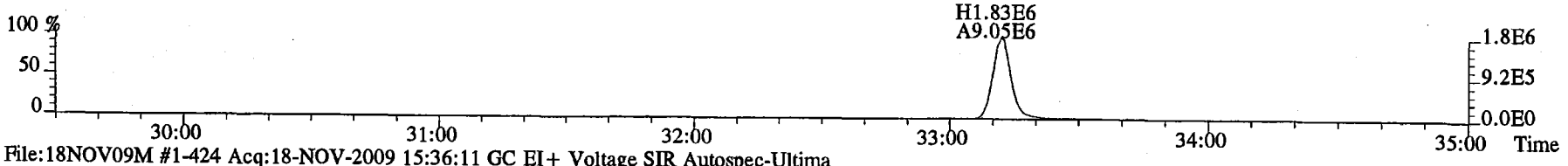
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



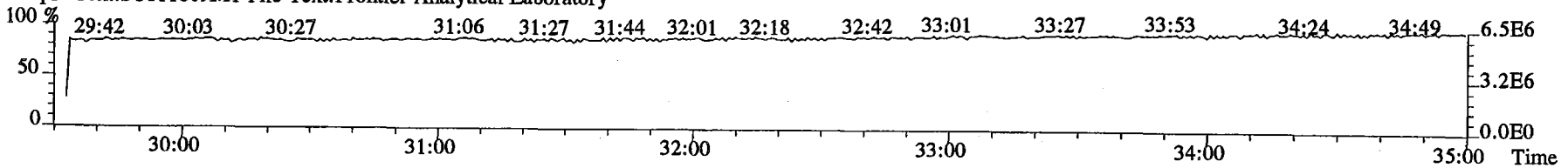
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

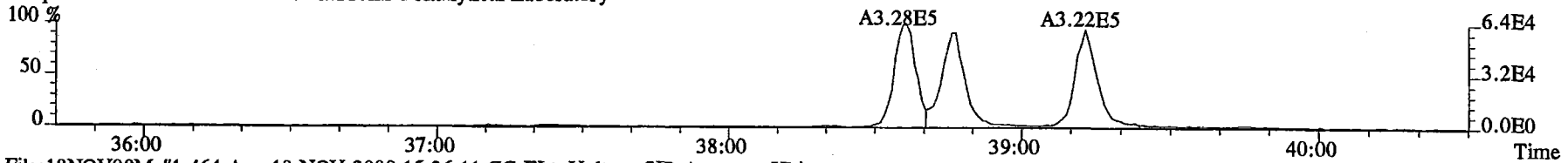


File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:3 F:2 Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

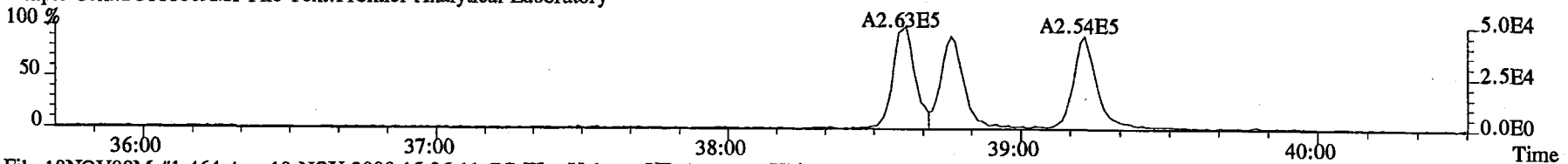


QB72:00577

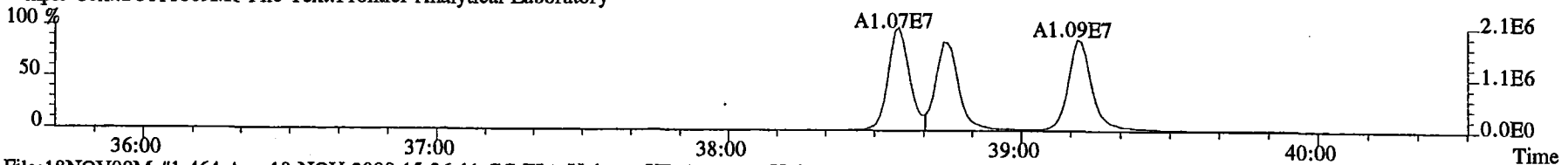
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



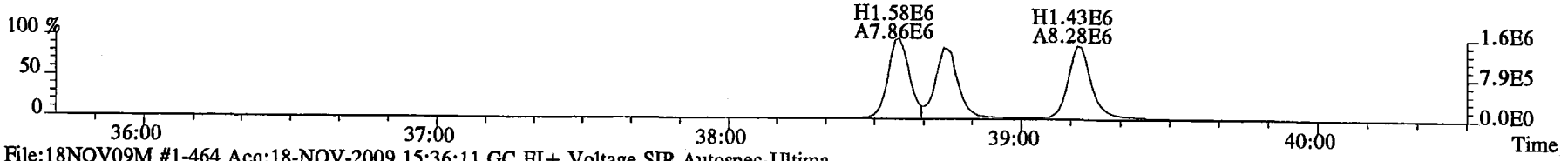
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



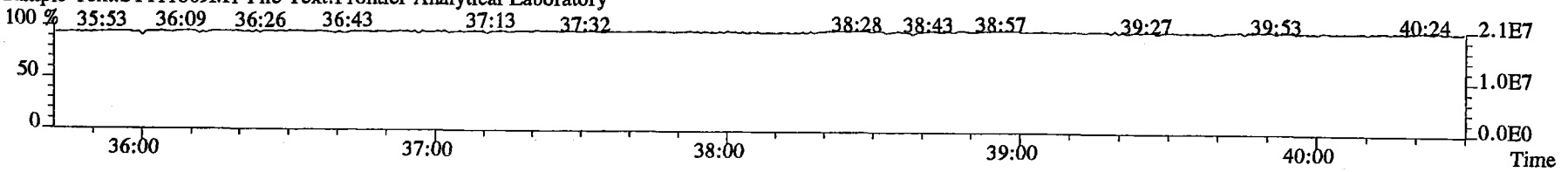
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

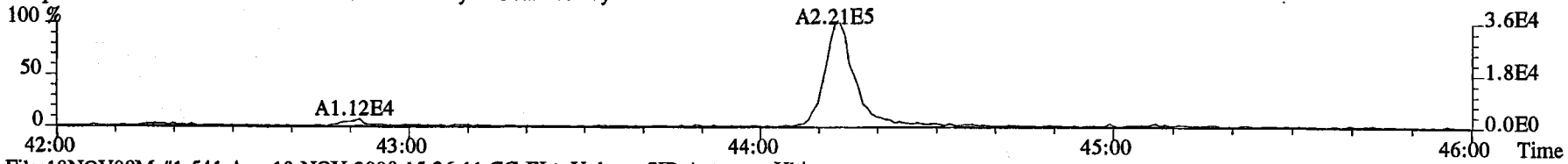


File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:3 F:3 Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

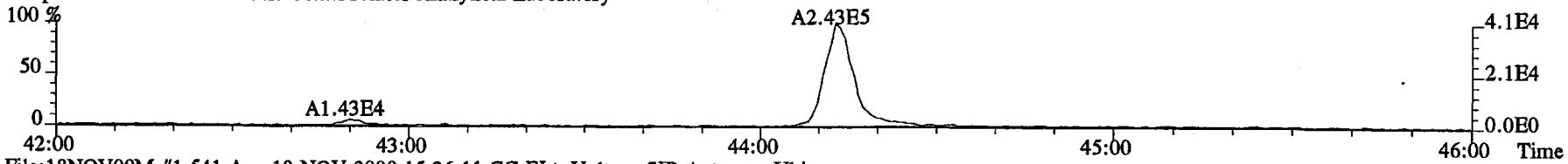


GB72:00578

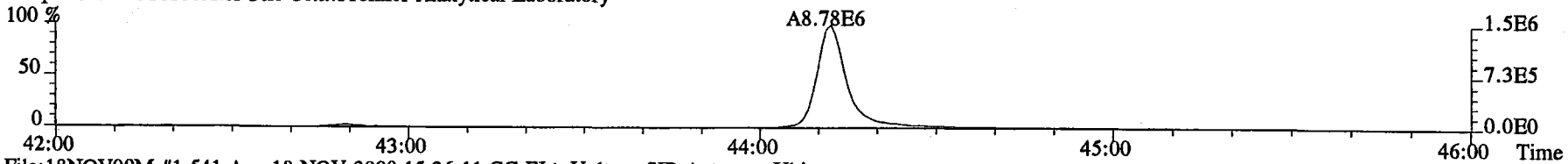
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



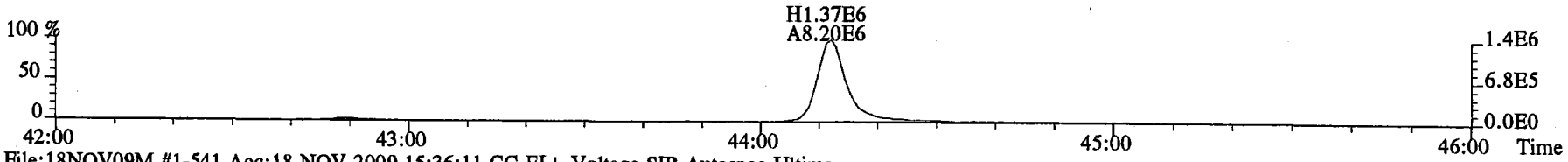
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



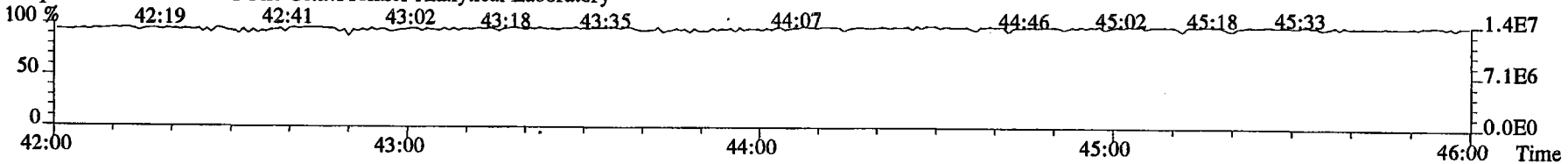
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

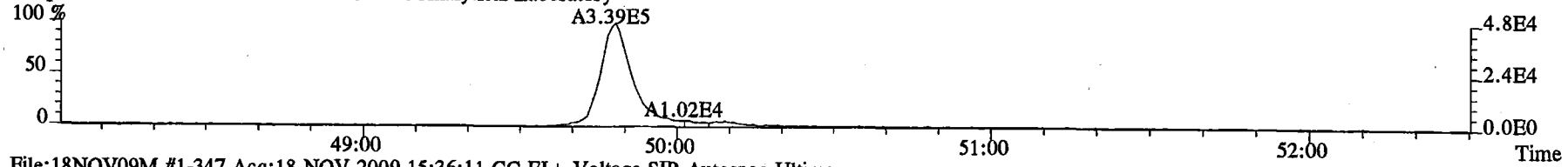


File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:3 F:4 Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

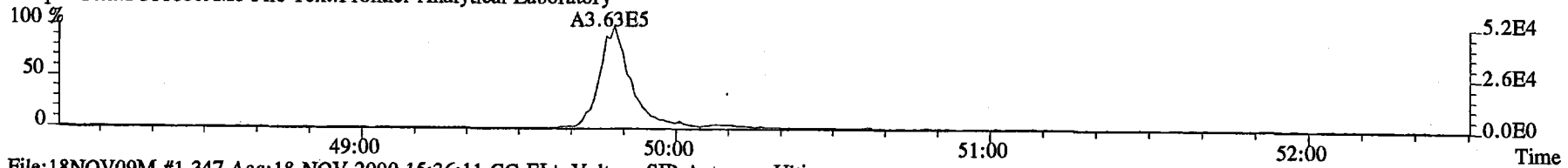


QB72:06579

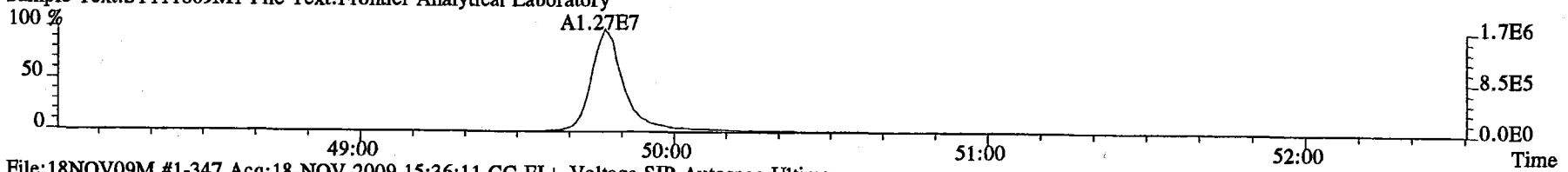
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



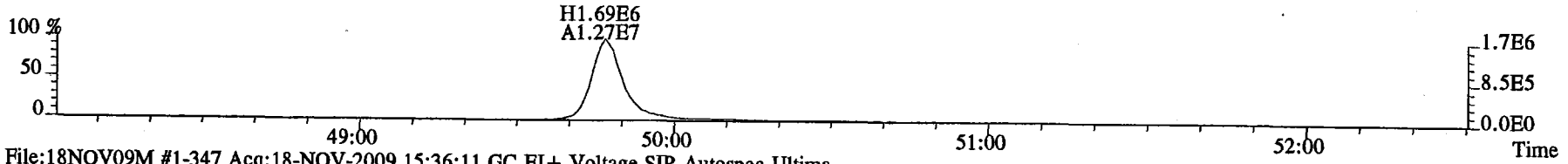
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



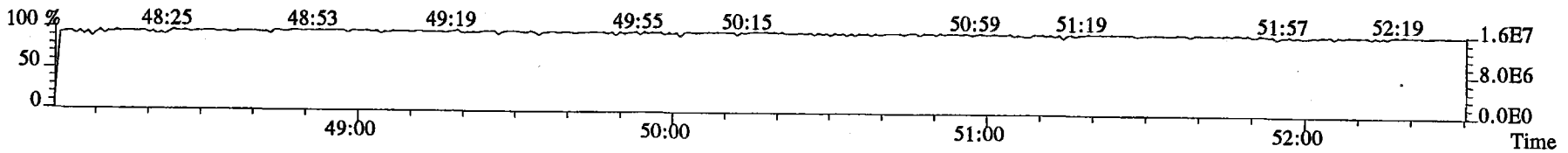
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

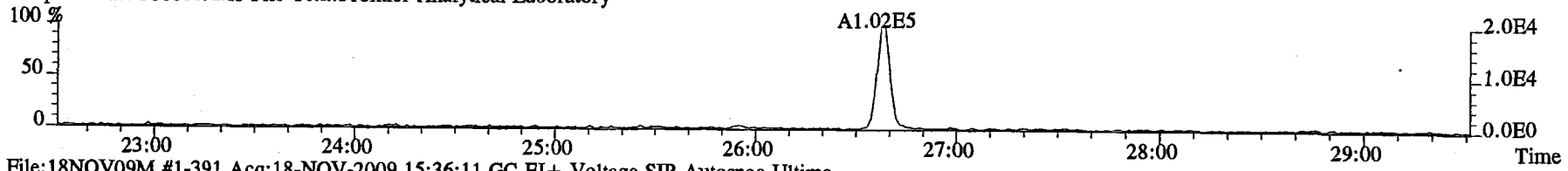


File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:3 F:5 Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

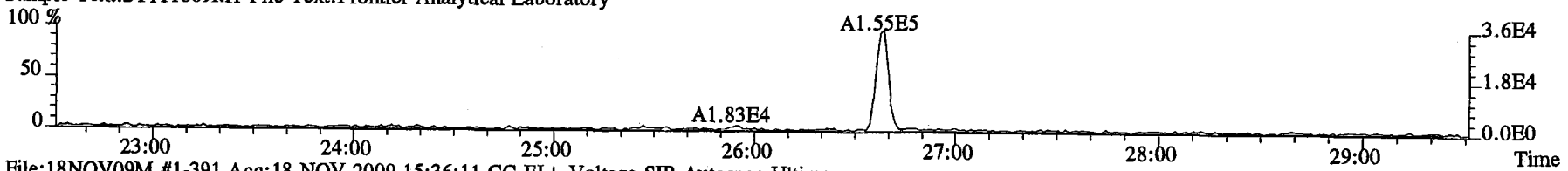


QB72:00589

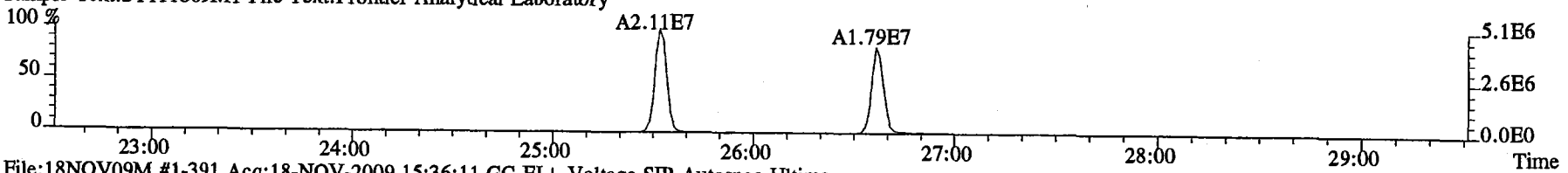
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



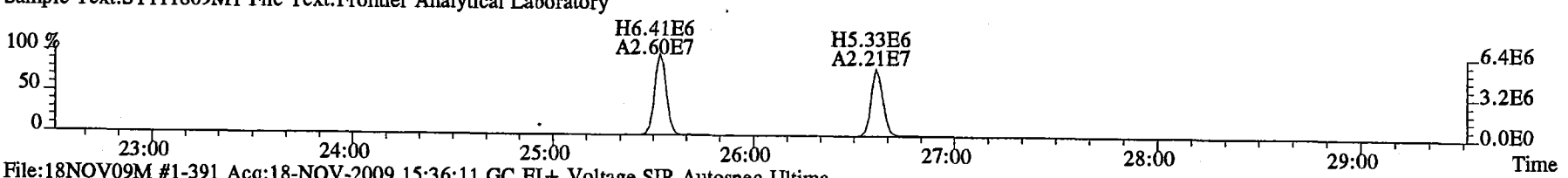
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



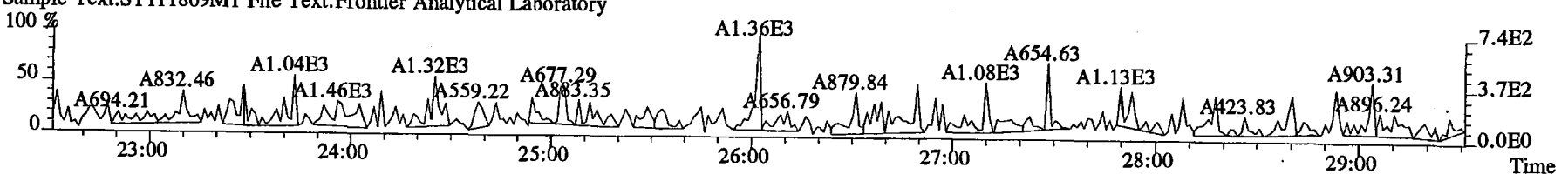
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

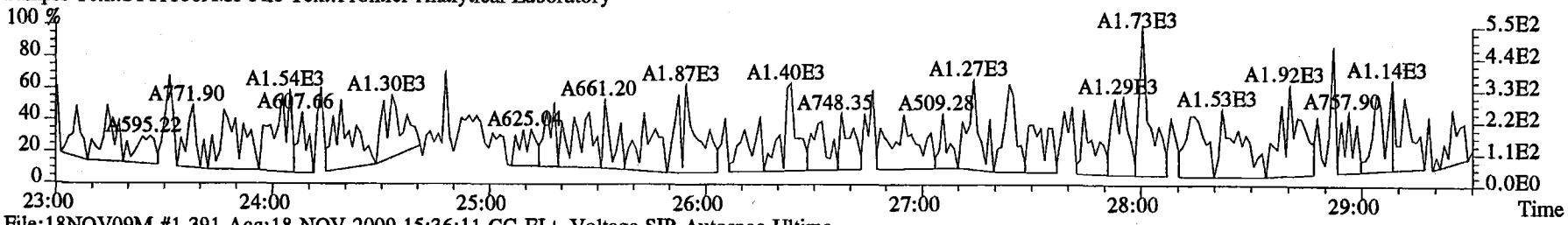


File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

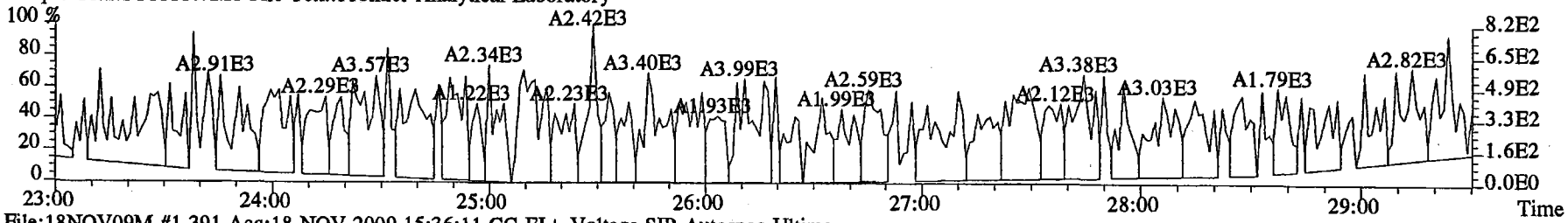


QB72:00581

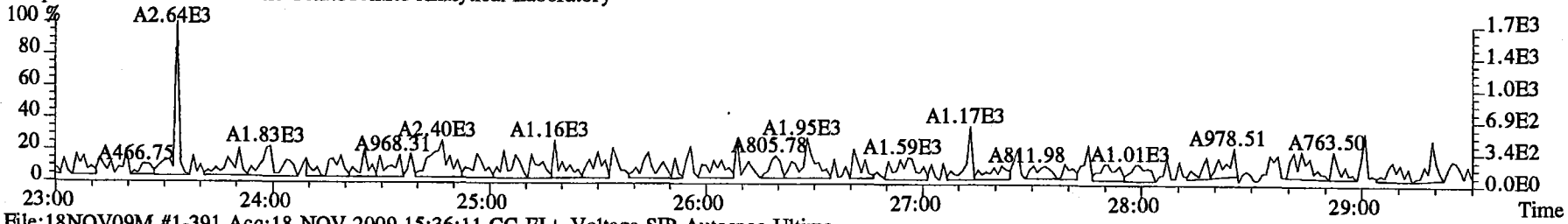
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



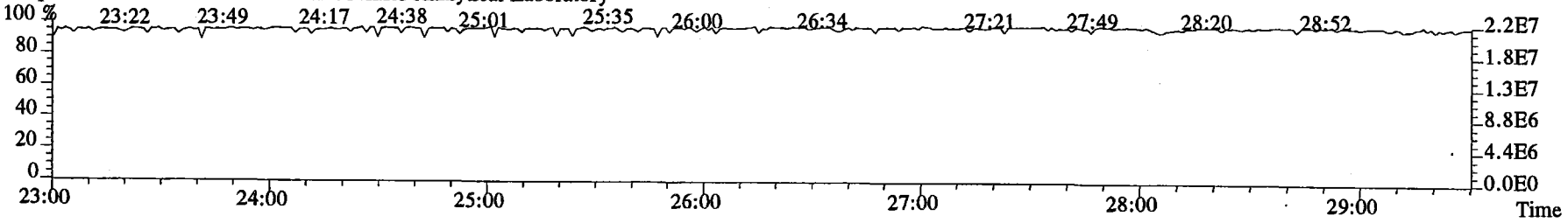
File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

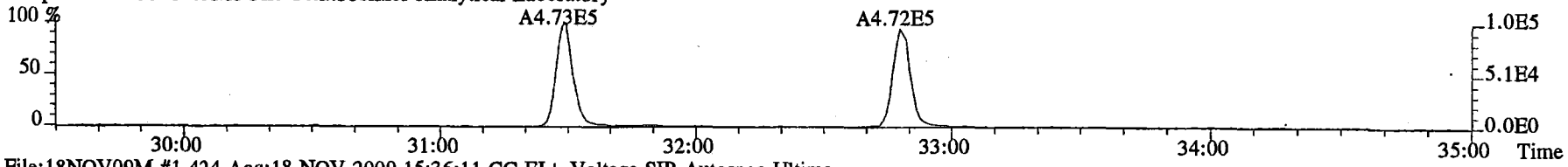


File:18NOV09M #1-391 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:3 Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

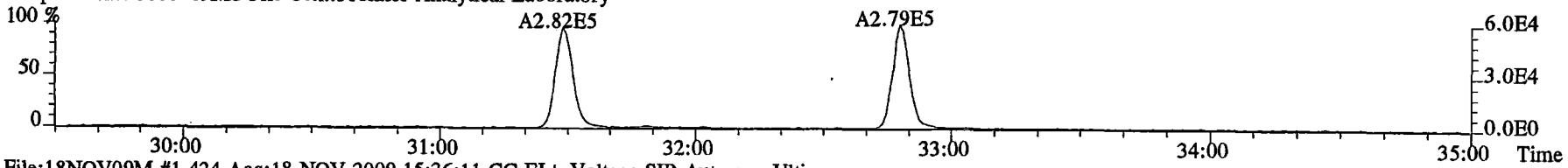


QB72:00592

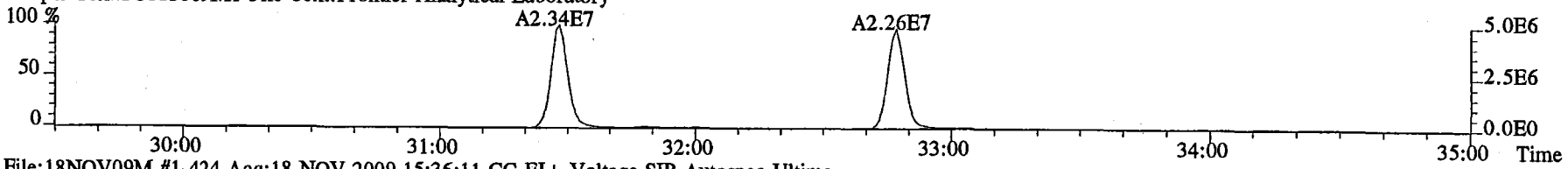
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



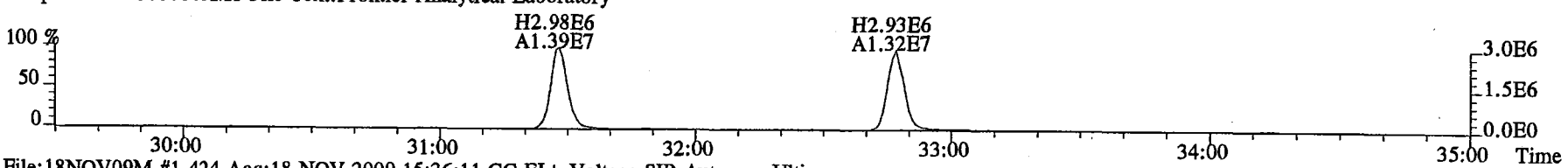
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



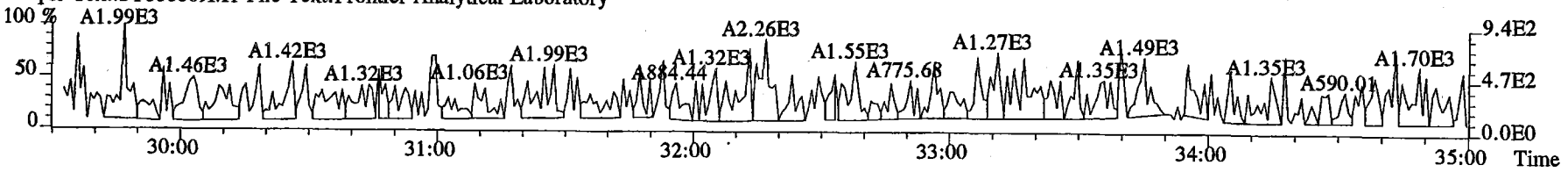
File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

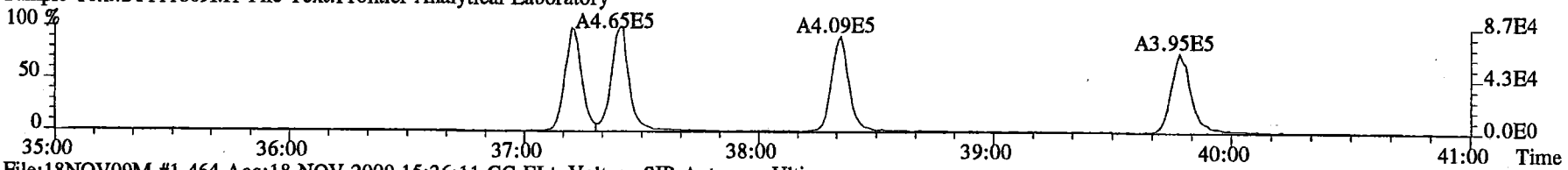


File:18NOV09M #1-424 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

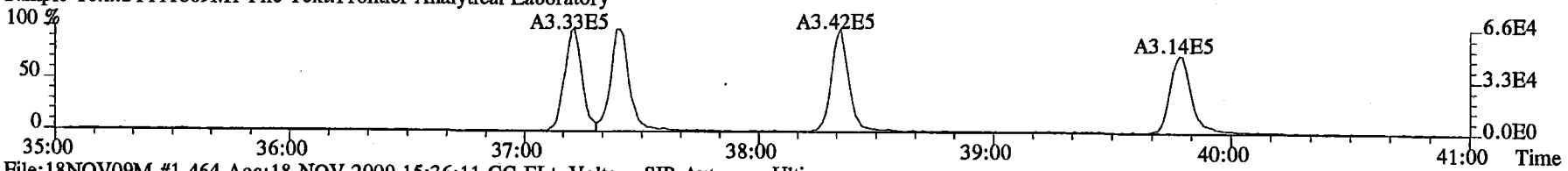


QB72:06583

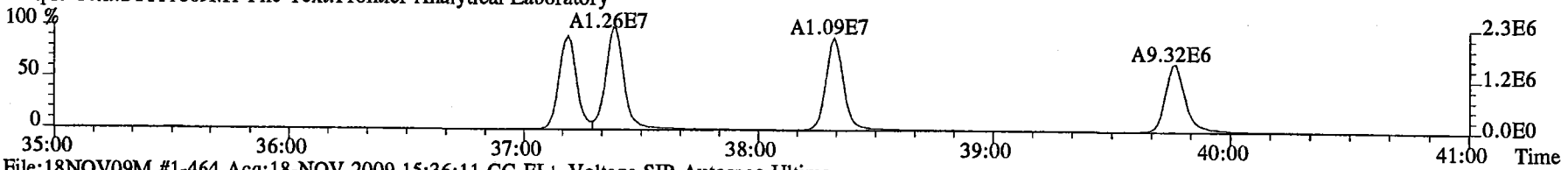
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



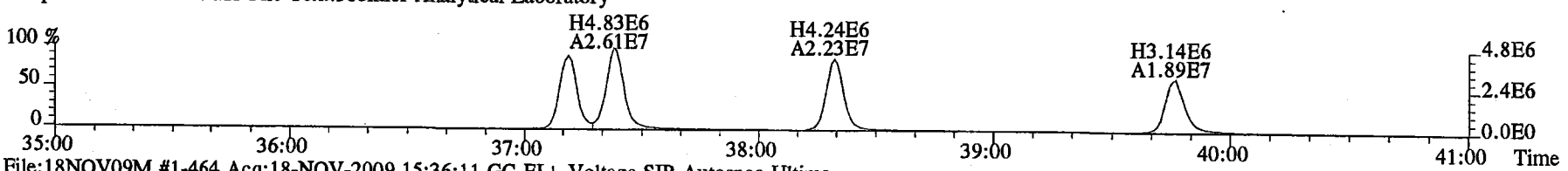
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



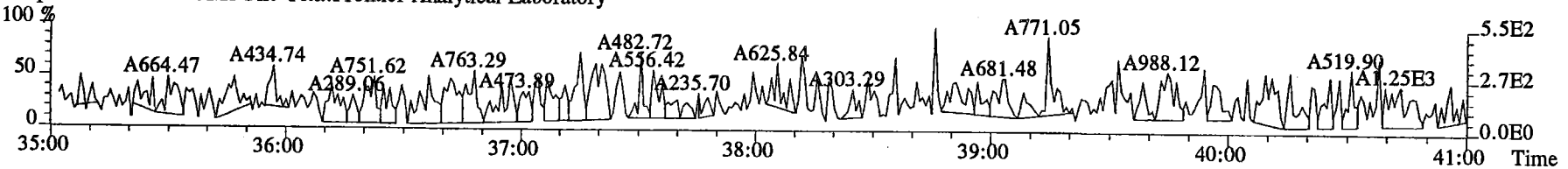
File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

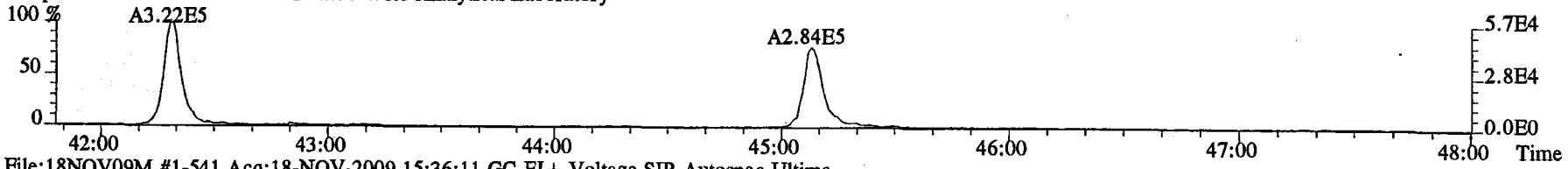


File:18NOV09M #1-464 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

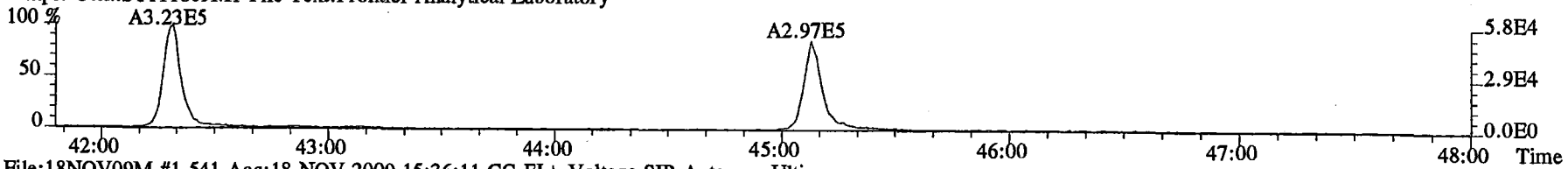


QB72:00584

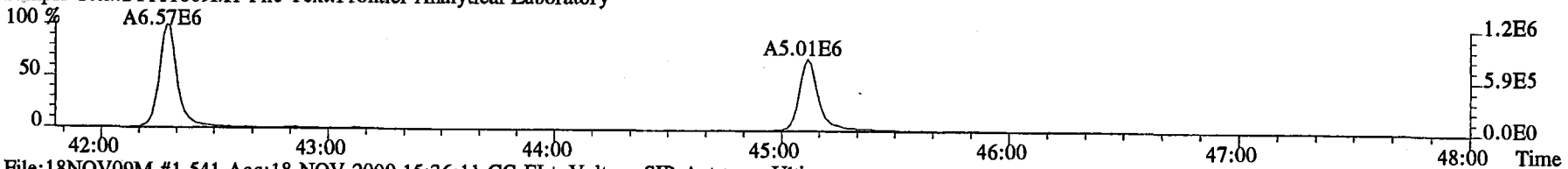
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



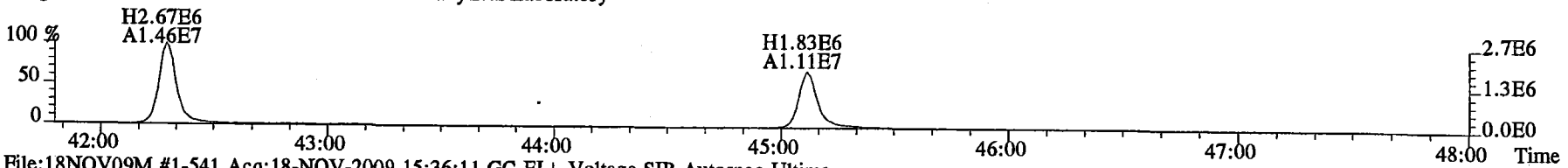
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



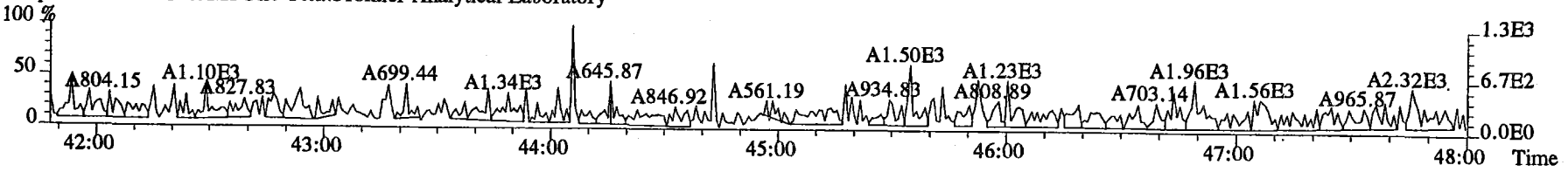
File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

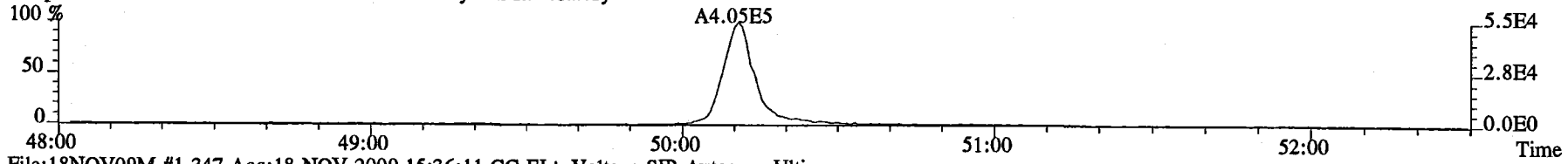


File:18NOV09M #1-541 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

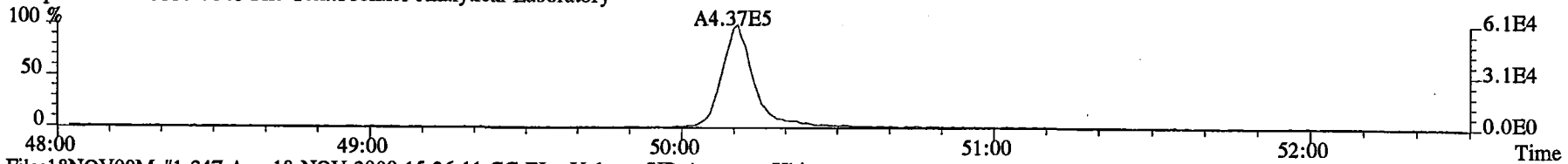


QB72:00585

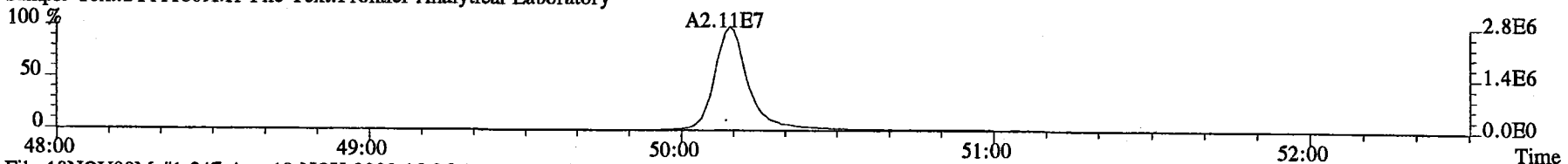
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



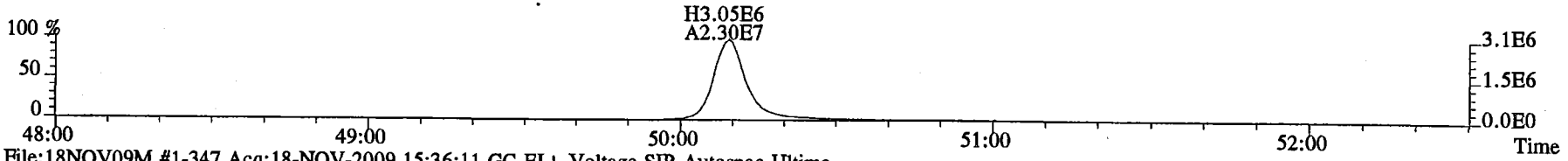
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



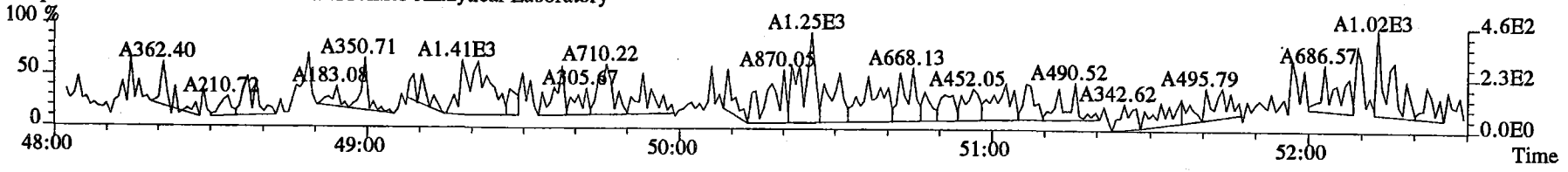
File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

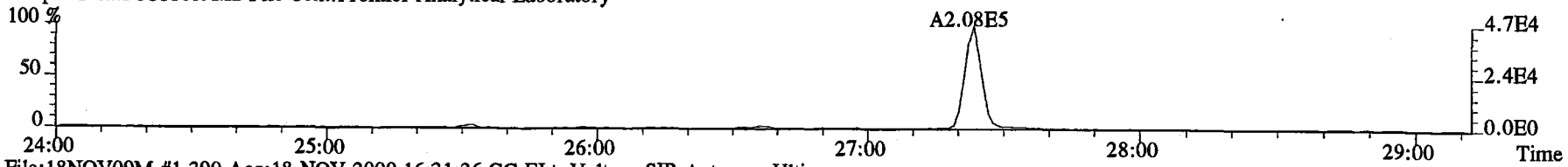


File:18NOV09M #1-347 Acq:18-NOV-2009 15:36:11 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M1 File Text:Frontier Analytical Laboratory

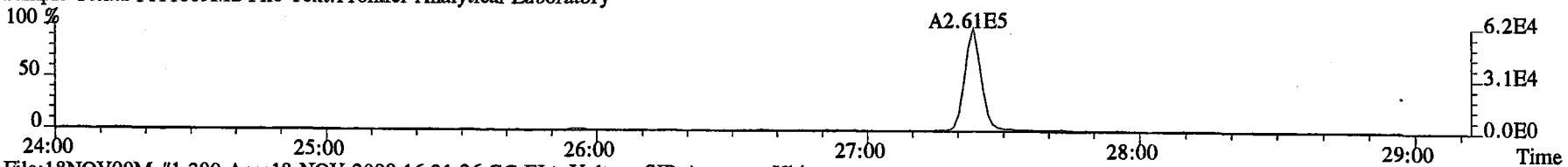


GB72:00586

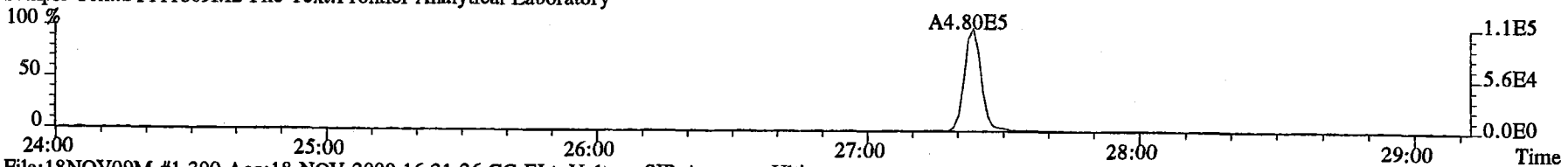
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



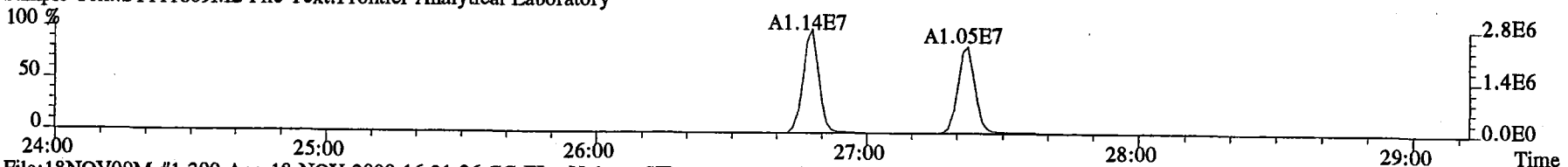
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



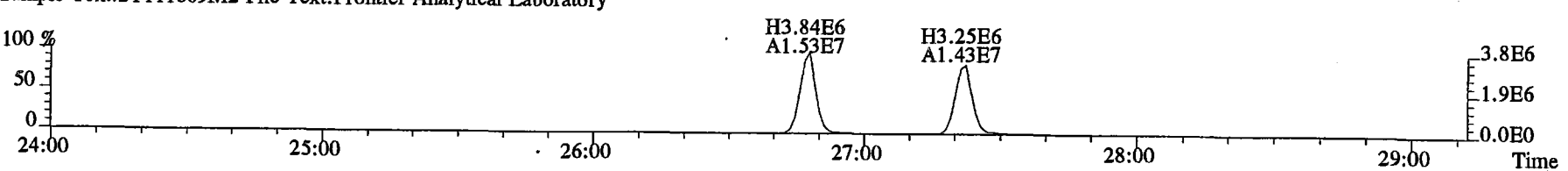
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

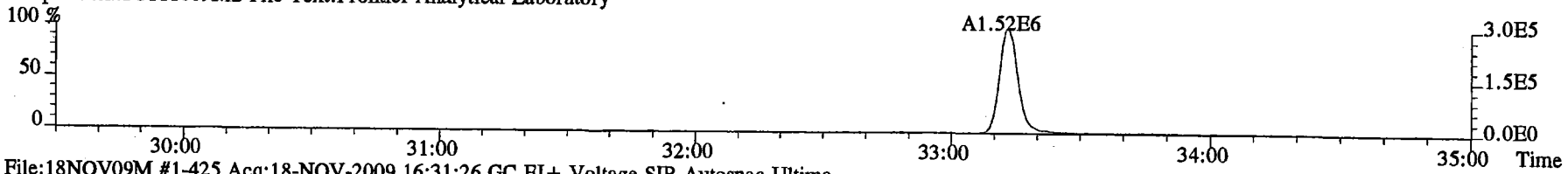


File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

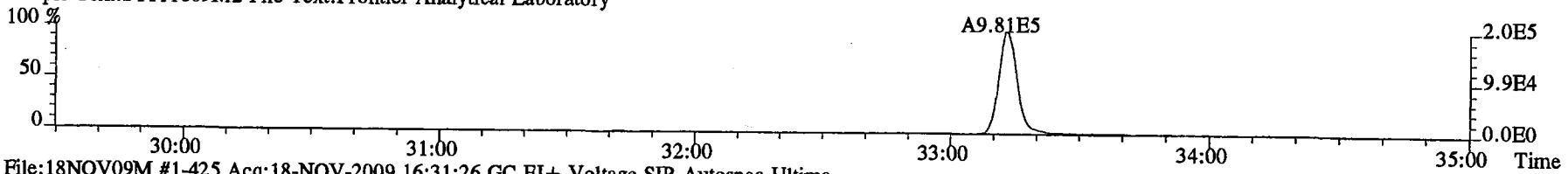


GB72:00587

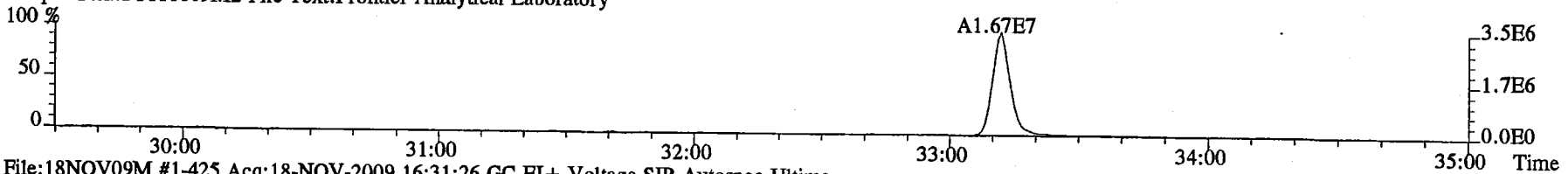
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



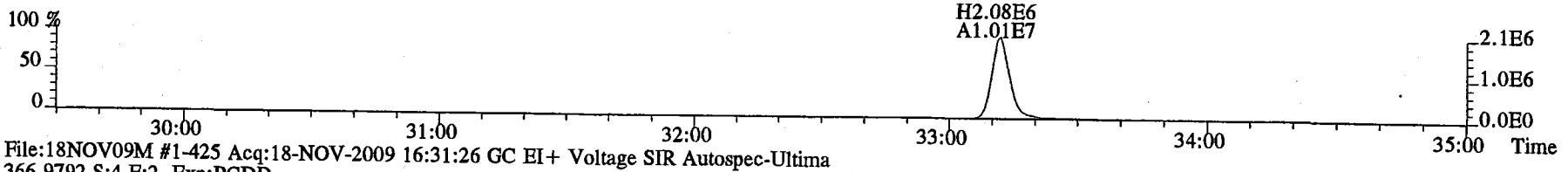
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



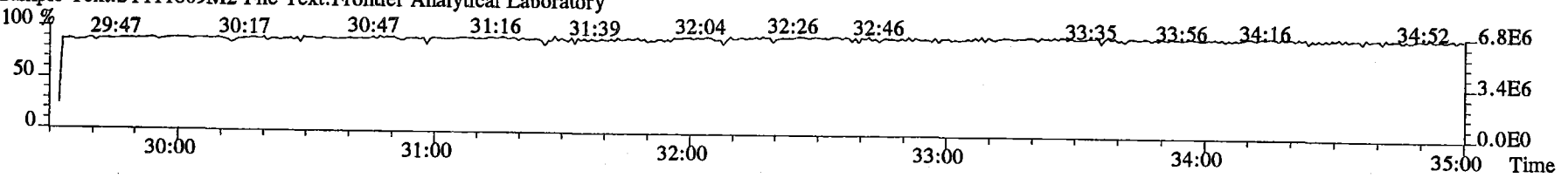
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

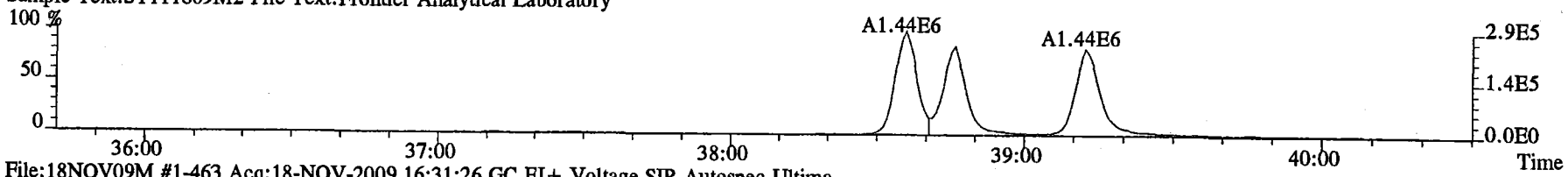


File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:4 F:2 Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

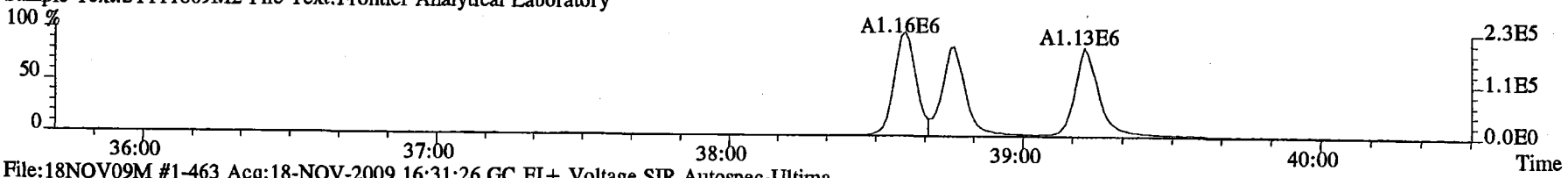


QB72:00588

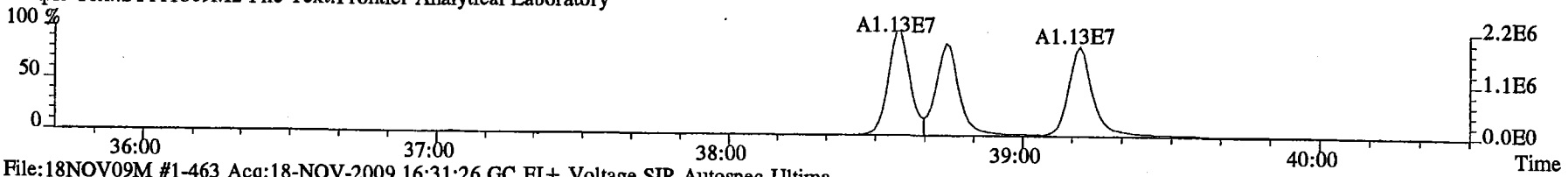
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



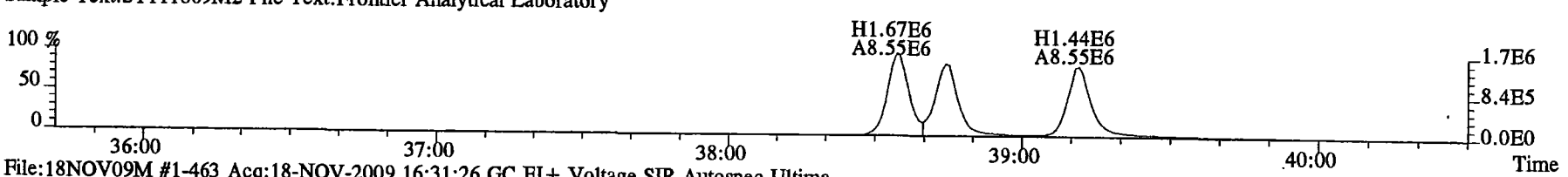
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



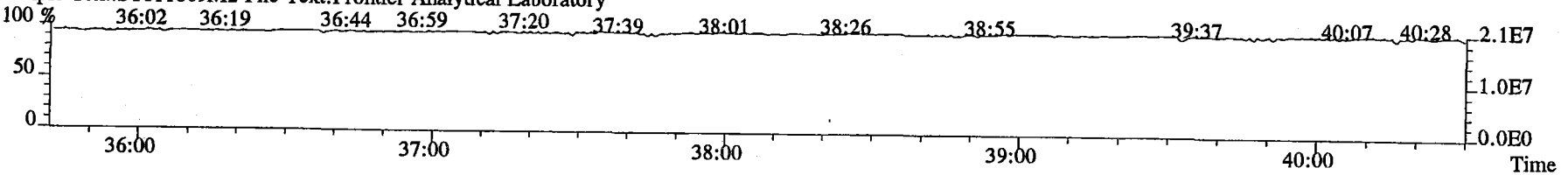
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

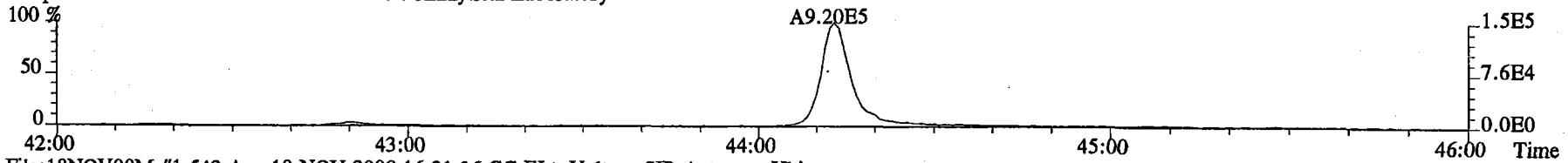


File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:4 F:3 Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

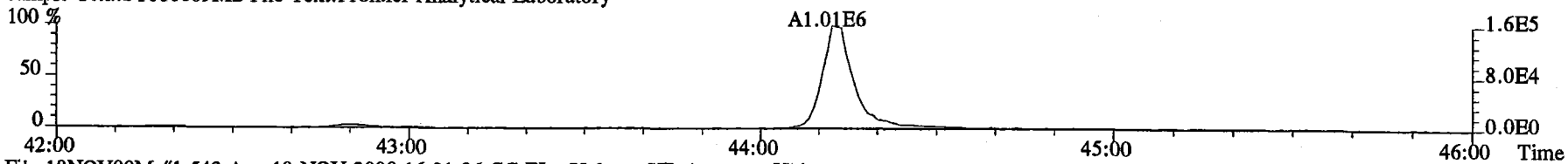


GB72:09589

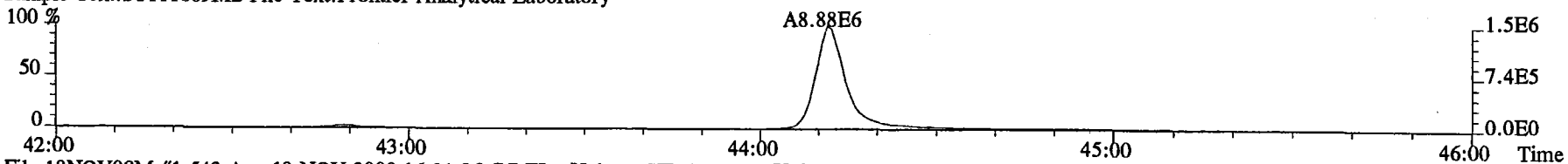
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



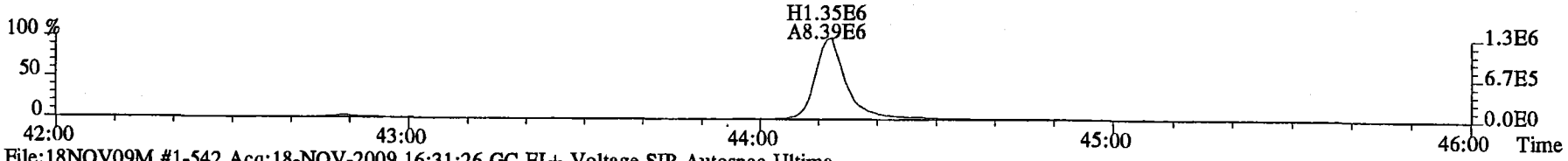
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



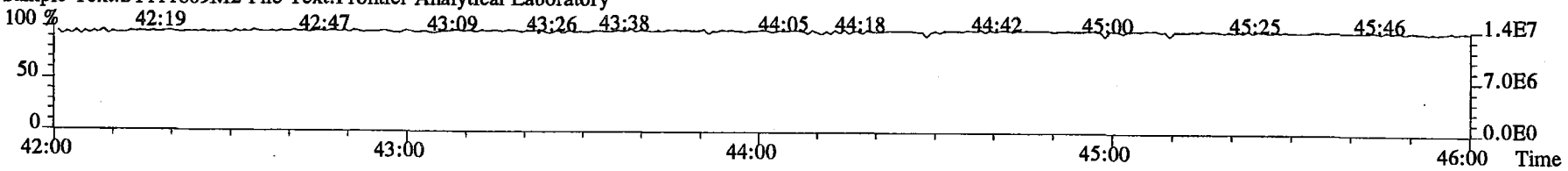
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

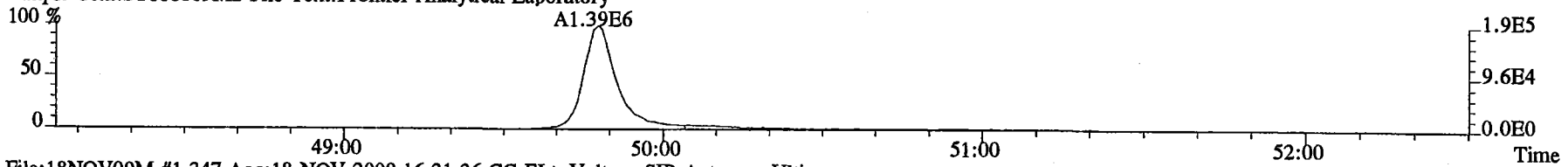


File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:4 F:4 Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

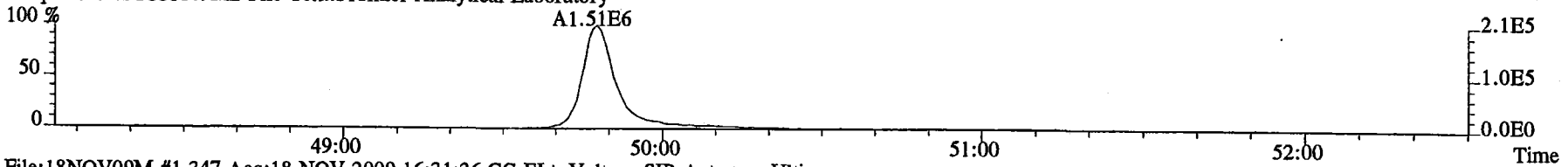


QB72:00599

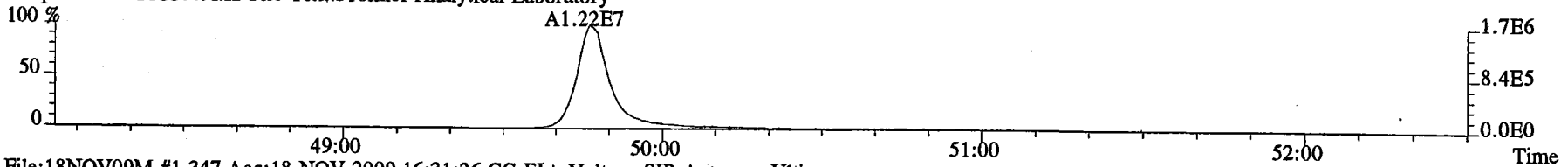
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



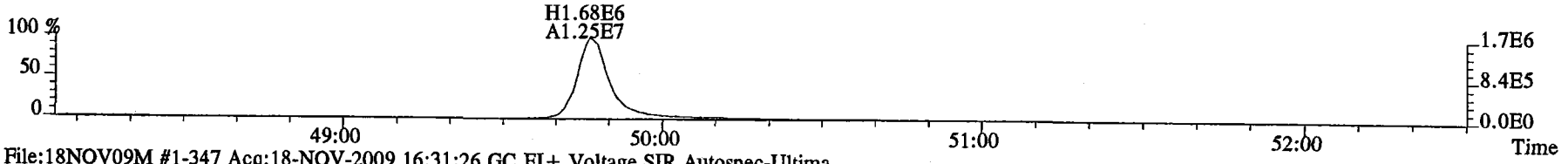
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



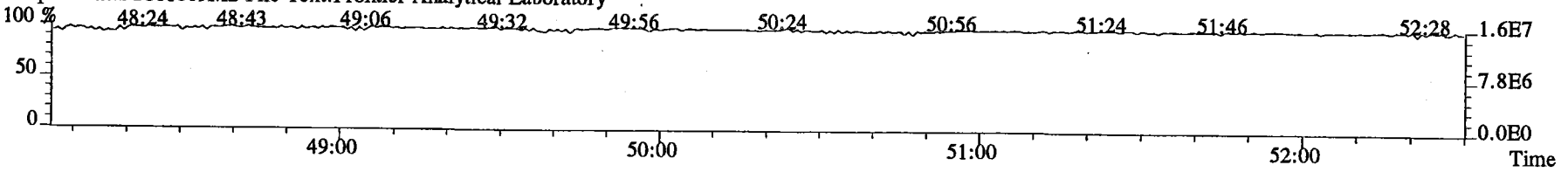
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

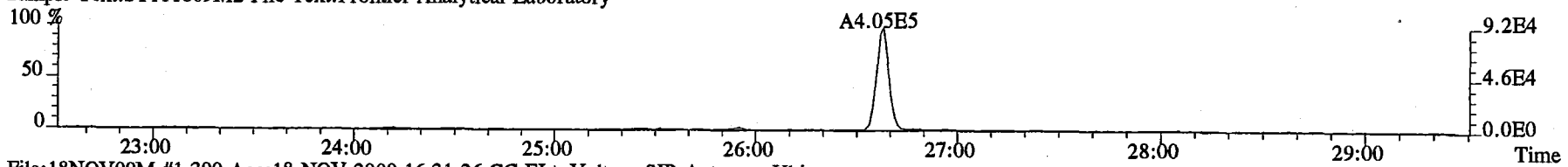


File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:4 F:5 Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

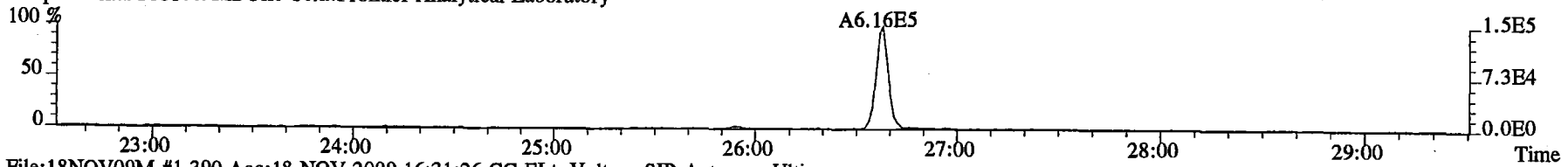


QB72:00591

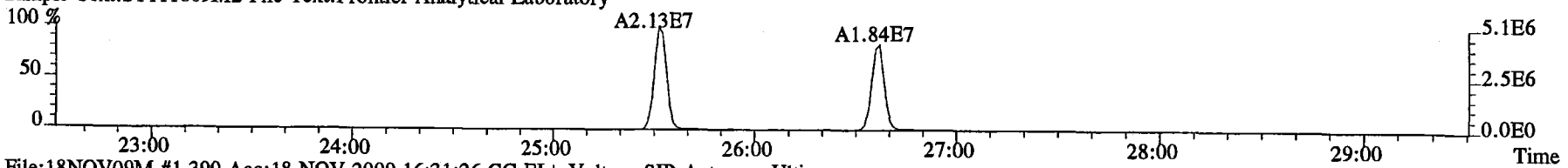
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



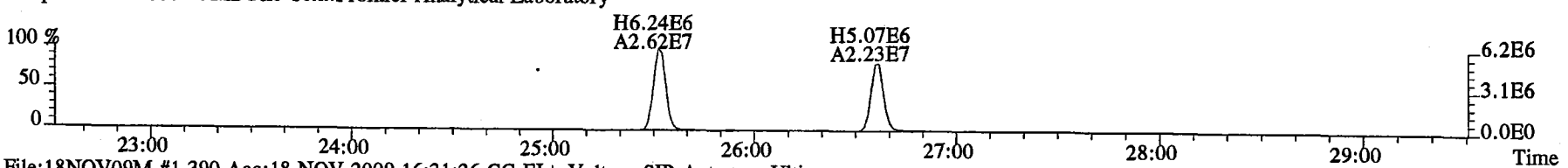
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



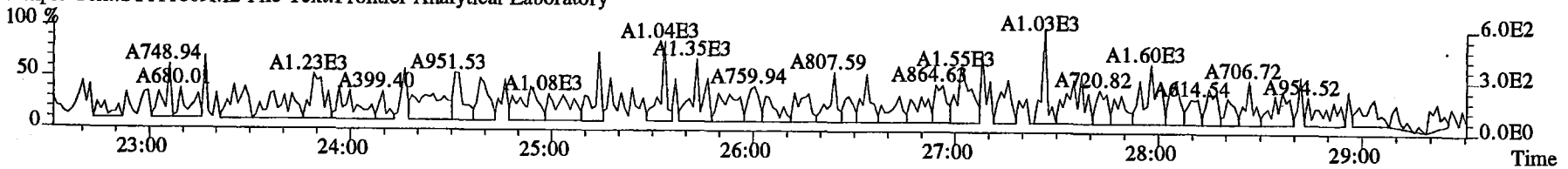
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

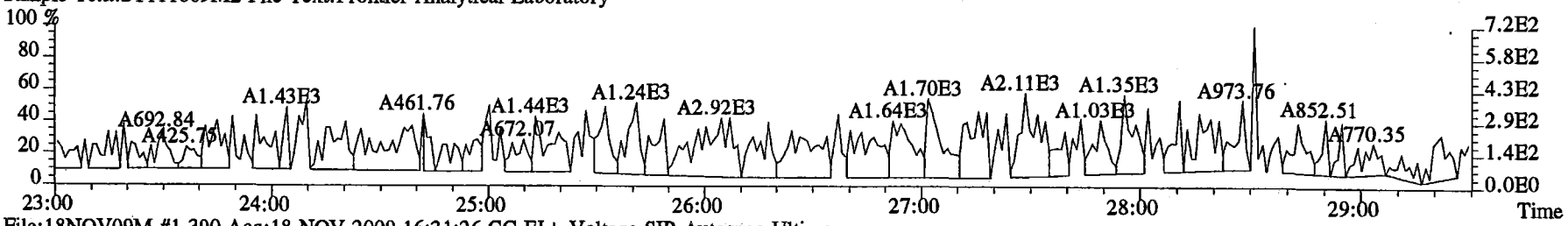


File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

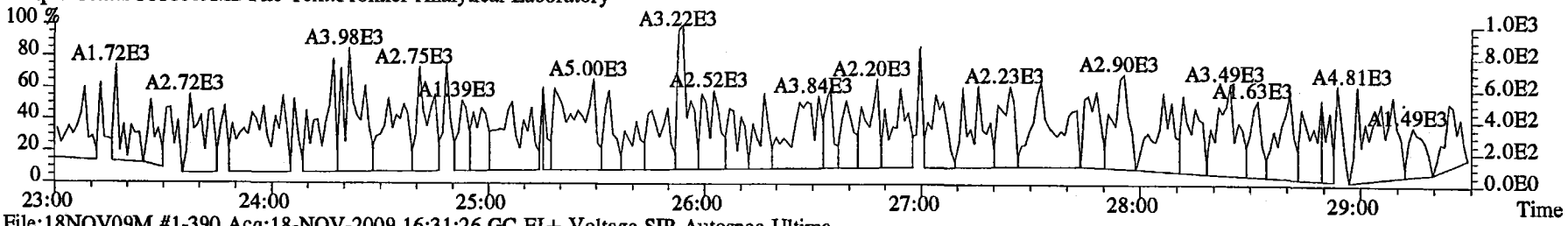


GB72:90532

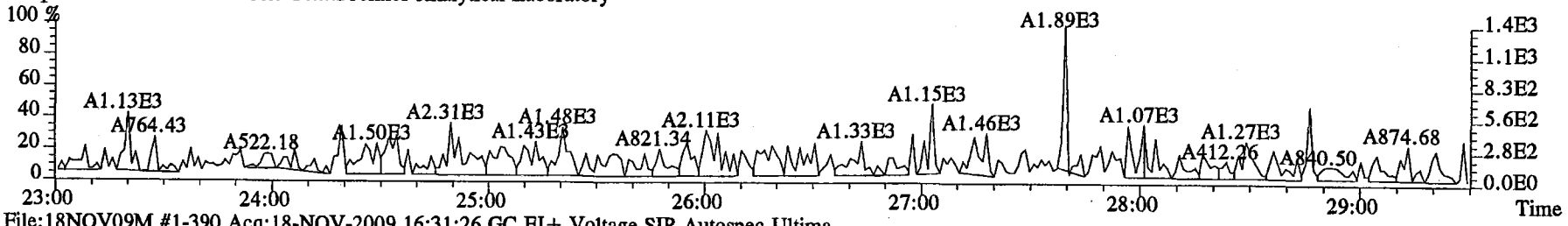
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



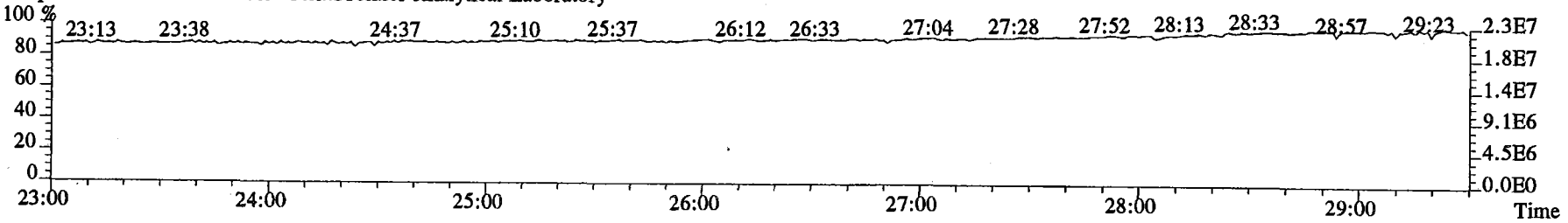
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



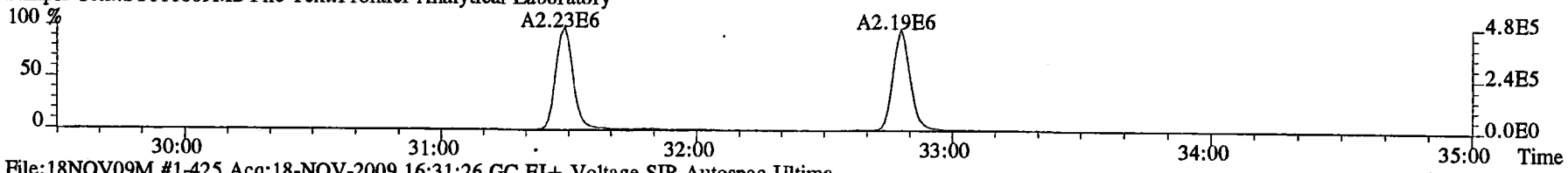
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



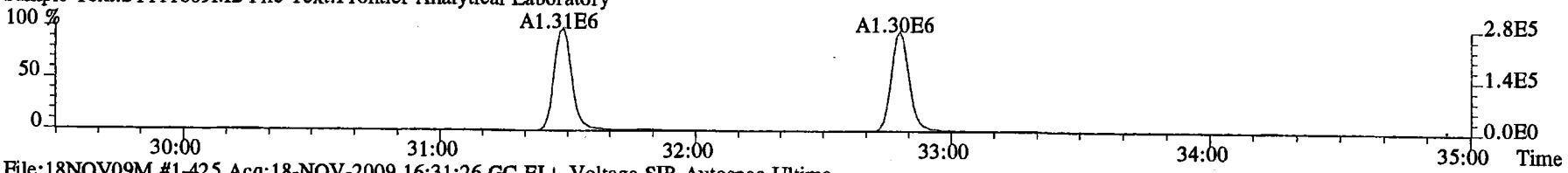
File:18NOV09M #1-390 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:4 Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



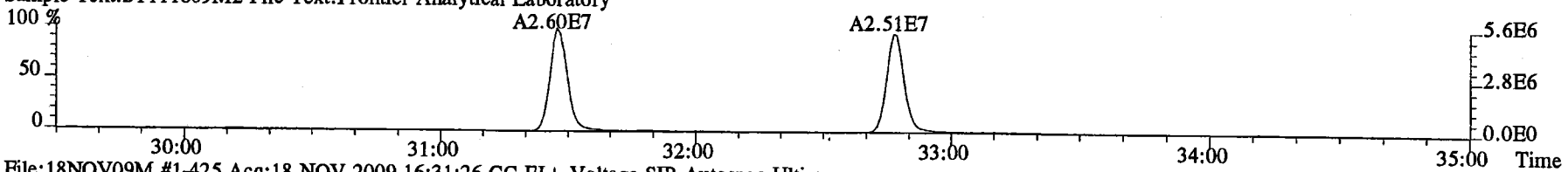
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



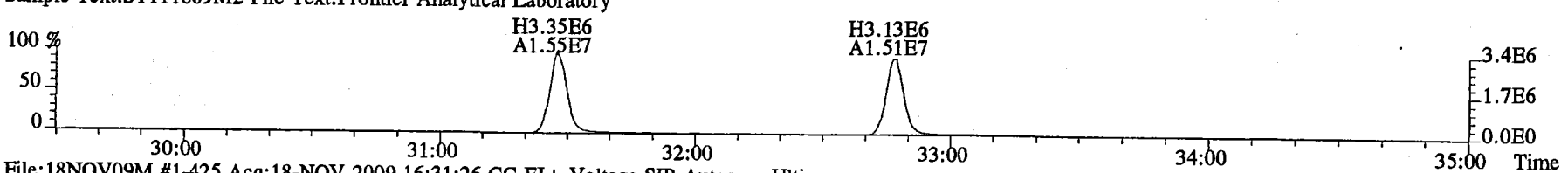
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



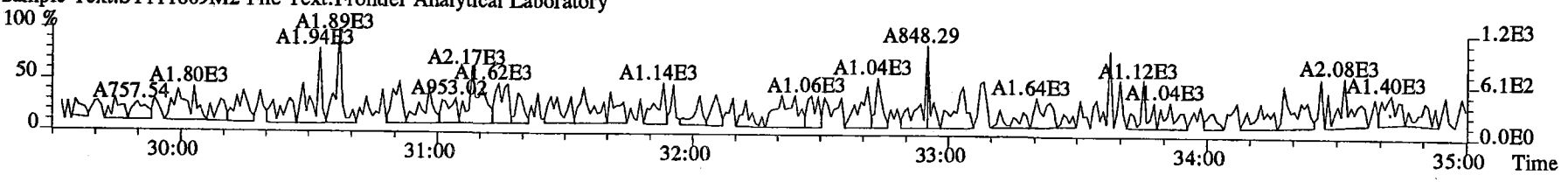
File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

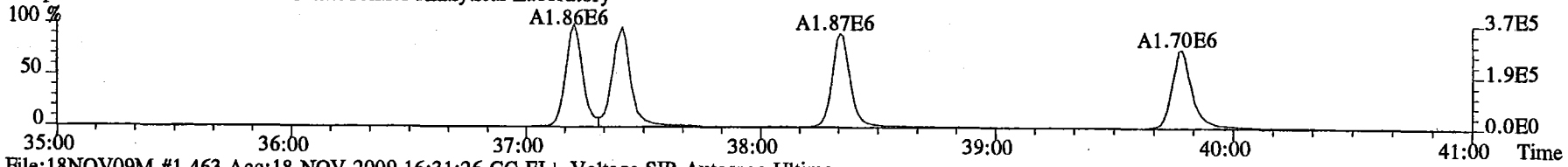


File:18NOV09M #1-425 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

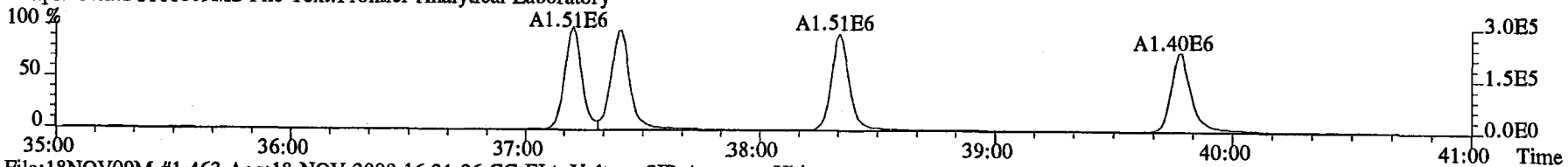


QB72:66591

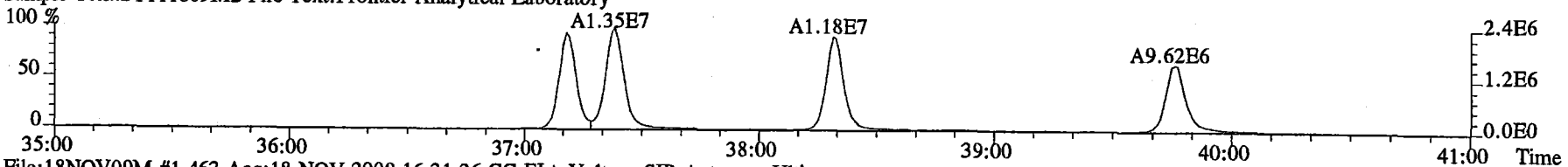
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



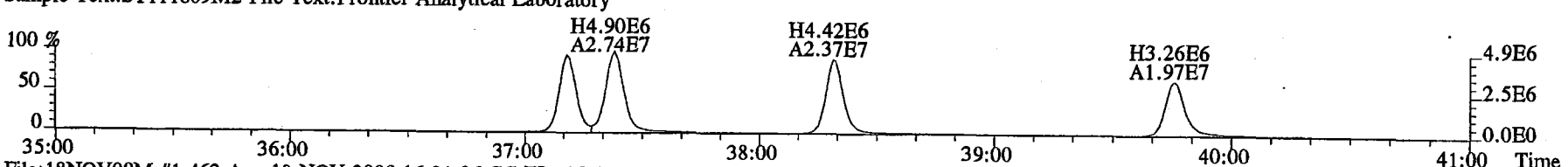
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



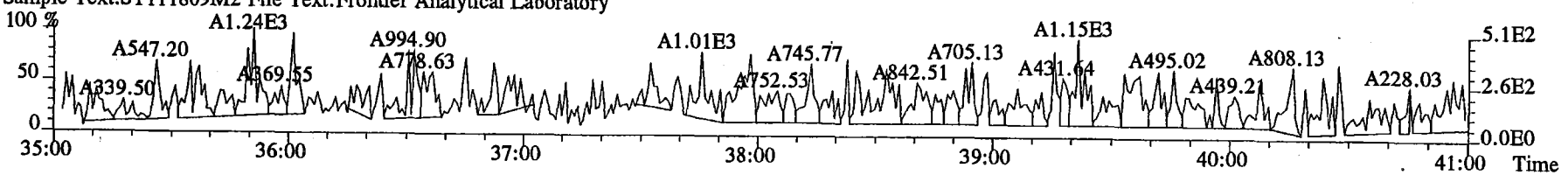
File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

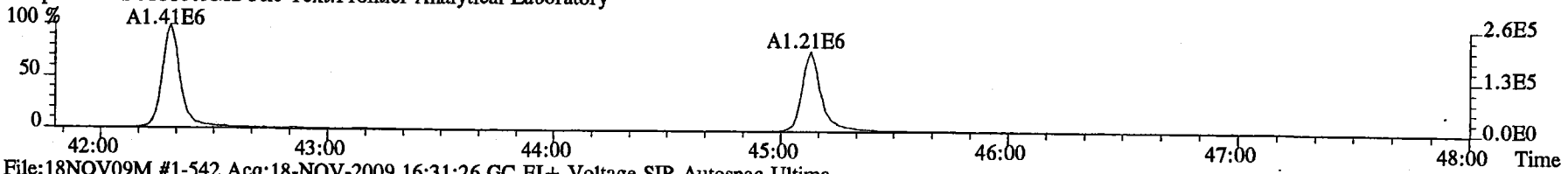


File:18NOV09M #1-463 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

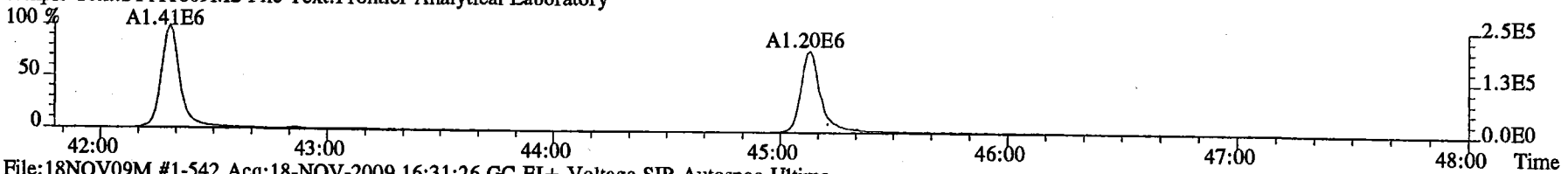


QB72:06595

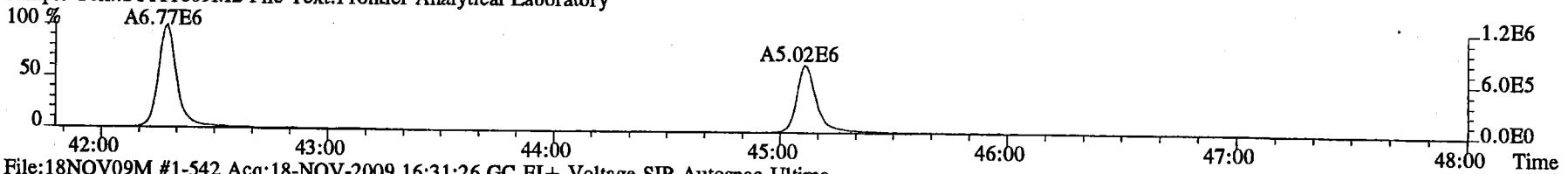
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



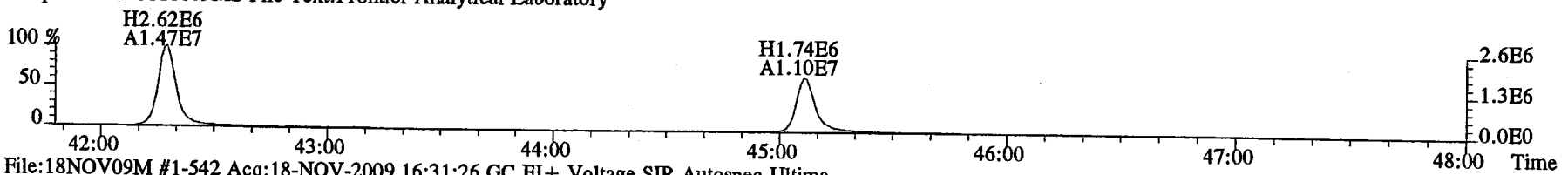
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



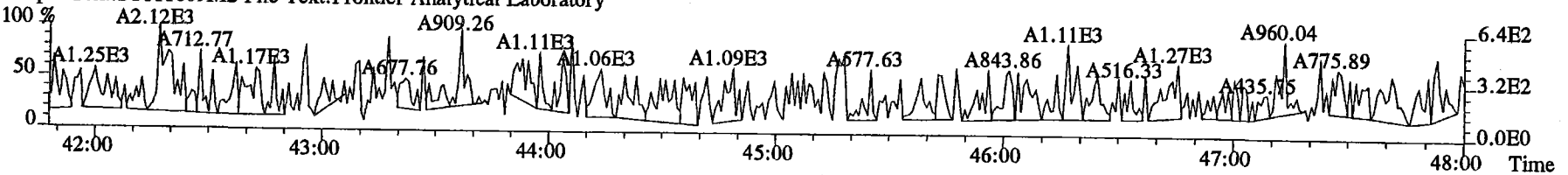
File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

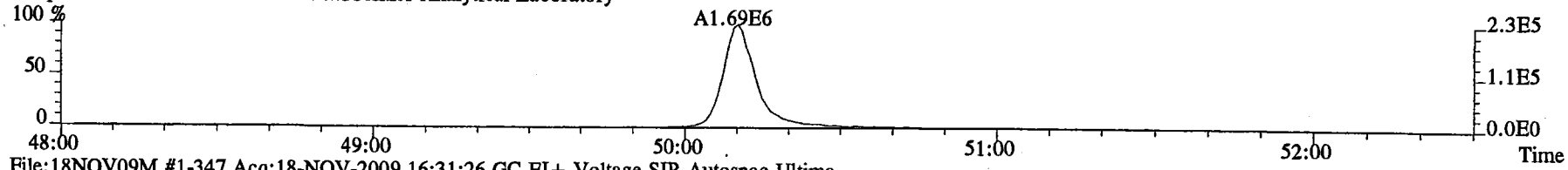


File:18NOV09M #1-542 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

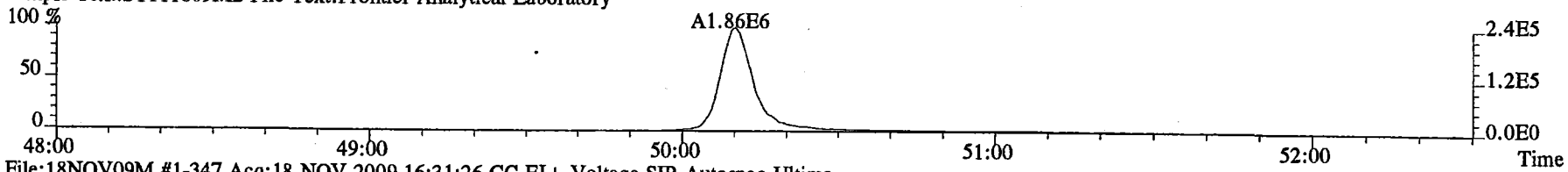


QB72:00596

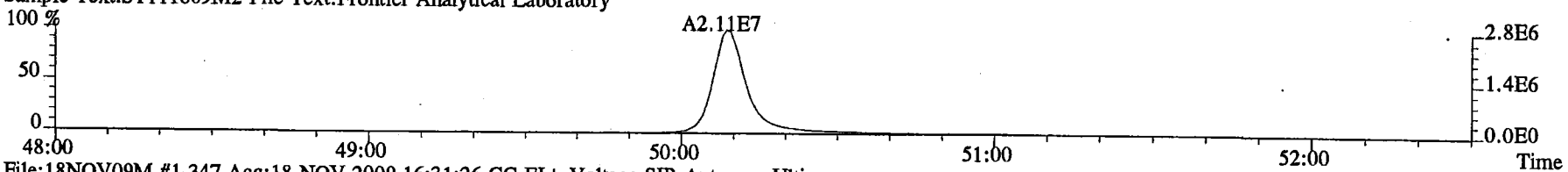
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



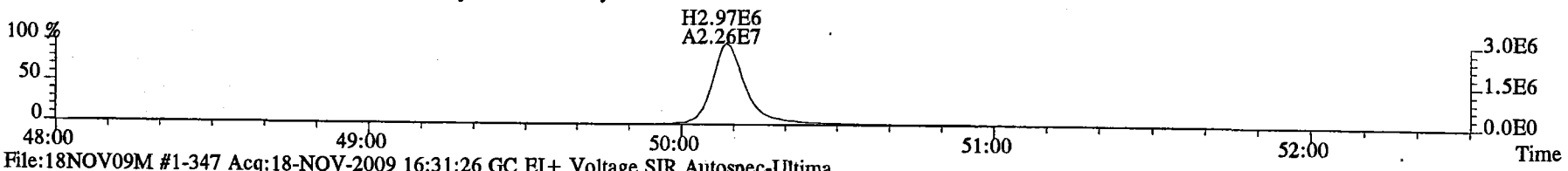
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



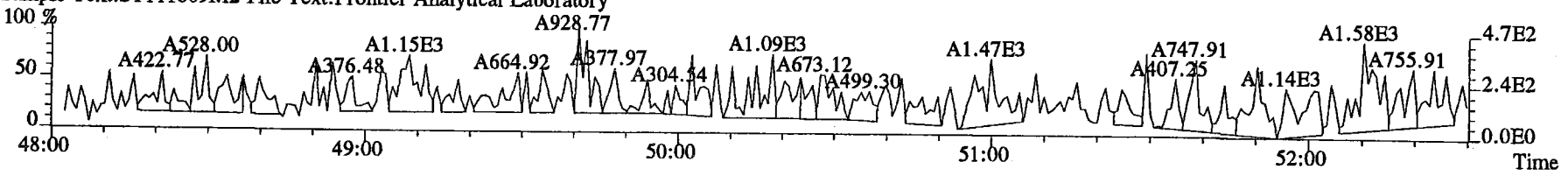
File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

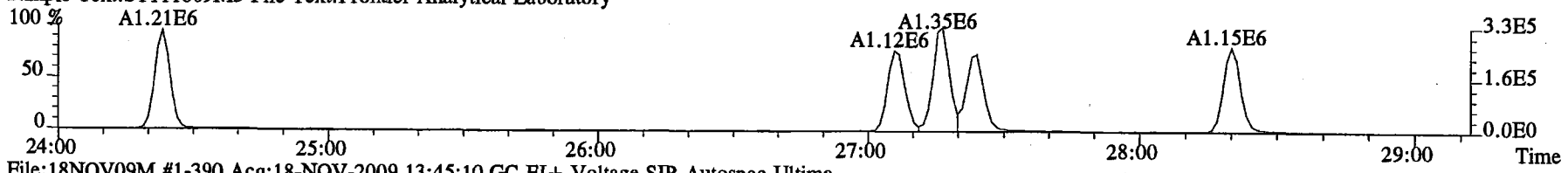


File:18NOV09M #1-347 Acq:18-NOV-2009 16:31:26 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M2 File Text:Frontier Analytical Laboratory

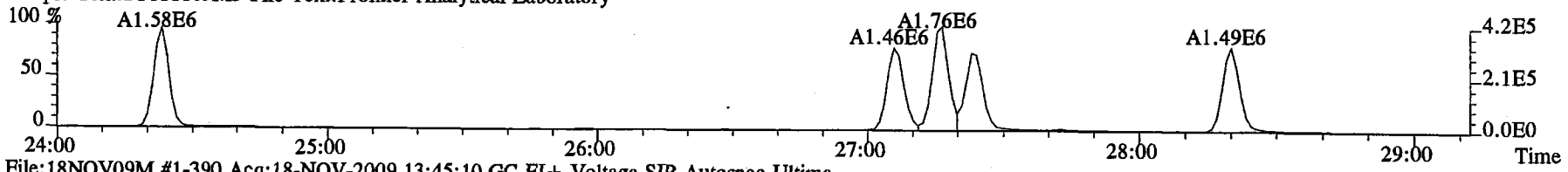


QB72:60597

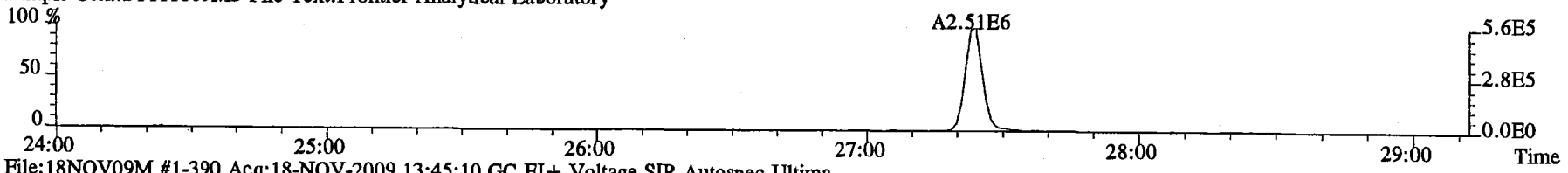
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



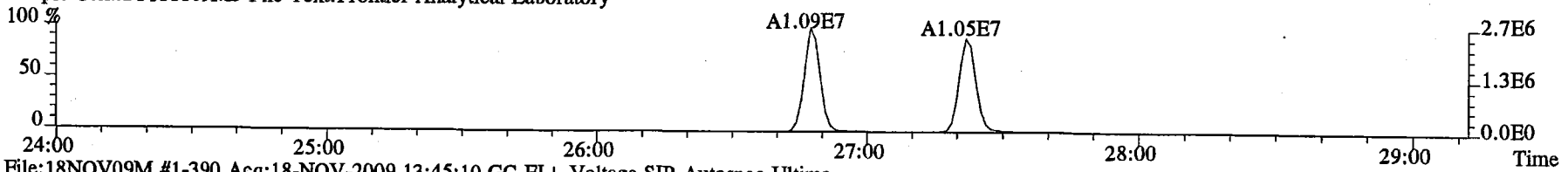
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



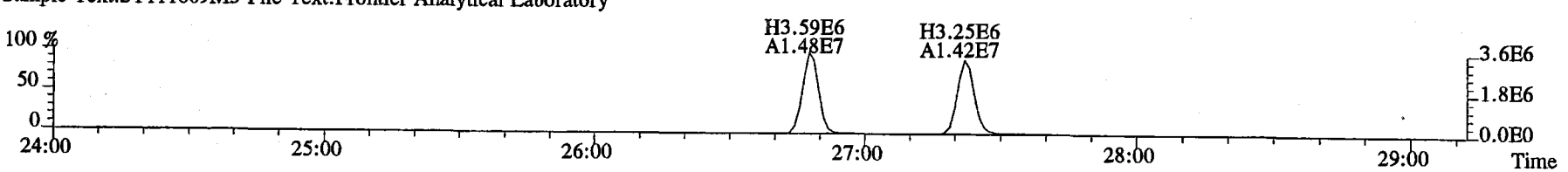
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

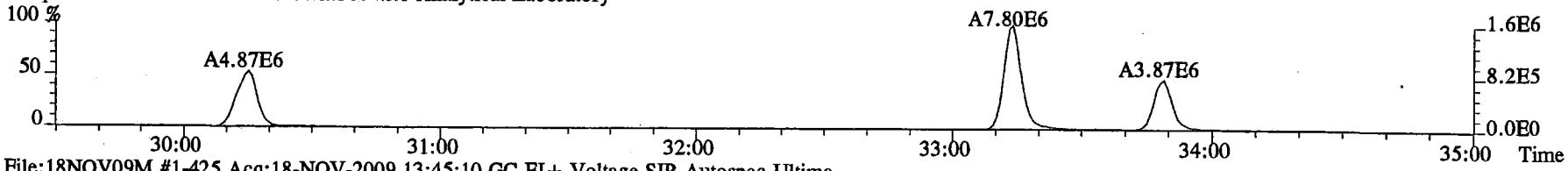


File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

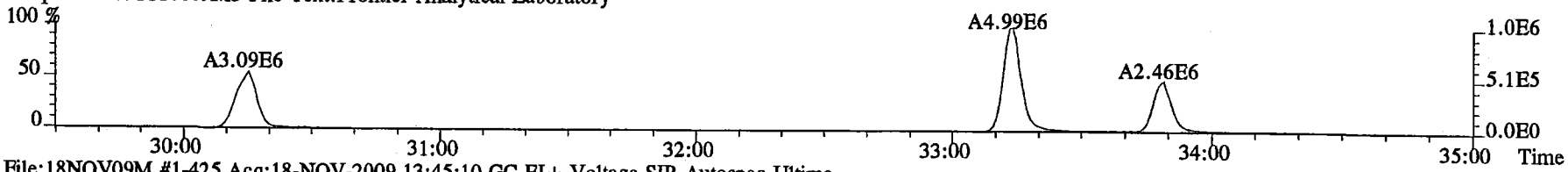


GB72:00598

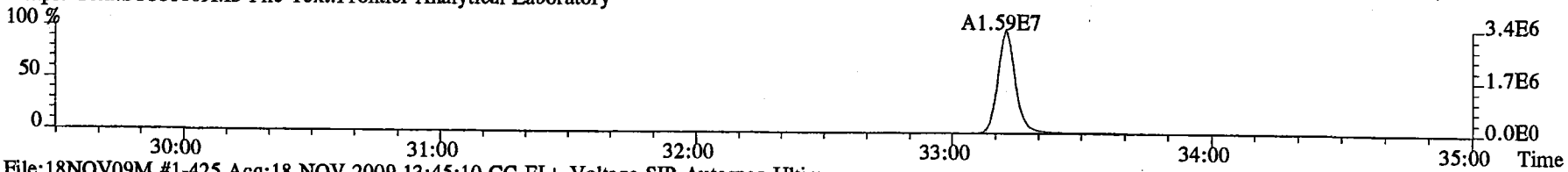
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



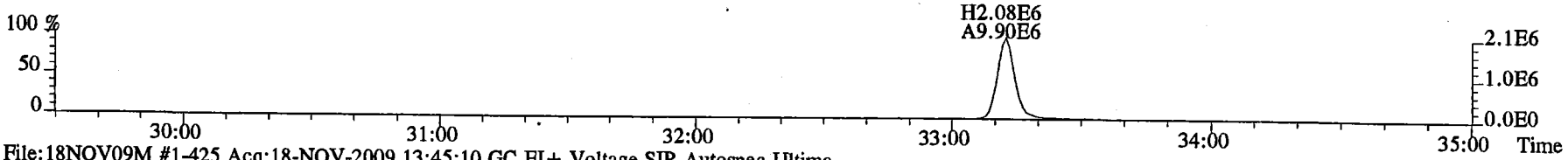
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
357.8517 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



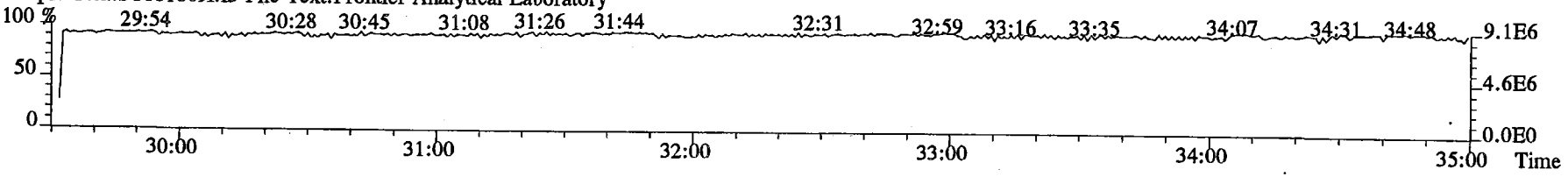
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
367.8949 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
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:ST111809M3 File Text:Frontier Analytical Laboratory

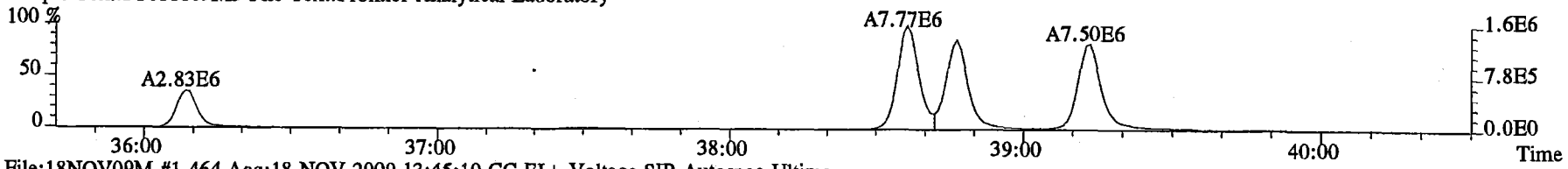


File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
366.9792 F:2 Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

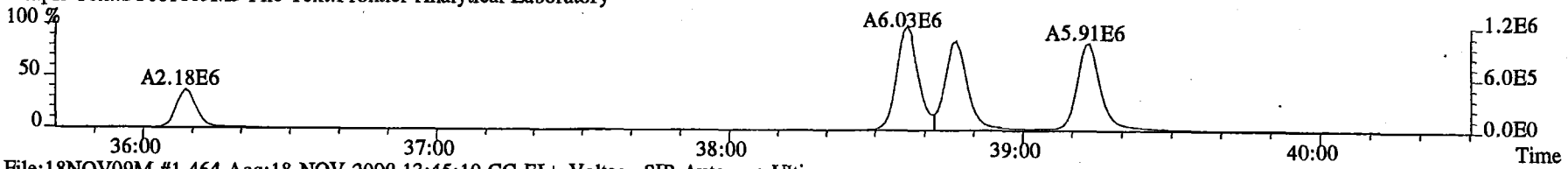


GB72:00599

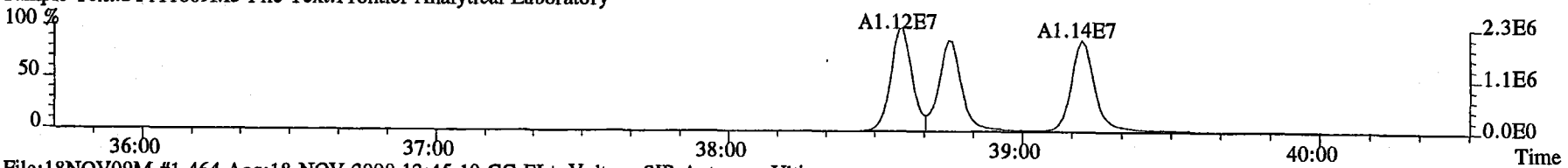
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



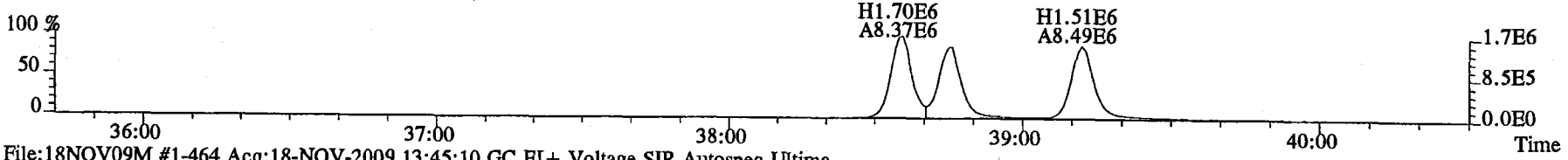
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



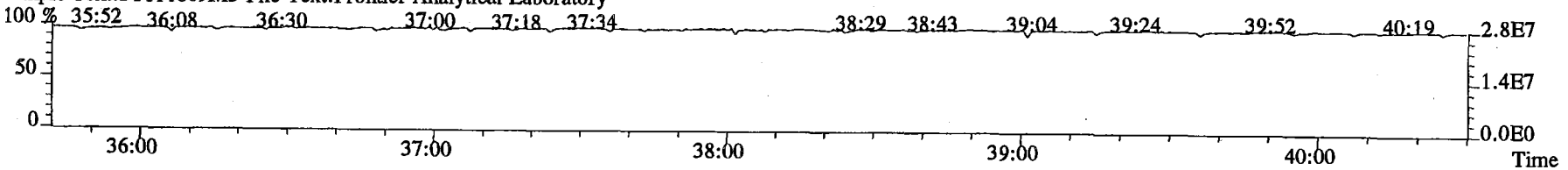
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

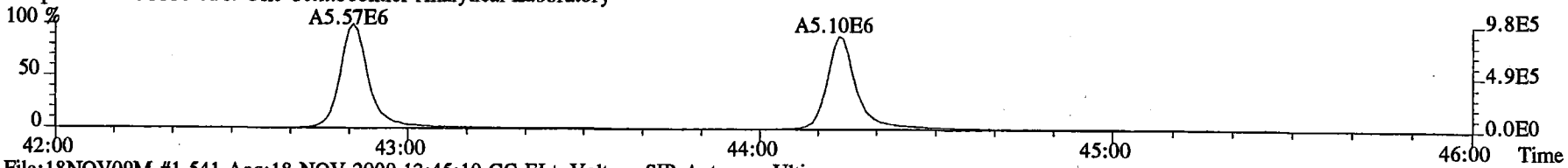


File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
380.9760 F:3 Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

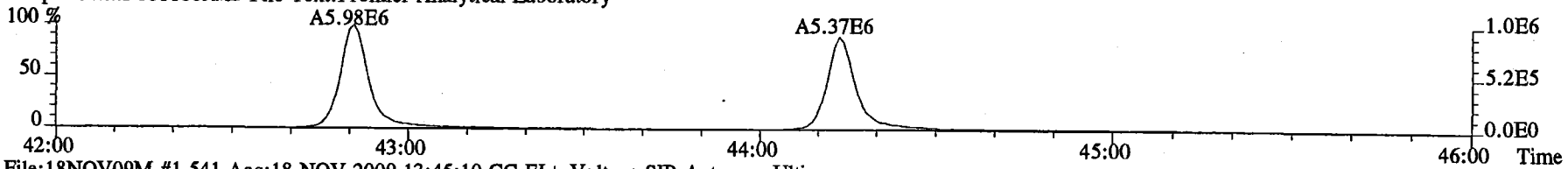


GB72:00598

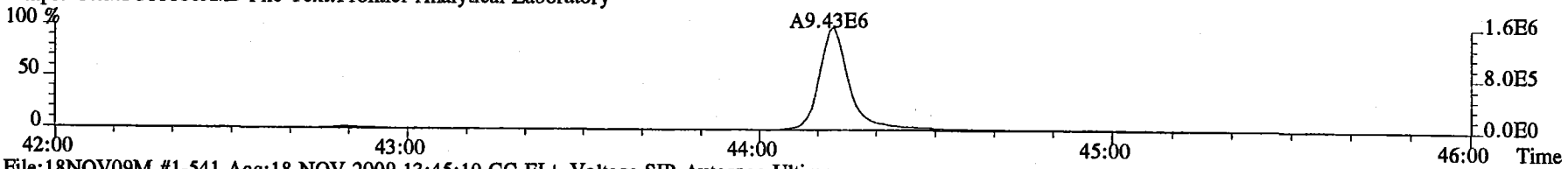
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



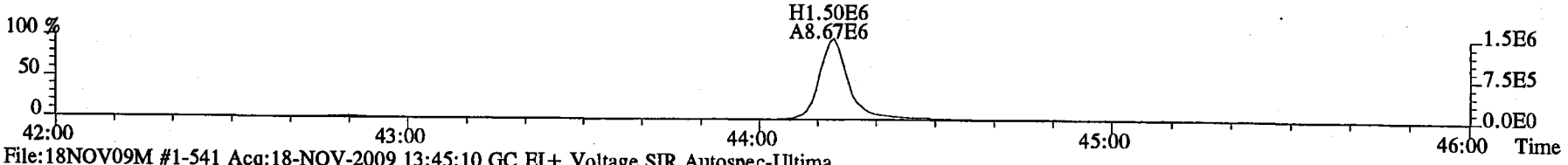
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



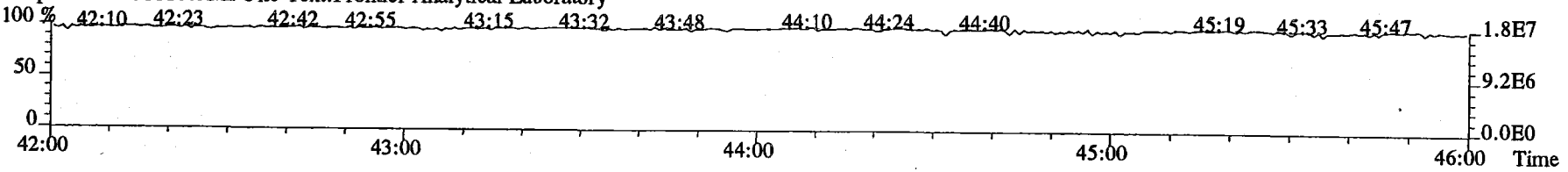
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

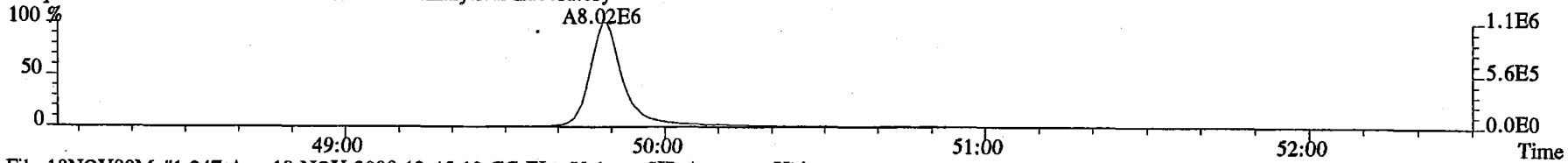


File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
430.9728 F:4 Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

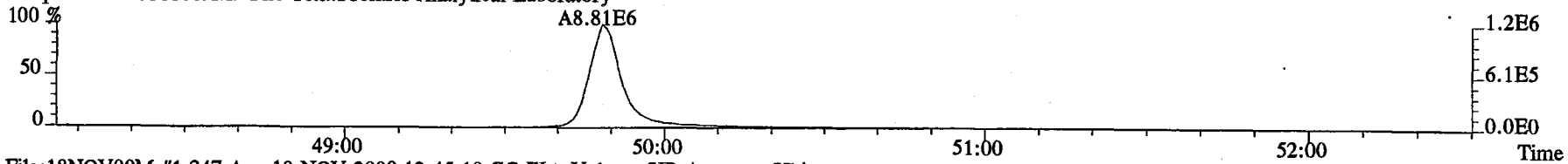


QB72:00661

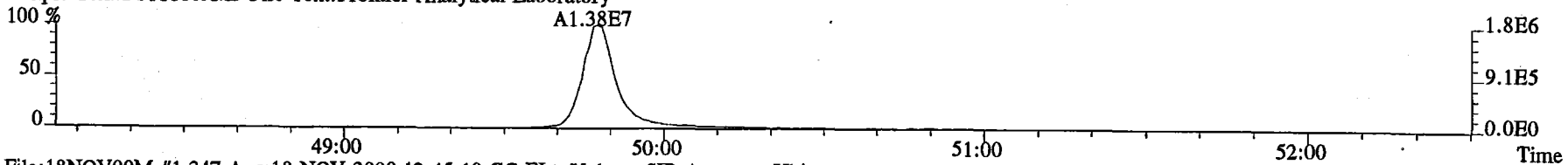
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



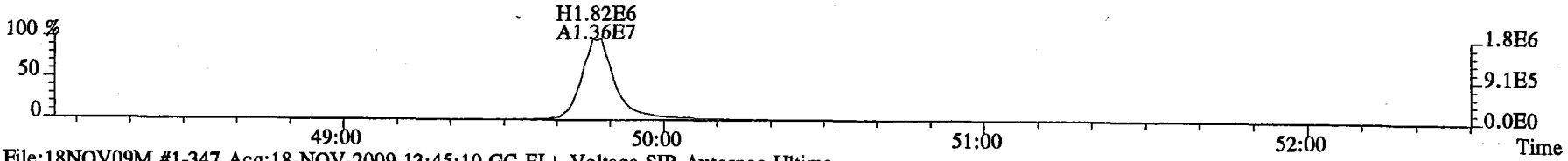
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



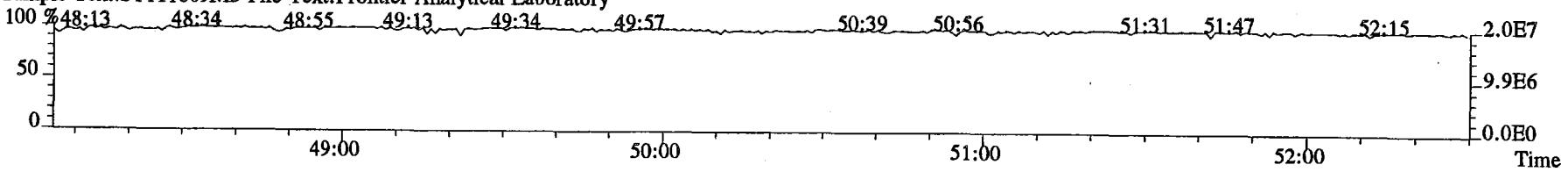
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 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:ST111809M3 File Text:Frontier Analytical Laboratory

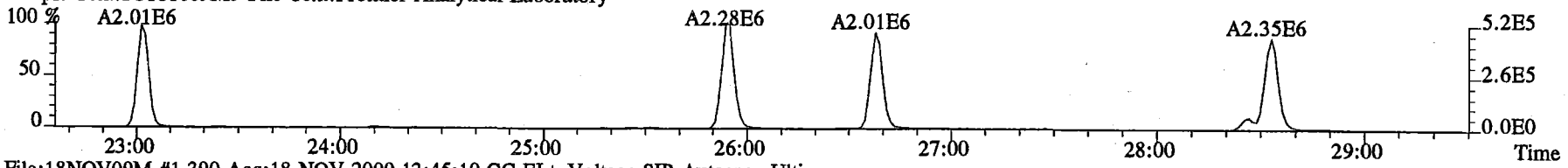


File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
454.9728 F:5 Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

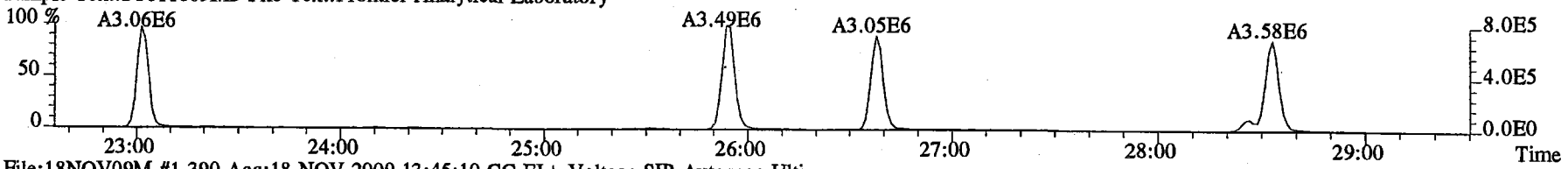


GB72:86502

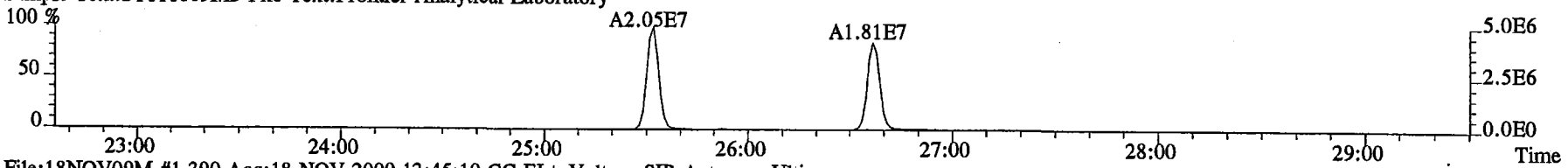
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



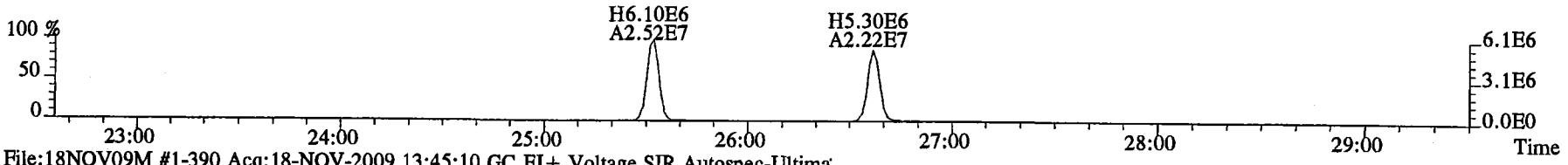
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



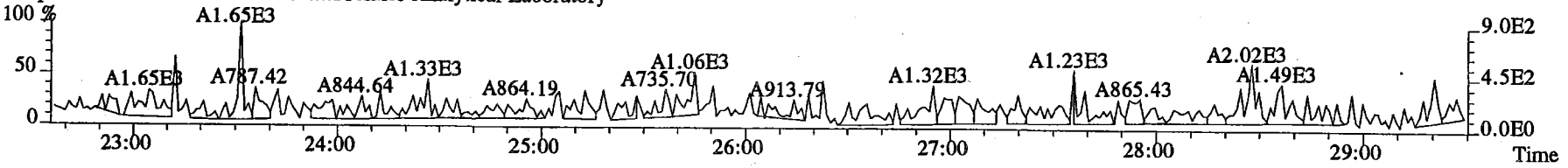
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

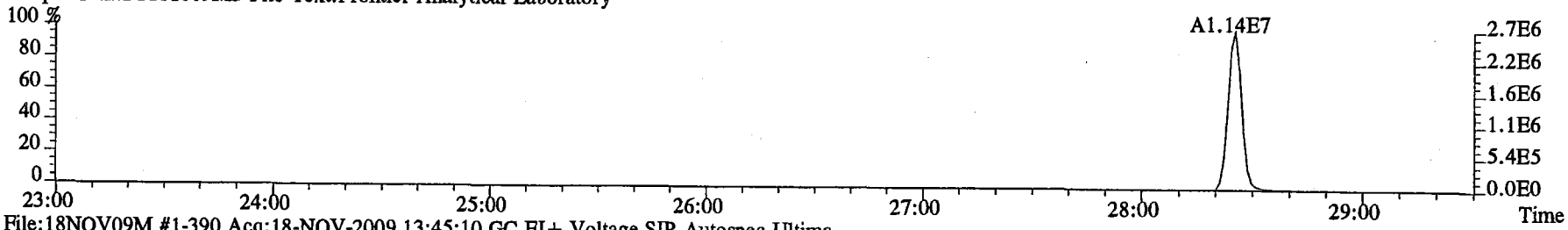


File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

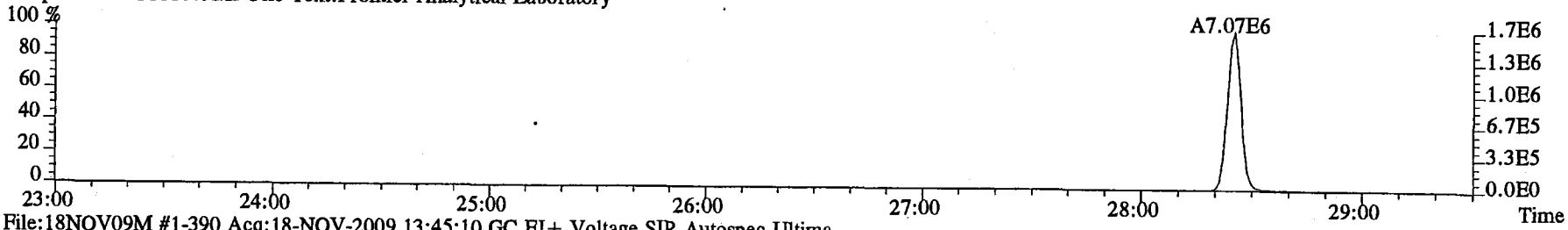


QB72:00693

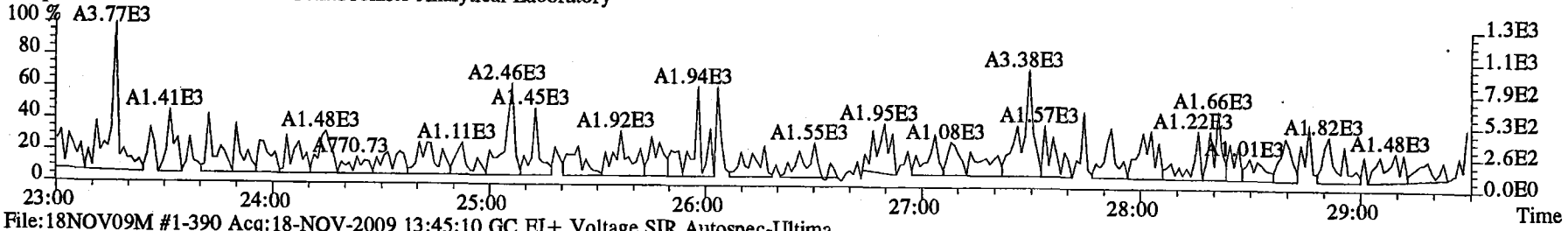
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



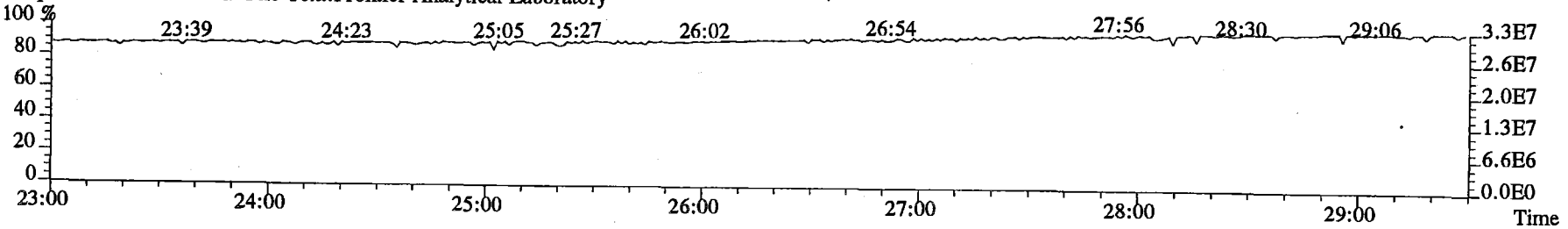
File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

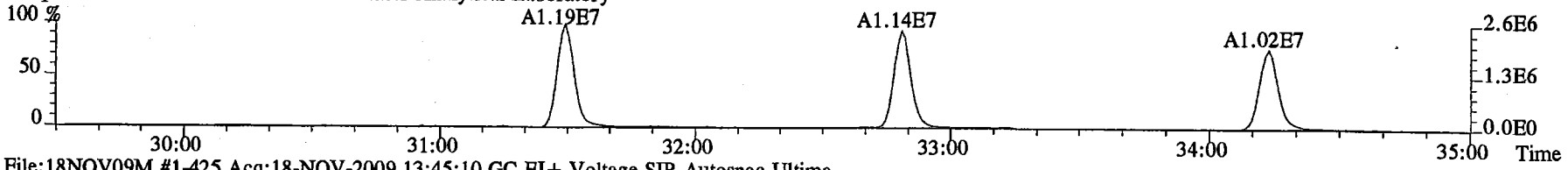


File:18NOV09M #1-390 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
330.9792 Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

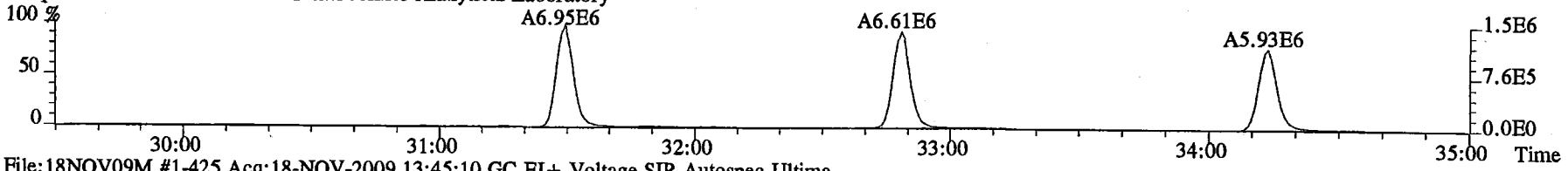


0872:00691

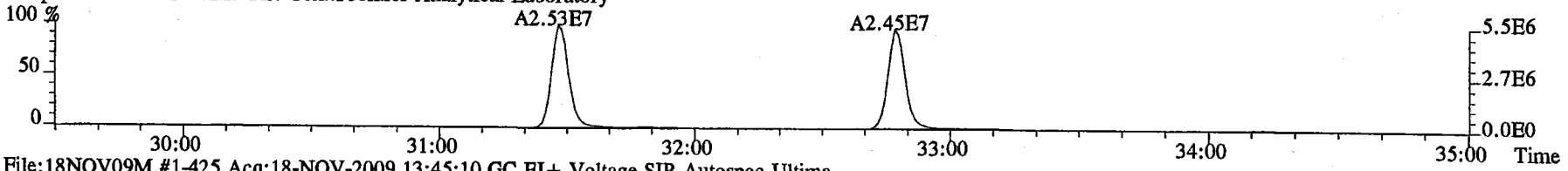
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



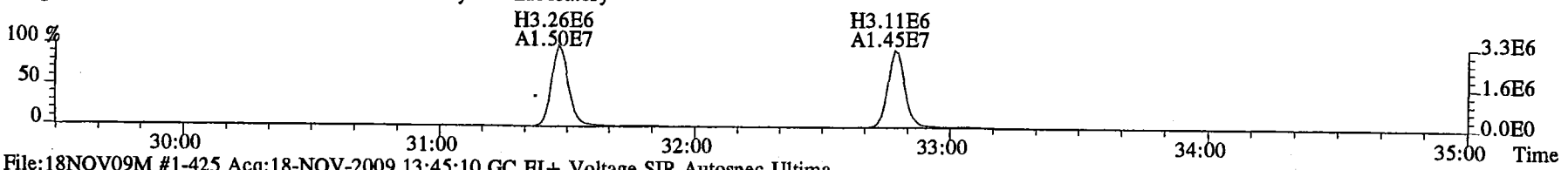
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



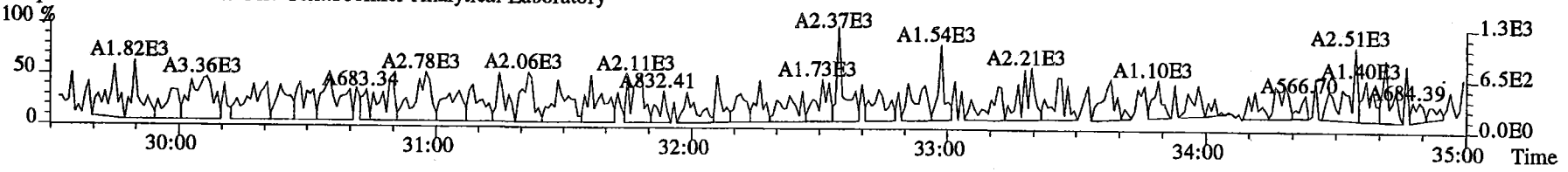
File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
353.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

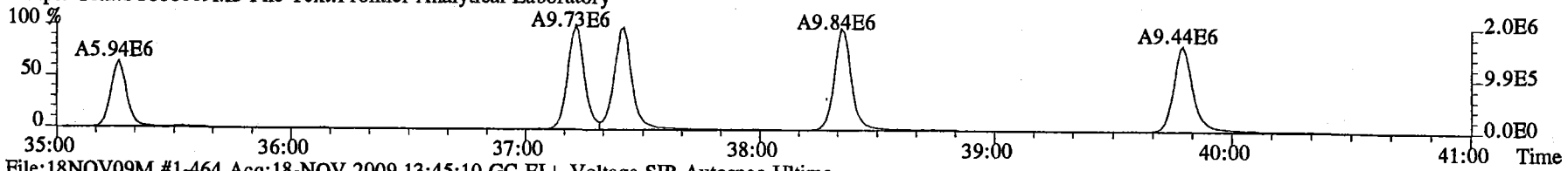


File:18NOV09M #1-425 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

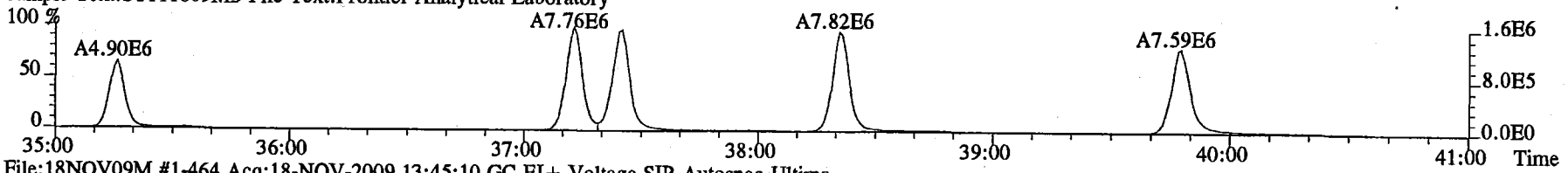


QB72:00605

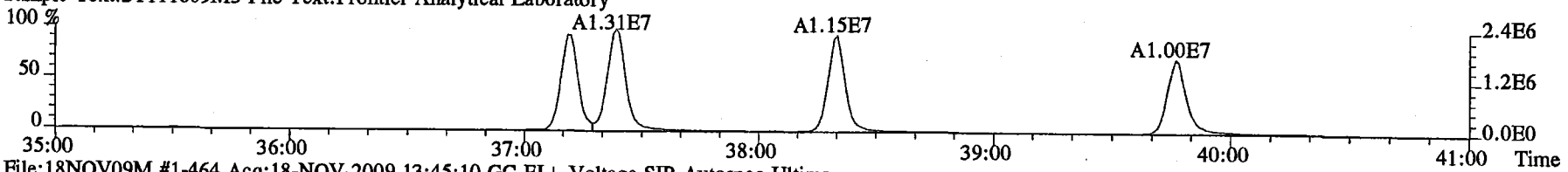
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



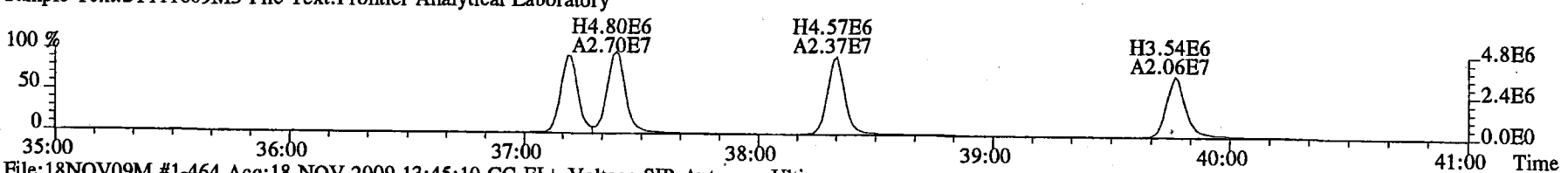
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



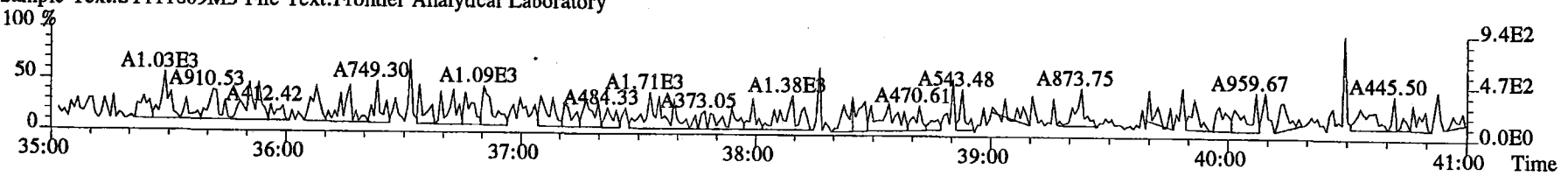
File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

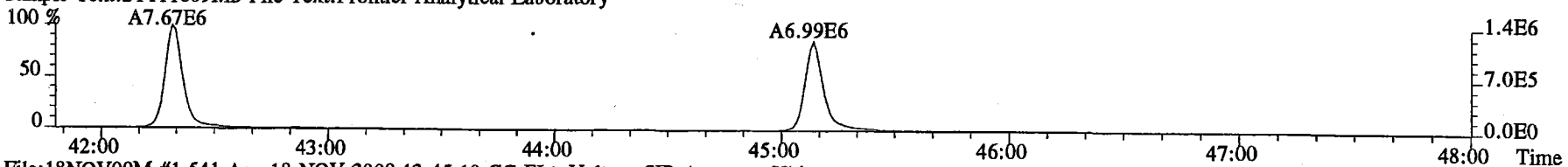


File:18NOV09M #1-464 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

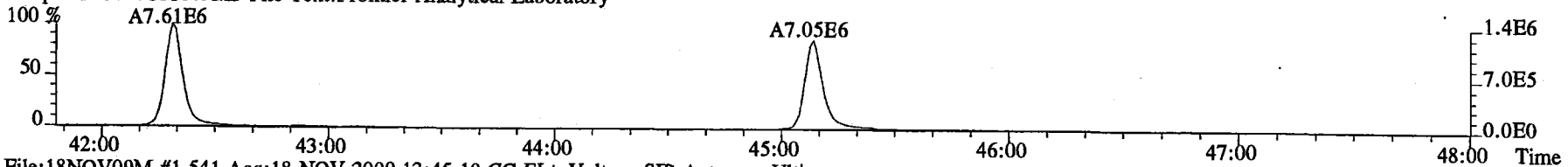


QB72:09595

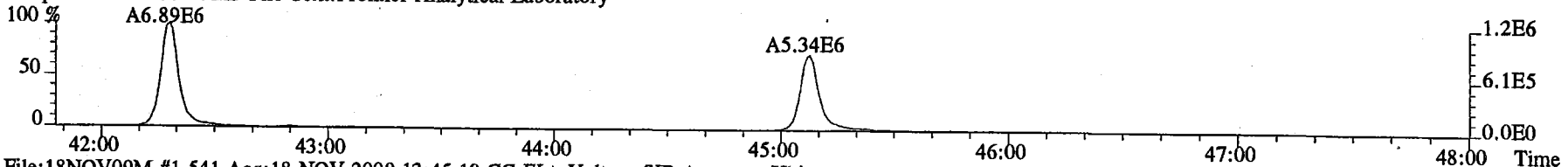
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



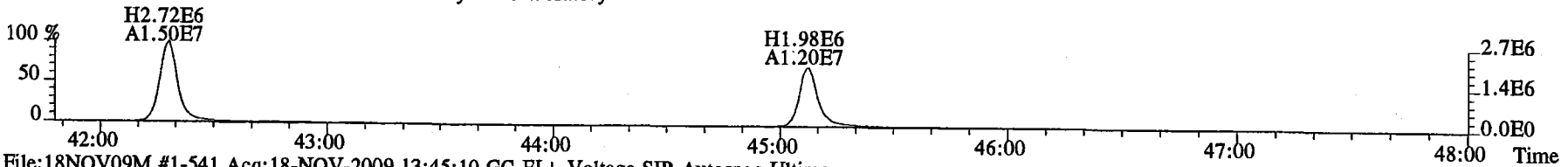
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



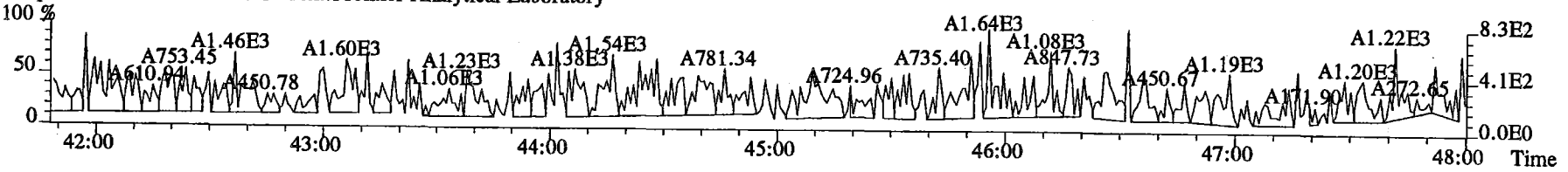
File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

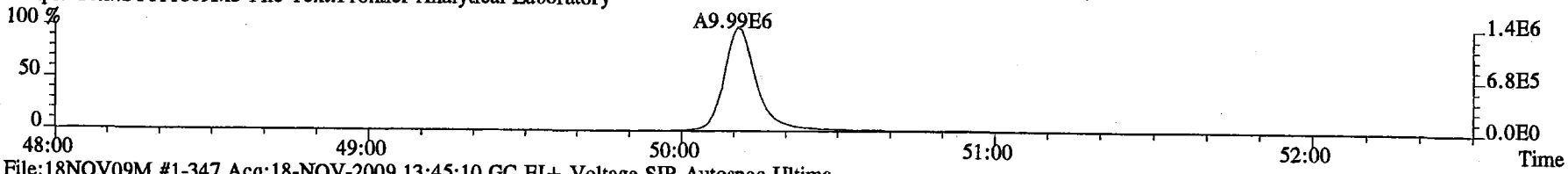


File:18NOV09M #1-541 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

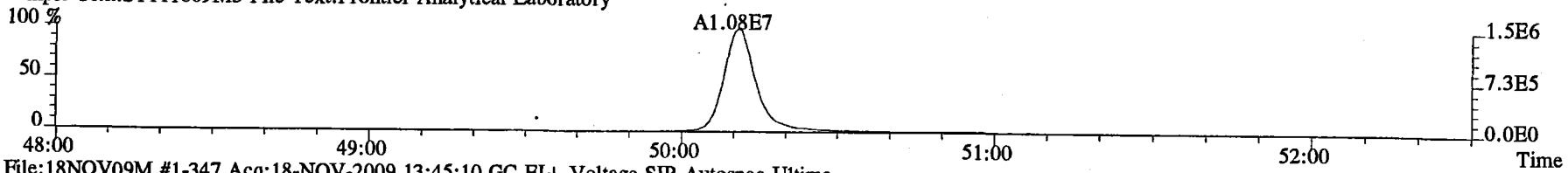


QB72:09607

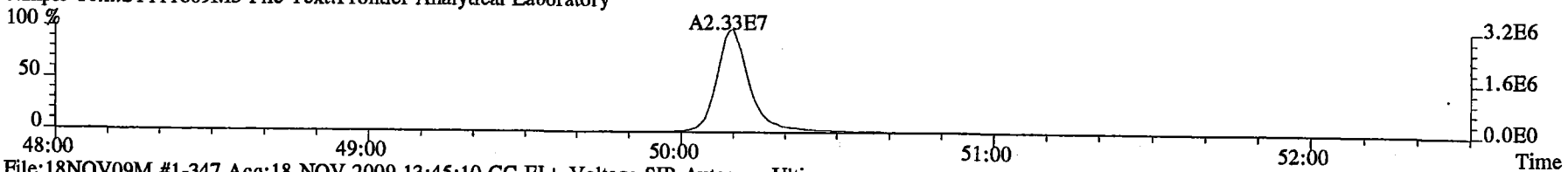
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



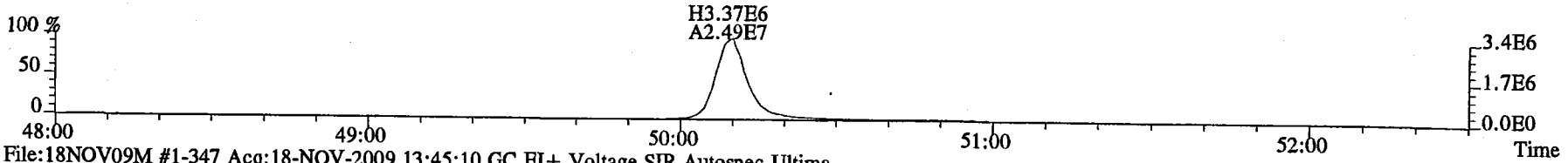
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



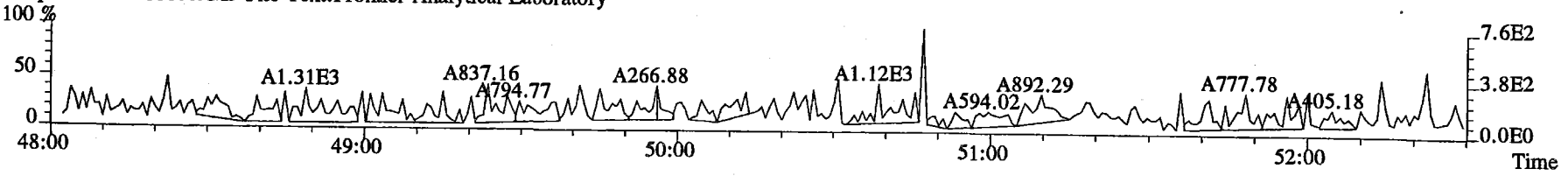
File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

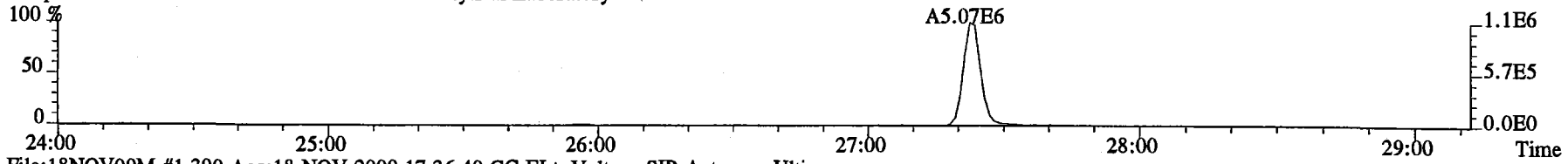


File:18NOV09M #1-347 Acq:18-NOV-2009 13:45:10 GC EI+ Voltage SIR Autospec-Ultima
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M3 File Text:Frontier Analytical Laboratory

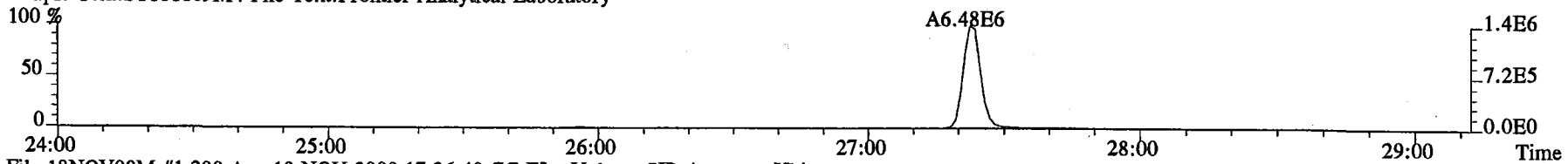


GB72:00688

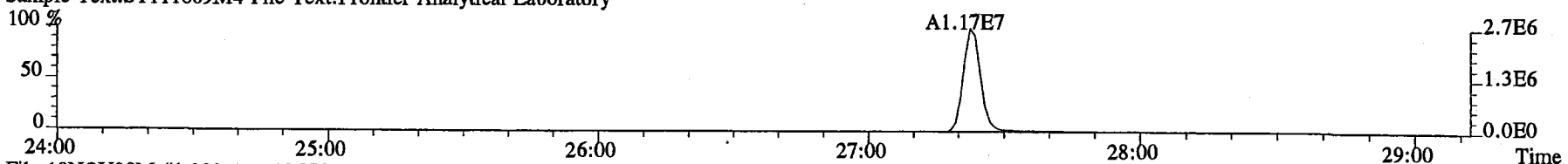
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



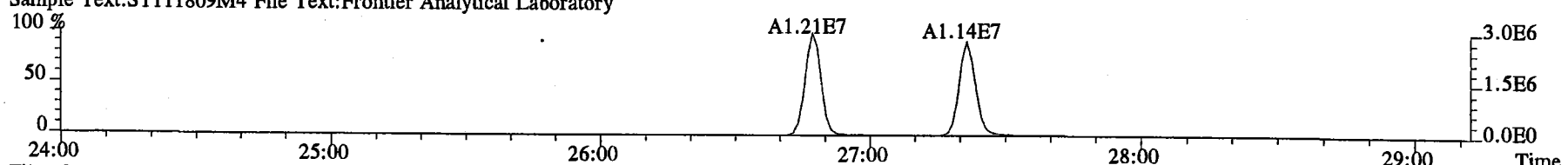
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



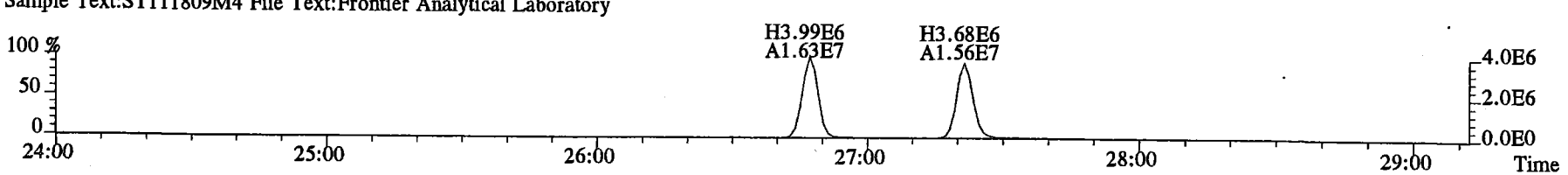
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

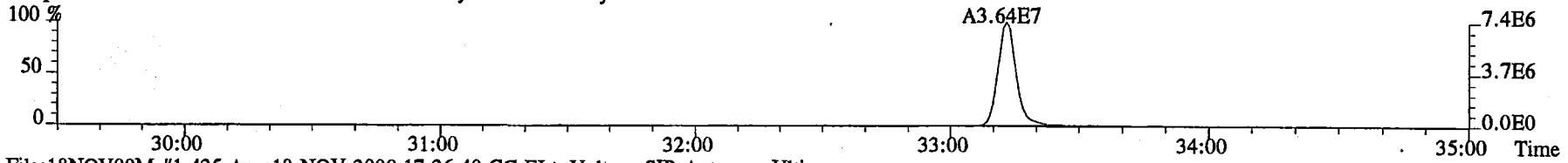


File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

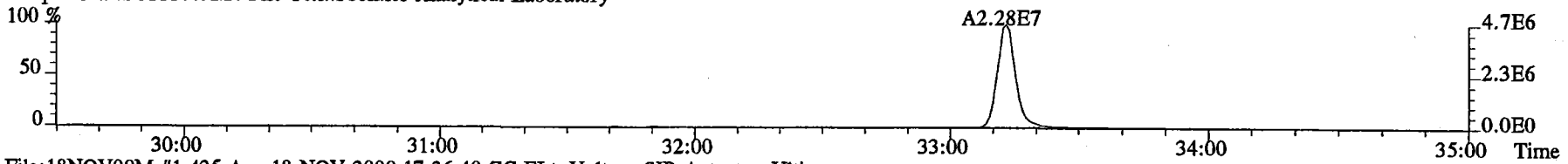


QB72:00589

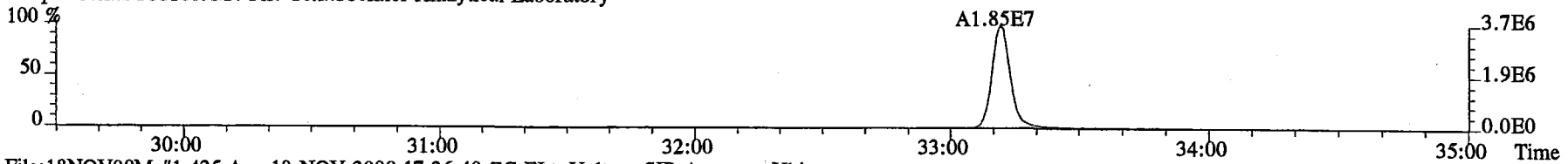
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



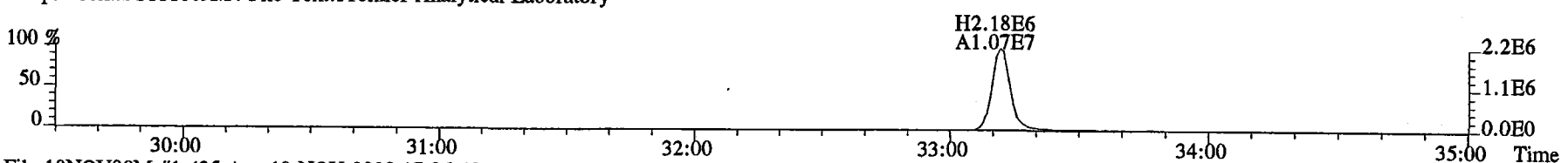
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



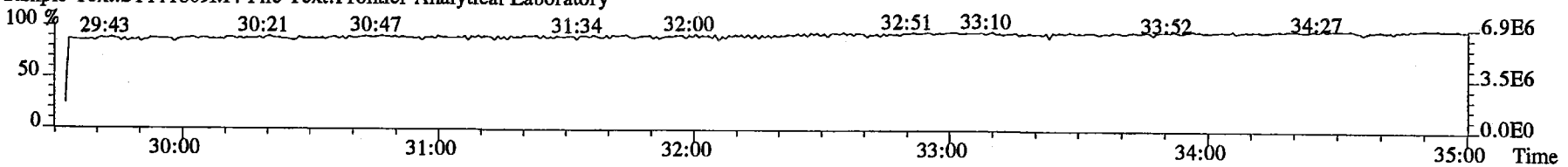
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

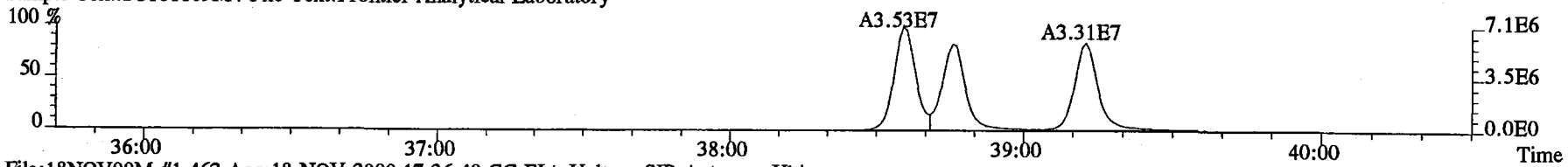


File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:5 F:2 Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

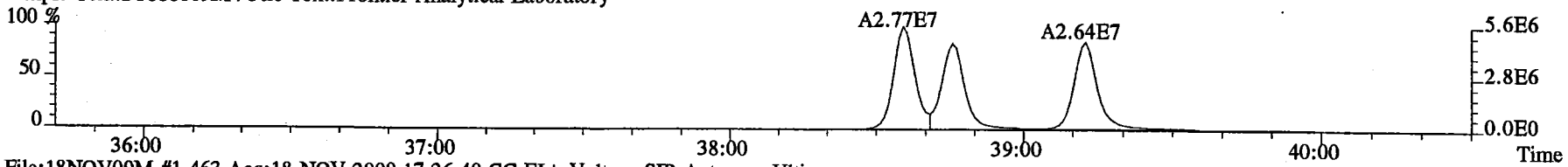


QB72:06510

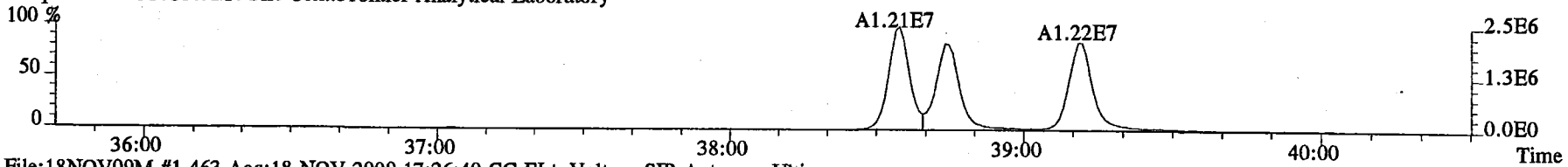
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



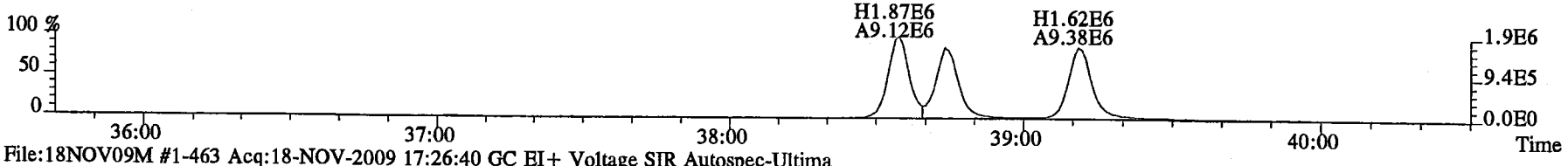
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



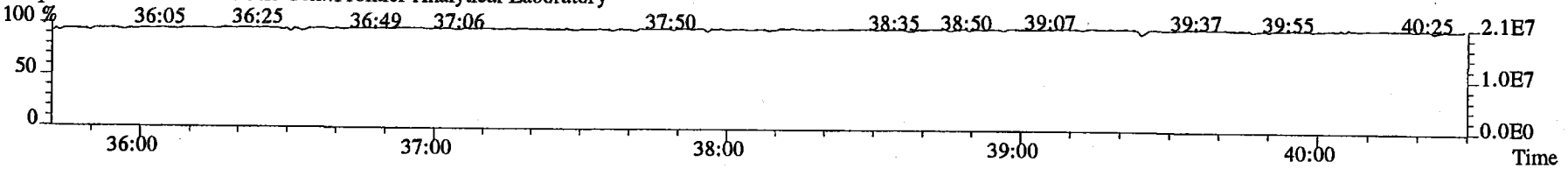
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

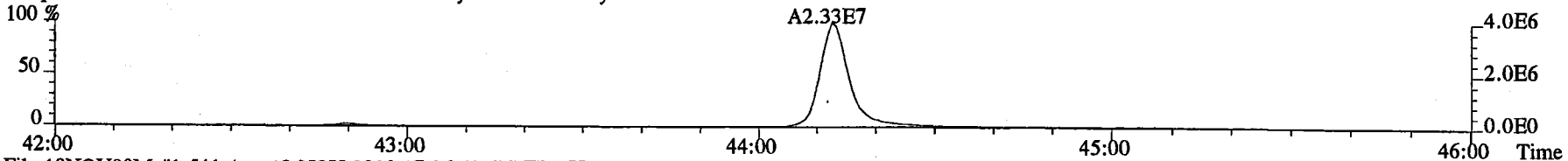


File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:5 F:3 Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

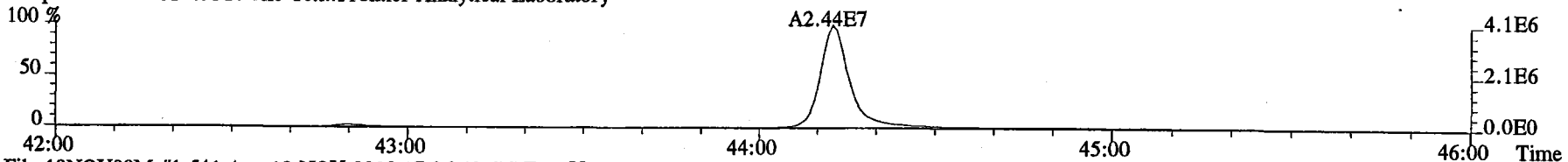


QB72:20541

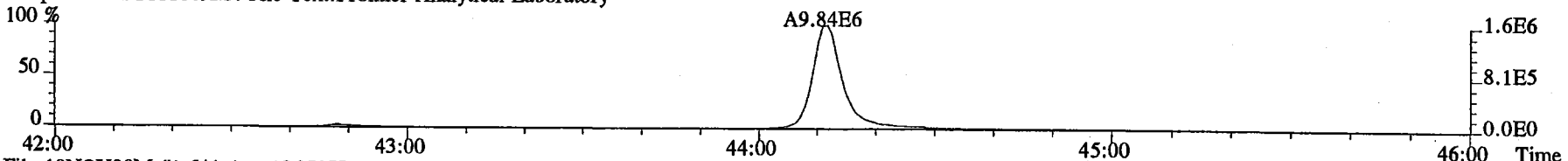
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



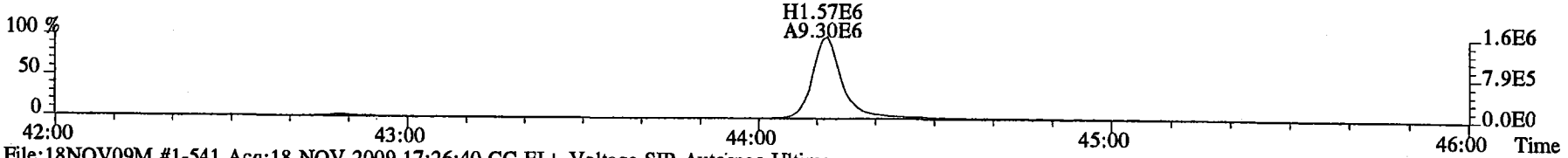
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



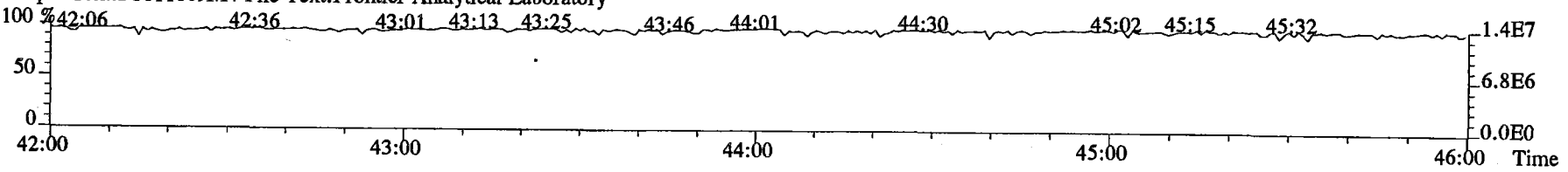
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

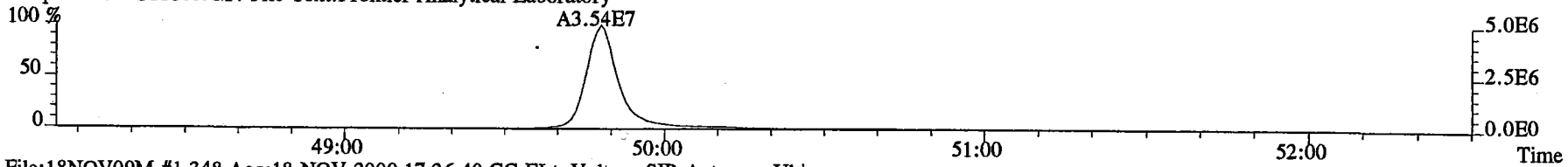


File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:5 F:4 Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

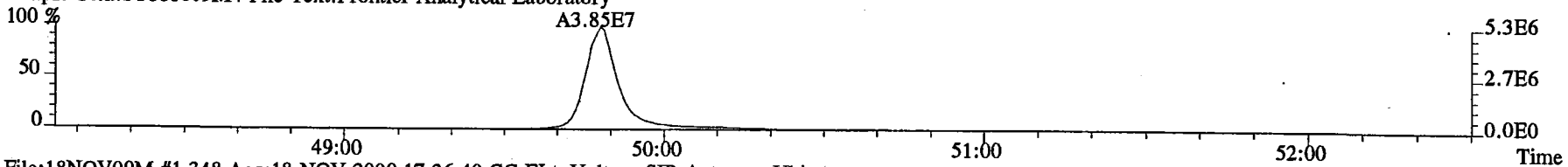


QB72 : 99512

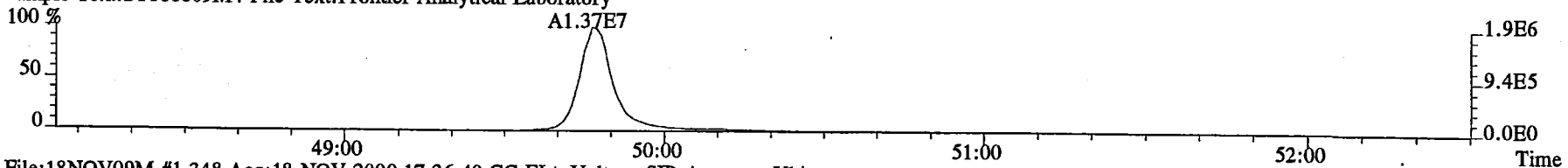
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



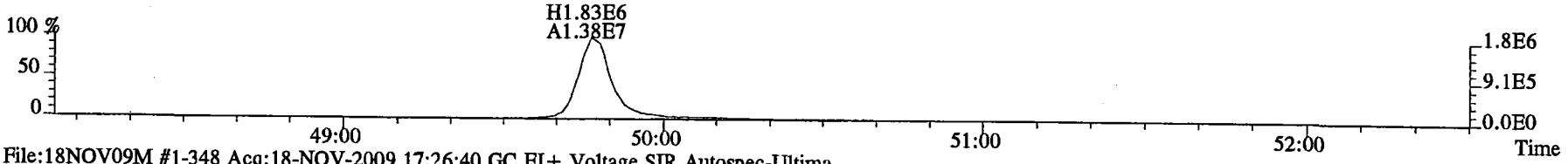
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



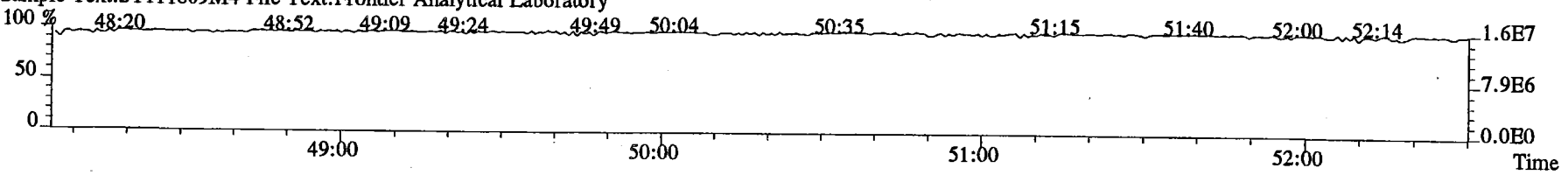
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

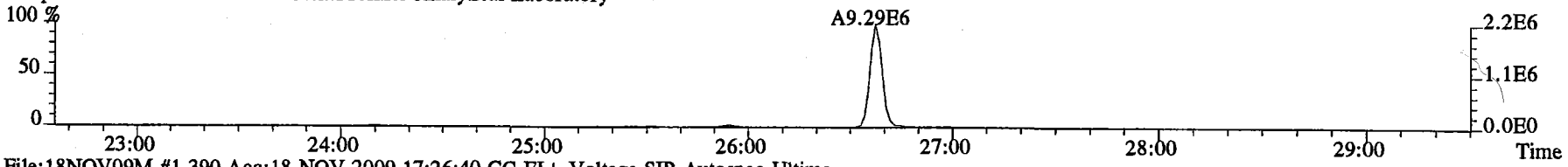


File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:5 F:5 Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

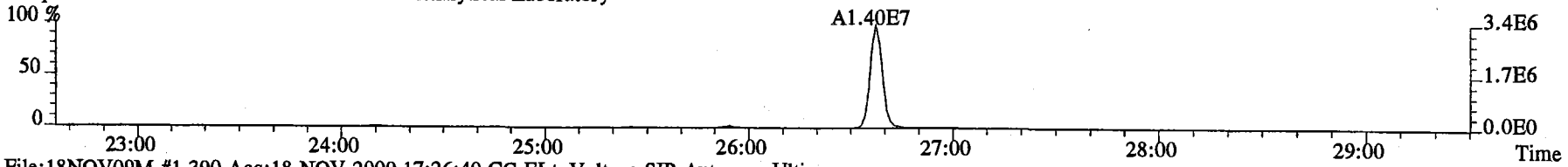


QB72:06613

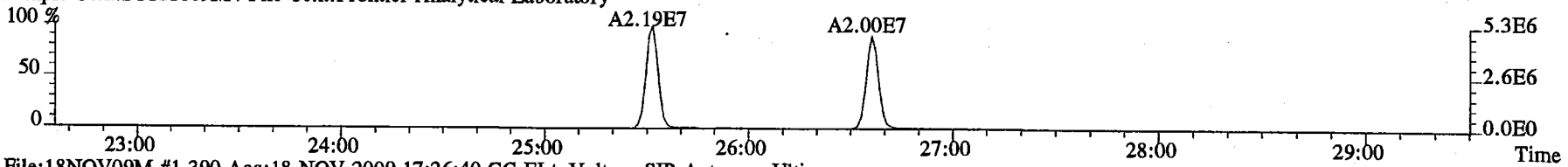
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



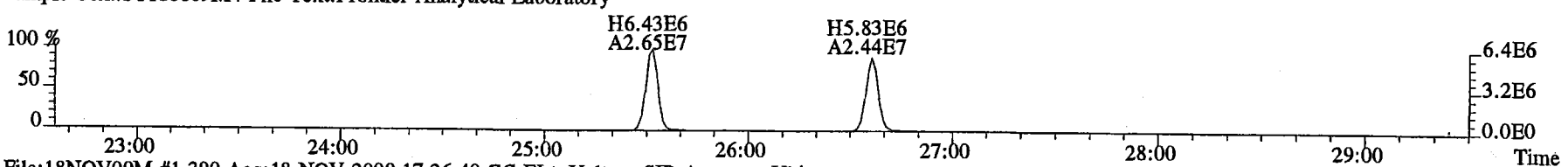
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



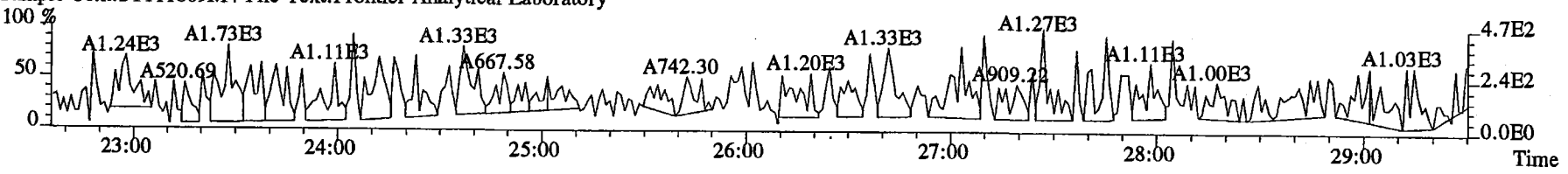
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

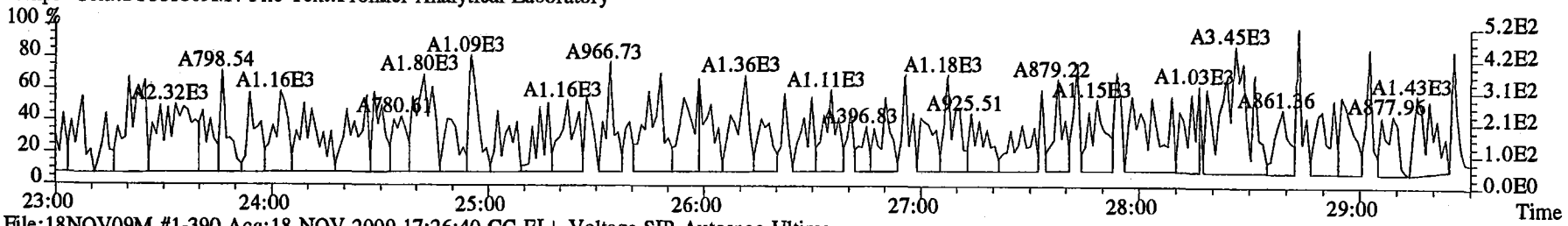


File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

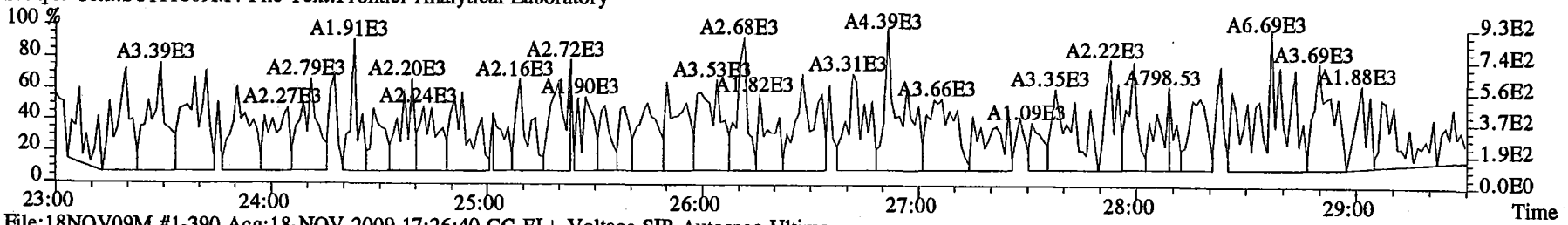


GB72:006111

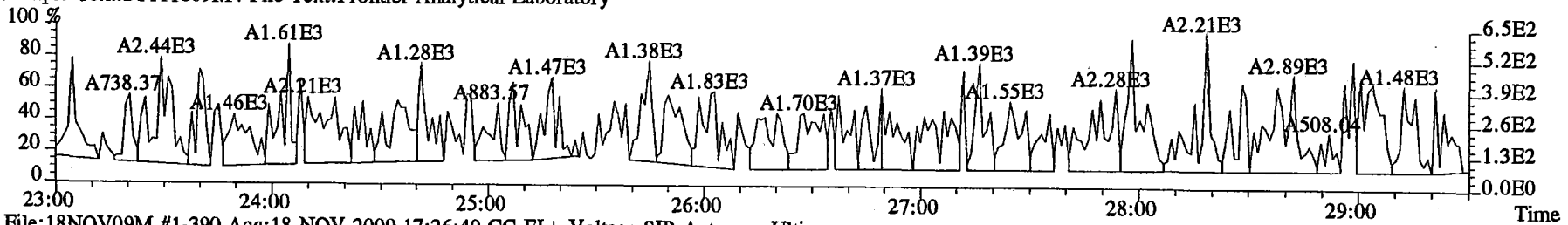
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



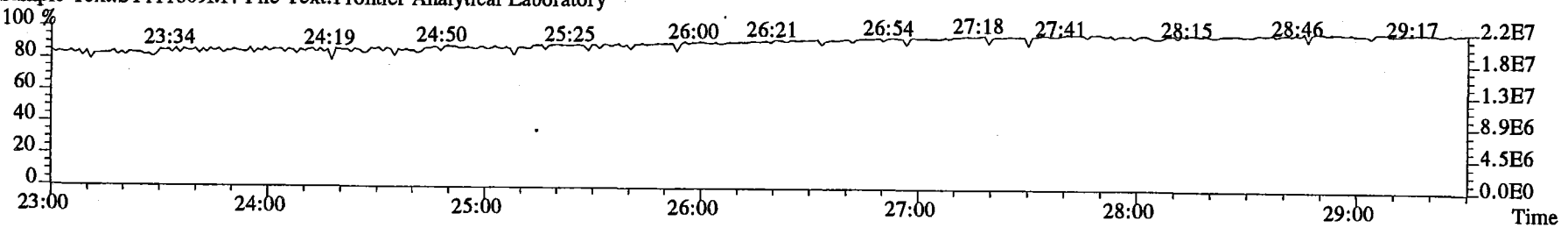
File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

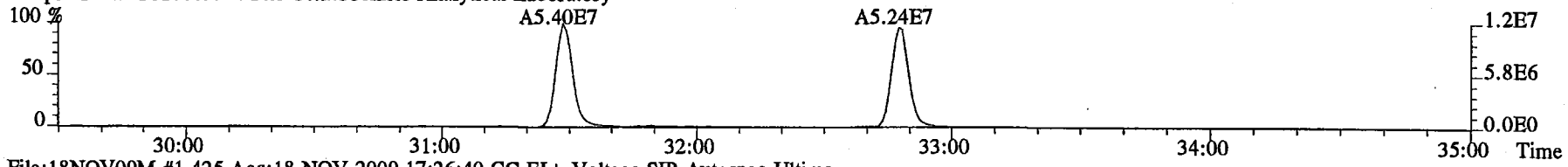


File:18NOV09M #1-390 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:5 Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

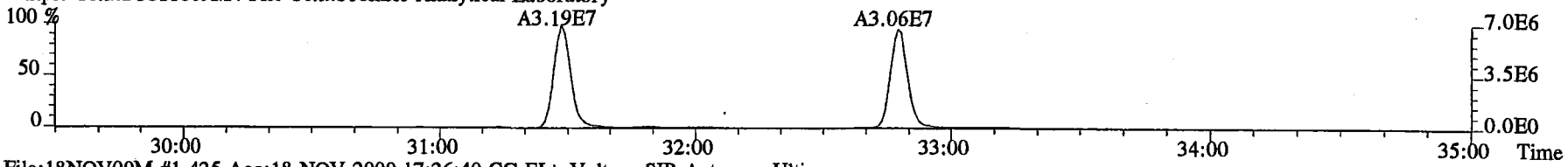


QB72:00615

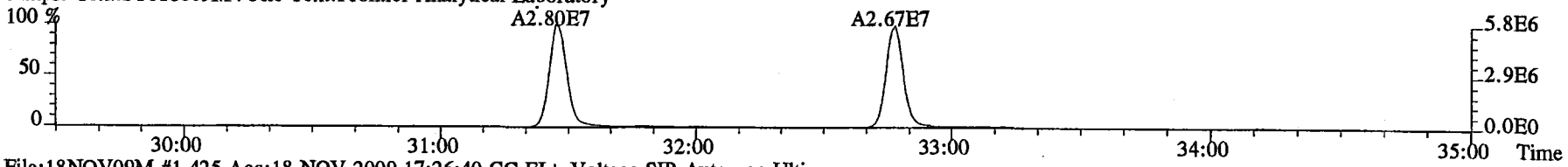
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



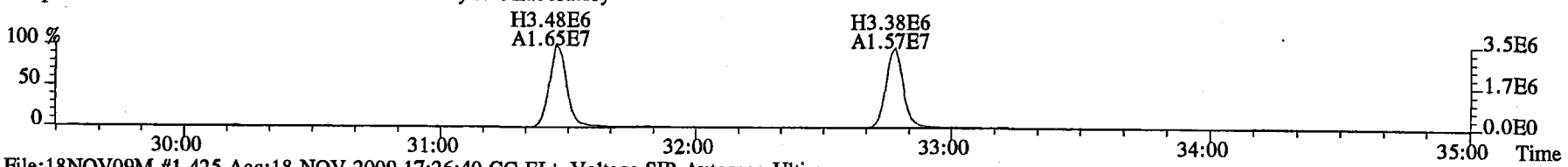
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



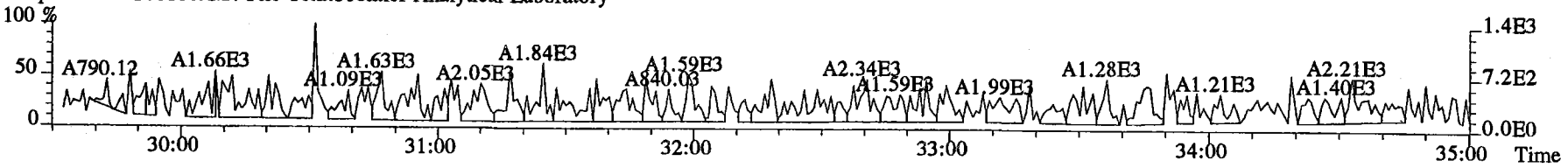
File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

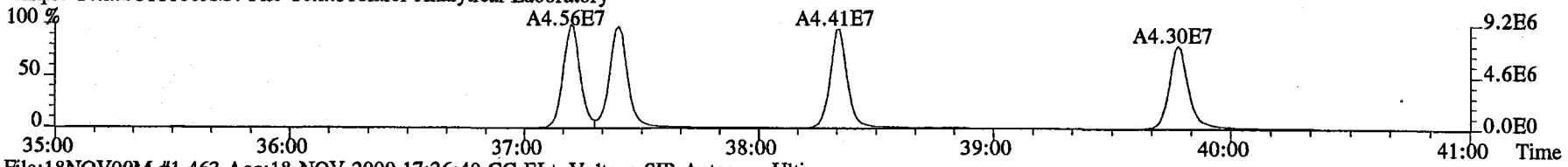


File:18NOV09M #1-425 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

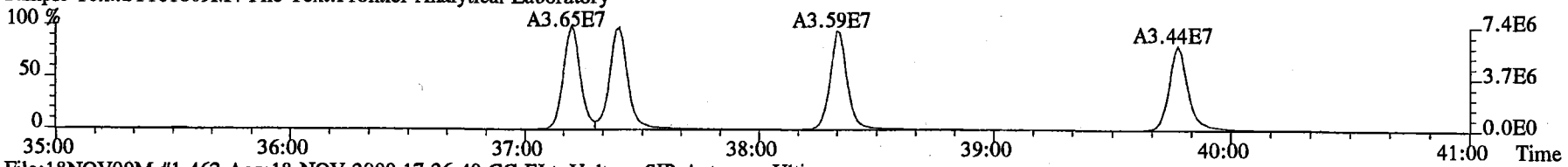


QB72:09515

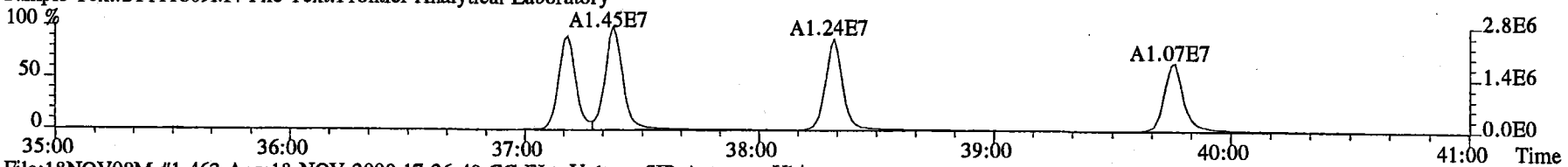
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



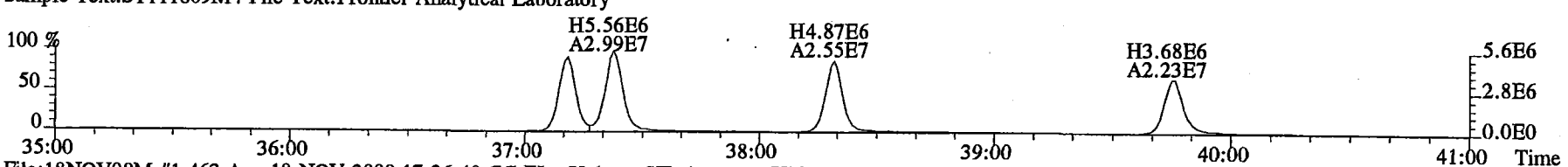
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



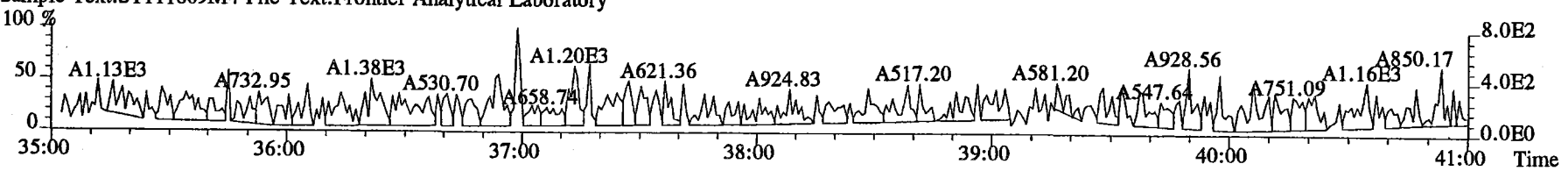
File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

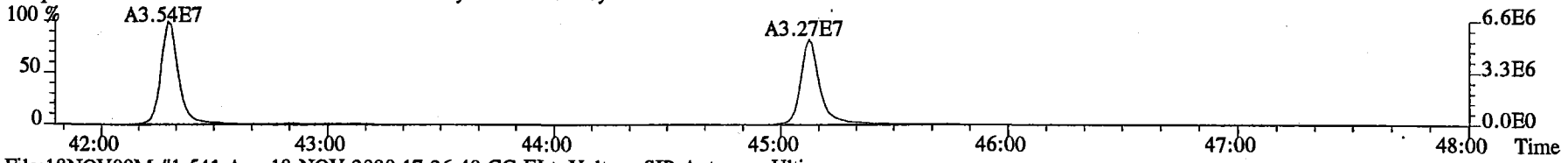


File:18NOV09M #1-463 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

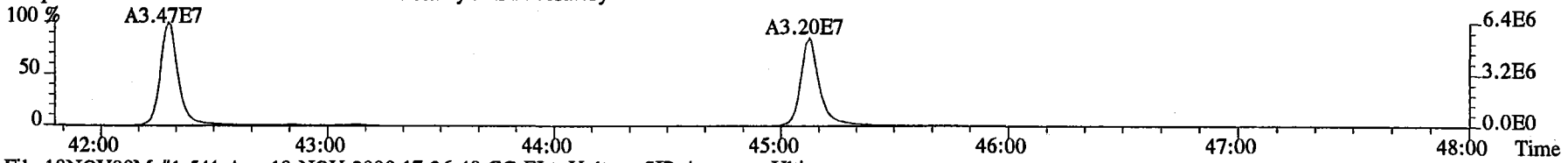


QB72:006617

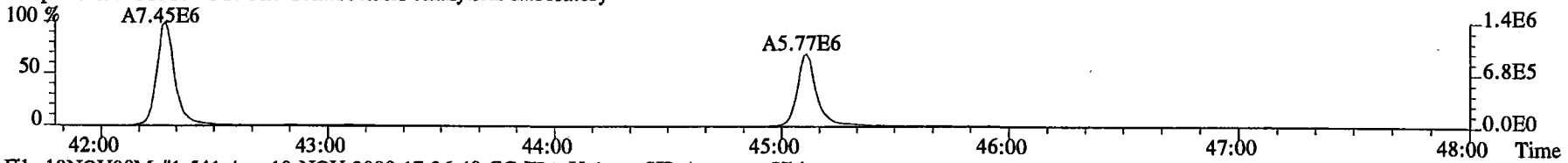
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



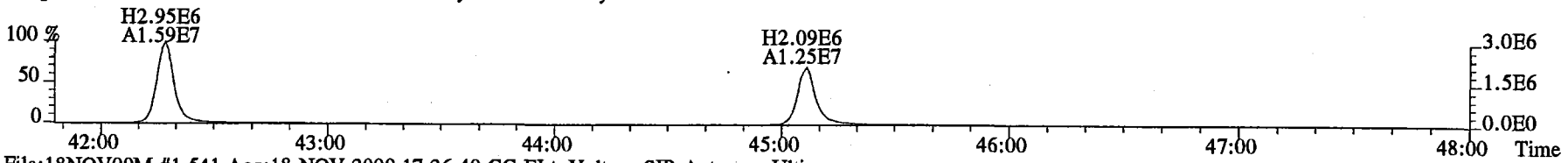
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



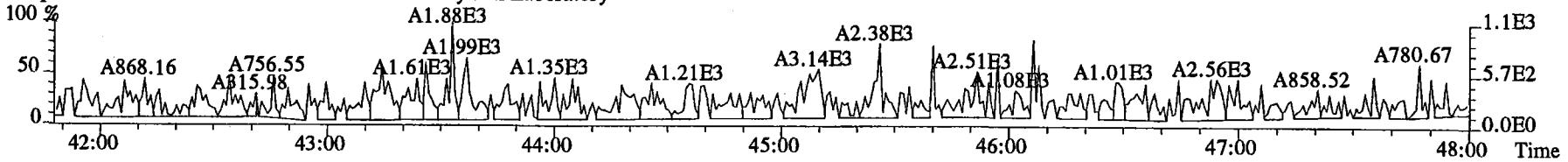
File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

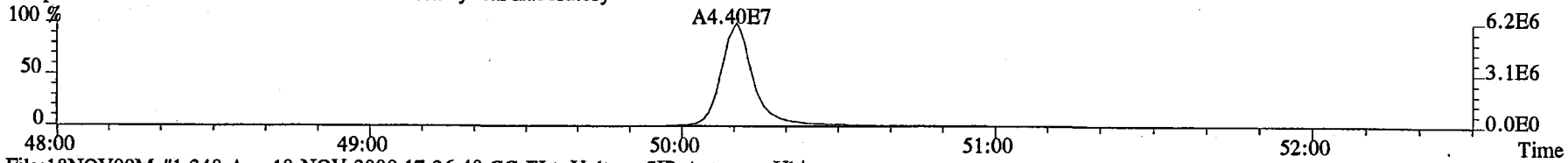


File:18NOV09M #1-541 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

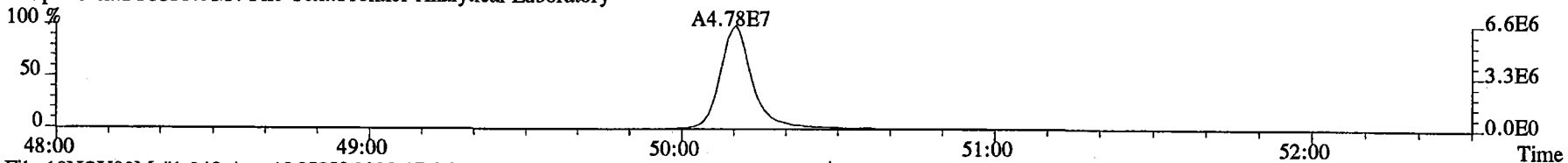


QB72:09618

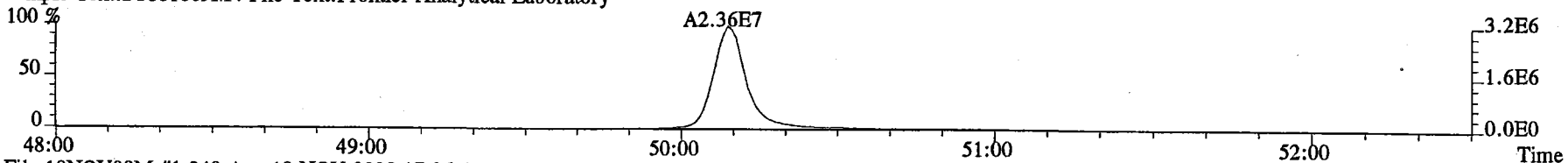
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



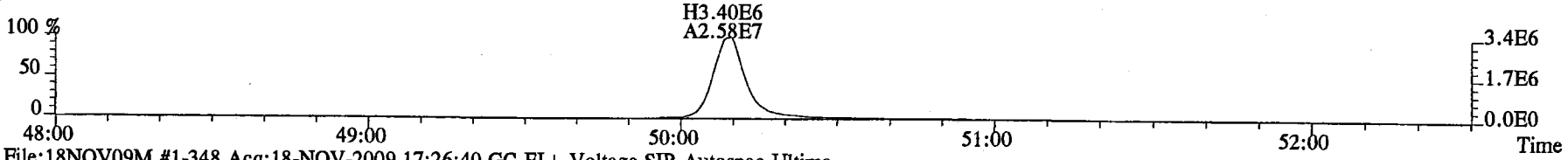
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



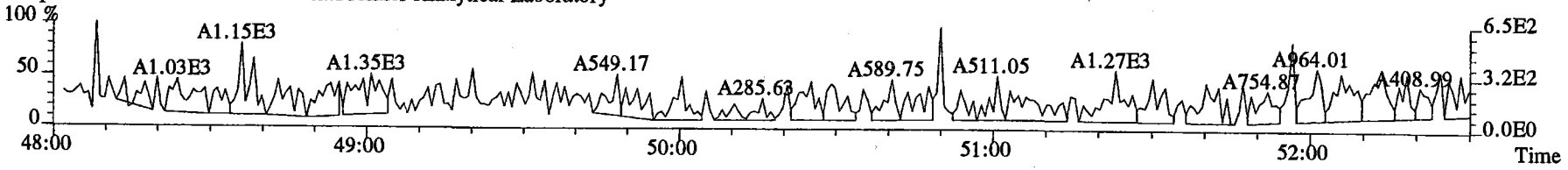
File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

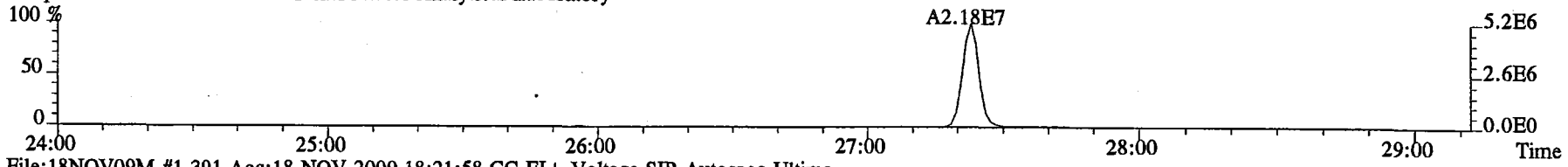


File:18NOV09M #1-348 Acq:18-NOV-2009 17:26:40 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M4 File Text:Frontier Analytical Laboratory

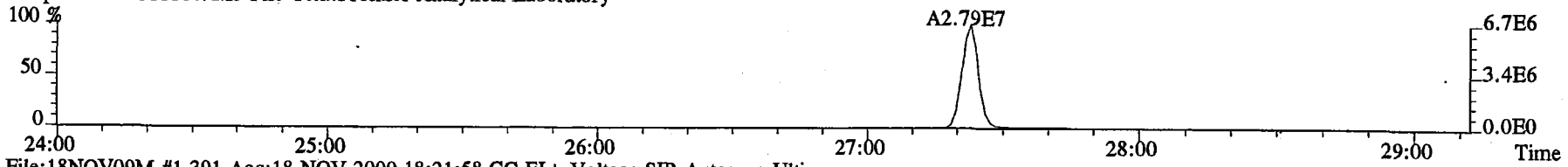


GB72:08619

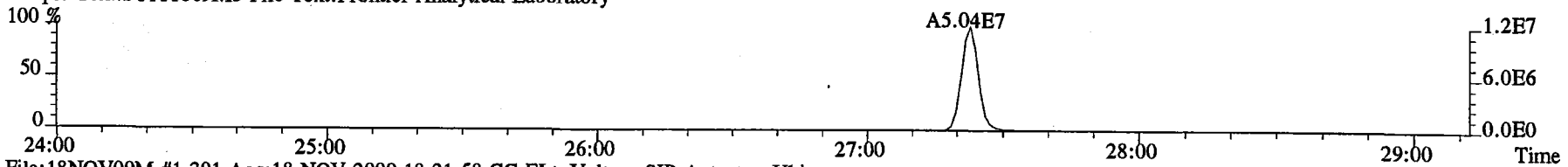
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



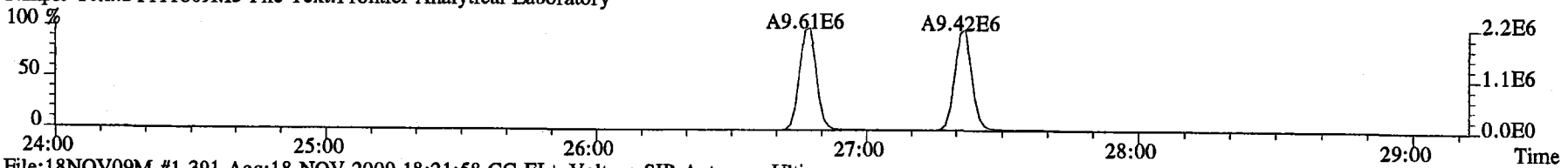
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



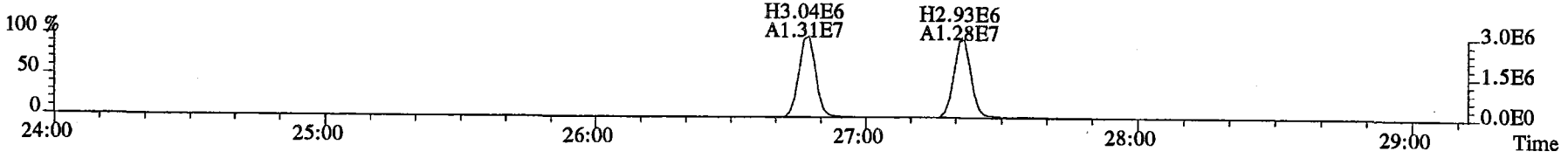
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

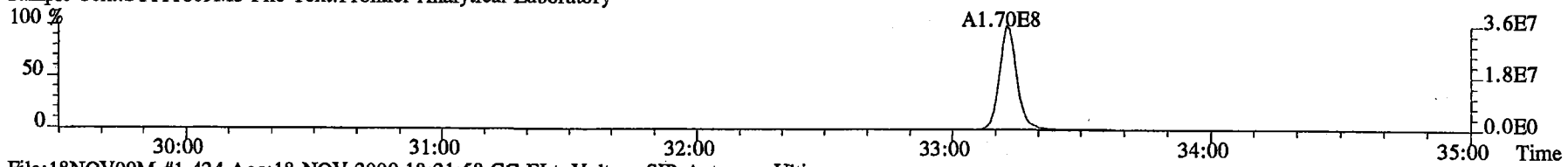


File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

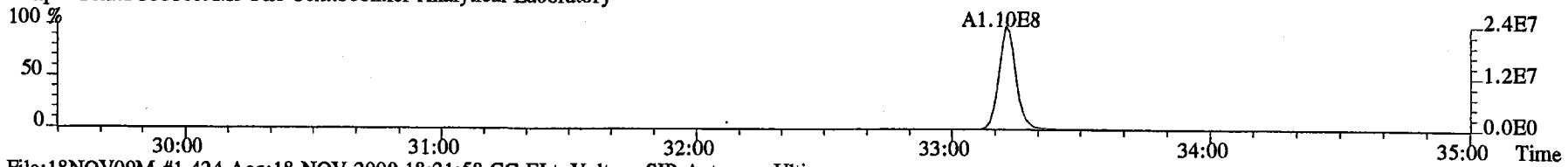


QB72:00620

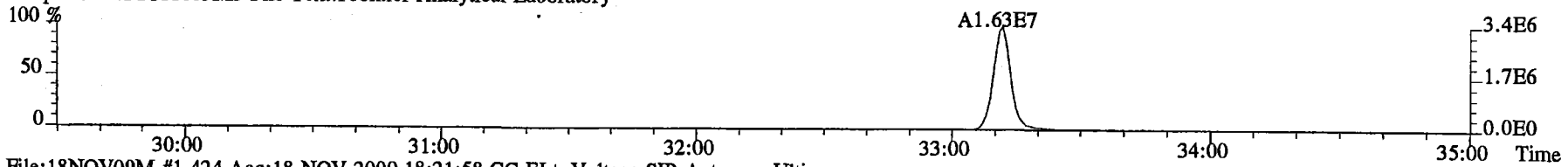
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



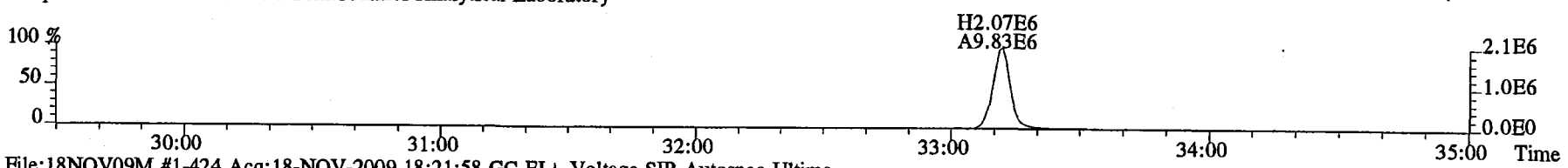
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



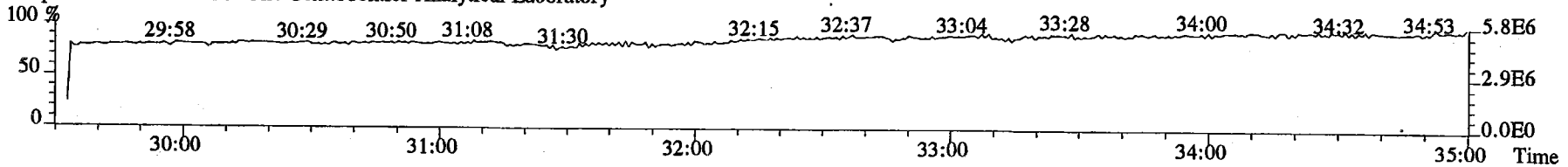
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

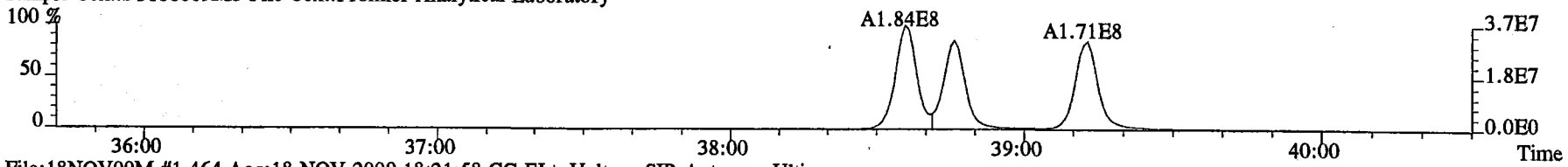


File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:6 F:2 Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

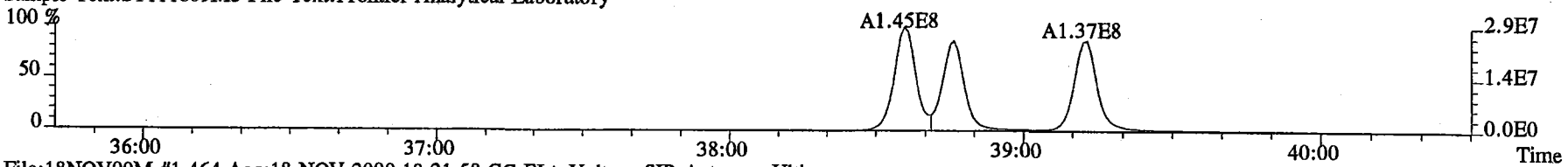


QB72:00621

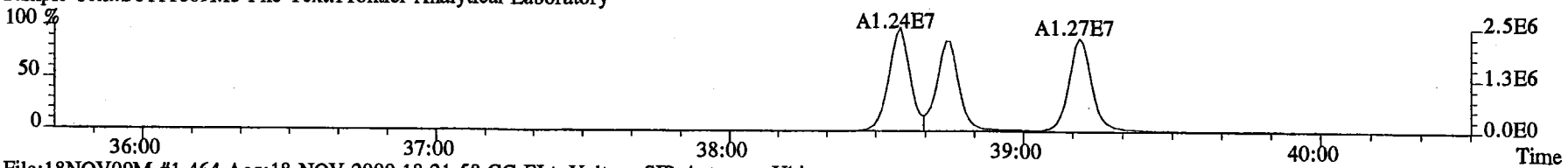
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



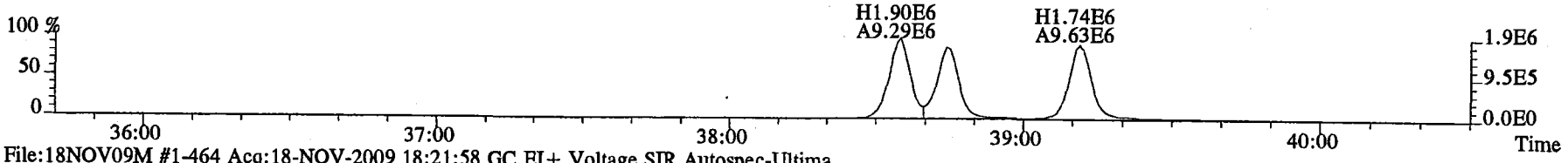
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



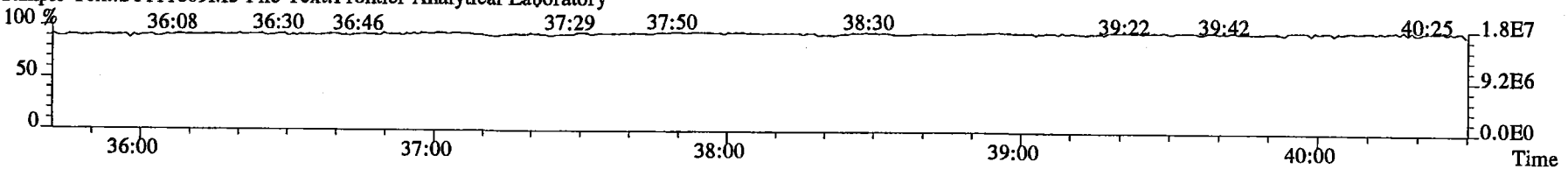
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

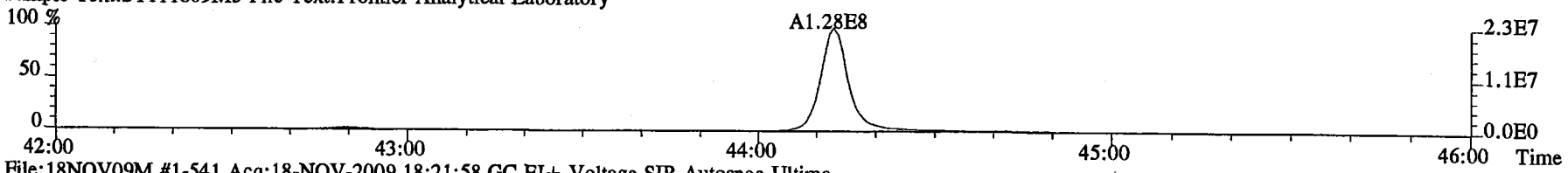


File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:6 F:3 Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

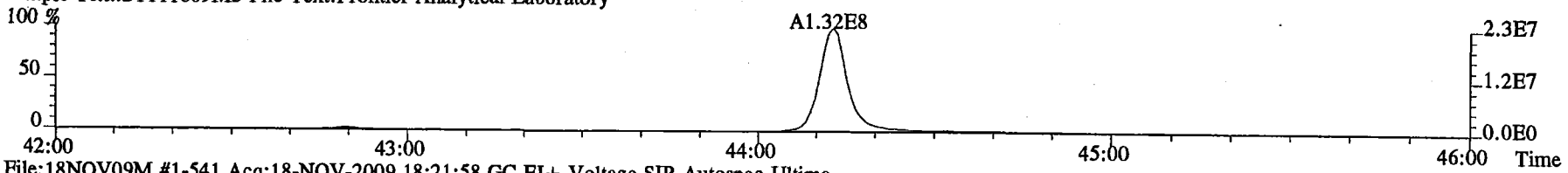


GB72:00622

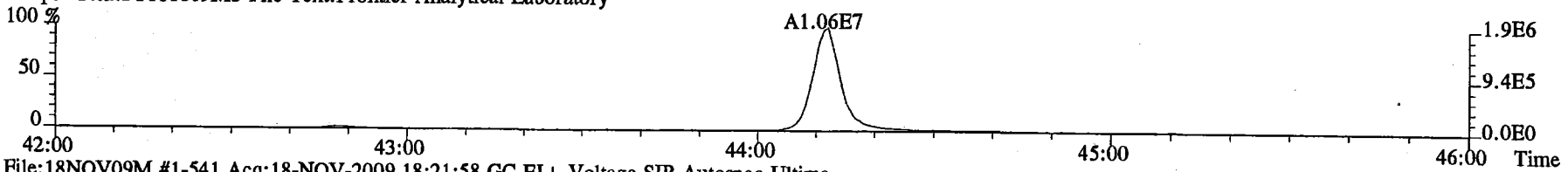
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



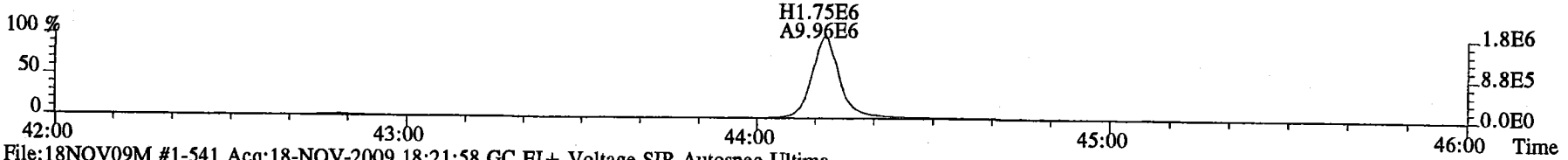
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



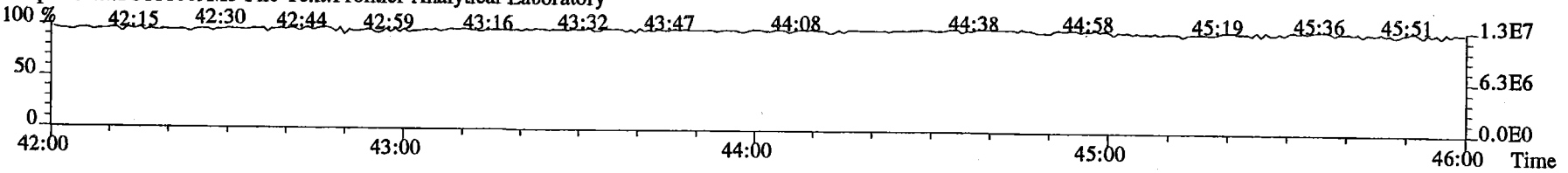
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

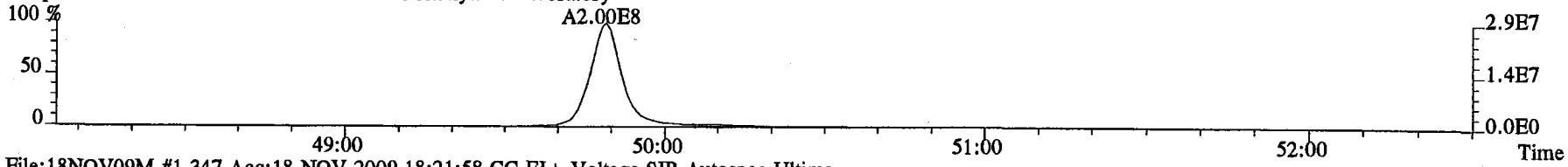


File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:6 F:4 Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

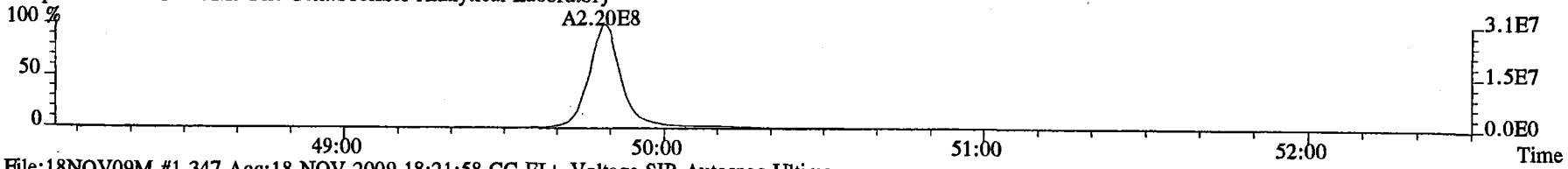


QB72:06623

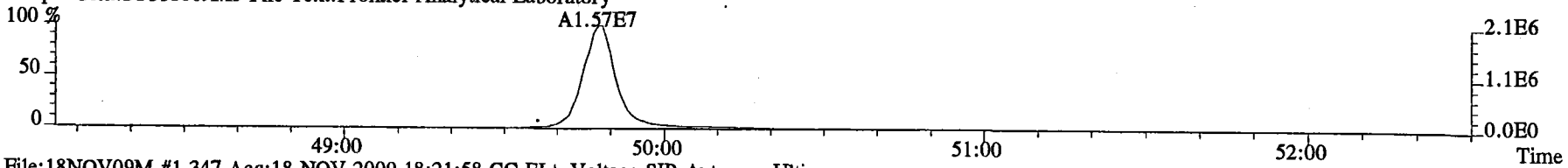
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



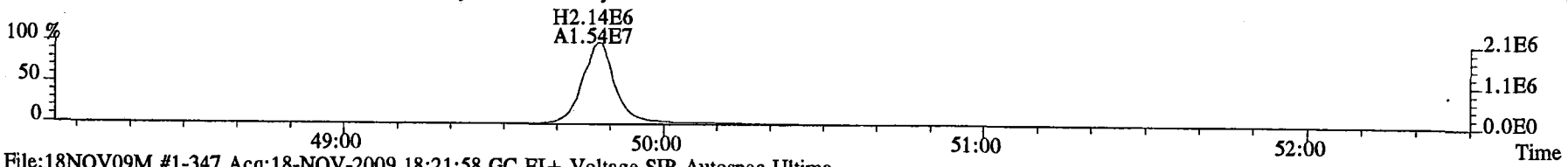
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



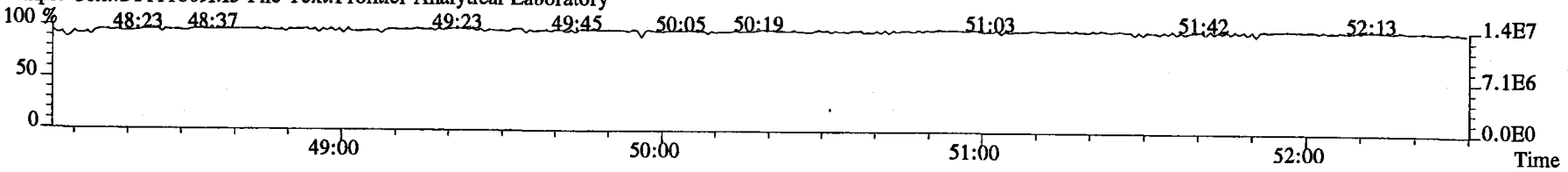
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

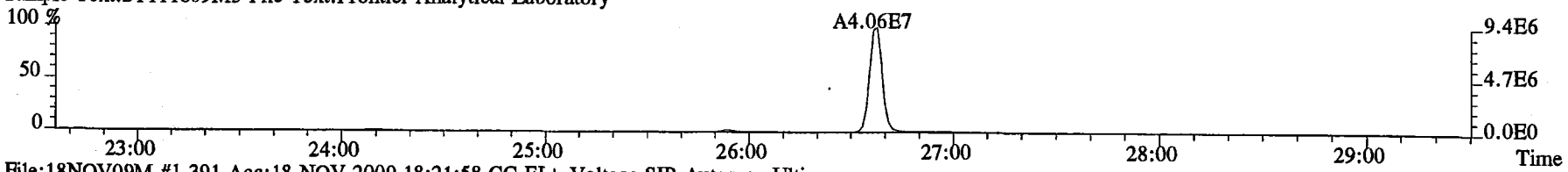


File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:6 F:5 Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

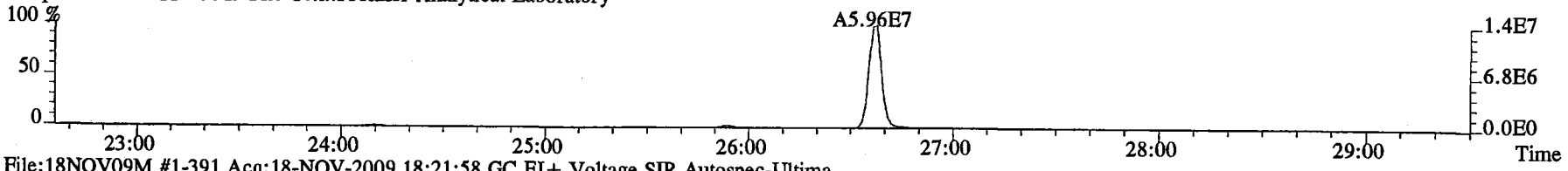


QB72:006211

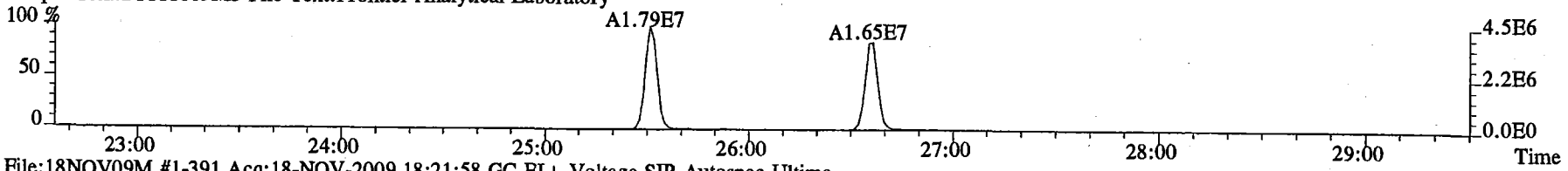
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



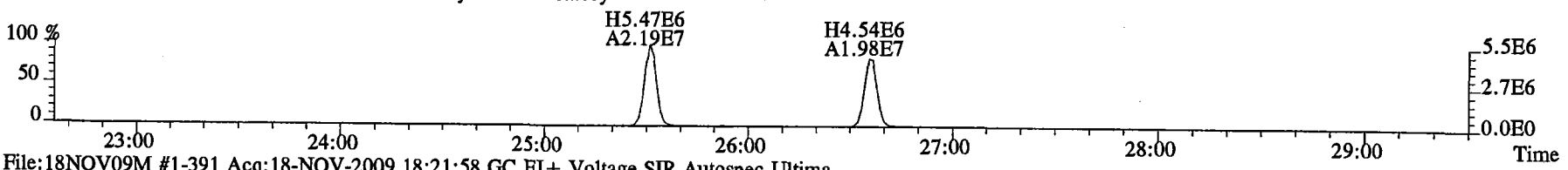
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



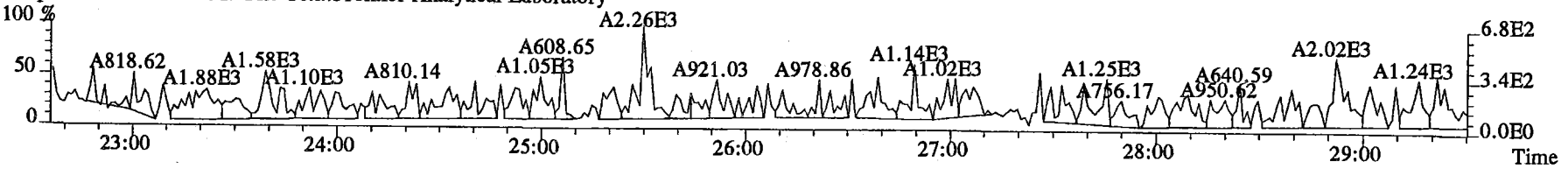
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

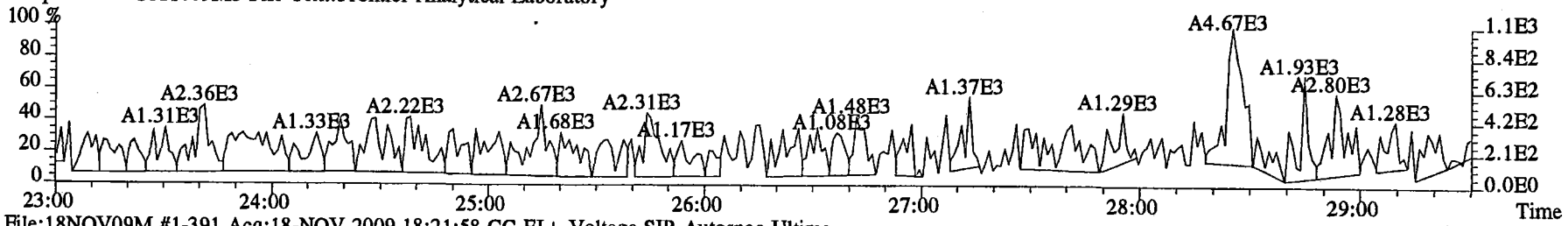


File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

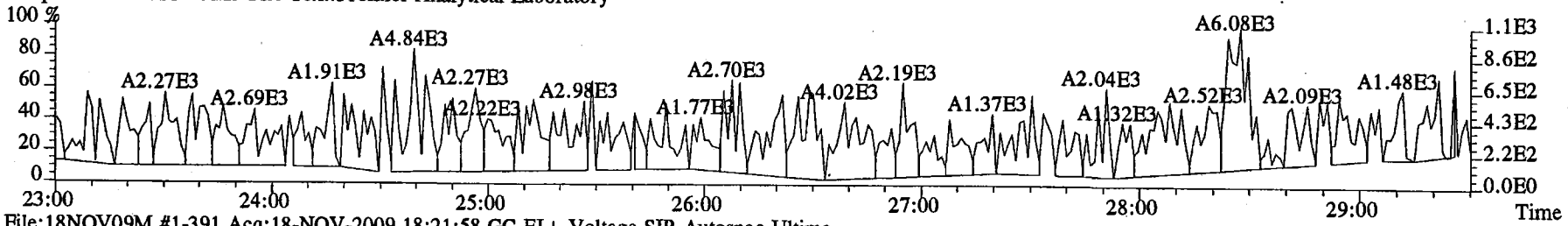


9872:00625

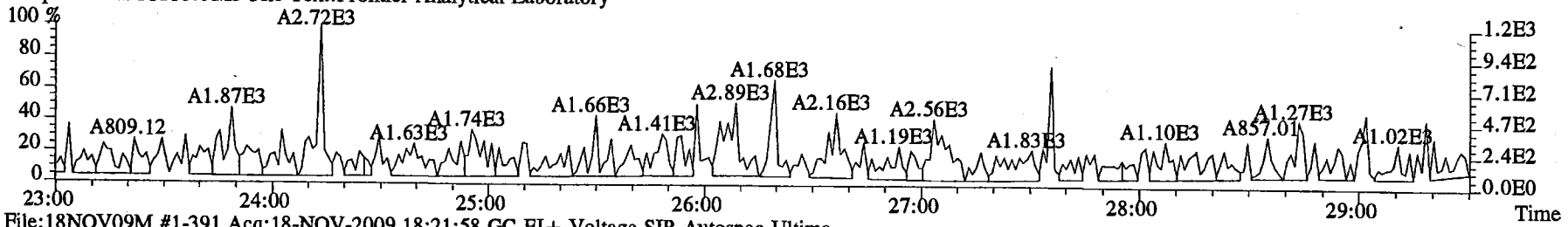
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



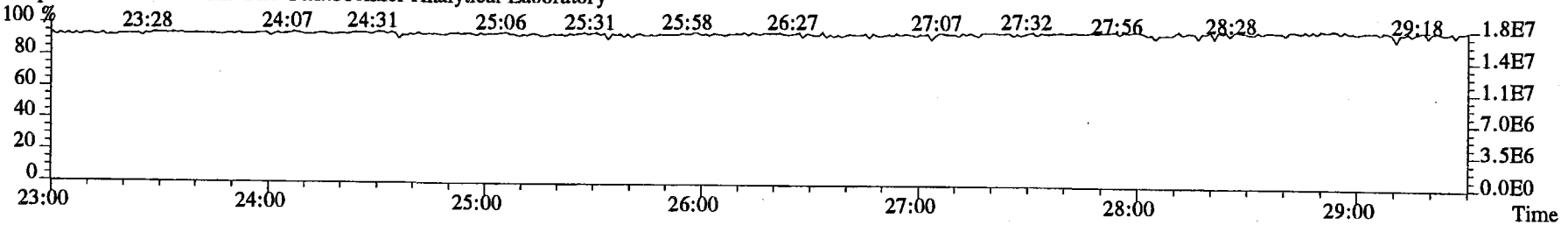
File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

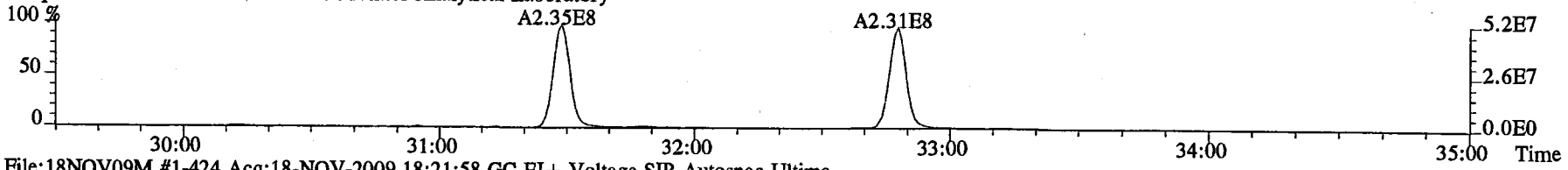


File:18NOV09M #1-391 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:6 Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

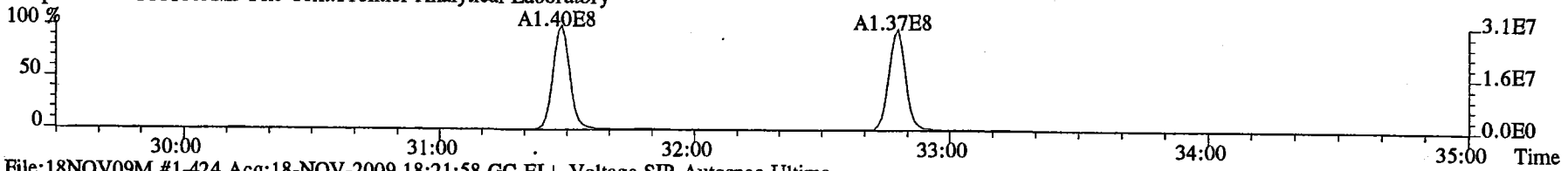


GB72:66625

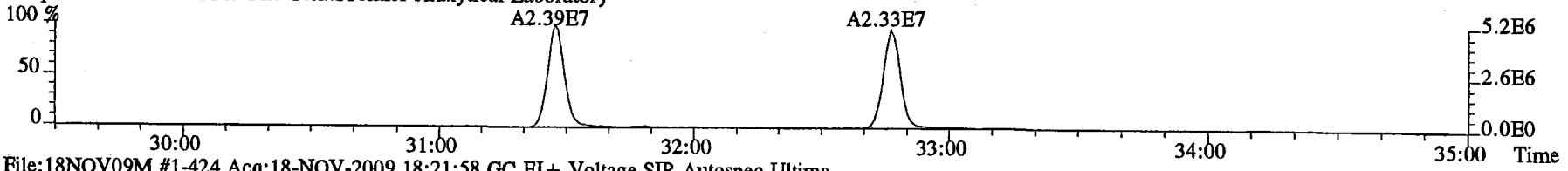
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



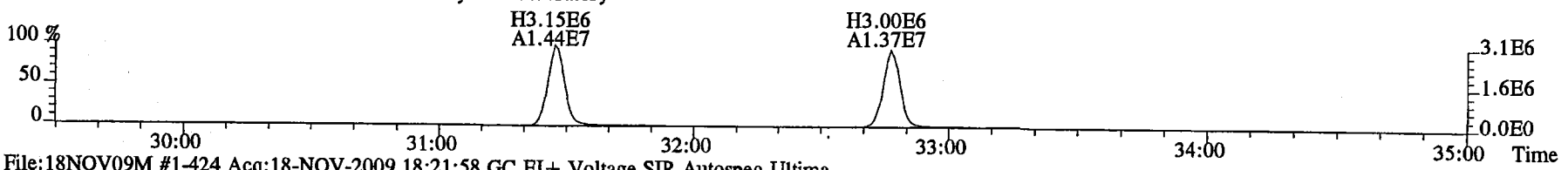
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



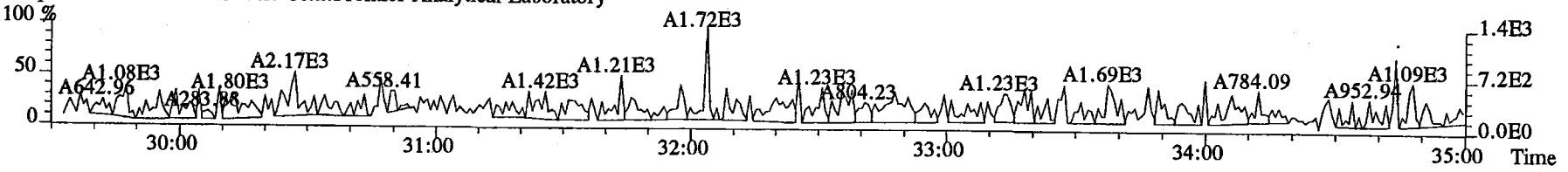
File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

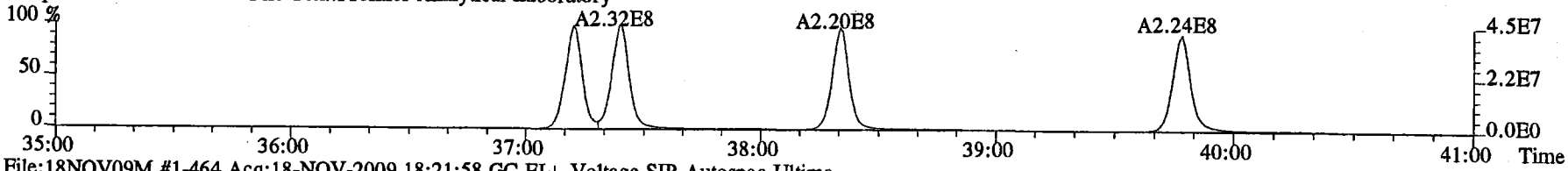


File:18NOV09M #1-424 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

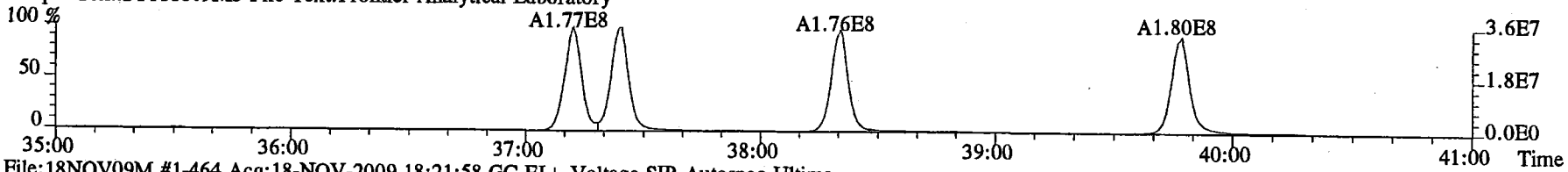


QB72:00527

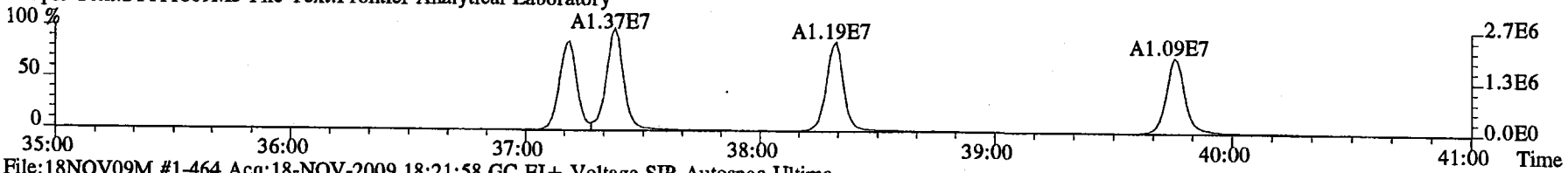
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



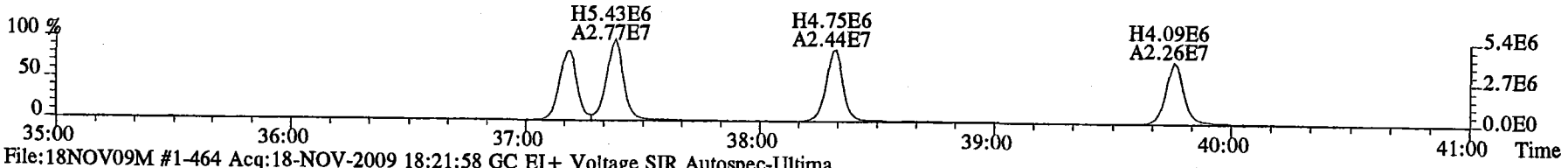
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



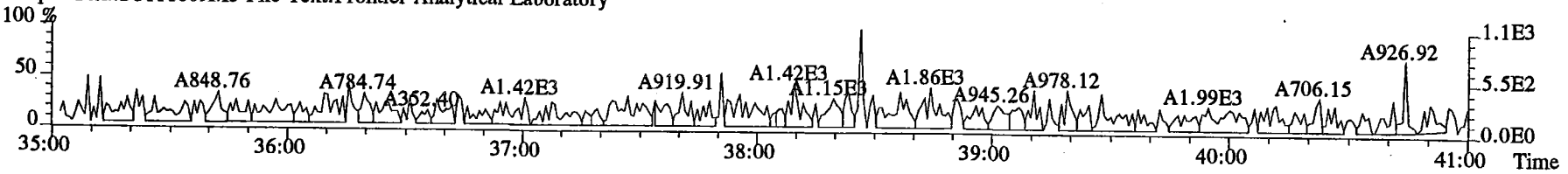
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



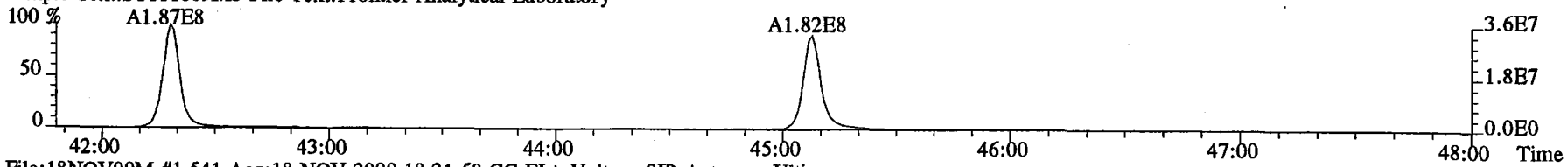
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



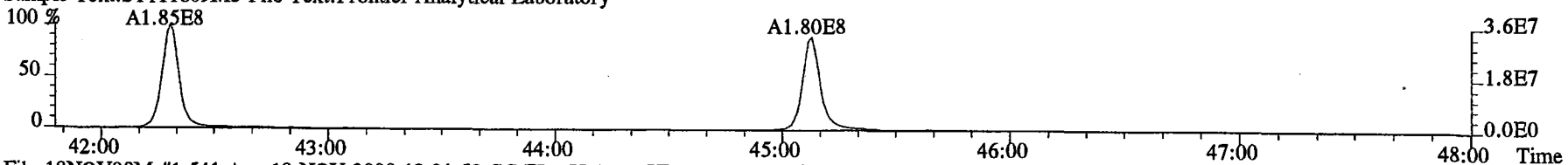
File:18NOV09M #1-464 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



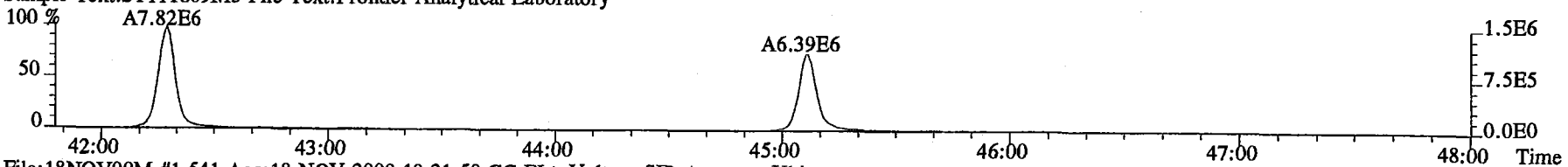
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



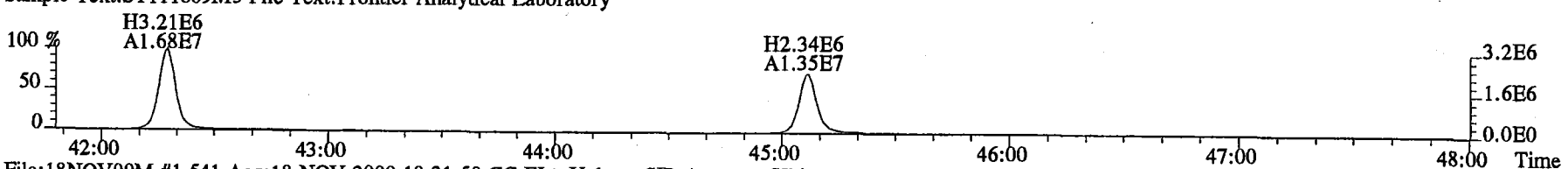
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



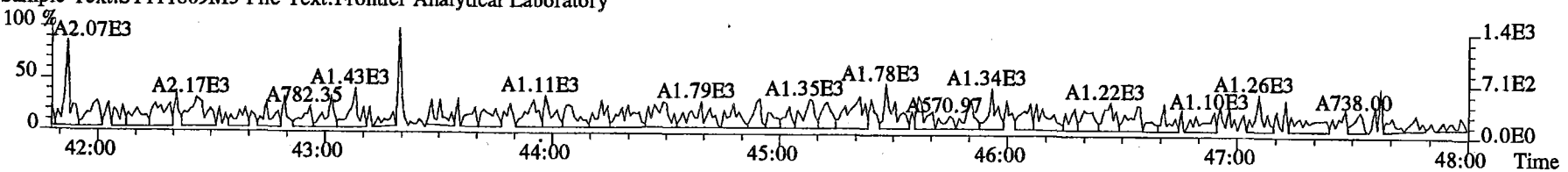
File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

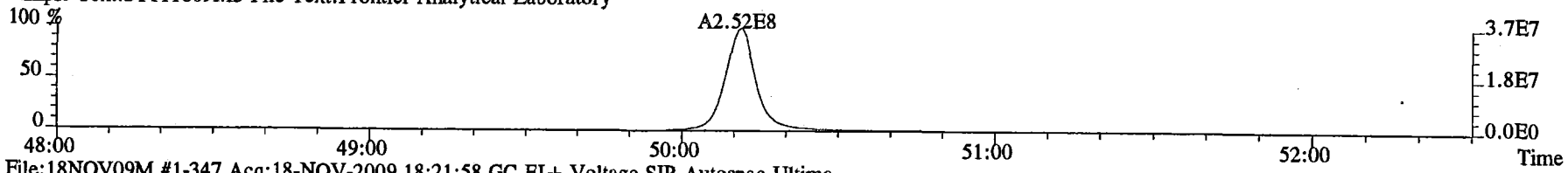


File:18NOV09M #1-541 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

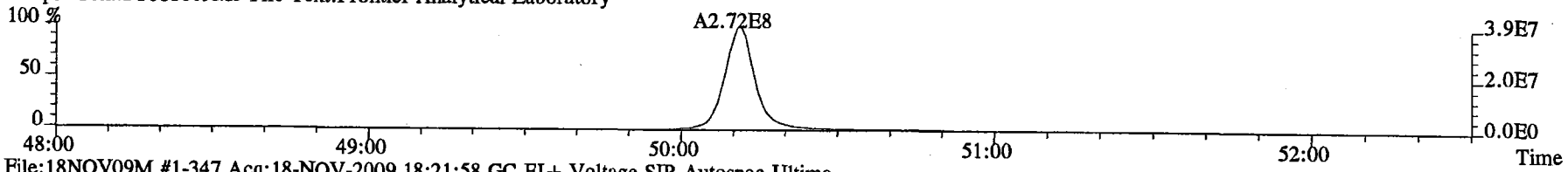


QB72:00629

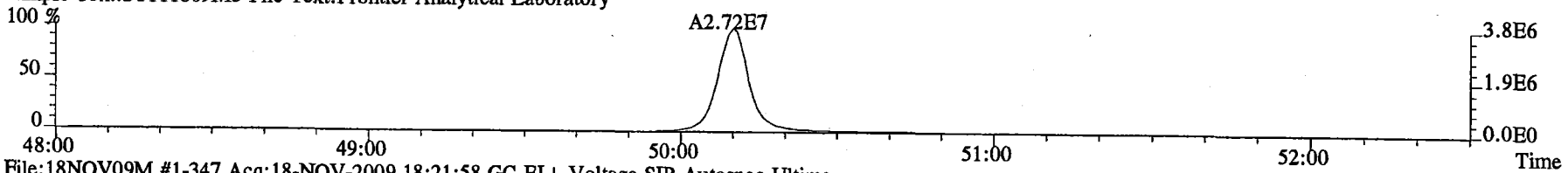
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



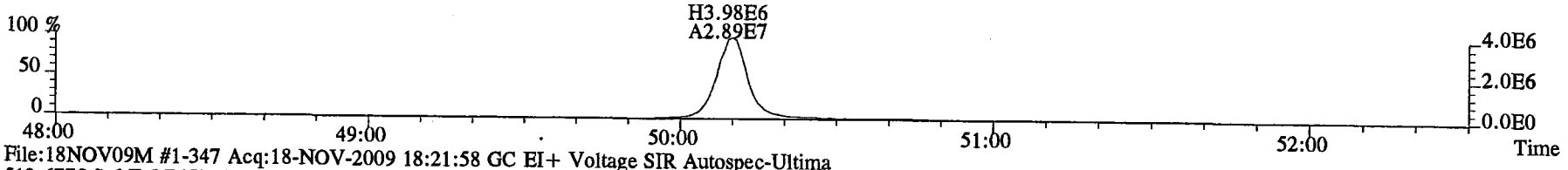
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



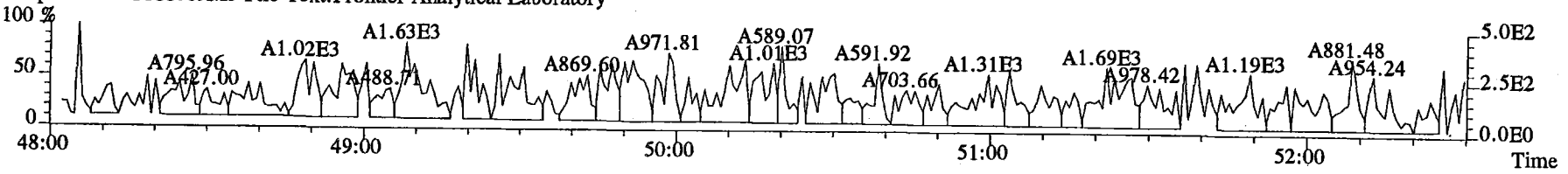
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory



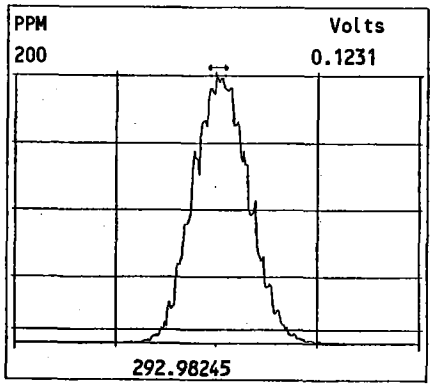
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

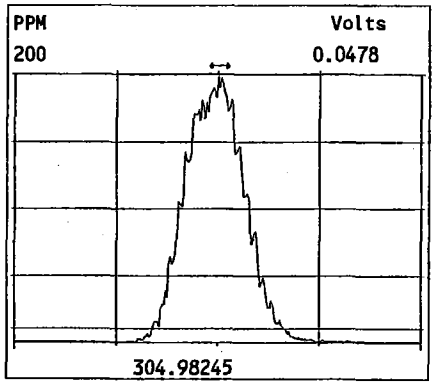


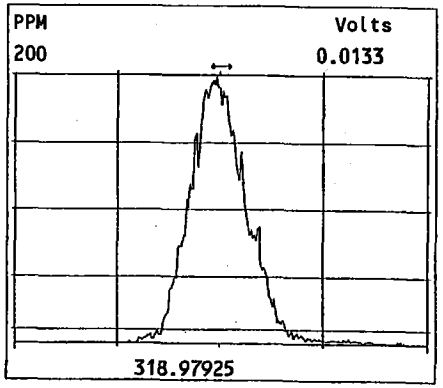
File:18NOV09M #1-347 Acq:18-NOV-2009 18:21:58 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST111809M5 File Text:Frontier Analytical Laboratory

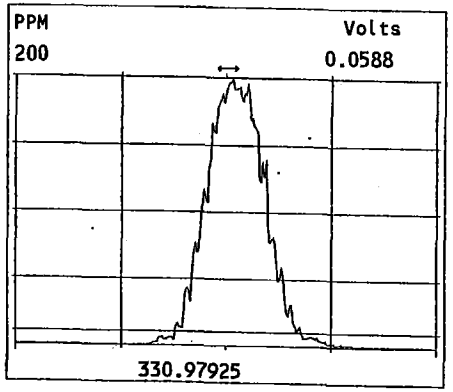


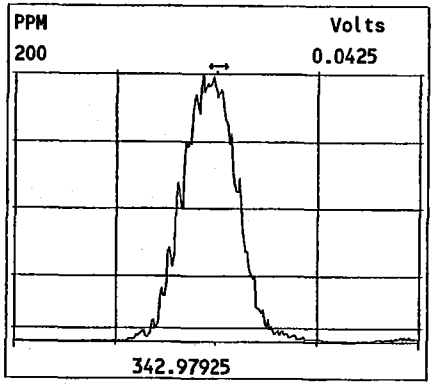
Peak Locate Examination:19-NOV-2009:14:42 File:18NOV09M_RES_CHECK
Experiment:PCDD Function:1 Reference:PFK

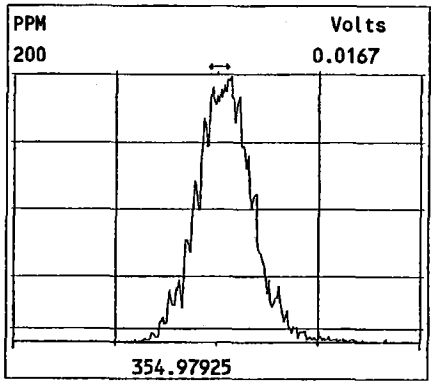


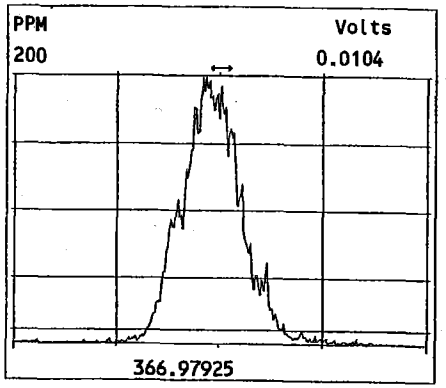


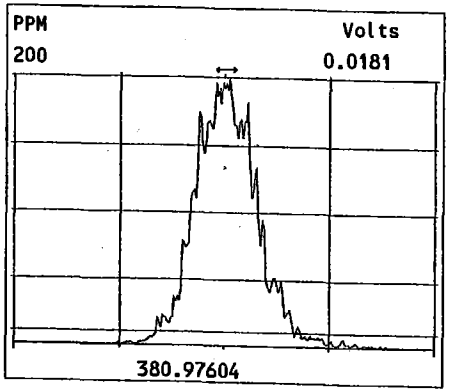


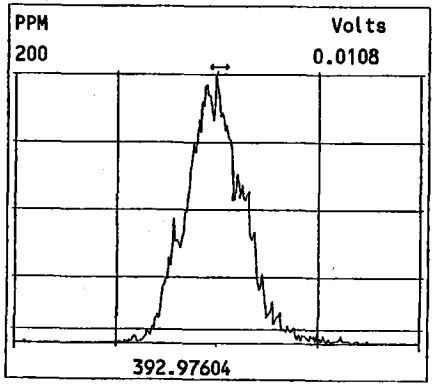


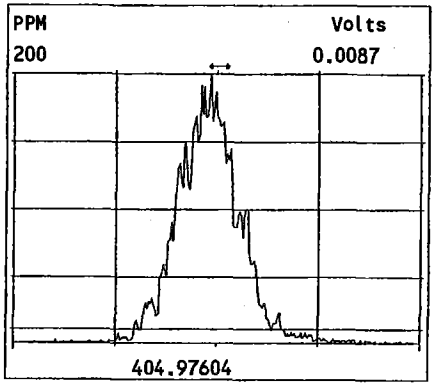


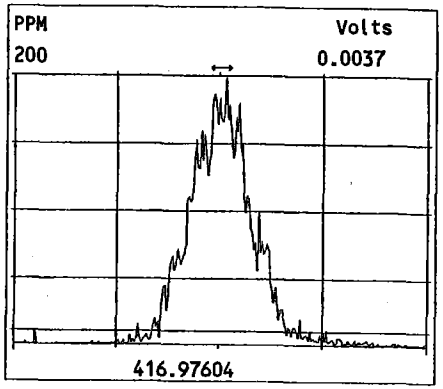






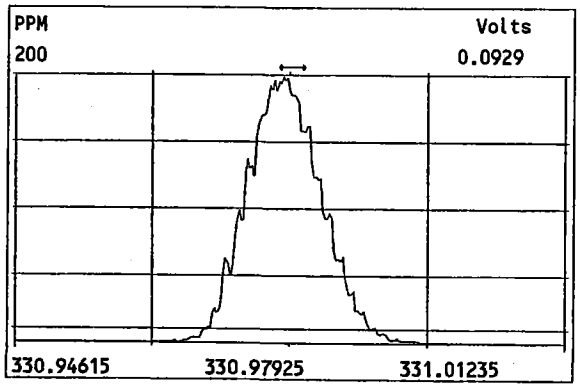


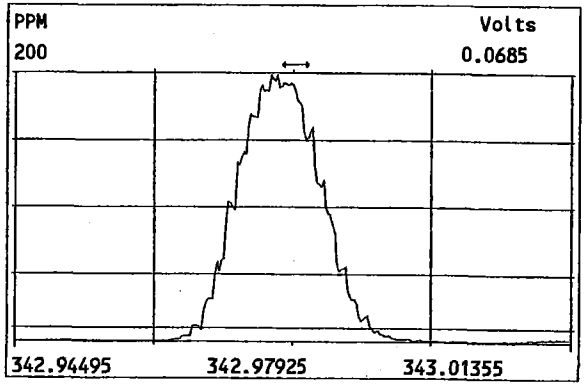


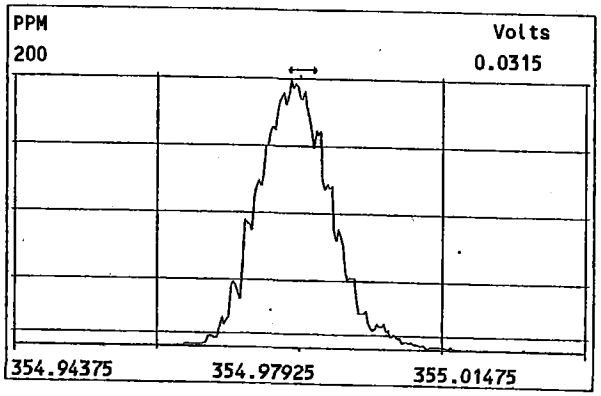


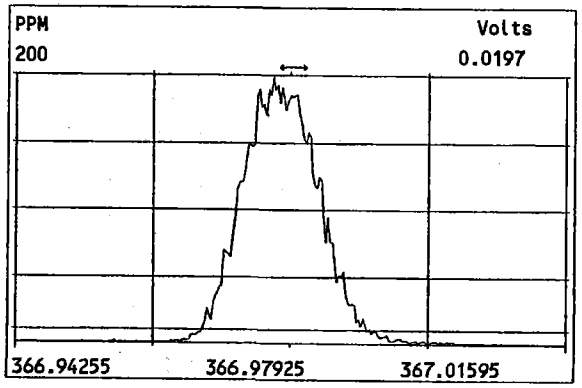
QB72:00631

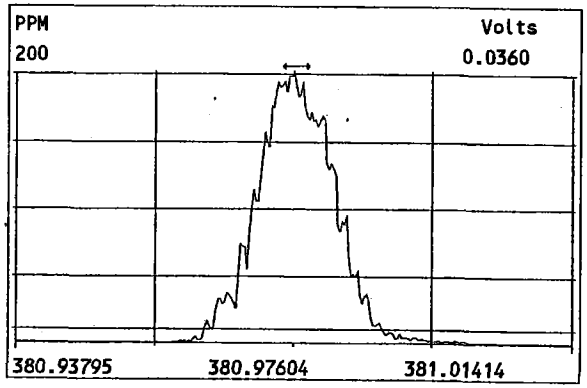
Peak Locate Examination:19-NOV-2009:14:42 File:18NOV09M_RES_CHECK
Experiment:PCDD Function:2 Reference:PFK

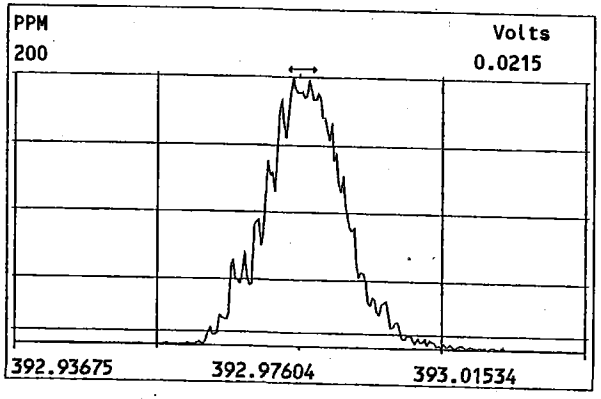


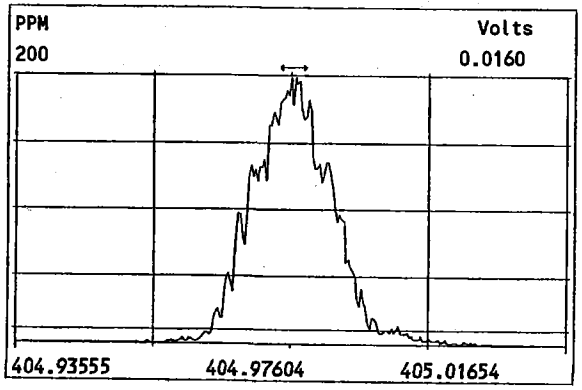


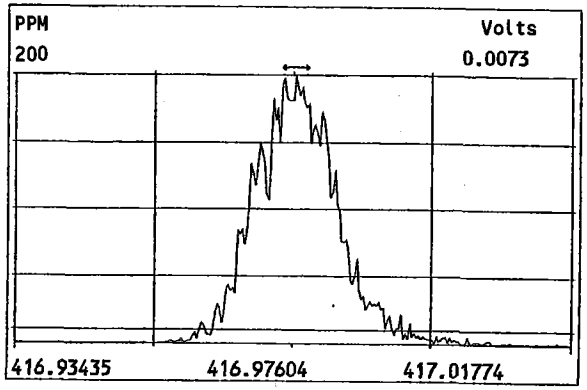






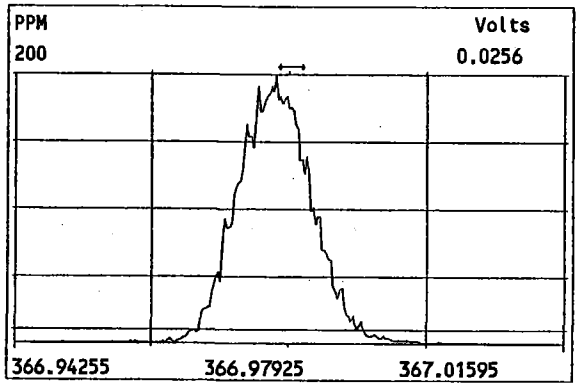


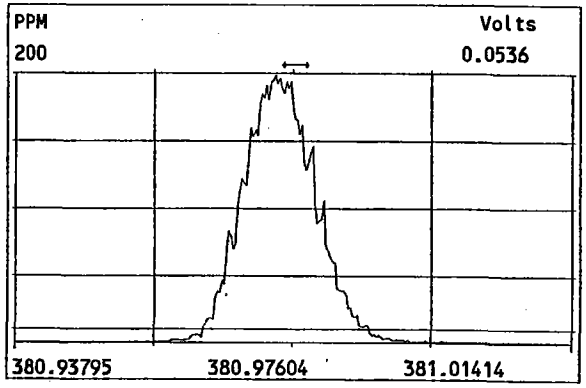


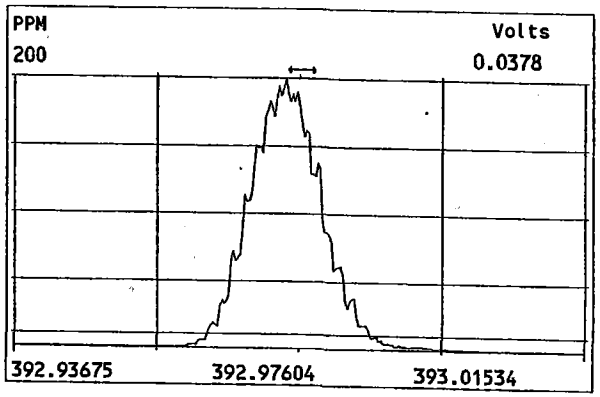


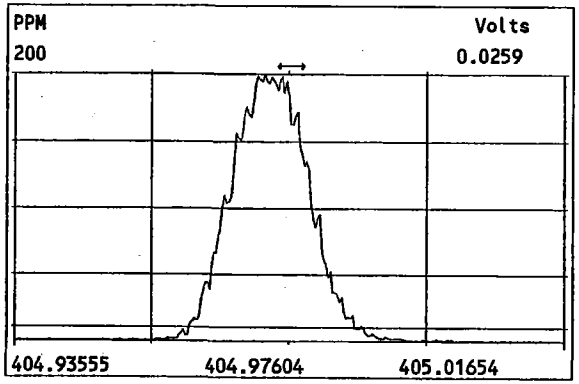
QB72:00632

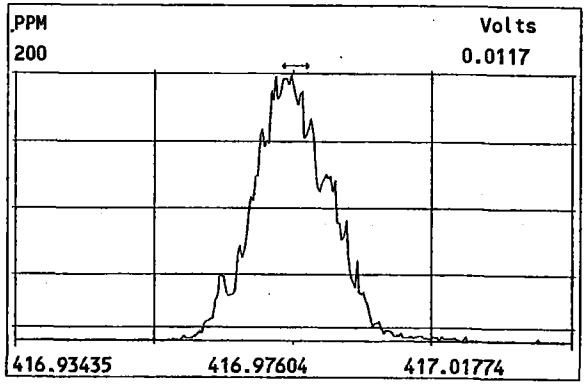
Peak Locate Examination:19-NOV-2009:14:42 File:18NOV09M_RES_CHECK
Experiment:PCDD Function:3 Reference:PFK

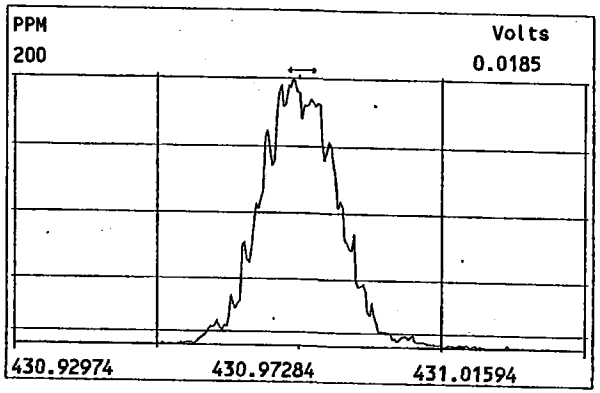


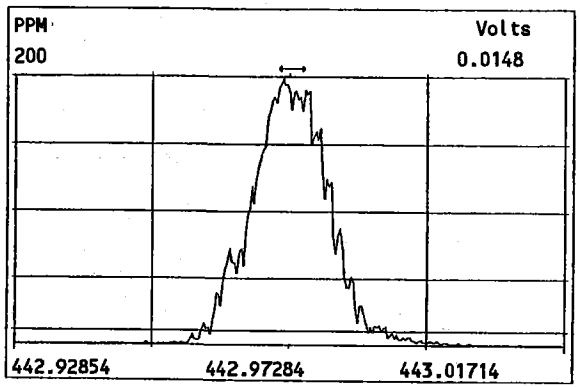


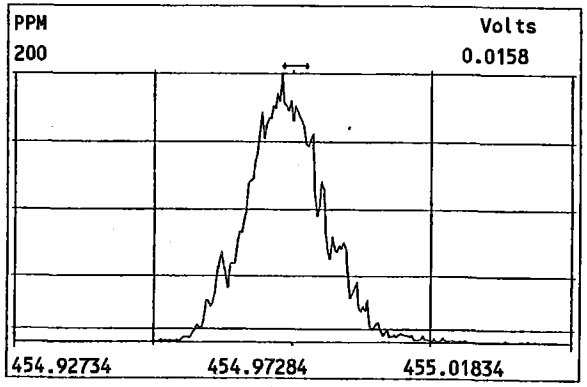






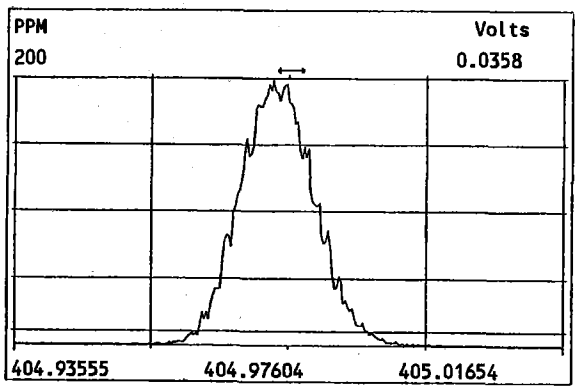


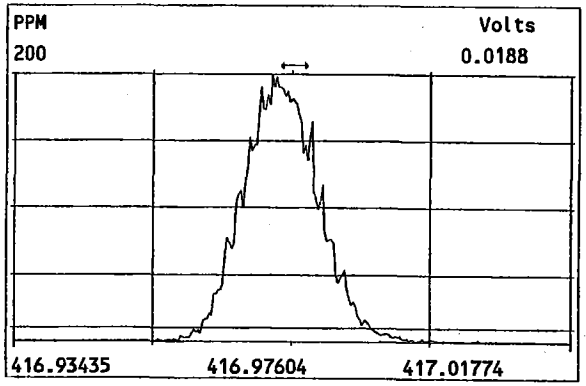


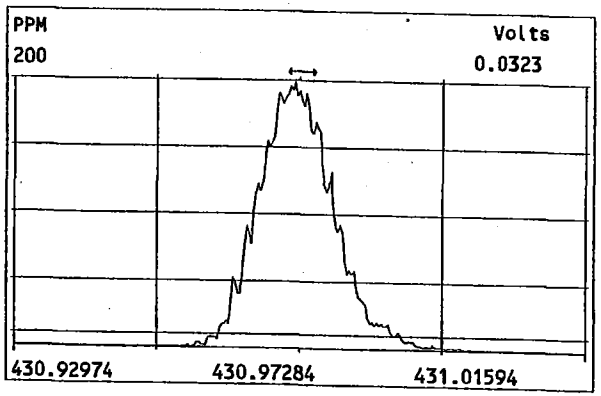


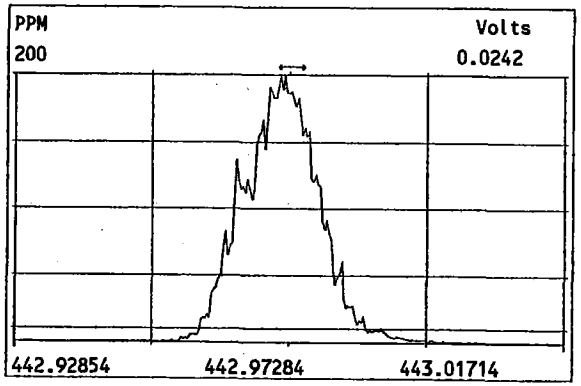
QB72:00633

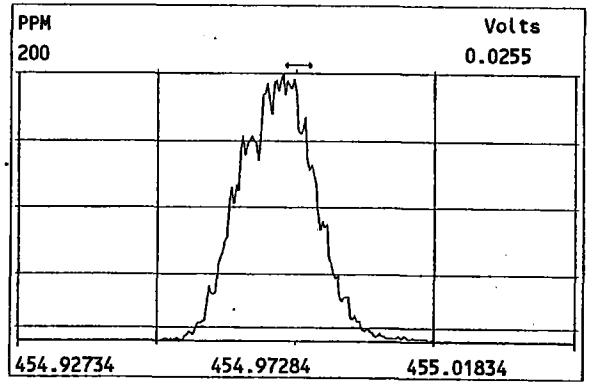
Peak Locate Examination:19-NOV-2009:14:43 File:18NOV09M_RES_CHECK
Experiment:PCDD Function:4 Reference:PFK

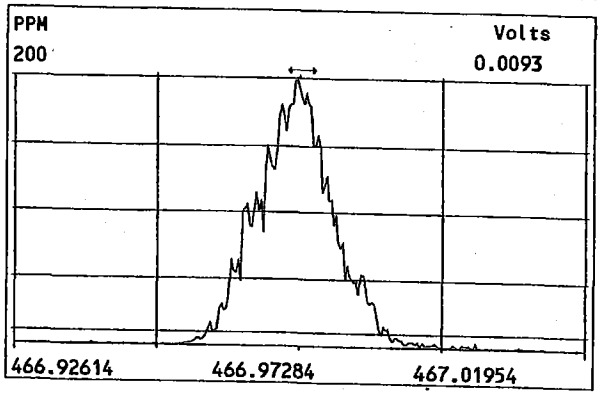


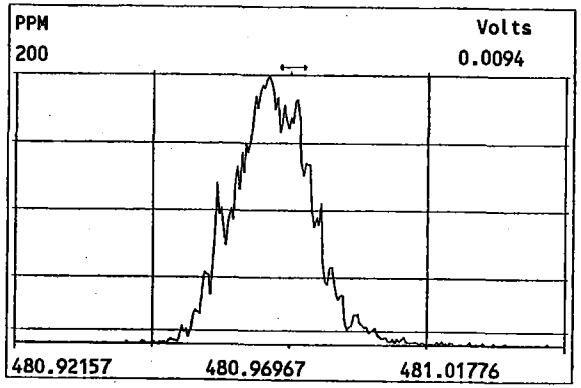






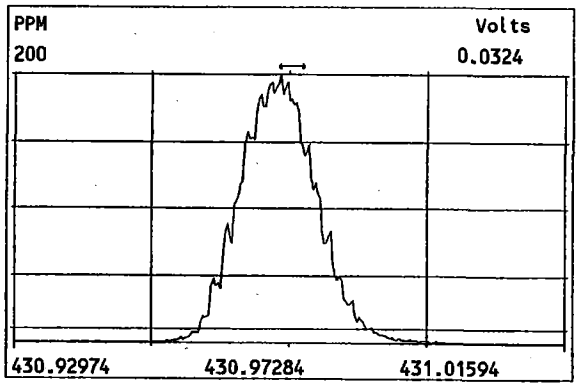


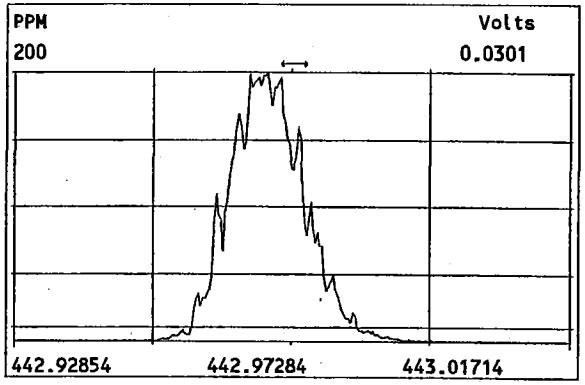


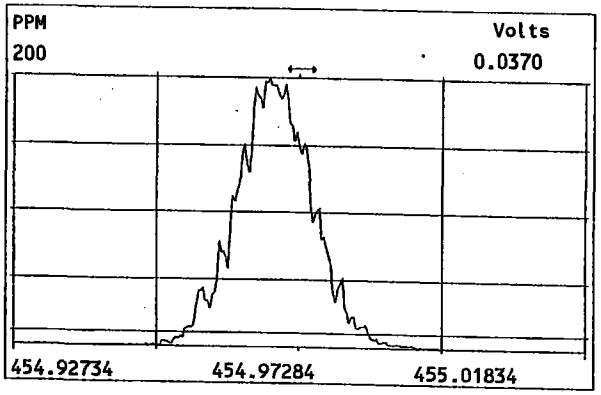


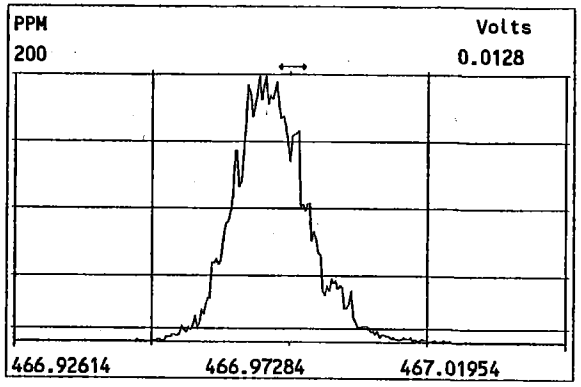
QB72:00634

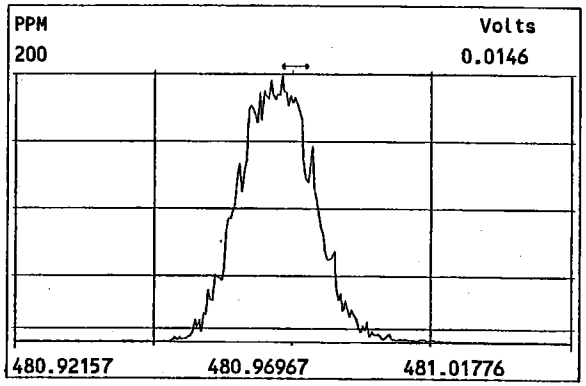
Peak Locate Examination:19-NOV-2009:14:43 File:18NOV09M_RES_CHECK
Experiment:PCDD Function:5 Reference:PFK

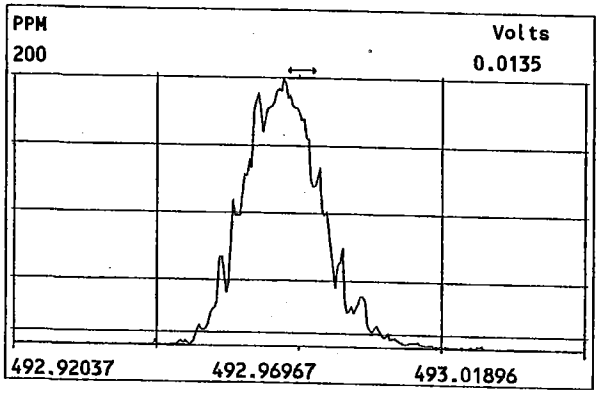


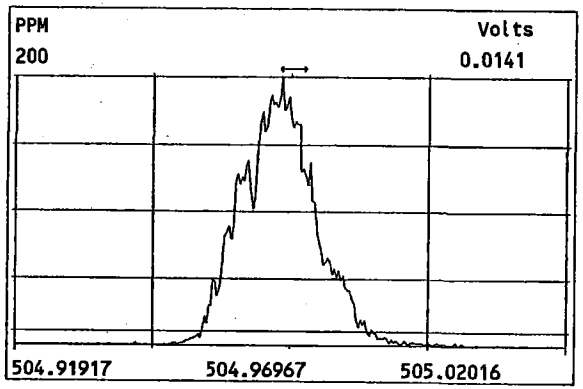


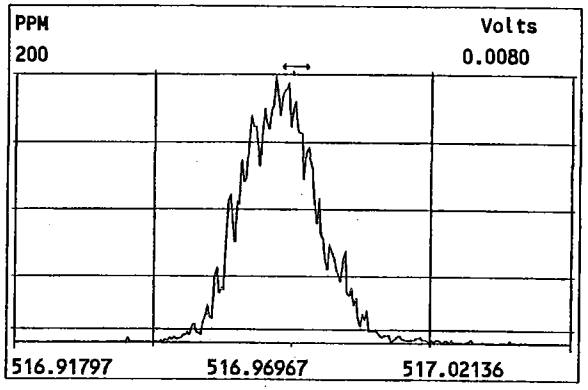












Continuing/Ending Calibration Results

QB72:00635

USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 22DEC09M Sam:1 Analysis Date: 22-DEC-09 13:47:20

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
NATIVE ANALYTES						
2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	10.2	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.59	1.32-1.78	y	48.5	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	47.6	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.3	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	46.5	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.96	0.88-1.20	y	49.9	43.0 - 58.0
OCDD	M+2/M+4	0.93	0.76-1.02	y	101	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.74	0.65-0.89	y	9.82	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.66	1.32-1.78	y	54.6	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.69	1.32-1.78	y	51.9	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	50.8	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	51.7	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	y	51.4	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	y	49.9	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.00	0.88-1.20	y	49.7	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.00	0.88-1.20	y	50.2	43.0 - 58.0
OCDF	M+2/M+4	0.92	0.76-1.02	y	103	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: 12/23/09

QB72:00636

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 22DEC09M Sam:1 Analysis Date: 22-DEC-09 13:47:20

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
LABELED COMPOUNDS						
13C-2,3,7,8-TCDD	M/M+2	0.73	0.65-0.89	y	96.6	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.73	1.32-1.78	y	79.9	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	102	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	102	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	y	96.4	72.0 - 138
13C-OCDD	M+2/M+4	1.00	0.76-1.02	y	185	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.85	0.65-0.89	y	93.5	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.72	1.32-1.78	y	80.0	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.74	1.32-1.78	y	79.4	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	99.4	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	99.5	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	99.1	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	92.1	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	99.0	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	93.1	77.0 - 129
13C-OCDF	M+2/M+4	0.93	0.76-1.02	y	176	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.61	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: 12/23/09

QB72:00637

FORM 5
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: FAL3 Initial Calibration Date: 11/18/09

RT Window Data Filename: 22DEC09M Sam:1 Analysis Date: 22-DEC-09 Time: 13:47:20

DB-5 IS Data Filename: 22DEC09M Sam:1 Analysis Date: 22-DEC-09 Time: 13:47:20

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)	24:32	1,3,6,8-TCDF (F)	23:12
1,2,8,9-TCDD (L)	28:29	1,2,8,9-TCDF (L)	28:41
1,2,4,7,9-PeCDD (F)	30:24	1,3,4,6,8-PeCDF (F)	28:34
1,2,3,8,9-PeCDD (L)	33:56	1,2,3,8,9-PeCDF (L)	34:21
1,2,4,6,7,9-HxCDD (F)	36:16	1,2,3,4,6,8-HxCDF (F)	35:23
1,2,3,7,8,9-HxCDD (L)	39:20	1,2,3,7,8,9-HxCDF (L)	39:54
1,2,3,4,6,7,9-HpCDD (F)	42:57	1,2,3,4,6,7,8-HpCDF (F)	42:26
1,2,3,4,6,7,8-HpCDD (L)	44:20	1,2,3,4,7,8,9-HpCDF (L)	45:15

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

==========

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

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

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

Analyst: _____ Date: 12/23/15

QB72:00638

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 22-DEC-09 13:47:20 CS3 or VER Data Filename: 22DEC09M 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	1.000	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: _____ Date: 12/23/09

QB72:00639

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 22-DEC-09 13:47:20 CS3 or VER Data Filename: 22DEC09M Sam:1

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.001	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.001	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.012	1.000-1.019
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	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	1.001	0.999-1.001
OCDD	13C-OCDD	1.001	0.999-1.001
OCDF	13C-OCDF	1.001	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.985	0.977-1.000
13C-1,2,3,6,7,8-HxCDD		0.989	0.981-1.003
13C-1,2,3,4,7,8-HxCDF		0.949	0.944-0.970
13C-1,2,3,6,7,8-HxCDF		0.954	0.949-0.975
13C-2,3,4,6,7,8-HxCDF		0.978	0.959-1.021
13C-1,2,3,7,8,9-HxCDF		1.014	0.977-1.047
13C-1,2,3,4,6,7,8-HpCDD		1.127	1.086-1.130
13C-1,2,3,4,6,7,8-HpCDF		1.079	1.043-1.085
13C-1,2,3,4,7,8,9-HpCDF		1.150	1.057-1.154
13C-OCDD		1.269	1.032-1.311
13C-OCDF		1.279	1.000-1.311

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

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

QB72 : 00640

FAL ID: ST122209M1 Filename: 22DEC09M Sam:1 Acquired: 22-DEC-09 13:47:20 ICal: PCDDFAL3-11-18-09
Client ID: 1613 CS3 090918J ConCal: ST122209M1 EndCal: ST122209M2
Results: GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 100
WHO 1998 Tox: 124 WHO 2005 Tox: 113

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	3.33e+06	0.80 y	27:32	1.02	10.2		2.50	-	-	*
1,2,3,7,8-PeCDD	1.34e+07	1.59 y	33:22	0.96	48.5		2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.37e+07	1.29 y	38:45	1.37	47.6		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.25e+07	1.22 y	38:54	1.34	47.3		2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.29e+07	1.24 y	39:20	1.37	46.5		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	1.04e+07	0.96 y	44:20	1.17	49.9		2.50	-	-	*
OCDD	1.56e+07	0.93 y	49:57	1.21	101		2.50	-	-	*
2,3,7,8-TCDF	6.38e+06	0.74 y	26:47	1.29	9.82		2.50	-	-	*
1,2,3,7,8-PeCDF	2.10e+07	1.66 y	31:38	0.89	54.6		2.50	-	-	*
2,3,4,7,8-PeCDF	1.95e+07	1.69 y	32:57	0.91	51.9		2.50	-	-	*
1,2,3,4,7,8-HxCDF	1.79e+07	1.22 y	37:20	1.00	50.8		2.50	-	-	*
1,2,3,6,7,8-HxCDF	1.95e+07	1.25 y	37:32	0.92	51.7		2.50	-	-	*
2,3,4,6,7,8-HxCDF	1.80e+07	1.27 y	38:28	0.99	51.4		2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.56e+07	1.25 y	39:54	1.09	49.9		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.52e+07	1.00 y	42:26	1.36	49.7		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.32e+07	1.00 y	45:15	1.61	50.2		2.50	-	-	*
OCDF	1.85e+07	0.92 y	50:19	0.84	103		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	3.21e+07	0.73 y	27:31	0.94	96.6					96.6
13C-1,2,3,7,8-PeCDD	2.87e+07	1.73 y	33:21	1.02	79.9					79.9
13C-1,2,3,4,7,8-HxCDD	2.09e+07	1.29 y	38:43	0.98	102					102
13C-1,2,3,6,7,8-HxCDD	1.97e+07	1.29 y	38:52	0.94	102					102
13C-1,2,3,4,6,7,8-HpCDD	1.80e+07	1.04 y	44:20	0.90	96.4					96.4
13C-OCDD	2.55e+07	1.00 y	49:55	0.67	185					92.3
13C-2,3,7,8-TCDF	5.05e+07	0.85 y	26:46	0.88	93.5					93.5
13C-1,2,3,7,8-PeCDF	4.32e+07	1.72 y	31:36	0.88	80.0					80.0
13C-2,3,4,7,8-PeCDF	4.15e+07	1.74 y	32:55	0.85	79.4					79.4
13C-1,2,3,4,7,8-HxCDF	3.54e+07	0.49 y	37:20	1.72	99.4					99.4
13C-1,2,3,6,7,8-HxCDF	4.13e+07	0.49 y	37:32	2.00	99.5					99.5
13C-2,3,4,6,7,8-HxCDF	3.56e+07	0.52 y	38:28	1.74	99.1					99.1
13C-1,2,3,7,8,9-HxCDF	2.87e+07	0.50 y	39:54	1.51	92.1					92.1
13C-1,2,3,4,6,7,8-HpCDF	2.25e+07	0.44 y	42:25	1.10	99.0					99.0
13C-1,2,3,4,7,8,9-HpCDF	1.63e+07	0.45 y	45:14	0.85	93.1					93.1
13C-OCDF	4.28e+07	0.93 y	50:17	1.17	176					88.1
37Cl-2,3,7,8-TCDD	3.30e+06		27:32	0.97	9.61					96.1
13C-1,2,3,4-TCDD	3.53e+07	0.74 y	26:57	-	135					
13C-1,2,3,4-TCDF	6.16e+07	0.86 y	25:41	-	133					
13C-1,2,3,7,8,9-HxCDD	2.07e+07	1.28 y	39:20	-	101					

						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	1.81e+07		24:32	1.02	55.3	2.50	-	-	*		19
Total Penta-Dioxins	3.00e+07		30:24	0.96	109	2.50	-	-	*		11
Total Hexa-Dioxins	4.50e+07		36:16	1.36	163	2.50	-	-	*		15
Total Hepta-Dioxins	2.26e+07		42:57	1.17	108	2.50	-	-	*		15
Total Tetra-Furans	2.82e+07		23:12	1.29	43.5	2.50	-	-	*		17
1st Fn. Tot Penta-Furans	2.35e+07		28:34	0.90	61.9	2.50	-	-	*	PeCDF	1
Total Penta-Furans	5.82e+07		30:20	0.90	153	2.50	-	-	*	215	12
Total Hexa-Furans	8.34e+07		35:23	0.99	239	2.50	-	-	*		16
Total Hepta-Furans	2.89e+07		42:26	1.47	102	2.50	-	-	*		17

Analyst: _____ Date: 12/23/09

QB72:00641

Frontier Analytical Laboratory - Acquisition Log

Run Name:22DEC09M Instrument: FAL3 GC: DB5 Experiment:PCDD

Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
22DEC09M	1	ST122209M1	1613 CS3 090918J	22-DEC-09 13:47:20	ST122209M1	ST122209M2	BS
22DEC09M	2	1905-001-0001-OPR	OPR	22-DEC-09 14:42:38	ST122209M1	ST122209M2	BS
22DEC09M	3	1905-001-0001-MB	Method Blank	22-DEC-09 15:37:57	ST122209M1	ST122209M2	BS
22DEC09M	4	5879-001-0001-SA	Bridge	22-DEC-09 16:33:16	ST122209M1	ST122209M2	BS
22DEC09M	5	5879-002-0001-SA	TCC Linear	22-DEC-09 17:28:34	ST122209M1	ST122209M2	BS
22DEC09M	6	5877-001-0001-SA	002 R1	22-DEC-09 18:23:52	ST122209M1	ST122209M2	BS
22DEC09M	7	5877-002-0001-SA	002 R2	22-DEC-09 19:19:11	ST122209M1	ST122209M2	BS
22DEC09M	8	5878-001-0001-SA	9120577-01	22-DEC-09 20:14:25	ST122209M1	ST122209M2	BS
22DEC09M	9	5881-001-0001-SA	CB31A121509COMP	22-DEC-09 21:09:44	ST122209M1	ST122209M2	BS
22DEC09M	10	5881-002-0001-SA	CB4857121509COMP	22-DEC-09 22:04:59	ST122209M1	ST122209M2	BS
22DEC09M	11	5881-003-0001-SA	CB1121409COMP	22-DEC-09 23:00:14	ST122209M1	ST122209M2	BS
22DEC09M	12	SB122209M1	Solvent Blank	22-DEC-09 23:55:28	ST122209M1	ST122209M2	BS
22DEC09M	13	ST122209M2	1613 CS3 090918J	23-DEC-09 00:50:48	ST122209M1	ST122209M2	BS

6 12/23/09

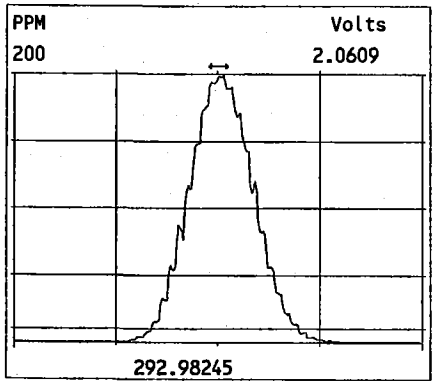
Data Backed Up:_____

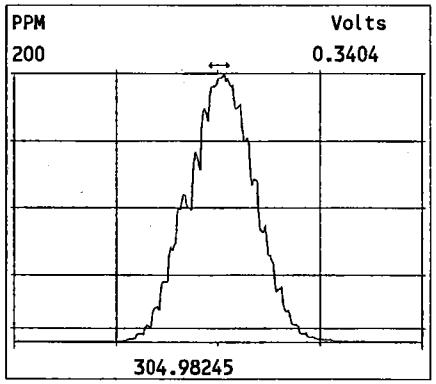
Date:_____

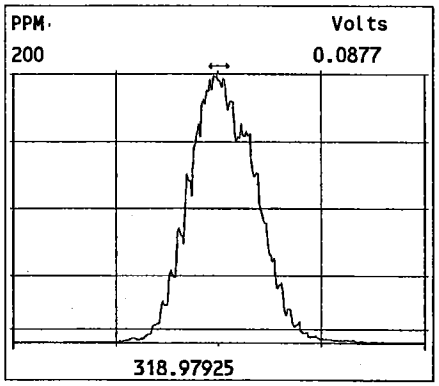
QB72:00642

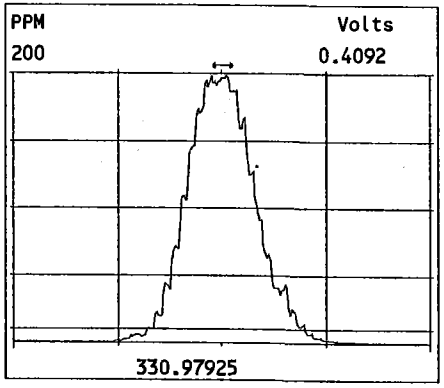
QB72:00613

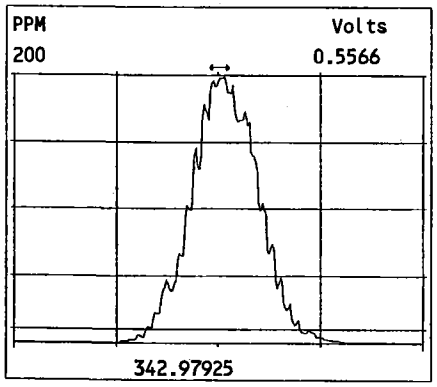
Peak Locate Examination:22-DEC-2009:13:45 File:22DEC09M
Experiment:PCDD Function:1 Reference:PFK

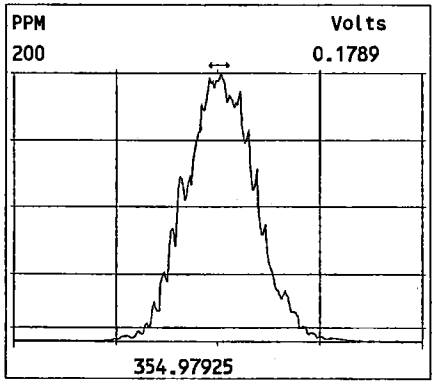


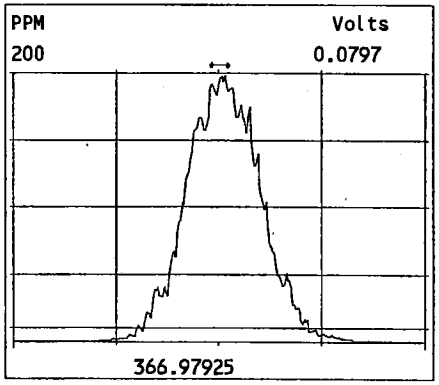


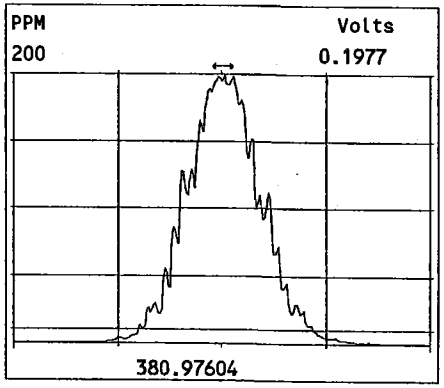


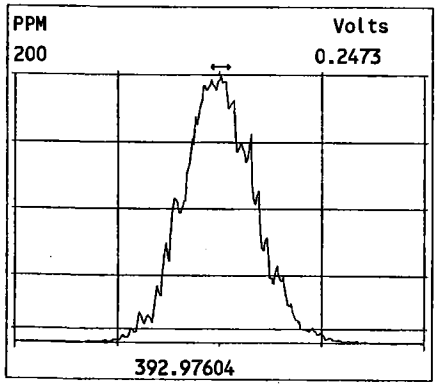


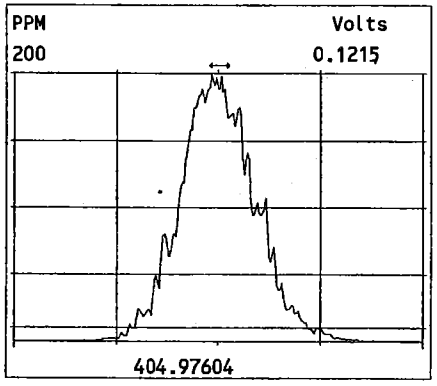


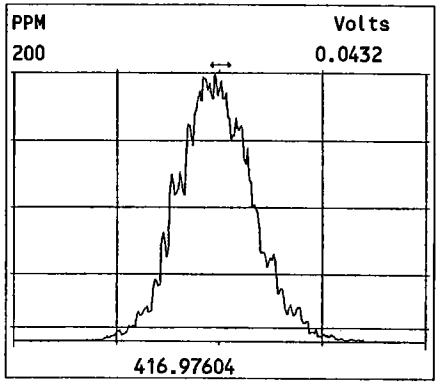






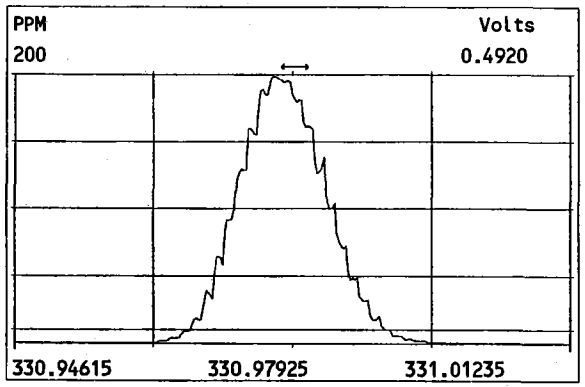


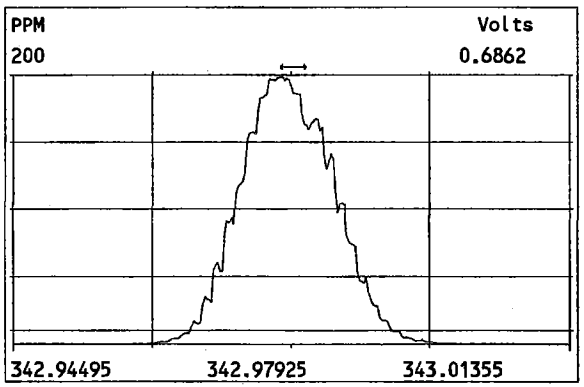


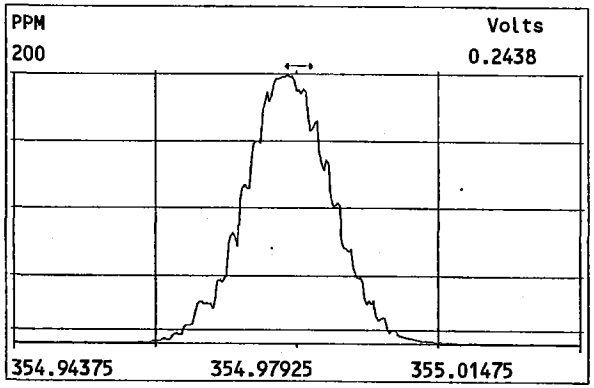


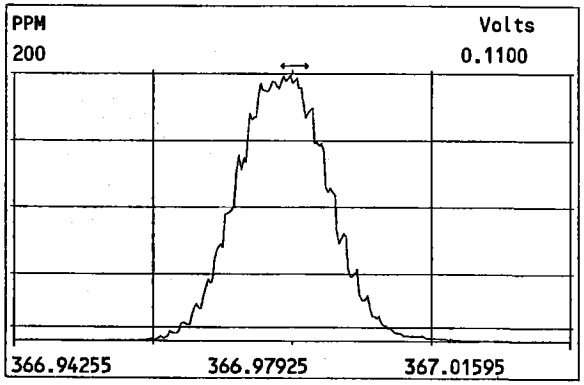
QB72:006412

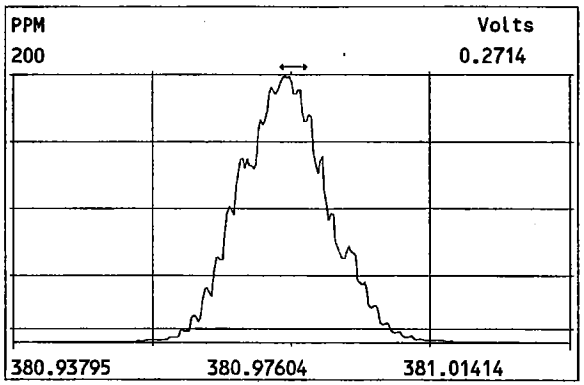
Peak Locate Examination:22-DEC-2009:13:45 File:22DEC09M
Experiment:PCDD Function:2 Reference:PFK

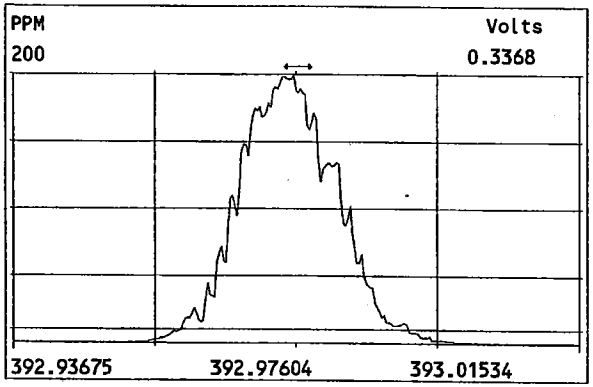


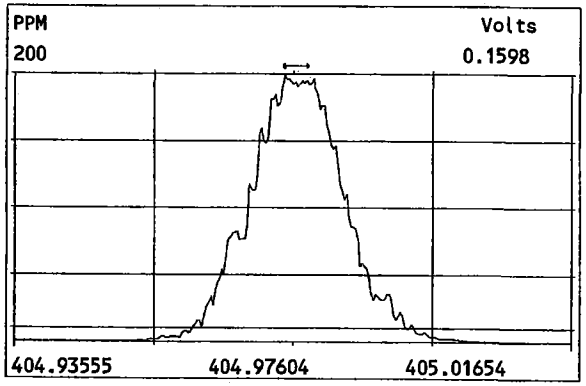


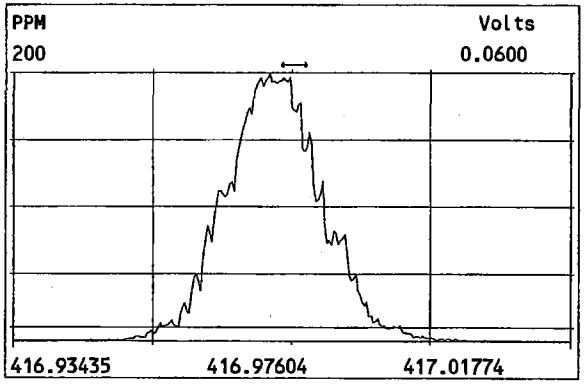






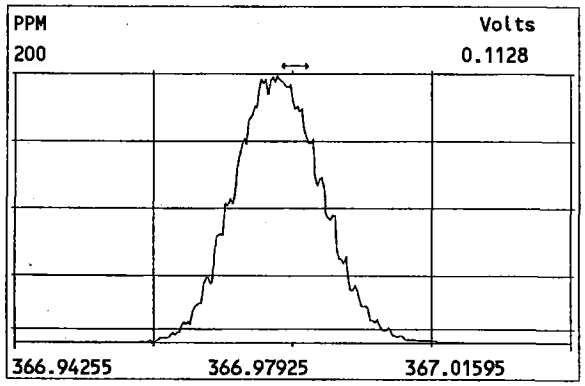


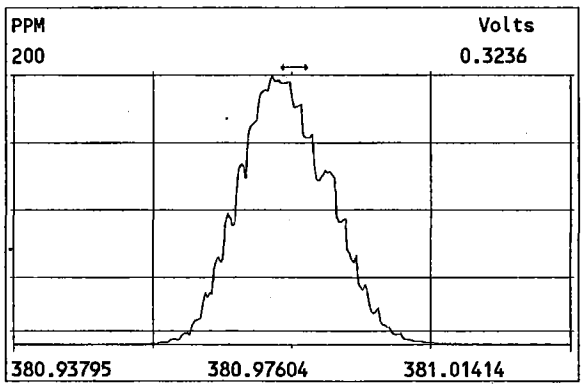


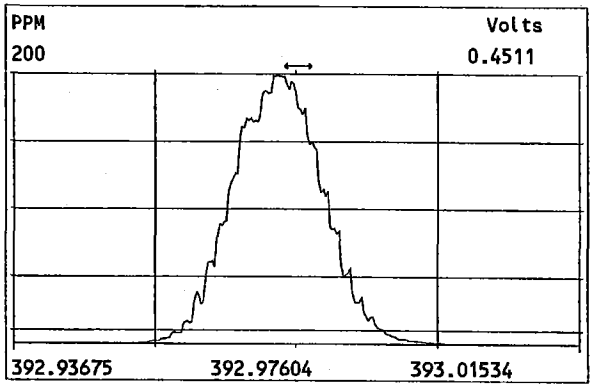


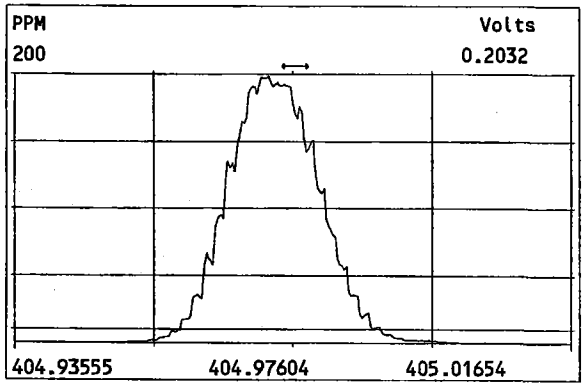
QB72:00645

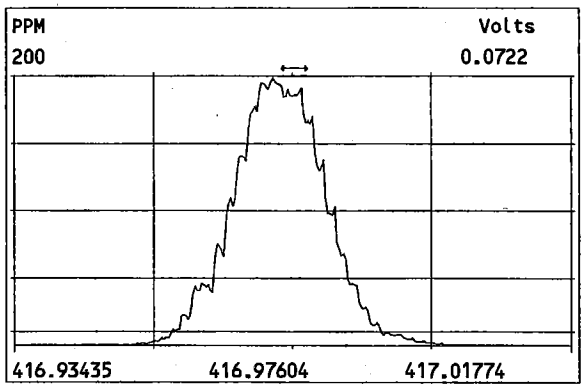
Peak Locate Examination:22-DEC-2009:13:46 File:22DEC09M
Experiment:PCDD Function:3 Reference:PFK

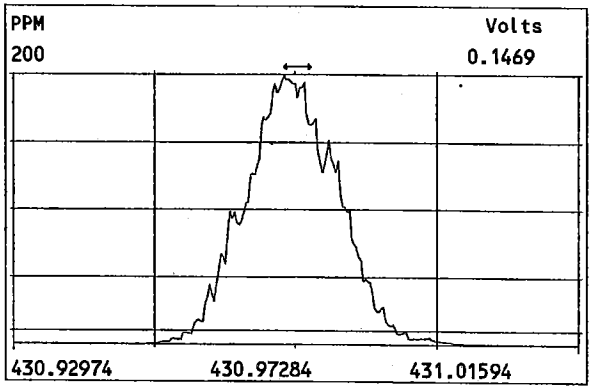


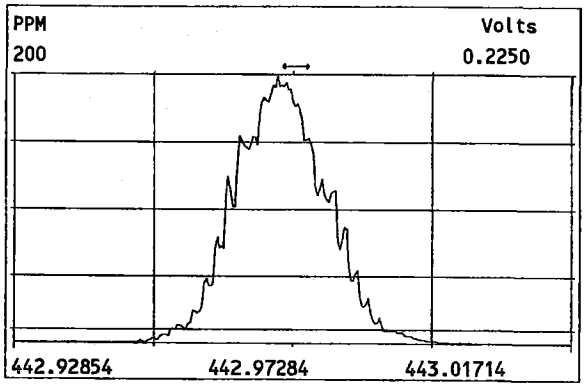


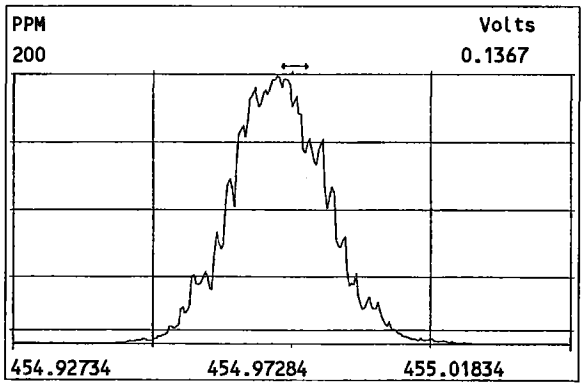






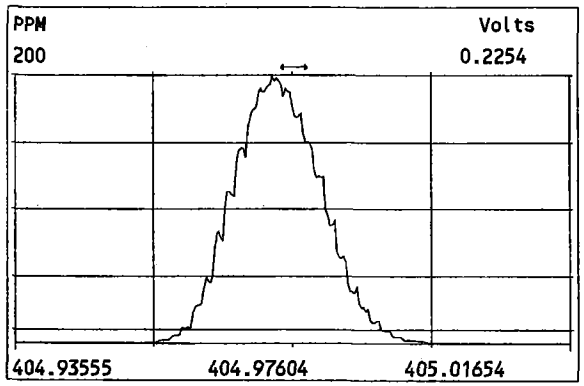


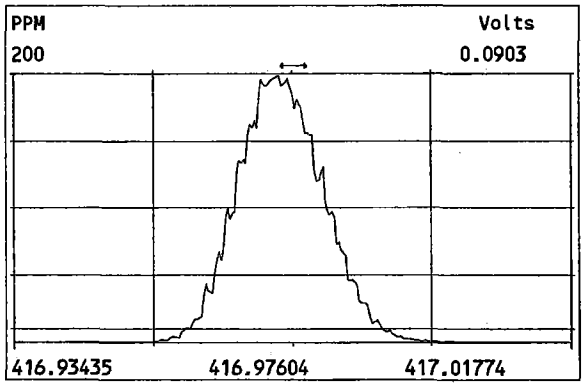


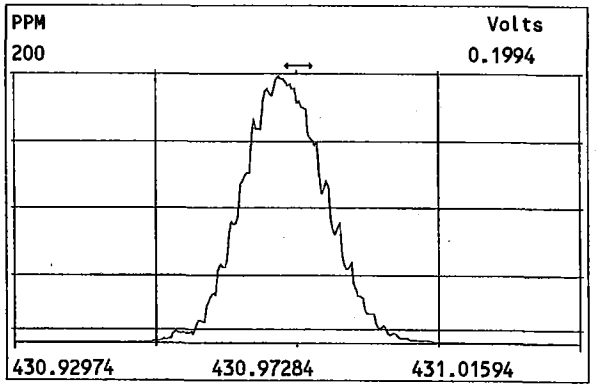


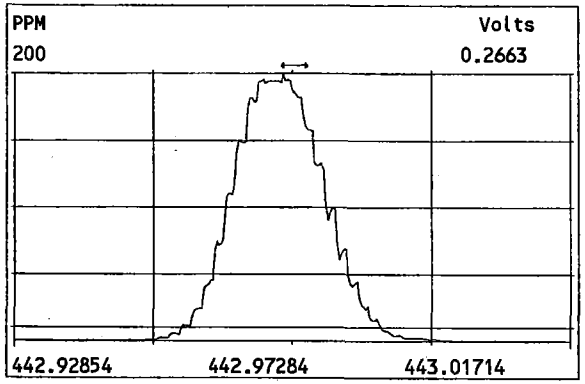
QB72-000545

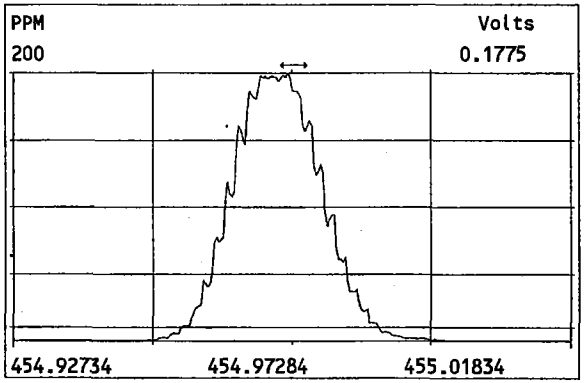
Peak Locate Examination:22-DEC-2009:13:46 File:22DEC09M
Experiment:PCDD Function:4 Reference:PFK

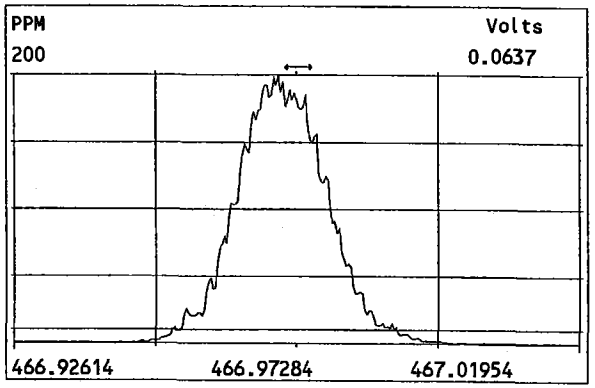


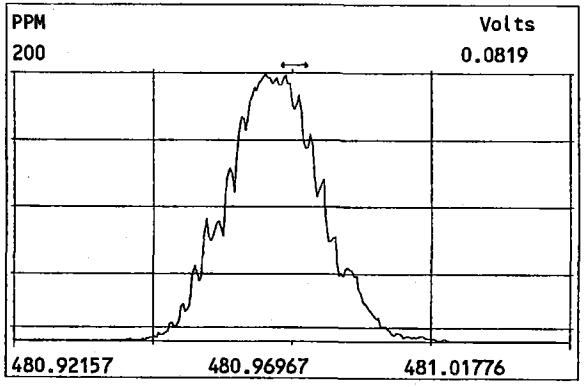






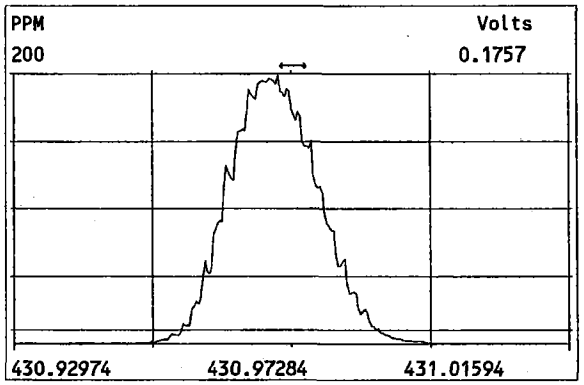


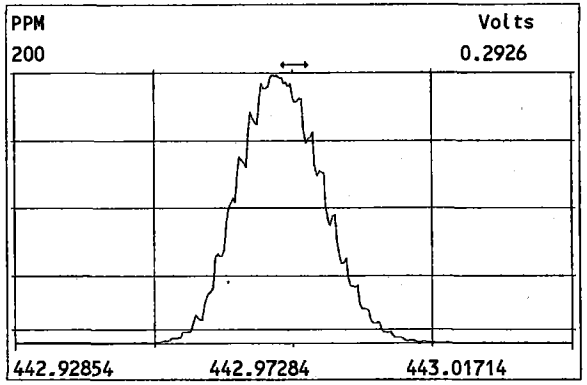


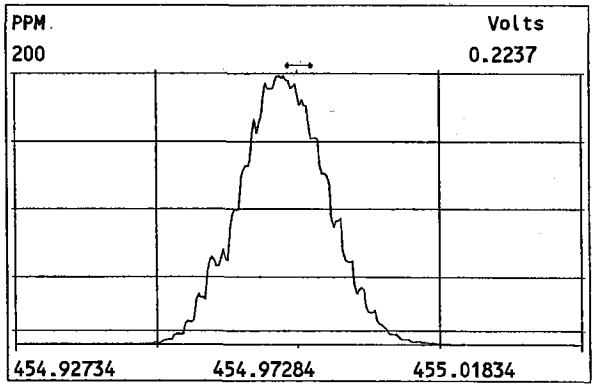


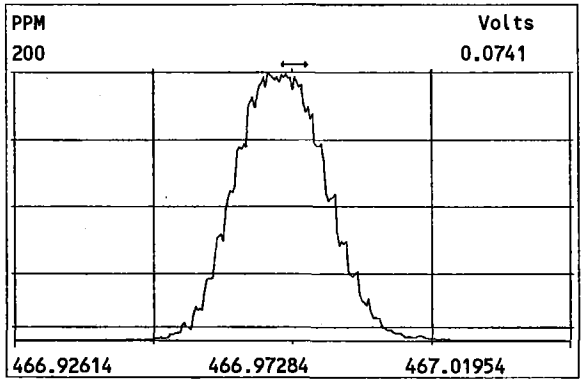
QB72:00617

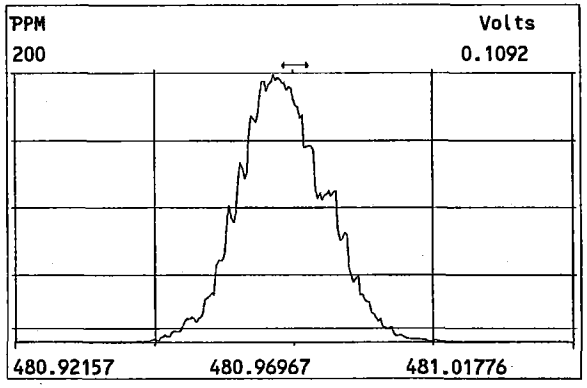
Peak Locate Examination:22-DEC-2009:13:46 File:22DEC09M
Experiment:PCDD Function:5 Reference:PFK

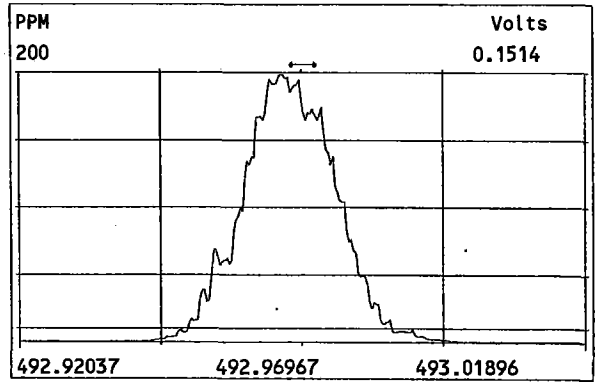


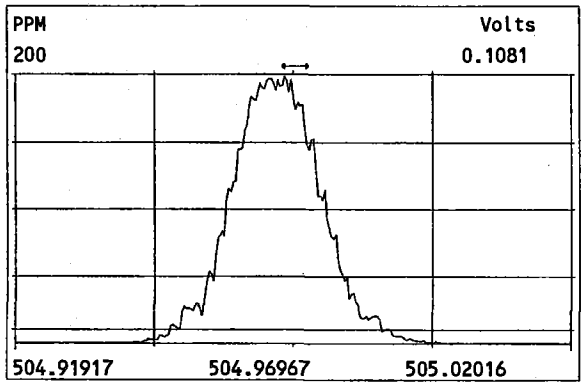


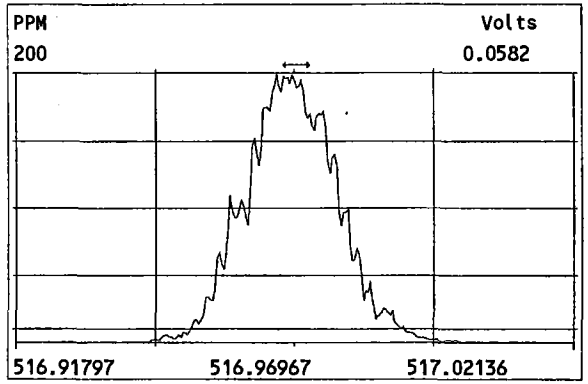






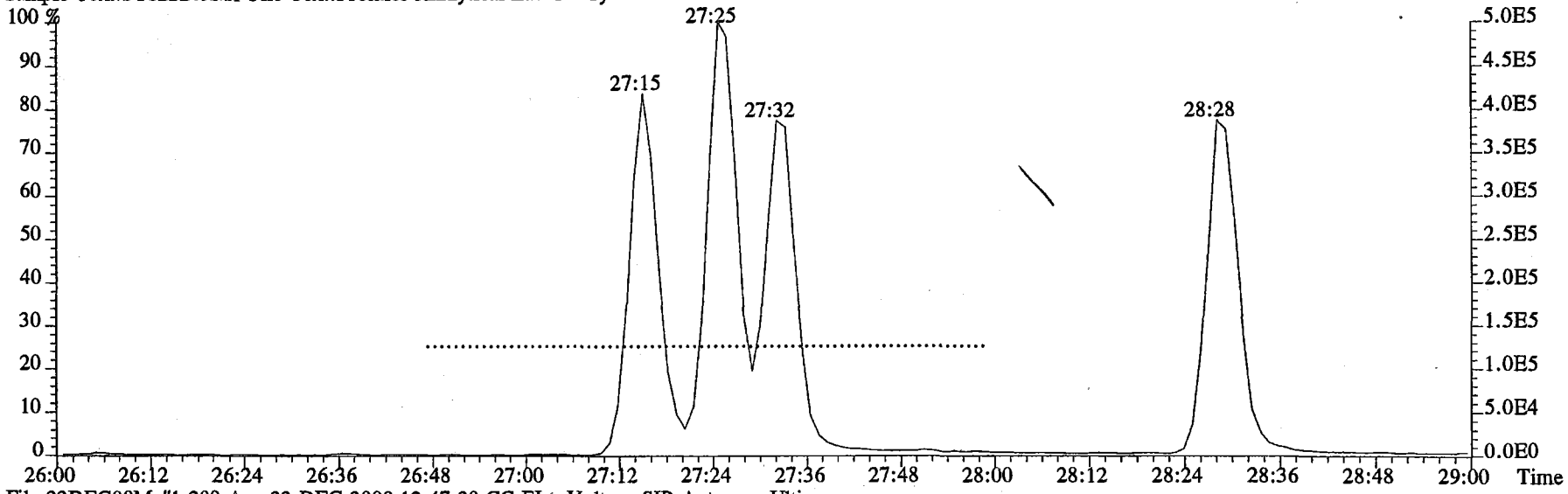




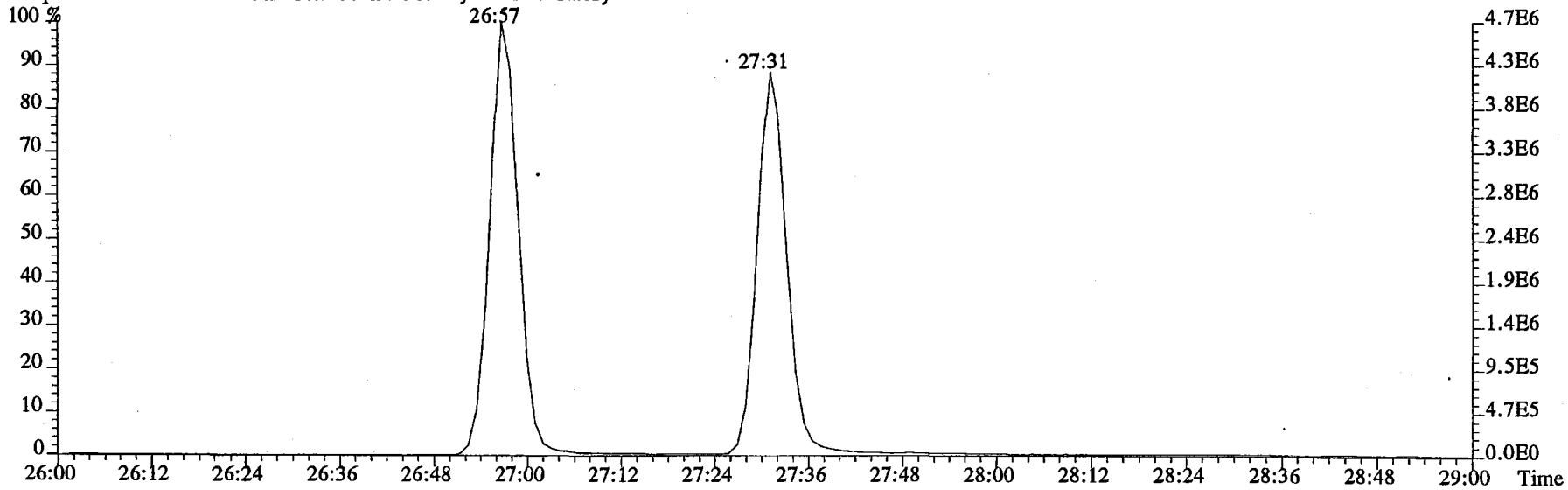


QB72:00548

File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
321.8936 Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

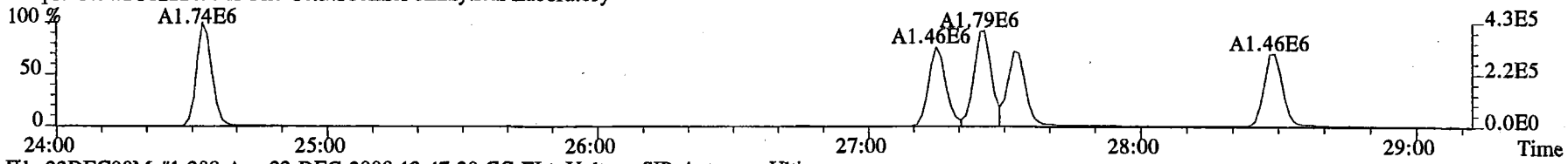


File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
333.9339 Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

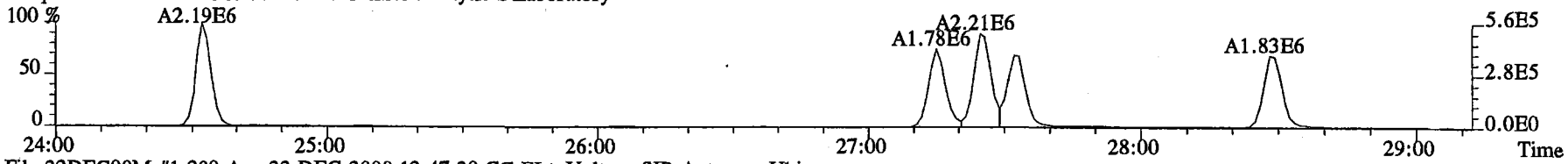


QB72:00519

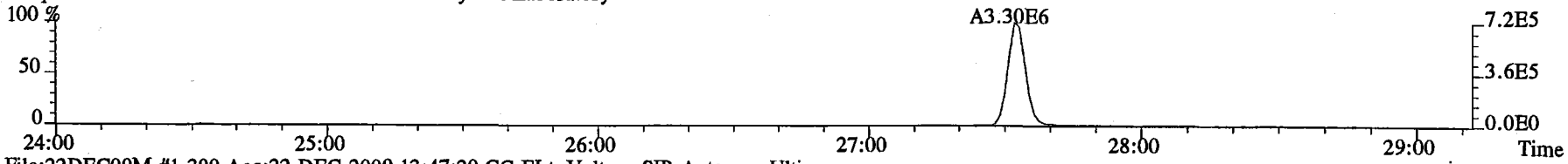
File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



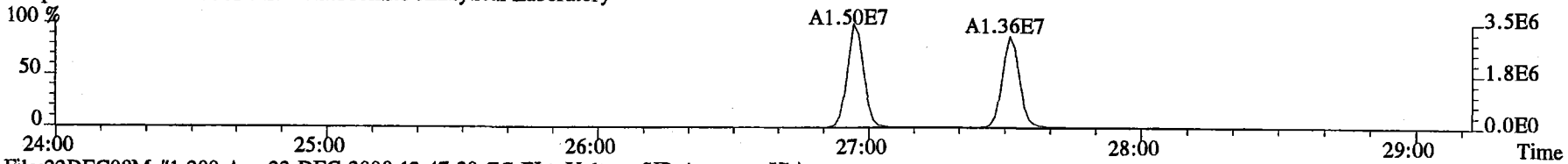
File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



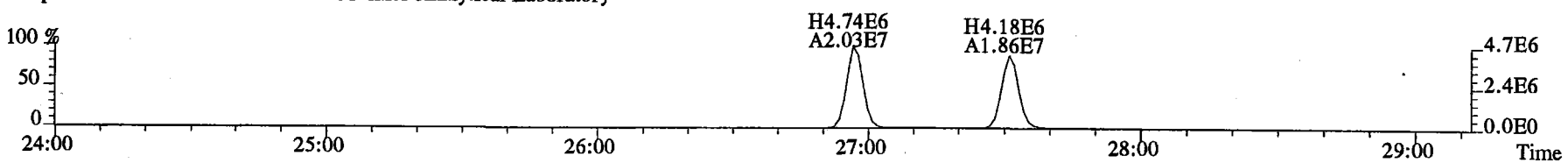
File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 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:ST122209M1 File Text:Frontier Analytical Laboratory

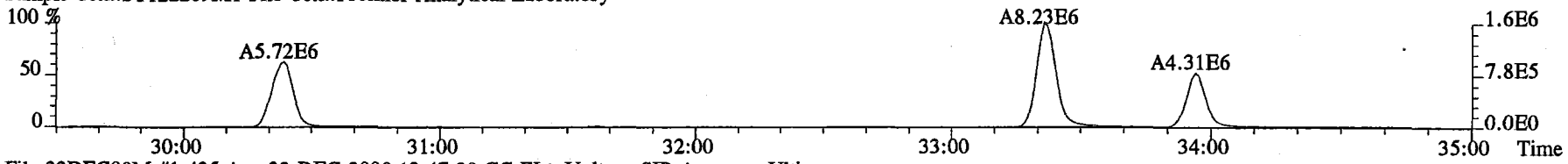


File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

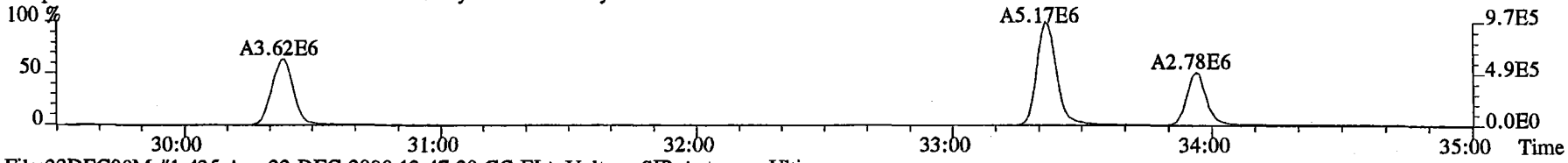


GB72:09659

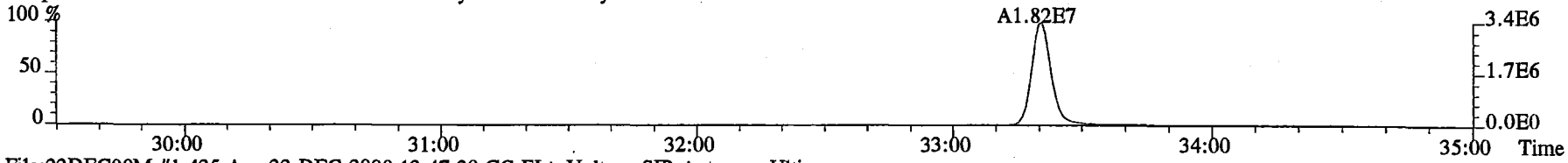
File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



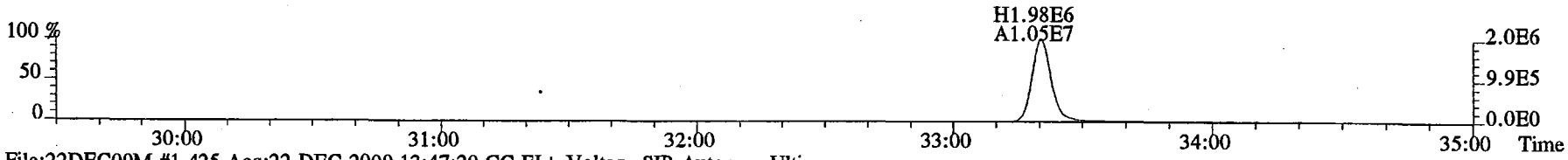
File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
357.8517 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



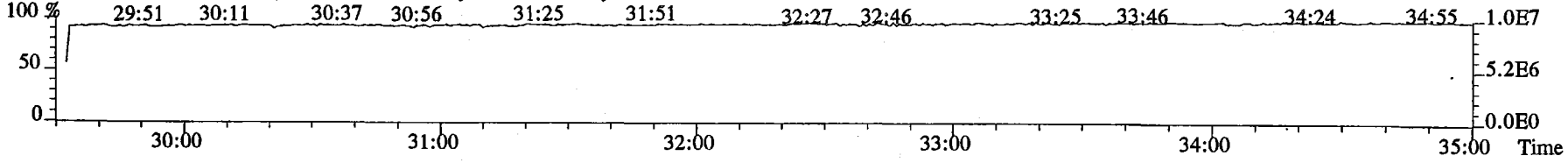
File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
367.8949 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 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:ST122209M1 File Text:Frontier Analytical Laboratory

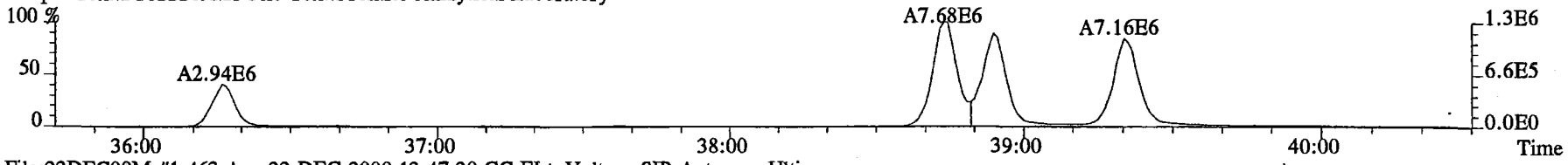


File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
366.9792 F:2 Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

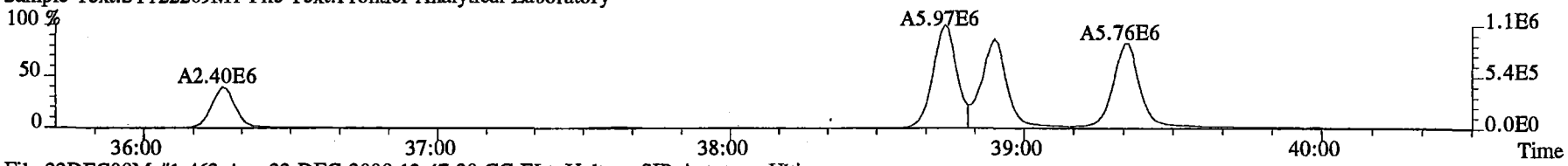


0872:06651

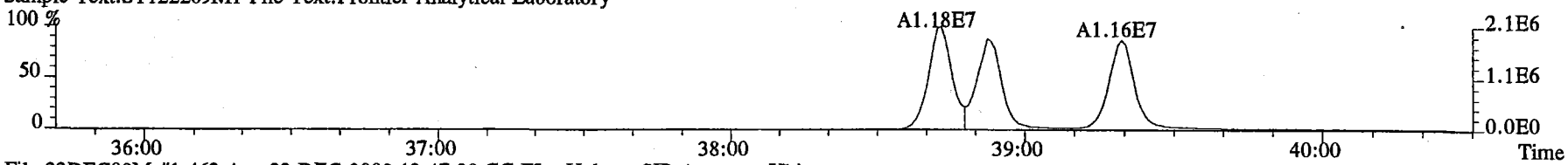
File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



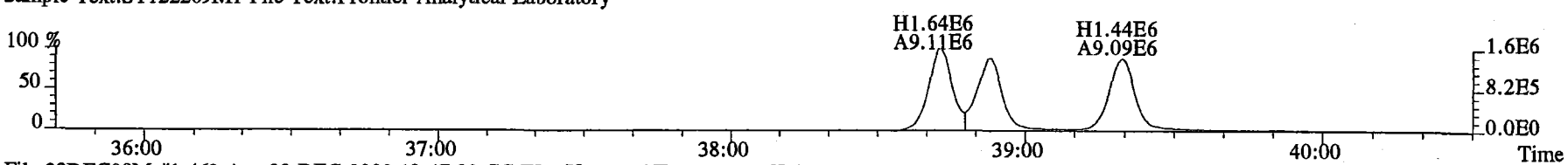
File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



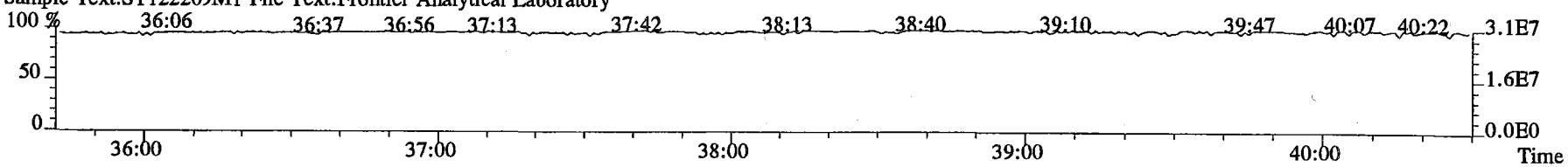
File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

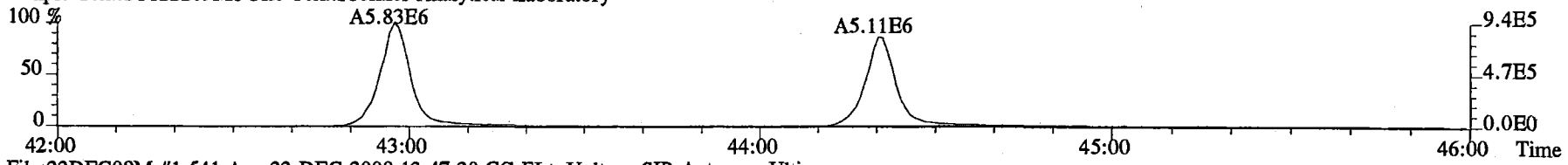


File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
380.9760 F:3 Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

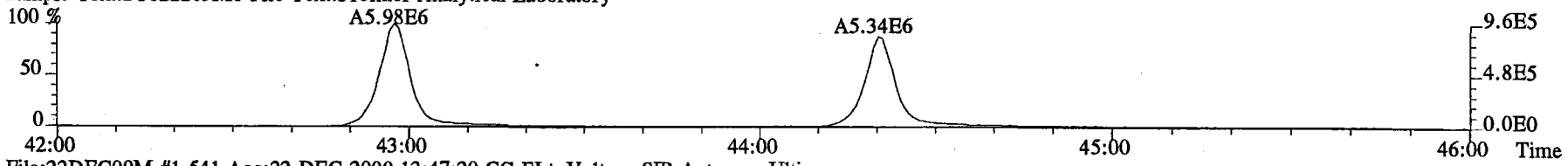


QB72:00652

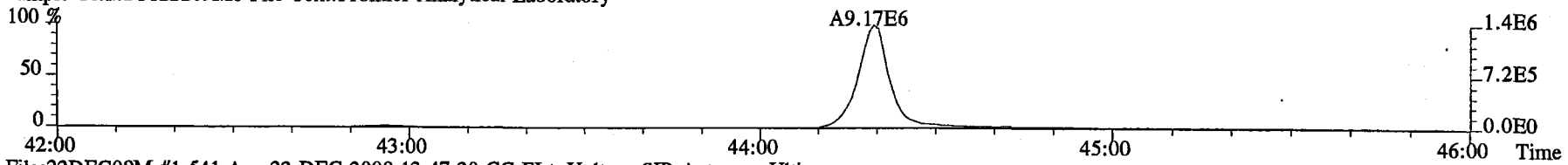
File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



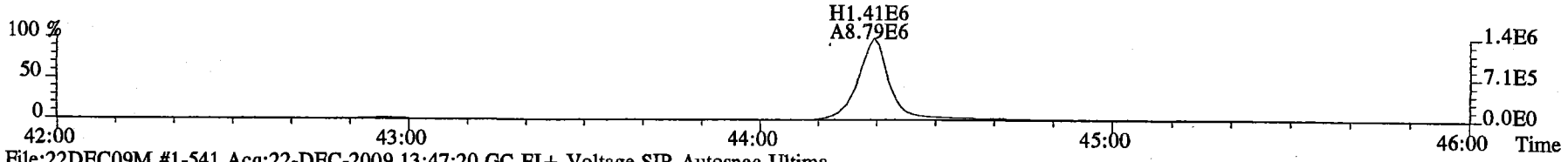
File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



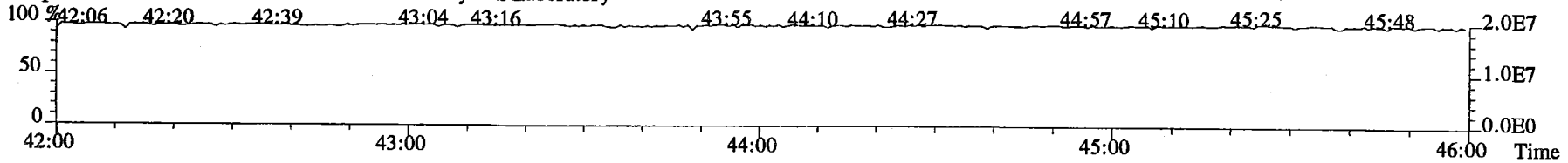
File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

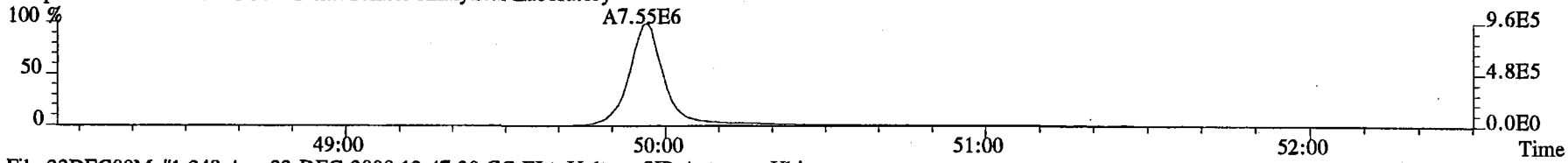


File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
430.9728 F:4 Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

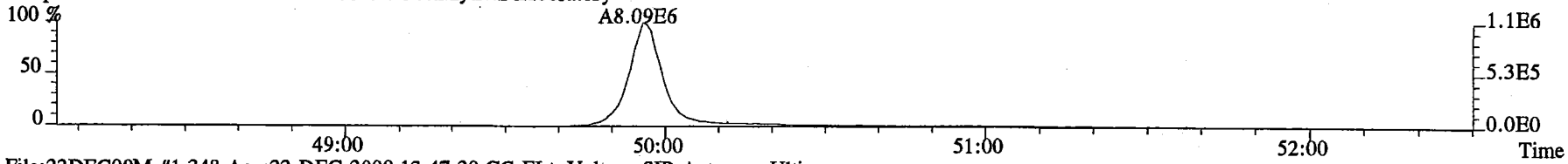


QB72:00653

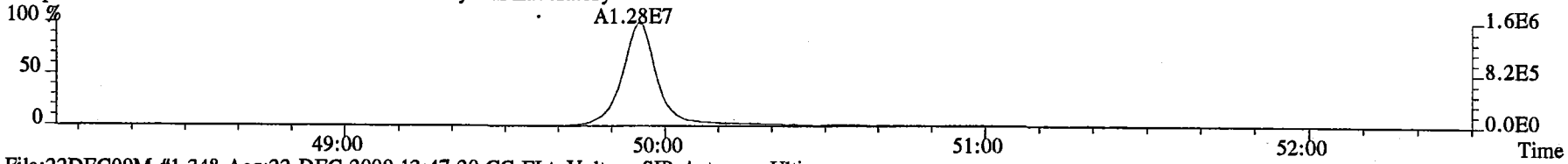
File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



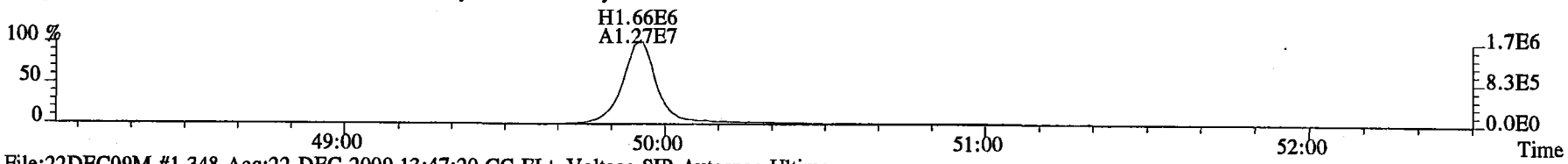
File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



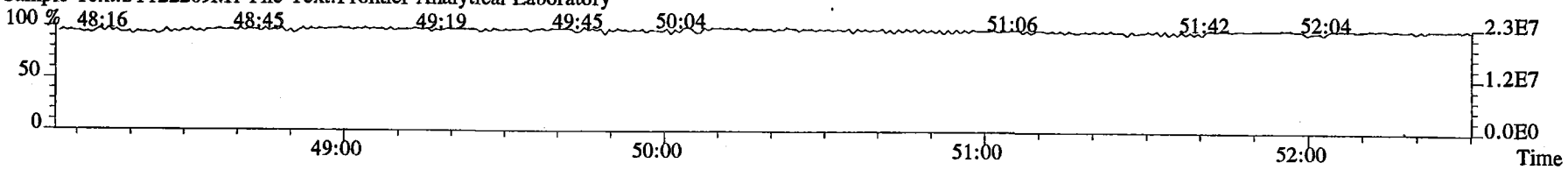
File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 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:ST122209M1 File Text:Frontier Analytical Laboratory

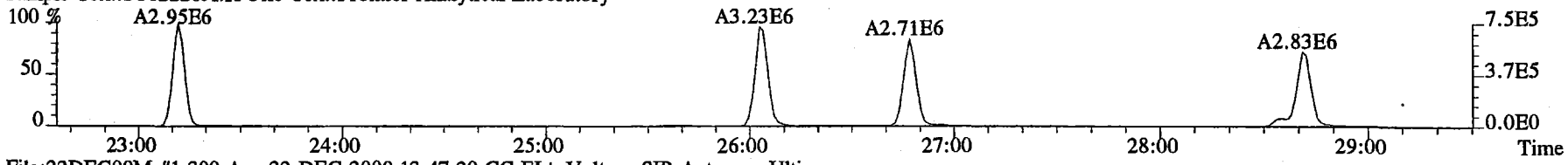


File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
454.9728 F:5 Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

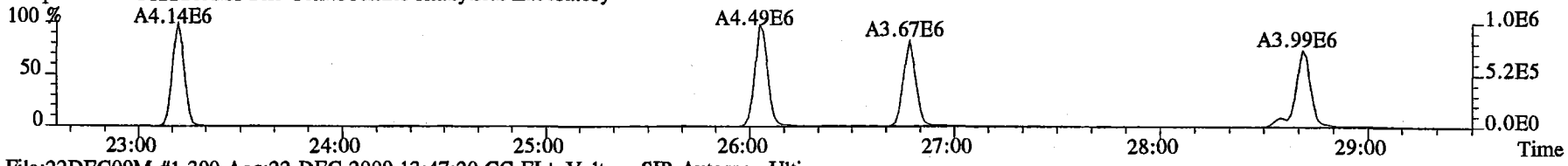


GB72:90654

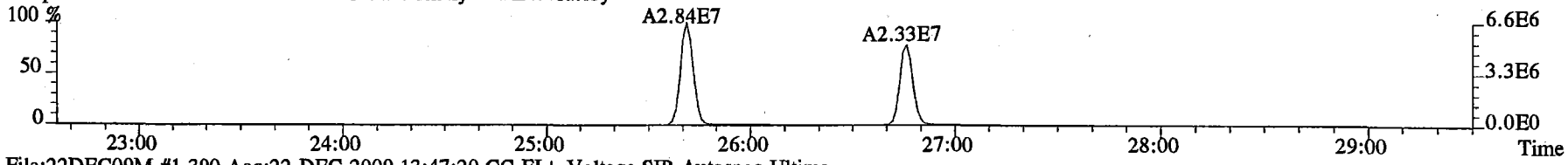
File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



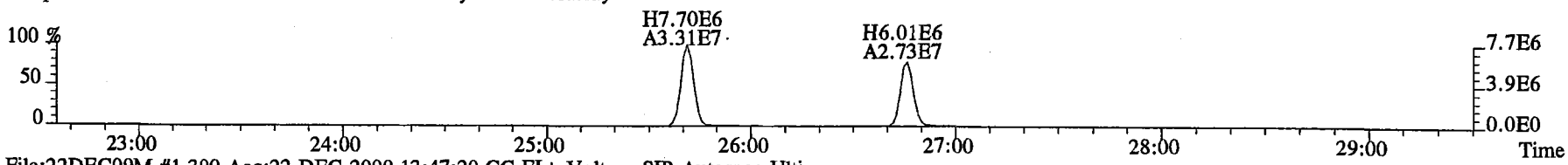
File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



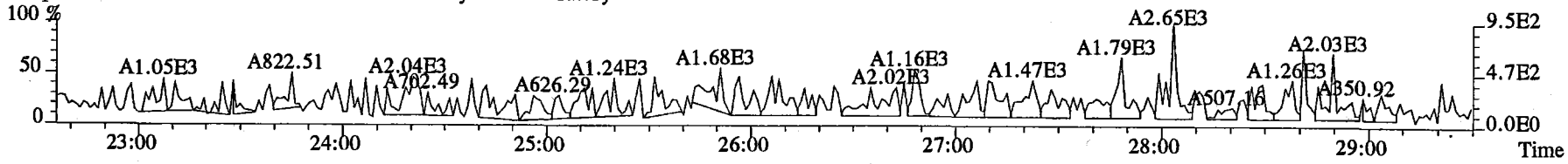
File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 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:ST122209M1 File Text:Frontier Analytical Laboratory

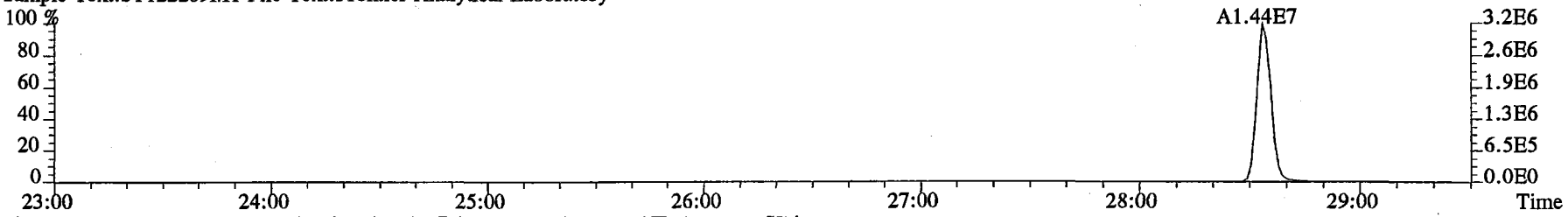


File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

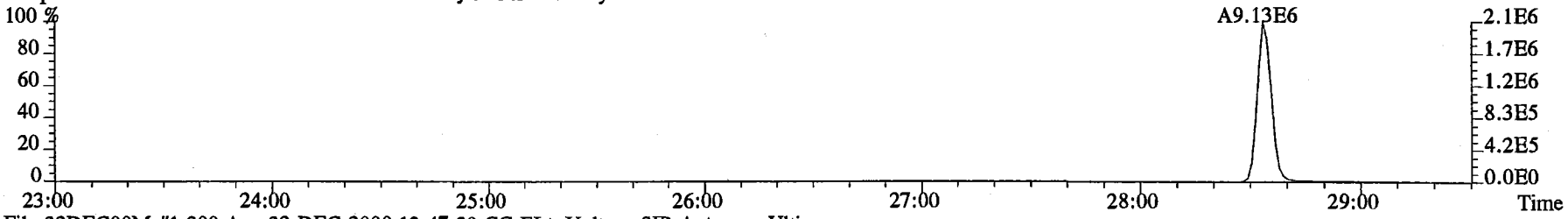


QB72:00655

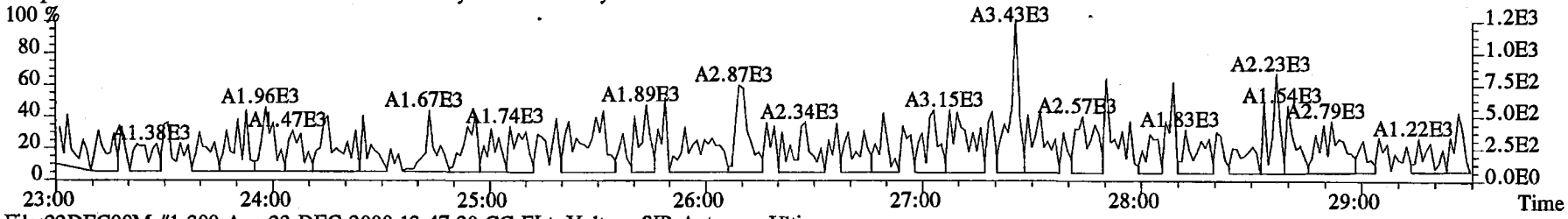
File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



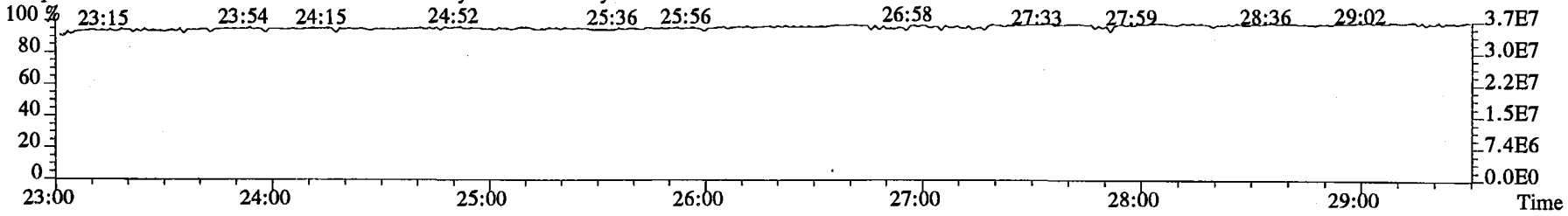
File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 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:ST122209M1 File Text:Frontier Analytical Laboratory

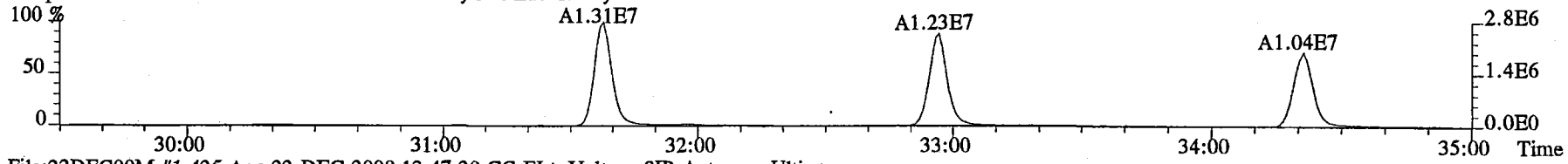


File:22DEC09M #1-390 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
330.9792 Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

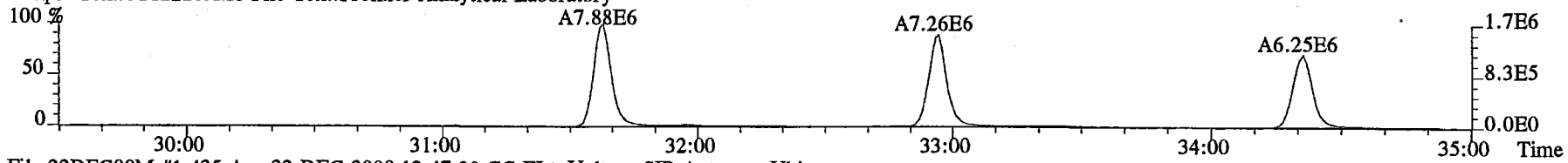


QB72:00556

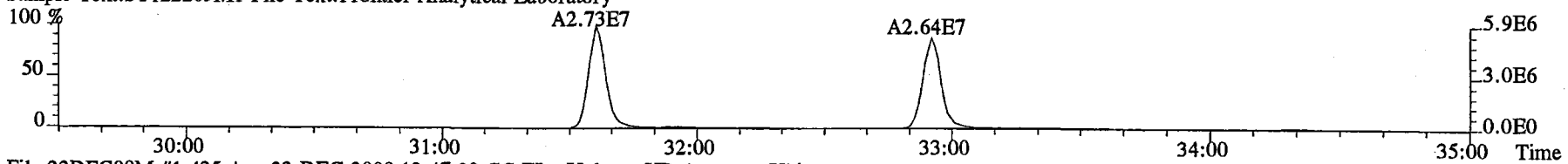
File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



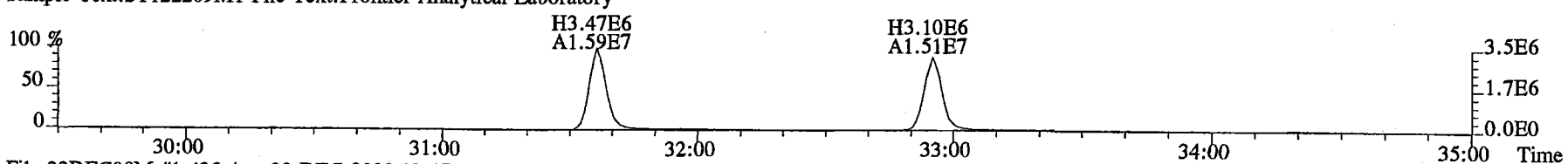
File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



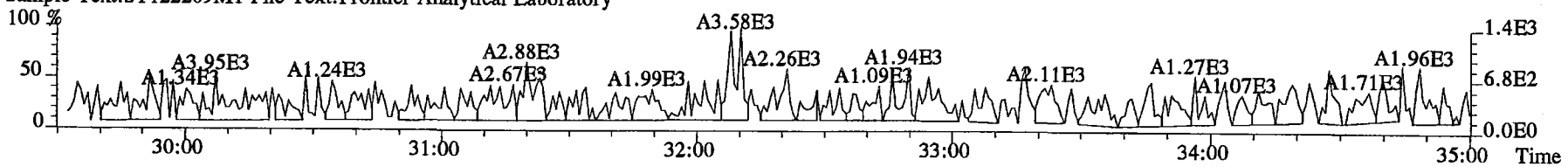
File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
353.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

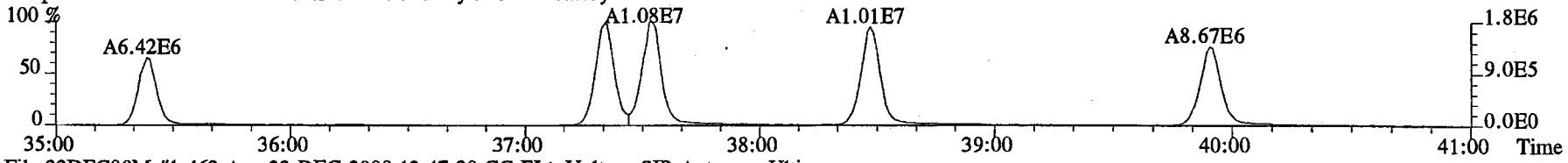


File:22DEC09M #1-425 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

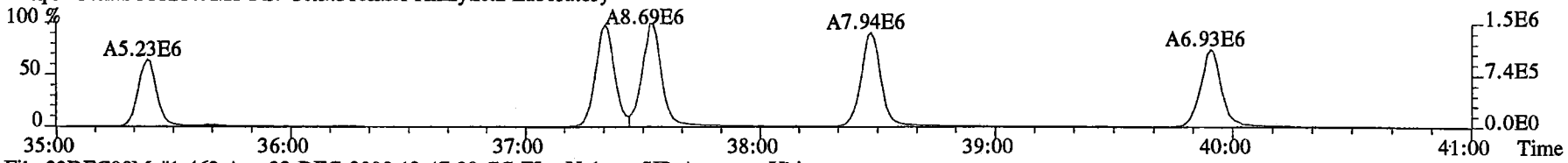


QB72:99657

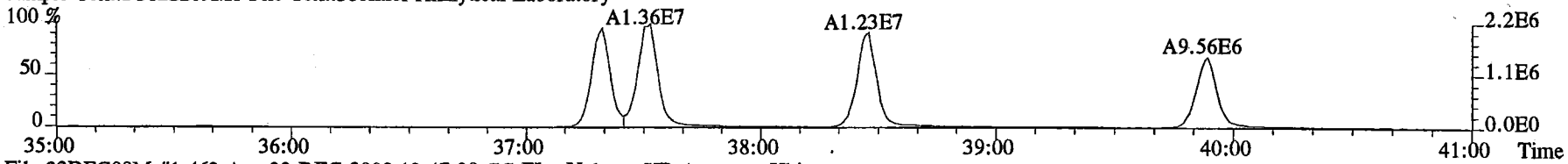
File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



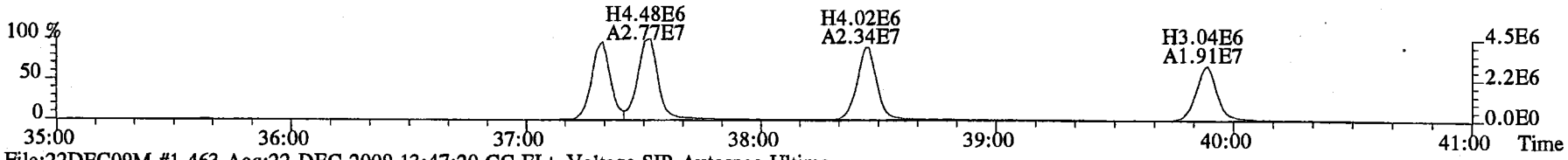
File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



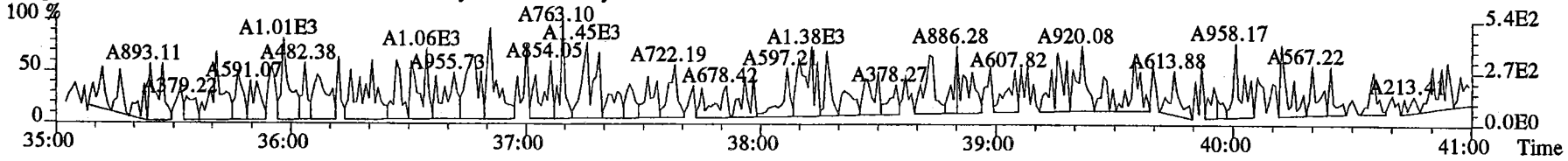
File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

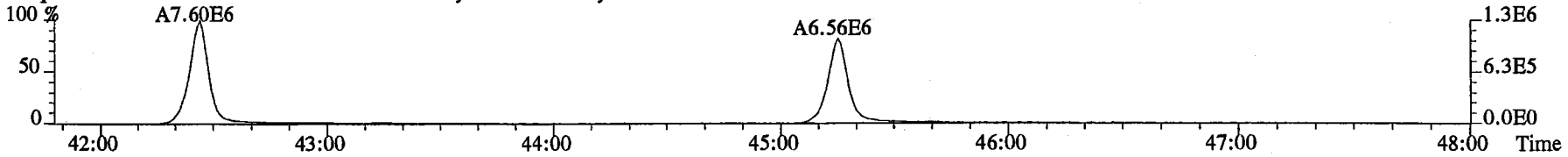


File:22DEC09M #1-463 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

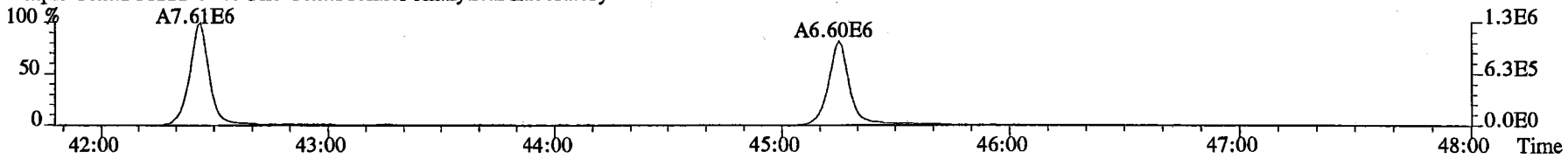


GB72:09658

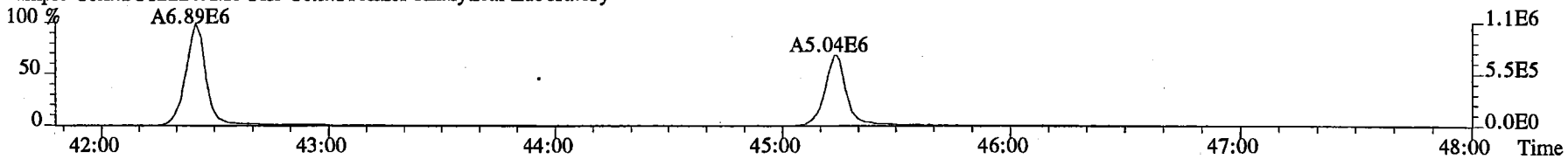
File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



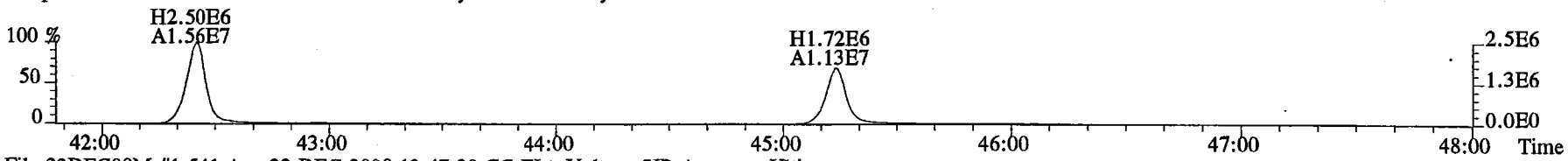
File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



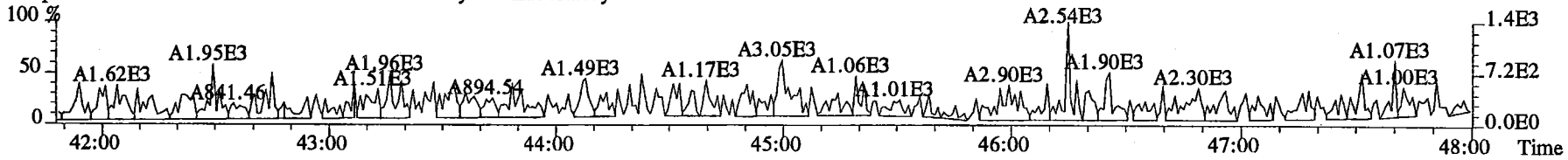
File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

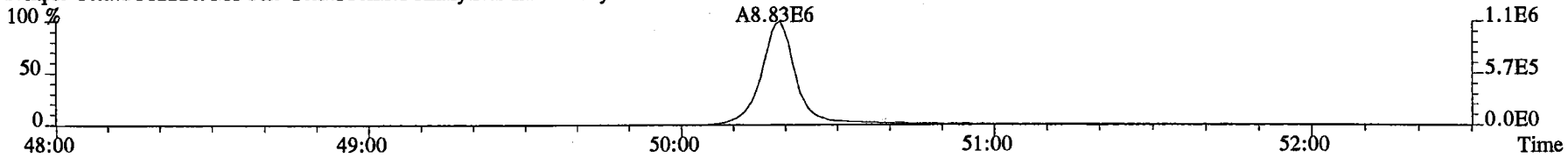


File:22DEC09M #1-541 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

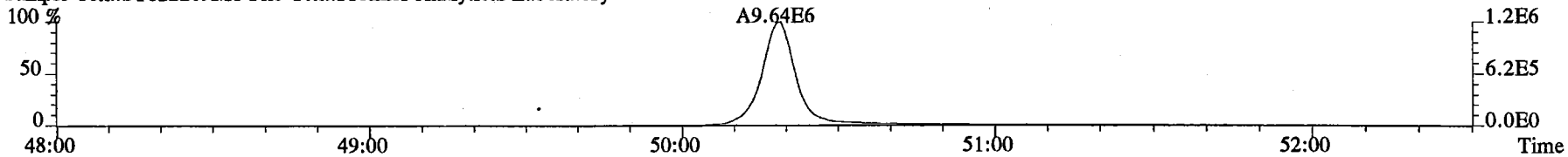


QB72:06659

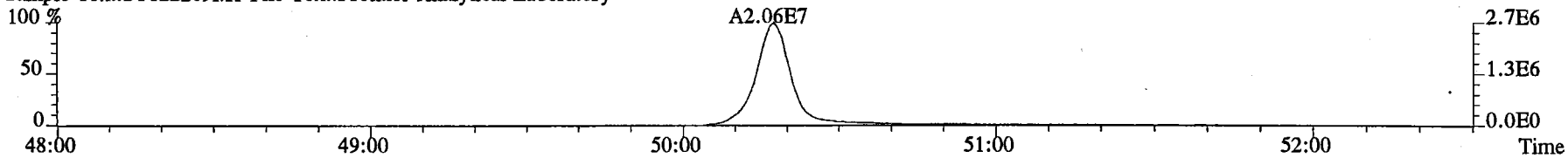
File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



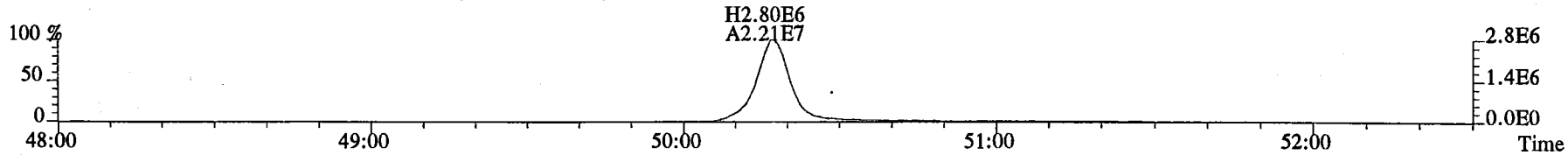
File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



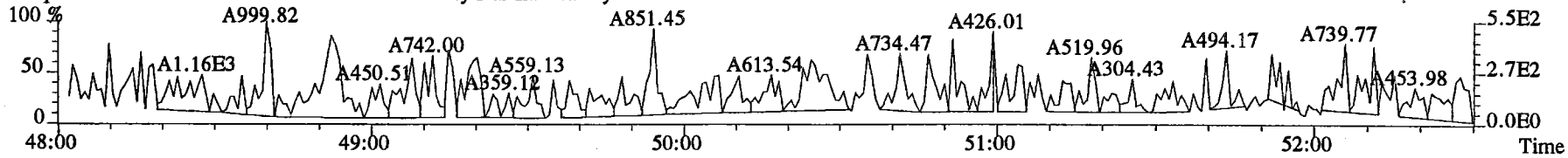
File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

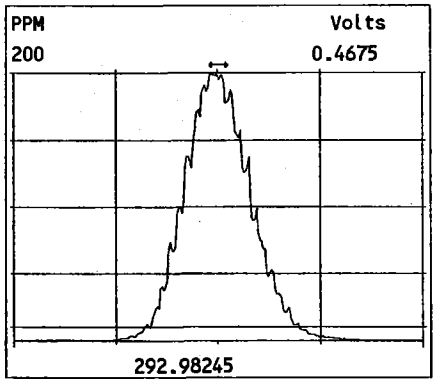


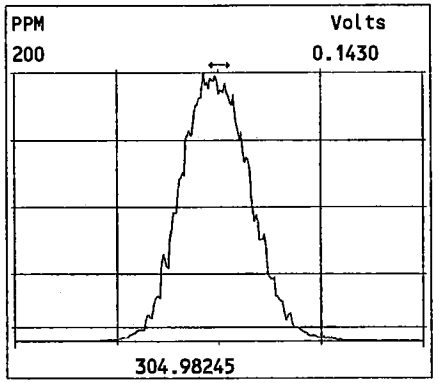
File:22DEC09M #1-348 Acq:22-DEC-2009 13:47:20 GC EI+ Voltage SIR Autospec-Ultima
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M1 File Text:Frontier Analytical Laboratory

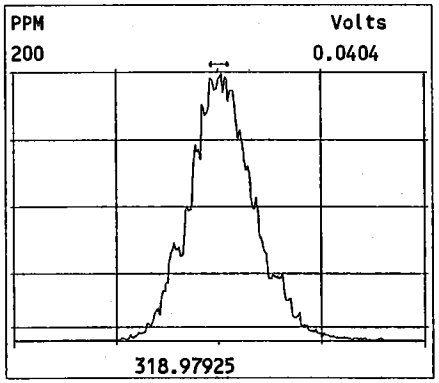


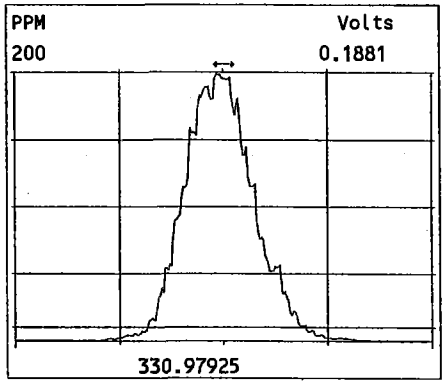
QB72:99660

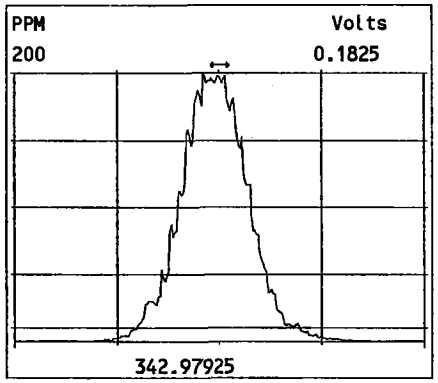
Peak Locate Examination:23-DEC-2009:01:49 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:1 Reference:PFK

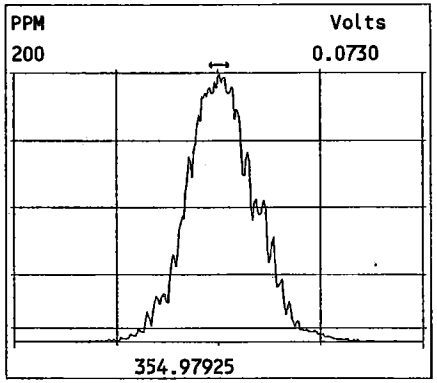


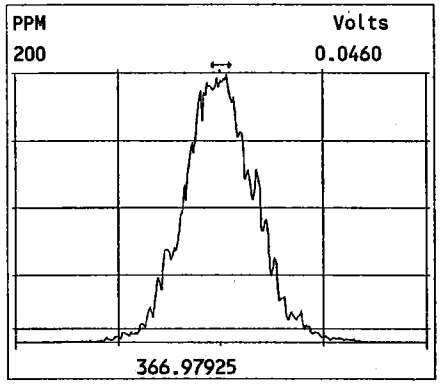


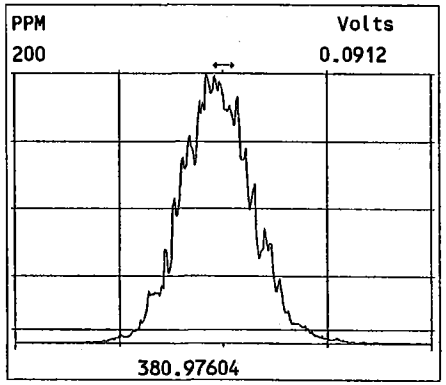


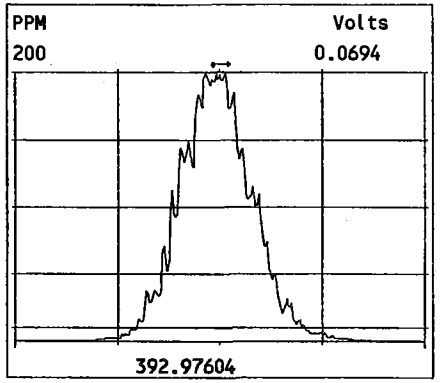


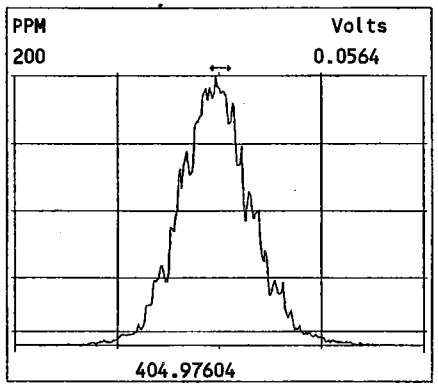


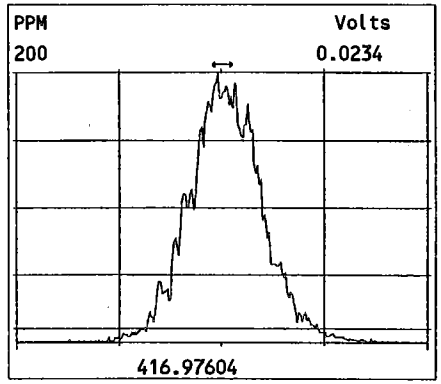






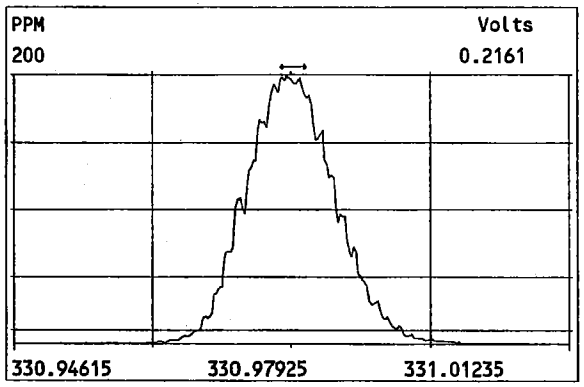


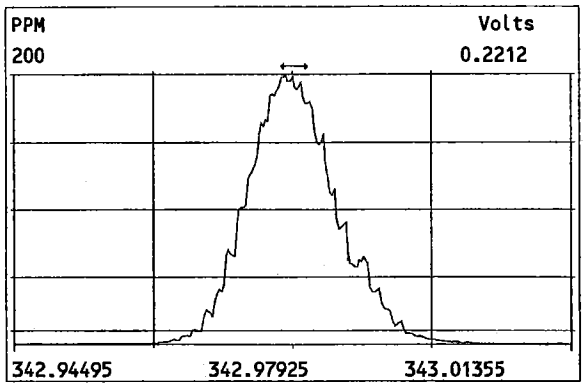


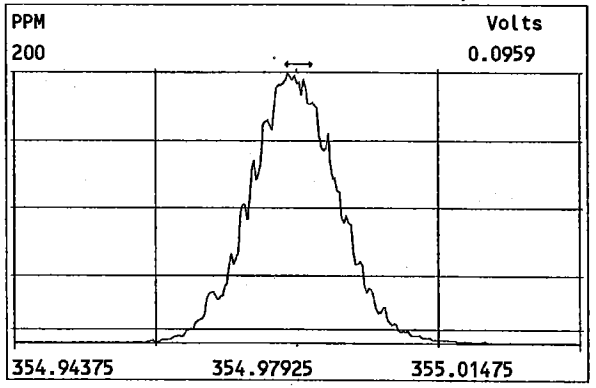


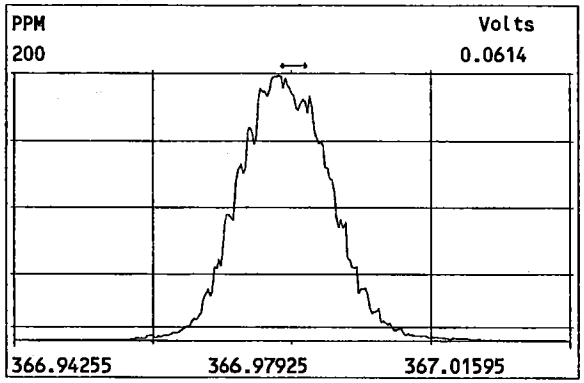
QB72:00661

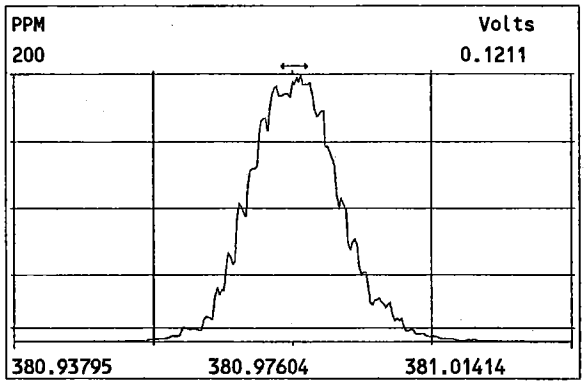
Peak Locate Examination:23-DEC-2009:01:51 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:2 Reference:PFK

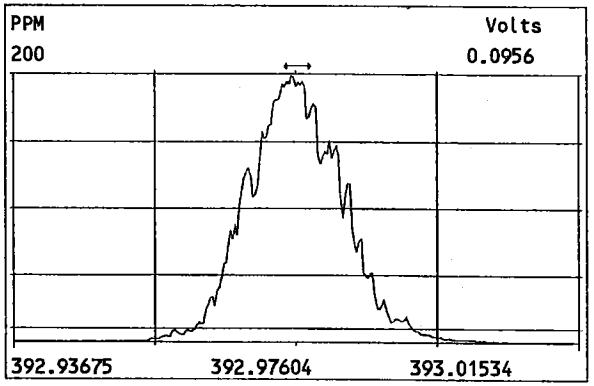


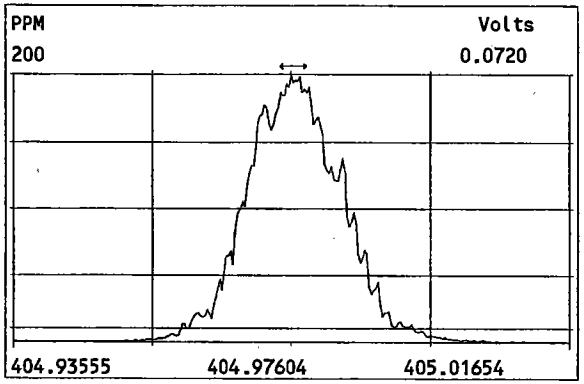


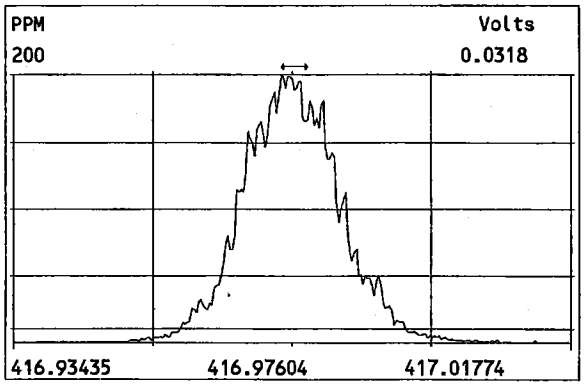






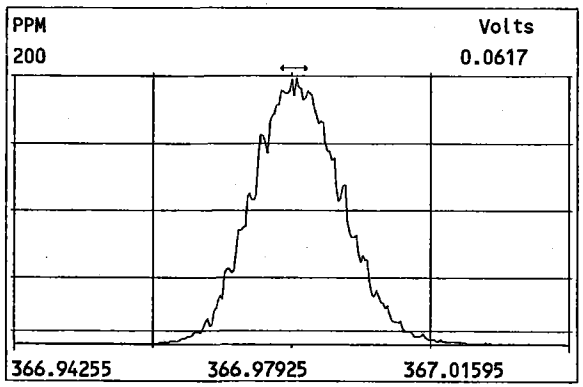


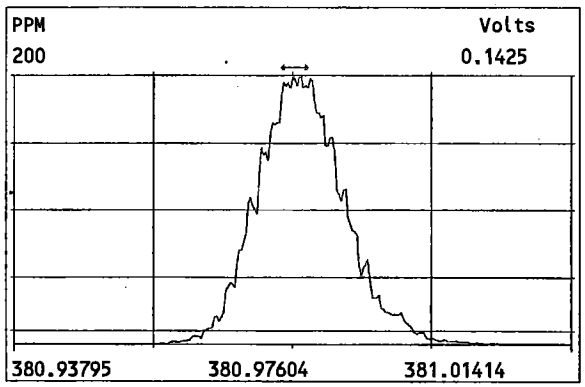


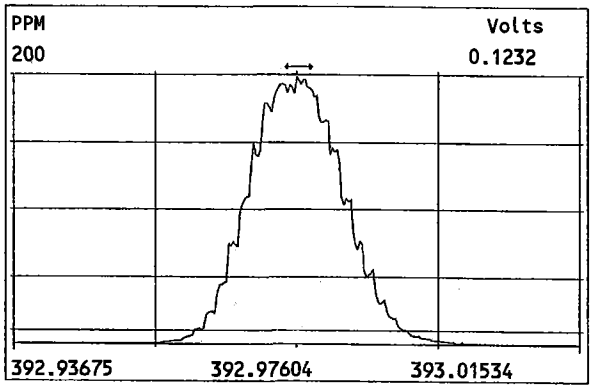


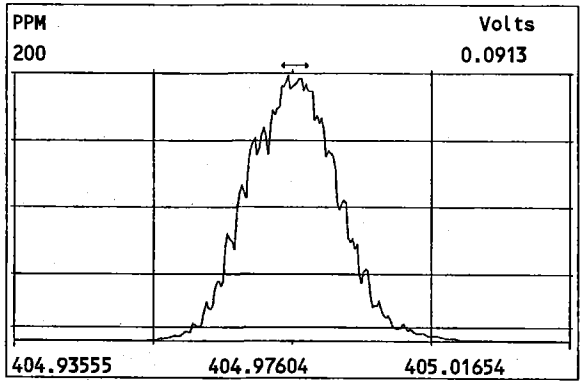
QB72:00662

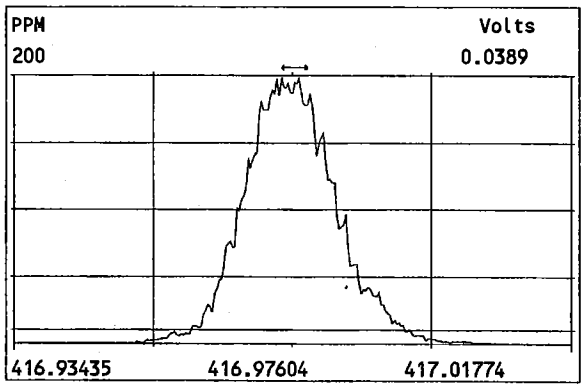
Peak Locate Examination:23-DEC-2009:01:53 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:3 Reference:PFK

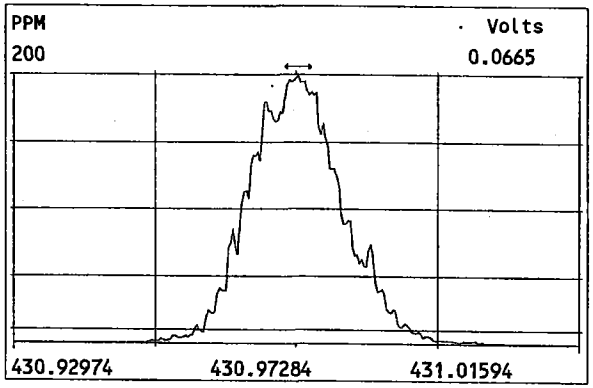


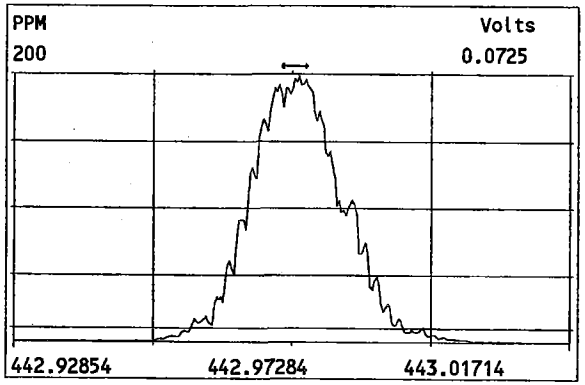


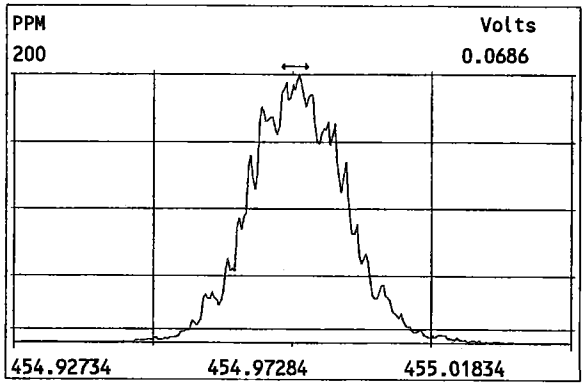






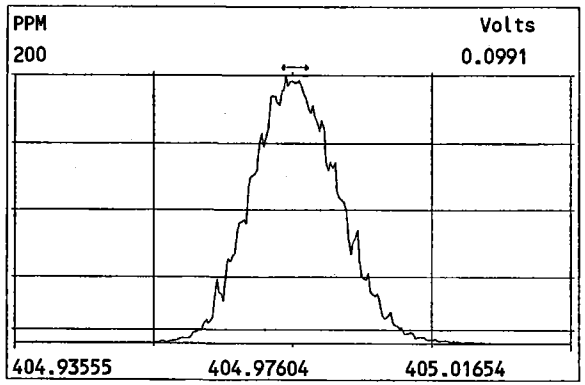


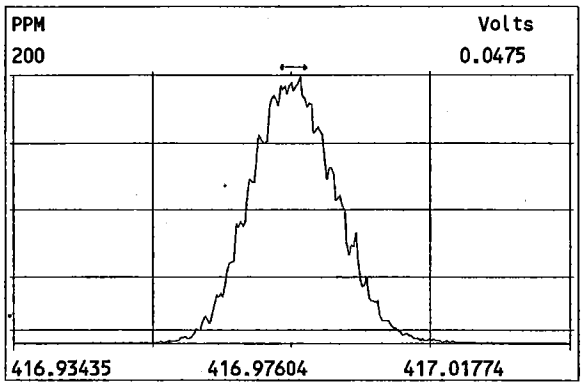


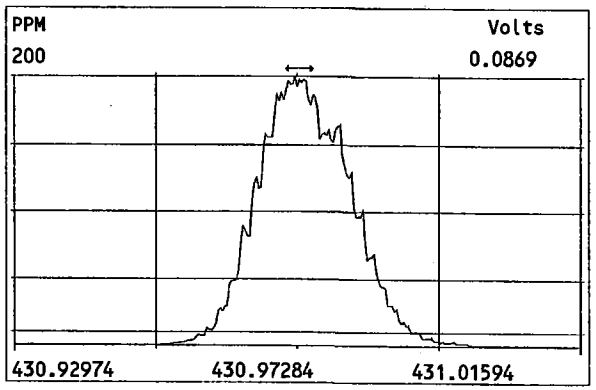


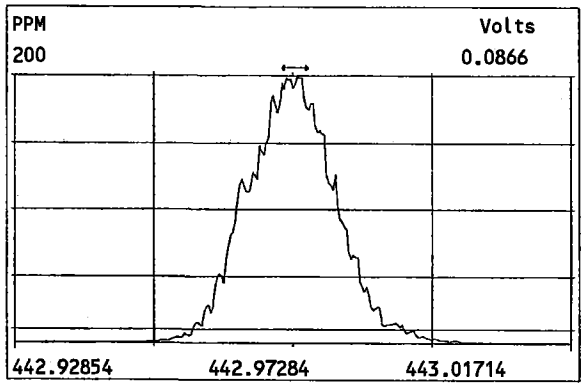
QB72:00668

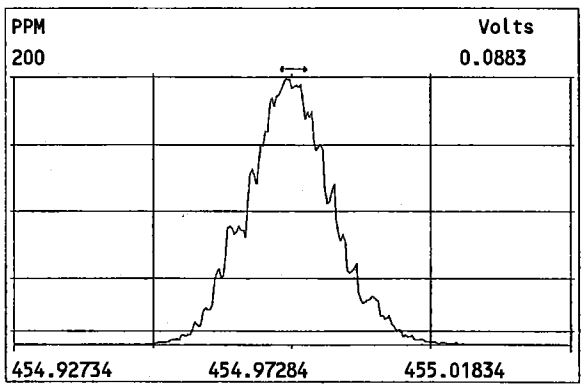
Peak Locate Examination:23-DEC-2009:01:55 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:4 Reference:PFK

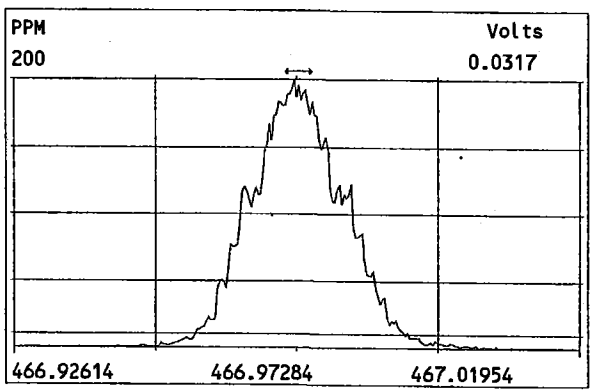


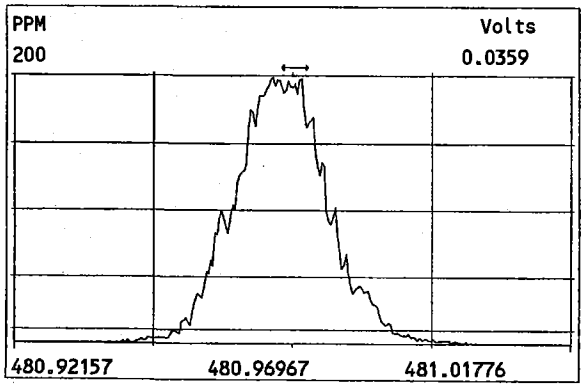






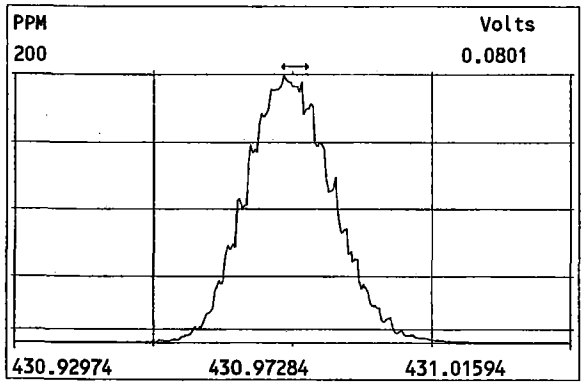


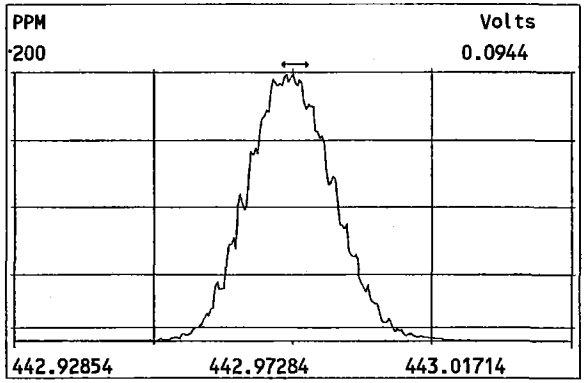


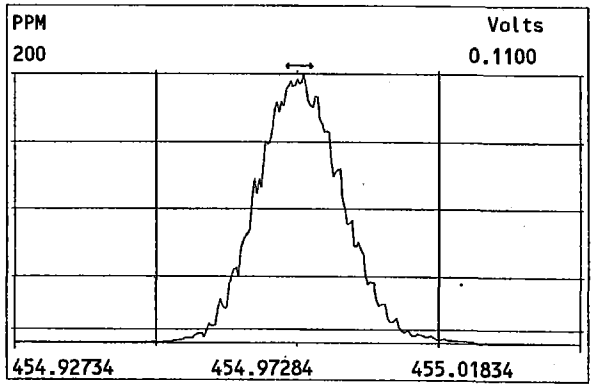


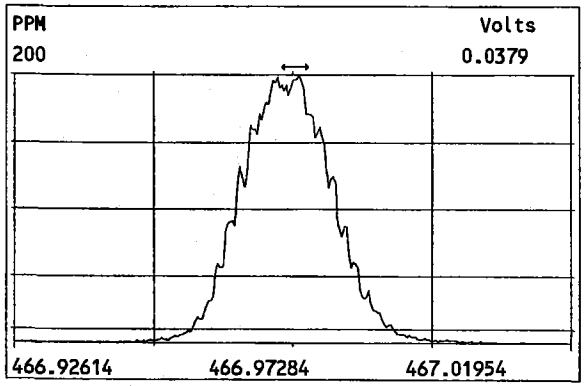
QB72:00664

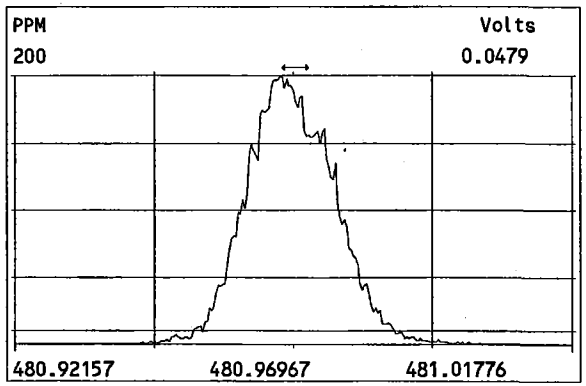
Peak Locate Examination:23-DEC-2009:01:57 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:5 Reference:PFK

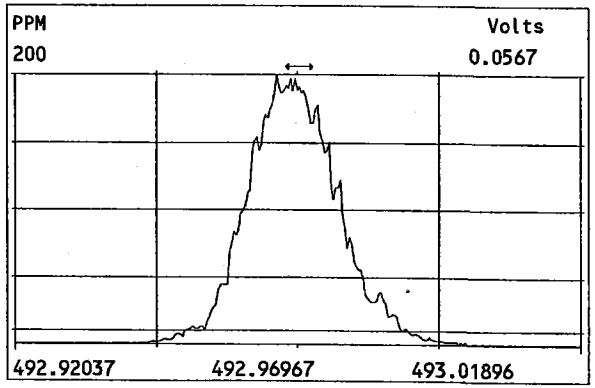


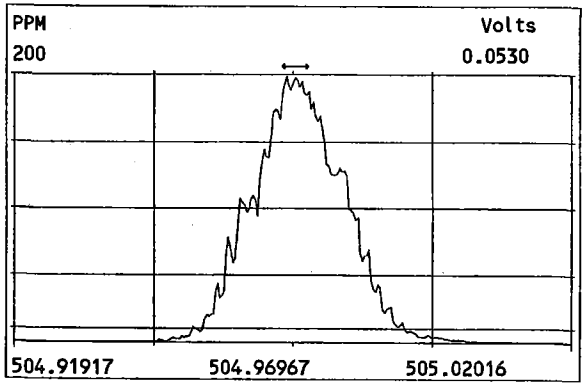


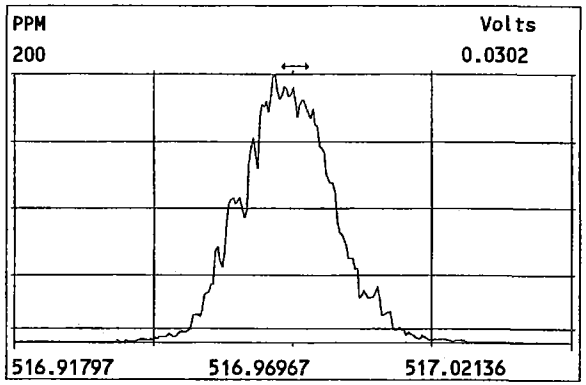












USEPA - ITD

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 22DEC09M Sam:13 Analysis Date: 23-DEC-09 00:50:48

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	0.81	0.65-0.89	y	10.1	7.80 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	y	48.7	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	47.3	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	48.8	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	y	52.3	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.97	0.88-1.20	y	50.4	43.0 - 58.0
OCDD	M+2/M+4	0.93	0.76-1.02	y	99.6	79.0 - 126
2,3,7,8-TCDF	M/M+2	0.69	0.65-0.89	y	9.62	8.40 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.65	1.32-1.78	y	53.9	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.62	1.32-1.78	y	52.2	41.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	50.9	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	y	51.6	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	y	51.3	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.29	1.05-1.43	y	51.5	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	51.5	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.00	0.88-1.20	y	51.0	43.0 - 58.0
OCDF	M+2/M+4	0.93	0.76-1.02	y	103	63.0 - 159

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

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

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

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

QB72:00665

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

VER Data Filename: 22DEC09M Sam:13 Analysis Date: 23-DEC-09 00:50:48

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL) (3)
LABELED COMPOUNDS						
13C-2,3,7,8-TCDD	M/M+2	0.73	0.65-0.89	y	99.1	82.0 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.78	1.32-1.78	y	85.7	62.0 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	98.0	85.0 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	92.6	85.0 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	90.1	72.0 - 138
13C-OCDD	M+2/M+4	0.97	0.76-1.02	y	163	96.0 - 415
13C-2,3,7,8-TCDF	M/M+2	0.86	0.65-0.89	y	96.9	71.0 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.77	1.32-1.78	y	86.8	76.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.75	1.32-1.78	y	85.4	77.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y	92.4	76.0 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	91.5	70.0 - 143
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.49	0.43-0.59	y	92.1	73.0 - 137
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.51	0.43-0.59	y	88.7	74.0 - 135
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	90.7	78.0 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	88.2	77.0 - 129
13C-OCDF	M+2/M+4	0.95	0.76-1.02	y	154	96.0 - 415
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.61	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: 12/23/09

QB72:00666

FORM 5
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: FAL3 Initial Calibration Date: 11/18/09

RT Window Data Filename: 22DEC09M Sam:13 Analysis Date: 23-DEC-09 Time: 00:50:48

DB-5 IS Data Filename: 22DEC09M Sam:13 Analysis Date: 23-DEC-09 Time: 00:50:48

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)	24:31	1,3,6,8-TCDF (F)	23:09
1,2,8,9-TCDD (L)	28:26	1,2,8,9-TCDF (L)	28:39
1,2,4,7,9-PeCDD (F)	30:21	1,3,4,6,8-PeCDF (F)	28:31
1,2,3,8,9-PeCDD (L)	33:55	1,2,3,8,9-PeCDF (L)	34:19
1,2,4,6,7,9-HxCDD (F)	36:14	1,2,3,4,6,8-HxCDF (F)	35:22
1,2,3,7,8,9-HxCDD (L)	39:19	1,2,3,7,8,9-HxCDF (L)	39:53
1,2,3,4,6,7,9-HpCDD (F)	42:56	1,2,3,4,6,7,8-HpCDF (F)	42:25
1,2,3,4,6,7,8-HpCDD (L)	44:19	1,2,3,4,7,8,9-HpCDF (L)	45:13

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

==========

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

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

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

Analyst: _____ Date: 12/23/09

QB72:00667

USEPA - ITD

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 23-DEC-09 00:50:48 CS3 or VER Data Filename: 22DEC09M Sam:13

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	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: _____ Date: 12/23/09

QB72 : 00668

USEPA - ITD

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.: Init. Cal. Date: 11/18/09

Instrument ID: FAL3 GC Column ID: DB5

Analysis Date: 23-DEC-09 00:50:48 CS3 or VER Data Filename: 22DEC09M Sam:13

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.012	1.000-1.019
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.985	0.977-1.000
13C-1,2,3,6,7,8-HxCDD		0.989	0.981-1.003
13C-1,2,3,4,7,8-HxCDF		0.949	0.944-0.970
13C-1,2,3,6,7,8-HxCDF		0.954	0.949-0.975
13C-2,3,4,6,7,8-HxCDF		0.978	0.959-1.021
13C-1,2,3,7,8,9-HxCDF		1.014	0.977-1.047
13C-1,2,3,4,6,7,8-HpCDD		1.127	1.086-1.130
13C-1,2,3,4,6,7,8-HpCDF		1.079	1.043-1.085
13C-1,2,3,4,7,8,9-HpCDF		1.151	1.057-1.154
13C-OCDD		1.269	1.032-1.311
13C-OCDF		1.279	1.000-1.311

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

Analyst: _____ Date: 12/23/09

QB72:00669

FAL ID: ST122209M2 Filename: 22DEC09M Sam:13 Acquired: 23-DEC-09 00:50:48 ICal: PCDDFAL3-11-18-09
Client ID: 1613 CS3 090918J ConCal: ST122209M1 EndCal: ST122209M2
Results: GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 101
WHO 1998 Tox: 126 WHO 2005 Tox: 114

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	3.43e+06	0.81 y	27:30	1.02	10.1		2.50	-	-	*
1,2,3,7,8-PeCDD	1.46e+07	1.60 y	33:20	0.96	48.7		2.50	-	-	*
1,2,3,4,7,8-HxCDD	1.56e+07	1.25 y	38:42	1.37	47.3		2.50	-	-	*
1,2,3,6,7,8-HxCDD	1.41e+07	1.25 y	38:52	1.34	48.8		2.50	-	-	*
1,2,3,7,8,9-HxCDD	1.63e+07	1.25 y	39:19	1.37	52.3		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	1.18e+07	0.97 y	44:19	1.17	50.4		2.50	-	-	*
OCDD	1.64e+07	0.93 y	49:54	1.21	99.6		2.50	-	-	*
2,3,7,8-TCDF	6.52e+06	0.69 y	26:45	1.29	9.62		2.50	-	-	*
1,2,3,7,8-PeCDF	2.26e+07	1.65 y	31:35	0.89	53.9		2.50	-	-	*
2,3,4,7,8-PeCDF	2.13e+07	1.62 y	32:54	0.91	52.2		2.50	-	-	*
1,2,3,4,7,8-HxCDF	2.00e+07	1.24 y	37:19	1.00	50.9		2.50	-	-	*
1,2,3,6,7,8-HxCDF	2.15e+07	1.27 y	37:31	0.92	51.6		2.50	-	-	*
2,3,4,6,7,8-HxCDF	2.01e+07	1.26 y	38:27	0.99	51.3		2.50	-	-	*
1,2,3,7,8,9-HxCDF	1.86e+07	1.29 y	39:53	1.09	51.5		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	1.73e+07	1.01 y	42:25	1.36	51.5		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.52e+07	1.00 y	45:13	1.61	51.0		2.50	-	-	*
OCDF	1.94e+07	0.93 y	50:16	0.84	103		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	3.33e+07	0.73 y	27:29	0.94	99.1					99.1
13C-1,2,3,7,8-PeCDD	3.12e+07	1.78 y	33:18	1.02	85.7					85.7
13C-1,2,3,4,7,8-HxCDD	2.39e+07	1.29 y	38:41	0.98	98.0					98.0
13C-1,2,3,6,7,8-HxCDD	2.15e+07	1.29 y	38:51	0.94	92.6					92.6
13C-1,2,3,4,6,7,8-HpCDD	2.01e+07	1.05 y	44:18	0.90	90.1					90.1
13C-OCDD	2.70e+07	0.97 y	49:53	0.67	163					81.7
13C-2,3,7,8-TCDF	5.27e+07	0.86 y	26:44	0.88	96.9					96.9
13C-1,2,3,7,8-PeCDF	4.72e+07	1.77 y	31:34	0.88	86.8					86.8
13C-2,3,4,7,8-PeCDF	4.49e+07	1.75 y	32:53	0.85	85.4					85.4
13C-1,2,3,4,7,8-HxCDF	3.94e+07	0.50 y	37:17	1.72	92.4					92.4
13C-1,2,3,6,7,8-HxCDF	4.55e+07	0.49 y	37:29	2.00	91.5					91.5
13C-2,3,4,6,7,8-HxCDF	3.97e+07	0.49 y	38:25	1.74	92.1					92.1
13C-1,2,3,7,8,9-HxCDF	3.32e+07	0.51 y	39:52	1.51	88.7					88.7
13C-1,2,3,4,6,7,8-HpCDF	2.47e+07	0.45 y	42:23	1.10	90.7					90.7
13C-1,2,3,4,7,8,9-HpCDF	1.85e+07	0.45 y	45:13	0.85	88.2					88.2
13C-OCDF	4.49e+07	0.95 y	50:16	1.17	154					77.1
37Cl-2,3,7,8-TCDD	3.34e+06		27:30	0.97	9.61					96.1
13C-1,2,3,4-TCDD	3.57e+07	0.74 y	26:54	-	136					
13C-1,2,3,4-TCDF	6.19e+07	0.86 y	25:39	-	134					
13C-1,2,3,7,8,9-HxCDD	2.48e+07	1.29 y	39:18	-	121					

						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	1.88e+07		24:31	1.02	55.4	2.50	-	-	*		15
Total Penta-Dioxins	3.25e+07		30:21	0.96	108	2.50	-	-	*		17
Total Hexa-Dioxins	5.23e+07		36:14	1.36	169	2.50	-	-	*		14
Total Hepta-Dioxins	2.58e+07		42:56	1.17	110	2.50	-	-	*		15
Total Tetra-Furans	2.87e+07		23:09	1.29	42.4	2.50	-	-	*		15
1st Fn. Tot Penta-Furans	2.44e+07		28:31	0.90	59.0	2.50	-	-	*	PeCDF	1
Total Penta-Furans	6.29e+07		30:16	0.90	152	2.50	-	-	*	211	8
Total Hexa-Furans	9.41e+07		35:22	0.99	241	2.50	-	-	*		19
Total Hepta-Furans	3.29e+07		42:25	1.47	104	2.50	-	-	*		14

Analyst: _____ Date: 12/23/09

QB72:00570

Frontier Analytical Laboratory - Acquisition Log

Run Name:22DEC09M Instrument: FAL3 GC: DB5 Experiment:PCDD

Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
22DEC09M	1	ST122209M1	1613 CS3 090918J	22-DEC-09 13:47:20	ST122209M1	ST122209M2	BS
22DEC09M	2	1905-001-0001-OPR	OPR	22-DEC-09 14:42:38	ST122209M1	ST122209M2	BS
22DEC09M	3	1905-001-0001-MB	Method Blank	22-DEC-09 15:37:57	ST122209M1	ST122209M2	BS
22DEC09M	4	5879-001-0001-SA	Bridge	22-DEC-09 16:33:16	ST122209M1	ST122209M2	BS
22DEC09M	5	5879-002-0001-SA	TCC Linear	22-DEC-09 17:28:34	ST122209M1	ST122209M2	BS
22DEC09M	6	5877-001-0001-SA	002 R1	22-DEC-09 18:23:52	ST122209M1	ST122209M2	BS
22DEC09M	7	5877-002-0001-SA	002 R2	22-DEC-09 19:19:11	ST122209M1	ST122209M2	BS
22DEC09M	8	5878-001-0001-SA	9120577-01	22-DEC-09 20:14:25	ST122209M1	ST122209M2	BS
22DEC09M	9	5881-001-0001-SA	CB31A121509COMP	22-DEC-09 21:09:44	ST122209M1	ST122209M2	BS
22DEC09M	10	5881-002-0001-SA	CB4857121509COMP	22-DEC-09 22:04:59	ST122209M1	ST122209M2	BS
22DEC09M	11	5881-003-0001-SA	CB1121409COMP	22-DEC-09 23:00:14	ST122209M1	ST122209M2	BS
22DEC09M	12	SB122209M1	Solvent Blank	22-DEC-09 23:55:28	ST122209M1	ST122209M2	BS
22DEC09M	13	ST122209M2	1613 CS3 090918J	23-DEC-09 00:50:48	ST122209M1	ST122209M2	BS

6/12/23/05

Data Backed Up:_____

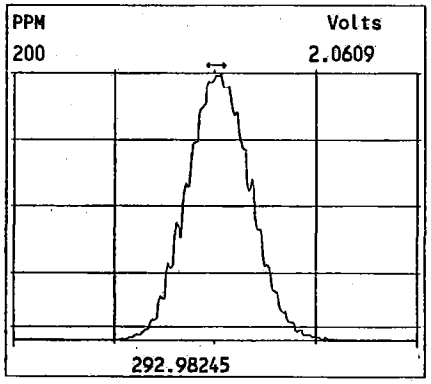
Date:_____

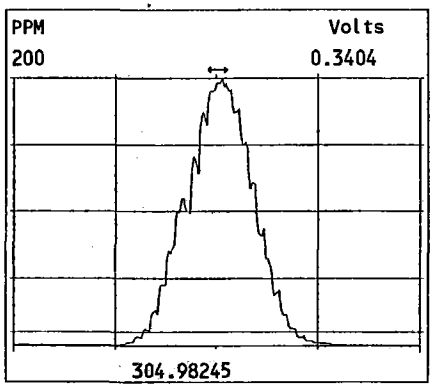
QB72:00671

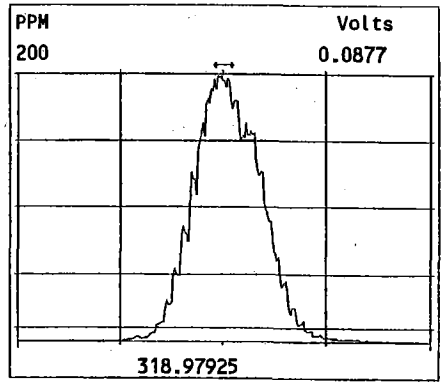
0872:00572

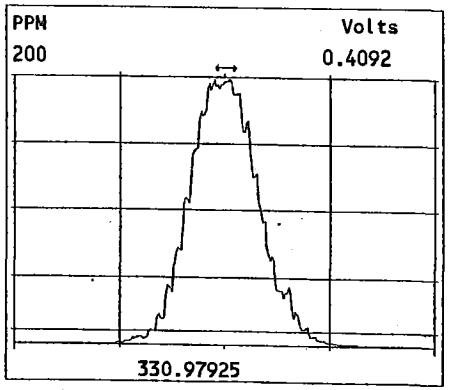
Peak Locate Examination:22-DEC-2009:13:45 File:22DEC09M

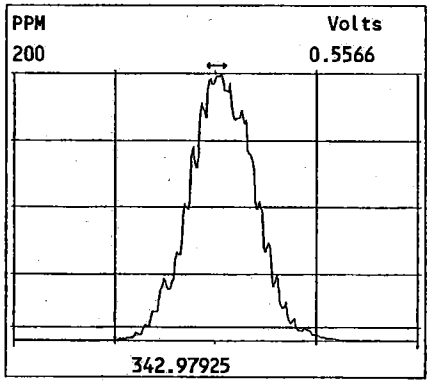
Experiment:PCDD Function:1 Reference:PFK

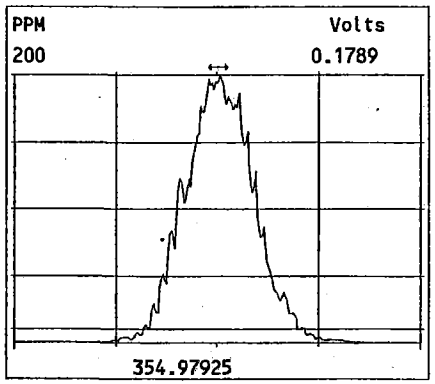


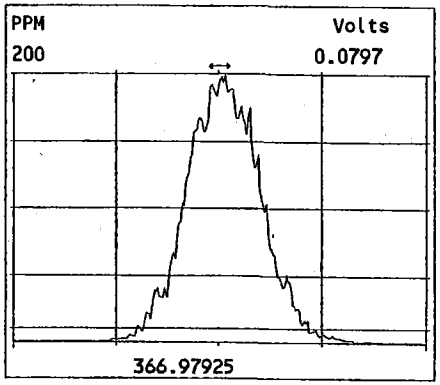


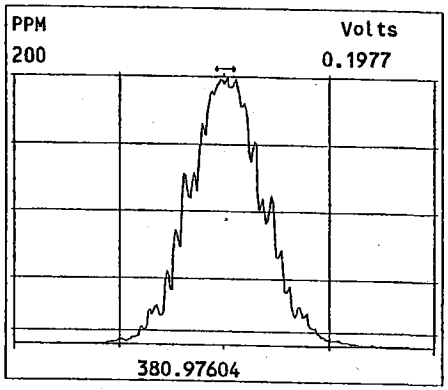


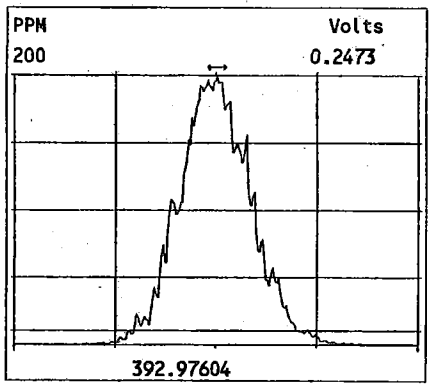


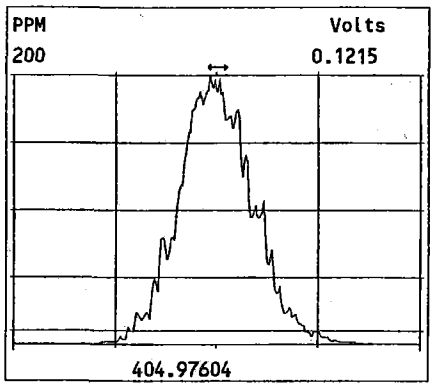


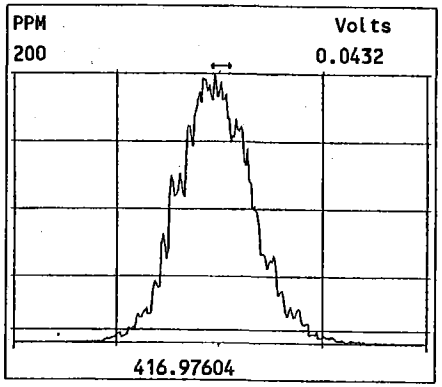






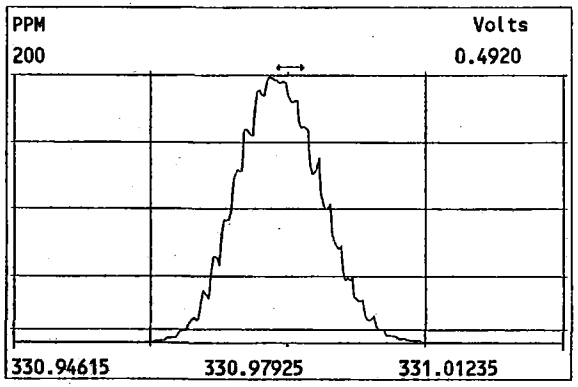


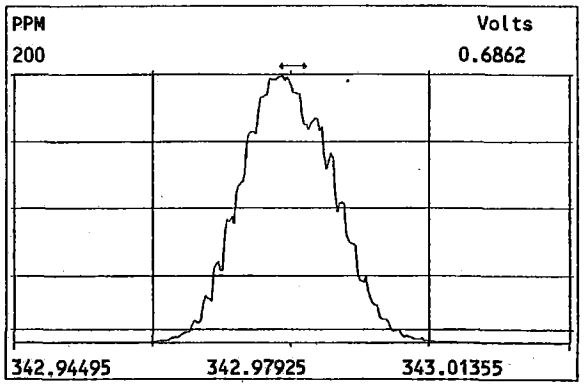


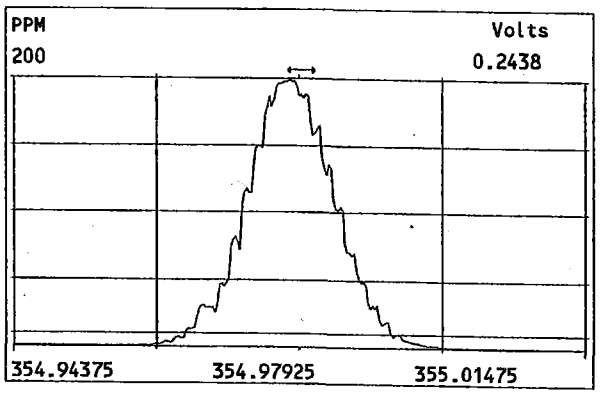


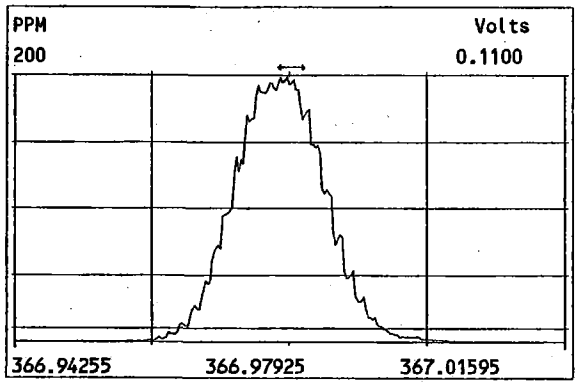
QB72:66673

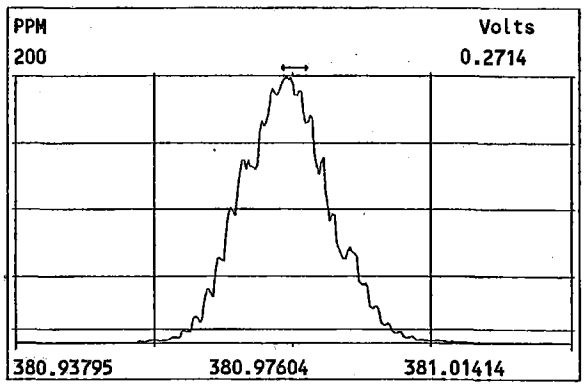
Peak Locate Examination:22-DEC-2009:13:45 File:22DEC09M
Experiment:PCDD Function:2 Reference:PFK

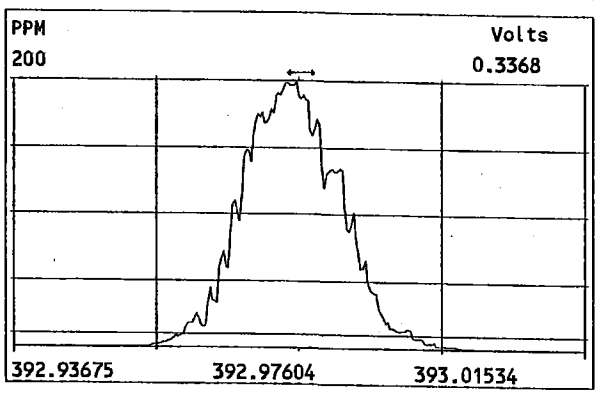


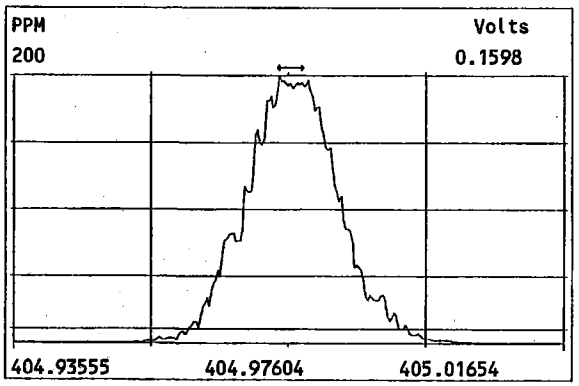


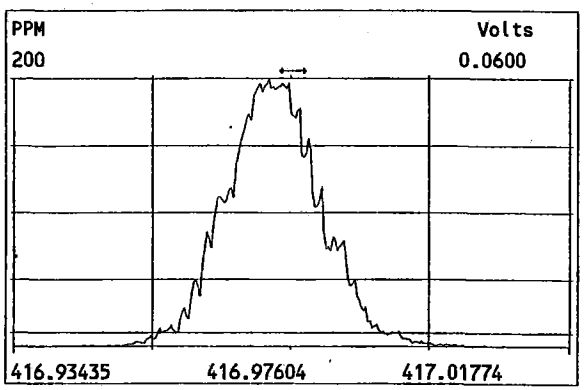




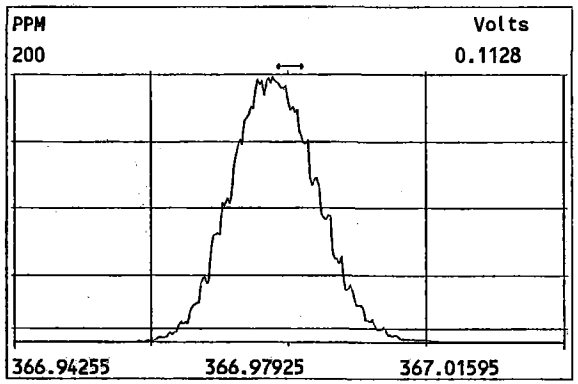


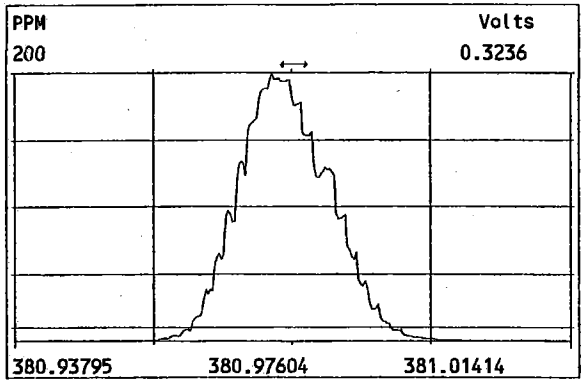


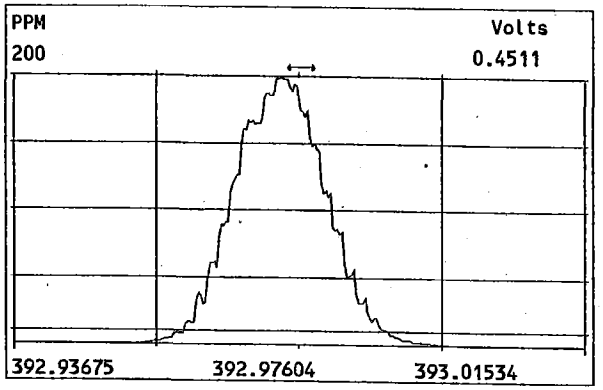


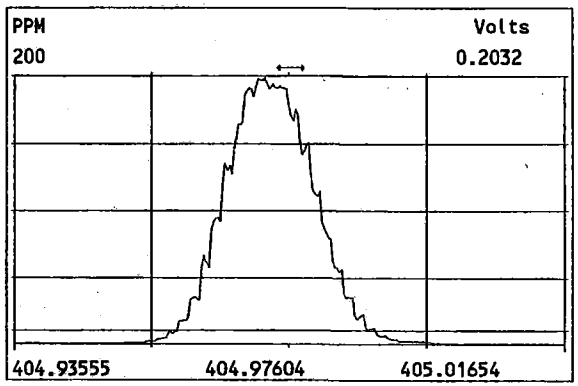


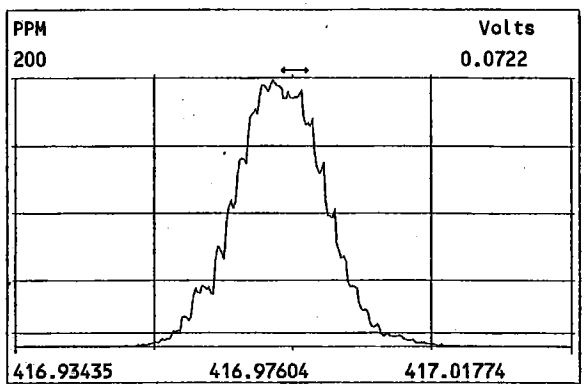
Peak Locate Examination:22-DEC-2009:13:46 File:22DEC09M
Experiment:PCDD Function:3 Reference:PFK

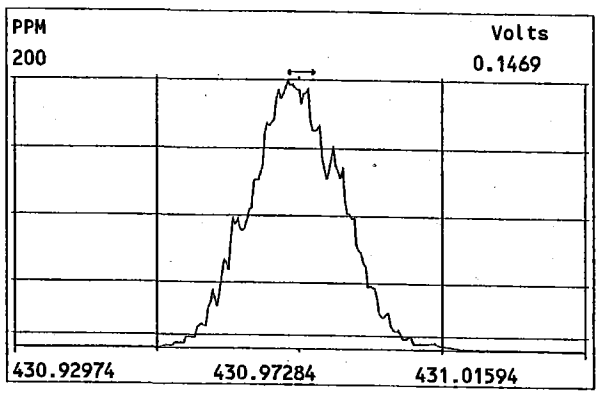


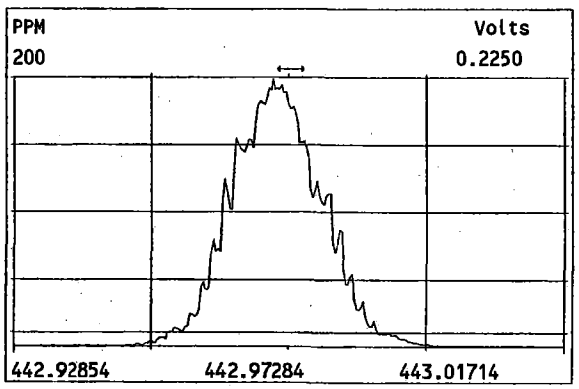


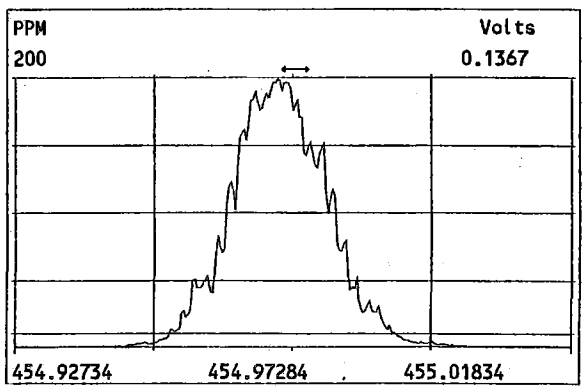






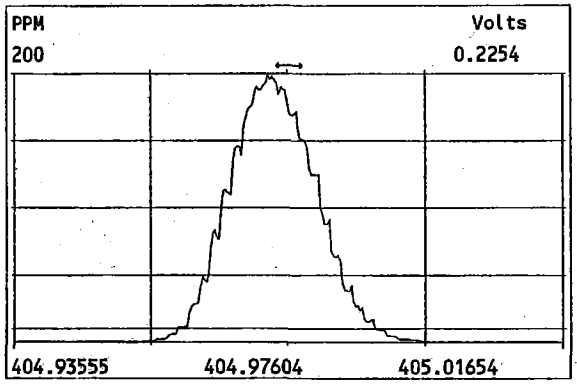


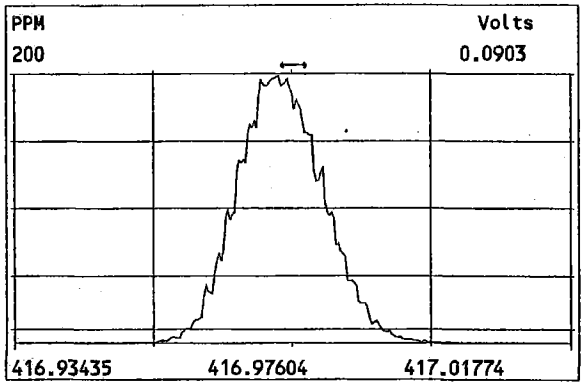


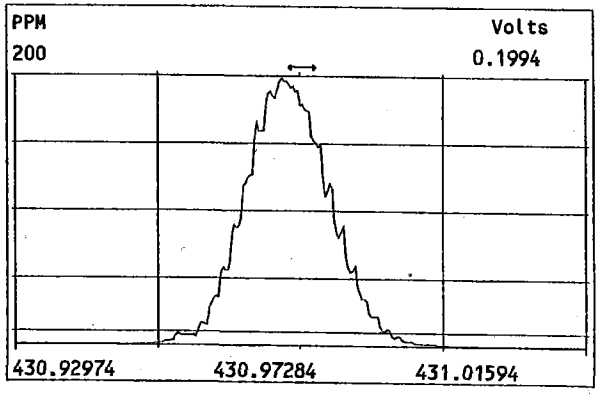


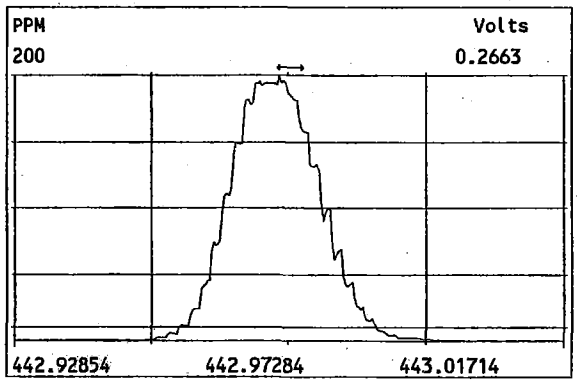
Peak Locate Examination:22-DEC-2009:13:46 File:22DEC09M

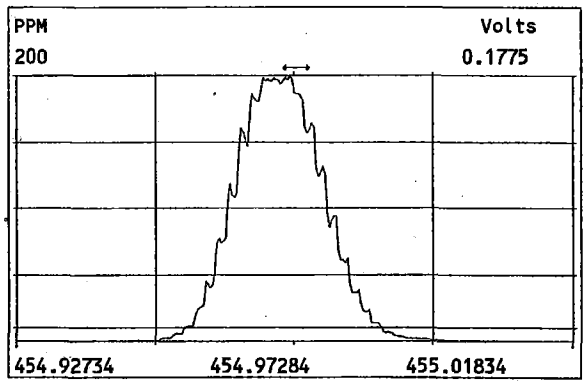
Experiment:PCDD Function:4 Reference:PFK

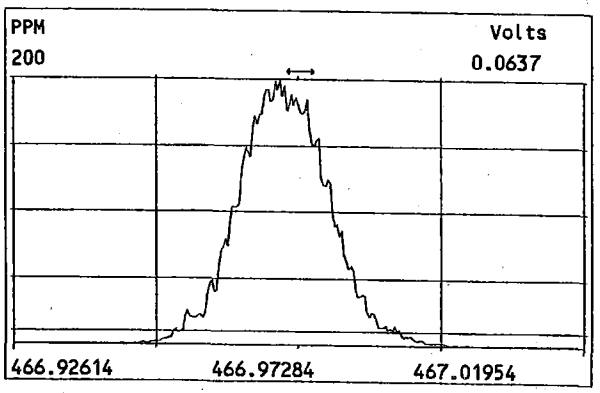


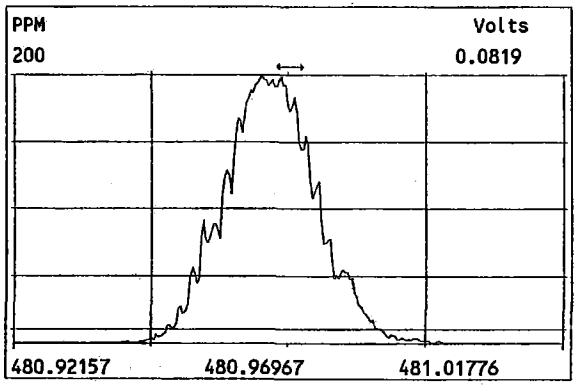




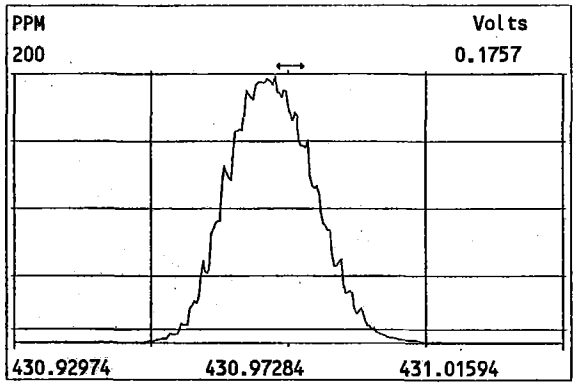


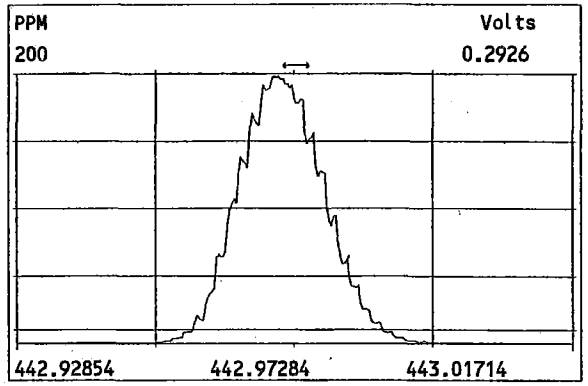


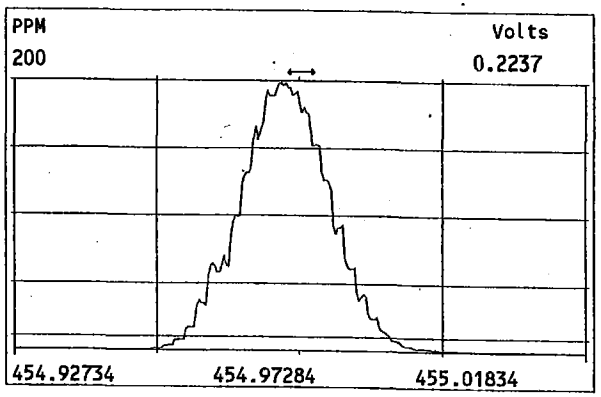


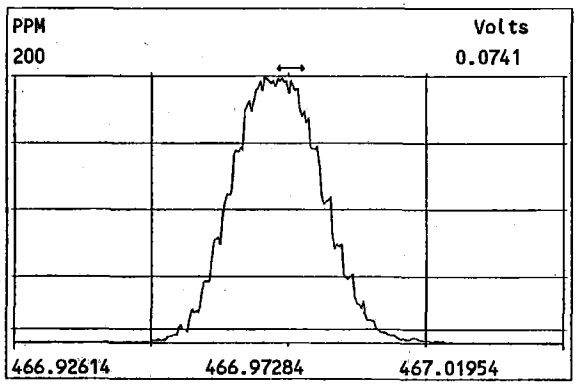


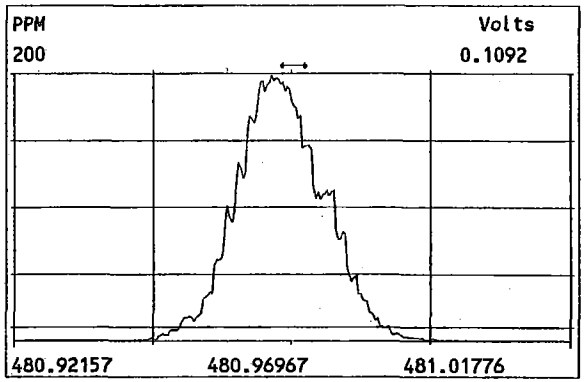
Peak Locate Examination:22-DEC-2009:13:46 File:22DEC09M
Experiment:PCDD Function:5 Reference:PFK

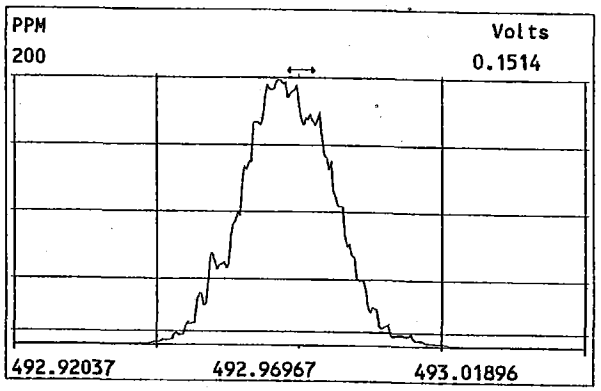


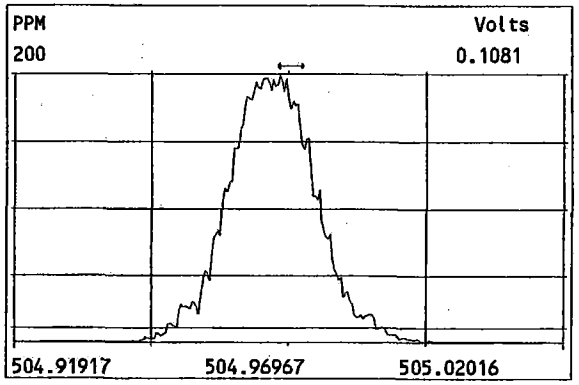


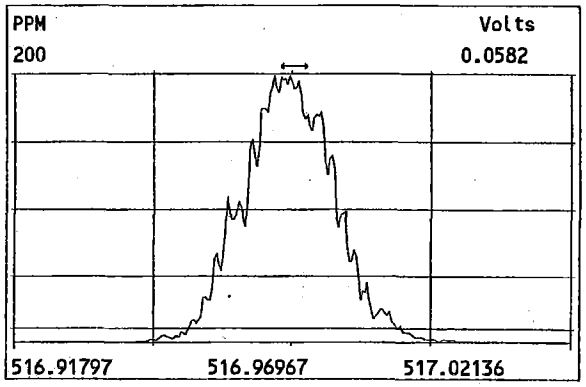












QB72:00677

File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:13 Exp:PCDD
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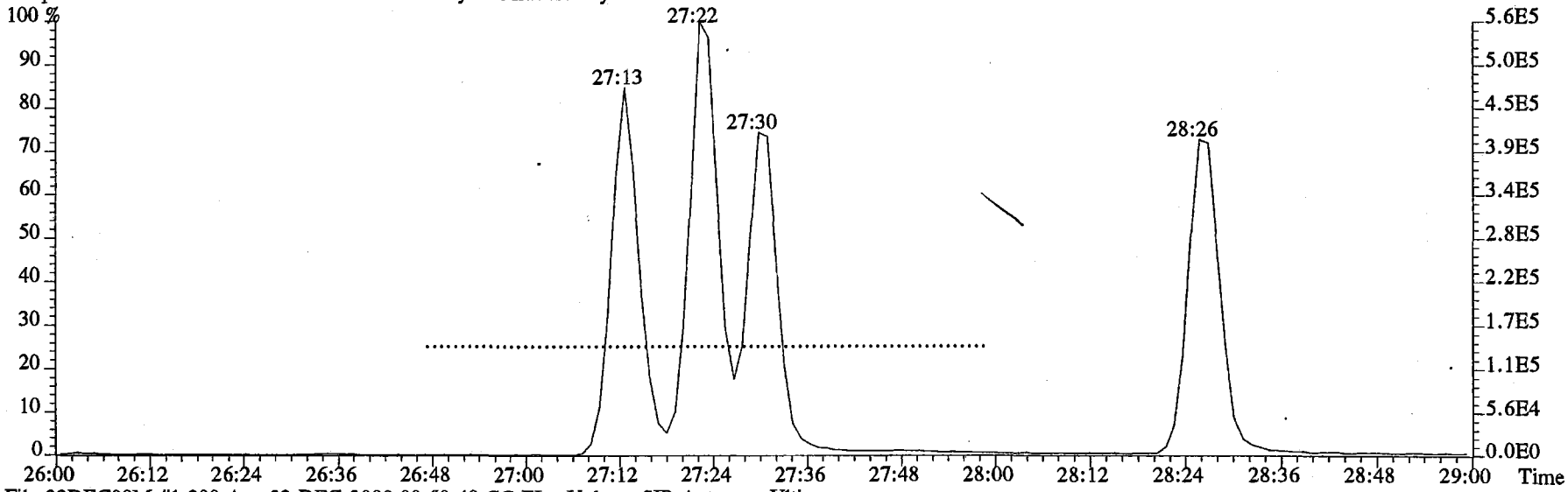

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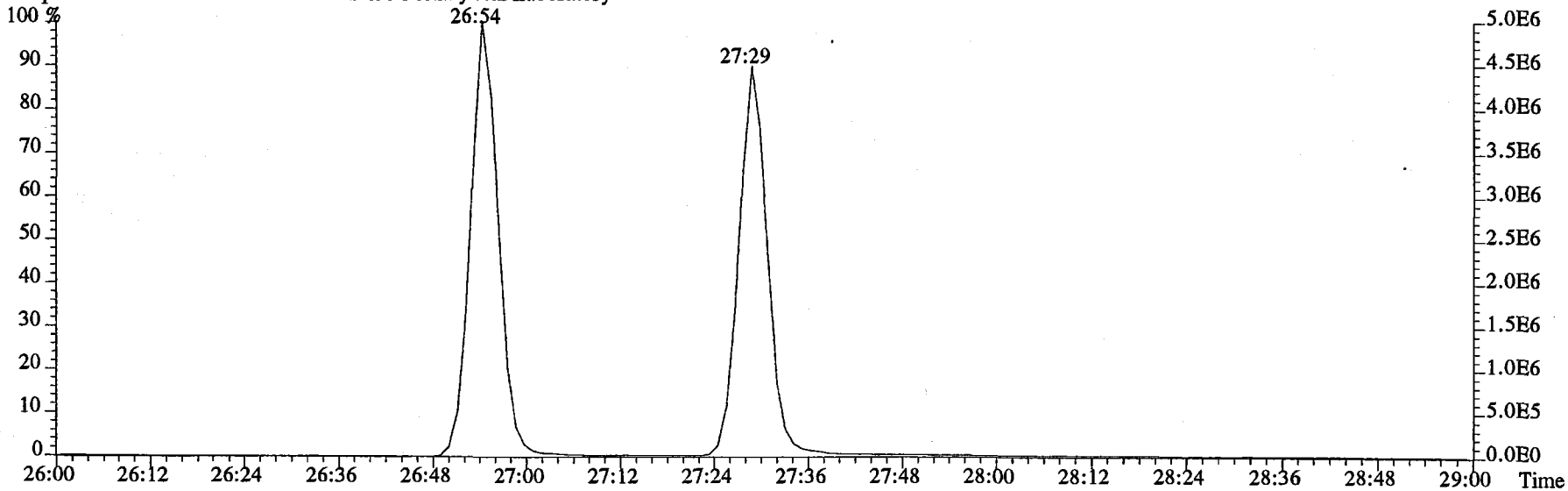

QB72:00678

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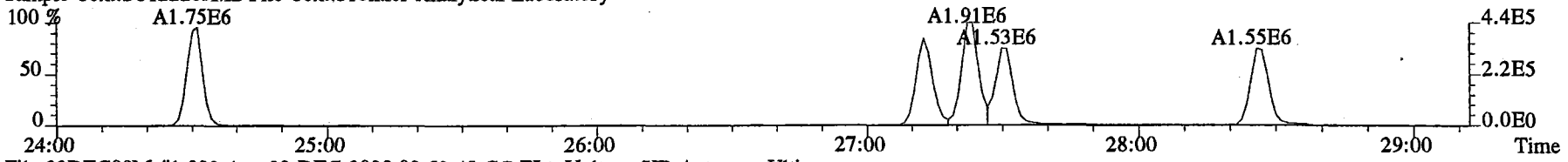
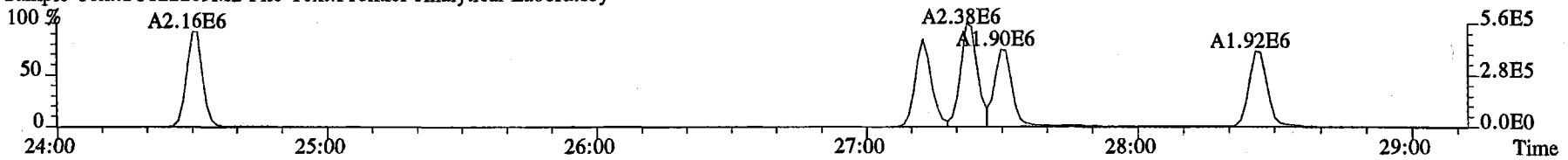
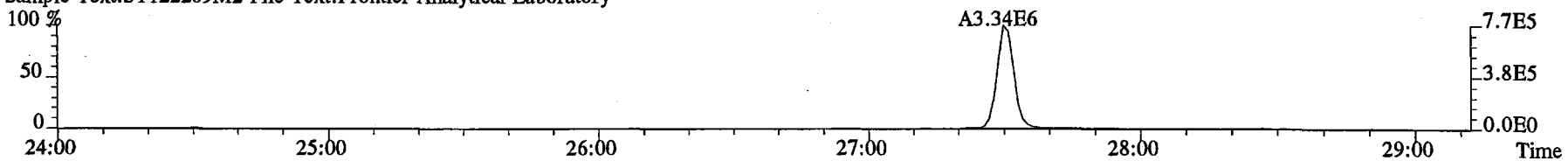
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



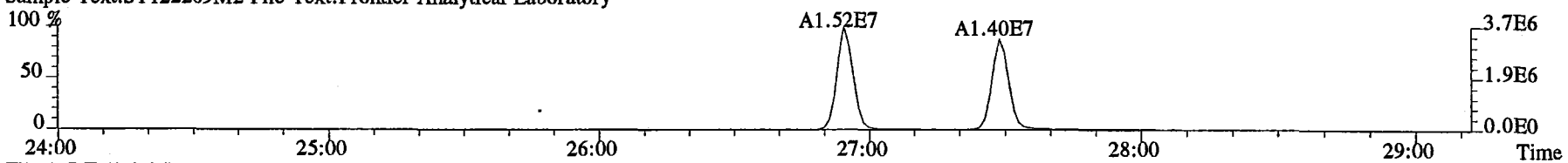
File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



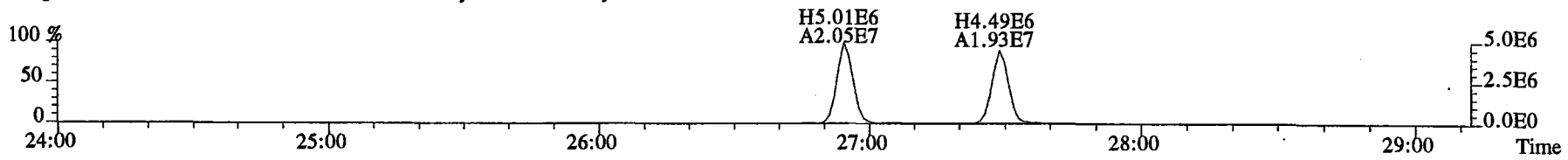
File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

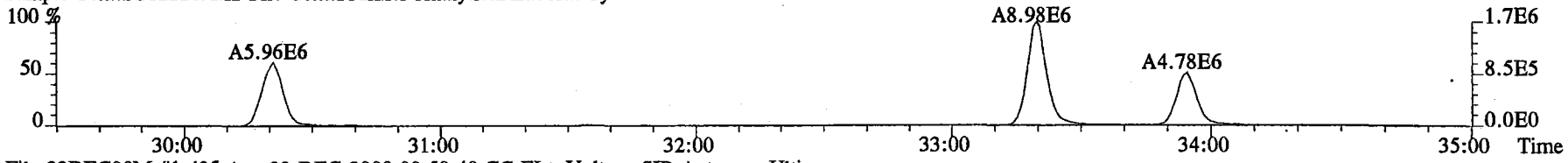


File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

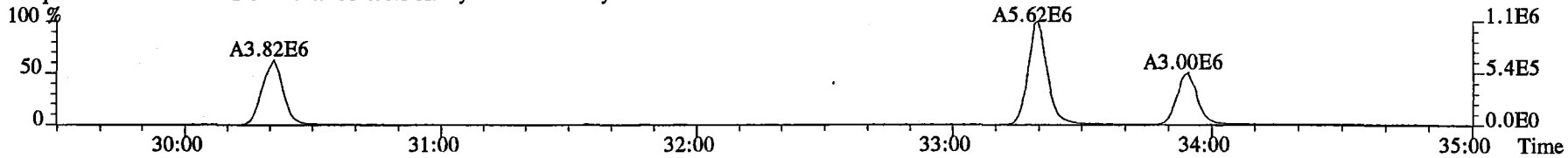


QB72:00679

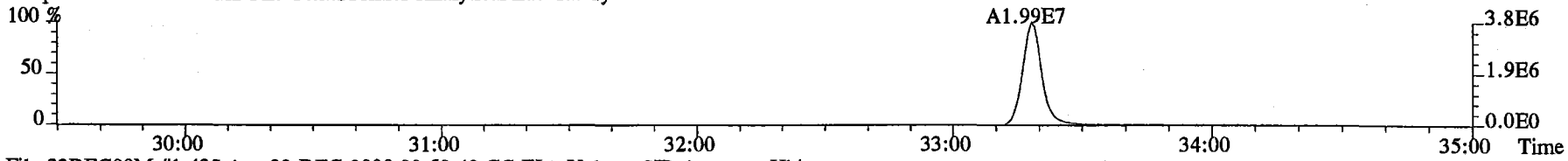
File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



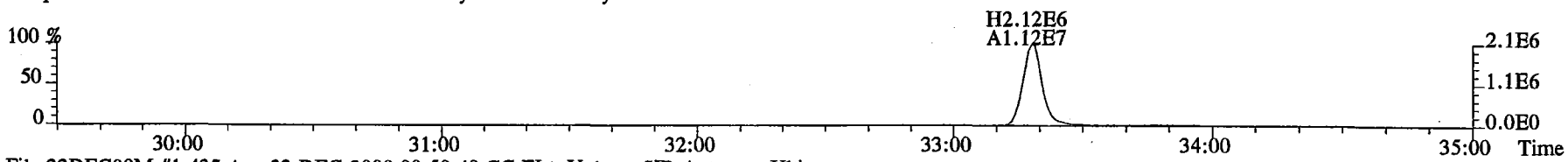
File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



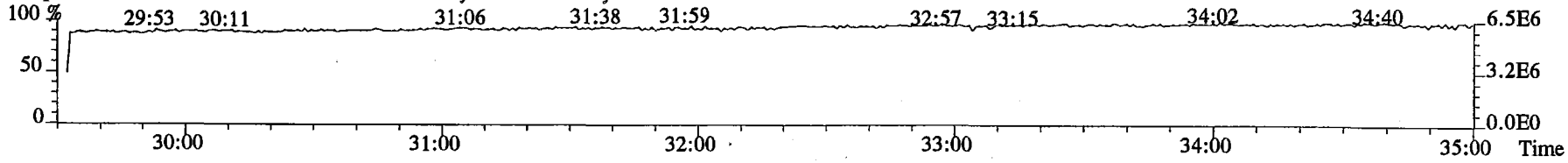
File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

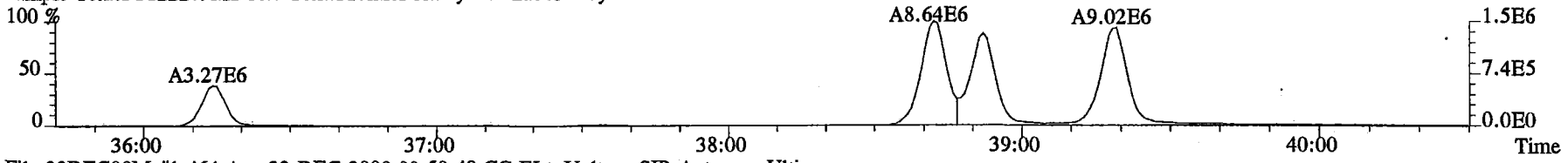


File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:13 F:2 Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

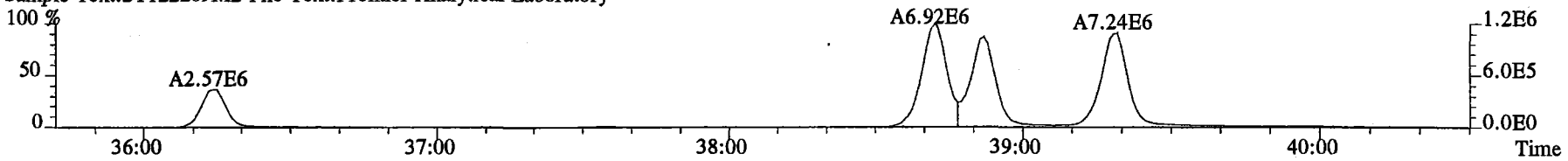


QB72-00689

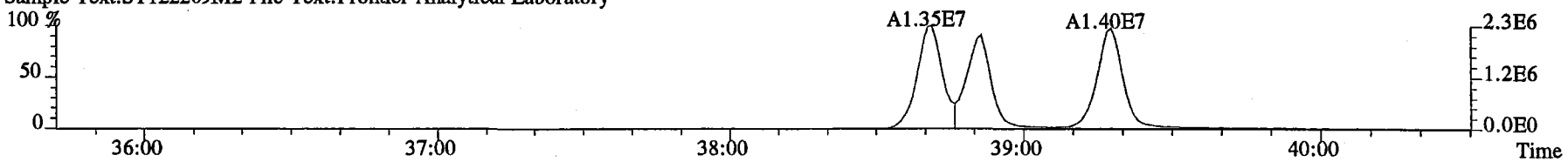
File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



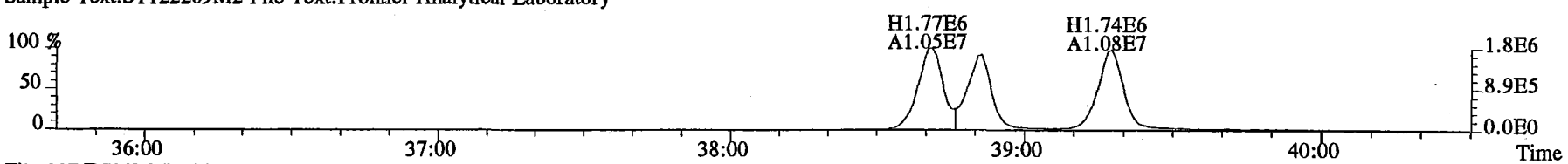
File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



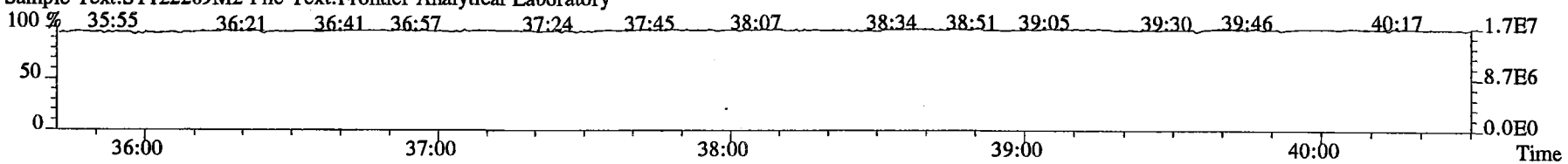
File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

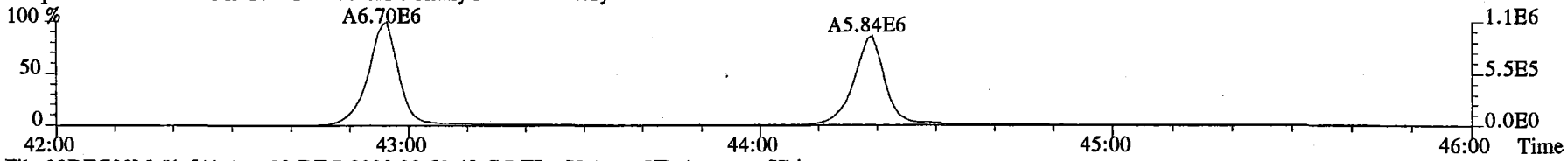


File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:13 F:3 Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

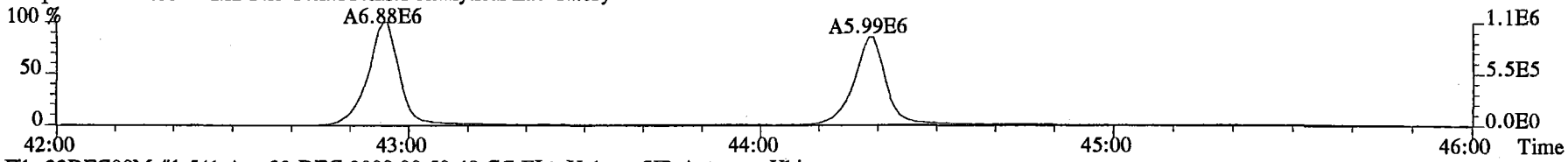


QB72:06581

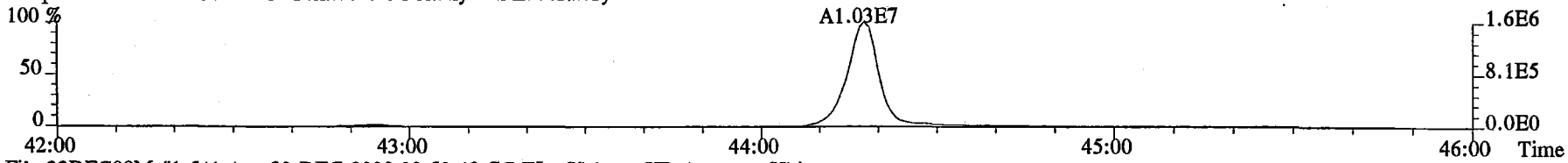
File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



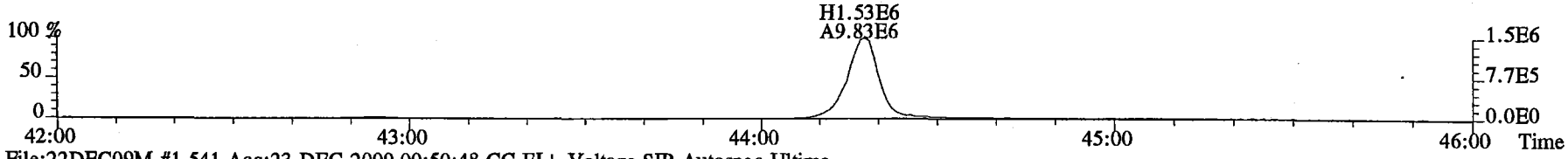
File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



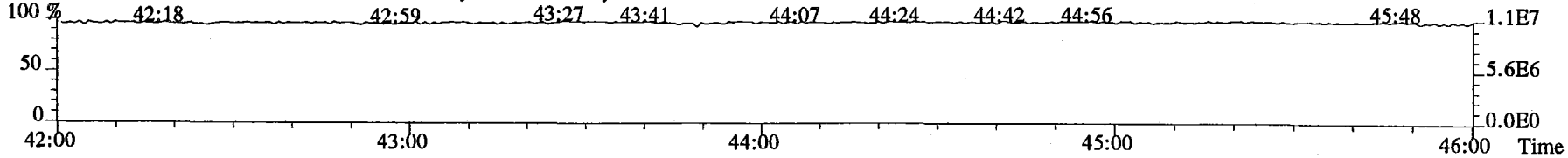
File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

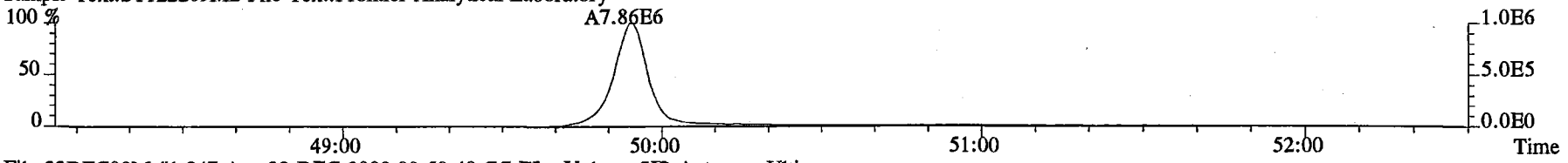


File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:13 F:4 Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

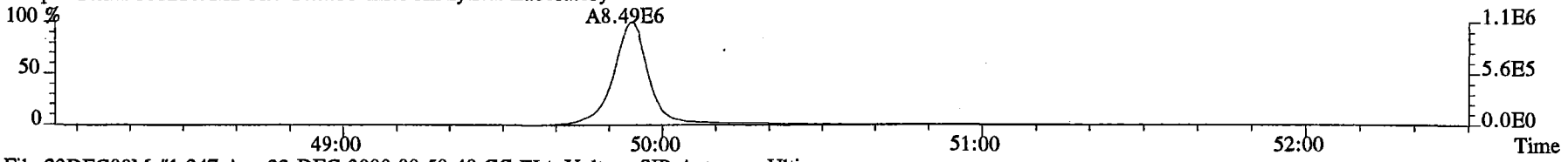


QB72:09682

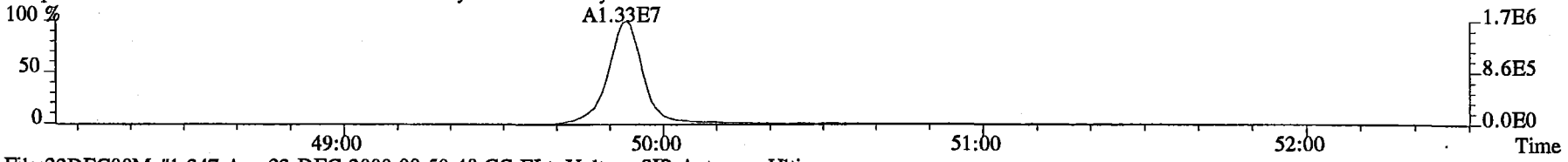
File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



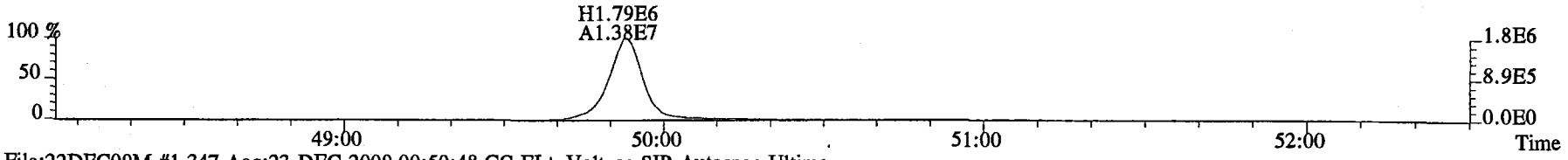
File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



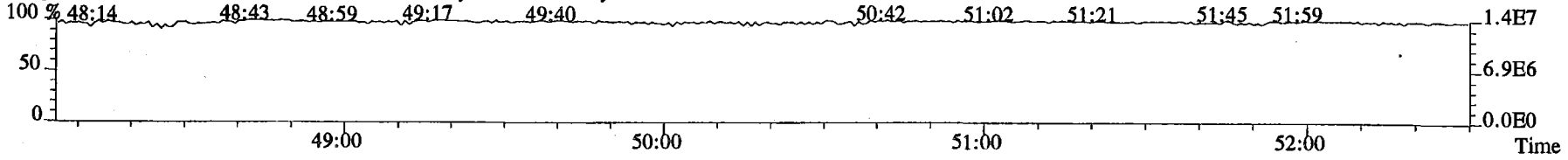
File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

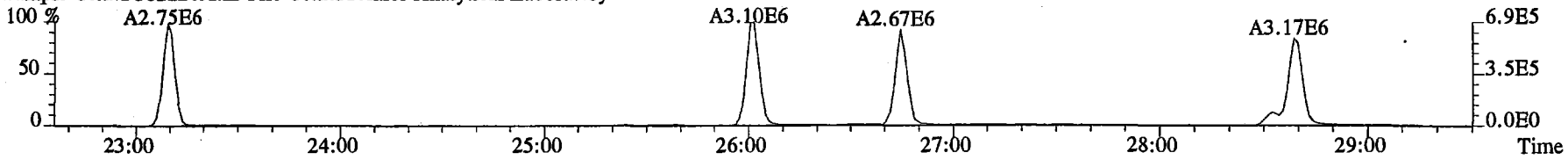


File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:13 F:5 Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

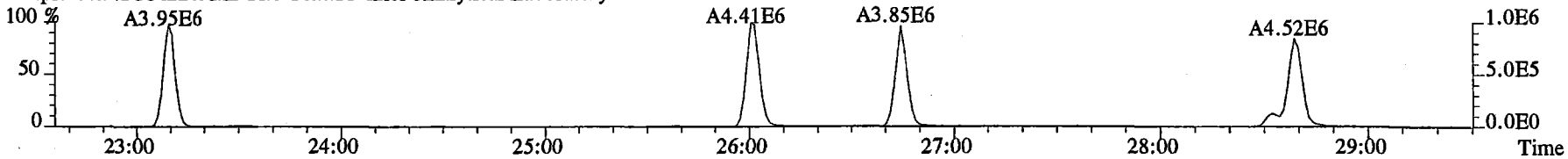


QB72:06693

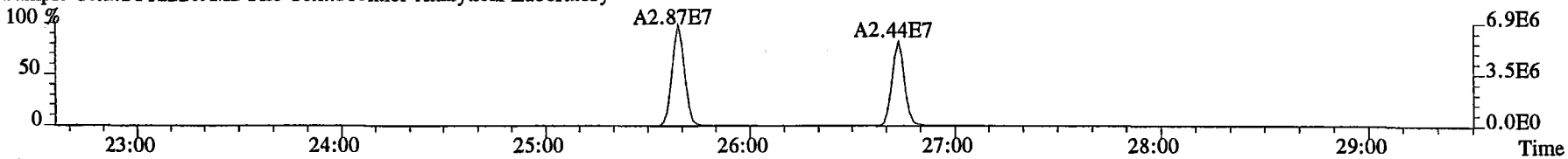
File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



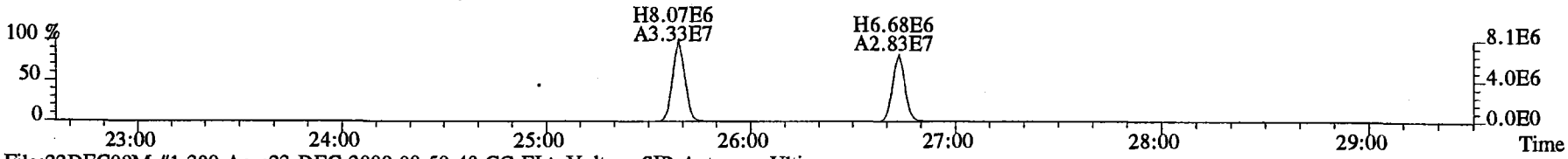
File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



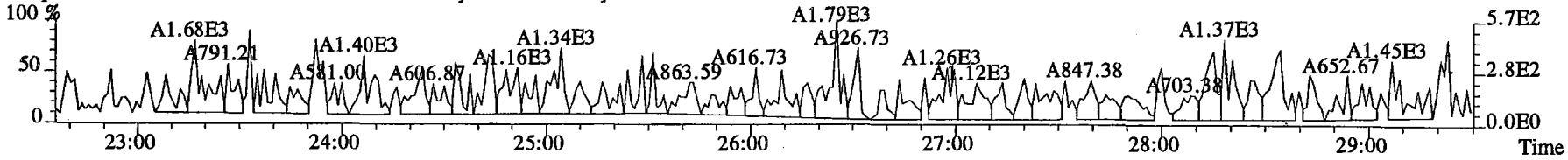
File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

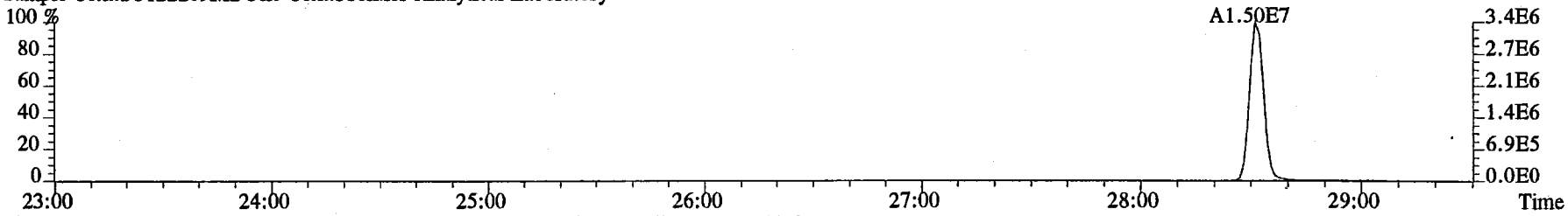


File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

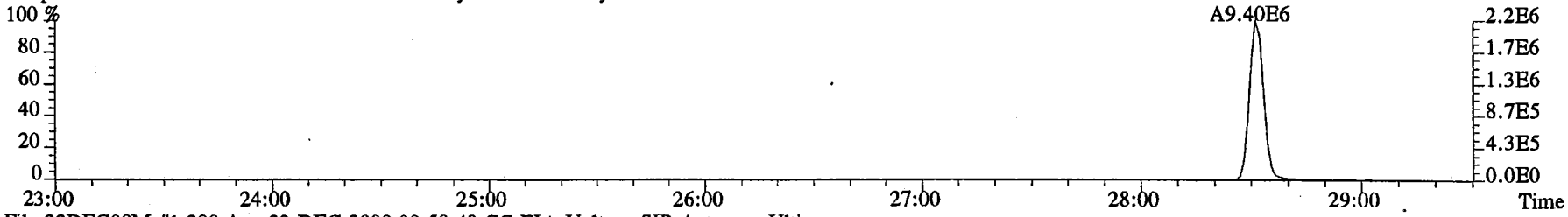


QB72:96681

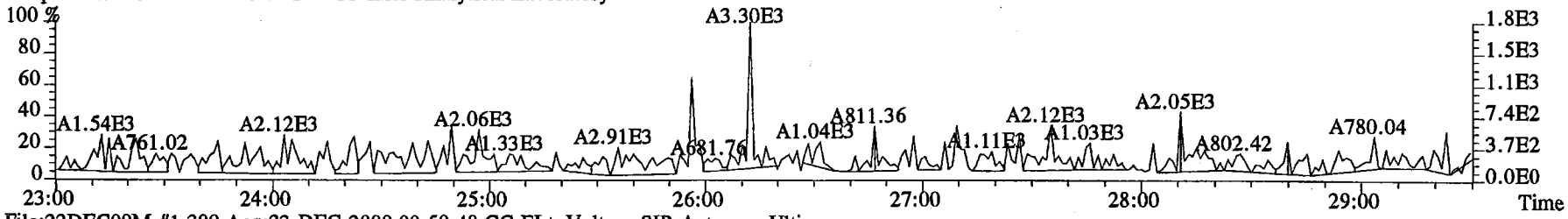
File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



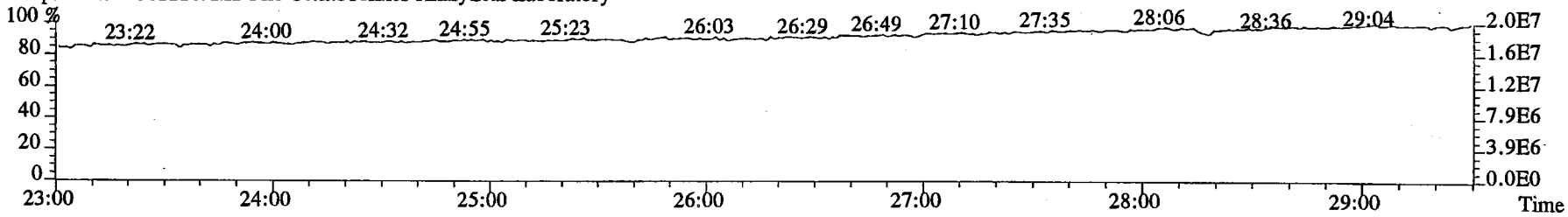
File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

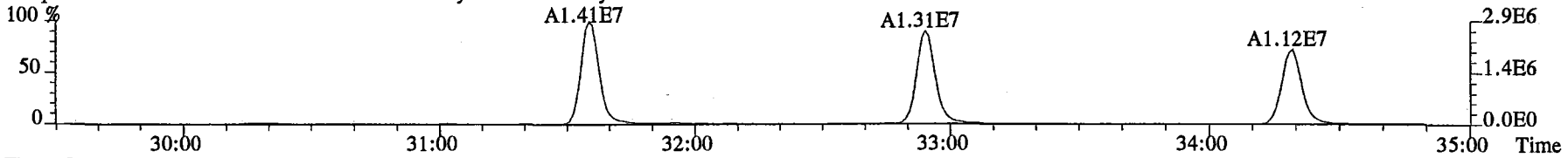


File:22DEC09M #1-390 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
330.9792 S:13 Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

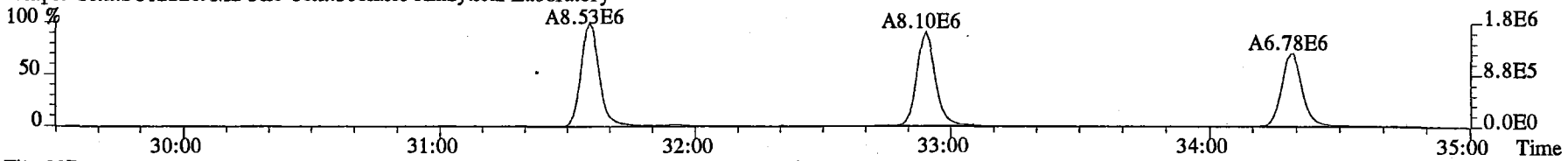


08721 06685

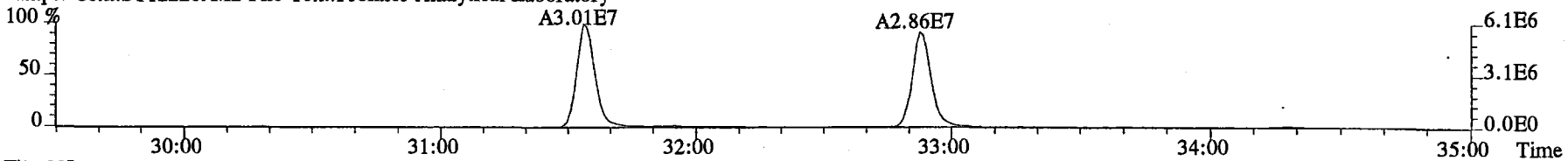
File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



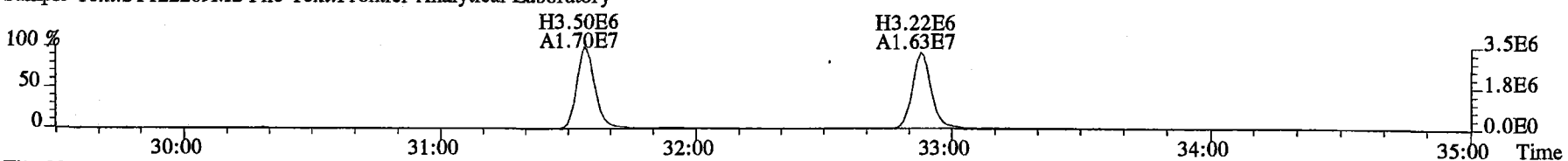
File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



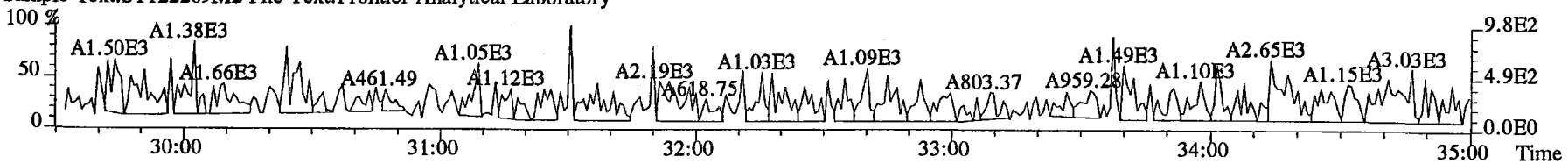
File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

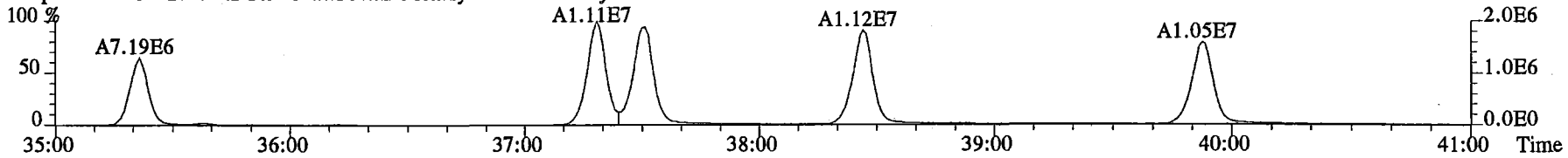


File:22DEC09M #1-425 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

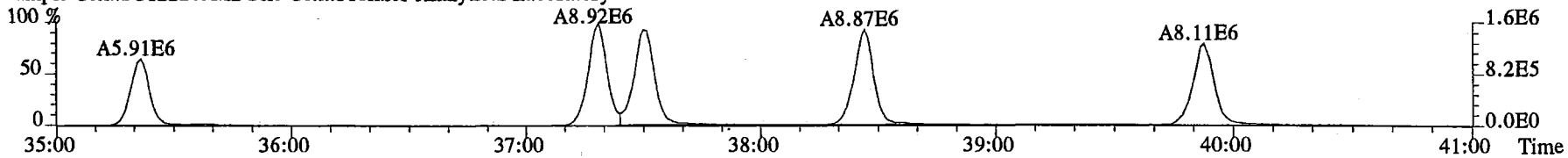


GB72:09686

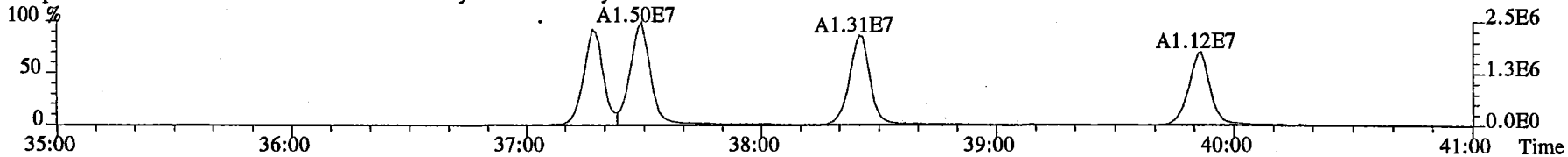
File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



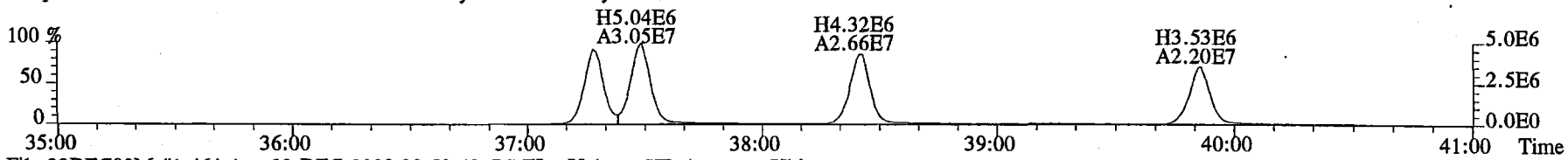
File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



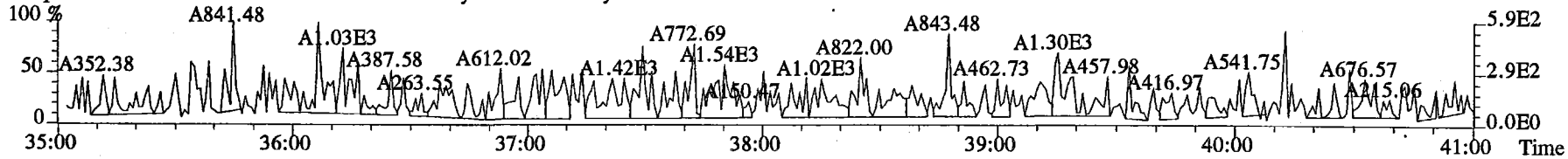
File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

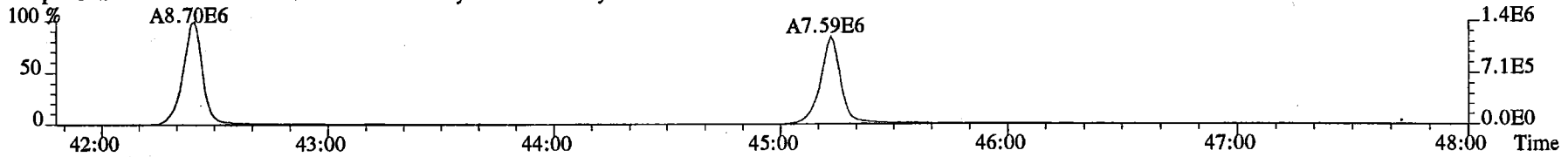


File:22DEC09M #1-464 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

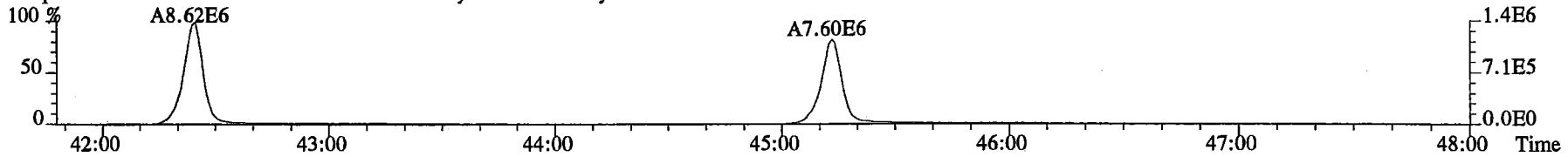


GB72:66687

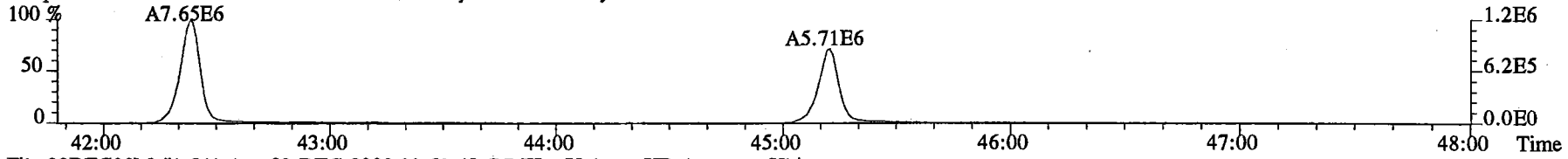
File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



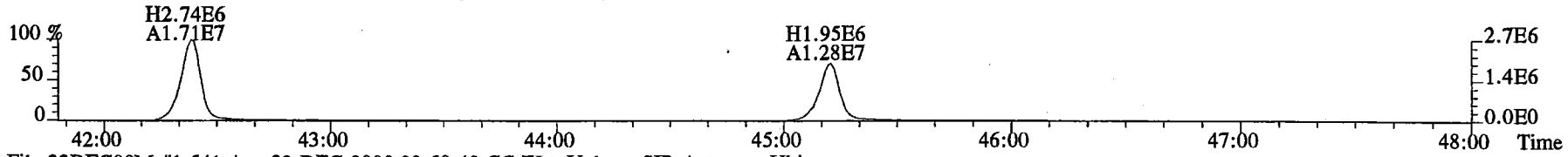
File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



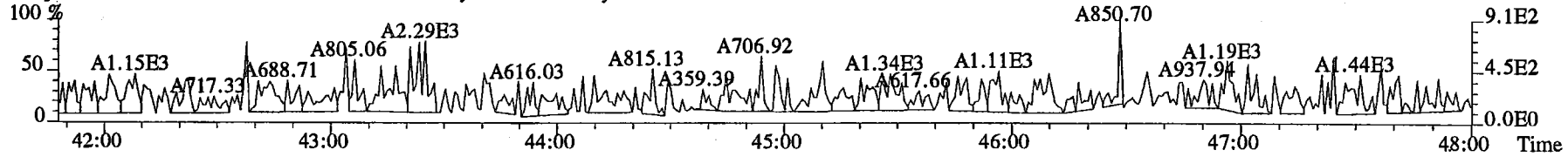
File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

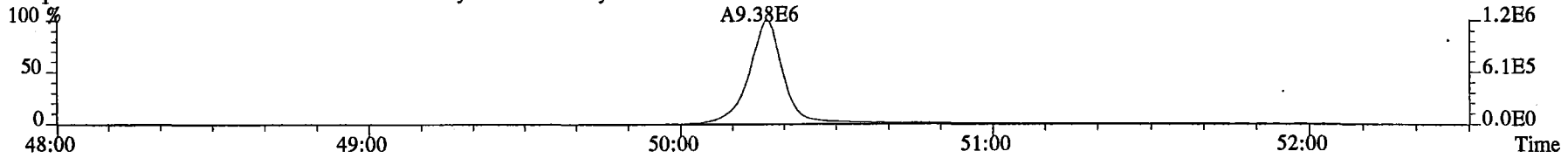


File:22DEC09M #1-541 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

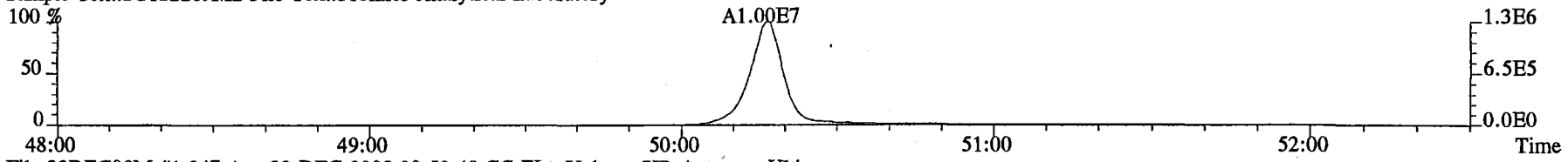


GB72:00688

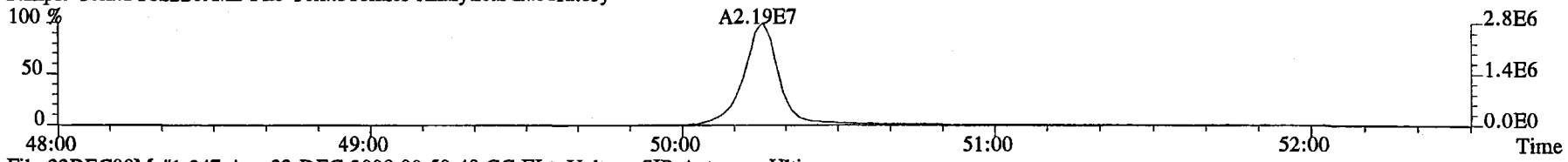
File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



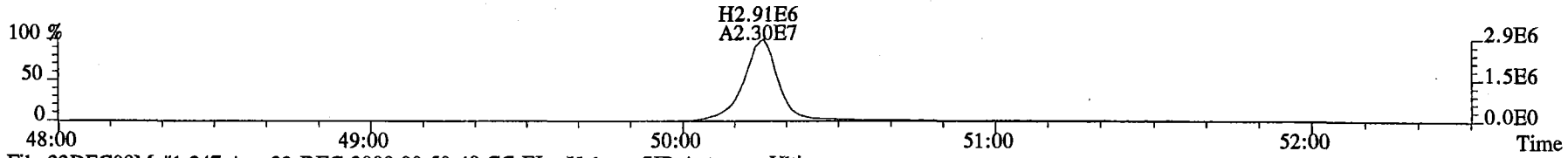
File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



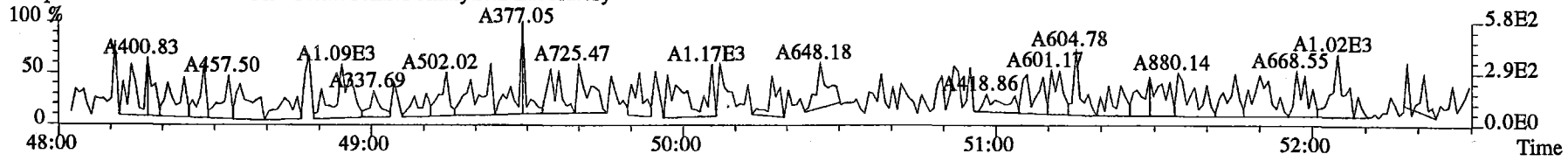
File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory



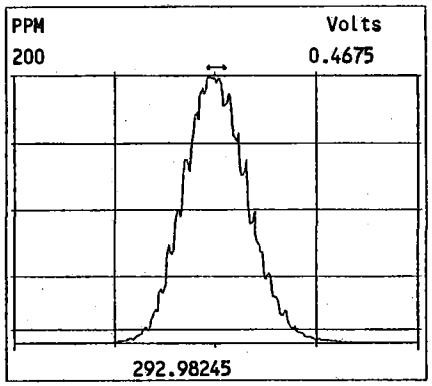
File:22DEC09M #1-347 Acq:23-DEC-2009 00:50:48 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD
Sample Text:ST122209M2 File Text:Frontier Analytical Laboratory

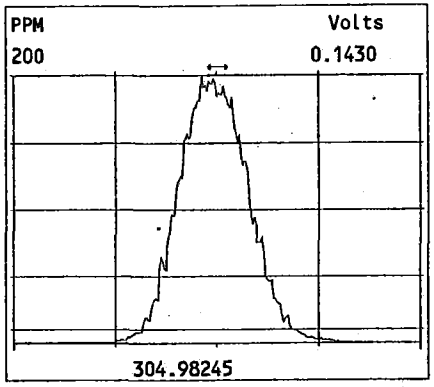


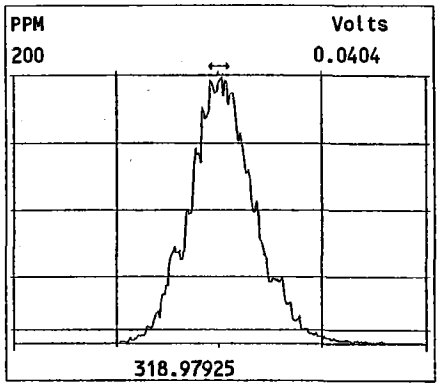
QB72:00633

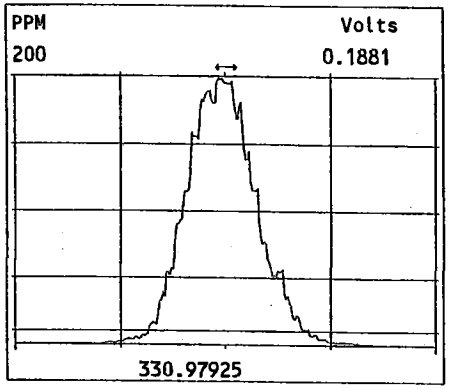
Peak Locate Examination:23-DEC-2009:01:49 File:22DEC09M_RES_CHECK

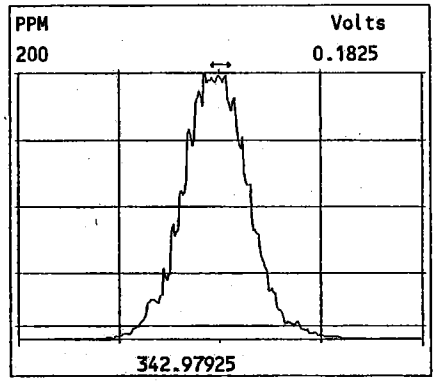
Experiment:PCDD Function:1 Reference:PFK

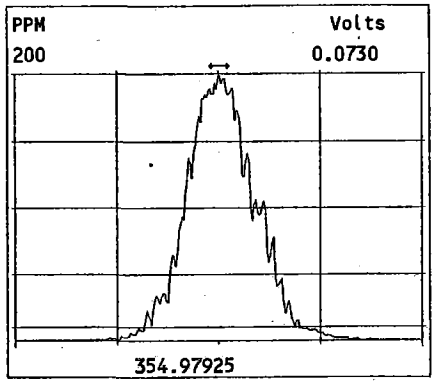


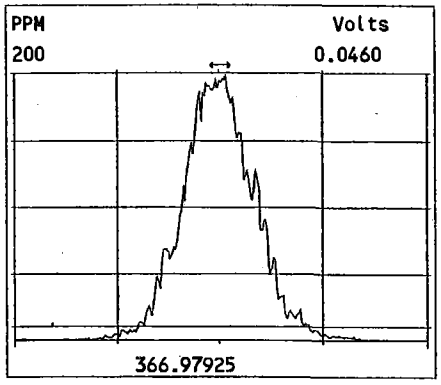


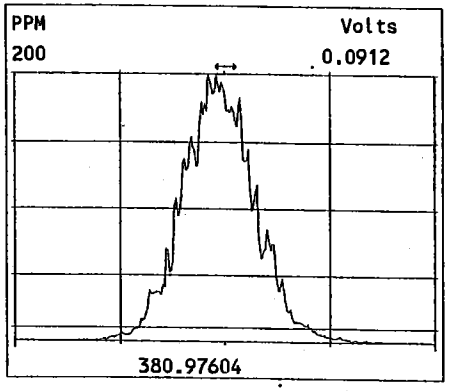


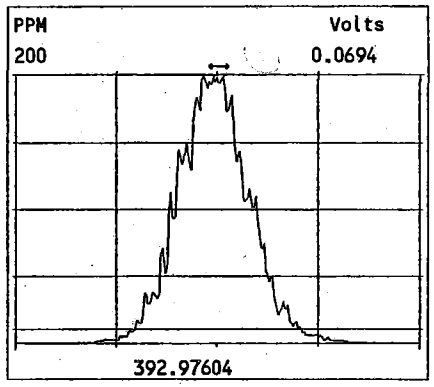


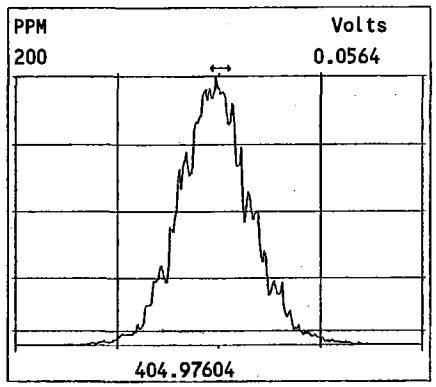


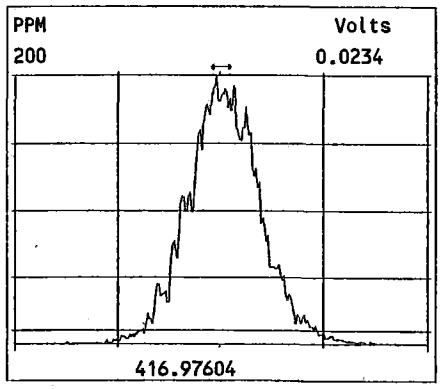






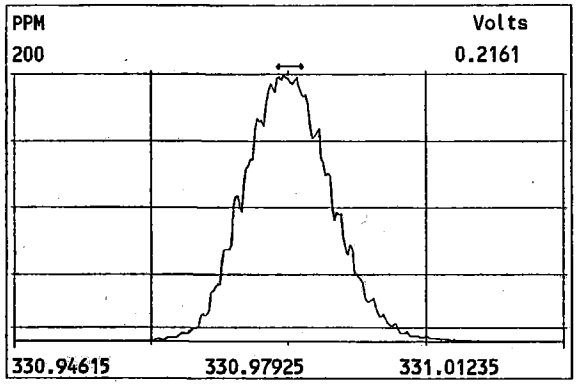


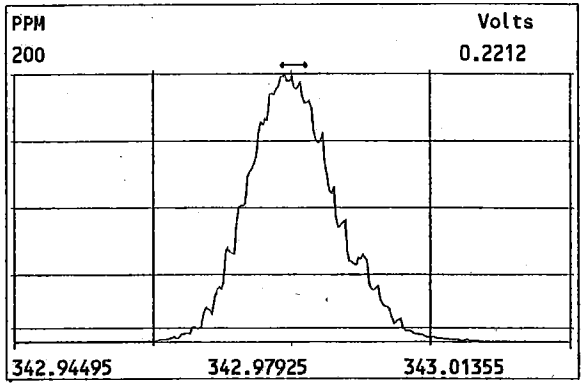


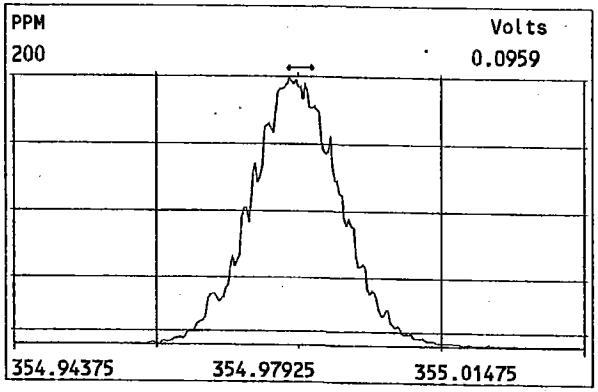


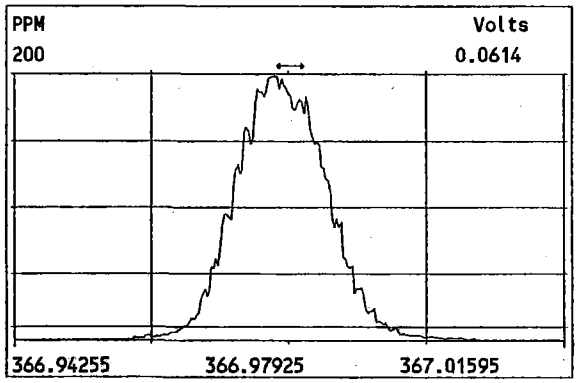
QB72:00699

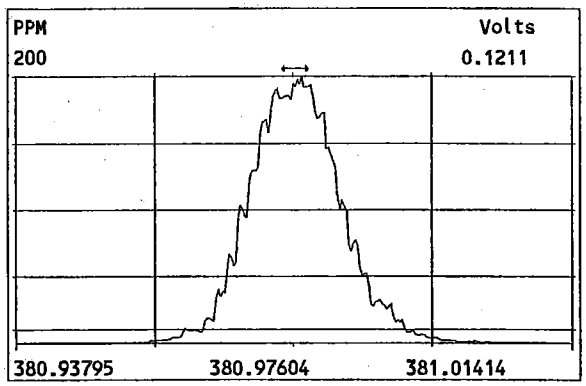
Peak Locate Examination:23-DEC-2009:01:51 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:2 Reference:PFK

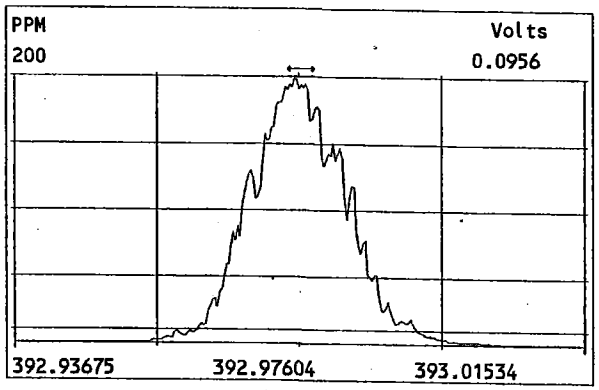


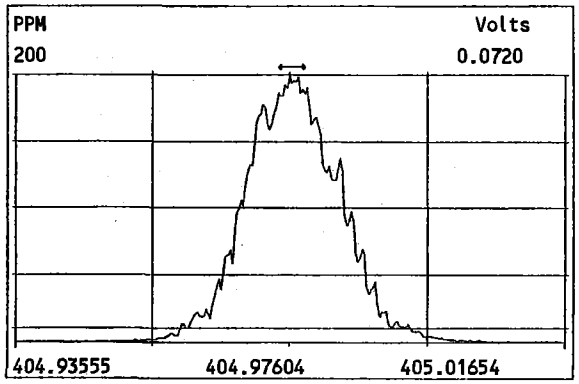


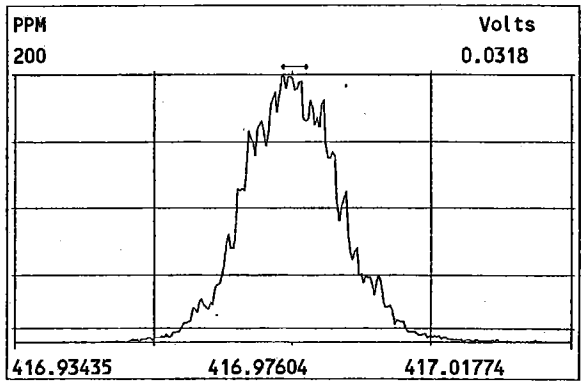






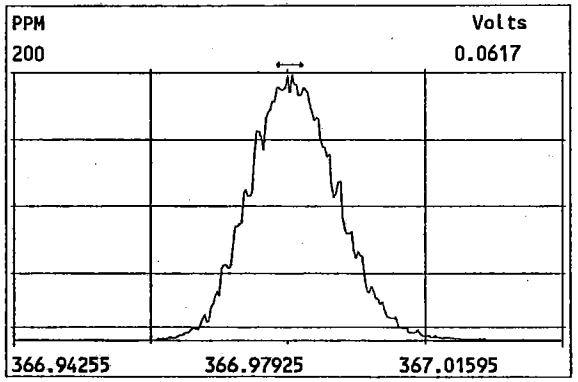


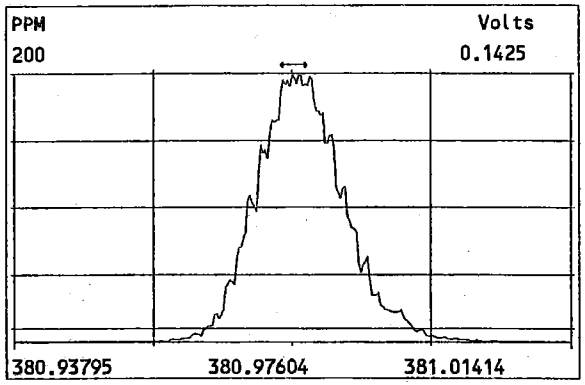


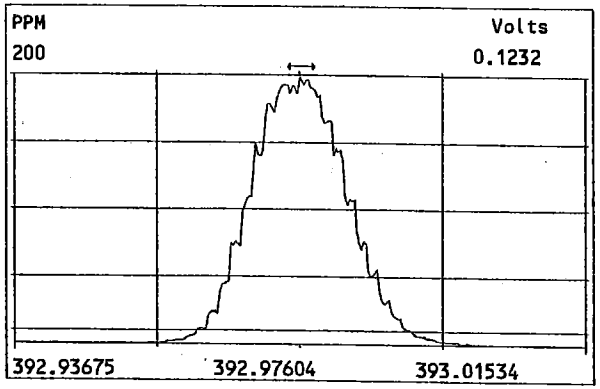


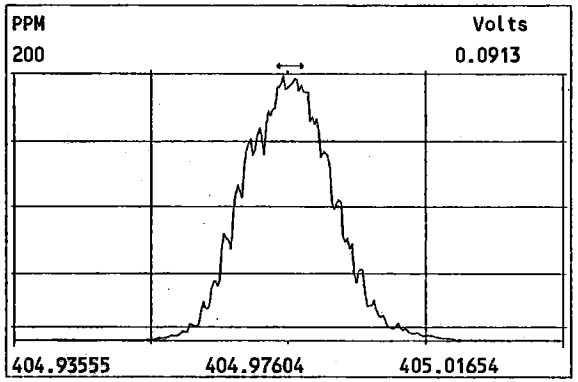
QB72:00691

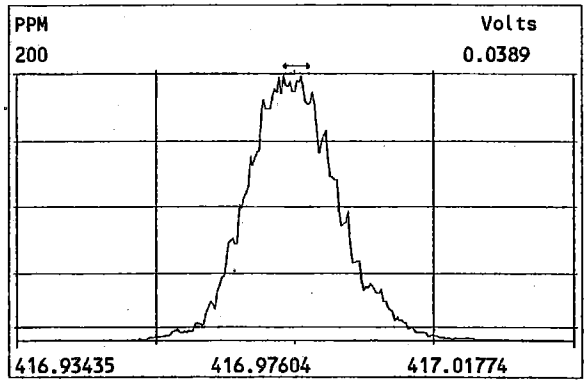
Peak Locate Examination:23-DEC-2009:01:53 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:3 Reference:PFK

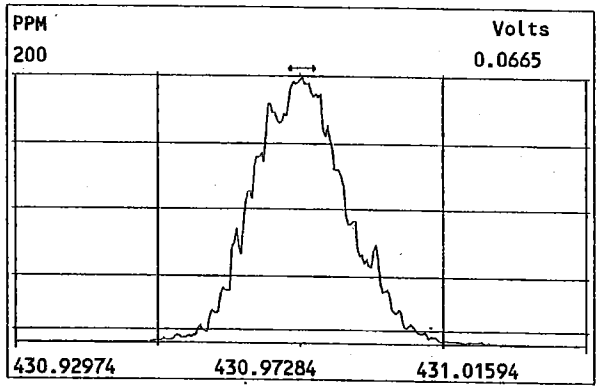


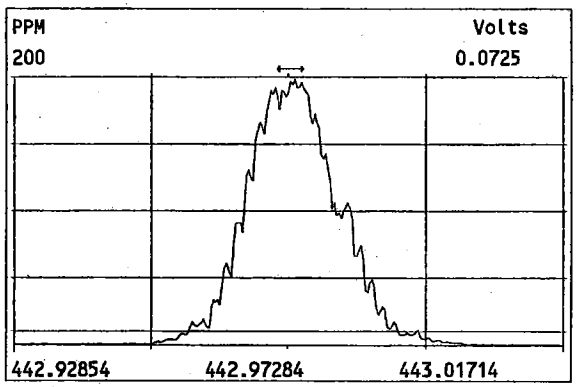


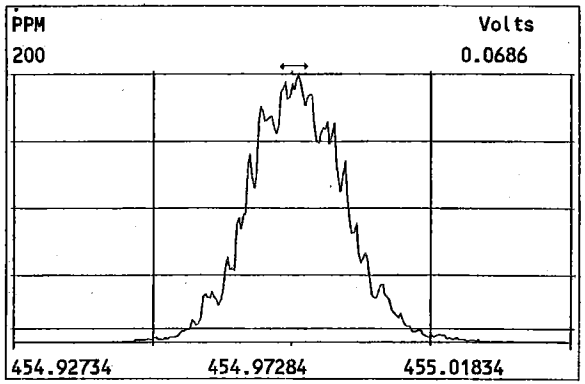






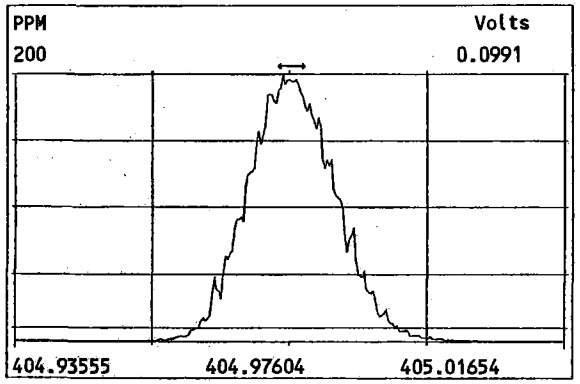


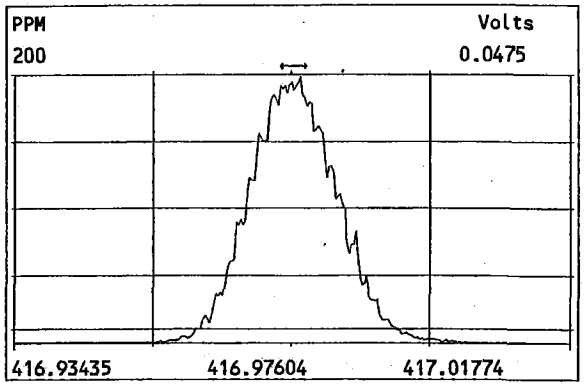


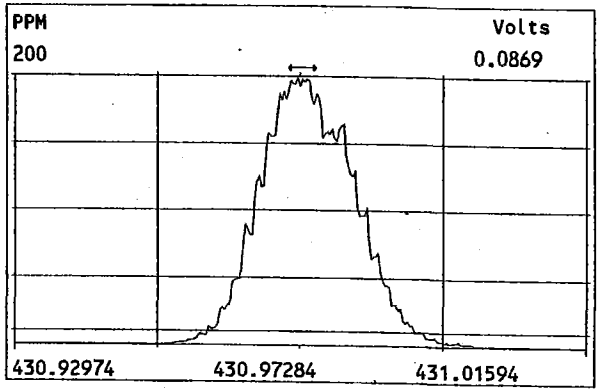


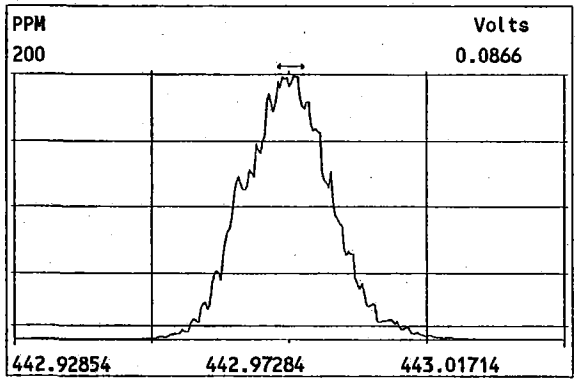
0872:99692

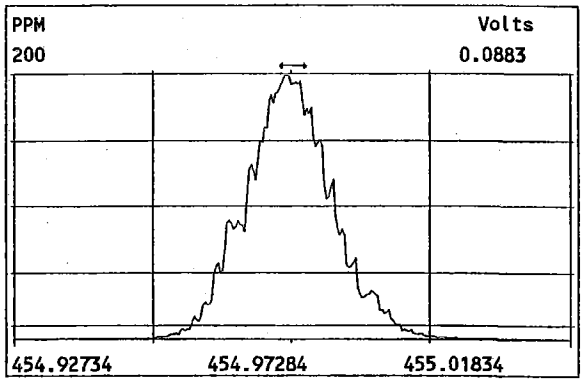
Peak Locate Examination:23-DEC-2009:01:55 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:4 Reference:PFK

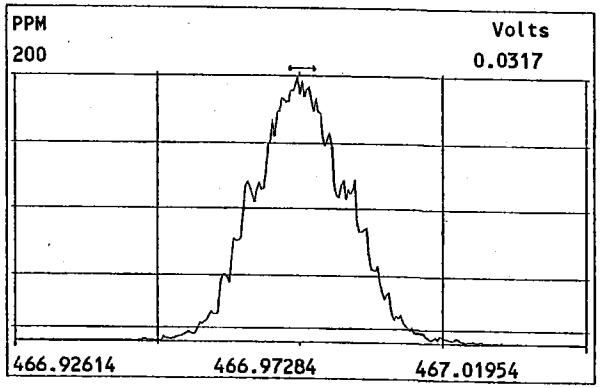


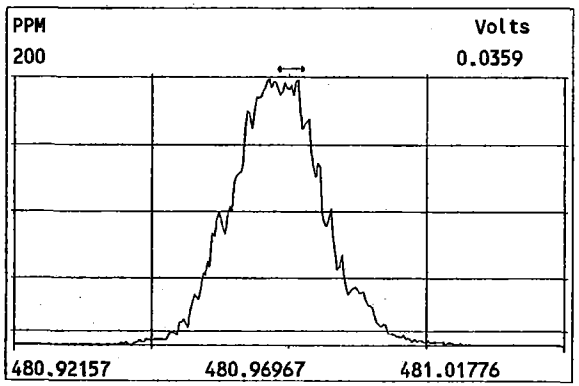






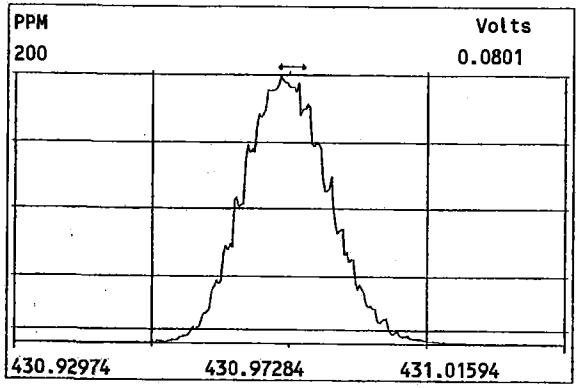


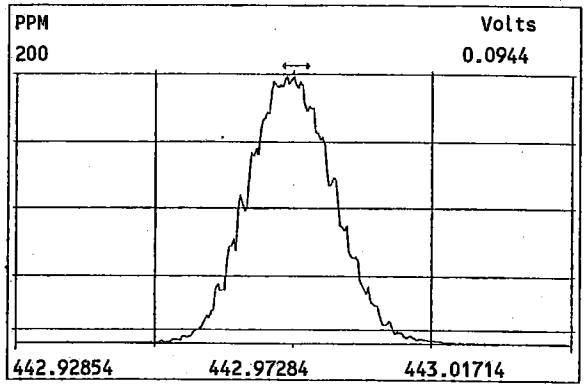


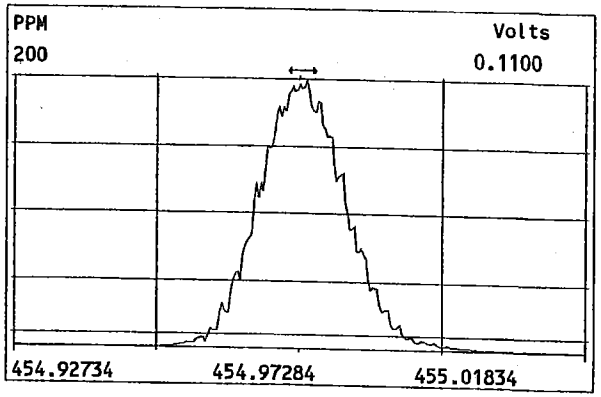


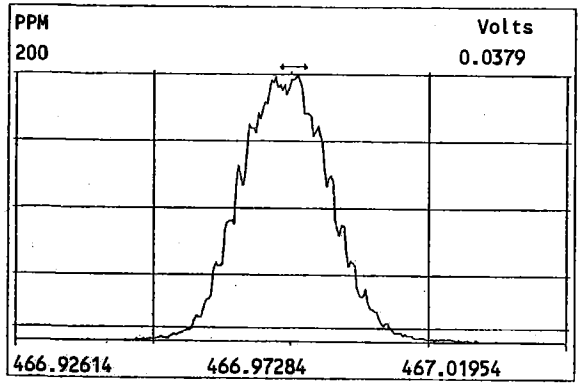
GB72:06693

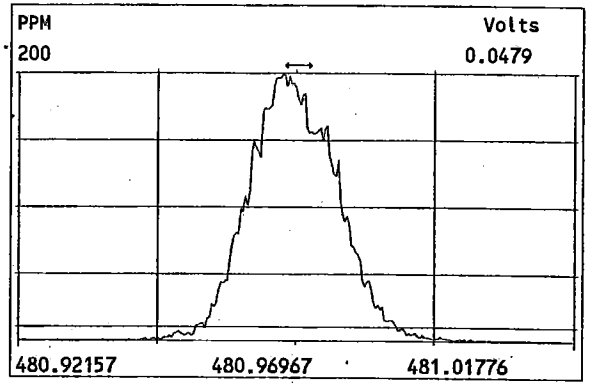
Peak Locate Examination:23-DEC-2009:01:57 File:22DEC09M_RES_CHECK
Experiment:PCDD Function:5 Reference:PFK

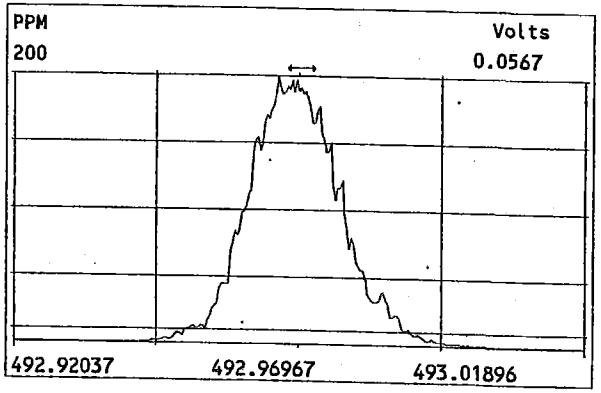


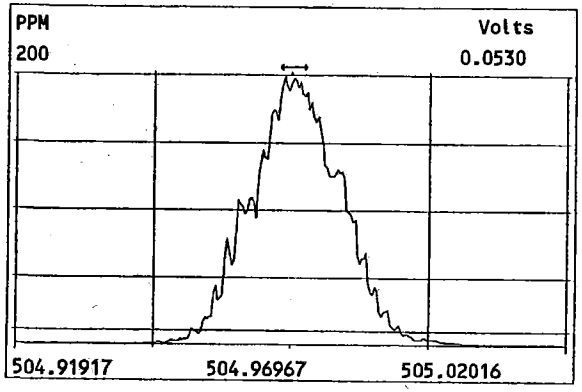


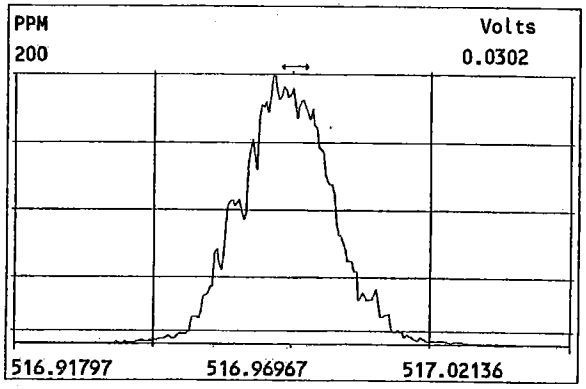












FRONTIER
ANALYTICAL LABORATORY

December 28, 2009

FAL Project ID: 5881

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

Dear Ms. Dunnihoo,

Attached are the results for Frontier Analytical Laboratory project **5881**. This corresponds to your **Lora Lake Apts.** project under ARI project number **QB72**. Three aqueous samples were received on 12/18/2009 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 equivalents (TEQs) on your report. Analytical Resources Incorporated requested a turnaround time of fifteen business days for project **5881**.

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 has been sent to you via email. A hardcopy of the Level IV data package has been sent to you via OnTrac. The enclosed results are specifically for the samples referenced in this report only. These results meet all NELAC requirements and shall not be reproduced except in full.

If you have any questions regarding project **5881**, please contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush
Director of Operations

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
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ANALYTICAL LABORATORY

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **5881**

Received on: **12/18/2009** Project Due: **01/13/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5881-001-SA	0	QB72	CB31A121509COMP	EPA 1613 D/F	Aqueous	12/15/2009	02:35 am	12/15/2010
5881-002-SA	0	QB72	CB4857121509COMP	EPA 1613 D/F	Aqueous	12/15/2009	03:35 am	12/15/2010
5881-003-SA	0	QB72	CB1121409COMP	EPA 1613 D/F	Aqueous	12/14/2009	11:45 pm	12/14/2010

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.670		-	0.320				
1,2,3,7,8-PeCDD	ND	1.01		-	0.491				
1,2,3,4,7,8-HxCDD	ND	1.38		-	0.483				
1,2,3,6,7,8-HxCDD	ND	1.73		-	0.665	Total TCDD	ND	0.670	
1,2,3,7,8,9-HxCDD	ND	1.54		-	0.650	Total PeCDD	ND	1.01	
1,2,3,4,6,7,8-HpCDD	ND	2.64		-	0.985	Total HxCDD	ND	1.73	
OCDD	ND	7.13		-	1.93	Total HpCDD	ND	2.64	
2,3,7,8-TCDF	ND	0.457		-	0.305				
1,2,3,7,8-PeCDF	ND	0.715		-	0.340				
2,3,4,7,8-PeCDF	ND	0.764		-	0.441				
1,2,3,4,7,8-HxCDF	ND	1.52		-	0.317				
1,2,3,6,7,8-HxCDF	ND	1.48		-	0.346				
2,3,4,6,7,8-HxCDF	ND	1.54		-	0.292				
1,2,3,7,8,9-HxCDF	ND	1.89		-	0.474	Total TCDF	ND	0.457	
1,2,3,4,6,7,8-HpCDF	ND	1.61		-	0.497	Total PeCDF	ND	0.764	
1,2,3,4,7,8,9-HpCDF	ND	1.91		-	0.587	Total HxCDF	ND	1.89	
OCDF	ND	4.47		-	1.32	Total HpCDF	ND	1.91	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	67.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	79.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	79.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	77.3	23.0 - 140	
13C-OCDD	76.3	17.0 - 157	
13C-2,3,7,8-TCDF	81.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	69.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	69.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	75.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	78.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	77.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	72.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	76.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	75.9	26.0 - 138	
13C-OCDF	70.4	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	94.1	35.0 - 197	

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

Analyst: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: ng/ml

Acquired: 12-22-2009
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.55	6.70 - 15.8	
1,2,3,7,8-PeCDD	49.3	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	50.0	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	48.1	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	50.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.9	35.0 - 70.0	
OCDD	104	78.0 - 144	
2,3,7,8-TCDF	9.85	7.50 - 15.8	
1,2,3,7,8-PeCDF	53.7	40.0 - 67.0	
2,3,4,7,8-PeCDF	53.3	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	51.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	51.5	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	52.5	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50.9	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.9	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	51.7	39.0 - 69.0	
OCDF	106	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.8	20.0 - 175	
13C-1,2,3,7,8-PeCDD	65.2	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	74.7	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	74.4	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	71.7	26.0 - 166	
13C-OCDD	69.5	13.0 - 198	
13C-2,3,7,8-TCDF	85.3	22.0 - 152	
13C-1,2,3,7,8-PeCDF	64.8	21.0 - 192	
13C-2,3,4,7,8-PeCDF	66.3	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	70.7	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	73.8	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	73.4	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	68.7	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	70.5	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	70.4	20.0 - 186	
13C-OCDF	65.3	13.0 - 198	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	97.4	31.0 - 191	

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

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

Reviewed By: DN
Date: 12/23/09

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-001-SA
Client ID: CB31A121509COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.042 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 18.7

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.674		-	0.320				
1,2,3,7,8-PeCDD	2.86	-	J	2.86	0.491				
1,2,3,4,7,8-HxCDD	5.16	-	J	0.516	0.483				
1,2,3,6,7,8-HxCDD	16.3	-	J	1.63	0.665	Total TCDD	ND	0.674	
1,2,3,7,8,9-HxCDD	9.82	-	J	0.982	0.650	Total PeCDD	7.65	-	J
1,2,3,4,6,7,8-HpCDD	515	-		5.15	0.985	Total HxCDD	77.9	-	
OCDD	4880	-		1.46	1.93	Total HpCDD	852	-	
2,3,7,8-TCDF	ND	0.530		-	0.305				
1,2,3,7,8-PeCDF	ND	0.997		-	0.340				
2,3,4,7,8-PeCDF	2.75	-	J	0.825	0.441				
1,2,3,4,7,8-HxCDF	19.1	-	J	1.91	0.317				
1,2,3,6,7,8-HxCDF	10.2	-	J	1.02	0.346				
2,3,4,6,7,8-HxCDF	7.78	-	J	0.778	0.292				
1,2,3,7,8,9-HxCDF	2.25	-	J	0.225	0.474	Total TCDF	25.5	-	D,M
1,2,3,4,6,7,8-HpCDF	111	-		1.11	0.497	Total PeCDF	70.6	-	D,M
1,2,3,4,7,8,9-HpCDF	10.9	-	J	0.109	0.587	Total HxCDF	280	-	D,M
OCDF	359	-		0.108	1.32	Total HpCDF	382	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.5	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	83.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	83.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	86.4	23.0 - 140	
13C-OCDD	88.6	17.0 - 157	
13C-2,3,7,8-TCDF	87.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	77.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	76.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	78.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	79.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	82.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	77.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	83.2	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	83.4	26.0 - 138	
13C-OCDF	80.7	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	98.1	35.0 - 197

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

Analyst: _____
Date: 12/22/09

Reviewed By: DAJ
Date: 12/23/09

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-002-SA
Client ID: CB4857121509COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 14.7

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.697		-	0.320				
1,2,3,7,8-PeCDD	2.89	-	J	2.89	0.491				
1,2,3,4,7,8-HxCDD	4.59	-	J	0.459	0.483				
1,2,3,6,7,8-HxCDD	12.0	-	J	1.20	0.665	Total TCDD	ND	0.697	
1,2,3,7,8,9-HxCDD	8.43	-	J	0.843	0.650	Total PeCDD	5.29	-	J
1,2,3,4,6,7,8-HpCDD	363	-		3.63	0.985	Total HxCDD	63.9	-	
OCDD	3580	-		1.07	1.93	Total HpCDD	605	-	
2,3,7,8-TCDF	ND	0.621		-	0.305				
1,2,3,7,8-PeCDF	ND	0.887		-	0.340				
2,3,4,7,8-PeCDF	2.17	-	J	0.651	0.441				
1,2,3,4,7,8-HxCDF	14.5	-	J	1.45	0.317				
1,2,3,6,7,8-HxCDF	7.92	-	J	0.792	0.346				
2,3,4,6,7,8-HxCDF	5.36	-	J	0.536	0.292				
1,2,3,7,8,9-HxCDF	1.75	-	J	0.175	0.474	Total TCDF	19.6	-	D,M
1,2,3,4,6,7,8-HpCDF	89.0	-		0.890	0.497	Total PeCDF	52.8	-	D,M
1,2,3,4,7,8,9-HpCDF	8.29	-	J	0.0829	0.587	Total HxCDF	198	-	D,M
OCDF	234	-		0.0702	1.32	Total HpCDF	278	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	75.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	86.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	85.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	88.4	23.0 - 140	
13C-OCDD	83.9	17.0 - 157	
13C-2,3,7,8-TCDF	85.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	75.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	78.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	80.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	83.7	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	82.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.3	26.0 - 138	
13C-OCDF	77.1	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	89.3	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: _____
Date: 12/23/09

Reviewed By: DN
Date: 12/23/09

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5881-003-SA
Client ID: CB1121409COMP
Matrix: Aqueous
Batch No: X1905

Date Extracted: 12-21-2009
Date Received: 12-18-2009
Amount: 1.009 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 12-22-2009
2005 WHO TEQ: 0.145

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.594		-	0.320				
1,2,3,7,8-PeCDD	ND	0.808		-	0.491				
1,2,3,4,7,8-HxCDD	ND	1.65		-	0.483				
1,2,3,6,7,8-HxCDD	ND	1.87		-	0.665	Total TCDD	ND	0.594	
1,2,3,7,8,9-HxCDD	ND	1.74		-	0.650	Total PeCDD	ND	0.808	
1,2,3,4,6,7,8-HpCDD	10.2	-	J	0.102	0.985	Total HxCDD	ND	1.87	
OCDD	56.9	-		0.0171	1.93	Total HpCDD	20.4	-	J
2,3,7,8-TCDF	ND	0.352		-	0.305				
1,2,3,7,8-PeCDF	ND	0.689		-	0.340				
2,3,4,7,8-PeCDF	ND	0.732		-	0.441				
1,2,3,4,7,8-HxCDF	ND	1.47		-	0.317				
1,2,3,6,7,8-HxCDF	ND	1.46		-	0.346				
2,3,4,6,7,8-HxCDF	ND	1.50		-	0.292				
1,2,3,7,8,9-HxCDF	ND	1.76		-	0.474	Total TCDF	ND	0.352	
1,2,3,4,6,7,8-HpCDF	2.56	-	J	0.0256	0.497	Total PeCDF	ND	0.732	
1,2,3,4,7,8,9-HpCDF	ND	0.746		-	0.587	Total HxCDF	ND	1.76	
OCDF	ND	3.84		-	1.32	Total HpCDF	4.95	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	79.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	87.3	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.4	23.0 - 140	
13C-OCDD	93.1	17.0 - 157	
13C-2,3,7,8-TCDF	89.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	77.3	24.0 - 185	
13C-2,3,4,7,8-PeCDF	79.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	83.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	82.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	84.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	83.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	86.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	89.5	26.0 - 138	
13C-OCDF	85.0	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	95.8	35.0 - 197

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

Analyst: _____
Date: 12/22/09

Reviewed By: DN
Date: 12/23/09

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SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 12/17/09

ANALYTICAL RESOURCES INCORPORATED

5691
0°C

ARI Project: QB72

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

ARI Client: Floyd-Snider
Project ID: Lora Lake Apts.
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
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 sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
09-30991-QB72A	CB31A121509COMP	12/15/09 02:35	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
09-30992-QB72B	CB4857121509COMP	12/15/09 03:35	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
09-30993-QB72C	CB1121409COMP	12/14/09 23:45	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					

Carrier	Airbill	Date
UPS	1Z83269501439072 47	12/17/09

Relinquished by	Company	Date	Time
	ARI	12/17/09	1442
Received by	**Company**	**Date**	**Time**
	FAL	12/18/09	1015

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **5881**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QB72
Date Received:	12/18/2009
Time Received:	10:15 am
Received By:	GN
Logged In By:	KZ
# of Samples Received:	3
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950143907247
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	12/14/2010
Adequate Sample Volume	Yes
Anomalies or additional comments:	

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FRONTIER
ANALYTICAL LABORATORY

January 8, 2010

FAL Project ID: 5887

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

Dear Ms. Dunnihoo,

Attached are the results for Frontier Analytical Laboratory project **5887**. This corresponds to your **POS-LLA** project under ARI project number **QC28**. One sediment sample was received on 12/22/2009 in good condition. This sample was 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 equivalents (TEQ) on your report. Analytical Resources Incorporated requested a turnaround time of fifteen business days for project **5887**.

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 Electronic Data Deliverable (EDD) have been sent to you via email. A hardcopy of the Level IV data package has been sent to you via Federal Express. 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 **5887**, 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

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5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
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Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **5887**

Received on: **12/22/2009** Project Due: **01/08/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5887-001-SA	0	QC28	CB4857-121009-SED	EPA 1613 D/F	Sediment	12/10/2009	10:41 am	12/10/2010

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-MB
Client ID: Method Blank
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/g

Acquired: 01-04-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.268		-	0.0252				
1,2,3,7,8-PeCDD	ND	0.209		-	0.0457				
1,2,3,4,7,8-HxCDD	ND	0.266		-	0.0496				
1,2,3,6,7,8-HxCDD	ND	0.311		-	0.0680	Total TCDD	ND	0.268	
1,2,3,7,8,9-HxCDD	ND	0.286		-	0.0666	Total PeCDD	ND	0.209	
1,2,3,4,6,7,8-HpCDD	ND	0.439		-	0.0927	Total HxCDD	ND	0.311	
OCDD	ND	0.821		-	0.272	Total HpCDD	ND	0.439	
2,3,7,8-TCDF	ND	0.0514		-	0.0252				
1,2,3,7,8-PeCDF	ND	0.146		-	0.0365				
2,3,4,7,8-PeCDF	ND	0.152		-	0.0486				
1,2,3,4,7,8-HxCDF	ND	0.234		-	0.0267				
1,2,3,6,7,8-HxCDF	ND	0.247		-	0.0289				
2,3,4,6,7,8-HxCDF	ND	0.259		-	0.0298				
1,2,3,7,8,9-HxCDF	ND	0.270		-	0.0493	Total TCDF	ND	0.0514	
1,2,3,4,6,7,8-HpCDF	ND	0.208		-	0.0404	Total PeCDF	ND	0.152	
1,2,3,4,7,8,9-HpCDF	ND	0.233		-	0.0469	Total HxCDF	ND	0.270	
OCDF	ND	0.447		-	0.177	Total HpCDF	ND	0.233	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.7	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	86.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	83.5	23.0 - 140	
13C-OCDD	58.0	17.0 - 157	
13C-2,3,7,8-TCDF	87.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	74.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	72.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	86.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	84.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	83.6	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	87.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	78.6	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.0	26.0 - 138	
13C-OCDF	59.9	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	86.6	35.0 - 197

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

Analyst: [signature]
Date: 1/5/10

Reviewed By: [signature]
Date: 1/5/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-OPR
Client ID: OPR
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: ng/ml

Acquired: 01-04-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	10.1	6.70 - 15.8	
1,2,3,7,8-PeCDD	49.8	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	47.8	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	46.3	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	49.2	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.3	35.0 - 70.0	
OCDD	97.1	78.0 - 144	
2,3,7,8-TCDF	9.99	7.50 - 15.8	
1,2,3,7,8-PeCDF	49.9	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.7	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	50.1	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	49.6	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	48.1	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	49.9	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.2	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	52.3	39.0 - 69.0	
OCDF	101	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	76.4	20.0 - 175	
13C-1,2,3,7,8-PeCDD	69.4	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	79.0	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	84.3	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	81.4	26.0 - 166	
13C-OCDD	58.4	13.0 - 198	
13C-2,3,7,8-TCDF	82.2	22.0 - 152	
13C-1,2,3,7,8-PeCDF	74.0	21.0 - 192	
13C-2,3,4,7,8-PeCDF	71.2	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	83.5	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	82.0	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	78.6	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	79.6	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	74.3	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	82.4	20.0 - 186	
13C-OCDF	59.9	13.0 - 198	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	86.4	31.0 - 191	

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

Analyst: _____
Date: 1/5/10

Reviewed By: DN
Date: 1/5/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-SA
Client ID: CB4857-121009-SED
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: 12-22-2009
Amount: 4.48 g
% Solids: 83.13

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/g

Acquired: 01-04-2010
2005 WHO TEQ: 13.2

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.472		-	0.0252				
1,2,3,7,8-PeCDD	1.79	-	J	1.79	0.0457				
1,2,3,4,7,8-HxCDD	2.92	-	J	0.292	0.0496				
1,2,3,6,7,8-HxCDD	10.3	-		1.03	0.0680	Total TCDD	0.661	-	J
1,2,3,7,8,9-HxCDD	5.19	-	J	0.519	0.0666	Total PeCDD	7.27	-	
1,2,3,4,6,7,8-HpCDD	353	-		3.53	0.0927	Total HxCDD	47.9	-	
OCDD	4480	-		1.34	0.272	Total HpCDD	588	-	
2,3,7,8-TCDF	ND	0.183		-	0.0252				
1,2,3,7,8-PeCDF	0.586	-	J	0.0176	0.0365				
2,3,4,7,8-PeCDF	1.30	-	J	0.390	0.0486				
1,2,3,4,7,8-HxCDF	19.6	-		1.96	0.0267				
1,2,3,6,7,8-HxCDF	5.05	-	J	0.505	0.0289				
2,3,4,6,7,8-HxCDF	6.22	-		0.622	0.0298				
1,2,3,7,8,9-HxCDF	1.99	-	J	0.199	0.0493	Total TCDF	5.42	-	D,M
1,2,3,4,6,7,8-HpCDF	82.0	-		0.820	0.0404	Total PeCDF	26.0	-	D,M
1,2,3,4,7,8,9-HpCDF	9.51	-		0.0951	0.0469	Total HxCDF	154	-	D,M
OCDF	243	-		0.0729	0.177	Total HpCDF	309	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	75.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	64.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.8	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	79.7	23.0 - 140	
13C-OCDD	64.9	17.0 - 157	
13C-2,3,7,8-TCDF	78.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	66.8	24.0 - 185	
13C-2,3,4,7,8-PeCDF	66.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	78.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	75.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	73.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	69.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	72.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	76.0	26.0 - 138	
13C-OCDF	59.3	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	70.4	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: 1/5/10

Reviewed By: DN
Date: 1/5/10

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SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 12/21/09

ANALYTICAL RESOURCES INCORPORATED

ARI Project: QC28

5887
QC

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

ARI Client: Floyd/Snider
Project ID: POS-LLA
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
Fax: 206-695-6201

Analytical Protocol: PSDDA
Special Instructions:

Requested Turn Around: **01/08/10**
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 sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
09-31268-QC28A	CB4857-121009-SED	12/10/09 10:41	Sediment		Dioxin/Furans 1613(Sub)

Special Instructions: Dioxin/Furans

Carrier UPS	Airbill 1Z0326950145679106		Date 12/21/09
Relinquished by Mikka Mulumba	Company ARI	Date 12/21/09	Time 1420
Received by [signature]	Company Frontier	Date 12-22-09	Time 11:00

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **5887**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QC28
Date Received:	12/22/2009
Time Received:	11:00 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	1
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1z8326950145679106
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	No
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	12/10/2010
Adequate Sample Volume	Yes
Anomalies or additional comments:	

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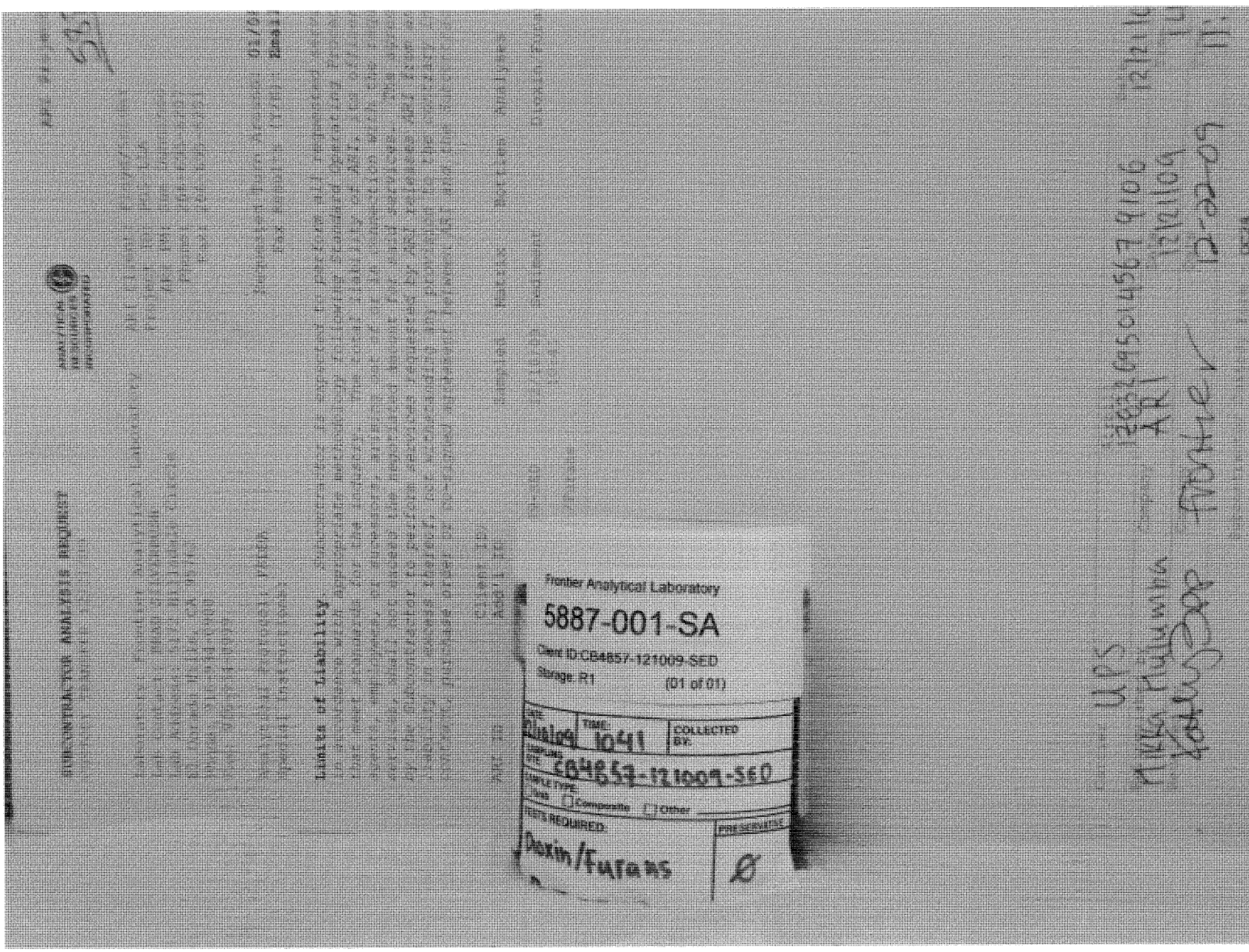

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FRONTIER
ANALYTICAL LABORATORY

January 15, 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 **5904**. This corresponds to your **Lora Lakes Apts** project under ARI project number **QD71**. Three aqueous samples were received on 1/5/2010 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 **5904**.

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 **5904**, 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

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Tel (916) 934-0900 • Fax (916) 934-0999
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Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **5904**

Received on: **01/05/2010** Project Due: **01/27/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time
5904-001-SA	0	QD71	CB31A123109COMP	EPA 1613 D/F	Aqueous	12/31/2009	10:37 pm
5904-002-SA	0	QD71	CB4857123109COMP	EPA 1613 D/F	Aqueous	12/31/2009	11:57 pm
5904-003-SA	0	QD71	CB1123109COMP	EPA 1613 D/F	Aqueous	12/31/2009	09:37 pm

FAL Sample ID	Notes
5904-001-SA	Using hand written sample ID from COC per Ms. Dunnihoo to Gabby. GN 1-6-10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5904-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X1918

Date Extracted: 01-13-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 01-14-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.918		-	0.320				
1,2,3,7,8-PeCDD	ND	0.717		-	0.491				
1,2,3,4,7,8-HxCDD	ND	0.966		-	0.483				
1,2,3,6,7,8-HxCDD	ND	1.16		-	0.665	Total TCDD	ND	0.918	
1,2,3,7,8,9-HxCDD	ND	1.05		-	0.650	Total PeCDD	ND	0.717	
1,2,3,4,6,7,8-HpCDD	ND	1.79		-	0.985	Total HxCDD	ND	1.16	
OCDD	ND	3.31		-	1.93	Total HpCDD	ND	1.79	
2,3,7,8-TCDF	ND	0.398		-	0.305				
1,2,3,7,8-PeCDF	ND	0.551		-	0.340				
2,3,4,7,8-PeCDF	ND	0.587		-	0.441				
1,2,3,4,7,8-HxCDF	ND	0.734		-	0.317				
1,2,3,6,7,8-HxCDF	ND	0.797		-	0.346				
2,3,4,6,7,8-HxCDF	ND	0.788		-	0.292				
1,2,3,7,8,9-HxCDF	ND	1.00		-	0.474	Total TCDF	ND	0.398	
1,2,3,4,6,7,8-HpCDF	ND	0.889		-	0.497	Total PeCDF	ND	0.587	
1,2,3,4,7,8,9-HpCDF	ND	1.06		-	0.587	Total HxCDF	ND	1.00	
OCDF	ND	2.07		-	1.32	Total HpCDF	ND	1.06	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	79.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	74.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	73.2	23.0 - 140	
13C-OCDD	77.7	17.0 - 157	
13C-2,3,7,8-TCDF	83.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	74.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	73.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	77.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	75.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	77.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	72.5	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	71.0	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	68.4	26.0 - 138	
13C-OCDF	70.1	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	84.7	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: _____
Date: 1/15/10

Reviewed By: _____
Date: 1/16/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5904-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X1918

Date Extracted: 01-13-2010
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: ng/ml

Acquired: 01-14-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.77	6.70 - 15.8	
1,2,3,7,8-PeCDD	49.6	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	49.5	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	50.0	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	50.2	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.9	35.0 - 70.0	
OCDD	95.8	78.0 - 144	
2,3,7,8-TCDF	9.98	7.50 - 15.8	
1,2,3,7,8-PeCDF	51.4	40.0 - 67.0	
2,3,4,7,8-PeCDF	52.0	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	51.0	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	49.8	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	50.3	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	51.7	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	50.4	39.0 - 69.0	
OCDF	99.9	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	64.8	20.0 - 175	
13C-1,2,3,7,8-PeCDD	58.6	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	65.6	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	63.2	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	64.3	26.0 - 166	
13C-OCDD	95.4	13.0 - 198	
13C-2,3,7,8-TCDF	66.0	22.0 - 152	
13C-1,2,3,7,8-PeCDF	57.9	21.0 - 192	
13C-2,3,4,7,8-PeCDF	56.8	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	69.6	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	66.4	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	66.8	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	64.1	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	62.4	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	75.9	20.0 - 186	
13C-OCDF	85.5	13.0 - 198	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	71.0	31.0 - 191

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

Analyst: _____
Date: 1/15/10

Reviewed By: _____
Date: 1/15/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5904-001-SA
Client ID: CB31A123109COMP
Matrix: Aqueous
Batch No: X1918

Date Extracted: 01-13-2010
Date Received: 01-05-2010
Amount: 1.012 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 01-14-2010
2005 WHO TEQ: 13.8

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.765		-	0.320				
1,2,3,7,8-PeCDD	2.17	-	J	2.17	0.491				
1,2,3,4,7,8-HxCDD	4.24	-	J	0.424	0.483				
1,2,3,6,7,8-HxCDD	12.5	-	J	1.25	0.665	Total TCDD	ND	0.765	
1,2,3,7,8,9-HxCDD	8.19	-	J	0.819	0.650	Total PeCDD	6.25	-	J
1,2,3,4,6,7,8-HpCDD	405	-		4.05	0.985	Total HxCDD	64.2	-	
OCDD	4540	-		1.36	1.93	Total HpCDD	684	-	
2,3,7,8-TCDF	ND	0.694		-	0.305				
1,2,3,7,8-PeCDF	ND	1.32		-	0.340				
2,3,4,7,8-PeCDF	ND	1.34		-	0.441				
1,2,3,4,7,8-HxCDF	11.8	-	J	1.18	0.317				
1,2,3,6,7,8-HxCDF	9.12	-	J	0.912	0.346				
2,3,4,6,7,8-HxCDF	5.19	-	J	0.519	0.292				
1,2,3,7,8,9-HxCDF	1.46	-	J	0.146	0.474	Total TCDF	25.4	-	D,M
1,2,3,4,6,7,8-HpCDF	82.2	-		0.822	0.497	Total PeCDF	60.5	-	D,M
1,2,3,4,7,8,9-HpCDF	7.34	-	J	0.0734	0.587	Total HxCDF	217	-	D,M
OCDF	252	-		0.0756	1.32	Total HpCDF	261	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	97.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	132	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.4	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	85.8	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	88.6	23.0 - 140	
13C-OCDD	88.3	17.0 - 157	
13C-2,3,7,8-TCDF	94.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	133	24.0 - 185	
13C-2,3,4,7,8-PeCDF	137	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	85.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	82.2	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	86.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	87.8	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	84.4	26.0 - 138	
13C-OCDF	77.5	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	108	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: _____
Date: 1/15/10

Reviewed By: _____
Date: 1/15/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5904-002-SA
Client ID: CB4857123109COMP
Matrix: Aqueous
Batch No: X1918

Date Extracted: 01-13-2010
Date Received: 01-05-2010
Amount: 1.015 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 01-14-2010
2005 WHO TEQ: 6.48

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.599		-	0.320				
1,2,3,7,8-PeCDD	ND	1.62		-	0.491				
1,2,3,4,7,8-HxCDD	2.71	-	J	0.271	0.483				
1,2,3,6,7,8-HxCDD	6.81	-	J	0.681	0.665	Total TCDD	ND	0.599	
1,2,3,7,8,9-HxCDD	4.83	-	J	0.483	0.650	Total PeCDD	ND	1.62	
1,2,3,4,6,7,8-HpCDD	212	-		2.12	0.985	Total HxCDD	38.5	-	
OCDD	2380	-		0.714	1.93	Total HpCDD	369	-	
2,3,7,8-TCDF	ND	0.611		-	0.305				
1,2,3,7,8-PeCDF	ND	0.866		-	0.340				
2,3,4,7,8-PeCDF	ND	0.947		-	0.441				
1,2,3,4,7,8-HxCDF	7.21	-	J	0.721	0.317				
1,2,3,6,7,8-HxCDF	6.41	-	J	0.641	0.346				
2,3,4,6,7,8-HxCDF	3.15	-	J	0.315	0.292				
1,2,3,7,8,9-HxCDF	ND	0.992		-	0.474	Total TCDF	17.0	-	D,M
1,2,3,4,6,7,8-HpCDF	45.8	-		0.458	0.497	Total PeCDF	47.5	-	D,M
1,2,3,4,7,8,9-HpCDF	4.30	-	J	0.0430	0.587	Total HxCDF	129	-	D,M
OCDF	122	-		0.0366	1.32	Total HpCDF	146	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.3	25.0 - 164	
13C-1,2,3,7,8-PeCDD	78.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	75.1	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	77.5	23.0 - 140	
13C-OCDD	76.0	17.0 - 157	
13C-2,3,7,8-TCDF	83.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	82.3	24.0 - 185	
13C-2,3,4,7,8-PeCDF	77.9	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	75.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	72.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	75.2	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	72.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	73.2	26.0 - 138	
13C-OCDF	68.4	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	89.4	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: _____
Date: 1/15/10

Reviewed By: _____
Date: 1/15/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5904-003-SA
Client ID: CB1123109COMP
Matrix: Aqueous
Batch No: X1918

Date Extracted: 01-13-2010
Date Received: 01-05-2010
Amount: 1.026 L

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/L

Acquired: 01-14-2010
2005 WHO TEQ: 0.302

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.530		-	0.320				
1,2,3,7,8-PeCDD	ND	1.01		-	0.491				
1,2,3,4,7,8-HxCDD	ND	1.17		-	0.483				
1,2,3,6,7,8-HxCDD	ND	1.38		-	0.665	Total TCDD	ND	0.530	
1,2,3,7,8,9-HxCDD	ND	1.26		-	0.650	Total PeCDD	ND	1.01	
1,2,3,4,6,7,8-HpCDD	* 20.4	-	J	0.204	0.985	Total HxCDD	5.97	-	J
OCDD	151	-		0.0453	1.93	Total HpCDD	39.9	-	
2,3,7,8-TCDF	ND	0.686		-	0.305				
1,2,3,7,8-PeCDF	ND	0.545		-	0.340				
2,3,4,7,8-PeCDF	ND	0.588		-	0.441				
1,2,3,4,7,8-HxCDF	ND	0.652		-	0.317				
1,2,3,6,7,8-HxCDF	ND	0.669		-	0.346				
2,3,4,6,7,8-HxCDF	ND	0.679		-	0.292				
1,2,3,7,8,9-HxCDF	ND	0.752		-	0.474	Total TCDF	ND	0.686	
1,2,3,4,6,7,8-HpCDF	4.85	-	J	0.0485	0.497	Total PeCDF	1.51	-	J
1,2,3,4,7,8,9-HpCDF	ND	0.719		-	0.587	Total HxCDF	6.13	-	J
OCDF	13.0	-	J	0.00390	1.32	Total HpCDF	11.5	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	86.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	85.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	79.2	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	89.5	23.0 - 140	
13C-OCDD	90.6	17.0 - 157	
13C-2,3,7,8-TCDF	89.0	24.0 - 169	
13C-1,2,3,7,8-PeCDF	90.7	24.0 - 185	
13C-2,3,4,7,8-PeCDF	87.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	82.0	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	77.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	81.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	82.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	81.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.0	26.0 - 138	
13C-OCDF	82.7	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	105	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: _____
Date: 1/15/10

Reviewed By: _____
Date: 1/15/10

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SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 01/04/10

ANALYTICAL RESOURCES INCORPORATED

ARI Project: QD71

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

Package & EDD

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

5904
0

Analytical Protocol: In-house
Special Instructions:

Requested Turn Around: **01/18/10**
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 sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
10-14-QD71A	CB31A123109COMP *	12/31/09 22:37	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-15-QD71B	CB4857123109COMP	12/31/09 23:57	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
10-16-QD71C	CB1123109COMP	12/31/09 21:37	Water	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					

* use sample ID from COC per Ms. Dunnihoo to Gabby. GN 1/6/10

Carrier		Airbill		Date	
UPS		1Z832169501 4589 0798		1/4/10	
Relinquished by	Company		Date		Time
	ARI		1/4/10		1135
Received by	Company		Date		Time
	Frontier Analytical		1/5/10		1015

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **5904**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QD71
Date Received:	01/05/2010
Time Received:	10:15 am
Received By:	GN
Logged In By:	GN
# of Samples Received:	3
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1Z8326950145890798
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	12/31/2010
Adequate Sample Volume	Yes
Anomalies or additional comments:	

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Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 18, 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: QD62

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 QD62

SD/sdrd

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody
Documentation

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: QDU2	Turn-around Requested: STANDARD	Page: 1 of 1	
ARI Client Company: FLOYD / SNIDER	Phone: 206-292-2078	Date: 12/31/09	Ice Present? YES
Client Contact: MATT WOLTMAN / JESSIE MASSINGALE		No. of Coolers: 1	Cooler Temps: 4.3
Client Project Name: LORA LAKES APARTMENTS			
Client Project #: POS-LLA	Samplers: B. KWASNOWSKI / P. HETZEL		

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

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: NWTPH-Dx	Analysis Requested: VOC 8260C SIM	Notes/Comments
CB314123109GRAB	12/31/09	12:45	W	5	X	X	
CB465712310GRAB	12/31/09	13:25	W	5	X	X	
CB123109GRAB	12/31/09	13:00	W	5	X	X	
TB123109	12/31/09	12:00	W	3		X	

Comments/Special Instructions	Relinquished by: (Signature)	Printed Name:	Company:	Date & Time:	Received by: (Signature)	Printed Name:	Company:	Date & Time:	Relinquished by: (Signature)	Printed Name:	Company:	Date & Time:	Received by: (Signature)	Printed Name:	Company:	Date & Time:
① ACID/SILICA CLEAN-UP FOR TPH-Dx		BRAD KWASNOWSKI	JAYCOR ASSOCIATES	12/31/09 @ 14:35	J. Peterson	A. Peterson	ARI	12/31/09 1435								

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Floyd Snider
Project Name: Lora Lakes
COC No(s): _____ (NA)
Delivered by: Fed-Ex UPS Courier (Hand) Delivered Other: _____
Assigned ARI Job No: QD62
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)	4.3	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	90941619

Cooler Accepted by: JP Date: 12/31/09 Time: 1435

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	~~Bubble Wrap~~ ~~Wet Ice~~ Gel Packs Baggies (Foam Block) Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		(YES)	NO
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	(NO)
Were all VOC vials free of air bubbles?	NA	(YES)	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	NA	12/11/09	

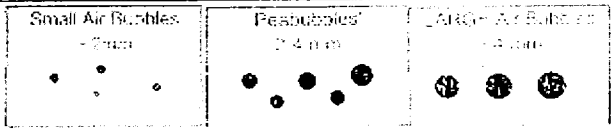
Samples Logged by: JP Date: 12/31/09 Time: 1440

***** 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"

QD62 : 00004

Case Narrative

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Case Narrative

Client: Floyd Snider
Project: Lora Lake Apartments, POS-LLA
Matrix: Water
ARI Job No.: QD62

Sample receipt

Analytical Resources, Inc. (ARI) accepted three water samples and a trip blank on December 31, 2009 under ARI job QD62. The cooler temperature measured by IR thermometer following ARI SOP was 4.3°C. For details regarding sample receipt, refer to the enclosed Cooler Receipt Form.

Volatiles by SW8260 and SW8260-SIM

The samples were 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 and LCSD percent recoveries and RPDs were within control limits.

Insufficient sample was received for matrix QC.

Sample preservation was confirmed within limits after analysis.

NW-TPHDx with Acid Silica cleanups

The samples were extracted and analyzed within the method recommended holding times. Insufficient volume was received for matrix QC so the LCS was extracted in duplicate.

Initial calibrations and continuing calibrations were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS was run in duplicate, with percent recoveries and RPD within control limits.

The analyst noted the residual range pattern resembled a mixture of 30 and 40 wt oil.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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 ≥ 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

QD62 : 00007

Data Reporting Qualifiers

Effective 7/10/2009

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥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

QD62 : 00008

LCS SOLUTIONS

1/5/2010

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1686-1	PCB 1660	20	ACETONE	09/01/10
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1620-4	PEST	02/04/20	ACETONE	06/26/10
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1655-3	PCP	12.5/125	ACETONE	09/24/10
7	1677-3	ABN	100	ACETONE	07/01/10
8	1681-4	TBT	2.5	MECL2	12/01/10
9	1682-2	PORE TBT	.125/.25	MECL2	12/01/10
10	1621-4	ABN ACID	100/200	MEOH	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1622-2	ABN BASE	200	ACETONE	02/05/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15*	1591-3	SIM PNA	15/75	MEOH	08/28/10
16	1602-3	DIOXANE	100	MEOH	03/20/10
17	1644-1	1248 PCB	10	ACETONE	09/10/10
18*	1591-4	LOW SIM PNA	1.5	ACETONE	08/28/10
19	1685-3	AK103	7500	ACETONE	09/03/10
20	1682-4	PNA	100	ACETONE	12/04/10
21	1593-3	SKY/BHT	100	MEOH	03/31/10
22	1675-1	HERB	12.5/12500	MEOH	02/19/10
23*	1505-1	LW ABN BASE	20	MEOH	03/20/10
24	1613-2	LOW ABN	10	ACETONE	02/28/10
25#	1481-1	DIPHENYL	100	MEOH	NA
26*	1545-2	OP-PEST	25	MEOH	02/16/10
27	1668-3	STEROLS	200	MEOH	10/30/10
28#	1684-1	ADD. PEST	4	ACETONE	03/25/10
29#	1496-3	DECANES	100	MEOH	NA
30	1620-1	EDB/DBCP	0.2	MEOH	06/22/10
31	1596-1	TERPINEOL	100	MEOH	04/03/10

QD62 : 00009

LCS SOLUTIONS

1/5/2010

32	1619-3	GUAIACOL	50-200	ACETONE	04/30/10
33	1639-3	RETENE	100	MEOH	09/03/10
34	1633-1	CONGENERS	2.5	ACETONE	08/11/10
35	1674-3	ALKYL PNA A	10	MEOH	10/28/10
36	1601-3	ALKYL PNA B	10	MEOH	05/13/10
50	1617-1	FULL RESIN	250	ACETONE	06/17/10
51	1611-3	DDTS	2.5	ACETONE	06/04/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
	*=REVERIFIED SOLUTION				
	#=PROJECT SPECIFIC SOLUTION				

QD62 : 00010

SURR SOLUTIONS

1/5/2010

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1662-3	ABN	100/150	MEOH	10/08/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C*	1559-1	SIM ABN	25/37.5	MEOH	03/13/10
D	1689-2	LOW PCB	0.2	ACETONE	12/29/10
E	1661-2	HERB	62.5	MEOH	10/02/10
F	1683-3	PCP	12.5	ACETONE	12/09/10
G*	1534-1	1,4DIOXANE	100	MEOH	02/20/10
H	1594-1	OP-PEST	25	MEOH	04/01/10
I	1634-1	LOW S. PNA	1.5	MEOH	08/12/10
J	1681-2	TBT-PORE	0.125	MECL2	12/01/10
K	1689-1	MED PCB	20	ACETONE	12/29/10
L	1681-1	TBT	2.5	MECL2	12/01/10
M	1682-1	EPH	1500	MECL2	09/17/10
N	1689-3	PCB	2	ACETONE	12/29/10
O	1647-2	TPH	450	MECL2	07/02/10
P	1666-3	HCID	2250	MECL2	05/06/10
Q	1620-2	EDB	1	MEOH	06/22/10
R	1615-1	RESIN ACID	250	ACETONE	06/17/10
S#	1568-5	PBDE	.25	MEOH	NA
T	1674-2	ALKYL PNA	10	MEOH	07/30/10
U	1633-1	CONGENER	2.5	ACETONE	08/11/10
V					
*reverified solution					
#project specific					
Y					
Z					

QD62:00011

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]		
tert-Butanol	49 - 150	32 - 167
Metyl-*tert*-butylether	47 - 154	29 - 172
Di-*iso*-propylether	43 - 149	25 - 167
Ethyl-*tert*-butylether	45 - 155	27 - 173
tert-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 tert-Butyl Ether	78 - **120**	72 - 122
Carbon Disulfide	66 - 129	56 - 140
trans-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
cis-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

QD62 : 00012

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)

QD62 : 00013

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.

QD62:00014

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
cis-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.

QD62:00015

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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.

QD62 : 00016

Data Summary Package

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

VOLATILE ANALYSIS

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: CB31A123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62A
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 12:55

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.8%
d8-Toluene	97.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: CB4857123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62B
LIMS ID: 09-32252
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 13:50

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.9%
d8-Toluene	98.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: CB1123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62C
LIMS ID: 09-32253
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 14:15

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.6%
d8-Toluene	99.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: Trip Blanks SAMPLE**
Page 1 of 1

Lab Sample ID: QD62D
LIMS ID: 09-32254
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 11:39

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.2%
d8-Toluene	99.7%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-010610	Method Blank	10	98.3%	100%	NA	NA	0
LCS-010610	Lab Control	10	97.9%	99.4%	NA	NA	0
LCSD-010610	Lab Control Dup	10	99.6%	99.0%	NA	NA	0
QD62A	CB31A123109Grab	10	95.8%	97.5%	NA	NA	0
QD62B	CB4857123109Grab	10	96.9%	98.2%	NA	NA	0
QD62C	CB1123109Grab	10	98.6%	99.0%	NA	NA	0
QD62D	Trip Blanks	10	98.2%	99.7%	NA	NA	0

	LCS/MB LIMITS	QC LIMITS
SW8260C		
(DCE) = d4-1,2-Dichloroethane	70-132	80-143
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 09-32251 to 09-32254

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-010610**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-010610
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/PKC
LCSD: NT5/PKC
Date Analyzed LCS: 01/06/10 10:14
LCSD: 01/06/10 10:40

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	9.2	10.0	92.0%	9.4	10.0	94.0%	2.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	97.9%	99.6%
d8-Toluene	99.4%	99.0%

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0106

Lab Name: ANALYTICAL RESOURCES, INC
Client: FLOYD/SNIDER

ARI Job No: QD62
Project: LORA LAKES APARTMENTS

Lab File ID: 01061005
Lab Sample ID: MB0106

Date Analyzed: 01/06/10
Time Analyzed: 1105

Instrument ID: NT5
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	LCS0106	LCS0106	01061003	1014
02	LCSD0106	LCSD0106	01061004	1040
03	TRIP BLANKS	QD62D	01061006	1139
04	CB31A123109G	QD62A	01061009	1255
05	CB4857123109	QD62B	01061011	1350
06	CB1123109GRA	QD62C	01061012	1415
07				
08				
09				
10				
11				
12				
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COMMENTS:

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-010610**
METHOD BLANK
Page 1 of 1

Lab Sample ID: MB-010610
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 11:05

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.3%
d8-Toluene	100%

SIM VOLATILE ANALYSIS

QD62 : 00027

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: CB31A123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62A
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 11:45

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	106%
d8-Toluene	102%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: CB4857123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62B
LIMS ID: 09-32252
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 12:12

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	107%
d8-Toluene	101%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: CB1123109Grab**
SAMPLE
Page 1 of 1

Lab Sample ID: QD62C
LIMS ID: 09-32253
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 12:38

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	102%
d8-Toluene	102%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: Trip Blanks SAMPLE**
Page 1 of 1

Lab Sample ID: QD62D
LIMS ID: 09-32254
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 11:18

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	101%
d8-Toluene	99.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

Client ID	DCE	TOL	TOT OUT
MB-010610	100%	101%	0
LCS-010610	90.9%	101%	0
LCSD-010610	92.7%	99.4%	0
CB31A123109Grab	106%	102%	0
CB4857123109Grab	107%	101%	0
CB1123109Grab	102%	102%	0
Trip Blanks	101%	99.9%	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: 09-32251 to 09-32254

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-010610
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-010610
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-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: 01/06/10 09:45
LCSD: 01/06/10 10:11

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
cis-1,2-Dichloroethene	0.938	1.00	93.8%	1.00	1.00	100%	6.4%
trans-1,2-Dichloroethene	0.956	1.00	95.6%	1.02	1.00	102%	6.5%
Trichloroethene	0.978	1.00	97.8%	1.02	1.00	102%	4.2%
Tetrachloroethene	1.00	1.00	100%	1.06	1.00	106%	5.8%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	90.9%	92.7%
d8-Toluene	101%	99.4%

4A

VOLATILE METHOD BLANK SUMMARY

Method Blank ID. _____

Lab Name: ANALYTICAL RESOURCES, INC — Client: FLOYD/SNIDER

ARI Job No: QD62 — Project: LORA LAKES APARTMENTS

Lab File ID: 01061005 — Lab Sample ID: MB0106

Date Analyzed: 01/06/10 — Time Analyzed: 1038

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		LCS0106	01061003	0945
02		LCSD0106	01061004	1011
03	TRIP BLANKS	QD62D	01061006	1118
04	CB31A123109G	QD62A	01061007	1145
05	CB4857123109	QD62B	01061008	1212
06	CB1123109GRA	QD62C	01061009	1238
07				
08				
09				
10				
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COMMENTS:

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: MB-010610**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-010610
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 10:38

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	100%
d8-Toluene	101%

FORM I

TPHD ANALYSIS

ANALYTICAL RESOURCES INCORPORATED

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: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

Data Release Authorized:
Reported: 01/06/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-010410	Method Blank	01/04/10	01/05/10	1.00	Diesel	0.25	< 0.25 U
09-32251	HC ID: ---		FID4A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		77.8%
QD62A	CB31A123109Grab	01/04/10	01/05/10	1.00	**Diesel**	**0.25**	**0.73**
09-32251	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**0.50**	**4.9**
					o-Terphenyl		82.5%
QD62B	CB4857123109Grab	01/04/10	01/05/10	1.00	Diesel	0.25	< 0.25 U
09-32252	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**0.50**	**1.4**
					o-Terphenyl		77.0%
QD62C	CB1123109Grab	01/04/10	01/05/10	1.00	Diesel	0.25	< 0.25 U
09-32253	HC ID: ---		FID4A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		68.5%

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.

FORM I

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

Client ID	OTER	TOT OUT
MB-010410	77.8%	0
LCS-010410	83.7%	0
LCSD-010410	86.0%	0
CB31A123109Grab	82.5%	0
CB4857123109Grab	77.0%	0
CB1123109Grab	68.5%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(51-120)	(41-121)

Prep Method: SW3510C
Log Number Range: 09-32251 to 09-32253

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-010410**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-010410
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Date Extracted LCS/LCSD: 01/04/10

Date Analyzed LCS: 01/05/10 18:40
LCSD: 01/05/10 19:04
Instrument/Analyst LCS: FID/MS
LCSD: FID/MS

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.39	3.00	79.7%	2.46	3.00	82.0%	2.9%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	83.7%	86.0%

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

Laboratory Data Package

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Volatile Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-010610	Method Blank	10	98.3%	100%	NA	NA	0
LCS-010610	Lab Control	10	97.9%	99.4%	NA	NA	0
LCSD-010610	Lab Control Dup	10	99.6%	99.0%	NA	NA	0
QD62A	CB31A123109Grab	10	95.8%	97.5%	NA	NA	0
QD62B	CB4857123109Grab	10	96.9%	98.2%	NA	NA	0
QD62C	CB1123109Grab	10	98.6%	99.0%	NA	NA	0
QD62D	Trip Blanks	10	98.2%	99.7%	NA	NA	0

	LCS/MB LIMITS	QC LIMITS
SW8260C		
(DCE) = d4-1,2-Dichloroethane	70-132	80-143
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 09-32251 to 09-32254

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-010610**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-010610
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/PKC
LCSD: NT5/PKC
Date Analyzed LCS: 01/06/10 10:14
LCSD: 01/06/10 10:40

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	9.2	10.0	92.0%	9.4	10.0	94.0%	2.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	97.9%	99.6%
d8-Toluene	99.4%	99.0%

4A

VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0106

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QD62

Project: LORA LAKES APARTMENTS

Lab File ID: 01061005

Lab Sample ID: MB0106

Date Analyzed: 01/06/10

Time Analyzed: 1105

Instrument ID: NT5

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	LCS0106	LCS0106	01061003	1014
02	LCSD0106	LCSD0106	01061004	1040
03	TRIP BLANKS	QD62D	01061006	1139
04	CB31A123109G	QD62A	01061009	1255
05	CB4857123109	QD62B	01061011	1350
06	CB1123109GRA	QD62C	01061012	1415
07				
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COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD/SNIDER

Lab Code: ARI Case No.: LORA LAKES APARTMENTS SDG No.: QD62

Lab File ID: 01041001 BFB Injection Date: 01/04/10

Instrument ID: NT5 BFB Injection Time: 1015

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	14.7
75	30.0 - 66.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 101.0% of mass 95	89.7
175	4.0 - 9.0% of mass 174	6.3 (7.1)1
176	93.0 - 101.0% of mass 174	89.2 (99.4)1
177	5.0 - 9.0% of mass 176	5.9 (6.6)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	0.5 PPB	0.5_0104	01041003	01/04/10	1128
02	1 PPB	1.0_0104	01041004	01/04/10	1153
03	2 PPB	2.0_0104	01041005	01/04/10	1219
04	10 PPB	10_0104	01041006	01/04/10	1244
05	20 PPB	20_0104	01041007	01/04/10	1310
06	40 PPB	40_0104	01041008	01/04/10	1336
07	60 PPB	60_0104	01041009	01/04/10	1401
08	8260 ICV 10 PPB	ICV10_0104	01041012	01/04/10	1519
09	0.2 PPB	0.2_0104	01041014	01/04/10	1613
10					
11					
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22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD/SNIDER

Lab Code: ARI Case No.: LORA LAKES APARTMENTS SDG No.: QD62

Lab File ID: 01061001 BFB Injection Date: 01/06/10

Instrument ID: NT5 BFB Injection Time: 0913

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	13.9
75	30.0 - 66.0% of mass 95	44.7
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 (0.3)1
174	50.0 - 101.0% of mass 95	86.2
175	4.0 - 9.0% of mass 174	6.6 (7.6)1
176	93.0 - 101.0% of mass 174	85.1 (98.7)1
177	5.0 - 9.0% of mass 176	5.3 (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	CC0106	CC0106	01061002	01/06/10	0949
02	LCS0106	LCS0106	01061003	01/06/10	1014
03	LCSD0106	LCSD0106	01061004	01/06/10	1040
04	MB0106	MB0106	01061005	01/06/10	1105
05	TRIP BLANKS	QD62D	01061006	01/06/10	1139
06	CB31A123109GRAB	QD62A	01061009	01/06/10	1255
07	CB4857123109GRAB	QD62B	01061011	01/06/10	1350
08	CB1123109GRAB	QD62C	01061012	01/06/10	1415
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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC | Client: FLOYD/SNIDER

ARI Job No: QD62 | Project: LORA LAKES APARTMENTS

Ical Midpoint ID: 01041006 | Ical Date: 01/04/10

Instrument ID: NT5 | Project Run Date: 01/06/10

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CLB) AREA #	RT #
	ICAL MIDPT	906926	4.83	1305872	5.28	1174180	7.74
	UPPER LIMIT	1813852	5.33	2611744	5.78	2348360	8.24
	LOWER LIMIT	453463	4.33	652936	4.78	587090	7.24
	Sample ID						
01	LCS0106	923624	4.83	1340046	5.28	1201326	7.74
02	LCSD0106	935795	4.83	1352393	5.28	1190991	7.74
03	MB0106	924782	4.83	1344877	5.28	1210251	7.74
04	TRIP BLANKS	879035	4.83	1301444	5.28	1185986	7.74
05	CB31A123109G	903662	4.83	1297915	5.28	1151298	7.74
06	CB4857123109	896377	4.83	1287357	5.28	1158466	7.74
07	CB1123109GRA	881438	4.83	1289421	5.28	1157898	7.74
08							
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22							

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CLB) = d5-Chlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Ical Midpoint ID: 01041006 Ical Date: 01/04/10

Instrument ID: NT5 Project Run Date: 01/06/10

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	665265	9.81				
	UPPER LIMIT	1330530	10.31				
	LOWER LIMIT	332632	9.31				
	Sample ID						
01	LCS0106	667263	9.81				
02	LCSD0106	661167	9.81				
03	MB0106	655074	9.80				
04	TRIP BLANKS	623540	9.80				
05	CB31A123109G	619903	9.80				
06	CB4857123109	616932	9.81				
07	CB1123109GRA	614104	9.80				
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (DCB) = d4-1,4-Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

Volatile Analysis
Sample Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: CB31A123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62A
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 12:55

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.8%
d8-Toluene	97.5%

PC 1/7/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/06JAN10.b/01061009.d
Lab Smp Id: QD62A Client Smp ID: CB31A123109Grab
Inj Date : 06-JAN-2010 12:55
Operator : PC Inst ID: nt5.i
Smp Info : QD62A,10,10,0,
Misc Info : 09-32251
Comment :
Method : /chem1/nt5.i/06JAN10.b/VO010410L.m
Meth Date : 07-Jan-2010 09:32 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.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 (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	1.215	1.221	(0.252)	5204	0.12195	0.1220
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
14 Acetone	43	2.658	2.658	(0.550)	37691	8.86129	8.861(M)
7 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
18 Acrylonitrile	53	Compound Not Detected.					
16 Methyl tert butyl ether	73	Compound Not Detected.					
8 Carbon Disulfide	76	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	29 2-Butanone	72	Compound Not Detected.					
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	32 Pentafluorobenzene	168	4.830	4.830	(1.000)	903662	10.0000	
	23 Chloroform	83	Compound Not Detected.					
	22 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	4.355	4.355	(0.902)	316538	9.75491	9.755
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	24 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	304864	9.58027	9.580
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	30 Benzene	78	4.700	4.700	(0.891)	52565	0.30044	0.3004
*	35 1,4-Difluorobenzene	114	5.277	5.271	(1.000)	1297915	10.0000	
	34 Trichloroethene	130	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	37 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	6.832	6.827	(1.295)	15205	2.17013	2.170
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.436	6.436	(1.220)	1338133	9.74828	9.748
	43 Toluene	92	6.482	6.482	(1.228)	63081	0.51603	0.5160
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	44 Tetrachloroethene	166	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1151298	10.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	7.924	7.930	(1.023)	21947	0.24855	0.2486
	57 o-Xylene	106	8.298	8.292	(1.072)	11301	0.13138	0.1314
	58 Styrene	104	Compound Not Detected.					
	60 Isopropyl Benzene	105	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	64 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	510267	9.71667	9.717
	66 1,2,3-Trichloropropane	110	Compound Not Detected.					
	68 Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
	63 N-Propyl Benzene	91	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	62 Bromobenzene	156	Compound Not Detected.					
	67 1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
	65 2-Chloro Toluene	91	Compound Not Detected.					
	69 4-Chloro Toluene	91	Compound Not Detected.					
	70 T-Butyl Benzene	119	Compound Not Detected.					
	71 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	72 S-Butyl Benzene	105	Compound Not Detected.					
	73 4-Isopropyl Toluene	119	9.706	9.706	(0.990)	37362	0.21227	0.2123
	74 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	75 d4-1,4-Dichlorobenzene	152	9.802	9.808	(1.000)	619903	10.0000	
	76 1,4-Dichlorobenzene	146	Compound Not Detected.					
	77 N-Butyl Benzene	91	Compound Not Detected.					
$	78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	549896	9.96136	9.961
	79 1,2-Dichlorobenzene	146	Compound Not Detected.					
	81 1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
	83 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	82 Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
	84 Naphthalene	128	11.901	11.895	(1.214)	10942	0.11055	0.1105
	85 1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01061009.d
Lab Smp Id: QD62A
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-32251

Calibration Date: 06-JAN-2010
Calibration Time: 09:49
Client Smp ID: CB31A123109Grab
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	903662	-0.36
35 1,4-Difluorobenze	1305872	652936	2611744	1297915	-0.61
52 d5-Chlorobenzene	1174180	587090	2348360	1151298	-1.95
75 d4-1,4-Dichlorobe	665265	332632	1330530	619903	-6.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.27	4.77	5.77	5.28	0.11
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.80	-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: QD62A
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-32251

Client SDG: QD62
Fraction: VOA
Client Smp ID: CB31A123109Grab
Operator: PC
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	10.000	9.755	97.55	64-133
$ 31 d4-1,2-Dichloroeth	10.000	9.580	95.80	70-132
$ 42 d8-Toluene	10.000	9.748	97.48	80-120
$ 61 4-Bromofluorobenze	10.000	9.717	97.17	80-120
$ 78 d4-1,2-Dichloroben	10.000	9.961	99.61	80-120

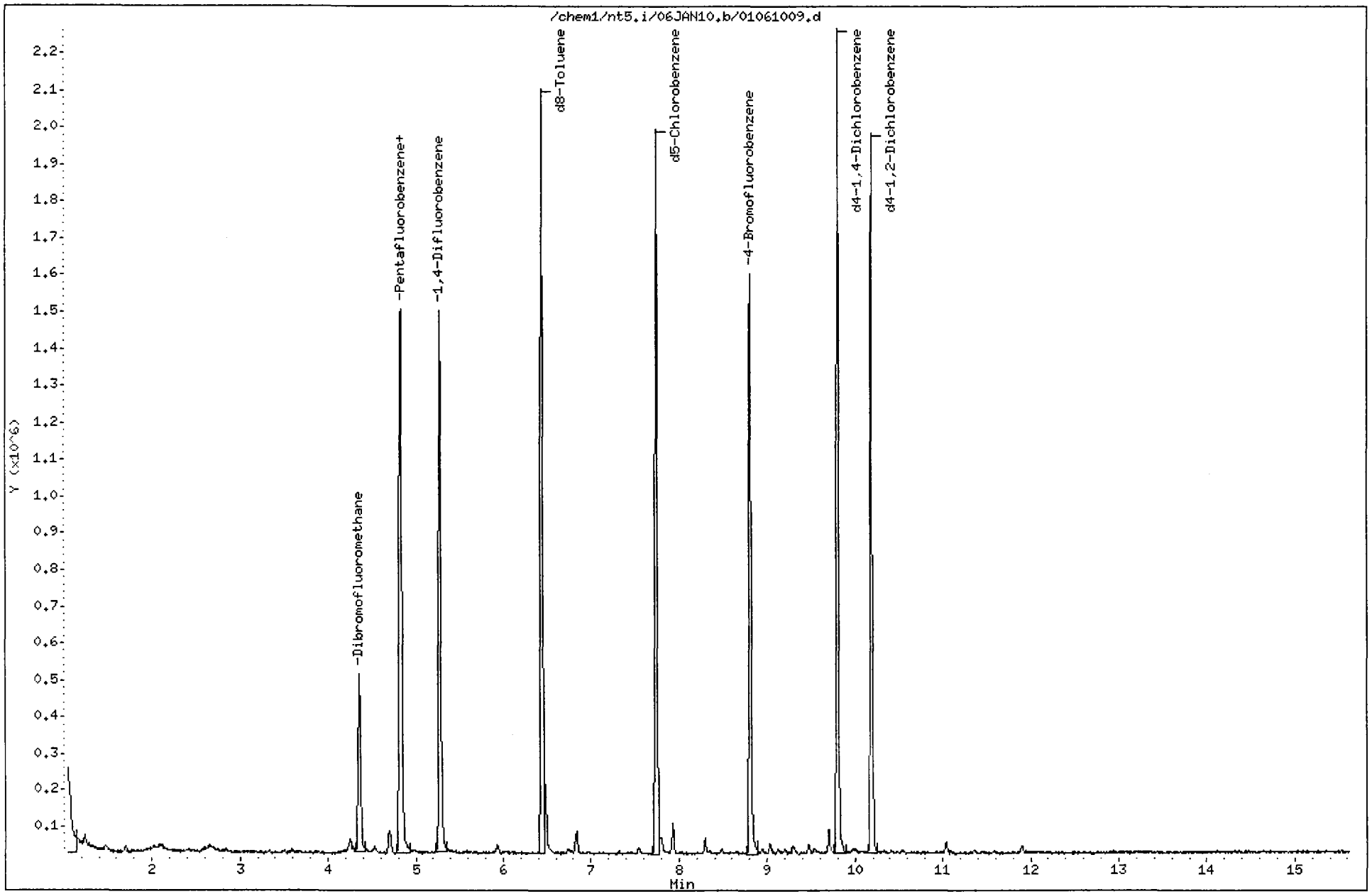
Data File: /chem1/nt5.i/06JAN10.b/01061009.d
Date : 06-JAN-2010 12:55
Client ID: CB31A123109Grab
Sample Info: QD62A,10,10,0,

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS

QD62A00056



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: CB4857123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62B
LIMS ID: 09-32252
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 13:50

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.9%
d8-Toluene	98.2%

PC 1/7/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/06JAN10.b/01061011.d
Lab Smp Id: QD62B Client Smp ID: CB4857123109Grab
Inj Date : 06-JAN-2010 13:50
Operator : PC Inst ID: nt5.i
Smp Info : QD62B,10,10,0,
Misc Info : 09-32252
Comment :
Method : /chem1/nt5.i/06JAN10.b/VO010410L.m
Meth Date : 07-Jan-2010 09:32 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.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 (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
14 Acetone	43	2.663	2.658	(0.551)	19304	4.57534	4.575(M)
7 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
18 Acrylonitrile	53	Compound Not Detected.					
16 Methyl tert butyl ether	73	Compound Not Detected.					
8 Carbon Disulfide	76	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	29 2-Butanone	72	Compound Not Detected.					
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	32 Pentafluorobenzene	168	4.830	4.830	(1.000)	896377	10.0000	
	23 Chloroform	83	Compound Not Detected.					
	22 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	4.355	4.355	(0.902)	315454	9.80051	9.801
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	24 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	4.819	4.824	(0.998)	305888	9.69057	9.691
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	30 Benzene	78	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.277	5.271	(1.000)	1287357	10.0000	
	34 Trichloroethene	130	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	37 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	6.827	6.827	(1.294)	8865	1.27563	1.276(Q)
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.436	6.436	(1.220)	1337634	9.82457	9.825
	43 Toluene	92	6.482	6.482	(1.228)	16697	0.13771	0.1377
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	44 Tetrachloroethene	166	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.737	7.743	(1.000)	1158466	10.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	60 Isopropyl Benzene	105	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	64 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	61 4-Bromofluorobenzene	95	8.807	8.807	(1.138)	495167	9.37079	9.371
	66 1,2,3-Trichloropropane	110	Compound Not Detected.					
	68 Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
	63 N-Propyl Benzene	91	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	62 Bromobenzene	156	Compound Not Detected.					
	67 1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
	65 2-Chloro Toluene	91	Compound Not Detected.					
	69 4-Chloro Toluene	91	Compound Not Detected.					
	70 T-Butyl Benzene	119	9.700	9.401	(0.989)	15470	0.10428	0.1043(Q)
	71 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	72 S-Butyl Benzene	105	Compound Not Detected.					
	73 4-Isopropyl Toluene	119	Compound Not Detected.					
	74 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	75 d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	616932	10.0000	
	76 1,4-Dichlorobenzene	146	Compound Not Detected.					
	77 N-Butyl Benzene	91	Compound Not Detected.					
$	78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	554313	10.0897	10.090
	79 1,2-Dichlorobenzene	146	Compound Not Detected.					
	81 1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
	83 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	82 Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
	84 Naphthalene	128	Compound Not Detected.					
	85 1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01061011.d
Lab Smp Id: QD62B
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-32252

Calibration Date: 06-JAN-2010
Calibration Time: 09:49
Client Smp ID: CB4857123109Grab
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	896377	-1.16
35 1,4-Difluorobenze	1305872	652936	2611744	1287357	-1.42
52 d5-Chlorobenzene	1174180	587090	2348360	1158466	-1.34
75 d4-1,4-Dichlorobe	665265	332632	1330530	616932	-7.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.27	4.77	5.77	5.28	0.11
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	-0.07
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	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: QD62B
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-32252

Client SDG: QD62
Fraction: VOA
Client Smp ID: CB4857123109Grab
Operator: PC
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	10.000	9.801	98.01	64-133
$ 31 d4-1,2-Dichloroeth	10.000	9.691	96.91	70-132
$ 42 d8-Toluene	10.000	9.825	98.25	80-120
$ 61 4-Bromofluorobenze	10.000	9.371	93.71	80-120
$ 78 d4-1,2-Dichloroben	10.000	10.090	100.90	80-120

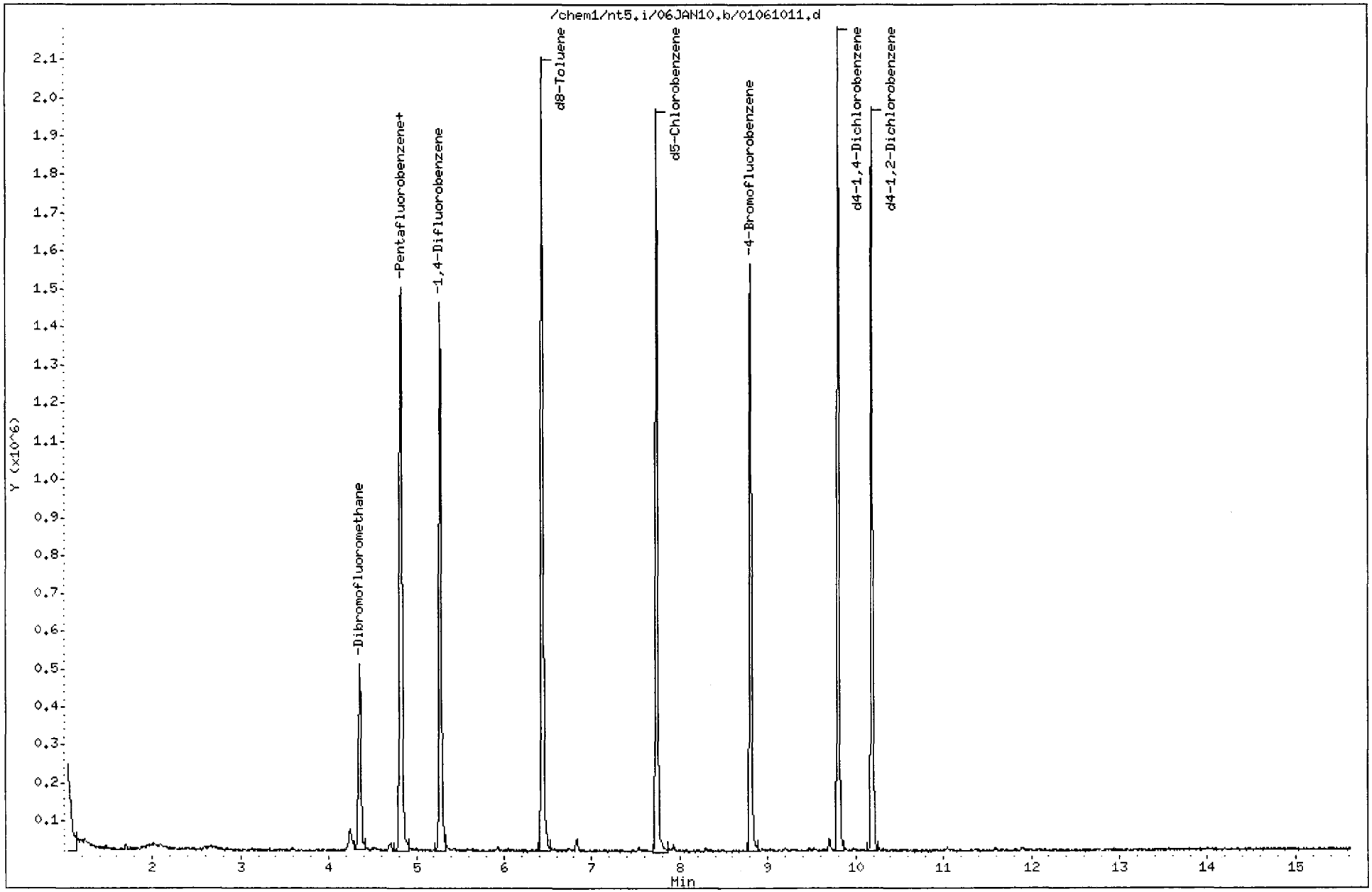
Data File: /chem1/nt5.i/06JAN10.b/01061011.d
Date : 06-JAN-2010 13:50
Client ID: CB4857123109Grab
Sample Info: QD62B,10,10,0,

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS

QD62: 00063



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: CB1123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62C
LIMS ID: 09-32253
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 14:15

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.6%
d8-Toluene	99.0%

PC
1/7/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/06JAN10.b/01061012.d
Lab Smp Id: QD62C Client Smp ID: CB1123109Grab
Inj Date : 06-JAN-2010 14:15
Operator : PC Inst ID: nt5.i
Smp Info : QD62C,10,10,0,
Misc Info : 09-32253
Comment :
Method : /chem1/nt5.i/06JAN10.b/VO010410L.m
Meth Date : 07-Jan-2010 09:32 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.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 (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
14 Acetone	43	2.652	2.658	(0.549)	15269	3.68036	3.680(M)
7 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
18 Acrylonitrile	53	Compound Not Detected.					
16 Methyl tert butyl ether	73	Compound Not Detected.					
8 Carbon Disulfide	76	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	29 2-Butanone	72	Compound Not Detected.					
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	32 Pentafluorobenzene	168	4.830	4.830	(1.000)	881438	10.0000	
	23 Chloroform	83	Compound Not Detected.					
	22 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	4.355	4.355	(0.902)	312567	9.87540	9.875
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	24 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	305978	9.85771	9.858
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	30 Benzene	78	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.277	5.271	(1.000)	1289421	10.0000	
	34 Trichloroethene	130	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	37 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.437	6.436	(1.220)	1349568	9.89635	9.896
	43 Toluene	92	Compound Not Detected.					
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	44 Tetrachloroethene	166	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1157898	10.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	60 Isopropyl Benzene	105	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	64 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	504896	9.55960	9.560
	66 1,2,3-Trichloropropane	110	Compound Not Detected.					
	68 Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
	63 N-Propyl Benzene	91	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
	62 Bromobenzene	156	Compound Not Detected.					
	67 1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
	65 2-Chloro Toluene	91	Compound Not Detected.					
	69 4-Chloro Toluene	91	Compound Not Detected.					
	70 T-Butyl Benzene	119	Compound Not Detected.					
	71 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	72 S-Butyl Benzene	105	Compound Not Detected.					
	73 4-Isopropyl Toluene	119	Compound Not Detected.					
	74 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	75 d4-1,4-Dichlorobenzene	152	9.802	9.808	(1.000)	614104	10.0000	
	76 1,4-Dichlorobenzene	146	Compound Not Detected.					
	77 N-Butyl Benzene	91	Compound Not Detected.					
$	78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	548503	10.0300	10.030
	79 1,2-Dichlorobenzene	146	Compound Not Detected.					
	81 1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
	83 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	82 Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
	84 Naphthalene	128	Compound Not Detected.					
	85 1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01061012.d
Lab Smp Id: QD62C
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-32253

Calibration Date: 06-JAN-2010
Calibration Time: 09:49
Client Smp ID: CB1123109Grab
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	881438	-2.81
35 1,4-Difluorobenze	1305872	652936	2611744	1289421	-1.26
52 d5-Chlorobenzene	1174180	587090	2348360	1157898	-1.39
75 d4-1,4-Dichlorobe	665265	332632	1330530	614104	-7.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.27	4.77	5.77	5.28	0.11
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.80	-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: QD62C
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-32253

Client SDG: QD62
Fraction: VOA
Client Smp ID: CB1123109Grab
Operator: PC
SampleType: SAMPLE
Quant Type: ISTD

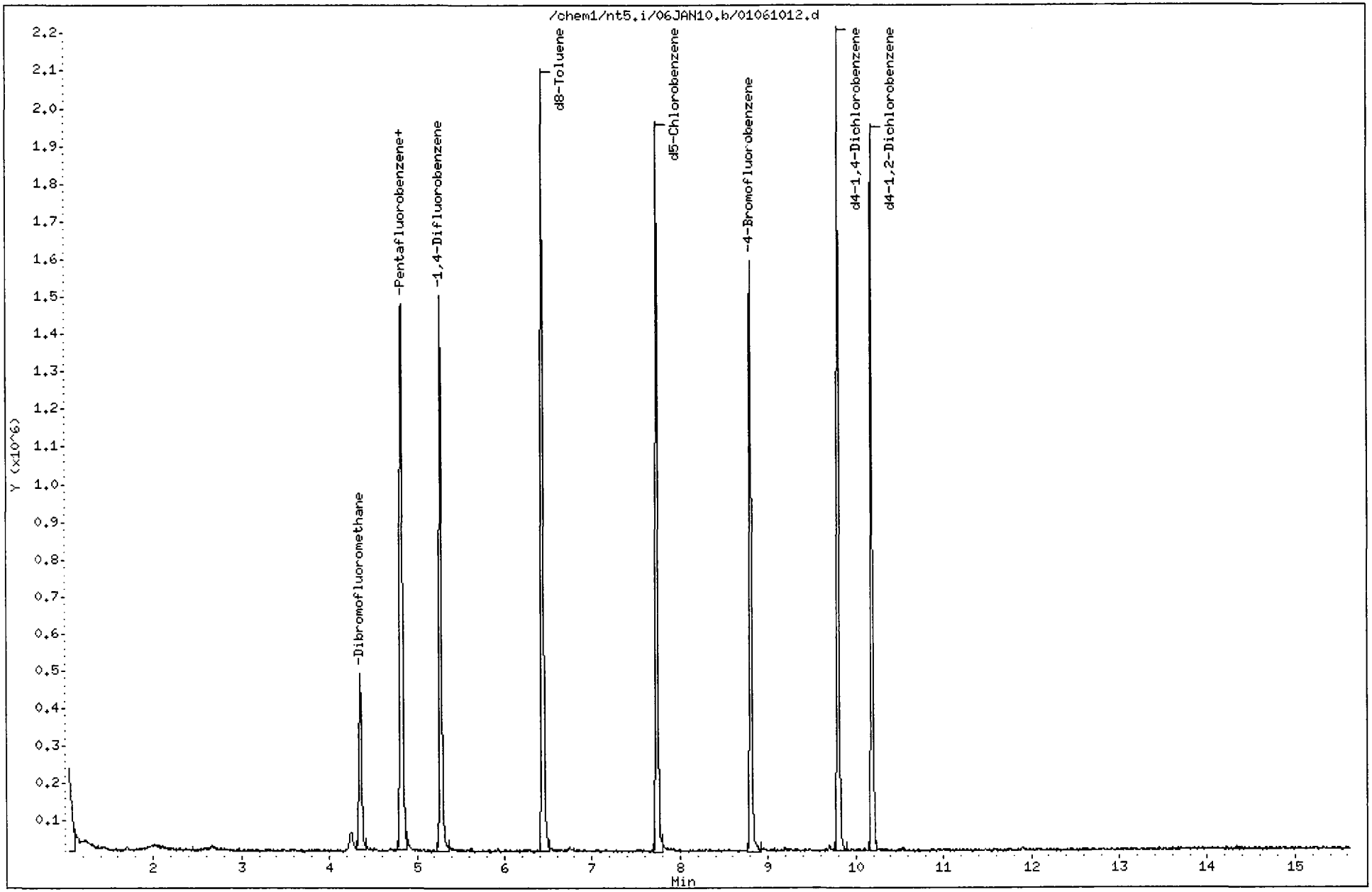
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	10.000	9.875	98.75	64-133
$ 31 d4-1,2-Dichloroeth	10.000	9.858	98.58	70-132
$ 42 d8-Toluene	10.000	9.896	98.96	80-120
$ 61 4-Bromofluorobenze	10.000	9.560	95.60	80-120
$ 78 d4-1,2-Dichloroben	10.000	10.030	100.30	80-120

Data File: /chem1/nt5.i/06JAN10.b/01061012.d
Date : 06-JAN-2010 14:15
Client ID: CB1123109Grab
Sample Info: QD62C,10,10,0,

Instrument: nt5.i

Operator: PC
Column phase: RTXVMS
Column diameter: 0.18

QD62:66670



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: Trip Blanks**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62D
LIMS ID: 09-32254
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 11:39

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.2%
d8-Toluene	99.7%

PC 1/7/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/06JAN10.b/01061006.d
Lab Smp Id: QD62D Client Smp ID: Trip Blanks
Inj Date : 06-JAN-2010 11:39
Operator : PC Inst ID: nt5.i
Smp Info : QD62D,10,10,0,
Misc Info : 09-32254
Comment :
Method : /chem1/nt5.i/06JAN10.b/VO010410L.m
Meth Date : 07-Jan-2010 09:32 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.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 (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
14 Acetone	43	Compound Not Detected.					
7 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
18 Acrylonitrile	53	Compound Not Detected.					
16 Methyl tert butyl ether	73	Compound Not Detected.					
8 Carbon Disulfide	76	2.098	2.098	(0.434)	15020	0.10374	0.1037
15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	19 Vinyl Acetate	43	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	29 2-Butanone	72	Compound Not Detected.					
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	32 Pentafluorobenzene	168	4.830	4.830	(1.000)	879035	10.0000	
	23 Chloroform	83	Compound Not Detected.					
	22 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	4.360	4.355	(0.903)	317928	10.0722	10.072
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	24 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	4.819	4.824	(0.998)	303897	9.81743	9.817
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	30 Benzene	78	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.277	5.271	(1.000)	1301444	10.0000	
	34 Trichloroethene	130	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	37 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.436	6.436	(1.220)	1372726	9.97317	9.973
	43 Toluene	92	Compound Not Detected.					
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	44 Tetrachloroethene	166	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1185986	10.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	60 Isopropyl Benzene	105	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	64 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	513879	9.49925	9.499
	66 1,2,3-Trichloropropane	110	Compound Not Detected.					
	68 Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
	63 N-Propyl Benzene	91	Compound Not Detected.					
	62 Bromobenzene	156	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
67	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
65	2-Chloro Toluene	91	Compound Not Detected.					
69	4-Chloro Toluene	91	Compound Not Detected.					
70	T-Butyl Benzene	119	Compound Not Detected.					
71	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
72	S-Butyl Benzene	105	Compound Not Detected.					
73	4-Isopropyl Toluene	119	Compound Not Detected.					
74	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 75	d4-1,4-Dichlorobenzene	152	9.802	9.808	(1.000)	623540	10.0000	
76	1,4-Dichlorobenzene	146	Compound Not Detected.					
77	N-Butyl Benzene	91	Compound Not Detected.					
$ 78	d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	546915	9.84958	9.850
79	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
83	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
82	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
84	Naphthalene	128	Compound Not Detected.					
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01061006.d
Lab Smp Id: QD62D
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-32254

Calibration Date: 06-JAN-2010
Calibration Time: 09:49
Client Smp ID: Trip Blanks
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	879035	-3.08
35 1,4-Difluorobenze	1305872	652936	2611744	1301444	-0.34
52 d5-Chlorobenzene	1174180	587090	2348360	1185986	1.01
75 d4-1,4-Dichlorobe	665265	332632	1330530	623540	-6.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.27	4.77	5.77	5.28	0.11
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.80	-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: QD62D
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-32254

Client SDG: QD62
Fraction: VOA
Client Smp ID: Trip Blanks
Operator: PC
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	10.000	10.072	100.72	64-133
$ 31 d4-1,2-Dichloroeth	10.000	9.817	98.17	70-132
$ 42 d8-Toluene	10.000	9.973	99.73	80-120
$ 61 4-Bromofluorobenze	10.000	9.499	94.99	80-120
$ 78 d4-1,2-Dichloroben	10.000	9.850	98.50	80-120

Data File: /chem1/nt5.i/06JAN10.b/01061006.d

Date : 06-JAN-2010 11:39

Client ID: Trip Blanks

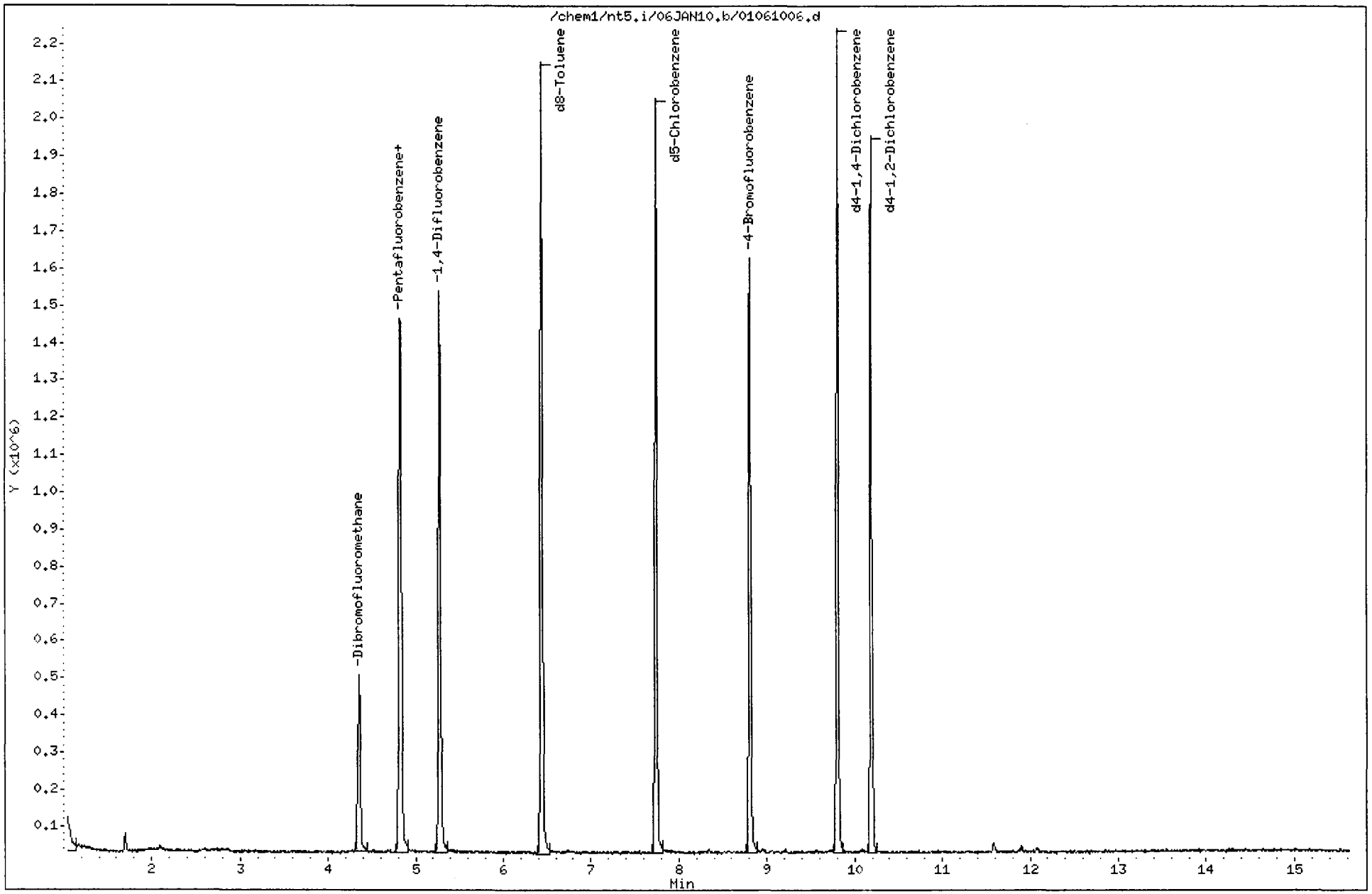
Sample Info: QD62D,10,10,0,

Column phase: RTXVMS

Instrument: nt5.i

Operator: PC

Column diameter: 0.18



Volatile Analysis
Standard Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

LAB FILE ID: RF0.2: 01041014 RF0.5: 01041003 RF1: 01041004
RF2: 01041005 RF10: 01041006

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF10
Chloromethane	0.492	0.443	0.456	0.531	0.466
Vinyl Chloride	0.586	0.514	0.547	0.599	0.554
Bromomethane	0.257	0.202	0.220	0.249	0.263
Chloroethane	0.374	0.330	0.362	0.364	0.325
Trichlorofluoromethane	0.740	0.681	0.761	0.790	0.711
Acrolein			0.048	0.043	0.040
112Trichloro122Trifluoroetha	0.588	0.468	0.518	0.542	0.499
Acetone		0.054	0.053	0.051	0.041
1,1-Dichloroethene	0.575	0.450	0.498	0.541	0.489
Bromoethane	0.370	0.308	0.356	0.386	0.342
Iodomethane		0.333	0.406	0.467	0.505
Methylene Chloride		0.517	0.522	0.539	0.484
Acrylonitrile			0.091	0.083	0.072
Carbon Disulfide	1.879	1.537	1.705	1.771	1.658
Trans-1,2-Dichloroethene	0.615	0.522	0.573	0.583	0.555
Vinyl Acetate			0.410	0.450	0.442
1,1-Dichloroethane	0.828	0.704	0.788	0.858	0.796
2-Butanone		0.029	0.033	0.032	0.029
2,2-Dichloropropane	0.843	0.720	0.791	0.822	0.756
Cis-1,2-Dichloroethene	0.560	0.484	0.562	0.583	0.551
Chloroform	0.896	0.711	0.825	0.891	0.835
Bromochloromethane	0.243	0.201	0.245	0.268	0.239
1,1,1-Trichloroethane	0.781	0.751	0.808	0.886	0.810
1,1-Dichloropropene	0.480	0.384	0.460	0.473	0.471
Carbon Tetrachloride	0.294	0.304	0.362	0.411	0.422
1,2-Dichloroethane	0.358	0.297	0.392	0.379	0.357
Benzene	1.484	1.232	1.370	1.473	1.368
Trichloroethene	0.430	0.389	0.428	0.450	0.432
1,2-Dichloropropane	0.356	0.274	0.297	0.308	0.299
Bromodichloromethane	0.403	0.320	0.390	0.419	0.394
Dibromomethane	0.164	0.144	0.154	0.162	0.153
2-Chloroethyl Vinyl Ether			0.096	0.110	0.111
4-Methyl-2-Pentanone		0.048	0.055	0.059	0.054
Cis 1,3-dichloropropene	0.544	0.424	0.498	0.532	0.507
Toluene	1.019	0.875	1.004	1.014	0.963
Trans 1,3-Dichloropropene	0.457	0.378	0.415	0.430	0.424
2-Hexanone		0.070	0.083	0.090	0.089

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

LAB FILE ID: RF0.2: 01041014 RF0.5: 01041003 RF1: 01041004
RF2: 01041005 RF10: 01041006

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF10
1,1,2-Trichloroethane	0.241	0.210	0.236	0.240	0.230
1,3-Dichloropropane	0.449	0.383	0.433	0.471	0.436
Tetrachloroethene	0.545	0.431	0.504	0.549	0.509
Chlorodibromomethane	0.347	0.266	0.294	0.320	0.320
1,2-Dibromoethane	0.228	0.192	0.228	0.238	0.229
Chlorobenzene	1.279	1.022	1.183	1.224	1.149
Ethyl Benzene	2.102	1.771	2.031	2.155	2.030
1,1,1,2-Tetrachloroethane	0.413	0.347	0.406	0.415	0.400
m,p-xylene	0.832	0.694	0.796	0.863	0.807
o-Xylene	0.792	0.604	0.741	0.791	0.787
Styrene	1.208	0.969	1.157	1.321	1.251
Bromoform	0.360	0.264	0.327	0.343	0.310
1,1,2,2-Tetrachloroethane	0.483	0.353	0.428	0.441	0.410
1,2,3-Trichloropropane		0.124	0.158	0.147	0.135
Trans-1,4-Dichloro 2-Butene		0.091	0.118	0.114	0.113
N-Propyl Benzene	4.154	3.292	3.950	4.058	3.741
Bromobenzene	1.019	0.770	0.958	0.938	0.873
Isopropyl Benzene	3.613	2.835	3.412	3.587	3.412
2-Chloro Toluene	2.534	1.895	2.374	2.515	2.337
4-Chloro Toluene	2.484	2.024	2.384	2.534	2.418
T-Butyl Benzene	2.516	1.985	2.512	2.612	2.510
1,3,5-Trimethyl Benzene	3.114	2.246	2.897	3.006	2.855
1,2,4-Trimethylbenzene	3.128	2.253	2.822	3.022	2.874
S-Butyl Benzene	3.914	2.824	3.564	3.701	3.464
4-Isopropyl Toluene	3.153	2.334	2.933	3.098	2.989
1,3-Dichlorobenzene	2.088	1.535	1.821	1.854	1.715
1,4-Dichlorobenzene	2.048	1.536	1.806	1.834	1.702
N-Butyl Benzene	2.885	1.929	2.398	2.573	2.471
1,2-Dichlorobenzene	1.767	1.344	1.594	1.613	1.529
1,2-Dibromo 3-Chloropropane		0.075	0.089	0.087	0.077
1,2,4-Trichlorobenzene		0.789	0.994	0.996	0.982
Hexachloro 1,3-Butadiene		0.402	0.440	0.490	0.447
Naphthalene		1.237	1.535	1.636	1.680
1,2,3-Trichlorobenzene		0.651	0.793	0.826	0.801
Methyl tert butyl ether	1.084	0.961	1.007	1.088	1.021
Dichlorodifluoromethane	0.417	0.379	0.455	0.494	0.444
Hexane	0.731	0.604	0.626	0.633	0.591

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

LAB FILE ID: RF0.2: 01041014 RF0.5: 01041003 RF1: 01041004
RF2: 01041005 RF10: 01041006

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF10
d4-1,2-Dichloroethane	0.350	0.352	0.354	0.360	0.345
d8-Toluene	1.056	1.053	1.053	1.049	1.064
4-Bromofluorobenzene	0.440	0.442	0.451	0.446	0.458
d4-1,2-Dichlorobenzene	0.885	0.899	0.915	0.899	0.878
Dibromofluoromethane	0.357	0.362	0.358	0.361	0.356

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

LAB FILE ID: RF20: 01041007 RF40: 01041008 RF60: 01041009

COMPOUND	RF20	RF40	RF60
Chloromethane	0.472	0.458	0.459
Vinyl Chloride	0.547	0.545	0.552
Bromomethane	0.297	0.314	0.333
Chloroethane	0.311	0.277	0.278
Trichlorofluoromethane	0.717	0.713	0.702
Acrolein	0.040	0.040	0.041
112Trichloro122Trifluoroetha	0.485	0.479	0.475
Acetone	0.042	0.043	0.046
1,1-Dichloroethene	0.483	0.459	0.468
Bromoethane	0.346	0.335	0.341
Iodomethane	0.529	0.546	0.551
Methylene Chloride	0.484	0.479	0.483
Acrylonitrile	0.072	0.071	0.075
Carbon Disulfide	1.603	1.532	1.490
Trans-1,2-Dichloroethene	0.540	0.543	0.545
Vinyl Acetate	0.457	0.467	0.488
1,1-Dichloroethane	0.773	0.766	0.790
2-Butanone	0.028	0.029	0.030
2,2-Dichloropropane	0.736	0.733	0.753
Cis-1,2-Dichloroethene	0.540	0.531	0.546
Chloroform	0.813	0.813	0.824
Bromochloromethane	0.238	0.235	0.242
1,1,1-Trichloroethane	0.795	0.784	0.806
1,1-Dichloropropene	0.457	0.450	0.457
Carbon Tetrachloride	0.425	0.431	0.433
1,2-Dichloroethane	0.347	0.343	0.339
Benzene	1.332	1.291	1.233
Trichloroethene	0.421	0.415	0.410
1,2-Dichloropropane	0.289	0.285	0.288
Bromodichloromethane	0.392	0.394	0.395
Dibromomethane	0.153	0.151	0.150
2-Chloroethyl Vinyl Ether	0.114	0.118	0.120
4-Methyl-2-Pentanone	0.054	0.054	0.053
Cis 1,3-dichloropropene	0.499	0.489	0.487
Toluene	0.921	0.886	0.852
Trans 1,3-Dichloropropene	0.408	0.406	0.402
2-Hexanone	0.088	0.089	0.093

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

LAB FILE ID: RF20: 01041007 RF40: 01041008 RF60: 01041009

COMPOUND	RF20	RF40	RF60
1,1,2-Trichloroethane	0.225	0.221	0.221
1,3-Dichloropropane	0.425	0.426	0.437
Tetrachloroethene	0.481	0.479	0.474
Chlorodibromomethane	0.325	0.326	0.335
1,2-Dibromoethane	0.229	0.226	0.225
Chlorobenzene	1.105	1.078	1.046
Ethyl Benzene	1.966	1.905	1.696
1,1,1,2-Tetrachloroethane	0.393	0.391	0.394
m,p-xylene	0.761	0.716	0.667
o-Xylene	0.758	0.756	0.748
Styrene	1.239	1.189	1.135
Bromoform	0.321	0.326	0.332
1,1,2,2-Tetrachloroethane	0.422	0.433	0.450
1,2,3-Trichloropropane	0.132	0.138	0.138
Trans-1,4-Dichloro 2-Butene	0.117	0.128	0.131
N-Propyl Benzene	3.603	3.390	3.058
Bromobenzene	0.868	0.864	0.862
Isopropyl Benzene	3.312	3.157	2.876
2-Chloro Toluene	2.280	2.248	2.153
4-Chloro Toluene	2.328	2.319	2.198
T-Butyl Benzene	2.431	2.404	2.268
1,3,5-Trimethyl Benzene	2.770	2.688	2.516
1,2,4-Trimethylbenzene	2.806	2.717	2.523
S-Butyl Benzene	3.339	3.191	2.867
4-Isopropyl Toluene	2.899	2.794	2.516
1,3-Dichlorobenzene	1.652	1.639	1.581
1,4-Dichlorobenzene	1.680	1.643	1.588
N-Butyl Benzene	2.400	2.361	2.147
1,2-Dichlorobenzene	1.487	1.482	1.427
1,2-Dibromo 3-Chloropropane	0.081	0.079	0.081
1,2,4-Trichlorobenzene	0.977	0.980	0.936
Hexachloro 1,3-Butadiene	0.415	0.418	0.363
Naphthalene	1.718	1.710	1.660
1,2,3-Trichlorobenzene	0.791	0.792	0.737
Methyl tert butyl ether	1.015	1.005	1.018
Dichlorodifluoromethane	0.451	0.443	0.445
Hexane	0.569	0.567	0.561

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

LAB FILE ID: RF20: 01041007 RF40: 01041008 RF60: 01041009

COMPOUND	RF20	RF40	RF60
d4-1,2-Dichloroethane	0.349	0.348	0.359
d8-Toluene	1.057	1.063	1.065
4-Bromofluorobenzene	0.455	0.477	0.480
d4-1,2-Dichlorobenzene	0.884	0.888	0.877
Dibromofluoromethane	0.360	0.354	0.363

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
Chloromethane	AVRG	0.472	5.9
Vinyl Chloride	AVRG	0.556	4.7
Bromomethane	AVRG	0.267	16.9
Chloroethane	AVRG	0.328	11.5
Trichlorofluoromethane	AVRG	0.727	4.8
Acrolein	AVRG	0.042	7.3
112Trichloro122Trifluoroetha	AVRG	0.507	8.1
Acetone	AVRG	0.047	11.7
1,1-Dichloroethene	AVRG	0.495	8.6
Bromoethane	AVRG	0.348	6.7
Iodomethane	AVRG	0.477	17.0
Methylene Chloride	AVRG	0.501	4.8
Acrylonitrile	AVRG	0.077	10.7
Carbon Disulfide	AVRG	1.647	8.1
Trans-1,2-Dichloroethene	AVRG	0.560	5.2
Vinyl Acetate	AVRG	0.452	5.8
1,1-Dichloroethane	AVRG	0.788	5.8
2-Butanone	AVRG	0.030	5.6
2,2-Dichloropropane	AVRG	0.769	5.8
Cis-1,2-Dichloroethene	AVRG	0.545	5.3
Chloroform	AVRG	0.826	6.9
Bromochloromethane	AVRG	0.239	7.7
1,1,1-Trichloroethane	AVRG	0.803	4.8
1,1-Dichloropropene	AVRG	0.454	6.6
Carbon Tetrachloride	AVRG	0.385	15.0
1,2-Dichloroethane	AVRG	0.351	8.1
Benzene	AVRG	1.348	7.2
Trichloroethene	AVRG	0.422	4.2
1,2-Dichloropropane	AVRG	0.300	8.4
Bromodichloromethane	AVRG	0.388	7.5
Dibromomethane	AVRG	0.154	4.2
2-Chloroethyl Vinyl Ether	AVRG	0.112	7.8
4-Methyl-2-Pentanone	AVRG	0.054	6.3
Cis 1,3-dichloropropene	AVRG	0.498	7.2
Toluene	AVRG	0.942	7.1
Trans 1,3-Dichloropropene	AVRG	0.415	5.6
2-Hexanone	AVRG	0.086	9.0

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
1,1,2-Trichloroethane	AVRG	0.228	4.7
1,3-Dichloropropane	AVRG	0.432	5.8
Tetrachloroethene	AVRG	0.496	7.9
Chlorodibromomethane	AVRG	0.317	8.0
1,2-Dibromoethane	AVRG	0.225	6.1
Chlorobenzene	AVRG	1.136	7.9
Ethyl Benzene	AVRG	1.957	8.1
1,1,1,2-Tetrachloroethane	AVRG	0.395	5.4
m,p-xylene	AVRG	0.767	9.1
o-Xylene	AVRG	0.747	8.2
Styrene	AVRG	1.184	8.8
Bromoform	AVRG	0.323	8.7
1,1,2,2-Tetrachloroethane	AVRG	0.428	8.7
1,2,3-Trichloropropane	AVRG	0.139	7.8
Trans-1,4-Dichloro 2-Butene	AVRG	0.116	11.2
N-Propyl Benzene	AVRG	3.656	10.7
Bromobenzene	AVRG	0.894	8.5
Isopropyl Benzene	AVRG	3.275	9.1
2-Chloro Toluene	AVRG	2.292	9.0
4-Chloro Toluene	AVRG	2.336	7.0
T-Butyl Benzene	AVRG	2.405	8.2
1,3,5-Trimethyl Benzene	AVRG	2.761	10.1
1,2,4-Trimethylbenzene	AVRG	2.768	10.0
S-Butyl Benzene	AVRG	3.358	11.4
4-Isopropyl Toluene	AVRG	2.839	10.0
1,3-Dichlorobenzene	AVRG	1.736	10.4
1,4-Dichlorobenzene	AVRG	1.730	9.4
N-Butyl Benzene	AVRG	2.396	11.8
1,2-Dichlorobenzene	AVRG	1.530	8.4
1,2-Dibromo 3-Chloropropane	AVRG	0.081	6.2
1,2,4-Trichlorobenzene	AVRG	0.950	7.8
Hexachloro 1,3-Butadiene	AVRG	0.425	9.4
Naphthalene	AVRG	1.597	10.6
1,2,3-Trichlorobenzene	AVRG	0.770	7.6
Methyl tert butyl ether	AVRG	1.025	4.1
Dichlorodifluoromethane	AVRG	0.441	7.5
Hexane	AVRG	0.610	9.1

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Calibration Date: 01/04/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
d4-1,2-Dichloroethane	AVRG	0.352	1.5
d8-Toluene	AVRG	1.058	0.5
4-Bromofluorobenzene	AVRG	0.456	3.3
d4-1,2-Dichlorobenzene	AVRG	0.890	1.4
Dibromofluoromethane	AVRG	0.359	0.8

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/VO010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt5.i/04JAN10.b/01041014.d
Level 2: /chem1/nt5.i/04JAN10.b/01041003.d
Level 3: /chem1/nt5.i/04JAN10.b/01041004.d
Level 4: /chem1/nt5.i/04JAN10.b/01041005.d
Level 5: /chem1/nt5.i/04JAN10.b/01041006.d
Level 6: /chem1/nt5.i/04JAN10.b/01041007.d
Level 7: /chem1/nt5.i/04JAN10.b/01041008.d
Level 8: /chem1/nt5.i/04JAN10.b/01041009.d

Compound	0.20000 Level 1 / 40.000 Level 7	0.50000 Level 2 / 60.000 Level 8	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	___ RRF	% RSD
1 Dichlorodifluoromethane	0.41701	0.37909	0.45489	0.49457	0.44452	0.45086		
	0.44285	0.44538					0.44115	7.471
172 Hexane	0.73081	0.60356	0.62637	0.63286	0.59112	0.56939		
	0.56693	0.56117					0.61028	9.120
2 Chloromethane	0.49236	0.44281	0.45595	0.53134	0.46593	0.47179		
	0.45809	0.45944					0.47222	5.900
3 Vinyl Chloride	0.58640	0.51383	0.54746	0.59923	0.55415	0.54738		
	0.54493	0.55169					0.55563	4.743
4 Bromomethane	0.25749	0.20220	0.22053	0.24946	0.26265	0.29675		
	0.31451	0.33304					0.26708	16.910
5 Chloroethane	0.37367	0.32967	0.36260	0.36411	0.32464	0.31093		
	0.27731	0.27757					0.32756	11.541

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/VO010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	60.000 Level 8						
6 Trichlorofluoromethane	0.74020	0.68125	0.76125	0.79049	0.71069	0.71717		
	0.71294	0.70179					0.72697	4.840
7 1,1-Dichloroethene	0.57475	0.44995	0.49798	0.54097	0.48943	0.48334		
	0.45872	0.46756					0.49534	8.615
8 Carbon Disulfide	1.87946	1.53688	1.70549	1.77146	1.65838	1.60280		
	1.53175	1.49006					1.64704	8.116
9 112Trichloro122Trifluoroethan	0.58802	0.46815	0.51811	0.54259	0.49939	0.48485		
	0.47914	0.47464					0.50686	8.113
10 Iodomethane	+++++	0.33267	0.40656	0.46739	0.50479	0.52894		
	0.54656	0.55065					0.47680	17.043
11 Bromoethane	0.36968	0.30809	0.35604	0.38593	0.34201	0.34600		
	0.33533	0.34143					0.34806	6.703
12 Acrolein	+++++	+++++	0.04775	0.04261	0.04044	0.03954		
	0.03985	0.04108					0.04188	7.346
13 Methylene Chloride	+++++	0.51734	0.52259	0.53910	0.48456	0.48427		
	0.47910	0.48310					0.50144	4.840
14 Acetone	+++++	0.05395	0.05287	0.05090	0.04063	0.04197		
	0.04281	0.04635					0.04707	11.695

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/VO010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	60.000 Level 8						
15 Trans-1,2-Dichloroethene	0.61484	0.52227	0.57341	0.58276	0.55487	0.54036		
	0.54297	0.54479					0.55953	5.258
16 Methyl tert butyl ether	1.08438	0.96136	1.00691	1.08760	1.02085	1.01548		
	1.00461	1.01853					1.02496	4.104
17 1,1-Dichloroethane	0.82793	0.70354	0.78801	0.85768	0.79620	0.77276		
	0.76567	0.79004					0.78773	5.755
18 Acrylonitrile	+++++	+++++	0.09136	0.08328	0.07158	0.07163		
	0.07080	0.07548					0.07736	10.720
19 Vinyl Acetate	+++++	+++++	0.40980	0.45010	0.44180	0.45717		
	0.46737	0.48824					0.45241	5.817
20 Cis-1,2-Dichloroethene	0.56021	0.48397	0.56159	0.58297	0.55087	0.54017		
	0.53139	0.54591					0.54464	5.338
21 2,2-Dichloropropane	0.84347	0.72048	0.79131	0.82224	0.75637	0.73569		
	0.73266	0.75271					0.76937	5.830
22 Bromochloromethane	0.24322	0.20124	0.24543	0.26833	0.23888	0.23793		
	0.23499	0.24192					0.23899	7.701
23 Chloroform	0.89552	0.71061	0.82478	0.89061	0.83543	0.81305		
	0.81285	0.82376					0.82583	6.904

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/V0010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	60.000 Level 8						
24 Carbon Tetrachloride	0.29414	0.30414	0.36221	0.41118	0.42188	0.42507		
	0.43124	0.43267					0.38531	14.997
26 1,1,1-Trichloroethane	0.78108	0.75104	0.80843	0.88607	0.80993	0.79530		
	0.78367	0.80559					0.80264	4.848
28 1,1-Dichloropropene	0.48010	0.38379	0.45989	0.47309	0.47091	0.45667		
	0.44988	0.45690					0.45390	6.624
29 2-Butanone	+++++	0.02910	0.03316	0.03170	0.02898	0.02860		
	0.02912	0.03032					0.03014	5.649
30 Benzene	1.48453	1.23234	1.36971	1.47280	1.36844	1.33248		
	1.29087	1.23292					1.34801	7.161
33 1,2-Dichloroethane	0.35833	0.29696	0.39186	0.37863	0.35736	0.34675		
	0.34333	0.33875					0.35150	8.099
27 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
34 Trichloroethene	0.43053	0.38946	0.42805	0.45017	0.43179	0.42129		
	0.41469	0.41020					0.42202	4.249
37 Dibromomethane	0.16384	0.14388	0.15424	0.16194	0.15340	0.15301		
	0.15074	0.14972					0.15385	4.201

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/VO010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	60.000 Level 8						
38 1,2-Dichloropropane	0.35639	0.27388	0.29672	0.30820	0.29917	0.28947		
	0.28479	0.28823					0.29961	8.387
40 2-Chloroethyl Vinyl Ether	+++++	+++++	0.09572	0.11051	0.11119	0.11418		
	0.11767	0.12044					0.11162	7.760
39 Bromodichloromethane	0.40318	0.31969	0.38989	0.41923	0.39352	0.39226		
	0.39391	0.39489					0.38832	7.543
36 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
41 Cis 1,3-dichloropropene	0.54415	0.42406	0.49782	0.53251	0.50727	0.49925		
	0.48870	0.48660					0.49754	7.243
43 Toluene	1.01898	0.87507	1.00458	1.01402	0.96279	0.92148		
	0.88560	0.85224					0.94185	7.134
44 Tetrachloroethene	0.54524	0.43134	0.50458	0.54920	0.50862	0.48120		
	0.47882	0.47365					0.49658	7.866
45 4-Methyl-2-Pentanone	+++++	0.04773	0.05522	0.05927	0.05431	0.05433		
	0.05400	0.05302					0.05398	6.315
46 Trans 1,3-Dichloropropene	0.45675	0.37776	0.41525	0.43035	0.42425	0.40830		
	0.40553	0.40198					0.41502	5.581

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/VO010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	60.000 Level 8						
47 1,1,2-Trichloroethane	0.24140	0.21056	0.23551	0.24054	0.23041	0.22532		
	0.22085	0.22104					0.22820	4.713
48 Chlorodibromomethane	0.34708	0.26602	0.29430	0.31989	0.31996	0.32477		
	0.32632	0.33470					0.31663	8.004
49 1,3-Dichloropropane	0.44909	0.38273	0.43318	0.47086	0.43609	0.42467		
	0.42562	0.43728					0.43244	5.777
50 1,2-Dibromoethane	0.22767	0.19247	0.22852	0.23860	0.22943	0.22947		
	0.22630	0.22468					0.22464	6.074
51 2-Hexanone	+++++	0.06957	0.08302	0.08962	0.08880	0.08854		
	0.08939	0.09276					0.08596	9.052
53 Chlorobenzene	1.27899	1.02153	1.18333	1.22385	1.14878	1.10475		
	1.07823	1.04630					1.13572	7.877
54 Ethyl Benzene	2.10249	1.77146	2.03114	2.15484	2.03058	1.96560		
	1.90506	1.69638					1.95720	8.109
55 1,1,1,2-Tetrachloroethane	0.41285	0.34732	0.40650	0.41541	0.40029	0.39286		
	0.39132	0.39415					0.39509	5.401
56 m,p-xylene	0.83173	0.69396	0.79604	0.86307	0.80688	0.76114		
	0.71596	0.66690					0.76696	9.066

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/VO010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	40.000 Level 7	60.000 Level 8	RRF	% RSD
57 o-Xylene	0.79214	0.60404	0.74112	0.79140	0.78694	0.75833	0.75567	0.74762	0.74716	8.201
59 Bromoform	0.36036	0.26389	0.32683	0.34279	0.31017	0.32091	0.32624	0.33222	0.32293	8.727
58 Styrene	1.20768	0.96894	1.15730	1.32084	1.25075	1.23876	1.18941	1.13461	1.18354	8.814
60 Isopropyl Benzene	3.61279	2.83498	3.41198	3.58668	3.41218	3.31197	3.15722	2.87573	3.27544	9.065
62 Bromobenzene	1.01891	0.76978	0.95856	0.93853	0.87263	0.86805	0.86428	0.86244	0.89415	8.475
63 N-Propyl Benzene	4.15400	3.29191	3.95007	4.05841	3.74143	3.60337	3.39023	3.05835	3.65597	10.678
64 1,1,2,2-Tetrachloroethane	0.48348	0.35313	0.42845	0.44073	0.41025	0.42252	0.43326	0.44993	0.42772	8.703
65 2-Chloro Toluene	2.53434	1.89476	2.37400	2.51500	2.33718	2.27958	2.24809	2.15297	2.29199	8.979
66 1,2,3-Trichloropropane	+++++	0.12425	0.15796	0.14695	0.13522	0.13248	0.13825	0.13793	0.13900	7.763

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/V0010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	60.000 Level 8						
67 1,3,5-Trimethyl Benzene	3.11387	2.24585	2.89675	3.00594	2.85464	2.76953		
	2.68757	2.51564					2.76122	10.084
68 Trans-1,4-Dichloro 2-Butene	+++++	0.09071	0.11859	0.11415	0.11349	0.11738		
	0.12767	0.13066					0.11609	11.169
69 4-Chloro Toluene	2.48351	2.02449	2.38415	2.53433	2.41760	2.32753		
	2.31921	2.19854					2.33617	6.984
70 T-Butyl Benzene	2.51560	1.98473	2.51248	2.61230	2.51017	2.43069		
	2.40397	2.26782					2.40472	8.226
71 1,2,4-Trimethylbenzene	3.12842	2.25275	2.82256	3.02239	2.87424	2.80651		
	2.71723	2.52300					2.76839	10.018
72 S-Butyl Benzene	3.91421	2.82389	3.56450	3.70101	3.46445	3.33860		
	3.19128	2.86734					3.35816	11.451
73 4-Isopropyl Toluene	3.15279	2.33417	2.93264	3.09758	2.98942	2.89883		
	2.79375	2.51597					2.83939	9.975
74 1,3-Dichlorobenzene	2.08784	1.53538	1.82140	1.85418	1.71499	1.65207		
	1.63916	1.58095					1.73574	10.356
76 1,4-Dichlorobenzene	2.04780	1.53612	1.80645	1.83422	1.70204	1.67999		
	1.64285	1.58808					1.72969	9.432

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/VO010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	___ RRF	% RSD
	40.000 Level 7	60.000 Level 8						
77 N-Butyl Benzene	2.88510	1.92918	2.39787	2.57345	2.47139	2.39970		
	2.36121	2.14748					2.39567	11.778
79 1,2-Dichlorobenzene	1.76714	1.34453	1.59409	1.61264	1.52937	1.48710		
	1.48153	1.42709					1.53044	8.424
81 1,2-Dibromo 3-Chloropropane	+++++	0.07526	0.08920	0.08677	0.07679	0.08062		
	0.07914	0.08073					0.08122	6.252
80 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
82 Hexachloro 1,3-Butadiene	+++++	0.40163	0.44041	0.48980	0.44688	0.41523		
	0.41782	0.36279					0.42494	9.353
83 1,2,4-Trichlorobenzene	+++++	0.78863	0.99369	0.99606	0.98160	0.97666		
	0.98029	0.93609					0.95043	7.790
84 Naphthalene	+++++	1.23734	1.53545	1.63654	1.68030	1.71755		
	1.71023	1.65961					1.59672	10.632
85 1,2,3-Trichlorobenzene	+++++	0.65083	0.79313	0.82556	0.80092	0.79088		
	0.79176	0.73675					0.76998	7.646
$ 25 Dibromofluoromethane	0.35719	0.36182	0.35838	0.36109	0.35622	0.36050		
	0.35450	0.36296					0.35908	0.828

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-JAN-2010 11:02
End Cal Date : 04-JAN-2010 16:13
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/04JAN10.b/VO010410L.m
Cal Date : 05-Jan-2010 09:26 paul
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	60.000 Level 8						
$ 31 d4-1,2-Dichloroethane	0.34960	0.35182	0.35419	0.36045	0.34483	0.34941		
	0.34819	0.35867					0.35215	1.514
$ 42 d8-Toluene	1.05660	1.05298	1.05326	1.04911	1.06366	1.05726		
	1.06320	1.06480					1.05761	0.546
$ 61 4-Bromofluorobenzene	0.43981	0.44210	0.45109	0.44611	0.45835	0.45463		
	0.47730	0.47969					0.45613	3.314
$ 78 d4-1,2-Dichlorobenzene	0.88484	0.89864	0.91469	0.89898	0.87833	0.88367		
	0.88814	0.87676					0.89051	1.436

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/04JAN10.b/01041014.d
Lab Smp Id: 0.2_0104 Client Smp ID: 0.2 ppb
Inj Date : 04-JAN-2010 16:13
Operator : PC Inst ID: nt5.i
Smp Info : 0.2_0104,10,10,0,
Misc Info : 09-
Comment :
Method : /chem1/nt5.i/04JAN10.b/VO010410L.m
Meth Date : 05-Jan-2010 10:18 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa+hex.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 (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.091	1.085	(0.226)	7947	0.20000	0.1891(M)
172	Hexane	41	2.844	2.850	(0.589)	13927	0.20000	0.2395(M)
2	Chloromethane	50	1.227	1.221	(0.254)	9383	0.20000	0.2085(M)
3	Vinyl Chloride	62	1.277	1.272	(0.264)	11175	0.20000	0.2111(M)
4	Bromomethane	94	1.498	1.498	(0.310)	4907	0.20000	0.1928(M)
5	Chloroethane	64	1.594	1.594	(0.330)	7121	0.20000	0.2282(M)
6	Trichlorofluoromethane	101	1.696	1.696	(0.351)	14106	0.20000	0.2036(M)
12	Acrolein	56	2.381	2.375	(0.493)	4568	1.00000	1.145(M)
9	112Trichloro122Trifluoroethane	101	2.154	2.143	(0.446)	11206	0.20000	0.2320(M)
14	Acetone	43	2.652	2.652	(0.549)	5063	1.00000	1.129(M)
7	1,1-Dichloroethene	96	2.092	2.092	(0.433)	10953	0.20000	0.2321
11	Bromoethane	108	2.307	2.301	(0.478)	7045	0.20000	0.2124
10	Iodomethane	142	2.194	2.194	(0.454)	7875	0.20000	0.1733(M)
13	Methylene Chloride	84	2.595	2.595	(0.537)	11959	0.20000	0.2503(M)
18	Acrylonitrile	53	3.455	3.444	(0.715)	1560	0.20000	0.2116(M)
16	Methyl tert butyl ether	73	2.890	2.878	(0.598)	20665	0.20000	0.2116(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
8 Carbon Disulfide	76	2.103	2.098	(0.435)	35817	0.20000	0.2282(M)
15 Trans-1,2-Dichloroethene	96	2.754	2.748	(0.570)	11717	0.20000	0.2198
19 Vinyl Acetate	43	3.687	3.682	(0.763)	8692	0.20000	0.2016(M)
17 1,1-Dichloroethane	63	3.376	3.376	(0.699)	15778	0.20000	0.2102
29 2-Butanone	72	4.502	4.496	(0.932)	4153	1.00000	1.446(M)
21 2,2-Dichloropropane	77	4.015	4.010	(0.831)	16074	0.20000	0.2193
20 Cis-1,2-Dichloroethene	96	3.914	3.913	(0.810)	10676	0.20000	0.2057
32 Pentafluorobenzene	168	4.830	4.830	(1.000)	952853	10.0000	
23 Chloroform	83	4.185	4.191	(0.866)	17066	0.20000	0.2169
22 Bromochloromethane	128	4.095	4.094	(0.848)	4635	0.20000	0.2035(M)
25 Dibromofluoromethane	111	4.355	4.360	(0.902)	340354	10.0000	9.947
26 1,1,1-Trichloroethane	97	4.360	4.355	(0.903)	14885	0.20000	0.1946
28 1,1-Dichloropropene	75	4.479	4.479	(0.849)	13327	0.20000	0.2115
24 Carbon Tetrachloride	117	4.287	4.292	(0.812)	8165	0.20000	0.1527
31 d4-1,2-Dichloroethane	65	4.819	4.824	(0.998)	333119	10.0000	9.928
33 1,2-Dichloroethane	62	4.881	4.881	(0.925)	9947	0.20000	0.2039
30 Benzene	78	4.694	4.700	(0.890)	41209	0.20000	0.2203
35 1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1387950	10.0000	
34 Trichloroethene	130	5.226	5.226	(0.990)	11951	0.20000	0.2040
38 1,2-Dichloropropane	63	5.667	5.667	(1.074)	9893	0.20000	0.2379
39 Bromodichloromethane	83	5.746	5.741	(1.089)	11192	0.20000	0.2077
37 Dibromomethane	93	5.577	5.577	(1.057)	4548	0.20000	0.2130
40 2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	3293	0.20000	0.2126
45 4-Methyl-2-Pentanone	58	6.827	6.827	(1.294)	7522	1.00000	1.004(M)
41 Cis 1,3-dichloropropene	75	6.289	6.284	(1.192)	15105	0.20000	0.2187
42 d8-Toluene	98	6.437	6.436	(1.220)	1466507	10.0000	9.990
43 Toluene	92	6.482	6.482	(1.228)	28286	0.20000	0.2164
46 Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	12679	0.20000	0.2201
51 2-Hexanone	43	7.545	7.540	(0.974)	11278	1.00000	1.069(M)
47 1,1,2-Trichloroethane	97	6.980	6.974	(1.323)	6701	0.20000	0.2116
49 1,3-Dichloropropane	76	7.195	7.194	(0.929)	11028	0.20000	0.2077
44 Tetrachloroethene	166	6.799	6.798	(0.878)	13389	0.20000	0.2196
48 Chlorodibromomethane	129	7.110	7.110	(0.918)	8523	0.20000	0.2192
50 1,2-Dibromoethane	107	7.291	7.291	(1.382)	6320	0.20000	0.2027
52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1227806	10.0000	
53 Chlorobenzene	112	7.755	7.754	(1.001)	31407	0.20000	0.2252
54 Ethyl Benzene	91	7.794	7.800	(1.007)	51629	0.20000	0.2148
55 1,1,1,2-Tetrachloroethane	131	7.817	7.822	(1.009)	10138	0.20000	0.2090
56 m,p-xylene	106	7.930	7.930	(1.024)	40848	0.40000	0.4338
57 o-Xylene	106	8.292	8.292	(1.071)	19452	0.20000	0.2120
58 Styrene	104	8.343	8.343	(1.077)	29656	0.20000	0.2041
60 Isopropyl Benzene	105	8.575	8.575	(0.875)	48183	0.20000	0.2206
59 Bromoform	173	8.343	8.343	(0.851)	4806	0.20000	0.2232
64 1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	6448	0.20000	0.2261
61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	539999	10.0000	9.642
66 1,2,3-Trichloropropane	110	9.118	9.112	(0.930)	1845	0.20000	0.1990(M)
68 Trans-1,4-Dichloro 2-Butene	53	9.169	9.163	(0.935)	2239	0.20000	0.2892(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
63 N-Propyl Benzene	91	8.937	8.942	(0.912)	55401	0.20000	0.2272
62 Bromobenzene	156	8.886	8.886	(0.906)	13589	0.20000	0.2279
67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	41529	0.20000	0.2255
65 2-Chloro Toluene	91	9.056	9.061	(0.924)	33800	0.20000	0.2211
69 4-Chloro Toluene	91	9.208	9.214	(0.939)	33122	0.20000	0.2126
70 T-Butyl Benzene	119	9.401	9.401	(0.959)	33550	0.20000	0.2092
71 1,2,4-Trimethylbenzene	105	9.469	9.469	(0.966)	41723	0.20000	0.2260
72 S-Butyl Benzene	105	9.565	9.565	(0.976)	52203	0.20000	0.2331
73 4-Isopropyl Toluene	119	9.701	9.706	(0.990)	42048	0.20000	0.2221
74 1,3-Dichlorobenzene	146	9.729	9.734	(0.992)	27845	0.20000	0.2406
75 d4-1,4-Dichlorobenzene	152	9.802	9.808	(1.000)	666839	10.0000	
76 1,4-Dichlorobenzene	146	9.814	9.819	(1.001)	27311	0.20000	0.2368
77 N-Butyl Benzene	91	10.091	10.085	(1.029)	38478	0.20000	0.2409
78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	590048	10.0000	9.936
79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	23568	0.20000	0.2309
81 1,2-Dibromo 3-Chloropropane	75	10.951	10.939	(1.117)	1794	0.20000	0.3313
83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	19056	0.20000	0.3007
82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.182)	9880	0.20000	0.3487
84 Naphthalene	128	11.895	11.895	(1.214)	32685	0.20000	0.3070
85 1,2,3-Trichlorobenzene	180	12.076	12.076	(1.232)	14069	0.20000	0.2740

QC Flag Legend

1 - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01041014.d
Lab Smp Id: 0.2 0104
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/04JAN10.b/VO010410L.m
Misc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 0.2 ppb
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	952853	5.06
35 1,4-Difluorobenze	1305872	652936	2611744	1387950	6.29
52 d5-Chlorobenzene	1174180	587090	2348360	1227806	4.57
75 d4-1,4-Dichlorobe	665265	332632	1330530	666839	0.24

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.80	-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.

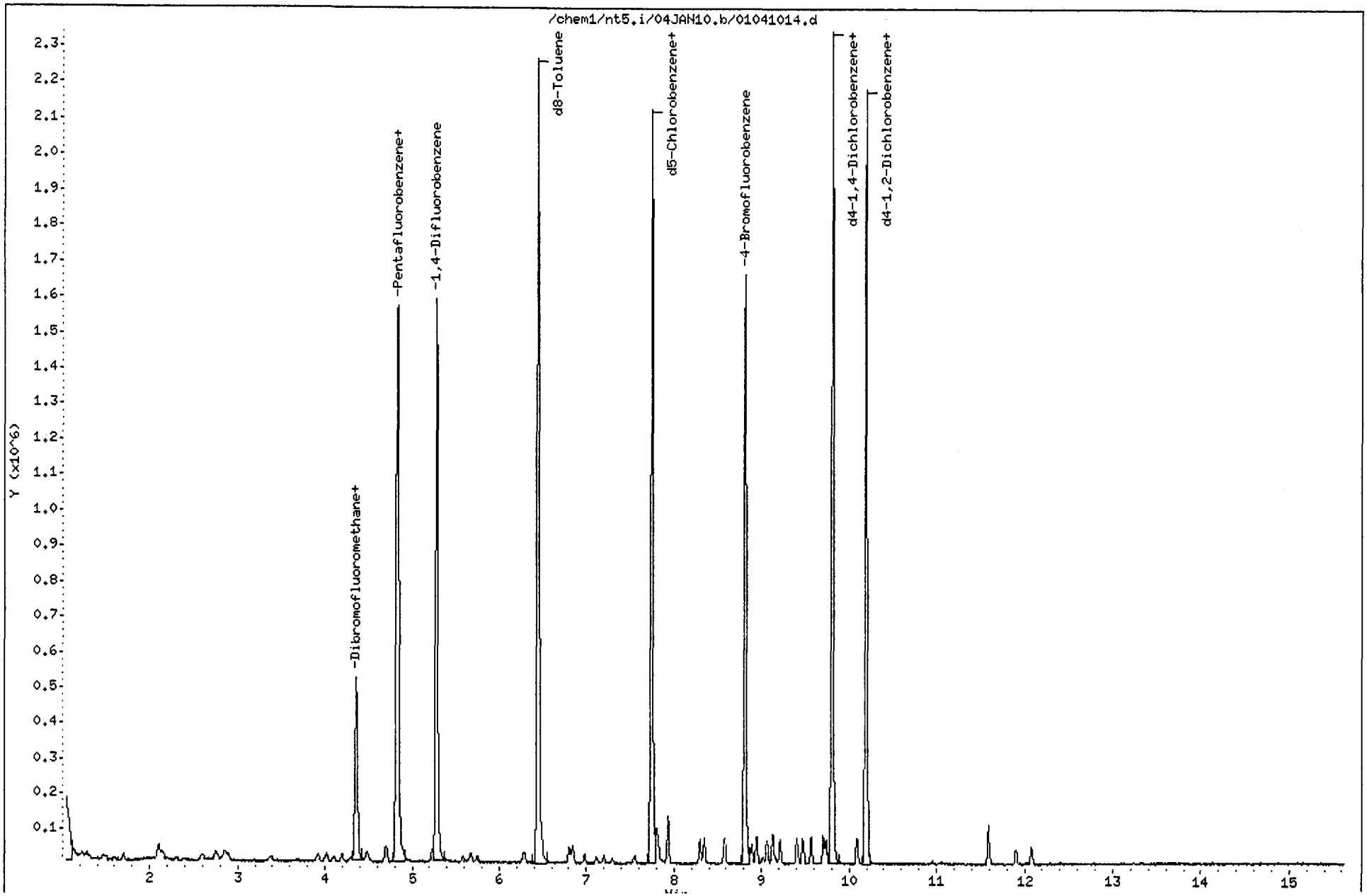
Data File: /chem1/nt5.i/04JAN10.b/01041014.d
Date : 04-JAN-2010 16:13
Client ID: 0.2 ppb
Sample Info: 0.2_0104,10,10,0,

Column phase: RTXVMS

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

QD62:001102



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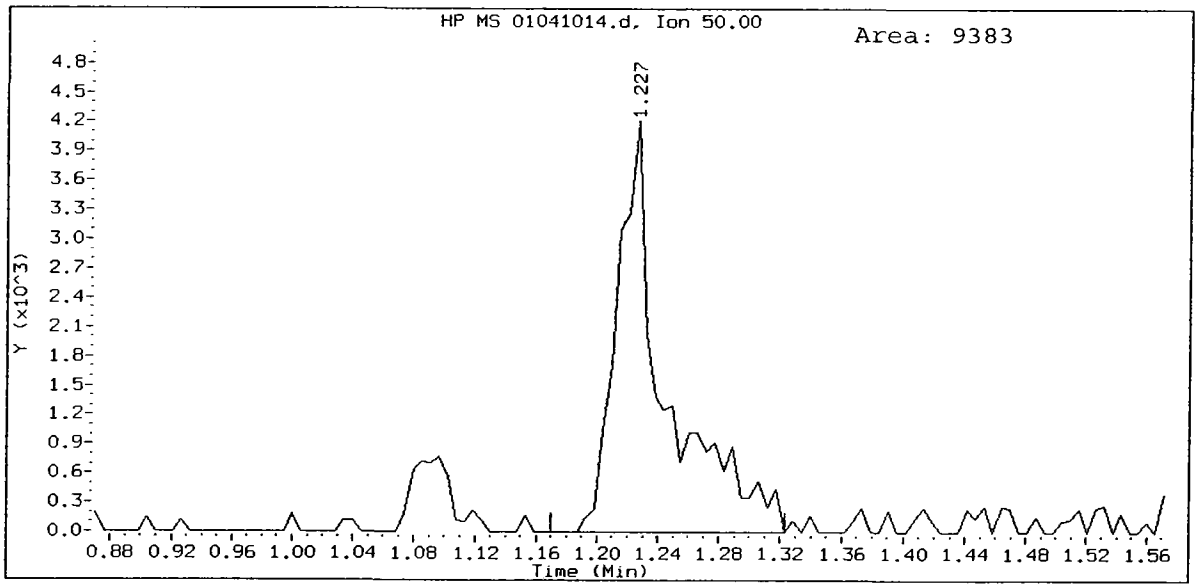

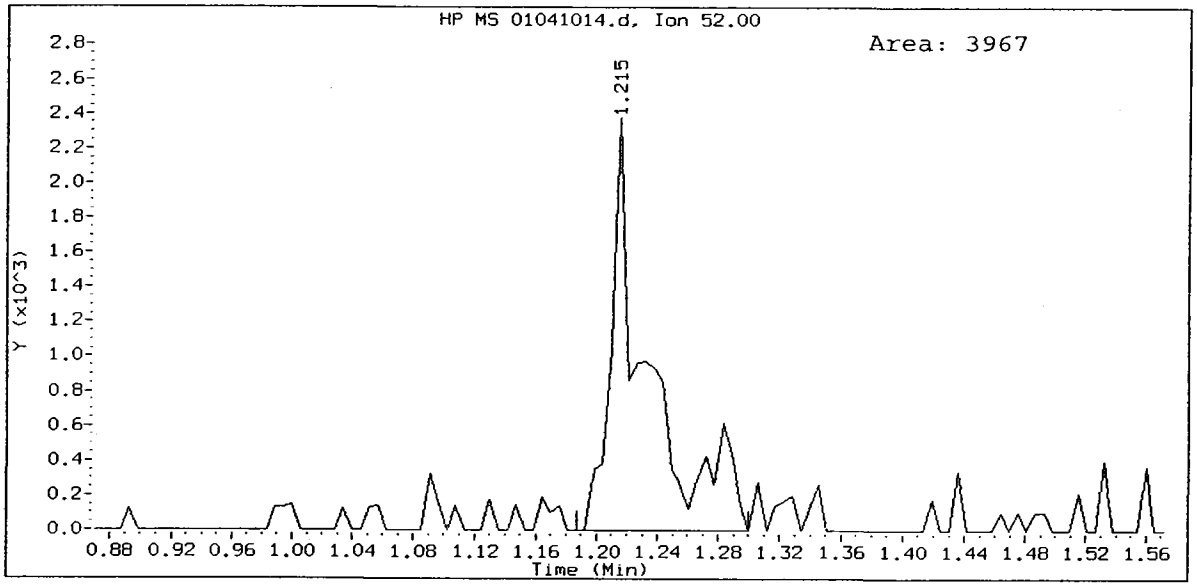

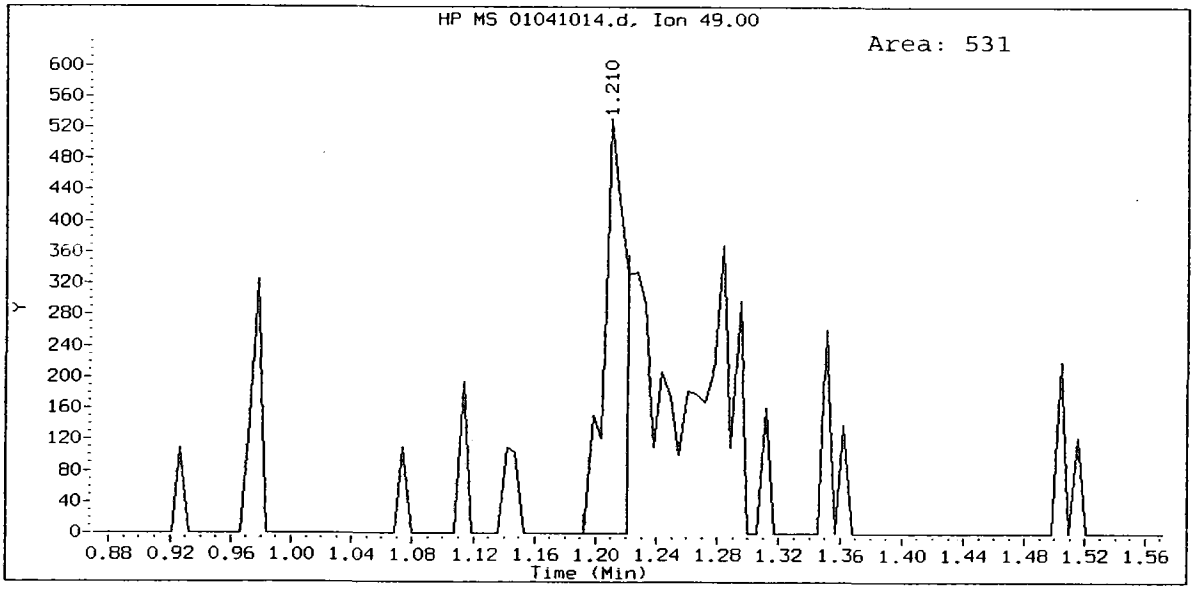

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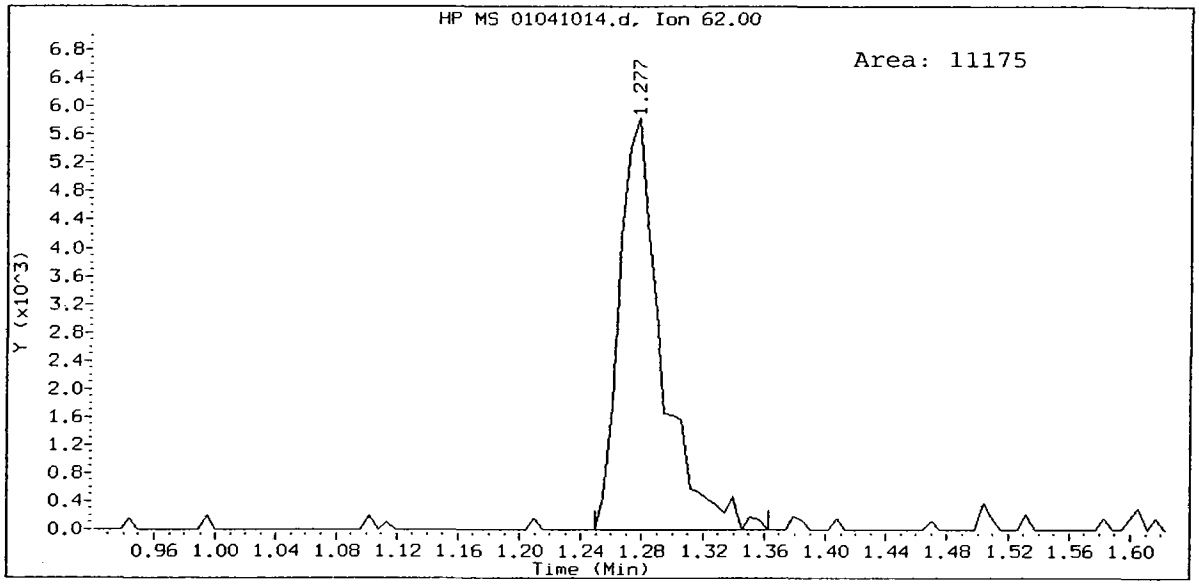

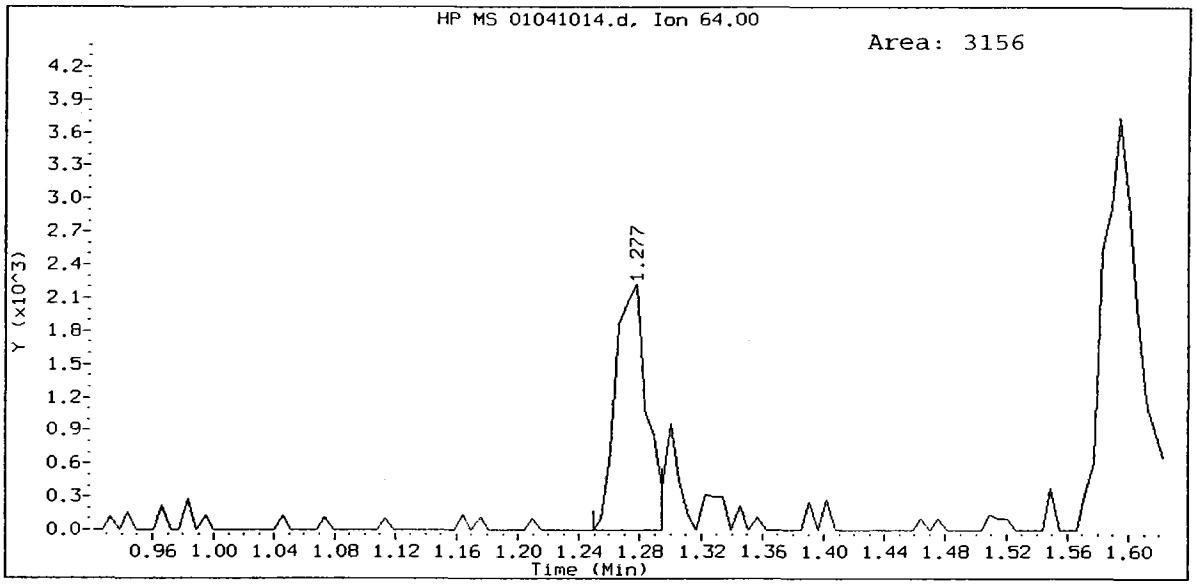

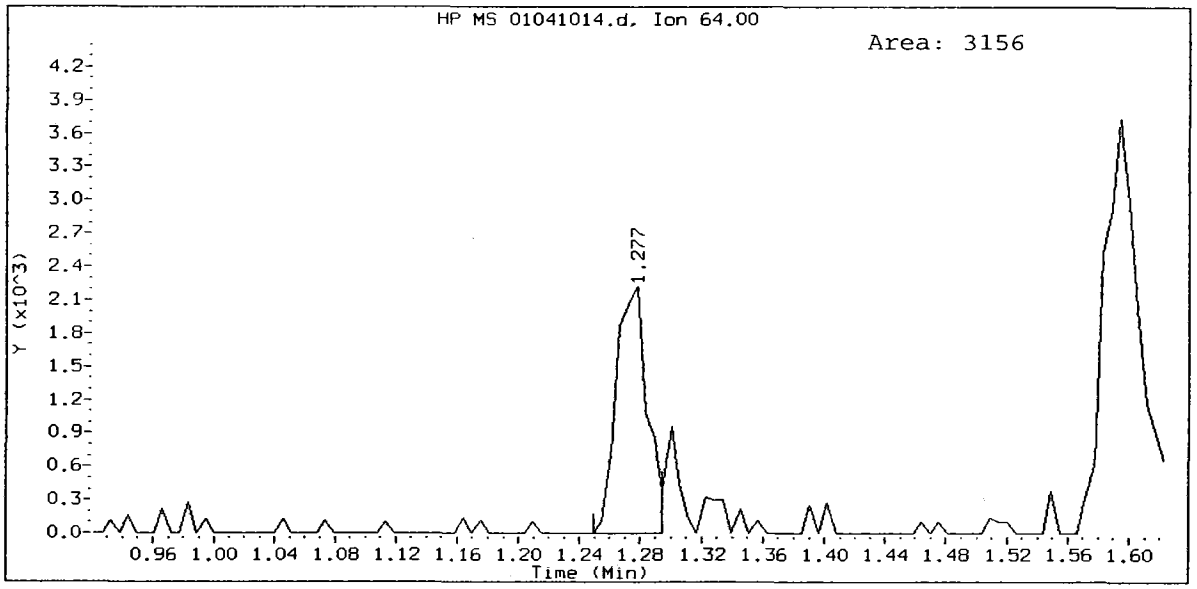

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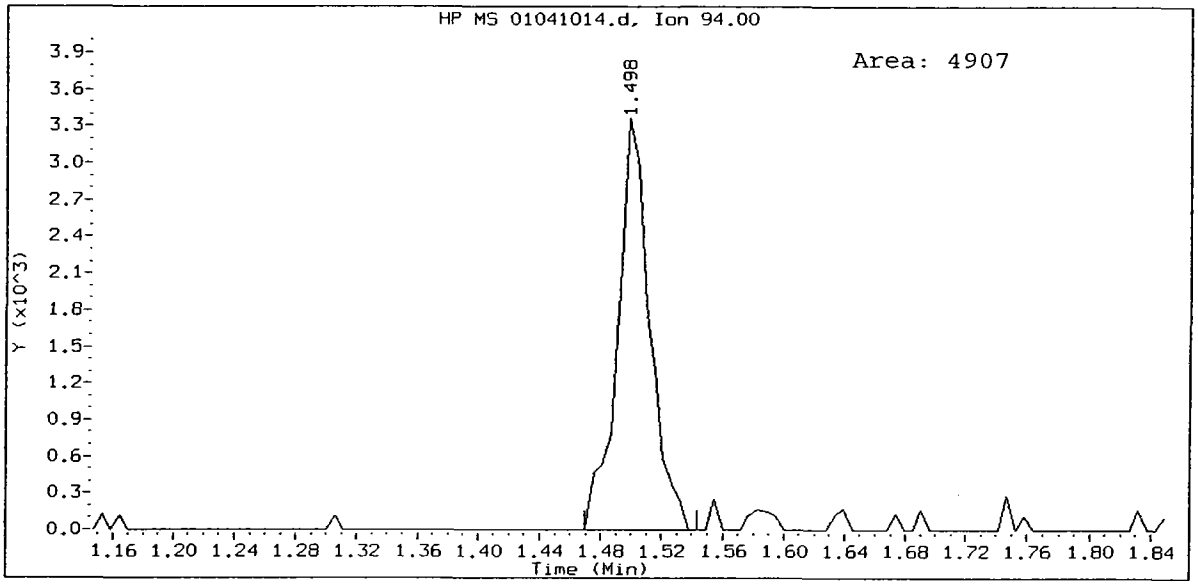

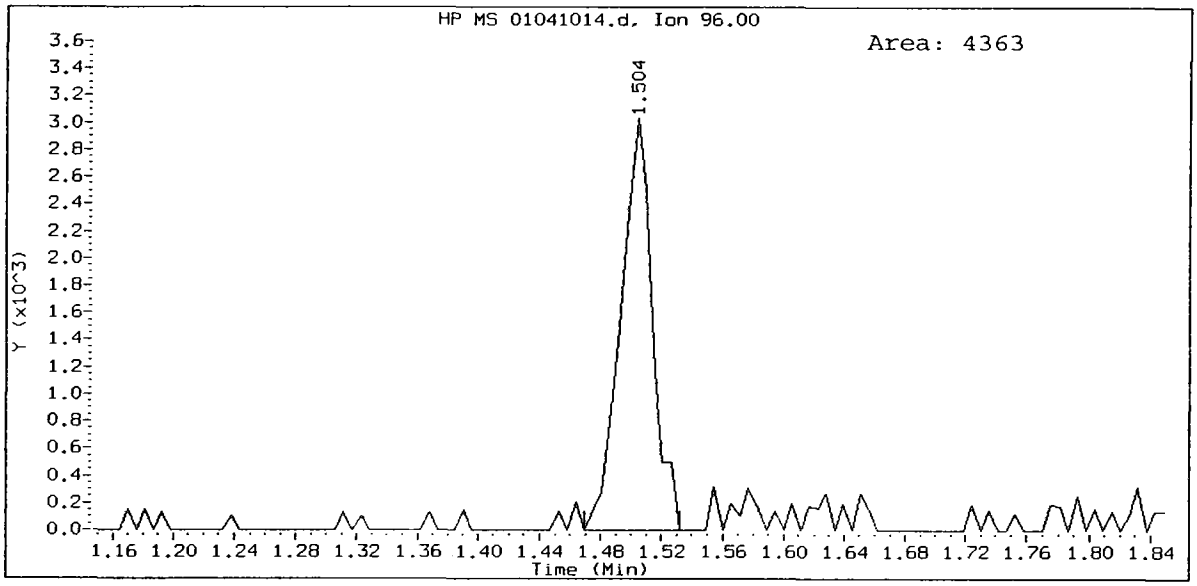

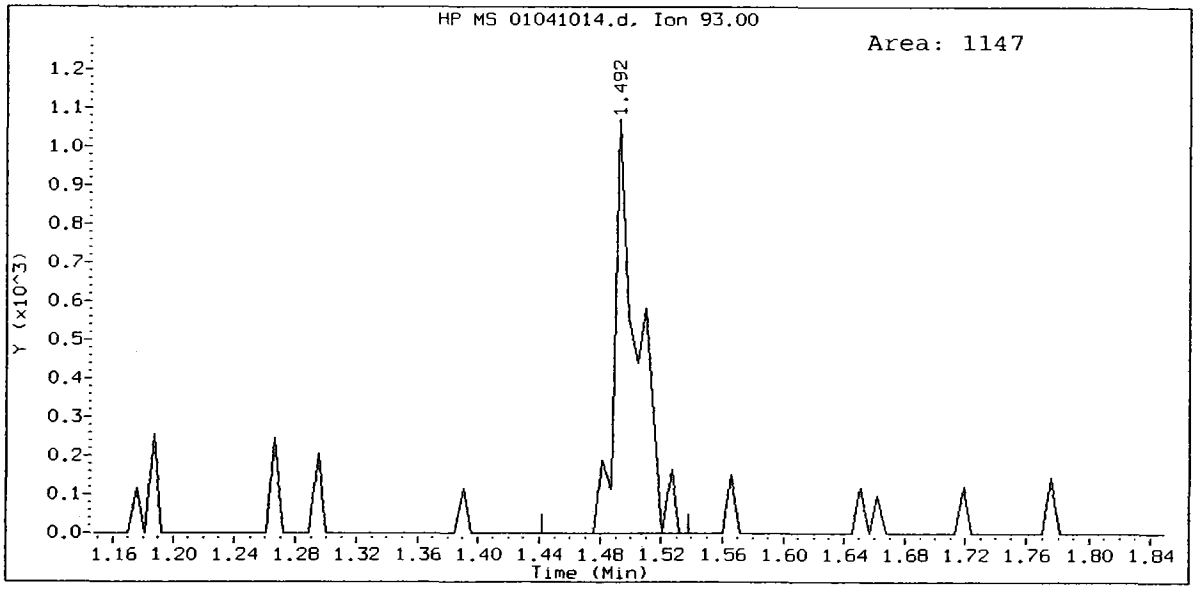

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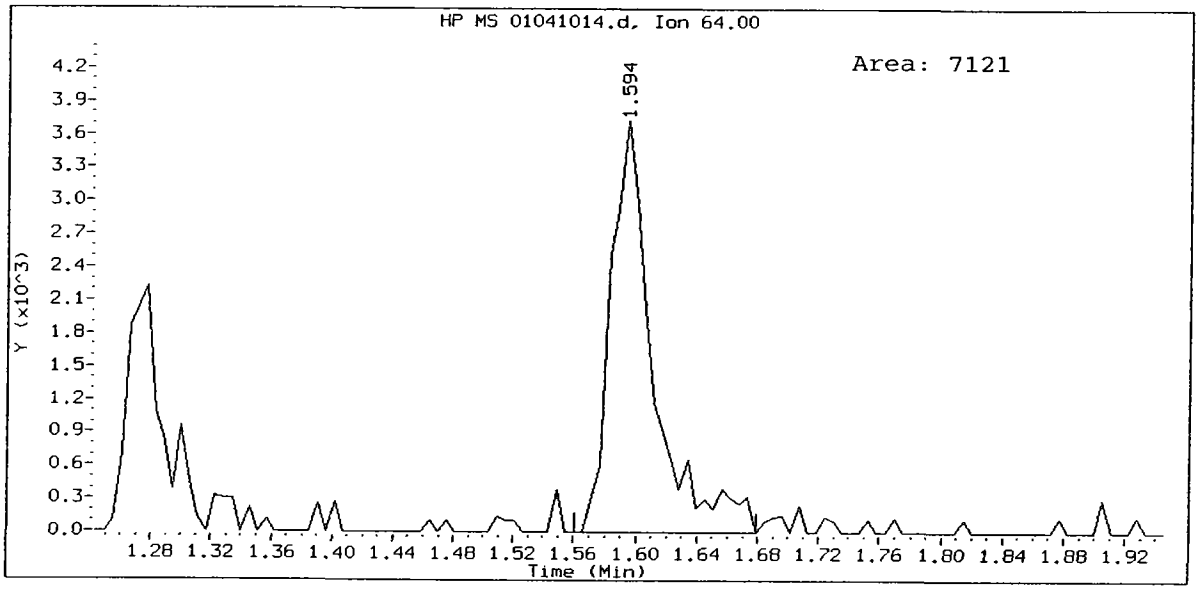
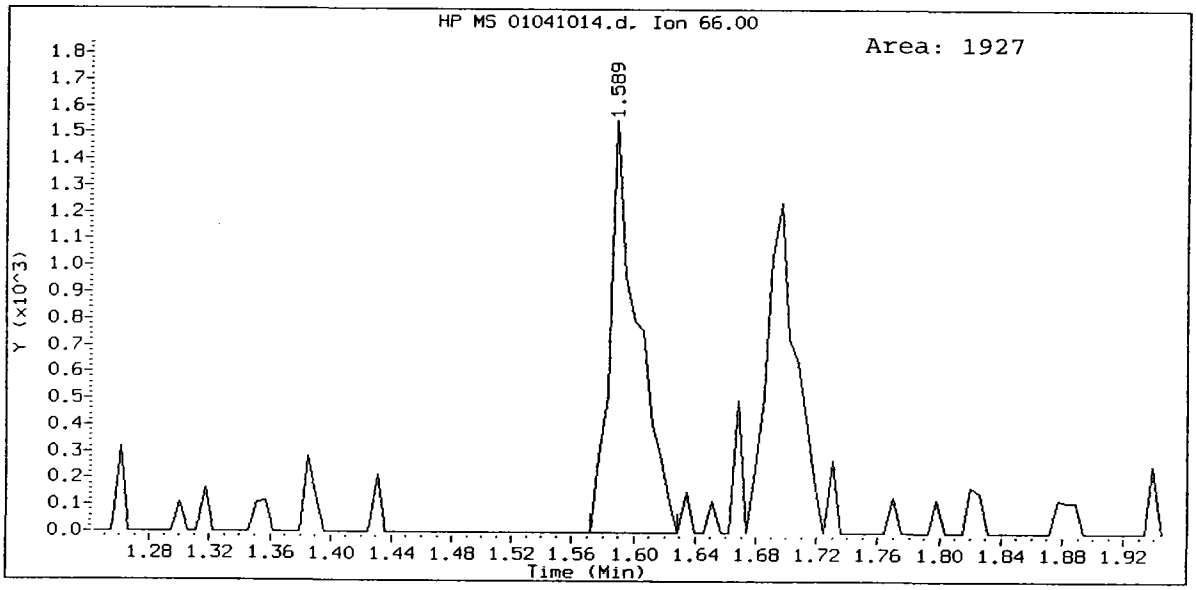
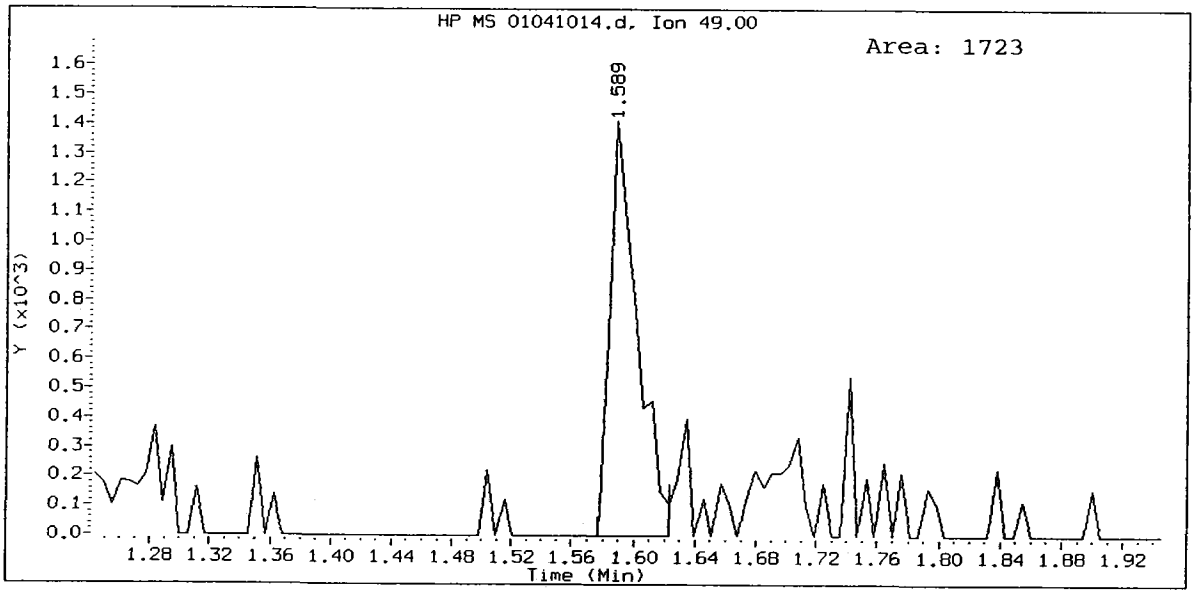
Chloroethane Amount: 0.23







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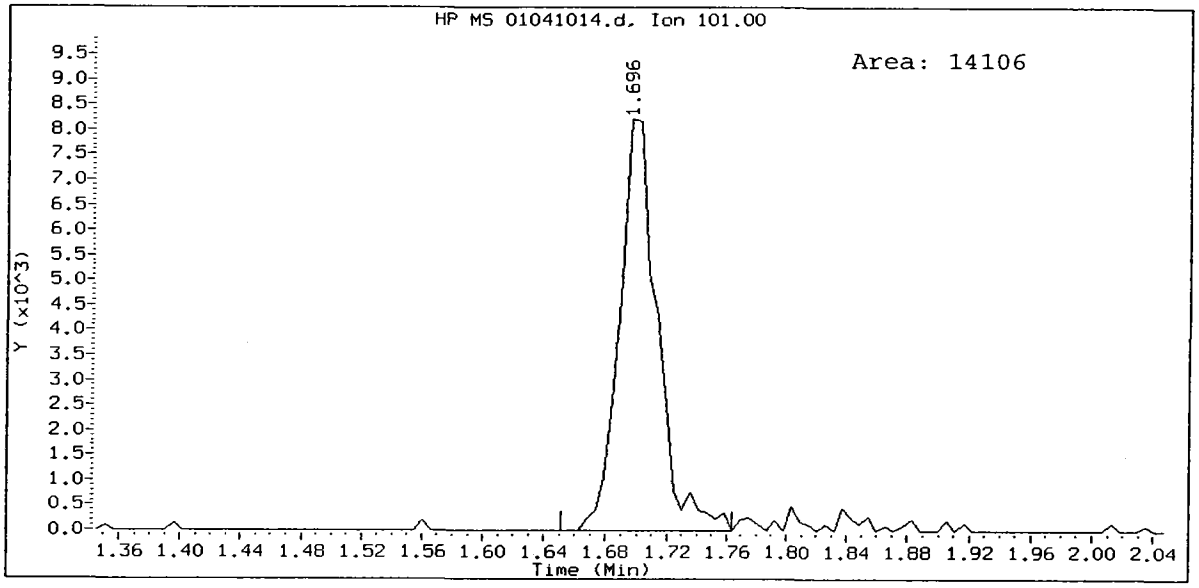
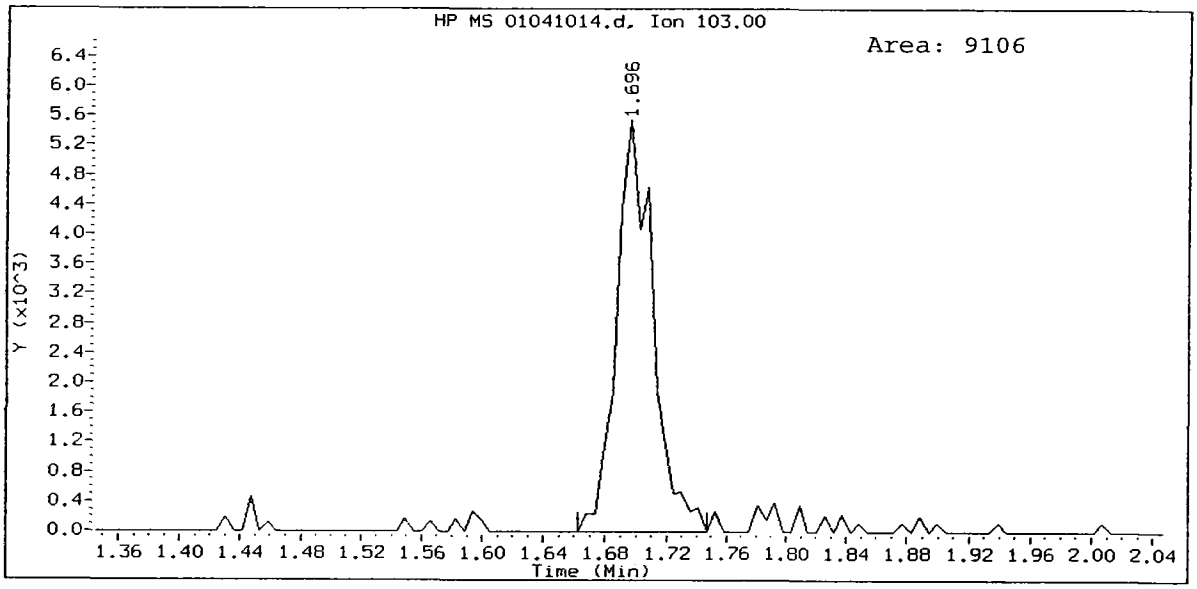
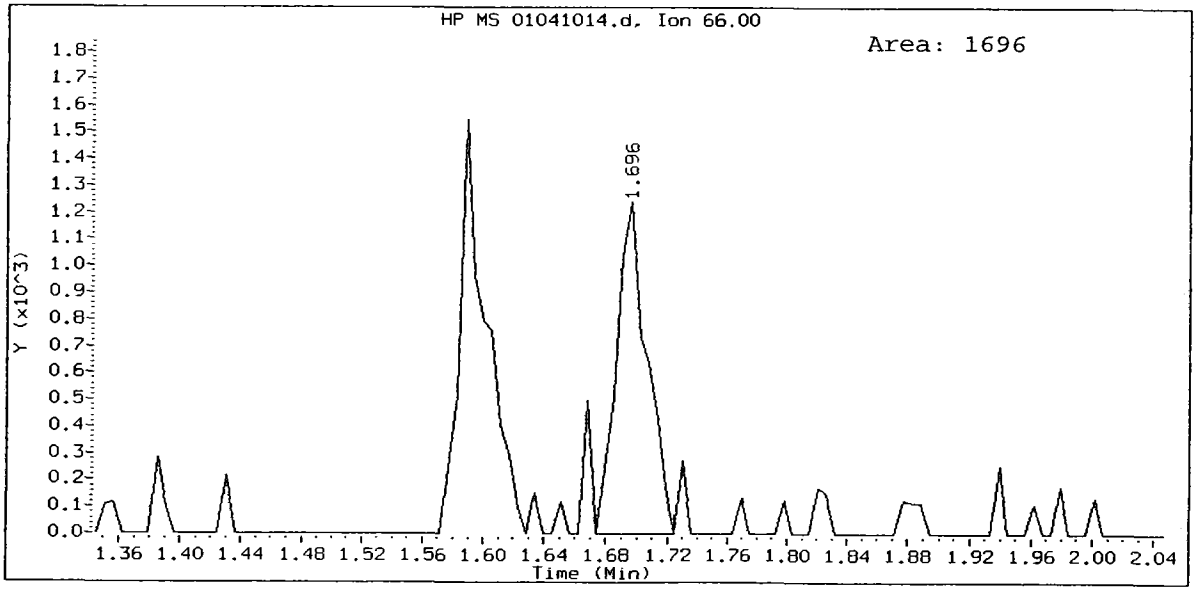
Trichlorofluoromethane Amount: 0.20







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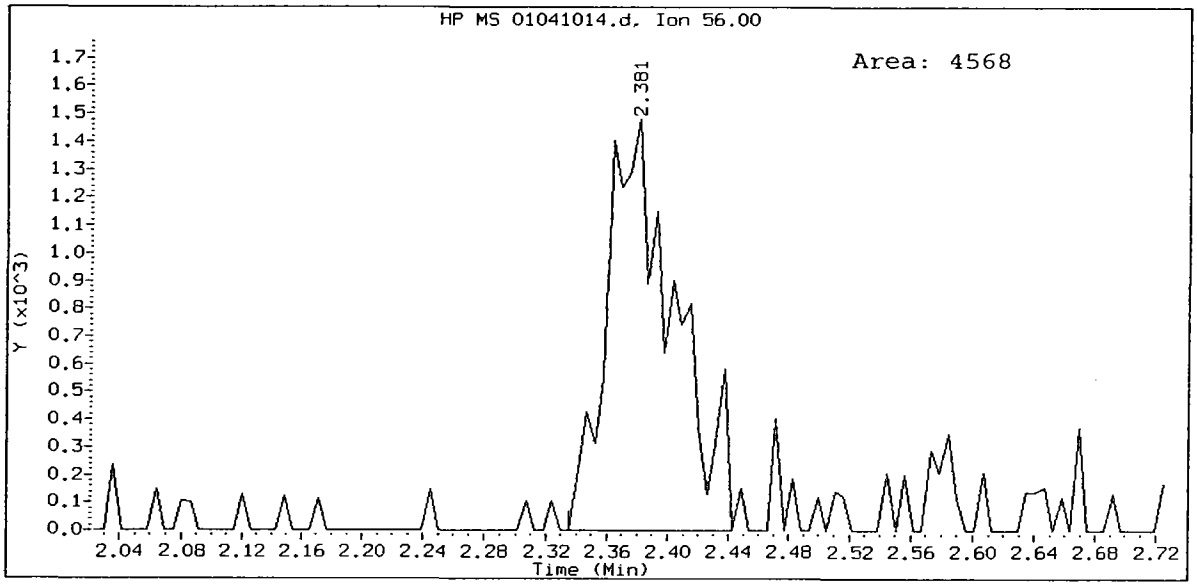
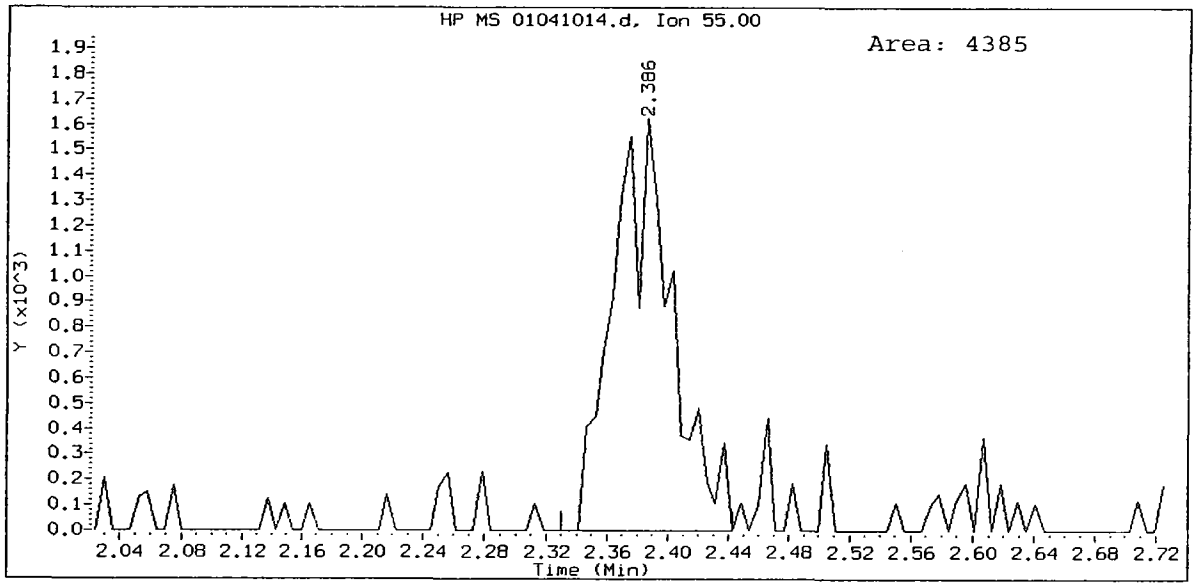
Acrolein Amount: 1.14





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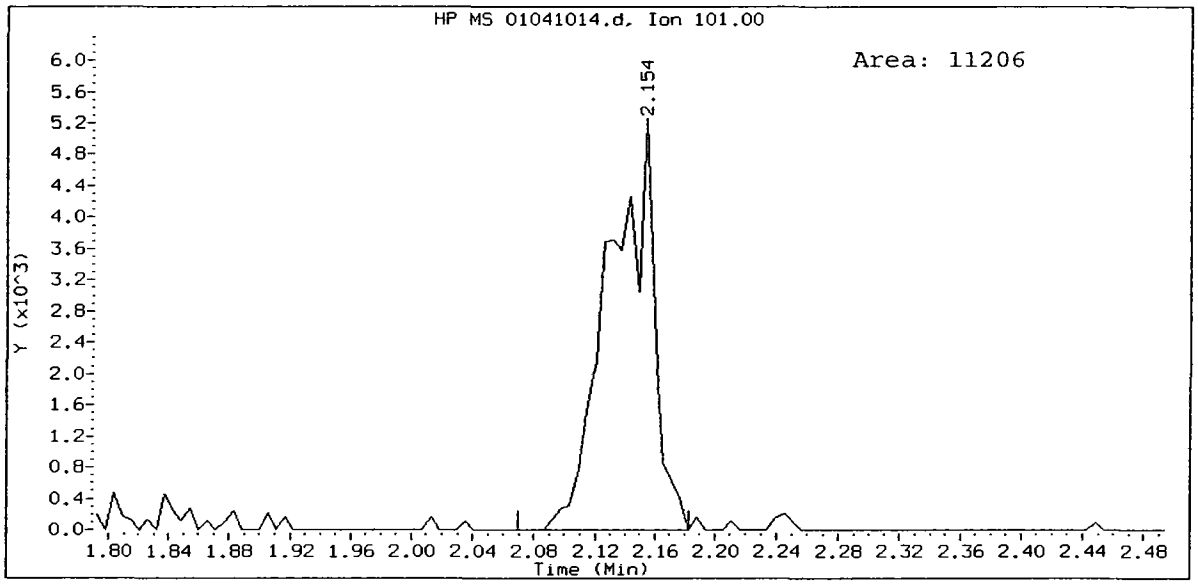
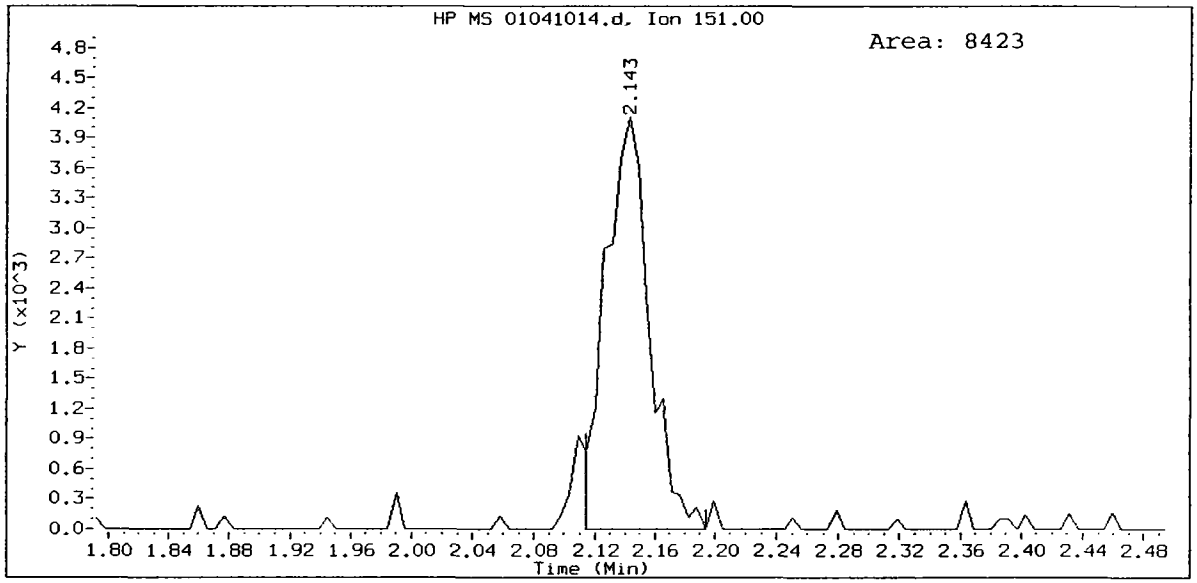
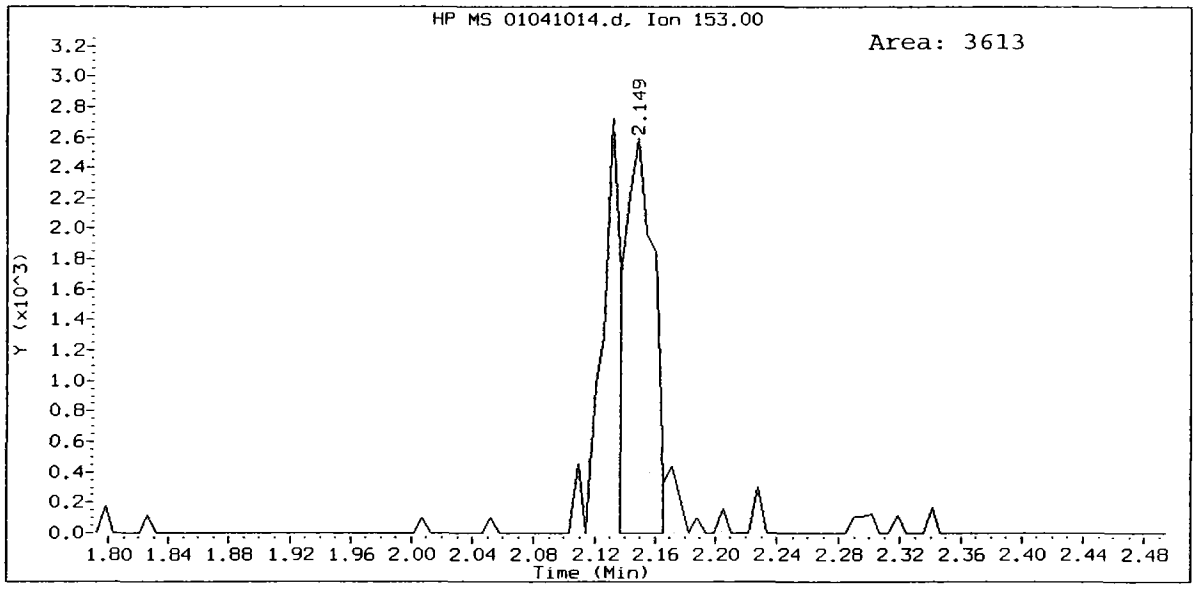
112Trichloro122Trifluoroethane Amount: 0.23







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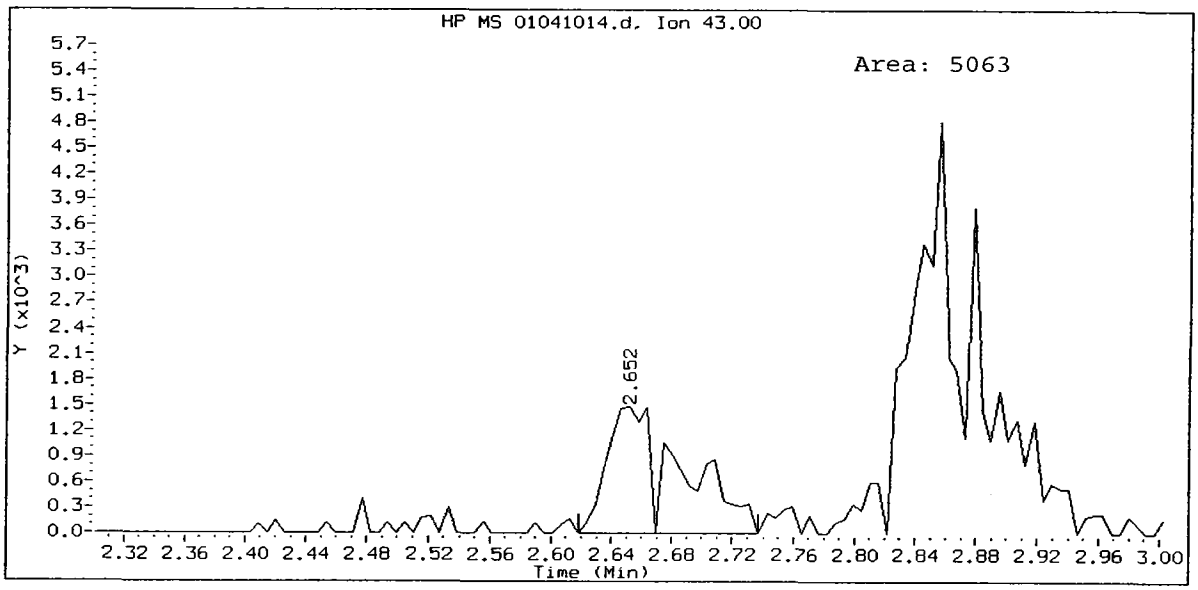
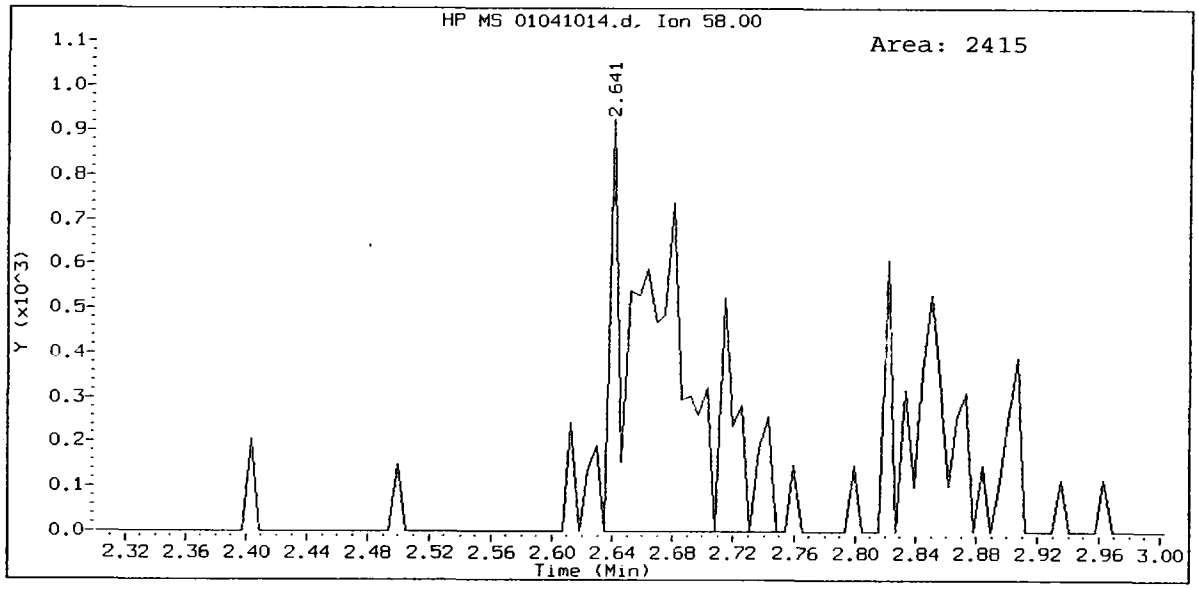
Acetone Amount: 1.13





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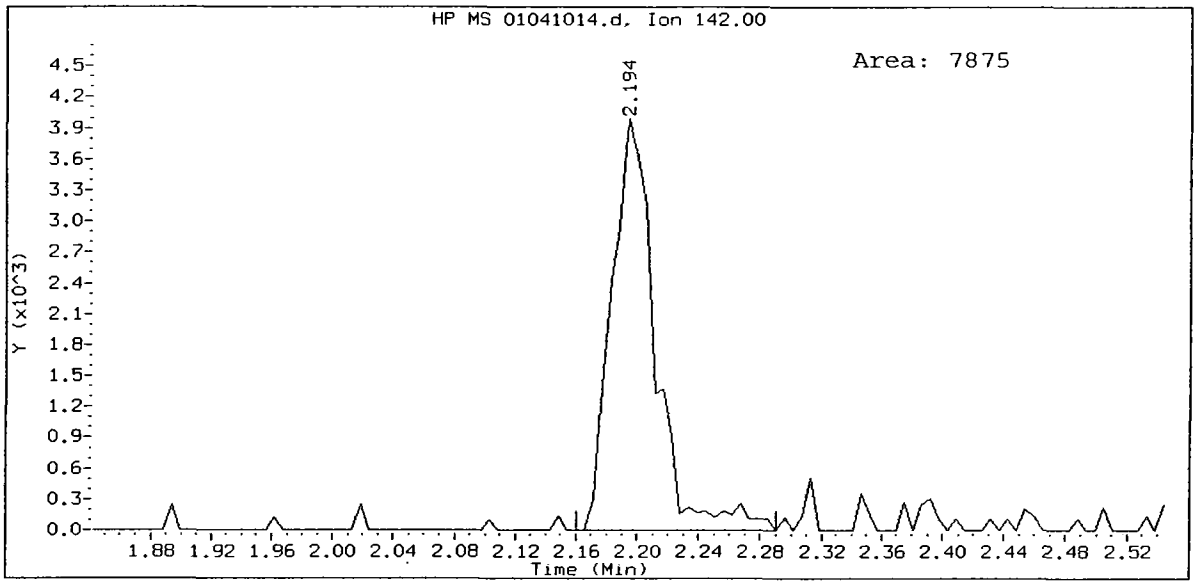
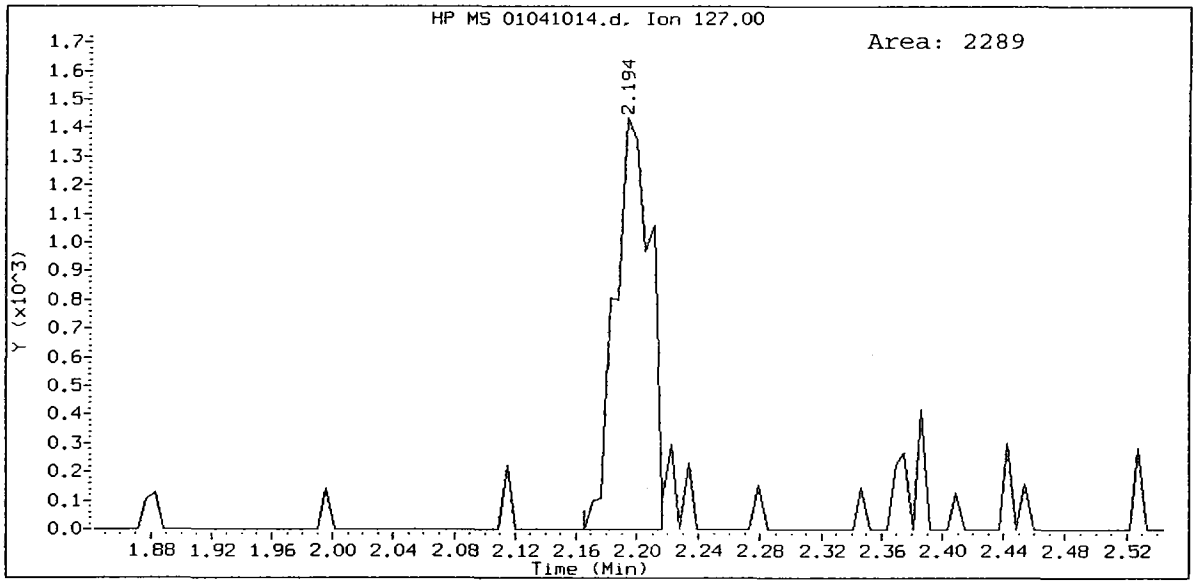
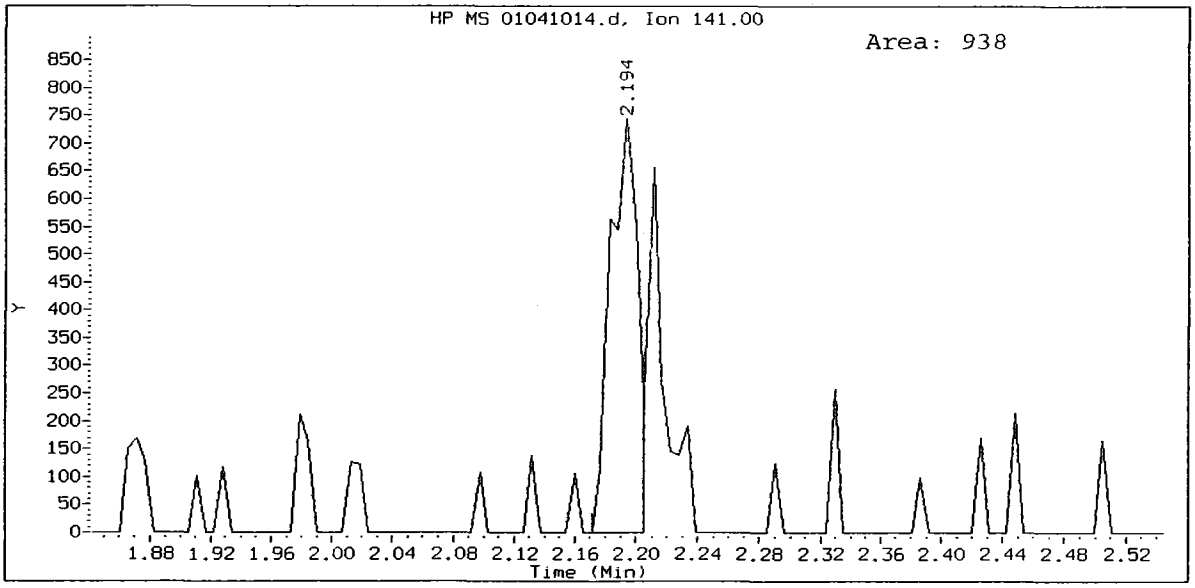
Iodomethane Amount: 0.17







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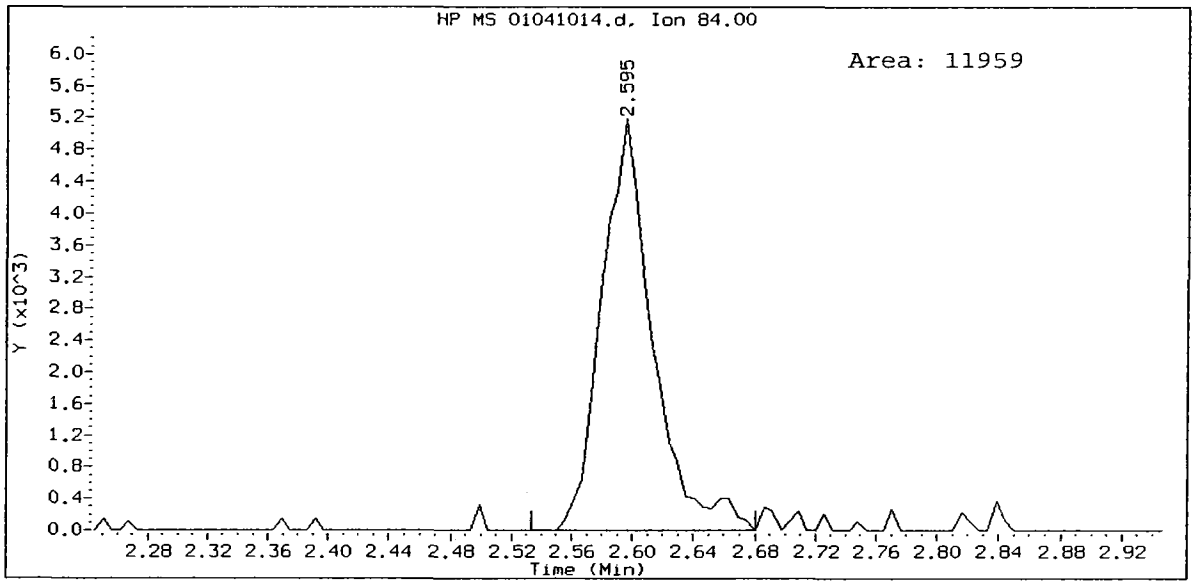
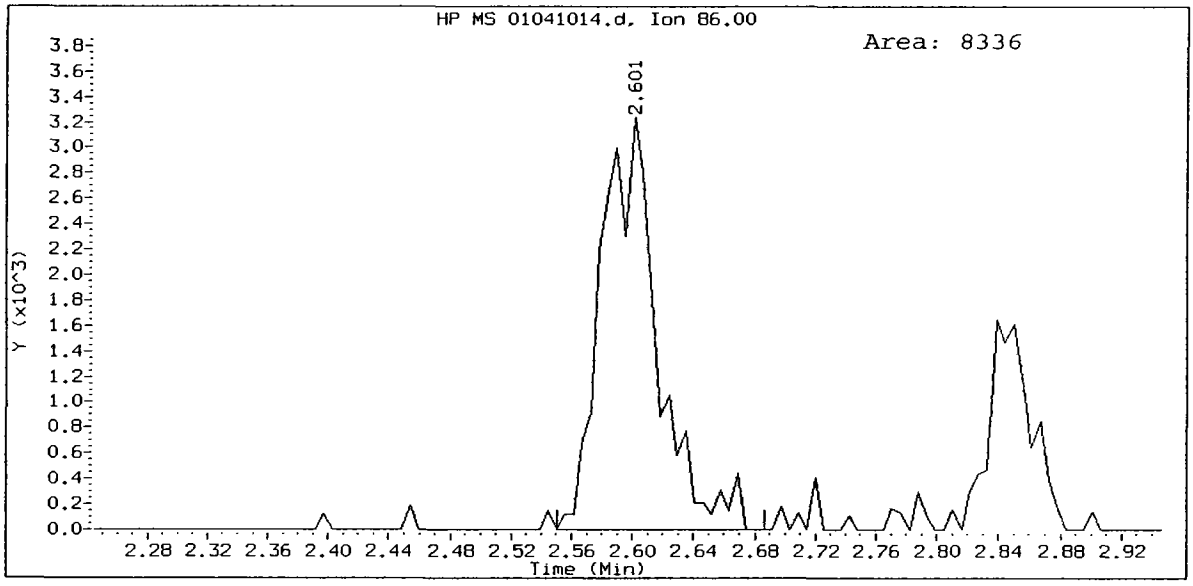
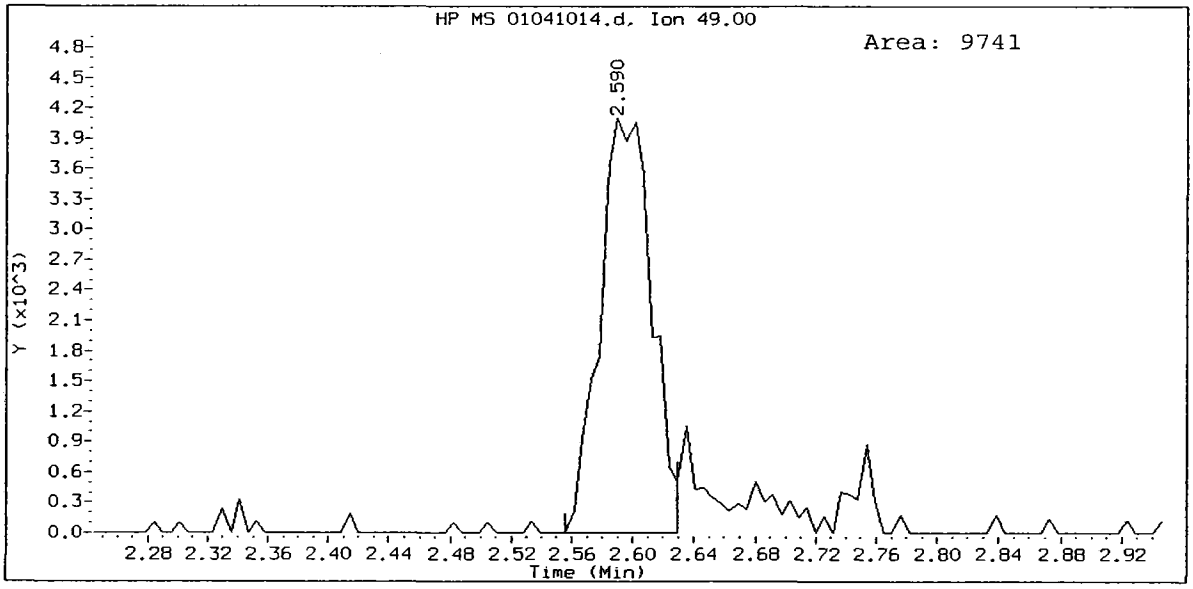
Methylene Chloride Amount: 0.25







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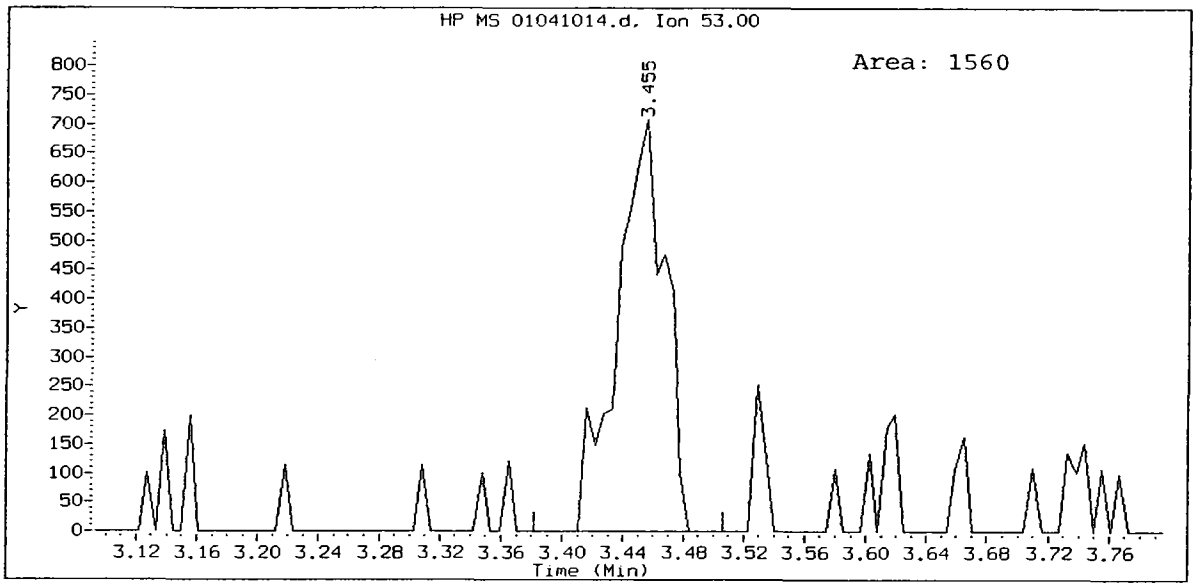
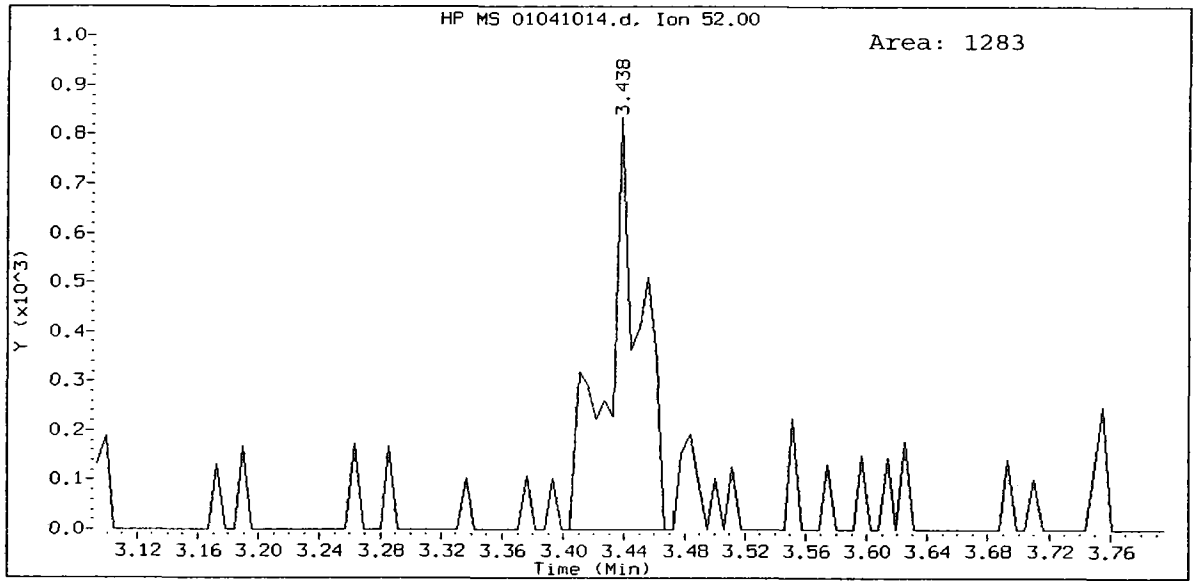
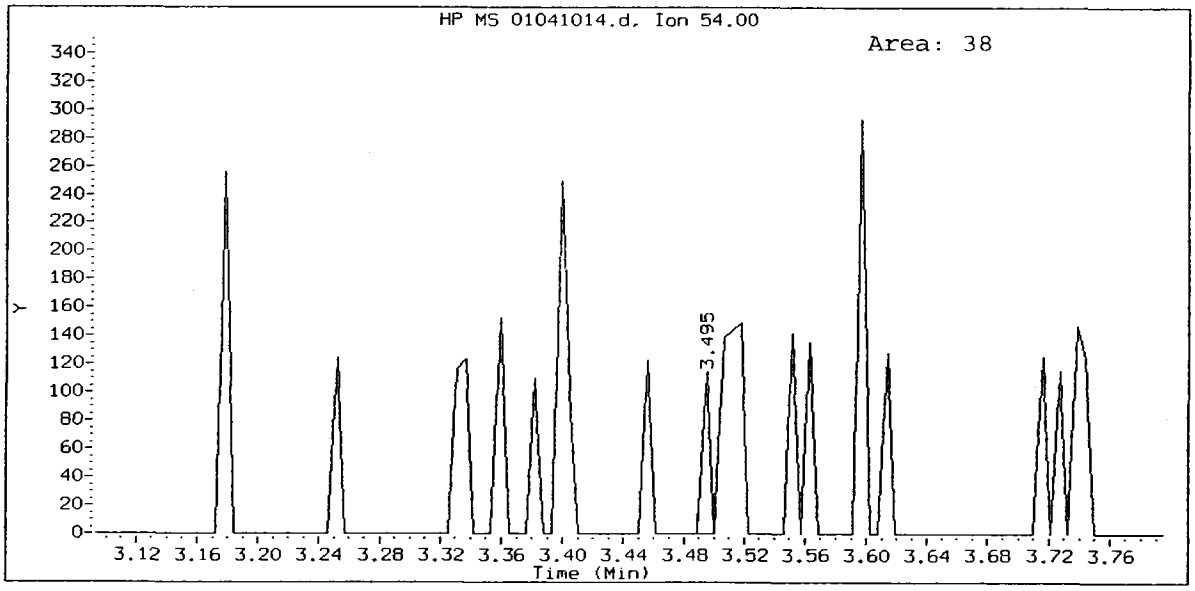
Acrylonitrile Amount: 0.21







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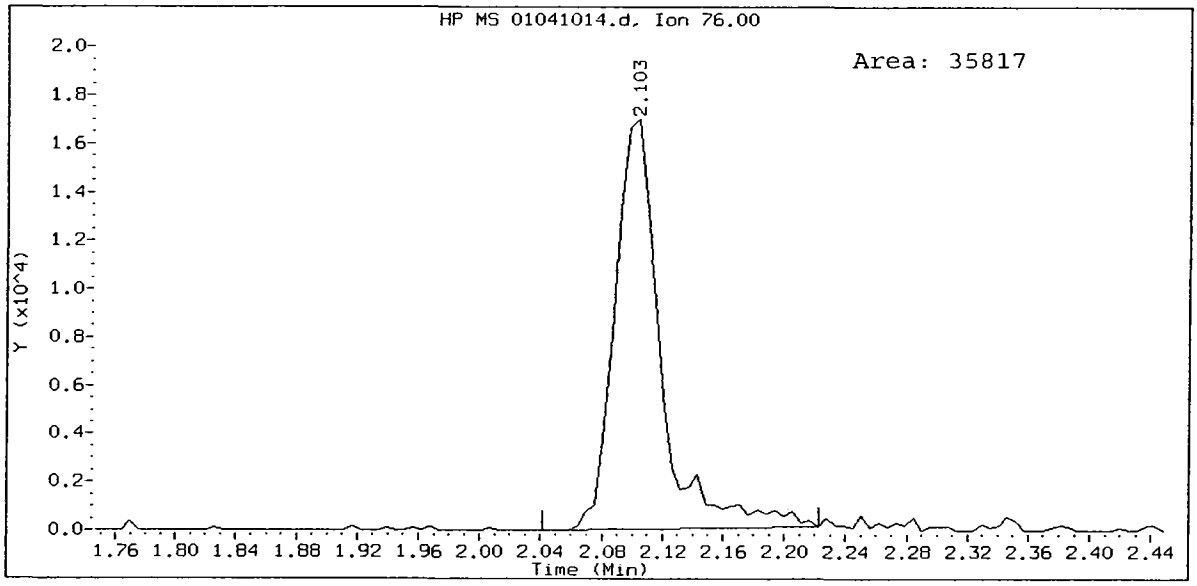
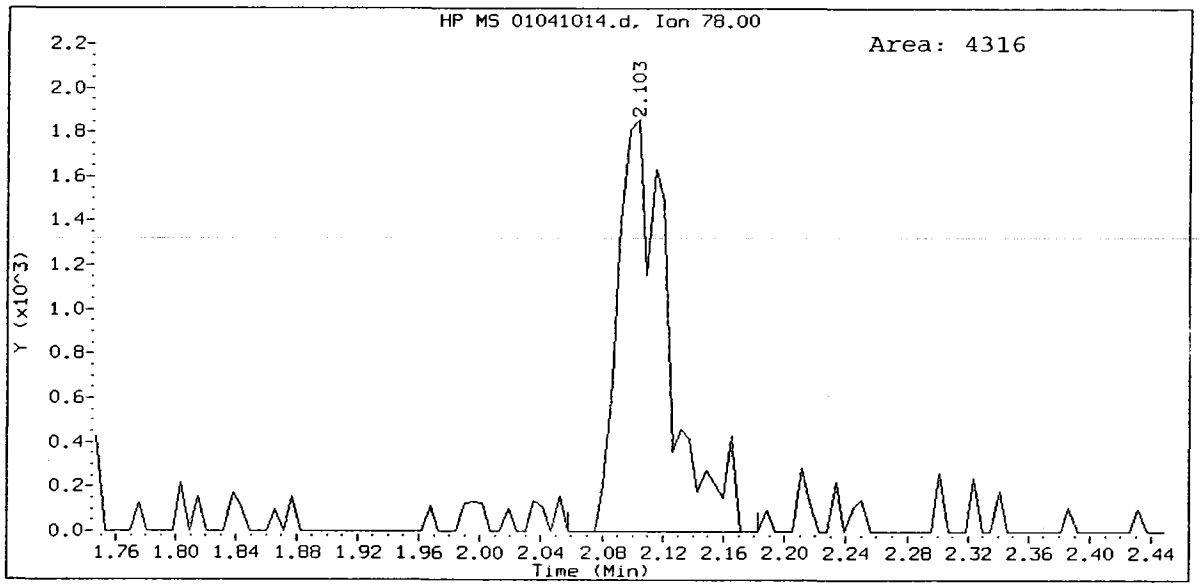
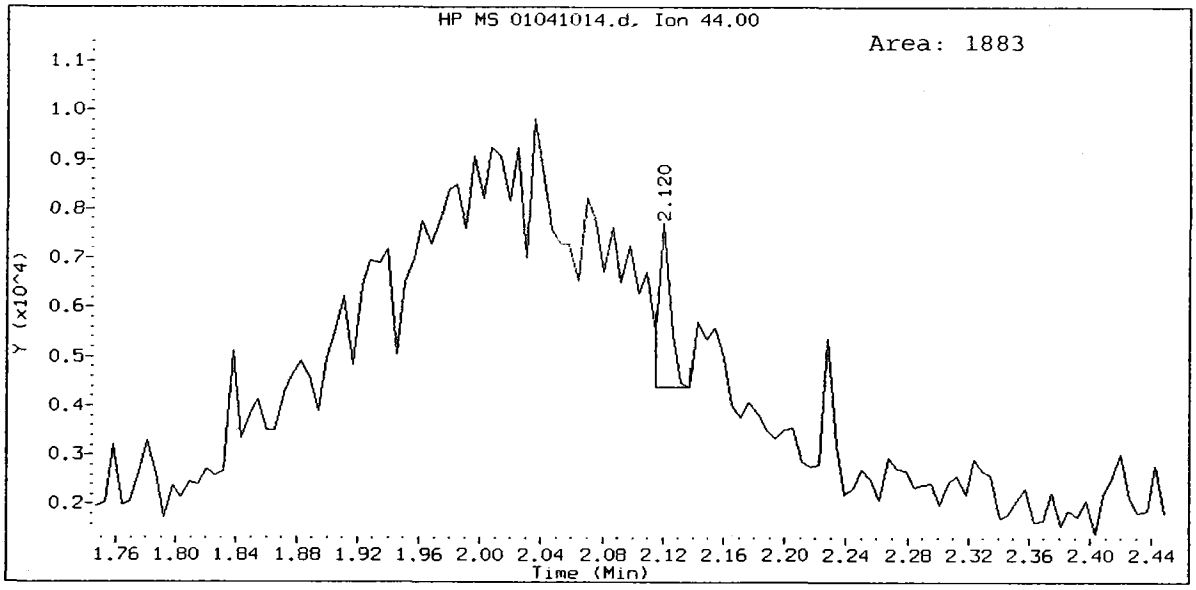
Carbon Disulfide Amount: 0.23







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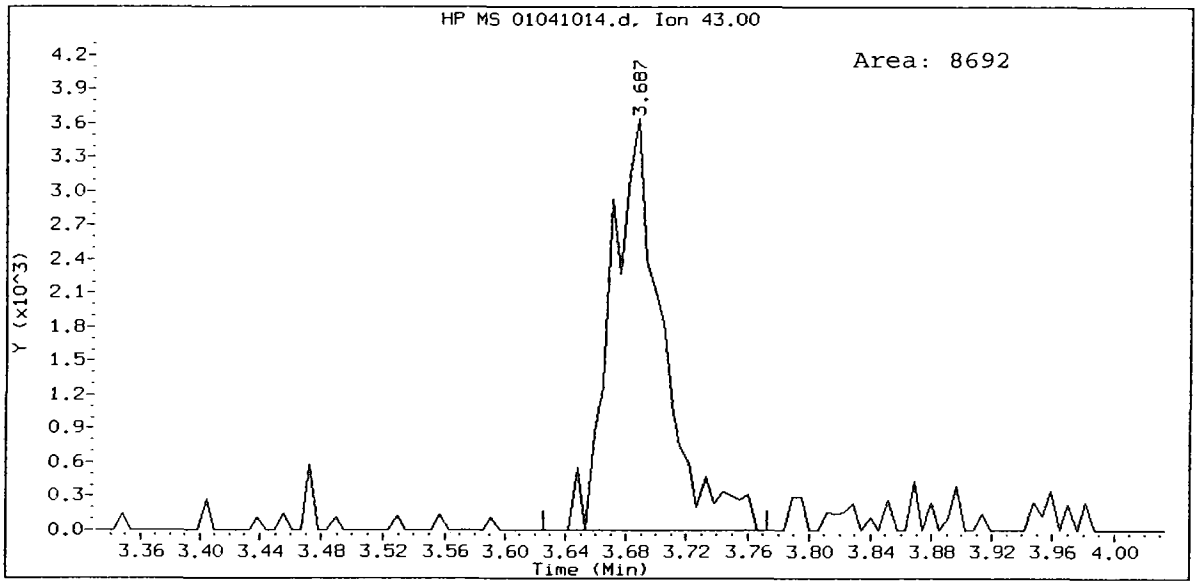
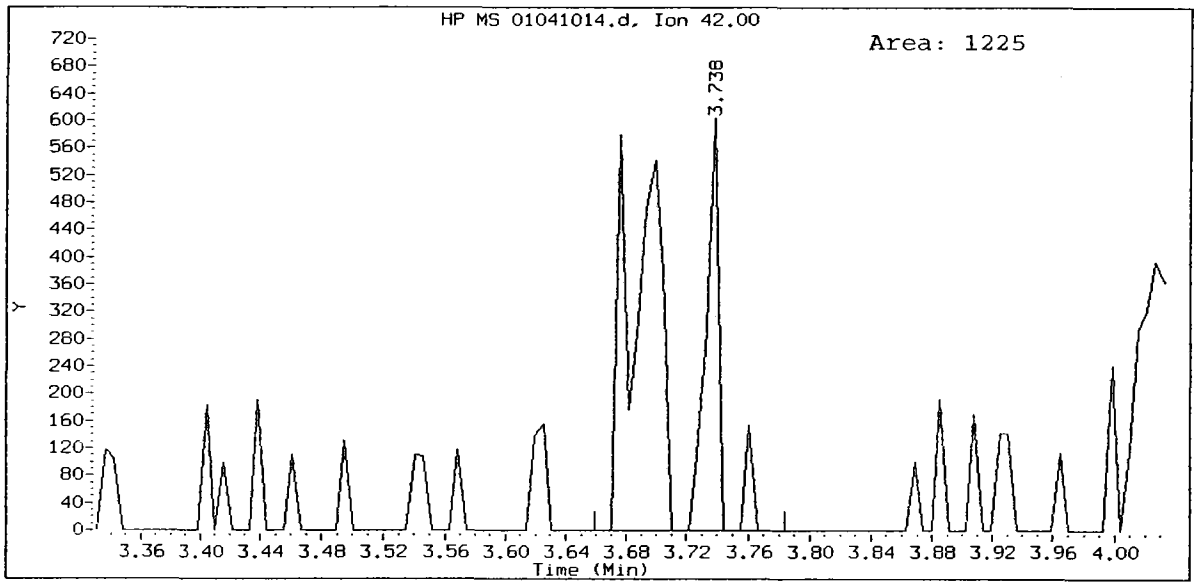
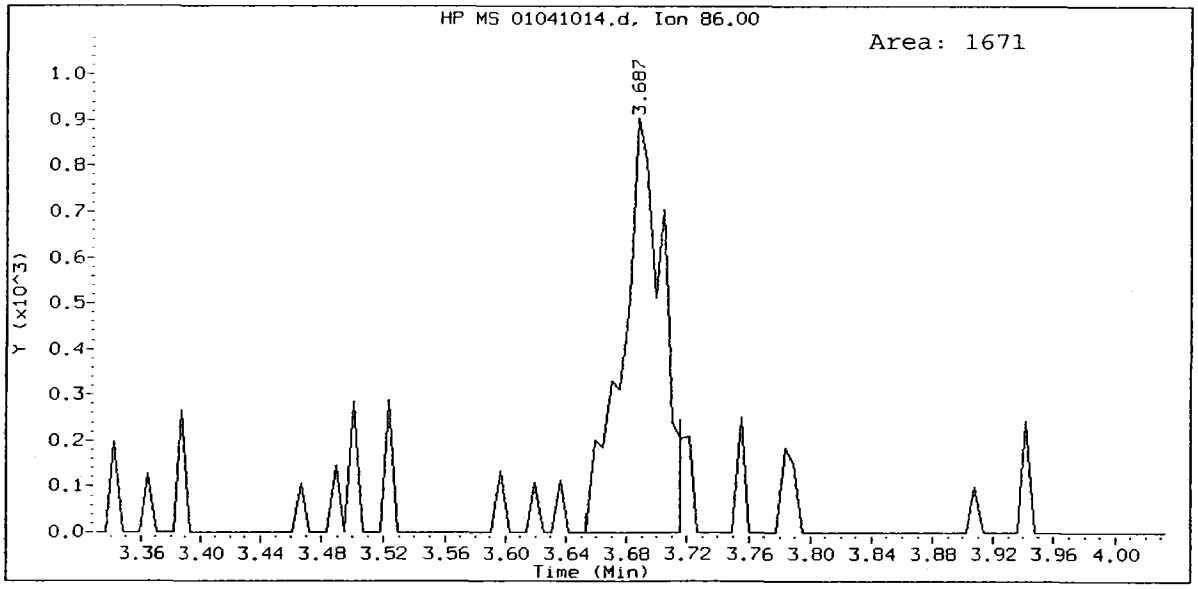
Vinyl Acetate Amount: 0.20







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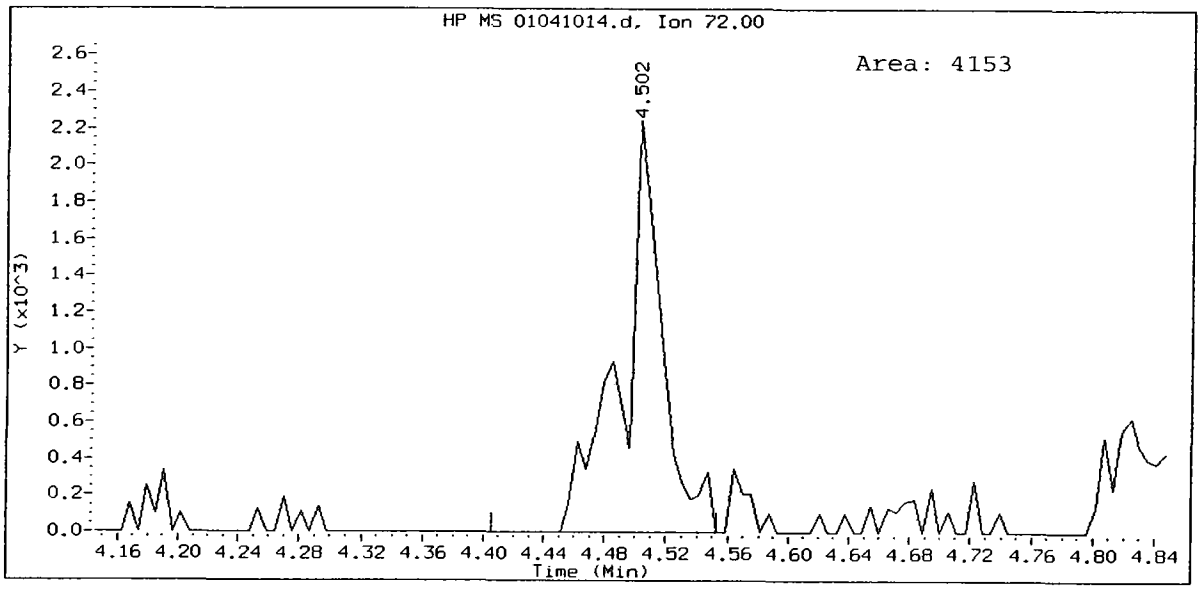
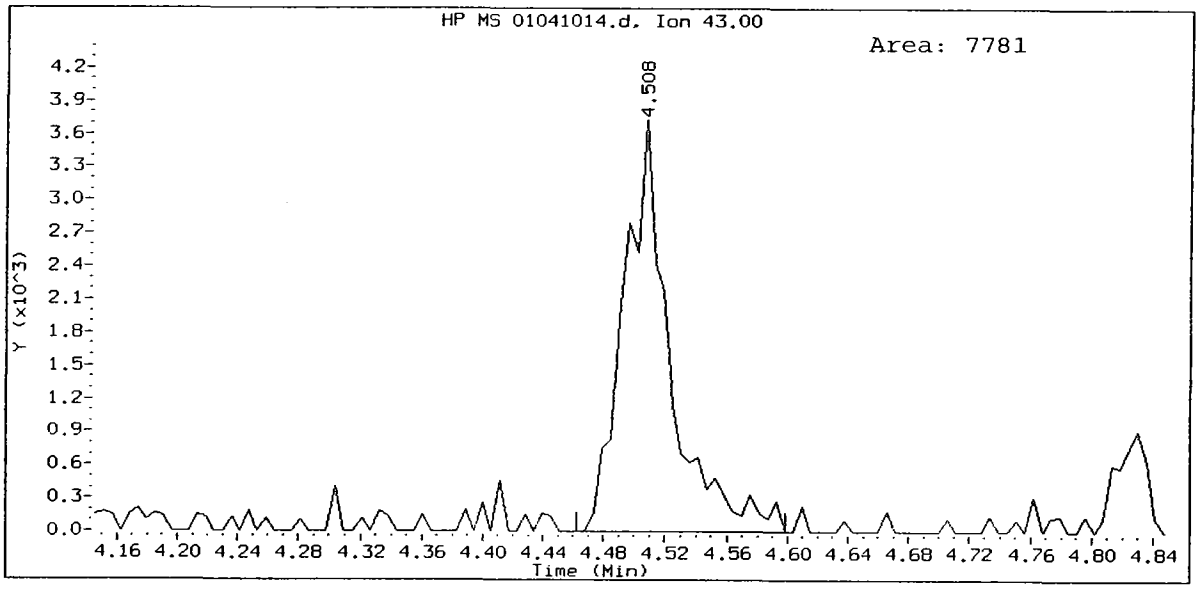
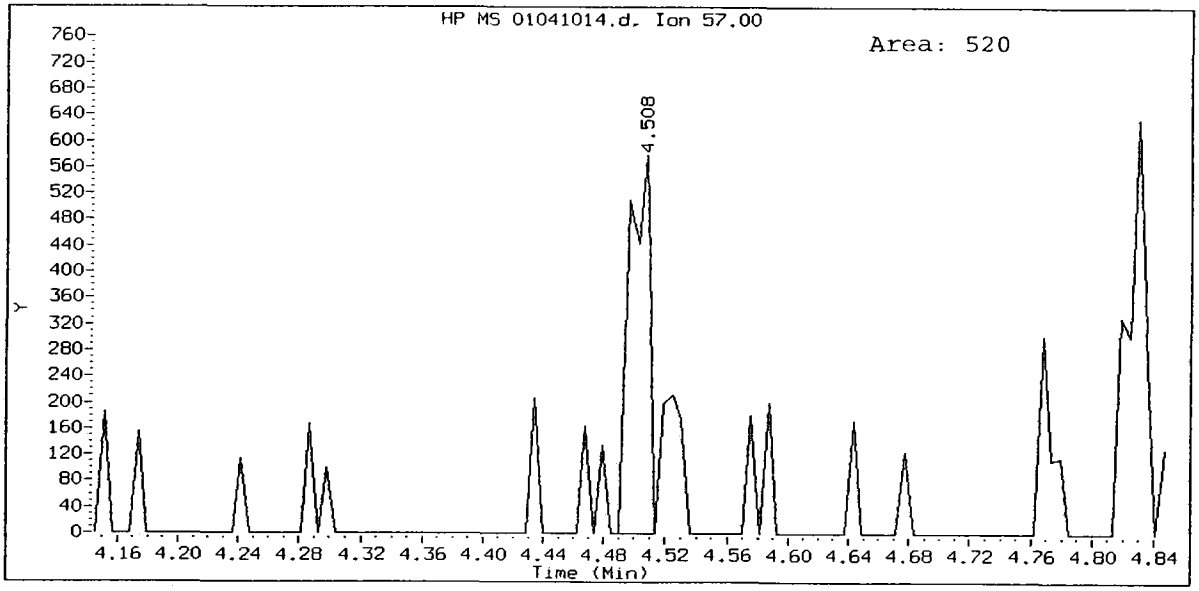
2-Butanone Amount: 1.45







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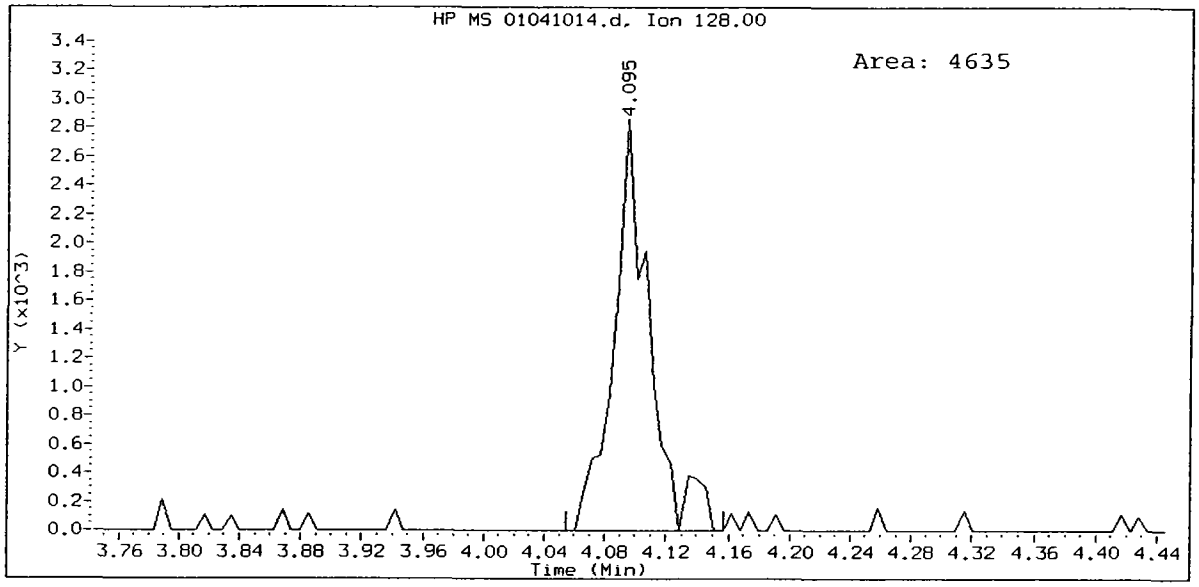
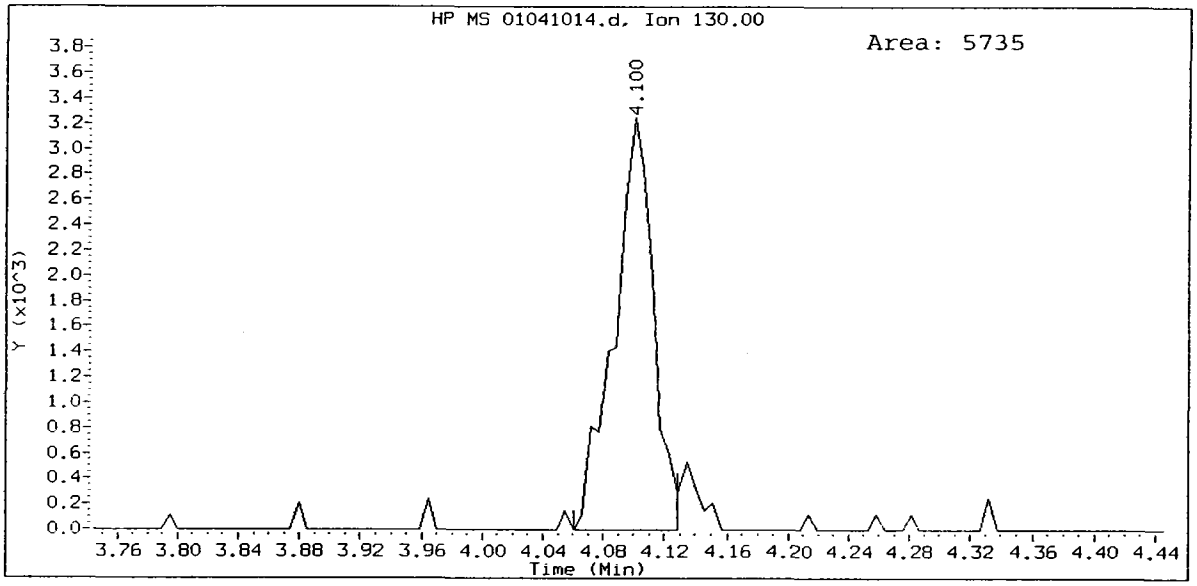
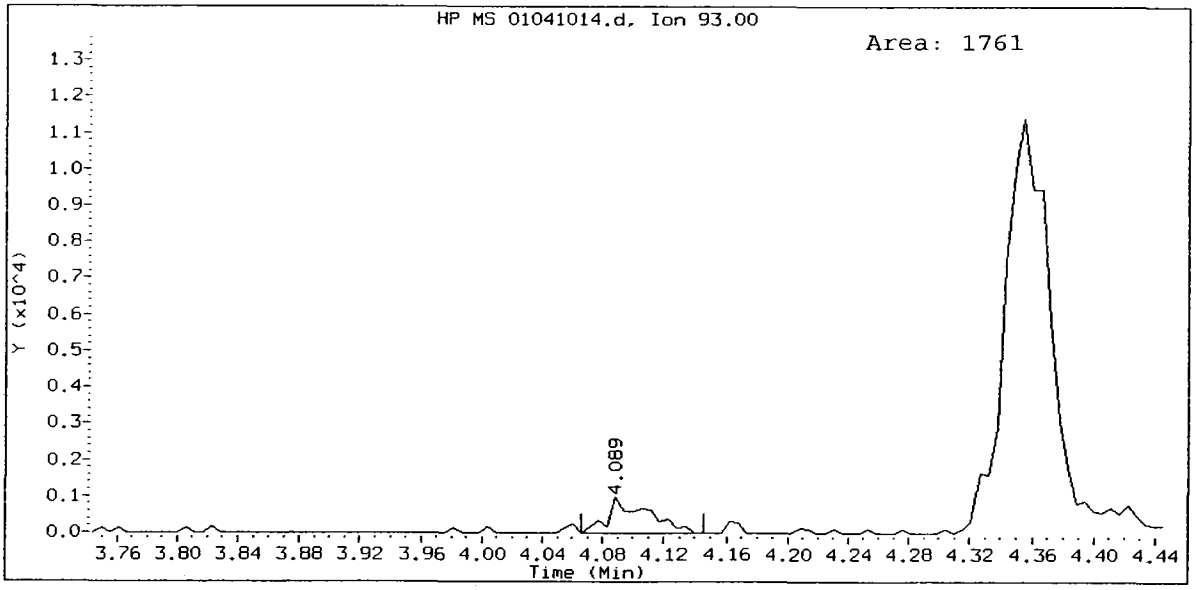
Bromochloromethane Amount: 0.20







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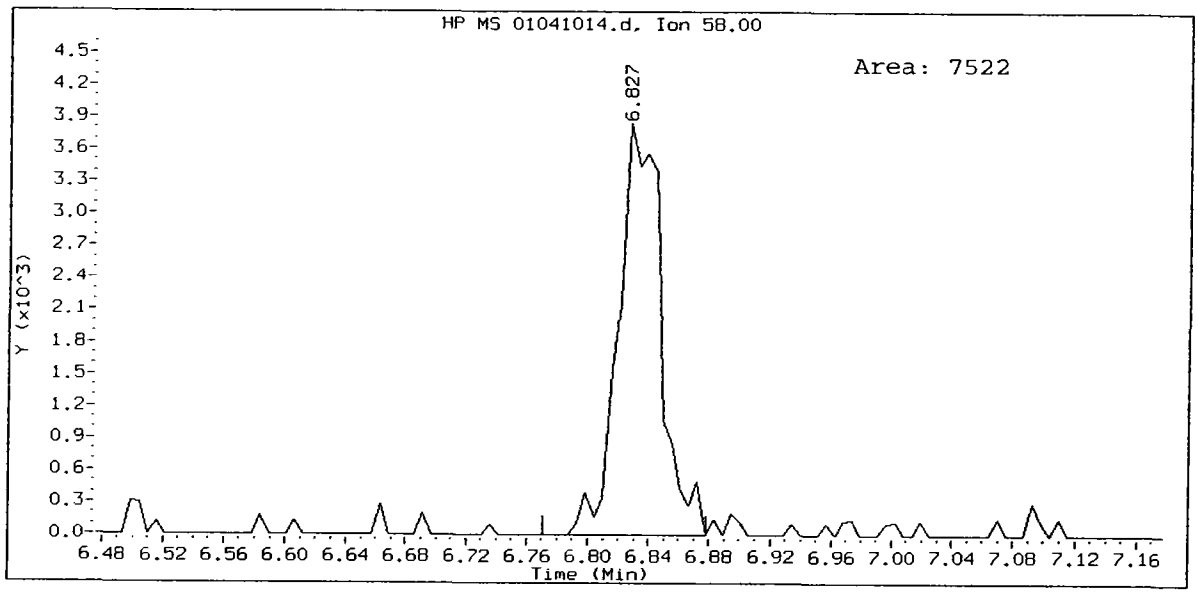
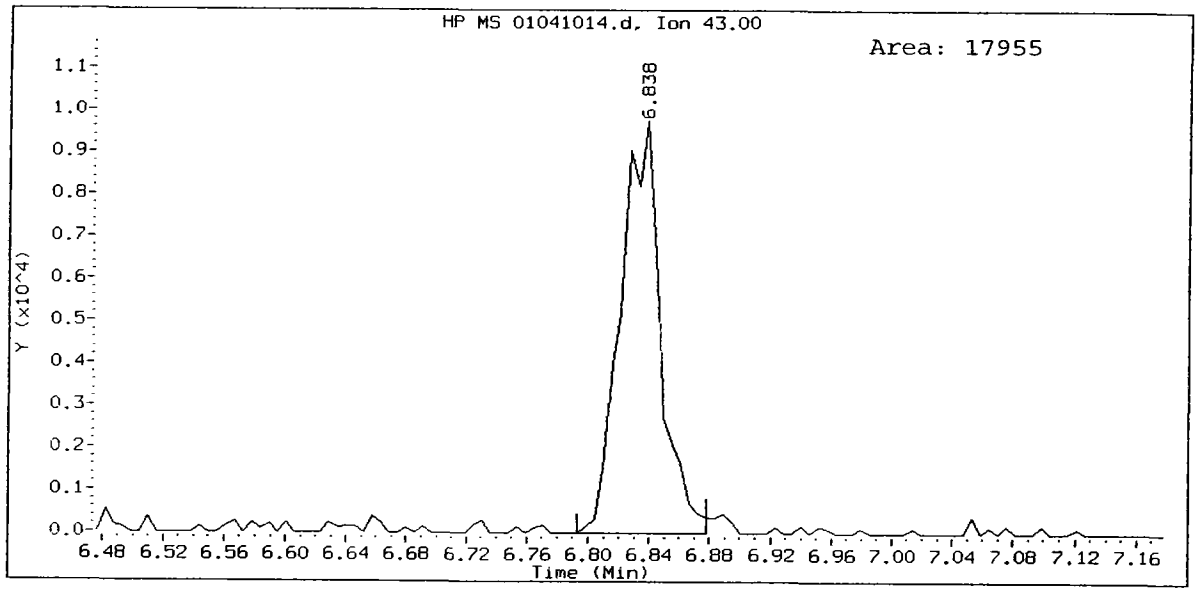
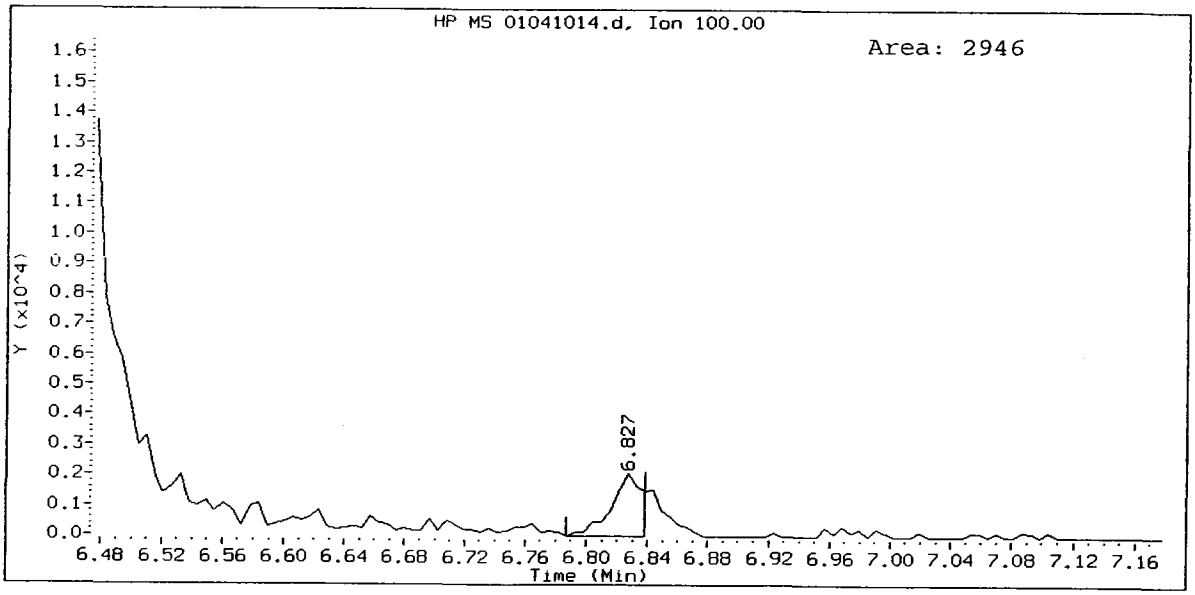
4-Methyl-2-Pentanone Amount: 1.00







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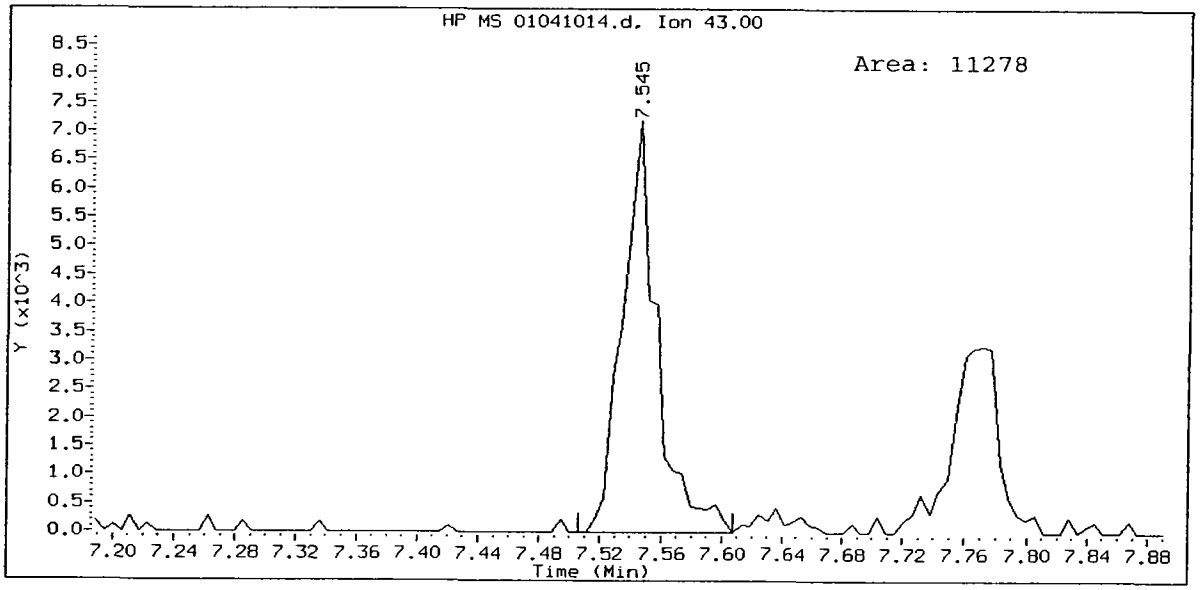
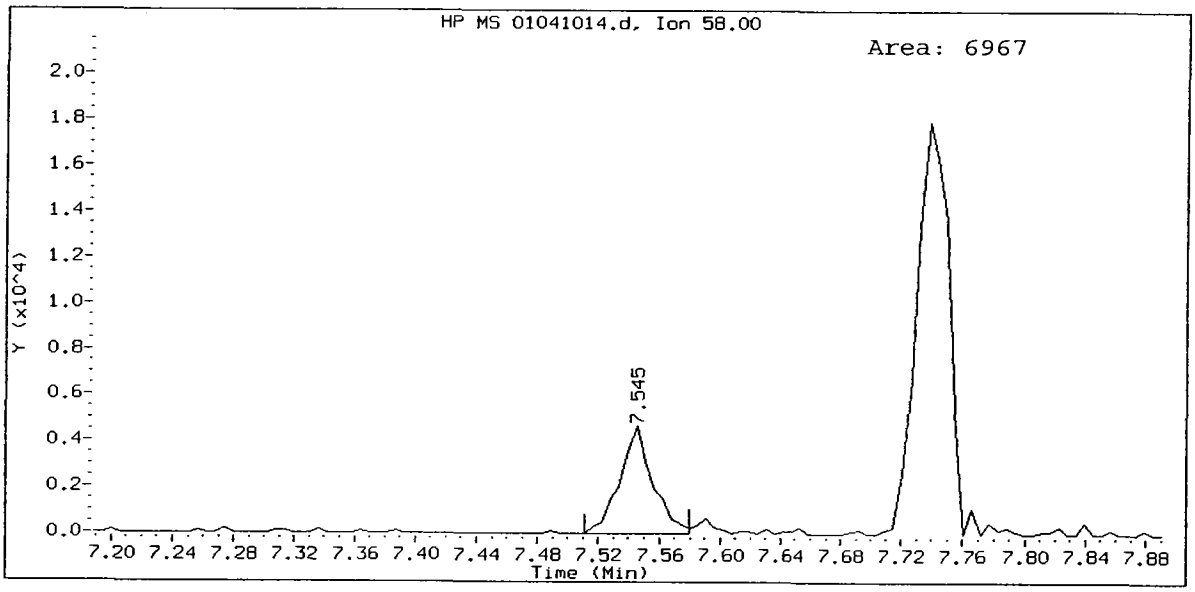
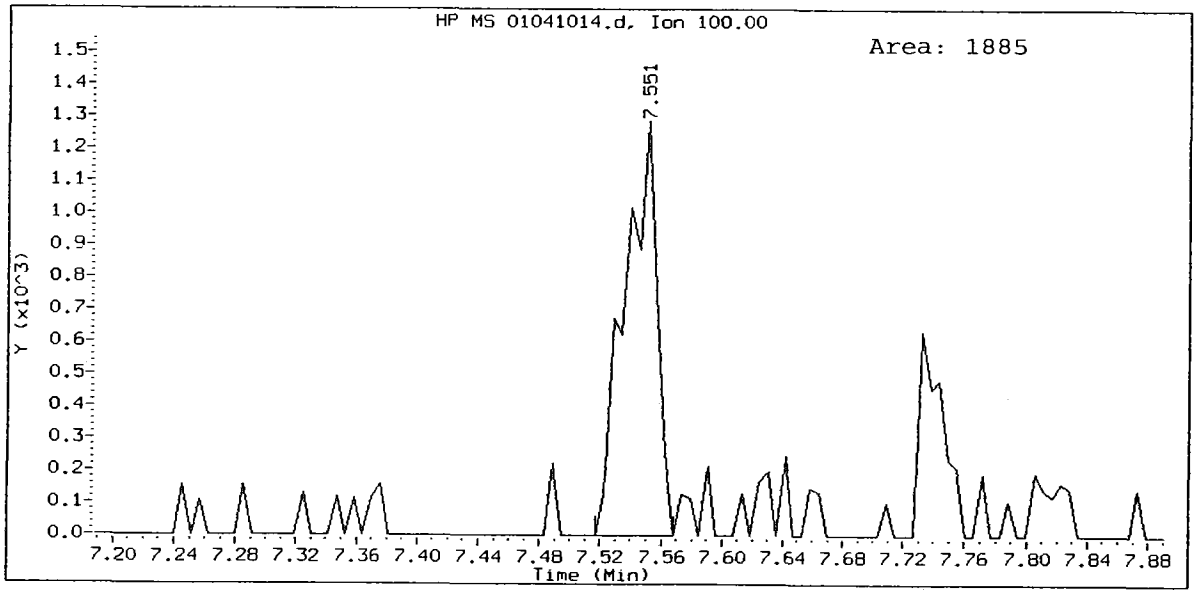
2-Hexanone Amount: 1.07







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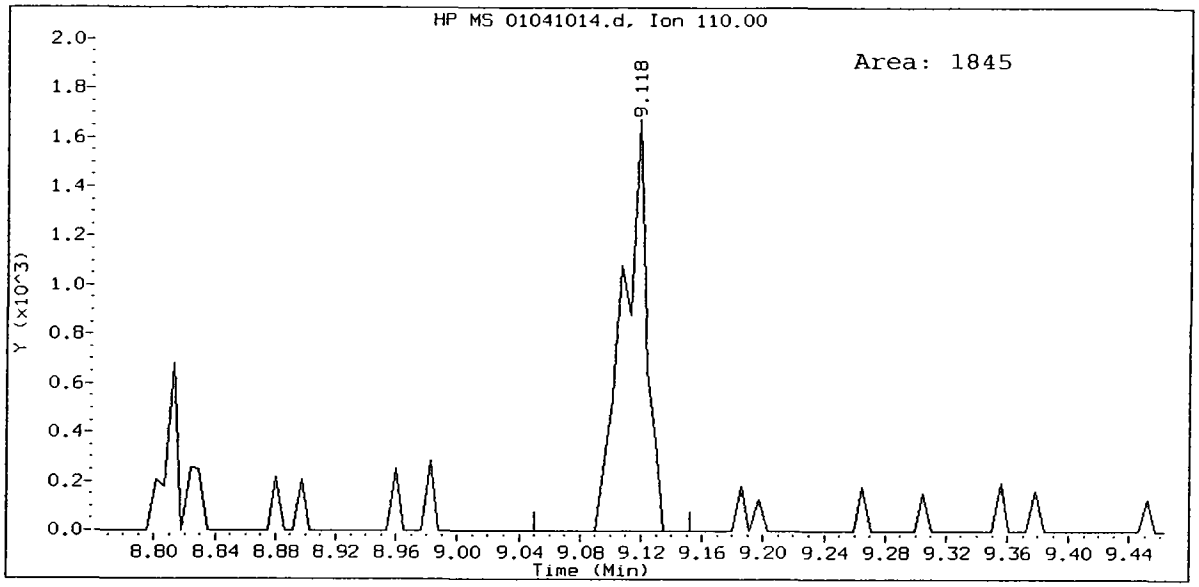
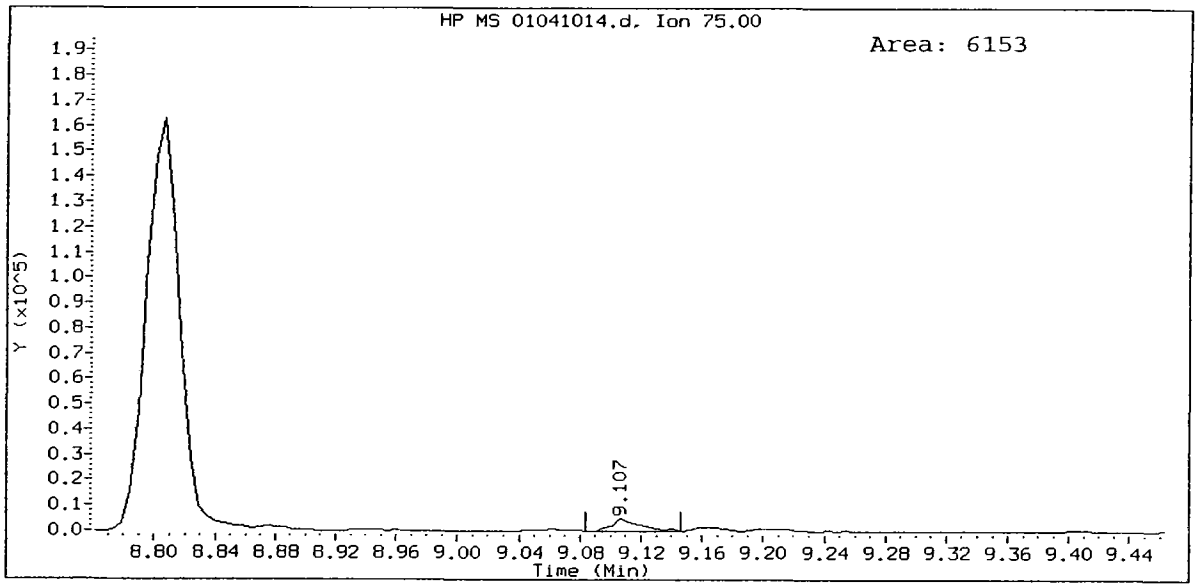
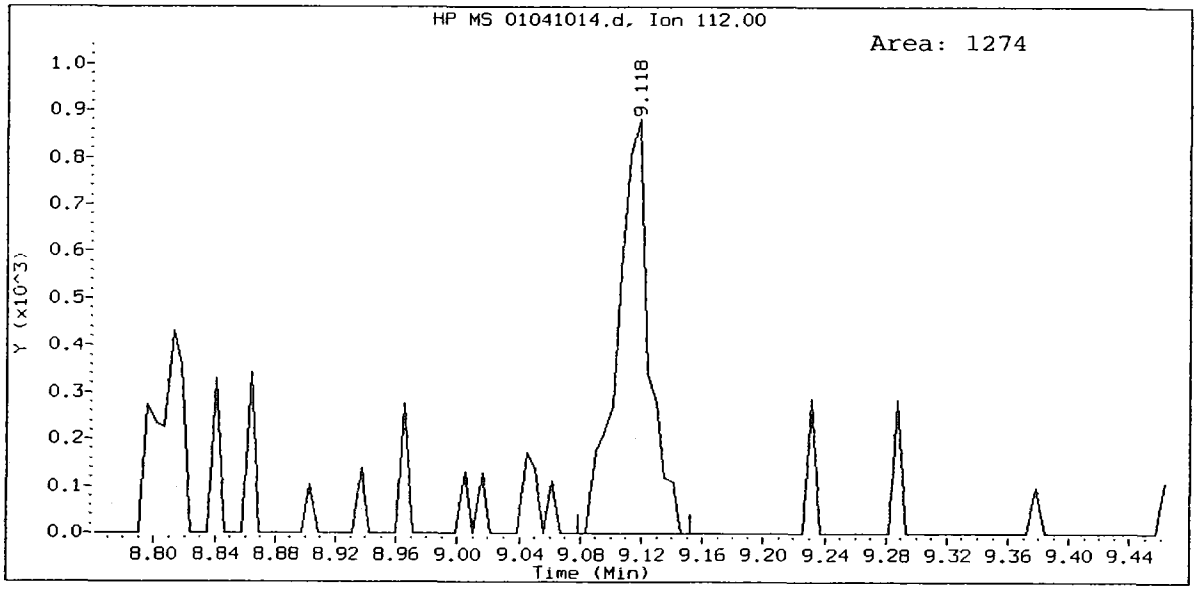
1,2,3-Trichloropropane Amount: 0.20







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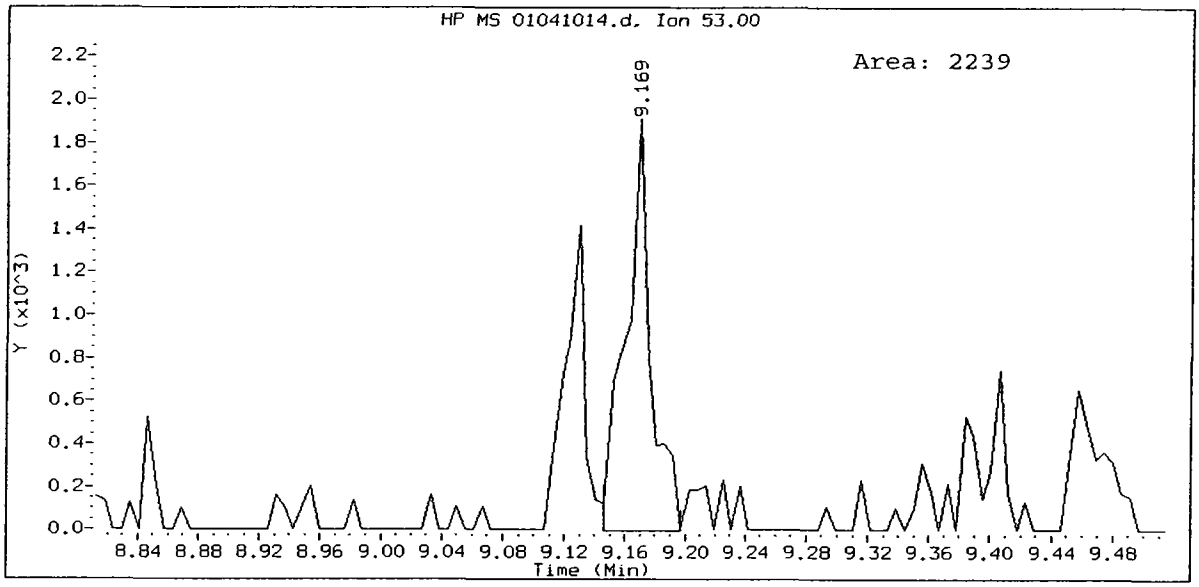
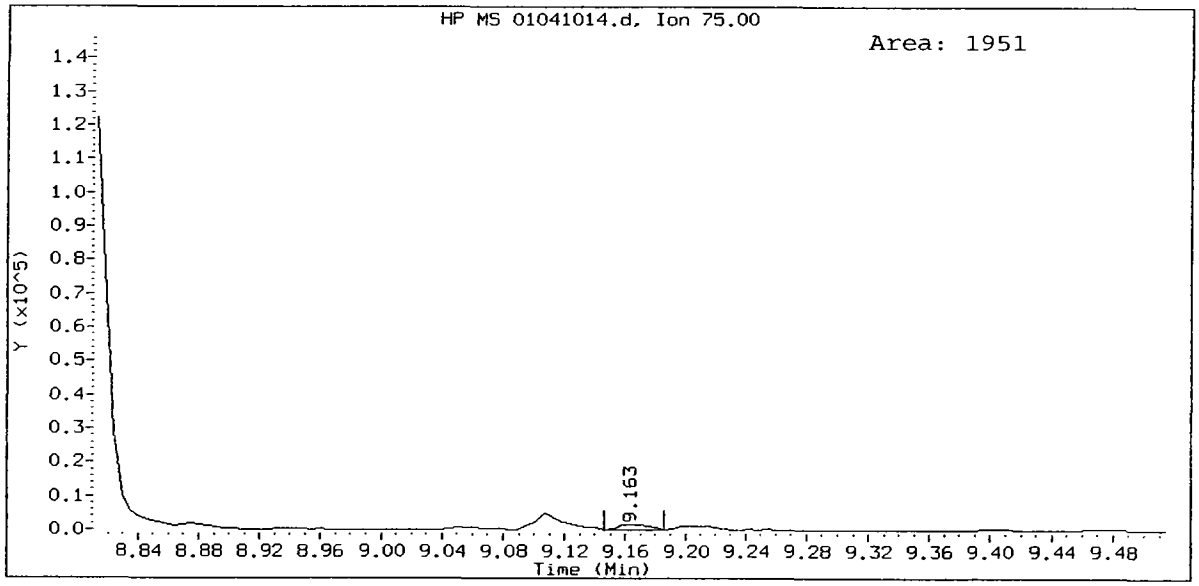
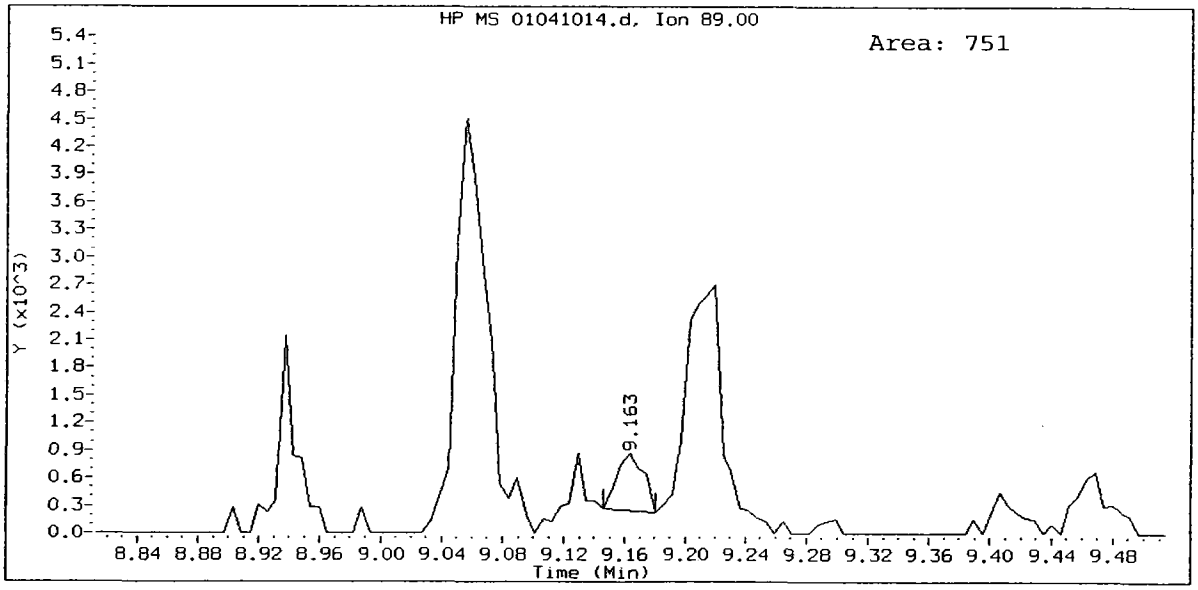
Trans-1,4-Dichloro 2-Butene Amount: 0.29







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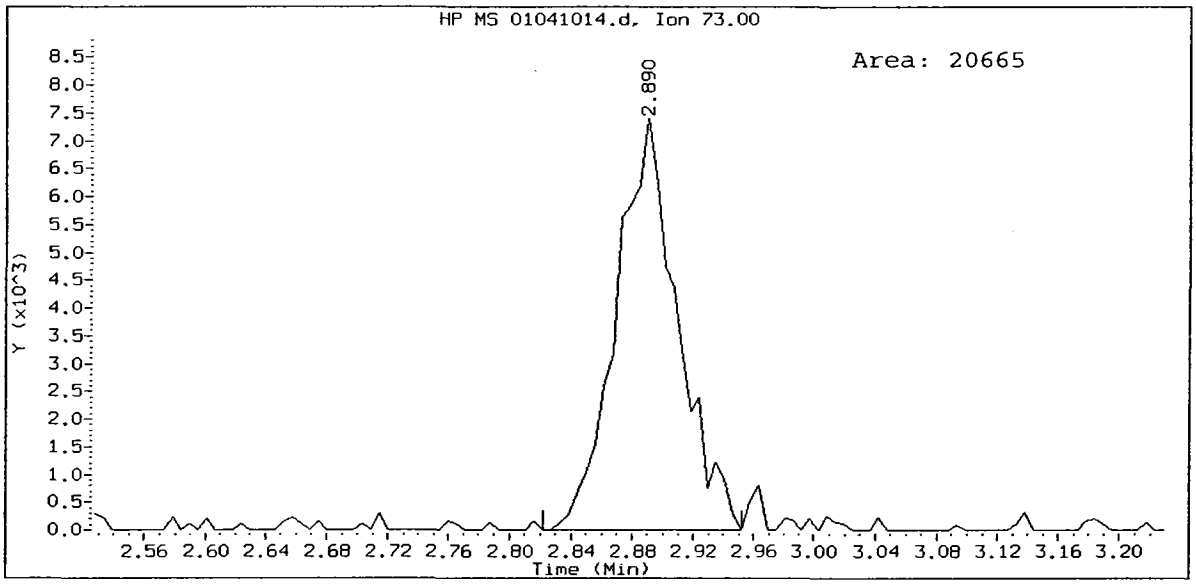
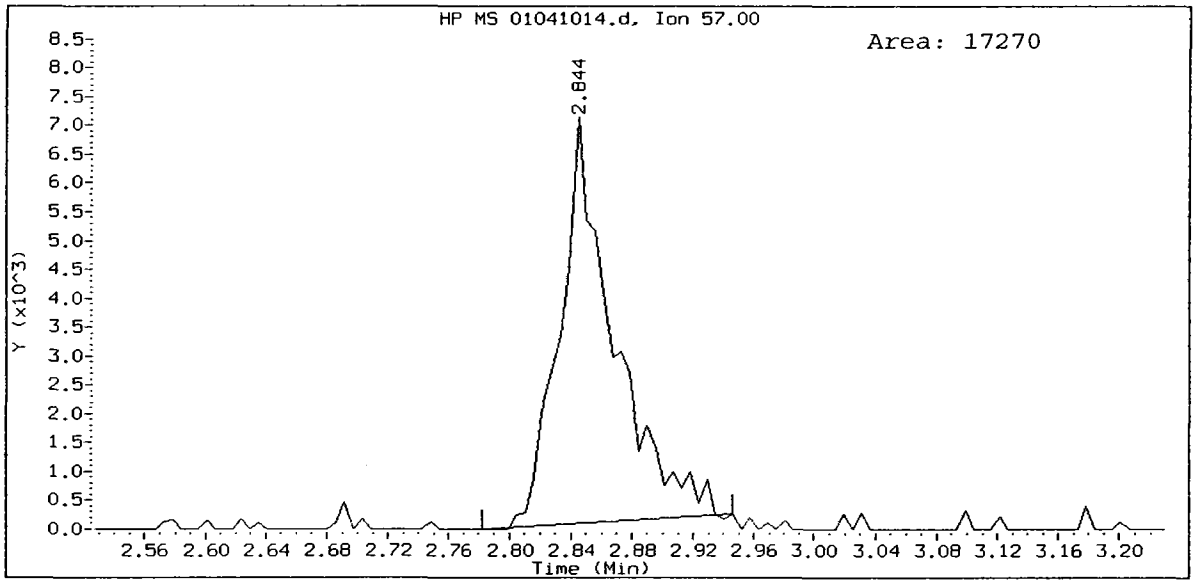
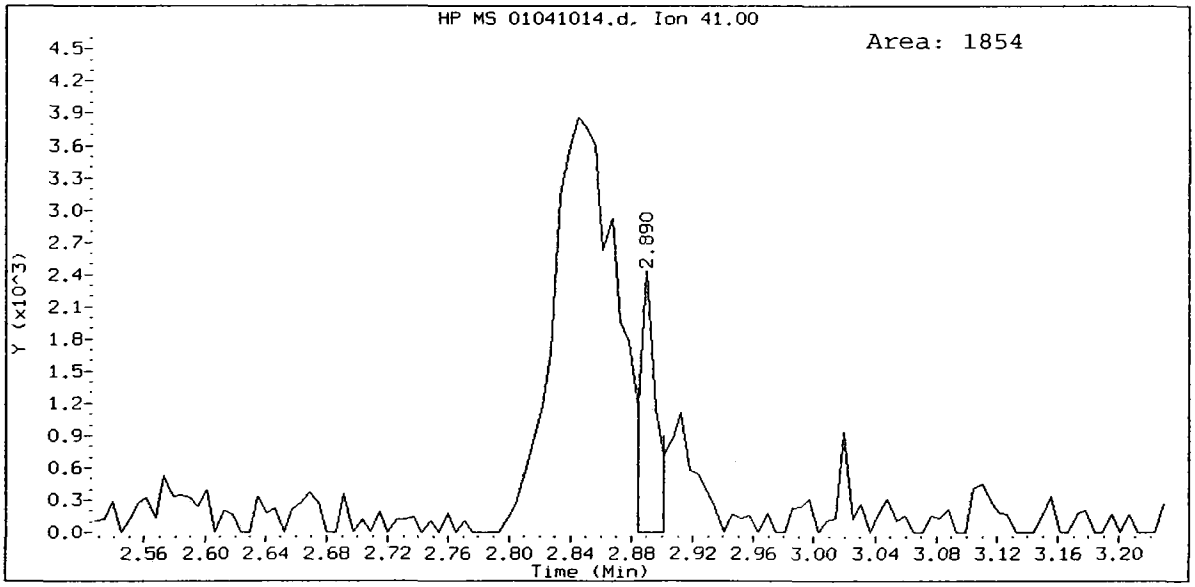
Methyl tert butyl ether Amount: 0.21







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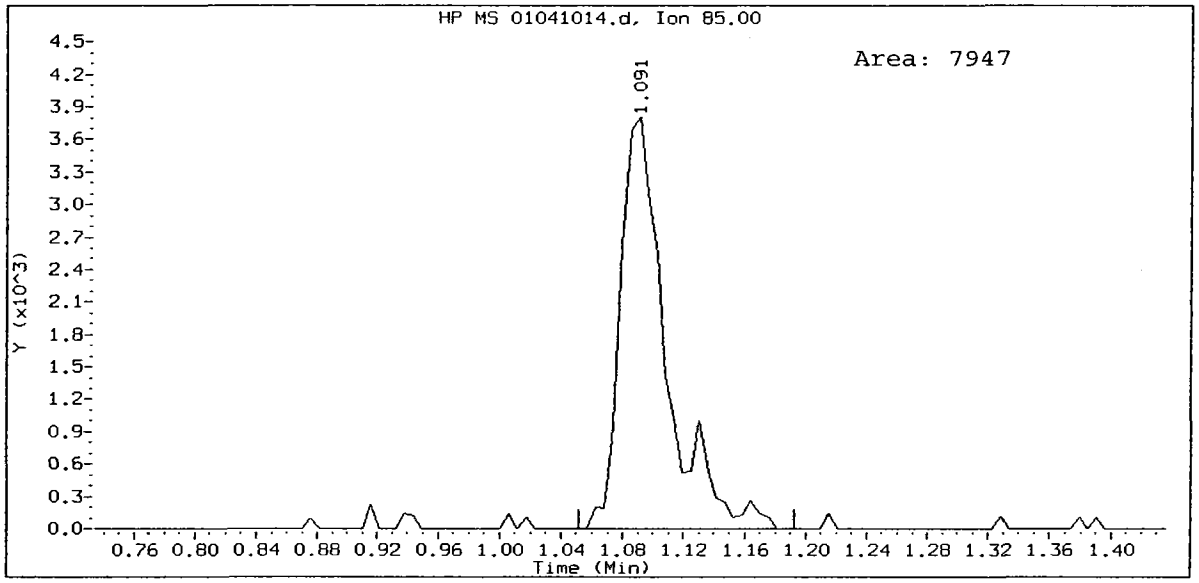
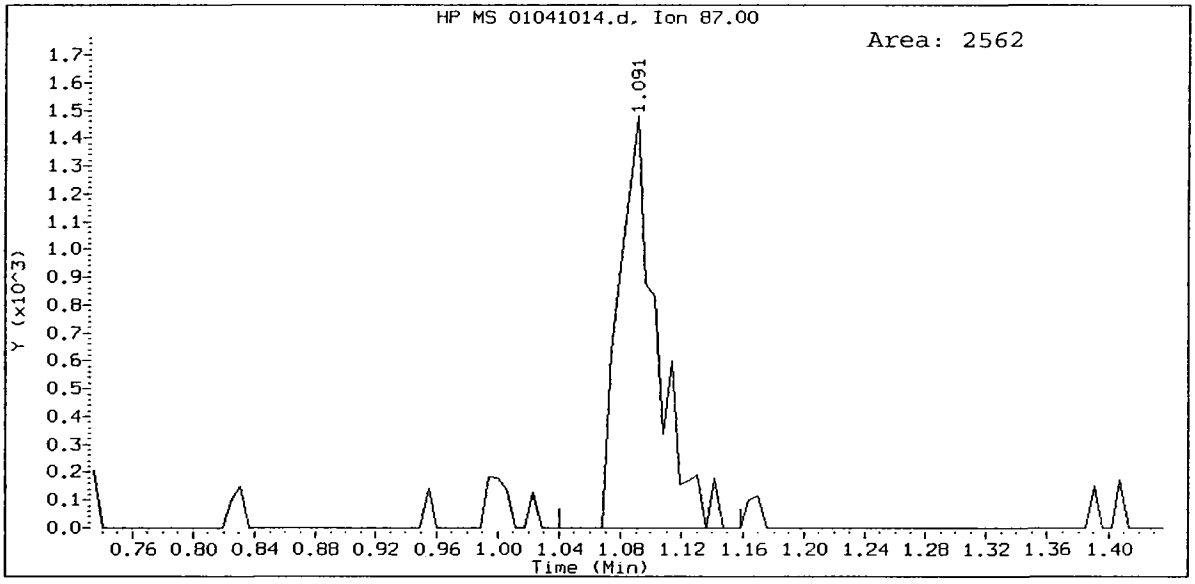
Dichlorodifluoromethane Amount: 0.19





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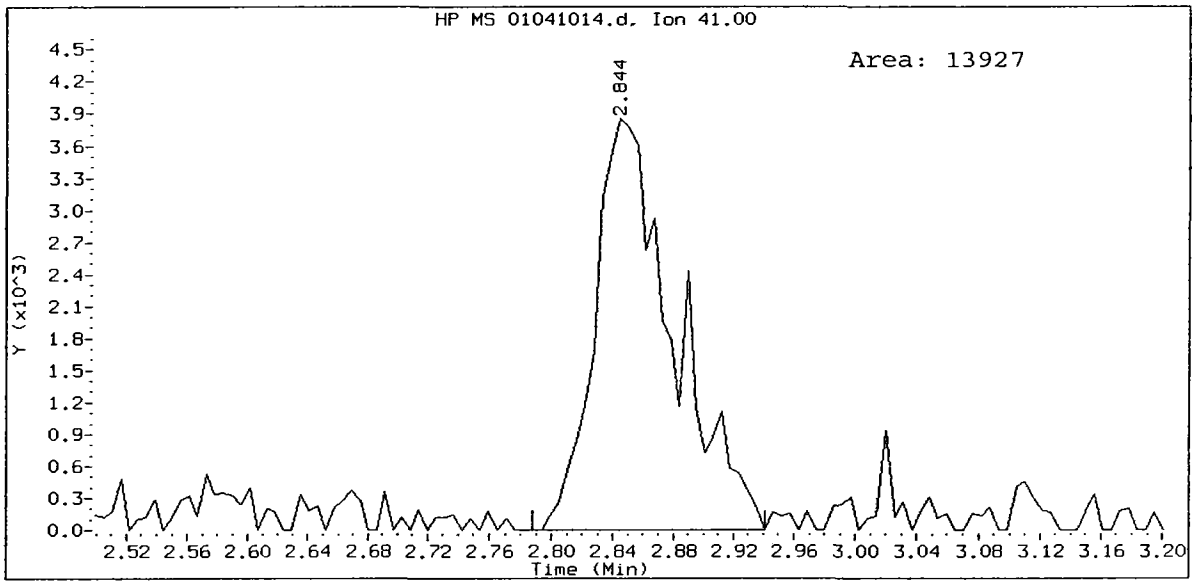
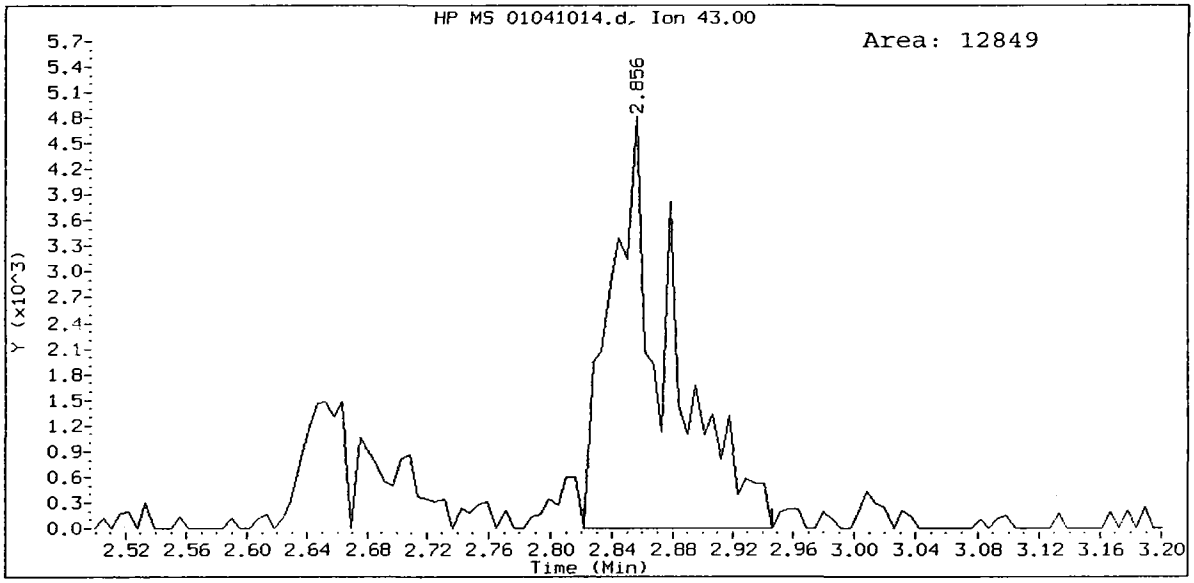
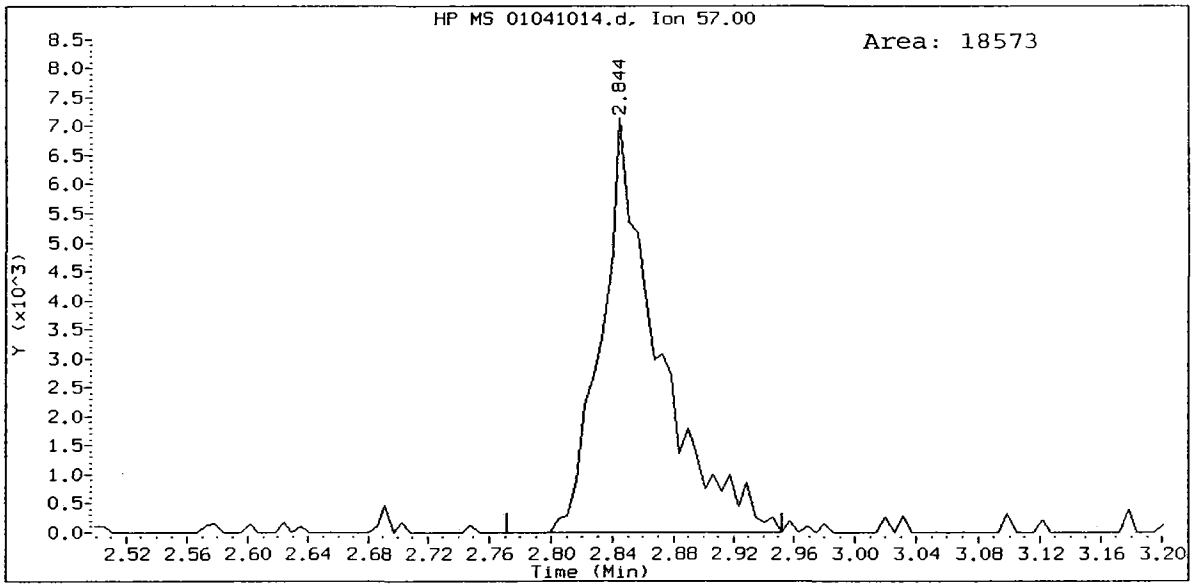
Hexane Amount: 0.24







Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/04JAN10.b/01041003.d
Lab Smp Id: 0.5_0104 Client Smp ID: 0.5 ppb
Inj Date : 04-JAN-2010 11:28
Operator : PC Inst ID: nt5.i
Smp Info : 0.5_0104,10,10,0,
Misc Info : 09-
Comment :
Method : /chem1/nt5.i/04JAN10.b/VO010410L.m
Meth Date : 05-Jan-2010 10:18 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 11:28 Cal File: 01041003.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa+hex.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 (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.091	1.085	(0.226)	16937	0.50000	0.4297(M)
172 Hexane	41	2.844	2.850	(0.589)	26966	0.50000	0.4945(M)
2 Chloromethane	50	1.227	1.221	(0.254)	19784	0.50000	0.4689(M)
3 Vinyl Chloride	62	1.277	1.272	(0.264)	22957	0.50000	0.4624(M)
4 Bromomethane	94	1.498	1.498	(0.310)	9034	0.50000	0.3785(M)
5 Chloroethane	64	1.594	1.594	(0.330)	14729	0.50000	0.5032(M)
6 Trichlorofluoromethane	101	1.696	1.696	(0.351)	30437	0.50000	0.4686(M)
12 Acrolein	56	2.375	2.375	(0.492)	8164	2.50000	2.182(M)
9 112Trichloro122Trifluoroethane	101	2.143	2.143	(0.444)	20916	0.50000	0.4618
14 Acetone	43	2.675	2.652	(0.554)	12052	2.50000	2.865(M)
7 1,1-Dichloroethene	96	2.092	2.092	(0.433)	20103	0.50000	0.4542
11 Bromoethane	108	2.301	2.301	(0.476)	13765	0.50000	0.4426(M)
10 Iodomethane	142	2.200	2.194	(0.455)	14863	0.50000	0.3489(M)
13 Methylene Chloride	84	2.590	2.595	(0.536)	23114	0.50000	0.5159(M)
18 Acrylonitrile	53	3.438	3.444	(0.712)	3621	0.50000	0.5239(M)
16 Methyl tert butyl ether	73	2.884	2.878	(0.597)	42952	0.50000	0.4690(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
8	Carbon Disulfide	76	2.098	2.098	(0.434)	68665	0.50000	0.4666(M)
15	Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	23334	0.50000	0.4667
19	Vinyl Acetate	43	3.682	3.682	(0.762)	17310	0.50000	0.4282
17	1,1-Dichloroethane	63	3.376	3.376	(0.699)	31433	0.50000	0.4466
29	2-Butanone	72	4.496	4.496	(0.931)	6500	2.50000	2.414(M)
21	2,2-Dichloropropane	77	4.021	4.010	(0.833)	32190	0.50000	0.4682(M)
20	Cis-1,2-Dichloroethene	96	3.919	3.913	(0.811)	21623	0.50000	0.4443
32	Pentafluorobenzene	168	4.830	4.830	(1.000)	893566	10.0000	
23	Chloroform	83	4.191	4.191	(0.868)	31749	0.50000	0.4302
22	Bromochloromethane	128	4.100	4.094	(0.849)	8991	0.50000	0.4210(M)
25	Dibromofluoromethane	111	4.355	4.360	(0.902)	323313	10.0000	10.076
26	1,1,1-Trichloroethane	97	4.355	4.355	(0.902)	33555	0.50000	0.4679
28	1,1-Dichloropropene	75	4.479	4.479	(0.849)	25017	0.50000	0.4228
24	Carbon Tetrachloride	117	4.293	4.292	(0.813)	19825	0.50000	0.3947(M)
31	d4-1,2-Dichloroethane	65	4.819	4.824	(0.998)	314376	10.0000	9.991
33	1,2-Dichloroethane	62	4.881	4.881	(0.925)	19357	0.50000	0.4224
30	Benzene	78	4.700	4.700	(0.891)	80330	0.50000	0.4571
35	1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1303695	10.0000	
34	Trichloroethene	130	5.226	5.226	(0.990)	25387	0.50000	0.4614
38	1,2-Dichloropropane	63	5.667	5.667	(1.074)	17853	0.50000	0.4571
39	Bromodichloromethane	83	5.741	5.741	(1.088)	20839	0.50000	0.4116
37	Dibromomethane	93	5.582	5.577	(1.058)	9379	0.50000	0.4676
40	2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	5511	0.50000	0.3787(M)
45	4-Methyl-2-Pentanone	58	6.833	6.827	(1.295)	15556	2.50000	2.210
41	Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	27642	0.50000	0.4261
42	d8-Toluene	98	6.437	6.436	(1.220)	1372766	10.0000	9.956
43	Toluene	92	6.482	6.482	(1.228)	57041	0.50000	0.4645
46	Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	24624	0.50000	0.4551
51	2-Hexanone	43	7.545	7.540	(0.974)	20346	2.50000	2.023(M)
47	1,1,2-Trichloroethane	97	6.974	6.974	(1.322)	13725	0.50000	0.4613
49	1,3-Dichloropropane	76	7.195	7.194	(0.929)	22385	0.50000	0.4425
44	Tetrachloroethene	166	6.793	6.798	(0.877)	25228	0.50000	0.4343
48	Chlorodibromomethane	129	7.110	7.110	(0.918)	15559	0.50000	0.4201
50	1,2-Dibromoethane	107	7.291	7.291	(1.382)	12546	0.50000	0.4284
52	d5-Chlorobenzene	117	7.743	7.743	(1.000)	1169755	10.0000	
53	Chlorobenzene	112	7.755	7.754	(1.001)	59747	0.50000	0.4497
54	Ethyl Benzene	91	7.800	7.800	(1.007)	103609	0.50000	0.4526(M)
55	1,1,1,2-Tetrachloroethane	131	7.823	7.822	(1.010)	20314	0.50000	0.4395
56	m,p-xylene	106	7.930	7.930	(1.024)	81176	1.00000	0.9048
57	o-Xylene	106	8.298	8.292	(1.072)	35329	0.50000	0.4042
58	Styrene	104	8.343	8.343	(1.077)	56671	0.50000	0.4093
60	Isopropyl Benzene	105	8.575	8.575	(0.875)	92067	0.50000	0.4328
59	Bromoform	173	8.343	8.343	(0.851)	8570	0.50000	0.4086
64	1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	11468	0.50000	0.4128
61	4-Bromofluorobenzene	95	8.807	8.807	(1.137)	517143	10.0000	9.692
66	1,2,3-Trichloropropane	110	9.112	9.112	(0.930)	4035	0.50000	0.4469(M)
68	Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.935)	2946	0.50000	0.3907(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
63 N-Propyl Benzene	91	8.943	8.942	(0.912)	106906	0.50000	0.4502
62 Bromobenzene	156	8.886	8.886	(0.906)	24999	0.50000	0.4305
67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	72935	0.50000	0.4067
65 2-Chloro Toluene	91	9.061	9.061	(0.924)	61533	0.50000	0.4133
69 4-Chloro Toluene	91	9.208	9.214	(0.939)	65746	0.50000	0.4333
70 T-Butyl Benzene	119	9.401	9.401	(0.959)	64455	0.50000	0.4127
71 1,2,4-Trimethylbenzene	105	9.469	9.469	(0.966)	73159	0.50000	0.4069
72 S-Butyl Benzene	105	9.565	9.565	(0.976)	91707	0.50000	0.4205
73 4-Isopropyl Toluene	119	9.701	9.706	(0.990)	75803	0.50000	0.4110
74 1,3-Dichlorobenzene	146	9.735	9.734	(0.993)	49862	0.50000	0.4423
75 d4-1,4-Dichlorobenzene	152	9.802	9.808	(1.000)	649508	10.0000	
76 1,4-Dichlorobenzene	146	9.819	9.819	(1.002)	49886	0.50000	0.4440
77 N-Butyl Benzene	91	10.085	10.085	(1.029)	62651	0.50000	0.4026
78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	583675	10.0000	10.091
79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	43664	0.50000	0.4393
81 1,2-Dibromo 3-Chloropropane	75	10.945	10.939	(1.117)	2444	0.50000	0.4633
83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	25611	0.50000	0.4149
82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.182)	13043	0.50000	0.4726
84 Naphthalene	128	11.901	11.895	(1.214)	40183	0.50000	0.3875
85 1,2,3-Trichlorobenzene	180	12.076	12.076	(1.232)	21136	0.50000	0.4226

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01041003.d
Lab Smp Id: 0.5 0104
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/04JAN10.b/VO010410L.m
Misc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 0.5 ppb
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	893566	-1.47
35 1,4-Difluorobenze	1305872	652936	2611744	1303695	-0.17
52 d5-Chlorobenzene	1174180	587090	2348360	1169755	-0.38
75 d4-1,4-Dichlorobe	665265	332632	1330530	649508	-2.37

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.80	-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.

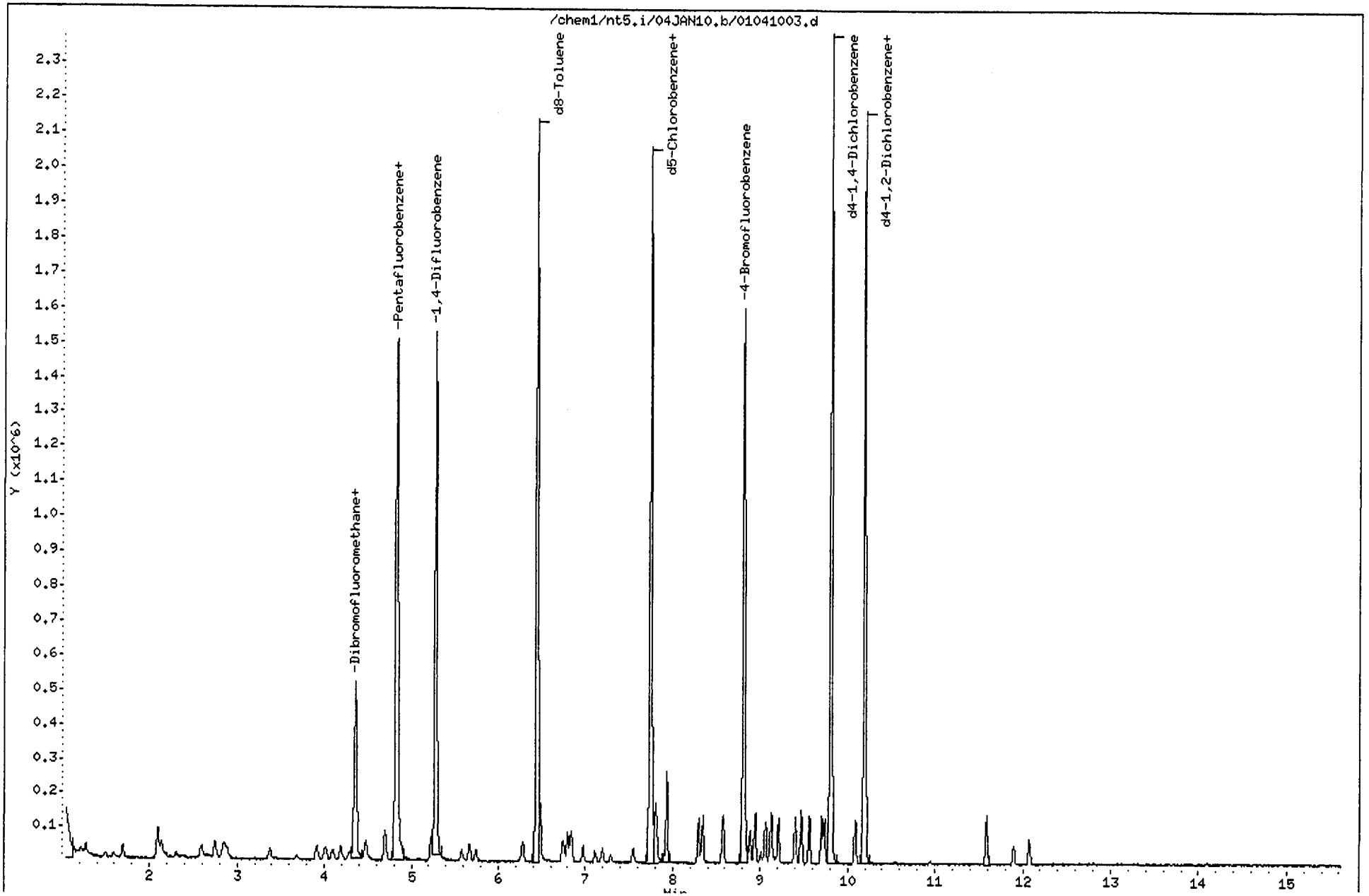
Data File: /chem1/nt5.i/04JAN10.b/01041003.d
Date : 04-JAN-2010 11:28
Client ID: 0.5 ppb
Sample Info: 0.5_0104,10,10,0,

Column phase: RTXVMS

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

QD62:99129



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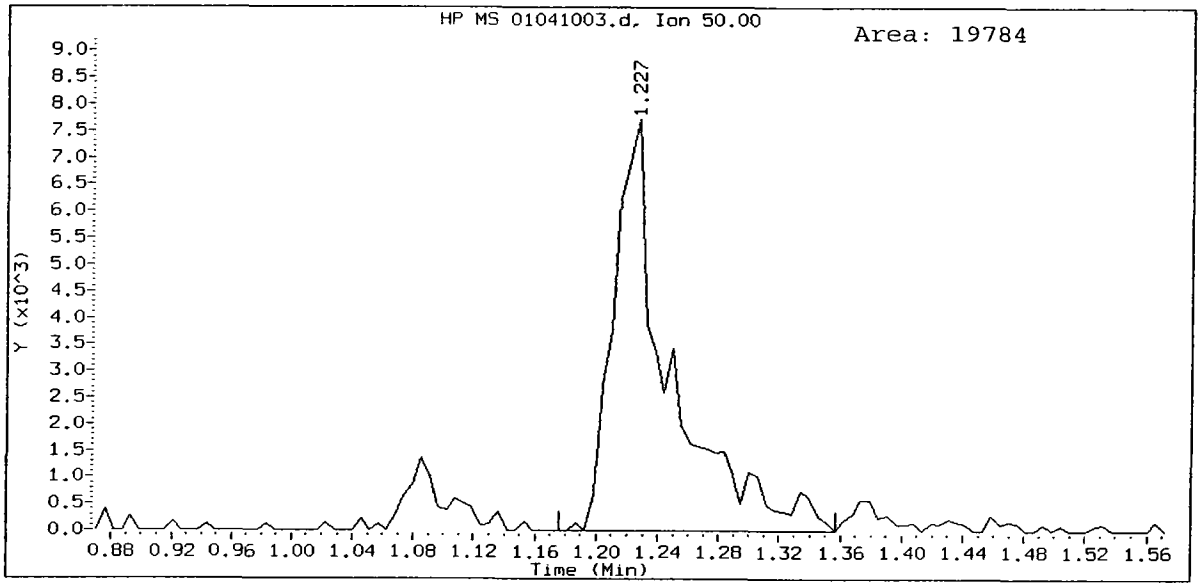
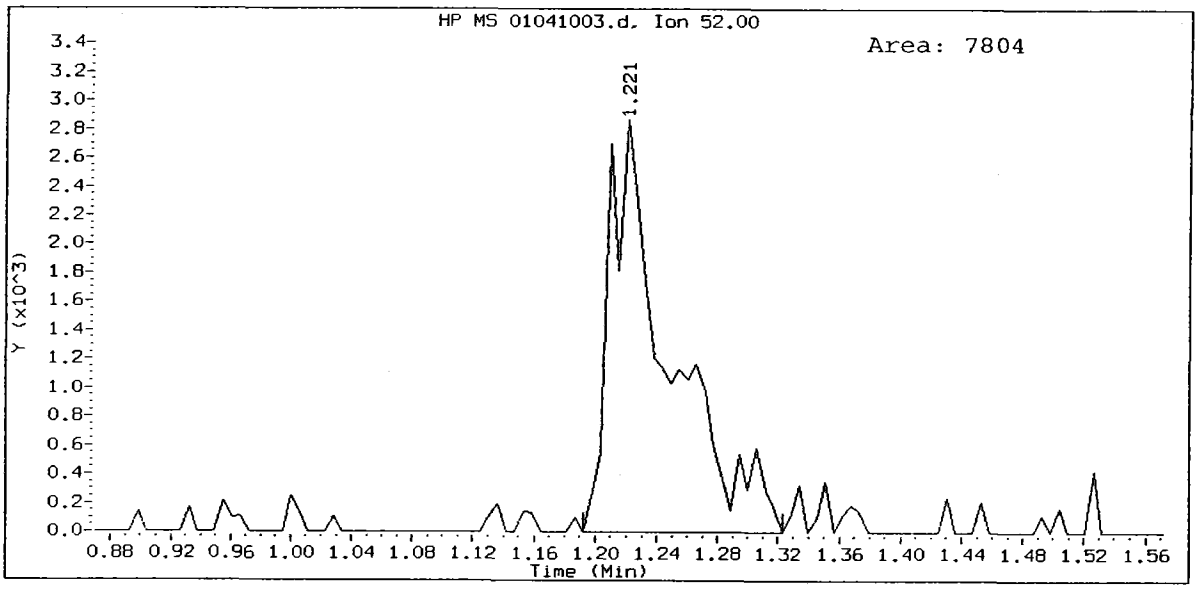
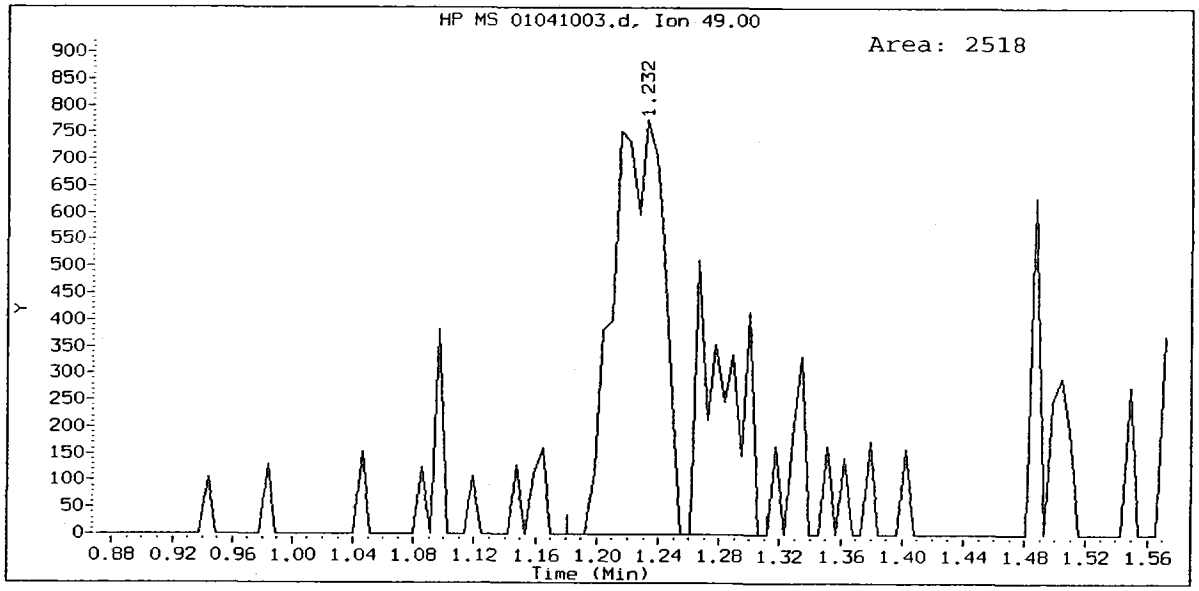
Chloromethane Amount: 0.47







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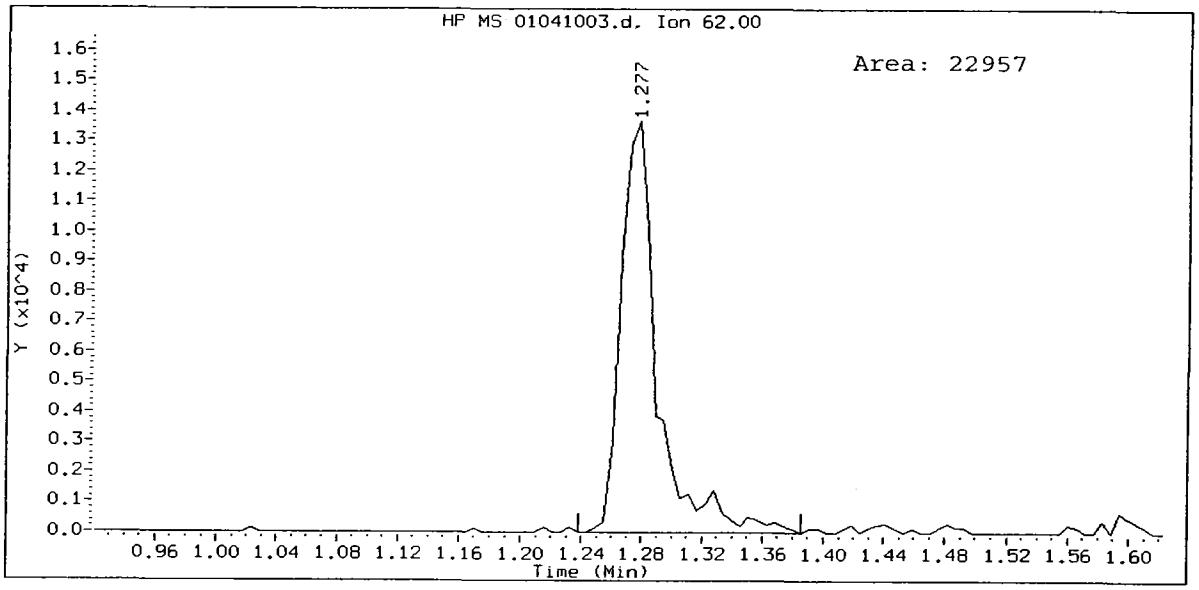
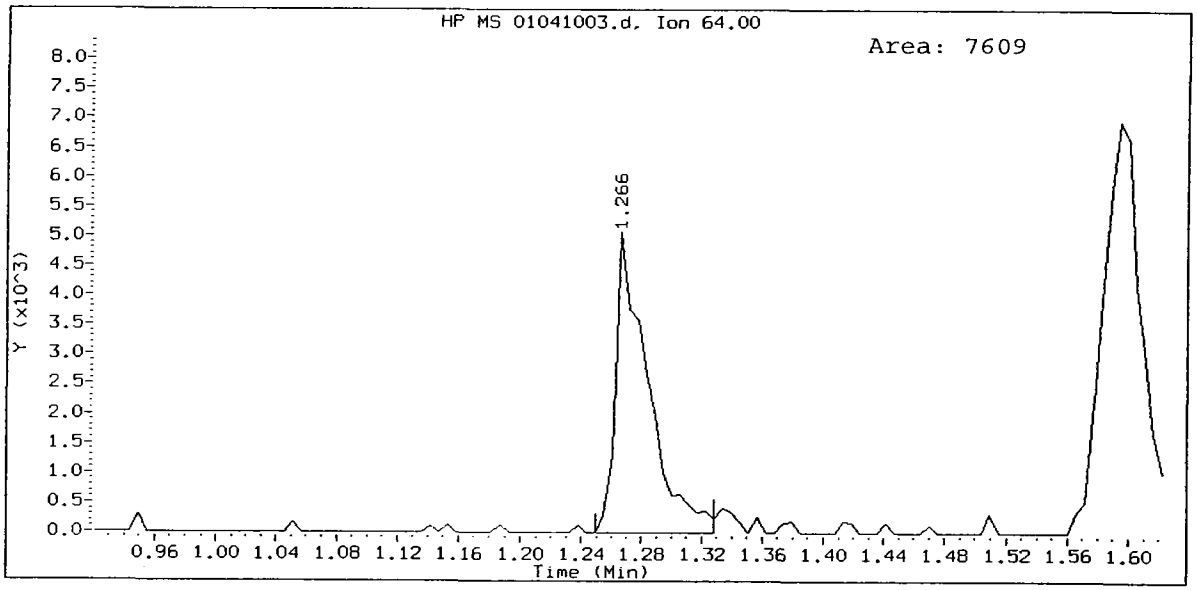
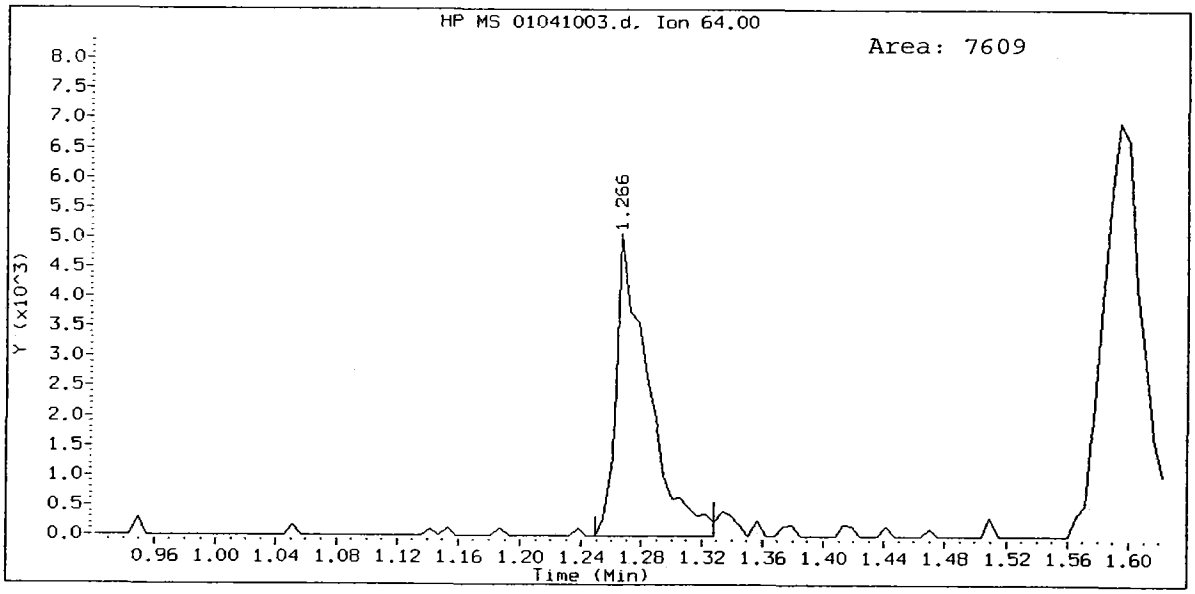
Vinyl Chloride Amount: 0.46







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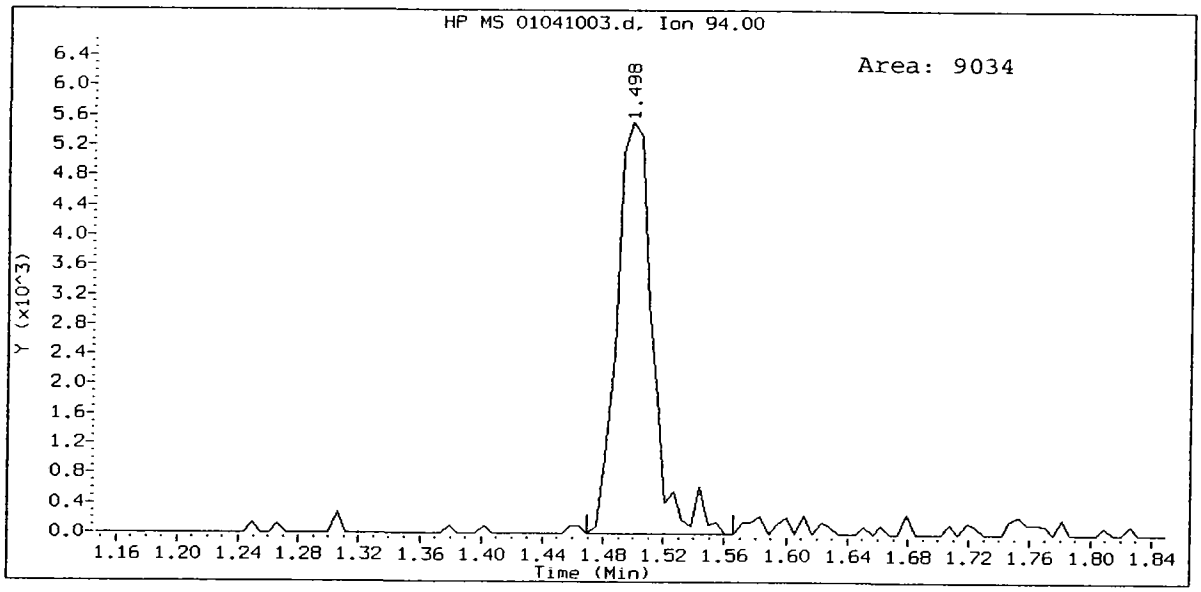
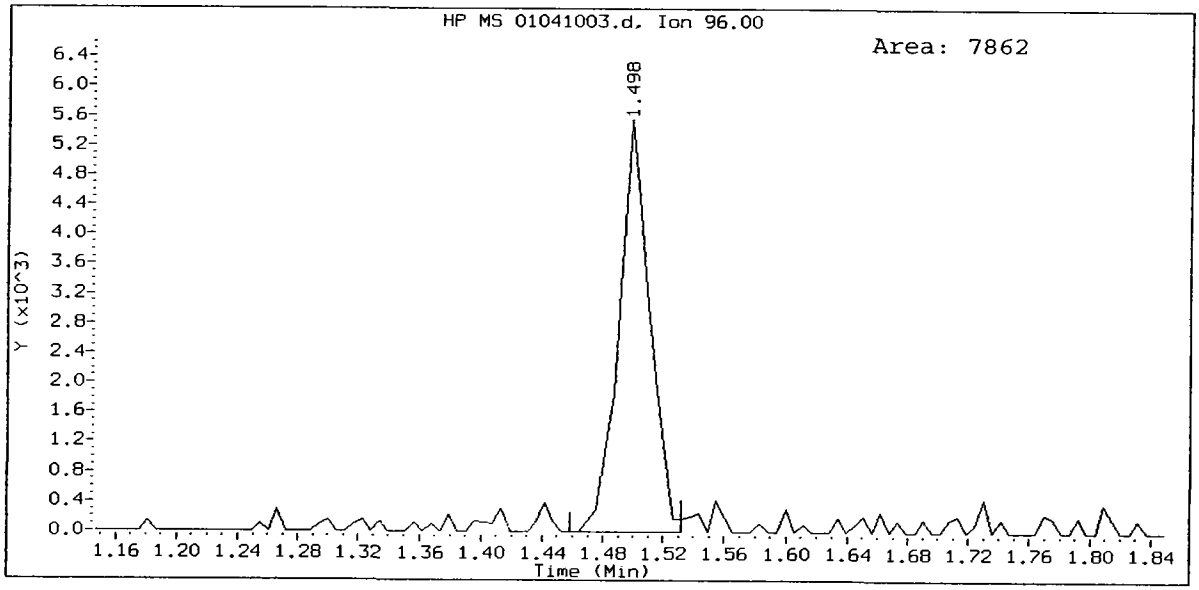
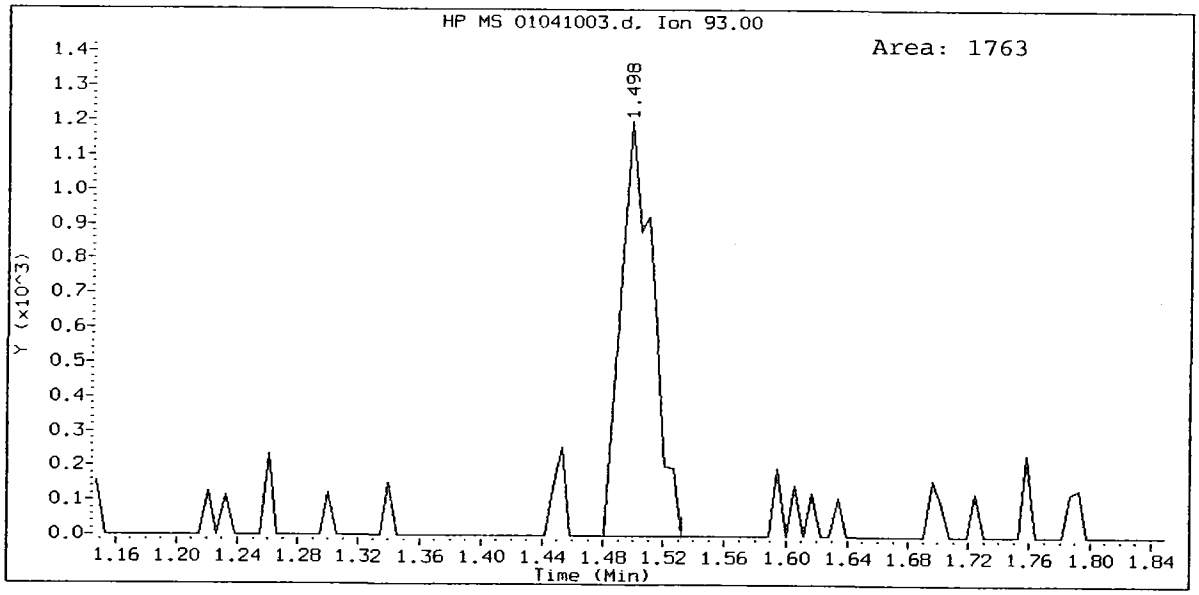
Bromomethane Amount: 0.38







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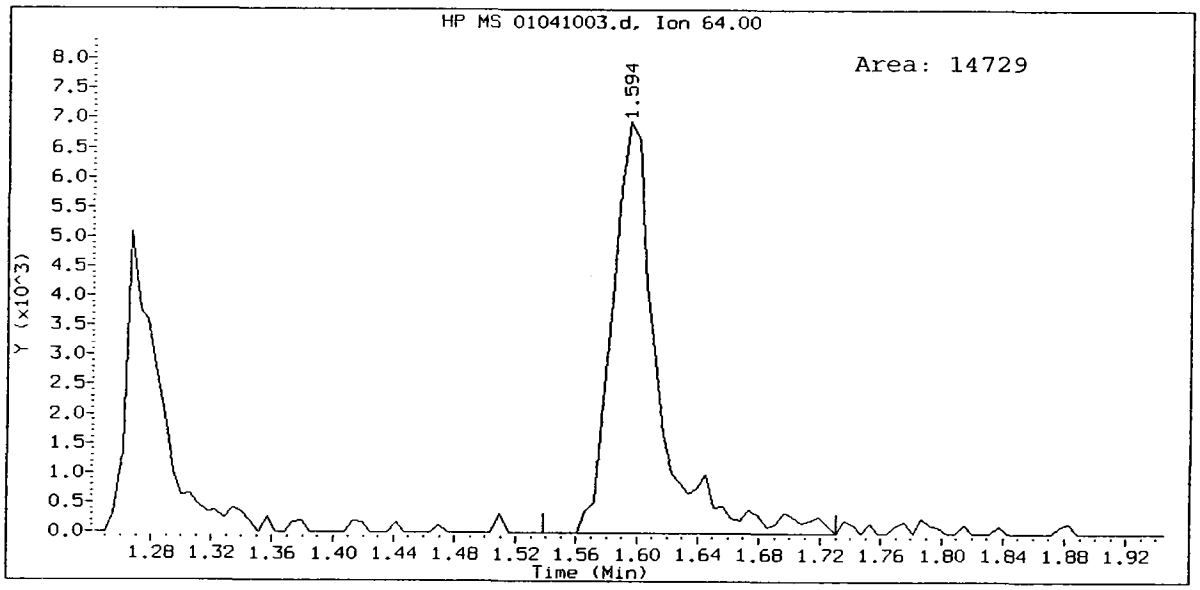
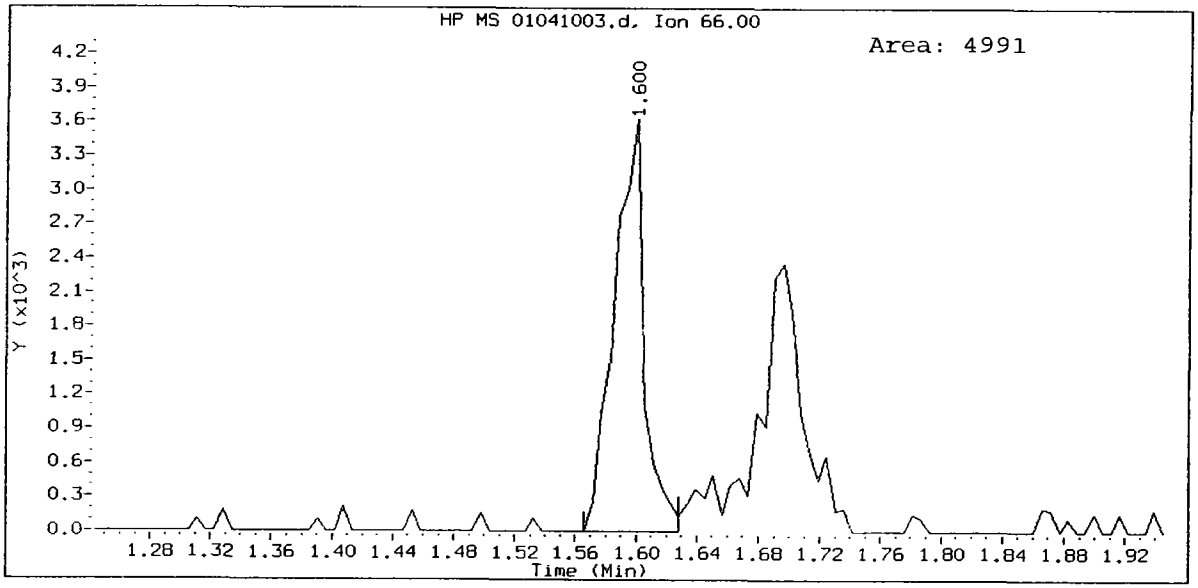
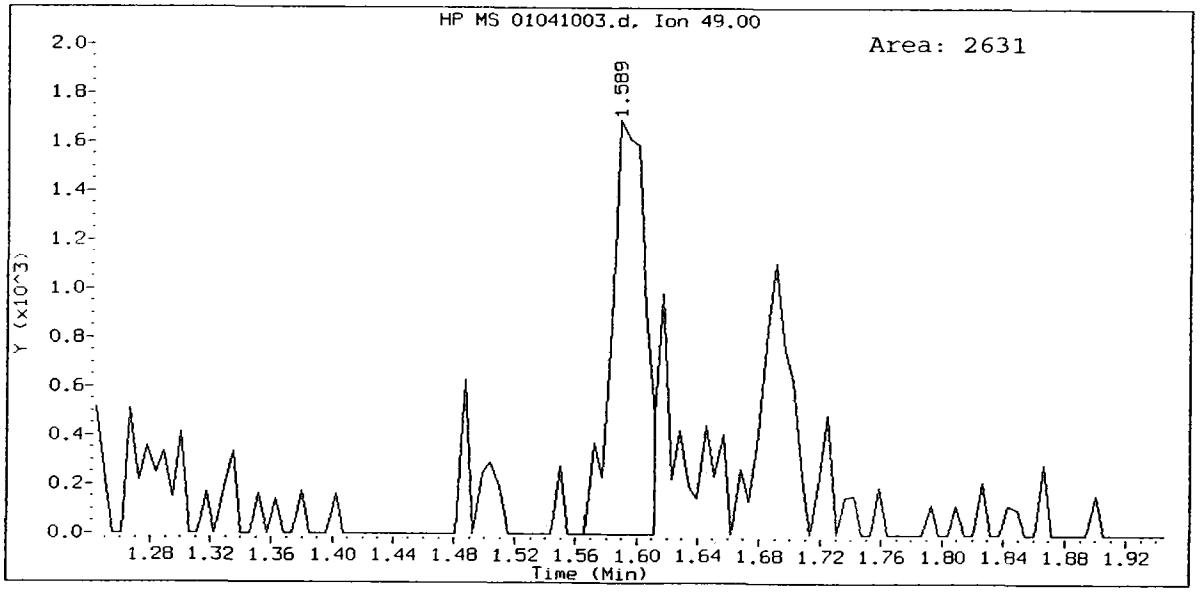
Chloroethane Amount: 0.50







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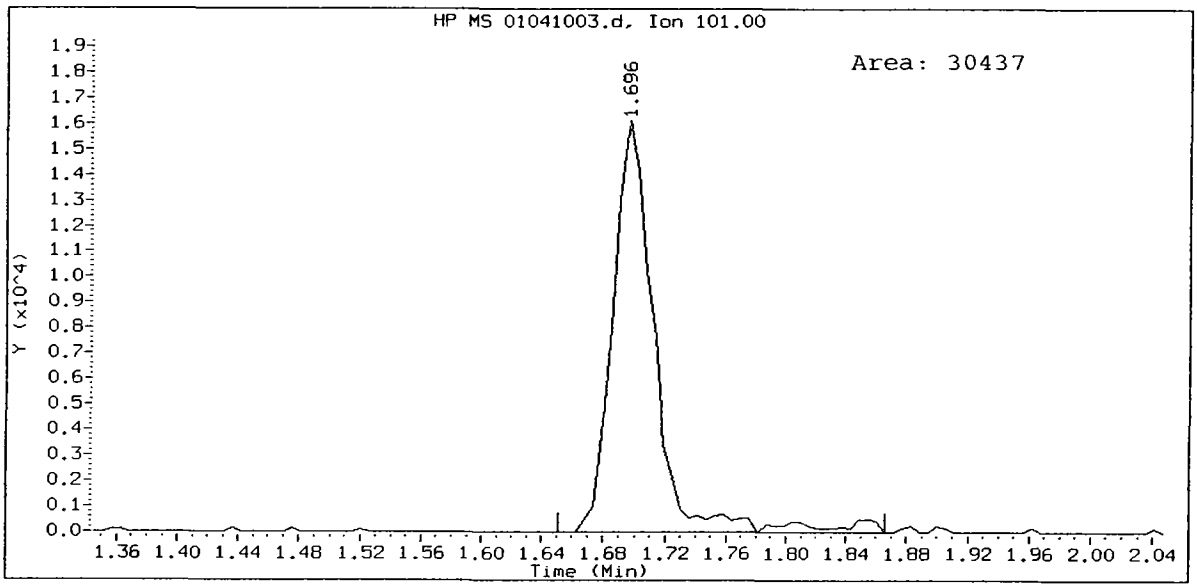
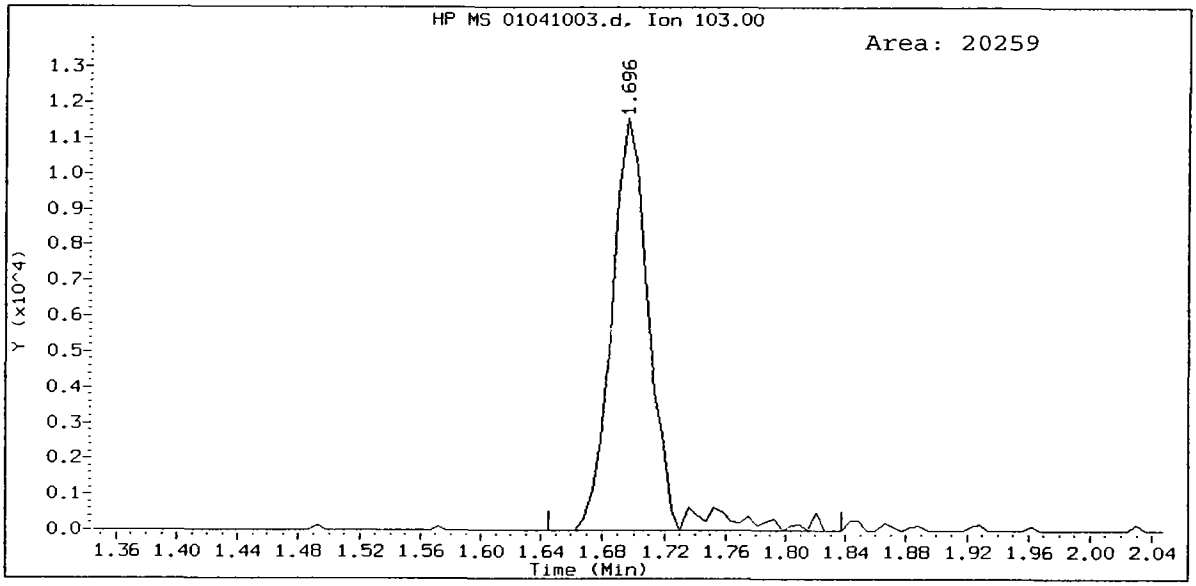
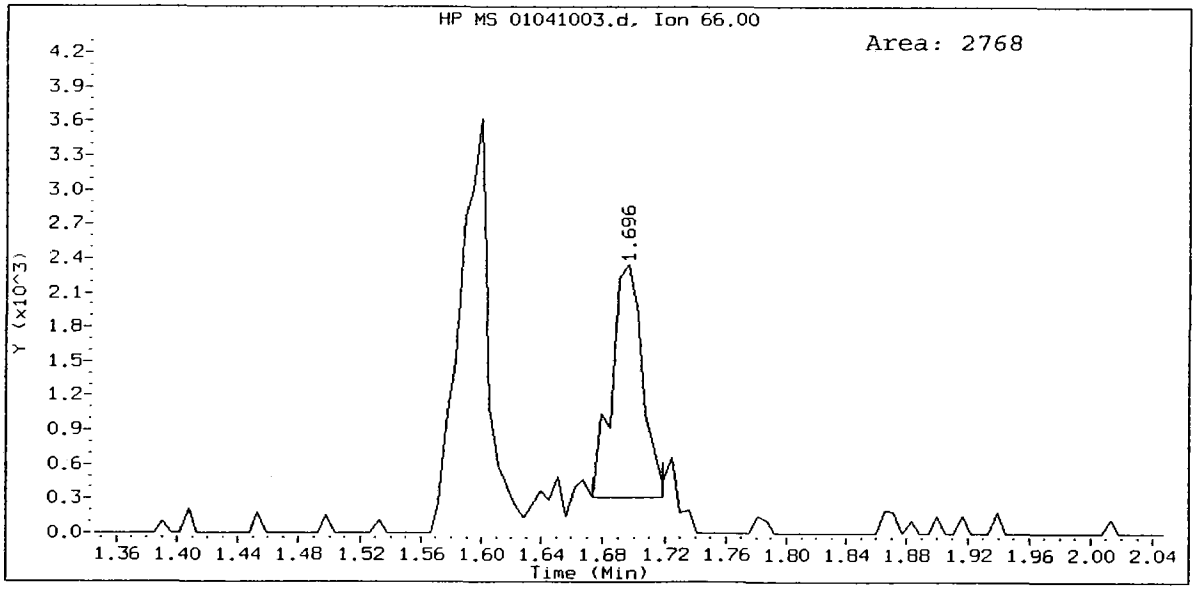
Trichlorofluoromethane Amount: 0.47







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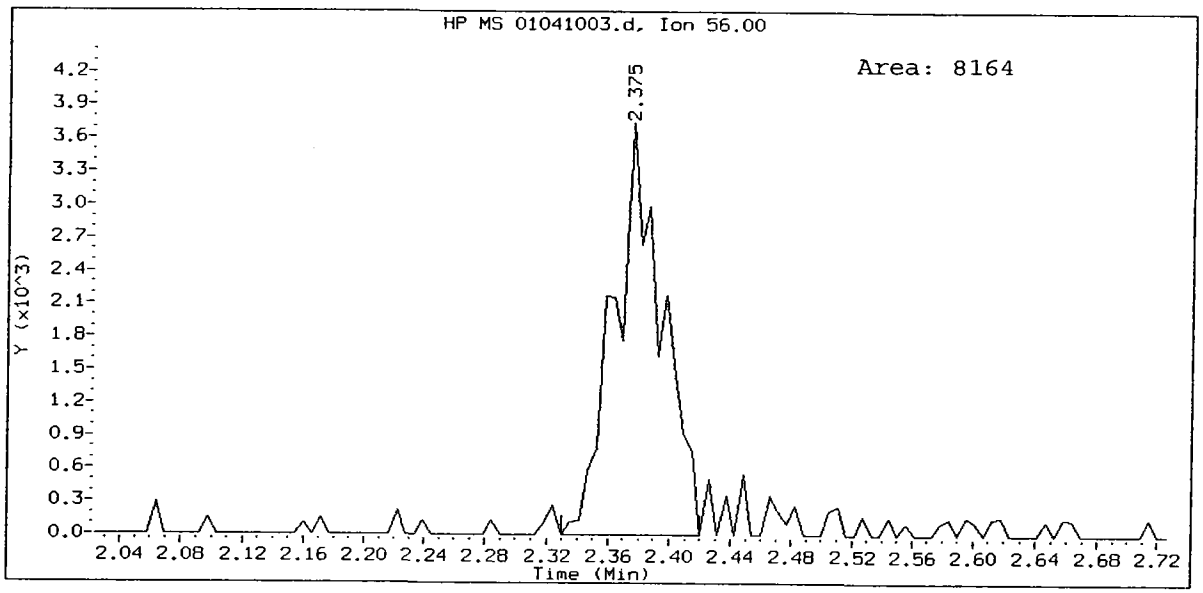
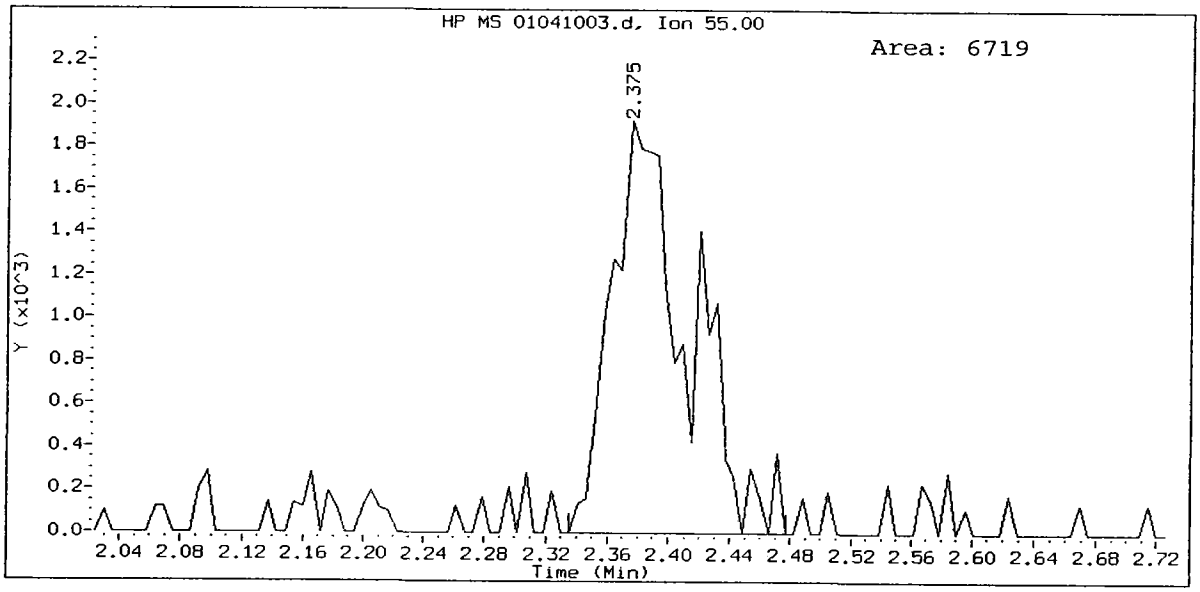
Acrolein Amount: 2.18





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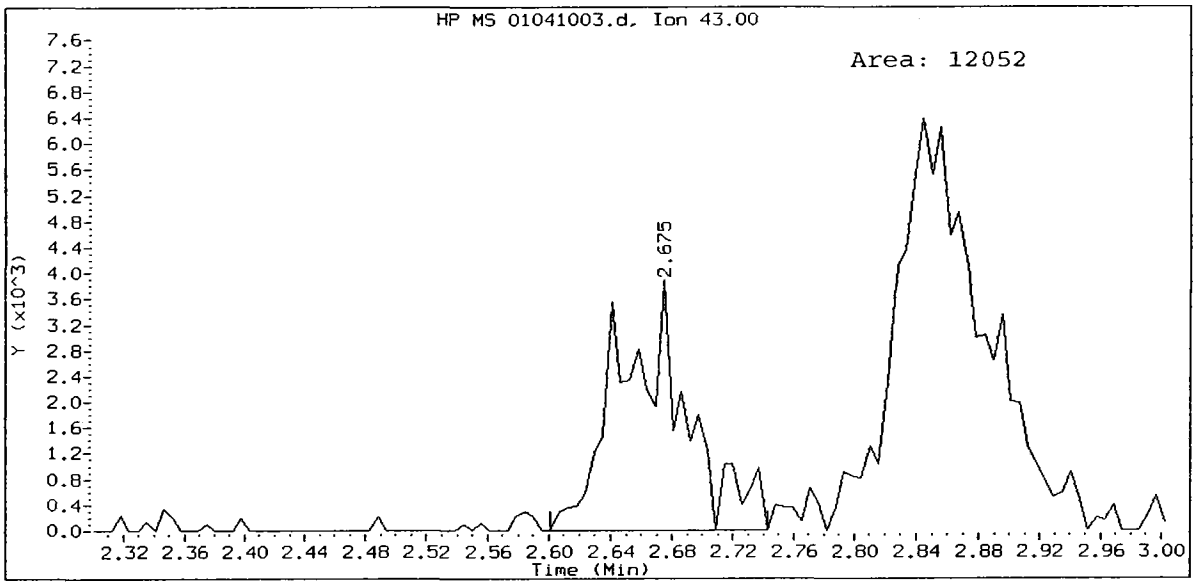
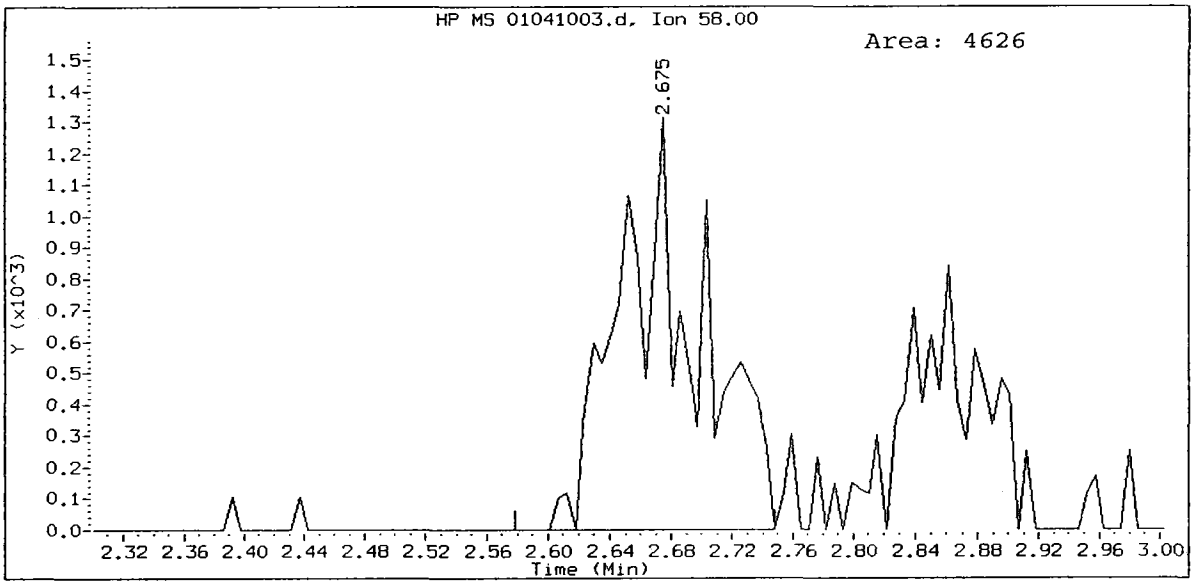
Acetone Amount: 2.87





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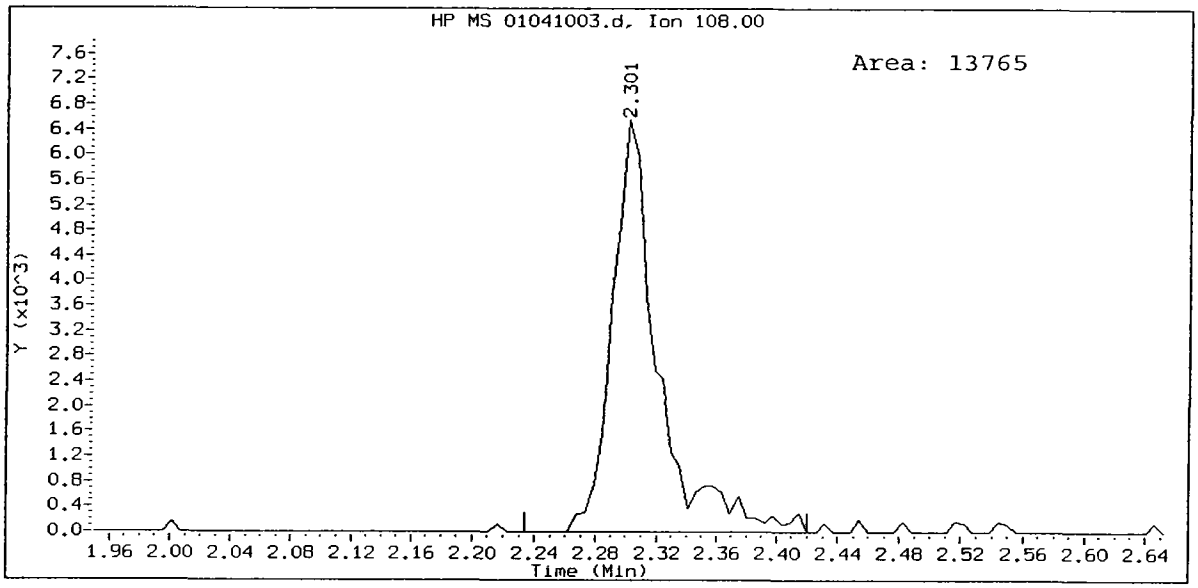
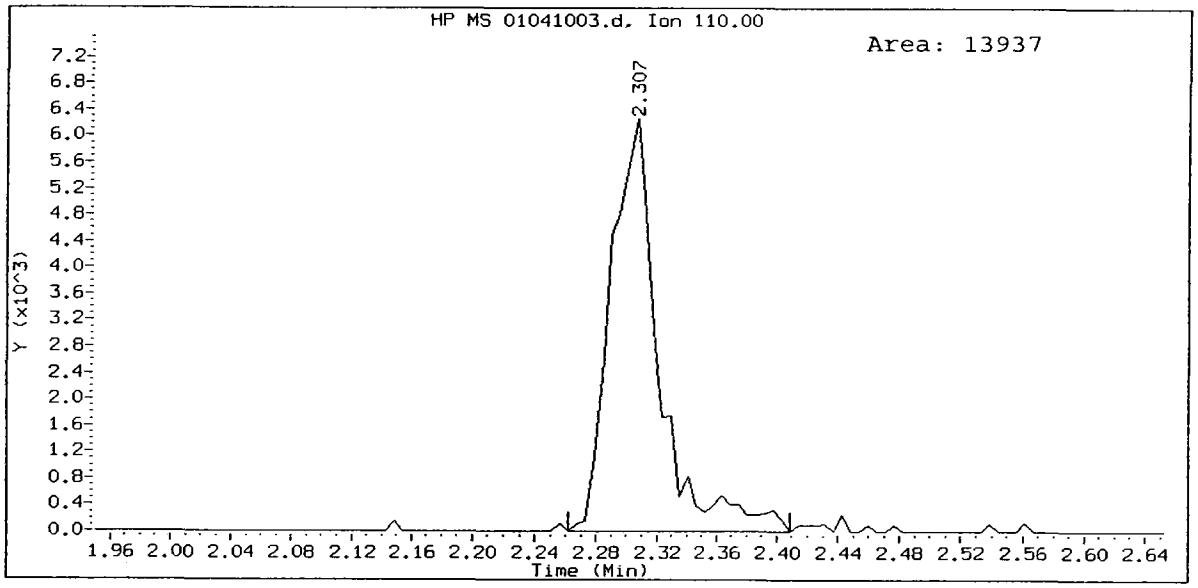
Bromoethane Amount: 0.44





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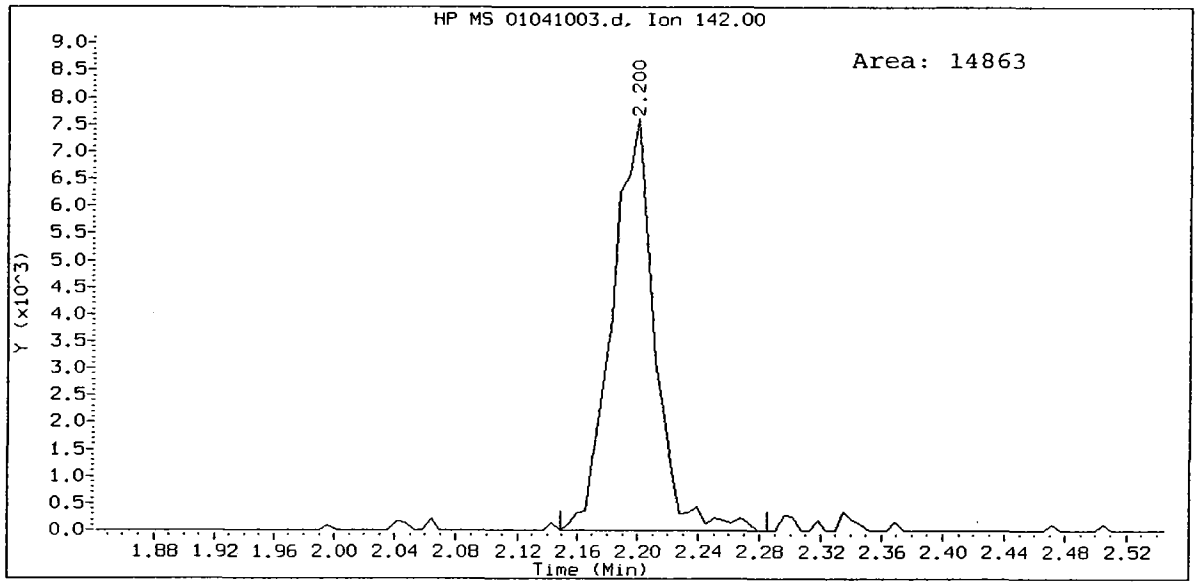
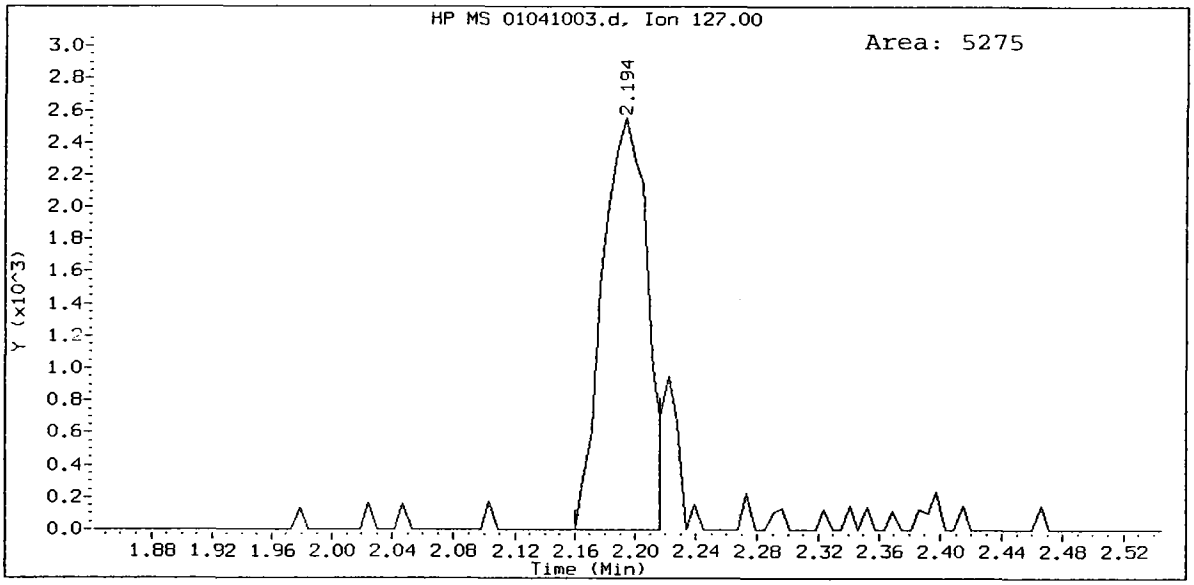
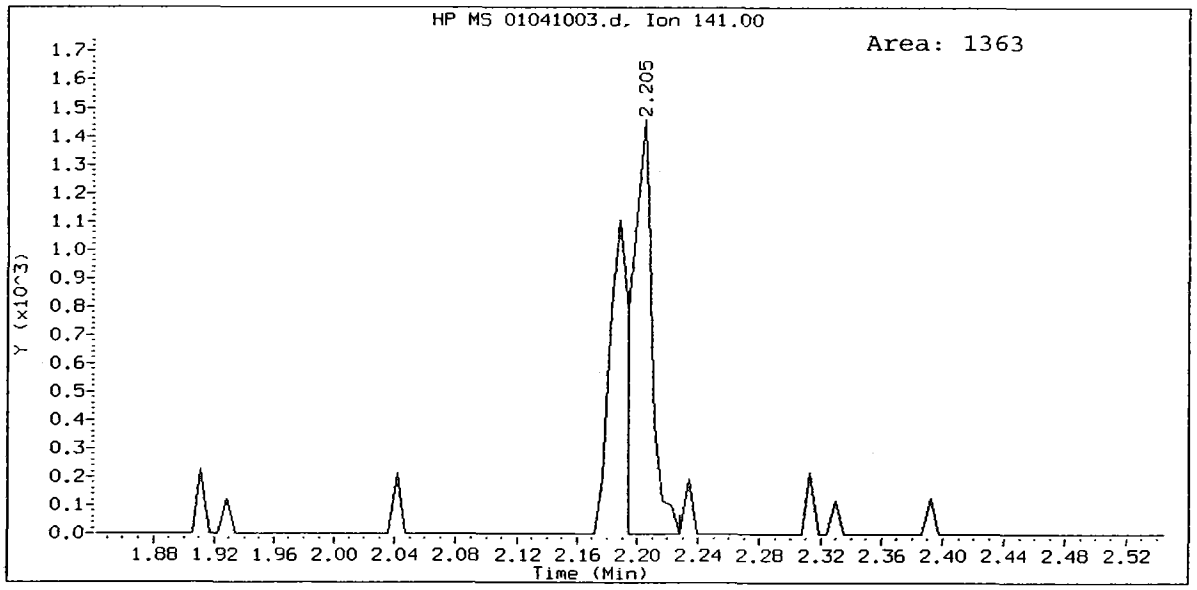
Iodomethane Amount: 0.35







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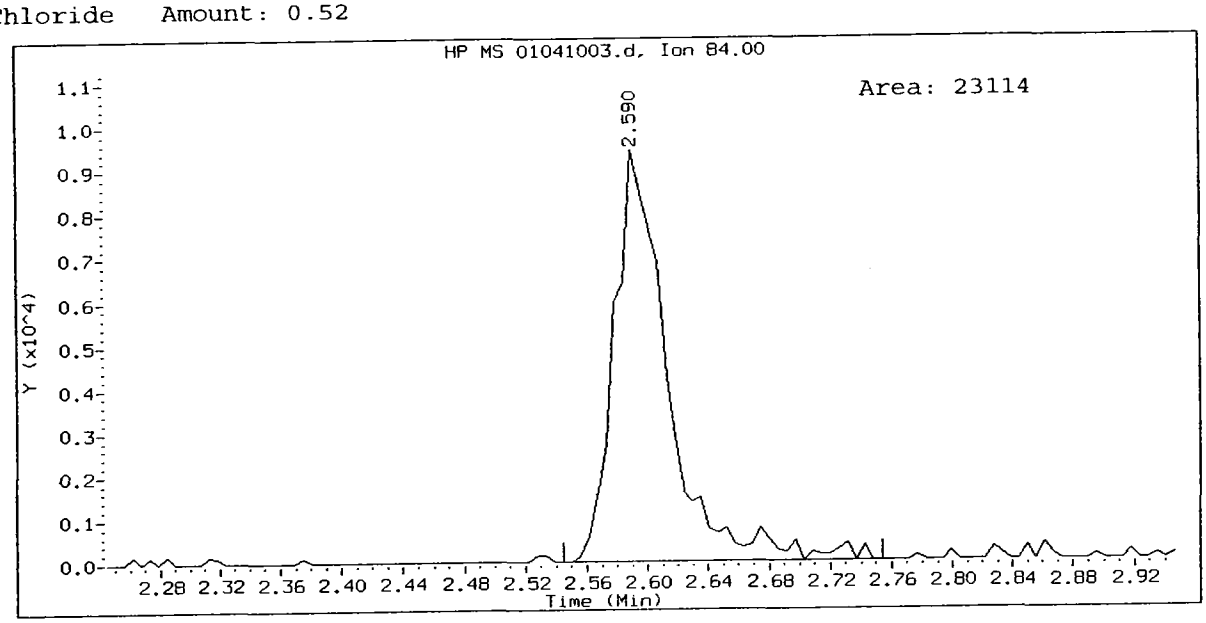
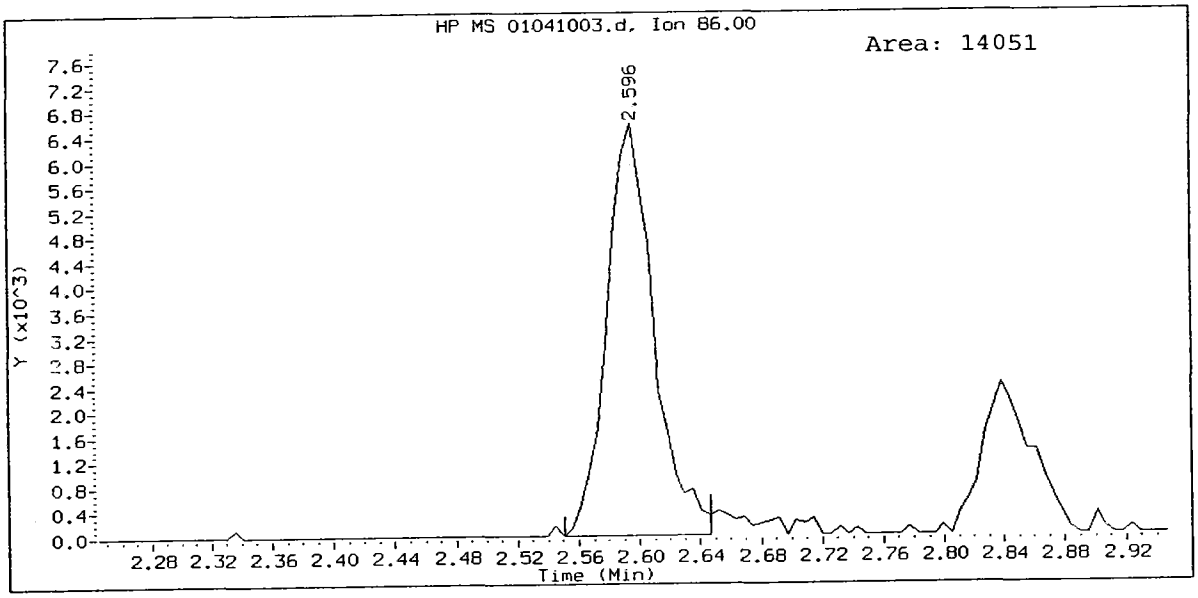
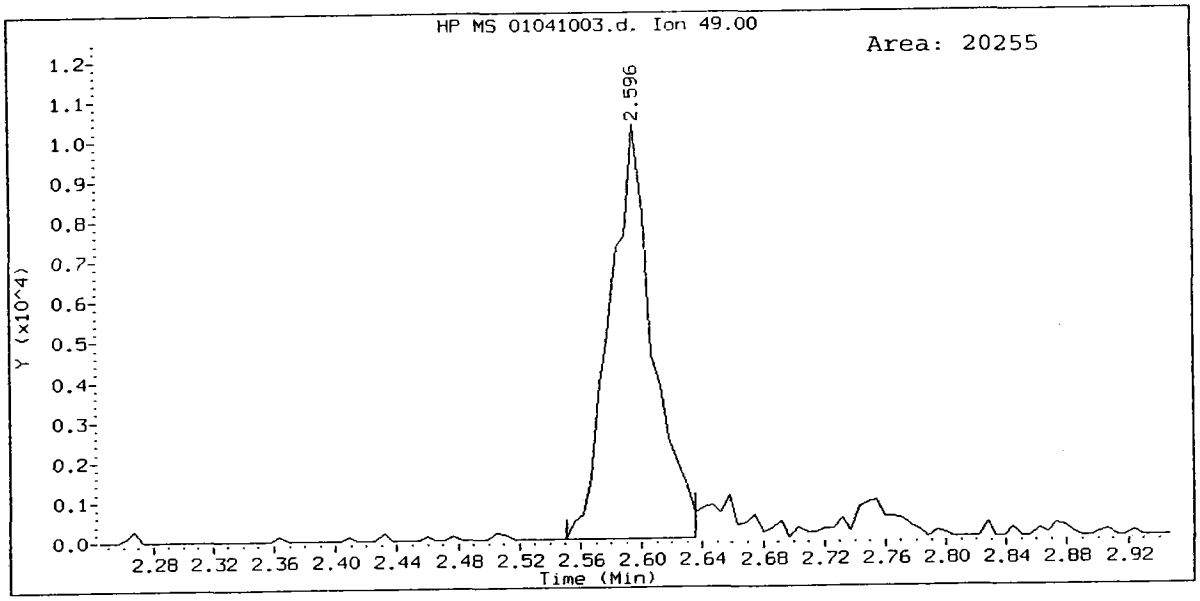
Methylene Chloride Amount: 0.52







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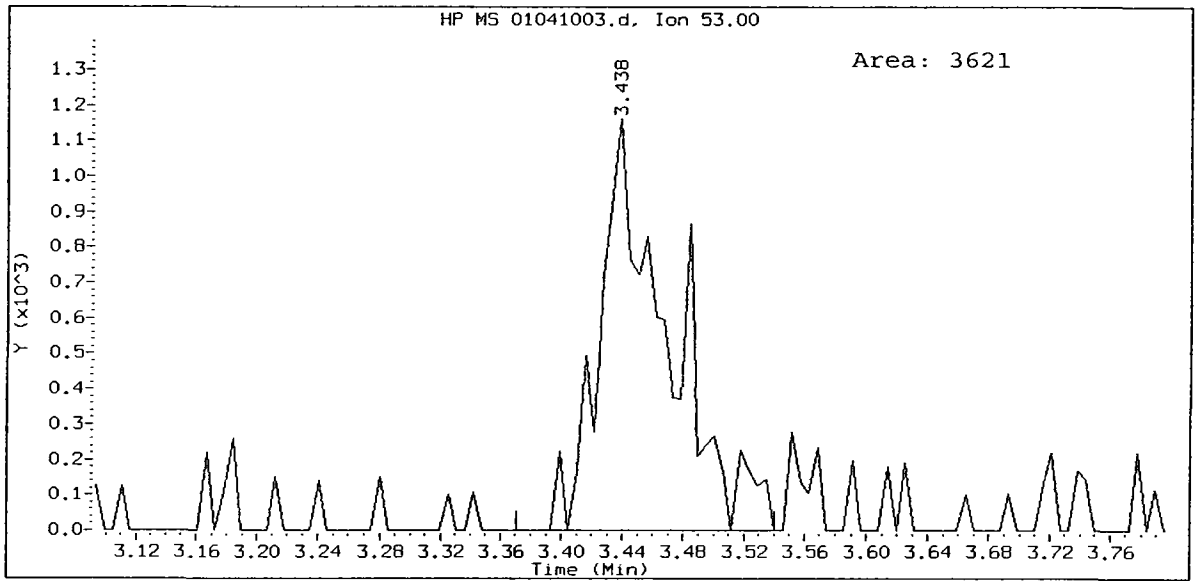
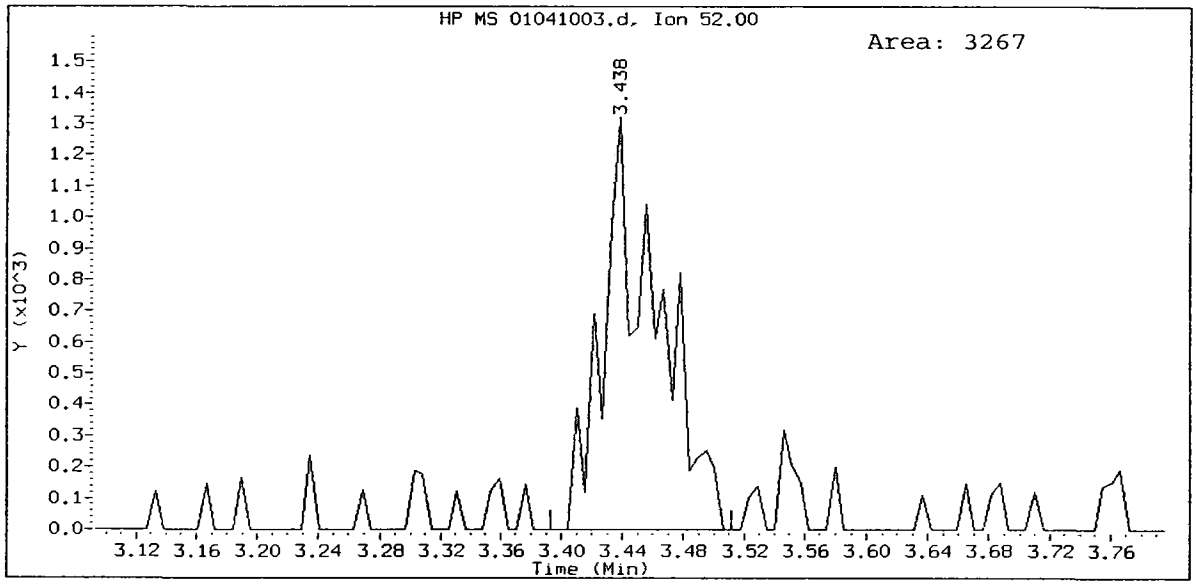
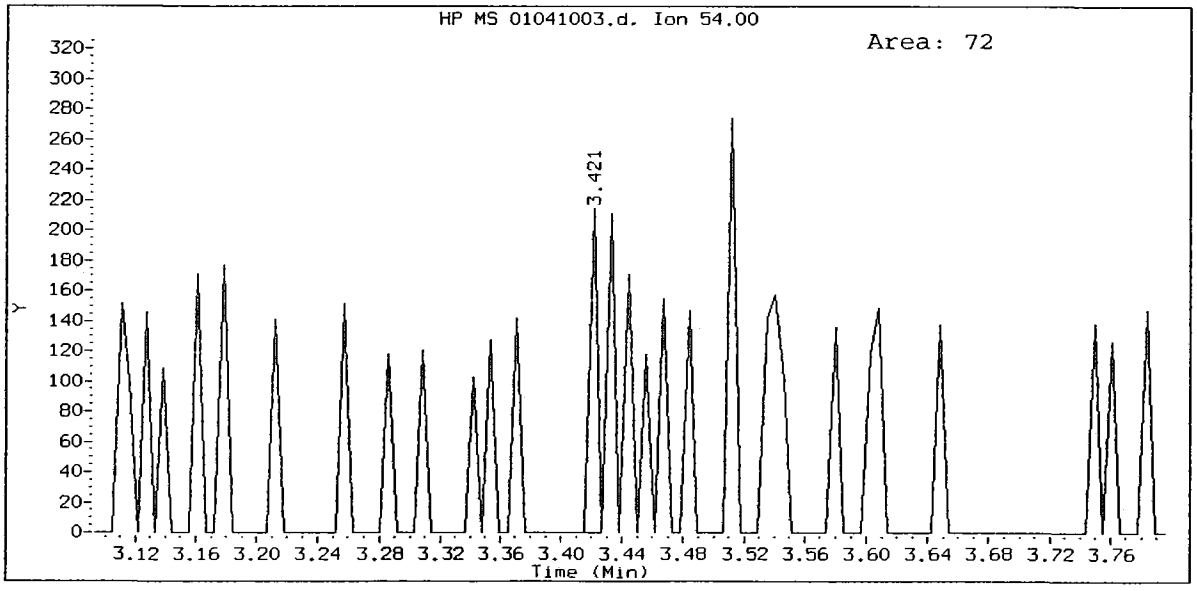
Acrylonitrile Amount: 0.52







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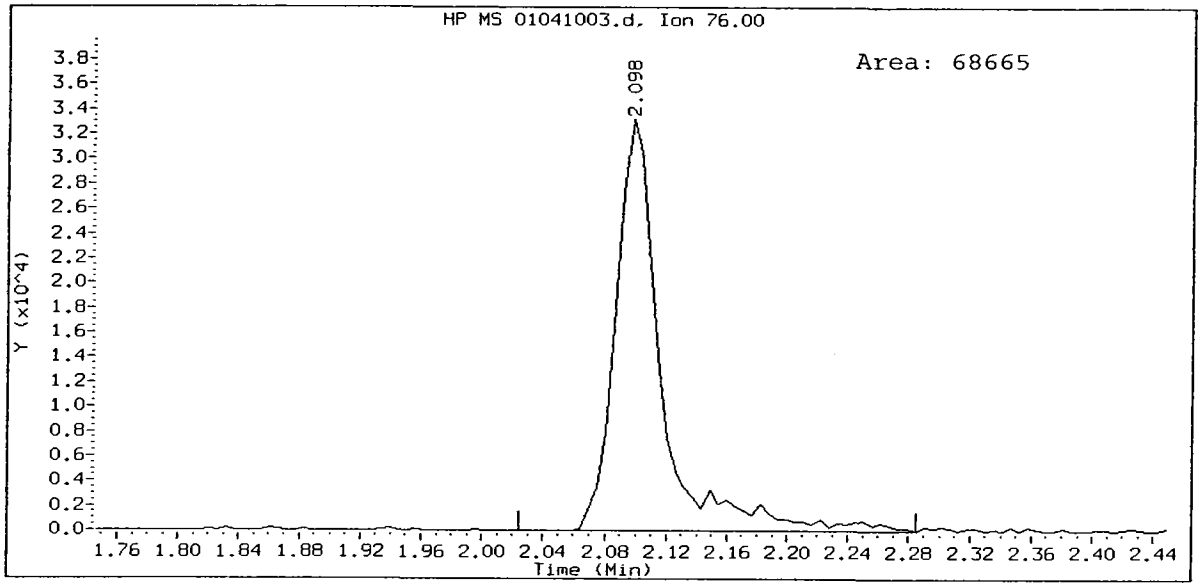
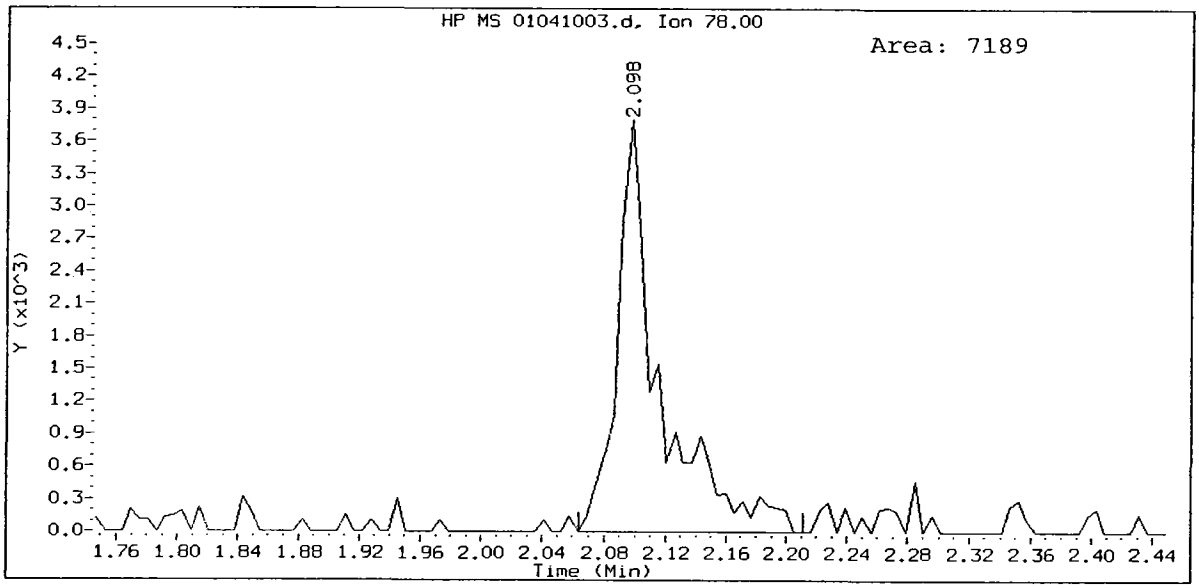
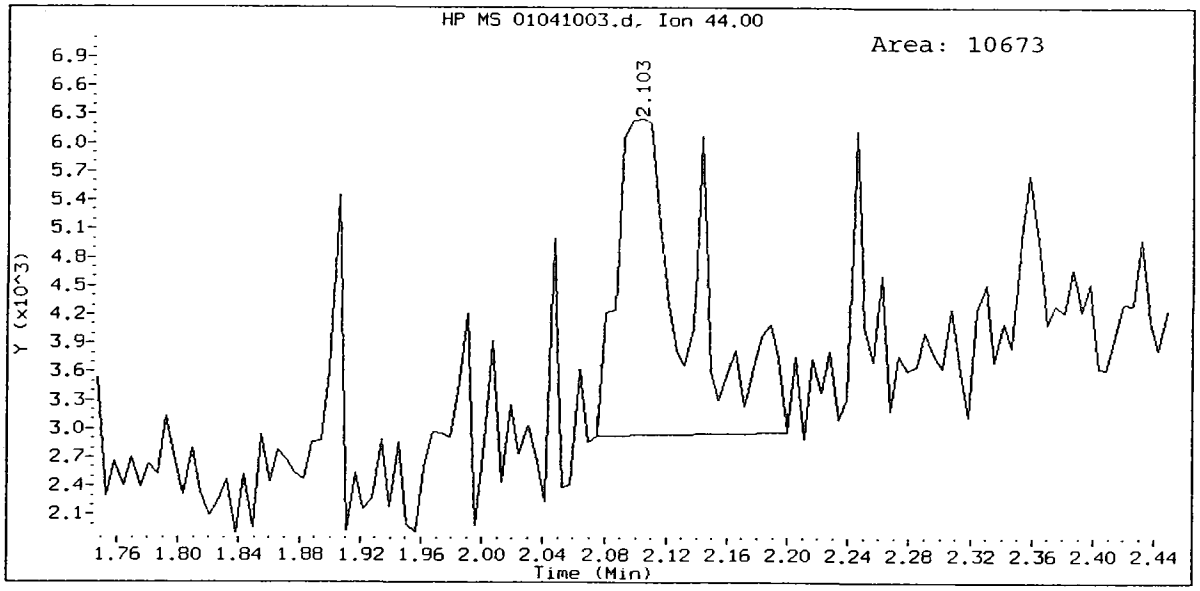
Carbon Disulfide Amount: 0.47







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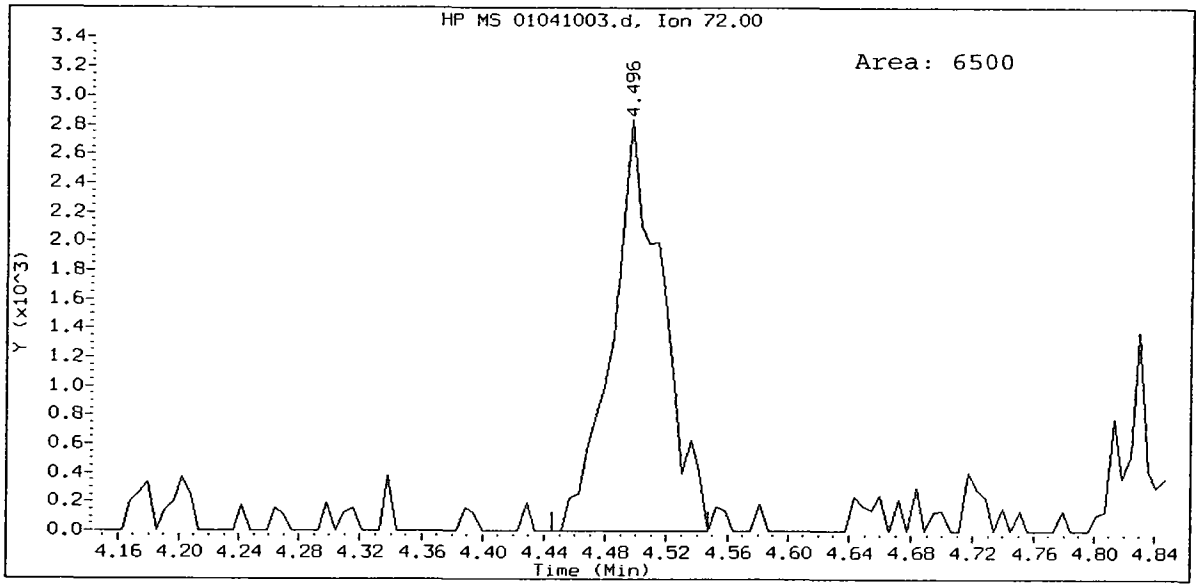
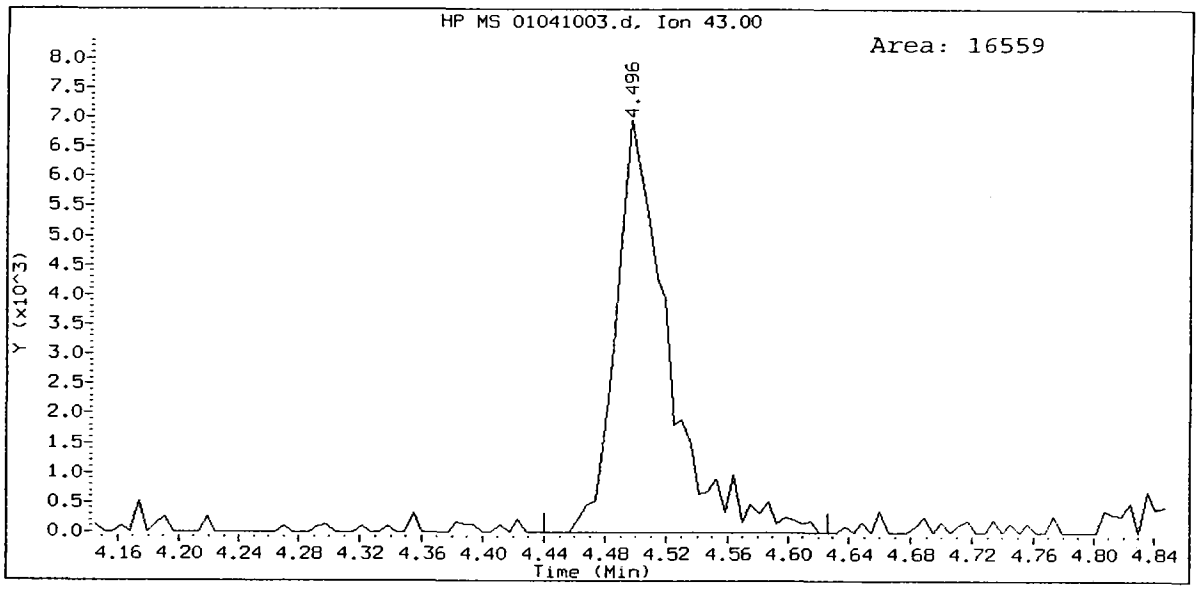
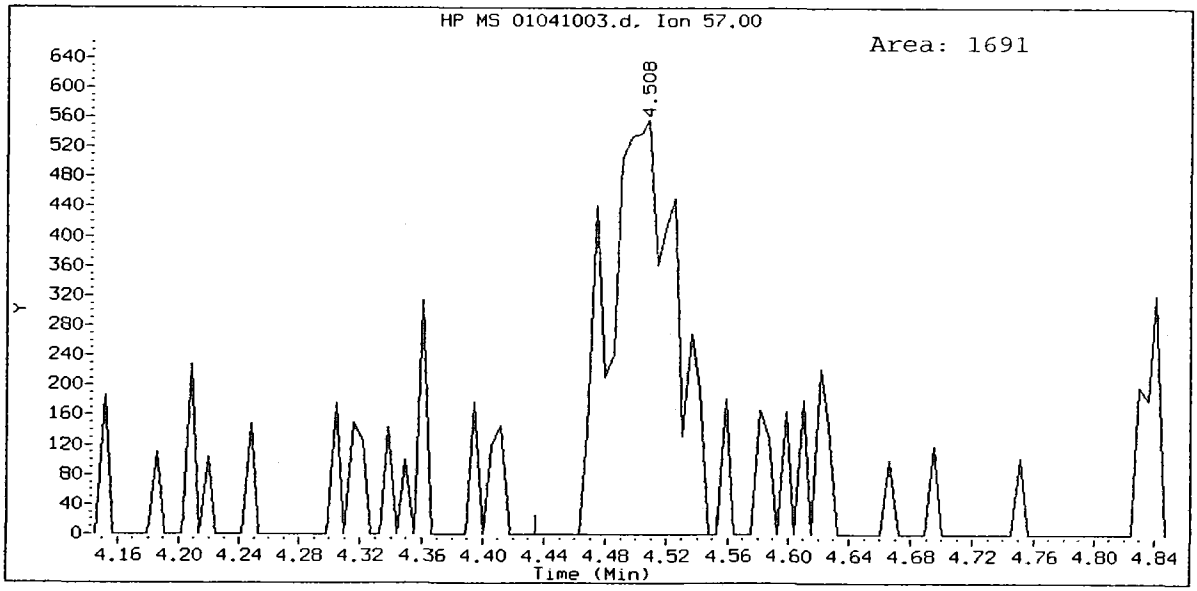
2-Butanone Amount: 2.41







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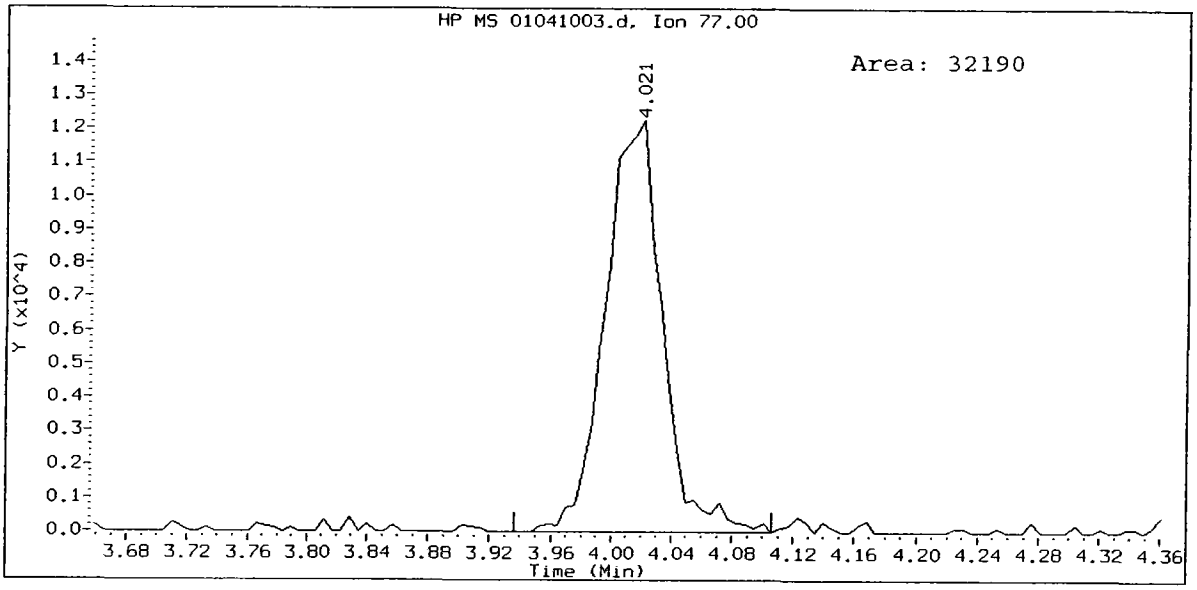
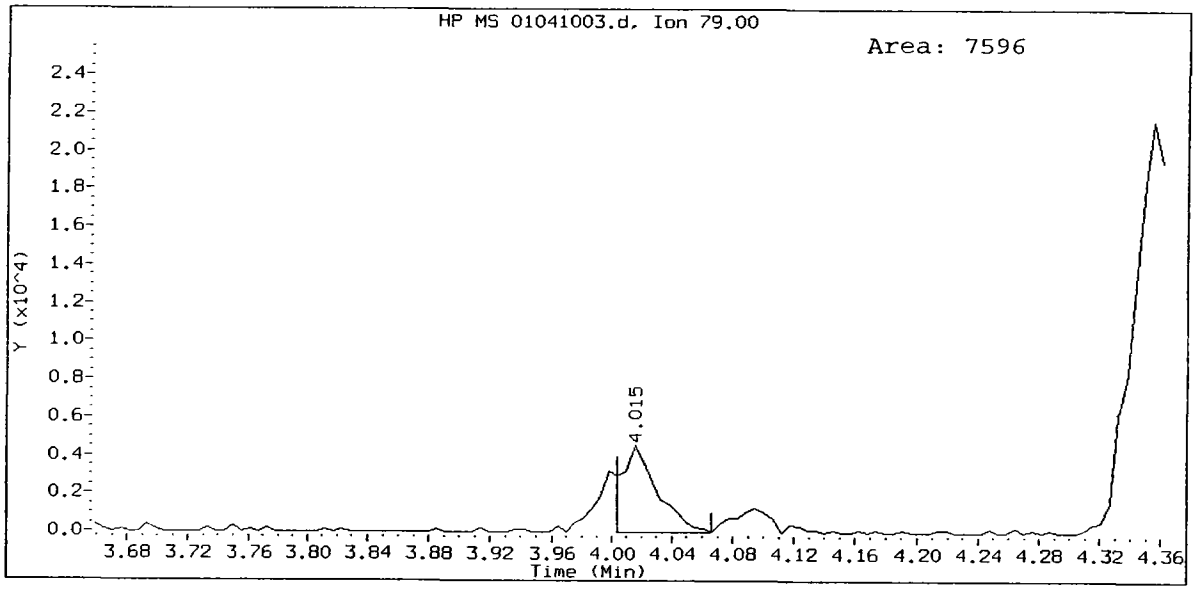
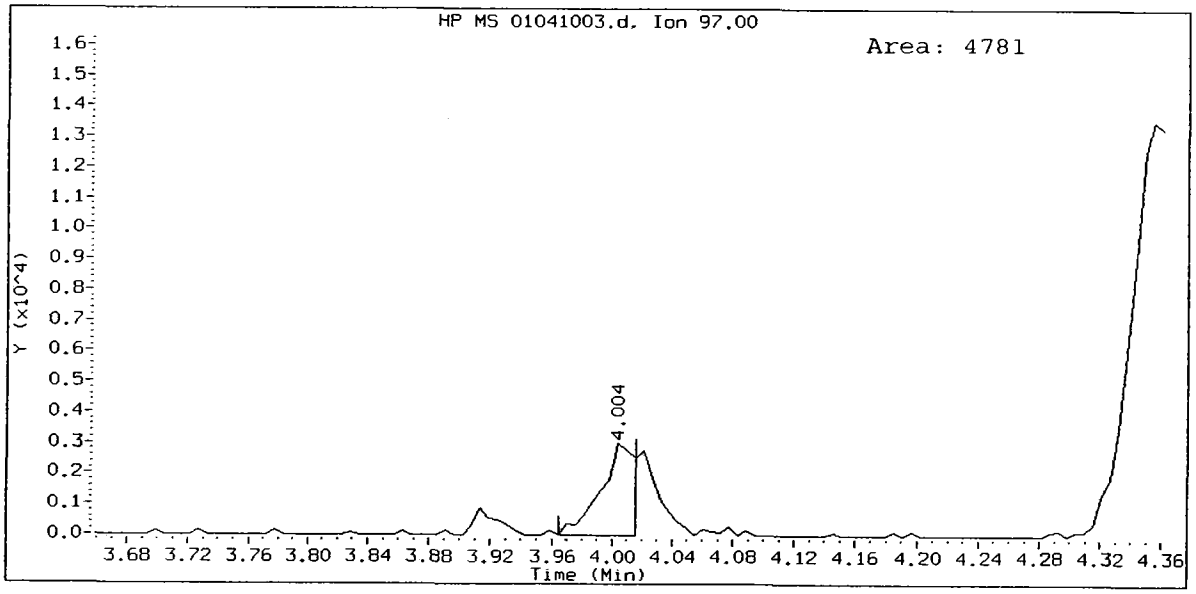
2,2-Dichloropropane Amount: 0.47







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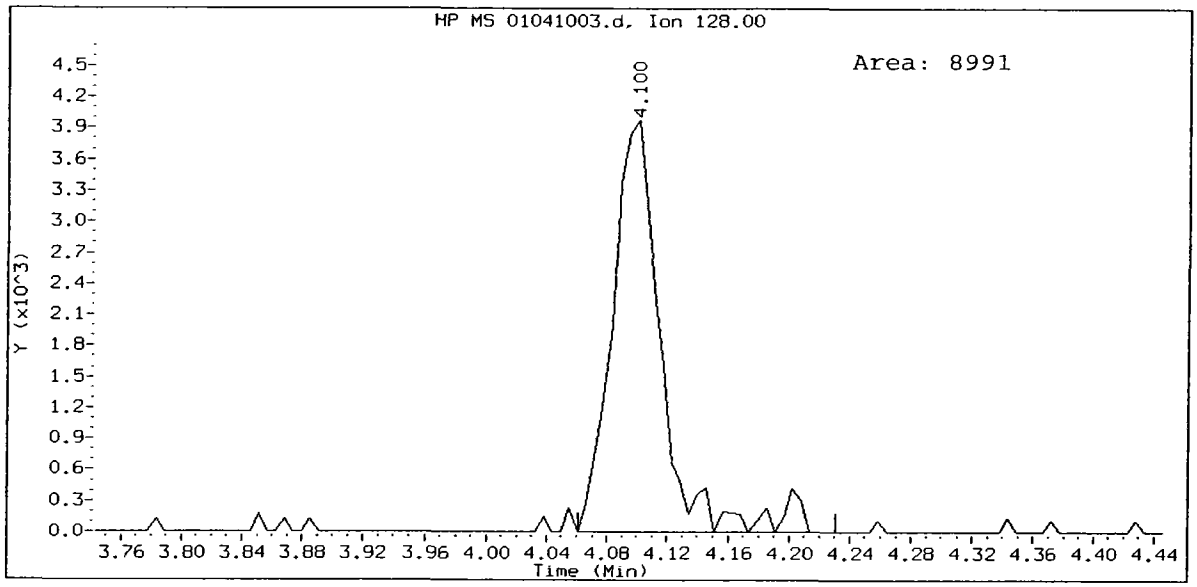
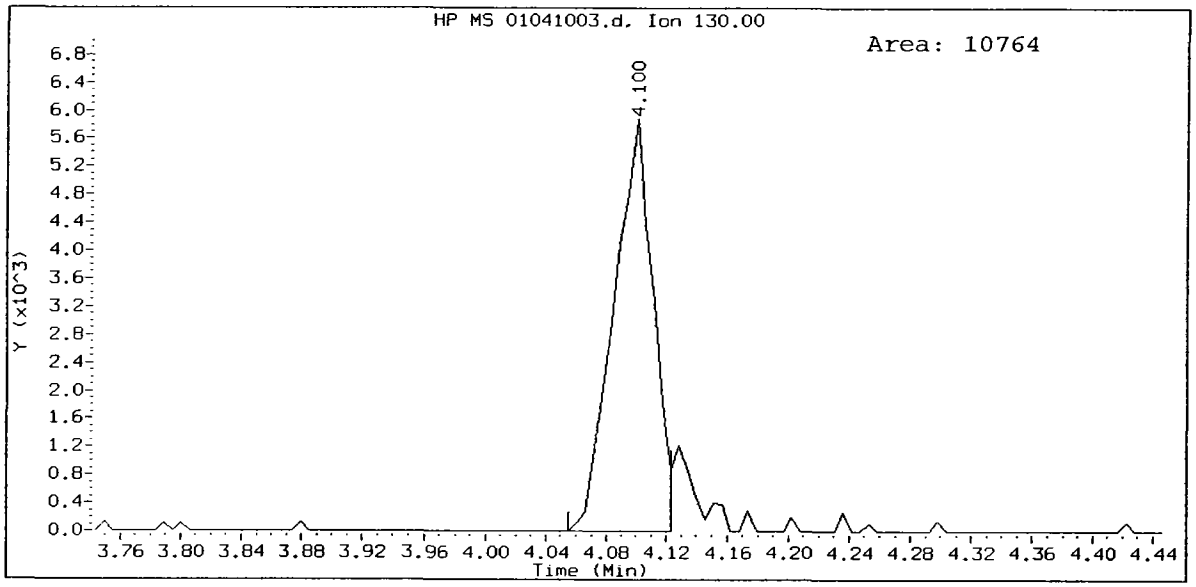
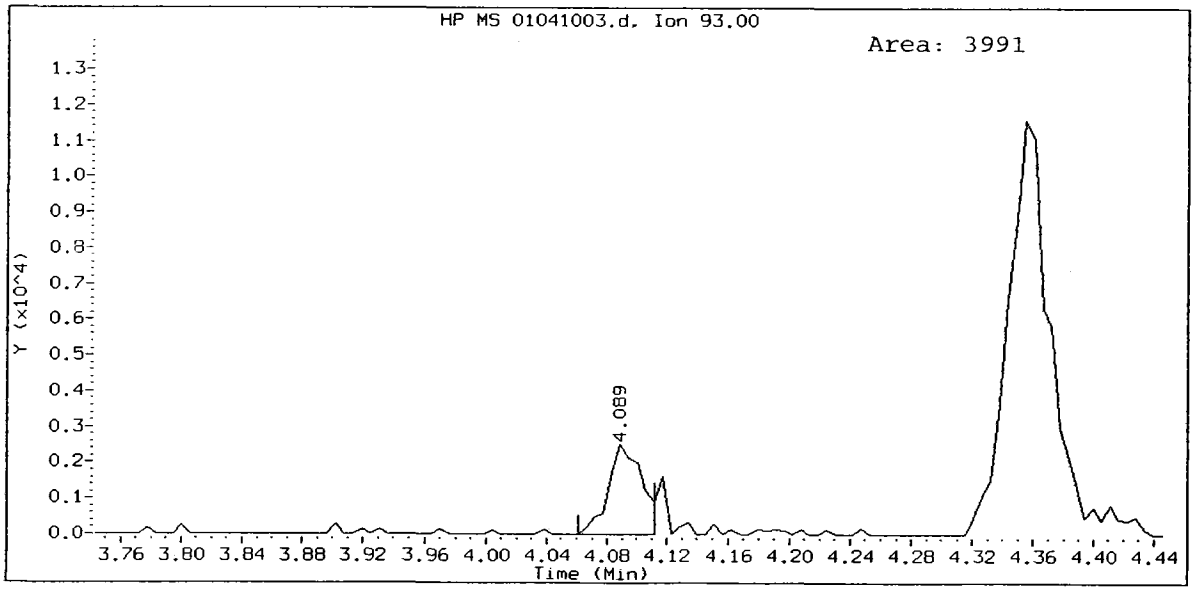
Bromochloromethane Amount: 0.42







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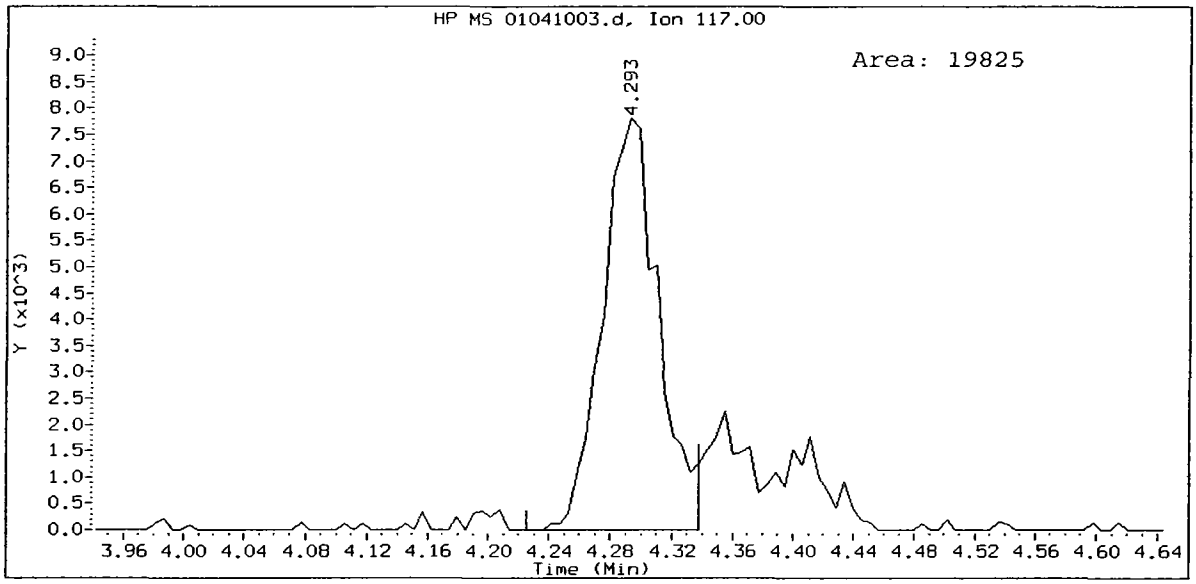
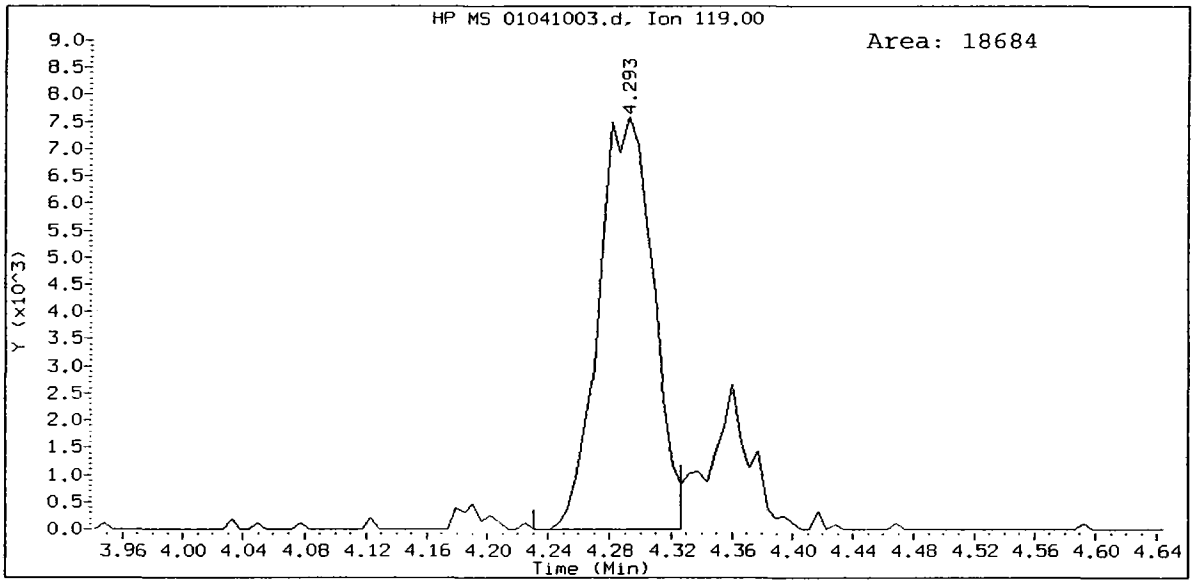
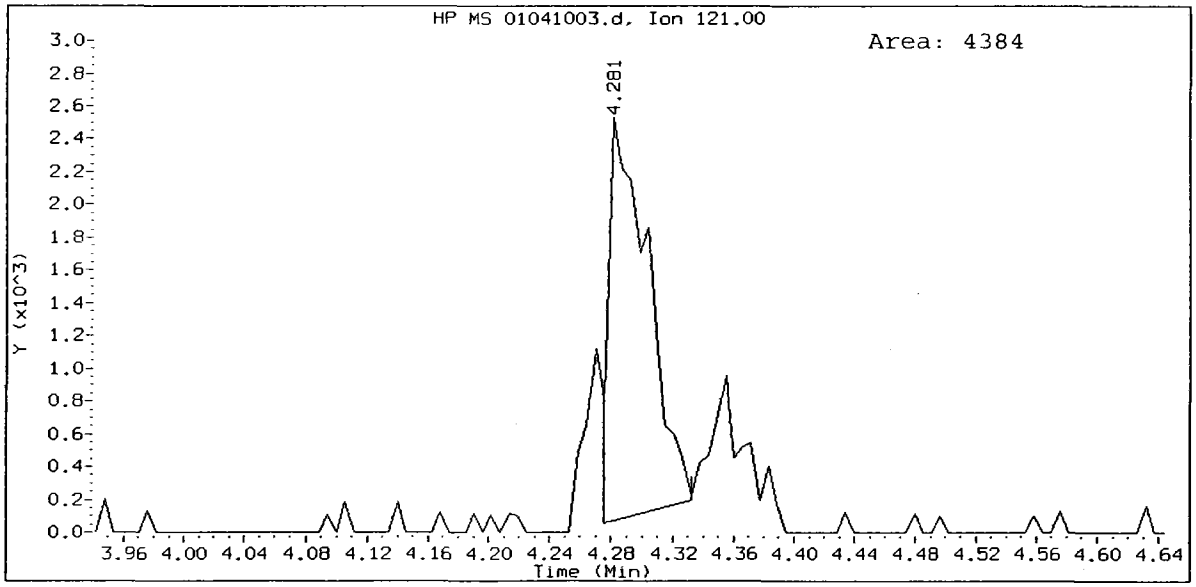
Carbon Tetrachloride Amount: 0.39







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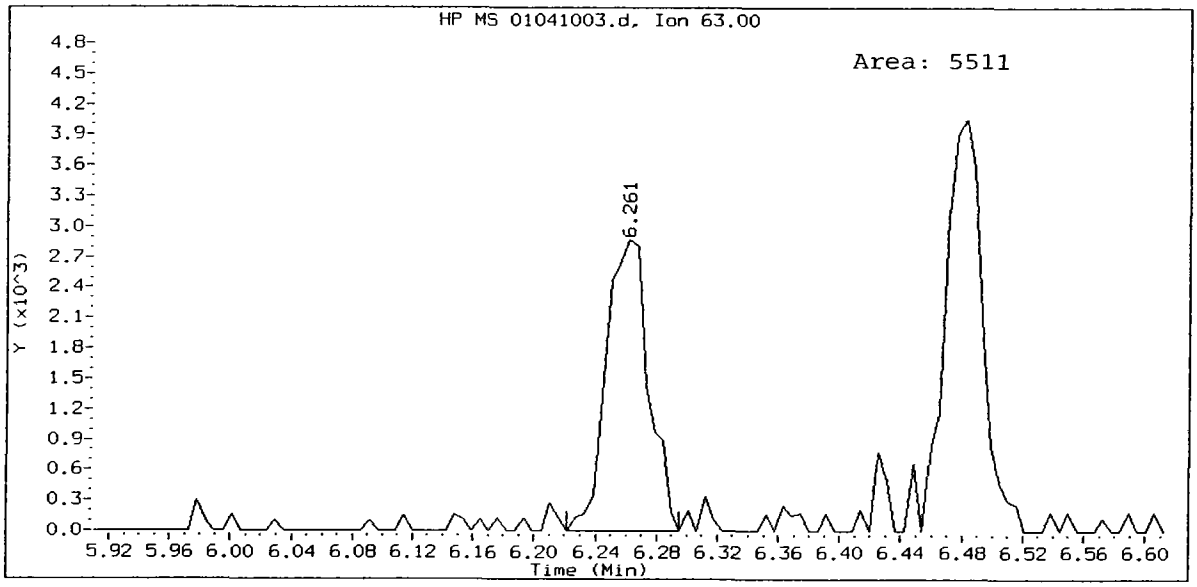
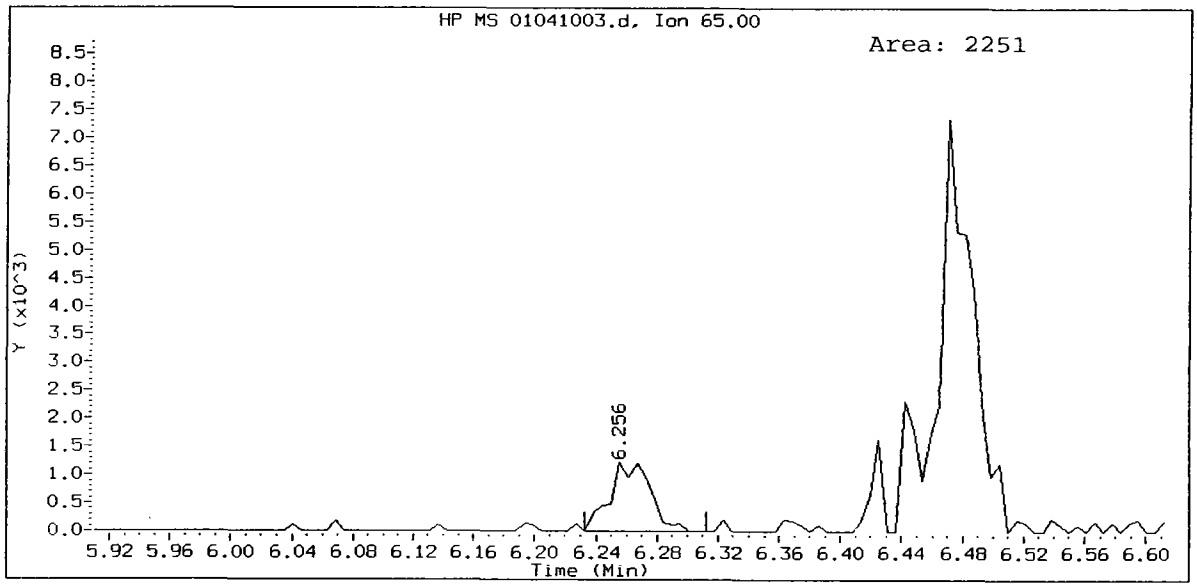
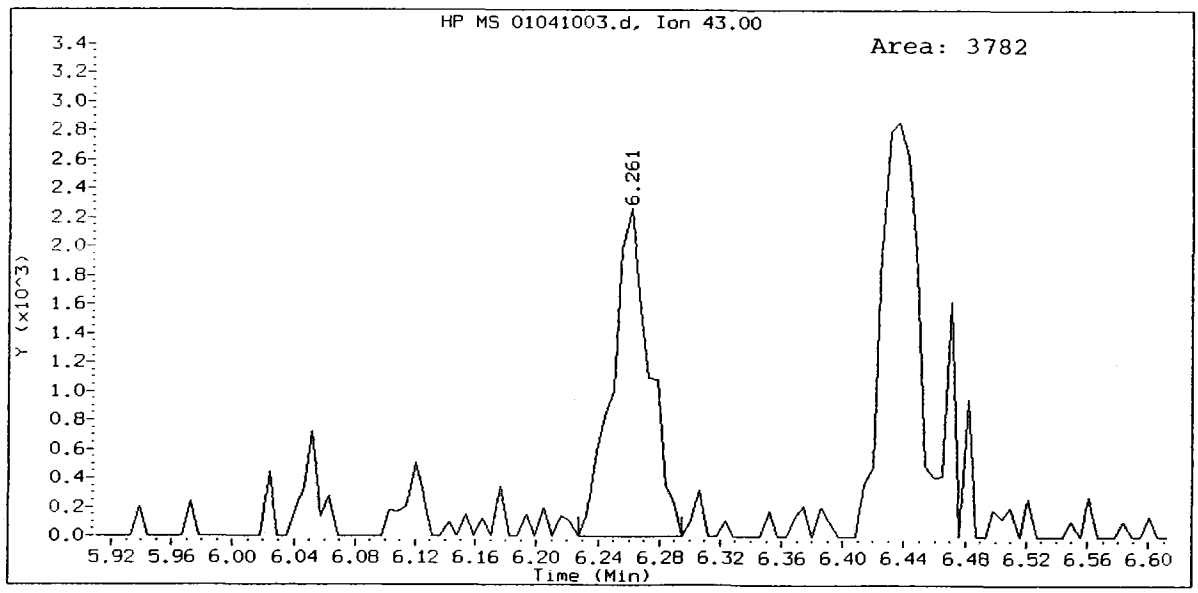
2-Chloroethyl Vinyl Ether Amount: 0.38







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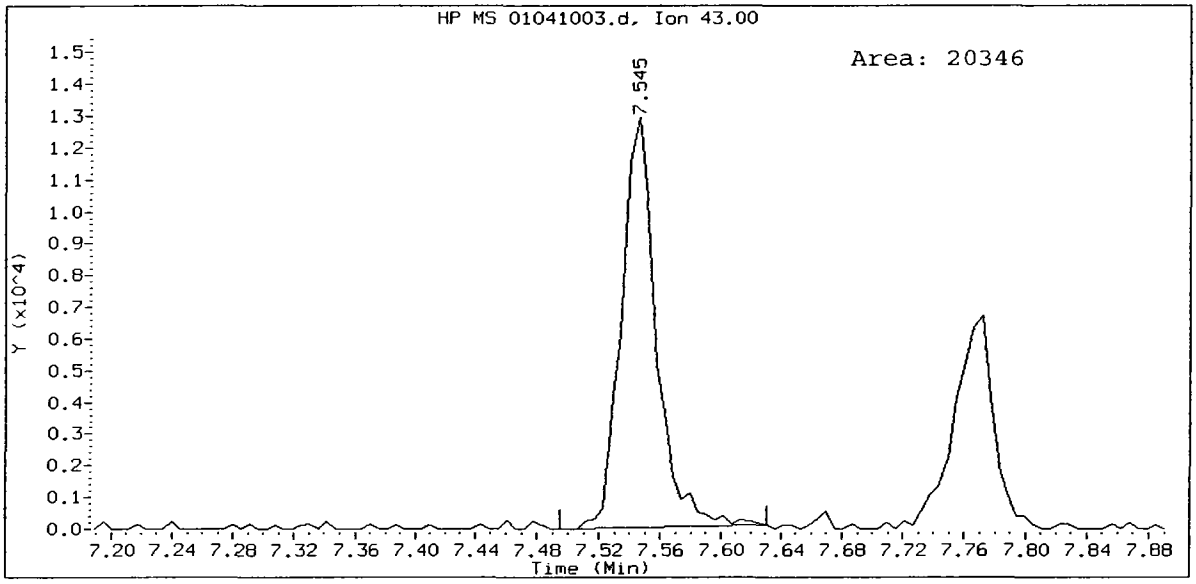
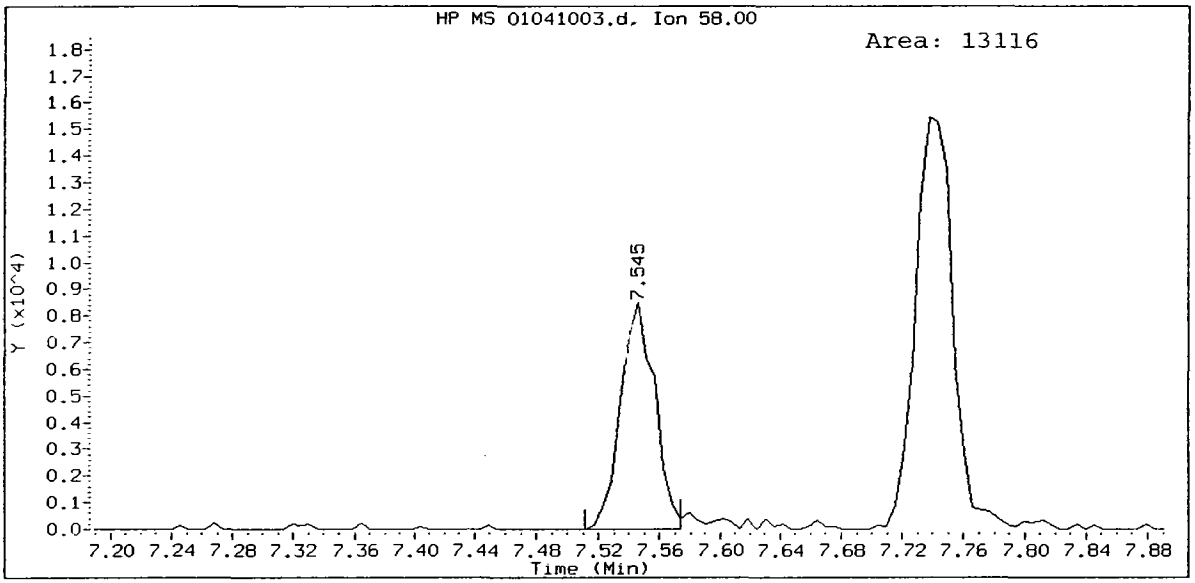
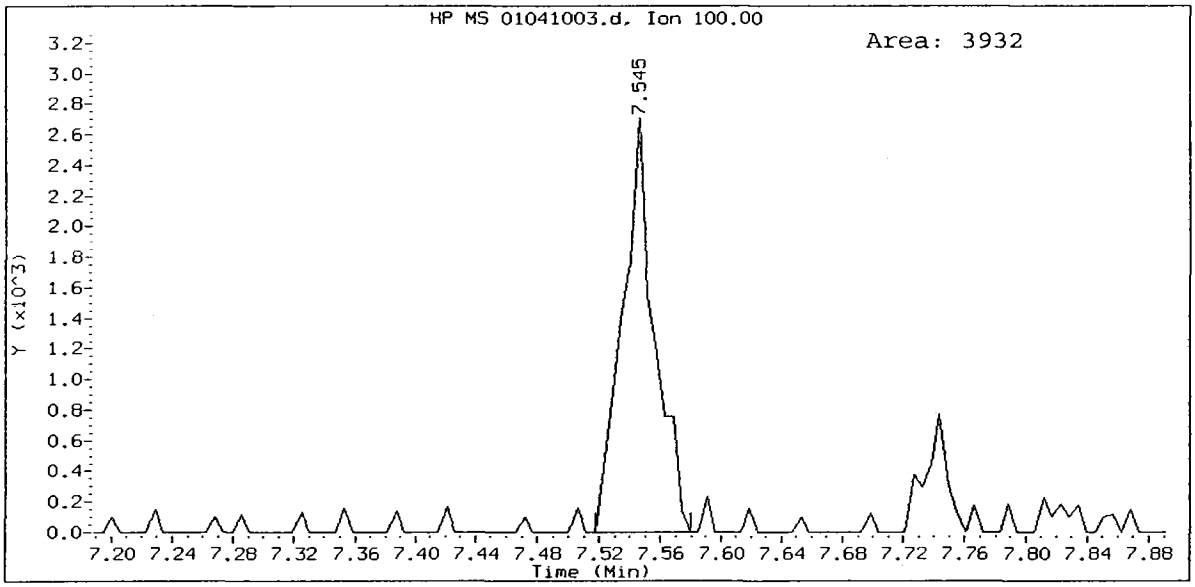
2-Hexanone Amount: 2.02







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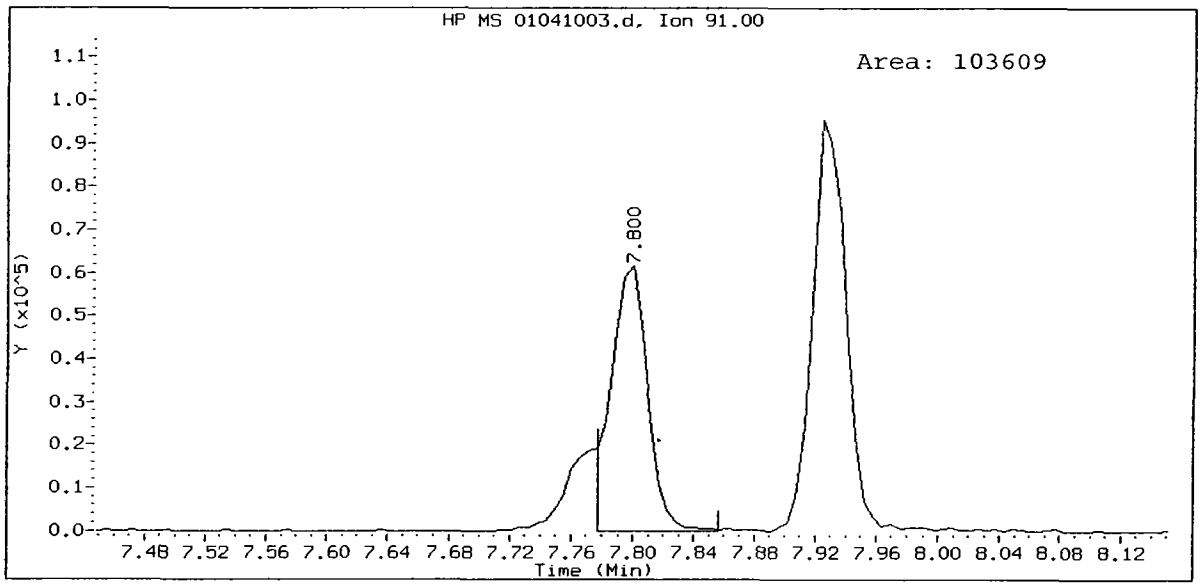
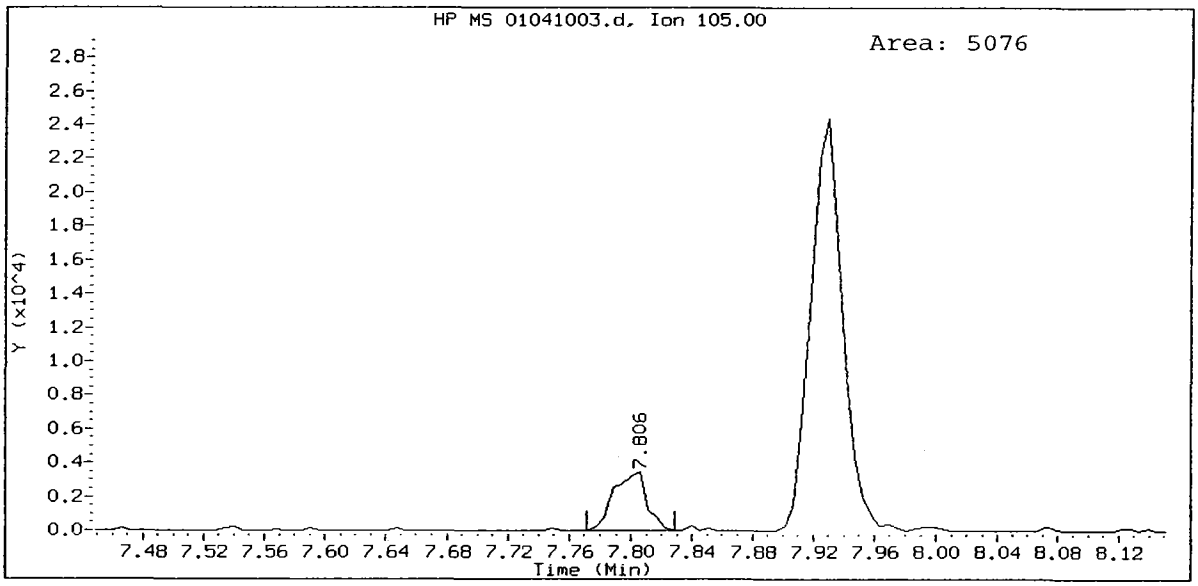
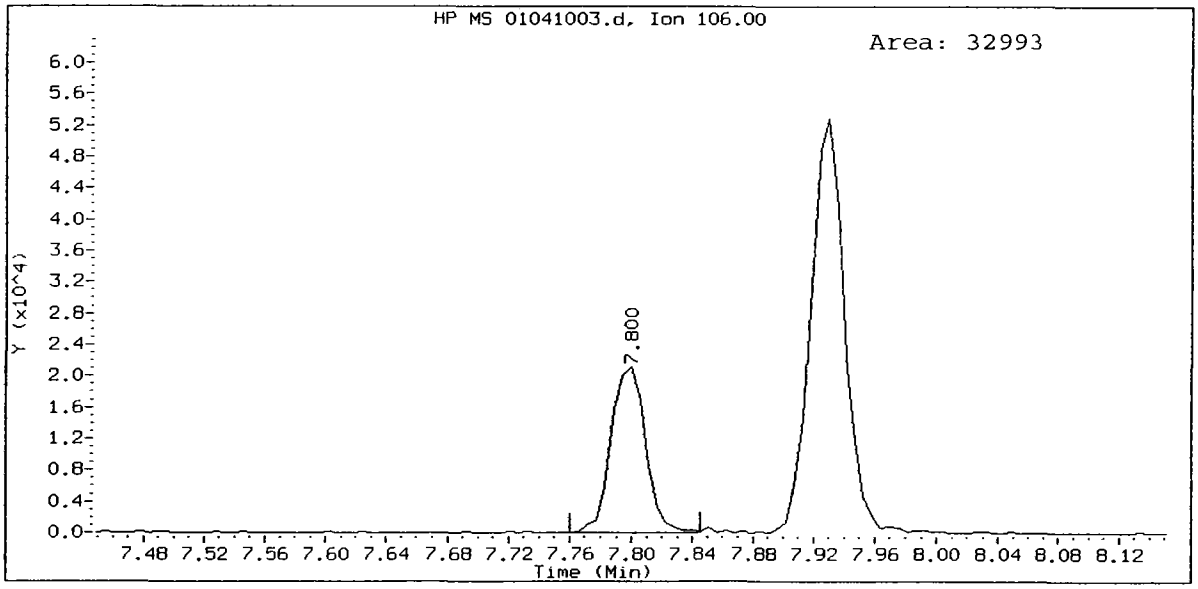
Ethyl Benzene Amount: 0.45







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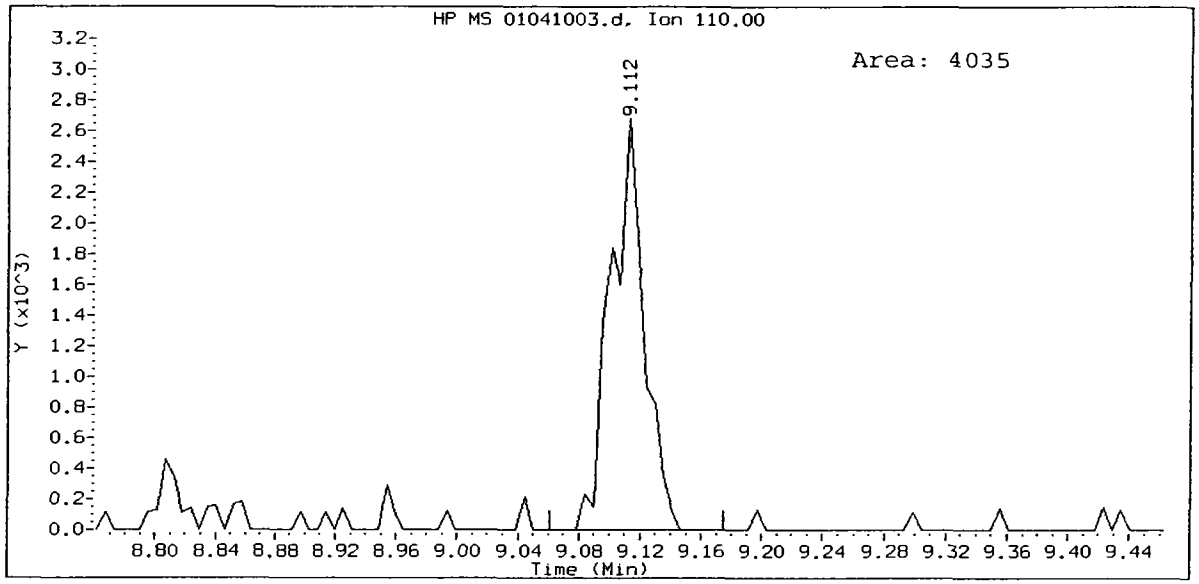
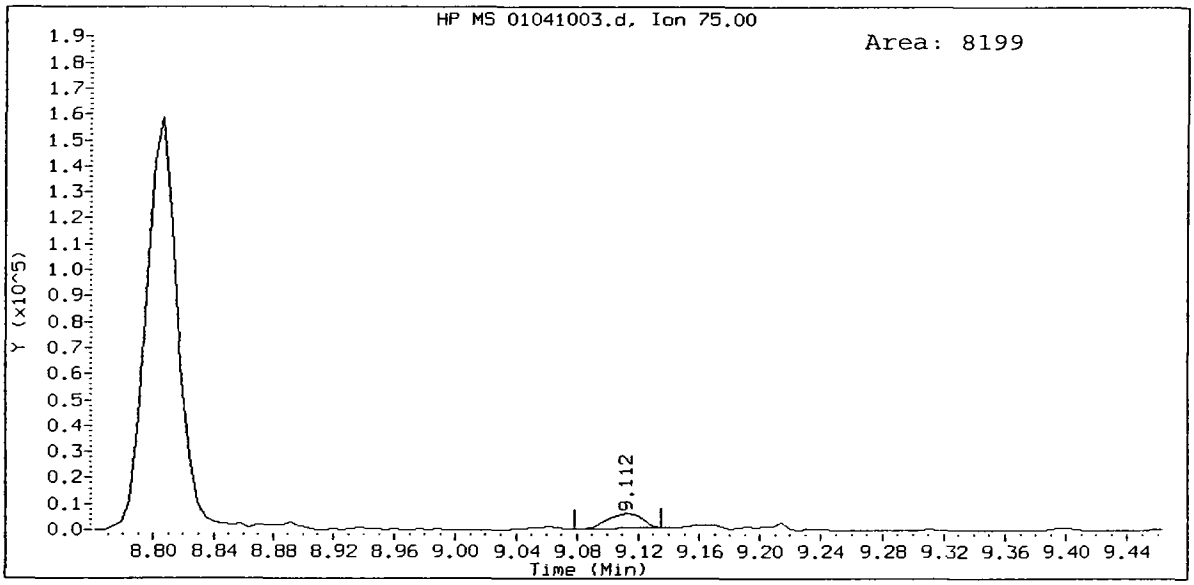
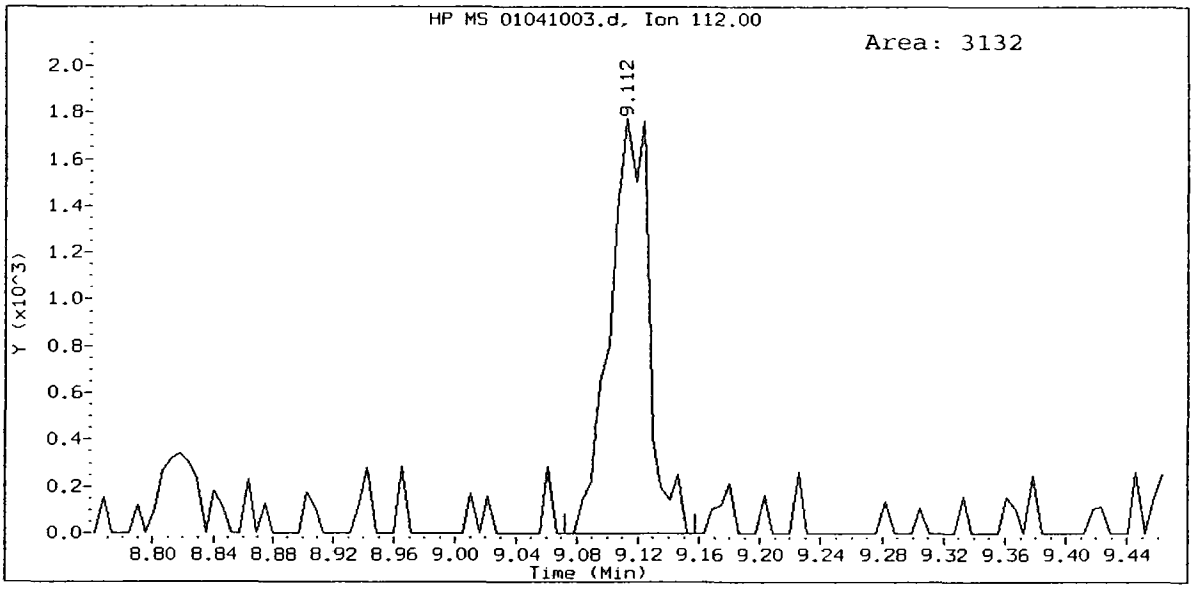
1,2,3-Trichloropropane Amount: 0.45







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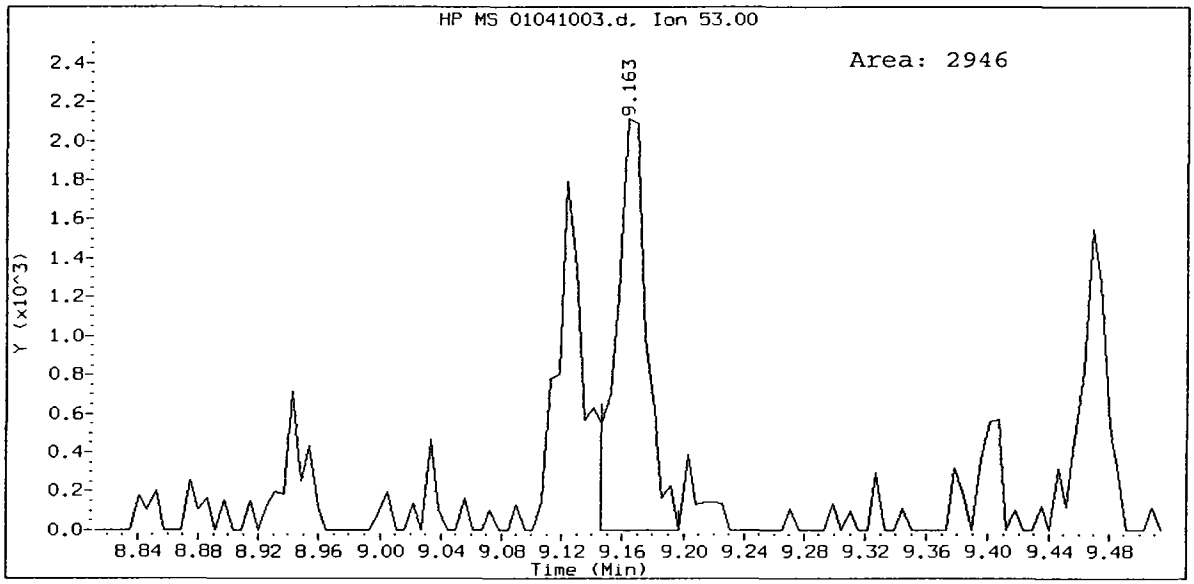
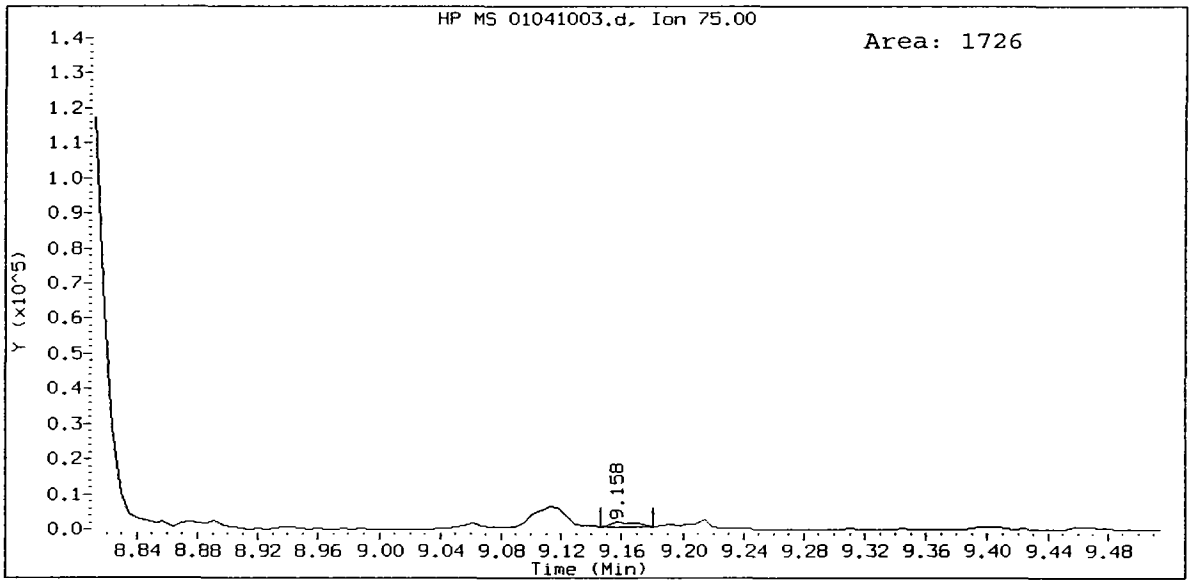
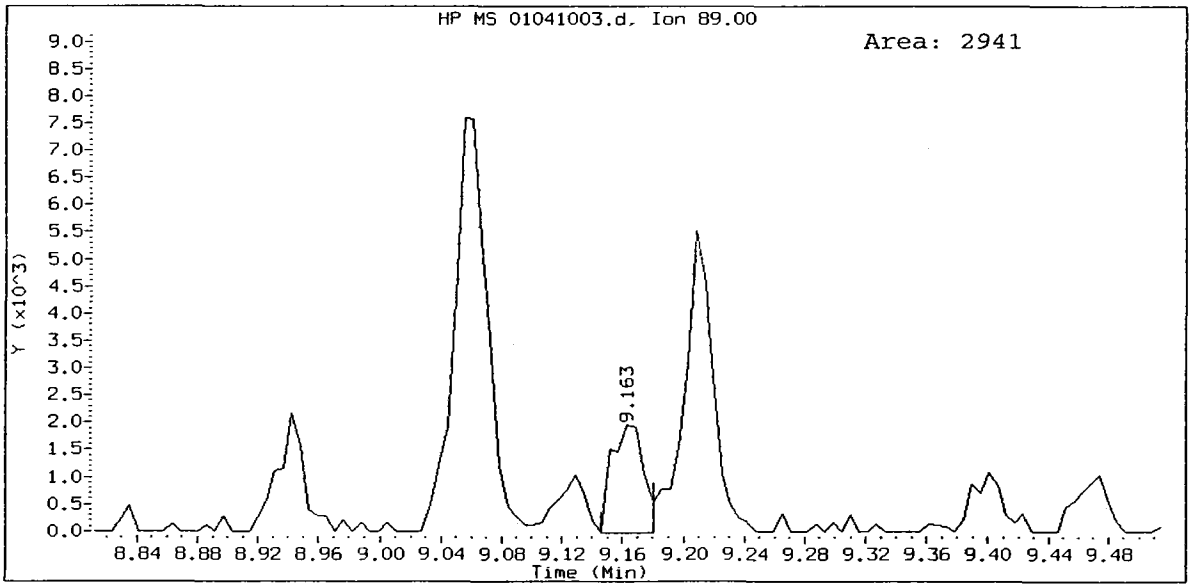
Trans-1,4-Dichloro 2-Butene Amount: 0.39







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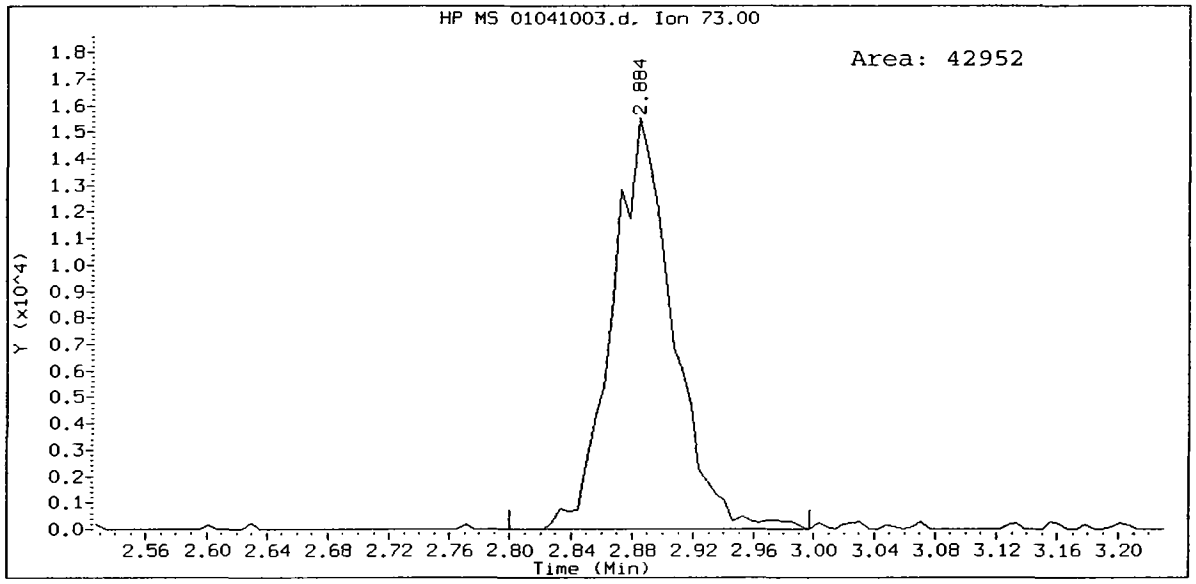
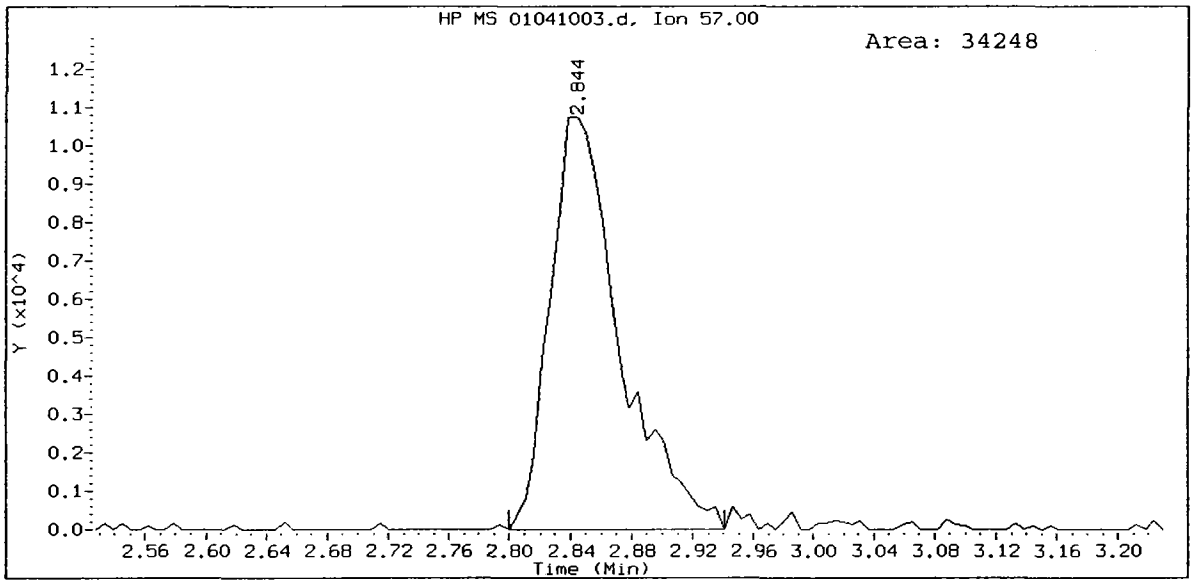
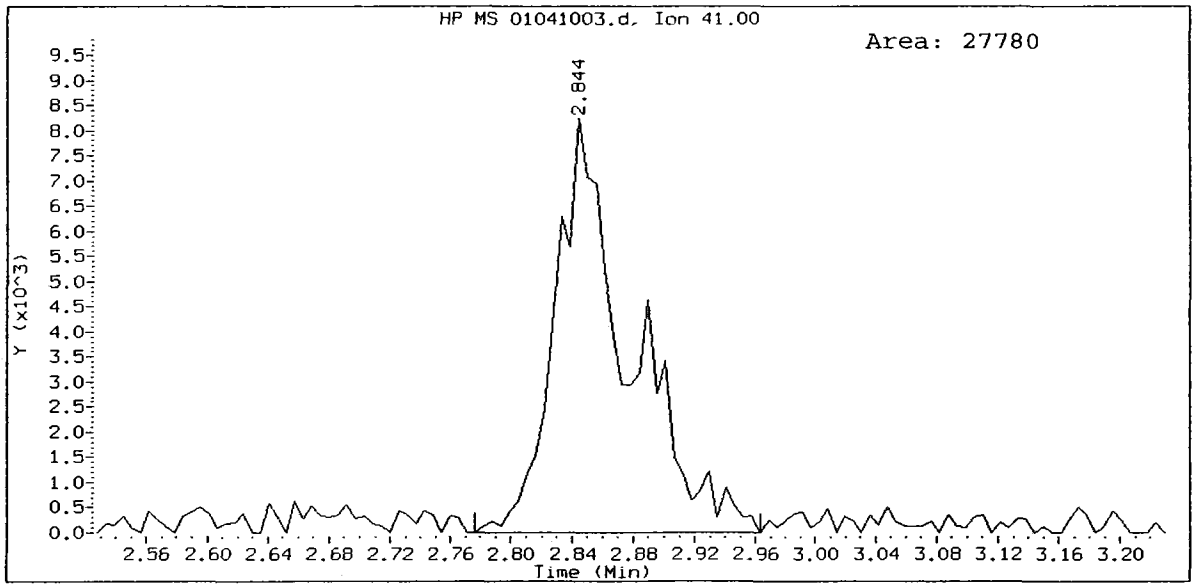
Methyl tert butyl ether Amount: 0.47







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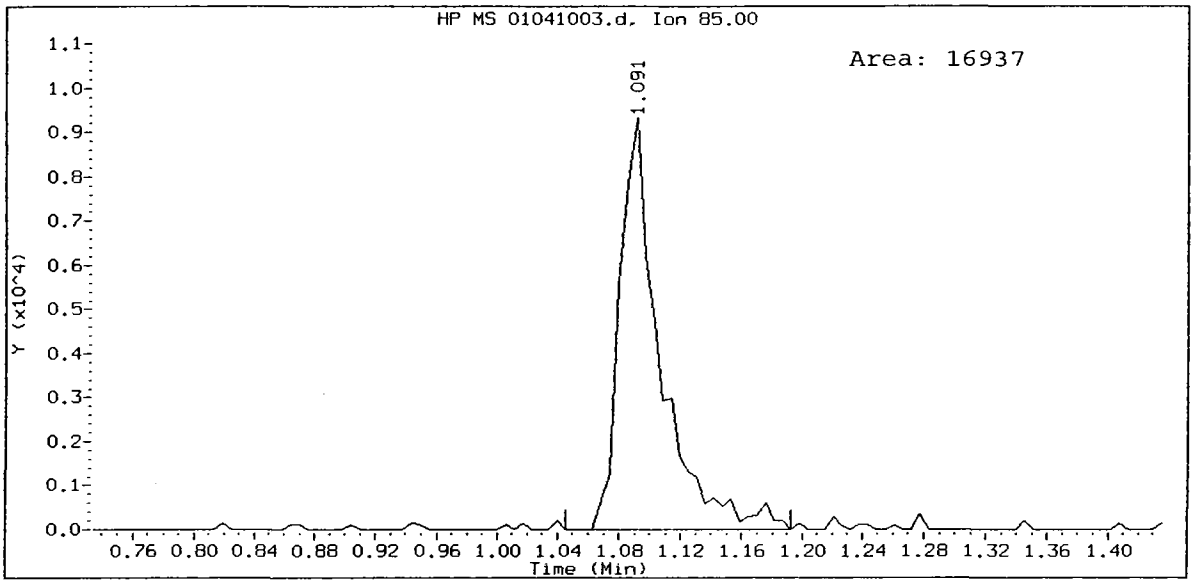
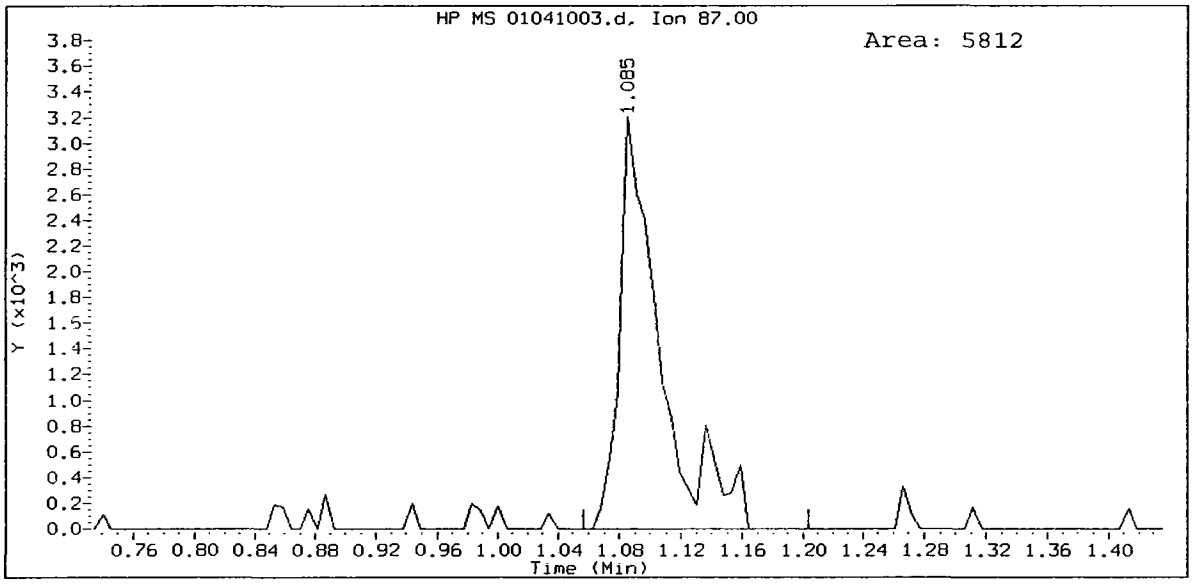
Dichlorodifluoromethane Amount: 0.43





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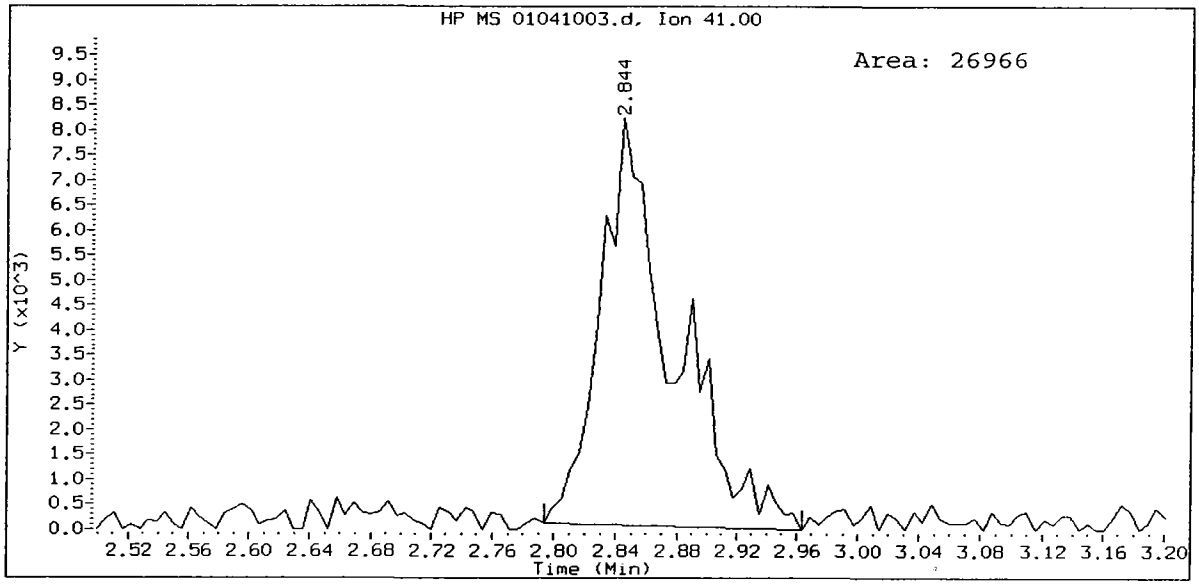
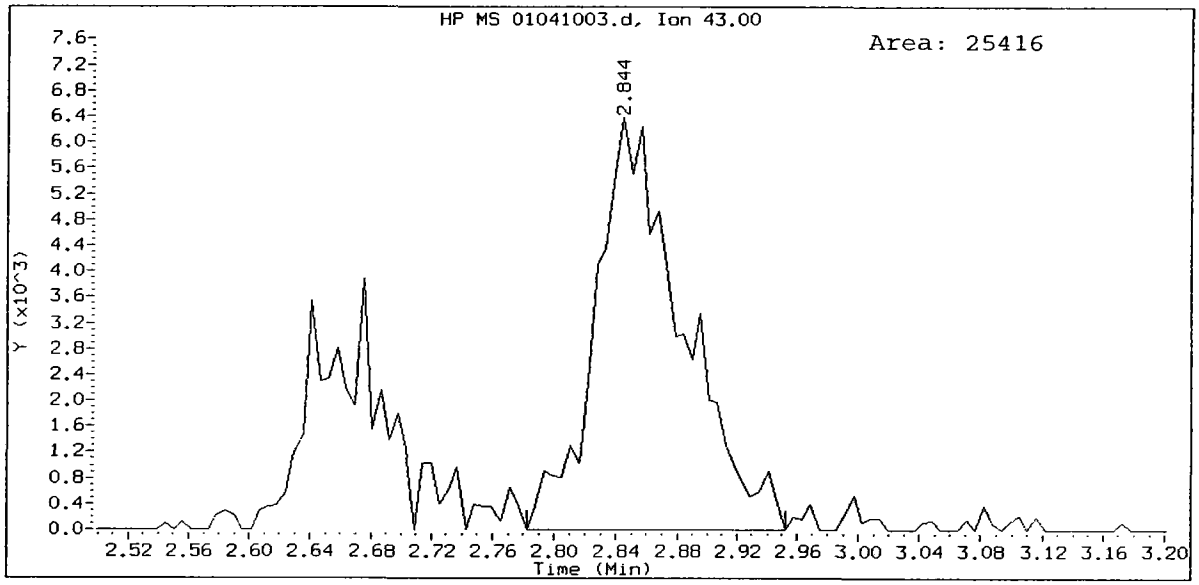
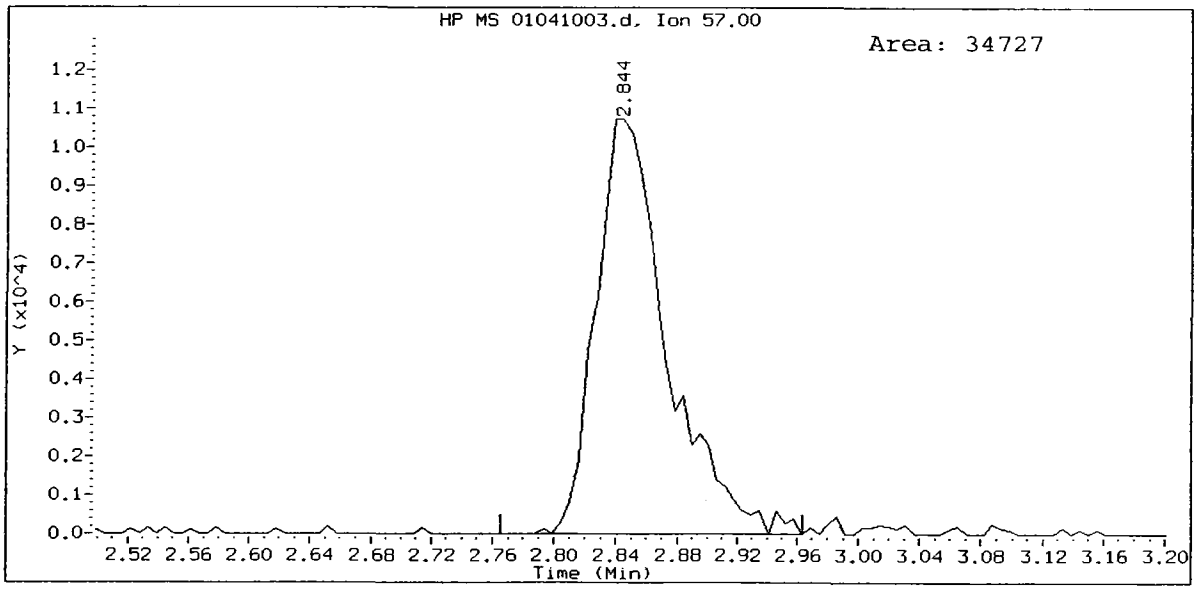
Hexane Amount: 0.49







Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/04JAN10.b/01041004.d
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Inj Date : 04-JAN-2010 11:53
Operator : PC Inst ID: nt5.i
Smp Info : 1.0_0104,10,10,0,
Misc Info : 09-
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Meth Date : 05-Jan-2010 10:18 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 11:53 Cal File: 01041004.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa+hex.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 (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.091	1.085	(0.226)	39723	1.00000	1.031(M)
172	Hexane	41	2.844	2.850	(0.589)	54698	1.00000	1.026(M)
2	Chloromethane	50	1.221	1.221	(0.253)	39816	1.00000	0.9656(M)
3	Vinyl Chloride	62	1.277	1.272	(0.264)	47807	1.00000	0.9853(M)
4	Bromomethane	94	1.498	1.498	(0.310)	19258	1.00000	0.8257
5	Chloroethane	64	1.594	1.594	(0.330)	31664	1.00000	1.107(M)
6	Trichlorofluoromethane	101	1.702	1.696	(0.352)	66476	1.00000	1.047(M)
12	Acrolein	56	2.369	2.375	(0.491)	20850	5.00000	5.701(M)
9	112Trichloro122Trifluoroethane	101	2.137	2.143	(0.442)	45244	1.00000	1.022
14	Acetone	43	2.658	2.652	(0.550)	23086	5.00000	5.617(M)
7	1,1-Dichloroethene	96	2.092	2.092	(0.433)	43486	1.00000	1.005(M)
11	Bromoethane	108	2.296	2.301	(0.475)	31091	1.00000	1.023(M)
10	Iodomethane	142	2.200	2.194	(0.455)	35503	1.00000	0.8527(M)
13	Methylene Chloride	84	2.596	2.595	(0.537)	45635	1.00000	1.042(M)
18	Acrylonitrile	53	3.444	3.444	(0.713)	7978	1.00000	1.181(M)
16	Methyl tert butyl ether	73	2.884	2.878	(0.597)	87928	1.00000	0.9824

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
8	Carbon Disulfide	76	2.098	2.098	(0.434)	148932	1.00000	1.035(M)
15	Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	50073	1.00000	1.025
19	Vinyl Acetate	43	3.682	3.682	(0.762)	35786	1.00000	0.9058
17	1,1-Dichloroethane	63	3.382	3.376	(0.700)	68813	1.00000	1.000
29	2-Butanone	72	4.496	4.496	(0.931)	14477	5.00000	5.501(M)
21	2,2-Dichloropropane	77	4.015	4.010	(0.831)	69101	1.00000	1.029
20	Cis-1,2-Dichloroethene	96	3.919	3.913	(0.811)	49041	1.00000	1.031(M)
32	Pentafluorobenzene	168	4.830	4.830	(1.000)	873249	10.0000	
23	Chloroform	83	4.191	4.191	(0.868)	72024	1.00000	0.9987
22	Bromochloromethane	128	4.100	4.094	(0.849)	21432	1.00000	1.027
25	Dibromofluoromethane	111	4.355	4.360	(0.902)	312958	10.0000	9.980
26	1,1,1-Trichloroethane	97	4.361	4.355	(0.903)	70596	1.00000	1.007
28	1,1-Dichloropropene	75	4.479	4.479	(0.849)	58355	1.00000	1.013
24	Carbon Tetrachloride	117	4.293	4.292	(0.813)	45960	1.00000	0.9400
31	d4-1,2-Dichloroethane	65	4.819	4.824	(0.998)	309297	10.0000	10.058
33	1,2-Dichloroethane	62	4.881	4.881	(0.925)	49723	1.00000	1.115
30	Benzene	78	4.700	4.700	(0.891)	173800	1.00000	1.016
35	1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1268884	10.0000	
34	Trichloroethene	130	5.226	5.226	(0.990)	54314	1.00000	1.014
38	1,2-Dichloropropane	63	5.673	5.667	(1.075)	37650	1.00000	0.9904
39	Bromodichloromethane	83	5.741	5.741	(1.088)	49472	1.00000	1.004
37	Dibromomethane	93	5.582	5.577	(1.058)	19571	1.00000	1.003
40	2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	12146	1.00000	0.8576
45	4-Methyl-2-Pentanone	58	6.833	6.827	(1.295)	35034	5.00000	5.115
41	Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	63167	1.00000	1.001
42	d8-Toluene	98	6.437	6.436	(1.220)	1336459	10.0000	9.959
43	Toluene	92	6.482	6.482	(1.228)	127469	1.00000	1.067
46	Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	52690	1.00000	1.001
51	2-Hexanone	43	7.545	7.540	(0.974)	47237	5.00000	4.829
47	1,1,2-Trichloroethane	97	6.974	6.974	(1.322)	29884	1.00000	1.032
49	1,3-Dichloropropane	76	7.195	7.194	(0.929)	49292	1.00000	1.002
44	Tetrachloroethene	166	6.799	6.798	(0.878)	57417	1.00000	1.016
48	Chlorodibromomethane	129	7.110	7.110	(0.918)	33489	1.00000	0.9295
50	1,2-Dibromoethane	107	7.291	7.291	(1.382)	28997	1.00000	1.017
52	d5-Chlorobenzene	117	7.743	7.743	(1.000)	1137920	10.0000	
53	Chlorobenzene	112	7.755	7.754	(1.001)	134653	1.00000	1.042
54	Ethyl Benzene	91	7.794	7.800	(1.007)	231128	1.00000	1.038(M)
55	1,1,1,2-Tetrachloroethane	131	7.817	7.822	(1.009)	46256	1.00000	1.029
56	m,p-xylene	106	7.930	7.930	(1.024)	181166	2.00000	2.076
57	o-Xylene	106	8.292	8.292	(1.071)	84334	1.00000	0.9919
58	Styrene	104	8.343	8.343	(1.077)	131692	1.00000	0.9778
60	Isopropyl Benzene	105	8.575	8.575	(0.875)	210867	1.00000	1.042
59	Bromoform	173	8.343	8.343	(0.851)	20199	1.00000	1.012
64	1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	26479	1.00000	1.002
61	4-Bromofluorobenzene	95	8.807	8.807	(1.137)	513300	10.0000	9.889
66	1,2,3-Trichloropropane	110	9.107	9.112	(0.929)	9762	1.00000	1.136
68	Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.935)	7329	1.00000	1.021(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
63 N-Propyl Benzene	91	8.943	8.942	(0.912)	244122	1.00000	1.080
62 Bromobenzene	156	8.886	8.886	(0.906)	59241	1.00000	1.072
67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	179025	1.00000	1.049
65 2-Chloro Toluene	91	9.061	9.061	(0.924)	146718	1.00000	1.036
69 4-Chloro Toluene	91	9.208	9.214	(0.939)	147345	1.00000	1.021
70 T-Butyl Benzene	119	9.401	9.401	(0.959)	155276	1.00000	1.045
71 1,2,4-Trimethylbenzene	105	9.469	9.469	(0.966)	174440	1.00000	1.020
72 S-Butyl Benzene	105	9.565	9.565	(0.976)	220293	1.00000	1.061
73 4-Isopropyl Toluene	119	9.701	9.706	(0.990)	181243	1.00000	1.033
74 1,3-Dichlorobenzene	146	9.735	9.734	(0.993)	112566	1.00000	1.049
75 d4-1,4-Dichlorobenzene	152	9.802	9.808	(1.000)	618020	10.0000	
76 1,4-Dichlorobenzene	146	9.819	9.819	(1.002)	111642	1.00000	1.044
77 N-Butyl Benzene	91	10.085	10.085	(1.029)	148193	1.00000	1.001
78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	565296	10.0000	10.272
79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	98518	1.00000	1.042
81 1,2-Dibromo 3-Chloropropane	75	10.934	10.939	(1.115)	5513	1.00000	1.098
83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	61412	1.00000	1.046
82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.182)	27218	1.00000	1.036
84 Naphthalene	128	11.896	11.895	(1.214)	94894	1.00000	0.9616
85 1,2,3-Trichlorobenzene	180	12.077	12.076	(1.232)	49017	1.00000	1.030

QC Flag Legend

1 - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01041004.d
Lab Smp Id: 1.0 0104
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/04JAN10.b/VO010410L.m
Misc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 1 ppb
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	873249	-3.71
35 1,4-Difluorobenze	1305872	652936	2611744	1268884	-2.83
52 d5-Chlorobenzene	1174180	587090	2348360	1137920	-3.09
75 d4-1,4-Dichlorobe	665265	332632	1330530	618020	-7.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.80	-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.

Data File: /chem1/nt5.i/04JAN10.b/01041004.d
Date : 04-JAN-2010 11:53
Client ID: 1 ppb
Sample Info: 1.0_0104,10,10,0,

Column phase: RTXVMS

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

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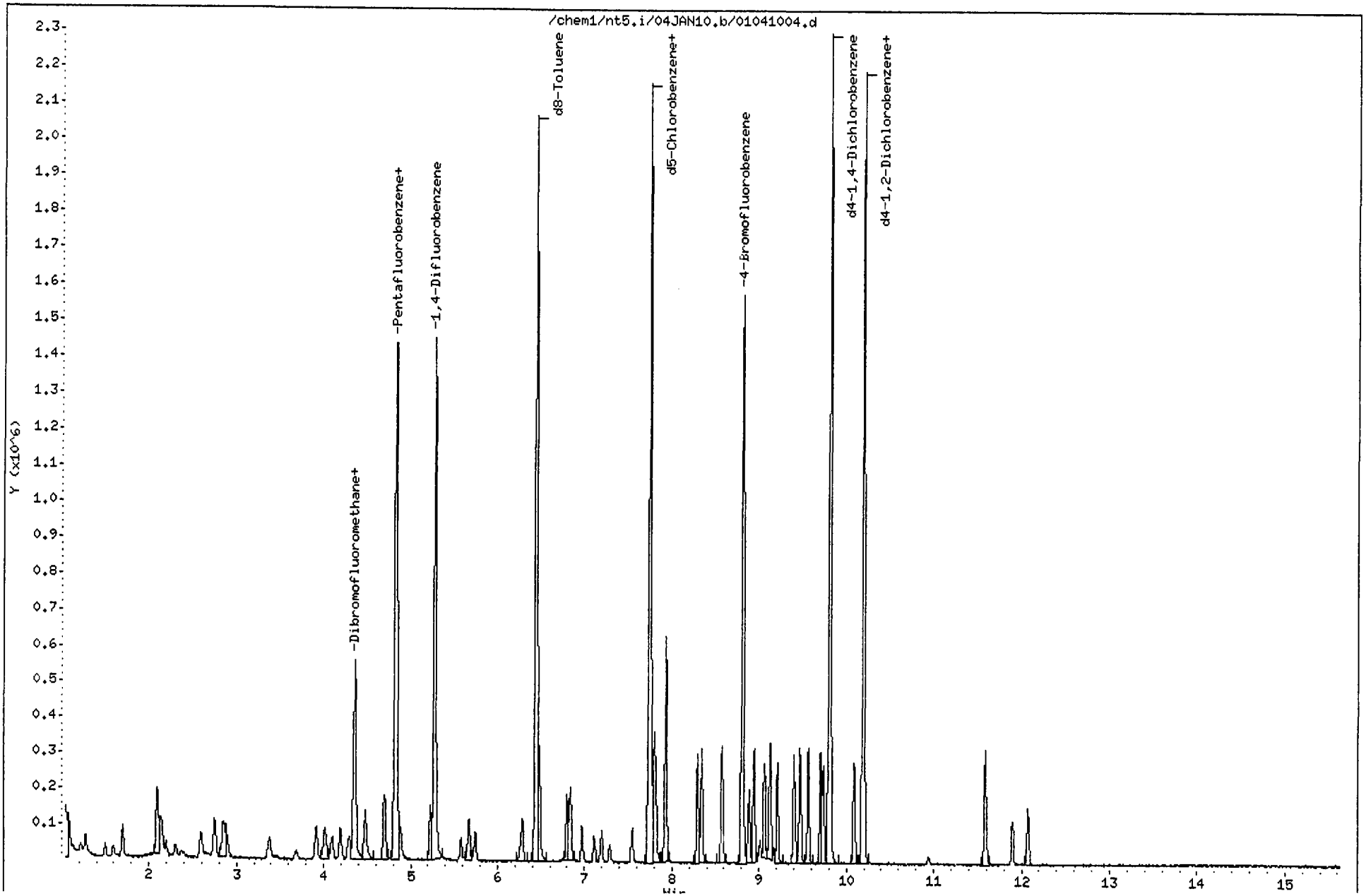

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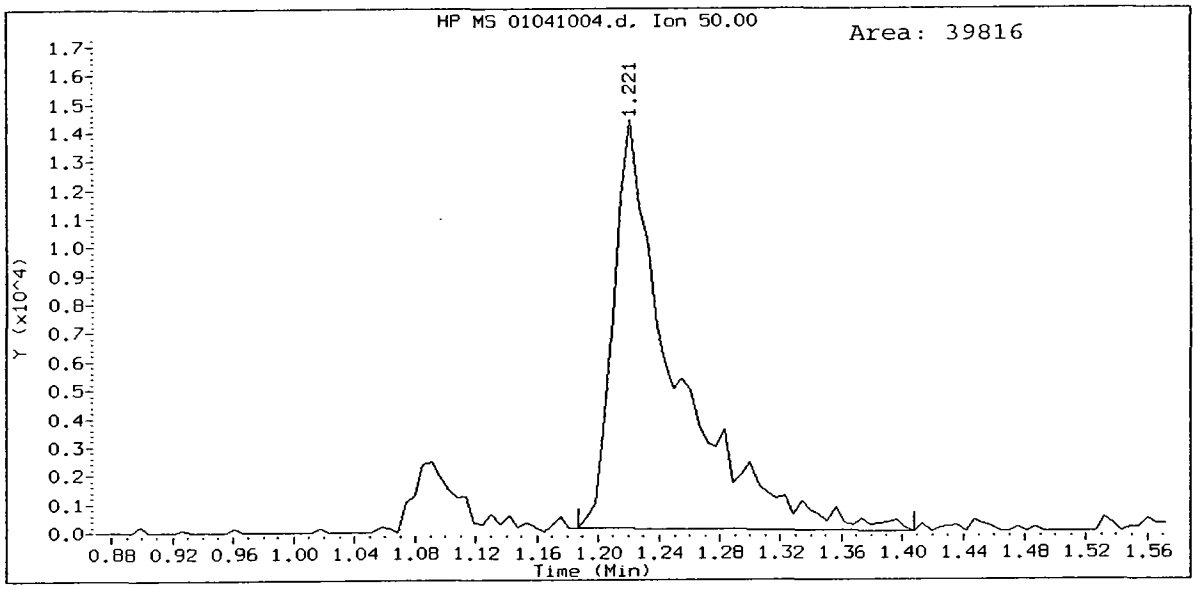
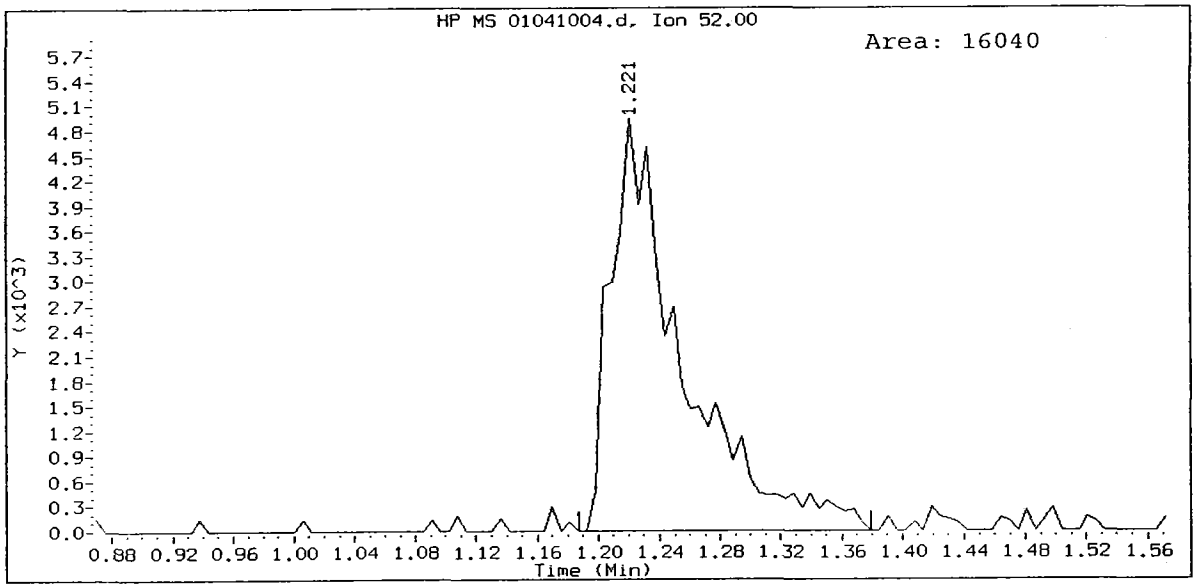
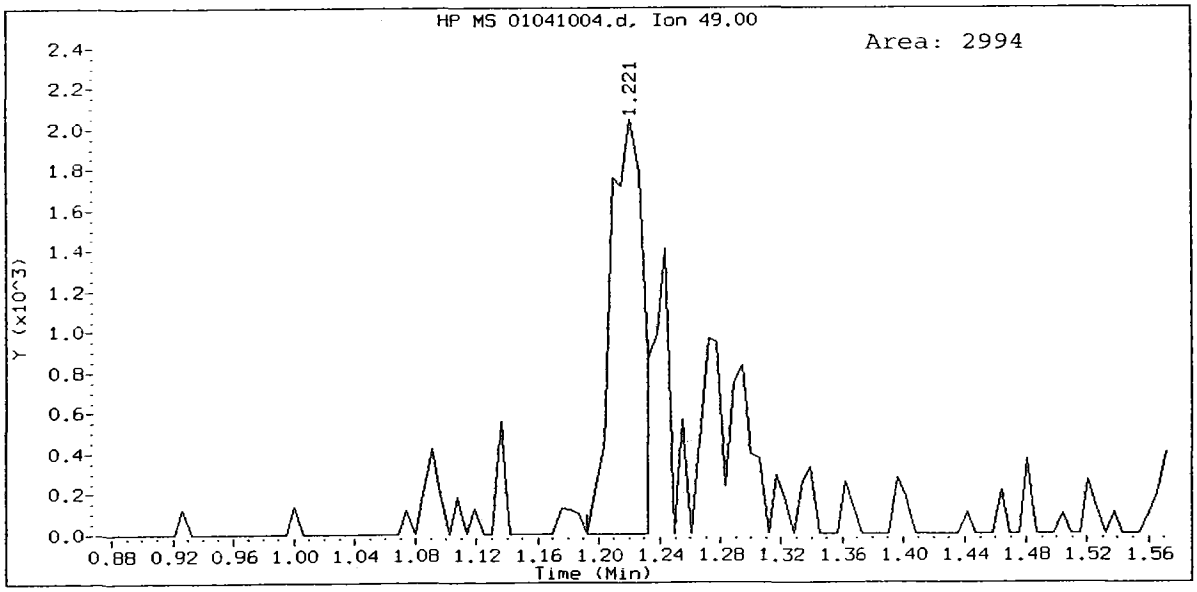
Chloromethane Amount: 0.97







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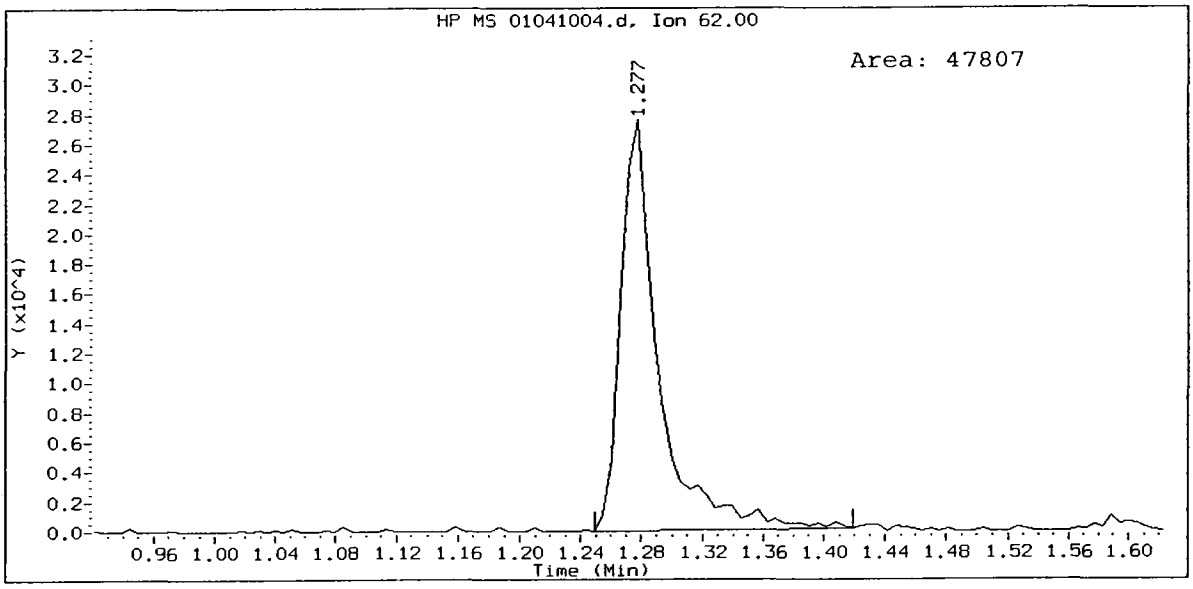

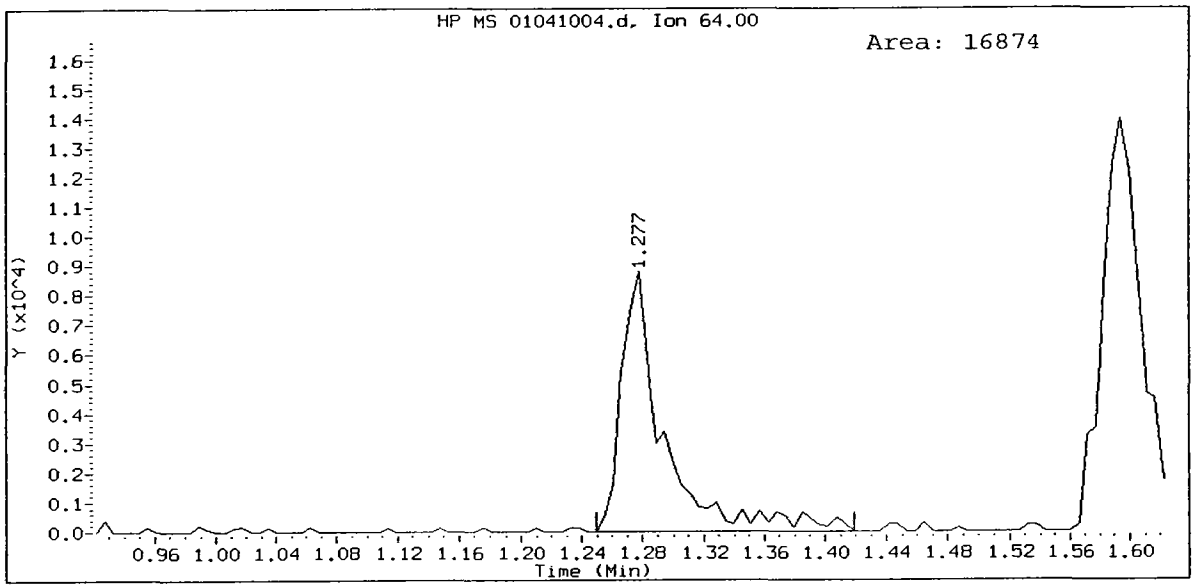

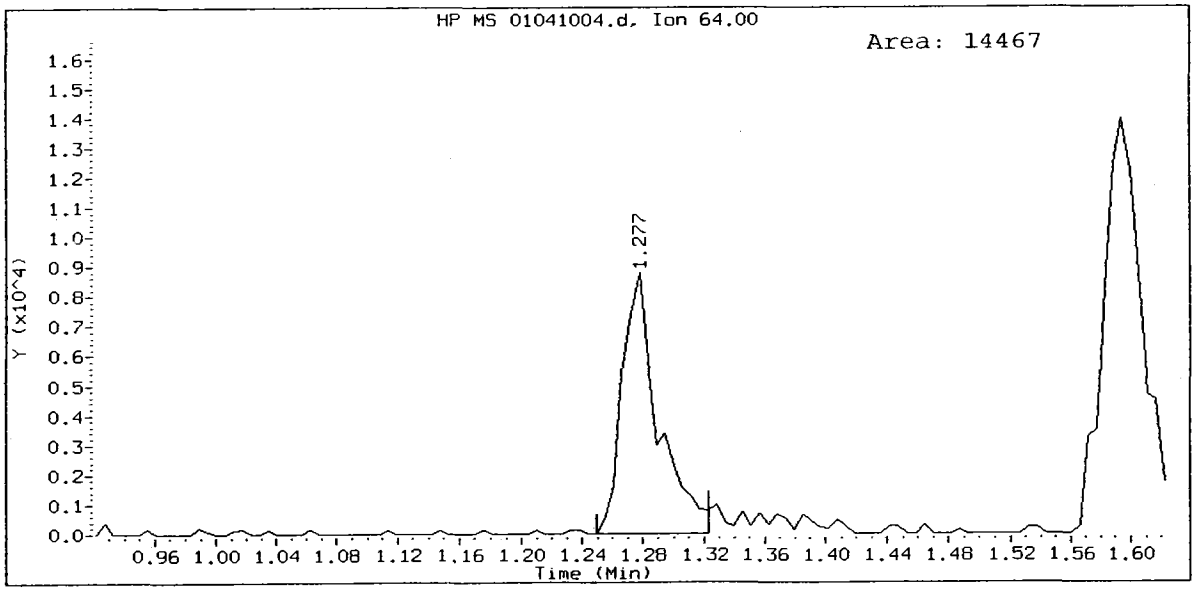

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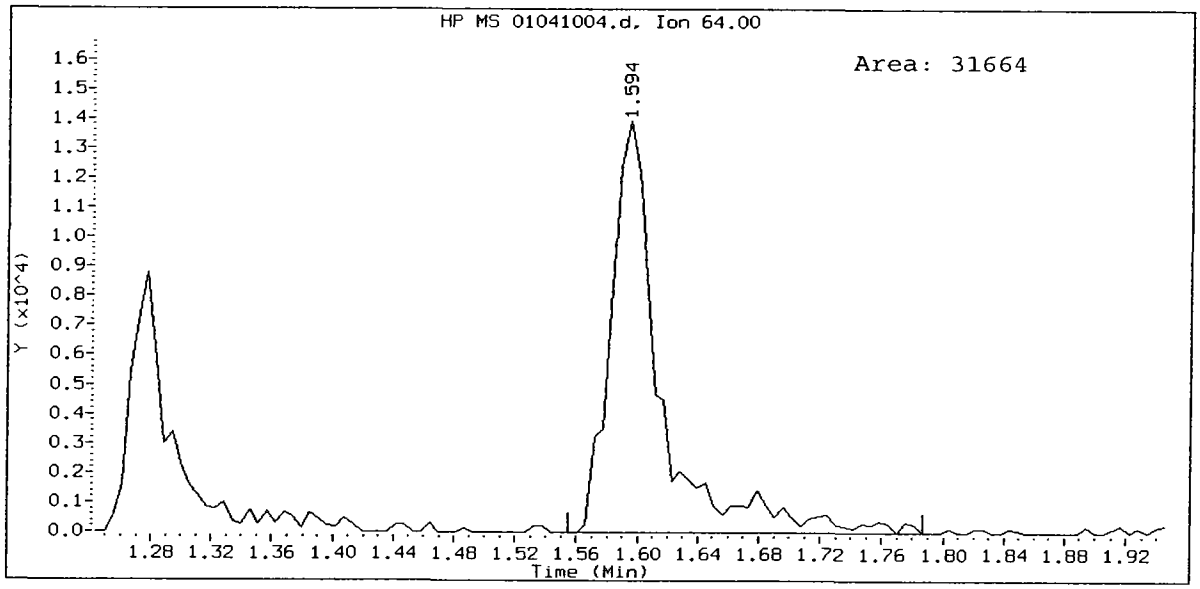
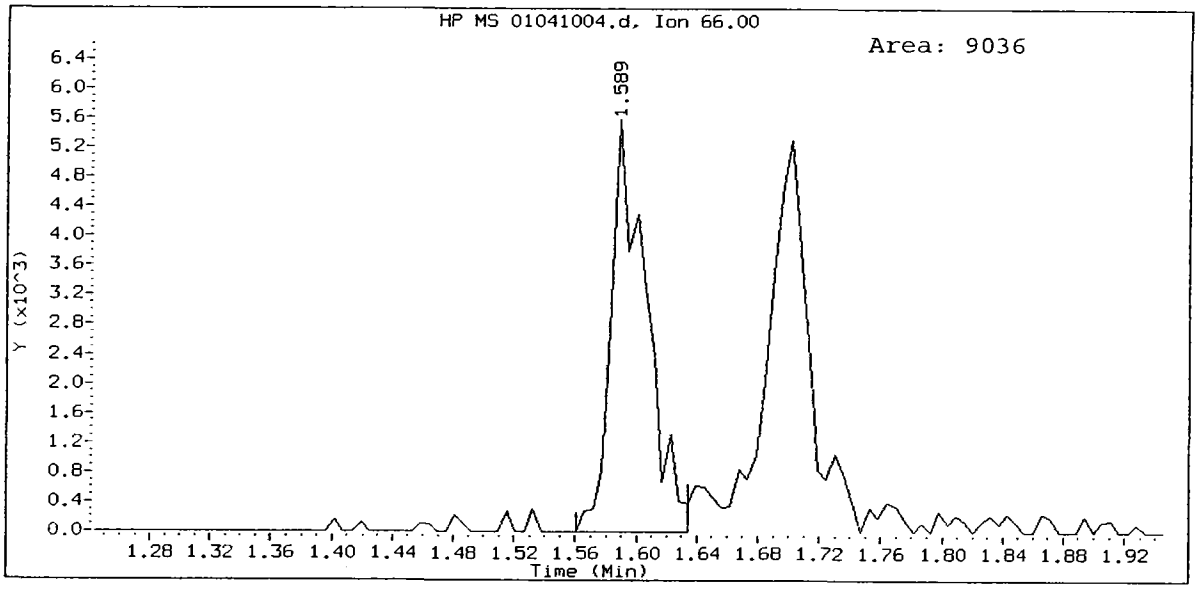
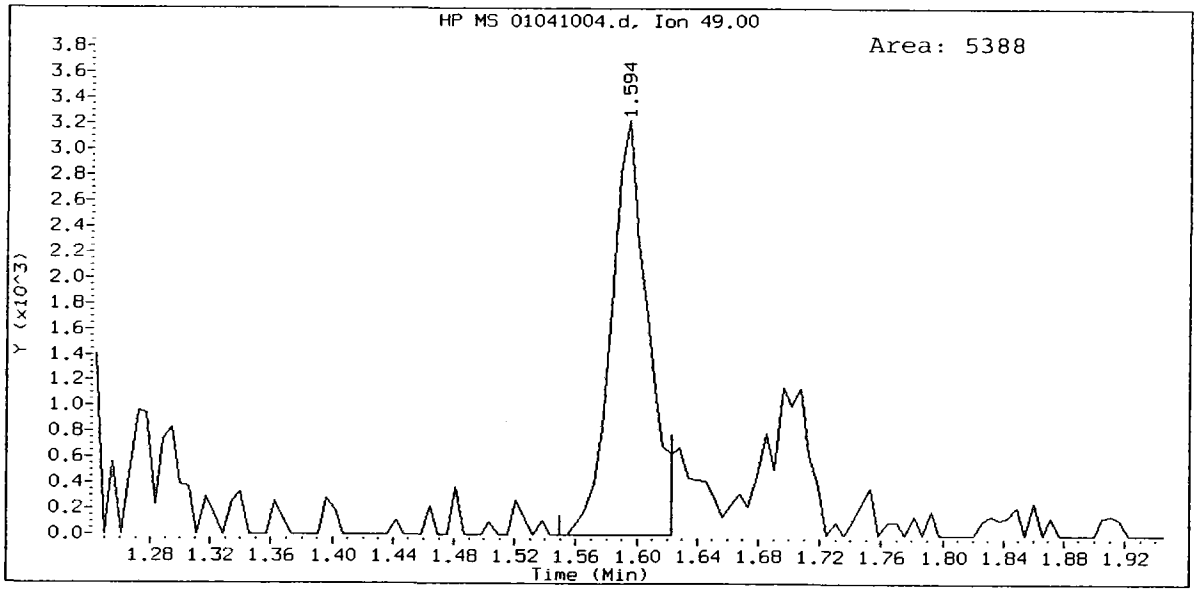
Chloroethane Amount: 1.11







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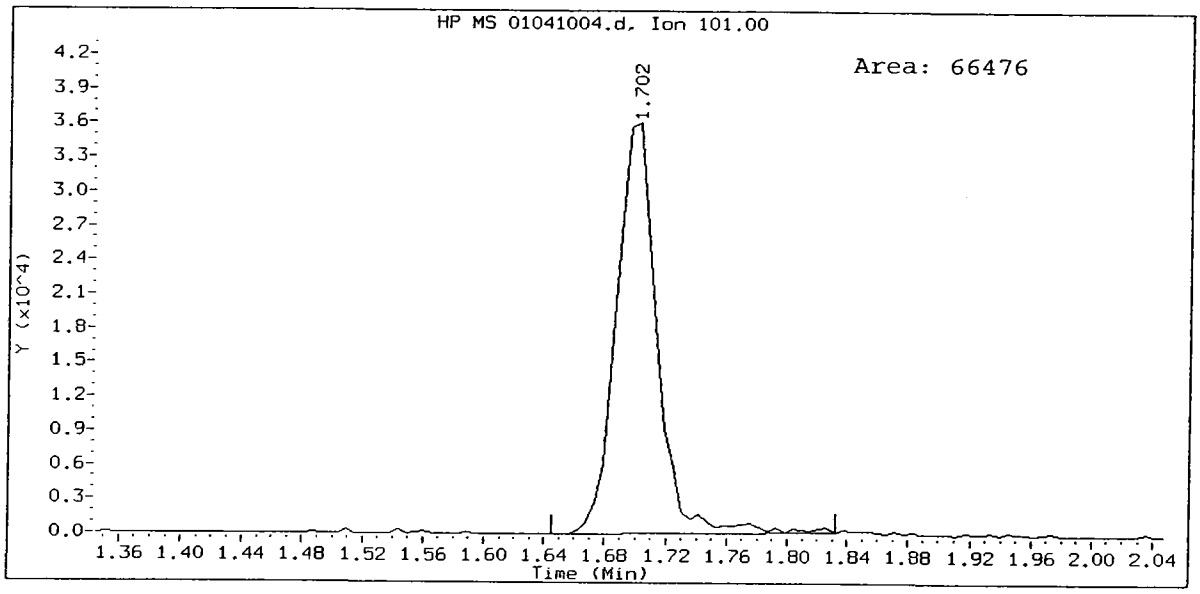
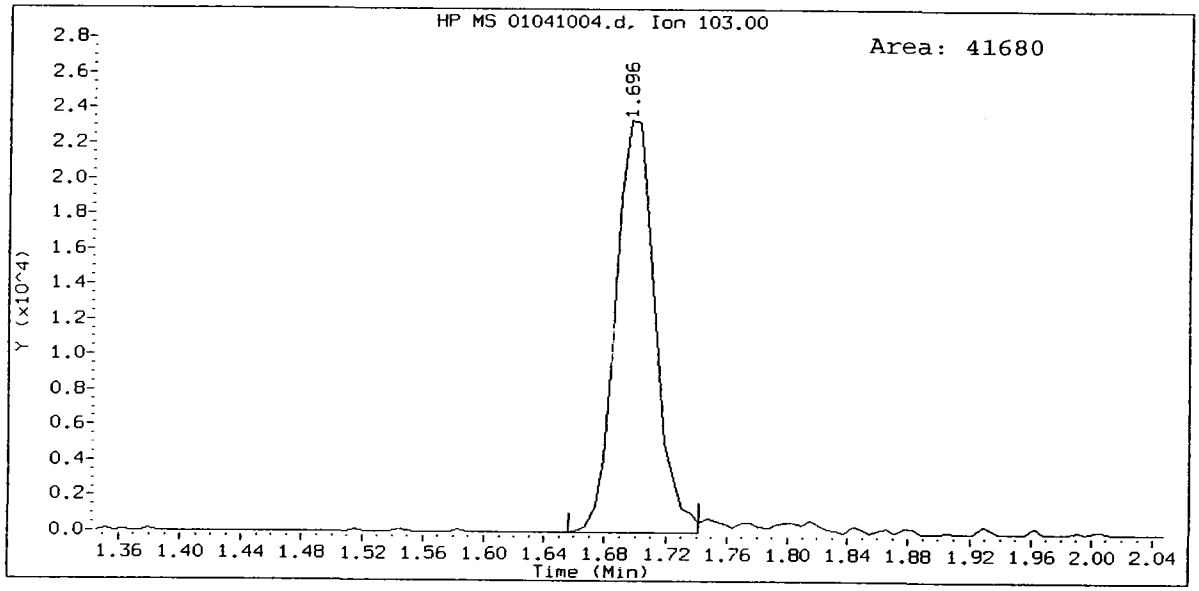
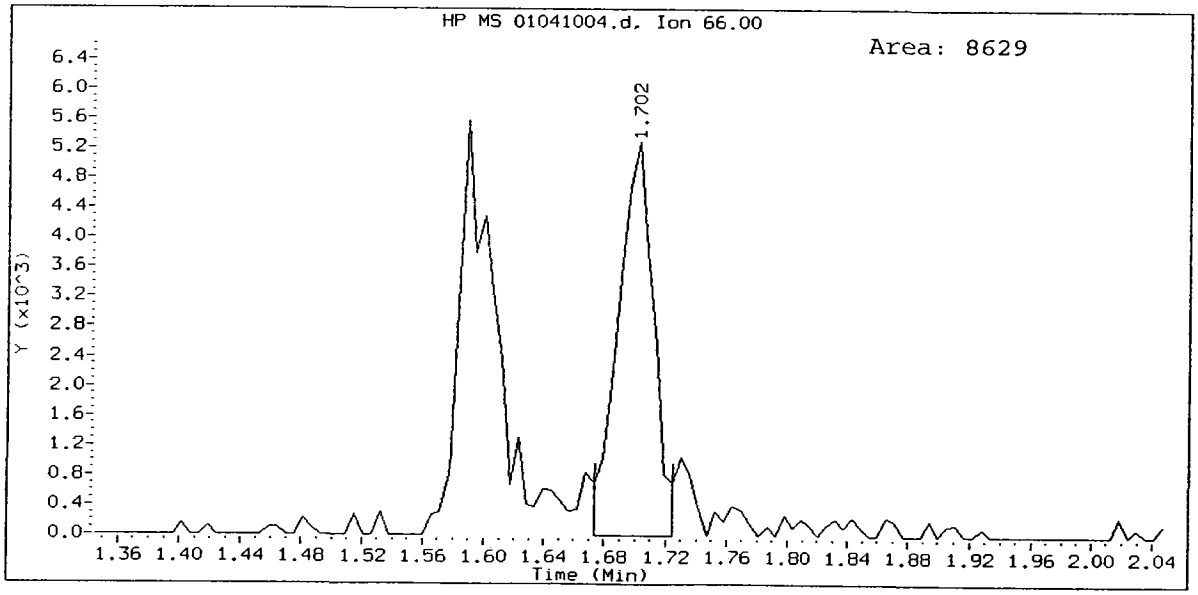
Trichlorofluoromethane Amount: 1.05







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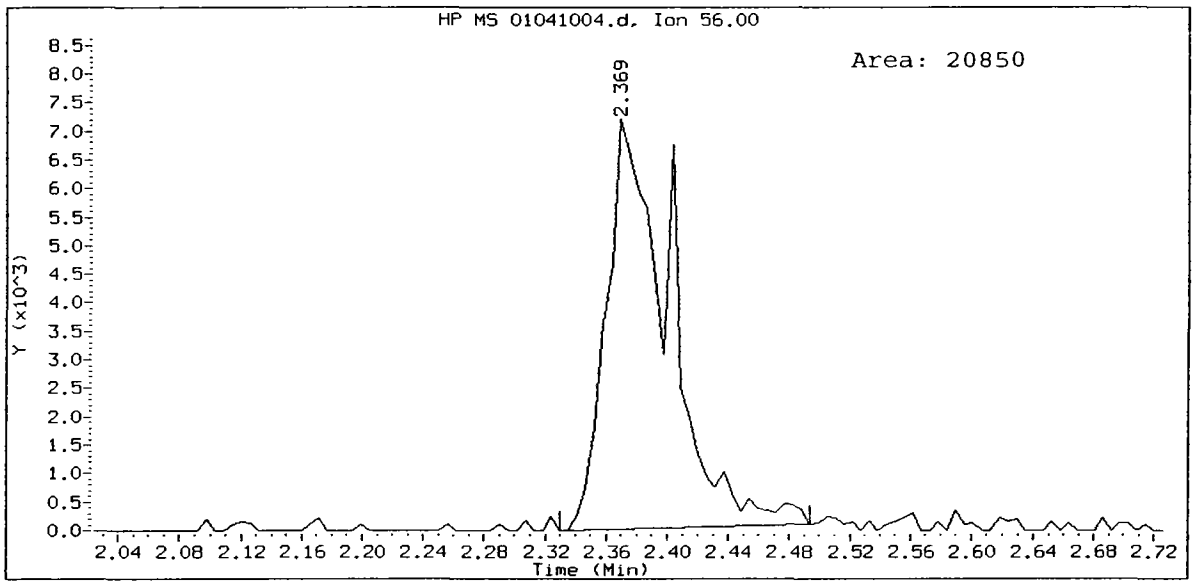
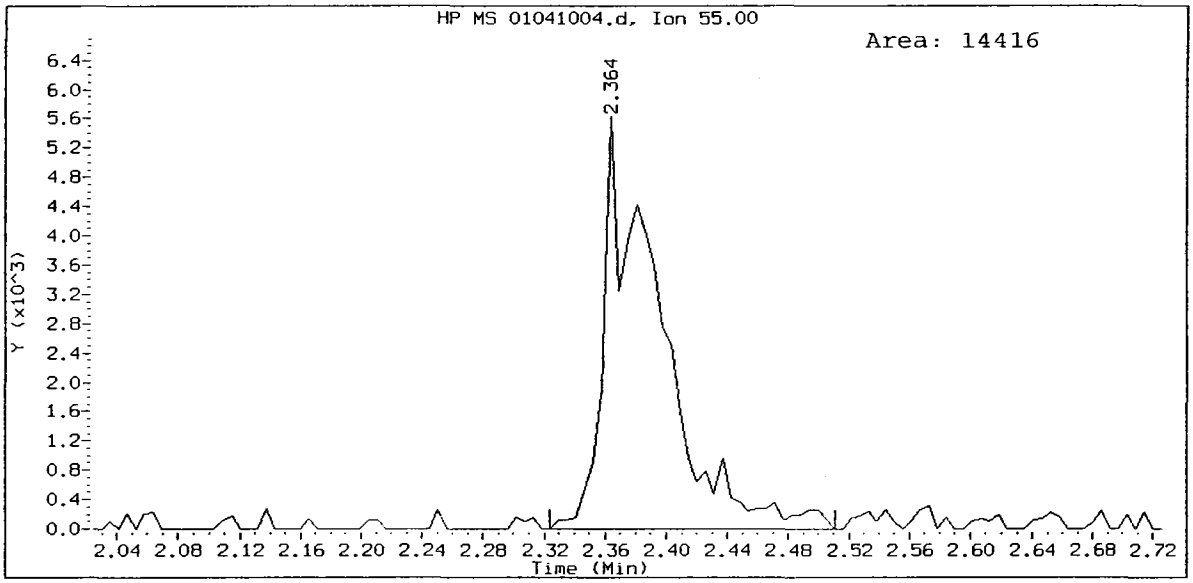
Acrolein Amount: 5.70





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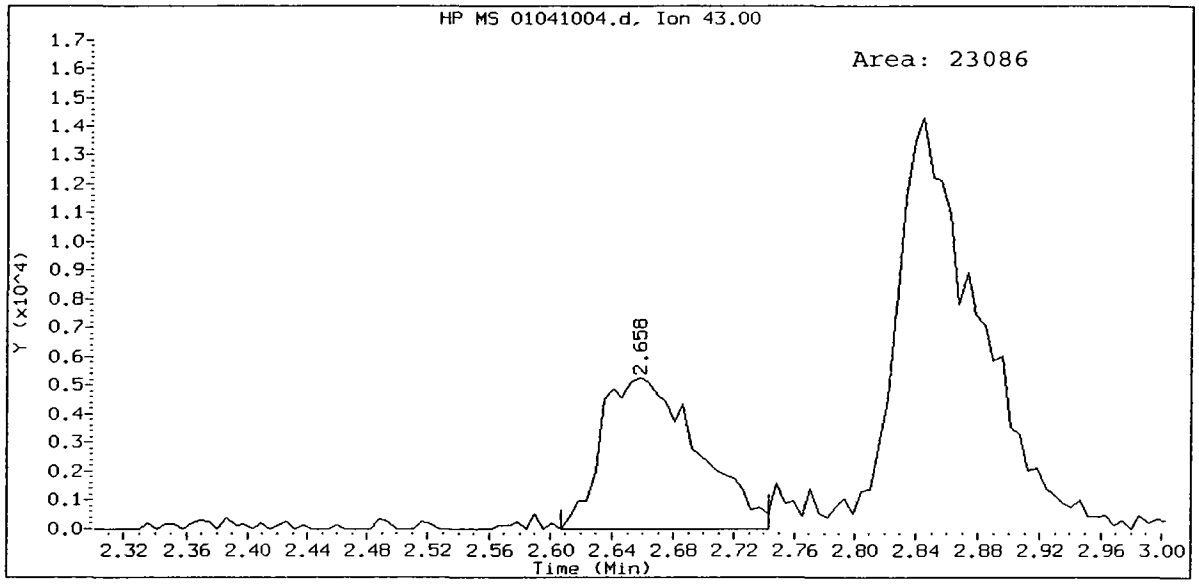
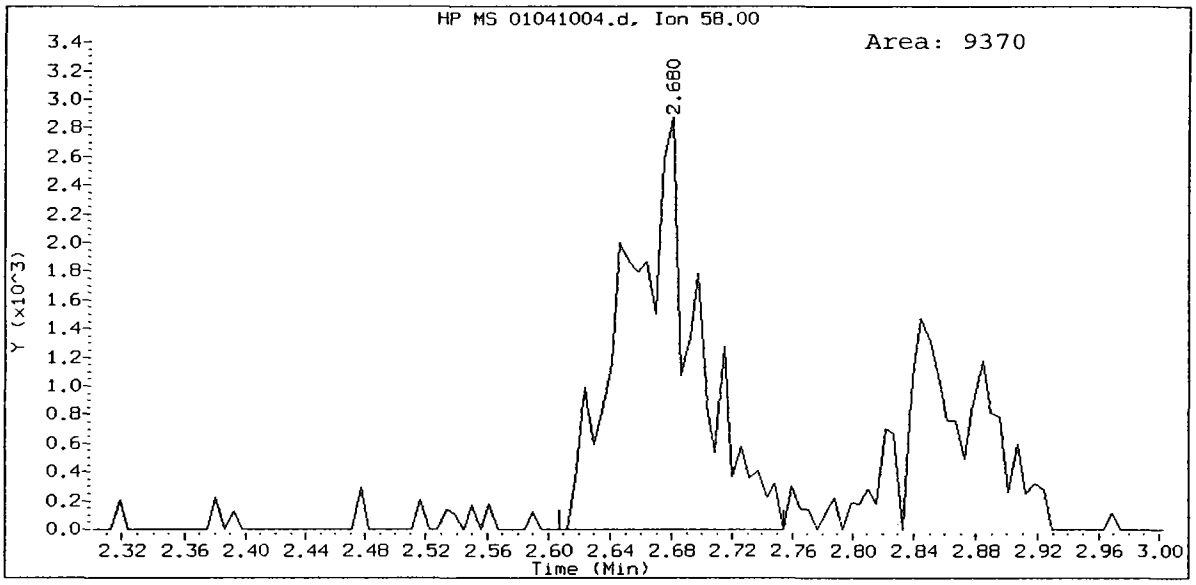
Acetone Amount: 5.62





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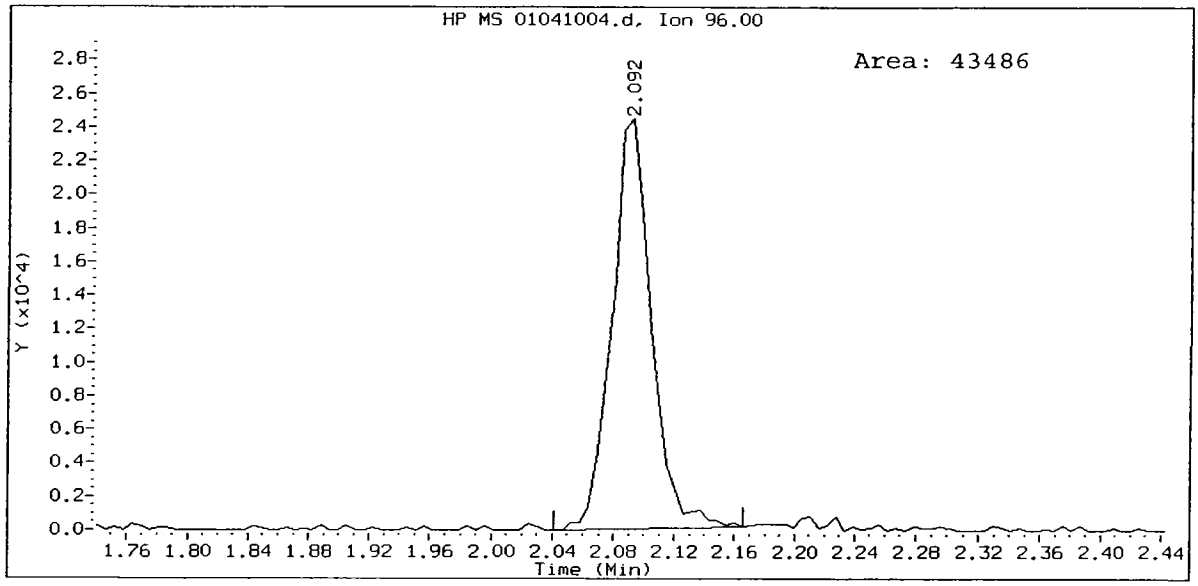
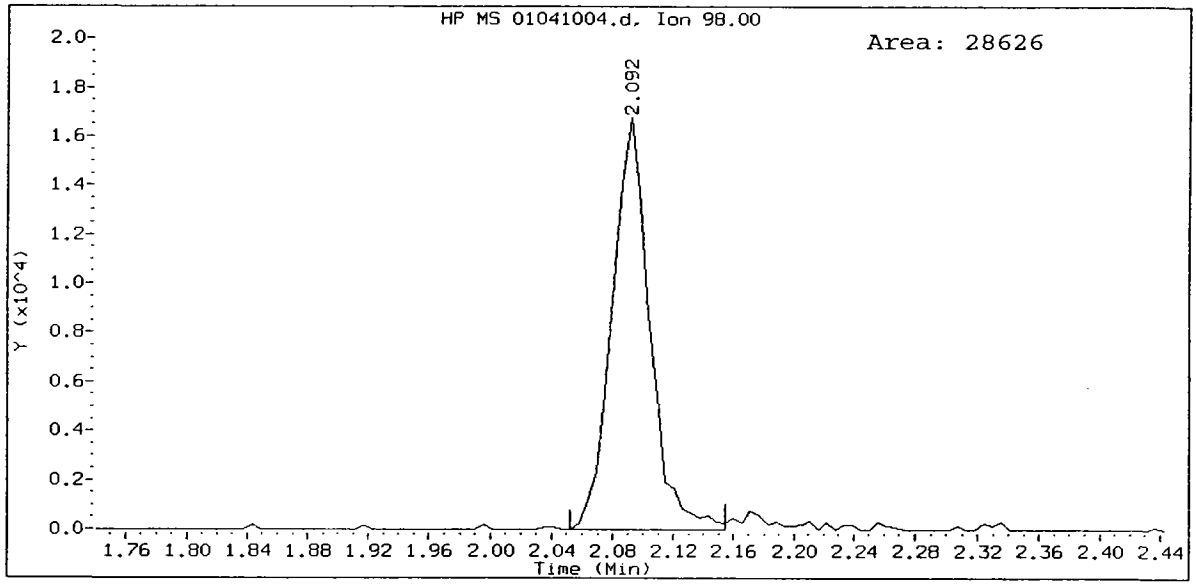
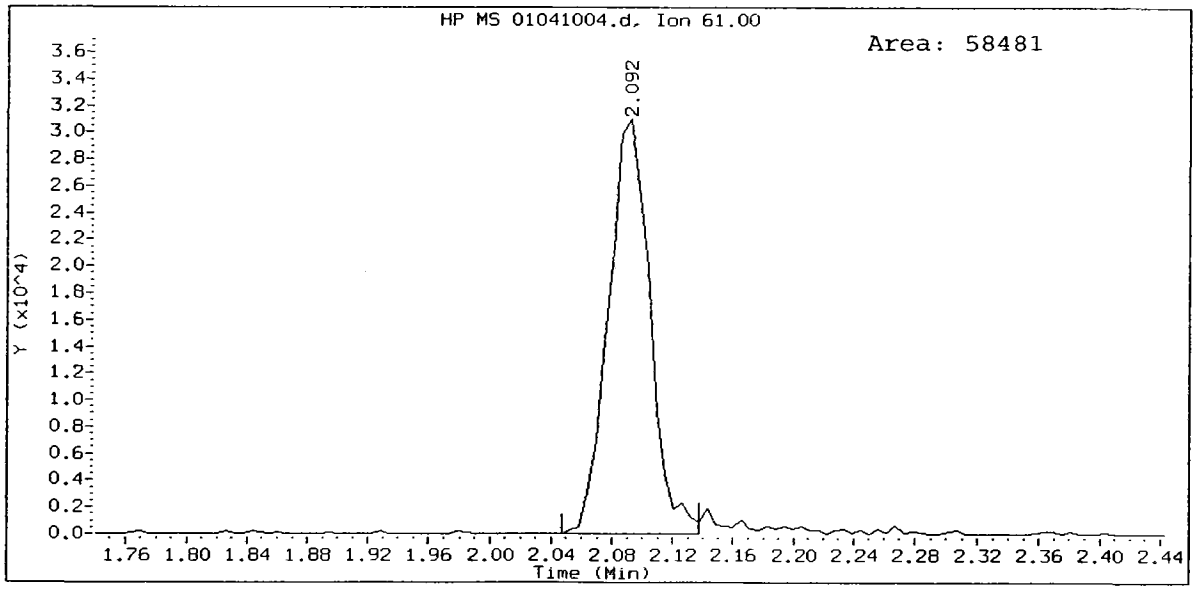
1,1-Dichloroethene Amount: 1.01







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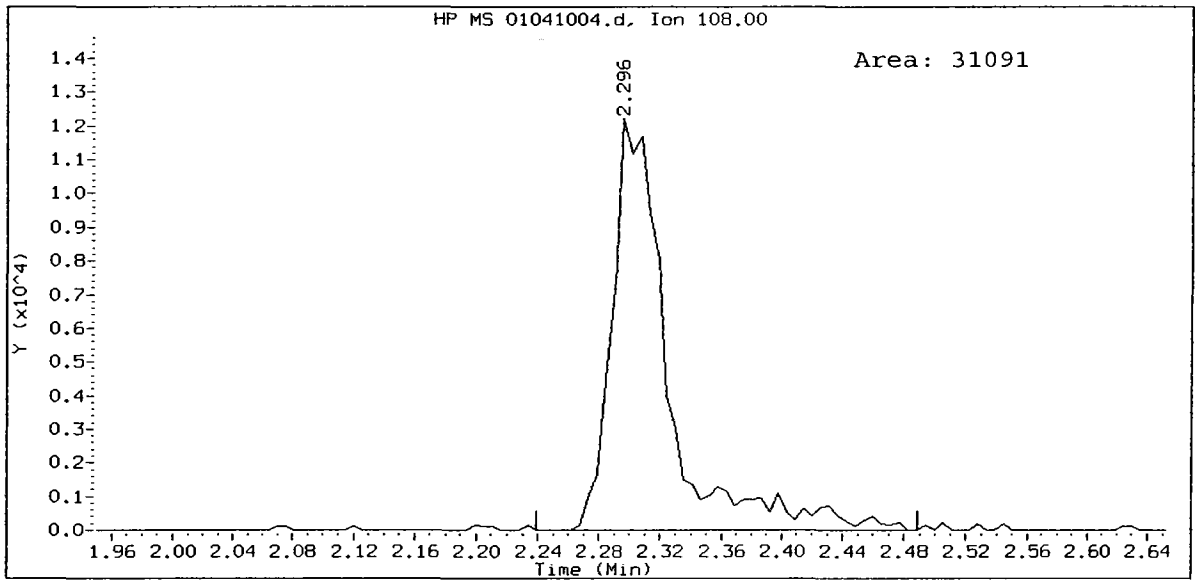
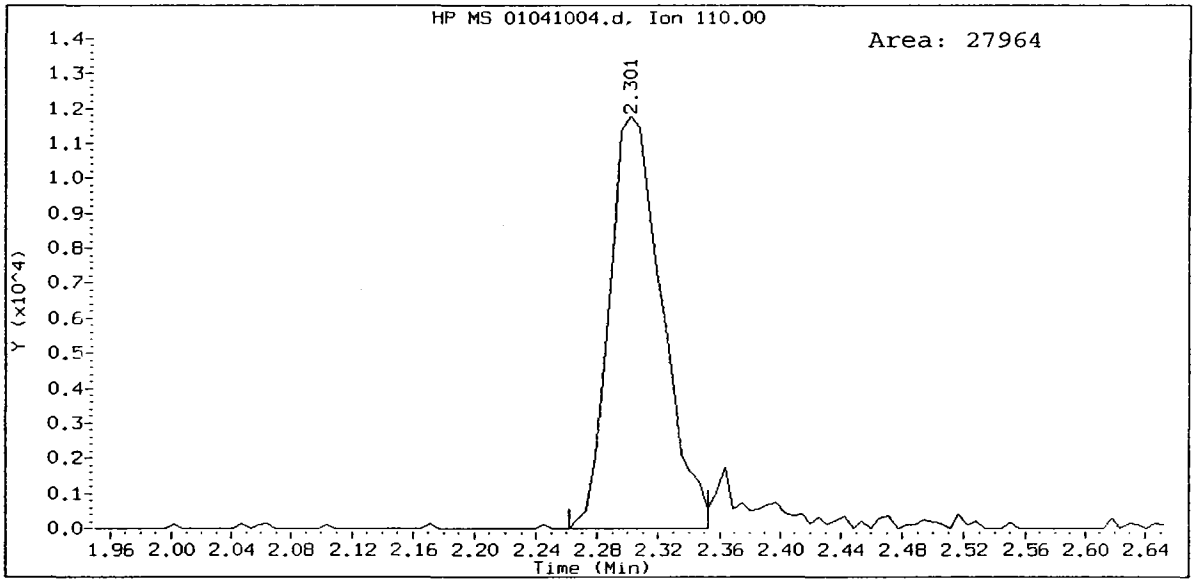
Bromoethane Amount: 1.02





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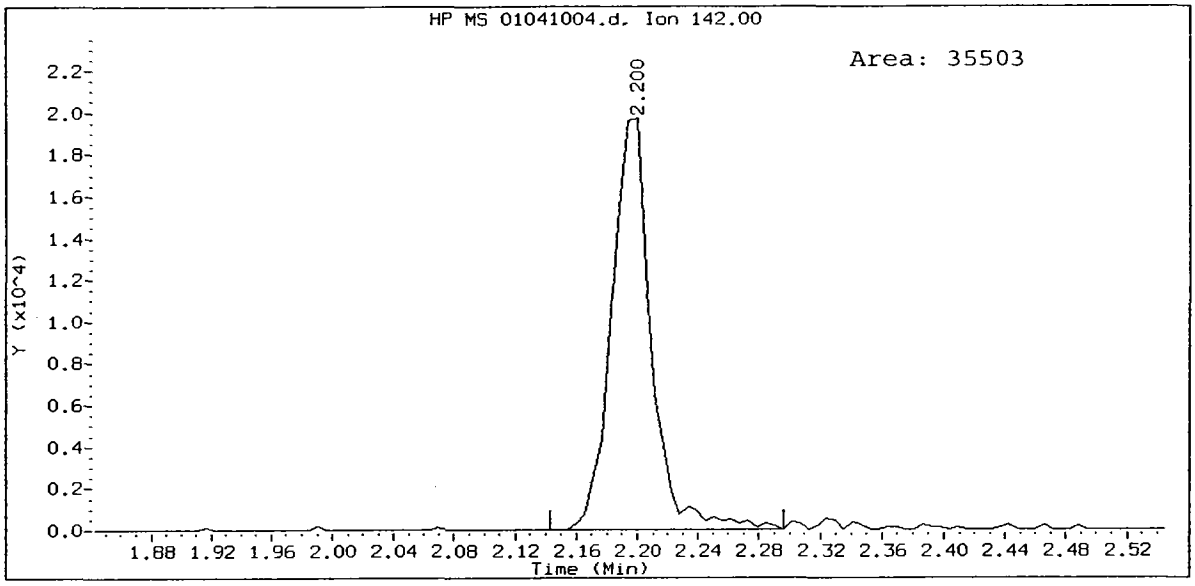
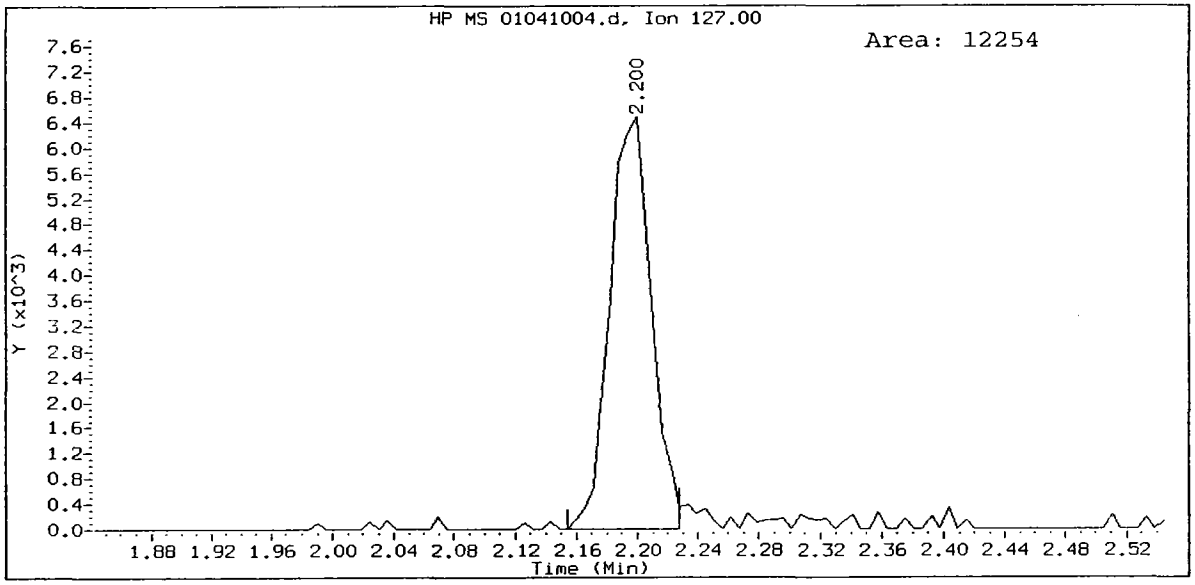
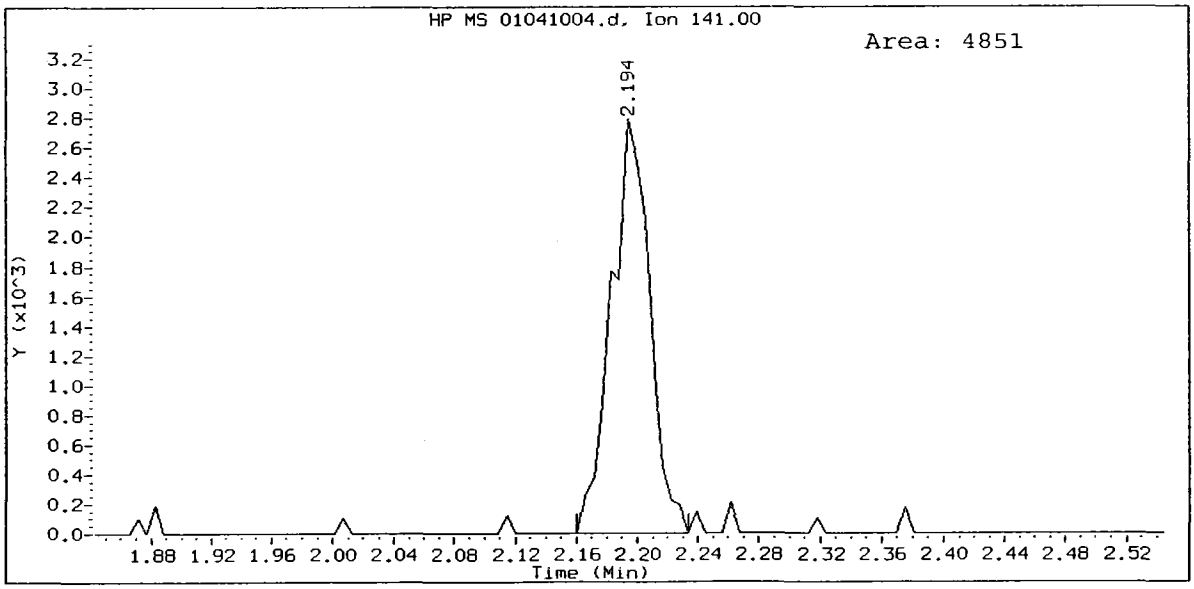
Iodomethane Amount: 0.85







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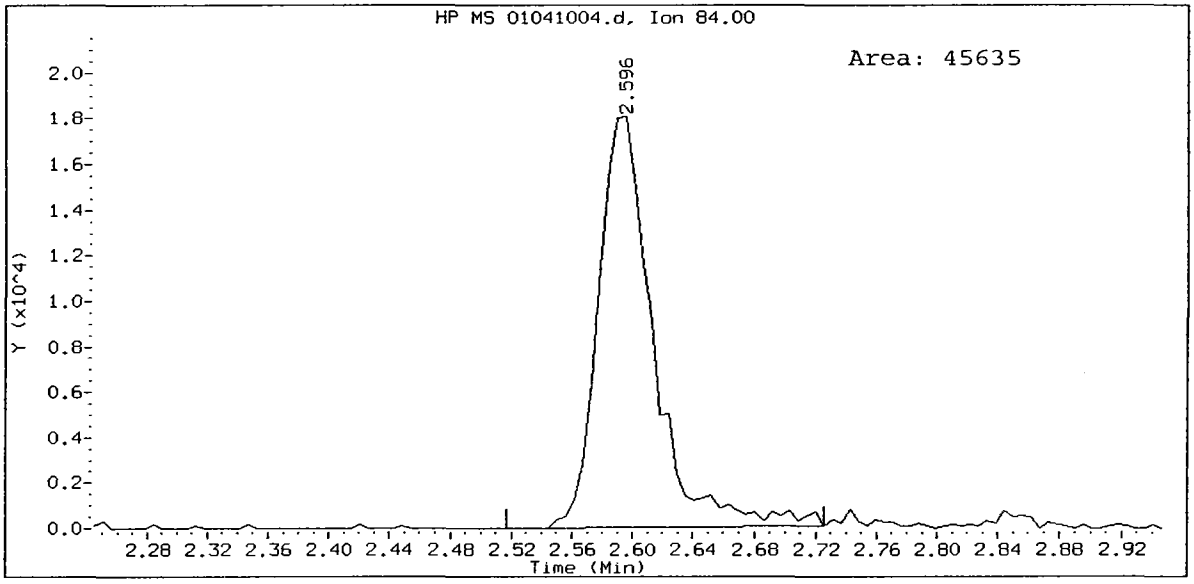
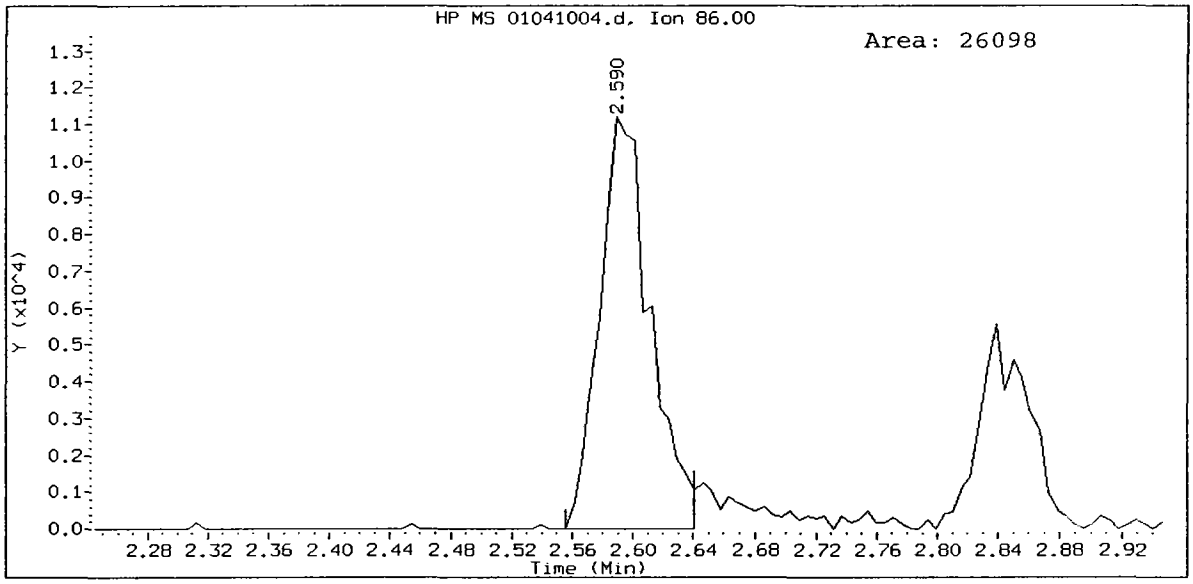
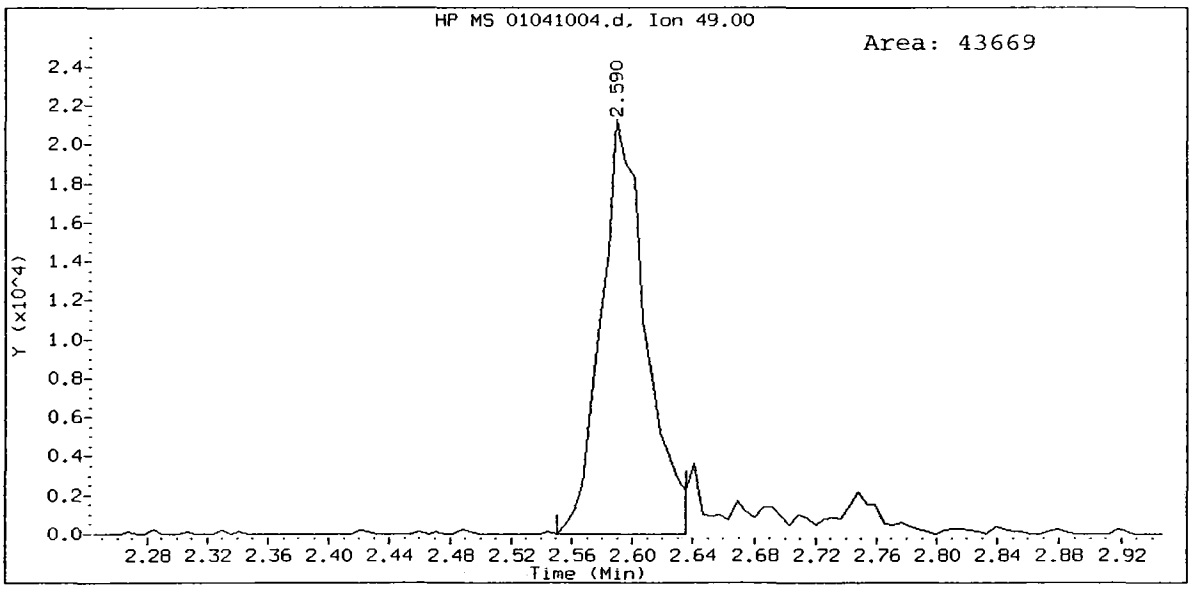
Methylene Chloride Amount: 1.04







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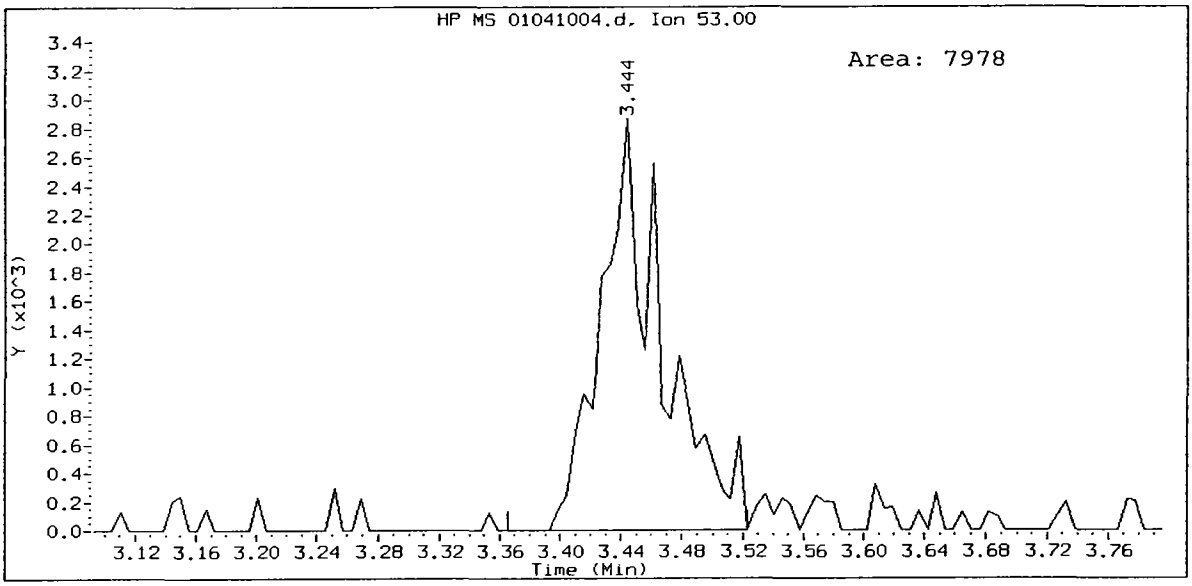
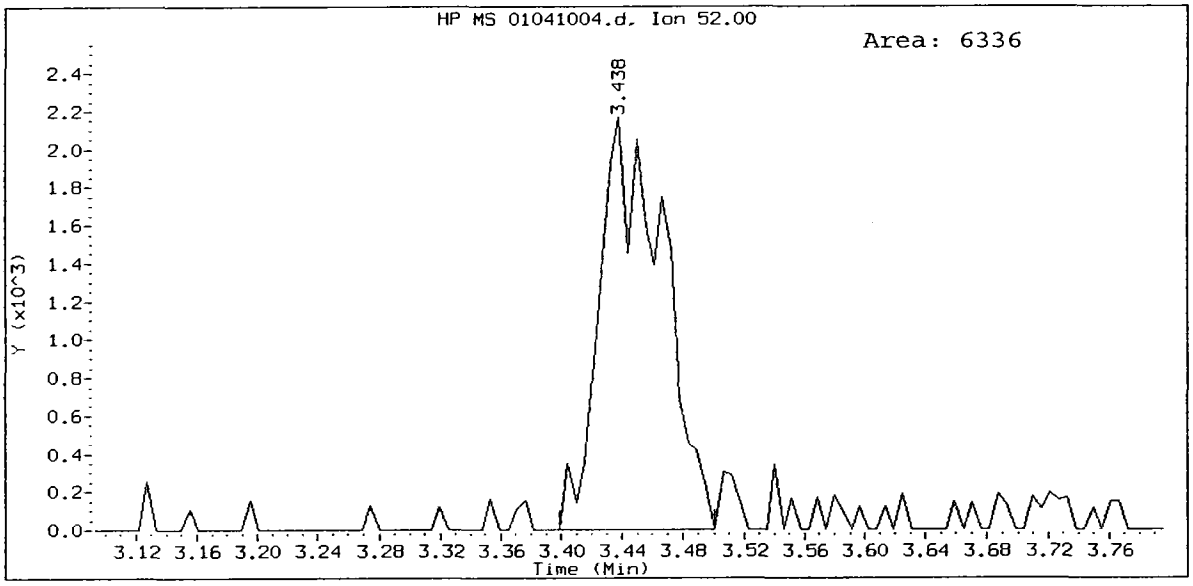
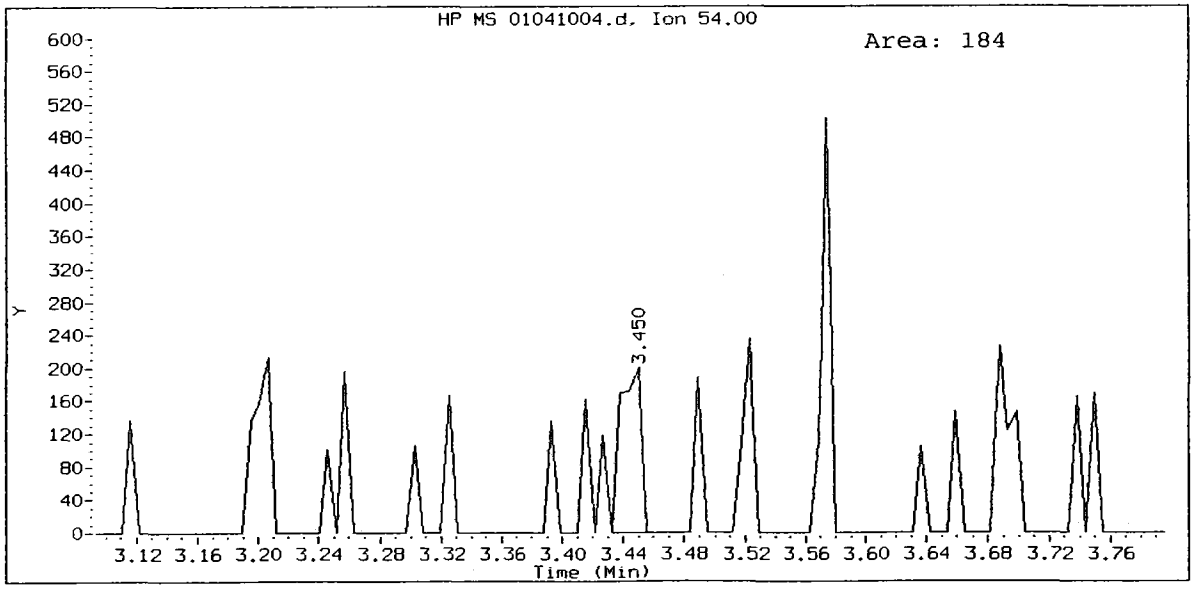
Acrylonitrile Amount: 1.18







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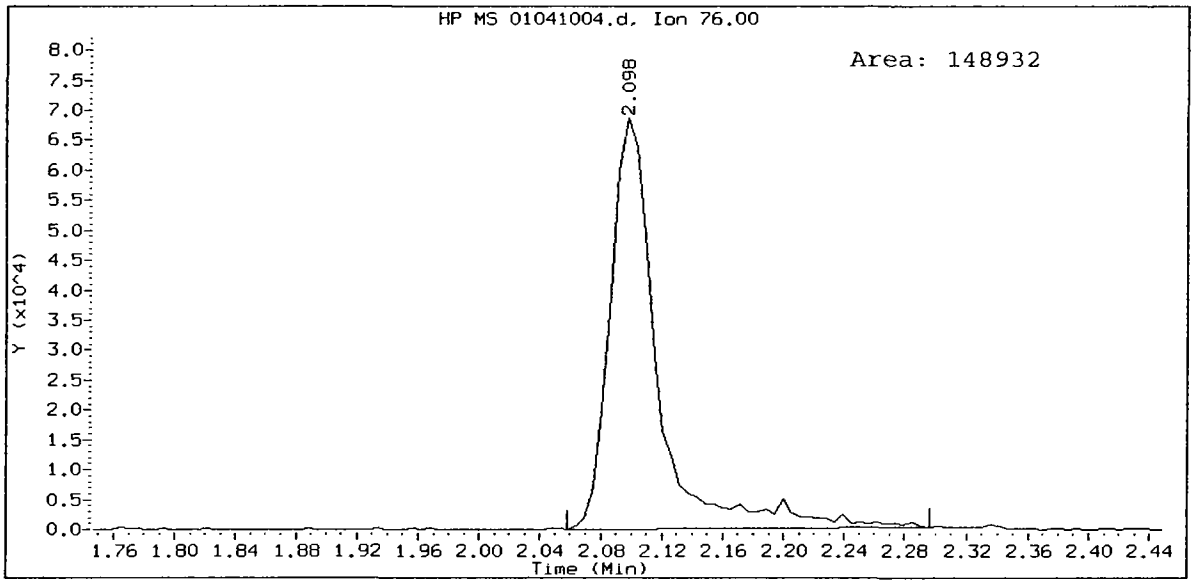
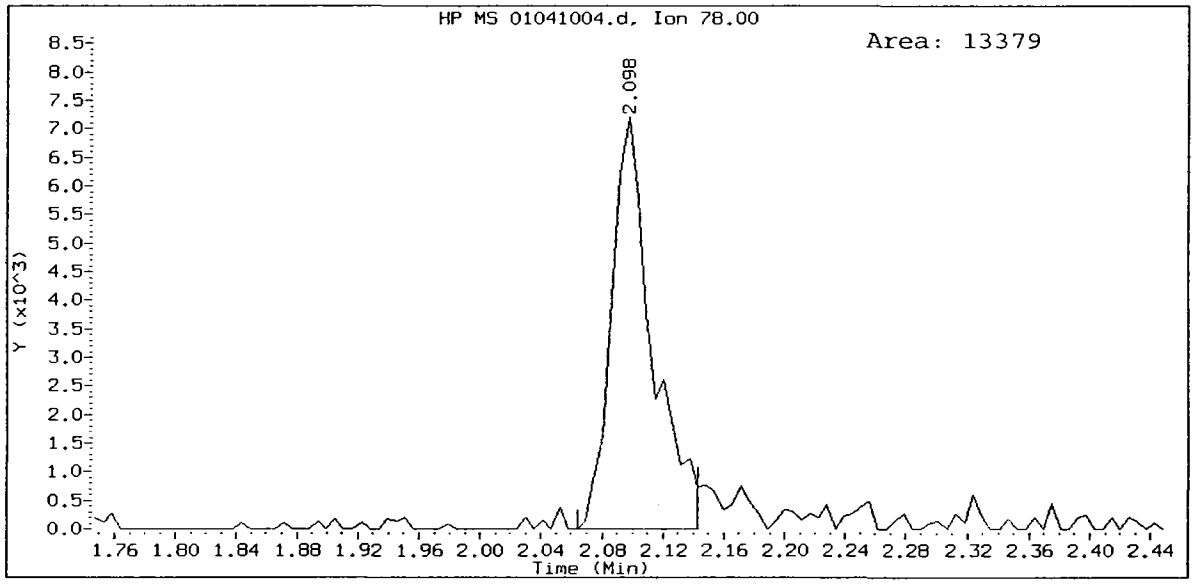
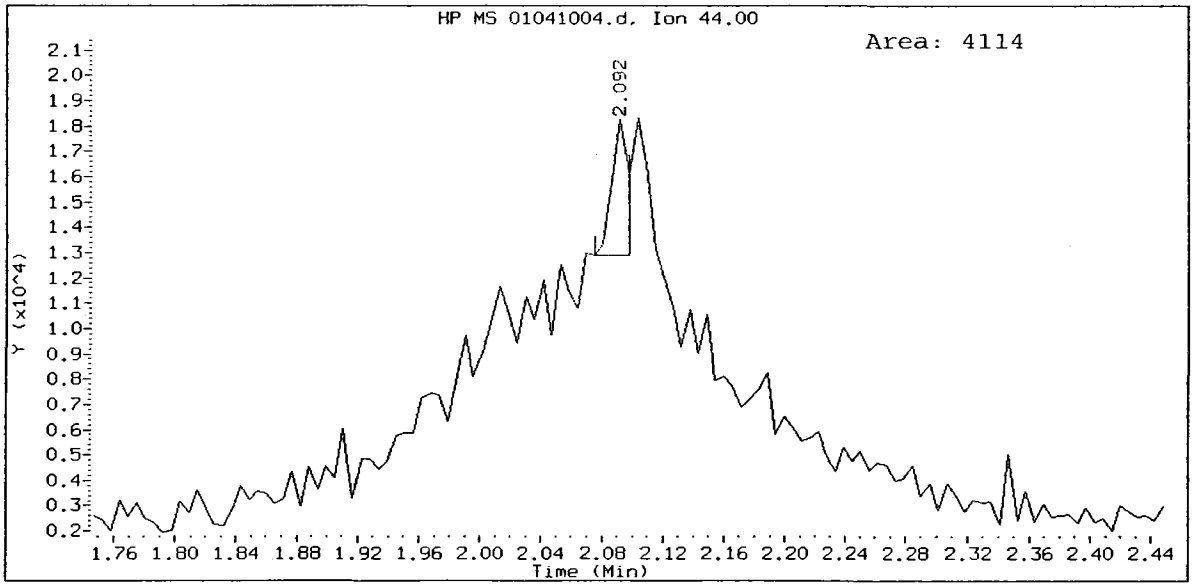
Carbon Disulfide Amount: 1.04







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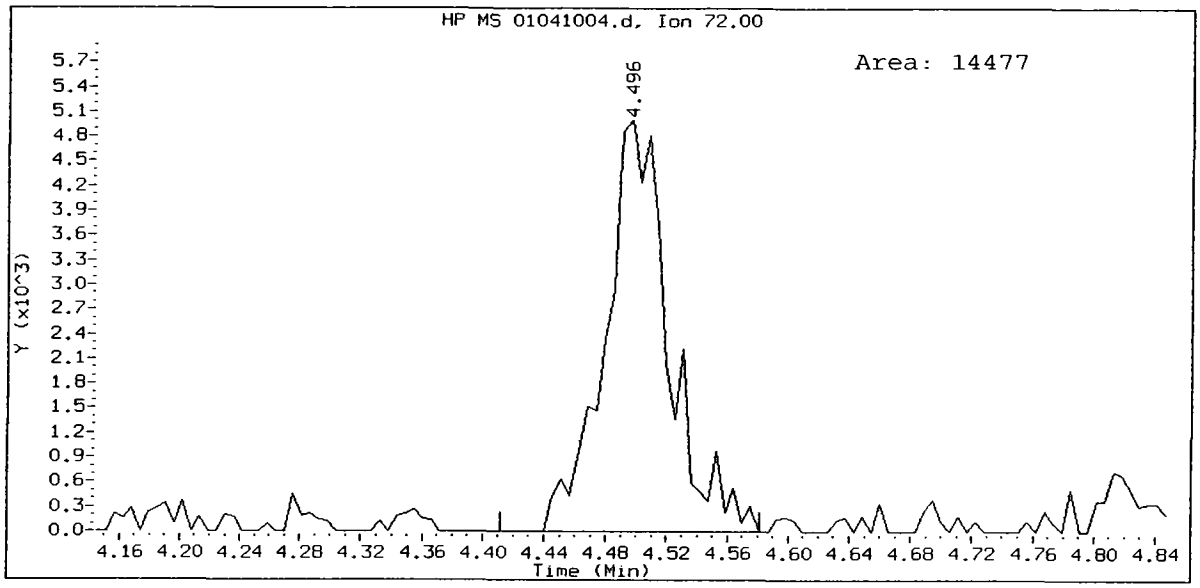
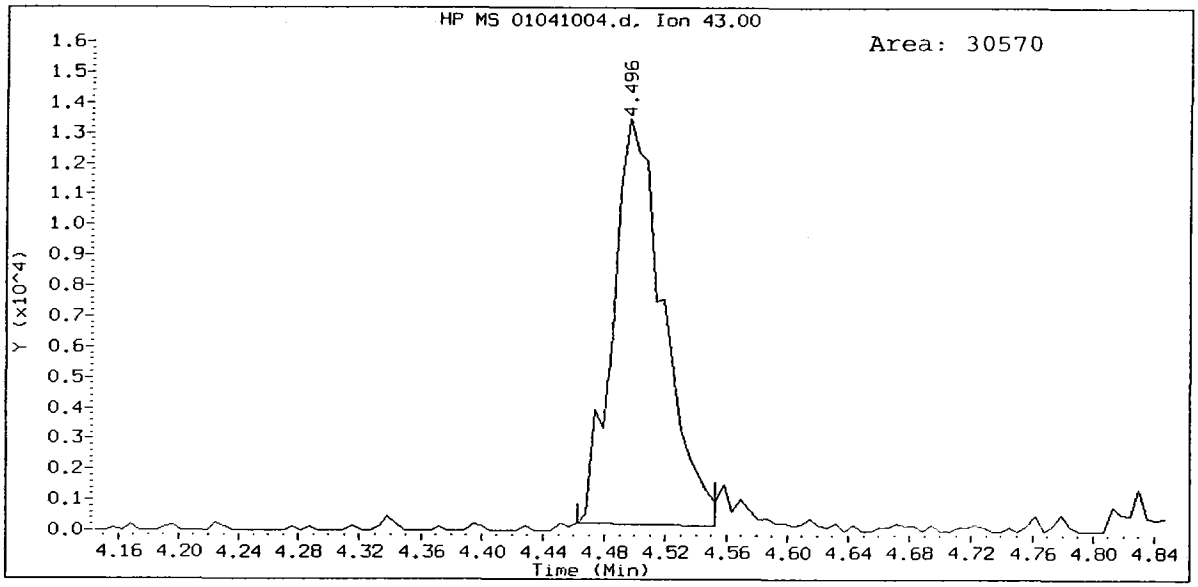
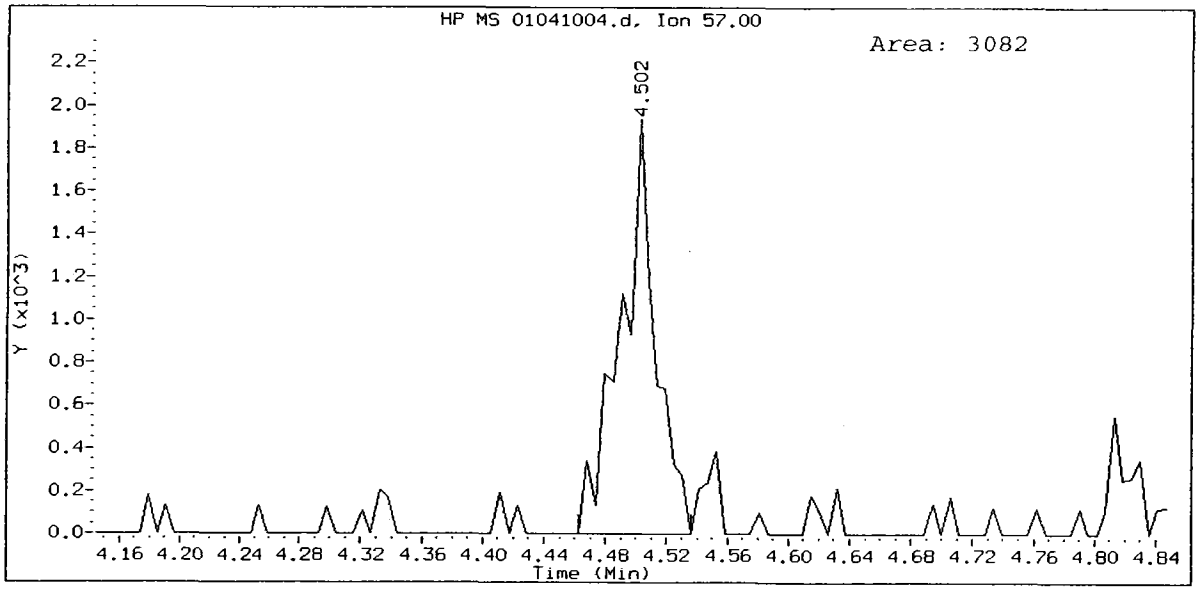
2-Butanone Amount: 5.50







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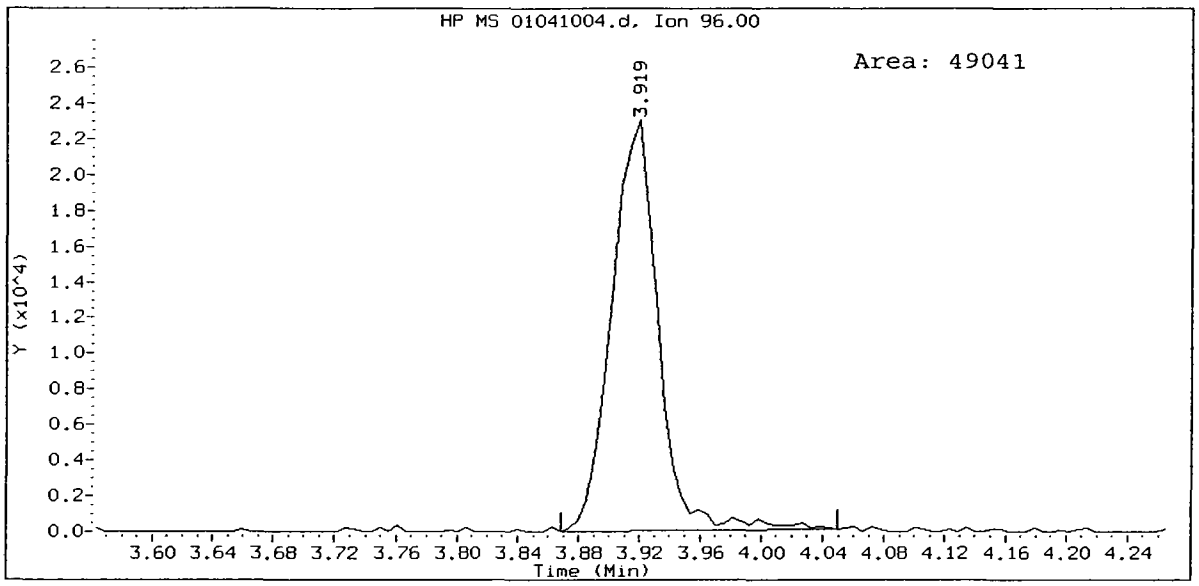
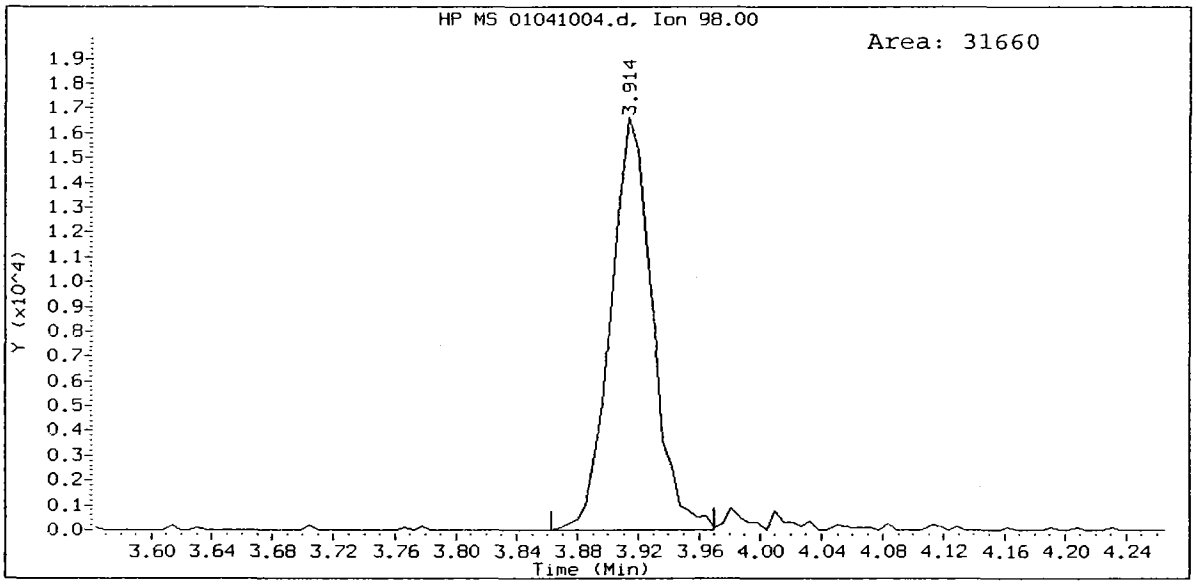
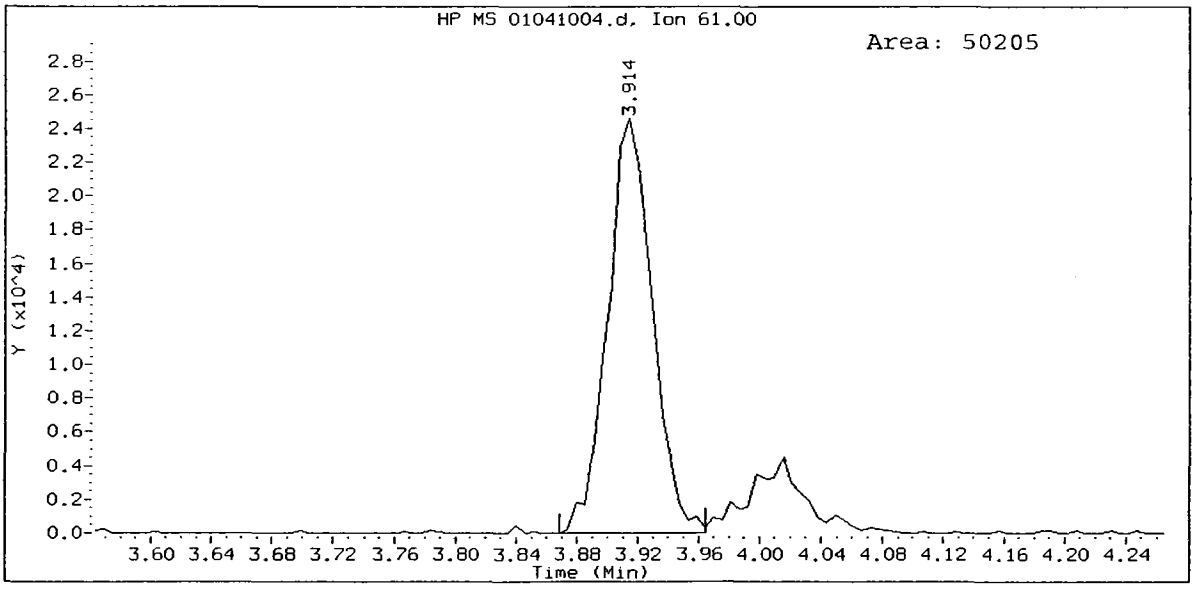
Cis-1,2-Dichloroethene Amount: 1.03







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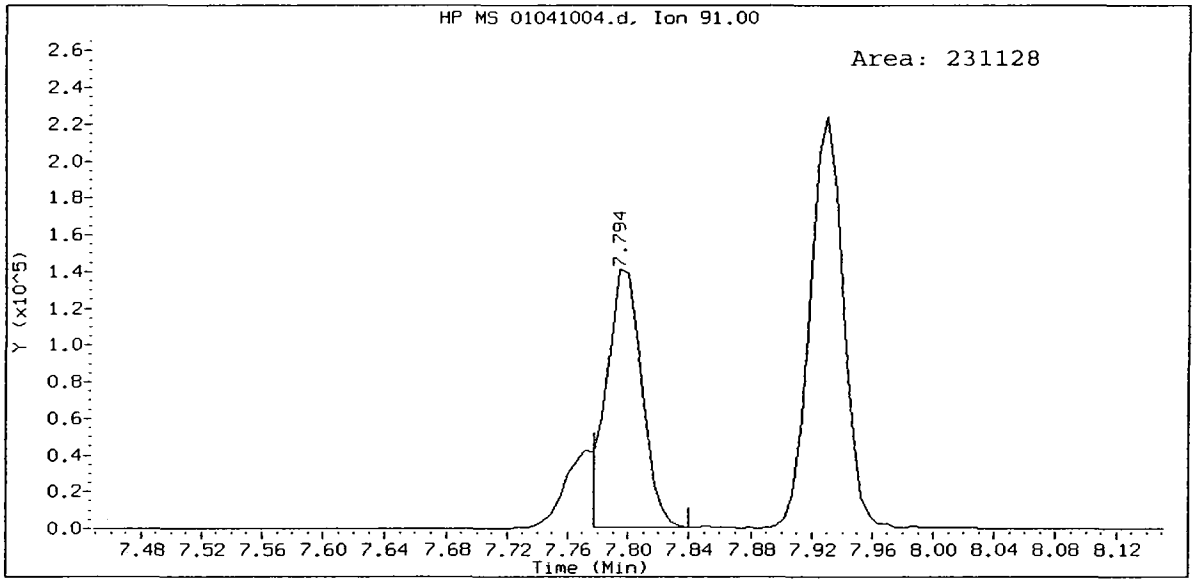
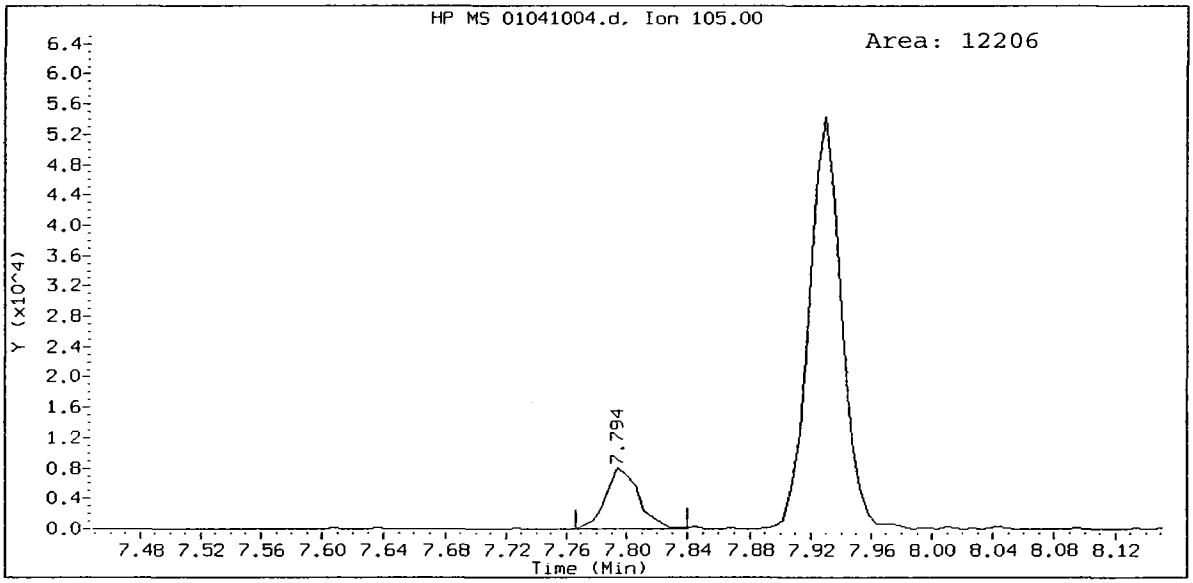
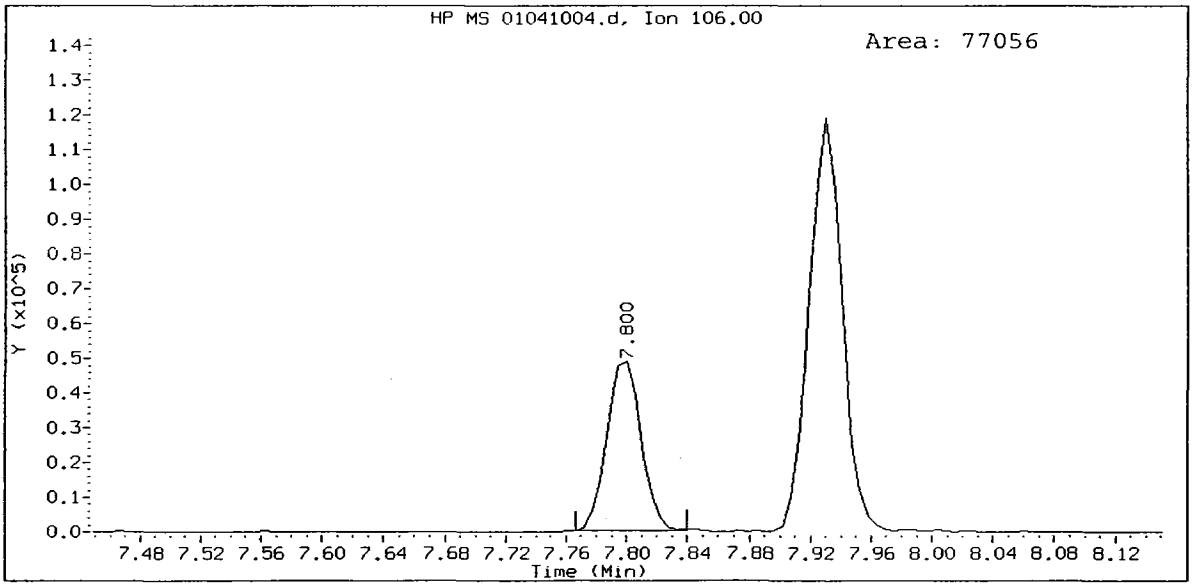
Ethyl Benzene Amount: 1.04







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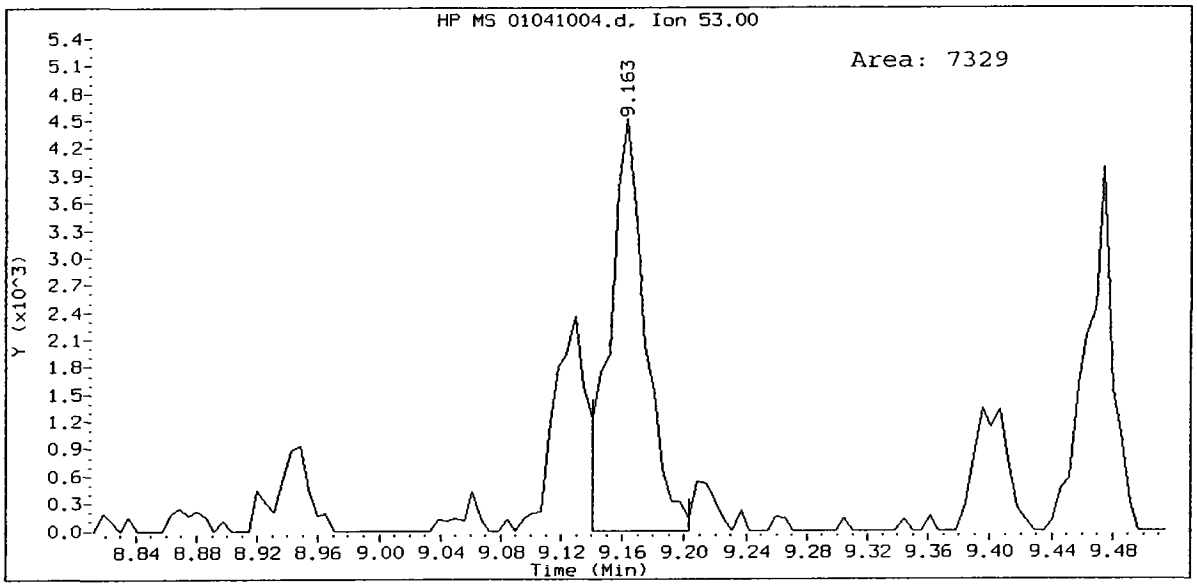
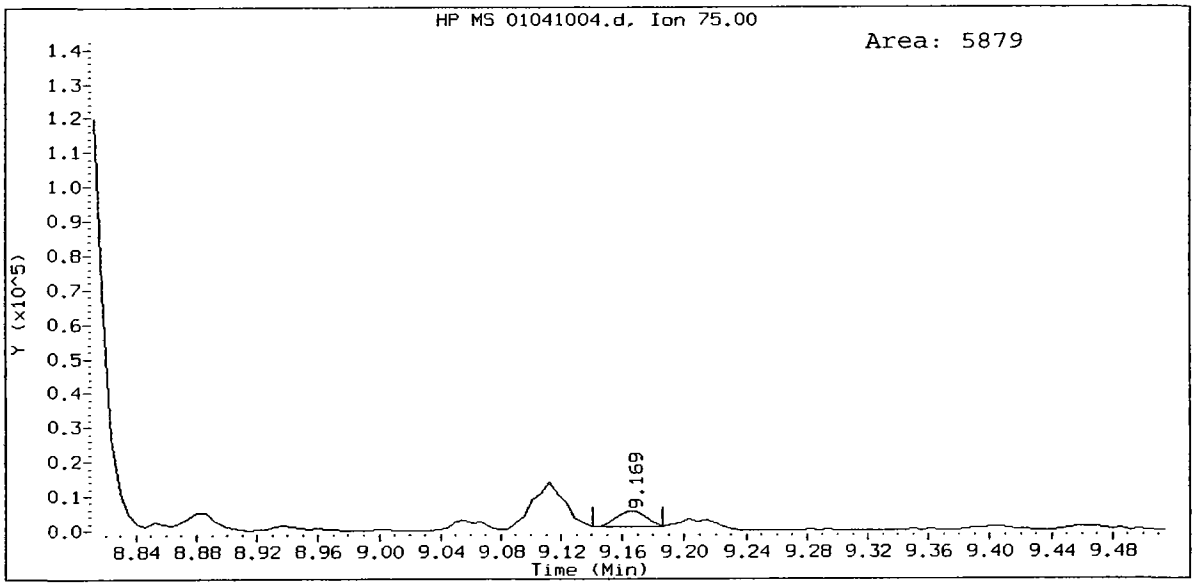
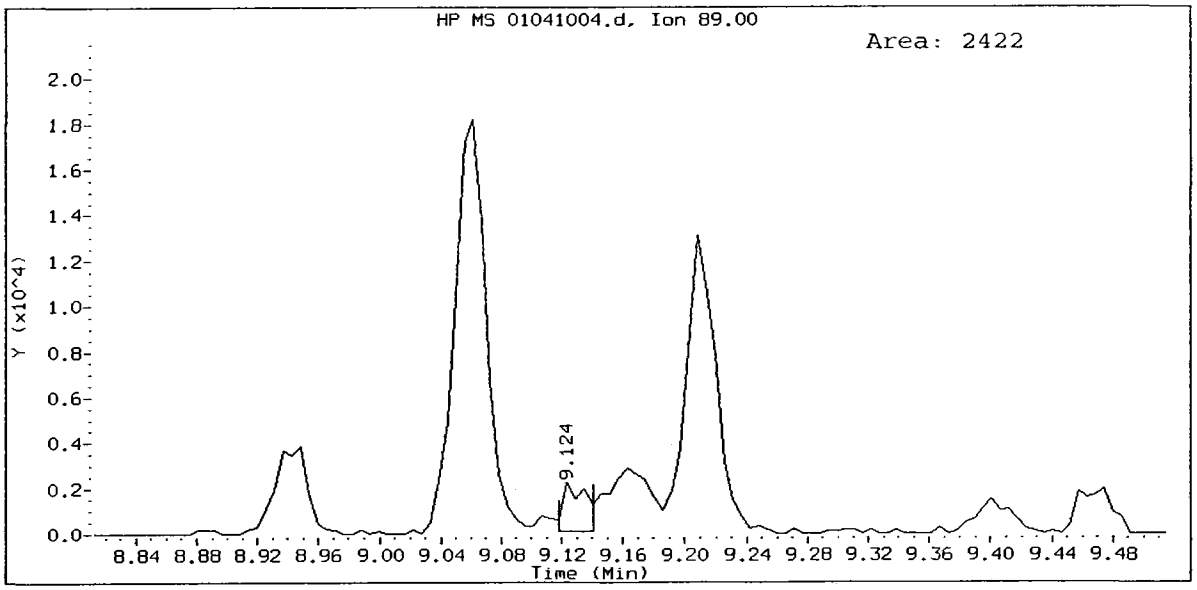
Trans-1,4-Dichloro 2-Butene Amount: 1.02







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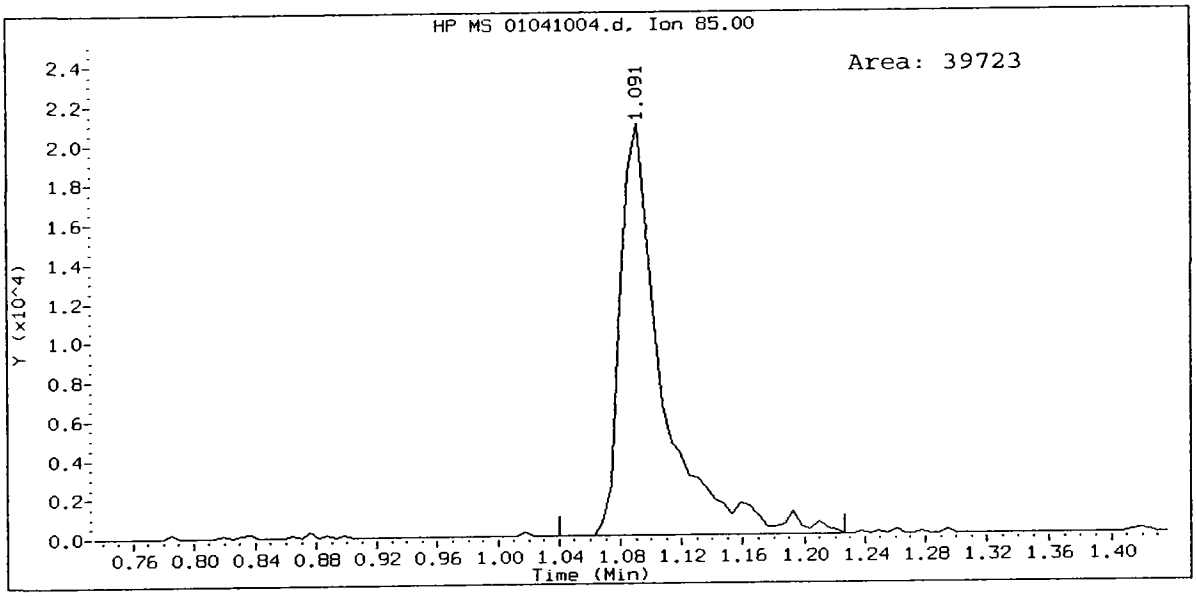
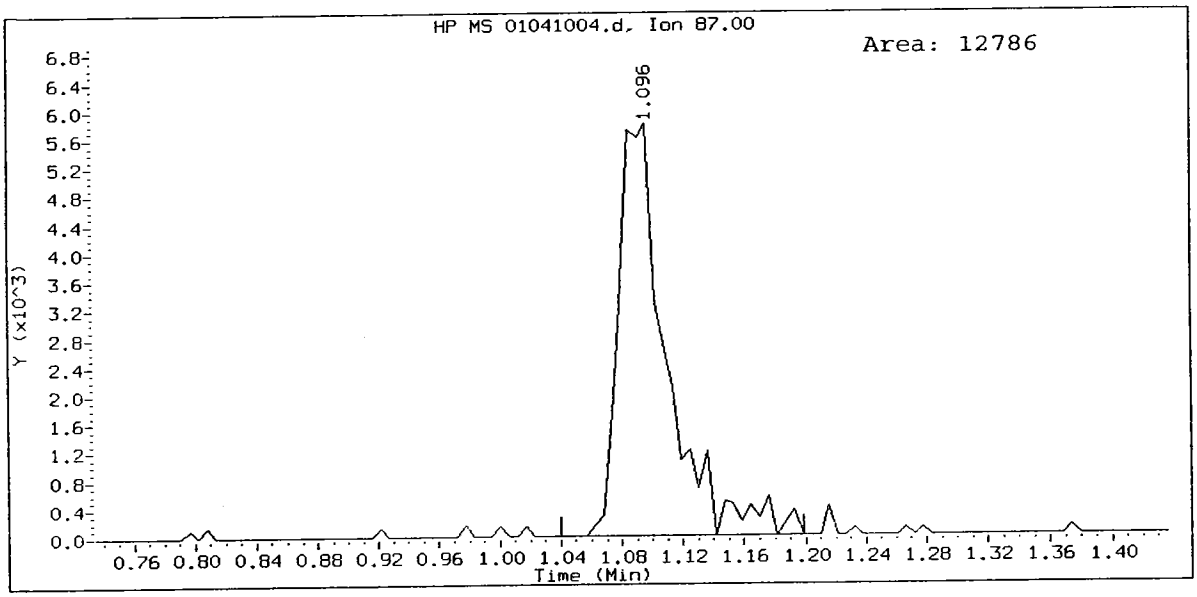
Dichlorodifluoromethane Amount: 1.03





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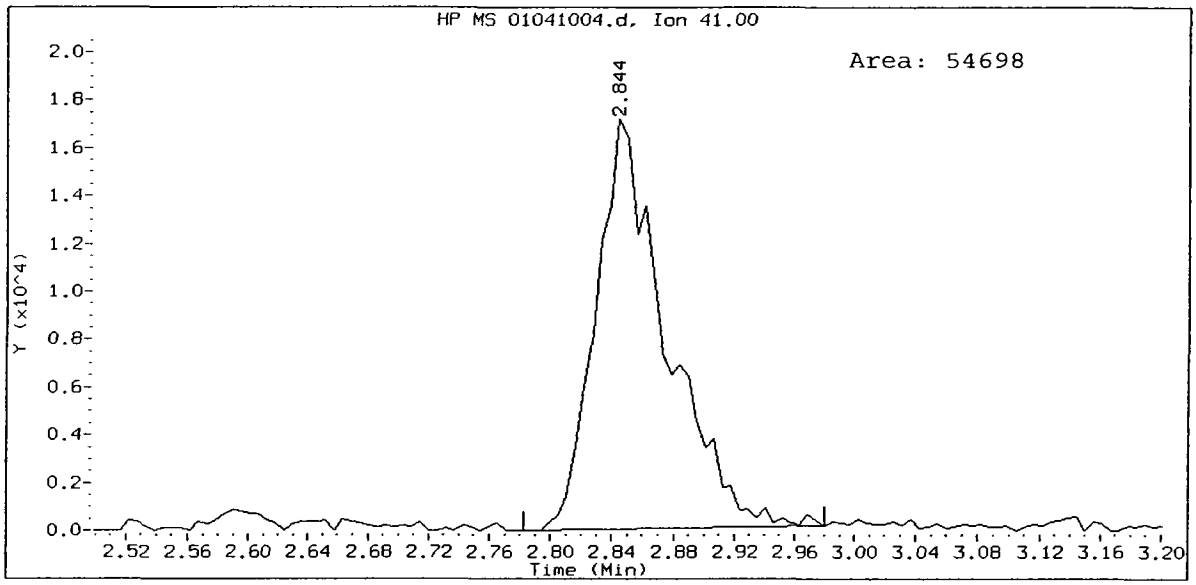
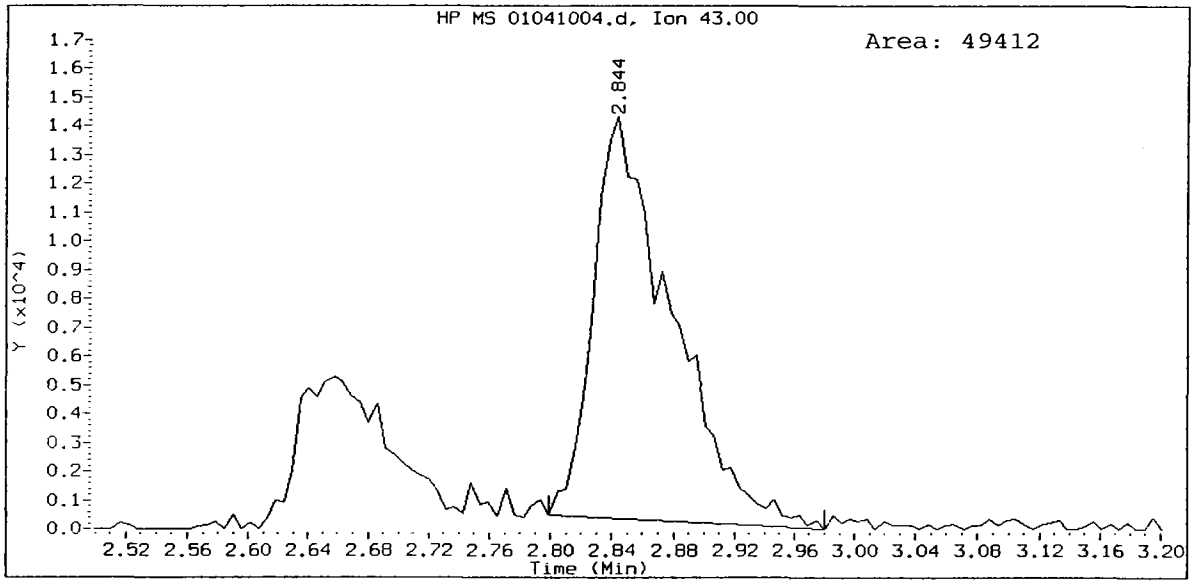
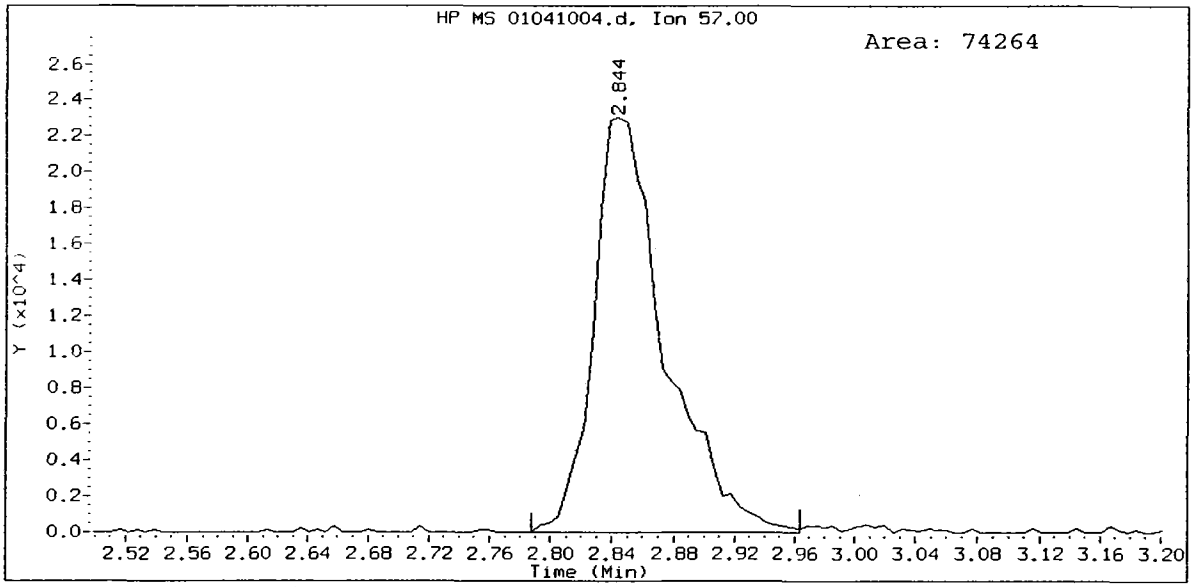
Hexane Amount: 1.03







PC
1/5/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/04JAN10.b/01041005.d
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Inj Date : 04-JAN-2010 12:19
Operator : PC Inst ID: nt5.i
Smp Info : 2.0_0104,10,10,0,
Misc Info : 09-
Comment :
Method : /chem1/nt5.i/04JAN10.b/VO010410L.m
Meth Date : 05-Jan-2010 10:18 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 12:19 Cal File: 01041005.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa+hex.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 (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.091	1.085	(0.226)	86917	2.00000	2.242(M)
172 Hexane	41	2.850	2.850	(0.590)	111220	2.00000	2.074(M)
2 Chloromethane	50	1.221	1.221	(0.253)	93379	2.00000	2.250(M)
3 Vinyl Chloride	62	1.272	1.272	(0.263)	105310	2.00000	2.157(M)
4 Bromomethane	94	1.498	1.498	(0.310)	43841	2.00000	1.868(M)
5 Chloroethane	64	1.594	1.594	(0.330)	63989	2.00000	2.223(M)
6 Trichlorofluoromethane	101	1.696	1.696	(0.351)	138923	2.00000	2.175
12 Acrolein	56	2.375	2.375	(0.492)	37439	10.0000	10.174(M)
9 112Trichloro122Trifluoroethane	101	2.143	2.143	(0.444)	95357	2.00000	2.141
14 Acetone	43	2.652	2.652	(0.549)	44730	10.0000	10.815(M)
7 1,1-Dichloroethene	96	2.092	2.092	(0.433)	95071	2.00000	2.184(M)
11 Bromoethane	108	2.301	2.301	(0.476)	67825	2.00000	2.218(M)
10 Iodomethane	142	2.194	2.194	(0.454)	82141	2.00000	1.961
13 Methylene Chloride	84	2.590	2.595	(0.536)	94743	2.00000	2.150(M)
18 Acrylonitrile	53	3.444	3.444	(0.713)	14636	2.00000	2.153(M)
16 Methyl tert butyl ether	73	2.884	2.878	(0.597)	191137	2.00000	2.122

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
8 Carbon Disulfide	76	2.103	2.098	(0.435)	311322	2.00000	2.151(M)
15 Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	102415	2.00000	2.083
19 Vinyl Acetate	43	3.682	3.682	(0.762)	79102	2.00000	1.990
17 1,1-Dichloroethane	63	3.382	3.376	(0.700)	150731	2.00000	2.178
29 2-Butanone	72	4.496	4.496	(0.931)	27852	10.0000	10.516
21 2,2-Dichloropropane	77	4.010	4.010	(0.830)	144503	2.00000	2.137
20 Cis-1,2-Dichloroethene	96	3.919	3.913	(0.811)	102453	2.00000	2.141
32 Pentafluorobenzene	168	4.830	4.830	(1.000)	878714	10.0000	
23 Chloroform	83	4.196	4.191	(0.869)	156518	2.00000	2.157
22 Bromochloromethane	128	4.094	4.094	(0.848)	47157	2.00000	2.246
25 Dibromofluoromethane	111	4.355	4.360	(0.902)	317297	10.0000	10.056
26 1,1,1-Trichloroethane	97	4.360	4.355	(0.903)	155721	2.00000	2.208
28 1,1-Dichloropropene	75	4.479	4.479	(0.849)	121536	2.00000	2.085
24 Carbon Tetrachloride	117	4.298	4.292	(0.815)	105630	2.00000	2.134
31 d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	316734	10.0000	10.236
33 1,2-Dichloroethane	62	4.881	4.881	(0.925)	97269	2.00000	2.154
30 Benzene	78	4.700	4.700	(0.891)	378356	2.00000	2.185
35 1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1284481	10.0000	
34 Trichloroethene	130	5.226	5.226	(0.990)	115648	2.00000	2.133
38 1,2-Dichloropropane	63	5.667	5.667	(1.074)	79175	2.00000	2.057
39 Bromodichloromethane	83	5.741	5.741	(1.088)	107699	2.00000	2.159
37 Dibromomethane	93	5.577	5.577	(1.057)	41602	2.00000	2.105
40 2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	28390	2.00000	1.980
45 4-Methyl-2-Pentanone	58	6.827	6.827	(1.294)	76130	10.0000	10.979
41 Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	136801	2.00000	2.141
42 d8-Toluene	98	6.436	6.436	(1.220)	1347562	10.0000	9.920
43 Toluene	92	6.482	6.482	(1.228)	260498	2.00000	2.153
46 Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	110556	2.00000	2.074
51 2-Hexanone	43	7.540	7.540	(0.974)	104149	10.0000	10.426
47 1,1,2-Trichloroethane	97	6.974	6.974	(1.322)	61794	2.00000	2.108
49 1,3-Dichloropropane	76	7.194	7.194	(0.929)	109433	2.00000	2.178
44 Tetrachloroethene	166	6.798	6.798	(0.878)	127640	2.00000	2.212
48 Chlorodibromomethane	129	7.110	7.110	(0.918)	74346	2.00000	2.021
50 1,2-Dibromoethane	107	7.291	7.291	(1.382)	61295	2.00000	2.124
52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1162059	10.0000	
53 Chlorobenzene	112	7.755	7.754	(1.001)	284437	2.00000	2.155
54 Ethyl Benzene	91	7.800	7.800	(1.007)	500811	2.00000	2.202(M)
55 1,1,1,2-Tetrachloroethane	131	7.822	7.822	(1.010)	96546	2.00000	2.103
56 m,p-xylene	106	7.930	7.930	(1.024)	401173	4.00000	4.501
57 o-Xylene	106	8.292	8.292	(1.071)	183931	2.00000	2.118
58 Styrene	104	8.343	8.343	(1.077)	306978	2.00000	2.232
60 Isopropyl Benzene	105	8.575	8.575	(0.874)	459594	2.00000	2.190
59 Bromoform	173	8.343	8.343	(0.851)	43925	2.00000	2.123
64 1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	56475	2.00000	2.061
61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	518408	10.0000	9.780
66 1,2,3-Trichloropropane	110	9.107	9.112	(0.928)	18830	2.00000	2.114
68 Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.934)	14627	2.00000	1.967

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
63 N-Propyl Benzene	91	8.942	8.942	(0.912)	520042	2.00000	2.220
62 Bromobenzene	156	8.886	8.886	(0.906)	120262	2.00000	2.099
67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	385179	2.00000	2.177
65 2-Chloro Toluene	91	9.061	9.061	(0.924)	322270	2.00000	2.195
69 4-Chloro Toluene	91	9.208	9.214	(0.939)	324747	2.00000	2.170
70 T-Butyl Benzene	119	9.401	9.401	(0.958)	334738	2.00000	2.173
71 1,2,4-Trimethylbenzene	105	9.469	9.469	(0.965)	387286	2.00000	2.183
72 S-Butyl Benzene	105	9.565	9.565	(0.975)	474245	2.00000	2.204
73 4-Isopropyl Toluene	119	9.706	9.706	(0.990)	396922	2.00000	2.182
74 1,3-Dichlorobenzene	146	9.734	9.734	(0.992)	237593	2.00000	2.136
75 d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	640696	10.0000	
76 1,4-Dichlorobenzene	146	9.819	9.819	(1.001)	235036	2.00000	2.121
77 N-Butyl Benzene	91	10.085	10.085	(1.028)	329760	2.00000	2.148
78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	575976	10.0000	10.095
79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	206643	2.00000	2.107
81 1,2-Dibromo 3-Chloropropane	75	10.939	10.939	(1.115)	11119	2.00000	2.137
83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	127634	2.00000	2.096
82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.181)	62762	2.00000	2.305
84 Naphthalene	128	11.895	11.895	(1.213)	209705	2.00000	2.050
85 1,2,3-Trichlorobenzene	180	12.076	12.076	(1.231)	105787	2.00000	2.144

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01041005.d
Lab Smp Id: 2.0 0104
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/04JAN10.b/VO010410L.m
Misc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 2 ppb
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	878714	-3.11
35 1,4-Difluorobenze	1305872	652936	2611744	1284481	-1.64
52 d5-Chlorobenzene	1174180	587090	2348360	1162059	-1.03
75 d4-1,4-Dichlorobe	665265	332632	1330530	640696	-3.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	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/nt5.i/04JAN10.b/01041005.d

Date : 04-JAN-2010 12:19

Client ID: 2 ppb

Sample Info: 2.0_0104,10,10,0,

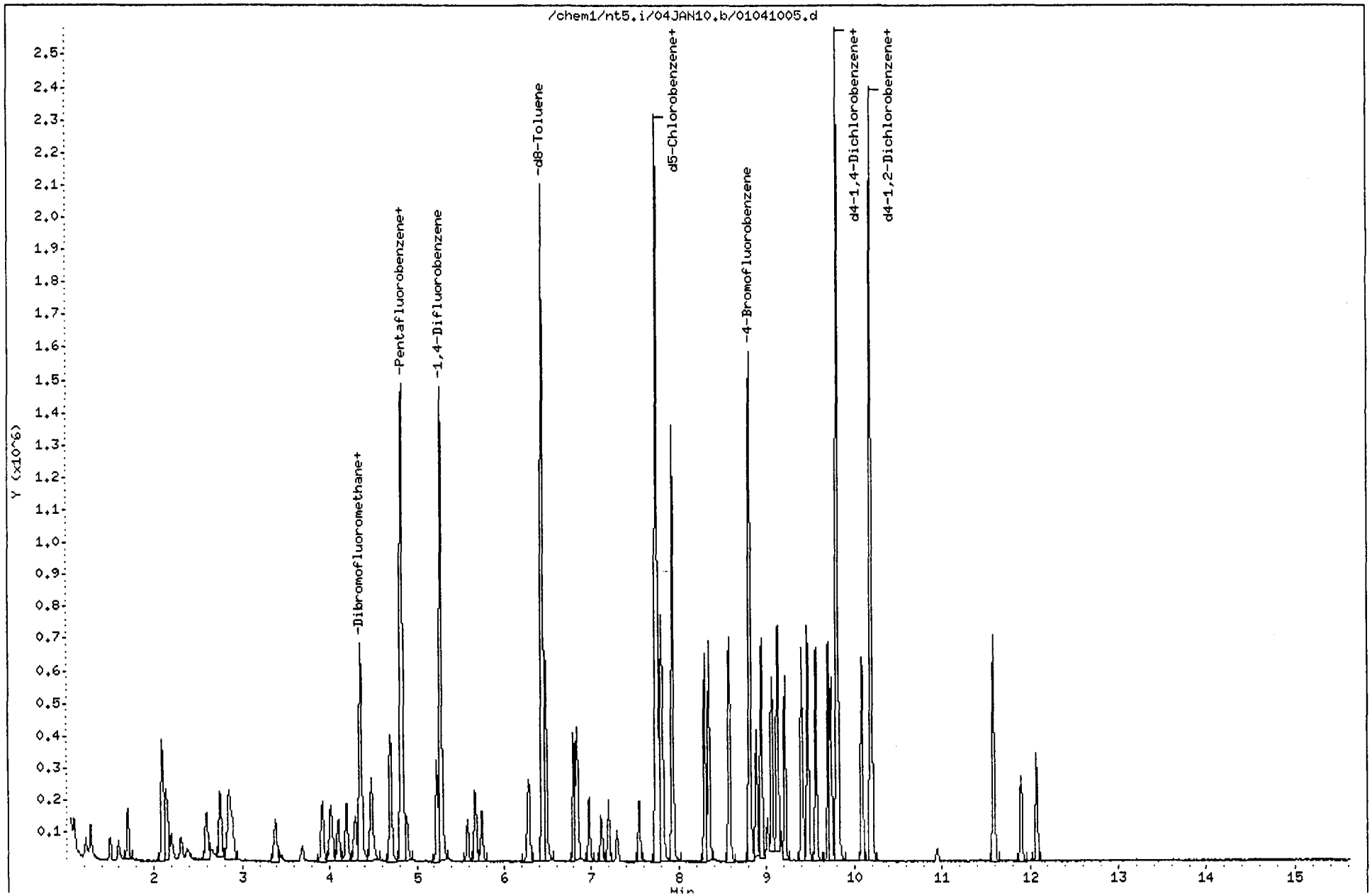
Column phase: RTXVMS

Instrument: nt5.i

Operator: PC

Column diameter: 0.18

QD52 : 00181



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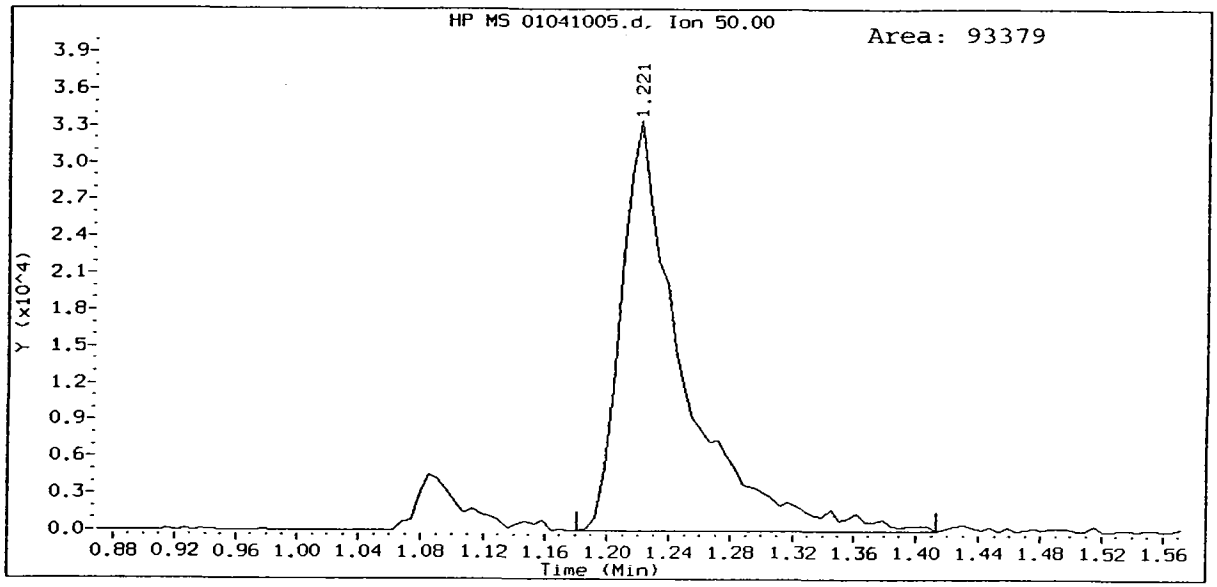
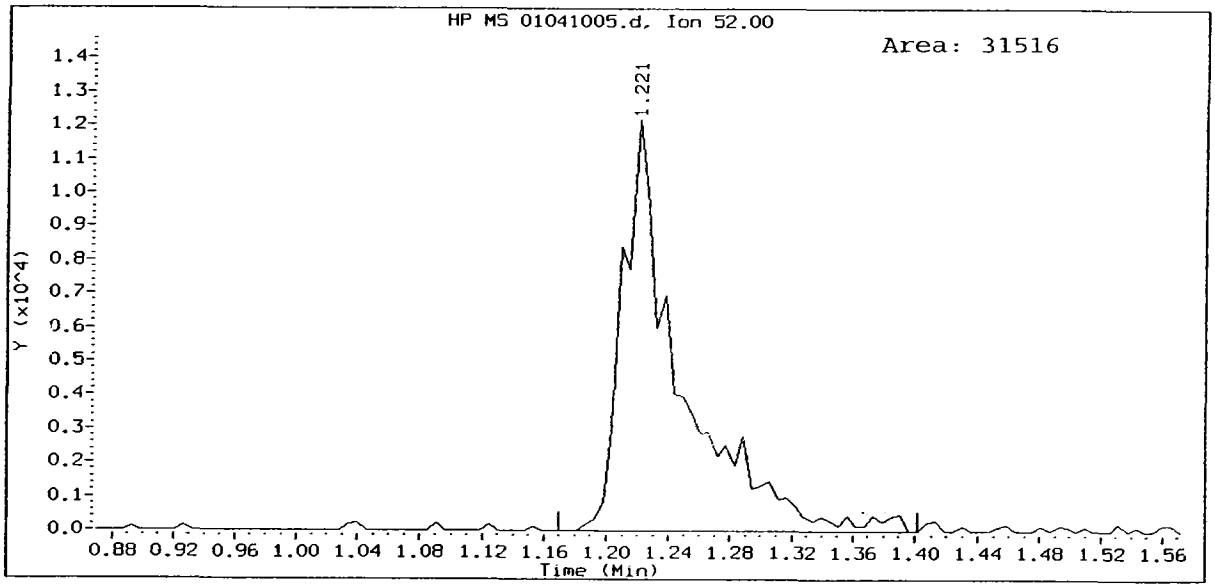
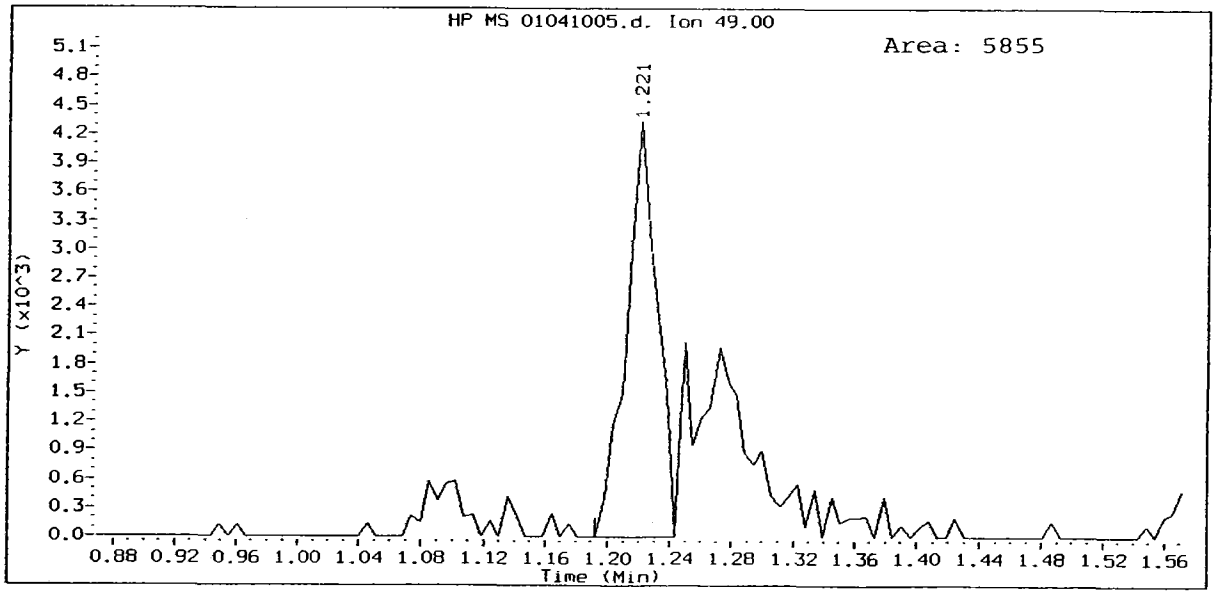
:hloromethane Amount: 2.25







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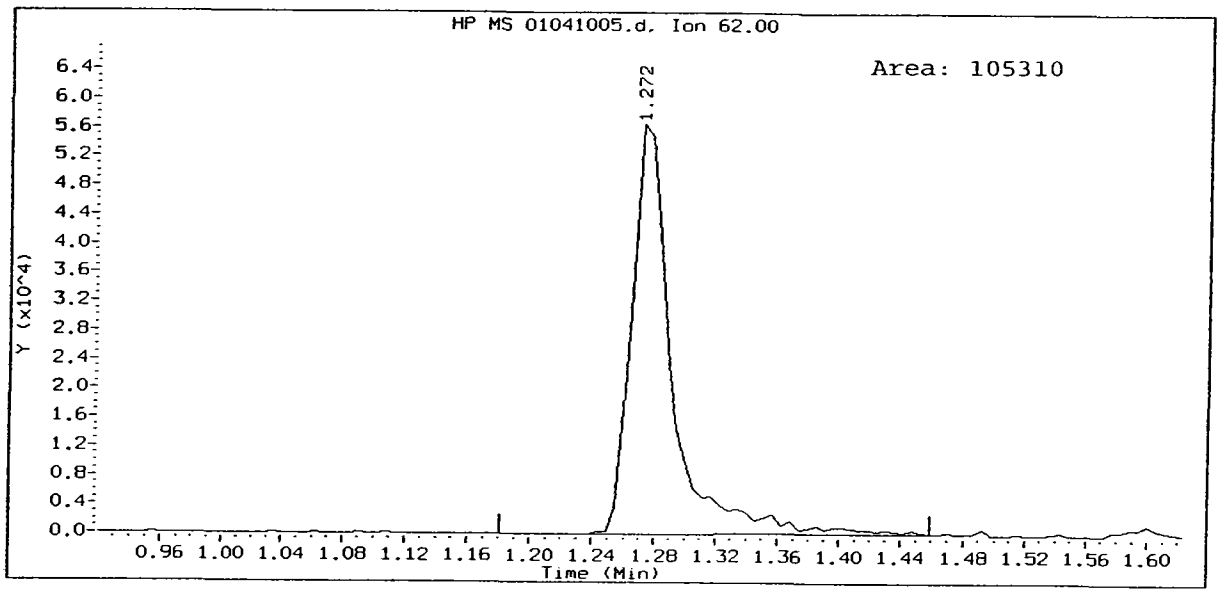
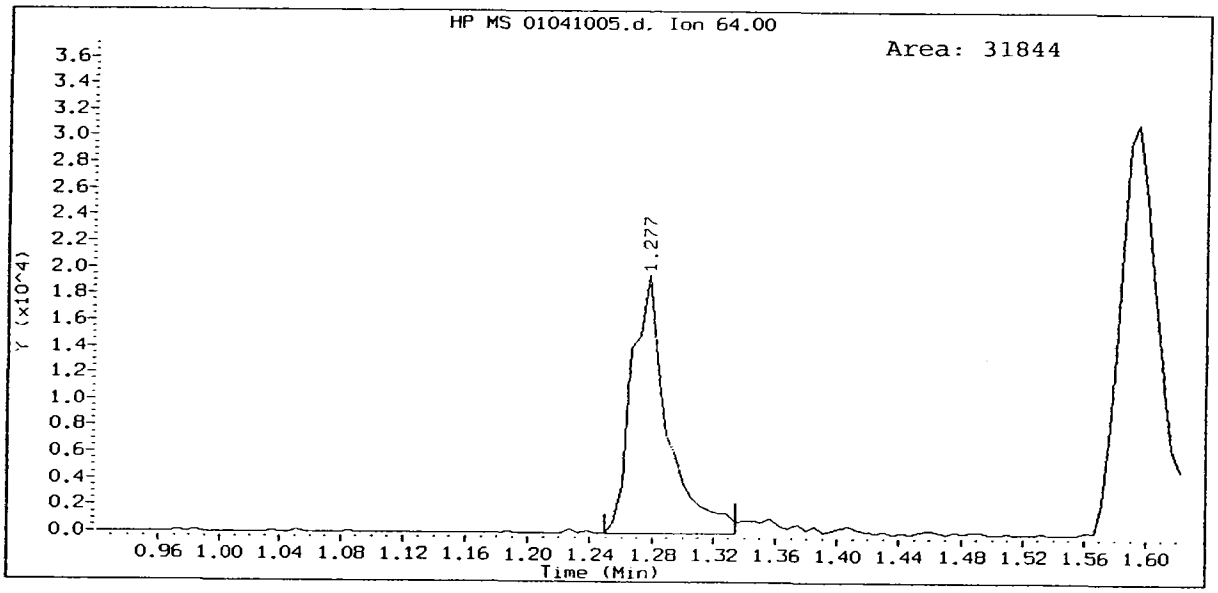
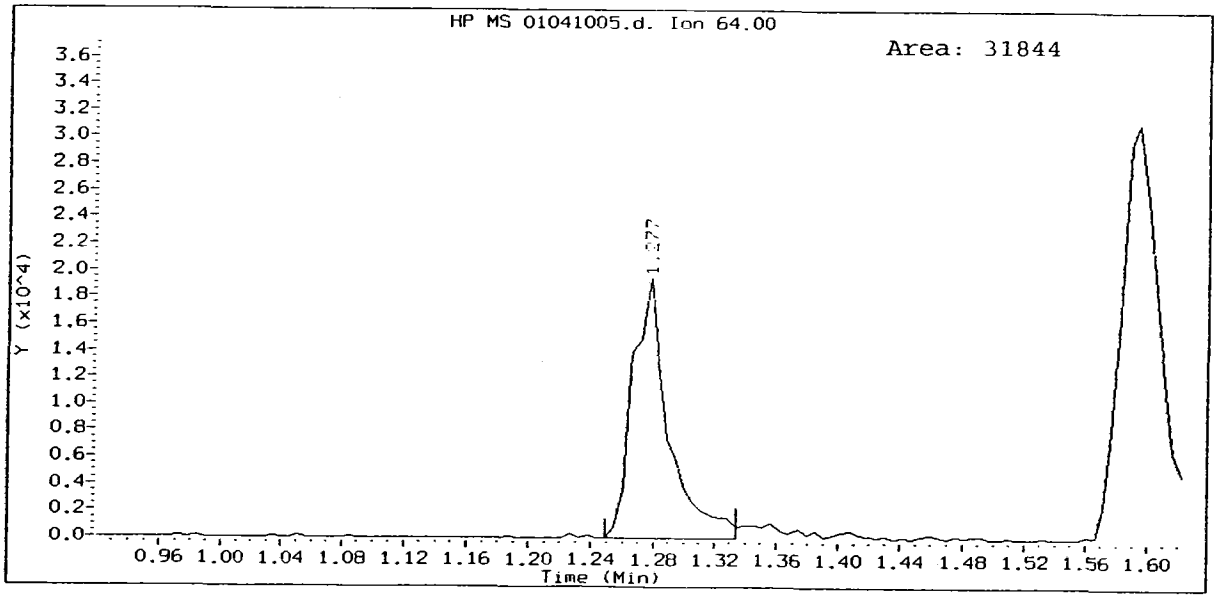
Vinyl Chloride Amount: 2.16







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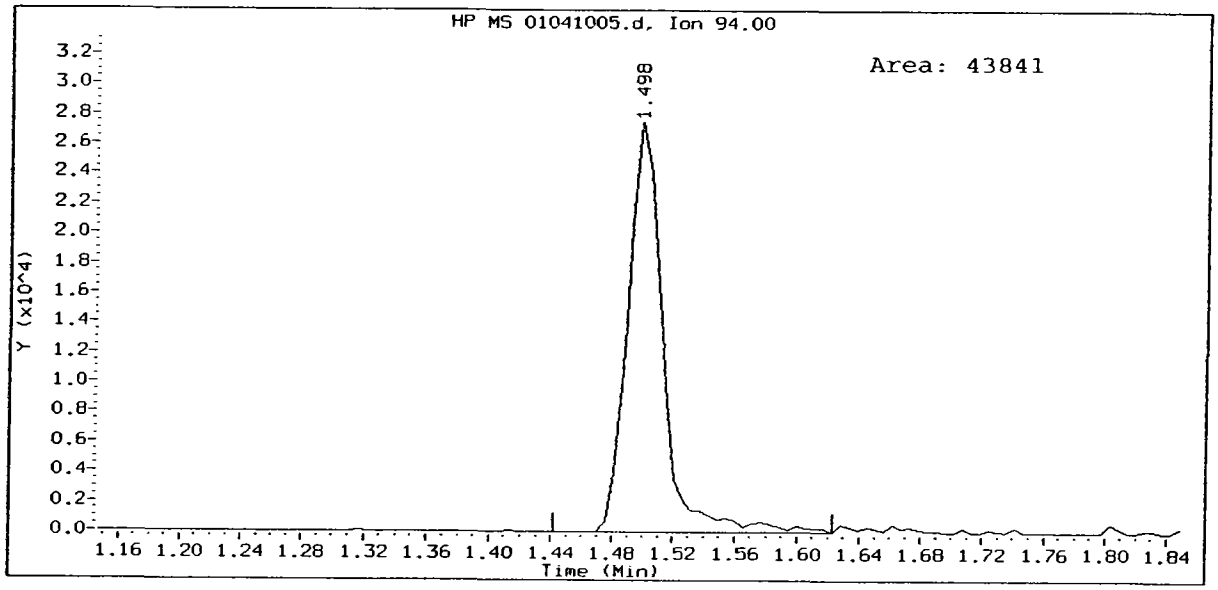
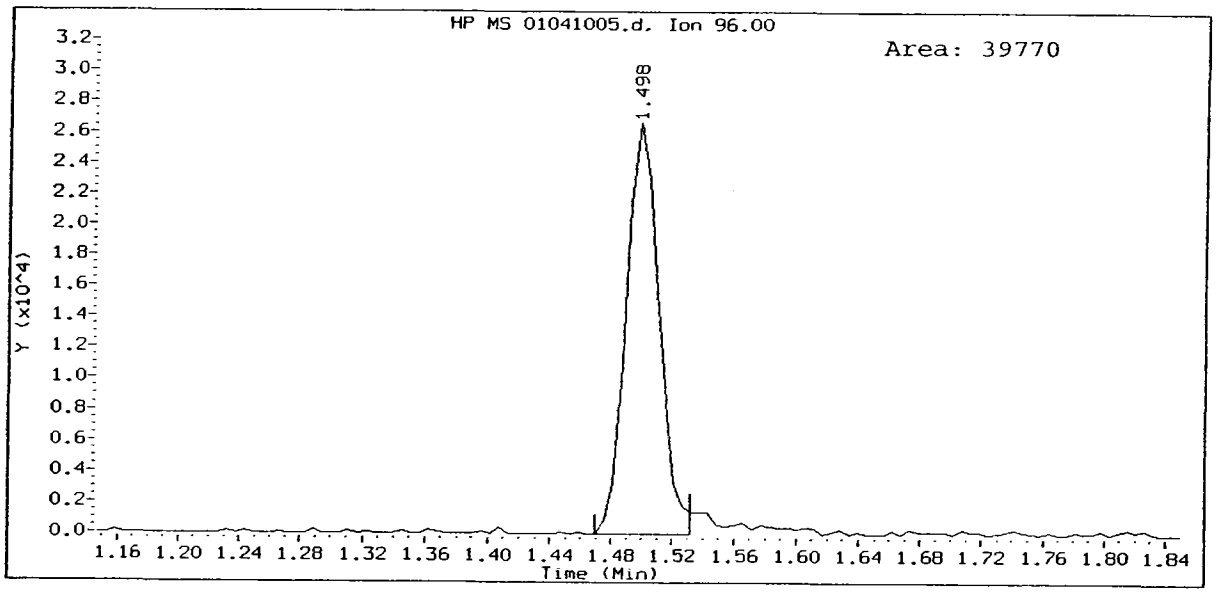
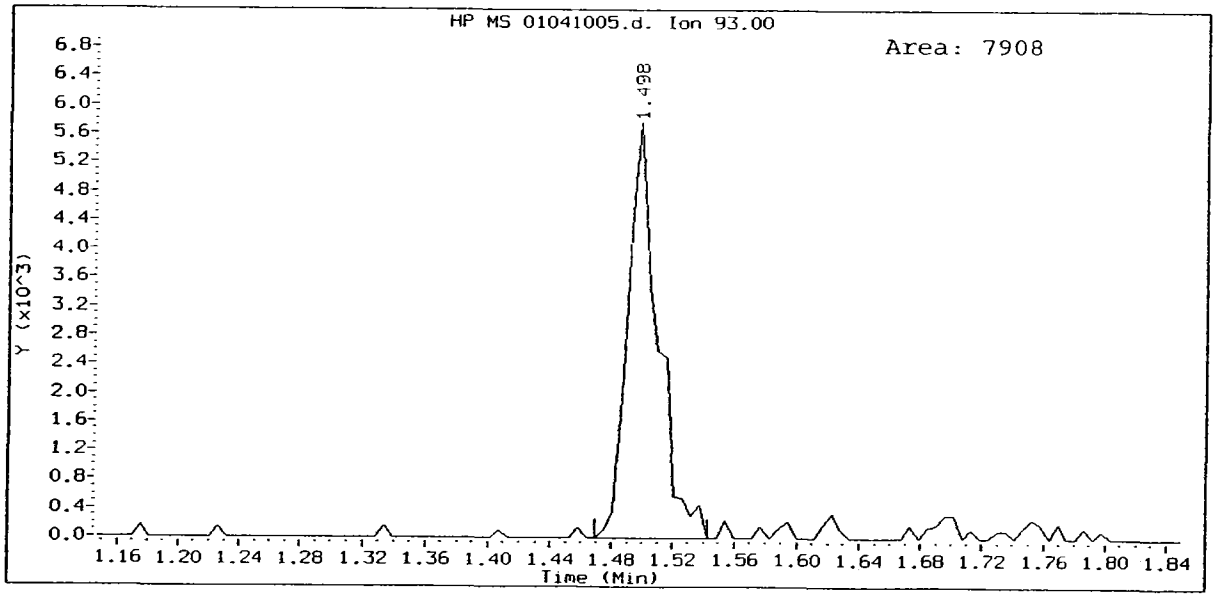
Bromomethane Amount: 1.87







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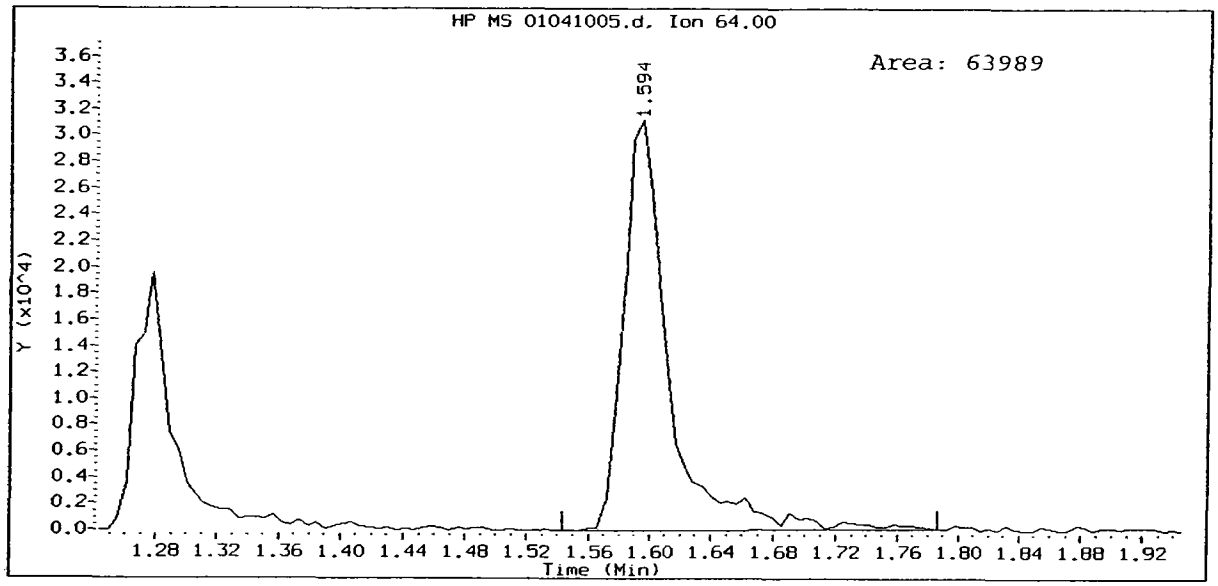
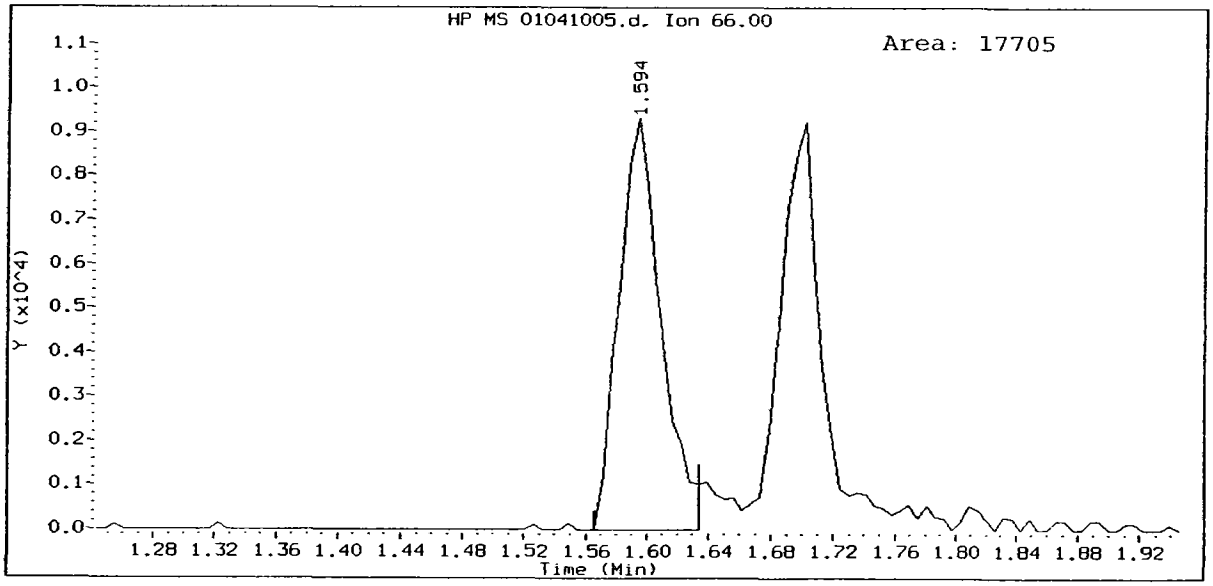
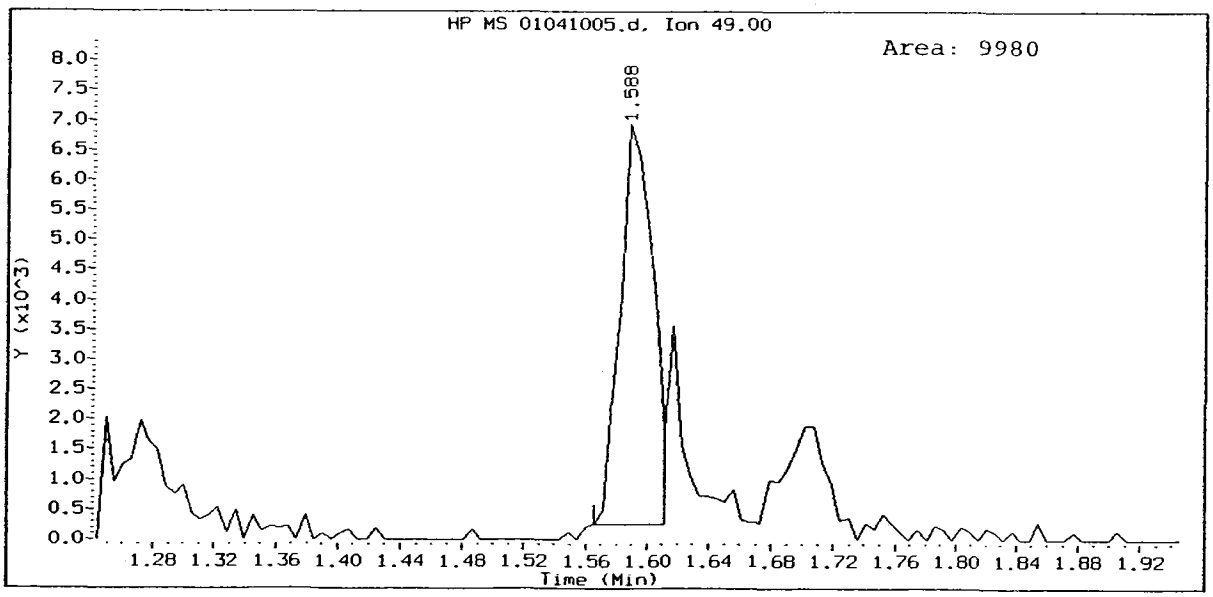
:hloroethane Amount: 2.22







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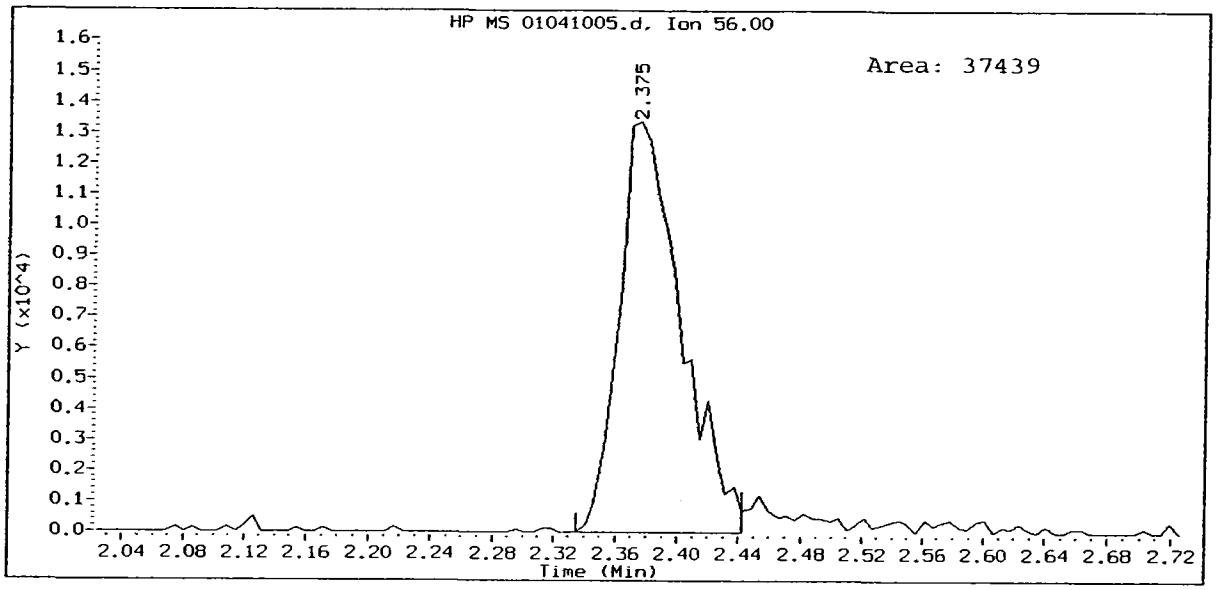
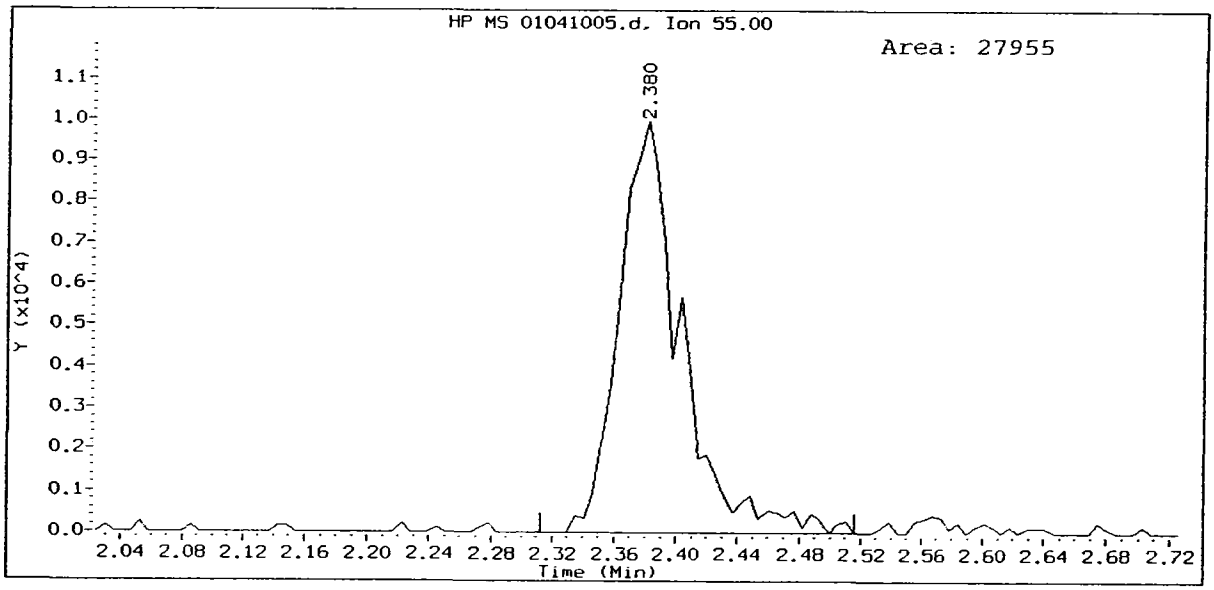
crolein Amount: 10.17





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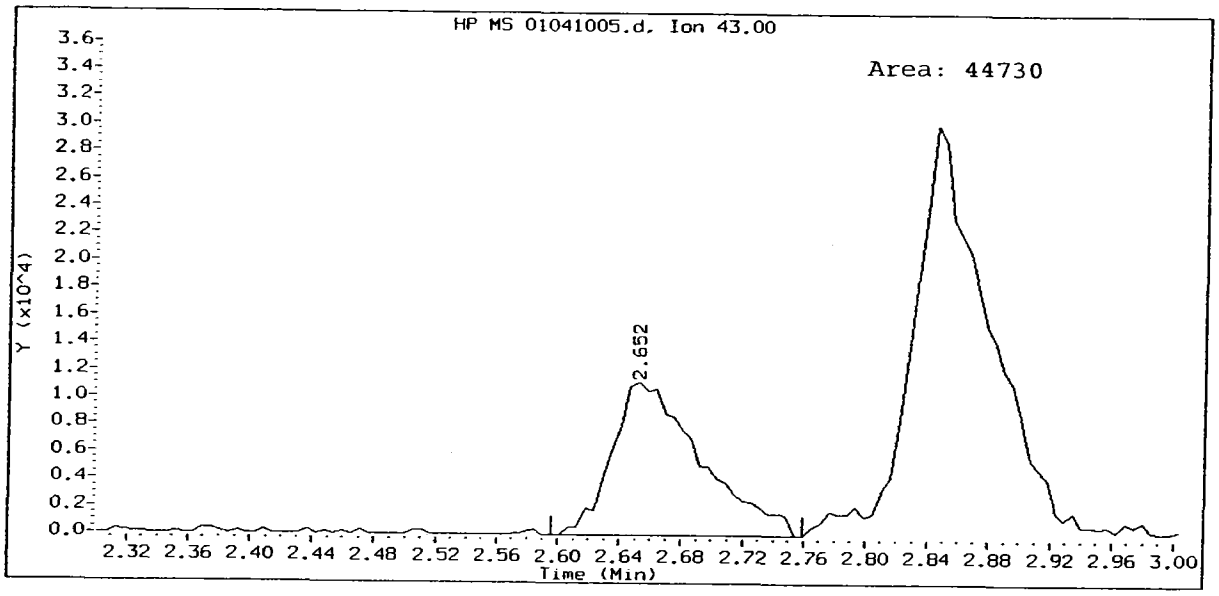
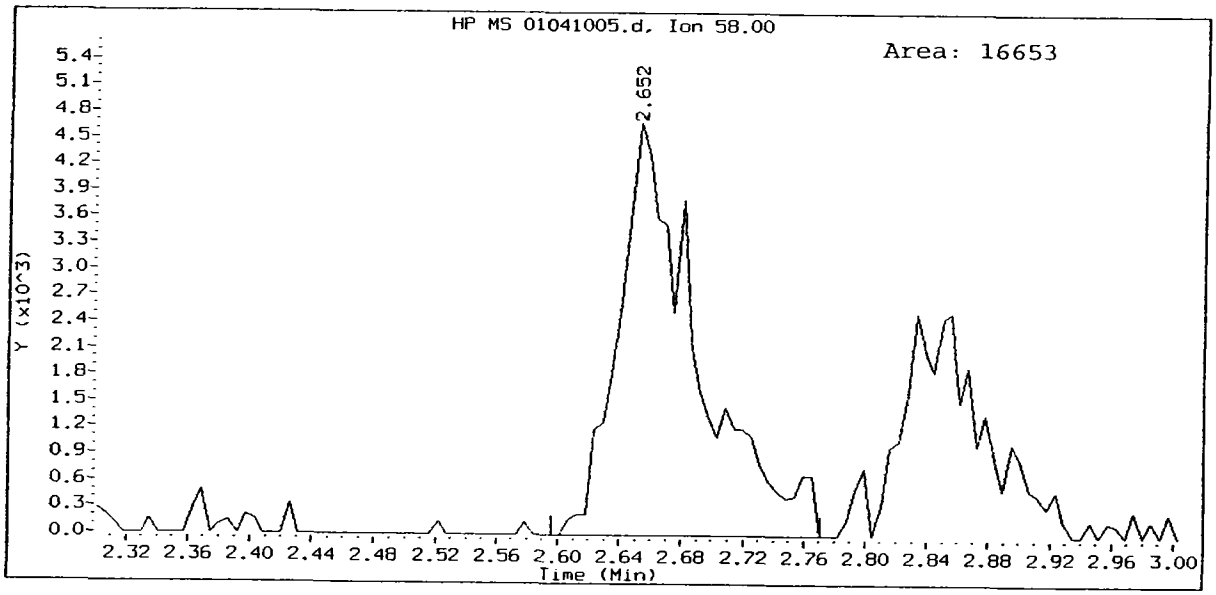
Acetone Amount: 10.81





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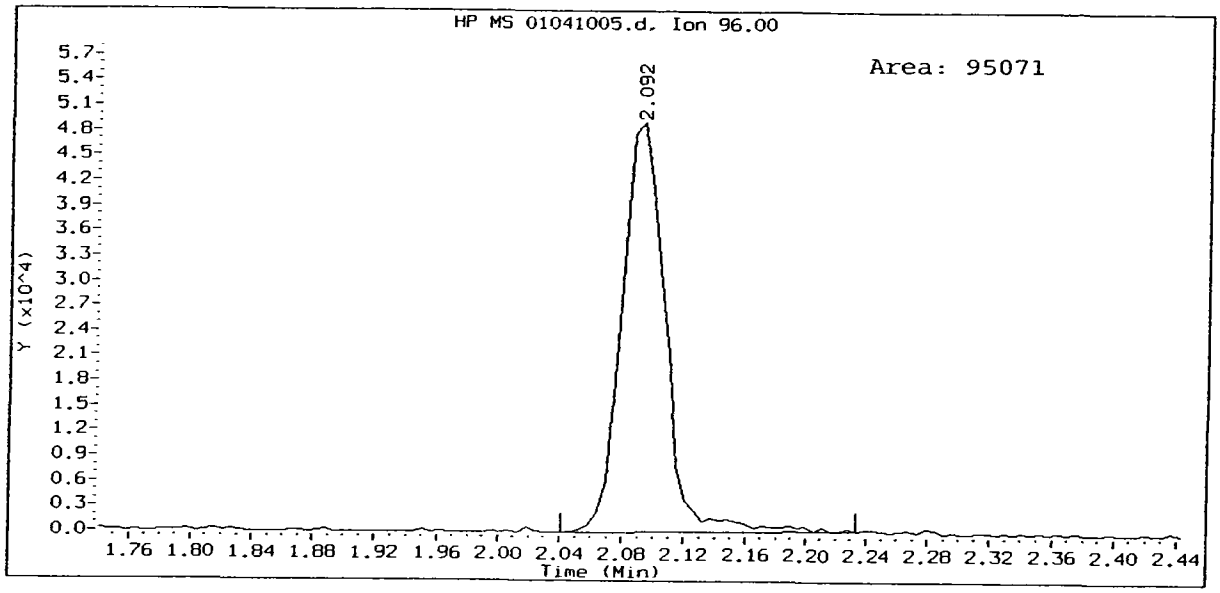
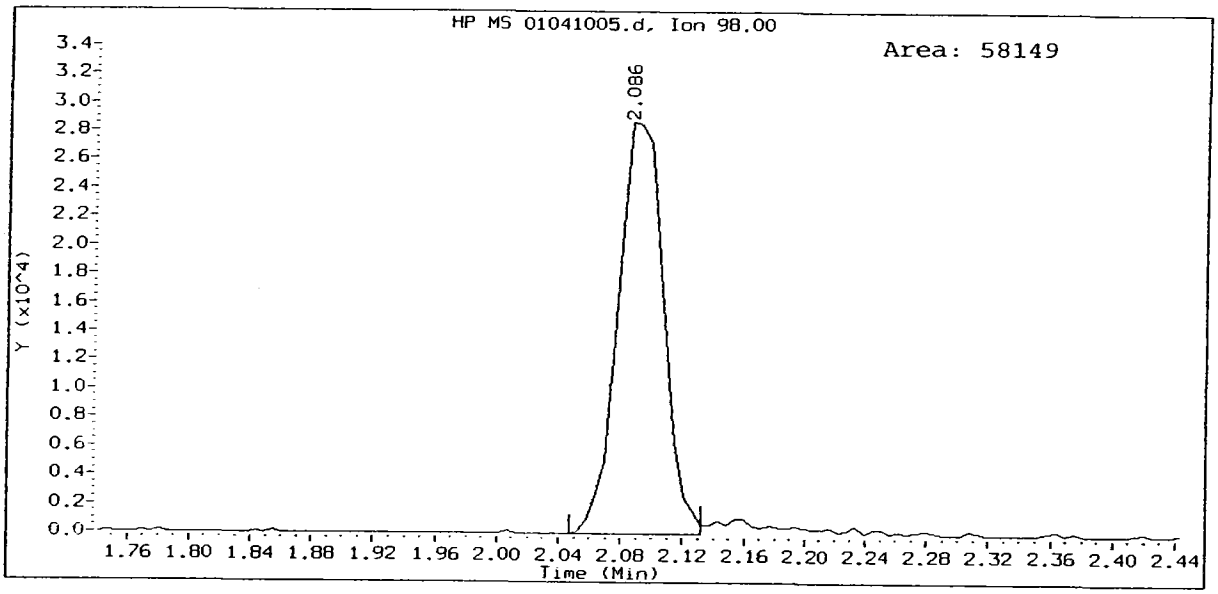
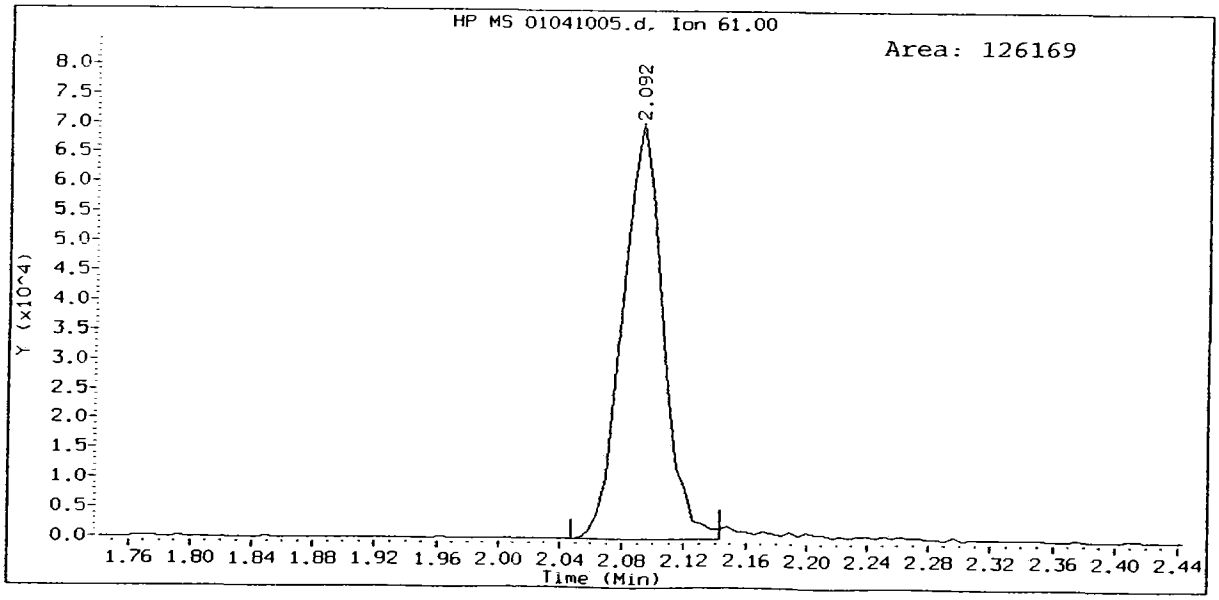
1,1-Dichloroethene Amount: 2.18







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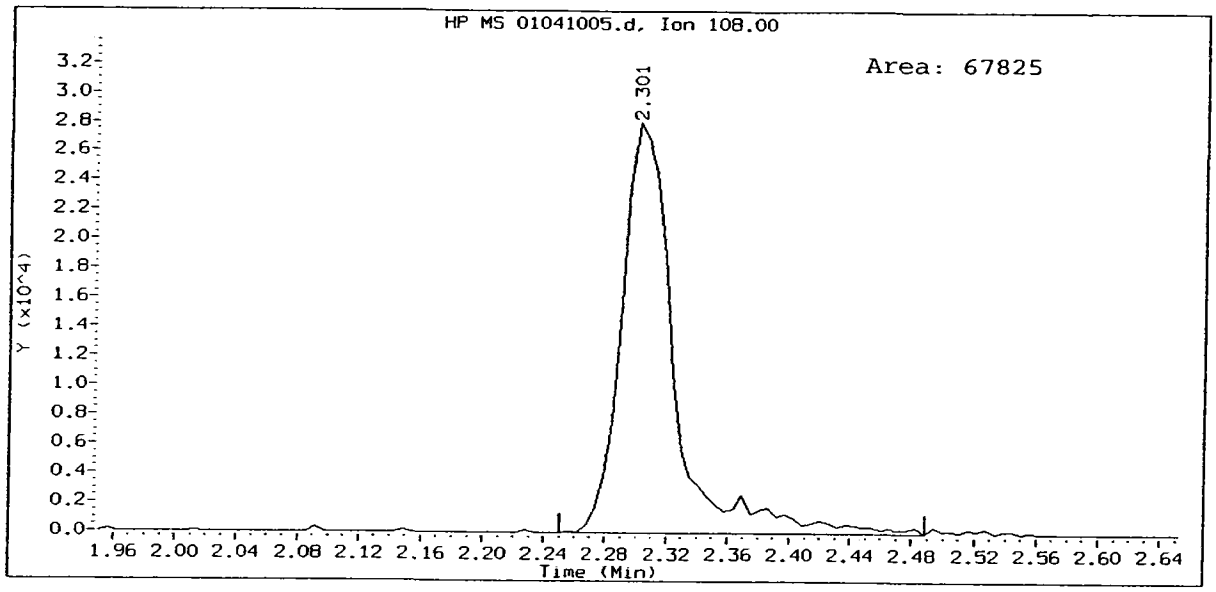
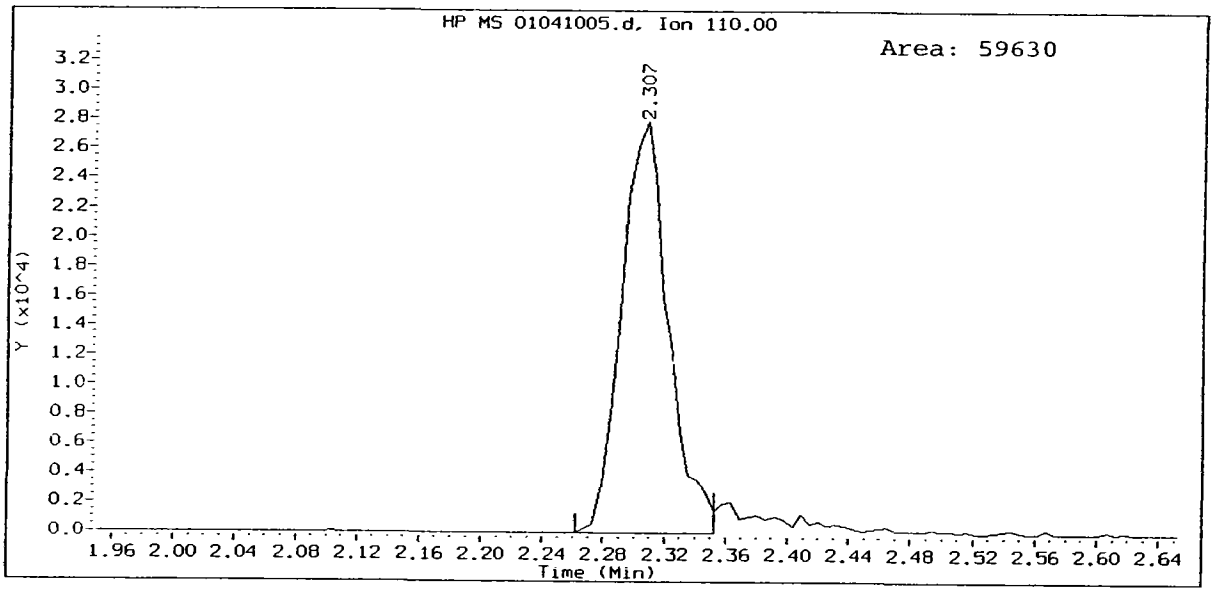
Bromoethane Amount: 2.22





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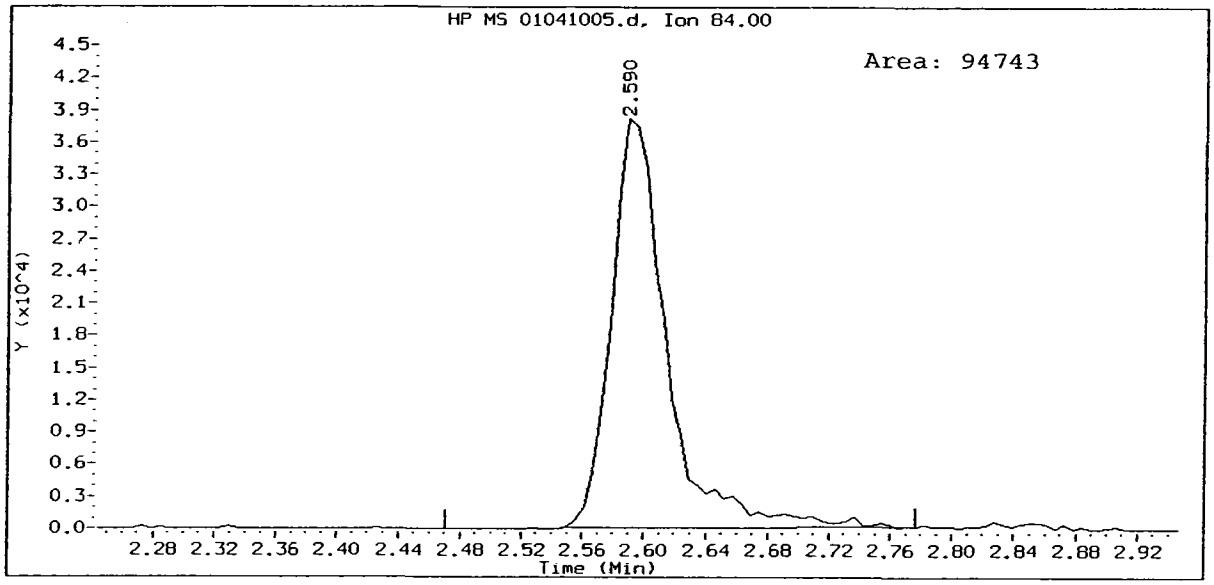
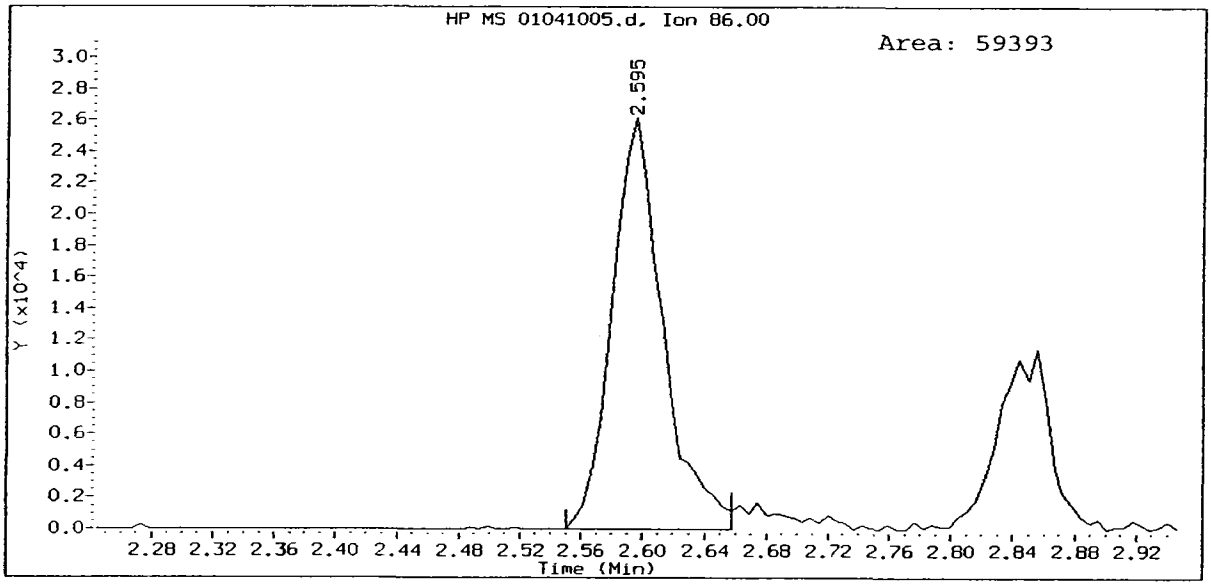
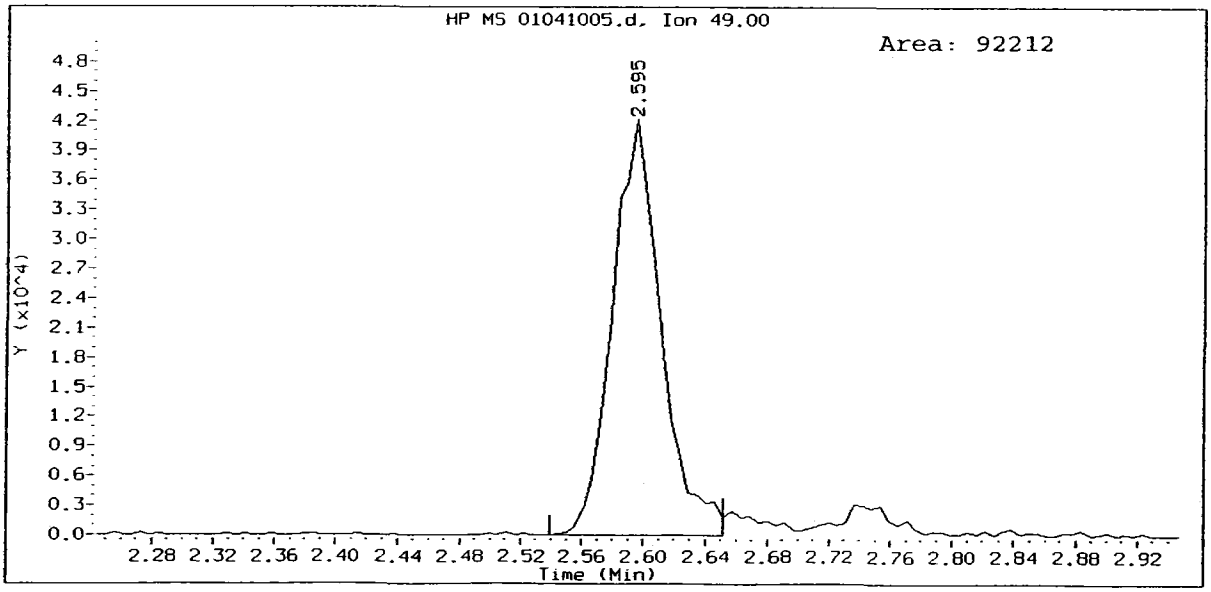
Methylene Chloride Amount: 2.15







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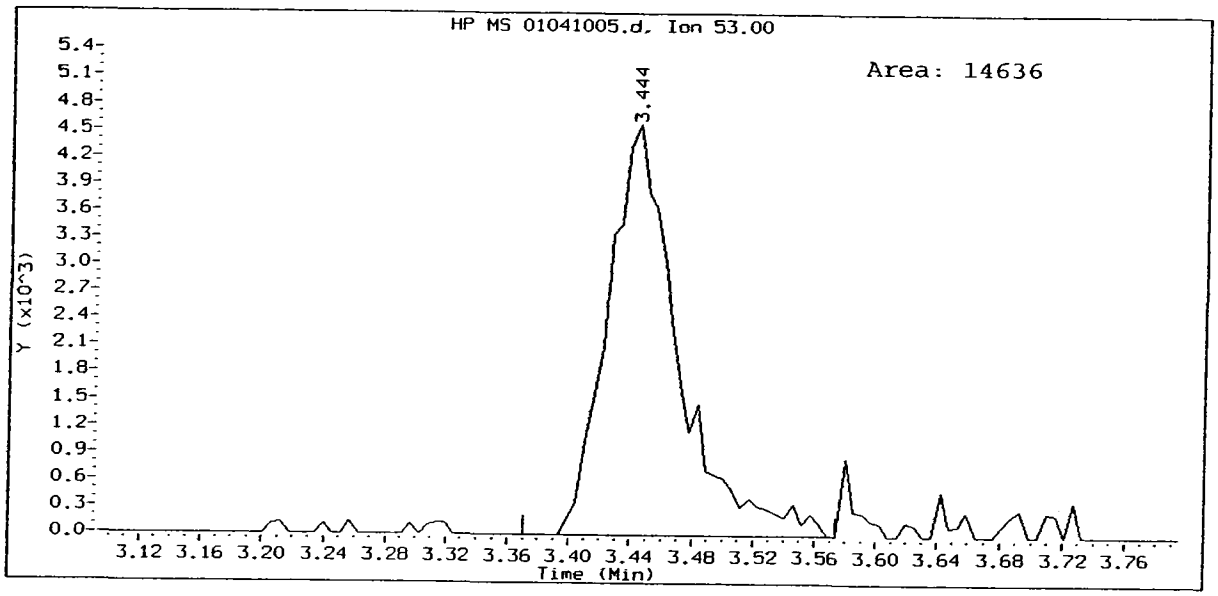
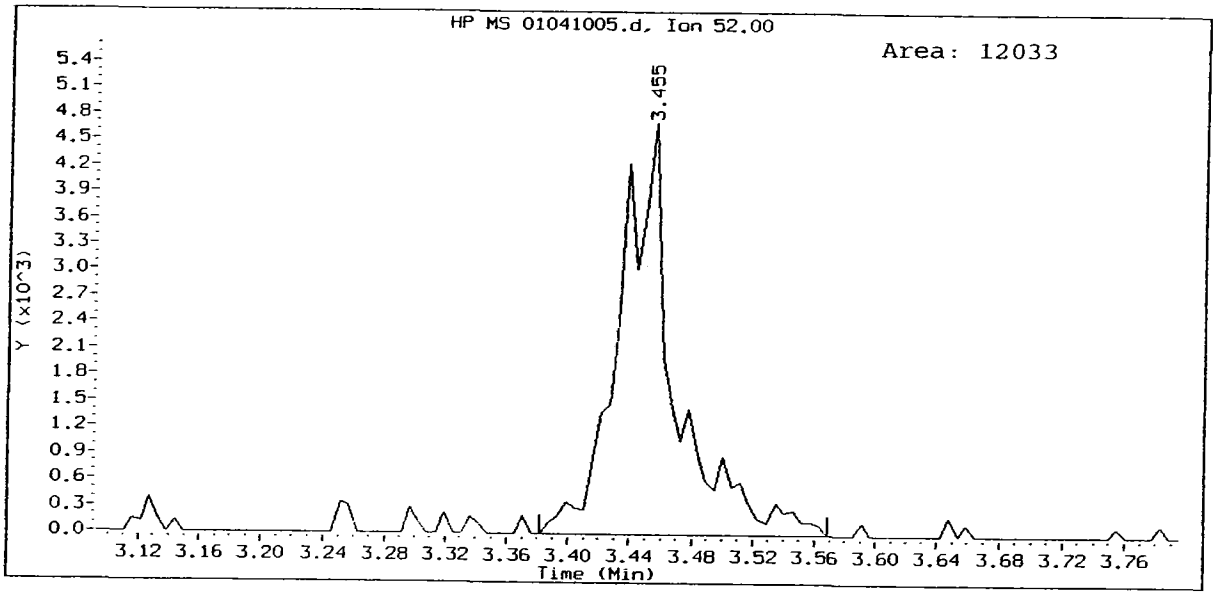
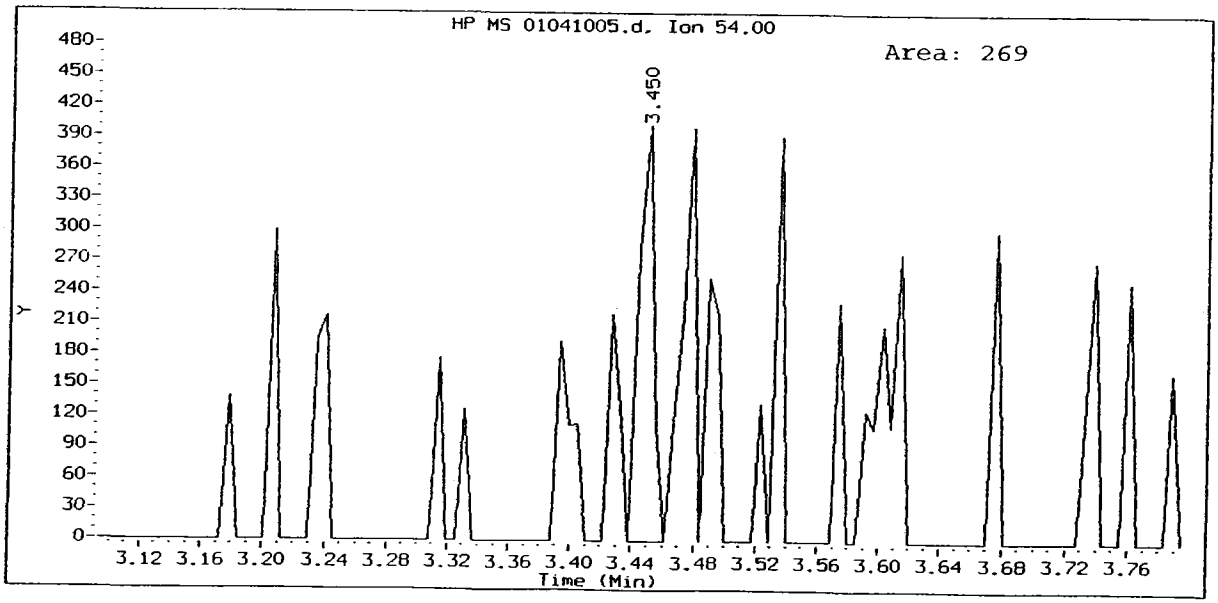
Acrylonitrile Amount: 2.15







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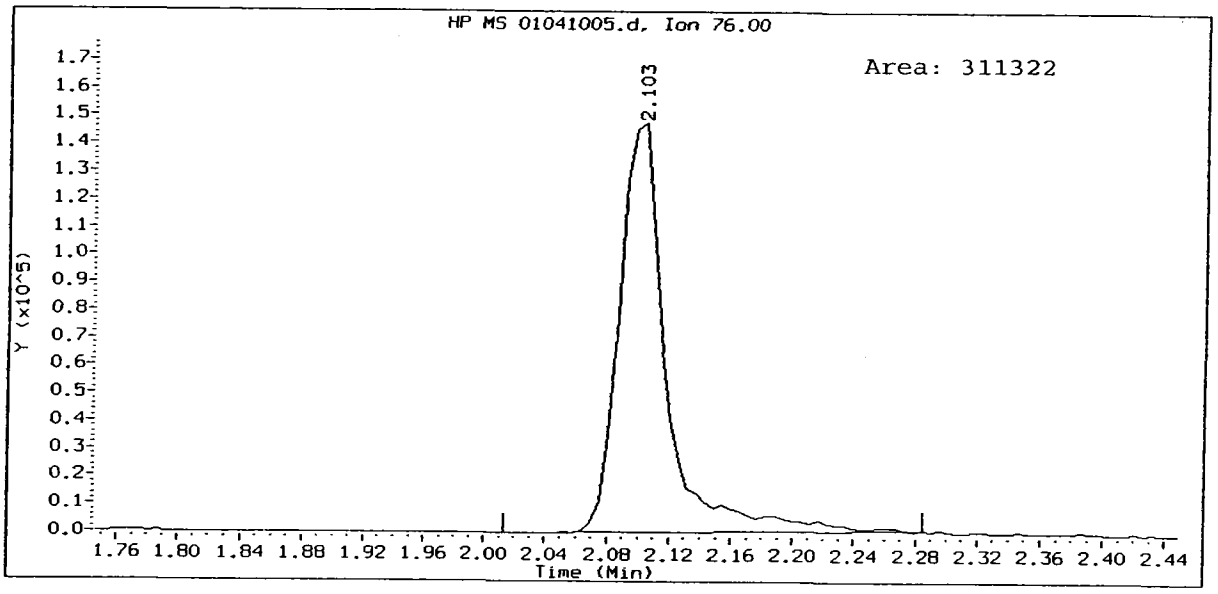
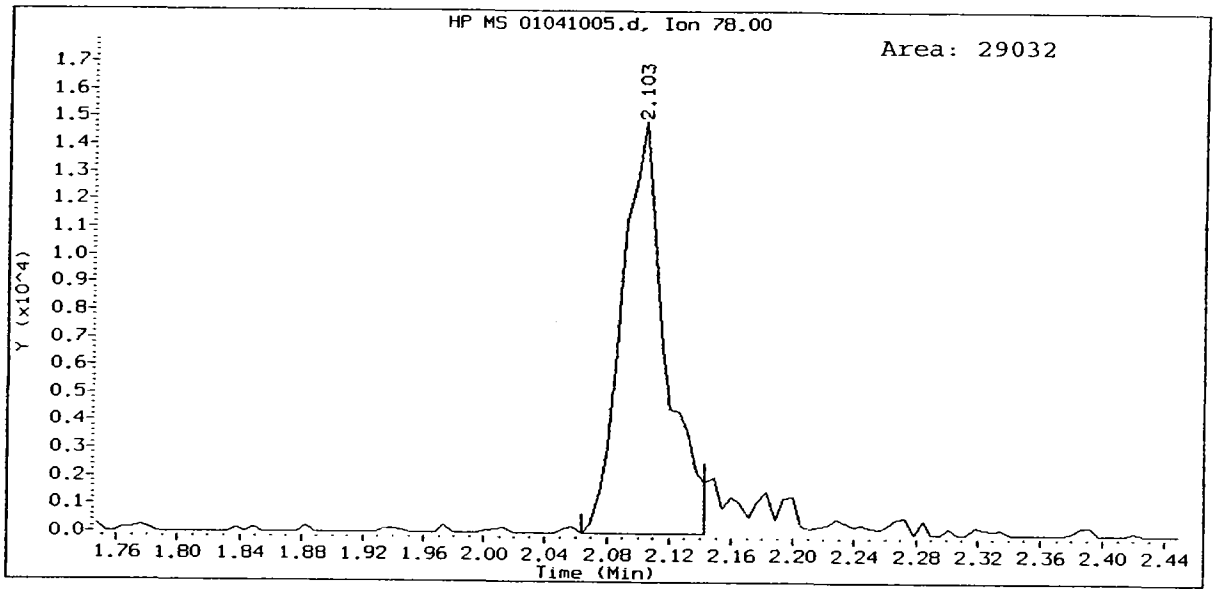
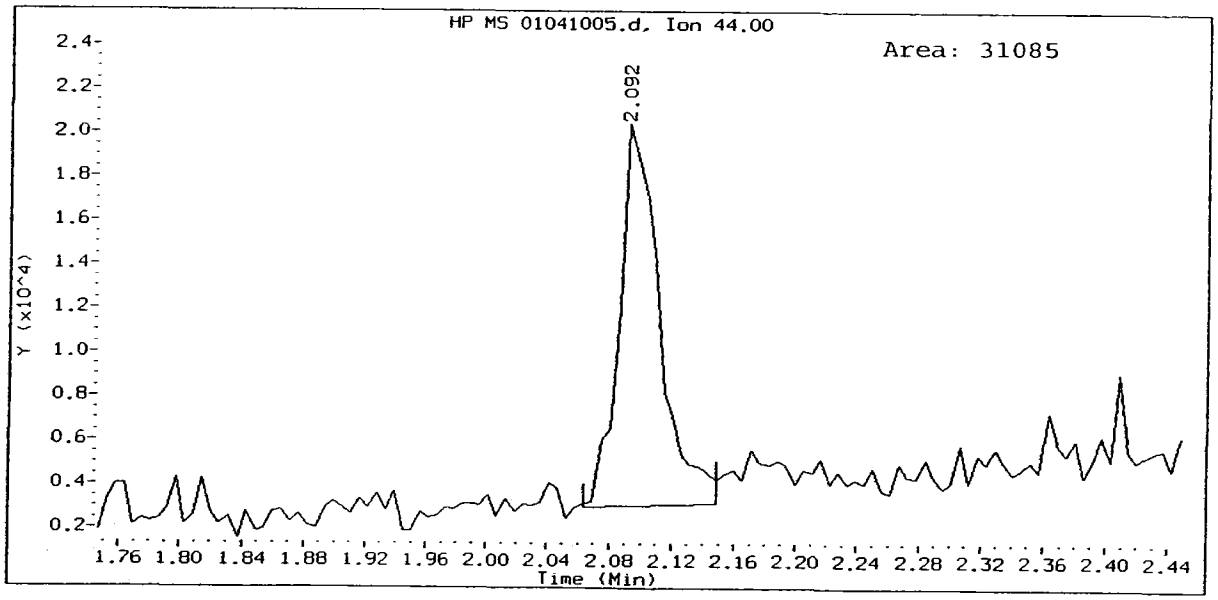
Carbon Disulfide Amount: 2.15







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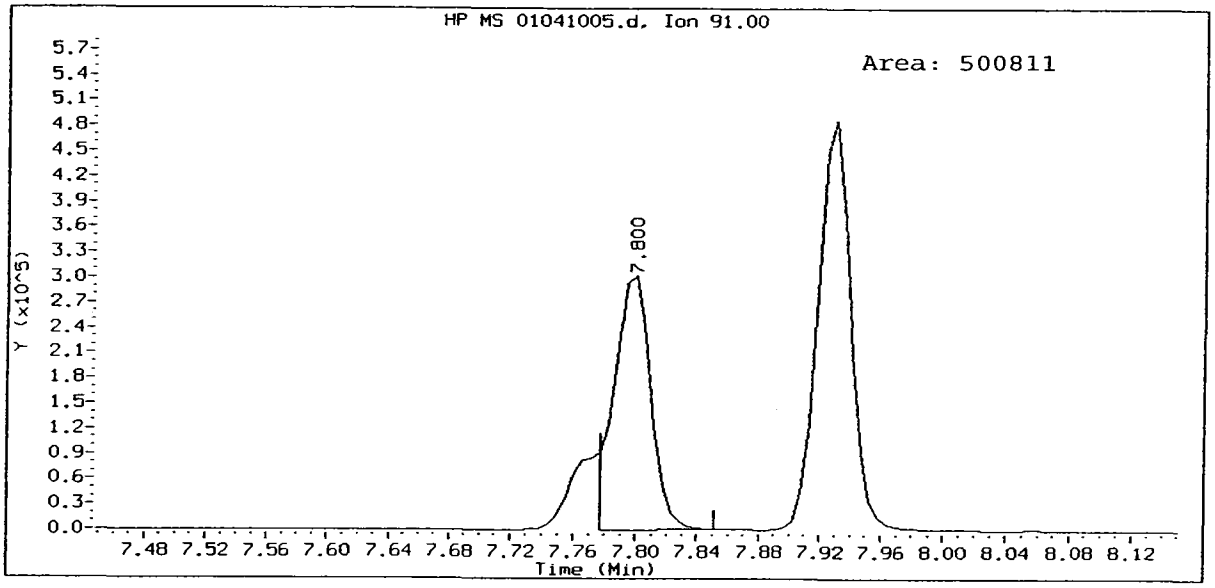
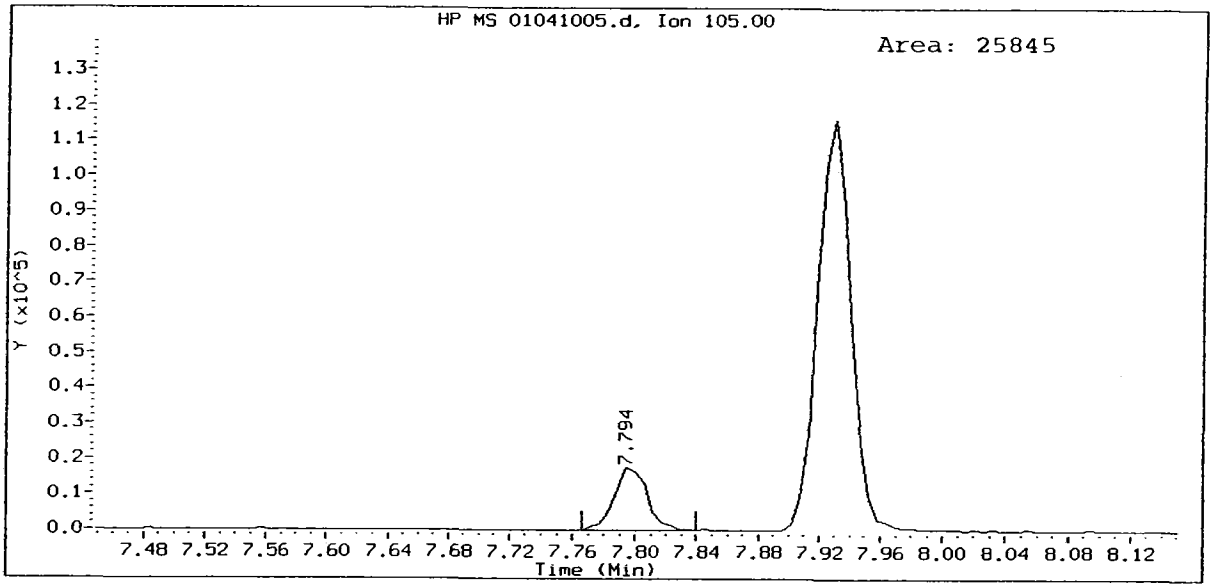
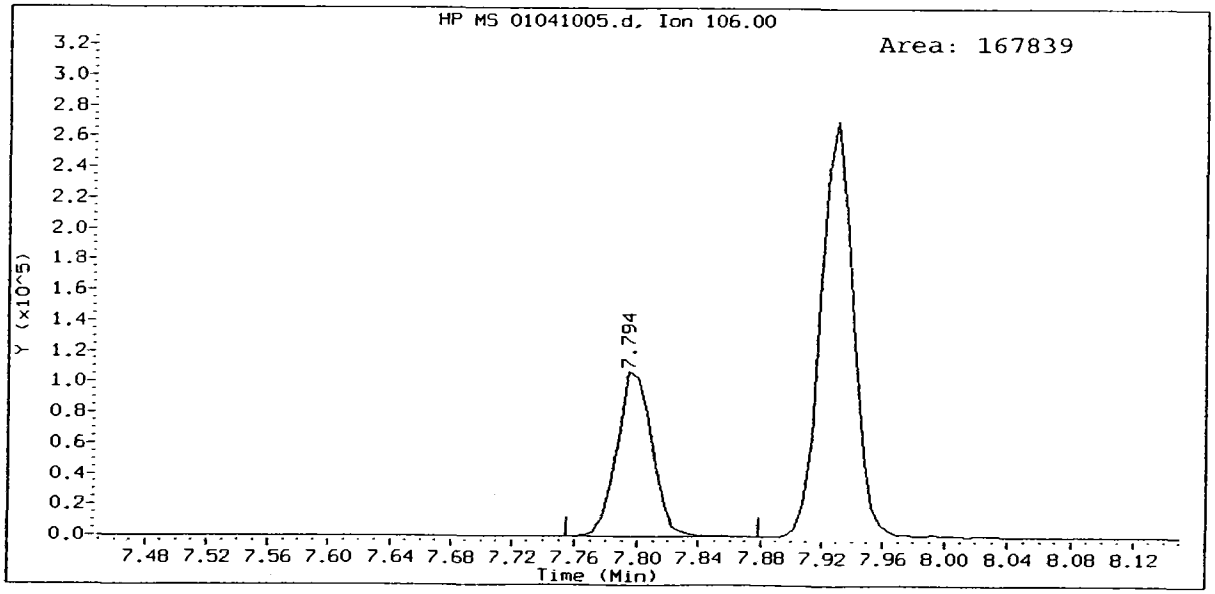
Ethyl Benzene Amount: 2.20







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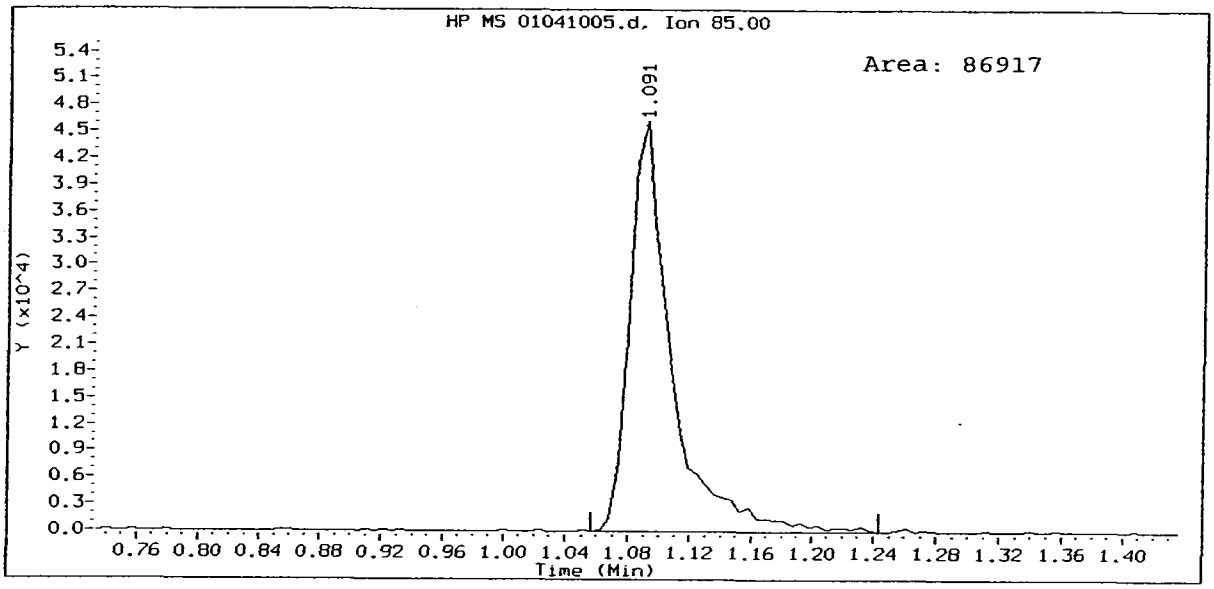
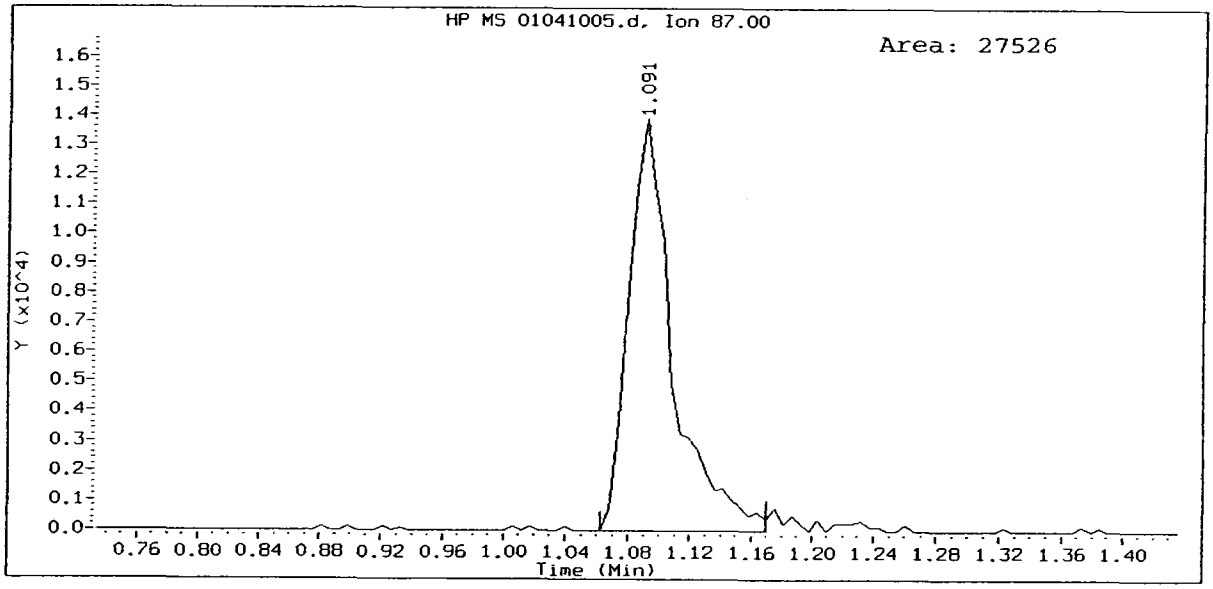
Dichlorodifluoromethane Amount: 2.24





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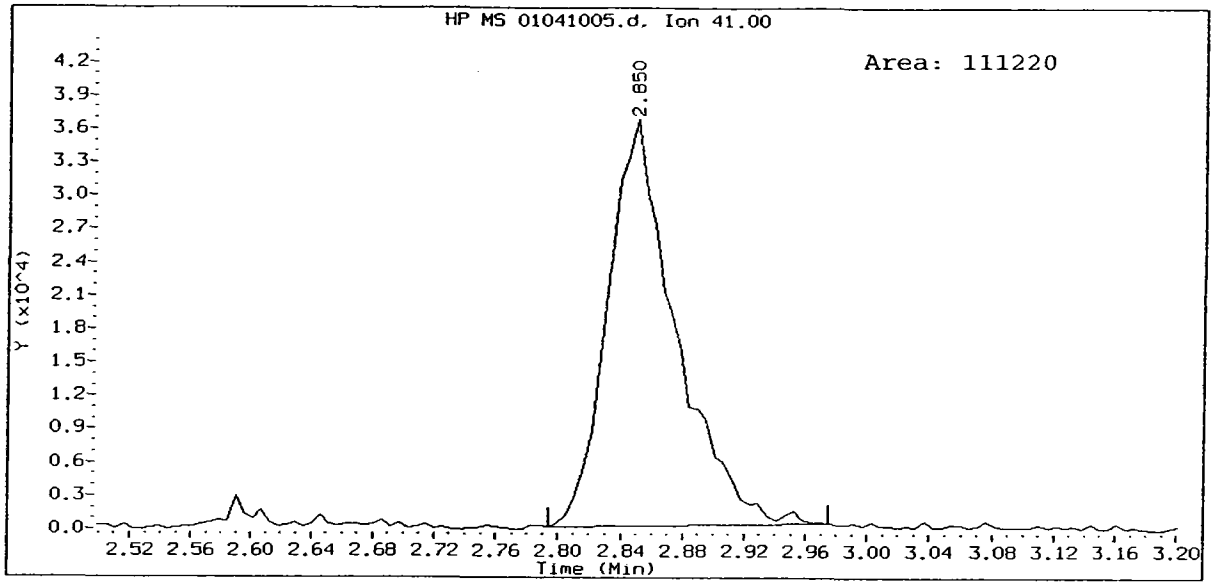
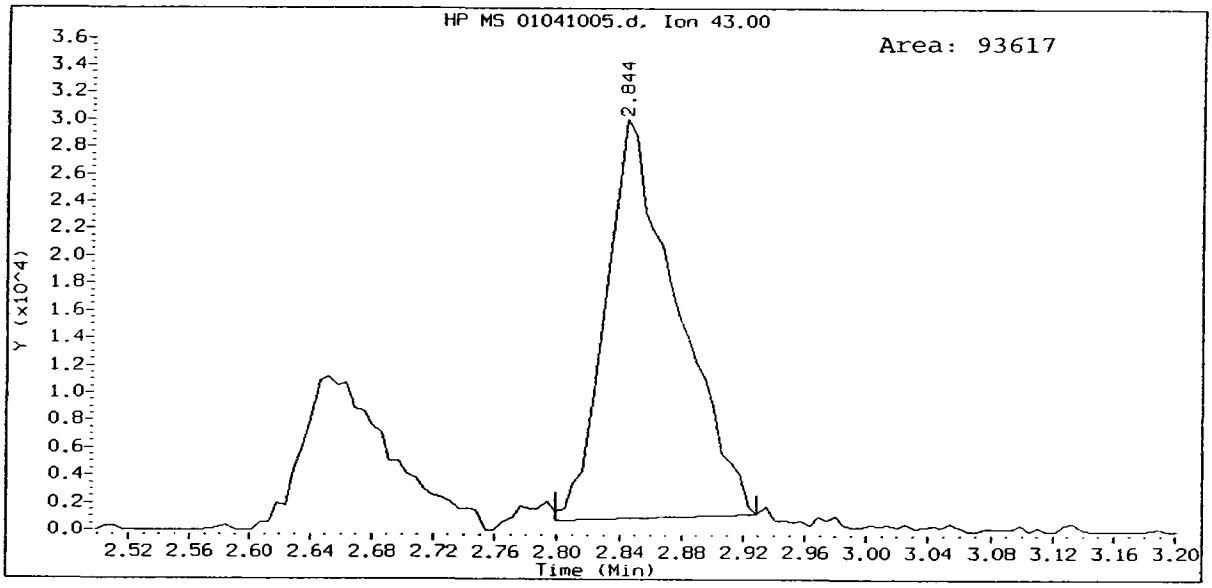
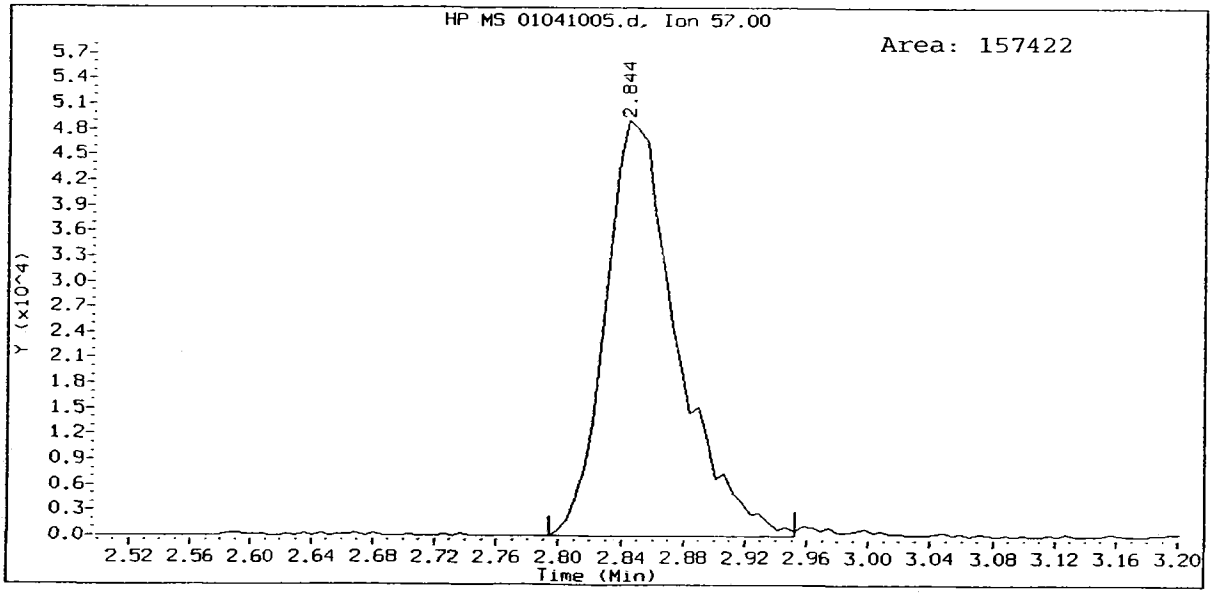
Hexane Amount: 2.07







PC 1/5/10

Analytical Resources, Inc.

8260C

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ntegrator: HP RTE Compound Sublist: voa+hex.sub
arget Version: 3.50

oncentration 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)

nd Variable Local Compound Variable

pounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.085	1.085	(0.225)	403149	10.0000	10.077
72 Hexane	41	2.850	2.850	(0.590)	536099	10.0000	9.686
2 Chloromethane	50	1.221	1.221	(0.253)	422567	10.0000	9.867
3 Vinyl Chloride	62	1.272	1.272	(0.263)	502576	10.0000	9.973
4 Bromomethane	94	1.498	1.498	(0.310)	238208	10.0000	9.834
5 Chloroethane	64	1.594	1.594	(0.330)	294427	10.0000	9.911
6 Trichlorofluoromethane	101	1.696	1.696	(0.351)	644546	10.0000	9.776
.2 Acrolein	56	2.375	2.375	(0.492)	183370	50.0000	48.280
9 112Trichloro122Trifluoroethane	101	2.143	2.143	(0.444)	452908	10.0000	9.853
.4 Acetone	43	2.652	2.652	(0.549)	184256	50.0000	43.163(M)
7 1,1-Dichloroethene	96	2.092	2.092	(0.433)	443880	10.0000	9.881
1 Bromoethane	108	2.301	2.301	(0.476)	310180	10.0000	9.826(M)
0 Iodomethane	142	2.194	2.194	(0.454)	457809	10.0000	10.587
3 Methylene Chloride	84	2.595	2.595	(0.537)	439462	10.0000	9.663
8 Acrylonitrile	53	3.444	3.444	(0.713)	64919	10.0000	9.254
6 Methyl tert butyl ether	73	2.878	2.878	(0.596)	925831	10.0000	9.960

npounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
8 Carbon Disulfide	76	2.098	2.098	(0.434)	1504029	10.0000	10.069(M)
15 Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	503229	10.0000	9.917
19 Vinyl Acetate	43	3.682	3.682	(0.762)	400677	10.0000	9.765
17 1,1-Dichloroethane	63	3.376	3.376	(0.699)	722094	10.0000	10.108
29 2-Butanone	72	4.496	4.496	(0.931)	131426	50.0000	48.081
21 2,2-Dichloropropane	77	4.010	4.010	(0.830)	685968	10.0000	9.831
20 Cis-1,2-Dichloroethene	96	3.913	3.913	(0.810)	499600	10.0000	10.114
32 Pentafluorobenzene	168	4.830	4.830	(1.000)	906926	10.0000	
23 Chloroform	83	4.191	4.191	(0.868)	757672	10.0000	10.116
22 Bromochloromethane	128	4.094	4.094	(0.848)	216649	10.0000	9.995
25 Dibromofluoromethane	111	4.360	4.360	(0.903)	323064	10.0000	9.920
26 1,1,1-Trichloroethane	97	4.355	4.355	(0.902)	734546	10.0000	10.091
28 1,1-Dichloropropene	75	4.479	4.479	(0.849)	614942	10.0000	10.375
24 Carbon Tetrachloride	117	4.292	4.292	(0.813)	550923	10.0000	10.949
31 d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	312734	10.0000	9.792
33 1,2-Dichloroethane	62	4.881	4.881	(0.925)	466665	10.0000	10.167
30 Benzene	78	4.700	4.700	(0.891)	1787012	10.0000	10.152
35 1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1305872	10.0000	
34 Trichloroethene	130	5.226	5.226	(0.990)	563866	10.0000	10.232
38 1,2-Dichloropropane	63	5.667	5.667	(1.074)	390675	10.0000	9.985
39 Bromodichloromethane	83	5.741	5.741	(1.088)	513883	10.0000	10.134
37 Dibromomethane	93	5.577	5.577	(1.057)	200324	10.0000	9.971
40 2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	145197	10.0000	9.961
45 4-Methyl-2-Pentanone	58	6.827	6.827	(1.294)	354585	50.0000	50.300
41 Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	662424	10.0000	10.195
42 d8-Toluene	98	6.436	6.436	(1.220)	1389001	10.0000	10.057
43 Toluene	92	6.482	6.482	(1.228)	1257276	10.0000	10.222
46 Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	554015	10.0000	10.222
51 2-Hexanone	43	7.540	7.540	(0.974)	521350	50.0000	51.654
47 1,1,2-Trichloroethane	97	6.974	6.974	(1.322)	300884	10.0000	10.097
49 1,3-Dichloropropane	76	7.194	7.194	(0.929)	512045	10.0000	10.084
44 Tetrachloroethene	166	6.798	6.798	(0.878)	597208	10.0000	10.242
48 Chlorodibromomethane	129	7.110	7.110	(0.918)	375687	10.0000	10.105
50 1,2-Dibromoethane	107	7.291	7.291	(1.382)	299605	10.0000	10.213
52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1174180	10.0000	
53 Chlorobenzene	112	7.754	7.754	(1.001)	1348873	10.0000	10.115
54 Ethyl Benzene	91	7.800	7.800	(1.007)	2384266	10.0000	10.375
55 1,1,1,2-Tetrachloroethane	131	7.822	7.822	(1.010)	470013	10.0000	10.132
56 m,p-xylene	106	7.930	7.930	(1.024)	1894851	20.0000	21.041
57 o-Xylene	106	8.292	8.292	(1.071)	924012	10.0000	10.532
58 Styrene	104	8.343	8.343	(1.077)	1468603	10.0000	10.568
60 Isopropyl Benzene	105	8.575	8.575	(0.874)	2270005	10.0000	10.417
59 Bromoform	173	8.343	8.343	(0.851)	206348	10.0000	9.605
54 1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	272927	10.0000	9.592
51 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	538181	10.0000	10.049
56 1,2,3-Trichloropropane	110	9.112	9.112	(0.929)	89955	10.0000	9.728
58 Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.934)	75500	10.0000	9.776

mpounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
63 N-Propyl Benzene	91	8.942	8.942	(0.912)	2489043	10.0000	10.234
62 Bromobenzene	156	8.886	8.886	(0.906)	580530	10.0000	9.759
67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	1899094	10.0000	10.338
65 2-Chloro Toluene	91	9.061	9.061	(0.924)	1554844	10.0000	10.197
69 4-Chloro Toluene	91	9.214	9.214	(0.939)	1608345	10.0000	10.349
70 T-Butyl Benzene	119	9.401	9.401	(0.958)	1669929	10.0000	10.439
71 1,2,4-Trimethylbenzene	105	9.469	9.469	(0.965)	1912130	10.0000	10.382
72 S-Butyl Benzene	105	9.565	9.565	(0.975)	2304777	10.0000	10.317
73 4-Isopropyl Toluene	119	9.706	9.706	(0.990)	1988757	10.0000	10.528
74 1,3-Dichlorobenzene	146	9.734	9.734	(0.992)	1140924	10.0000	9.880
75 d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	665265	10.0000	
76 1,4-Dichlorobenzene	146	9.819	9.819	(1.001)	1132310	10.0000	9.840
77 N-Butyl Benzene	91	10.085	10.085	(1.028)	1644128	10.0000	10.316
78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	584322	10.0000	9.863
79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	1017439	10.0000	9.993
81 1,2-Dibromo 3-Chloropropane	75	10.939	10.939	(1.115)	51087	10.0000	9.455
83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	653021	10.0000	10.328
82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.181)	297295	10.0000	10.516
84 Naphthalene	128	11.895	11.895	(1.213)	1117848	10.0000	10.524
85 1,2,3-Trichlorobenzene	180	12.076	12.076	(1.231)	532821	10.0000	10.402

: Flag Legend

- Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

nstrument ID: nt5.i
ab File ID: 01041006.d
ab Smp Id: 10_0104
nalysis Type: VOA
uant Type: ISTD
perator: PC
ethod File: /chem1/nt5.i/04JAN10.b/VO010410L.m
isc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 10 ppb
Level: LOW
Sample Type: WATER

est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	906926	0.00
35 1,4-Difluorobenze	1305872	652936	2611744	1305872	0.00
52 d5-Chlorobenzene	1174180	587090	2348360	1174180	0.00
75 d4-1,4-Dichlorobe	665265	332632	1330530	665265	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	0.00

EA UPPER LIMIT = +100% of internal standard area.
EA LOWER LIMIT = - 50% of internal standard area.
UPPER LIMIT = + 0.50 minutes of internal standard RT.
LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/04JAN10.b/01041006.d
Date : 04-JAN-2010 12:44
Client ID: 10 ppb
Sample Info: 10_0104,10,10,0,

Column phase: RTXVMS

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

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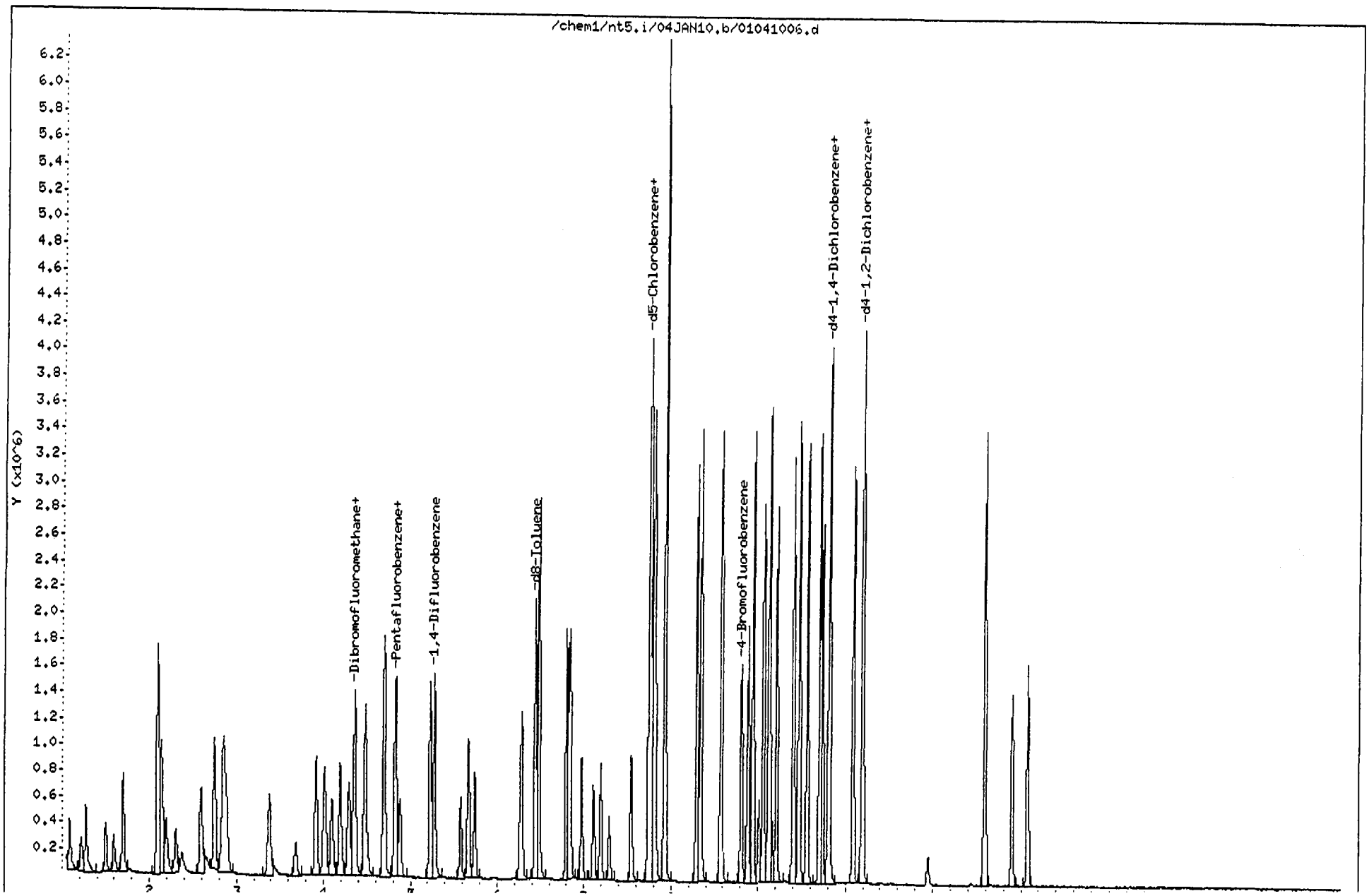

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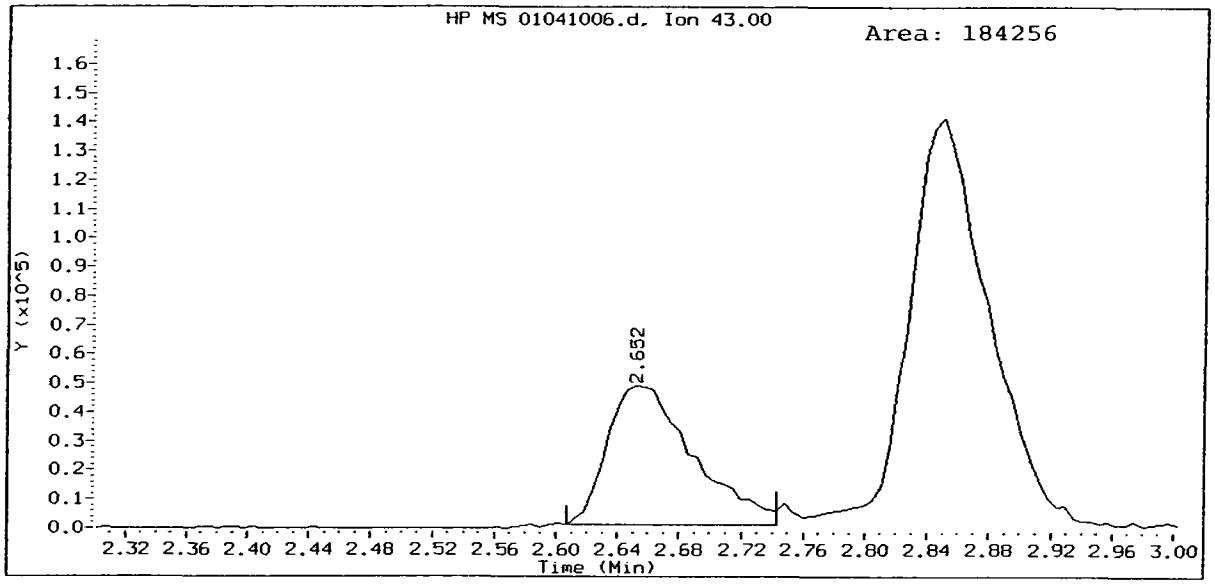

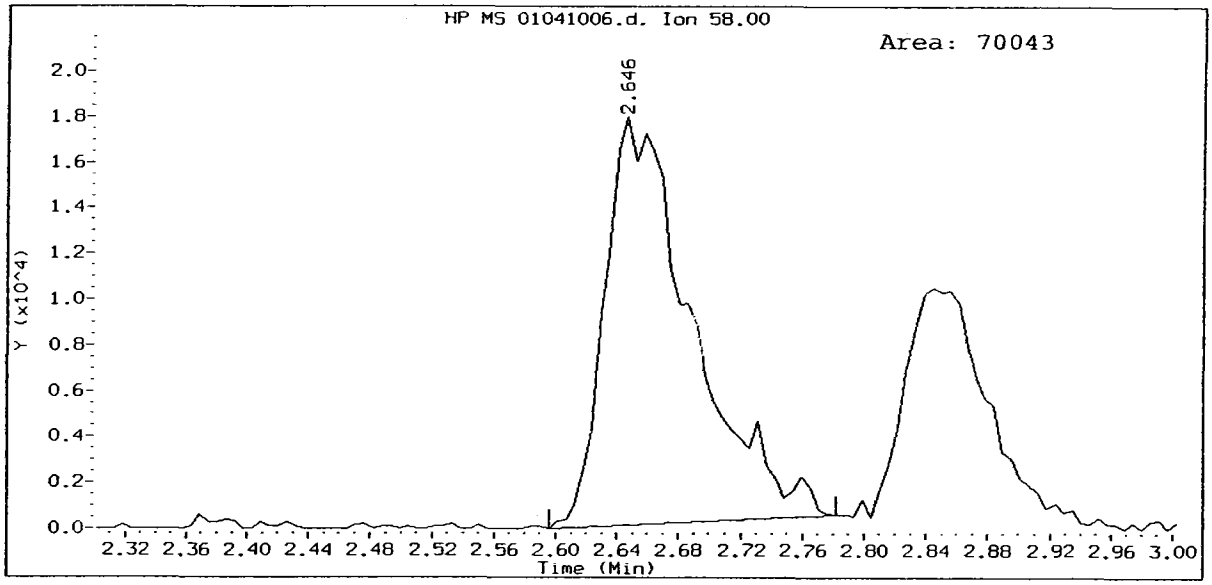

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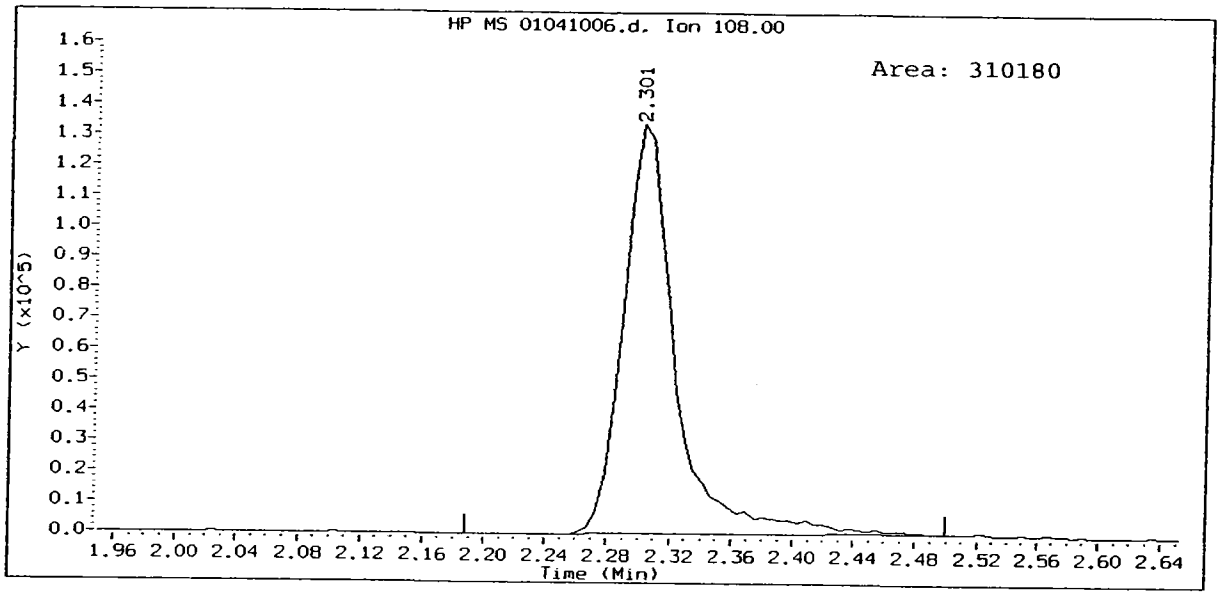

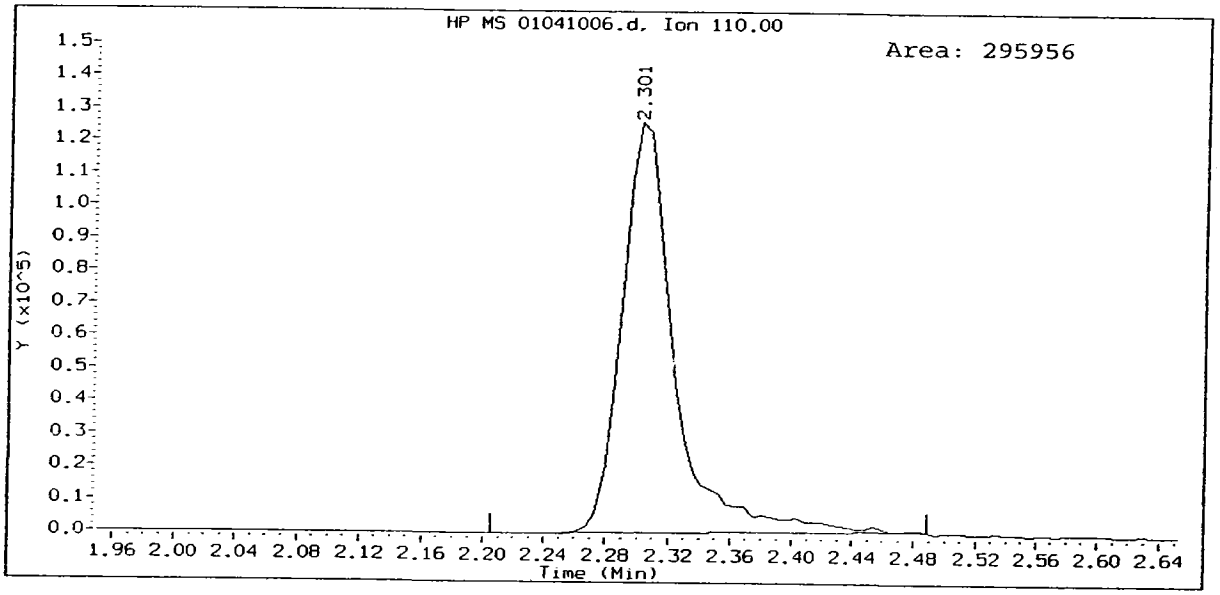

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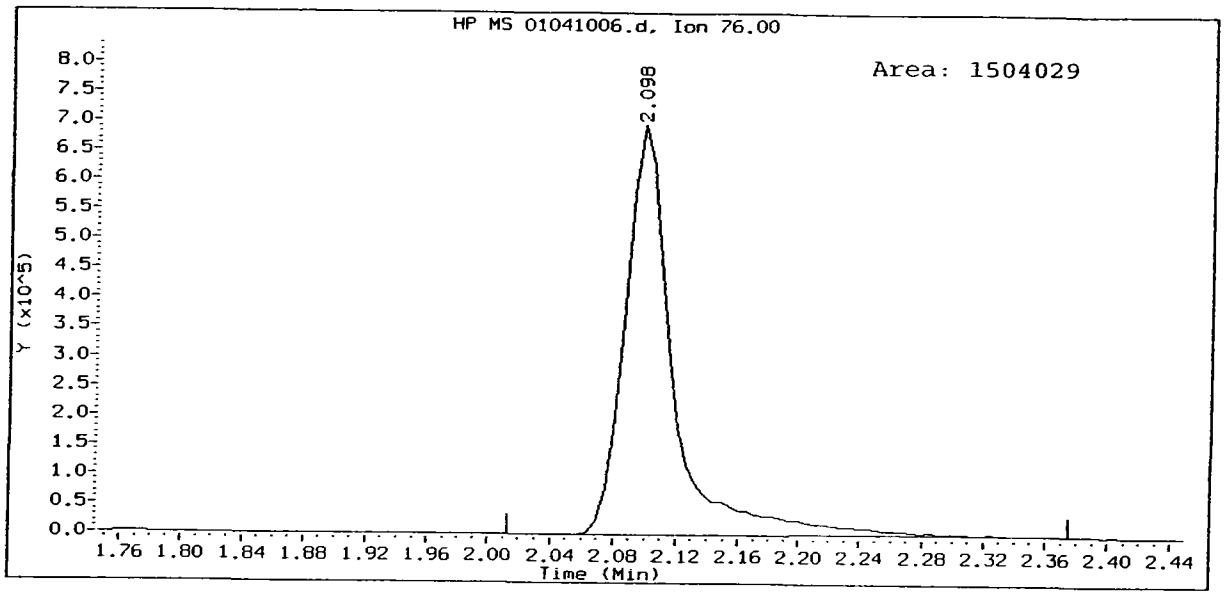
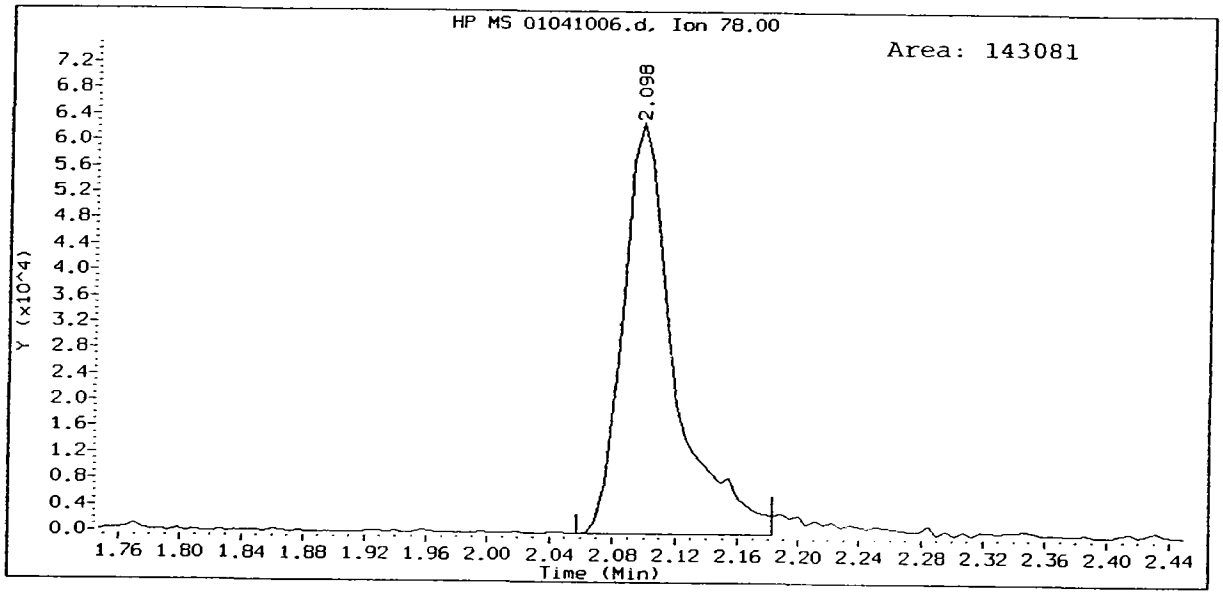
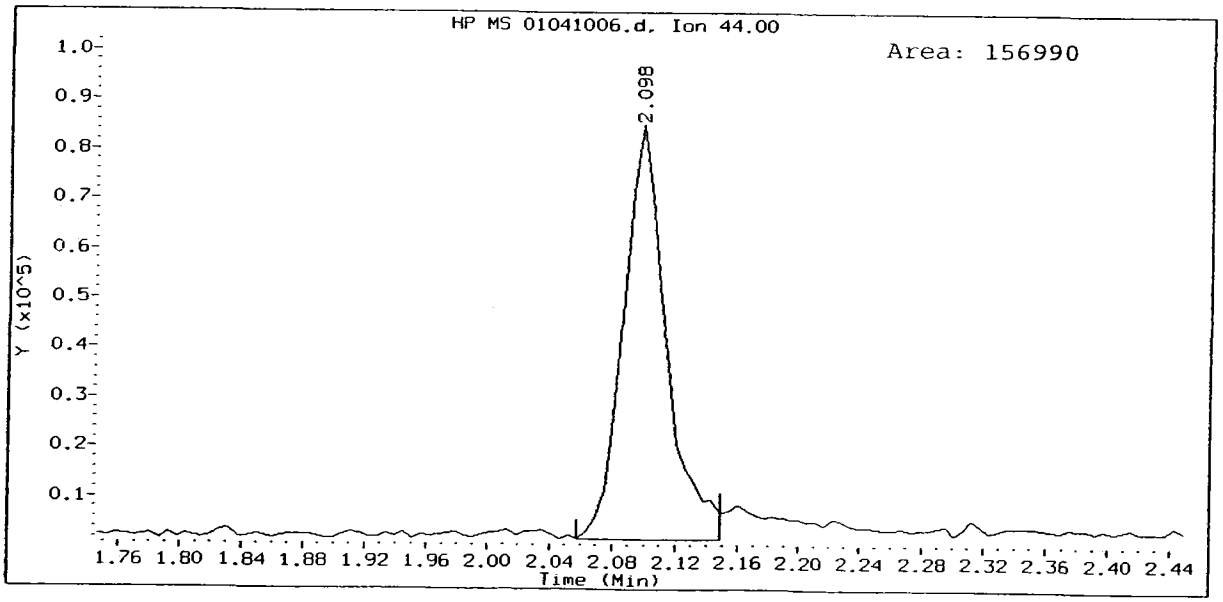
Carbon Disulfide Amount: 10.07







PS 1/15/10

Analytical Resources, Inc.

8260C

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nj Date : 04-JAN-2010 13:10
perator : PC Inst ID: nt5.i
mp Info : 20_0104,10,10,0,
isc Info : 09-
omment :
ethod : /chem1/nt5.i/04JAN10.b/VO010410L.m
eth Date : 05-Jan-2010 10:18 paul Quant Type: ISTD
al Date : 04-JAN-2010 13:10 Cal File: 01041007.d
ls bottle: 1 Calibration Sample, Level: 6
il Factor: 1.00000
ntegrator: HP RTE Compound Sublist: voa+hex.sub
arget Version: 3.50

oncentration 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)

pnd Variable Local Compound Variable

		QUANT SIG					AMOUNTS	
	mpounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.091	1.085	(0.226)	837238	20.0000	20.441(M)
172	Hexane	41	2.844	2.850	(0.589)	1057344	20.0000	18.660
2	Chloromethane	50	1.221	1.221	(0.253)	876095	20.0000	19.982
3	Vinyl Chloride	62	1.272	1.272	(0.263)	1016474	20.0000	19.703
4	Bromomethane	94	1.498	1.498	(0.310)	551053	20.0000	22.222
5	Chloroethane	64	1.594	1.594	(0.330)	577378	20.0000	18.984(M)
6	Trichlorofluoromethane	101	1.696	1.696	(0.351)	1331764	20.0000	19.730(M)
12	Acrolein	56	2.380	2.375	(0.493)	367148	100.000	94.424
9	112Trichloro122Trifluoroethane	101	2.137	2.143	(0.442)	900346	20.0000	19.131
14	Acetone	43	2.658	2.652	(0.550)	389708	100.000	89.171(M)
7	1,1-Dichloroethene	96	2.092	2.092	(0.433)	897549	20.0000	19.516(M)
11	Bromoethane	108	2.301	2.301	(0.476)	642516	20.0000	19.882(M)
10	Iodomethane	142	2.194	2.194	(0.454)	982233	20.0000	22.187(M)
13	Methylene Chloride	84	2.595	2.595	(0.537)	899282	20.0000	19.315
18	Acrylonitrile	53	3.444	3.444	(0.713)	133014	20.0000	18.520(M)
16	Methyl tert butyl ether	73	2.878	2.878	(0.596)	1885705	20.0000	19.815

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	mpounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
8	Carbon Disulfide	76	2.098	2.098	(0.434)	2976352	20.0000	19.463(M)
15	Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	1003439	20.0000	19.315
19	Vinyl Acetate	43	3.682	3.682	(0.762)	848949	20.0000	20.210
17	1,1-Dichloroethane	63	3.376	3.376	(0.699)	1434997	20.0000	19.620
29	2-Butanone	72	4.490	4.496	(0.930)	265543	100.000	94.890
21	2,2-Dichloropropane	77	4.015	4.010	(0.831)	1366151	20.0000	19.125
20	Cis-1,2-Dichloroethene	96	3.914	3.913	(0.810)	1003085	20.0000	19.836
32	Pentafluorobenzene	168	4.830	4.830	(1.000)	928484	10.0000	
23	Chloroform	83	4.191	4.191	(0.868)	1509799	20.0000	19.690
22	Bromochloromethane	128	4.100	4.094	(0.849)	441829	20.0000	19.911
25	Dibromofluoromethane	111	4.360	4.360	(0.903)	334714	10.0000	10.039
26	1,1,1-Trichloroethane	97	4.355	4.355	(0.902)	1476838	20.0000	19.817
28	1,1-Dichloropropene	75	4.479	4.479	(0.849)	1226010	20.0000	20.122
24	Carbon Tetrachloride	117	4.293	4.292	(0.813)	1141175	20.0000	22.063
31	d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	324423	10.0000	9.922
33	1,2-Dichloroethane	62	4.881	4.881	(0.925)	930921	20.0000	19.730
30	Benzene	78	4.700	4.700	(0.891)	3577306	20.0000	19.770
35	1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1342345	10.0000	
34	Trichloroethene	130	5.226	5.226	(0.990)	1131020	20.0000	19.965
38	1,2-Dichloropropane	63	5.667	5.667	(1.074)	777128	20.0000	19.323
39	Bromodichloromethane	83	5.741	5.741	(1.088)	1053086	20.0000	20.203
37	Dibromomethane	93	5.577	5.577	(1.057)	410783	20.0000	19.891
40	2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	306534	20.0000	20.459
45	4-Methyl-2-Pentanone	58	6.827	6.827	(1.294)	729312	100.000	100.65
41	Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	1340328	20.0000	20.069
42	d8-Toluene	98	6.442	6.436	(1.221)	1419210	10.0000	9.997
43	Toluene	92	6.482	6.482	(1.228)	2473885	20.0000	19.568
46	Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	1096171	20.0000	19.676
51	2-Hexanone	43	7.540	7.540	(0.974)	1064174	100.000	103.00
47	1,1,2-Trichloroethane	97	6.974	6.974	(1.322)	604908	20.0000	19.747
49	1,3-Dichloropropane	76	7.194	7.194	(0.929)	1020854	20.0000	19.641
44	Tetrachloroethene	166	6.799	6.798	(0.878)	1156738	20.0000	19.381
48	Chlorodibromomethane	129	7.110	7.110	(0.918)	780688	20.0000	20.514
50	1,2-Dibromoethane	107	7.291	7.291	(1.382)	616046	20.0000	20.429
52	d5-Chlorobenzene	117	7.743	7.743	(1.000)	1201924	10.0000	
53	Chlorobenzene	112	7.755	7.754	(1.001)	2655657	20.0000	19.455
54	Ethyl Benzene	91	7.800	7.800	(1.007)	4725011	20.0000	20.086
55	1,1,1,2-Tetrachloroethane	131	7.822	7.822	(1.010)	944373	20.0000	19.887
56	m,p-xylene	106	7.930	7.930	(1.024)	3659319	40.0000	39.696
57	o-Xylene	106	8.298	8.292	(1.072)	1822902	20.0000	20.299
58	Styrene	104	8.343	8.343	(1.077)	2977783	20.0000	20.933
60	Isopropyl Benzene	105	8.575	8.575	(0.874)	4481076	20.0000	20.223
59	Bromoform	173	8.343	8.343	(0.851)	434186	20.0000	19.875
64	1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	571664	20.0000	19.757
61	4-Bromofluorobenzene	95	8.807	8.807	(1.137)	546435	10.0000	9.967
66	1,2,3-Trichloropropane	110	9.112	9.112	(0.929)	179241	20.0000	19.061
68	Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.934)	158808	20.0000	20.221

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	ıpounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
63	N-Propyl Benzene	91	8.942	8.942	(0.912)	4875336	20.0000	19.712
62	Bromobenzene	156	8.886	8.886	(0.906)	1174460	20.0000	19.416
67	1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	3747159	20.0000	20.060
65	2-Chloro Toluene	91	9.061	9.061	(0.924)	3084264	20.0000	19.892
69	4-Chloro Toluene	91	9.214	9.214	(0.939)	3149137	20.0000	19.926
70	T-Butyl Benzene	119	9.406	9.401	(0.959)	3288706	20.0000	20.216
71	1,2,4-Trimethylbenzene	105	9.469	9.469	(0.965)	3797187	20.0000	20.275
72	S-Butyl Benzene	105	9.565	9.565	(0.975)	4517107	20.0000	19.884
73	4-Isopropyl Toluene	119	9.706	9.706	(0.990)	3922093	20.0000	20.419
74	1,3-Dichlorobenzene	146	9.734	9.734	(0.992)	2235236	20.0000	19.036
75	d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	676497	10.0000	
76	1,4-Dichlorobenzene	146	9.819	9.819	(1.001)	2273011	20.0000	19.425
77	N-Butyl Benzene	91	10.091	10.085	(1.029)	3246775	20.0000	20.034
78	d4-1,2-Dichlorobenzene	152	10.193	10.187	(1.039)	597801	10.0000	9.923
79	1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	2012035	20.0000	19.434
81	1,2-Dibromo 3-Chloropropane	75	10.945	10.939	(1.116)	109081	20.0000	19.854
83	1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	1321411	20.0000	20.552
82	Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.181)	561807	20.0000	19.543
84	Naphthalene	128	11.895	11.895	(1.213)	2323829	20.0000	21.513
85	1,2,3-Trichlorobenzene	180	12.076	12.076	(1.231)	1070058	20.0000	20.543

: Flag Legend

- Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

nstrument ID: nt5.i
ab File ID: 01041007.d
ab Smp Id: 20_0104
nalysis Type: VOA
uant Type: ISTD
perator: PC
ethod File: /chem1/nt5.i/04JAN10.b/VO010410L.m
isc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 20 ppb
Level: LOW
Sample Type: WATER

est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	928484	2.38
35 1,4-Difluorobenze	1305872	652936	2611744	1342345	2.79
52 d5-Chlorobenzene	1174180	587090	2348360	1201924	2.36
75 d4-1,4-Dichlorobe	665265	332632	1330530	676497	1.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	0.00

EA UPPER LIMIT = +100% of internal standard area.
EA LOWER LIMIT = - 50% of internal standard area.
UPPER LIMIT = + 0.50 minutes of internal standard RT.
LOWER LIMIT = - 0.50 minutes of internal standard RT.

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Date : 04-JAN-2010 13:10
Client ID: 20 ppb
Sample Info: 20_0104,10,10,0,

Column phase: RTXVMS

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

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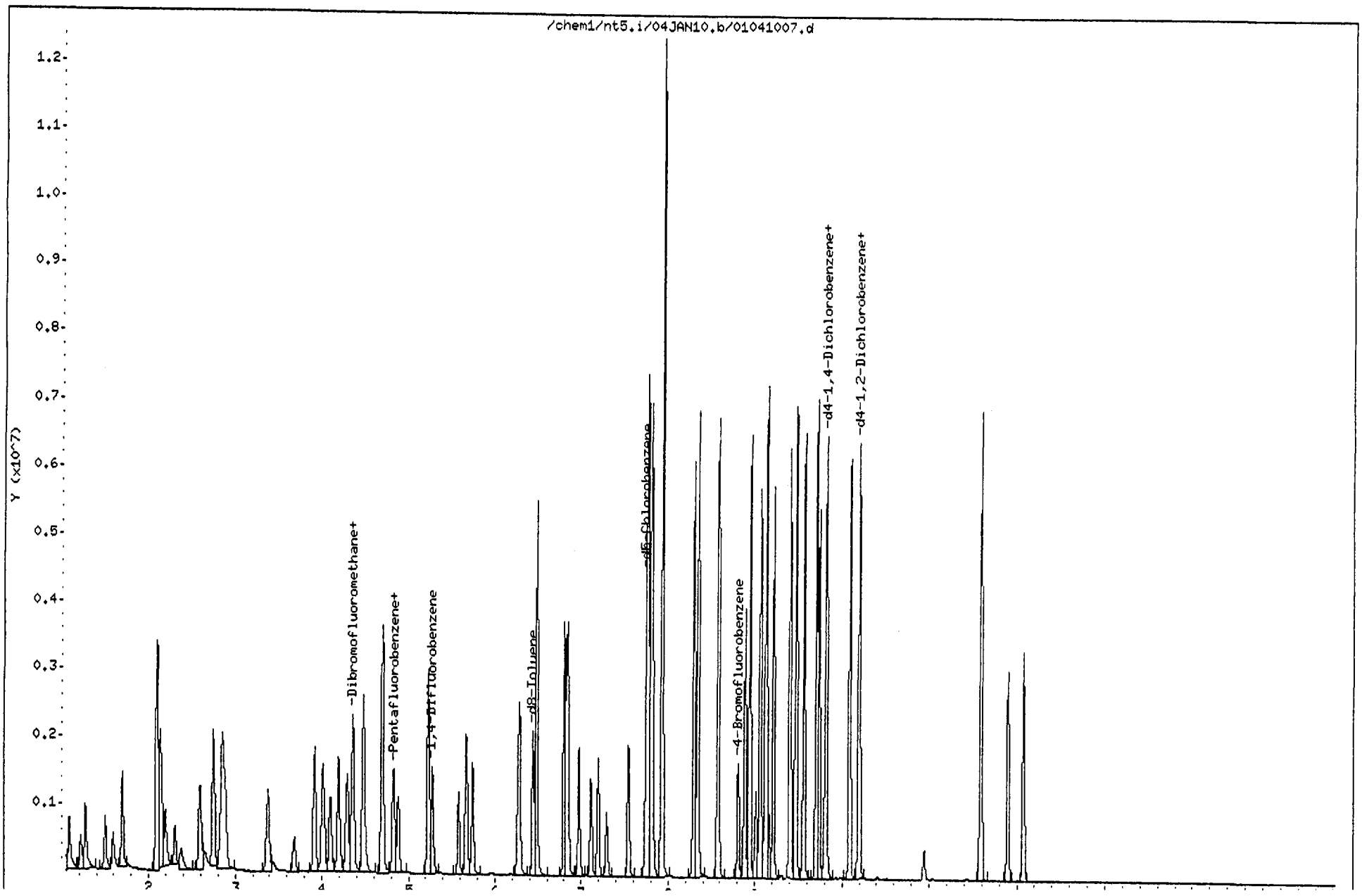

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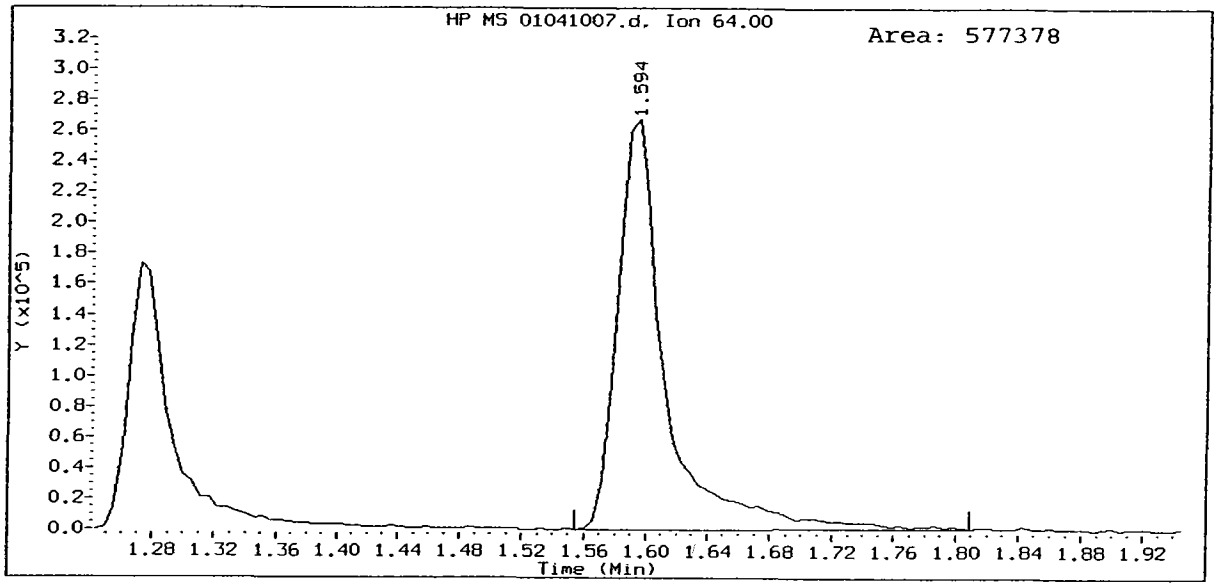

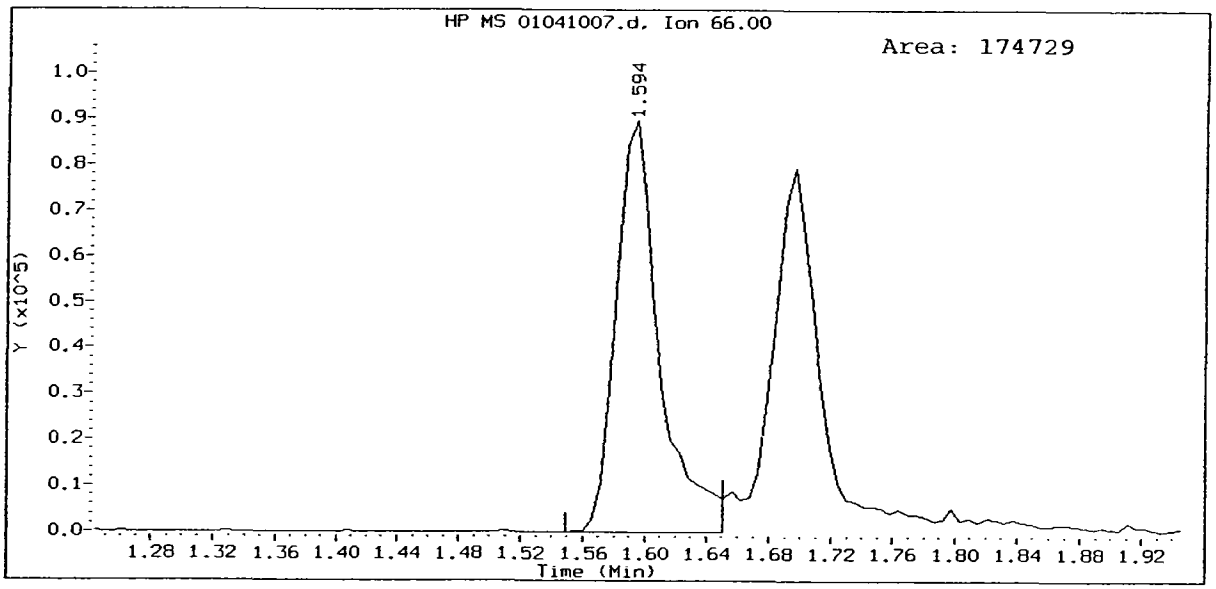

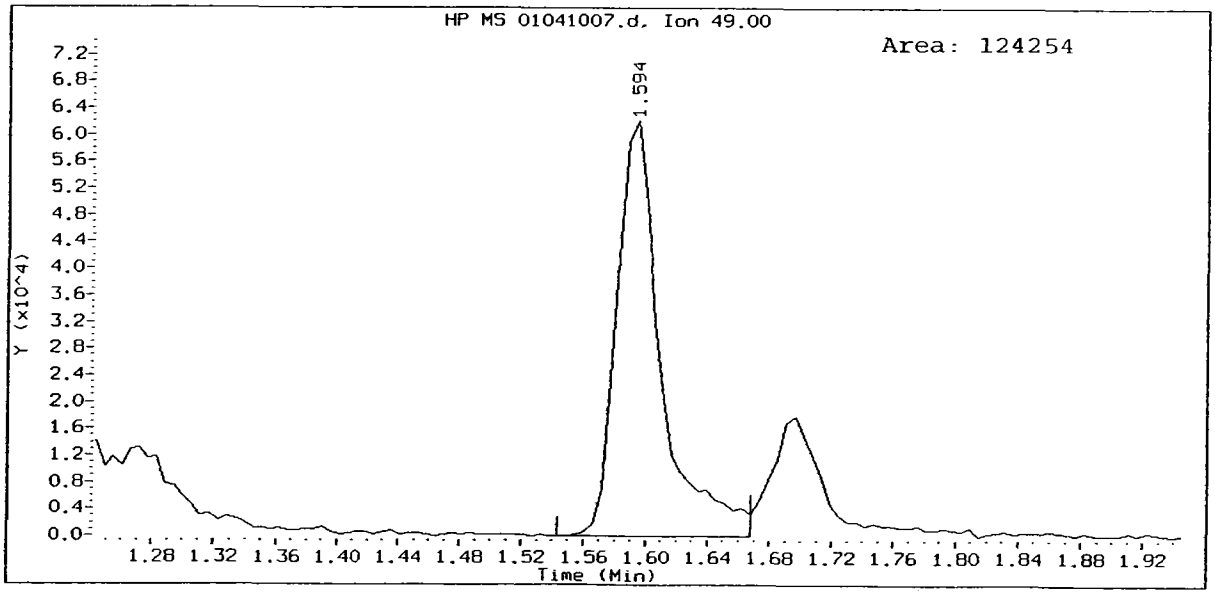

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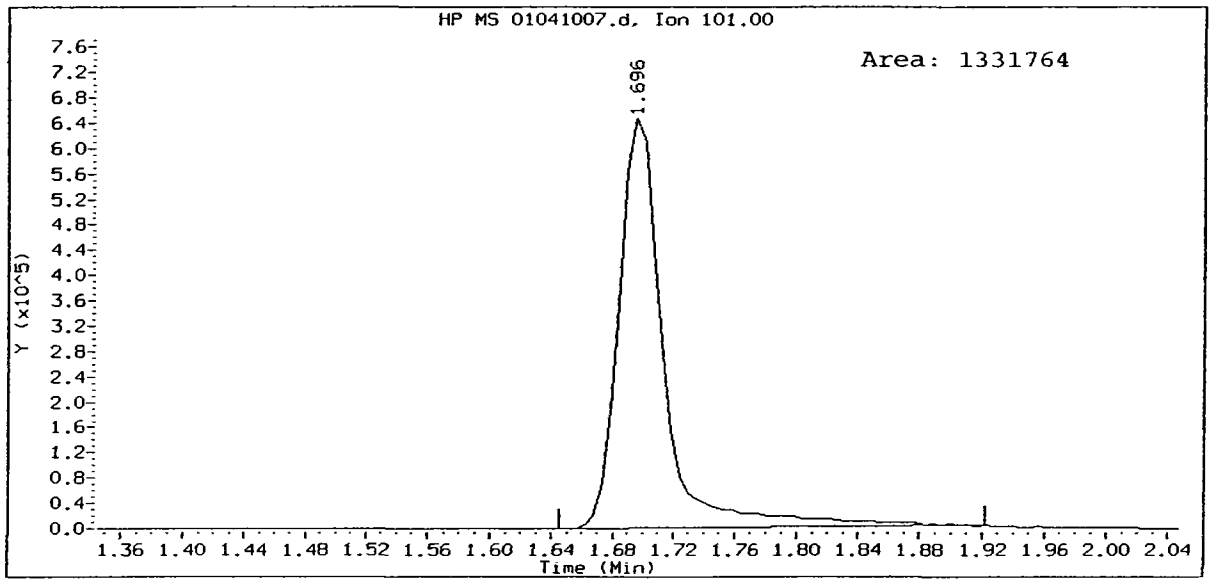

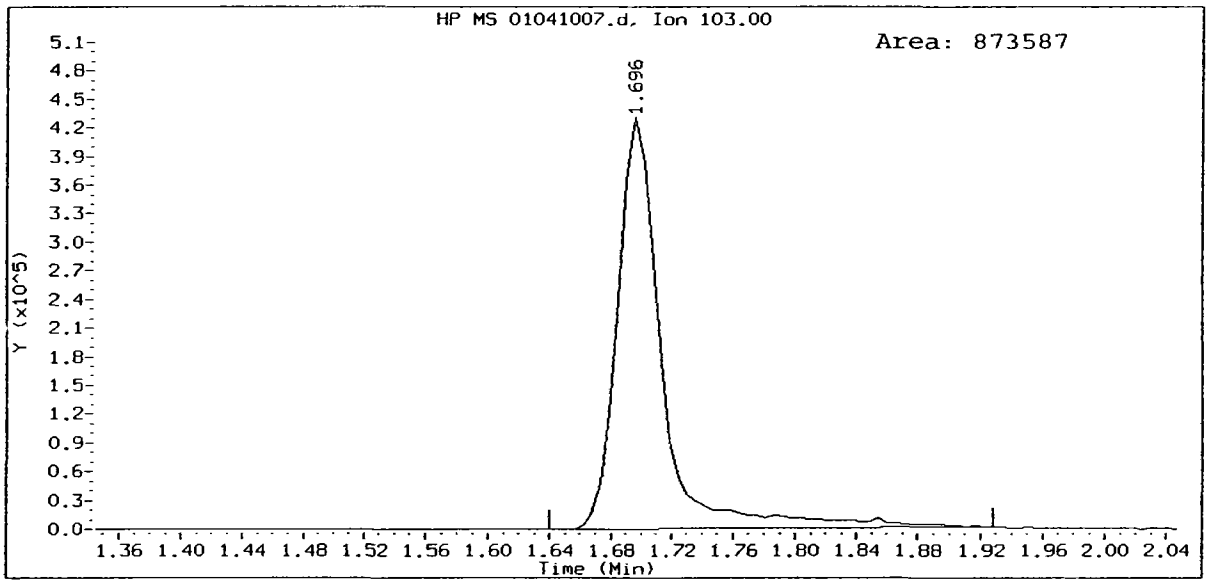

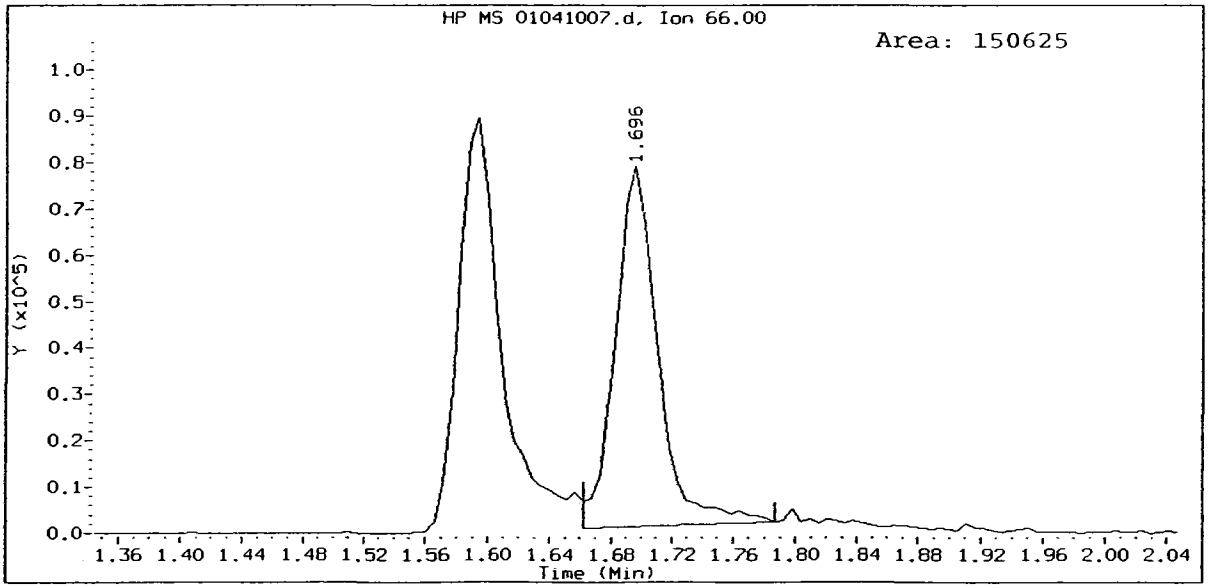

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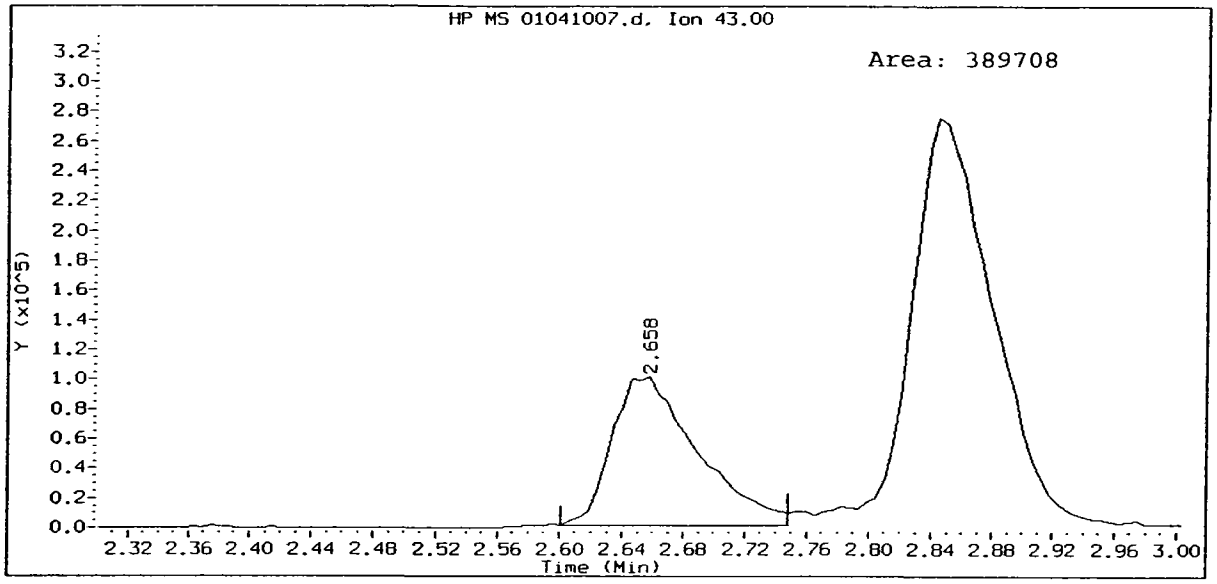

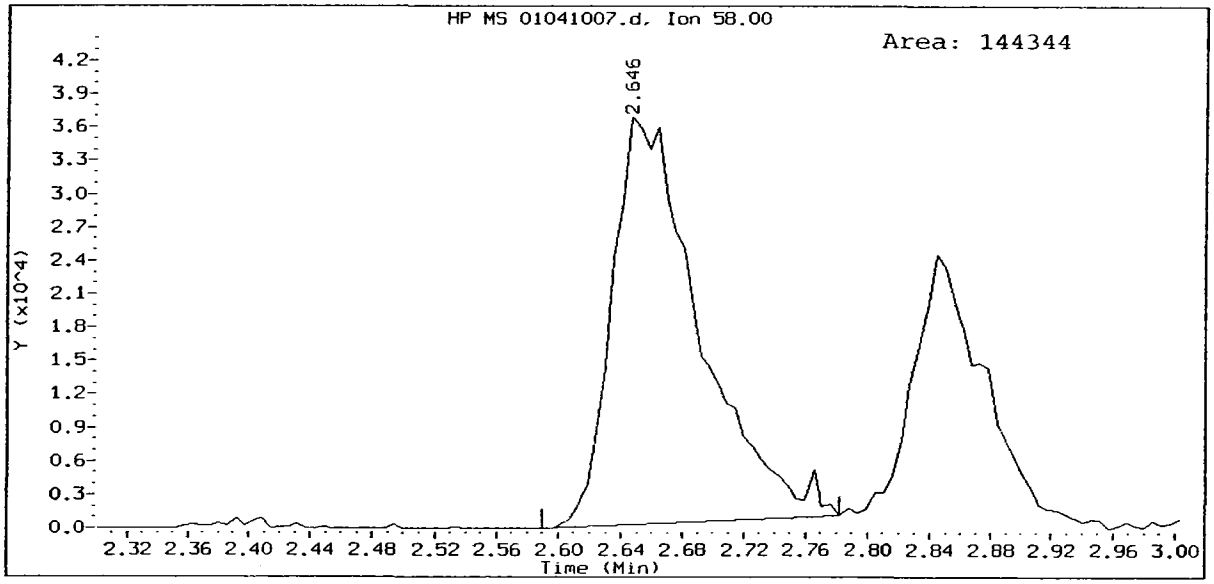

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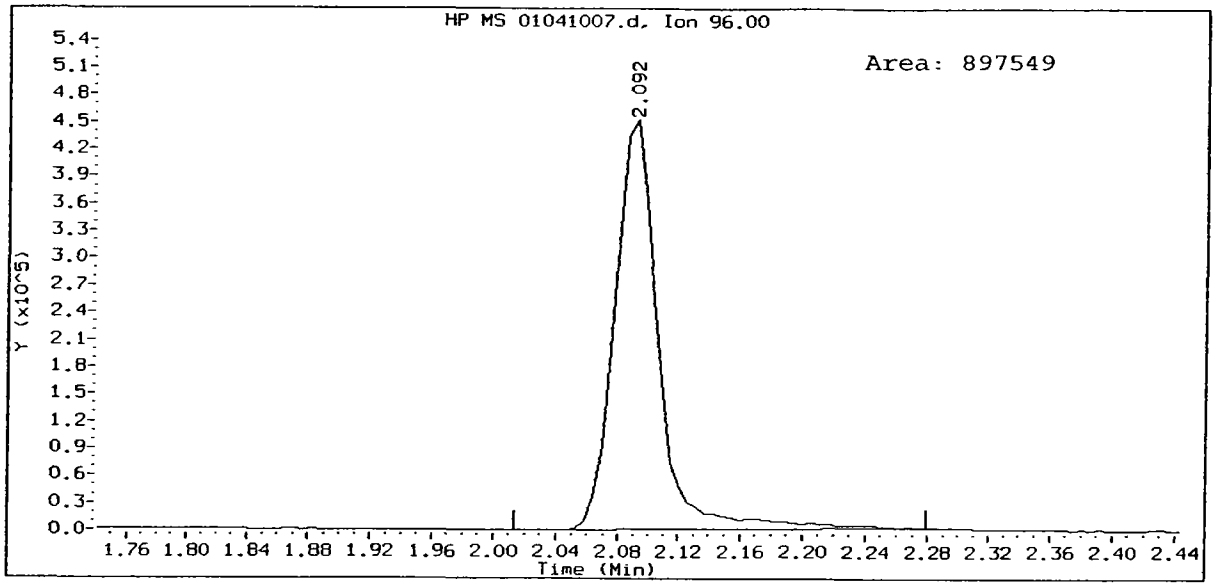
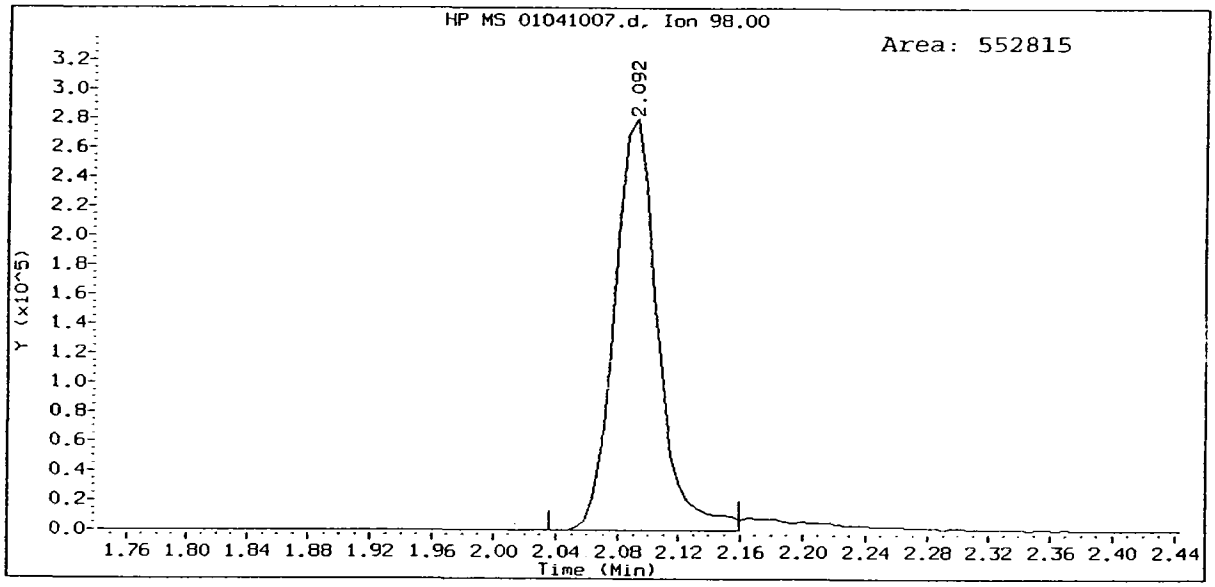
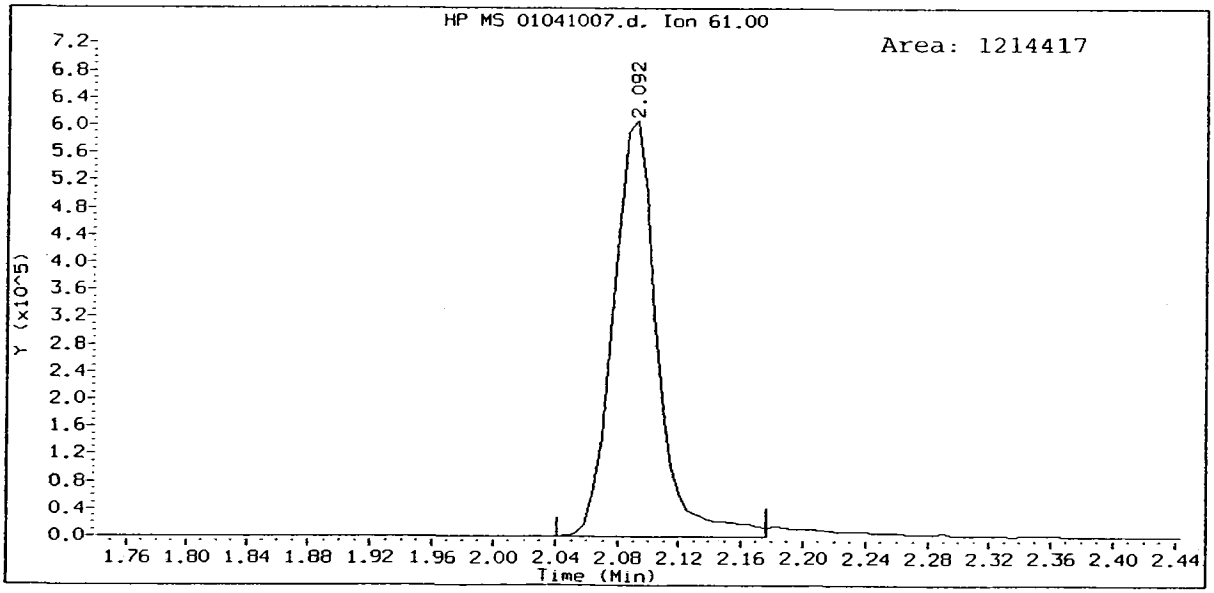
1,1-Dichloroethene Amount: 19.52







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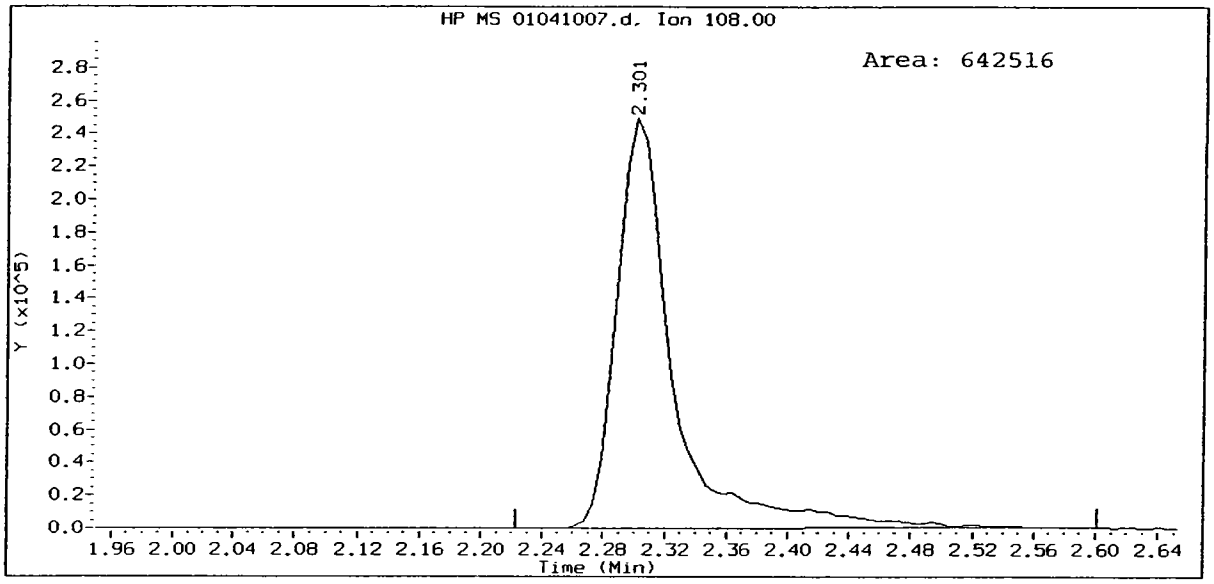

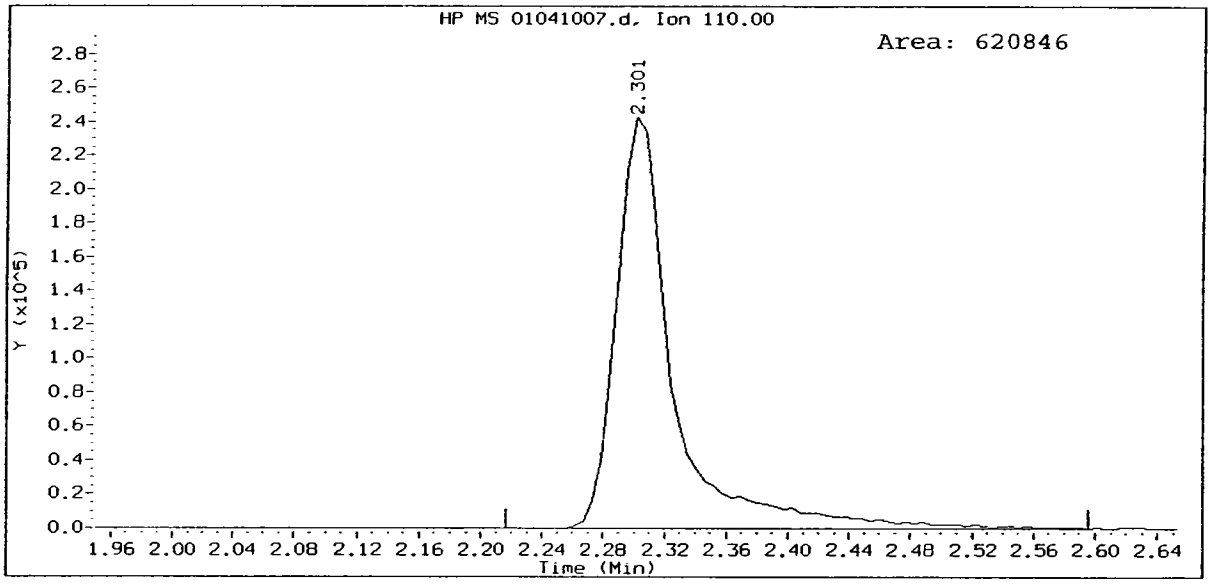

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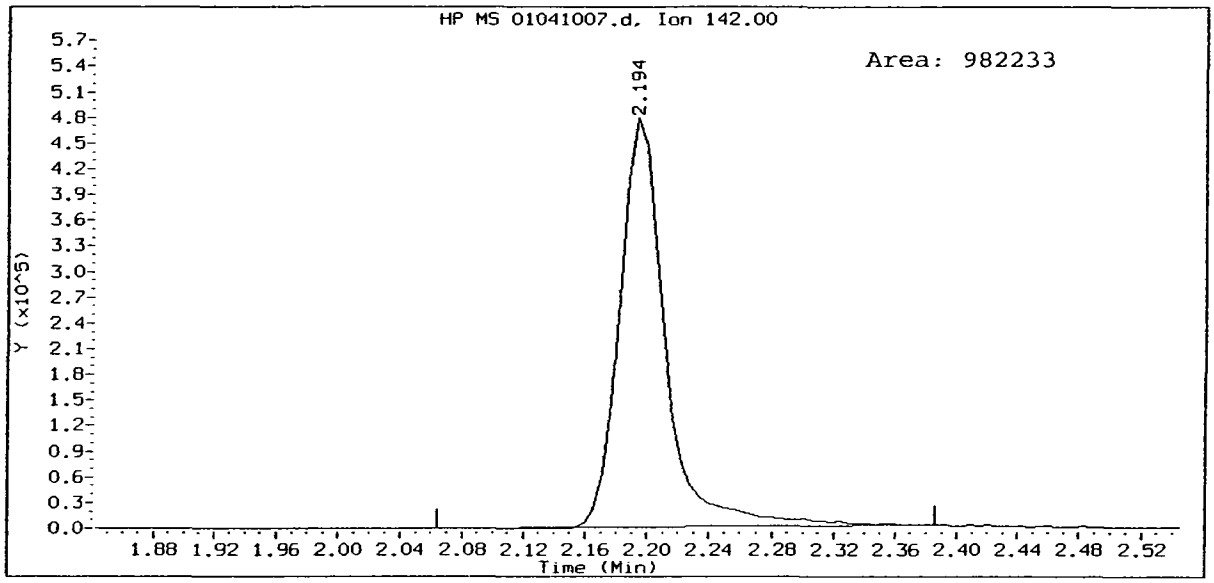

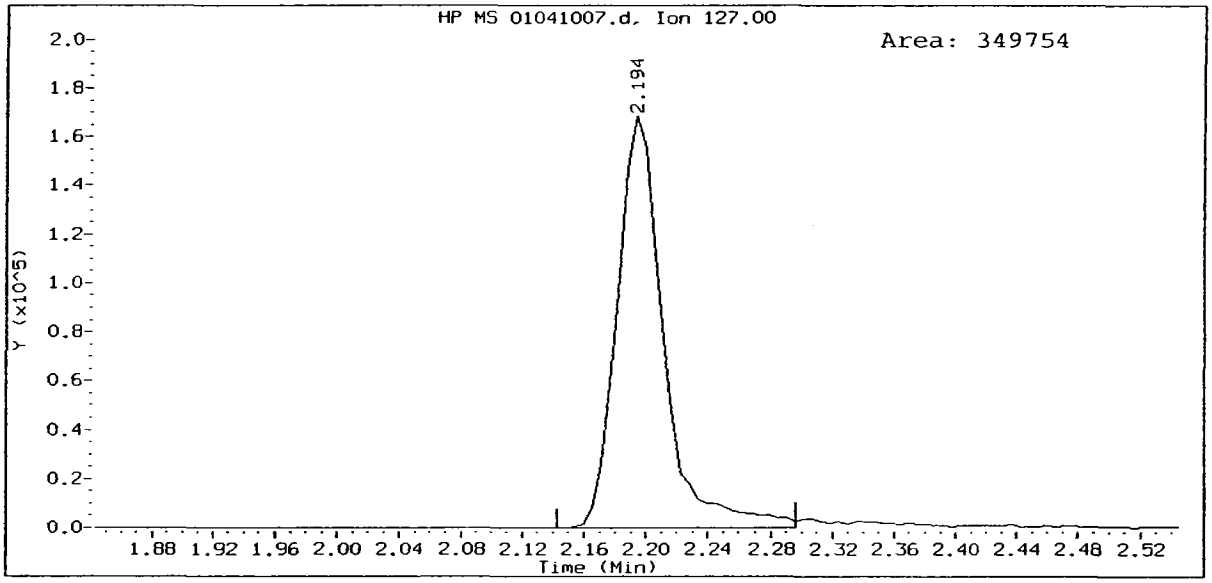

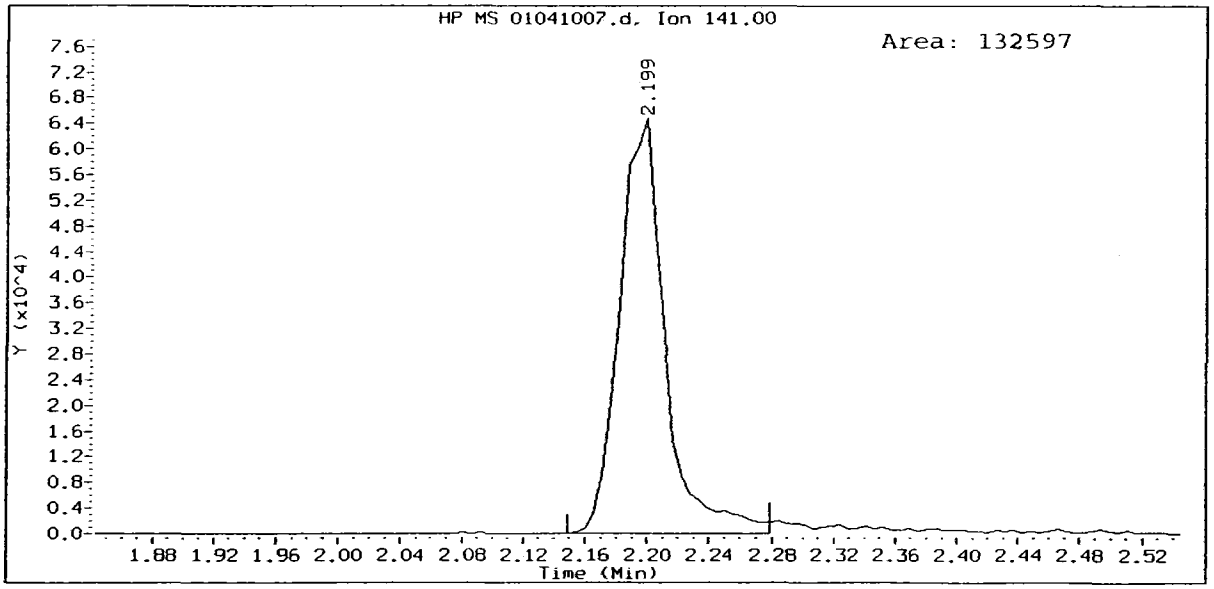

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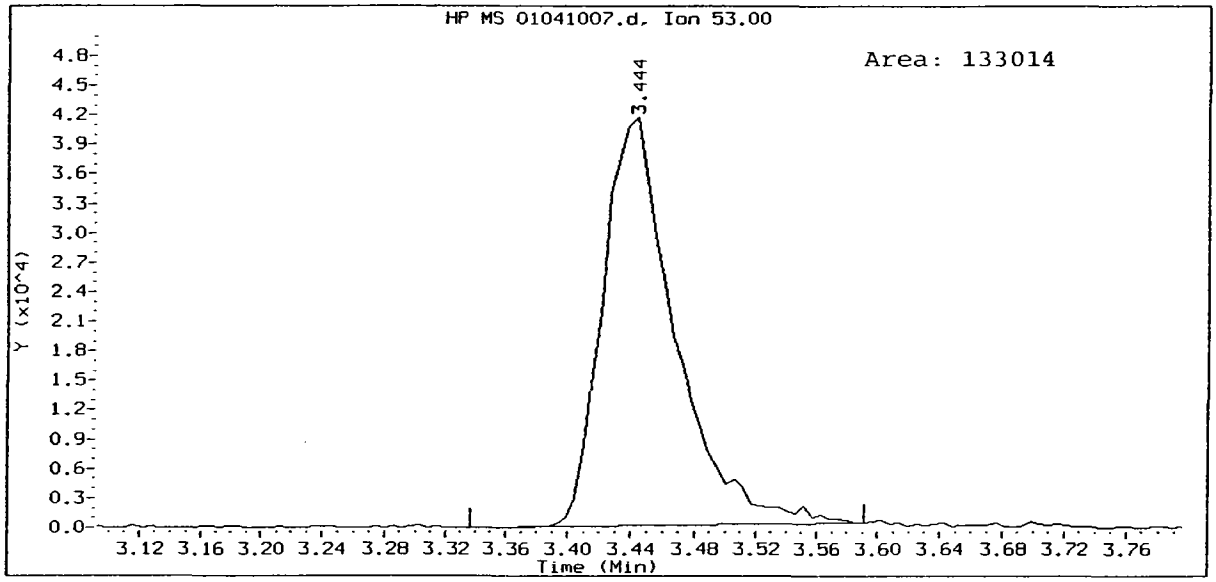

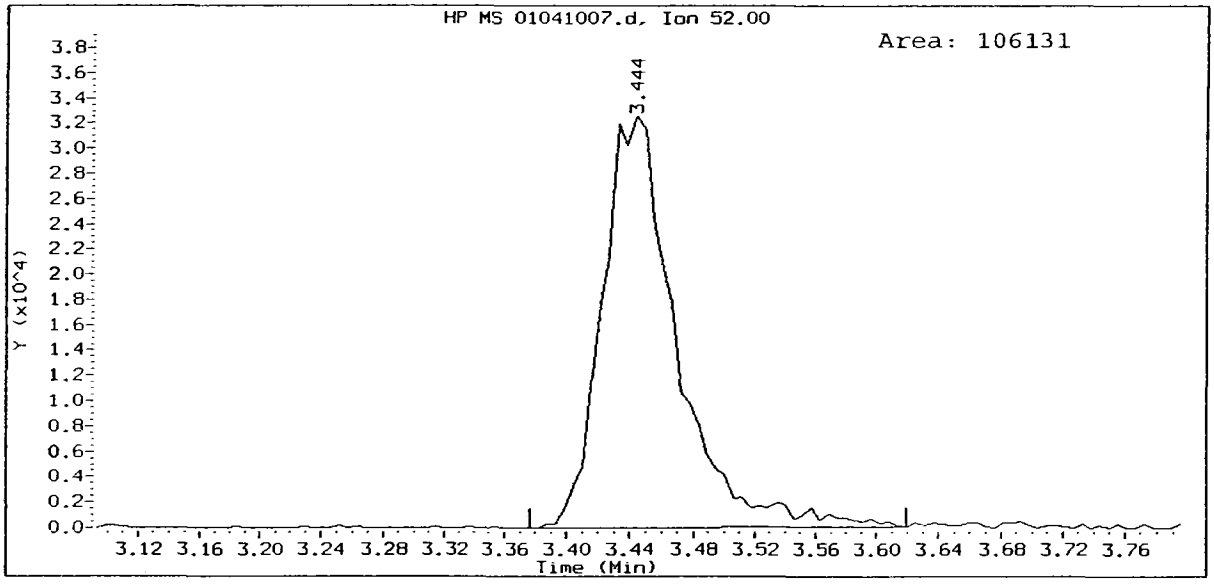

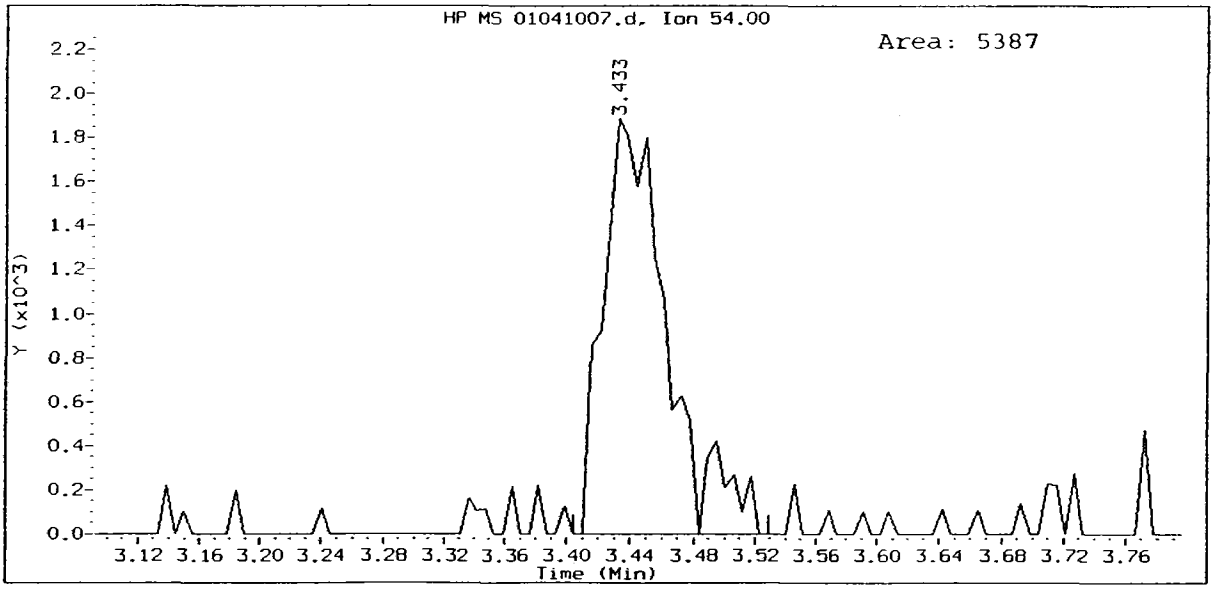

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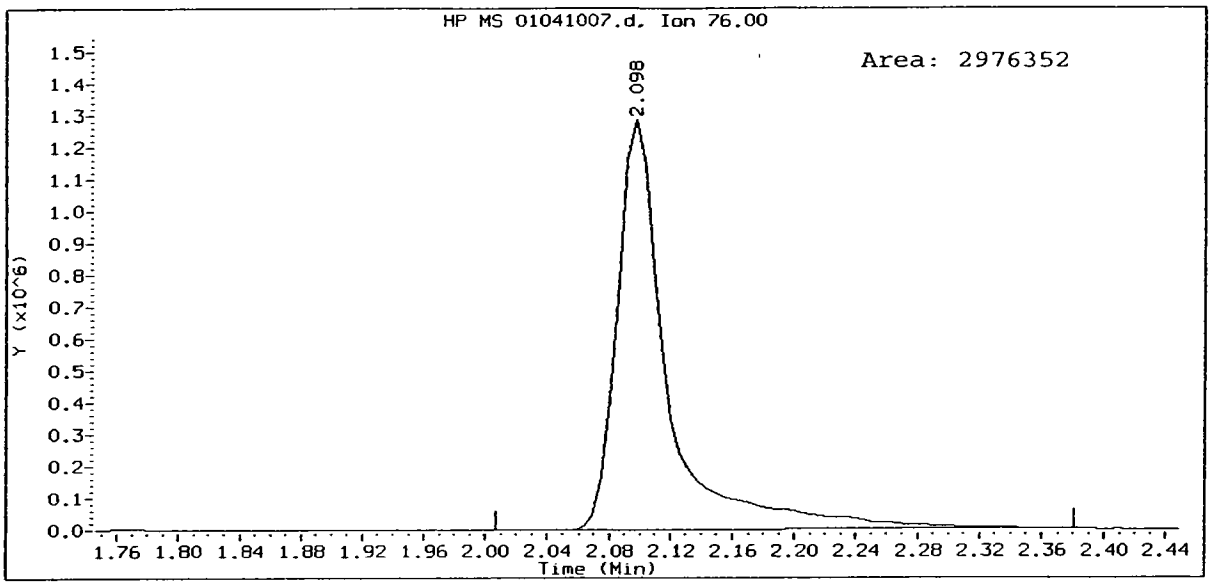

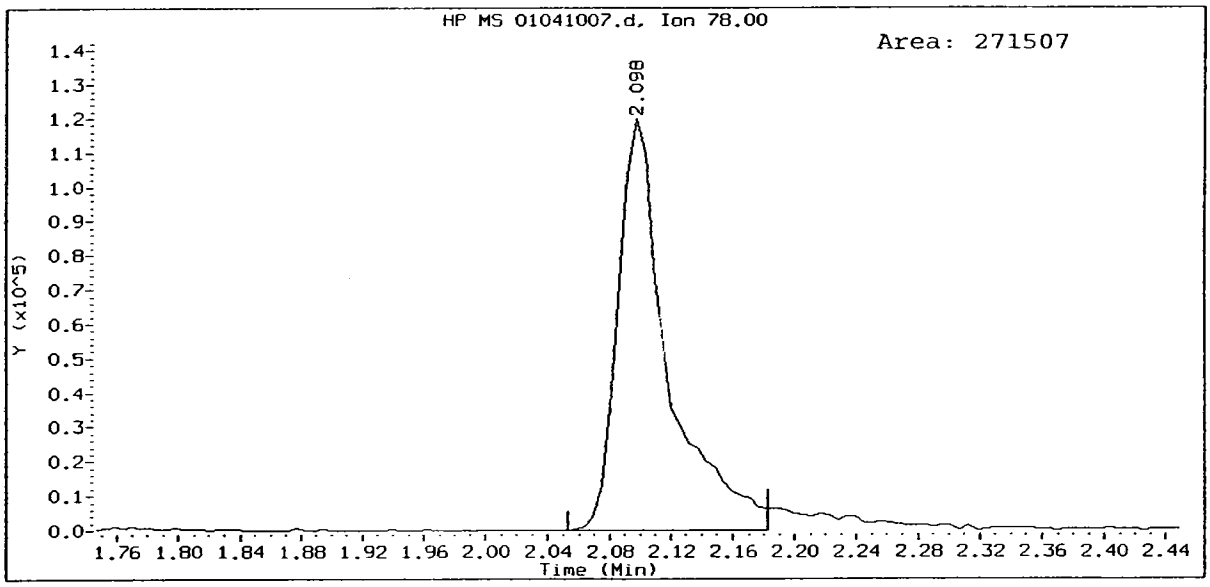

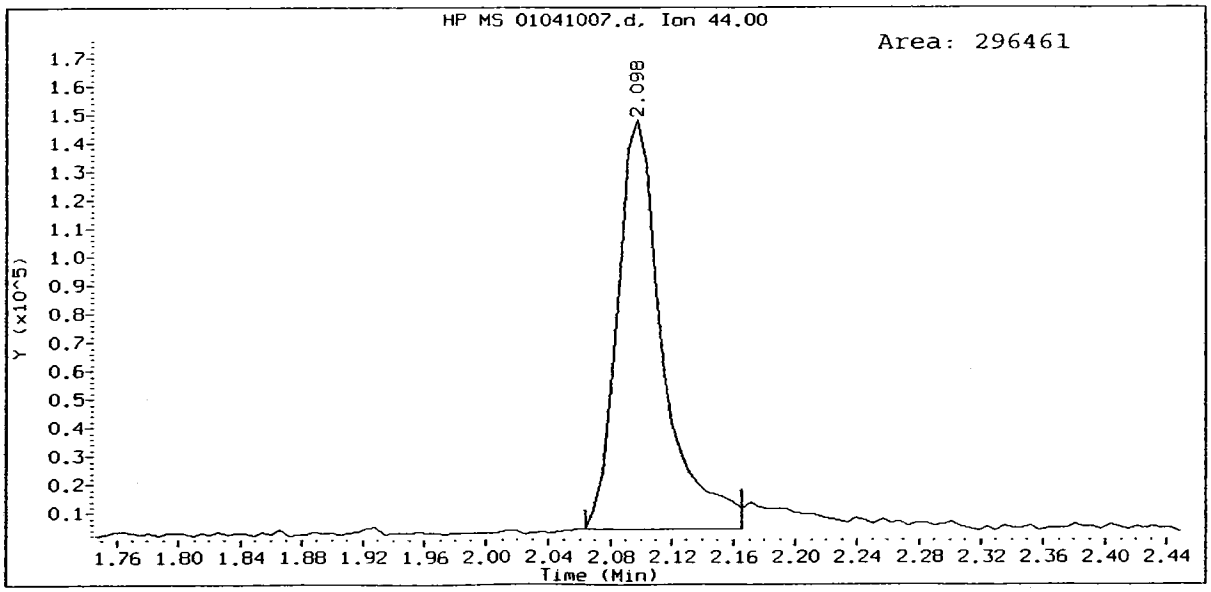

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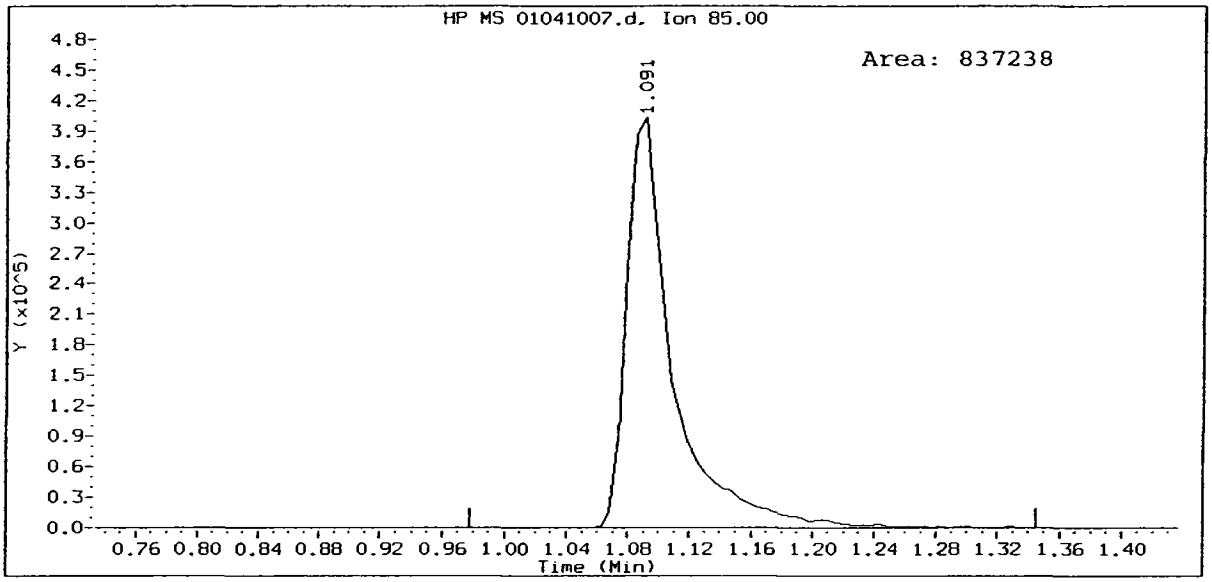

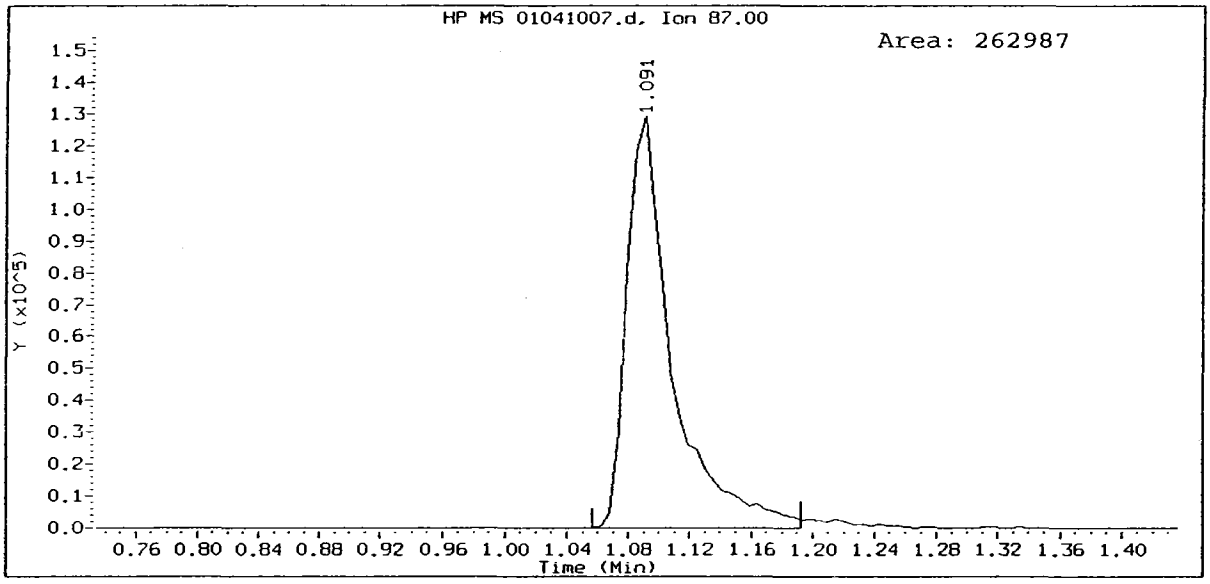

PC
1/5/10

Analytical Resources, Inc.

8260C

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ls bottle: 1 Calibration Sample, Level: 7
il Factor: 1.00000
ntegrator: HP RTE Compound Sublist: voa+hex.sub
arget Version: 3.50

oncentration 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)

nd Variable Local Compound Variable

pounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.091	1.085	(0.226)	1698968	40.0000	40.154
72 Hexane	41	2.844	2.850	(0.589)	2175014	40.0000	37.159
2 Chloromethane	50	1.221	1.221	(0.253)	1757468	40.0000	38.804
3 Vinyl Chloride	62	1.272	1.272	(0.263)	2090624	40.0000	39.230
4 Bromomethane	94	1.498	1.498	(0.310)	1206598	40.0000	47.103
5 Chloroethane	64	1.589	1.594	(0.329)	1063894	40.0000	33.864
6 Trichlorofluoromethane	101	1.696	1.696	(0.351)	2735167	40.0000	39.228(M)
12 Acrolein	56	2.375	2.375	(0.492)	764462	200.000	190.33
9 112Trichloro122Trifluoroethane	101	2.132	2.143	(0.441)	1838192	40.0000	37.812
14 Acetone	43	2.652	2.652	(0.549)	821159	200.000	181.89
7 1,1-Dichloroethene	96	2.086	2.092	(0.432)	1759872	40.0000	37.043(M)
11 Bromoethane	108	2.301	2.301	(0.476)	1286474	40.0000	38.536
10 Iodomethane	142	2.194	2.194	(0.454)	2096865	40.0000	45.853
13 Methylene Chloride	84	2.590	2.595	(0.536)	1838048	40.0000	38.218
18 Acrylonitrile	53	3.438	3.444	(0.712)	271621	40.0000	36.610(M)
16 Methyl tert butyl ether	73	2.878	2.878	(0.596)	3854165	40.0000	39.206

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	mpounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
8	Carbon Disulfide	76	2.098	2.098	(0.434)	5876520	40.0000	37.200
15	Trans-1,2-Dichloroethene	96	2.743	2.748	(0.568)	2083103	40.0000	38.816
19	Vinyl Acetate	43	3.682	3.682	(0.762)	1793044	40.0000	41.322
17	1,1-Dichloroethane	63	3.376	3.376	(0.699)	2937464	40.0000	38.880
29	2-Butanone	72	4.490	4.496	(0.930)	558621	200.000	193.24
21	2,2-Dichloropropane	77	4.010	4.010	(0.830)	2810832	40.0000	38.092
20	Cis-1,2-Dichloroethene	96	3.914	3.913	(0.810)	2038664	40.0000	39.027
32	Pentafluorobenzene	168	4.830	4.830	(1.000)	959119	10.0000	
23	Chloroform	83	4.191	4.191	(0.868)	3118474	40.0000	39.371
22	Bromochloromethane	128	4.100	4.094	(0.849)	901527	40.0000	39.330
25	Dibromofluoromethane	111	4.355	4.360	(0.902)	340012	10.0000	9.872
26	1,1,1-Trichloroethane	97	4.355	4.355	(0.902)	3006523	40.0000	39.055
28	1,1-Dichloropropene	75	4.479	4.479	(0.849)	2485734	40.0000	39.646
24	Carbon Tetrachloride	117	4.293	4.292	(0.813)	2382712	40.0000	44.767
31	d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	333957	10.0000	9.888
33	1,2-Dichloroethane	62	4.881	4.881	(0.925)	1897029	40.0000	39.071
30	Benzene	78	4.700	4.700	(0.891)	7132473	40.0000	38.305
35	1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1381326	10.0000	
34	Trichloroethene	130	5.232	5.226	(0.991)	2291276	40.0000	39.305
38	1,2-Dichloropropane	63	5.673	5.667	(1.075)	1573568	40.0000	38.022
39	Bromodichloromethane	83	5.741	5.741	(1.088)	2176478	40.0000	40.576
37	Dibromomethane	93	5.577	5.577	(1.057)	832864	40.0000	39.191
40	2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	650144	40.0000	42.168
45	4-Methyl-2-Pentanone	58	6.832	6.827	(1.295)	1491803	200.000	200.06
41	Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	2700236	40.0000	39.289
42	d8-Toluene	98	6.442	6.436	(1.221)	1468631	10.0000	10.053
43	Toluene	92	6.482	6.482	(1.228)	4893230	40.0000	37.611
46	Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	2240684	40.0000	39.085
51	2-Hexanone	43	7.545	7.540	(0.974)	2163961	200.000	207.98
47	1,1,2-Trichloroethane	97	6.974	6.974	(1.322)	1220256	40.0000	38.711
49	1,3-Dichloropropane	76	7.195	7.194	(0.929)	2060684	40.0000	39.369
44	Tetrachloroethene	166	6.799	6.798	(0.878)	2318280	40.0000	38.570
48	Chlorodibromomethane	129	7.115	7.110	(0.919)	1579925	40.0000	41.224
50	1,2-Dibromoethane	107	7.291	7.291	(1.382)	1250383	40.0000	40.295
52	d5-Chlorobenzene	117	7.743	7.743	(1.000)	1210402	10.0000	
53	Chlorobenzene	112	7.760	7.754	(1.002)	5220384	40.0000	37.975
54	Ethyl Benzene	91	7.800	7.800	(1.007)	9223532	40.0000	38.934(M)
55	1,1,1,2-Tetrachloroethane	131	7.822	7.822	(1.010)	1894636	40.0000	39.619
56	m,p-xylene	106	7.936	7.930	(1.025)	6932750	80.0000	74.680
57	o-Xylene	106	8.298	8.292	(1.072)	3658643	40.0000	40.455
58	Styrene	104	8.349	8.343	(1.078)	5758661	40.0000	40.199
60	Isopropyl Benzene	105	8.580	8.575	(0.875)	8441998	40.0000	38.556
59	Bromoform	173	8.349	8.343	(0.851)	872324	40.0000	40.410
64	1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	1158473	40.0000	40.518
61	4-Bromofluorobenzene	95	8.807	8.807	(1.137)	577723	10.0000	10.464
66	1,2,3-Trichloropropane	110	9.112	9.112	(0.929)	369653	40.0000	39.782
68	Trans-1,4-Dichloro 2-Butene	53	9.169	9.163	(0.935)	341373	40.0000	43.989

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	apounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
63	N-Propyl Benzene	91	8.948	8.942	(0.912)	9065015	40.0000	37.092
62	Bromobenzene	156	8.892	8.886	(0.907)	2310981	40.0000	38.664
67	1,3,5-Trimethyl Benzene	105	9.135	9.129	(0.931)	7186202	40.0000	38.933
65	2-Chloro Toluene	91	9.061	9.061	(0.924)	6011100	40.0000	39.234
69	4-Chloro Toluene	91	9.214	9.214	(0.939)	6201259	40.0000	39.710
70	T-Butyl Benzene	119	9.406	9.401	(0.959)	6427906	40.0000	39.988
71	1,2,4-Trimethylbenzene	105	9.474	9.469	(0.966)	7265519	40.0000	39.261
72	S-Butyl Benzene	105	9.570	9.565	(0.976)	8533051	40.0000	38.012
73	4-Isopropyl Toluene	119	9.706	9.706	(0.990)	7470115	40.0000	39.357
74	1,3-Dichlorobenzene	146	9.740	9.734	(0.993)	4382899	40.0000	37.774
75	d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	668467	10.0000	
76	1,4-Dichlorobenzene	146	9.825	9.819	(1.002)	4392774	40.0000	37.992
77	N-Butyl Benzene	91	10.091	10.085	(1.029)	6313577	40.0000	39.425
78	d4-1,2-Dichlorobenzene	152	10.193	10.187	(1.039)	593694	10.0000	9.973
79	1,2-Dichlorobenzene	146	10.204	10.198	(1.040)	3961427	40.0000	38.722
81	1,2-Dibromo 3-Chloropropane	75	10.945	10.939	(1.116)	211599	40.0000	38.976
83	1,2,4-Trichlorobenzene	180	11.596	11.590	(1.182)	2621153	40.0000	41.257
82	Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.181)	1117197	40.0000	39.330
84	Naphthalene	128	11.901	11.895	(1.213)	4572926	40.0000	42.844
85	1,2,3-Trichlorobenzene	180	12.076	12.076	(1.231)	2117059	40.0000	41.132

: Flag Legend

- Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

nstrument ID: nt5.i
ab File ID: 01041008.d
ab Smp Id: 40_0104
nalysis Type: VOA
uant Type: ISTD
perator: PC
ethod File: /chem1/nt5.i/04JAN10.b/VO010410L.m
isc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 40 ppb
Level: LOW
Sample Type: WATER

est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	959119	5.75
35 1,4-Difluorobenze	1305872	652936	2611744	1381326	5.78
52 d5-Chlorobenzene	1174180	587090	2348360	1210402	3.08
75 d4-1,4-Dichlorobe	665265	332632	1330530	668467	0.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	0.00

EA UPPER LIMIT = +100% of internal standard area.
EA LOWER LIMIT = - 50% of internal standard area.
' UPPER LIMIT = + 0.50 minutes of internal standard RT.
' LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/04JAN10.b/01041008.d
Date : 04-JAN-2010 13:36
Client ID: 40 ppb
Sample Info: 40_0104,10,10,0,

Column phase: RTXVMS

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

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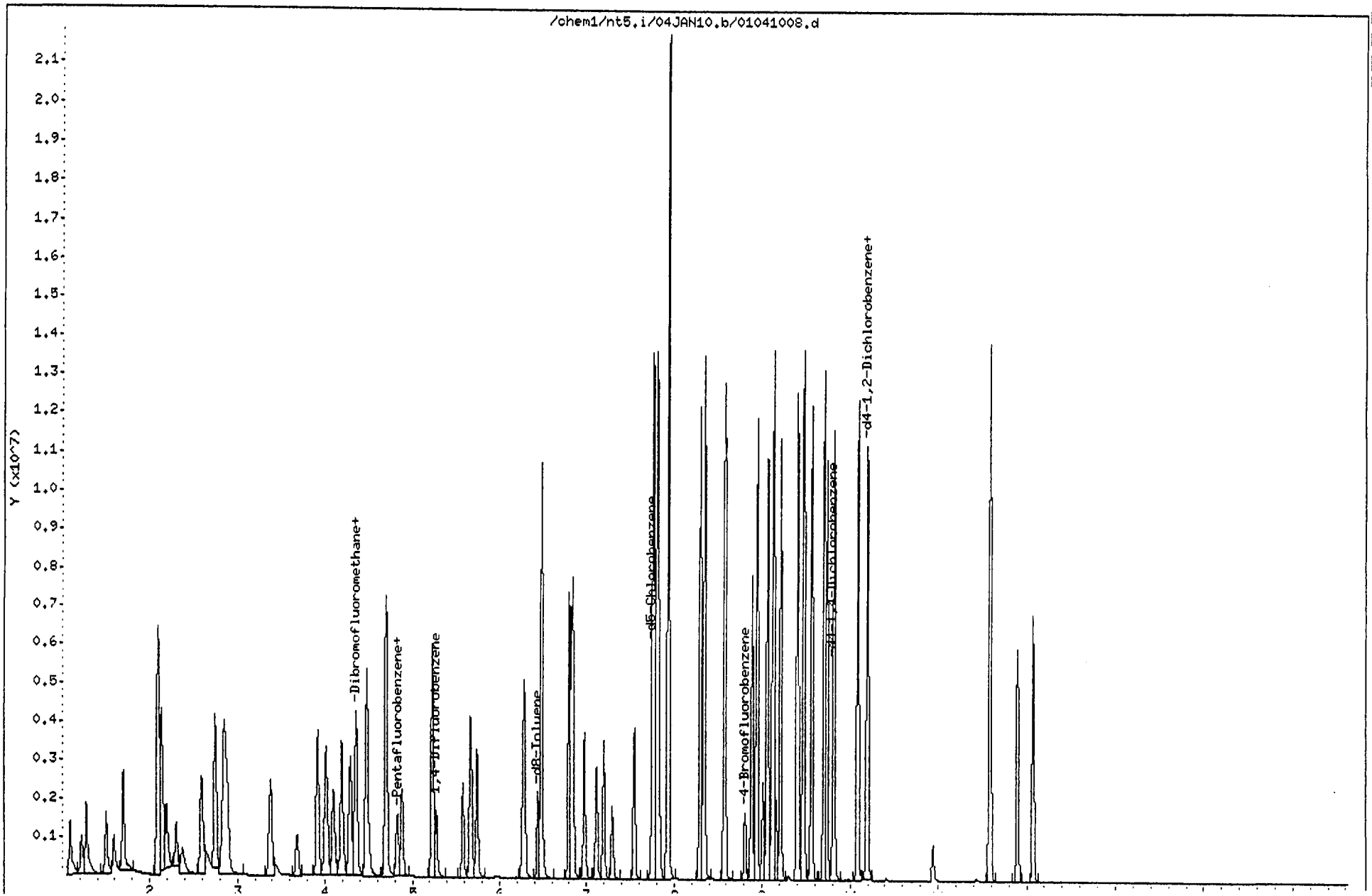

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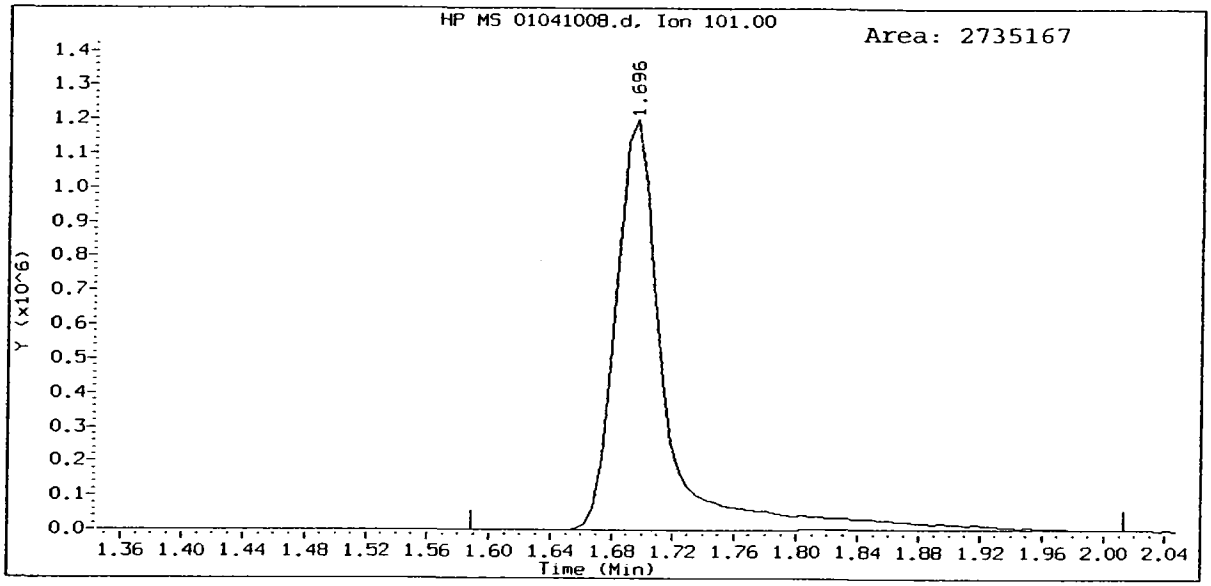

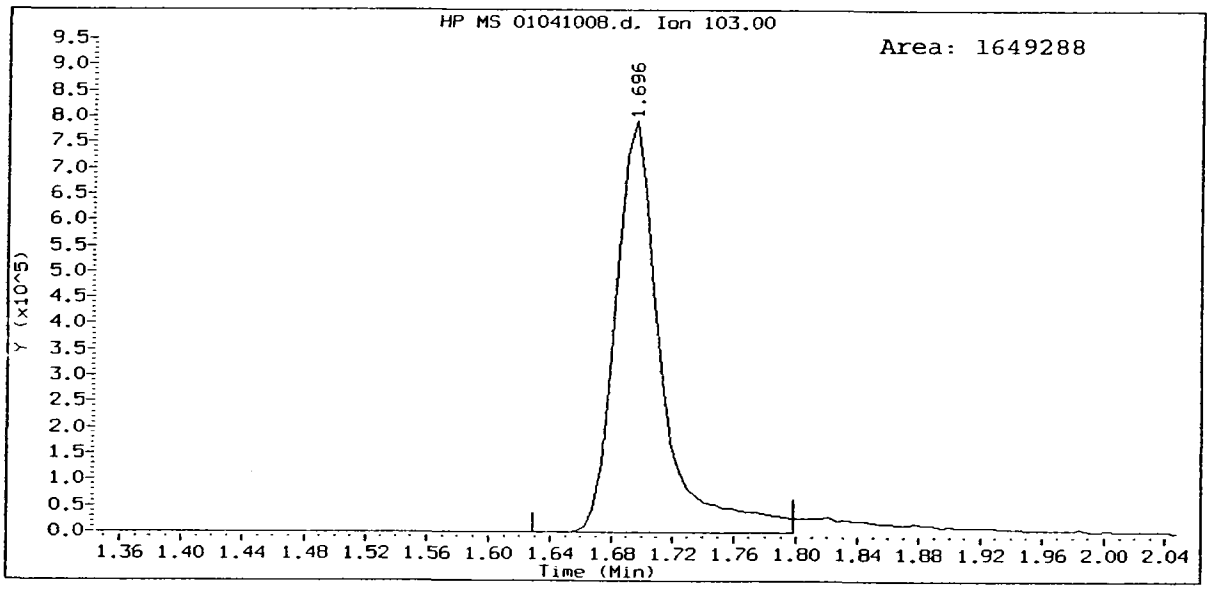

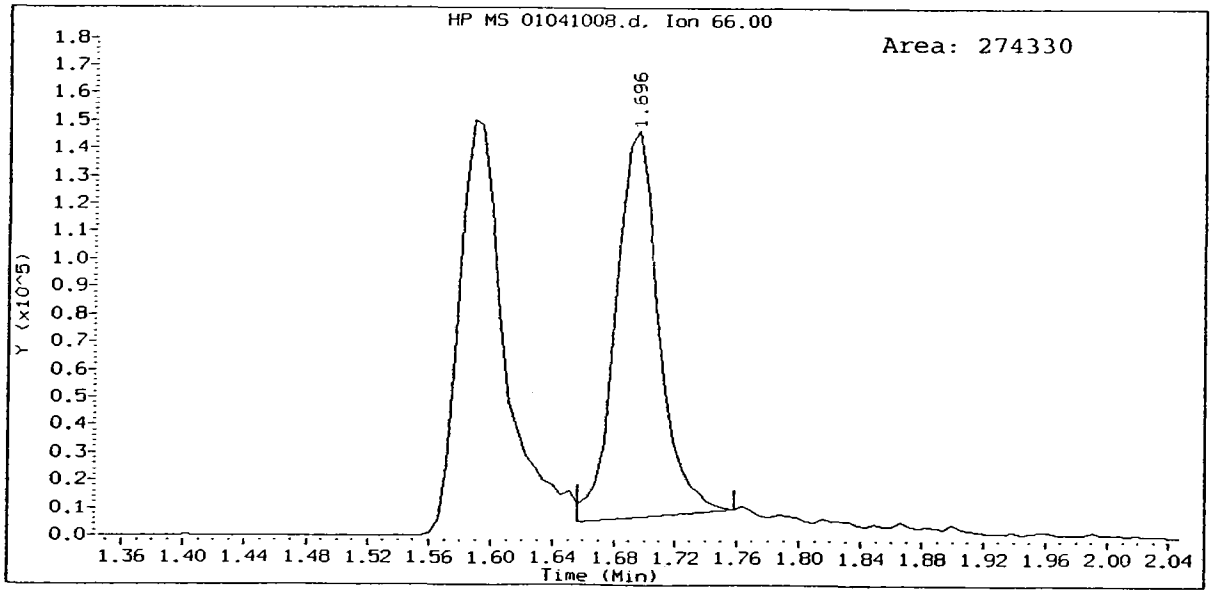

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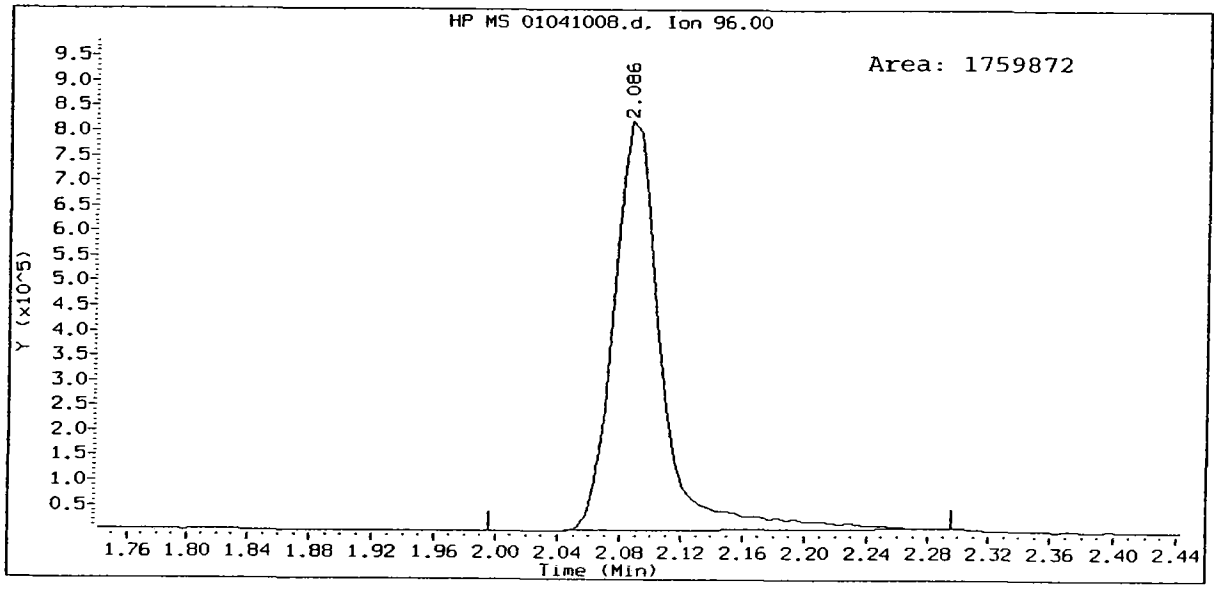

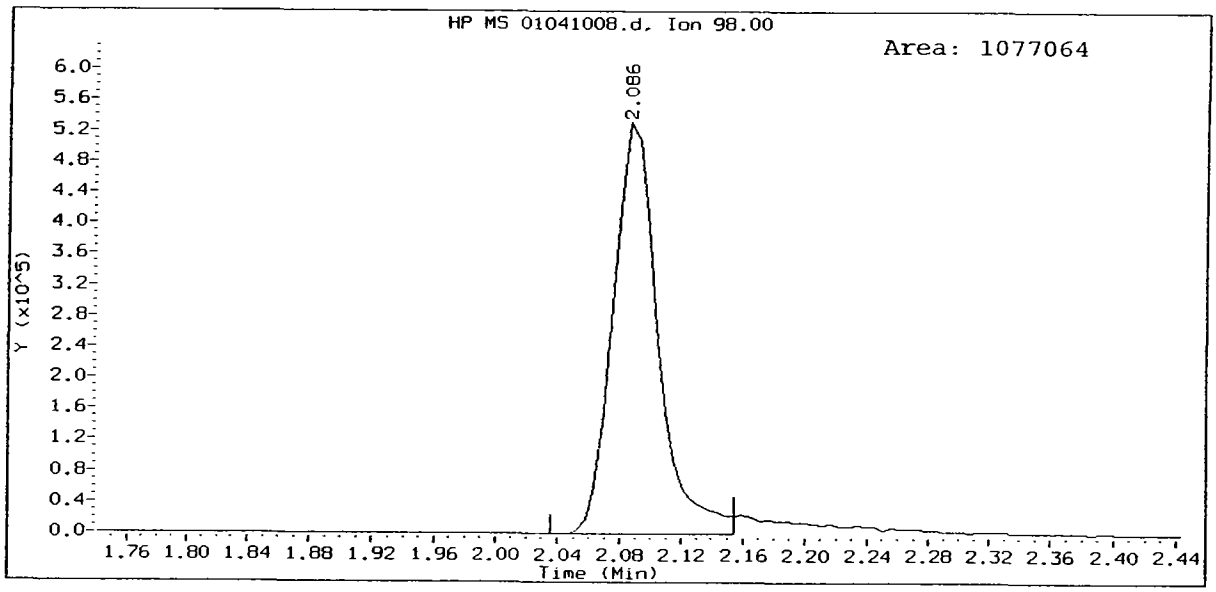

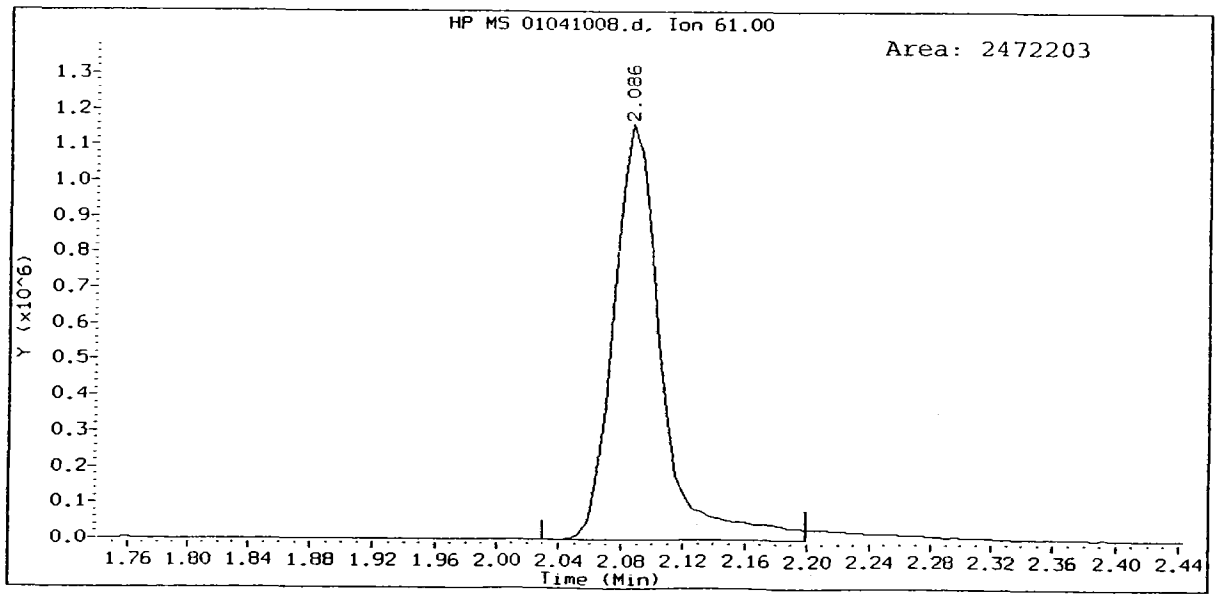

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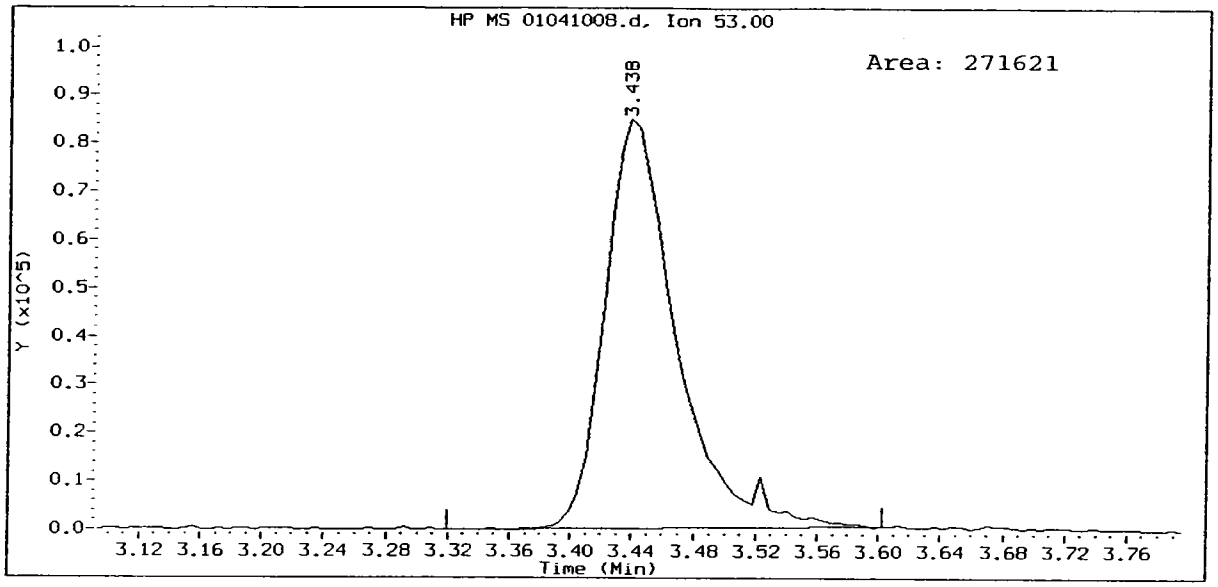

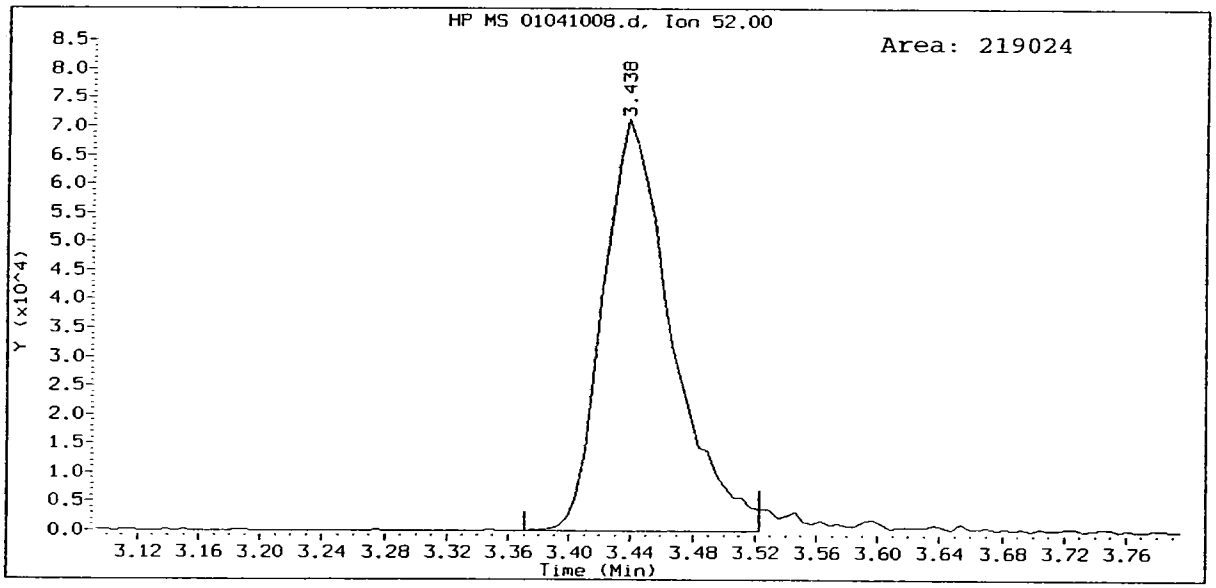

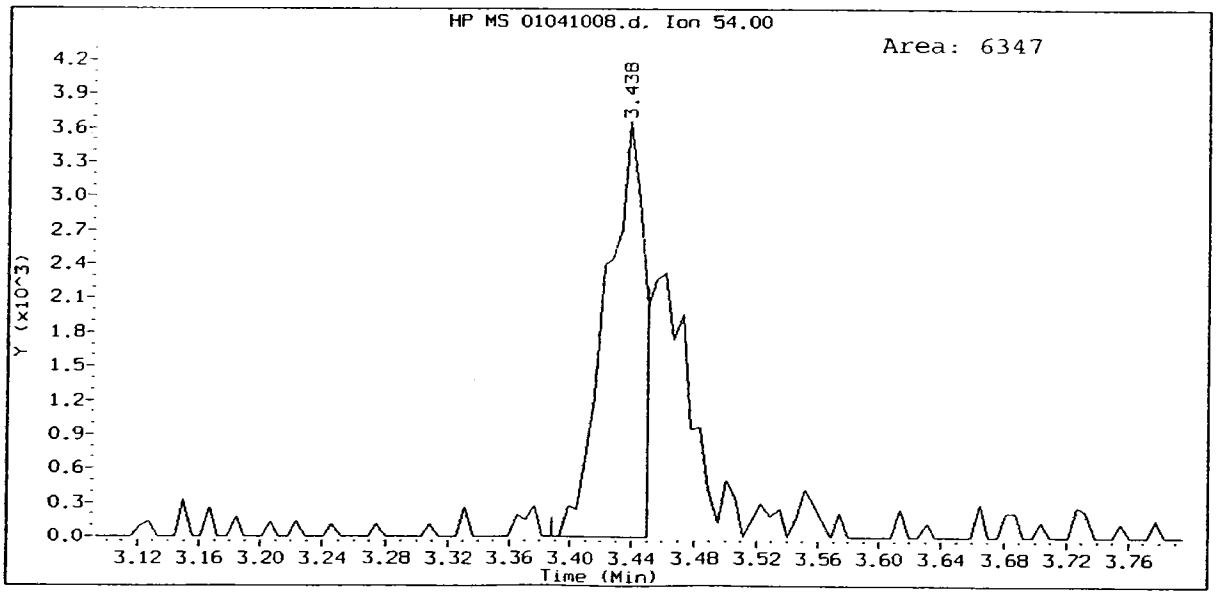

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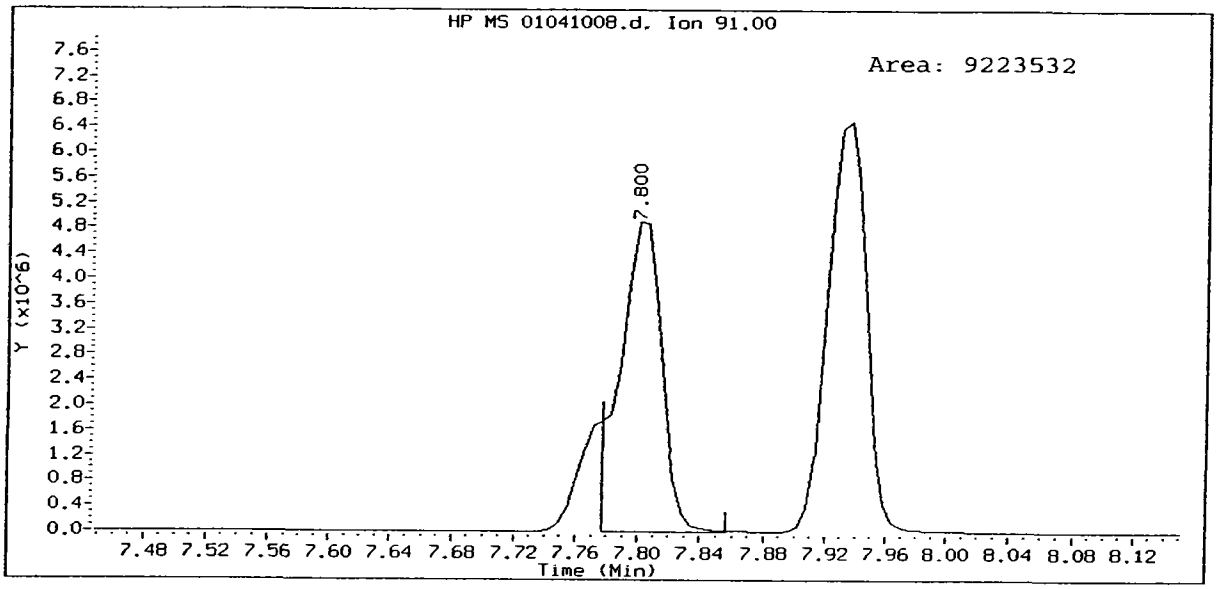

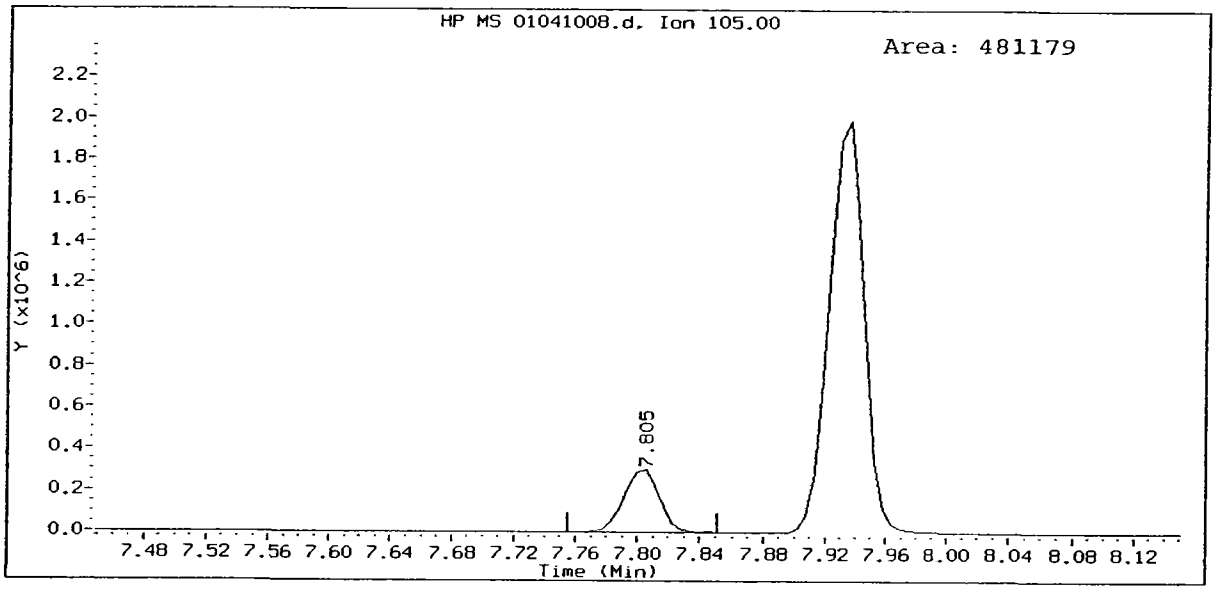

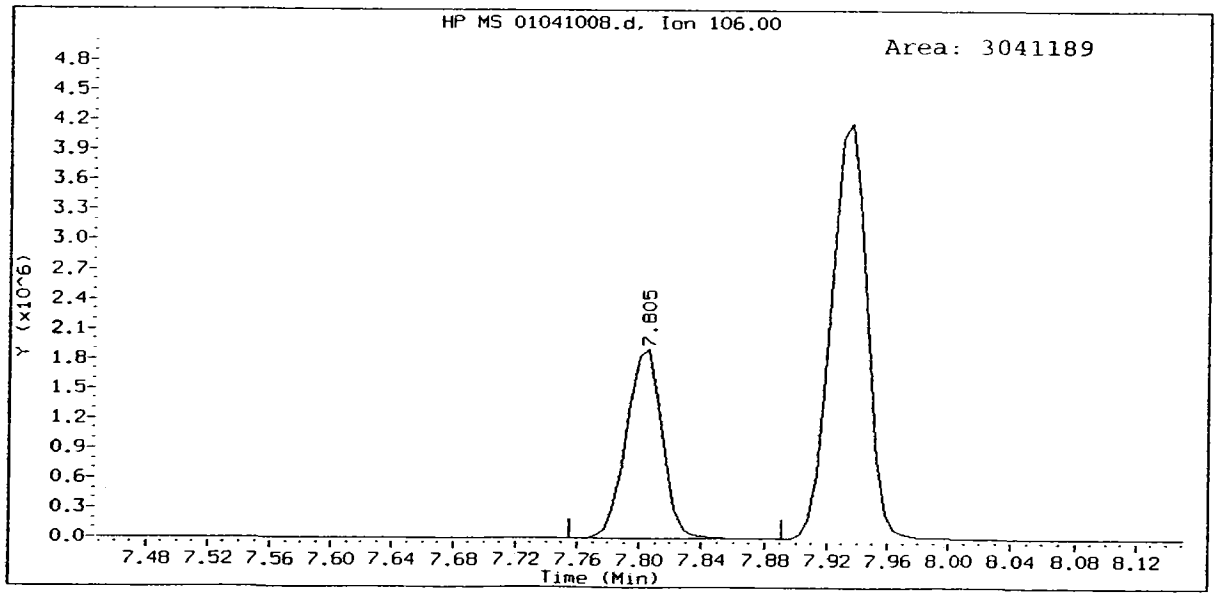

PC
1/25/10

Analytical Resources, Inc.

8260C

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ls bottle: 1 Calibration Sample, Level: 8
il Factor: 1.00000
ntegrator: HP RTE Compound Sublist: voa+hex.sub
arget Version: 3.50

oncentration 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)

pnd Variable Local Compound Variable

mpounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.091	1.085	(0.226)	2633795	60.0000	60.576
172 Hexane	41	2.844	2.850	(0.589)	3318544	60.0000	55.172
2 Chloromethane	50	1.221	1.221	(0.253)	2716960	60.0000	58.377
3 Vinyl Chloride	62	1.272	1.272	(0.263)	3262465	60.0000	59.574
4 Bromomethane	94	1.498	1.498	(0.310)	1969465	60.0000	74.818
5 Chloroethane	64	1.589	1.594	(0.329)	1641430	60.0000	50.843
6 Trichlorofluoromethane	101	1.696	1.696	(0.351)	4150104	60.0000	57.922(M)
12 Acrolein	56	2.375	2.375	(0.492)	1214542	300.000	294.26
9 112Trichloro122Trifluoroethane	101	2.132	2.143	(0.441)	2806811	60.0000	56.185
14 Acetone	43	2.652	2.652	(0.549)	1370374	300.000	295.39
7 1,1-Dichloroethene	96	2.086	2.092	(0.432)	2764963	60.0000	56.635(M)
11 Bromoethane	108	2.301	2.301	(0.476)	2019082	60.0000	58.856(M)
10 Iodomethane	142	2.188	2.194	(0.453)	3256332	60.0000	69.294
13 Methylene Chloride	84	2.590	2.595	(0.536)	2856857	60.0000	57.806
18 Acrylonitrile	53	3.438	3.444	(0.712)	446370	60.0000	58.547(M)
16 Methyl tert butyl ether	73	2.878	2.878	(0.596)	6023190	60.0000	59.623

mpounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
8 Carbon Disulfide	76	2.092	2.098	(0.433)	8811649	60.0000	54.282
15 Trans-1,2-Dichloroethene	96	2.743	2.748	(0.568)	3221672	60.0000	58.419
19 Vinyl Acetate	43	3.682	3.682	(0.762)	2887234	60.0000	64.751
17 1,1-Dichloroethane	63	3.376	3.376	(0.699)	4671978	60.0000	60.176
29 2-Butanone	72	4.491	4.496	(0.930)	896611	300.000	301.83
21 2,2-Dichloropropane	77	4.010	4.010	(0.830)	4451243	60.0000	58.701
20 Cis-1,2-Dichloroethene	96	3.914	3.913	(0.810)	3228269	60.0000	60.140
32 Pentafluorobenzene	168	4.830	4.830	(1.000)	985601	10.0000	
23 Chloroform	83	4.191	4.191	(0.868)	4871403	60.0000	59.850
22 Bromochloromethane	128	4.100	4.094	(0.849)	1430597	60.0000	60.734
25 Dibromofluoromethane	111	4.360	4.360	(0.903)	357737	10.0000	10.108
26 1,1,1-Trichloroethane	97	4.355	4.355	(0.902)	4763921	60.0000	60.221
28 1,1-Dichloropropene	75	4.479	4.479	(0.849)	3997317	60.0000	60.396
24 Carbon Tetrachloride	117	4.293	4.292	(0.813)	3785324	60.0000	67.374
31 d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	353504	10.0000	10.185
33 1,2-Dichloroethane	62	4.881	4.881	(0.925)	2963680	60.0000	57.825
30 Benzene	78	4.700	4.700	(0.891)	10786500	60.0000	54.877
35 1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1458129	10.0000	
34 Trichloroethene	130	5.232	5.226	(0.991)	3588755	60.0000	58.319
38 1,2-Dichloropropane	63	5.673	5.667	(1.075)	2521625	60.0000	57.721
39 Bromodichloromethane	83	5.741	5.741	(1.088)	3454770	60.0000	61.014
37 Dibromomethane	93	5.582	5.577	(1.058)	1309886	60.0000	58.392
40 2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	1053726	60.0000	64.744
45 4-Methyl-2-Pentanone	58	6.832	6.827	(1.295)	2319501	300.000	294.68
41 Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	4257167	60.0000	58.680
42 d8-Toluene	98	6.442	6.436	(1.221)	1552615	10.0000	10.068
43 Toluene	92	6.482	6.482	(1.228)	7456086	60.0000	54.292
46 Trans 1,3-Dichloropropene	75	6.849	6.844	(1.298)	3516860	60.0000	58.115
51 2-Hexanone	43	7.545	7.540	(0.974)	3448804	300.000	323.73
47 1,1,2-Trichloroethane	97	6.974	6.974	(1.322)	1933831	60.0000	58.117
49 1,3-Dichloropropane	76	7.195	7.194	(0.929)	3251615	60.0000	60.671
44 Tetrachloroethene	166	6.799	6.798	(0.878)	3522065	60.0000	57.229
48 Chlorodibromomethane	129	7.115	7.110	(0.919)	2488859	60.0000	63.424
50 1,2-Dibromoethane	107	7.296	7.291	(1.383)	1965674	60.0000	60.010
52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1239345	10.0000	
53 Chlorobenzene	112	7.760	7.754	(1.002)	7780342	60.0000	55.276
54 Ethyl Benzene	91	7.805	7.800	(1.008)	12614404	60.0000	52.004(M)
55 1,1,1,2-Tetrachloroethane	131	7.828	7.822	(1.011)	2930946	60.0000	59.858
56 m,p-xylene	106	7.936	7.930	(1.025)	9918253	120.000	104.34
57 o-Xylene	106	8.303	8.292	(1.072)	5559372	60.0000	60.037
58 Styrene	104	8.349	8.343	(1.078)	8437075	60.0000	57.520
60 Isopropyl Benzene	105	8.580	8.575	(0.874)	11853086	60.0000	52.678
59 Bromoform	173	8.349	8.343	(0.851)	1369318	60.0000	61.726
64 1,1,2,2-Tetrachloroethane	83	9.016	9.010	(0.919)	1854518	60.0000	63.116
61 4-Bromofluorobenzene	95	8.812	8.807	(1.138)	594501	10.0000	10.516
66 1,2,3-Trichloropropane	110	9.118	9.112	(0.929)	568517	60.0000	59.537
68 Trans-1,4-Dichloro 2-Butene	53	9.174	9.163	(0.935)	538554	60.0000	67.529

npounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
63 N-Propyl Benzene	91	8.948	8.942	(0.912)	12605818	60.0000	50.192
62 Bromobenzene	156	8.892	8.886	(0.906)	3554783	60.0000	57.872
67 1,3,5-Trimethyl Benzene	105	9.135	9.129	(0.931)	10368880	60.0000	54.664
65 2-Chloro Toluene	91	9.067	9.061	(0.924)	8874037	60.0000	56.361
69 4-Chloro Toluene	91	9.220	9.214	(0.939)	9061859	60.0000	56.465
70 T-Butyl Benzene	119	9.406	9.401	(0.958)	9347417	60.0000	56.584
71 1,2,4-Trimethylbenzene	105	9.480	9.469	(0.966)	10399208	60.0000	54.682
72 S-Butyl Benzene	105	9.570	9.565	(0.975)	11818516	60.0000	51.231
73 4-Isopropyl Toluene	119	9.712	9.706	(0.990)	10370250	60.0000	53.166
74 1,3-Dichlorobenzene	146	9.746	9.734	(0.993)	6516307	60.0000	54.649
75 d4-1,4-Dichlorobenzene	152	9.814	9.808	(1.000)	686961	10.0000	
76 1,4-Dichlorobenzene	146	9.831	9.819	(1.002)	6545708	60.0000	55.088
77 N-Butyl Benzene	91	10.097	10.085	(1.029)	8851395	60.0000	53.784
78 d4-1,2-Dichlorobenzene	152	10.198	10.187	(1.039)	602303	10.0000	9.846
79 1,2-Dichlorobenzene	146	10.204	10.198	(1.040)	5882129	60.0000	55.948
81 1,2-Dibromo 3-Chloropropane	75	10.945	10.939	(1.115)	332739	60.0000	59.639
83 1,2,4-Trichlorobenzene	180	11.596	11.590	(1.182)	3858360	60.0000	59.095
82 Hexachloro 1,3-Butadiene	225	11.590	11.584	(1.181)	1495347	60.0000	51.225
84 Naphthalene	128	11.901	11.895	(1.213)	6840512	60.0000	62.363
85 1,2,3-Trichlorobenzene	180	12.076	12.076	(1.231)	3036698	60.0000	57.411

: Flag Legend

- Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

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ab File ID: 01041009.d
ab Smp Id: 60_0104
nalysis Type: VOA
iant Type: ISTD
perator: PC
ethod File: /chem1/nt5.i/04JAN10.b/VO010410L.m
.sc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 60 ppb
Level: LOW
Sample Type: WATER

est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	985601	8.67
35 1,4-Difluorobenze	1305872	652936	2611744	1458129	11.66
52 d5-Chlorobenzene	1174180	587090	2348360	1239345	5.55
75 d4-1,4-Dichlorobe	665265	332632	1330530	686961	3.26

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	0.06

EA UPPER LIMIT = +100% of internal standard area.
EA LOWER LIMIT = - 50% of internal standard area.
UPPER LIMIT = + 0.50 minutes of internal standard RT.
LOWER LIMIT = - 0.50 minutes of internal standard RT.

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Date : 04-JAN-2010 14:01
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Column phase: RTXVMS

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

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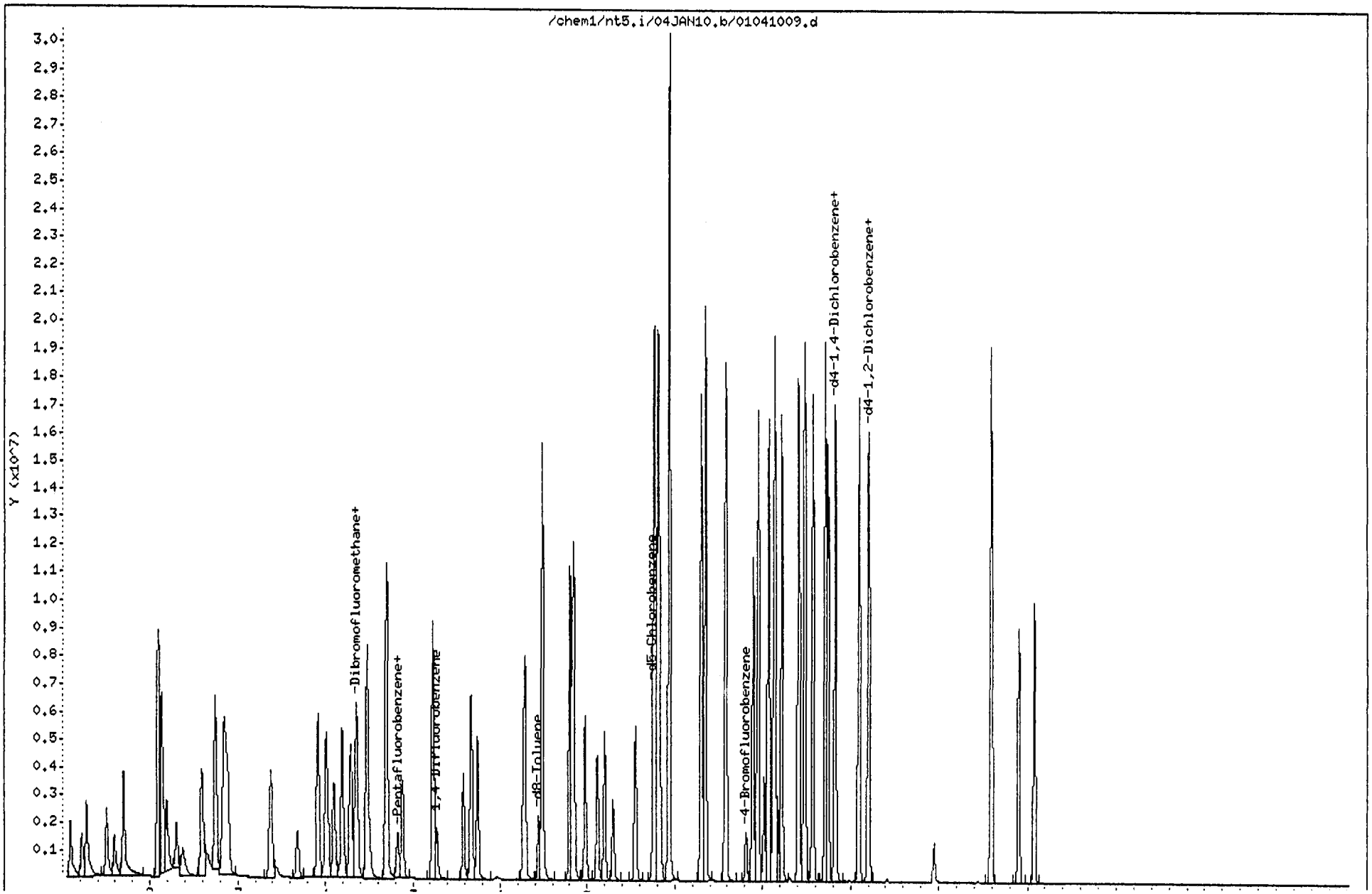

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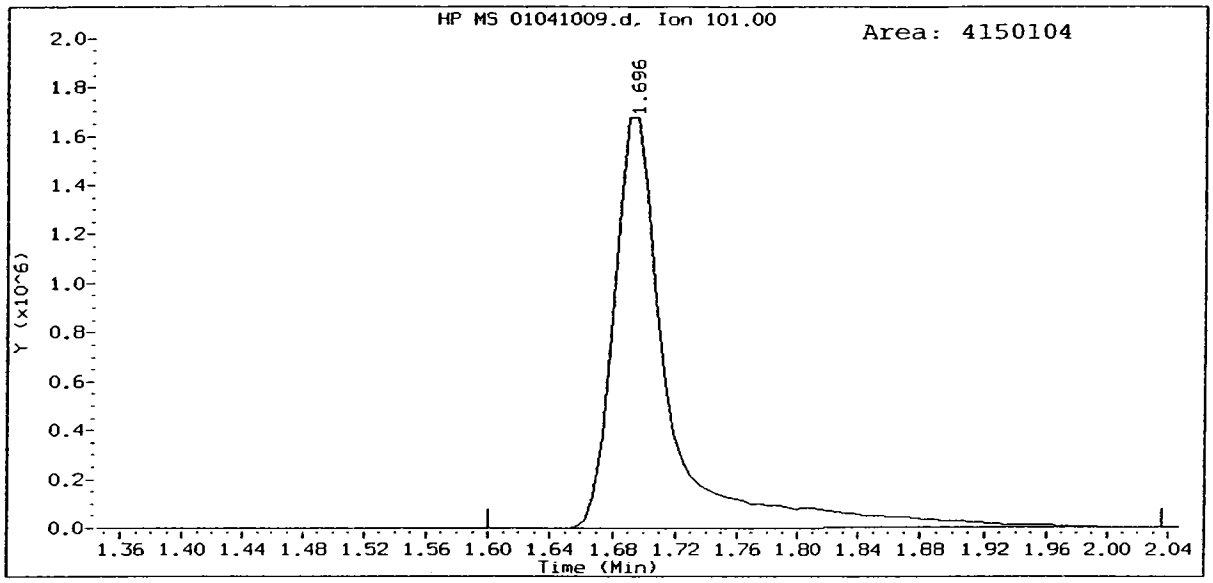

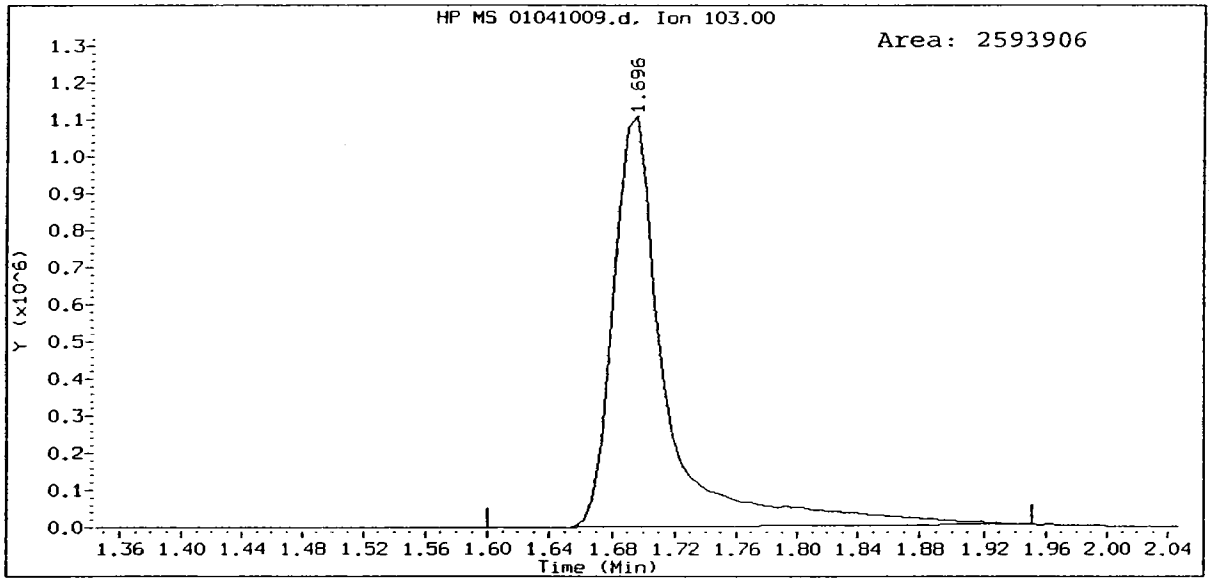

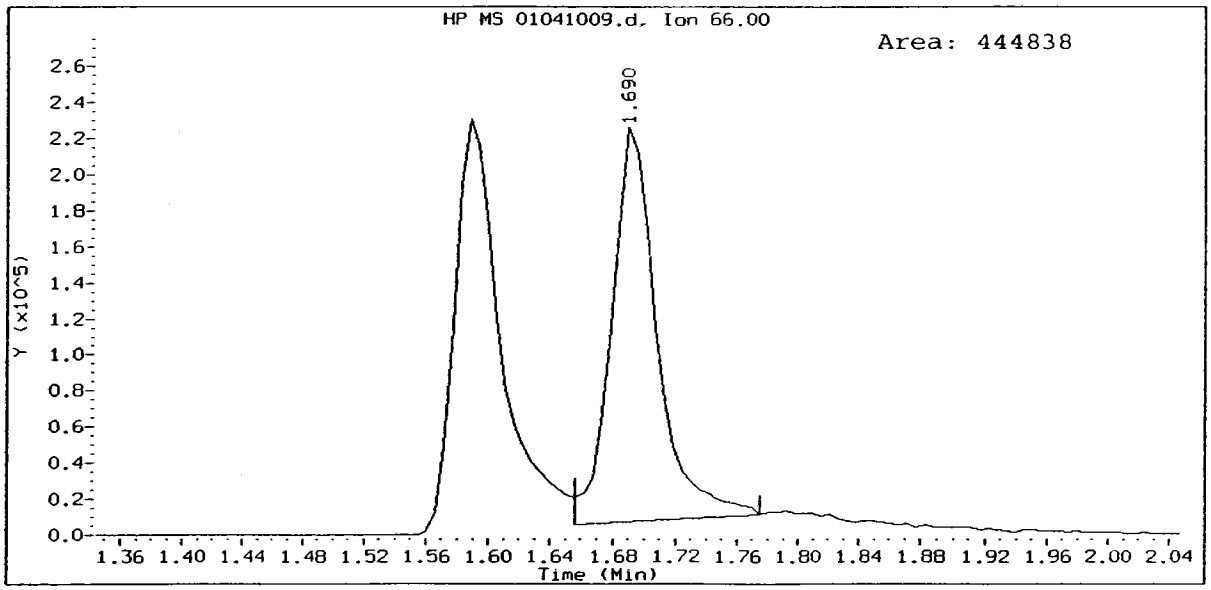

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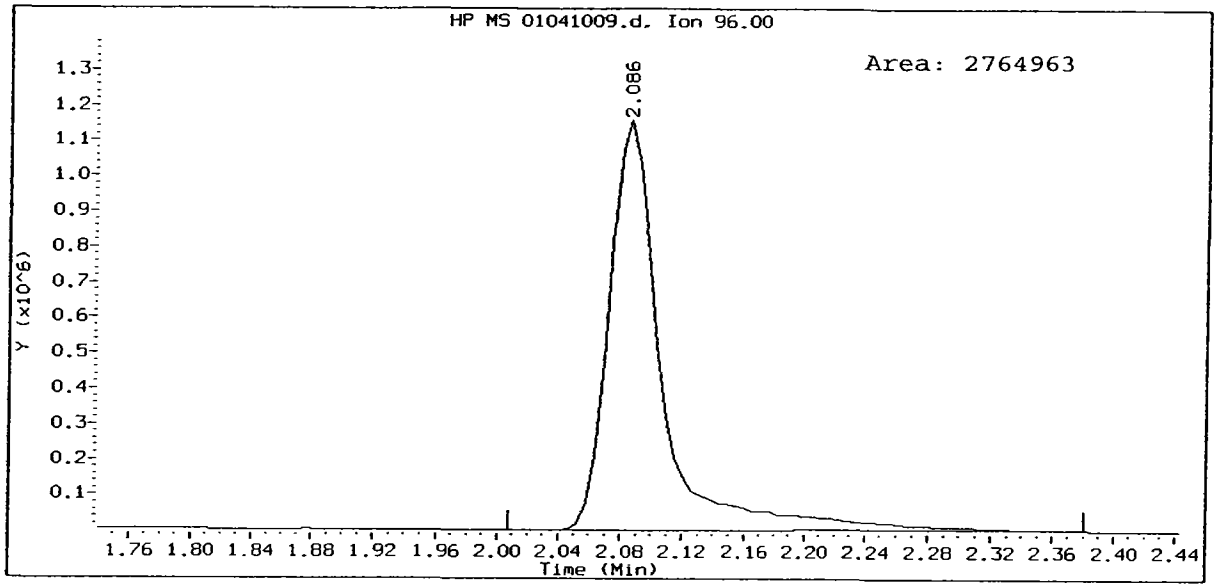

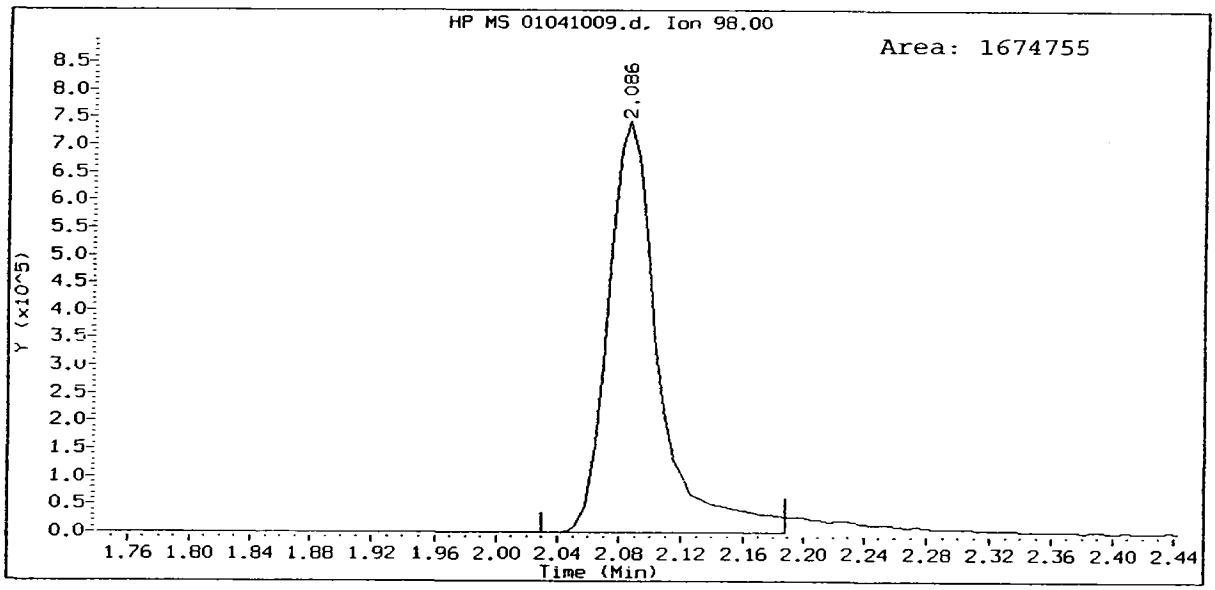

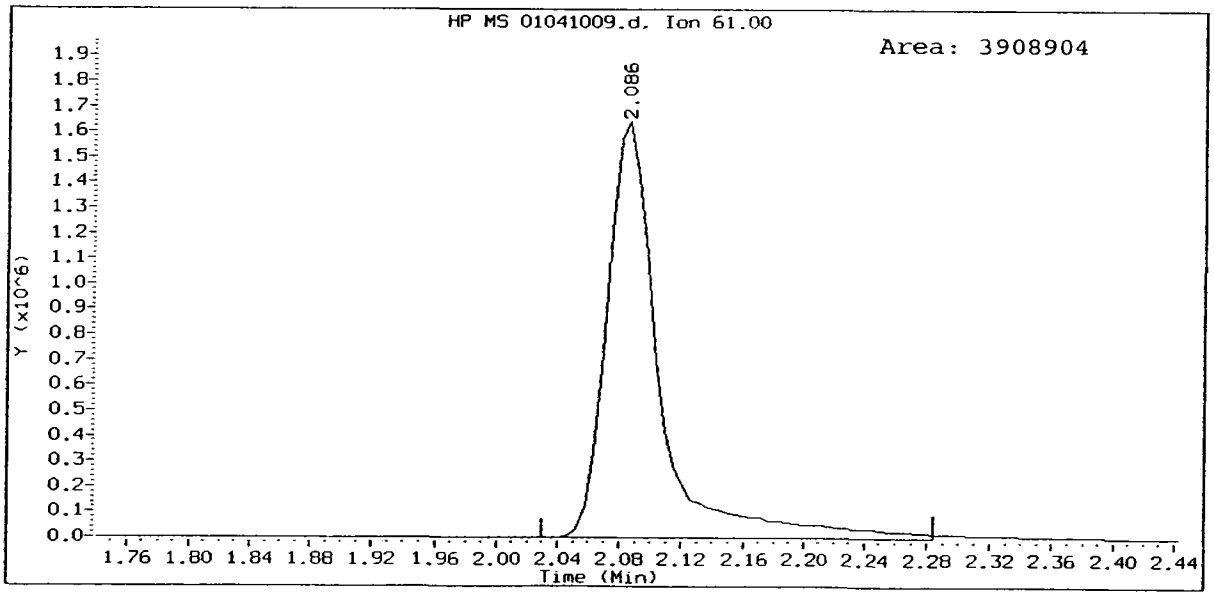

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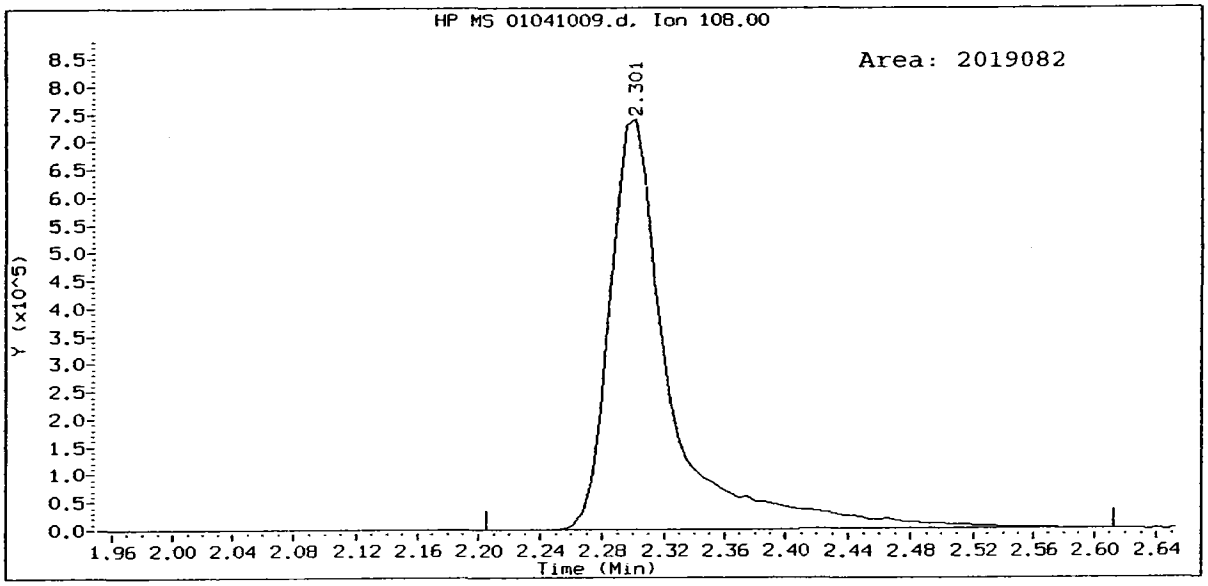

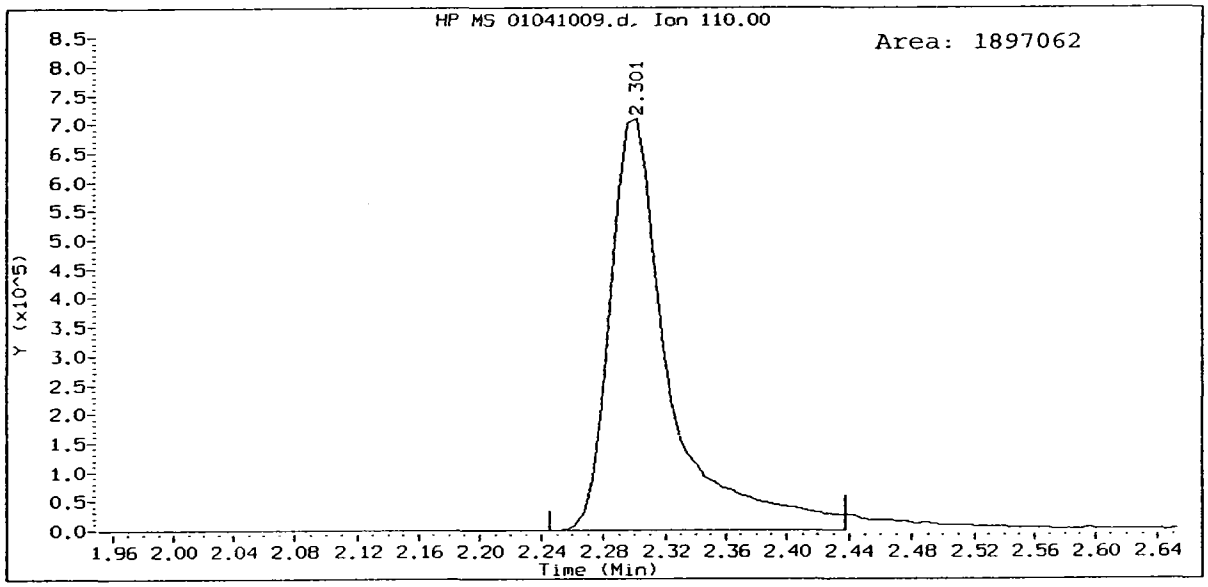

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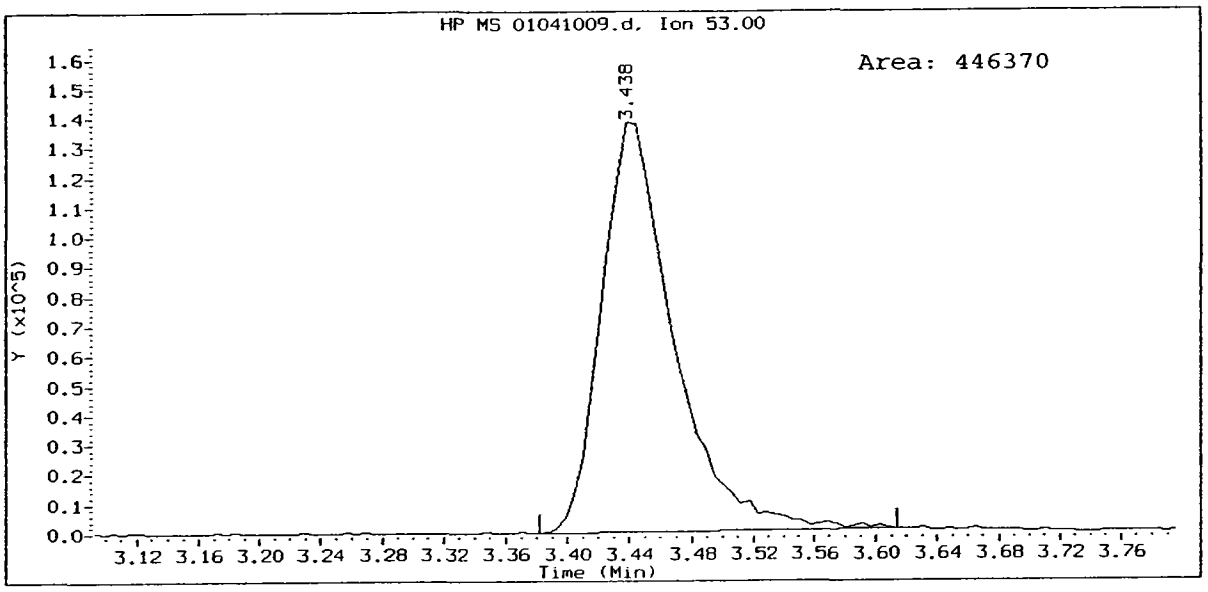

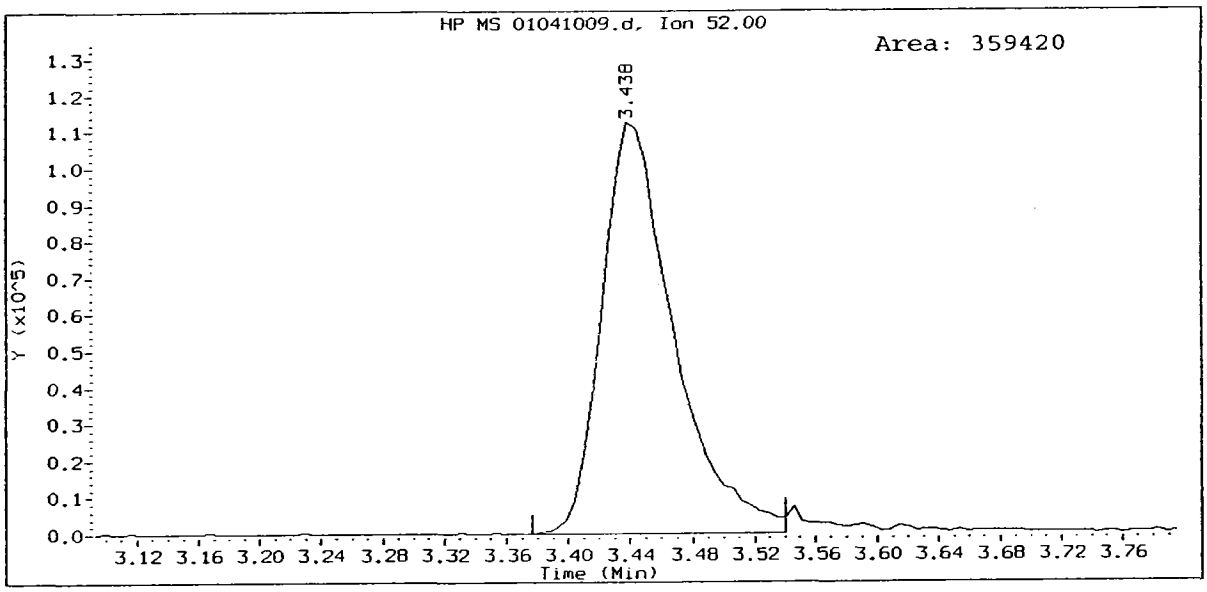

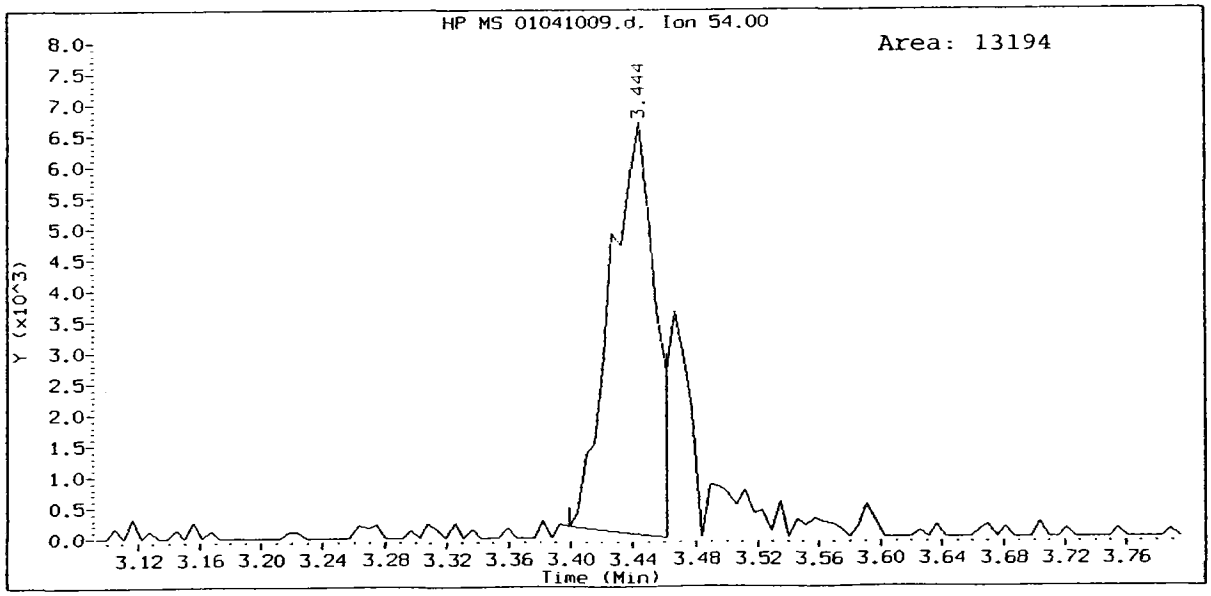

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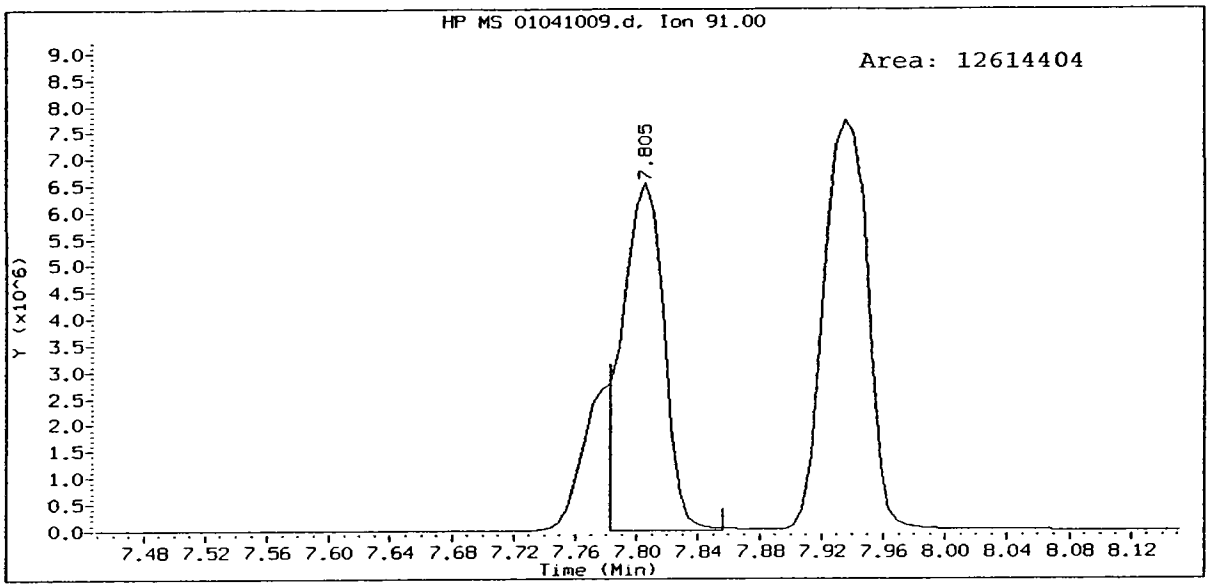
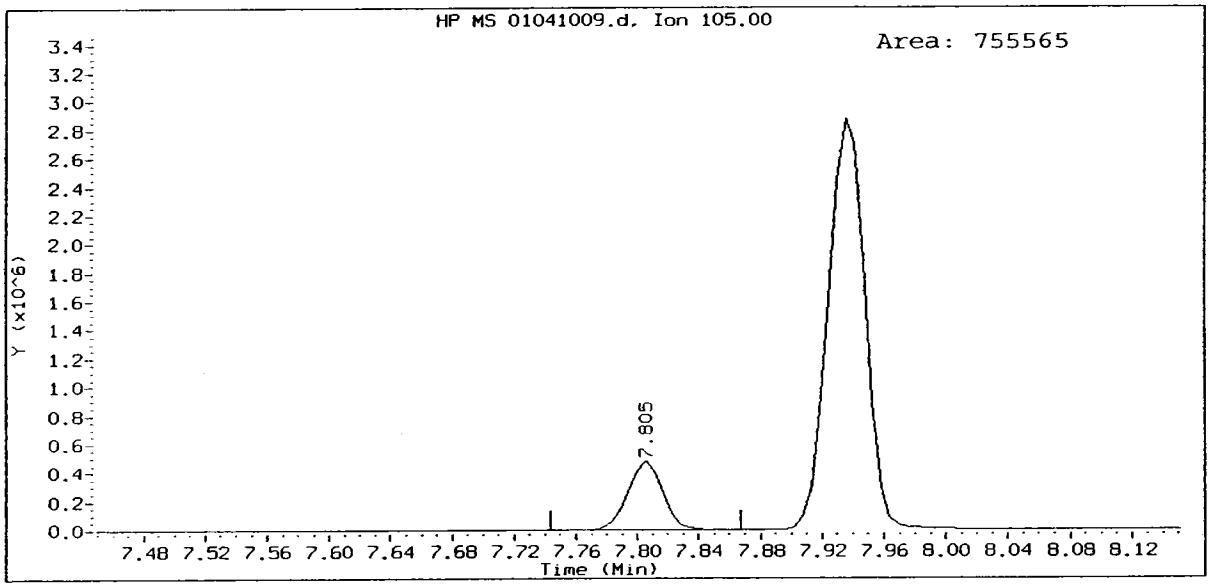
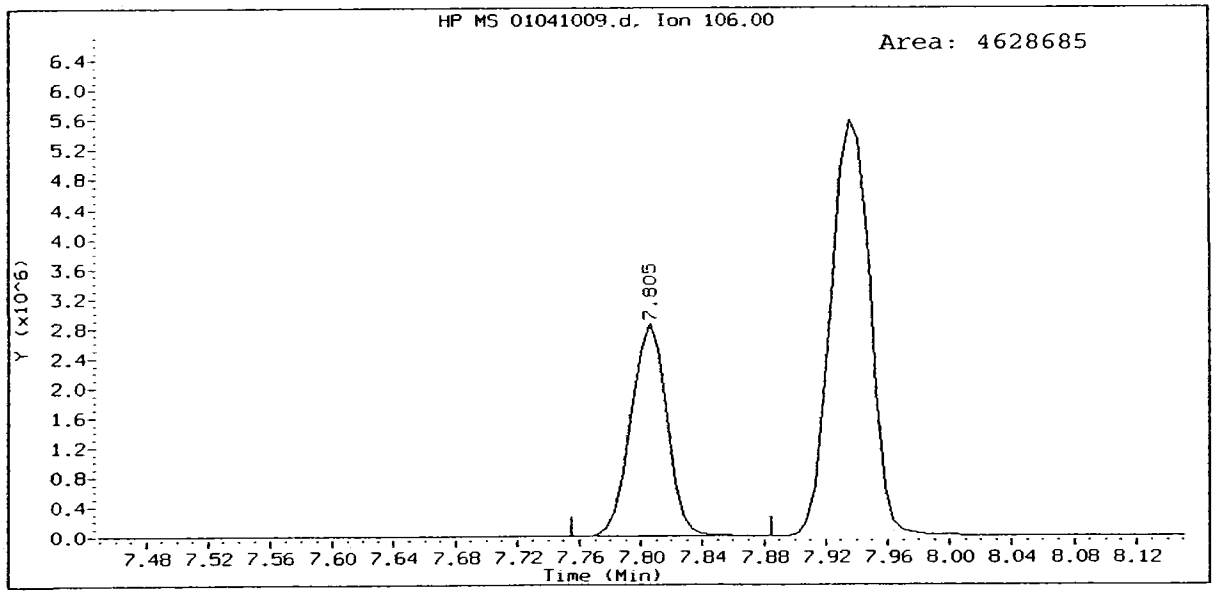






PC
1/5/10

Analytical Resources, Inc.

8260C

ata file : /chem1/nt5.i/04JAN10.b/01041012.d
ab Smp Id: ICV10_0104 Client Smp ID: 8260 ICV 10 PPB
nj Date : 04-JAN-2010 15:19
perator : PC Inst ID: nt5.i
mp Info : ICV10_0104,10,10,0,
isc Info : 09-
omment :
ethod : /chem1/nt5.i/04JAN10.b/VO010410L.m
eth Date : 05-Jan-2010 10:18 paul Quant Type: ISTD
al Date : 04-JAN-2010 16:13 Cal File: 01041014.d
ls bottle: 1 QC Sample: LCS
il Factor: 1.00000
ntegrator: HP RTE Compound Sublist: voa+hex.sub
arget Version: 3.50

oncentration 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)

nd Variable Local Compound Variable

pounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	1.091	1.085	(0.226)	401111	9.21041	9.210
72 Hexane	41	2.850	2.850	(0.590)	568867	9.44238	9.442
2 Chloromethane	50	1.221	1.221	(0.253)	428664	9.19546	9.195
3 Vinyl Chloride	62	1.277	1.272	(0.264)	563361	10.2706	10.271
4 Bromomethane	94	1.504	1.498	(0.311)	246042	9.33180	9.332
5 Chloroethane	64	1.594	1.594	(0.330)	338109	10.4559	10.456
6 Trichlorofluoromethane	101	1.696	1.696	(0.351)	697841	9.72379	9.724
12 Acrolein	56	2.375	2.375	(0.492)	220183	53.2591	53.259(Q)
9 112Trichloro122Trifluoroethane	101	2.137	2.143	(0.442)	444040	8.87422	8.874(Q)
14 Acetone	43	2.652	2.652	(0.549)	211813	45.5835	45.584
7 1,1-Dichloroethene	96	2.092	2.092	(0.433)	479467	9.80515	9.805(Q)
11 Bromoethane	108	2.307	2.301	(0.478)	296429	8.62698	8.627(M)
0 Iodomethane	142	2.199	2.194	(0.455)	474815	10.0876	10.088
3 Methylene Chloride	84	2.595	2.595	(0.537)	493565	9.97066	9.971
8 Acrylonitrile	53	3.444	3.444	(0.713)	69271	9.07105	9.071(M)
6 Methyl tert butyl ether	73	2.884	2.878	(0.597)	1108462	10.9549	10.955(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
8	Carbon Disulfide	76	2.098	2.098	(0.434)	1459811	8.97822	8.978(M)
15	Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	561424	10.1639	10.164
19	Vinyl Acetate	43	3.682	3.682	(0.762)	250848	5.61659	5.617
17	1,1-Dichloroethane	63	3.376	3.376	(0.699)	821086	10.5586	10.559
29	2-Butanone	72	4.490	4.496	(0.930)	144345	48.5132	48.513(Q)
21	2,2-Dichloropropane	77	4.015	4.010	(0.831)	749884	9.87319	9.873
20	Cis-1,2-Dichloroethene	96	3.913	3.913	(0.810)	572456	10.6471	10.647(Q)
32	Pentafluorobenzene	168	4.830	4.830	(1.000)	987196	10.0000	
23	Chloroform	83	4.191	4.191	(0.868)	881857	10.8170	10.817
22	Bromochloromethane	128	4.100	4.094	(0.849)	242397	10.2740	10.274
25	Dibromofluoromethane	111	4.355	4.360	(0.902)	350424	9.88539	9.885
26	1,1,1-Trichloroethane	97	4.360	4.355	(0.903)	832743	10.5097	10.510
28	1,1-Dichloropropene	75	4.479	4.479	(0.849)	693952	10.7180	10.718
24	Carbon Tetrachloride	117	4.293	4.292	(0.813)	621704	11.3114	11.311
31	d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	334909	9.63387	9.634
33	1,2-Dichloroethane	62	4.881	4.881	(0.925)	519379	10.3588	10.359
30	Benzene	78	4.700	4.700	(0.891)	2077740	10.8055	10.806
35	1,4-Difluorobenzene	114	5.277	5.277	(1.000)	1426434	10.0000	
34	Trichloroethene	130	5.232	5.226	(0.991)	649918	10.7962	10.796
38	1,2-Dichloropropane	63	5.667	5.667	(1.074)	465689	10.8967	10.897
39	Bromodichloromethane	83	5.741	5.741	(1.088)	629137	11.3580	11.358
37	Dibromomethane	93	5.577	5.577	(1.057)	231911	10.5677	10.568
40	2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	165435	10.3906	10.391(Q)
45	4-Methyl-2-Pentanone	58	6.827	6.827	(1.294)	397584	51.6324	51.632(Q)
41	Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	791268	11.1491	11.149
42	d8-Toluene	98	6.436	6.436	(1.220)	1493228	9.89805	9.898
43	Toluene	92	6.482	6.482	(1.228)	1465735	10.9100	10.910
46	Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	652627	11.0241	11.024
51	2-Hexanone	43	7.540	7.540	(0.974)	567880	52.5145	52.514
47	1,1,2-Trichloroethane	97	6.974	6.974	(1.322)	353059	10.8461	10.846
49	1,3-Dichloropropane	76	7.194	7.194	(0.929)	610679	11.2254	11.225
44	Tetrachloroethene	166	6.799	6.798	(0.878)	662979	10.6126	10.613
48	Chlorodibromomethane	129	7.110	7.110	(0.918)	444694	11.1641	11.164
50	1,2-Dibromoethane	107	7.291	7.291	(1.382)	360323	11.2447	11.245
52	d5-Chlorobenzene	117	7.743	7.743	(1.000)	1258018	10.0000	
53	Chlorobenzene	112	7.755	7.754	(1.001)	1621313	11.3477	11.348(Q)
54	Ethyl Benzene	91	7.800	7.800	(1.007)	2804036	11.3884	11.388
55	1,1,1,2-Tetrachloroethane	131	7.817	7.822	(1.009)	553826	11.1428	11.143
56	m,p-xylene	106	7.930	7.930	(1.024)	2216449	22.9720	22.972
57	o-Xylene	106	8.292	8.292	(1.071)	1087438	11.5692	11.569
58	Styrene	104	8.343	8.343	(1.077)	1743344	11.7089	11.709
60	Isopropyl Benzene	105	8.575	8.575	(0.874)	2508022	11.2536	11.254
59	Bromoform	173	8.343	8.343	(0.851)	240507	10.9459	10.946
64	1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	335764	11.5373	11.537
61	4-Bromofluorobenzene	95	8.807	8.807	(1.137)	570367	9.93975	9.940
66	1,2,3-Trichloropropane	110	9.112	9.112	(0.929)	104415	11.0399	11.040(Q)
68	Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.934)	83495	10.5703	10.570(Q)

pounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	
63 N-Propyl Benzene	91	8.942	8.942	(0.912)	2899485	11.6559	11.656	
62 Bromobenzene	156	8.886	8.886	(0.906)	694157	11.4098	11.410	
67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	2211753	11.7724	11.772	
65 2-Chloro Toluene	91	9.061	9.061	(0.924)	1827651	11.7195	11.720	
69 4-Chloro Toluene	91	9.214	9.214	(0.939)	1882915	11.8456	11.846	
70 T-Butyl Benzene	119	9.401	9.401	(0.958)	1947700	11.9038	11.904	
71 1,2,4-Trimethylbenzene	105	9.469	9.469	(0.965)	2249834	11.9441	11.944	
72 S-Butyl Benzene	105	9.565	9.565	(0.975)	2659483	11.6393	11.639	
73 4-Isopropyl Toluene	119	9.706	9.706	(0.990)	2284991	11.8274	11.827	
74 1,3-Dichlorobenzene	146	9.734	9.734	(0.992)	1301565	11.0207	11.021	
75 d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	680410	10.0000		(Q)
76 1,4-Dichlorobenzene	146	9.819	9.819	(1.001)	1317999	11.1989	11.199	(Q)
77 N-Butyl Benzene	91	10.085	10.085	(1.028)	1859461	11.4075	11.407	
78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	606757	10.0140	10.014	
79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	1169333	11.2293	11.229	(Q)
81 1,2-Dibromo 3-Chloropropane	75	10.945	10.939	(1.116)	57521	10.4091	10.409	(Q)
83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	740157	11.4455	11.445	
82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.181)	320545	11.0865	11.086	
84 Naphthalene	128	11.895	11.895	(1.213)	1295905	11.9282	11.928	
85 1,2,3-Trichlorobenzene	180	12.076	12.076	(1.231)	625974	11.9484	11.948	

: Flag Legend

- Qualifier signal failed the ratio test.
- Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

nstrument ID: nt5.i
ab File ID: 01041012.d
ab Smp Id: ICV10_0104
nalysis Type: VOA
ant Type: ISTD
perator: PC
ethod File: /chem1/nt5.i/04JAN10.b/VO010410L.m
esc Info: 09-

Calibration Date: 04-JAN-2010
Calibration Time: 12:44
Client Smp ID: 8260 ICV 10 PPB
Level: LOW
Sample Type: WATER

est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	987196	8.85
35 1,4-Difluorobenze	1305872	652936	2611744	1426434	9.23
52 d5-Chlorobenzene	1174180	587090	2348360	1258018	7.14
75 d4-1,4-Dichlorobe	665265	332632	1330530	680410	2.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.28	0.00
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	0.00

EA UPPER LIMIT = +100% of internal standard area.
EA LOWER LIMIT = - 50% of internal standard area.
' UPPER LIMIT = + 0.50 minutes of internal standard RT.
' LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

.ient Name: Client SDG: 04JAN10
ımple Matrix: LIQUID Fraction: VOA
ıb Smp Id: ICV10_0104 Client Smp ID: 8260 ICV 10 PPB
:vel: LOW Operator: PC
ıta Type: MS DATA SampleType: LCS
›ikeList File: voahex.spk Quant Type: ISTD
ıblist File: voa+hex.sub
:thod File: /chem1/nt5.i/04JAN10.b/VO010410L.m
.sc Info: 09-

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1	Dichlorodifluorome	10.000	9.210	92.10	59-129
172	Hexane	10.000	9.442	94.42	70-130
16	Methyl tert butyl	10.000	10.955	109.55	78-120
2	Chloromethane	10.000	9.195	91.95	66-123
3	Vinyl Chloride	10.000	10.271	102.71	68-121
4	Bromomethane	10.000	9.332	93.32	55-148
5	Chloroethane	10.000	10.456	104.56	47-155
6	Trichlorofluoromet	10.000	9.724	97.24	70-129
12	Acrolein	50.000	53.259	106.52	24-170
9	112Trichloro122Tri	10.000	8.874	88.74	74-127
14	Acetone	50.000	45.584	91.17	70-130
7	1,1-Dichloroethene	10.000	9.805	98.05	72-120
11	Bromoethane	10.000	8.627	86.27	73-131
10	Iodomethane	10.000	10.088	100.88	34-183
13	Methylene Chloride	10.000	9.971	99.71	70-124
8	Carbon Disulfide	10.000	8.978	89.78	66-129
18	Acrylonitrile	10.000	9.071	90.71	71-135
15	Trans-1,2-Dichloro	10.000	10.164	101.64	76-120
19	Vinyl Acetate	10.000	5.617	56.17	49-134
17	1,1-Dichloroethane	10.000	10.559	105.59	75-120
29	2-Butanone	50.000	48.513	97.03	78-131
21	2,2-Dichloropropan	10.000	9.873	98.73	68-121
20	Cis-1,2-Dichloroet	10.000	10.647	106.47	80-120
23	Chloroform	10.000	10.817	108.17	78-120
22	Bromochloromethane	10.000	10.274	102.74	79-120
26	1,1,1-Trichloroeth	10.000	10.510	105.10	76-120
28	1,1-Dichloropropen	10.000	10.718	107.18	78-120
24	Carbon Tetrachlori	10.000	11.311	113.11	70-126
33	1,2-Dichloroethane	10.000	10.359	103.59	78-120
30	Benzene	10.000	10.806	108.06	79-120
34	Trichloroethene	10.000	10.796	107.96	78-120
38	1,2-Dichloropropan	10.000	10.897	108.97	80-120
39	Bromodichlorometha	10.000	11.358	113.58	78-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
37 Dibromomethane	10.000	10.568	105.68	80-120
40 2-Chloroethyl Viny	10.000	10.391	103.91	68-134
45 4-Methyl-2-Pentano	50.000	51.632	103.26	73-131
41 Cis 1,3-dichloropr	10.000	11.149	111.49	78-120
43 Toluene	10.000	10.910	109.10	79-120
46 Trans 1,3-Dichloro	10.000	11.024	110.24	75-120
51 2-Hexanone	50.000	52.514	105.03	75-130
47 1,1,2-Trichloroeth	10.000	10.846	108.46	79-120
49 1,3-Dichloropropan	10.000	11.225	112.25	78-120
44 Tetrachloroethene	10.000	10.613	106.13	72-120
48 Chlorodibromometha	10.000	11.164	111.64	78-120
50 1,2-Dibromoethane	10.000	11.245	112.45	75-120
53 Chlorobenzene	10.000	11.348	113.48	79-120
55 1,1,1,2-Tetrachlor	10.000	11.143	111.43	75-120
54 Ethyl Benzene	10.000	11.388	113.88	78-121
56 m,p-xylene	20.000	22.972	114.86	65-129
57 o-Xylene	10.000	11.569	115.69	76-120
58 Styrene	10.000	11.709	117.09	74-121
60 Isopropyl Benzene	10.000	11.254	112.54	74-120
59 Bromoform	10.000	10.946	109.46	71-120
64 1,1,2,2-Tetrachlor	10.000	11.537	115.37	72-120
66 1,2,3-Trichloropro	10.000	11.040	110.40	73-120
68 Trans-1,4-Dichloro	10.000	10.570	105.70	65-135
63 N-Propyl Benzene	10.000	11.656	116.56	76-121
62 Bromobenzene	10.000	11.410	114.10	72-120
67 1,3,5-Trimethyl Be	10.000	11.772	117.72	74-123
65 2-Chloro Toluene	10.000	11.720	117.20	74-120
69 4-Chloro Toluene	10.000	11.846	118.46	75-120
70 T-Butyl Benzene	10.000	11.904	119.04	73-121
71 1,2,4-Trimethylben	10.000	11.944	119.44	73-124
72 S-Butyl Benzene	10.000	11.639	116.39	75-123
73 4-Isopropyl Toluen	10.000	11.827	118.27	71-125
74 1,3-Dichlorobenzen	10.000	11.021	110.21	72-120
76 1,4-Dichlorobenzen	10.000	11.199	111.99	76-120
77 N-Butyl Benzene	10.000	11.407	114.07	72-124
79 1,2-Dichlorobenzen	10.000	11.229	112.29	75-120
81 1,2-Dibromo 3-Chlo	10.000	10.409	104.09	67-121
83 1,2,4-Trichloroben	10.000	11.445	114.45	71-120
82 Hexachloro 1,3-But	10.000	11.086	110.86	67-124
84 Naphthalene	10.000	11.928	119.28	71-125
85 1,2,3-Trichloroben	10.000	11.948	119.48	61-134

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	10.000	9.885	98.85	0-150

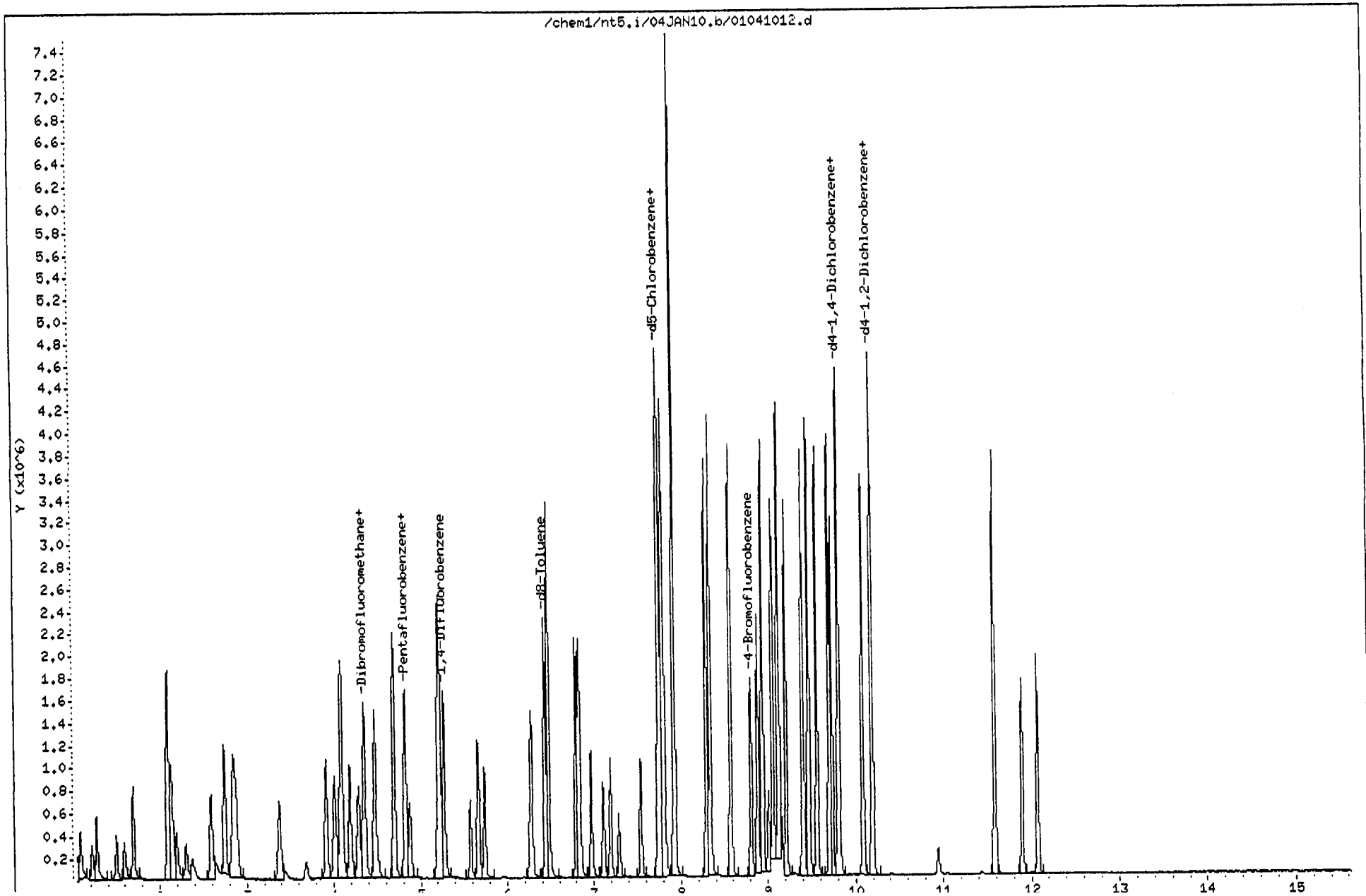
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 31 d4-1,2-Dichloroeth	10.000	9.634	96.34	0-130
$ 42 d8-Toluene	10.000	9.898	98.98	0-130
$ 61 4-Bromofluorobenze	10.000	9.940	99.40	0-130
$ 78 d4-1,2-Dichloroben	10.000	10.014	100.14	0-130

Data File: /chem1/nt5.i/04JAN10.b/01041012.d
Date : 04-JAN-2010 15:19
Client ID: 8260 ICV 10 PPB
Sample Info: ICV10_0104,10,10,0,

Instrument: nt5.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS



0062 : 0024H

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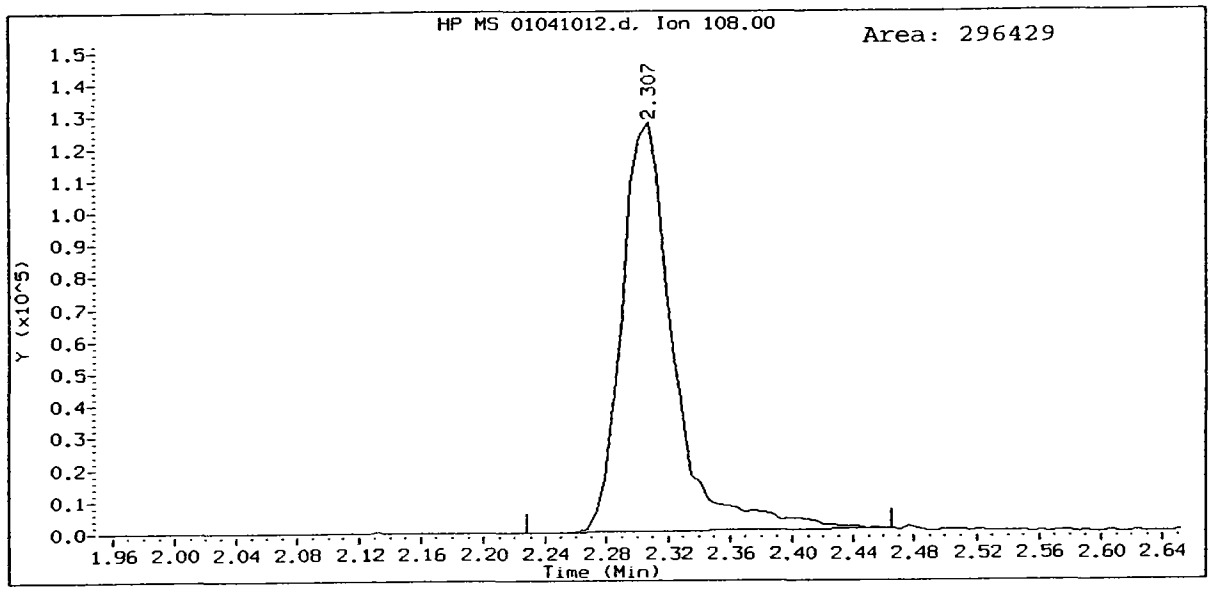
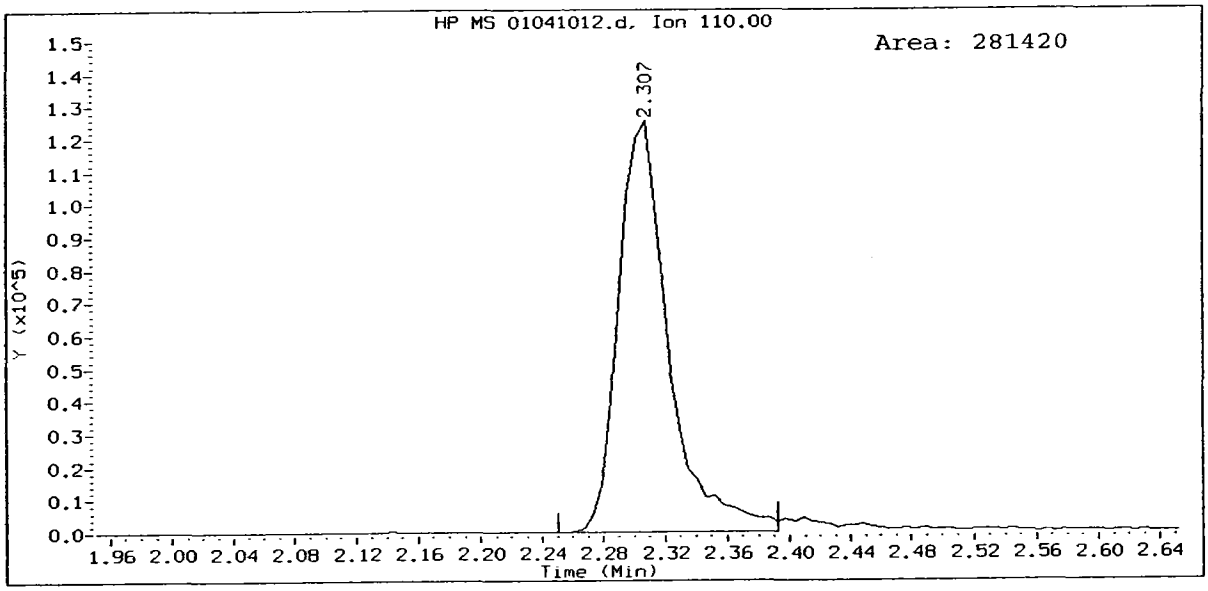
romoethane Amount: 8.63





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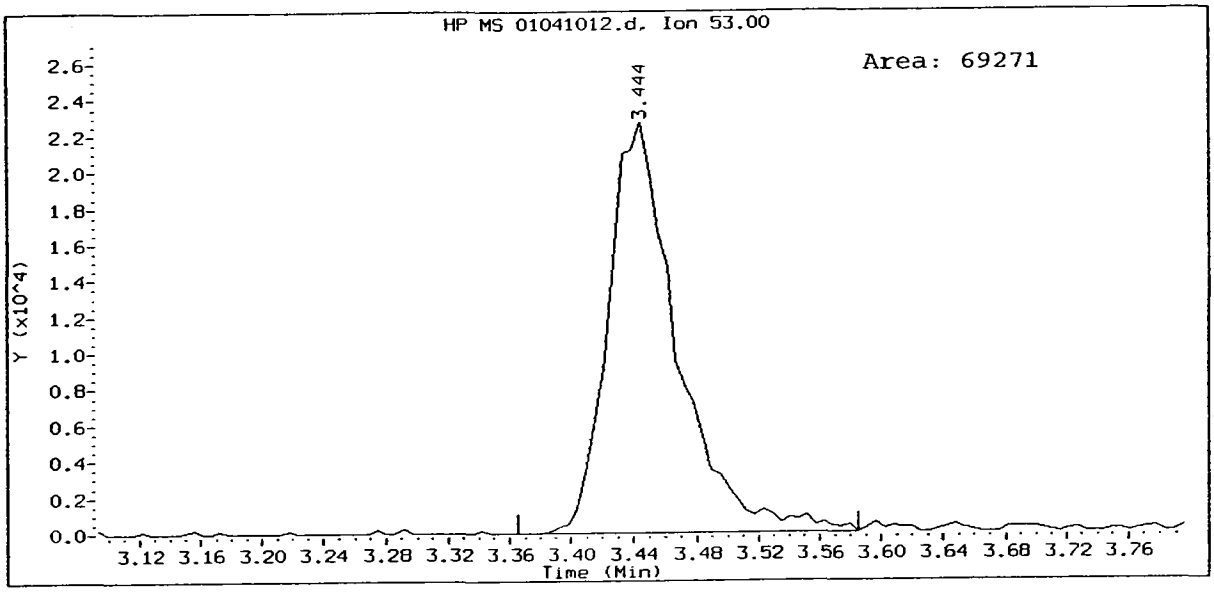
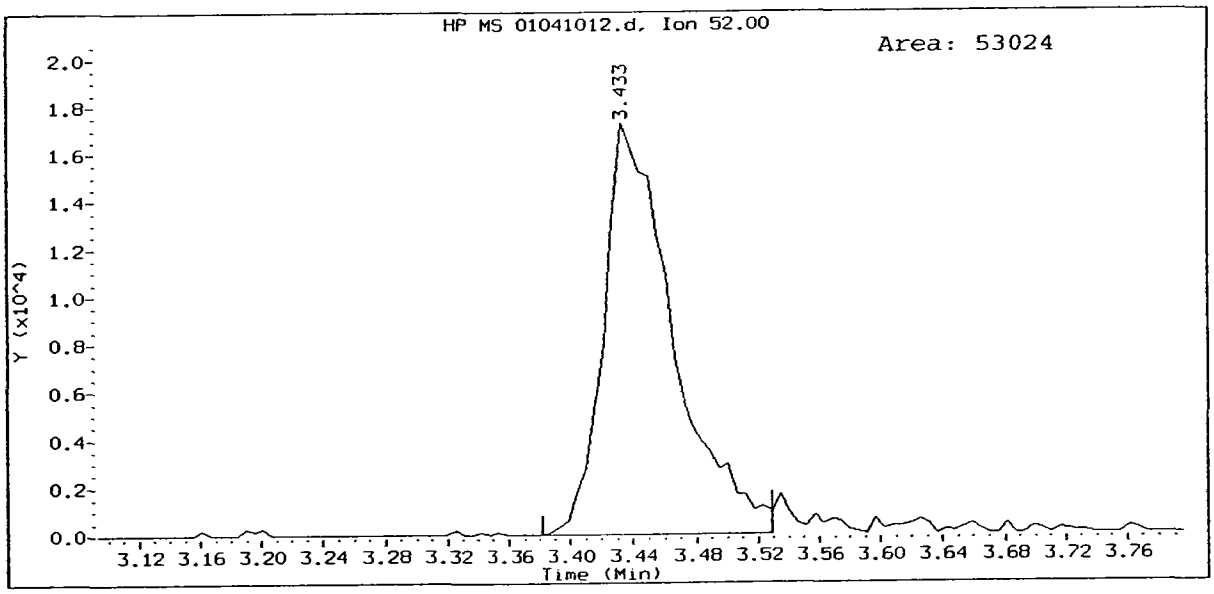
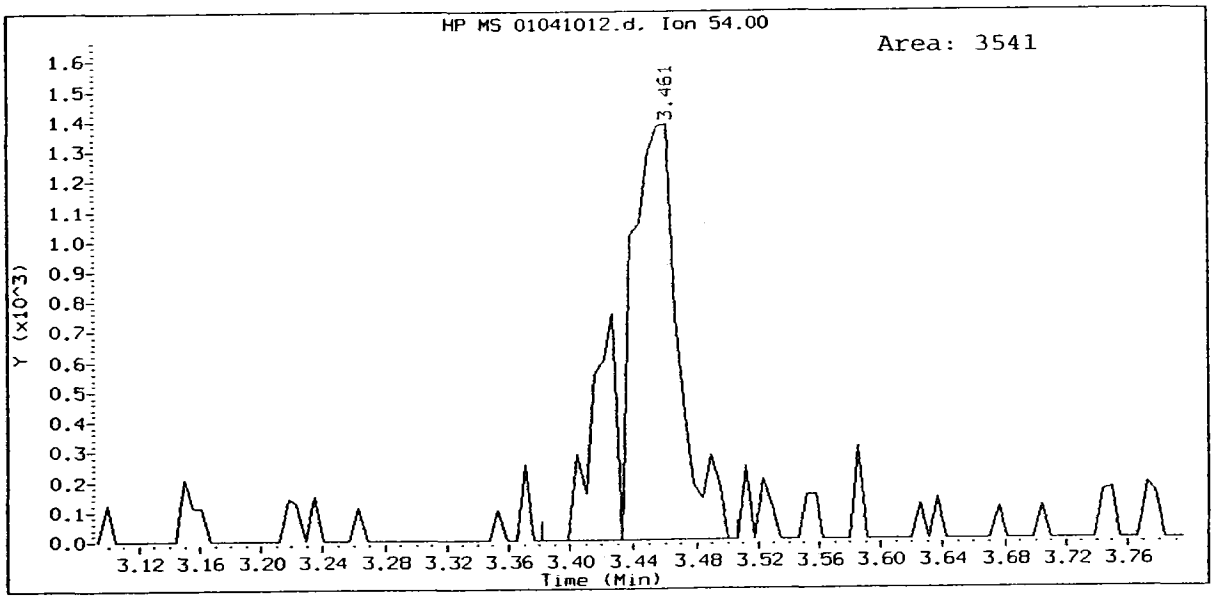
crylonitrile Amount: 9.07







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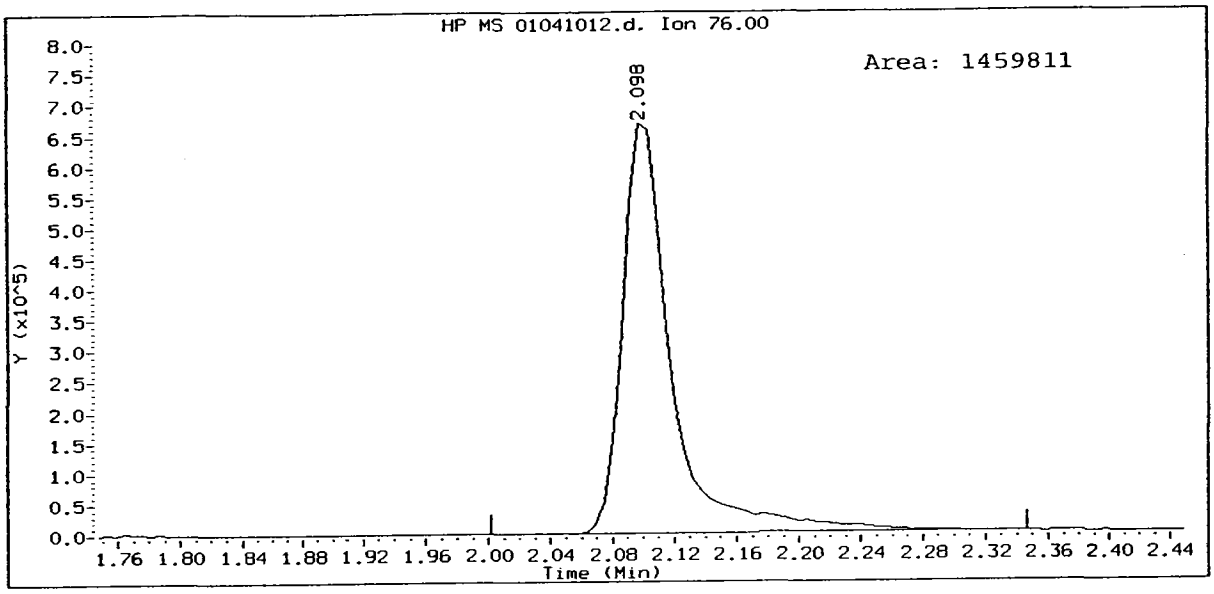
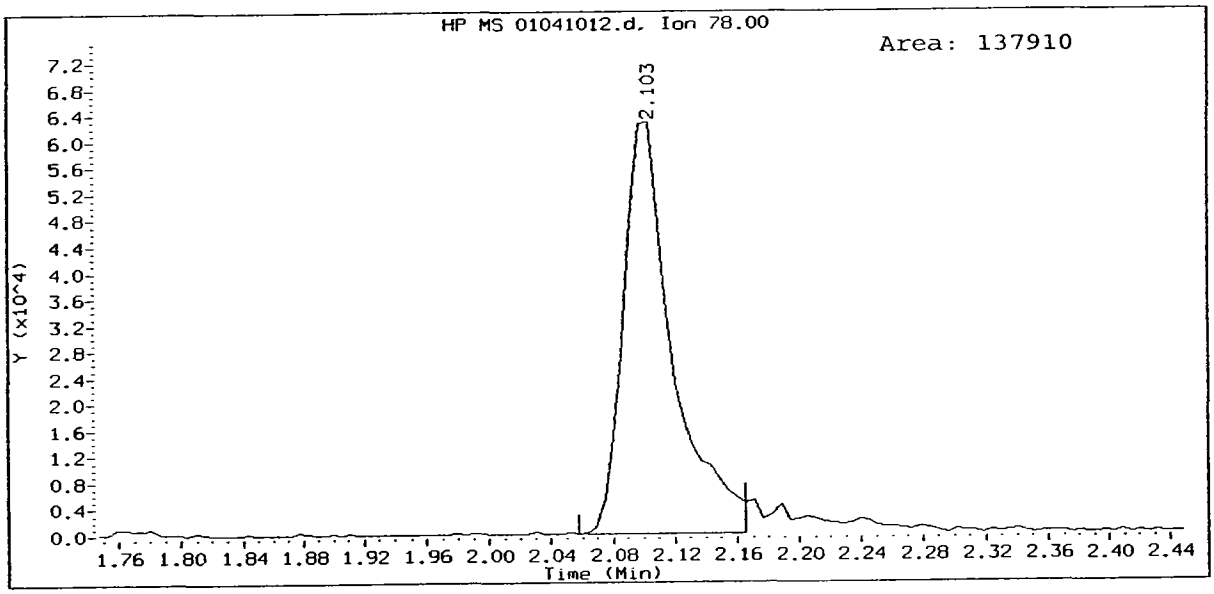
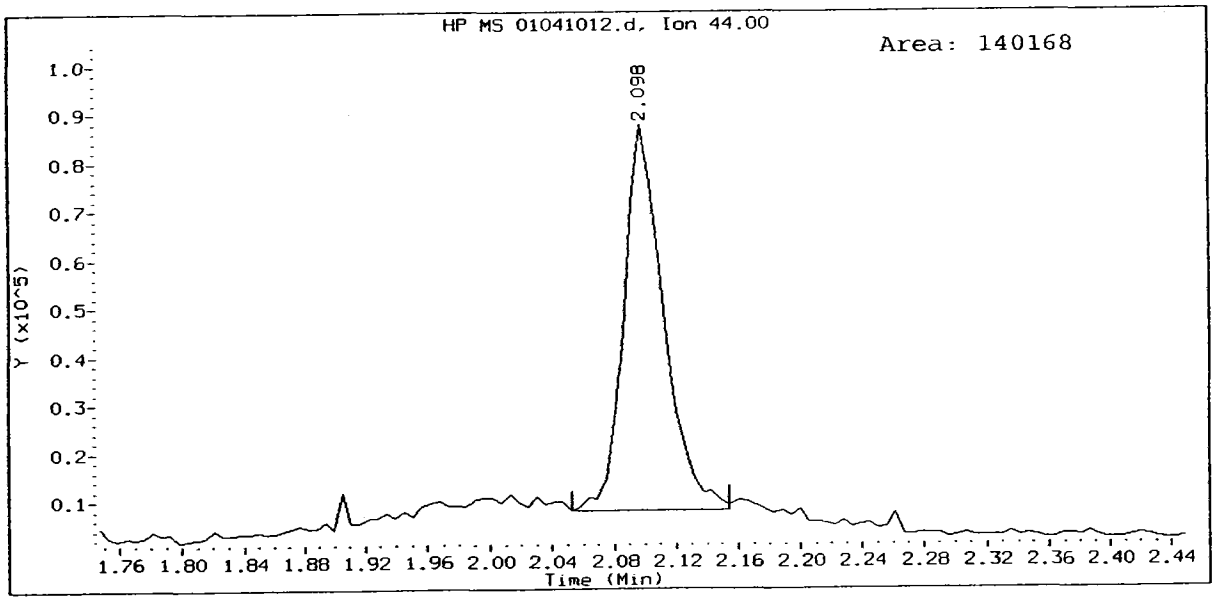
arbon Disulfide Amount: 8.98







7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Cont. Calib. Date: 01/06/10

Init. Calib. Date: 01/04/10 Cont. Calib. Time: 0949

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Chloromethane	0.472	0.422	0.100	AVRG	-10.6	
Vinyl Chloride	0.556	0.513	0.010	AVRG	-7.7	
Bromomethane	0.267	0.185	0.010	AVRG	-30.7	<-
Chloroethane	0.328	0.304	0.010	AVRG	-7.3	
Trichlorofluoromethane	0.727	0.683	0.010	AVRG	-6.0	
Acrolein	0.042	0.035	0.010	AVRG	-16.7	
112Trichloro122Trifluoroetha	0.507	0.481	0.010	AVRG	-5.1	
Acetone	0.047	0.040	0.010	AVRG	-14.9	
1,1-Dichloroethene	0.495	0.466	0.010	AVRG	-5.8	
Bromoethane	0.348	0.316	0.010	AVRG	-9.2	
Iodomethane	0.477	0.366	0.010	AVRG	-23.3	<-
Methylene Chloride	0.501	0.456	0.010	AVRG	-9.0	
Acrylonitrile	0.077	0.066	0.010	AVRG	-14.3	
Carbon Disulfide	1.647	1.530	0.010	AVRG	-7.1	
Trans-1,2-Dichloroethene	0.560	0.516	0.010	AVRG	-7.8	
Vinyl Acetate	0.452	0.416	0.010	AVRG	-8.0	
1,1-Dichloroethane	0.788	0.745	0.100	AVRG	-5.4	
2-Butanone	0.030	0.027	0.010	AVRG	-10.0	
2,2-Dichloropropane	0.769	0.726	0.010	AVRG	-5.6	
Cis-1,2-Dichloroethene	0.545	0.510	0.010	AVRG	-6.4	
Chloroform	0.826	0.781	0.010	AVRG	-5.4	
Bromochloromethane	0.239	0.221	0.010	AVRG	-7.5	
1,1,1-Trichloroethane	0.803	0.758	0.010	AVRG	-5.6	
1,1-Dichloropropene	0.454	0.432	0.010	AVRG	-4.8	
Carbon Tetrachloride	0.385	0.456	0.010	AVRG	18.4	
1,2-Dichloroethane	0.352	0.313	0.010	AVRG	-11.1	
Benzene	1.348	1.296	0.010	AVRG	-3.8	
Trichloroethene	0.422	0.408	0.010	AVRG	-3.3	
1,2-Dichloropropane	0.300	0.276	0.010	AVRG	-8.0	
Bromodichloromethane	0.388	0.376	0.010	AVRG	-3.1	
Dibromomethane	0.154	0.142	0.010	AVRG	-7.8	
2-Chloroethyl Vinyl Ether	0.112	0.103	0.010	AVRG	-8.0	
4-Methyl-2-Pentanone	0.054	0.050	0.010	AVRG	-7.4	
Cis 1,3-dichloropropene	0.498	0.471	0.010	AVRG	-5.4	
Toluene	0.942	0.885	0.010	AVRG	-6.0	
Trans 1,3-Dichloropropene	0.415	0.382	0.010	AVRG	-8.0	
2-Hexanone	0.086	0.080	0.010	AVRG	-7.0	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Cont. Calib. Date: 01/06/10

Init. Calib. Date: 01/04/10 Cont. Calib. Time: 0949

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
1,1,2-Trichloroethane	0.228	0.213	0.010	AVRG	-6.6
1,3-Dichloropropane	0.432	0.408	0.010	AVRG	-5.6
Tetrachloroethene	0.496	0.486	0.010	AVRG	-2.0
Chlorodibromomethane	0.317	0.307	0.010	AVRG	-3.2
1,2-Dibromoethane	0.224	0.213	0.010	AVRG	-4.9
Chlorobenzene	1.136	1.098	0.300	AVRG	-3.3
Ethyl Benzene	1.957	1.927	0.010	AVRG	-1.5
1,1,1,2-Tetrachloroethane	0.395	0.380	0.010	AVRG	-3.8
m,p-xylene	0.767	0.765	0.010	AVRG	-0.3
o-Xylene	0.747	0.739	0.010	AVRG	-1.1
Styrene	1.184	1.183	0.010	AVRG	-0.1
Bromoform	0.323	0.302	0.100	AVRG	-6.5
1,1,2,2-Tetrachloroethane	0.428	0.393	0.300	AVRG	-8.2
1,2,3-Trichloropropane	0.139	0.134	0.010	AVRG	-3.6
Trans-1,4-Dichloro 2-Butene	0.116	0.111	0.010	AVRG	-4.3
N-Propyl Benzene	3.656	3.676	0.010	AVRG	0.5
Bromobenzene	0.894	0.860	0.010	AVRG	-3.8
Isopropyl Benzene	3.276	3.312	0.010	AVRG	1.1
2-Chloro Toluene	2.292	2.251	0.010	AVRG	-1.8
4-Chloro Toluene	2.336	2.364	0.010	AVRG	1.2
T-Butyl Benzene	2.405	2.432	0.010	AVRG	1.1
1,3,5-Trimethyl Benzene	2.762	2.777	0.010	AVRG	0.5
1,2,4-Trimethylbenzene	2.768	2.804	0.010	AVRG	1.3
S-Butyl Benzene	3.358	3.408	0.010	AVRG	1.5
4-Isopropyl Toluene	2.840	2.952	0.010	AVRG	3.9
1,3-Dichlorobenzene	1.736	1.654	0.010	AVRG	-4.7
1,4-Dichlorobenzene	1.730	1.667	0.010	AVRG	-3.6
N-Butyl Benzene	2.396	2.454	0.010	AVRG	2.4
1,2-Dichlorobenzene	1.530	1.454	0.010	AVRG	-5.0
1,2-Dibromo 3-Chloropropane	0.081	0.071	0.010	AVRG	-12.3
1,2,4-Trichlorobenzene	0.950	0.959	0.010	AVRG	0.9
Hexachloro 1,3-Butadiene	0.425	0.438	0.010	AVRG	3.0
Naphthalene	1.596	1.595	0.010	AVRG	-0.1
1,2,3-Trichlorobenzene	0.770	0.770	0.010	AVRG	0.0
Dichlorodifluoromethane	0.441	0.423	0.010	AVRG	-4.1
Methyl tert butyl ether	1.025	0.934	0.010	AVRG	-8.9

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT5 Cont. Calib. Date: 01/06/10

Init. Calib. Date: 01/04/10 Cont. Calib. Time: 0949

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
d4-1,2-Dichloroethane	0.352	0.347	0.010	AVRG	-1.4
d8-Toluene	1.058	1.044	0.010	AVRG	-1.3
4-Bromofluorobenzene	0.456	0.452	0.010	AVRG	-0.9
d4-1,2-Dichlorobenzene	0.891	0.887	0.010	AVRG	-0.4
Dibromofluoromethane	0.359	0.357	0.010	AVRG	-0.6

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

PS 1/7/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/06JAN10.b/01061002.d
Lab Smp Id: CC0106 Client Smp ID: CC0106
Inj Date : 06-JAN-2010 09:49
Operator : PC Inst ID: nt5.i
Smp Info : CC0106,10,10,0,
Misc Info : 09-
Comment :
Method : /chem1/nt5.i/06JAN10.b/VO010410L.m
Meth Date : 07-Jan-2010 09:31 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.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 (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.091	1.091	(0.226)	397631	10.0000	9.595(M)
2 Chloromethane	50	1.221	1.221	(0.253)	396737	10.0000	8.943(M)
3 Vinyl Chloride	62	1.277	1.277	(0.264)	482141	10.0000	9.237
4 Bromomethane	94	1.498	1.498	(0.310)	173961	10.0000	6.933(M)
5 Chloroethane	64	1.594	1.594	(0.330)	285165	10.0000	9.267(M)
6 Trichlorofluoromethane	101	1.696	1.696	(0.351)	642005	10.0000	9.400(M)
12 Acrolein	56	2.375	2.375	(0.492)	165138	50.0000	41.975
9 112Trichloro122Trifluoroethane	101	2.137	2.137	(0.442)	451740	10.0000	9.487(Q)
14 Acetone	43	2.658	2.658	(0.550)	190666	50.0000	43.118
7 1,1-Dichloroethene	96	2.092	2.092	(0.433)	437999	10.0000	9.412(Q)
11 Bromoethane	108	2.301	2.301	(0.476)	297027	10.0000	9.084(M)
10 Iodomethane	142	2.194	2.194	(0.454)	343806	10.0000	7.676(M)
13 Methylene Chloride	84	2.590	2.590	(0.536)	428623	10.0000	9.099
18 Acrylonitrile	53	3.433	3.433	(0.711)	62194	10.0000	8.558(M)
16 Methyl tert butyl ether	73	2.878	2.878	(0.596)	877860	10.0000	9.117(Q)
8 Carbon Disulfide	76	2.098	2.098	(0.434)	1437497	10.0000	9.290

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	15 Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	484768	10.0000	9.222
	19 Vinyl Acetate	43	3.681	3.681	(0.762)	391098	10.0000	9.202
	17 1,1-Dichloroethane	63	3.376	3.376	(0.699)	700322	10.0000	9.463
	29 2-Butanone	72	4.490	4.490	(0.930)	126205	50.0000	44.573
	21 2,2-Dichloropropane	77	4.010	4.010	(0.830)	682095	10.0000	9.437
	20 Cis-1,2-Dichloroethene	96	3.913	3.913	(0.810)	479458	10.0000	9.371(Q)
*	32 Pentafluorobenzene	168	4.830	4.830	(1.000)	939444	10.0000	
	23 Chloroform	83	4.191	4.191	(0.868)	733841	10.0000	9.459
	22 Bromochloromethane	128	4.094	4.094	(0.848)	207504	10.0000	9.242
$	25 Dibromofluoromethane	111	4.355	4.355	(0.902)	335025	10.0000	9.931
	26 1,1,1-Trichloroethane	97	4.355	4.355	(0.902)	712557	10.0000	9.450
	28 1,1-Dichloropropene	75	4.479	4.479	(0.850)	584824	10.0000	9.512
	24 Carbon Tetrachloride	117	4.292	4.292	(0.814)	618429	10.0000	11.849
$	31 d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	326351	10.0000	9.865
	33 1,2-Dichloroethane	62	4.881	4.881	(0.926)	424143	10.0000	8.909
	30 Benzene	78	4.700	4.700	(0.892)	1755034	10.0000	9.612
*	35 1,4-Difluorobenzene	114	5.271	5.271	(1.000)	1354487	10.0000	
	34 Trichloroethene	130	5.226	5.226	(0.991)	552133	10.0000	9.659
	38 1,2-Dichloropropane	63	5.667	5.667	(1.075)	374052	10.0000	9.217
	39 Bromodichloromethane	83	5.741	5.741	(1.089)	510009	10.0000	9.696
	37 Dibromomethane	93	5.576	5.576	(1.058)	192935	10.0000	9.259
	40 2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.188)	139641	10.0000	9.236(Q)
	45 4-Methyl-2-Pentanone	58	6.827	6.827	(1.295)	338991	50.0000	46.362
	41 Cis 1,3-dichloropropene	75	6.284	6.284	(1.192)	638372	10.0000	9.473
$	42 d8-Toluene	98	6.436	6.436	(1.221)	1414716	10.0000	9.876
	43 Toluene	92	6.482	6.482	(1.230)	1198869	10.0000	9.398
	46 Trans 1,3-Dichloropropene	75	6.844	6.844	(1.298)	517838	10.0000	9.212
	51 2-Hexanone	43	7.539	7.539	(0.974)	481725	50.0000	46.858
	47 1,1,2-Trichloroethane	97	6.968	6.968	(1.322)	288361	10.0000	9.329
	49 1,3-Dichloropropane	76	7.194	7.194	(0.929)	487644	10.0000	9.429
	44 Tetrachloroethene	166	6.798	6.798	(0.878)	581524	10.0000	9.792
	48 Chlorodibromomethane	129	7.110	7.110	(0.918)	366995	10.0000	9.691
	50 1,2-Dibromoethane	107	7.291	7.291	(1.383)	289053	10.0000	9.500
*	52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1195975	10.0000	
	53 Chlorobenzene	112	7.754	7.754	(1.001)	1313121	10.0000	9.667(Q)
	54 Ethyl Benzene	91	7.800	7.800	(1.007)	2305051	10.0000	9.847
	55 1,1,1,2-Tetrachloroethane	131	7.817	7.817	(1.009)	454776	10.0000	9.625
	56 m,p-xylene	106	7.930	7.930	(1.024)	1830140	20.0000	19.952
	57 o-Xylene	106	8.292	8.292	(1.071)	884222	10.0000	9.895
	58 Styrene	104	8.343	8.343	(1.077)	1415243	10.0000	9.998
	60 Isopropyl Benzene	105	8.575	8.575	(0.874)	2192160	10.0000	10.110
	59 Bromoform	173	8.343	8.343	(0.851)	200129	10.0000	9.362
	64 1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	260326	10.0000	9.195
$	61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	540116	10.0000	9.901
	66 1,2,3-Trichloropropane	110	9.112	9.112	(0.929)	88924	10.0000	9.664
	68 Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.934)	73512	10.0000	9.566(Q)
	63 N-Propyl Benzene	91	8.942	8.942	(0.912)	2433703	10.0000	10.056

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	62 Bromobenzene	156	8.886	8.886	(0.906)	569101	10.0000	9.615
	67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	1838060	10.0000	10.056
	65 2-Chloro Toluene	91	9.061	9.061	(0.924)	1489887	10.0000	9.820
	69 4-Chloro Toluene	91	9.208	9.208	(0.939)	1565108	10.0000	10.121
	70 T-Butyl Benzene	119	9.401	9.401	(0.958)	1610066	10.0000	10.115
	71 1,2,4-Trimethylbenzene	105	9.468	9.468	(0.965)	1856374	10.0000	10.130
	72 S-Butyl Benzene	105	9.565	9.565	(0.975)	2255816	10.0000	10.148
	73 4-Isopropyl Toluene	119	9.706	9.706	(0.990)	1953981	10.0000	10.396
	74 1,3-Dichlorobenzene	146	9.734	9.734	(0.992)	1094679	10.0000	9.527
*	75 d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	661959	10.0000	
	76 1,4-Dichlorobenzene	146	9.819	9.819	(1.001)	1103813	10.0000	9.640(Q)
	77 N-Butyl Benzene	91	10.085	10.085	(1.028)	1624393	10.0000	10.243
$	78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	587144	10.0000	9.960
	79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	962458	10.0000	9.500(Q)
	81 1,2-Dibromo 3-Chloropropane	75	10.945	10.945	(1.116)	47206	10.0000	8.781(Q)
	83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	634911	10.0000	10.092
	82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.181)	289777	10.0000	10.302
	84 Naphthalene	128	11.895	11.895	(1.213)	1056058	10.0000	9.991
	85 1,2,3-Trichlorobenzene	180	12.076	12.076	(1.231)	509789	10.0000	10.002

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt5.i Injection Date: 06-JAN-2010 09:49
Lab File ID: 01061002.d Init. Cal. Date(s): 04-JAN-2010 04-JAN-2010
Analysis Type: WATER Init. Cal. Times: 11:02 16:13
Lab Sample ID: CC0106 Quant Type: ISTD
Method: /chem1/nt5.i/06JAN10.b/VO010410L.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Dichlorodifluoromethane	0.44115	0.42326	0.010	-4.05373	20.00000	Averaged	
2 Chloromethane	0.47222	0.42231	0.100	-10.56804	20.00000	Averaged	
3 Vinyl Chloride	0.55563	0.51322	0.100	-7.63355	20.00000	Averaged	
4 Bromomethane	0.26708	0.18518	0.100	-30.66662	20.00000	Averaged	<-
5 Chloroethane	0.32756	0.30355	0.010	-7.33114	20.00000	Averaged	
6 Trichlorofluoromethane	0.72697	0.68339	0.010	-5.99522	20.00000	Averaged	
12 Acrolein	0.04188	0.03516	0.010	-16.05017	20.00000	Averaged	
9 112Trichloro122Trifluoroeth	0.50686	0.48086	0.010	-5.12990	20.00000	Averaged	
14 Acetone	0.04707	0.04059	0.010	-13.76354	20.00000	Averaged	
7 1,1-Dichloroethene	0.49534	0.46623	0.100	-5.87583	20.00000	Averaged	
11 Bromoethane	0.34806	0.31617	0.010	-9.16231	20.00000	Averaged	
10 Iodomethane	0.47680	0.36597	0.010	-23.24419	20.00000	Averaged	<-
13 Methylene Chloride	0.50144	0.45625	0.010	-9.01131	20.00000	Averaged	
18 Acrylonitrile	0.07736	0.06620	0.010	-14.41710	20.00000	Averaged	
16 Methyl tert butyl ether	1.02496	0.93445	0.010	-8.83117	20.00000	Averaged	
8 Carbon Disulfide	1.64704	1.53016	0.010	-7.09632	20.00000	Averaged	
15 Trans-1,2-Dichloroethene	0.55953	0.51602	0.010	-7.77753	20.00000	Averaged	
19 Vinyl Acetate	0.45241	0.41631	0.010	-7.98039	20.00000	Averaged	
17 1,1-Dichloroethane	0.78773	0.74546	0.200	-5.36543	20.00000	Averaged	
29 2-Butanone	0.03014	0.02687	0.010	-10.85487	20.00000	Averaged	
21 2,2-Dichloropropane	0.76937	0.72606	0.010	-5.62848	20.00000	Averaged	
20 Cis-1,2-Dichloroethene	0.54464	0.51036	0.010	-6.29271	20.00000	Averaged	
23 Chloroform	0.82583	0.78114	0.200	-5.41061	20.00000	Averaged	
22 Bromochloromethane	0.23899	0.22088	0.010	-7.57843	20.00000	Averaged	
$ 25 Dibromofluoromethane	0.35908	0.35662	0.010	-0.68617	20.00000	Averaged	
26 1,1,1-Trichloroethane	0.80264	0.75849	0.100	-5.50044	20.00000	Averaged	
28 1,1-Dichloropropene	0.45390	0.43177	0.010	-4.87660	20.00000	Averaged	
24 Carbon Tetrachloride	0.38531	0.45658	0.100	18.49495	20.00000	Averaged	
$ 31 d4-1,2-Dichloroethane	0.35215	0.34739	0.010	-1.35126	20.00000	Averaged	
33 1,2-Dichloroethane	0.35150	0.31314	0.100	-10.91297	20.00000	Averaged	
30 Benzene	1.34801	1.29572	0.500	-3.87927	20.00000	Averaged	
34 Trichloroethene	0.42202	0.40763	0.200	-3.40962	20.00000	Averaged	
38 1,2-Dichloropropane	0.29961	0.27616	0.100	-7.82613	20.00000	Averaged	
39 Bromodichloromethane	0.38832	0.37653	0.200	-3.03551	20.00000	Averaged	
37 Dibromomethane	0.15385	0.14244	0.010	-7.41326	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt5.i Injection Date: 06-JAN-2010 09:49
Lab File ID: 01061002.d Init. Cal. Date(s): 04-JAN-2010 04-JAN-2010
Analysis Type: WATER Init. Cal. Times: 11:02 16:13
Lab Sample ID: CC0106 Quant Type: ISTD
Method: /chem1/nt5.i/06JAN10.b/VO010410L.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
40 2-Chloroethyl Vinyl Ether	0.11162	0.10310	0.010	-7.63592	20.00000	Averaged
45 4-Methyl-2-Pentanone	0.05398	0.05005	0.010	-7.27680	20.00000	Averaged
41 Cis 1,3-dichloropropene	0.49754	0.47130	0.200	-5.27441	20.00000	Averaged
$ 42 d8-Toluene	1.05761	1.04447	0.010	-1.24264	20.00000	Averaged
43 Toluene	0.94185	0.88511	0.400	-6.02390	20.00000	Averaged
46 Trans 1,3-Dichloropropene	0.41502	0.38231	0.100	-7.88131	20.00000	Averaged
51 2-Hexanone	0.08596	0.08056	0.010	-6.28343	20.00000	Averaged
47 1,1,2-Trichloroethane	0.22820	0.21289	0.100	-6.70889	20.00000	Averaged
49 1,3-Dichloropropane	0.43244	0.40774	0.010	-5.71222	20.00000	Averaged
44 Tetrachloroethene	0.49658	0.48623	0.200	-2.08353	20.00000	Averaged
48 Chlorodibromomethane	0.31663	0.30686	0.010	-3.08609	20.00000	Averaged
50 1,2-Dibromoethane	0.22464	0.21340	0.010	-5.00286	20.00000	Averaged
53 Chlorobenzene	1.13572	1.09795	0.500	-3.32558	20.00000	Averaged
54 Ethyl Benzene	1.95720	1.92734	0.100	-1.52538	20.00000	Averaged
55 1,1,1,2-Tetrachloroethane	0.39509	0.38026	0.010	-3.75417	20.00000	Averaged
56 m,p-xylene	0.76696	0.76512	0.100	-0.23909	20.00000	Averaged
57 o-Xylene	0.74716	0.73933	0.300	-1.04759	20.00000	Averaged
58 Styrene	1.18354	1.18334	0.300	-0.01675	20.00000	Averaged
60 Isopropyl Benzene	3.27544	3.31163	0.010	1.10471	20.00000	Averaged
59 Bromoform	0.32293	0.30233	0.100	-6.37860	20.00000	Averaged
64 1,1,2,2-Tetrachloroethane	0.42772	0.39327	0.300	-8.05487	20.00000	Averaged
$ 61 4-Bromofluorobenzene	0.45613	0.45161	0.010	-0.99141	20.00000	Averaged
66 1,2,3-Trichloropropane	0.13900	0.13433	0.010	-3.35884	20.00000	Averaged
68 Trans-1,4-Dichloro 2-Butene	0.11609	0.11105	0.010	-4.34162	20.00000	Averaged
63 N-Propyl Benzene	3.65597	3.67652	0.010	0.56196	20.00000	Averaged
62 Bromobenzene	0.89415	0.85972	0.010	-3.85007	20.00000	Averaged
67 1,3,5-Trimethyl Benzene	2.76122	2.77670	0.010	0.56036	20.00000	Averaged
65 2-Chloro Toluene	2.29199	2.25072	0.010	-1.80049	20.00000	Averaged
69 4-Chloro Toluene	2.33617	2.36436	0.010	1.20664	20.00000	Averaged
70 T-Butyl Benzene	2.40472	2.43227	0.010	1.14586	20.00000	Averaged
71 1,2,4-Trimethylbenzene	2.76839	2.80436	0.010	1.29959	20.00000	Averaged
72 S-Butyl Benzene	3.35816	3.40779	0.010	1.47782	20.00000	Averaged
73 4-Isopropyl Toluene	2.83939	2.95182	0.010	3.95940	20.00000	Averaged
74 1,3-Dichlorobenzene	1.73574	1.65370	0.600	-4.72700	20.00000	Averaged
76 1,4-Dichlorobenzene	1.72969	1.66749	0.400	-3.59596	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt5.i Injection Date: 06-JAN-2010 09:49
Lab File ID: 01061002.d Init. Cal. Date(s): 04-JAN-2010 04-JAN-2010
Analysis Type: WATER Init. Cal. Times: 11:02 16:13
Lab Sample ID: CC0106 Quant Type: ISTD
Method: /chem1/nt5.i/06JAN10.b/VO010410L.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
77 N-Butyl Benzene	2.39567	2.45392	0.010	2.43126	20.00000	Averaged
$ 78 d4-1,2-Dichlorobenzene	0.89051	0.88698	0.010	-0.39628	20.00000	Averaged
79 1,2-Dichlorobenzene	1.53044	1.45395	0.400	-4.99749	20.00000	Averaged
81 1,2-Dibromo 3-Chloropropane	0.08122	0.07131	0.010	-12.19380	20.00000	Averaged
83 1,2,4-Trichlorobenzene	0.95043	0.95914	0.010	0.91643	20.00000	Averaged
82 Hexachloro 1,3-Butadiene	0.42494	0.43776	0.010	3.01693	20.00000	Averaged
84 Naphthalene	1.59672	1.59535	0.010	-0.08542	20.00000	Averaged
85 1,2,3-Trichlorobenzene	0.76998	0.77012	0.010	0.01902	20.00000	Averaged

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 01061002.d
Lab Smp Id: CC0106
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-

Calibration Date: 06-JAN-2010
Calibration Time: 09:49
Client Smp ID: CC0106
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	939444	3.59
35 1,4-Difluorobenze	1305872	652936	2611744	1354487	3.72
52 d5-Chlorobenzene	1174180	587090	2348360	1195975	1.86
75 d4-1,4-Dichlorobe	665265	332632	1330530	661959	-0.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.28	4.78	5.78	5.27	-0.11
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	0.00

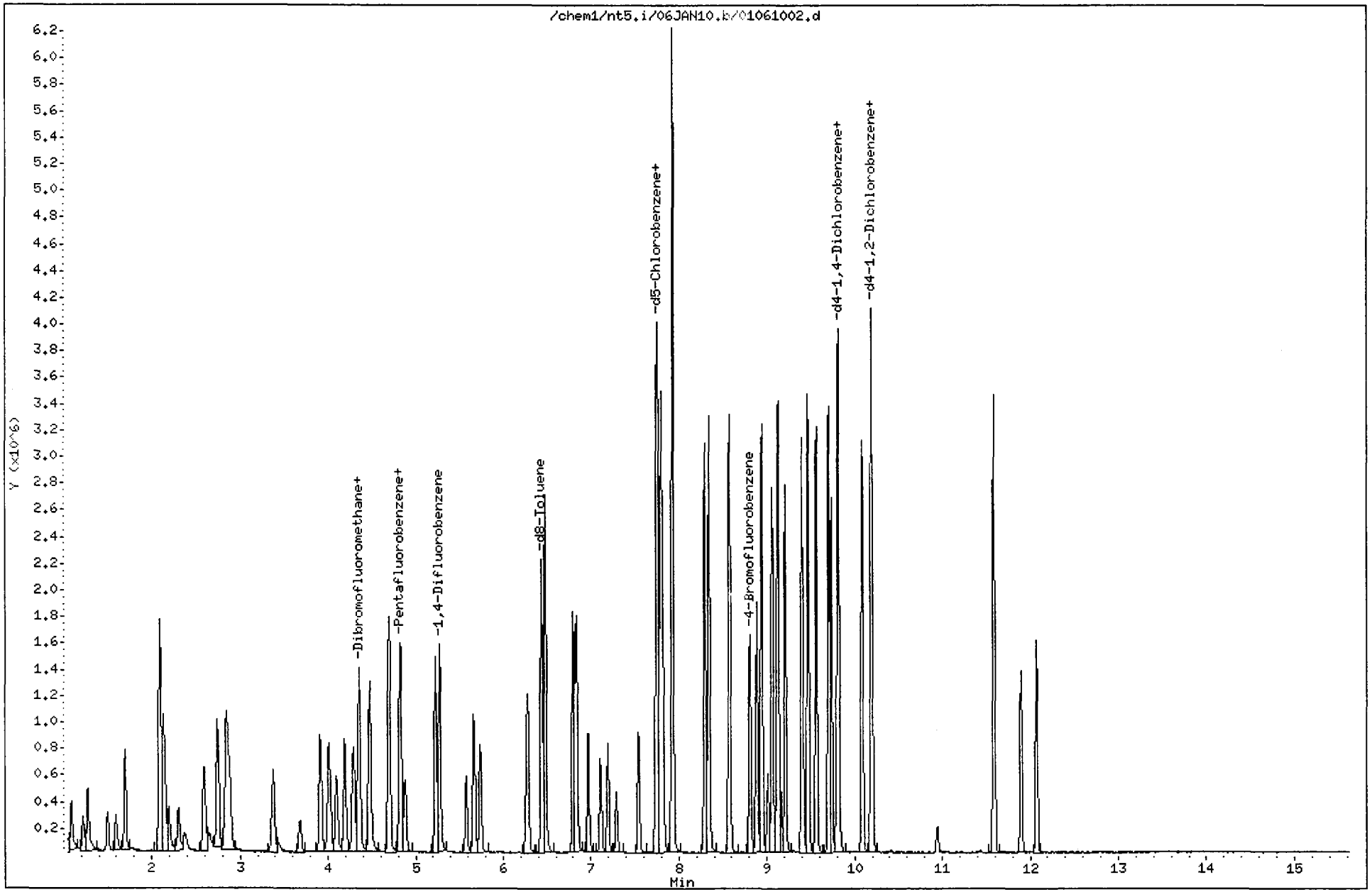
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/06JAN10.b/01061002.d
Date : 06-JAN-2010 09:49
Client ID: CC0106
Sample Info: CC0106,10,10,0,

Instrument: nt5.i

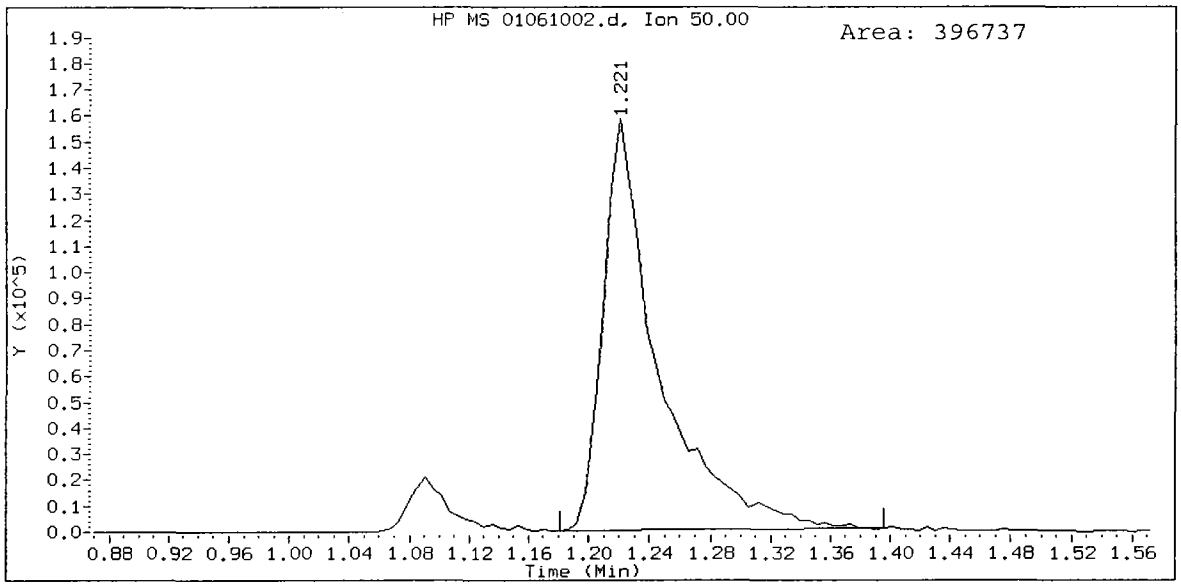
Operator: PC
Column diameter: 0.18

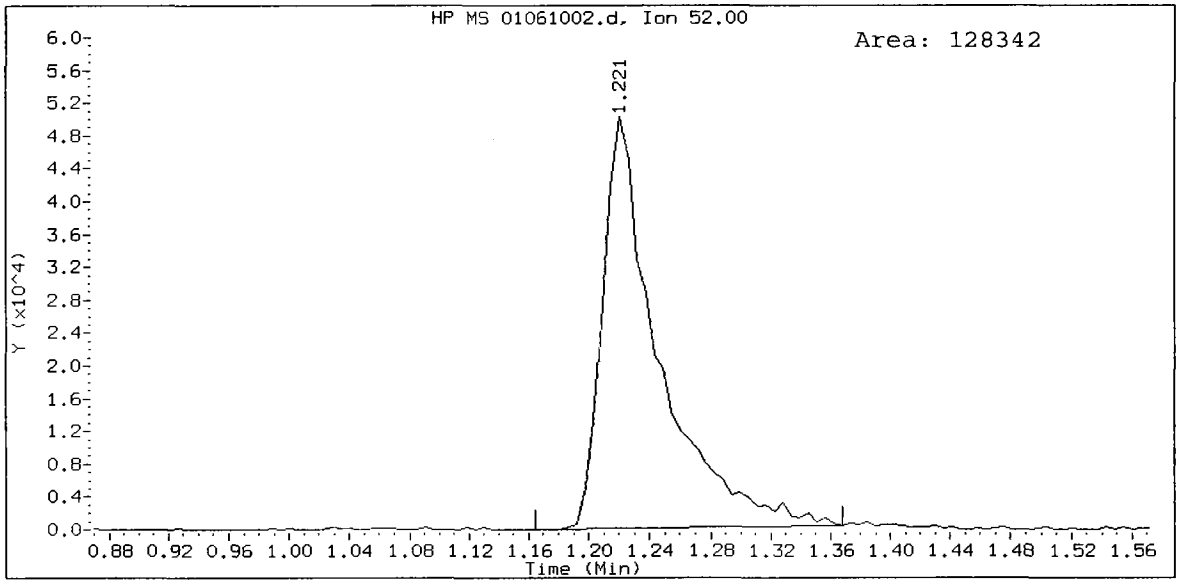
Column phase: RTXVMS

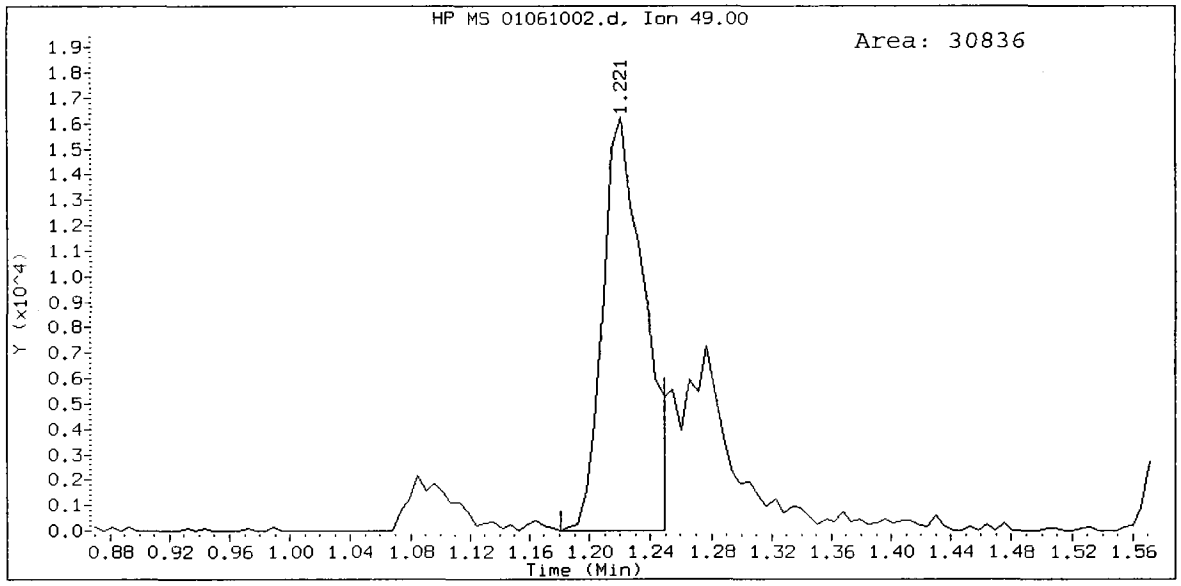


00258

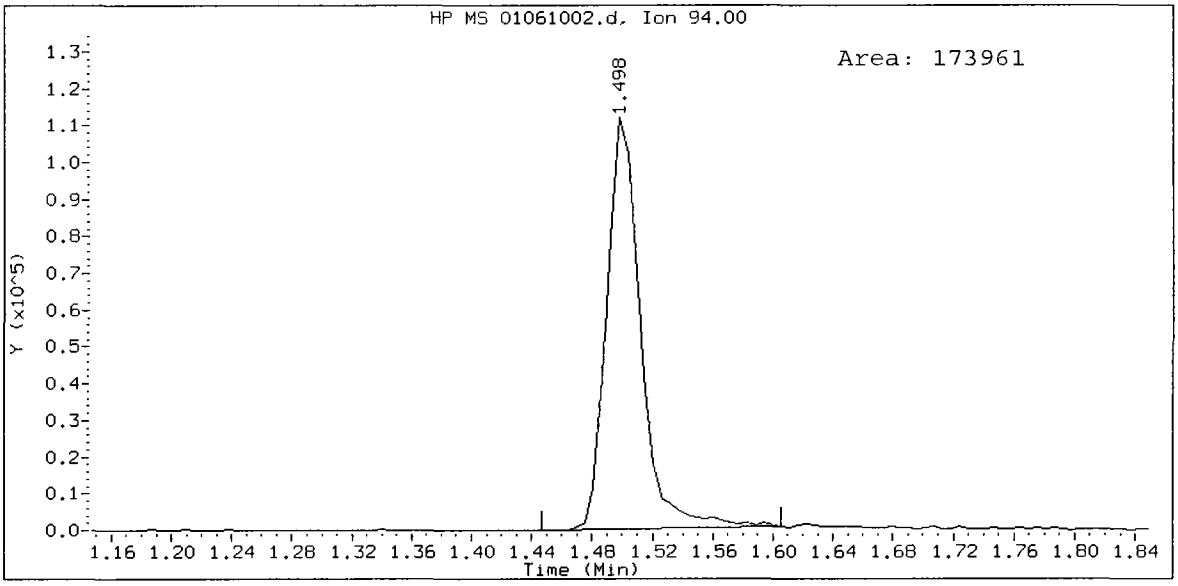
CC0106, /chem1/nt5.i/06JAN10.b/01061002.d
Chloromethane Amount: 8.94

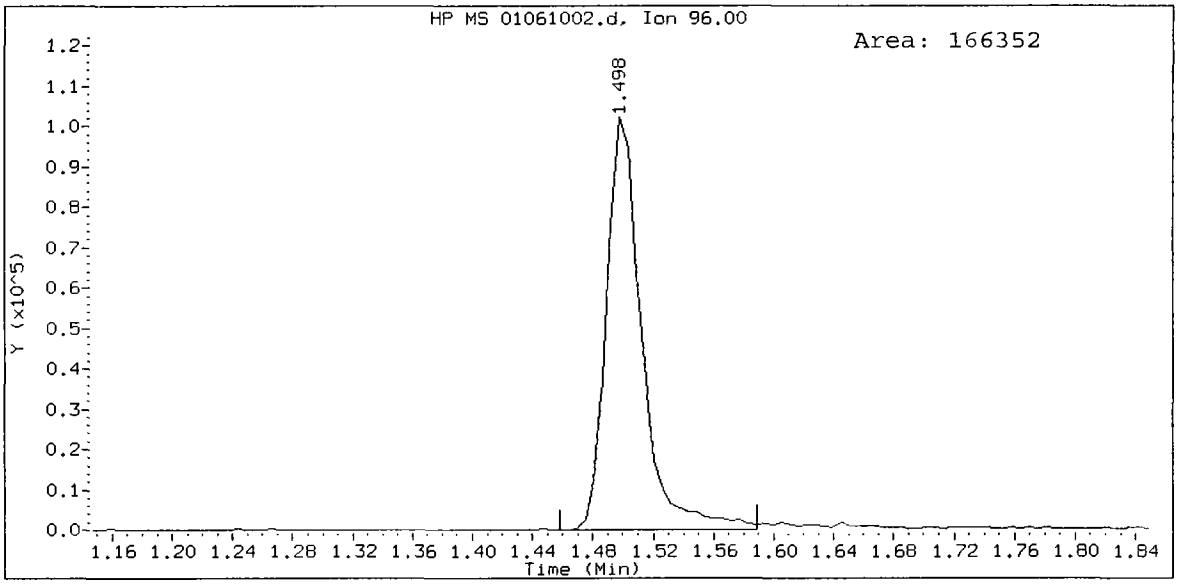


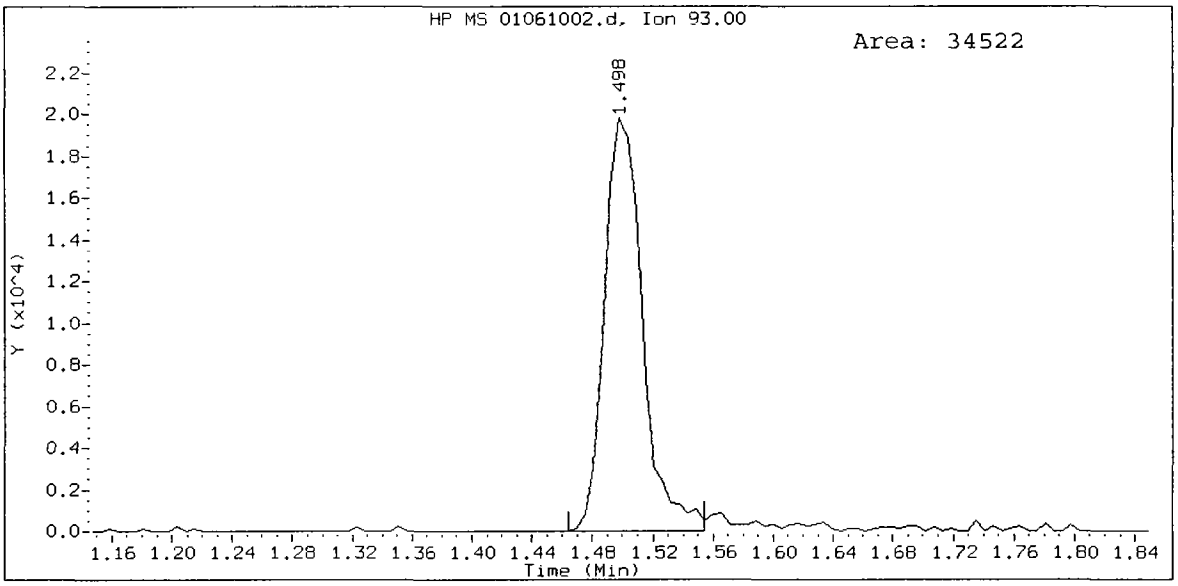




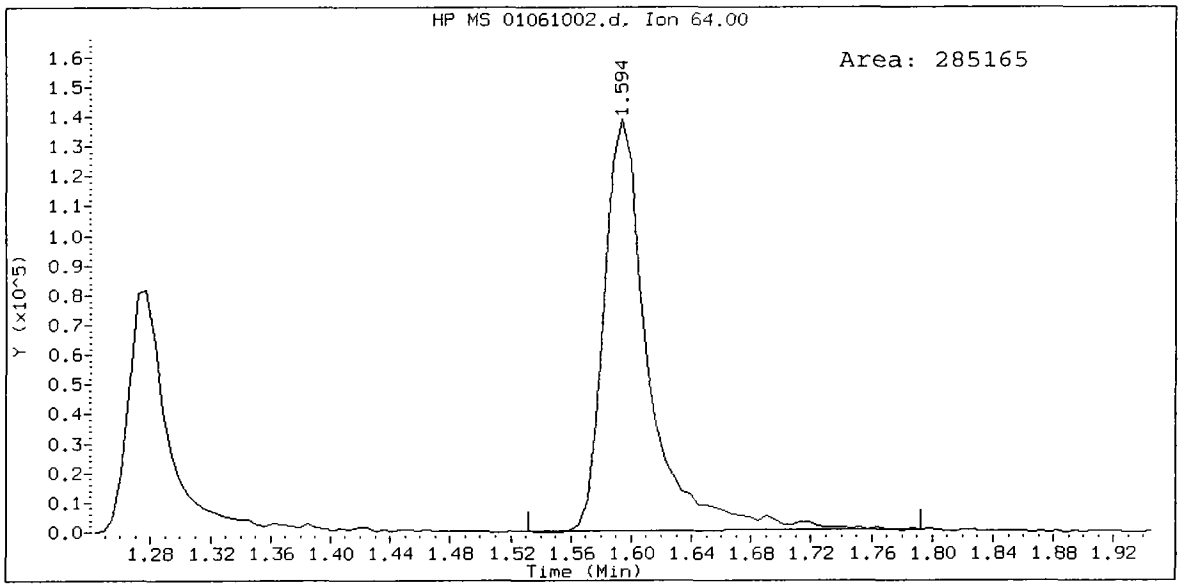
CC0106, /chem1/nt5.i/06JAN10.b/01061002.d
Bromomethane Amount: 6.93

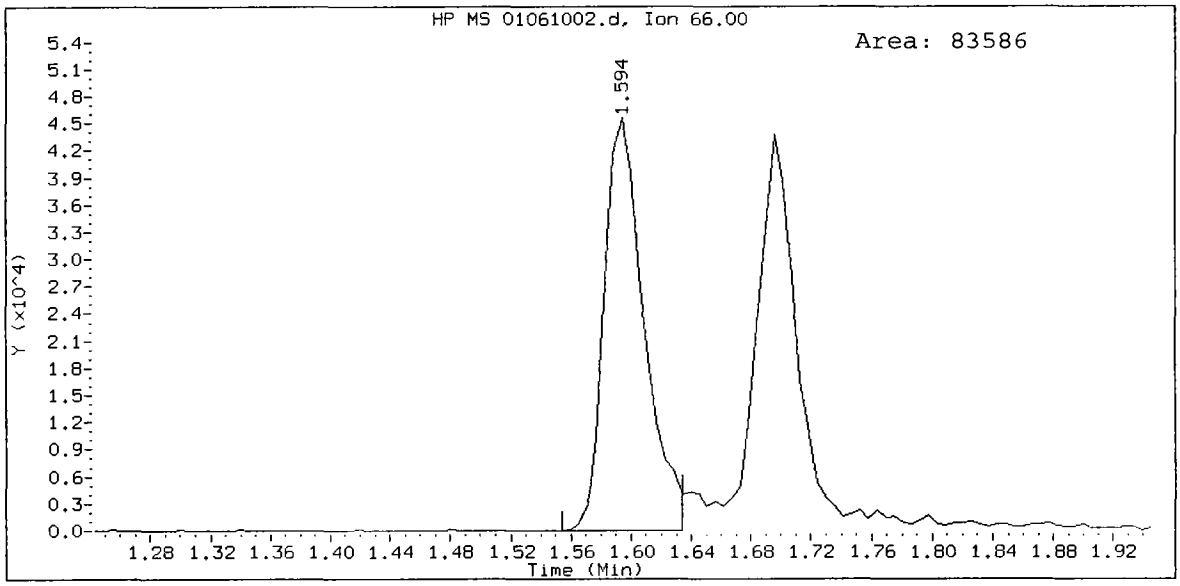


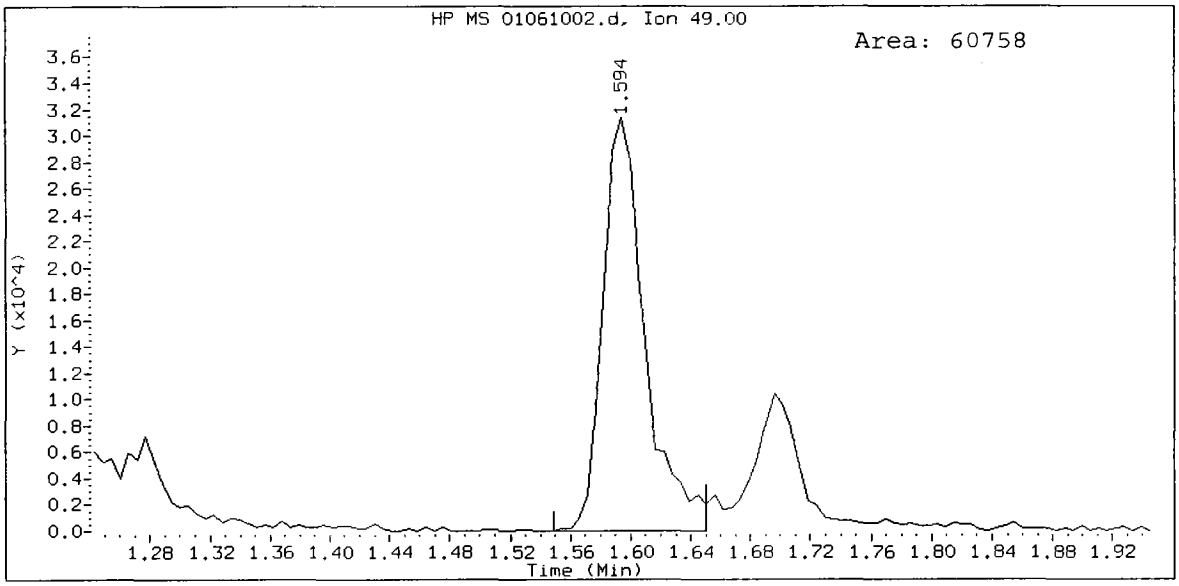




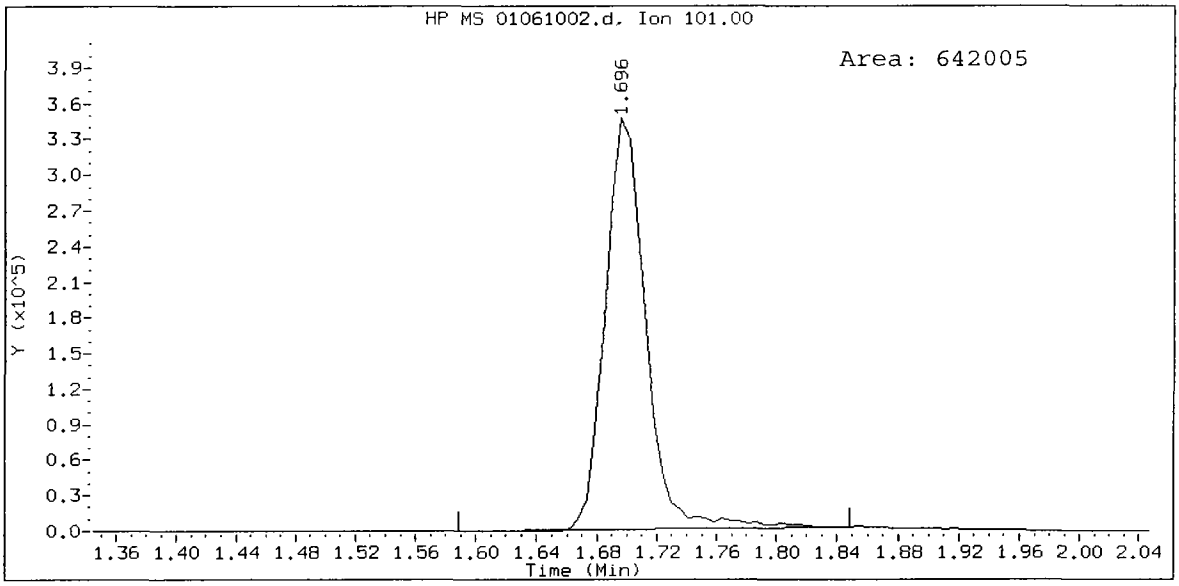
CC0106, /chem1/nt5.i/06JAN10.b/01061002.d
Chloroethane Amount: 9.27

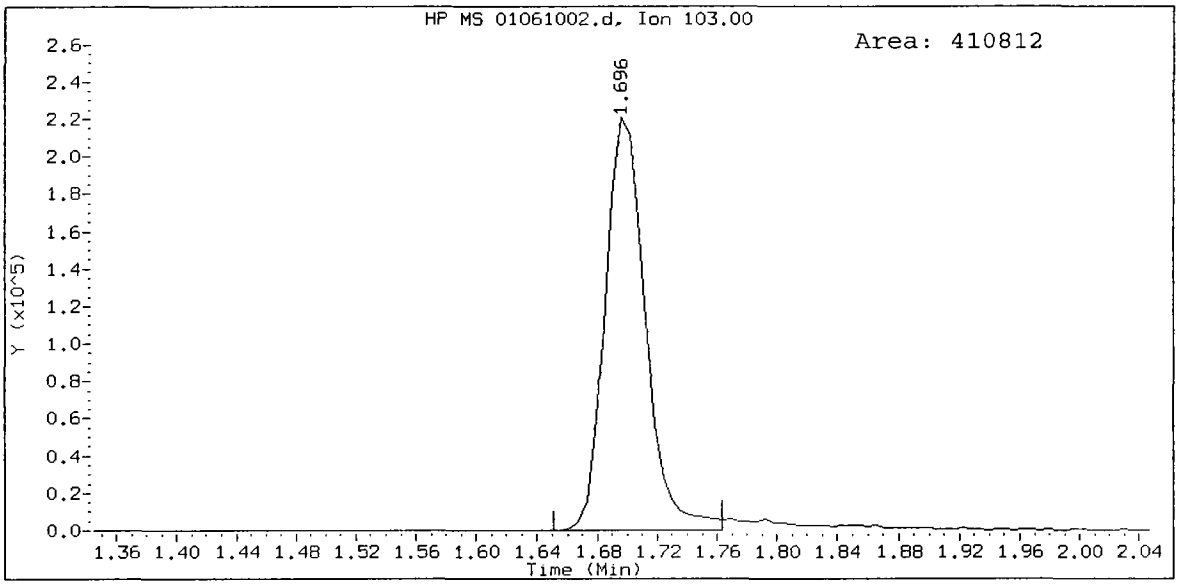


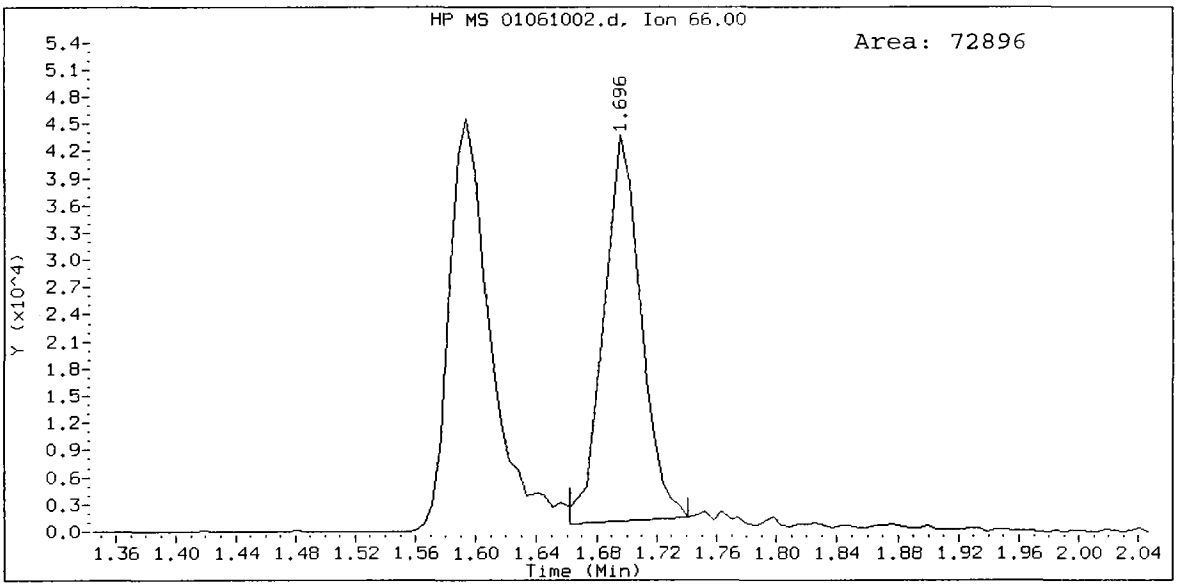




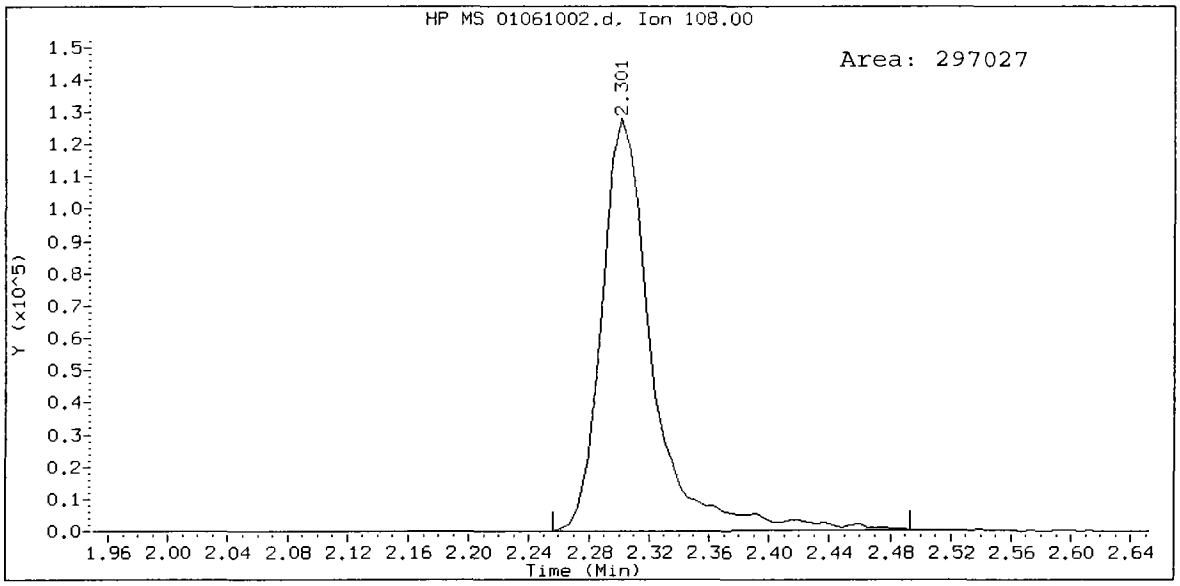
CC0106, /chem1/nt5.i/06JAN10.b/01061002.d
Trichlorofluoromethane Amount: 9.40

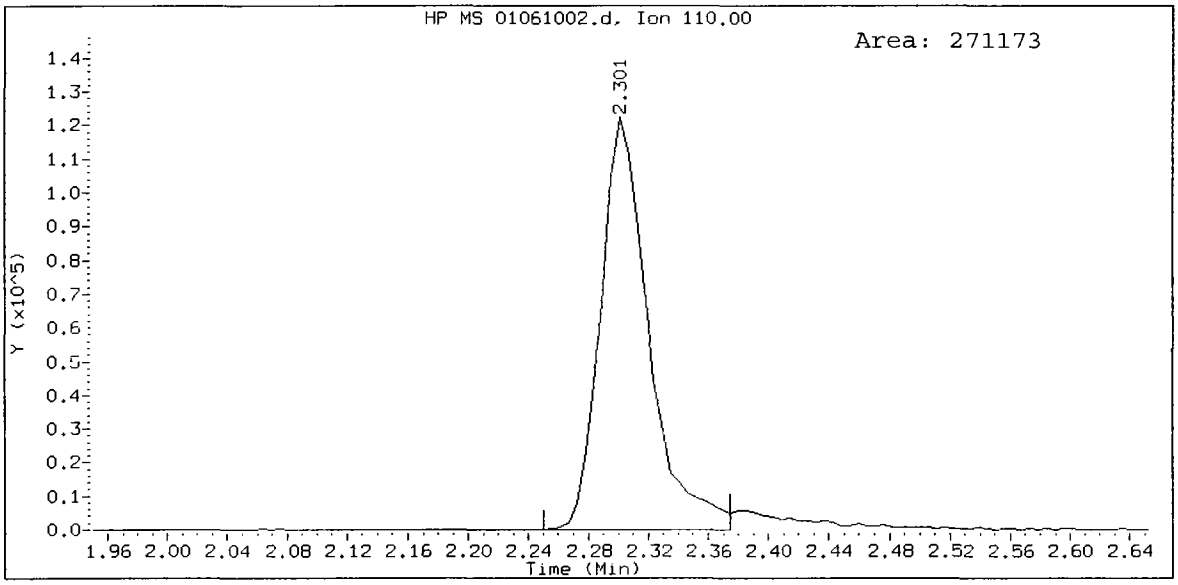




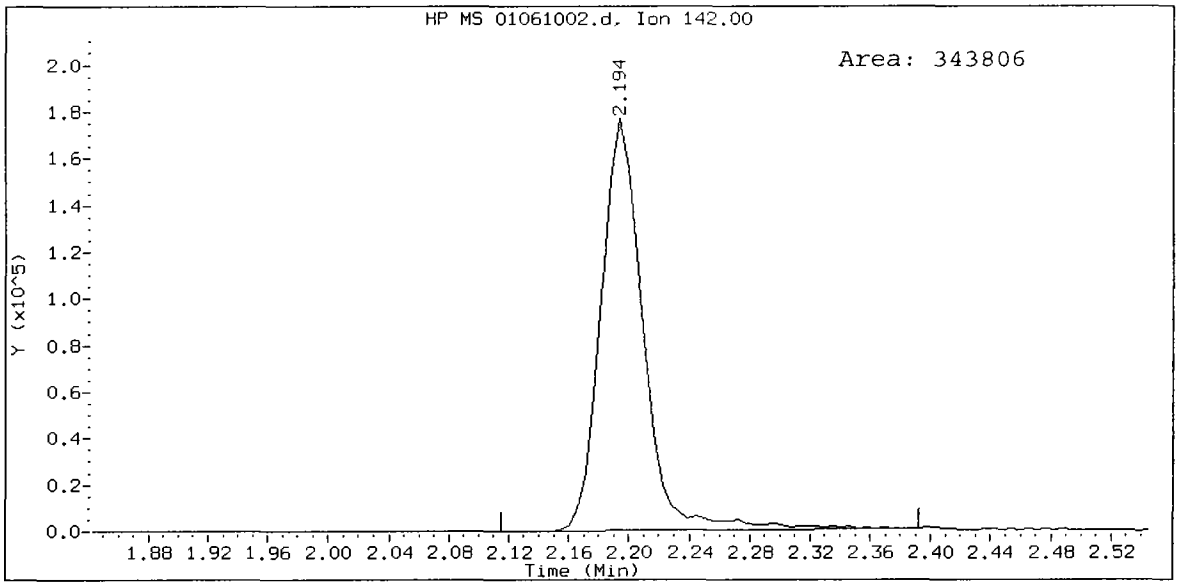


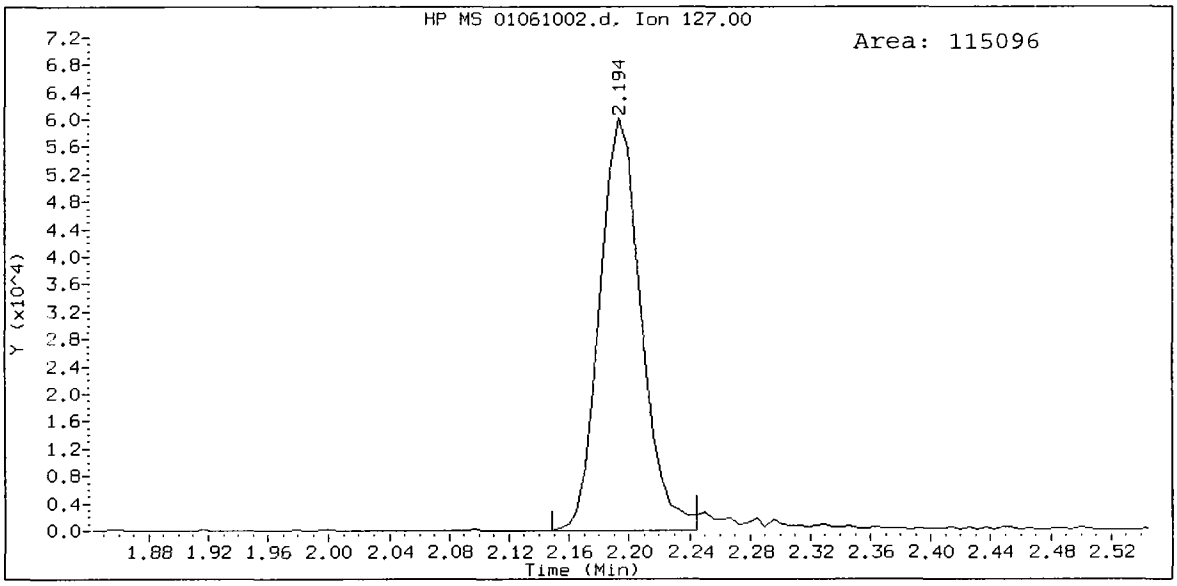
CC0106, /chem1/nt5.i/06JAN10.b/01061002.d
Bromoethane Amount: 9.08

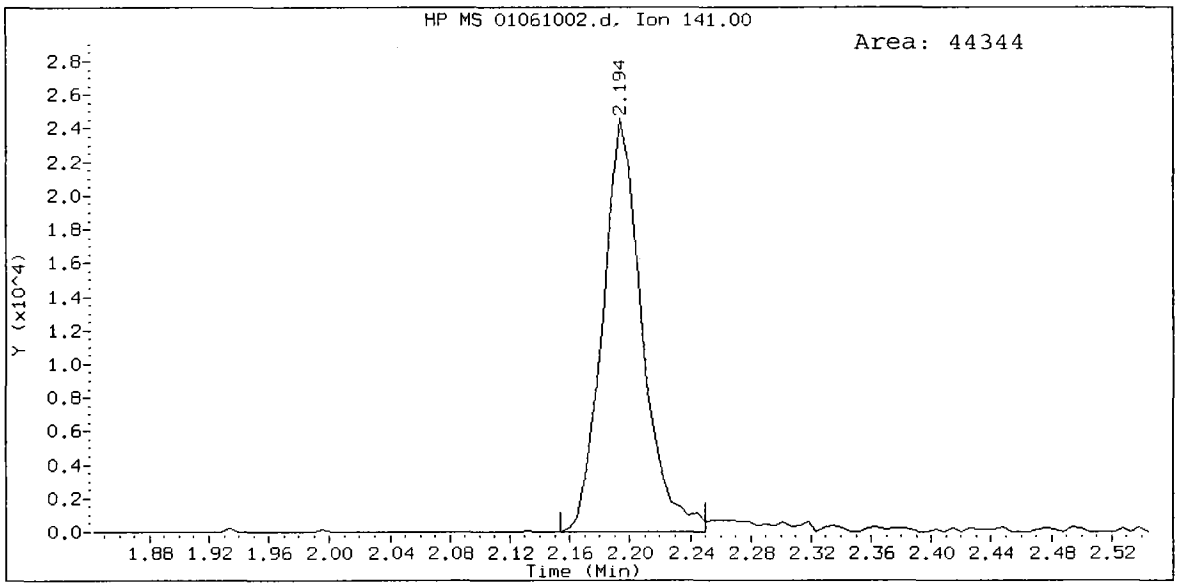




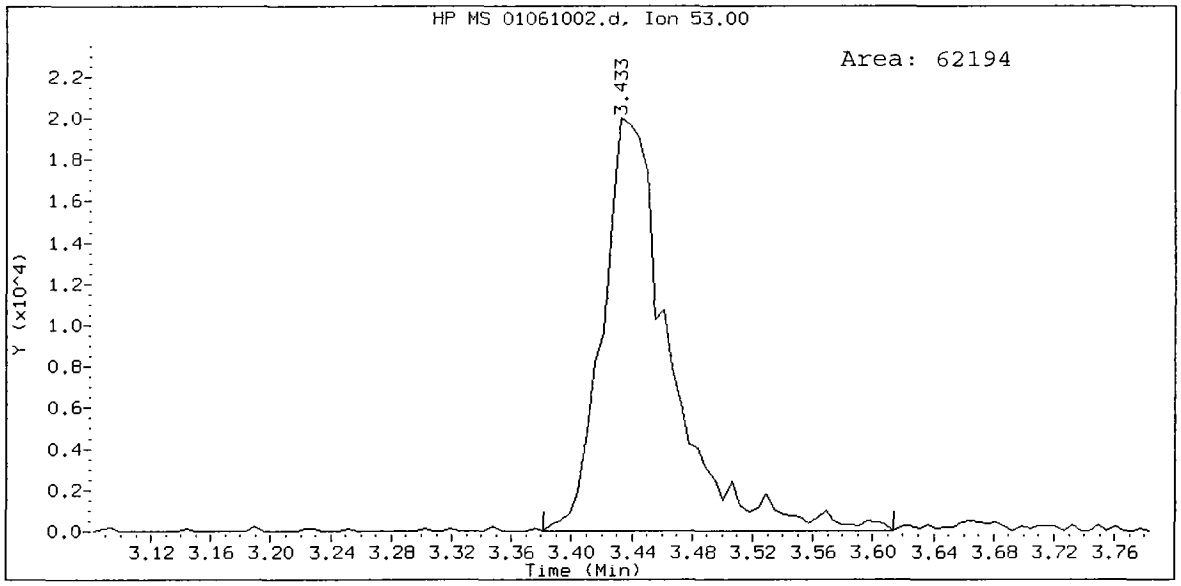
CC0106, /chem1/nt5.i/06JAN10.b/01061002.d
Iodomethane Amount: 7.68

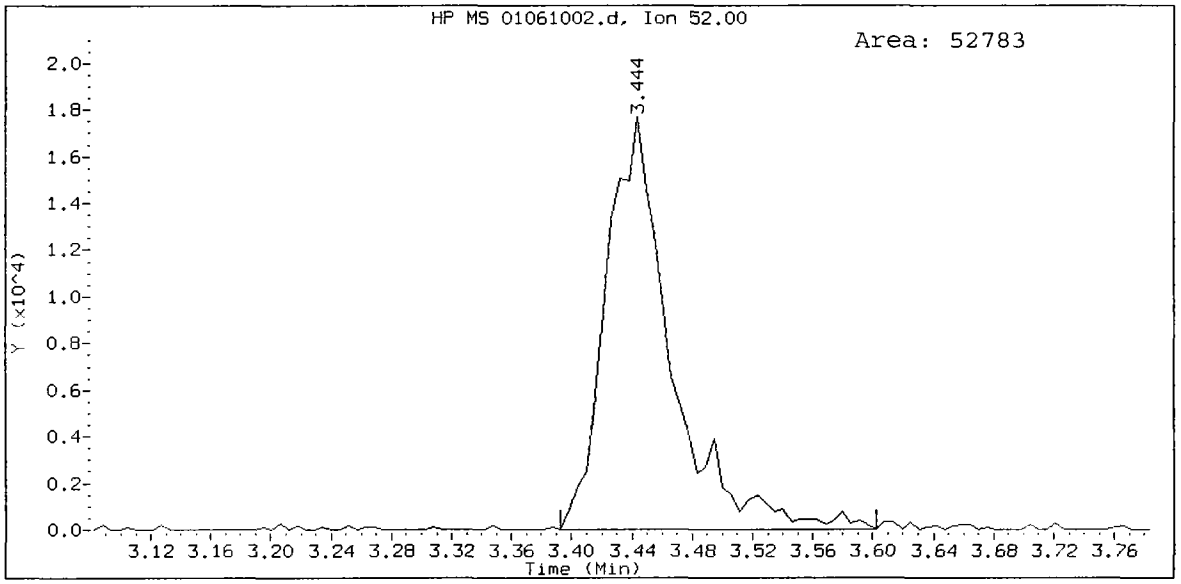


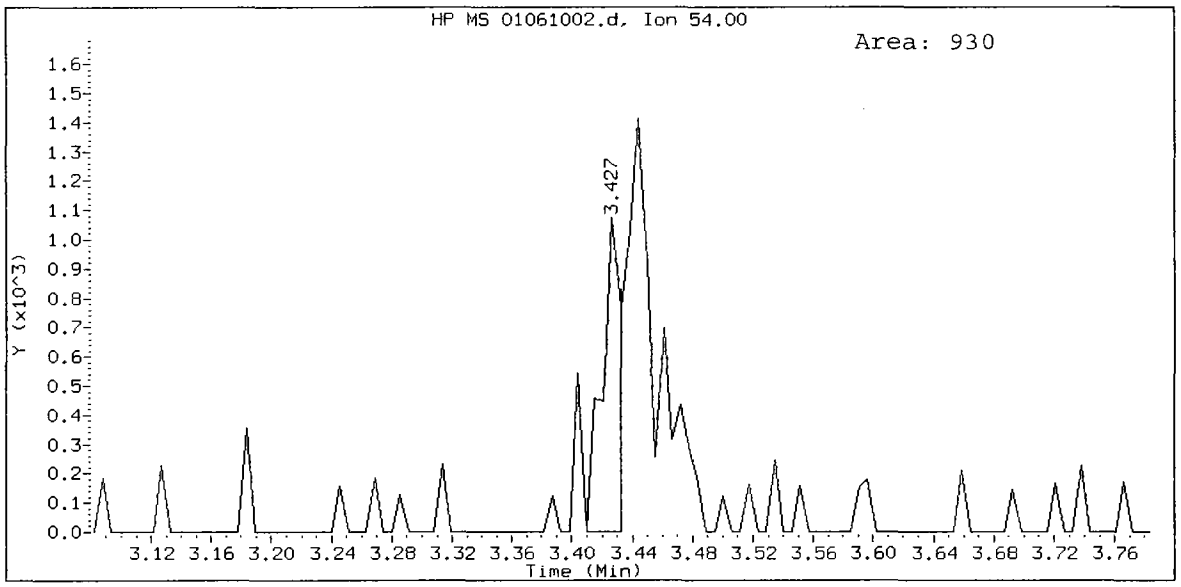




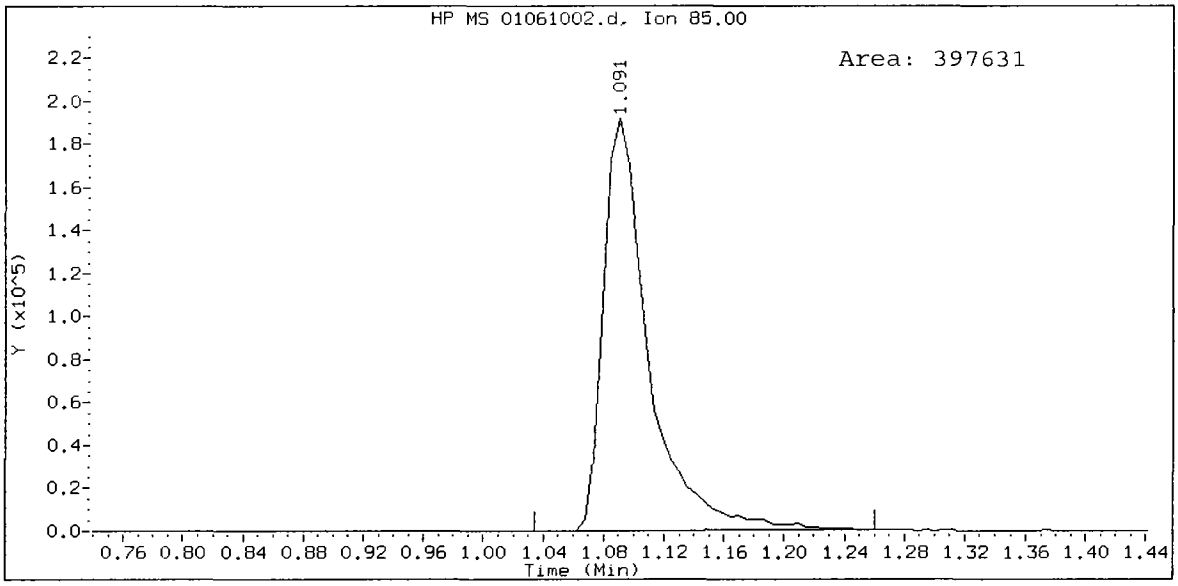
CC0106, /chem1/nt5.i/06JAN10.b/01061002.d
Acrylonitrile Amount: 8.56

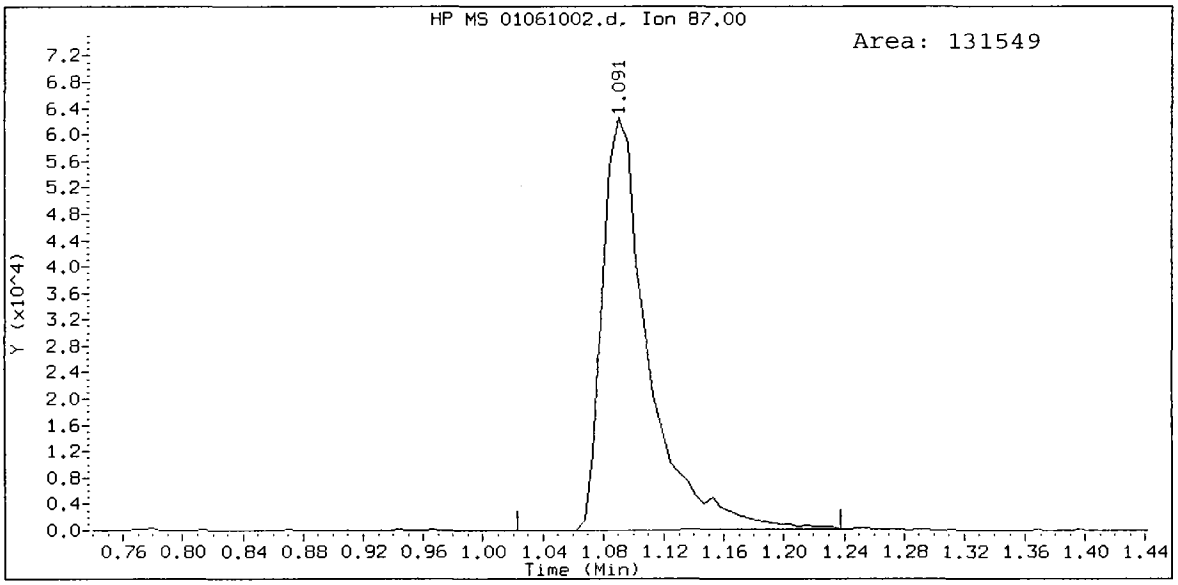






CC0106, /chem1/nt5.i/06JAN10.b/01061002.d
Dichlorodifluoromethane Amount: 9.59





Volatile Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Data File: /chem1/nt5.i/04JAN10.b/01041001.d

Date : 04-JAN-2010 10:15

Client ID: BFB0104

Instrument: nt5.i

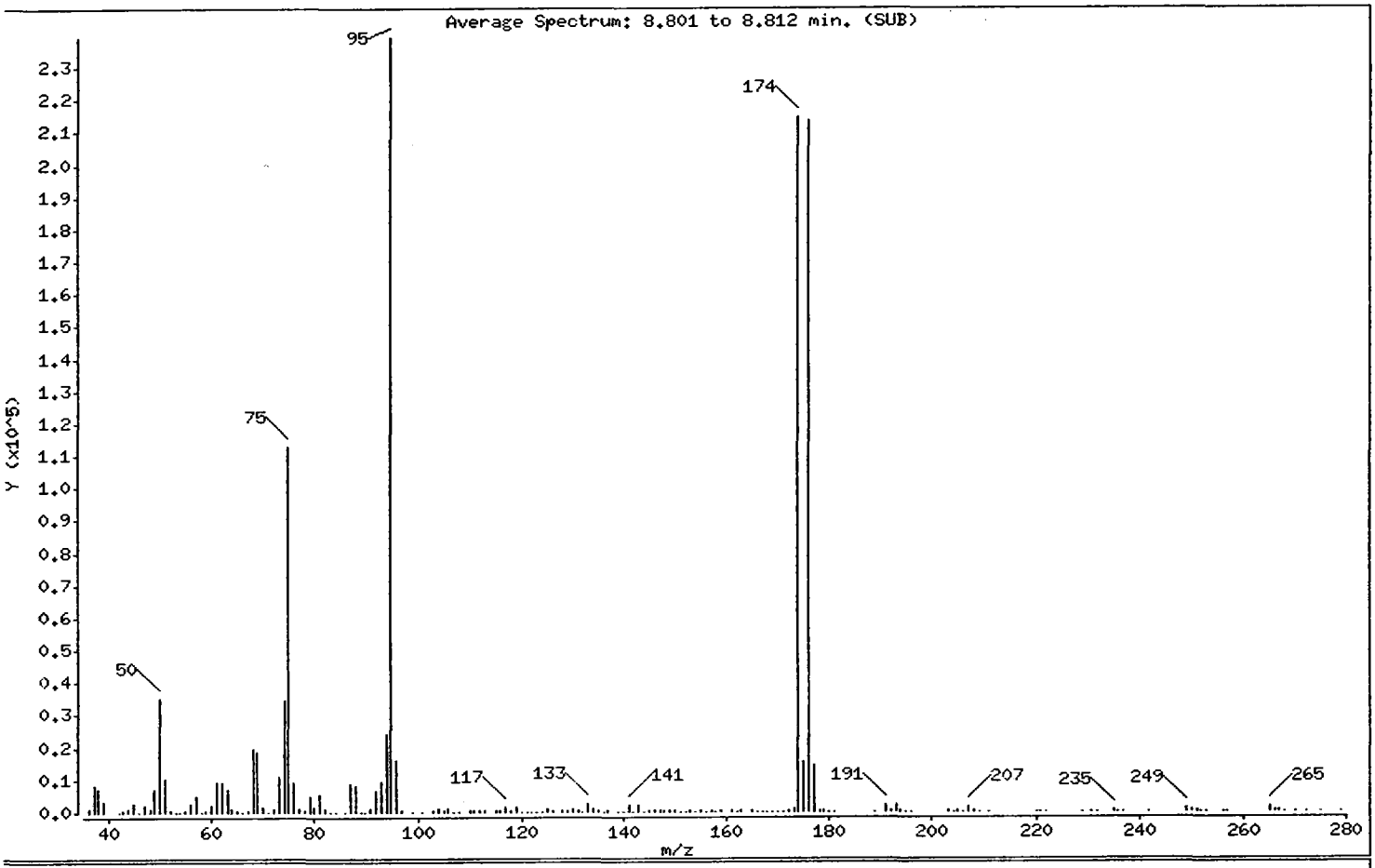
Sample Info: BFB0104,BFB0104,1,04JAN10,

Operator: PC

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	14.65
75	30.00 - 66.00% of mass 95	47.15
96	5.00 - 9.00% of mass 95	6.76
173	Less than 2.00% of mass 174	0.54 (0.60)
174	50.00 - 101.00% of mass 95	89.74
175	4.00 - 9.00% of mass 174	6.34 (7.07)
176	93.00 - 101.00% of mass 174	89.23 (99.43)
177	5.00 - 9.00% of mass 176	5.88 (6.59)

Data File: /chem1/nt5.i/04JAN10.b/01041001.d

Date : 04-JAN-2010 10:15

Client ID: BFB0104

Instrument: nt5.i

Sample Info: BFB0104,BFB0104,1,04JAN10,

Operator: PC

Column phase: RTXVMS

Column diameter: 0.18

Data File: 01041001.d

Spectrum: Average Spectrum: 8.801 to 8.812 min. (SUB)

Location of Maximum: 95.00

Number of points: 174

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	957	82.00	979	133.00	2798	180.00	139
37.00	8288	83.00	203	134.00	842	181.00	75
38.00	7376	84.00	84	135.00	767	189.00	238
39.00	3282	86.00	275	136.00	41	191.00	2426
42.00	109	87.00	8729	137.00	286	192.00	713
43.00	387	88.00	8229	139.00	94	193.00	2212
44.00	1083	89.00	96	140.00	190	194.00	400
45.00	2505	90.00	91	141.00	2420	195.00	267
46.00	138	91.00	966	142.00	257	196.00	84
47.00	2032	92.00	6484	143.00	2133	203.00	293
48.00	1271	93.00	9380	144.00	51	204.00	113
49.00	7082	94.00	24464	145.00	303	205.00	543
50.00	35088	95.00	239424	146.00	620	206.00	207
51.00	10614	96.00	16186	147.00	503	207.00	1634
52.00	572	97.00	777	148.00	470	208.00	301
53.00	95	99.00	179	149.00	291	209.00	164
54.00	37	101.00	50	150.00	310	211.00	99
55.00	472	103.00	639	151.00	175	220.00	35
56.00	2876	104.00	932	152.00	67	221.00	144
57.00	5037	105.00	617	153.00	279	222.00	44
58.00	265	106.00	1174	154.00	122	229.00	47
59.00	527	107.00	269	155.00	579	231.00	58
60.00	2226	108.00	150	156.00	36	232.00	36
61.00	9575	110.00	536	157.00	319	235.00	322
62.00	9320	111.00	551	158.00	256	236.00	58
63.00	6996	112.00	454	159.00	416	237.00	63
64.00	1315	113.00	327	161.00	351	242.00	51
65.00	369	115.00	453	162.00	44	249.00	1028
66.00	158	116.00	757	163.00	514	250.00	323
67.00	554	117.00	1493	165.00	300	251.00	632
68.00	19640	118.00	623	166.00	54	252.00	145
69.00	18848	119.00	1653	167.00	51	253.00	123
70.00	1607	120.00	91	168.00	101	256.00	49
71.00	100	121.00	123	169.00	53	257.00	37
72.00	1329	122.00	42	170.00	97	265.00	1854

Data File: /chem1/nt5.i/04JAN10.b/01041001.d

Date : 04-JAN-2010 10:15

Client ID: BFB0104

Instrument: nt5.i

Sample Info: BFB0104,BFB0104,1,04JAN10,

Operator: PC

Column phase: RTXVMS

Column diameter: 0.18

Data File: 01041001.d

Spectrum: Average Spectrum: 8.801 to 8.812 min. (SUB)

Location of Maximum: 95.00

Number of points: 174

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	11043	123.00	89	171.00	219	266.00	430
74.00	34456	124.00	244	172.00	494	267.00	476
75.00	112896	125.00	1090	173.00	1288	268.00	157
76.00	9180	126.00	409	174.00	214848	270.00	34
77.00	1016	128.00	614	175.00	15184	272.00	42
78.00	320	129.00	604	176.00	213632	275.00	34
79.00	4956	130.00	828	177.00	14073	279.00	52
80.00	1645	131.00	666	178.00	598		
81.00	5248	132.00	18	179.00	563		

Data File: /chem1/nt5.i/04JAN10.b/01041001.d

Page 1

Date : 04-JAN-2010 10:15

Client ID: BFB0104

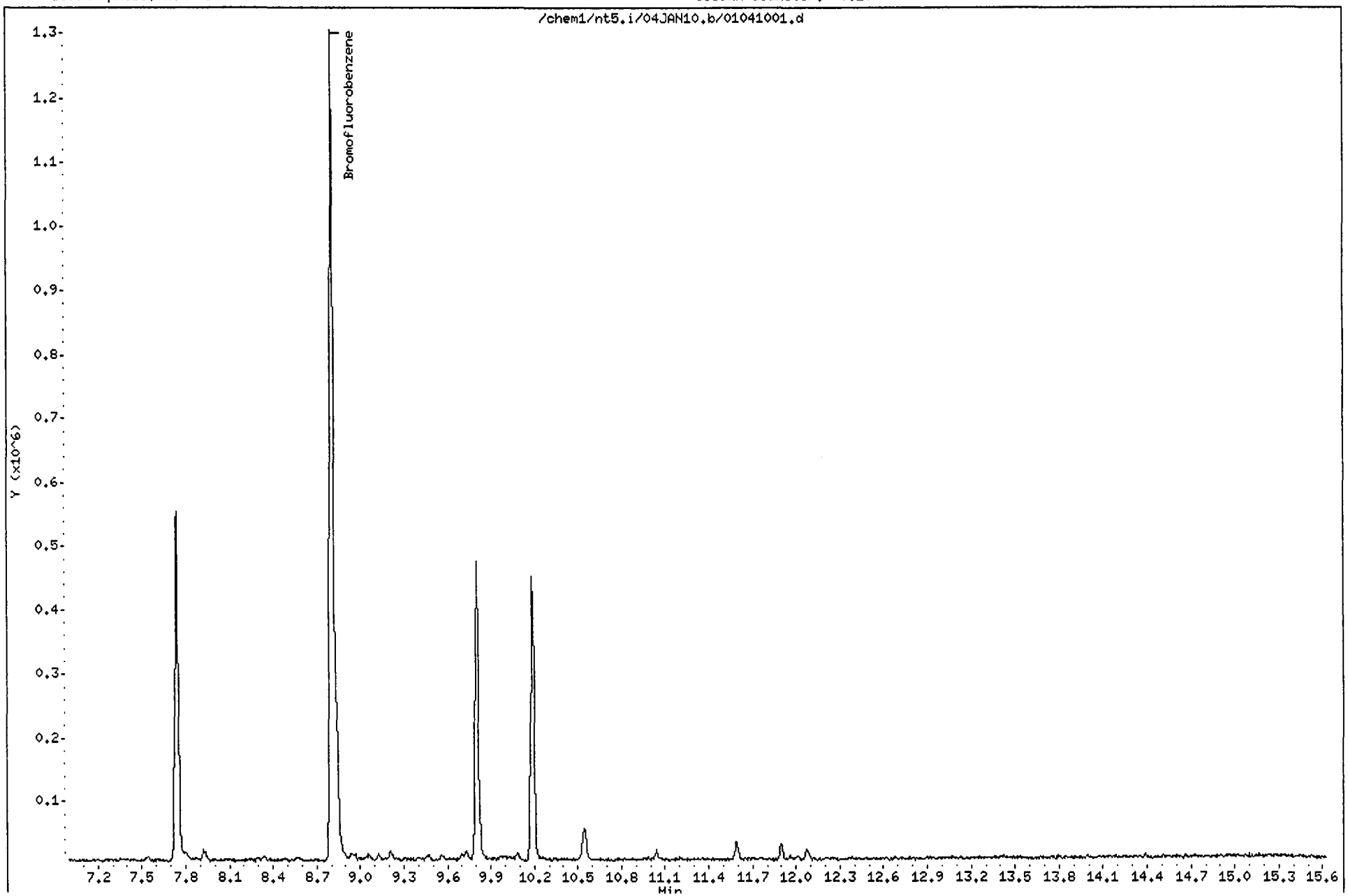
Instrument: nt5.i

Sample Info: BFB0104,BFB0104,1,04JAN10,

Operator: PC

Column phase: RTXVMS

Column diameter: 0.18



QD62:00271

PC 1/7/10

Data File: /chem1/nt5.i/06JAN10.b/01061001.d

Date : 06-JAN-2010 09:13

Client ID: BFB0106

Instrument: nt5.i

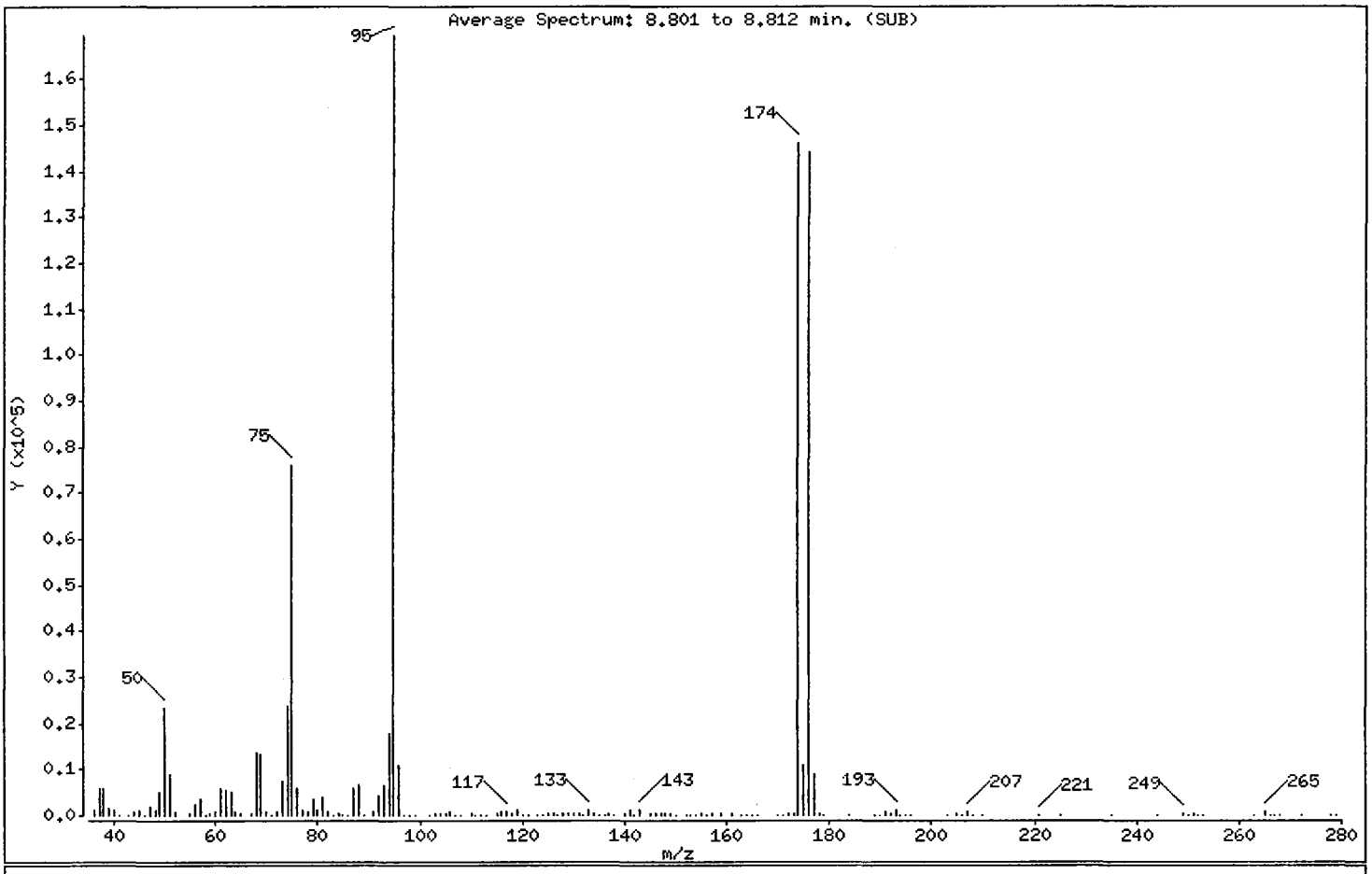
Sample Info: BFB0106,BFB0106,1,06JAN10,

Operator: PC

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	13.90
75	30.00 - 66.00% of mass 95	44.72
96	5.00 - 9.00% of mass 95	6.32
173	Less than 2.00% of mass 174	0.25 (0.29)
174	50.00 - 101.00% of mass 95	86.18
175	4.00 - 9.00% of mass 174	6.55 (7.60)
176	93.00 - 101.00% of mass 174	85.06 (98.70)
177	5.00 - 9.00% of mass 176	5.34 (6.28)

Date : 06-JAN-2010 09:13

Client ID: BFB0106 Instrument: nt5.i

Sample Info: BFB0106,BFB0106,1,06JAN10,

Operator: PC

Column phase: RTXVMS Column diameter: 0.18

Data File: 01061001.d

Spectrum: Average Spectrum: 8.801 to 8.812 min. (SUB)

Location of Maximum: 95.00

Number of points: 157

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1221	80.00	1255	126.00	326	175.00	11102
37.00	5968	81.00	3931	127.00	88	176.00	144128
38.00	6032	82.00	597	128.00	446	177.00	9054
39.00	1421	83.00	185	129.00	200	178.00	243
40.00	1222	84.00	269	130.00	571	179.00	180
41.00	69	85.00	111	131.00	325	184.00	39
43.00	194	86.00	90	132.00	34	189.00	43
44.00	643	87.00	5951	133.00	1285	190.00	34
45.00	1343	88.00	6462	134.00	496	191.00	910
46.00	50	89.00	146	135.00	190	192.00	265
47.00	2097	91.00	721	136.00	154	193.00	1109
48.00	1338	92.00	4196	137.00	307	194.00	179
49.00	4902	93.00	6656	138.00	65	195.00	116
50.00	23560	94.00	17856	140.00	223	196.00	36
51.00	8938	95.00	169472	141.00	1274	203.00	191
52.00	705	96.00	10714	142.00	76	205.00	358
55.00	387	97.00	176	143.00	1295	206.00	62
56.00	2302	98.00	129	145.00	377	207.00	827
57.00	3389	99.00	34	146.00	270	208.00	70
58.00	42	102.00	86	147.00	287	210.00	62
59.00	309	103.00	412	148.00	248	221.00	170
60.00	940	104.00	547	149.00	254	225.00	45
61.00	5937	105.00	214	150.00	47	235.00	104
62.00	5589	106.00	605	152.00	139	244.00	81
63.00	5080	107.00	173	153.00	182	249.00	465
64.00	881	108.00	34	154.00	52	250.00	138
65.00	305	110.00	287	155.00	549	251.00	316
67.00	556	111.00	137	156.00	68	252.00	41
68.00	13443	112.00	191	157.00	243	253.00	46
69.00	13222	113.00	74	159.00	252	263.00	34
70.00	944	115.00	506	161.00	287	265.00	848
71.00	115	116.00	606	163.00	171	266.00	123
72.00	853	117.00	824	164.00	40	267.00	165
73.00	7315	118.00	546	165.00	85	268.00	113
74.00	23912	119.00	1008	166.00	88	272.00	105

QD62:00273

Data File: /chem1/nt5.i/06JAN10.b/01061001.d

Date : 06-JAN-2010 09:13

Client ID: BFB0106

Instrument: nt5.i

Sample Info: BFB0106,BFB0106,1,06JAN10,

Operator: PC

Column phase: RTXVMS

Column diameter: 0.18

Data File: 01061001.d

Spectrum: Average Spectrum: 8.801 to 8.812 min. (SUB)

Location of Maximum: 95.00

Number of points: 157

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	75784	120.00	52	170.00	76	278.00	62
76.00	5863	121.00	83	171.00	161	279.00	116
77.00	1127	123.00	45	172.00	404		
78.00	603	124.00	137	173.00	430		
79.00	3664	125.00	365	174.00	146048		

Data File: /chem1/nt5.i/06JAN10.b/01061001.d

Date : 06-JAN-2010 09:13

Client ID: BFB0106

Instrument: nt5.i

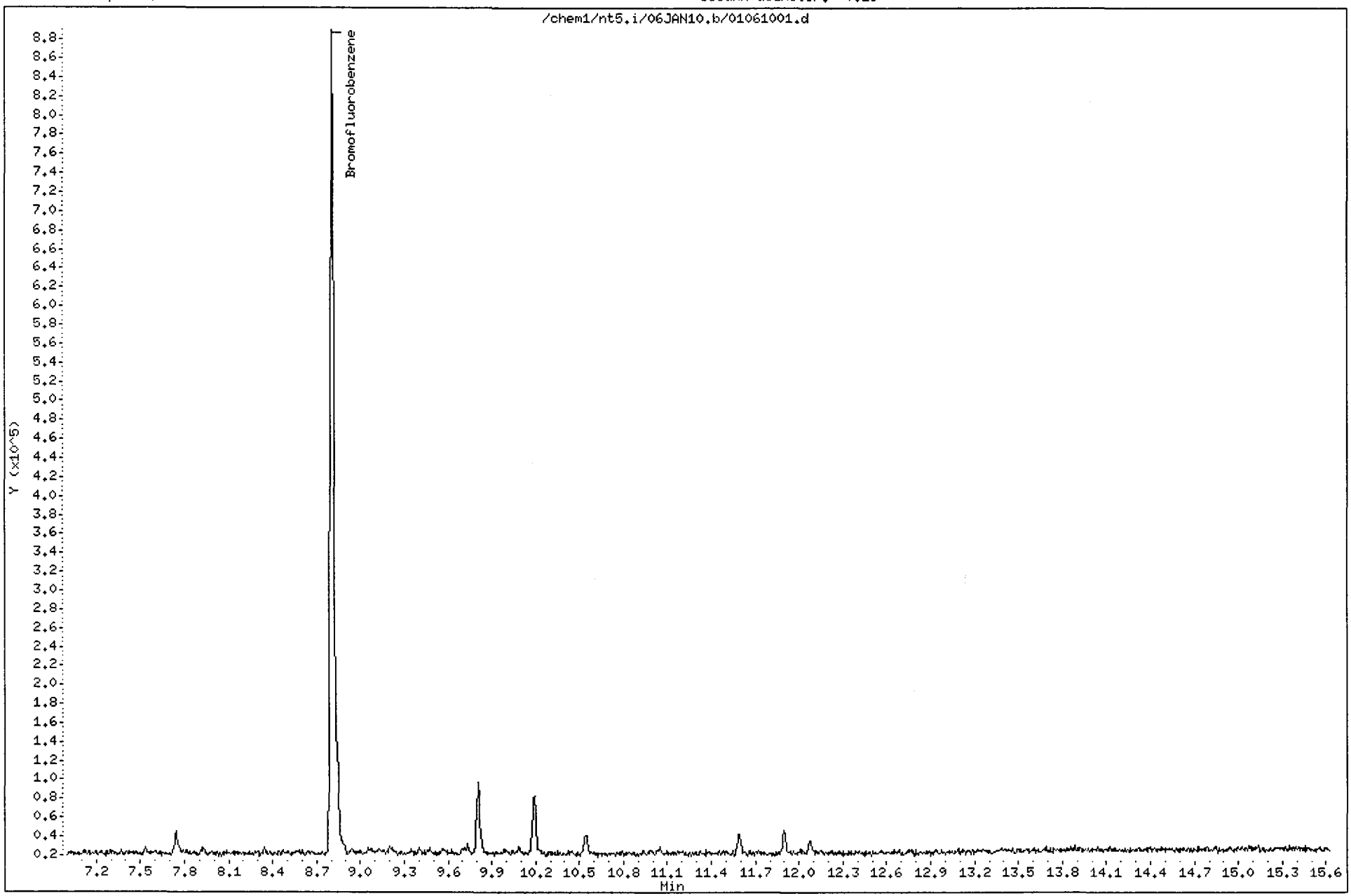
Sample Info: BFB0106,BFB0106,1,06JAN10,

Operator: PC

Column phase: RTXVMS

Column diameter: 0.18

QD62 00275



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-010610**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-010610
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/07/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/PKC
Date Analyzed: 01/06/10 11:05

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.3%
d8-Toluene	100%

PC 1/7/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/06JAN10.b/01061005.d
Lab Smp Id: MB0106 Client Smp ID: MB0106
Inj Date : 06-JAN-2010 11:05
Operator : PC Inst ID: nt5.i
Smp Info : MB0106,10,10,0,
Misc Info : 09-
Comment :
Method : /chem1/nt5.i/06JAN10.b/VO010410L.m
Meth Date : 07-Jan-2010 09:32 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.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 (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
14 Acetone	43	2.669	2.658	(0.553)	9427	2.16590	2.166(M)
7 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
18 Acrylonitrile	53	Compound Not Detected.					
16 Methyl tert butyl ether	73	Compound Not Detected.					
8 Carbon Disulfide	76	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	29 2-Butanone	72	Compound Not Detected.					
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	32 Pentafluorobenzene	168	4.830	4.830	(1.000)	924782	10.0000	
	23 Chloroform	83	Compound Not Detected.					
	22 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	4.355	4.355	(0.902)	331650	9.98721	9.987
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	24 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	4.819	4.824	(0.998)	320091	9.82905	9.829
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	30 Benzene	78	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.277	5.271	(1.000)	1344877	10.0000	
	34 Trichloroethene	130	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	37 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.436	6.436	(1.220)	1421684	9.99529	9.995
	43 Toluene	92	Compound Not Detected.					
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	44 Tetrachloroethene	166	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1210251	10.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	60 Isopropyl Benzene	105	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	64 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	526680	9.54068	9.541
	66 1,2,3-Trichloropropane	110	Compound Not Detected.					
	68 Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
	63 N-Propyl Benzene	91	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
62	Bromobenzene	156	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
65	2-Chloro Toluene	91	Compound Not Detected.					
69	4-Chloro Toluene	91	Compound Not Detected.					
70	T-Butyl Benzene	119	Compound Not Detected.					
71	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
72	S-Butyl Benzene	105	Compound Not Detected.					
73	4-Isopropyl Toluene	119	Compound Not Detected.					
74	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 75	d4-1,4-Dichlorobenzene	152	9.802	9.808	(1.000)	655074	10.0000	
76	1,4-Dichlorobenzene	146	Compound Not Detected.					
77	N-Butyl Benzene	91	Compound Not Detected.					
$ 78	d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	576177	9.87706	9.877
79	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	10.939	10.945	(1.116)	548	0.10300	0.1030(Q)
83	1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	12371	0.19870	0.1987
82	Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.182)	8041	0.28887	0.2889
84	Naphthalene	128	11.895	11.895	(1.214)	28682	0.27422	0.2742
85	1,2,3-Trichlorobenzene	180	12.076	12.076	(1.232)	10867	0.21545	0.2154

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: nt5.i
Lab File ID: 01061005.d
Lab Smp Id: MB0106
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-

Calibration Date: 06-JAN-2010
Calibration Time: 09:49
Client Smp ID: MB0106
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	924782	1.97
35 1,4-Difluorobenze	1305872	652936	2611744	1344877	2.99
52 d5-Chlorobenzene	1174180	587090	2348360	1210251	3.07
75 d4-1,4-Dichlorobe	665265	332632	1330530	655074	-1.53

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.27	4.77	5.77	5.28	0.11
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.80	-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:
Sample Matrix: LIQUID
Lab Smp Id: MB0106
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-

Client SDG: 06JAN10
Fraction: VOA
Client Smp ID: MB0106
Operator: PC
SampleType: BLANK
Quant Type: ISTD

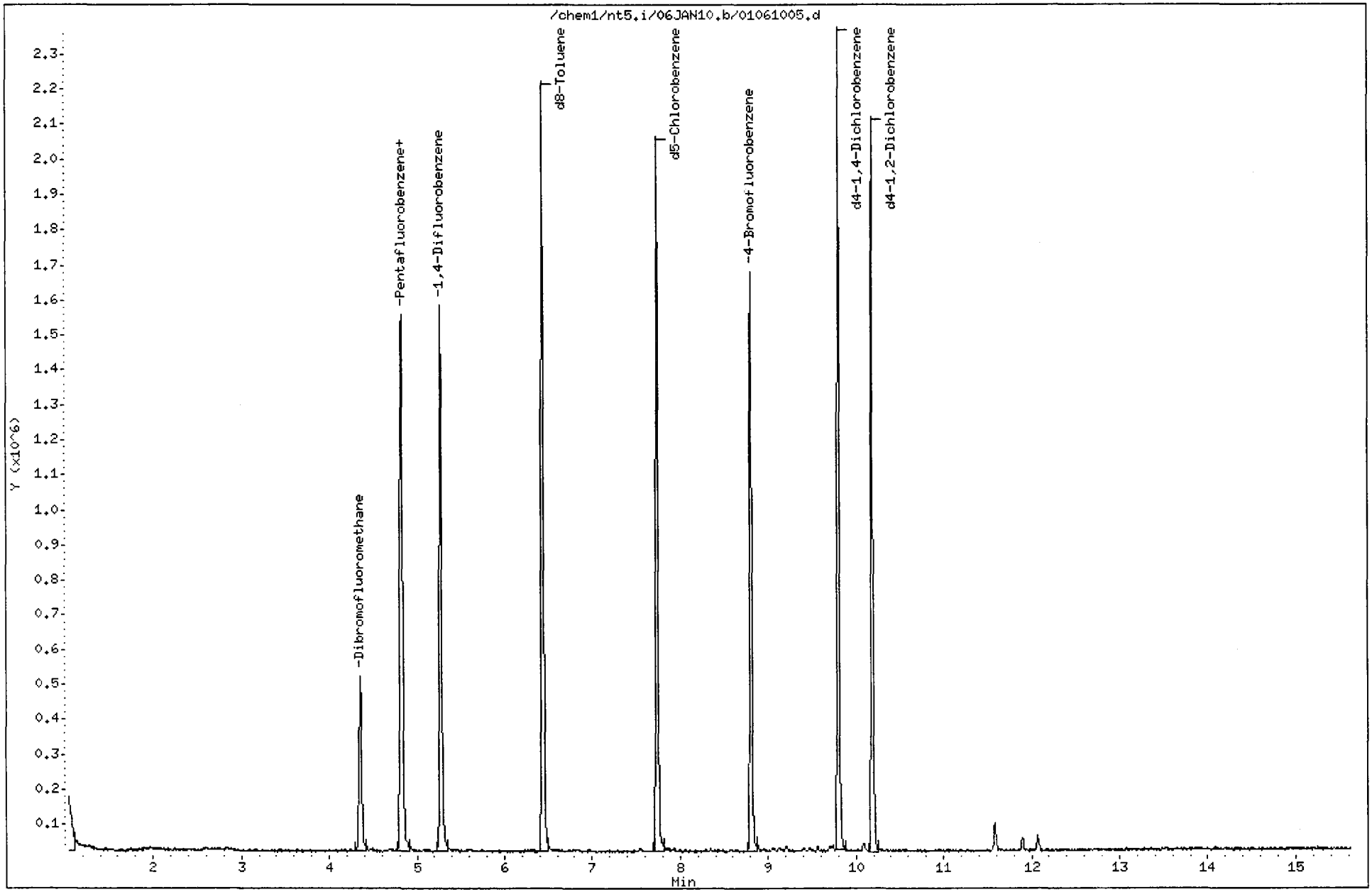
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	10.000	9.987	99.87	64-133
$ 31 d4-1,2-Dichloroeth	10.000	9.829	98.29	70-132
$ 42 d8-Toluene	10.000	9.995	99.95	80-120
$ 61 4-Bromofluorobenze	10.000	9.541	95.41	80-120
$ 78 d4-1,2-Dichloroben	10.000	9.877	98.77	80-120

Data File: /chem1/nt5.i/06JAN10.b/01061005.d
Date : 06-JAN-2010 11:05
Client ID: MB0106
Sample Info: MB0106,10,10,0,

Instrument: nt5.i

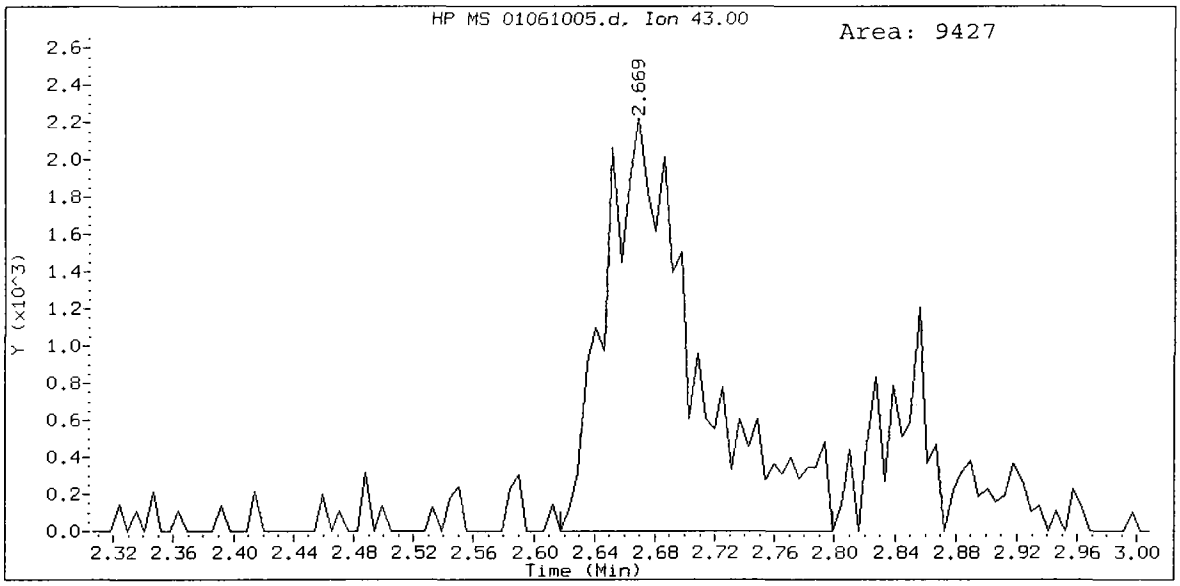
Operator: PC
Column diameter: 0.18

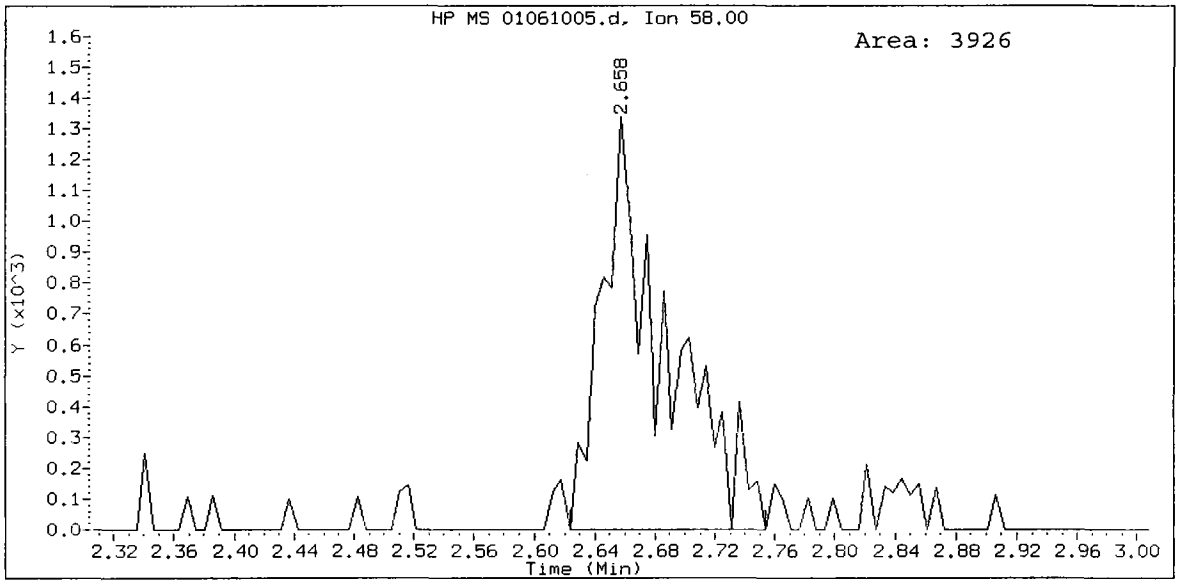
Column phase: RTXVMS



QD62:00282

MB0106, /chem1/nt5.i/06JAN10.b/01061005.d
Acetone Amount: 2.17





PC
1/7/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/06JAN10.b/01061003.d
Lab Smp Id: LCS0106 Client Smp ID: LCS0106
Inj Date : 06-JAN-2010 10:14
Operator : PC Inst ID: nt5.i
Smp Info : LCS0106,10,10,0,
Misc Info : 09-
Comment :
Method : /chem1/nt5.i/06JAN10.b/VO010410L.m
Meth Date : 07-Jan-2010 09:31 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.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 (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	1.091	1.091	(0.226)	413982	10.1602	10.160
2 Chloromethane	50	1.221	1.221	(0.253)	408181	9.35874	9.359
3 Vinyl Chloride	62	1.277	1.277	(0.264)	501357	9.76929	9.769
4 Bromomethane	94	1.504	1.498	(0.311)	212804	8.62670	8.627(M)
5 Chloroethane	64	1.594	1.594	(0.330)	284545	9.40510	9.405
6 Trichlorofluoromethane	101	1.702	1.696	(0.352)	661304	9.84891	9.849
12 Acrolein	56	2.375	2.375	(0.492)	176884	45.7306	45.731
9 112Trichloro122Trifluoroethane	101	2.137	2.137	(0.442)	457141	9.76487	9.765(Q)
14 Acetone	43	2.652	2.658	(0.549)	206543	47.5088	47.509
7 1,1-Dichloroethene	96	2.092	2.092	(0.433)	438684	9.58861	9.589(Q)
11 Bromoethane	108	2.307	2.301	(0.478)	290516	9.03682	9.037(M)
10 Iodomethane	142	2.194	2.194	(0.454)	400194	9.08747	9.087
13 Methylene Chloride	84	2.595	2.590	(0.537)	429985	9.28412	9.284(Q)
18 Acrylonitrile	53	3.438	3.433	(0.712)	62712	8.77736	8.777
16 Methyl tert butyl ether	73	2.878	2.878	(0.596)	906361	9.57410	9.574(Q)
8 Carbon Disulfide	76	2.098	2.098	(0.434)	1485583	9.76559	9.766

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	15 Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	494044	9.55970	9.560
	19 Vinyl Acetate	43	3.682	3.681	(0.762)	398557	9.53808	9.538
	17 1,1-Dichloroethane	63	3.382	3.376	(0.700)	703355	9.66724	9.667
	29 2-Butanone	72	4.490	4.490	(0.930)	135609	48.7142	48.714
	21 2,2-Dichloropropane	77	4.015	4.010	(0.831)	692587	9.74644	9.746
	20 Cis-1,2-Dichloroethene	96	3.913	3.913	(0.810)	487010	9.68136	9.681(Q)
*	32 Pentafluorobenzene	168	4.830	4.830	(1.000)	923624	10.0000	
	23 Chloroform	83	4.196	4.191	(0.869)	753615	9.88020	9.880
	22 Bromochloromethane	128	4.094	4.094	(0.848)	211496	9.58131	9.581
$	25 Dibromofluoromethane	111	4.355	4.355	(0.902)	330409	9.96231	9.962
	26 1,1,1-Trichloroethane	97	4.355	4.355	(0.902)	724609	9.77439	9.774
	28 1,1-Dichloropropene	75	4.479	4.479	(0.849)	599873	9.86226	9.862
	24 Carbon Tetrachloride	117	4.292	4.292	(0.813)	630880	12.2183	12.218
$	31 d4-1,2-Dichloroethane	65	4.824	4.824	(0.999)	318529	9.79335	9.793
	33 1,2-Dichloroethane	62	4.881	4.881	(0.925)	433050	9.19381	9.194
	30 Benzene	78	4.700	4.700	(0.891)	1774437	9.82307	9.823
*	35 1,4-Difluorobenzene	114	5.277	5.271	(1.000)	1340046	10.0000	
	34 Trichloroethene	130	5.232	5.226	(0.991)	560345	9.90834	9.908
	38 1,2-Dichloropropane	63	5.673	5.667	(1.075)	379992	9.46467	9.465
	39 Bromodichloromethane	83	5.741	5.741	(1.088)	515606	9.90850	9.909
	37 Dibromomethane	93	5.577	5.576	(1.057)	196663	9.53928	9.539
	40 2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	142290	9.51305	9.513(Q)
	45 4-Methyl-2-Pentanone	58	6.827	6.827	(1.294)	350098	48.3966	48.397
	41 Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	652572	9.78762	9.788
$	42 d8-Toluene	98	6.436	6.436	(1.220)	1409382	9.94453	9.945
	43 Toluene	92	6.482	6.482	(1.228)	1226143	9.71498	9.715
	46 Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	526014	9.45815	9.458
	51 2-Hexanone	43	7.540	7.539	(0.974)	508229	49.2162	49.216
	47 1,1,2-Trichloroethane	97	6.974	6.968	(1.322)	294512	9.63079	9.631
	49 1,3-Dichloropropane	76	7.194	7.194	(0.929)	491301	9.45717	9.457
	44 Tetrachloroethene	166	6.798	6.798	(0.878)	584851	9.80380	9.804
	48 Chlorodibromomethane	129	7.110	7.110	(0.918)	373493	9.81905	9.819
	50 1,2-Dibromoethane	107	7.291	7.291	(1.382)	297293	9.87581	9.876
*	52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1201326	10.0000	
	53 Chlorobenzene	112	7.755	7.754	(1.001)	1308744	9.59230	9.592(Q)
	54 Ethyl Benzene	91	7.800	7.800	(1.007)	2458696	10.4571	10.457
	55 1,1,1,2-Tetrachloroethane	131	7.817	7.817	(1.009)	462748	9.74968	9.750
	56 m,p-xylene	106	7.930	7.930	(1.024)	1843814	20.0117	20.012
	57 o-Xylene	106	8.292	8.292	(1.071)	906437	10.0987	10.099
	58 Styrene	104	8.343	8.343	(1.077)	1471433	10.3490	10.349
	60 Isopropyl Benzene	105	8.575	8.575	(0.874)	2225892	10.1844	10.184
	59 Bromoform	173	8.343	8.343	(0.851)	207378	9.62414	9.624
	64 1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	266475	9.33688	9.337
$	61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	541904	9.88939	9.889
	66 1,2,3-Trichloropropane	110	9.112	9.112	(0.929)	87403	9.42331	9.423
	68 Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.934)	75316	9.72268	9.723(Q)
	63 N-Propyl Benzene	91	8.942	8.942	(0.912)	2438280	9.99502	9.995

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	62 Bromobenzene	156	8.886	8.886	(0.906)	567214	9.50694	9.507
	67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	1857860	10.0836	10.084
	65 2-Chloro Toluene	91	9.061	9.061	(0.924)	1501081	9.81509	9.815
	69 4-Chloro Toluene	91	9.208	9.208	(0.939)	1560856	10.0129	10.013
	70 T-Butyl Benzene	119	9.401	9.401	(0.958)	1618567	10.0872	10.087
	71 1,2,4-Trimethylbenzene	105	9.469	9.468	(0.965)	1906320	10.3198	10.320
	72 S-Butyl Benzene	105	9.565	9.565	(0.975)	2281545	10.1819	10.182
	73 4-Isopropyl Toluene	119	9.706	9.706	(0.990)	1969807	10.3968	10.397
	74 1,3-Dichlorobenzene	146	9.734	9.734	(0.992)	1105798	9.54757	9.548
*	75 d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	667263	10.0000	
	76 1,4-Dichlorobenzene	146	9.819	9.819	(1.001)	1110660	9.62310	9.623(Q)
	77 N-Butyl Benzene	91	10.085	10.085	(1.028)	1636956	10.2403	10.240
$	78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	588368	9.90180	9.902
	79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	988371	9.67848	9.678(Q)
	81 1,2-Dibromo 3-Chloropropane	75	10.945	10.945	(1.116)	48477	8.94536	8.945(Q)
	83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	652848	10.2943	10.294
	82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.181)	292017	10.2988	10.299
	84 Naphthalene	128	11.895	11.895	(1.213)	1105573	10.3768	10.377
	85 1,2,3-Trichlorobenzene	180	12.071	12.076	(1.231)	516559	10.0542	10.054

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: nt5.i
Lab File ID: 01061003.d
Lab Smp Id: LCS0106
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-

Calibration Date: 06-JAN-2010
Calibration Time: 09:49
Client Smp ID: LCS0106
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	923624	1.84
35 1,4-Difluorobenze	1305872	652936	2611744	1340046	2.62
52 d5-Chlorobenzene	1174180	587090	2348360	1201326	2.31
75 d4-1,4-Dichlorobe	665265	332632	1330530	667263	0.30

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.27	4.77	5.77	5.28	0.11
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	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: LCS0106
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-

Client SDG: 06JAN10
Fraction: VOA
Client Smp ID: LCS0106
Operator: PC
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	10.000	10.160	101.60	59-129
16 Methyl tert butyl	10.000	9.574	95.74	78-120
2 Chloromethane	10.000	9.359	93.59	66-123
3 Vinyl Chloride	10.000	9.769	97.69	68-121
4 Bromomethane	10.000	8.627	86.27	55-148
5 Chloroethane	10.000	9.405	94.05	47-155
6 Trichlorofluoromet	10.000	9.849	98.49	70-129
12 Acrolein	50.000	45.731	91.46	24-170
9 112Trichloro122Tri	10.000	9.765	97.65	74-127
14 Acetone	50.000	47.509	95.02	70-130
7 1,1-Dichloroethene	10.000	9.589	95.89	72-120
11 Bromoethane	10.000	9.037	90.37	73-131
10 Iodomethane	10.000	9.087	90.87	34-183
13 Methylene Chloride	10.000	9.284	92.84	70-124
8 Carbon Disulfide	10.000	9.766	97.66	66-129
18 Acrylonitrile	10.000	8.777	87.77	71-135
15 Trans-1,2-Dichloro	10.000	9.560	95.60	76-120
19 Vinyl Acetate	10.000	9.538	95.38	49-134
17 1,1-Dichloroethane	10.000	9.667	96.67	75-120
29 2-Butanone	50.000	48.714	97.43	78-131
21 2,2-Dichloropropan	10.000	9.746	97.46	68-121
20 Cis-1,2-Dichloroet	10.000	9.681	96.81	80-120
23 Chloroform	10.000	9.880	98.80	78-120
22 Bromochloromethane	10.000	9.581	95.81	79-120
26 1,1,1-Trichloroeth	10.000	9.774	97.74	76-120
28 1,1-Dichloropropen	10.000	9.862	98.62	78-120
24 Carbon Tetrachlori	10.000	12.218	122.18	70-126
33 1,2-Dichloroethane	10.000	9.194	91.94	78-120
30 Benzene	10.000	9.823	98.23	79-120
34 Trichloroethene	10.000	9.908	99.08	78-120
38 1,2-Dichloropropan	10.000	9.465	94.65	80-120
39 Bromodichlorometha	10.000	9.909	99.09	78-120
37 Dibromomethane	10.000	9.539	95.39	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	10.000	9.513	95.13	68-134
45 4-Methyl-2-Pentano	50.000	48.397	96.79	73-131
41 Cis 1,3-dichloropr	10.000	9.788	97.88	78-120
43 Toluene	10.000	9.715	97.15	79-120
46 Trans 1,3-Dichloro	10.000	9.458	94.58	75-120
51 2-Hexanone	50.000	49.216	98.43	75-130
47 1,1,2-Trichloroeth	10.000	9.631	96.31	79-120
49 1,3-Dichloropropan	10.000	9.457	94.57	78-120
44 Tetrachloroethene	10.000	9.804	98.04	72-120
48 Chlorodibromometha	10.000	9.819	98.19	78-120
50 1,2-Dibromoethane	10.000	9.876	98.76	75-120
53 Chlorobenzene	10.000	9.592	95.92	79-120
55 1,1,1,2-Tetrachlor	10.000	9.750	97.50	75-120
54 Ethyl Benzene	10.000	10.457	104.57	78-121
56 m,p-xylene	20.000	20.012	100.06	65-129
57 o-Xylene	10.000	10.099	100.99	76-120
58 Styrene	10.000	10.349	103.49	74-121
60 Isopropyl Benzene	10.000	10.184	101.84	74-120
59 Bromoform	10.000	9.624	96.24	71-120
64 1,1,2,2-Tetrachlor	10.000	9.337	93.37	72-120
66 1,2,3-Trichloropro	10.000	9.423	94.23	73-120
68 Trans-1,4-Dichloro	10.000	9.723	97.23	65-135
63 N-Propyl Benzene	10.000	9.995	99.95	76-121
62 Bromobenzene	10.000	9.507	95.07	72-120
67 1,3,5-Trimethyl Be	10.000	10.084	100.84	74-123
65 2-Chloro Toluene	10.000	9.815	98.15	74-120
69 4-Chloro Toluene	10.000	10.013	100.13	75-120
70 T-Butyl Benzene	10.000	10.087	100.87	73-121
71 1,2,4-Trimethylben	10.000	10.320	103.20	73-124
72 S-Butyl Benzene	10.000	10.182	101.82	75-123
73 4-Isopropyl Toluen	10.000	10.397	103.97	71-125
74 1,3-Dichlorobenzen	10.000	9.548	95.48	72-120
76 1,4-Dichlorobenzen	10.000	9.623	96.23	76-120
77 N-Butyl Benzene	10.000	10.240	102.40	72-124
79 1,2-Dichlorobenzen	10.000	9.678	96.78	75-120
81 1,2-Dibromo 3-Chlo	10.000	8.945	89.45	67-121
83 1,2,4-Trichloroben	10.000	10.294	102.94	71-120
82 Hexachloro 1,3-But	10.000	10.299	102.99	67-124
84 Naphthalene	10.000	10.377	103.77	71-125
85 1,2,3-Trichloroben	10.000	10.054	100.54	61-134

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	10.000	9.962	99.62	64-133

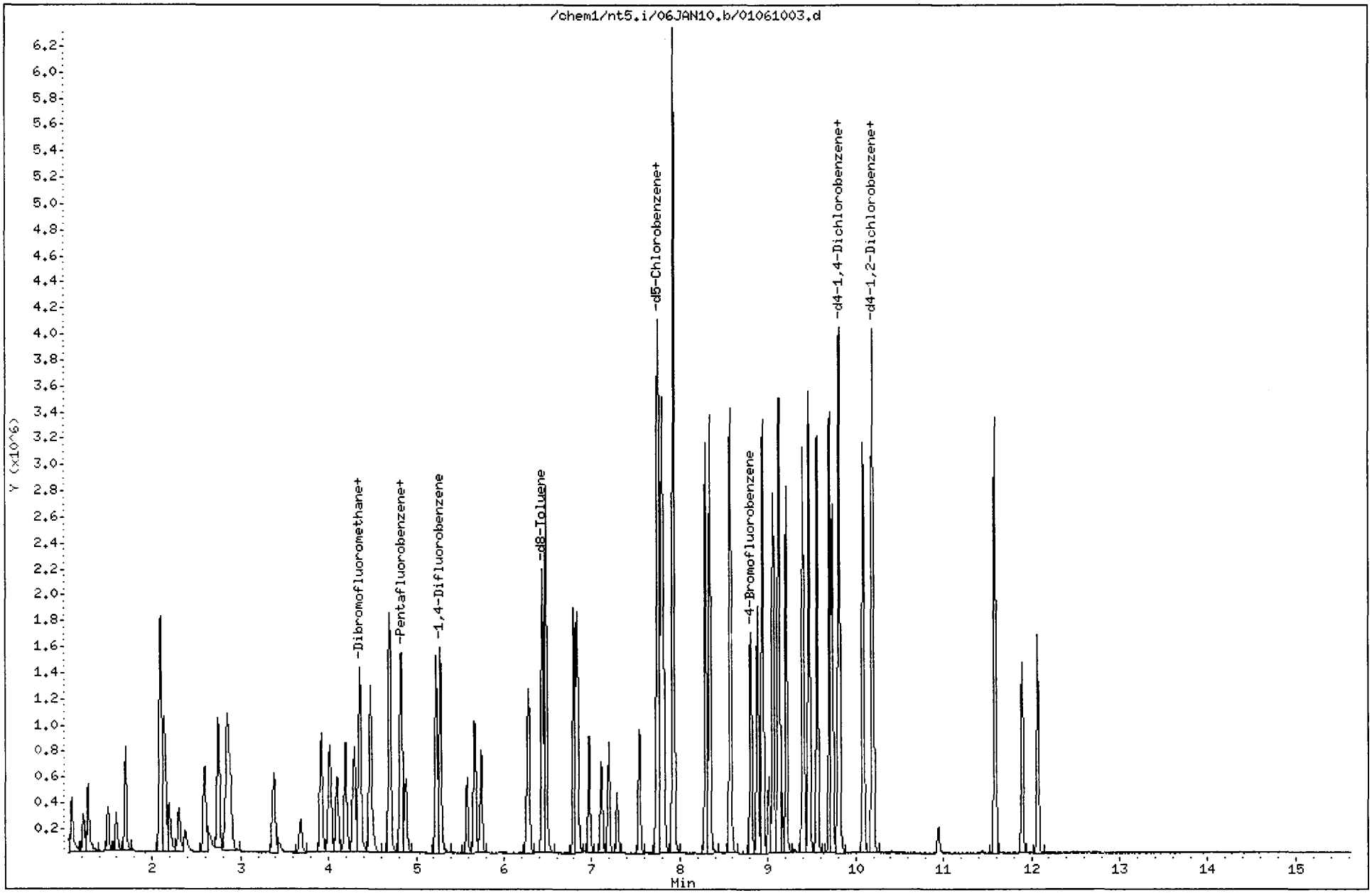
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 31 d4-1,2-Dichloroeth	10.000	9.793	97.93	70-132
$ 42 d8-Toluene	10.000	9.945	99.45	80-120
$ 61 4-Bromofluorobenze	10.000	9.889	98.89	80-120
$ 78 d4-1,2-Dichloroben	10.000	9.902	99.02	80-120

Data File: /chem1/nt5.i/06JAN10.b/01061003.d
Date : 06-JAN-2010 10:14
Client ID: LCS0106
Sample Info: LCS0106,10,10,0,

Instrument: nt5.i

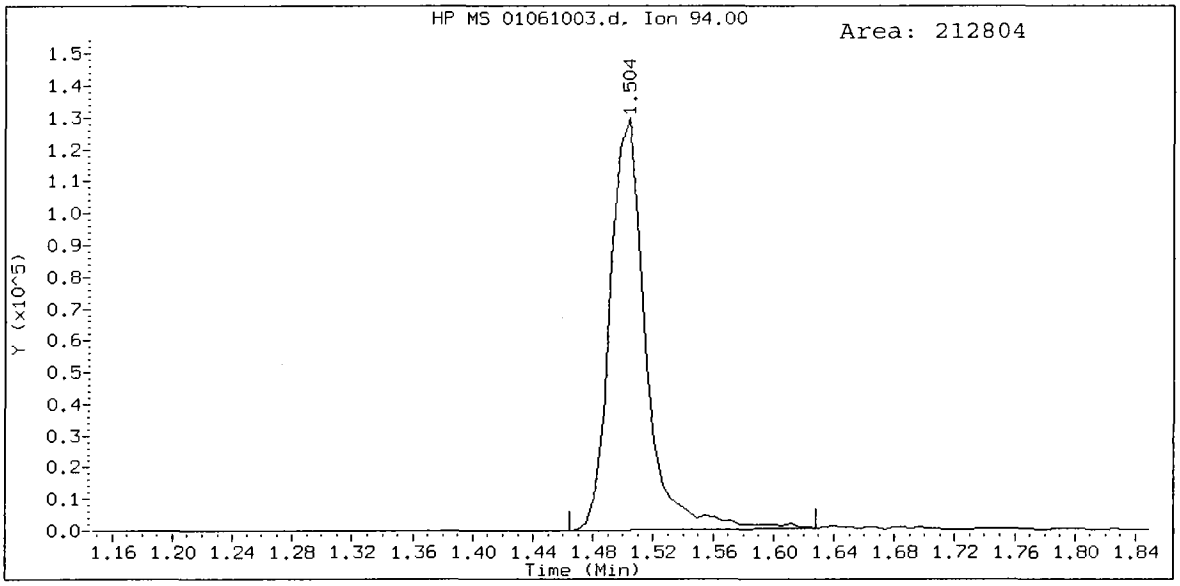
Operator: PC
Column diameter: 0.18

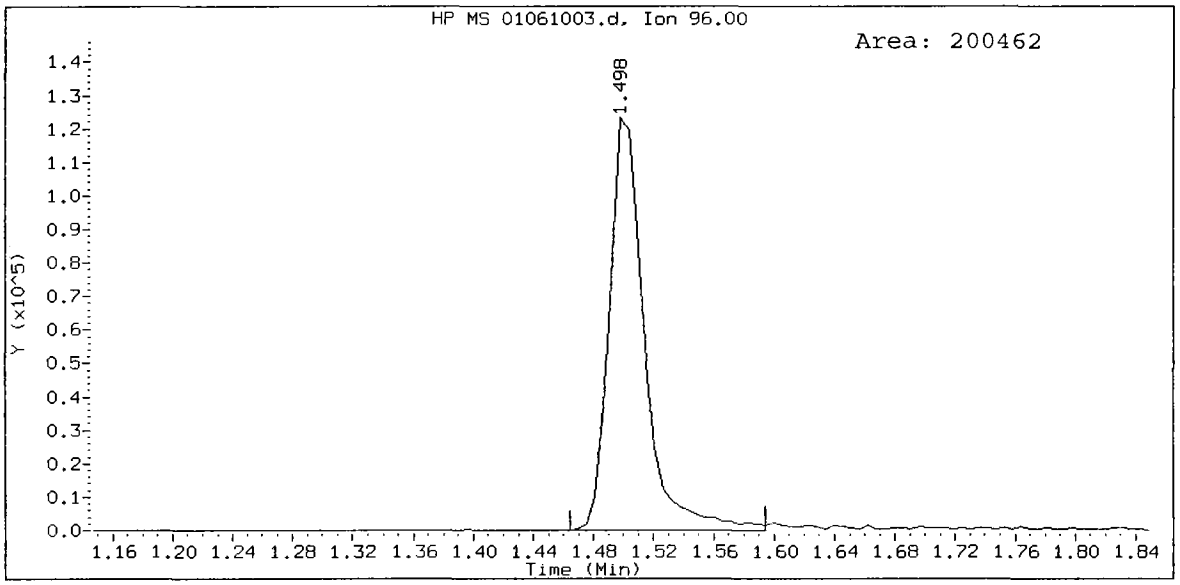
Column phase: RTXVMS

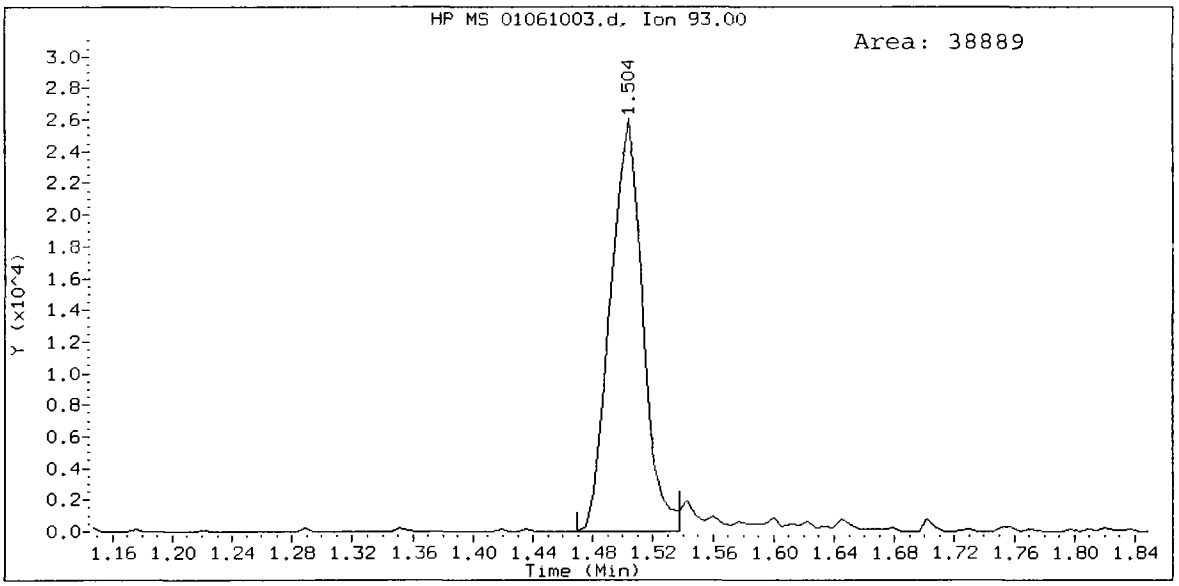


00621 00291

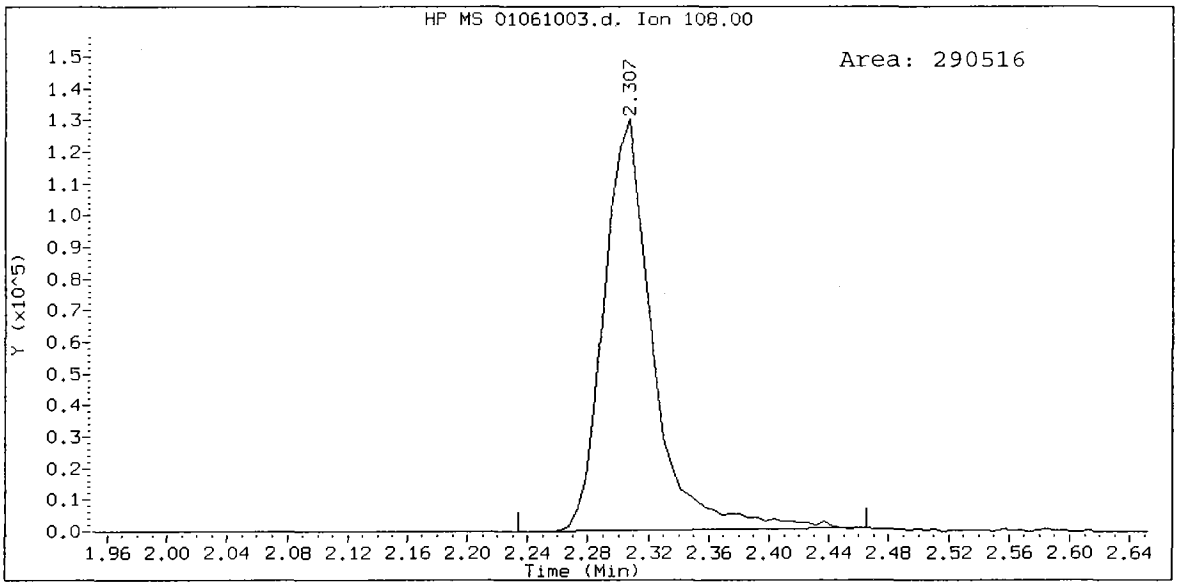
LCS0106, /chem1/nt5.i/06JAN10.b/01061003.d
Bromomethane Amount: 8.63

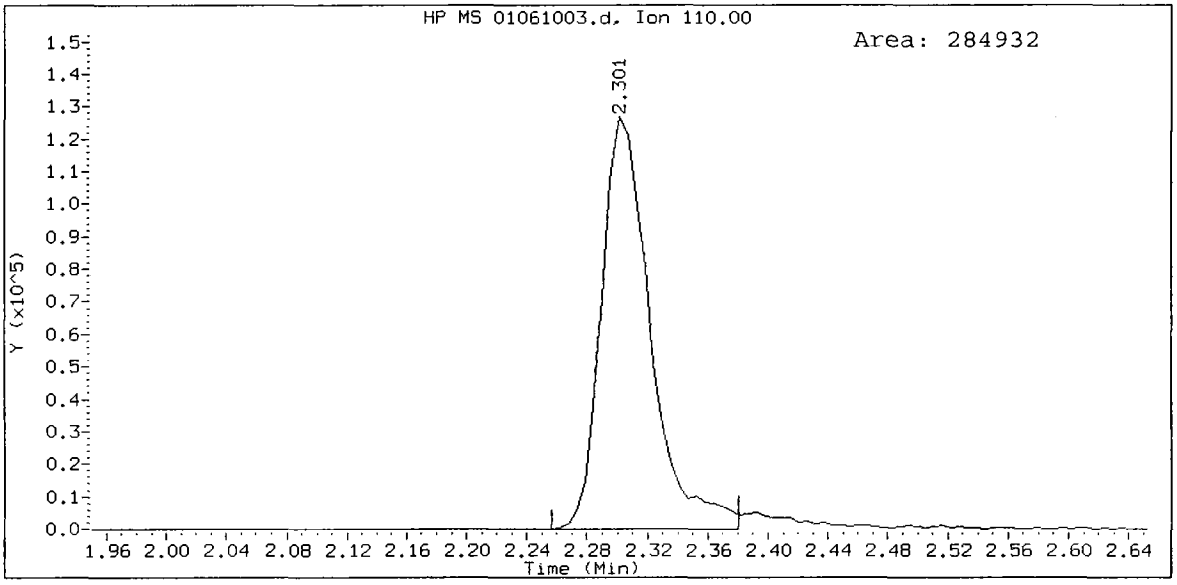






LCS0106, /chem1/nt5.i/06JAN10.b/01061003.d
Bromoethane Amount: 9.04





PC 1/7/10

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/06JAN10.b/01061004.d
Lab Smp Id: LCSD0106 Client Smp ID: LCSD0106
Inj Date : 06-JAN-2010 10:40
Operator : PC Inst ID: nt5.i
Smp Info : LCSD0106,10,10,0,
Misc Info : 09-
Comment :
Method : /chem1/nt5.i/06JAN10.b/VO010410L.m
Meth Date : 07-Jan-2010 09:31 paul Quant Type: ISTD
Cal Date : 04-JAN-2010 16:13 Cal File: 01041014.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.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 (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	1.091	1.091	(0.226)	407801	9.87838	9.878
2 Chloromethane	50	1.221	1.221	(0.253)	406066	9.18916	9.189
3 Vinyl Chloride	62	1.277	1.277	(0.264)	501007	9.63550	9.635
4 Bromomethane	94	1.498	1.498	(0.310)	222408	8.89876	8.899
5 Chloroethane	64	1.594	1.594	(0.330)	289142	9.43275	9.433
6 Trichlorofluoromethane	101	1.696	1.696	(0.351)	674184	9.91015	9.910
12 Acrolein	56	2.375	2.375	(0.492)	184261	47.0182	47.018
9 112Trichloro122Trifluoroethane	101	2.137	2.137	(0.442)	458805	9.67295	9.673(Q)
14 Acetone	43	2.652	2.658	(0.549)	212148	48.1634	48.163
7 1,1-Dichloroethene	96	2.092	2.092	(0.433)	450187	9.71206	9.712(Q)
11 Bromoethane	108	2.307	2.301	(0.478)	305138	9.36821	9.368(M)
10 Iodomethane	142	2.194	2.194	(0.454)	424783	9.52038	9.520
13 Methylene Chloride	84	2.595	2.590	(0.537)	435672	9.28457	9.285(Q)
18 Acrylonitrile	53	3.438	3.433	(0.712)	69076	9.54241	9.542(M)
16 Methyl tert butyl ether	73	2.878	2.878	(0.596)	928998	9.68559	9.686(Q)
8 Carbon Disulfide	76	2.098	2.098	(0.434)	1520744	9.86671	9.867

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	15 Trans-1,2-Dichloroethene	96	2.748	2.748	(0.569)	506997	9.68274	9.683
	19 Vinyl Acetate	43	3.681	3.681	(0.762)	408010	9.63731	9.637
	17 1,1-Dichloroethane	63	3.376	3.376	(0.699)	716918	9.72550	9.725
	29 2-Butanone	72	4.490	4.490	(0.930)	131061	46.4681	46.468
	21 2,2-Dichloropropane	77	4.010	4.010	(0.830)	698949	9.70804	9.708
	20 Cis-1,2-Dichloroethene	96	3.913	3.913	(0.810)	497049	9.75242	9.752(Q)
*	32 Pentafluorobenzene	168	4.830	4.830	(1.000)	935795	10.0000	
	23 Chloroform	83	4.191	4.191	(0.868)	740063	9.57634	9.576
	22 Bromochloromethane	128	4.100	4.094	(0.849)	223174	9.97885	9.979
$	25 Dibromofluoromethane	111	4.355	4.355	(0.902)	336770	10.0220	10.022
	26 1,1,1-Trichloroethane	97	4.355	4.355	(0.902)	735498	9.79223	9.792
	28 1,1-Dichloropropene	75	4.479	4.479	(0.849)	613457	9.99351	9.994
	24 Carbon Tetrachloride	117	4.292	4.292	(0.813)	630625	12.1019	12.102
$	31 d4-1,2-Dichloroethane	65	4.818	4.824	(0.998)	328334	9.96352	9.964
	33 1,2-Dichloroethane	62	4.881	4.881	(0.925)	449232	9.45028	9.450
	30 Benzene	78	4.700	4.700	(0.891)	1797657	9.86076	9.861
*	35 1,4-Difluorobenzene	114	5.277	5.271	(1.000)	1352393	10.0000	
	34 Trichloroethene	130	5.226	5.226	(0.990)	564591	9.89227	9.892
	38 1,2-Dichloropropane	63	5.667	5.667	(1.074)	386310	9.53419	9.534
	39 Bromodichloromethane	83	5.741	5.741	(1.088)	521708	9.93423	9.934
	37 Dibromomethane	93	5.577	5.576	(1.057)	199145	9.57148	9.571
	40 2-Chloroethyl Vinyl Ether	63	6.261	6.261	(1.187)	146191	9.68462	9.685(Q)
	45 4-Methyl-2-Pentanone	58	6.827	6.827	(1.294)	358658	49.1273	49.127
	41 Cis 1,3-dichloropropene	75	6.284	6.284	(1.191)	670759	9.96855	9.969
$	42 d8-Toluene	98	6.436	6.436	(1.220)	1415349	9.89545	9.895
	43 Toluene	92	6.482	6.482	(1.228)	1250125	9.81457	9.815
	46 Trans 1,3-Dichloropropene	75	6.844	6.844	(1.297)	540592	9.63153	9.632
	51 2-Hexanone	43	7.539	7.539	(0.974)	514565	50.2622	50.262
	47 1,1,2-Trichloroethane	97	6.968	6.968	(1.321)	301804	9.77914	9.779
	49 1,3-Dichloropropane	76	7.194	7.194	(0.929)	497591	9.66137	9.661
	44 Tetrachloroethene	166	6.798	6.798	(0.878)	592456	10.0175	10.017
	48 Chlorodibromomethane	129	7.110	7.110	(0.918)	383239	10.1627	10.163
	50 1,2-Dibromoethane	107	7.291	7.291	(1.382)	294817	9.70415	9.704
*	52 d5-Chlorobenzene	117	7.743	7.743	(1.000)	1190991	10.0000	
	53 Chlorobenzene	112	7.754	7.754	(1.001)	1348659	9.97063	9.971(Q)
	54 Ethyl Benzene	91	7.800	7.800	(1.007)	2501855	10.7330	10.733
	55 1,1,1,2-Tetrachloroethane	131	7.817	7.817	(1.009)	468190	9.94993	9.950
	56 m,p-xylene	106	7.930	7.930	(1.024)	1885594	20.6428	20.643
	57 o-Xylene	106	8.292	8.292	(1.071)	914807	10.2804	10.280
	58 Styrene	104	8.343	8.343	(1.077)	1429844	10.1437	10.144
	60 Isopropyl Benzene	105	8.575	8.575	(0.874)	2255414	10.4147	10.415
	59 Bromoform	173	8.343	8.343	(0.851)	208414	9.76140	9.761
	64 1,1,2,2-Tetrachloroethane	83	9.010	9.010	(0.919)	276067	9.76215	9.762
$	61 4-Bromofluorobenzene	95	8.807	8.807	(1.137)	537019	9.88528	9.885
	66 1,2,3-Trichloropropane	110	9.112	9.112	(0.929)	91138	9.91659	9.917
	68 Trans-1,4-Dichloro 2-Butene	53	9.163	9.163	(0.934)	74371	9.68921	9.689(Q)
	63 N-Propyl Benzene	91	8.942	8.942	(0.912)	2482211	10.2689	10.269

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
62 Bromobenzene	156	8.886	8.886	(0.906)	584576	9.88827	9.888
67 1,3,5-Trimethyl Benzene	105	9.129	9.129	(0.931)	1904151	10.4301	10.430
65 2-Chloro Toluene	91	9.061	9.061	(0.924)	1539566	10.1595	10.160
69 4-Chloro Toluene	91	9.208	9.208	(0.939)	1592341	10.3091	10.309
70 T-Butyl Benzene	119	9.401	9.401	(0.958)	1655866	10.4148	10.415
71 1,2,4-Trimethylbenzene	105	9.468	9.468	(0.965)	1911678	10.4442	10.444
72 S-Butyl Benzene	105	9.565	9.565	(0.975)	2318401	10.4418	10.442
73 4-Isopropyl Toluene	119	9.706	9.706	(0.990)	2008157	10.6970	10.697
74 1,3-Dichlorobenzene	146	9.734	9.734	(0.992)	1131243	9.85732	9.857
* 75 d4-1,4-Dichlorobenzene	152	9.808	9.808	(1.000)	661167	10.0000	
76 1,4-Dichlorobenzene	146	9.819	9.819	(1.001)	1128536	9.86813	9.868(Q)
77 N-Butyl Benzene	91	10.085	10.085	(1.028)	1663932	10.5050	10.505
$ 78 d4-1,2-Dichlorobenzene	152	10.187	10.187	(1.039)	584743	9.93152	9.932
79 1,2-Dichlorobenzene	146	10.198	10.198	(1.040)	999156	9.87430	9.874(Q)
81 1,2-Dibromo 3-Chloropropane	75	10.945	10.945	(1.116)	51755	9.63830	9.638(Q)
83 1,2,4-Trichlorobenzene	180	11.590	11.590	(1.182)	658958	10.4864	10.486
82 Hexachloro 1,3-Butadiene	225	11.584	11.584	(1.181)	295222	10.5078	10.508
84 Naphthalene	128	11.895	11.895	(1.213)	1131202	10.7152	10.715
85 1,2,3-Trichlorobenzene	180	12.076	12.076	(1.231)	530903	10.4286	10.429

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: nt5.i
Lab File ID: 01061004.d
Lab Smp Id: LCSD0106
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-

Calibration Date: 06-JAN-2010
Calibration Time: 09:49
Client Smp ID: LCSD0106
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	906926	453463	1813852	935795	3.18
35 1,4-Difluorobenze	1305872	652936	2611744	1352393	3.56
52 d5-Chlorobenzene	1174180	587090	2348360	1190991	1.43
75 d4-1,4-Dichlorobe	665265	332632	1330530	661167	-0.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Pentafluorobenzen	4.83	4.33	5.33	4.83	0.00
35 1,4-Difluorobenze	5.27	4.77	5.77	5.28	0.11
52 d5-Chlorobenzene	7.74	7.24	8.24	7.74	0.00
75 d4-1,4-Dichlorobe	9.81	9.31	10.31	9.81	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: LCSD0106
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/06JAN10.b/VO010410L.m
Misc Info: 09-

Client SDG: 06JAN10
Fraction: VOA
Client Smp ID: LCSD0106
Operator: PC
SampleType: LCSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	10.000	9.878	98.78	59-129
16 Methyl tert butyl	10.000	9.686	96.86	78-120
2 Chloromethane	10.000	9.189	91.89	66-123
3 Vinyl Chloride	10.000	9.635	96.35	68-121
4 Bromomethane	10.000	8.899	88.99	55-148
5 Chloroethane	10.000	9.433	94.33	47-155
6 Trichlorofluoromet	10.000	9.910	99.10	70-129
12 Acrolein	50.000	47.018	94.04	24-170
9 112Trichloro122Tri	10.000	9.673	96.73	74-127
14 Acetone	50.000	48.163	96.33	70-130
7 1,1-Dichloroethene	10.000	9.712	97.12	72-120
11 Bromoethane	10.000	9.368	93.68	73-131
10 Iodomethane	10.000	9.520	95.20	34-183
13 Methylene Chloride	10.000	9.285	92.85	70-124
8 Carbon Disulfide	10.000	9.867	98.67	66-129
18 Acrylonitrile	10.000	9.542	95.42	71-135
15 Trans-1,2-Dichloro	10.000	9.683	96.83	76-120
19 Vinyl Acetate	10.000	9.637	96.37	49-134
17 1,1-Dichloroethane	10.000	9.725	97.25	75-120
29 2-Butanone	50.000	46.468	92.94	78-131
21 2,2-Dichloropropan	10.000	9.708	97.08	68-121
20 Cis-1,2-Dichloroet	10.000	9.752	97.52	80-120
23 Chloroform	10.000	9.576	95.76	78-120
22 Bromochloromethane	10.000	9.979	99.79	79-120
26 1,1,1-Trichloroeth	10.000	9.792	97.92	76-120
28 1,1-Dichloropropen	10.000	9.994	99.94	78-120
24 Carbon Tetrachlori	10.000	12.102	121.02	70-126
33 1,2-Dichloroethane	10.000	9.450	94.50	78-120
30 Benzene	10.000	9.861	98.61	79-120
34 Trichloroethene	10.000	9.892	98.92	78-120
38 1,2-Dichloropropan	10.000	9.534	95.34	80-120
39 Bromodichlorometha	10.000	9.934	99.34	78-120
37 Dibromomethane	10.000	9.571	95.71	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	10.000	9.685	96.85	68-134
45 4-Methyl-2-Pentano	50.000	49.127	98.25	73-131
41 Cis 1,3-dichloropr	10.000	9.969	99.69	78-120
43 Toluene	10.000	9.815	98.15	79-120
46 Trans 1,3-Dichloro	10.000	9.632	96.32	75-120
51 2-Hexanone	50.000	50.262	100.52	75-130
47 1,1,2-Trichloroeth	10.000	9.779	97.79	79-120
49 1,3-Dichloropropan	10.000	9.661	96.61	78-120
44 Tetrachloroethene	10.000	10.017	100.17	72-120
48 Chlorodibromometha	10.000	10.163	101.63	78-120
50 1,2-Dibromoethane	10.000	9.704	97.04	75-120
53 Chlorobenzene	10.000	9.971	99.71	79-120
55 1,1,1,2-Tetrachlor	10.000	9.950	99.50	75-120
54 Ethyl Benzene	10.000	10.733	107.33	78-121
56 m,p-xylene	20.000	20.643	103.21	65-129
57 o-Xylene	10.000	10.280	102.80	76-120
58 Styrene	10.000	10.144	101.44	74-121
60 Isopropyl Benzene	10.000	10.415	104.15	74-120
59 Bromoform	10.000	9.761	97.61	71-120
64 1,1,2,2-Tetrachlor	10.000	9.762	97.62	72-120
66 1,2,3-Trichloropro	10.000	9.917	99.17	73-120
68 Trans-1,4-Dichloro	10.000	9.689	96.89	65-135
63 N-Propyl Benzene	10.000	10.269	102.69	76-121
62 Bromobenzene	10.000	9.888	98.88	72-120
67 1,3,5-Trimethyl Be	10.000	10.430	104.30	74-123
65 2-Chloro Toluene	10.000	10.160	101.60	74-120
69 4-Chloro Toluene	10.000	10.309	103.09	75-120
70 T-Butyl Benzene	10.000	10.415	104.15	73-121
71 1,2,4-Trimethylben	10.000	10.444	104.44	73-124
72 S-Butyl Benzene	10.000	10.442	104.42	75-123
73 4-Isopropyl Toluen	10.000	10.697	106.97	71-125
74 1,3-Dichlorobenzen	10.000	9.857	98.57	72-120
76 1,4-Dichlorobenzen	10.000	9.868	98.68	76-120
77 N-Butyl Benzene	10.000	10.505	105.05	72-124
79 1,2-Dichlorobenzen	10.000	9.874	98.74	75-120
81 1,2-Dibromo 3-Chlo	10.000	9.638	96.38	67-121
83 1,2,4-Trichloroben	10.000	10.486	104.86	71-120
82 Hexachloro 1,3-But	10.000	10.508	105.08	67-124
84 Naphthalene	10.000	10.715	107.15	71-125
85 1,2,3-Trichloroben	10.000	10.429	104.29	61-134

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	10.000	10.022	100.22	64-133

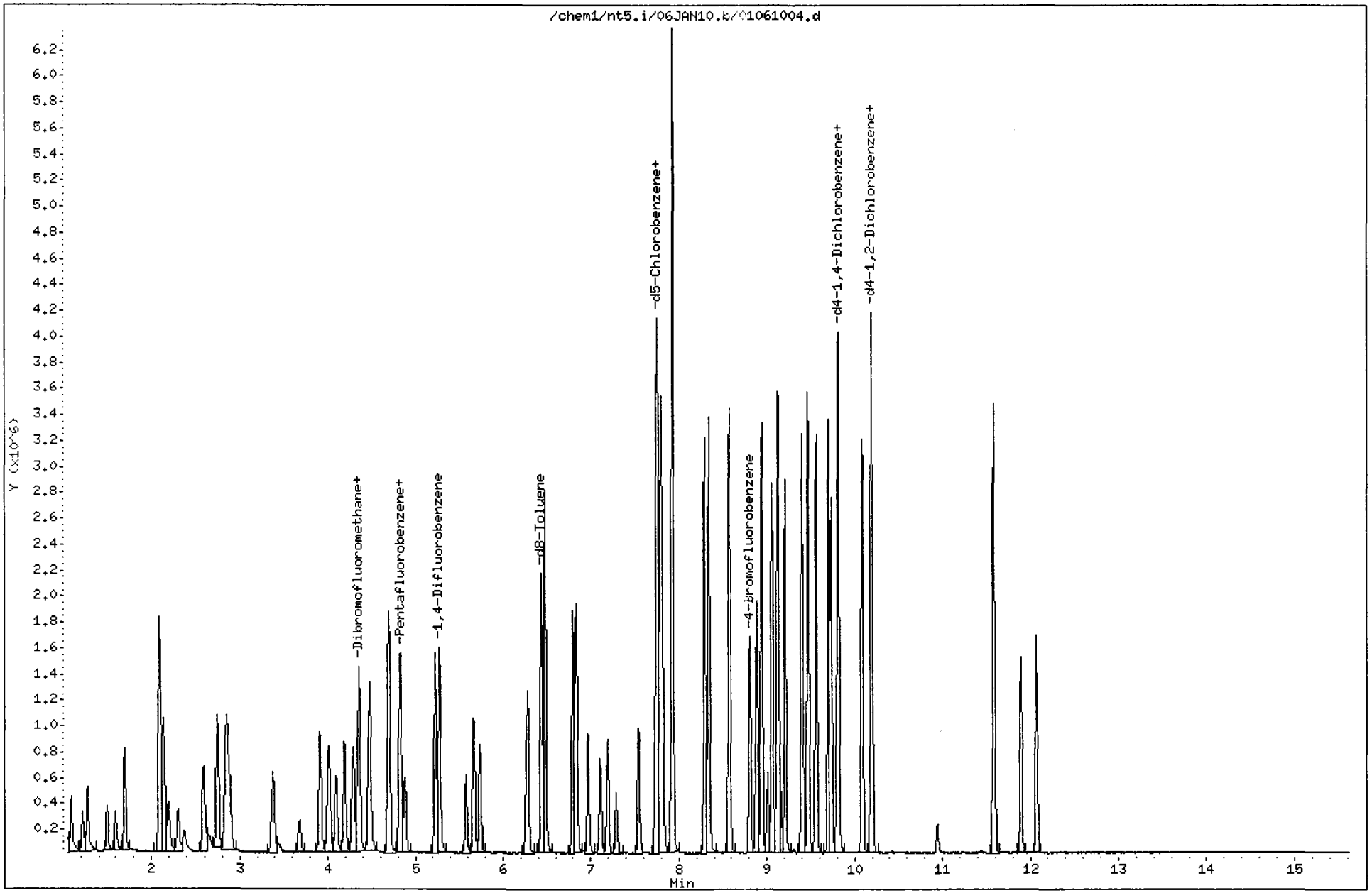
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 31 d4-1,2-Dichloroeth	10.000	9.964	99.64	70-132
$ 42 d8-Toluene	10.000	9.895	98.95	80-120
$ 61 4-Bromofluorobenze	10.000	9.885	98.85	80-120
$ 78 d4-1,2-Dichloroben	10.000	9.932	99.32	80-120

Data File: /chem1/nt5.i/06JAN10.b/01061004.d
Date : 06-JAN-2010 10:40
Client ID: LCSD0106
Sample Info: LCSD0106,10,10,0,

Instrument: nt5.i

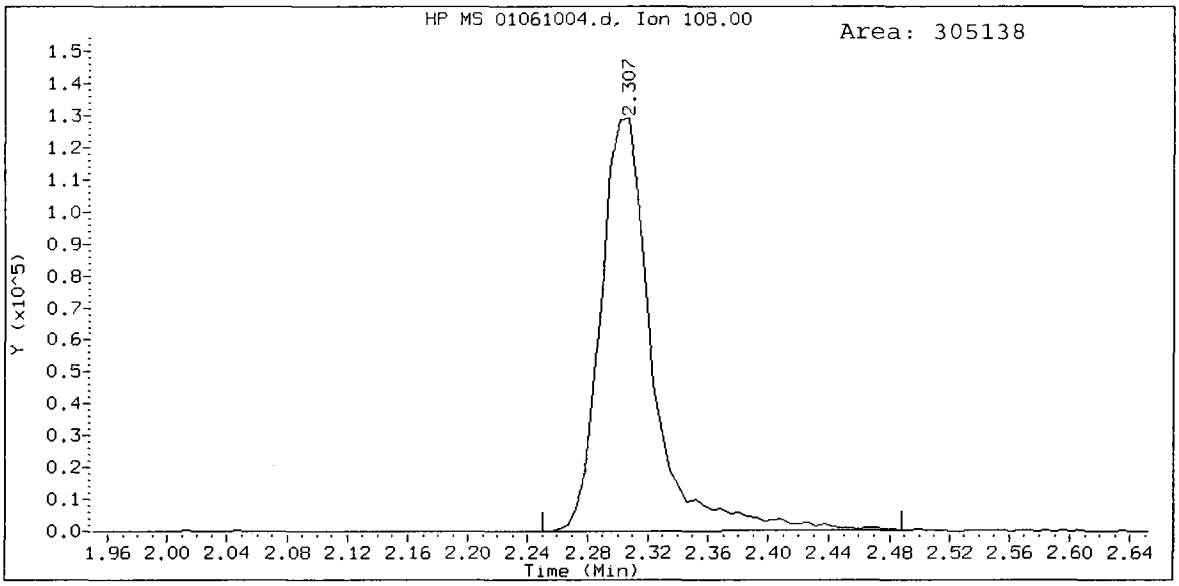
Operator: PC
Column diameter: 0.18

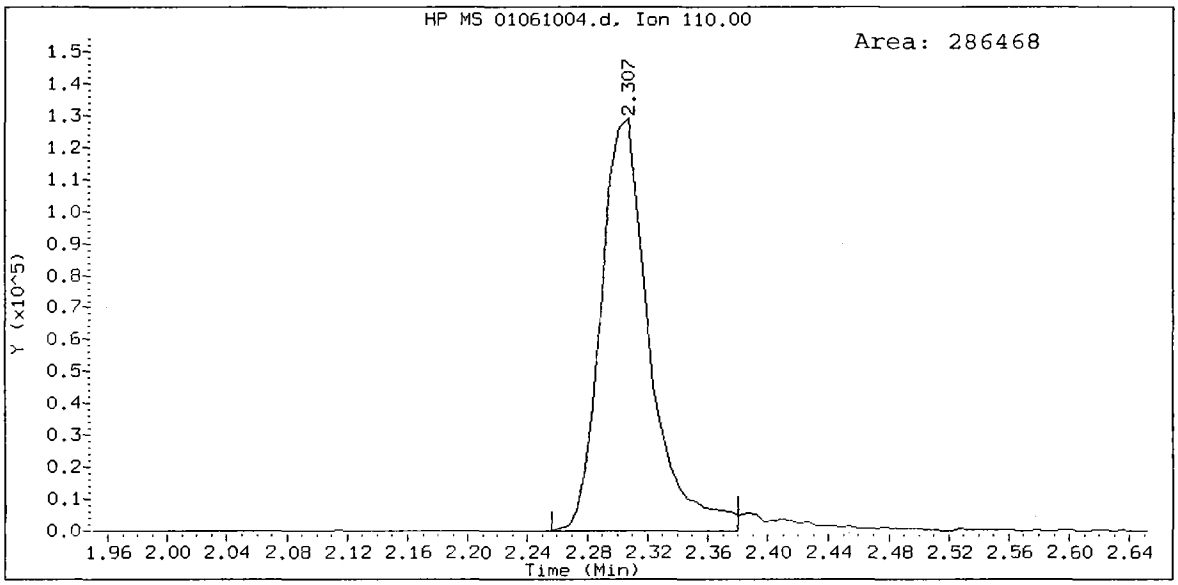
Column phase: RTXVMS



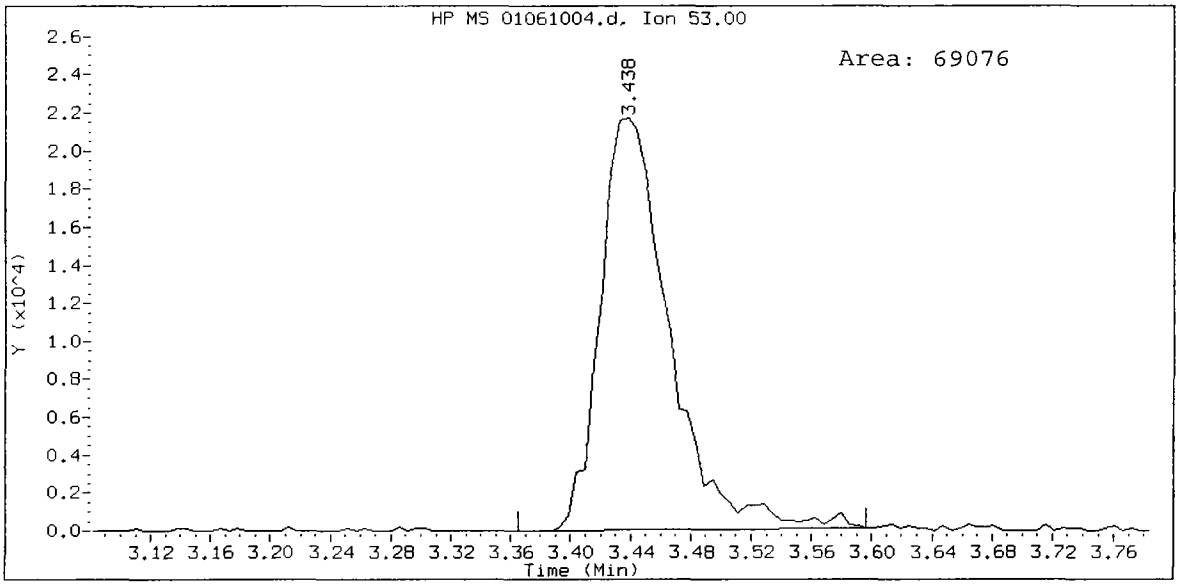
00621 00301

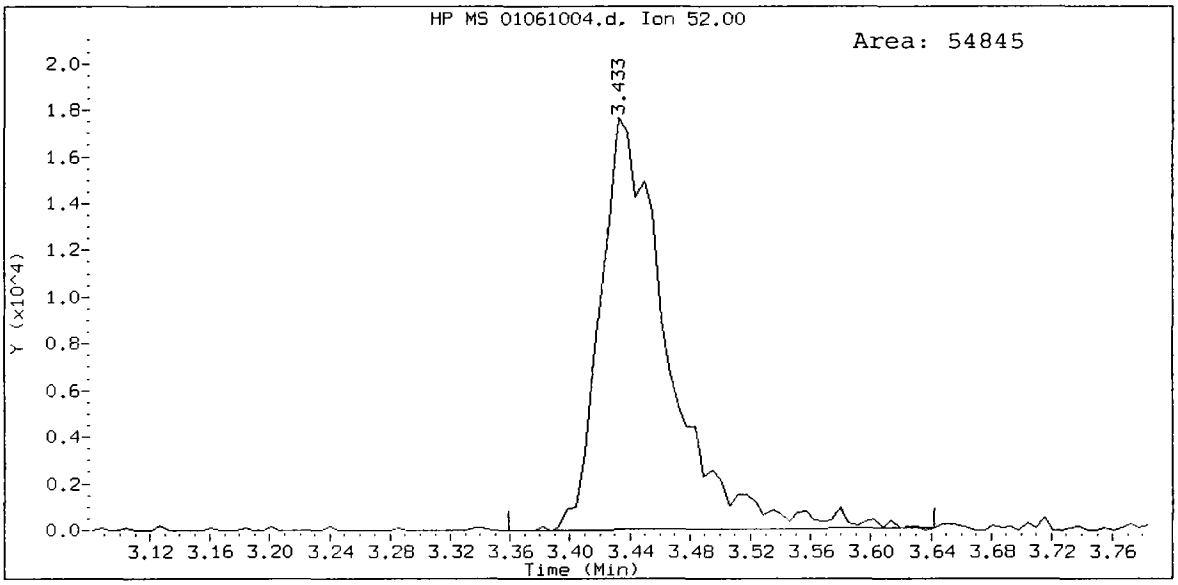
LCSD0106, /chem1/nt5.i/06JAN10.b/01061004.d
Bromoethane Amount: 9.37

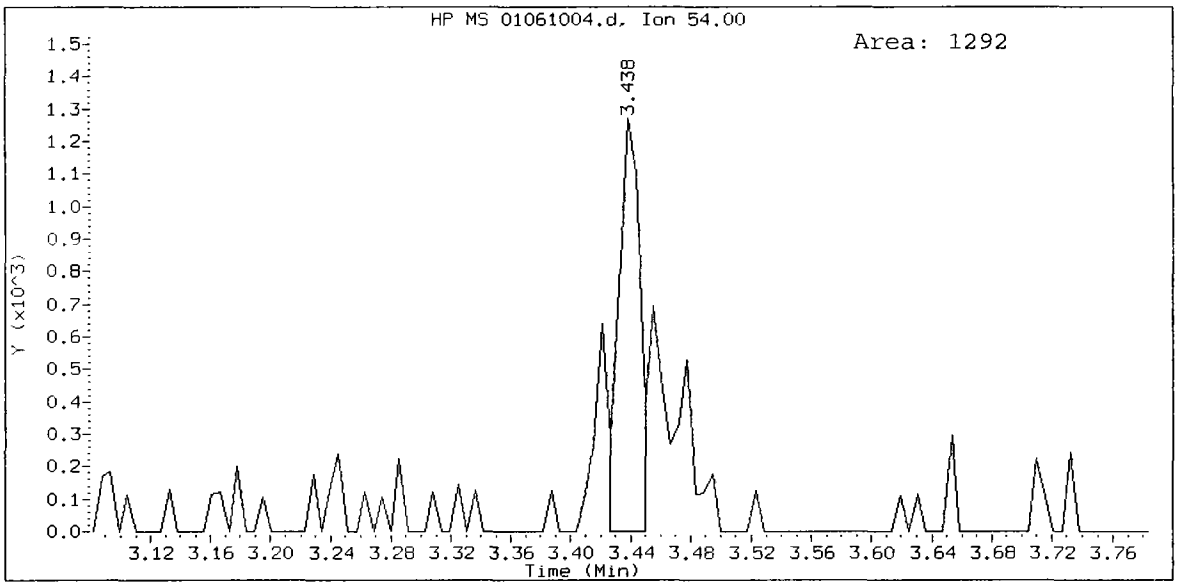




LCSD0106, /chem1/nt5.i/06JAN10.b/01061004.d
Acrylonitrile Amount: 9.54







Volatile Analysis
Run Logs

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-5 Serial No.:GC=US10228086, MS=US10462818

Date: 1/4/2010 Analysis: 8260C Analyst: PC

GC Program: PCMP60VOA.PA Column No: 850322 Column Type: RTX-VMS

Instrument Tune (.U or .CT.): 01041001 EM Voltage: 1765

Calibration File: 01041006 Curve Date: 1/4/2010 1/5/2010

IS/SS	Ical/Ccal	LCS/ICV
VW615-3	VW612-3	VW614-2
	VW614-5	VW569-5
	VW615-1	VW590-2
	VW611-3	VW614-3
	VW610-3	VW589-1

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt5.i/04JAN10.b

	Time	Filename	LabID	ClientID	WT								
1	1015	01041001.d	BFB0104	BFB0104	0.00								
2	1102	01041002.d	0.2_0104	0.2 ppb		1	4.83	919098	5.28	1328750	7.74	1185537	9.81	642244
3	1128	01041003.d	0.5_0104	0.5 ppb		1	4.83	893566	5.28	1303695	7.74	1169755	9.80	649508
4	1153	01041004.d	1.0_0104	1 ppb		1	4.83	873249	5.28	1268884	7.74	1137920	9.80	618020
5	1219	01041005.d	2.0_0104	2 ppb		1	4.83	878714	5.28	1284481	7.74	1162059	9.81	640696
6	1244	01041006.d	10_0104	10 ppb		1	4.83	906926	5.28	1305872	7.74	1174180	9.81	665265
7	1310	01041007.d	20_0104	20 ppb		1	4.83	928484	5.28	1342345	7.74	1201924	9.81	676497
8	1336	01041008.d	40_0104	40 ppb		1	4.83	959119	5.28	1381326	7.74	1210402	9.81	668467
9	1401	01041009.d	60_0104	60 ppb		1	4.83	985601	5.28	1458129	7.74	1239345	9.81	686961
10	1454	01041011.d	0.4_0104	mis-spike		1	4.83	1008054	5.28	1441352	7.74	1286375	9.80	690840
11	1519	01041012.d	ICV10_0104	8260 ICV 10 PPB		1	4.83	987196	5.28	1426434	7.74	1258018	9.81	680410
12	1547	01041013.d	RB0104			1	4.83	968815	5.28	1416389	7.74	1264846	9.80	664213
13	1613	01041014.d	0.2_0104	0.2 ppb		1	4.83	952853	5.28	1387950	7.74	1227806	9.80	666839

PC 1/5/10

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.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: 8260C ICAL Client ID: _____

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **703S**(SIM) **706S**(524.2) **708S**(8260C) **710S**(MME)

Parameter(s): 8260C

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: 1/4/10 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):

ICV 10 ppb
All averaged.
Vinyl acetate 56% in ICV (poor performer)

Additional Details on Reverse: Yes / No

Analyst Signature: Paul Caldwell **Date:** 1/5/10

Reviewer's Signature: [signature] **Date:** 1/5/2010

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-5 Serial No.:GC=US10228086, MS=US10462818

Date: 1/6/10 Analysis: 8260C Analyst: RC

GC Program: VOA10A Column No: 850322 Column Type: RTXVMS

Instrument Tune (.U or .CT.): 01061001 EM Voltage: 1765

Calibration File: 01061002 Curve Date: 1/4/10

IS/SS	Ical/Ccal	LCS/ICV
VW615-3	VW612-3	
	VW614-5	
	VW615-1	
	VW611-3	
	VW610-3	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt5.i/06JAN10.b

	Time	Filename	LabID	ClientID	WT								
1	0913	01061001.d	BFB0106	BFB0106	0.00								
2	0949	01061002.d	CC0106	CC0106		1 | 4.83	939444 |	5.27	1354487 |	7.74	1195935 |	9.81	661959 |
3	1014	01061003.d	LCS0106	LCS0106		1 | 4.83	923624 |	5.28	1340045 |	7.74	1201326 |	9.81	667263 |
4	1040	01061004.d	LCSD0106	LCSD0106		1 | 4.83	935795 |	5.28	1352393 |	7.74	1190951 |	9.81	661167 |
5	1105	01061005.d	MB0106	MB0106		1 | 4.83	924782 |	5.28	1344877 |	7.74	1210251 |	9.80	655074 |
6	1139	01061006.d	QD62D	Trip Blanks	1	1 | 4.83	879035 |	5.28	1301444 |	7.74	1185984 |	9.80	623540 |
7	1204	01061007.d	QD67H	Trip Blank	1	1 | 4.83	870537 |	5.28	1285566 |	7.74	1167963 |	9.80	617249 |
8	1230	01061008.d	QE09A	SD-33-71	1.22	1 | 4.83	895375 |	5.28	1299252 |	7.74	1161415 |	9.80	619024 |
9	1255	01061009.d	QD62A	CB31A123109Grab	1	1 | 4.83	903662 |	5.28	1297915 |	7.74	1151294 |	9.80	619903 |
10	1324	01061010.d	QE09A	SD-33-71	2	1 | 4.83	895905 |	5.28	1294337 |	7.74	1158251 |	9.81	619028 |
11	1350	01061011.d	QD62B	CB4857123109Grab	3	1 | 4.83	896377 |	5.28	1287357 |	7.74	1155466 |	9.81	616932 |
12	1415	01061012.d	QD62C	CB1123109Grab	1	1 | 4.83	881438 |	5.28	1289421 |	7.74	1157894 |	9.80	614104 |
13	1441	01061013.d	QD67A	MW-1A-123109	1	1 | 4.83	887254 |	5.28	1293172 |	7.74	1159398 |	9.80	617300 |
14	1507	01061014.d	QD67B	MW-5A-123109	1	1 | 4.83	885940 |	5.28	1288090 |	7.74	1132653 |	9.80	607667 |
15	1532	01061015.d	QD67C	MW-3A-123109	1	1 | 4.83	875792 |	5.28	1278311 |	7.74	1137492 |	9.80	602366 |
16	1558	01061016.d	QD67D	HC-5-123109	1	1 | 4.83	885233 |	5.28	1276015 |	7.74	1137961 |	9.80	601615 |
17	1624	01061017.d	QD67E	HC-4-123109	1	1 | 4.83	882191 |	5.28	1296450 |	7.74	1142855 |	9.80	611005 |
18	1649	01061018.d	QD67F	HC-6-123109	1	1 | 4.83	874587 |	5.28	1265316 |	7.74	1130610 |	9.80	597152 |
19	1715	01061019.d	QD67G	AS-31-123109	1	1 | 4.83	874885 |	5.28	1276657 |	7.74	1146311 |	9.80	611631 |
20	1740	01061020.d	QD80A	TGW063-100104	1	1 | 4.83	876329 |	5.28	1274368 |	7.74	1116890 |	9.81	597883 |
21	1806	01061021.d	QD80B	TGW062-100104	1	1 | 4.83	871231 |	5.28	1256907 |	7.74	1111304 |	9.81	599857 |
22	1832	01061022.d	QD80C	TGW061-100104	1	1 | 4.83	860545 |	5.28	1265087 |	7.74	1120020 |	9.80	591453 |
23	1857	01061023.d	QD81A	TGW089-100104	1	1 | 4.83	871772 |	5.28	1251684 |	7.74	1129710 |	9.80	599956 |
24	1923	01061024.d	QD81B	TGW090-100104	1	1 | 4.83	871148 |	5.28	1246444 |	7.74	1135468 |	9.80	597756 |
25	1949	01061025.d	QD81C	TGW091-100104	1	1 | 4.83	861786 |	5.28	1249610 |	7.74	1124982 |	9.80	609712 |
26	2014	01061026.d	QE32A		1	1 | 4.83	864400 |	5.28	1243291 |	7.74	1100971 |	9.80	591105 |

1/7/10

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.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: QD62 Client ID: Floyd/Snider

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **703S**(SIM) **706S**(524.2) **708S**(8260C) **710S**(MME)

Parameter(s): 8260C Short list

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: 1/4/10 Analysis Start Date: 1/6/10

pH ≤ 2.0 YES / NO / NA

Method Blank In Control? YES / NO

BFB Tune Meets Criteria? YES / NO / NA

LCS / LCSD Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA

Surrogate Recovery In Control? YES / NO

Special Analysis Criteria Met? YES / NO / NA

ICal acceptable? YES / NO; Q flag applied? YES / NO / NA

CCal acceptable? YES / NO; Q flag applied? YES / NO / NA

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

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

Short list, no relevant Q flags.

Additional Details on Reverse: Yes / No

Analyst Signature: [signature] **Date:** 1/7/10

Reviewer's Signature: _____ **Date:** _____

SIM Volatile Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

Client ID	DCE	TOL	TOT OUT
MB-010610	100%	101%	0
LCS-010610	90.9%	101%	0
LCSD-010610	92.7%	99.4%	0
CB31A123109Grab	106%	102%	0
CB4857123109Grab	107%	101%	0
CB1123109Grab	102%	102%	0
Trip Blanks	101%	99.9%	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: 09-32251 to 09-32254

FORM-II SW8260-SIM

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: LCS-010610
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-010610
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-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: 01/06/10 09:45
LCSD: 01/06/10 10:11

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
cis-1,2-Dichloroethene	0.938	1.00	93.8%	1.00	1.00	100%	6.4%
trans-1,2-Dichloroethene	0.956	1.00	95.6%	1.02	1.00	102%	6.5%
Trichloroethene	0.978	1.00	97.8%	1.02	1.00	102%	4.2%
Tetrachloroethene	1.00	1.00	100%	1.06	1.00	106%	5.8%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	90.9%	92.7%
d8-Toluene	101%	99.4%

4A

VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

ARI Job No: QD62

Project: LORA LAKES APARTMENTS

Lab File ID: 01061005

Lab Sample ID: MB0106

Date Analyzed: 01/06/10

Time Analyzed: 1038

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		LCS0106	01061003	0945
02		LCSD0106	01061004	1011
03	TRIP BLANKS	QD62D	01061006	1118
04	CB31A123109G	QD62A	01061007	1145
05	CB4857123109	QD62B	01061008	1212
06	CB1123109GRA	QD62C	01061009	1238
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD/SNIDER

Lab Code: ARI Case No.: LORA LAKES APARTMENTS SDG No.: QD62

Lab File ID: 11230901 BFB Injection Date: 11/23/09

Instrument ID: NT7 BFB Injection Time: 1017

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	8.0
75	30.0 - 66.0% of mass 95	42.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 101.0% of mass 95	91.0
175	4.0 - 9.0% of mass 174	6.4 (7.0)1
176	93.0 - 101.0% of mass 174	89.8 (98.7)1
177	5.0 - 9.0% of mass 176	5.9 (6.6)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	00201123	00201123	11230914	11/23/09	1725
02	00501123	00501123	11230915	11/23/09	1753
03	01001123	01001123	11230916	11/23/09	1820
04	05001123	05001123	11230917	11/23/09	1848
05	10001123	10001123	11230918	11/23/09	1916
06	20001123	20001123	11230919	11/23/09	1943
07	40001123	40001123	11230920	11/23/09	2011
08	ICV1123	ICV1123	11230921	11/23/09	2039
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD/SNIDER

Lab Code: ARI Case No.: LORA LAKES APARTMENTS SDG No.: QD62

Lab File ID: 01061001 BFB Injection Date: 01/06/10

Instrument ID: NT7 BFB Injection Time: 0824

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	13.7
75	30.0 - 66.0% of mass 95	45.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.3 (0.3)1
174	50.0 - 101.0% of mass 95	82.4
175	4.0 - 9.0% of mass 174	5.7 (6.9)1
176	93.0 - 101.0% of mass 174	80.0 (97.1)1
177	5.0 - 9.0% of mass 176	5.9 (7.3)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		CC0106	01061002	01/06/10	0902
02		LCS0106	01061003	01/06/10	0945
03		LCSD0106	01061004	01/06/10	1011
04		MB0106	01061005	01/06/10	1038
05	TRIP BLANKS	QD62D	01061006	01/06/10	1118
06	CB31A123109GRAB	QD62A	01061007	01/06/10	1145
07	CB4857123109GRAB	QD62B	01061008	01/06/10	1212
08	CB1123109GRAB	QD62C	01061009	01/06/10	1238
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Ical Midpoint ID: 11230917 Ical Date: 11/23/09

Instrument ID: NT7 Project Run Date: 01/06/10

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	AREA #	RT #
	ICAL MIDPT	381756	5.32	546077	5.75		
	UPPER LIMIT	763512	5.82	1092154	6.25		
	LOWER LIMIT	190878	4.82	273038	5.25		
	Sample ID						
01		409150	5.32	589902	5.75		
02		398916	5.32	579249	5.75		
03		378600	5.32	548884	5.75		
04	TRIP BLANKS	365687	5.32	535632	5.75		
05	CB31A123109G	365277	5.32	527495	5.75		
06	CB4857123109	359115	5.32	521675	5.75		
07	CB1123109GRA	353392	5.32	514983	5.75		
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 Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: CB31A123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62A
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 11:45

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	106%
d8-Toluene	102%

FORM I

MH 1/7/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/06jan2010.b/01061007.d
Lab Smp Id: QD62A Client Smp ID: CB31A123109Grab
Inj Date : 06-JAN-2010 11:45
Operator : PKC Inst ID: nt7.i
Smp Info : QD62A,10,10,0
Misc Info : 09-32251
Comment :
Method : /chem1/nt7.i/06jan2010.b/sim112309.m
Meth Date : 07-Jan-2010 12:07 monicah Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/L)	FINAL (ug/L)
	1 Vinyl Chloride	62	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	5.211	5.204	(0.906)	71915	98.6760	98.676
*	4 Pentafluorobenzene	168	5.323	5.315	(1.000)	365277	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.331	5.323	(1.001)	147820	1054.51	1054.5
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.754	5.753	(1.000)	527495	1000.00	
$	9 d8-Toluene	98	6.902	6.903	(1.200)	606110	1024.83	1024.8
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 01061007.d
Lab Smp Id: QD62A
Analysis Type: VOA
Quant Type: ISTD
Operator: PKC
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-32251

Calibration Date: 06-JAN-2010
Calibration Time: 09:02
Client Smp ID: CB31A123109Grab
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	365277	-6.27
7 1,4-Difluorobenze	553230	276615	1106460	527495	-4.65

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.13
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: QD62A
Level: LOW
Data Type: MS DATA
SpikeList File: sim.spk
Sublist File: sim.sub
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-32251

Client SDG: QD62
Fraction: VOA
Client Smp ID: CB31A123109Grab
Operator: PKC
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	1054.5	105.45	80-136
$ 9 d8-Toluene	1000.0	1024.8	102.48	80-120

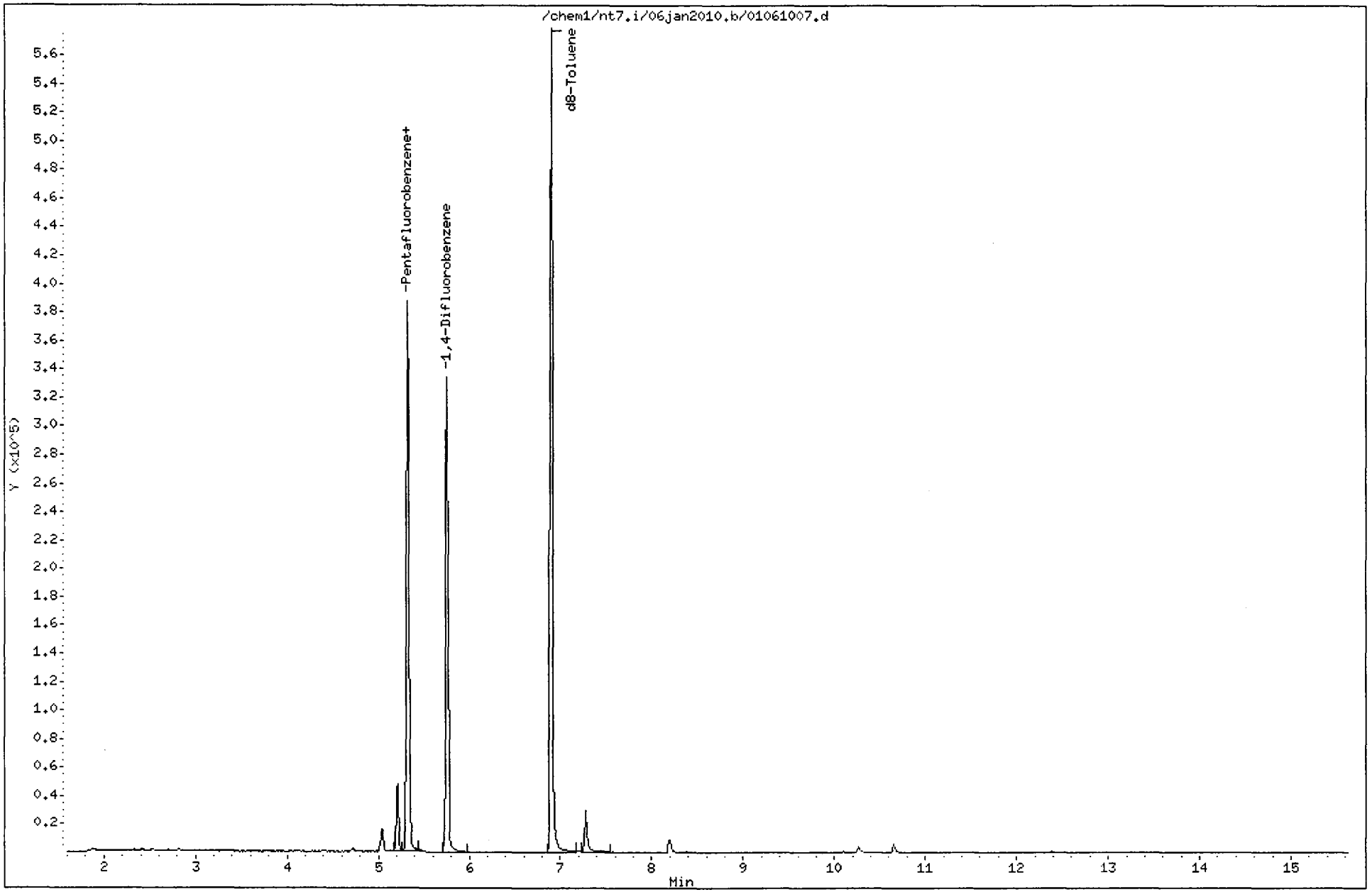
Data File: /chem1/nt7.i/06jan2010.b/01061007.d
Date : 06-JAN-2010 11:45
Client ID: CB31A123109Grab
Sample Info: QD62A,10,10,0

Instrument: nt7.i

Operator: PKC
Column diameter: 0.18

Column phase: RTXVMS

QD62:60321



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM Sample ID: CB4857123109Grab
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62B
LIMS ID: 09-32252
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 12:12

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	107%
d8-Toluene	101%

FORM I

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/06jan2010.b/01061008.d
Lab Smp Id: QD62B Client Smp ID: CB4857123109Grab
Inj Date : 06-JAN-2010 12:12
Operator : PKC Inst ID: nt7.i
Smp Info : QD62B,10,10,0
Misc Info : 09-32252
Comment :
Method : /chem1/nt7.i/06jan2010.b/sim112309.m
Meth Date : 07-Jan-2010 12:07 monicah Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	5.213	5.204	(0.906)	27389	38.0010	38.001
*	4 Pentafluorobenzene	168	5.316	5.315	(1.000)	359115	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.324	5.323	(1.001)	147170	1067.88	1067.9
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.754	5.753	(1.000)	521675	1000.00	
$	9 d8-Toluene	98	6.901	6.903	(1.200)	588981	1006.98	1007.0
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 01061008.d
Lab Smp Id: QD62B
Analysis Type: VOA
Quant Type: ISTD
Operator: PKC
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-32252

Calibration Date: 06-JAN-2010
Calibration Time: 09:02
Client Smp ID: CB4857123109Grab
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	359115	-7.85
7 1,4-Difluorobenze	553230	276615	1106460	521675	-5.70

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
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: QD62B
Level: LOW
Data Type: MS DATA
SpikeList File: sim.spk
Sublist File: sim.sub
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-32252

Client SDG: QD62
Fraction: VOA
Client Smp ID: CB4857123109Grab
Operator: PKC
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	1067.9	106.79	80-136
$ 9 d8-Toluene	1000.0	1007.0	100.70	80-120

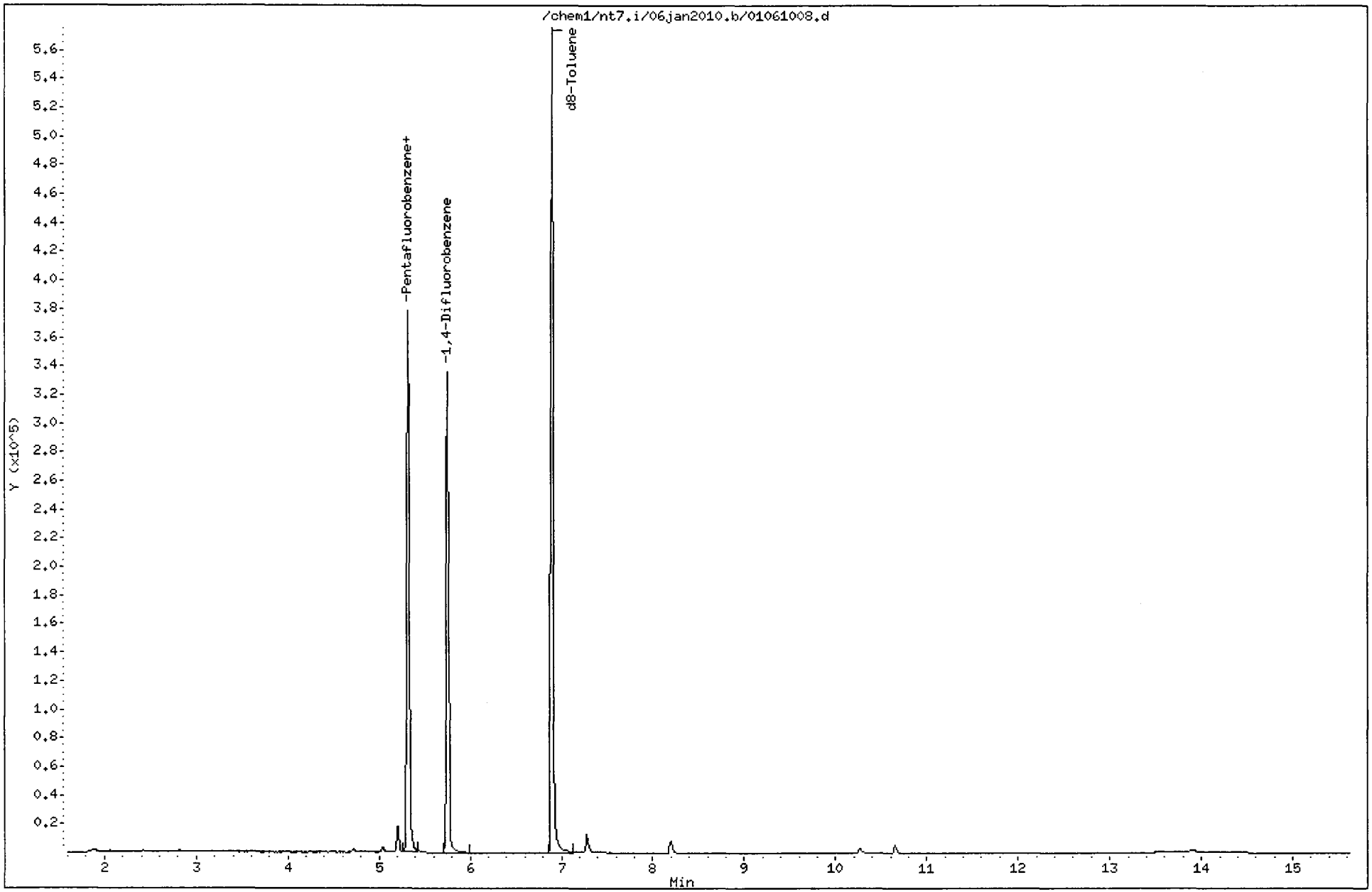
Data File: /chem1/nt7.i/06jan2010.b/01061008.d
Date : 06-JAN-2010 12:12
Client ID: CB4857123109Grab
Sample Info: QD62B,10,10,0

Instrument: nt7.i

Operator: PKC
Column diameter: 0.18

Column phase: RTXVMS

QD62:00326



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: CB1123109Grab**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62C
LIMS ID: 09-32253
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 12:38

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	102%
d8-Toluene	102%

FORM I

MH 1/7/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/06jan2010.b/01061009.d
Lab Smp Id: QD62C Client Smp ID: CB1123109Grab
Inj Date : 06-JAN-2010 12:38
Operator : PKC Inst ID: nt7.i
Smp Info : QD62C,10,10,0
Misc Info : 09-32253
Comment :
Method : /chem1/nt7.i/06jan2010.b/sim112309.m
Meth Date : 07-Jan-2010 12:07 monicah Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/L)	FINAL (ug/L)
	1 Vinyl Chloride	62	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	5.211	5.204	(0.906)	7851	11.0342	11.034
*	4 Pentafluorobenzene	168	5.323	5.315	(1.000)	353392	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.323	5.323	(1.000)	137834	1016.34	1016.3
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.753	5.753	(1.000)	514983	1000.00	
$	9 d8-Toluene	98	6.903	6.903	(1.200)	586724	1016.15	1016.2
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 01061009.d
Lab Smp Id: QD62C
Analysis Type: VOA
Quant Type: ISTD
Operator: PKC
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-32253

Calibration Date: 06-JAN-2010
Calibration Time: 09:02
Client Smp ID: CB1123109Grab
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	353392	-9.32
7 1,4-Difluorobenze	553230	276615	1106460	514983	-6.91

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.14
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: QD62C
Level: LOW
Data Type: MS DATA
SpikeList File: sim.spk
Sublist File: sim.sub
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-32253

Client SDG: QD62
Fraction: VOA
Client Smp ID: CB1123109Grab
Operator: PKC
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	1016.3	101.63	80-136
$ 9 d8-Toluene	1000.0	1016.2	101.62	80-120

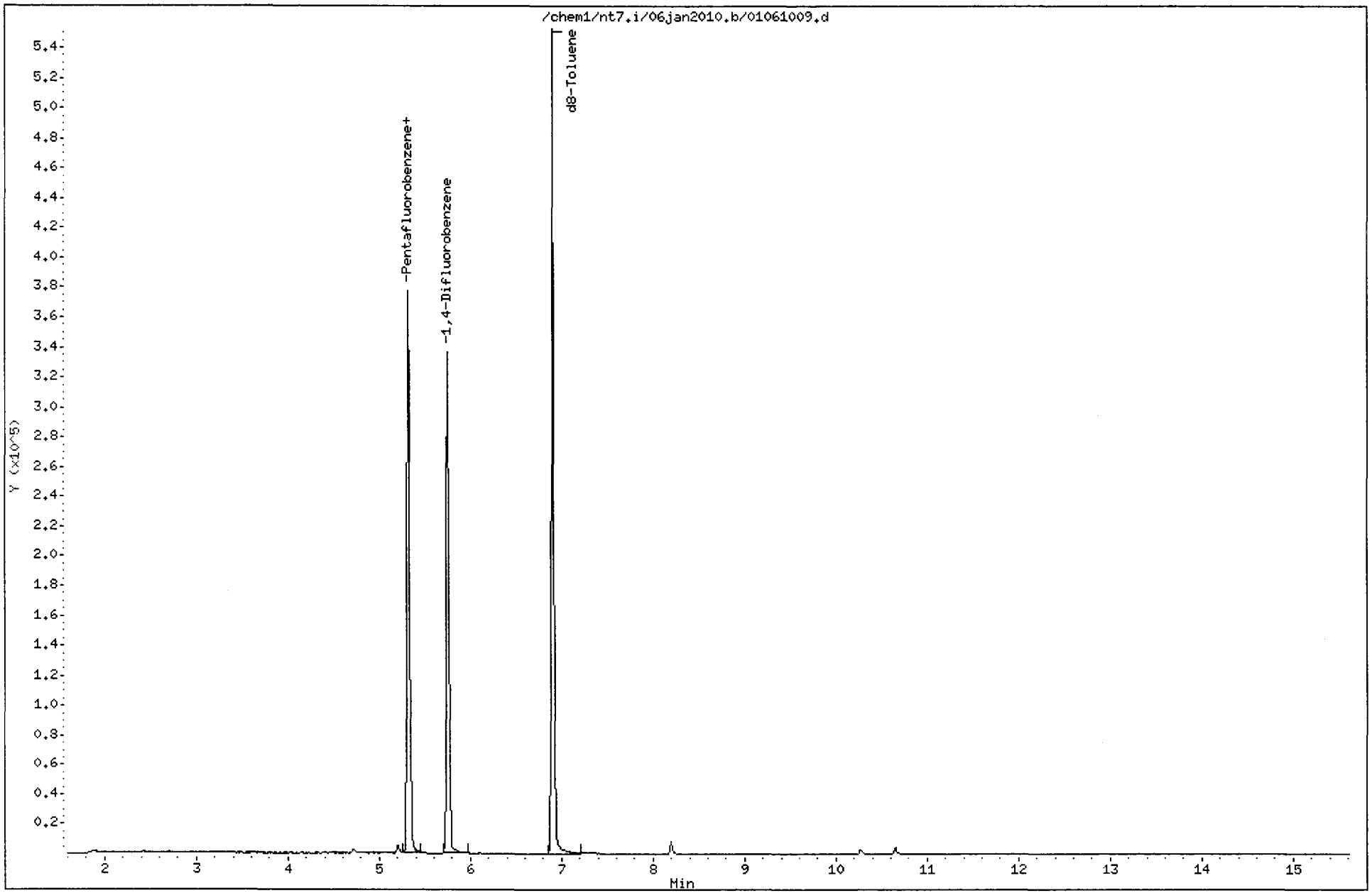
Data File: /chem1/nt7.i/06jan2010.b/01061009.d
Date : 06-JAN-2010 12:38
Client ID: CB1123109Grab
Sample Info: QD62C,10,10,0

Instrument: nt7.i

Operator: PKC
Column diameter: 0.18

Column phase: RTXVMS

QD62:66331



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: Trip Blanks**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QD62D
LIMS ID: 09-32254
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 11:18

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	101%
d8-Toluene	99.9%

FORM I

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/06jan2010.b/01061006.d
Lab Smp Id: QD62D Client Smp ID: Trip Blanks
Inj Date : 06-JAN-2010 11:18
Operator : PKC Inst ID: nt7.i
Smp Info : QD62D,10,10,0
Misc Info : 09-32254
Comment :
Method : /chem1/nt7.i/06jan2010.b/sim112309.m
Meth Date : 07-Jan-2010 12:07 monicah Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	Compound Not Detected.					
*	4 Pentafluorobenzene	168	5.315	5.315	(1.000)	365687	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.323	5.323	(1.001)	141771	1010.22	1010.2
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.753	5.753	(1.000)	535632	1000.00	
$	9 d8-Toluene	98	6.902	6.903	(1.200)	600149	999.335	999.33
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 01061006.d
Lab Smp Id: QD62D
Analysis Type: VOA
Quant Type: ISTD
Operator: PKC
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-32254

Calibration Date: 06-JAN-2010
Calibration Time: 09:02
Client Smp ID: Trip Blanks
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	365687	-6.17
7 1,4-Difluorobenze	553230	276615	1106460	535632	-3.18

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
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: Floyd/Snider
Sample Matrix: LIQUID
Lab Smp Id: QD62D
Level: LOW
Data Type: MS DATA
SpikeList File: sim.spk
Sublist File: sim.sub
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-32254

Client SDG: QD62
Fraction: VOA
Client Smp ID: Trip Blanks
Operator: PKC
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	1010.2	101.02	80-136
$ 9 d8-Toluene	1000.0	999.33	99.93	80-120

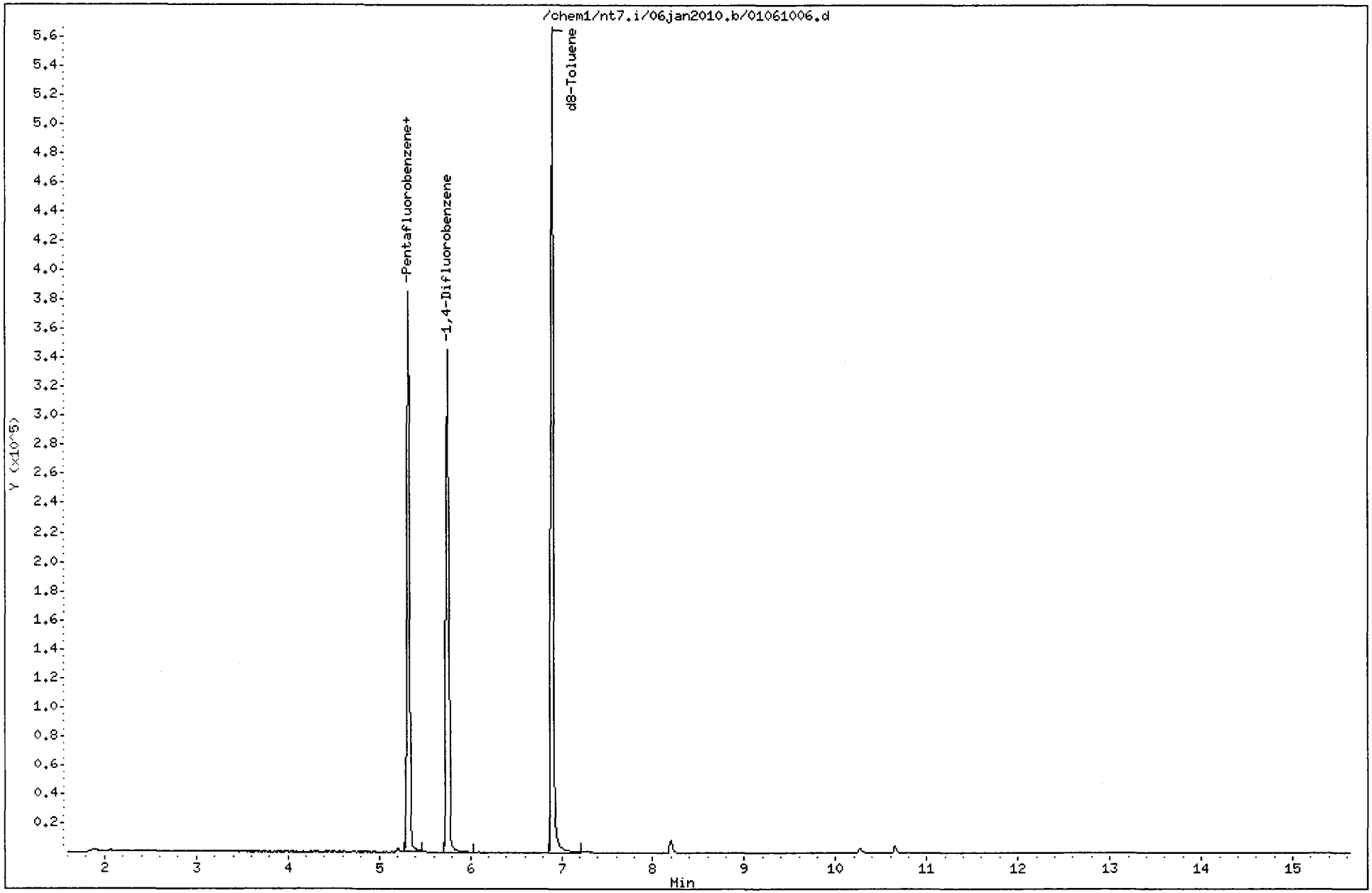
Data File: /chem1/nt7.i/06jan2010.b/01061006.d
Date : 06-JAN-2010 11:18
Client ID: Trip Blanks
Sample Info: QD62D,10,10,0

Instrument: nt7.i

Operator: PKC
Column diameter: 0.18

Column phase: RTXVMS

QD62:0336



SIM Volatile Analysis
Standard Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT7 Calibration Date: 11/23/09

LAB FILE ID: RF20: 11230914 RF50: 11230915 RF100: 11230916
RF500: 11230917 RF1000: 11230918

COMPOUND	RF20	RF50	RF100	RF500	RF1000
Vinyl Chloride	0.552	0.599	0.385	0.510	0.441
1,1-Dichloroethene	0.556	0.544	0.378	0.412	0.401
Trans-1,2-Dichloroethene	0.554	0.580	0.395	0.438	0.426
cis-1,2-dichloroethene	0.621	0.586	0.410	0.448	0.438
Benzene	1.807	1.703	1.146	1.254	1.228
Trichloroethene	0.496	0.423	0.325	0.352	0.343
Tetrachloroethene	0.493	0.447	0.314	0.353	0.345
1,1,2,2-Tetrachloroethane	0.228	0.199	0.147	0.175	0.182
d4-1,2-Dichloroethane	0.386	0.410	0.417	0.377	0.369
d8-Toluene	1.121	1.124	1.128	1.122	1.128

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT7 Calibration Date: 11/23/09

LAB FILE ID: RF2000: 11230919 RF4000: 11230920

COMPOUND	RF2000	RF4000	CURVE	AVE	%RSD OR R^2
Vinyl Chloride	0.468	0.465	AVRG	0.488	14.6
1,1-Dichloroethene	0.429	0.426	AVRG	0.449	15.8
Trans-1,2-Dichloroethene	0.454	0.453	AVRG	0.472	14.6
cis-1,2-dichloroethene	0.468	0.471	AVRG	0.492	16.2
Benzene	1.281	1.250	AVRG	1.382	18.8
Trichloroethene	0.363	0.361	AVRG	0.380	15.6
Tetrachloroethene	0.364	0.358	AVRG	0.382	16.6
1,1,2,2-Tetrachloroethane	0.197	0.204	AVRG	0.190	13.5
d4-1,2-Dichloroethane	0.364	0.363	AVRG	0.384	5.7
d8-Toluene	1.123	1.103	AVRG	1.121	0.8

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-NOV-2009 13:43
End Cal Date : 23-NOV-2009 20:11
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt7.i/23nov2009.b/sim112309.m
Cal Date : 24-Nov-2009 08:58 monicah
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt7.i/23nov2009.b/11230914.d
Level 2: /chem1/nt7.i/23nov2009.b/11230915.d
Level 3: /chem1/nt7.i/23nov2009.b/11230916.d
Level 4: /chem1/nt7.i/23nov2009.b/11230917.d
Level 5: /chem1/nt7.i/23nov2009.b/11230918.d
Level 6: /chem1/nt7.i/23nov2009.b/11230919.d
Level 7: /chem1/nt7.i/23nov2009.b/11230920.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	4000.000 Level 7	RRF	% RSD
1 Vinyl Chloride	0.55153	0.59885	0.38537	0.51043	0.44096	0.46798	0.46465	0.48854	14.598
2 1,1-Dichloroethene	0.55590	0.54436	0.37785	0.41186	0.40063	0.42941	0.42620	0.44946	15.786
175 Trans-1,2-Dichloroethene	0.55405	0.58047	0.39468	0.43755	0.42638	0.45452	0.45331	0.47156	14.589
3 cis-1,2-dichloroethene	0.62088	0.58652	0.41038	0.44801	0.43762	0.46854	0.47097	0.49185	16.200
6 Benzene	1.80750	1.70318	1.14652	1.25453	1.22798	1.28141	1.25035	1.38164	18.852
8 Trichloroethene	0.49613	0.42325	0.32505	0.35255	0.34294	0.36335	0.36072	0.38057	15.602

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-NOV-2009 13:43
End Cal Date : 23-NOV-2009 20:11
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt7.i/23nov2009.b/sim112309.m
Cal Date : 24-Nov-2009 08:58 monicah
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	4000.000 Level 7	RRF	% RSD
10 Tetrachloroethene	0.49294	0.44713	0.31395	0.35294	0.34521	0.36406	0.35800	0.38203	16.649
11 1,1,2,2-Tetrachloroethane	0.22811	0.19909	0.14681	0.17494	0.18174	0.19737	0.20372	0.19025	13.464
$ 5 d4-1,2-Dichloroethane	0.38597	0.40959	0.41748	0.37689	0.36937	0.36437	0.36268	0.38376	5.713
$ 9 d8-Toluene	1.12079	1.12364	1.12789	1.12248	1.12797	1.12262	1.10298	1.12120	0.757

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-NOV-2009 13:43
End Cal Date : 23-NOV-2009 20:11
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt7.i/23nov2009.b/sim112309.m
Cal Date : 24-Nov-2009 08:58 monicah
Curve Type : Average

Average %RSD Results.

Calculated Average %RSD = 13.33891
Maximun Average %RSD = 5.00000
* Failed Average %RSD Test.

Data File: /chem1/nt7.i/23nov2009.b/11230914.d
Report Date: 21-Dec-2009 10:18

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/23nov2009.b/11230914.d
Lab Smp Id: 00201123
Inj Date : 23-NOV-2009 17:25
Operator : PC Inst ID: nt7.i
Smp Info : 00201123,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/23nov2009.b/sim112309.m
Meth Date : 21-Dec-2009 10:15 paul Quant Type: ISTD
Cal Date : 23-NOV-2009 17:25 Cal File: 11230914.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	1.551	1.550	(0.292)	4159	20.0000	22.579(M)
2 1,1-Dichloroethene	96	2.509	2.511	(0.472)	4192	20.0000	24.525
175 Trans-1,2-Dichloroethene	96	3.288	3.289	(0.619)	4178	20.0000	23.498
3 cis-1,2-dichloroethene	96	4.441	4.442	(0.836)	4682	20.0000	25.247
6 Benzene	78	5.204	5.205	(0.905)	18653	20.0000	26.165
4 Pentafluorobenzene	168	5.315	5.316	(1.000)	377044	1000.00	
5 d4-1,2-Dichloroethane	65	5.323	5.324	(1.001)	145527	1000.00	1005.7
8 Trichloroethene	130	5.706	5.708	(0.992)	5120	20.0000	25.512(M)
7 1,4-Difluorobenzene	114	5.752	5.742	(1.000)	515990	1000.00	
9 d8-Toluene	98	6.892	6.902	(1.198)	578318	1000.00	999.64
10 Tetrachloroethene	166	7.260	7.259	(1.262)	5087	20.0000	25.806
11 1,1,2,2-Tetrachloroethane	83	9.459	9.446	(1.644)	2354	20.0000	23.979

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: 11230914.d
Lab Smp Id: 00201123
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/23nov2009.b/sim112309.m
Misc Info: 09-

Calibration Date: 23-NOV-2009
Calibration Time: 20:39

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	377044	-3.25
7 1,4-Difluorobenze	553230	276615	1106460	515990	-6.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.02
7 1,4-Difluorobenze	5.74	5.24	6.24	5.75	0.18

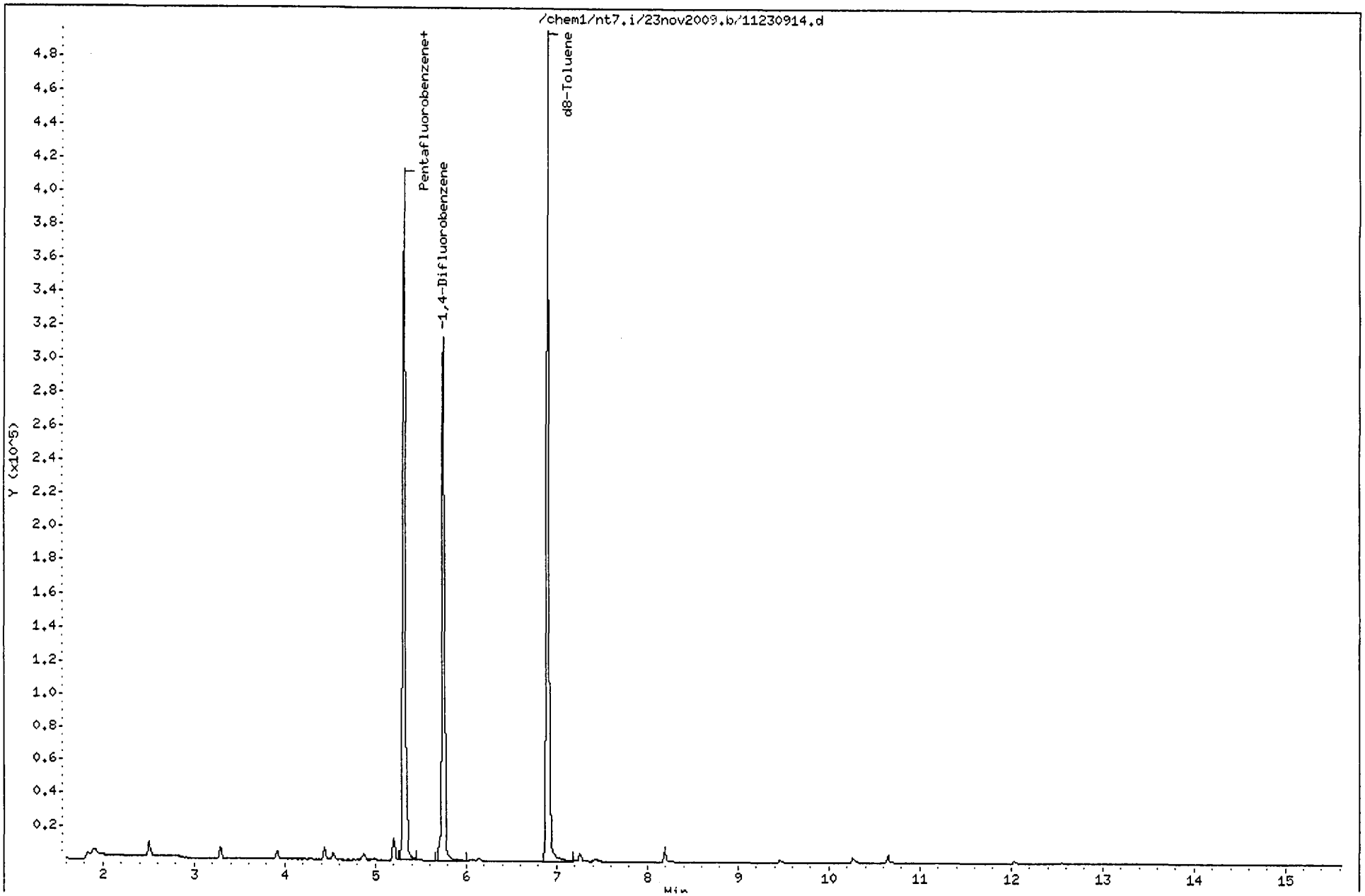
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt7.i/23nov2009.b/11230914.d
Date : 23-NOV-2009 17:25
Client ID:
Sample Info: 00201123,10,10,0

Column phase: RTXVMS

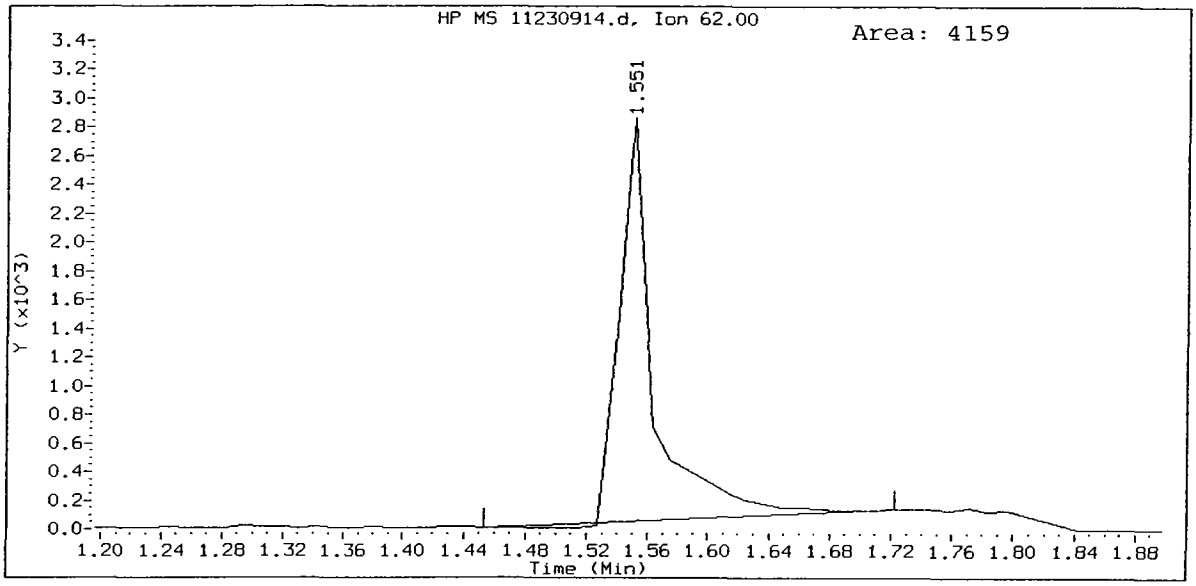
Instrument: nt7.i

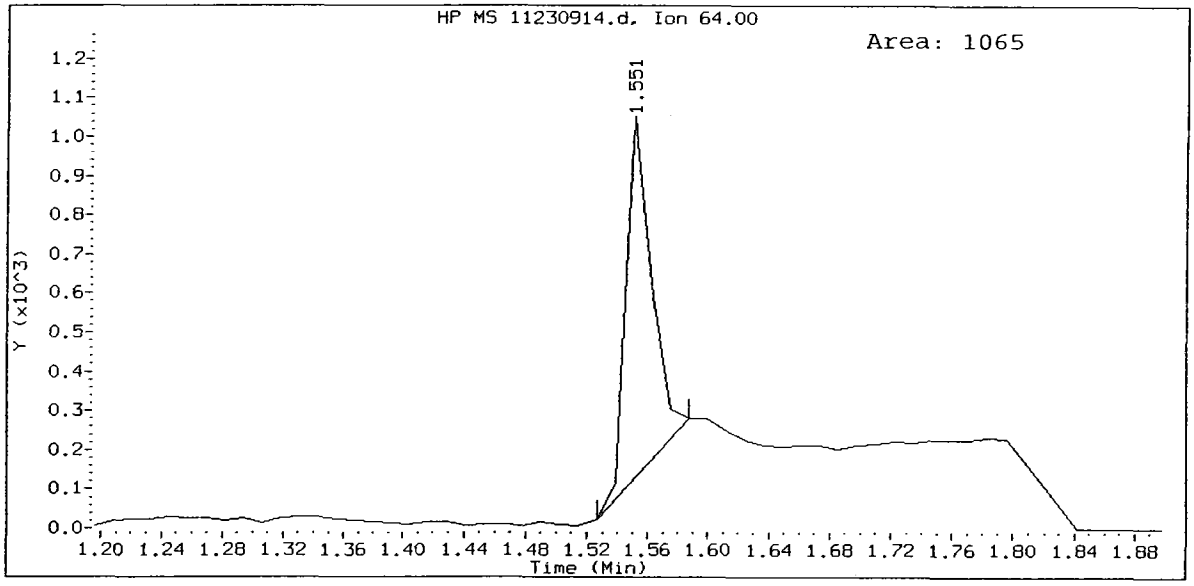
Operator: PC
Column diameter: 0.18



GD62 : 00346

00201123, /chem1/nt7.i/23nov2009.b/11230914.d
Vinyl Chloride Amount: 22.58





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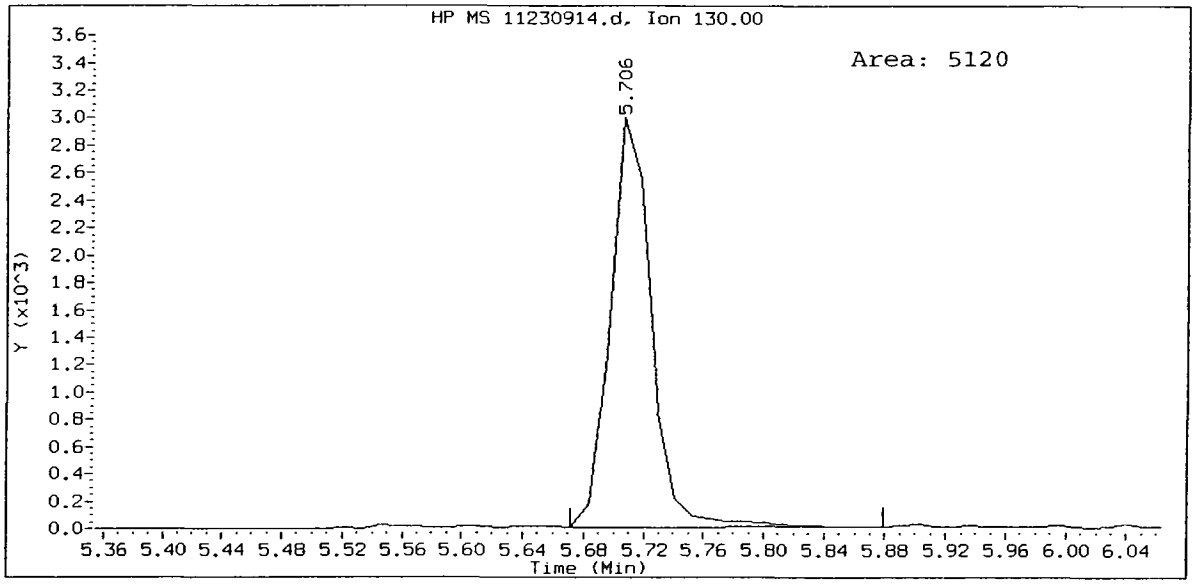
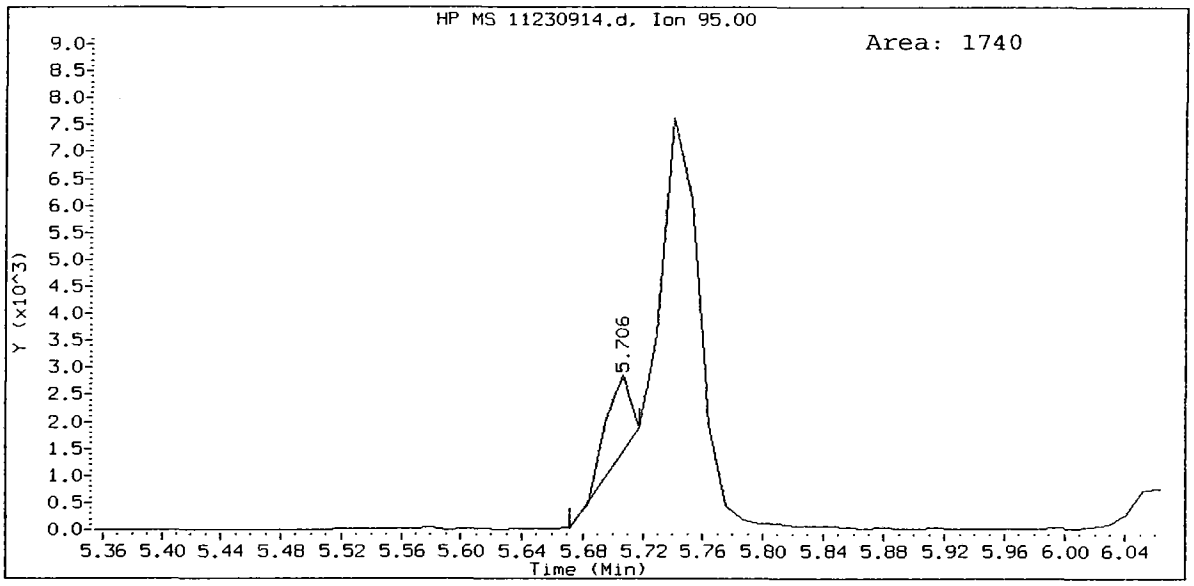
Trichloroethene Amount: 25.51





Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/23nov2009.b/11230915.d
Lab Smp Id: 00501123
Inj Date : 23-NOV-2009 17:53
Operator : PC Inst ID: nt7.i
Smp Info : 00501123,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/23nov2009.b/sim112309.m
Meth Date : 21-Dec-2009 10:15 paul Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	1.550	1.550	(0.292)	10980	50.0000	61.290
2 1,1-Dichloroethene	96	2.509	2.511	(0.472)	9981	50.0000	60.040
175 Trans-1,2-Dichloroethene	96	3.288	3.289	(0.619)	10643	50.0000	61.547
3 cis-1,2-dichloroethene	96	4.441	4.442	(0.835)	10754	50.0000	59.625
6 Benzene	78	5.204	5.205	(0.906)	44228	50.0000	61.636
4 Pentafluorobenzene	168	5.315	5.316	(1.000)	366704	1000.00	
5 d4-1,2-Dichloroethane	65	5.323	5.324	(1.001)	150197	1000.00	1067.3
8 Trichloroethene	130	5.708	5.708	(0.994)	10991	50.0000	55.611(M)
7 1,4-Difluorobenzene	114	5.742	5.742	(1.000)	519359	1000.00	
9 d8-Toluene	98	6.902	6.902	(1.202)	583574	1000.00	1002.2
10 Tetrachloroethene	166	7.259	7.259	(1.264)	11611	50.0000	58.519
11 1,1,2,2-Tetrachloroethane	83	9.457	9.446	(1.647)	5170	50.0000	52.323

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: 11230915.d
Lab Smp Id: 00501123
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/23nov2009.b/sim112309.m
Misc Info: 09-

Calibration Date: 23-NOV-2009
Calibration Time: 20:39

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	366704	-5.91
7 1,4-Difluorobenze	553230	276615	1106460	519359	-6.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.31	-0.03
7 1,4-Difluorobenze	5.74	5.24	6.24	5.74	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.

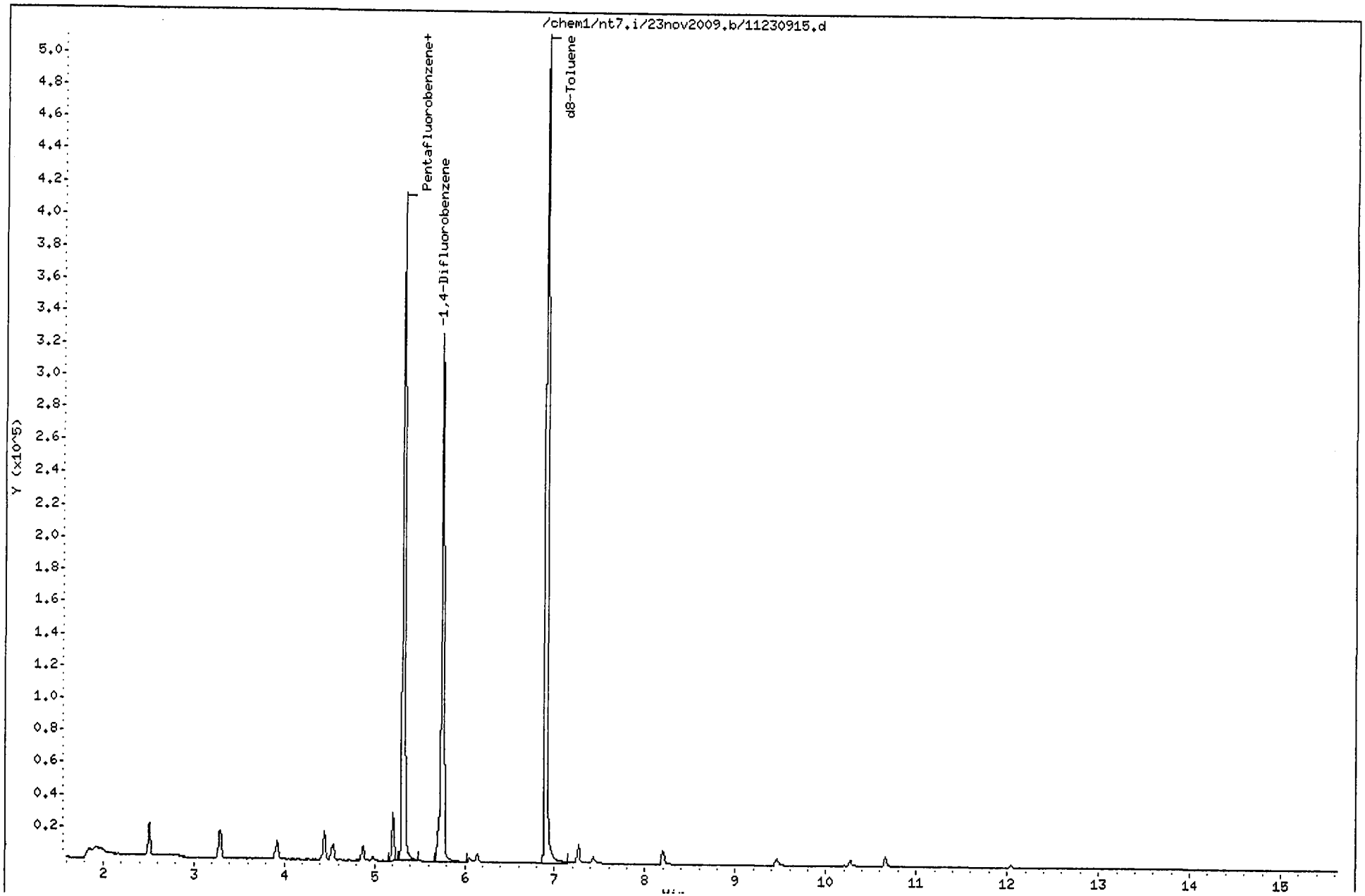
Data File: /chem1/nt7.i/23nov2009.b/11230915.d
Date : 23-NOV-2009 17:53
Client ID:
Sample Info: 00501123,10,10,0

Column phase: RTXVMS

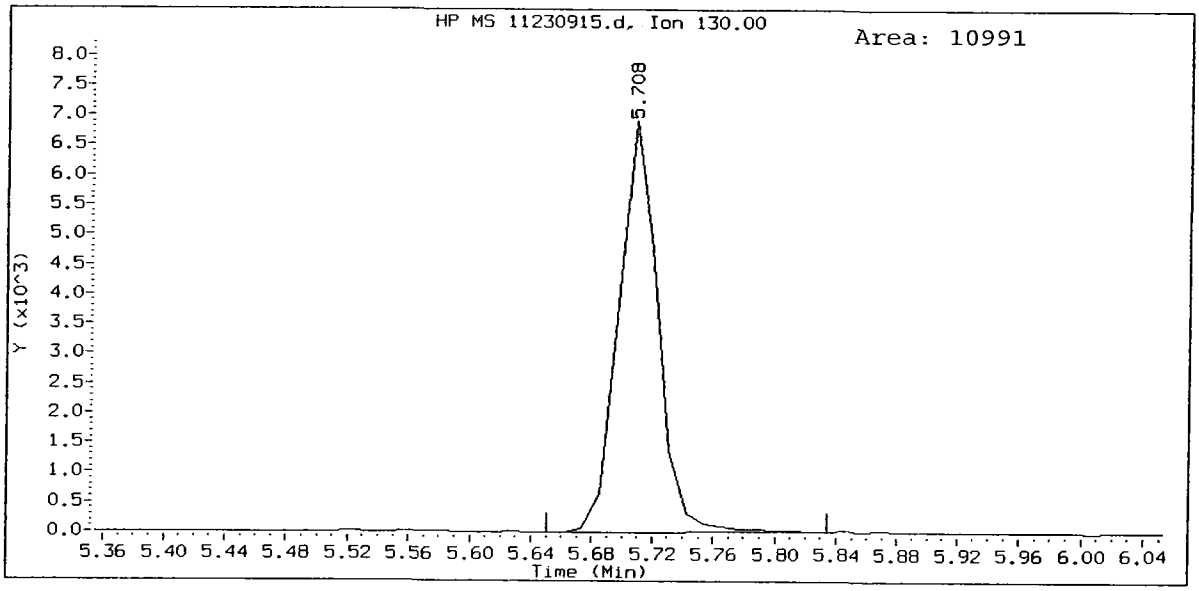
Instrument: nt7.i

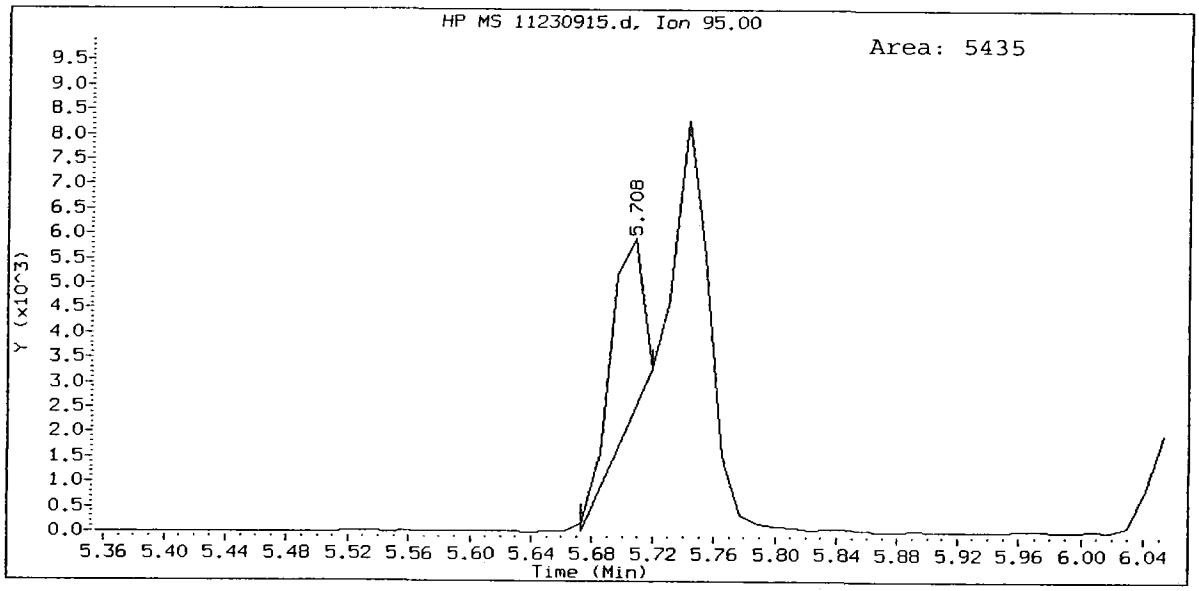
Operator: PC
Column diameter: 0.18

QD62:00352



00501123, /chem1/nt7.i/23nov2009.b/11230915.d
Trichloroethene Amount: 55.61





PC Mulder

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/23nov2009.b/11230916.d
Lab Smp Id: 01001123
Inj Date : 23-NOV-2009 18:20
Operator : PC Inst ID: nt7.i
Smp Info : 01001123,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/23nov2009.b/sim112309.m
Meth Date : 21-Dec-2009 10:15 paul Quant Type: ISTD
Cal Date : 23-NOV-2009 18:20 Cal File: 11230916.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	1.551	1.550	(0.292)	14083	100.000	78.884(M)
2 1,1-Dichloroethene	96	2.502	2.511	(0.471)	13808	100.000	83.349
175 Trans-1,2-Dichloroethene	96	3.289	3.289	(0.619)	14423	100.000	83.695
3 cis-1,2-dichloroethene	96	4.442	4.442	(0.836)	14997	100.000	83.438
6 Benzene	78	5.205	5.205	(0.906)	60577	100.000	82.982
4 Pentafluorobenzene	168	5.316	5.316	(1.000)	365438	1000.00	
5 d4-1,2-Dichloroethane	65	5.324	5.324	(1.001)	152562	1000.00	1087.9
8 Trichloroethene	130	5.708	5.708	(0.994)	17174	100.000	81.504
7 1,4-Difluorobenzene	114	5.742	5.742	(1.000)	528357	1000.00	
9 d8-Toluene	98	6.901	6.902	(1.202)	595928	1000.00	1006.0
10 Tetrachloroethene	166	7.258	7.259	(1.264)	16588	100.000	82.180
11 1,1,2,2-Tetrachloroethane	83	9.457	9.446	(1.647)	7757	100.000	77.167

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: 11230916.d
Lab Smp Id: 01001123
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/23nov2009.b/sim112309.m
Misc Info: 09-

Calibration Date: 23-NOV-2009
Calibration Time: 20:39

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	365438	-6.23
7 1,4-Difluorobenze	553230	276615	1106460	528357	-4.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.74	5.24	6.24	5.74	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.

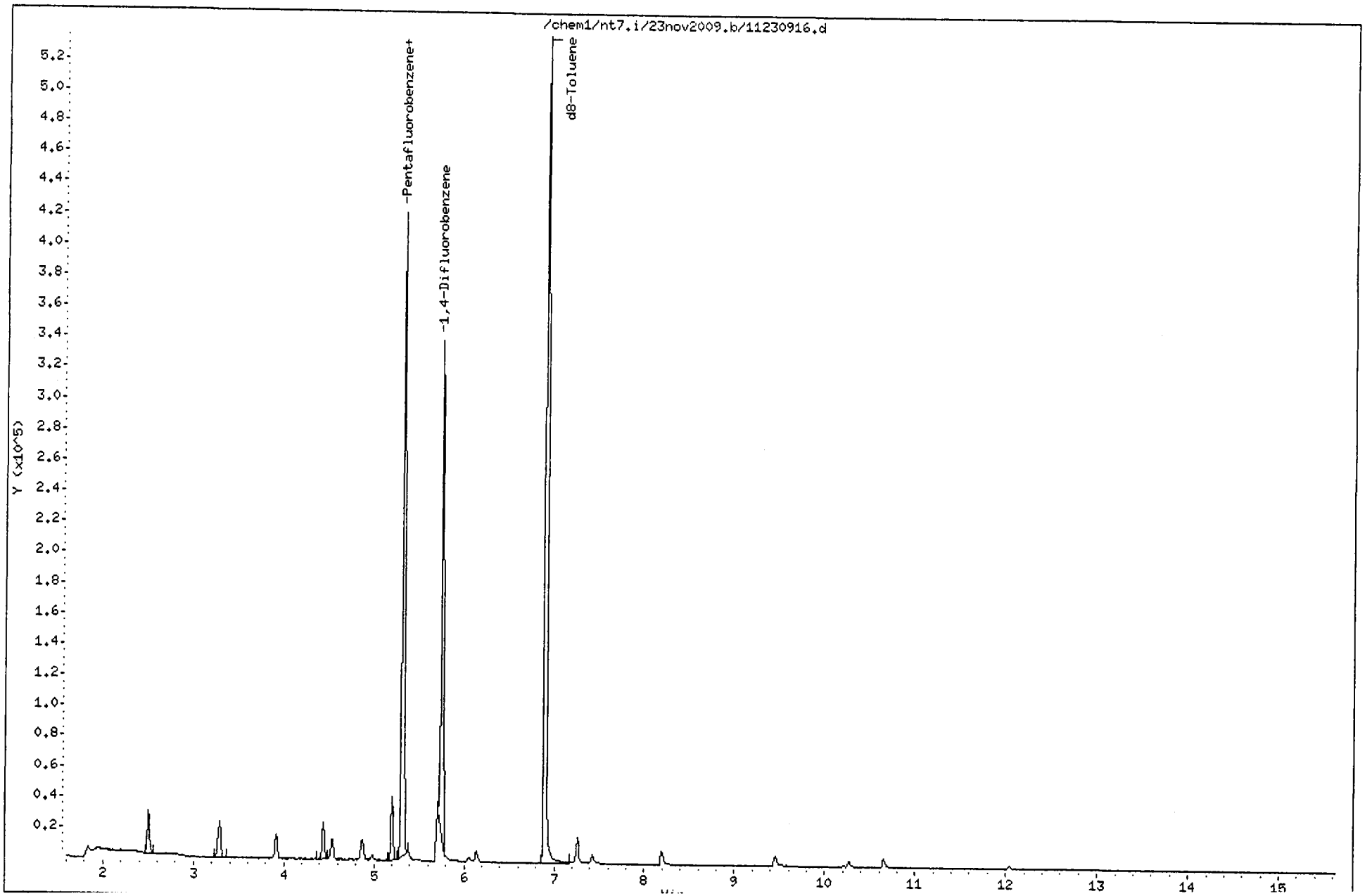
Data File: /chem1/nt7.i/23nov2009.b/11230916.d
Date : 23-NOV-2009 18:20
Client ID:
Sample Info: 01001123,10,10,0

Column phase: RTXVMS

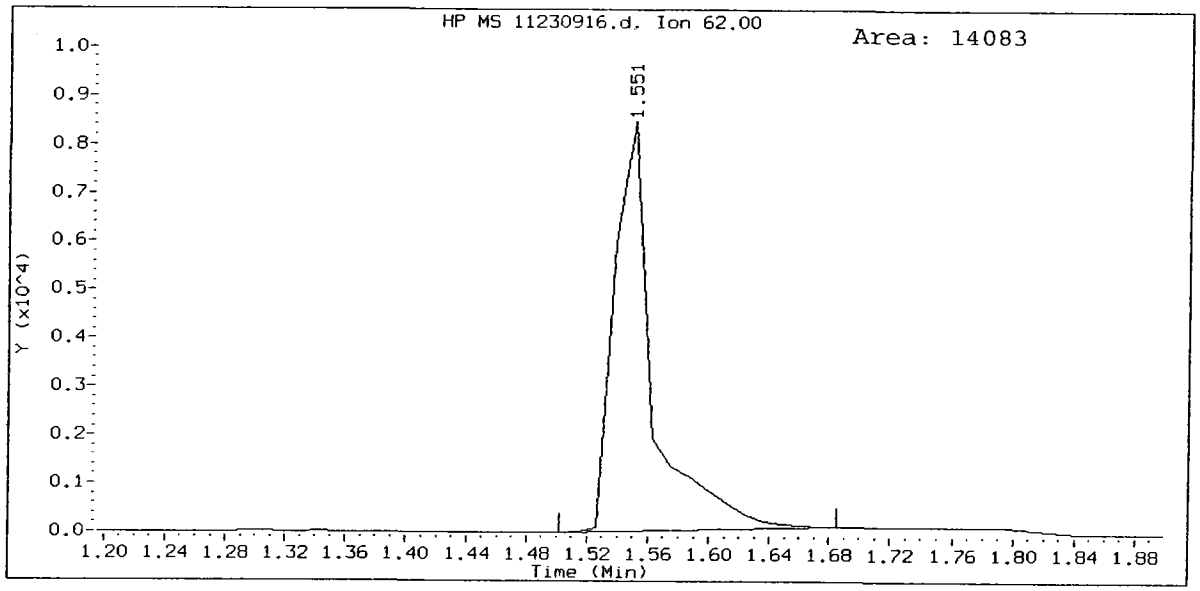
Instrument: nt7.i

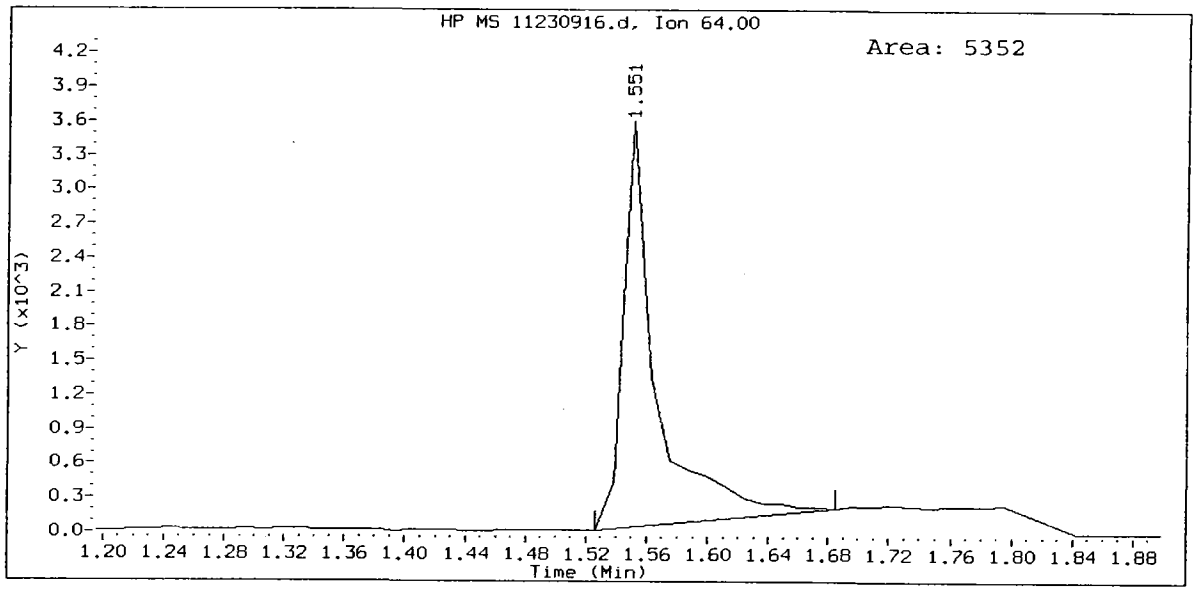
Operator: PC
Column diameter: 0.18

QDS2 : 00357



01001123, /chem1/nt7.i/23nov2009.b/11230916.d
Vinyl Chloride Amount: 78.88





Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/23nov2009.b/11230917.d
Lab Smp Id: 05001123
Inj Date : 23-NOV-2009 18:48
Operator : PC Inst ID: nt7.i
Smp Info : 05001123,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/23nov2009.b/sim112309.m
Meth Date : 21-Dec-2009 10:15 paul Quant Type: ISTD
Cal Date : 23-NOV-2009 18:48 Cal File: 11230917.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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

	ompounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/L)	ON-COL (ng/L)
1	Vinyl Chloride	62	1.550	1.550	(0.292)	97430	500.000	445.56
2	1,1-Dichloroethene	96	2.509	2.511	(0.472)	78615	500.000	348.17
175	Trans-1,2-Dichloroethene	96	3.288	3.289	(0.619)	83518	500.000	360.52
3	cis-1,2-dichloroethene	96	4.441	4.442	(0.836)	85515	500.000	355.00
6	Benzene	78	5.204	5.205	(0.905)	342536	500.000	358.18
4	Pentafluorobenzene	168	5.315	5.316	(1.000)	381756	1000.00	
5	d4-1,2-Dichloroethane	65	5.323	5.324	(1.001)	143880	1000.00	1006.2
8	Trichloroethene	130	5.707	5.708	(0.992)	96259	500.000	340.47
7	1,4-Difluorobenzene	114	5.753	5.742	(1.000)	546077	1000.00	
9	d8-Toluene	98	6.903	6.902	(1.200)	612960	1000.00	1002.9
10	Tetrachloroethene	166	7.260	7.259	(1.262)	96367	500.000	351.17
11	1,1,2,2-Tetrachloroethane	83	9.447	9.446	(1.642)	47765	500.000	338.34

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 11230917.d
Lab Smp Id: 05001123
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/23nov2009.b/sim112309.m
Misc Info: 09-

Calibration Date: 23-NOV-2009
Calibration Time: 20:39

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	381756	-2.05
7 1,4-Difluorobenze	553230	276615	1106460	546077	-1.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.02
7 1,4-Difluorobenze	5.74	5.24	6.24	5.75	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.

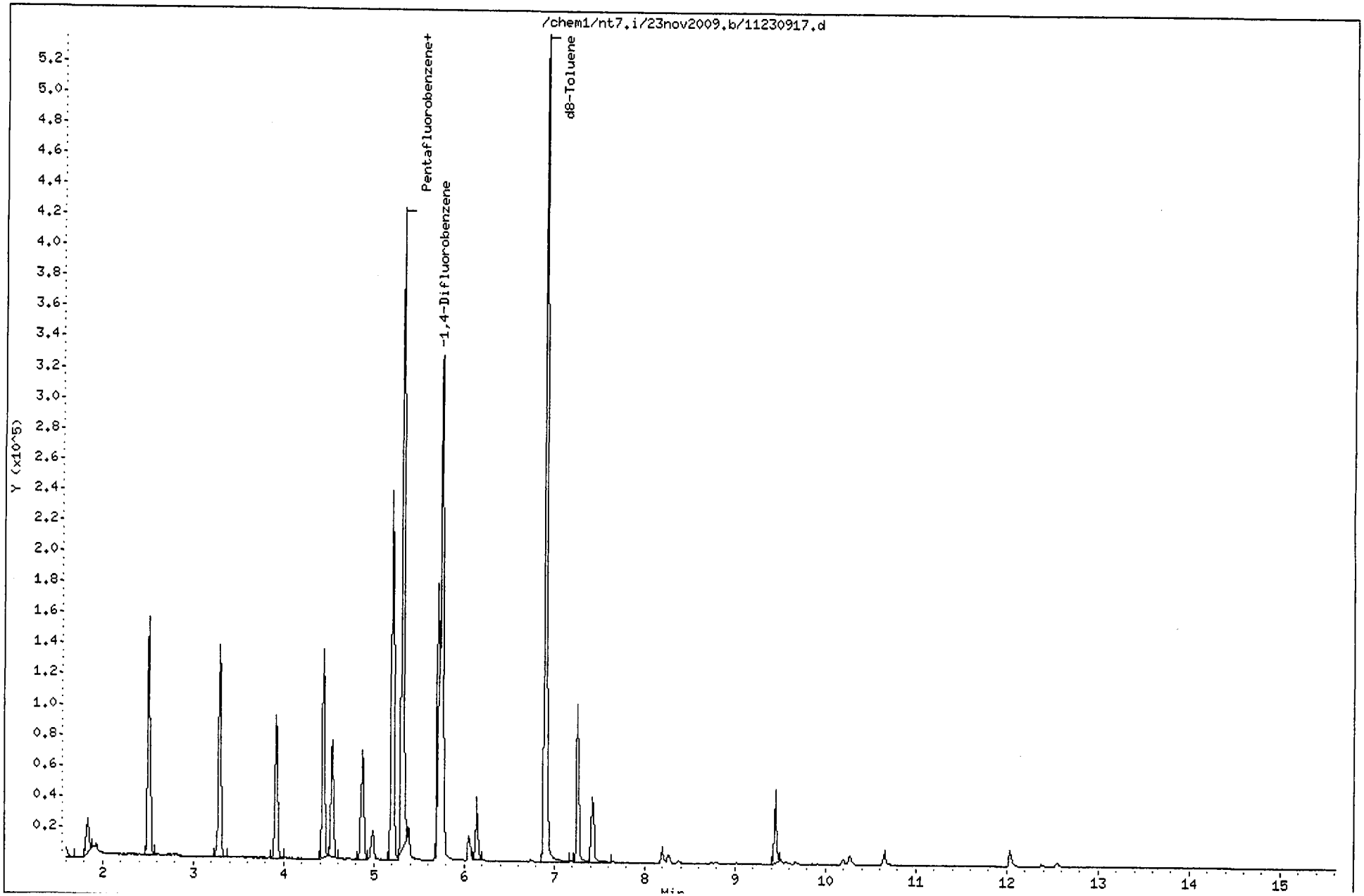
Data File: /chem1/nt7.i/23nov2009.b/11230917.d
Date : 23-NOV-2009 18:48
Client ID:
Sample Info: 05001123,10,10,0

Column phase: RTXVMS

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

QD62:00361



PC 12/11/09

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/23nov2009.b/11230918.d
Lab Smp Id: 10001123
Inj Date : 23-NOV-2009 19:16
Operator : PC Inst ID: nt7.i
Smp Info : 10001123,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/23nov2009.b/sim112309.m
Meth Date : 21-Dec-2009 10:15 paul Quant Type: ISTD
Cal Date : 23-NOV-2009 19:16 Cal File: 11230918.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	1.549	1.550	(0.291)	171853	1000.00	992.28
2	1,1-Dichloroethene	96	2.509	2.511	(0.472)	156135	1000.00	890.64
175	Trans-1,2-Dichloroethene	96	3.288	3.289	(0.619)	166171	1000.00	905.80
3	cis-1,2-dichloroethene	96	4.440	4.442	(0.835)	170551	1000.00	892.50
6	Benzene	78	5.203	5.205	(0.906)	679355	1000.00	890.30
4	Pentafluorobenzene	168	5.315	5.316	(1.000)	389727	1000.00	
5	d4-1,2-Dichloroethane	65	5.323	5.324	(1.001)	143952	1000.00	974.90
8	Trichloroethene	130	5.708	5.708	(0.994)	189725	1000.00	851.98
7	1,4-Difluorobenzene	114	5.742	5.742	(1.000)	553230	1000.00	
9	d8-Toluene	98	6.891	6.902	(1.200)	624026	1000.00	1004.6
10	Tetrachloroethene	166	7.259	7.259	(1.264)	190982	1000.00	893.04
11	1,1,2,2-Tetrachloroethane	83	9.446	9.446	(1.645)	100544	1000.00	936.58

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 11230918.d
Lab Smp Id: 10001123
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/23nov2009.b/sim112309.m
Misc Info: 09-

Calibration Date: 23-NOV-2009
Calibration Time: 20:39

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	389727	0.00
7 1,4-Difluorobenze	553230	276615	1106460	553230	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.31	-0.03
7 1,4-Difluorobenze	5.74	5.24	6.24	5.74	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.

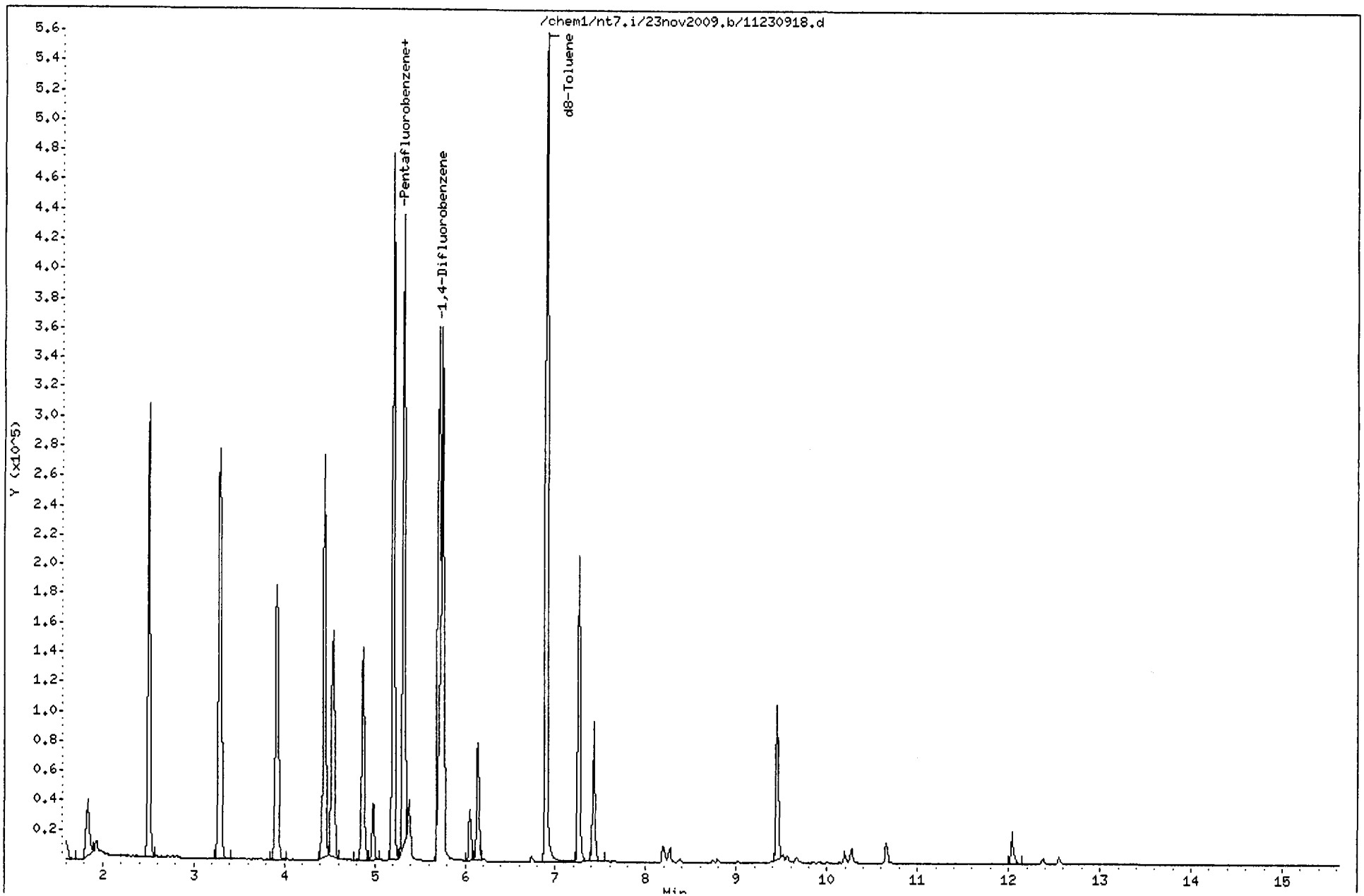
Data File: /chem1/nt7.i/23nov2009.b/11230918.d
Date : 23-NOV-2009 19:16
Client ID:
Sample Info: 10001123,10,10,0

Column phase: RTXVMS

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

QD62 : 00364



PC 12/21/09

Data File: /chem1/nt7.i/23nov2009.b/11230919.d
Report Date: 21-Dec-2009 10:18

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/23nov2009.b/11230919.d
Lab Smp Id: 20001123
Inj Date : 23-NOV-2009 19:43
Operator : PC Inst ID: nt7.i
Smp Info : 20001123,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/23nov2009.b/sim112309.m
Meth Date : 21-Dec-2009 10:15 paul Quant Type: ISTD
Cal Date : 23-NOV-2009 19:43 Cal File: 11230919.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	1.550	1.550	(0.292)	364191	2000.00	2086.8
2 1,1-Dichloroethene	96	2.510	2.511	(0.472)	334171	2000.00	1894.4
175 Trans-1,2-Dichloroethene	96	3.289	3.289	(0.619)	353716	2000.00	1929.9
3 cis-1,2-dichloroethene	96	4.442	4.442	(0.836)	364625	2000.00	1909.0
6 Benzene	78	5.205	5.205	(0.905)	1427090	2000.00	1857.3
4 Pentafluorobenzene	168	5.316	5.316	(1.000)	389109	1000.00	
5 d4-1,2-Dichloroethane	65	5.324	5.324	(1.001)	141779	1000.00	957.64
8 Trichloroethene	130	5.707	5.708	(0.992)	404659	2000.00	1813.2
7 1,4-Difluorobenzene	114	5.753	5.742	(1.000)	556845	1000.00	
9 d8-Toluene	98	6.902	6.902	(1.200)	625126	1000.00	999.24
10 Tetrachloroethene	166	7.259	7.259	(1.262)	405455	2000.00	1896.5
11 1,1,2,2-Tetrachloroethane	83	9.445	9.446	(1.642)	219804	2000.00	2057.8

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 11230919.d
Lab Smp Id: 20001123
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/23nov2009.b/sim112309.m
Misc Info: 09-

Calibration Date: 23-NOV-2009
Calibration Time: 20:39

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	389109	-0.16
7 1,4-Difluorobenze	553230	276615	1106460	556845	0.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.01
7 1,4-Difluorobenze	5.74	5.24	6.24	5.75	0.18

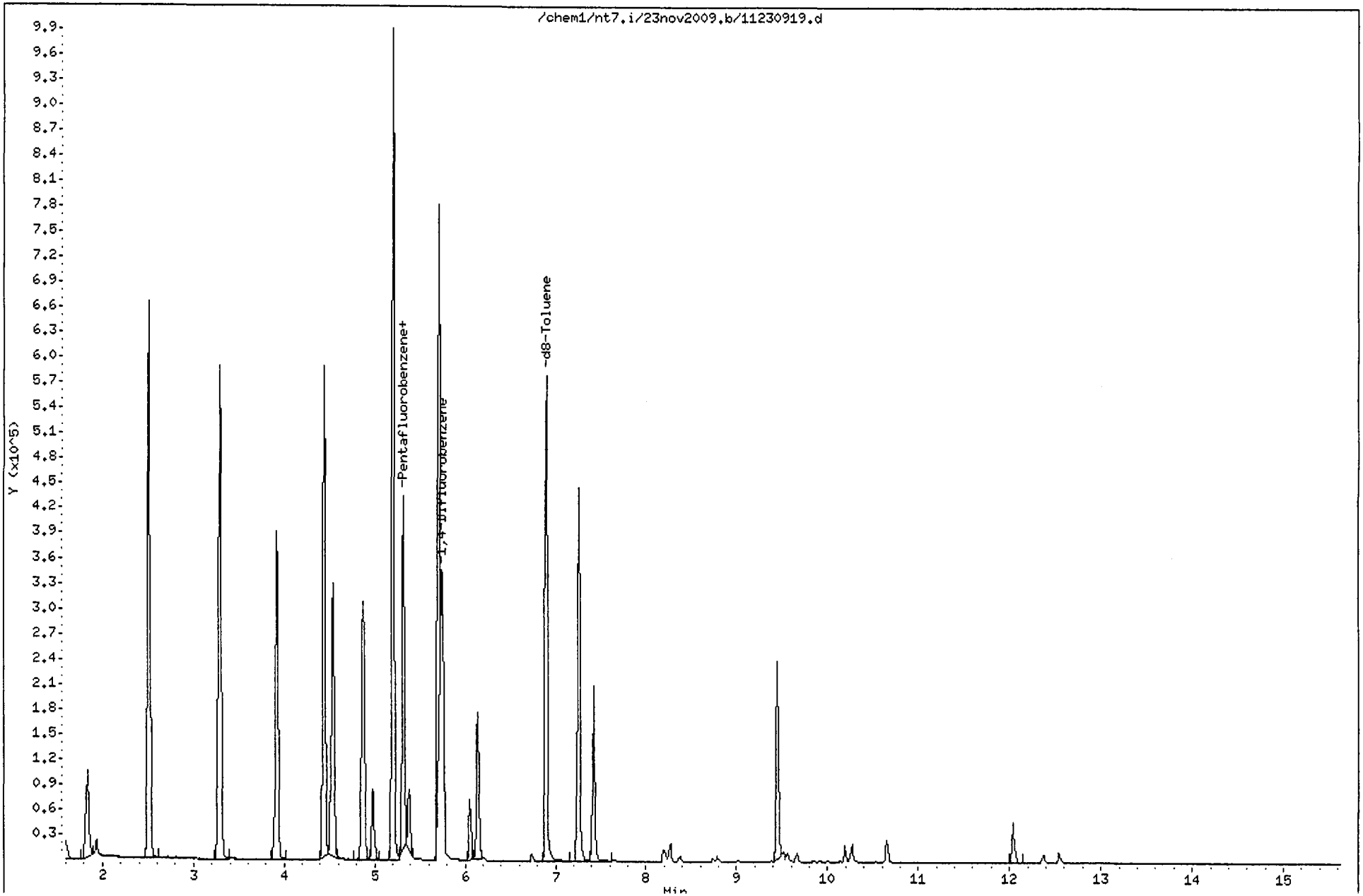
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt7.i/23nov2009.b/11230919.d
Date : 23-NOV-2009 19:43
Client ID:
Sample Info: 20001123,10,10,0

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS



QD62:00357

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/23nov2009.b/11230920.d
Lab Smp Id: 40001123
Inj Date : 23-NOV-2009 20:11
Operator : PC Inst ID: nt7.i
Smp Info : 40001123,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/23nov2009.b/sim112309.m
Meth Date : 21-Dec-2009 10:15 paul Quant Type: ISTD
Cal Date : 23-NOV-2009 20:11 Cal File: 11230920.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	1.550	1.550	(0.292)	719565	4000.00	4097.5
2	1,1-Dichloroethene	96	2.509	2.511	(0.472)	660023	4000.00	3760.6
175	Trans-1,2-Dichloroethene	96	3.288	3.289	(0.619)	702001	4000.00	3845.2
3	cis-1,2-dichloroethene	96	4.441	4.442	(0.836)	729346	4000.00	3830.2
6	Benzene	78	5.204	5.205	(0.906)	2757192	4000.00	3619.9
4	Pentafluorobenzene	168	5.315	5.316	(1.000)	387153	1000.00	
5	d4-1,2-Dichloroethane	65	5.323	5.324	(1.001)	140411	1000.00	945.06
8	Trichloroethene	130	5.707	5.708	(0.994)	795429	4000.00	3617.9
7	1,4-Difluorobenzene	114	5.741	5.742	(1.000)	551283	1000.00	
9	d8-Toluene	98	6.891	6.902	(1.200)	608053	1000.00	983.75
10	Tetrachloroethene	166	7.260	7.259	(1.264)	789430	4000.00	3748.3
11	1,1,2,2-Tetrachloroethane	83	9.447	9.446	(1.645)	449234	4000.00	4283.2

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 11230920.d
Lab Smp Id: 40001123
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/23nov2009.b/sim112309.m
Misc Info: 09-

Calibration Date: 23-NOV-2009
Calibration Time: 20:39

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	387153	-0.66
7 1,4-Difluorobenze	553230	276615	1106460	551283	-0.35

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	-0.02
7 1,4-Difluorobenze	5.74	5.24	6.24	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.

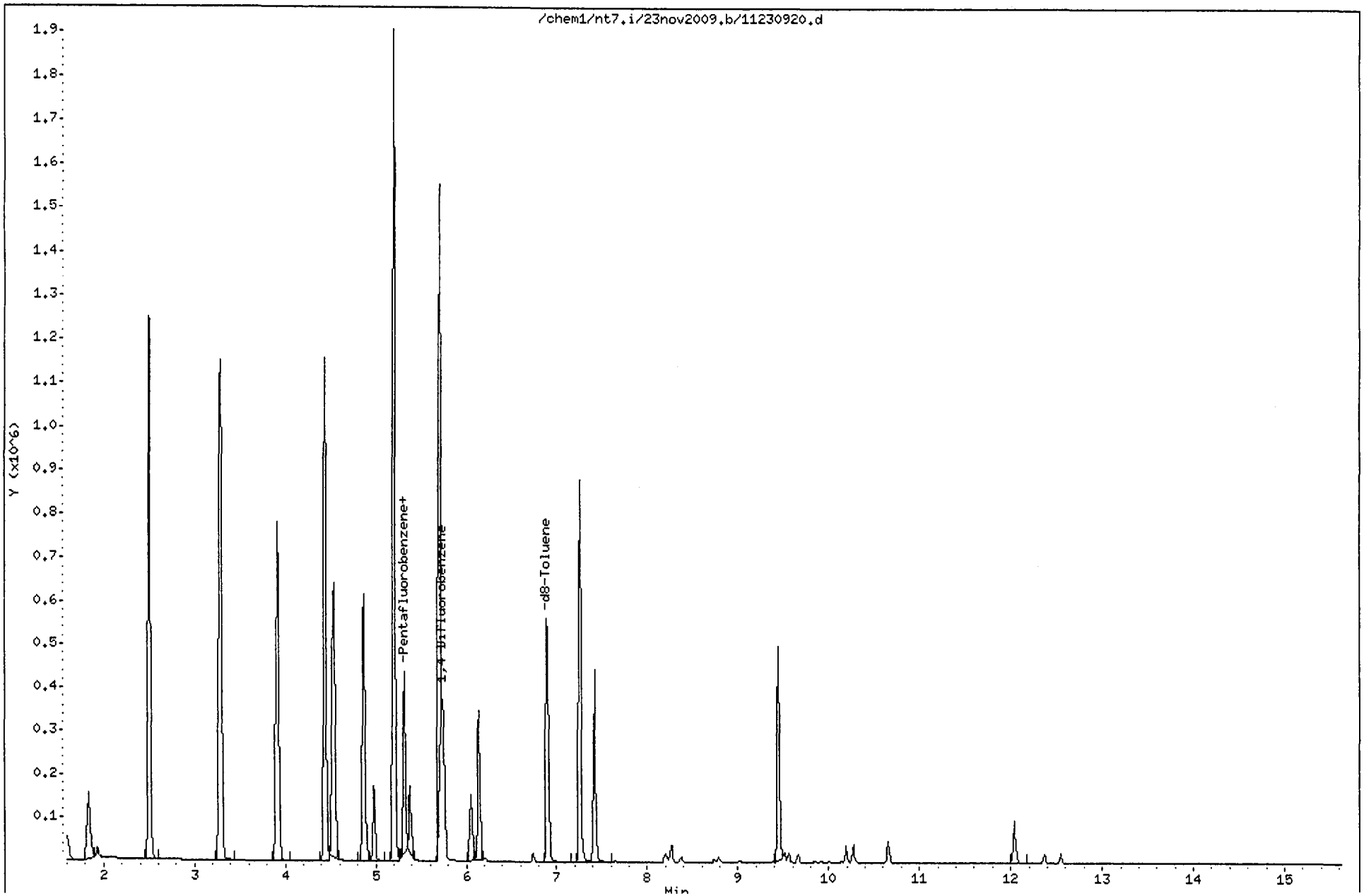
Data File: /chem1/nt7.i/23nov2009.b/11230920.d
Date : 23-NOV-2009 20:11
Client ID:
Sample Info: 40001123,10,10,0

Column phase: RTXVMS

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

QD62:09379



PC 12/21/09

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/23nov2009.b/11230921.d
Lab Smp Id: ICV1123
Inj Date : 23-NOV-2009 20:39
Operator : PC Inst ID: nt7.i
Smp Info : ICV1123,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/23nov2009.b/sim112309.m
Meth Date : 21-Dec-2009 10:15 paul Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	1.550	1.550	(0.292)	133452	1000.00	730.95(M)
2	1,1-Dichloroethene	96	2.511	2.511	(0.472)	139787	1000.00	825.11
175	Trans-1,2-Dichloroethene	96	3.289	3.289	(0.619)	153607	1000.00	871.63
3	cis-1,2-dichloroethene	96	4.442	4.442	(0.836)	163635	1000.00	890.24
6	Benzene	78	5.205	5.205	(0.906)	653261	1000.00	885.49
4	Pentafluorobenzene	168	5.316	5.316	(1.000)	373713	1000.00	
5	d4-1,2-Dichloroethane	65	5.324	5.324	(1.001)	139081	1000.00	969.77
8	Trichloroethene	130	5.708	5.708	(0.994)	182511	1000.00	898.13
7	1,4-Difluorobenzene	114	5.742	5.742	(1.000)	533962	1000.00	
9	d8-Toluene	98	6.902	6.902	(1.202)	603099	1000.00	1007.4
10	Tetrachloroethene	166	7.259	7.259	(1.264)	182053	1000.00	892.45
11	1,1,2,2-Tetrachloroethane	83	9.446	9.446	(1.645)	97595	1000.00	960.69

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: 11230921.d
Lab Smp Id: ICV1123
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/23nov2009.b/sim112309.m
Misc Info: 09-

Calibration Date: 23-NOV-2009
Calibration Time: 19:16

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	373713	-4.11
7 1,4-Difluorobenze	553230	276615	1106460	533962	-3.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.32	4.82	5.82	5.32	0.00
7 1,4-Difluorobenze	5.74	5.24	6.24	5.74	0.00

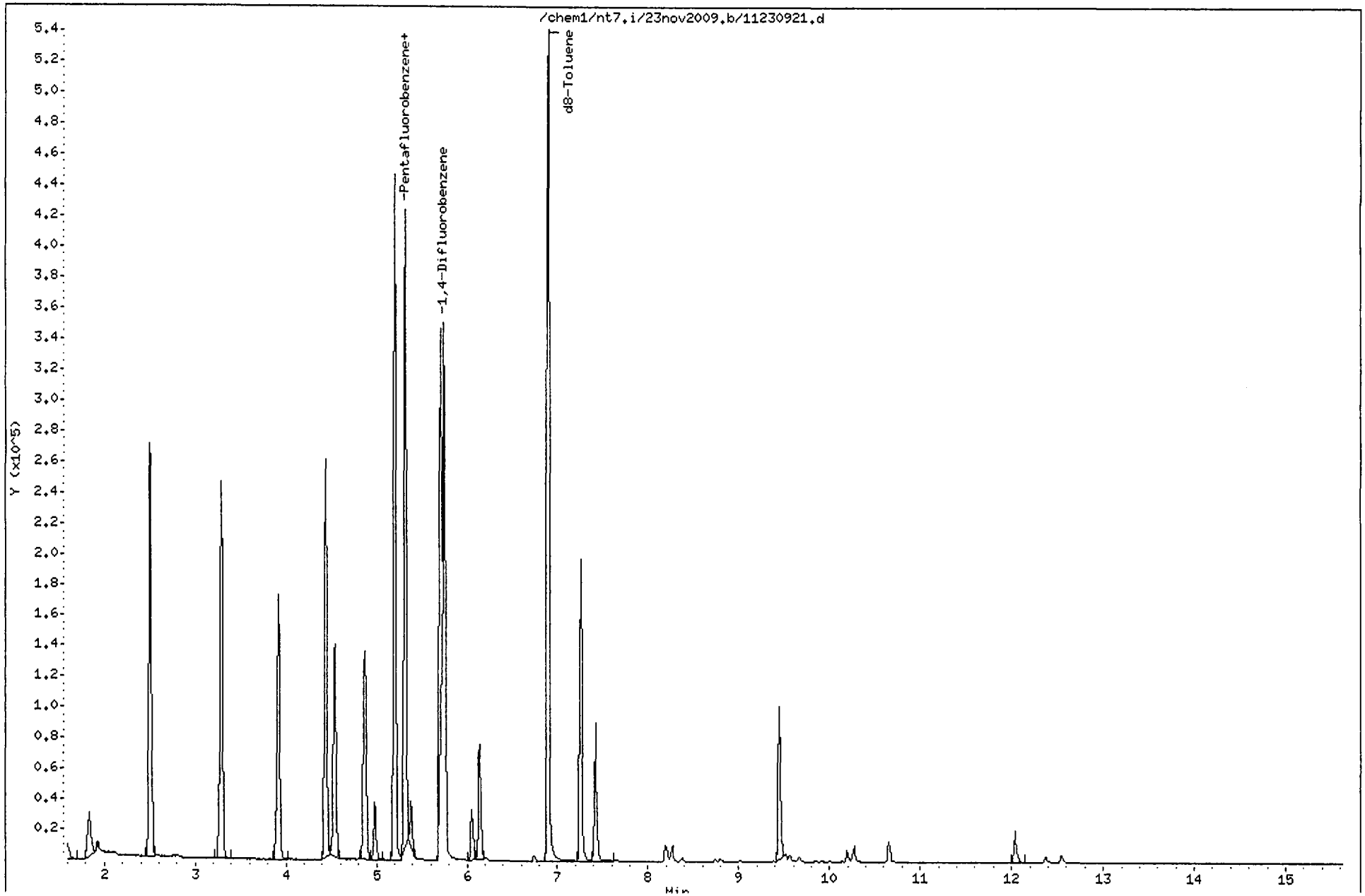
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt7.i/23nov2009.b/11230921.d
Date : 23-NOV-2009 20:39
Client ID:
Sample Info: ICV1123,10,10,0

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS



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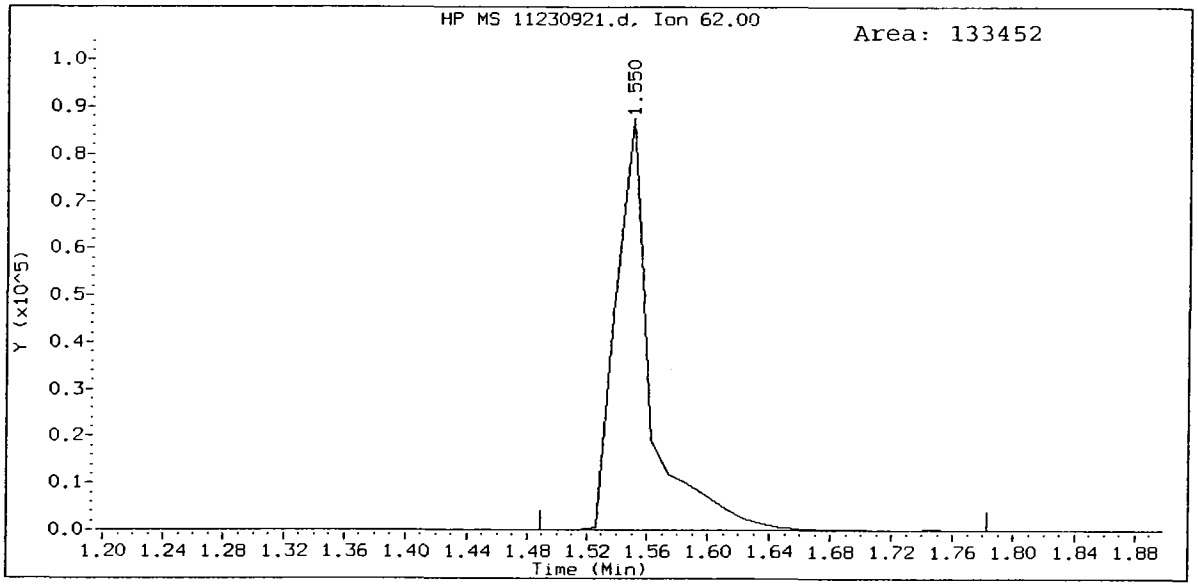
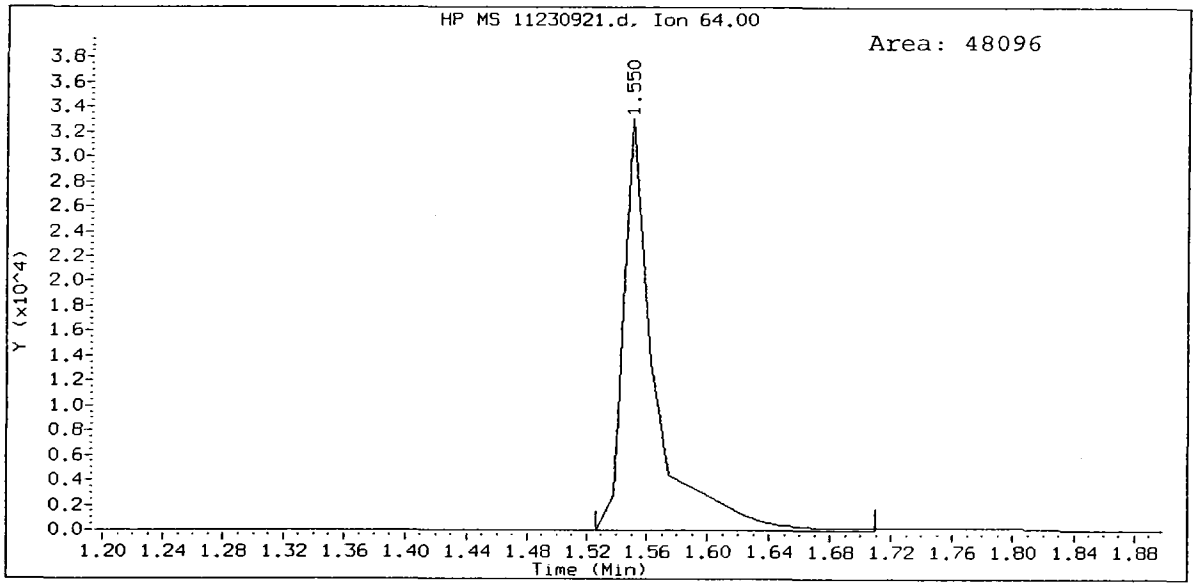
Vinyl Chloride Amount: 730.95





7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QD62 Project: LORA LAKES APARTMENTS

Instrument ID: NT7 Cont. Calib. Date: 01/06/10

Init. Calib. Date: 11/23/09 Cont. Calib. Time: 0902

COMPOUND	CalAmt or ARF	CC Amt 1000	MIN RRF	CURVE TYPE	%D or Drift	
Vinyl Chloride	0.488	0.458	0.010	AVRG	-6.1	
1,1-Dichloroethene	0.449	0.467	0.010	AVRG	4.0	
Trans-1,2-Dichloroethene	0.471	0.474	0.010	AVRG	0.6	
cis-1,2-dichloroethene	0.492	0.481	0.010	AVRG	-2.2	
Benzene	1.381	1.301	0.010	AVRG	-5.8	
Trichloroethene	0.380	0.383	0.010	AVRG	0.8	
Tetrachloroethene	0.382	0.401	0.010	AVRG	5.0	
1,1,2,2-Tetrachloroethane	0.190	0.222	0.300	AVRG	16.8	*
d4-1,2-Dichloroethane	0.384	0.354	0.010	AVRG	-7.8	
d8-Toluene	1.121	1.135	0.010	AVRG	1.2	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

M7 1/7/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/06jan2010.b/01061002.d
Lab Smp Id: CC0106
Inj Date : 06-JAN-2010 09:02
Operator : PKC Inst ID: nt7.i
Smp Info : CC0106,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/06jan2010.b/sim112309.m
Meth Date : 07-Jan-2010 12:06 monicah Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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)	AMOUNTS ON-COL (ng/L)
1	Vinyl Chloride	62	1.551	1.551	(0.292)	183921	1000.00	937.77
2	1,1-Dichloroethene	96	2.518	2.518	(0.474)	187431	1000.00	1038.8
175	Trans-1,2-Dichloroethene	96	3.297	3.297	(0.620)	190305	1000.00	1005.2
3	cis-1,2-dichloroethene	96	4.441	4.441	(0.836)	193144	1000.00	978.17
6	Benzene	78	5.204	5.204	(0.905)	760556	1000.00	941.68
* 4	Pentafluorobenzene	168	5.315	5.315	(1.000)	401456	1000.00	
$ 5	d4-1,2-Dichloroethane	65	5.323	5.323	(1.001)	142011	1000.00	921.77
8	Trichloroethene	130	5.707	5.707	(0.992)	224110	1000.00	1007.4
* 7	1,4-Difluorobenzene	114	5.753	5.753	(1.000)	584563	1000.00	
$ 9	d8-Toluene	98	6.903	6.903	(1.200)	663506	1000.00	1012.4
10	Tetrachloroethene	166	7.260	7.260	(1.262)	234255	1000.00	1049.0
11	1,1,2,2-Tetrachloroethane	83	9.447	9.447	(1.642)	129690	1000.00	1166.1

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 01061002.d
Lab Smp Id: CC0106
Analysis Type: VOA
Quant Type: ISTD
Operator: PKC
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-

Calibration Date: 06-JAN-2010
Calibration Time: 09:02

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	401456	3.01
7 1,4-Difluorobenze	553230	276615	1106460	584563	5.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
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

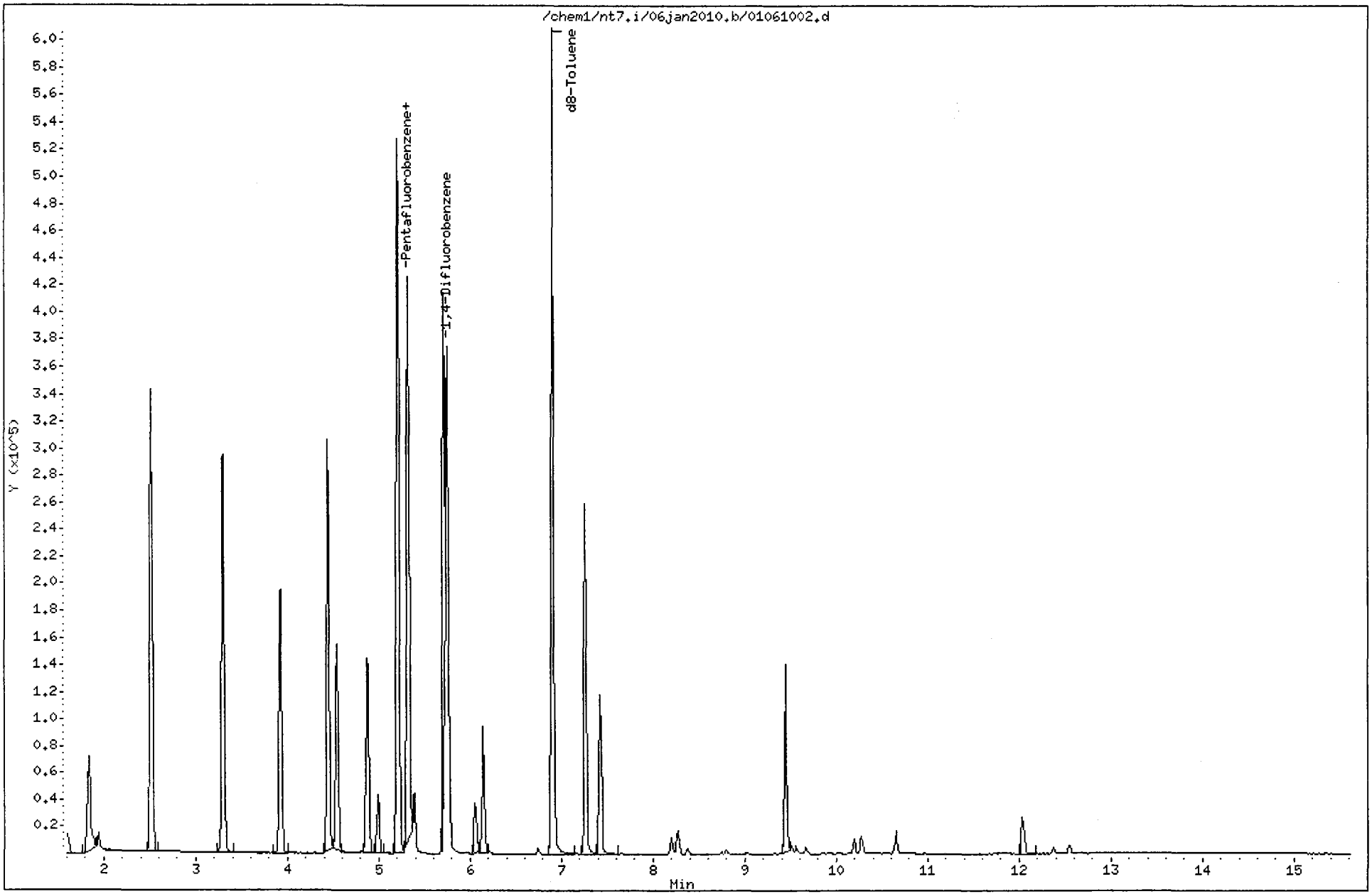
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt7.i/06jan2010.b/01061002.d
Date : 06-JAN-2010 09:02
Client ID:
Sample Info: CC0106,10,10,0

Instrument: nt7.i

Operator: PKC
Column diameter: 0.18

Column phase: RTXVMS



QD62:00379

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt7.i Injection Date: 06-JAN-2010 09:02
Lab File ID: 01061002.d Init. Cal. Date(s): 23-NOV-2009 23-NOV-2009
Analysis Type: WATER Init. Cal. Times: 13:43 20:11
Lab Sample ID: CC0106 Quant Type: ISTD
Method: /chem1/nt7.i/06jan2010.b/sim112309.m

COMPOUND	RRF / AMOUNT	RF1000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Vinyl Chloride	0.48854	0.45813	0.100	-6.22346	20.00000	Averaged
2 1,1-Dichloroethene	0.44946	0.46688	0.100	3.87584	20.00000	Averaged
175 Trans-1,2-Dichloroethene	0.47156	0.47404	0.100	0.52462	20.00000	Averaged
3 cis-1,2-dichloroethene	0.49185	0.48111	0.100	-2.18299	20.00000	Averaged
6 Benzene	1.38164	1.30107	0.100	-5.83153	20.00000	Averaged
$ 5 d4-1,2-Dichloroethane	0.38376	0.35374	0.100	-7.82302	20.00000	Averaged
8 Trichloroethene	0.38057	0.38338	0.100	0.73758	20.00000	Averaged
$ 9 d8-Toluene	1.12120	1.13505	0.100	1.23528	20.00000	Averaged
10 Tetrachloroethene	0.38203	0.40074	0.100	4.89530	20.00000	Averaged
11 1,1,2,2-Tetrachloroethane	0.19025	0.22186	0.100	16.61203	20.00000	Averaged

SIM Volatile Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Data File: /chem1/nt7.i/23nov2009.b/11230905.d

Date : 23-NOV-2009 12:51

Client ID: BFB1123

Instrument: nt7.i

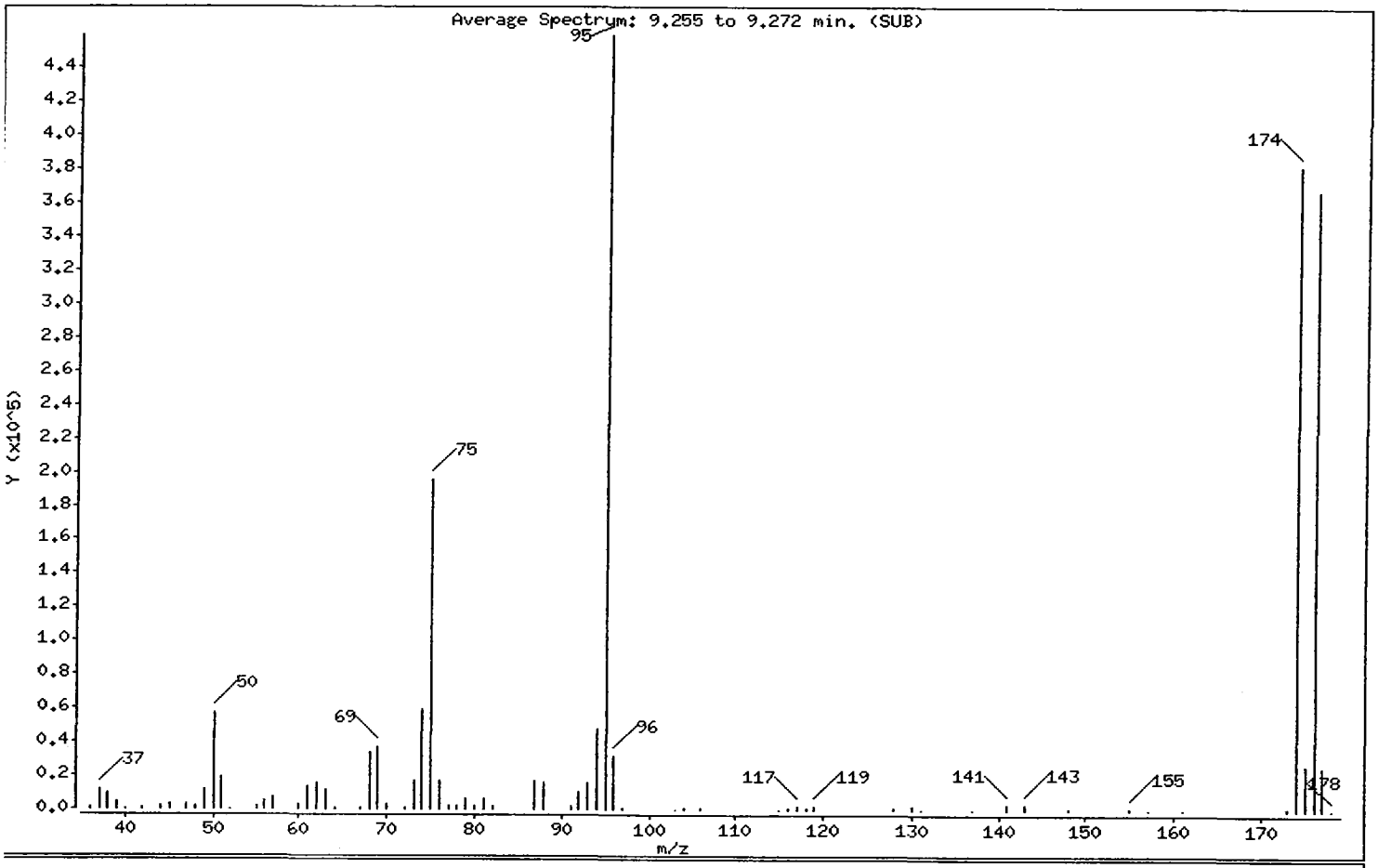
Sample Info: BFB1123,BFB1123,5,0

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	12.44
75	30.00 - 66.00% of mass 95	42.57
96	5.00 - 9.00% of mass 95	6.93
173	Less than 2.00% of mass 174	0.33 (0.40)
174	50.00 - 101.00% of mass 95	83.29
175	4.00 - 9.00% of mass 174	5.77 (6.93)
176	93.00 - 101.00% of mass 174	80.06 (96.12)
177	5.00 - 9.00% of mass 176	5.51 (6.88)

Data File: /chem1/nt7.i/23nov2009.b/11230905.d

Date : 23-NOV-2009 12:51

Client ID: BFB1123

Instrument: nt7.i

Sample Info: BFB1123,BFB1123,5,0

Operator: MH

Column phase: RTX502.2

Column diameter: 0.18

Data File: 11230905.d

Spectrum: Average Spectrum: 9.255 to 9.272 min. (SUB)

Location of Maximum: 95.00

Number of points: 70

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1500	61.00	13591	82.00	1666	128.00	1390
37.00	11145	62.00	15412	87.00	16672	130.00	1602
38.00	9717	63.00	11139	88.00	15688	131.00	296
39.00	4385	64.00	1390	91.00	1753	137.00	348
40.00	199	67.00	1091	92.00	10667	141.00	3646
42.00	561	68.00	34128	93.00	16034	143.00	3305
44.00	1684	69.00	37104	94.00	47080	148.00	573
45.00	2787	70.00	3335	95.00	459328	155.00	1251
47.00	3572	72.00	1467	96.00	31808	157.00	264
48.00	2195	73.00	16496	97.00	1153	161.00	266
49.00	11543	74.00	59584	103.00	410	173.00	1524
50.00	57128	75.00	195520	104.00	1135	174.00	382592
51.00	18680	76.00	16592	106.00	1133	175.00	26504
52.00	293	77.00	2559	115.00	262	176.00	367744
55.00	1775	78.00	2046	116.00	1258	177.00	25304
56.00	4769	79.00	5939	117.00	2450	178.00	265
57.00	7896	80.00	2058	118.00	715		
60.00	3130	81.00	6738	119.00	2186		

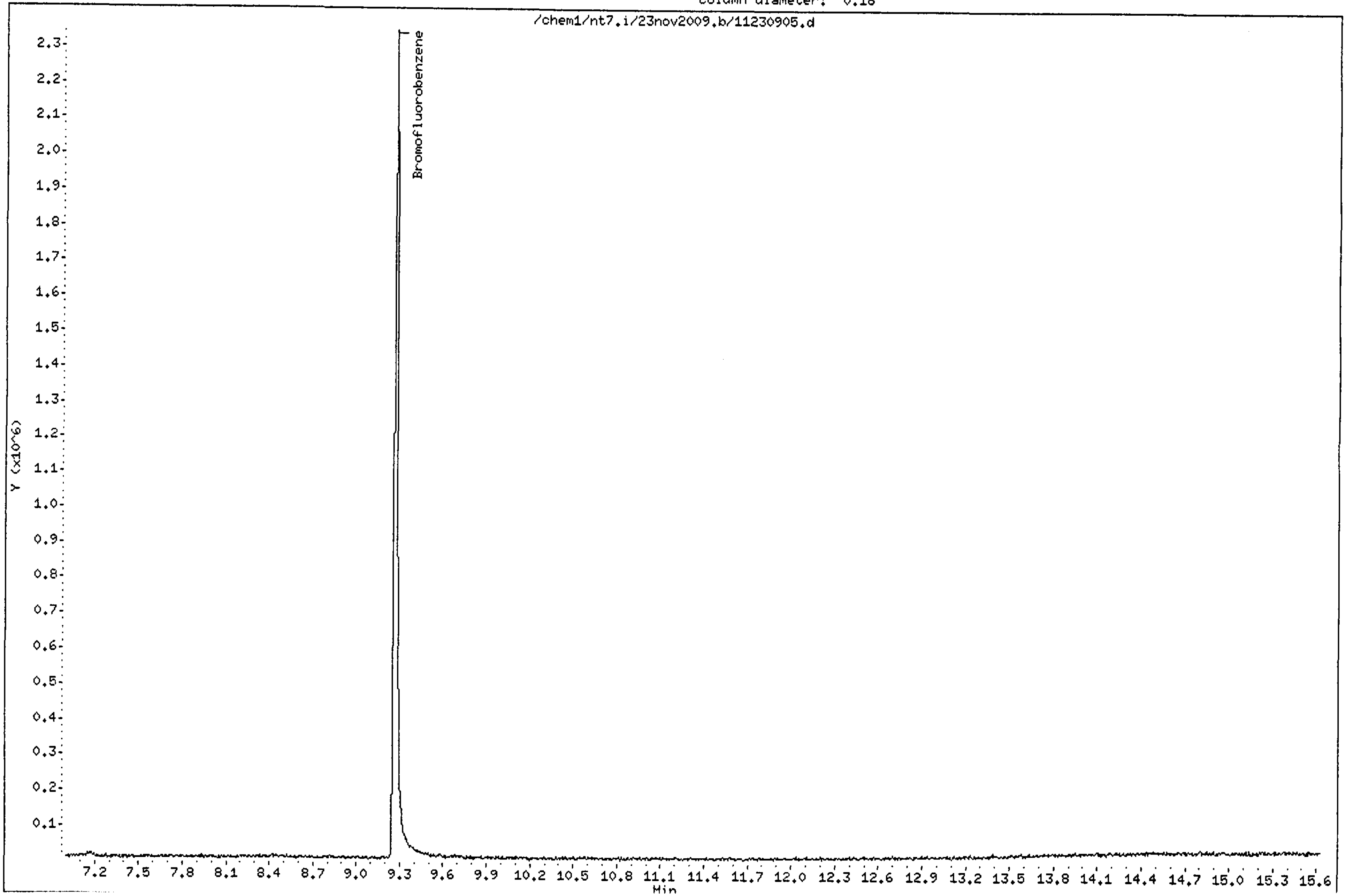
Data File: /chem1/nt7.i/23nov2009.b/11230905.d
Date : 23-NOV-2009 12:51
Client ID: BFB1123
Sample Info: BFB1123,BFB1123,5,0

Column phase: RTX502.2

Instrument: nt7.i

Operator: MH

Column diameter: 0.18



Data File: /chem1/nt7.i/06jan2010.b/01061001.d

Date : 06-JAN-2010 08:24

Client ID: BFB0106

Instrument: nt7.i

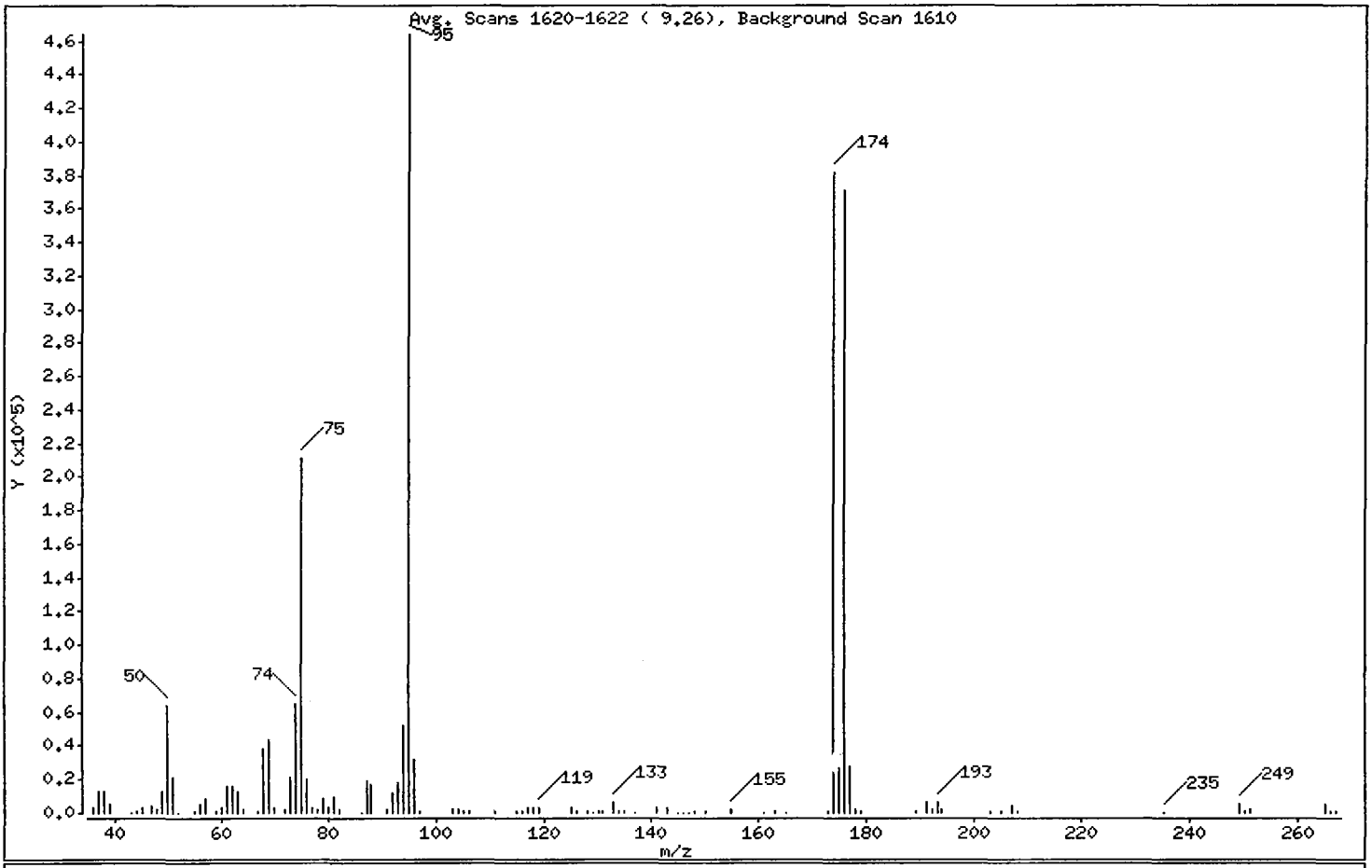
Sample Info: BFB0106,BFB0106,5,0

Operator: PKC

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	13.69
75	30.00 - 66.00% of mass 95	45.43
96	5.00 - 9.00% of mass 95	6.94
173	Less than 2.00% of mass 174	0.28 (0.34)
174	50.00 - 101.00% of mass 95	82.40
175	4.00 - 9.00% of mass 174	5.72 (6.94)
176	93.00 - 101.00% of mass 174	79.99 (97.07)
177	5.00 - 9.00% of mass 176	5.86 (7.33)

Date : 06-JAN-2010 08:24

Client ID: BFB0106 Instrument: nt7.i

Sample Info: BFB0106,BFB0106,5,0

Operator: PKC

Column phase: RTX502.2 Column diameter: 0.18

Data File: 01061001.d

Spectrum: Avg. Scans 1620-1622 (9.26), Background Scan 1610

Location of Maximum: 95.00

Number of points: 101

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3006	72.00	2068	115.00	549	173.00	1305
37.00	12650	73.00	21384	116.00	1525	174.00	382144
38.00	13007	74.00	65368	117.00	3183	175.00	26504
39.00	5363	75.00	210688	118.00	3016	176.00	370944
43.00	449	76.00	20256	119.00	3300	177.00	27192
44.00	724	77.00	3627	125.00	2937	178.00	1630
45.00	3585	78.00	2083	126.00	805	179.00	1446
47.00	3855	79.00	8793	128.00	1315	189.00	690
48.00	1737	80.00	2965	129.00	371	191.00	6571
49.00	12488	81.00	9845	130.00	1175	192.00	1794
50.00	63472	82.00	2080	131.00	866	193.00	6606
51.00	20832	86.00	389	133.00	6028	194.00	1839
52.00	405	87.00	18944	134.00	1025	203.00	948
55.00	880	88.00	16992	135.00	1423	205.00	1426
56.00	5492	91.00	1690	137.00	362	207.00	4672
57.00	8809	92.00	11671	141.00	3091	208.00	1086
59.00	818	93.00	17752	143.00	3241	235.00	458
60.00	3237	94.00	52000	145.00	392	249.00	5194
61.00	16282	95.00	463744	146.00	513	250.00	1374
62.00	15785	96.00	32200	147.00	341	251.00	2499
63.00	12443	97.00	1308	148.00	1329	265.00	4956
64.00	2513	103.00	2111	150.00	842	266.00	996
67.00	1028	104.00	2157	155.00	2131	267.00	963
68.00	37888	105.00	1252	161.00	405		
69.00	43648	106.00	1259	163.00	1234		
70.00	3501	111.00	612	165.00	417		

1/7/10

Data File: /chem1/nt7.i/06jan2010.b/01061001.d

Date : 06-JAN-2010 08:24

Client ID: BFB0106

Sample Info: BFB0106,BFB0106,5,0

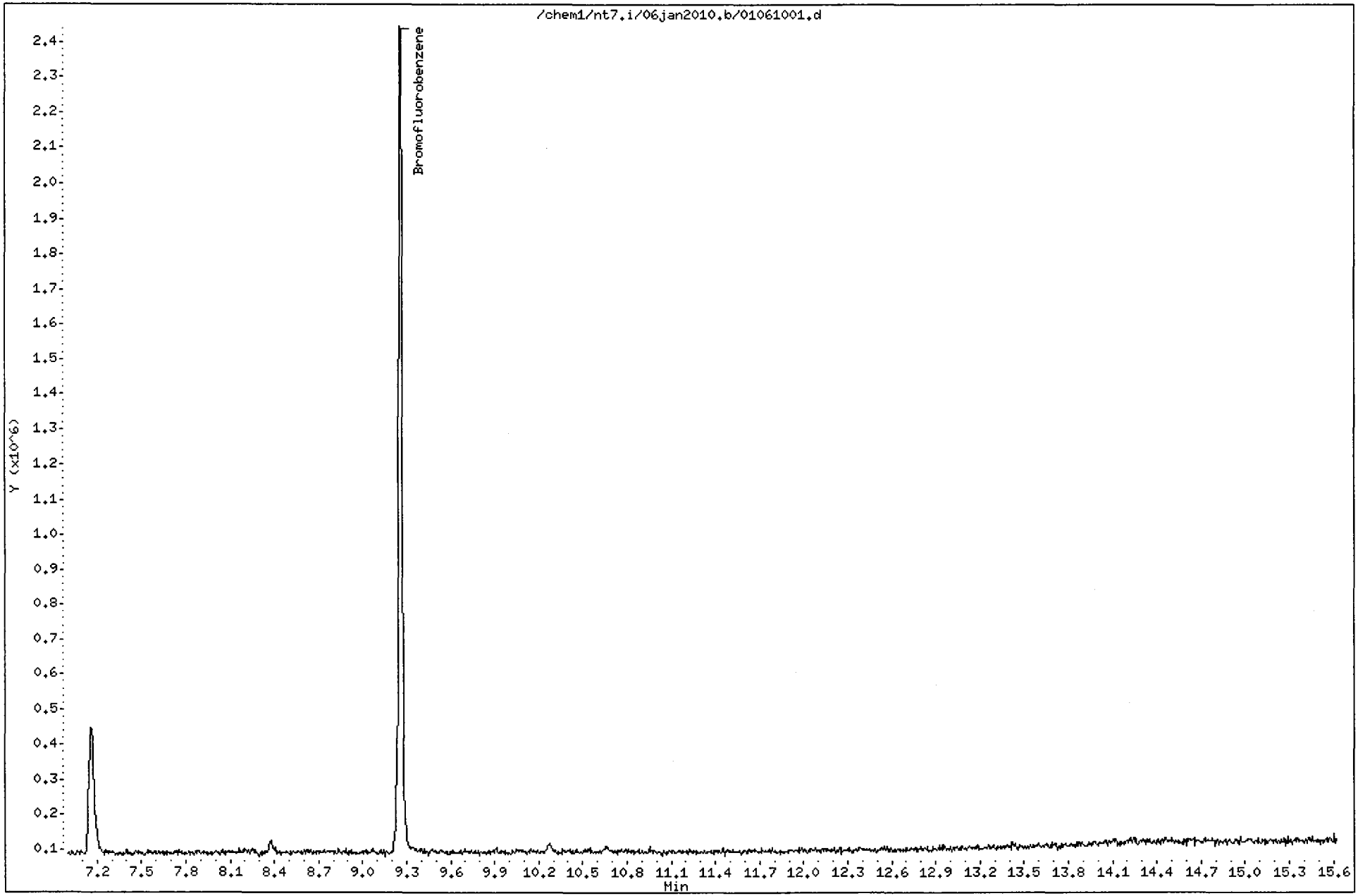
Column phase: RTX502.2

Instrument: nt7.i

Operator: PKC

Column diameter: 0.18

QC62-00387



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C-SIM **Sample ID: MB-010610**
METHOD BLANK

Lab Sample ID: MB-010610
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/11/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/MH
Date Analyzed: 01/06/10 10:38

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
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	100%
d8-Toluene	101%

FORM I

MH 1/7/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/06jan2010.b/01061005.d
Lab Smp Id: MB0106
Inj Date : 06-JAN-2010 10:38
Operator : PKC Inst ID: nt7.i
Smp Info : MB0106,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/06jan2010.b/sim112309.m
Meth Date : 07-Jan-2010 12:06 monicah Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	Compound Not Detected.					
*	4 Pentafluorobenzene	168	5.316	5.315	(1.000)	378600	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.324	5.323	(1.001)	145828	1003.69	1003.7
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.753	5.753	(1.000)	548884	1000.00	
$	9 d8-Toluene	98	6.902	6.903	(1.200)	623011	1012.36	1012.4
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 01061005.d
Lab Smp Id: MB0106
Analysis Type: VOA
Quant Type: ISTD
Operator: PKC
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-

Calibration Date: 06-JAN-2010
Calibration Time: 09:02

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	378600	-2.86
7 1,4-Difluorobenze	553230	276615	1106460	548884	-0.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
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: 06jan2010
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: MB0106
Level: LOW Operator: PKC
Data Type: MS DATA SampleType: BLANK
SpikeList File: sim.spk Quant Type: ISTD
Sublist File: sim.sub
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-

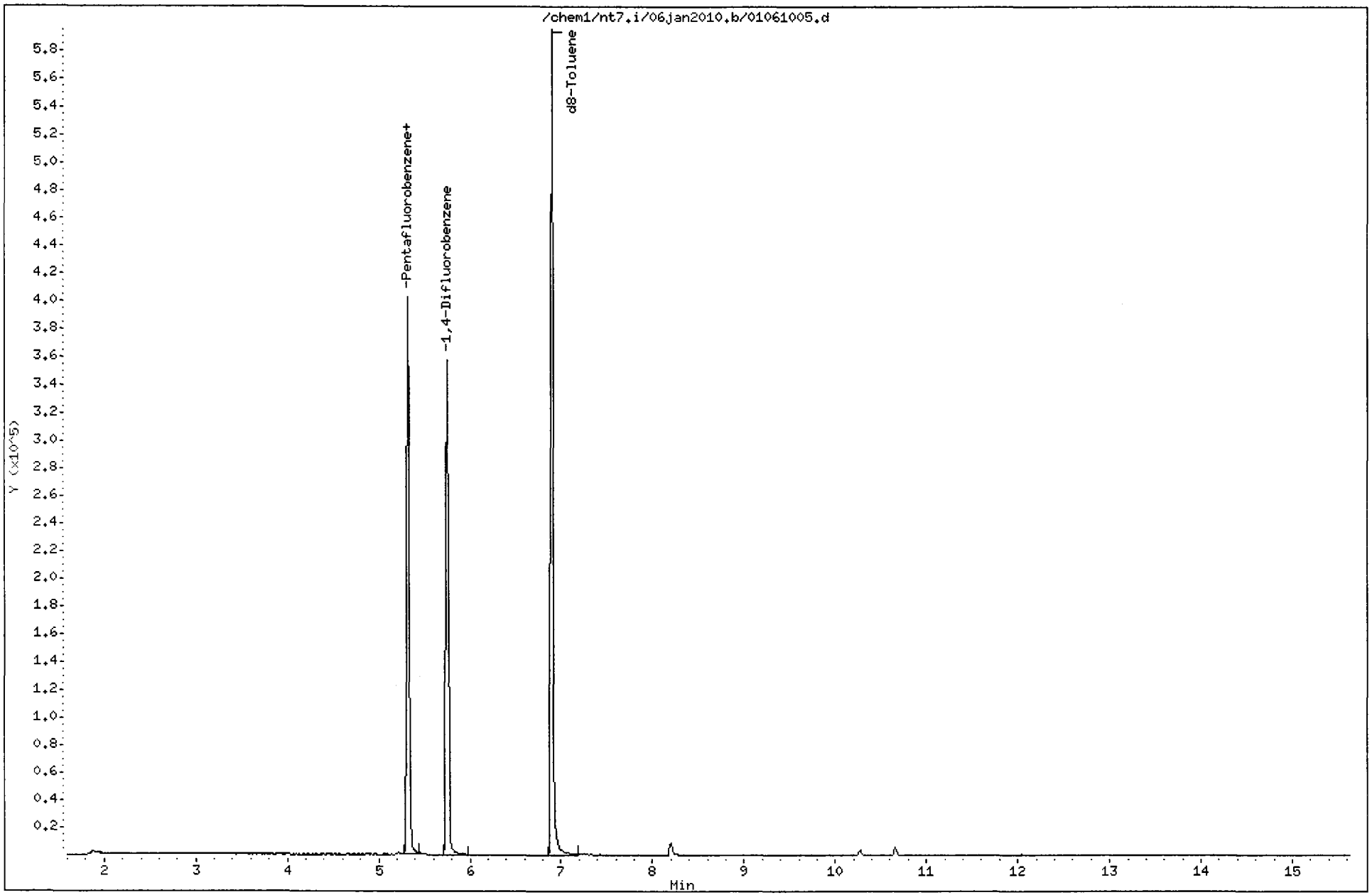
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	1003.7	100.37	80-136
$ 9 d8-Toluene	1000.0	1012.4	101.24	80-120

Data File: /chem1/nt7.i/06jan2010.b/01061005.d
Date : 06-JAN-2010 10:38
Client ID:
Sample Info: MB0106,10,10,0

Instrument: nt7.i

Operator: PKC
Column diameter: 0.18

Column phase: RTXVMS



QD62:00392

MH 1/7/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/06jan2010.b/01061003.d
Lab Smp Id: LCS0106
Inj Date : 06-JAN-2010 09:45
Operator : PKC Inst ID: nt7.i
Smp Info : LCS0106,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/06jan2010.b/sim112309.m
Meth Date : 07-Jan-2010 12:06 monicah Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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)	CONCENTRATIONS FINAL (ug/L)
	1	Vinyl Chloride	62	1.552	1.551	(0.292)	178255	891.788	891.79
	2	1,1-Dichloroethene	96	2.518	2.518	(0.474)	178860	972.618	972.62
	175	Trans-1,2-Dichloroethene	96	3.297	3.297	(0.620)	184526	956.391	956.39
	3	cis-1,2-dichloroethene	96	4.442	4.441	(0.836)	188711	937.747	937.75
	6	Benzene	78	5.205	5.204	(0.905)	740340	908.358	908.36
*	4	Pentafluorobenzene	168	5.316	5.315	(1.000)	409150	1000.00	
$	5	d4-1,2-Dichloroethane	65	5.324	5.323	(1.001)	142752	909.158	909.16
	8	Trichloroethene	130	5.707	5.707	(0.992)	219440	977.458	977.46
*	7	1,4-Difluorobenzene	114	5.753	5.753	(1.000)	589902	1000.00	
$	9	d8-Toluene	98	6.902	6.903	(1.200)	668391	1010.58	1010.6
	10	Tetrachloroethene	166	7.259	7.260	(1.262)	226434	1004.75	1004.8
	11	1,1,2,2-Tetrachloroethane	83	9.446	9.447	(1.642)	120745	1075.86	1075.9

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 01061003.d
Lab Smp Id: LCS0106
Analysis Type: VOA
Quant Type: ISTD
Operator: PKC
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-

Calibration Date: 06-JAN-2010
Calibration Time: 09:02

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	409150	4.98
7 1,4-Difluorobenze	553230	276615	1106460	589902	6.63

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
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: 06jan2010
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: LCS0106
Level: LOW Operator: PKC
Data Type: MS DATA SampleType: LCS
SpikeList File: sim.spk Quant Type: ISTD
Sublist File: sim.sub
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-

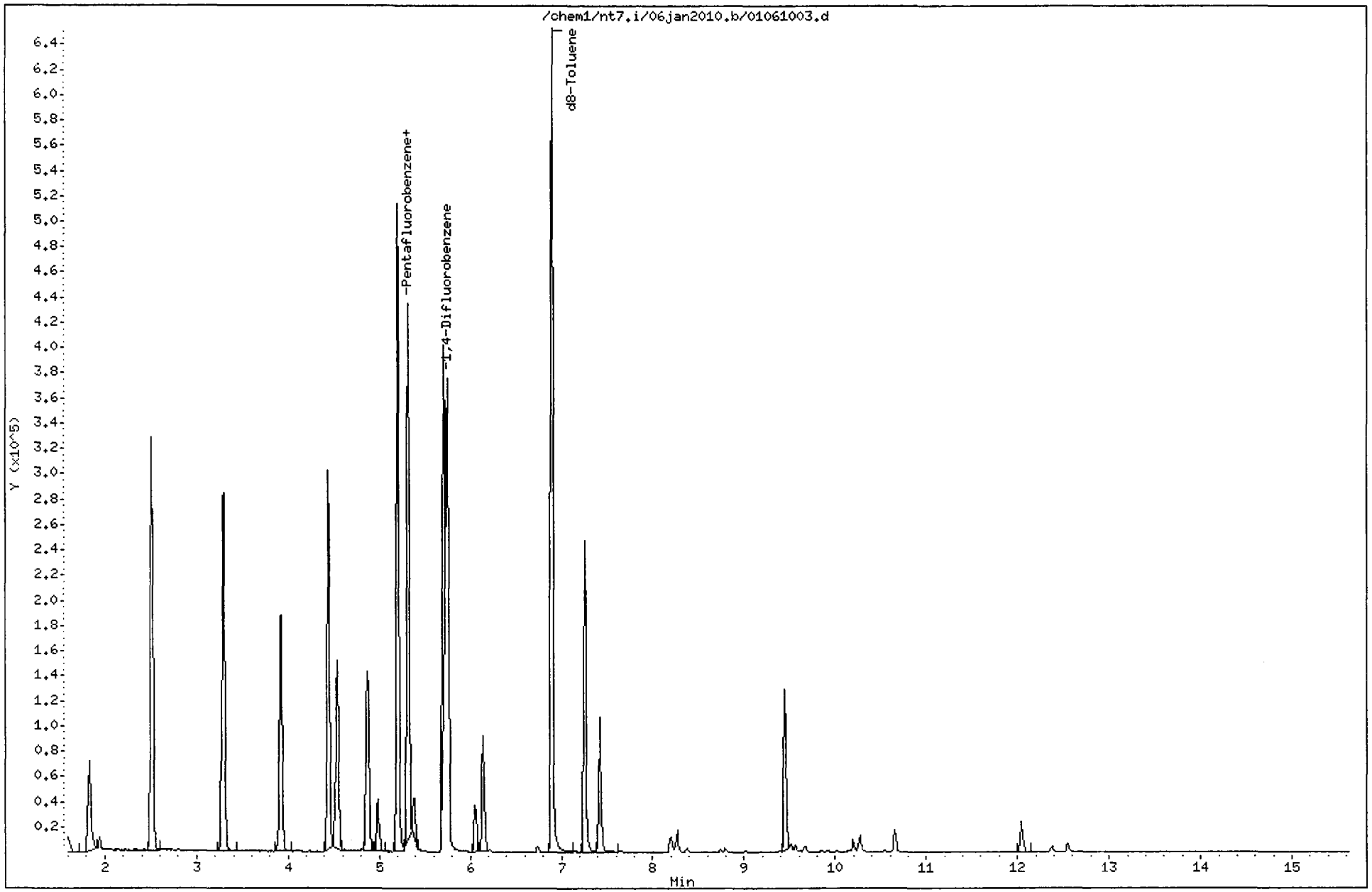
	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1	Vinyl Chloride	1000.0	891.79	89.18	76-120
175	Trans-1,2-Dichloro	1000.0	956.39	95.64	70-130
2	1,1-Dichloroethene	1000.0	972.62	97.26	79-126
3	cis-1,2-dichloroet	1000.0	937.75	93.77	76-127
6	Benzene	1000.0	908.36	90.84	75-121
8	Trichloroethene	1000.0	977.46	97.75	79-120
10	Tetrachloroethene	1000.0	1004.8	100.48	75-123
11	1,1,2,2-Tetrachlor	1000.0	1075.9	107.59	72-129

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5	d4-1,2-Dichloroeth	1000.0	909.16	90.92	80-136
$ 9	d8-Toluene	1000.0	1010.6	101.06	80-120

Data File: /chem1/nt7.i/06jan2010.b/01061003.d
Date : 06-JAN-2010 09:45
Client ID:
Sample Info: LCS0106,10,10,0

Instrument: nt7.i
Operator: PKC
Column diameter: 0.18

Column phase: RTXVMS



00623 9395

MK 1/7/10

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/06jan2010.b/01061004.d
Lab Smp Id: LCSD0106
Inj Date : 06-JAN-2010 10:11
Operator : PKC Inst ID: nt7.i
Smp Info : LCSD0106,10,10,0
Misc Info : 09-
Comment :
Method : /chem1/nt7.i/06jan2010.b/sim112309.m
Meth Date : 07-Jan-2010 12:06 monicah Quant Type: ISTD
Cal Date : 23-NOV-2009 17:53 Cal File: 11230915.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim.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	1.562	1.551	(0.294)	186631	957.644	957.64
	2 1,1-Dichloroethene	96	2.517	2.518	(0.474)	184951	1031.54	1031.5
	175 Trans-1,2-Dichloroethene	96	3.296	3.297	(0.620)	192835	1025.10	1025.1
	3 cis-1,2-dichloroethene	96	4.449	4.441	(0.837)	196547	1001.74	1001.7
	6 Benzene	78	5.204	5.204	(0.905)	771763	964.327	964.33
*	4 Pentafluorobenzene	168	5.315	5.315	(1.000)	398916	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.323	5.323	(1.001)	141891	926.857	926.86
	8 Trichloroethene	130	5.707	5.707	(0.992)	224763	1019.58	1019.6
*	7 1,4-Difluorobenzene	114	5.753	5.753	(1.000)	579249	1000.00	
$	9 d8-Toluene	98	6.903	6.903	(1.200)	645793	994.366	994.37
	10 Tetrachloroethene	166	7.260	7.260	(1.262)	233680	1055.98	1056.0
	11 1,1,2,2-Tetrachloroethane	83	9.447	9.447	(1.642)	126179	1144.96	1145.0

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: 01061004.d
Lab Smp Id: LCSD0106
Analysis Type: VOA
Quant Type: ISTD
Operator: PKC
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-

Calibration Date: 06-JAN-2010
Calibration Time: 09:02

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	389727	194864	779454	398916	2.36
7 1,4-Difluorobenze	553230	276615	1106460	579249	4.70

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
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: 06jan2010
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: LCSD0106
Level: LOW Operator: PKC
Data Type: MS DATA SampleType: LCSD
SpikeList File: sim.spk Quant Type: ISTD
Sublist File: sim.sub
Method File: /chem1/nt7.i/06jan2010.b/sim112309.m
Misc Info: 09-

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1	Vinyl Chloride	1000.0	957.64	95.76	76-120
175	Trans-1,2-Dichloro	1000.0	1025.1	102.51	70-130
2	1,1-Dichloroethene	1000.0	1031.5	103.15	79-126
3	cis-1,2-dichloroet	1000.0	1001.7	100.17	76-127
6	Benzene	1000.0	964.33	96.43	75-121
8	Trichloroethene	1000.0	1019.6	101.96	79-120
10	Tetrachloroethene	1000.0	1056.0	105.60	75-123
11	1,1,2,2-Tetrachlor	1000.0	1145.0	114.50	72-129

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5	d4-1,2-Dichloroeth	1000.0	926.86	92.69	80-136
$ 9	d8-Toluene	1000.0	994.37	99.44	80-120

Data File: /chem1/nt7.i/06jan2010.b/01061004.d

Date : 06-JAN-2010 10:11

Client ID:

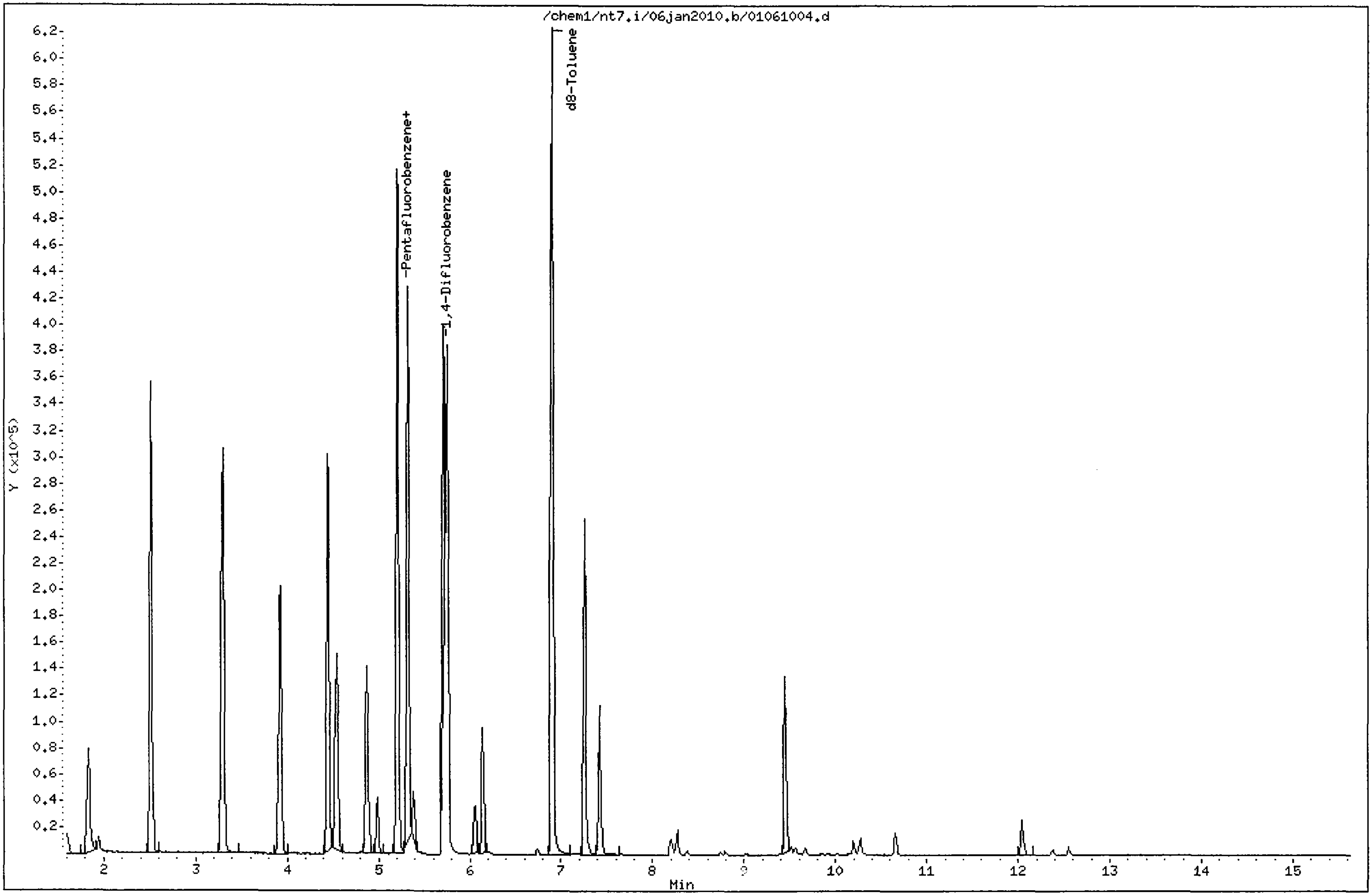
Sample Info: LCSD0106,10,10,0

Column phase: RTXVMS

Instrument: nt7.i

Operator: PKC

Column diameter: 0.18



SIM Volatile Analysis
Run Logs

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-7 Serial No.:GC=US00024417, MS=US72821196

Date: 11/23/09 Analysis: SIM VOA Analyst: MH/PC

GC Program: VC Column No: 850322 Column Type: RTX-VMS

Instrument Tune (.U or .CT.): IM30905 EM Voltage: 11/23/09 1565

Calibration File: 11230911 Curve Date: 11/23/09

IS/SS	Ical/Ccal	LCS/ICV
VW 609-3	VW607-3	VW607-3

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt7.i/23nov2009.b

	Time	Filename	LabID	ClientID	WT				
1	1017	11230901.d	BFB1123	BFB1123	0.00				
2	1050	11230902.d	BFB1123	BFB1123	0.00				
3	1141	11230903.d	BFB1123	BFB1123	0.00				
4	1218	11230904.d	test1123		1				
5	1251	11230905.d	BFB1123	BFB1123	0.00 | 0.00	0 | 0.00	0		
6	1343	11230906.d	00201123		1 | 5.31	455906 | 5.75	637932		
7	1406	11230907.d	00501123		1 | 5.31	392708 | 5.75	563435		
8	1434	11230908.d	01001123		1 | 5.32	419237 | 5.75	596792		
9	1501	11230909.d	05001123		1 | 5.32	432998 | 5.75	603782		
0	1529	11230910.d	10001123		1 | 5.32	442351 | 5.75	614549		
1	1557	11230911.d	20001123		1 | 5.31	425942 | 5.75	594311		
2	1624	11230912.d	40001123		1 | 5.32	425175 | 5.75	591748		
	1652	11230913.d	ICV1123		1 | 5.32	403586 | 5.75	563524		
	1725	11230914.d	00201123		1 | 5.32	377044 | 5.75	515990		
	1753	11230915.d	00501123		1 | 5.31	366704 | 5.74	519359		
	1820	11230916.d	01001123		1 | 5.32	365438 | 5.74	528357		
	1848	11230917.d	05001123		1 | 5.32	381756 | 5.75	546077		
	1916	11230918.d	10001123		1 | 5.31	389727 | 5.74	553230		
	1943	11230919.d	20001123		1 | 5.32	389109 | 5.75	556845		
	2011	11230920.d	40001123		1 | 5.32	387153 | 5.74	551283		
	2039	11230921.d	ICV1123		1 | 5.32	373713 | 5.74	533962		

MH 12/1/09

aintenance / Comments

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

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: 5/M VOA Cal 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: 11/23/09 Analysis Start Date: 11/23/09

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):

All reagent.

ICV target 1000

Additional Details on Reverse: Yes / No

Analyst Signature: Paul Caylor **Date:** 12/21/09

Reviewer's Signature: **Date:** 12/21/09

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-7 Serial No.:GC=US00024417, MS=US72821196

Date: 1/6/10 Analysis: SIM VOA Analyst: MH

GC Program: VC Column No: 850322 Column Type: RTX502-2

Instrument Tune (.U or .CT.): 01061001 EM Voltage: 1682

Calibration File: 01060002 Curve Date: 11/23/09

IS/SS	Ical/Ccal	LCS/ICV
VW612-1	VW607-3	VW607-3

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt7.i/06jan2010.b

	Time	Filename	LabID	ClientID	WT						
1	0824	01061001.d	BFB0106	BFB0106	0.00						
2	0902	01061002.d	CC0106			1 |	5.32	401456 ||	5.75	584563 |
3	0945	01061003.d	LCS0106			1 |	5.32	409150 ||	5.75	589902 |
4	1011	01061004.d	LCSD0106			1 |	5.32	398916 ||	5.75	579249 |
5	1038	01061005.d	MB0106			1 |	5.32	378600 ||	5.75	548884 |
6	1118	01061006.d	QD62D	Trip Blanks	3 1	1 |	5.32	365687 ||	5.75	535632 |
7	1145	01061007.d	QD62A	CB31A123109Grab	2 1	1 |	5.32	365277 ||	5.75	527495 |
8	1212	01061008.d	QD62B	CB4857123109Grab	1 1	1 |	5.32	359115 ||	5.75	521675 |
9	1238	01061009.d	QD62C	CB1123109Grab	3 1	1 |	5.32	353392 ||	5.75	514983 |
10	1305	01061010.d	QD26A	MW-50c	4 1	1 |	5.32	342421 ||	5.75	502333 |
11	1332	01061011.d	QD26B	MW-51c	3 1	1 |	5.32	339472 ||	5.75	496684 |
12	1358	01061012.d	QD26C	MW-52p2	3 1	1 |	5.32	334271 ||	5.75	486874 |
13	1425	01061013.d	QD26D	MW-53a	3 1	1 |	5.32	332723 ||	5.75	483378 |
14	1452	01061014.d	QD26E	MW-54c	3 1	1 |	5.32	330116 ||	5.75	481066 |
15	1518	01061015.d	QD61A	MW-45c	1 1	1 |	5.32	318474 ||	5.75	464079 |

MH 1/8/10

laintenance / Comments

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

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: QD62 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: 11/23/09 Analysis Start Date: 1/6/10

pH ≤ 2.0 (YES) / NO / NA Method Blank In Control? (YES) / NO

BFB Tune Meets Criteria? (YES) / NO / NA LCS / LCSD Recovery In Control? (YES) / NO

Internal Standard Meets Criteria? (YES) / NO / NA Surrogate Recovery In Control? (YES) / NO

Special Analysis Criteria Met? YES / NO (NA)

Cal acceptable? (YES) / NO; Q flag applied? YES / NO / NA

Cal 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:** 1/8/10

Reviewer's Signature: [signature] **Date:** 1-8-10 1/11/10

TPHD Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

Client ID	OTER	TOT OUT
MB-010410	77.8%	0
LCS-010410	83.7%	0
LCSD-010410	86.0%	0
CB31A123109Grab	82.5%	0
CB4857123109Grab	77.0%	0
CB1123109Grab	68.5%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(51-120)	(41-121)

Prep Method: SW3510C
Log Number Range: 09-32251 to 09-32253

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-010410**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-010410
LIMS ID: 09-32251
Matrix: Water
Data Release Authorized:
Reported: 01/06/10

QC Report No: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA
Date Sampled: 12/31/09
Date Received: 12/31/09

Date Extracted LCS/LCSD: 01/04/10

Date Analyzed LCS: 01/05/10 18:40
LCSD: 01/05/10 19:04
Instrument/Analyst LCS: FID/MS
LCSD: FID/MS

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.39	3.00	79.7%	2.46	3.00	82.0%	2.9%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	83.7%	86.0%

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

4

TPH METHOD BLANK SUMMARY

BLANK NO.

QD62MBW1

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: QD62 Project No.: LORA LAKES APT.

Date Extracted: 01/04/10 Matrix: LIQUID

Date Analyzed : 01/05/10 Instrument ID : FID4A

Time Analyzed : 1815

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QD62LCSW1	QD62LCSW1	01/05/10
02	QD62LCSDW1	QD62LCSDW1	01/05/10
03	CB31A123109G	QD62A	01/05/10
04	CB4857123109	QD62B	01/05/10
05	CB1123109GRA	QD62C	01/05/10

FORM IV TPH

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: QD62 Project: LORA LAKES APT.

Instrument ID: FID4A GC Column: RTX-1

Run Date: 12/22/09

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.88 TRIAC: 9.93

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	RT	RT	12/22/09	1713	6.88	9.93
02	IB	IB	12/22/09	1737	6.88	9.93
03	DIESEL50	DIESEL50	12/22/09	1801	6.87	9.92
04	DIESEL100	DIESEL100	12/22/09	1825	6.87	9.93
05	DIESEL250	DIESEL250	12/22/09	1849	6.88	9.92
06	DIESEL500	DIESEL500	12/22/09	1913	6.89	9.92
07	DIESEL1000	DIESEL1000	12/22/09	1938	6.90	9.91
08	DIESEL2500	DIESEL2500	12/22/09	2002	6.93*	9.94
09	DIESELICV	DIESELICV	12/22/09	2026	6.88	9.92
10	MOIL100	MOIL100	12/22/09	2050	6.88	9.91
11	MOIL250	MOIL250	12/22/09	2114	6.88	9.92
12	MOIL500	MOIL500	12/22/09	2138	6.87	9.93
13	MOIL1000	MOIL1000	12/22/09	2203	6.87	9.95
14	MOIL2500	MOIL2500	12/22/09	2227	6.87	9.98*
15	MOIL5000	MOIL5000	12/22/09	2251	6.88	10.03*
08	MOIL ICV	MOIL ICV	12/29/09	1956	6.89	9.93

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: QD62 Project: LORA LAKES APT.

Instrument ID: FID4A GC Column: RTX-1

Run Date: 01/05/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.90 TRIAC: 9.94

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	RT	RT	01/05/10	1244	6.90	9.94
02	IB	IB	01/05/10	1309	6.90	9.94
03	LORA LAKES A	DIESEL#2	01/05/10	1702	6.90	9.95
04	LORA LAKES A	MOIL#2	01/05/10	1726	6.90	9.94
05	ZZZZZ	ZZZZZ	01/05/10	1751	6.90	9.94
06	QD62MBW1	QD62MBW1	01/05/10	1815	6.89	9.93
07	QD62LCSW1	QD62LCSW1	01/05/10	1840	6.90	9.94
08	QD62LCSDW1	QD62LCSDW1	01/05/10	1904	6.90	9.94
09	CB31A123109G	QD62A	01/05/10	1929	6.90	9.95
10	CB4857123109	QD62B	01/05/10	1954	6.90	9.94
11	CB1123109GRA	QD62C	01/05/10	2019	6.89	9.93
12	LORA LAKES A	DIESEL#3	01/05/10	2043	6.90	9.92
13	LORA LAKES A	MOIL#3	01/05/10	2108	6.90	9.94

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

TPHD Analysis
Sample Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

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: QD62-Floyd/Snider
Project: Lora Lakes Apartments
POS-LLA

Data Release Authorized:
Reported: 01/06/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-010410	Method Blank	01/04/10	01/05/10	1.00	Diesel	0.25	< 0.25 U
09-32251	HC ID: ---		FID4A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		77.8%
QD62A	CB31A123109Grab	01/04/10	01/05/10	1.00	**Diesel**	**0.25**	**0.73**
09-32251	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**0.50**	**4.9**
					o-Terphenyl		82.5%
QD62B	CB4857123109Grab	01/04/10	01/05/10	1.00	Diesel	0.25	< 0.25 U
09-32252	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**0.50**	**1.4**
					o-Terphenyl		77.0%
QD62C	CB1123109Grab	01/04/10	01/05/10	1.00	Diesel	0.25	< 0.25 U
09-32253	HC ID: ---		FID4A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		68.5%

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.

FORM I

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20100105.b/0105a018.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/06/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QD62A
Client ID: CB31A123109Grab
Injection: 05-JAN-2010 19:29
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.523	0.006	86	21	GAS (Tol-C12)	86914	7
C8	2.729	-0.005	669	491	DIESEL (C12-C24)	4711497	364
C10	3.858	0.010	930	895	M.OIL (C24-C38)	22278769	2436
C12	4.729	0.009	650	852	AK-102 (C10-C25)	5755208	397
C14	5.443	-0.010	1278	1026	AK-103 (C25-C36)	19610463	2841
C16	6.110	0.002	6532	5222	OR.DIES (C10-C28)	12760299	852
C18	6.726	-0.001	13430	21944	OR.MOIL (C28-C40)	15321305	2206
C20	7.316	-0.001	27375	28199			
C22	7.874	-0.002	61082	120675			
C24	8.397	-0.001	112537	121095			
C25	8.650	0.001	150358	195847			
C26	8.887	-0.009	135951	50666			
C28	9.391	-0.011	137224	67010			
C32	10.454	0.012	159454	261737			
C34	10.971	0.011	139307	306084	CREOSOT (C12-C22)	2091283	503
Filter Peak	12.901	-0.007	13588	21443			
C36	11.476	0.011	105665	217965			
C38	11.961	0.005	67266	135419			
C40	12.426	0.002	35780	58316			
o-terph	6.898	0.002	766375	588820	JET-A (C10-C18)	412530	31
Triacon Surr	9.952	0.015	566440	713010			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	588820	37.1	82.5
Triacontane	713010	37.8	84.1

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

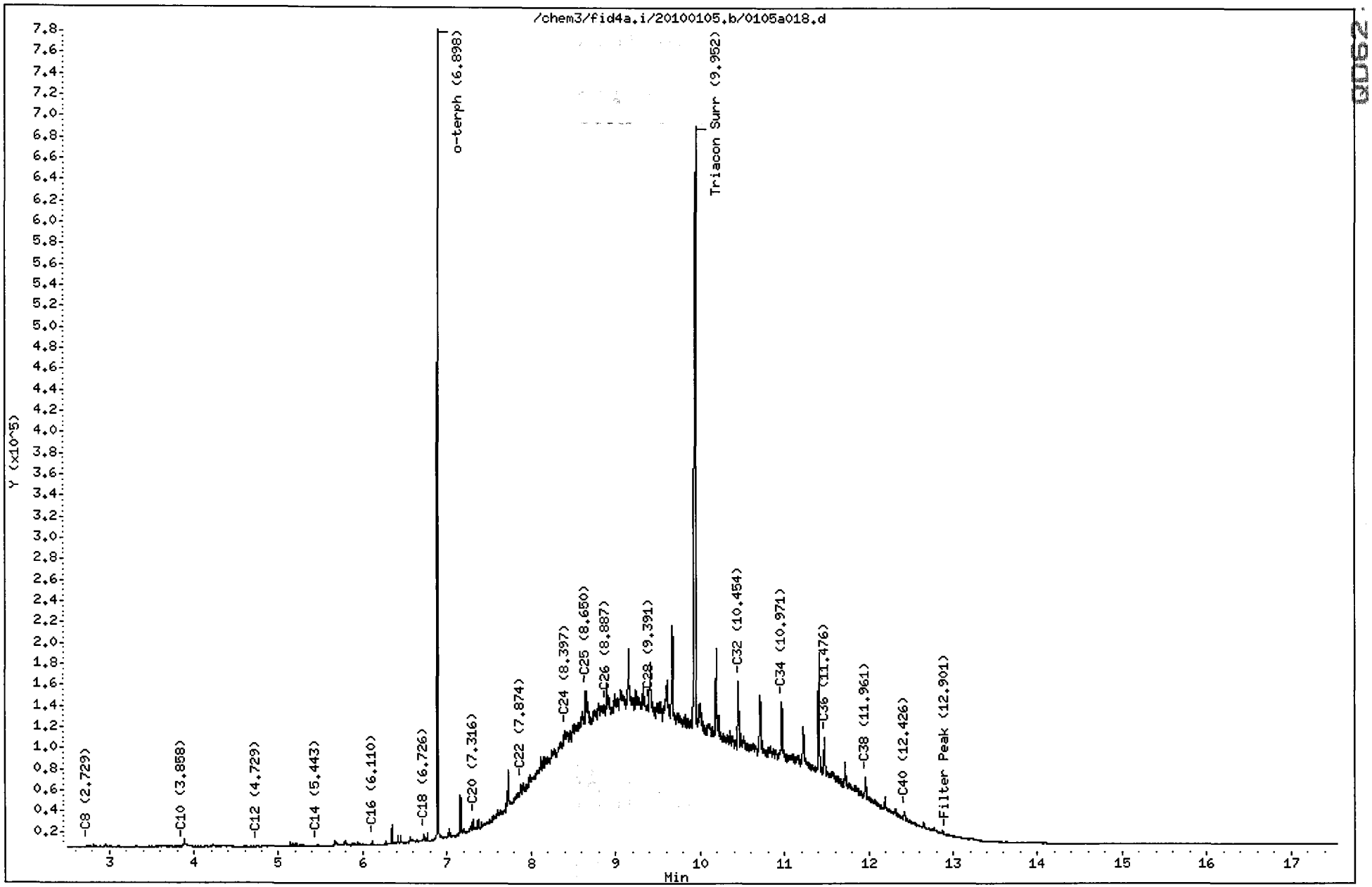
Data File: /chem3/fid4a.i/20100105.b/0105a018.d
Date : 05-JAN-2010 19:29
Client ID: CB31A123109Grab
Sample Info: QD62A

Instrument: fid4a.i

Operator: ar
Column diameter: 2.00

Column phase: RTX-1

QD62.00415



1/6/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20100105.b/0105a019.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/06/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QD62B
Client ID: CB4857123109Grab
Injection: 05-JAN-2010 19:54

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.527	0.010	69	30	GAS (Tol-C12)	59864	5
C8	2.738	0.004	281	198	DIESEL (C12-C24)	1532364	118
C10	3.848	-0.001	527	658	M.OIL (C24-C38)	6573947	719
C12	4.728	0.008	495	881	AK-102 (C10-C25)	1881297	130
C14	5.455	0.003	934	924	AK-103 (C25-C36)	5729010	830
C16	6.114	0.007	2579	2458	OR.DIES (C10-C28)	3894004	260
C18	6.728	0.001	4765	5004	OR.MOIL (C28-C40)	4571757	658
C20	7.315	-0.002	8854	13106			
C22	7.872	-0.004	19294	28481			
C24	8.396	-0.003	35064	62888			
C25	8.643	-0.006	48880	57007			
C26	8.892	-0.004	47583	54074			
C28	9.399	-0.003	54745	64297			
C32	10.437	-0.005	50372	71646			
C34	10.956	-0.004	42717	74825	CREOSOT (C12-C22)	759949	183
Filter Peak	12.914	0.007	6194	3034			
C36	11.459	-0.006	31826	56006			
C38	11.947	-0.008	21275	34836			
C40	12.417	-0.008	13242	33547			
o-terph	6.896	0.001	743656	549198	JET-A (C10-C18)	237082	18
Triacon Surr	9.938	0.002	581427	646054			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	549198	34.6	77.0
Triacontane	646054	34.3	76.2

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

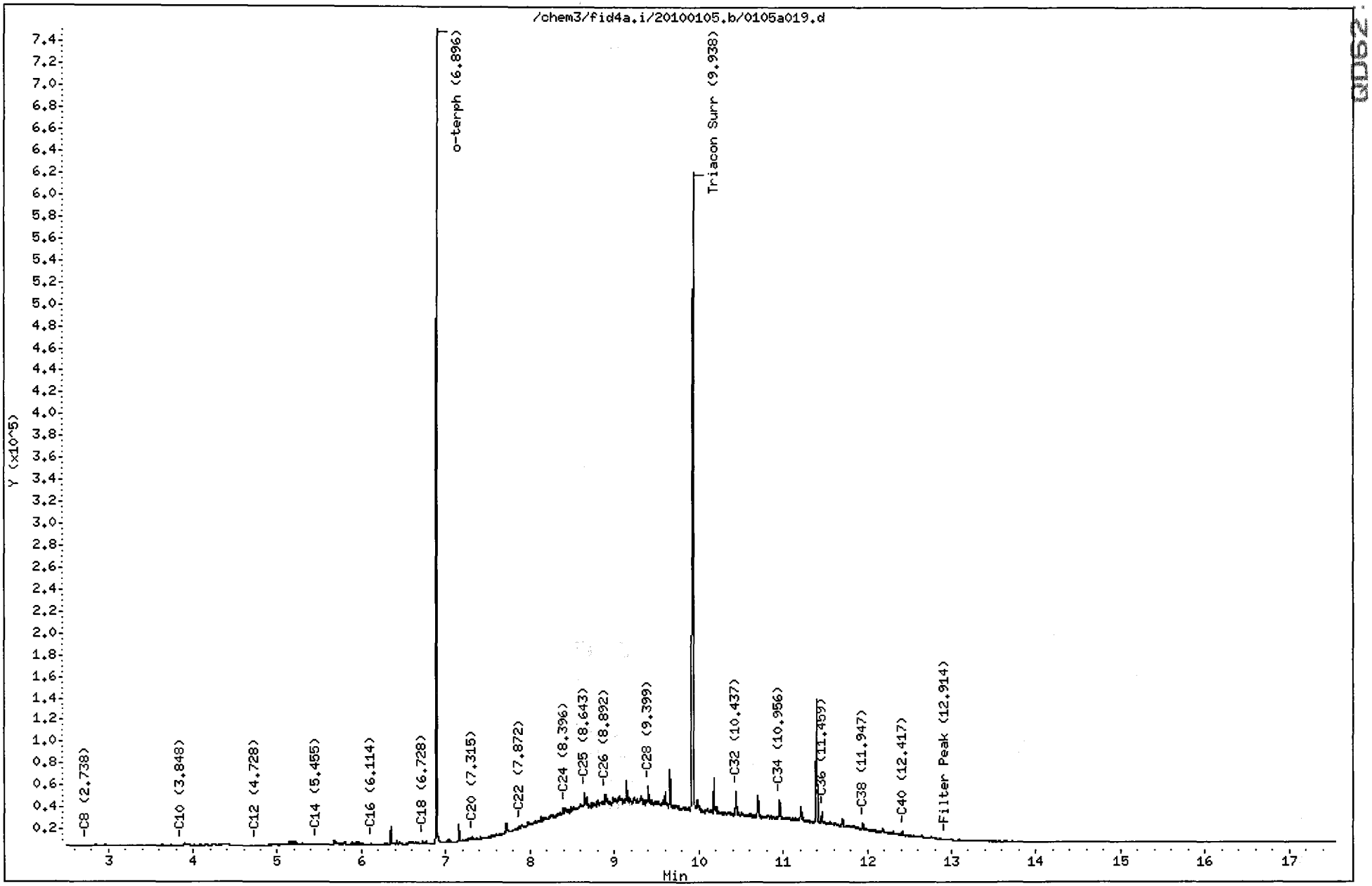
Data File: /chem3/fid4a.i/20100105.b/0105a019.d
Date : 05-JAN-2010 19:54
Client ID: CB4857123109Grab
Sample Info: QD62B

Column phase: RTX-1

Instrument: fid4a.i

Operator: ar
Column diameter: 2.00

QD62 66147



1/4/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20100105.b/0105a020.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/06/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QD62C
Client ID: CB1123109Grab
Injection: 05-JAN-2010 20:19
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.515	-0.002	72	16	GAS (Tol-C12)	48179	4
C8	2.731	-0.003	30	7	DIESEL (C12-C24)	296864	23
C10	3.842	-0.006	460	1347	M.OIL (C24-C38)	754954	83
C12	4.724	0.003	378	324	AK-102 (C10-C25)	355285	24
C14	5.451	-0.001	722	776	AK-103 (C25-C36)	658024	95
C16	6.101	-0.006	1378	1169	OR.DIES (C10-C28)	556917	37
C18	6.719	-0.008	1426	2597	OR.MOIL (C28-C40)	592509	85
C20	7.321	0.004	1655	2319			
C22	7.879	0.003	2488	4482			
C24	8.397	-0.001	3624	6156			
C25	8.644	-0.005	11393	16277			
C26	8.891	-0.005	4578	6619			
C28	9.397	-0.006	5236	9501			
C32	10.436	-0.007	4548	6228			
C34	10.958	-0.002	8575	12204	CREOSOT (C12-C22)	215924	52
Filter Peak	12.904	-0.004	2186	1124			
C36	11.455	-0.011	2922	6459			
C38	11.949	-0.006	2334	4461			
C40	12.417	-0.007	2149	4583			
o-terph	6.894	-0.001	647499	488713	JET-A (C10-C18)	160066	12
Triacon Surr	9.932	-0.004	526066	563338			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	488713	30.8	68.5
Triacontane	563338	29.9	66.4

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

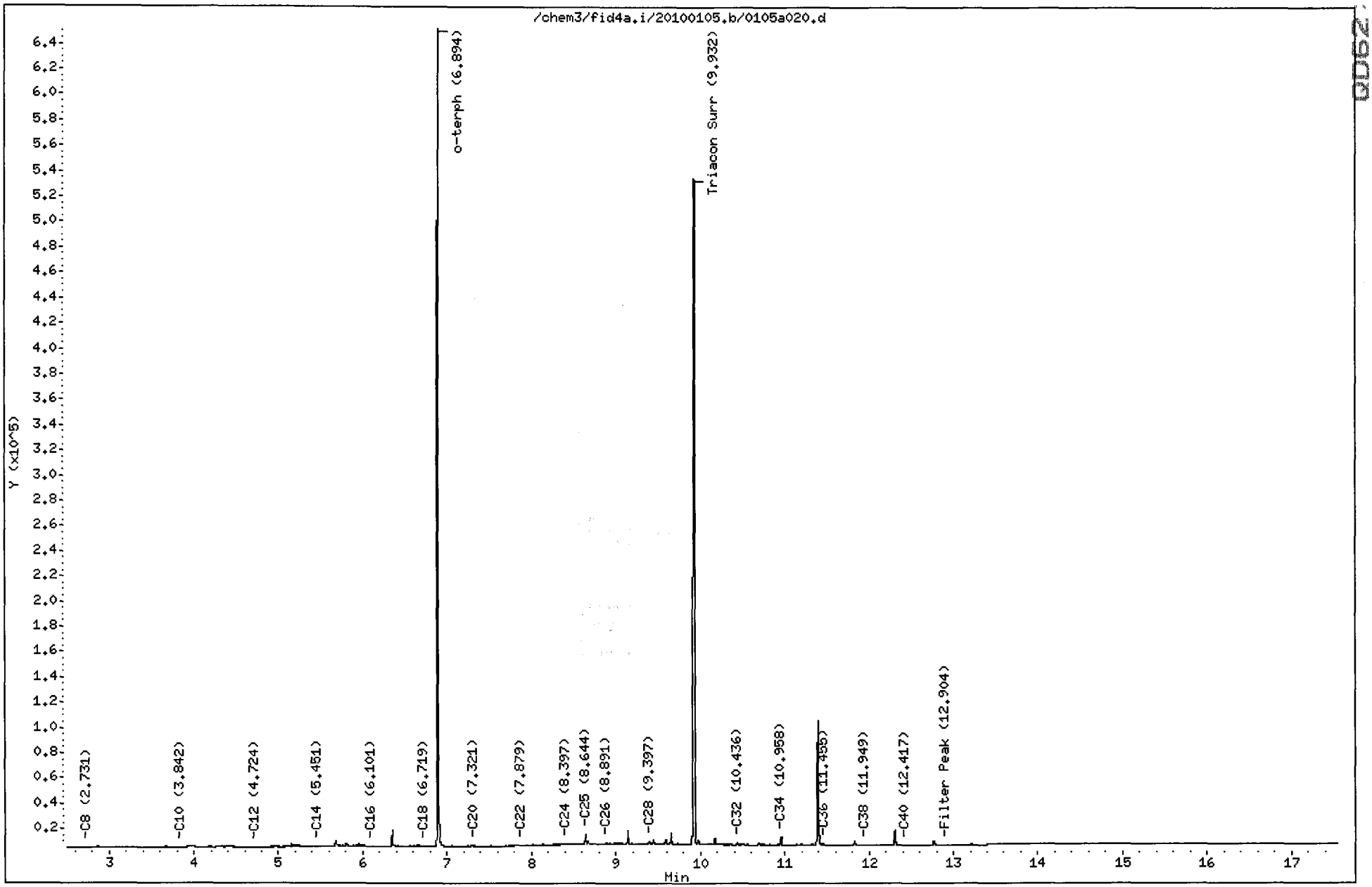
Data File: /chem3/fid4a.i/20100105.b/0105a020.d
Date : 05-JAN-2010 20:19
Client ID: CB1123109Grab
Sample Info: QD62C

Column phase: RTX-1

Instrument: fid4a.i

Operator: ar
Column diameter: 2.00

QD62C 60419



ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 12/31/09

ARI Job: QD62
Project: Lora Lakes Apartments
POS-LLA

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
09-32251-010410MB1	Method Blank	500 mL	1.00 mL	01/04/10
09-32251-010410LCS1	Lab Control	500 mL	1.00 mL	01/04/10
09-32251-010410LCSD1	Lab Control Dup	500 mL	1.00 mL	01/04/10
09-32251-QD62A	CB31A123109Grab	500 mL	1.00 mL	01/04/10
09-32252-QD62B	CB4857123109Grab	500 mL	1.00 mL	01/04/10
09-32253-QD62C	CB1123109Grab	500 mL	1.00 mL	01/04/10

TPHD Analysis
Standard Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

6a
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC
Client: Floyd/Snider

SDG No.: QD62
Project: Lora Lakes Apt.

Instrument ID: FID4A
GC Column: RTX-1

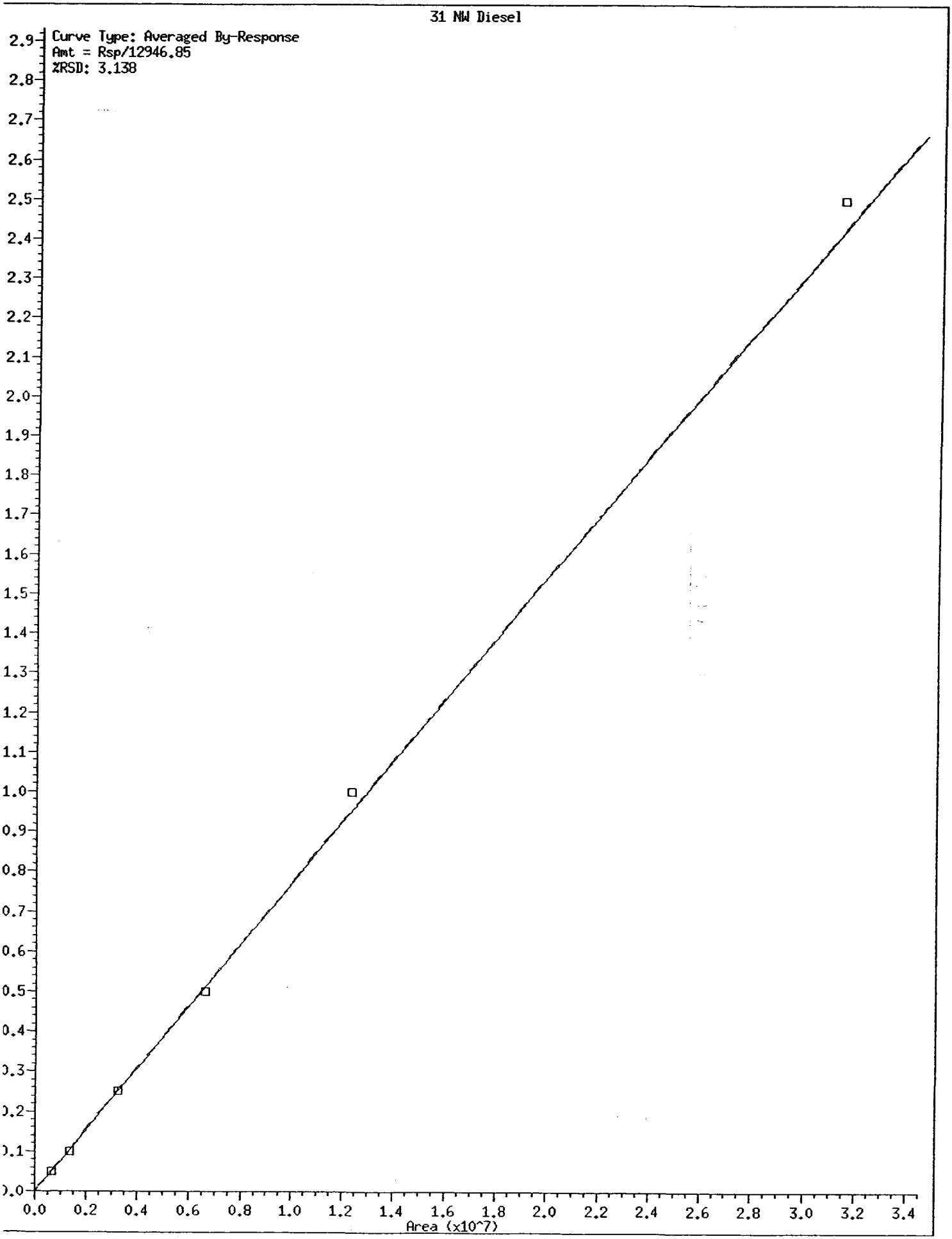
Calibration Date: 22-DEC-2009

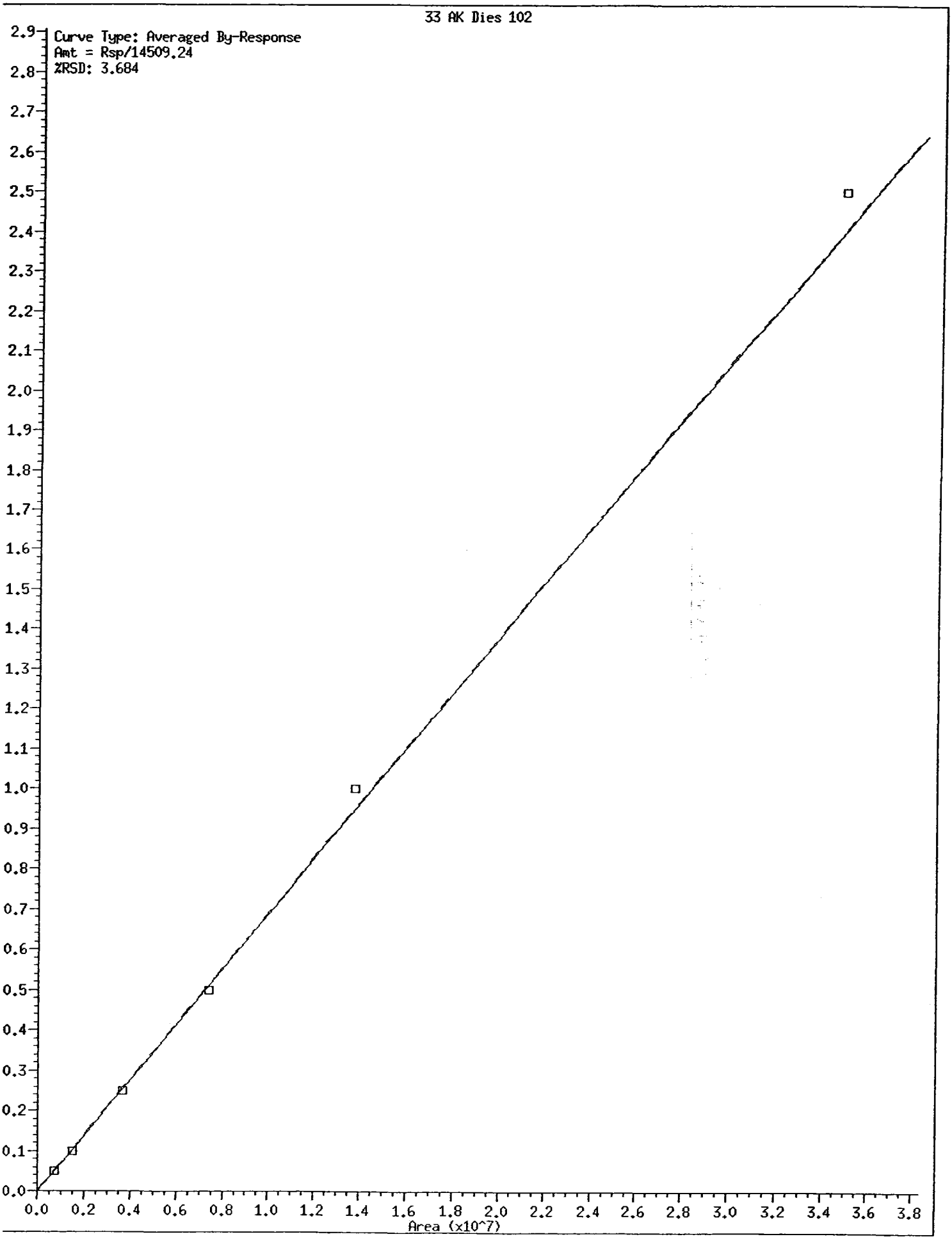
Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	13107	13346	13092	13250	12342	12545	12947	3.1
AK Diesel	14910	15030	14643	14783	13745	13944	14509	3.7
OR Diesel	14991	15118	14725	14869	13824	14036	14594	3.7
o-Terph	15389	15737	15720	16364	15418	16484	15852	3.0

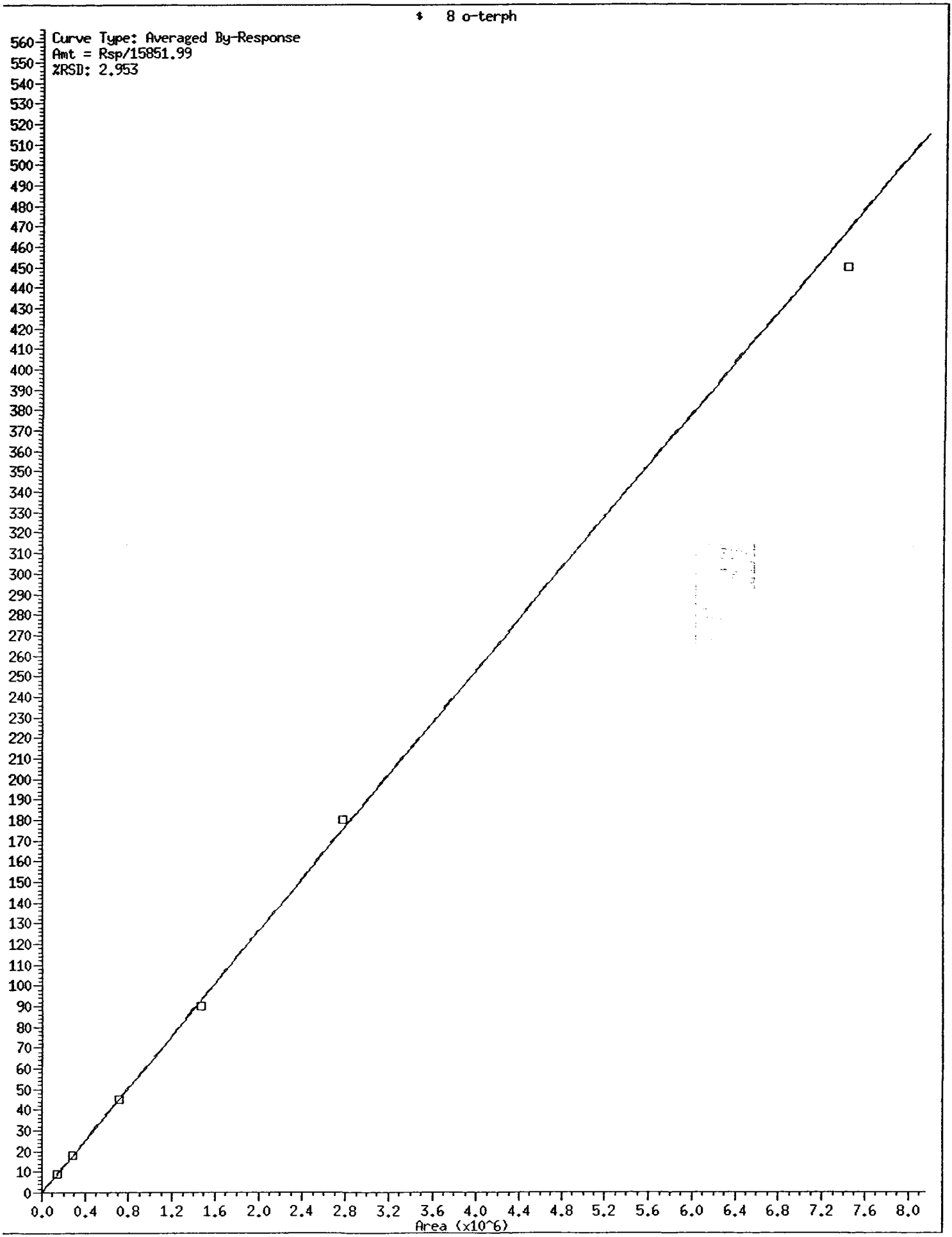
<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (4.683-8.386)
AK Diesel C10-C25 (3.796-8.638)
OR Diesel C10-C28 (3.796-9.393)

Calibration Files	Analysis Time
1222a013.d	22-DEC-2009 18:01
1222a014.d	22-DEC-2009 18:25
1222a015.d	22-DEC-2009 18:49
1222a016.d	22-DEC-2009 19:13
1222a017.d	22-DEC-2009 19:38
1222a018.d	22-DEC-2009 20:02


31 NW Diesel
Curve Type: Averaged By-Response
Amt = Rsp/12946.85
%RSD: 3.138
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4
Area (x10^7)


33 AK Dies 102
Curve Type: Averaged By-Response
Amt = Rsp/14509.24
%RSD: 3.684
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8
Area (x10^7)


8 o-terph
Curve Type: Averaged By-Response
Amt = Rsp/15851.99
%RSD: 2.953
Area (x10^6)

Analytical Resources Inc.
TPH Quantitation Report

ata file: /chem3/fid4a.i/20091222.b/1222a011.d
ethod: /chem3/fid4a.i/20091222.b/ftphfid4a.m
nstrument: fid4a.i
perator: MS
eport Date: 12/23/2009
acro: 22-DEC-2009
alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: RT
Client ID: RT
Injection: 22-DEC-2009 17:13
Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.388	0.000	404996	200307	GAS (Tol-C12)	875930	74
8	2.629	0.000	211852	149200	DIESEL (C12-C24)	1390908	107
10	3.796	0.000	307446	209397	M.OIL (C24-C38)	1694190	185
12	4.683	0.000	271156	216985	AK-102 (C10-C25)	1849408	127
14	5.424	0.000	331084	220809	AK-103 (C25-C36)	1534648	222
16	6.083	0.000	376225	222291	OR.DIES (C10-C28)	2665349	178
18	6.707	0.000	367895	226397	OR.MOIL (C28-C40)	980506	141
20	7.300	0.000	359165	224106			
22	7.861	0.000	368489	234284			
24	8.386	0.000	352346	233692			
25	8.638	0.000	462436	327888			
26	8.885	0.000	329706	235698			
28	9.393	0.000	305584	244033			
32	10.436	0.000	272773	246830			
34	10.955	0.000	245553	236403	CREOSOT (C12-C22)	1153279	277
ilter Peak	12.933	0.000	1019	1251			
36	11.461	0.000	203536	191088			
38	11.948	0.000	151641	144181			
40	12.418	0.000	91250	91253			
-terph	6.879	0.000	901947	751847	JET-A (C10-C18)	1142197	86
riacon Surr	9.928	0.000	674364	848519			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	751847	47.4	105.4
Triacontane	848519	45.0	100.0

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

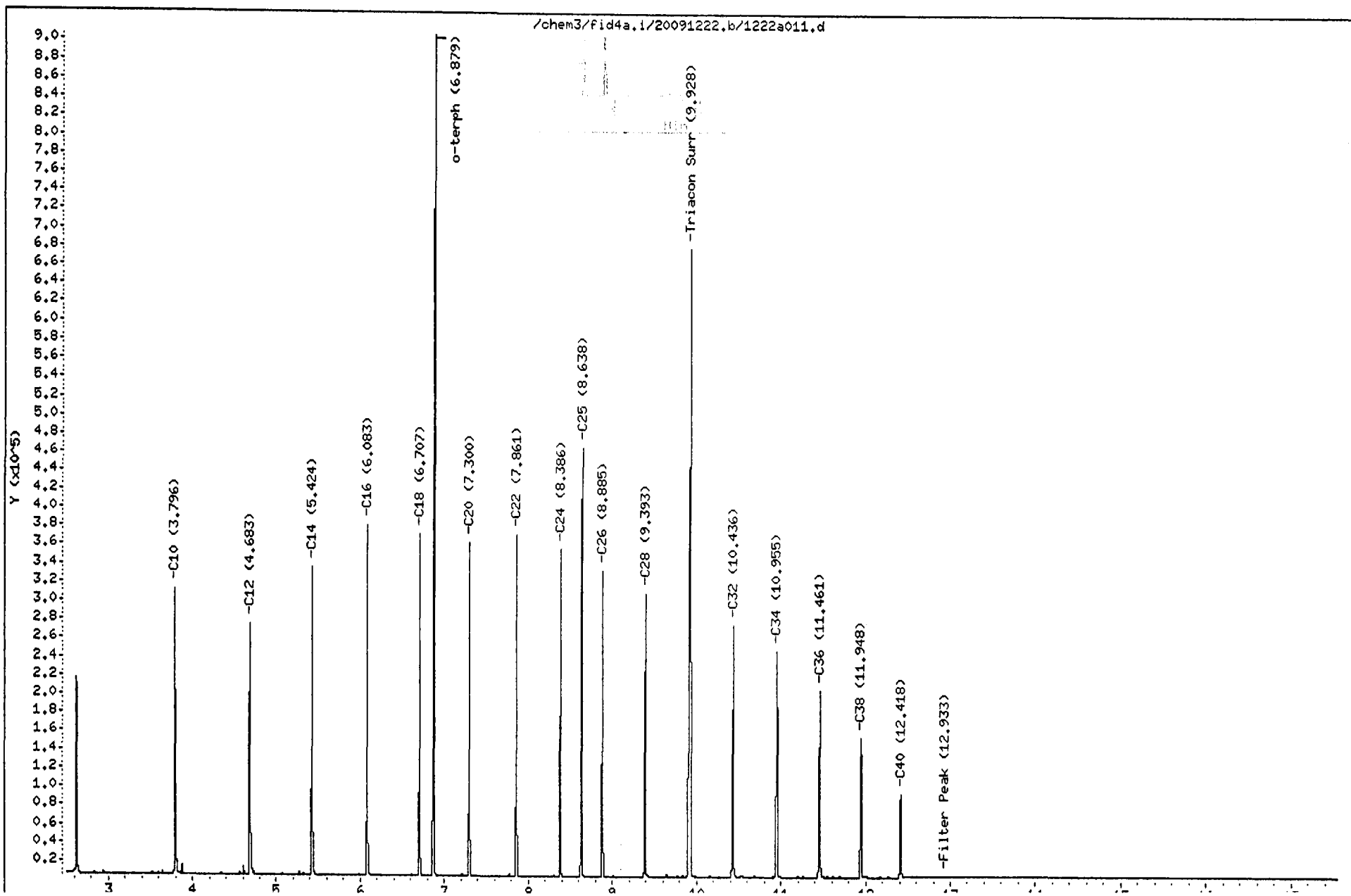
Data File: /chem3/fid4a.i/20091222.b/1222a011.d
Date : 22-DEC-2009 17:13
Client ID: RT
Sample Info: RT

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

QD62 : 69427



Analytical Resources Inc.
TPH Quantitation Report

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Method: /chem3/fid4a.i/20091222.b/ftphfid4a.m Client ID: IB
:nstrument: fid4a.i Injection: 22-DEC-2009 17:37
)perator: MS
:eport Date: 12/23/2009 Dilution Factor: 1
Macro: 22-DEC-2009
:alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.385	-0.003	393	1092	GAS (Tol-C12)	64086	5
8	2.640	0.011	228	239	DIESEL (C12-C24)	26473	2
10	3.795	-0.001	599	680	M.OIL (C24-C38)	63371	7
12	4.717	0.033	305	129	AK-102 (C10-C25)	58581	4
14	5.416	-0.008	153	319	AK-103 (C25-C36)	51057	7
16	6.093	0.010	506	569	OR.DIES (C10-C28)	68671	5
18	6.702	-0.005	427	295	OR.MOIL (C28-C40)	66854	10
20	7.314	0.014	190	302			
22	7.862	0.001	767	732			
24	8.386	0.000	306	602			
25	8.637	-0.001	330	313			
26	8.885	0.000	298	400			
28	9.386	-0.007	908	794			
32	10.429	-0.007	1756	3039			
34	10.957	0.002	360	970	CREOSOT (C12-C22)	22646	5
ilter Peak	12.931	-0.002	875	364			
36	11.461	0.000	385	623			
38	11.942	-0.006	1216	2283			
40	12.426	0.008	620	1341			
-terph	6.885	0.006	1277128	1245622	JET-A (C10-C18)	47884	4
riacon Surr	9.932	0.004	784354	1055589			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1245622	78.6	174.6
Triacontane	1055589	56.0	124.4

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

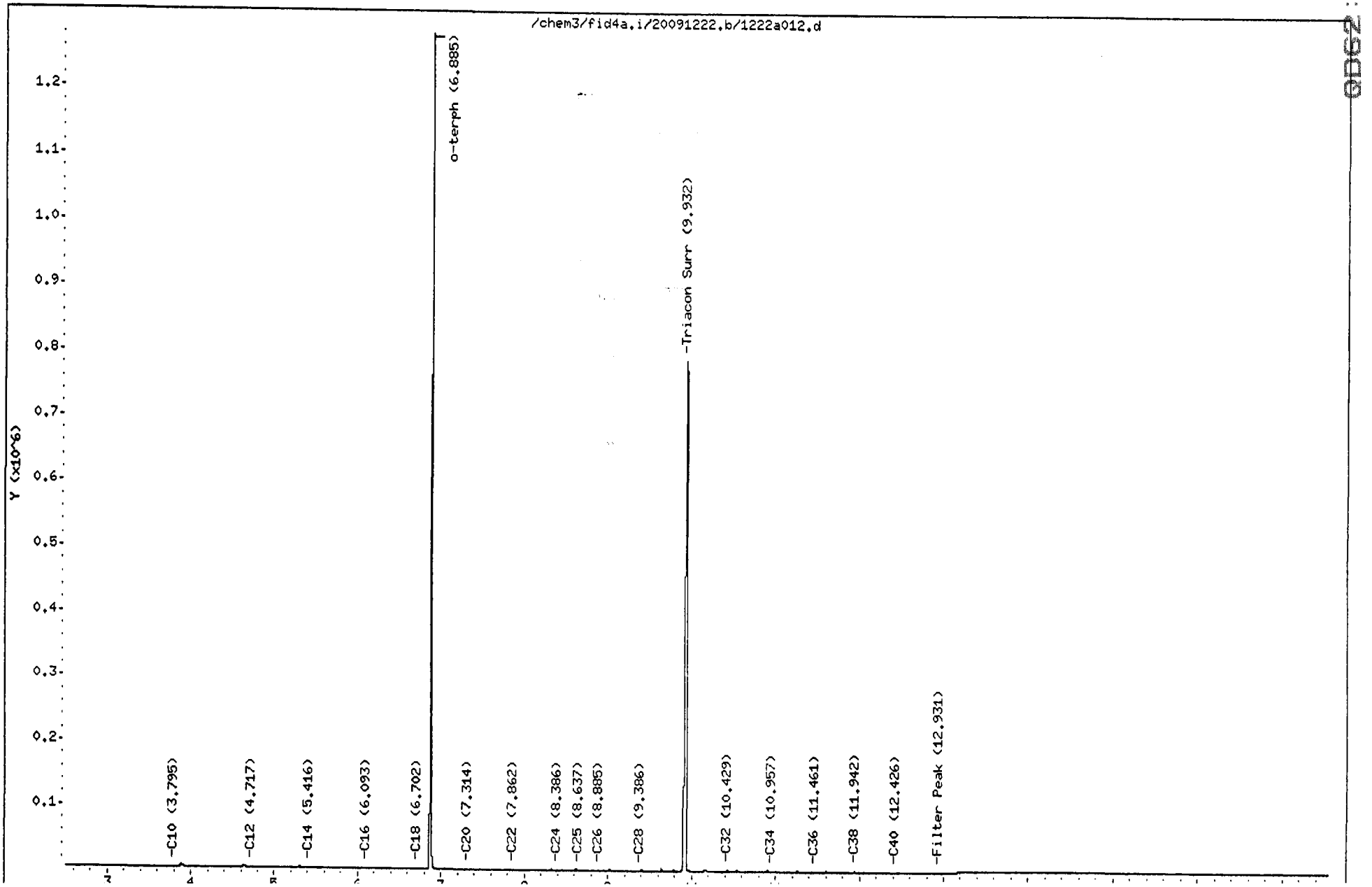
Data File: /chem3/fid4a.i/20091222.b/1222a012.d
Date : 22-DEC-2009 17:37
Client ID: IB
Sample Info: IB

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

GD62:00429



Analytical Resources Inc.
TPH Quantitation Report

)ata file: /chem3/fid4a.i/20091222.b/1222a013.d
!ethod: /chem3/fid4a.i/20091222.b/ftphfid4a.m
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)perator: MS
!eport Date: 12/23/2009
!acro: 22-DEC-2009
:alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 50
Client ID: DIESEL 50
Injection: 22-DEC-2009 18:01
Dilution Factor: 1

FID:4A RESULTS

:ompound	RT	Shift	Height	Area	Range	Total Area	Conc
'oluene	2.408	0.020	245	203	GAS (Tol-C12)	135794	11
:8	2.639	0.010	139	51	DIESEL (C12-C24)	655354	51
:10	3.795	0.000	2490	2233	M.OIL (C24-C38)	18296	2
:12	4.682	-0.001	2774	2237	AK-102 (C10-C25)	745519	51
:14	5.429	0.006	13501	11175	AK-103 (C25-C36)	11316	2
:16	6.084	0.001	25636	19180	OR.DIES (C10-C28)	749554	50
:18	6.705	-0.002	22522	18779	OR.MOIL (C28-C40)	20746	3
'20	7.300	0.000	13059	11014			
'22	7.860	-0.001	5590	6328			
'24	8.388	0.002	1400	2325			
'25	8.639	0.002	554	994			
'26	8.889	0.004	203	389			
'28	9.375	-0.018	32	41			
'32	10.433	-0.003	60	55			
'34	10.954	0.000	95	39	CREOSOT (C12-C22)	634033	152
ilter Peak	12.925	-0.008	633	576			
36	11.452	-0.008	142	100			
38	11.952	0.004	325	742			
40	12.423	0.006	375	540			
-terph	6.869	-0.010	220198	138498	JET-A (C10-C18)	551839	42
riacon Surr	9.920	-0.008	97	168			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	138498	8.7	19.4
Triacontane	168	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a013.d
Date : 22-DEC-2009 18:01
Client ID: DIESEL 50
Sample Info: DIESEL 50

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

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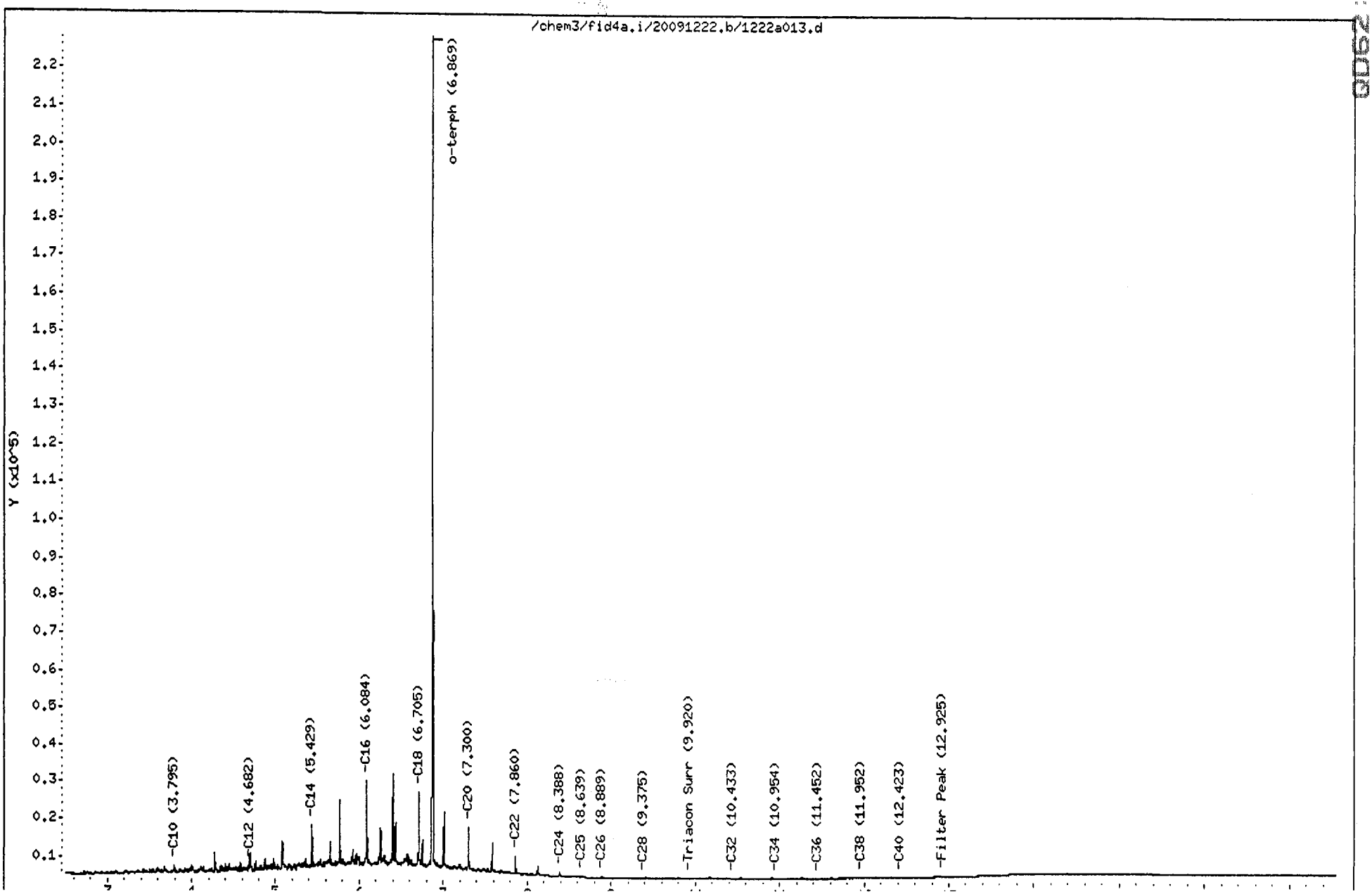


Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20091222.b/1222a014.d
Method: /chem3/fid4a.i/20091222.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MS
Report Date: 12/23/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 100
Client ID: DIESEL 100
Injection: 22-DEC-2009 18:25

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.400	0.011	289	404	GAS (Tol-C12)	237705	20
C8	2.649	0.019	234	314	DIESEL (C12-C24)	1334563	103
C10	3.789	-0.007	5636	4561	M.OIL (C24-C38)	24332	3
C12	4.689	0.006	13740	8859	AK-102 (C10-C25)	1503009	104
C14	5.426	0.002	29444	23019	AK-103 (C25-C36)	15531	2
C16	6.082	-0.001	53691	40962	OR.DIES (C10-C28)	1511825	101
C18	6.704	-0.004	47340	36924	OR.MOIL (C28-C40)	18641	3
C20	7.297	-0.003	28151	29363			
C22	7.858	-0.003	12684	10761			
C24	8.385	-0.001	3355	4728			
C25	8.637	-0.001	1264	2451			
C26	8.889	0.003	457	1018			
C28	9.391	-0.003	52	16			
C32	10.429	-0.007	44	33			
C34	10.956	0.001	71	95	CREOSOT (C12-C22)	1285455	309
Filter Peak	12.928	-0.005	576	591			
C36	11.454	-0.007	110	46			
C38	11.952	0.004	346	690			
C40	12.421	0.004	333	322			
o-Terph	6.870	-0.008	438169	283274	JET-A (C10-C18)	1095243	83
Triacon Surr	9.925	-0.003	64	61			

Range Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	283274	17.9	39.7
Triacontane	61	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

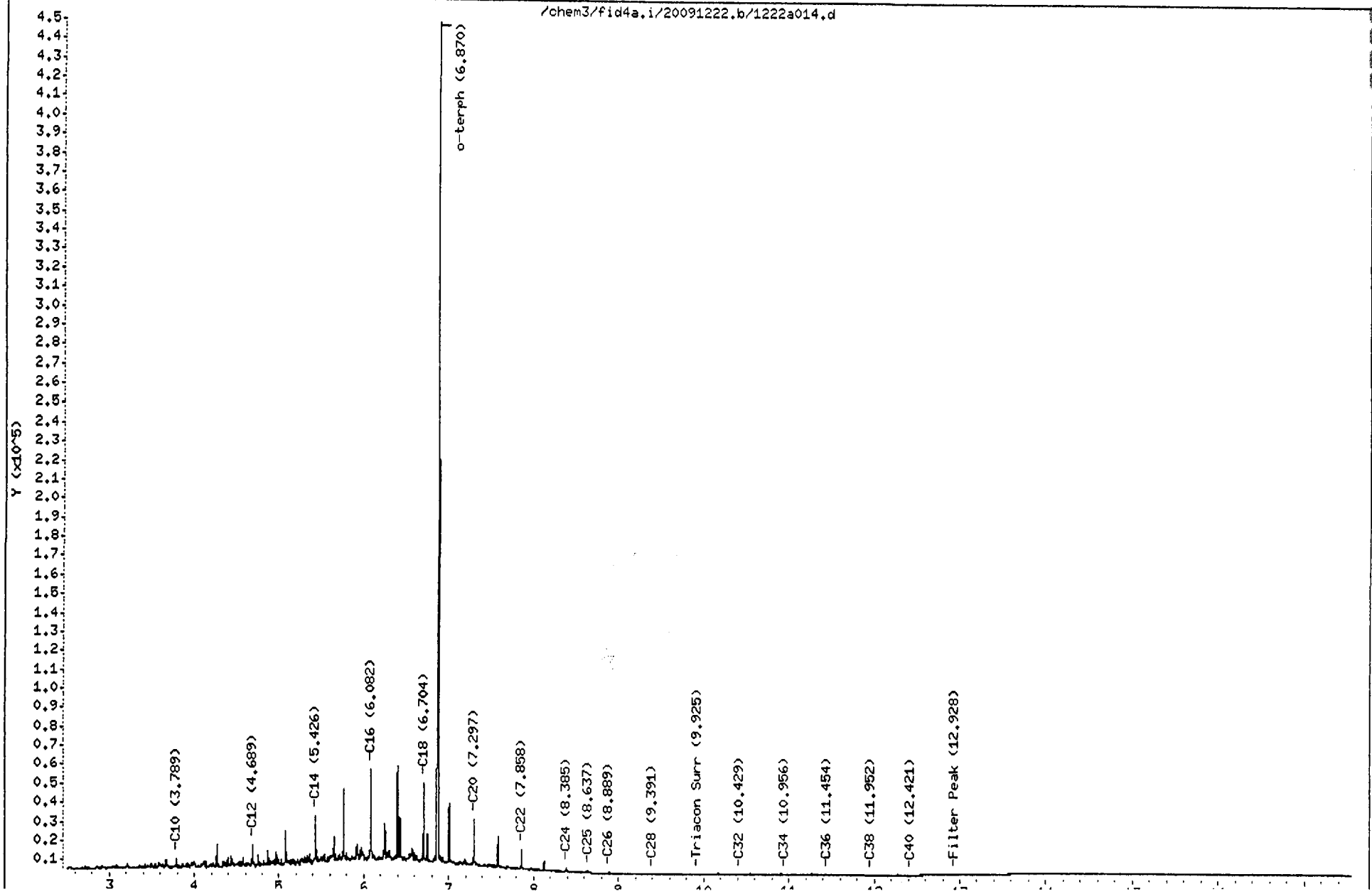
Data File: /chem3/fid4a.i/20091222.b/1222a014.d
Date : 22-DEC-2009 18:25
Client ID: DIESEL 100
Sample Info: DIESEL 100

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

QD62:00433



Analytical Resources Inc.
TPH Quantitation Report

ata file: /chem3/fid4a.i/20091222.b/1222a015.d
ethod: /chem3/fid4a.i/20091222.b/ftphfid4a.m
nstrument: fid4a.i
perator: MS
eport Date: 12/23/2009
acro: 22-DEC-2009
alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 250
Client ID: DIESEL 250
Injection: 22-DEC-2009 18:49

Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.406	0.018	395	501	GAS (Tol-C12)	516164	44
3	2.650	0.021	404	433	DIESEL (C12-C24)	3272961	253
10	3.809	0.013	5607	3907	M.OIL (C24-C38)	44038	5
12	4.682	-0.001	37142	21502	AK-102 (C10-C25)	3660646	252
14	5.424	0.000	74940	58604	AK-103 (C25-C36)	26559	4
16	6.081	-0.002	132278	93355	OR.DIES (C10-C28)	3681244	246
18	6.705	-0.003	114898	88270	OR.MOIL (C28-C40)	15625	2
20	7.297	-0.003	70939	56843			
22	7.857	-0.004	33630	25317			
24	8.383	-0.003	9731	9324			
25	8.633	-0.005	3938	3845			
26	8.885	-0.001	1295	2175			
28	9.397	0.004	163	188			
32	10.432	-0.004	30	30			
34	10.956	0.002	61	88	CREOSOT (C12-C22)	3154395	758
lter Peak	12.925	-0.008	516	371			
36	11.466	0.005	91	66			
38	11.953	0.004	301	659			
40	12.415	-0.003	286	191			
terph	6.880	0.001	899426	707381	JET-A (C10-C18)	2674383	202
iacon Surr	9.919	-0.010	66	48			

nge Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	707381	44.6	99.2
Triacontane	48	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

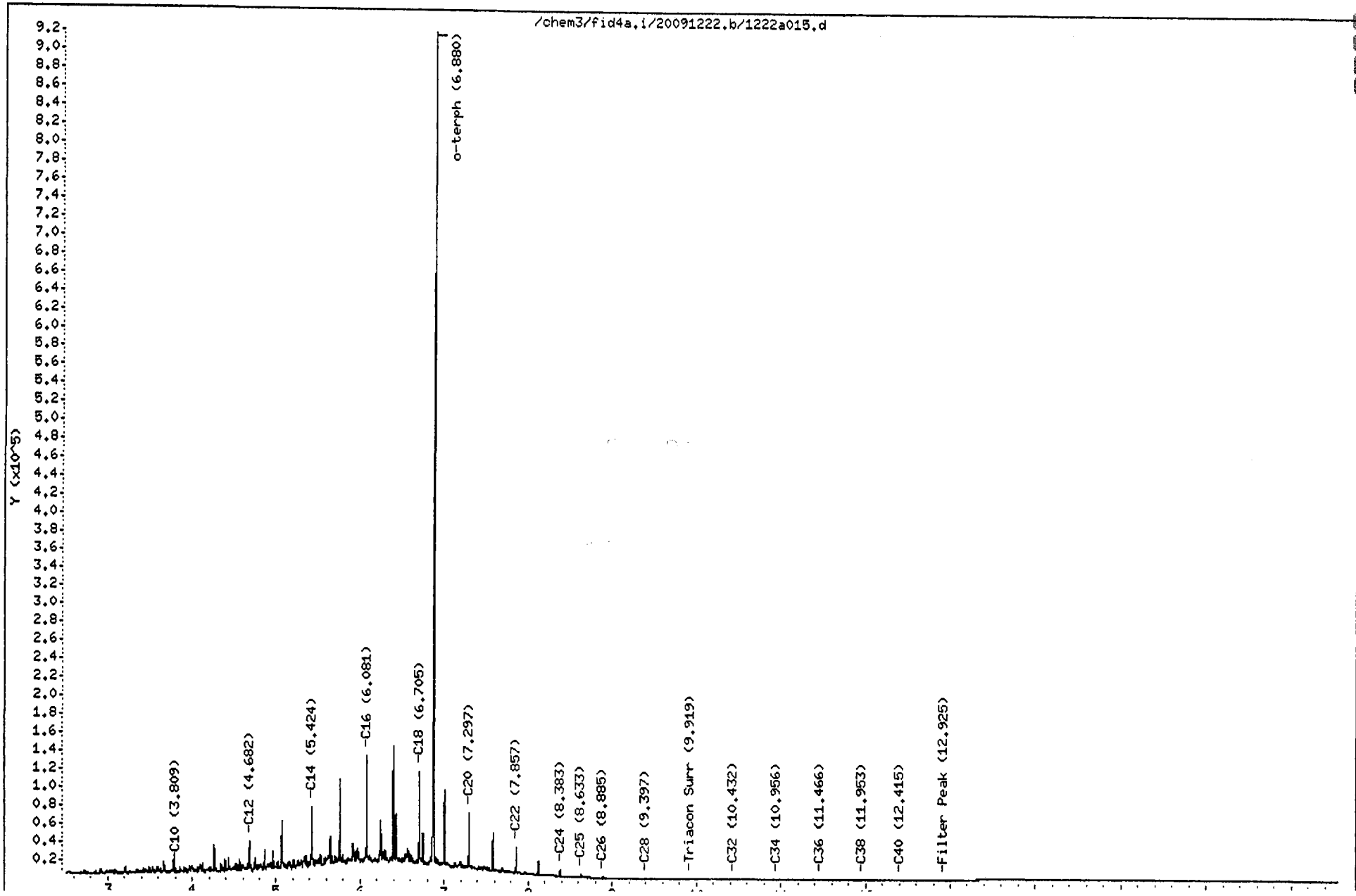
Data File: /chem3/fid4a.i/20091222.b/1222a015.d
Date : 22-DEC-2009 18:49
Client ID: DIESEL 250
Sample Info: DIESEL 250

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

GD62:00135



Analytical Resources Inc.
TPH Quantitation Report

ata file: /chem3/fid4a.i/20091222.b/1222a016.d
ethod: /chem3/fid4a.i/20091222.b/ftphfid4a.m
nstrument: fid4a.i
perator: MS
eport Date: 12/23/2009
acro: 22-DEC-2009
alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 500
Client ID: DIESEL 500
Injection: 22-DEC-2009 19:13
Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.410	0.022	646	744	GAS (Tol-C12)	1003823	85
8	2.628	-0.002	269	252	DIESEL (C12-C24)	6624970	512
10	3.805	0.010	10722	7311	M.OIL (C24-C38)	78746	9
12	4.678	-0.005	76865	43720	AK-102 (C10-C25)	7391577	509
14	5.421	-0.003	153557	119987	AK-103 (C25-C36)	48557	7
16	6.081	-0.002	275782	167629	OR.DIES (C10-C28)	7434438	496
18	6.707	-0.001	217529	194675	OR.MOIL (C28-C40)	12940	2
20	7.297	-0.003	147031	116122			
22	7.856	-0.005	68886	56197			
24	8.381	-0.005	21122	17420			
25	8.630	-0.008	8763	8932			
26	8.882	-0.003	3131	4918			
28	9.393	0.000	353	345			
32	10.430	-0.006	32	39			
34	10.959	0.005	44	31	CREOSOT (C12-C22)	6384172	1535
ilter Peak	12.932	0.000	455	464			
36	11.460	-0.001	54	30			
38	11.950	0.002	241	450			
40	12.428	0.010	242	281			
-terph	6.888	0.010	1463954	1472772	JET-A (C10-C18)	5377674	406
riacon Surr	9.917	-0.011	121	195			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1472772	92.9	206.5
Triacontane	195	0.0	0.0

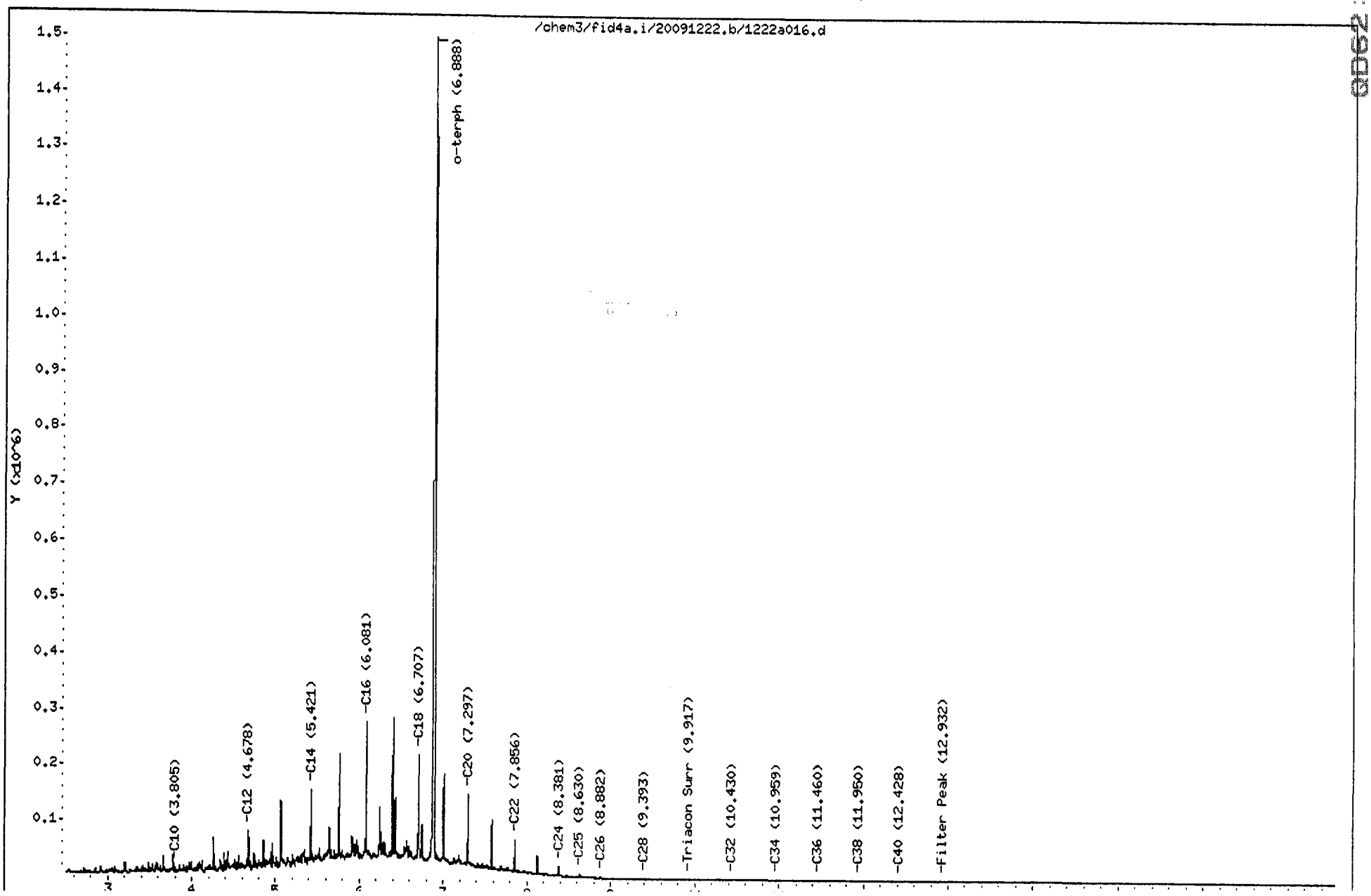
Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a016.d
Date : 22-DEC-2009 19:13
Client ID: DIESEL 500
Sample Info: DIESEL 500

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00



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Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20091222.b/1222a017.d
Method: /chem3/fid4a.i/20091222.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MS
Report Date: 12/23/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 1000
Client ID: DIESEL 1000
Injection: 22-DEC-2009 19:38

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.370	-0.018	8073	8901	GAS (Tol-C12)	1821161	154
C8	2.630	0.001	380	367	DIESEL (C12-C24)	12342054	953
C10	3.804	0.009	18835	12993	M.OIL (C24-C38)	141556	15
C12	4.679	-0.005	146462	81160	AK-102 (C10-C25)	13744808	947
C14	5.424	0.000	283988	222877	AK-103 (C25-C36)	88806	13
C16	6.086	0.003	475140	352808	OR.DIES (C10-C28)	13823674	923
C18	6.712	0.005	323664	346880	OR.MOIL (C28-C40)	16235	2
C20	7.301	0.001	260866	228783			
C22	7.858	-0.003	126952	93453			
C24	8.381	-0.005	39537	32858			
C25	8.630	-0.008	17491	14396			
C26	8.880	-0.005	6144	8073			
C28	9.391	-0.003	786	867			
C32	10.435	-0.001	42	45			
C34	10.948	-0.007	31	21	CREOSOT (C12-C22)	11898069	2861
Filter Peak	12.930	-0.003	415	442			
C36	11.463	0.003	48	43			
C38	11.948	-0.001	380	580			
C40	12.407	-0.011	206	229			
o-terph	6.904	0.025	2015273	2775221	JET-A (C10-C18)	10065851	761
Triacon Surr	9.911	-0.017	175	304			

Range Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2775221	175.1	389.0
Triacontane	304	0.0	0.0

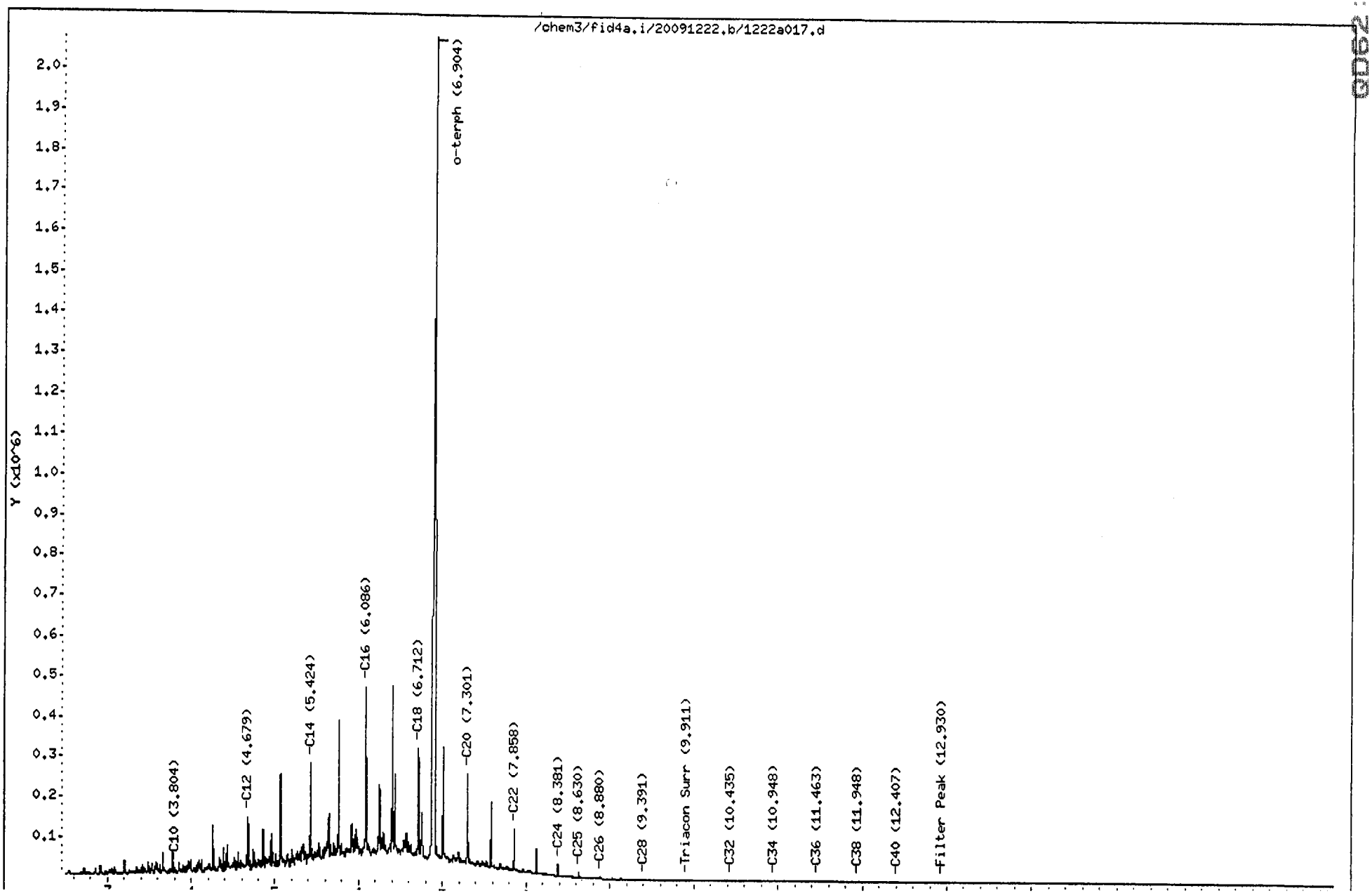
Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a017.d
Date : 22-DEC-2009 19:38
Client ID: DIESEL 1000
Sample Info: DIESEL 1000

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00



Analytical Resources Inc.
TPH Quantitation Report

)ata file: /chem3/fid4a.i/20091222.b/1222a018.d
Method: /chem3/fid4a.i/20091222.b/ftphfid4a.m
Instrument: fid4a.i
)perator: MS
Report Date: 12/23/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL 2500
Client ID: DIESEL 2500
Injection: 22-DEC-2009 20:02
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.409	0.021	18572	19338	GAS (Tol-C12)	4531029	383
8	2.619	-0.010	2396	2106	DIESEL (C12-C24)	31361324	2422
10	3.784	-0.012	155143	100360	M.OIL (C24-C38)	380471	42
12	4.681	-0.003	370460	206865	AK-102 (C10-C25)	34860994	2403
14	5.428	0.004	636242	588084	AK-103 (C25-C36)	252278	37
16	6.071	-0.012	236594	210672	OR.DIES (C10-C28)	35089751	2342
18	6.721	0.014	591858	1017471	OR.MOIL (C28-C40)	27670	4
20	7.310	0.010	548873	543937			
22	7.864	0.003	310222	244265			
24	8.382	-0.005	103450	87615			
25	8.629	-0.009	45395	43507			
26	8.879	-0.007	17531	22843			
28	9.386	-0.007	2251	2443			
32	10.428	-0.008	145	174			
34	10.950	-0.005	88	94	CREOSOT (C12-C22)	30135969	7245
ilter Peak	12.934	0.001	360	316			
36	11.462	0.001	33	28			
38	11.951	0.003	222	347			
40	12.421	0.003	151	145			
-terph	6.931	0.052	3287946	7417912	JET-A (C10-C18)	25062573	1894
riacon Surr	9.939	0.011	241	210			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	7417912	467.9	1039.9
Triacontane	210	0.0	0.0

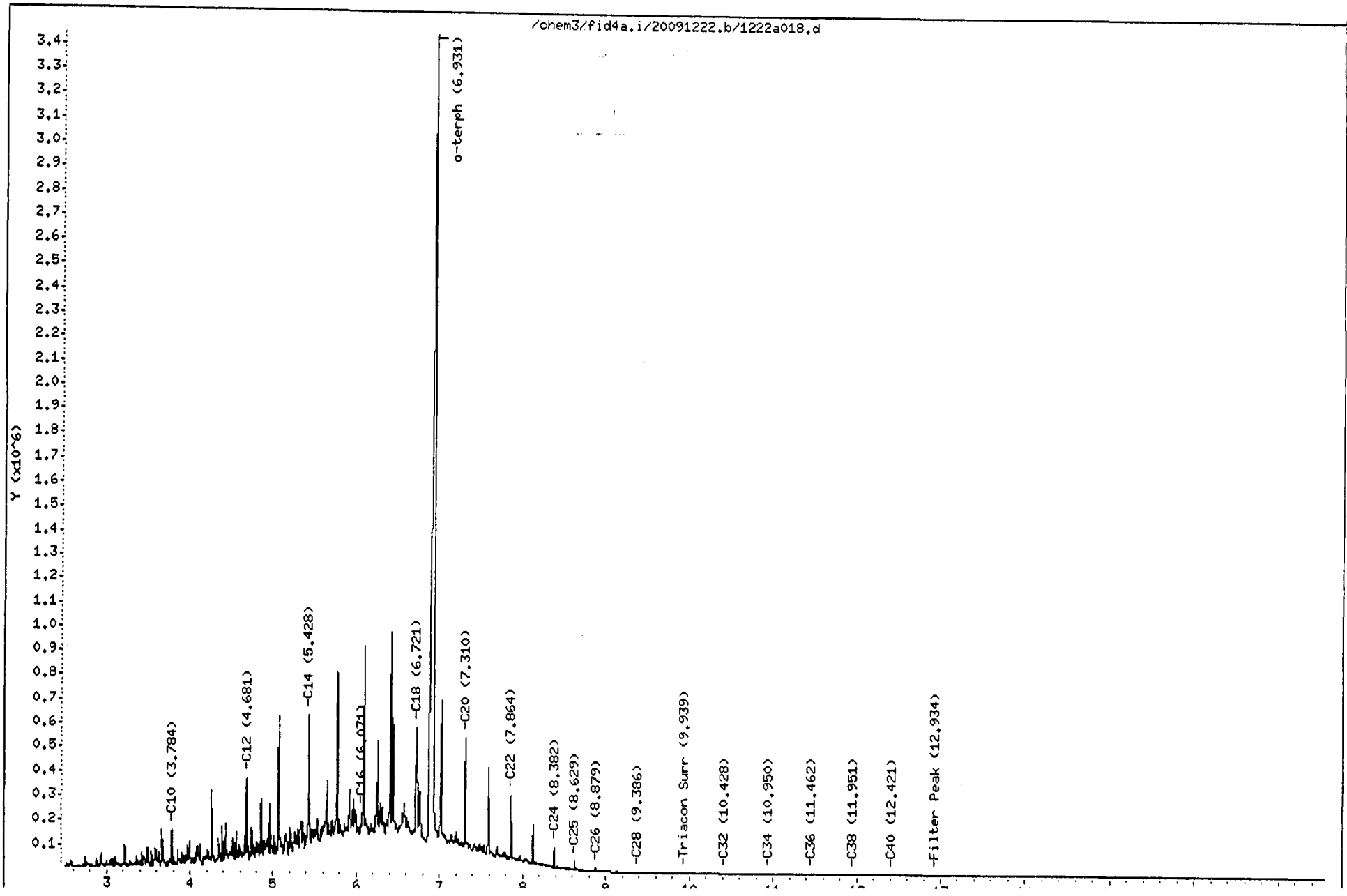
Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a018.d
Date : 22-DEC-2009 20:02
Client ID: DIESEL 2500
Sample Info: DIESEL 2500

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00



Analytical Resources Inc.
TPH Quantitation Report

ata file: /chem3/fid4a.i/20091222.b/1222a019.d
ethod: /chem3/fid4a.i/20091222.b/ftphfid4a.m
nstrument: fid4a.i
perator: MS
eport Date: 12/23/2009
acro: 22-DEC-2009
alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL ICV
Client ID:
Injection: 22-DEC-2009 20:26

Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.402	0.013	885	963	GAS (Tol-C12)	676524	57
8	2.619	-0.010	338	320	DIESEL (C12-C24)	3012838	233
10	3.807	0.011	9569	6235	M.OIL (C24-C38)	40462	4
12	4.681	-0.003	58726	32397	AK-102 (C10-C25)	3505940	242
14	5.423	-0.001	93855	74276	AK-103 (C25-C36)	26523	4
16	6.080	-0.003	99919	61608	OR.DIES (C10-C28)	3526950	235
18	6.703	-0.005	78051	62317	OR.MOIL (C28-C40)	12143	2
20	7.295	-0.005	52716	45914			
22	7.856	-0.006	23241	19310			
24	8.381	-0.005	6946	6903			
25	8.632	-0.006	3309	3462			
26	8.883	-0.002	1458	2273			
28	9.393	0.000	260	299			
32	10.438	0.001	40	38			
34	10.961	0.006	44	35	CREOSOT (C12-C22)	2923396	703
ilter Peak	12.926	-0.007	420	252			
36	11.469	0.009	73	109			
38	11.956	0.008	223	481			
40	12.427	0.009	226	112			
-terph	6.878	0.000	923468	734089	JET-A (C10-C18)	2699613	204
riacon Surr	9.916	-0.012	241	424			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	734089	46.3	102.9
Triacontane	424	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

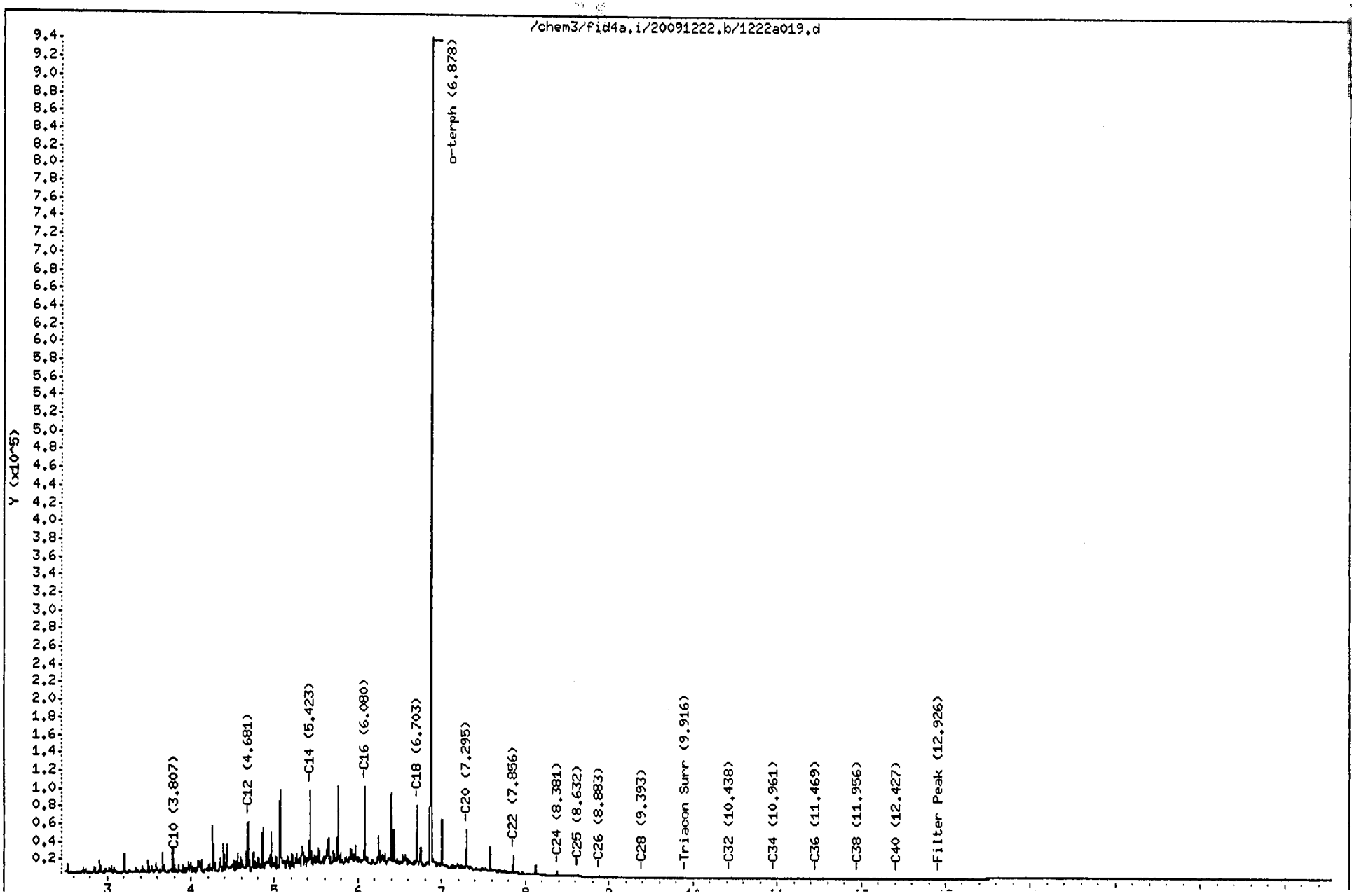
Data File: /chem3/fid4a.i/20091222.b/1222a019.d
Date : 22-DEC-2009 20:26
Client ID:
Sample Info: DIESEL ICV

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

QD52:00143



6a
NW MOTOR OIL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC
Client: Floyd/Snider

SDG No.: QD62
Project: Lora Lakes Apt

Instrument ID: FID4A
GC Column: RTX-1

Calibration Date: 22-DEC-2009

Motor Oil Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil	9382	9072	9135	9714	9414	8167	9147	5.8
AK M.Oil	8303	8043	8037	8521	8454	7530	8148	4.5
OR M.Oil	7366	7029	7101	7659	7138	5918	7035	8.4
Triac Surr	18787	18646	18437	19603	19522	18104	18850	3.2

<- 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

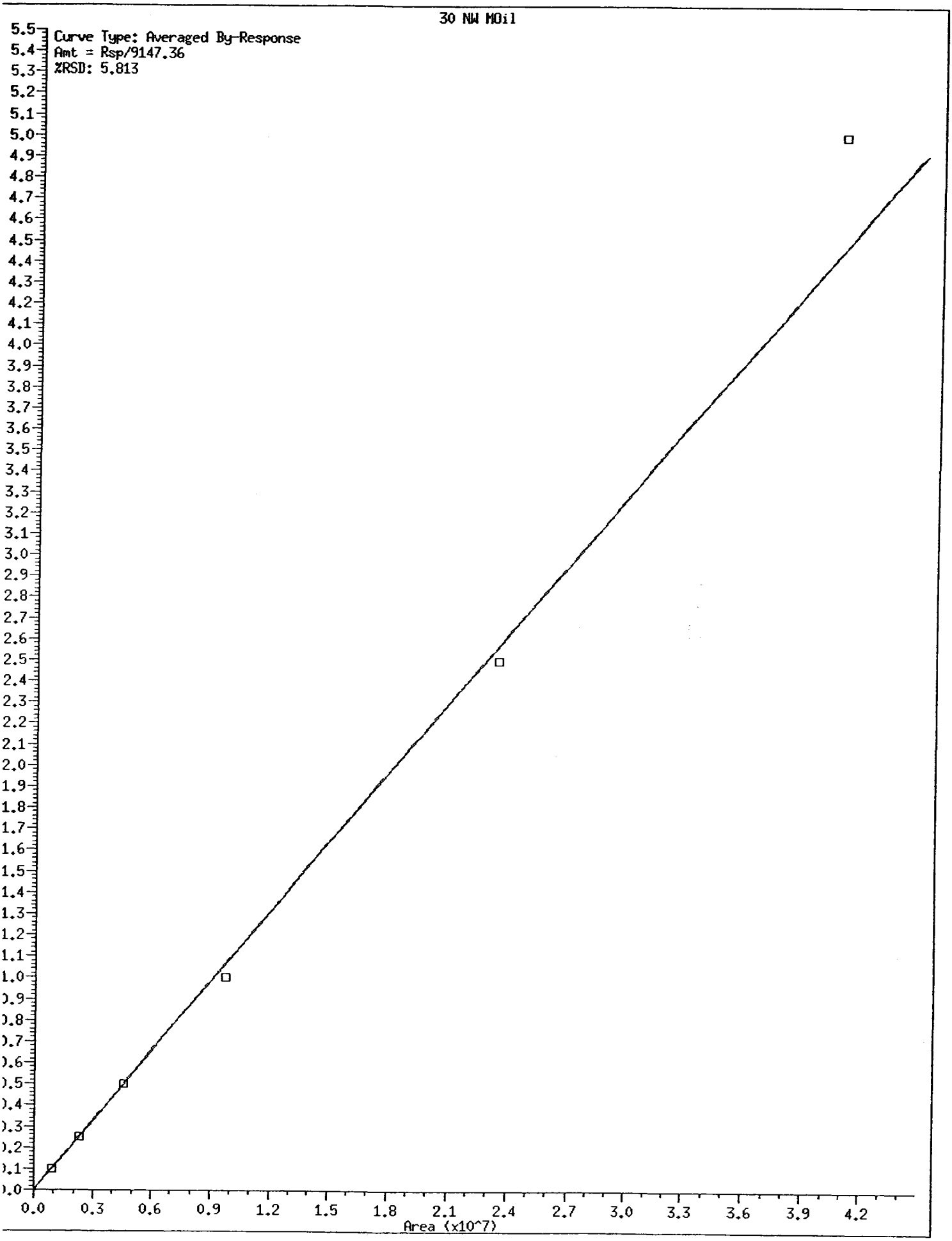
Calibration Files	Analysis Time
1222a020.d	22-DEC-2009 20:50
1222a021.d	22-DEC-2009 21:14
1222a022.d	22-DEC-2009 21:38
1222a023.d	22-DEC-2009 22:03
1222a024.d	22-DEC-2009 22:27
1222a025.d	22-DEC-2009 22:51

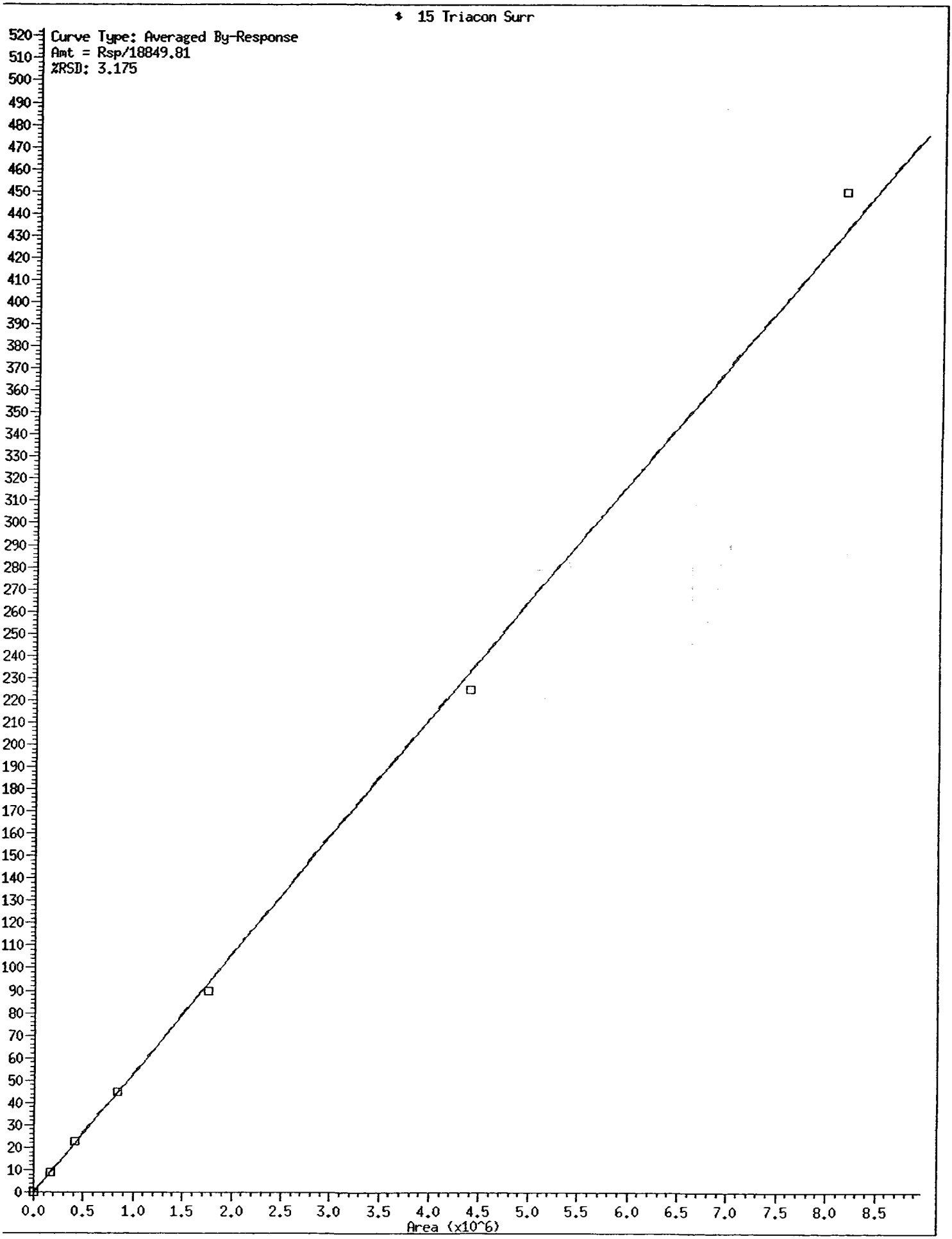
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

tart Cal Date : 12-NOV-2004 08:49
nd Cal Date : 22-DEC-2009 22:51
uant Method : ESTD
rigin : Disabled
arget Version : 3.50
ntegrator : Falcon
ethod file : /chem3/fid4a.i/20091222.b/ftphfid4a.m
al Date : 23-Dec-2009 14:47 marys
urve Type : Average

Compound	0.000e+00 Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	
	0.000e+00 Level 7	Level 8	Level 9	Level 10	Level 11	Level 12			
30 NW MOil	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
34 OR MOil	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
35 AK MOil 103	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
8 o-terph	+++++	15389	15737	15720	16364	15418			
	16484	+++++	+++++	+++++	+++++	+++++	15852	2.953	
15 Triacon Surr	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	18787	18646	18437	19603	19522	18850	3.175	


30 NW MOil
Curve Type: Averaged By-Response
Amt = Rsp/9147.36
%RSD: 5.813
Area (x10^7)


15 Triacon Surr
Curve Type: Averaged By-Response
Amt = Rsp/18849.81
%RSD: 3.175
Area (x10^6)

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20091222.b/1222a011.d
Method: /chem3/fid4a.i/20091222.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MS
Report Date: 12/23/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: RT
Client ID: RT
Injection: 22-DEC-2009 17:13

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.388	0.000	404996	200307	GAS (Tol-C12)	875930	74
C8	2.629	0.000	211852	149200	DIESEL (C12-C24)	1390908	107
C10	3.796	0.000	307446	209397	M.OIL (C24-C38)	1694190	185
C12	4.683	0.000	271156	216985	AK-102 (C10-C25)	1849408	127
C14	5.424	0.000	331084	220809	AK-103 (C25-C36)	1534648	222
C16	6.083	0.000	376225	222291	OR.DIES (C10-C28)	2665349	178
C18	6.707	0.000	367895	226397	OR.MOIL (C28-C40)	980506	141
C20	7.300	0.000	359165	224106			
C22	7.861	0.000	368489	234284			
C24	8.386	0.000	352346	233692			
C25	8.638	0.000	462436	327888			
C26	8.885	0.000	329706	235698			
C28	9.393	0.000	305584	244033			
C32	10.436	0.000	272773	246830			
C34	10.955	0.000	245553	236403	CREOSOT (C12-C22)	1153279	277
Filter Peak	12.933	0.000	1019	1251			
C36	11.461	0.000	203536	191088			
C38	11.948	0.000	151641	144181			
C40	12.418	0.000	91250	91253			
o-terph	6.879	0.000	901947	751847	JET-A (C10-C18)	1142197	86
Triacon Surr	9.928	0.000	674364	848519			

Range Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	751847	47.4	105.4
Triacontane	848519	45.0	100.0

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a011.d
Date : 22-DEC-2009 17:13
Client ID: RT
Sample Info: RT

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

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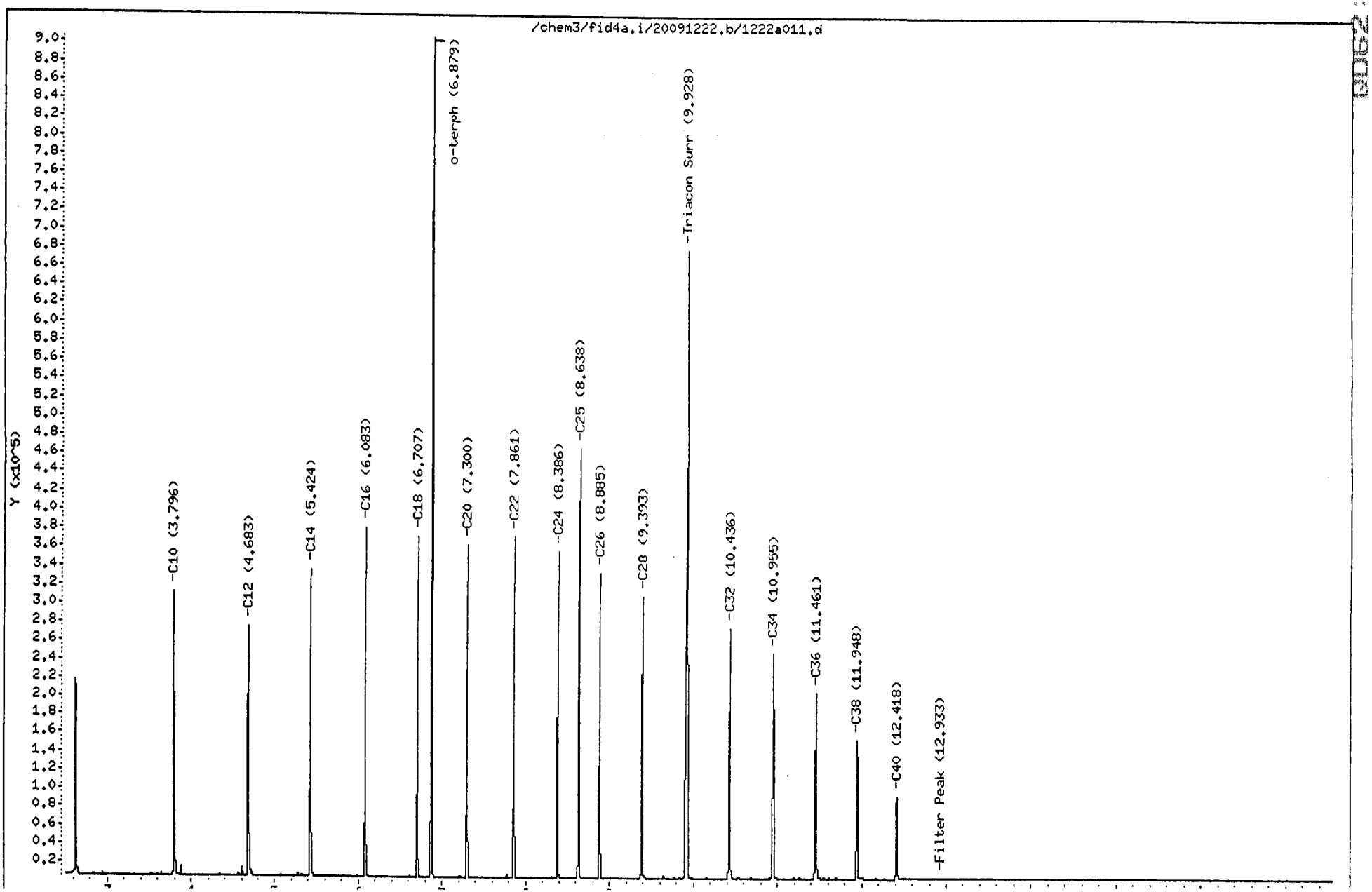

Analytical Resources Inc.
TPH Quantitation Report

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)perator: MS
:eport Date: 12/23/2009
lacro: 22-DEC-2009
:alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: IB
Client ID: IB
Injection: 22-DEC-2009 17:37

Dilution Factor: 1

FID:4A RESULTS

'ompound	RT	Shift	Height	Area	Range	Total Area	Conc
'oluene	2.385	-0.003	393	1092	GAS (Tol-C12)	64086	5
'8	2.640	0.011	228	239	DIESEL (C12-C24)	26473	2
10	3.795	-0.001	599	680	M.OIL (C24-C38)	63371	7
12	4.717	0.033	305	129	AK-102 (C10-C25)	58581	4
14	5.416	-0.008	153	319	AK-103 (C25-C36)	51057	7
16	6.093	0.010	506	569	OR.DIES (C10-C28)	68671	5
18	6.702	-0.005	427	295	OR.MOIL (C28-C40)	66854	10
20	7.314	0.014	190	302			
22	7.862	0.001	767	732			
24	8.386	0.000	306	602			
25	8.637	-0.001	330	313			
26	8.885	0.000	298	400			
28	9.386	-0.007	908	794			
32	10.429	-0.007	1756	3039			
34	10.957	0.002	360	970	CREOSOT (C12-C22)	22646	5
ilter Peak	12.931	-0.002	875	364			
36	11.461	0.000	385	623			
38	11.942	-0.006	1216	2283			
40	12.426	0.008	620	1341			
-terph	6.885	0.006	1277128	1245622	JET-A (C10-C18)	47884	4
riacon Surr	9.932	0.004	784354	1055589			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1245622	78.6	174.6
Triacontane	1055589	56.0	124.4

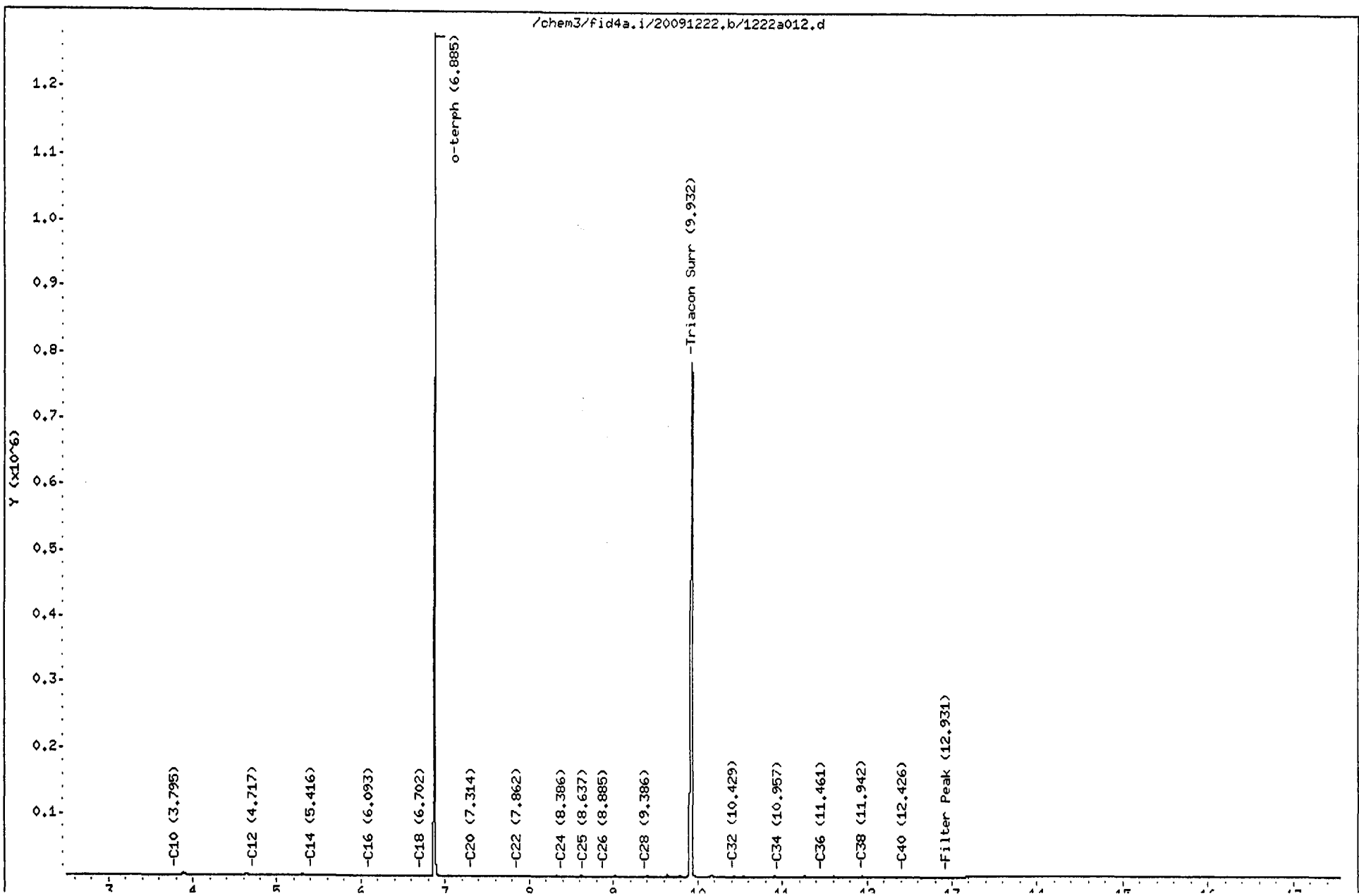
Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a012.d
Date : 22-DEC-2009 17:37
Client ID: IB
Sample Info: IB

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00



Analytical Resources Inc.
TPH Quantitation Report

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perator: MS
eport Date: 12/23/2009
acro: 22-DEC-2009
alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL 100
Client ID: MOIL 100
Injection: 22-DEC-2009 20:50

Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.384	-0.004	295	159	GAS (Tol-C12)	49630	4
8	2.642	0.013	211	222	DIESEL (C12-C24)	122231	9
10	3.790	-0.005	550	107	M.OIL (C24-C38)	938239	103
12	4.685	0.002	288	147	AK-102 (C10-C25)	170585	12
14	5.421	-0.003	122	64	AK-103 (C25-C36)	830277	120
16	6.071	-0.012	40	51	OR.DIES (C10-C28)	391828	26
18	6.715	0.007	40	16	OR.MOIL (C28-C40)	736558	106
20	7.306	0.006	414	716			
22	7.865	0.004	1436	1486			
24	8.386	-0.001	3192	3999			
25	8.642	0.004	3978	2588			
26	8.880	-0.005	4387	2815			
28	9.390	-0.003	5209	2655			
32	10.435	-0.001	5546	2807			
34	10.964	0.010	5091	4645	CREOSOT (C12-C22)	48861	12
ilter Peak	12.926	-0.007	972	1447			
36	11.468	0.007	3806	4208			
38	11.954	0.005	2560	2023			
10	12.408	-0.010	1533	2354			
-terph	6.883	0.004	307	347	JET-A (C10-C18)	32525	2
riacon Surr	9.909	-0.020	209506	169083			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	347	0.0	0.0
Triacontane	169083	9.0	19.9

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

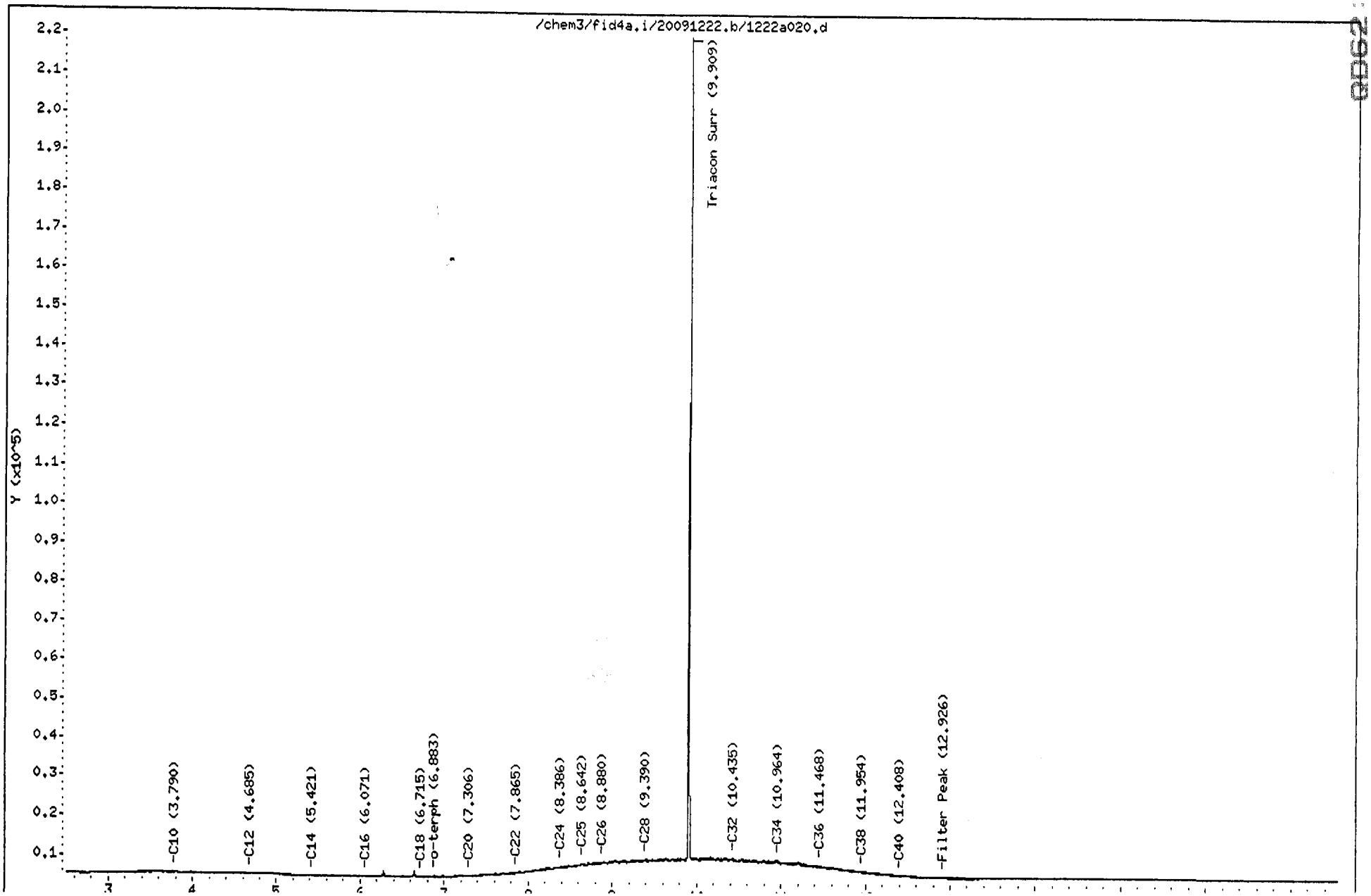
Data File: /chem3/fid4a.i/20091222.b/1222a020.d
Date : 22-DEC-2009 20:50
Client ID: MOIL 100
Sample Info: MOIL 100

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

BDC2 00453



Analytical Resources Inc.
TPH Quantitation Report

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lacro: 22-DEC-2009
:alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL 250
Client ID: MOIL 250
Injection: 22-DEC-2009 21:14
Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.392	0.004	251	142	GAS (Tol-C12)	47817	4
8	2.650	0.021	161	250	DIESEL (C12-C24)	285041	22
10	3.795	-0.001	512	260	M.OIL (C24-C38)	2267979	248
12	4.678	-0.005	288	516	AK-102 (C10-C25)	374124	26
14	5.427	0.003	101	77	AK-103 (C25-C36)	2010749	291
16	6.082	-0.001	24	4	OR.DIES (C10-C28)	922213	62
18	6.716	0.009	152	238	OR.MOIL (C28-C40)	1757155	253
20	7.299	-0.001	1073	1357			
22	7.861	0.000	3638	3454			
24	8.388	0.002	7599	9904			
25	8.638	0.000	9701	13726			
26	8.895	0.010	11709	22275			
28	9.395	0.001	12900	7684			
32	10.447	0.010	13410	14280			
34	10.954	-0.001	12989	15102	CREOSOT (C12-C22)	104982	25
ilter Peak	12.940	0.007	1648	683			
36	11.461	0.000	9397	11360			
38	11.957	0.008	6029	4888			
40	12.432	0.014	3264	1977			
-terph	6.878	-0.001	548	668	JET-A (C10-C18)	35837	3
riacon Surr	9.918	-0.010	436910	419530			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	668	0.0	0.1
Triacontane	419530	22.3	49.5

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

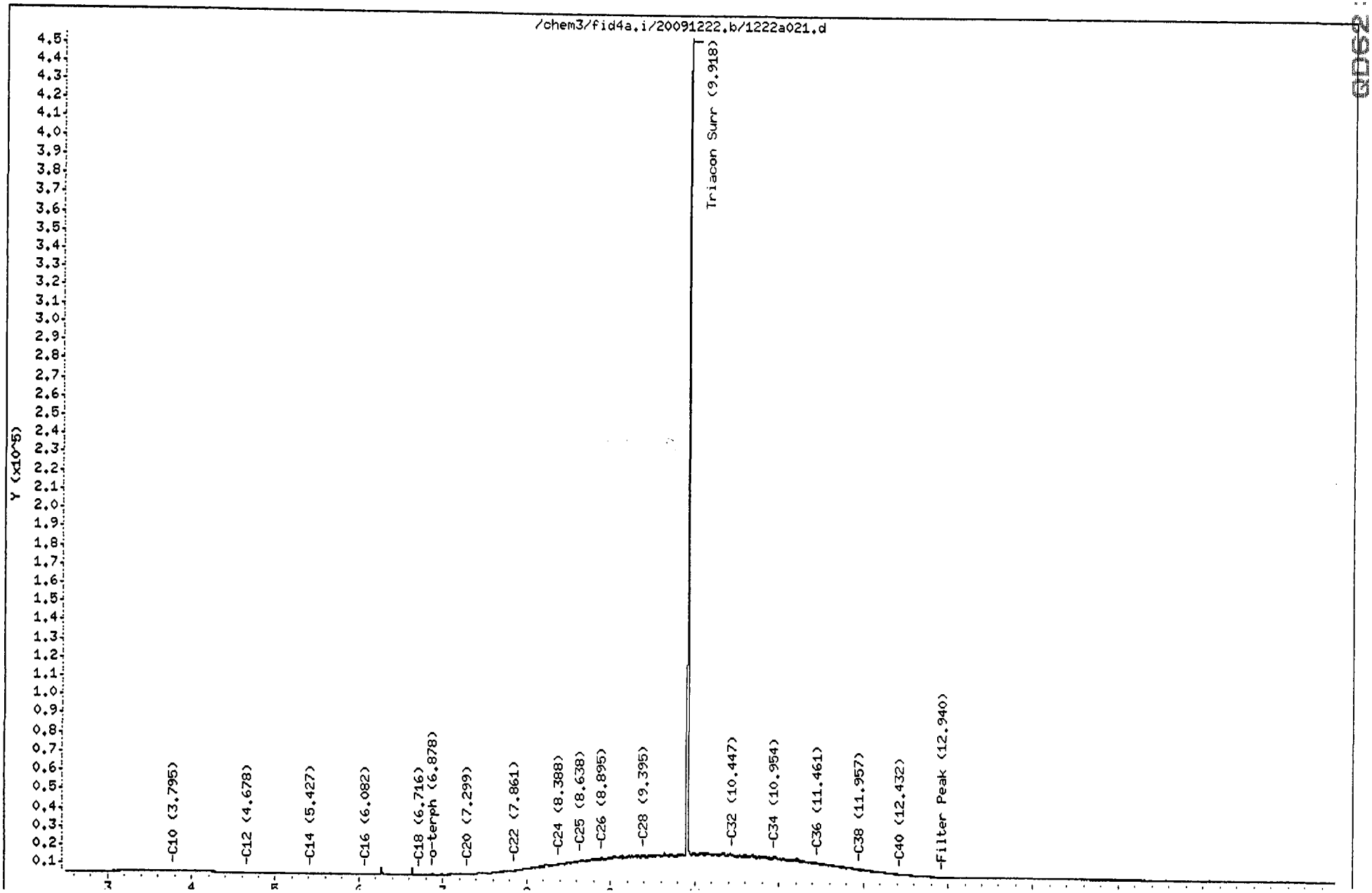
Data File: /chem3/fid4a.i/20091222.b/1222a021.d
Date : 22-DEC-2009 21:14
Client ID: MOIL 250
Sample Info: MOIL 250

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

QD62:00455



Analytical Resources Inc.
TPH Quantitation Report

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perator: MS
eport Date: 12/23/2009
acro: 22-DEC-2009
alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL 500
Client ID: MOIL 500
Injection: 22-DEC-2009 21:38
Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.389	0.000	244	428	GAS (Tol-C12)	41775	4
8	2.643	0.014	123	69	DIESEL (C12-C24)	547419	42
10	3.804	0.009	489	940	M.OIL (C24-C38)	4567472	499
12	4.687	0.004	259	303	AK-102 (C10-C25)	695408	48
14	5.418	-0.006	116	140	AK-103 (C25-C36)	4018274	582
16	6.075	-0.008	31	15	OR.DIES (C10-C28)	1800557	120
18	6.710	0.003	302	427	OR.MOIL (C28-C40)	3550338	511
20	7.298	-0.002	2167	2024			
22	7.868	0.007	7207	11950			
24	8.382	-0.004	14753	13168			
25	8.641	0.003	19050	12095			
26	8.882	-0.003	20353	7640			
28	9.396	0.003	24669	10196			
32	10.441	0.005	26877	37099			
34	10.957	0.002	26325	40331	CREOSOT (C12-C22)	202196	49
ilter Peak	12.925	-0.008	3229	3331			
36	11.461	0.001	18918	24816			
38	11.963	0.015	12219	16575			
40	12.423	0.005	6882	6415			
-terph	6.874	-0.004	779	1062	JET-A (C10-C18)	42190	3
riacon Surr	9.930	0.001	688102	829653			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1062	0.1	0.1
Triacontane	829653	44.0	97.8

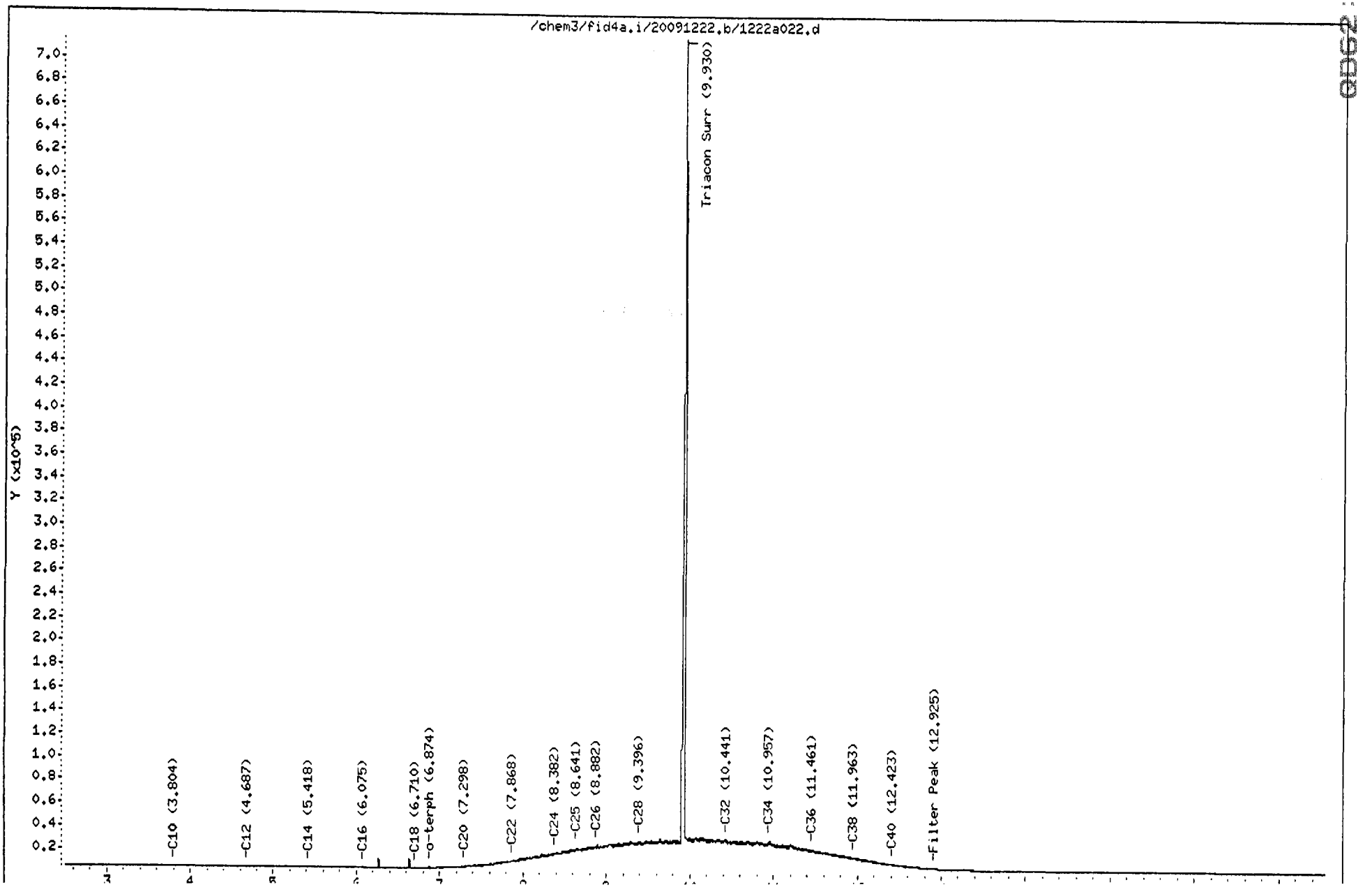
Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a022.d
Date : 22-DEC-2009 21:38
Client ID: MOIL 500
Sample Info: MOIL 500

Column phase: RTX-1

Instrument: fid4a.i

Operator: HS
Column diameter: 2.00



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20091222.b/1222a023.d
Method: /chem3/fid4a.i/20091222.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MS
Report Date: 12/23/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL 1000
Client ID: MOIL 1000
Injection: 22-DEC-2009 22:03

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.400	0.012	195	314	GAS (Tol-C12)	41463	4
C8	2.633	0.004	114	146	DIESEL (C12-C24)	1125369	87
C10	3.797	0.002	442	233	M.OIL (C24-C38)	9713908	1062
C12	4.678	-0.005	263	523	AK-102 (C10-C25)	1448113	100
C14	5.416	-0.008	138	246	AK-103 (C25-C36)	8520904	1235
C16	6.082	0.000	72	19	OR.DIES (C10-C28)	3675937	245
C18	6.709	0.002	704	992	OR.MOIL (C28-C40)	7658509	1103
C20	7.296	-0.003	4629	4252			
C22	7.863	0.002	15347	20009			
C24	8.383	-0.003	31448	39382			
C25	8.628	-0.009	39225	27953			
C26	8.880	-0.005	44890	41902			
C28	9.387	-0.006	53021	46386			
C32	10.432	-0.004	59919	97856			
C34	10.952	-0.002	55054	31907	CREOSOT (C12-C22)	426118	102
Filter Peak	12.935	0.003	6227	2191			
C36	11.458	-0.003	40686	20623			
C38	11.951	0.003	25854	16755			
C40	12.408	-0.010	14515	23882			
o-terph	6.872	-0.006	1143	1979	JET-A (C10-C18)	60866	5
Triacon Surr	9.949	0.021	1144216	1764290			

Range Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1979	0.1	0.3
Triacontane	1764290	93.6	208.0

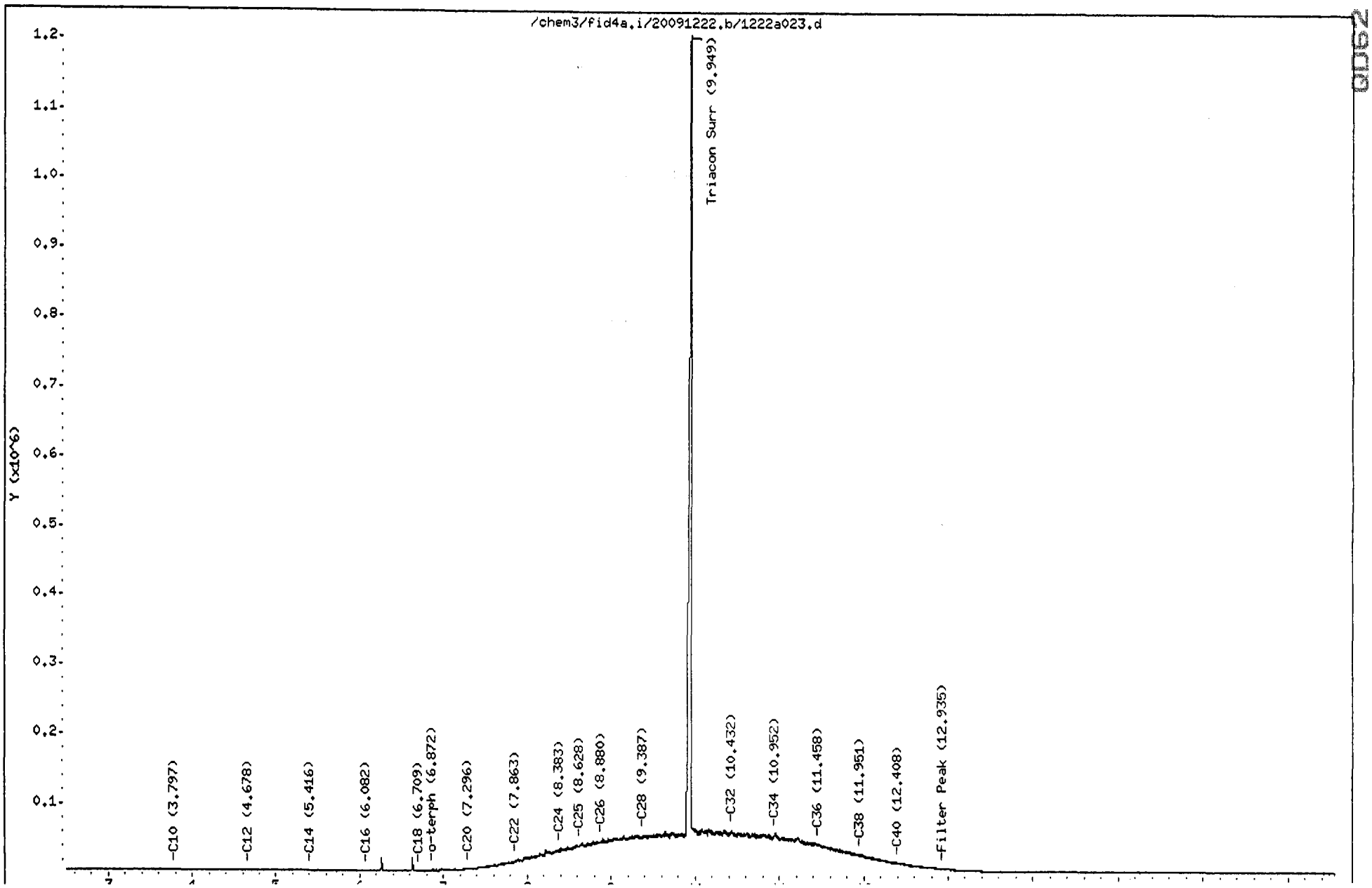
Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a023.d
Date : 22-DEC-2009 22:03
Client ID: MOIL 1000
Sample Info: MOIL 1000

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00



Analytical Resources Inc.
TPH Quantitation Report

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nstrument: fid4a.i
)perator: MS
.eport Date: 12/23/2009
lacro: 22-DEC-2009
'alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL 2500
Client ID: MOIL 2500
Injection: 22-DEC-2009 22:27

Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.412	0.024	137	93	GAS (Tol-C12)	37725	3
8	2.644	0.014	34	34	DIESEL (C12-C24)	2789172	215
10	3.796	0.000	1115	2595	M.OIL (C24-C38)	23534654	2573
12	4.687	0.003	251	200	AK-102 (C10-C25)	3471916	239
14	5.439	0.015	438	890	AK-103 (C25-C36)	21135057	3062
16	6.087	0.004	576	746	OR.DIES (C10-C28)	9291145	620
18	6.706	-0.001	2053	3038	OR.MOIL (C28-C40)	17846197	2570
20	7.296	-0.004	11671	16700			
22	7.858	-0.004	36880	27604			
24	8.384	-0.002	75794	86803			
25	8.638	0.000	98028	89794			
26	8.883	-0.002	110432	85999			
28	9.389	-0.005	132008	194044			
32	10.438	0.002	142350	104812			
34	10.948	-0.007	118580	23336	CREOSOT (C12-C22)	1043434	251
ilter Peak	12.921	-0.012	8812	12652			
36	11.467	0.006	89624	123357			
38	11.940	-0.009	51364	94127			
40	12.411	-0.006	23308	19552			
-terph	6.870	-0.009	2916	5394	JET-A (C10-C18)	119008	9
riacon Surr	9.984	0.056	1812666	4392381			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	5394	0.3	0.8
Triacontane	4392381	233.0	517.8

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091222.b/1222a024.d
Date : 22-DEC-2009 22:27
Client ID: MOIL 2500
Sample Info: MOIL 2500

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

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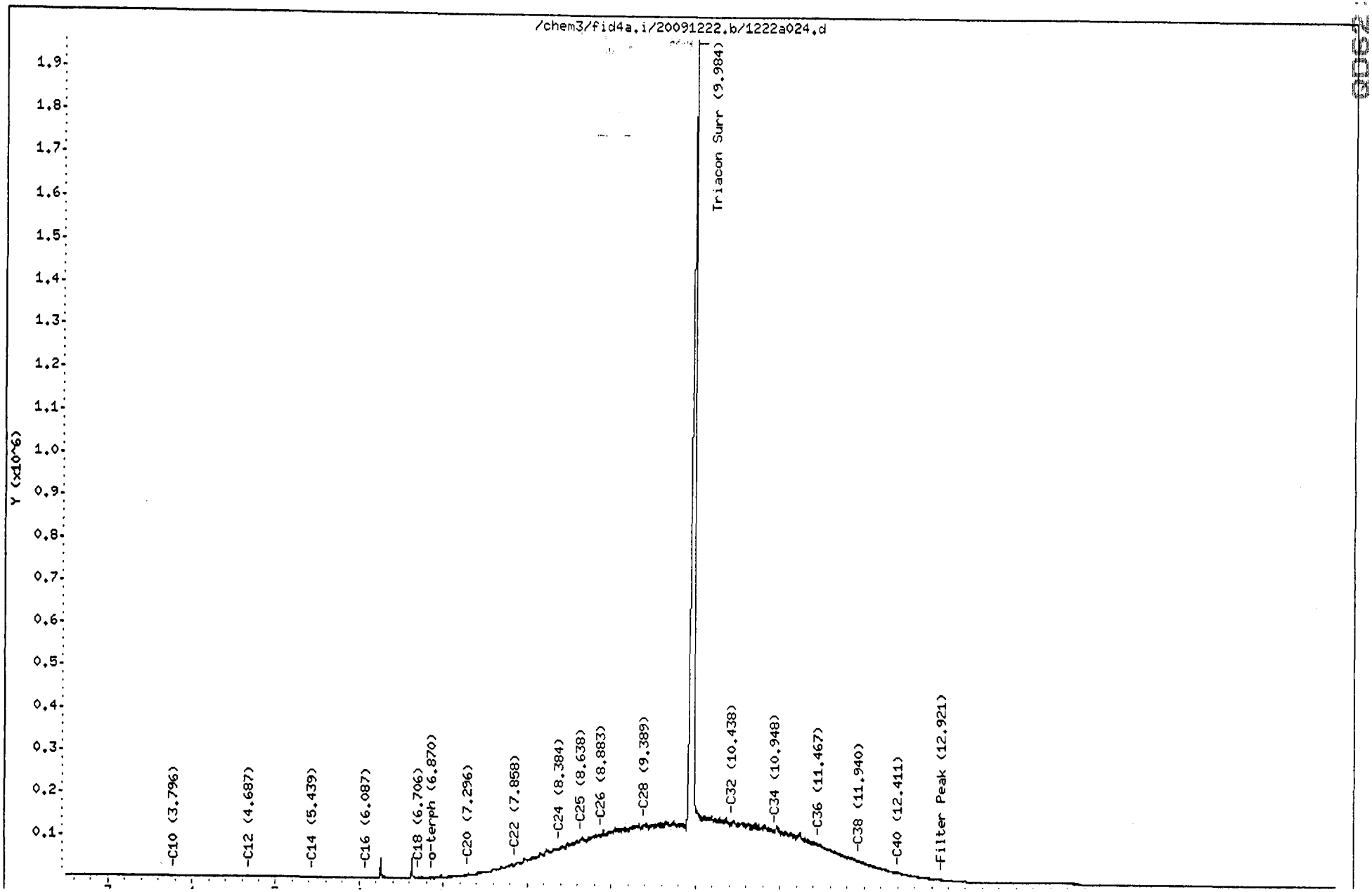


Analytical Resources Inc.
TPH Quantitation Report

ata file: /chem3/fid4a.i/20091222.b/1222a025.d
ethod: /chem3/fid4a.i/20091222.b/ftphfid4a.m
nstrument: fid4a.i
perator: MS
eport Date: 12/23/2009
acro: 22-DEC-2009
alibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL 5000
Client ID: MOIL 5000
Injection: 22-DEC-2009 22:51
Dilution Factor: 1

FID:4A RESULTS

ompound	RT	Shift	Height	Area	Range	Total Area	Conc
oluene	2.374	-0.014	296	551	GAS (Tol-C12)	49415	4
8	2.596	-0.033	1073	1272	DIESEL (C12-C24)	5773674	446
10	3.801	0.005	2095	3850	M.OIL (C24-C38)	40835707	4464
12	4.687	0.004	499	648	AK-102 (C10-C25)	7119787	491
14	5.441	0.017	1358	2310	AK-103 (C25-C36)	37650660	5455
16	6.084	0.001	1557	1544	OR.DIES (C10-C28)	17634880	1177
18	6.704	-0.003	4366	4739	OR.MOIL (C28-C40)	29590049	4261
20	7.295	-0.005	22708	30582			
22	7.857	-0.004	69932	103305			
24	8.387	0.001	148046	107498			
25	8.641	0.003	187696	99315			
26	8.890	0.005	211288	221903			
28	9.399	0.005	250334	162352			
32	10.443	0.006	252667	179489			
34	10.948	-0.007	184398	227680	CREOSOT (C12-C22)	2047653	492
ilter Peak	12.936	0.003	6785	8752			
36	11.458	-0.003	103782	73356			
38	11.945	-0.003	44410	84268			
40	12.426	0.009	15913	21739			
-terph	6.879	0.001	4299	2642	JET-A (C10-C18)	230875	17
riacon Surr	10.028	0.100	2418200	8147000			

ange Times: NW Diesel(4.683 - 8.386) AK102(3.80 - 8.64) Jet A(3.80 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.80 - 9.39)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2642	0.2	0.4
Triacontane	8147000	432.2	960.5

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

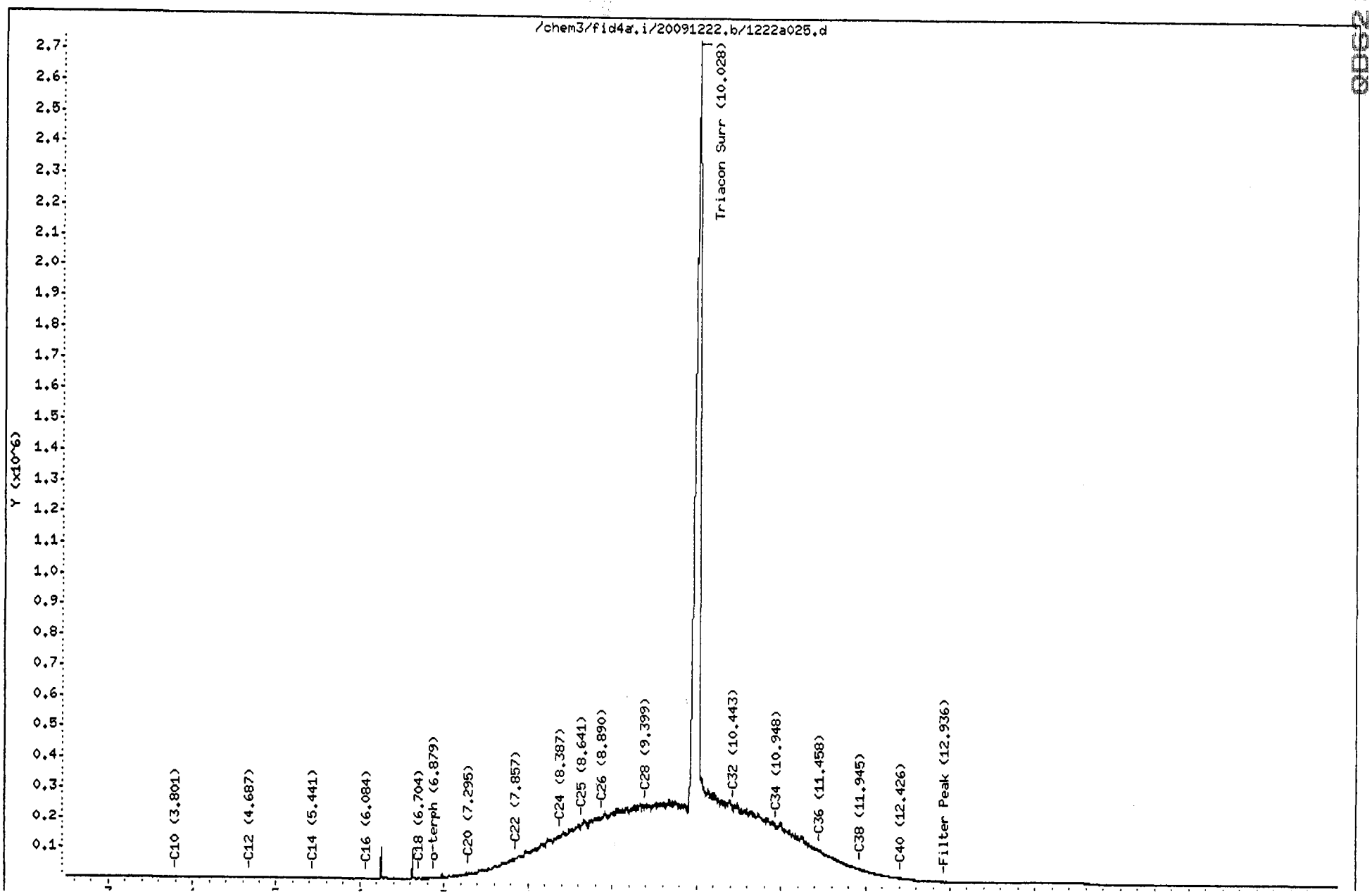
Data File: /chem3/fid4a.i/20091222.b/1222a025.d
Date : 22-DEC-2009 22:51
Client ID: MOIL 5000
Sample Info: MOIL 5000

Column phase: RTX-1

Instrument: fid4a.i

Operator: MS
Column diameter: 2.00

QDS2 : 00463



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20091229.b/1229a008.d
Method: /chem3/fid4a.i/20091229.b/ftphfid4a.m
Instrument: fid4a.i
Operator: AR
Report Date: 12/30/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL ICV 1605-2
Client ID:
Injection: 29-DEC-2009 19:56

AR 12/30/09

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.490	0.007	111	71	GAS (Tol-C12)	46479	4
C8	2.690	-0.011	41	29	DIESEL (C12-C24)	525241	41
C10	3.823	0.002	582	895	M.OIL (C24-C38)	3833967	419
C12	4.703	0.004	429	630	AK-102 (C10-C25)	661195	46
C14	5.432	-0.003	329	566	AK-103 (C25-C36)	3357893	487
C16	6.095	0.004	244	239	OR.DIES (C10-C28)	1529568	102
C18	6.700	-0.012	387	324	OR.MOIL (C28-C40)	3093306	445
C20	7.306	0.001	2091	2637			
C22	7.863	-0.002	5948	4932			
C24	8.388	-0.002	12596	14671			
C25	8.651	0.010	15901	28095			
C26	8.886	-0.003	17282	17214			
C28	9.406	0.007	20909	14610			
C32	10.448	0.007	22743	38155			
C34	10.957	-0.001	22800	31238	CREOSOT (C12-C22)	209473	50
Filter Peak	12.917	-0.014	3612	5249			
C36	11.454	-0.008	17589	29280			
C38	11.945	-0.006	12161	18906			
C40	12.429	0.007	6887	6052			
o-terph	6.886	0.004	1880	2177	JET-A (C10-C18)	68363	5
Triacon Surr	9.935	0.002	636743	704253			

Range Times: NW Diesel(4.699 - 8.390) AK102(3.82 - 8.64) Jet A(3.82 - 6.71)
NW M.Oil(8.39 - 11.95) AK103(8.64 - 11.46) OR Diesel(3.82 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2177	0.1	0.3
Triacontane	704253	37.4	83.0

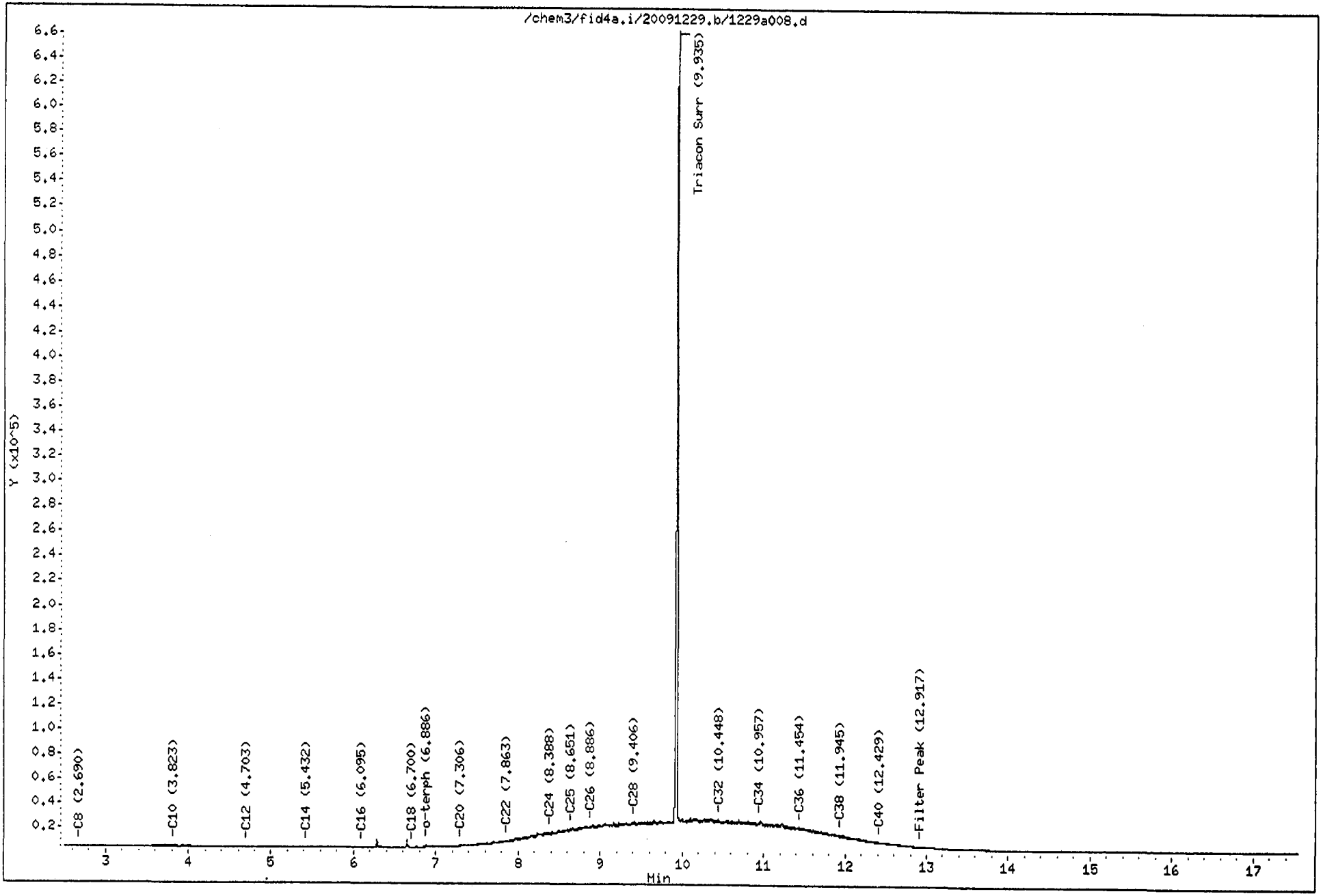
Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20091229.b/1229a008.d
Date : 29-DEC-2009 19:56
Client ID:
Sample Info: MOIL ICV 1605-2

Column phase: RTX-1

Instrument: fid4a.i

Operator: AR
Column diameter: 2.00



0052 : 0065

Analytical Resources Inc.
TPH Quantitation Report

Jm 1/13/10

Data file: /chem3/fid4a.i/20100105.b/0105a003.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/13/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: RT
Client ID: RT
Injection: 05-JAN-2010 12:44
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.517	0.000	352659	167059	GAS (Tol-C12)	801134	68
C8	2.734	0.000	197735	161060	DIESEL (C12-C24)	1316339	102
C10	3.848	0.000	221568	178326	M.OIL (C24-C38)	1784224	195
C12	4.720	0.000	203718	185756	AK-102 (C10-C25)	1706552	118
C14	5.453	0.000	251146	193102	AK-103 (C25-C36)	1535575	222
C16	6.107	0.000	297145	197400	OR.DIES (C10-C28)	2475016	165
C18	6.727	0.000	313448	206419	OR.MOIL (C28-C40)	1214295	175
C20	7.317	0.000	324161	206991			
C22	7.876	0.000	336504	218494			
C24	8.399	0.000	339381	219611			
C25	8.649	0.000	440970	304737			
C26	8.896	0.000	314196	218595			
C28	9.402	0.000	282707	224831			
C32	10.443	0.000	254380	226976			
C34	10.960	0.000	229581	231119	BUNKERC (C10-C38)	3486003	480
Filter Peak	12.908	0.000	2719	6985	HYDRAUL (C24-C38)	1784224	200
C36	11.465	0.000	221281	218277			
C38	11.955	0.000	199596	209766			
C40	12.425	0.000	160391	169155			
o-terph	6.895	0.000	847312	667777	JET-A (C10-C18)	1015986	77
Triacon Surr	9.936	0.000	646734	762331			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	667777	42.1	93.6
Triacontane	762331	40.4	89.9

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Hydraulic	8899.0	12-JUL-2004

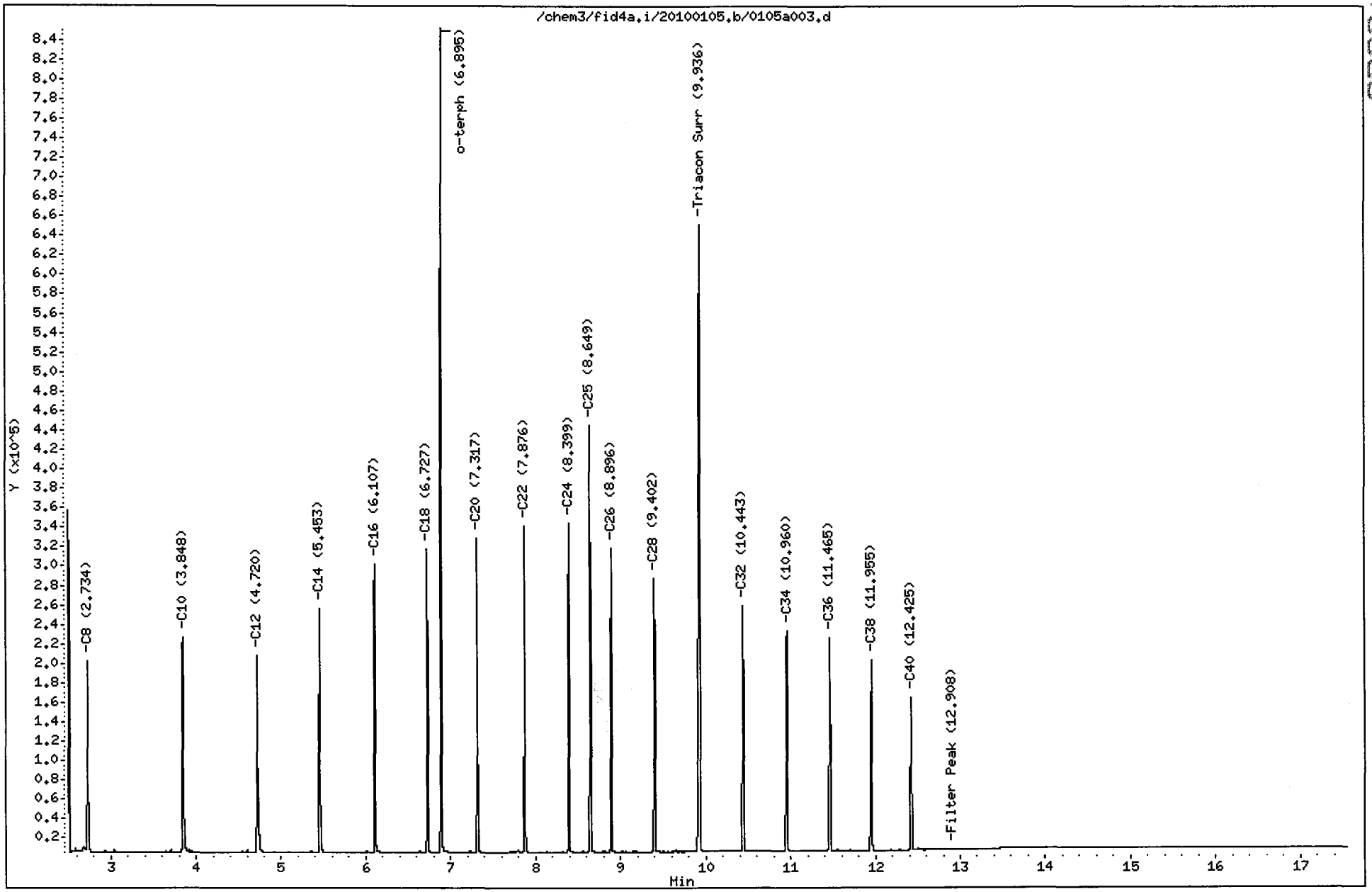
Data File: /chem3/fid4a.i/20100105.b/0105a003.d
Date : 05-JAN-2010 12:44
Client ID: RT
Sample Info: RT

Column phase: RTX-1

Instrument: fid4a.i

Operator: ar
Column diameter: 2.00

QD62-004167



Analytical Resources Inc.
TPH Quantitation Report

1/13/10

Data file: /chem3/fid4a.i/20100105.b/0105a004.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/13/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: IB
Client ID: IB
Injection: 05-JAN-2010 13:09
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.511	-0.006	164	70	GAS (Tol-C12)	46534	4
C8	2.733	-0.001	35	16	DIESEL (C12-C24)	96004	7
C10	3.859	0.010	464	473	M.OIL (C24-C38)	186830	20
C12	4.713	-0.007	555	1320	AK-102 (C10-C25)	127056	9
C14	5.454	0.001	407	253	AK-103 (C25-C36)	139396	20
C16	6.099	-0.008	441	547	OR.DIES (C10-C28)	160273	11
C18	6.728	0.001	638	1516	OR.MOIL (C28-C40)	195291	28
C20	7.325	0.008	567	601			
C22	7.879	0.003	586	693			
C24	8.391	-0.008	634	237			
C25	8.658	0.008	869	1369			
C26	8.901	0.005	840	1923			
C28	9.399	-0.003	1308	1488			
C32	10.431	-0.012	1022	1783			
C34	10.942	-0.018	1254	3214	BUNKERC (C10-C38)	309376	43
Filter Peak	12.903	-0.004	2447	1557	HYDRAUL (C24-C38)	186830	21
C36	11.474	0.008	1267	779			
C38	11.958	0.002	1525	1153			
C40	12.430	0.005	1908	1858			
o-terph	6.900	0.005	1003597	928824	JET-A (C10-C18)	73938	6
Triacon Surr	9.935	-0.001	665029	796253			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	928824	58.6	130.2
Triacontane	796253	42.2	93.9

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Hydraulic	8899.0	12-JUL-2004

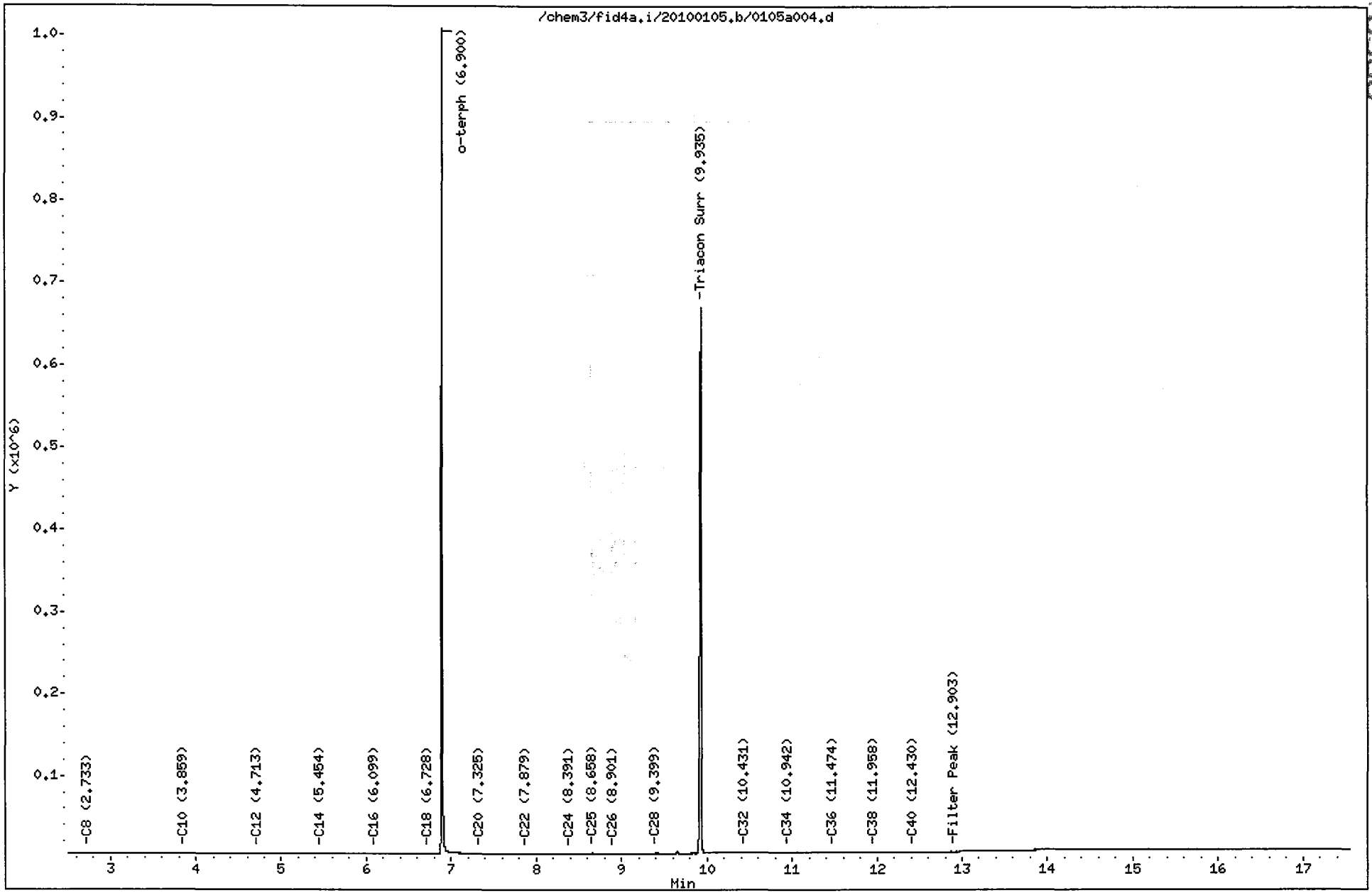
Data File: /chem3/fid4a.i/20100105.b/0105a004.d
Date : 05-JAN-2010 13:09
Client ID: IB
Sample Info: IB

Column phase: RTX-1

Instrument: fid4a.i

Operator: ar
Column diameter: 2.00

GC62-00169



7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 22-DEC-2009 Project: LORA LAKES APT.

CCal Date: 05-JAN-2010 SDG No.: QD62

Analysis Time: 17:02 Lab ID: DIESEL#2

Instrument: FID4A.I Lab File Name: 0105a012.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3350005	258.8	250	3.5
AK102 (C10-C25)	3713273	255.9	250	2.4
Terphenyl	703160	44.4	45	-1.4

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

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

1/13/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20100105.b/0105a012.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/13/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL#2
Client ID: LORA LAKES APT.
Injection: 05-JAN-2010 17:02
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.518	0.001	943	743	GAS (Tol-C12)	464269	39
C8	2.722	-0.012	629	620	DIESEL (C12-C24)	3350005	259
C10	3.848	0.000	5078	3605	M.OIL (C24-C38)	186167	20
C12	4.716	-0.005	33453	20472	AK-102 (C10-C25)	3713273	256
C14	5.451	-0.001	69442	56505	AK-103 (C25-C36)	135744	20
C16	6.106	-0.002	131834	91465	OR.DIES (C10-C28)	3761749	251
C18	6.726	-0.001	117169	91235	OR.MOIL (C28-C40)	160913	23
C20	7.316	-0.002	71447	59457			
C22	7.874	-0.002	33788	28477			
C24	8.399	0.000	9739	14663			
C25	8.652	0.002	4188	11088			
C26	8.905	0.009	1752	5971			
C28	9.403	0.001	689	327			
C32	10.447	0.004	771	421			
C34	10.987	0.027	946	2062	BUNKERC (C10-C38)	3882956	534
Filter Peak	12.921	0.014	2171	4214	HYDRAUL (C24-C38)	186167	21
C36	11.465	-0.001	1084	1065			
C38	11.956	0.001	1291	592			
C40	12.428	0.003	1610	1789			
o-terph	6.899	0.003	889861	703160	JET-A (C10-C18)	2644671	200
Triacon Surr	9.945	0.009	811	3183			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	703160	44.4	98.6
Triacontane	3183	0.2	0.4

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Hydraulic	8899.0	12-JUL-2004

Data File: /chem3/fid4a.i/20100105.b/0105a012.d

Date : 05-JAN-2010 17:02

Client ID: LORA LAKES APT.

Sample Info: DIESEL#2

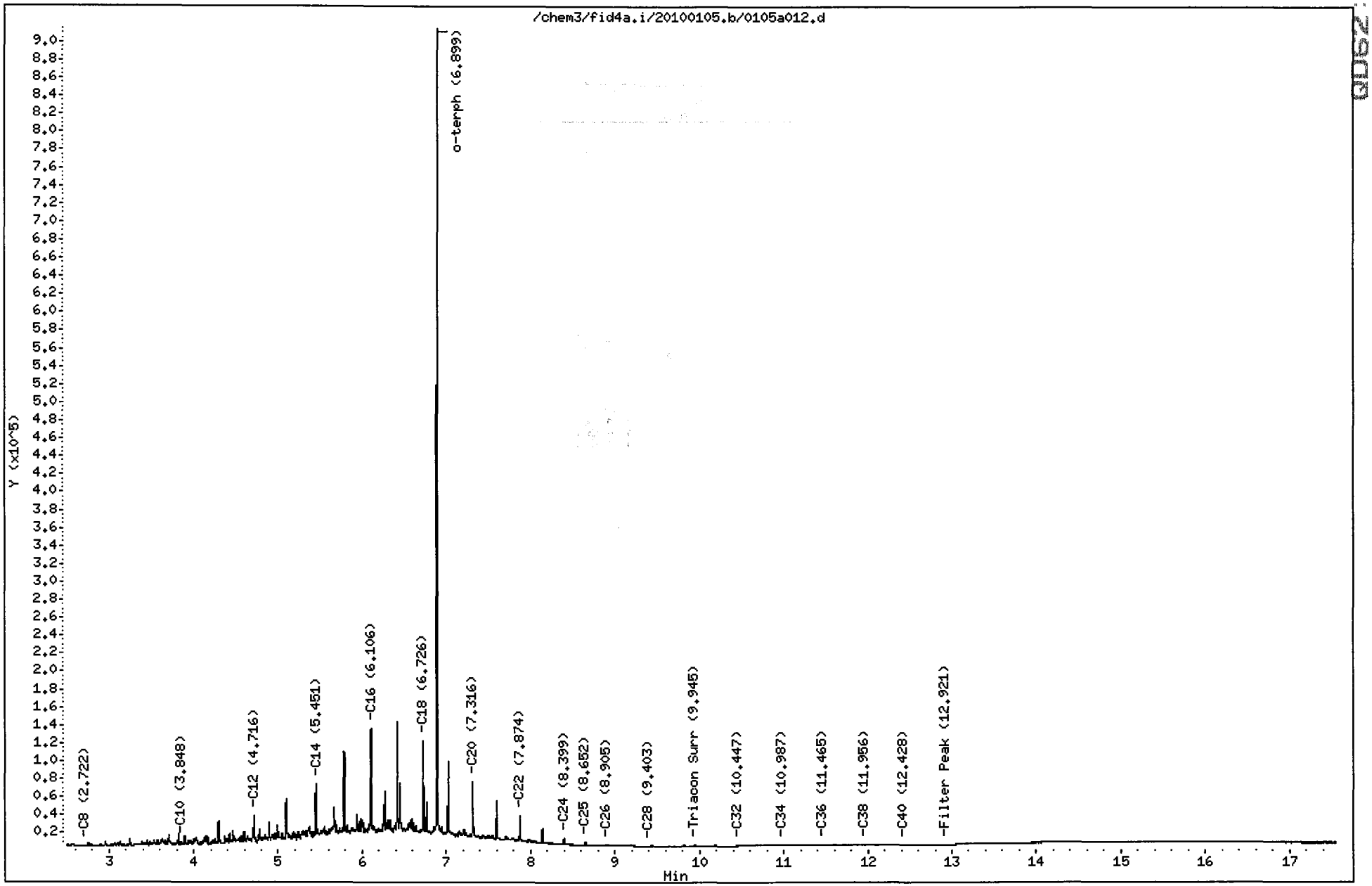
Column phase: RTX-1

Instrument: fid4a.i

Operator: ar

Column diameter: 2.00

QUS2 00472



7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 22-DEC-2009 Project: LORA LAKES APT.

CCal Date: 05-JAN-2010 SDG No.: QD62

Analysis Time: 17:26 Lab ID: MOIL#2

Instrument: FID4A.I Lab File Name: 0105a013.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D	
WAMoil(C24-C38)	5132368	561.1	500	12.2	
AK103 (C25-C36)	4319864	625.9	500	25.2	<-
n-Triacontane	834376	44.3	45	-1.6	

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

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

QD62 : 00473

mn 1/13/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20100105.b/0105a013.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/13/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL#2
Client ID: LORA LAKES APT.
Injection: 05-JAN-2010 17:26

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.521	0.004	121	79	GAS (Tol-C12)	42563	4
C8	2.741	0.007	27	24	DIESEL (C12-C24)	671295	52
C10	3.847	-0.001	449	709	M.OIL (C24-C38)	5132368	561
C12	4.726	0.006	469	212	AK-102 (C10-C25)	869997	60
C14	5.454	0.002	642	819	AK-103 (C25-C36)	4319864	626
C16	6.099	-0.008	582	681	OR.DIES (C10-C28)	1961161	131
C18	6.735	0.008	895	1826	OR.MOIL (C28-C40)	4348575	626
C20	7.318	0.001	2788	4698			
C22	7.869	-0.007	7746	11482			
C24	8.402	0.003	15532	5173			
C25	8.642	-0.007	20259	19348			
C26	8.897	0.001	22449	22217			
C28	9.407	0.004	25465	4516			
C32	10.435	-0.007	29987	26684			
C34	10.961	0.001	31290	13398	BUNKERC (C10-C38)	5828612	802
Filter Peak	12.902	-0.005	9098	6413	HYDRAUL (C24-C38)	5132368	577
C36	11.462	-0.004	26904	23120			
C38	11.959	0.004	22306	51754			
C40	12.421	-0.004	15212	21327			
o-terph	6.896	0.001	3472	4126	JET-A (C10-C18)	107291	8
Triacon Surr	9.941	0.005	678521	834376			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	4126	0.3	0.6
Triacontane	834376	44.3	98.4

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Hydraulic	8899.0	12-JUL-2004

Data File: /chem3/fid4a.i/20100105.b/0105a013.d

Date : 05-JAN-2010 17:26

Client ID: LORA LAKES APT.

Sample Info: MOIL#2

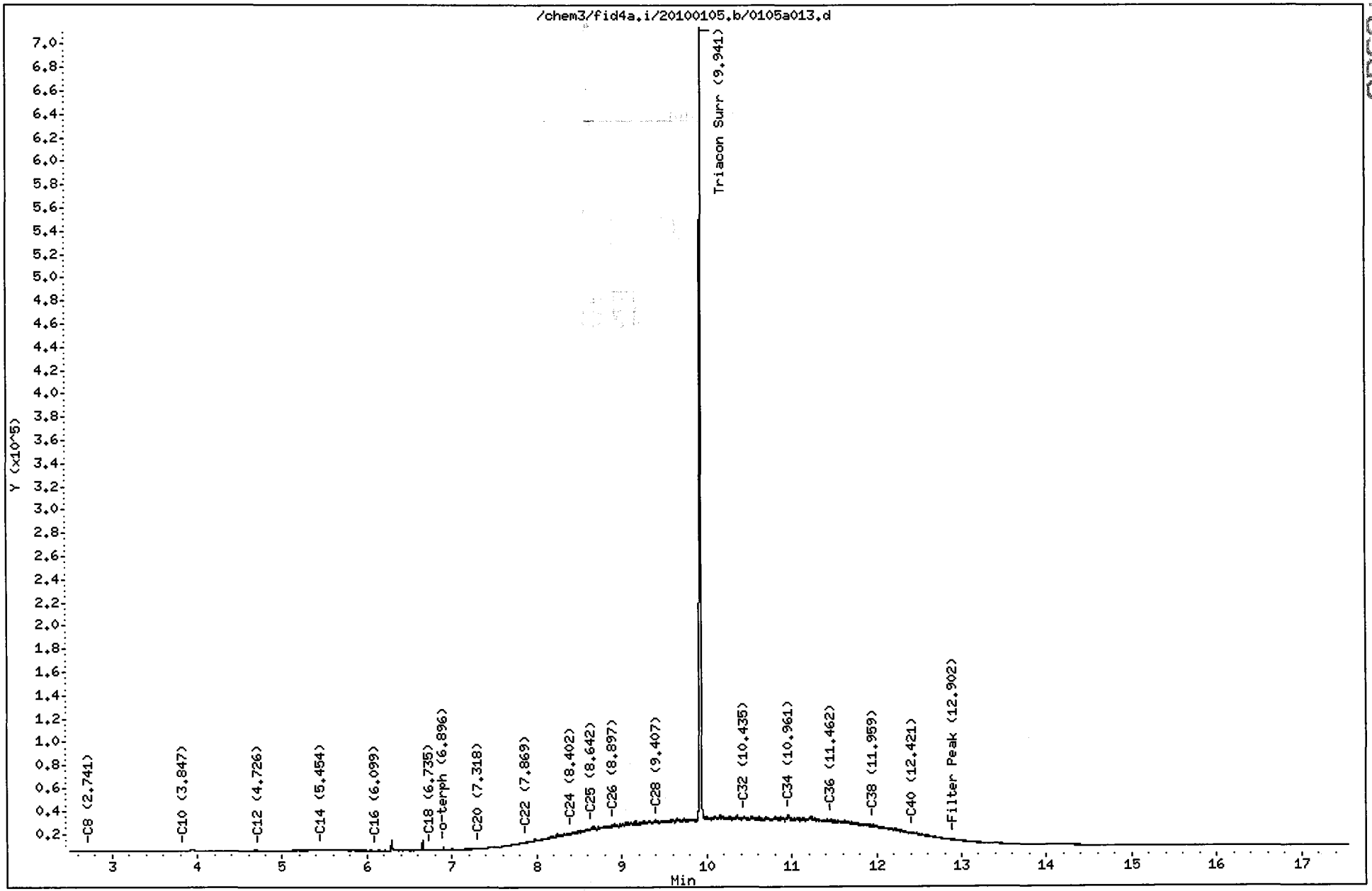
Column phase: RTX-1

Instrument: fid4a.i

Operator: ar

Column diameter: 2.00

QD62:00175



7a
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 22-DEC-2009 Project: LORA LAKES APT.

CCal Date: 05-JAN-2010 SDG No.: QD62

Analysis Time: 20:43 Lab ID: DIESEL#3

Instrument: FID4A.I Lab File Name: 0105a021.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3319545	256.4	250	2.6
AK102 (C10-C25)	3685250	254.0	250	1.6
Terphenyl	707992	44.7	45	-0.7

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

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

1/13/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20100105.b/0105a021.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/13/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: DIESEL#3
Client ID: LORA LAKES APT.
Injection: 05-JAN-2010 20:43

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.521	0.004	901	748	GAS (Tol-C12)	466367	39
C8	2.725	-0.009	632	638	DIESEL (C12-C24)	3319545	256
C10	3.851	0.002	5006	3561	M.OIL (C24-C38)	158999	17
C12	4.718	-0.003	33154	20446	AK-102 (C10-C25)	3685250	254
C14	5.452	-0.001	69256	56517	AK-103 (C25-C36)	114897	17
C16	6.106	-0.001	130564	92826	OR.DIES (C10-C28)	3727512	249
C18	6.727	-0.001	115677	93699	OR.MOIL (C28-C40)	131815	19
C20	7.317	-0.001	74297	59047			
C22	7.874	-0.002	32465	27090			
C24	8.401	0.002	9258	13557			
C25	8.653	0.003	3636	5923			
C26	8.891	-0.005	950	375			
C28	9.407	0.005	545	276			
C32	10.436	-0.007	568	289			
C34	10.934	-0.026	1631	3332	BUNKERC (C10-C38)	3827306	527
Filter Peak	12.901	-0.007	1711	1831	HYDRAUL (C24-C38)	158999	18
C36	11.469	0.004	839	577			
C38	11.952	-0.004	1025	820			
C40	12.423	-0.002	1289	688			
o-terph	6.899	0.004	904119	707992	JET-A (C10-C18)	2617541	198
Triacon Surr	9.924	-0.012	499	484			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	707992	44.7	99.3
Triacontane	484	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Hydraulic	8899.0	12-JUL-2004

Data File: /chem3/fid4a.i/20100105.b/0105a021.d

Date : 05-JAN-2010 20:43

Client ID: LORA LAKES APT.

Sample Info: DIESEL#3

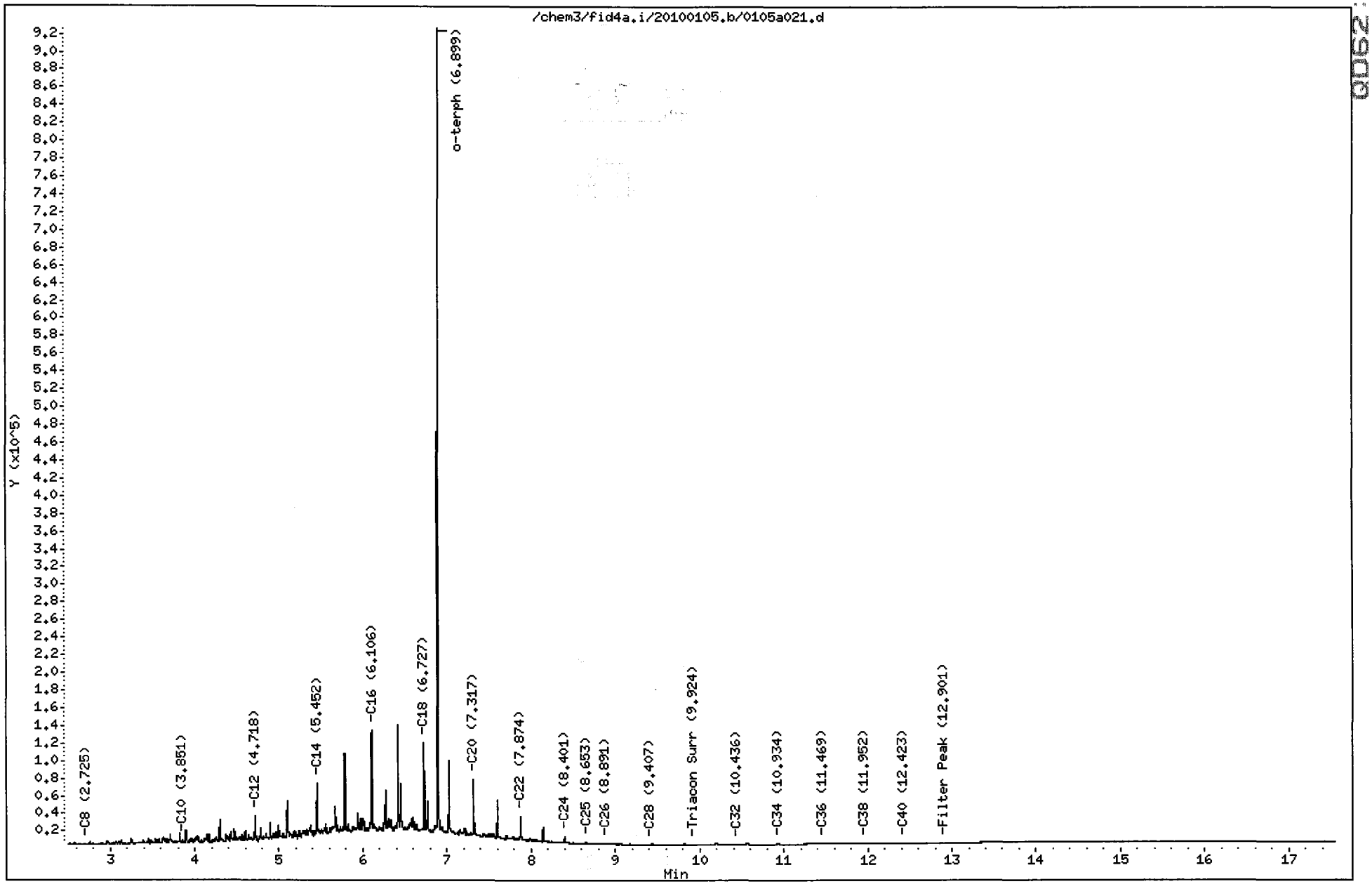
Column phase: RTX-1

Instrument: fid4a.i

Operator: ar

Column diameter: 2.00

0052: 60178



7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 22-DEC-2009 Project: LORA LAKES APT.

CCal Date: 05-JAN-2010 SDG No.: QD62

Analysis Time: 21:08 Lab ID: MOIL#3

Instrument: FID4A.I Lab File Name: 0105a022.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4818234	526.7	500	5.3
AK103 (C25-C36)	4070455	589.7	500	17.9
n-Triacontane	789248	41.9	45	-7.0

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

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

QD62:00479

mn 1/13/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20100105.b/0105a022.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/13/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: MOIL#3
Client ID: LORA LAKES APT.
Injection: 05-JAN-2010 21:08
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.522	0.005	119	160	GAS (Tol-C12)	42674	4
C8	2.743	0.009	37	45	DIESEL (C12-C24)	646290	50
C10	3.851	0.003	464	731	M.OIL (C24-C38)	4818234	527
C12	4.697	-0.023	877	1615	AK-102 (C10-C25)	832341	57
C14	5.452	0.000	646	1018	AK-103 (C25-C36)	4070455	590
C16	6.107	-0.001	564	554	OR.DIES (C10-C28)	1878611	125
C18	6.737	0.010	829	1381	OR.MOIL (C28-C40)	4046534	583
C20	7.320	0.002	2584	2969			
C22	7.876	0.000	7515	10332			
C24	8.399	0.000	14815	21984			
C25	8.649	-0.001	18538	10533			
C26	8.892	-0.004	20675	15497			
C28	9.413	0.011	25168	43371			
C32	10.451	0.008	26719	33421			
C34	10.957	-0.003	28778	49501	BUNKERC (C10-C38)	5488549	755
Filter Peak	12.902	-0.006	7713	3481	HYDRAUL (C24-C38)	4818234	541
C36	11.464	-0.001	24394	18956			
C38	11.957	0.002	19550	15118			
C40	12.431	0.007	13357	22877			
o-terph	6.898	0.002	3139	3884	JET-A (C10-C18)	103693	8
Triacon Surr	9.939	0.003	666440	789248			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3884	0.2	0.5
Triacontane	789248	41.9	93.0

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Hydraulic	8899.0	12-JUL-2004

Data File: /chem3/fid4a.i/20100105.b/0105a022.d

Date : 05-JAN-2010 21:08

Client ID: LORA LAKES APT.

Sample Info: MOIL#3

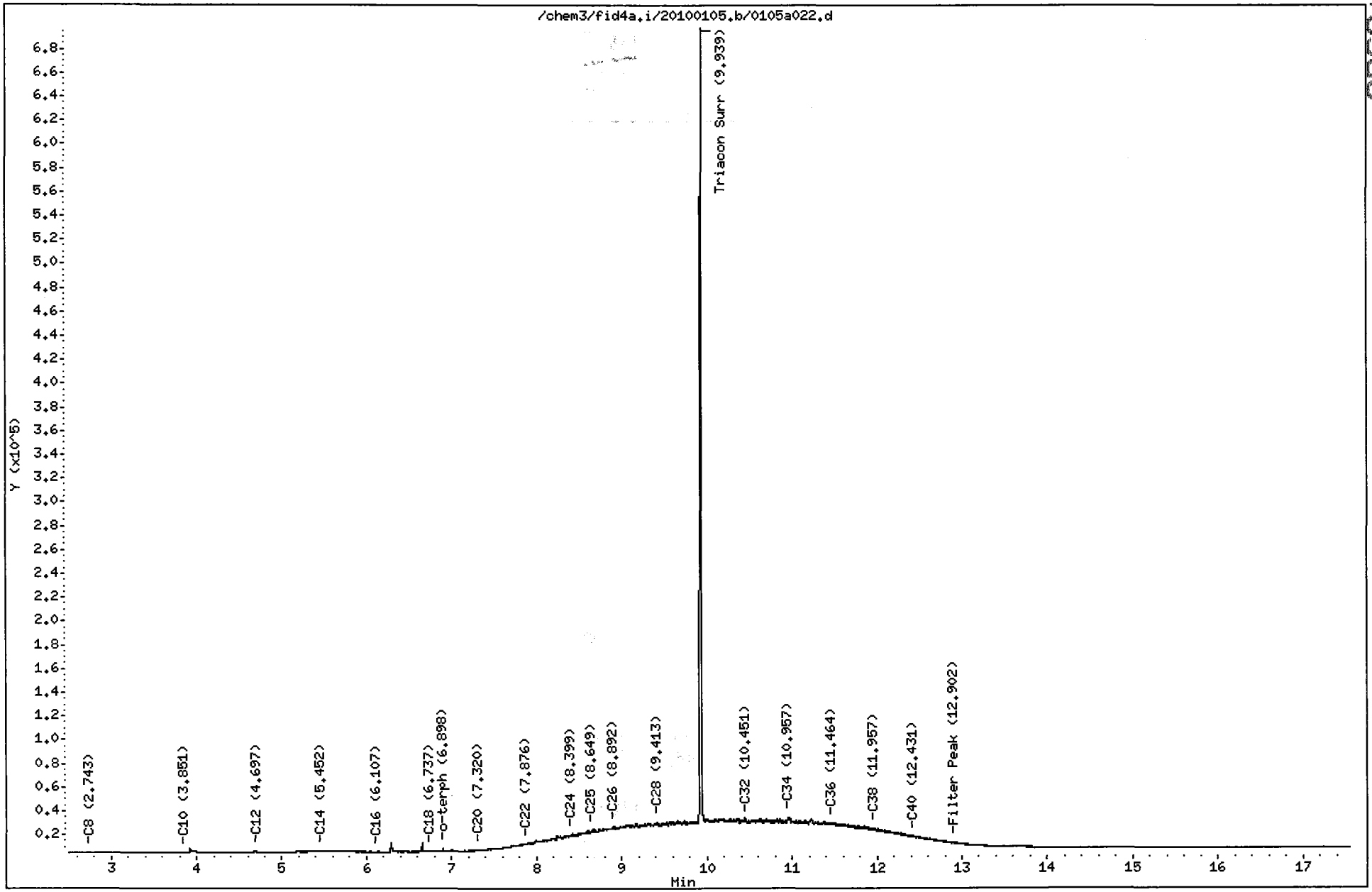
Column phase: RTX-1

Instrument: fid4a.i

Operator: ar

Column diameter: 2.00

QD62 00181



TPHD Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Analytical Resources Inc.
TPH Quantitation Report

1/6/10

Data file: /chem3/fid4a.i/20100105.b/0105a015.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/06/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QD62MBW1
Client ID: QD62MBW1
Injection: 05-JAN-2010 18:15
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.524	0.007	78	39	GAS (Tol-C12)	43434	4
C8	2.735	0.001	21	6	DIESEL (C12-C24)	190321	15
C10	3.850	0.002	457	1141	M.OIL (C24-C38)	277599	30
C12	4.732	0.012	423	297	AK-102 (C10-C25)	223210	15
C14	5.454	0.002	716	775	AK-103 (C25-C36)	234949	34
C16	6.100	-0.007	1213	1045	OR.DIES (C10-C28)	262511	18
C18	6.716	-0.011	1220	2109	OR.MOIL (C28-C40)	269338	39
C20	7.318	0.001	1266	3796			
C22	7.889	0.013	1170	1454			
C24	8.392	-0.007	789	1083			
C25	8.649	-0.001	1564	2356			
C26	8.898	0.002	782	947			
C28	9.407	0.004	1235	1957			
C32	10.441	-0.002	2168	3677			
C34	10.962	0.002	5709	6114	CREOSOT (C12-C22)	166165	40
Filter Peak	12.913	0.006	2102	2880			
C36	----						
C38	11.956	0.001	1372	487			
C40	12.420	-0.005	1648	816			
o-terph	6.894	-0.001	711970	555044	JET-A (C10-C18)	142614	11
Triacon Surr	9.934	-0.003	615895	652840			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	555044	35.0	77.8
Triacontane	652840	34.6	77.0

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20100105.b/0105a015.d

Date : 05-JAN-2010 18:15

Client ID: QD62MBW1

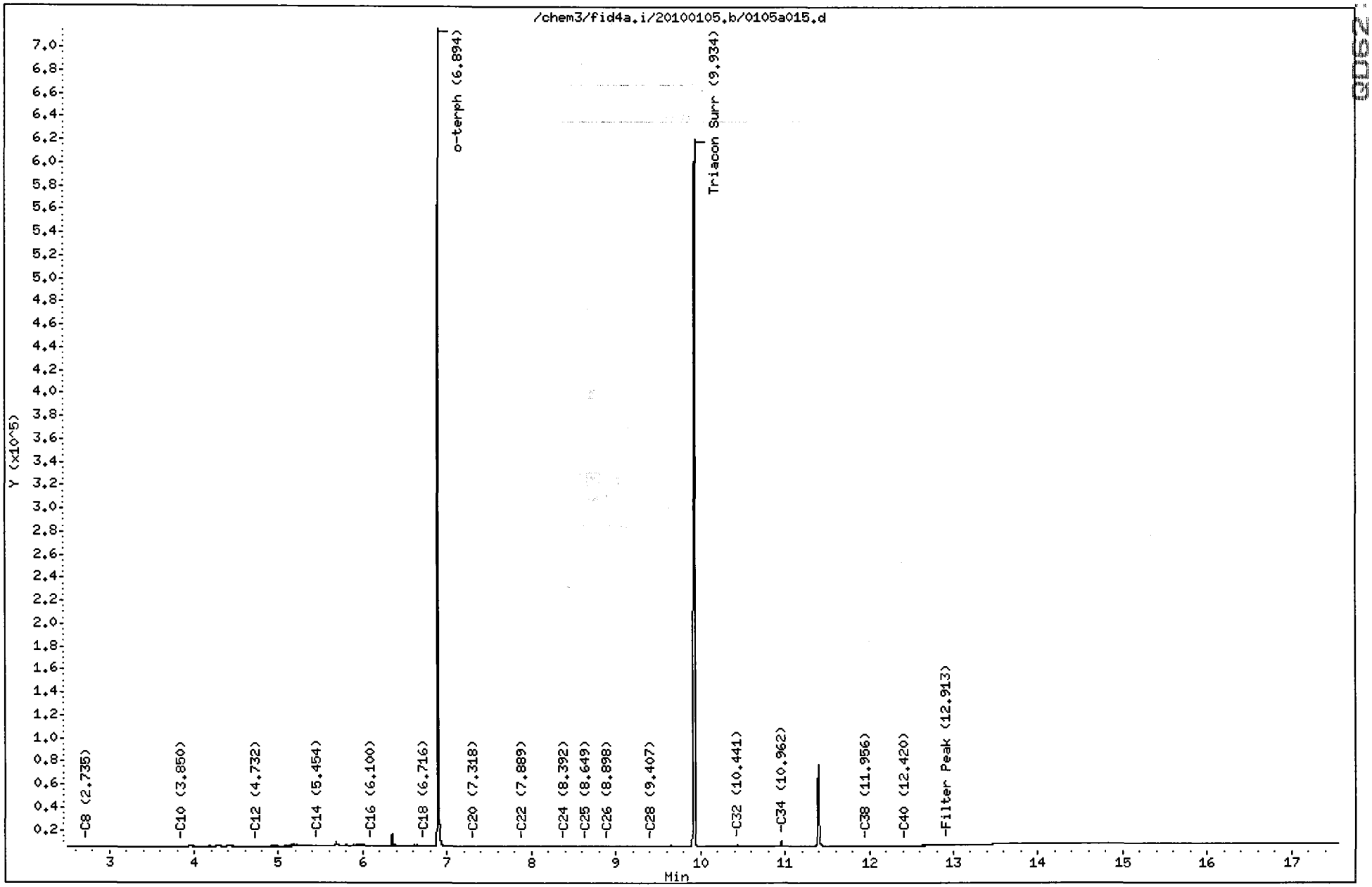
Sample Info: QD62MBW1

Column phase: RTX-1

Instrument: fid4a.i

Operator: ar

Column diameter: 2.00



QD62:00184

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20100105.b/0105a016.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/06/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QD62LCSW1
Client ID: QD62LCSW1
Injection: 05-JAN-2010 18:40
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.506	-0.011	1581	1719	GAS (Tol-C12)	1724865	146
C8	2.726	-0.008	1564	1066	DIESEL (C12-C24)	15472186	1195
C10	3.841	-0.007	18000	11891	M.OIL (C24-C38)	464774	51
C12	4.728	0.008	43575	38090	AK-102 (C10-C25)	16882618	1164
C14	5.452	0.000	332406	262945	AK-103 (C25-C36)	351059	51
C16	6.112	0.004	560873	444079	OR.DIES (C10-C28)	17035854	1137
C18	6.734	0.007	478461	405153	OR.MOIL (C28-C40)	260436	37
C20	7.320	0.003	331901	286718			
C22	7.875	-0.001	166862	129835			
C24	8.395	-0.004	51258	49396			
C25	8.644	-0.006	23382	31128			
C26	8.893	-0.003	9503	9652			
C28	9.399	-0.004	2340	2410			
C32	10.442	-0.001	2152	3501			
C34	10.963	0.003	6503	7971	CREOSOT (C12-C22)	14854053	3571
Filter Peak	12.893	-0.015	1874	1972			
C36	11.497	0.032	1208	3593			
C38	11.961	0.005	1199	853			
C40	12.424	0.000	1451	1471			
o-terph	6.901	0.005	729126	597269	JET-A (C10-C18)	11937031	902
Triacon Surr	9.936	0.000	616231	690517			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	597269	37.7	83.7
Triacontane	690517	36.6	81.4

Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20100105.b/0105a016.d

Date : 05-JAN-2010 18:40

Client ID: QD62LCSW1

Sample Info: QD62LCSW1

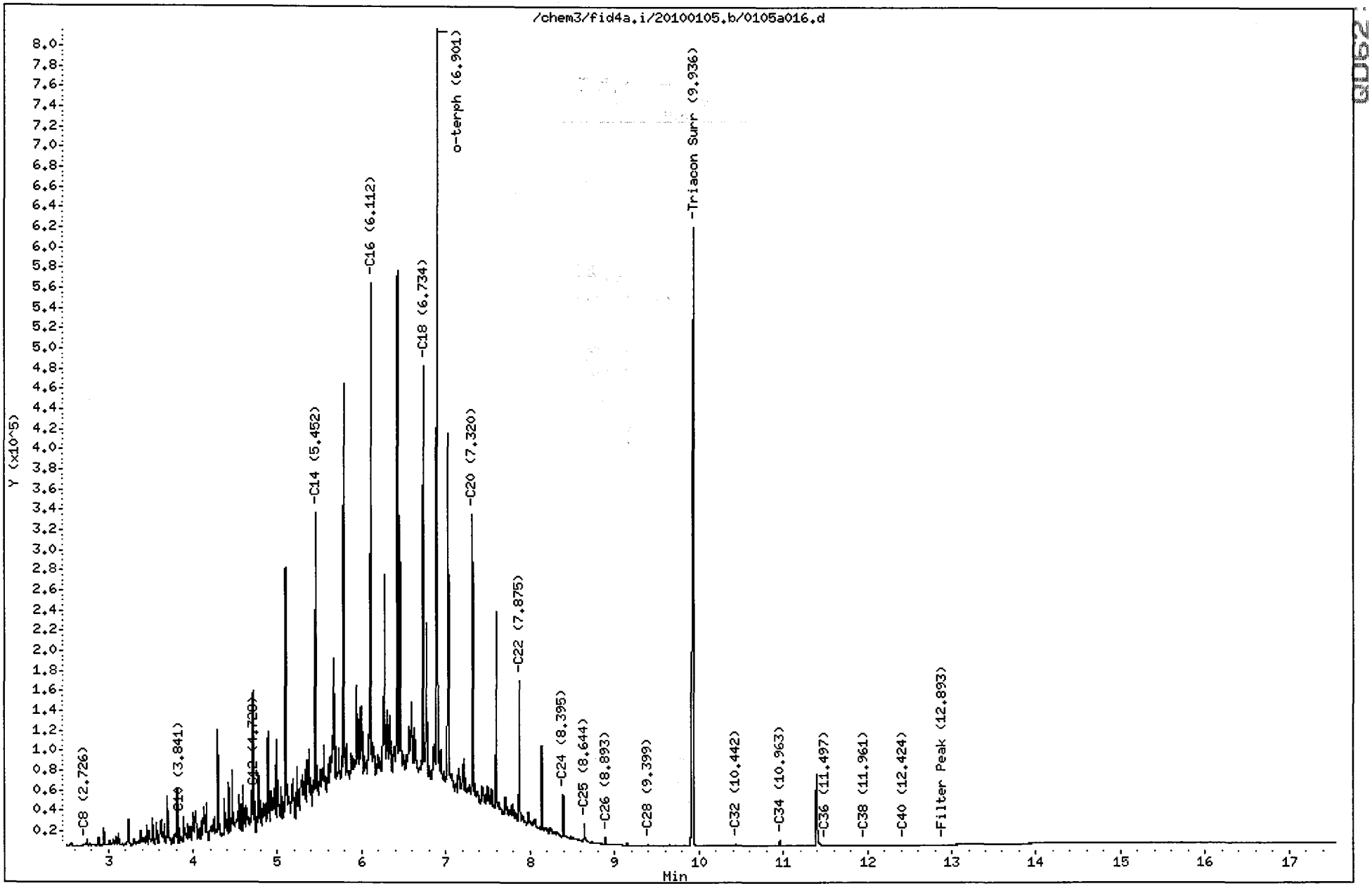
Column phase: RTX-1

Instrument: fid4a.i

Operator: ar

Column diameter: 2.00

QD62 001486



Analytical Resources Inc.
TPH Quantitation Report

1/6/10

Data file: /chem3/fid4a.i/20100105.b/0105a017.d
Method: /chem3/fid4a.i/20100105.b/ftphfid4a.m
Instrument: fid4a.i
Operator: ar
Report Date: 01/06/2010
Macro: 22-DEC-2009
Calibration Dates: Gas:10-DEC-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QD62LCSDW1
Client ID: QD62LCSDW1
Injection: 05-JAN-2010 19:04
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.501	-0.016	1555	1673	GAS (Tol-C12)	1796913	152
C8	2.744	0.010	7043	5975	DIESEL (C12-C24)	15923523	1230
C10	3.856	0.007	9593	5472	M.OIL (C24-C38)	477404	52
C12	4.727	0.007	44057	39521	AK-102 (C10-C25)	17388052	1198
C14	5.453	0.000	335363	273492	AK-103 (C25-C36)	364780	53
C16	6.113	0.006	578229	468447	OR.DIES (C10-C28)	17544562	1171
C18	6.735	0.007	490265	493648	OR.MOIL (C28-C40)	270578	39
C20	7.322	0.005	342112	298539			
C22	7.876	0.000	172793	150175			
C24	8.395	-0.003	54004	46467			
C25	8.643	-0.006	24872	30422			
C26	8.893	-0.003	9720	13995			
C28	9.399	-0.003	2328	3209			
C32	10.441	-0.002	2197	3903			
C34	10.962	0.002	7400	8255	CREOSOT (C12-C22)	15276086	3673
Filter Peak	12.907	0.000	1807	1113			
C36	----						
C38	11.965	0.010	1136	473			
C40	12.418	-0.007	1395	689			
o-terph	6.902	0.006	765581	613125	JET-A (C10-C18)	12423818	939
Triacon Surr	9.937	0.000	623720	713030			

Range Times: NW Diesel(4.720 - 8.399) AK102(3.85 - 8.65) Jet A(3.85 - 6.73)
NW M.Oil(8.40 - 11.96) AK103(8.65 - 11.47) OR Diesel(3.85 - 9.40)

Surrogate	Area	Amount	%Rec
o-Terphenyl	613125	38.7	86.0
Triacontane	713030	37.8	84.1

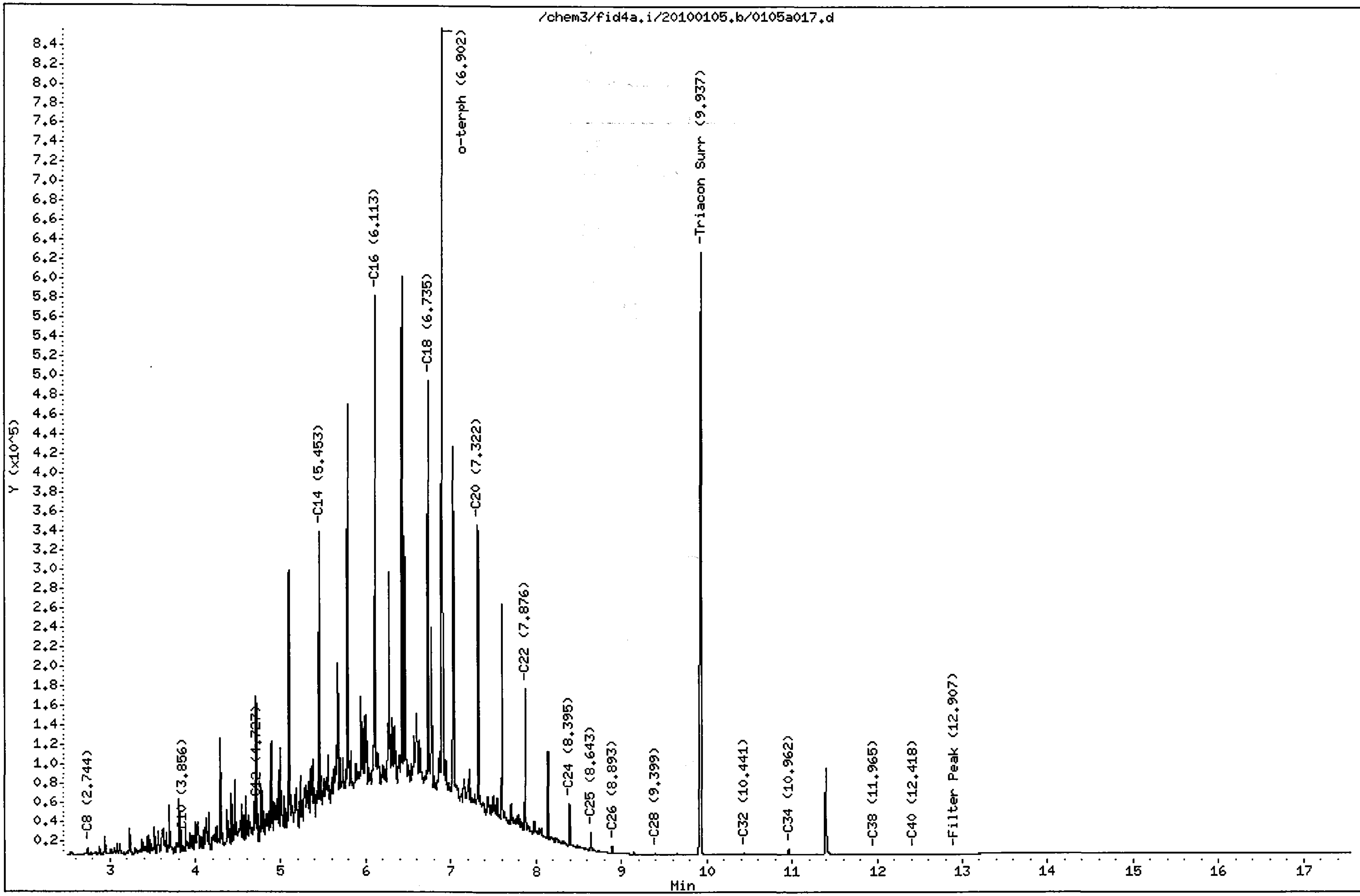
Analyte	RF	Curve Date
o-Terph Surr	15852.0	22-DEC-2009
Triacon Surr	18849.8	22-DEC-2009
Gas	11843.7	10-DEC-2009
Diesel	12946.9	22-DEC-2009
Motor Oil	9147.4	22-DEC-2009
AK102	14509.2	22-DEC-2009
AK103	6902.1	10-DEC-2009
JetA	13235.4	11-JUN-2009
OR Diesel	14983.0	
OR M.Oil	6945.0	
Bunker C	7267.4	04-MAR-2009
Creosote	4159.3	14-AUG-2009

Data File: /chem3/fid4a.i/20100105.b/0105a017.d
Date : 05-JAN-2010 19:04
Client ID: QD62LCSDW1
Sample Info: QD62LCSDW1

Column phase: RTX-1

Instrument: fid4a.i

Operator: ar
Column diameter: 2.00



QD62 00488

TPHD Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd/Snider

Project: Lora Lakes Apartments, POS-LLA

ARI JOB NO: QD62

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

NWTPHD / NWHCID –Water

Separatory Funnel (3510C) (SOP # 308S)

Preparation Test TPHD/HCID # 1

In-House

ARI Job No(s) QD 62

Batch set up by: SP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	DryVap Or KD (No drying column)	Turbo Vap 1 2 3	Acid/Silica Clean (1:1) Y N	Final Effective Volume	Volume to Lab	Comments
	QD62 MBW	Date 1/04/10	500mL	↓	↓	1mL	1mL	1mL	
	↓ SBW	↓	↓	↓	↓	↓	↓	↓	
	↓ SBW Dup.	↓	↓	↓	↓	↓	↓	↓	
5	↓ A	checked	↓	↓	↓	↓	↓	↓	
↓	↓ B	↓	↓	↓	↓	↓	↓	↓	
↓	↓ C	↓	↓	↓	↓	↓	↓	↓	
Analyst/Date:	AC 1-4-10 WC 1/04/10			RP 1/05/10	SP 1/5/10	→	→	→	

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	O 2	100µL	7/2/10	AC	WW
Spike	11	100µL	9/7/10	AC	WW
Extraction Time: 19:00					

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. A. Archive Y / N

3014F

Revision 11
01/06/2009

QD62 : 00450

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: QD62

Client ID: Floyd/Snider

Parameter: TPHD A/S

Client Project: Loca Lakes Apartments

SOP Number(s): 308S

No Anomalies:

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

Analyst Initials:		Date:	

056F

Revision 006
1/12/07

Analytical Resources Inc.: Organics Instrument Log

FID-4A Serial No.: US00003247

Date: 12/22/04 Analysis: TPHD Analyst: MS

GC Program: TPH Column No: 910208 Column Type: RTX1

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

Calibration File: 20041222.d Curve Date: 12/22/04

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

	Time	Filename	LabID	ClientID	DF
1	1232	1222a001.d	RINSE		1
2	1256	1222a002.d	RT		1
3	1320	1222a003.d	IB		1
4	1344	1222a004.d	DIESEL#1		1
5	1424	1222a005.d	MOIL#1		1
6	1448	1222a006.d	DIESEL#1		1
7	1532	1222a007.d	QC41A		1
8	1556	1222a008.d	QC41B		1
9	1624	1222a009.d	QC41J		1
10	1648	1222a010.d	RINSE		1
11	1713	1222a011.d	RT	RT	1
12	1737	1222a012.d	IB	IB	1
13	1801	1222a013.d	DIESEL 50	DIESEL 50	1
14	1825	1222a014.d	DIESEL 100	DIESEL 100	1
15	1849	1222a015.d	DIESEL 250	DIESEL 250	1
16	1913	1222a016.d	DIESEL 500	DIESEL 500	1
17	1938	1222a017.d	DIESEL 1000	DIESEL 1000	1
18	2002	1222a018.d	DIESEL 2500	DIESEL 2500	4
19	2026	1222a019.d	DIESEL ICV		1
20	2050	1222a020.d	MOIL 100	MOIL 100	1
21	2114	1222a021.d	MOIL 250	MOIL 250	1
22	2138	1222a022.d	MOIL 500	MOIL 500	1

	Time	Filename	LabID	ClientID	DF
23	2201	1222a023.d	MOIL 1000	MOIL 1000	1
24	2227	1222a024.d	MOIL 2500	MOIL 2500	1
25	2251	1222a025.d	MOIL 5000	MOIL 5000	1
26	2315	1222a026.d	MOIL ICV		1
27	2339	1222a027.d	RINSE		1
28	0003	1222a028.d	DIESEL#1		1
29	0027	12224029.d	MOIL#1		1
30	0052	1222a030.d	QC41MS01	QC41MS01	1
31	0116	1222a031.d	QC41SD01	QC41SD01	1
32	0140	1222a032.d	QC41S	BENT	1
33	0205	1222a033.d	QC41A	BENT 11	1
34	0229	1222a034.d	QC41B	BENT 22	20
35	0253	1222a035.d	QC41C	BENT 33	10
36	0317	1222a036.d	QC41D	BENT 44	10
37	0342	1222a037.d	QC41E	BENT 55	2
38	0406	1222a038.d	QC41F	BENT 66	1
39	0430	1222a039.d	QC41M	BENT 66	1
40	0454	1222a040.d	DIESEL#2		1
41	0519	1222a041.d	MOIL#2		1
42	0543	1222a042.d	QC41I	BENT 55	1
43	0607	1222a043.d	QC41J	BENT 59	5
44	0631	1222a044.d	QC41K	BENT 61	2
45	0655	1222a045.d	QC41L	BENT 66	1

	Time	Filename	LabID	ClientID	DF
46	0720	1222a046.d	QC41M	BENT 66	1
47	0744	1222a047.d	QC41N	BENT [illegible]	1
48	0808	1222a048.d	QC41O	BENT 72	1
49	0832	1222a049.d	QC41P	BENT 81	1
50	0856	1222a050.d	QC41Q	BENT 85	1
51	0920	1222a051.d	QC41R	BENT 88	1
52	0944	1222a052.d	QC41S	BENT 92	5
54	1008	1222a053.d	QC41SMS	BENT 92 MS	5
54	1032	1222a054.d	QC41SMSD	BENT 92 MSD	5
55	1056	1222a055.d	DIESEL#1		1
56	1120	1222a056.d	MOIL#1		1
57	1145	1222a057.d	DIESEL#1		1
58	1209	1222a058.d	MOIL#1		1
59	1257	1222a060.d	RINSE		1
60	1322	1222a061.d	RINSE		1
61	1346	1222a062.d	RINSE		1

AR 12/31/04

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, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: Diesel CURVE AK102, oTerPH Client ID: ART

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

Parameter(s): Diesel, AK102, oTerphenyl

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: 12/22/09 Analysis Start: 12/22/09

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

Cal Meets RF & %RSD Criteria? (YES) / NO LCS/LCSD Recovery In Control? YES / NO

2Cal Meets RF & %RSD Criteria (YES) / NO Surrogate Recovery In Control? (YES) / NO

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

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

Additional Details on Reverse: Yes / (No)

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

Reviewer's Signature: [signature] **Date:** 12-23-2009

Analytical Resources Inc.: Organics Instrument Log

FID-4A Serial No.: US00003247

Date: 12/29/04 Analysis: TPHd Analyst: AR

GC Program: TPH Column No: 910206 Column Type: RTX1

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

Calibration File: 20091229.d Curve Date: 12/22/04

IS/SS	Ical/Ccal	LCS/ICV
		1605-2

	Time	Filename	LabID	ClientId	DF
1	1704	1229a001.d	RINSE		1
2	1729	1229a002.d	RINSE		1
3	1753	1229a003.d	RINSE		1
4	1818	1229a004.d	RT		1
5	1842	1229a005.d	IB		1
6	1907	1229a006.d	DIESEL#1		1
7	1931	1229a007.d	MOIL#1		1
8	1956	1229a008.d	MOIL ICV 1605-2		
9	2020	1229a009.d	QC97MBS1	QC97MBS1	1
10	2045	1229a010.d	QC97LCSS1	QC97LCSS1	1
11	2109	1229a011.d	QC97LCSDS1	QC97LCSDS1	1
12	2134	1229a012.d	QC97A	B-1-5	1
13	2158	1229a013.d	QC97B	B-1-15	1
14	2223	1229a014.d	QC97C	B-1-18	1
15	2248	1229a015.d	QC97D	B-2-10.5	1
16	2312	1229a016.d	QC97E	B-3-12	1
17	2337	1229a017.d	QC97F	B-4-9	1
18	0001	1229a018.d	DIESEL#2		1
19	0025	1229a019.d	MOIL#2		1
20	0050	1229a020.d	QC97G	B-4-12	1
21	0114	1229a021.d	QC97H	B-4-15	1
22	0139	1229a022.d	QC97I	B-5-10	1
23	0203	1229a023.d	QC97J	B-7-12	1
24	0228	1229a024.d	DIESEL#3		1
25	0252	1229a025.d	MOIL#3		1

AR 12/31/04

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, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: Motor Oil CORE nTriacontane Client ID: ART

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

Parameter(s): Motor oil, nTriacontane

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: 12/22/09 Analysis Start: 12/22/09

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

Cal 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):

need to rerun F.C.V. due to misinject. 12/23/09

oil ICV rerun 12/29/09 AR 12/30/09

Additional Details on Reverse: Yes / No

Analyst Signature: [signature] Date: 12/29/09

Reviewer's Signature: [signature] Date: 12-23-2009

n 4060F

Analytical Resources Inc.: Organics Instrument Log

FID-4A Serial No.: US00003247

Date: 1/5/10 Analysis: TPHD Analyst: MP

GC Program: TPH Column No: 910208 Column Type: RTX-1

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

Calibration File: — Curve Date: 12/22/09

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

me	Filename	LabID	ClientId	DF
.56	0105a001.d		RINSE	1
:20	0105a002.d		RINSE	1
244	0105a003.d		RT	1
309	0105a004.d		IB	1
333	0105a005.d		DIESEL#1	1
358	0105a006.d		MOIL#1	1
500	0105a007.d		QC23C	5
524	0105a008.d		NEW MOIL CHCK	
1548	0105a009.d	QD74LCSS1	QD74LCSS1	1
1613	0105a010.d	QD74MBS1	QD74MBS1	1
1637	0105a011.d	QD74A	B-1-12	1
1702	0105a012.d		DIESEL#2	1
1726	0105a013.d		MOIL#2	1
1751	0105a014.d		NEW MOIL CHCK	
1815	0105a015.d	QD62MBW1	QD62MBW1	1
1840	0105a016.d	QD62LCSW1	QD62LCSW1	1
1904	0105a017.d	QD62LCSDW1	QD62LCSDW1	1
1929	0105a018.d	QD62A	QD62A	1
1954	0105a019.d	QD62B	QD62B	1
2019	0105a020.d	QD62C	QD62C	1
2043	0105a021.d	DIESEL#3	DIESEL#3	1
2108	0105a022.d	MOIL#3	MOIL#3	1

Time	Filename	LabID	ClientId	DF
2132	0105a023.d	QD66MBW1	QD66MBW1	1
2157	0105a024.d	QD66LCSW1	QD66LCSW1	1
2222	0105a025.d	QD66A	QD66A	1
0727	0105a026.d		RINSE	1
0751	0105a027.d		RINSE	1

MS

MS 1/6/10

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.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: QD62 Client ID: LORA LAKES APT

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

Parameter(s): Diesel, M.Oil, Stoph.

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: 12/22/09 Analysis Start: 1/5/10

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):

Samples A and B appear to contain both 30wt and 40wt Mo il due to the presence of 2 overlapping envelopes.

Additional Details on Reverse: Yes / (No)

Analyst Signature: MD **Date:** 1/6/10

Reviewer's Signature: [signature] **Date:** 1/6/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 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: QC28

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 QC28

SD/co

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody
Documentation

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:	Page: 1 of 1	
ARI Client Company: Taylor / Floyd|Snider	Phone: 206-292-2078	Date: 12/10/09	Ice Present? Y
Client Contact: Attn: Jessi Massingale		No. of Coolers: 1	Cooler Temps: 4.7
Client Project Name: POS-LLA			
Client Project #:	Samplers:		

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

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested	Notes/Comments
LB4857-121009-SED	12/10/09	1041	SED	H		ARCHIVE

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: JESSI MASSINGALE	Printed Name: A. Volgardsen	Printed Name:	Printed Name:
	Company: FIS	Company: ARI	Company:	Company:
	Date & Time: 12/10/09 11:58	Date & Time: 12/10/09 1158	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: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

0028 00503

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Floyd/Snider ~~Taylor Assoc~~ AV

Project Name: POS-LLA

COC No(s): _____ (NA)

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

Assigned ARI Job No: QA84

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)	4.7	

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90941019

Cooler Accepted by: AV Date: 12/10/09 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)		

Samples Logged by: JP Date: 12/10/09 Time: 1430

***** 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"

Subject: POS-LLA: Catch Basin sediment sample analyses
From: Jessi Massingale <jessi.massingale@floydsnider.com>
Date: Tue, 15 Dec 2009 13:33:33 -0800
To: Sue Dunnihoo <sue@arilabs.com>
CC: Matt Woltman <Matt.Woltman@floydsnider.com>

Hi Sue,

Attached is a chain for a sediment sample that was collected from a catch basin at Lora Lake last week as part of the current stormwater interim action. The sample was submitted to your shop on Friday 12/10 for archival and now I need to request analyses of the 4 – 8oz jars for all the COCs listed in the work plan (Tables attached -PAHs, PCP, TPH-Dx, dioxins, arsenic, lead, toc, ts, except VOCs, since we didn't collect the VOAs).

We should have enough volume for the analyses of all the parameters listed above, if possible with what material is remaining could we also try to run a ASTM grain size as well? I know it might be tight.

Thanks, call or email with any questions.

-J

Jessi Massingale, PE
FLOYD|SNIDER
Two Union Square
601 Union Street, Suite 600
Seattle, WA 98101
tel: 206.292.2078
tel (Bend, OR): 206.418.6211
fax: 206.682.7867
jessi.massingale@floydsnider.com

COC for 121009 Sediment.pdf
Content-Description: COC for 121009 Sediment.pdf
Content-Type: application/pdf
Content-Encoding: base64

LLA SWIA WP T6_1 111709.pdf
Content-Description: LLA SWIA WP T6_1 111709.pdf
Content-Type: application/pdf
Content-Encoding: base64

LLA SWIA WP T4_1 111709.pdf
Content-Description: LLA SWIA WP T4_1 111709.pdf
Content-Type: application/pdf
Content-Encoding: base64

QC28 : 00005

Case Narrative

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Case Narrative

Client: Floyd Snider
Project: Lora Lake Apartments, POS-LLA
Matrix: Sediment
ARI Job No.: QC28

Sample receipt

Analytical Resources, Inc. (ARI) accepted one sediment sample on December 10, 2009 under ARI job QA84. The cooler temperature measured by IR thermometer following ARI SOP was 4.7°C. The sample was archived upon receipt as requested. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

On December 15, 2009, per client request, the sample was removed from frozen archive and re-logged under ARI job QC28. The sample was analyzed for PAHs, Pentachlorophenol, NWTPH-Dx, Total Metals, TOC/TS, Grain Size, and Dioxin/Furan analyses. Please note that Dioxin/Furan analyses were subcontracted to Frontier Analytical Laboratory in El Dorado Hills, CA. The Frontier report is included here in its entirety.

Insufficient sample was provided for matrix QC for all parameters. LCS were prepared in duplicate.

SIM Semivolatiles by SW8270

The sample was 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 and LCSD percent recoveries were within control limits.

Pentachlorophenol by SW8041

The sample was 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 and LCSD percent recoveries were within control limits.

NW-TPHDx with Acid Silica cleanups

The sample was extracted and analyzed within the method recommended holding times.

Initial calibrations and continuing calibrations 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.

Total Arsenic and Lead by SW6010B

The sample was digested and analyzed within the method recommended holding time.

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

The matrix spike percent recoveries and duplicate RPDs were within control limits.

General Chemistry (TOC/TS)

The sample was prepared and analyzed within the method recommended holding time.

The method blanks were clean at the reporting limits. The LCS percent recovery was within control limits.

The SRM percent recovery was within limits.

The matrix spike percent recovery and replicate RPD were within control limits.

No corrective action is required for matrix replicate RSDs.

Geotechnical Parameters

A laboratory-specific narrative follows.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Floyd Snider **ARI Job No.:** QC28

Client Project: POS-LLA

Case Narrative

1. One sample was submitted for testing on December 21, 2009. The sample had been previously frozen which may have affected the grain size distribution.
2. The sample was submitted for grain size distribution according to ASTM D422. The sample was prepared according to ASTM D421.
3. An assumed specific gravity of 2.65 was used in the hydrometer calculations.
4. A standard milkshake mixer type device was used to disperse the fine fraction sample.
5. The data is provided in summary tables and plots.
6. There were no further anomalies in the samples or test method.

Approved by: _____ Date: 1/6/10
Geotechnical Laboratory Manager

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** (fax)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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 ≥ 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

QC28 : 00010

Data Reporting Qualifiers

Effective 7/10/2009

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥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

QC28 : 00011

LCS SOLUTIONS

12/02/09

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1677-2	PCB 1660	20	ACETONE	09/01/10
2#	1472-3	BCOC PEST	10	ACETONE	NA
3	1620-4	PEST	02/04/20	ACETONE	06/26/10
4	1667-1	LOW PEST	0.2/0.4/2	ACETONE	06/26/10
5	1677-1	EPH	1500	MECL2	11/12/10
6	1655-3	PCP	12.5/125	ACETONE	09/24/10
7	1677-3	ABN	100	ACETONE	07/01/10
8	1681-4	TBT	2.5	MECL2	12/01/10
9	1682-2	PORE TBT	.125/.25	MECL2	12/01/10
10	1621-4	ABN ACID	100/200	MEOH	07/14/10
11	1642-2	TPHD	15000	ACETONE	09/07/10
12	1622-2	ABN BASE	200	ACETONE	02/05/10
13	1613-1	LOW PCB	2	ACETONE	06/08/10
14*	1547-1	LOW ABN ACID	10/20	MEOH	04/10/10
15*	1591-3	SIM PNA	15/75	MEOH	08/28/10
16	1602-3	DIOXANE	100	MEOH	03/20/10
17	1644-1	1248 PCB	10	ACETONE	09/10/10
18*	1591-4	LOW SIM PNA	1.5	ACETONE	08/28/10
19	1574-4	AK103	7500	MECL2	12/02/09
20	1572-2	PNA	100	ACETONE	12/26/09
21	1593-3	SKY/BHT	100	MEOH	03/31/10
22	1675-1	HERB	12.5/12500	MEOH	02/19/10
23*	1505-1	LW ABN BASE	20	MEOH	03/20/10
24	1613-2	LOW ABN	10	ACETONE	02/28/10
25#	1481-1	DIPHENYL	100	MEOH	NA
26*	1545-2	OP-PEST	25	MEOH	02/16/10
27	1668-3	STEROLS	200	MEOH	10/30/10
28#	1595-1	ADD. PEST	4	ACETONE	NA
29#	1496-3	DECANES	100	MEOH	NA
30	1620-1	EDB/DBCP	0.2	MEOH	06/22/10
31	1596-1	TERPINEOL	100	MEOH	04/03/10

QC28 : 00012

LCS SOLUTIONS

12/02/09

32	1619-3	GUAIACOL	50-200	ACETONE	04/30/10
33	1639-3	RETENE	100	MEOH	09/03/10
34	1633-1	CONGENERS	2.5	ACETONE	08/11/10
35	1674-3	ALKYL PNA A	10	MEOH	10/28/10
36	1601-3	ALKYL PNA B	10	MEOH	05/13/10
50	1617-1	FULL RESIN	250	ACETONE	06/17/10
51	1611-3	DDTS	2.5	ACETONE	06/04/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
	*=REVERIFIED SOLUTION				
	#=PROJECT SPECIFIC SOLUTION				

QC28 : 00013

SURR SOLUTIONS

12/02/2009

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1662-3	ABN	100/150	MEOH	10/08/10
B	1633-3	SIM PNA	15/75	MEOH	08/12/10
C*	1559-1	SIM ABN	25/37.5	MEOH	03/13/10
D	1635-2	LOW PCB	0.2	ACETONE	05/29/10
E	1661-2	HERB	62.5	MEOH	10/02/10
F	1574-3	PCP	12.5	ACETONE	01/06/10
G*	1534-1	1,4DIOXANE	100	MEOH	02/20/10
H	1594-1	OP-PEST	25	MEOH	04/01/10
I	1634-1	LOW S. PNA	1.5	MEOH	08/12/10
J	1681-2	TBT-PORE	0.125	MECL2	12/01/10
K	1612-1	MED PCB	20	ACETONE	05/29/10
L	1681-1	TBT	2.5	MECL2	12/01/10
M	1578-1	EPH	1500	MECL2	12/09/09
N	1612-2	PCB	2	ACETONE	05/29/10
O	1647-2	TPH	450	MECL2	07/02/10
P	1666-3	HCID	2250	MECL2	05/06/10
Q	1620-2	EDB	1	MEOH	06/22/10
R	1615-1	RESIN ACID	250	ACETONE	06/17/10
S#	1568-5	PBDE	.25	MEOH	NA
T	1674-2	ALKYL PNA	10	MEOH	07/30/10
U	1633-1	CONGENER	2.5	ACETONE	08/11/10
V					
*reverified solution					
#project specific					
Y					
Z					

QC28 : 00014

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Polycyclic Aromatic Hydrocarbons EPA Method SW-846-8270D [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	Water		Soil	
Sample Volume / Final Volume	**500 mL to 0.5 mL**		**7.5 g / 0.5 mL**	
LCS Spike Recovery [6]	**Control Limits**	**ME Limits [3]**	**Control Limits**	**ME Limits [3]**
Napthalene	30 - **100**	21 - **100**	37 - **100**	31 - **100**
2-Methylnapthalene	33 - 108	21 - 121	43 - 101	33 - 111
1-Methylnapthalene	34 - **100**	26 - **100**	39 - **100**	32 - **100**
Acenaphthylene	45 - **100**	38 - **100**	44 - **100**	37 - **100**
Acenapthene	40 - **100**	32 - **100**	41 - **100**	35 - **100**
Dibenzofuran	45 - **100**	37 - **100**	44 - **100**	37 - **100**
Fluorene	45 - **100**	37 - 105	49 - **100**	43 - **100**
Phenanthrene	47 - 101	38 - 110	48 - **100**	42 - **100**
Anthracene	47 - **100**	38 - 108	50 - **100**	44 - **100**
Fluoranthene	48 - 110	38 - 120	54 - **100**	47 - 107
Pyrene	48 - 109	38 - 119	41 - 105	30 - 116
Benz(a)anthracene	44 - 105	34 - 115	49 - **100**	42 - 102
Chyrsene	50 - 103	41 - 112	50 - **100**	43 - 101
Benzo(b)fluoranthene	43 - 115	31 - 127	53 - **100**	45 - 107
Benzo(k)fluoranthene	51 - 110	41 - 120	54 - **100**	47 - 104
Benzo(a)pyrene	44 - 107	34 - 118	50 - **100**	42 - 105
Indeno(1,2,3-cd)pyrene	30 - 106	17 - 119	33 - 101	22 - 112
Dibenzo(a,h)anthracene	42 - 103	32 - 113	37 - 104	26 - 115
Benzo(g,h,i)Perylene	42 - 102	32 - 112	33 - 107	21 - 119
MB / LCS Surrogate Recovery		-		
d14-p-Terphenyl	52 - 110	(5)	47 - 112	(5)
2-Fluorobiphenyl	36 - **100**	(5)	40 - **100**	(5)
Sample Surrogate Recovery				
d14-p-Terphenyl	23 - 120	(5)	35 - 112	(5)
2-Fluorobiphenyl	38 - **100**	(5)	34 - **100**	(5)

(1) Control limits calculated using all available spike recovery data from 7/1/07 through 2/27/09.
(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) **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 one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.
(4) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.
(5) Marginal Exceedances are not allowed for surrogate standards.
(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.

QC28 : 00015

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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

	ARI's Calculated Control Limits	
Sample Matrix:	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.

QC28 : 00016

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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.

QC28 : 00017

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%

QC28 : 00018

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%

QC28 : 00019

Data Summary Package

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

SEMIVOLATILE PAH ANALYSIS

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PNAs by 8270D PNA GC/MS
Page 1 of 1

Sample ID: CB4857-121009-SED
SAMPLE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/29/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Date Extracted: 12/22/09
Date Analyzed: 12/28/09 22:59
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 19.5%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	19	< 19 U
91-57-6	2-Methylnaphthalene	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
83-32-9	Acenaphthene	19	< 19 U
86-73-7	Fluorene	19	< 19 U
85-01-8	**Phenanthrene**	**19**	**36**
120-12-7	Anthracene	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**73**
129-00-0	**Pyrene**	**19**	**57**
56-55-3	**Benzo(a)anthracene**	**19**	**29**
218-01-9	**Chrysene**	**19**	**63**
205-99-2	**Benzo(b)fluoranthene**	**19**	**53**
207-08-9	**Benzo(k)fluoranthene**	**19**	**53**
50-32-8	**Benzo(a)pyrene**	**19**	**43**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**11 J**
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**19**	**16 J**
132-64-9	Dibenzofuran	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery	
d14-p-Terphenyl	81.2%
2-Fluorobiphenyl	88.0%

ANALYTICAL RESOURCES INCORPORATED

SW8270 PNA SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Client ID	TER	FBP	TOT OUT
MB-122209	83.2%	68.0%	0
LCS-122209	90.8%	78.0%	0
LCSD-122209	88.4%	74.4%	0
CB4857-121009-SED	81.2%	88.0%	0

	LCS/MB LIMITS	QC LIMITS
(TER) = d14-p-Terphenyl	(47-112)	(35-112)
(FBP) = 2-Fluorobiphenyl	(40-100)	(34-100)

Prep Method: SW3550B
Log Number Range: 09-31268 to 09-31268

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PNAs by SW8270D GC/MS
Page 1 of 1

Sample ID: LCS-122209
LCS/LCSD

Lab Sample ID: LCS-122209
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/29/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: 12/21/09

Date Extracted LCS/LCSD: 12/22/09

Date Analyzed LCS: 12/28/09 21:24
LCSD: 12/28/09 21:55
Instrument/Analyst LCS: NT6/JZ
LCSD: NT6/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes

Sample Amount LCS: 25.0 g
LCSD: 25.0 g
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Alumina Cleanup: No

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	362	500	72.4%	351	500	70.2%	3.1%
2-Methylnaphthalene	421	500	84.2%	358	500	71.6%	16.2%
1-Methylnaphthalene	436	500	87.2%	369	500	73.8%	16.6%
Acenaphthylene	389	500	77.8%	388	500	77.6%	0.3%
Acenaphthene	384	500	76.8%	382	500	76.4%	0.5%
Fluorene	413	500	82.6%	463	500	92.6%	11.4%
Phenanthrene	442	500	88.4%	453	500	90.6%	2.5%
Anthracene	436	500	87.2%	436	500	87.2%	0.0%
Fluoranthene	487	500	97.4%	489	500	97.8%	0.4%
Pyrene	455	500	91.0%	436	500	87.2%	4.3%
Benzo(a)anthracene	476	500	95.2%	474	500	94.8%	0.4%
Chrysene	490	500	98.0%	481	500	96.2%	1.9%
Benzo(b)fluoranthene	509	500	102%	524	500	105%	2.9%
Benzo(k)fluoranthene	541	500	108%	512	500	102%	5.5%
Benzo(a)pyrene	500	500	100%	463	500	92.6%	7.7%
Indeno(1,2,3-cd)pyrene	326	500	65.2%	201	500	40.2%	47.4%
Dibenz(a,h)anthracene	377	500	75.4%	237	500	47.4%	45.6%
Benzo(g,h,i)perylene	251	500	50.2%	142	500	28.4%	55.5%
Dibenzofuran	415	500	83.0%	420	500	84.0%	1.2%

Semivolatile Surrogate Recovery

	LCS	LCSD
d14-p-Terphenyl	90.8%	88.4%
2-Fluorobiphenyl	78.0%	74.4%

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

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QC28MBS1

Lab Name: ANALYTICAL RESOURCES, INC
Client: FLOYD/SNIDER

ARI Job No: QC28
Project: POS-LLA

Lab File ID: 12280918
Date Extracted: 12/22/09

Instrument ID: NT6
Date Analyzed: 12/28/09

Matrix: SOLID
Time Analyzed: 2052

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	QC28LCSS1	QC28LCSS1	12280919	12/28/09
02	QC28LCSDS1	QC28LCSDS1	12280920	12/28/09
03	CB4857-121009-SE	QC28A	12280922	12/28/09
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COMMENTS:

FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PNAs by 8270D PNA GC/MS
Page 1 of 1

Sample ID: MB-122209
METHOD BLANK

Lab Sample ID: MB-122209
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/29/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: NA

Date Extracted: 12/22/09
Date Analyzed: 12/28/09 20:52
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.0 g
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

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

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	83.2%
2-Fluorobiphenyl	68.0%

FORM I

PCP/CHLOROPHENOLS ANALYSIS

QC28 : 00027

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB4857-121009-SED
SAMPLE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized: VTS
Reported: 01/09/10

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Date Extracted: 01/07/10
Date Analyzed: 01/08/10 19:25
Instrument/Analyst: ECD1/YZ

Sample Amount: 8.25 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 19.5%

CAS Number	Analyte	RL	Result
87-86-5	**Pentachlorophenol**	**7.6**	**71**

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	56.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Client ID	TBP	TOT OUT
MB-010710	66.0%	0
LCS-010710	67.0%	0
LCSD-010710	63.4%	0
CB4857-121009-SED	56.0%	0

	LCS/MB LIMITS	QC LIMITS
(TBP) = 2,4,6-Tribromophenol	(50-115)	(10-146)

Prep Method: SW3550B
Log Number Range: 09-31268 to 09-31268

FORM-II SW8041

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-010710
LCS/LCSD

Lab Sample ID: LCS-010710
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized: VTS
Reported: 01/09/10

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Date Extracted LCS/LCSD: 01/07/10

Sample Amount LCS: 10.0 g
LCSD: 10.0 g

Date Analyzed LCS: 01/08/10 18:45
LCSD: 01/08/10 19:05

Final Extract Volume LCS: 25 mL
LCSD: 25 mL

Instrument/Analyst LCS: ECD1/YZ
LCSD: ECD1/YZ

Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Pentachlorophenol	56.9	62.5	91.0%	57.6	62.5	92.2%	1.2%

Chlorophenols Surrogate Recovery

	LCS	LCSD
2,4,6-Tribromophenol	67.0%	63.4%

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

4

CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QC28MBS1

Lab Name: ANALYTICAL RESOURCES, INC — Client: FLOYD/SNYDER

ARI Job No.: QC28 — Project: POS-LLA

Lab Sample ID: QC28MBS1 — Lab File ID: 0108A005

Matrix (soil/water) SOLID — Extraction:(SepF/Cont/Sonc) SW3550B

Sulfur Cleanup (Y/N) Y — Date Extracted: 01/07/10

Date Analyzed (1): 01/08/10 — Date Analyzed (2): 01/08/10

Time Analyzed (1): 1825 — Time Analyzed (2): 1825

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	QC28LCSS1	QC28LCSS1	01/08/10	01/08/10
02	QC28LCSDS1	QC28LCSDS1	01/08/10	01/08/10
03	CB4857-12100	QC28A	01/08/10	01/08/10

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MB-010710
METHOD BLANK

Lab Sample ID: MB-010710
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized: VTB
Reported: 01/09/10

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: NA

Date Extracted: 01/07/10
Date Analyzed: 01/08/10 18:25
Instrument/Analyst: ECD1/YZ

Sample Amount: 10.0 g
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.2	< 6.2 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery	
2,4,6-Tribromophenol	66.0%

FORM I

TPHD ANALYSIS

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1
Matrix: Sediment

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Data Release Authorized:
Reported: 12/31/09

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-122209	Method Blank	12/22/09	12/23/09	1.00	Diesel	5.0	< 5.0 U
09-31268	HC ID: ---		FID9	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		85.8%
QC28A	CB4857-121009-SED	12/22/09	12/23/09	1.00	**Diesel**	**6.0**	**19**
09-31268	HC ID: **DRO/MOTOR OIL**		FID9	1.0	**Motor Oil**	**12**	**160**
					o-Terphenyl		82.2%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Client ID	OTER	TOT OUT
MB-122209	85.8%	0
LCS-122209	86.3%	0
LCSD-122209	91.4%	0
CB4857-121009-SED	82.2%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(63-115)	(49-120)

Prep Method: SW3546
Log Number Range: 09-31268 to 09-31268

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-122209**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-122209
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/31/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Date Extracted LCS/LCSD: 12/22/09

Date Analyzed LCS: 12/23/09 16:50
LCSD: 12/23/09 17:29
Instrument/Analyst LCS: FID/MS
LCSD: FID/MS

Sample Amount LCS: 10.0 g
LCSD: 10.0 g
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.0
LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	122	150	81.3%	132	150	88.0%	7.9%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	86.3%	91.4%

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

4

TPH METHOD BLANK SUMMARY

BLANK NO.

QC28MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: QC28 Project No.: POS-LLA

Date Extracted: 12/22/09 Matrix: SOLID

Date Analyzed : 12/23/09 Instrument ID : FID9

Time Analyzed : 1749

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QC28LCSS1	QC28LCSS1	12/23/09
02	CB4857-12100	QC28A	12/23/09
03	QC28LCSDS1	QC28LCSDS1	12/23/09
04			
05			
06			
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FORM IV TPH

METALS ANALYSIS

QC28 : 00038

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB4857-121009-SED
SAMPLE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Percent Total Solids: 81.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	12/21/09	6010B	12/23/09	7440-38-2	Arsenic	6	6	U
3050B	12/21/09	6010B	12/23/09	**7439-92-1**	**Lead**	2	**42**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: CB4857-121009-SED
MATRIX SPIKE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	6 U	228	239	95.4%	
Lead	6010B	42	283	239	101%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB4857-121009-SED DUPLICATE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	6 U	6 U	0.0%	+/- 6	L
Lead	6010B	42	45	6.9%	+/- 20%	

Reported in mg/kg-dry

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: QC28LCS
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	184	200	92.0%	
Lead	6010B	179	200	89.5%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: QC28MB
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	12/21/09	6010B	12/23/09	7440-38-2	Arsenic	5	5	U
3050B	12/21/09	6010B	12/23/09	7439-92-1	Lead	2	2	U

U-Analyte undetected at given RL
RL-Reporting Limit

GENERAL CHEMISTRY ANALYSIS

QC28 : 00044

SAMPLE RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: 12/10/09
Date Received: 12/21/09

Client ID: CB4857-121009-SED
ARI ID: 09-31268 QC28A

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/21/09 122109#1	EPA 160.3	Percent	0.01	85.10
Total Organic Carbon	12/29/09 122909#1	Plumb,1981	Percent	0.020	1.29

RL Analytical reporting limit
U Undetected at reported detection limit

METHOD BLANK RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	12/21/09	Percent	< 0.01 U
Total Organic Carbon	12/29/09	Percent	< 0.020 U

LAB CONTROL RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb,1981	ICVL	12/29/09	Percent	0.091	0.100	91.0%

STANDARD REFERENCE RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST #8704	12/29/09	Percent	3.24	3.35	96.7%

REPLICATE RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: 12/10/09
Date Received: 12/21/09

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QC28A Client ID: CB4857-121009-SED					
Total Solids	12/21/09	Percent	85.10	84.10 83.20	1.1%
Total Organic Carbon	12/29/09	Percent	1.29	0.786 0.812	29.5%

MS/MSD RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: 12/10/09
Date Received: 12/21/09

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: QC28A Client ID: CB4857-121009-SED						
Total Organic Carbon	12/29/09	Percent	1.29	2.81	1.24	122.1%

GEOTECHNICAL ANALYSIS

QC28 : 00051

Floyd Snider
POS-LLA

Percent Finer (Passing) Than the Indicated Size

Sieve Size (microns)	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4 (4750)	#10 (2000)	#20 (850)	#40 (425)	#60 (250)	#100 (150)	#200 (75)	32	22	13	9	7	3.2	1.3
CB4857-121009-SED	100.0	100.0	100.0	100.0	100.0	91.4	89.8	80.9	69.3	49.1	30.3	14.2	7.3	6.0	5.0	4.5	3.6	3.6	3.1	3.1	3.1

Testing performed according to ASTM D421/D422

QC28 : 9652

Floyd Snider
POS-LLA

Percent Retained in Each Size Fraction

Description	%Coarse Gravel				% Gravel			% Coarse Sand	% Medium Sand		% Fine Sand			% Very Coarse Silt	% Coarse Silt	% Medium Silt	% Fine Silt	% Fine Silt	% Very Fine Silt	% Clay
Particle Size (microns)	3-2"	2-1 1/2"	1 1/2"-1"	1-3/4"	3/4-1/2"	1/2-3/8"	3/8"-4750	4750-2000	2000-850	850-425	425-250	250-150	150-75	75-32	32-22	22-13	13-9	9-7	7-3.2	<3.2
CB4857-121009-SED	0.0	0.0	0.0	0.0	8.6	1.7	8.8	11.6	20.3	18.8	16.1	6.9	1.4	0.9	0.6	0.8	0.0	0.6	0.0	3.1

QC28 : 60053

TOTAL SOLIDS

Extractions Total Solids-extts
Data By: Jim Hawk
Created: 12/21/09

Worklist: 2354
Analyst: RVR
Comments:

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	QC28A 09-31268 CB4857-121009-SED	1.17	12.97	10.67	80.5	NR

QC28:00055

Solids Data Entry Report Checked by: DM Date: 12/22/09
Date: 12/22/09 Data Analyst: MH

Solids Determination performed on 12/21/09 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
QC28	A	CB4857-121009-SED	0.995	10.755	8.963	81.64

SUBCONTRACTED ANALYSIS

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **5887**

Received on: **12/22/2009** Project Due: **01/08/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5887-001-SA	0	QC28	CB4857-121009-SED	EPA 1613 D/F	Sediment	12/10/2009	10:41 am	12/10/2010

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QC28 - 00058

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-MB
Client ID: Method Blank
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/g

Acquired: 01-04-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.268		-	0.0252				
1,2,3,7,8-PeCDD	ND	0.209		-	0.0457				
1,2,3,4,7,8-HxCDD	ND	0.266		-	0.0496				
1,2,3,6,7,8-HxCDD	ND	0.311		-	0.0680	Total TCDD	ND	0.268	
1,2,3,7,8,9-HxCDD	ND	0.286		-	0.0666	Total PeCDD	ND	0.209	
1,2,3,4,6,7,8-HpCDD	ND	0.439		-	0.0927	Total HxCDD	ND	0.311	
OCDD	ND	0.821		-	0.272	Total HpCDD	ND	0.439	
2,3,7,8-TCDF	ND	0.0514		-	0.0252				
1,2,3,7,8-PeCDF	ND	0.146		-	0.0365				
2,3,4,7,8-PeCDF	ND	0.152		-	0.0486				
1,2,3,4,7,8-HxCDF	ND	0.234		-	0.0267				
1,2,3,6,7,8-HxCDF	ND	0.247		-	0.0289				
2,3,4,6,7,8-HxCDF	ND	0.259		-	0.0298				
1,2,3,7,8,9-HxCDF	ND	0.270		-	0.0493	Total TCDF	ND	0.0514	
1,2,3,4,6,7,8-HpCDF	ND	0.208		-	0.0404	Total PeCDF	ND	0.152	
1,2,3,4,7,8,9-HpCDF	ND	0.233		-	0.0469	Total HxCDF	ND	0.270	
OCDF	ND	0.447		-	0.177	Total HpCDF	ND	0.233	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.7	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	86.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	83.5	23.0 - 140	
13C-OCDD	58.0	17.0 - 157	
13C-2,3,7,8-TCDF	87.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	74.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	72.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	86.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	84.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	83.6	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	87.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	78.6	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.0	26.0 - 138	
13C-OCDF	59.9	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	86.6	35.0 - 197	

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

Analyst: [signature]
Date: 1/5/10

Reviewed By: [signature]
Date: 1/5/10

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QC28 : 00039

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-OPR
Client ID: OPR
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: ng/ml

Acquired: 01-04-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	10.1	6.70 - 15.8	
1,2,3,7,8-PeCDD	49.8	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	47.8	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	46.3	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	49.2	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.3	35.0 - 70.0	
OCDD	97.1	78.0 - 144	
2,3,7,8-TCDF	9.99	7.50 - 15.8	
1,2,3,7,8-PeCDF	49.9	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.7	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	50.1	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	49.6	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	48.1	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	49.9	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.2	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	52.3	39.0 - 69.0	
OCDF	101	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	76.4	20.0 - 175	
13C-1,2,3,7,8-PeCDD	69.4	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	79.0	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	84.3	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	81.4	26.0 - 166	
13C-OCDD	58.4	13.0 - 198	
13C-2,3,7,8-TCDF	82.2	22.0 - 152	
13C-1,2,3,7,8-PeCDF	74.0	21.0 - 192	
13C-2,3,4,7,8-PeCDF	71.2	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	83.5	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	82.0	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	78.6	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	79.6	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	74.3	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	82.4	20.0 - 186	
13C-OCDF	59.9	13.0 - 198	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	86.4	31.0 - 191

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

Analyst: _____
Date: 1/5/10

Reviewed By: DN
Date: 1/5/10

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QC28 : 00000

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-SA
Client ID: CB4857-121009-SED
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: 12-22-2009
Amount: 4.48 g
% Solids: 83.13

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/g

Acquired: 01-04-2010
2005 WHO TEQ: 13.2

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.472		-	0.0252				
1,2,3,7,8-PeCDD	1.79	-	J	1.79	0.0457				
1,2,3,4,7,8-HxCDD	2.92	-	J	0.292	0.0496				
1,2,3,6,7,8-HxCDD	10.3	-		1.03	0.0680	Total TCDD	0.661	-	J
1,2,3,7,8,9-HxCDD	5.19	-	J	0.519	0.0666	Total PeCDD	7.27	-	
1,2,3,4,6,7,8-HpCDD	353	-		3.53	0.0927	Total HxCDD	47.9	-	
OCDD	4480	-		1.34	0.272	Total HpCDD	588	-	
2,3,7,8-TCDF	ND	0.183		-	0.0252				
1,2,3,7,8-PeCDF	0.586	-	J	0.0176	0.0365				
2,3,4,7,8-PeCDF	1.30	-	J	0.390	0.0486				
1,2,3,4,7,8-HxCDF	19.6	-		1.96	0.0267				
1,2,3,6,7,8-HxCDF	5.05	-	J	0.505	0.0289				
2,3,4,6,7,8-HxCDF	6.22	-		0.622	0.0298				
1,2,3,7,8,9-HxCDF	1.99	-	J	0.199	0.0493	Total TCDF	5.42	-	D,M
1,2,3,4,6,7,8-HpCDF	82.0	-		0.820	0.0404	Total PeCDF	26.0	-	D,M
1,2,3,4,7,8,9-HpCDF	9.51	-		0.0951	0.0469	Total HxCDF	154	-	D,M
OCDF	243	-		0.0729	0.177	Total HpCDF	309	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	75.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	64.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.8	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	79.7	23.0 - 140	
13C-OCDD	64.9	17.0 - 157	
13C-2,3,7,8-TCDF	78.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	66.8	24.0 - 185	
13C-2,3,4,7,8-PeCDF	66.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	78.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	75.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	73.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	69.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	72.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	76.0	26.0 - 138	
13C-OCDF	59.3	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	70.4	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: _____
Date: 1/5/10

Reviewed By: _____
Date: 1/5/10

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GC28 00061

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 12/21/09

ANALYTICAL RESOURCES INCORPORATED

ARI Project: QC28

5887
QC

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

ARI Client: Floyd/Snider
Project ID: POS-LLA
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
Fax: 206-695-6201

Analytical Protocol: PSDDA
Special Instructions:

Requested Turn Around: **01/08/10**
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 sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
09-31268-QC28A	CB4857-121009-SED	12/10/09 10:41	Sediment		Dioxin/Furans 1613(Sub)

Special Instructions: Dioxin/Furans

Carrier UPS		Airbill 1Z9326950145679106	Date 12/21/09
Relinquished by Mikka Mylumpa	Company ARI	Date 12/21/09	Time 1420
Received by Kathy Sapp	Company Frontier	Date 12-22-09	Time 11:00

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **5887**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QC28
Date Received:	12/22/2009
Time Received:	11:00 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	1
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1z8326950145679106
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	No
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	12/10/2010
Adequate Sample Volume	Yes

Anomalies or additional comments:

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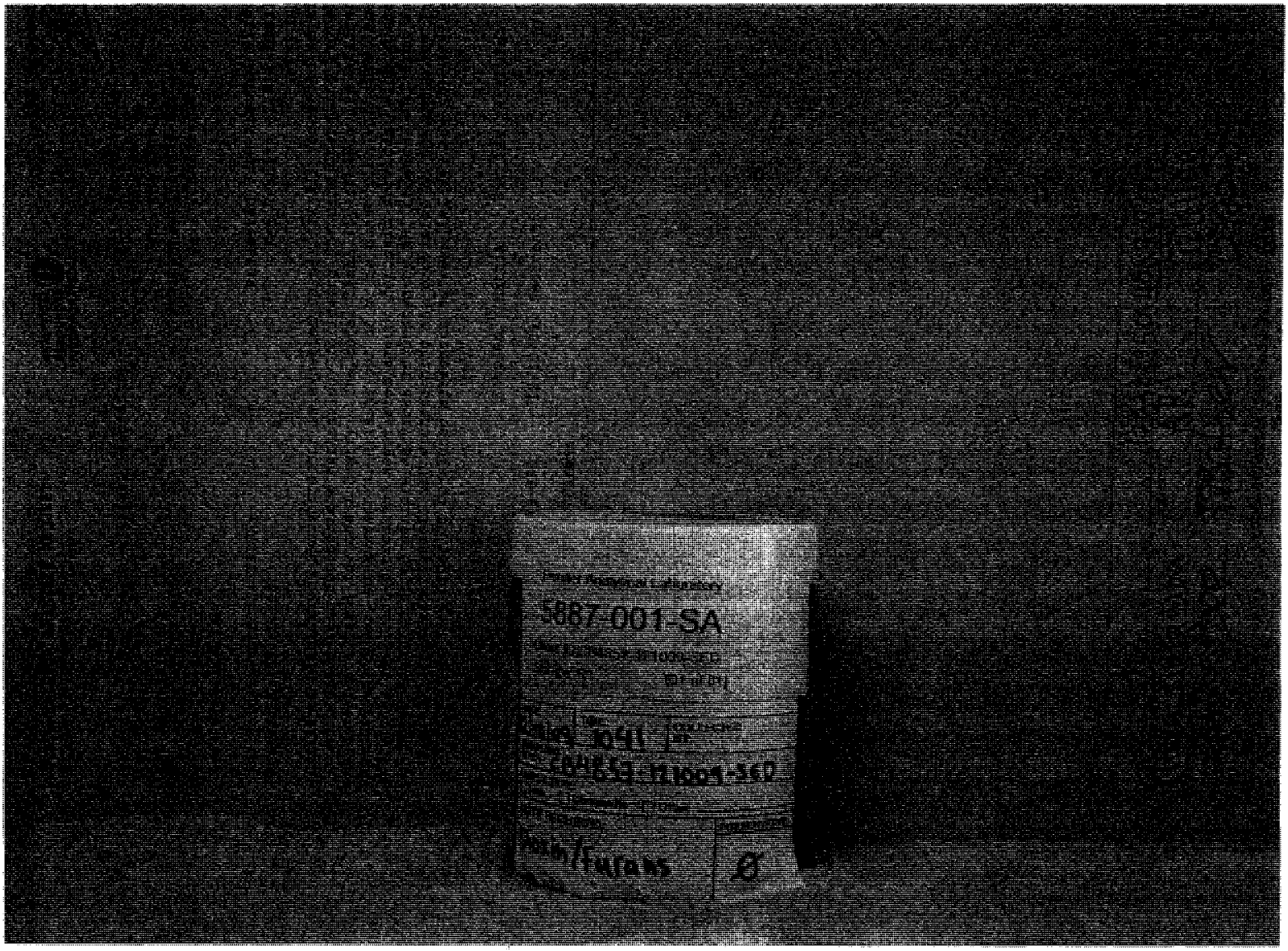
QC28 : 000007



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Laboratory Data Package

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Semivolatile PAH Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

SW8270 PNA SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Client ID	TER	FBP	TOT OUT
MB-122209	83.2%	68.0%	0
LCS-122209	90.8%	78.0%	0
LCSD-122209	88.4%	74.4%	0
CB4857-121009-SED	81.2%	88.0%	0

	LCS/MB LIMITS	QC LIMITS
(TER) = d14-p-Terphenyl	(47-112)	(35-112)
(FBP) = 2-Fluorobiphenyl	(40-100)	(34-100)

Prep Method: SW3550B
Log Number Range: 09-31268 to 09-31268

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PNAs by SW8270D GC/MS
Page 1 of 1

Sample ID: LCS-122209
LCS/LCSD

Lab Sample ID: LCS-122209
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/29/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: 12/21/09

Date Extracted LCS/LCSD: 12/22/09

Sample Amount LCS: 25.0 g
LCSD: 25.0 g

Date Analyzed LCS: 12/28/09 21:24
LCSD: 12/28/09 21:55

Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL

Instrument/Analyst LCS: NT6/JZ
LCSD: NT6/JZ

Dilution Factor LCS: 1.00
LCSD: 1.00

GPC Cleanup: No
Silica Gel Cleanup: Yes

Alumina Cleanup: No

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	362	500	72.4%	351	500	70.2%	3.1%
2-Methylnaphthalene	421	500	84.2%	358	500	71.6%	16.2%
1-Methylnaphthalene	436	500	87.2%	369	500	73.8%	16.6%
Acenaphthylene	389	500	77.8%	388	500	77.6%	0.3%
Acenaphthene	384	500	76.8%	382	500	76.4%	0.5%
Fluorene	413	500	82.6%	463	500	92.6%	11.4%
Phenanthrene	442	500	88.4%	453	500	90.6%	2.5%
Anthracene	436	500	87.2%	436	500	87.2%	0.0%
Fluoranthene	487	500	97.4%	489	500	97.8%	0.4%
Pyrene	455	500	91.0%	436	500	87.2%	4.3%
Benzo(a)anthracene	476	500	95.2%	474	500	94.8%	0.4%
Chrysene	490	500	98.0%	481	500	96.2%	1.9%
Benzo(b)fluoranthene	509	500	102%	524	500	105%	2.9%
Benzo(k)fluoranthene	541	500	108%	512	500	102%	5.5%
Benzo(a)pyrene	500	500	100%	463	500	92.6%	7.7%
Indeno(1,2,3-cd)pyrene	326	500	65.2%	201	500	40.2%	47.4%
Dibenz(a,h)anthracene	377	500	75.4%	237	500	47.4%	45.6%
Benzo(g,h,i)perylene	251	500	50.2%	142	500	28.4%	55.5%
Dibenzofuran	415	500	83.0%	420	500	84.0%	1.2%

Semivolatile Surrogate Recovery

	LCS	LCSD
d14-p-Terphenyl	90.8%	88.4%
2-Fluorobiphenyl	78.0%	74.4%

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

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QC28MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QC28 Project: POS-LLA

Lab File ID: 12280918 Date Extracted: 12/22/09

Instrument ID: NT6 Date Analyzed: 12/28/09

Matrix: SOLID Time Analyzed: 2052

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	QC28LCSS1	QC28LCSS1	12280919	12/28/09
02	QC28LCSDS1	QC28LCSDS1	12280920	12/28/09
03	CB4857-121009-SE	QC28A	12280922	12/28/09
04				
05				
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COMMENTS:

FORM IV SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

Instrument ID: NT6 Project: POS-LLA

DFTPP Injection Date: 12/03/09 DFTPP Injection Time: 1335

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	35.3
68	Less than 2.0% of mass 69	0.5 (0.9)1
69	Mass 69 relative abundance	52.2
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	25.0 - 75.0% of mass 198	53.1
197	Less than 1.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	25.2
365	Greater than 0.75% of mass 198	2.68
441	Present, but less than mass 443	9.3
442	40.0 - 110.0% of mass 198	63.6
443	15.0 - 24.0% of mass 442	11.7 (18.4)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	IC251203	IC251203	12030901	12/03/09	1335
02	IC011203	IC011203	12030902	12/03/09	1407
03	IC051203	IC051203	12030903	12/03/09	1439
04	IC101203	IC101203	12030904	12/03/09	1510
05	IC401203	IC401203	12030905	12/03/09	1542
06	IC601203	IC601203	12030906	12/03/09	1614
07	IC801203	IC801203	12030907	12/03/09	1646
08					
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22					

FORM V SV

QC28:00070

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

Instrument ID: NT6 Project: POS-LLA

DFTPP Injection Date: 12/28/09 DFTPP Injection Time: 1145

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	36.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	51.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	53.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	25.3
365	Greater than 0.75% of mass 198	2.68
441	Present, but less than mass 443	8.0
442	40.0 - 110.0% of mass 198	54.5
443	15.0 - 24.0% of mass 442	10.4 (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	CC1228	CC1228	12280901	12/28/09	1145
02	QC28MBS1	QC28MBS1	12280918	12/28/09	2052
03	QC28LCSS1	QC28LCSS1	12280919	12/28/09	2124
04	QC28LCSDS1	QC28LCSDS1	12280920	12/28/09	2155
05	CB4857-121009-SE	QC28A	12280922	12/28/09	2259
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QC28:00071

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QC28 Project: POS-LLA

Instrument ID: NT6 Calibration Date: 12/03/09

LAB FILE ID: RRF1 =12030902 RRF5 =12030903 RRF10 =12030904
RRF25 =12030901 RRF40 =12030905 RRF60 =12030906
RRF80 =12030907

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	$\overline{RRF}$	%RSD /R^2
Naphthalene	0.911	0.863	0.875	0.876	0.821	0.722	0.630	0.814	12.5
2-Methylnaphthalene	0.508	0.484	0.499	0.504	0.485	0.431	0.389	0.471	9.5
Acenaphthylene	1.573	1.467	1.498	1.474	1.387	1.237	1.090	1.389	12.2
Acenaphthene	0.928	0.865	0.899	0.915	0.878	0.804	0.729	0.860	8.2
Dibenzofuran	1.380	1.253	1.295	1.292	1.237	1.104	0.994	1.222	10.7
Fluorene	1.124	1.052	1.068	1.076	1.036	0.932	0.830	1.017	9.9
Phenanthrene	0.948	0.870	0.892	0.908	0.856	0.763	0.683	0.846	10.9
Anthracene	0.962	0.915	0.929	0.942	0.885	0.780	0.688	0.872	11.5
Fluoranthene	1.064	1.017	1.041	1.060	0.989	0.876	0.770	0.974	11.4
Pyrene	1.080	1.020	1.050	1.034	0.970	0.852	0.760	0.966	12.2
Benzo(a)anthracene	1.090	0.985	1.026	1.033	0.953	0.843	0.746	0.954	12.6
Chrysene	0.955	0.881	0.927	0.950	0.894	0.796	0.715	0.874	10.1
Benzo(b)fluoranthene	0.951	0.912	0.985	0.987	1.001	0.880	0.847	0.938	6.3
Benzo(k)fluoranthene	1.141	1.036	1.033	1.093	0.968	0.892	0.729	0.984	14.1
Benzo(a)pyrene	0.836	0.815	0.844	0.885	0.861	0.779	0.707	0.818	7.3
Indeno(1,2,3-cd)pyrene	1.016	0.994	1.068	1.163	1.141	1.085	1.001	1.067	6.3
Dibenzo(a,h)anthracene	0.790	0.802	0.852	0.940	0.921	0.836	0.783	0.846	7.4
Benzo(g,h,i)perylene	0.910	0.866	0.920	0.990	0.980	0.931	0.864	0.923	5.4
1-methylnaphthalene	0.509	0.471	0.480	0.493	0.461	0.422	0.380	0.459	9.7
Terphenyl-d14	0.719	0.673	0.667	0.759	0.739	0.652	0.601	0.687	8.0
2-Fluorobiphenyl	1.241	1.118	1.067	1.167	1.120	0.999	0.902	1.088	10.3

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-1

6C

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QC28 Project: POS-LLA

Instrument ID: NT6 Calibration Date: 12/03/09

LAB FILE ID: RRF1 =12030902 RRF5 =12030903 RRF10 =12030904
RRF25 =12030901 RRF40 =12030905 RRF60 =12030906
RRF80 =12030907

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	$\overline{RRF}$	%RSD /R^2
Naphthalene	0.911	0.863	0.875	0.876	0.821	0.722	0.630	0.814	12.5
2-Methylnaphthalene	0.508	0.484	0.499	0.504	0.485	0.431	0.389	0.471	9.5
Acenaphthylene	1.573	1.467	1.498	1.474	1.387	1.237	1.090	1.389	12.2
Acenaphthene	0.928	0.865	0.899	0.915	0.878	0.804	0.729	0.860	8.2
Dibenzofuran	1.380	1.253	1.295	1.292	1.237	1.104	0.994	1.222	10.7
Fluorene	1.124	1.052	1.068	1.076	1.036	0.932	0.830	1.017	9.9
Phenanthrene	0.948	0.870	0.892	0.908	0.856	0.763	0.683	0.846	10.9
Anthracene	0.962	0.915	0.929	0.942	0.885	0.780	0.688	0.872	11.5
Fluoranthene	1.064	1.017	1.041	1.060	0.989	0.876	0.770	0.974	11.4
Pyrene	1.080	1.020	1.050	1.034	0.970	0.852	0.760	0.966	12.2
Benzo(a)anthracene	1.090	0.985	1.026	1.033	0.953	0.843	0.746	0.954	12.6
Chrysene	0.955	0.881	0.927	0.950	0.894	0.796	0.715	0.874	10.1
Benzo(b)fluoranthene	0.951	0.912	0.985	0.987	1.001	0.880	0.847	0.938	6.3
Benzo(k)fluoranthene	1.141	1.036	1.033	1.093	0.968	0.892	0.729	0.984	14.1
Benzo(a)pyrene	0.836	0.815	0.844	0.885	0.861	0.779	0.707	0.818	7.3
Indeno(1,2,3-cd)pyrene	1.016	0.994	1.068	1.163	1.141	1.085	1.001	1.067	6.3
Dibenzo(a,h)anthracene	0.790	0.802	0.852	0.940	0.921	0.836	0.783	0.846	7.4
Benzo(g,h,i)perylene	0.910	0.866	0.920	0.990	0.980	0.931	0.864	0.923	5.4
1-methylnaphthalene	0.509	0.471	0.480	0.493	0.461	0.422	0.380	0.459	9.7
Terphenyl-d14	0.719	0.673	0.667	0.759	0.739	0.652	0.601	0.687	8.0
2-Fluorobiphenyl	1.241	1.118	1.067	1.167	1.120	0.999	0.902	1.088	10.3

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-2

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QC28 Project: POS-LLA

Instrument ID: NT6 Cont. Calib. Date: 12/28/09

Init. Calib. Date: 12/03/09 Cont. Calib. Time: 1145

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Naphthalene	0.814	0.872	0.700	AVRG	7.1	
2-Methylnaphthalene	0.471	0.507	0.400	AVRG	7.6	
Acenaphthylene	1.389	1.414	0.900	AVRG	1.8	
Acenaphthene	0.860	0.855	0.900	AVRG	-0.6	*
Dibenzofuran	1.222	1.300	0.800	AVRG	6.4	
Fluorene	1.017	1.046	0.900	AVRG	2.8	
Phenanthrene	0.846	0.887	0.700	AVRG	4.8	
Anthracene	0.872	0.902	0.700	AVRG	3.4	
Fluoranthene	0.974	1.003	0.600	AVRG	3.0	
Pyrene	0.966	0.997	0.600	AVRG	3.2	
Benzo(a)anthracene	0.954	1.057	0.800	AVRG	10.8	
Chrysene	0.874	0.864	0.700	AVRG	-1.1	
Benzo(b)fluoranthene	0.938	1.076	0.700	AVRG	14.7	
Benzo(k)fluoranthene	0.984	0.995	0.700	AVRG	1.1	
Benzo(a)pyrene	0.818	0.839	0.700	AVRG	2.6	
Indeno(1,2,3-cd)pyrene	1.067	1.177	0.500	AVRG	10.3	
Dibenzo(a,h)anthracene	0.846	0.965	0.400	AVRG	14.1	
Benzo(g,h,i)perylene	0.923	0.918	0.500	AVRG	-0.5	
1-methylnaphthalene	0.459	0.465	0.010	AVRG	1.3	
Terphenyl-d14	0.687	0.714	0.010	AVRG	3.9	
2-Fluorobiphenyl	1.088	1.167	0.010	AVRG	7.3	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QC28 Project: POS-LLA

Ical Midpoint ID: 12030901 Ical Date: 12/03/09

Instrument ID: NT6 Cont. Cal Date: 12/28/09

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	ICAL MIDPT	306694		8.16		1050823		10.22		646848		13.10	
	UPPER LIMIT	613388				2101646				1293696			
	LOWER LIMIT	153347				525412				323424			
	CCAL	220435		8.00		740841		10.06		458185		12.94	
	UPPER LIMIT			8.50				10.56				13.44	
	LOWER LIMIT			7.50				9.56				12.44	
01	QC28MBS1					962870		10.07		594015		12.95	
02	QC28LCSS1					973762		10.07		608913		12.95	
03	QC28LCSDS1					1014302		10.07		589964		12.95	
04	CB4857-12100					790672		10.08		462142		12.95	
05													
06													
07													
08													
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QC28 Project: POS-LLA

Ical Midpoint ID: 12030901 Ical Date: 12/03/09

Instrument ID: NT6 Cont. Cal Date: 12/28/09

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	ICAL MIDPT	1038548		15.49		1078796		19.84		1187999		22.01	
	UPPER LIMIT	2077096				2157592				2375998			
	LOWER LIMIT	519274				539398				594000			
	CCAL	671970		15.33		679134		19.66		704540		21.83	
	UPPER LIMIT			15.83				20.16				22.33	
	LOWER LIMIT			14.83				19.16				21.33	
01	QC28MBS1	884207		15.34		969667		19.67		984238		21.85	
02	QC28LCSS1	928259		15.34		1056086		19.68		984285		21.85	
03	QC28LCSDS1	916027		15.34		1035982		19.68		1140512		21.85	
04	CB4857-12100	1004840		15.34		1387766		19.69		1023038		21.88	
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: QC28 Project: POS-LLA

Ical Midpoint ID: 12030901 Ical Date: 12/03/09

Instrument ID: NT6 Cont. Cal Date: 12/28/09

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1555441	20.97				
	UPPER LIMIT	3110882					
	LOWER LIMIT	777720					
	CCAL	989263	20.80				
	UPPER LIMIT		21.30				
	LOWER LIMIT		20.30				
01	QC28MBS1						
02	QC28LCSS1						
03	QC28LCSDS1						
04	CB4857-12100						
05							
06							
07							
08							
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

Semivolatile PAH Analysis
Sample Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PNAs by 8270D PNA GC/MS

Sample ID: CB4857-121009-SED
SAMPLE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/29/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Date Extracted: 12/22/09
Date Analyzed: 12/28/09 22:59
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 19.5%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	19	< 19 U
91-57-6	2-Methylnaphthalene	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
83-32-9	Acenaphthene	19	< 19 U
86-73-7	Fluorene	19	< 19 U
85-01-8	**Phenanthrene**	**19**	**36**
120-12-7	Anthracene	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**73**
129-00-0	**Pyrene**	**19**	**57**
56-55-3	**Benzo(a)anthracene**	**19**	**29**
218-01-9	**Chrysene**	**19**	**63**
205-99-2	**Benzo(b)fluoranthene**	**19**	**53**
207-08-9	**Benzo(k)fluoranthene**	**19**	**53**
50-32-8	**Benzo(a)pyrene**	**19**	**43**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**11 J**
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**19**	**16 J**
132-64-9	Dibenzofuran	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery	
d14-p-Terphenyl	81.2%
2-Fluorobiphenyl	88.0%

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt6.i/20091228.b/12280922.D
Lab Smp Id: QC28A Client Smp ID: CB4857-121009-SED
Inj Date : 28-DEC-2009 22:59
Operator : JZ Inst ID: nt6.i
Smp Info : QC28A
Misc Info : 09-31268
Comment : 1ul Injection
Method : /chem1/nt6.i/20091228.b/SW8461203.m
Meth Date : 29-Dec-2009 11:36 jianqing Quant Type: ISTD
Cal Date : 03-DEC-2009 14:07 Cal File: 12030902.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnamblcs.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	32.00000	Weight of sample extracted (g)
M	19.50000	% Moisture

12/29/09

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.075	10.064	(1.000)	790672	20.0000	
28 Naphthalene	128	Compound Not Detected.					
32 2-Methylnaphthalene	141	Compound Not Detected.					
105 1-methylnaphthalene	141	Compound Not Detected.					
$ 36 2-Fluorobiphenyl	172	11.881	11.870	(0.917)	553175	22.0058	427.1
40 Acenaphthylene	152	Compound Not Detected.					
* 42 Acenaphthene-d10	164	12.949	12.938	(1.000)	462142	20.0000	
44 Acenaphthene	153	Compound Not Detected.					
46 Dibenzofuran	168	Compound Not Detected.					
49 Fluorene	166	Compound Not Detected.					
* 59 Phenanthrene-d10	188	15.342	15.326	(1.000)	1004840	20.0000	
60 Phenanthrene	178	15.375	15.358	(1.002)	78939	1.85798	36.06
61 Anthracene	178	Compound Not Detected.					
64 Fluoranthene	202	17.324	17.308	(1.129)	184174	3.76438	73.07
65 Pyrene	202	17.682	17.661	(0.898)	196614	2.93092	56.89

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$	66 Terphenyl-d14	244	17.998	17.976	(0.914)	965455	20.2512	393.1
	68 Benzo(a)anthracene	228	19.659	19.632	(0.999)	98593	1.48976	28.92
*	69 Chrysene-d12	240	19.686	19.659	(1.000)	1387766	20.0000	
	71 Chrysene	228	19.723	19.702	(1.002)	197229	3.25264	63.13
	74 Benzo(b)fluoranthene	252	21.336	21.299	(0.975)	267338	5.57505	108.2(M)
	75 Benzo(k)fluoranthene	252	21.336	21.331	(0.975)	267338	5.30731	103.0(M)
	76 Benzo(a)pyrene	252	21.790	21.748	(0.996)	93361	2.23069	43.30
*	77 Perylene-d12	264	21.876	21.828	(1.000)	1023038	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.420	23.356	(1.071)	31764	0.58198	11.30
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	23.842	23.778	(1.090)	38374	0.81293	15.78

2.72
2.72

QC Flag Legend

M - Compound response manually integrated.

12/29/09

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 12280922.D
Lab Smp Id: QC28A
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem1/nt6.i/20091228.b/SW8461203.m
Misc Info: 09-31268

Calibration Date: 28-DEC-2009
Calibration Time: 11:45
Client Smp ID: CB4857-121009-SE
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	1050823	525412	2101646	790672	-24.76
42 Acenaphthene-d10	646848	323424	1293696	462142	-28.55
59 Phenanthrene-d10	1038548	519274	2077096	1004840	-3.25
69 Chrysene-d12	1078796	539398	2157592	1387766	28.64
77 Perylene-d12	1187999	594000	2375998	1023038	-13.89

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	10.06	9.56	10.56	10.08	0.11
42 Acenaphthene-d10	12.94	12.44	13.44	12.95	0.08
59 Phenanthrene-d10	15.33	14.83	15.83	15.34	0.10
69 Chrysene-d12	19.66	19.16	20.16	19.69	0.14
77 Perylene-d12	21.83	21.33	22.33	21.88	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
Client SDG: QC28
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: QC28A
Client Smp ID: CB4857-121009-SED
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: pnalcss.spk
Quant Type: ISTD
Sublist File: pnamblcs.sub
Method File: /chem1/nt6.i/20091228.b/SW8461203.m
Misc Info: 09-31268

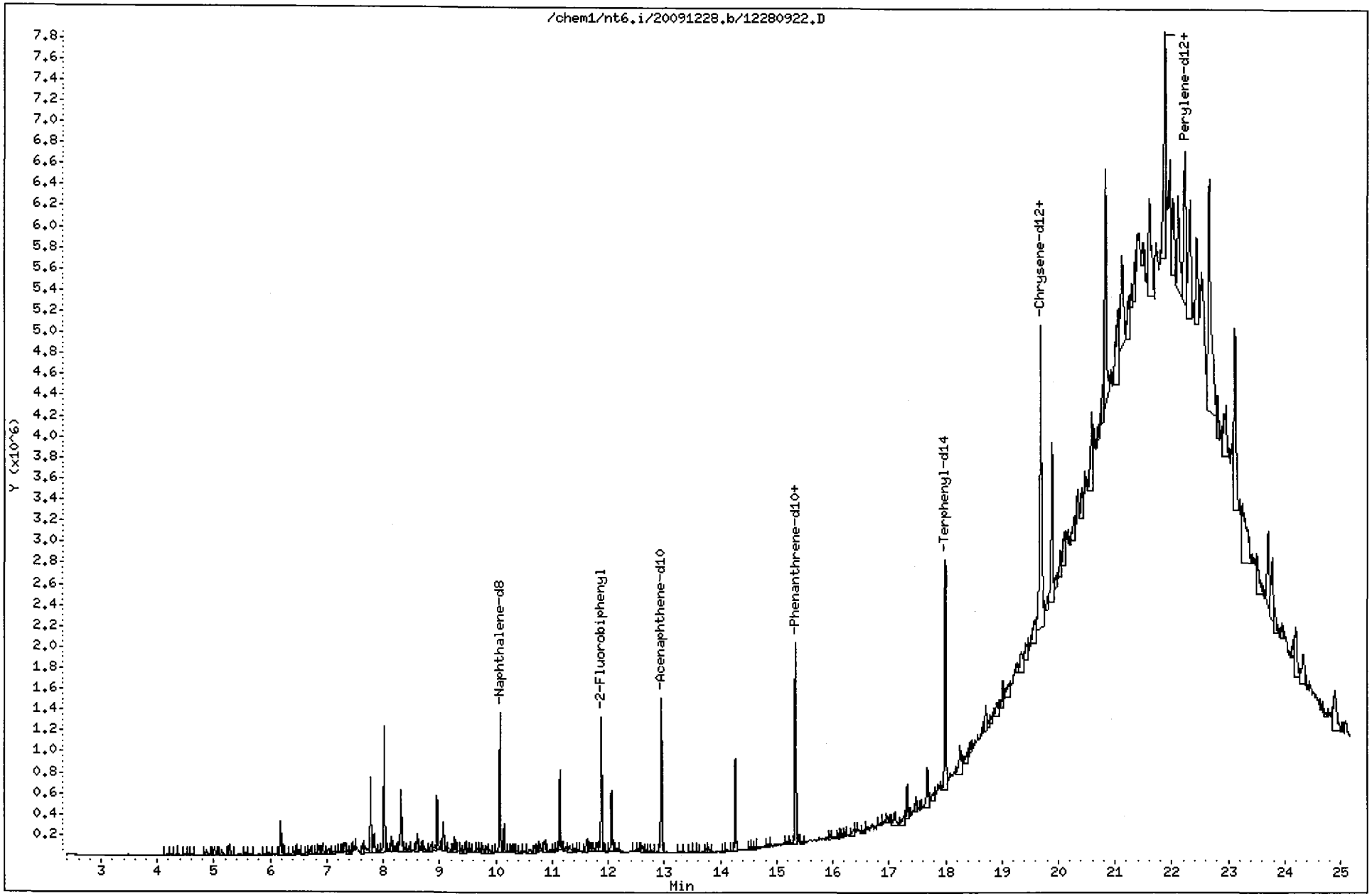
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 36 2-Fluorobiphenyl	485.2	427.1	88.02	40-100
$ 66 Terphenyl-d14	485.2	393.1	81.00	47-112

Data File: /chem1/nt6.i/20091228.b/12280922.D
Date : 28-DEC-2009 22:59
Client ID: CB4857-121009-SED
Sample Info: QC28A
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

QC28 : 00081



Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

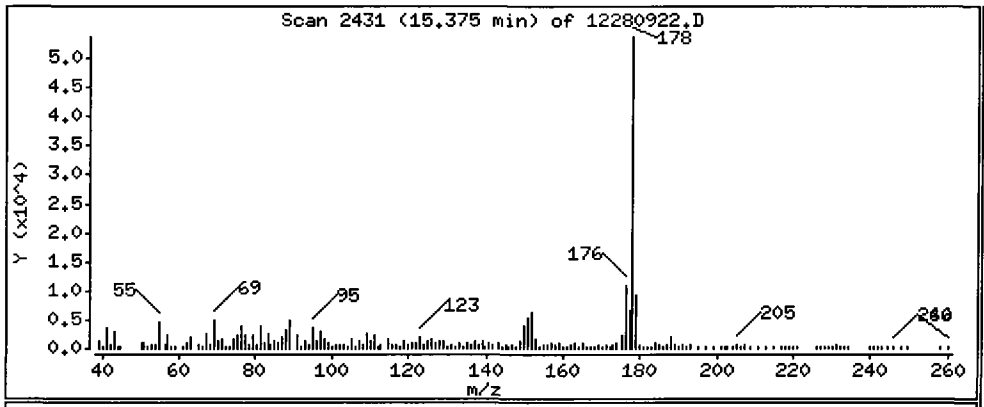
Operator: JZ

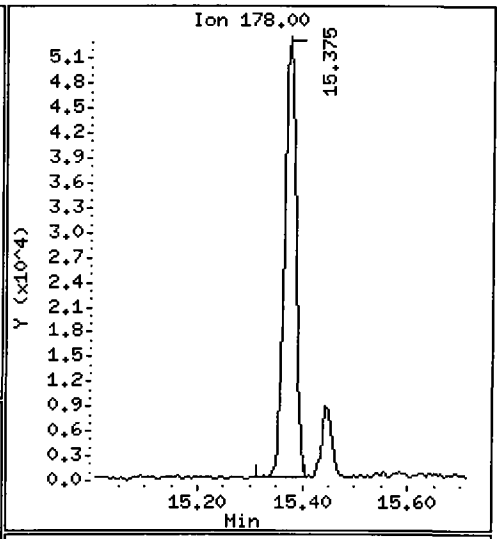
Column phase: ZB-5msi

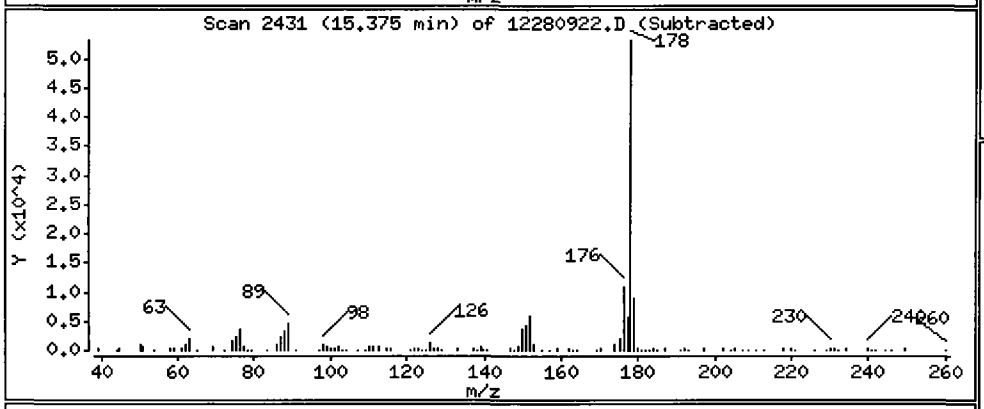
Column diameter: 0.32

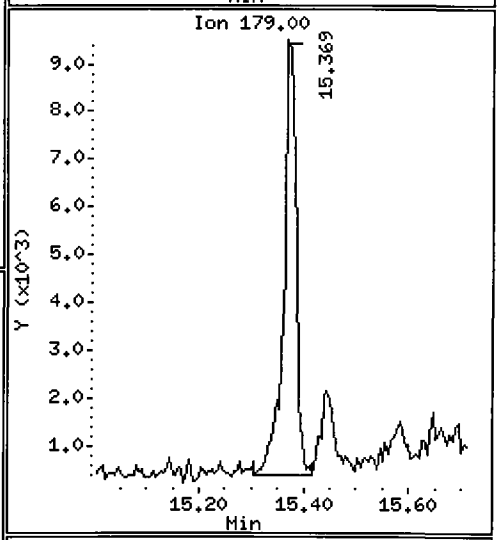
60 Phenanthrene

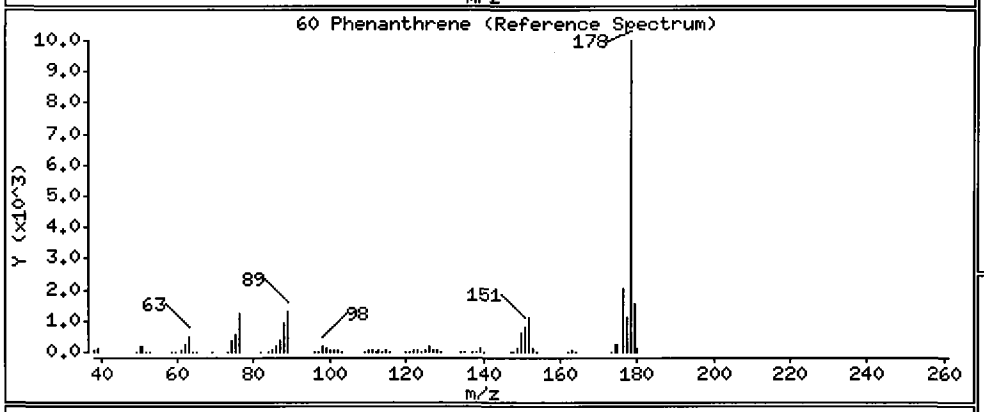
Concentration: 36.06 ug/kg

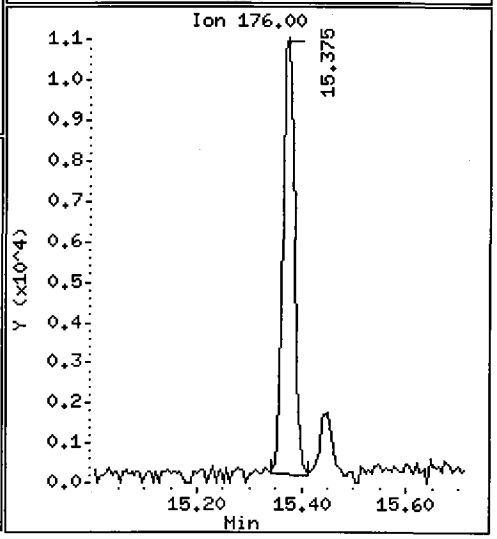


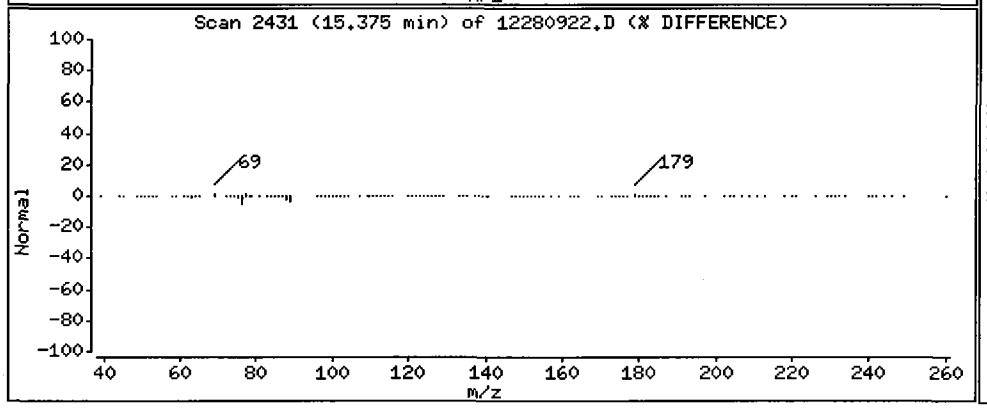












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

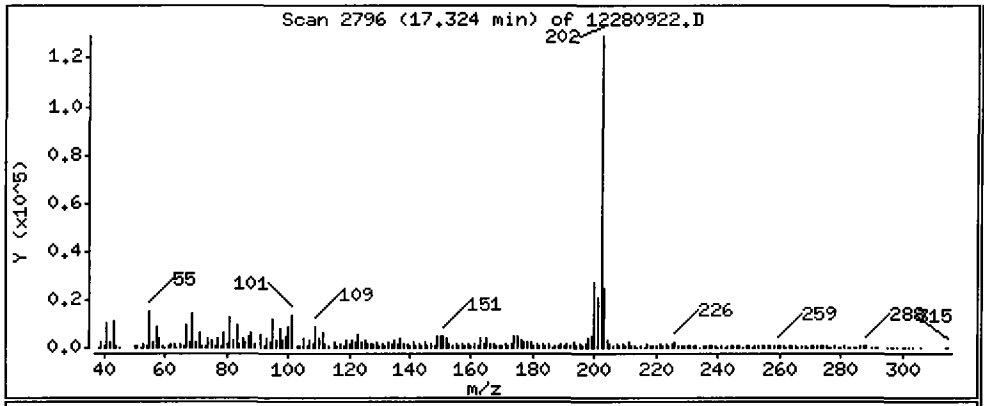
Operator: JZ

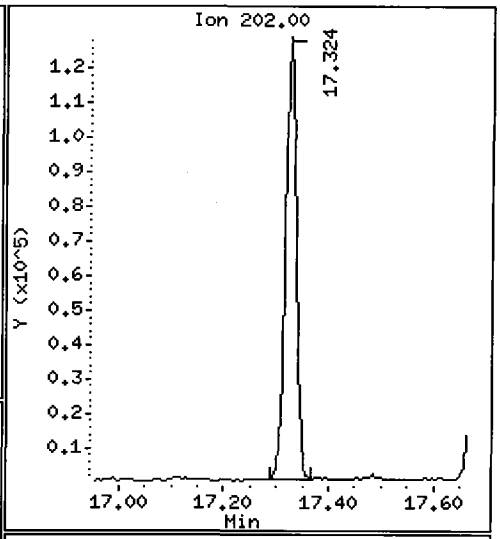
Column phase: ZB-5msi

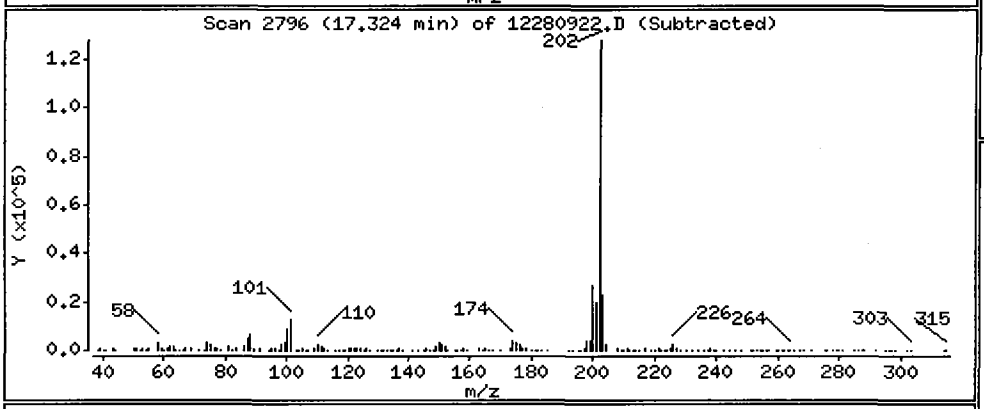
Column diameter: 0.32

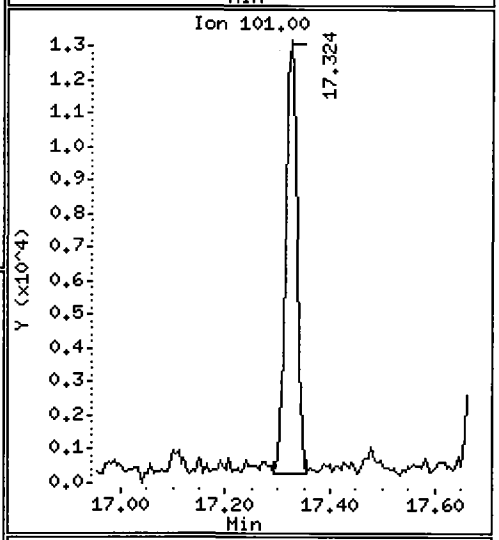
64 Fluoranthene

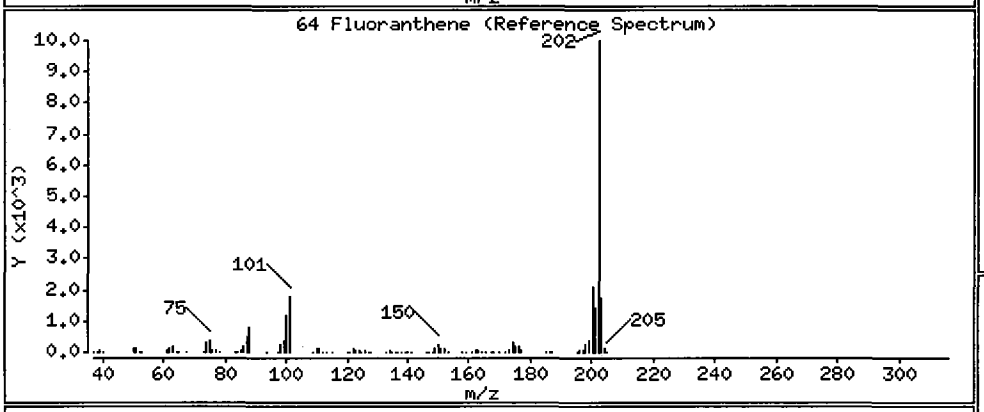
Concentration: 73.07 ug/kg

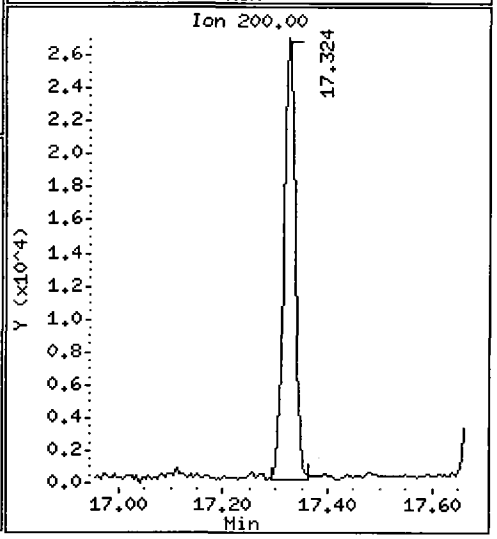


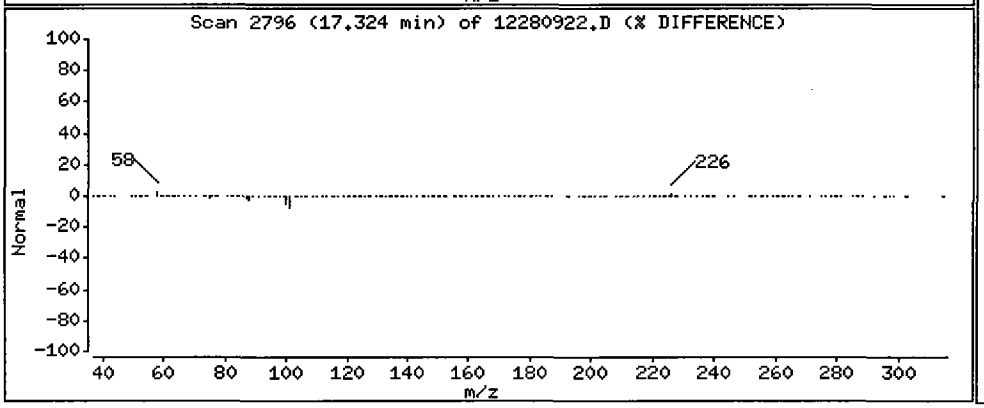












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

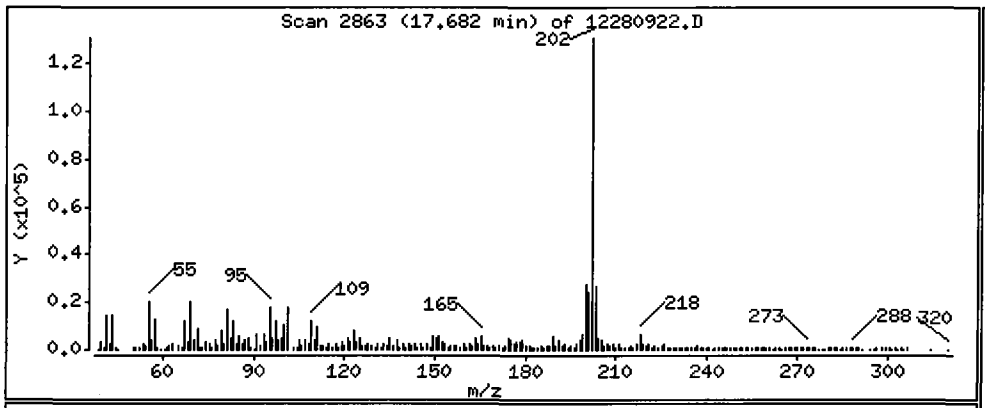
Operator: JZ

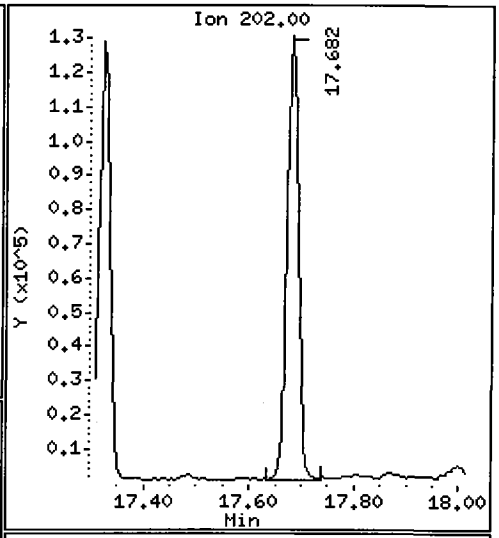
Column phase: ZB-5msi

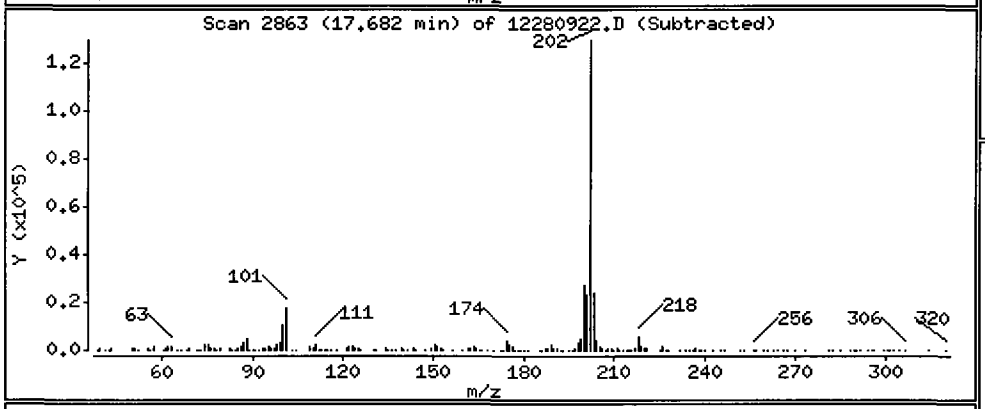
Column diameter: 0.32

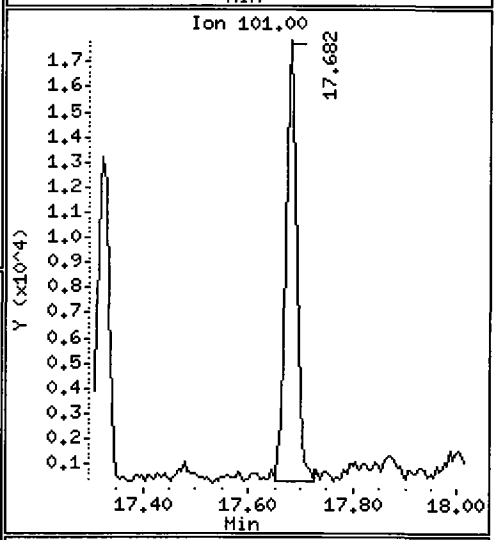
65 Pyrene

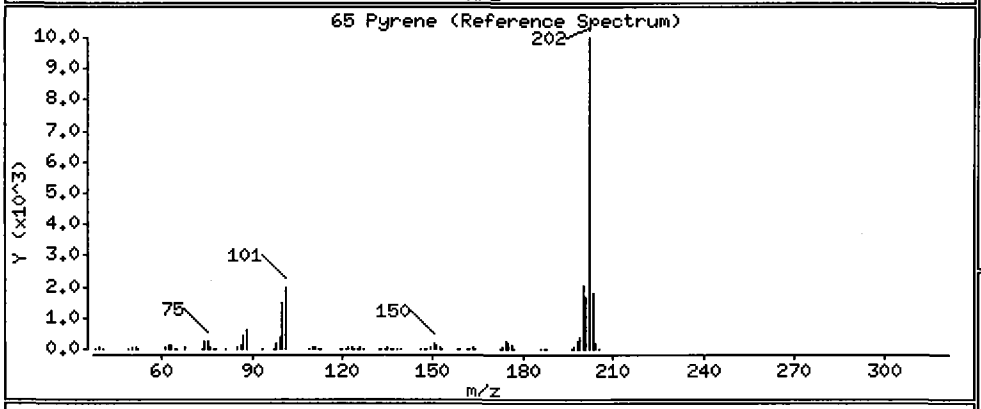
Concentration: 56.89 ug/kg

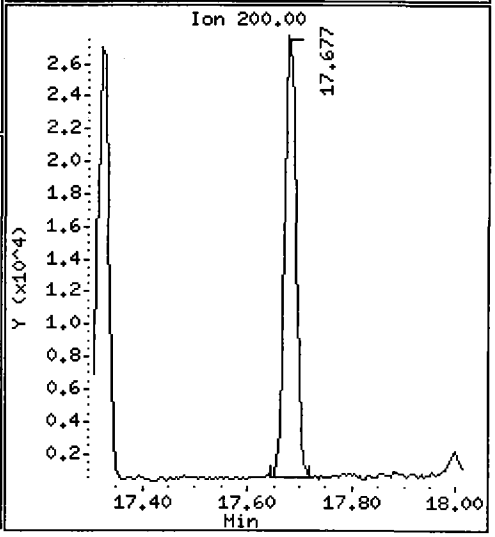


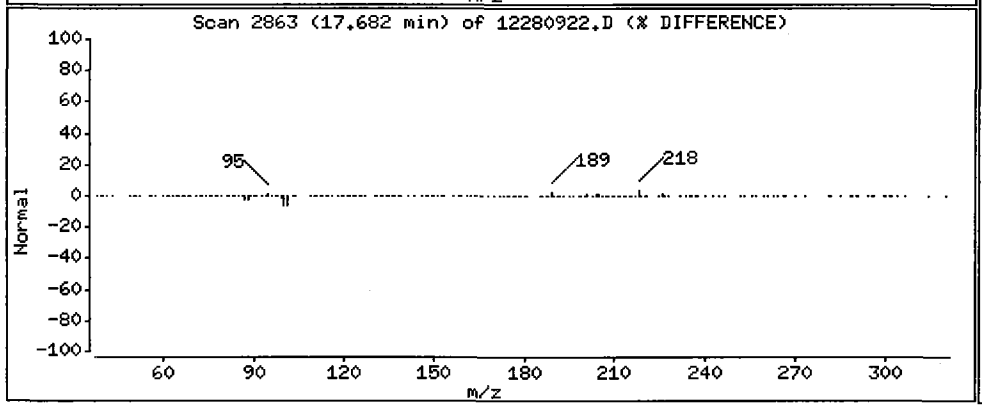












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

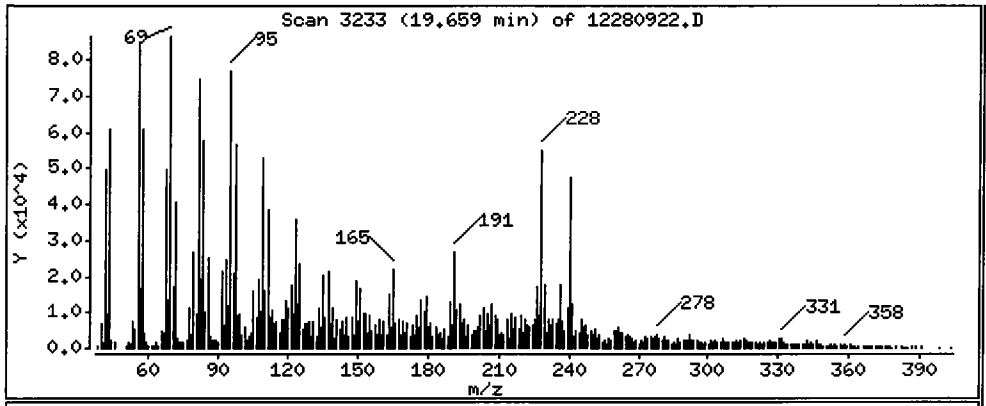
Operator: JZ

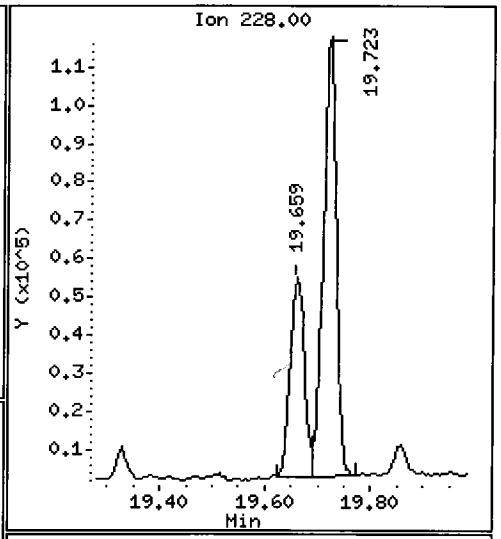
Column phase: ZB-5msi

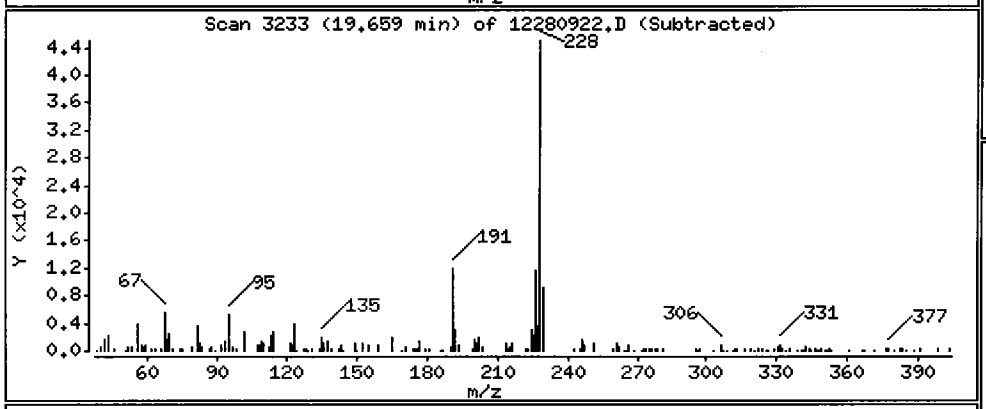
Column diameter: 0.32

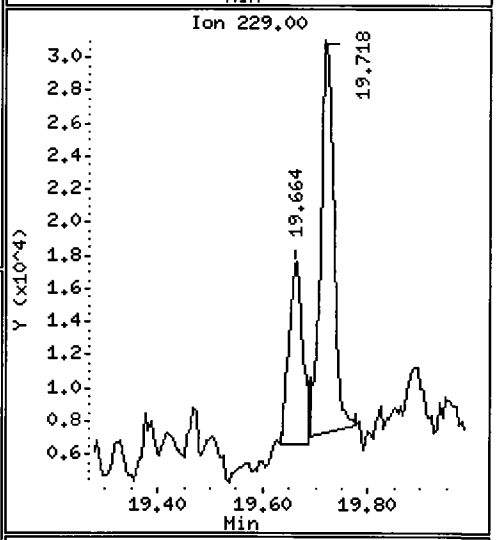
68 Benzo(a)anthracene

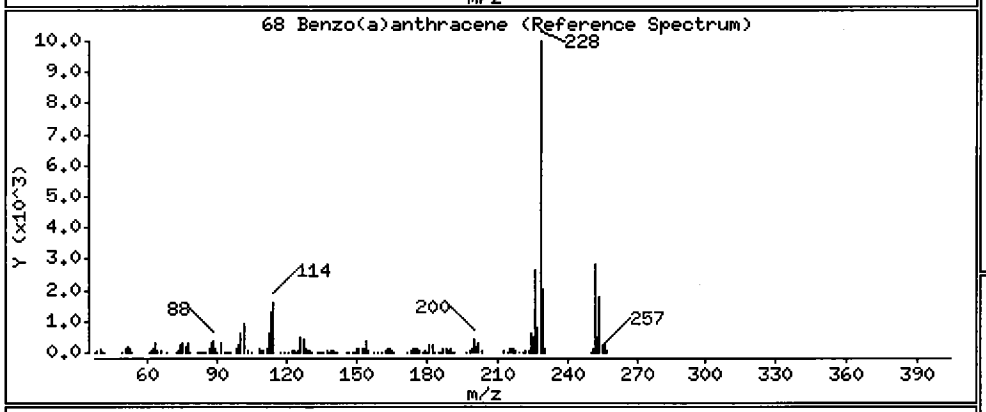
Concentration: 28.92 ug/kg

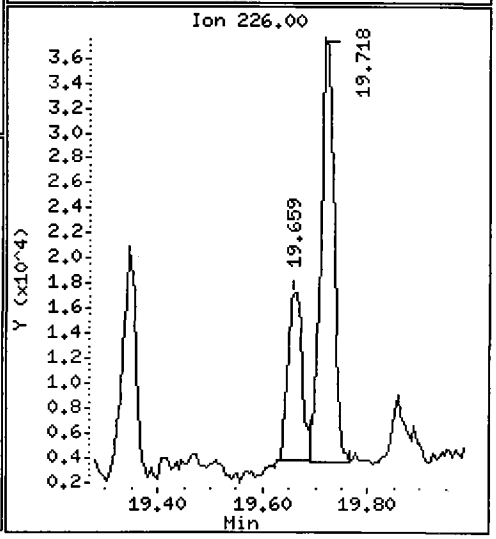


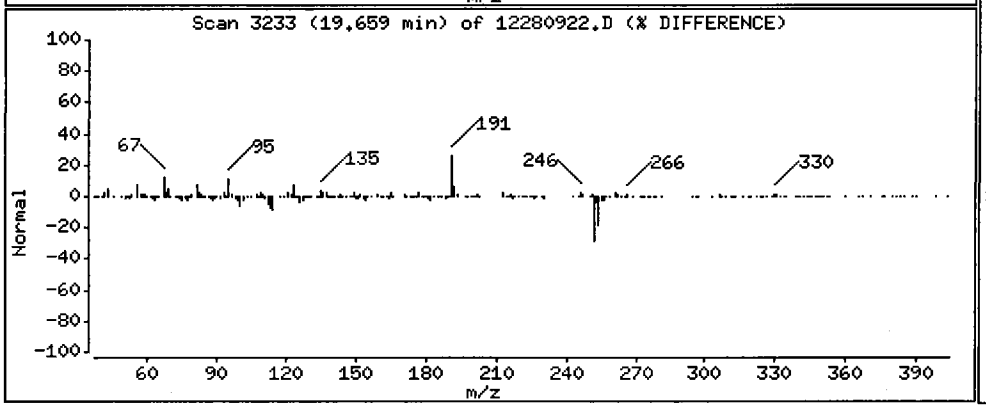












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

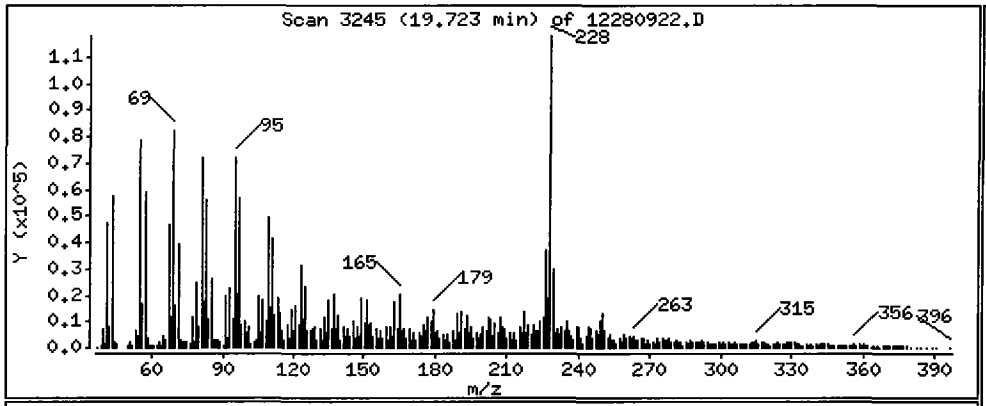
Operator: JZ

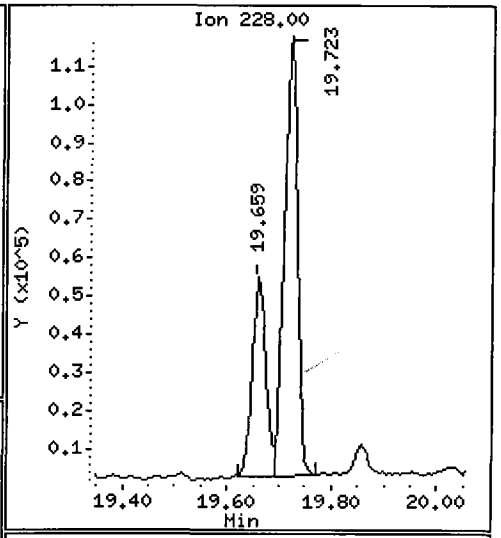
Column phase: ZB-5msi

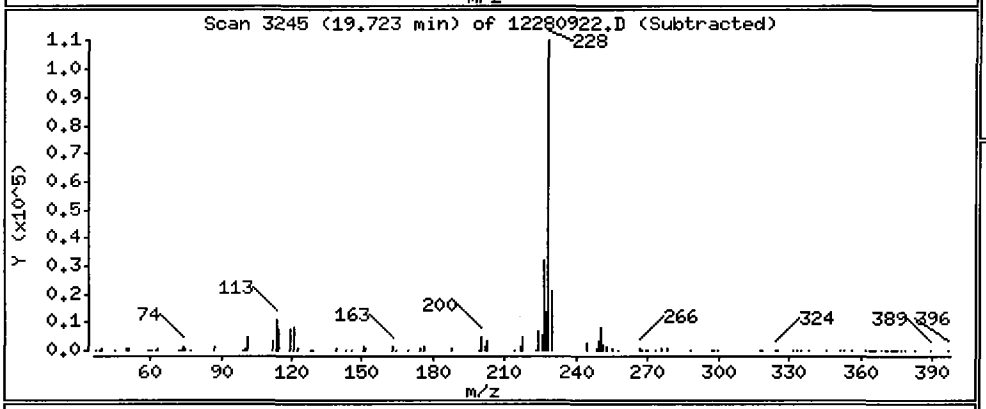
Column diameter: 0.32

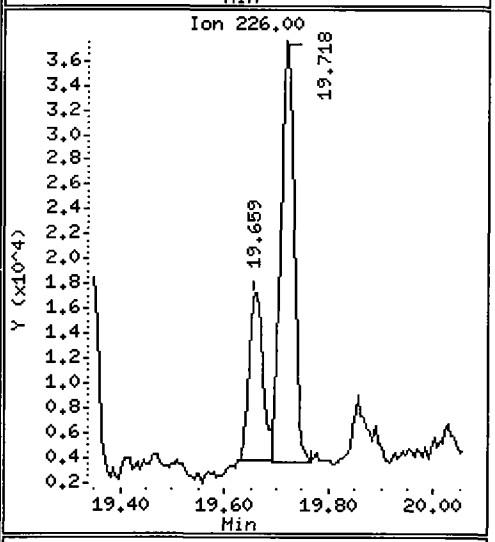
71 Chrysene

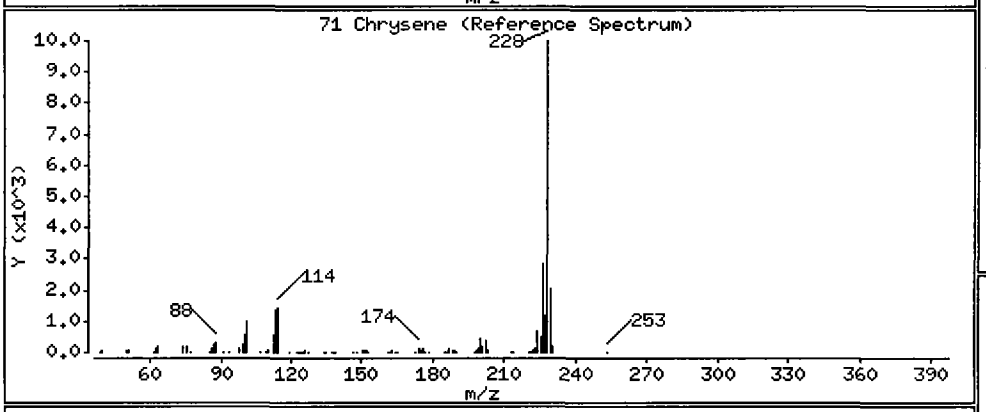
Concentration: 63.13 ug/kg

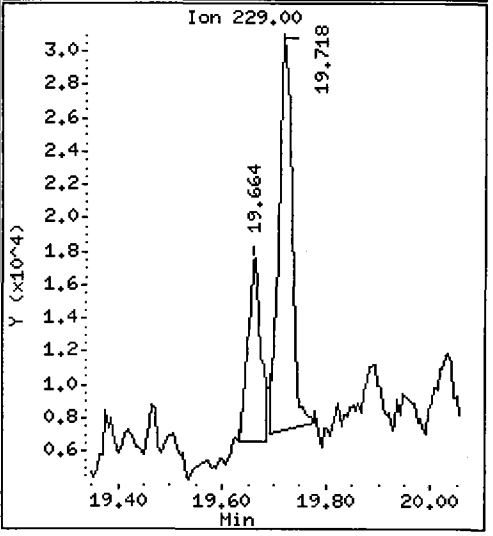


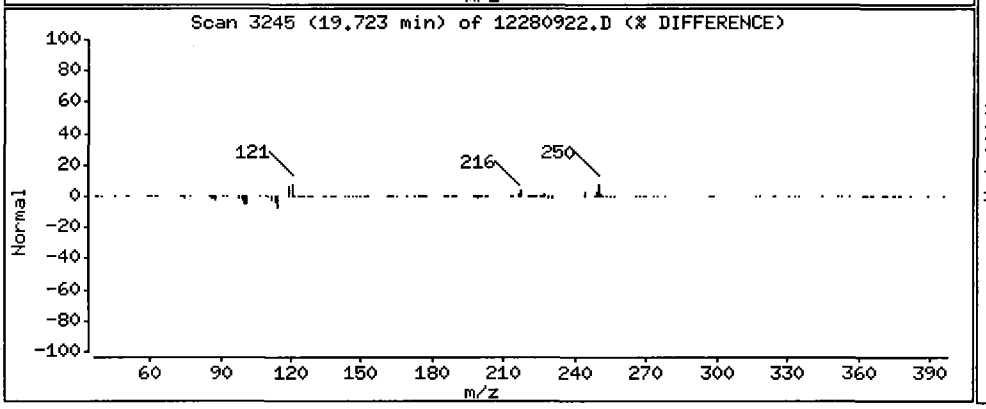












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

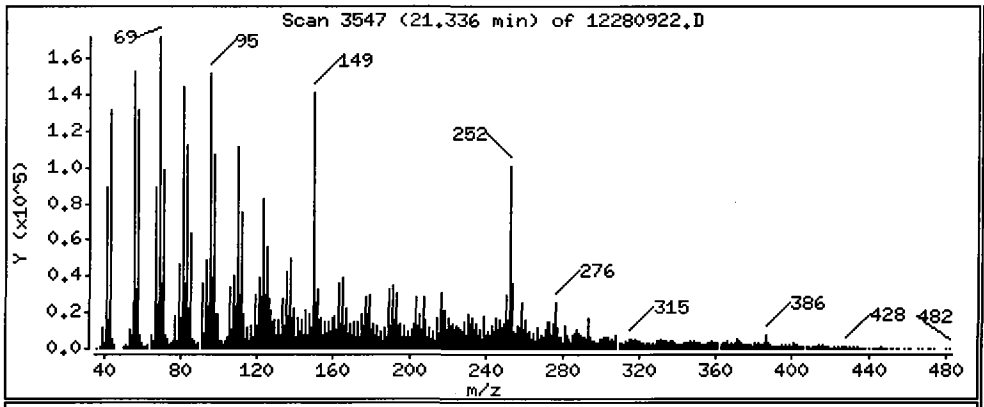
Operator: JZ

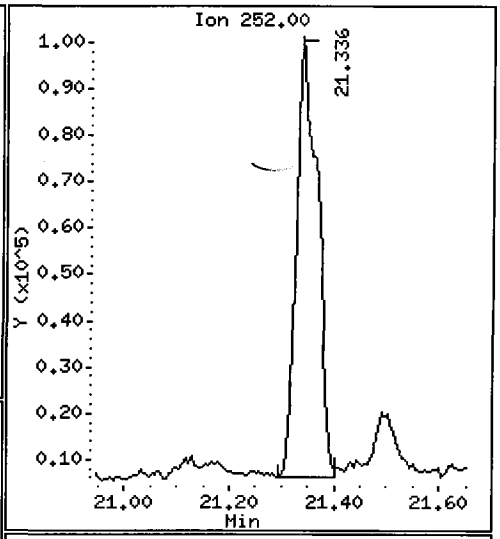
Column phase: ZB-5msi

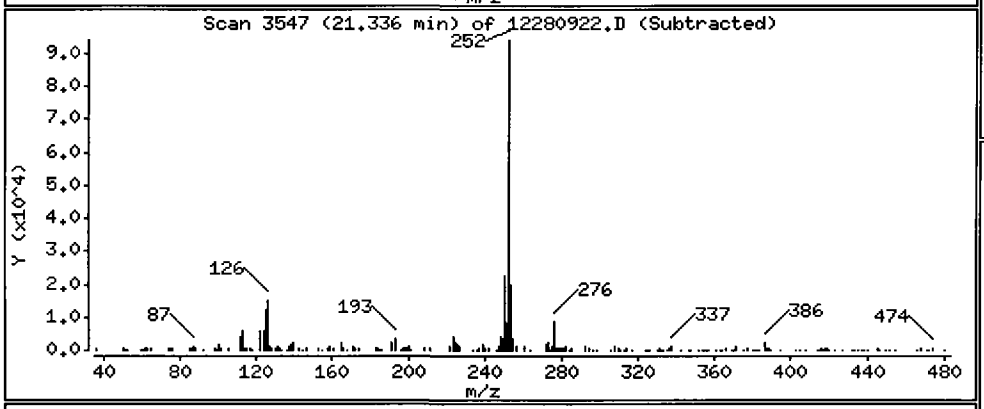
Column diameter: 0.32

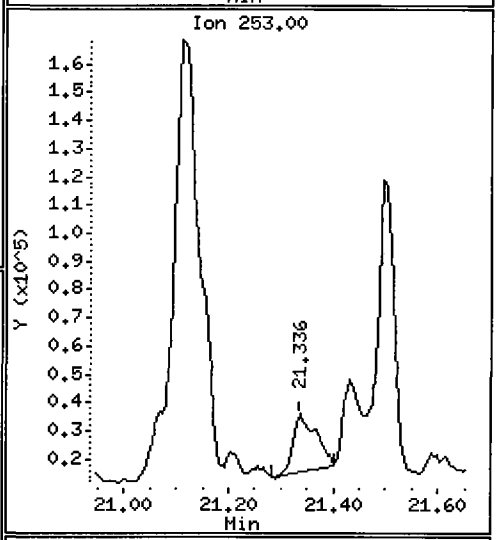
74 Benzo(b)fluoranthene

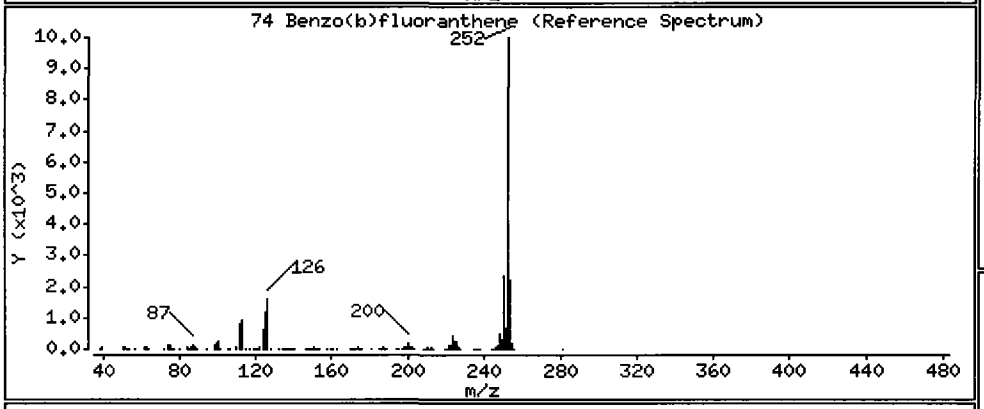
Concentration: 108.2 ug/kg

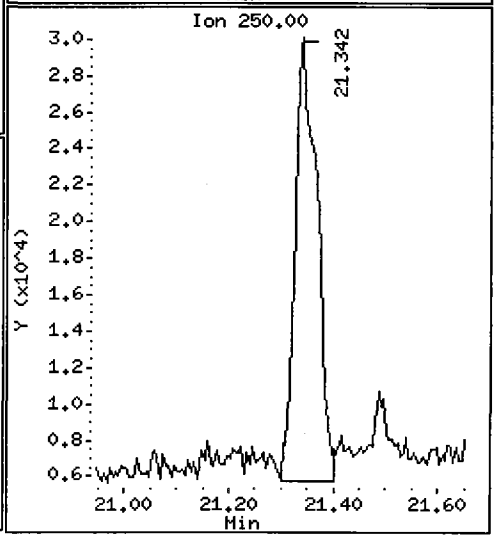


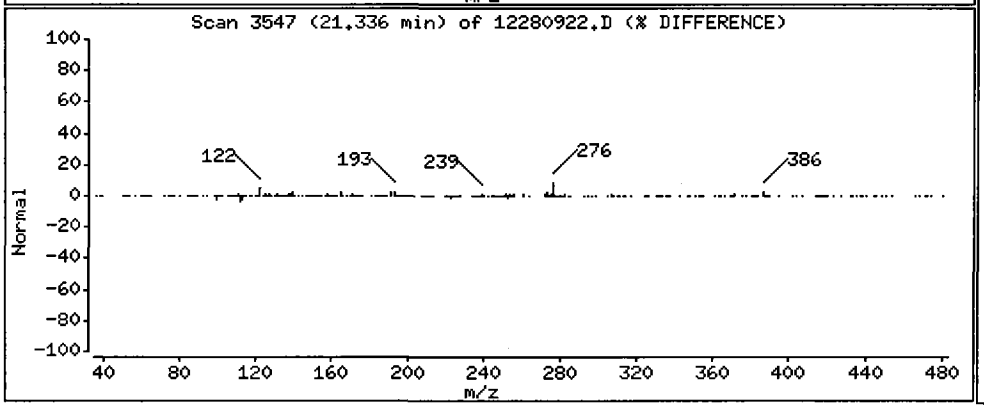












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

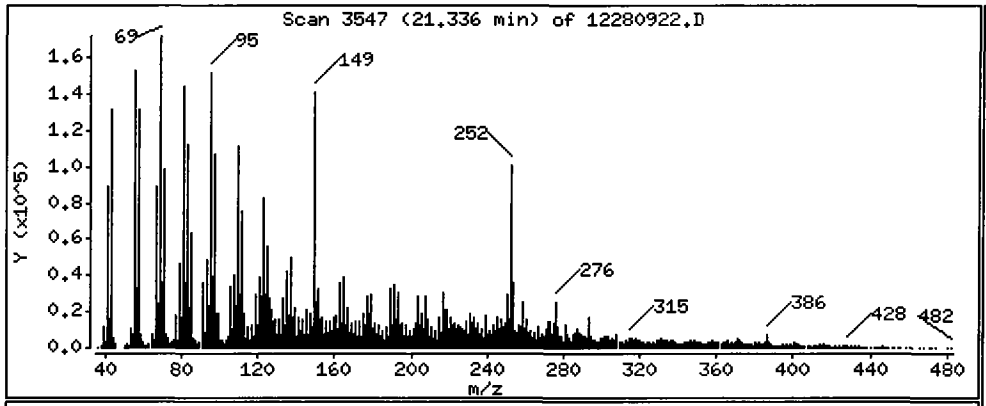
Operator: JZ

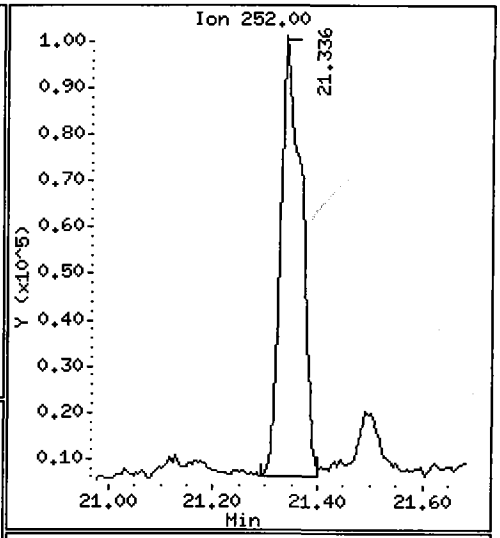
Column phase: ZB-5msi

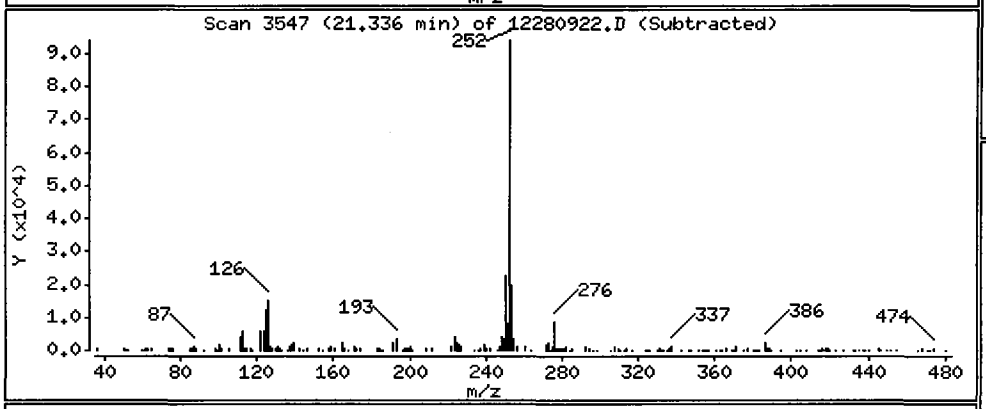
Column diameter: 0.32

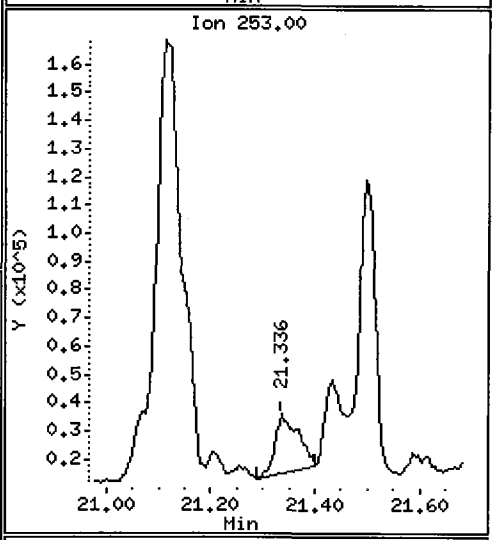
75 Benzo(k)fluoranthene

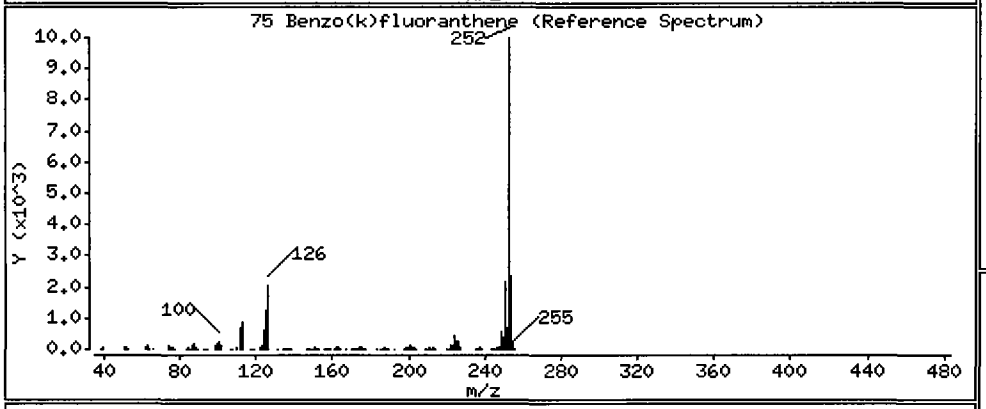
Concentration: 103.0 ug/kg

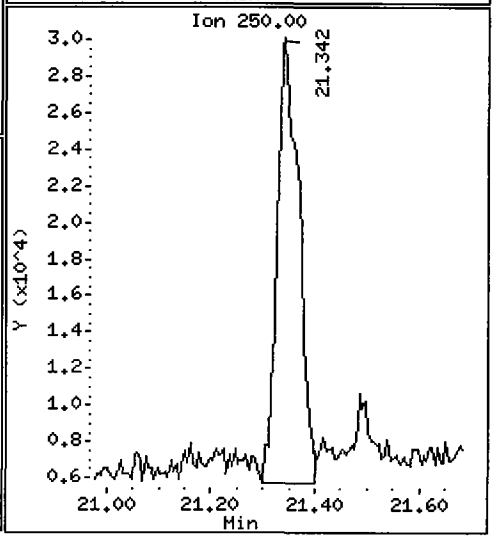


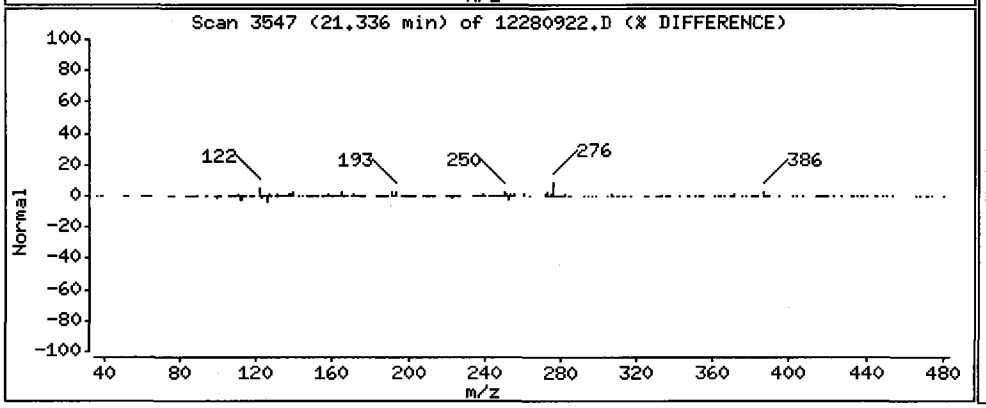












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

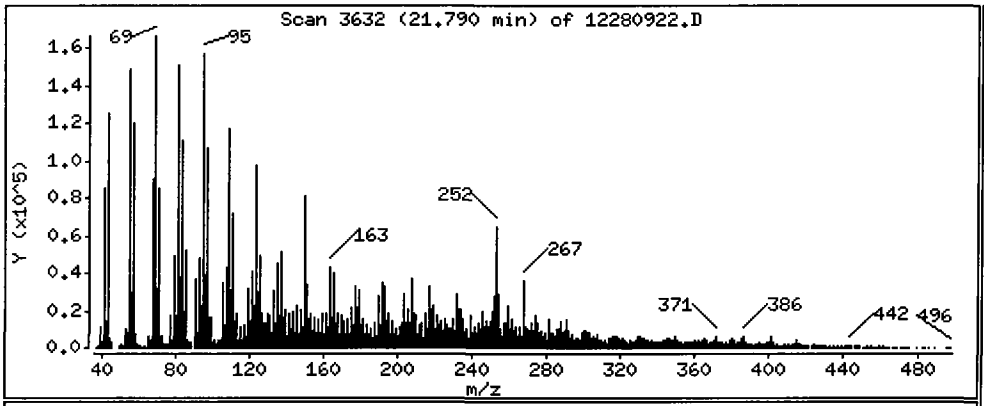
Operator: JZ

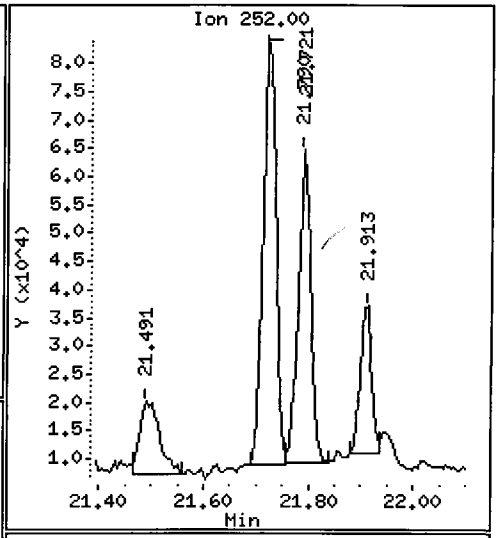
Column phase: ZB-5msi

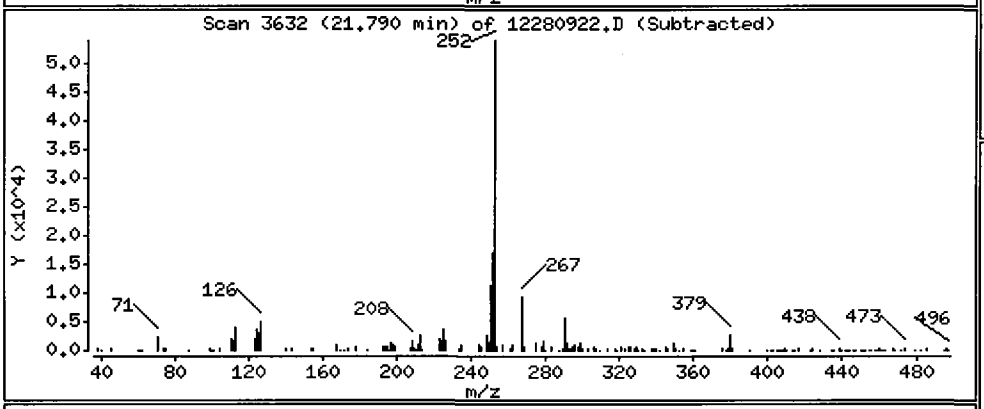
Column diameter: 0.32

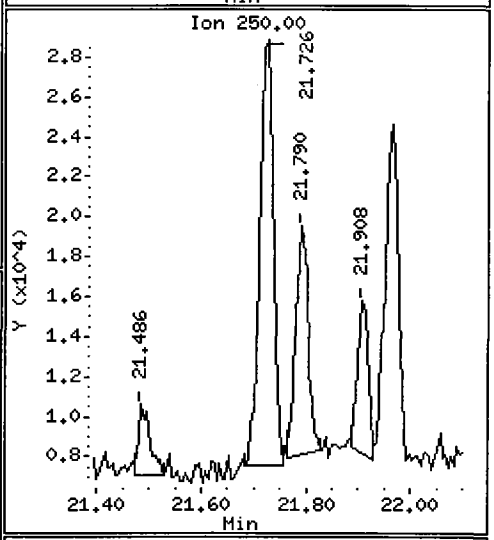
76 Benzo(a)pyrene

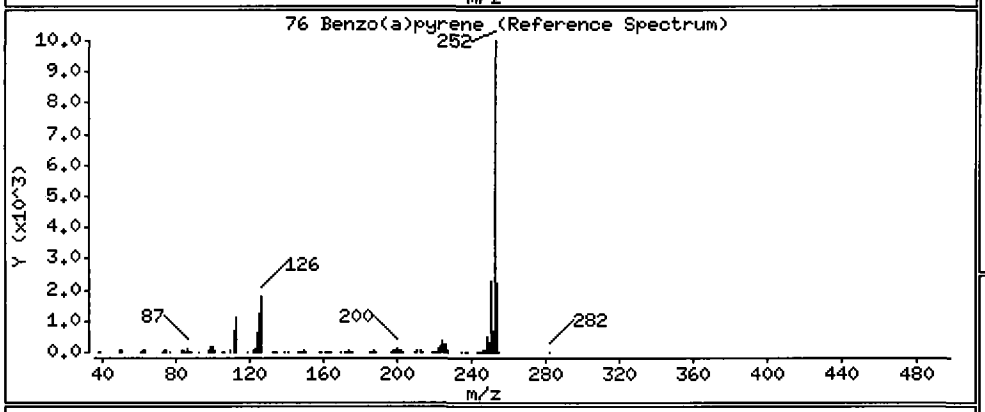
Concentration: 43.30 ug/kg

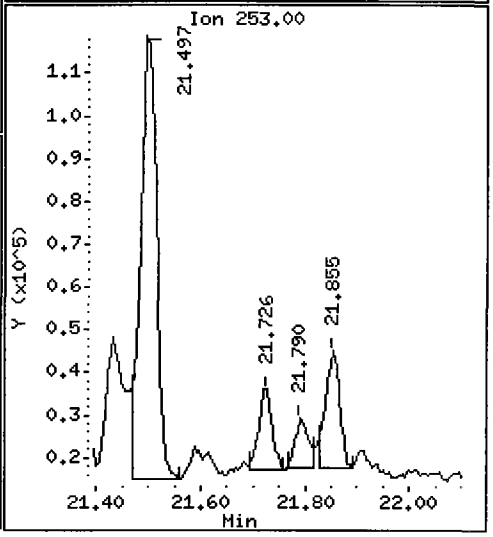


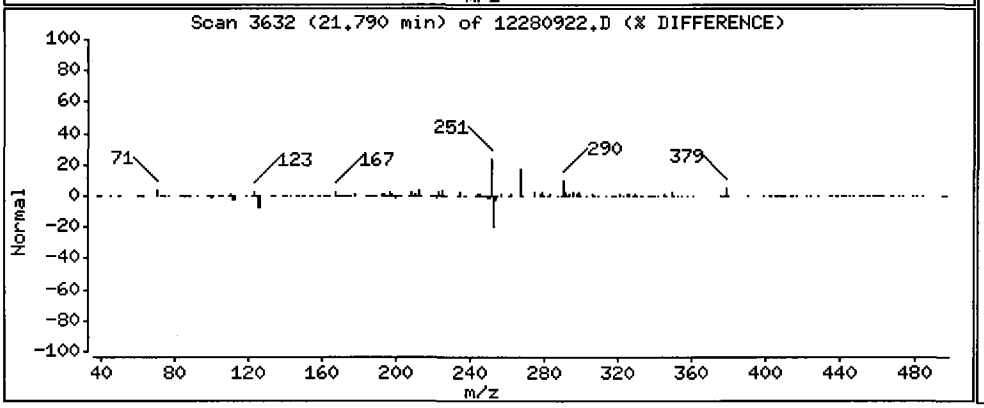












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

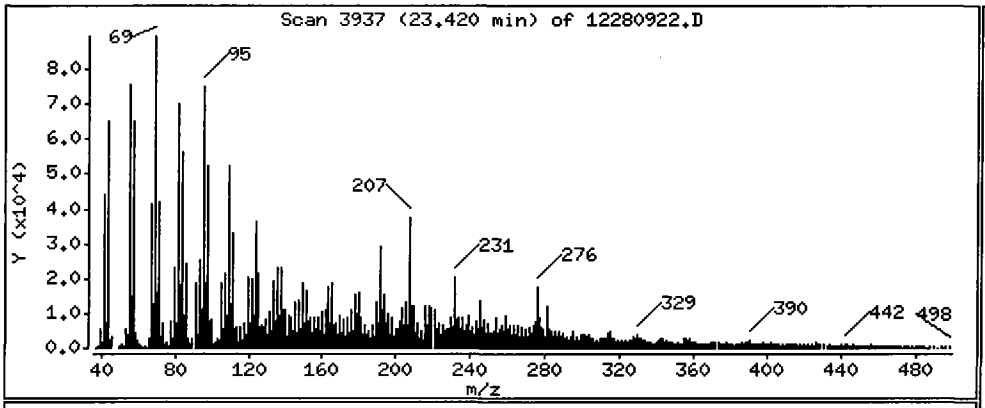
Operator: JZ

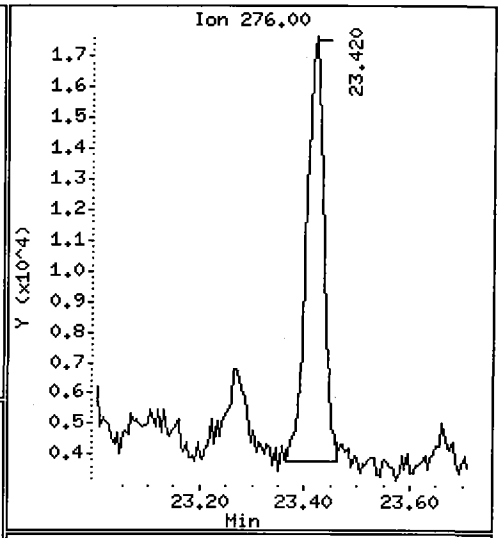
Column phase: ZB-5msi

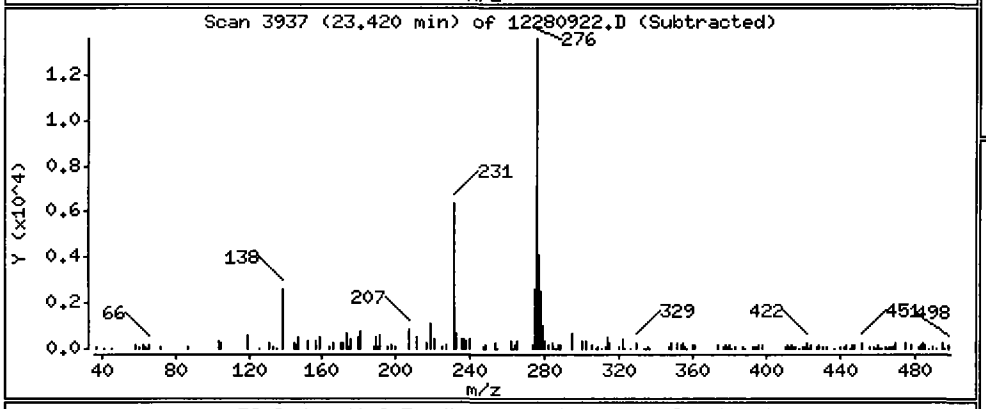
Column diameter: 0.32

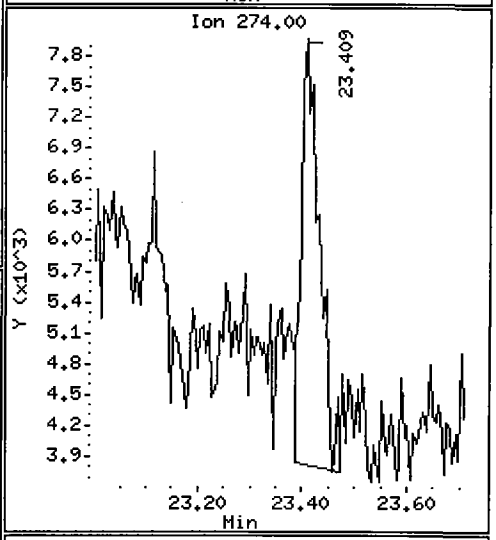
78 Indeno(1,2,3-cd)pyrene

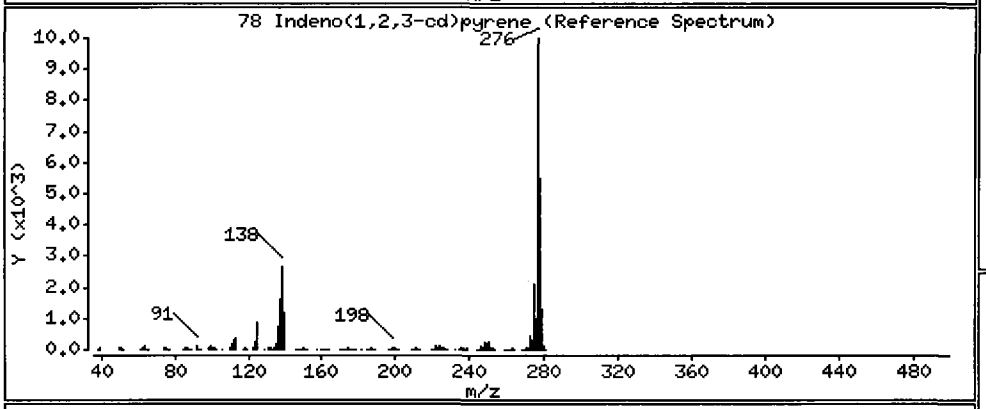
Concentration: 11.30 ug/kg

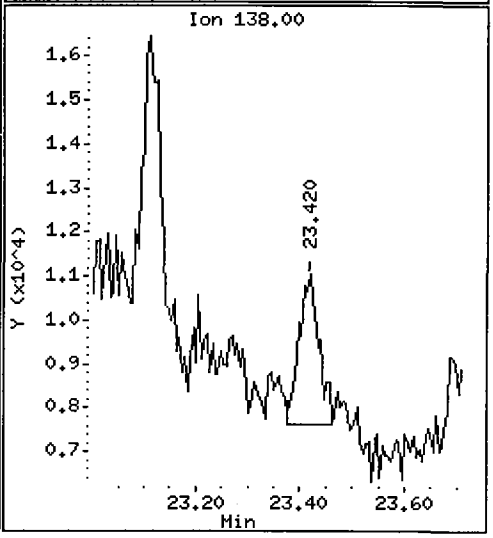


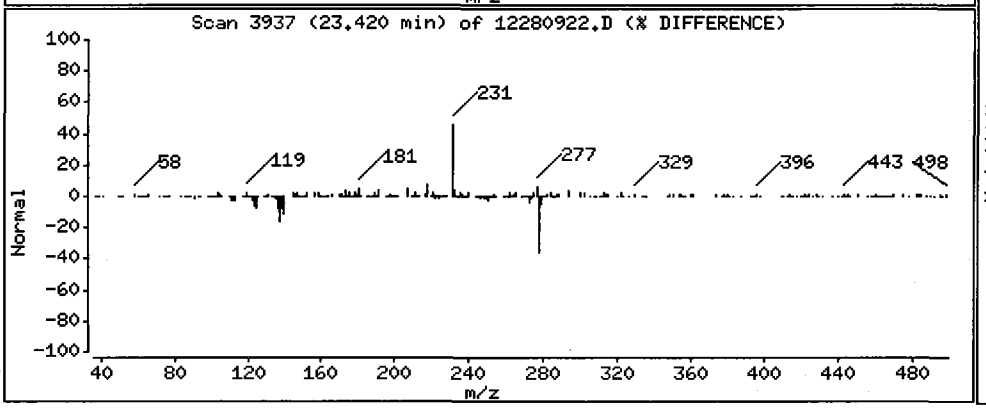












Data File: /chem1/nt6.i/20091228.b/12280922.D

Date : 28-DEC-2009 22:59

Client ID: CB4857-121009-SED

Instrument: nt6.i

Sample Info: QC28A

Volume Injected (uL): 1.0

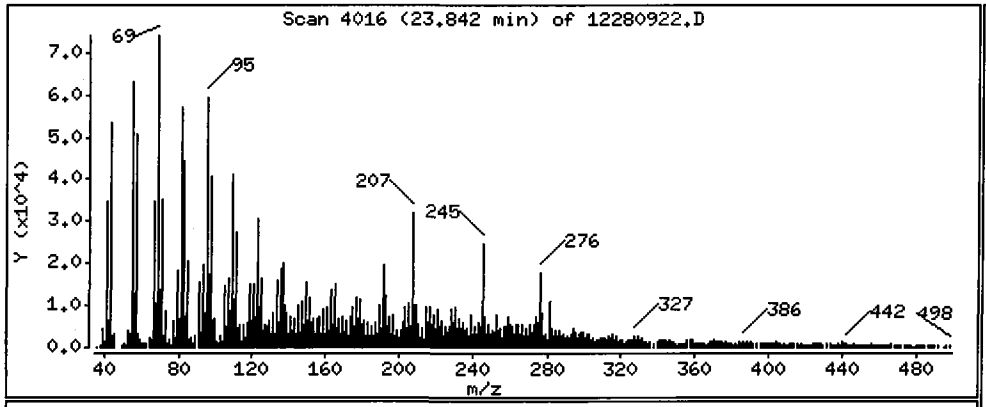
Operator: JZ

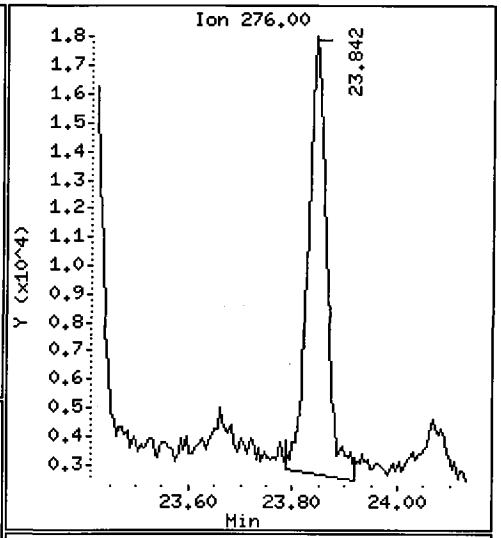
Column phase: ZB-5msi

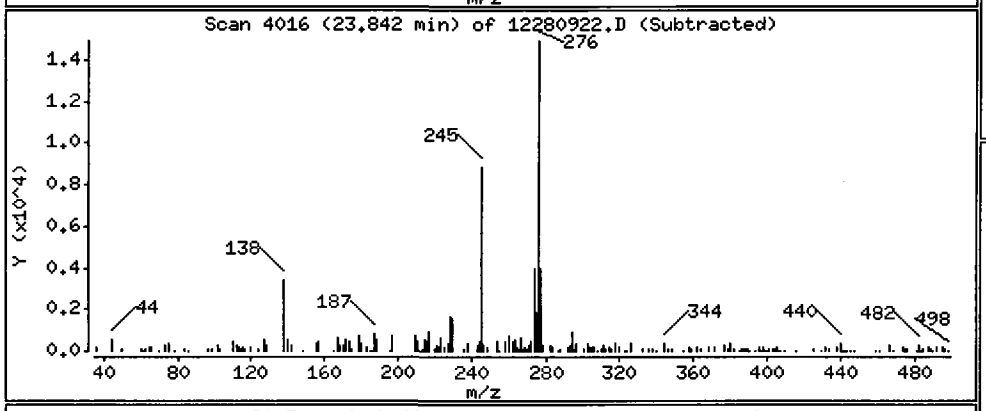
Column diameter: 0.32

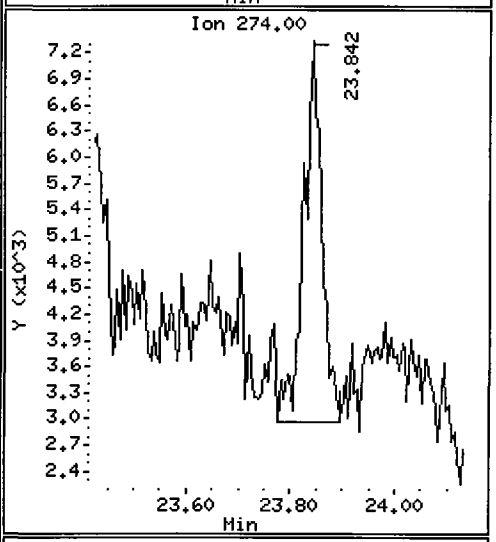
80 Benzo(g,h,i)perylene

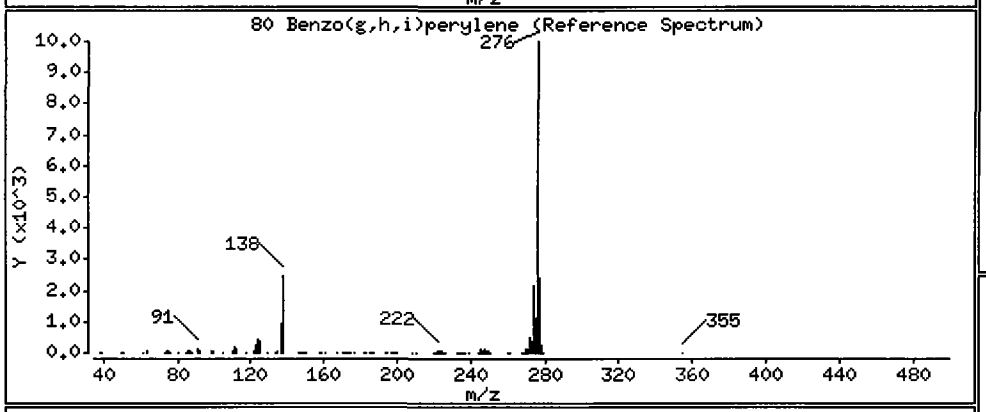
Concentration: 15.78 ug/kg

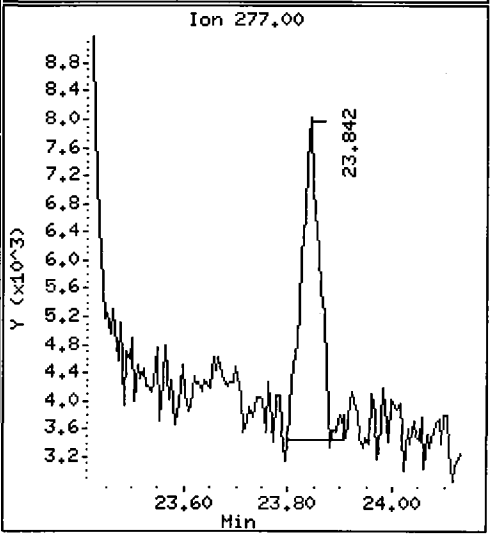


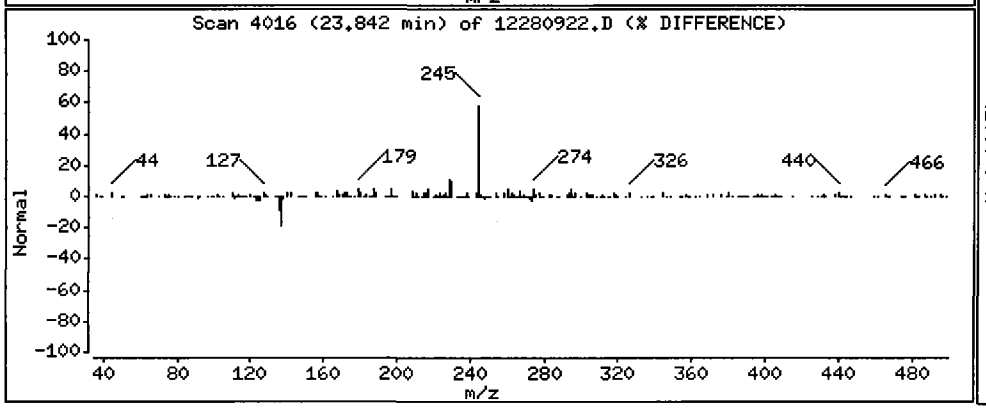




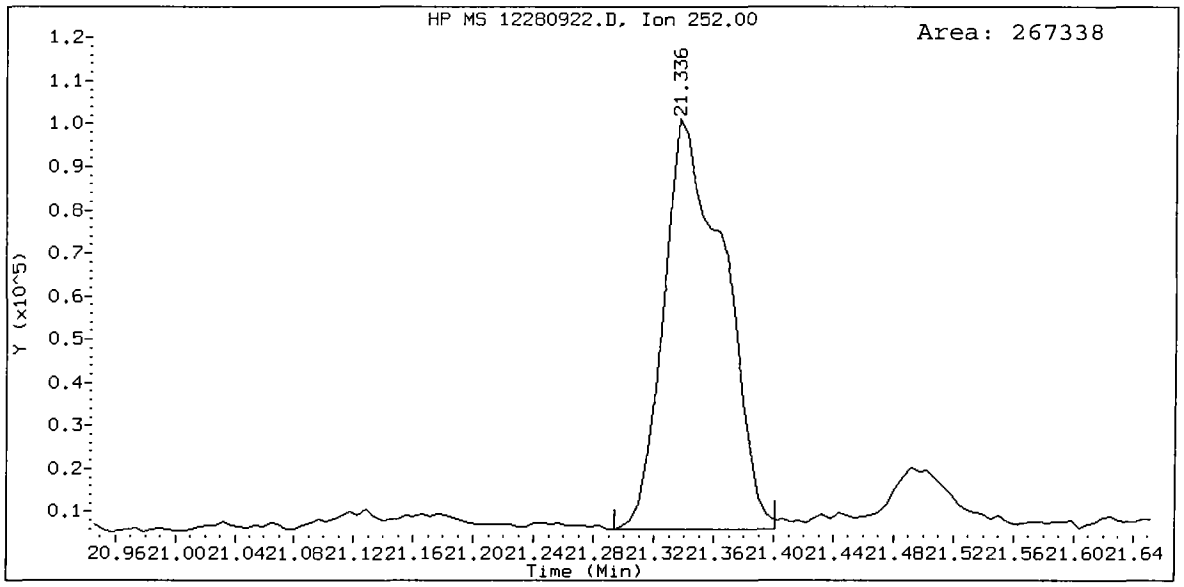


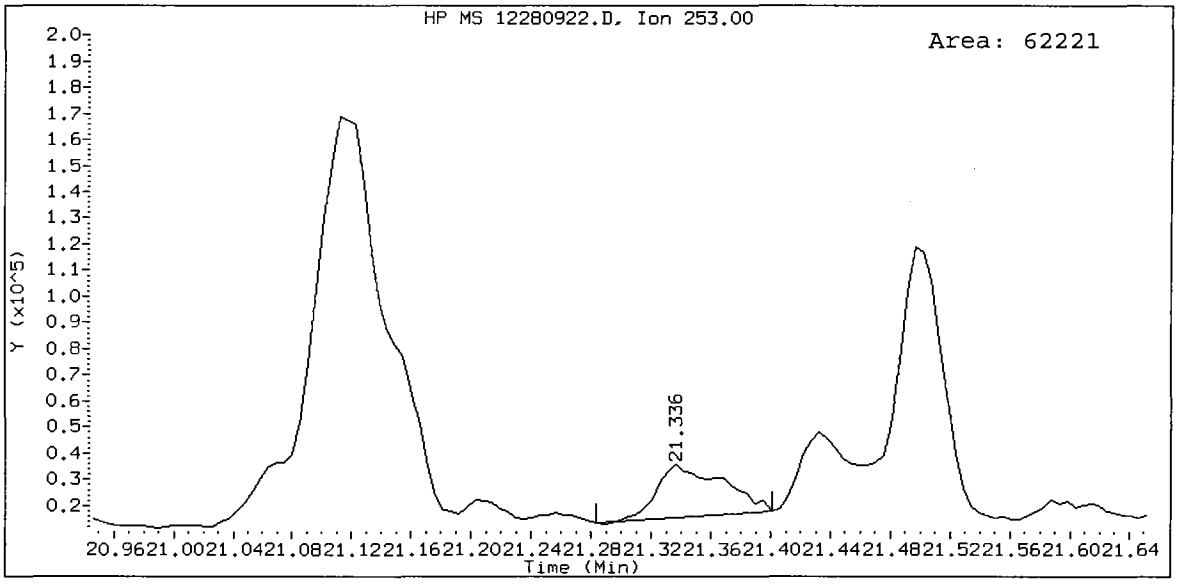


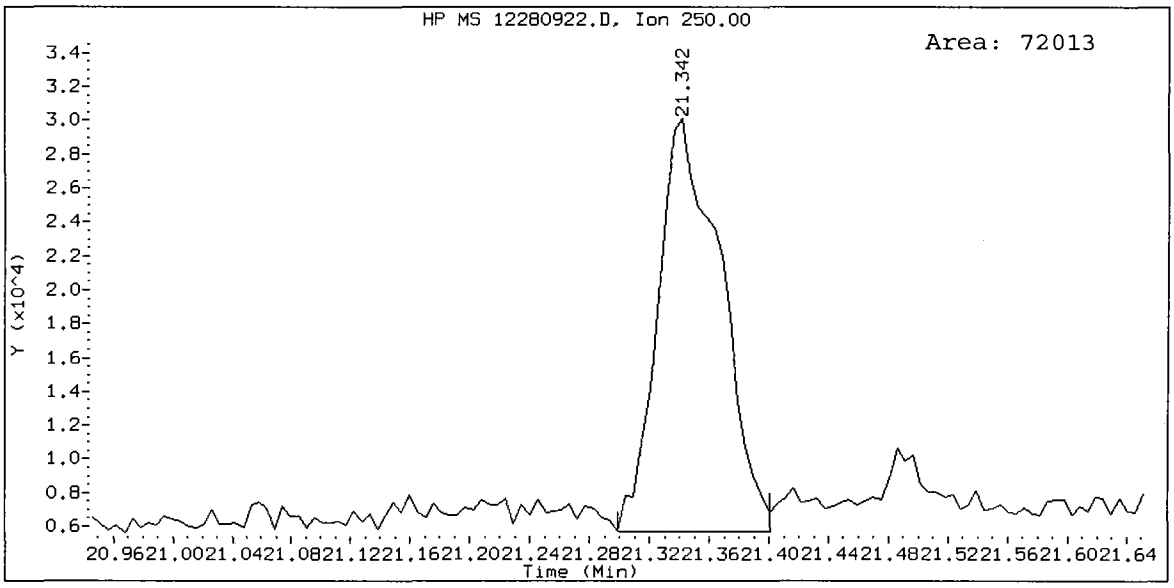




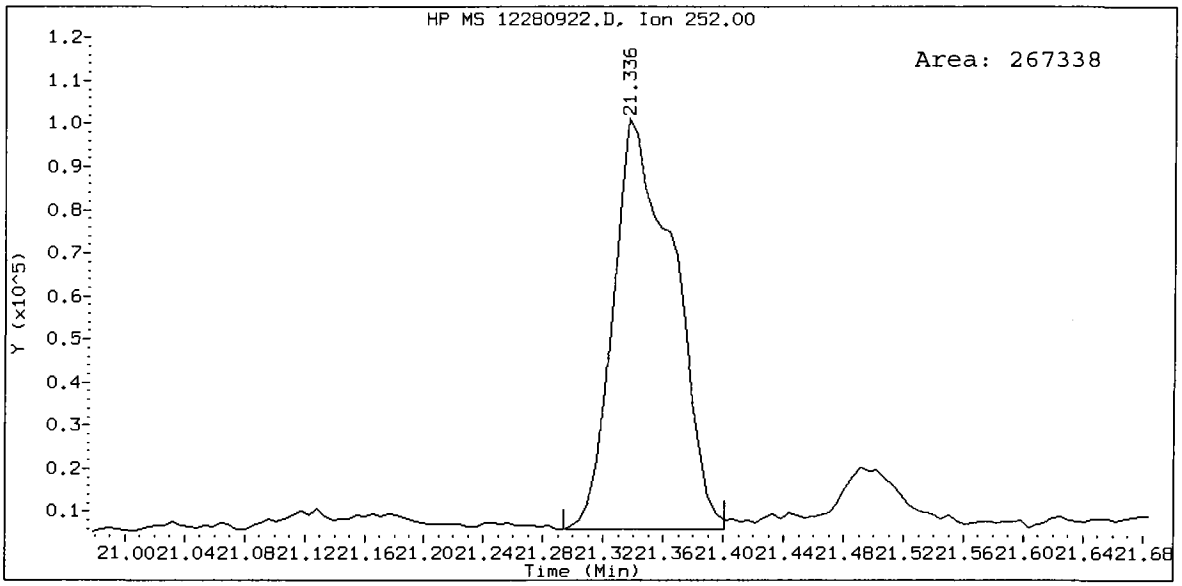
QC28A, /chem1/nt6.i/20091228.b/12280922.D
Benzo(b)fluoranthene Amount: 5.58

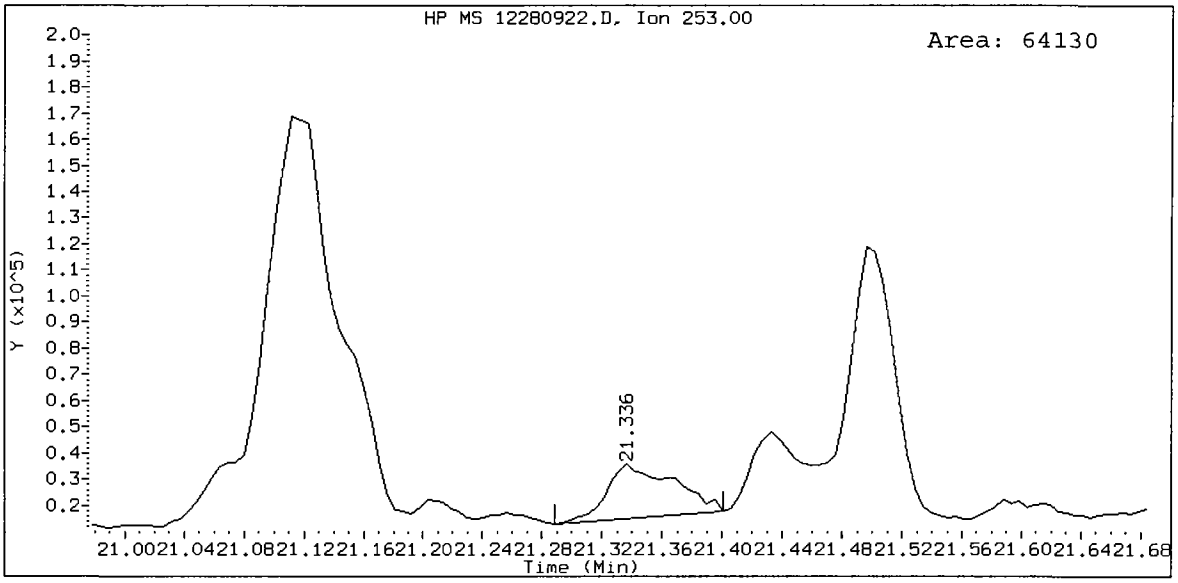


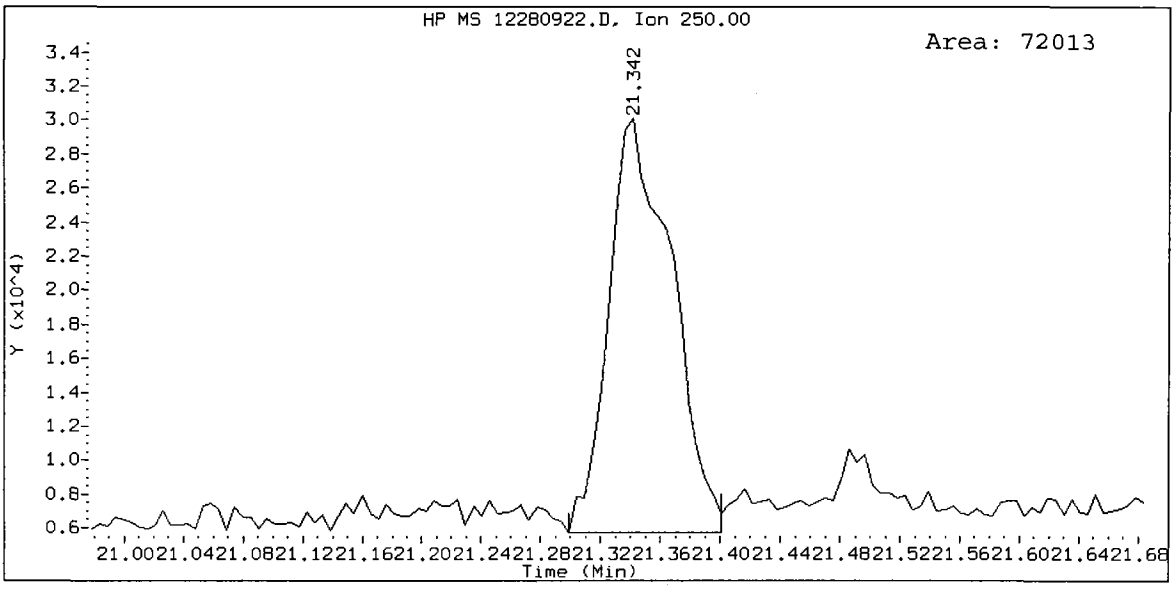




QC28A, /chem1/nt6.i/20091228.b/12280922.D
Benzo(k)fluoranthene Amount: 5.31







Semivolatile PAH Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PNAs by 8270D PNA GC/MS
Page 1 of 1

Sample ID: MB-122209
METHOD BLANK

Lab Sample ID: MB-122209
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/29/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: NA

Date Extracted: 12/22/09
Date Analyzed: 12/28/09 20:52
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.0 g
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

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

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	83.2%
2-Fluorobiphenyl	68.0%

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt6.i/20091228.b/12280918.D
Lab Smp Id: QC28MBS1 Client Smp ID: QC28MBS1
Inj Date : 28-DEC-2009 20:52
Operator : JZ Inst ID: nt6.i
Smp Info : QC28MBS1,
Misc Info : 09-31268
Comment : 1ul Injection
Method : /chem1/nt6.i/20091228.b/SW8461203.m
Meth Date : 29-Dec-2009 11:36 jianqing Quant Type: ISTD
Cal Date : 03-DEC-2009 14:07 Cal File: 12030902.D
Als bottle: 18 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnamblcs.sub
Target Version: 3.50

12/29/09

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.069	10.064	(1.000)	962870	20.0000	
28 Naphthalene	128	Compound Not Detected.					
32 2-Methylnaphthalene	141	Compound Not Detected.					
105 1-methylnaphthalene	141	Compound Not Detected.					
$ 36 2-Fluorobiphenyl	172	11.880	11.870	(0.917)	549543	17.0081	340.2
40 Acenaphthylene	152	Compound Not Detected.					
* 42 Acenaphthene-d10	164	12.949	12.938	(1.000)	594015	20.0000	
44 Acenaphthene	153	Compound Not Detected.					
46 Dibenzofuran	168	Compound Not Detected.					
49 Fluorene	166	Compound Not Detected.					
* 59 Phenanthrene-d10	188	15.337	15.326	(1.000)	884207	20.0000	
60 Phenanthrene	178	Compound Not Detected.					
61 Anthracene	178	Compound Not Detected.					
64 Fluoranthene	202	Compound Not Detected.					
65 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$	66 Terphenyl-d14	244	17.997	17.976	(0.915)	693326	20.8137	416.3
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	19.675	19.659	(1.000)	969667	20.0000	
	71 Chrysene	228	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	21.849	21.828	(1.000)	984238	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 12280918.D
Lab Smp Id: QC28MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem1/nt6.i/20091228.b/SW8461203.m
Misc Info: 09-31268

Calibration Date: 28-DEC-2009
Calibration Time: 11:45
Client Smp ID: QC28MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	1050823	525412	2101646	962870	-8.37
42 Acenaphthene-d10	646848	323424	1293696	594015	-8.17
59 Phenanthrene-d10	1038548	519274	2077096	884207	-14.86
69 Chrysene-d12	1078796	539398	2157592	969667	-10.12
77 Perylene-d12	1187999	594000	2375998	984238	-17.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	10.06	9.56	10.56	10.07	0.05
42 Acenaphthene-d10	12.94	12.44	13.44	12.95	0.08
59 Phenanthrene-d10	15.33	14.83	15.83	15.34	0.07
69 Chrysene-d12	19.66	19.16	20.16	19.67	0.08
77 Perylene-d12	21.83	21.33	22.33	21.85	0.10

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: QC28
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: QC28MBS1
Client Smp ID: QC28MBS1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: BLANK
SpikeList File: pnalcss.spk
Quant Type: ISTD
Sublist File: pnamblcs.sub
Method File: /chem1/nt6.i/20091228.b/SW8461203.m
Misc Info: 09-31268

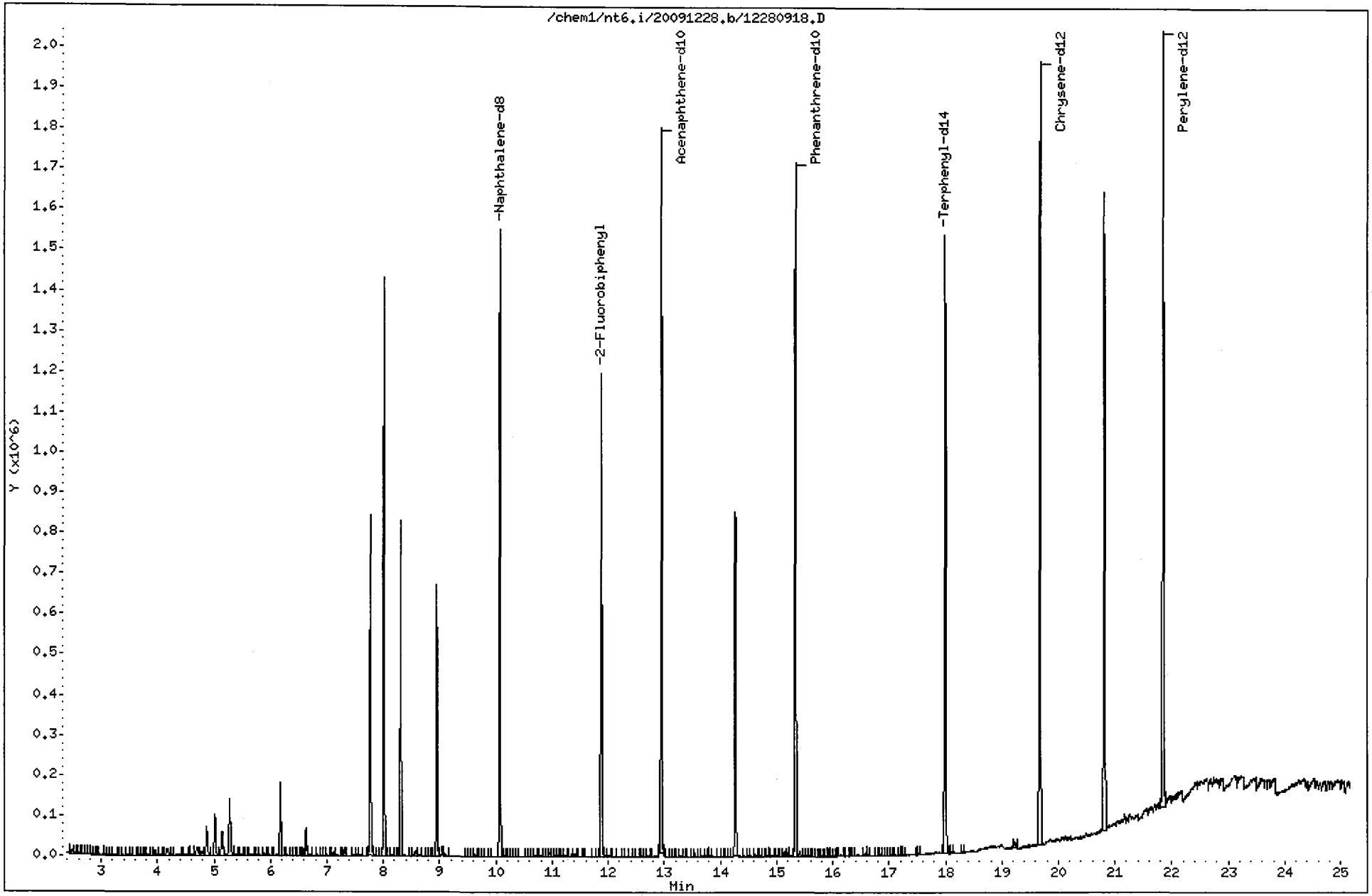
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 36 2-Fluorobiphenyl	500.0	340.2	68.03	40-100
$ 66 Terphenyl-d14	500.0	416.3	83.25	47-112

Data File: /chem1/nt6.i/20091228.b/12280918.D
Date : 28-DEC-2009 20:52
Client ID: QC28MBS1
Sample Info: QC28MBS1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

QC28.09103



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt6.i/20091228.b/12280919.D
Lab Smp Id: QC28LCSS1 Client Smp ID: QC28LCSS1
Inj Date : 28-DEC-2009 21:24
Operator : JZ Inst ID: nt6.i
Smp Info : QC28LCSS1,
Misc Info : 09-31268
Comment : 1ul Injection
Method : /chem1/nt6.i/20091228.b/SW8461203.m
Meth Date : 29-Dec-2009 11:35 jianqing Quant Type: ISTD
Cal Date : 03-DEC-2009 14:07 Cal File: 12030902.D
Als bottle: 19 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnamblcs.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

B 12/29/09

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.072	10.064	(1.000)	973762	20.0000	
28 Naphthalene	128	10.105	10.096	(1.003)	716712	18.0814	361.6
32 2-Methylnaphthalene	141	11.232	11.218	(1.115)	483184	21.0425	420.9
105 1-methylnaphthalene	141	11.403	11.395	(1.132)	487244	21.7770	435.5
$ 36 2-Fluorobiphenyl	172	11.878	11.870	(0.917)	647341	19.5447	390.9
40 Acenaphthylene	152	12.695	12.682	(0.980)	822406	19.4430	388.9
* 42 Acenaphthene-d10	164	12.952	12.938	(1.000)	608913	20.0000	
44 Acenaphthene	153	13.000	12.987	(1.004)	502628	19.2051	384.1
46 Dibenzofuran	168	13.262	13.254	(1.024)	772970	20.7723	415.4
49 Fluorene	166	13.823	13.809	(1.067)	639425	20.6499	413.0
* 59 Phenanthrene-d10	188	15.340	15.326	(1.000)	928259	20.0000	
60 Phenanthrene	178	15.377	15.358	(1.002)	867027	22.0907	441.8
61 Anthracene	178	15.447	15.433	(1.007)	881468	21.7954	435.9
64 Fluoranthene	202	17.327	17.308	(1.130)	1100869	24.3572	487.1
65 Pyrene	202	17.680	17.661	(0.898)	1160749	22.7376	454.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$	66 Terphenyl-d14	244	17.995	17.976	(0.914)	824091	22.7148	454.3
	68 Benzo(a)anthracene	228	19.656	19.632	(0.999)	1197774	23.7828	475.7
*	69 Chrysene-d12	240	19.683	19.659	(1.000)	1056086	20.0000	
	71 Chrysene	228	19.720	19.702	(1.002)	1130813	24.5060	490.1
	74 Benzo(b)fluoranthene	252	21.318	21.299	(0.976)	1174697	25.4616	509.2(R)
	75 Benzo(k)fluoranthene	252	21.355	21.331	(0.977)	1311556	27.0627	541.3(R)
	76 Benzo(a)pyrene	252	21.772	21.748	(0.996)	1007473	25.0194	500.4(R)
*	77 Perylene-d12	264	21.852	21.828	(1.000)	984285	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.385	23.356	(1.070)	856516	16.3110	326.2
	79 Dibenzo(a,h)anthracene	278	23.406	23.372	(1.071)	785059	18.8514	377.0
	80 Benzo(g,h,i)perylene	276	23.807	23.778	(1.089)	570310	12.5573	251.1

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 12280919.D
Lab Smp Id: QC28LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem1/nt6.i/20091228.b/SW8461203.m
Misc Info: 09-31268

Calibration Date: 28-DEC-2009
Calibration Time: 11:45
Client Smp ID: QC28LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	1050823	525412	2101646	973762	-7.33
42 Acenaphthene-d10	646848	323424	1293696	608913	-5.86
59 Phenanthrene-d10	1038548	519274	2077096	928259	-10.62
69 Chrysene-d12	1078796	539398	2157592	1056086	-2.11
77 Perylene-d12	1187999	594000	2375998	984285	-17.15

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	10.06	9.56	10.56	10.07	0.08
42 Acenaphthene-d10	12.94	12.44	13.44	12.95	0.10
59 Phenanthrene-d10	15.33	14.83	15.83	15.34	0.09
69 Chrysene-d12	19.66	19.16	20.16	19.68	0.12
77 Perylene-d12	21.83	21.33	22.33	21.85	0.11

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: QC28
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: QC28LCSS1
Client Smp ID: QC28LCSS1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: LCS
SpikeList File: pnalcss.spk
Quant Type: ISTD
Sublist File: pnamblcs.sub
Method File: /chem1/nt6.i/20091228.b/SW8461203.m
Misc Info: 09-31268

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
28 Naphthalene	500.0	361.6	72.33	37-100
32 2-Methylnaphthalen	500.0	420.9	84.17	43-101
105 1-methylnaphthalen	500.0	435.5	87.11	39-100
40 Acenaphthylene	500.0	388.9	77.77	44-100
44 Acenaphthene	500.0	384.1	76.82	41-100
46 Dibenzofuran	500.0	415.4	83.09	44-100
49 Fluorene	500.0	413.0	82.60	49-100
60 Phenanthrene	500.0	441.8	88.36	48-100
61 Anthracene	500.0	435.9	87.18	50-100
64 Fluoranthene	500.0	487.1	97.43	54-100
65 Pyrene	500.0	454.8	90.95	41-105
68 Benzo(a)anthracene	500.0	475.7	95.13	49-100
71 Chrysene	500.0	490.1	98.02	50-100
74 Benzo(b)fluoranthe	500.0	509.2	101.85*	53-100
75 Benzo(k)fluoranthe	500.0	541.3	108.25*	54-100
76 Benzo(a)pyrene	500.0	500.4	100.08*	50-100
78 Indeno(1,2,3-cd)py	500.0	326.2	65.24	33-101
79 Dibenzo(a,h)anthra	500.0	377.0	75.41	37-104
80 Benzo(g,h,i)peryle	500.0	251.1	50.23	33-107

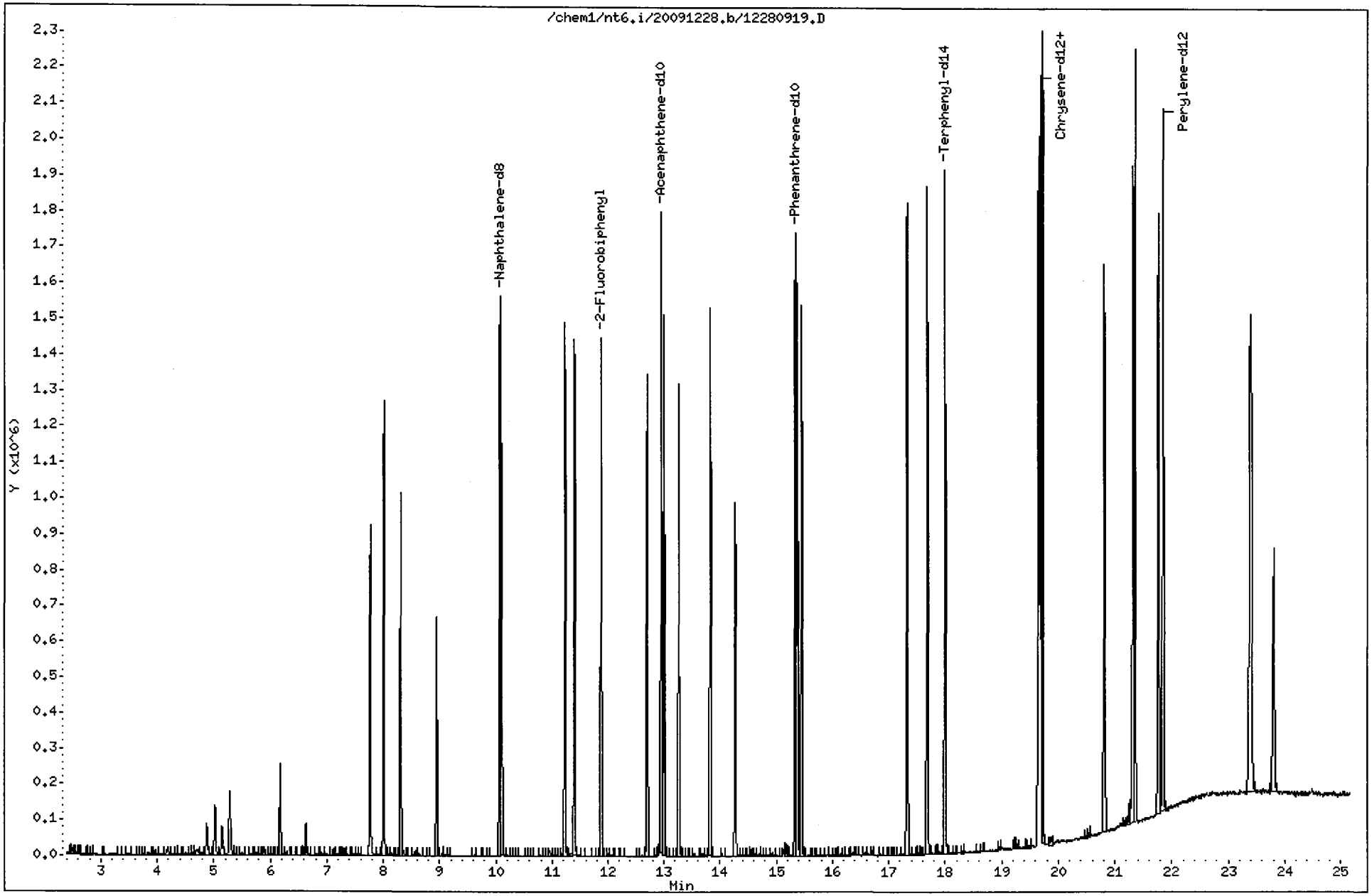
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 36 2-Fluorobiphenyl	500.0	390.9	78.18	40-100
$ 66 Terphenyl-d14	500.0	454.3	90.86	47-112

Data File: /chem1/nt6.i/20091228.b/12280919.D
Date : 28-DEC-2009 21:24
Client ID: QC28LCSS1
Sample Info: QC28LCSS1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

QC28:001168



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt6.i/20091228.b/12280920.D
Lab Smp Id: QC28LCSDS1 Client Smp ID: QC28LCSDS1
Inj Date : 28-DEC-2009 21:55
Operator : JZ Inst ID: nt6.i
Smp Info : QC28LCSDS1,
Misc Info : 09-31268
Comment : 1ul Injection
Method : /chem1/nt6.i/20091228.b/SW8461203.m
Meth Date : 29-Dec-2009 11:35 jianqing Quant Type: ISTD
Cal Date : 03-DEC-2009 14:07 Cal File: 12030902.D
Als bottle: 20 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnamblcs.sub
Target Version: 3.50

JZ 12/29/09

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
* 27 Naphthalene-d8	136	10.069	10.064	(1.000)	1014302	20.0000	
28 Naphthalene	128	10.101	10.096	(1.003)	724032	17.5360	350.7
32 2-Methylnaphthalene	141	11.234	11.218	(1.116)	427850	17.8880	357.8
105 1-methylnaphthalene	141	11.405	11.395	(1.133)	429496	18.4288	368.6
$ 36 2-Fluorobiphenyl	172	11.880	11.870	(0.917)	597865	18.6306	372.6
40 Acenaphthylene	152	12.698	12.682	(0.981)	794532	19.3874	387.7
* 42 Acenaphthene-d10	164	12.949	12.938	(1.000)	589964	20.0000	
44 Acenaphthene	153	12.997	12.987	(1.004)	483830	19.0806	381.6
46 Dibenzofuran	168	13.264	13.254	(1.024)	757668	21.0150	420.3
49 Fluorene	166	13.825	13.809	(1.068)	694191	23.1386	462.8
* 59 Phenanthrene-d10	188	15.337	15.326	(1.000)	916027	20.0000	
60 Phenanthrene	178	15.374	15.358	(1.002)	876558	22.6317	452.6
61 Anthracene	178	15.449	15.433	(1.007)	869398	21.7841	435.7
64 Fluoranthene	202	17.324	17.308	(1.130)	1090985	24.4609	489.2
65 Pyrene	202	17.682	17.661	(0.898)	1091976	21.8055	436.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$	66 Terphenyl-d14	244	17.997	17.976	(0.914)	785295	22.0655	441.3
	68 Benzo(a)anthracene	228	19.653	19.632	(0.999)	1171352	23.7095	474.2
*	69 Chrysene-d12	240	19.680	19.659	(1.000)	1035982	20.0000	
	71 Chrysene	228	19.723	19.702	(1.002)	1089578	24.0706	481.4
	74 Benzo(b)fluoranthene	252	21.320	21.299	(0.976)	1401227	26.2113	524.2(R)
	75 Benzo(k)fluoranthene	252	21.352	21.331	(0.977)	1437570	25.5997	512.0(R)
	76 Benzo(a)pyrene	252	21.769	21.748	(0.996)	1079065	23.1267	462.5
*	77 Perylene-d12	264	21.849	21.828	(1.000)	1140512	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.382	23.356	(1.070)	612386	10.0645	201.3
	79 Dibenzo(a,h)anthracene	278	23.403	23.372	(1.071)	571921	11.8522	237.0
	80 Benzo(g,h,i)perylene	276	23.804	23.778	(1.089)	374312	7.11282	142.3(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 12280920.D
Lab Smp Id: QC28LCSDS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem1/nt6.i/20091228.b/SW8461203.m
Misc Info: 09-31268

Calibration Date: 28-DEC-2009
Calibration Time: 11:45
Client Smp ID: QC28LCSDS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	1050823	525412	2101646	1014302	-3.48
42 Acenaphthene-d10	646848	323424	1293696	589964	-8.79
59 Phenanthrene-d10	1038548	519274	2077096	916027	-11.80
69 Chrysene-d12	1078796	539398	2157592	1035982	-3.97
77 Perylene-d12	1187999	594000	2375998	1140512	-4.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	10.06	9.56	10.56	10.07	0.05
42 Acenaphthene-d10	12.94	12.44	13.44	12.95	0.08
59 Phenanthrene-d10	15.33	14.83	15.83	15.34	0.07
69 Chrysene-d12	19.66	19.16	20.16	19.68	0.11
77 Perylene-d12	21.83	21.33	22.33	21.85	0.10

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: QC28
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: QC28LCSDS1
Client Smp ID: QC28LCSDS1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: LCSD
SpikeList File: pnalcss.spk
Quant Type: ISTD
Sublist File: pnamblcs.sub
Method File: /chem1/nt6.i/20091228.b/SW8461203.m
Misc Info: 09-31268

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
28 Naphthalene	500.0	350.7	70.14	37-100
32 2-Methylnaphthalen	500.0	357.8	71.55	43-101
105 1-methylnaphthalen	500.0	368.6	73.72	39-100
40 Acenaphthylene	500.0	387.7	77.55	44-100
44 Acenaphthene	500.0	381.6	76.32	41-100
46 Dibenzofuran	500.0	420.3	84.06	44-100
49 Fluorene	500.0	462.8	92.55	49-100
60 Phenanthrene	500.0	452.6	90.53	48-100
61 Anthracene	500.0	435.7	87.14	50-100
64 Fluoranthene	500.0	489.2	97.84	54-100
65 Pyrene	500.0	436.1	87.22	41-105
68 Benzo(a)anthracene	500.0	474.2	94.84	49-100
71 Chrysene	500.0	481.4	96.28	50-100
74 Benzo(b)fluoranthe	500.0	524.2	104.85*	53-100
75 Benzo(k)fluoranthe	500.0	512.0	102.40*	54-100
76 Benzo(a)pyrene	500.0	462.5	92.51	50-100
78 Indeno(1,2,3-cd)py	500.0	201.3	40.26	33-101
79 Dibenzo(a,h)anthra	500.0	237.0	47.41	37-104
80 Benzo(g,h,i)peryle	500.0	142.3	28.45*	33-107

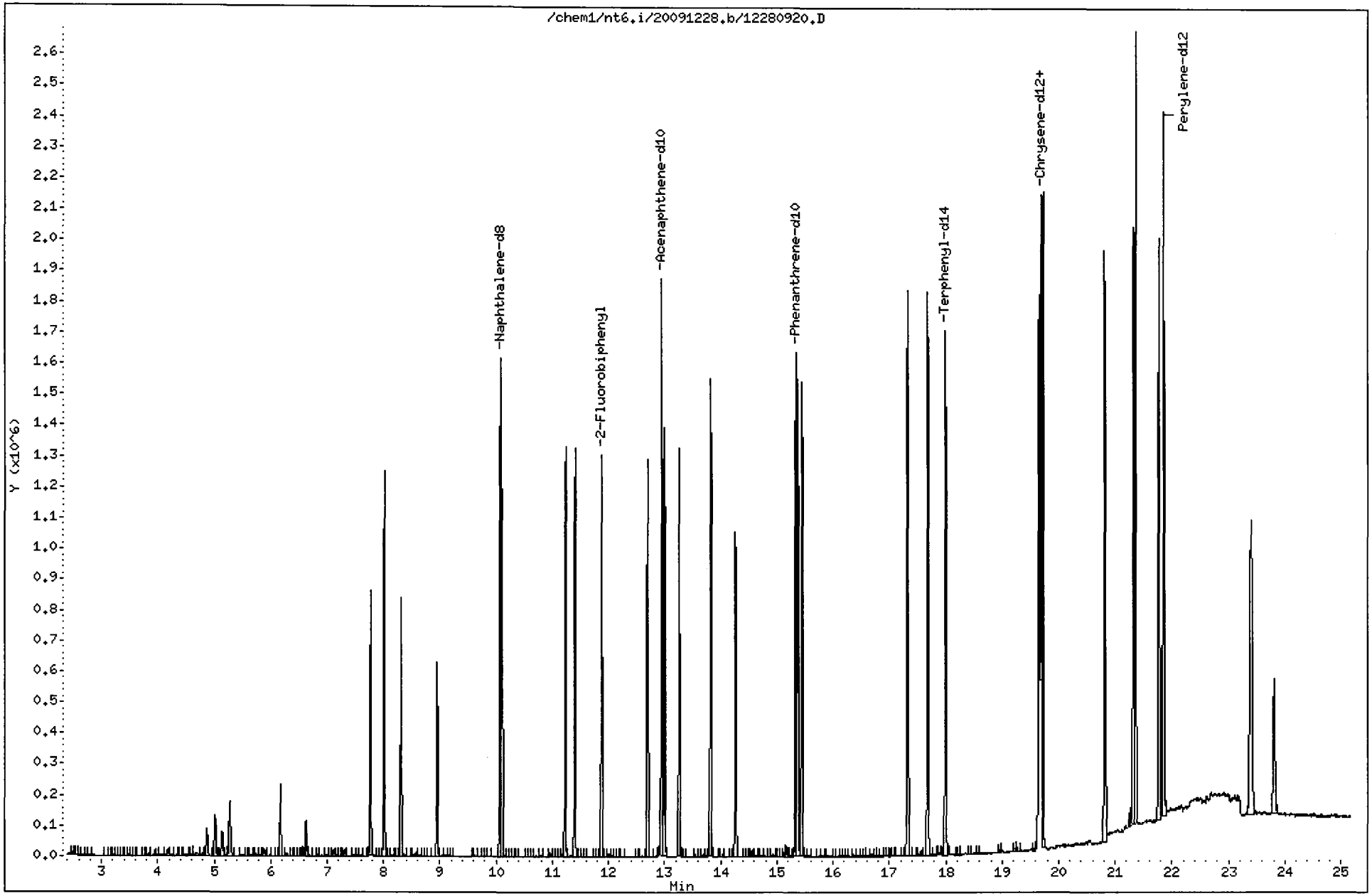
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 36 2-Fluorobiphenyl	500.0	372.6	74.52	40-100
$ 66 Terphenyl-d14	500.0	441.3	88.26	47-112

Data File: /chem1/nt6.i/20091228.b/12280920.D
Date : 28-DEC-2009 21:55
Client ID: QC28LCSDS1
Sample Info: QC28LCSDS1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

QC28:00113



Semivolatile PAH Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

Miscellaneous
Water/Soil/Sed/Tissue/Other
~~Separatory Funnel (3510C)~~
Sonication (3550B)
P500A (24 ppb)

Parameter 8270 PNA
Preparation Test Misc # 1
ARI Job No(s) QC28

Batch set up by: JH

Bottle #	ARI Sample I.D. QC28	Verify Client ID	Volume Extracted	KD (2X) 10mL Hexane Exchange	Turbo Vap (1) 2 3	Clean-Up Filter (Y) / N	(opt) Clean-Up Silica Gel (Y) / N	Clean-Up ___ Y / N	KD	Turbo Vap (1) 2 3	Final Effective Volume	Volume to Lab	Comments
	MB	Date 12/22/09	25.00g			0.45					0.5mL	0.5mL	10g Actual
	SB		25.00g										
	SB ~~Dup.~~		25.00g										
2	A	checked	32.10g										See Notes
Analyst/Date:	WC 12/22/09			RR 12/23/09	ww 12/23/09 →					ww 12/23/09 →			

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
BAN **Surrogate**	A1	125 µL	10/08/10	WC	TH
Spike		µL			
8270 PNA **Spike**	20	125 µL	12/26/09	WC	TH
Spike		µL			
Extraction Time: 17:15		**Liq/Liq Start:**		**Liq/Liq Stop:**	

SPECIAL INSTRUCTIONS:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: QC28

Client ID: Floyd/Snider

Parameter: 8270 PNA PSDDA

Client Project: POS - LLA

SOP Number(s): 3575

No Anomalies:

List problems, concerns, corrective actions and any other pertinent information
A- extract ~~is~~ remains ww 12/23/09 black after SPE -ww 12/23/09

Analyst Initials:		Date:	

3056F

Revision 006
1/12/07

Extractions Total Solids-extts
Data By: Jim Hawk
Created: 12/21/09

Worklist: 2354
Analyst: JBH
Comments:

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	QC28A 09-31268 CB4857-121009-SED	1.17	12.97		10.67	NR

QC28:00117

Analytical Resources Inc.: Organics Instrument Log

NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 12/28/09 Analysis: 8270 Analyst: [illegible]

GC Program: ABN_NT Column No: 171038 Column Type: ZB-5MSi

Instrument Tune (.U or .CT.): 091701 EM Voltage: 1671

Calibration File: 122809o1 Curve Date: 12/03/09

IS/SS	Ical/Ccal	LCS/ICV
1627-1	1670-1, 1671-1	
	1669-2, 1672-1	
	1679-2, 1669-1	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt6.i/20091228.b

	Time	Filename	LabID	ClientId	DF											
1	1145	12280901.D	CC1228	CC1228	1	8.00	220435	10.06	740841	12.94	458185	15.33	671970	19.66	679134	21.83	704540	20.80	989263
2	1218	12280902.D	QB84MBW1	QB84MBW1	1	8.00	211194	10.06	724057	12.93	424873	15.32	642284	19.65	557748	20.79	776387	21.82	594385
3	1250	12280903.D	QB84LCSW1	QB84LCSW1	1	8.00	211376	10.06	697351	12.94	431887	15.32	623016	19.65	636949	20.80	866350	21.82	635032
4	1322	12280904.D	QB84A	OUTFALL #001	1	8.00	213549	10.06	723330	12.94	418156	15.32	622598	19.65	555017	20.79	798097	21.82	614216
5	1354	12280905.D	QC08B	BC49606	1	8.00	176327	10.06	565685	12.95	376627	15.31	371195	19.68	407736	20.86	757915	21.82	97931
6	1426	12280906.D	QA99A	DH-03-S	1	8.02	186876	10.08	618741	12.95	340556	15.34	634944	19.70	1099064	20.85	1384248	21.89	768840
7	1501	12280907.D	QA99MBS1	QA99MBS1	1	8.02	221354	10.08	756593	12.95	434441	15.34	605294	19.68	905233	20.82	1117892	21.85	852591
8	1533	12280908.D	QA99B	DH-06-S	1	8.02	201279	10.08	664147	12.95	368304	15.34	550960	19.69	835903	20.82	1201049	21.87	920046
9	1605	12280909.D	QA99D	DH-07-S	1	8.02	262470	10.08	870191	12.95	487591	15.34	778520	19.69	1235545	20.83	1696596	21.87	1303871
10	1637	12280910.D	QA99E	DH-05-S	1	8.02	257171	10.08	807585	12.95	495417	15.34	749260	19.69	1090568	20.83	1533430	21.86	1246042
11	1710	12280911.D	QA99F	DH-01-S	1	8.02	256744	10.08	850019	12.95	469575	15.34	716722	19.69	1143279	20.83	1476597	21.87	1179724
12	1741	12280912.D	QA99H	DH-04-S	1	8.02	261894	10.08	903050	12.95	504931	15.35	692837	19.69	1111381	20.82	1507952	21.87	1203538
13	1813	12280913.D	QB84MBW1	QB84MBW1	1	8.02	274094	10.08	898276	12.95	524302	15.35	754559	19.68	996845	20.82	1210644	21.85	932074
14	1845	12280914.D	QA99MBS1	QA99MBS1	1	8.02	270232	10.08	900735	12.96	520428	15.34	763282	19.68	859774	20.82	1191674	21.86	828701
15	1917	12280915.D	QC32MBW1	QC32MBW1	1	8.02	257123	10.07	857054	12.95	470147	15.34	713686	19.68	858997	20.82	1062018	21.85	823402
16	1949	12280916.D	QC32LCSW1	QC32LCSW1	1	8.02	265859	10.08	830474	12.95	468083	15.34	667537	19.69	1095136	20.82	1286235	21.85	937442
17	2020	12280917.D	QC32A	SW-12	1	8.02	266298	10.07	873100	12.95	503582	15.34	748589	19.68	890688	20.81	1059212	21.85	873207
18	2052	12280918.D	QC28MBS1	QC28MBS1	1	10.07	962870	12.95	594015	15.34	884207	19.67	969667	21.85	984238				
19	2124	12280919.D	QC28LCSS1	QC28LCSS1	1	10.07	973762	12.95	608913	15.34	928259	19.68	1056086	21.85	984285				
20	2155	12280920.D	QC28LCSDS1	QC28LCSDS1	1	10.07	1014302	12.95	589964	15.34	916027	19.68	1035982	21.85	1140512				
21	2227	12280921.D	QC28A 3X	CB4857-12100 OD	3	10.07	814744	12.95	453218	15.34	690042	19.68	1080202	21.86	1137185				
22	2259	12280922.D	QC28A	CB4857-12100	1	10.08	790672	12.95	462142	15.34	1004840	19.69	1387766	21.88	1023038				

IS cut NR

Conf NR

C90 (B) NR

NR

Maintenance / Comments

[illegible] 12/29/09

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

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: QC28 Client ID: Floyd / Snider

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): 8270.

Instrument: NT-1 NT-2 NT-4 NT-6 NT-8

Curve Date: 12/03/09 Analysis Start Date: 12/28/09

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):

Sample A + MB/LCS/LCSD

Forms included.

Additional Details on Reverse: Yes / No

Analyst Signature: [signature] **Date:** 12/29/09

Reviewer's Signature: [signature] **Date:** 12/29/09

Herbicide Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Client ID	TBP	TOT OUT
MB-010710	66.0%	0
LCS-010710	67.0%	0
LCSD-010710	63.4%	0
CB4857-121009-SED	56.0%	0

	LCS/MB LIMITS	QC LIMITS
(TBP) = 2,4,6-Tribromophenol	(50-115)	(10-146)

Prep Method: SW3550B
Log Number Range: 09-31268 to 09-31268

FORM-II SW8041

QC28:00121

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-010710
LCS/LCSD

Lab Sample ID: LCS-010710
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized: VTS
Reported: 01/09/10

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Date Extracted LCS/LCSD: 01/07/10

Date Analyzed LCS: 01/08/10 18:45
LCSD: 01/08/10 19:05

Instrument/Analyst LCS: ECD1/YZ
LCSD: ECD1/YZ

Sample Amount LCS: 10.0 g
LCSD: 10.0 g

Final Extract Volume LCS: 25 mL
LCSD: 25 mL

Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Pentachlorophenol	56.9	62.5	91.0%	57.6	62.5	92.2%	1.2%

Chlorophenols Surrogate Recovery

	LCS	LCSD
2,4,6-Tribromophenol	67.0%	63.4%

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

CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

QC28MBS1

Lab Name: ANALYTICAL RESOURCES, INC — Client: FLOYD/SNYDER

ARI Job No.: QC28 — Project: POS-LLA

Lab Sample ID: QC28MBS1 — Lab File ID: 0108A005

Matrix (soil/water) SOLID — Extraction:(SepF/Cont/Sonc) SW3550B

Sulfur Cleanup (Y/N) Y — Date Extracted: 01/07/10

Date Analyzed (1): 01/08/10 — Date Analyzed (2): 01/08/10

Time Analyzed (1): 1825 — Time Analyzed (2): 1825

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	QC28LCSS1	QC28LCSS1	01/08/10	01/08/10
02	QC28LCSDS1	QC28LCSDS1	01/08/10	01/08/10
03	CB4857-12100	QC28A	01/08/10	01/08/10

CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Init. Calib. Date(s): 10/21/09 10/21/09

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.05

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01		PCP D	10/21/09	1633	10.05
02		PCP A	10/21/09	1653	10.06
03		PCP B	10/21/09	1713	10.05
04		PCP C	10/21/09	1733	10.05
05		PCP E	10/21/09	1753	10.04
06		PCP F	10/21/09	1812	10.04
07		PCPCCAL	01/08/10	1806	10.05
08	QC28MBS1	QC28MBS1	01/08/10	1825	10.04
09	QC28LCSS1	QC28LCSS1	01/08/10	1845	10.04
10	QC28LCSDS1	QC28LCSDS1	01/08/10	1905	10.04
11	CB4857-12100	QC28A	01/08/10	1925	10.04
12		PCP	01/08/10	2005	10.05

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII PCP

CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Init. Calib. Date(s): 10/21/09 10/21/09

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.68

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01		PCP D	10/21/09	1633	10.68
02		PCP A	10/21/09	1653	10.69
03		PCP B	10/21/09	1713	10.68
04		PCP C	10/21/09	1733	10.68
05		PCP E	10/21/09	1753	10.68
06		PCP F	10/21/09	1812	10.67
07		PCPCCAL	01/08/10	1806	10.69
08	QC28MBS1	QC28MBS1	01/08/10	1825	10.68
09	QC28LCSS1	QC28LCSS1	01/08/10	1845	10.68
10	QC28LCSDS1	QC28LCSDS1	01/08/10	1905	10.68
11	CB4857-12100	QC28A	01/08/10	1925	10.68
12		PCP	01/08/10	2005	10.68

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII PCP

Herbicide Analysis
Sample Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: CB4857-121009-SED
SAMPLE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized: VTB
Reported: 01/09/10

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Date Extracted: 01/07/10
Date Analyzed: 01/08/10 19:25
Instrument/Analyst: ECD1/YZ

Sample Amount: 8.25 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 19.5%

CAS Number	Analyte	RL	Result
87-86-5	**Pentachlorophenol**	**7.6**	**71**

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	56.0%

FORM I

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

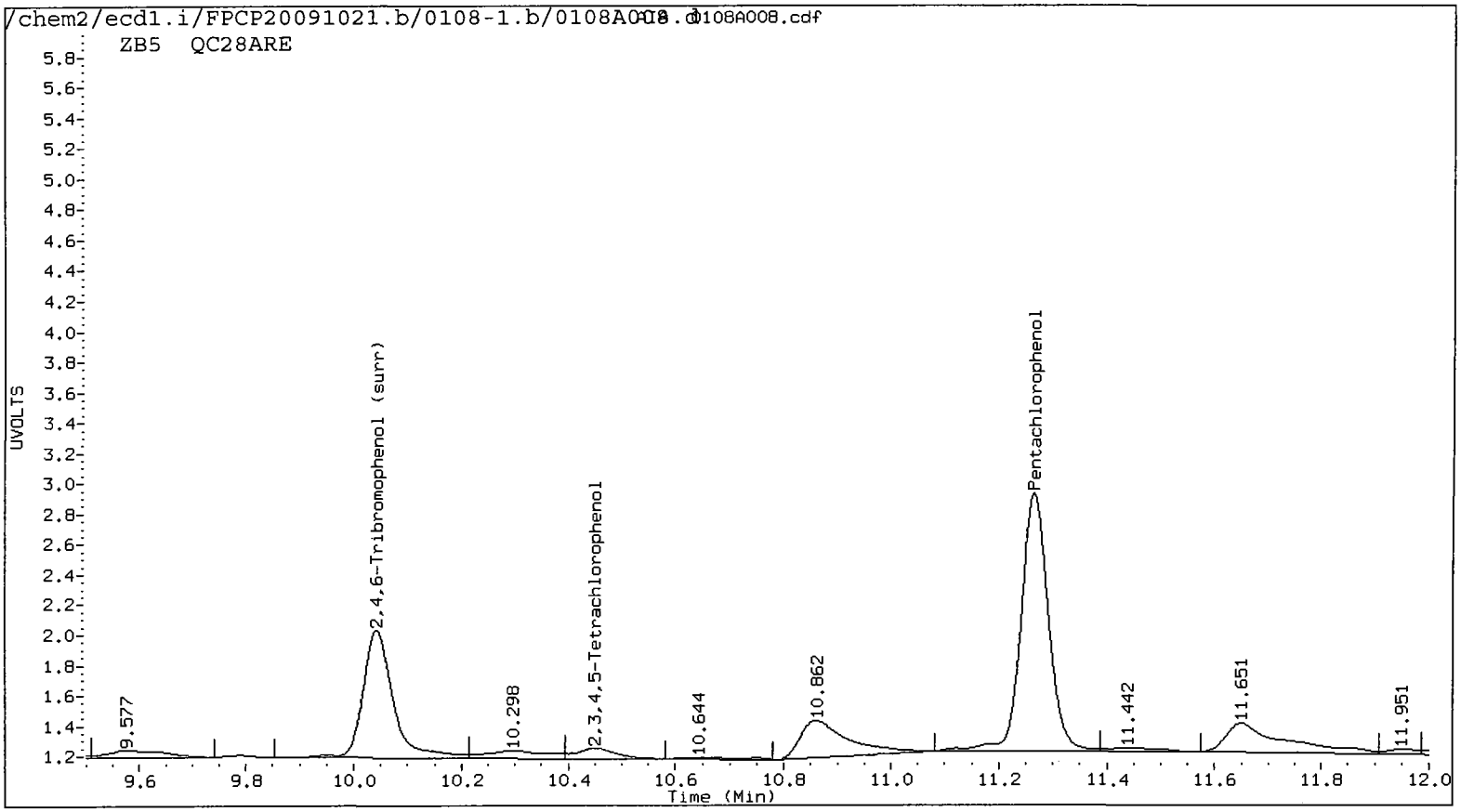
YZ 1/9/10

Data file 1: /chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A008.d ARI ID: QC28ARE
Data file 2: /chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A008.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 08-JAN-2010 19:25
Compound Sublist: all Report Date: 01/09/2010 09:20
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.266	-0.005	304146	11.692	-0.002	380299	19.5726	23.4692	18.1	Pentachlorophenol
7.319	0.025	35957	7.392	0.040	30955	4.7317	3.2480	37.2	2,4,6-Trichlorophenol
----			7.865	-0.017	9629	0.0000	1.0404	---	2,3,6-Trichlorophenol
8.249	-0.009	7017	----			1.3002	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
9.070	0.032	18926	9.303	0.008	19693	1.4332	1.4707	2.6	2,3,5,6-Tetrachlorophenol
10.450	-0.013	18912	11.154	-0.005	14125	1.8430	1.3721	29.3	2,3,4,5-Tetrachlorophenol
6.880	-0.037	8544	7.206	0.029	11773	15.5106	21.9973	34.6	2,4-Dichlorophenol
10.042	-0.007	164351	10.678	-0.002	180587	13.6	14.0	2.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	54.4	56.0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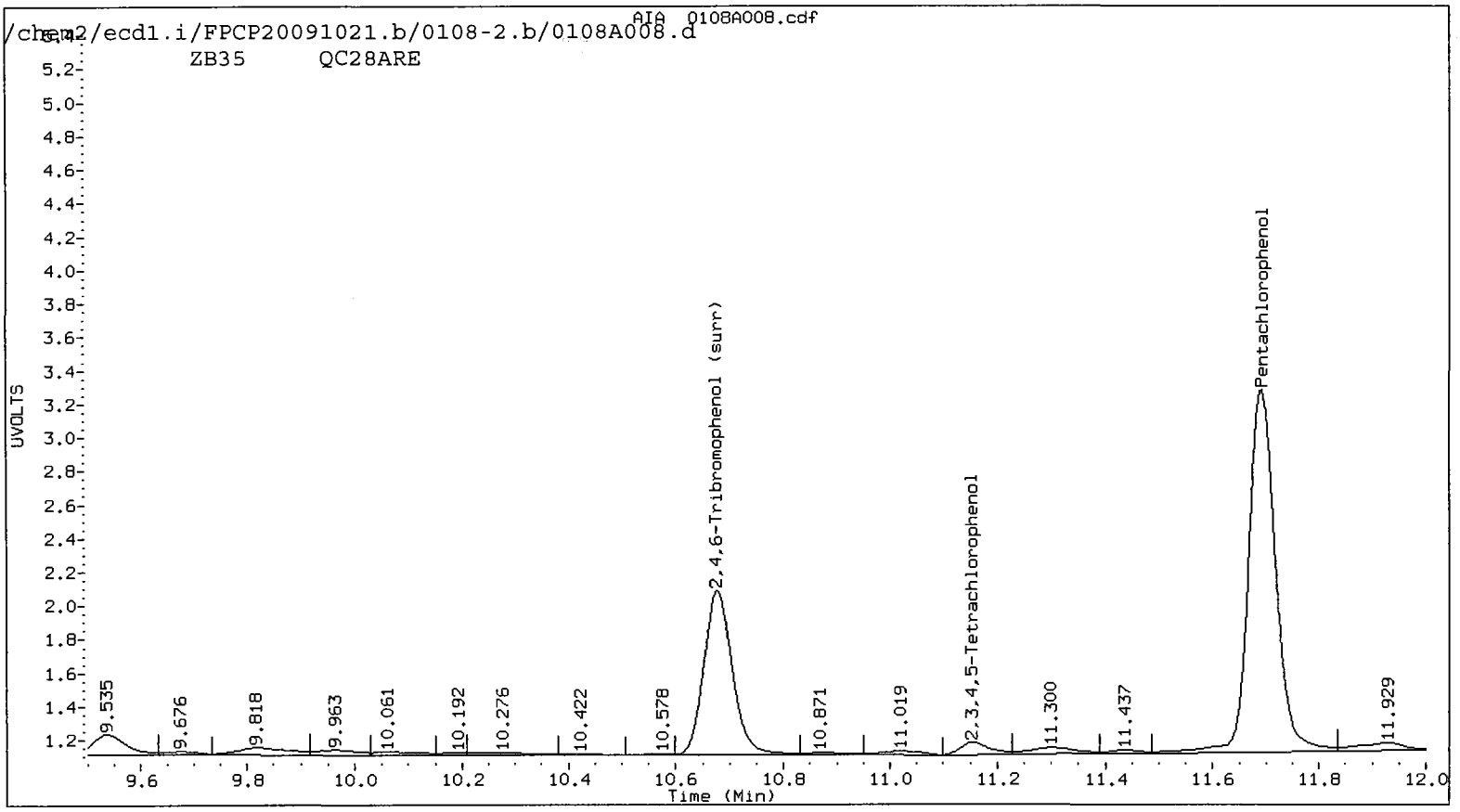
AIA 0108A008.cdf
ZB5 QC28ARE
UVOLTS
Time (Min)
9.577
2,4,6-Tribromophenol (surr)
10.298
2,3,4,5-Tetrachlorophenol
10.644
10.862
Pentachlorophenol
11.442
11.651
11.951


/chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A008.d
AIA 0108A008.cdf
ZB35 QC28ARE
UVOLTS
Time (Min)
9.535
9.676
9.818
9.963
10.061
10.192
10.276
10.422
10.578
2,4,6-Tribromophenol (surr)
10.871
11.019
2,3,4,5-Tetrachlorophenol
11.300
11.437
Pentachlorophenol
11.929

Herbicide Analysis
Standard Raw Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

6D
CHLOROPHENOL INITIAL CALIBRATION
RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 10/21/09

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT	FROM	TO
Pentachlorophenol	11.28	11.28	11.27	11.27	11.27	11.27	11.20	11.34
2,4,6-Trichloropheno	7.29	7.29	7.29	7.29	7.29	7.29	7.22	7.36
2,3,6-Trichloropheno	7.65	7.65	7.64	7.65	7.64	7.64	7.58	7.72
2,4,5-Trichloropheno	8.27	8.26	8.26	8.26	8.25	8.26	8.19	8.33
2,3,4-Trichloropheno	8.85	8.84	8.83	8.83	8.81	8.83	8.76	8.90
2,3,5,6-Tetrachlorop	9.04	9.04	9.04	9.04	9.03	9.04	8.97	9.11
2,3,4,5-Tetrachlorop	10.48	10.47	10.46	10.46	10.45	10.46	10.39	10.53
2,4-Dichlorophenol	6.92	6.91	6.91	6.92	6.91	6.91	6.85	6.99
2,4,6-Tribromophenol	10.06	10.05	10.05	10.05	10.04	10.05	9.98	10.12

6D
CHLOROPHENOL INITIAL CALIBRATION
RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 10/21/09

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT	FROM	TO
Pentachlorophenol___	11.70	11.70	11.70	11.69	11.69	11.70	11.62	11.76
2,4,6-Trichloropheno	7.35	7.35	7.35	7.35	7.35	7.35	7.28	7.42
2,3,6-Trichloropheno	7.88	7.88	7.88	7.88	7.88	7.88	7.81	7.95
2,4,5-Trichloropheno	8.63	8.62	8.62	8.62	8.62	8.62	8.55	8.69
2,3,4-Trichloropheno	9.41	9.40	9.40	9.40	9.39	9.40	9.33	9.47
2,3,5,6-Tetrachlorop	9.30	9.30	9.30	9.30	9.29	9.30	9.23	9.37
2,3,4,5-Tetrachlorop	11.17	11.16	11.16	11.16	11.16	11.16	11.09	11.23
2,4-Dichlorophenol__	7.18	7.18	7.18	7.18	7.17	7.18	7.11	7.25
2,4,6-Tribromophenol	10.69	10.68	10.68	10.68	10.68	10.68	10.61	10.75

6E
CHLOROPHENOL INITIAL CALIBRATION
CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 10/21/09

COMPOUND	CALIBRATION FACTORS LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	R^2/ %RSD	CT
Pentachlorophenol	18833	17561	16239	14693	13334	12576	15.7	A
2,4,6-Trichlorophenol	12707	11050	9817	8689	7872	7374	0.9929	L
2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	16.6	A
2,4,5-Trichlorophenol	6561	5514	5743	4686	4241	3750	0.9994	Q
2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	16.4	A
2,3,5,6-Tetrachloroph	15518	14554	13607	12505	11993	11056	12.6	A
2,3,4,5-Tetrachloroph	12818	11723	10909	9693	8548	7877	18.5	A
2,4-Dichlorophenol	673	644	558	469	404	353	0.9991	Q
2,4,6-Tribromophenol	13920	13228	12506	11556	10717	10527	11.4	A
						AVE RSD	17.6	

CT stands for Curve Types:
- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

LVL 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A010.d
LVL 2: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A011.d
LVL 3: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A012.d
LVL 4: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A009.d
LVL 5: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A013.d
LVL 6: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A014.d

6E
CHLOROPHENOL INITIAL CALIBRATION
CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 10/21/09

COMPOUND	CALIBRATION FACTORS LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	R^2/ %RSD	CT
Pentachlorophenol	19304	17945	16707	15360	14237	13672	13.5	A
2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	16.4	A
2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	12.6	A
2,4,5-Trichlorophenol	7804	6975	6158	5032	4549	4003	0.9992	Q
2,3,4-Trichlorophenol	9692	9054	8149	7049	6270	5605	0.9995	Q
2,3,5,6-Tetrachloroph	15877	14658	13700	12697	11907	11504	12.6	A
2,3,4,5-Tetrachloroph	12083	11690	10825	9751	8980	8440	14.3	A
2,4-Dichlorophenol	708	628	548	468	404	358	0.9992	Q
2,4,6-Tribromophenol	14709	13981	13233	12347	11640	11484	10.1	A
						AVE RSD	16.9	

CT stands for Curve Types:
- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

LVL 1: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A010.d
LVL 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d
LVL 3: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A012.d
LVL 4: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A009.d
LVL 5: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A013.d
LVL 6: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A014.d

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCPB.m
Cal Date : 22-Oct-2009 10:50 aron
Curve Type : Average

Rename batch 10/21

Calibration File Names:
Level 1: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A010.d
Level 2: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A011.d
Level 3: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A012.d
Level 4: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A009.d
Level 5: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A013.d
Level 6: /chem2/ecd1.i/FPCP20091022.b/ical-2.b/1021A014.d

	Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD	
1	2,4-Dichlorophenol	708	628	548	468	405	358	519	25.855	<-
2	2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	9531	16.459	
3	2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	9255	12.610	
4	2,4,5-Trichlorophenol	7804	6975	6158	5032	4549	4003	5754	25.652	<-
5	2,3,5,6-Tetrachlorophenol	15877	14658	13700	12697	11907	11504	13390	12.553	
6	2,3,4-Trichlorophenol	9692	9054	8149	7049	6270	5605	7637	20.983	<-
8	2,3,4,5-Tetrachlorophenol	12083	11690	10825	9751	8980	8440	10295	14.335	
9	Pentachlorophenol	19304	17945	16707	15360	14237	13672	16204	13.488	
$ 7	2,4,6-Tribromophenol (surr)	14709	13981	13233	12347	11640	11484	12899	10.079	

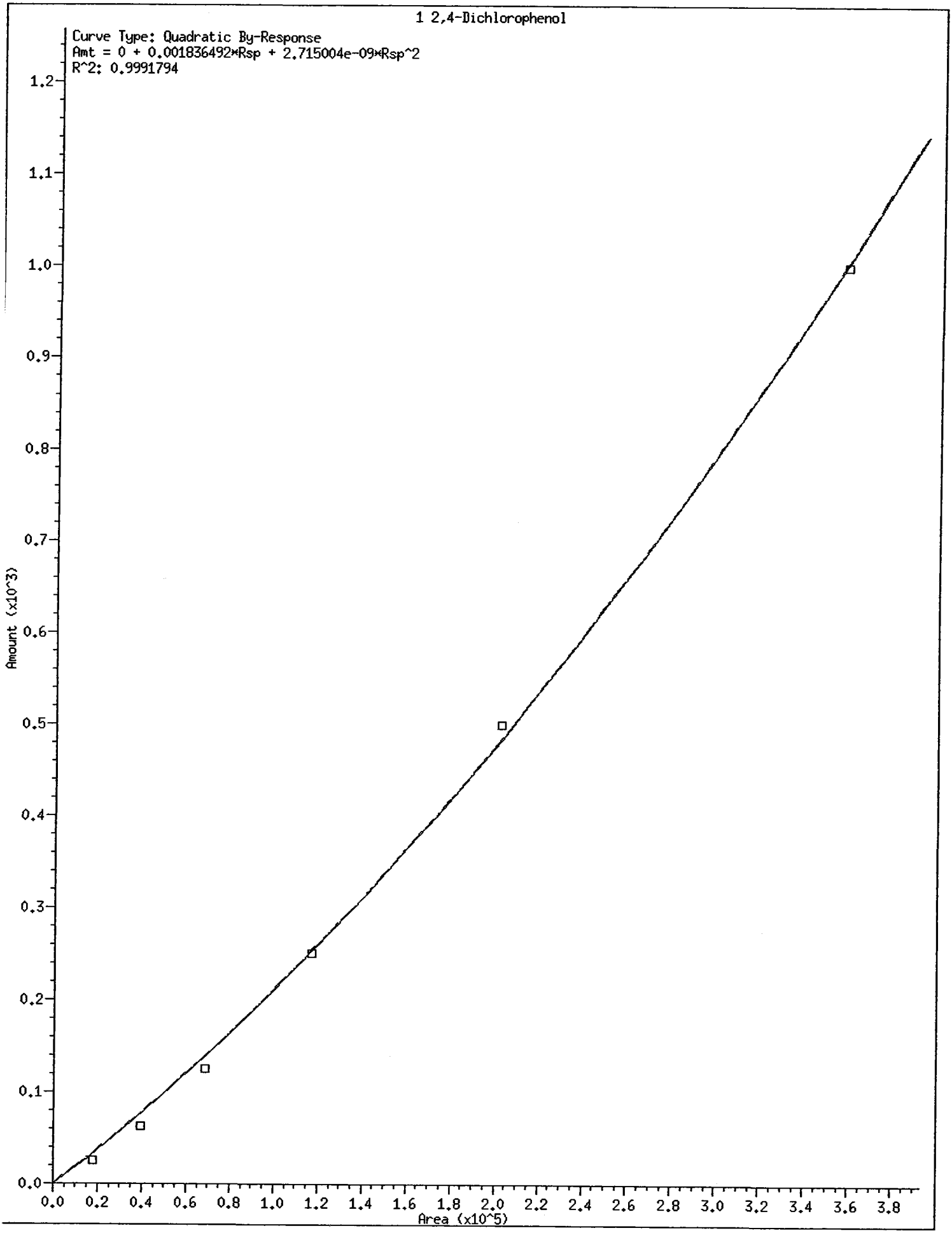
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

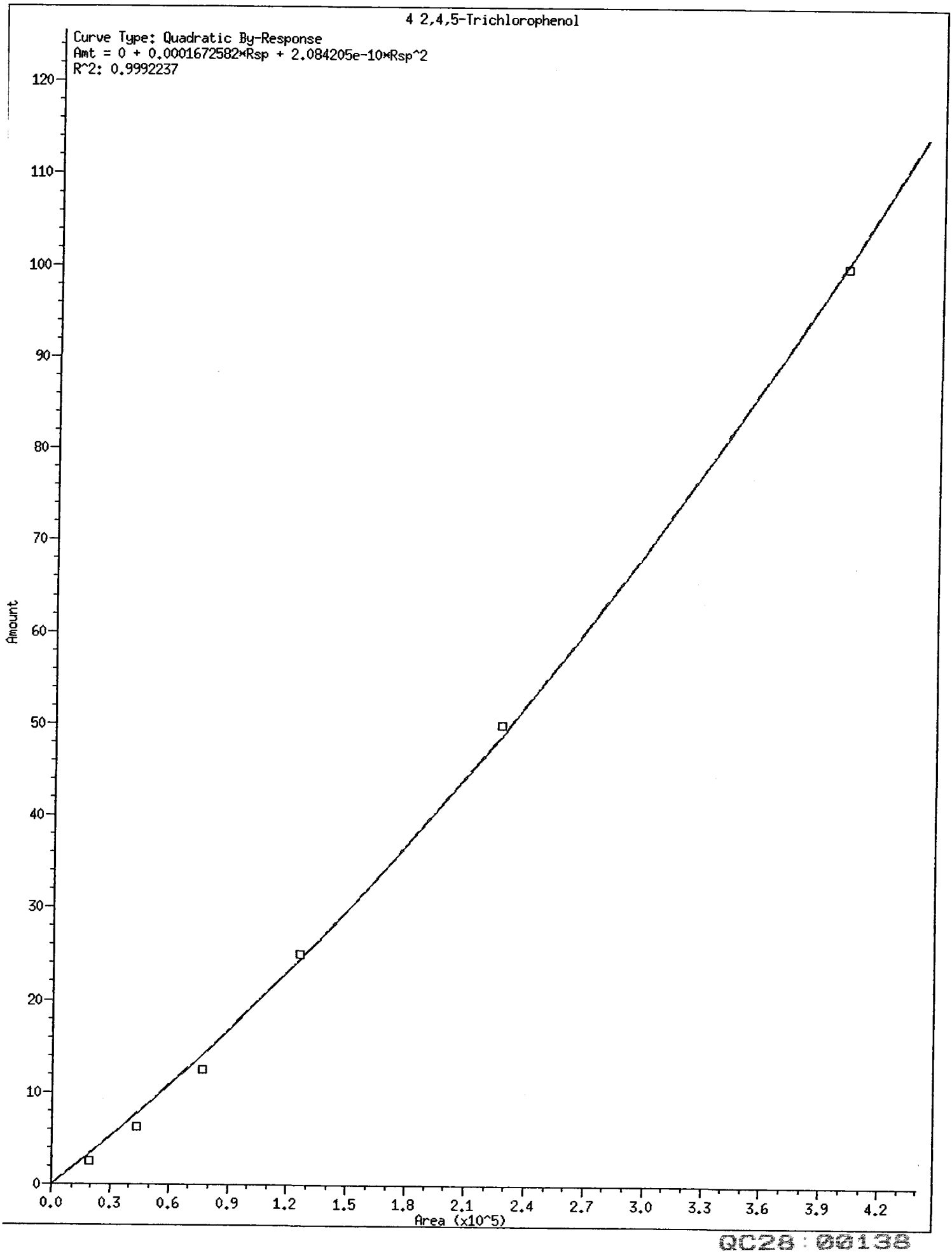
Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCPB.m
Cal Date : 22-Oct-2009 10:50 aron
Curve Type : Average

Average %RSD Results.

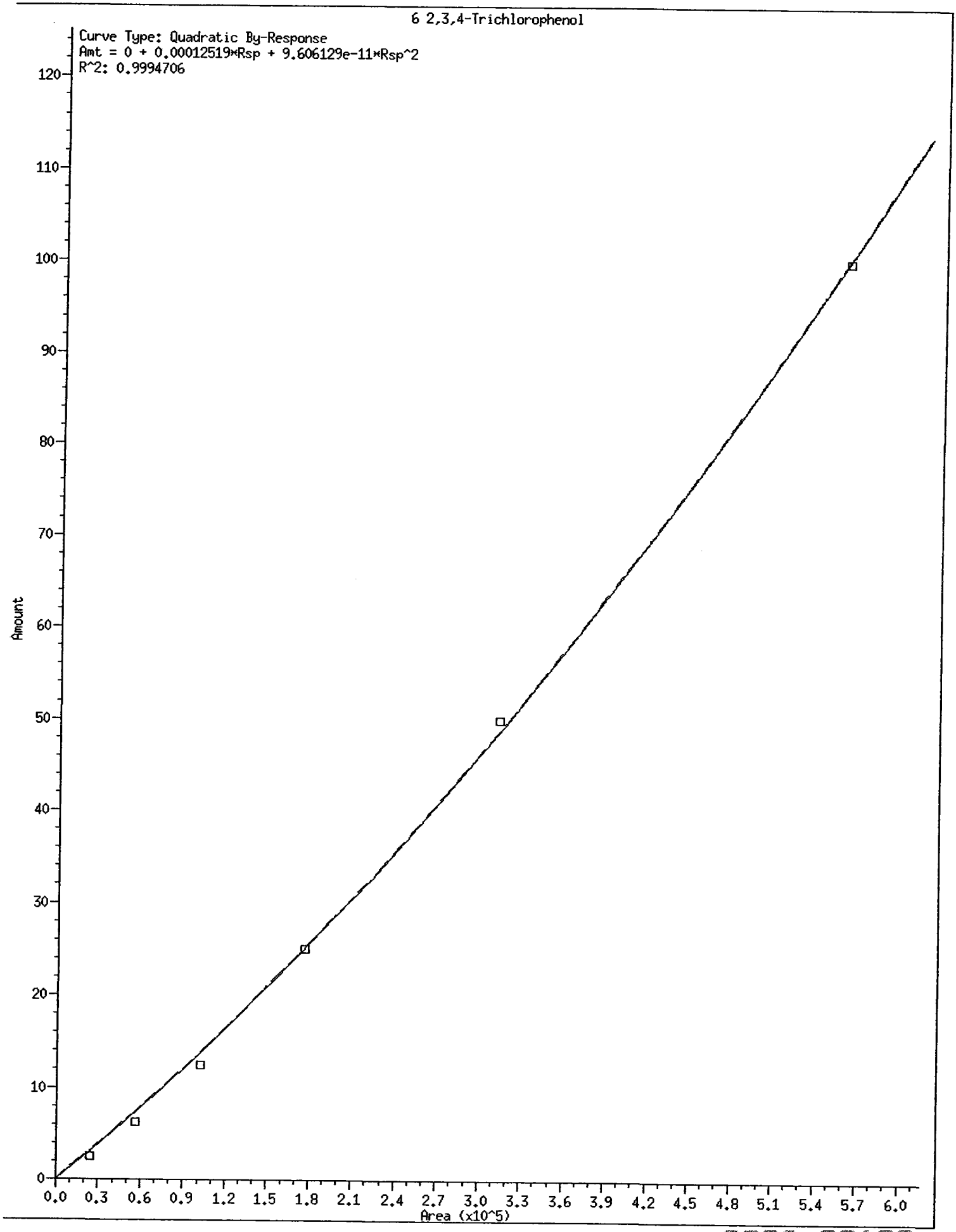
Calculated Average %RSD = 16.89042
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.


1 2,4-Dichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.001836492*Rsp + 2.715004e-09*Rsp^2
R^2: 0.9991794
Amount (x10^3)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8
Area (x10^5)

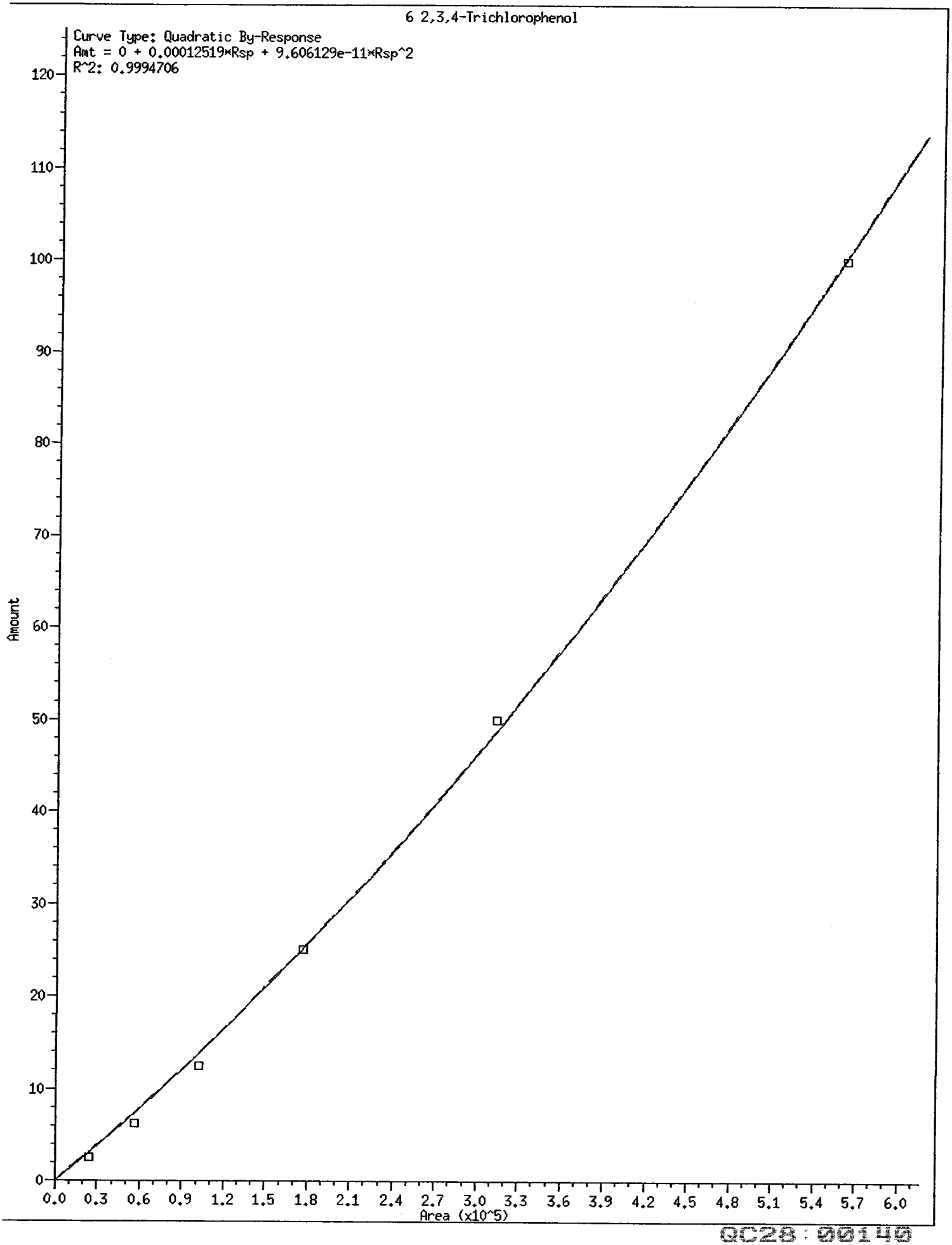
QC28 : 00137


4 2,4,5-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.0001672582*Rsp + 2.084205e-10*Rsp^2
R^2: 0.9992237
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2

QC28:00138


6 2,3,4-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.00012519*Rsp + 9.606129e-11*Rsp^2
R^2: 0.9994706
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0

QC28 : 00139


6 2,3,4-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.00012519*Rsp + 9.606129e-11*Rsp^2
R^2: 0.9994706
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091021.b/FPCPB.m
Cal Date : 23-Oct-2009 11:17 aron

Calibration File Names:
Level 1: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A010.d
Level 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d
Level 3: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A012.d
Level 4: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A009.d
Level 5: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A013.d
Level 6: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A014.d

Compound	2 Level 1	6 Level 2	12 Level 3	25 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 2,4-Dichlorophenol	17700	39225	68497	117023	202273	357799	QUAD	0.000e+00	0.00184	2.715e-09	0.99918
2 2,4,6-Trichlorophenol	11798	10771	9830	8893	8177	7715	AVRG		9531		16.45945
3 2,3,6-Trichlorophenol	10911	10097	9331	9228	8210	7752	AVRG		9255		12.60997
4 2,4,5-Trichlorophenol	19509	43595	76979	125809	227473	400339	QUAD	0.000e+00	0.00017	2.084e-10	0.99922
5 2,3,5,6-Tetrachlorophenol	15877	14658	13700	12697	11907	11504	AVRG		13390		12.55347
6 2,3,4-Trichlorophenol	24231	56589	101861	176218	313504	560518	QUAD	0.000e+00	0.00013	9.606e-11	0.99947
8 2,3,4,5-Tetrachlorophenol	12083	11690	10825	9751	8980	8440	AVRG		10295		14.33482
9 Pentachlorophenol	19304	17945	16707	15360	14237	13672	AVRG		16204		13.48754
7 2,4,6-Tribromophenol (surr)	14709	13981	13233	12347	11640	11484	AVRG		12899		10.07874

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091021.b/FPCPB.m
Cal Date : 23-Oct-2009 11:17 aron

Average %RSD Results.
Calculated Average %RSD = 13.25400
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

QC28 09112

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCP.m
Cal Date : 22-Oct-2009 11:10 aron
Curve Type : Average

Rename Batch 10121

Calibration File Names:
Level 1: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A010.d
Level 2: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A011.d
Level 3: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A012.d
Level 4: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A009.d
Level 5: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A013.d
Level 6: /chem2/ecd1.i/FPCP20091022.b/ical-1.b/1021A014.d

	Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
1	2,4-Dichlorophenol	673	644	558	469	404	353	517	25.095	<-
2	2,4,6-Trichlorophenol	12707	11051	9817	8689	7872	7374	9585	21.163	<-
3	2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	8776	16.599	
4	2,4,5-Trichlorophenol	6561	5514	5743	4686	4241	3751	5082	20.536	<-
5	2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	6077	16.433	
6	2,3,5,6-Tetrachlorophenol	15518	14554	13607	12505	11993	11056	13206	12.631	
8	2,3,4,5-Tetrachlorophenol	12818	11723	10909	9693	8548	7877	10261	18.508	
9	Pentachlorophenol	18833	17561	16239	14693	13334	12576	15539	15.706	
$ 7	2,4,6-Tribromophenol (surr)	13920	13228	12507	11556	10717	10527	12076	11.373	

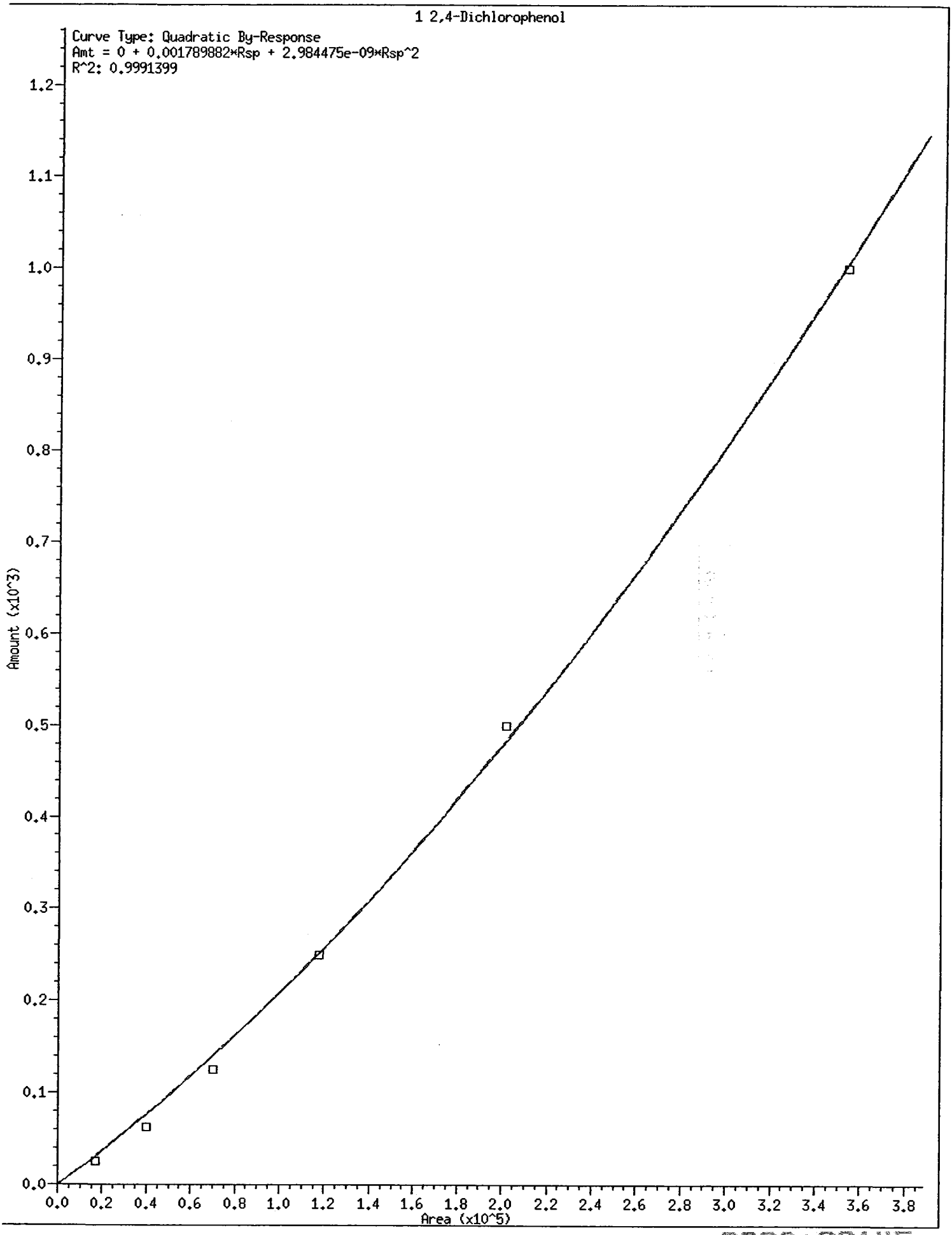
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

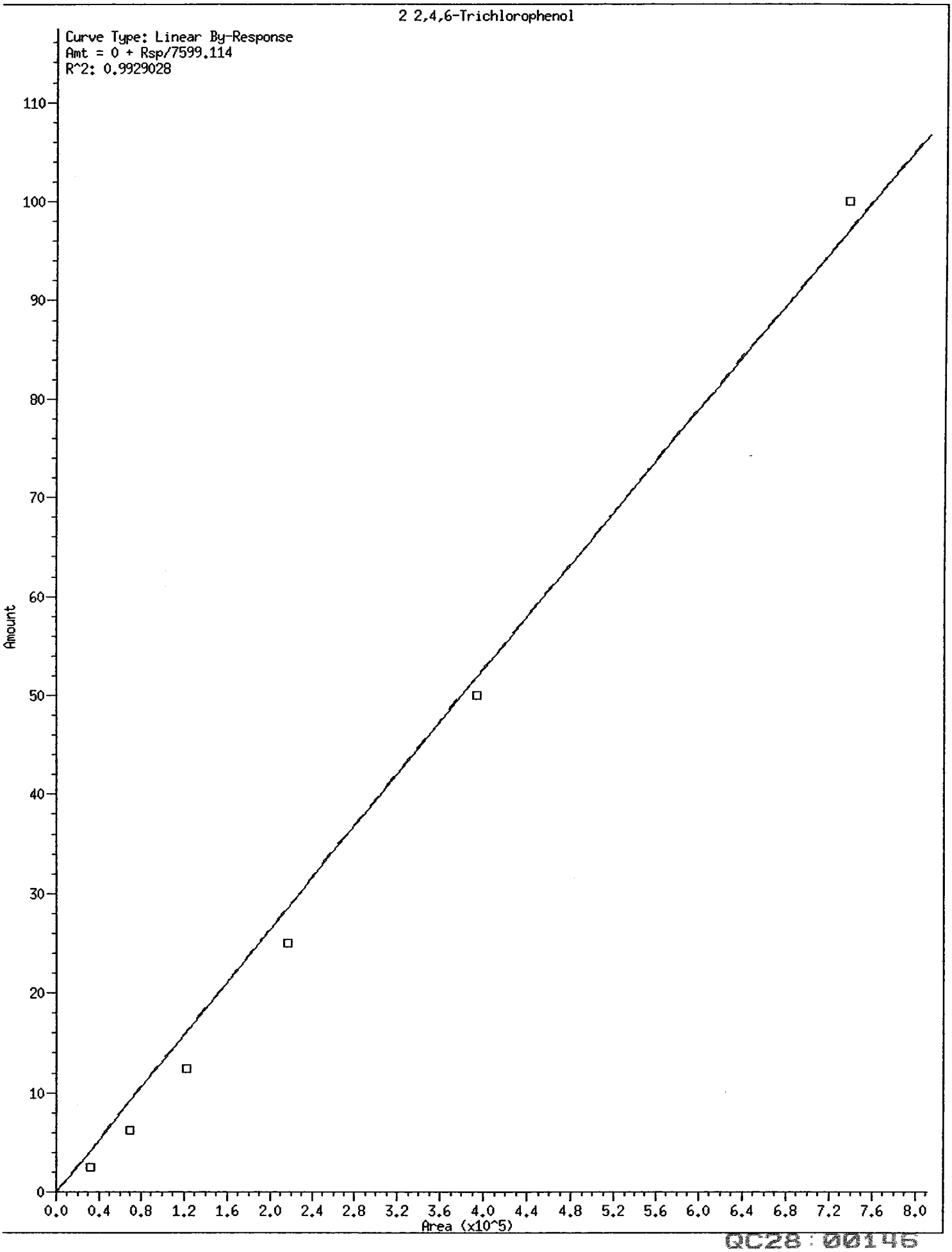
Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091022.b/FPCP.m
Cal Date : 22-Oct-2009 11:10 aron
Curve Type : Average

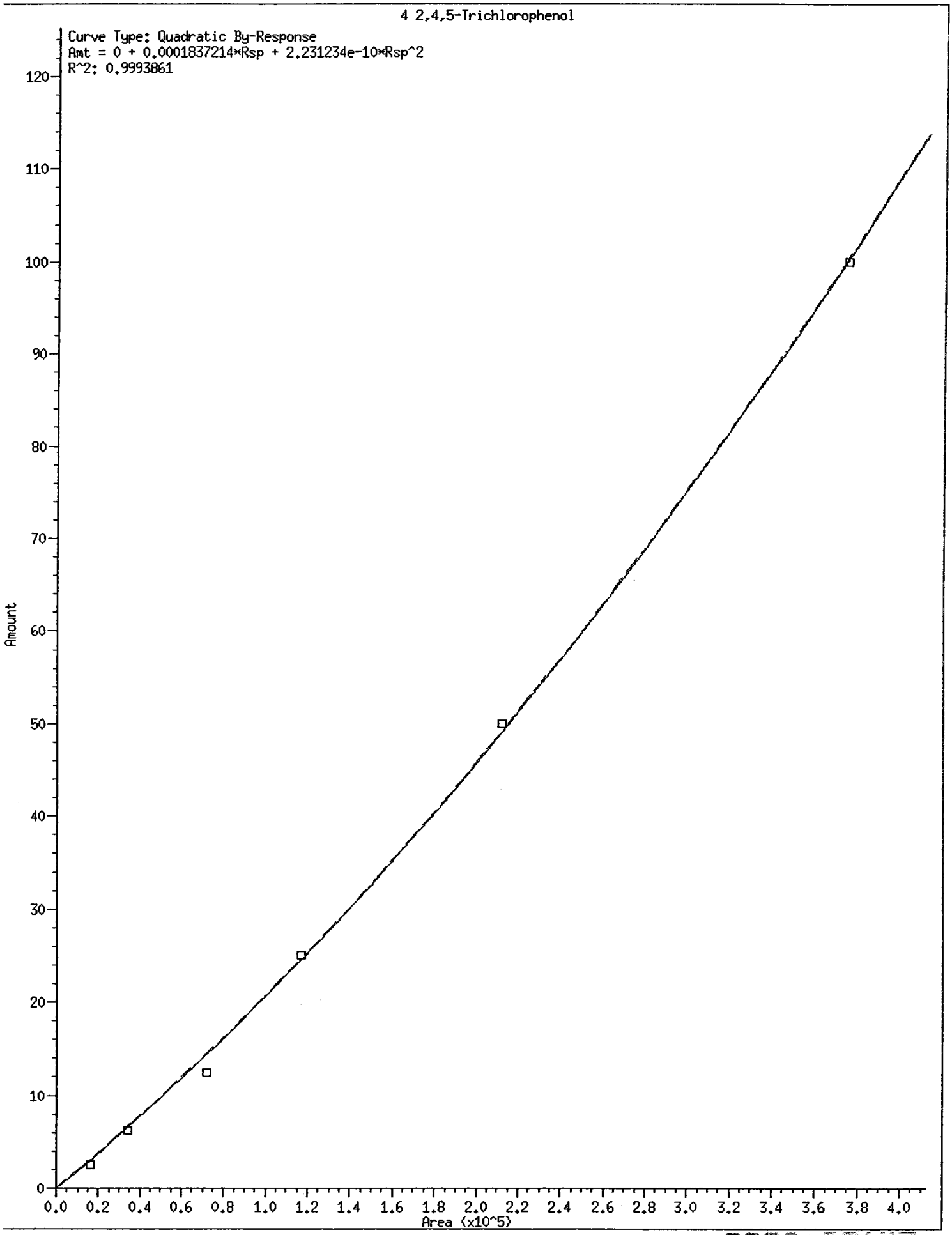
Average %RSD Results.

Calculated Average %RSD = 17.56055
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.


1 2,4-Dichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.001789882*Rsp + 2.984475e-09*Rsp^2
R^2: 0.9991399
Amount (x10^3)
Area (x10^5)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8

QC28 : 00145


2 2,4,6-Trichlorophenol
Curve Type: Linear By-Response
Amt = 0 + Rsp/7599.114
R^2: 0.9929028
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
0.0
0.4
0.8
1.2
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8
7.2
7.6
8.0


4 2,4,5-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.0001837214×Rsp + 2.231234e-10×Rsp^2
R^2: 0.9993861
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0

QC28:00147

QC28:99148

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091021.b/FPCP.m
Cal Date : 23-Oct-2009 11:18 aron

Calibration File Names:
Level 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A010.d
Level 2: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A011.d
Level 3: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A012.d
Level 4: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A009.d
Level 5: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A013.d
Level 6: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A014.d

		2	6	12	25	50	100		Coefficients			%RSD
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	m1	m2	or R^2
	1 2,4-Dichlorophenol	16819	40263	69803	117243	201819	353265	QUAD	0.000e+00	0.00179	2.984e-09	0.99914
	2 2,4,6-Trichlorophenol	31767	69066	122711	217230	393586	737425	LINR	0.000e+00	7599		0.99290
	3 2,3,6-Trichlorophenol	10819	9966	9097	8235	7478	7061	AVRG		8776		16.59946
	4 2,4,5-Trichlorophenol	16402	34462	71784	117139	212054	375055	QUAD	0.000e+00	0.00018	2.231e-10	0.99939
	5 2,3,4-Trichlorophenol	7272	7064	6411	5689	5172	4851	AVRG		6077		16.43273
	6 2,3,5,6-Tetrachlorophenol	15518	14554	13607	12505	11993	11056	AVRG		13206		12.63104
	8 2,3,4,5-Tetrachlorophenol	12818	11723	10909	9693	8548	7877	AVRG		10261		18.50805
	9 Pentachlorophenol	18833	17561	16239	14693	13334	12576	AVRG		15539		15.70600
$	7 2,4,6-Tribromophenol (surr)	13920	13228	12507	11556	10717	10527	AVRG		12076		11.37346

0028 06149

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-OCT-2009 16:33
End Cal Date : 21-OCT-2009 18:12
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/FPCP20091021.b/FPCP.m
Cal Date : 23-Oct-2009 11:18 aron

Average %RSD Results.
Calculated Average %RSD = 15.20846
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

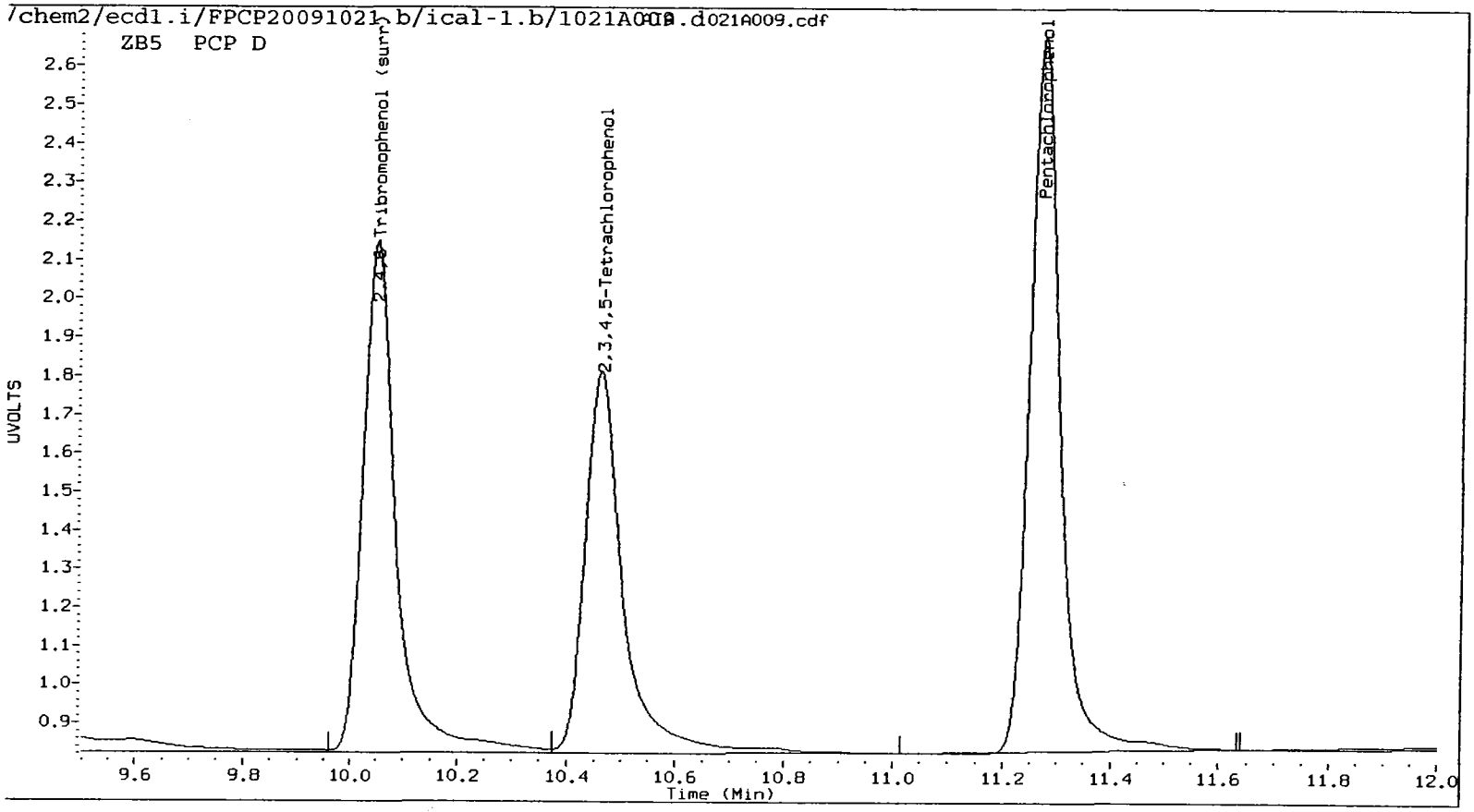
Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A009.d ARI ID: PCP D
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A009.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 16:33
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.271	0.000	367330	11.695	0.000	383997	23.6387	23.6974	0.2	Pentachlorophenol
7.293	0.000	217230	7.352	0.000	222315	28.5862	23.3266	20.3	2,4,6-Trichlorophenol
7.648	0.000	205876	7.883	0.000	230697	23.4592	24.9272	6.1	2,3,6-Trichlorophenol
8.258	0.000	117139	8.620	0.000	125809	24.5825	24.3414	1.0	2,4,5-Trichlorophenol
8.826	0.000	142230	9.398	0.000	176218	23.4058	25.0437	6.8	2,3,4-Trichlorophenol
9.038	0.000	312635	9.295	0.000	317417	23.6744	23.7047	0.1	2,3,5,6-Tetrachlorophenol
10.462	0.000	242318	11.159	0.000	243787	23.6148	23.6808	0.3	2,3,4,5-Tetrachlorophenol
6.917	0.000	117243	7.177	0.000	117023	250.8755	252.0921	0.5	2,4-Dichlorophenol
10.050	0.000	288892	10.680	0.000	308677	23.9	23.9	0.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	95.7	95.7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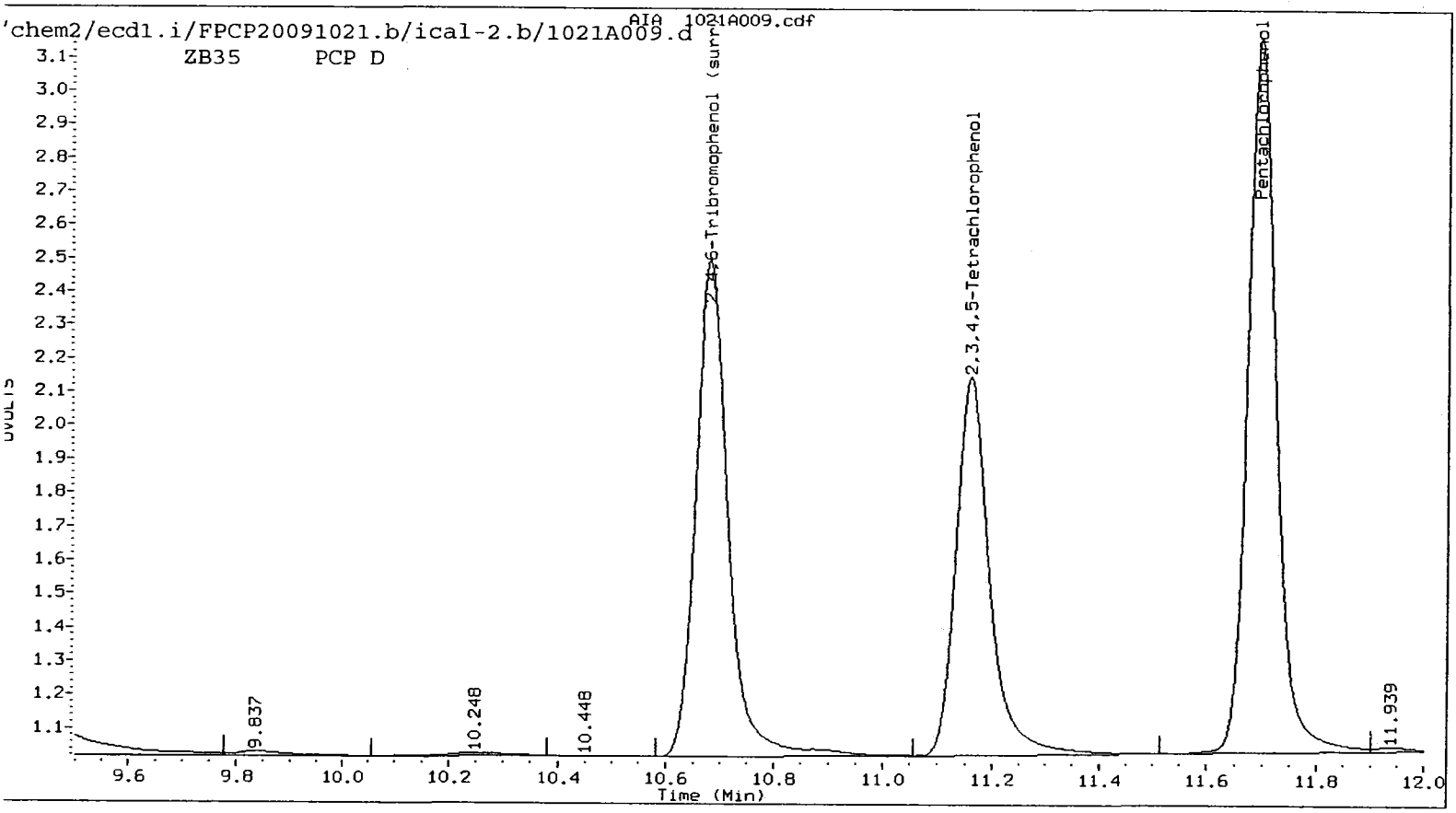
AIA 1021A009.cdf
ZB5 PCP D
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVOLTS
Time (Min)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AIA 1021A009.cdf
ZB35 PCP D
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.837
10.248
10.448
11.939
UVOLTS
Time (Min)

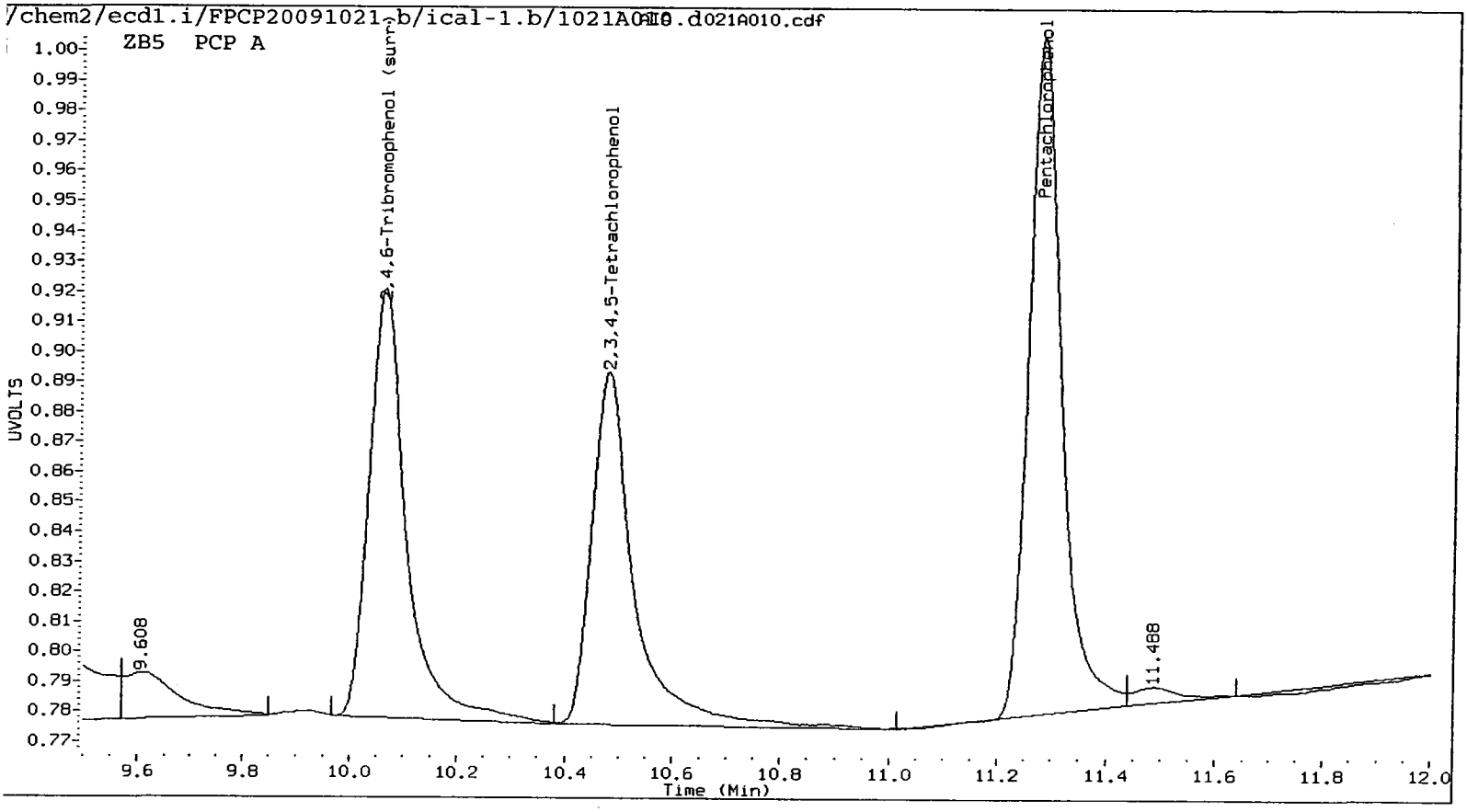
Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A010.d ARI ID: PCP A
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A010.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 16:53
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.279	0.008	47083	11.699	0.004	48259	2.8087	2.7844	0.9	Pentachlorophenol
7.292	-0.001	31767	7.351	-0.001	29494	3.6317	2.8510	24.1	2,4,6-Trichlorophenol
7.647	-0.002	27047	7.882	-0.001	27277	2.8390	2.7089	4.7	2,3,6-Trichlorophenol
8.270	0.012	16402	8.626	0.006	19509	3.4813	3.8444	9.9	2,4,5-Trichlorophenol
8.845	0.020	18180	9.410	0.011	24231	2.8053	3.4202	19.8	2,3,4-Trichlorophenol
9.041	0.002	38795	9.296	0.001	39693	2.7688	2.7783	0.3	2,3,5,6-Tetrachlorophenol
10.478	0.015	32044	11.168	0.009	30207	2.8470	2.7669	2.9	2,3,4,5-Tetrachlorophenol
6.917	-0.001	16819	7.177	0.000	17700	35.6445	37.5265	5.1	2,4-Dichlorophenol
10.061	0.011	34800	10.686	0.006	36772	2.7	2.7	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	10.9	10.9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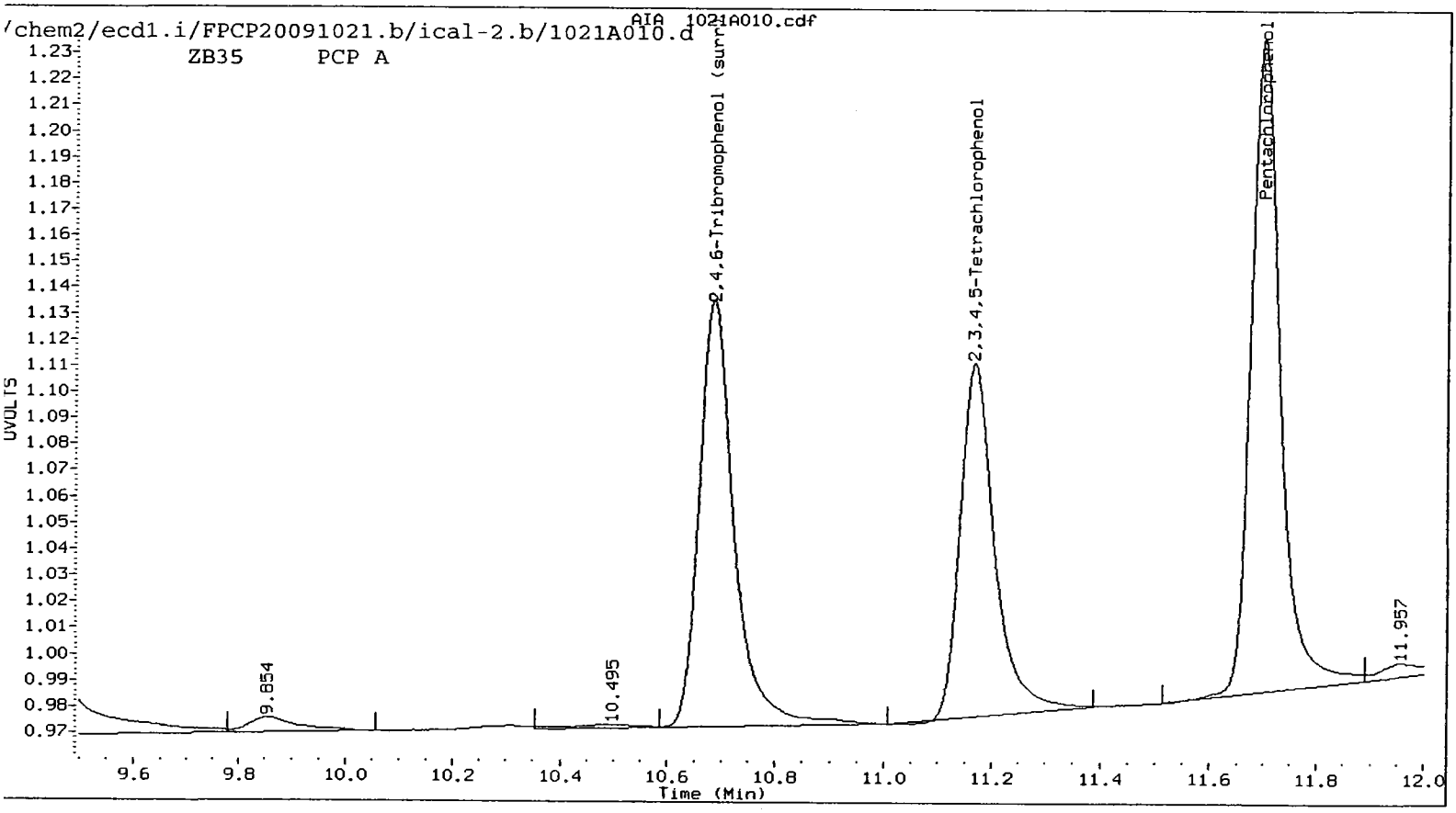
AIA 1021A010.cdf
ZB5 PCP A
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.608
11.488
UVOLTS
Time (Min)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AIA 1021A010.cdf
ZB35 PCP A
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.854
10.495
11.957
UVOLTS
Time (Min)

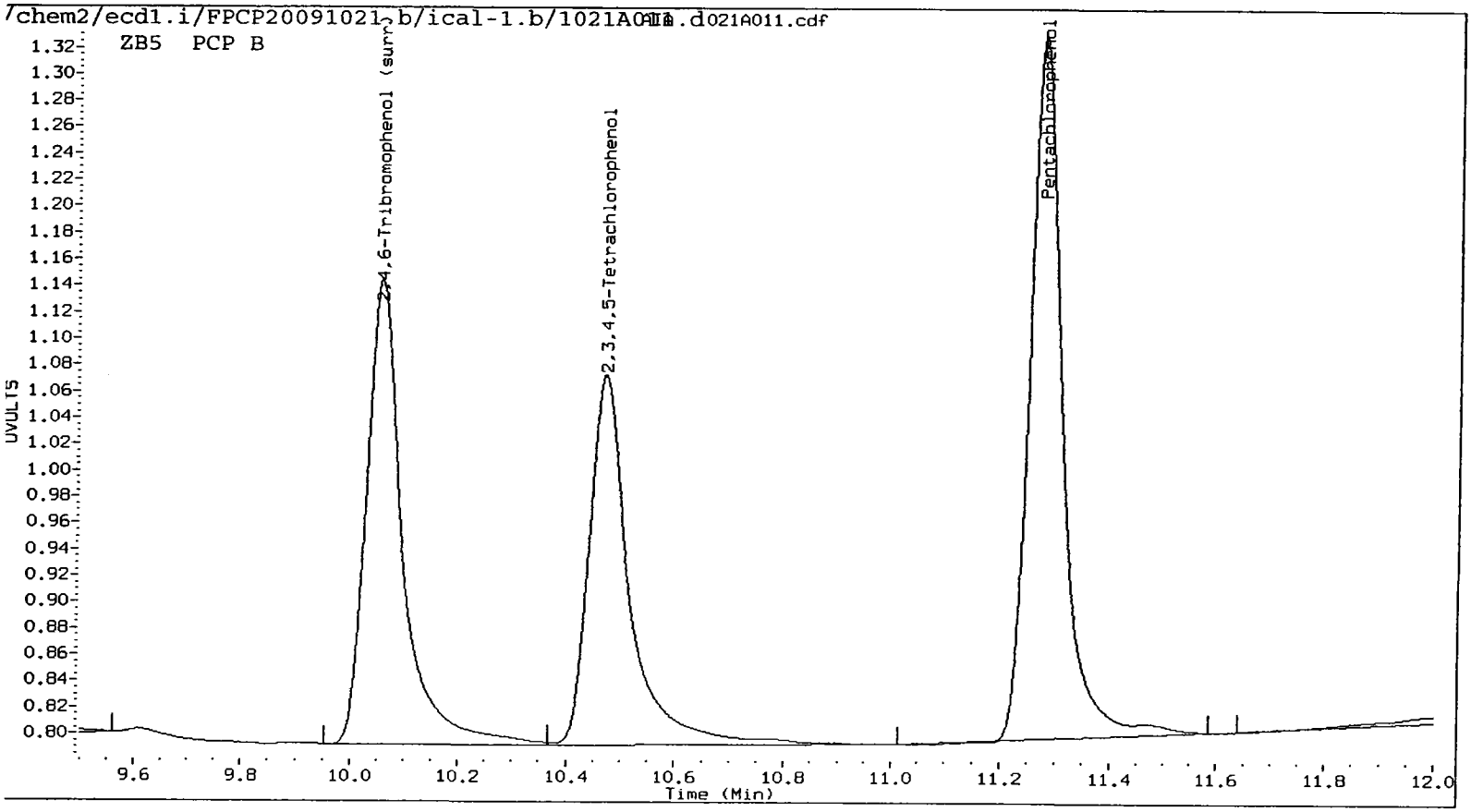
Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A011.d ARI ID: PCP B
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A011.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 17:13
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.275	0.004	109754	11.696	0.001	112156	6.4451	6.3957	0.8	Pentachlorophenol
7.291	-0.002	69066	7.350	-0.002	67317	7.7476	6.4191	18.8	2,4,6-Trichlorophenol
7.645	-0.003	62285	7.881	-0.002	63108	6.4390	6.2616	2.8	2,3,6-Trichlorophenol
8.262	0.004	34462	8.623	0.003	43595	6.0940	6.2584	2.7	2,4,5-Trichlorophenol
8.837	0.012	44152	9.404	0.006	56589	6.6144	6.2625	5.5	2,3,4-Trichlorophenol
9.038	-0.001	90965	9.295	0.000	91612	6.4093	6.3573	0.8	2,3,5,6-Tetrachlorophenol
10.470	0.007	73270	11.164	0.005	73060	6.4209	6.5380	1.8	2,3,4,5-Tetrachlorophenol
6.915	-0.002	40263	7.176	-0.001	39225	63.2816	62.2651	1.6	2,4-Dichlorophenol
10.054	0.005	82674	10.682	0.002	87382	6.4	6.4	0.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	25.6	25.6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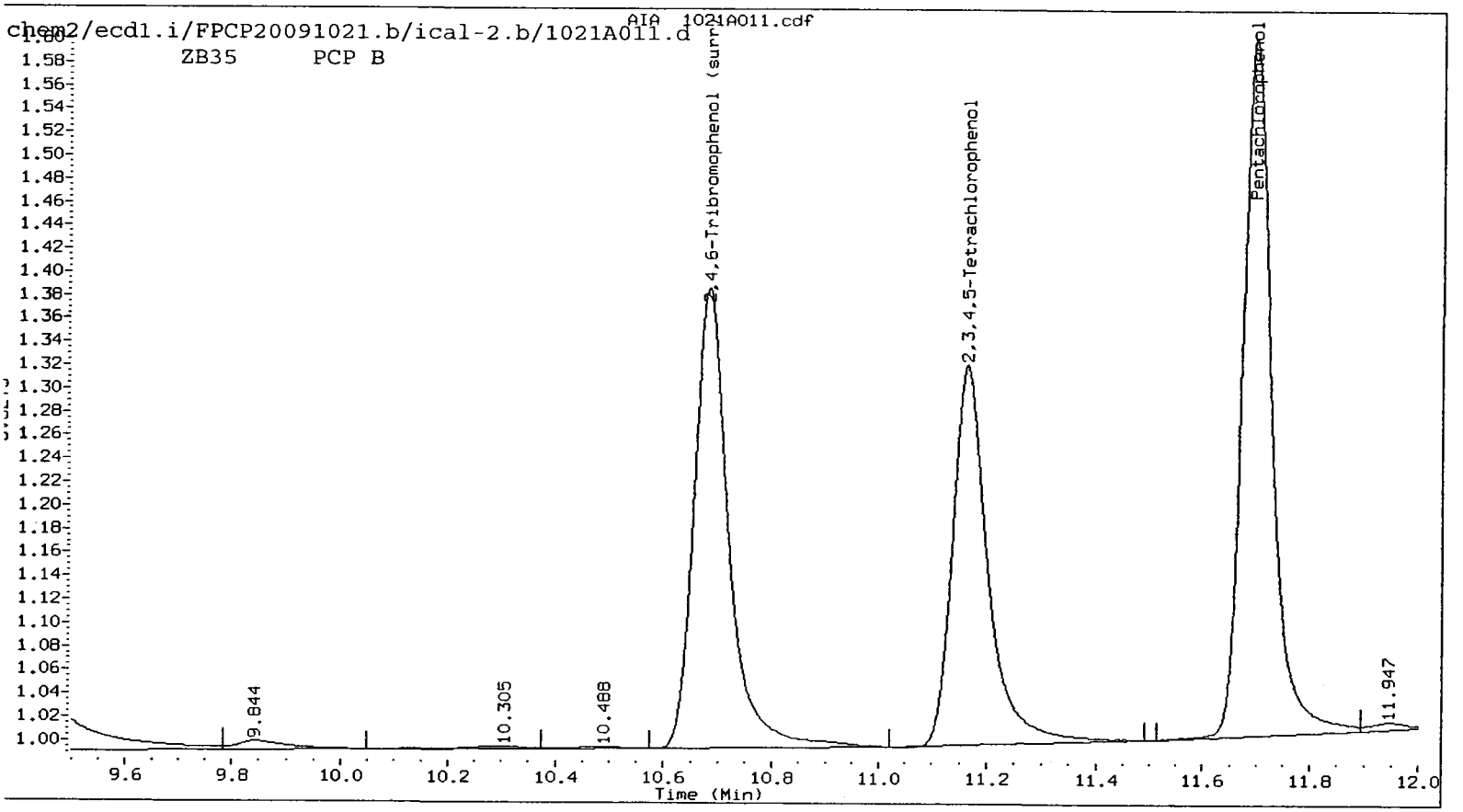
AIA 1021A011.cdf
ZB5 PCP B
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVOLTS
Time (Min)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AIA 1021A011.cdf
ZB35 PCP B
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.844
10.305
10.488
11.947
Time (Min)

QC28 : 00155

Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

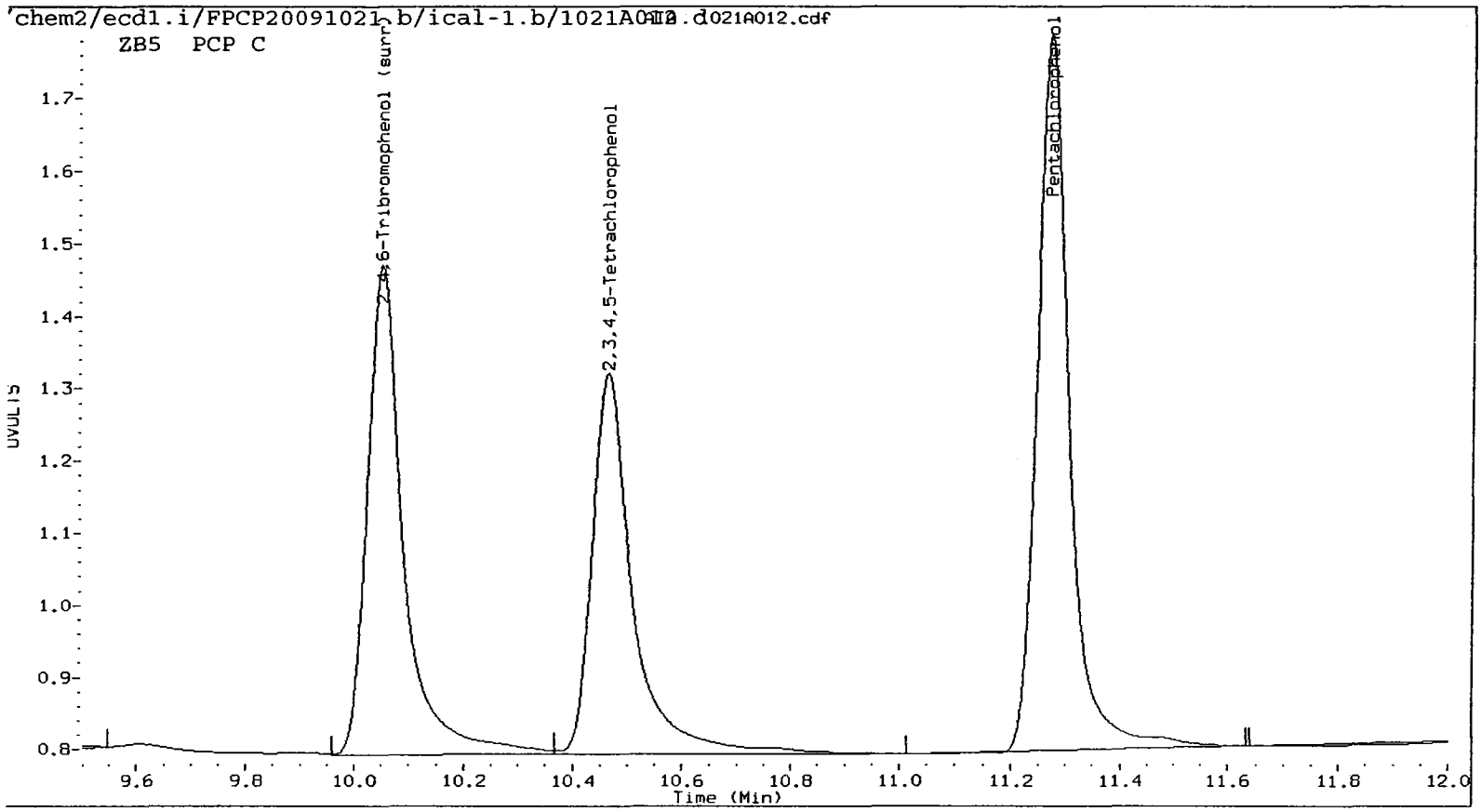
Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A012.d ARI ID: PCP C
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A012.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m
Compound Sublist: all
Instrument: ecd1.i
Operator: ar

Injection Date: 21-OCT-2009 17:33
Report Date: 10/23/2009 11:19
Matrix: NONE
Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.272	0.001	202983	11.696	0.001	208842	12.0598	12.0516	0.1	Pentachlorophenol
7.290	-0.003	122711	7.351	-0.001	122881	13.4853	11.9038	12.5	2,4,6-Trichlorophenol
7.645	-0.003	113716	7.882	-0.001	116643	11.9335	11.7918	1.2	2,3,6-Trichlorophenol
8.258	-0.001	71784	8.622	0.002	76979	13.1700	12.6449	4.1	2,4,5-Trichlorophenol
8.830	0.004	80139	9.401	0.003	101861	12.1254	12.4877	2.9	2,3,4-Trichlorophenol
9.037	-0.002	170093	9.295	0.000	171254	12.1094	12.0322	0.6	2,3,5,6-Tetrachlorophenol
10.465	0.002	136364	11.163	0.003	135310	12.0829	12.2042	1.0	2,3,4,5-Tetrachlorophenol
6.914	-0.004	69803	7.176	-0.001	68497	124.8517	123.9132	0.8	2,4-Dichlorophenol
10.051	0.001	156332	10.682	0.002	165413	12.2	12.2	0.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	48.8	48.8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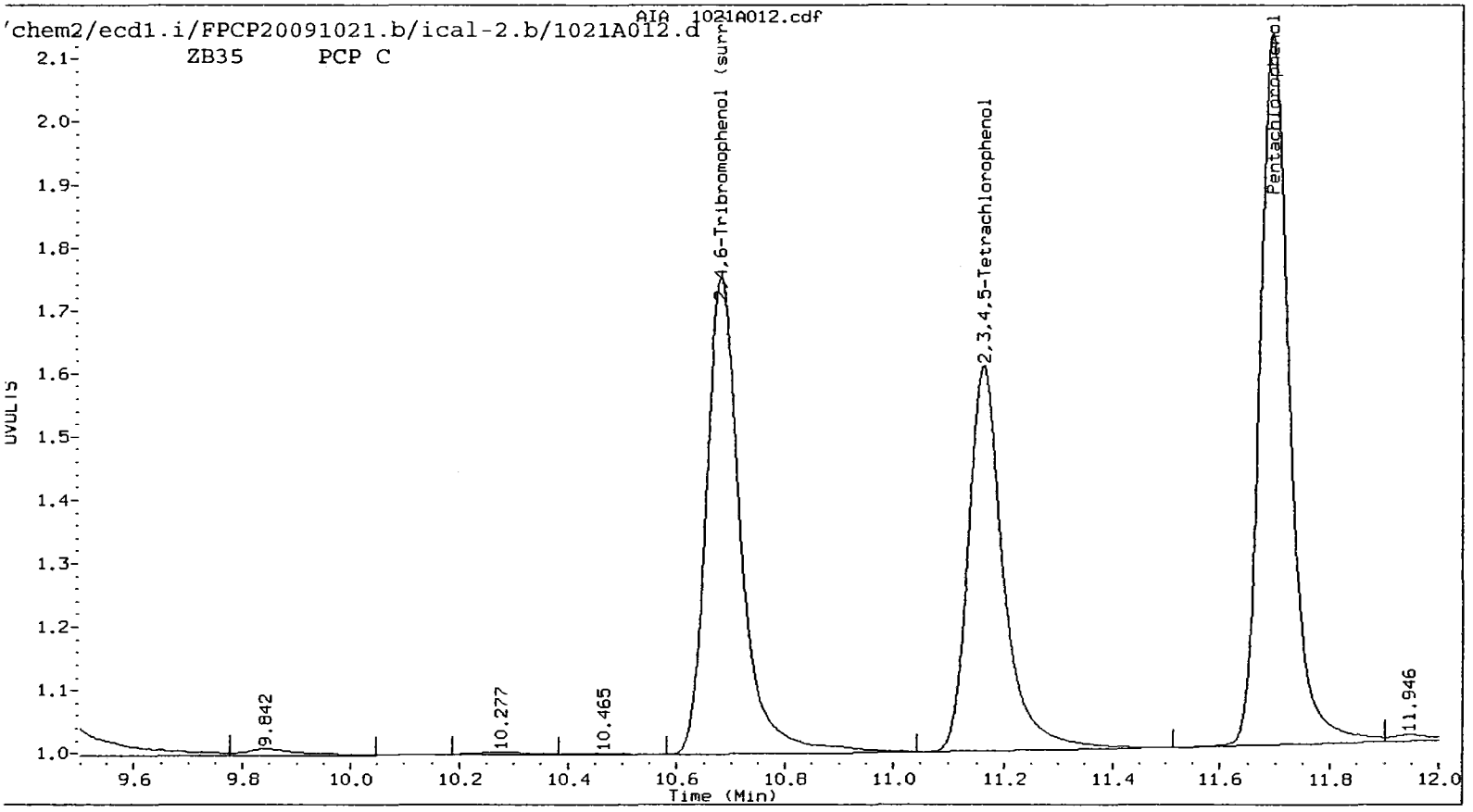
ZB5 PCP C
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
UVUL1S
Time (Min)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AIA 1021A012.cdf
ZB35 PCP C
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.842
10.277
10.465
11.946
UVUL1S
Time (Min)

Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

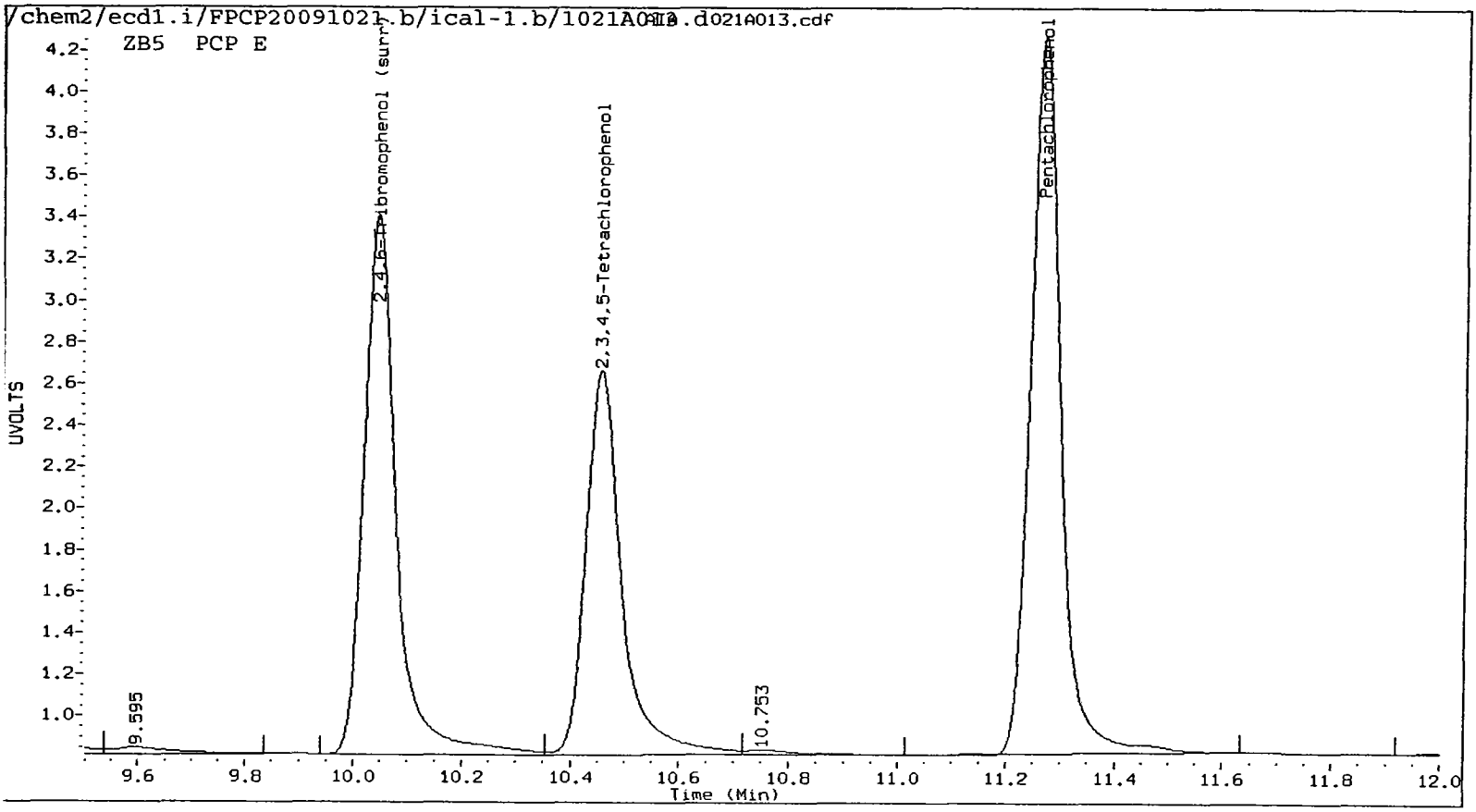
Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A013.d ARI ID: PCP E
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A013.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 17:53
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.266	-0.005	666704	11.691	-0.003	711873	41.3282	42.6000	3.0	Pentachlorophenol
7.290	-0.003	393586	7.350	-0.002	408854	47.9413	41.3247	14.8	2,4,6-Trichlorophenol
7.645	-0.004	373912	7.881	-0.002	410494	41.0037	42.9591	4.7	2,3,6-Trichlorophenol
8.251	-0.008	212054	8.617	-0.003	227473	50.1833	50.2897	0.2	2,4,5-Trichlorophenol
8.814	-0.012	258615	9.393	-0.005	313504	40.9085	50.1589	20.3	2,3,4-Trichlorophenol
9.034	-0.004	599646	9.293	-0.002	595350	43.9764	43.2421	1.7	2,3,5,6-Tetrachlorophenol
10.454	-0.008	427389	11.156	-0.004	448986	39.8012	42.0963	5.6	2,3,4,5-Tetrachlorophenol
6.913	-0.005	201819	7.174	-0.003	202273	501.8098	501.6570	0.0	2,4-Dichlorophenol
10.042	-0.008	535832	10.676	-0.004	581984	43.3	44.2	2.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	173.1	176.6

QC28:00158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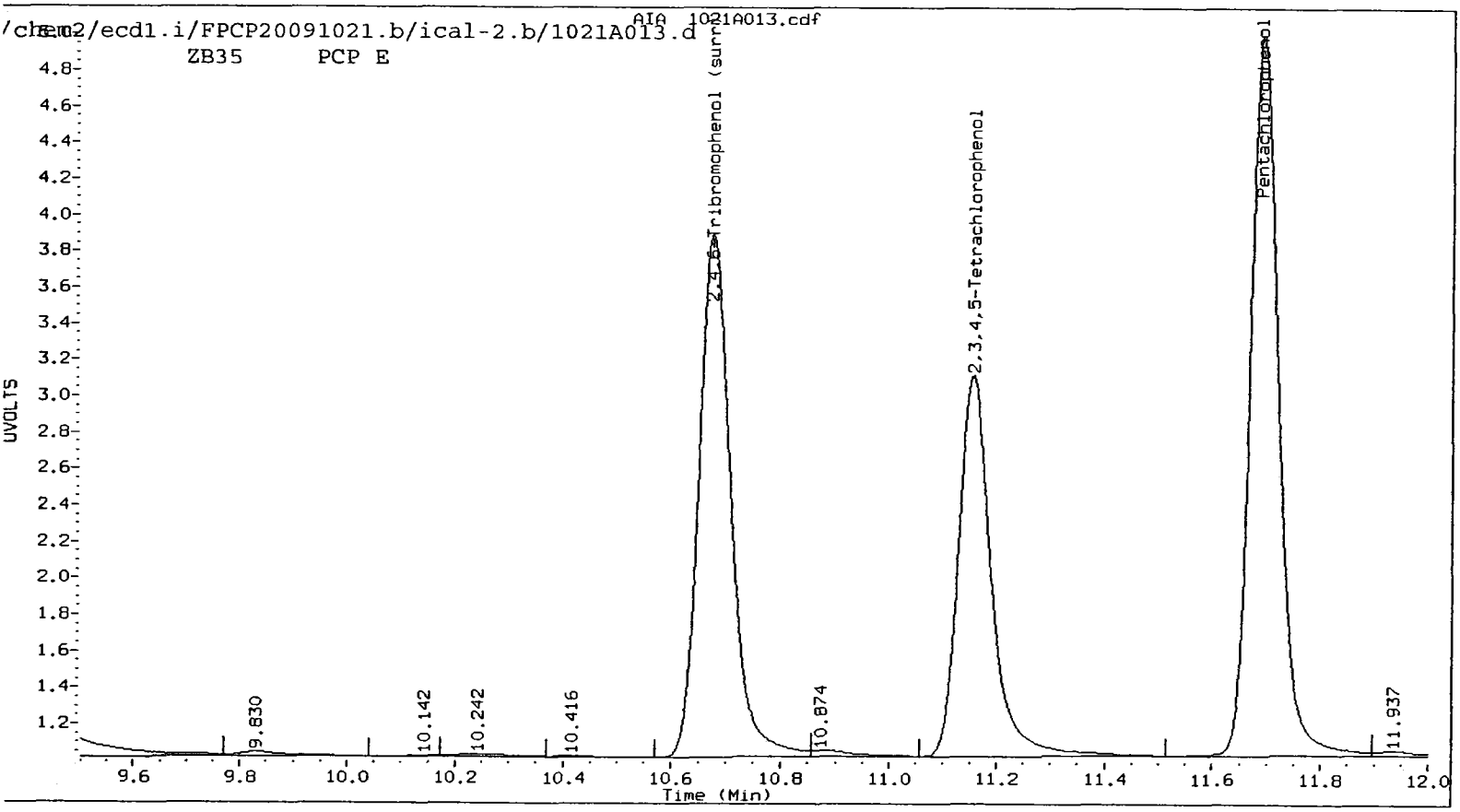
AIA 1021A013.cdf
ZB5 PCP E
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.595
10.753
UVOLTS
Time (Min)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AIA 1021A013.cdf
ZB35 PCP E
2,4,6-Tribromophenol (surr
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.830
10.142
10.242
10.416
10.874
11.937
UVOLTS
Time (Min)

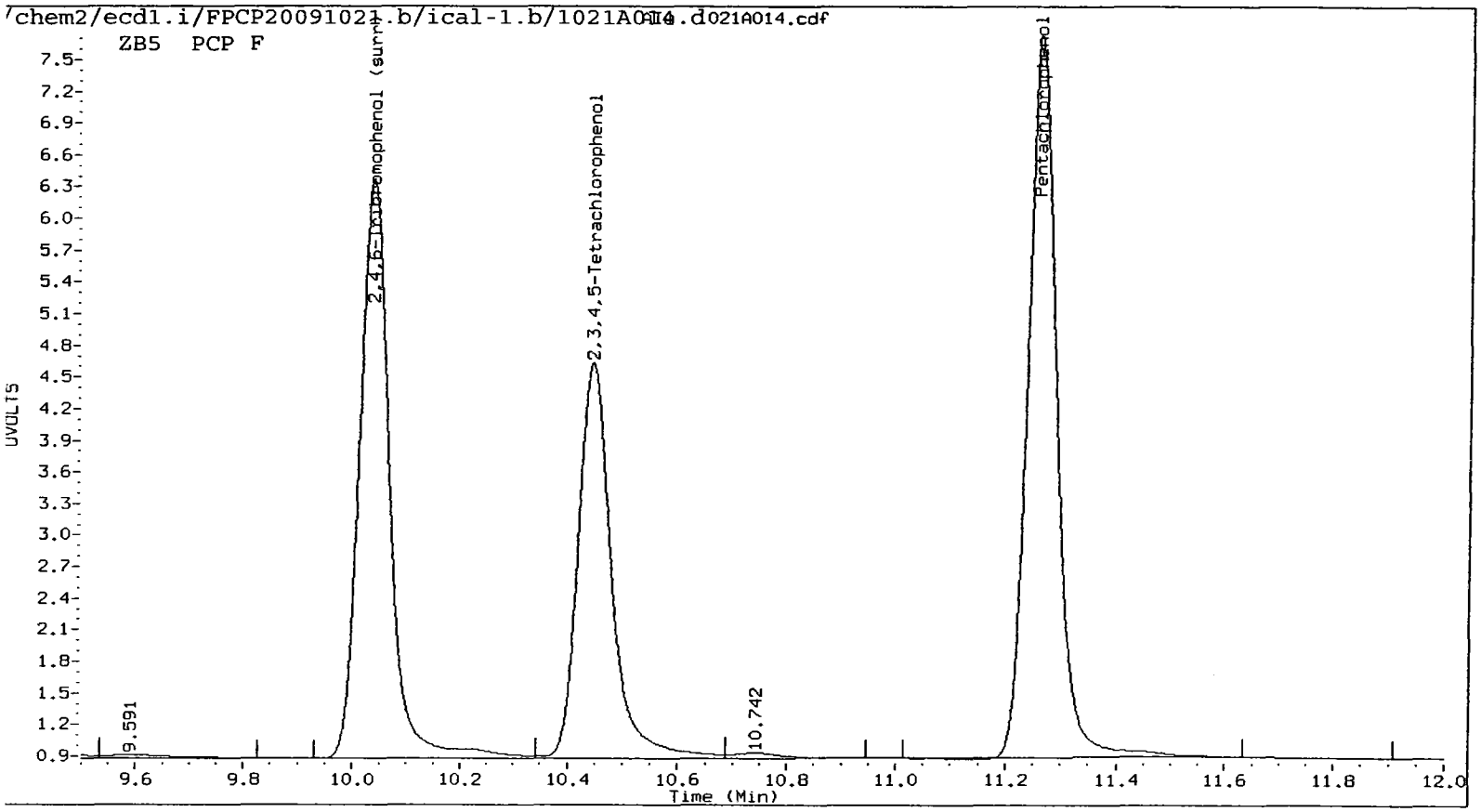
Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A014.d ARI ID: PCP F
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A014.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 18:12
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.261	-0.010	1257631	11.688	-0.007	1367192	80.9320	84.3727	4.2	Pentachlorophenol
7.289	-0.004	737425	7.349	-0.003	771470	97.0409	80.9472	18.1	2,4,6-Trichlorophenol
7.643	-0.005	706063	7.880	-0.003	775172	80.4545	83.7586	4.0	2,3,6-Trichlorophenol
8.246	-0.013	375055	8.613	-0.007	400339	100.2916	100.3638	0.1	2,4,5-Trichlorophenol
8.803	-0.022	485129	9.386	-0.012	560518	79.8342	100.3518	22.8	2,3,4-Trichlorophenol
9.031	-0.007	1105561	9.291	-0.004	1150368	83.7189	85.9095	2.6	2,3,5,6-Tetrachloropheno
10.444	-0.018	787735	11.149	-0.010	843983	76.7676	81.9822	6.6	2,3,4,5-Tetrachlorophenol
6.911	-0.007	353265	7.172	-0.004	357799	1004.7537	1004.6702	0.0	2,4-Dichlorophenol
10.036	-0.013	1052673	10.672	-0.008	1148400	87.2	89.0	2.1	2,4,6-Tribromophenol (sur

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	348.7	356.1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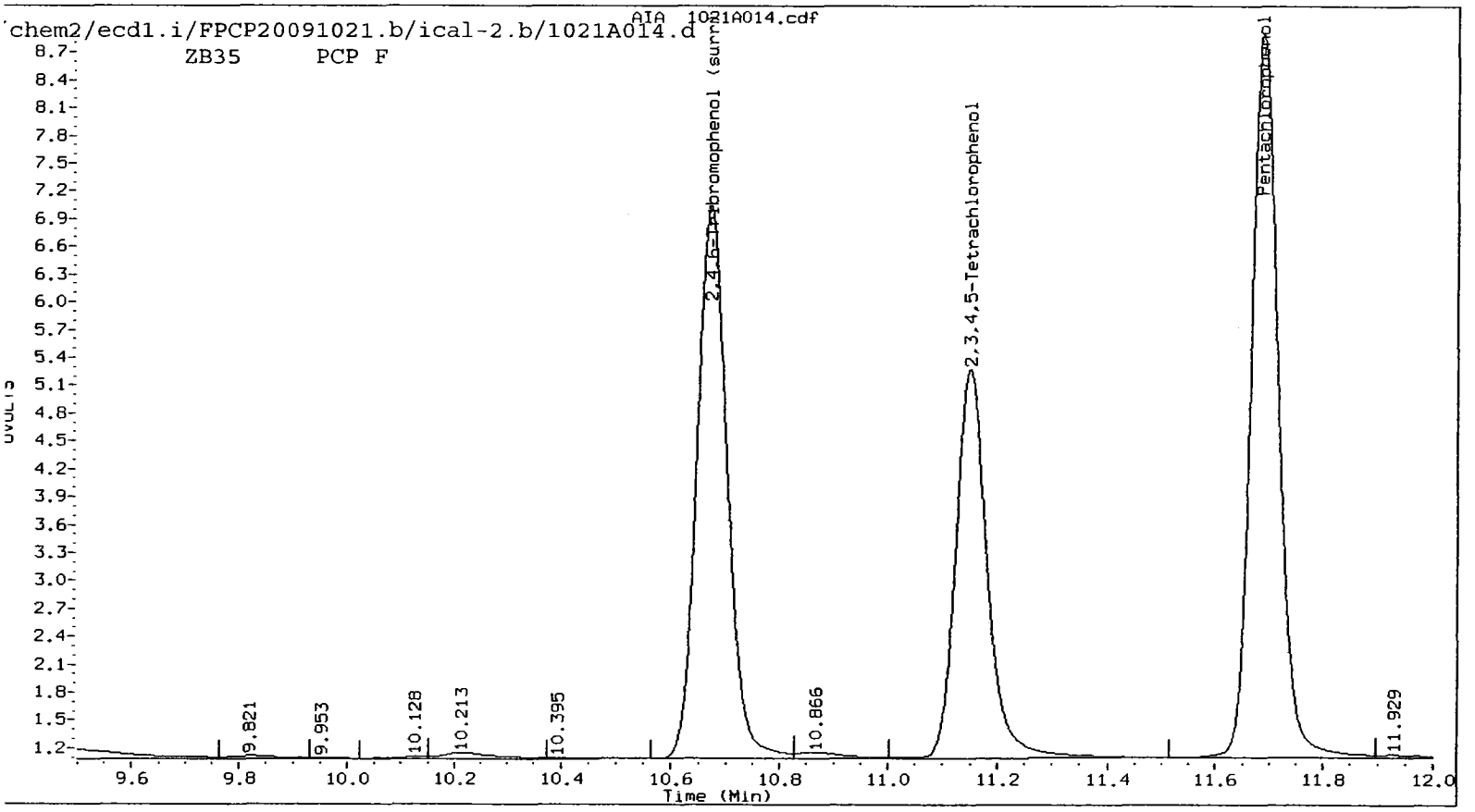
AIA 1021A014.cdf
ZB5 PCP F
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.591
10.742
UVOLTS
Time (Min)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AIA 1021A014.cdf
ZB35 PCP F
2,3,4,5-Tetrachlorophenol
9.821
9.953
10.128
10.213
10.395
10.866
11.929
UVOLTS
Time (Min)

QC28:00161

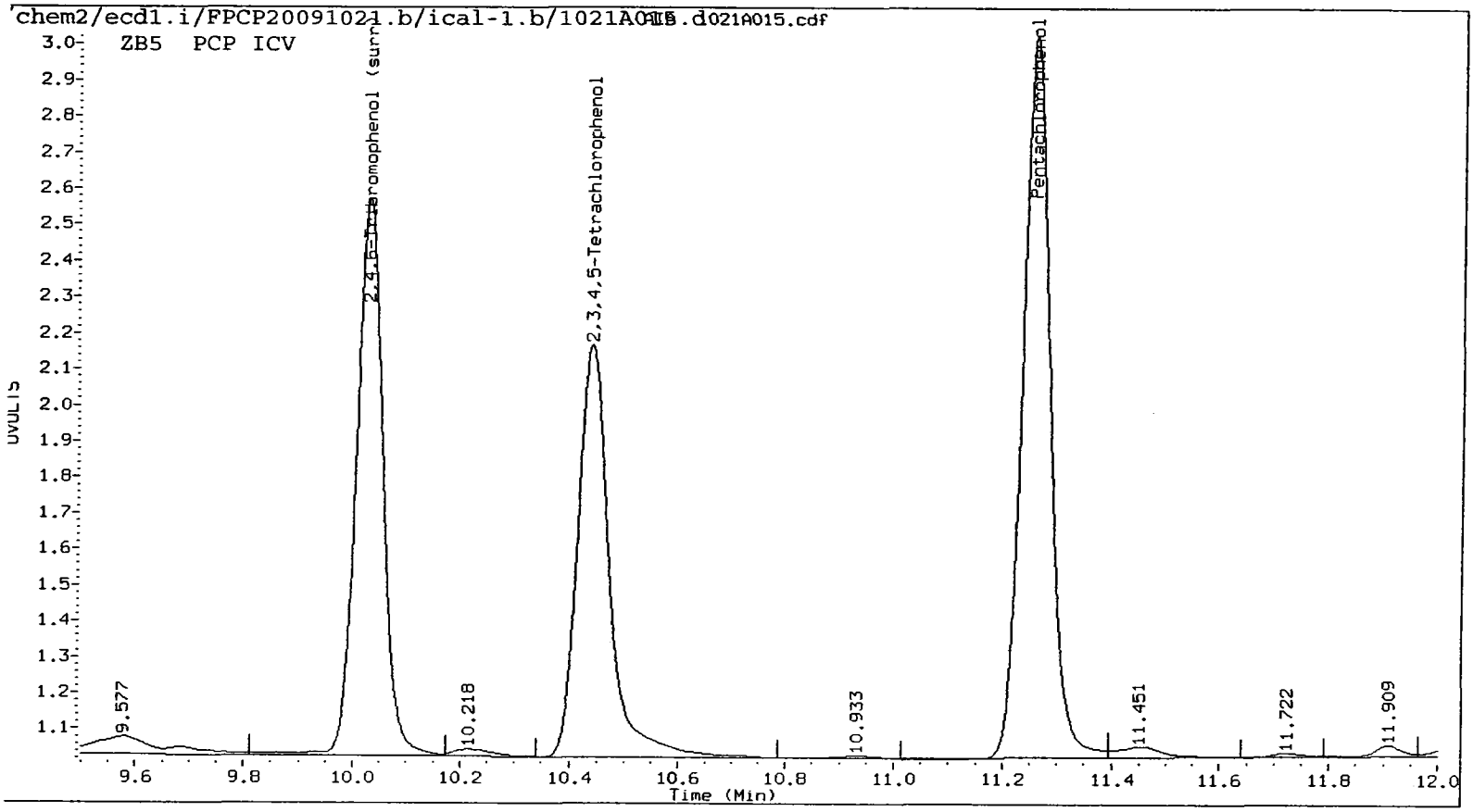
Analytical Resources Inc.
Dual Column Pentachlorophenol Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/ical-1.b/1021A015.d ARI ID: PCP ICV
Data file 2: /chem2/ecd1.i/FPCP20091021.b/ical-2.b/1021A015.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 21-OCT-2009 18:32
Compound Sublist: all Report Date: 10/23/2009 11:19
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.257	-0.015	352965	11.686	-0.009	385654	22.7143	23.7996	4.7	Pentachlorophenol
7.287	-0.007	214813	7.348	-0.003	229189	28.2682	24.0479	16.1	2,4,6-Trichlorophenol
7.640	-0.008	205185	7.879	-0.004	209509	23.3804	22.6378	3.2	2,3,6-Trichlorophenol
8.241	-0.018	118561	8.611	-0.009	121192	24.9186	23.3315	6.6	2,4,5-Trichlorophenol
8.795	-0.030	136414	9.382	-0.016	145492	22.4487	20.2476	10.3	2,3,4-Trichlorophenol
9.027	-0.011	286061	9.289	-0.006	314482	21.6621	23.4855	8.1	2,3,5,6-Tetrachlorophenol
10.439	-0.023	229183	11.146	-0.014	236673	22.3347	22.9898	2.9	2,3,4,5-Tetrachlorophenol
6.909	-0.009	111314	7.172	-0.005	109143	236.2190	232.7819	1.5	2,4-Dichlorophenol
10.028	-0.022	264698	10.667	-0.012	309286	21.9	24.0	9.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	90.9	95.2
2,4,6-Trichlorophenol	113.1	96.2
2,3,6-Trichlorophenol	93.5	90.6
2,4,5-Trichlorophenol	99.7	93.3
2,3,4-Trichlorophenol	89.8	81.0
2,3,5,6-Tetrachlorophenol	86.6	93.9
2,3,4,5-Tetrachlorophenol	89.3	92.0
2,4-Dichlorophenol	94.5	93.1
2,4,6-TBP (surr)	43.8	48.0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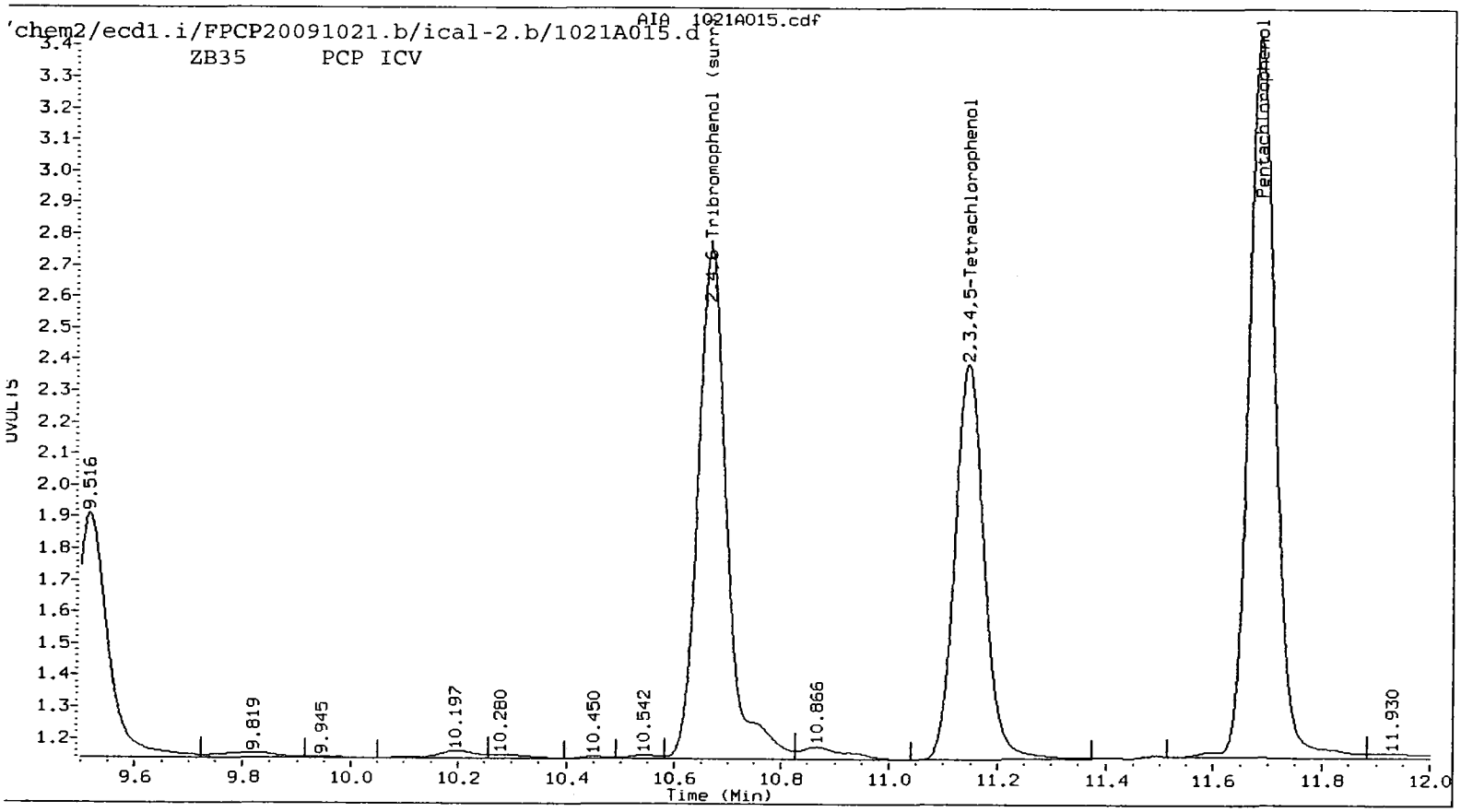
AIA 1021A015.cdf
ZB5 PCP ICV
UVUL15
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.577
10.218
10.933
11.451
11.722
11.909
Time (Min)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ZB35 PCP ICV
UVUL15
2,3,4,5-Tetrachlorophenol
9.516
9.819
9.945
10.197
10.280
10.450
10.542
10.866
11.930
Time (Min)

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP): Date Analyzed :01/08/10

Lab Sample ID (PCP): PCPCCAL Time Analyzed :1806

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.28	11.20	11.34	23.1	25.0	-7.6
2,4,6-Trichlorophenol	7.30	7.22	7.36	26.6	25.0	6.4
2,3,6-Trichlorophenol	7.65	7.58	7.72	21.9	25.0	-12.4
2,4,5-Trichlorophenol	8.26	8.19	8.33	21.0	25.0	-16.0
2,3,4-Trichlorophenol	8.83	8.76	8.90	21.7	25.0	-13.2
2,3,5,6-Tetrachlorophenol	9.04	8.97	9.11	23.3	25.0	-6.8
2,3,4,5-Tetrachlorophenol	10.47	10.39	10.53	23.2	25.0	-7.2
2,4-Dichlorophenol	6.92	6.85	6.99	247	250	-1.2
2,4,6-Tribromophenol (surr	10.05	9.98	10.12	23.2	25.0	-7.2

AVERAGE %D = 8.7

FORM VII PCP

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP): Date Analyzed :01/08/10

Lab Sample ID (PCP): PCPCCAL Time Analyzed :1806

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.70	11.62	11.76	25.4	25.0	1.6
2,4,6-Trichlorophenol	7.36	7.28	7.42	23.8	25.0	-4.8
2,3,6-Trichlorophenol	7.89	7.81	7.95	23.4	25.0	-6.4
2,4,5-Trichlorophenol	8.63	8.55	8.69	22.9	25.0	-8.4
2,3,4-Trichlorophenol	9.40	9.33	9.47	22.7	25.0	-9.2
2,3,5,6-Tetrachlorophenol	9.30	9.23	9.37	24.6	25.0	-1.6
2,3,4,5-Tetrachlorophenol	11.17	11.09	11.23	25.2	25.0	0.8
2,4-Dichlorophenol	7.18	7.11	7.25	254	250	1.6
2,4,6-Tribromophenol (surr	10.69	10.61	10.75	25.7	25.0	2.8

AVERAGE %D = 4.1

FORM VII PCP

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

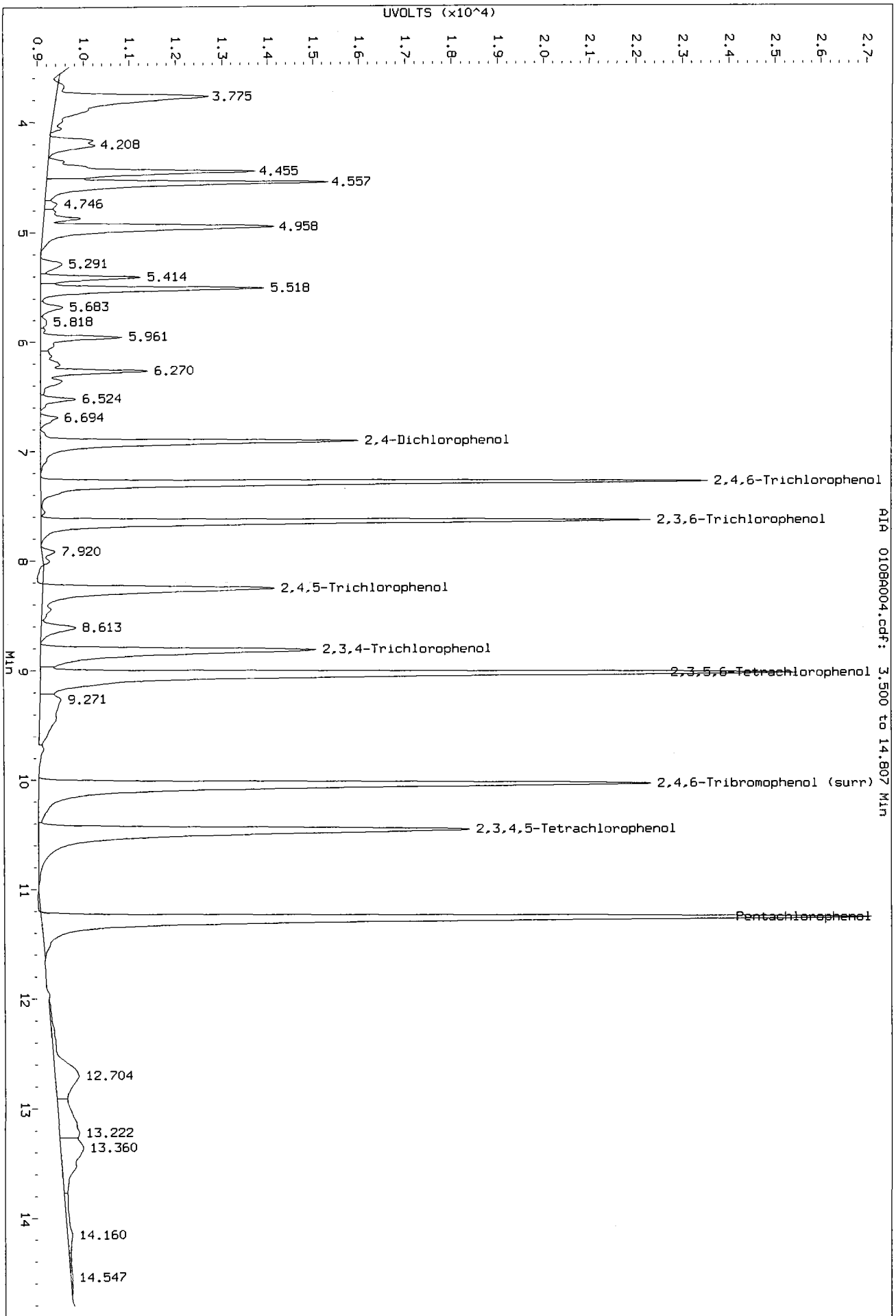
YZ 1/9/10

Data file 1: /chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A004.d ARI ID: PCPCCAL
Data file 2: /chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A004.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 08-JAN-2010 18:06
Compound Sublist: all Report Date: 01/09/2010 09:20
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.279	0.007	358621	11.701	0.006	412433	23.0783	25.4522	9.8	Pentachlorophenol
7.298	0.004	201888	7.356	0.004	226503	26.5673	23.7660	11.1	2,4,6-Trichlorophenol
7.653	0.004	192455	7.887	0.004	216108	21.9299	23.3508	6.3	2,3,6-Trichlorophenol
8.264	0.006	101836	8.626	0.007	119190	21.0234	22.8964	8.5	2,4,5-Trichlorophenol
8.828	0.002	131625	9.404	0.006	161268	21.6606	22.6874	4.6	2,3,4-Trichlorophenol
9.044	0.006	307913	9.301	0.005	329787	23.3168	24.6285	5.5	2,3,5,6-Tetrachlorophenol
10.471	0.009	237648	11.167	0.008	259909	23.1596	25.2469	8.6	2,3,4,5-Tetrachlorophenol
6.921	0.003	115524	7.182	0.005	117952	246.6045	254.3909	3.1	2,4-Dichlorophenol
10.055	0.005	279763	10.686	0.006	332100	23.2	25.7	10.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	92.3	101.8
2,4,6-Trichlorophenol	106.3	95.1
2,3,6-Trichlorophenol	87.7	93.4
2,4,5-Trichlorophenol	84.1	91.6
2,3,4-Trichlorophenol	86.6	90.7
2,3,5,6-Tetrachlorophenol	93.3	98.5
2,3,4,5-Tetrachlorophenol	92.6	101.0
2,4-Dichlorophenol	98.6	101.8
2,4,6-TBP (surr)	92.7	103.0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Injection Date: 08-JAN-2010 18:06
Instrument: ecd1.i
Client Sample ID:
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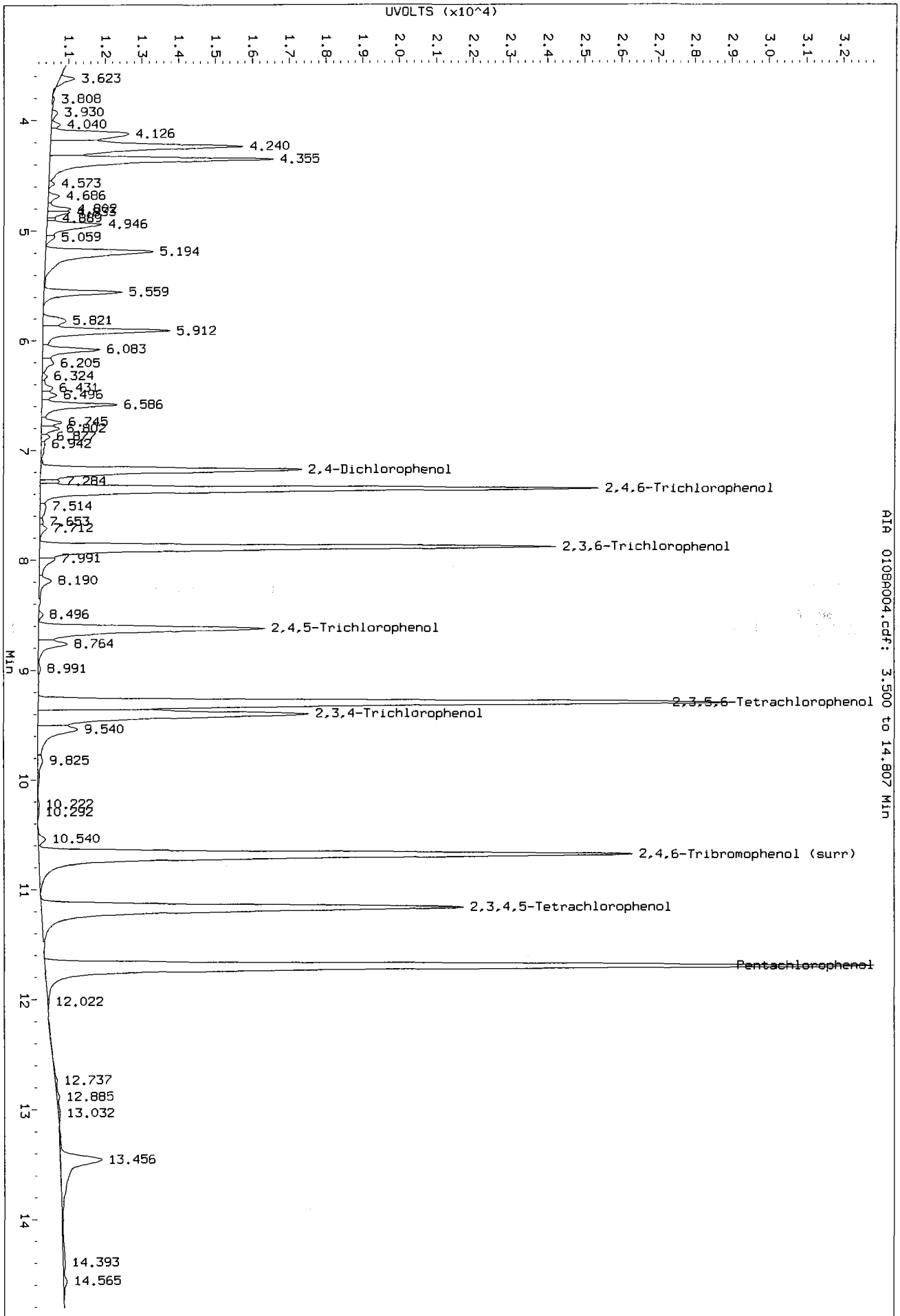
Min
AIA 0108A004.cdf: 3.500 to 14.807 Min
3.775
4.208
4.455
4.557
4.746
4.958
5.291
5.414
5.518
5.683
5.818
5.961
6.270
6.524
6.694
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
7.920
2,4,5-Trichlorophenol
8.613
2,3,4-Trichlorophenol
2,3,5,6-Tetrachlorophenol
9.271
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
12.704
13.222
13.360
14.160
14.547

QC28:00167



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Instrument: ecd1.i
Client Sample ID:

AIA 0108A004.cdf: 3.500 to 14.807 Min

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP): Date Analyzed :01/08/10

Lab Sample ID (PCP): PCP Time Analyzed :2005

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.27	11.20	11.34	22.8	25.0	-8.8
2,4,6-Trichlorophenol	7.29	7.22	7.36	26.6	25.0	6.4
2,3,6-Trichlorophenol	7.65	7.58	7.72	22.3	25.0	-10.8
2,4,5-Trichlorophenol	8.26	8.19	8.33	21.9	25.0	-12.4
2,3,4-Trichlorophenol	8.82	8.76	8.90	26.0	25.0	4.0
2,3,5,6-Tetrachlorophenol	9.04	8.97	9.11	25.6	25.0	2.4
2,3,4,5-Tetrachlorophenol	10.46	10.39	10.53	22.2	25.0	-11.2
2,4-Dichlorophenol	6.92	6.85	6.99	250	250	0.0
2,4,6-Tribromophenol (surr	10.05	9.98	10.12	22.7	25.0	-9.2

AVERAGE %D = 7.2

FORM VII PCP

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNYDER

ARI Job No.: QC28 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 10/21/09 10/21/09

Client Sample No.(PCP): Date Analyzed :01/08/10

Lab Sample ID (PCP): PCP Time Analyzed :2005

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.69	11.62	11.76	25.1	25.0	0.4
2,4,6-Trichlorophenol	7.35	7.28	7.42	23.9	25.0	-4.4
2,3,6-Trichlorophenol	7.88	7.81	7.95	24.2	25.0	-3.2
2,4,5-Trichlorophenol	8.62	8.55	8.69	22.4	25.0	-10.4
2,3,4-Trichlorophenol	9.40	9.33	9.47	21.8	25.0	-12.8
2,3,5,6-Tetrachlorophenol	9.30	9.23	9.37	24.6	25.0	-1.6
2,3,4,5-Tetrachlorophenol	11.16	11.09	11.23	24.8	25.0	-0.8
2,4-Dichlorophenol	7.18	7.11	7.25	250	250	0.0
2,4,6-Tribromophenol (surr	10.68	10.61	10.75	26.0	25.0	4.0

AVERAGE %D = 4.2

FORM VII PCP

YZ 1/9/10

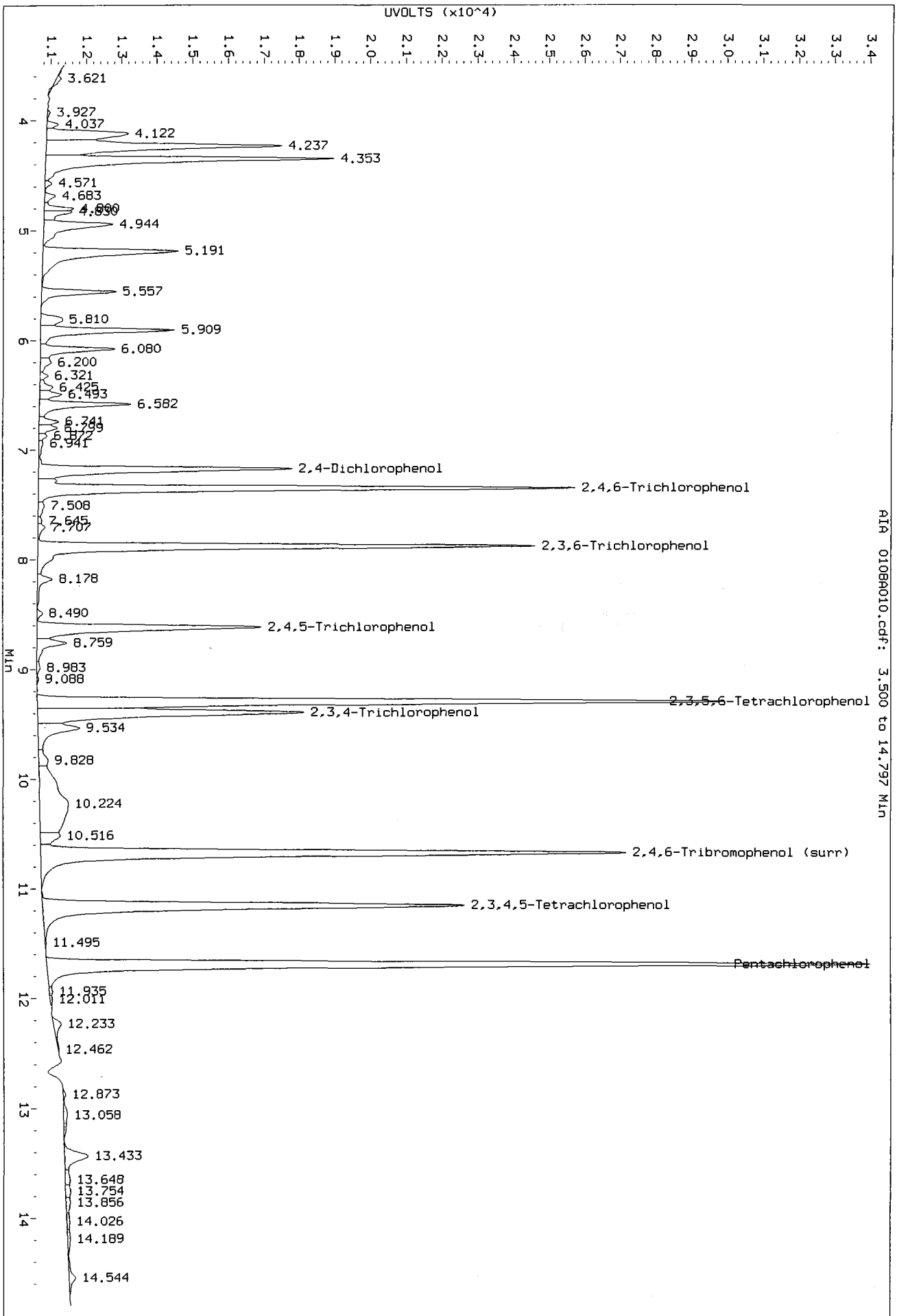
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A010.d ARI ID: PCP
Data file 2: /chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A010.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 08-JAN-2010 20:05
Compound Sublist: all Report Date: 01/09/2010 09:20
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.270	-0.002	354132	11.693	-0.001	406105	22.7894	25.0617	9.5	Pentachlorophenol
7.294	0.000	201819	7.353	0.001	228019	26.5582	23.9251	10.4	2,4,6-Trichlorophenol
7.649	0.001	196064	7.884	0.001	224411	22.3411	24.2480	8.2	2,3,6-Trichlorophenol
8.256	-0.002	105791	8.620	0.001	117090	21.9332	22.4417	2.3	2,4,5-Trichlorophenol
8.818	-0.008	157994	9.396	-0.002	155833	25.9999	21.8415	17.4	2,3,4-Trichlorophenol
9.039	0.000	337710	9.296	0.001	329055	25.5732	24.5738	4.0	2,3,5,6-Tetrachlorophenol
10.458	-0.004	228018	11.158	-0.002	255032	22.2212	24.7731	10.9	2,3,4,5-Tetrachlorophenol
6.917	0.000	116787	7.178	0.001	116167	249.7408	249.9781	0.1	2,4-Dichlorophenol
10.046	-0.004	274281	10.678	-0.002	335346	22.7	26.0	13.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	91.2	100.2
2,4,6-Trichlorophenol	106.2	95.7
2,3,6-Trichlorophenol	89.4	97.0
2,4,5-Trichlorophenol	87.7	89.8
2,3,4-Trichlorophenol	104.0	87.4
2,3,5,6-Tetrachlorophenol	102.3	98.3
2,3,4,5-Tetrachlorophenol	88.9	99.1
2,4-Dichlorophenol	99.9	100.0
2,4,6-TBP (surr)	90.9	104.0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Client Sample ID:
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Min
AIA 0108A010.cdf: 3.500 to 14.797 Min
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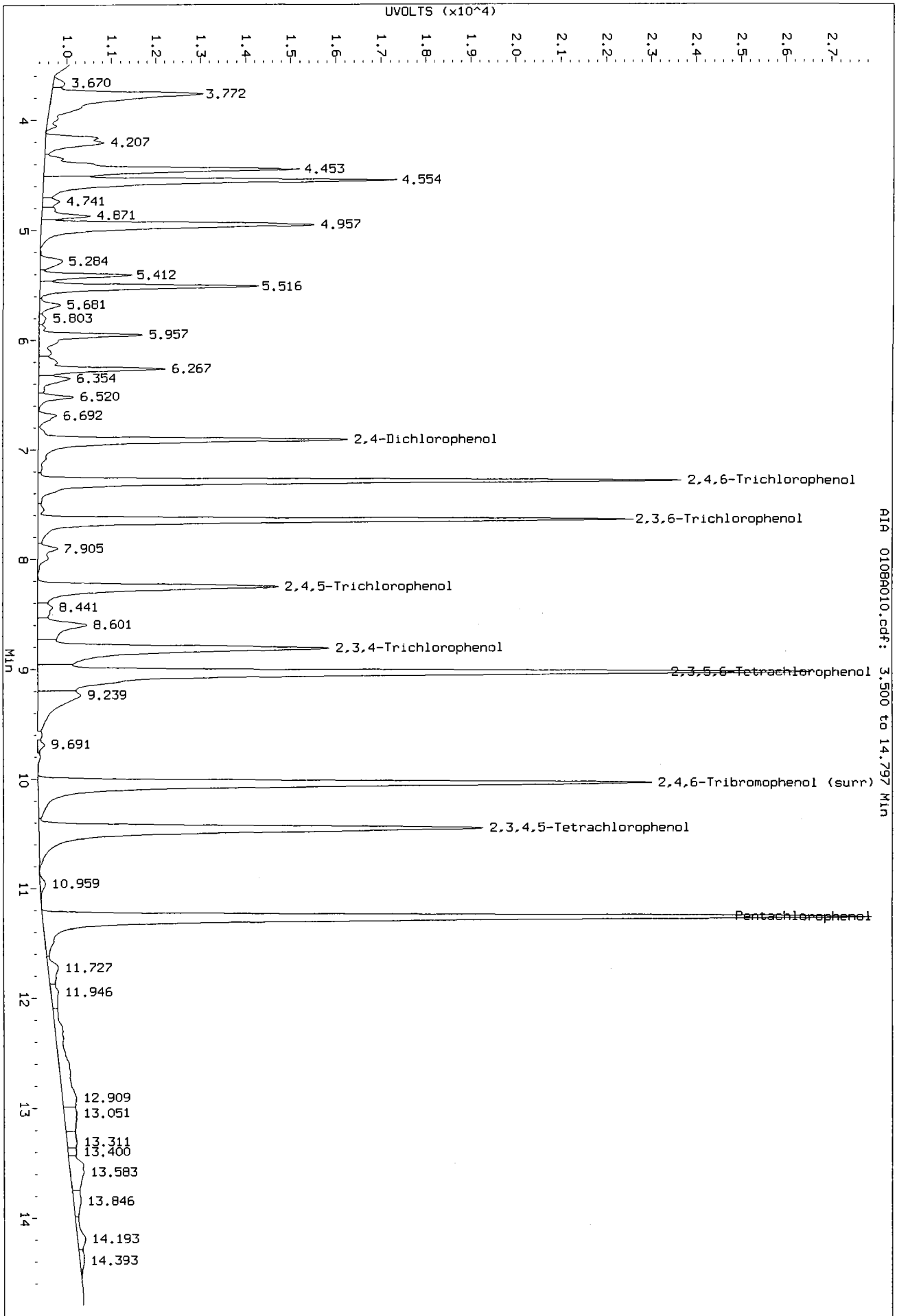
3.927
4.037
4.122
4.237
4.353
4.571
4.683
4.944
5.191
5.557
5.810
5.909
6.080
6.200
6.321
6.425
6.493
6.582
6.941
2,4-Dichlorophenol
2,4,6-Trichlorophenol
7.508
7.645
7.707
2,3,6-Trichlorophenol
8.178
8.490
2,4,5-Trichlorophenol
8.759
8.983
9.088
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
9.534
9.828
10.224
10.516
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
11.495
Pentachlorophenol
11.935
12.011
12.233
12.462
12.873
13.058
13.433
13.648
13.754
13.856
14.026
14.189
14.544

QC28 : 00172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Injection Date: 08-JAN-2010 20:05
Instrument: ecd1.i
Client Sample ID:
UVOLTS (x10^4)
1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7
Min
4 5 6 7 8 9 10 11 12 13 14
3.670
3.772
4.207
4.453
4.554
4.741
4.871
4.957
5.284
5.412
5.516
5.681
5.803
5.957
6.267
6.354
6.520
6.692
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
7.905
2,4,5-Trichlorophenol
8.441
8.601
2,3,4-Trichlorophenol
2,3,5,6-Tetrachlorophenol
9.239
9.691
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
10.959
Pentachlorophenol
11.727
11.946
12.909
13.051
13.311
13.400
13.583
13.846
14.193
14.393
AIA 0108A010.cdf: 3.500 to 14.797 Min

QC28 : 00173

Herbicide Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041

Sample ID: MB-010710
METHOD BLANK

Lab Sample ID: MB-010710
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized: VTB
Reported: 01/09/10

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: NA

Date Extracted: 01/07/10
Date Analyzed: 01/08/10 18:25
Instrument/Analyst: ECD1/YZ

Sample Amount: 10.0 g
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.2	< 6.2 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	66.0%

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

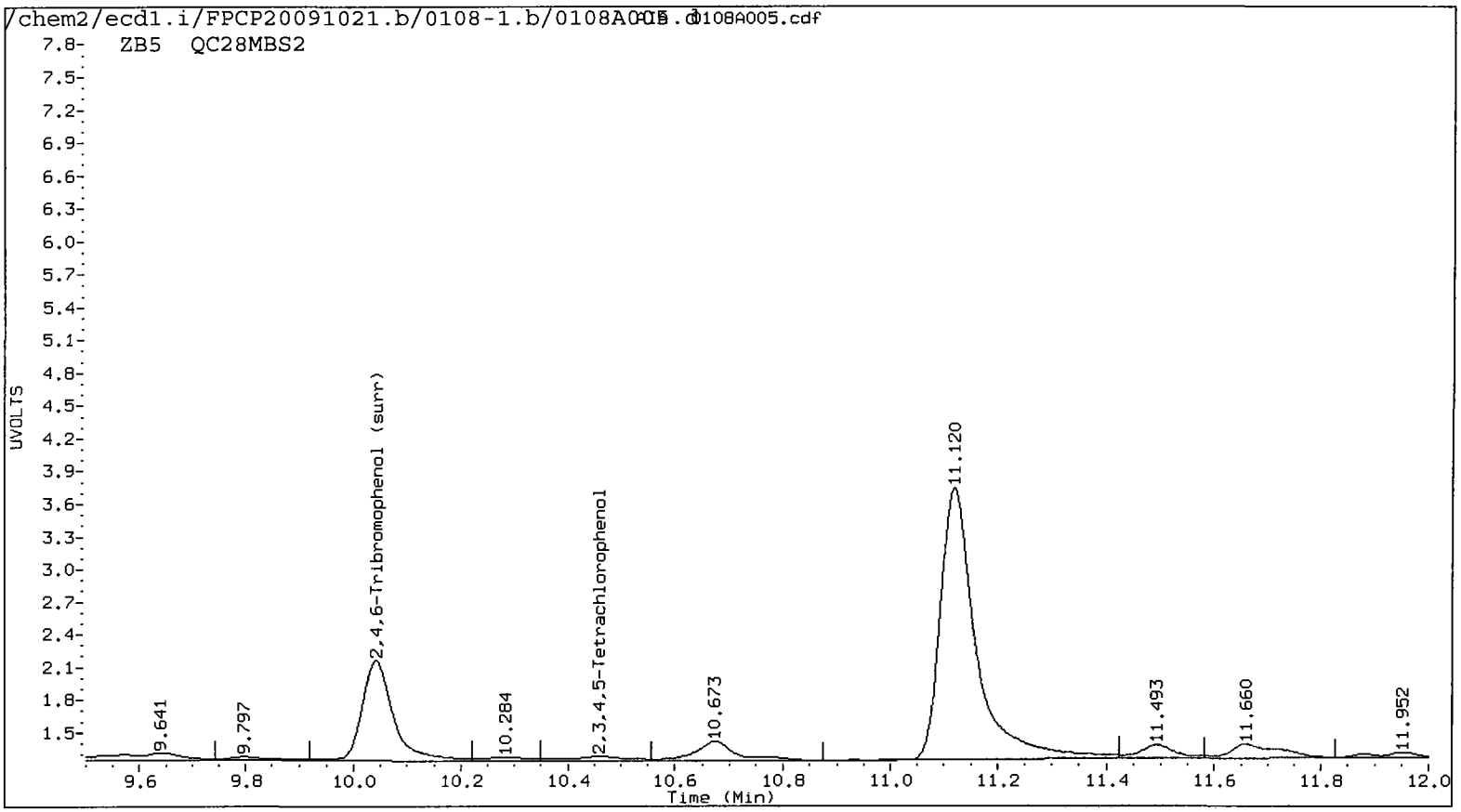
YZ RCF 01/9/10

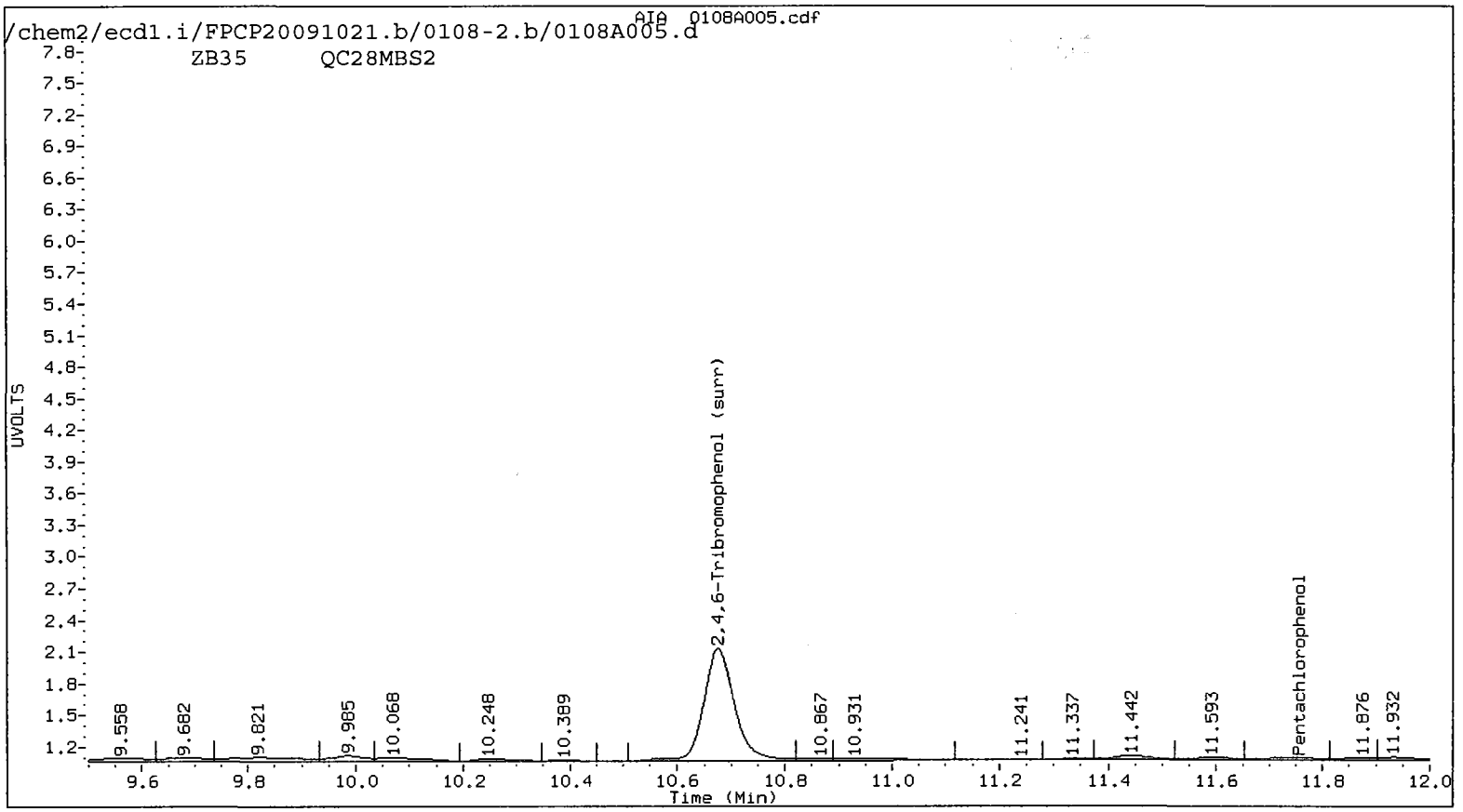
Data file 1: /chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A005.d ARI ID: QC28MBS2
Data file 2: /chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A005.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 08-JAN-2010 18:25
Compound Sublist: all Report Date: 01/09/2010 09:20
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
----			11.757	0.063	6911	0.0000	0.4265	---	Pentachlorophenol
7.320	0.027	52264	7.393	0.041	77167	6.8776	8.0968	16.3	2,4,6-Trichlorophenol
----			7.866	-0.017	22843	0.0000	2.4682	---	2,3,6-Trichlorophenol
8.247	-0.011	7527	8.646	0.026	8829	1.3955	1.4930	6.7	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
9.060	0.021	23666	9.287	-0.008	31526	1.7921	2.3544	27.1	2,3,5,6-Tetrachlorophenol
10.460	-0.002	14825	----			1.4447	0.0000	---	2,3,4,5-Tetrachlorophenol
6.929	0.012	76443	7.185	0.009	19381	154.2638	36.6129	123.3*	2,4-Dichlorophenol
10.042	-0.008	186478	10.676	-0.004	212304	15.4	16.5	6.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	61.8	65.8


/chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A005.d
0108A005.cdf
ZB5 QC28MBS2
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
9.641
9.797
10.284
10.673
11.120
11.493
11.660
11.952
Time (Min)


/chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A005.d
0108A005.cdf
ZB35 QC28MBS2
UVOLTS
2,4,6-Tribromophenol (surr)
Pentachlorophenol
9.558
9.682
9.821
9.985
10.068
10.248
10.389
10.867
10.931
11.241
11.337
11.442
11.593
11.876
11.932
Time (Min)

QC28:00177

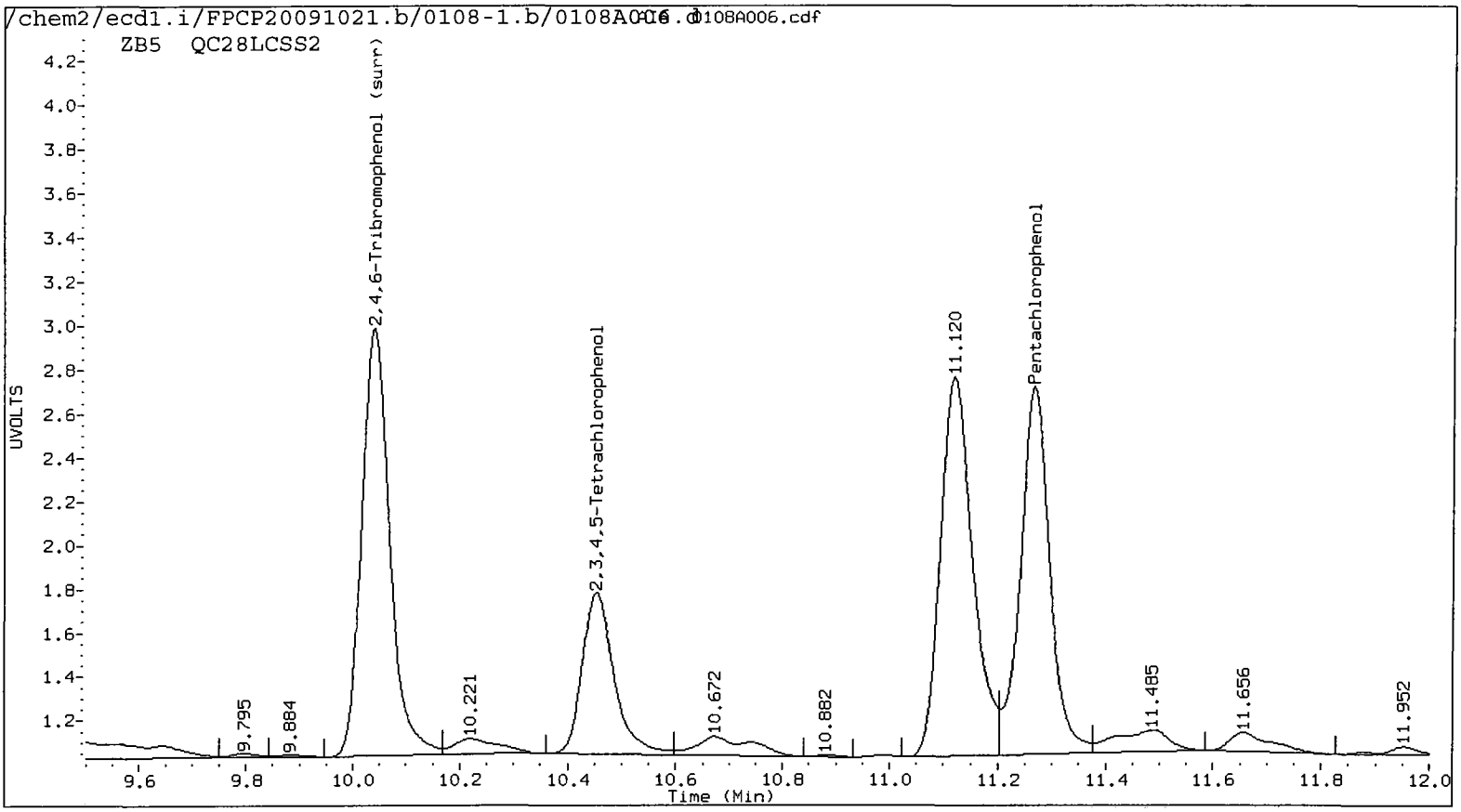
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report YZ 01/9/10

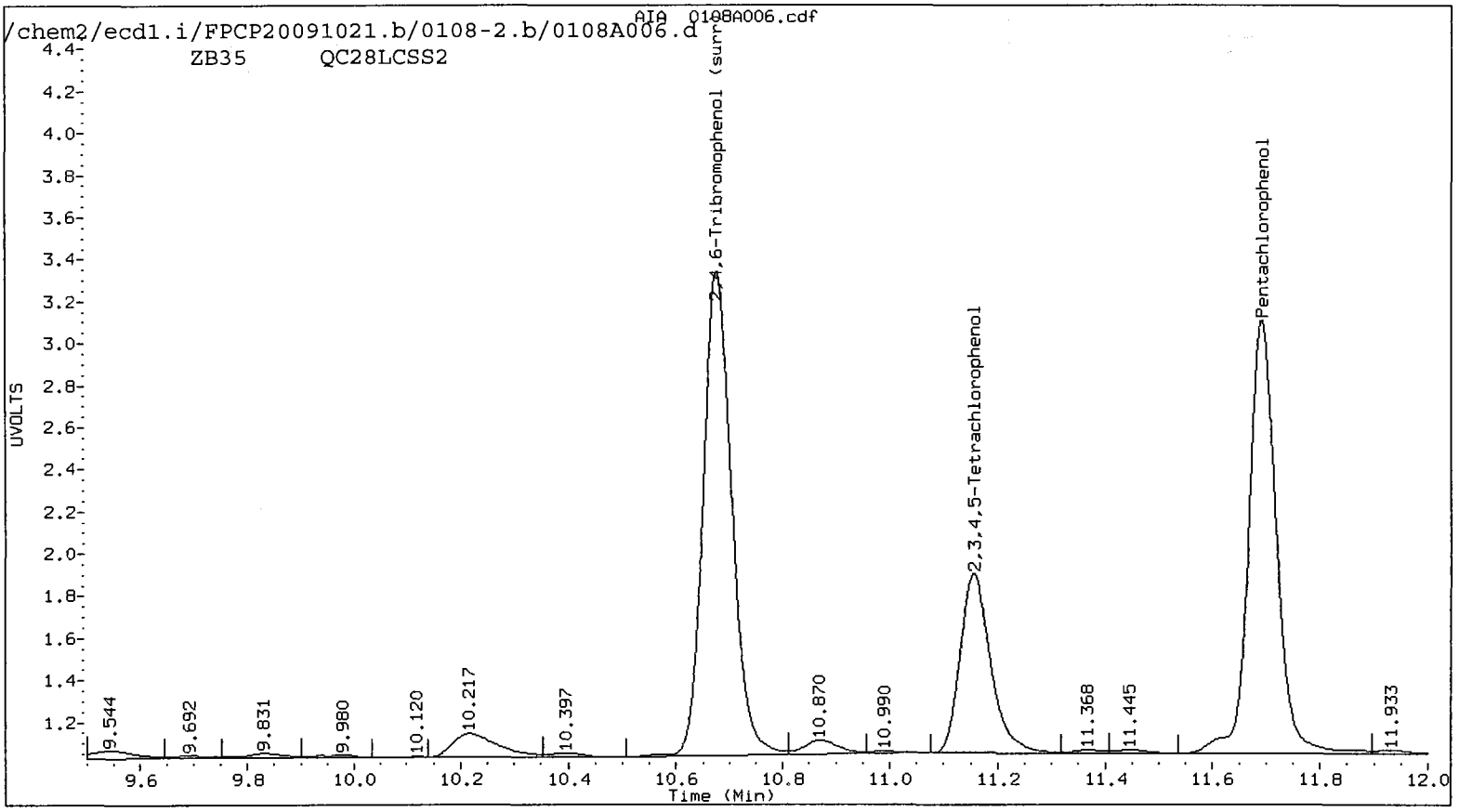
Data file 1: /chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A006.d ARI ID: QC28LCSS2
Data file 2: /chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A006.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 08-JAN-2010 18:45
Compound Sublist: all Report Date: 01/09/2010 09:20
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.267	-0.004	316087	11.692	-0.002	368864	20.3411	22.7635	11.2	Pentachlorophenol
7.295	0.002	160272	7.354	0.002	194449	21.0909	20.4027	3.3	2,4,6-Trichlorophenol
7.650	0.002	180978	7.884	0.001	223442	20.6221	24.1433	15.7	2,3,6-Trichlorophenol
8.253	-0.005	65933	8.620	0.001	72511	13.0833	13.2239	1.1	2,4,5-Trichlorophenol
8.813	-0.013	74897	9.394	-0.004	84285	12.3253	11.2341	9.3	2,3,4-Trichlorophenol
9.038	-0.001	240487	9.296	0.000	288071	18.2109	21.5131	16.6	2,3,5,6-Tetrachlorophenol
10.454	-0.008	149465	11.156	-0.003	167423	14.5659	16.2630	11.0	2,3,4,5-Tetrachlorophenol
6.926	0.009	114092	7.180	0.003	39696	243.0601	77.1796	103.6*	2,4-Dichlorophenol
10.040	-0.010	353910	10.676	-0.004	432472	29.3	33.5	13.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	117.2	134.1


/chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A006.d
ZB5 QC28LCSS2
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
11.120
Pentachlorophenol
9.795
9.884
10.221
10.672
10.882
11.485
11.656
11.952
Time (Min)


/chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A006.d
ZB35 QC28LCSS2
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.544
9.692
9.831
9.980
10.120
10.217
10.397
10.870
10.990
11.368
11.445
11.933
Time (Min)

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

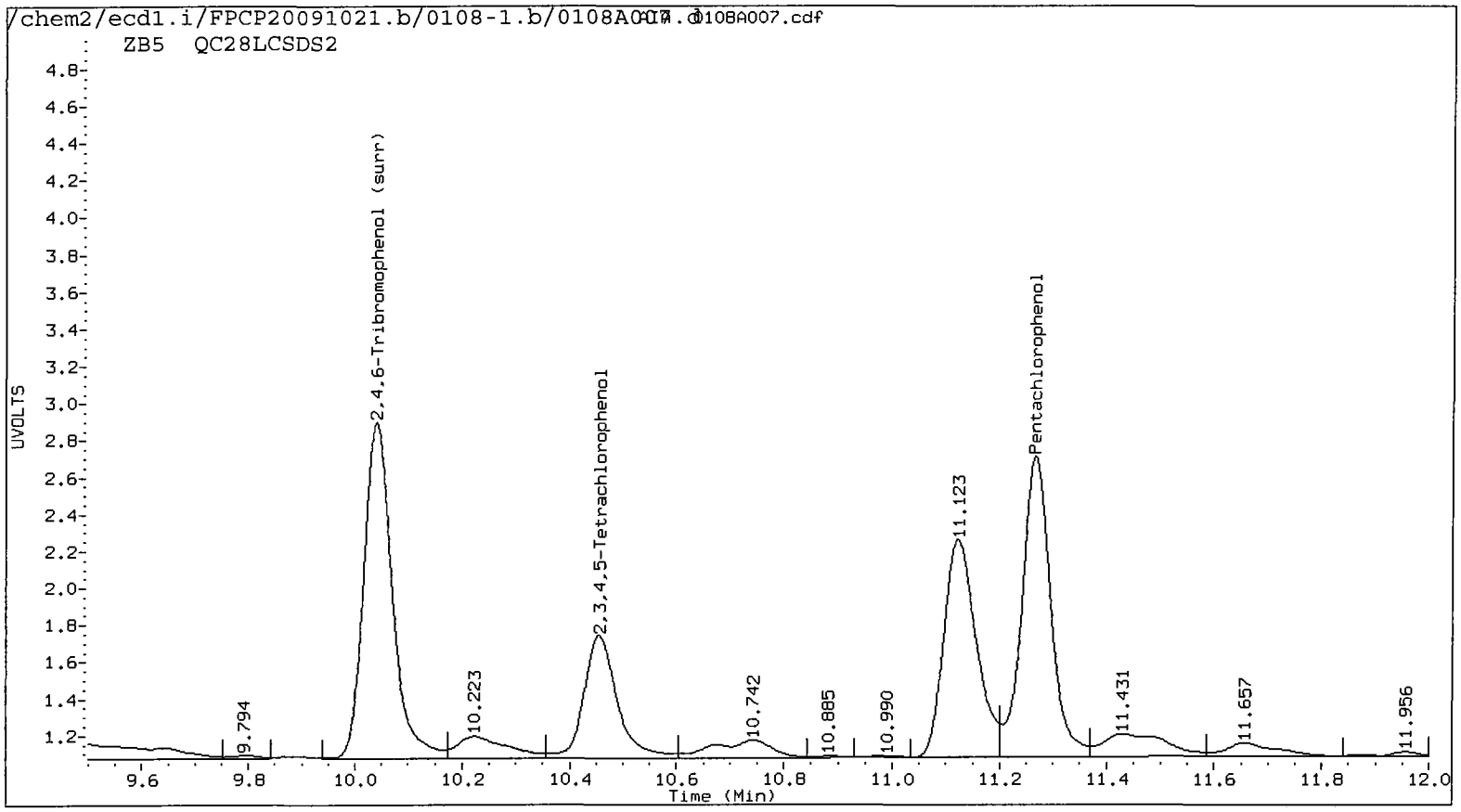
YZ 1/9/10

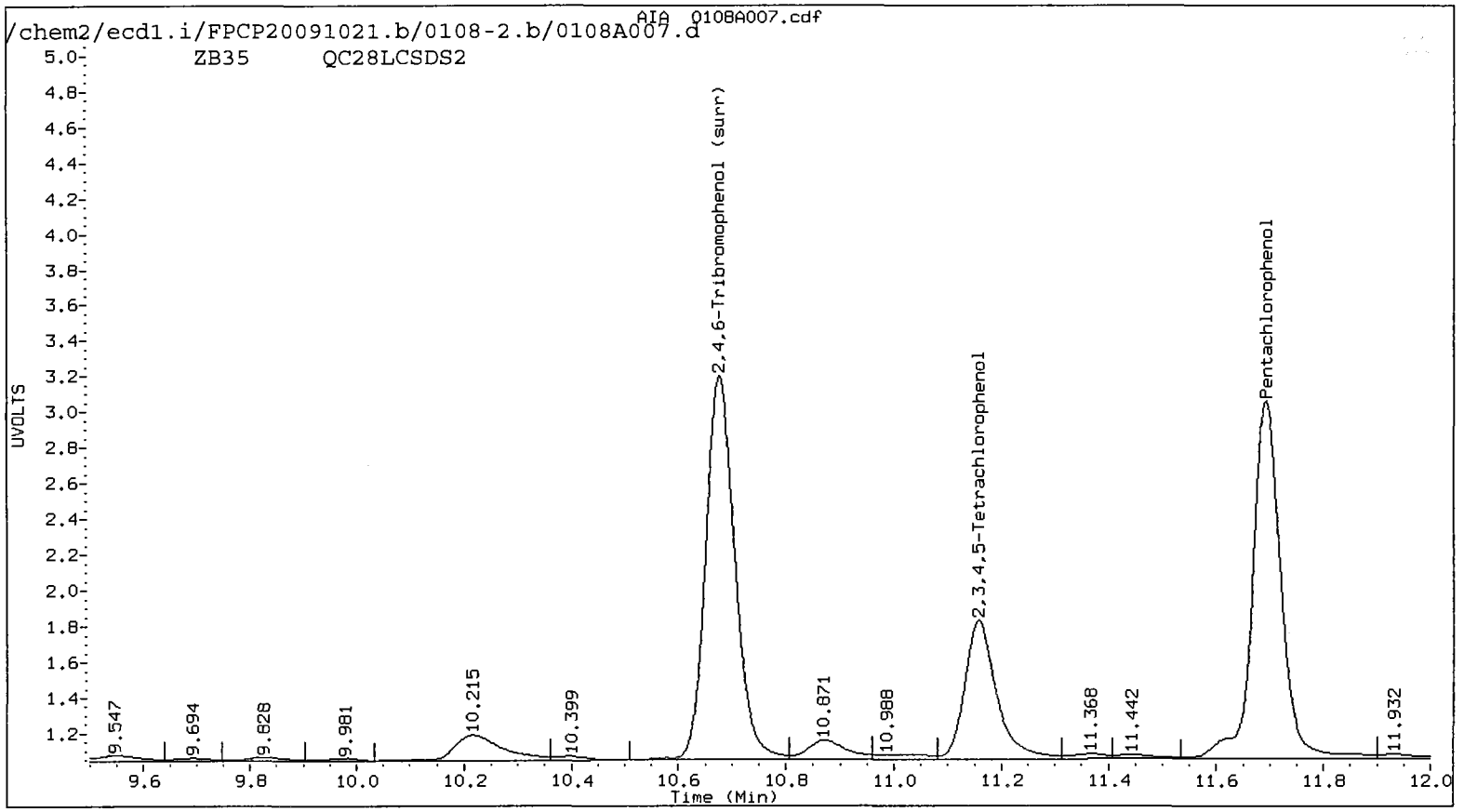
Data file 1: /chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A007.d ARI ID: QC28LCSDS2
Data file 2: /chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A007.d Client ID:
Method: /chem2/ecd1.i/FPCP20091021.b/FPCP.m Injection Date: 08-JAN-2010 19:05
Compound Sublist: all Report Date: 01/09/2010 09:20
Instrument: ecd1.i Matrix: NONE
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
11.267	-0.004	306111	11.693	-0.002	373099	19.6991	23.0248	15.6	Pentachlorophenol
7.295	0.002	154631	7.354	0.002	189498	20.3486	19.8833	2.3	2,4,6-Trichlorophenol
7.650	0.001	178962	7.884	0.001	225604	20.3924	24.3769	17.8	2,3,6-Trichlorophenol
8.253	-0.005	57004	8.620	0.000	59218	11.1979	10.6356	5.2	2,4,5-Trichlorophenol
8.813	-0.013	59373	9.394	-0.004	64838	9.7706	8.5209	13.7	2,3,4-Trichlorophenol
9.037	-0.001	238663	9.296	0.000	283491	18.0728	21.1711	15.8	2,3,5,6-Tetrachlorophenol
10.455	-0.007	142528	11.157	-0.002	161449	13.8899	15.6827	12.1	2,3,4,5-Tetrachlorophenol
6.927	0.010	124609	7.180	0.003	33860	269.3766	65.2964	122.0*	2,4-Dichlorophenol
10.041	-0.009	337227	10.677	-0.003	408684	27.9	31.7	12.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	111.7	126.7


/chem2/ecd1.i/FPCP20091021.b/0108-1.b/0108A007.d
0108A007.cdf
ZB5 QC28LCSDS2
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.794
10.223
10.742
10.885
10.990
11.123
11.431
11.657
11.956
Time (Min)


/chem2/ecd1.i/FPCP20091021.b/0108-2.b/0108A007.d
AIA 0108A007.cdf
ZB35 QC28LCSDS2
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
9.547
9.694
9.828
9.981
10.215
10.399
10.871
10.988
11.368
11.442
11.932
Time (Min)

Herbicide Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8041 PCP – Soil (Sediment)
Sonication (3550B) (SOP # 367S)

Preparation Test PCP # 3

In-House

ARI Job No(s) QC28

Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange To Hexane (X 2)	Turbo Vap 0 2 3	Final Effective Volume	Volume to Lab	Derivitize	Comments
	QC28 MB	Date 12/22/09	10.00g			25mL	1-2mL		
	~~SB~~	↓	↓			↓	↓		
	~~SBS dup~~	↓	10.00g			↓	↓		
2	↓ A	checked	10.41g	✓	✓	✓	✓		see notes
Analyst/Date: WC 12/22/09 (weigh)				RD 12/23/09	JAH 12/23/09 →	→	→		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1574-3	50µL	11/06/10	WC	[signature]
~~**Spike**~~	6 1655-3	50µL	9/24/10	WC	[signature]
Extraction Time: 16:15					

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers. 2. Acidify all with ¼ pipet conc. Sulfuric Acid. 3. Add surr/spike. 4. Leave in DCM overnight. 5. Extract 3X DCM. 6. Pour directly into KD (NO Glasswool). 7. KD to 5mL at 80°. 8. Exchange (2 X with 20mL) Hexane at 100°. 9. *Note: if filtering is necessary: Pre-rinse filter with 0.05% HCL in Acetone+Post Rinse with Hexane. 10. Turbo Vap to 1mL 11. Pipet into Herb Tubes. 12. GC Analyst to Derivitize.

A. Need Total Solids Y (N) **B. Archive / Freeze** Y (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: QC28 Client ID: Floyd/Snider

Parameter: PCP Client Project: POS-LLA

SOP Number(s): 3675 No Anomalies:

List problems, concerns, corrective actions and any other pertinent information
SAMPLE A = centrifuged before vialing to remove gross particulates 12/23/09 TH

Analyst Initials:		Date:	

056F

Revision 006
1/12/07

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8041 PCP – Soil / Sediment
Sonication (3550B) (SOP # 367S)

Preparation Test PCP # 3

In-House

ARI Job No(s) QC28 (RX)

Batch set up by: ~~SG~~

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange To Hexane (X2)	Turbo Vap (1) 2 3	Final Effective Volume	Volume to Lab	Derivitize	Comments
	QC28 (RX) MB	Date 1-7-10	10.00g			25mL	1-2mL		
	SB	↓	↓			↓	↓		
	SBSdup	Verified	10.00g			↓	↓		
2	A2	↓	10.25	↓	↓	↓	↓		
Analyst/Date:	AC 1-7-10			RF 1/08/10	VP 01/08/10	VP 01/08/10	VP 01/08/10		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	**F**	**50µL**	~~1/26/10~~ 12/29/10 ~~1/26/10~~	AC	WW
Spike	**6**	**50µL**	9/24/10	AC	WW
Extraction Time: 14:30					

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers. 2. Acidify all with ¼ pipet conc. Sulfuric Acid. 3. Add surr/spike.

4. Leave in DCM overnight. 5. Extract 3X DCM. 6. Pour directly into KD (NO Glasswool). 7. KD to 5mL at 80°.

8. Exchange (2 X with 20mL) Hexane at 100°. 9. *Note: if filtering is necessary: Pre-rinse filter with 0.05% HCL in Acetone+Post Rinse with Hexane.

10. Turbo Vap to 1mL 11. Pipet into Herb Tubes. 12. GC Analyst to Derivitize.

A. Need Total Solids Y / N B. Archive / Freeze Y / N

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: QC28 (RX)

Client ID: Floyd/Snider

Parameter: PCP

Client Project: POS-LLA

SOP Number(s): 3675

No Anomalies:

List problems, concerns, corrective actions and any other pertinent information
SAMPLE A2 CENTRIFUGED FOR GROSS PARTICULATES. m 01/08/10

Analyst Initials:		Date:	

QC28 : 00186

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Serial # 00494

REQUEST FOR RE-EXTRACTION / RE-ANALYSIS
(Organic Analyses)

Todays Date:	01/06/10	**Client Name:**	Floyd/Snider
ARI Project Number:	QC28	**Client Project:**	POS - LLA
Analysis:	PCP	**Turn Around Time:**	01/02/10
Project Manager:	Sue P.	**Date Sampled:**	12/10/09
Sample Matrix	sediment		

Criteria Flagged

Unacceptable Blank:	☐	**Unacceptable Surrogate:**	☒
Unacceptable Duplicate:	☐	**Instrument Problem:**	☐
Unacceptable Spike:	☐	**Other:**	☐
Overwrite LIMS:	☐	**Enter as Re-extract:**	☐

Details of Problem / Recommended Corrective Action

Low surr recovery in sample A.

Samples Affected

Corrective Action Taken

re-extract sample A + mb, lcs/lcsd.

Analyst: YZ
Date: 01/06/10.

Supervisor: V. G
Date: 1.6.2010

Form 0030F

Revision 005
6/26/08

Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 10/21/09 Analysis: PCP/Herb Analyst: AR

GC Program: PCPFAST.M Column No: 150608/148146 Column Type: ZB5/ZB35

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

Calibration File: FPCP20091021.b Curve Date: 10/21/09

IS/SS	Ical/Ccal	LCS/ICV
	1659-1 Herb	1353-2 Herb ICV
	1663-2 PCP	1324-1 PCP ICV

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd1.i/FPCP20091021.b/ical-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	21-OCT-2009 16:33	1021A009.d	1	PCP D	
2	21-OCT-2009 16:53	1021A010.d	1	PCP A	
3	21-OCT-2009 17:13	1021A011.d	1	PCP B	
4	21-OCT-2009 17:33	1021A012.d	1	PCP C	
5	21-OCT-2009 17:53	1021A013.d	1	PCP E	
6	21-OCT-2009 18:12	1021A014.d	1	PCP F	
7	21-OCT-2009 18:32	1021A015.d	1	PCP ICV	
8	21-OCT-2009 18:52	1021A016.d	1	PCP CCAL	
9	21-OCT-2009 19:12	1021A017.d	1	PS52MBW1	PS52MBW1
10	21-OCT-2009 19:32	1021A018.d	1	PS52LCSW1	PS52LCSW1
11	21-OCT-2009 19:52	1021A019.d	1	PS52A	1009PSR02
12	21-OCT-2009 20:12	1021A020.d	1	PS52B	1009PSR06
13	21-OCT-2009 20:32	1021A021.d	1	PS52D	1009PSR08
14	21-OCT-2009 20:52	1021A022.d	1	PS52F	1009PSR09
15	21-OCT-2009 21:12	1021A023.d	1	PS52G	1009PSR10
16	21-OCT-2009 21:32	1021A024.d	1	PS52H	1009PSR11
17	21-OCT-2009 21:52	1021A025.d	1	PS52HMS	1009PSR11 MS
18	21-OCT-2009 22:12	1021A026.d	1	PS52HMSD	1009PSR11 MSD
19	21-OCT-2009 22:32	1021A027.d	1	PCP	
20	21-OCT-2009 22:51	1021A028.d	1	PCP CCAL	
21	21-OCT-2009 23:11	1021A029.d	1	PS52I	1009PSR12
22	21-OCT-2009 23:31	1021A030.d	1	PS52K	SSV1068
23	21-OCT-2009 23:51	1021A031.d	1	PS67A	1009PSR05
24	22-OCT-2009 00:11	1021A032.d	1	PS67B	1009PSR13
25	22-OCT-2009 00:31	1021A033.d	1	PS67C	1009PSR15
26	22-OCT-2009 00:51	1021A034.d	1	PS67D	1009PSR01
27	22-OCT-2009 01:11	1021A035.d	1	PS67F	1009PSR04
28	22-OCT-2009 01:31	1021A036.d	1	PCP	
29	22-OCT-2009 01:51	1021A037.d	1	PCP CCAL	
30	22-OCT-2009 02:10	1021A038.d	1	PS67MBW1	PS67MBW1
31	22-OCT-2009 02:30	1021A039.d	1	PS67LCSW1	PS67LCSW1
32	22-OCT-2009 02:50	1021A040.d	1	PS67E	1009PSR03
33	22-OCT-2009 03:10	1021A041.d	1	PS67EMS	1009PSR03 MS
34	22-OCT-2009 03:30	1021A042.d	1	PS67EMSD	1009PSR03 MSD
35	22-OCT-2009 03:50	1021A043.d	1	PS95MBW1	PS95MBW1
36	22-OCT-2009 04:10	1021A044.d	1	PS95LCSW1	PS95LCSW1
37	22-OCT-2009 04:29	1021A045.d	1	PS95A	Batch 2# Third Pass
38	22-OCT-2009 04:49	1021A046.d	1	PCP	
39	22-OCT-2009 05:09	1021A047.d	1	PCP CCAL	

AR 10/26/09

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

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

QC28:00188

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: FPCP Curve Client ID: ~~ARI~~

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

Parameter(s): PCP & Tribromophenol (surr) only

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

Dates: Curve: ~~10/21~~ AR 10/21/09 Analysis Start: 10/21/09

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

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

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

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

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

Additional Details on Reverse: Yes / No

Analyst Signature: _____ **Date:** 10/22/09

Reviewer's Signature: _____ **Date:** 10/22/09

QC28:00189

Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 1/8/2010 Analysis: PCP/Herbicide Analyst: AR

GC Program: PCPFAST.M & Column No: 150608/148146 Column Type: ZB5/ZB35

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

Calibration File: FPCP20091021.b & HERB20091026.b Curve Date: 10/21/09 & 10/26/09

IS/SS	Ical/Ccal	LCS/ICV
	1659-1	1353-2
	1663-2	1324-1

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd1.i/FPCP20091021.b/0108-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	08-JAN-2010 17:06	0108A001.d	1	RINSE	
2	08-JAN-2010 17:26	0108A002.d	1	RINSE	
3	08-JAN-2010 17:46	0108A003.d	1	RINSE	
4	08-JAN-2010 18:06	0108A004.d	1	PCPCCAL	
5	08-JAN-2010 18:25	0108A005.d	1	QC28MBS1	QC28MBS1
6	08-JAN-2010 18:45	0108A006.d	1	QC28LCSS1	QC28LCSS1
7	08-JAN-2010 19:05	0108A007.d	1	QC28LCSDS1	QC28LCSDS1
8	08-JAN-2010 19:25	0108A008.d	1	QC28A	CB4857-121009-SED
9	08-JAN-2010 19:45	0108A009.d	10	QC28ARE	
10	08-JAN-2010 20:05	0108A010.d	1	PCP	
11	08-JAN-2010 20:25	0108A011.d	1	PCPCCAL	
12	08-JAN-2010 20:45	0108A012.d	1	QE28MBW1	QE28MBW1
13	08-JAN-2010 21:04	0108A013.d	1	QE28LCSW1	QE28LCSW1
14	08-JAN-2010 21:24	0108A014.d	1	QE28A	SP-2
15	08-JAN-2010 21:44	0108A015.d	1	PCP	
16	08-JAN-2010 22:04	0108A016.d	1	PCPCCAL	
17	08-JAN-2010 22:24	0108A017.d	1	QD71MBW1	QD71MBW1
18	08-JAN-2010 22:44	0108A018.d	1	QD71LCSW1	QD71LCSW1
19	08-JAN-2010 23:03	0108A019.d	1	QD71LCSDW1	QD71LCSDW1
20	08-JAN-2010 23:23	0108A020.d	1	QD71A	CB31A123109COMP
21	08-JAN-2010 23:43	0108A021.d	10	QD71A	CB31A123109COMP
22	09-JAN-2010 00:03	0108A022.d	1	QD71B	CB4857123109COMP
23	09-JAN-2010 00:22	0108A023.d	10	QD71B	CB4857123109COMP
24	09-JAN-2010 00:42	0108A024.d	1	QD71C	CB1123109COMP
25	09-JAN-2010 01:02	0108A025.d	10	QD71C	CB1123109COMP
26	09-JAN-2010 01:22	0108A026.d	1	PCP	
27	09-JAN-2010 01:42	0108A027.d	1	PCPCCAL	
28	09-JAN-2010 02:01	0108A028.d	1	DRVBLK 010810	
29	09-JAN-2010 02:21	0108A029.d	1	DRVBLK 010810	
30	09-JAN-2010 02:57	0108A030.d	1	HERB	
31	09-JAN-2010 03:33	0108A031.d	1	HERB CCAL	
32	09-JAN-2010 04:09	0108A032.d	1	QD68MBW1	QD68MBW1
33	09-JAN-2010 04:45	0108A033.d	1	QD68LCSW1	QD68LCSW1
34	09-JAN-2010 05:21	0108A034.d	1	QD68D	R1
35	09-JAN-2010 05:57	0108A035.d	1	QD68E	C1
36	09-JAN-2010 06:33	0108A036.d	1	QD68F	I1
37	09-JAN-2010 07:09	0108A037.d	1	HERB	
38	09-JAN-2010 07:45	0108A038.d	1	HERB CCAL	
39	09-JAN-2010 08:21	0108A039.d	1	HERB CCAL	

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control): 1/11/2010

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

QC28 : 00190

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: QC28 Client ID: Floyd/Snider

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

Parameter(s): PCP

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

Dates: Curve: 10/21/2009 Analysis Start: 01/08/10

Endrin/DDT Breakdown <15%? YES / NO / NA

Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO

LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria YES / NO

Surrogate Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA

Special Analysis Criteria Met? YES / NO / NA

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

Sample was re-extracted on 01/07/10 due to low surrogate recovery. Re-extraction with in holding. Re-extraction reported as original

Additional Details on Reverse: Yes / No

Analyst Signature: YZ **Date:** 01/08/10

Reviewer's Signature: V. S. **Date:** 1/9/2010

TPHD Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Client ID	OTER	TOT OUT
MB-122209	85.8%	0
LCS-122209	86.3%	0
LCSD-122209	91.4%	0
CB4857-121009-SED	82.2%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(63-115)	(49-120)

Prep Method: SW3546
Log Number Range: 09-31268 to 09-31268

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-122209**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-122209
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/31/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Date Extracted LCS/LCSD: 12/22/09

Date Analyzed LCS: 12/23/09 16:50
LCSD: 12/23/09 17:29
Instrument/Analyst LCS: FID/MS
LCSD: FID/MS

Sample Amount LCS: 10.0 g
LCSD: 10.0 g
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.0
LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	122	150	81.3%	132	150	88.0%	7.9%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	86.3%	91.4%

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

4

TPH METHOD BLANK SUMMARY

BLANK NO.

QC28MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: QC28 Project No.: POS-LLA

Date Extracted: 12/22/09 Matrix: SOLID

Date Analyzed : 12/23/09 Instrument ID : FID9

Time Analyzed : 1749

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QC28LCSS1	QC28LCSS1	12/23/09
02	CB4857-12100	QC28A	12/23/09
03	QC28LCSDS1	QC28LCSDS1	12/23/09
04			
05			
06			
07			
08			
09			
10			
11			
12			
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FORM IV TPH

6a
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

Instrument: FID9.I Project: POS-LLA

Calibration Date: 22-DEC-2009 SDG No.: QC28

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

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

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

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

6a
NW MOTOR OIL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

Instrument: FID9.I Project: POS-LLA

Calibration Date: 22-DEC-2009 SDG No.: QC28

Motor Oil Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil	11539	11585	11203	11152	10802	10272	11092	4.4
AK M.Oil	10161	10266	9958	9970	9679	9289	9887	3.6
OR M.Oil	9335	9122	8740	8562	8271	7589	8603	7.3
Triac Surr	21988	23417	23194	23684	23663	23532	23246	2.8

<- 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
1222A029.D	22-DEC-2009 22:00
1222A030.D	22-DEC-2009 22:19
1222A031.D	22-DEC-2009 22:39
1222A032.D	22-DEC-2009 22:58
1222A033.D	22-DEC-2009 23:18
1222A034.D	22-DEC-2009 23:37

7a
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 22-DEC-2009 Project: POS-LLA

CCal Date: 23-DEC-2009 SDG No.: QC28

Analysis Time: 15:52 Lab ID: DIESEL#2

Instrument: FID9.I Lab File Name: 1223A007.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	4405268	260.9	250	4.4
AK102 (C10-C25)	4913861	260.2	250	4.1
Terphenyl	982421	46.6	45	3.6

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

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

QC28:00198

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 22-DEC-2009 Project: POS-LLA

CCal Date: 23-DEC-2009 SDG No.: QC28

Analysis Time: 16:11 Lab ID: MOIL#2

Instrument: FID9.I Lab File Name: 1223A008.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	5634647	508.0	500	1.6
AK103 (C25-C36)	4986118	527.2	500	5.4
n-Triacontane	1064268	45.8	45	1.7

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

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

7a
DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 22-DEC-2009 Project: POS-LLA

CCal Date: 23-DEC-2009 SDG No.: QC28

Analysis Time: 18:08 Lab ID: DIESEL#3

Instrument: FID9.I Lab File Name: 1223A014.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	4341185	257.1	250	2.8
AK102 (C10-C25)	4852246	257.0	250	2.8
Terphenyl	973009	46.2	45	2.6

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

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

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 22-DEC-2009 Project: POS-LLA

CCal Date: 23-DEC-2009 SDG No.: QC28

Analysis Time: 18:27 Lab ID: MOIL#3

Instrument: FID9.I Lab File Name: 1223A015.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	5644471	508.9	500	1.8
AK103 (C25-C36)	5021096	530.9	500	6.2
n-Triacontane	1074869	46.2	45	2.8

* 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

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: QC28 Project: POS-LLA

Instrument ID: FID9 GC Column: RTX-1

Run Date: 12/22/09

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.90 TRIAC: 7.07

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	RT	RT	12/22/09	1905	4.90	7.07
02	IB	IB	12/22/09	1924	4.90	7.07
03	DIESEL50	DIESEL50	12/22/09	1944	4.90	7.06
04	DIESEL100	DIESEL100	12/22/09	2003	4.90	7.06
05	DIESEL250	DIESEL250	12/22/09	2023	4.90	7.06
06	DIESEL500	DIESEL500	12/22/09	2042	4.91	7.08
07	DIESEL1000	DIESEL1000	12/22/09	2101	4.92	7.08
08	DIESEL2500	DIESEL2500	12/22/09	2121	4.96*	7.08
09	DIESELICV	DIESELICV	12/22/09	2140	4.90	7.06
10	MOIL100	MOIL100	12/22/09	2200	4.91	7.06
11	MOIL250	MOIL250	12/22/09	2219	4.91	7.07
12	MOIL500	MOIL500	12/22/09	2239	4.91	7.08
13	MOIL1000	MOIL1000	12/22/09	2258	4.91	7.09
14	MOIL2500	MOIL2500	12/22/09	2318	4.90	7.11
15	MOIL5000	MOIL5000	12/22/09	2337	4.90	7.14*
16	MOILICV	MOILICV	12/22/09	2357	4.91	7.07
17	RT	RT	12/23/09	1414	4.91	7.08
18	IB	IB	12/23/09	1434	4.91	7.07
19	DIESEL#2	DIESEL#2	12/23/09	1552	4.91	7.06
20	MOIL#2	MOIL#2	12/23/09	1611	4.91	7.08
21	QC28LCSS1	QC28LCSS1	12/23/09	1650	4.91	7.07
22	CB4857-12100	QC28A	12/23/09	1710	4.90	7.09
23	QC28LCSDS1	QC28LCSDS1	12/23/09	1729	4.91	7.07
24	QC28MBS1	QC28MBS1	12/23/09	1749	4.90	7.07
25	DIESEL#3	DIESEL#3	12/23/09	1808	4.91	7.07
26	MOIL#3	MOIL#3	12/23/09	1827	4.91	7.08

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

TPHD Analysis
Sample Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1
Matrix: Sediment

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Data Release Authorized:
Reported: 12/31/09

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-122209	Method Blank	12/22/09	12/23/09	1.00	Diesel	5.0	< 5.0 U
09-31268	HC ID: ---		FID9	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		85.8%
QC28A	CB4857-121009-SED	12/22/09	12/23/09	1.00	**Diesel**	**6.0**	**19**
09-31268	HC ID: **DRO/MOTOR OIL**		FID9	1.0	**Motor Oil**	**12**	**160**
					o-Terphenyl		82.2%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem2/fid9.i/20091223.B/1223A011.D
Method: /chem2/fid9.i/20091223.B/ftphfid9a.m
Instrument: fid9.i
Operator: MS
Report Date: 12/24/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QC28A
Client ID: CB4857-121009-SED
Injection: 23-DEC-2009 17:10

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.821	0.004	1314	1290	GAS (Tol-C12)	399846	31
C8	1.978	-0.005	1969	2427	DIESEL (C12-C24)	2691314	159
C10	2.610	-0.002	4217	2323	M.OIL (C24-C38)	14290163	1288
C12	3.198	-0.010	18661	13654	AK-102 (C10-C25)	3328432	176
C14	3.738	0.003	43349	27322	AK-103 (C25-C36)	12892479	1363
C16	4.211	0.003	11843	12023	OR.DIES (C10-C28)	7141100	477
C18	4.673	-0.001	13198	11072	OR.MOIL (C28-C40)	10756456	1549
C20	5.213	-0.001	17880	23015			
C22	5.689	-0.003	35917	45182			
C24	6.101	0.001	68308	66229			
C25	6.287	0.001	89288	99430			
C26	6.466	0.008	101568	44133			
C28	6.776	0.001	146512	35008			
C32	7.370	0.007	147243	230922			
C34	7.709	0.007	92703	107327	CREOSOT (C12-C22)	1454786	349
Filter Peak	9.139	-0.006	14201	12157			
C36	8.130	0.006	61777	115045			
C38	8.670	0.005	30239	40328			
C40	9.383	0.005	13430	10599			
o-terph	4.904	-0.001	1068209	779780	JET-A (C10-C18)	707650	42
Triacon Surr	7.086	0.010	1233333	861182			

Range Times: NW Diesel(3.207 - 6.100) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)
NW M.Oil(6.10 - 8.66) AK103(6.29 - 8.12) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	779780	37.0	82.2
Triacontane	861182	37.0	82.3

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

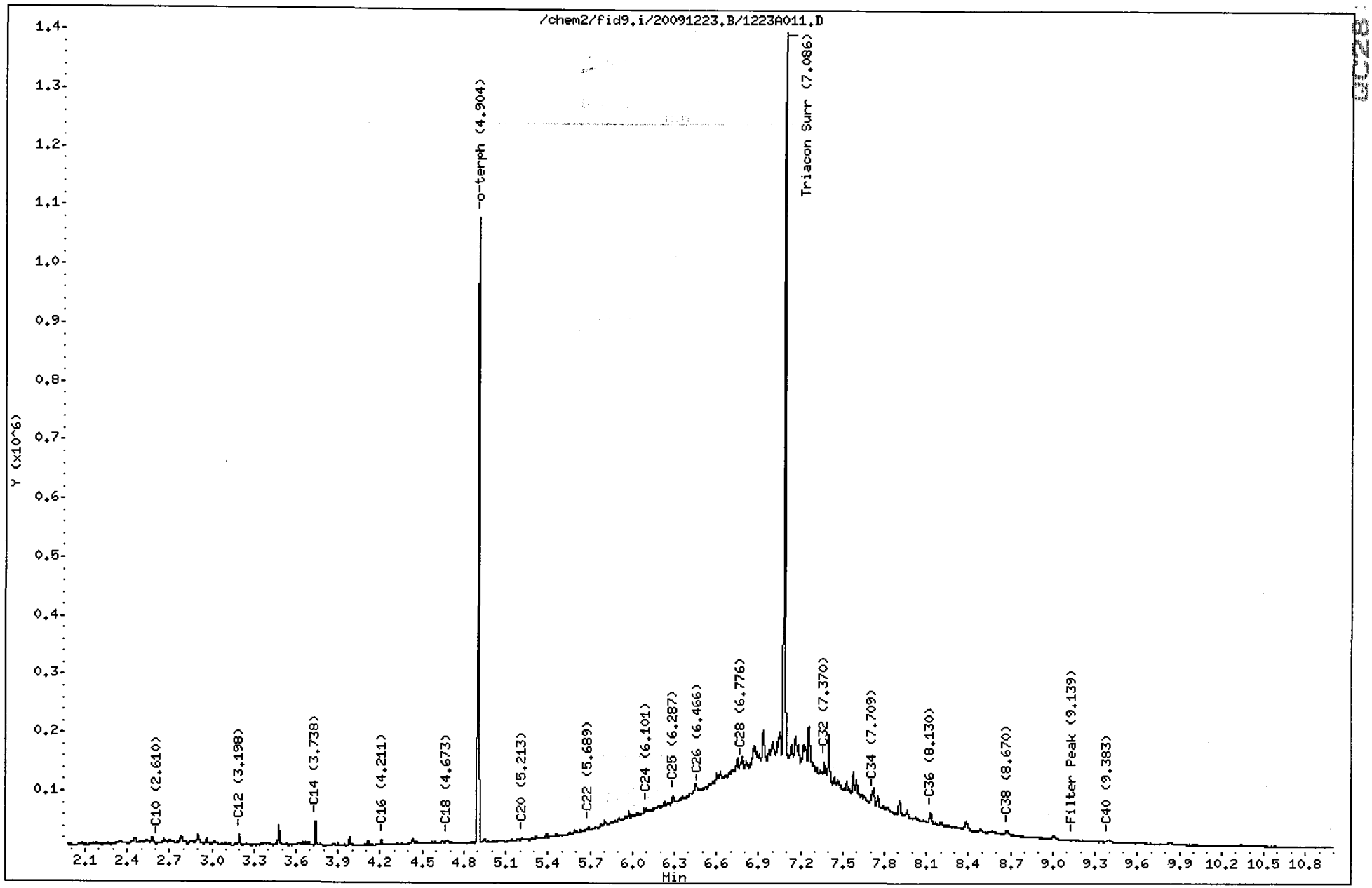
Data File: /chem2/fid9.i/20091223.B/1223A011.D
Date : 23-DEC-2009 17:10
Client ID: CB4857-121009-SED
Sample Info: QC28A

Column phase: RTX-1

Instrument: fid9.i

Operator: MS
Column diameter: 0.25

QC28 00206



ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: QC28
Project: POS-LLA

Matrix: Sediment
Date Received: 12/21/09

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
09-31268-122209MB1	Method Blank	10.0 g	1.00 mL	-	12/22/09
09-31268-122209LCS1	Lab Control	10.0 g	1.00 mL	-	12/22/09
09-31268-122209LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	12/22/09
09-31268-QC28A	CB4857-121009-SED	8.30 g	1.00 mL	D	12/22/09

Basis: D=Dry Weight W=As Received

TPHD Analysis
QC Raw Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Analytical Resources Inc.
TPH Quantitation Report

12/24/09

Data file: /chem2/fid9.i/20091223.B/1223A013.D
Method: /chem2/fid9.i/20091223.B/ftphfid9a.m
Instrument: fid9.i
Operator: MS
Report Date: 12/24/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QC28MBS1
Client ID: QC28MBS1
Injection: 23-DEC-2009 17:49

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.821	0.004	1982	473	GAS (Tol-C12)	103105	8
C8	1.979	-0.005	1516	1153	DIESEL (C12-C24)	96772	6
C10	2.611	0.000	837	295	M.OIL (C24-C38)	166322	15
C12	3.198	-0.009	2897	3753	AK-102 (C10-C25)	136635	7
C14	3.745	0.010	5155	3431	AK-103 (C25-C36)	128947	14
C16	4.216	0.008	4381	3234	OR.DIES (C10-C28)	160196	11
C18	4.674	0.000	1444	886	OR.MOIL (C28-C40)	182593	26
C20	5.218	0.004	995	663			
C22	5.691	0.000	1014	669			
C24	6.099	0.000	1132	695			
C25	6.283	-0.004	853	825			
C26	6.454	-0.004	930	600			
C28	6.768	-0.007	1970	2962			
C32	7.352	-0.011	4374	5030			
C34	7.712	0.010	1408	1273	CREOSOT (C12-C22)	89460	21
Filter Peak	9.145	0.000	1142	272			
C36	8.113	-0.011	1692	3382			
C38	8.669	0.004	1035	308			
C40	9.378	-0.001	970	401			
o-terph	4.905	0.000	1039826	813930	JET-A (C10-C18)	111628	7
Triacon Surr	7.069	-0.007	1294916	896022			

Range Times: NW Diesel(3.207 - 6.100) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)
NW M.Oil(6.10 - 8.66) AK103(6.29 - 8.12) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	813930	38.6	85.8
Triacontane	896022	38.5	85.7

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

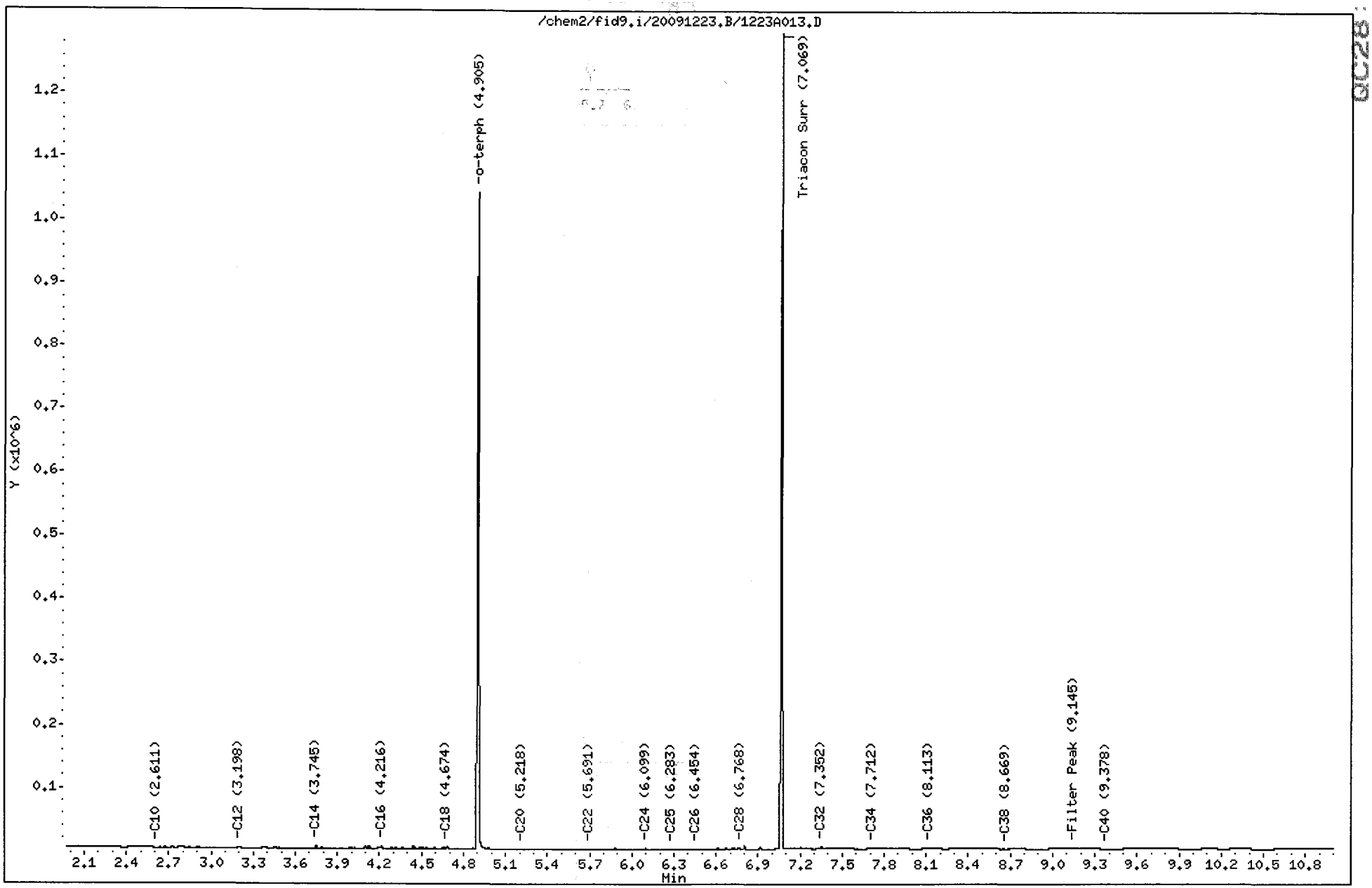
Data File: /chem2/fid9.i/20091223.B/1223A013.D
Date : 23-DEC-2009 17:49
Client ID: QC28MBS1
Sample Info: QC28MBS1

Instrument: fid9.i

Operator: MS
Column diameter: 0.25

Column phase: RTX-1

QC28-002216



M-12/24/09

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem2/fid9.i/20091223.B/1223A010.D
Method: /chem2/fid9.i/20091223.B/ftphfid9a.m
Instrument: fid9.i
Operator: MS
Report Date: 12/24/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QC28LCSS1
Client ID: QC28LCSS1
Injection: 23-DEC-2009 16:50

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.815	-0.002	3893	5057	GAS (Tol-C12)	2827307	218
C8	1.990	0.007	4609	3987	DIESEL (C12-C24)	20549182	1217
C10	2.600	-0.012	25236	21591	M.OIL (C24-C38)	350043	32
C12	3.200	-0.007	230444	198010	AK-102 (C10-C25)	22802964	1208
C14	3.734	-0.002	485440	293879	AK-103 (C25-C36)	269985	29
C16	4.210	0.002	991627	730621	OR.DIES (C10-C28)	23008473	1536
C18	4.682	0.008	705308	576354	OR.MOIL (C28-C40)	83513	12
C20	5.222	0.008	451237	386923			
C22	5.696	0.005	236342	182220			
C24	6.101	0.001	83005	58384			
C25	6.284	-0.002	37805	44102			
C26	6.455	-0.003	17265	13233			
C28	6.771	-0.004	4620	6639			
C32	7.358	-0.005	3500	3661			
C34	7.697	-0.005	959	1725	CREOSOT (C12-C22)	19734186	4730
Filter Peak	9.152	0.007	158	75			
C36	8.121	-0.003	1038	1796			
C38	8.655	-0.010	542	806			
C40	9.373	-0.005	359	487			
o-terph	4.909	0.004	1136991	818205	JET-A (C10-C18)	16196965	951
Triacon Surr	7.073	-0.002	1389844	880451			

Range Times: NW Diesel(3.207 - 6.100) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)
NW M.Oil(6.10 - 8.66) AK103(6.29 - 8.12) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	818205	38.8	86.3
Triacontane	880451	37.9	84.2

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

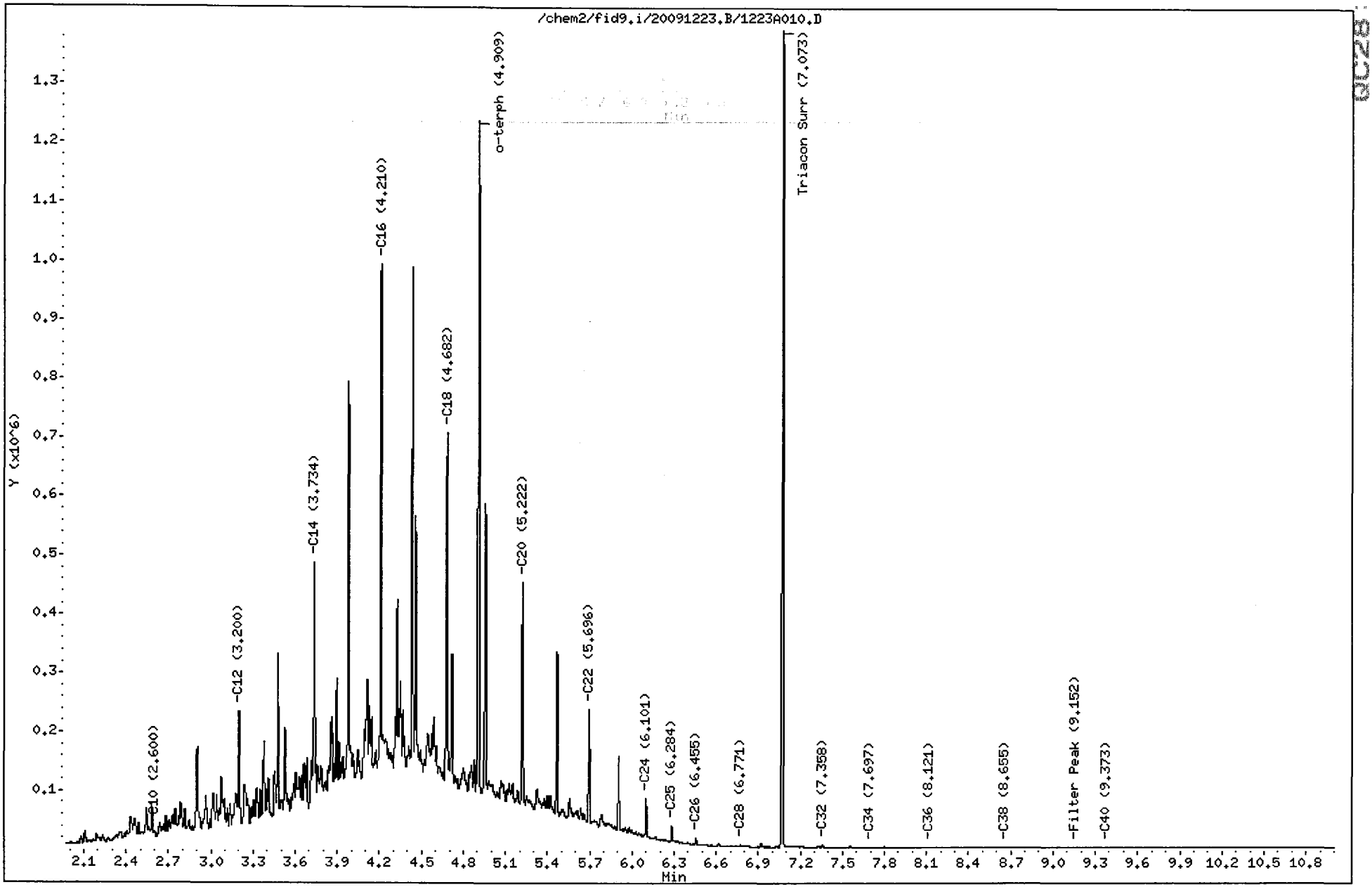
Data File: /chem2/fid9.i/20091223.B/1223A010.D
Date : 23-DEC-2009 16:50
Client ID: QC28LCSS1
Sample Info: QC28LCSS1

Column phase: RTX-1

Instrument: fid9.i

Operator: MS
Column diameter: 0.25

QC28 002212



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem2/fid9.i/20091223.B/1223A012.D
Method: /chem2/fid9.i/20091223.B/ftphfid9a.m
Instrument: fid9.i
Operator: MS
Report Date: 12/24/2009
Macro: 22-DEC-2009
Calibration Dates: Gas:01-OCT-2009 Diesel:22-DEC-2009 M.Oil:22-DEC-2009

ARI ID: QC28LCSDS1
Client ID: QC28LCSDS1
Injection: 23-DEC-2009 17:29

Dilution Factor: 1

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.809	-0.008	3730	6396	GAS (Tol-C12)	3031327	234
C8	1.987	0.004	4676	2678	DIESEL (C12-C24)	22294869	1320
C10	2.597	-0.015	26601	25394	M.OIL (C24-C38)	420895	38
C12	3.199	-0.008	251014	210447	AK-102 (C10-C25)	24763285	1311
C14	3.733	-0.003	523583	322942	AK-103 (C25-C36)	312484	33
C16	4.210	0.002	1061453	801819	OR.DIES (C10-C28)	24969131	1666
C18	4.681	0.007	754026	612446	OR.MOIL (C28-C40)	161790	23
C20	5.221	0.007	482227	403239			
C22	5.694	0.003	250080	204043			
C24	6.100	0.000	85254	60421			
C25	6.283	-0.003	39303	47182			
C26	6.454	-0.004	17773	15327			
C28	6.769	-0.006	5009	5873			
C32	7.354	-0.009	4381	6075			
C34	7.692	-0.010	1097	1509	CREOSOT (C12-C22)	21432152	5137
Filter Peak	9.165	0.020	206	60			
C36	8.115	-0.008	1760	3981			
C38	8.670	0.005	1108	1037			
C40	9.388	0.009	1071	1347			
o-terph	4.909	0.003	1174256	867182	JET-A (C10-C18)	17593819	1033
Triacon Surr	7.070	-0.005	1403532	927966			

Range Times: NW Diesel(3.207 - 6.100) AK102(2.61 - 6.29) Jet A(2.61 - 4.67)
NW M.Oil(6.10 - 8.66) AK103(6.29 - 8.12) OR Diesel(2.61 - 6.77)

Surrogate	Area	Amount	%Rec
o-Terphenyl	867182	41.1	91.4
Triacontane	927966	39.9	88.7

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

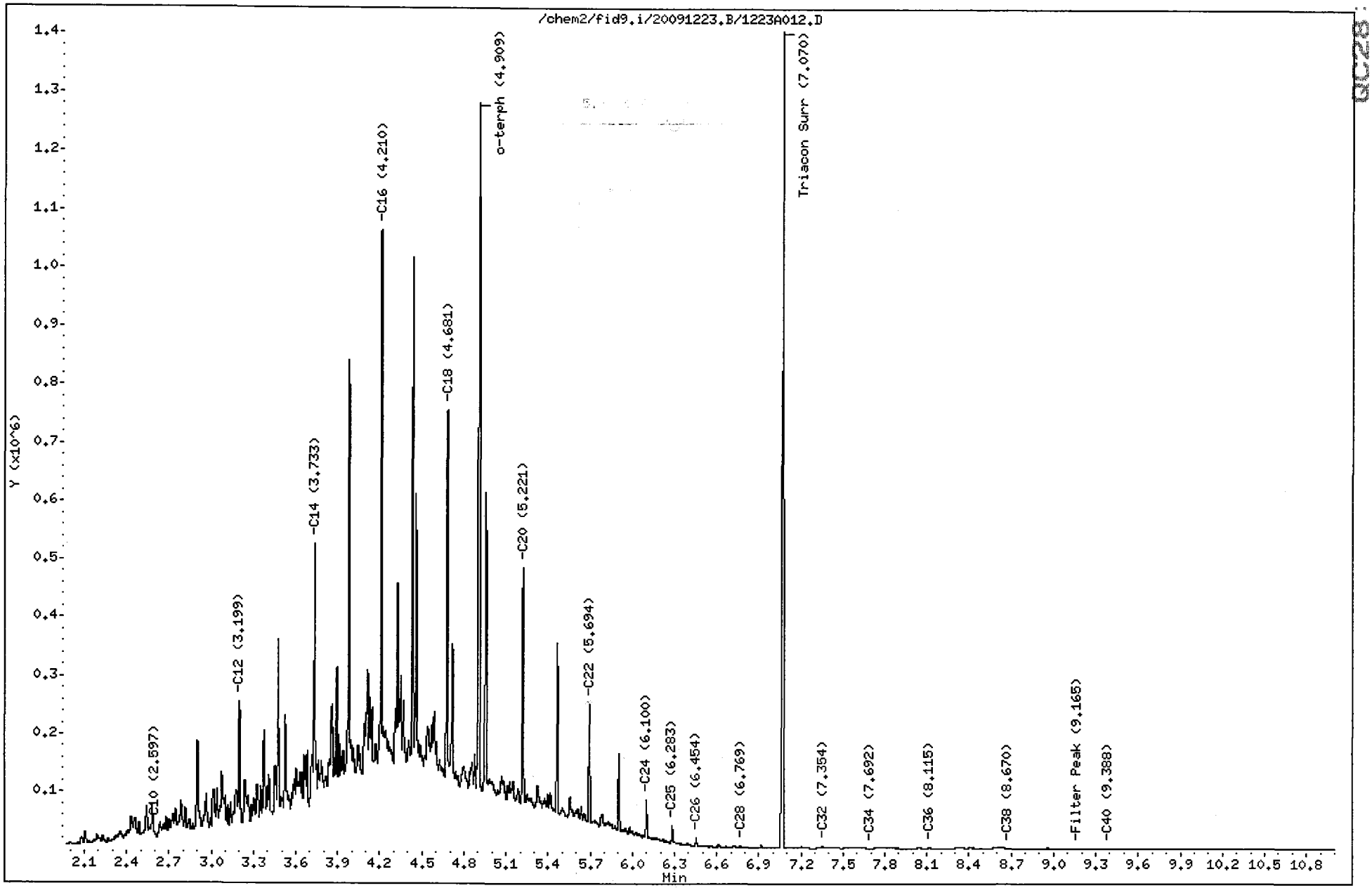
Data File: /chem2/fid9.i/20091223.B/1223A012.D
Date : 23-DEC-2009 17:29
Client ID: QC28LCSDS1
Sample Info: QC28LCSDS1

Column phase: RTX-1

Instrument: fid9.i

Operator: MS
Column diameter: 0.25

QC28 06214



TPHD Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

NWTPHD-Soil / Sediment

Microwave (3546) (SOP # 397S)

Preparation Test TPHD # 3

ARI Job No(s) Q<28

In-House

Batch set up by: ~~JH~~

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	Transfer to Turbo Tube	TurboVap (1) 2 3	Acid/Silica Clean (1:1) (Y) N	TurboVap 1 2 3	Final Effective Volume	Volume to Lab	Comments
	Q<28 MBS	Date 12-22-09	10.00g	↓	↓	↓	↓	1mL	1mL	
	SBS	↓	↓	↓	↓	↓	↓	↓	↓	
	SBS Dup.	↓	↓	↓	↓	↓	↓	↓	↓	
2	A	Verified	10.31g	↓	↓	↓	↓	↓	↓	

Analyst/Date: PD 12-22-09 | WW 12/22/09

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	O2	100µL	7/02/10	PD	WW
Spike	11	100µL	9/07/10	PD	WW
Extraction Time:	16:15				

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

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: QC28 Client ID: Floyd/Snider

Parameter: TPHD w/Acisi Client Project: POS-LLA

SOP Number(s): 3975 No Anomalies:

QC28A- List problems, concerns, corrective actions and any other pertinent information 12/21/09 AF.

A-wet GRAVEL.

A- extract was black after high volume acid clean, Yellow @ final vialing -ww 12/22/09

Analyst Initials: Date:

3056F

Revision 006
1/12/07

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: QC28 Client ID: FLOYD-SNIDER

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

Parameter(s): Diesel, Moil, OTeph.

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8 FID9
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/22/09, 1/5/10 Analysis Start: 12/23/09

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

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

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

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

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

Additional Details on Reverse: Yes / No

Analyst Signature: [signature] Date: 1/19/10

Reviewer's Signature: [signature] Date: 1/19/10

Metals Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA

SDG: QC28

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
CB4857-121009-SED	QC28A	09-31268	
CB4857-121009-SEDD	QC28ADUP	09-31268	
CB4857-121009-SEDS	QC28ASPK	09-31268	
PBS	QC28MB1	09-31268	
LCSS	QC28MB1SPK	09-31268	

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: 12/24/09 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: CB4857-121009-SED
MATRIX SPIKE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	6 U	228	239	95.4%	
Lead	6010B	42	283	239	101%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB4857-121009-SED
DUPLICATE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	6 U	6 U	0.0%	+/- 6	L
Lead	6010B	42	45	6.9%	+/- 20%	

Reported in mg/kg-dry

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: QC28LCS
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	184	200	92.0%	
Lead	6010B	179	200	89.5%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: QC28MB
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	12/21/09	6010B	12/23/09	7440-38-2	Arsenic	5	5	U
3050B	12/21/09	6010B	12/23/09	7439-92-1	Lead	2	2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA

UNITS: ug/L

SDG: QC28

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP122371	2000.0	1970.76	98.5	2000.0	1999.00	100.0	1995.71	99.8	1992.80	99.6	1973.91	98.7		
Lead	PB	ICP	IP122371	2000.0	1994.69	99.7	2000.0	2011.66	100.6	2009.39	100.5	2024.54	101.2	1988.59	99.4		

QC28 : 99225

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

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA

UNITS: ug/L

SDG: QC28

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	ICP	IP122371		50.0	50.28	**100.6**										
Lead	PB	ICP	IP122371		20.0	18.08	**90.4**										

QC28 : 90226

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

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA

SDG: QC28

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	ICP	IP122371	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Lead	PB	ICP	IP122371	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U		

QC28:00227

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

ICS SOURCE: I.V.

PROJECT: POS-LLA

RUNID: IP122371

SDG: QC28

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	204459.0	205773.0	**102.9**						
Antimony		1000	9.9	999.4	**99.9**						
Arsenic		1000	15.7	1010.6	**101.1**						
Barium		1000	2.5	1017.0	**101.7**						
Beryllium		1000	0.1	1008.9	**100.9**						
Boron			-3.3	-2.5							
Cadmium		1000	-0.3	1010.1	**101.0**						
Calcium	100000	100000	100906.0	102517.0	**102.5**						
Chromium		1000	-4.4	1030.5	**103.1**						
Cobalt		1000	1.1	978.2	**97.8**						
Copper		1000	-0.3	1004.4	**100.4**						
Iron	200000	200000	196897.5	199385.4	**99.7**						
Lead		1000	-9.8	966.1	**96.6**						
Magnesium	100000	100000	99289.0	100404.4	**100.4**						
Manganese		1000	0.5	944.1	**94.4**						
Molybdenum			4.1	4.7							
Nickel		1000	1.4	994.2	**99.4**						
Potassium			86.2	-91.3							
Selenium		1000	36.5	1037.9	**103.8**						
Silicon			-11.9	-8.3							
Silver		1000	-0.4	1022.2	**102.2**						
Sodium			-3.8	4.4							
Strontium			1.0	1.1							
Thallium		1000	13.0	952.8	**95.3**						
Tin			-8.3	-10.2							
Titanium			0.3	-0.2							
Vanadium		1000	2.2	989.9	**99.0**						
Zinc		1000	0.8	1000.7	**100.1**						

QC28 : 00228

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA

SDG: QC28 UNITS: ug/L

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

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA

IEC DATE: 10/27/2009

SDG: QC28

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2992980
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	11.3530000	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0431211	0.0000000	-0.9542220	1.1240900	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1773530	0.0000000	0.0000000	0.0662676
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	3.9420000	0.0000000	0.0000000	0.0000000	0.0000000	0.0985999	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0122394	0.0000000	-0.0457936	0.0000000	0.0000000	-0.0545282
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2984720	0.0000000	0.0124833
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2831340	-0.0453990	0.0000000	-0.0792997
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.0707400	0.0000000	0.0000000
Lead	220.35	-0.1428830	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.8358700	1.1730500	0.0763424
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.5843000	-0.9920170	0.0000000	0.4458000
Manganese	257.61	0.0061021	0.0000000	0.0000000	0.0000000	0.0021149	0.0000000	0.0000000	0.0000000	0.0000000	-0.0079027
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0148375	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1359200	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.9382900	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	-0.0060133	0.0000000	0.0000000	0.0000000	0.0968378	-0.0122902
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	5.1205400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	7.4105400	0.4518650	0.0000000	-0.1789600
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0794490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0839900	0.0000000	-0.0852448	0.1871040	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.2997100	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0257310	0.0000000	0.0000000	0.3190810	0.0000000	0.0000000

QC28 : 00230

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA

IEC DATE: 10/27/2009

SDG: QC28

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	11.6836000	0.0000000	0.0000000	0.0000000	1.2193900	0.0000000	17.3813000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.4440460	0.0000000	0.0000000	-1.0425700	0.0000000	-3.1874700	0.0000000
Arsenic	188.98	0.0000000	0.0000000	1.8104900	0.0000000	0.0000000	0.0000000	-3.4991100	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0748602	0.0000000	0.0000000	0.0000000	0.0000000	0.5356500	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0124522	0.0000000	6.7840800	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.6749840	0.0000000	0.0000000	0.0000000	0.0000000	0.0469671	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0786617	0.2171800	0.1353410	0.0000000	0.0000000	0.0000000	0.0285732	0.0000000	0.2147910	0.0352974
Cobalt	228.62	0.0000000	0.0000000	-0.1731560	0.0903577	0.0000000	0.0000000	2.2500900	0.0000000	0.0689374	0.0000000
Copper	324.75	0.0214573	0.0000000	0.6441500	0.0000000	0.0000000	0.0000000	0.3183570	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.3887500	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.1299190	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	-2.7284700	-4.7006100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0060582	0.0000000	0.0000000	0.0000000	-0.2331920	0.0000000	0.0000000	0.0000000	-0.0244555	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.6281740	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.1099940	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3016870	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	103.4380000	0.0000000	0.0000000	260.9980000
Thallium	190.80	0.0000000	0.0000000	-3.4908200	0.0000000	0.0000000	0.0000000	0.5954100	0.0000000	4.4152200	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0449037	-1.1125200	-0.5229270	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.1843000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1533250	-0.6695660	0.0000000	0.0000000	0.0000000	0.2005130	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2150240	0.0000000	-0.0607106	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

QC28:09231

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA

SDG: QC28

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 12/21/2009

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
CB4857-121009-SED	QC28A	1.024	0.0	50.0
CB4857-121009-SEDD	QC28ADUP	1.022	0.0	50.0
CB4857-121009-SEDS	QC28ASPK	1.026	0.0	50.0
PBS	QC28MB1	1.000	0.0	50.0
LCSS	QC28MB1SPK	1.000	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 12/23/2009

SDG: QC28 | RUNID: IP122371 | METHOD: ICP | END DATE: 12/23/2009

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08091				X																	X									
S2	S2	1.00	08131																														
S3	S3	1.00	08144				X																	X									
S4	S4	1.00	08165																														
S5	S5	1.00	08184																														
ICV	ICV	1.00	08290				X																	X									
ICB	ICB	1.00	08322				X																	X									
CRI	CRII	1.00	08362				X																	X									
ICSA	ICSAI	1.00	08455				X																	X									
ICSAB	ICSABI	1.00	08484				X																	X									
ZZZZZZ	ZZZZZZ	1.00	08500																														
CCV	CCV1	1.00	08550				X																	X									
CCB	CCB1	1.00	08584				X																	X									
ZZZZZZ	QC41MB	2.00	09024																														
ZZZZZZ	QC41B	2.00	09063																														
ZZZZZZ	QC41C	2.00	09101																														
ZZZZZZ	QC41D	2.00	09134																														
ZZZZZZ	QC41E	2.00	09172																														
ZZZZZZ	QC41F	2.00	09205																														
ZZZZZZ	QC41ADUP	2.00	09241																														
ZZZZZZ	QC41A	2.00	09274																														
ZZZZZZ	QC41ASPK	2.00	09310																														
ZZZZZZ	QC41MBSPK	2.00	09343																														
CCV	CCV2	1.00	09381				X																	X									
CCB	CCB2	1.00	09464				X																	X									
ZZZZZZ	QC41G	2.00	09493																														
ZZZZZZ	QC41H	2.00	09505																														
ZZZZZZ	QC41I	2.00	09532																														
ZZZZZZ	QC41J	2.00	09570																														
ZZZZZZ	QC41K	2.00	10003																														
ZZZZZZ	QC41L	2.00	10042																														
ZZZZZZ	QC41M	2.00	10080																														
ZZZZZZ	QC41N	2.00	10114																														
ZZZZZZ	QC41O	2.00	10152																														
ZZZZZZ	D1	1.00	10192																														

QC28.00233

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: POS-LLA | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 12/23/2009

SDG: QC28 | RUNID: IP122371 | METHOD: ICP | END DATE: 12/23/2009

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
CCV	CCV3	1.00	10231				X																	X									
CCB	CCB3	1.00	10264				X																	X									
PBS	QC28MB1	2.00	10303				X																	X									
ZZZZZZ	QC41P	2.00	10343																														
ZZZZZZ	QC41Q	2.00	10381																														
ZZZZZZ	QC41R	2.00	10464																														
ZZZZZZ	QC41S	2.00	10482																														
CB4857-121009-SEDD	QC28ADUP	2.00	10495				X																	X									
CB4857-121009-SED	QC28A	2.00	10523				X																	X									
CB4857-121009-SEDS	QC28ASPK	2.00	10561				X																	X									
ZZZZZZ	ZZZZZZ	2.00	10590																														
LCSS	QC28MB1SPK	2.00	11014				X																	X									
CCV	CCV4	1.00	11052				X																	X									
CCB	CCB4	1.00	11090				X																	X									

QC28:00231

Metals Analysis
Sample Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: CB4857-121009-SED
SAMPLE

Lab Sample ID: QC28A
LIMS ID: 09-31268
Matrix: Sediment
Data Release Authorized:
Reported: 12/24/09

QC Report No: QC28-Floyd/Snider
Project: POS-LLA

Date Sampled: 12/10/09
Date Received: 12/21/09

Percent Total Solids: 81.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	12/21/09	6010B	12/23/09	7440-38-2	Arsenic	6	6	U
3050B	12/21/09	6010B	12/23/09	**7439-92-1**	**Lead**	2	**42**	

U-Analyte undetected at given RL
RL-Reporting Limit

Metals Analysis
Instrument Raw Data and Logs

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 10-27-09 Analysis Date: 12-23-09 Analyst: [illegible]
LR Date: 10-6-09 Page: 1 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD0			2665-13
		2			2666-4
		3			-5
		4			-6
		5			-7
		ICV			2644-12
		ICB			
		CRI			
		ICSA			
		ICSAB			
		ZZZZZZ			noisy
		CCV1			
		CCB1			
		(i) QC41 MB	Swc	2	
		B			
		C			
		D			
		E			
		F			
		ADup			
		A			
		Aspk			
		MBspk			✓
		CCV2			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: _____ Analysis Date: 12-23-09 Analyst: ~~AK~~

LR Date: _____ Page: 2 of 5

All corrections made by analyst unless otherwise noted. ~~AK~~ 12-23-09

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCB2			
		QC41G	SWC	2	
		H			
		I			
		J			
		K			
		L			
		M			
		N			
		O			
		D1			Info only
		CCV3			Sr high
		CCB3			
		QC28 MB1	SWC	2	
		QC41P			
		Q			
		R			
		S			
		QC28 ADup			
QC28		A			
		~~Aspk~~			
ZZZ		~~APost~~ ZZZZZZ			
		MBSpk			
		CCV4			Sr high

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: ——— Analysis Date: 12-23-09 Analyst: MT

LR Date: ✓ Page: 3 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCB4			end rtg
		QC32 MB	TWC		
		QC40 MB	↓		
		QB78 ↓	WWW		
		↓ V	↓	2	
		QC34 A	TWC		
		QC32 A			
		QC35 A			
		QC40 A			
		↓ MBSpl			
		QC32 MBSpl	↓		
		CCV			Sr high
		CCB			
		QB89 MB	SWC	2	Zn 0.01756 A.N.
		QB91 MB			
		↓ A			
		↓ B			
✓		↓ C			RR 1/5 (Fe
		QB89 A			
	✓	↓ B			RR 1/5 (Ca)
		↓ MBSpl			
91		QB91 MB Spl	↓	↓	
		CCV			Sr high
		CCB			

12-24-09

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA **Analysis Date:** 12-23-09

OPT II	Analyst AH 12-24	Peer JW 12/24/09	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	✓	✓	See Log
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	QB89
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	✓	✓	AN. QB89 QB91

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

==========

12/23/2009 8:03:54 AM Hg ReAlign... Actual peak offset (nm): 0.003
Drift (nm): 0.001 Slit adjustment: 4

==========

==========

Analysis Begun

Start Time: 12/23/2009 8:09:12 AM **Plasma On Time: 12/23/2009 7:13:35 AM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\metals\Sample Information\CRISET2.sif
Batch ID:
Results Data Set: I2091223
Results Library: C:\pe\metals\Results\Results.mdb

==========

Method Loaded
Method Name: 7300bcESI2 **Method Last Saved: 11/27/2009 1:14:23 PM**
IEC File: IEC45.iec **MSF File:**
Method Description: 12Axial Elements

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank 1 **Date Collected: 12/23/2009 8:09:17 AM**
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2131473.6	6497.94	0.30%	100.0	%
ScR 361.383	344550.6	1473.10	0.43%	100.0	%
Ag 328.068†	-262.7	4.59	1.75%	[0.00]	mg/L
Al 308.215†	-93.5	28.48	30.46%	[0.00]	mg/L
As 188.979†	-6.6	3.22	49.13%	[0.00]	mg/L
B 249.677†	0.1	4.29	>999.9%	[0.00]	mg/L
Ba 233.527†	11.4	1.96	17.19%	[0.00]	mg/L
Be 313.042†	1070.4	18.61	1.74%	[0.00]	mg/L
Ca 317.933†	376.7	12.46	3.31%	[0.00]	mg/L
Cd 228.802†	238.4	2.02	0.85%	[0.00]	mg/L
Co 228.616†	-43.7	4.79	10.97%	[0.00]	mg/L
Cr 267.716†	21.4	3.98	18.59%	[0.00]	mg/L
Cu 324.752†	7304.4	23.28	0.32%	[0.00]	mg/L
Fe 273.955†	12.1	1.54	12.67%	[0.00]	mg/L
K 766.490†	-163.5	25.89	15.83%	[0.00]	mg/L
Mg 279.077†	123.3	3.49	2.83%	[0.00]	mg/L
Mn 257.610†	90.5	0.69	0.76%	[0.00]	mg/L
Mo 202.031†	52.8	2.09	3.96%	[0.00]	mg/L
Na 589.592†	-90.2	37.24	41.30%	[0.00]	mg/L
Na 330.237†	-266.2	13.70	5.14%	[0.00]	mg/L
Ni 231.604†	-35.1	1.36	3.87%	[0.00]	mg/L
Pb 220.353†	-39.4	6.05	15.34%	[0.00]	mg/L
Sb 206.836†	46.2	3.74	8.08%	[0.00]	mg/L
Se 196.026†	-58.9	7.15	12.14%	[0.00]	mg/L
Si 288.158†	81.0	9.98	12.31%	[0.00]	mg/L
Sn 189.927†	-5.9	1.16	19.82%	[0.00]	mg/L
Sr 421.552†	101.8	25.79	25.34%	[0.00]	mg/L
Ti 334.903†	23.1	20.42	88.49%	[0.00]	mg/L
Tl 190.801†	-25.5	2.89	11.31%	[0.00]	mg/L
V 292.402†	246.0	24.50	9.96%	[0.00]	mg/L
Zn 206.200†	31.3	1.61	5.15%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 12/23/2009 8:13:16 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2119366.9	8173.37	0.39%	99.43	%
ScR 361.383	341079.9	2587.92	0.76%	98.99	%
Ba 233.527†	57872.2	615.85	1.06%	[10]	mg/L
Cd 228.802†	291671.4	1414.36	0.48%	[10]	mg/L
Co 228.616†	238307.3	1210.22	0.51%	[10]	mg/L
Cr 267.716†	69202.2	834.51	1.21%	[10]	mg/L
Cu 324.752†	3064837.4	13561.70	0.44%	[10]	mg/L
Mn 257.610†	411003.8	3713.34	0.90%	[10]	mg/L
V 292.402†	1172051.2	7107.76	0.61%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 12/23/2009 8:14:41 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2144302.8	16743.08	0.78%	100.6	%
ScR 361.383	347403.5	4257.82	1.23%	100.8	%
Ag 328.068†	158179.8	956.31	0.60%	[1.0]	mg/L
As 188.979†	13799.4	29.36	0.21%	[10]	mg/L
B 249.677†	55048.7	408.63	0.74%	[10]	mg/L
Be 313.042†	3973414.7	56304.07	1.42%	[5.0]	mg/L
Na 589.592†	650127.4	1471.52	0.23%	[50]	mg/L
Ni 231.604†	27739.6	236.64	0.85%	[10]	mg/L
Pb 220.353†	56212.8	116.77	0.21%	[10]	mg/L
Se 196.026†	11789.9	22.96	0.19%	[10]	mg/L
Sr 421.552†	2998016.5	47463.64	1.58%	[5]	mg/L
Tl 190.801†	15918.1	47.33	0.30%	[10]	mg/L
Zn 206.200†	20725.9	160.50	0.77%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 12/23/2009 8:16:53 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2143613.6	40577.82	1.89%	100.6	%
ScR 361.383	350378.0	3495.46	1.00%	101.7	%
Mo 202.031†	134854.9	2616.92	1.94%	[10]	mg/L
Sb 206.836†	21481.3	389.94	1.82%	[10]	mg/L
Si 288.158†	24192.7	426.59	1.76%	[10]	mg/L
Sn 189.927†	36395.7	746.83	2.05%	[10]	mg/L
Ti 334.903†	240918.1	1893.98	0.79%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 12/23/2009 8:18:46 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2048655.8	12666.21	0.62%	96.11	%
ScR 361.383	348803.1	4652.29	1.33%	101.2	%
Al 308.215†	61381.5	316.24	0.52%	[30]	mg/L
Ca 317.933†	704180.2	7945.74	1.13%	[30]	mg/L
Fe 273.955†	131670.3	1391.58	1.06%	[100]	mg/L
K 766.490†	151758.0	1833.01	1.21%	[100]	mg/L
Mg 279.077†	59124.6	508.16	0.86%	[30]	mg/L
Na 330.237†	2836.0	15.99	0.56%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	158200	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	2046	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1380	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	5505	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	5787	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	794700	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	23470	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	29170	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	23830	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6920	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	306500	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1317	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1518	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1971	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	41100	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	13490	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	13000	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	28.36	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	2774	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	5621	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2148	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1179	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2419	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3640	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	599600	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	24090	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1592	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	117200	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	2073	0.00000	1.000000	

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Analysis Begun

Start Time: 12/23/2009 8:29:00 AM **Plasma On Time: 12/23/2009 7:13:35 AM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C8121202Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\CRISET2.sif
Batch ID:
Results Data Set: I2091223
Results Library: C:\pe\metals\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CV **Date Collected: 12/23/2009 8:29:01 AM**
Analyst: ALA **Data Type: Original**
Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2135968.7	100.2	%	0.89				0.89%
ScR 361.383	344192.4	99.90	%	0.817				0.82%
Ag 328.068†	151811.6	0.9597	mg/L	0.01189	0.9597	mg/L	0.01189	1.24%
Al 308.215†	4269.0	2.055	mg/L	0.0180	2.055	mg/L	0.0180	0.88%
As 188.979†	2693.8	1.971	mg/L	0.0159	1.971	mg/L	0.0159	0.80%
B 249.677†	5622.2	1.020	mg/L	0.0100	1.020	mg/L	0.0100	0.98%
Ba 233.527†	5770.5	0.9964	mg/L	0.00728	0.9964	mg/L	0.00728	0.73%
Be 313.042†	779968.6	0.9809	mg/L	0.01389	0.9809	mg/L	0.01389	1.42%
Ca 317.933†	46258.6	1.971	mg/L	0.0321	1.971	mg/L	0.0321	1.63%
Cd 228.802†	29134.8	0.9926	mg/L	0.00947	0.9926	mg/L	0.00947	0.95%
Co 228.616†	23774.0	0.9958	mg/L	0.00964	0.9958	mg/L	0.00964	0.97%
Cr 267.716†	6947.4	1.003	mg/L	0.0096	1.003	mg/L	0.0096	0.95%
Cu 324.752†	292940.1	0.9551	mg/L	0.01210	0.9551	mg/L	0.01210	1.27%
Fe 273.955†	2642.7	2.001	mg/L	0.0118	2.001	mg/L	0.0118	0.59%
K 766.490†	30997.8	20.43	mg/L	0.318	20.43	mg/L	0.318	1.56%
Mg 279.077†	4028.4	2.049	mg/L	0.0152	2.049	mg/L	0.0152	0.74%
Mn 257.610†	38728.5	0.9428	mg/L	0.01252	0.9428	mg/L	0.01252	1.33%
Mo 202.031†	13119.2	0.9728	mg/L	0.00864	0.9728	mg/L	0.00864	0.89%
Na 589.592†	646948.8	49.76	mg/L	0.635	49.76	mg/L	0.635	1.28%
Na 330.237†	1490.0	52.55	mg/L	0.220	52.55	mg/L	0.220	0.42%
Ni 231.604†	2772.9	1.001	mg/L	0.0075	1.001	mg/L	0.0075	0.75%
Pb 220.353†	11205.7	1.995	mg/L	0.0174	1.995	mg/L	0.0174	0.87%
Sb 206.836†	4229.2	1.975	mg/L	0.0134	1.975	mg/L	0.0134	0.68%
Se 196.026†	2342.6	1.987	mg/L	0.0132	1.987	mg/L	0.0132	0.67%
Si 288.158†	4909.7	2.033	mg/L	0.0177	2.033	mg/L	0.0177	0.87%
Sn 189.927†	3492.5	0.9615	mg/L	0.00733	0.9615	mg/L	0.00733	0.76%
Sr 421.552†	627621.7	1.047	mg/L	0.0225	1.047	mg/L	0.0225	2.15%
Ti 334.903†	23259.2	0.9638	mg/L	0.01333	0.9638	mg/L	0.01333	1.38%
Tl 190.801†	3144.1	1.975	mg/L	0.0181	1.975	mg/L	0.0181	0.92%
V 292.402†	114440.7	0.9802	mg/L	0.01429	0.9802	mg/L	0.01429	1.46%
Zn 206.200†	2089.7	1.007	mg/L	0.0088	1.007	mg/L	0.0088	0.87%

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

Autosampler Location: 1
Date Collected: 12/23/2009 8:32:29 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2125554.8	99.72	%	1.336				1.34%
ScR 361.383	346626.7	100.6	%	0.29				0.28%
Ag 328.068†	37.7	0.00024	mg/L	0.000245	0.00024	mg/L	0.000245	102.65%
Al 308.215†	40.8	0.01994	mg/L	0.004661	0.01994	mg/L	0.004661	23.38%
As 188.979†	4.4	0.00322	mg/L	0.002535	0.00322	mg/L	0.002535	78.61%
B 249.677†	14.9	0.00271	mg/L	0.001426	0.00271	mg/L	0.001426	52.70%
Ba 233.527†	1.8	0.00030	mg/L	0.000483	0.00030	mg/L	0.000483	159.59%
Be 313.042†	176.1	0.00022	mg/L	0.000136	0.00022	mg/L	0.000136	61.60%
Ca 317.933†	-7.6	-0.00033	mg/L	0.000845	-0.00033	mg/L	0.000845	259.99%
Cd 228.802†	1.7	0.00005	mg/L	0.000112	0.00005	mg/L	0.000112	226.41%
Co 228.616†	-2.9	-0.00012	mg/L	0.000091	-0.00012	mg/L	0.000091	73.42%
Cr 267.716†	4.1	0.00059	mg/L	0.000715	0.00059	mg/L	0.000715	121.05%
Cu 324.752†	111.2	0.00036	mg/L	0.000208	0.00036	mg/L	0.000208	57.41%
Fe 273.955†	1.4	0.00105	mg/L	0.001786	0.00105	mg/L	0.001786	169.37%
K 766.490†	25.0	0.01648	mg/L	0.029760	0.01648	mg/L	0.029760	180.53%
Mg 279.077†	-0.5	-0.00024	mg/L	0.003963	-0.00024	mg/L	0.003963	>999.9%
Mn 257.610†	6.9	0.00017	mg/L	0.000251	0.00017	mg/L	0.000251	150.17%
Mo 202.031†	3.3	0.00025	mg/L	0.000142	0.00025	mg/L	0.000142	57.41%
Na 589.592†	151.1	0.01162	mg/L	0.004912	0.01162	mg/L	0.004912	42.27%
Na 330.237†	-6.0	-0.2120	mg/L	0.41445	-0.2120	mg/L	0.41445	195.53%
Ni 231.604†	4.9	0.00175	mg/L	0.001799	0.00175	mg/L	0.001799	102.68%
Pb 220.353†	-8.7	-0.00154	mg/L	0.000713	-0.00154	mg/L	0.000713	46.35%
Sb 206.836†	1.5	0.00069	mg/L	0.000946	0.00069	mg/L	0.000946	136.35%
Se 196.026†	6.3	0.00536	mg/L	0.006694	0.00536	mg/L	0.006694	124.85%
Si 288.158†	-11.3	-0.00466	mg/L	0.002666	-0.00466	mg/L	0.002666	57.22%
Sn 189.927†	2.0	0.00056	mg/L	0.000494	0.00056	mg/L	0.000494	87.91%
Sr 421.552†	144.7	0.00024	mg/L	0.000169	0.00024	mg/L	0.000169	69.88%
Ti 334.903†	14.2	0.00059	mg/L	0.000719	0.00059	mg/L	0.000719	122.27%
Tl 190.801†	4.0	0.00249	mg/L	0.001633	0.00249	mg/L	0.001633	65.61%
V 292.402†	15.5	0.00013	mg/L	0.000182	0.00013	mg/L	0.000182	135.06%
Zn 206.200†	1.2	0.00055	mg/L	0.000141	0.00055	mg/L	0.000141	25.38%

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

Autosampler Location: 301
Date Collected: 12/23/2009 8:36:23 AM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2153438.4	101.0	%	0.05				0.05%
ScR 361.383	350493.9	101.7	%	0.88				0.87%
Ag 328.068†	483.2	0.00305	mg/L	0.000107	0.00305	mg/L	0.000107	3.49%
Al 308.215†	121.3	0.05914	mg/L	0.003285	0.05914	mg/L	0.003285	5.55%
As 188.979†	69.3	0.05028	mg/L	0.000897	0.05028	mg/L	0.000897	1.78%
B 249.677†	117.9	0.02142	mg/L	0.000966	0.02142	mg/L	0.000966	4.51%
Ba 233.527†	22.7	0.00391	mg/L	0.000769	0.00391	mg/L	0.000769	19.66%
Be 313.042†	800.3	0.00101	mg/L	0.000035	0.00101	mg/L	0.000035	3.49%
Ca 317.933†	1180.7	0.05030	mg/L	0.000570	0.05030	mg/L	0.000570	1.13%
Cd 228.802†	67.2	0.00214	mg/L	0.000105	0.00214	mg/L	0.000105	4.90%
Co 228.616†	71.0	0.00297	mg/L	0.000197	0.00297	mg/L	0.000197	6.63%
Cr 267.716†	37.8	0.00546	mg/L	0.000302	0.00546	mg/L	0.000302	5.54%
Cu 324.752†	701.4	0.00228	mg/L	0.000167	0.00228	mg/L	0.000167	7.29%
Fe 273.955†	68.7	0.05217	mg/L	0.004008	0.05217	mg/L	0.004008	7.68%
K 766.490†	825.3	0.5438	mg/L	0.03158	0.5438	mg/L	0.03158	5.81%
Mg 279.077†	99.4	0.05044	mg/L	0.001399	0.05044	mg/L	0.001399	2.77%
Mn 257.610†	44.0	0.00108	mg/L	0.000121	0.00108	mg/L	0.000121	11.27%
Mo 202.031†	70.0	0.00519	mg/L	0.000208	0.00519	mg/L	0.000208	4.00%
Na 589.592†	6447.3	0.4958	mg/L	0.00449	0.4958	mg/L	0.00449	0.91%
Na 330.237†	19.8	0.6977	mg/L	0.62767	0.6977	mg/L	0.62767	89.97%
Ni 231.604†	32.1	0.01160	mg/L	0.000686	0.01160	mg/L	0.000686	5.91%
Pb 220.353†	101.6	0.01808	mg/L	0.001195	0.01808	mg/L	0.001195	6.61%
Sb 206.836†	106.5	0.04966	mg/L	0.003411	0.04966	mg/L	0.003411	6.87%
Se 196.026†	64.9	0.05501	mg/L	0.002649	0.05501	mg/L	0.002649	4.81%
Si 288.158†	133.6	0.05524	mg/L	0.001058	0.05524	mg/L	0.001058	1.92%
Sn 189.927†	34.9	0.00964	mg/L	0.000149	0.00964	mg/L	0.000149	1.55%
Sr 421.552†	645.3	0.00108	mg/L	0.000046	0.00108	mg/L	0.000046	4.28%
Ti 334.903†	94.0	0.00389	mg/L	0.001578	0.00389	mg/L	0.001578	40.57%
Tl 190.801†	80.9	0.05086	mg/L	0.001292	0.05086	mg/L	0.001292	2.54%
V 292.402†	366.6	0.00314	mg/L	0.000105	0.00314	mg/L	0.000105	3.34%
Zn 206.200†	23.1	0.01112	mg/L	0.001020	0.01112	mg/L	0.001020	9.18%

User canceled analysis.

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Analysis Begun

Start Time: 12/23/2009 8:45:51 AM **Plasma On Time: 12/23/2009 7:13:35 AM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C8121202Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\CRISET2.sif
Batch ID:
Results Data Set: I2091223
Results Library: C:\pe\metals\Results\Results.mdb

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Sequence No.: 4 **Autosampler Location: 302**
Sample ID: ICSA **Date Collected: 12/23/2009 8:45:52 AM**
Analyst: ALA **Data Type: Original**
Dilution: 1X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2113701.4	99.17	%	2.213				2.23%
ScR 361.383	338713.5	98.31	%	0.407				0.41%
Ag 328.068†	-59.2	-0.00037	mg/L	0.000177	-0.00037	mg/L	0.000177	47.94%
Al 308.215†	418334.8	204.5	mg/L	1.47	204.5	mg/L	1.47	0.72%
As 188.979†	27.5	0.01571	mg/L	0.001318	0.01571	mg/L	0.001318	8.39%
B 249.677†	-18.3	-0.00333	mg/L	0.002415	-0.00333	mg/L	0.002415	72.47%
Ba 233.527†	123.3	0.00249	mg/L	0.000649	0.00249	mg/L	0.000649	26.06%
Be 313.042†	68.6	0.00007	mg/L	0.000006	0.00007	mg/L	0.000006	8.11%
Ca 317.933†	2368532.7	100.9	mg/L	0.47	100.9	mg/L	0.47	0.46%
Cd 228.802†	36.7	-0.00034	mg/L	0.000197	-0.00034	mg/L	0.000197	57.32%
Co 228.616†	81.8	0.00105	mg/L	0.000412	0.00105	mg/L	0.000412	39.13%
Cr 267.716†	4.1	-0.00442	mg/L	0.000590	-0.00442	mg/L	0.000590	13.34%
Cu 324.752†	-3481.1	-0.00031	mg/L	0.000379	-0.00031	mg/L	0.000379	123.70%
Fe 273.955†	259255.7	196.9	mg/L	1.30	196.9	mg/L	1.30	0.66%
K 766.490†	130.9	0.08623	mg/L	0.042585	0.08623	mg/L	0.042585	49.39%
Mg 279.077†	195879.0	99.29	mg/L	0.702	99.29	mg/L	0.702	0.71%
Mn 257.610†	21.4	0.00046	mg/L	0.000112	0.00046	mg/L	0.000112	24.19%
Mo 202.031†	77.1	0.00412	mg/L	0.000135	0.00412	mg/L	0.000135	3.29%
Na 589.592†	-49.5	-0.00381	mg/L	0.004065	-0.00381	mg/L	0.004065	106.82%
Na 330.237†	-3.5	-0.1255	mg/L	0.29839	-0.1255	mg/L	0.29839	237.79%
Ni 231.604†	3.8	0.00138	mg/L	0.002108	0.00138	mg/L	0.002108	153.06%
Pb 220.353†	-184.2	-0.00982	mg/L	0.000178	-0.00982	mg/L	0.000178	1.82%
Sb 206.836†	21.5	0.00989	mg/L	0.000331	0.00989	mg/L	0.000331	3.34%
Se 196.026†	50.5	0.03651	mg/L	0.008015	0.03651	mg/L	0.008015	21.95%
Si 288.158†	-28.7	-0.01186	mg/L	0.001028	-0.01186	mg/L	0.001028	8.67%
Sn 189.927†	-54.6	-0.00826	mg/L	0.001018	-0.00826	mg/L	0.001018	12.32%
Sr 421.552†	571.9	0.00095	mg/L	0.000047	0.00095	mg/L	0.000047	4.88%
Ti 334.903†	218.1	0.00026	mg/L	0.000146	0.00026	mg/L	0.000146	56.89%
Tl 190.801†	-25.1	0.01302	mg/L	0.003264	0.01302	mg/L	0.003264	25.07%
V 292.402†	2661.1	0.00217	mg/L	0.000981	0.00217	mg/L	0.000981	45.21%
Zn 206.200†	29.1	0.00085	mg/L	0.001594	0.00085	mg/L	0.001594	187.65%

Sequence No.: 5
Sample ID: ~~ICSAB~~ ICSA3
Analyst: ALA
Dilution: 1X
at 12-23

Autosampler Location: 303
Date Collected: 12/23/2009 8:48:43 AM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2127760.9	99.83	%	0.826				0.83%
ScR 361.383	345837.7	100.4	%	1.45				1.44%
Ag 328.068†	161685.1	1.022	mg/L	0.0146	1.022	mg/L	0.0146	1.43%
Al 308.215†	421065.9	205.8	mg/L	5.42	205.8	mg/L	5.42	2.63%
As 188.979†	1400.7	1.011	mg/L	0.0082	1.011	mg/L	0.0082	0.82%
B 249.677†	-1.1	-0.00250	mg/L	0.000308	-0.00250	mg/L	0.000308	12.33%
Ba 233.527†	5998.4	1.017	mg/L	0.0195	1.017	mg/L	0.0195	1.91%
Be 313.042†	802193.3	1.009	mg/L	0.0303	1.009	mg/L	0.0303	3.00%
Ca 317.933†	2406348.2	102.5	mg/L	3.05	102.5	mg/L	3.05	2.98%
Cd 228.802†	29594.9	1.010	mg/L	0.0076	1.010	mg/L	0.0076	0.75%
Co 228.616†	23377.9	0.9782	mg/L	0.01117	0.9782	mg/L	0.01117	1.14%
Cr 267.716†	7167.2	1.031	mg/L	0.0188	1.031	mg/L	0.0188	1.83%
Cu 324.752†	304317.2	1.004	mg/L	0.0110	1.004	mg/L	0.0110	1.10%
Fe 273.955†	262539.2	199.4	mg/L	5.57	199.4	mg/L	5.57	2.79%
K 766.490†	-138.5	-0.09128	mg/L	0.021724	-0.09128	mg/L	0.021724	23.80%
Mg 279.077†	198074.6	100.4	mg/L	2.59	100.4	mg/L	2.59	2.58%
Mn 257.610†	38793.9	0.9441	mg/L	0.02852	0.9441	mg/L	0.02852	3.02%
Mo 202.031†	85.7	0.00473	mg/L	0.000498	0.00473	mg/L	0.000498	10.53%
Na 589.592†	56.6	0.00436	mg/L	0.002426	0.00436	mg/L	0.002426	55.70%
Na 330.237†	9.1	0.07608	mg/L	0.102138	0.07608	mg/L	0.102138	134.26%
Ni 231.604†	2755.8	0.9942	mg/L	0.02056	0.9942	mg/L	0.02056	2.07%
Pb 220.353†	5297.0	0.9661	mg/L	0.01442	0.9661	mg/L	0.01442	1.49%
Sb 206.836†	2163.3	0.9994	mg/L	0.01150	0.9994	mg/L	0.01150	1.15%
Se 196.026†	1231.2	1.038	mg/L	0.0101	1.038	mg/L	0.0101	0.98%
Si 288.158†	-29.6	-0.00831	mg/L	0.008065	-0.00831	mg/L	0.008065	96.99%
Sn 189.927†	-64.3	-0.01015	mg/L	0.000695	-0.01015	mg/L	0.000695	6.84%
Sr 421.552†	634.7	0.00106	mg/L	0.000018	0.00106	mg/L	0.000018	1.68%
Ti 334.903†	218.9	-0.00018	mg/L	0.000286	-0.00018	mg/L	0.000286	162.47%
Tl 190.801†	1474.8	0.9528	mg/L	0.01014	0.9528	mg/L	0.01014	1.06%
V 292.402†	117977.9	0.9899	mg/L	0.01157	0.9899	mg/L	0.01157	1.17%
Zn 206.200†	2103.3	1.001	mg/L	0.0217	1.001	mg/L	0.0217	2.17%

Sequence No.: 6
Sample ID: ~~CV~~ ZZZZZZ
Analyst: ALA
Dilution: 1X

12-23

Autosampler Location: 7
Date Collected: 12/23/2009 8:50:03 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2158663.1	101.3	%	0.35				0.35%
ScR 361.383	345850.5	100.4	%	0.58				0.58%
Ag 328.068†	161904.7	1.023	mg/L	0.0026	1.023	mg/L	0.0026	0.25%
Al 308.215†	4503.8	2.168	mg/L	0.1016	2.168	mg/L	0.1016	4.69%
As 188.979†	2741.3	2.005	mg/L	0.0057	2.005	mg/L	0.0057	0.29%
B 249.677†	5740.8	1.041	mg/L	0.0078	1.041	mg/L	0.0078	0.75%
Ba 233.527†	5873.0	1.014	mg/L	0.0076	1.014	mg/L	0.0076	0.75%
Be 313.042†	789298.9	0.9926	mg/L	0.01386	0.9926	mg/L	0.01386	1.40%
Ca 317.933†	47050.0	2.004	mg/L	0.0231	2.004	mg/L	0.0231	1.15%
Cd 228.802†	30120.5	1.026	mg/L	0.0083	1.026	mg/L	0.0083	0.81%
Co 228.616†	23898.1	1.001	mg/L	0.0088	1.001	mg/L	0.0088	0.87%
Cr 267.716†	7112.3	1.027	mg/L	0.0049	1.027	mg/L	0.0049	0.47%
Cu 324.752†	308063.3	1.004	mg/L	0.0066	1.004	mg/L	0.0066	0.66%
Fe 273.955†	2776.5	2.103	mg/L	0.0986	2.103	mg/L	0.0986	4.69%
K 766.490†	31730.7	20.91	mg/L	0.258	20.91	mg/L	0.258	1.23%
Mg 279.077†	4178.5	2.125	mg/L	0.0487	2.125	mg/L	0.0487	2.29%
Mn 257.610†	39174.8	0.9537	mg/L	0.01166	0.9537	mg/L	0.01166	1.22%
Mo 202.031†	13298.8	0.9861	mg/L	0.00138	0.9861	mg/L	0.00138	0.14%
Na 589.592†	656165.7	50.46	mg/L	0.557	50.46	mg/L	0.557	1.10%
Na 330.237†	1523.6	53.74	mg/L	0.318	53.74	mg/L	0.318	0.59%
Ni 231.604†	2814.7	1.016	mg/L	0.0087	1.016	mg/L	0.0087	0.86%
Pb 220.353†	11324.5	2.016	mg/L	0.0025	2.016	mg/L	0.0025	0.12%
Sb 206.836†	4326.4	2.020	mg/L	0.0028	2.020	mg/L	0.0028	0.14%
Se 196.026†	2375.3	2.015	mg/L	0.0035	2.015	mg/L	0.0035	0.18%
Si 288.158†	4999.5	2.071	mg/L	0.0178	2.071	mg/L	0.0178	0.86%
Sn 189.927†	3558.1	0.9795	mg/L	0.00386	0.9795	mg/L	0.00386	0.39%
Sr 421.552†	644386.1	1.075	mg/L	0.0135	1.075	mg/L	0.0135	1.26%
Ti 334.903†	23598.1	0.9778	mg/L	0.01210	0.9778	mg/L	0.01210	1.24%
Tl 190.801†	3186.5	2.002	mg/L	0.0067	2.002	mg/L	0.0067	0.33%
V 292.402†	119686.4	1.025	mg/L	0.0154	1.025	mg/L	0.0154	1.50%
Zn 206.200†	2132.1	1.027	mg/L	0.0071	1.027	mg/L	0.0071	0.69%

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

AA 12-23-09

Autosampler Location: 1
Date Collected: 12/23/2009 8:52:17 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

User canceled analysis.

Analysis Begun

Start Time: 12/23/2009 8:55:04 AM
Logged In Analyst: metals
Spectrometer Model: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 12/23/2009 7:13:35 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\CRISET2.sif
Batch ID:
Results Data Set: I2091223
Results Library: C:\pe\metals\Results\Results.mdb

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

Autosampler Location: 7
Date Collected: 12/23/2009 8:55:05 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2146097.9	100.7	%	0.32				0.32%
ScR 361.383	345638.1	100.3	%	2.04				2.04%
Ag 328.068†	160761.0	1.016	mg/L	0.0035	1.016	mg/L	0.0035	0.35%
Al 308.215†	4333.7	2.085	mg/L	0.0518	2.085	mg/L	0.0518	2.48%
As 188.979†	2732.7	1.999	mg/L	0.0071	1.999	mg/L	0.0071	0.35%
B 249.677†	5706.8	1.035	mg/L	0.0228	1.035	mg/L	0.0228	2.20%
Ba 233.527†	5813.6	1.004	mg/L	0.0210	1.004	mg/L	0.0210	2.09%
Be 313.042†	780556.0	0.9816	mg/L	0.02428	0.9816	mg/L	0.02428	2.47%
Ca 317.933†	46255.3	1.971	mg/L	0.0495	1.971	mg/L	0.0495	2.51%
Cd 228.802†	30075.7	1.025	mg/L	0.0051	1.025	mg/L	0.0051	0.50%
Co 228.616†	23889.2	1.001	mg/L	0.0061	1.001	mg/L	0.0061	0.61%
Cr 267.716†	7044.4	1.017	mg/L	0.0234	1.017	mg/L	0.0234	2.30%
Cu 324.752†	307029.5	1.001	mg/L	0.0054	1.001	mg/L	0.0054	0.54%
Fe 273.955†	2655.3	2.010	mg/L	0.0453	2.010	mg/L	0.0453	2.26%
K 766.490†	31364.4	20.67	mg/L	0.476	20.67	mg/L	0.476	2.31%
Mg 279.077†	4080.5	2.076	mg/L	0.0442	2.076	mg/L	0.0442	2.13%
Mn 257.610†	38651.2	0.9409	mg/L	0.02221	0.9409	mg/L	0.02221	2.36%
Mo 202.031†	13269.5	0.9840	mg/L	0.00301	0.9840	mg/L	0.00301	0.31%
Na 589.592†	649001.4	49.91	mg/L	1.165	49.91	mg/L	1.165	2.33%
Na 330.237†	1511.9	53.32	mg/L	0.776	53.32	mg/L	0.776	1.45%
Ni 231.604†	2788.6	1.007	mg/L	0.0227	1.007	mg/L	0.0227	2.25%
Pb 220.353†	11301.2	2.012	mg/L	0.0085	2.012	mg/L	0.0085	0.42%
Sb 206.836†	4319.3	2.017	mg/L	0.0045	2.017	mg/L	0.0045	0.22%
Se 196.026†	2369.9	2.010	mg/L	0.0053	2.010	mg/L	0.0053	0.27%
Si 288.158†	4960.6	2.054	mg/L	0.0474	2.054	mg/L	0.0474	2.31%
Sn 189.927†	3536.1	0.9735	mg/L	0.00181	0.9735	mg/L	0.00181	0.19%
Sr 421.552†	640502.3	1.068	mg/L	0.0279	1.068	mg/L	0.0279	2.61%
Ti 334.903†	23366.1	0.9682	mg/L	0.02307	0.9682	mg/L	0.02307	2.38%
Tl 190.801†	3173.0	1.993	mg/L	0.0054	1.993	mg/L	0.0054	0.27%
V 292.402†	120313.1	1.030	mg/L	0.0083	1.030	mg/L	0.0083	0.80%
Zn 206.200†	2109.4	1.017	mg/L	0.0218	1.017	mg/L	0.0218	2.14%

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

Autosampler Location: 1
Date Collected: 12/23/2009 8:58:47 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2150851.1	100.9	%	0.92				0.91%
ScR 361.383	355380.9	103.1	%	0.65				0.63%
Ag 328.068†	22.4	0.00014	mg/L	0.000069	0.00014	mg/L	0.000069	48.91%
Al 308.215†	42.6	0.02084	mg/L	0.002543	0.02084	mg/L	0.002543	12.20%
As 188.979†	2.3	0.00170	mg/L	0.001808	0.00170	mg/L	0.001808	106.13%
B 249.677†	9.3	0.00170	mg/L	0.000389	0.00170	mg/L	0.000389	22.91%
Ba 233.527†	3.9	0.00067	mg/L	0.000324	0.00067	mg/L	0.000324	48.24%
Be 313.042†	43.7	0.00005	mg/L	0.000030	0.00005	mg/L	0.000030	53.87%
Ca 317.933†	-1.8	-0.00008	mg/L	0.000455	-0.00008	mg/L	0.000455	588.10%
Cd 228.802†	3.6	0.00012	mg/L	0.000204	0.00012	mg/L	0.000204	173.37%
Co 228.616†	-4.5	-0.00019	mg/L	0.000121	-0.00019	mg/L	0.000121	63.94%
Cr 267.716†	3.0	0.00043	mg/L	0.000609	0.00043	mg/L	0.000609	141.41%
Cu 324.752†	84.9	0.00028	mg/L	0.000279	0.00028	mg/L	0.000279	100.92%
Fe 273.955†	-0.8	-0.00063	mg/L	0.001800	-0.00063	mg/L	0.001800	286.73%
K 766.490†	38.9	0.02562	mg/L	0.025628	0.02562	mg/L	0.025628	100.05%
Mg 279.077†	4.8	0.00244	mg/L	0.002879	0.00244	mg/L	0.002879	117.97%
Mn 257.610†	2.6	0.00006	mg/L	0.000112	0.00006	mg/L	0.000112	176.98%
Mo 202.031†	2.1	0.00016	mg/L	0.000205	0.00016	mg/L	0.000205	131.37%
Na 589.592†	23.4	0.00180	mg/L	0.002132	0.00180	mg/L	0.002132	118.58%
Na 330.237†	5.5	0.1946	mg/L	0.28875	0.1946	mg/L	0.28875	148.41%
Ni 231.604†	5.6	0.00203	mg/L	0.000519	0.00203	mg/L	0.000519	25.53%
Pb 220.353†	-9.1	-0.00162	mg/L	0.001145	-0.00162	mg/L	0.001145	70.54%
Sb 206.836†	-0.6	-0.00028	mg/L	0.002055	-0.00028	mg/L	0.002055	731.49%
Se 196.026†	6.0	0.00507	mg/L	0.001708	0.00507	mg/L	0.001708	33.70%
Si 288.158†	-7.4	-0.00304	mg/L	0.000786	-0.00304	mg/L	0.000786	25.87%
Sn 189.927†	-0.2	-0.00004	mg/L	0.000946	-0.00004	mg/L	0.000946	>999.9%
Sr 421.552†	33.3	0.00006	mg/L	0.000037	0.00006	mg/L	0.000037	65.81%
Ti 334.903†	30.0	0.00124	mg/L	0.000674	0.00124	mg/L	0.000674	54.19%
Tl 190.801†	0.4	0.00024	mg/L	0.000841	0.00024	mg/L	0.000841	343.91%
V 292.402†	-9.0	-0.00008	mg/L	0.000088	-0.00008	mg/L	0.000088	115.85%
Zn 206.200†	0.7	0.00035	mg/L	0.000498	0.00035	mg/L	0.000498	142.44%

Sequence No.: 8
Sample ID: QC41 MB SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 304
Date Collected: 12/23/2009 9:02:41 AM
Data Type: Original

Nebulizer Parameters: QC41 MB SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: QC41 MB SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2226770.5	104.5	%	0.33				0.32%
ScR 361.383	364819.3	105.9	%	2.29				2.17%
Ag 328.068†	66.4	0.00042	mg/L	0.000157	0.00084	mg/L	0.000314	37.38%
Al 308.215†	193.7	0.09468	mg/L	0.005843	0.1894	mg/L	0.01169	6.17%
As 188.979†	0.2	0.00024	mg/L	0.002014	0.00049	mg/L	0.004027	829.60%
B 249.677†	6.3	0.00114	mg/L	0.001240	0.00227	mg/L	0.002480	109.00%
Ba 233.527†	2.8	0.00047	mg/L	0.000563	0.00094	mg/L	0.001125	119.75%
Be 313.042†	-43.5	-0.00006	mg/L	0.000046	-0.00011	mg/L	0.000091	82.93%
Ca 317.933†	953.6	0.04062	mg/L	0.000552	0.08125	mg/L	0.001104	1.36%
Cd 228.802†	-2.2	-0.00007	mg/L	0.000094	-0.00015	mg/L	0.000187	126.27%
Co 228.616†	1.0	0.00003	mg/L	0.000118	0.00006	mg/L	0.000235	403.39%
Cr 267.716†	-2.4	-0.00035	mg/L	0.000014	-0.00070	mg/L	0.000028	4.00%
Cu 324.752†	162.7	0.00054	mg/L	0.000177	0.00107	mg/L	0.000355	33.14%
Fe 273.955†	139.9	0.1063	mg/L	0.00114	0.2126	mg/L	0.00228	1.07%
K 766.490†	44.2	0.02911	mg/L	0.023385	0.05822	mg/L	0.046769	80.32%
Mg 279.077†	82.4	0.04178	mg/L	0.004720	0.08356	mg/L	0.009441	11.30%
Mn 257.610†	72.1	0.00175	mg/L	0.000113	0.00351	mg/L	0.000226	6.43%
Mo 202.031†	-2.4	-0.00018	mg/L	0.000254	-0.00036	mg/L	0.000508	139.52%
Na 589.592†	54.5	0.00419	mg/L	0.003998	0.00838	mg/L	0.007997	95.40%
Na 330.237†	19.4	0.6852	mg/L	0.55135	1.370	mg/L	1.1027	80.47%
Ni 231.604†	8.4	0.00301	mg/L	0.000547	0.00603	mg/L	0.001094	18.16%
Pb 220.353†	-8.9	-0.00158	mg/L	0.000527	-0.00315	mg/L	0.001054	33.41%
Sb 206.836†	-4.8	-0.00221	mg/L	0.000925	-0.00442	mg/L	0.001850	41.89%
Se 196.026†	6.2	0.00523	mg/L	0.001189	0.01046	mg/L	0.002378	22.74%
Si 288.158†	5.1	0.00210	mg/L	0.002131	0.00420	mg/L	0.004263	101.61%
Sn 189.927†	2.8	0.00077	mg/L	0.000586	0.00153	mg/L	0.001173	76.59%
Sr 421.552†	192.8	0.00032	mg/L	0.000012	0.00064	mg/L	0.000024	3.80%
Ti 334.903†	132.0	0.00548	mg/L	0.000852	0.01095	mg/L	0.001705	15.56%
Tl 190.801†	-0.2	-0.00009	mg/L	0.002682	-0.00018	mg/L	0.005364	>999.9%
V 292.402†	54.7	0.00045	mg/L	0.000121	0.00090	mg/L	0.000242	26.80%
Zn 206.200†	2.0	0.00095	mg/L	0.000380	0.00191	mg/L	0.000760	39.88%

Sequence No.: 9
Sample ID: QC41 B SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 305
Date Collected: 12/23/2009 9:06:35 AM
Data Type: Original

Nebulizer Parameters: QC41 B SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2255199.7	105.8	%	0.91				0.86%
ScR 361.383	367565.9	106.7	%	0.71				0.66%
Ag 328.068†	-28.2	-0.00028	mg/L	0.000149	-0.00057	mg/L	0.000298	52.64%
Al 308.215†	197078.8	96.30	mg/L	0.863	192.6	mg/L	1.73	0.90%
As 188.979†	-187.1	0.01155	mg/L	0.001414	0.02310	mg/L	0.002827	12.24%
B 249.677†	100.9	0.01816	mg/L	0.000926	0.03631	mg/L	0.001851	5.10%
Ba 233.527†	2861.3	0.4817	mg/L	0.00100	0.9634	mg/L	0.00201	0.21%
Be 313.042†	1187.9	0.00122	mg/L	0.000023	0.00244	mg/L	0.000046	1.88%
Ca 317.933†	1173713.7	50.00	mg/L	0.481	100.0	mg/L	0.96	0.96%
Cd 228.802†	42.4	0.00108	mg/L	0.000111	0.00216	mg/L	0.000222	10.28%
Co 228.616†	1878.3	0.06518	mg/L	0.001163	0.1304	mg/L	0.00233	1.78%
Cr 267.716†	2149.1	0.3099	mg/L	0.00084	0.6198	mg/L	0.00167	0.27%
Cu 324.752†	37552.7	0.1277	mg/L	0.00064	0.2554	mg/L	0.00127	0.50%
Fe 273.955†	172294.6	130.9	mg/L	1.12	261.7	mg/L	2.24	0.86%
K 766.490†	11405.8	7.516	mg/L	0.1166	15.03	mg/L	0.233	1.55%
Mg 279.077†	101989.5	51.69	mg/L	0.375	103.4	mg/L	0.75	0.72%
Mn 257.610†	90428.8	2.201	mg/L	0.0187	4.401	mg/L	0.0373	0.85%
Mo 202.031†	94.7	0.00623	mg/L	0.000592	0.01245	mg/L	0.001183	9.50%
Na 589.592†	72827.1	5.601	mg/L	0.0425	11.20	mg/L	0.085	0.76%
Na 330.237†	123.1	6.120	mg/L	0.1643	12.24	mg/L	0.329	2.69%
Ni 231.604†	957.8	0.3453	mg/L	0.00355	0.6905	mg/L	0.00711	1.03%
Pb 220.353†	187.6	0.04196	mg/L	0.001185	0.08393	mg/L	0.002370	2.82%
Sb 206.836†	-5.0	0.00353	mg/L	0.001241	0.00705	mg/L	0.002482	35.18%
Se 196.026†	31.7	0.02361	mg/L	0.002411	0.04721	mg/L	0.004821	10.21%
Si 288.158†	3721.0	1.538	mg/L	0.0054	3.076	mg/L	0.0107	0.35%
Sn 189.927†	-41.6	-0.00496	mg/L	0.001477	-0.00992	mg/L	0.002955	29.77%
Sr 421.552†	207713.4	0.3464	mg/L	0.00518	0.6928	mg/L	0.01037	1.50%
Ti 334.903†	169091.4	7.014	mg/L	0.0630	14.03	mg/L	0.126	0.90%
Tl 190.801†	-9.5	0.01528	mg/L	0.003231	0.03056	mg/L	0.006462	21.14%
V 292.402†	41156.8	0.3350	mg/L	0.00230	0.6700	mg/L	0.00460	0.69%
Zn 206.200†	640.9	0.3028	mg/L	0.00132	0.6056	mg/L	0.00265	0.44%

Sequence No.: 10
Sample ID: QC41 C SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 306
Date Collected: 12/23/2009 9:10:15 AM
Data Type: Original

Nebulizer Parameters: QC41 C SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2222330.3	104.3	%	0.99				0.95%
ScR 361.383	365964.3	106.2	%	0.68				0.64%
Ag 328.068†	28.7	0.00020	mg/L	0.000157	0.00040	mg/L	0.000314	78.72%
Al 308.215†	202776.5	99.08	mg/L	1.774	198.2	mg/L	3.55	1.79%
As 188.979†	-164.8	0.04697	mg/L	0.006540	0.09394	mg/L	0.013080	13.92%
B 249.677†	282.7	0.05115	mg/L	0.002065	0.1023	mg/L	0.00413	4.04%
Ba 233.527†	3505.7	0.5899	mg/L	0.00553	1.180	mg/L	0.0111	0.94%
Be 313.042†	1241.4	0.00120	mg/L	0.000037	0.00241	mg/L	0.000074	3.05%
Ca 317.933†	1808977.1	77.07	mg/L	1.255	154.1	mg/L	2.51	1.63%
Cd 228.802†	221.7	0.00715	mg/L	0.000145	0.01431	mg/L	0.000291	2.03%
Co 228.616†	2285.7	0.08016	mg/L	0.001245	0.1603	mg/L	0.00249	1.55%
Cr 267.716†	2141.1	0.3029	mg/L	0.00410	0.6057	mg/L	0.00820	1.35%
Cu 324.752†	151338.0	0.4997	mg/L	0.00230	0.9993	mg/L	0.00460	0.46%
Fe 273.955†	214532.0	162.9	mg/L	2.79	325.9	mg/L	5.59	1.72%
K 766.490†	15147.6	9.981	mg/L	0.1797	19.96	mg/L	0.359	1.80%
Mg 279.077†	195955.7	99.35	mg/L	1.861	198.7	mg/L	3.72	1.87%
Mn 257.610†	79764.0	1.943	mg/L	0.0289	3.885	mg/L	0.0578	1.49%
Mo 202.031†	275.8	0.01922	mg/L	0.000598	0.03845	mg/L	0.001196	3.11%
Na 589.592†	221043.3	17.00	mg/L	0.235	34.00	mg/L	0.470	1.38%
Na 330.237†	478.7	18.53	mg/L	0.191	37.06	mg/L	0.383	1.03%
Ni 231.604†	2116.2	0.7629	mg/L	0.00847	1.526	mg/L	0.0169	1.11%
Pb 220.353†	31431.2	5.598	mg/L	0.0730	11.20	mg/L	0.146	1.30%
Sb 206.836†	3.8	0.00942	mg/L	0.000846	0.01885	mg/L	0.001693	8.98%
Se 196.026†	47.4	0.03386	mg/L	0.000908	0.06772	mg/L	0.001816	2.68%
Si 288.158†	3768.6	1.558	mg/L	0.0351	3.116	mg/L	0.0703	2.26%
Sn 189.927†	-2.4	0.00804	mg/L	0.000907	0.01608	mg/L	0.001815	11.28%
Sr 421.552†	398291.8	0.6643	mg/L	0.01186	1.329	mg/L	0.0237	1.78%
Ti 334.903†	192160.8	7.969	mg/L	0.1265	15.94	mg/L	0.253	1.59%
Tl 190.801†	-23.4	0.01070	mg/L	0.001570	0.02140	mg/L	0.003140	14.68%
V 292.402†	55997.4	0.4577	mg/L	0.00314	0.9154	mg/L	0.00629	0.69%
Zn 206.200†	3923.3	1.886	mg/L	0.0281	3.772	mg/L	0.0562	1.49%

Sequence No.: 11
Sample ID: QC41 D SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 307
Date Collected: 12/23/2009 9:13:42 AM
Data Type: Original

Nebulizer Parameters: QC41 D SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2189019.8	102.7	%	0.08				0.08%
ScR 361.383	363402.2	105.5	%	0.31				0.30%
Ag 328.068†	60.2	0.00019	mg/L	0.000350	0.00039	mg/L	0.000700	181.62%
Al 308.215†	231474.0	113.1	mg/L	0.51	226.2	mg/L	1.01	0.45%
As 188.979†	-48.5	0.1169	mg/L	0.00526	0.2337	mg/L	0.01051	4.50%
B 249.677†	89.2	0.01603	mg/L	0.001723	0.03206	mg/L	0.003446	10.75%
Ba 233.527†	4708.8	0.7934	mg/L	0.00238	1.587	mg/L	0.0048	0.30%
Be 313.042†	1443.2	0.00148	mg/L	0.000016	0.00295	mg/L	0.000032	1.08%
Ca 317.933†	5818996.6	247.9	mg/L	3.09	495.8	mg/L	6.18	1.25%
Cd 228.802†	188.1	0.00510	mg/L	0.000068	0.01019	mg/L	0.000136	1.34%
Co 228.616†	2029.9	0.06949	mg/L	0.000169	0.1390	mg/L	0.00034	0.24%
Cr 267.716†	2245.4	0.3264	mg/L	0.00032	0.6528	mg/L	0.00064	0.10%
Cu 324.752†	138268.0	0.4615	mg/L	0.00117	0.9229	mg/L	0.00234	0.25%
Fe 273.955†	275179.9	209.0	mg/L	0.52	418.0	mg/L	1.03	0.25%
K 766.490†	10010.7	6.596	mg/L	0.0441	13.19	mg/L	0.088	0.67%
Mg 279.077†	95069.2	48.12	mg/L	0.105	96.23	mg/L	0.209	0.22%
Mn 257.610†	115304.2	2.807	mg/L	0.0123	5.614	mg/L	0.0246	0.44%
Mo 202.031†	556.3	0.03732	mg/L	0.000412	0.07463	mg/L	0.000825	1.11%
Na 589.592†	95924.6	7.377	mg/L	0.0222	14.75	mg/L	0.044	0.30%
Na 330.237†	203.7	8.954	mg/L	0.2271	17.91	mg/L	0.454	2.54%
Ni 231.604†	829.1	0.2989	mg/L	0.00259	0.5978	mg/L	0.00517	0.87%
Pb 220.353†	3853.2	0.6913	mg/L	0.00089	1.383	mg/L	0.0018	0.13%
Sb 206.836†	22.9	0.01759	mg/L	0.001853	0.03518	mg/L	0.003706	10.53%
Se 196.026†	48.7	0.03819	mg/L	0.006673	0.07638	mg/L	0.013346	17.47%
Si 288.158†	2503.6	1.035	mg/L	0.0130	2.070	mg/L	0.0260	1.26%
Sn 189.927†	16.3	0.02446	mg/L	0.000665	0.04892	mg/L	0.001329	2.72%
Sr 421.552†	481881.1	0.8037	mg/L	0.01643	1.607	mg/L	0.0329	2.04%
Ti 334.903†	184309.5	7.629	mg/L	0.0326	15.26	mg/L	0.065	0.43%
Tl 190.801†	-21.1	0.02010	mg/L	0.003463	0.04020	mg/L	0.006926	17.23%
V 292.402†	53263.5	0.4300	mg/L	0.00160	0.8599	mg/L	0.00320	0.37%
Zn 206.200†	2135.1	1.017	mg/L	0.0039	2.034	mg/L	0.0078	0.39%

Sequence No.: 12
Sample ID: QC41 E SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 308
Date Collected: 12/23/2009 9:17:23 AM
Data Type: Original

Nebulizer Parameters: QC41 E SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2235989.2	104.9	%	0.76				0.73%
ScR 361.383	358480.6	104.0	%	0.72				0.69%
Ag 328.068†	294.5	0.00160	mg/L	0.000006	0.00320	mg/L	0.000012	0.38%
Al 308.215†	218056.0	106.5	mg/L	1.67	213.1	mg/L	3.33	1.56%
As 188.979†	61.1	0.1967	mg/L	0.00224	0.3935	mg/L	0.00448	1.14%
B 249.677†	233.5	0.04227	mg/L	0.000339	0.08454	mg/L	0.000679	0.80%
Ba 233.527†	5711.8	0.9669	mg/L	0.01121	1.934	mg/L	0.0224	1.16%
Be 313.042†	1437.8	0.00149	mg/L	0.000043	0.00299	mg/L	0.000086	2.88%
Ca 317.933†	1816539.2	77.39	mg/L	1.359	154.8	mg/L	2.72	1.76%
Cd 228.802†	392.9	0.01189	mg/L	0.000154	0.02378	mg/L	0.000307	1.29%
Co 228.616†	1963.6	0.06723	mg/L	0.000441	0.1345	mg/L	0.00088	0.66%
Cr 267.716†	3582.1	0.5225	mg/L	0.00790	1.045	mg/L	0.0158	1.51%
Cu 324.752†	366495.9	1.206	mg/L	0.0029	2.412	mg/L	0.0058	0.24%
Fe 273.955†	272944.1	207.3	mg/L	3.53	414.6	mg/L	7.07	1.71%
K 766.490†	10496.3	6.916	mg/L	0.1253	13.83	mg/L	0.251	1.81%
Mg 279.077†	85495.4	43.28	mg/L	0.588	86.56	mg/L	1.176	1.36%
Mn 257.610†	125379.6	3.053	mg/L	0.0469	6.106	mg/L	0.0939	1.54%
Mo 202.031†	617.8	0.04458	mg/L	0.000521	0.08917	mg/L	0.001042	1.17%
Na 589.592†	137524.2	10.58	mg/L	0.136	21.15	mg/L	0.272	1.29%
Na 330.237†	290.3	11.33	mg/L	0.066	22.67	mg/L	0.131	0.58%
Ni 231.604†	983.8	0.3547	mg/L	0.00329	0.7093	mg/L	0.00658	0.93%
Pb 220.353†	21395.7	3.810	mg/L	0.0176	7.621	mg/L	0.0352	0.46%
Sb 206.836†	39.0	0.02317	mg/L	0.000339	0.04634	mg/L	0.000678	1.46%
Se 196.026†	30.8	0.02332	mg/L	0.007520	0.04665	mg/L	0.015040	32.24%
Si 288.158†	2258.1	0.9334	mg/L	0.00793	1.867	mg/L	0.0159	0.85%
Sn 189.927†	185.5	0.05944	mg/L	0.000890	0.1189	mg/L	0.00178	1.50%
Sr 421.552†	362459.3	0.6045	mg/L	0.01193	1.209	mg/L	0.0239	1.97%
Ti 334.903†	176773.9	7.331	mg/L	0.1105	14.66	mg/L	0.221	1.51%
Tl 190.801†	-33.3	0.01253	mg/L	0.002082	0.02507	mg/L	0.004165	16.61%
V 292.402†	48889.2	0.3938	mg/L	0.00178	0.7875	mg/L	0.00357	0.45%
Zn 206.200†	7214.6	3.473	mg/L	0.0480	6.947	mg/L	0.0961	1.38%

Sequence No.: 13
Sample ID: QC41 F SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 309
Date Collected: 12/23/2009 9:20:50 AM
Data Type: Original

Nebulizer Parameters: QC41 F SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2241513.9	105.2	%	1.25				1.19%
ScR 361.383	366137.4	106.3	%	1.45				1.37%
Ag 328.068†	341.9	0.00208	mg/L	0.000082	0.00416	mg/L	0.000164	3.95%
Al 308.215†	254530.0	124.4	mg/L	1.16	248.8	mg/L	2.33	0.94%
As 188.979†	-102.6	0.08101	mg/L	0.003656	0.1620	mg/L	0.00731	4.51%
B 249.677†	398.4	0.07218	mg/L	0.001261	0.1444	mg/L	0.00252	1.75%
Ba 233.527†	5978.0	1.014	mg/L	0.0197	2.028	mg/L	0.0394	1.94%
Be 313.042†	1728.2	0.00183	mg/L	0.000053	0.00366	mg/L	0.000106	2.91%
Ca 317.933†	1678019.3	71.49	mg/L	0.675	143.0	mg/L	1.35	0.94%
Cd 228.802†	328.1	0.01014	mg/L	0.000307	0.02028	mg/L	0.000613	3.02%
Co 228.616†	2010.6	0.06917	mg/L	0.000969	0.1383	mg/L	0.00194	1.40%
Cr 267.716†	1711.8	0.2512	mg/L	0.00660	0.5024	mg/L	0.01319	2.63%
Cu 324.752†	353909.7	1.164	mg/L	0.0088	2.328	mg/L	0.0176	0.75%
Fe 273.955†	255651.1	194.2	mg/L	1.49	388.3	mg/L	2.98	0.77%
K 766.490†	10823.7	7.132	mg/L	0.1054	14.26	mg/L	0.211	1.48%
Mg 279.077†	88726.6	44.92	mg/L	0.452	89.85	mg/L	0.905	1.01%
Mn 257.610†	94139.4	2.292	mg/L	0.0228	4.585	mg/L	0.0455	0.99%
Mo 202.031†	294.4	0.02070	mg/L	0.000302	0.04139	mg/L	0.000603	1.46%
Na 589.592†	138562.1	10.66	mg/L	0.100	21.31	mg/L	0.199	0.94%
Na 330.237†	289.7	11.57	mg/L	0.091	23.13	mg/L	0.182	0.79%
Ni 231.604†	780.8	0.2815	mg/L	0.00519	0.5629	mg/L	0.01037	1.84%
Pb 220.353†	19772.6	3.525	mg/L	0.0492	7.051	mg/L	0.0985	1.40%
Sb 206.836†	13.4	0.01539	mg/L	0.002220	0.03077	mg/L	0.004439	14.43%
Se 196.026†	31.6	0.02389	mg/L	0.006106	0.04779	mg/L	0.012212	25.55%
Si 288.158†	2547.4	1.053	mg/L	0.0191	2.106	mg/L	0.0383	1.82%
Sn 189.927†	478.9	0.1397	mg/L	0.00271	0.2794	mg/L	0.00542	1.94%
Sr 421.552†	559248.2	0.9327	mg/L	0.01105	1.865	mg/L	0.0221	1.18%
Ti 334.903†	179351.6	7.438	mg/L	0.0729	14.88	mg/L	0.146	0.98%
Tl 190.801†	-24.5	0.01505	mg/L	0.001090	0.03010	mg/L	0.002180	7.24%
V 292.402†	54924.8	0.4454	mg/L	0.00370	0.8908	mg/L	0.00739	0.83%
Zn 206.200†	5265.8	2.532	mg/L	0.0537	5.065	mg/L	0.1075	2.12%

Sequence No.: 14
Sample ID: QC41 ADUP SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 310
Date Collected: 12/23/2009 9:24:17 AM
Data Type: Original

Nebulizer Parameters: QC41 ADUP SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2217292.8	104.0	%	0.78				0.75%
ScR 361.383	366917.8	106.5	%	0.35				0.33%
Ag 328.068†	-45.6	-0.00044	mg/L	0.000049	-0.00089	mg/L	0.000098	11.06%
Al 308.215†	264290.6	129.1	mg/L	1.03	258.3	mg/L	2.07	0.80%
As 188.979†	-214.8	0.01633	mg/L	0.004367	0.03267	mg/L	0.008735	26.74%
B 249.677†	156.1	0.02814	mg/L	0.001078	0.05628	mg/L	0.002157	3.83%
Ba 233.527†	3428.1	0.5756	mg/L	0.00312	1.151	mg/L	0.0062	0.54%
Be 313.042†	1595.0	0.00167	mg/L	0.000027	0.00333	mg/L	0.000053	1.60%
Ca 317.933†	1404808.6	59.85	mg/L	0.446	119.7	mg/L	0.89	0.75%
Cd 228.802†	43.2	0.00089	mg/L	0.000009	0.00178	mg/L	0.000017	0.98%
Co 228.616†	2214.5	0.07674	mg/L	0.000515	0.1535	mg/L	0.00103	0.67%
Cr 267.716†	2452.2	0.3530	mg/L	0.00249	0.7061	mg/L	0.00497	0.70%
Cu 324.752†	45899.9	0.1569	mg/L	0.00092	0.3138	mg/L	0.00185	0.59%
Fe 273.955†	227242.3	172.6	mg/L	1.39	345.2	mg/L	2.78	0.80%
K 766.490†	16608.4	10.94	mg/L	0.076	21.89	mg/L	0.153	0.70%
Mg 279.077†	141040.4	71.48	mg/L	0.641	143.0	mg/L	1.28	0.90%
Mn 257.610†	113752.6	2.768	mg/L	0.0230	5.536	mg/L	0.0460	0.83%
Mo 202.031†	80.1	0.00499	mg/L	0.000518	0.00998	mg/L	0.001036	10.37%
Na 589.592†	54911.3	4.223	mg/L	0.0264	8.446	mg/L	0.0529	0.63%
Na 330.237†	75.6	4.740	mg/L	0.0344	9.481	mg/L	0.0689	0.73%
Ni 231.604†	1162.4	0.4190	mg/L	0.00298	0.8381	mg/L	0.00596	0.71%
Pb 220.353†	171.4	0.04212	mg/L	0.000614	0.08425	mg/L	0.001229	1.46%
Sb 206.836†	4.1	0.00896	mg/L	0.004962	0.01792	mg/L	0.009924	55.38%
Se 196.026†	34.9	0.02504	mg/L	0.003897	0.05007	mg/L	0.007793	15.56%
Si 288.158†	3083.0	1.274	mg/L	0.0114	2.549	mg/L	0.0228	0.89%
Sn 189.927†	-47.2	-0.00530	mg/L	0.001189	-0.01060	mg/L	0.002379	22.45%
Sr 421.552†	248006.1	0.4136	mg/L	0.00371	0.8272	mg/L	0.00743	0.90%
Ti 334.903†	197668.3	8.199	mg/L	0.0704	16.40	mg/L	0.141	0.86%
Tl 190.801†	-28.7	0.00982	mg/L	0.003401	0.01963	mg/L	0.006801	34.64%
V 292.402†	51964.2	0.4224	mg/L	0.00167	0.8449	mg/L	0.00333	0.39%
Zn 206.200†	809.8	0.3823	mg/L	0.00310	0.7646	mg/L	0.00621	0.81%

Sequence No.: 15
Sample ID: QC41 A SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 311
Date Collected: 12/23/2009 9:27:42 AM
Data Type: Original

Nebulizer Parameters: QC41 A SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2210159.5	103.7	%	0.29				0.27%
ScR 361.383	365213.2	106.0	%	0.49				0.46%
Ag 328.068†	-9.4	-0.00038	mg/L	0.000142	-0.00076	mg/L	0.000283	37.47%
Al 308.215†	225078.4	110.0	mg/L	1.35	220.0	mg/L	2.69	1.22%
As 188.979†	-182.2	0.01345	mg/L	0.003547	0.02690	mg/L	0.007095	26.38%
B 249.677†	132.4	0.02386	mg/L	0.001736	0.04772	mg/L	0.003473	7.28%
Ba 233.527†	3197.7	0.5377	mg/L	0.00443	1.075	mg/L	0.0089	0.82%
Be 313.042†	1361.7	0.00142	mg/L	0.000047	0.00283	mg/L	0.000094	3.33%
Ca 317.933†	1322434.5	56.34	mg/L	0.615	112.7	mg/L	1.23	1.09%
Cd 228.802†	42.5	0.00095	mg/L	0.000093	0.00189	mg/L	0.000187	9.88%
Co 228.616†	2059.7	0.07261	mg/L	0.000469	0.1452	mg/L	0.00094	0.65%
Cr 267.716†	2121.3	0.3057	mg/L	0.00313	0.6113	mg/L	0.00627	1.03%
Cu 324.752†	41071.0	0.1405	mg/L	0.00045	0.2810	mg/L	0.00090	0.32%
Fe 273.955†	201655.5	153.1	mg/L	1.70	306.3	mg/L	3.40	1.11%
K 766.490†	13345.9	8.794	mg/L	0.0778	17.59	mg/L	0.156	0.88%
Mg 279.077†	122472.0	62.07	mg/L	0.705	124.1	mg/L	1.41	1.14%
Mn 257.610†	133052.6	3.238	mg/L	0.0338	6.476	mg/L	0.0676	1.04%
Mo 202.031†	86.1	0.00549	mg/L	0.000589	0.01098	mg/L	0.001177	10.72%
Na 589.592†	47058.8	3.619	mg/L	0.0361	7.238	mg/L	0.0722	1.00%
Na 330.237†	65.6	4.068	mg/L	0.2590	8.135	mg/L	0.5181	6.37%
Ni 231.604†	1201.5	0.4331	mg/L	0.00478	0.8663	mg/L	0.00957	1.10%
Pb 220.353†	143.2	0.03495	mg/L	0.000497	0.06990	mg/L	0.000993	1.42%
Sb 206.836†	2.1	0.00691	mg/L	0.002047	0.01383	mg/L	0.004094	29.60%
Se 196.026†	36.4	0.02692	mg/L	0.004603	0.05385	mg/L	0.009206	17.10%
Si 288.158†	3255.9	1.346	mg/L	0.0210	2.692	mg/L	0.0420	1.56%
Sn 189.927†	-48.8	-0.00655	mg/L	0.000250	-0.01310	mg/L	0.000499	3.81%
Sr 421.552†	222868.3	0.3717	mg/L	0.00546	0.7434	mg/L	0.01093	1.47%
Ti 334.903†	167457.7	6.946	mg/L	0.0742	13.89	mg/L	0.148	1.07%
Tl 190.801†	-21.4	0.01232	mg/L	0.002400	0.02465	mg/L	0.004800	19.48%
V 292.402†	45713.0	0.3717	mg/L	0.00181	0.7435	mg/L	0.00361	0.49%
Zn 206.200†	714.2	0.3373	mg/L	0.00253	0.6746	mg/L	0.00506	0.75%

Sequence No.: 16
Sample ID: QC41 ASPK SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 312
Date Collected: 12/23/2009 9:31:07 AM
Data Type: Original

Nebulizer Parameters: QC41 ASPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2191498.2	102.8	%	1.22				1.19%
ScR 361.383	365872.2	106.2	%	0.61				0.57%
Ag 328.068†	68547.3	0.4332	mg/L	0.00508	0.8664	mg/L	0.01017	1.17%
Al 308.215†	230611.7	112.7	mg/L	1.62	225.4	mg/L	3.25	1.44%
As 188.979†	2184.0	1.728	mg/L	0.0183	3.456	mg/L	0.0365	1.06%
B 249.677†	136.4	0.02356	mg/L	0.000416	0.04713	mg/L	0.000832	1.77%
Ba 233.527†	13080.3	2.245	mg/L	0.0059	4.490	mg/L	0.0119	0.26%
Be 313.042†	343854.5	0.4322	mg/L	0.00599	0.8643	mg/L	0.01199	1.39%
Ca 317.933†	1385852.6	59.04	mg/L	0.759	118.1	mg/L	1.52	1.29%
Cd 228.802†	13517.3	0.4572	mg/L	0.00462	0.9144	mg/L	0.00924	1.01%
Co 228.616†	12264.7	0.5005	mg/L	0.00434	1.001	mg/L	0.0087	0.87%
Cr 267.716†	5211.2	0.7507	mg/L	0.00349	1.501	mg/L	0.0070	0.46%
Cu 324.752†	177931.2	0.5871	mg/L	0.00632	1.174	mg/L	0.0126	1.08%
Fe 273.955†	203563.1	154.6	mg/L	2.08	309.2	mg/L	4.16	1.34%
K 766.490†	27043.6	17.82	mg/L	0.175	35.64	mg/L	0.350	0.98%
Mg 279.077†	139614.3	70.77	mg/L	0.976	141.5	mg/L	1.95	1.38%
Mn 257.610†	121867.2	2.966	mg/L	0.0352	5.932	mg/L	0.0705	1.19%
Mo 202.031†	83.8	0.00528	mg/L	0.000307	0.01055	mg/L	0.000615	5.82%
Na 589.592†	162183.8	12.47	mg/L	0.132	24.95	mg/L	0.265	1.06%
Na 330.237†	333.6	13.42	mg/L	0.197	26.83	mg/L	0.394	1.47%
Ni 231.604†	2184.7	0.7876	mg/L	0.00293	1.575	mg/L	0.0059	0.37%
Pb 220.353†	9755.1	1.746	mg/L	0.0191	3.491	mg/L	0.0383	1.10%
Sb 206.836†	12.9	0.00865	mg/L	0.001603	0.01730	mg/L	0.003207	18.53%
Se 196.026†	2074.8	1.755	mg/L	0.0272	3.510	mg/L	0.0543	1.55%
Si 288.158†	2735.3	1.132	mg/L	0.0023	2.265	mg/L	0.0045	0.20%
Sn 189.927†	-47.3	-0.00593	mg/L	0.000600	-0.01187	mg/L	0.001200	10.11%
Sr 421.552†	511142.5	0.8525	mg/L	0.00802	1.705	mg/L	0.0160	0.94%
Ti 334.903†	167447.3	6.945	mg/L	0.0947	13.89	mg/L	0.189	1.36%
Tl 190.801†	2614.3	1.666	mg/L	0.0204	3.332	mg/L	0.0408	1.22%
V 292.402†	95334.2	0.7966	mg/L	0.00741	1.593	mg/L	0.0148	0.93%
Zn 206.200†	1574.7	0.7520	mg/L	0.00271	1.504	mg/L	0.0054	0.36%

Sequence No.: 17
Sample ID: QC41 MBSPK SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 313
Date Collected: 12/23/2009 9:34:33 AM
Data Type: Original

Nebulizer Parameters: QC41 MBSPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 MBSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2199149.8	103.2	%	0.39				0.38%
ScR 361.383	362280.4	105.1	%	0.56				0.53%
Ag 328.068†	85299.0	0.5393	mg/L	0.00024	1.079	mg/L	0.0005	0.04%
Al 308.215†	4376.4	2.128	mg/L	0.0044	4.256	mg/L	0.0088	0.21%
As 188.979†	2824.4	2.046	mg/L	0.0015	4.093	mg/L	0.0030	0.07%
B 249.677†	14.2	0.00137	mg/L	0.000623	0.00275	mg/L	0.001247	45.35%
Ba 233.527†	11724.1	2.025	mg/L	0.0122	4.051	mg/L	0.0244	0.60%
Be 313.042†	403695.9	0.5077	mg/L	0.00682	1.015	mg/L	0.0136	1.34%
Ca 317.933†	234068.8	9.972	mg/L	0.1280	19.94	mg/L	0.256	1.28%
Cd 228.802†	15553.9	0.5265	mg/L	0.00175	1.053	mg/L	0.0035	0.33%
Co 228.616†	12153.0	0.5095	mg/L	0.00207	1.019	mg/L	0.0041	0.41%
Cr 267.716†	3646.5	0.5253	mg/L	0.00246	1.051	mg/L	0.0049	0.47%
Cu 324.752†	147818.1	0.4824	mg/L	0.00144	0.9647	mg/L	0.00287	0.30%
Fe 273.955†	2789.2	2.115	mg/L	0.0120	4.230	mg/L	0.0240	0.57%
K 766.490†	15978.8	10.53	mg/L	0.115	21.06	mg/L	0.229	1.09%
Mg 279.077†	19787.3	10.04	mg/L	0.141	20.08	mg/L	0.281	1.40%
Mn 257.610†	19659.6	0.4788	mg/L	0.00664	0.9576	mg/L	0.01328	1.39%
Mo 202.031†	18.8	0.00124	mg/L	0.000207	0.00247	mg/L	0.000413	16.72%
Na 589.592†	130782.4	10.06	mg/L	0.124	20.12	mg/L	0.247	1.23%
Na 330.237†	322.2	11.24	mg/L	0.187	22.48	mg/L	0.374	1.66%
Ni 231.604†	1429.8	0.5154	mg/L	0.00314	1.031	mg/L	0.0063	0.61%
Pb 220.353†	11221.7	1.997	mg/L	0.0105	3.994	mg/L	0.0211	0.53%
Sb 206.836†	0.3	-0.00366	mg/L	0.002125	-0.00732	mg/L	0.004249	58.07%
Se 196.026†	2417.9	2.050	mg/L	0.0094	4.100	mg/L	0.0189	0.46%
Si 288.158†	-2.8	0.00090	mg/L	0.001094	0.00181	mg/L	0.002188	120.91%
Sn 189.927†	-13.8	-0.00312	mg/L	0.001921	-0.00625	mg/L	0.003841	61.50%
Sr 421.552†	321788.0	0.5367	mg/L	0.00876	1.073	mg/L	0.0175	1.63%
Ti 334.903†	77.8	0.00219	mg/L	0.000414	0.00438	mg/L	0.000828	18.91%
Tl 190.801†	3202.9	2.011	mg/L	0.0077	4.022	mg/L	0.0155	0.39%
V 292.402†	60953.5	0.5219	mg/L	0.00232	1.044	mg/L	0.0046	0.44%
Zn 206.200†	1069.7	0.5154	mg/L	0.00245	1.031	mg/L	0.0049	0.48%

Sequence No.: 18
Sample ID: CV2
Analyst: ALA
Dilution: 1X

Autosampler Location: 7
Date Collected: 12/23/2009 9:38:12 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2204582.6	103.4	%	0.80				0.77%
ScR 361.383	351906.8	102.1	%	1.06				1.04%
Ag 328.068†	158937.0	1.005	mg/L	0.0062	1.005	mg/L	0.0062	0.61%
Al 308.215†	4414.6	2.125	mg/L	0.0234	2.125	mg/L	0.0234	1.10%
As 188.979†	2727.9	1.996	mg/L	0.0154	1.996	mg/L	0.0154	0.77%
B 249.677†	5809.2	1.054	mg/L	0.0149	1.054	mg/L	0.0149	1.42%
Ba 233.527†	5921.7	1.023	mg/L	0.0158	1.023	mg/L	0.0158	1.55%
Be 313.042†	791287.5	0.9952	mg/L	0.01460	0.9952	mg/L	0.01460	1.47%
Ca 317.933†	47066.8	2.005	mg/L	0.0334	2.005	mg/L	0.0334	1.67%
Cd 228.802†	29621.7	1.009	mg/L	0.0092	1.009	mg/L	0.0092	0.92%
Co 228.616†	23604.6	0.9886	mg/L	0.00992	0.9886	mg/L	0.00992	1.00%
Cr 267.716†	7208.6	1.041	mg/L	0.0122	1.041	mg/L	0.0122	1.18%
Cu 324.752†	303440.6	0.9894	mg/L	0.00966	0.9894	mg/L	0.00966	0.98%
Fe 273.955†	2712.4	2.054	mg/L	0.0270	2.054	mg/L	0.0270	1.31%
K 766.490†	31651.1	20.86	mg/L	0.288	20.86	mg/L	0.288	1.38%
Mg 279.077†	4160.7	2.116	mg/L	0.0262	2.116	mg/L	0.0262	1.24%
Mn 257.610†	39014.1	0.9498	mg/L	0.01514	0.9498	mg/L	0.01514	1.59%
Mo 202.031†	13209.6	0.9795	mg/L	0.00798	0.9795	mg/L	0.00798	0.81%
Na 589.592†	656443.5	50.49	mg/L	0.678	50.49	mg/L	0.678	1.34%
Na 330.237†	1544.3	54.46	mg/L	0.618	54.46	mg/L	0.618	1.13%
Ni 231.604†	2835.8	1.024	mg/L	0.0167	1.024	mg/L	0.0167	1.63%
Pb 220.353†	11288.1	2.009	mg/L	0.0181	2.009	mg/L	0.0181	0.90%
Sb 206.836†	4292.5	2.004	mg/L	0.0152	2.004	mg/L	0.0152	0.76%
Se 196.026†	2363.7	2.005	mg/L	0.0194	2.005	mg/L	0.0194	0.97%
Si 288.158†	5025.5	2.081	mg/L	0.0317	2.081	mg/L	0.0317	1.52%
Sn 189.927†	3524.5	0.9703	mg/L	0.00764	0.9703	mg/L	0.00764	0.79%
Sr 421.552†	657609.5	1.097	mg/L	0.0208	1.097	mg/L	0.0208	1.89%
Ti 334.903†	23629.5	0.9791	mg/L	0.01374	0.9791	mg/L	0.01374	1.40%
Tl 190.801†	3165.3	1.989	mg/L	0.0153	1.989	mg/L	0.0153	0.77%
V 292.402†	119639.7	1.025	mg/L	0.0129	1.025	mg/L	0.0129	1.25%
Zn 206.200†	2159.3	1.041	mg/L	0.0179	1.041	mg/L	0.0179	1.72%

Sequence No.: 19
Sample ID: CB-7
Analyst: ALA
Dilution: 1X

Autosampler Location: 1
Date Collected: 12/23/2009 9:46:42 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2235862.6	104.9	%	0.80				0.76%
ScR 361.383	367432.3	106.6	%	2.00				1.88%
Ag 328.068†	53.1	0.00034	mg/L	0.000245	0.00034	mg/L	0.000245	72.78%
Al 308.215†	46.2	0.02256	mg/L	0.006387	0.02256	mg/L	0.006387	28.32%
As 188.979†	0.2	0.00016	mg/L	0.002123	0.00016	mg/L	0.002123	>999.9%
B 249.677†	15.6	0.00284	mg/L	0.000123	0.00284	mg/L	0.000123	4.34%
Ba 233.527†	2.0	0.00034	mg/L	0.000454	0.00034	mg/L	0.000454	133.54%
Be 313.042†	184.9	0.00023	mg/L	0.000109	0.00023	mg/L	0.000109	46.74%
Ca 317.933†	-8.2	-0.00035	mg/L	0.000485	-0.00035	mg/L	0.000485	139.71%
Cd 228.802†	2.3	0.00008	mg/L	0.000318	0.00008	mg/L	0.000318	403.18%
Co 228.616†	-1.5	-0.00007	mg/L	0.000086	-0.00007	mg/L	0.000086	129.06%
Cr 267.716†	4.8	0.00070	mg/L	0.000874	0.00070	mg/L	0.000874	124.88%
Cu 324.752†	42.9	0.00014	mg/L	0.000079	0.00014	mg/L	0.000079	56.69%
Fe 273.955†	-0.1	-0.00009	mg/L	0.001256	-0.00009	mg/L	0.001256	>999.9%
K 766.490†	55.6	0.03666	mg/L	0.012949	0.03666	mg/L	0.012949	35.32%
Mg 279.077†	1.1	0.00056	mg/L	0.002885	0.00056	mg/L	0.002885	514.57%
Mn 257.610†	6.6	0.00016	mg/L	0.000056	0.00016	mg/L	0.000056	35.04%
Mo 202.031†	0.9	0.00007	mg/L	0.000155	0.00007	mg/L	0.000155	229.85%
Na 589.592†	125.0	0.00961	mg/L	0.008313	0.00961	mg/L	0.008313	86.49%
Na 330.237†	12.5	0.4395	mg/L	0.01191	0.4395	mg/L	0.01191	2.71%
Ni 231.604†	6.9	0.00247	mg/L	0.001774	0.00247	mg/L	0.001774	71.86%
Pb 220.353†	-7.0	-0.00124	mg/L	0.001116	-0.00124	mg/L	0.001116	89.77%
Sb 206.836†	-3.5	-0.00160	mg/L	0.001202	-0.00160	mg/L	0.001202	75.23%
Se 196.026†	3.4	0.00289	mg/L	0.003207	0.00289	mg/L	0.003207	111.02%
Si 288.158†	-14.3	-0.00591	mg/L	0.003118	-0.00591	mg/L	0.003118	52.79%
Sn 189.927†	4.2	0.00115	mg/L	0.001107	0.00115	mg/L	0.001107	95.89%
Sr 421.552†	183.9	0.00031	mg/L	0.000171	0.00031	mg/L	0.000171	55.87%
Ti 334.903†	16.6	0.00069	mg/L	0.000294	0.00069	mg/L	0.000294	42.65%
Tl 190.801†	2.1	0.00132	mg/L	0.001637	0.00132	mg/L	0.001637	123.72%
V 292.402†	1.2	0.00001	mg/L	0.000112	0.00001	mg/L	0.000112	900.55%
Zn 206.200†	0.6	0.00027	mg/L	0.001000	0.00027	mg/L	0.001000	372.02%

Sequence No.: 20
Sample ID: QC41 G SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 314
Date Collected: 12/23/2009 9:49:30 AM
Data Type: Original

Nebulizer Parameters: QC41 G SWC

Analyte	Back Pressure	Flow
A11	218.0 kPa	0.75 L/min

Mean Data: QC41 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2282821.5	107.1	%	1.26				1.18%
ScR 361.383	365505.3	106.1	%	0.36				0.34%
Ag 328.068†	162.2	0.00104	mg/L	0.000273	0.00208	mg/L	0.000546	26.29%
Al 308.215†	270798.2	132.3	mg/L	1.61	264.6	mg/L	3.23	1.22%
As 188.979†	-217.8	0.04921	mg/L	0.006743	0.09842	mg/L	0.013485	13.70%
B 249.677†	875.1	0.1588	mg/L	0.00237	0.3175	mg/L	0.00475	1.50%
Ba 233.527†	7469.9	1.272	mg/L	0.0118	2.544	mg/L	0.0236	0.93%
Be 313.042†	1988.0	0.00207	mg/L	0.000023	0.00413	mg/L	0.000047	1.14%
Ca 317.933†	1954537.9	83.27	mg/L	1.292	166.5	mg/L	2.58	1.55%
Cd 228.802†	179.6	0.00531	mg/L	0.000263	0.01062	mg/L	0.000527	4.96%
Co 228.616†	2132.2	0.07008	mg/L	0.001356	0.1402	mg/L	0.00271	1.93%
Cr 267.716†	1691.2	0.2480	mg/L	0.00313	0.4960	mg/L	0.00625	1.26%
Cu 324.752†	205418.1	0.6788	mg/L	0.00458	1.358	mg/L	0.0092	0.68%
Fe 273.955†	254841.2	193.5	mg/L	2.72	387.1	mg/L	5.44	1.41%
K 766.490†	14815.4	9.762	mg/L	0.0934	19.52	mg/L	0.187	0.96%
Mg 279.077†	88740.5	44.93	mg/L	0.634	89.86	mg/L	1.268	1.41%
Mn 257.610†	100337.0	2.443	mg/L	0.0330	4.885	mg/L	0.0660	1.35%
Mo 202.031†	180.1	0.01203	mg/L	0.000398	0.02406	mg/L	0.000796	3.31%
Na 589.592†	143915.6	11.07	mg/L	0.126	22.14	mg/L	0.253	1.14%
Na 330.237†	271.9	11.85	mg/L	0.196	23.70	mg/L	0.393	1.66%
Ni 231.604†	661.2	0.2383	mg/L	0.00502	0.4767	mg/L	0.01005	2.11%
Pb 220.353†	9512.5	1.702	mg/L	0.0236	3.404	mg/L	0.0473	1.39%
Sb 206.836†	6.2	0.01467	mg/L	0.002999	0.02934	mg/L	0.005998	20.44%
Se 196.026†	31.8	0.02409	mg/L	0.009183	0.04819	mg/L	0.018367	38.11%
Si 288.158†	4453.4	1.841	mg/L	0.0145	3.682	mg/L	0.0289	0.79%
Sn 189.927†	331.6	0.1011	mg/L	0.00251	0.2022	mg/L	0.00503	2.49%
Sr 421.552†	928589.3	1.549	mg/L	0.0199	3.097	mg/L	0.0399	1.29%
Ti 334.903†	238303.5	9.884	mg/L	0.1262	19.77	mg/L	0.252	1.28%
Tl 190.801†	-27.9	0.01286	mg/L	0.004680	0.02572	mg/L	0.009360	36.40%
V 292.402†	67773.9	0.5537	mg/L	0.00287	1.107	mg/L	0.0057	0.52%
Zn 206.200†	2999.5	1.438	mg/L	0.0187	2.876	mg/L	0.0374	1.30%

Sequence No.: 21
Sample ID: QC41 H SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 315
Date Collected: 12/23/2009 9:50:51 AM
Data Type: Original

Nebulizer Parameters: QC41 H SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2256060.6	105.8	%	0.52				0.49%
ScR 361.383	371375.2	107.8	%	0.56				0.52%
Ag 328.068†	-45.8	-0.00013	mg/L	0.000312	-0.00025	mg/L	0.000624	248.35%
Al 308.215†	209645.5	102.4	mg/L	1.17	204.9	mg/L	2.34	1.14%
As 188.979†	-154.3	0.01460	mg/L	0.004294	0.02919	mg/L	0.008589	29.42%
B 249.677†	91.8	0.01658	mg/L	0.001664	0.03317	mg/L	0.003328	10.03%
Ba 233.527†	1560.3	0.2599	mg/L	0.00297	0.5198	mg/L	0.00593	1.14%
Be 313.042†	767.5	0.00070	mg/L	0.000068	0.00140	mg/L	0.000136	9.73%
Ca 317.933†	1189817.8	50.69	mg/L	0.778	101.4	mg/L	1.56	1.53%
Cd 228.802†	31.9	0.00074	mg/L	0.000121	0.00147	mg/L	0.000241	16.41%
Co 228.616†	954.8	0.02854	mg/L	0.000274	0.05707	mg/L	0.000548	0.96%
Cr 267.716†	834.3	0.1229	mg/L	0.00039	0.2457	mg/L	0.00078	0.32%
Cu 324.752†	44063.6	0.1479	mg/L	0.00052	0.2958	mg/L	0.00104	0.35%
Fe 273.955†	131065.1	99.54	mg/L	1.160	199.1	mg/L	2.32	1.17%
K 766.490†	11130.1	7.334	mg/L	0.0306	14.67	mg/L	0.061	0.42%
Mg 279.077†	37623.1	19.04	mg/L	0.172	38.08	mg/L	0.345	0.90%
Mn 257.610†	31243.4	0.7605	mg/L	0.00925	1.521	mg/L	0.0185	1.22%
Mo 202.031†	82.3	0.00530	mg/L	0.000666	0.01059	mg/L	0.001332	12.58%
Na 589.592†	134633.4	10.35	mg/L	0.105	20.71	mg/L	0.211	1.02%
Na 330.237†	287.8	11.67	mg/L	0.151	23.35	mg/L	0.302	1.29%
Ni 231.604†	209.0	0.07534	mg/L	0.001497	0.1507	mg/L	0.00299	1.99%
Pb 220.353†	1208.8	0.2265	mg/L	0.00208	0.4531	mg/L	0.00415	0.92%
Sb 206.836†	-4.2	0.00472	mg/L	0.002647	0.00945	mg/L	0.005294	56.04%
Se 196.026†	24.7	0.01971	mg/L	0.000717	0.03942	mg/L	0.001434	3.64%
Si 288.158†	2904.8	1.201	mg/L	0.0107	2.401	mg/L	0.0215	0.89%
Sn 189.927†	-25.2	-0.00084	mg/L	0.001053	-0.00168	mg/L	0.002107	125.37%
Sr 421.552†	357865.1	0.5968	mg/L	0.00786	1.194	mg/L	0.0157	1.32%
Ti 334.903†	145482.8	6.034	mg/L	0.0710	12.07	mg/L	0.142	1.18%
Tl 190.801†	-4.9	0.01182	mg/L	0.003729	0.02363	mg/L	0.007458	31.56%
V 292.402†	41299.3	0.3391	mg/L	0.00323	0.6782	mg/L	0.00647	0.95%
Zn 206.200†	595.5	0.2807	mg/L	0.00400	0.5613	mg/L	0.00801	1.43%

Sequence No.: 22
Sample ID: QC41 I SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 316
Date Collected: 12/23/2009 9:53:27 AM
Data Type: Original

Nebulizer Parameters: QC41 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: QC41 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2251969.5	105.7	%	1.19				1.13%
ScR 361.383	366560.3	106.4	%	1.35				1.27%
Ag 328.068†	63.7	0.00042	mg/L	0.000064	0.00084	mg/L	0.000128	15.20%
Al 308.215†	225739.7	110.3	mg/L	1.53	220.6	mg/L	3.06	1.38%
As 188.979†	-145.7	0.03780	mg/L	0.002768	0.07560	mg/L	0.005537	7.32%
B 249.677†	513.1	0.09309	mg/L	0.000849	0.1862	mg/L	0.00170	0.91%
Ba 233.527†	4001.0	0.6798	mg/L	0.00888	1.360	mg/L	0.0178	1.31%
Be 313.042†	1422.3	0.00149	mg/L	0.000028	0.00297	mg/L	0.000055	1.87%
Ca 317.933†	1484803.3	63.26	mg/L	0.942	126.5	mg/L	1.88	1.49%
Cd 228.802†	70.5	0.00193	mg/L	0.000118	0.00387	mg/L	0.000236	6.09%
Co 228.616†	1355.5	0.04364	mg/L	0.000025	0.08728	mg/L	0.000049	0.06%
Cr 267.716†	1183.2	0.1728	mg/L	0.00289	0.3457	mg/L	0.00577	1.67%
Cu 324.752†	123514.6	0.4079	mg/L	0.00603	0.8159	mg/L	0.01207	1.48%
Fe 273.955†	156436.2	118.8	mg/L	1.54	237.6	mg/L	3.07	1.29%
K 766.490†	9951.7	6.558	mg/L	0.1149	13.12	mg/L	0.230	1.75%
Mg 279.077†	57429.4	29.08	mg/L	0.379	58.16	mg/L	0.758	1.30%
Mn 257.610†	68200.5	1.660	mg/L	0.0215	3.320	mg/L	0.0431	1.30%
Mo 202.031†	127.0	0.00841	mg/L	0.000345	0.01683	mg/L	0.000691	4.10%
Na 589.592†	124649.9	9.587	mg/L	0.1374	19.17	mg/L	0.275	1.43%
Na 330.237†	254.2	10.50	mg/L	0.296	21.01	mg/L	0.592	2.82%
Ni 231.604†	442.0	0.1594	mg/L	0.00177	0.3187	mg/L	0.00353	1.11%
Pb 220.353†	6162.5	1.108	mg/L	0.0058	2.215	mg/L	0.0116	0.52%
Sb 206.836†	8.2	0.01135	mg/L	0.002414	0.02269	mg/L	0.004828	21.28%
Se 196.026†	24.9	0.01926	mg/L	0.009246	0.03852	mg/L	0.018493	48.00%
Si 288.158†	2652.7	1.096	mg/L	0.0222	2.193	mg/L	0.0445	2.03%
Sn 189.927†	40.0	0.01830	mg/L	0.001937	0.03659	mg/L	0.003874	10.59%
Sr 421.552†	632775.7	1.055	mg/L	0.0187	2.111	mg/L	0.0373	1.77%
Ti 334.903†	165342.7	6.857	mg/L	0.0854	13.71	mg/L	0.171	1.24%
Tl 190.801†	-17.6	0.00771	mg/L	0.001087	0.01543	mg/L	0.002173	14.09%
V 292.402†	47299.1	0.3881	mg/L	0.00672	0.7763	mg/L	0.01344	1.73%
Zn 206.200†	2351.4	1.127	mg/L	0.0146	2.254	mg/L	0.0291	1.29%

Sequence No.: 23
Sample ID: QC41 J SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 317
Date Collected: 12/23/2009 9:57:01 AM
Data Type: Original

Nebulizer Parameters: QC41 J SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2260276.1	106.0	%	0.51				0.48%
ScR 361.383	372430.6	108.1	%	1.20				1.11%
Ag 328.068†	-63.1	-0.00022	mg/L	0.000078	-0.00044	mg/L	0.000156	35.20%
Al 308.215†	165762.6	81.00	mg/L	0.844	162.0	mg/L	1.69	1.04%
As 188.979†	-158.3	0.00659	mg/L	0.003758	0.01319	mg/L	0.007516	57.00%
B 249.677†	48.2	0.00867	mg/L	0.000297	0.01734	mg/L	0.000595	3.43%
Ba 233.527†	1394.0	0.2328	mg/L	0.00240	0.4657	mg/L	0.00480	1.03%
Be 313.042†	617.2	0.00052	mg/L	0.000007	0.00105	mg/L	0.000014	1.37%
Ca 317.933†	1037843.5	44.21	mg/L	0.339	88.43	mg/L	0.677	0.77%
Cd 228.802†	45.5	0.00133	mg/L	0.000022	0.00266	mg/L	0.000045	1.67%
Co 228.616†	820.5	0.02355	mg/L	0.000283	0.04709	mg/L	0.000567	1.20%
Cr 267.716†	544.6	0.08084	mg/L	0.000954	0.1617	mg/L	0.00191	1.18%
Cu 324.752†	72294.2	0.2391	mg/L	0.00306	0.4781	mg/L	0.00612	1.28%
Fe 273.955†	108458.6	82.37	mg/L	0.555	164.7	mg/L	1.11	0.67%
K 766.490†	7238.2	4.770	mg/L	0.0449	9.539	mg/L	0.0897	0.94%
Mg 279.077†	27550.7	13.94	mg/L	0.102	27.87	mg/L	0.203	0.73%
Mn 257.610†	25956.5	0.6319	mg/L	0.00347	1.264	mg/L	0.0069	0.55%
Mo 202.031†	69.2	0.00443	mg/L	0.000313	0.00886	mg/L	0.000626	7.06%
Na 589.592†	147741.3	11.36	mg/L	0.095	22.72	mg/L	0.190	0.84%
Na 330.237†	313.3	12.47	mg/L	0.228	24.95	mg/L	0.456	1.83%
Ni 231.604†	125.4	0.04519	mg/L	0.001832	0.09038	mg/L	0.003664	4.05%
Pb 220.353†	1724.1	0.3154	mg/L	0.00135	0.6307	mg/L	0.00270	0.43%
Sb 206.836†	-8.3	0.00290	mg/L	0.000584	0.00580	mg/L	0.001169	20.14%
Se 196.026†	18.6	0.01492	mg/L	0.006020	0.02984	mg/L	0.012040	40.35%
Si 288.158†	2215.3	0.9157	mg/L	0.01150	1.831	mg/L	0.0230	1.26%
Sn 189.927†	-28.2	-0.00221	mg/L	0.000796	-0.00442	mg/L	0.001591	35.98%
Sr 421.552†	348797.4	0.5817	mg/L	0.00809	1.163	mg/L	0.0162	1.39%
Ti 334.903†	139368.9	5.781	mg/L	0.0424	11.56	mg/L	0.085	0.73%
Tl 190.801†	-5.5	0.00880	mg/L	0.001886	0.01761	mg/L	0.003772	21.43%
V 292.402†	39088.5	0.3220	mg/L	0.00317	0.6440	mg/L	0.00635	0.99%
Zn 206.200†	881.4	0.4199	mg/L	0.00320	0.8398	mg/L	0.00640	0.76%

Sequence No.: 24
Sample ID: QC41 K SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 318
Date Collected: 12/23/2009 10:00:32 AM
Data Type: Original

Nebulizer Parameters: QC41 K SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: QC41 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2253242.7	105.7	%	1.01				0.95%
ScR 361.383	368502.6	107.0	%	0.26				0.25%
Ag 328.068†	60.9	0.00039	mg/L	0.000277	0.00079	mg/L	0.000554	70.45%
Al 308.215†	217778.5	106.4	mg/L	1.08	212.8	mg/L	2.16	1.02%
As 188.979†	-154.7	0.03475	mg/L	0.001056	0.06951	mg/L	0.002113	3.04%
B 249.677†	186.4	0.03372	mg/L	0.002542	0.06744	mg/L	0.005083	7.54%
Ba 233.527†	3956.0	0.6691	mg/L	0.00341	1.338	mg/L	0.0068	0.51%
Be 313.042†	1263.6	0.00127	mg/L	0.000009	0.00254	mg/L	0.000018	0.69%
Ca 317.933†	1709107.2	72.81	mg/L	0.645	145.6	mg/L	1.29	0.89%
Cd 228.802†	142.2	0.00419	mg/L	0.000117	0.00839	mg/L	0.000233	2.78%
Co 228.616†	1519.5	0.04985	mg/L	0.000171	0.09970	mg/L	0.000343	0.34%
Cr 267.716†	1316.0	0.1933	mg/L	0.00128	0.3866	mg/L	0.00255	0.66%
Cu 324.752†	156331.3	0.5169	mg/L	0.00970	1.034	mg/L	0.0194	1.88%
Fe 273.955†	195815.1	148.7	mg/L	1.37	297.4	mg/L	2.74	0.92%
K 766.490†	10382.1	6.841	mg/L	0.0515	13.68	mg/L	0.103	0.75%
Mg 279.077†	62087.8	31.43	mg/L	0.325	62.86	mg/L	0.649	1.03%
Mn 257.610†	72383.7	1.762	mg/L	0.0124	3.525	mg/L	0.0249	0.71%
Mo 202.031†	188.0	0.01278	mg/L	0.000306	0.02557	mg/L	0.000612	2.39%
Na 589.592†	112746.9	8.671	mg/L	0.0631	17.34	mg/L	0.126	0.73%
Na 330.237†	225.9	9.472	mg/L	0.0589	18.94	mg/L	0.118	0.62%
Ni 231.604†	494.2	0.1782	mg/L	0.00042	0.3564	mg/L	0.00085	0.24%
Pb 220.353†	9819.6	1.755	mg/L	0.0172	3.511	mg/L	0.0344	0.98%
Sb 206.836†	12.8	0.01358	mg/L	0.001279	0.02717	mg/L	0.002558	9.41%
Se 196.026†	30.8	0.02412	mg/L	0.003121	0.04823	mg/L	0.006243	12.94%
Si 288.158†	5037.9	2.082	mg/L	0.0147	4.165	mg/L	0.0294	0.71%
Sn 189.927†	49.9	0.02173	mg/L	0.001343	0.04346	mg/L	0.002686	6.18%
Sr 421.552†	493106.3	0.8224	mg/L	0.00575	1.645	mg/L	0.0115	0.70%
Ti 334.903†	169713.4	7.038	mg/L	0.0580	14.08	mg/L	0.116	0.82%
Tl 190.801†	-20.0	0.01067	mg/L	0.006614	0.02134	mg/L	0.013228	61.98%
V 292.402†	49959.4	0.4077	mg/L	0.00643	0.8154	mg/L	0.01286	1.58%
Zn 206.200†	3037.3	1.458	mg/L	0.0074	2.916	mg/L	0.0148	0.51%

Sequence No.: 25
Sample ID: QC41 L SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 319
Date Collected: 12/23/2009 10:04:27 AM
Data Type: Original

Nebulizer Parameters: QC41 L SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2270093.4	106.5	%	0.79				0.74%
ScR 361.383	371167.7	107.7	%	0.67				0.63%
Ag 328.068†	-0.5	0.00000	mg/L	0.000216	-0.00001	mg/L	0.000432	>999.9%
Al 308.215†	200261.5	97.85	mg/L	1.182	195.7	mg/L	2.36	1.21%
As 188.979†	-156.8	0.03798	mg/L	0.004138	0.07596	mg/L	0.008277	10.90%
B 249.677†	159.9	0.02888	mg/L	0.000964	0.05776	mg/L	0.001927	3.34%
Ba 233.527†	2496.9	0.4154	mg/L	0.00332	0.8308	mg/L	0.00665	0.80%
Be 313.042†	1349.7	0.00136	mg/L	0.000023	0.00272	mg/L	0.000047	1.72%
Ca 317.933†	1534527.4	65.38	mg/L	0.778	130.8	mg/L	1.56	1.19%
Cd 228.802†	127.6	0.00358	mg/L	0.000221	0.00715	mg/L	0.000442	6.17%
Co 228.616†	1757.4	0.05931	mg/L	0.000970	0.1186	mg/L	0.00194	1.63%
Cr 267.716†	1227.0	0.1799	mg/L	0.00105	0.3598	mg/L	0.00210	0.58%
Cu 324.752†	130625.6	0.4339	mg/L	0.00875	0.8677	mg/L	0.01749	2.02%
Fe 273.955†	218053.0	165.6	mg/L	1.67	331.2	mg/L	3.33	1.01%
K 766.490†	10605.1	6.988	mg/L	0.0895	13.98	mg/L	0.179	1.28%
Mg 279.077†	82816.9	41.94	mg/L	0.503	83.88	mg/L	1.006	1.20%
Mn 257.610†	77534.8	1.888	mg/L	0.0202	3.775	mg/L	0.0404	1.07%
Mo 202.031†	132.7	0.00880	mg/L	0.000156	0.01760	mg/L	0.000311	1.77%
Na 589.592†	94900.1	7.299	mg/L	0.0818	14.60	mg/L	0.164	1.12%
Na 330.237†	186.6	8.271	mg/L	0.1976	16.54	mg/L	0.395	2.39%
Ni 231.604†	555.5	0.2002	mg/L	0.00266	0.4005	mg/L	0.00531	1.33%
Pb 220.353†	5838.3	1.044	mg/L	0.0139	2.089	mg/L	0.0277	1.33%
Sb 206.836†	10.3	0.01372	mg/L	0.001576	0.02745	mg/L	0.003153	11.49%
Se 196.026†	30.1	0.02285	mg/L	0.005629	0.04570	mg/L	0.011258	24.63%
Si 288.158†	4480.0	1.852	mg/L	0.0073	3.704	mg/L	0.0147	0.40%
Sn 189.927†	279.1	0.08428	mg/L	0.000760	0.1686	mg/L	0.00152	0.90%
Sr 421.552†	288159.2	0.4806	mg/L	0.00736	0.9612	mg/L	0.01472	1.53%
Ti 334.903†	174691.1	7.245	mg/L	0.0880	14.49	mg/L	0.176	1.22%
Tl 190.801†	-28.8	0.00769	mg/L	0.002903	0.01538	mg/L	0.005807	37.75%
V 292.402†	54279.1	0.4426	mg/L	0.00694	0.8853	mg/L	0.01387	1.57%
Zn 206.200†	1918.7	0.9189	mg/L	0.00795	1.838	mg/L	0.0159	0.87%

Sequence No.: 26
Sample ID: QC41 M SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 320
Date Collected: 12/23/2009 10:08:08 AM
Data Type: Original

Nebulizer Parameters: QC41 M SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: QC41 M SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2258203.7	105.9	%	0.51				0.48%
ScR 361.383	376540.6	109.3	%	0.44				0.40%
Ag 328.068†	-89.1	-0.00038	mg/L	0.000097	-0.00077	mg/L	0.000193	25.08%
Al 308.215†	132959.2	64.96	mg/L	0.503	129.9	mg/L	1.01	0.77%
As 188.979†	-197.3	-0.00120	mg/L	0.005455	-0.00241	mg/L	0.010911	453.22%
B 249.677†	29.6	0.00526	mg/L	0.001061	0.01051	mg/L	0.002122	20.18%
Ba 233.527†	847.4	0.1355	mg/L	0.00141	0.2710	mg/L	0.00282	1.04%
Be 313.042†	748.6	0.00061	mg/L	0.000036	0.00122	mg/L	0.000071	5.84%
Ca 317.933†	890896.2	37.95	mg/L	0.296	75.91	mg/L	0.593	0.78%
Cd 228.802†	20.6	0.00036	mg/L	0.000190	0.00072	mg/L	0.000380	52.84%
Co 228.616†	1272.7	0.04056	mg/L	0.000680	0.08111	mg/L	0.001361	1.68%
Cr 267.716†	911.9	0.1349	mg/L	0.00085	0.2698	mg/L	0.00171	0.63%
Cu 324.752†	17686.9	0.06242	mg/L	0.001108	0.1248	mg/L	0.00222	1.78%
Fe 273.955†	146998.9	111.6	mg/L	0.98	223.3	mg/L	1.97	0.88%
K 766.490†	5983.6	3.943	mg/L	0.0403	7.886	mg/L	0.0807	1.02%
Mg 279.077†	38128.5	19.29	mg/L	0.188	38.58	mg/L	0.376	0.98%
Mn 257.610†	39067.8	0.9513	mg/L	0.00871	1.903	mg/L	0.0174	0.92%
Mo 202.031†	61.5	0.00396	mg/L	0.000547	0.00791	mg/L	0.001093	13.82%
Na 589.592†	76002.0	5.845	mg/L	0.0358	11.69	mg/L	0.072	0.61%
Na 330.237†	129.5	6.295	mg/L	0.2010	12.59	mg/L	0.402	3.19%
Ni 231.604†	209.1	0.07538	mg/L	0.001441	0.1508	mg/L	0.00288	1.91%
Pb 220.353†	3.8	0.00474	mg/L	0.001752	0.00948	mg/L	0.003504	36.94%
Sb 206.836†	-4.4	0.00559	mg/L	0.002807	0.01117	mg/L	0.005614	50.26%
Se 196.026†	22.2	0.01757	mg/L	0.005054	0.03513	mg/L	0.010108	28.77%
Si 288.158†	1694.4	0.7004	mg/L	0.00457	1.401	mg/L	0.0091	0.65%
Sn 189.927†	-43.9	-0.00653	mg/L	0.001002	-0.01306	mg/L	0.002004	15.34%
Sr 421.552†	196135.6	0.3271	mg/L	0.00141	0.6542	mg/L	0.00282	0.43%
Ti 334.903†	162246.3	6.731	mg/L	0.0590	13.46	mg/L	0.118	0.88%
Tl 190.801†	-11.9	0.00927	mg/L	0.008520	0.01854	mg/L	0.017039	91.91%
V 292.402†	54062.9	0.4464	mg/L	0.00559	0.8928	mg/L	0.01117	1.25%
Zn 206.200†	434.8	0.2054	mg/L	0.00125	0.4107	mg/L	0.00250	0.61%

Sequence No.: 27
Sample ID: QC41 N SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 321
Date Collected: 12/23/2009 10:11:48 AM
Data Type: Original

Nebulizer Parameters: QC41 N SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 N SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2279198.6	106.9	%	0.48				0.45%
ScR 361.383	379864.9	110.2	%	0.93				0.84%
Ag 328.068†	-66.1	-0.00029	mg/L	0.000280	-0.00059	mg/L	0.000559	95.11%
Al 308.215†	161794.8	79.06	mg/L	1.290	158.1	mg/L	2.58	1.63%
As 188.979†	-155.4	0.01878	mg/L	0.002583	0.03756	mg/L	0.005165	13.75%
B 249.677†	51.3	0.00921	mg/L	0.000751	0.01843	mg/L	0.001501	8.15%
Ba 233.527†	1541.9	0.2555	mg/L	0.00198	0.5109	mg/L	0.00396	0.77%
Be 313.042†	862.5	0.00080	mg/L	0.000029	0.00161	mg/L	0.000059	3.64%
Ca 317.933†	1030555.5	43.90	mg/L	0.697	87.81	mg/L	1.395	1.59%
Cd 228.802†	37.0	0.00081	mg/L	0.000139	0.00162	mg/L	0.000278	17.18%
Co 228.616†	1189.9	0.03787	mg/L	0.000311	0.07575	mg/L	0.000621	0.82%
Cr 267.716†	617.0	0.09202	mg/L	0.001585	0.1840	mg/L	0.00317	1.72%
Cu 324.752†	38742.9	0.1313	mg/L	0.00117	0.2626	mg/L	0.00233	0.89%
Fe 273.955†	148229.4	112.6	mg/L	1.42	225.1	mg/L	2.85	1.26%
K 766.490†	7660.0	5.048	mg/L	0.0809	10.10	mg/L	0.162	1.60%
Mg 279.077†	41952.0	21.23	mg/L	0.255	42.46	mg/L	0.511	1.20%
Mn 257.610†	41915.4	1.020	mg/L	0.0128	2.041	mg/L	0.0256	1.26%
Mo 202.031†	69.0	0.00442	mg/L	0.000323	0.00883	mg/L	0.000645	7.31%
Na 589.592†	89892.8	6.913	mg/L	0.0853	13.83	mg/L	0.171	1.23%
Na 330.237†	177.5	7.834	mg/L	0.2136	15.67	mg/L	0.427	2.73%
Ni 231.604†	188.4	0.06793	mg/L	0.003487	0.1359	mg/L	0.00697	5.13%
Pb 220.353†	584.1	0.1103	mg/L	0.00066	0.2205	mg/L	0.00132	0.60%
Sb 206.836†	-6.7	0.00426	mg/L	0.003022	0.00853	mg/L	0.006044	70.90%
Se 196.026†	22.3	0.01754	mg/L	0.004058	0.03508	mg/L	0.008117	23.14%
Si 288.158†	2171.6	0.8976	mg/L	0.01033	1.795	mg/L	0.0207	1.15%
Sn 189.927†	-13.7	0.00195	mg/L	0.001187	0.00390	mg/L	0.002375	60.96%
Sr 421.552†	232378.1	0.3876	mg/L	0.00596	0.7751	mg/L	0.01192	1.54%
Ti 334.903†	150734.9	6.253	mg/L	0.0882	12.51	mg/L	0.176	1.41%
Tl 190.801†	-13.9	0.00838	mg/L	0.002717	0.01676	mg/L	0.005434	32.42%
V 292.402†	44194.4	0.3622	mg/L	0.00368	0.7245	mg/L	0.00737	1.02%
Zn 206.200†	682.4	0.3240	mg/L	0.00436	0.6479	mg/L	0.00871	1.34%

Sequence No.: 28
Sample ID: QC41 O SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 322
Date Collected: 12/23/2009 10:15:28 AM
Data Type: Original

Nebulizer Parameters: QC41 O SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: QC41 O SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2275167.5	106.7	%	0.25				0.24%
ScR 361.383	373290.5	108.3	%	0.79				0.73%
Ag 328.068†	-7.1	-0.00021	mg/L	0.000221	-0.00041	mg/L	0.000443	107.78%
Al 308.215†	229419.2	112.1	mg/L	0.72	224.2	mg/L	1.45	0.65%
As 188.979†	-174.0	0.01999	mg/L	0.003074	0.03998	mg/L	0.006148	15.38%
B 249.677†	89.5	0.01607	mg/L	0.000568	0.03214	mg/L	0.001137	3.54%
Ba 233.527†	2565.4	0.4283	mg/L	0.00124	0.8566	mg/L	0.00248	0.29%
Be 313.042†	1363.8	0.00143	mg/L	0.000037	0.00285	mg/L	0.000075	2.63%
Ca 317.933†	1369950.5	58.36	mg/L	0.604	116.7	mg/L	1.21	1.03%
Cd 228.802†	45.2	0.00097	mg/L	0.000159	0.00194	mg/L	0.000318	16.40%
Co 228.616†	1904.0	0.06603	mg/L	0.000701	0.1321	mg/L	0.00140	1.06%
Cr 267.716†	1810.0	0.2607	mg/L	0.00227	0.5213	mg/L	0.00455	0.87%
Cu 324.752†	52544.5	0.1780	mg/L	0.00076	0.3560	mg/L	0.00153	0.43%
Fe 273.955†	203529.2	154.6	mg/L	1.44	309.1	mg/L	2.89	0.93%
K 766.490†	9813.9	6.467	mg/L	0.0353	12.93	mg/L	0.071	0.55%
Mg 279.077†	121908.7	61.78	mg/L	0.401	123.6	mg/L	0.80	0.65%
Mn 257.610†	102126.3	2.485	mg/L	0.0250	4.971	mg/L	0.0499	1.00%
Mo 202.031†	92.2	0.00591	mg/L	0.000475	0.01182	mg/L	0.000949	8.03%
Na 589.592†	53881.8	4.144	mg/L	0.0297	8.288	mg/L	0.0593	0.72%
Na 330.237†	81.8	4.623	mg/L	0.1654	9.247	mg/L	0.3308	3.58%
Ni 231.604†	1009.8	0.3640	mg/L	0.00128	0.7281	mg/L	0.00256	0.35%
Pb 220.353†	730.9	0.1397	mg/L	0.00111	0.2793	mg/L	0.00221	0.79%
Sb 206.836†	-5.2	0.00398	mg/L	0.002554	0.00796	mg/L	0.005108	64.20%
Se 196.026†	42.8	0.03234	mg/L	0.002705	0.06468	mg/L	0.005411	8.37%
Si 288.158†	3470.1	1.434	mg/L	0.0127	2.869	mg/L	0.0254	0.89%
Sn 189.927†	-42.5	-0.00466	mg/L	0.000542	-0.00933	mg/L	0.001083	11.61%
Sr 421.552†	188514.5	0.3144	mg/L	0.00496	0.6288	mg/L	0.00991	1.58%
Ti 334.903†	168262.2	6.979	mg/L	0.0897	13.96	mg/L	0.179	1.29%
Tl 190.801†	-36.7	0.00199	mg/L	0.006873	0.00397	mg/L	0.013747	346.24%
V 292.402†	43987.9	0.3566	mg/L	0.00107	0.7131	mg/L	0.00214	0.30%
Zn 206.200†	906.5	0.4299	mg/L	0.00195	0.8598	mg/L	0.00390	0.45%

Sequence No.: 29
Sample ID: D1
Analyst: ALA
Dilution: 1X

info only

Autosampler Location: 323
Date Collected: 12/23/2009 10:19:23 AM
Data Type: Original

Nebulizer Parameters: D1

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: D1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2285176.8	107.2	%	0.47				0.44%
ScR 361.383	371728.4	107.9	%	0.28				0.26%
Ag 328.068†	42.2	0.00027	mg/L	0.000076	0.00027	mg/L	0.000076	28.42%
Al 308.215†	72.8	0.03560	mg/L	0.008200	0.03560	mg/L	0.008200	23.03%
As 188.979†	3.3	0.00246	mg/L	0.001422	0.00246	mg/L	0.001422	57.86%
B 249.677†	1.4	0.00025	mg/L	0.000351	0.00025	mg/L	0.000351	142.47%
Ba 233.527†	4.8	0.00083	mg/L	0.000087	0.00083	mg/L	0.000087	10.56%
Be 313.042†	-39.2	-0.00005	mg/L	0.000028	-0.00005	mg/L	0.000028	56.29%
Ca 317.933†	338.8	0.01443	mg/L	0.001630	0.01443	mg/L	0.001630	11.29%
Cd 228.802†	-4.3	-0.00015	mg/L	0.000044	-0.00015	mg/L	0.000044	28.49%
Co 228.616†	-6.8	-0.00029	mg/L	0.000073	-0.00029	mg/L	0.000073	25.07%
Cr 267.716†	0.9	0.00012	mg/L	0.000769	0.00012	mg/L	0.000769	623.07%
Cu 324.752†	77.7	0.00025	mg/L	0.000031	0.00025	mg/L	0.000031	12.04%
Fe 273.955†	37.6	0.02856	mg/L	0.008706	0.02856	mg/L	0.008706	30.49%
K 766.490†	67.3	0.04436	mg/L	0.020598	0.04436	mg/L	0.020598	46.43%
Mg 279.077†	14.5	0.00733	mg/L	0.005136	0.00733	mg/L	0.005136	70.12%
Mn 257.610†	12.4	0.00030	mg/L	0.000102	0.00030	mg/L	0.000102	34.06%
Mo 202.031†	-3.1	-0.00023	mg/L	0.000264	-0.00023	mg/L	0.000264	115.02%
Na 589.592†	0.9	0.00007	mg/L	0.002927	0.00007	mg/L	0.002927	>999.9%
Na 330.237†	-0.3	-0.00993	mg/L	0.201939	-0.00993	mg/L	0.201939	>999.9%
Ni 231.604†	3.4	0.00122	mg/L	0.001466	0.00122	mg/L	0.001466	120.37%
Pb 220.353†	-7.2	-0.00128	mg/L	0.000284	-0.00128	mg/L	0.000284	22.25%
Sb 206.836†	-8.6	-0.00401	mg/L	0.000618	-0.00401	mg/L	0.000618	15.42%
Se 196.026†	10.0	0.00846	mg/L	0.000608	0.00846	mg/L	0.000608	7.19%
Si 288.158†	-11.8	-0.00490	mg/L	0.001332	-0.00490	mg/L	0.001332	27.20%
Sn 189.927†	0.6	0.00017	mg/L	0.000503	0.00017	mg/L	0.000503	293.74%
Sr 421.552†	48.3	0.00008	mg/L	0.000016	0.00008	mg/L	0.000016	19.45%
Ti 334.903†	62.7	0.00260	mg/L	0.000643	0.00260	mg/L	0.000643	24.71%
Tl 190.801†	0.9	0.00059	mg/L	0.002718	0.00059	mg/L	0.002718	461.62%
V 292.402†	-20.9	-0.00018	mg/L	0.000121	-0.00018	mg/L	0.000121	66.12%
Zn 206.200†	1.2	0.00057	mg/L	0.000864	0.00057	mg/L	0.000864	150.82%

Sequence No.: 30
Sample ID: CV
Analyst: ALA
Dilution: 1X

Autosampler Location: 7
Date Collected: 12/23/2009 10:23:16 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2213613.7	103.9	%	0.74				0.71%
ScR 361.383	359316.9	104.3	%	0.90				0.86%
Ag 328.068†	154679.5	0.9778	mg/L	0.00285	0.9778	mg/L	0.00285	0.29%
Al 308.215†	4409.0	2.122	mg/L	0.0339	2.122	mg/L	0.0339	1.60%
As 188.979†	2723.6	1.993	mg/L	0.0149	1.993	mg/L	0.0149	0.75%
B 249.677†	5795.3	1.051	mg/L	0.0164	1.051	mg/L	0.0164	1.56%
Ba 233.527†	5899.1	1.019	mg/L	0.0146	1.019	mg/L	0.0146	1.43%
Be 313.042†	794567.3	0.9993	mg/L	0.01443	0.9993	mg/L	0.01443	1.44%
Ca 317.933†	47364.9	2.018	mg/L	0.0439	2.018	mg/L	0.0439	2.17%
Cd 228.802†	29706.1	1.012	mg/L	0.0029	1.012	mg/L	0.0029	0.29%
Co 228.616†	24375.6	1.021	mg/L	0.0072	1.021	mg/L	0.0072	0.71%
Cr 267.716†	7209.0	1.041	mg/L	0.0155	1.041	mg/L	0.0155	1.49%
Cu 324.752†	298123.0	0.9720	mg/L	0.00145	0.9720	mg/L	0.00145	0.15%
Fe 273.955†	2704.1	2.048	mg/L	0.0290	2.048	mg/L	0.0290	1.42%
K 766.490†	31948.4	21.05	mg/L	0.174	21.05	mg/L	0.174	0.83%
Mg 279.077†	4154.0	2.113	mg/L	0.0311	2.113	mg/L	0.0311	1.47%
Mn 257.610†	39225.2	0.9549	mg/L	0.01159	0.9549	mg/L	0.01159	1.21%
Mo 202.031†	13226.0	0.9807	mg/L	0.00671	0.9807	mg/L	0.00671	0.68%
Na 589.592†	657654.4	50.58	mg/L	0.612	50.58	mg/L	0.612	1.21%
Na 330.237†	1541.1	54.35	mg/L	0.622	54.35	mg/L	0.622	1.14%
Ni 231.604†	2832.3	1.023	mg/L	0.0142	1.023	mg/L	0.0142	1.39%
Pb 220.353†	11373.2	2.025	mg/L	0.0133	2.025	mg/L	0.0133	0.66%
Sb 206.836†	4274.5	1.996	mg/L	0.0137	1.996	mg/L	0.0137	0.69%
Se 196.026†	2364.9	2.006	mg/L	0.0113	2.006	mg/L	0.0113	0.57%
Si 288.158†	5016.1	2.077	mg/L	0.0289	2.077	mg/L	0.0289	1.39%
Sn 189.927†	3513.1	0.9671	mg/L	0.00566	0.9671	mg/L	0.00566	0.59%
Sr 421.552†	664469.5	1.108	mg/L	0.0185	1.108	mg/L	0.0185	1.67%
Ti 334.903†	23796.1	0.9860	mg/L	0.01508	0.9860	mg/L	0.01508	1.53%
Tl 190.801†	3159.4	1.985	mg/L	0.0149	1.985	mg/L	0.0149	0.75%
V 292.402†	117370.0	1.005	mg/L	0.0047	1.005	mg/L	0.0047	0.47%
Zn 206.200†	2167.8	1.045	mg/L	0.0186	1.045	mg/L	0.0186	1.78%

Sequence No.: 31
Sample ID: CB3
Analyst: ALA
Dilution: 1X

Autosampler Location: 1
Date Collected: 12/23/2009 10:26:44 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2201122.0	103.3	%	0.37				0.35%
ScR 361.383	362929.3	105.3	%	1.28				1.21%
Ag 328.068†	39.6	0.00025	mg/L	0.000085	0.00025	mg/L	0.000085	34.14%
Al 308.215†	47.5	0.02323	mg/L	0.007336	0.02323	mg/L	0.007336	31.58%
As 188.979†	2.2	0.00163	mg/L	0.001186	0.00163	mg/L	0.001186	72.82%
B 249.677†	12.0	0.00219	mg/L	0.001286	0.00219	mg/L	0.001286	58.82%
Ba 233.527†	0.4	0.00008	mg/L	0.000806	0.00008	mg/L	0.000806	>999.9%
Be 313.042†	113.6	0.00014	mg/L	0.000063	0.00014	mg/L	0.000063	44.18%
Ca 317.933†	-6.2	-0.00027	mg/L	0.000786	-0.00027	mg/L	0.000786	296.43%
Cd 228.802†	5.1	0.00017	mg/L	0.000169	0.00017	mg/L	0.000169	97.87%
Co 228.616†	-5.7	-0.00024	mg/L	0.000308	-0.00024	mg/L	0.000308	127.57%
Cr 267.716†	2.0	0.00029	mg/L	0.000154	0.00029	mg/L	0.000154	53.86%
Cu 324.752†	224.4	0.00073	mg/L	0.000221	0.00073	mg/L	0.000221	30.20%
Fe 273.955†	2.1	0.00161	mg/L	0.000106	0.00161	mg/L	0.000106	6.57%
K 766.490†	-3.8	-0.00250	mg/L	0.029732	-0.00250	mg/L	0.029732	>999.9%
Mg 279.077†	-9.5	-0.00484	mg/L	0.004813	-0.00484	mg/L	0.004813	99.41%
Mn 257.610†	6.6	0.00016	mg/L	0.000142	0.00016	mg/L	0.000142	89.53%
Mo 202.031†	-0.2	-0.00002	mg/L	0.000327	-0.00002	mg/L	0.000327	>999.9%
Na 589.592†	35.4	0.00272	mg/L	0.003585	0.00272	mg/L	0.003585	131.69%
Na 330.237†	8.4	0.2968	mg/L	0.17725	0.2968	mg/L	0.17725	59.71%
Ni 231.604†	8.3	0.00299	mg/L	0.000475	0.00299	mg/L	0.000475	15.90%
Pb 220.353†	-12.1	-0.00214	mg/L	0.000943	-0.00214	mg/L	0.000943	44.06%
Sb 206.836†	-6.2	-0.00290	mg/L	0.000650	-0.00290	mg/L	0.000650	22.38%
Se 196.026†	4.8	0.00407	mg/L	0.005349	0.00407	mg/L	0.005349	131.46%
Si 288.158†	-7.6	-0.00313	mg/L	0.002738	-0.00313	mg/L	0.002738	87.35%
Sn 189.927†	-0.8	-0.00021	mg/L	0.000409	-0.00021	mg/L	0.000409	190.39%
Sr 421.552†	136.9	0.00023	mg/L	0.000022	0.00023	mg/L	0.000022	9.72%
Ti 334.903†	3.2	0.00013	mg/L	0.000203	0.00013	mg/L	0.000203	153.99%
Tl 190.801†	2.6	0.00161	mg/L	0.004036	0.00161	mg/L	0.004036	250.19%
V 292.402†	-1.4	-0.00001	mg/L	0.000052	-0.00001	mg/L	0.000052	463.41%
Zn 206.200†	0.8	0.00036	mg/L	0.000398	0.00036	mg/L	0.000398	109.21%

Sequence No.: 32 **Autosampler Location: 324**
Sample ID: QC28 MB1 SWC **Date Collected: 12/23/2009 10:30:38 AM**
Analyst: ALA **Data Type: Original**
Dilution: 2X

Nebulizer Parameters: QC28 MB1 SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC28 MB1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2225167.4	104.4	%	1.20				1.15%
ScR 361.383	362399.2	105.2	%	0.34				0.33%
Ag 328.068†	20.4	0.00013	mg/L	0.000125	0.00026	mg/L	0.000250	97.07%
Al 308.215†	53.9	0.02635	mg/L	0.006171	0.05269	mg/L	0.012342	23.42%
As 188.979†	1.4	0.00104	mg/L	0.001875	0.00209	mg/L	0.003750	179.48%
B 249.677†	9.3	0.00170	mg/L	0.001702	0.00339	mg/L	0.003403	100.31%
Ba 233.527†	4.1	0.00071	mg/L	0.000299	0.00142	mg/L	0.000598	41.96%
Be 313.042†	9.1	0.00001	mg/L	0.000012	0.00002	mg/L	0.000023	99.76%
Ca 317.933†	490.2	0.02088	mg/L	0.001210	0.04176	mg/L	0.002420	5.79%
Cd 228.802†	-0.0	0.00000	mg/L	0.000100	0.00000	mg/L	0.000200	>999.9%
Co 228.616†	-7.8	-0.00033	mg/L	0.000106	-0.00066	mg/L	0.000212	32.07%
Cr 267.716†	3.5	0.00050	mg/L	0.000287	0.00100	mg/L	0.000575	57.45%
Cu 324.752†	147.7	0.00048	mg/L	0.000391	0.00096	mg/L	0.000782	81.15%
Fe 273.955†	3.0	0.00227	mg/L	0.001065	0.00454	mg/L	0.002130	46.88%
K 766.490†	45.3	0.02982	mg/L	0.022701	0.05964	mg/L	0.045402	76.12%
Mg 279.077†	8.7	0.00440	mg/L	0.005219	0.00880	mg/L	0.010437	118.54%
Mn 257.610†	-2.0	-0.00005	mg/L	0.000042	-0.00010	mg/L	0.000084	83.41%
Mo 202.031†	-2.1	-0.00016	mg/L	0.000234	-0.00031	mg/L	0.000467	149.92%
Na 589.592†	-8.7	-0.00067	mg/L	0.000555	-0.00135	mg/L	0.001111	82.56%
Na 330.237†	7.3	0.2564	mg/L	0.86683	0.5129	mg/L	1.73366	338.02%
Ni 231.604†	7.5	0.00272	mg/L	0.001470	0.00544	mg/L	0.002940	54.08%
Pb 220.353†	-12.2	-0.00217	mg/L	0.001034	-0.00434	mg/L	0.002068	47.67%
Sb 206.836†	-6.8	-0.00314	mg/L	0.001946	-0.00629	mg/L	0.003892	61.88%
Se 196.026†	9.7	0.00825	mg/L	0.002116	0.01650	mg/L	0.004231	25.64%
Si 288.158†	2.6	0.00106	mg/L	0.002938	0.00213	mg/L	0.005876	275.92%
Sn 189.927†	1.3	0.00035	mg/L	0.000062	0.00071	mg/L	0.000125	17.70%
Sr 421.552†	47.9	0.00008	mg/L	0.000030	0.00016	mg/L	0.000060	37.57%
Ti 334.903†	45.6	0.00189	mg/L	0.000781	0.00378	mg/L	0.001561	41.32%
Tl 190.801†	3.3	0.00209	mg/L	0.001327	0.00418	mg/L	0.002655	63.54%
V 292.402†	-26.5	-0.00023	mg/L	0.000217	-0.00045	mg/L	0.000434	96.20%
Zn 206.200†	4.8	0.00231	mg/L	0.000609	0.00462	mg/L	0.001219	26.37%

Sequence No.: 33
Sample ID: QC41 P SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 325
Date Collected: 12/23/2009 10:34:32 AM
Data Type: Original

Nebulizer Parameters: QC41 P SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: QC41 P SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2227997.7	104.5	%	0.37				0.35%
ScR 361.383	368402.5	106.9	%	0.13				0.13%
Ag 328.068†	-72.4	-0.00033	mg/L	0.000208	-0.00066	mg/L	0.000416	63.30%
Al 308.215†	150262.3	73.42	mg/L	0.361	146.8	mg/L	0.72	0.49%
As 188.979†	-161.3	0.00571	mg/L	0.001197	0.01141	mg/L	0.002394	20.98%
B 249.677†	46.2	0.00829	mg/L	0.000088	0.01659	mg/L	0.000175	1.06%
Ba 233.527†	1056.6	0.1732	mg/L	0.00035	0.3463	mg/L	0.00070	0.20%
Be 313.042†	828.1	0.00078	mg/L	0.000014	0.00156	mg/L	0.000028	1.80%
Ca 317.933†	936094.4	39.88	mg/L	0.220	79.76	mg/L	0.440	0.55%
Cd 228.802†	23.8	0.00051	mg/L	0.000071	0.00101	mg/L	0.000142	13.98%
Co 228.616†	1094.8	0.03481	mg/L	0.000318	0.06962	mg/L	0.000635	0.91%
Cr 267.716†	564.6	0.08407	mg/L	0.000923	0.1681	mg/L	0.00185	1.10%
Cu 324.752†	21510.2	0.07422	mg/L	0.000611	0.1484	mg/L	0.00122	0.82%
Fe 273.955†	126913.5	96.38	mg/L	0.501	192.8	mg/L	1.00	0.52%
K 766.490†	6757.0	4.452	mg/L	0.0204	8.905	mg/L	0.0407	0.46%
Mg 279.077†	34883.8	17.65	mg/L	0.082	35.30	mg/L	0.164	0.46%
Mn 257.610†	36380.9	0.8856	mg/L	0.00374	1.771	mg/L	0.0075	0.42%
Mo 202.031†	68.4	0.00444	mg/L	0.000201	0.00887	mg/L	0.000402	4.53%
Na 589.592†	90738.0	6.978	mg/L	0.0261	13.96	mg/L	0.052	0.37%
Na 330.237†	179.1	7.784	mg/L	0.1263	15.57	mg/L	0.253	1.62%
Ni 231.604†	244.6	0.08818	mg/L	0.000660	0.1764	mg/L	0.00132	0.75%
Pb 220.353†	6.8	0.00773	mg/L	0.000253	0.01546	mg/L	0.000507	3.28%
Sb 206.836†	-9.8	0.00223	mg/L	0.001986	0.00445	mg/L	0.003971	89.23%
Se 196.026†	19.5	0.01545	mg/L	0.002791	0.03089	mg/L	0.005582	18.07%
Si 288.158†	2114.1	0.8739	mg/L	0.00655	1.748	mg/L	0.0131	0.75%
Sn 189.927†	-42.7	-0.00648	mg/L	0.000659	-0.01295	mg/L	0.001318	10.18%
Sr 421.552†	320403.9	0.5344	mg/L	0.00265	1.069	mg/L	0.0053	0.50%
Ti 334.903†	140547.3	5.830	mg/L	0.0274	11.66	mg/L	0.055	0.47%
Tl 190.801†	-10.6	0.00793	mg/L	0.001139	0.01585	mg/L	0.002277	14.36%
V 292.402†	41008.0	0.3369	mg/L	0.00408	0.6739	mg/L	0.00816	1.21%
Zn 206.200†	623.8	0.2961	mg/L	0.00027	0.5922	mg/L	0.00055	0.09%

Sequence No.: 34
Sample ID: QC41 Q SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 326
Date Collected: 12/23/2009 10:38:12 AM
Data Type: Original

Nebulizer Parameters: QC41 Q SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: QC41 Q SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2262122.5	106.1	%	1.18				1.11%
ScR 361.383	369506.7	107.2	%	1.02				0.95%
Ag 328.068†	57.5	0.00027	mg/L	0.000056	0.00054	mg/L	0.000112	20.90%
Al 308.215†	191095.3	93.38	mg/L	0.880	186.8	mg/L	1.76	0.94%
As 188.979†	-133.5	0.03494	mg/L	0.005234	0.06988	mg/L	0.010468	14.98%
B 249.677†	93.5	0.01685	mg/L	0.000694	0.03370	mg/L	0.001389	4.12%
Ba 233.527†	2143.7	0.3550	mg/L	0.00213	0.7100	mg/L	0.00426	0.60%
Be 313.042†	1147.1	0.00115	mg/L	0.000031	0.00229	mg/L	0.000062	2.69%
Ca 317.933†	1438227.6	61.27	mg/L	0.475	122.5	mg/L	0.95	0.78%
Cd 228.802†	144.1	0.00415	mg/L	0.000210	0.00830	mg/L	0.000420	5.06%
Co 228.616†	1543.5	0.05202	mg/L	0.000885	0.1040	mg/L	0.00177	1.70%
Cr 267.716†	1531.5	0.2262	mg/L	0.00176	0.4524	mg/L	0.00352	0.78%
Cu 324.752†	438078.5	1.437	mg/L	0.0057	2.875	mg/L	0.0114	0.40%
Fe 273.955†	209405.5	159.0	mg/L	0.74	318.1	mg/L	1.47	0.46%
K 766.490†	9030.3	5.950	mg/L	0.0759	11.90	mg/L	0.152	1.28%
Mg 279.077†	49907.0	25.24	mg/L	0.113	50.49	mg/L	0.226	0.45%
Mn 257.610†	85235.0	2.075	mg/L	0.0080	4.150	mg/L	0.0160	0.38%
Mo 202.031†	260.4	0.01834	mg/L	0.000593	0.03667	mg/L	0.001186	3.23%
Na 589.592†	117098.3	9.006	mg/L	0.0526	18.01	mg/L	0.105	0.58%
Na 330.237†	242.8	9.915	mg/L	0.1871	19.83	mg/L	0.374	1.89%
Ni 231.604†	629.8	0.2270	mg/L	0.00073	0.4541	mg/L	0.00146	0.32%
Pb 220.353†	4835.8	0.8646	mg/L	0.00986	1.729	mg/L	0.0197	1.14%
Sb 206.836†	11.8	0.01234	mg/L	0.001104	0.02469	mg/L	0.002208	8.95%
Se 196.026†	24.4	0.01910	mg/L	0.003308	0.03820	mg/L	0.006617	17.32%
Si 288.158†	2598.7	1.074	mg/L	0.0063	2.148	mg/L	0.0125	0.58%
Sn 189.927†	181.3	0.05673	mg/L	0.001155	0.1135	mg/L	0.00231	2.04%
Sr 421.552†	362497.1	0.6046	mg/L	0.00573	1.209	mg/L	0.0115	0.95%
Ti 334.903†	152110.4	6.308	mg/L	0.0307	12.62	mg/L	0.061	0.49%
Tl 190.801†	-21.0	0.01200	mg/L	0.004498	0.02400	mg/L	0.008996	37.48%
V 292.402†	47177.2	0.3835	mg/L	0.00567	0.7670	mg/L	0.01134	1.48%
Zn 206.200†	2697.9	1.295	mg/L	0.0065	2.590	mg/L	0.0129	0.50%

Sequence No.: 35
Sample ID: QC41 R SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 327
Date Collected: 12/23/2009 10:46:47 AM
Data Type: Original

Nebulizer Parameters: QC41 R SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: QC41 R SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2261905.9	106.1	%	1.06				1.00%
ScR 361.383	378031.6	109.7	%	0.76				0.70%
Ag 328.068†	149.2	0.00099	mg/L	0.000260	0.00199	mg/L	0.000520	26.16%
Al 308.215†	187104.5	91.43	mg/L	0.622	182.9	mg/L	1.24	0.68%
As 188.979†	-125.1	0.04240	mg/L	0.002028	0.08479	mg/L	0.004057	4.78%
B 249.677†	91.9	0.01657	mg/L	0.000851	0.03315	mg/L	0.001702	5.13%
Ba 233.527†	2150.4	0.3596	mg/L	0.00131	0.7193	mg/L	0.00261	0.36%
Be 313.042†	1027.7	0.00100	mg/L	0.000038	0.00201	mg/L	0.000076	3.78%
Ca 317.933†	1177002.0	50.14	mg/L	0.674	100.3	mg/L	1.35	1.34%
Cd 228.802†	144.5	0.00444	mg/L	0.000131	0.00887	mg/L	0.000263	2.96%
Co 228.616†	1371.4	0.04517	mg/L	0.000189	0.09033	mg/L	0.000378	0.42%
Cr 267.716†	891.5	0.1319	mg/L	0.00127	0.2638	mg/L	0.00254	0.96%
Cu 324.752†	918739.6	3.003	mg/L	0.0069	6.006	mg/L	0.0138	0.23%
Fe 273.955†	161554.9	122.7	mg/L	1.16	245.4	mg/L	2.33	0.95%
K 766.490†	9160.0	6.036	mg/L	0.0288	12.07	mg/L	0.058	0.48%
Mg 279.077†	46295.2	23.43	mg/L	0.086	46.86	mg/L	0.172	0.37%
Mn 257.610†	57399.4	1.398	mg/L	0.0151	2.795	mg/L	0.0302	1.08%
Mo 202.031†	105.7	0.00704	mg/L	0.000355	0.01408	mg/L	0.000709	5.04%
Na 589.592†	107847.0	8.294	mg/L	0.0776	16.59	mg/L	0.155	0.94%
Na 330.237†	233.1	9.448	mg/L	0.0798	18.90	mg/L	0.160	0.84%
Ni 231.604†	669.2	0.2412	mg/L	0.00071	0.4825	mg/L	0.00141	0.29%
Pb 220.353†	8085.8	1.443	mg/L	0.0018	2.886	mg/L	0.0037	0.13%
Sb 206.836†	2.9	0.01056	mg/L	0.001616	0.02111	mg/L	0.003231	15.30%
Se 196.026†	28.4	0.02257	mg/L	0.006110	0.04515	mg/L	0.012219	27.06%
Si 288.158†	2766.2	1.143	mg/L	0.0110	2.287	mg/L	0.0220	0.96%
Sn 189.927†	568.0	0.1623	mg/L	0.00075	0.3245	mg/L	0.00149	0.46%
Sr 421.552†	312570.4	0.5213	mg/L	0.00444	1.043	mg/L	0.0089	0.85%
Ti 334.903†	152973.4	6.345	mg/L	0.0475	12.69	mg/L	0.095	0.75%
Tl 190.801†	-10.9	0.01215	mg/L	0.002627	0.02430	mg/L	0.005255	21.62%
V 292.402†	45746.8	0.3746	mg/L	0.00244	0.7492	mg/L	0.00488	0.65%
Zn 206.200†	3857.4	1.855	mg/L	0.0089	3.710	mg/L	0.0178	0.48%

Sequence No.: 36 **Autosampler Location: 328**
Sample ID: QC41 S SWC **Date Collected: 12/23/2009 10:48:23 AM**
Analyst: ALA **Data Type: Original**
Dilution: 2X

Nebulizer Parameters: QC41 S SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: QC41 S SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2220686.3	104.2	%	0.15				0.14%
ScR 361.383	365840.3	106.2	%	1.85				1.74%
Ag 328.068†	-12.0	-0.00012	mg/L	0.000107	-0.00024	mg/L	0.000215	90.37%
Al 308.215†	179396.2	87.66	mg/L	1.851	175.3	mg/L	3.70	2.11%
As 188.979†	-149.1	0.02388	mg/L	0.000761	0.04776	mg/L	0.001522	3.19%
B 249.677†	95.1	0.01716	mg/L	0.001324	0.03432	mg/L	0.002648	7.71%
Ba 233.527†	2201.1	0.3640	mg/L	0.00624	0.7280	mg/L	0.01248	1.71%
Be 313.042†	1035.2	0.00102	mg/L	0.000052	0.00204	mg/L	0.000105	5.15%
Ca 317.933†	1287402.4	54.85	mg/L	1.315	109.7	mg/L	2.63	2.40%
Cd 228.802†	62.2	0.00128	mg/L	0.000123	0.00256	mg/L	0.000245	9.57%
Co 228.616†	1480.7	0.04928	mg/L	0.000494	0.09856	mg/L	0.000987	1.00%
Cr 267.716†	1650.7	0.2434	mg/L	0.00613	0.4869	mg/L	0.01226	2.52%
Cu 324.752†	100192.8	0.3354	mg/L	0.00270	0.6709	mg/L	0.00539	0.80%
Fe 273.955†	222349.8	168.9	mg/L	4.04	337.7	mg/L	8.07	2.39%
K 766.490†	9423.6	6.210	mg/L	0.0975	12.42	mg/L	0.195	1.57%
Mg 279.077†	57691.9	29.19	mg/L	0.629	58.38	mg/L	1.259	2.16%
Mn 257.610†	74036.6	1.803	mg/L	0.0461	3.605	mg/L	0.0923	2.56%
Mo 202.031†	402.1	0.02895	mg/L	0.000643	0.05789	mg/L	0.001285	2.22%
Na 589.592†	87869.0	6.758	mg/L	0.1564	13.52	mg/L	0.313	2.31%
Na 330.237†	167.5	7.444	mg/L	0.2303	14.89	mg/L	0.461	3.09%
Ni 231.604†	518.0	0.1867	mg/L	0.00479	0.3735	mg/L	0.00957	2.56%
Pb 220.353†	1576.8	0.2845	mg/L	0.00100	0.5691	mg/L	0.00201	0.35%
Sb 206.836†	7.1	0.00939	mg/L	0.002553	0.01879	mg/L	0.005106	27.17%
Se 196.026†	26.8	0.02085	mg/L	0.001059	0.04170	mg/L	0.002119	5.08%
Si 288.158†	2441.4	1.009	mg/L	0.0285	2.018	mg/L	0.0570	2.82%
Sn 189.927†	39.5	0.01734	mg/L	0.000762	0.03469	mg/L	0.001525	4.40%
Sr 421.552†	315515.5	0.5262	mg/L	0.00786	1.052	mg/L	0.0157	1.49%
Ti 334.903†	152055.3	6.307	mg/L	0.1469	12.61	mg/L	0.294	2.33%
Tl 190.801†	-21.7	0.01272	mg/L	0.003856	0.02543	mg/L	0.007713	30.33%
V 292.402†	44756.8	0.3618	mg/L	0.00386	0.7237	mg/L	0.00773	1.07%
Zn 206.200†	1133.0	0.5406	mg/L	0.01049	1.081	mg/L	0.0210	1.94%

Sequence No.: 37
Sample ID: QC28 ADUP SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 329
Date Collected: 12/23/2009 10:49:55 AM
Data Type: Original

Nebulizer Parameters: QC28 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: QC28 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2262143.0	106.1	%	0.26				0.25%
ScR 361.383	374571.8	108.7	%	0.75				0.69%
Ag 328.068†	215.6	-0.00042	mg/L	0.000268	-0.00083	mg/L	0.000536	64.32%
Al 308.215†	226608.5	110.7	mg/L	0.38	221.4	mg/L	0.76	0.35%
As 188.979†	-188.8	0.02297	mg/L	0.000889	0.04594	mg/L	0.001777	3.87%
B 249.677†	59.1	0.01055	mg/L	0.001836	0.02109	mg/L	0.003671	17.41%
Ba 233.527†	5044.9	0.8563	mg/L	0.01043	1.713	mg/L	0.0209	1.22%
Be 313.042†	1348.6	0.00138	mg/L	0.000029	0.00276	mg/L	0.000058	2.11%
Ca 317.933†	1321989.0	56.32	mg/L	0.252	112.6	mg/L	0.50	0.45%
Cd 228.802†	239.9	0.00761	mg/L	0.000077	0.01522	mg/L	0.000153	1.01%
Co 228.616†	1922.0	0.06560	mg/L	0.000669	0.1312	mg/L	0.00134	1.02%
Cr 267.716†	1563.6	0.2288	mg/L	0.00222	0.4576	mg/L	0.00444	0.97%
Cu 324.752†	73248.2	0.2460	mg/L	0.00075	0.4919	mg/L	0.00149	0.30%
Fe 273.955†	209165.0	158.9	mg/L	0.67	317.7	mg/L	1.34	0.42%
K 766.490†	13424.4	8.846	mg/L	0.0262	17.69	mg/L	0.052	0.30%
Mg 279.077†	92965.8	47.09	mg/L	0.238	94.19	mg/L	0.477	0.51%
Mn 257.610†	420969.9	10.24	mg/L	0.035	20.49	mg/L	0.069	0.34%
Mo 202.031†	110.3	0.00728	mg/L	0.000201	0.01457	mg/L	0.000401	2.76%
Na 589.592†	72796.8	5.599	mg/L	0.0138	11.20	mg/L	0.028	0.25%
Na 330.237†	144.3	6.405	mg/L	0.1068	12.81	mg/L	0.214	1.67%
Ni 231.604†	819.4	0.2954	mg/L	0.00242	0.5908	mg/L	0.00484	0.82%
Pb 220.353†	2076.2	0.3783	mg/L	0.00223	0.7566	mg/L	0.00445	0.59%
Sb 206.836†	6.3	0.01053	mg/L	0.002700	0.02106	mg/L	0.005399	25.64%
Se 196.026†	41.1	0.03182	mg/L	0.001905	0.06364	mg/L	0.003810	5.99%
Si 288.158†	1593.3	0.6586	mg/L	0.01042	1.317	mg/L	0.0208	1.58%
Sn 189.927†	-48.2	-0.00607	mg/L	0.001035	-0.01214	mg/L	0.002070	17.05%
Sr 421.552†	251268.3	0.4191	mg/L	0.00106	0.8381	mg/L	0.00211	0.25%
Ti 334.903†	183601.4	7.616	mg/L	0.0196	15.23	mg/L	0.039	0.26%
Tl 190.801†	-49.3	0.00477	mg/L	0.001421	0.00954	mg/L	0.002843	29.80%
V 292.402†	48487.7	0.3952	mg/L	0.00031	0.7904	mg/L	0.00061	0.08%
Zn 206.200†	5984.1	2.880	mg/L	0.0320	5.760	mg/L	0.0640	1.11%

Sequence No.: 38
Sample ID: ~~QC8~~ A SWC QC28
Analyst: ALA
Dilution: 2X
AH 12-23-09

Autosampler Location: 330
Date Collected: 12/23/2009 10:52:35 AM
Data Type: Original

Nebulizer Parameters: ~~QC8~~ A SWC QC28

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ~~QC8~~ A SWC QC28

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2296031.8	107.7	%	0.50				0.46%
ScR 361.383	369852.1	107.3	%	0.36				0.34%
Ag 328.068†	208.6	-0.00052	mg/L	0.000239	-0.00103	mg/L	0.000477	46.15%
Al 308.215†	248655.7	121.5	mg/L	0.79	243.0	mg/L	1.59	0.65%
As 188.979†	-193.5	0.02779	mg/L	0.004219	0.05558	mg/L	0.008438	15.18%
B 249.677†	60.2	0.01074	mg/L	0.001473	0.02148	mg/L	0.002946	13.71%
Ba 233.527†	4311.3	0.7248	mg/L	0.00447	1.450	mg/L	0.0089	0.62%
Be 313.042†	1519.2	0.00158	mg/L	0.000019	0.00316	mg/L	0.000038	1.21%
Ca 317.933†	1467317.0	62.51	mg/L	0.313	125.0	mg/L	0.63	0.50%
Cd 228.802†	231.2	0.00700	mg/L	0.000349	0.01399	mg/L	0.000697	4.99%
Co 228.616†	1986.1	0.06702	mg/L	0.001217	0.1340	mg/L	0.00243	1.82%
Cr 267.716†	1473.9	0.2157	mg/L	0.00116	0.4314	mg/L	0.00232	0.54%
Cu 324.752†	62913.7	0.2150	mg/L	0.00236	0.4300	mg/L	0.00473	1.10%
Fe 273.955†	274024.6	208.1	mg/L	0.78	416.2	mg/L	1.56	0.38%
K 766.490†	14158.9	9.330	mg/L	0.0196	18.66	mg/L	0.039	0.21%
Mg 279.077†	131531.4	66.64	mg/L	0.258	133.3	mg/L	0.52	0.39%
Mn 257.610†	435419.9	10.60	mg/L	0.025	21.19	mg/L	0.050	0.23%
Mo 202.031†	120.0	0.00790	mg/L	0.000323	0.01581	mg/L	0.000647	4.09%
Na 589.592†	63954.1	4.919	mg/L	0.0120	9.837	mg/L	0.0241	0.24%
Na 330.237†	120.3	5.652	mg/L	0.3011	11.30	mg/L	0.602	5.33%
Ni 231.604†	1093.9	0.3944	mg/L	0.00140	0.7887	mg/L	0.00280	0.36%
Pb 220.353†	1916.6	0.3484	mg/L	0.00385	0.6968	mg/L	0.00769	1.10%
Sb 206.836†	5.3	0.01073	mg/L	0.002584	0.02146	mg/L	0.005168	24.08%
Se 196.026†	39.1	0.02886	mg/L	0.001002	0.05772	mg/L	0.002004	3.47%
Si 288.158†	1675.2	0.6925	mg/L	0.00727	1.385	mg/L	0.0145	1.05%
Sn 189.927†	-45.3	-0.00468	mg/L	0.002028	-0.00936	mg/L	0.004056	43.34%
Sr 421.552†	212489.3	0.3544	mg/L	0.00137	0.7088	mg/L	0.00274	0.39%
Ti 334.903†	193167.8	8.012	mg/L	0.0271	16.02	mg/L	0.054	0.34%
Tl 190.801†	-51.3	0.01119	mg/L	0.003136	0.02238	mg/L	0.006271	28.02%
V 292.402†	50324.7	0.4055	mg/L	0.00443	0.8111	mg/L	0.00885	1.09%
Zn 206.200†	6078.6	2.925	mg/L	0.0152	5.850	mg/L	0.0303	0.52%

Sequence No.: 39
Sample ID: QC28 ASPK SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 331
Date Collected: 12/23/2009 10:56:19 AM
Data Type: Original

Nebulizer Parameters: QC28 ASPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: QC28 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2302295.3	108.0	%	0.70				0.65%
ScR 361.383	377031.8	109.4	%	0.93				0.85%
Ag 328.068†	76335.5	0.4806	mg/L	0.00076	0.9612	mg/L	0.00152	0.16%
Al 308.215†	247105.3	120.7	mg/L	1.18	241.4	mg/L	2.36	0.98%
As 188.979†	2409.0	1.911	mg/L	0.0092	3.822	mg/L	0.0184	0.48%
B 249.677†	98.9	0.01665	mg/L	0.003628	0.03330	mg/L	0.007256	21.79%
Ba 233.527†	15895.8	2.729	mg/L	0.0281	5.458	mg/L	0.0561	1.03%
Be 313.042†	387460.2	0.4870	mg/L	0.00393	0.9740	mg/L	0.00786	0.81%
Ca 317.933†	1669572.1	71.13	mg/L	0.549	142.3	mg/L	1.10	0.77%
Cd 228.802†	15043.4	0.5089	mg/L	0.00242	1.018	mg/L	0.0048	0.48%
Co 228.616†	13465.1	0.5488	mg/L	0.00300	1.098	mg/L	0.0060	0.55%
Cr 267.716†	6663.1	0.9623	mg/L	0.00847	1.925	mg/L	0.0169	0.88%
Cu 324.752†	203299.8	0.6710	mg/L	0.00153	1.342	mg/L	0.0031	0.23%
Fe 273.955†	233942.4	177.7	mg/L	1.47	355.3	mg/L	2.94	0.83%
K 766.490†	24644.6	16.24	mg/L	0.099	32.48	mg/L	0.198	0.61%
Mg 279.077†	149586.7	75.81	mg/L	0.640	151.6	mg/L	1.28	0.84%
Mn 257.610†	482829.2	11.75	mg/L	0.084	23.50	mg/L	0.167	0.71%
Mo 202.031†	121.9	0.00791	mg/L	0.000637	0.01582	mg/L	0.001275	8.06%
Na 589.592†	196398.1	15.10	mg/L	0.111	30.21	mg/L	0.222	0.73%
Na 330.237†	433.0	16.50	mg/L	0.268	33.01	mg/L	0.537	1.63%
Ni 231.604†	2504.4	0.9028	mg/L	0.00868	1.806	mg/L	0.0174	0.96%
Pb 220.353†	13267.3	2.371	mg/L	0.0168	4.741	mg/L	0.0336	0.71%
Sb 206.836†	10.2	0.00660	mg/L	0.005907	0.01320	mg/L	0.011814	89.52%
Se 196.026†	2274.9	1.925	mg/L	0.0148	3.849	mg/L	0.0296	0.77%
Si 288.158†	1970.1	0.8163	mg/L	0.01200	1.633	mg/L	0.0240	1.47%
Sn 189.927†	-50.0	-0.00544	mg/L	0.001197	-0.01087	mg/L	0.002393	22.01%
Sr 421.552†	529045.7	0.8823	mg/L	0.00676	1.765	mg/L	0.0135	0.77%
Ti 334.903†	190753.5	7.911	mg/L	0.0611	15.82	mg/L	0.122	0.77%
Tl 190.801†	2829.2	1.816	mg/L	0.0174	3.632	mg/L	0.0348	0.96%
V 292.402†	105302.7	0.8809	mg/L	0.00589	1.762	mg/L	0.0118	0.67%
Zn 206.200†	7351.4	3.538	mg/L	0.0325	7.077	mg/L	0.0651	0.92%

Sequence No.: 40
Sample ID: ~~QC28 APOST SWC~~ 222222 + 12-23-09
Analyst: ALA
Dilution: 2X

Autosampler Location: 332
Date Collected: 12/23/2009 10:59:02 AM
Data Type: Original

Nebulizer Parameters: QC28 APOST SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: QC28 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2249815.6	105.6	%	0.50				0.47%
ScR 361.383	370267.2	107.5	%	0.45				0.42%
Ag 328.068†	77389.2	0.4875	mg/L	0.00118	0.9749	mg/L	0.00237	0.24%
Al 308.215†	248655.5	121.5	mg/L	1.05	243.0	mg/L	2.10	0.86%
As 188.979†	2465.0	1.951	mg/L	0.0076	3.902	mg/L	0.0151	0.39%
B 249.677†	64.5	0.01040	mg/L	0.003731	0.02081	mg/L	0.007463	35.86%
Ba 233.527†	15485.8	2.656	mg/L	0.0315	5.311	mg/L	0.0630	1.19%
Be 313.042†	388453.3	0.4882	mg/L	0.00481	0.9764	mg/L	0.00961	0.98%
Ca 317.933†	1674113.0	71.32	mg/L	0.728	142.6	mg/L	1.46	1.02%
Cd 228.802†	15156.9	0.5124	mg/L	0.00340	1.025	mg/L	0.0068	0.66%
Co 228.616†	13416.2	0.5465	mg/L	0.00380	1.093	mg/L	0.0076	0.70%
Cr 267.716†	4916.6	0.7115	mg/L	0.00683	1.423	mg/L	0.0137	0.96%
Cu 324.752†	211205.9	0.6987	mg/L	0.00238	1.397	mg/L	0.0048	0.34%
Fe 273.955†	272049.5	206.6	mg/L	1.62	413.2	mg/L	3.25	0.79%
K 766.490†	29853.4	19.67	mg/L	0.154	39.34	mg/L	0.308	0.78%
Mg 279.077†	149058.9	75.53	mg/L	0.417	151.1	mg/L	0.83	0.55%
Mn 257.610†	446490.6	10.86	mg/L	0.082	21.73	mg/L	0.164	0.75%
Mo 202.031†	124.6	0.00811	mg/L	0.000477	0.01622	mg/L	0.000954	5.88%
Na 589.592†	190320.6	14.64	mg/L	0.092	29.27	mg/L	0.184	0.63%
Na 330.237†	417.1	15.98	mg/L	0.363	31.96	mg/L	0.726	2.27%
Ni 231.604†	2395.5	0.8636	mg/L	0.00730	1.727	mg/L	0.0146	0.84%
Pb 220.353†	12514.6	2.234	mg/L	0.0132	4.468	mg/L	0.0265	0.59%
Sb 206.836†	12.3	0.01023	mg/L	0.001914	0.02046	mg/L	0.003829	18.72%
Se 196.026†	2309.6	1.954	mg/L	0.0210	3.908	mg/L	0.0421	1.08%
Si 288.158†	1596.5	0.6619	mg/L	0.01935	1.324	mg/L	0.0387	2.92%
Sn 189.927†	-49.3	-0.00525	mg/L	0.000731	-0.01049	mg/L	0.001461	13.93%
Sr 421.552†	529779.1	0.8835	mg/L	0.00792	1.767	mg/L	0.0158	0.90%
Ti 334.903†	189992.1	7.880	mg/L	0.0540	15.76	mg/L	0.108	0.69%
Tl 190.801†	2832.8	1.821	mg/L	0.0187	3.642	mg/L	0.0373	1.03%
V 292.402†	105790.1	0.8809	mg/L	0.00291	1.762	mg/L	0.0058	0.33%
Zn 206.200†	6936.6	3.338	mg/L	0.0395	6.676	mg/L	0.0790	1.18%

Sequence No.: 41
Sample ID: QC28 MB1SPK SWC
Analyst: ALA
Dilution: 2X

Autosampler Location: 333
Date Collected: 12/23/2009 11:01:45 AM
Data Type: Original

Nebulizer Parameters: QC28 MB1SPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: QC28 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2305207.8	108.2	%	1.46				1.35%
ScR 361.383	375960.8	109.1	%	0.53				0.49%
Ag 328.068†	76325.0	0.4825	mg/L	0.00262	0.9651	mg/L	0.00524	0.54%
Al 308.215†	4079.7	1.984	mg/L	0.0089	3.968	mg/L	0.0178	0.45%
As 188.979†	2541.9	1.842	mg/L	0.0027	3.683	mg/L	0.0055	0.15%
B 249.677†	11.3	0.00099	mg/L	0.000454	0.00197	mg/L	0.000909	46.01%
Ba 233.527†	10812.4	1.868	mg/L	0.0051	3.736	mg/L	0.0102	0.27%
Be 313.042†	368503.6	0.4635	mg/L	0.00359	0.9269	mg/L	0.00718	0.77%
Ca 317.933†	214517.1	9.139	mg/L	0.0619	18.28	mg/L	0.124	0.68%
Cd 228.802†	13792.3	0.4668	mg/L	0.00280	0.9336	mg/L	0.00560	0.60%
Co 228.616†	10862.0	0.4554	mg/L	0.00197	0.9108	mg/L	0.00393	0.43%
Cr 267.716†	3372.0	0.4858	mg/L	0.00201	0.9716	mg/L	0.00403	0.41%
Cu 324.752†	132856.3	0.4336	mg/L	0.00401	0.8671	mg/L	0.00801	0.92%
Fe 273.955†	2625.4	1.991	mg/L	0.0161	3.982	mg/L	0.0323	0.81%
K 766.490†	14561.2	9.595	mg/L	0.0267	19.19	mg/L	0.053	0.28%
Mg 279.077†	18200.1	9.234	mg/L	0.0580	18.47	mg/L	0.116	0.63%
Mn 257.610†	18068.5	0.4400	mg/L	0.00308	0.8800	mg/L	0.00617	0.70%
Mo 202.031†	15.3	0.00099	mg/L	0.000555	0.00198	mg/L	0.001109	56.03%
Na 589.592†	118764.1	9.134	mg/L	0.0462	18.27	mg/L	0.092	0.51%
Na 330.237†	297.3	10.37	mg/L	0.158	20.74	mg/L	0.316	1.53%
Ni 231.604†	1322.7	0.4768	mg/L	0.00104	0.9537	mg/L	0.00208	0.22%
Pb 220.353†	10075.4	1.793	mg/L	0.0063	3.586	mg/L	0.0126	0.35%
Sb 206.836†	4.8	-0.00130	mg/L	0.000847	-0.00260	mg/L	0.001693	65.17%
Se 196.026†	2169.9	1.840	mg/L	0.0073	3.680	mg/L	0.0147	0.40%
Si 288.158†	-0.7	0.00152	mg/L	0.002282	0.00305	mg/L	0.004565	149.74%
Sn 189.927†	-11.4	-0.00253	mg/L	0.000564	-0.00506	mg/L	0.001128	22.28%
Sr 421.552†	297541.9	0.4962	mg/L	0.00363	0.9925	mg/L	0.00725	0.73%
Ti 334.903†	116.5	0.00389	mg/L	0.000566	0.00777	mg/L	0.001133	14.58%
Tl 190.801†	2868.7	1.801	mg/L	0.0049	3.602	mg/L	0.0097	0.27%
V 292.402†	54904.5	0.4702	mg/L	0.00236	0.9404	mg/L	0.00472	0.50%
Zn 206.200†	990.6	0.4773	mg/L	0.00167	0.9545	mg/L	0.00334	0.35%

Sequence No.: 42
Sample ID: CV
Analyst: ALA
Dilution: 1X

Autosampler Location: 7
Date Collected: 12/23/2009 11:05:24 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
Al1	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2252080.2	105.7	%	0.60				0.57%
ScR 361.383	362027.3	105.1	%	1.23				1.17%
Ag 328.068†	158855.5	1.004	mg/L	0.0074	1.004	mg/L	0.0074	0.74%
Al 308.215†	4427.5	2.131	mg/L	0.0285	2.131	mg/L	0.0285	1.34%
As 188.979†	2697.6	1.974	mg/L	0.0071	1.974	mg/L	0.0071	0.36%
B 249.677†	5795.6	1.051	mg/L	0.0180	1.051	mg/L	0.0180	1.72%
Ba 233.527†	5909.0	1.020	mg/L	0.0144	1.020	mg/L	0.0144	1.42%
Be 313.042†	796583.0	1.002	mg/L	0.0148	1.002	mg/L	0.0148	1.48%
Ca 317.933†	47369.0	2.018	mg/L	0.0297	2.018	mg/L	0.0297	1.47%
Cd 228.802†	29681.8	1.011	mg/L	0.0082	1.011	mg/L	0.0082	0.81%
Co 228.616†	23647.2	0.9904	mg/L	0.00827	0.9904	mg/L	0.00827	0.83%
Cr 267.716†	7210.9	1.041	mg/L	0.0166	1.041	mg/L	0.0166	1.60%
Cu 324.752†	303356.3	0.9891	mg/L	0.00528	0.9891	mg/L	0.00528	0.53%
Fe 273.955†	2718.4	2.058	mg/L	0.0318	2.058	mg/L	0.0318	1.55%
K 766.490†	32287.3	21.28	mg/L	0.458	21.28	mg/L	0.458	2.15%
Mg 279.077†	4168.0	2.120	mg/L	0.0366	2.120	mg/L	0.0366	1.72%
Mn 257.610†	39170.1	0.9536	mg/L	0.01129	0.9536	mg/L	0.01129	1.18%
Mo 202.031†	13052.9	0.9679	mg/L	0.00609	0.9679	mg/L	0.00609	0.63%
Na 589.592†	655884.5	50.44	mg/L	0.640	50.44	mg/L	0.640	1.27%
Na 330.237†	1545.8	54.51	mg/L	0.618	54.51	mg/L	0.618	1.13%
Ni 231.604†	2835.9	1.024	mg/L	0.0139	1.024	mg/L	0.0139	1.36%
Pb 220.353†	11171.2	1.989	mg/L	0.0112	1.989	mg/L	0.0112	0.56%
Sb 206.836†	4249.6	1.984	mg/L	0.0133	1.984	mg/L	0.0133	0.67%
Se 196.026†	2336.6	1.982	mg/L	0.0073	1.982	mg/L	0.0073	0.37%
Si 288.158†	5005.1	2.073	mg/L	0.0348	2.073	mg/L	0.0348	1.68%
Sn 189.927†	3477.1	0.9572	mg/L	0.00435	0.9572	mg/L	0.00435	0.45%
Sr 421.552†	670015.1	1.117	mg/L	0.0167	1.117	mg/L	0.0167	1.50%
Ti 334.903†	23767.1	0.9849	mg/L	0.01325	0.9849	mg/L	0.01325	1.35%
Tl 190.801†	3125.2	1.963	mg/L	0.0122	1.963	mg/L	0.0122	0.62%
V 292.402†	119704.4	1.025	mg/L	0.0048	1.025	mg/L	0.0048	0.47%
Zn 206.200†	2170.7	1.046	mg/L	0.0173	1.046	mg/L	0.0173	1.65%

Sequence No.: 43
Sample ID: CB4
Analyst: ALA
Dilution: 1X

Autosampler Location: 1
Date Collected: 12/23/2009 11:09:06 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2232296.5	104.7	%	0.12				0.11%
ScR 361.383	369160.2	107.1	%	0.79				0.74%
Ag 328.068†	30.7	0.00019	mg/L	0.000219	0.00019	mg/L	0.000219	112.80%
Al 308.215†	37.6	0.01839	mg/L	0.009124	0.01839	mg/L	0.009124	49.60%
As 188.979†	2.0	0.00142	mg/L	0.001393	0.00142	mg/L	0.001393	98.20%
B 249.677†	12.7	0.00230	mg/L	0.001121	0.00230	mg/L	0.001121	48.75%
Ba 233.527†	3.9	0.00068	mg/L	0.000546	0.00068	mg/L	0.000546	80.32%
Be 313.042†	95.8	0.00012	mg/L	0.000107	0.00012	mg/L	0.000107	89.03%
Ca 317.933†	-3.4	-0.00015	mg/L	0.002160	-0.00015	mg/L	0.002160	>999.9%
Cd 228.802†	-0.1	-0.00001	mg/L	0.000038	-0.00001	mg/L	0.000038	706.86%
Co 228.616†	0.8	0.00003	mg/L	0.000156	0.00003	mg/L	0.000156	462.84%
Cr 267.716†	2.6	0.00038	mg/L	0.001371	0.00038	mg/L	0.001371	360.31%
Cu 324.752†	113.6	0.00037	mg/L	0.000220	0.00037	mg/L	0.000220	59.39%
Fe 273.955†	2.1	0.00160	mg/L	0.001917	0.00160	mg/L	0.001917	119.52%
K 766.490†	60.7	0.03999	mg/L	0.010804	0.03999	mg/L	0.010804	27.02%
Mg 279.077†	-1.3	-0.00064	mg/L	0.003740	-0.00064	mg/L	0.003740	581.77%
Mn 257.610†	9.7	0.00024	mg/L	0.000043	0.00024	mg/L	0.000043	18.19%
Mo 202.031†	1.0	0.00007	mg/L	0.000088	0.00007	mg/L	0.000088	120.12%
Na 589.592†	-3.7	-0.00028	mg/L	0.009236	-0.00028	mg/L	0.009236	>999.9%
Na 330.237†	-1.9	-0.06748	mg/L	0.439706	-0.06748	mg/L	0.439706	651.64%
Ni 231.604†	6.9	0.00247	mg/L	0.001444	0.00247	mg/L	0.001444	58.39%
Pb 220.353†	-1.2	-0.00021	mg/L	0.000853	-0.00021	mg/L	0.000853	402.30%
Sb 206.836†	-3.2	-0.00149	mg/L	0.000943	-0.00149	mg/L	0.000943	63.25%
Se 196.026†	8.8	0.00747	mg/L	0.001269	0.00747	mg/L	0.001269	16.99%
Si 288.158†	-15.5	-0.00641	mg/L	0.001207	-0.00641	mg/L	0.001207	18.82%
Sn 189.927†	-0.5	-0.00015	mg/L	0.000254	-0.00015	mg/L	0.000254	173.34%
Sr 421.552†	117.9	0.00020	mg/L	0.000173	0.00020	mg/L	0.000173	87.93%
Ti 334.903†	6.0	0.00025	mg/L	0.001062	0.00025	mg/L	0.001062	427.79%
Tl 190.801†	0.3	0.00018	mg/L	0.001422	0.00018	mg/L	0.001422	786.45%
V 292.402†	28.2	0.00024	mg/L	0.000422	0.00024	mg/L	0.000422	174.23%
Zn 206.200†	1.4	0.00066	mg/L	0.000539	0.00066	mg/L	0.000539	81.13%

and pkg

Metals Analysis
Prep Logs

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM **Final Volume** 50 **Sample ID** QC28 ASPK, MBSPK

Date: 12-21-09 **Final Volume (Hg):** _____

		Prepcode:	SW6		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2634-11		
		Vol Added (mL):	1.0		
	Ag	50		2.0
S	Al	200	200	
T	As	200 ✓		10
O	Ba	200	200	
C	Be	50	50	
K	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
C	Cr	50	50	
O	Cu	50	50	
N	Fe	200	200	
C	K	1000	1000	
E	Mg	1000	1000	
N	Mn	50	50	
T	Na	1000	1000	
R	Ni	50	50	
A	Pb	200 ✓		10
T	Se	200		10
I	Sr	50	50	
O	Tl	200		10
N	V	50	50	
	Zn	50	50	

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

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

Additional Elements:

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

QC28 : 00283

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 12.21.09

Matrix: Soil Block Temp: 90°C

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
QC28 A	1	—	1.024	50.0			
" ADUP	1	—	1.022				
" ASPK	1	—	1.026				
" MB1	—	—	—				
" MB1SPK	—	—	—	50.0			
QC24 A	3	—			1.027	50.0	
" ADUP	3	—			1.028		
" ASPK	3	—			1.023		
" B	3	—			1.062		
" C	3	—			1.018		
" D	3	—			1.076		
" E	3	—			1.049		
" F	3	—			1.014		
" G	3	—			1.088		
" H	3	—			1.074		
" I	3	—			1.021		
" J	3	—			1.098		
" K	3	—			1.067		
" L	3	—			1.015		
" MB1	—	—			—		
" MB1SPK	—	—			—	50.0	

12.21.09 DM

12.21.09 DM

12.21.09 DM

Chemical/Reagent ID:

HNO_3: I5110 | MP1802 HCl: I4949 H_2O_2: I5135 Tube Lot #: APP5L9249

QC28 : 00294

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 069755

Samples in Oven: Date: 12-21-09 Time: 2205 Temp: ~~100~~ DM 12-21-09 100°C Analyst: DM

Removed from Oven: Date: 12-22-09 Time: 1335 Temp: 103°C Analyst: MH

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

ARI Sample ID		Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
QC28	A	0.995	10.755	8.963	12/22/09; 1335	✓
QC24	A	0.979	10.170	6.267		✓
"	B	0.942	10.549	5.290		✓
"	C	0.984	10.675	5.416		✓
"	D	0.972	10.747	5.505		✓
"	E	0.959	10.294	4.161		✓
"	F	0.968	10.710	3.881		✓
"	G	0.985	10.676	3.944		✓
"	H	1.000	10.563	3.933		✓
"	I	0.989	10.814	5.652		✓
"	J	0.991	10.408	5.967		✓
"	K	0.967	10.450	4.601		✓
"	L	0.973	10.390	5.774	12/22/09; 1335	✓
			12-21-09 DM			

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

QC28 : 00295

General Chemistry Analysis
QC Summary Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

METHOD BLANK RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	12/21/09	Percent	< 0.01 U
Total Organic Carbon	12/29/09	Percent	< 0.020 U

LAB CONTROL RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb,1981	ICVL	12/29/09	Percent	0.091	0.100	91.0%

STANDARD REFERENCE RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST #8704	12/29/09	Percent	3.24	3.35	96.7%

REPLICATE RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: 12/10/09
Date Received: 12/21/09

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QC28A Client ID: CB4857-121009-SED					
Total Solids	12/21/09	Percent	85.10	84.10 83.20	1.1%
Total Organic Carbon	12/29/09	Percent	1.29	0.786 0.812	29.5%

MS/MSD RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: 12/10/09
Date Received: 12/21/09

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: QC28A Client ID: CB4857-121009-SED						
Total Organic Carbon	12/29/09	Percent	1.29	2.81	1.24	122.1%

General Chemistry Analysis
Sample Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS
QC28-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/04/10

Project: POS-LLA
Event: NA
Date Sampled: 12/10/09
Date Received: 12/21/09

Client ID: CB4857-121009-SED
ARI ID: 09-31268 QC28A

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/21/09 122109#1	EPA 160.3	Percent	0.01	85.10
Total Organic Carbon	12/29/09 122909#1	Plumb,1981	Percent	0.020	1.29

RL Analytical reporting limit
U Undetected at reported detection limit

General Chemistry Analysis
Instrument Raw Data

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

TOC, Solids Data Analysis

DATE: 12/29/2009
ANALYST: CR 8:05

Instrument: Apollo 2
Mode: NPOC *Inlet:* Boat
Spike Std = 2,500 *ppm C*

Calibration Data

Cal Curve ID: **BoatCal 113009** *Conc:* 5,000 *ppm*
Calibration Curve Standard: **ARI # 0098-06** *Curve Date:* **11/30/09**
CalFact: 1.911E+05 *intercept.* 456,204 *r2 :* 0.99943
Curve Range (µgC): **8** *to* **100**

Verification Standard Source: ***ERA# 0506-09-01*** *Conc:* **5,000** *ppm*
dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition

Sample Data

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

Sample ID	Dilution Data: Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	Spike (µL Std)	Combustion Data: Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments	
ICV				1.00		40.0	908	908	*90.80%*	
Blank				1.00		40.0	45.94	46	*Blank OK*	
NIST 8704				1.00		2.0	32360	32,360	*96.57%*	
QB99 A1				1.00		2.3	15094	15,094	*Range OK!*	
QB99 B1				1.00		1.3	27566	27,566	*Range OK!*	
QB99 C1				1.00		1.4	18740	18,740	*Range OK!*	
QB99 D1				1.00		1.7	22715	22,715	*Range OK!*	
QB99 E1				1.00		2.8	17941	17,941	*Range OK!*	
QB99 F1				1.00		2.4	19623	19,623	*Range OK!*	
QB99 G1				1.00		1.6	20615	20,615	*Range OK!*	
QB99 H1				1.00		1.7	25660	25,660	*Range OK!*	
CCV				1.00		40.0	932	932	*93.20%*	
Blank				1.00		40.0	24.17	24	*Blank OK*	
QB99 I1				1.00		2.6	6522	6,522	*Range OK!*	
QB99 I1 dup				1.00		2.7	7328	7,328	*RPD=11.6%*	
QB99 I1 trp				1.00		2.8	5933	5,933	*RSD=10.6%*	
QB99 I1 ms				1.00	10	4.0	13464	13,464	*Range OK!*	
Spike =	*0.025*	*mg C to*	*4.0*	*mg samp=*	*6,250*	*ppm*		*111%*		
QB99 J1				1.00		3.1	17553	17,553	*Range OK!*	
QB99 K1				1.00		2.7	27397	27,397	*Range OK!*	
QB99 L1				1.00		2.5	18539	18,539	*Range OK!*	
QC50 A2				1.00		2.1	11894	11,894	*Range OK!*	
QC50 A2 dup				1.00		2.2	13926	13,926	*RPD=15.7%*	
QC50 A2 trp				1.00		2.2	13463	13,463	*RSD=8.1%*	
CCV				1.00		40.0	976	976	*97.60%*	
Blank				1.00		40.0	26.99	27	*Blank OK*	
QC50 A2 ms				1.00	10	2.0	25077	25,077	*Range OK!*	
Spike =	*0.025*	*mg C to*	*2.0*	*mg samp=*	*12,500*	*ppm*		*105%*		
QC50 B2				1.00		2.6	18466	18,466	*Range OK!*	
QC50 C2				1.00		2.6	19324	19,324	*Range OK!*	
QC50 D2				1.00		2.2	16136	16,136	*Range OK!*	mean
QC28 A4				1.00		2.3	12933	12,933	*Range OK!*	*13575*
re-burn 12/31/09								14,216		
QC28 A4 dup				1.00		2.1	7895	7,895	*RPD=43.1%*	*7515*
re-burn 12/31/09								7,135		
QC28 A4 trp				1.00		2.4	8153	8,153	*RSD=32.3%*	*7642*
re-burn 12/31/09								7,130		
QC28 A4 ms				1.00	10	2.0	28199	28,199	*Range OK!*	
Spike =	*0.025*	*mg C to*	*2.0*	*mg samp=*	*12,500*	*ppm*		*122%*		*RSD 95%CI*
NIST 8704				1.00		2.0	31169	31,169	*93.01%*	*9577 36% 3918*
CCV				1.00		40.0	995	995	*99.50%*	*3463*
Blank				1.00		40.0	38.26	38	*Blank OK*	

12-22-09

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 12/21/2009

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: CDE 17:30

Instrumentation

Drying Ovens: 12

Analytical Balance: 1123230597

Muffle Furnace: 62790918520

Batch drying time

record times as mm/dd/yy hh:mm

12/21/2009 17:30 date/time in oven CDE

12/22/2009 9:48 date/time out CDE

elapsed hrs = 16.3

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

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

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	12/21/09 16:44	12/21/09 16:13	12/22/09 10:05					12/22/09 11:48	12/22/09 12:42				
Cal Wt (g)	10.0000	10.0000	10.0000	10.0001					10.0000	10.0000				
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*					*Cal OK!*	*Cal OK!*				

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	**TS (%)**	ASH WT 550C (grams) 1	2		Ash Wt (g)	**TVS (mg/kg)**	**(%)**
Blank		0.0000	1.1272	1.1269			0.00		1.1268	1.1268	OK	0.00		
QC24 A3		6.7852	1.1387	4.1846			3.05	**53.9%**	4.0860	4.0819	OK	2.94	**33,717**	3.37%
QC24 A3 dup		6.5566	1.1220	4.0788			2.96	**54.4%**	3.9849	3.9813	OK	2.86	**32,975**	3.30%
							RPD =	0.86%				RPD =	2.23%	
QC24 A3 trp		6.1339	1.1470	3.8442			2.70	**54.1%**	3.7536	3.7508	OK	2.60	**34,629**	3.46%
							RSD =	0.44%				RSD =	2.45%	
QC24 B3		6.8198	1.1209	3.8527			2.73	**47.9%**	3.6955	3.6908	OK	2.57	**59,265**	5.93%
QC24 C3		6.3576	1.1313	3.5463			2.42	**46.2%**	3.4065	3.4019	OK	2.27	**59,793**	5.98%
QC24 D3		6.6717	1.1281	3.7500			2.62	**47.3%**	3.6260	3.6214	OK	2.49	**49,048**	4.90%
QC24 E3		6.7151	1.1015	3.0744			1.97	**35.1%**	2.9442	2.9408	OK	1.84	**67,718**	6.77%
QC24 F3		6.3596	1.1142	2.7569			1.64	**31.3%**	2.6249	2.6213	OK	1.51	**82,547**	8.25%
QC24 G3		6.4231	1.1386	2.8296			1.69	**32.0%**	2.6912	2.6874	OK	1.55	**84,092**	8.41%
QC24 H3		6.5843	1.1017	2.8509			1.75	**31.9%**	2.7175	2.7138	OK	1.61	**78,379**	7.84%
QC24 I 3		6.6433	1.1269	3.8096			2.68	**48.6%**	3.6660	3.6620	OK	2.54	**55,019**	5.50%
QC24 J3		7.0306	1.1525	4.3322			3.18	**54.1%**	4.2068	4.2025	OK	3.05	**40,790**	4.08%
QC24 K3		6.2533	1.1564	3.0940			1.94	**38.0%**	2.9479	2.9450	OK	1.79	**76,899**	7.69%
QC24 L3		6.3999	1.0838	3.8576			2.77	**52.2%**	3.7254	3.7221	OK	2.64	**48,850**	4.88%
QC24 M2		7.3215	1.1235	3.9936			2.87	**46.3%**	3.8239	3.8197	OK	2.70	**60,590**	6.06%
QC28 A4		6.2043	1.1394	5.4498			4.31	**85.1%**						
QC28 A4 dup		6.8793	1.1119	5.9631			4.85	**84.1%**						
							RPD =	1.17%				RPD =	NA	
QC28 A4 trp		7.1525	1.1177	6.1387			5.02	**83.2%**						
							RSD =	1.13%				RSD =	NA	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS (dry at 104 (12-24 hr) then combust at 550 (30 min))

DATE: 12/21/9 12:30

ANALYST: CDL

Batch drying time

record times as mm/dd/yy hh:mm

12/21/9 CDL time in oven 12:30

12/22/9 CDL time out 9:48

elapsed hrs = 0.0 < 12 hr

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt)/ (grams Sample-Tare)

oven 12

Balance A1232305997

Furnace 627909185 20

TVS (mg/kg dry wt) calculated as:

Final ash wt (g) = (min ash wt - tare wt)

TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000

if ash wt > dry wt, "Chk for Err"

If dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02
Date & Time	12/21/9 CDL	12/21/9 CDL	12/22/9 CDL	12/22/9 CDL 11:48	12/22/9 CDL 12:42
Cal Wt (g) 10.0000	10.0000	10.0000	10.0001	10.0000	10.0000
record weights to 4 places	16:44	16:13	10:05		

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank	1	0	1.1272	1.1269					1.1268	1.1268				
QC24 A3	2	6.7852	1.1387	4.1846					4.0860	4.0819				
DP A3	3	6.5566	1.1220	4.0788					3.9849	3.9813				
TP A3	4	6.1339	1.1470	3.8442					3.7536	3.7508				
B3	5	6.8198	1.1209	3.8527					3.6955	3.6908				
C3	6	6.3576	1.1313	3.5463					3.4065	3.4019				
D3	7	6.6747	1.1281	3.7500					3.6260	3.6214				
E3	8	6.7151	1.1015	3.0744					2.9442	2.9408				
F3	9	6.3596	1.1142	2.7569					2.6249	2.6213				
G3	10	6.4231	1.1386	2.8296					2.6912	2.6874				
H3	11	6.5843	1.1017	2.8509					2.7175	2.7138				
I3	12	6.6433	1.1269	3.8076					3.6660	3.6620				
J3	13	7.0306	1.1525	4.3322					4.2068	4.2025				
K3	14	~~6.580~~ ①	1.1564	3.0940					2.9479	2.9450				
L3	15	6.3999	1.0838	3.8576					3.7254	3.7221				
M2	16	7.5215	1.1235	3.9936					3.8239	3.8197				
QC28 A4	17	6.2043	1.1396	5.4498										
DP A4	18	6.8793	1.1119	5.9631										
TP A4	19	7.1525	1.1177	6.1397										

12/21/9 CDL

① 6.2533 12/21/9 CDL

000284

12-22-09

TOC Solids Prep Log

DATE:	12/21/2009
ANALYST:	CDE 17:33

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			12.9551	0.0000	12.9552	0.1 mg	
QC24 A3		-	12.9501	18.5101	16.4665	63.24%	
QC24 A3 DUP		-	12.8922	18.1234	16.0380	60.14%	
QC24 A3 TRIP		-	12.9298	18.3118	16.0346	57.69%	
QC24 B3		-	12.9352	18.2524	15.6535	51.12%	
QC24 C3		-	12.9076	18.7155	15.7362	48.70%	
QC24 D3		-	12.8864	19.5070	16.4278	53.49%	
QC24 E3		-	12.8908	18.4466	15.0813	39.43%	
QC24 F3		-	12.8709	18.1419	14.6715	34.16%	
QC24 G3		-	12.8641	18.2819	14.7312	34.46%	
QC24 H3		-	12.9263	17.9059	14.6422	34.46%	
QC24 I 3		-	12.9113	18.0214	15.5706	52.04%	
QC24 J3		-	12.9186	19.1016	16.3648	55.74%	
QC24 K3		-	12.9218	19.7648	16.3842	50.60%	
QC24 L3		-	12.8946	19.0004	16.2717	55.31%	
QC24 M2		-	12.9127	18.1282	15.5040	49.68%	
QC28 A4		-	12.8460	18.2574	17.4322	84.75%	
QC28 A4 DUP		-	12.8485	18.7203	17.9371	86.66%	
QC28 A4 TRIP		-	12.9171	19.0803	18.2108	85.89%	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CMS Date 12/21/9 1733

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			12.9551	Ø	12.9552		
QC24 A3		-	12.9501	18.5101	16.4665		fine silt in water
PP A3		-	12.8922	18.1234	16.0380		
TP A3		-	12.9298	18.3118	16.0346		
B3		-	12.9352	18.2524	15.6535		
C3		-	12.9076	18.7155	15.7362		
D3		-	12.8864	19.5070	16.4278		
E3		-	12.8908	18.4466	15.0813		
F3		-	12.8709	18.1419	14.6715		
G3		-	12.8641	18.2819	14.7312		
H3		-	12.9263	17.9059	14.6422		
I3		-	12.9113	18.0219	15.5706		
J3		-	12.9186	19.1016	16.3648		
K3		-	12.9218	19.7648	16.3842		
L3		-	12.8946	19.0004	16.2717		
M3		-	12.9127	18.1282	15.5040		
QC28 A4		-	12.8460	18.2574	17.4322		Sand & water
PP A4		-	12.8485	18.7203	17.9371		
TP A4		-	12.9171	19.0803	18.2108		

12/21/9 UP

QC28 : 00309

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES

ARI Job No: QC 28 Client Name: _____

Parameter: TOC solids Client Project: _____

Highly variable replicates at 323% RSD original prep at 12,933 ppm was significantly different from dup and trp which were in good agreement (rpd of 3.2%) — sample prep were recombusted on 12/31 to confirm and showed similar relationships overall mean for sample = 9577 ppm with a relative std dev of 36%

Variation most likely due to heterogeneity in distribution of TOC constituents in original sample — Best estimate would be the overall mean of 9577 but it would have a 95% confidence interval of ~4000 ppm i.e. error ~ 40%

Choices are:
1) exclude original as statistical outlier
2) run another prep to better define variation
3) report data as observed and flag high RSD as part of natural variation of sample

Analyst: [signature] 12-31-09 Date Analyzed: _____

6147F

Rev. 7
06/3/04

QC28 : 00310

Geotechnical Analysis

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

Floyd Snider
POS-LLA

Percent Finer (Passing) Than the Indicated Size

Sieve Size (microns)	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4 (4750)	#10 (2000)	#20 (850)	#40 (425)	#60 (250)	#100 (150)	#200 (75)	32	22	13	9	7	3.2	1.3
CB4857-121009-SED	100.0	100.0	100.0	100.0	100.0	91.4	89.8	80.9	69.3	49.1	30.3	14.2	7.3	6.0	5.0	4.5	3.6	3.6	3.1	3.1	3.1

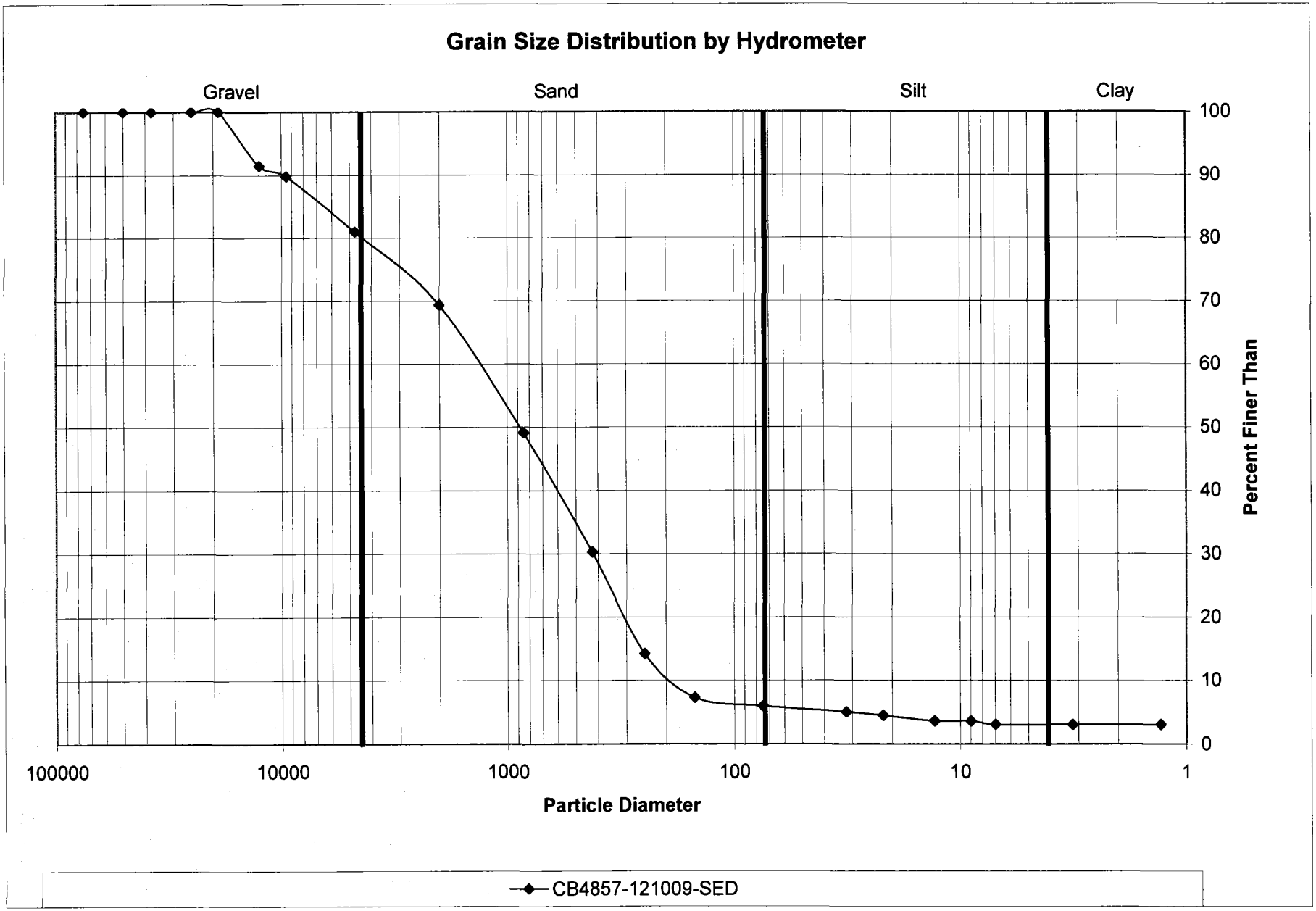
Testing performed according to ASTM D421/D422

QC28 : 00312

Floyd Snider
POS-LLA

Percent Retained in Each Size Fraction

Description	%Coarse Gravel				% Gravel			% Coarse Sand	% Medium Sand		% Fine Sand			% Very Coarse Silt	% Coarse Silt	% Medium Silt	% Fine Silt	% Fine Silt	% Very Fine Silt	% Clay
Particle Size (microns)	3-2"	2-1 1/2"	1 1/2"-1"	1-3/4"	3/4-1/2"	1/2-3/8"	3/8"-4750	4750-2000	2000-850	850-425	425-250	250-150	150-75	75-32	32-22	22-13	13-9	9-7	7-3.2	<3.2
CB4857-121009-SED	0.0	0.0	0.0	0.0	8.6	1.7	8.8	11.6	20.3	18.8	16.1	6.9	1.4	0.9	0.6	0.8	0.0	0.6	0.0	3.1


Grain Size Distribution by Hydrometer
Gravel
Sand
Silt
Clay
100
90
80
70
60
50
40
30
20
10
0
Percent Finer Than
100000
10000
1000
100
10
1
Particle Diameter
CB4857-121009-SED

0028 : 00314

Hydrometer Particle-Size Analysis - ASTM D421/422

ARI Job No.: QC28 ARI Sample ID.: A Setup Date: 12/28/2009 Initials: A.S.
Sample Description: sandy w/ rocks
Method of size reduction: Quartering [ ] Sample Splitter [ ] Whole Sample [ ]

Tare Number	A
Tare Weight (g)	10.44
Tare + Air-Dried Sample Weight (g) (before #10 preparation)	447.45
Hydro Test Sample Weight (g) (not including beaker weight)	125.31
Tare + Oven-Dried #10 Washed (g)	145.15
Tare + Oven-Dried #200 Washed (g) (including plus #10 material)	257.83

Hygroscopic Moisture Content	
Tare Number	A
Tare Weight (g)	1.56
Wet Soil + Tare (g)	31.94
Dry Soil + Tare (g)	31.73

Hydro Beaker: DO Calgon Batch #: 211 Calgon Date: 12/30/09 Technician: A.S.

Hydrometer Analysis

1/4/2010 Hydro #: 199344 Technician: A.S.

Time	Δ Time	Test Cylinder	Calgon Blank	Temp (°C)	
11:39:00	START				
11:40:00	1	17.5	6	20.0	T
11:41:00	2	15	6	20.0	T
11:44:00	5	14	6	20.0	T
11:54:00	15	12.5	6	20.0	*
12:09:00	30	12.5	6	20.0	
12:39:00	60	11.5	6	20.0	
15:49:00	250	11.5	6	21.0	
11:39:00	1440	11	5.5	20.5	

Sieve Analysis

Sieve Date: 1/6/2010 Sieve Set #: 3 Technician: A.S.

Sieve Size	Cumulative Weight (g)
Empty Tare	10.45
2"	
1½"	
1"	
3/4"	
1/2"	47.65
3/8"	54.97
#4	93.40
#10	143.94
#20	180.31
#40	214.01
#60	242.84
#100	255.25
#200	257.69
Pan	257.77

* Sample consumed *

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES - GeoTech

ARI Job No: QC28 A

Client Name: Floyd/Snider

Parameter: ASTM Grainsize (Hydro)

Client Project: POS-LLA

☐ Job OK, no corrective action required

Job was previously frozen, may effect grainsize.

Analyst: _____

Date Completed: _____

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

prepared
for

Floyd/Snider

Project: POS-LLA

ARI JOB NO: QC28

prepared
by

Analytical Resources, Inc.

FRONTIER
ANALYTICAL LABORATORY

January 8, 2010

FAL Project ID: 5887

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

Dear Ms. Dunnihoo,

Attached are the results for Frontier Analytical Laboratory project **5887**. This corresponds to your **POS-LLA** project under ARI project number **QC28**. One sediment sample was received on 12/22/2009 in good condition. This sample was 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 equivalents (TEQ) on your report. Analytical Resources Incorporated requested a turnaround time of fifteen business days for project **5887**.

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 Electronic Data Deliverable (EDD) have been sent to you via email. A hardcopy of the Level IV data package has been sent to you via Federal Express. 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 **5887**, please contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush
Director of Operations

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
www.frontieranalytical.com

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **5887**

Received on: **12/22/2009** Project Due: **01/08/2010** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
5887-001-SA	0	QC28	CB4857-121009-SED	EPA 1613 D/F	Sediment	12/10/2009	10:41 am	12/10/2010

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-MB
Client ID: Method Blank
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/g

Acquired: 01-04-2010
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.268		-	0.0252				
1,2,3,7,8-PeCDD	ND	0.209		-	0.0457				
1,2,3,4,7,8-HxCDD	ND	0.266		-	0.0496				
1,2,3,6,7,8-HxCDD	ND	0.311		-	0.0680	Total TCDD	ND	0.268	
1,2,3,7,8,9-HxCDD	ND	0.286		-	0.0666	Total PeCDD	ND	0.209	
1,2,3,4,6,7,8-HpCDD	ND	0.439		-	0.0927	Total HxCDD	ND	0.311	
OCDD	ND	0.821		-	0.272	Total HpCDD	ND	0.439	
2,3,7,8-TCDF	ND	0.0514		-	0.0252				
1,2,3,7,8-PeCDF	ND	0.146		-	0.0365				
2,3,4,7,8-PeCDF	ND	0.152		-	0.0486				
1,2,3,4,7,8-HxCDF	ND	0.234		-	0.0267				
1,2,3,6,7,8-HxCDF	ND	0.247		-	0.0289				
2,3,4,6,7,8-HxCDF	ND	0.259		-	0.0298				
1,2,3,7,8,9-HxCDF	ND	0.270		-	0.0493	Total TCDF	ND	0.0514	
1,2,3,4,6,7,8-HpCDF	ND	0.208		-	0.0404	Total PeCDF	ND	0.152	
1,2,3,4,7,8,9-HpCDF	ND	0.233		-	0.0469	Total HxCDF	ND	0.270	
OCDF	ND	0.447		-	0.177	Total HpCDF	ND	0.233	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	84.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	71.7	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.1	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	86.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	83.5	23.0 - 140	
13C-OCDD	58.0	17.0 - 157	
13C-2,3,7,8-TCDF	87.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	74.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	72.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	86.1	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	84.8	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	83.6	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	87.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	78.6	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	84.0	26.0 - 138	
13C-OCDF	59.9	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	86.6	35.0 - 197	

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

Analyst: _____
Date: 1/5/10

Reviewed By: _____
Date: 1/5/10

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-OPR
Client ID: OPR
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: ng/ml

Acquired: 01-04-2010
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	10.1	6.70 - 15.8	
1,2,3,7,8-PeCDD	49.8	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	47.8	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	46.3	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	49.2	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50.3	35.0 - 70.0	
OCDD	97.1	78.0 - 144	
2,3,7,8-TCDF	9.99	7.50 - 15.8	
1,2,3,7,8-PeCDF	49.9	40.0 - 67.0	
2,3,4,7,8-PeCDF	50.7	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	50.1	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	49.6	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	48.1	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	49.9	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.2	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	52.3	39.0 - 69.0	
OCDF	101	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	76.4	20.0 - 175	
13C-1,2,3,7,8-PeCDD	69.4	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	79.0	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	84.3	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	81.4	26.0 - 166	
13C-OCDD	58.4	13.0 - 198	
13C-2,3,7,8-TCDF	82.2	22.0 - 152	
13C-1,2,3,7,8-PeCDF	74.0	21.0 - 192	
13C-2,3,4,7,8-PeCDF	71.2	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	83.5	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	82.0	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	78.6	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	79.6	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	74.3	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	82.4	20.0 - 186	
13C-OCDF	59.9	13.0 - 198	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	86.4	31.0 - 191	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
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S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 1/5/10

Reviewed By: DN
Date: 1/5/10

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GC28-00021

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 5887-001-SA
Client ID: CB4857-121009-SED
Matrix: Sediment
Batch No: X1910

Date Extracted: 12-30-2009
Date Received: 12-22-2009
Amount: 4.48 g
% Solids: 83.13

ICal: PCDDFAL3-11-18-09
GC Column: DB5
Units: pg/g

Acquired: 01-04-2010
2005 WHO TEQ: 13.2

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.472		-	0.0252				
1,2,3,7,8-PeCDD	1.79	-	J	1.79	0.0457				
1,2,3,4,7,8-HxCDD	2.92	-	J	0.292	0.0496				
1,2,3,6,7,8-HxCDD	10.3	-		1.03	0.0680	Total TCDD	0.661	-	J
1,2,3,7,8,9-HxCDD	5.19	-	J	0.519	0.0666	Total PeCDD	7.27	-	
1,2,3,4,6,7,8-HpCDD	353	-		3.53	0.0927	Total HxCDD	47.9	-	
OCDD	4480	-		1.34	0.272	Total HpCDD	588	-	
2,3,7,8-TCDF	ND	0.183		-	0.0252				
1,2,3,7,8-PeCDF	0.586	-	J	0.0176	0.0365				
2,3,4,7,8-PeCDF	1.30	-	J	0.390	0.0486				
1,2,3,4,7,8-HxCDF	19.6	-		1.96	0.0267				
1,2,3,6,7,8-HxCDF	5.05	-	J	0.505	0.0289				
2,3,4,6,7,8-HxCDF	6.22	-		0.622	0.0298				
1,2,3,7,8,9-HxCDF	1.99	-	J	0.199	0.0493	Total TCDF	5.42	-	D,M
1,2,3,4,6,7,8-HpCDF	82.0	-		0.820	0.0404	Total PeCDF	26.0	-	D,M
1,2,3,4,7,8,9-HpCDF	9.51	-		0.0951	0.0469	Total HxCDF	154	-	D,M
OCDF	243	-		0.0729	0.177	Total HpCDF	309	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	75.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	64.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	78.8	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	79.7	23.0 - 140	
13C-OCDD	64.9	17.0 - 157	
13C-2,3,7,8-TCDF	78.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	66.8	24.0 - 185	
13C-2,3,4,7,8-PeCDF	66.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	78.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	75.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	73.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	69.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	72.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	76.0	26.0 - 138	
13C-OCDF	59.3	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	70.4	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
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EC29-000216

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 12/21/09

ANALYTICAL RESOURCES INCORPORATED

ARI Project: QC28

5887
QC

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

ARI Client: Floyd/Snider
Project ID: POS-LLA
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
Fax: 206-695-6201

Analytical Protocol: PSDDA
Special Instructions:

Requested Turn Around: **01/08/10**
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 sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
09-31268-QC28A	CB4857-121009-SED	12/10/09 10:41	Sediment		Dioxin/Furans 1613(Sub)

Special Instructions: Dioxin/Furans

Carrier UPS		Airbill 1Z0326950145679106	Date 12/21/09
Relinquished by Mikka Mujumba	Company ARI	Date 12/21/09	Time 1420
Received by [illegible]	Company Frontier	Date 12-22-09	Time 11:00

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **5887**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	QC28
Date Received:	12/22/2009
Time Received:	11:00 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	1
Duplicates:	0
Storage Location:	R1

Method of Delivery:	UPS
Tracking Number:	1z8326950145679106
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	No
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	12/10/2010
Adequate Sample Volume	Yes

Anomalies or additional comments:

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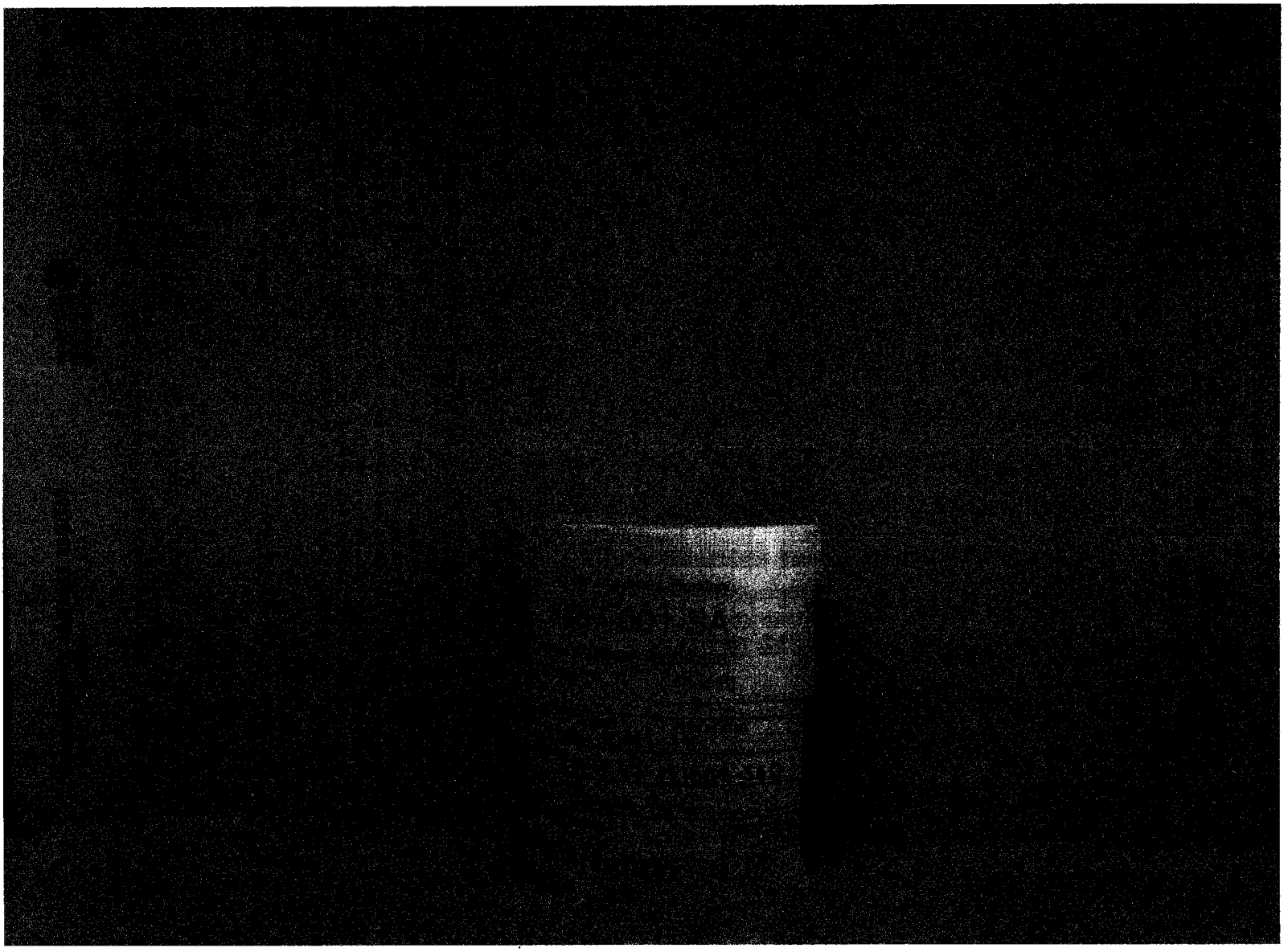
QC28 : 66924

FRONTIER
ANALYTICAL LABORATORY



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